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OFFICIAL GAZETTE

UNITED STATES PATENT OFFICE

VOL. 212 - 213

MARCH - APRIL

1915

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OFFICIAL GAZETTE

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VOLUME CCXII.

MARCH,

1915.

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1915.

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ERRATA.

1,129,879, pages 16–17, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,130,400, page 194, second claim, line 4, after the word "lamp" strike out the words "in close proximity to the wine under treatment;" page 195, third claim, line 4, strike out the period and insert a comma and the words *in close proximity to the wine under treatment*.

1,131,197, page 124, third claim, line 3, after the word "reagent" insert the words *at a certain temperature and;* same claim, line 4, strike out the words "at a certain temperature and."

1,131,742, page 728, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,132,008, page 825, in heading, assignment, name of assignee, strike out "General Electric Company, a Corporation of New York," and insert *by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania.*

1,132,298, pages 932–933, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,132,552, page 1071, fourth claim, line 3, after the comma, insert the words *said means comprising a passenger's button at the corresponding floor.*

1,132,959, page 1222, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,133,083, page 1267, in heading, assignment, name of assignee, for the word "Baklite" read *Bakelite.*

1,133,453, page 1434, first claim, line 4, after the word "move" insert the words *the door.*

1,133,465, page 1438, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

103,302, (Trade-Mark) page 1684, strike out all after number and insert the word WITHDRAWN.

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Patents Nos. 1,129,838 to 1,130,693.

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Designs	45—No.	47,019 to No. 47,063,	inclusive.
Trade-Marks	67—No.	102,886 to No. 102,952,	inclusive.
Labels	12—No.	18,273 to No. 18,284,	inclusive.
Prints	2—No.	3,832 to No. 3,833,	inclusive.
Reissues	1—No.	13,888.	
Total	983		

The patents of this issue were pending an average of 24.6 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	5	.....	North Carolina	2	.....
Arizona	.....	.....	North Dakota	6	.....
Arkansas	4	.....	Ohio	50	7
California	31	2	Oklahoma	5	.....
Colorado	6	.....	Oregon	2	.....
Connecticut	16	.....	Pennsylvania	107	8
Delaware	2	.....	Rhode Island	2	1
Florida	2	1	South Carolina	1	.....
Georgia	3	.....	South Dakota	4	.....
Idaho	4	.....	Tennessee	4	.....
Illinois	92	9	Texas	17	2
Indiana	22	2	Utah	4	.....
Iowa	21	.....	Vermont	8	.....
Kansas	5	.....	Virginia	4	.....
Kentucky	7	1	Washington	10	2
Louisiana	6	.....	West Virginia	4	.....
Maine	6	2	Wisconsin	19	2
Maryland	4	2	Wyoming	.....	1
Massachusetts	53	6			
Michigan	37	1	Alaska, District of	.....	.....
Minnesota	14	2	Canal Zone	.....	.....
Mississippi	1	.....	District of Columbia	5	.....
Missouri	22	6	Hawaii Territory	.....	.....
Montana	4	.....	Philippine Islands	.....	.....
Nebraska	5	1	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	6	.....	U. S. Navy	1	.....
New Jersey	32	1			
New Mexico	.....	.....	Total to residents of the United States	795	72
New York	130	13			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	.....	Natal	.....	.....
Austria-Hungary	2	.....	Netherlands	.....	.....
Belgium	.....	.....	New South Wales	.....	.....
British India	.....	.....	New Zealand	1	.....
British West Indies	.....	.....	Norway	2	.....
Canada	16	2	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	2	.....	Scotland	3	.....
Denmark	4	.....	South Australia	.....	.....
England	24	3	Spain	.....	1
Finland	.....	.....	Swedan	4	.....
France	3	.....	Switzerland	2	.....
Germany	28	2	Transvaal, South Africa	.....	.....
Guatemala	1	.....	Victoria	.....	1
India	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	4	.....	Total to residents of foreign countries	103	9
Luxemburg	.....	.....			
Mexico	6	.....			

Drawings.

RULE 38.

38. When there are drawings, the description will refer to the different views by figures and to the different parts by letters or numerals, (preferably the latter.)

RULE 52—EXTRACT.

(6) The different views should be consecutively numbered. Letters and figures of reference must be carefully formed. They should, if possible, measure at least one-eighth of an inch in height, so that they may bear reduction to one twenty-fourth of an inch; and they may be much larger when there is sufficient room. They must be so placed in the close and complex parts of drawings as not to interfere with a thorough comprehension of the same, and therefore should rarely cross or mingle with the lines. When necessarily grouped around a certain part, they should be placed at a little distance, where there is available space, and connected by short broken lines with the parts to which they refer. They must never appear upon shaded surfaces, and when it is difficult to avoid this, a blank space must be left in the shading where the letter occurs, so that it shall appear perfectly distinct and separate from the work. If the same part of an invention appear in more than one view of the drawing it must always be represented by the same character, and the same character must never be used to designate different parts.

It is suggested that numerals or letters be used without exponents.

Notice.

A limited number of copies of the Definitions of the Revised Classes, bound in buckram, may be secured from the Office for $1 each.

Classification Bulletin No. 33 is ready for distribution, and copies may be purchased at 10 cents each.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business February 27, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Nov. 5	Dec. 8	472
123	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas and Canes; Tobacco.	Sept. 21	Dec. 15	604
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Feb. 17	Feb. 17	77
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	July 28	Feb. 12	639
167	5. Bookbinding; Harvesters; Jewelry; Music.	Sept. 21	Jan. 19	372
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilisers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Aug. 28	Feb. 15	539
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Dec. 9	Jan. 16	476
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Aug. 1	Feb. 8	1275
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	June 22	Oct. 26	768
235	10. Carriages and Wagons	Oct. 3	Feb. 6	775
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Jan. 2	Feb. 15	142
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Aug. 8	Feb. 5	869
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Jan. 23	Jan. 20	442
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Aug. 28	Feb 8	945
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Aug. 21	Feb. 8	763
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	June 23	Dec. 1	642
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Nov. 12	Feb. 13	195
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Jan. 28	Jan. 21	270
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Jan. 11	Jan. 30	247
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Dec. 15	Jan. 26	266

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk: Spinning; Weaving; Winding and Reeling.	Oct. 3	Dec. 23	467
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Jan. 29	Jan. 30	166
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 30	Dec. 14	333
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Sept. 1	Feb. 9	454
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Feb. 2	Feb. 10	173
108	26. Electricity, Generation; Motive Power.	June 1	Jan. 12	623
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Oct. 3	Feb. 2	315
65	28. Internal-Combustion Engines	Dec. 12	Jan. 27	424
147	29. Coopering; Fire-Escapes; Ladders; Reels; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools	Dec. 30	Dec. 21	342
162	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Oct. 19	Feb. 5	319
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Nov. 7	Jan. 27	339
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Aug. 14	Feb. 9	707
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Oct. 20	Jan. 20	388
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Jan. 2	Feb 11	189
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Oct. 14	Feb. 17	575
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Nov. 30	Feb. 15	502
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	June 18	Jan. 11	530
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Aug. 20	Jan. 22	620
321	39. Water Distribution	Oct. 26	Jan. 2	516
280	40. Baggage, Bottles and Jars; Check-Controlled Apparatus Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Aug. 29	Jan. 26	948
126	41. Railway Draft Appliances; Resilient Tires and Wheels.	Dec. 21	Jan. 30	270
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Dec. 5	Dec. 31	275
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Jan. 14	Jan. 6	287

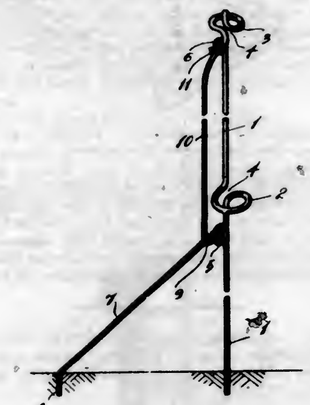
Oldest new case, June 1; oldest amended, Oct. 26.
Total number of applications awaiting action 20,330

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Jan. 2	Feb. 8	848
	Designs	Nov. 12	Oct. 26	435
	Labels and Prints	Feb. 19	Feb. 19	60

PATENTS

GRANTED MARCH 2, 1915.

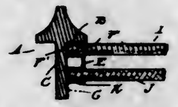
1,129,838. PLANT-SUPPORTING DEVICE. WILLIAM H. ALLEN, Gallatin, Tex. Filed Feb. 21, 1914. Serial No. 820,117. (Cl. 47—31.)



1. In a support member for plants of the character described, a vertical rod member, a plurality of loops or curls formed in the vertical rod, said loops formed substantially of small diameter and adapted to confine the trunk or body of the plant to be supported, said loops or curls provided with openings for receiving the trunk or body of the plant, smaller loops or curls formed on the said vertical rod member, and a diagonal and truss member integrally formed and correlated with the smaller loops or curls formed on the vertical rod member.

2. In a support member for plants, and of the character described, a vertical rod member, a plurality of loops or curls formed in the vertical rod, said loops formed substantially of small diameter and adapted to confine the trunk or body of the plant to be supported, said loops or curls provided with openings for receiving the trunk or body of the plant, smaller curls or loops formed on the vertical rod member and adjacent to the curls or loops first mentioned, a vertical truss member fixed to the smaller curls or loops and lying in parallel proximity to the vertical rod member and one extremity of the truss member being outwardly directed from the lower curl or loop of smaller diameter and forming a diagonal brace.

1,129,839. SPACING-CLIP FOR DOUBLE-PANE WINDOWS. ARTHUR L. BALDWIN, Detroit, Mich., assignor to Detroit Steel Products Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 5, 1914. Serial No. 816,703. (Cl. 20—56.5.)



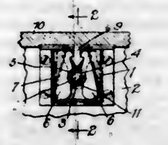
A double glazing clip for window sashes, comprising a sheet metal blank bent to form a spacing portion of U-shaped cross section, a reversely-bent U-portion at one side thereof engageable with one of the window panes, and a tongue portion at the opposite side in the plane of the bottom of said last-mentioned U-portion and bendable to form a hook for the second pane.

1,129,840. TELEPHONE. HARRY A. BATES, Galesburg, Ill. Filed Aug. 14, 1914. Serial No. 856,792. (Cl. 179—164.)



Combined in a telephone, a standard including a receiver hook or hook-switch, a receiver adapted to hang therein and to move it from one position to another, and means for locking said receiver hook from movement while the receiver is hanging therein, said means adapted to be released by removal of the receiver from said hook.

1,129,841. LOCK. ALBERT C. BELL, Chicago, Ill. Filed May 21, 1910. Serial No. 562,610. (Cl. 70—20.)



1. In a lock, the combination of a casing, tumblers inclosed loosely in such casing and unsecured thereto, such tumblers adapted to engage a catch insertible in the casing and to be engaged by a releasing key, and a separate spring for retaining the tumblers in engaging position.

2. In a lock, the combination of a casing, tumblers inclosed loosely in such casing and unsecured thereto, such tumblers adapted to engage a catch insertible in the casing and to be engaged by a releasing key, and a separate spring loosely contained in the casing to retain the tumblers in engaging position.

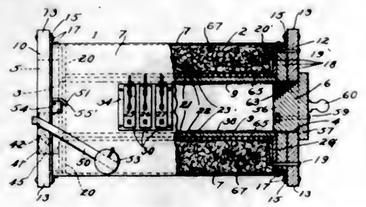
3. In a lock, the combination of a casing, a tumbler inclosed loosely in such casing and unsecured thereto, such tumbler adapted to engage a catch insertible in the casing, and a separate spring for retaining the tumbler in engaging position, such tumbler adapted to be engaged by a key to remove it to a position disengaging the catch.

4. In a lock, the combination of a casing, tumblers inclosed loosely in such casing and unsecured thereto, such tumblers adapted to engage a catch insertible in the casing and a separate spring loosely contained in the casing to retain the tumblers in engaging position, such tumblers adapted to be engaged by a key to be moved to a position disengaging the catch.

5. In a lock, the combination of a casing, a tumbler having a hook formed thereon and loosely contained in the casing to rotate when operated, a catch adapted to enter the casing to engage the hook, and a spring loosely contained in the casing separate from the tumbler tending to hold the tumbler in engaging position.

[Claims 6 to 13 not printed in the Gazette.]

1,129,842. ELECTRIC FURNACE. JOHN BLATCHFORD, Oak Park, Ill. Filed Aug. 19, 1914. Serial No. 857,468. (Cl. 219—36.)



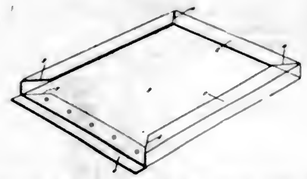
1. In a device of the class described, a source of current and three heater resistances adapted for connection to said source either independently or in connection with one another, in combination with three single-pole double-throw switches, the first resistance being connected between one side of said source and the middle post of the first switch, the second and third resistances being connected at one end of each to the middle post of the second switch, the opposite ends being connected, one to the middle post of the third switch, and the other to the opposite side of said source, the first switch having one outer post connected to said opposite side of the current source and its opposite post to an outer post on each of said second and third switches; the opposite outer posts of said second and third switches being connected to the said one and opposite sides of said source respectively.

2. An electric furnace comprising an outer casing member of rectangular box shape having flanged closure ends which project laterally and serve as bearings to support the device, said ends each having an opening one of which is fitted with a swinging door and the other with a plug adapted and arranged for opening to a greater or less degree, in combination with a refractory hollow core in said casing adapted and arranged to serve as an inner wall therefor, and a plurality of heater elements each distributed thereon and switching means therefor, said furnace having a vent passage at its rear end adapted and arranged for adjustment by said plug.

3. An electric furnace comprising a tubular double-walled body portion, the outer and inner walls of which are spaced apart in combination with transversely disposed end members, each provided with a backwardly projecting rib adapted and arranged to receive the said wall members on their outer and inner edges respectively and to hold the same in definite spaced relation, heater resistance conductors disposed upon the outer surface of said inner wall, said conductors being embedded in cement, refractory packing material filling the remaining space between said outer and inner walls, a door in one end of the furnace, and a diagonally slotted plug in the opposite end adapted and arranged for providing a vent of adjustable size.

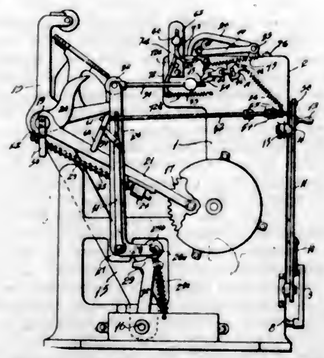
4. An electric furnace comprising a hollow core of refractory material, in combination with three sections of heater resistance material carried by said core and each distributed uniformly thereon, a source of current, three single-pole double-throw knife switches mounted on said furnace, and electric circuit means connecting said resistances, switches and current source, whereby said resistances may be connected in various ways with relation to each other and to the said source to produce different temperatures.

1,129,843. TRAY FOR PRINTING-TYPE, PRINTING-BLOCKS, AND THE LIKE. WALTER BRETWALDA BRETT, Kelvedon, England. Filed Dec. 1, 1914. Serial No. 875,020. (Cl. 101—53.)



As an article of manufacture, a metallic tray comprising a base, sides and a back presented by flanges disposed substantially perpendicularly to said base, a guard extending inwardly and disposed substantially parallel with the base, said guard being mitered at the ends adjacent to the unbent edge of said base, and a lip secured to the unbent edge of said base and formed with mitered corners registering with the gap between the mitered ends of said guard, substantially as and for the purpose set forth.

1,129,844. AUTOMATIC STOP DEVICE FOR PRINTING-PRESSES. JOHN WALTER R. BROWN and GEORGE S. OTEY, Dallas, Tex. Filed May 28, 1914. Serial No. 841,673. (Cl. 101—15.)



1. In an automatic stop for a printing press, a belt shift lever, a tension spring attached to said lever, a release rod correlated with said lever, an eccentric shaft, a thrust arm fixed to the eccentric shaft, a lever alined with the thrust arm and correlated with the release rod, an impression throw off dog, and a spring correlated with the release rod and impression throw off dog.

2. In an automatic stop for a printing press, a spring actuated belt shift lever, a plurality of guide members fixed to the wall of the press, a release rod confined in the guides, a trigger formed on the release rod, collars fixed to the release rod, a finger formed on the extremity of the release rod, an impression throw off dog, a spring attached to one collar and associated with the impression throw off dog, a bracket fixed to one of the guides, a lever pivoted to the bracket, an eccentric shaft, a thrust arm fixed to the eccentric shaft and correlating with the lever.

3. In an automatic stop for a printing press, a belt shift lever, a rock shaft, trip fingers carried by the rock shaft, a pull arm correlated with the rock shaft, a release arm correlated with the rock shaft, a dog correlated with the release arm, an impression throw off dog correlated with the first dog mentioned, a spring attached to the pull arm and means for actuating the belt shift lever.

4. In an automatic stop for a printing press, a rock shaft, trip fingers carried by the rock shaft, a pull arm correlated with the rock shaft, a release arm correlated with the rock shaft, an impression throw off dog, a spring attached to the pull arm, a spring fixed to the belt shift lever, a release rod correlated with the belt shift lever and means, adapted through the impression throw off dog, for actuating the release rod.

5. In an automatic stop for a printing press, a rock shaft, trip fingers carried by the rock shaft, a pull arm correlated with the rock shaft, a release arm correlated with the rock shaft, an impression throw off dog, a spring attached to the pull arm, a spring fixed to the belt shift lever, guide members fixed to the frame of the press, a release rod confined in the guide members, a finger formed on the one extremity of the release rod and means correlated with the finger of the release rod for actuating said release rod.

[Claims 6 to 10 not printed in the Gazette.]

1,129,845. OIL-VAPORIZER. ARTHUR W. BUTTERFIELD, St. Louis, Mo. Filed May 20, 1914. Serial No. 839,874. (Cl. 184—56.)



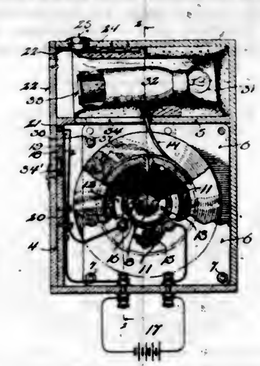
1. In a device of the class described, a casing, separate and distinct means adjacent one end of the casing for connecting the casing with a source of oil supply and with a source of live steam supply, a fixed wall within the casing having a perforation therein in the joint paths of oil and steam, a baffle, within the casing adjacent the perforated wall, having minute openings therethrough out of the direct path of steam and oil discharged through the opening in said wall, said casing having an outlet common to the steam and oil on the side of the baffle opposite the perforated wall.

2. In a device of the class described, a casing having at or adjacent one end a steam inlet and an oil inlet, a fixed wall beneath said inlets and having a perforation therethrough, a baffle having a convexed surface imperforate in the direct path of steam and oil discharged through said perforation, but having minute perforations out of said path of steam and oil, a second baffle spaced from the first mentioned baffle, means for detachably holding the baffles in place within the casing and said casing having an outlet common to the steam and oil, substantially as shown and for the purposes stated.

1,129,846. ELECTRIC WORK-LIGHT. THOMAS F. BUTZEN and MICHAEL W. KINGSLEY, Milwaukee, Wis. Filed Mar. 25, 1914. Serial No. 827,203. (Cl. 240—2.)

1. The combination of a self-winding reel and an insulating disk therewith, concentric contact-rings set in the disk, a stationary spring contact-blade in touch with each ring and connected to a source of electricity, a current conductor cord comprising wires in connection with said rings and which winds upon the reel, a cord-supported portable incandescent electric-lamp, and a switch in the electric-circuit.

2. The combination of a casing, a self-winding reel in a compartment of the casing, a current conductor cord in connection with the reel and with a source of electricity, a cord supported portable incandescent electric-lamp contained in another compartment of the casing when not in use, a switch in the electric-circuit, and a switch-controlling closure for the lamp-compartment of said casing.

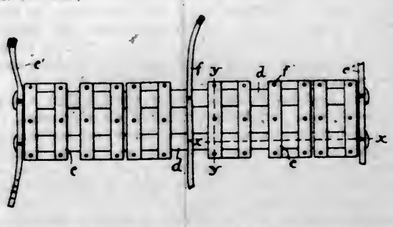


3. The combination of a casing, a self-winding reel in a compartment of the casing, a current conductor cord in connection with the reel and with a source of electricity, a cord supported portable incandescent electric-lamp contained in another compartment of the casing when not in use, a switch in the electric-circuit, a self-opening switch-controlling door for the lamp-compartment of said casing, and means for latching the door in closed position.

4. The combination of a casing, a horizontal partition therein having a transverse recess that intersects at its front with a vertical recess in a wall of the casing, a self-winding reel in the casing below the partition, an incandescent electric-lamp contained in the space above said partition when not in use, a current-conductor lamp-supporting cord in connection with the reel and a switch-controlled source of electricity, the cord being guided in the aforesaid recess, and an anti-friction roller arranged to support said cord as the same unwinds from said reel.

5. The combination of a casing, a self-winding reel in a compartment of the casing, a current conductor cord in connection with the reel and with a source of electricity, a cord supported portable incandescent electric-lamp normally contained in another compartment of the casing, a movable closure for the lamp compartment, a switch in the electric circuit comprising a spring-contact opposing the compartment closure by which it is normally held out of working position, whereby opening of the lamp compartment results in closing of said circuit to energize said lamp.

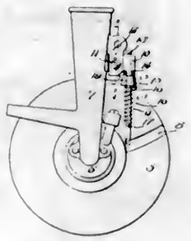
1,129,847. HARNESS-PAD. DANIEL H. CARRIGAN, Portland, Me. Filed Nov. 5, 1913. Serial No. 799,380. (Cl. 54—66.)



A harness pad including a pair of flexible straps extending longitudinally of the pad, a series of transversely arranged pad sections, and straps secured to the backs of

said pad sections to form closely fitting loops through which the longitudinal straps pass, said pad sections being arranged to leave intervening spaces and being frictionally held and slidable on said longitudinal straps.

1,129,848. SCRAPER FOR FURROW-OPENERS. GEORGE CAST, Marion, Ind., assigner to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Mar. 27, 1914. Serial No. 827,689. (Cl. 97—79.)



1. The combination with a furrow opening disk and a scraper for said disk, of a rod supporting the scraper in operative relation with the disk, a supporting member for the rod, a coiled spring about the rod exerting a tension on the scraper to hold it yieldingly in its operative relation with the disk, a member rotatable about the rod axis and connected to one end of the spring, and means for locking said member with said supporting member.

2. The combination with a furrow opening disk and a scraper for the disk, of a rod supporting the scraper, a disk-associated frame supporting the rod, a spring coiled about the rod and exerting a tension on the scraper to hold it yieldingly in operative relation with the disk, a member rotatable about the rod axis and connected to one end of the spring, and means for locking said member with the said frame with its said spring connecting point at one of a plurality of radially-spaced points about said rod axis.

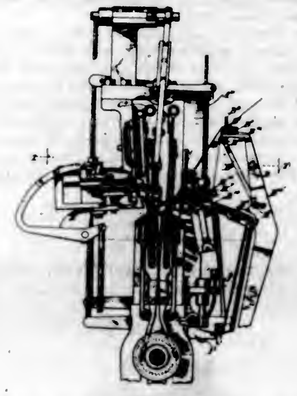
3. The combination with a furrow opening disk and a scraper for said disk, of a rod supporting the scraper, a frame supporting the rod, a member rotatably mounted on the rod, a spring coiled about the rod, connected to said member and exerting a tensional force upon the scraper to hold it in operative relation with the disk, and the said rotatable member and frame having each a serrated face whereby said member may be engaged with said frame at relatively different rotated positions.

4. The combination with a furrow opening disk, a scraper for said disk, a supporting member, a rod rotatably mounted at one end on said supporting member and connected at its opposite end to said scraper whereby upon rotary movement of the rod the scraper will be moved laterally with respect to the disk, an adjustable member rotatably mounted on the rod adjacent said supporting member, the adjoining faces of said adjusting member and supporting member being serrated and engageable and disengageable by axial movement of the adjustable member, and a spring connecting the adjustable member with the rod so as to exert a yielding torsional pressure upon rod to hold the scraper in yielding engagement with the disk.

5. The combination of a furrow opening disk, a scraper therefor having a radially extending scraping edge, a rod connected to the scraper at the inner end portion of its scraping edge and being rotatably movable to swing the scraper about its said inner end portion, a spring coiled about the rod exerting yielding torsional pressure thereon to swing the scraper yieldingly toward the disk, and means connected to the spring and being rotatably adjustable about the rod axis for varying the tension of the spring.

[Claims 6 and 7 not printed in the Gazette.]

1,129,849. METHOD OF TREATING WARP-THREADS. HOWARD D. COLMAN, Rockford, Ill., assignor, by mesne assignments, to himself, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Original application filed Oct. 24, 1894, Serial No. 526,856. Continuation of applications filed Sept. 6, 1902, Serial No. 122,381, and May 18, 1906, Serial No. 317,547. Divided and this application filed Dec. 19, 1906. Serial No. 348,645. (Cl. 139—94.)



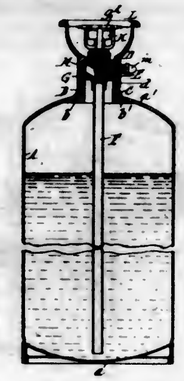
1. In the process of handling warps preparatory to weaving, the step of separating individual threads from the warp consisting in stretching a section of the warp, deflecting the threads of said section, releasing individual threads in succession from their deflected position, and moving each released thread into position for the performance of another operation thereon.

2. In the process of handling warps preparatory to weaving, the step of separating individual threads from the warp consisting in stretching a section of the warp, deflecting the threads of said section, releasing individual threads in succession from their deflected position and moving each released thread into position for the performance of another operation thereon, and cutting the released threads singly and in succession.

3. In the process of handling a series of elastic elements preparatory to weaving, the step of selecting individual elements from the series consisting in deflecting or bowing the series to place the elements under tension, releasing individual elements in succession from their deflected position, whereby when the elements are released they spring away from the deflected series, and moving each released element into position for the performance of another operation thereon.

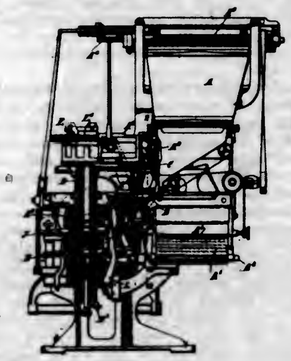
1,129,850. FIRE-EXTINGUISHER. MAURICE N. CONNOR, Buffalo, N. Y., assignor to Frank W. Carter, Buffalo, N. Y. Filed Sept. 30, 1911. Serial No. 652,063. (Cl. 169—12.)

A head structure for fire extinguishers comprising an integral casting having an annular handle projecting therefrom, said head having an opening extending therethrough in an axial direction, with an intermediate lateral discharge, a stand pipe secured in said head at the lower end thereof and in communication with said opening, a valve seat forming a part of said casting and arranged within the opening between the lateral discharge and the stand pipe, a valve coöperating with said valve seat, a stem forming a part of said valve and threaded into the casting above the lateral discharge, said valve and valve stem having a longitudinally disposed opening, a stuffing box connection forming a part of the casting and projecting upward within the handle above the upper part of the casting, a suitable packing gland nut and gland ring coöperating with said stuffing box connection, a valve handle of cup shape engaging said stem, and a gage connection secured to said stem and holding said valve



handle in place, said cup-shaped handle serving to receive the gage.

1,129,851. TYPOGRAPHICAL MACHINE. FRANCIS B. CONVERSE, Akron, Ohio, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 21, 1914. Serial No. 813,408. (Cl. 199—7.)



1. In a typographical machine, the combination of a movable line transporter, a transfer device to remove the line therefrom, and operating means normally disconnected from the transfer device and adapted to be connected thereto by the movement of the transporter.

2. In a typographical machine, the combination of a line transporter, means acting in the regular operation of the machine to cause the transporter to move to different extents in its successive operations, a transfer device to remove the line from the transporter, and means for permitting or preventing the operation of said device according to the extent of movement of the transporter.

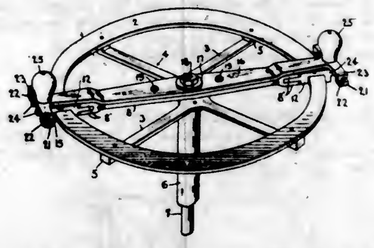
3. In a typographical machine, the combination of a line transporter movable to different extents, a transfer device to remove the line from the transporter, and operating means therefor adapted to be connected to or disconnected from the transfer device according to the extent of movement of the transporter.

4. In a typographical machine, the combination of a movable line transporter, a transfer device to remove the line therefrom, actuating means therefor, and automatic mechanism whereby the actuating means are alternately connected to and disconnected from the transfer device in the successive operations of the transporter.

5. In a typographical machine, the combination of a movable line transporter, a transfer device to remove the line therefrom, actuating means therefor, and automatic mechanism whereby the actuating means are alternately connected to and disconnected from the transfer device in the successive operations of the transporter, together with means for preventing the action of said mechanism, at will.

[Claims 6 to 62 not printed in the Gazette.]

1,129,852. STEERING-WHEEL. JOSEPH M. CUSTER, Copper Hill, Va. Filed Feb. 18, 1913. Serial No. 749,101. (Cl. 74—39.)



In a steering wheel, the combination with a steering post or the like, of a fixed annular member, a clutch bar fixed to said steering post and having on its ends apertured bearing lugs, clutch fingers pivotally mounted at their inner ends in said lugs and having therein segmental recesses adapted to receive said fixed annular member of the wheel, springs arranged between said clutch fingers whereby the latter are forced apart and the ends of the recesses therein brought into clutching engagement with the inner and outer edges of said fixed annular member of the wheel, an operating lever pivotally mounted on said post and having a loose connection with said clutch bar, cross heads on the ends of said lever, apertured lugs on said cross heads, screws arranged in said lugs and adapted to engage the outer sides of said clutch fingers whereby the latter are adjusted and the outward movement thereof by said springs is limited and whereby on the first initial movement of the lever in one direction or the other, one of said screws on each end of the lever will release the clutch finger engaged thereby from said fixed annular member of the wheel, thereby permitting the clutch bar and steering post to be turned by the further movement of the lever, and handles arranged on said lever whereby the latter may be conveniently actuated by the operator.

1,129,853. METHOD OF PRODUCING SEAMS. HARRY J. DAHL, Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Apr. 13, 1914. Serial No. 831,403. (Cl. 112—34.)



1. The method of forming a flat seam which consists in stitching several plies of work together and during such stitching operation turning the stitched edges of the work between the plies.

2. The method of forming a flat covered seam which consists in stitching several plies of work together to

cover the edges thereof and during such stitching operation turning the stitched edges of the work between the plies and then opening the work up flat so that the edges will abut.

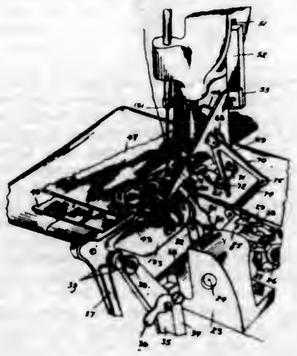
3. The method of forming a flat seam which consists in feeding several plies of work spaced apart one above the other, stitching the edges, and then, during the stitching operation, turning the stitched edges of the work between the plies.

4. The method of forming a flat seam which consists in feeding several plies of work together, one above the other, stitching the edges then during the stitching operation turning the stitched edges of the work between the plies and then opening the work up flat so that the edges will abut.

5. The method of forming a flat seam which consists in stitching several plies of work together, and then exerting pressure on the stitched edges in a direction transverse to the line of stitches thereby to turn the stitched edges of the work between the plies.

[Claim 6 not printed in the Gazette.]

1,129,854. MACHINE FOR PRODUCING SEAMS. HARRY J. DAHL, Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed May 20, 1914. Serial No. 839,694. (Cl. 112—24.)



1. In a sewing machine, the combination with stitching mechanism and feeding mechanism for feeding a plurality of plies of work, of means for turning the stitched edges of the work between the plies into abutting relation with each other.

2. In a sewing machine, the combination with stitching mechanism and feeding mechanism for feeding a plurality of plies of work, of means for turning the stitched edges of the work between the plies into abutting relation with each other, said means comprising a reciprocating device.

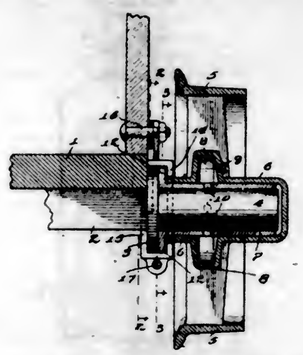
3. In a sewing machine, the combination with stitching mechanism and feeding mechanism for feeding a plurality of plies of work, of means for turning the stitched edges of the work between the plies into abutting relation with each other, said means comprising a plunger.

4. In a sewing machine, the combination with stitching mechanism and feeding mechanism for feeding a plurality of plies of work, of means for returning the stitched edges of the work between the plies into abutting relation with each other, said means comprising a tiltable and shiftable device.

5. In a sewing machine, the combination with stitching mechanism and feeding mechanism for feeding a plurality of plies of work, of means for turning the stitched edges of the work between the plies into abutting relation with each other, said means including means for separating the plies of work, and a shiftable device coöperating with said last means.

[Claims 6 to 45 not printed in the Gazette.]

1,129,855. CAR WHEEL AND AXLE. WALTER A. DORSEY, Columbus, Ohio, assignor to The Bonney Floyd Company, Columbus, Ohio, a Corporation of Ohio. Filed July 3, 1914. Serial No. 848,866. (Cl. 105—67.)



1. The combination in a car, of the axle having a collar formed thereon, the wheel on the axle having a flange at its inner side engaging the collar on the axle, and the clip pivoted to the car body and loosely engaging the said collar and flange to prevent movement of the wheel longitudinally of the axle.

2. The combination in a car, of the axle having a collar formed thereon, the wheel on the axle having a flange at its inner side engaging the collar on the axle, the two clips pivoted to the car body and each loosely engaging the said collar and flange to prevent movement of the wheel longitudinally of the axle, and means for connecting the two clips to prevent their disengagement from the axle and the wheel.

3. The combination in a car, of the axle having a collar formed thereon, the wheel on the axle having a flange at its inner side engaging the collar on the axle, the two clips pivoted to the car body for movement about a common axis and each loosely engaging the said collar and flange to prevent movement of the wheel longitudinally of the axle, and means for connecting the two clips to prevent their disengagement from the axle and the wheel.

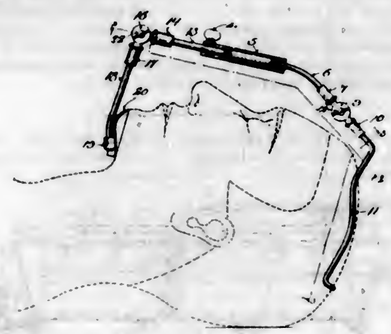
4. The combination in a car, of the axle having a collar formed thereon, the wheel on the axle having a flange at its inner side engaging the collar on the axle, the detachable axle-engaging bearing sleeve for the wheel held by the axle collar against movement in one direction and held by the wheel against movement in the other direction, and the clip loosely engaging the said collar and flange to prevent movement of the wheel longitudinally of the axle.

5. The combination in a car, of the axle having a collar formed thereon, the wheel on the axle having a flange at its inner side engaging the collar on the axle, the detachable axle-engaging bearing sleeve for the wheel having a flange element interlocked with the said wheel flange, and the clip loosely engaging the said collar and flange to prevent movement of the wheel longitudinally of the axle.

1,129,856. UNDERTAKER'S CLAMP. HERBERT C. EASTLAKE, Milwaukee, Wis. Filed July 6, 1914. Serial No. 849,358. (Cl. 27—13.)

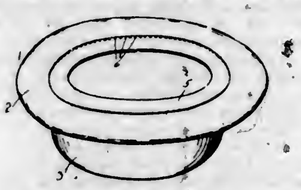
1. A clamp comprising a block, suitably bent rigid arms extending from the head-end of the block, a suitably bent stiff bow having its ends in pivotally adjustable connection with said arms, a rod adjustable longitudinally of the block and extending from the foot-end of the same, means for holding the rod in adjusted position, a hanger in pivotally adjustable connection with the outer end of said rod, and a chin-rest attached to the hanger.

2. A clamp comprising a block having suitably bent rigid arms extending from the head-end thereof, radially serrated coupling-disks having shanks thereof fast on the head-arms, a suitably bent stiff bow, other radially serrated coupling-disks matching those aforesaid and fast to the ends of the bow, thumb-screws connecting the coupling-disks in pairs, a rod adjustable longitudinally of the block and extending from the foot-end of the same, means for



holding the rod in adjusted position, a radially serrated coupling-disk having a shank fast on the outer end of said rod, a hanger provided at one end with a radially serrated coupling-disk matching the one attached to the aforesaid rod, a thumb-screw connecting the disks last specified, and a chin-rest attached to the hanger.

1,129,857. HAT. FERDINAND E. ENGLISH, St. Louis, Mo. Filed Aug. 19, 1914. Serial No. 857,536. (Cl. 2—108.)



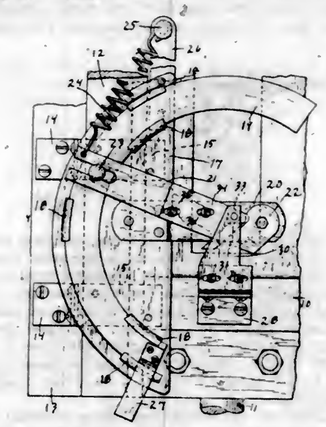
1. In a hat or the like, a head-portion adapted to fit a predetermined size of head, and a flat strip of elastic webbing fixed at one side edge only to said head-portion for resiliently reducing the size of said head-portion to yieldingly fit sizes of head smaller than said predetermined size, said strip extending lengthwise around within said head-portion and disposed normally flatwise approximately horizontally within the opening thereof.

2. In a hat or the like, a head-portion adapted to fit a predetermined size of head, and a flat strip of elastic webbing fixed at one side edge only to said head-portion for resiliently reducing the size of said head-portion to yieldingly fit sizes of head smaller than said predetermined size, said strip extending lengthwise around within said head-portion partly in stretched condition and normally partly in relatively unstretched condition and disposed flatwise approximately horizontally within the opening of said head-portion.

3. In a hat or the like, a head-portion adapted to fit a predetermined size of head, and a flat strip of elastic webbing fixed at one side edge only to said head-portion for resiliently reducing the size of said head-portion to yieldingly fit sizes of head smaller than said predetermined size, said strip extending continuously around within said head-portion in stretched condition at and throughout its fixed outer edge and normally in relatively unstretched condition at and throughout its elastically free inner edge and disposed flatwise approximately horizontally within the opening of said head-portion.

4. In a hat or the like, a head-portion, and a strip of elastic webbing of suitable width extending continuously around within said head-portion adjacent the rim thereof, said strip being permanently, while in lengthwise stretched condition, fixed at and only one side edge to said head-portion and being disposed normally flatwise approximately horizontally within the opening thereof.

1,129,858. GUARD FOR PRESSES. DAVID D. EVANS, Racine, Wis. Filed May 27, 1912. Serial No. 699,889. (Cl. 164—107.)



1. A guard for presses, comprising a suitably mounted arc shaped slide, a swinging arm having engagement with the slide for moving it, a guard member carried by the slide, and means on the press head for engaging the arm and causing it to move.

2. A guard for presses, comprising a suitably mounted plate, and arc shaped slide mounted thereon, a guard member carried by the slide, a swinging arm pivotally mounted on the plate and having engagement with the slide, and means carried by the press head for engaging the arm and causing it to move the slide.

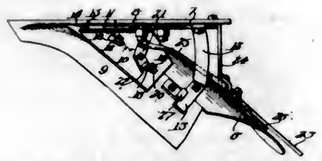
3. A guard for presses, comprising a guard member adapted to move across the space in front of the die of the press, a tension means for thus moving the guard, a releasing dog mounted on a fixed portion of the press, and a swinging member carried by the press head and provided with means for releasably engaging and retrieving the guard, said swinging member releasing the guard by a downward engagement with the dog.

4. A guard for presses, comprising a guard member adapted to move across the space in front of the die of the press, a tension means for thus moving the guard, a spring pressed pivoted releasing dog mounted on a fixed portion of the press, a spring pressed swinging hinged member carried by the press head and provided with means for releasably engaging the guard member and retrieving it during the upward movement of the press head, said swinging member being provided with a pin adapted in the upward movement of the press head to pass beneath the dog and move the dog in so doing, but said dog having an engagement with the support to be unyielding to the engagement by the pin on the downward movement of the press head to force said pin to slide thereon and swing the hinged member out of engagement with the guard.

1,129,859. PLOW STRUCTURE. ANDREW ERICKSON, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Oct. 2, 1913. Serial No. 793,003. (Cl. 97—18.)

1. In a plow, the combination of a frog provided with a plurality of locking slots and a forwardly projecting holding face, a moldboard fixed to said frog, a brace connected to the rear end of said frog and to the moldboard

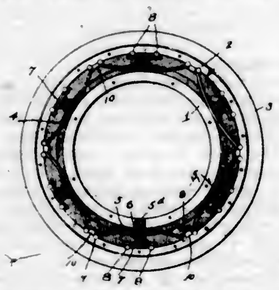
and extending downwardly beyond the lower edge of said moldboard, a plow share having a pin positioned to engage beneath said holding face, a plurality of lugs constructed to be engaged in said locking slots and having inclined engagings faces for gripping the edges of said slots and a rearwardly projecting member adapted to engage the downwardly extending end of said brace, a clamping member pivoted on said frog in position to be engaged with one of said lugs for preventing disengagement of the lugs from said slots, a lever pivoted on said moldboard, a link connecting said lever with said clamping member, and a latch for holding said lever in locking position.



2. In a plow, the combination of a frog provided with a plurality of locking slots and having a forwardly projecting finger, a moldboard, a share provided with a pin adapted to engage beneath said finger and having a plurality of lugs having undercut inclined rear walls adapted to interlockingly engage in said slots, a member pivoted on said frog in position to be engaged with one of said lugs to hold the lugs against movement in their respective slots, and a manually operated lever for actuating said clamping member.

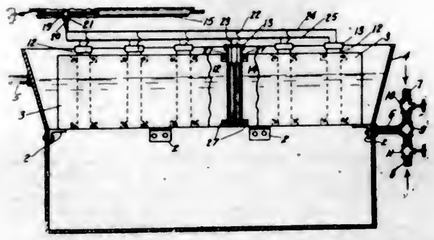
3. In a plow, the combination of a frog provided with a plurality of locking slots, a moldboard, a brace projecting beneath the lower edge of said moldboard, a plow share provided with a pair of lugs having inclined faces adapted to engage with the walls of said slots, said share being also provided with a rearwardly projecting member adapted to engage with the downwardly extending end of said brace, a pivotally mounted clamping member adapted to prevent disengagement of said locks from said slots, a manually operated lever for actuating said clamping member, and means for locking said lever.

1,129,860. CUSHIONED WHEEL. JOHN F. FRANKLIN, Picayune, and BURR S. COWELL, Meridian, Miss. Filed Aug. 7, 1913. Serial No. 783,596. (Cl. 152—37.)



The herein described wheel, consisting essentially of an inner annulus; a rim surrounding and spaced from the inner annulus and having spaced stops fixed to and extending inwardly from its inner side, a series of sets of cushioning devices surrounding the inner annulus and interposed at intervals between the same and the rim, each set being made up of a bowed spring bearing at its middle against and connected to the perimeter of the inner annulus and having its ends arranged adjacent and opposed to two of the fixed stops on the rim, whereby undue movement of the rim about the inner annulus is prevented, anti-friction rollers bearing in transverse seats in the rim and interposed between the same and the outer sides of the end portions of the bowed spring, a shoe arranged adjacent and spaced from the inner side of the rim, anti-friction rollers arranged in transverse seats in the rim and disposed between the same and the outer side of the shoe, and a radially disposed convolute spring extending between and bearing against the outer side of the middle portion of the bowed spring and the inner side of the shoe at the middle thereof; and annular side plates connected to opposite sides of the inner annulus and snugly receiving the rim between them to permit movement of the rim toward and from the inner annulus while preventing lateral displacement or movement of the rim.

1,129,861. ELECTRIC HEATER FOR LIQUIDS. MAY H. GONZALEZ, Birmingham, Ala. Filed Apr. 11, 1914. Serial No. 831,195. (Cl. 219—41.)



1. An evaporating apparatus for liquids comprising a number of spaced heating elements which are shallow in depth and adapted to spread out over the top surface a body of liquid to be evaporated, an open frame-work which connects the elements together, and supports to sustain said heater in contact with the top surface strata only of the liquid and out of contact with the cooler or lower strata of the liquid, substantially as described.

2. In an apparatus for the surface heating and evaporation of liquid, an open top liquid containing vessel having an outlet opening near its top, a heater shallow relatively to the depth of the vessel and comprising a series of spaced heating units, means to support said units for engagement with the surface strata of liquid only, said units being disposed with their tops above the liquid outlet, and means to connect said units while leaving open the spaces between them, substantially as described.

3. In an apparatus for surface heating and evaporating liquids, in combination, a liquid tank having an intermediate water inlet opening and a water outlet opening near its top, inturned flanges disposed about the side walls of the tank and slightly below its outlet opening, a detachable heater mounted on said flanges and comprising a series of spaced heating units and an open top frame to which said units are connected at their ends, said frame being adapted to engage the flanges and support said units, a detachable heating element in each unit, and a perforated top for each unit, substantially as described.

1,129,862. PROCESS OF REDUCING ORES. ALBERT E. GREENE, Chicago, Ill. Filed July 15, 1912. Serial No. 709,466. (Cl. 204—63.)

1. The process of reducing a metallic oxid from an ore containing it and also containing an undesirable impurity, said process consisting in subjecting the ore, at an elevated temperature and in the presence of a flux suitable for forming a molten oxid salt with the undesired impurity, to a gaseous agent having a selective reducing action on said metallic oxid, but which will not reduce said oxid salt.

2. The process of reducing ores containing phosphorus, which consists in adding a lime flux for combining with the oxid of phosphorus to form calcium phosphate, and subjecting the charge of ore at an elevated temperature to the action of gas suitable for reducing the metallic oxid without reduction of the slag compounds of phosphorus.

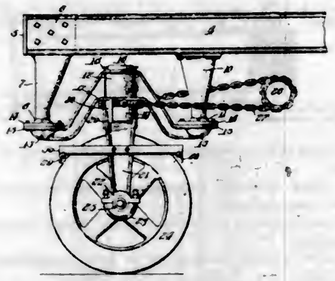
3. The process of smelting iron-ore containing phosphorus which consists in charging ore and lime into an electrically heated furnace, partially reducing the iron oxid with suitable reducing agent, then subjecting the partially reduced charge to a gas suitable for reducing iron oxid under influence of electric heat, but not capable of reducing phosphorus, and slagging the phosphorus as calcium phosphate.

4. The process of producing low-carbon metals, which consists in charging into a furnace oxid ore, a flux having strong affinity for an impurity of the ore and a limited amount of solid reducing agent insufficient to completely reduce the ore; raising the charge to a reducing temperature; and completing the reduction of the ore with a reducing gas unsuitable for effecting carburization of the reduced metal but having insufficient reducing action to reduce the slag compound of the impurity.

5. The process of reducing ores and separating undesired elements therefrom, which consists in charging ore and a fluxing agent having strong affinity for the oxid of the undesired element into a suitable furnace, maintaining this charge at an elevated temperature, and subjecting it meanwhile to the action of a gas containing reducing and oxidizing components in suitable proportions for reducing the desired metal without reduction of the impurity.

[Claims 6 to 9 not printed in the Gazette.]

1,129,863. ROAD-ROLLER. EDWARD RUSSELL GREER, Minneapolis, Minn., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 1, 1913. Serial No. 758,186. (Cl. 21—201.)



1. In a traction engine, the combination with a frame, of a front and rear support depending from the frame and each having a ball member at its lower end, a member disposed intermediate said supports and having socket portions in connection with said ball members, a roller-yoke pivotally mounted on a vertical axis on said intermediate member, and a roller-wheel journaled in said roller-yoke.

2. In a traction engine, the combination with a frame, of a roller-wheel, a roller-yoke supported by the wheel, a yoked truss in which said roller-yoke is pivotally mounted on a vertical axis, the yoke truss having its arms pivotally connected on horizontal axes to the frame at the front and rear of the periphery of the roller-wheel.

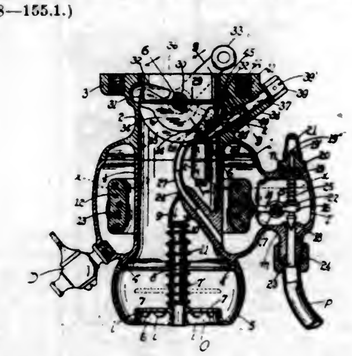
3. In a traction engine, the combination with a frame, of a front and rear support carried by the frame, each support having a ball member, a member disposed intermediate said supports, said member having socket portions in connection with said ball members and being pivotally movable from said ball and socket connections in a plane transverse to said frame, a roller-yoke pivotally mounted in said intermediate member on a vertical axis, and a roller-wheel journaled in said roller-yoke.

4. In a traction engine, the combination with a frame, of two ball members carried by the frame and spaced longitudinally at the center thereof, a member interposed between said ball members, having socket members in connection with said ball members and having a vertically disposed journal bearing positioned above said socket members, a roller-yoke pivotally mounted in said journal-bearing, and a roller-wheel journaled in said roller-yoke.

5. In a traction engine, the combination with a frame, of two ball members carried by the frame and spaced longitudinally at the center thereof, an inverted U-member interposed between said ball-members, having at the end of each of its arms a socket in connection with said ball-members and at its crotch a journal bearing having a vertical axis, a roller-yoke journaled in said bearing, and a roller-wheel in connection with said roller-yoke.

[Claims 6 to 16 not printed in the Gazette.]

1,129,864. CARBURETER. CYRUS A. HAAS, St. Louis, Mo. Filed Oct. 21, 1910. Serial No. 588,322. (Cl. 48—155.1.)



1. In a carbureter, a carbureting chamber provided with an air intake, a gas or throttle valve, an aspirator for delivering the gasolene to said carbureting chamber, a member on the valve adapted to have distributed thereon at predetermined points independent formations for regulating the flow from said aspirator, with any movement of the throttle.

2. In a carbureter, a carbureting chamber provided with a valve-controlled air intake, a throttle valve adapted to be controlled by the operator, an aspirator for delivering the gasolene to the carbureting chamber, and a member on the valve provided with independent formations distributed along the same for regulating the flow from the aspirator.

3. In a carbureter of the character described, a throttle valve, a deflector crimped along the free edge thereof, carried by said valve, and means for projecting a spray of fuel against the crimped edge, for any position of the throttle.

4. In a carbureter, a carbureting chamber provided with a throttle-valve, an aspirator delivering gasolene to said chamber, and a deflector disposed in a fixed plane and coupled to the valve and provided with crimps against which the jet from the aspirator impinges.

5. In a carbureter, a carbureting chamber, a rotatable throttle for the same, an aspirator discharging gasolene into the chamber, and a deflector carried by the throttle and rotating in a fixed plane across the path of the projection of the jet issuing from the aspirator and provided with crimps against which the jet impinges.

[Claims 6 to 20 not printed in the Gazette.]

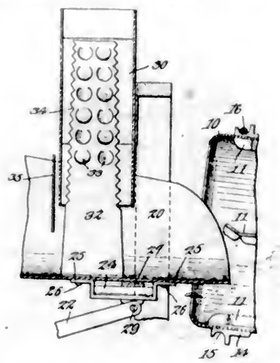
1,129,865. OXYQUINOLIN COMPOUNDS. HANS JOACHIM HAHL, Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed July 17, 1914. Serial No. 851,571. (Cl. 23—24.)

1. The new compounds being chemically oxyquinolins containing in their molecule iodin and bismuth and being generally yellowish-red powders insoluble in water and organic solvents splitting off bismuth and iodin when

treated with hydrochloric acid; and being valuable antiseptics, substantially as described.

2. The new compound being chemically a 1.8-oxyquinolin compound containing in its molecule iodin and bismuth being a yellow-red powder insoluble in water and benzene, alcohol, ether ligroin, etc.; splitting off bismuth and iodin when treated with hydrochloric acid; containing about 24 per cent. of iodin and 45 per cent. of bismuth; and being a valuable antiseptic, substantially as described.

1,129,866. FEEDER FOR MIXING APPARATUS. LOUIS C. HAMEL, Appleton, Wis. Filed Apr. 17, 1914. Serial No. 832,557. (Cl. 83—44.)



1. A feeder for mixing apparatus, comprising a shoe pivoted at one end to vibrate in a vertical plane and in the direction of its length, a longitudinal bar carried by the opposite end of the shoe, a clamping member adjustably mounted on said bar, a pitman connected to the clamping member, and pitman operating means.

2. A feeder for mixing apparatus, comprising a shoe pivoted at one end to vibrate in a vertical plane and in the direction of its length, a longitudinal bar carried by the opposite end of the shoe, a clamping member adjustably mounted on said bar and having spaced outstanding ears, a bolt connecting the cars for securing the clamping member on the bar, a pitman loosely located between the ears, through which pitman the bolt passes, and pitman operating means.

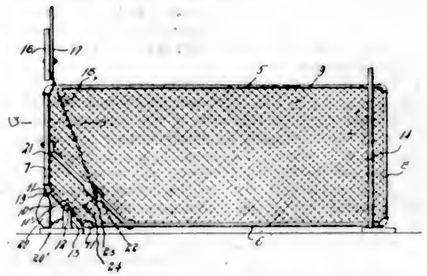
3. A feeder for mixing apparatus, comprising a shoe pivoted at one end to vibrate in a vertical plane and in the direction of its length, a longitudinal bar carried by the opposite end of the shoe, a flexible clamping member adjustably mounted on said bar and having spaced outstanding ears, a bolt connecting the ears for binding the clamping member on the bar, a pitman loosely located between the ears, through which pitman the bolt passes, and pitman operating means.

4. A feeder for mixing apparatus, comprising a shoe pivoted at one end to vibrate in a vertical plane and in the direction of its length, a longitudinal bar carried by the opposite end of the shoe, said bar being angular in cross-section, a flexible clamping member embracing the bar and shaped to engage all the faces of said bar except one, at which latter face the member has spaced outstanding ears, a clamping bolt passing through the ears, a pitman loosely mounted between the ears, through which pitman the bolt passes, and pitman operating means.

5. A feeder for mixing apparatus, comprising a shoe pivoted to vibrate in a vertical plane, a hopper discharging into the shoe, and an agitator extending from the shoe into the hopper, said agitator comprising a flat, solid bar having vertical saw-tooth edges, said bar being spaced from the walls of the discharge opening of the hopper, and the material in the hopper being fed downward between said walls and the edges and sides of the bar.

[Claim 6 not printed in the Gazette.]

1,129,867. GATE OPERATING AND LOCKING MEANS. FLORETTE HOFFMAN, Houston, Tex. Filed Aug. 30, 1913. Serial No. 787,469. (Cl. 39—13.)



The combination with a gate pivoted adjacent one end to swing in a vertical plane, of a locking block pivotally suspended from said end, a diagonal bar disposed adjacent said end portion of the gate, and provided with a longitudinal slot, a pivoted lever, a pin slidably passed through the said slot, a chain connection between the lever and the pin and a chain connection between the block and the pin.

1,129,868. MEAT PRODUCT AND PROCESS FOR PRODUCING THE SAME. ADEA A. HOY, St. Louis, Mo. Filed Feb. 26, 1912. Serial No. 680,053. (Cl. 99—11.)



1. A food product comprising undried comminuted meat powder.

2. A food product comprising fresh uncooked comminuted meat powder.

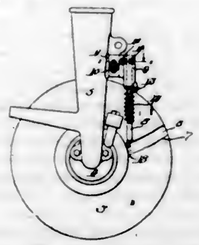
3. A food product comprising uncompacted comminuted meat powder.

4. A food product consisting of meat comminuted in a frozen state.

5. A food product consisting of meat saw-dust.

[Claims 6 to 11 not printed in the Gazette.]

1,129,869. SCRAPER FOR FURROW-OPENERS. HARRY D. HUNTER, Marion, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed May 25, 1914. Serial No. 840,899. (Cl. 97—79.)



1. The combination of a furrow opening disk, a scraper therefor having its scraping edge extending from an inner to outer portion of a disk face and conforming to said face, the scraper being movable laterally relative to the face, and adjustable means for limiting the movement of the scraper toward the disk face to vary the proximity of said scraper to said disk face.

2. The combination of a furrow opening disk, a scraper therefor having its scraping edge extending from an inner to outer portion of a disk face and conforming to said face, means for exerting a yielding force on the scraper to hold its scraping edge in proximity to said disk face, and means for holding said scraping edge out of actual contact with said disk face against said yielding force.

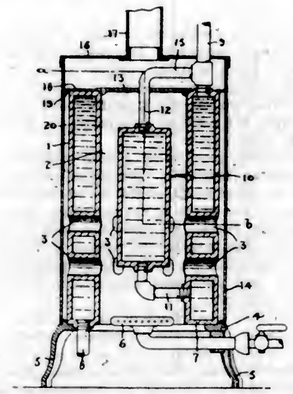
3. The combination of a furrow opening disk, a scraper therefor having its scraping edge extending from an inner to outer portion of a disk face and conforming to said face, means for exerting a yielding force on the scraper to hold its scraping edge in proximity to said disk, means for positively holding the scraping edge out of actual contact with said disk face and against said yielding force, and means for varying the distance at which said scraping edge is held from the disk face.

4. The combination of a furrow opening disk, a scraper therefor, and means for holding the scraper movable toward the disk by a yielding force, for limiting such movement of the scraper so that the proximity of the scraper to the disk does not impart to the disk said yielding force, and for increasing the tension of said yielding force without increasing the proximity of the scraper with the disk.

5. The combination of a furrow opening disk, a scraper therefor, and means for holding the scraper in proximity to the disk by a yielding force and for increasing the tension of said yielding force without increasing the proximity of the scraper to the disk.

[Claims 6 to 11 not printed in the Gazette.]

1,129,870. WATER-HEATER. HAROLD JARVIS, Toronto, Ontario, Canada. Filed Jan. 29, 1914. Serial No. 815,163. (Cl. 122—165.)

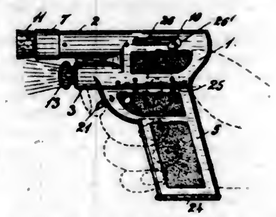


1. In a water heater, a casing forming an annular water chamber having a closed top and flue passages through the side walls adjacent to the lower end, a burner arranged centrally of said casing, an outer shell surrounding and spaced from the outer wall of said casing and extending over the top thereof and having a flue at the top, and a baffle ring arranged at the top of said casing partly closing the annular space between the outer wall of said casing and said shell.

2. In a water heater, a casing forming an annular water chamber having a closed top and flue passages through the side walls, a burner arranged centrally of said casing, an outer shell surrounding and spaced from the outer wall of said casing and extending over the top thereof and having a flue at the top, and a baffle ring resting on the top of said casing extending across the annular space between the casing and the shell and having a plurality of small openings therethrough adapted to form passages for the products of combustion.

3. In a water heater, a casing forming an annular water chamber closed at the top and having a plurality of rows of radially arranged openings through the side walls forming flue passages, an outer shell surrounding and spaced from said casing and rising above the top thereof and having a cap closing the top and a flue leading therefrom, and a burner surrounded by said annular casing having gas openings in the side walls projecting the flame horizontally against the wall of the casing.

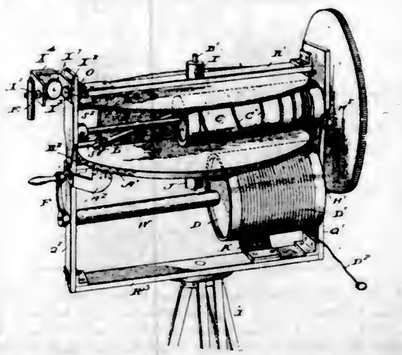
1,129,871. ELECTRIC POCKET-LAMP. WILHELM JERGER, Sr., Villingen, and MARCUS WEISS, Berlin, Germany; said Jerger, Sr., assignor to said Weiss. Filed May 31, 1913. Serial No. 770,832. (Cl. 240—8.5.)



1. In an electric pocket lamp, the combination with a support constructed in the form of a pistol having a hollow butt made in two sections hinged together and adapted to be opened and closed and having a slide for holding their free ends together, of an electric battery located within the hollow butt, an electric lamp, and means to throw said lamp in electrical connection with the battery.

2. In an electric pocket lamp, the combination with a support constructed in the form of a pistol having a hollow butt made in two sections hinged to each other and adapted to be opened and closed, the outer ends of said sections being flanged and having a flanged slide engaging therewith for holding them in closed position, of an electric battery located within the hollow butt, an electric lamp, and means to throw said lamp in electrical connection with the battery.

1,129,872. PLANIMETER. KARL KEELER, Ann Arbor, Mich. Filed Apr. 22, 1914. Serial No. 833,686. (Cl. 33—121.)



1. In a planimeter, the combination with a wire or tape, of means whereon the tape is adapted to wind and unwind, a movable sight for observing the drawn-out part of said wire or tape, and indicating means coöperating with the sight and the wire or tape winding means whose action is controlled thereby and which is adapted to automatically indicate area by the relationship of the effective drawn-out length of the wire or tape to the angle traversed by the sight in observing said effective length of the wire or tape.

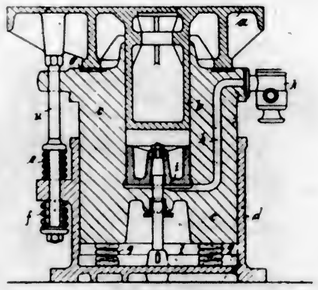
2. In a planimeter, the combination with a drum and a wire or tape wound thereon and adapted to be drawn off therefrom, of a swinging sight adapted for observing the drawn out part of the wire or tape, and means coöperating with said sight and said drum adapted to automatically indicate area by the relationship of the effective drawn out length of the wire or tape to the angle traversed by the sight in observing said effective length of the wire or tape.

3. In a planimeter, the combination with an extensible device, of a movable sight for observing said extensible device, a carriage adapted to be shifted by the movement of the extensible device, an indicating wheel, a rotatable member carried by the carriage and adapted to coöperate with said indicating wheel, and means controlled by the movement of the sight adapted for rotating said rotatable member.

4. In a planimeter, the combination with an extensible device, of a movable sight for observing said extensible device, a carriage adapted to be shifted by the movement of the extensible device, an indicating wheel, a rotatable member carried by the carriage and adapted to coöperate with said indicating wheel, a wheel with which the movable sight coöperates, and an operative connection between said last-named wheel and the rotatable member.

5. In a planimeter, the combination with a drum, of a wire or tape wound thereon and adapted to be drawn out therefrom, a cam operated by said drum, a shiftable carriage having means coöperating with the cam whereby the carriage is shifted by the movement of said cam, a shaft carried by said carriage, indicating and transmitting disks, wheels carried by the shaft which engage the said disks, said carriage being adapted to position the wheels differently at different times in relation to said disks by the action of the cam aforesaid, a movable sight adapted for observing a predetermined point on the unreeled part of the wire or tape, and means coöperating with the sight and with the transmitting disk, whereby the length of wire or tape unreeled from the drum and the angle traversed by the sight conjointly determine the indication on the indicating disk.

1,129,873. MOLDING-MACHINE. BERNHARD KELLER, Duisburg-Meiderich, Germany, assignor to Maschinenfabrik Thyssen & Co., Aktiengesellschaft, Mülheim-on-the-Ruhr, Germany. Filed May 5, 1913. Serial No. 765,527. (Cl. 22—45.)



1. In a jarring molding machine, a mold table, a reciprocating hammer, and a housing therefor, said hammer constructed to beat against said molding table from below, means providing a resilient support for said hammer, means by which said resilient support is caused to act with full force upon said hammer at the beginning of each stroke.

2. In a jarring molding machine, a mold table, a reciprocating hammer and a housing therefor, said hammer constructed to beat against said mold table from below, means providing a resilient support for said hammer, means for retaining the hammer in its lowermost position until said resilient support has accumulated its greatest power.

3. In a jarring molding machine, a mold table, a reciprocating hammer and a housing therefor, said hammer constructed to beat against said mold table from below, means providing a resilient support for said hammer, means for moving the hammer downward thereby accumulating power in the resilient support for subsequently acting upon the hammer.

4. In a jarring molding machine, a mold table, a reciprocating hammer and a housing therefor, said hammer constructed to beat against said mold table from below, a resilient support adapted to hold the mold table in a predetermined normal position, and means by which said resilient support is caused to act with full force upon said hammer at the beginning of each stroke.

5. In a jarring molding machine, a mold table, a reciprocating hammer and a housing therefor, said hammer constructed to beat against said mold table from below, a resilient support adapted to hold the mold table in a predetermined normal position, and means by which said resilient support is caused to act with full force upon said hammer at the beginning of each stroke; and means for adjusting the predetermined normal position.

[Claims 6 to 11 not printed in the Gazette.]

1,129,874. AEROPLANE. MARIUS C. KRARUP, New York, N. Y. Filed July 30, 1910. Serial No. 574,662. (Cl. 244—14.)



1. An aeroplane comprising a body portion, a covered frame projecting forwardly therefrom forming a prow with a pair of under surfaces oblique to each other and to the direction of movement of the aeroplane; a covered frame projecting rearwardly from the body portion forming a tail with flat surfaces converging to two lines substantially at right-angles.

2. An aeroplane comprising a body portion, a covered frame projecting forwardly therefrom forming a prow with a pair of under surfaces oblique to each other and to the direction of movement of the aeroplane; and a covered frame projecting rearwardly from the body portion forming a tail with flat surfaces converging to two posts substantially at right-angles, and a rudder pivotally mounted upon each of said posts and arranged to be swung outwardly from said tail.

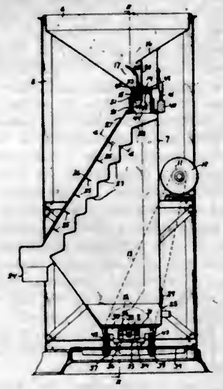
3. An aeroplane comprising a body portion, a covered frame projecting forwardly therefrom forming a prow with a pair of under surfaces oblique to each other and to the direction of movement of the aeroplane, planes projecting from the sides of the body portion back of and above said under surfaces and a covered frame projecting rearwardly from the body portion forming a tail with plane converging surfaces and terminating in two lines at an angle to each other.

4. An aeroplane comprising a body portion, a covered frame projecting forwardly therefrom forming a prow with a pair of flat under surfaces oblique to each other and to the direction of movement of the aeroplane, planes projecting from the sides of the body portion back of and above said under surfaces, and a covered frame projecting rearwardly from the body portion forming a tail with flat surfaces converging to two lines at substantially right-angles to each other.

5. An aeroplane comprising a pair of independent supporting wings, an axis for each wing, a single control device arranged to move said wings about their axes in the same direction or in opposite directions, and separate means for tilting each of said axes.

[Claims 6 to 14 not printed in the Gazette.]

1,129,875. CLEANING-MACHINE. CHARLES H. KREBS, Milwaukee, Wis. Filed Apr. 24, 1914. Serial No. 834,057. (Cl. 83—56.)



1. In a cleaning machine, the combination of a screen box provided with a downwardly inclined, stepped screen therein, a top spaced from the screen and inclined downwardly, and baffles located adjacent the top, and means for vibrating the screen box up and down.

2. The combination with a hopper provided with a feed outlet and a spider therein, of a vibratable screen box provided with prongs adapted to be reciprocated between the bars of the spider.

3. The combination with a hopper provided with a feed outlet and a spider therein, of a vibratable screen box provided with a slotted extension carrying prongs, and means to reciprocate the upper end of the extension and the prongs above the spider.

4. In a cleaning machine, the combination with a vibratable screen box of a hopper located above the same and having an inclined bottom with a feed opening therein, a spider located in said feed opening, and a plate inclined toward the bottom of the hopper from the opposite side thereof and projecting over said feed opening and terminating short of the bottom of the hopper to leave a feed throat between the inclined plate and the bottom of the hopper.

5. In a cleaning machine, the combination with a hopper provided with a feed opening, of a spider located in said opening and provided with a spindle and a tapered hub, a vibratable screen box and prongs carried thereby adapted to be reciprocated between the bars of the spider.

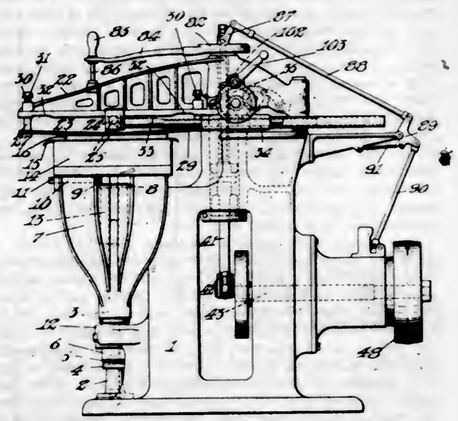
[Claims 6 and 7 not printed in the Gazette.]

1,129,876. CUTTING-MACHINE. ALBERT LATHAM, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 2, 1913. Serial No. 758,362. (Cl. 164—19.)

1. A machine for cutting material by means of a die having, in combination, a die supporting bed, and pressure applying means adjustable to move in different paths substantially parallel to the bed, said means being constructed and arranged to coöperate successively during such movement with different portions of the die so as to cut the material progressively.

2. A machine of the class described having, in combination, a bed upon different portions of which may be located a free movable die with its cutting edge opposed to the material to be cut, and pressure applying means movable in a plane substantially parallel to the plane of the bed to cause the die to cut the material, said means being adjustable laterally with respect to the direction of its pressure applying movement to cause it to move in different paths corresponding to different positions of the die upon the bed.

3. A machine of the class described having, in combination, a bed upon which may be located a free movable die, a presser member movable over the bed in a plane substantially parallel to the face of the bed to cause the die to cut the stock, and means for operating said presser member constructed and arranged to move said member over the bed in different paths corresponding to different positions of lateral displacement of said member with respect to its direction of operative movement.

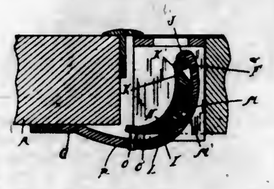


4. A machine of the class described having, in combination, a die supporting bed, a presser member for operating upon the die, said presser member and the bed being relatively movable to cause said member to traverse the die from one side to the other of the die during its operation thereon, and means for effecting said relative movement in different paths corersponding to different positions of relative lateral displacement of said member and bed with respect to the direction of said traversing movement.

5. A machine for cutting material by means of a die having, in combination, a die supporting bed, an abutment constructed and arranged to extend over the die in spaced relation thereto and in a stationary relation to the bed during the cutting operation, and pressure applying means movable over the bed between the abutment and the die to cause the die to cut the material.

[Claims 6 to 69 not printed in the Gazette.]

1,129,877. COACH-HINGE. HARRY A. LOMASON, Detroit, Mich. Filed Nov. 9, 1914. Serial No. 871,057. (Cl. 16—5.)



1. A hinge comprising a recessed member having a pivot pin in the recess, a coöperating member provided with an integral arm for projecting into said recess and having a bearing on said pin, and a keeper attached to said integral arm for preventing disengagement of the same from said pin.

2. A hinge comprising a recessed member having a pivot pin extending across the recess, a coöperating member having a projecting arm for insertion in said recess, with a hooked bearing at the end of said arm for engaging said pin, and a keeper detachably clamped to said arm for

preventing disengagement of the pin from said hooked bearing.

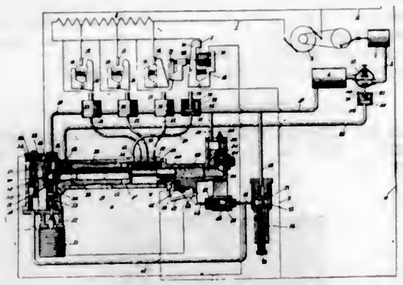
3. A hinge comprising a recessed member having a pivot pin extending across the recess, a coöperating member provided with a projecting arm for insertion in said recess and having a hooked bearing at its end for engaging said pivot pin, a keeper for holding said pivot pin in engagement with said hooked bearing arranged upon the side of said arm which is concealed in the engaging position of the parts, and means for clamping and unclamping said keeper operable from the exposed side of said arm.

4. A hinge comprising a recessed member having a pivot pin extending across the recess, of a coöperating member having a projecting bent arm for insertion in said recess with a hooked bearing at the end of said arm for engagement with said pin, a keeper for retaining said hooked bearing in engagement with said pin arranged on the inner side of the bent arm and pivotally attached thereto, a spring for yieldably holding said keeper in a position providing clearance for engaging said hooked bearing with said pivot pin, and a clamping screw for holding said keeper in engagement with said pin operable from the exposed face of said bent arm.

5. A hinge comprising a recessed member having a pivot pin extending across the recess, a coöperating member provided with a projecting bent arm of channel shaped cross section and having a hooked bearing at its outer end for engagement with said pivot pin within said recess, a keeper pivotally attached to said arm within the channel thereof for holding said hooked bearing in engagement with said pin, a spring for normally holding said keeper in a position to permit engagement with said pivot pin, means operable from the exposed side of said bent arm for moving said keeper into its locking position and a clamping screw engageable from the exposed side of said arm for retaining the keeper in clamping position.

[Claim 6 not printed in the Gazette.]

1,129,878. REGULATING DEVICE FOR MOTOR-DRIVEN COMPRESSORS. FREDERICK L. LUCKER, Brooklyn, and ALLAN O. CARPENTER, Corning, N. Y., assignors to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 11, 1913. Serial No. 753,472. (Cl. 172—288.)



1. In combination, a compressor, its receiver, a driving motor for said compressor, resistance in the motor circuit, a series of switches for progressively cutting out the resistance in the circuit and throwing in the motor, fluid actuated motors for operating the switches, a valve for serially introducing fluid into said motors, means for operating said valve at a predetermined minimum receiver pressure and means to return said valve to its initial position after operating said switch motors.

2. In combination, a compressor, its receiver, a driving motor for said compressor, resistance in the motor circuit, a series of switches for progressively cutting out said resistance and throwing in said motor, fluid actuated motors for operating said switches, a valve for serially introducing fluid into said switch motors, a fluid operated unloader for said compressor, a trip valve for admitting fluid pressure to said switch motors and said unloader, means for operating said trip valve at a predetermined minimum receiver pressure and means for returning said trip valve, switch motor valve and unloader to normal inactive position as soon as said resistance is cut out and said motor fully thrown in.

3. In combination, a compressor, its receiver, a driving motor, a rheostat mechanism for gradually throwing in said motor, fluid actuated motor mechanism for operating said rheostat mechanism, means for actuating said motor mechanism at a predetermined receiver pressure and means for returning said motor mechanism to normal inactive position when said driving motor is fully thrown in.

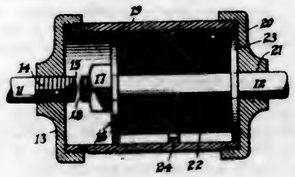
4. In combination, a compressor, its receiver, a driving motor, a rheostat mechanism for gradually throwing in said motor, fluid actuated motor mechanism for operating said rheostat mechanism, a fluid operated unloader for said compressor, a trip valve for admitting fluid to said motor mechanism and said unloader, means for operating said valve at a predetermined minimum receiver pressure, means for returning said trip valve, said rheostat operating motor mechanism and said unloader to normal inactive position when said driving motor is fully thrown in and means for cutting out said driving motor at a predetermined maximum receiver pressure.

5. In combination, a compressor, its receiver, a driving motor, resistance in the motor circuit, a series of fluid actuated switches for gradually cutting out said resistance and throwing in said motor, a fluid actuated valve for serially admitting fluid to throw in said switches, and exhausting said fluid to allow said switches to return to open position, means for holding the last thrown switch in operative position, means for admitting fluid to operate said valve at a predetermined minimum receiver pressure, means for allowing said valve to return to normal inactive position when the last switch has been thrown in, and means for releasing said last thrown switch at a predetermined maximum receiver pressure.

[Claims 6 to 11 not printed in the Gazette.]

1,129,879. [illegible] F. LUDLOW, Elmora, [illegible] 1914. Serial No. 792,541. (Cl. 100—118.)

WITHDRAWN



1. In a brake mechanism, a brake part, a casing having one end attached to the same, closed at its sides and having the other end apertured, a second brake part passing through the aperture, a cross piece retained upon the second brake part against longitudinal movement and a compressible medium surrounding the second brake part and lying between the cross piece and the apertured end of the casing.

2. In a brake mechanism, an interrupted brake, a cylindrical casing secured to one part thereof and permitting the other part to pass therewithin, a compressible medium surrounding the second brake part and means for causing movement of the brake parts away from each other to compress the medium.

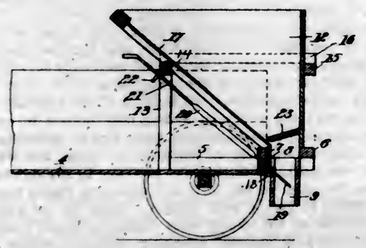
3. In a brake mechanism, a pair of alined brake parts, a compressible medium, connections for causing compression of the medium with separation of the parts and a stop limiting the movement of the parts to less than the total movement required for complete compression of the resilient member.

4. In a brake mechanism, alined brake parts, a casing secured to one of the parts and within which the other passes, a compressible medium within the casing and about one of the parts and a stop limiting compression of the medium.

5. In a brake mechanism, brake parts, a casing secured to one of the parts and surrounding the other, a compressible medium within the casing and means for increasing the resistance to compression of the compressible medium during the latter part of its compression.

[Claims 6 to 9 not printed in the Gazette.]

1,129,880. OIL-CAKE FEEDER. JAMES G. MCFARLAND, Higgins, Tex. Filed Mar. 9, 1914. Serial No. 823,502. (Cl. 119—51.)



1. An oil cake feeding device comprising a framework, a spout depending from the framework, a hopper secured to the framework to feed the cake to said spout, the front of the hopper being composed of foraminated material, a keeper secured to said framework, a cut-off slidable in said spout and provided with a shank having a serrated edge for engagement with said keeper, and a shelf in the hopper which extends almost to the foraminated front thereof.

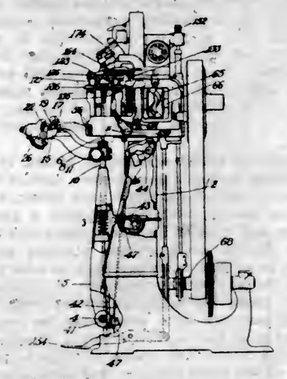
2. The combination of a vehicle body, a framework mounted in the body including a transverse beam adapted to engage the upper edges of the sides of the body and also including spaced transverse beams, a feed spout arranged between the latter beams and depending therefrom, a hopper communicating with the feed spout and whose front is inclined over the bottom of the body, a keeper carried by the first-mentioned beam, and a cut-off for the feed spout to regulate the feed of oil cake and having a shank engageable with said keeper to hold the cut-off in adjusted positions.

3. The combination of a vehicle body, a frame work mounted in the body including a transverse beam adapted to engage the upper edges of the sides of the body and also including spaced transverse beams, a feed spout arranged between the latter beams and depending therefrom, a hopper communicating with the feed spout and whose front is inclined over the bottom of the body, a keeper carried by the first-mentioned beam, and a cut-off for the feed spout to regulate the fed of oil cake and having a shank engageable with said keeper to hold the cut-off in adjusted positions and a shelf in the hopper to direct the material toward the foraminated front of the hopper.

1,129,881. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 14, 1909. Serial No. 512,904. (Cl. 12—4.)

1. A machine of the class described, having in combination, a last spindle, a gripper support extended therefrom, and a gripper mounted on the support in position to pull an upper applied to a last on the spindle, said machine having means for fixing the gripper in different positions of adjustment both vertically and horizontally relatively to the last spindle for lasts of different heights and lengths.

2. A machine of the class described, having in combination, a last spindle, a gripper support extended therefrom and adjustable vertically thereon, a gripper mounted on the support, and means for fixing the gripper upon the support in different adjusted positions.



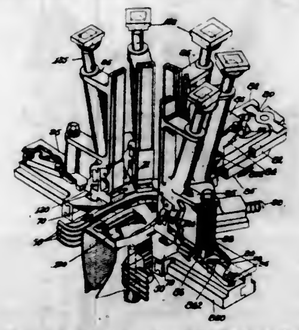
3. A machine of the class described, having in combination, a last spindle, a gripper support extended from the spindle, a gripper adapted to be fixed in different adjusted positions thereon lengthwise of the shoe, and means for actuating the gripper in its adjusted positions to pull the upper forward on the last.

4. A machine of the class described having, in combination, shoe resting means including an abutment for the toe end of the last, a gripper arranged to engage the forepart of the upper and mounted for movement longitudinally of the last away therefrom to pull the upper lengthwise, and means for actuating the gripper.

5. A machine of the class described having, in combination, shoe resting means including abutments for the bottom and for the toe end of the last, a gripper arranged to engage the toe portion of the upper, and means for actuating the gripper forwardly and upwardly with relation to the last for pulling the upper lengthwise.

[Claims 6 to 222 not printed in the Gazette.]

1,129,882. TACKING MECHANISM. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 17, 1911. Serial No. 621,514. (Cl. 1—18.)



1. A machine of the class described having, in combination, mechanism arranged to separate a definite number of tacks at each actuation thereof, a gang tacker, and means for actuating the separating mechanism a plurality of times during each cycle of the machine in which the tacker is actuated once, and a receiving plate to hold the earlier separated tacks and deliver them simultaneously with the separation and delivery of the last separated tacks.

2. A machine of the class described having, in combination, mechanism arranged to separate a definite number of tacks at each actuation thereof, a gang tacker, and means for actuating the separating mechanism a plurality of times during each cycle of the machine in which the tacker is actuated once, and a receiving plate to hold the earlier separated tacks and constructed and arranged to permit the delivery of the last separated tacks directly through it and to effect the delivery of the first charge of tacks when it is prepared for the direct delivery of the last charge.

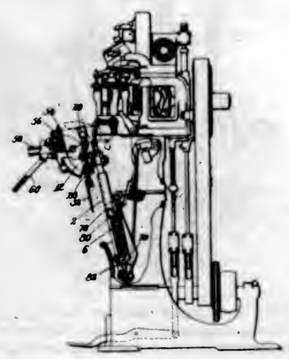
3. A machine of the class described having, in combination, mechanism arranged to separate a definite number of tacks at each actuation thereof, a gang tacker, and means for actuating the separating mechanism a plurality of times during each cycle of the machine in which the tacker is actuated once, a receiving plate provided with a plurality of series of tack holes arranged to take charges of tacks from the separating mechanism, a conductor plate arranged to arrest the earlier separated tacks and hold them in the receiving plate, and means for repositioning the receiving plate and the tacks therein coincidently with the separation of the last charge of tacks to permit the delivery of all the tacks into the conductor plate.

4. A machine of the class described having, in combination, mechanism arranged to separate a definite number of tacks at each actuation thereof, a gang tacker, and means for actuating the separating mechanism a plurality of times during each cycle of the machine in which the tacker is actuated once, a receiving plate provided with a plurality of series of tack holes arranged to take charges of tacks from the separating mechanism, a conductor plate arranged to arrest the earlier separated tacks and hold them in the receiving plate, and means for repositioning the receiving plate to permit the delivery of the tacks therein and to permit the direct delivery of the last charge of tacks through it to the conductor plate.

5. A machine of the class described having, in combination, the oscillatory hopper, the reciprocatory separating devices, means for actuating the hopper once in each cycle of the machine's operation and means driven from said actuating mechanism to impart to the separating devices two complete reciprocations for each oscillation of the hopper.

[Claims 6 to 28 not printed in the Gazette.]

1,129,883. HEEL-SEAT-LASTING MACHINE. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 29, 1914. Serial No. 815,302. (Cl. 12—5.)



1. A machine of the class described having, in combination, means for supporting a shoe, means operating upon the shoe and having a tendency to cause the wings or front end portions of the heel stiffener to sag downwardly along the sides of the last, and means arranged for use prior to the operation of said last mentioned means and adapted for yieldingly clamping the upper materials including said stiffener wings to the side faces of the last to prevent such downward sagging.

2. A machine of the class described having, in combination, means for supporting a shoe, means operating upon the shoe and having a tendency to cause the wings or front end portions of the heel stiffener to sag downwardly along the sides of the last, and means arranged for use prior to the operation of said last mentioned means and self-adaptable to the size and shape of the side faces of the last at the shank for clamping the upper materials including the said stiffener wings to the side faces of the last in the shank to prevent such downward sagging.

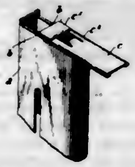
3. A machine of the class described having, in combination, means for supporting a shoe, and means self-adaptable to the size and shape of the side faces of the last at the shank for clamping the upper materials including the heel stiffener wings to the side faces of the last in the shank to prevent downward sagging of the stiffener wings.

4. A machine of the class described having, in combination, means for supporting a shoe, means operating upon the shoe and having a tendency to cause the wings or front end portions of the heel stiffener to sag downwardly along the sides of the last, and means to clamp the upper materials including said stiffener wings to the side faces of the last at the shank, said clamping means comprising levers carrying opposed clamping members, toggle mechanism connecting said levers, an operating device for the toggle mechanism, and cushioning means intermediate the operating device and the clamping devices arranged to permit the toggle to be straightened into self locking position in operating upon lasts of varying sizes.

5. A machine of the class described having, in combination, means for supporting a shoe, and means to clamp the upper materials including the heel stiffener wings to the side faces of the last in the shank, said clamping means comprising levers carrying opposed clamping members, toggle mechanism connecting said levers, an operating device for the toggle mechanism, and cushioning means intermediate the operating device and the clamping devices arranged to permit the toggle to be straightened into self locking position in operating upon lasts of varying sizes.

[Claims 6 to 21 not printed in the Gazette.]

1,129,884. BOX-MAGAZINE FOR FIREARMS. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Nov. 24, 1913. Serial No. 802,763. (Cl. 42—50.)



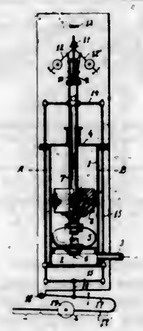
A cartridge magazine for firearms comprising a magazine body having lateral ribs, a bottom plate guided on said ribs and lateral flaps on said bottom plate, said flaps, in the lock position, engaging openings in said ribs and thus holding said bottom plate on said magazine body.

1,129,885. FERMENTING-BUNG. ROBERT MEMMINGER, Nuremberg, Germany. Filed Mar. 27, 1914. Serial No. 827,767. (Cl. 217—101.)

1. In an apparatus of the class described the combination with a weighted sliding tube carrying a discharge valve, of a closed expansible body communicating with the said sliding tube.

2. In an apparatus of the class described the combination with a weighted sliding tube carrying a discharge-valve, of an india-rubber bag communicating with the said sliding tube.

3. In an apparatus of the class described the combination of a sliding tube, a weight attached thereto, means for the admission of gases, a closed expansible body communicating with the said tube and admission means, and a discharge-valve on top of the said tube.

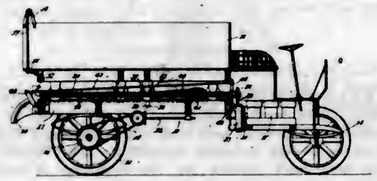


4. In an apparatus of the class described, having a hollow, slidable rod or tube adapted to receive gases conducted into the same and a discharge-valve for the said gases attached to the said rod or tube, the combination therewith of a permanent weight controlling the said rod and of an adjustable weight adapted to charge additionally or reduce the action of the said permanent weight.

5. In an apparatus of the class described the combination of a sliding tube, a weight attached thereto, means for the admission of gases, an india-rubber bag communicating with the said tube and admission means and a discharge-valve on top of the said tube.

[Claims 6 and 7 not printed in the Gazette.]

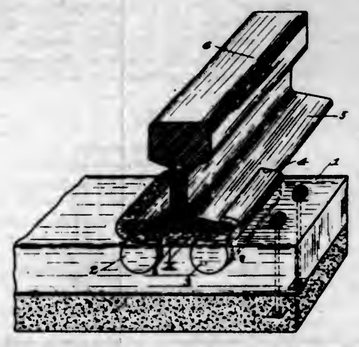
1,129,886. DUMPING DEVICE. LE ROY MERROW, Springfield, Ohio. Filed Jan. 24, 1912. Serial No. 673,146. (Cl. 21—20.)



A motor operated dumping wagon including a wheeled frame, a dumping section movably mounted thereon, a motor, a connection intermediate the wheels and motor for propelling the vehicle in the operation of the motor, a motor fly wheel mounted on said connection, means for moving the dumping section to and from dumping position, driving elements for said moving means including spaced friction disks, a shaft mounted for pivotal and rotary movement with relation to the motor, a toothed wheel carried by said shaft, toothed projections carried by the fly wheel to mesh with said toothed wheel under all pivotal movements of the shaft, and a friction disk carried by the free end of the shaft and playing between the first mentioned friction disks, and means for pivotally operating said shaft.

1,129,887. METALLIC TIE FOR RAILWAYS AND FASTENING DEVICE THEREFOR. FREDERICK B. MILES, Wilkinsburg, Pa., assignor of one-half to William W. Smith, Wilkinsburg, Pa. Filed July 17, 1912. Serial No. 710,036. (Cl. 238—4.)

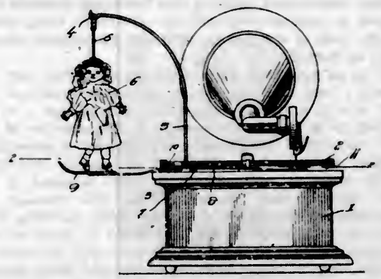
1. In a metallic tie and rail fastening device, the combination of a tie having transverse grooves at the ends thereof and fastening devices comprising a plurality of cylindrical members seated in said grooves, the upper side of each of said members being a flat surface for the reception of the base of the rail, and a hook projecting therefrom adapted to engage opposite sides of the base of the rail and to be tightened thereupon by pressure on the rail.



2. In a metallic tie and rail fastening device, the combination of a rail, a tie having grooves transversely thereof at each end, fastening devices comprising cylindrical members seated in said grooves, having hooked flanges adapted to engage over the outer edges of the base of the rail, in combination with insulating material surrounding the cylindrical portions of said fastening devices.

3. In a metallic tie and rail fastening device, the combination of a rail, a tie having grooves transversely the same at both ends thereof, fastening devices comprising cylindrical members adapted to be seated in the said grooves, having hooked flanges adapted to engage the edges of the base of the rail, and a seat for the reception of the base of the flange, the inner portion approximately beneath the center of the rail being slightly higher than the outer portion thereof, in combination with insulating material surrounding said cylindrical portions of said fastening devices.

1,129,888. FIGURE TOY. HENRY M. MILLER, Foster, W. Va., assignor of one-half to Joel O. Stollings and Charles W. Leftwich, Madison, W. Va. Filed Mar. 18, 1914. Serial No. 825,623. (Cl. 46—40.)

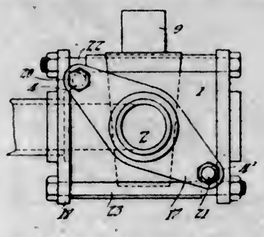


The combination with a casing having a motor driven turn table, of lugs carried by the turn table, a resilient arm having one end fixed to the casing and its other end provided with a platform, said arm having a central upwardly bowed portion, a figure suspended adjacent the casing, movement being imparted to the figure during the rotation of the turn table and when the lugs carried thereby contact with the bowed portion.

1,129,889. THREE-WAY COCK. JOHN V. MILLER, East Orange, N. J. Filed Mar. 2, 1911. Serial No. 611,823. (Cl. 137—26.)

1. As an article of manufacture, a three-way cock comprising a body having a main passage therethrough and a

by-pass leading from said main passage to the exterior of said body, said body having exteriorly thereof a plurality of parallel grooves, a valve mounted in said body and controlling the flow through said main passage and said by-pass, and means including a plurality of fastening members, for securing a plurality of pipes in register with the ends of said main passage and the outer end of said by-pass respectively, some of said fastening members being located in said grooves and the others on the upper and lower surfaces of said body, substantially as described.



2. As an article of manufacture, a three-way cock comprising a body of a material unaffected by chemicals, said body having a main passage therethrough and a by-pass leading from said main passage to the exterior of said body and having exteriorly thereof a plurality of parallel grooves, a valve also of a material unaffected by chemicals mounted in said body and controlling the flow through said main passage and said by-pass and means including a plurality of fastening members for securing a plurality of pipes in register with the ends of said main passage and said by-pass respectively, some of said fastening members being located in said grooves and the others on the upper and lower surfaces respectively of said body, substantially as described.

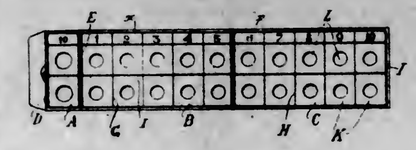
3. As an article of manufacture, a three-way cock comprising a body having a main passage therethrough and a by-pass leading from said main passage to the exterior of said body, the latter having exteriorly thereof a plurality of parallel grooves and a plurality of parallel projections at an angle to said grooves, a valve mounted in said body and controlling the flow through said main passage and said by-pass, and means including a plurality of fastening members for securing a plurality of pipes in register with the ends of said main pasasge and the outer end of said by-pass respectively, some of said fastening members being located in said grooves and the remainder being located on said body in engagement with said projections, substantially as described.

4. As an article of manufacture, a three-way cock comprising a body of a material unaffected by chemicals, said body having a main passage therethrough and a by-pass leading from said main passage to the exterior of said body, the latter having exteriorly thereof a plurality of parallel grooves and a plurality of parallel projections at an angle to said grooves, a valve mounted in said body member and controlling the flow through said main passage and said by-pass, and means including a plurality of bolts for securing a plurality of pipes in register with the ends of said main passage and the outer end of said by-pass respectively, some of said bolts being located in said grooves and the remainder on said body in engagement with said projections, substantially as described.

5. As an article of manufacture, a three-way cock comprising an earthenware body having a main passage therethrough and a by-pass leading from said main passage to the exterior of said body and having exteriorly thereof a plurality of parallel grooves and a plurality of projections at an angle to said grooves, an earthenware valve mounted in said body and controlling the flow through said main passage and said by-pass, metallic flanges adapted to secure a plurality of pipes in intimate contact with said body and in register with the ends of said main passage and the outer end of said by-pass respectively, and a plurality of bolts for securing said flanges in position, two of said bolts being located in the grooves in the body and the other bolts on said body and in engagement with said projections, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

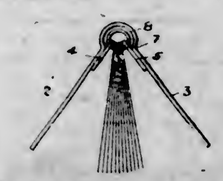
1,129,890. DEVICE FOR TEACHING ARITHMETIC. GEORGE MIRKOV, Budakaláss, Austria-Hungary. Filed Apr. 14, 1914. Serial No. 831,792. (Cl. 35—2.)



1. A table for teaching arithmetic, comprising a rigid sheet divided into two sections, each of which is subdivided into five columns, each column consisting of two fields, each field being provided with a circular recess, said columns being numbered in consecutive order from one to ten.

2. A table for teaching arithmetic, comprising a rigid sheet divided into two sections, each of which is subdivided into five columns, each column consisting of two fields, each field being provided with a circular recess, said columns being numbered in consecutive order from one to ten, and a pocket attached to one of said sections.

1,129,891. LOOSE-LEAF BINDER. LUCENA M. MORDEN, Waterbury, Conn. Filed June 4, 1913. Serial No. 771,586. (Cl. 129—1.)



1. A loose leaf binder comprising a pair of duplicate covers and a back portion connected to said covers at substantially the same distance from the inner edges thereof, said covers having inwardly extending flanges projecting within such back portion for the reception of binding rings, such flanges extending in the plane of the cover in both open and closed positions of said cover.

2. A loose leaf binder comprising a pair of covers, a back portion and a pair of flanges attached to such covers and both projecting within such back portion beyond the point of attachment of the back portion to the covers and both formed alike to receive binding rings therethrough, such flanges extending in the plane of the cover in both open and closed positions of said cover.

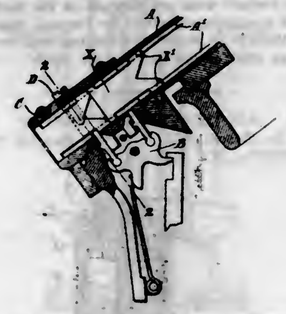
3. A loose leaf binder comprising a cover and a back portion, said cover having an inwardly extending inflexible flange projecting in the plane of the cover within such back portion for the attachment of binding rings thereto, such flange extending in the plane of the cover in both open and closed positions of said cover.

4. A loose leaf binder comprising one or more covers having a back portion attached thereto each of said covers having an inwardly extending flange projecting into such back portion and provided with slots for the reception of binding rings.

5. A loose leaf binder having one or more covers and a back portion, each of said covers having an inwardly extending flange projecting into such back portion and having angular slots for the reception of rings formed of angular stock.

[Claims 6 to 19 not printed in the Gazette.]

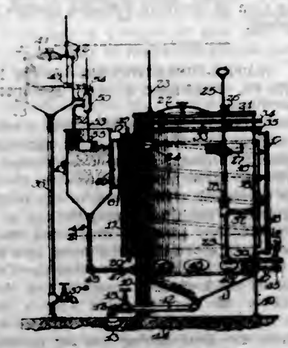
1,129,892. TYPOGRAPHICAL MACHINE. MELVIN W. MORRHOUSE, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Mar. 20, 1913. Serial No. 755,595. (Cl. 199—7.)



1. In a typographical machine, comprising type or matrices each formed at its upper end and on its opposite edges with projecting ears, the combination of a magazine to contain the type or matrices and comprising side plates formed on their inner faces with ribs to provide opposing sets of grooves wherein the ears of the type or matrices travel, and escapements projecting into the magazine through one of its side plates and adapted to engage the ears of the type or matrices on one of their edges, the other side plate of the magazine being formed with a section movably arranged so as to set its ribs in front of the projecting ears on the opposite edges of the type or matrices and thus lock them therein.

2. In a typographical machine, the combination of a magazine to contain type or matrices, and comprising top and bottom plates formed on their adjacent faces with opposing grooves wherein the ears of the type or matrices travel, and escapements projecting into the magazine through its bottom plate to control the delivery of the type or matrices therefrom, the top plate of the magazine, being formed in sections, one movable laterally in relation to another so as to shift their corresponding grooves into and out of registry and thus permit or prevent the delivery of the type or matrices, as required.

1,129,893. PRECIPITATION-TANK. WILLIAM L. MORRIS, Fort Wayne, Ind., assignor to S. F. Bowser & Company, Inc., Fort Wayne, Ind., a Corporation of Indiana. Filed Feb. 16, 1912. Serial No. 677,996. (Cl. 210—10.)



1. In precipitation apparatus for removing impurities from oil and the like, the combination with a precipitation tank provided with an outlet for the heavier precipitated materials near the bottom thereof, of means for admitting incoming materials to the tank comprising an inlet pipe with a discharge orifice on the interior of the tank above the bottom thereof, and an adjustable outlet for discharging the clarified liquid from near the top of the tank comprising a discharge pipe passing through the walls of the tank adjacent the bottom thereof and having an upwardly-extending branch in which the discharge spout of a discharge pan is slidingly mounted, and means for operating the said slidingly mounted discharge pan from the exterior of the tank.

2. In precipitation apparatus for removing impurities from oil and the like, the combination with an inlet for oil to be purified, of an outlet for the clarified liquid comprising a discharge pipe piercing the walls of the tank and having an upwardly-extending branch with which the discharge spout of a discharge pan or funnel is slidingly connected, and means for operating the said discharge pan from the exterior of the tank.

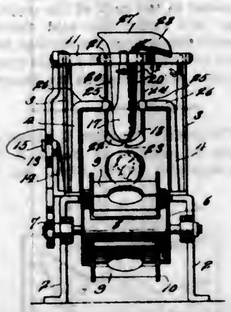
3. Oil precipitation apparatus comprising a tank, an inlet therefor comprising a plurality of inlet pipes disposed above the bottom of the tank around the edges thereof, a deflector secured to the inner end of each pipe to direct liquid upwardly and toward the outer walls of the tank, means for heating the outer walls, and an outlet for discharging liquid from the top surface thereof.

4. In oil precipitation apparatus, the combination with a precipitation tank, of an outlet therefor, and an inlet therefor comprising a plurality of pipes extending through the walls of the tank at intervals and connected together, and deflectors connected to the inner end of each pipe adapted to check the incoming fluid and to return it backwardly and upwardly against the wall through which it has entered.

5. Oil precipitation apparatus comprising a precipitation tank, an inlet therefor comprising pipes extending through the walls of the tank and spaced apart adjacent the bottom thereof, the inner ends being disposed adjacent the walls through which the several pipes extend, a deflector connected to the inner end of each pipe adapted to check the incoming liquid and to return it backwardly and upwardly against the walls in which the liquid enters, means for heating the walls, an adjustable level top outlet device for discharging liquid from the surface of the liquid within the tank, and a heating coil in the tank above the upper surface of the liquid to assist the flow of liquid to the outlet.

[Claims 6 and 7 not printed in the Gazette.]

1,129,894. PEACH SLICER AND SEEDER. GEORGE WASHINGTON NEAL, Clarksville, Ark. Filed Feb. 27, 1914. Serial No. 821,499. (Cl. 146—6.)

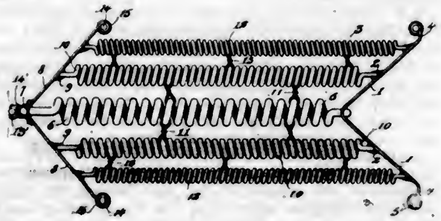


In an extractor for removing the seed or core from fruit, the same comprising laterally movable members, a band arranged between such members and an adjustable stop coöperating with the band and members to admit of regulating the closing of such members to vary the distance between their penetrating ends.

1,129,895. SAFETY ATTACHMENT FOR VESSELS. JAKOB S. NEUMANN, Great Falls, Mont. Filed May 6, 1913. Serial No. 765,803. (Cl. 114—219.)

1. A buffer attachment for vessels including a plurality of springs, plates to which the springs are secured, and

of said plates being supported by the said springs and the other connected to the vessel, the said springs varying in size, the larger springs engaging the plates centrally, and the smaller springs at each side thereof to receive proportionately the strain exerted upon the plates when colliding.



2. A buffer attachment for vessels including a pair of plates, springs arranged between the said plates, said springs being arranged in series, the springs of each series varying in size, and means connecting the springs of each series to maintain said springs in parallel relation, as and for the purpose set forth.

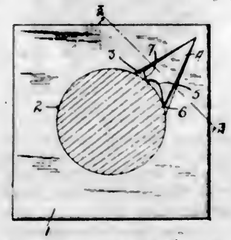
3. A buffer attachment for vessels including a plurality of serially arranged springs, the springs of each series varying in size from the outer to the centrally disposed springs, plates to which the springs are secured, one of said plates being supported by said springs and the other connected to the vessel, the larger springs engaging the plates centrally, and the smaller springs at each side thereof to receive proportionately the strain exerted upon the said plates during a collision of the vessel with a second object.

4. A buffer attachment for vessels including a pair of plate members, springs interposed between the said plate members, rollers mounted upon the extremities of the said plate members, and means connecting the said springs to maintain the same in parallel relation, as and for the purpose set forth.

5. A buffer attachment for vessels including a pair of substantially V-shaped plate members, a plurality of springs interposed between the said plate members, the said springs being so arranged between the said plate members as to receive proportionately, according to their size, the strain exerted upon the said plates by a collision of the vessel with an object, means supported by the said plates and disposed in the path of the object collided with to veer to one side either the said object or the said vessel, and means connecting the springs to maintain the same in parallel relation, as and for the purpose set forth.

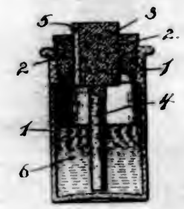
[Claims 6 and 7 not printed in the Gazette.]

1,129,896. NUT-LOCK. ROBERT E. NORRIS, Fayetteville, Ark., assignor of one-half to Morris N. Benson, Paris, Tex. Filed Sept. 24, 1913. Serial No. 791,584. (Cl. 151—25.)



In a nut lock, the combination with a bolt, of a nut engageable thereon, said nut having a V-shaped socket formed in its inner face and having its major end opening into the bolt opening of the nut, a wedge shaped pawl having its minor end engaged with the minor end of the socket, said pawl having its major end provided with a transverse groove, whereby a cutting edge and beveled edge are produced, the former overhanging the latter so that when the nut is rotated in one direction the beveled edge will contact with the threads of the bolt, and when rotated in a reverse direction the beveled edge disengages the bolt threads to permit the cutting edge to engage the threads, as and for the purpose set forth.

1,129,897. AIR-MOISTENING DEVICE. GEORGE B. OWEN, Jr., Brooklyn, N. Y. Filed May 16, 1914. Serial No. 839,069. (Cl. 131—30.)



1. An air moistener of the character described, comprising a liquid container having an outlet opening therein with a closure for said opening, including an outer body and a porous plug of mineral composition and relatively minute cellular structure extending through said body, and adjustable relatively thereto to vary the area of the moisture diffusing surface exposed to the atmosphere, said plug having a wick portion extending within the container to conduct liquid to its exposed surface.

2. An air moistener of the character described, comprising a liquid container having an outlet opening therein, with a closure for said opening including an outer stopper body of compressible material, and a porous plug of mineral composition extending therethrough, said plug having a wick portion within the container arranged to conduct liquid to its exposed moisture diffusing surface.

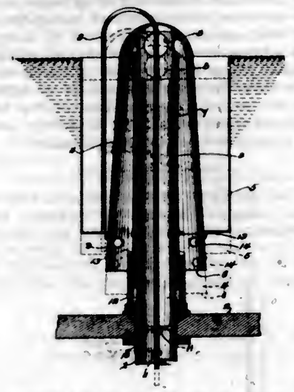
3. As an article of manufacture, a stopper comprising an outer portion of compressible material, having a porous plug of mineral composition extending therethrough, the inner end of said plug having a wick portion.

4. As an article of manufacture, a stopper comprising an outer portion of compressible material, having a porous plug of mineral composition extending therethrough, the inner end of said plug having a wick portion and the sides of said plug having frictional engagement with said outer portion whereby it may be adjusted relatively thereto to vary the area of moisture diffusing surface exposed to the atmosphere.

1,129,898. WATER-DISTRIBUTER. JAMES R. PATTON, Aspinwall, Pa. Filed Sept. 4, 1914. Serial No. 860,157. (Cl. 137—106.)

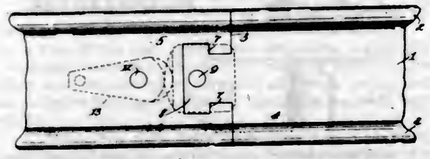
The combination with a flushing tank having an upwardly extending discharge pipe, of an automatically operating siphon for flushing the tank comprising a bell surrounding the discharge pipe, a guide tube about the discharge pipe connected with the top of the interior of the bell having orifices therein adjacent the top of the bell, a float open at the top normally supporting the bell with the orifices therein above the water level, said bell extending below the float and adapted to rest upon the bottom of the tank in the lowermost position and the walls of said bell below the float provided with a plurality of orifices for admitting water into the interior of the bell, a siphon from the float having one leg passing through the top of the bell and center of the discharge pipe, a guide therefor in the discharge pipe a stop on the leg below the guide for limiting the upward movement of the float as the water in the tank approaches its highest normal level, whereby the float will be filled and in descending will carry the orifices within the bell below the water level forming a siphon between the bell and discharge pipe for

emptying the tank, the operation of said tank siphon starting the float siphon whereby the float will be emptied as



the tank empties and will raise the bell after the tank is emptied and begins to refill.

1,129,899. RIM FOR VEHICLE-WHEELS. ADOLF F. PELZ, Cleveland, Ohio, assignor of one-third to Charles W. Brown. Filed Feb. 27, 1914. Serial No. 821,379. (Cl. 152—21.)



1. A tire receiving rim comprising a transversely split metallic channel member bent to circular form, one of its ends having a recess formed with undercut walls and the other end having a projection adapted to enter said recess and interlock with the walls thereof, a plate secured to the inner face of said projection and overlapping the same so as to engage the opposite end about said recess and restrain said ends against relative radial movement in one direction, and a movable latch member carried by the inner face of said rim adjacent to its opposite end and adapted to engage a portion of said first named end, whereby the ends may be restrained against relative radial movement in the other direction.

2. A tire receiving rim comprising a transversely split metallic channel member bent to circular form, one of its ends having a recess formed with undercut walls and the other end having a projection adapted to enter said recess and interlock with the walls thereof, a plate secured to the inner face of said rim and overlapping the end thereof so as to engage the opposite end and restrain said ends against relative radial movement in one direction, the end of said plate being rabbeted, and a latch member pivoted to the interior of said rim adjacent to its opposite end and movable about a radial axis, said latch having an undercut end adapted to engage said rabbeted portion, whereby the ends of said rim may be restrained against relative radial movement in the opposite direction.

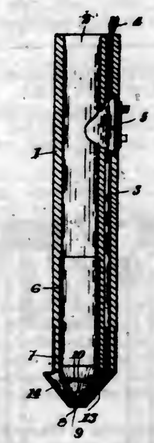
3. A tire receiving rim comprising a transversely split metallic channel member bent to circular form and having a substantially cylindrical base portion provided with marginal flanges, one end of said base portion being cut through to form a recess, the walls of which are undercut, the other end of said base portion having a projection adapted to enter said recess and interlock with the walls thereof so as to secure said rim against expansion, means affixed to the inner face of said projection and adapted to engage the opposite end of said base portion for preventing relative radial movement of said ends, certain of said means being displaceable to permit connection and disconnection of said ends.

4. A tire receiving rim comprising a transversely split metallic channel member bent to circular form and having a substantially cylindrical base portion provided with marginal flanges, one end of said base portion being cut through to form a recess, the walls of which are undercut, the other end of said base portion having a projection adapted to enter said recess and interlock with the walls thereof so as to secure said rim against expansion, a plate carried by the inner face of said rim at the end having the projection and adapted to under lie the other end of the same, whereby relative radial movement in one direction is prevented, a movable latch carried by the other end of said rim and adapted to prevent relative radial movement in the opposite direction, and means for retaining said latch in retaining position.

5. A tire receiving rim comprising a transversely split metallic channel member bent to circular form and having a substantially cylindrical base portion, one end of said base portion being cut through to form a T shaped recess with its larger portion at a distance from the end of the member, the other end of the member being extended to form a similar shaped projection adapted to fit within said recess, the thickness of said projection being substantially the same as that of said base portion, and additional members of sheet metal secured to the ends of said channel member and adapted to obstruct relative radial movement of said ends, one of said last named members being movable into and out of obstructing position.

[Claims 6 and 7 not printed in the Gazette.]

1,129,900. SEALING-WAX MELTER. GEORGE STEPHEN PROCTOR and JOHN BARRETT PRENDERGAST, Ottawa, Ontario, Canada. Filed May 24, 1913. Serial No. 769,598. (Cl. 219—21.)



1. A device of the class described comprising a holder having an orifice therethrough adapted to receive a stick of sealing wax and being provided with a second orifice extending therethrough, a sleeve adapted to engage with the lower end of the first said orifice, a nose piece having a tapered orifice therethrough, such nose piece being designed to be mounted on the end of the said holder, electric wires adapted to pass through the second said orifice, such wires being wound around the said nose piece, a switch extending through the outer periphery of the second said orifice and adapted to control the electric energy in the said coils, a shield to fit over the said nose piece, such shield being designed to engage with the outer pe-

riphery of the said holder and a washer of non-conducting material located between the said nose piece and the said shield, as and for the purpose specified.

2. A device of the class described comprising a holder having an orifice therethrough, a sleeve adapted to engage with the lower end of the said orifice, a nose piece having a tapered orifice therethrough, such nose piece being designed to be mounted on the end of the said holder, a switch, heating coils wound around the said nose piece such coils being adapted to be heated by electrical energy governed by said switch, a shield adapted to fit over said nose piece, such shield being designed to engage with the outer periphery of the said holder and bars extending diametrically across the tapered orifice in the said nose piece, as and for the purpose specified.

1,129,901. PRINTING BY LITHOGRAPHY. JAMES RAY, Jourdantown, Tex. Filed Sept. 3, 1914. Serial No. 860,067. (Cl. 101—173.)

The process for lithographing engraving consisting of impressing lithographic paper with a drawing to be engraved and transferring the same to a lithographic stone treated as an ordinary transfer until it can be rolled with stiff ink, in dusting the inked surface with powdered asphaltum, in etching the said surface, washing the surface with clear water, drying the same, applying soap stone to the said surface, in melting the asphaltum contained on the surface, covering the design with a varnish, then rolling the said surface with a hand roller until it has a dark appearance, applying a solution of oxalic acid, cream of tartar and acetic acid to the said surface until the design appears as a negative, inrolling the said design with a hand roller and transfer ink, powdering the surface with a composition of rosin and in etching the said surface, in dusting the said surface with rosin and further etching the said surface with an acid, in subjecting the surface to a coating of tusch, washing the whole stone with turpentine and applying a liquid asphaltum over the design and washing the said asphaltum surface with a solution of potash, tannic acid, gum arabic, alcohol and water, substantially in the proportions stated.

1,129,902. APPARATUS FOR BLOOMING AND CLEANSING COTTON AND THE LIKE. JOHN F. REARDON, North Grosvenor Dale, Conn. Original application filed May 29, 1911, Serial No. 630,140. Divided and this application filed July 24, 1913. Serial No. 780,852. (Cl. 13—19.)



1. The combination with a chamber or casing adapted to confine cotton for transportation in a general direction, and means for passing cotton through said chamber or casing, of means for introducing a jet of air under pressure into said chamber or casing against the cotton transversely of its direction of motion through the chamber or casing.

2. The combination with a chamber or casing adapted to confine cotton for transportation in a general direction, and means for passing cotton through said chamber or casing, of means for introducing a jet of air under pressure into said chamber or casing at different points around the same and transversely of the direction of movement of the cotton.

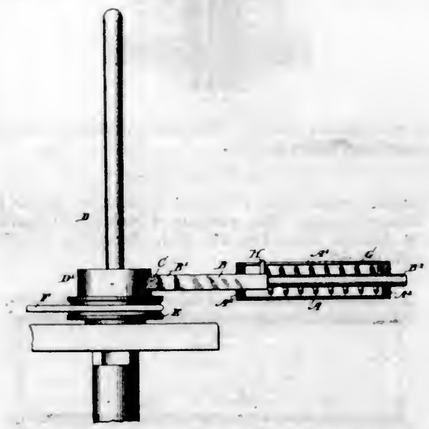
3. The combination with a chamber or casing adapted to confine cotton for transportation in a general direction, and means for passing cotton through said chamber or casing, of means for introducing jets of air under pressure into said chamber or casing against the cotton transversely of its direction of motion through the chamber or casing.

4. The combination with a chamber or casing having inlet and outlet means for cotton, and means for passing cotton through said chamber or casing, of nozzles opening through the walls of the chamber or casing intermediate of its inlet and outlet means and at an angle to the direction of movement of the cotton, and means for supplying compressed air to said nozzles.

5. The combination with a chamber or casing having inlet and outlet means for cotton, of means for introducing a jet of air under pressure transversely of said chamber or casing, and projections upon the interior surface of said chamber or casing for said jet to impinge upon.

[Claims 6 to 17 not printed in the Gazette.]

1,129,903. SPINDLE-TESTER. PETER REILLY, Worcester, Mass., assignor to Joseph P. Schmitt, New York, N. Y. Filed Feb. 21, 1914. Serial No. 820,173. (Cl. 73—15.)



1. A spindle tester, comprising a hollow handle having openings in its ends and provided with a longitudinal slot and a scale adjacent the slot, one of the said openings being polygonal, a bar having a polygonal end and mounted to slide in the handle with its ends projecting through the openings of the handle, a pointer on the bar and projecting into the slot of the handle and indicating on said scale, a segmental shoe on the end of the polygonal end of the bar and adapted to engage the peripheral face of a spindle, and a spring surrounding the bar in the handle and pressing said bar outwardly.

2. A spindle tester, comprising a hollow handle provided with a slot extending lengthwise in the said handle, a scale on the handle adjacent the slot, a bar mounted to slide in the said handle and terminating at its outer end in a recessed head, a shoe removably held in the said recessed head and adapted to engage the peripheral face of the spindle, a spring in the said handle and pressing the said bar, and a pointer held on the said handle and extending through the said slot, the said pointer indicating on the said scale.

1,129,904. REMOVAL OF CADMIUM FROM ZINC ORES. GILBERT RIGG, Palmerton, Pa., assignor to The New Jersey Zinc Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 3, 1914. Serial No. 875,248. (Cl. 75—18.)

1. The method of removing cadmium from zinc ore, which consists in leaching the ore with water in the presence of a sufficient amount of zinc sulfate to convert the cadmium to be removed into soluble cadmium sulfate, and drawing off the resulting solution from the ore; substantially as described.

2. The method of removing cadmium from zinc ores, which consists in first roasting the ore, and lixiviating with water in the presence of zinc sulfate in amount sufficient to convert the cadmium to be removed into soluble cadmium sulfate, and drawing off the resulting solution from the ore; substantially as described.

3. The method of removing cadmium from zinc ores, which consists in first roasting the ore, and lixiviating with water in the presence of zinc sulfate in amount sufficient to convert the cadmium to be removed into soluble cadmium sulfate, the zinc sulfate present being derived in part from the roasted ore and in part from the addition of sulfuric acid to the lixiviating water, and drawing off the resulting solution from the ore; substantially as described.

4. The method of removing cadmium from zinc ore, which consists in leaching the ore with water in the presence of a sufficient amount of zinc sulfate to convert the cadmium to be removed into soluble cadmium sulfate, the leaching being effected by adding the ore gradually to a body of the leaching liquid, and drawing off the resulting solution from the ore; substantially as described.

1,129,905. RIGID-POINT FROG. HARRY F. ROACH, St. Louis, Mo. Filed Feb. 16, 1912. Serial No. 678,094. (Cl. 104—5.)



1. A cast metal frog of the immovable point type comprising several sections or portions which are separated from each other by transversely extending spaces that give a certain degree of flexibility to the frog.

2. A frog of the rigid point type comprising a plurality of sections whose top portions or running surfaces are divided or separated by transversely extending slots.

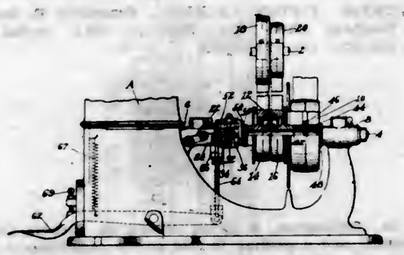
3. A frog of the rigid point type comprising a plurality of sections whose top portions or running surfaces are divided or separated by transversely extending joints, and base supports arranged adjacent the joints between said sections.

4. A frog of the rigid point type comprising a plurality of sections whose top portions or running surfaces are divided or separated by transversely extending slots, and supporting base plates integrally connected to the ends of said sections.

5. A cast metal frog of the immovable point type whose running surface consists of a plurality of transversely divided sections, and means for supporting the ends of said sections.

[Claims 6 to 16 not printed in the Gazette.]

1,129,906. VARIABLE-SPEED MECHANISM. WILLIAM THOMAS BUCKINGHAM ROBERTS and JOHN HENRY BROWN, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 20, 1910. Serial No. 598,433. (Cl. 74—21.)



1. A speed changing mechanism having, in combination, a driving member, driven members, a manually movable actuating member, connections from said actuating member to the driving member constructed to effect, through movement of the actuating member in one direction, movements of the driving member alternately in opposite directions and into operative relation successively to different driven members, and automatic means for positioning said parts to maintain the driving member normally out of operative relation to the driven members.

2. A speed changing mechanism having, in combination, an endwise movable shaft, a plurality of driven members loose on the shaft, a clutch member fixed on the shaft between said driven members, a manually movable actuating member, connections from said actuating member to the shaft constructed to effect, through movement of the actuating member in one direction, movements of the shaft alternately in opposite directions to bring the clutch member into operative relation first to one and then to the other of said driven members, and automatic means for positioning said parts to return the clutch member to a position in which it is out of operative relation to the driven members.

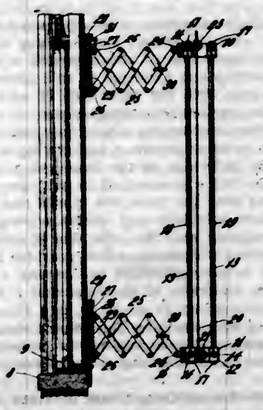
3. In a machine having a plurality of power transmission trains, a clutch device arranged for movement alternately in opposite directions into power transmitting relation successively to different trains, a manually movable actuating member, connections from said actuating member to said device constructed to effect movement of the device alternately in opposite directions on a movement of the actuating member in one direction, and automatic means for positioning said parts to maintain the clutch device normally out of operative relation to said transmission trains.

4. A machine of the class described, having in combination a plurality of speed members, a clutch device arranged to move alternately in different directions to effect successive clutching of different speed members, toggles for effecting the said movements and a manually controlled member having operative movement in one direction for operating the toggles.

5. In apparatus of the class described, the combination with clutch mechanism comprising driving and driven members arranged for relative movements alternately in opposite directions to effect successive clutching engagements therebetween, of means for actuating said mechanism comprising a manually movable actuating member and conections therefrom to said mechanism including a toggle arranged to be successively straightened and broken through movement of said actuating member in one direction.

[Claims 6 to 10 not printed in the Gazette.]

1,129,907. CURTAIN AND SHADE FIXTURE. ANDREW W. S. ROTHERMEL, Milwaukee, Wis. Filed May 25, 1914. Serial No. 840,659. (Cl. 156—10.)



1. A combination curtain and shade fixture, comprising corner members, vertically and horizontally extending rods spacing the members apart and connected thereto to form

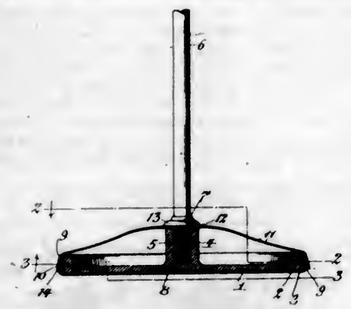
a rectangular frame, the horizontally extending rods forming curtain supports, means for attaching a shade to the frame, links pivotally connected to the corner members and horizontally with relation thereto, lazy tongs having their outer ends pivotally connected to the links, brackets provided with vertically extending guide rods, and slide blocks mounted on said rods and having a pivotal connection with the inner ends of the lazy tongs.

2. A fixture comprising a curtain-supporting frame, links pivotally connected to said frame, lazy tongs having their outer ends pivotally connected to said links, brackets having guide rods mounted thereon, slide blocks mounted on said rods and having a pivotal connection with the inner ends of the lazy tongs, and means for locking said tongs in adjusted position.

3. A fixture comprising a curtain-supporting frame, links pivotally connected to said frame, lazy tongs having their outer ends pivotally connected to said links, supporting brackets, vertically extending guide rods mounted in said brackets, slide blocks mounted on said rods and having a pivotal connection with the inner ends of the lazy tongs, and springs interposed between said slide blocks to prevent any binding of the lazy tongs.

4. A fixture comprising a curtain-supporting frame, links pivotally connected to said frame, lazy tongs having their outer ends pivotally connected to said links, brackets having guide rods mounted thereon, slide blocks mounted on said rods and having a pivotal connection with the inner ends of the lazy tongs, and latches pivotally secured to said brackets for locking the lazy tongs to the brackets.

1,129,908. STANDARD OR PEDESTAL. EDWARD J. RYAN, Buffalo, N. Y. Filed June 9, 1914. Serial No. 843,957. (Cl. 248—41.)



1. A standard comprising a base provided in its periphery with an annular groove, a pad having a body engaging with the underside of the base and a marginal upwardly projecting rim arranged in said groove, retaining means engaging with the outer side of said rim, and a cover overhanging said retaining means.

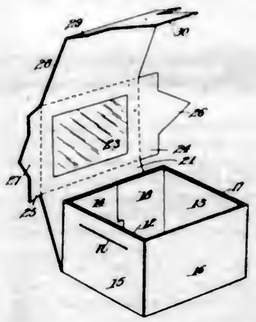
2. A standard comprising a base provided in its periphery with an annular groove, a pad having a body engaging with the underside of the base and a marginal upwardly projecting rim arranged in said groove, a spring ring engaging with the outer side of said rim, and a cover arranged above said base and having a marginal depending flange engaging with the outer side of said ring.

3. A standard comprising a base provided in its periphery with an annular groove, a pad having a body engaging with the underside of the base and a marginal upwardly projecting rim arranged in said groove, a spring ring engaging with the outer side of said rim, and a cover arranged above said base and having a marginal downwardly flaring flange engaging with the outer side of said ring.

4. A standard comprising a base provided in its periphery with an annular groove, a pad having a body engaging with the underside of the base and a marginal upwardly projecting rim arranged in said groove, a spring ring engaging with the outer side of said rim, a cover arranged above said base and having a marginal depending flange engaging with the outer side of said ring, and means for securing said cover to the base.

5. A standard comprising a base provided in its periphery with an angular groove and centrally on its upper side with an internally threaded hub, a pad having a body engaging the underside of the base and a marginal upwardly projecting rim arranged in said groove, a split spring ring engaging with the outer side of said rim, a cover arranged above the base and having its central part perforated and resting on said hub and provided with a downwardly flaring annular flange which engages the outer side of said ring, and a supporting rod or post arranged in the opening of said cover and having a lower screw threaded shank engaging with the thread of said hub and provided with a collar bearing against the upper side of said cover.

1,129,909. PAPER BOX. EDWARD N. SIMONEAUX, New Orleans, La. Filed July 19, 1913. Serial No. 780,065. (Cl. 229—16.)



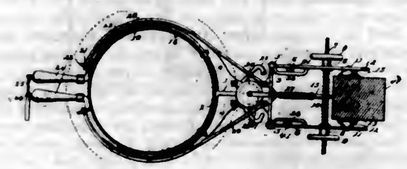
In a paper box, a bottom member, inner side members formed upon the side edges of said bottom, an inner side member and an outer side member formed upon the opposite edges of said bottom, additional outer side members disposed between the edges of the inner side members, a top secured to the upper edge of the outer side, an additional side formed upon one edge of the top, members secured to the outer edges of the additional outer side members, said members having interlocking notches provided therein, said bottom and additional outer side members having slots formed therein, flaps provided upon the opposite edges of the top, tongues formed upon said flaps for insertion in the notches formed in the additional outer side members, a flap formed on the additional side for engagement with the bottom of the box, and a tongue formed on said flap for insertion in the slot formed in the bottom member.

1,129,910. PISTON-PACKING. FREDERICK E. SMALL, Needham, Mass. Filed Sept. 11, 1914. Serial No. 861,322. (Cl. 121—108.)



In combination, a piston having an annular groove therein, and a packing in said groove comprising a continuous resilient packing ring L-shaped in cross section and divided at a single point, said ring having a beveled surface at its outer angle, a second continuous resilient packing ring divided at a single point, filling the inner angle of said L-shaped ring and arranged to break joint therewith, the combined width of said rings being substantially less than the width of said groove, whereby a clearance is provided between the side of said packing rings and the side of said groove, and a spring follower ring engaging the beveled surface of said L-shaped packing ring and one wall of said groove, and adapted to urge said two packing rings in both a radial direction and an endwise direction on the piston against the opposite wall of said groove.

1,129,911. CLAMP FOR BAG-HOLDERS. ELLSTON SMITH and GEORGE W. SNOOK, Buffalo, N. Y., assignors of one-third to William E. Peck, Buffalo, N. Y. Filed Sept. 8, 1913. Serial No. 788,706. (Cl. 248—3.)



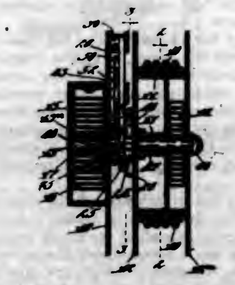
1. A clamping and supporting means for bag holders comprising a web, clamping plates pivotally connected to the web, a threaded rod passing loosely through the plates beyond their pivots, means coöperating with said threaded rod terminals to induce clamping coöperation of said plates and a brace rod underlying the clamping plates and pivotally connected to the web.

2. A clamping and supporting means for bag holders comprising a web, clamping plates pivotally connected to the web, a threaded rod passing loosely through the plates beyond their pivots, means coöperating with said threaded rod terminals to induce clamping coöperation of said plates, a brace rod underlying the clamping plates and pivotally connected to the web, and a spring connecting said rod and web.

3. A clamping and supporting means for bag holders comprising a web, clamping plates pivotally connected to the web and adapted to be moved into relatively parallel positions at right angles to the web or into an alined position, and supporting elements carried by the plates for cooperation with a support when the plates are in an alined position.

4. A clamping and supporting means for bag holders comprising a web, clamping plates pivotally connected to the web and adapted to be moved into relatively parallel positions or into an alined position, and hooks carried by the plates for coöperation with a support when the plates are in an alined position.

1,129,912. TROLLEY-RETRIEVER. IRWIN W. SMITH, Dayton, Ohio. Filed Feb. 3, 1905. Serial No. 243,915. (Cl. 191—93.)



1. In a retrieving mechanism, the combination with a spring motor for effecting the retrieving, a controlling member therefor movable into position to limit the tensioning of the spring motor, and an operating device connected with said motor for operating said controlling member during the rewinding of the spring motor, with means for adjustably mounting said operating device and said controlling member whereby they may be disengaged from each other and then reëngaged into new correlative positions to increase or decrease the initial retrieving tension of said spring motor automatically according to said preliminary adjustment.

2. In a retrieving mechanism, the combination with a spring motor for effecting the retrieving, of a controlling member movable into position to control the latching of the motor; a latch member engaging said control member; connections including an operating device between the motor and the control member whereby the latching member holds the control member, and thereby the motor in check; means for releasing said latch member to permit the motor to retrieve; with means for adjustably mounting said operating device and said controlling member, whereby they may be disengaged from each other, and then reengaged into new correlative positions to increase or decrease the potential tension of the spring motor in its latched position, dependent upon said adjustment.

3. In a retrieving mechanism, the combination with a retrieving spring motor, a movable latch member for latching the same in tensive condition; of means independent of said latch member for affording a positive stop for the setting movement of the motor into such tensive condition just beyond the latching point, with provisions whereby the latch member operates automatically at such point to relatch the motor.

4. In a trolley retriever, the combination with a retrieving spring and a latching member for automatically latching the same in tensive condition; of means for connecting said spring with the trolley rope to retrieve the trolley and including devices for disengaging the rope from the retrieving spring after retrieving and then connecting the rope to the spring for the re-winding of the spring by the reverse movement of the rope after retrieving; and means independent of said latching member for positively stopping this rewinding movement of the spring just beyond the proper latching point.

5. In a retrieving mechanism, the combination with a spring motor for effecting a retrieving, a controlling member therefor movable into position to limit the tension of the spring motor, and an operating device connected with said motor for operating said controlling member during the re-winding of the spring motor; with means for adjustably mounting said operating device and said controlling member whereby they may be disengaged from each other and then reëngage into new correlative positions to increase or decrease the initial retrieving tension of the spring motor automatically according to said preliminary adjustment; and a stopping device for positively stopping the setting movement of the motor just beyond the latching point in combination with automatic means for latching the motor in its tensive condition.

[Claims 6 to 14 not printed in the Gazette.]

1,129,913. DEMOUNTABLE RIM. ANTHONY J. SPRANGER and BENJAMIN H. HOURTIENNE, Detroit, Mich., assignors to Spranger Rim and Wheel Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 2, 1914. Serial No. 869,770. (Cl. 152—21.)

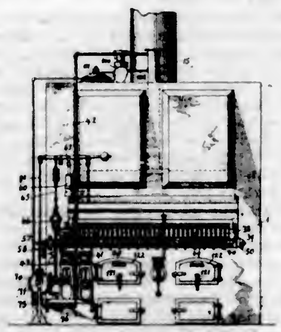


1. In a demountable rim, a channel fixed rim, a rim, lugs carried by said rim and extending into said channel fixed rim, enlargements carried by a wall of said fixed rim, clips engaging the other wall of said fixed rim and ends of said lugs and extending under said fixed rim, and means extending through said clips longitudinally of said lugs and engaging said enlargements for holding said rim upon said fixed rim.

2. In a demountable rim, a channel fixed rim having the outer wall thereof provided with openings, enlargements at the inner wall of said channel fixed rim, a rim, lugs carried by said rim and extending into said channel fixed rim with the outer ends of said lugs filling the openings of the outer wall of said fixed rim, angle clips against the outer wall of said fixed rim and extending under said fixed rim, and screw bolts extending through said angle clips, said lugs, and into the enlargements of said channel fixed rim.

3. In a demountable rim, a channel fixed rim, enlargements against the outer side of the inner wall of said channel fixed rim, a rim, lugs carried by said rim and extending into said channel fixed rim with the inner ends thereof abutting the inner wall of said fixed rim and the outer ends thereof extending into the outer wall of said fixed rim, clips of larger area than the outer ends of said lugs arranged against the outer wall of said fixed rim and extending under said fixed rim, and screw bolts extending through said clips longitudinally of said lugs and into the enlargements of said fixed rim for maintaining said rim upon the walls of the fixed rim.

1,129,914. APPARATUS FOR GENERATING STEAM. ALBERT A. E. STERZING, New York, N. Y. Filed Jan. 31, 1905, Serial No. 243,565. Renewed June 25, 1912. Serial No. 705,870. (Cl. 122—459.)



1. An apparatus for generating superheated steam including in combination, a generator having a passage constructed and arranged to receive water at one end and to deliver superheated steam at the other end, a plurality of devices for supplying water to the generator, controlling-means therefor, pressure-operated mechanism operatively connecting with one of said controlling-means and with said generator and acting under the influence of fluid therein and rendered operative with variations of one condition of the fluid in the generator for controlling supply of water to the generator, and mechanism operatively connected with another of said controlling-means and with the generator and acting under the influence of fluid therein and rendered operative with variations of another condition of the fluid in the generator for controlling supply of water to the generator.

2. An apparatus for generating superheated steam including in combination, a generator having a passage constructed and arranged to receive water at one end and to deliver superheated steam at the other end, a plurality of devices for supplying water to the generator, controlling-means therefor, pressure-operated mechanism operatively connecting with one of said controlling-means and with said generator and acting under the influence of fluid therein and rendered operative with variations of the pressure in the generator, for controlling supply of water to the generator, and mechanism operatively connected with another of said controlling-means and with the generator and acting under the influence of fluid therein and rendered operative with variations of the temperature of the superheated steam delivered from the generator for controlling supply of water to the generator.

3. An apparatus for generating superheated steam including in combination, a furnace, a generator having a passage constructed and arranged to receive water at one end and to deliver superheated steam at the other end, means for supplying fuel to the furnace, a plurality of devices for supplying water to the generator, controlling-means for said supply-instrumentalities, mechanism operatively connected to the controlling-means for one of said supply devices and acting under the influence of fluid in the generator and rendered operative with variations of one condition of the fluid in the generator for controlling the fuel-supply and water supply, and mechanism operatively connected with the controlling-means for another of said water-supply devices and acting under the influence of fluid in the generator and rendered operative with variations of another condition of the fluid in the generator for controlling supply of water to the generator.

4. An apparatus for generating steam including in combination, a furnace, a generator, means for supplying fuel to the furnace, a plurality of devices for supplying water to the generator, controlling-devices therefor, means operative on certain of said controlling-devices and rendered operative with variations of one condition of the fluid in the generator for controlling the fuel-supply means and one of said water-supply devices, automatic means for varying the supply of fuel, and means operative on other of said controlling devices and rendered operative with variations of another condition of the fluid in the generator for controlling another of said water-supply devices.

5. An apparatus for generating steam including in combination, a furnace, a generator, means for supplying fuel to the furnace, a plurality of devices for supplying water to the generator, controlling-devices therefor, means operative on certain of said controlling-devices and rendered operative with variations of the pressure of the fluid in the generator for controlling the fuel-supply means and one of said water-supply devices, and means operative on other of said controlling devices and rendered operative with variations of the temperature of the fluid in the generator for controlling another of said water-supply devices.

[Claims 6 to 29 not printed in the Gazette.]

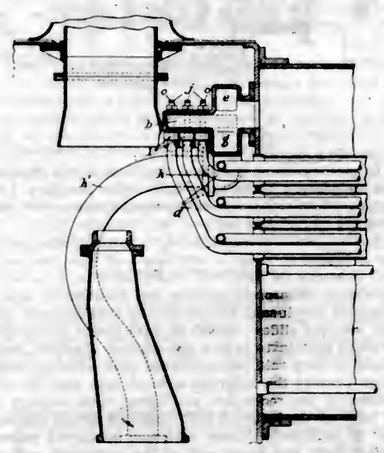
1,129,915. STEAM-SUPERHEATER. JAMES HAMILTON STIRLING, London, England, assignor to Schmidt'sche Heissdampf-Gesellschaft M. B. H., Wilhelmshöhe, near Cassel, Germany, a Corporation of Germany. Filed June 10, 1913. Serial No. 772,763. (Cl. 122—462.)

1. In a smoke box superheater of the class described, in combination with the boiler, a header comprising a plurality of forwardly extending chambers arranged side by side across the smoke box superheater elements, the ends of which are attached from below to said chambers, and a pair of channels for saturated and superheated steam between said chambers and the tube plate and extending across the smoke box, said chambers opening alternately into said channels.

2. In a smoke box superheater of the class described, in combination with the boiler, a header comprising a plurality of forwardly extending chambers arranged side by side across the smoke box superheater elements, the ends of which are attached from below to said chambers, and a pair of channels for saturated and superheated steam arranged one above the other between said chambers and the tube plate, said chambers opening alternately into said channels.

3. In a smoke box superheater of the class described, in combination with the boiler, a header comprising a plurality of forwardly extending chambers arranged side by side and in the same plane across the smoke box superheater elements, the ends of which are attached from below to said chambers, and a pair of channels for saturated and superheated steam arranged one above the other between said chambers and the tube plate, the lower channel being located below the level of the chambers, said chambers opening alternately into said channels.

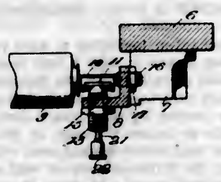
4. In a smoke box superheater of the class described, in combination with the boiler, a header comprising a plurality of forwardly extending chambers separated from one another by air spaces and arranged side by side across the smoke box superheater elements the ends of which are attached from below to said chambers, and a pair of channels for saturated and superheated steam arranged one above the other between said chambers and the tube plate, said chambers opening alternately into said channels.



5. In a smoke box superheater of the class described, in combination with the boiler, a header comprising a plurality of forwardly extending chambers separated from one another by air spaces and arranged side by side across the smoke box superheater elements, the ends of which are attached from below to said chambers, and channels for saturated and superheated steam arranged one above the other between said chambers and the tube plate, said chambers opening alternately into said channels and attaching bolts in said air spaces.

[Claims 6 to 10 not printed in the Gazette.]

1,129,916. BEARING. JOHN STODDARD, Wilmington, Del. Filed Aug. 14, 1913. Serial No. 784,778. (Cl. 92—44.)



1. In a paper making machine, the combination with one or more rolls, of bearings therefor, each bearing including in its structure a bearing surface member having a stem thereon, a socket member rotatably supporting the bearing surface member the stem of the latter fitting the socket of the former, a supporting part of the machine upon which said socket member is mounted and vertically adjustable to vary the elevation of the bearing member, and locking means engaging the socket member to secure the same in its adjusted position.

2. In a paper making machine, the combination with one or more rolls, of bearings therefor, each bearing including in its structure a bearing surface member having a stem thereon, and an annular surface, a socket member having an annular seat against which the annular surface on the bearing member bears to thereby rotatably support the latter the stem of one member fitting the socket of the other, a supporting part of the machine upon which said socket member is mounted and vertically adjustable to vary the elevation of the bearing member, and locking means engaging the socket member to secure the same in its adjusted position.

3. In a paper making machine, the combination with one or more rolls, of bearings therefor each bearing including in its structure a bearing surface member having a stem thereon, a socket member rotatably supporting the bearing member the stem of the latter fitting the socket of the former, a supporting part of the machine in an opening of which the socket member is rotatably and vertically adjustable to vary the elevation of the bearing member, and locking means engaging the socket member to secure the same in its adjusted position,

4. In a paper making machine, the combination with one or more rolls, of bearings therefor each bearing including in its structure a bearing surface member having a stem thereon, an exteriorly screw-threaded socket member supporting the bearing member the stem of the latter fitting the socket of the former, a supporting part of the machine having an upright screw-threaded opening engaged by the exteriorly threaded socket member whereby rotation of the latter also adjusts it vertically to vary the elevation of the bearing member, and locking means engaging the socket member to secure the same in its adjusted position.

5. In a paper making machine, the combination with one or more rolls, of bearings therefor, each bearing including in its structure a bearing surface member having a stem thereon and an annular surface, an exteriorly screw-threaded socket member having an annular seat against which the annular surface on the bearing member bears to thereby rotatably support the latter the stem of one member fitting the socket of the other, a supporting part of the machine having an upright screw-threaded opening engaged by the exteriorly threaded socket member whereby rotation of the latter also adjusts it vertically to vary the elevation of the bearing surface member, and locking means engaging the socket member to secure the same in its adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

1,129,917. SCREW-CAP NOZZLE FOR CANS. CHARLES STOLLBERG, Toledo, Ohio, assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 23, 1911. Serial No. 635,019. (Cl. 221—4.)

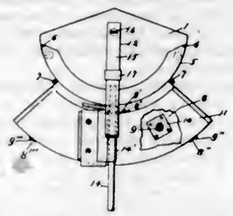


A sheet metal screw cap for can nozzles, consisting of a tubular screw threaded seamless body having an outwardly flanged upper edge; and a countersunk top having its countersunk portion crowded into the top of the body, and having a top flange which is longer than the flange of the body, and seamed outward and downward around and under the body flange, this flange being nurled on its exterior surface and the flange of the top and the flange of the said body being cut across to form notches which overhang and are on lines outside of the said body.

1,129,918. DEVICE FOR SHARPENING RAZOR-BLADES. ROBERT H. STRONG, Galesburg, Ill. Filed June 29, 1910. Serial No. 569,496. (Cl. 51—16.)

1. In a device for sharpening razor blades, a base, a guide-bar attached to the base, stops carried by the guide-bar, an arm pivoted to the base and engaging the guide-bar to have its movement restricted by the guide-bar and the stops, a razor-blade-carrier associated with the arm to swing thereon, a sharpening element associated with the

base, and means for engagement with the razor-blade-carrier to maintain the same in raised positon until caried beyond the ends of the sharpening element.



2. In a device for sharpening razor blades, a base, an arm pivoted to the base, a segmental guide, means for associateing the arm with the guide, stops which project above the plane of the guide to limit the oscillatory movement of the arm, pins maintained by the segmental guide to project beyond the same which pins are positioned nearer one to the other than the distance between the stops, a sharpening element associated with the base and a razor-blade-carrier mounted upon the arm to swing thereon and to engage with the pins to lift the razor-blade-carrier until it is positioned beyond the ends of the sharpening element.

3. In a device for sharpening blades, a base, a segmental guide attached to the base, a sharpening element asosciated with the base, an arm pivoted to the base for oscillation over and beyond the ends of the sharpening element, a blade-carrier associated with the arm to swing thereon, means for holding the blade-carrier against longitudinal movement on the arm such means also pressing the blade-carrier toward the sharpening element and razor-blade carrying lifting means attached to the segmental guide for engagement with a part of the razor-blade-carrier.

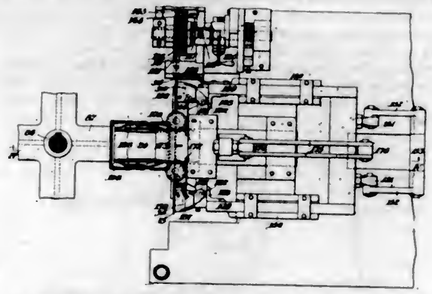
4. In a device for sharpening razor blades, a base, a guide fixedly attached to the base, an arm pivoted to the base and maintained to engage with the guide, stops for the arm at the ends of the guide, projections maintained by the guide and extending beyond the outer edge of the same, a sharpening element provided with an inner edge that is parallel with the guide and with the ends which terminate radially with relation to the pivotal point of the arm, a blade-carrier mounted upon the arm and provided with a part for alternate engagement with the projections, and resilient means attached to the arm for engagement with the blade-carrier to retain the blade-carrier upon the arm and to press the same toward the sharpening element.

5. In a device for sharpening razor blades, the combination with a base, of a curved guide-bar, trips associated with and attached to the guide bars to be maintained below the plane of said guide-bar, a sharpening element having an edge that parallels the guide-bar, an oscillatory bar that is movable over the guide-bar and the sharpening element, a blade-carrier mounted to swing upon the oscillatory bar and means on the blade-carrier for engagement with the trips.

[Claims 6 to 9 not printed in the Gazette.]

1,129,919. BAIL MAKING AND INSERTING MECHANISM. GEORGE W. SWIFT, Jr., Bordentown, N. J. Original application filed Sept. 21, 1911, Serial No. 650,492. Divided and this application filed Nov. 13, 1911. Serial No. 660,087. (Cl. 140—75.)

1. In mechanism of the class described, the combination with mechanism arranged to hold a receptacle; of bailing mechanism arranged to present the inturned ends of a wire bail on opposite sides of the receptacle and drive them through the outer folds of the latter; a bail clenching device including a pair of oscillatory blades arranged to extend between the outer folds and inner wall of the receptacle; each blade having a roller notched to engage and bend said inturned ends; and means arranged to oscillate said blades to clench the ends of said bail in pivotal engagement with the receptacle.



2. In mechanism of the class described, a bail clenching device including a blade carrying a roller having a notch to engage the bail; and means arranged to move said blade to bend the end of said bail.

3. Bailing mechanism including a wire feeding device, means arranged to shear a bail length of wire, two levers having channels for said bail length of wire, a vertically reciprocatory slide plate between the fulcrums of said levers around which said wire is bent by said levers to form a bail, sectoral slides carried by said levers arranged to reciprocate therein to inturn the ends of the wire, means arranged to turn said levers toward each other to form a bail and present the inturned ends of said wire on opposite sides of the receptacle and drive them through the outer folds of the latter, a bail clenching device including a pair of oscillatory blades arranged to extend between the outer folds and inner wall of the receptacle and prevent the bail ends from penetrating the latter, and means arranged to move said blades to clench the ends of said bail in pivotal engagement with the receptacle.

4. Bailing mechanism including a wire feeding device, means arranged to shear a bail length of wire, two levers having means to hold said bail length of wire, a reciprocatory slide plate betwen the fulcrums of said levers around which said wire is bent by said levers to form a bail, slides carried by said levers arranged to move therein to inturn the ends of the wire, means arranged to turn said levers toward each other to form a bail and present the inturned ends of said wire on opposite sides of the receptacle and drive them through the outer folds of the latter, bail clenching device including a pair of blades arranged to extend between the outer folds and inner wall of the receptacle and prevent the bail ends from penetrating the latter, and means arranged to move said blades to clench the ends of said bail in pivotal engagement with the receptacle.

5. Bailing mechanism including a wire feeding device, two levers having means to hold a bail length of wire, a reciprocatory slide plate between the fulcrums of said levers around which said wire is bent by said levers to form a bail, members carried by said levers arranged to move relatively thereto to inturn the ends of the wire, means arranged to turn said levers toward each other to form a bail and present the inturned ends of said wire on opposite sides of the receptacle and drive them through the outer folds of the latter, a bail clenching device including a pair of blades arranged to extend between the outer folds and inner wall of the receptacle and prevent the bail ends from penetrating the latter, and means arranged to move said blades to clench the ends of said bail in pivotal engagement with the receptacle.

[Claims 6 to 45 not printed in the Gazette.]

1,129,920. TURBINE-WHEEL. MILTON E. THOMPSON, Ridgway, Pa. Filed July 2, 1912. Serial No. 707,172. (Cl. 121—67.)

1. A turbine-wheel baffler composed of sections successively over-lapping at each blade.

2. A turbine-wheel baffler composed of sections successively over-lapping at each blade, the over-lapping portions at each bucket being fastened thereto.



3. A turbine-wheel baffler composed of sections, a plurality of which are secured to each bucket top, each section over-lapping a plurality of other sections.

4. A turbine wheel baffler composed of sections, each of which at one end overlies two sections, at the other end underlies two sections, and intermediate its ends lies between two sections.

5. A turbine-wheel baffler composed of sections each engaging three successive buckets and each over-lapping and under-lapping adjacent sections.

[Claims 6 to 10 not printed in the Gazette.]

1,129,921. CIGAR-DISPLAY HUMIDOR. HENRY BERNON TOURTELLOT, Quincy, Mass., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 3, 1913. Serial No. 745,842. (Cl. 131—30.)



An article of manufacture comprising, in combination: a container adapted to serve as a humidor and having a body provided with a cover, the body having an inwardly extending and downwardly turned flange around the top thereof between which and the walls of the body is adapted to be received an edge of a moistener pad, substantially as specified.

1,129,922. TENSION DEVICE FOR SEWING-MACHINE LOOP-TAKERS. HARRIET RUTH TRACY, New Brighton, N. Y., assignor, by mesne assignments, to Jeremiah Evarts Tracy, Plainfield, N. J. Filed Feb. 8, 1893. Serial No. 461,459. (Cl. 112—23.)



1. A rotary loop-taker having a chamber therein for the reception of a spool or bobbin; a cap or cover closing one side of said chamber and provided with a flange projecting into said chamber and having slots, one cut from its edge toward the face of the cap and along said flange for a distance, and the other cut from the same edge toward the said face and terminating in an enlarged rounded end between the second portion of said first slot and the edge of said flange, said cap or cover also having a thread opening in its face in line with said rounded end; the loop-taker and the spool or bobbin being capable of independent rotation, and the cap or cover being held against rotation by the thread being passed through the thread opening; the relation of the slots and thread opening being such that the thread in its passage forms a loop, thereby producing tension.

2. A rotary loop-taker having a chamber therein for the reception of a spool or bobbin; a cap or cover closing one side of said chamber and provided with a flange projecting into said chamber and having slots, one cut from its edge toward the face of the cap and along said flange, and the other cut from the same edge toward the said face and terminating in an enlarged rounded end between the second portion of said first slot and the edge of said flange, said cap or cover also having a thread opening in its face in line with said rounded end; and a spring finger secured to the outer portion of the flange, covering the space between said slots; the loop-taker and the spool or bobbin being capable of independent rotation, and the cap or cover being held against rotation by the thread being passed through the thread opening; the relation of the slots, spring-finger, and thread opening being such that the thread in its passage forms a loop; the engagement of which loop by the edges of the slots and the spring-finger produces tension.

3. An under thread carrying device provided with a cap or cover for closing the same, and provided with a flange having slots, one cut from its edge toward the face of the cap and along said flange, and the other cut from the same edge toward the said face and terminating in an enlarged rounded end between the second portion of said first slot and the edge of said flange; the cap or cover having a thread opening in its face in line with said rounded end; the organization of said slots and thread opening being effective to apply tension to a loop of the thread traversing said slots and opening.

4. A rotary loop-taker having a chamber therein for the reception of a spool or bobbin; a cap or cover closing one side of said chamber, and provided with a flange projecting into said chamber and having slots, one cut from its edge toward the face of the cap and along said flange, and the other cut from the same edge toward the said face and terminating in an enlarged rounded end between the second portion of said first slot and the edge of said flange, both of said slots lying wholly within said chamber; said cap or cover also having a thread opening in its face in line with said rounded end; and a spring finger secured to the outer portion of the flange and covering the space between said slots; the loop-taker and the spool or bobbin being capable of independent rotation, and the cap or cover being held against rotation by the thread passing through the thread opening; the organization of the slots, spring finger, and thread opening being such that the thread in its passage forms a loop; the engagement of which loop by the edges of the slots and the spring finger produces tension.

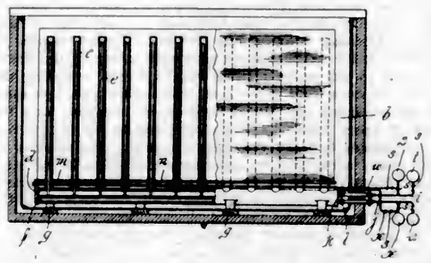
5. A rotary loop-taker having a chamber opening into one side thereof for the reception of a spool or bobbin; a closure for the chamber, an inwardly projecting flange provided with two slots cut from its edge toward the face of the closure, the closure having a thread opening in its face, the loop-taker and the spool or bobbin being capable of independent rotation, and the closure being held against rotation by the thread being passed through the thread opening; the relation of the slots and thread opening being such that the thread in its passage forms a loop, thereby producing tension.

[Claims 6 and 7 not printed in the Gazette.]

1,129,923. ICE-MANUFACTURING APPARATUS. CARL WILHELM VOLLMANN, Montreal, Quebec, Canada. Filed Dec. 9, 1912. Serial No. 735,794. (Cl. 62—162.)

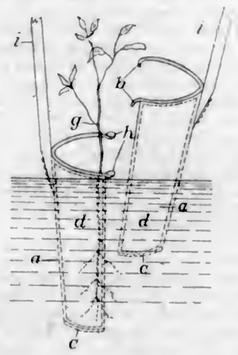
1. In an ice manufacturing apparatus, a tank, a bodily removable ice forming plate contained in the tank and including a series of vertical tubes, a header in communication with the tubes and resting loosely at the bottom of the tank, a thawing plate supported above the header, secured to said tubes and having the latter passed therethrough and a pipe located between the header and the thawing plate, and means for supplying a thawing medium to said pipe.

2. In an ice manufacturing apparatus, a tank, an ice forming plate completely contained in the tank and adapted to be removed in an upward direction therefrom, such ice forming plate including a series of tubes, a header in communication with the tubes, a thawing plate supported above the header, secured to said tubes and having the latter passed therethrough and a thawing pipe located between the header and the thawing plate, means for alter-



nately circulating a freezing medium and a thawing medium through such tubes and for supplying a thawing medium to said pipe, such means including pipes passed through the wall of the tank to points within the tank, free of the header and thawing pipe and out of the path of removal of the ice forming plate, and couplings between the interior wall of the tank and the header and adapted to connect said pipes, respectively, to the header and to the thawing pipe.

1,129,924. PLANT LIFTING AND TRANSPLANTING MACHINE. GEORG M. VON HASSEL, New York, N. Y. Filed Oct. 12, 1912. Serial No. 725,545. (Cl. 55—119.)



1. A plant lifting device, consisting of a pot, comprising a plurality of sections, and a holder for retaining said sections and forcing the same into the ground.

2. A plant lifting device, consisting of a pot comprising a plurality of sections, a holder for retaining said sections, said holder consisting of a plurality of sections sharpened at their lower end and adapted to be forced into the ground, and means for locking said holder sections and pot sections together after they have been forced into the ground.

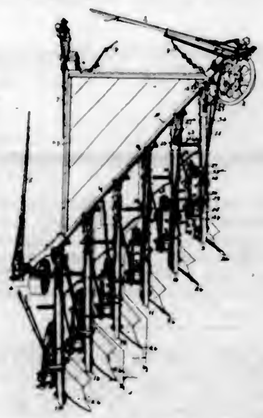
3. A plant lifting device consisting of a pot comprising a plurality of semi-cylindrical sections, a holder for said sections, consisting of a plurality of semi-cylindrical sections sharpened at their lower ends and adapted to be forced into the ground, eyes carried by one of said holder sections, and hooks carried by the other of said holder sections adapted to engage said eyes after said holder and pot carried thereby have been forced into the ground.

1,129,925. CUTTING-TOOL FOR HIGH-SPEED WORK. MAX WALSER, Sampierdarena, Italy. Filed June 2, 1914. Serial No. 842,539. (Cl. 29—106.)



A cutting tool for high speed work having a canal for the passage of cooling liquid, passing longitudinally through its interior, such canal being of a large cross sectional area as compared with the total cross sectional area of the tool and having a free outlet at the end of the tool, whereby a sufficient flow of cooling liquid may be obtained through the body of the tool itself to prevent overheating.

1,129,926. PLOW. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed May 27, 1912. Serial No. 700,042. (Cl. 97—59.)



1. The combination of a frame, a plurality of plow beams connected therewith and capable of a vertical movement, supporting means for each plow beam, and independent automatic raising and lowering means connected to each beam, and adapted to raise or lower in succession the beams to the land side of the beam being so operated.

2. The combination of a frame, a plurality of plow beams connected therewith and capable of a vertical movement, supporting means for each plow beam, automatic raising and lowering means having connection with each beam, and means for operating said raising and lowering means, said last mentioned means being operated by any one of the plow beams and operating successively the beams to the land side thereof.

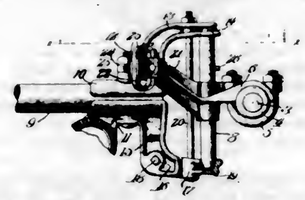
3. The combination of a frame, a plurality of plow beams connected therewith and capable of a vertical movement, a link connection between each of the plow beams, and its adjacent beam and a lever connected to each of said link connections, the operation of any lever automatically raising or lowering in succession the plow beams to the land side of said operated lever.

4. The combination of a frame, a plurality of plow beams connected therewith and capable of a vertical movement, means having connection with each beam and adapted to support the beam in a raised or lowered position, a link connection between each of said supporting means and its adjacent means, and a hand lever connected to each of said link connections, the operation of any one of said hand levers automatically raising or lowering in succession the plow beams to the land side of said operated lever.

5. The combination of a frame, a plurality of plow beams independently pivotally connected to the frame, a wheel for each beam, a support for each wheel pivoted to the beam, connections between the wheel supports of the different beams, and means for raising the beams in succession upon the mechanism of the beam next the furrow side being operated.

[Claims 6 to 14 not printed in the Gazette.]

1,129,927. BEAM CONNECTION. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 6, 1913. Serial No. 805,079. (Cl. 97—7.)



1. In a beam connection, the combination of beam-supporting means, a beam pivotally mounted thereon on a vertical axis, an arm extending rigidly from the supporting means to one side of the beam, and an adjustable connection between said arm and the beam for holding the beam from swinging laterally on its vertical axis and for swinging the beam laterally on said axis to differently adjusted positions.

2. In a beam-connection, the combination of a beam-supporting means, a beam pivotally mounted thereon on a vertical axis and being vertically adjustable at said mounting, an arm extending rigidly from the supporting means to one side of the beam, an adjustable connection between said arm and the beam for holding the beam from swinging laterally on its vertical axis and for swinging the beam laterally from said axis to differently adjusted positions, and means for permitting the said connection to be moved vertically when the beam is adjusted vertically at its pivotal mounting.

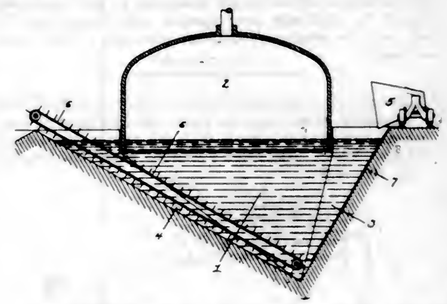
3. In a beam-connection, the combination of beam-supporting means, a beam pivotally mounted thereon on a vertical axis, an arm extending rigidly from said supporting means and terminating at its rear end to one side of said vertical axis, an adjustable connection between said end of the arm and the beam for adjusting the beam about its vertical axis.

4. The combination of beam-supporting means, a beam having a yoke connection therewith, the yoke adapted to be moved vertically at its said connection, and a rigid connection between the supporting means and beam for holding the beam against lateral movement with respect to the supporting means, said connection being movable vertically to accommodate said vertical movement of the yoke.

5. The combination with a beam support, of a beam pivotally mounted thereon on a vertical axis, and a rigid connection between the beam and beam support for holding the beam from horizontal movement on its said pivot, including a member disposed substantially in a horizontal plane common with the arc of a circle struck therein from said pivot of the beam.

[Claims 6 to 10 not printed in the Gazette.]

1,129,928. SLAG-HEATED STEAM-GENERATOR. UTLEY WEDGE, Ardmore, Pa. Filed Mar. 4, 1914. Serial No. 822,347. (Cl. 122—28.)



1. In a steam generator for utilizing the heat of furnace slag, the combination of a pit containing a body of water, and a steam collecting dome having its lower edge sealed by said body of water.

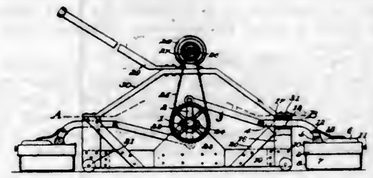
2. In a steam generator for utilizing the heat of furnace slag, the combination of a pit containing a body of water, a steam collecting dome having its lower edge sealed by said body of water, means for the free introduction of the hot slag into said body of water, and means for removing the cold slag therefrom.

3. In a steam generator for utilizing the heat of furnace slag, the combination of a pit having slag-receiving and discharging chutes in the sides thereof, and containing a body of water which enters said chutes, and a steam collecting dome having its lower edge sealed by said body of water.

4. In a steam generator for utilizing the heat of furnace slag, the combination of a pit having a body of water therein, a steam collecting dome having its lower edge sealed by said body of water, and a slag feeding chute having a removable lining.

5. In a steam generator for utilizing the heat of furnace slag, the combination of a pit having a body of water therein, and a steam collecting dome mounted so as to be removable from said pit and having its lower edge sealed by the body of water therein.

1,129,929. FLOOR-SURFACING MACHINE. CARL H. WERNER, Waterloo, Iowa. Filed Apr. 29, 1914. Serial No. 835,163. (Cl. 51—13.)

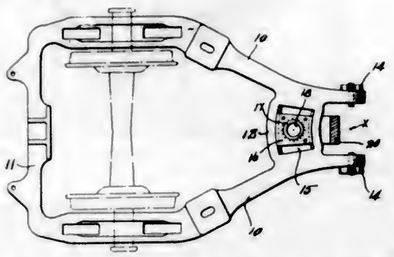


1. In a floor surfacing machine, the combination with a supporting frame having horizontal supporting slideways on opposite ends thereof, a rotary shaft mounted across said frame medially, and provided with oppositely-projecting cranks, pitmen connected to said cranks, downwardly curved arms pivoted to said pitmen and slidably seated upon said supporting slideways, and abrading mechanisms mounted upon the outer downturned ends of said arms.

2. In a floor surfacing machine, the combination with a supporting frame having horizontal supporting slideways on opposite ends thereof, a rotary shaft mounted across said frame, and provided with a plurality of oppositely-projecting cranks, pitmen connected to said cranks, down-

wardly curved arms pivoted to said pitmen and slidably seated upon said slideways, abrading mechanisms pivotally connected to the outer downturned ends of said arms, and yieldable resilient means connected to said arms and adapted to yieldingly bear against said mechanisms to keep them in contact throughout with the surface operated upon.

1,129,930. TRAILER-TRUCK FOR LOCOMOTIVES. CHARLES T. WESTLAKE, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Oct. 24, 1914. Serial No. 868,420. (Cl. 105—226.)



1. A trailer truck frame pivoted near one of its ends to the main frame of the locomotive and susceptible of side movement at the opposite end, the sides of said truck frame extending beyond the pivot bearing and forming spring hanger bearings and the pivot bearing for said truck frame being arranged to constrain the truck frame to travel about a point in transverse alinement with said spring hanger bearings.

2. The combination with a locomotive frame, of a trailer truck frame supported at its forward ends by spring hangers, there being an arcuate slot formed in the forward portion of said frame, a bearing block loosely mounted on said slot, and a pivot pin seated in said block and in a part of the locomotive frame.

3. The combination with a locomotive frame, of a trailer truck frame, the forward end of which is supported by spring hangers, a transversely movable bearing block mounted on the truck frame to the rear of the spring hangers, and a pivot pin seated in said bearing block and a portion of the locomotive frame.

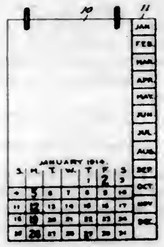
4. The combination with a locomotive frame, of a trailer truck frame, spring hangers supporting the forward end of said truck frame, and a sliding pivotal connection between the truck frame and locomotive frame, which connection is formed so as to constrain the truck frame to swing about a point in transverse alinement with the spring hangers.

5. A trailer truck frame provided at its forward end with spring hanger bearings, a transverse member on the frame to the rear of the side bearings, and a pivot bearing block mounted for sliding movement on said transverse member, which block is adapted to receive a pivot pin seated in a fixed part of the locomotive frame.

1,129,931. DESK-PAD CALENDAR. ISIDORE WEXLER, Minneapolis, Minn. Filed June 19, 1914. Serial No. 846,103. (Cl. 40—119.)

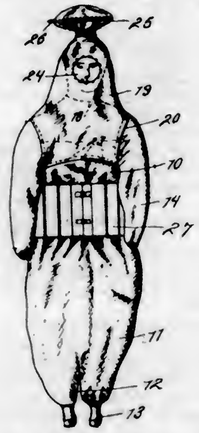
1. A desk pad calendar comprising a sheet for each day of the month, said sheets being divided into several series corresponding to the week divisions of the month, said several series being successively increased in length, and the dates of all of the days of the month up to the end of the week covered by each of the several series being printed on said sheets so that the dates of the week division appear on the exposed portion of the sheets of any series, the sheet corresponding to any date having that date printed thereon in distinctive type in its proper position relative to the other dates on said sheet.

2. A desk pad calendar comprising a sheet for each day of the year, said sheets being divided into groups corresponding with the several months and each of said groups being indexed with the name of the month appearing at the side of the several groups, the sheets of each month group being divided into several series corresponding to the week divisions of the month, said several series be-



ing successively increased in length, and the dates of all of the days of the month up to the end of the week covered by each of the several series being printed on said sheets so that the dates of the week division appear on the exposed portion of the sheets of any series, the sheet corresponding to any date having that date printed thereon in distinctive type in its proper position relative to the other dates on said sheet.

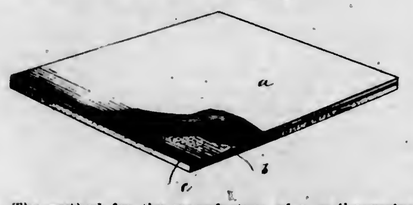
1,129,932. LIFE-PRESERVING GARMENT. MAMIE P. WHIDDEN, Fort Myers, Fla. Filed Oct. 28, 1914. Serial No. 869,022. (Cl. 9—20.)



1. A life saving garment, comprising a body receiving portion formed of substantially impermeable material and adapted to extend up to and about the neck of the wearer and embodying arm and leg-receiving portions; in combination with a hood formed of substantially impermeable material and provided with a head receiving portion having a peep opening formed upon the forward side thereof, decreasing in diameter upwardly and increasing in diameter downwardly to provide a lower shoulder receiving portion adapted to overlap the body receiving portion and having arm-receiving openings with their lower sides permanently closed; means detachably connecting the shoulder receiving portion and the body receiving portion between the arm-receiving openings; and an inflatable head shade attached to the upper reduced end of the hood and extending laterally therebeyond in spaced relation thereto for a substantial distance.

2. In a life saving garment, a hood formed of substantially impermeable material and provided with a head receiving portion having a peep opening formed upon the forward side thereof, decreasing in diameter upwardly and increasing in diameter downwardly to provide a lower shoulder receiving portion having arm receiving openings with their lower sides permanently closed; and an inflatable head shade attached to the upper reduced end of the hood and extending laterally therebeyond in spaced relation thereto for a substantial distance.

1,129,933. MANUFACTURE OF WALL-COVERINGS. OTTO WIEDEMANN, Demmin, Germany. Filed Mar. 13, 1914. Serial No. 824,396. (Cl. 20—89.)



1. The method for the manufacture of a wall-covering which consists in inserting between a sheet of wooden veneer and a sheet of flexible material, a layer of a cementitious substance adapted to be rendered adhesive by heating, and heating the exposed or rear surface of the flexible sheet.

2. The method for the manufacture of a wall-covering which consists in inserting between a sheet of wooden veneer and a sheet of flexible material, a layer of a cementitious substance adapted to be rendered adhesive by heating, heating the exposed or rear surface of the flexible sheet, and cooling the front or exposed surface of the veneer.

3. The method for the manufacture of a wall-covering which consists in inserting glue between a sheet of veneer and a sheet of linoleum, and heating the rear surface of the linoleum sheet.

4. The method for the manufacture of a wall-covering which consists in inserting glue between a sheet of veneer and a sheet of linoleum, heating the rear surface of the linoleum sheet and cooling the front or exposed surface of the veneer.

5. The method for the manufacture of a wall-covering which consists in inserting between a sheet of wooden veneer and a sheet of flexible material, a layer of a cementitious substance adapted to be rendered adhesive by heating, heating the exposed or rear surface of the flexible sheet and roughening this surface.

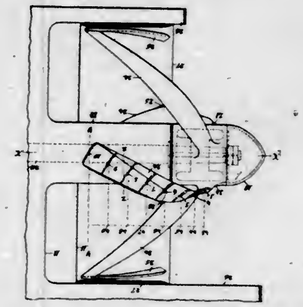
[Claims 6 to 8 not printed in the Gazette.]

1,129,934. PROPELLER. CARL THEODOR AUGUST HERMANN WIEDLING, North Bergen township, Hudson county, N. J., assignor to The Wiedling Manufacturing Company, North Bergen, N. J., a Corporation of New Jersey. Filed June 12, 1908. Serial No. 438,037. (Cl. 170—159.)

1. In a rotary propeller, a propeller blade having a shrouding on the driving face of the blade, formed of such a size relative to the size of said propeller blade as to have an area approximately equal to the circumferential area of the water current brought under dynamic pressure by said propeller, adjacent to said shrouding.

2. In a rotary propeller, a propeller blade having a shrouding on the driving face of the blade, said shrouding having approximately sector form constructed of such a size relative to the size of the propeller blade as to have an area approximately equal to the circumferential area of the water current under dynamic pressure, adjacent to said shrouding.

3. In a rotary propeller, a propeller blade having a shrouding on the driving face of the blade, formed of such a size relative to the size of the propeller as to have a surface projecting from the driving face of the blade a distance approximately equal to the width of the water current under dynamic pressure, adjacent to said shrouding.

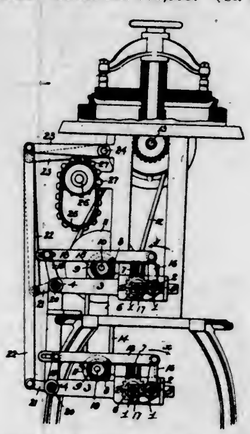


4. In a rotary propeller, a propeller blade curved in a helically pitched spiral of opposite helical and opposite spiral pitch to the pitch of the driving face of the blade.

5. In a rotary propeller, a blade bent axially in the opposite direction to the direction of thrust of said blade, and also bent circumferentially so as to have the driving face of said blade of convex curvature, and a shrouding member projecting rearwardly from the outer end of said blade to a point substantially in line with the base of said blade.

[Claims 6 to 15 not printed in the Gazette.]

1,129,935. TAKE-UP DEVICE FOR KNITTING-MACHINES. LOUIS N. D. WILLIAMS, Ogoutz, Pa. Filed June 19, 1913. Serial No. 774,593. (Cl. 66—9.)



1. As a means for varying the texture of a knitted web, the combination of the knitting machine with means for applying tension to the web at one or the other of two relatively fixed points at different distances from the knitting point, and means for changing the point of application of tension when it is desired to change the texture of the web.

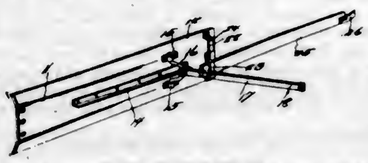
2. As a means for varying the texture of a knitted web, the combination of the knitting machine with two tensioning take-up devices, each permanently located at a definite distance from the knitting edge of the needle carrier and one being farther removed from said edge than the other, and means for causing these devices to engage alternately with the knitted web.

3. As a means of varying the texture of a knitted web, the combination of two tensioning take-up devices located

at different distances from the knitting edge of the needle cylinder and each having web engaging rolls, one of which is movable from and toward the other, a pattern chain, a pair of arms acted upon thereby, and means whereby one of said arms is caused to act upon the movable roll of one take-up device and the other is caused to act upon the movable roll of the other take-up device to move the same from and toward the roll which coöperates therewith.

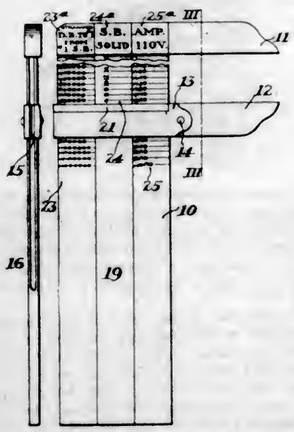
4. The combination, in a take-up device, of web engaging rolls one of which is movable from and toward the other, a pattern chain, an arm acted on thereby, a lever acting upon the shaft of the movable take-up roll, and connections between said arm and lever whereby movement of the arm is caused to effect movement of the take-up roll into or out of operative relation with its coöperating roll, said connections being slotted to compensate for movement of the take-up roll carrier.

1,129,936. ROAD-GRADING MACHINE AND DITCHER. WILLIAM R. WILLIAMS, Owensboro, Ky., assignor, by mesne assignments, to Owensboro Ditcher and Grader Company, Owensboro, Ky., a Corporation of Kentucky. Filed Apr. 1, 1914. Serial No. 828,716. (Cl. 37—5.)



In a road grading machine, a land side body member, a scraper blade connected at its forward end to the forward portion of the body member and extending laterally and rearwardly at an angle to the body member, connections between the rear-lateral end of the blade and the body member, said scraper blade being concaved rearwardly where it connects to the body member, said concavity gradually diminishing and blending laterally and rearwardly toward the outer portion of the blade, said blade adjacent its outer portion being vertically straight and flat, and a reinforcing bar reinforcing the blade at the junction where the concavity merges into the flat vertically straight portion.

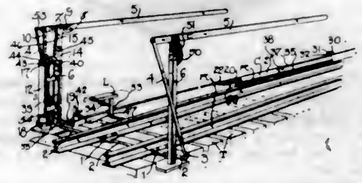
1,129,937. GAGE. HOWARD GARDNER WILSON, Chicago, Ill. Filed Mar. 28, 1910. Serial No. 551,894. (Cl. 33—143.)



1. A gage comprising a beam provided with a fixed head and a longitudinal groove extending from said fixed head and of less length than the beam, a plate embracing said beam and extending beyond one edge thereof and having means coöperating with said groove and engageable with the end wall of said groove farthest from the fixed head and a caliper leg secured at one end in the projecting end of said plate.

2. A gage comprising a beam provided with a fixed head, a plate embracing said beam and extending beyond one edge thereof, and a caliper leg secured at one end in the projecting ends of said plate, said beam having a longitudinal groove in its outer edge extending from said fixed head and terminating at a distance from the opposite end of said beam, and said plate having a depressed portion forming a tongue slidable in said groove.

1,129,938. GATE. HALBERT M. WOOD, Nashville, Tenn., assignor of one-fourth to Stanley H. O'Connor, one-fourth to James A. Williams, and one-fourth to Edward T. Lowe, Sr., Nashville, Tenn. Filed Sept. 17, 1914. Serial No. 862,226. (Cl. 39—37.)



1. In combination with a gate, an operating mechanism therefor comprising a rod operatively engaged therewith, fluid means for imparting movement to the rod in one direction, means for imparting movement to the rod in an opposite direction, means normally in engagement with the rod for holding the same against action under the influence of the second means, means for causing and holding means to become inoperative, and means for maintaining said holding means inoperative until the same has traveled a predetermined distance under the influence of the second named means.

2. In combination with a gate, an operating means therefor comprising a rod operatively engaged with the gate and provided with a rack, a pawl coacting with the rack and normally in engagement therewith, means for adjusting the pawl out of engagement with the rack, automatic means engageable with the pawl when disengaged from the rack for maintaining said pawl in its inoperative position, and means for disengaging said last named means from the pawl upon movement of the rod a predetermined distance in one direction.

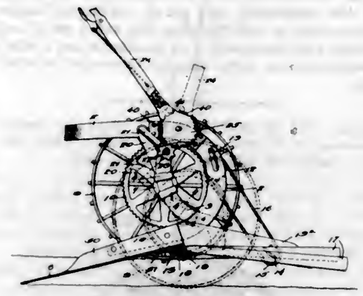
3. In combination with a gate, an operating means therefor comprising a rod operatively engaged with the gate and provided with a rack, a pawl coacting with the rack and normally in engagement therewith, means for adjusting the pawl out of engagement with the rack, automatic means engageable with the pawl when disengaged from the rack for maintaining said pawl in its inoperative position, and a spring operated pawl adapted to engage the dog when the same is disengaged from the rack for holding the dog in inoperative position.

4. In combination with a gate, an operating means therefor comprising a rod operatively engaged with the gate and provided with a rack, a pawl coacting with the rack and normally in engagement therewith, means for adjusting the pawl out of engagement with the rack, automatic means engageable with the pawl when disengaged from the rack for maintaining said pawl in its inoperative position, a spring operated pawl adapted to engage the dog when the same is disengaged from the rack for holding the dog in inoperative position, a cam carried by the pawl, and means carried by the rod coacting with the cam for disengaging the pawl from the dog upon movement of the rod a predetermined distance in one direction.

5. In combination with a gate, an operating means therefor comprising a rod operatively engaging with the gate and provided with a rack, a pawl coacting with the rack and normally in engagement therewith, means for adjusting the pawl out of engagement with the rack, automatic means engageable with the pawl when disengaged from the rack for maintaining said pawl in its inoperative position, a spring operated pawl adapted to engage the dog when the same is disengaged from the rack for holding the dog in inoperative position, and a shaft mounted for axial rotation provided with means for rotating the same and having an extension adapted to engage the pawl.

[Claims 6 to 8 not printed in the Gazette.]

1,129,939. POTATO-DIGGER. OWEN YOUNGKIN, Richfield, and HARRY H. HICKS, Weiser, Idaho. Filed May 7, 1913. Serial No. 766,198. (Cl. 55—141.)



1. In a potato digger, the combination of a beam, a plow, plow-supporting members securing the plow in a fixed position relative to the beam, frame-supporting arms affixed to the plow supporting members, and mechanism on which the frame-supporting arms are adjustably mounted, and means for adjusting the position of the frame-supporting arms relative to the mechanism on which they are mounted.

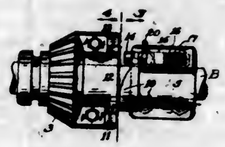
2. In a potato digger, the combination of a beam, a plow, plow-supporting members securing the plow in a fixed position relative to the beam, frame-supporting arms rigidly secured to the plow-supporting members, road wheel, axles therefor, sleeve members secured to the axles, in which sleeve members the frame-supporting arms are adjustably mounted, a cross bar extending through the beam and opposite frame-supporting arms and having cross-bar arms, and bars mounted on the axles of the machine and pivotally secured at their ends to the cross bar arms to form toggle joints, and means for rotating the cross bar.

3. In a potato digger, the combination of a frame comprising a beam, plow-supporting members affixed to the beam, plow and shaker mechanism secured to the plow-supporting members, means for adjustably elevating and lowering the plow and shaker mechanism without altering their relative relation and controlling mechanism consisting of a segment lever, having the ordinary spring and slidable pawl lever-locking mechanism, a notched plate member to which it is secured, and gear rigidly secured to the mechanism for adjustably elevating and lowering the plow and shaker mechanism, the aforesaid gear meshing with the aforesaid segment lever.

4. In a potato digger, main frame elevating and lowering mechanism comprising plow-supporting members having approximately S-shaped arms and having an approximately U-shaped cross bar rotatably mounted in the plow-supporting members, lever mechanism actuating the cross bar, road wheels and road wheel axle mechanism operatively connected with and slidable upon the above-mentioned arms, and oppositely-positioned bars secured to the road-wheel axle mechanism at their lower ends and pivotally secured to the arms of the aforesaid cross bar at their upper ends, for elevating and lowering the plow-supporting members.

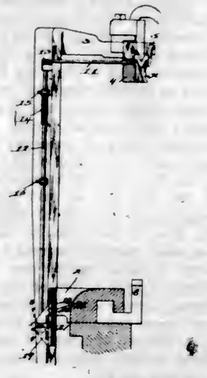
5. In a machine of the class described, a beam, a plow, plow supporting bars rigidly securing the plow to the beam, and substantially S-shaped frame-supporting arms depending from the upper portion of the plow-supporting bars and rigidly secured thereto, and means connected with the aforesaid arm members for their support and the substantially vertical adjustment of the plow member.

1,129,940. CLUTCH MECHANISM FOR FASHIONING KNITTING-MACHINES. MELCHIOR ZWICKY, Wyomissing borough, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a Corporation of Pennsylvania. Filed Dec. 22, 1911. Serial No. 667,351. (Cl. 192—9.)



A clutch, comprising a shaft, a driving member and a driven member on said shaft and adapted to be interlocked, one of said members being provided with a recess concentric to said shaft and having terminal shoulders, and the other of said members being provided with a fixed tooth portion and a spring projected pin portion, said fixed tooth portion having a cam face on its portion adjacent the spring pin, said fixed tooth portion and pin portion being adapted to enter said recess into engaging relation with said shoulders.

1,129,941. FIRST ELEVATOR FOR TYPOGRAPHICAL MACHINES. HENRY A. ARMSTRONG, Brooklyn, N. Y., assignor to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1914. Serial No. 832,890. (Cl. 199—7.)



1. In combination, the first elevator having a channel adapted to receive a line of matrices, a gate or rod normally extending all the way across said channel, and automatic means for retracting said gate when the elevator is in the positions for the receiving or withdrawal of the matrices.

2. In combination, the first elevator having a channel adapted to receive a line of matrices, a movable rod or bar at the entrance thereof extending into said channel from one side, and automatic means controlled by the position of the elevator for withdrawing said bar to allow the matrices to enter or leave the channel.

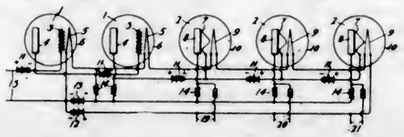
3. In a machine of the linotype class, the combination with the first elevator having a channel to receive a line of matrices, carry the same to the casting point, and discharge the matrices therefrom, of a gate, and means con-

trolled according to the position of the elevator for causing said gate to completely close the entrance end of the matrix channel thereof at all times except when the elevator is in a position to receive or discharge a line of matrices and in casting position.

4. In a machine of the linotype class, the combination with the first elevator having a channel to receive a line of matrices and operative to lower such line to the casting point and raise the line to the discharge point, of a gate movable across the entrance end of said channel, and means controlled by the movement of the elevator for opening said gate only when the elevator occupies a position to receive or discharge a line of matrices and is at the casting level.

5. In a machine of the linotype class, the combination with the first elevator having a channel to receive a line of matrices and operative to lower such line to the casting point and then raise the line past the receiving point to the discharge point, of a gate to close the entrance end of said channel, and means for opening said gate when the elevator is at the receiving, casting and discharge levels, said means being inoperative while the elevator moves past the receiving point toward the discharge point.

1,129,942. GASEOUS REPEATER IN CIRCUITS OF LOW IMPEDANCE. HAROLD DE FOREST ARNOLD, East Orange, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed May 28, 1914. Serial No. 841,568. (Cl. 179—171.)



1. The combination with a source of feeble electric currents, of a thermionic repeater having an input circuit directly connected to said source of current and an output circuit of high voltage, and a second thermionic repeater having an output circuit of low impedance and having an input circuit directly connected to the output circuit of said first mentioned repeater.

2. The combination with a plurality of thermionic repeaters connected in tandem, the first repeater of the series having a high-voltage output and the last repeater of the series having a high-current output.

3. The combination with an incoming and an outgoing line of low impedance, of a plurality of thermionic repeaters in tandem, the first of said repeaters having a high-voltage output and the last of said repeaters having a high-current output, and the first of said repeaters having its input circuit directly connected to said incoming line, and the last of said repeaters having its output circuit directly connected to said outgoing line.

4. The combination with a line of low impedance, of a current amplifying means directly connected therewith, said amplifying means comprising a plurality of thermionic repeaters in tandem, the first of said repeaters having a high-voltage output and the last of said repeaters having a high-current output.
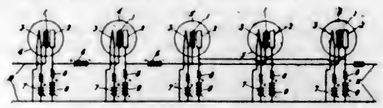
5. The combination with a repeater, of a plurality of vacuum discharge repeaters connected in multiple with the output circuit of said first mentioned repeater, said first mentioned repeater having a high-voltage output and said other repeaters each having a high-current output.

[Claims 6 and 7 not printed in the Gazette.]

1,129,943. GASEOUS REPEATER IN CIRCUITS OF LOW IMPEDANCE. HAROLD DE FOREST ARNOLD, East Orange, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed May 28, 1914. Serial No. 841,569. (Cl. 179—171.)

1. The combination of a plurality of thermionic repeaters in multiple having a common output line, and a thermionic repeater working into said multipled repeaters.

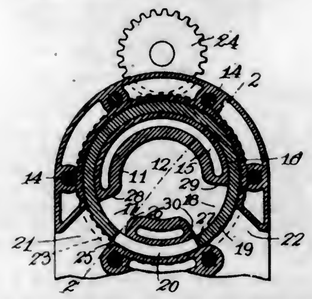
2. The combination of a set of thermionic repeaters in multiple having a common output line, and a set of thermionic repeaters in tandem working into said first mentioned set of repeaters.



3. The combination with a line of low impedance, of an audion having its input circuit directly connected to said line, and a plurality of audions in multiple into which said first mentioned audion works, said multipled audions having a common output line.

4. The combination with an incoming and an outgoing line of low impedance, of a set of audions in tandem directly connected to said incoming line, and a set of audions in multiple into which said first mentioned set works, said last mentioned set being directly connected to said output line.

1,129,944. VALVE MECHANISM. WILLIAM ARTER and BERNHARD E. DELLE, Worcester, Mass. Filed Oct. 20, 1911. Serial No. 655,819. (Cl. 123—80.)



1. In a device of the class described, a ported cylinder, a revoluble sleeve about said cylinder adapted to control the passage of fluid through the ports in said cylinder, a cover member adapted to retain said sleeve upon said cylinder, and a packing member seated in a slot in the upper edge of said sleeve and adapted to coact with said cover member.

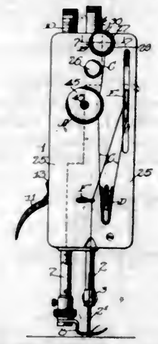
2. In a device of the class described, a ported cylinder, a revoluble sleeve about said cylinder adapted to control the passage of fluid through the ports in said cylinder, a cover member adapted to retain said sleeve upon said cylinder, and a packing member contacting with the lower edge of said sleeve.

3. In a device of the class described, a ported cylinder, a revoluble cylindrical sleeve about said cylinder adapted to control the passage of fluid through the ports in said cylinder, a cover member adapted to retain said sleeve upon said cylinder, and packing rings contacting with said sleeve at both its upper and its lower edges.

1,129,945. TENSION DEVICE FOR SEWING-MACHINES. CLARENCE B. ATWOOD, Belvidere, Ill., assignor to National Sewing Machine Company, Belvidere, Ill., a Corporation of Illinois. Filed Jan. 31, 1912. Serial No. 674,448. (Cl. 242—150.)

1. In a thread tension mechanism for sewing machines, a main tension device and an auxiliary tension device comprising a stationary member having a depression in its face adapted to receive the thread, and a normally inactive member covering said depression and adapted to be brought into operation to effect a yielding pressure upon thread larger than a certain size.

2. In an automatic thread tension mechanism for sewing machines, a main tension device and an auxiliary tension device comprising two relatively separable members having a sufficient opening therebetween for admitting threads of certain sizes, and means for causing one of said members to exert a yielding pressure when threads of certain other sizes are passed through said opening.



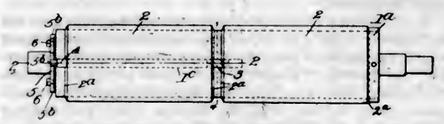
3. In a thread tension mechanism for sewing machines, a main tension device and an auxiliary tension device comprising a stationary flat faced member having a recess extending across its face, in combination with a normally inactive pressure member disposed over said depression and a spring for said pressure member adapted to be brought into action to cause pressure upon threads of certain sizes when said threads are passed through said recess.

4. In a thread tension device for sewing machines, a main tension device and an auxiliary tension device comprising a stationary member having a depression in its face in combination with a normally inactive pressure member covering said depression, and adapted to be brought into operation by threads of certain sizes when said threads are passed through said depression, and a guide slot communicating with said depression for guiding the thread thereinto.

5. The improvements herein described comprising a sewing machine head, in combination with a thread tension device mounted thereon and comprising a pair of tension clamps having an opening or thread slot therebetween through which threads of certain sizes may freely pass, said members being adapted to be rendered active to exert pressure upon threads of a different certain sizes when passed through said slot and a second tension device adapted to exert tension on threads of all sizes.

[Claims 6 to 15 not printed in the Gazette.]

1,129,946. STEREOTYPE-PLATE FASTENING FOR ROTARY CYLINDER PRINTING-PRESSES. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich. Filed Aug. 15, 1906. Serial No. 330,698. (Cl. 101—169.)



1. The combination of a plate cylinder having longitudinal grooves, with a plurality of tubular plates adapted to be successively slipped endwise on said cylinder, engaging clamps slipped in the cylinder grooves between the adjacent plates, end clamps in the grooves engaging the edge of the outermost plate, and a clamp-plate engaging the end clamps.

2. The combination of a plate cylinder having longitudinal grooves, a set of sliding plate clamps engaging the said grooves, a clamp ring adjustably attached to the end of the cylinder and adapted to be rotatably moved into and out of position to engage the clamps, and bolts for forcing the clamping plate inward against the clamps after it is turned to engaging position.

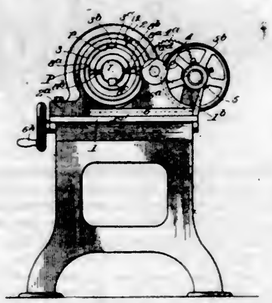
3. The combination of a cylinder, provided with longitudinal grooves, and plate clamps adjustably mounted in said grooves, tubular plates adapted to be successively slipped endwise on said cylinder, and a rotatably movable clamp plate mounted on the end of the cylinder having lugs adapted to engage the outermost plate clamps, and means for forcing said clamp plate inward and causing it to force the clamps inward.

4. The combination with a cylinder, provided with longitudinal grooves, a clamp collar on the cylinder, and plate clamps adjustably mounted in each of said grooves, with plates adapted to be placed on said cylinder, and a rotatable clamp plate mounted on the end of the cylinder having lugs adapted to engage the outermost plate clamps when the clamp plate is turned to one position, and bolts passing through slots in the clamp plate, and whereby it is caused to force the clamps inward.

5. The combination of a plate cylinder having longitudinal grooves, with tubular plates slipped endwise on said cylinder, plate clamps loosely mounted in the said grooves, a clamp ring adjustably attached to one end of the cylinder and adapted to be rotatably moved into and out of position to engage the plate clamps, and means for forcing the clamping ring toward the plate clamps.

[Claims 6 to 14 not printed in the Gazette.]

1,129,947. STEREOTYPE-PLATE BORING AND CUTTING MACHINE. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Mar. 15, 1909. Serial No. 483,578. (Cl. 29—21.)



1. In combination, a rotary plate holder, means for rotating said holder, means for securing a tubular stereotype plate in said holder, a tool support fixedly supported in the holder, a boring tool on said support, means for reciprocating said tool axially of the holder to true the interior of the plate, a cutting tool, and means for reciprocating the cutting tool transversely of the holder to trim the end of the plate.

2. In combination, a cylinder adapted to contain a slotted tubular-plate, a longitudinal rib in said cylinder adapted to engage the slot in the plate, and adjustable devices in the cylinder at one side of the rib adapted to engage one side of the slot in the plate and expand, and thereby secure the tubular-plate in said cylinder, means for rotating the cylinder, and means for boring the expanded plate.

3. The combination of a rotatable cylinder adapted to contain a slotted tubular plate, means for expanding the plate in the cylinder, a stationary bar extending axially within said cylinder, a non-rotatable tool carrier slidably mounted on said bar, a rack connected with the carrier, a pinion engaging said rack, a driven shaft carrying said pinion, and a clutch for locking said pinion to the shaft,

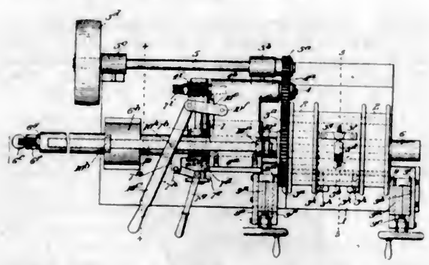
and means for rotating said cylinder to cause the tool to operate on the plate.

4. The combination of a rotatable cylinder adapted to contain a slotted tubular plate, means for expanding the plate in the cylinder, a fixed bar extending axially of the plate in said cylinder, a tool carrier slidably mounted on said bar, a rack engaging said carrier, a pinion engaging said rack, a driven shaft carrying said pinion, a clutch for locking said pinion to the shaft, means for throwing the clutch into and out of engagement, and means for retracting the rack bar when the clutch is disengaged; with means for rotating said cylinder to cause the tool to operate on the plate.

5. The combination of a rotatable cylinder adapted to contain a slotted tubular plate, a bar extending longitudinally and attached to said cylinder and adapted to engage one edge of the slot in the plate, devices on the cylinder engaging the opposite edge of the slot to expand it in the cylinder, a tool support extending longitudinally of the cylinder, a tool carrier slidably mounted on said support, means for reciprocating said carrier, and means for rotating the cylinder to cause the tool to operate on the plate.

[Claims 6 to 29 not printed in the Gazette.]

1,129,948. PLATE FINISHING AND TRIMMING MACHINE. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed Jan. 6, 1911. Serial No. 601,130. (Cl. 29—21.)



1. In a machine for finishing tubular plates, a cylindric plate holder, and means for expanding a tubular-plate within said holder; with cutting tools mounted at opposite ends of the plate holder adapted to trim the ends of the plate and means for reciprocating said cutting tools.

2. In a machine for finishing tubular plates, a cylindric plate-holder, means for securing a tubular-plate therein, a shaver for operating on the tubular-plate within the holder, and means for moving said shaver longitudinally of the holder to shave the tubular plate; with a cutting tool at each end of the holder adapted to trim the ends of the tubular plate, and means for reciprocating said cutting tools.

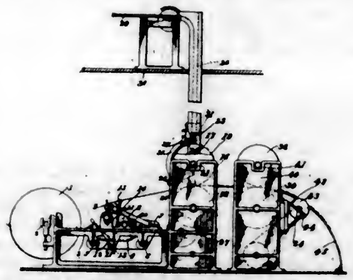
3. In a machine for finishing tubular stereotype plates, a cylindric plate-holder, means for securing a tubular-plate therein, a non-rotatable shaver for operating on the tubular-plate within the holder, and means for moving said shaver longitudinally of the holder during the rotation of the tubular-plate by the holder; with a cutting tool at each end of the holder adapted to trim the ends of the tubular-plate, and manually operable means for reciprocating said cutting tools.

4. In a machine for finishing tubular stereotype plates, a cylindric plate-holder adapted to contain a slotted tubular plate, a collar rotatably mounted on said holder, an abutment within the holder, pins attached to said collar and projecting into said holder adjacent the abutment, said pins and abutment being adapted to engage the opposite edges of the slot in a tubular plate inserted in said holder, and means for turning the collar relative to the holder to cause the abutment and pins to expand the tubular plate.

5. In a machine for finishing tubular stereotype plates, a cylindric plate-holder adapted to contain a slotted tubular plate, an abutment in said holder adapted to engage one edge of a slot in the plate, means in said holder for engaging the opposite edge of the plate, and means for causing said devices and abutment to separate so as to forcibly expand the plate in the holder; with cutters mounted at the ends of the holder and adapted to trim the edges of the plate while held in the holder; and means for shifting said cutters.

[Claims 6 to 16 not printed in the Gazette.]

1,129,949. MACHINE FOR MANUFACTURING OUTER COVERING MATERIAL FOR PACKAGES. GEORGE FREDERICK BISHOPRIC, Ottawa, Ontario, Canada. Filed Oct. 19, 1912. Serial No. 726,767. (Cl. 154—1.)



1. In a machine for manufacturing outer covering material for packages, comprising a chute for laths, a plurality of superposed rollers below the chute, sets of teeth extending around the periphery of the upper roller, and a roller rotating in the opposite direction to the direction of rotation of the upper roller and coöperating therewith to feed the laths, said roller being situated adjacent to the bottom of the lath chute, as and for the purpose specified.

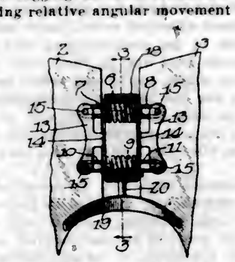
2. In a machine for manufacturing outer covering material for packages, comprising a chute for laths, a plurality of superposed rollers below the chute, sets of teeth extending around the periphery of the upper roller a roller rotating in the opposite direction to the direction of rotation of the upper roller and coöperating therewith to feed the laths, said rollers being situated adjacent to the bottom of the lath chute, suitably curved horns for preventing the laths falling off the upper roller upon rotation of the same, and brackets securing the chute to the shaft of the upper roller, adjustable means for securing the upper ends of said horns to said brackets, and link connection between the brackets and the bottoms of the horn, as and for the purpose specified.

3. A machine for the purpose specified comprising means for coating a strip of paper, superimposed rollers between which the paper is adapted to pass, the upper roller floating and having a plurality of toothed portions, a chute for feeding the laths onto the upper floating roller, said chute being carried with the floating roller and floating itself therewith.

4. A machine for the purpose specified comprising means for coating a strip of paper, superimposed rollers between which the paper is adapted to pass, the upper roller floating and having a plurality of toothed portions, a chute for feeding the laths onto the upper floating roller, said chute being carried with the floating roller and floating itself therewith, and a second pair of superimposed rollers adapted to force the laths into the coating material, the upper one of said second pair of rollers also floating.

1,129,950. GOGGLE-LENS CONNECTION. HERMAN J. BRENNECKE, Chicago, Ill. Filed Oct. 28, 1914. Serial No. 869,009. (Cl. 88—41.)

1. The combination with a pair of goggle lenses, of coiled spring connections for same which connect said lenses against sagging movement relative to each other while permitting relative angular movement of said lenses.



2. The combination with a pair of goggle lenses, of coiled spring connections, and means for clamping the ends of said springs to the respective lenses against pivotal movement of said ends.

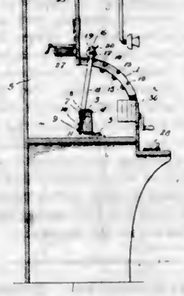
3. The combination with a pair of goggle lenses, of connections consisting of coiled springs interposed between adjacent edges of said lenses and provided with loops to be clamped against the faces of said lenses, and clips constructed and arranged to secure said loops to said lenses.

4. The combination with a pair of lenses of expansible connections secured to the lenses against angular movement, and a nose-piece mounted on said connections.

5. The combination with a pair of lenses, of extensible and flexible connections, means securing the ends of said connections to the lenses against movement relative to said lenses, a nose-piece, and means for supporting said nose piece on said connections.

[Claims 6 to 9 not printed in the Gazette.]

1,129,951. TELEPHONE-EXCHANGE SYSTEM. ESTHER S. BROWNING, Keefeton, Okla. Filed July 18, 1913, Serial No. 779,773. Renewed Jan. 19, 1915. Serial No. 3,169. (Cl. 179—91.)

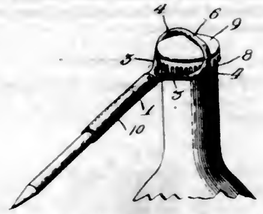


1. A telephone switch board comprising a breast plate having transverse slots formed therein, contacts carried by the said plate and spaced apart adjacent to each slot and forming the terminals of certain circuits, levers fulcrumed upon said switch board and movable through the slots in said breast plate and disks pivoted upon the upper ends of said levers and formed with lugs to engage said contacts.

2. A telephone switch board comprising a breast plate formed with transverse slots therein, contacts carried by said plate and spaced apart adjacent to each slot and forming the terminals of certain circuits, levers fulcrumed upon said switch board and connected with the terminals of other circuits and movable through the slots in said breast plate, disks pivoted upon the upper ends of said levers and formed with lugs adapted to engage said contacts and means for holding said levers against accidental movement.

3. A telephone switch board comprising a breast plate having transverse slots formed therein, contacts carried by said plate and spaced apart adjacent to each slot and forming the terminals of certain circuits, levers fulcrumed upon said switch board and connected with the terminals of other circuits and movable through the slots in said breast plate, disks pivoted upon the upper ends of said levers and formed with lugs adapted to engage said contacts, and a lug projecting outwardly from each disk and adapted to engage the adjacent lever end to hold the lever against accidental movement.

1,129,952. BOTTLE-OPENER. ROBERT B. BRUNSWICK, Philadelphia, Pa. Filed May 8, 1914. Serial No. 837,191. (Cl. 65—46.)

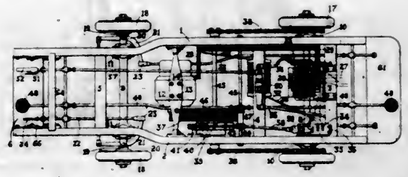


A connector for a bottle opening tool and handle therefor comprising a hollow tubular member having unobstructed exterior and interior surfaces, and in one end of which two adjacent parallel parts of the tool are permanently secured for holding the two parts together to prevent spreading of said parts, the other end of said member being adapted to receive either the used end, or the non-used end of another tool which is adapted to constitute a handle.

1,129,953. PROCESS OF MANUFACTURING LITHIUM ACETYLSALICYLATE. ALBERT BUSCH, Brunswick, Germany, assignor to the Firm of Johann A. Wuelfing, Berlin, Germany. Filed Feb. 25, 1914. Serial No. 820,886. (Cl. 23—24.)

Process of manufacturing lithium acetylsalicylate consisting in mixing equivalent quantities of acetylsalicylic acid and lithium carbonate intimately and in a dry state and moistening the mixture with ketones of the aliphatic series, then kneading the mass well until a sample dissolves clearly in water without evolution of carbon dioxid and with neutral reaction, and removing the organic liquid and drying the product thus obtained at a low temperature.

1,129,954. TRUCK. WILLIAM C. CARR, Buffalo, N. Y. Filed Apr. 16, 1913. Serial No. 761,450. (Cl. 21—90.)



1. A truck of the class described consisting of a frame, a platform or floor on said frame, a vertical box at one end of said frame, a folding end extension at the opposite end of said frame, a set of controlling elements attached to the vertical box, a second set of controlling elements attached to the folding end extension, operating mechanism arranged beneath the platform or floor, and a storage battery in the vertical box.

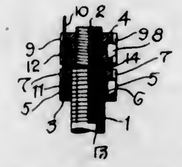
2. In a truck of the class described a frame, a vertical box arranged at one end of said frame, forming an inclos-

ing housing for a storage battery, a transverse gate or wall for the truck end and a support for the truck controlling elements, and a short supplementary laterally extending platform attached to the lower end of the box and forming a support for the operator.

3. In a truck of the class described, the combination with the frame, of an end extension frame pivoted to the end of the frame proper, and adapted to be placed in an upright position to constitute an end gate or in a horizontal position to form a prolongation of the frame proper, and truck steering and controlling elements attached to said end extension.

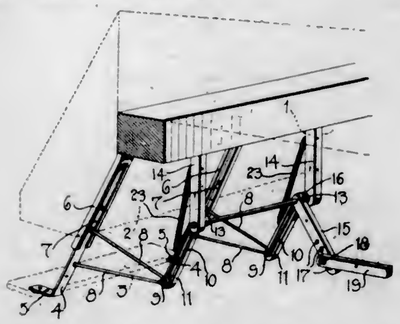
4. In a truck of the class described, a frame having a box at one end and a pivotal end extension frame at the opposite end, operating mechanism supported from the frame, a storage battery in the box, and controlling elements for said operating mechanism arranged in two sets with one set attached to the box and the other set attached to the end frame extension.

1,129,955. NUT-LOCK. DOMENICO T. CASALE, Williamsport, Pa. Filed Nov. 18, 1914. Serial No. 872,785. (Cl. 151—17.)



In combination with a bolt provided with reversely directed threads, a nut engageable with each threaded portion of the bolt, said nuts having sockets in their side faces adapted to aline, a key, and expansible heads carried by said key adapted to be inserted within the alined sockets of the nuts, the side walls of said nuts being concaved, said nuts being also provided in their side faces with open-ended slots in communication with the sockets and adapted to aline and through which the key is adapted to extend.

1,129,956. ATTACHMENT FOR CAR-STEPS. JOHN A. CHAPMAN, Bigelow, Ark. Filed June 3, 1914. Serial No. 842,739. (Cl. 105—87.)



1. An extension step for cars and other vehicles, comprising parallel guide bars adapted to be secured to the under side of the permanent steps of a car, and formed on their under sides with longitudinal slots; bars slidably located in the first named bars and provided at their lower extremity with an auxiliary step; parallel vertical bars adapted to be secured to the under side of a car platform and having a horizontal shaft journaled therein; longitudinally slotted arms mounted upon the said shaft and secured thereto by set screws; rearwardly disposed arms secured to said shaft by set screws; a link bar pivoted to the rear end of said arms and to the lower extremity of a vertically disposed vibrative lever; brace rods secured at their front ends to the step carrying bars through the slots in the guide bars and at their rear ends to bolts adapted to move within the slotted arms; and brace rods also secured at one end to the traveling bolts and at the other end to the step carrying bars and at an angle to the first named brace bars, whereby through the vibration of the operating lever the auxiliary step may be raised or lowered.

2. In an extension step such as described, comprising step carrying bars slidably mounted in slotted guide bars and with brace rods extending from the step carrying bars to bolts slidably mounted in slotted arms secured to an operating shaft, connected by suitable means to a vibrative lever; coil springs having one end connected with the slotted arms and the opposite end connected to the shaft support whereby the auxiliary step may be automatically raised as hereinbefore set forth.

1,129,957. INTERNAL-COMBUSTION ENGINE. HAMILTON C. CHASE, Dayton, Ohio. Filed Apr. 11, 1910, Serial No. 554,824. Renewed July 15, 1914. Serial No. 851,230. (Cl. 136—7.)



1. A valve structure for a multiple cylinder engine comprising a casing, a plurality of valves within said casing, a single means for driving said valves, and individual antifriction bearings for said valves.

2. A valve structure comprising a casing, a valve fitting said casing with comparative closeness, one of these elements having grooves therein, and packing strips in the said grooves having spring feet rigid thereon.

3. A valve structure comprising a casing, a valve fitting said casing with comparative closeness, either of these elements having grooves therein, and packing strips in the said grooves having integral spring feet.

4. A valve structure comprising a casing, a valve fitting said casing with comparative closeness, either of these elements having grooves therein, and packing strips in the said grooves, said packing strips having their lower corners kerfed and bowed to form spring bases.

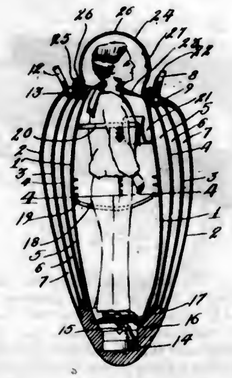
5. A valve structure comprising a casing having a series of ports, a shaft extending through said casing, a plurality of cylindrical valves of solid construction mounted on said shaft, and fitting said casing with comparative closeness, and sealing strips with integral spring feet.

[Claim 6 not printed in the Gazette.]

1,129,958. LIFE-PRESERVER. RUSSELL F. COLLINS, Spokane, Wash. Filed July 10, 1914. Serial No. 851,342. (Cl. 9—4.)

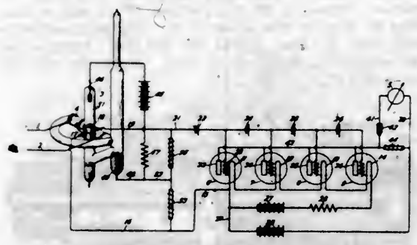
1. A life preserver comprising a plurality of casings having a plurality of inflated air chambers therebetween, said casings and the chambers gradually tapering to an apex at the lower portion of the preserver, a storage battery in the apex of the preserver for supplying current to an electric heater and constituting a ballast, a foot rest spaced apart above the storage battery, and a transverse web or strap connecting the opposite walls of the innermost casing constituting a seat for the occupant.

2. A life preserver comprising an innermost casing and an outermost casing and intermediate casing having a plurality of inflated air chambers between said casing, said casings at the top of the life preserver merging together, an elastic shirred yoke connecting said casings where they merge together, said casings and the chambers gradually tapering toward an apex at the lower end of the life preserver, heating means in the apex of the preserver, and a foot rest spaced apart above the heating means.



3. A life preserver comprising an innermost casing and an outermost casing and intermediate casing having a plurality of inflated air chambers between said casing, said casings at the top of the life preserver merging together, an elastic shirred yoke connecting said casings where they merge together, said casings and the chambers gradually tapering toward an apex at the lower end of the life preserver, heating means in the apex of the preserver, and a foot rest spaced apart above the heating means, and a transverse web or strap adjustably connecting the opposite walls of the inner casing constituting a seat for the occupant, and a hood on the upper portion of the life preserver having a water-tight joint at the junction of the merging of the casing.

1,129,959. SYSTEM FOR AMPLIFYING ELECTRIC WAVES. EDWIN H. COLPITTS, East Orange, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Apr. 6, 1914. Serial No. 829,997. (Cl. 179—171.)



1. The combination with a low impedance source of varying currents and a receiver adapted to respond to such currents, of an amplifying repeater connected with said source and having an output circuit of high impedance compared to said source, and a second amplifying repeater connected between said first repeater and said receiver and having an input circuit also of high impedance compared to said source.

2. The combination with a source of varying currents and a receiver adapted to respond to such currents of an ionized gas repeater having an input electromagnet connected to said source and an output circuit including a path through the gas of said repeater, and an audion repeater connected with its input circuit in series with the output circuit of said gas repeater and its output circuit connected to said receiver.

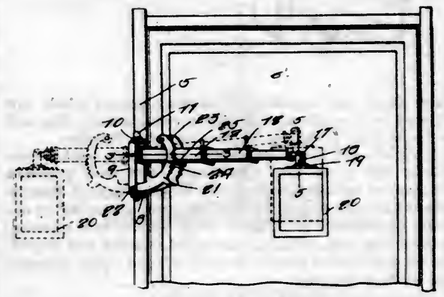
3. The combination with a cable circuit and a receiver adapted to respond to electric waves in said circuit, of two amplifying repeaters connected in *seriatim* between said cable and said receiver, the output-input circuit between said repeaters being of high impedance compared to said cable and to said receiver.

4. The combination with a source of feeble electric waves of low frequency and a receiver adapted to respond to said waves, of two amplifying repeaters connected in *seriatim* between said source and said receiver, one of said repeaters having an input circuit directly connected with and of impedance of the same order of magnitude as said source, the other of said repeaters having an output circuit connected with said receiver, and a circuit joining said repeaters having paths in each of high impedance compared to said source.

5. The combination with a cable circuit and a receiver adapted to respond to electric waves in said circuit, of an ionized gas repeater having an input electromagnet connected to said cable, a plurality of audion repeaters, the output circuits of which are connected in parallel with each other and in circuit with said receiver, and an output-input circuit including paths through the gas in said first-mentioned repeater and through said audion repeaters.

[Claims 6 to 13 not printed in the Gazette.]

1,129,960. ADJUSTABLE MIRROR-BRACKET. ANDREW CONNING and VICTOR BOURDON, Seattle, Wash. Filed Nov. 26, 1913. Serial No. 803,258. (Cl. 45—97.)



An adjustable bracket comprising a fixed member, a second member pivoted thereto, a mirror carrying arm pivoted to the upper portion of the pivoted member to swing in a plane at right angles to the swing of the pivoted member, a pair of arcuate bars secured to the lower portion of the pivoted member and extending in spaced relation embracing the arm, said bars being provided with recesses on their outer edges, and a pin seating in said recesses to limit pivotal movement of the arm.

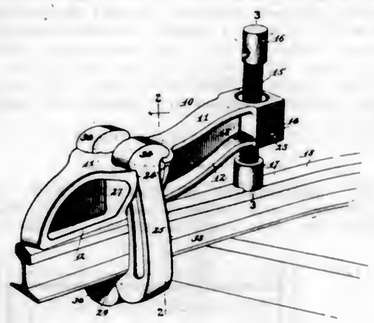
1,129,961. RAIL BENDING AND STRAIGHTENING DEVICE. JOHN S. CRAWFORD, Reading, Pa., assignor to Reading Specialties Company, Reading, Pa., a Corporation of New Jersey. Filed Sept. 1, 1914. Serial No. 859,609. (Cl. 153—38.)

1. A rail bender comprising a frame provided with outwardly extending arms to form brackets, a pair of securing arms detachably connected at their lower ends and provided with enlarged upper ends to rest upon said brackets, and a screw engaging the forward end of said frame and adapted to bear on the rail.

2. A rail bender comprising a frame of I-beam construction and bent in its length whereby to rest at its rear end upon said rail and lifted at its forward end above said rail, said frame being provided with laterally extending brackets, a pair of securing arms detachably interlocked at their lower ends and provided with enlarged upper ends to rest upon said brackets, and a screw passing down through the forward lifted end of said frame and adapted to bear at its lower end upon said rail.

3. A rail bender comprising a frame with outstanding brace brackets intermediate its ends, a yoke including side arms with the ends thereof provided with enlarged heads adapted to engage said frame bracket, the lower extremities of said arms provided with interlocking portions, and means engaging said frame and adapted to engage the rail for the bending thereof.

4. A rail bender comprising a frame, means carried at one end of said frame adapted to engage a rail for the forced separation of the rail and frame, and bending of the former, and a yoke including separate side arms, each of said arms provided at their upper extremities with means for engaging said frame, and at their lower extremities with bent ends, said ends adapted to extend beneath the rail, the terminals thereof provided with simi-

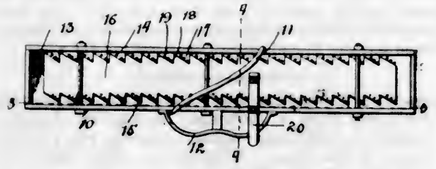


larly placed and oppositely extending fingers which are adapted to fit within and interlock with similarly disposed and oppositely extending recesses provided therefor.

5. A yoke for use in connection with a rail bender comprising side arms with offset ends, said ends provided with spaced terminal fingers with recesses located directly therebehind, the fingers of said side arms extending in opposite directions and adapted to fit within said recesses, holding said side arms in interlocked relation and providing for the limited pivotal motion of their upper extremities while interlocked.

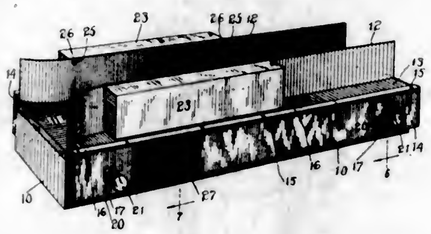
[Claim 6 not printed in the Gazette.]

1,129,962. SEED-SOWER. LEON E. DESPRES, Marlboro, N. H., and JOSEPH DESPRES, Marlboro, Mass. Filed Jan. 31, 1913. Serial No. 745,484. (Cl. 111—2.)



A broadcast seed sowing machine comprising an elongated box for suspension from the body of the operator, a bottom in the box provided with a longitudinal series of seed outlet openings adjacent each long side of the box, said series of openings each consisting of a plurality of groups arranged in parallel lines obliquely across the box, and a hand operated slide movable longitudinally on the bottom of the box, the side walls of said slide being formed with notches having straight and oblique walls, the oblique walls being arranged in parallel relation with the lines of openings, the seed outlet openings and the inclined walls of the notches being so arranged that the groups of openings of the series at one side of the box are covered when the groups of openings of the series at the other side of the box are uncovered.

1,129,963. BREAD-WRAPPER-SEALING MACHINE. ELFORD F. DOOLITTLE, Torrington, Conn. Filed June 15, 1914. Serial No. 845,061. (Cl. 93—2.)



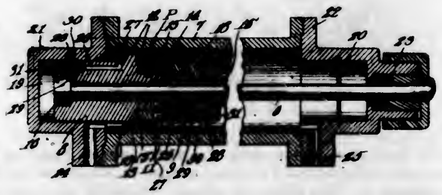
1. A machine of the character described comprising a metallic bed, metallic sealing plates between which the wrapped loaves are passed, a drawer for heated slugs adapted to slide underneath the bed, and holders for heated slugs having one side removed and adapted to be placed adjacent to the sealing plates with the slugs in contact therewith.

2. In a machine of the character described, the combination with a metallic bed and metallic sealing plates, of slugs adapted to be heated and holders for said slugs having one side removed, said holders being adapted to be placed adjacent to the surfaces to be heated with the slugs in contact with said surfaces.

3. A machine of the character described, comprising a metallic bed, metallic sealing plates between which the wrapped loaves are passed endwise, a drawer for holding heated slugs lying under the bed, ways for said drawer and springs in the ways whereby the drawer is raised to retain slugs in the drawer in contact with the bed.

4. A machine of the character described comprising a metallic bed, metallic sealing plates between which the wrapped loaves are passed and which are provided with slots and holders for heated slugs having headed pins for engagement with said slots whereby the holders may be detachably secured to the sealing plates, for the purpose set forth.

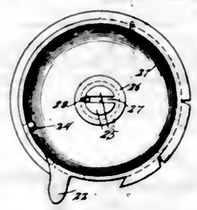
1,129,964. RECIPROCATING MOTOR. CHARLES W. EBELING, Wheeling, W. Va., assignor of one-half to Harrison W. Rogers, New York, N. Y. Original application filed June 27, 1911, Serial No. 996,226. Divided and this application filed Aug. 7, 1913. Serial No. 783,643. (Cl. 121—45.)



A reciprocating motor, including a cylinder having two reduced chambers, one at each end thereof, there being two ports, one in communication with each end of the main chamber of the cylinder at a point adjacent the junction between the main chamber and its reduced chamber, a piston having a centrally disposed main chamber engaging portion and two oppositely disposed cylindrical ends, said ends being disposed for snugly fitting into the respective reduced chambers as the piston is reciprocated, each cylindrical end being provided with a by-pass leading from its end face to a point adjacent to the main cylinder engaging portion, and a spring closed valve in each by-pass for trapping the pressure fluid within the reduced chamber as the cylindrical end of the piston enters the chamber, the valve

opening at the beginning of the stroke to admit the pressure fluid into the chamber at the rear of the cylindrical end of the piston to assist in propelling the piston.

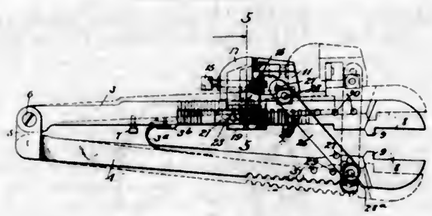
1,129,965. BOBBIN RACE AND COVER. FRANK EHRENDRIECH, Belvidere, Ill., assignor to National Sewing Machine Company, Belvidere, Ill., a Corporation of Illinois. Filed Jan. 9, 1911. Serial No. 601,550. (Cl. 112—23.)



1. In a bobbin holder, a circular bobbin race having a substantially cylindrical wall and a post at its axis; a bobbin cover disposed in said race, having a central opening engaging said post and a slot in the periphery thereof; a pin in the wall of said race, extending into said slot and adapted to lock said race and cover against relative rotary movement; and a latch holding said race and cover against relative longitudinal movement.

2. In a bobbin holder, a cover and a central tubular member having an annular enlargement forming an internal shoulder at its base end, in combination with a separable bobbin race having a central divided tongue, the divisions of which are spaced apart and adapted to be inserted into said tubular member, a spring permanently anchored at one end of the space extending to substantially the forward end thereof, and having a catch at its free end adapted to engage said internal shoulder, and yieldingly lock said cover and race together, and a pin and slot connection for preventing the relative rotation of said cover and race.

1,129,966. WRENCH. JOSEPH EHRHARD, Curtis, Okla. Filed Apr. 10, 1914. Serial No. 830,899. (Cl. 81—111.)



1. In a wrench, the combination of a pair of arms provided with gripping surfaces and movable relatively to each other, an adjusting screw carried by one of said arms for engaging the other arm, a spring for pressing the arms apart, a pair of side bars, and bolts carried by said side bars, the said arms being each provided with a plurality of means for engagement by said bolts whereby the side bars may be adjustably connected with said arms.

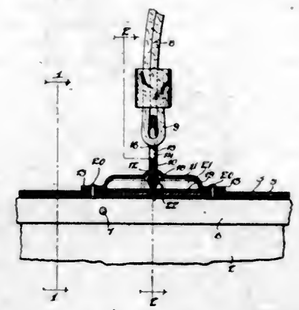
2. In a wrench, the combination of a pair of arms movable relatively to each other and provided with gripping surfaces, one of said arms being provided with a groove and having a slide provided with a portion extending into said groove, means controllable at the will of the operator for locking said slide in various positions of adjustment relative to the arm carrying it, and side bars connected with said slide and with the arm mating the arm upon which said slide is mounted.

3. In a wrench, the combination of a pair of arms movable relatively to each other, a pair of side bars pivotally connected to one of said arms, a slide engaging the other of said arms and pivotally connected to said side bars, a hood engaging said slide and provided with a portion encircling the arm carrying said slide, and mechanism connected with said slide and with said hood for moving said slide and said hood relatively to each other in order to cause said portion encircling the arm carrying the slide to bind against the arm and thus secure the slide rigidly thereupon.

4. In a wrench, the combination of a pair of arms movable relatively to each other, a slide mounted upon one of said arms, a pair of side bars pivotally connected with said slide and with the other of said arms, and means controllable at the will of the operator for locking said slide in different positions along the arm which carries it.

5. In a wrench, the combination of a pair of arms movable relative to each other, a slide mounted upon one of said arms, a pair of side bars pivotally connected with said slide and with the other of said arms, a hood engaging said slide and provided with a portion encircling the arm carrying the slide, mechanism connected with said slide and with said hood for moving the slide and hood relatively to each other, the said arm carrying the slide being provided with teeth, and a spring controlled lever carried by the hood and having a portion serving as a pawl for engaging said teeth.

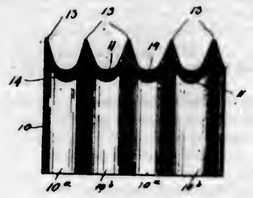
1,129,967. FASTENER FOR BAG-HANDLES. MOSES H. EISEMAN, Chicago, Ill., assignor of one-half to Worms & Loeb, Chicago, Ill., a Corporation. Filed Apr. 10, 1909. Serial No. 489,226. (Cl. 190—58.)



1. In fasteners for bag handles, the combination with the bag handle and the bag frame, of a chambered clip formed of a single piece of stamped metal and comprising a raised central portion having depending side and end walls and outwardly projecting base flanges extending from the lower edges of said end walls, the depending side walls of said raised portion having central, open-bottomed notches, a ring extending through said notches and the end of said handle, a separate, flat protector plate resting on the base of said bag frame beneath the ring and extending beneath the end base flanges of said frame, rivets extending through said base flanges and the ends of said protector plate and through said frame, substantially as described.

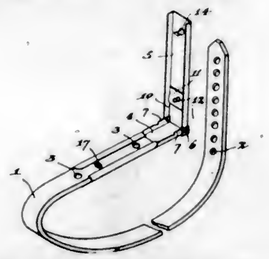
2. In fasteners for bag handles, the combination with the bag handle and the bag frame, of a chambered clip formed of a single piece of stamped metal and comprising a raised central portion and projecting base flanges at its opposite ends, the side walls of said raised portion having central openings, a ring extending through said openings and the end of said handle, a separate protector plate resting on the flat face of said bag frame and extending beneath the end base flanges of said clip, and rivets extending through said base flanges and through the ends of said protector plate and said frame, said protector plate having upwardly projecting flanges at its side edges extending into the chamber of said clip and centrally notched to engage and position said ring, substantially as described.

1,129,968. CORRUGATED FASTENER. JOSEPH J. ENGLERT, Chicago, Ill. Filed May 6, 1914. Serial No. 836,609. (Cl. 85—11.)



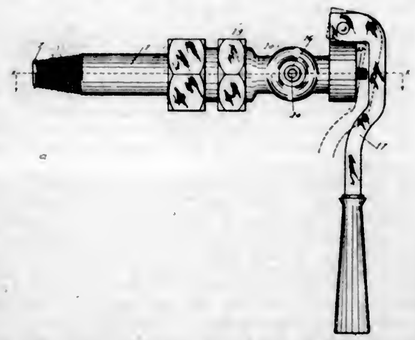
A fastener comprising a strip of metal continuously bent and rebent to form corrugations extending alternately on each side of the central plane of the fastener, one edge of said fastener being beveled on each side thereof, thereby forming a series or succession of teeth and each corrugation being beveled on both the convex and the concave side adjacent the bottom of each tooth.

1,129,969. FASTENING DEVICE. EMERY T. EPLING and CHARLES WOELFLEN, Lewiston, Idaho. Filed Nov. 28, 1913. Serial No. 803,388. (Cl. 24—19.)



A fastening device comprising a pair of strap-like arms pivotally connected adjacent their ends and adapted to lie flat upon each other when in folded position, one of said arms having a strap connected thereto, a buckle tongue on the inner face of said other arm for receiving the free end of said strap and a turn button for locking said arms in folded position.

1,129,970. GAGE-COCK. ADRIAN L. FARR, Ogden, Utah. Filed Aug. 4, 1913. Serial No. 782,949. (Cl. 136—3.)



A gage cock comprising two casing members adapted for endwise connection, each of said members being formed with a longitudinal bore, a valve stem provided with a valve intermediate its ends operative in one bore, said bore being formed with a valve seat to be engaged by the valve, the portions of said stem on opposite sides of the valve fitting the bore of the member to guide said stem, said stem in both directions beyond the valve being formed with a spiral channel, a valve stem operative in the bore of the other member and provided with a valve intermediate its ends, the bore of said latter member being formed with a valve seat to coöperate with said valve, said latter valve stem bearing against the end of the first mentioned valve stem to actuate the latter in the endwise actuation of the former.

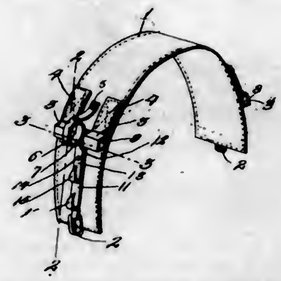
1,129,971. PLOW. EDWARD L. FLEKHEARTY, Bay City, Tex. Filed May 20, 1913, Serial No. 768,815. Renewed Jan. 19, 1915. Serial No. 3,170. (Cl. 97—18.)



1. The combination with a mold board, of a retaining frame for plastic material connected therewith, said frame consisting of an approximately U-shaped open hoop of resilient material resting on the upper face of the mold board adjacent to the edge thereof, said hoop being bent to conform to the contour of the mold board, and said hoop being provided at intervals with retaining hooks extending beneath the mold board.

2. The combination with a mold board and share, of retaining means for plastic material connected therewith and comprising an approximately U-shaped open hoop of resilient material curved to the contour of the mold board and provided at intervals with retaining hooks extending beneath the mold board, and a thin flat blade secured on the share and extending upwardly in the direction of and spaced from the mold board and overlapping the plastic material thus coöperating with the hoop to retain a plastic filling on the face of the mold board.

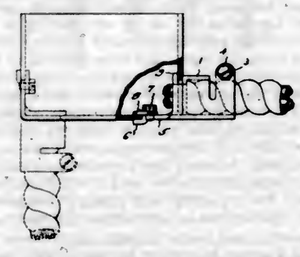
1,129,972. BACK-BAND. WILEY N. GANDY, Athens, La. Filed Sept. 8, 1914. Serial No. 860,760. (Cl. 54—55.)



1. In combination with a back band, a pair of spaced apart loops secured to the outer face of the back band, a bar rectangular in cross section fitting in said loops and having its top and outer face provided with adjoining recesses, the bar being so arranged in the loops that the said recesses assume position between the loops, and a metallic strip having a hook at its lower end and provided with an overhanging hook at its upper end designed to hook over said bar and engage the adjoining recesses, said strip having an abutment designed to engage the lower face of said bar, to prevent upward movement of the strip.

2. In combination with a back band, a pair of spaced apart loops secured to the outer face of the back band, a bar rectangular in cross section fitting in said loops and having its top and outer face provided with adjoining recesses, the bar being so arranged in the loops that the said recesses assume position between the loops, a metallic strip having a hook at its lower end and provided with an overhanging hook at its upper end designed to hook over said bar and engage the adjoining recesses, and a second strip secured to the first strip and terminating at its lower end in a hook, the upper end of the second strip constituting an abutment to engage the underface of said bar, to limit the first strip in its upward movement.

1,129,973. OUTLET-BOX BUSHING. GEORGE A. GAUTHIER, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 12, 1914. Serial No. 818,194. (Cl. 247—1.)



1. The combination with an outlet box which has an opening through two adjacent walls that are at right angles with each other, of a bushing that has an end removably held to one wall of the box adjacent to the opening, and an arm removably held to the other wall of the box adjacent to the opening.

2. The combination with an outlet box which has an opening through two adjacent walls that are at right angles with each other, of a bushing with a tubular opening registering with the opening through one wall of the box, an arm extending from the bushing and closing the opening through the other wall of the box, and means movably fastening the bushing and the arm to the walls of the box.

3. The combination with an outlet box which has an opening through two adjacent walls that are at right angles with each other, of a bushing with a cable opening and a projecting arm, one end of the bushing fitting the opening through one wall of the box and the arm fitting the opening through the other wall of the box.

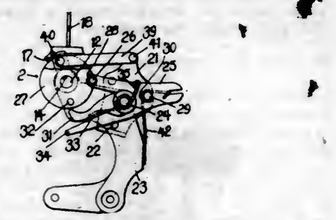
4. The combination with an outlet box which has openings of the same shape through two adjacent walls at one corner, of a bushing having an end that conforms to either of said openings and an arm that conforms to either of said openings, whereby the bushing may be attached so as to extend from either wall and when attached the arm will close the opening through the other wall.

5. The combination with an outlet box having an opening through two adjacent walls that are at right angles with each other, of a bushing having a tubular body adapted to fit the opening in either wall and having an arm projecting from the body and adapted to fit the opening in the other wall of the box, and means carried by the bushing for engaging the walls of the opening and fastening the bushing thereto with the body in the opening in one wall and the arm in the opening in the other wall of the box.

[Claims 6 to 8 not printed in the Gazette.]

1,129,974. TOTALIZER-RESETTING MECHANISM. GEORGE P. GEIGER, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 31, 1913, Serial No. 770,891. (Cl. 235—144.)

1. In a machine of the class described, the combination with a plurality of accounting elements, of a rotatable shaft supporting the accounting elements, and arranged to set said elements at a normal starting point when rotated, a pivoted element, means carried by the rotatable shaft for rocking the pivoted element when the shaft is rotated, a normally ineffective screen for concealing the accounting elements, and means permanently connecting said screen to the aforesaid pivoted element whereby the screen will be rendered effective to conceal the accounting devices when said element is rocked.



2. In a machine of the class described, the combination with a series of rotatable elements, of a rotatable shaft supporting the rotatable elements and arranged to set said elements at a normal starting point when rotated, a rock frame, means carried by the rotatable shaft for rocking said frame when the shaft is rotated, a normally ineffective screen for concealing the rotatable elements, and means permanently connecting said screen to the aforesaid frame whereby the screen will be rendered effective to conceal the rotatable elements when the frame is rocked.

3. In a machine of the class described, the combination with a series of totalizer wheels, of a rotatable shaft supporting the totalizer wheels and arranged to set said wheels at zero when rotated, a cam carried by the rotatable shaft, a frame arranged to be rocked by said cam when the shaft is rotated, a normally ineffective screen for concealing the totalizer wheels, and a link connecting said screen to the aforesaid frame whereby the screen will be rendered effective to conceal the totalizer wheels when the frame is rocked.

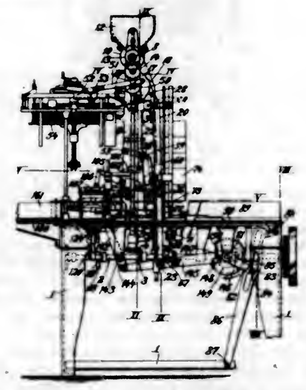
4. In a machine of the class described, the combination with a plurality of accounting elements, of a rotatable shaft supporting the accounting elements and arranged to set said elements at a normal starting point when rotated, a pivoted element, means carried by the rotatable shaft for rocking the pivoted element when said shaft is rotated, a screen for concealing the accounting elements, and connections between the screen and the pivoted element normally holding the screen in ineffective position and moving it to effective position when the pivoted element is rocked.

5. In a machine of the class described, the combination with a series of totalizer wheels, of a rotatable shaft supporting said wheels and arranged to set them at zero when the shaft is rotated, a pivoted element, a cam carried by the rotatable shaft for rocking the pivoted element when said shaft is rotated, a screen for concealing the totalizer wheels from view, and a link connecting the screen and the pivoted element normally holding the screen in ineffective position and drawing it to effective position when the pivoted element is rocked.

1,129,975. WRAPPING-MACHINE. FELIPE GIROUD, deceased, New York, N. Y., by Edith Elmira Chapman, executrix, New York, N. Y., assignor to Package Machinery Company, Springfield, Mass., a Corporation of Massachusetts. Filed Aug. 19, 1914. Serial No. 857,529. (Cl. 93—2.)

1. A wrapping machine comprising a wrapper folding channel, a support for a wrapper, endless traveling belts, a plate adapted for reciprocating movement parallel to certain of said traveling belts, wrapper feeding mechanism, a paste applying device located between said wrapper feeding mechanism and said traveling belts, said wrapper feeding mechanism adapted to feed a wrapper into range with said paste applying device, and also to feed said

wrapper coated with paste forward between said traveling belts, said belts adapted to move said paste coated wrapper forward between said traveling belts and said plate, means for moving said plate in the same direction the belts are moving, whereby said paste coated wrapper is moved to rest on said wrapper support, means whereby an article can be forced against the paste coated side of said wrapper; and means whereby said article and wrapper can be moved into said wrapper folding channel, whereby the paste coated side of said wrapper is folded upon the article, substantially as described.



2. A wrapping machine comprising a wrapper folding channel, a support for a wrapper, endless traveling belts, a plate adapted for reciprocating movement parallel to certain of said traveling belts, means whereby paste can be applied to approximately all of one side of a wrapper; means for feeding said paste coated wrapper forward between said traveling belts, said belts adapted to move said paste coated wrapper forward between said traveling belts and said plate; means for moving said plate in the same direction the belts are moving, whereby said paste coated wrapper is moved to rest on said wrapper support; means whereby an article can be forced against the paste coated side of said wrapper; and means whereby said article and wrapper can be moved into said wrapper folding channel, whereby the paste coated side of said wrapper is folded upon the article.

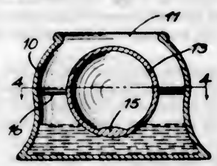
3. A wrapping machine comprising a wrapper folding channel, a support for a wrapper, endless traveling belts, a plate adapted for reciprocating movement parallel to certain of said traveling belts, means whereby paste can be applied to approximately all of one side of a wrapper; means for feeding said paste coated wrapper forward between said traveling belts, said belts adapted to move said paste coated wrapper forward between said traveling belts and said plate; means for moving said plate in the same direction the belts are moving, whereby said paste coated wrapper is moved to rest on said wrapper support, said plate then serving to hold said wrapper across the entrance to said wrapper folding channel, means whereby an article can be forced against the paste coated side of said wrapper; means whereby said plate is moved away from the entrance to said wrapper folding channel; and means whereby said article and wrapper can be moved into said wrapper folding channel, whereby the paste coated side of said wrapper is folded upon the article.

4. A wrapping machine comprising a wrapper folding channel, a support for a wrapper, endless traveling belts, a plate adapted for reciprocating movement parallel to certain of said traveling belts, wrapper feeding mechanism, a paste applying device located between said wrapper feeding mechanism and said traveling belts, said wrapper feeding mechanism adapted to feed a wrapper into range with said paste applying device, and also to feed said wrapper coated with paste forward between said traveling belts, said belts adapted to move said paste coated wrapper forward between said traveling belts and said plate, means for moving said plate in the same direction the belts are moving, whereby said paste coated wrapper is moved to rest on said wrapper support, said plate then serving to hold said wrapper across the entrance to said wrapper folding channel, means whereby an article can be forced against the paste coated side of said wrapper; means whereby said plate is moved away from the entrance to said channel; and means whereby said article and wrapper can be moved into said wrapper folding channel, whereby the paste coated side of said wrapper is folded upon the article.

5. A wrapping machine comprising a wrapper folding channel, a reciprocating plunger, a support for an article between said wrapper folding channel and said plunger, and a support for a wrapper between said wrapper folding channel and said article; endless traveling belts; a plate adapted for reciprocating movement parallel to certain of said traveling belts; means whereby paste can be applied to approximately all of one side of a wrapper; means for feeding said paste coated wrapper forward between said traveling belts, said belts adapted to move said paste coated wrapper between said traveling belts and said plate; means for moving said plate in the same direction the belts are moving, whereby said paste coated wrapper is moved to rest on said wrapper support; said plate then serving to hold said wrapper across the entrance to said wrapper folding channel; upper and lower swinging doors extending vertically between said article and said wrapper; means for actuating said plunger, whereby forward movement thereof forces said article against said doors, thereby causing said doors to swing against said wrapper; and means whereby said plate is moved away from the entrance to said channel; further forward movement of said plunger then causing said article and wrapper to be forced into said wrapper folding channel, whereby portions of said paste coated wrapper are folded upon the article.

[Claims 6 to 20 not printed in the Gazette.]

1,129,976. CUSPIDOR. WILLIAM F. HAGEN and WILLIAM F. BUDENBACH, Scranton, Pa. Filed Mar. 6, 1913. Serial No. 752,455. (Cl. 4—38.)

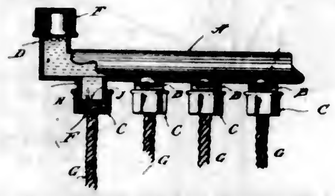


A cuspidor comprising a receptacle having a mouth, a buoyant spherical member disposed within said receptacle and adapted to be supported by a predetermined quantity of water within the receptacle, a split ring disposed within the receptacle and frictionally engaging the inner wall thereof above the bottom of the receptacle, a plurality of fingers formed on the ring and extending inwardly of the receptacle for holding the spherical members centered with respect to the mouth of the receptacle when same is disposed out of engagement with the edge of the mouth and supported by water within the receptacle.

1,129,977. HOG-OILER. LAWRENCE HAGNY, San Jose, Ill. Filed May 16, 1913. Serial No. 768,066. (Cl. 119—157.)

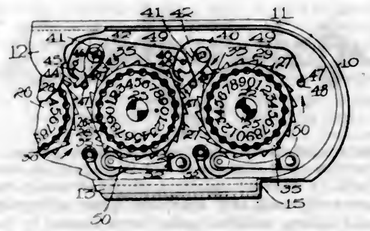
1. A hog greaser including in its construction a hollow body having a depending tubular extension threaded at its extremity and provided with an end wall having an aperture, a threaded member adapted to engage the same and also provided with an aperture, a strip of compressible material terminating at one end within the last named aperture and between the member and the apertured wall of the depending tubular extension and adapted to be compressed between the described parts by turning the said threaded member upon the said tubular extension.

2. A hog greaser including in its construction a hollow body having a depending open tubular extension exteriorly threaded, a disk adapted to lie upon the end of the extension to close the open end of the same and having an aperture therein, a member having threaded engagement with the extension and provided also with an aperture, and a compressible member extending through the last named aperture and terminating at its end between the disk and said first named member and adapted to be compressed between the two by turning the said first named member upon said extension.



3. A hog greaser including in its construction a depending hollow extension, and a part having an aperture constituting a partial closure for said extension, a member having an aperture, a compressible member extending through the last named aperture and terminating in a spread form between the first named member and the part having the aperture, and means to draw the described portions together to compress the compressible member.

1,129,978. ADDING DEVICE. CARL C. HARRIS, Orange, Mass., assignor, by mesne assignments, to The Adzit Company, Orange, Mass., a Corporation of Massachusetts. Filed Jan. 15, 1910, Serial No. 538,216. Renewed July 23, 1914. Serial No. 852,765. (Cl. 235—74.)



1. In a device of the character described, the combination of a disk having a carrying tooth thereon, a lever having a slot therein at an angle to the direction of the length of the lever, a fixed pivot on which said lever is pivoted through the slot, said lever being provided with a tooth on one side near the slot adapted to be engaged by the carrying tooth of said disk as the disk rotates, with a second tooth projecting longitudinally from the free end thereof and with a third tooth on the opposite side near the second tooth, a second disk identical with the first disk and in the plane thereof having teeth thereon in position to be engaged by the second tooth on the lever when said lever is moved by the first named disk, a spring for returning said lever to normal position after it has been actuated, and a fixed pin engaging the third tooth to prevent premature operation by the spring.

2. In a device of the character described, the combination of a disk having a carrying tooth thereon, a lever provided with a tooth adapted to be engaged by the carrying tooth of said disk as the disk rotates and with a second tooth, a second disk having teeth thereon in position to be engaged by the second tooth on the lever, means whereby said lever is constrained to move longitudinally toward the center, and into engagement with the teeth of, the second disk during the first part of its motion and its end to swing on its pivot on an arc tangent to the circumference of the second disk after it has reached the limit of its longitudinal motion, and positive means for preventing the lever from moving backwardly before it has completed its entire reverse rotary motion.

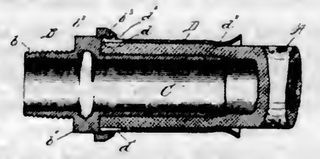
3. In a device of the character described, the combination of a disk having a carrying tooth thereon, a lever provided with a tooth adapted to be engaged by the carrying tooth of said disk as the disk rotates and with a second tooth, a second disk having teeth thereon in position to be engaged by the second tooth on the lever when said lever is moved by the first named disk, stationary stops independent of both disks on each side of said lever for limiting its motion in both directions, and means for returning the lever to normal position.

4. In a device of the character described, the combination of a set of disks, each having in the same plane a series of teeth thereon consisting of a multiple of 10, and each having in a different plane a number of carrying teeth equal to said multiple, a lever provided with a slot at an angle to the direction of the length of the lever, a pivot stud beyond the circumference of each disk extending into the slot, said lever being provided with an offset tooth extending into the plane of said carrying teeth and in position to be engaged thereby as the disk rotates and each lever having a second, longitudinal, tooth in its own plane and in the plane of the ratchet teeth of the next disk to the left, and means whereby when a carrying tooth of a disk engages the offset tooth of the lever said lever will first move longitudinally directly toward and into engagement with the ratchet tooth of the next disk to the left, and then will swing on its pivot so as to turn that disk one step, and will then be returned to its normal position ready to be engaged by the next carrying tooth of the right hand disk.

5. In a device of the character described, the combination with a series of disks, each having ratchet teeth and a carrying tooth, of a lever mounted to move in the plane of all the ratchet teeth and having a tooth in the plane of the carrying tooth and adapted to be engaged thereby, said lever having a slot in which it is pivoted and having a forwardly extending tooth at the opposite end thereof, and an arm substantially at right angles with a line drawn between said tooth and pivot, and a fixed stud with which said arm is adapted to engage to prevent the lever from moving backward except when in a certain position.

[Claims 6 to 10 not printed in the Gazette.]

1,129,979. HOSE-COUPLING. HERBERT H. HEWITT and CHARLES H. PAEPLOW, Jr., Buffalo, N. Y. Filed Aug. 29, 1912. Serial No. 717,816. (Cl. 137—28.)



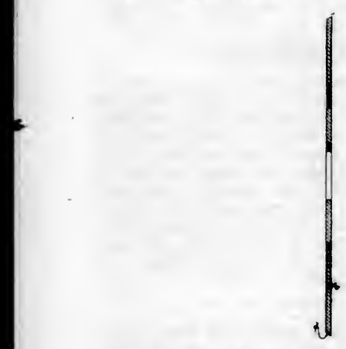
1. A hose coupling comprising a metal body having a rigid shank adapted to enter the end of the hose and an exterior shoulder at the inner end of the shank provided with an interlocking flange, and a retaining sleeve encircling said shank with the hose thereon and having a coöperating interlocking flange at its inner end, said sleeve being longer than said shank and provided with an annular contracted portion at its outer end, said sleeve having a sliding movement in a straight axial direction to thereby interlock said flanges and compress the hose between said annular contracted portion and the outer end of said shank, substantially as described.

2. A hose coupling comprising a metal body having a rigid shank adapted to enter the end of the hose and an external cylindrical shoulder at the inner end of said shank provided with a laterally projecting, beveled interlocking flange, and a retaining sleeve encircling said shank with a hose thereon and having a longitudinally

slotted inner end provided with an interlocking flange adapted to engage the flange of said shoulder, said sleeve being longer than said shank and provided with an annular contracted portion adjacent its outer end, and said sleeve having a sliding movement in said axial direction to thereby interlock said flanges and compress the hose between said annular contracted portion and the outer end of said shank, substantially as described.

3. A hose coupling comprising a metal body having a substantially cylindrical, rigid shank provided with a convexly rounded outer end, said body having an exterior cylindrical shoulder at the inner end of said shank and provided with a laterally projecting, beveled interlocking flange, and a substantially cylindrical retaining sleeve adapted to encircle said shank with a hose thereon and having a slotted inner end provided with a beveled interlocking flange adapted to coöperate with the interlocking flange of said shoulder, said sleeve being longer than said shank and provided with an annular contracted portion adjacent its outer end and forming an internal rib having an inner, convexly rounded surface, said sleeve having a sliding movement in straight axial direction to thereby interlock said flanges and compress the hose between said rib and the convexly rounded outer end of said rigid shank, substantially as described.

1,129,980. CUTTING-DISK FOR METAL-CUTTING MACHINES. HANS HEYNAU, Nuremberg, Germany. Filed Jan. 15, 1914. Serial No. 812,301. (Cl. 29—103.)



1. A high speed rotary cutting disk for severing metal, said disk being provided with an edge sloping in one direction only.

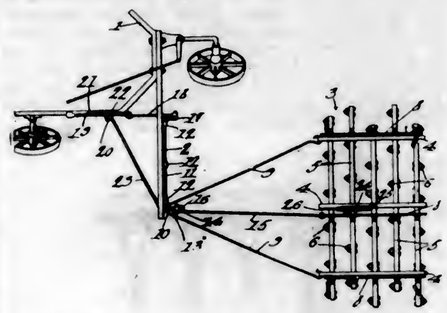
2. A high speed rotary cutting disk provided with an edge sloping in one direction only, said disk gradually increasing in thickness from the center toward the edge.

3. A high speed rotary cutting disk, provided with a strengthened peripheral edge inclined in one direction only.

1,129,981. HARROW ATTACHMENT FOR PLOWS. CHARLES R. HOLLAND and CHRISTOPHER C. HOLLAND, Taylorville, Ill. Filed Aug. 17, 1914. Serial No. 857,208. (Cl. 97—44.)

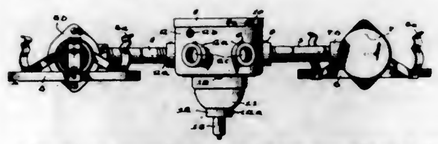
1. In a device of the character described, a plow frame, a trailing harrow having swinging teeth, a member attached to the plow frame, draft rods loosely connected to the harrow and having a universal joint with the said member, an oscillatory arm carried by the said member and constituting a portion of an actuating mechanism, a link operatively connected to the harrow to swing the teeth thereof, and a universal joint connecting the said link and arm.

2. In a device of the character described, an arm attachable to a plow frame, a harrow having swingable teeth, draft rods flexibly connecting the harrow and the free end of the said arm, a shaft journaled to the said arm and having arms at its ends, a link connected to one arm of the said shaft and connected operatively to the harrow for swinging the teeth thereof, a hand lever attachable to the plow frame, and a link connecting the hand lever and the other arm of the said shaft.



3. In a device of the character described, a member attachable to a plow frame, a harrow including a frame, rock shafts journaled to the frame and harrow teeth carried by the rock shafts, the said rock shafts having upstanding arms, a link pivotally connecting the said arms, a pair of converging draft rods loosely connected to the harrow frame, a universal joint connecting adjacent ends of the draft rods and first mentioned member, an oscillatory arm carried by the first mentioned member, and constituting a portion of an actuating member, a link connected to aforesaid link, and a universal joint connecting the last mentioned link and the said oscillatory arm.

1,129,982. ELECTRIC-LIGHT FITTING. PAUL M. HOTCHKIN, Chicago, Ill. Filed May 22, 1912. Serial No. 698,961. (Cl. 240—76.)



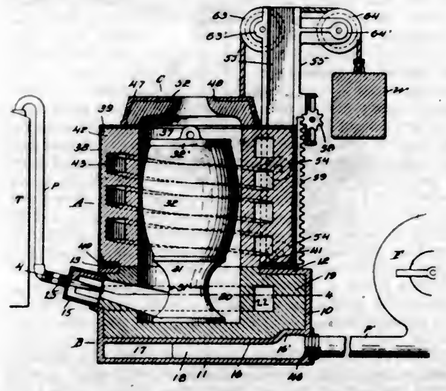
A fixture for electric lighting systems comprising a cylindrical box open at its ends and the side walls whereof have radially disposed apertures, threaded collars extending outwardly from said apertures, pipes removably fitting said collars, terminal socket boxes secured to the opposite ends of said pipes and provided with means for the attachment of suitable fitting supporting brackets, detachable closures for the top and bottom of said first mentioned box one of which forms a switch casing and the other of which forms means for the attachment of supporting fittings, and a switch operating device extended through the former closure.

1,129,983. CRUCIBLE-FURNACE. FRANKLIN M. ILER, Denver, Colo. Filed May 20, 1912. Serial No. 698,559. (Cl. 75—186.)

1. In a furnace, in combination, a melting chamber having a wall of refractory material, a spiral air heating passageway in said wall, an air inlet adjacent the bottom of the wall opening into the spiral passageway at the top, a fuel inlet duct opening into the melting chamber near the bottom, the air heating passageway discharging into said chamber through said duct and mixing therein with said fuel passing into said chamber.

2. In a furnace, the combination of a casing having a wall of refractory material inclosing a melting chamber, said wall comprising separable parts, said parts of the refractory wall having air heating passageways therein which extend longitudinally of said chamber, and means including a duct opening into said chamber for delivering fuel and preheated air to said chamber.

3. In a furnace, in combination, a melting chamber constructed of separable members of refractory material, means for moving one of said members with relation to the other, a continuous air heating passageway extending through the members, an air inlet opening into the passageway, said passageway discharging the heated air into the chamber, and means for mixing fuel with the air as the latter passes into the chamber.

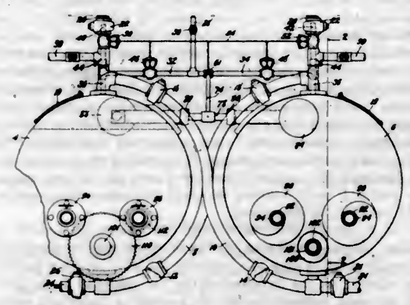


4. In a furnace, in combination two separable sections constituting a melting chamber, passageways disposed about both sections and connected to one another, an air inlet opening into one of said passageways, a duct connecting one of said passageways with the melting chamber, a crucible in the melting chamber, and means for separating the sections to permit the removal of the crucible.

5. In a furnace, in combination, two separable sections comprising a melting chamber, each of said sections having a lining of refractory material, an air passageway in each lining, said passageway and linings being connected together to form a continuous heating passageway surrounding the melting chamber, air heating passageways in said lining in both sections, said passageways being connected to one another to form a continuous passageway which delivers into said chamber, an air inlet opening into said continuous passageway, means for delivering fuel to the chamber, and means for separating the sections to permit access to the interior thereof.

[Claims 6 to 23 not printed in the Gazette.]

1,129,984. APPARATUS FOR PREPARING PAPER-PULP. EUGENE D. JEFFERSON, Boston, Mass. Filed Feb. 7, 1912. Serial No. 675,965. (Cl. 92—7.)



1. An apparatus for preparing paper pulp having, in combination, two closed tanks adapted to receive a charge of pulp and liquor, a pipe connecting the bottom of the first tank with the second tank having a valve for preventing the flow of motive fluid from the second tank into the bottom of the second tank, a motive fluid supply, and means acting automatically to admit the motive fluid into the tops of the tanks alternately for blowing the pulp and bleaching liquor back and forth between the two tanks, substantially as described.

2. An apparatus for preparing paper pulp having, in combination, two closed tanks adapted to receive a charge of pulp and liquor, means in each tank for stirring the pulp and liquor, a pipe connecting the bottom of the first tank with the top of the second tank having a valve for preventing the flow of motive fluid from the second tank into the bottom of the first tank, a pipe connecting the bottom of the second tank with the top of the first tank having a valve for preventing the flow of motive fluid from the first tank into the bottom of the second tank, a motive fluid supply, means acting automatically to admit the motive fluid into the tops of the two tanks alternately for blowing the charge of pulp and liquor back and forth between the two tanks, substantially as described.

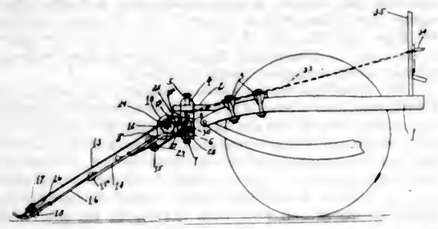
3. An apparatus for preparing paper pulp having in combination, two closed tanks adapted to receive a charge of pulp and liquor, a pipe connecting the bottom of the first tank with the top of the second tank having a valve for preventing the flow of motive fluid from the second tank into the bottom of the first tank, a pipe connecting the bottom of the second tank with the top of the first tank having a valve for preventing the flow of motive fluid from the first tank into the bottom of the second tank, a compressed air supply, means acting automatically to admit compressed air into the tops of the two tanks alternately for blowing the charge of pulp and bleaching liquor back and forth between the two tanks, means in each tank for stirring the pulp and liquor, a water supply, means for admitting water to one of the tanks and an outlet from the same tank provided with a strainer for retaining the pulp in the tank so that the pulp may be washed in the tank, substantially as described.

4. An apparatus for preparing paper pulp, having, in combination, two closed tanks adapted to receive a charge of pulp and liquor, a pipe connecting the bottom of the first tank with the top of the second tank having a valve for preventing the flow of motive fluid from the second tank into the bottom of the first tank, a pipe connecting the bottom of the second tank with the top of the first tank having a valve for preventing the flow of motive fluid from the first tank into the bottom of the second tank, a motive fluid supply, means acting automatically to admit the motive fluid into the tops of the two tanks alternately for blowing the charge of pulp and liquor back and forth between the two tanks, means in each tank for stirring the pulp, a water supply, means for admitting water to one of the tanks to wash the pulp in the tank, a wash water outlet for the same tank provided with a strainer for retaining the pulp in the tank during the washing operation, substantially as described.

5. An apparatus for preparing paper pulp having, in combination, two closed tanks adapted to receive a charge of pulp and liquor, a pipe connecting the bottom of the first tank with the top of the second tank having a valve for preventing the flow of motive fluid from the top of the second tank to the bottom of the first tank, a pipe connecting the bottom of the second tank with the top of the first tank having a valve for preventing the flow of motive fluid from the top of the first tank to the bottom of the second tank, a motive fluid supply, means acting automatically to admit the motive fluid into the top of the two tanks alternately for blowing the charge of pulp and liquor back and forth between the two tanks, means in each tank for stirring the pulp comprising a rotatably mounted shaft having a worm carried thereon, a water supply, means for admitting water to one of the tanks to wash the pulp in the tank and a wash water outlet for the same tank provided with a rotatable drum-like strainer for retaining the pulp in the tank during the washing operation, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

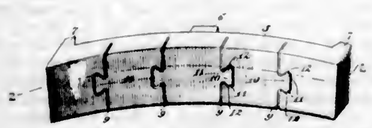
1,129,985. SAFETY APPLIANCE FOR VEHICLES. HANS O. JOHNSON, Sacramento, Cal. Filed May 21, 1914. Serial No. 839,986. (Cl. 105—255.)



1. A device of the character described comprising the combination with a vehicle, of brackets mounted thereon, a roller rotatably mounted in said brackets, means for locking said roller against rotation, spring pressed arms pivotally mounted on said brackets and capable of extending outwardly therefrom and being folded inwardly in the same plane, a fabric mounted on said roller and secured to said arms and means for releasing said locking means, as described.

2. A device of the character described comprising the combination with a vehicle, of brackets mounted thereon, a roller rotatably mounted in said brackets, means for locking said roller against rotation, a pair of spring pressed arms pivotally mounted on said brackets, another pair of spring pressed arms pivotally mounted on the outer ends of said first named arms, all of said arms being adapted to be folded inwardly in the same plane, a cross bar pivotally connected to the outer end of said second named arms, a fabric mounted on said roller and connected with said cross bars, and means for releasing said locking means, as described.

1,129,986. SEGMENTAL BRAKE-SHOE. HARRY JONES, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed Oct. 28, 1914. Serial No. 868,941. (Cl. 188—25.)



1. A brake shoe comprising a body having a groove extending from the wearing face to substantially the back of said shoe, said groove being of such a shape as to form interlocking segments.

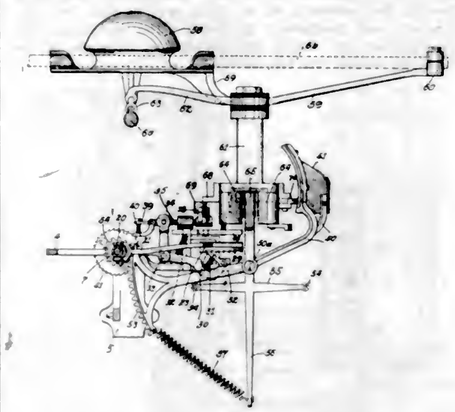
2. A brake shoe comprising a body formed with a plurality of transverse grooves separating the same into a plurality of segments, said grooves forming locking members in the adjacent sections to prevent the latter from being separated.

3. A blade shoe comprising a body formed with a plurality of grooves extending from the wearing face to substantially the back of the shoe, and forming a plurality of segments, said grooves being of such shape as to form a key on one segment fitting into a corresponding recess formed in the adjacent section whereby to prevent the separation of said segments.

4. A brake shoe comprising a body having a groove extending from the wearing face to substantially the back of said shoe, said groove being of such shape as to form, when devoid of a core, interlocking segments and containing a core capable of disintegration while the shoe is in service.

5. A brake shoe comprising a body formed with a plurality of grooves extending from the wearing face into the body of said shoe, said grooves being of such shape as to form, when devoid of a core, locking members in the adjacent sections, and containing a clay core.

1,129,987. STREET-CAR INDICATOR. THOMAS E. KEARNEY and ANGUS J. MCFARLANE, Berkeley, Cal. Filed May 5, 1913. Serial No. 765,497. (Cl. 40—56.)



1. A station indicating device comprising in combination, a contact mechanism adapted to be fixed at a point along the path of the car, mechanism adapted to be operated by said contact mechanism carried on the exterior of a car, and adapted to assume a position corresponding to a given street or station, and electrical devices mounted within the car adapted to display a name of a street or station corresponding to the position assumed by said second mentioned mechanism, said contact mechanism being arranged to interrupt the circuits of said electrical devices during the period when said second mentioned mechanism is being operated and close said circuit when said second mentioned mechanism has assumed its desired position.

2. A selective indicating mechanism for displaying the names of streets or stations comprising a device adapted to be supported on a trolley wire, selective mechanism mounted on the end of a trolley pole adapted to be operated by said device and to assume a position corresponding to the name of a street or station to be displayed, and electrically controlled mechanism carried within the car and controlled by said selector mechanism and adapted to display a name corresponding to the position of said mechanism, the circuit of said last mentioned mechanism being carried up on the trolley pole and said device being arranged to first break and then make the circuit.

3. In a system for indicating the names of streets and stations in cars, the combination of one or more devices disposed along the route of the car, said devices being provided with actuating surfaces, selecting mechanism carried by a car and adapted to be actuated by said surfaces, said selecting mechanism comprising a plurality of contact points and a contact head adapted to make connection with any one of said points, indicator mechanism mounted within the car adapted to display the names of streets or stations, said indicating mechanism being provided with means for displaying the names of a plurality of streets or stations, said means being connected individually to said contact points, and means for sending an electric current through said contact head and any one of said points with which it is in contact whereby the name of a particular street will be displayed.

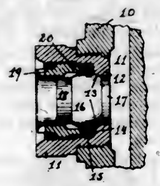
4. In a system for indicating the names of streets or stations, the combination of one or more switch actuating devices disposed along the route of the car, selector mechanism carried on the exterior of the car adapted to be actuated by said devices so as to assume a position corresponding to the desired street or station, said mechanism being provided with a non-conducting cylindrical surface and having a plurality of contact points set therearound and arranged in rows both axially and circumferentially, a contact pin adapted to make connection with any of

said points, means for producing a relative motion between said pin and said point longitudinally of said cylindrical surface, means for producing a relative motion between said pin and said point circumferentially of said surface, and an indicating device placed within the car provided with a plurality of controlling magnets each of which is directly connected to one of said contact points, and a plurality of sets of display mechanism each of which is controlled by one of said electromagnets, each of said sets being adapted to display the name of a given street or station, and means for passing a current of electricity through said pin, contact points and magnets.

5. A system for displaying the names of streets or stations comprising in combination, one or more devices fixed along the route of the car, each of said devices being provided with actuating members, selector mechanism carried exterior to the car adapted to be actuated by said devices so as to assume a position corresponding to a given street or station, said selector mechanism comprising a number of fixed contact points arranged on a cylindrical surface and placed in alinement both axially and circumferentially of said surface, a contact pin, a rod on which said contact pin is mounted, a shaft coaxial with said surface, an arm rigid with said shaft provided with a sleeve in which said rod is slidably mounted, a sleeve slidably mounted on said shaft and having an arm to which said rod is attached, said sleeve being fixed against rotation relative to said shaft, means controlled from said devices for rotating said shaft, means controlled from said devices for moving said sleeve longitudinally of said shaft, means for holding said shaft in the position set by said means aforesaid, means for releasing said last mentioned means also controlled from said device, and a display apparatus mounted within the car comprising a plurality of sets of devices each set being connected to one of said contact points and adapted to display the name of a particular street or station, and means for passing an electric current from said contact pin into any one of said contact points with which it is associated.

[Claims 6 to 11 not printed in the Gazette.]

1,129,988. SIGHT-GLASS. EDGAR A. KELSEY, Mount Vernon, N. Y., assignor to Nathan Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Apr. 21, 1914. Serial No. 833,384. (Cl. 73—54.)

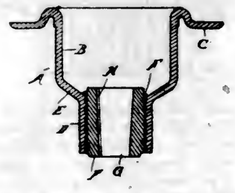


In a device of the character described consisting of two tubular bodies one having a greater diameter than the other the smaller arranged to fit wholly within the larger, an inturned annular flange formed on the inner end of the larger body and constituting a seat, a beveled seat provided on the inner edge of said flange, a sight glass arranged to fit against said beveled portion, and a packing ring adapted to lie against the flange and between said glass and the inner side of the larger body and against the inner end of the smaller body.

1,129,989. METHOD OF FORMING WHEEL-HUBS. JOHN KELSEY, Detroit, Mich. Filed Dec. 8, 1914. Serial No. 876,094. (Cl. 29—159.)

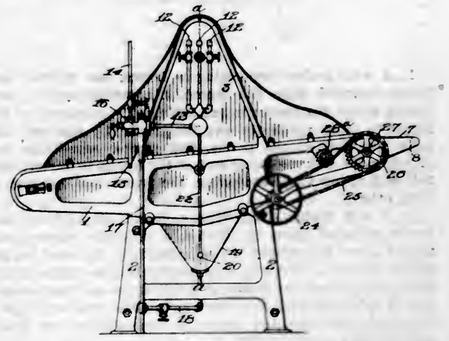
1. The method of forming wheel hubs, comprising the pressing of a sheet metal blank to form a flanged cylindrical portion, forming a bushing for said cylindrical portion, broaching the outer surface of said bushing and the inner surface of said cylindrical portion to form complementary inter-engageable serrations, pressing said members into engagement with each other and truing the completed structure concentric with the bore of the bushing.

2. The method of forming wheel hubs, comprising the pressing of a sheet metal blank to form a flanged cylindrical member, forming a bushing for the cylindrical portion of said member, broaching the outer surface of said bushing and inner surface of said cylindrical member to form complementary inter-engageable serrations therein, pressing said members together, and brazing the joint between said members.



3. The method of forming wheel hubs, comprising the pressing of a sheet metal blank to form a member having cylindrical portions of different diameters and an outwardly-extending flange, forming a bushing for the cylindrical portion of lesser diameter, broaching the outer face of said bushing and inner face of said cylindrical member to produce complementary inter-engageable serrations, pressing said bushing into engagement with said sheet metal member with an end portion of the bushing projecting into a recess formed by the enlarged cylindrical portion of the sheet metal member, placing a fusible adhesive metal around said projecting portion of the bushing, and heating to fuse said metal and to seal the joint between said serrated faces.

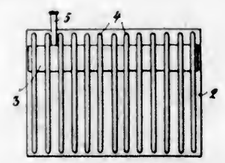
1,129,990. CLOTHES-DAMPENING MACHINE. JAMES E. KELSO and GOTTLOB BINDER, Rochester, N. Y., assignors to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 12, 1911. Serial No. 654,331. (Cl. 68—9.)



1. In a clothes dampening machine, the combination with a traveling table-conveyer adapted to support articles of clothing flatwise, of a spraying device arranged above the table-conveyer and directed toward the same, a hood extending from above the spraying device downwardly about the same, and drip receivers formed inwardly of the hood at its lower edges.

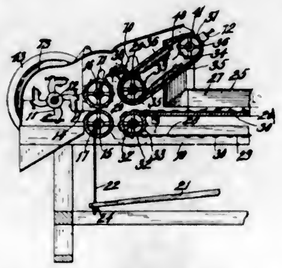
2. In a clothes dampening machine, the combination with a traveling conveyer, of a spraying device arranged above the conveyer and directed downwardly toward the same, a hood extending from above the spraying device downwardly about the latter, the lower edges of the hood being inclined from the center downwardly and provided with inwardly and upwardly directed flanges for catching the drip and carrying it to the sides of the machine.

1,129,991. REFRIGERATOR. AUGUST MARIUS KJAERSGAARD, Corinth, Denmark, assignor, by mesne assignments, to the Firm of Hannefords, Limited, London, England. Filed Mar. 4, 1912. Serial No. 681,483. (Cl. 257—251.)



An evaporator for refrigerating devices comprising a receptacle for the fluid to be evaporated and a plurality of pipes extending from the bottom of said receptacle to a point above said receptacle and returning to the top thereof, said pipes communicating at both ends with the contents of said receptacle.

1,129,992. SELF-FEEDER FOR ENSILAGE AND SILO CUTTERS. PAUL KLUMB, Sheboygan, Wis., assignor to Globe Foundry & Machine Company, Sheboygan, Wis., a Corporation of Wisconsin. Filed May 14, 1910. Serial No. 561,305. (Cl. 193—14.)



1. A self feeder comprising a frame, an endless conveyer mounted upon the frame, a rotatable apron positioned above the conveyer and swingingly mounted on the frame to move vertically and longitudinally thereof, feed rolls mounted on the frame, and means connecting one of said rolls and the lower end of the apron to permit said roll and apron to be moved on the frame and relative to each other.

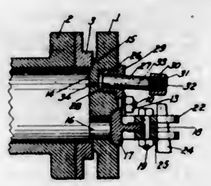
2. A self feeder comprising a frame, an endless conveyer mounted upon the frame, a rotatable apron positioned above the conveyer and swingingly mounted on the frame to move vertically and longitudinally thereof, feed rolls mounted on the frame, and a link connection between one of said rolls and the lower end of the rotatable apron to permit said roll and apron to be moved on the frame and relative to each other.

3. A self feeder comprising a frame, an endless conveyer mounted upon the frame, a rotatable apron positioned above the conveyer, said apron being mounted on upper and lower drums, means for pivotally and swingingly mounting the lower drum and one of said feed rolls, said roll and apron being free to move with respect to the frame and to each other.

4. A self feeder comprising a frame, an endless conveyer mounted upon the frame, an apron-frame swingingly mounted on said frame, a rotatable apron mounted on the apron-frame to move vertically thereof, feed rolls mounted on the frame, and means connecting one of said rolls and lower end of the apron to permit said rolls and apron to be moved with respect to the frame and relative to each other.

5. A self feeder comprising a frame, an endless conveyer mounted upon the frame, an apron-frame swingingly mounted on said frame, a rotatable apron mounted on the apron-frame and movable with respect thereto, feed rolls mounted on the frame, a link connecting one of said feed rolls and the lower end of the apron to permit said roll and apron to be moved with respect to the frame and to each other, and yielding means connected to said roll whereby said roll and apron will be yieldingly supported.

1,129,993. TWYER-CAP. KARL LANDGREBE, Ensley, Ala. Filed Sept. 29, 1914. Serial No. 864,185. (Cl. 75—97.)



1. The combination with a twyer, of an end cap therefor having two holes therein, one hole being a large clean out opening near the lower part of the cap and the other being a small sight opening in the upper part of the cap, a closure for the clean out hole, and a sight plug for the sight opening which is independent of the closure for the clean out hole, both said holes giving access to the twyer in the direction of its length, substantially as described.

2. A cap for twyers and like devices having a large clean out hole and a small sight hole above the clean out hole, a stopper for the clean out hole, fastening means for the stopper, a sight plug mounted over the sight hole and having a sight opening therethrough adapted, in a predetermined position of the plug, to register with the sight hole in the twyer cap, means to adjust said sight plug to move its opening out of register with the sight hole in said cap, a glass for the opening in the sight plug, and a detachable means to hold said glass in place, substantially as described.

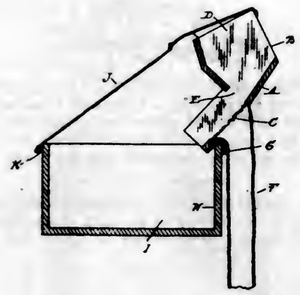
3. In a twyer cap having a clean out hole and a relatively small sight hole, a closure for the clean out hole, a sight plug mounted in front of the sight hole, means to hold said plug adjustable in position over said sight hole, said plug having a sight hole therethrough adapted, in one position of the plug, to register with the sight hole in the cap while the plug in other positions serves to close said sight hole in the cap, a sight glass for said plug, and a removable device to hold said glass in position over the sight hole in said plug.

4. In a twyer cap having a large clean out opening in its lower portion, a closure therefor, a relatively small sight hole, a sight plug adjustably mounted over said hole and having a sight opening therethrough which in one position of the plug registers with the sight hole in the cap, means to old said plug against the cap so that in other of its positions it will valve off the sight hole in the cap, a sight glass for the sight opening in the plug, and detachable retaining means for said glass, substantially as described.

5. In a twyer cap, a circular internally threaded seat bored in its outer face, said seat having an eccentric sight hole leading through the cap, a sight plug which fits against the inner end of the seat and has a sight opening therethrough, the inner end of which is eccentric to the inner end of the plug and adapted in a predetermined position to register with the sight hole in the cap, a screw stud which turns freely on the plug and is adapted to be screwed into said seat in the cap, a shoulder on the inner end of the plug which is adapted to engage and force the plug against said seat, and means to detachably mount a sight glass on the outer end of the plug, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

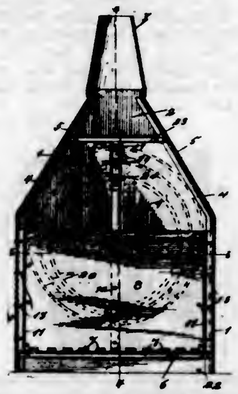
1,129,994. SCREENING ATTACHMENT FOR COAL-WAGONS. JOHN R. LAWRENCE, Sarnia, Ontario, Canada, assignor of one-half to James Cuthbert Clark, Sarnia, Canada. Filed Apr. 17, 1914. Serial No. 832,498. (Cl. 83—56.)



1. A device for the purpose described, comprising a casing including a screen bottom and a hopper above said screen adapted to discharge the material fed into said hopper on to said screen, said casing having hooked bearings at its lower end engageable with the sides of a receptacle, and tie connections with the opposite side of said receptacle for holding said casing in inclined position, and a flexible apron surrounding and depending from the screen for receiving the screenings, said screen being so positioned that the larger pieces will be discharged into the receptacle.

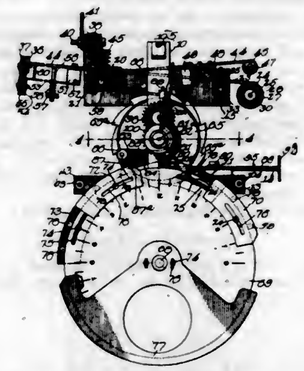
2. A device for the purpose described, comprising a casing including a screen bottom and a hopper above said screen adapted to discharge the material fed into said hopper on to said screen, said casing having hooked bearings at its lower end engageable with the sides of a receptacle, and tie connections with the opposite sides of said receptacle for holding said casing in inclined position, said screen being so positioned that the larger pieces will be discharged into the receptacle and the smaller pieces outside thereof.

1,129,995. FURNACE. WILLIAM S. LINCOLN and JAMES F. WHITT, Nickerson, Kans. Filed Feb. 24, 1914. Serial No. 820,627. (Cl. 75—184.)



In a device of the class described, a body portion, inner and outer casings, a central vertically extending channel iron, a plurality of substantially V shaped supporting brackets mounted upon said channel iron, said supporting brackets provided with laterally extending substantially U shaped feet and constituting support for bands adapted to be placed thereon.

1,129,996. TIME-CONTROLLED SWITCH MECHANISM FOR ELECTRIC CIRCUITS. HORACE B. MCCABE, Chicago, Ill., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed Oct. 10, 1912. Serial No. 724,910. (Cl. 161—27.)



1. The combination with a clock; an electric switch device comprising two pivoted insulated members interposed in the circuit, and male and female members carried upon adjacent ends of said insulated members and adapted to contact to close the circuit and to separate to open the circuit; time-controlled means for periodically causing said closing and opening of the circuit comprising an operating shaft driven by the clock, a ratchet wheel mounted upon said shaft and rotating therewith, a plurality of rider arms secured to the pivoted insulated members and adapted to ride upon said ratchet wheel to actuate the switch device; and time controlled means for arresting said periodic closing and opening of the circuit during predetermined intervals.

2. The combination with a clock; an electric switch device comprising two pivoted insulated members interposed in the circuit, and male and female members carried upon adjacent ends of said insulated members and adapted to contact to close the circuit and to separate to open the circuit; time-controlled means for periodically causing said closing and opening of the circuit comprising an operating shaft driven by the clock, a ratchet wheel mounted upon said shaft and rotating therewith, a plurality of rider arms secured to the pivoted insulated members and adapted to ride upon said ratchet wheel to actuate the switch device; and time-controlled means for arresting said periodic closing and opening of the circuit during predetermined intervals, comprising a pivoted detent, a rider post secured to the detent adjacent one end thereof, a cam wheel adapted to rotate at a uniform speed and impart movement to said detent, the detent being adapted by said movement to engage one of said rider arms and withhold the male and female members from contact.

3. The combination with an electric circuit of a switch device comprising two insulated members pivoted intermediate their extremities, interposed in the circuit adjacent each other, carrying on two of their adjacent extremities a knife switch and on their opposite adjacent extremities a make-and-break of carbon or other electricity conducting material, said insulated members being adapted to close and open said circuit by the contact and separation of their adjacent extremities, time controlled means for periodically operating said insulated members to close and open said circuit, and time controlled means for arresting said periodic closing and opening during predetermined intervals.

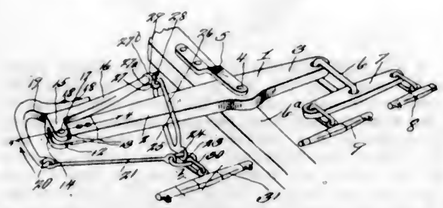
4. The combination with an electric circuit of a switch device comprising two insulated members interposed in the circuit adjacent each other, carrying on two of their adjacent extremities a knife switch and on their opposite adjacent extremities a make-and-break of carbon or other electricity conducting material, said insulated members be-

ing adapted to close and open said circuit by the contact and separation of their adjacent extremities, time controlled means for periodically operating said insulated members to close and open said circuit and time controlled means for arresting said periodic closing and opening during predetermined intervals.

5. The combination in an electric circuit of a switch comprising a plurality of switch arms adapted by the contact and separation of their adjacent ends to close and open an electric circuit, a plurality of rider arms secured to and insulated from said switch arms and adapted to impart relative movement to said switch arms to cause their adjacent ends to come into contact and to separate, time controlled means for periodically causing the said contact and separation, and time controlled means for arresting said periodic closing and opening during predetermined intervals.

[Claims 6 to 17 not printed in the Gazette.]

1,129,997. DRAFT-EQUALIZER. ROBERT A. MCCALL, Anson, Tex. Filed Sept. 26, 1913. Serial No. 792,038. (Cl. 21—76.)

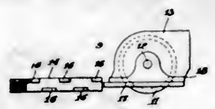


1. In combination, a main equalizing beam having long and short arms, a suplemental equalizing beam including swingle trees connected to the short arm, a resiliently mounted lever pivotaly to the extremity of the long arm and lying in the rear thereof and provided with a bracket arm terminating forwardly of but offset from the extremity of the long arm, a swingle tree, and connections between the swingle tree and the resilient lever and bracket arm, whereby the draft is not only shifted substantially midway between the points of connection of said connections with the lever and the bracket arm so that the draft of the single animal will equalize with the draft of two other animals connected to the first swingle tree, but that a resilient draft is attained.

2. In combination, a main equalizing beam having long and short arms, a supplemental equalizing beam connected to the short arm and including a pair of swingle trees, a resilient lever having an angled bifurcated end pivotally connected to the long arm and arranged at an acute angle to the long arm in the rear thereof, said long arm having abutting shoulders to be engaged by the angled end of said lever to insure resiliency, a bracket arm connected to the resilient lever at the rear and terminating forwardly of but offset from the pivot of the resilient lever, a swingle tree, a link connecting said swingle tree and the resilient end portion of said lever, and a rod connecting the free end of the bracket arm and said swingle tree, said link and rod being so arranged, that the draft is shifted substantially midway between the point of connections between the link and the rod to the lever and the bracket arm so as to equalize with the draft on the first two swingle trees, and at the same time attain a resilient draft.

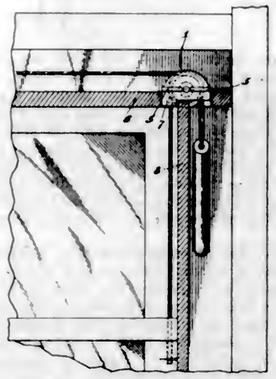
1,129,998. SASH-PULLEY. ULYSSES G. MCQUEEN, New York, N. Y., assignor to Grant Pulley & Hardware Co., New York, N. Y., a Corporation of New York. Filed Dec. 12, 1912, Serial No. 736,276. Renewed Jan. 21, 1915. Serial No. 3,633. (Cl. 16—17.)

1. In a device of the class described, a slotted base with a slot extending to its outer edge, a series of inwardly projecting lugs and a hood with a flange adapted to pass into said slot and between said lugs and to be held between the same whereby the hood may be inserted or removed through the end of the base.



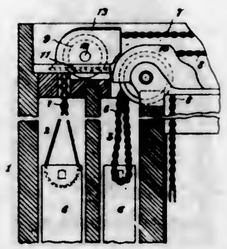
2. In a device of the class described, a slotted base with means therein for receiving a portion of a removable hood, a removable hood with a portion extending into said base, said hood and base being so connected that the hood may be slid in or out of the base from one end of the base.

1,129,999. SASH-PULLEY. ULYSSES G. MCQUEEN, New Rochelle, N. Y. Filed May 21, 1913, Serial No. 769,115. Renewed Jan. 21, 1915. Serial No. 3,634. (Cl. 16—17.)



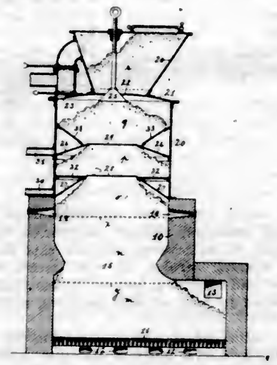
In a device of the class described, a casing having a bearing and laterally extending flanges in the plane of the bearing adapted to support the casing on top of a frame, and a downwardly extending flange with parts adapted to extend between two surfaces of the frame, whereby the casing is kept from turning.

1,130,000. SASH-PULLEY AND WINDOW-FRAME. ULYSSES G. MCQUEEN, New Rochelle, N. Y. Original application filed Dec. 12, 1912, Serial No. 736,276. Divided and this application filed Nov. 13, 1913, Serial No. 800,763. Renewed Jan. 21, 1915. Serial No. 3,635. (Cl. 20—11.)



A window frame having a pair of wells for sash weights in substantial alinement with the plane of the window frame, a base mounted on the frame to overhang the outer well, a hood having a pulley journaled therein removably mounted on said base and a second hood and pulley having a base mounted on the frame to overhang the inner well, the second hood being arranged to prevent the removal of the first hood and pulley.

1,130,001. MANUFACTURE OF VARIOUS PRODUCTS FROM BITUMINOUS FUEL. ROBERT MACLAURIN, Stirling, Scotland. Filed Oct. 14, 1914. Serial No. 866,694. (Cl. 196—21.)

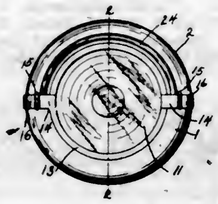


1. The process of simultaneously producing gas, oil and ammonia from a body of bituminous fuel, which consists in passing upward through the fuel highly heated gas containing at least fourteen per cent. of hydrogen, whereby there is produced in the fuel a temperature decreasing upwardly from about 700° centigrade to normal, conserving the heat in the lower zone of the fuel body where ammonia is produced, degasifying the fuel above such zone and permitting the oils produced to condense on the walls of the containing chamber and cooler portions of the fuel and removing it therefrom at or near the place of such condensation.

2. An apparatus for the manufacture of oils from bituminous fuels and the like, comprising a grate, a lower portion surrounding the same and consisting of non-conducting material, an upper portion secured to the lower portion and consisting of conducting material, and means for collecting and carrying off the condensed oils from the upper portion, consisting of inwardly and upwardly projecting plates secured to the walls of the apparatus.

3. In an apparatus for the production of condensed oily distillates from bituminous fuel, means for collecting such distillates consisting of a plate or plates secured to and projecting upwardly and inwardly from the walls of the apparatus and comprising a collecting well between the upper surface of such plates and the apparatus wall.

1,130,002. HEADLIGHT. FREDRICK F. MACLEAN, Syracuse, N. Y. Filed June 13, 1913. Serial No. 773,438. (Cl. 240—45.)

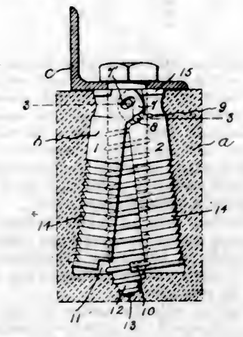


1. A headlight comprising a case, a stationary reflector within the case, a movable reflector operating through an opening in the front side of the case around the outside of the stationary reflector, and means for operating the movable reflector.

2. A headlight comprising a case having a circular slot in its front side, a reflector movable in said slot and provided with stops coöperating with the case for limiting its inward and outward movement, an electric motor within the case, and means for transmitting motion from the motor to the reflector.

3. A headlight comprising a case having an opening in its front end, a reflector movable in said opening into the case and beyond the front end thereof, an electric motor within the case, a worm on the armature shaft of the motor, a mutilated worm gear meshing with said worm, and means for transmitting motion from the worm gear to the reflector.

1,130,003. EXPANSION-BOLT. DANIEL MASOR, New York, N. Y. Filed July 5, 1913. Serial No. 777,477. (Cl. 85—2.4.)



1. In an expansion bolt, the combination of opposed jaw members adapted for receiving between them a bolt or the like, one of said jaw members being provided with a laterally projecting supporting element in the form of a pin and the other provided with an engaging element surrounding the supporting element and arranged to turn on the same as a pivot.

2. In an expansion bolt, the combination of opposed jaw members adapted for receiving between them a bolt or the like, one of said jaw members being provided with a laterally projecting supporting element in the form of a pin and the other provided with an engaging element surrounding the supporting element and arranged to turn on the same as a pivot, and coacting means at one end portion of the jaw members for preventing relative longitudinal movement of the said jaw members.

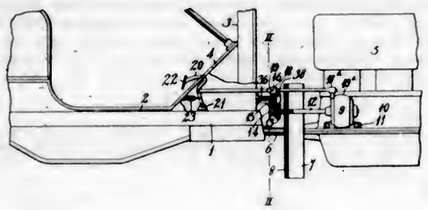
3. In an expansion bolt, the combination of opposed jaw members adapted for receiving between them a bolt or the like, one of said jaw members being provided with a laterally projecting supporting element in the form of a pin and the other provided with an engaging element surrounding the supporting element and arranged to turn on the same as a pivot, and means arranged in the path of movement of the engaging element.

4. In an expansion bolt, the combination of opposed jaw members adapted for receiving between them a bolt or the like, one of said jaw members being provided with a laterally projecting supporting element in the form of a pin and the other provided with an engaging element surrounding the supporting element and arranged to turn on the same as a pivot, means arranged in the path of movement of the engaging element, and coacting means at one end portion of the jaw-members for preventing relative longitudinal movement of the said jaw members.

1,130,004. SAFETY DEVICE FOR STARTING-MOTORS. FREDERICK H. MILLER, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 24, 1913, Serial No. 775,491. Renewed Dec. 16, 1914. Serial No. 877,613. (Cl. 74—7.)

1. The combination with an engine having a shaft, a starting motor, and means for operatively connecting

said motor to said shaft, of means controlled by centrifugal force for preventing the establishment of said operative connection.



2. The combination with an engine having a shaft, a starting motor, and means for operatively connecting said motor to said shaft, of speed-controlled means for preventing the establishment of said operative connection.

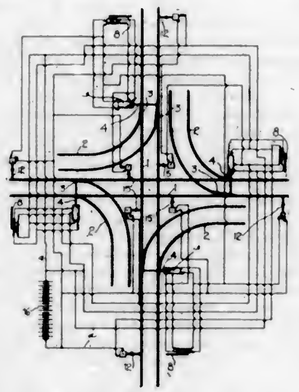
3. The combination with an engine having a shaft, a starting motor, and means for operatively connecting said motor to said shaft, of means for preventing the establishment of said operative connection when the engine shaft rotates above a predetermined speed.

4. The combination with an engine having a shaft, a starting motor, and means for operatively connecting said motor to said shaft, of means for preventing the establishment of said operative connection when the engine operates under its own power.

5. The combination with an engine having a shaft, a starting motor, and means for operatively connecting said motor to said shaft, of locking means for preventing the establishment of said operative connection, and means controlled by centrifugal force for actuating said locking means.

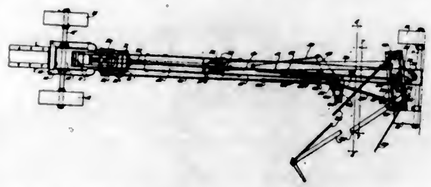
[Claims 6 to 15 not printed in the Gazette.]

1,130,005. CROSSOVER. SAM P. MILLER, Navasota, Tex. Filed Nov. 1, 1913. Serial No. 798,734. (Cl. 104—127.)



The combination with intersecting track ways, of branches for each of such track ways in advance of the point of intersection, a switch for controlling the communication from each of the main lines of the track ways to its branch, electrically operating means independent of the train controlled from a point on one of the main lines for actuating the switch of the intersecting train line, such electrically operating means including a normally open circuit closer positioned in close proximity to each of the main lines adapted to be closed by a train passing over such main line.

1,130,006. BALING-PRESS. PATRICK W. MORRISSEY, Racine, Wis., assignor to J. I. Case Threshing Machine Company, Racine, Wis., a Corporation. Filed June 27, 1914. Serial No. 847,583. (Cl. 100—7.)



1. In a baling press, the combination of compressing and feeding members, shifters therefor, a rotary power arm arranged to successively actuate said shifters to effect the working strokes of said members, restoring springs for said members, and an intermediate safety device connected to both of said members, substantially as described.

2. In a baling press, the combination of compressing and feeding members, shifters therefor, a rotary power arm arranged to successively actuate said shifters to effect the working strokes of said members, restoring springs for said members, and a safety shifter interposed between said members and having a lost-motion connection with one member, substantially as described.

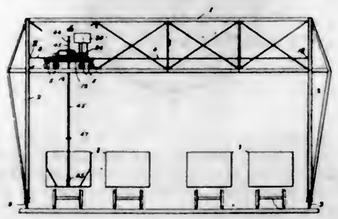
3. In a baling press the combination of compressing and feeding members, shifters therefor, a rotary power arm arranged to successively actuate said shifters to effect the working strokes of said members, a restoring spring for said feeding member, and an intermediate safety device connected to said compressing member and having a lost-motion connection with said feeding member, substantially as described.

4. In a baling press, the combination of compressing and feeding members, shifters therefor, a rotary power arm arranged to successively actuate said shifters to effect the working strokes of said members, restoring springs for said members, and an intermediate safety device connected to said compressing member and having a lost-motion connection with said feeding member, substantially as described.

5. In a baling press, the combination of a plunger, a feeder, operating shift levers connected respectively to said plunger and said feeder, a power arm for successively actuating said shift levers to effect the working strokes of said plunger and said feeder, and an intermediate lever connected to both of said parts, substantially as described.

[Claims 5 to 10 not printed in the Gazette.]

1,130,007. AGITATOR. GEORGE ROBERT NAGLE, Superior, Wis., assignor, by mesne assignments, of fifty one-hundredths to Tilford S. Denton, Kansas City, Mo.; Mrs. Daisy Nagle administratrix of said George R. Nagle, deceased. Filed Nov. 3, 1913. Serial No. 798,938. (Cl. 37—50.)



1. The combination with a traveler, of a rotary ring having rollers, a supporting bracket on the traveler for said rollers, rack teeth on the ring, and a rack wheel engaging said teeth, means for rotating said rack wheel, and a cable having both its ends anchored and frictionally engaging and passed around said rotary ring.

2. The combination in an apparatus as described with the supporting bridge, of a traveler thereon and traversing mechanism therefor, a revoluble ring mounted on the traveler and means for revolving said ring, an oscillatable and revoluble agitator bar suspended from and within said ring and means for oscillating and revolving said bar.

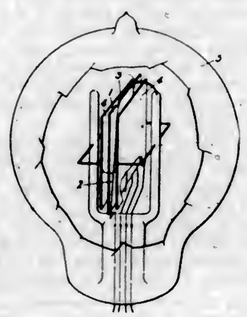
3. The combination in an apparatus as described with the supporting bridge, of a traveler thereon and traversing mechanism therefor, a revoluble ring mounted on the traveler and means for revolving said ring, a frame having a pivot end supported on said ring and formed with a hub, an agitator member revoluble in said hub, and means for revolving said member.

4. The combination in an apparatus as described with a revoluble ring, of a frame having a pivot end supported on said ring and formed with a hub, an agitator bar revoluble in said hub, bearings on the frame and a shaft supported in said bearings and ring, means for rotating said shaft to revolve the bar, and said pivoted frame and shaft forming an oscillatable support for the bar.

5. The combination in an apparatus as described with a supporting ring of a frame pivoted on said ring and having a hub central of the ring, a shaft journaled in the frame and ring and supporting the frame so that it may oscillate, an agitator bar supported in the hub, means on the shaft and bar for revolving the bar, and means for raising or lowering said bar.

[Claims 6 and 7 not printed in the Gazette.]

1,130,008. AUDION. ALEXANDER MCLEAN NICOLSON, Tarrytown, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed June 6, 1914. Serial No. 843,503. (Cl. 250—27.)



1. An audion provided with an input electrode having a large surface, and a filament wound about said input electrode.

2. An audion provided with an input electrode and an output electrode, each having a large surface, said surfaces being parallel to each other, and a filament extending about said input electrode.

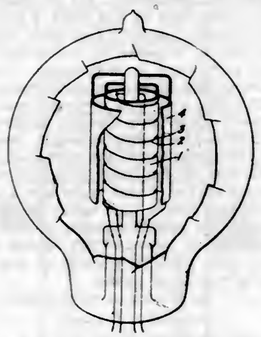
3. An audion having its input electrode in the form of a plate and having its filament wound about said input electrode.

4. An audion having an input electrode in the form of a plate, a filament wound about said plate, and an output electrode in the form of a pair of plates parallel to said input electrode plate and upon opposite sides thereof.

5. A thermionic repeater having its input and output electrodes in the form of parallel plates, and having a heated cathode interposed between said plates and in close proximity to said input plate.

[Claim 6 not printed in the Gazette.]

1,130,009. AUDION. ALEXANDER MCLEAN NICHOLSON, Tarrytown, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed June 6, 1914. Serial No. 843,505. (Cl. 250—27.)

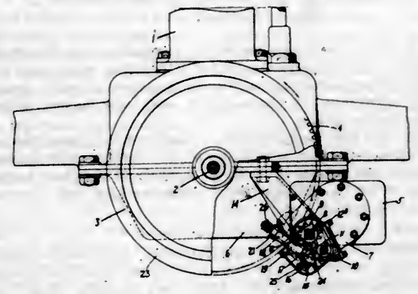


1. An audion having an input and an output electrode consisting of concentric shells, and having a filament arranged close to the input electrode at the side toward the output electrode.

2. An audion having an input and an output electrode in the form of cylindrical shells, and having a filament arranged spirally about the surface of the input electrode which is adjacent to the output electrode.

3. An audion having an input electrode in the form of a cylindrical shell, a filament wound about said shell, and an output electrode in the form of a cylindrical shell concentric with said first-mentioned shell.

1,130,010. SAFETY DEVICE FOR STARTING-MOTORS. JOHN P. NIKONOW, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial No. 752,633. (Cl. 74—7.)



1. In combination, two gear wheels, one of said gear wheels being shiftable into and out of mesh with the second gear wheel, means for shifting said first gear wheel, and a safety device carried by said shifting means, said device comprising a pin having a pivotal support, means for yieldingly holding said pin in one position, and means for engaging said second gear wheel in advance of said first gear wheel.

2. In a starting mechanism, the combination with a shaft, a gear wheel on said shaft, a pinion shiftable into and out of mesh with said gear wheel, and means for shifting said pinion, of a member having pivotal supports at right angles the one to the other, and means on said member for engaging said gear wheel and for engaging said shifting means.

3. In combination, two gear wheels, means for shifting one of said wheels into and out of mesh with the second wheel, and a safety device carried by said shifting means,

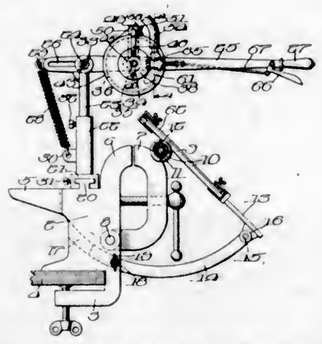
said device comprising a pin having a pivotal support, a member pivotally supported on said pin and having a projecting lug and means for engaging said second gear wheel.

4. In a starting mechanism, the combination with a shaft, a gear wheel fixed on said shaft, a pinion shiftable into and out of mesh with said gear wheel, and means for shifting said pinion, of means for preventing the engagement of said gear wheel by said pinion when said gear wheel is rotating, said preventing means comprising a pivotally mounted pin, a member pivotally mounted on said pin, and projections on said member adapted to engage said gear wheel and said shifting means, respectively.

5. In a starting mechanism, the combination of a shaft, a gear wheel fixed on said shaft, a pinion shiftable into and out of mesh with said gear wheel, and a safety device shiftable with said pinion, said safety device comprising two members having pivotal supports at right angles, the one to the other, and means on one of said members for engaging said gear wheel in advance of said pinion and for engaging said shifting means.

[Claims 6 to 8 not printed in the Gazette.]

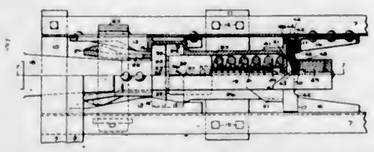
1,130,011. GRINDING-MACHINE. HJALMAR NORDVALL, Chicago, Ill. Filed Mar. 24, 1913. Serial No. 756,296. (Cl. 76—40.)



1. The combination with an angularly and longitudinally adjustable hand-lever, of a grinding wheel and the like rotary element operative upon a piece of work, means for rotating same, and means on said lever for controlling the motive power.

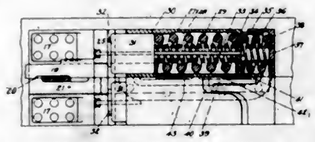
2. The combination with a hand-lever, of means for adjusting said lever vertically and horizontally with respect to its axis of angular movement, a source of power, a driving motor on said lever, and means on said lever for controlling said motor.

1,130,012. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 14, 1913. Serial No. 754,222. (Cl. 213—64.)



In a draft rigging for railway cars, in combination, a draft yoke and a draft gear, the draft gear comprising a shell, compression resisting members within the shell, a transverse plate at one end of said shell and a preliminary spring, the said transverse plate being provided with angular flanges forming a recess to receive the ends of the preliminary springs, the preliminary spring comprising a plurality of plates, each having a concave face, the concave faces being turned toward the rear end of the shell, and the said plates being in engagement with the draft yoke.

1,130,013. TWIN-ARRANGED FRICTION DRAFT-GEAR. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Dec. 13, 1913. Serial No. 806,391. (Cl. 213—64.)



1. In a railway draft gear, two members relatively longitudinally movable, one of said members having two sets of twin-arranged main springs and friction mechanisms, a preliminary compression spring between said members, and means for transmitting the shocks under buff, separately from each of said members to the center sills, said means including two horizontally extending keys passing through said members and slidable in slots in the center sills, substantially as specified.

2. In a railway draft gear, a draw-bar; a yoke, the latter including a transversely extended key; two casings relatively longitudinally movable and having preliminary compression springs therebetween, said key slidably engaging both of said casings, one of said casings having sets of twin-arranged main springs and friction mechanisms therewithin; and a second key extended through the casing having the friction mechanisms therein and adapted to support the same, substantially as specified.

3. In a railway draft-gear, in combination: two casings telescoped with respect to each other and relatively longitudinally movable; twin-arranged sets of main springs and friction mechanisms within one of said casings; preliminary compression springs interposed between said casings in twin arrangement and in alinement with the friction mechanisms; a key extended through slots in both of said casings to thereby connect the same; links connecting said key with the draw-bar; and a second key passing through said casing having the friction mechanisms therein and through slots in said links and adapted to support the casing, substantially as specified.

4. In a railway draft-gear, two members relatively longitudinally movable, one of said members being provided with main springs and friction mechanism therewithin, a preliminary compression spring between said members, and two keys, one of said keys extending through slots in both of said members to thereby slidably connect the same together and the other of said keys passing through the member provided with the main springs and friction mechanism and adapted to support the same.

1,130,014. INTERNAL-COMBUSTION ENGINE. EDWARD S. PALMBLA, North Chicago, Ill., assignor of one-half to Frank Palmbla, Chicago, Ill. Filed Dec. 17, 1912. Serial No. 737,284. (Cl. 123—81.)

1. In combination, an oscillatory valve arranged to open first an exhaust and then an intake port, and means to oscillate the same to open each port once per cycle of the engine, each for approximately two strokes thereof, and a puppet interposed between the oscillatory valve and the engine proper, means to open the puppet-valve once per cycle of the engine for approximately two strokes of the engine, the puppet being timed to remain open during approximately half of the opening of the exhaust and half of the opening of the intake port by the oscillatory valve.

2. In combination, a conical oscillatory valve arranged to open first an exhaust and then an intake port, and means to oscillate the same to open each port once per cycle of the engine, each for approximately two strokes thereof, and a puppet interposed between the oscillatory valve and the engine proper, means to open the puppet-valve once per cycle of the engine for approximately two strokes of the engine, the puppet being timed to remain open during approximately half of the opening of the exhaust and half of the opening of the intake port by the oscillatory valve.

3. In combination, an oscillatory valve, provided with a pinion, a reciprocable rack-bar, a rotating countershaft, a crank connection between the countershaft and the rack-bar whereby the oscillatory valve is turned first in one direction and then in the other, to open first the exhaust and then the intake port, each once, for one cycle of the engine and for approximately two strokes of engine, and a puppet between the oscillatory valve and the engine, and means to open same once per cycle for two strokes of the engine, the puppet being timed to remain open during approximately half of the opening of the exhaust and half of the opening of the intake port by the oscillatory valve.

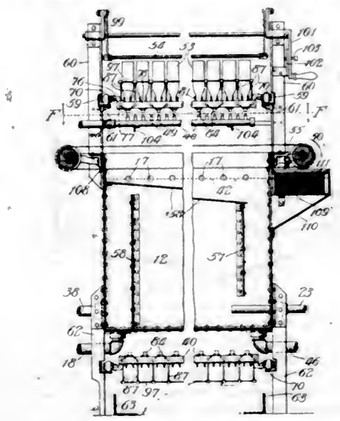
4. In combination, an oscillatory valve arranged to open first the exhaust and then the intake port of an engine, and means to oscillate the same to open each port once for each cycle of the engine and each for approximately two strokes of the engine, a puppet interposed between the oscillatory valve and the engine, a rotating countershaft, a puppet-operating member reciprocating with reference to the puppet and having a lost-motion connection therewith, a spring interposed between the puppet-operating member and the puppet, and a crank connection between the countershaft and the puppet-operating member whereby the puppet may be opened once for each cycle of the engine and for approximately two strokes thereof, the puppet and the oscillatory valve being so timed that the puppet is open during approximately half of the opening of the intake and half of the opening the exhaust port by the oscillatory valve.

5. In combination, an oscillatory valve arranged to open first the exhaust and then the intake port, a countershaft, operating means including a crank between the countershaft and the oscillatory valve for oscillating said valve once per cycle of the engine to open each port for approximately two strokes of the engine, a puppet, operating means for the puppet including a crank and a lost-motion connection arranged to open the puppet once per cycle and for approximately two strokes of the engine, said operating means being so timed that the puppet is open during approximately half of the opening of the intake and half of the opening of the exhaust port by the oscillatory valve.

[Claims 6 to 10 not printed in the Gazette.]

1,130,015. BOTTLE-WASHING MACHINE. JOHN T. H. PAUL, Chicago, Ill., assignor to E. Goldman & Co., Inc., Chicago, Ill., a Corporation of Illinois. Filed Aug. 29, 1910. Serial No. 579,470. (Cl. 141—7.)

1. In a bottle-washing machine, the combination of a tank forming a series of compartments and having a track extending lengthwise over it, sets of relatively adjustable jet-pipes extending over the compartments below said track, means for supplying washing-water to said pipes, and endless carrier comprising sprocket-driven chains provided with rollers to ride on said track and spaced bars connecting them and forming supports for bottles in inverted position, means for driving the carrier intermittently, and a conveyer at the delivery-end of the carrier to receive the bottles discharging therefrom.



2. In a bottle-washing machine, the combination of a tank forming a series of compartments and having a track extending lengthwise over it, sets of jetting-nozzles extending over the compartments below said track, means for supplying washing-water to said nozzles, an endless carrier movable on said track and comprising sprocket-driven chains with bars connecting them at intervals and series of nipples on the bars for seating bottles in inverted position and having tubes extending from them to enter the bottle-necks, and means for driving the carrier intermittently.

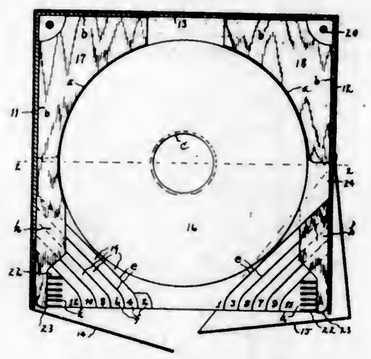
3. In a bottle-washing machine, the combination of a tank forming a series of compartments and having a track extending lengthwise over it, sets of jetting-nozzles extending over the compartments below said track, means for supplying washing-water to said nozzles, an endless carrier movable on said track and comprising sprocket-driven chains with pairs of spaced bars connecting them at intervals and a series of devices secured between each pair of said bars for seating bottles in inverted position, each of said devices consisting of legs terminating in a nozzle having a tube extending therefrom to enter a bottle-neck, and means for driving the carrier.

4. In a bottle-washing machine, the combination of a tank having a track extending lengthwise over it, jetting-nozzles supported over the tank below the track, means for supplying washing-water to said nozzles, an endless carrier movable on said track and comprising sprocket-driven chains with bars connecting them at intervals and series of pockets on the bars for holding bottles in inverted position, comprising frames secured to said bars with rods rigidly connecting the frames of the pocket-series, and means for driving the carrier.

5. In a bottle-washing machine, the combination of a tank forming a series of compartments and having a track extending lengthwise over it, sets of jetting-nozzles extending over the compartments below said track, means for supplying washing-water to said nozzles, an endless carrier movable on said track and comprising sprocket-driven chains with bars connecting them at intervals and series of pockets on the bars for holding bottles in inverted position, comprising heads secured to the bars, with arms extending from each head, a frame about said arms and rods connecting the series of arms at their outer ends, and means for driving the carrier.

[Claims 6 to 23 not printed in the Gazette.]

1,130,016. FILING-CASE FOR DISK RECORDS. THOMAS H. PERFIELD, Omaha, Nebr. Filed July 9, 1914. Serial No. 849,931. (Cl. 211—16.)



1. In a filing case for disk records, the combination of a receptacle, a plurality of spacing plates arranged in pairs and adapted to have their outer edges in engagement with the walls of the receptacle while disposed therein, the spacing plates of a pair being disposed in horizontal alinement and having concave edges for engagement with opposed edges of a disk, one of said plates of a pair being movable forwardly of the receptacle for moving the disk which it engages.

2. In a filing case for disk records, the combination of a receptacle, a plurality of spacing plates arranged in pairs, the plates of each pair being provided with recesses opening on their inner edges and disposed in horizontal alinement adjacent to each other to normally engage opposed edges of the disk, one of said plates having a forwardly projecting part and being movable for moving the disk which it engages.

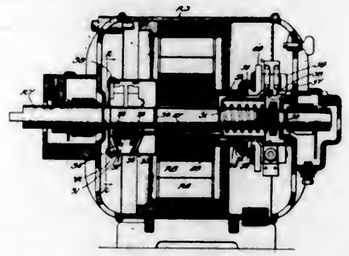
3. In a filing case for disk records, the combination of a receptacle, a series of housing sheets disposed one above the other in the receptacle, a plurality of spacing plates each having a thickness substantially epual to the thickness of a disk, said plates being arranged in pairs between the housing sheets for engagement of their outer edges with the walls of the receptacle, their inner edges being provided with recesses for normal engagement with the opposed edges of a disk, one of said plates being movable for moving the disk in engagement therewith.

4. In a filing case for disk records, the combination of a receptacle, a series of connected substantially parallel housing sheets disposed therein, a plurality of spacing plates each having a thickness substantially equal to the thickness of a disk, said plates being arranged in pairs between the housing sheets for engagement with the walls of the receptacle, their inner edges being formed with recesses for normal engagement with the opposed edges of a disk, one of said plates being movable for disengaging the disk from the recess of the other plate and for moving said disk outwardly of said case.

5. In a filing case for disk records, the combination of a receptacle, a series of connected housing sheets disposed one above another in the receptacle, each having a convergent terminal bearing a designating character, a plurality of spacing plates each having a thickness corresponding approximately to the thickness of a disk, said plates being arranged in pairs between the housing sheets for engagement with the walls of the receptacle, their inner edges being provided with recesses for normal engagement with the opposed edges of a disk, one of the spacing plates of each pair being provided with a finger bearing a designating character and being movable for disengaging the disk from the recess of the other plate of said pair and for moving said disk outwardly of said case.

[Claim 6 not printed in the Gazette.]

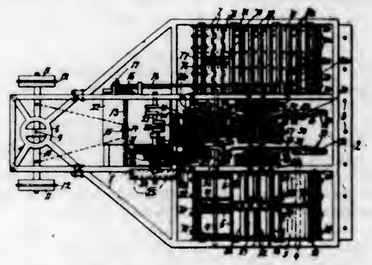
1,130,017. CENTRIFUGAL CIRCUIT-CHANGING DEVICE FOR ELECTRIC MOTORS. EDWIN S. PILLSBURY, St. Louis, Mo., assignor to Century Electric Company, a Corporation of Missouri. Filed Jan. 19, 1912. Serial No. 672,151. (Cl. 172—279.)



1. In an electric motor, a circuit changing member therefor, a rotor, a shaft therefor, two opposed frames surrounding the rotor shaft, one fixed thereon and the other slidably mounted thereon, the latter being connected to the circuit changing member, a plurality of centrifugal weights between said frames, one of said frames having an inclined face overhanging said weights, sliding guides mounted on the sides of the weights between the weights and the frames, and rollers in said guides.

2. In an electric motor, a circuit changing member therefor, a rotor, a shaft therefor, two opposed frames surrounding the rotor shaft, one fixed thereon and the other slidably mounted thereon, the latter being connected to the circuit changing member, a plurality of centrifugal weights between said frames, one of said frames having an inclined face overhanging said weights, radial guides adapted to constrain said weights to move radially, and rollers between said weights and frames.

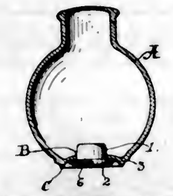
1,130,018. TRACTOR. JOHN PITTINGS, Antler, N. D. Filed Apr. 8, 1913. Serial No. 759,807. (Cl. 21—114.)



In a tractor, a frame, traction wheels supporting the frame and arranged one pair at each side of the frame, endless self laid broad link tracks stretched one about each pair of wheels and having operative connection therewith and shielding plates carried by the frame and fitting snugly to the edges of the endless tracks the upper portion of said plates being of door-like character to give access to the interior of the traction mechanism.

1,130,019. CLOSURE FOR CONDIMENT-HOLDERS. JEFFERSON PULFORD, Detroit, Mich. Filed July 5, 1912. Serial No. 707,960. (Cl. 215—51.)

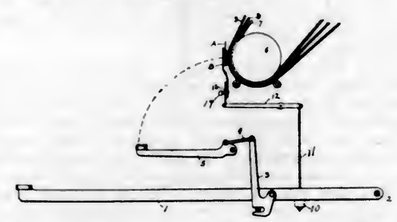
1. A device of the character described comprising a cork, a metal cap of greater diameter than the diameter of the cork having a laterally turned flange provided with oppositely disposed apertures, said cap having a transverse slitted portion alining with the apertures of said flange and a prong formed from said slitted portion and piercing the cork to hold the cap upon the end of the cork, and a bail engaging in said apertures and adapted to frictionally engage the flange intermediate its ends.



2. A device of the character described comprising a cork, a metal cap for the cork secured upon one end thereof and provided with a laterally transverse flange having walls in parallelism with the walls of said cork and provided with holes at diametrically opposed points, a bail formed of spring wire with inturned ends to extend through said holes in the flange in proximity to the walls of said cork and adapted to frictionally engage the flange intermediate its ends when turned into alinement therewith.

3. In a device of the character described, the combination of a cork, and a cap formed of sheet metal having an edge flange and an integral portion bent inward upon the cap and then bent at right angles to project laterally from the center of the cap to form a prong thereon extending through the cork to hold the cap upon the cork.

1,130,020. TYPE-WRITER RIBBON. GEORGE W. RAMSEY, Peoria, Ill. Filed Aug. 27, 1909. Serial No. 514,962. (Cl. 197—172.)



1. A printing ribbon carrying pigments, said ribbon having distinct printing fields, each field containing structural means to determine the character of imprint from said field.

2. A type writer ribbon having different printing fields composed of materials of different degrees of hardness, said materials constituting means for differentiating imprints from the different printing fields.

3. A typewriter ribbon comprising a woven fabric, coloring matter of different colors impregnated in different areas of said fabric, and means in said different color areas for showing in an imprint an index of the color field struck when the imprint is made.

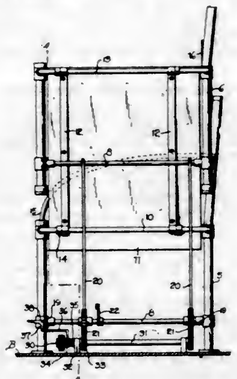
4. A type writer ribbon carrying a pigment and being formed with a plurality of printing fields, said fields containing structural characteristics adapted to produce a distinctive imprint for each of said fields.

5. In a multi-color type ribbon, means in each printing field adapted to differentiate on a carbon sheet the corresponding imprints of different colors on the original sheet.

[Claims 6 to 22 not printed in the Gazette.]

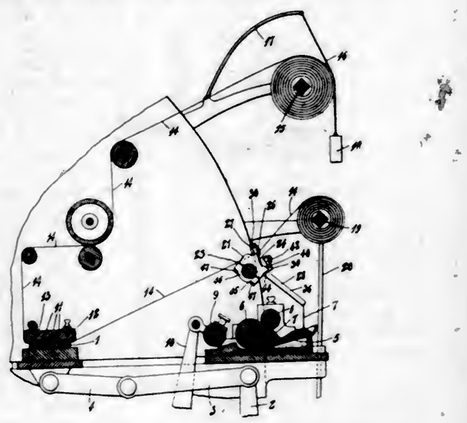
1,130,021. CHAIR. CHARLES F. ROTH, Pilot Grove, Mo. Filed May 26, 1913, Serial No. 769,982. Renewed Jan. 20, 1915. Serial No. 3,375. (Cl. 155—13.)

1. The combination with a plurality of chairs each having a stationary side frame and a movable side frame, the movable frame being movable by gravity to its open position, of means for simultaneously moving the movable side frames of said chairs to their folded positions and means for independently releasing the side frames from connection with said operating means for movement by gravity to their open position.



2. The combination with a chair having stationary and movable side frames, and means for moving the movable side frame into folded relation to said stationary frame, said means including a releasable element to disconnect the movable frame from said operating means and permit of its movement to its open position.

1,130,022. INKING APPARATUS. RUDOLPH SATTLER, Cincinnati, Ohio, and LEO J. MORAND, Covington, Ky. Filed May 23, 1914. Serial No. 840,435. (Cl. 101—101.)



1. In combination with means for making an impression, from which means a portion of ink must be removed before the impression is made, a web, and means for applying successive lengths of web to remove successive portions of ink from the impression-making means, fixed means positively bearing against opposite sides of the web to recover ink therefrom.

2. In combination with means for making an impression, from which means a portion of ink must be removed before the impression is made, a web, and means for applying successive lengths of the web to remove successive portions of ink from the impression-making means, fixed means positively bearing against opposite sides of the web to recover ink therefrom, and means for positively regulating the action of said recovering means upon said web.

3. In combination with means for making an impression, from which means a portion of ink must be removed before the impression is made, a web, and means for applying successive lengths of the web to remove successive portions of ink from the impression-making means, means bearing against the web to recover ink therefrom, stationary means flexing and positively supporting the web for the recovering means to bear thereon, and means to minimize the disrupting action of the supporting means on said web.

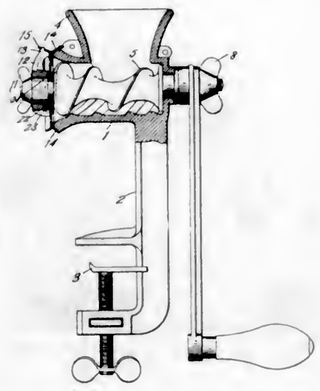
4. In combination with means for making an impression, from which means a portion of ink must be removed before the impression is made, a web, and means for applying successive lengths of the web to remove successive portions of ink from the impression-making means, means bearing against the web to recover ink therefrom, means flexing and positively supporting the web for the recovering means to bear thereon, means to minimize the disrupting action of the supporting means on said web, and means to adjust the action of the supporting means in holding the web for the bearing of the recovering means, whereby the removal of the ink is maximized, and the disturbance of the material of the web is minimized.

5. In combination with means for making an impression, from which means a portion of ink must be removed before the impression is made, a web, and means for applying successive lengths of the web to remove successive portions of ink from the impression-making means, means bearing against the web to recover ink therefrom, and a stationary pressure bar flexing and positively supporting the web for the recovering means to bear on the web.

[Claims 6 to 38 not printed in the Gazette.]

1,130,023. [WITHDRAWN.]

1,130,024. FOOD-CHOPPER.. CLARENCE SCHOCK, Mount Joy, Pa. Filed Sept. 29, 1913. Serial No. 792,314. (Cl. 17—20.)



1. The combination with a food chopper having a barrel and a rotary forcer operable therein, of cutters associated with the forcer, at least one of said cutters being resilient and provided with an integral reinforcing element.

2. The combination with a food chopper having a barrel and a forcer operable therein, of cutters associated with the barrel and forcer in such manner as to receive the thrust of the food being cut, at least one of said cutters being a resilient disk having an integral peripheral reinforcing flange.

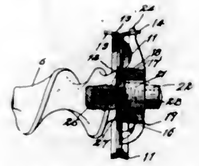
3. A cutter disk having an integral peripheral reinforcing element the boundary of which is substantially continuous.

4. In a food chopper, a resilient cutter disk having an obliquely disposed reinforcing flange.

5. In a food chopper, a resilient cutter disk having an obliquely disposed, circumferential, reinforcing flange.

[Claims 6 to 16 not printed in the Gazette.]

1,130,025. FOOD-CHOPPER. CLARENCE SCHOCK, Mount Joy, Pa. Filed Sept. 29, 1913. Serial No. 792,315. (Cl. 17—20.)



1. In a food chopper, a rotary forcer, and an inner and outer cutter carried thereby, means for securing the inner cutter loosely on the forcer whereby the latter may rotate with respect to such inner cutter, and additional means for holding the outer cutter on the forcer to rotate therewith.

2. In a food chopper having a rotary forcer and operating means therefor, the combination with an outer cutter adapted to rotate with the forcer and an inner cutter adapted to be held stationary with respect thereto, of a retaining device for the inner stationary cutter permanently associating it with the forcer.

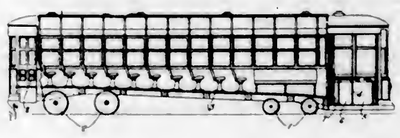
3. In a food chopper having a rotary forcer and operating means therefor, the combination with an outer cutter adapted to rotate with the forcer and an inner cutter adapted to be held stationary with respect thereto, of a retaining device for the inner stationary cutter permanently associating it with the forcer and affording a rotative bearing between the forcer and the inner stationary cutter.

4. In a food chopper having a rotary forcer and operating means therefor, the combination with an outer cutter adapted to rotate with the forcer and an inner cutter adapted to be held stationary with respect thereto, of a retaining device for the inner stationary cutter permanently associating it with the forcer and provided with means for locking the outer rotary cutter to said forcer.

5. In a food chopper having a barrel, a rotary forcer and operating means therefor, the combination with an outer cutter adapted to rotate with the forcer and an inner cutter adapted to be locked to the barrel, of a retaining device for the inner cutter permanently associating it with the forcer.

[Claims 6 to 13 not printed in the Gazette.]

1,130,026. PASSENGER-VEHICLE. RALPH T. SENTER, Philadelphia, Pa., assignor to The Near Side Car Company, New York, N. Y., a Corporation of New York. Filed Nov. 4, 1912. Serial No. 729,270. (Cl. 105—205.)



1. In a car, a body portion having one end depressed below the level of the other end, a platform supported at the depressed end thereof near the track level and arranged to permit a passenger to step directly from the street to the platform.

2. In a car, a body portion having one end depressed below the level of the other end, a platform supported at the depressed end thereof near the track level, having both an entrance and an exit and arranged to permit a passenger to step directly onto or off of the platform of the car.

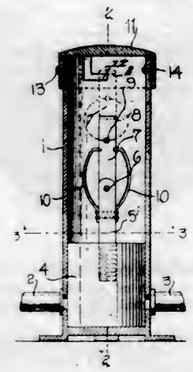
3. In a car, a body portion having one end depressed below the level of the other end, a platform supported at the depressed end thereof near the track level and arranged to permit a passenger to step directly from the street to the platform, and trucks of different heights to support the respective ends of the body portion of said car.

4. A car comprising two trucks, one of less height than the other, a body portion having its floor sloping from one truck to the other, and a platform at the lower end of said body portion arranged close to the track level.

5. A car comprising a body portion, high wheels supporting one end of said car, and low wheels supporting the other end thereof, said body portion having its floor sloping toward said low wheels and provided with a depressed portion arranged close to the track level, said car having both its entrance and its exit at the depressed portion of said floor.

[Claims 6 to 12 not printed in the Gazette.]

1,130,027. GASOLENE CUT-OFF FOR AUTOMOBILES. STEWART SHAFER, Idaville, Ind. Filed Apr. 4, 1914. Serial No. 829,717. (Cl. 137—5.)

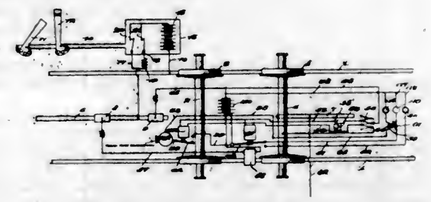


1. A gasolene cut off for automobiles comprising a casing provided at its lower end with oppositely disposed pipes, a plunger arranged in the casing and operating normally to close passage through the pipes, a bolt carried by the upper end of the plunger, a spring pressed latch pivotally connected with the upper end of the bolt and carrying at its upper terminal an outstanding catch and at an intermediate point an outstanding pin, a cap secured to the casing, and a keeper depending from the cap and arranged to be engaged by the catch.

2. A gasolene cut off for automobiles comprising a casing provided at its lower end with oppositely extending pipes, a plunger arranged in the casing and operating normally to cut off passage through the pipes, a bolt rigid with the upper side of the plunger, a latch pivotally connected with the upper end of the bolt and provided at its upper end with an outstanding catch and intermediate of its ends with an outstanding pin, springs secured to opposite sides of the bolt and engaging the latch to hold it normally in a vertical position, a cap secured to the upper end of the casing, a keeper depending from the cap and arranged to be engaged by the catch, and a key having an orificed ward to engage the pin whereby to raise the plunger and to impart lateral movement to the latch to permit the catch to be engaged with the keeper.

3. A gasolene cut off for automobiles comprising a casing provided in its lower portion with oppositely disposed pipes, a plunger arranged in the casing and operating normally to cut off passage through the pipes, a bolt rigid with the plunger, a pivoted spring pressed latch carried by the upper end of the bolt and provided with an outstanding catch and with a pin, a cap closing the upper end of the casing, a keeper depending from the cap, a key guide projecting through the side of the casing and having its eye disposed opposite the pin, and a key having an orificed ward to engage with the pin to raise the plunger.

1,130,028. AUTOMATIC BRAKE-SETTING AND SIGNAL-OPERATING APPARATUS FOR RAILWAY-TRAINS. THOMAS H. SHELDON, Victor, Colo., assignor of one-half to Felix Herz, Goldfield, Colo. Filed Jan. 27, 1913. Serial No. 744,515. (Cl. 246—58.)

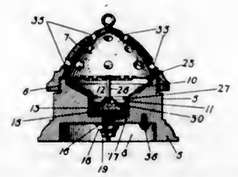


1. In a brake setting apparatus, the combination with a track signal, of a contact rail controlled by said track signal and energized when the latter is in operative position, a relay circuit carried by the train, a contact shoe, the latter having an electrical connection with said relay circuit, a relay included in said circuit, a battery circuit carried by the train, an electrically operated valve included therein, a swith arranged in said battery circuit and controlled by said relay whereby to open and close said circuit and coöperating means included in said relay circuit to control the latter whereby said relay may be unaffected by a negative and energized by a positive current or energized by a negative current and unaffected by a positive one.

2. In a brake setting apparatus, the combination with a track signal, of a contact rail controlled by said track signal and energized when the latter is in operative position, a relay circuit carried by the train, a contact shoe, the latter having an electrical connection with said relay circuit, a battery circuit carried by the train, an electrically operated valve included therein, a signal in said battery circuit, a switch included in the latter and controlled by said relay whereby to open and close said circuit and coöperating means included in said relay circuit to control the latter whereby said relay may be unaffected by a negative and energized by a positive current or energized by a negative and unaffected by a positive current.

3. In an electrical brake setting apparatus, the combination with a track signal, of a contact rail controlled by said track signal and energized with the latted is in operative position, a relay circuit carried by the train, a contact shoe, the latter having an electrical connection with said circuit, high and low resistant relays included in the latter, a battery circuit, an electrically operated valve included therein, a danger signal arranged in said circuit, a switch included in said battery circuit, and controlled by said high resistance relay to open and close said circuit, branch circuits connected to said battery circuit, caution and safety signals included therein, a switch controlling said branch circuits and influenced by said low resistance relay, and coöperating means included in the circuit of said relays and controlling the latter whereby they will be energized by a positive and unaffected by a negative current or energized by a negative and unaffected by a positive one.

1,130,029. TELEPHONIC APPARATUS. HERBERT E. SHREEVE, Milburn, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Jan. 14, 1913. Serial No. 741,930. (Cl. 179—125.)



1. In a telephone transmitter, comminuted conducting material and relatively movable electrodes, one of said electrodes being flat and supporting said comminuted conducting material and the other of said electrodes having sloping faces and being only partially in contact with said comminuted conducting material whereby the surface area of contact between said sloping-faced electrode and said comminuted conducting material is varied by the relative movement of said electrodes.

2. In a telephone transmitter, a main body portion having a chamber formed therein, comminuted conducting material in said chamber, electrodes in said chamber having a vertical movement relative to each other, one of said electrodes supporting said comminuted conducting material, the other being conical in form and having an upturned edge which dips into said comminuted conducting material.

3. In a telephone transmitter, a body portion having a chamber formed therein, comminuted conducting material in said chamber, movable and stationary electrodes in operative relation to said comminuted conducting material, a diaphragm operatively connected with said movable electrode, and a parabolic sound concentrating device in operative relation to said diaphragm, adapted to receive and concentrate upon said diaphragm, sound waves from substantially in all directions.

4. In a telephone transmitter, main body portion having a chamber formed therein, comminuted conducting material in said chamber, movable and stationary electrodes in operative relation to said comminuted conducting material, a diaphragm operatively connected with said movable electrode and a parabolic cap having openings therein, said cap having screw threaded engagement with said body portion for clamping said diaphragm to said body portion.

5. In a telephone transmitter a body portion having a chamber formed therein, said chamber having a lower cylindrical portion and an upper conical portion, the larger end opening adjacent the upper margin of said body portion, and the lower end opening into said cylindrical portion, comminuted conducting material in said cylindrical portion of said chamber, movable and stationary electrodes in inoperative relation to said comminuted conducting material, and a diaphragm secured to the upper margin of said body portion and closing said chamber.

1,130,030. MANDREL FOR FORMING AND VULCANIZING RUBBER HOSE. SAMUEL J. SILL, Buffalo, N. Y., assignor of one-half to Herbert H. Hewitt, Buffalo, N. Y. Filed Jan. 2, 1913. Serial No. 739,878. (Cl. 18—45.)

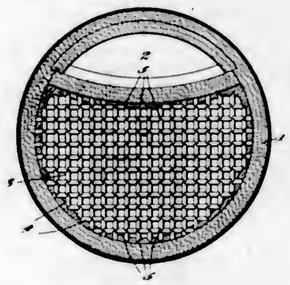


1. A mandrel for forming rubber hose comprising a cylindrical body having enlarged cylindrical end portions on which said hose is formed and terminal collars forming abutments over the ends of said hose, one enlarged end portion and the adjacent collar being detachable from the body of the mandrel to permit the removal of said hose, substantially as described.

2. A mandrel for forming rubber hose comprising a cylindrical body having an enlarged portion at one end and a reduced stem at its opposite end and a sleeve corresponding in size to said enlarged portion detachably mounted on said stem, said enlarged portion and said sleeve having terminal collars thereon, substantially as described.

3. A mandrel for forming rubber hose comprising a cylindrical body having an enlarged cylindrical portion at one end and a reduced threaded stem at its opposite end, and a cylindrical sleeve corresponding in size to said enlarged portion threaded on said stem, said enlarged portion and said sleeve having terminal collars thereon and flattened wrench-engaging faces, substantially as described.

1,130,031. BRICK FOR HOT-BLAST STOVES. EDWIN E. SLICK, Westmont borough, Pa. Filed June 29, 1914. Serial No. 847,836. (Cl. 75—52.)



1. In a regenerator, a flue structure comprised of bricks, the lateral ends of each of which are prooved on one side of the central longitudinal plane and fitted together thereby to form flues.

2. In a regenerator, a flue structure comprised of bricks, the lateral ends of which are corner rabbeted in the direction of the flue axis.

3. In a regenerator, a structure comprised of bricks, the lateral ends of which are provided with substantially rectangular grooves on one side of the central longitudinal plane, whereby they are fitted and interlocked to form flues.

4. In a regenerator, a flue structure comprised of substantially rectangular bricks, the lateral ends of which are provided with substantially rectangular grooves on one edge with rounded corners, whereby they are fitted together and interlocked.

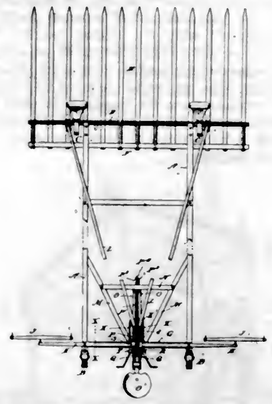
5. In a regenerator, a flue structure comprised of bricks having projections on one edge of opposite lateral ends, whereby they are fitted and interlocked.

[Claims 6 to 9 not printed in the Gazette.]

1,130,032. PUSH-RAKE. EARNEST C. SMITH, Peoria, Ill., assignor to Acme Harvesting Machine Co., Peoria, Ill., a Corporation of West Virginia. Filed July 20, 1911. Serial No. 639,677. (Cl. 56—66.)

1. In a push rake, the combination of a wheeled main frame, a rake head pivoted to the forward end of the frame, a rock arm pivoted on the frame, a reach structure connecting the arm and rake-head, a fixed stop, and a latch carried by and movable with the arm and engaging the stop.

2. In a push rake, the combination of a main frame, a rake-head pivotally supported at is forward end, a rock-arm pivotally mounted on the frame, a reach structure connecting the rake-head and the rock-arm, a stop on the frame, a latch carried by the rock-arm to engage the stop, and a foot lever fixed relatively to the said rock-arm.



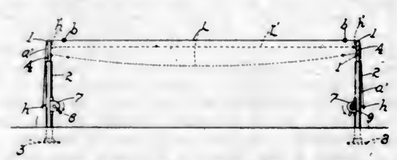
3. In a push rake, the combination of a main frame, a rake-head pivoted at its forward end, a rock arm pivotally mounted on the frame, a reach structure connecting the latter with the rake-head, a lever pivoted to the arm, means to limit its pivotal movement thereon, a stop on the rake frame, and a latch on the said foot lever to engage the stop.

4. In a push rake the combination of a main frame, a rake-head pivoted at its forward end, a rock arm pivoted on a frame, a reach structure pivoted to the arm at one end and to the rake-head at the other, the point of connection of the reach structure and the arm in the gathering position of the rake teeth lying below a line extending through the point of connection of said reach structure and rake head and the supporting pivot of the arm, and an adjustable stop beneath the same to receive the same.

5. In a push rake, the combination of a main frame, a rake-head pivoted at its forward end, a rock arm pivotally mounted on the frame, a reach structure connecting the arm and the rake-head, a member pivoted to the arm and including a part to limit its movement relative thereto and also including a depending latch, and a stop lying in the path of said latch and engaged by it.

[Claims 6 to 20 not printed in the Gazette.]

1,130,033. CLOTHES-LINE SUPPORT. MICHAEL SOLDIER, Gillespie, Ill. Filed July 25, 1914. Serial No. 853,189. (Cl. 68—12.)

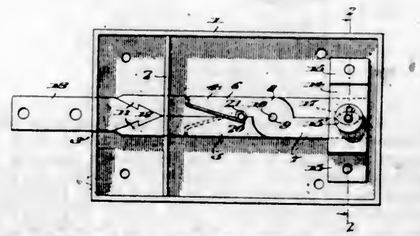


1. In combination with a clothes-line, a pair of standards spaced apart to which the ends of the line are fastened, a member mounted on each standard and adjustable along the same for lengthening or shortening the available height of said standard, the upper end of each member engaging the line at points adjacent the fixed ends of the line, and means for locking the member in any of its adjusted positions, the line being raised and lowered parallel to itself with the vertical movements of the members aforesaid.

2. In a clothes-line support, the combination with a clothes-line, a suitable hollow support therefor, a rack-bar traversing said support, a casing secured to said support, a pinion mounted in said casing, means for actuating said pinion, said pinion projecting through an opening in said support and meshing with the teeth of said rack-bar, a pulley mounted on the upper end of said rack-bar over which said clothes-line passes, and means on the aforesaid hollow support, opposite said pinion, for fastening the end of said clothes-line.

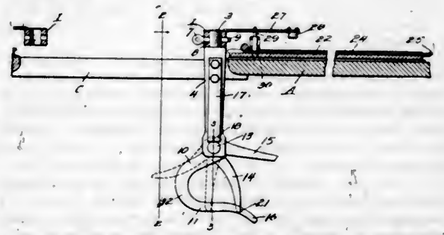
3. In combination with a pair of vertical hollow standards spaced apart, rack-and-pinion operated bars mounted in said standards, pulleys at the upper ends of said bars, a series of lines coupled to terminal cross-bars, one of said lines being extended beyond said cross-bars and having its terminals secured to the hollow standards, the said extensions passing over the pulleys aforesaid, and means on the standards for locking the bars in any elevated position.

1,130,034. DOOR-LOCK. THADDEUS A. SPRADLEY, Cropwell, Ala. Filed Sept. 16, 1913. Serial No. 790,111. (Cl. 70—31.)



In a sliding door lock, jaws pivoted upon a common center, scissors fashion, and movable to open and closed positions and each comprising arms offset from each other and a hub interconnecting said arms and formed with a bore adapted to aline with the bore in the other hub, a pivot bolt passed through said alining bores, a cam mounted between the arms of said jaws and adapted to be rotated to swing the jaws to open position, a spring connected to the remaining arms of the jaws and holding the latter in closed position, a shank on said cam, a U-shaped yoke extending over the cam end of said arms, a barrel fixed to the interconnecting member of said yoke and extending outwardly therefrom coaxial with said shank and receiving the latter, hooks formed on the confronting faces of the spring actuated arms of the jaws, and a keeper adapted to be engaged by said hooks.

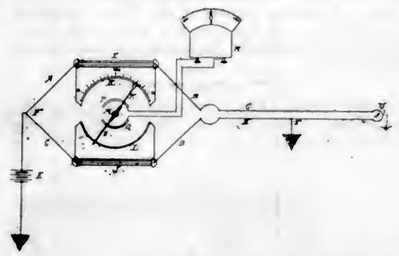
1,130,035. MAIL-CATCHER. LUTHER W. SPRINGSTEIN, Binghamton, N. Y., assignor of one-half to Adelbert E. Benedict, Binghamton, N. Y. Filed Nov. 1, 1913. Serial No. 798,723. (Cl. 258—20.)



A mail bag receiving apparatus comprising an inclosure having an opening, a movable closure for the opening, a rotary standard arranged within the inclosure and having flat faces, a mail bag catcher arm carried by the standard and adapted to be projected through the opening, means for tensioning the closure for automatically moving the same for closing the opening, a lock for holding the

closure open or closed, a trip member displaced by the flat faces on the standard when rotated and having connection with the lock for operating the same and also for holding the standard in adjusted position.

1,130,036. DEVICE FOR LOCATING FAULTS IN LINE-CONDUCTOR INSULATION. SEVERN D. SPRONG, Brooklyn, N. Y., assignor of one-third to Frank W. Smith and one-third to Walter E. McCoy, New York, N. Y. Filed Mar. 28, 1914. Serial No. 827,830. (Cl. 175—183.)



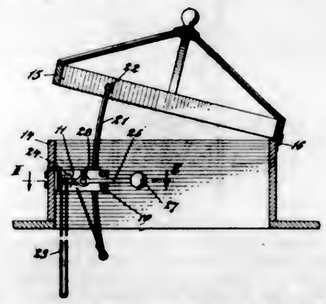
1. A device for locating faults in a two conductor line, comprising a Wheatstone bridge having arms A, B, C, D, two of said arms, B. D, being respectively connected to said line conductors, a testing battery having one pole grounded and the other pole connected to the junction of arms A, C, two conductors I, J of definite resistance connected across the joints between arms A, B and arms C, D, two conductors K, L of relatively high resistance as compared with conductors I, J connected in shunt therewith and across said joints, a pivoted support, mutually insulated contact arms on said support, and a voltmeter connected to corresponding ends of said high resistance conductors: the said high resistance conductors being of arc-shape and coöperating with said contact arms.

2. A device for locating faults in a two conductor line, comprising a Wheatstone bridge having arms A, B, C, D, two of said arms, B, D, being respectively connected to said line conductors, a testing battery having one pole grounded and the other pole connected to the junction of arms A, C, two conductors I, J of definite resistance connected across the joints between arms A, B and arms C, D, two conductors K, L of relatively high resistance as compared with conductors I, J connected in shunt therewith and across said joints, mutually insulated contact arms coöperating respectively with said high resistance conductors, and a potential indicating device connected to said arms.

1,130,037. SCUTTLE-COVER OPENER. JOSEPH TAGNER, New York, and WILLIAM MÜNCH, Richmond Hill, N. Y. Filed Nov. 3, 1914. Serial No. 870,075. (Cl. 16—28.)

1. In a device of the character described, a lifting bar having one end adapted to be pivoted to the cover of a skylight or the like so as to be opened or closed thereon, a casing adapted to be fastened to the support of the cover, and through which the bar is movably disposed, a shaft journaled in the casing, a lever having its central part held on the shaft, a weight on one end of the lever, and a cam actuated retainer on the shaft, said retainer being normally held in engagement with the lifting bar by the weight of the lever tending toward a downward movement whereby the bar will be held against accidental movement, and the said retainer being released from engagement with the bar when the opposite end of the lever is directed for the weight to move upwardly so that the lifting bar may be forced upwardly to raise the cover from its support.

2. In a device of the character described, a lifting bar having one end adapted to be pivoted to the cover of a skylight or the like so as to be opened or closed thereon, a casing adapted to be fastened to the support of the cover, and through which the bar is movably disposed, a shaft journaled in the casing, a weight on the shaft, a cam actuated retainer on the shaft, said retainer being normally held in engagement with the lifting bar by the weight tending toward a downward movement whereby the bar will be held against accidental movement, means on the weight, adapted to be manually operated to lift the weight to move the retainer from its engagement with the lifting bar, and means on the lifting bar, adapted to also be manually operated to then force the bar upwardly to raise the cover from its support.



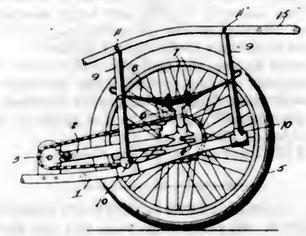
3. In a device of the character described, a lifting bar having one end adapted to be pivoted to the cover of a skylight or the like so as to be opened or closed thereon, a casing adapted to be fastened to the support of the cover, and through which the bar is movably disposed, a shaft journaled in the casing, a lever having its central part held on the shaft, a weight on one end of the lever, a line connected to the opposite end of the lever and to the other end of the lifting bar, and a cam actuated retainer on the shaft, said retainer being normally held in engagement with the lifting bar by the weight of the lever tending toward a downward movement whereby the bar will be held against accidental movement, and the said retainer being released from engagement with the bar when one part of the line is guided to direct the lever for the weight to be moved upwardly so that the other part of the line may be guided to also force the bar upwardly to raise the cover from its support.

4. A device of the character described, comprising a lifting bar having one end adapted to be pivoted to the cover of a skylight or the like so as to be opened or closed thereon, a casing adapted to be fastened to the support of the cover, and through which the bar is movably disposed, a shaft journaled in the casing, a gripping element eccentrically disposed on the shaft so as to be slidably moved into and out of engagement with the lifting bar whereby the bar will be held against movement, a weight on the shaft tending toward a downward movement to revolve the shaft for normally holding the gripping element into engagement with the lifting bar, means on the weight, adapted to be manually operated to lift the weight for rotating the shaft to free the gripping element from its engagement with the lifting bar, and means on the lifting bar, adapted to also be manually operated to then force the bar upwardly to raise the cover from its support.

5. A device of the character described, comprising a lifting bar having one end adapted to be pivoted to the cover of a skylight or the like so as to be opened or closed thereon, a casing adapted to be fastened to the support of the cover, and through which the bar is movably disposed, a shaft journaled in the casing, a cam eccentrically held on the shaft, a gripping element on the cam, adapted to be slidably moved into and out of engagement with the lifting bar when the cam and the shaft are revolved whereby the bar will be held against movement, a weight on the shaft tending toward a downward movement to revolve the shaft for normally holding the gripping element into engagement with the lifting bar, means on the weight and the bar, adapted to be manually operated to first lift the weight for rotating the shaft to free the gripping element from its engagement with the lifting bar and then force the bar upwardly to raise the cover from its support.

[Claim 6 not printed in the Gazette.]

1,130,038. MOTOR-CYCLE FRAME. ALOYSIUS S. TERHAAR, San Diego, Cal. Filed Mar. 23, 1914. Serial No. 826,742. (Cl. 208—94.)



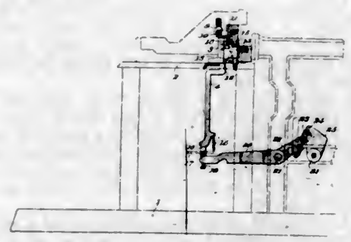
1. In a motorcycle, an arm supported by the rear wheel thereof, a spring attached to the upper end of said arm, and downwardly extending arms attached to the ends of the said spring for supporting the lower portion of the motorcycle frame.

2. A motorcycle frame comprising lower supporting bars, members extending upwardly therefrom, a baggage rack supported by said upwardly extending members, and springs adapted to be attached to the axle of a rear wheel of a motorcycle at points midway between their ends, the ends of the springs being attached to the upwardly extending members and yieldingly supporting the same.

3. In a motorcycle, a frame, a baggage carrier integral with said frame, means for yieldably supporting said baggage carrier and frame upon the rear wheel of the motorcycle.

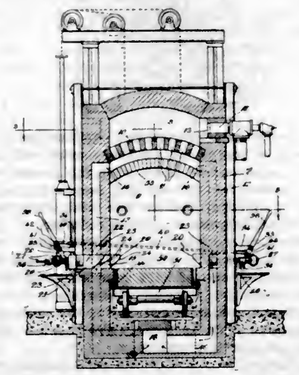
4. In a motorcycle, a frame comprising lower supporting members, distance rods carried thereby and adapted to be attached to the rear axle of a motorcycle, arms attached to the rear ends of said distance rods and extending upwardly therefrom, springs on the upper ends of said arms, upwardly extending supporting members carried by the lower supporting members of the frame, a baggage carrier supported by said upwardly extending members, and means for attaching the ends of said springs to the last mentioned members for yieldably supporting the baggage rack and frame.

1,130,039. TABULATING MECHANISM FOR CALCULATING-MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 7, 1913. Serial No. 759,494. (Cl. 197—176.)



In a tabulating mechanism, the combination of a tabulating bar, a rock arm for operating said bar, said rock arm having an adjustable screw in its end whereby the stroke of the bar may be adjusted, another rock arm having a yielding tappet on its end, and a third rock arm having a pin for coöperating with said yielding tappet whereby the operating mechanism for the tabulating bar will be actuated near the end of the return stroke of said pin.

1,130,040. HEAT-TREATING FURNACE. EDWIN FROST TILLEY, Jr., Plainfield, N. J. Filed May 15, 1914. Serial No. 838,627. (Cl. 75—40.)



1. In a furnace, a furnace body, provided with a treating chamber, means for introducing heat products into the upper portion of the treating chamber, said treating chamber having a normal outlet in the lower portion thereof for normally extracting the introduced heat products from the lower portion of the chamber and an outlet in the upper portion thereof for extracting heat products directly from the upper portion of the treating chamber and means for controlling flow through the said outlets.

2. In a furnace, a furnace body, a perforated arch dividing the interior of the furnace body into a treating chamber located below the arch and a combustion space disposed above said arch, the said treating chamber having a normal discharge outlet in the lower portion thereof and a cooling outlet in the upper portion thereof beneath the perforated arch and means for controlling flow through the respective outlets.

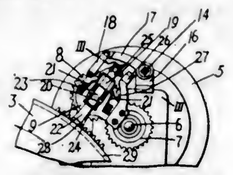
3. In a furnace, a furnace body provided with a treating chamber and with a combustion chamber above the treating chamber and in free communication therewith whereby heat products will be introduced into the upper portion of said treating chamber, the said treating chamber having a normal outlet in the lower portion thereof and a cooling outlet in the upper portion thereof, an eduction flue in communication with both the said upper and the said lower outlets and means for controlling flow through the respective outlets into the eduction flue.

4. In a furnace of the character set forth, the combination with a heat source and a furnace body provided with a treating chamber having an inlet for the heat products in the top thereof and provided with outlets in the upper and in the lower portions thereof whereby the heat products introduced in the chamber may be withdrawn from the upper or from the lower portion of the treating chamber, of means controlling the said upper and the said lower outlets for extracting the heat products direct from the upper or the lower portions respectively of the said treating chamber.

5. In a furnace, a furnace body provided with an outlet flue in the wall thereof and with a chamber having outlets in different portions thereof opening into said outlet flue, a valve slidably engaged in one of said outlets provided with a closure portion for closing said outlet and with a reduced portion adjacent the closure portion and the said outlet flue having an offset portion therein at the junction of the aforesaid outlet therewith to receive the flow traversing the reduced portion of the valve.

[Claims 6 to 18 not printed in the Gazette.]

1,130,041. SAFETY DEVICE FOR STARTING-MOTORS. SAMUEL TROOD, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 1, 1913, Serial No. 751,428. Renewed Dec. 16, 1914. Serial No. 877,614. (Cl. 74—7.)



1. In a starting mechanism, the combination with two gear members, of means for shifting one of said members laterally into and out of mesh with the second member, and means carried by said shifting means for preventing the shifting of said first member into mesh with the second member when said second member is rotating.

2. In a starting mechanism, the combination with two gear members mounted in substantially the same plane, of means for shifting one of said gear members into operative and in operative position with respect to the other gear member, and means for preventing the shifting of said first gear member from an inoperative position when said second gear member is rotating.

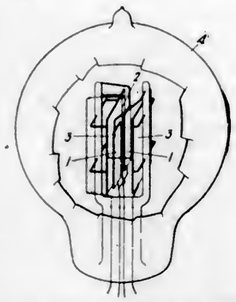
3. In a starting mechanism, the combination with two gear members mounted in the same plane, of means for shifting one of said members into and out of operative connection with the other member, and mechanical means for automatically preventing the shifting of said first member into operative connection when the said second member is rotating.

4. In a starting system, the combination with a gear mechanism comprising a shiftable gear member having an operative and an inoperative position, and a movable support for said member, of an element pivotally and slidably mounted on said support, and means carried by said support and said element for locking said member in an inoperative position.

5. In a starting system, the combination with an engine shaft, a starting motor, and ear mechanism for operatively connecting said motor to said shaft, of means for shifting one member of said mechanism laterally into and out of mesh with a second member, and means for preventing the shifting of said first member into mesh with said second member when said engine shaft is rotating.

[Claims 6 to 8 not printed in the Gazette.]

1,130,042. HIGH-CURRENT-OUTPUT AUDION. HENDRIK JOHANNES VAN DER BIJL, New York, and ALEXANDER MCLEAN NICOLSON, Tarrytown, N. Y., assignors to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed June 6, 1914. Serial No. 843,501. (Cl. 250—27.)



1. An audion having an input electrode and a filament side by side and facing an output electrode at approximately equal distances from said input electrode and filament.

2. An audion having an input electrode and a filament in a common plane, and an output electrode spaced at approximately the same distance from said input electrode and filament.

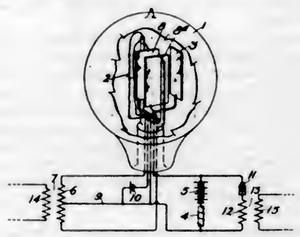
3. An audion having an input electrode and a filament in a common plane and an output electrode in a plane parallel thereto.

4. An audion having an input electrode and a filament located in close relation to each other in a common plane and an output electrode facing said input electrode and filament and slightly spaced at approximately the same distance from said input electrode and filament.

5. An audion having an input electrode in the form of a wire, a filament parallel to said input electrode and in the same plane therewith, and an output electrode in the form of a plate spaced apart from the plane of the said input electrode and filament.

[Claims 6 to 11 not printed in the Gazette.]

1,130,043. ALTERNATING-CURRENT-RESPONSIVE APPARATUS. HENDRIK JOHANNES VAN DER BIJL, New York, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed July 6, 1914. Serial No. 849,299. (Cl. 250—27.)



1. The combination of a circuit to be controlled including a pair of electrodes and a stream of ions therebetween, a controlling circuit including a source of alternating current, a neutral connection from said source of current to one of said electrodes, and a second pair of electrodes oppositely connected to said source and located in the region of said stream.

2. The combination of a circuit to be controlled including a pair of electrodes and a stream of ions therebetween, a controlling circuit including a source of alternating current, a neutral connection from said source of current to one of said electrodes, and a second pair of electrodes oppositely connected to said source, located in the region of said stream and adapted under the influence of said alternating current to deflect said stream.

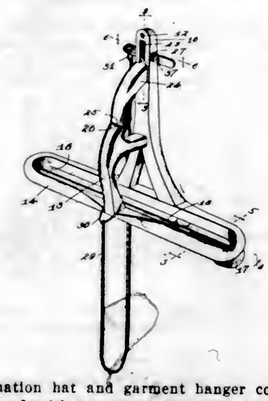
3. The combination of a circuit to be controlled including a pair of electrodes and a stream of ions therebetween, a controlling circuit including a source of alternating current, a neutral connection from said source of current to one of said electrodes, and a second pair of electrodes oppositely connected to said source and located on opposite sides of said stream.

4. The combination of a circuit to be controlled including a cathode and a stream of ions moving therefrom in space, a controlling circuit including a source of alternating current, a neutral connection from said source of current to said cathode, and a second pair of electrodes oppositely connected to said source and located in the region of said stream.

5. In a thermionic device the combination of a circuit to be controlled including a heated cathode, an anode and a stream of ions moving therebetween, a controlling circuit including a source of alternating current, a neutral connection from said source of current to said heated cathode, and a pair of electrodes oppositely connected to said source and located in the region of said stream.

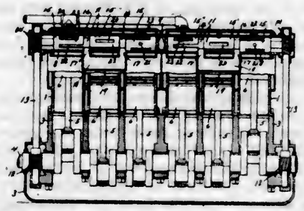
[Claim 6 not printed in the Gazette.]

1,130,044. SAFETY GARMENT-RACK. JACOB WACHOWICZ, Detroit, Mich. Filed Jan. 31, 1914. Serial No. 815,678. (Cl. 45—13.)



A combination hat and garment hanger comprising a bracket formed with a vertical slot adjacent to its outer end, an angular depending arm projecting from said bracket below said slot and formed with an upwardly-extending jaw, a complemental jaw member slidably mounted in said bracket slot coöperating with said first-named jaw, said bracket being further provided with alined transverse openings communicating with the bracket slot, a bar supported transversely within the bracket openings engaging the upper end of the complemental jaw member to hold the jaws in locked position, a chain connected at one of its ends to said bar and at its other end to said depending arm, said bar adapted to project laterally of the bracket at the side opposite its entrance thereto, and means associated with the projecting end of the bar to prevent its removal.

1,130,045. INTERNAL-COMBUSTION ENGINE. WILLIAM N. WALKER, Rome, N. Y. Filed May 8, 1913. Serial No. 766,396. (Cl. 123—190.)



1. In an internal combustion engine, a cylinder having a single port serving both for the fuel-inlet and exhaust, a rotary valve having in its periphery an inlet port, a balancing port and an exhaust port, said ports being arranged in sequence in the direction of rotation and successively registering with the cylinder port.

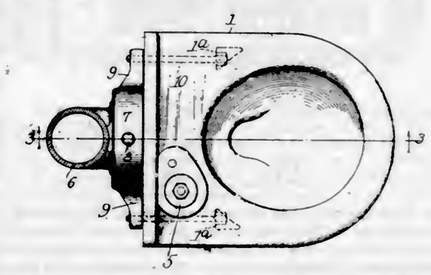
2. In a four-cycle internal combustion engine, a cylinder having a port serving for the fuel inlet and exhaust of the spent gases, a rotary valve having in its periphery separate sets of ports arranged in sequence and movable successively into registration with the cylinder port, each set comprising an inlet port, a balancing port and an exhaust port, and means for rotating the valve one-eighth of a revolution for each stroke of the piston.

3. In a four-cycle internal combustion engine, a cylinder having a single port serving as an inlet for the fuel and as an exhaust for the spent gases, a rotary valve having in its periphery an inlet port, a balancing port and an exhaust port arranged in sequence, said balancing port being in one side of the valve and having communication with the opposite side of the valve, and means for actuating said valve at such speed that its inlet port will be moved across the cylinder port while the piston is moving through its suction stroke and the exhaust port moved across the cylinder port during the exhaust stroke of the piston, said balancing port being of sufficient length to register with the cylinder port while the piston is moving through its compression stroke and firing stroke.

4. A rotary valve, comprising a tubular shell having peripheral annular grooves and recesses connecting with the grooves for the inlet, and peripheral annular grooves and recesses connecting with the grooves for the exhaust, a recess opposite each port in the valve chamber exposing an amount of valve surface equivalent to the area of the port, and ports leading directly through the valve and suitably disposed in angular relation to one another serving to permit the cylinder pressure to be equalized on both sides of the valve whenever the inlet and exhaust ports are closed, thus balancing that member and relieving it of the frictional load due to side pressure.

5. A rotary valve, comprising a tubular shell having peripheral annular grooves and recesses connecting with the grooves for the inlet, and peripheral annular grooves and recesses connecting with the grooves for the exhaust, and balancing ports through the valve for equalizing the pressure from the compression and explosion strokes.

1,130,046. WATER-CLOSET. EARL G. WATROUS, Chicago, Ill., assignor to Federal-Huber Co., Chicago, Ill., a Corporation of Illinois. Filed May 21, 1907. Serial No. 374,841½. (Cl. 137—94.)



1. In combination with a soil pipe having a lateral connection, an anchoring member firmly seated upon said connection and provided with lateral extensions having openings therein, a closet bowl arranged to project from a side wall and provided with openings in alinement with the openings in said extensions, and devices passing through said alined openings for rigidly connecting the bowl to said anchoring member, so that the bowl is wholly supported from said pipe.

2. In combination with a soil pipe having a lateral connection, an anchoring ring adjustably mounted on said connection and provided with lateral extensions having openings therein, a closet bowl arranged to project from a side wall and provided with openings in alinement with the openings in said extensions, and bolts passing through said alined openings for rigidly connecting the bowl to said anchoring ring, so that the bowl is wholly supported by the soil pipe.

3. In combination with a soil pipe having a lateral connection, a bowl having abutments on each side and distant from the rear of the bowl toward the front, a ring surrounding and secured to said lateral connection and provided with lateral extensions opposite said shoulders on the bowl, and bolts engaging said extensions and said shoulders to rigidly clamp the bowl to said lateral connection, so that the bowl is wholly supported from the soil pipe.

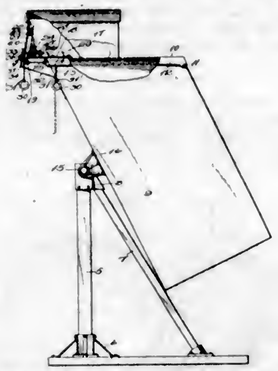
4. In combination with a soil pipe having a lateral connection, a closet bowl having a tubular projection at the rear, said projection being surrounded by a bearing sur-

face, shoulders extending from the rear of the bowl toward the front, a ring surrounding and secured upon said lateral extension, and provided with lateral lugs opposite said shoulders on the bowl, an abutting member within said connection and surrounding said tubular projection, said abutting member engaging said bearing surface at the rear of the bowl, whereby the pressure of the bowl is transmitted through said abutting member to the soil pipe, and bolts engaging said lugs and said shoulders to clamp the bowl to said ring, so that the bowl is wholly supported from the soil pipe.

5. In combination with a soil pipe having a lateral connection, an anchoring ring surrounding and secured to said connection, and a closet bowl rigidly secured to said ring, so that the bowl is wholly supported from the soil pipe.

[Claims 6 to 26 not printed in the Gazette.]

1,130,047. COMBINED LETTER AND PARCEL-POST MAIL-BOX. JAMES A. WAUGH, Louisiana, Mo. Filed July 6, 1914. Serial No. 849,129. (Cl. 232—24.)



1. In a device of the character described, the combination with the package box with a movable cover therefor, a letter mail box mounted upon said movable cover of the package box, a movable cover for the mail box and a single locking element arranged to lock both of said covers by one operation.

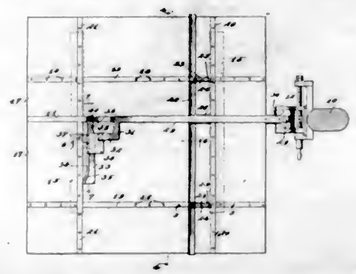
2. In a device of the character described the combination with the package box having the hinged cover of a letter box mounted upon said hinged cover, a door for said package box and a single locking element engaged with the package box and with the door of the letter mail box to thereby lock the door of the letter mail box against movement and hold the lid of the package box.

3. In a device of the character described the combination with a support, of a package box pivoted to said support and adapted to have swinging movement with relation thereto, a movable cover for said package box, a letter mail box mounted upon said cover, a door for said letter mail box and a locking element adapted to lock the door of the letter mail box to the package box whereby both the door of the letter mail box and the lid of the package box are secured.

4. In a device of the character described the combination with a support of a package box pivoted to said support and adapted to have swinging movement with relation thereto, a movable cover for said package box, a letter mail box mounted upon the cover of the package box, a door for said letter mail box and a locking element adapted to lock the door of the letter mail box to the package box whereby both the door of the letter mail box and the lid of the package box are secured.

5. In a device of the character described the combination with a pivotally mounted package box of a hinged cover for said package box, a letter mail box mounted upon the cover of the package box and a jointed hasp-like member the lower end of which is pivoted to the package box and the upper end of which is adapted to engage the door of the letter box.

1,130,048. WORK-GUIDE FOR STITCHING OR STAPLING MACHINES. HENRY WEBER, Chicago, Ill., assignor to Latham Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 1, 1910. Serial No. 541,212. (Cl. 1—15.)



1. The combination with a work supporting arm arranged to support the portion of the work being operated upon, of a guide having one end thereof positioned over said work supporting arm at the point at which the work is operated upon, and a guide support offset at one terminal and attached to said guide at such offset terminal to properly position such guide and provide a clearance over the work-supporting arm adjacent to the terminal of said guide support.

2. In a machine of the character described, the combination of a work support, a work gage, a work guide independent of the gage, said guide being spaced from the gage, a portion of the guide being deflected away from the gage, said deflected portion being adapted to be engaged by one edge of the work to force another edge toward the gage by the movement of the work across the support.

3. The combination with a guide having a guiding web formed along one edge thereof, said web being deflected outwardly at one terminal, of a horizontal web secured to the edge of said guiding web, a guide support attached to said horizontal web, and a gage coöperating with the guiding web aforesaid for operation against the opposite edges of the work.

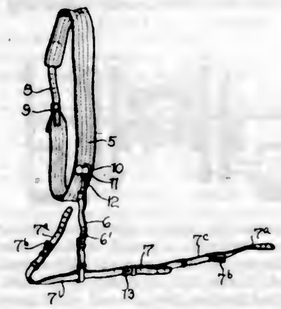
4. In a machine of the character described, the combination of a work support, a work gage, a work guide cooperating with the gage and adapted to be engaged by one edge of the work, means whereby work will be forced toward the gage by the engagement of the work with the guide, to position the work to receive a fastening device, and means supported by the guide for clenching the fastening device.

5. In a machine of the character described, the combination of a work support, a work gage, an elastically supported work guide coöperating with the gage and adapted to be engaged by one edge of the work, means whereby work will be forced toward the gage by the engagement of the work with the guide to position the work to receive a fastening device, and means supported by the guide for clenching the fastening device.

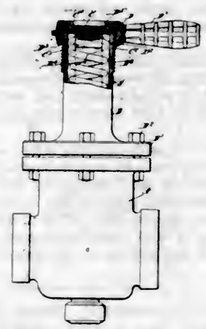
[Claims 6 to 15 not printed in the Gazette.]

1,130,049. HOBBLE. WILLIAM WELCHER, near Waymansville, Ind. Filed July 21, 1913. Serial No. 780,317. (Cl. 54—71.)

A device of the character described including a girth, a strap member having its extremities provided with leg engaging means adapted to be engaged by a front and rear leg, a ring, a cross strap secured to the girth and disposed through the ring, an auxiliary strap having one extremity formed into an adjustable loop through which the strap member loosely extends, and a hook carried by the opposite extremity of the auxiliary strap for detachable engagement with the ring of the girth.



1,130,050. SPRING-ADJUSTER. BELVIN T. WILLISTON, Somerville, Mass., assignor to The United Injector Company, New York, N. Y., a Corporation of New York. Filed May 23, 1914. Serial No. 840,624. (Cl. 74—68.)



1. The combination, with a spring and a device responsive to the pressure of the spring, of a spring-adjuster comprising a threaded tubular housing for the spring, slotted at opposite sides, a saddle adapted to be mounted on the spring within the housing, said saddle provided with laterally projecting wings extending through the slots in the housing, and an adjusting nut threaded on the housing and bearing on the laterally projecting wings of the saddle, said nut capable of turning in either direction while bearing on the saddle to adjust the position of the saddle.

2. The combination, with a spring and a device responsive to the pressure of the spring, of a spring-adjuster comprising a threaded tubular housing for the spring, slotted at opposite sides, a saddle adapted to be mounted on the spring within the housing, said saddle provided with laterally projecting wings extending through the slots in the housing, said wings having steps for an adjusting nut, and an adjusting nut threaded on the housing and bearing on the said steps, said nut capable of turning in either direction while bearing on the saddle to adjust the position of the saddle.

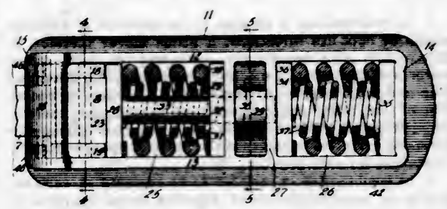
3. In a spring adjuster, the combination of a threaded tubular spring housing, slotted at opposite sides, a saddle adapted to be mounted on a spring within the housing, said saddle provided with laterally and downwardly projecting wings extending through the slots in the housing, said wings having steps for an adjusting nut, and the adjusting nut, threaded on the housing and bearing on the said steps.

4. In a spring adjuster, the combination of a threaded tubular spring housing, slotted at opposite sides, a saddle adapted to be mounted on a spring within the housing, said saddle provided with laterally and downwardly projecting wings extending through the slots in the housing, said wings having steps and side-bearings for an adjusting nut, and the adjusting nut, threaded on the housing and bearing on the said steps and side-bearings.

5. In a spring adjuster, the combination of a threaded tubular spring housing, slotted at opposite sides, and provided with a saddle-way at the upper ends of and wider than said slots, a saddle provided with a crown adapted to enter said saddle-way laterally and to be mounted on a spring within the housing, said saddle provided with laterally projecting wings extending through said slots in the housing, said wings having steps for an adpjusting nut, and the adjusting nut, threaded on the housing and bearing on the said steps.

[Claims 6 to 8 not printed in the Gazette.]

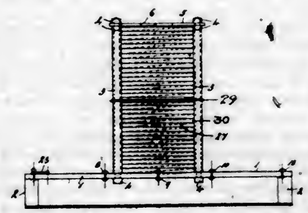
1,130,051. DRAFT-RIGGING FOR RAILWAY-CARS. CHARLES B. YOUNG, Aurora, and GARTH G. GILPIN, Riverside, Ill. Filed May 4, 1914. Serial No. 836,123. (Cl. 213—42.)



1. A tandem yoke for railway draft riggings, comprising upper and lower arms connected at the rear and an intermediate integral thimble, said thimble comprising longitudinally and transversely extending vertical webs provided with a recess open at the side to permit the insertion and withdrawal of a rod or plunger from the side of the yoke.

2. In a draft rigging for railway cars, the combination with a draw-bar, front, front intermediate, rear, and rear intermediate followers, compression resisting devices between the followers and a plunger extending from the front follower to the rear intermediate follower, of a tandem yoke having an intermediate thimble provided with a recess on the side thereof in which recess said plunger operates, the plunger being removable from said recess from the side of the yoke.

1,130,052. HEATER FOR INCUBATORS. GEORGE F. ARMSTRONG, Hamilton, Ontario, Canada. Filed Feb. 27, 1914. Serial No. 821,421. (Cl. 219—63.)

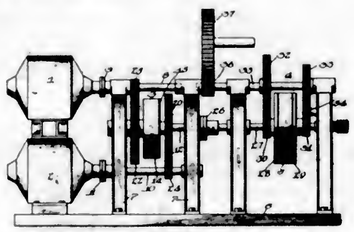


1. In a device of the character described, a heater for incubators comprising an insulating base plate, a cap plate and a plurality of sheets of mica wound with resistance wire and bound between said base plate and said cap plate to form a hollow square.

2. In a device of the character described, a heater for incubators comprising an insulating base plate, a cap

plate, and a plurality of sheets of mica wound with resistance wire and bound between said base plate and said cap plate to form a hollow square, there being five of said sheets of mica, one arranged upon each of three sides of the square and two upon the remaining side.

1,130,053. DRIVING MECHANISM FOR TURRETS AND THE LIKE. THOMAS E. BARNUM, Milwaukee, Wis., assignor to Cutler-Hammer Clutch Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 27, 1907. Serial No. 390,302. (Cl. 74—34.)



1. In combination, a member to be operated at variable speeds in opposite directions, a prime mover therefor, a differential gear operatively connected to said prime mover and reversing connections between said differential gear and said member to control the direction of operation of the latter independently of the former, thereby permitting said differential gear to be utilized exclusively for speed variation to increase the range of speed variation obtainable for said member.

2. In combination, a member to be operated at variable speeds in opposite directions, a prime mover therefor, a differential gear operatively connected to said prime mover and reversing connections between said differential gear and said member to control the direction of operation of the latter independently of the former, thereby permitting said differential gear to be utilized exclusively for speed variation to increase the range of speed variation obtainable for said member and a common control member for said prime mover and said reversing connections.

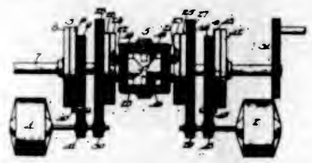
3. In combination, a member to be operated at variable speeds in opposite directions, a prime mover, a differential gear operatively connected to said prime mover, and connections between said differential gear and said member for changing the direction of operation of the latter independently of the former and means tending to insure a predetermined speed reduction of the driven member of said differential gear prior to variations in the same and said member.

4. In combination, a member to be operated at variable speeds in different directions, two electric motors and a differential gear and reversing gearing interposed between and connecting said motors to said member, said reversing gearing being controllable to reverse the direction of operation of said member independently of said differential gear and said motors and said differential gear being connected to operate in a direction independent of the relative speeds of said motors to increase the range of speed variation of said member obtainable with said motors.

5. In a variable speed mechanism, in combination, a driven member, a differential gear, gearing for operatively connecting said differential gear to said driven member, magnetic clutching means controlling said gearing to reverse the operation of said driven member without reversing the operation of said differential gear, a large motor and a small motor for operating said differential gear, and a single controller for controlling the operation of said motors and said clutching means to cause said driven member to be operated in either direction and to vary the speed of said member in small increments or decrements throughout a wide range.

[Claims 6 to 10 not printed in the Gazette.]

1,130,054. DRIVING MECHANISM FOR TURRETS AND THE LIKE. THOMAS E. BARNUM, Milwaukee, Wis., assignor to Cutler-Hammer Clutch Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 27, 1907. Serial No. 390,304. (Cl. 74—34.)



1. The combination with a driven member, of a differential gear operatively arranged with respect thereto, other gearing operatively arranged with respect to said member, and means for operating said shaft through said differential gear or through said other gearing.

2. The combination with a driven member, of a pair of electric motors for operating the same, a differential gear, other gearing, and means for connecting said motors to said driven member either by said differential gear or by said other gearing.

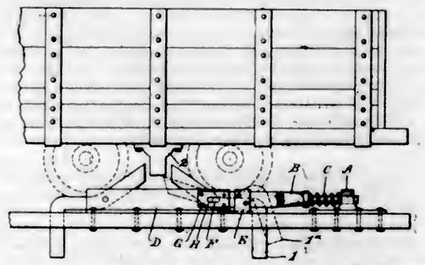
3. The combination with a driven shaft, of a differential gear operatively arranged with respect thereto and adapted to operate the shaft in either direction, other gearing for operating said shaft in either direction independently of said differential gear, and means for operating said shaft through said differential gear or through said other gearing.

4. The combination with a driven shaft, of a pair of motors for operating the same, a differential gear for connecting said motors to said shaft, and means for operating said shaft from said motors independently of said differential gear.

5. The combination with a driven shaft, of a differential gear, a pair of motors, and clutch controlled means for operatively connecting said motors to said driven shaft through said differential gear or for establishing an operative connection between one of said motors and said shaft independent of said differential gear.

[Claims 6 to 26 not printed in the Gazette.]

1,130,055. SHOCK-ABSORBER. EDWIN W. BAUM, Nokomis, Ill. Filed Nov. 9, 1914. Serial No. 871,432. (Cl. 104—224.)

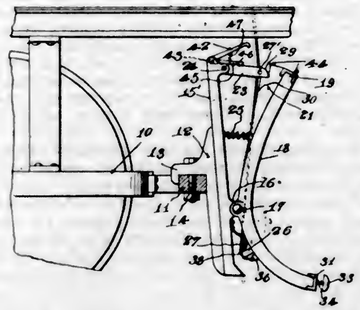


1. In a shock-absorber the combination of two stationary bearings having slotted holes and bearings adapted to be fastened to cage platform, a yoke mounted between bearings constructed so as to form connection with keep by a rod or pin being passed through them and stationary bearings, and arranged so as to permit keep to swing in a vertical plane, a rectangular casting rigidly connected with yoke, an opening on top side of rectangular casting arranged to allow the rear end of keep to rise to allow car to pass off the cage, and said rectangular casting connected to yoke to hold keep rigid while in contact with mine car, a stationary base plate constructed so as to permit rear end of yoke to pass through it, and resistance

spring encircling end of yoke and located between base plate and shoulder on yoke with the capacity of longitudinal movement, and said spring resisting such movement and absorbing shock of forcible contact with mine car.

2. In a shock-absorber a combination of two stationary bearings having slotted holes in vertical parts adapted to be fastened to cage platform by horizontal parts, a yoke constructed so as to form connections with keep and bearings by means of a rod or pin and to allow keep to swing in a vertical plane between U-shaped ends of yoke, a rectangular casting connected to yoke constructed so as to permit keep to rise higher than top of rectangular casting and arranged to hold keep rigid when in position to stop mine car, a base plate having vertical and horizontal members adapted to be fastened to cage platform by horizontal members, a hole through vertical part to permit end of yoke to pass through, a coil spring encircling end of yoke and interposed between vertical member of base plate and shoulder on yoke, and holding yoke and keep in forward position, resisting longitudinal sliding movement of yoke and keep, made possible by slotted holes in bearings, and holes through vertical members of base plate, and absorbing shock of forcible contact with mine car.

1,130,056. SAFETY-FENDER. FRED E. BELLOWS, Worcester, Mass. Filed May 8, 1912. Serial No. 695,982. (Cl. 105—127.)



1. A device of the character described, comprising a plurality of hangers adapted to be secured to the truck frame of a car, a plurality of arcuate braces hinged intermediate their length to said hangers and thereby positioned substantially upright, a netted frame carried by said braces, a plurality of catches for normally holding said braces in one position, said catches being adapted to be released by pressure exerted against the lower portion of the netted frame, and means for swinging the netted frame upon the release of said catches.

2. In a device of the character described, the combination with the frame of a car truck, of hangers mounted upon said frame, a tilting fender member carried by said hangers in a substantially upright position, means for normally holding said fender with its lower portion adjacent the ground, means operable by force exerted upon said lower portion for tilting the fender to move said lower portion forwardly and upwardly, means for automatically locking said fender in tilted position, and means for simultaneously releasing said locking means, tilting the fender back to normal position, and locking the same in normal position.

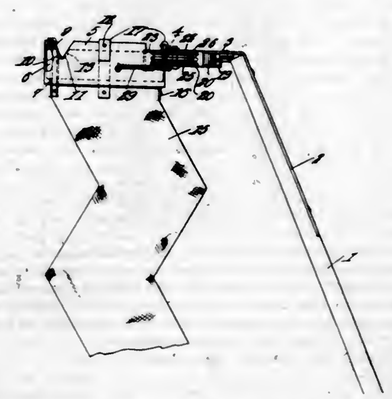
3. In a device of the character described, the combination with the frame of a car truck, of hangers carried by said frame, a tilting fender frame carried by said hangers in a substantially upright position, means for normally holding said fender frame in set position, means operable by the impact of a fender against an obstacle for springing said frame to pick up the obstacle, automatic locking means for holding the frame in sprung position, and means operable by a cable for resetting said fender frame.

4. In a device of the character described, the combination with the frame of a car truck, of hangers carried by said frame, a tilting fender frame carried by said hangers in a substantially upright position, a movable bar carried by said frame and provided with pines, means operable by the impact of the fender to simultaneously tilt the frame to pick up the obstacle and move the bar with its pines to position for holding the obstacle, and means for simultaneously tilting the frame to normal position and for moving the bar to its original position.

5. A yieldingly mounted vehicle fender comprising hangers, a frame pivotally supported thereon in a substantially upright position, a cushioning device on the frame, an obstacle holding projectable member on the fender, locking means for the fender and obstacle holding member and means for projecting the lower end of the fender and holding member forward upon rearward yielding movement of the cushioning device and frame.

[Claims 6 and 7 not printed in the Gazette.]

1,130,057. FRUIT-PICKER. ALEXANDER BEVERLY, Glacier, Wash. Filed Oct. 9, 1914. Serial No. 865,906. (Cl. 56—99.)



A picking device comprising a handle, a picking head carried by the upper end thereof and embodying outer and inner rings having upper notches adapted to normally register, means for supporting the inner ring for oscillation within the outer ring, the outer ring being attached to the upper end of the handle, the upper edge of the inner ring being spaced below the upper edge of the outer ring, means for oscillating the inner ring, straps disposed within said rings and having their upper edge secured to and passing over the upper edge of the outer ring, some of the straps being disposed at the sides of the notches of the outer ring, and a chute attached to the lower ends of the said straps below the said rings.

1,130,058. HOLDER FOR BALLS AND SPOOLS OF STRAND MATERIAL. JAMES H. BOYE, Chicago, Ill., assignor to The Boye Needle Company, Ravenswood Park Station, Chicago, Ill., a Corporation of Illinois. Filed Aug. 17, 1914. Serial No. 857,175. (Cl. 242—136.)

1. In a holder of the character described, the combination of a spring arm-hoop having spaced ends, a keeper flexibly connected with the hoop, and a pivoted stop-equipped stem having a separable swivel-connection at its point with the keeper.

2. In a holder of the character described, the combination of a spring arm-hoop containing a loop, a keeper

flexibly hung in said loop, and a pointed stop-equipped stem having a separable swivel-connection at its point with the keeper.



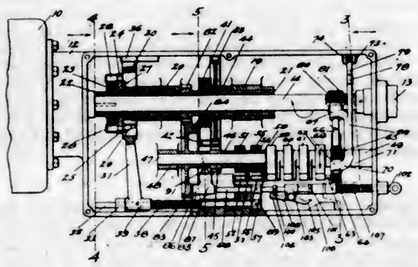
3. In a holder of the character described, the combination of a spring-wire arm-hoop having spaced blunted ends and containing a loop, a keeper flexibly hung in said loop, and a pointed stop-equipped stem having a separable swivel-connection at its point with the keeper.

4. In a holder of the character described, the combination of a keeper comprising loop-forming spring legs forming an insertion-opening between their lower contiguous ends, and a stem provided on one end with a stop, tapered into a neck toward its opposite end and having a penetrating point extending from the neck forming a wedging seating shoulder at its junction with the latter for supporting the stem in the keeper with the neck in said opening forming a swivel-connection of the stem with the keeper.

5. In a holder of the character described, the combination of a keeper comprising legs forming an open-sided loop and an opening between their lower contiguous ends, the opening in one side of the loop being wider toward the closed upper end than toward the opposite end of the keeper, and a stem provided on one end with a stop, tapered into a neck toward its opposite end and having a penetrating point extending from the neck forming a seating shoulder at its junction with the latter for supporting the stem on the keeper with the neck in the opening between said lower contiguous ends and forming a swivel-connection of the stem with the keeper.

[Claim 6 not printed in the Gazette.]

1,130,059. STARTING DEVICE FOR AUTOMOBILES. CARLOS W. BREWER, Minneapolis, Minn. Filed May 29, 1912. Serial No. 700,491. (Cl. 123—187.)



1. In combination with the crank-shaft of an explosive engine, a starter comprising means for accumulating energy, a shaft having operative connection with said crank-shaft, means for rotating said shaft to start the engine including a mechanical energizing device adapted to be charged up to its maximum capacity from said accumulating means, and means under the control of the operator for releasing said device to permit the same to act upon and turn the shaft.

2. In combination with the crank-shaft of an explosive engine, a starter comprising means for accumulating energy, a shaft having operative connection with said crank-shaft, means for rotating said shaft to start the engine including a mechanical energizing device adapted to be charged up to its maximum capacity from said accumulating means, and means under the control of the operator for simultaneously releasing the said device to permit the same to act upon and turn the shaft and for locking said accumulating means from action on the said device.

3. In combination with the drive shaft of an automobile, means for rotating the shaft to start the engine including a spring, means connected with said spring for winding up the same including a shaft mounted to oscillate about the same axial center as the winding means and adapted to have driving connection with the drive shaft, said winding means being operated automatically by the spring when the tension thereof reaches a predetermined degree to cause the second named shaft to be disconnected from the drive shaft, a finger having connection with the second named shaft, and a pressure device engaging said finger whereby the second named shaft is rocked into operative engagement with the drive shaft when the pressure of the spring effective to oscillate said second named shaft becomes less than that of said pressure device.

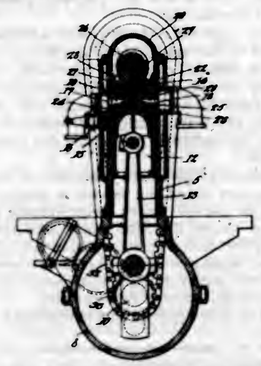
4. In combination with the drive shaft of an automobile, means for rotating the shaft to start the engine including a spring, means connected with said spring for winding up the same including a shaft mounted to oscillate about the same axial center as the winding means and adapted to have driving connection with the drive shaft, a finger having connection with said second named shaft, and a dog spring-actuated to engage said finger and cause the same to rock the shaft into operative engagement with the drive shaft when the pressure of the spring effective to oscillate said second named shaft falls below a predetermined degree.

5. In combination with the drive shaft of an automobile, means for rotating the shaft to start the engine including a spring, means connected with said spring for winding up the same including a shaft mounted to oscillate about the same axial center as the winding means and adapted to have driving connection with the drive shaft, a finger having connection with said last named shaft, said finger being provided with a notch, and a dog spring-actuated to engage said finger and having a rounded end to seat in said notch to hold the second named shaft in operative engagement with the drive shaft until the pressure of the spring holding the dog and shaft is overcome by the force of the wound spring.

[Claims 6 to 11 not printed in the Gazette.]

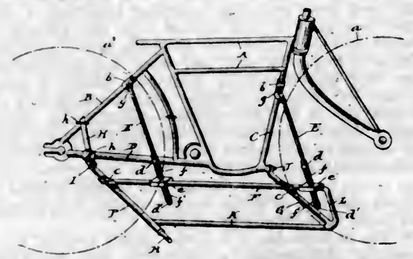
1,130,060. INTERNAL-COMBUSTION ENGINE. GEORGE WALTER BROOKS, Missoula, Mont. Filed July 20, 1914. Serial No. 851,973. (Cl. 123—78.)

1. In an internal-combustion engine, a cylinder having inlet and exhaust ports, a piston working in the cylinder, a plunger working in the cylinder back of the piston and having side ports corresponding to the inlet and the exhaust ports, and an end port opening into the cylinder space back of the piston, an oscillatory valve carried by the plunger and having cavities which alternately lap the respective side ports and the end port of the plunger, and means for operating the plunger and its valve, so that during the exhaust stroke of the piston the exhaust side port of the plunger registers with the exhaust port of the cylinder, and one of the cavities of the valve laps said exhaust side port and the end port of the plunger, the plunger traveling toward the piston and being at the limit of its travel in this direction at the end of the exhaust stroke, at which time the valve closes the end port of the plunger, and thence swings so that the other cavity of the valve laps the end port and the inlet side port of the plunger, said inlet side port remaining in registry with the inlet port of the cylinder during the suction stroke of the piston, at the end of which stroke the plunger has moved to take its inlet side port out of registry with the inlet port of the cylinder, said inlet ports, as well as the exhaust ports remaining out of registry during the compression and firing strokes.



2. In an internal-combustion engine, a cylinder having inlet and exhaust ports, a piston working in the cylinder, a plunger working in the cylinder back of the piston and having side ports corresponding to the inlet and the exhaust ports, and an end port opening into the cylinder space back of the piston, a shaft, a pitman connection between the shaft and the plunger, the end of the pitman which is connected to the plunger having cavities which alternately lap the respective side ports and the end port of the plunger, and driving means for the shaft, so that during the exhaust stroke of the piston the exhaust side port of the plunger registers with the exhaust port of the cylinder, and one of the cavities of the valve laps said exhaust side port and the end port of the plunger, the plunger traveling toward the piston and being at the limit of its travel in this direction at the end of the exhaust stroke, at which time the valve closes the end port of the plunger, and thence swings so that the other cavity of the valve laps the end port and the inlet side port of the plunger, said inlet side port remaining in registry with the inlet port of the cylinder during the suction stroke of the piston, at the end of which stroke the plunger has moved to take its inlet side port out of registry with the inlet port of the cylinder, said inlet ports, as well as the exhaust ports remaining out of registry during the compression and firing strokes.

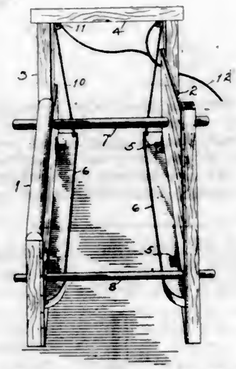
1,130,061. SIDE-CAR ATTACHMENT FOR MOTOR-CYCLES. JOHN R. BRUCE, Wooster, Ohio. Filed June 19, 1914. Serial No. 846,204. (Cl. 208—45.)



1. In a device of the character described, the combination with the frame of a motor-cycle and bed frame of a side-car therefor hinged to the latter, a rigid longitudinal support bar on said bed frame having clip abutments mounted thereon and projecting sidewise at an angle; diagonal rods hinged to said motorcycle frame and extended downwardly through said clip abutments respectively; abutments on said diagonal rods both above and below said clip abutments, and spiral springs mounted on said rods between said several abutments to limit resiliently the longitudinal movement of said rods, substantially as set forth.

2. In a device of the character described, the combination with the frame of a motor-cycle and bed frame of a side car hinged thereto; one or more diagonal rods hinged to said motorcycle frame and extended downwardly to engage corresponding abutments in said bed frame—said rods extending through said abutments, and having abutments thereon above and below said bed frame abutments, and spiral springs on said rods between said several abutments, substantially as set forth, and for the purpose specified.

1,130,062. BREEDING-PEN. JAMES ROBERT BRYSON, Xenia, Ohio. Filed June 9, 1913. Serial No. 772,603. (Cl. 119—98.)



1. In a breeding pen, a stall, inclined adjustable side rails, located at opposite sides of the stall, a locking member common to both rails, whereby the rails may be simultaneously locked in a horizontal plane, said member having its ends terminating in the sides of said stall, and in a plane above and at an angle to said rails.

2. In a breeding pen, a stall, inclined side rails hinged to the opposite sides of the stall, said side rails being adjustable about their inclined axes to and from positions perpendicular to the sides of the stall, and a transverse bar engaging the opposite sides of the stall and extending adjacent to the side rails when in their adjusted position upon the sides of the stall, to and from which said rails are adjusted to lock the rails against return movement.

3. A breeding pen comprising a stall including its vertical walls, an adjustable transverse bar, inclined adjustable side rails secured to said walls, a bar having its ends secured to said side walls and positioned above said rails for locking said side rails in a horizontal position.

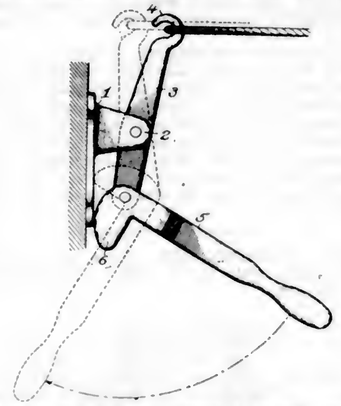
4. A breeding pen, comprising a stall including its vertical walls an adjustable transverse bar, inclined adjustable side rails, means for simultaneously adjusting said side rails, said means comprising a transverse bar above said rails for locking said side rails in a horizontal position.

5. In a breeding pen, a stall, inclined adjustable centering rails pivotally secured to opposite walls of said stall, a transverse bar having its ends secured in opposite walls, and a transverse locking bar for said rails positioned above said rail to lock said rails against return movement.

1,130,063. LINE-STRETCHER. PAUL H. BUCH, Chicago, Ill., assignor of one-half to Emmet McCarthy, Chicago, Ill. Filed Feb. 17, 1914. Serial No. 819,277. (Cl. 68—12.)

1. A line stretcher, comprising a bracket member, a stretcher lever pivoted to said bracket and having at one

end an open line engaging eye, and a cam associated with the other end of said lever and the bracket member to effect a movement of said lever, substantially as set forth.



2. A line stretcher, comprising a bracket member, a stretcher lever pivoted intermediate its length to said bracket and having at its upper end an open eye, and a handle pivoted to the lower end of said lever and having a lateral cam arm adapted for operative engagement against said bracket, substantially as set forth.

1,130,064. FLOOR-CLEANER. ALEXANDER W. BUCHANAN, Colorado Springs, Colo. Filed July 8, 1913. Serial No. 777,809. (Cl. 15—56.)



1. In a device of the class described, a frame, a contact roll mounted in the end thereof, means for attaching a strip of fabric to be wound thereon to the roll, means engaging the roll for preventing rotation of the contact roll in one direction but permitting its rotation in the other direction, and means for engaging the strip to normally prevent its being wound upon said roll.

2. In a device of the class described, a frame, a roll mounted in the end thereof provided with means for securing the end of a strip of fabric thereto, a ratchet on the roll and a pawl on the frame adapted to permit the roll to turn in a direction to wind the strip of fabric thereon but to prevent its rotating in the opposite direction, a reel mounted on the frame and adapted to have the other end of the fabric strip wound thereon and means under the control of the operator for normally preventing rotation of the reel.

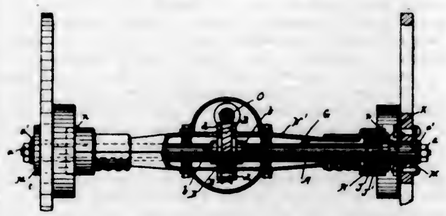
3. In a device of the class described, a frame, a contact roll mounted in the end thereof and adapted to receive material to be brought in contact with a surface to be cleaned and to have the same wound thereon, a ratchet secured to one end of said roller, a pawl secured to the frame and coöperating with said ratchet to prevent its rotation in one direction, a magazine reel also mounted on the frame, and means for normally preventing rotation of the magazine reel.

4. In a device of the class described, a frame, a contact roll mounted in the end thereof in position to engage a surface to be cleaned, means for preventing the rotation of said roller in one direction while permitting its rotation in the other direction, a magazine reel also mounted in the frame, and a releasable catch under the control of the operator for normally preventing the rotation of the magazine reel.

5. In a device of the class described, a frame, a contact roll mounted in the end thereof in position to engage a surface to be cleaned, means for preventing the rotation of said roller in one direction while permitting its rotation in the other direction, a magazine reel also mounted in the frame, spring actuated means for preventing the rotation of the magazine reel, and means for withdrawing the same from contact with the reel.

[Claims 6 to 9 not printed in the Gazette.]

1,130,065. MOTOR-VEHICLE AXLE. EDWIN DE H. CALDWELL, Dunkirk, N. Y. Filed Jan. 13, 1914. Serial No. 811,873. (Cl. 21—90.)



1. The combination in a motor vehicle axle, of a rod, a vehicle wheel loosely secured on each end thereof, a pair of inwardly facing bevel gears rotatably supported on said rod, tubular hubs on said bevel gears extending outwardly therefrom, a gear wheel mounted on the hubs of said bevel gear wheels and adapted to prevent said gears from spreading apart, bevel gear pinions journaled in said gear wheel and intermeshing with said bevel gear wheels, and tubular shafts inclosing said rod and non-rotatably engaging said tubular hubs, and said vehicle wheels, substantially as set forth.

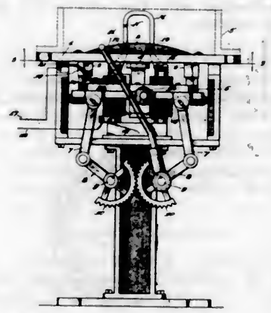
2. The combination in a motor vehicle axle, of a rod extending therethrough, a pair of inwardly facing bevel gears rotatably supported on said rod, tubular hubs on said bevel gears extending outwardly therefrom, a gear wheel journaled on said tubular hubs and adapted to prevent said bevel gears from spreading apart, bevel gear pinions journaled in said gear wheel and intermeshing with said inwardly facing bevel gear wheels, a sleeve on each end of said rod, hollow shafts inclosing said rod at each side of and non-rotatably engaging said tubular hubs, a vehicle wheel non-rotatably secured on the outer end of each of said hollow shafts, a tubular axle housing inclosing said gears and hollow shafts, and journal bearings in the ends of said tubular axle housing adapted to support the same in spaced relation to said hollow shafts and gears, substantially as set forth.

3. The combination in a motor vehicle axle, of a rod extending therethrough, a differential gear mechanism supported thereon, vehicle wheels on the ends of said rod, means to retain said wheels thereon, a hollow shaft at each side of and non-rotatably engaging said differential gear, and said vehicle wheels, a tubular housing inclosing said differential gear and hollow shafts, journal bearings in the ends thereof adapted to maintain said housing in concentric spaced relation to said shafts, and means adapted to adjust said housing longitudinally with relation to said hollow shafts and differential gear, substantially as set forth.

4. The combination in a motor vehicle axle, of a rod extending therethrough, a pair of inwardly facing bevel gear wheels on said rod, tubular hubs on said bevel gear wheels extending outwardly therefrom, a gear wheel mounted on the hubs of said bevel gear wheels, bevel gear pinions journaled in said gear wheel and intermeshing with said bevel gear wheels on said rod, hollow shafts on said rod non-rotatably engaging each of said bevel gear wheel hubs, vehicle wheels non-rotatably secured on the outer ends of each of said hollow shafts, and means on the ends of said rod to retain said vehicle wheels, hollow shafts, and bevel gear hubs in engagement, substantially as set forth.

5. The combination in a motor vehicle axle, of a rod extending therethrough, a differential gear supported thereon, a hollow shaft supported in concentric spaced relation to said rod, and non-rotatably engaging one side of said differential gear, a vehicle wheel on said hollow shaft, inwardly projecting teeth on the hub of said wheel, a sleeve rotatably secured on said hollow shaft, teeth thereon engaging said inwardly projecting teeth on the hub of said vehicle wheel, means on the end of said rod to retain said teeth in engagement, a tubular housing inclosing said differential gear and hollow shaft, and journal bearing mechanism in the end of said housing to maintain said housing in concentric spaced relation to said hollow shaft, substantially as set forth.

1,130,066. METAL-FOUNDING. CHARLES B. CARTER, Chicago, Ill. Filed June 6, 1911. Serial No. 631,524. (Cl. 22—9.)



1. The method of simultaneously holding and recharging magnets to be embedded in sand molds, which consists in bringing the poles of the magnets into reverse contact with the poles of an electromagnet and passing a current through the coils of said electromagnet during the operation of forming the sand mold about the magnets, substantially as and for the purpose described.

2. A molding machine provided with an electric magnet the positive and negative poles of which project through the mold plate into the said cavity of the flask to magnetically secure in place in reverse contact the poles of the magnet to be rammed into the sand, substantially as and for the purpose described.

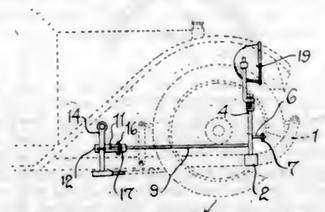
3. The combination with a molding machine, of an electromagnet having exposed positive and negative poles, of permanent magnets placed with its poles in reverse contact with the poles of the electromagnet, and magnetically held there during the mold forming operation, substantially as and for the purpose described.

4. A molding machine provided with a stripping plate, a drop plate having projections extending through openings in the stripping plate, means for raising and lowering the drop plate and projections, and an electromagnet secured to the drop plate with its poles projecting through the stripping plate to secure permanent magnets in place within the flask during the mold forming operation, substantially as and for the purpose specified.

5. A molding machine provided with a stripping plate, a drop plate having projections extending through openings in the stripping plate, means for raising and lowering the drop plate and projections, and an electromagnet secured to the drop plate with its poles projecting though the stripping plate, in combination with permanent magnets placed in contact with the poles of the electromagnet and held thereby during the mold forming operation, said permanent magnets being wider than the pole openings in the stripping plate, substantially as and for the purpose described.

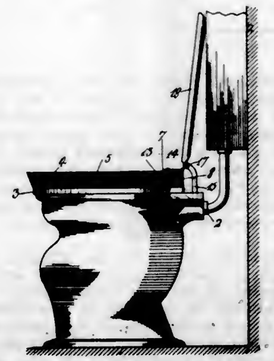
[Claims 6 and 7 not printed in the Gazette.]

1,130,067. HEADLIGHT FOR VEHICLES. RALPH N. CARTER, Bucklin, Mo. Filed Sept. 15, 1914. Serial No. 861,847. (Cl. 240—62.)



In combination with a vehicle provided with a steering mechanism of a rotatably supported post for a lamp, a bracket carried by a movable part of the steering mechanism, said bracket being provided with an elongated slot, an arm projecting from the post, a rod in pivotal engagement with the arm and having an angular extremity disposed through the slot of the bracket, means carried by the angular extremity of the rod disposed at opposite sides of the bracket for maintaining the angular extremity against displacement from within the slot of the bracket, and removable means coacting with the bracket for holding the rod against movement independently of the bracket.

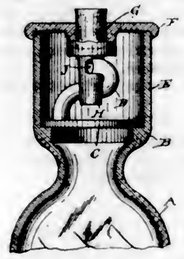
1,130,068. TOILET-SEAT. FERDINAND CECHAL, Saratoga Springs, N. Y.; Barbara Cechal, executrix of said Ferdinand Cechal, deceased, assignor of forty one-hundredths to said Barbara Cechal, individually, thirty one-hundredths to Erich Tredup, and thirty one-hundredths to Ernst Freyer, Saratoga Springs, N. Y. Filed Oct. 22, 1913. Serial No. 796,683. (Cl. 4—18.)



The combination with a wooden seat of a toilet, of a pad adapted to be secured thereto, a vertical plate se-

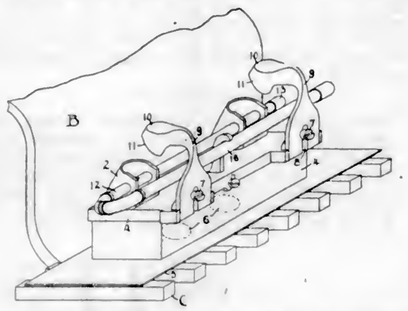
cured to the rear edge of said wooden seat, a clamping plate hingedly secured to the upper terminal of said vertical plate, a hook secured to said wooden seat and adapted for engagement with said clamping plate, a pair of spaced lugs formed on said vertical plate, and a pair of spaced arms having hinged engagement with said ears.

1,130,069. BOTTLE. HENRY CREMER, Chicago, Ill. Filed May 8, 1914. Serial No. 837,351. (Cl. 215—65.)



A bottle comprising a body portion, a neck portion provided in its interior near the body portion with a seat or shoulder; a transverse partition seated thereon, having a perforation communicating with the lower end of an upwardly directed sinuous passage; and a top portion consisting of a lid and a vertical downwardly directed tubular part, communicating at its upper end with an aperture in the lid and extending with its other end downward into the neck beneath the upper extremity or outlet of the sinuous passage, which is partly contorted around the tubular part of the top portion.

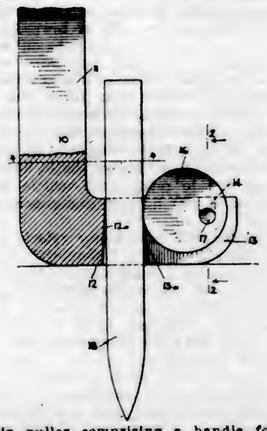
1,130,070. BURNER. WILBUR F. DAY, St. Paul, Minn. Filed May 11, 1914. Serial No. 837,944. (Cl. 158—64.)



1. In combination with a fire box, a burner comprising a base suitably supported upon the fire box grating, upwardly and laterally inclined conduits supported by said base, spreaders supported to stand above the outlet openings of said conduits, said spreaders having faces facing downwardly toward the conduits and standing at an angle with the longitudinal axis of said conduits, a burner jet tube longitudinally slidable through said conduits, and means for connecting said tube with a source of fuel supply.

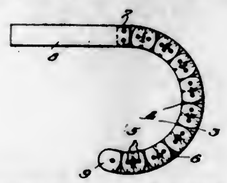
2. In combination with a fire box, a burner comprising a base, conduits extending upwardly from said base and having upwardly discharging outlet openings, spreaders facing downwardly in opposition to the outlets of said conduits, a burner jet tube slidable through said conduits, and a chamber forming a supporting rest for said base, said chamber being connected with the outer air whereby to form an air supply chamber for said burner.

1,130,071. DRIFT-PIN PULLER. MICHAEL T. DEVINE, Pierre, S. D. Filed June 19, 1912. Serial No. 704,682. (Cl. 254—24.)



A drift pin puller comprising a handle forming bar having one of its ends bent at a right angle to provide a foot including two claws held in parallel spaced relation, with flat outer base forming faces and rounded ends, the wall formed at the union of said claws being curved and extending at an acute angle to the axis of said bar so that the upper end of said wall forms a biting lip, two open-topped sockets arranged in transverse alinement within said claws, and a disk having eccentrically disposed gudgeons for co-action with said sockets, the ends of said claws being rounded.

1,130,072. MEASURING INSTRUMENT. JAMES H. DONOVAN and WILLIAM J. FORSYTH, Buffalo, N. Y. Filed Feb. 11, 1914. Serial No. 818,158. (Cl. 33—175.)

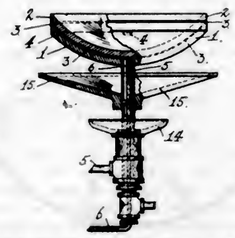


The combination with a handle member having spaced ears formed in its outer end, of a flexible body formed of a plurality of pivotally connected sections, said sections being frictionally engaged with one another, whereby they will be retained in an effective position after being placed in such position, the innermost of said sections having a reduced portion adapted to be fitted between the spaced ears of the handle, and means for securing the innermost section to the handle, the longitudinal edges of the flexible body being disposed in alinement with the longitudinal edges of the handle, whereby a continuous line may be drawn along the handle and body member.

1,130,073. LIQUID-HYDROCARBON BURNER. WILLIAM FRANKLIN DREW, Oakland, Cal., assignor of one-half to John Finn, Mill Valley, Cal. Filed Dec. 5, 1913. Serial No. 804,809. (Cl. 158—80.)

1. A liquid hydrocarbon burner comprising superposed heat conducting vaporizing plates, the opposing faces of the plates being separated to such a slight degree from each other and equally throughout the same as to provide a thin mixing and atomizing space between and extending

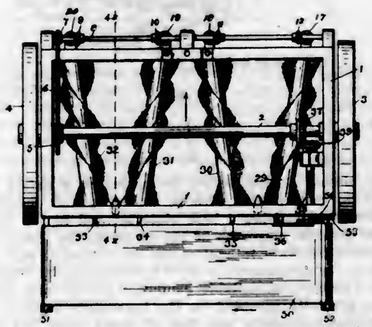
substantially throughout the entire opposing faces of the plates, whereby atomization and increase of velocity of the fuel passed through the space between the plates is effected, one of said plates having an opening extending through the same and the opposing surface of the other plate directly opposite said opening being spaced therefrom and extending at the opposite side of said space, and means for introducing liquid hydrocarbon and atomizing fluid through said opening of one of the plates into the thin mixing and atomizing space between the plates and against the spaced opposing face of the other plate.



2. A liquid hydrocarbon burner comprising superposed heat conducting vaporizing plates, the opposing faces of the plates being separated to such a slight degree from each other and equally throughout the same as to provide a thin mixing and atomizing space between and extending substantially throughout the entire opposing faces of the plates, whereby atomization and increase of velocity of the fuel passed through the space between the plates is effected, and means for introducing liquid hydrocarbon and atomizing fluid separately through one of the plates and against the other plate into the thin mixing and atomizing space between the plates and centrally thereof, the mixture issuing from between the plates at their outer edge portions.

3. A liquid hydrocarbon burner comprising superposed concavo-convex heat conducting vaporizing plates, said plates being disposed in nesting relation, means for introducing liquid hydrocarbon and atomizing fluid separately through the concave face of one plate and projecting the same against the convex face of the other plate, and means spacing the plates to a degree whereby atomization takes place and the velocity of the fuel toward the edges of the plate is increased the fuel being emitted from between the plates at their edge portions.

1,130,074. BEAN-HARVESTER. FRANK L. DUNKLEBERGER, West Shelby, N. Y. Filed Feb. 27, 1914. Serial No. 821,511. (Cl. 56—1.)



1. In a bean harvesting machine the combination of means to lift the vines and pods without pulling out the roots and bend the vines rearwardly, means to cut off the vines below the pods.

2. In a bean harvesting machine the combination of means to lift the vines and pods without pulling out the roots and bend the vines rearwardly, means to cut off the vines below the pods, a conveyer to carry the vines transversely of the machine and deposit them at one side of the machine.

3. In a bean harvesting machine the combination of a frame, revolving brushes arranged in pairs on said frame, said brushes converging toward each other from the front to the rear, cutters operating between and below said brushes at the rear thereof.

4. In a bean harvesting machine the combination of rotary brushes arranged in pairs, bristles on said brushes arranged in spiral rows, means for rotating said brushes at such a speed relative to the forward movement of the machine so as to cause the brushes to lift the vines and bend them rearwardly.

5. In a bean harvesting machine, the combination of a frame, revolving brushes arranged in pairs on said frame, said brushes having long flexible bristles thereon, said brushes rotating to move the bristles upward in the space between each pair of rollers, said brushes converging toward each other from the front to the rear, cutters operating below the opening between said brushes at the rear of said brushes.

[Claim 6 not printed in the Gazette.]

1,130,075. ARTIFICIAL FUEL. ALEXANDER H. EGE, Mechanicsburg, Pa. Filed Mar. 25, 1913. Serial No. 756,820. (Cl. 44—1.)

1. An artificial fuel consisting of soot, chlorid of sodium, cement and water.

2. An artificial fuel consisting of soot, chlorid of sodium, water and petroleum.

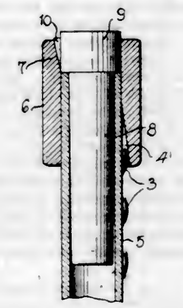
3. An artificial fuel consisting substantially of the following proportions:—eight parts of soot, 1/128 part of chlorid of sodium, one part of cement and one part of water.

4. An artificial fuel consisting of eight parts of soot, 1/128 part of chlorid of sodium, one part of cement, one part of water and one part of petroleum.

5. An artificial fuel containing six parts of soot, two parts of coke, 1/128 part of chlorid of sodium, one part of cement and one part of water.

[Claim 6 not printed in the Gazette.]

1,130,076. FENCE-POST CAP. JOSEPH EISENMENGER, anthon, Iowa. Filed Mar. 28, 1914. Serial No. 828,009. (Cl. 189—23.)



1. The herein described driving cap for fence posts including a driving pin having a cylindrical shank adapted to be engaged in the upper end of a hollow post, said shank being provided with an enlarged head for seating engagement upon the upper edge of the post, a sleeve to receive the upper end of the fence post and the head of the

driving pin, the shank of said pin being of greater length than the sleeve, said sleeve being provided in its inner wall and at its upper end with a longitudinally disposed tapering recess and a wedge member adapted to be driven into said recess and coöperating with said sleeve and the head of the driving pin to lock the pin and sleeve together.

2. The herein described driving cap for fence posts including a driving pin having a cylindrical shank adapted to be engaged in the upper end of a hollow post, said shank being provided with an enlarged head for seating engagement upon the upper edge of the post, a sleeve to receive the upper end of the fence post and the head of the driving pin, the shank of said pin being of greater length than the sleeve, said sleeve being provided in its inner wall and at its upper end with a longitudinally disposed tapering recess and a wedge member adapted to be driven into said recess and coöperating with said sleeve and the head of the driven pin to lock the pin and sleeve together, the lower end of the sleeve also having a longitudinally tapering recess in the inner wall thereof.

1,130,077. METHOD OF MAKING CONTACT-POINTS. BYRON E. ELDRED, Bronxville, N. Y. Filed Jan. 25, 1910. Serial No. 539,973. (Cl. 29—148.)



1. The process of producing platinum capped contact elements which comprises producing an integral union between a layer of platinum and a layer of a stiff and strong metal by means of a fused layer of linking metal, rolling down the joined metals to a greater thinness to compact the platinum and produce a compound plate having a thickness substantially equal to the length of a contact point and cutting contact elements therefrom by a vertical cut.

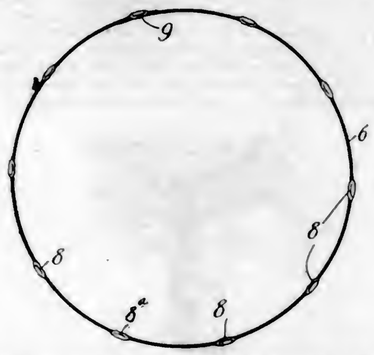
2. The process of producing platinum capped elements which comprises producing an integral union between a layer of platinum and a layer of a stiff and strong metal by means of a fused layer of autogenously produced linking metal, rolling down the joined metals to a greater thinness to compact the platinum and produce a compound plate having a thickness substantially equal to the length of a contact point and cutting contact elements therefrom by a vertical cut.

3. The process of producing platinum capped contact elements which comprises producing an integral union between a layer of platinum and a layer of nickel by means of a fused layer of linking metal, rolling down the joined metals to a greater thinness to compact the platinum and produce a compound plate having a thickness substantially equal to the length of a contact point and cutting contact elements therefrom by a vertical cut.

4. The process of producing platinum capped contact elements which comprises producing an integral union between a layer of platinum and a layer of nickel by means of a fused layer of autogenously produced linking metal, rolling down the joined metals to a greater thinness to compact the platinum and produce a compound plate having a thickness substantially equal to the length of a contact point and cutting contact elements therefrom by a vertical cut.

5. The process of producing platinum capped contact elements which comprises producing an integral union between a layer of metal comprising a platinum group metal and a layer of a stiff and strong metal by means of an intermediate layer of fused metal, working down the joined metals to compact the first stated layer and form a compound plate having a thickness substantially equal to the length of a contact point and punching contact elements therefrom in such a manner as to arch down the platinum layer forming the cap over the shank of the other metal.

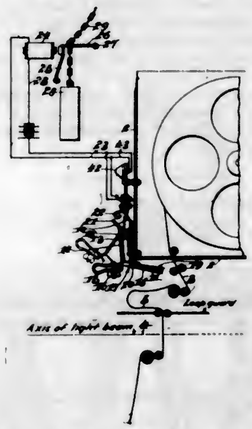
1,130,078. BARREL-HOOP. ELLSWORTH E. FLORA, Chicago, Ill., assignor to The Seal & Fastener Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 31, 1914. Serial No. 815,806. (Cl. 217—91.)



1. As a new article of manufacture, a hoop formed of a single length of metal strap coiled into a plurality of concentric layers clenched edgewise rigidly together at intervals.

2. As a new article of manufacture, a hoop formed of a continuous length of metal strap in a plurality of concentric layers clenched edgewise together at intervals to form joints presenting projections at the inner face of the hoop.

1,130,079. FIRE-PROTECTION DEVICE FOR CINEMATOGRAPH-MACHINES. ELLIS W. FOX, Vancouver, British Columbia, Canada. Filed Dec. 5, 1913. Serial No. 804,883. (Cl. 177—303.)



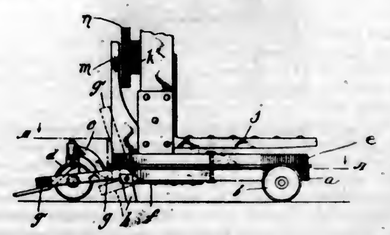
1. A circuit closing device for operating a safety appliance in conjunction with a cinematograph machine, said device comprising a base plate secured to the lower back of the film magazine of the machine, the lower end of which base plate is bent under the magazine and has provision for attachment to it of a thermal fuse, resilient contacts secured on suitable insulation on the base plate, a lever pivotally mounted on the base plate adjacent to said resilient contacts, one end of which lever has provision for connecting to it the other end of the thermal fuse, the other end of said lever having provision to engage and connect the resilient contacts during movement of the lever from one extreme of its movement to the other.

2. A circuit closing switch comprising a base plate, one end of which is bent over to project away from the plane of the remaining portion of the plate, said plate having ears, a clamp lever having ears coöperating with said plate ears and a pivot pin connecting said ears, said clamp lever having one end bent outwardly and back upon itself to form a clamp member, a bolt passing through said clamp member, and a fusible connection between said lever and said bent extension of said base plate, and circuit terminal members insulated on said base plate and adapted to be engaged by said lever when said fusible connection is released, and means continuously tending to move said lever to engage said circuit terminals.

3. A thermo circuit switch comprising a base plate having one end bent backwardly and slotted, a lever pivoted to said base plate and having a clamp member at its lower end, a fusible body secured by said clamp member and passing through said slotted portion of said base plate to hold said lever in one position, a spring continuously tending to move said lever to another position, contact members insulated and supported on said base member, said lever having a heel to engage said contact members when said lever is released, said lever having a hook portion to project into the slot of said base member and a fusible connection between said base member and said hook member.

4. A circuit closing switch comprising a base plate having an offset portion and having one end bent forwardly and apertured, a lever pivoted to said offset portion and having a clamp member at its lower end, a fusible body secured by said clamp member and passing through said apertured portion of said base plate to hold said lever in one position, a spring continuously tending to move said lever to another position, contact members insulated and supported on said base member, said lever having a heel to engage said contact members when said lever is in one position.

1,130,080. PORTABLE ELEVATOR. HENRY S. GERMOND, Jr., Jersey City, N. J., assignor to New York Revolving Portable Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 27, 1912. Serial No. 673,748. (Cl. 187—11.)

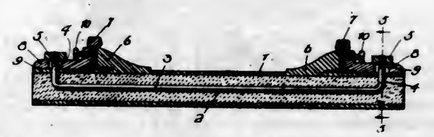


1. The combination of a truck; a vertically-disposed guide-frame arranged thereon; a load-carrying platform movably mounted in said frame and projecting laterally therefrom; mechanism for controlling the position of said platform; and a pair of levers which are fulcrumed on said truck adjacent to said guide-frame and the lower ends of which are arranged to be forced against the floor and thereby to raise the front part of the truck therefrom, whereby the weight resting upon the truck is supported upon the lower ends of said levers and the rear wheels of the truck, and there is given said truck four points of support two of which are fixed.

2. The combination of a truck; a vertically-disposed guide-frame arranged thereon; a load-carrying platform movably mounted in said frame and projecting laterally therefrom; mechanism for controlling the position of said platform; a pair of levers which are fulcrumed on said truck adjacent to said guide-frame and the lower ends of which are arranged to be forced against the floor and thereby to raise the front part of the truck therefrom, whereby the weight resting upon the truck is supported upon the lower ends of said levers and the rear wheels of the truck, and there is given said truck four points of support two of which are fixed; and a yoke device for connecting said levers, whereby the same may be operated practically simultaneously.

3. The combination of a truck having three wheels of which one is a steering-wheel; a vertically-disposed guide-frame arranged thereon; a load-carrying platform movably mounted in said frame and projecting laterally therefrom; mechanism for controlling the position of said platform; and a pair of truck-raising members, fulcrumed on said truck, one on each side of said steering-wheel, and arranged to be forced against the floor and thereby to raise the front part of the truck therefrom, whereby the weight resting upon the truck is supported upon the lower ends of said members and the two wheels other than the steering-wheel, and there is given said truck four points of support two of which are fixed.

1,130,081. RAIL TIE AND FASTENER. HARVEY B. HALL, Homer, Ill. Filed June 25, 1914. Serial No. 847,242. (Cl. 238—5.)



1. In a device of the class described, the combination with a plastic body forming a tie; of a bar embedded therein and extending longitudinally thereof, the ends of said bar being bent upwardly to project above the top face of the tie at points adjacent the ends of the latter, clamps rigidly secured to the upper face of the tie inwardly of the upwardly bent ends of said bar, additional clamps movably engaged with the upwardly bent ends of said bar and means engaged with the last mentioned ends of said bar for securing said additional clamps in various adjusted positions on the tie.

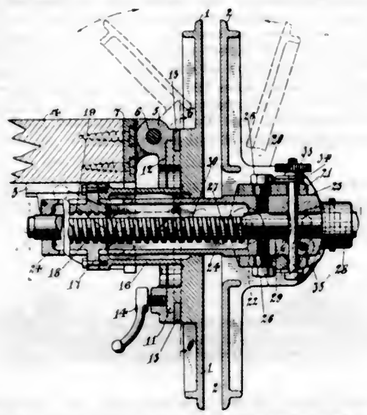
2. In a device of the class described, the combination with a tie; of a bar embedded therein and extending longitudinally therethrough, the ends of said bar being bent upwardly to project through the top face of said tie at points adjacent the ends of the latter, said last mentioned ends of the bar being threaded, clamps rigidly secured to the upper face of the tie inwardly of the ends of said bar, additional clamps movably engaged with the upwardly bent ends of said bar, and nuts engaged with the threaded bent ends of said bar and with the upper faces of said additional clamps to secure the latter in various adjusted positions on the tie.

1,130,082. WOODWORKING-VISE. JOHN HALTERBECK, New York, N. Y., assignor to Gottfried Piel, New York, N. Y. Filed Feb. 13, 1909. Serial No. 477,540. (Cl. 81—22.)

1. In a wood working vise, the combination of a frame, a rear jaw mounted on said frame and provided with a central bearing, a sliding bar movable in said bearing, a sleeve pivoted to said sliding bar and a jaw pivoted to said sleeve whereby said jaw may be rocked or tilted on said sleeve and may be rocked or tilted on said sliding bar in a plane transverse to the plane of said rocking or tilting movement on the sleeve.

2. In a wood working vise, comprising a relatively stationary jaw, a sliding bar, and a relatively movable jaw carried by said sliding bar, the combination with said sliding bar of a member pivoted to said bar, said member being secured to the movable jaw by a pivot arranged perpendicularly to said first mentioned pivot whereby both said member and jaw may be moved with relation to the sliding bar and said jaw may be moved independently of said member in a plane transverse to the plane of the first mentioned movement.

3. In a wood working vise the combination of a frame, a rear jaw mounted on said frame, a sliding bar movable on said jaw, a sleeve movably secured to the sliding bar by a pivot and having limited movement on said pivot, a jaw pivoted to said sleeve by a pivot arranged perpendicularly to said first mentioned pivot means for holding said jaw in its adjusted relation to the sleeve and separate means for holding said jaw and sleeve in their adjusted relation to the sliding bar.

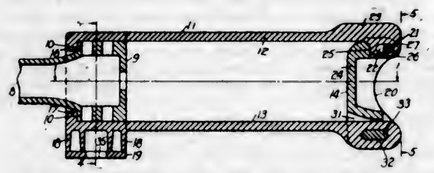


4. In a wood working vise, the combination of a frame, a rear jaw rotatable on the frame and provided with a central bearing, a sliding bar movable in said bearing, a screw mounted in said sliding bar, a sleeve pivoted to said sliding bar, a front jaw pivoted to said sleeve, and means for holding said front and rear jaws in their adjusted positions respectively.

5. In a wood working vise, the combination with a pivoted frame, a rear jaw rotatably mounted on the frame and provided with a central bearing, a plate secured to said rear jaw and provided with an internally threaded bushing, and means for securing said jaw in its adjusted position with relation to the frame, of a sliding bar movable in the bearing in said rear jaw, a screw provided with an interrupted thread rotatable in said sliding bar and adapted to engage the threads on said bushing to move said bar and a front jaw having an opening containing the end of the sliding bar, transversely disposed pins pivoting said jaw to said bar so that said jaw may be rocked or tilted with relation to the rear jaw in substantially perpendicular planes.

[Claims 6 to 8 not printed in the Gazette.]

1,130,083. DRAFT-YOKE FOR RAILWAY-CARS. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Nov. 24, 1913. Serial No. 802,670. (Cl. 213—42.)



1. In a draft yoke having upper and lower limbs adapted to engage a draw bar and a rear connecting member for said limbs, said connecting member being pivotally connected to one of said limbs, and adapted to be keyed to the other of said limbs.

2. In a draft yoke for railway cars, upper and lower limbs adapted to engage a draw bar, a rear connecting member for said limbs and a key, the rear connecting member being keyed to one of said limbs and secured to the other of said limbs, said connecting member being slidingly pivoted to said last mentioned limb when disengaged from the key.

3. In a draft yoke for railway cars, the combination with a limb having a hollow box-like member to receive the draw bar and a detachable limb engaging the draw bar, of a connecting member for said limbs and a key, the connecting member being swingingly mounted on one of said limbs and keyed to the other limb.

4. In a draft yoke for railway cars, a pair of limbs adapted to engage a draw bar at their one end and a member to connect said limbs at their other end, and a key, the said connecting member being swingingly mounted on one of said limbs, and having a recess to receive the other of said limbs, the key being adapted to secure said limb within the recess.

5. In a draft yoke for railway cars, a pair of limbs, a third member connecting said limbs at the rear ends thereof, and a removable transversely extending key engaging said member and one only of said limbs for detachably holding the same together.

[Claims 6 and 7 not printed in the Gazette.]

1,130,084. POSTER-DISPLAY MACHINE. GEORGE F. HAVENS, Sterling, Ill. Filed Mar. 24, 1913, Serial No. 756,345. Renewed Dec. 24, 1914. Serial No. 878,942. (Cl. 40—32.)



1. A poster display machine, comprising a receptacle; continuous conveying mechanism operatively mounted therein; a plurality of flexible poster supporting sections; clamp-plates secured to the ends of said sections and yieldingly connected at their ends with said conveying mechanism; means for a yielding connection between said sections; and mechanism for giving an intermittent movement to said conveying mechanism.

2. In a machine of the class described, a receptacle; rollers mounted therein and provided with chain carrying means; a pair of parallel chains carried by said rollers; pairs of clamp-plates flexibly attached to said chains and yieldingly connected; flexible sections secured at their ends to said clamp-plates; means for holding said clamp-plates in closed position; and means for suitably actuating said rollers.

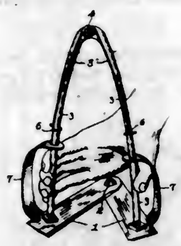
3. In a machine of the class described, a receptacle; continuous conveying mechanism mounted therein; a plurality of flexible poster carrying sections; clamp-plates attached to said sections, and having a flexible connection at their ends with said conveying mechanism; central pivotal means of connection between said clamp-plates and the clamp-plates of the adjacent sections; and mechanism for giving to said conveying devices an intermittent movement.

4. In a machine of the class described, a receptacle, provided with a hinged frame at the front side; rollers mounted in said receptacle and provided with chain-carrying means; a pair of chains carried by said rollers; a plurality of flexible sections; clamp-plates secured to opposite ends of said sections, those at one end thereof having a yielding connection with said chains and at the other end thereof a sliding connection with said chains; central yielding connecting means between said clamp-plates and the clamp-plates of the adjacent sections; and mechanism for imparting to said conveying mechanism an intermittent movement.

5. A machine of the class described, comprising a receptacle and swinging frame therefor; rollers mounted therein and provided with chain carrying means; a pair of chains carried by said rollers; a plurality of flexible sections; clamp-plates secured to one end of each of said sections provided at their ends with spring catches; sockets secured to said chains, adapted to receive the ends of said clamp-plates and be engaged by said spring catches; clamp-plates on the opposite ends of said sections; sockets secured to said chains and adapted to receive the ends of said last-named clamp-plates so as to permit a lateral movement thereof; a spring connected with said last-named clamp-plates at a central point thereof; a plate fixed to said spring; means of engagement of said plate with the clamp-plates of the adjacent section; and mechanism for imparting to said rollers an intermittent movement.

[Claim 6 not printed in the Gazette.]

1,130,085. CORN-TOPPER. GEORGE HILL, Milroy, Ind. Filed Mar. 19, 1914. Serial No. 825,821. (Cl. 30—11.)



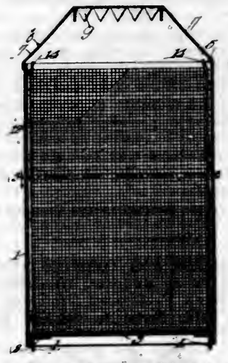
1. A corn topper having cutting blades pivoted together adjacent one end of each blade and manually gripped and operating handle members secured to the other ends of said blades and extending at an angle with respect to the plane of the blades, said handle members being pivotally connected at the ends thereof opposite their connection to the blades, substantially as described.

2. A corn topper having blades pivoted together and adapted to overlap and move past one another with a shearing cut, carrying and gripping members connected to the respective blades at the ends thereof opposite to the pivot ends and extending substantially at right angles thereto, said members being pivotally connected at their outer ends, and a spring having means exerting opposing pressure against said carrying and gripping members to hold the blades separated, substantially as described.

3. A manually carried and operated corn topper having blades pivoted together at the ends thereof, angularly extending operating handle members connected respectively to opposite ends of said blades and pivoted together at their outer ends by a pivot extending at right angles to the blade pivot, a bent spring mounted on said handle member pivot and having limbs pressing against said members, substantially as described.

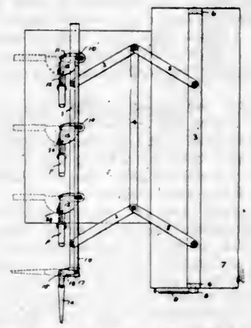
4. A manually carried and operated corn topper having pivoted shearing blades, an operating handle connected to each blade and extending substantially at a right angle to the face thereof, said handles connected at their outer ends by a pivot extending substantially at right angles to the first pivot, loop members on said handle members to receive the hand of the user, and a spring pressing said handle members, substantially as described.

1,130,086. IRON-CASED-BASKET STREET-MARKER. ALBERT C. HOBBS, Huntington, W. Va., assignor of one-half to Henry C. Harvey, Huntington, W. Va. Filed Feb. 24, 1913. Serial No. 750,390. (Cl. 220—115.)



A receptacle for waste, comprising a case including a top and a bottom; a foraminous basket in the case and resting directly upon the bottom, the bottom having an unencumbered opening located within the contour of the basket and communicating with the air exterior to the case, the top having an unencumbered opening, the openings coöperating to produce a continuous draft through the basket; and a circumferentially discontinuous support upholding the case.

1,130,087. MULTIPLE-WRITING MACHINE. FRANK AMOS JOHNSON, Dunellen, N. J., assignor to Signature Company, New York, N. Y., a Corporation of New York. Filed July 22, 1912. Serial No. 710,868. (Cl. 33—23.)



1. In a machine of the class described, a pen-bar; a plurality of pen-carriers mounted to rotate on vertical axes on said bar; a corresponding plurality of pens mounted in said carriers; in combination with means for simultaneously rotating said pen-carriers on their vertical axes to vary the horizontal writing angles of all the pens.

2. In a machine of the class described, a pen-bar; a plurality of pens; pen-carriers for said pens; a pilot stem—said pilot stem and said pen-carriers each being mounted to turn on said bar; a guide handle for said pilot stem, by means of which said stem is turned; in combination with means for turning the pens in unison with the turning of said pilot stem.

3. In a machine of the class described, a pen-bar; a plurality of pens; pen-carriers for said pens; a pilot stem—said pen-carriers and said pilot stem each being mounted to turn on said bar; in combination with a guide handle for said pilot stem; a plurality of arms—

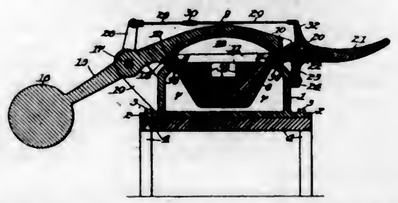
one connected to each of said pen-carriers and one to said pilot stem; and a connecting link joining the arms of said pilot stem to each of the arms of said pen-carriers.

4. In a machine of the class described, a pen-bar; a plurality of pens; a plurality of pen-carriers pivoted on vertical axes on said pen-bar; in combination with a pilot controller and connection from said controller which is adapted to turn said pen-carriers on their axes.

5. In a machine of the class described, a pen-bar; a plurality of pens; a plurality of pen-carriers mounted on vertical axes on said pen-bar; in combination with a link—said link being connected to each of said pen-carriers, whereby said pens may be adjusted to simultaneously write either a plurality of parallel or a plurality of tandem signatures.

[Claims 6 to 8 not printed in the Gazette.]

1,130,088. MACHINE FOR FORMING AND PRESSING HATS. WILLIAM H. KENDALL, Highland Park, Mich., assignor to Sarah F. Kendall, Highland Park, Mich. Filed Apr. 30, 1914. Serial No. 835,380. (Cl. 223—31.)

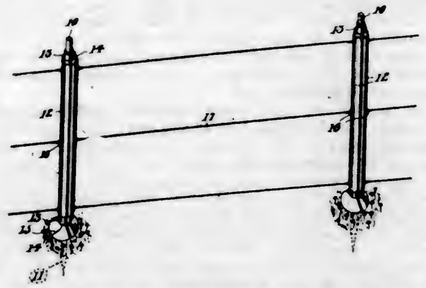


1. A machine for pressing hats, comprising a base adapted to be heated and to contain a forming die, a cap detachably mounted on said base and having an air chamber therein, a detached flexible conical diaphragm interposed and confined between the opposed faces of said base and cap at its periphery to form a closure for the air chamber of said cap, a valve controlled inlet for admitting air to said chamber to depress said diaphragm into said die, a vent port in said base below said diaphragm, and a valve controlled outlet for the air chamber in said cap.

2. A machine for pressing hats, comprising a base adapted to be heated and having a die seat therein adapted to receive a forming die, an annular concavity in the upper end of said base surrounding said die seat, a vent port through the wall of said base communicating with said die seat below said annular concavity, a cap hinged to swing on said base and having detachable locking means for engagement therewith, an air chamber in said cap, an annular concavity surrounding said chamber in said cap and adapted to register with the annular concavity of said base, a detached flexible conical diaphragm having a pliable ringed periphery adapted to be confined between the concavities of said base and said cap to divide said members and form an air-tight joint between them, a valve controlled air inlet for admitting air to said chamber to depress said diaphragm into said die, and a valve controlled outlet for the air chamber in said cap.

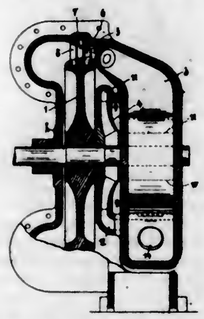
3. A machine for pressing hats, comprising a hollow base adapted to be heated and to contain a forming die, a cap pivoted to swing on eccentric bushings mounted on said base and having an open air chamber therein, a lever pivoted to said cap for engagement with locking shoulders on said base, a rod connecting said lever with said eccentric bushings for rotating said bushings through the movement of said lever, a detached pliable conical diaphragm interposed between said cap and base to form a closure for the air chamber of said cap, a valve controlled inlet in said cap for admitting air to said chamber to depress said diaphragm into said die, a vent port in said base below said diaphragm, and a valve controlled outlet for the air chamber in said cap.

1,130,089. FENCE. JULIAN KROLIKOWSKI, Chicago, Ill. Filed July 7, 1914. Serial No. 849,519. (Cl. 189—23.)



A metal fence post comprising a solid core cylindrical in cross-section and provided on its lower end with a ground entering spike, a pair of opposed sheath members semi-circular in cross-section inclosing said core, said sheath members having the outer upper ends cut-away to provide a reduced neck portion, and reduced in cross-sectional area adjacent their lower ends, outwardly projecting base members carried by the lower ends of the sheath members below the lower reduced portions, and fastening bolts extending through the upper and lower reduced portions of the sheath members and post for holding the same in locked assembled condition.

1,130,090. COMBUSTION-TURBINE. ROBERT KUTSCHINSKI, Kohlhasenbrück, near Berlin, Germany. Filed Nov. 11, 1913. Serial No. 800,322. (Cl. 60—4.)



1. In a combustion turbine comprising a separate combustion chamber, a rotor and an outlet nozzle, adapted to conduct the combustion gases into the said rotor, a nozzle valve controlling said outlet nozzle, an inlet valve for the fuel, said nozzle valve positively coupled to said inlet valve in such a manner, that the inlet valve closes automatically when the nozzle valve opens and vice versa.

2. In a combustion turbine comprising a separate combustion chamber, a rotor and an outlet nozzle, adapted to conduct the combustion gases into the said rotor, a nozzle valve controlling said outlet nozzle, an inlet valve for the fuel, said nozzle valve positively couples to said inlet valve in such a manner, that the inlet valve closes automatically when the nozzle valve opens and vice versa and means for automatically opening the nozzle valve under the action of the pressure of the combustion gases.

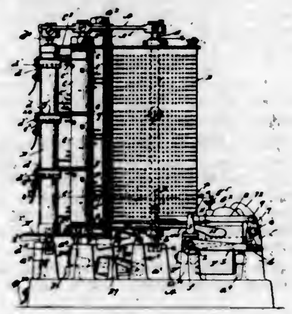
3. In a combustion turbine comprising a separate combustion chamber, a rotor and an outlet nozzle, adapted to conduct the combustion gases into the said rotor, a nozzle valve controlling said outlet nozzle, an inlet valve for the fuel, said nozzle valve positively coupled to said inlet valve in such a manner, that the inlet valve closes automatically when the nozzle valve opens and vice versa, a piston in connection to said nozzle valve and being under action of the combustion gases and of a yielding opposed force, said piston having a larger section than the effective surface of said nozzle valve.

4. In a combustion turbine comprising a separate combustion chamber, a rotor and an outlet nozzle, adapted to conduct the combustion gases into the said rotor, a nozzle valve controlling said outlet nozzle, an inlet valve for the fuel, said nozzle valve positively coupled to said inlet valve in such a manner, that the inlet valve closes automatically when the nozzle valve opens and vice versa and a regulable brake in combination with said nozzle valve.

5. In a combustion turbine comprising a separate combustion chamber, a rotor and an outlet nozzle, adapted to conduct the combustion gases into the said rotor, a nozzle valve controlling said outlet nozzle, an inlet valve for the fuel, said nozzle valve positively coupled to said inlet valve in such a manner, that the inlet valve closes automatically when the nozzle valve opens and vice versa, means for automatically opening the nozzle valve under the action of the pressure of the combustion gases, and a liquid brake with adjusting screw in combination with said nozzle valve.

[Claims 6 to 13 not printed in the Gazette.]

1,130,091. PROGRAM-CLOCK APPARATUS. FRANK F. LANDIS, Waynesboro, Pa. Filed Sept. 12, 1906. Serial No. 334,322. (Cl. 161—2.)



1. In an electric program apparatus, the combination, of a frame, a program cylinder, adjustable contact pins therein, a contact cylinder, contact arms thereon extending into the path of said contact pins, a program switch cylinder, said several cylinders being mounted to rotate, electric contact devices for connecting said contact and switch cylinders, means for automatically making and breaking said electric connections and operating the switch cylinder by the movement of said program cylinder, and means for operating said program cylinder, substantially as set forth.

2. In an electric program apparatus, the combination, of a frame, a program cylinder, means for operating said program cylinder comprising a weight for forcing it forward and electro-magnets for reversely operating said weight, a contact cylinder, an automatic switch cylinder, signaling circuit terminals adjacent to said switch cylinder, adjustable contact pins in said switch cylinder for closing the circuit when desired, and gearing connecting the program cylinder with said other cylinders for operating them, substantially as set forth.

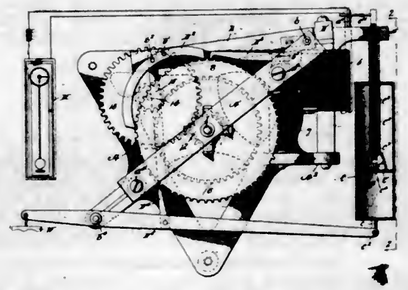
3. In an electric program apparatus, the combination, of a frame, a program cylinder carrying contact pins, a contact cylinder having contact arms, a switch cylinder, an electric connection between said contact cylinder and said switch cylinder, a post adjacent to said cylinders, terminals of one side of a signaling circuit on said post, contact arms projecting from said terminals adjacent to said switch cylinder, adjustable pins in collars on said switch cylinder arranged to be adapted to contact with said contact arms, said collars electrically connected to the contact cylinder, means for operating said program cylinder, and gearing connecting said program cylinder to operate the contact cylinder one notch at each revolution of the program cylinder and the switch cylinder one notch at each revolution of the contact cylinder, substantially as set forth.

4. In an electric apparatus, the combination, of a frame, a program cylinder, a contact cylinder and a switch cylinder electrically connected by adjustable contact arms and pins arranged to contact with each other to make and break said connection as desired by the operation of said program cylinder, means for forcing said program cylinder forward on its axis step by step comprising a weight, and electro-magnets for reversely operating said weight, substantially as set forth.

5. An electric program apparatus comprising a program cylinder formed with a series of rows of holes in its periphery equal to the number of hours to be covered by the program and each row comprising a number of holes equal to the sub-divisions of the hour desired to be denoted by said program, contact pins formed to be inserted in said holes in such relative arrangement as may be desired, a contact cylinder mounted parallel with and adjacent to said program cylinder, and contact arms arranged in a spiral direction around said contact cylinder opposite the rows of holes in the program cylinder, and extending into the path of said contact pins, substantially as set forth.

[Claims 6 to 21 not printed in the Gazette.]

1,130,092. ELECTRIC CLOCK. FRANK F. LANDIS, Waynesboro, Pa. Filed Jan. 27, 1906, Serial No. 298,224. Renewed May 18, 1911. Serial No. 628,131. (Cl. 58—41.)



1. In an electric clock, the combination, of the arbor, the dial train, the toothed ratchet wheel, a pivoted lever having an armature upon one end and a double ended pawl pivoted near its opposite end, each end of which has a point adapted to engage with opposite sides of teeth on said ratchet wheel and being mounted to have a limited pivotal movement on said lever, a weight connected with said lever for operating said ratchet wheel through said pawl in one direction, and magnets mounted adjacent to the armature on its opposite end to operate it in the opposite direction, substantially as set forth.

2. In an electric clock mechanism, the combination with the dial train, of a ratchet wheel for operating the same, a pivoted lever carrying a double ended pawl pivoted thereto both ends of which are adapted to engage with the opposite sides of different teeth on said ratchet wheel, a pin secured to said pawl and extending through a slot in said lever at one side of the pivot on which said pawl is mounted, a link connecting said pin with a weight, an armature on the opposite end of said lever, magnets arranged adjacent to said armature, and means for energizing said magnets at predetermined periods, substantially as set forth.

3. In an electric clock, the combination of a dial train, a toothed ratchet wheel for operating the same, a pivoted lever adjacent to the upper edge of said ratchet wheel, a

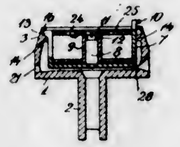
double ended pawl pivoted on said lever to engage with said ratchet wheel, an armature on said lever, magnets adjacent to said armature, a weight pivotally connected with the driving end of said pawl, and means for regulating the time required for said weight to fall, substantially as set forth.

4. In an electric clock, the combination of a dial train, an operating ratchet wheel, the operating mechanism comprising an oscillating lever, a pawl pivoted on said lever for engaging said ratchet wheel, electric devices for operating said lever in one direction, a weight pivotally carried by said pivoted pawl for operating said lever in the other direction, and a regulating device for controlling the fall of said weight, whereby it may be limited to the time desired, subatantially as set forth.

5. In an electric clock, the combination of a dial train, a ratchet wheel connected therewith, means for operating said ratchet wheel comprising an oscillating lever, a pivoted pawl mounted on said lever adapted to engage with the teeth of said ratchet wheel, an armature on said lever, magnets adjacent to said armature, and a weight pivotally connected to the pivoted pawl on said lever, said weight being controlled in its descent by a dash-pot regulator, whereby the movement of said mechanism may be timed as desired, substantially as set forth.

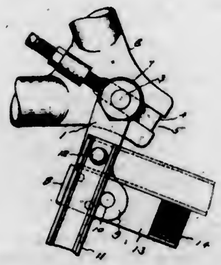
[Claims 6 to 10 not printed in the Gazette.]

1,130,093. SEWING-MACHINE. JAMES LEATHEM, Lebanon, Pa., assignor to Hermann Aukam & Co., New York, N. Y., a Corporation of New York. Original application filed July 5, 1912, Serial No. 707,848. Divided and this application filed Sept. 3, 1913. Serial No. 788,012. (Cl. 112—23.)



A bobbin comprising a hub and top plate, said top plate having in it an aperture and having in the underside of said top plate a groove extending back from such aperture, into which groove a suitable instrument may be inserted to facilitate removal of the bobbin from its holder.

1,130,094. BICYCLE-STAND. WILLIAM LOUIS MCGRATH and GEORGE W. CLARK, Westfield, Mass., assignors to George Pope, Charles A. Morse, and Charles A. Persons, receivers for The Pope Manufacturing Company, in the district of Massachusetts. Filed Sept. 25, 1914. Serial No. 863,545. (Cl. 208—25.)

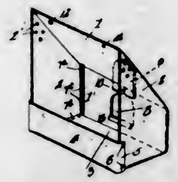


1. A bicycle stand comprising brackets provided with openings for an axle and inset lugs adapted to fit into slots in the frame of the machine with which the stand is to be used, a bow shaped frame with its upper ends pivoted to the brackets, and lugs extending outwardly from the brackets for forming stops, which limit the forward swinging of the frame.

2. A bicycle stand having brackets with openings for receiving an axle and inset lugs adapted to set into slots in the frame of the machine with which the stand is to be used, a bow shaped frame with its ends hinged to the brackets, lugs projecting outwardly from the brackets and forming stops which limit the forward swinging of the frame, and means connected with the brackets whereby the frame may be held up when the bicycle is in use.

3. A bicycle stand having brackets with perforations whereby the brackets may be placed on the axle of the machine with which the stand is to be used and having inset lugs adapted to fit into slots in the machine frame, a frame with its upper ends hinged to the brackets, lugs projecting outwardly from the brackets for limiting the forward swinging of the frame, and perforated ears on the brackets providing means whereby the frame may be locked in its forward position, or may be held lifted in its rear position.

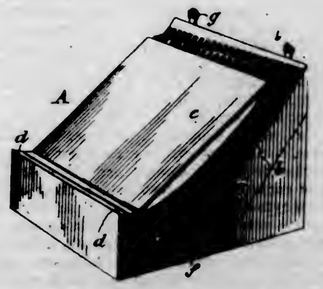
1,130,095. HEN'S NEST. HERBERT L. MCINTYRE, Burlington, Kans. Filed Sept. 5, 1912. Serial No. 718,721. (Cl. 119—45.)



1. In a nest, a body portion made of a single sheet of bendable metal comprising a wall having an inclined portion, openings provided in said wall, and walls bent from said inclined wall provided with ventilating openings, a bottom bent from said first wall terminating in a rear wall, said rear wall provided with flanges, fastening means extending through said flanges and end walls, flanges on said end walls extending under the bottom, an opening provided in one of said walls, and a door to close said opening.

2. In a nest, a one piece body portion comprising an inclined wall, a vertical front wall, end walls, a bottom, and a short lower rear wall of less height than the height of the end walls, said vertical front wall provided with an opening, a door for said opening, the inclined wall being provided with openings for engagement with a support.

1,130,096. SORTING AND FILING CASE. BARTHOLOMEW E. MCSHEEHY, Nutley, N. J., assignor to J. C. Blair Company, Huntingdon, Pa., a Corporation of Pennsylvania. Filed May 14, 1908. Serial No. 432,877. (Cl. 129—15.)



1. A rest for files or the like having a base upon which the device is supported, an upwardly and rearwardly inclined support adapted to support the side of a file, a shorter support inclined away from the horizontal and adapted to support the back of the file, said supports being in rigid connection with said base, and a tilting support c adapted to swing from said first-named support over to said last-named support, and the latter being adapted to maintain said support c in an outwardly extended position.

2. The combination of a rest for a file having a base upon which the device is supported, an upwardly and rearwardly inclined support adapted to support the side of a file, a shorter support inclined away from the horizontal and adapted to support the back of the file, and a tilting support c hinged within the outer edge of the lower support and adapted to be held by the latter in an open position.

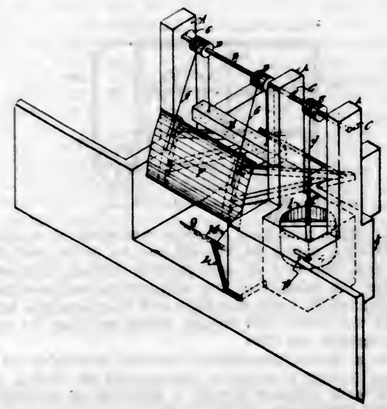
3. The combination of a file having a series of leaves united together, and means for holding said file having an upwardly and rearwardly inclined supporting surface adapted to support the leaves of the file in an inclined position, and a lower supporting surface also upwardly inclined for supporting the back of the file, and a foldable means adapted to be opened to an upwardly inclined position for supporting the opposite side of the file, and means for holding said foldable means in such position.

4. The combination of a file having a series of leaves disconnected at their sides and united at their backs, and means for holding said file having an upwardly and rearwardly inclined supporting surface adapted to support the leaves of the file in an inclined position, a lower supporting surface also upwardly inclined for supporting the back of the file, a foldable means for supporting the opposite side of the file, and a support b for holding said foldable means in its extended position.

5. A combined file and support, comprising a cover on one side thereof, a supporting surface on the other side thereof, an upwardly inclined supporting surface at the back thereof, and a supporting surface adapted to hold said cover in an open position.

[Claim 6 not printed in the Gazette.]

1,130,097. AUTOMATIC GATE FOR IRRIGATION-CANALS. ROY V. MEIKLE, Turlock, Cal. Filed Sept. 23, 1913. Serial No. 791,316. (Cl. 61—47.)



1. In a device for maintaining the water in irrigation canals at a constant level above the gate leading to the laterals, the combination with a gate for controlling the supply of water to the laterals, a counterweight operatively connected with the gate, a floating counterweight acting in opposition to said first counterweight, a well in which said floating counterweight works, adjustable means for supplying water from the canal to the well whereby water may be delivered to the well at predetermined levels in the canal, and a discharge from the well of less capacity than the supply, substantially as described.

2. In a device for maintaining water in irrigation canals at a constant level, the combination with a pivoted gate, standards or supports, an axle journaled in said standards, a freely suspended counterweight, flexible connections between the counterweight and gate, passing around said axle, said counterweight overbalancing the gate, a floating counterweight, suspended from said axle, a well in which said float works, an inlet pipe leading from the canal to the well, for supplying water thereto, and a discharge pipe leading from said well.

3. In a device for maintaining water in irrigation canals at a constant level, the combination with a pivoted gate, standards or supports, an axle journaled in said standards, a freely suspended counterweight, flexible connections between the counterweight and gate, passing around said axle, said counterweight overbalancing the gate, a floating counterweight suspending from said axle, a well in which said float works, an inlet pipe leading from the canal to the well for supplying water thereto said pipe being adjustable to deliver water to the well at predetermined levels in the canal and a discharge pipe leading from said well.

4. In a device for maintaining the water in irrigation canals, at a constant level, the combination with a pivoted gate for controlling the flow of water in said well, a shaft, standards for supporting said shaft, a freely suspended counterweight, flexible connections between said gate and counterweight passing about said shaft, a float, suspended from said shaft, a well in which said float operates, an inlet and discharge for said well and means for adjusting the elevation of said float.

1,130,098. VETERINARIAN'S OBSTETRICAL INSTRUMENT. DANIEL H. MILLER, Council Bluffs, Iowa. Filed Dec. 27, 1913. Serial No. 809,119. (Cl. 128—27.)

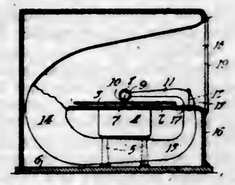


1. In an obstetrical instrument, an engaging hook, a manipulating handle and one or more links, the engaging hook, handle and links having disengaging and interchangeable joints.

2. In an obstetrical instrument, a manipulating handle, one or more links and one or more engaging hooks, said handle, links and engaging hooks having disengaging and interchangeable joints formed thereon.

3. In an obstetrical instrument, a manipulating handle, one or more links and engaging hooks and a means for locking the engaging hooks into the fetus; the said handle, links and engaging hooks having disengaging and and interchangeable joints formed thereon.

1,130,099. TALKING-MACHINE. WALTER H. MILLER, Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Feb. 23, 1910. Serial No. 545,271. (Cl. 181—3.)



1. In a talking machine, the combination of a cabinet, a partition therein, a sound record support mounted above said partition, a reproducer mounted to operate upon sound records on said support, and a sound conveyer having continuous walls connected with said reproducer, said sound conveyer extending below said par-

tition, and having an exit portion above said partition, said partition forming one wall of said exit portion, substantially as described.

2. In a talking machine, the combination of a cabinet, a horizontal partition therein, a sound record support mounted above said partition, a reproducer mounted to operate upon sound records on said support, a sound conveying tube having continuous gradually tapering walls connected with said reproducer and having an exit portion above said partition, said partition forming one wall of said exit portion of said tube, substantially as described.

3. In a talking machine, the combination of a cabinet, a horizontal partition therein, a sound record support mounted above said partition, a motor mounted below said partition, a reproducer mounted to operate upon sound records on said support, a pivoted sound conveying tube carrying and connected with said reproducer, and a sound conveyer forming a continuation of said tube, and having continuous walls extending below said partition, and rising and extending above the same to its exit end, said partition and the walls of said conveyer completely separating said reproducer from said motor, and said partition forming the lower wall of the exit portion of said conveyer, substantially as described.

4. In a talking machine, the combination of a cabinet, a record support therein, a motor for rotating the same, a reproducer and a sound conveyer having continuous gradually tapering walls connected without interruption to said reproducer and extending therefrom to its exit end in the wall of said cabinet, said reproducer being located within a portion of said conveyer and said motor outside said conveyer, substantially as described.

5. In a talking machine, the combination of a cabinet, a record support therein, a motor for rotating the same, a reproducer and a sound conveyer having continuous walls connected thereto extending therefrom to its exit end in the wall of said cabinet, said conveyer doubling back upon itself, the entrance portion thereof extending through the wall of the exit portion, substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,130,100. WEB-TIP. ROSWELL A. MOORE, Waterbury, Conn. Filed Oct. 27, 1913. Serial No. 797,529. (Cl. 24—265.)

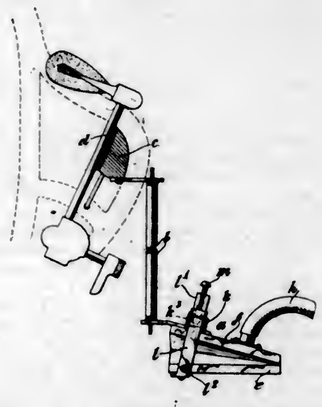


As a new article of manufacture the combination of a web and a rigid tip on the end thereof, a portion of said tip being depressed out of the plane of the main body of the tip, the tipped end being of substantially uniform thickness throughout, for the purpose set forth.

1,130,101. PNEUMATIC DEVICE FOR MUSICAL INSTRUMENTS. MARTIN NEWCOMER, New York, N. Y., assignor to Volotone Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Jan. 31, 1911. Serial No. 605,836. (Cl. 84—178.)

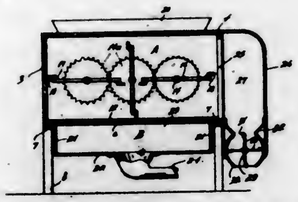
1. The combination with a bellows, provided with a port for connection to the wind chest or the atmosphere and with an auxiliary port through which direct communication may be established between the interior of the bellows and the atmosphere, of a valve to control said auxiliary port, said valve being held normally to its seat by air pressure, a lever supporting said valve and mounted on that member of the bellows in which the auxiliary port is formed, a friction arm secured to the other member of the bellows and coöperating with one arm of said lever, and a second friction arm also mounted on said other member of the bellows to coöperate with the other arm of said lever and having an offset.

2. The combination with a bellows, provided with a port for connection to the wind chest or the atmosphere and with an auxiliary port through which direct communication may be established between the interior of the bellows and the atmosphere, of a valve to control said auxiliary port, said valve being held normally to its seat by air pressure, a lever supporting said valve and mounted on that member of the bellows in which the auxiliary



port is formed, a friction arm secured to the other member of the bellows and coöperating with one arm of said lever, a second friction arm mounted on said other member of the bellows to coöperate with the other arm of said lever and having an offset intermediate its ends whereby it coöperates with said other arm during a portion only of the relative movement of the lever, and means to control the positions of said friction arms.

1,130,102. COTTON-BOLL SEPARATOR. WARREN A. PATTERSON, Dallas, Tex. Filed Jan. 16, 1914. Serial No. 812,372. (Cl. 13—19.)



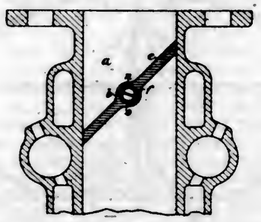
1. A cotton separating machine consisting of a chamber having a hopper at one end and an outlet near the other end, the floor of said chamber having adjustable slots for the passage of the seed cotton, means within said chamber to break the bolls and discharge the hulls through the outlet, and suction means to draw the seed cotton through the slots.

2. In a cotton separating machine consisting of a chamber having a receiving hopper and an outlet, the floor of said chamber having a plurality of adjustable slots for the passage of the seed cotton, a plurality of horizontal shafts in the chamber, flexible wipers correlated with the shafts and adapted to wipe the slots in the floor and suction means to draw the seed cotton through the slots.

3. In a cotton separating machine consisting of a chamber having a receiving hopper and an outlet, the floor of said chamber having a plurality of adjustable slots for the passage of the seed cotton, a plurality of horizontal shafts in the chamber, flexible wipers correlated with the shafts and adapted to wipe the slots in the floor and pressure means for forcing the seed cotton through the slots.

4. In a cotton boll separating machine, an agitating chamber, an inlet hopper at one end and an outlet near the other, the floor of said chamber having adjustable slots for the passage of seed cotton, shafts arranged longitudinally within the agitating chamber and arranged above the slots, arms carried by the said shafts, reach beams carried by the extremities of the arms, flexible wipers carried by the beams and suction means provided for drawing the seed cotton through the slots.

1,130,103. THROTTLE-VALVE FOR CARBURETERS. GOTTFRIED PLUMM, Berlin, Germany. Filed Mar. 4, 1911. Serial No. 612,362. (Cl. 123—108.)



1. In combination, a casing, a rotary disk-valve located therein and in its open position permitting flow between itself and the casing-wall, and having an axially chambered spindle mounted at both ends in the casing-wall and furnished within the casing with outlets at opposite faces of the disk, constituting permanent communications with the valve-chamber, and provided externally of the latter with an outside-air inlet, said casing presenting a corresponding air-inlet which is normally closed by the spindle but is opened thereby when the valve has been brought into a position of pronounced throttling.

2. In combination, a casing having a perforated wall, and a throttle valve mounted therein and having a spindle presenting two separated axially directed chambers, the one of which communicates with the interior of the casing at the one side of the valve, and the other with the interior of the casing at the opposite side of the valve, and both chambers communicating with the outside air.

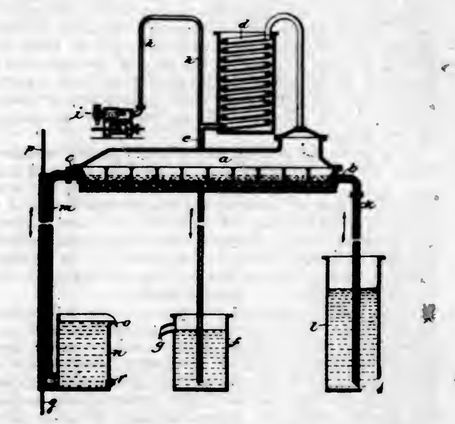
3. In combination, a throttle valve having a spindle presenting two separated axially directed chambers each furnished with an outlet, the two outlets conducting to opposite sides of the valve, and a casing in which the said valve is mounted, provided with air-ports which during closing of the valve admit outside air first to both the spindle-chambers and then to only one thereof.

4. In combination, a throttle valve having a spindle presenting two separated axially directed chambers each furnished with an outlet, the two outlets conducting to opposite sides of the valve, and each furnished with a radial inlet, and a casing in which the said valve is mounted, provided with two air-ports of different dimensions which during closing of the valve admit outside air first through both of the said spindle-chamber inlets and then through only one thereof.

1,130,104. PROCESS FOR THE PRODUCTION OF NITRIC ACID. FRITZ RASCHIG, Ludwigshafen-on-the-Rhine, Germany. Filed Apr. 21, 1914. Serial No. 833,533. (Cl. 23—1.)

1. The continuous process of producing nitric acid from a mixture of a nitrate and sulfuric acid, which comprises distilling such mixture under a high vacuum, continuously removing the nitric acid evolved, supplying such mixture in a continuous manner to be distilled, and also removing the bisulfate formed in a continuous manner.

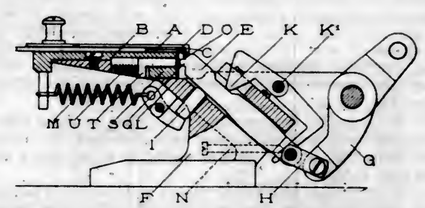
2. The continuous process of producing nitric acid from a mixture of sodium nitrate and sulfuric acid, which comprises distilling such mixture at a temperature of about 170° and under a high vacuum corresponding to this temperature, continuously removing the nitric acid evolved, supplying such mixture in a continuous manner to be distilled, and also removing the bisulfate formed in a continuous manner.



3. The continuous process of producing nitric acid from a mixture of a nitrate and sulfuric acid, which comprises distilling such mixture under a high vacuum approximating a perfect vacuum, continuously removing the nitric acid evolved, supplying such mixture in a continuous manner through a conduit containing therein a head of liquid corresponding approximately to the vacuum employed, and also removing the bisulfate formed in a continuous manner through a conduit containing a head of liquid corresponding to the vacuum employed.

4. The continuous process of producing nitric acid from a mixture of sodium nitrate and sulfuric acid, which comprises distilling such mixture at a temperature of about 170° and under a high vacuum corresponding to this temperature, continuously removing the nitric acid evolved, supplying such mixture in a continuous manner through a conduit containing therein a head of liquid corresponding approximately to the vacuum employed, and also removing the bisulfate formed in a continuous manner through a conduit containing a head of liquid corresponding to the vacuum employed.

1,130,105. DEVICE FOR SECURING DOUBLY-BENT HOOKS. RUDOLF REITER and RUDOLF LORENZ, Leipzig, Germany. Filed May 28, 1914. Serial No. 841,435. (Cl. 93—89.)



1. A device for securing doubly bent hooks to flat objects comprising means for supporting the object and hook therein, a movable member having three short extensions on its front portion adapted to press on the head of the hook and to house the shanks of the hook during the bending of the head.

2. A device for securing doubly bent hooks to cardboard labels, tickets and the like comprising means for supporting the label and hook therein, a movable member having three short extensions with beveled off adjoining front portions to create widened spaces between them adapted to press the head of the hook onto the label and to guide and house the shanks of the hook during the bending of the head.

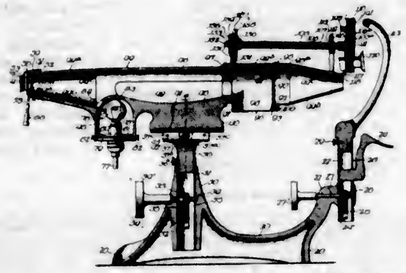
3. A device for securing doubly bent hooks to cardboard labels and the like comprising means for supporting the label with hook therein, a slantingly mounted movable member having three short extensions on its front top portion adapted to press on the head of the hook and to house its shanks during the bending of the head, a spring pressed bolt for guiding the lower surface of the bending member, and a pivotally arranged rigid arm for guiding its top surface.

4. A device for securing doubly bent hooks to cardboard labels and the like comprising a slantingly mounted movable member with three short extensions on its top front portion adapted to press on the head of the hook and to house its shanks during the bending of the head, supporting means for the label with hook therein having recesses adapted to receive the short extensions of the movable bending member during the bending of the head, and means for guiding said bending member.

5. A device for securing doubly bent hooks to cardboard labels and the like comprising a slantingly mounted movable member with three short extensions on its top front portion adapted to press on the head of the hook and to house its shanks during the bending of the head, supporting means for the label with hook therein having recesses adapted to receive the short extensions of the movable bending member during the bending of the head, spring actuated covers within said recesses adapted to periodically close their openings and to be forced in by the extensions of the bending member, and means for guiding said bending member.

[Claims 6 and 7 not printed in the Gazette.]

1,130,106. OPTICAL INSTRUMENT. SETH A. RHODES, Oak Park, Ill. Filed Sept. 10, 1914. Serial No. 860,997. (Cl. 88—20.)



1. In an optical instrument, the combination of an eye-piece comprising an element provided with peep-hole, and a light-reflecting mirror having a peep-hole substantially in alinement with the peep-hole in said eye-piece, one of said peep-hole elements having provisions whereby the peep-hole thereof is adjustable with respect to the other peep-hole.

2. In an optical instrument, an eye-piece having a relatively movable element containing a peep-hole, the relative movability of said element providing adjustability of said peep-hole.

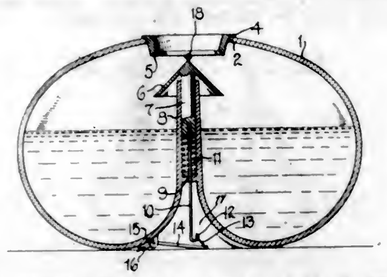
3. In an optical instrument, an eye-piece having a guideway therein, a slide in said guideway, said slide being provided with a peep-hole.

4. In an optical instrument, an eye-piece having a relatively movable element provided with a peep-hole, a light-reflecting mirror provided with a peep-hole substantially in alinement with said other peep-hole, the movability of said movable element being adapted to provide a line of vision through said two peep-holes at different points in the area of the peep-hole through said mirror.

5. In an optical instrument, an eye piece provided with a guideway, a slidable element in said guideway, said slidable element having a peep-hole, a light-reflecting mirror having a peep-hole therein substantially in alinement with said other peep-hole, the slidability of said slidable element being adapted to provide a line of vision through said two peep-holes at various points in the area of the peep-hole of said mirror.

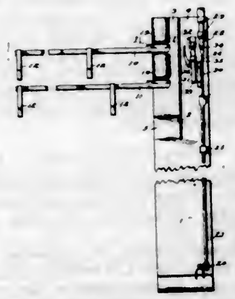
[Claims 6 to 22 not printed in the Gazette.]

1,130,107. CUSPIDOR. JAMES R. ROBERTS, Cotter, Ark. Filed May 29, 1914. Serial No. 841,867. (Cl. 4—38.)



A cuspidor including a receptacle body of general spherical form having a convex base formed with a central upwardly projecting hollow cone shaped boss, and a hollow standard formed upon the apex of said base and constituting a continuation thereof, a horizontal partition wall integrally connecting the hollow standard and the boss and provided with a central opening, a spring projected valve stem longitudinally movable in said standard and provided upon its upper end with a conical valve member, a rod detachably threaded in the opposite end of said stem and loosely movable in the opening in said partition wall, a lever laterally curved at one of its extremities and pivotally mounted at the inner end of said curved portion upon the wall of said cone shaped boss, the other end of said lever projecting inwardly, a link connecting the latter end of the lever to the lower end of said rod, and a valve seat member removably mounted in the top of the cuspidor body, upon which said conical valve member is seated, when the cuspidor is overturned, the engagement of the curved end of said lever with the floor moving said lever to draw the valve stem downwardly and hold the valve member in its open position.

1,130,108. LEAF-TURNER. FRANK E. RODLIFF, Burlington, Vt. Filed Dec. 6, 1913. Serial No. 805,005. (Cl. 84—135.)

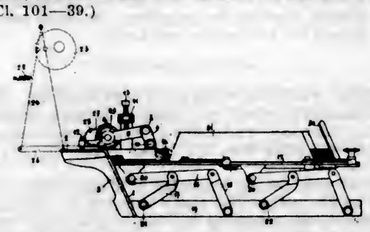


1. A leaf turner comprising a frame, spring actuated leaf-turner arms pivotally mounted near one edge of said frame and adapted to be swung into a position substantially parallel to the frame, independent catches mounted near the other edge of said frame arranged to engage and retain said arms when swung into engagement therewith and to release said arms in succession, guide members mounted on said frame to which said catches are attached, an operating rod for releasing said catches, and means operated by one of said arms when engaged by its catch for preventing the release of another of said arms by its respective catch until the said first arm has been released, said means comprising a pivoted member in the path of the first arm arranged to be swung out of operative relation with respect to said rod by said first arm when engaged by its catch, and to swing into position to be engaged by said rod when said first arm has been released.

2. A leaf turner comprising a frame, leaf turner arms mounted one above another on the left hand side of said frame near its upper end and provided with springs for normally holding and swinging said arms to a position to the left of said frame and permitting swinging of the arms into a position to the right of said frame, a plurality of catches on the right hand side of said frame for engaging and retaining said arms when swung into engagement therewith, guide members carrying said catches and means for releasing said arms successively, said means comprising an operating rod for actuating said members, a swinging member supported by one of said guide members adapted to be swung into or out of position to be engaged by said operating rod, and an actuating arm for said swinging member arranged to be engaged by one of said leaf turner arms when held by its catch and to move said swinging-member into inoperative position, whereby the guide member carrying said swinging member is kept from being operated by said operating rod until the preceding leaf turner has been released.

3. A leaf turner comprising a frame, leaf turner arms mounted one above another on the left hand side of said frame near its upper end and provided with springs for normally holding and swinging said arms to a position to the left of said frame and permitting swinging of the arms into a position to the right of said frame, a plurality of catches on the right hand side of said frame for engaging and retaining said arms when swung into engagement therewith and means for releasing said arms successively, said means comprising an operating rod, an upper guide member carrying a catch arranged to be operated by said rod, a lower guide member carrying a catch, a pivoted actuating member supported by said lower guide member arranged to be swung into or out of position to be engaged and operated by said operating rod, and a pivoted arm also mounted on said lower guide member and connected to said pivoted actuating member and arranged to be engaged by one of said leaf turner arms when held by the upper catch and to move said swinging member into inoperative position.

1,130,109. PAPER-FEEDER. PAUL VALERY ROLIER, Paris, France. Filed Oct. 14, 1912. Serial No. 725,673. (Cl. 101—39.)



1. An apparatus for feeding sheets from a pile consisting in the combination of a fixed incline plane, a roller adapted to feed sheets when rotated from the pile over the edge of said plane, a table for supporting the pile of sheets in contact with said plane, a fixed base, a forward pair of links pivoted to said base on each side thereof, a rearward pair of links pivoted to said base on each side thereof, a member connecting the free ends of each forward pair of links and extending forwardly, a member connecting the free ends of each rearward pair of links and extended forwardly, lugs on the under surface of said table for pivoting the forward ends of said members thereto and spring means operative upon each quadrilateral formed by said links, tending to turn the links to press the supporting table upward.

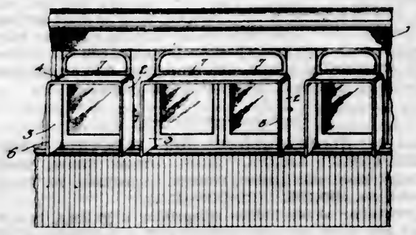
2. In a device for feeding sheets from a pile, the combination of a fixed inclined plane, a roller adapted to feed sheets from the pile over the upper edge of said plane, a table for supporting the pile of sheets in contact with said plane, a fixed base, a forward pair of links pivoted to said base on each side thereof, a rearward pair of links pivoted to said base on each side thereof, a member connecting the free ends of each forward pair of links and extended forwardly, a member connecting the free ends of each rearward pair of links and extended forwardly, lugs on the under surface of said table for pivoting the forward ends of said members thereto and spring means in connection with said links tending to turn the links to press the table upward.

3. In a device for feeding sheets from a pile, the combination of a fixed inclined plane, a roller adapted to feed sheets from the pile over the upper edge of said plane, a table for supporting the pile of sheets in contact with said plane, a fixed base, a forward pair of links pivoted to said base on each side thereof, a rearward pair of links pivoted to said base on each side thereof, a member connecting the free ends of each forward pair of links and extended forwardly, a member connecting the free ends of each rearward pair of links and extended forwardly, lugs on the under surface of said table for pivoting the forward ends of said members thereto, spring means in connection with said links tending to turn the links upward, and means for adjusting the pressure of said last named means.

4. Means for feeding sheets of paper comprising in combination a fixed inclined plane, a roller adapted to feed sheets when rotated from the pile over the edge of said plane, a table for supporting the pile of sheets in contact with said plane, a fixed base, a forward pair of links pivoted to said base on each side thereof, a rearward pair of links pivoted to said base on each side thereof, a member connecting the free ends of each forward pair of links and extending forwardly, a member connecting the free ends of each rearward pair of links and extended forwardly, lugs on the under surface of said table for pivoting the forward ends of said members thereto and spring means operative upon each quadrilateral formed by said links, tending to turn the links to press the supporting table upward, and means for adjusting the tension of each of said spring means separately.

5. Means for feeding sheets comprising in combination a feed table, a pair of arms pivoted to an extension of said table, a spindle pivoted in and connecting said arms, a feed roller fixed to said spindle, a cross bar connecting said arms, a leaf spring operating upon the middle of said cross bar, tending to press the free ends of said arms into contact with said table, means for adjusting the distance of said free ends from said table, and means for adjusting the pressure of said leaf spring.

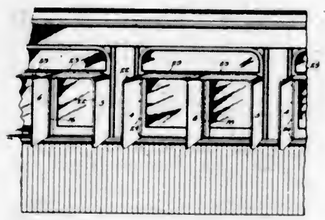
1,130,110. CINDER-DEFLECTOR. EDWARD C. SASSER, Spencer, N. C. Filed July 6, 1914. Serial No. 849,848. (Cl. 98—21.)



A cinder deflector, comprising a body portion of substantially inverted U-shape and provided at its outer edge with

a flange extending substantially throughout the length of the said body portion, and said flange disposed at an obtuse angle to the plane of the said body portion.

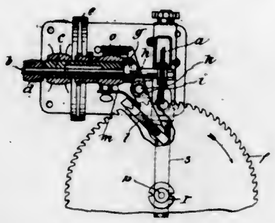
1,130,111. CINDER-DEFLECTOR. EDWARD C. SASSER, Washington, D. C. Filed Sept. 23, 1914. Serial No. 863,077. (Cl. 98—21.)



1. A cinder deflector comprising a substantially inverted U-shape frame adapted to embrace a double window, in combination with a center plate extending parallel to the sides of said frame and adapted to be secured to the casing between the said windows.

2. A cinder deflector comprising a substantially inverted U-shape frame adapted to embrace a double window, said frame formed of two angularly formed members and which when arranged have their upper inner ends adjacent, in combination with a center plate adapted to be secured beneath the inner ends of the said frame and secured to the casing between the double window and extending substantially parallel with the sides of the said frame.

1,130,112. TOOL-GRINDER. PAUL SCHMIDT, Vienna, Austria-Hungary. Filed Oct. 22, 1913. Serial No. 796,656. (Cl. 76—40.)



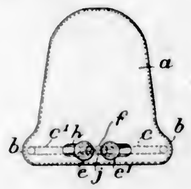
1. A tool grinder comprising a shaft, an axle journaled eccentrically in said shaft, a grinding wheel carried by said axle, means for driving said shaft, and means for independently driving the axle of the grinding wheel.

2. In a tool grinder, the combination of a shaft having an eccentric bore longitudinally through the same, an axle in said bore, a grinding wheel on the axle, and workpiece feed-mechanism actuated by said shaft, substantially as described.

3. In a tool grinder, the combination of a shaft having an eccentric bore longitudinally through the same, an axle in said bore, a grinding wheel on the axle, one end of the shaft constituting a cam, and workpiece feed-mechanism actuated by said cam, substantially as described.

1,130,113. GLOBE-HOLDER FOR ELECTRIC, GAS, AND OTHER LAMPS. JOHN AITKEN SHAW, West Mount, Montreal, Quebec, Canada. Filed Jan. 20, 1914. Serial No. 813,199. (Cl. 240—115.)

1. Globe or shade holder comprising a gallery, bowed spring clip arms mounted on said gallery and adapted to contract into engagement with the rim of a globe or shade inserted into said gallery said arms each having one end overlapping the adjacent end of the other arm, said overlapping ends being of reduced thickness, means on the said ends adapted to be pressed toward one another for causing the said arms to be expanded in order to release them from the globe or shade, said means being movable in the same plane owing to the reduced thickness of said ends, and stopping means adapted to limit the releasing movement imparted to the said arms substantially as set forth.



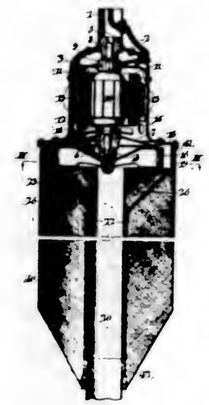
2. Globe or shade holder comprising a gallery formed with an annular recess, bowed spring clip arms mounted on said gallery and adapted to contract into engagement with the rim of a globe or shade inserted into said gallery and to be expanded into the recess in said gallery for the purpose of releasing such globe or shade said arms each having one end overlapping an adjacent end of the other arm, the overlapping ends being of reduced thickness, outwardly directed projections on the extremities of said overlapping ends said projections extending through an aperture in the recessed portion of said gallery, and being movable in the same plane owing to the reduced thickness of said ends, and a stop in said aperture disposed between said projections for limiting the movement thereof when pressed together for expanding the arms substantially as and for the purpose set forth.

3. Globe or shade holder comprising a gallery formed with an annular recess two circumferential slots being adjacently formed in said recess, bowed spring clip arms mounted on said gallery and adapted to contract into engagement with the rim of a globe or shade inserted into said gallery and to be expanded into the recess in said gallery for the purpose of releasing such globe or shade said arms each having one end overlapping an adjacent end of the other arm, said overlapping ends being formed with inclined flats on their engaging surfaces, outwardly directed projections on the extremities of said overlapping ends said projections extending through respective apertures in the recessed portion of said gallery, and being movable in the same plane toward or from one another owing to the presence of said flats, the metal of the casing lying between the adjacent ends of the two slots serving as a stop for limiting the movement of the projections when pressed together for expanding the arms substantially as and for the purpose set forth.

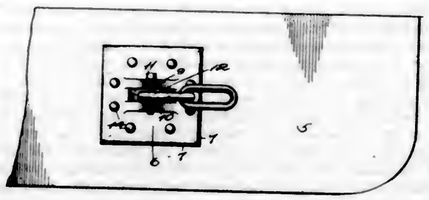
1,130,114. VACUUM CLEANING APPARATUS. HOWARD SMALL, Wyncote, Pa., assignor to Santo Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Nov. 27, 1914. Serial No. 874,173. (Cl. 83—47.)

1. A vacuum cleaner consisting of a shaft with a handle, a motor casing, and motor attached to the end of the shaft, a fan driven by the motor, a vacuum tube in alinement with the shaft below the motor and the fan, a flanged disk surrounding the fan, and a permeable dust bag attached at one end to the flanged disk and at the other end to the vacuum tube both of which are surrounded by said dust bag.

2. In a vacuum cleaner the combination of a fan, a flanged disk surrounding the top and sides of the fan, a suction tube in alinement with the axis of the fan, a collar sliding on the suction tube, and a cylindrical dust bag attached at its upper end to the flanged disk surrounding the fan and at its lower end to the collar.



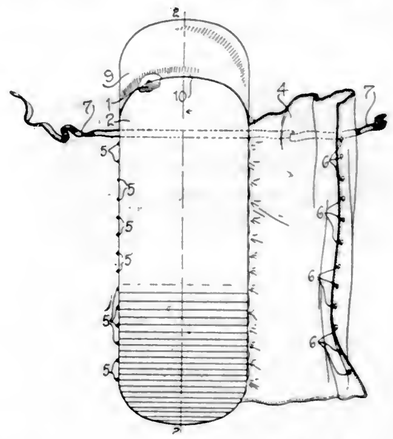
1,130,115. SLED-PLATE. SOLOMON A. SOULE, Francis, Wash. Filed May 19, 1914. Serial No. 839,591. (Cl. 21—48.)



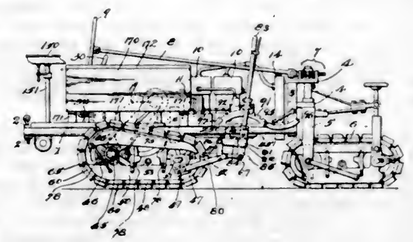
A sled plate comprising a body portion, ears upon the outside of the body portion adapted for engagement with a draft device, and an inwardly extending continuous flange upon the inner face of said body portion which has a reduced edge adapted to be driven into the wood of a runner, said body portion having an outstanding peripheral flange the inner face of which is adapted to lie against the surface of the part to which the plate is attached.

1,130,116. SLEEPING-BAG. MABEL LAVINIA STEVENSON, North Vancouver, British Columbia, Canada. Filed Mar. 23, 1914. Serial No. 826,715. (Cl. 5—5.)

As a new article of manufacture, a sleeping bag for infants including an elongated mattress section having one extremity curved transversely, a pillow member having one marginal portion disposed inwardly on a curvature complemental to the curvature of the end of the mattress section, said curved wall of the pillow member and the curved end of the sleeping bag being provided with coacting means whereby the pillow member may be detachably engaged with the mattress section, anchoring members disposed along the opposite longitudinal walls of the mattress section, and an elongated cover member provided along its longitudinal margins with members to detachably engage the anchoring members along the longitudinal walls of the mattress section whereby said cover member may be entirely disengaged from the mattress section.



1,130,117. TRACTION-ENGINE. WILLIAM STRAIT, Appleton, Wis. Filed Sept. 20, 1912. Serial No. 721,507. (Cl. 21—114.)

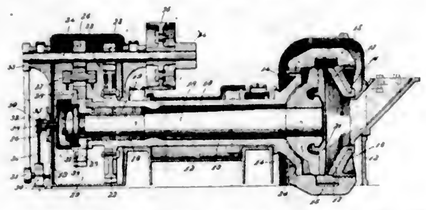


1. In a traction machine, the combination of a main frame, steering means, a driving tractor belt at each side of the main frame, a motor, a drive shaft connected to said driving tractors and having differential mechanism connected with said motor for driving the tractors differentially in turning, and an independently acting brake and brake-operating means for each tractor.

2. In a traction machine, the combination of a main frame, steering means, a driving tractor belt at each side of the main frame, a motor, a drive shaft connected to said driving tractors and having differential mechanism connected with said motor for driving the tractors differentially in turning, an independently acting brake and brake-operating means for each tractor, independent means for raising and lowering and holding in adjusted position one end of each tractor belt.

3. In a traction machine, the combination of a main frame, steering means, a driving tractor belt at each side of the main frame, a motor, a drive shaft connected to said driving tractors and having differential mechanism connected with said motor for driving the tractors differentially in turning, an independently acting brake and brake-operating means for each tractor, independent means for raising and lowering and holding in adjusted position one end of each tractor belt, and means actuated by the driving mechanism of the vehicle for operating said belt raising and lowering means.

1,130,118. MEANS FOR LUBRICATING BEARINGS. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Original application filed May 16, 1911, Serial No. 627,598. Divided and this application filed Dec. 4, 1911. Serial No. 663,859. (Cl. 64—24.)



1. The combination with inner and outer shafts rotating on axes which are in different planes or out of line with each other, of an eccentric bearing interposed between said shafts, and thus presenting inner and outer surfaces requiring lubrication, an oil chamber at the outer end of said bearing and outwardly closed so as to be adapted to contain oil under pressure, said chamber communicating with the said surfaces of said bearing, an oil reservoir located below said bearing and adapted to receive the waste oil therefrom, and means for forcing oil from said reservoir into said chamber and to said inner and outer surfaces of said bearing.

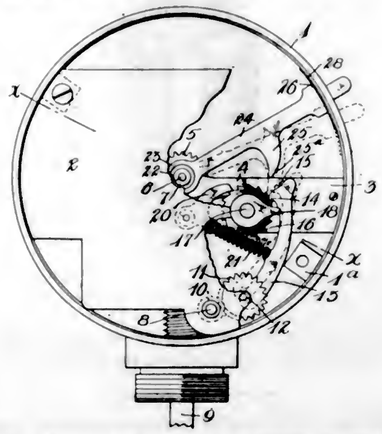
2. The combination with inner and outer shafts rotating on axes which are in different planes or out of line with each other, of an eccentric bearing interposed between said shafts, and thus presenting inner and outer surfaces requiring lubrication, an oil cap or cover at the outer end of said eccentric bearing and affording an oil chamber which is outwardly closed so as to be adapted to contain oil under pressure, said chamber communicating with the said surfaces of said bearing, and an oil reservoir located below said bearing and adapted to receive the waste oil therefrom, and means for forcing oil from said reservoir into said chamber and to said inner and outer surfaces of said bearing.

3. The combination with inner and outer shafts rotating on axes which are in different planes or out of line with each other, of an eccentric bearing interposed between said shafts, and thus presenting inner and outer surfaces requiring lubrication, an oil cap or cover at the outer end of said eccentric bearing, affording an oil chamber which is outwardly closed so as to be adapted to contain oil under pressure and having a slight wabbling movement when the machine is running, said chamber communicating with the said surfaces of said bearing, and means for forcing oil into said chamber and to the inner and outer surfaces of said bearing, said means consisting of a force pump and a flexible or jointed duct or conduit between said force pump and said cap or cover, said flexible or jointed duct or conduit accommodating the wabbling movements of said oil cap or cover.

4. The combination with the outer and inner shafts 13 and 18, of the eccentric bearing 19 interposed between said shafts, and thus presenting inner and outer surfaces requiring lubrication, a chambered cap or cover 37 at the outer end of said bearing and outwardly closed so as to be adapted to contain oil under pressure, an oil reservoir located below said bearing and which receives the waste oil therefrom, a force-pump, a flexible or jointed tube comprising the parts 35 and 36 between said force pump and said chambered cap or cover, and the spring 38 to hold said parts 35, 36 and 37 together.

1,130,119. CAST-OFF DEVICE FOR RECORDERS. CHARLES WALFRID SVENSON, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 1, 1913. Serial No. 782,420. (Cl. 235—95.)

1. In a device of the character described, in combination, two separate gearing mechanisms, a common driving shaft for said mechanisms, one of said mechanisms including a rotatable gear element and a reciprocating actuator normally positioned to engage and rotate said element, and itself driven from said common shaft, and a manually controlled cast-off member arranged to be moved to engage said actuator to move the same from the line of its coöperating gear element and to guide the same in a path of reciprocation out of the line of engagement with said gear element, while permitting the continued reciprocation of said actuator.



2. In a device of the character described, in combination, two separate gearing mechanisms, a common driving shaft for said mechanisms, one of said mechanisms including a ratchet wheel and a reciprocating driving dog arranged and normally tending to engage and rotate said ratchet wheel, said driving dog itself being driven from said common shaft, and a manually controlled cast-off arm arranged to be moved to and held in a position to engage and guide said dog in a plane of reciprocation out of the line of engagement with said ratchet wheel, while permitting the continued reciprocation of said driving dog.

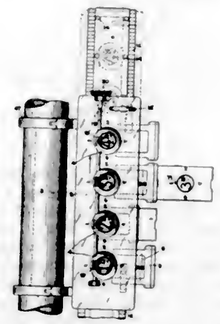
3. In a device of the character described, two separate gearing mechanisms, a common driving shaft for said mechanisms, one of said mechanisms including a ratchet wheel and a reciprocating driving dog therefor, said dog being operated from said common driving shaft and being arranged and normally tending to engage and rotate said ratchet wheel, a manually controlled arm arranged to be moved toward and from a position whereby it engages said driving dog and moves it out of the line of said ratchet wheel to guide said dog in a plane of reciprocation out of the line of ratchet wheel engagement, while permitting the continued reciprocation of said dog, with means arranged to retain said arm when moved into dog controlling and non-controlling positions.

4. In a device of the character described, in combination, a casing, a driving shaft extending within said casing, two separate gearing mechanisms within said casing and in operative and independent connection with said shaft, one of said gearing mechanisms embodying a reciprocating driving dog and a rotatable ratchet wheel, said dog being driven from said driving shaft and being arranged and normally tending to engage and rotate said ratchet wheel, a manually controlled arm extending within said casing and arranged to be moved into and out of a position to engage said driving dog to move it out of the line of said ratchet wheel and to guide it in a plane of reciprocation out of the line of ratchet wheel engagement and actuation while permitting the continued reciprocation of said dog, and means coöperating with said arm to retain it in its dog controlling and non-controlling positions.

5. In a device of the character described, in combination, speed registering means, distance registering means, a separate gearing mechanism for each of said registering means, a common driving shaft for said mechanisms in permanent driving relation therewith, the gearing mechanism for one of said registering means including a rotatable gear element and a reciprocating actuator normally positioned and tending to engage and rotate said element, said actuator being in permanent operative connection with said common driving shaft, and manually controlled means arranged to position and guide said actuator in a plane of reciprocation out of the line of gear element engagement and actuation and without blocking the continued reciprocation of said actuator.

[Claims 6 to 13 not printed in the Gazette.]

1,130,120. MACHINE FOR STAMPING AND ISSUING TICKETS. ARNOLD JAMES TANNER, London, England. Filed July 17, 1913. Serial No. 779,544. (Cl. 101—187.)



1. In an apparatus for stamping and issuing tickets, a stationary base containing a plurality of lots of tickets and supporting a sliding carriage having mounted thereon a plurality of separately actuatable stamps.

2. An apparatus of the kind described having a base portion arranged to carry a plurality of lots of tickets separately, one or more stamps movably supported on said base portion so as to permit changing of the position of the stamp or stamps relatively to the lots of tickets, and means consisting of a turning type head for each stamp whereby any stamp can be set to print a character or sign in different positions on a ticket.

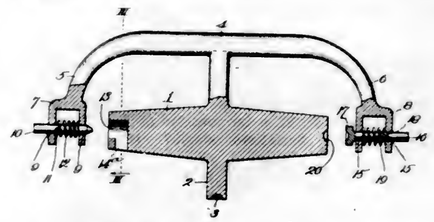
3. In an apparatus for stamping and issuing tickets, a stationary base containing a plurality of lots of tickets and supporting a sliding carriage having mounted thereon a plurality of separately actuatable stamps and a member so associated with each lot of tickets that such member must be operated to issue a ticket and which operation of said member actuates the stamp associated with the respective lot of tickets.

4. In an apparatus of the kind described, a stationary base portion carrying a plurality of reels of tickets, a sliding plate provided for each reel, a plurality of separately actuatable stamps mounted on a carriage capable of being moved intermittently on said base portion thereby permitting the position of said stamps to be changed relatively to the ticket reels and which stamps are associated with the sliding plates so that upon the operation of a selected plate the stamp associated with that plate is actuated to print the selected ticket.

5. An apparatus for stamping and issuing tickets having a base portion arranged to carry a plurality of lots of tickets separately and supporting a movable member carrying one or more stamps, a self-acting checking device whereby the movable member is prevented from travelling in a reverse direction without being re-set, and a device for counting and registering each setting of the movable member.

[Claims 6 to 9 not printed in the Gazette.]

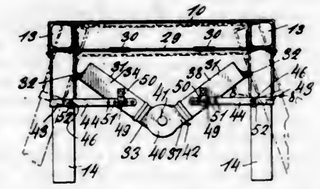
1,130,121. RIVET SETTING AND DISPLACING TOOL. JOHN W. THRASHER, Waco, Tex., assignor of two-thirds to Adolph B. Garber and Charles C. Warren, Waco, Tex. Filed Sept. 28, 1909, Serial No. 520,051. Renewed Nov. 16, 1914. Serial No. 872,496. (Cl. 29—86.1.)



1. A rivet-displacing tool, comprising a handle member carrying an anvil and a punch reciprocable in alinement with said anvil and normally retracted therefrom, said anvil being provided with a socket extending in alinement with said punch, said socket having an opening facing said punch and also an opening facing laterally and extending the full depth of the socket, said latter opening permitting insertion of the rivet therethrough into position in said socket.

2. A rivet-displacing tool, comprising a handle member carrying an anvil and a punch reciprocable in alinement with said anvil and normally retracted therefrom, the face of said anvil being provided with a socket in alinement with said punch, the inner end of said socket communicating through a passage with the side of the anvil, said socket also having a lateral opening through the side of the anvil extending the full depth of the socket.

1,130,122. FOLDABLE COT. JOSEPH TOMASSI and ZDZISLAW LOBODZINSKI, Chicago, Ill. Filed Oct. 20, 1913. Serial No. 796,321. (Cl. 5—5.)



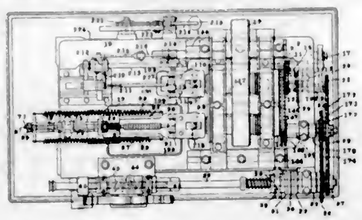
1. A foldable cot comprising side rails, a flexible top carried by the side rails and extending therebetween, legs on which the side rails are mounted, pivotally connected brace members between the legs at the respective ends of the cot, a hinge connection between said legs and the brace members, a contractile connection between the legs and the corresponding brace member, said connection comprising arms extending from the legs and the brace member, respectively and secured thereto, and a link connection between the arms.

2. A foldable cot comprising side rails, a flexible top carried by the side rails and extending therebetween, legs on which the side rails are mounted, pivotally connected brace members between the legs at the respective ends of the cot, a hinge connection between said legs and the brace members, a contractile connection between the legs and the corresponding brace member, said connection comprising arms extending from the legs and the brace member, and a link connection between the arms, one of said arms being adjustable lengthwise.

3. A foldable cot comprising side rails, a flexible top carried by the side rails and extending therebetween, legs on which the side rails are mounted, pivotally connected brace members between the legs at the respective ends of

the cot, a hinge connection between said legs and the brace members, a contractile connection between the legs and the corresponding brace member, and means for locking the brace members together, said locking means comprising a pawl carried by one of the members, the other member having a circular toothed enlargement at the pivot which is engageable by the pawl.

1,130,123. NUT-TAPPING MACHINE. WILLIAM L. WARD and GEORGE M. RUDD, Port Chester, N. Y., assignors to Russell Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y., a Corporation of New York. Filed Dec. 11, 1913. Serial No. 805,897. (Cl. 10—130.)



1. In an apparatus of the character described, in combination, tapping means comprising a plurality of taps, and means adapted to hold one of said taps and discharge the same while another of said taps coperates to tap a blank, said tapping means comprising mechanism adapted to effect a relative movement between a tap and a blank to thread the blank.

2. In an apparatus of the character described, in combination, tapping means comprising a plurality of taps, means adapted to intermittently translate said taps to tapping position, and means adapted to discharge one of said taps while another of said taps coöperates to tap a blank, said tapping means comprising mechanism adapted to effect a relative movement between a tap and a blank to thread the blank.

3. In an apparatus of the character described, in combination, tapping means comprising a plurality of taps, means adapted to intermittently translate said taps to tapping position, and means adapted to hold and discharge one of said taps while another of said taps cooperates to tap a blank, said tapping means comprising mechanism adapted to effect a relative movement between a tap and a blank to thread the blank.

4. In an apparatus of the character described, in combination, tapping means comprising a plurality of taps, means adapted to intermittently translate said taps to tapping position, and means adapted to contact a blank and discharge a blank at a positiodn of rest while another of said taps coöperates to tap a blank, said tapping means comprising mechanism adapted to effect a relative movement between a tap and a blank to thread the blank.

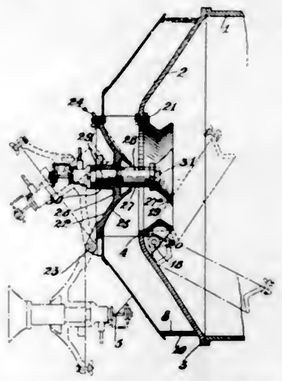
5. In an apparatus of the character described, in combination, tapping means comprising a plurality of taps, and means whereby one of said taps is gripped and discharged while another of said taps coöperates to tap a blank.

[Claims 6 to 54 not printed in the Gazette.]

1,130,124. FURNACE-FRONT. WILLIAM ALBERT WHITE, New York, N. Y. Filed Mar. 9, 1914. Serial No. 823,513. (Cl. 158—1.5.)

1. A hollow furnace front having regulated means all around its periphery for the reception of air, passages in said front, said passages extending inwardly from said reception means through the major portion of the radius of said front, and conducting the received air tangentially therethrough with respect to its axis, and a central opening communicating from the front to the furnace.

2. A hollow furnace front having regulated means all around its periphery for the reception of air, passages in said front, said passages extending inwardly from said reception means through the major portion of the radius of said front, and conducting the received air tangentially therethrough with respect to its axis, and a constricted supply tube communicating from the center of said front to the furnace.



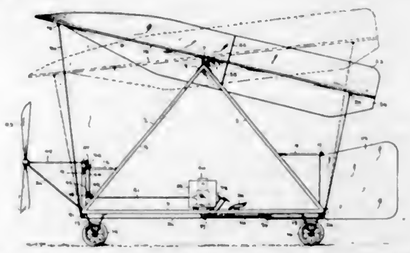
3. A hollow furnace front having air passages directed inwardly thereof from peripheral inlets, a centrally disposed constricted supply tube, a burner, a bell shaped deflector supported about said burner with its mouth directed toward the furnace and with its major peripheral edge lying substantially in the vertical plane of the inwardly directed peripheral edge of said supply tube, the passage between said supply tube and deflector communicating between said air passages and the furnace.

4. The combination with a furnace of a hollow front therefor, and a supply tube for conducting air from said front to the furnace, said supply tube being hinged to the inner wall of said front, to swing into the furnace.

5. The combination with a furnace of a hollow front therefor and a constricted supply tube for conducting air from said front to said furnace, said constricted supply tube being hinged to the inner wall of said front to swing into the furnace.

[Claims 6 to 10 not printed in the Gazette.]

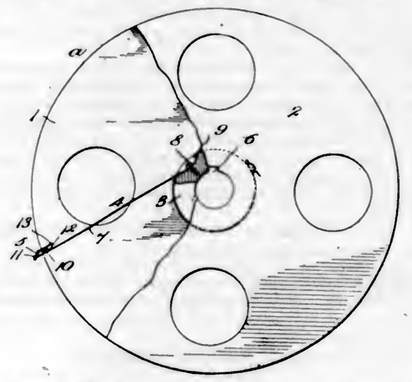
1,130,125. AIRSHIP. WILLIAM T. WILKINS, Shelley, Idaho. Filed Apr. 16, 1914. Serial No. 832,304. (Cl. 244—14.)



1. In a device of the character described, the combination with an operator's platform of triangular integral side members positioned on said platform and having their apexes in the vertical plane bisecting said platform, brackets located on said apexes, a rod rotatably mounted in said brackets, a movable aerofoil carried by said rod and controlling means for the adjustment of said aerofoil including a transverse shaft carried beneath said platform, winding cones fixed to said shaft, a worm also carried by said shaft, means for manually operating said worm, pulleys mounted upon the underside of said platform in longitudinal alinement with said winding cones and cables wound upon said cones, running over said pulleys and secured at their ends to said aerofoil to exert a vertical downward pull upon the latter when said shaft is manually operated.

2. In a device of the character described, the combination with an operator's platform, triangular side members, supporting brackets carried by said platform and fixed to said side members, a propeller mounted in one of said brackets, a rudder mounted for rotation about a vertical axis in the other of said brackets, a longitudinally positioned shaft carrying a winding cone at one extremity and a worm gear at the other, manually operable means connected to said worm for operating said shaft, pulleys carried by and underneath said platform and a cable wound upon said cone running over said pulleys and having its ends connected to opposite sides of said rudder whereby the latter may be rotated by the operation of said shaft.

1,130,126. REEL FOR MOVING-PICTURE MACHINES. EARLE M. WOODEN, New York, N. Y., assignor of one-half to Anthony B. Cavanagh, New York, N. Y. Filed Dec. 19, 1913. Serial No. 807,738. (Cl. 242—74.)



1. A film reel for moving picture machines having a resilient flexible member provided at one end with means to engage the film and adapted to connect one end of the film with the reel and adapted to be wound around the reel with the film.

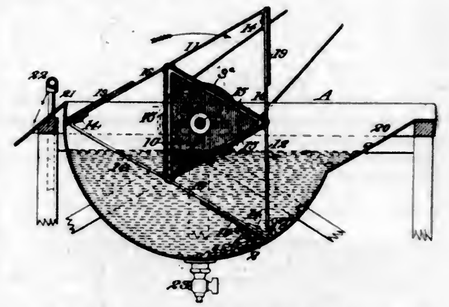
2. A film reel for moving picture machines having a resilient flexible member provided at one end with a clip and adapted to connect one end of the film with the reel and adapted to be wound around the reel with the film.

3. A film reel for moving picture machines having a resilient flexible member secured at one end to the reel and having its other end provided with a clip adapted to connect one end of the film with the reel, said flexible member also adapted to be wound around the reel with the film.

4. A film reel for moving picture machines having a resilient flexible member secured at its inner end to the hub of the reel and having its outer end extended adjacent to the periphery of the reel, and a spring clip mounted on said outer end for connecting one end of the film with the reel, said flexible member adapted to be wound around the reel with the film.

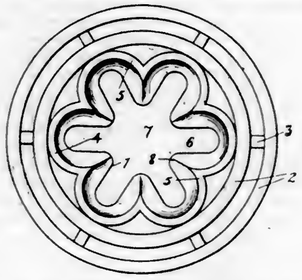
1,130,127. PRUNE-DIPPING MACHINE. FREDERICK J. YANDLE, Santa Rosa, Cal. Filed June 2, 1914. Serial No. 842,379. (Cl. 146—14.)

1. In a prune dipping machine, the combination with a liquid containing tank having a semicircular-shaped bottom, of a rotatable screen covered triangular-shaped drum journaled in the tank, said drum being partly submerged in the liquid container in the tank, and a plurality of screen covered paddles or blades secured on the drum, said blades adapted to sweep sufficiently close to the bottom of the tank to act as shovels to force prunes through the liquid and lift them to a discharge point.



2. In a prune dipping machine, the combination with a liquid containing tank having a semicircular-shaped bottom, of a shaft extending through the tank and journaled in same, a pair of triangular-shaped plates secured on said shaft, a triangular-shaped screen drum secured between the plates, a plurality of connected arms forming a triangular-shaped frame secured on each plate, and a plurality of perforated paddle plates extending across said arm frames, said plates adapted to sweep sufficiently close to the bottom of the tank to act as shovels to force the prunes through the liquid and lift them to a discharge point.

1,130,128. BASE OR SUPPORT FOR GEM-SETTINGS. HENRY ACKERMAN, Clifton Park, N. J. Filed Sept. 27, 1913. Serial No. 792,136. (Cl. 63—26.)



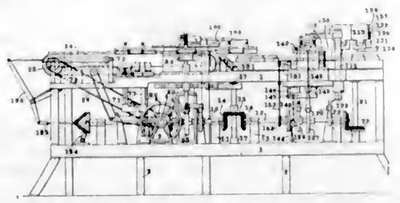
1. A base or support comprising a center and a ring surrounding the center, the ring and the center being integral with each other, the ring being of material thickness with respect to the center, and the center being so located with respect to the ring that the top of the center is below the top of the ring but above the bottom thereof, and the bottom of the center is below the bottom of the ring.

2. A base or support comprising a center and a ring surrounding the same and integral therewith, the ring being of material thickness with respect to the center, the center having a plurality of scallop-like sections extending inward and joined at the middle points of their outside edges to the inside of the ring, said sections having their top surfaces flush with one another, the center being so located with respect to the ring that the top surfaces of said sections are below the top of the ring, said sections also extending downward and having their inner ends blunt to form a relatively large opening with radial extensions, pointing outward past said inner ends.

3. A base or support, comprising a center, a plurality of rings surrounding the same, and connecting means extending from one ring to another and located below the level of the tops of the rings, but flush with the bottoms of the rings, said center comprising a plurality of scallop-like sections extending inward and joined at their middle

points to the inside of the innermost ring, said sections having their top faces flush with one another, but lowered below the top of the rings, and extending downward and inward and having their inner ends blunt to form a relatively large opening having radial extensions past said inner ends.

1,130,129. LABELING-MACHINE. JAMES W. ANDERSON, New York, N. Y., assignor to F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Filed Aug. 2, 1913. Serial No. 782,694. (Cl. 216—35.)



1. In an apparatus of the character described, in combination, a plurality of box carriers adapted to move in endless overlapping paths, and mechanism adapted to affix a label to a box on one carrier, transfer said labeled box to another of said carriers in a path intersecting each of said endless paths, and affix another label to said labeled box on said other carrier.

2. In an apparatus of the character described, in combination, a plurality of box carriers adapted to move in endless overlapping paths, mechanism adapted to affix a label to a box on one carrier, and means adapted to move said labeled box to another carrier in a path within the overlapping portions of said two carriers.

3. In an apparatus of the character described, in combination, a plurality of box carriers adapted to move in endless overlapping paths, mechanism adapted to affix a label to an inside face of a box on one carrier, means adapted to transfer said labeled box to another of said carriers, and means adapted to affix another label to an outside face of said labeled box on said other carrier.

4. In an apparatus of the character described, in combination, a plurality of box carriers adapted to move in endless overlapping paths, mechanism adapted to feed boxes successively to one of said carriers, mechanism adapted to affix labels to the inside faces of the boxes on one carrier, successively transfer said labeled boxes to another of said carriers, and affix other labels to the outside faces of the labeled boxes on said other carrier, and devices associated with said respective carriers adapted to press said boxes and applied labels against each other.

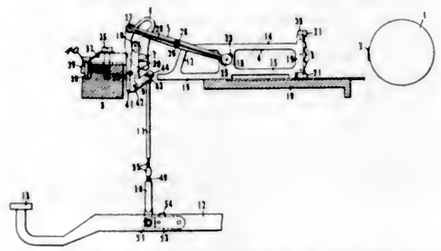
5. In an apparatus of the character described, in combination, a plurality of carriers adapted to move boxes in endless overlapping paths, one of said carriers comprising means adapted to support boxes so as to expose the interior thereof, and mechanism adapted to affix a label to an inner face of a box on said supporting means, transfer said labeled box to another of said carriers, and affix another label to said labeled box on said other carrier.

[Claims 6 to 40 not printed in the Gazette.]

1,130,130. TYPE-ACTION FOR TYPE-WRITING MACHINES. NILS H. ANDERSON, Middletown, Conn., assignor to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed May 3, 1910. Serial No. 559,085. (Cl. 197—25.)

1. In a key action, in combination, a type bar, and a pair of links similar in size and shape connected at their ends to opposite sides of said type bar, said links being of stamped sheet metal and being provided with longitudinal and transverse strengthening ribs.

2. In a key action, in combination, a type bar, a pair of links similar in size and shape connected at their ends to opposite sides of said type bar, said links being of stamped sheet metal and being provided with longitudinal and transverse strengthening ribs, and a member connecting the central portions of said links adapted to hold them in uniformly spaced relation.



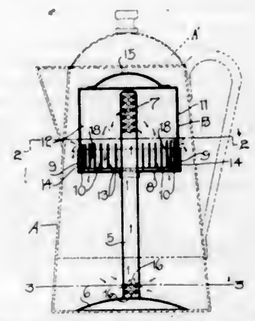
3. In a key action, in combination, a type bar, a key lever, intermediate mechanism for transmitting motion from one to the other, said mechanism including a pair of links similar in size and shape adapted to be connected at one end to said type bar, longitudinal and transverse strengthening ribs therein, and a central spacing and tie member for said links.

4. In a key action, in combination, a type bar, a key lever, intermediate mechanism for transmitting motion from one to the other, means for adjusting the range of said type bar, said means including a block of stamped sheet metal being V-shaped in vertical cross-section forming a double bearing and guiding surface, a screw adapted to secure said block to said frame, and a second screw engaging said block for moving the same relatively to the frame.

5. In a key action, in combination, a type bar, mechanism for transmitting motion thereto, means for adjusting the range of movement of said type bar including a movable block, a screw for clamping said block to the frame, a second screw for adjusting said block, and means actuated by the clamping screw for locking the adjusting screw against rotation.

[Claims 6 to 27 not printed in the Gazette.]

1,130,131. COFFEE-PERCOLATOR. CLOYD F. ANDERSON and WILLIAM C. ANDERSON, Denver, Colo. Filed June 4, 1913. Serial No. 771,726. (Cl. 53—3.)



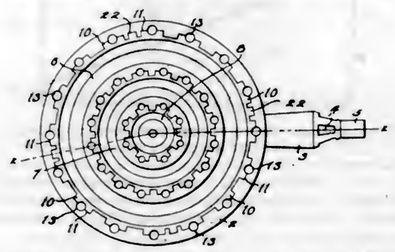
1. A percolator comprising a tube, a receptacle provided with an upstanding wall and connected to said tube below its upper end, said tube being formed with a plurality of perforations above said receptacle, an inverted cup provided with a wall disposed within said receptacle, means for spacing the lower edge of said cup from the bottom of said receptacle, said cup having corrugations formed on its wall and extending from its upper edge to a point above the receptacle, said receptacle and cup being substantially imperforate, the base of the receptacle being provided with a plurality of restricted openings.

2. A percolator comprising a tube, a receptacle provided with an upstanding wall and connected to said tube below its upper end, said tube having a plurality of vertical and circumferentially spaced openings formed therein above said receptacle, an inverted cup provided with a wall mounted in said receptacle and entirely surrounding the upper end of said tube, the wall of said cup frictionally engaging the wall of said receptacle and the wall of said cup being provided with a plurality of corrugations extending from its free edge to a point above the free edge of the wall of the receptacle, said receptacle and cup being substantially imperforate, the base of the receptacle being provided with a plurality of restricted openings.

3. A percolator comprising a tube, a receptacle provided with an upstanding wall and connected to said tube below its upper end, said tube having a plurality of openings formed therein above said receptacle, an inverted cup provided with a wall disposed in said receptacle and surrounding the upper end of said tube, the wall of said cup frictionally engaging the wall of said receptacle, and means for spacing the wall of said cup from the wall of said receptacle at intervals, said receptacle and cup being substantially imperforate, the base of the receptacle being provided with a plurality of restricted openings.

4. A percolator comprising a tube, a supporting disk connected to the lower end of said tube, a cup connected to said tube below its upper end, said tube having a plurality of openings therein above said cup, an inverted cup provided with a wall connected to said receptacle entirely surrounding the upper end of said tube, said tube having openings therein adjacent said disk, and means for spacing the wall of said cup from the wall of said receptacle at intervals, said receptacle and cup being substantially imperforate, the base of the receptacle being provided with a plurality of restricted openings.

1,130,132. BURNER. FRANK ANTONUCCIO, Oakland, Cal. Filed June 1, 1914. Serial No. 842,204. (Cl. 158—116.)



1. A burner including a pan having an outwardly inclined peripheral side wall, a plurality of concentric burner rings arranged within the mouth of the pan, and a burner plate within the inner ring, said burner rings being provided with outer and inner upstanding correspondingly inclined peripheral flanges and the burner plate being provided with an outer upstanding correspondingly inclined peripheral flange, the outer inclined faces of the outer flanges of the said rings and burner plate fitting squarely against the correspondingly inclined outer faces of the inner flanges of adjacent rings and the wall of the pan to support the said rings and plate within the mouth of the pan, the edges of said burner rings and plate being formed with grooves to provide burner openings.

2. A burner including a pan, a plurality of concentric burner rings arranged within the mouth of the pan, and a central burner plate within the inner ring, the outer and inner edges of the rings and edge of the burner plate being provided with grooves, the grooves in the outer edges of the rings coöperating with the grooves of the inner edges of adjacent rings to provide burner openings.

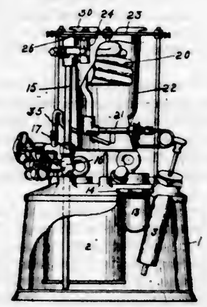
3. A burner including a pan provided with an outwardly inclined peripheral side wall, a plurality of concentric burner rings arranged within the mouth of the pan and having outwardly inclined outer and inner flanges which coöperate with each other and the inclined peripheral side wall of the pan to support the rings in position within the pan, and a central burner plate having an outwardly inclined edge which engages the flange of the inner ring to support the plate and also provides a pocket for the collection of drippings, the outer and inner edges of the rings and edge of the burner plate and inside edge of the peripheral wall of the pan being provided with grooves, the grooves in the outer edges of the rings and burner plate coöperating with the grooves in the inner edges of the adjacent rings and wall of the pan to provide burner openings.

4. A burner including a pan, a plurality of concentric burner rings arranged within the mouth of the pan and formed at one edge thereof with upright ribs and at the opposite edge thereof with corresponding depressions adapted to receive the ribs of adjacent rings, the said ribs and depressions being provided with corresponding grooves forming burner openings, and a central burner plate within the inner ring.

5. A burner including a pan, a plurality of concentric burner rings having correspondingly inclined edges which coöperate with each other to support the rings in position within the pan, one of the edges of each burner ring being formed with upright ribs and the opposite edge thereof with corresponding depressions adapted to receive the ribs of an adjacent ring, the said ribs and depressions being provided with corresponding grooves forming burner openings, and a central burner plate arranged within the inner ring.

[Claims 6 and 7 not printed in the Gazette.]

1,130,133. PLUMBER'S FURNACE. ARTHUR J. ARCHAMBAULT, Chicago, Ill. Filed Oct. 29, 1914. Serial No. 869,172. (Cl. 126—239.)



1. In a plumber's furnace, a jacket open at the top and having a slot extending downwardly therein from the upper edge, a ring-like top plate upon the upper edge of the jacket, said top plate having a slot extending radially through one side thereof in registration with the slat in the jacket, and a detachable slot-closure and reinforcing member secured to said plate.

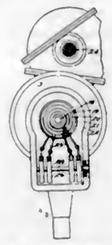
2. In a plumber's furnace, a jacket open at the top and having a slot extending downwardly therein from the upper edge, a ring-like top plate upon the upper edge of the jacket, said top plate having a slot extending radially through one side thereof in registration with the slot in the jacket, a short curved plate underlying said top plate and hinged thereto at one side of the slot, and means for detachably securing the other end of said short curved plate to the top plate on the other side of said slot.

3. In a plumber's furnace a jacket open at the top and having a slot extending downwardly therein from the upper edge, a ring-like top plate arranged on top of the jacket and having a slot extending radially through one side thereof in registration with the slot in the jacket,

a radial vertical ear on the upper side of said plate adjacent to the slot therein, a movable door for closing said slot, and means on said door for embracing the inner end of said ear to support the same.

4. In a plumber's furnace, a fuel reservoir, a jacket open at the top supported above the reservoir, a ring-like top plate upon said jacket, there being a slot extending down through the top plate and into the jacket, a burner within the jacket, a combined supporting and supply pipe for the burner extending outwardly through said slot, and a detachable coupling between said pipe and the reservoir permitting the pipe to be attached and detached without swinging the burner angularly about the pipe.

1,130,134. ELECTRICALLY-CONTROLLED CHANGE-SPEED MECHANISM. HENRY G. BALDWIN, San Francisco, Cal. Filed July 15, 1913. Serial No. 779,106. (Cl. 74—59.)



1. The combination in power-transmitting apparatus, of driving and driven elements, gearing for varying the speed of or for reversing the driven element, and electrically-operated clutch mechanism comprising a cam for coupling said gearing to said elements.

2. A change speed and reversing gearing comprising clutches for interlocking engagement with respective members of said gearing, an electrically-operated cam for shifting said clutches, and an electric system including a manually-operable lever for controlling the operation of said cam.

3. A change speed and reversing gearing comprising, a series of clutches engageable with respective elements of said gearing, means for shifting said clutches positively in one direction to engage said gearing, means for automatically retracting the clutches, and electrically operated instrumentalities for actuating the clutch-shifting means.

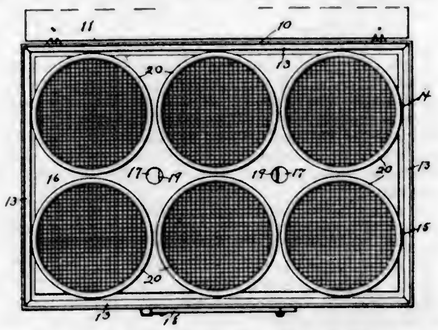
4. A change speed and reversing gearing comprising a series of clutches engageable with respective elements of said mechanism, means for shifting said clutches positively in one direction, means for automatically retracting the clutches, electrically-operated instrumentalities for actuating the clutch-shifting means, said electric instrumentalities comprising a motor-driven shaft with a gear and a cam member driven by said gear for actuating progressively parts of said shifting means, and a switch-board with respective circuits for controlling the direction and degree of rotation of said cam.

5. A power-transmission mechanism comprising a driving shaft and a driven part, a plurality of gears substantially constantly intermeshed, deriving power from said shaft, a series of clutches adapted to be shifted into operative engagement with respect to said gears, and having driving connection with the driven part, shifting levers for said clutches, a cam for progressively operating said shifting levers, electrically-operated means for actuating said cam, and a manually-controlled electrical system for the cam actuating means.

[Claims 6 to 14 not printed in the Gazette.]

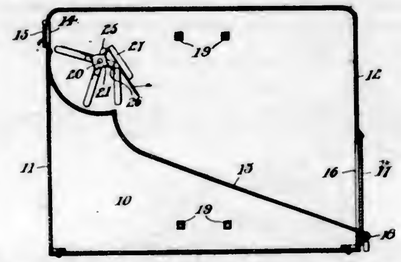
1,130,135. GRAIN-SPROUTER. DAVID BENSON, Lamoille, Ill. Filed Oct. 9, 1913, Serial No. 794,319. Renewed Jan. 18, 1915. Serial No. 2,980. (Cl. 47—30.)

A grain sprouter, comprising a casing having an open bottom and a hinged cover at its top, angle frames within and fixed to the upper and lower portions of the walls of said casing, the upper frame being depressed to receive and support the cover, legs supporting said casing above the floor, a lamp in said casing, bars crossing said



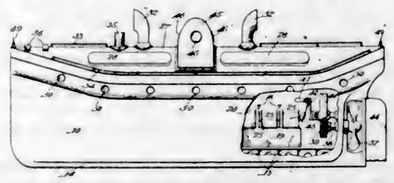
casing above said lamp, a perforated plate supported by said bars, said plate being spaced at its margins from the inner walls of the casing, and a plurality of sheet metal receptacles mounted loosely on said plate, said receptacles being formed with reticulated bottoms.

1,130,136. LETTER-BOX. JÓZSEF BIHON, Dalsytown, Pa. Filed July 8, 1914. Serial No. 849,762. (Cl. 232—52.)



In a device of the class described, a receptacle having mail receiving and exit openings therein, a shaft journaled transversely of the receptacle, a ratchet wheel on one end of said shaft, a spring-pressed pawl carried by the casing engaging said ratchet wheel, longitudinal bars secured to said shaft, letter platforms hinged to said bars, and means for revolving said shaft.

1,130,137. SHIP'S LIFE-BOAT. MARTIN BOURKE, Youngstown, Ohio, assignor of one-half to George Baker and one-half to John A. Logan, Youngstown, Ohio. Filed Dec. 7, 1912. Serial No. 735,562. (Cl. 9—4.)

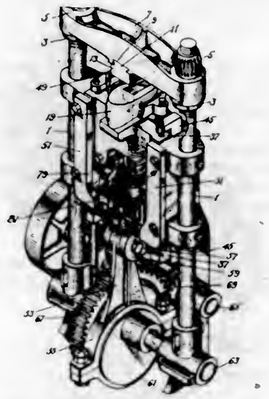


1. A ship's lifeboat having a hull formed of a longitudinal series of independent compartments separated by transverse partitions, and tanks or receptacles in said compartments partially filling the same, said tanks being connected together by pipes in a series and closed to the compartments which they occupy, and an outlet pipe therefrom to the interior of the boat being provided and a keel perforated to establish communication between opposite sides of the same compartment.

2. A ship's lifeboat having a hull formed of a series of independent compartments, a bench extending lengthwise of the hull on each side thereof, and plates movably connected to the bench and adapted to extend from one bench toward the other, and having means for their support in a horizontal position, comprising a leg attached to one of said plates, the plate without the leg overlapping and resting upon the top of the plate with the leg.

3. A ship's lifeboat having a hull, a cover for the hull, and ventilating passages in the underside of the cover leading to the outside of the boat formed each of a longitudinally extending chamber, each of said passages being branched within the boat at one end, and having an extension to the outside of the boat at its other end.

1,130,138. MOLDING-MACHINE. MATTHIAS BROCK, Roxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 15, 1912. Serial No. 697,442. (Cl. 12—64.)



1. A machine of the class described having, in combination, a mold, a support for a stiffener, a die mounted in said support, a carrier upon which said support is mounted, a cross-head for actuating said carrier, yielding means for causing said carrier to move with said cross-head whereby relative movement between said support and cross-head is permitted, positive means for causing said die to move with said cross-head, and means for actuating said cross-head.

2. A machine of the class described, in combination, a mold, a support for a stiffener, a die mounted in said support, yielding means for causing said mold and support to approach each other, and positive means for causing the die to enter the mold.

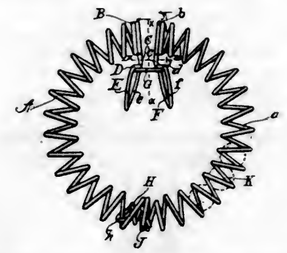
3. A machine of the class described having, in combination, a support for a stiffener having an inturned margin, a die movable with respect to said support, a mold having a portion to coöperate with said support and a second portion to coöperate with said die, and means for causing relative movement between said support and mold to grip said stiffener and for thereafter causing relative movement between said die and mold to bend forward portions of said margin upwardly and mold them in that position.

4. A machine of the class described having, in combination, a support for a stiffener having an inturned margin, a die carried by said support, a mold between which and the support said margin is gripped, and means for causing relative movement between said die and said support to bend upwardly forward portions of said margin and mold them in that position.

5. A machine of the class described having, in combination, means for holding a stiffener having an inturned margin in position to be operated upon, a die, and means for thereafter causing relative movement between said die and holding means to bend portions of said margin upwardly and mold them in that position.

[Claims 6 to 16 not printed in the Gazette.]

1,130,139. URINAL DISINFECTANT-HOLDER. DAVID A. BROWN, Woodbridge, N. J. Filed Nov. 11, 1914. Serial No. 871,500. (Cl. 4—30.)



1. A urinal disinfectant holder, comprising a spiral wire coil, releasable devices for securing the ends of the coil together thereby forming the same into a spiral ring, and the said coil having connecting means whereby one portion of the coil may be separated from another portion for the introduction of disinfectant bodies.

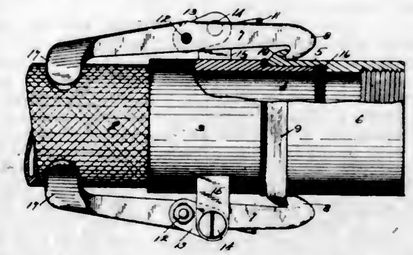
2. A urinal disinfectant holder, comprising a ring formed of spirally coiled wire, the said spiral wire ring having double coil portions arranged next to each other, and a resilient hand-operated device connected with the said double coil portions whereby the said portions may be moved and held apart during the application of force to the said device.

3. A urinal disinfectant holder, comprising a spiral wire coil, releasable means for securing the ends of the coil thereby forming the same into a spiral ring, and means including levers and a fulcrum formed of the wire of the coil and constructed to separate one portion of the coil from another portion thereof for the introduction of disinfectant bodies.

4. A urinal disinfectant holder, comprising a spiral wire coil having one end open, the other end having tapering coils of wire provided with a hook, the said tapering coils being constructed to enter the said open end when the coil is bent into ring form, and the said hook being arranged to engage the wire of the coil and hold the coil in ring form.

5. A urinal disinfectant holder, comprising a spiral wire coil, devices for securing the ends of the coil together thereby forming the coil into a spiral ring, and means yieldingly connecting portions of the coil whereby one portion may be separated from another portion for the introduction of disinfectant bodies.

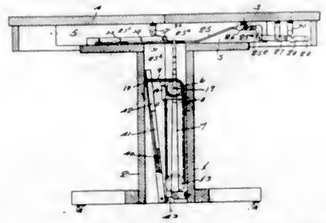
1,130,140. HOSE-COUPLING. LLOYD H. BRUBAKER, San Francisco, Cal. Filed Mar. 31, 1914. Serial No. 828,491. (Cl. 137—28.)



In a hose coupling, a pair of separable members, one of said members being formed with a shoulder which is

provided with an annular continuous seat and an annular continuous part which extends over and beyond the seat, a pair of latch levers having hooks which engage in said seat and with the inner face of said part which extends over and beyond the seat, said levers having portions which engage with the hose and means to connect the levers to the other of said members whereby when the hose expands said hooks of the levers will be drawn against the seat and against the inner face of said part which extends over and beyond the seat.

1,130,141. EXTENSION-TABLE LOCK. CHARLES S. BURTON, Oak Park, Ill. Filed Nov. 17, 1913. Serial No. 801,340. (Cl. 45—9.)



1. In an extension table, in combination with the two separable members of the table and means by which they are connected for extension; a toothed wheel and a carrier for the same mounted on one member; a rack on the same member with which the toothed wheel engages; a chain attached to the opposite member and extending over the toothed wheel at the opposite side thereof from the rack, and means for moving the carrier to carry the wheel toward and from the opposite member.

2. In an extension table, in combination with the two separable members of the table and means which connect them for extension, a toothed wheel and a carrier for the same mounted on one table member; a rack mounted on the same member with which the wheel engages; a chain attached to the opposite table member and extending over the wheel at the side thereof opposite the rack, a weight carried by the chain beyond the wheel for taking up the slack of the chain; means for moving the carrier toward and from the opposite member, and means for locking the carrier at a position remote from the opposite member.

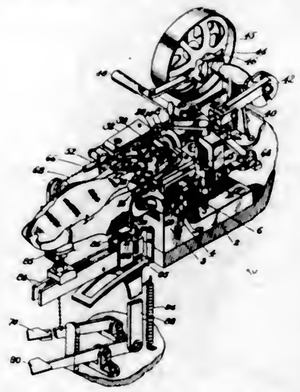
3. In an extension table, in combination with two supporting members and means which connect them for extension; an upstanding lever fulcrumed at the lower end of one of said members; a toothed wheel carried by said lever at an intermediate position in the height of said member; a rack mounted on the same member, and engaging the toothed wheel; a chain connected to the opposite member and extending about the wheel at the opposite side thereof from the rack, the wheel having a tooth at that side for engaging the chain, the lever being extended to the top of said member, and means mounted under the table top for locking the lever at a position withdrawn from the opposite member.

4. In an extension table, in combination with two supporting members and means which connect them for extension; an upstanding lever fulcrumed at the lower part of one of said members; a toothed wheel carried by said lever; a rack mounted on the same member, and engaging the wheel; a chain connected to the opposite member and extending over the wheel at the opposite side thereof from the rack, the wheel having a tooth for engaging the chain at that side, the other end of the chain being connected to the first-mentioned member at an elevated point therein and drooping in a loop between the wheel and said connection, a weight carried by the loop to take up the slack of the chain, the lever being movable toward and from the opposite member, and means for locking it at withdrawn position.

5. In an extension table having two supporting members and means which connect them for extension; an upstanding lever fulcrumed on one member at the lower part thereof; a toothed wheel carried by the lever at an intermediate point in the height of said member; a rack mounted on the same member with which the toothed wheel engages; a guide track for the axle of the wheel in its movement with the lever toward and from the opposite member; a chain attached to said opposite member and extending over the wheel at the side thereof opposite the rack, the wheel being toothed for engagement of the chain over an arc adapted to be rolled out of such engagement by the movement of the lever rolling the wheel along the rack in engagement therewith; means for taking up the slack of the chain beyond the wheel, and means for locking the lever at a point in its movement remote from said opposite member.

[Claims 6 to 12 not printed in the Gazette.]

1,130,142. END-LASTING MACHINE. JAMES CAVANAGH, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 28, 1911. Serial No. 623,820. (Cl. 12—14.)



1. An automatic end lasting machine having, in combination, end embracing wipers, power mechanism arranged for continuous operation at a predetermined rate of speed to impart repeated closing movements to said wipers, and shoe holding means constructed and arranged to present and hold the shoe continuously against lateral and longitudinal displacement in position to receive upon the same portion of the shoe materials repeated treatment by said wipers on successive movements thereof.

2. An automatic end lasting machine having, in combination, a support for a shoe, end embracing wipers for engaging and wiping over upon the innersole the upstanding margin of upper materials about the heel portion of the shoe at both sides simultaneously, power mechanism for operating said wipers repeatedly over the end and sides of the shoe heel, and means under control of the operator for starting and stopping said mechanism at will with the wipers in any position within their range of operative movement.

3. An automatic end lasting machine having, in combination, a support for a shoe, end embracing wipers, and power mechanism for operating said wipers repeatedly over the end and sides of the shoe heel, said machine comprising a connection between the wipers and the source of power permitting adjustment to vary the amplitude of reciprocation of the wipers.

4. An automatic heel seat lasting machine having, in combination, a support for the shoe, heel embracing wipers constructed to operate upon the upper materials at both sides of the heel seat simultaneously, power operating mechanism, connections from said mechanism to the wipers to reciprocate them repeatedly forth and back over the heel seat, shoe holding means constructed and arranged to present and hold the shoe continuously against lateral and longitudinal displacement in position to receive upon the same portion of the shoe materials repeated treatment by said wipers on successive movements thereof, manual means to start and stop the reciprocation of the wipers, and manual means adapted for adjustment while the machine is running for variably controlling the relation of the plane of the wipers and the plane of the heel seat.

5. An automatic heel seat lasting machine having, in combination, a support for the shoe, heel embracing wipers for engaging and wiping over simultaneously the upstanding portions of upper at both sides of the heel portion of the shoe, power operating mechanism, connections from said mechanism to the wipers to reciprocate them forth and back over the heel seat repeatedly, and manual means for relatively moving the shoe support and the wiper perpendicularly to the plane of action of the wipers while the wipers are reciprocating.

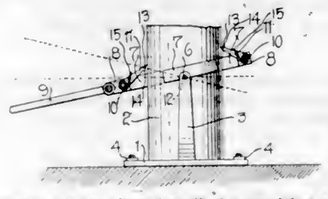
[Claims 6 to 21 not printed in the Gazette.]

1,130,143. PROCESS FOR MANUFACTURING A HYDRAULIC CEMENT. ALBIN VITALIS CARLSON, Degerhamn, Sweden, assignor to Carl Lorens Carlson, Stockholm, Sweden. Filed Feb. 8, 1913. Serial No. 746,982. (Cl. 106—25.)

1. The process of manufacturing hydraulic cement, which consists in mixing together lime and finely divided dust obtained from iron-making blast furnaces and consisting essentially of lime, silica and alumina, substantially as and for the purpose set forth.

2. The process of manufacturing hydraulic cement, which consists in mixing lime with iron-making blast furnace dust consisting essentially of lime, silica and alumina and collected in a dry gas cleaning apparatus, substantially as and for the purpose set forth.

1,130,144. POST-PULLER. EINAR W. CARLSON, Upland, N. D. Filed Apr. 11, 1914. Serial No. 831,207. (Cl. 57—104.)



1. A device of the class described comprising a handled rocking frame mounted upon a suitable support, pivoted dogs carried by the opposite ends of said frame, and teeth adjustably mounted on said dogs, as and for the purpose described.

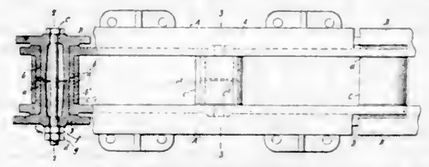
2. A post puller comprising a pair of base plates detachably connected together, standards mounted upon the base plates for engagement upon opposite sides of a post, a rocking frame mounted upon the upper ends of said standards, said frame being adapted to encircle the post, a handle carried by said frame, and dogs pivotally connected to the opposite ends of said frame and adapted for engagement at their free ends with the periphery of said post, as and for the purpose described.

3. A post puller comprising a supporting structure, a handled rocking frame mounted upon said supporting structure, said frame being adapted to encircle the post, dogs pivotally mounted in the opposite ends of said frame, and adjustable teeth carried by said dogs for engagement with the periphery of said post, as and for the purpose described.

4. A post puller comprising a supporting structure, a substantially rectangular frame mounted upon said supporting structure, a handle connected to one end of said frame, tubular dogs pivotally mounted in the opposite ends of said frame, the free ends of said dogs being interiorly threaded, and a threaded tooth adjustably mounted in each of said dogs, said teeth being adapted for engagement with the periphery of the post, as and for the purpose described.

5. A post puller comprising a pair of base plates arranged on opposite sides of the post, standards carried by said plates, the upper ends of said standards being forked, pins mounted in the forked portions of said standards, a substantially rectangular rocking frame, the side portions of said frame being formed with notches for engagement with the pins in said standards, a handle carried by said frame, and dogs pivotally connected to said frame for engagement at their free ends with the periphery of said post.

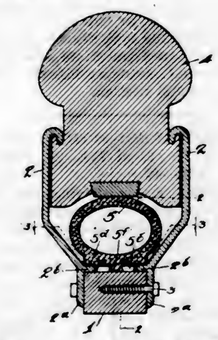
1,130,145. JOINT FOR FLEXIBLE RAILS. JUAN GRACIANO CASTERAN, Buenos Aires, Argentina. Filed Mar. 2, 1914. Serial No. 822,095. (Cl. 74—32.)



1. A multi-part, flexible device of the character specified comprising successive component members connected together at their mutually-adjacent ends by pairs of interfitted, inner and outer tubular elements which are formed integral with said members and are relatively rotatable, a reinforcing bearing sleeve shrunk tightly on each outer element, and each inner element having its interior enlarged centrally to constitute a lubricant chamber and provided with inlet and outlet openings leading to and from the same and a closure for each inlet opening.

2. A multi-part, flexible device of the character specified comprising successive component members connected together at their mutually-adjacent ends by pairs of interfitted, inner and outer tubular elements which are formed integral with said members and are relatively rotatable, each inner element having its interior enlarged centrally to constitute a lubricant chamber and provided with inlet and outlet openings leading to and from the same and a closure for each inlet opening.

1,130,146. VEHICLE WHEEL-TIRE. MELVILLE CLARK, Chicago, Ill. Filed Mar. 22, 1913. Serial No. 756,073. (Cl. 152—10.)



1. In a vehicle wheel, in combination with the felly, the tread member and lateral guards clamped on to the felly and embracing the tread member so as to form an annular chamber between said felly, tread member and guards, a pneumatic spring in such chamber consisting of an endless tube substantially unstretchable transversely,

said tube being less in diameter than the width of the chamber between the guards and being at its inner circumference normally cylindrical so as to present a base for seating on the inner wall of the chamber which is normally flat transversely and nearly as wide as the diameter of the tube, the guards having their flanges which encompass the felly similarly cylindrical to afford a transversely flat seat for the air spring.

2. In a vehicle wheel, in combination with the felly, the tread member and lateral guards clamped on to the felly and embracing the tread member so as to form an annular chamber between said felly, tread member and guards, a pneumatic spring in such chamber consisting of an endless tube substantially unstretchable transversely, said tube being less in diameter than the width of the chamber between the guards and being at its inner circumference cylindrical so as to present a base for seating on the inner wall of the chamber which is flat transversely and nearly as wide as the diameter of the tube, and having at the middle of the width of such flat base a rib extending circumferentially with respect to the wheel and bosses distributed along said rib at intervals in the circumference of the wheel, the guards having their flanges which encompass the felly and form the inner wall of the chamber for the air spring similarly cylindrical to afford a transversely flat seat for said air spring, and spaced apart at the middle of the width of the felly to receive said rib of the air spring, and provided with notches in their opposed edges which face each other and form recesses for receiving said bosses of the air spring.

1,130,147. SAFETY TACK-LIFTER. DAVID H. COLES, Brooklyn, N. Y. Filed July 17, 1914. Serial No. 851,444. (Cl. 254—18.)



1. A safety tack lifter comprising essentially a handle, a shank secured in the said handle, a tack lifter formed on the front end of said shank, and a curved shield mounted on the inner end of the handle and having an integral inwardly curved extension on its bottom portion.

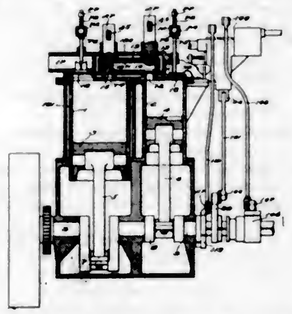
2. A safety tack lifter comprising essentially a handle, a shank secured in the said handle, a tack lifter formed on the front end of said shank, bent in an upward direction and having a rounded off extension on the lower surface adjoining the shank, and a curved shield mounted on the inner end of the handle and having an integral inwardly curved extension.

3. In a safety tack lifter having a handle on one end and a tack lifter at the other end bent in an upward direction, an extension on the lower inner end surface on said lifter and a curved protective shield mounted on the inner end of the handle and having an integral inwardly curved extension on its bottom portion.

1,130,148. HYDROCARBON-MOTOR. GUY B. COLLIER, Kinderhook, N. Y. Filed Feb. 25, 1909. Serial No. 479,858. (Cl. 123—49.)

1. A hydro-carbon motor, having, in combination, a working cylinder and piston, a combustion chamber, means for supplying the combustion chamber with air at a temperature above the temperature of ignition of the fuel beginning before and continuing after the working piston has reached the end of its working stroke, means for introducing fuel into the combustion chamber, and means for throwing the combustion fuel into and out of communication with the working cylinder, substantially as described.

2. A hydro-carbon motor, having, in combination, a working cylinder and piston, a combustion chamber, a connection between the chamber and the cylinder, a valve controlling said connection, means for causing the combustion of fuel in said chamber, and means opening and closing said valve constructed and arranged to permit the time of closing of said valve to be varied without reversing the direction of rotation of the motor, substantially as described.



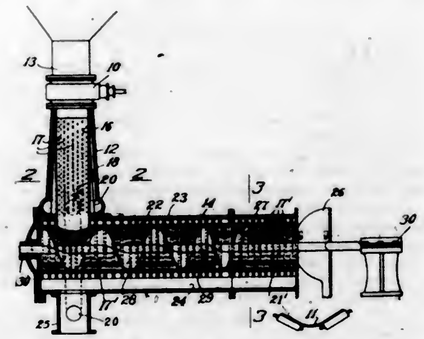
3. A hydro-carbon motor, having, in combination, a working cylinder and piston, a combustion chamber, a connection between the chamber and the cylinder, a valve controlling said connection, means for causing the combustion of fuel in said chamber, and speed controlled means for varying the time of closing of said valve, substantially as described.

4. A hydro-carbon motor, having, in combination, a working cylinder and piston, a combustion chamber, a connection between the chamber and the cylinder, a valve controlling said connection, means for causing the combustion of fuel in said chamber, and means under control of the operator to permit the time of closing of said valve to be varied without reversing the direction of rotation of the motor, substantially as described.

5. A hydro-carbon motor, having, in combination, a working cylinder and piston, a combustion chamber, a connection between the chamber and the cylinder, a valve controlling said connection, means for causing the intermittent combustion of fuel in said chamber, and means for closing said valve before the piston reaches the limit of its outward movement, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,130,149. GARBAGE-PRESS. WILLIAM CONWAY, South Boston, Mass. Filed July 14, 1914. Serial No. 851,002. (Cl. 100—48.)



1. Apparatus for separating water out of a pulpy mass, comprising the combination of a chamber having means for continuous separation of water and its escape by gravity; another chamber into which the first discharges the unseparated matter, having means for continuous separation and escape of water and having a continuously open outlet for the residue; and means in the second chamber to propel the mass toward said outlet while the water is gradually escaping from it; the whole being organized and arranged so that the solids become compacted together under pressure before reaching said outlet and at a place having the said provision for escape of water.

2. Apparatus for separating water out of a pulpy mass, comprising the combination of two chambers constantly connected and constantly open at inlet and outlet in normal operation, each having means to separate the water from the solids and the second chamber having an open outlet for the solid residue; and means in the second chamber to propel the mass toward said outlet; the whole being organized and arranged so that the solids become compacted together under pressure before reaching said outlet and at a place having the said provision for separation of water.

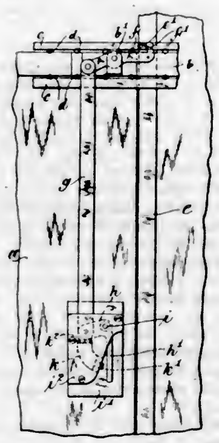
3. Apparatus for separating water out of a pulpy mass, comprising the combination of a chamber extending downward and provided with a screen through which the water but not the solids may escape laterally, and another chamber into which the residue of the first chamber is discharged extending horizontally and having a screen through which water but not the solids may escape; means therein for propelling the mass along the surface of the screen; the said second chamber having an open end for escape of the solid residue and having a portion between said open end and the end of said propelling means wherein the residue is compacted together and retarded and its moisture expressed through said screen.

4. Apparatus for separating water out of a pulpy mass, comprising the combination of a chamber through which material passes downward having a screen through which water but not solids escape laterally; another chamber into which the first discharges, extending horizontally, and having a screen, for escape of water but not solids; a screw conveyer in the second chamber; the end of the second chamber being open for escape of solids and the screen thereof extending between the end of the conveyer and the end of the chamber whereby the escape of water continues under preasure of the screw against the material compacted at the end of the screw.

5. Apparatus for separating water out of a pulpy mass including in combination a chamber, a tubular screen therein, a screw conveyer within the screen, and slats on the inner surface of the screen extending longitudinally thereof, the screw fitting close to the slats.

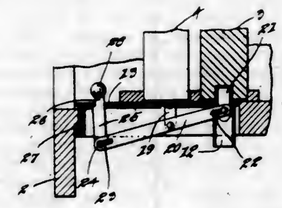
[Claims 6 to 10 not printed in the Gazette.]

1,130,150. GRAVITY DOOR-LOCK. MYRON COSSEY, New York, N. Y., assignor to Reliance Ball Bearing Door Hanger Company, New York, N. Y., a Corporation of New York. Filed July 15, 1914. Serial No. 851,060. (Cl. 70—102.)



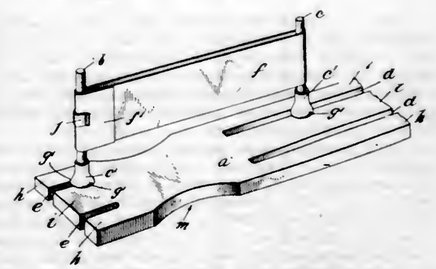
In combination with a sliding door and carrier therefor, a gravity lock including a latch mounted pivotally on the carrier, a fixed abutment with which the nose of the latch engages, a link pivotally secured to the tail of the latch and extending downwardly in a substantially vertical plane in juxtaposition to the inner face of the door, a bell crank lever mounted pivotally on the door within convenient reach of the operator and having one end of one of its arms pivotally attached to the lower end of the link and having the other arm formed to constitute a grip, the weight of the link and the first named arm of the bell crank lever being unbalanced with respect to the nose of the latch to hold the same in engagement with the abutment, a buffer mounted on the inner face of the door in juxtaposition to the lower end of the link to limit its downward movement and also in juxtaposition to the grip of the bell crank lever to limit the movement of the bell crank lever when the latch is tripped, continued pressure upon the grip being transmitted by the buffer to the door.

1,130,151. SASH-FASTENER. FREDRICK W. DAVIDSON, Abilene, Kans. Filed May 19, 1914. Serial No. 839,490. (Cl. 16—119.)



A sash fastener including the combination with a window frame, sash slidable in the frame, said sash being grooved and an apertured plate covering the groove, of a fastening device including a plate carried by the window frame, said plate being provided with apertures near its opposite edges, a support secured intermediate the ends of the plate, a lever pivoted to the support, said lever being slotted near each end, a tubular guide secured to the plate near one edge, said guide registering with the aperture adjacent said edge, a locking pin slidable in the guide, a pivot pin extending through the slot in the end of the lever and into the locking pin to pivotally and slidably hold the locking pin in operative position, a link connected to the opposite end of the lever, said link being notched and arranged to engage one of the side walls of the aperture adjacent the opposite edges, and a thumb piece carried by the link to enable the user to control the operation of the device.

1,130,152. PHOTOGRAPH-FILM HOLDER. ALBERT P. DAVIS, Deposit, N. Y. Filed Mar. 19, 1914. Serial No. 825,730. (Cl. 95—100.)



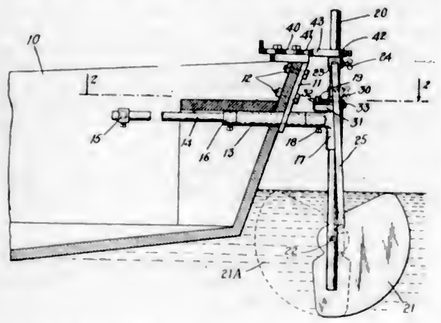
1. A photographic film-holder comprising a baseboard; and a pair of film-holding posts one of which is slidable along said baseboard and is provided with a base-connector which has flanges that bear against the bottom

of said baseboard and also includes a rigid base that bears against the top of said baseboard; said slidable post having a close fit on said baseboard and being only slightly tiltable toward the other post to permit the tension of the stretched film to cause said rigid base and flanges to bind upon the faces of the baseboard opposed thereto and thereby to lock automatically said slidable post in its adjusted position on said baseboard solely by the binding action of said base and flanges thereon.

2. A photographic film-holder comprising a baseboard; and a pair of film-holding posts one of which is slidable along said baseboard and is provided with an integral base-connector which is slidably mounted in said baseboard and is formed with a channel within which fits closely a wall of said baseboard; said slidable post having a close fit on said baseboard and being only slightly tiltable toward the other post to permit the tension of the stretched film to cause the top and bottom walls of said channel to bind against the top and bottom, respectively, of said baseboard and thereby to lock automatically said slidable post in its adjusted position along said baseboard solely by the binding action thereon of the walls of said channel.

3. A photographic film holder comprising a baseboard; a pair of film-holding posts one of which is slidable along said baseboard and is provided at its base with flanges which have a close sliding fit on said baseboard; said slidable post being only slightly tiltable toward the other post to permit the tension of the stretched film to cause said flanges to bind upon the faces of the baseboard opposed thereto and thereby to lock automatically said slidable post in its adjusted position along said baseboard solely by the binding action of said flanges thereon; and a clasp shaped to fit snugly upon one of said posts and to fasten thereto the end portions of the film bent therearound.

1,130,153. BOAT PROPELLING AND STEERING DEVICE. THOMAS L. DENNIS, Prince Bay, N. Y. Filed Apr. 21, 1914. Serial No. 833,364. (Cl. 115—30.)



1. In a propelling and steering device for boats, the combination of a longitudinal rock shaft, a transverse shaft rotatively mounted at the end thereof, means for limiting the rotative movement of said transverse shaft, a blade on said shaft projecting from one side thereof, and means for moving the blade to the opposite side of the shaft relative to the boat.

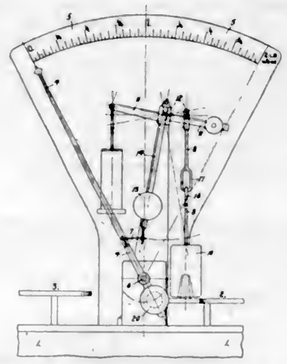
2. In a propelling and steering device for boats, the combination of a longitudinal rock shaft, a transverse shaft rotatively mounted at the end thereof, means for limiting the rotative movement of said transverse shaft, a blade pivotally supported on said shaft and projecting to one side thereof, and means for swinging the blade about its pivotal support to the opposite side of the shaft.

3. In a propelling and steering device for boats, the combination of a longitudinal rock shaft, a transverse shaft rotatively mounted at the end thereof, means for limiting the rotative movement of said transverse shaft, a blade pivotally supported on said shaft and projecting to one side thereof, a vertically slidable collar on the transverse shaft, a connecting rod between said collar and the blade, and means for adjusting the vertical position of the collar to thereby swing the blade about its pivotal support to one side or the other of the transverse shaft.

4. In a propelling and steering device for boats, the combination of a longitudinal rock shaft, a transverse shaft rotatively mounted at the end thereof, means for limiting the rotative movement of said transverse shaft, a blade on said transverse shaft, an arm projecting from the transverse shaft above the axis of the rock shaft, and means for preventing transverse movement of the end of said arm to thereby cause the swinging movement of the transverse shaft to rotate said transverse shaft and its blade.

5. In a propelling and steering device for boats, the combination of a longitudinal rock shaft, a transverse shaft rotatively mounted at the end thereof, means for limiting the rotative movement of said transverse shaft, a blade on said transverse shaft, an arm projecting from the transverse shaft above the axis of the rock shaft, and means comprising a sliding latch having a bifurcated end adapted to embrace the end of said arm for preventing transverse movement of the end of said arm to thereby cause the swinging movement of the transverse shaft to rotate said transverse shaft and its blade.

1,130,154. WEIGHING-MACHINE. JAMES DOBSON, Birmingham, England, assignor to Henry Pooley and Son Limited (Incorporated 1914), Birmingham, England. Filed Feb. 25, 1914. Serial No. 820,937. (Cl. 73—29.)

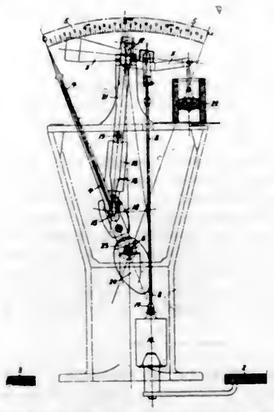


1. In a weighing machine, the combination of a beam, a pendulous resistance weight on the beam, a pointer, a resistance weight of about equal the weight of the pendulous resistance weight thereon below the pivot thereof adapted to act as a resistance, the distance between these weights and their pivots unequal, and the said beam and its resistance weight, and the pointer being connected together, and the latter operated by the former, the said connection at a point to compensate for the difference in distance between the pivots of the weights, the parts arranged as and for the purpose described.

2. In a weighing machine, the combination of a graduated weight scale, a beam, a pendulous resistance weight thereon, a pivoted pointer operating over the scale, a resistance weight on and below the pivot of the pointer, the distance between the pivots of the weights unequal, a link connecting the beam and pointer at a point to compensate for the difference in distance between the said pivotal points, the parts arranged as and for the purpose described.

3. In a weighing machine, the combination of a graduated weight scale, a beam, a pendulous resistant weight thereon, a pivoted pointer operating on the scale, a resistance weight on and below the pivot of the pointer and of about equal weight to the aforesaid beam resistance weight, the distances between these weights and their pivots being unequal, a link connecting the beam and the pivoted pointer at a point to compensate for the difference in distance between the pivots of the weights.

1,130,155. WEIGHING-MACHINE. JAMES DOBSON, Birmingham, England, assignor to Henry Pooley and Son Limited (Incorporated 1914), Birmingham, England. Filed Feb. 26, 1914. Serial No. 821,139. (Cl. 73—29.)



1. In a weighing machine, the combination of a weight scale 5; a pointer 4; a beam 11; a pendulous resistance weight carried from the beam; a cam shaped device connected and moving with the pointer, and a part carried from the beam below its fulcrum, and operating in connection with this cam device; substantially as described.

2. In a weighing machine, the combination of a weight scale 5; a beam 11; a roller 15 on the lower end of same; a pointer 4; a cam device 18, connected with the pivoted pointer near the pivot thereof; substantially as described.

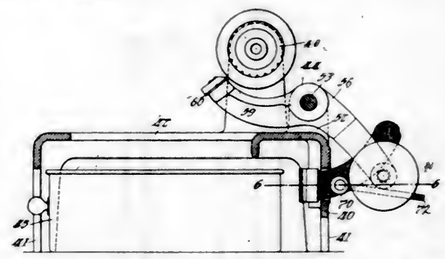
3. In a weighing machine the combination of a weight graduated scale, and indicator pivoted to the machine and working in conjunction with the graduated scale, a weight beam or lever carrying a resistance weight, a member carried by the beam and having a roller on its lower end, a slotted member carried by the indicator at a point above the pivot thereof, the said roller moving in the said slot whereby a given movement of the beam will transmit a different degree of movement to the pointer.

4. In a weighing machine the combination of a graduated weight scale, an indicator pivoted to the machine and adapted to move over the said scale, a weight beam carrying a resistance weight, a member carried by the beam and parallel to the resistance weight, the said member having a roller on its lower end, a slotted member carried by the indicator at a point above the pivotal point to form a fulcrum connection, the said roller moving the said slot, the parts arranged as and for the purpose described.

5. In a weighing machine the combination of a weight scale, a pointer, a beam, a pendulous resistance weight carried by the beam, a cam shaped device connected and moving with the pointer, and a member carried by the beam below its fulcrum and operating in connection with the said cam device the parts arranged as and for the purpose described.

1,130,156. MACHINE FOR SHAVING SOUND RECORDS OR BLANKS. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed June 22, 1911. Serial No. 634,806. (Cl. 181—15.)

1. In a shaving machine, the combination of a rotatable support for carrying a record or blank, a knife support movable transversely with respect to said record or blank support, motive means, and an adjustable connection between said motive means and said knife support, substantially as described.



2. In a shaving machine, the combination of a rotatable support for carrying a record or blank, a knife support movable transversely with respect to said record or blank support, resilient motive means, and an adjustable connection between said motive means and said knife support, substantially as described.

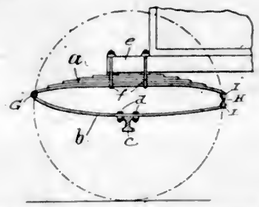
3. In a shaving machine, the combination of a rotatable support for carrying a record or blank, a knife support movable transversely with respect to said record or blank support, a spring, an adjustable connection between said spring and said knife support, and means for regulating the motive force of said spring, substantially as described.

4. In a shaving machine, the combination of a rotatable support for carrying a record or blank, a knife support movable transversely with respect to said record or blank support, a spring, a sector secured thereto, and means for adjustably securing said knife support to said sector, substantially as described.

5. In a shaving machine, the combination of a rotatable support for carrying a record or blank, a knife support movable transversely with respect to said record or blank support, a spring, a sector secured thereto, means for adjustably securing said knife support to said sector, and means for controlling the movement of said knife support, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

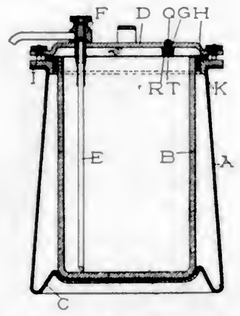
1,130,157. SPRING FOR VEHICLES, ESPECIALLY AUTO-CARS. JENS WILLIAM AEGIDIUS ELLING, Christiania, Norway. Filed Jan. 6, 1914. Serial No. 810,608. (Cl. 21—50.)



1. A spring device positioned intermediate a frame and axle, said device consists of two main members, one of said members secured to said body, the other of said members secured to said axle, said first mentioned member formed of a series of internal friction bands, said last mentioned member formed of at least one elastic band secured in spaced relation, the ends of said members being pivoted together, substantially as described.

2. A spring device for vehicles comprising two main springs, a frame and axle, said device positioned intermediate said frame and axle, one of said springs secured to said frame, the other of said springs secured to said axle, said main springs having their ends connected, said main spring connected to said axle consisting of at least one flat spring secured in spaced relation, substantially as described.

1,130,158. SIPHON FOR AERATED LIQUIDS. MARTIN FIEDLER, Zeitz, Germany. Filed July 29, 1913. Serial No. 781,721. (Cl. 215—3.)



1. A siphon for aerated liquids comprising a container for the liquid open at the top at full width, a protective vessel around the container having a top rim portion, a cover, means therein for introducing carbonic acid gas and discharging the liquid, and an annular gasket composed of two parts at right angles to each other, a vertical portion between the container and the rim of the protective vessel to hold them in position, and a horizontal portion for securing the cover.

2. A siphon for aerated liquids comprising a glass container for the liquid open at the top at full width and having a rounded bottom, a protective vessel of metal around the same having an outward top rim portion and a bottom with inner portion curved correspondingly to the rounded bottom of the container and supporting the same, a cover, means therein for introducing carbonic acid gas and discharging the liquid, and an annular gasket composed of two parts at right angles to each other, a vertical portion between the container and the rim of the protective vessel to hold them in position, a horizontal portion for securing the cover, and means in said gasket for maintaining uniform pressure within the container and the space between said container and protective vessel.

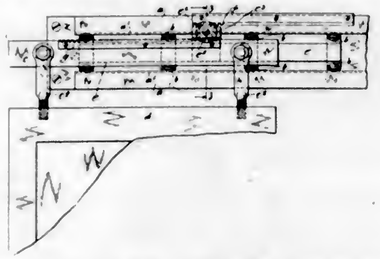
3. In a beer siphon of the type described, a glass container open at the top at full width, a protective metallic vessel around the same having an outward top rim and a cover, in combination with means for maintaining uniform pressure within the container and the space between said container and protective vessel consisting of an annular gasket composed of two portions at right angles to each other, a vertical portion for holding the container and protective vessel in position and having means for establishing communication with the container and the space between same and the protective vessel, and a horizontal portion for tightening the cover.

1,130,159. DOOR-HANGER. HUBERT F. FRANKLIN, New York, N. Y., assignor to Reliance Ball Bearing Door Hanger Company, New York, N. Y., a Corporation of New York. Filed July 25, 1914. Serial No. 853,011. (Cl. 16—91.)

1. In combination with a traveling door, a carrier therefor, a fixed track, anti-friction rolling devices interposed between the track and the carrier, a separator for said anti-friction devices, and means to move the separator positively at a predetermined speed during movement of the door.

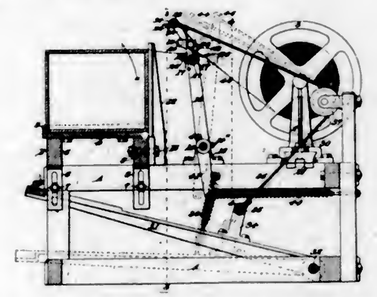
2. In combination with a traveling door, a carrier therefor, anti-friction devices on which the carrier is slidably mounted, a separator for the anti-friction devices, gearing connected to the separator and a rack mounted on the carrier and in engagement with the gearing, whereby the separator is moved positively during movement of the carrier.

3. In combination with a traveling door, a carrier therefor, balls on which the carrier is slidably supported, a separator for the balls, a gear mounted movably with the separator, a rack carried by the carrier, and a second fixed rack, the gear meshing with both of said racks at all times, whereby the separator is moved positively during movement of the carrier and at a speed equal to one half of the speed of the carrier.



4. In combination with a traveling door, a carrier therefor, fixed tracks between which the carrier is slidably mounted, balls interposed between the carrier and each of the tracks, a separator for the balls, a gear mounted on the separator, a rack fixed to one of said tracks, and a second rack secured to the carrier, the gear being in mesh with the teeth of both of said racks at all times, whereby movement of the carrier brings about positive movement of the separator at a speed equal to one half of the speed of the carrier.

1,130,160. BOX-STRAPPING MACHINE. JESSE E. GODLEY and JOHN M. CARROLL, Vallejo, Cal., assignors to Sperry Flour Company, San Francisco, Cal., a Corporation of California. Filed Mar. 23, 1914. Serial No. 826,530. (Cl. 144—25.)

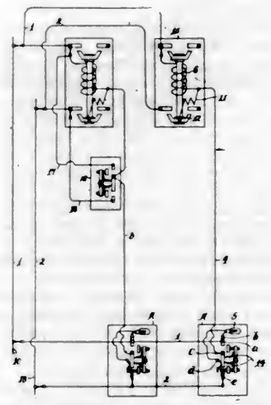


1. In a box-strapping machine, in combination, with strap-wound reels, a vertically disposed carrier having a pair of pivoted arms, spring means to tension the arms, a cross bar connecting the arms, a shoe on each arm, a vertical strap grip pivoted to each arm and having a cam on its lower end which coöperates with the shoe of the arm, springs connected to the grips and to the respective arms to normally hold the cams of the grips away from the shoes, a cross-bar connecting the upper ends of the grips, a treadle, and a cable connected to the cross-bar of the grips and movably engaged with a stationary point to the rear of the arms and connected to the treadle.

2. In a box-strapping machine, in combination, with a box support and strap-wound reels, a vertically disposed carrier swingable at its upper end toward and away from the box, rigid jaws on the carrier, vertically disposed spring tensioned jaws pivoted to the carrier and having their lower ends for coöperation with the rigid jaws to grip the straps therebetween, means connecting the pivoted jaws to effect movement of same in unison, and means connected to said connecting means of the pivoted jaws for moving the pivoted jaws to gripping position and for simultaneously swinging the carrier horizontally to draw the straps taut.

3. In a box-strapping machine, in combination, with a box support and strap-wound reels, a vertically disposed spring tensioned carrier swingable at its upper end toward and away from the box, and located on the rear side of the box support, rigid jaws on the carrier, vertically disposed spring tensioned jaws pivoted to the carrier and having their lower ends for coöperation with the rigid jaws to grip the straps therebetween, means connecting the pivoted jaws to effect movement of same in unison, a cable connected to said connecting means of the pivoted jaws for moving the pivoted jaws to gripping position and for simultaneously swinging the carrier horizontally to draw the strap taut, and means operable from the front side of the box support to actuate the cable.

1,130,161. MEANS FOR CONTROLLING ELECTRICALLY-OPERATED MECHANISMS AND THE LIKE. HARRY HEWLETT RICHARD GREEN, Forest Hill, England. Filed Sept. 27, 1913. Serial No. 792,137. (Cl. 172—179.)



1. Means for an electric control for one or more mechanisms comprising in combination such mechanism or mechanisms a winding adapted to operate each mechanism controlled, a switch actuated by the mechanism controlled, a local circuit containing a resistance and said winding, a controlling apparatus having at least one three position switch, said three position switch having a neutral and two alternative operating positions one of which operating positions permits current to pass through the winding and the other operating position causes the winding to be shunted, said winding being controlled by said controlling apparatus and the controlled mechanism being retained in its operated position by the closing of the switch operated by the controlled mechanism.

2. Means for an electric control for one or more mechanisms comprising in combination such mechanism or mechanisms a winding adapted to operate each mechanism controlled, a switch actuated by the mechanism controlled, a local circuit containing a resistance and said winding, a controlling apparatus having at least one three position switch, said three position switch having a neutral and two alternatives operating positions one of which operating positions permits current to pasa through the winding and the other operating position causes the winding to be shunted, and a single conductor particular to and connecting the mechanism and its control apparatus, said winding being controlled by said controlling apparatus, and the controlled mechanism being retained in its operated position by the closing of the switch operated by the controlled mechanism.

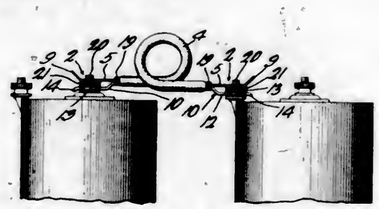
3. Means for an electric control for one or more mechanisms comprising in combination such mechanism or mechanisms a winding adapted to operate each mechanism controlled, a switch actuated by the mechanism controlled; a local circuit containing a resistance and said winding, a controlling apparatus having at least one three position switch, and at least one indicating device connected in parallel with the operating winding of the mechanism and in series with the resistance, said winding being controlled by said controlling apparatus and the controlled mechanism being retained in its operated position by the closing of the switch operated by the controlled mechanism.

4. Means for an electric control for one or more mechanisms comprising in combination such mechanism or mechanisms a winding adapted to operate each mechanism controlled, a switch actuated by the mechanism controlled, a local circuit containing a resistance and said winding, a controlling apparatus having at least one three position switch, a single conductor particular to and connecting the mechanism and its control apparatus, and with at least one indicating device connected in parallel with the operating winding of the mechanism and in series with the resistance, said winding being controlled by said controlling apparatus and the controlled mechanism being retaind in its operated position by the closing of the switch operated by the controlled mechanism.

5. Means for an electric control for one or more mechanisms comprising in combination such mechanism or mechanisms a winding adapted to operate each mechanism controlled, a switch actuated by the mechanism controlled, a local circuit containing a resistance and said winding, a controlling apparatus having at least one three position switch, said three position switch having a neutral and two alternative operating positions, one of which operating positions permits current to pass through the winding and the other operating position causes the winding to be shunted, said winding being controlled by said controlling apparatus and the controlled mechanism being retained in its operated position by the closing of the switch operated by the controlled mechanism.

[Claims 6 to 12 not printed in the Gazette.]

1,130,162. BATTERY-CONNECTOR. NOAH HALE, Corpus Christi, Tex. Filed Dec. 27, 1913. Serial No. 809,010. (Cl. 173—269.)

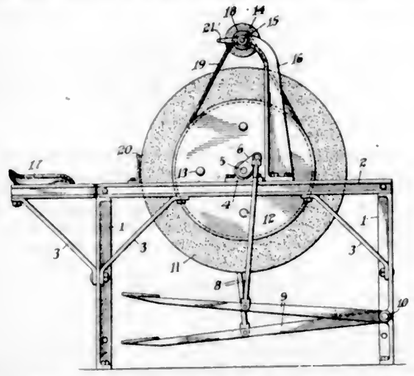


In a device of the character described, a clip embodying a leaf spring having means at its free end to engage over the end of a binding element, an aperture at its butt end, and ears at the sides of the apertures, and a doubled wire catch having its bent portion seating against the butt end of the spring around the said aperture, the arms of the catch forming jaws to engage the sides of the binding element, and the said ears being bent over the bent portion of the catch; a conductor engaged through said aperture and the bent portion of the catch; and solder within the said aperture and bent portion of the catch for securing the corresponding parts together.

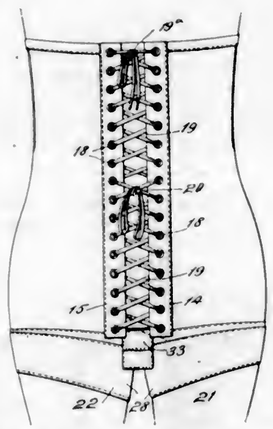
1,130,163. SUPERIMPOSED EMERY-WHEEL AND GRINDSTONE. DAVID HALL, Wilkinsburg, Pa. Filed Mar. 7, 1913. Serial No. 752,541. (Cl. 51—7.)

In a device of the character stated, a pair of abrasive stones of different surface characters having substantially

parallel axes and one much larger than the other and adapted to act as a fly wheel for the other, operative connection between the stones, supports for the stones and means for driving the larger stone.



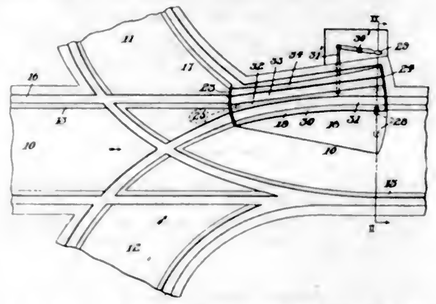
1,130,164. REDUCER. ELLA S. HARPER, New Brighton, N. Y. Filed Jan. 30, 1913. Serial No. 745,221. (Cl. 2—188.)



As an article of manufacture, a reducer comprising a wide fabric non-stretching body portion to be passed around the body of the wearer with its meeting edges arranged in front, means for connecting said edges which means is adjustable by the wearer to evenly tighten the device about the body after it has been put on, leg encircling straps secured along their upper edge to the lower edge of the body portion, and an insert or dart arranged between each strap and the body portion whereby said straps when the device is in use will be at an angle with respect to the lower edge of the body portion, the free ends of said straps being arranged at the back, and means for adjustably connecting the ends of the respective straps.

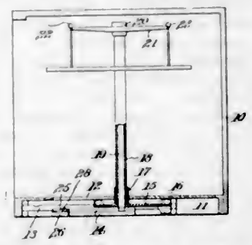
1,130,165. SWITCH FOR INDUSTRIAL TRACKS. THOMAS HAYTON, Turtle Creek, Pa. Filed Oct. 22, 1914. Serial No. 868,020. (Cl. 104—126.)

1. A device of the class described comprising in connection with a main track and switch tracks entering the said main track and the road bed of the main track being provided with a pit, of a flaring-ended shiftable block positioned within said pit and pivoted at one end, three rail portions longitudinally positioned upon the upper side of said block and adapted for engagement by the wheels of cars approaching the same upon any of the said tracks during the movement of said cars to the forwardly positioned portion of the main track.



2. A device of the class described comprising a main track and side tracks entering the same, the road bed of said main track being provided with a pit having curved ends at an interruption in all of the said tracks, a base plate positioned in the bottom of said pit and conforming to the shape thereof and having opposite curved ends of different lengths, and provided with three sockets in its upper face adjacent its longer end and a single socket adjacent the shorter end thereof, a switch block, having relatively long and short curved ends and positioned within said pit shiftably upon the said plate, a depending post carried at said block in pivotal engagement with the socket at the shorter end of said plate, a pin at the longer end of said block and adapted for seating engagement in the desired one of said sockets at the longer end of said plate, three rail sections longitudinally positioned upon the upper face of said block and adapted for automatic alinement with either of said tracks during the travel of a car to said switch block therefrom.

1,130,166. DISPLAY-RACK. SOLOMON HIMMEL and GEORGE EBLE, Baltimore, Md. Filed July 2, 1912. Serial No. 707,288. (Cl. 211—16.)



1. A display rack comprising a case, a rotatable rack member mounted to reciprocate in said case, means for normally preventing rotation of said rack member, and rotatable means engaged by said rack member when the latter is moved to its forward position, to permit rotation thereof.

2. A display rack comprising a case, a rotatable rack member mounted to reciprocate in said case, a guide provided with means for normally preventing rotation of said member, and means independent of the guide and engaged by said member when the latter is moved to its forward position, to permit rotation thereof.

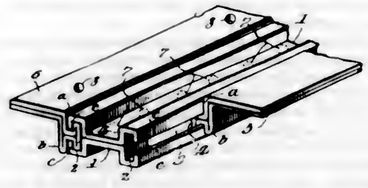
3. A display rack comprising a case, a rotatable rack member mounted to reciprocate in said case, and a guide for said rack member provided with independent stationary and rotatable portions.

4. A display rack comprising a case, a rotatable rack member mounted to reciprocate in said case, and a guide for said rack member provided with independent stationary and rotatable portions, the rotatable portions being located at the forward end of the guides.

5. A display rack comprising a case, a rotatable rack member, means for normally preventing rotation of said rack member, a reciprocable support for said rack member adapted to move the latter into and out of engagement with said rotation-preventing means, and a rotatable member engaged by said rack member when the latter is disengaged from said rotation-preventing means.

[Claims 6 to 13 not printed in the Gazette.]

1,130,167. EXTENSION-TABLE SLIDE. JAMES INGELLS, Muskegon, Mich. Filed May 6, 1914. Serial No. 836,815. (Cl. 45—115.)



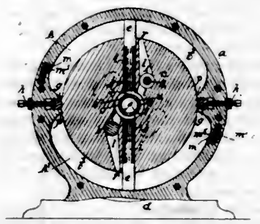
1. A set of table slides made up of a center slide having two pieces of sheet metal connected face to face horizontally, with grooves so formed in each edge of each sheet of metal as to open toward each other and form an outwardly opening T shaped groove at each edge of the slide, outside slides each made of two pieces of metal secured together horizontally and offset to form T shaped tongues that will slide freely in the grooves in the edges of the center slide.

2. A set of table slides made up of a center slide having two pieces of sheet metal connected face to face horizontally and having a groove formed in each edge of each sheet of metal to open toward each other and form a T shaped groove in each edge of the center slide, outside slides formed of two sheets of metal folded together and the surfaces secured, said folded metal bent to form an L shaped slide with a T shaped tongue set off from the outside surface of one of the surfaces of one wing of the L in position so the surface of the other wing of the L will extend above the surface of the center slide, the T shaped wings on the outer slides arranged to slide freely in the grooves in the inner slide.

3. A set of table slides made up of a center slide composed of two sheets of thin sheet metal, each having a square inwardly opening channel formed the whole length at each edge and arranged to register to form a T shaped outwardly opening groove in each edge of the said center slide, said two pieces spot welded together horizontally and two outside slides each made of thin sheet metal folded surface to surface and bent longitudinally to L form, one fold of said L on each outside slide offset to form a T shaped tongue arranged to slide freely in the T shaped grooves in the edges of the center slide, and the other wing of said L made to extend above the plane of the center slide and secured to opposite ends of the table.

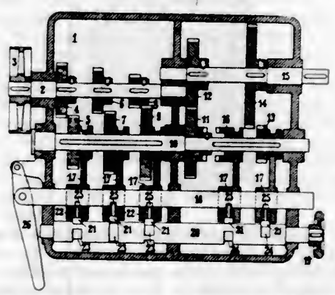
4. In an extension table slide, one slide made up as of two pieces of sheet metal each having a groove at the edge and secured together so said grooves will open toward each other and form a T shaped groove opening at the edge of the slide, and one slide made up as of two pieces of sheet metal having a bead formed on the edge of each, and secured together face to face forming a T shaped tongue that will slide freely in the T shaped groove in the other slide.

1,130,168. ROTARY ENGINE. CHARLES JACOBY, Croton-on-Hudson, N. Y. Filed Jan. 22, 1913. Serial No. 743,629. (Cl. 121—77.)



The combination in a rotary engine of a shaft, a rotator upon the shaft which comprises a head, with disks upon the sides of the head the disks having the diameter of the part in which the rotator revolves, the shaft bored and perforated to constitute it a steam inlet, an annular steam chamber in the head around the perforations in the shaft, steam passages in the head from the annular chamber to the periphery of the head, the head slotted and bored from the base of the slots to the annular steam chamber, plates with piston stems slidably in the slots and bores in the head, longitudinal valves in the rotator intercepting the steam passages, grooves in the valves to coincide with the steam passages, the valves longer than the length of the rotator and adapted to be pushed back and forth laterally in their bearings, a casing for the rotator comprising a ring with projections on its inner face by means of which the sliding plates in the head in the rotator are actuated, heads upon the ring that support the shaft and provide cam chambers upon each side of the rotator, cams upon one of the heads for moving the valves to admit steam, and cams upon the opposite head to act upon the said valves to cut off steam, ports adjacent to the projections in the ring leading through the ring and one of the heads to one of the cam chambers, and an exhaust connected with said chamber.

1,130,169. CHANGE-SPEED GEARING. PAUL JANZON, Berlin, Germany. Filed May 21, 1912. Serial No. 698,758. (Cl. 74—58.)



1. In a change speed gearing, gear members arranged in two sets and axially movable with relation to each other and adapted to coöperate with each other, a longitudinally shiftable adjustment shaft or rod, actuating members for shifting at least one set of said gear members mounted on said adjustment shaft, said actuating members and said adjustment shaft arranged slidably with relation to each other, the said actuating members provided with transversely slidable members for controlling the shifting movement of the actuating members on the adjustment shaft, and means controlling the adjustment of said transversely slidable members.

2. In a change speed gearing, gear members slidable with relation to each other arranged in two sets adapted

to coöperate with each other, a longitudinally shiftable and rotatable cam shaped adjustment shaft or rod, actuating members for said gear members loosely mounted on said adjustment shaft and provided with transversely slidable members actuated by the cam structure of said adjustment shaft and adapted to control the movement of its carrying members.

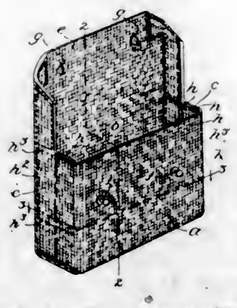
3. In a change speed gearing, a driving and a driven shaft gear wheels shiftable thereon and adapted to mesh with each other in pairs and actuating members for shifting said wheels on said shafts the wheels being arranged so close together that on shifting one wheel on a shaft for bringing it into engagement with its coöperative wheel at the same time all the other wheels on the shafts in front of the shifted wheel are likewise shifted.

4. In a change speed gearing a driving and a driven shaft gear wheels shiftable thereon and adapted to mesh with each other in pairs, an adjustment shaft, gear wheel actuating members shiftably mounted on said adjustment shaft in such a manner that in disengaged position of all the gear wheels each two adjacent gear wheel actuating members contact with each other.

5. In a change speed gearing a driving and a driven shaft gear wheels shiftable thereon and adapted to mesh with each other in pairs an adjustment shaft, gear wheel actuating members shiftably mounted thereon the members provided with two arms, one of same coöperating with a wheel on the one of the two gear wheel carrying shafts and the other with a wheel on the second shaft, the last wheel being adjacent to the wheel adapted to be brought into engagement with the wheel actuated by the first arm.

[Claims 6 to 9 not printed in the Gazette.]

1,130,170. METHOD OF PRODUCING WOVEN-FABRIC RECEPTACLES. VICTOR H. JENNINGS, Worcester, Mass., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass., a Corporation of Massachusetts. Original application filed June 6, 1912, Serial No. 702,034. Divided and this application filed Jan. 5, 1914. Serial No. 810,355. (Cl. 139—72.)



1. The method of producing a woven-fabric receptacle, consisting in weaving a multiply fabric with the plies unconnected along one margin and joined together lengthwise to close the bottom of the receptacle, interweaving the said plies at intervals to close the ends of the receptacle, and beyond the closed ends continuing the weaving to form end reinforcing portions, then folding the said end-reinforcing portions laterally against adjacent portions of the fabric to form reinforcing and end-shaping portions, and then securing these latter to the said adjacent portions.

2. The method of producing a woven-fabric receptacle, consisting in weaving a multiply fabric with the plies unconnected along one margin joined lengthwise to close the bottom of the receptacle, interweaving the said plies at intervals to close the ends of the receptacle, and beyond the closed ends continuing the plies to form end-reinforcing portions, then folding the said end-reinforcing portions laterally against adjacent portions of the fabric to form reinforcing and end-shaping portions, and then securing these latter portions to the said adjacent portions.

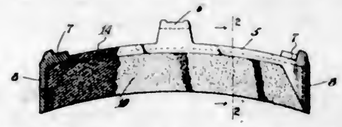
3. The method of producing a woven-fabric receptacle, having a shaped and stiffened bottom, consisting in weaving a multiply fabric with the plies unconnected along one margin and joined lengthwise near the other margin to close the bottom of the receptacle and in addition form bottom-reinforcement extending from the closed bottom, interweaving the plies at intervals to close the ends of the receptacle, and then folding the bottom reinforcement laterally against the adjacent fabric and securing the same to the latter.

4. The method of producing a woven-fabric receptacle, consisting in weaving a multiply fabric with the plies unconnected along one margin and joined lengthwise near the other margin to close the bottom of the receptacle and form bottom reinforcements extending from the closed bottom, interweaving the plies at intervals to close the ends of the receptacle and beyond the closed ends continuing the plies to form end-reinforcing portions, and then folding the said bottom- and end-reinforcements laterally against adjacent portions of the fabric and securing them to said portions.

5. The method of producing a woven-fabric receptacle, consisting in conducting the weaving of a multiply fabric so as to join plies thereof together along the line of the bottom of the receptacle to close the said bottom and also so as to join them together to close the ends of the receptacle, and in addition conducting the weaving adjacent the closed ends so as to form end reinforcement extensions then folding the said extensions laterally against adjacent portions of the receptacle to reinforce and shape the ends, and then securing such end-reinforcements to the said adjacent portions.

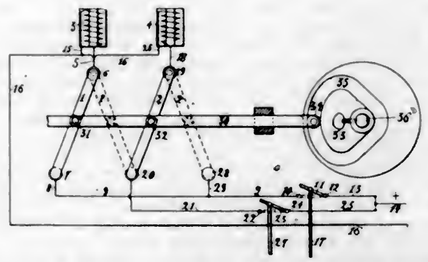
[Claims 6 to 8 not printed in the Gazette.]

1,130,171. BRAKE-SHOE. HARRY JONES, Suffern, N. Y., assignor to Edward H. Fallows, New York, N. Y. Filed Dec. 17, 1912. Serial No. 737,188. (Cl. 188—27.)



A brake shoe comprising a metallic supporting member having an opening and provided with a depending portion located at each end thereof and which dependent portions are provided with triangular side walls, and a non-metallic body portion supported by said back and located between said ends and a portion of which enter the openings in said supporting member.

1,130,172. EMBROIDERY-PATTERN MACHINE. CONRAD KELLER, Weehawken, N. J., assignor to Keller Auto Company, West New York, N. J., a Corporation of New Jersey. Filed Apr. 22, 1912. Serial No. 692,424. (Cl. 164—115.)



1. In an embroidery-pattern machine, in combination, selective punches and punch selecting means, connections from the said punch selecting means to the said selective punches and means to interchange the said connections in their relation to the said selective punches and the said punch selecting means.

2. In an embroidery-pattern machine, in combination, a pair of selective punches and a pair of punch selecting means and intervening means between the members of the said pair of selective punches and the members of the said pair of punch selecting means, the said intervening means being interchangeable in their relation to the members of the said pair of selective punches and the members of the said pair of punch selecting means.

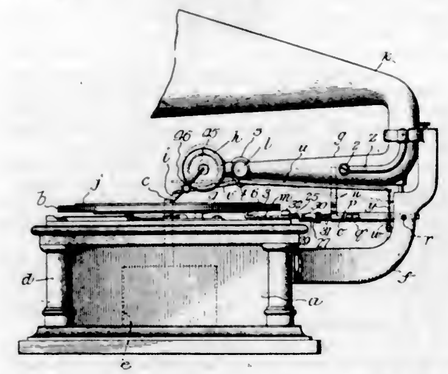
3. In an embroidery-pattern machine, in combination, a plurality of pairs of selective punches and a plurality of pairs of punch selecting means and intervening means between the members of the said pairs of selective punches and the members of the corresponding pairs of the said pairs of punch selecting means, the said intervening means being interchangeable in their relation to the members of the said pairs of selective punches and the members of the corresponding pairs of the said punch selecting means.

4. In an embroidery pattern machine, in combination, selective punches, punch selecting means therefor, intervening pole-changing switches adapted to control said selective punches by the punch selecting means, a cam to control the operation of said pole-changing switches and intervening electrical connections for the purposes named.

5. In an embroidery pattern machine in combination, selective punches and punch selecting means therefor intervening electrical means to control the said selective punches by the punch selecting means, pole changing switches and means to control the said pole changing switches for the purpose named.

[Claims 6 to 9 not printed in the Gazette.]

1,130,173. PHONOGRAPH. EDWIN M. KELLOGG, Moline, Ill. Filed Apr. 15, 1912. Serial No. 690,781. (Cl. 181—3.)



1. In a machine of the class described, the combination of a rotary record-supporting turntable, a stylus, a stylus-supporting mechanism pivotally mounted and operatively connected with the stylus, a vertical rotary driving shaft operatively connected with and in concentric relation to the rotary record-supporting turntable, rocking mechanism movable into and out of operative engagement with the stylus-supporting mechanism, for moving the stylus to initial position, rotary actuating mechanism located beneath and in concentric movable relation to the turntable and movable into and out of engagement with said rocking mechanism, and gear mechanism in engagement with said rotary actuating mechanism and operatively connected with the shaft.

2. In a machine of the class described, the combination of a rotary record-supporting turntable, a stylus movable transversely of the turntable, stylus-supporting mechanism pivotally mounted and operatively connected with the stylus, a vertical driving shaft connected with the turntable, a rock shaft having a lever arm in operative engagement with the stylus-supporting mechanism, a gear member on the driving shaft, and rotary actuating gear mechanism located beneath and in concentric movable relation to the turntable and operatively connected with the gear member on said driving shaft and movable into operative engagement with said rock shaft.

3. In a machine of the class described, the combination of a rotary record-supporting turntable, a stylus movable transversely of the turntable, a stylus-supporting mechanism pivotally mounted and operatively connected with the stylus, a rotary driving shaft operatively connected with the record-supporting truntable, rotary gear mechanism located beneath and in concentric relation to and rotatable with respect to the trun-table and operatively connected with the driving shaft, a tripping member connected with and rotatable by means of said gear mechanism, and reversing mechanism comprising in its construction a rock shaft, a rocking lever member located in the path of movement of said rotary tripping member and connected with the rock shaft, and an arm connected with the rock shaft and movable into and out of engagement with the stylus-supporting mechanism, for returning the stylus-supporting mechanism and stylus to initial position.

4. In a machine of the class described, the combination of a rotary record-supporting turntable, a stylus movable transversely of the turntable, stylus-supporting mechanism pivotally mounted and operatively connected with the stylus, a rotary driving shaft operatively connected with the record-supporting turntable, a rotary gear mechanism located beneath and in concentric relation to and rotatable with respect to the turn-table and operatively connected with the driving shaft, a tripping member connected with and rotatable by means of said gear mechanism, rocking mechanism comprising in its construction a rock-shaft, a tripping lever arm connected with the rock shaft and located in the path of movement of said rotary tripping member, and a lever arm connected with the rock shaft and movable into engagement with the stylus-supporting mechanism, one of said lever arms being yielding and forming a yielding connection between the rock shaft and the element to be engaged by said lever arm.

5. In a machine of the class described, the combination of a rotary record-supporting turntable, a stylus movable transversely of the turntable, a tone arm pivotally mounted and operatively connected with the stylus, a rotary driving shaft operatively connected with the record-supporting turntable, and tone-arm reversing mechanism comprising in its construction rotary gear mechanism located beneath and in concentric relation to and rotatable with respect to the turn-table and operatively connected with the driving shaft, a rock shaft, a flexible lever arm connected with the rock shaft and movable into engagement with the tone arm, a tripping lever arm connected with the rock shaft, and a tripping member connected with and operated by said rotary gear mechanism and movable into and out of engagement with said tripping lever arm for rocking the rock shaft to move the tone arm and stylus to initial position.

[Claims 6 to 15 not printed in the Gazette.]

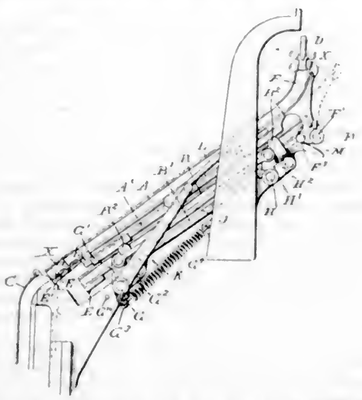
1,130,174. TYPOGRAPHICAL MACHINE. GEORGE P. KINGSBURY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 28, 1914. Serial No. 841,422. (Cl. 199—7.)

1. In a typographical machine, the combination of a single distributer, a plurality of magazines movable conjointly to bring one or another into operative relation to the distributer, and means for shifting the magazines relatively to each other in their conjoint movement.

2. In a typographical machine, the combination of two magazines movable vertically to bring one or another into operative position, said magazines being so mounted that in their vertical movement one will move in a substantially straight path, and the other forwardly or backwardly.

3. In a typographical machine, the combination of a magazine, a supporting frame therefor mounted to move

vertically and also forwardly and backwardly to shift the magazine into and out of operative position, and a second magazine movable vertically in a substantially straight path and mounted on the supporting frame so as to be shifted thereby into and out of operative position.

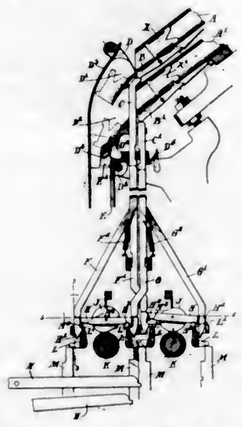


4. In a typographical machine, the combination of a magazine, a supporting frame therefor mounted to move vertically and also forwardly and backwardly to shift the magazine into and out of operative position, and a second magazine suspended from the machine frame and resting upon the movable supporting frame; whereby the second magazine will be moved vertically in a substantially straight path while the other magazine will be moved forwardly or backwardly in its vertical movement.

5. In a typographical machine, the combination of a plurality of magazines movable vertically as a whole to bring one or another into operative position, and means for shifting the magazines relatively to each other in their movement, so that in one vertical position they will stand out of alinement and in another position they will stand in alinement.

[Claims 6 to 10 not printed in the Gazette.]

1,130,175. TYPOGRAPHICAL MACHINE. GEORGE P. KINGSBURY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 12, 1914. Serial No. 866,241. (Cl. 199—7.)



1. In a typographical machine, the combination of a movable cam yoke, and escapement reeds arranged at each end of the yoke, the said yoke being mounted to rock about either of its ends so as to actuate one or the other of the reeds.

2. In a typographical machine, the combination of a movable cam yoke, escapement reeds arranged at each end of the yoke, the said yoke being mounted to rock about either of its ends so as to actuate one or the other of the reeds, and means for controlling the action of the cam yoke.

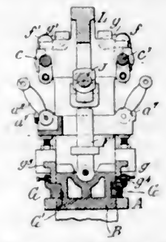
3. In a typographical machine, the combination of a cam yoke, a pair of escapement reeds arranged at the opposite ends of said yoke respectively, and a pair of finger keys for throwing the cam yoke into action, the said yoke being mounted to turn about one or the other of its opposite ends according to the finger key operated.

4. In a typographical machine, the combination of a cam yoke, a sustaining dog arranged at each end of the yoke, and means for tripping one or the other of said dogs, for the purpose described.

5. In a typographical machine, the combination of a cam yoke, a sustaining dog arranged at each end of the yoke, and a pair of finger keys for tripping the said dogs respectively.

[Claims 6 to 10 not printed in the Gazette.]

1,130,176. DRAWING-PRESS. WILLIAM KLOCKE, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Sept. 2, 1914. Serial No. 859,789. (Cl. 113—46.)



1. In a double-acting press having a blank-holder and a plunger, means for conveying the same into a single-acting press, comprising a lock for locking together the blank-holder and plunger, and means for disconnecting one of said parts from its operating mechanism.

2. In a double-acting press having a blank-holder and a plunger, means for converting the same into a single-acting press, comprising a lock for locking together the blank-holder and plunger, and means for disconnecting the blank-holder from its operating mechanism.

3. In a double acting press having a blank-holder and a plunger, means for converting the same into a single-acting press, comprising a lock in the blank-holder for locking it to the plunger, and means for disconnecting one of said parts from its operating mechanism.

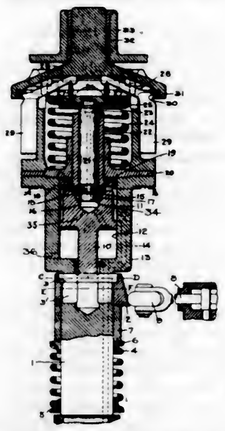
4. In a double-acting press having a blank-holder and a plunger, means for converting the same into a single-acting press, comprising a lock in the blank-holder for locking it to the plunger, and means for disconnecting the blank-holder from its operating mechanism.

5. In a double-acting press having a blank-holder and a plunger, means for converting the same into a single-acting press, comprising an adjustable tongue on the blank-holder adapted to enter a corresponding groove in the plunger and lock the blank-holder and plunger together, means for adjusting the tongue into and out of locking position, and means for disconnecting one of said parts from its operating mechanism.

[Claims 6 to 11 not printed in the Gazette.]

1,130,177. CENTRIFUGAL GOVERNOR. BERNHARD KRÄMER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Dec. 27, 1911. Serial No. 668,141. (Cl. 121—112.)

1. A governor comprising a weight the position of which changes with variations of speed, a rotating shaft, a fluid motor contained within the shaft and rotating therewith, a valve for the motor controlled by the weight, and a cam movable on the shaft to alter its stroke, such motion being controlled by the fluid motor.



2. A centrifugal governor comprising a shaft, a cam rotated by and longitudinally movable on the shaft, the stroke of the cam varying in accordance with its position, and means for controlling the position of the cam; such means consisting of a fluid motor contained in and rotating with the shaft, a weight the position of which changes with changes of speed, and a connection from the weight controlling the motor.

3. A centrifugal governor comprising a shaft and centrifugal weights, the shaft containing a cylinder and piston, means for supplying fluid pressure to the piston, a valve controlling the pressure and positioned by the weights, and a cam on the shaft moved by the piston.

4. Governing apparatus for prime motors, comprising a rotating shaft, a cam rotated by and movable along the shaft, the movement of the cam along the shaft altering its action, a fluid motor carried by and rotating with the shaft which moves the cam against a spring, and a centrifugal device controlling the fluid motor.

5. Governing apparatus for a prime motor, comprising a rotating shaft, a cam rotated by and movable along the shaft, a liquid motor carried by the shaft which moves the cam against a spring, the movement of the cam along the shaft altering its action; a valve and piston in the liquid motor; and a centrifugal device controlling the positions of the valve and piston.

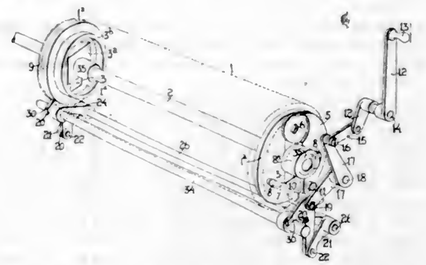
[Claims 6 to 10 not printed in the Gazette.]

1,130,178. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Oct. 27, 1910. Serial No. 589,455. (Cl. 197—127.)

1. In a typewriting machine, the combination of a platen frame, a paper guide, a platen, a platen shaft having bearing in the platen frame, a device carried by the platen and movable thereon to lock the platen to the platen shaft, and means for moving said locking device to release the platen from the shaft, and shifting the platen transversely of the shaft relatively to the paper guide when the platen is unlocked from the shaft.

2. In a typewriting machine, the combination of a platen frame, a paper guide, a platen having bearings in the platen frame, a device pivotally attached to the platen for holding the platen on its bearings, and means for moving said device to permit the platen to be moved from its bearings, and shifting the platen from its bearings relatively to the paper guide when said holding device is moved.

3. In a typewriting machine, the combination of a platen frame, a paper guide, a platen, a platen shaft having bearing in the platen frame, locking levers pivotally attached to the platen and normally engaging the platen shaft to lock the platen to the platen shaft, and means for moving said locking levers to release the platen from the shaft, and shifting the platen transversely of the shaft relatively to the paper guide when the platen is unlocked from the shaft.

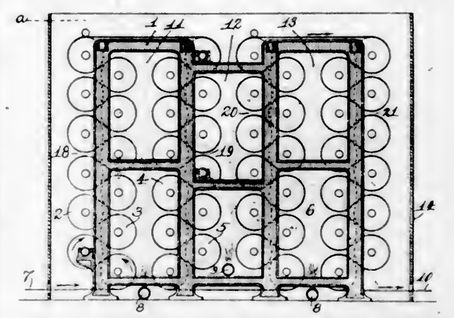


4. In a typewriting machine, the combination of a platen frame, a platen, a paper guide, a platen shaft having bearing in the platen frame, a device movable into and out of engagement with the platen shaft for locking the platen in position on the shaft, and means for moving said locking device to release the platen from the shaft and for shifting the platen transversely of the shaft relatively to the paper guide when the platen is so released.

5. In a typewriting machine, the combination of a platen frame, a paper guide, a platen, a platen shaft having bearing in the platen frame, a device pivotally attached to the platen and normally engaging the platen shaft to lock the platen to the platen shaft, and cams for moving said locking device to release the platen from the shaft, and shifting the platen transversely of the shaft relatively to the paper guide when the platen is unlocked from the shaft.

[Claims 6 to 33 not printed in the Gazette.]

1,130,179. PAPER-DRIER. HERMAN L. KUTTER, Hamilton, Ohio, assignor to The Black-Clawson Company, Hamilton, Ohio. Filed Aug. 13, 1914. Serial No. 856,571. (Cl. 34—48.)



1. A paper drier comprising a vertical series of closed rotary drying cylinders, a second vertical series of closed rotary drying cylinders disposed alongside the first series, the drying cylinders of the second series having their axes in horizontal planes lying between the horizontal planes of the axes of the first series of drying cylinders, means for producing an upward current of vapor coming from drying paper running in sepentine manner over drying cylinders of the two series alternately, and an open outlet over said two series of driers to permit of the free

discharge of the vapor rising therefrom, combined substantially as set forth.

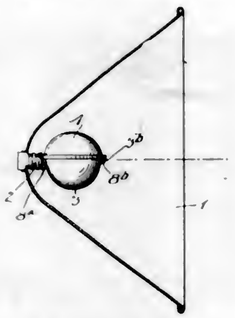
2. A paper drier comprising a vertical series of closed rotary drying cylinders, a second vertical series of closed rotary drying cylinders disposed alongside the first series, the drying cylinders of the second series having their axes in horizontal planes lying between the horizontal planes of the axes of the first series of drying cylinders, means for producing an upward current of vapor coming from drying paper running in serpentine manner over drying cylinders of the two series alternately, and a structure inclosing said two series of drying cylinders and adapted to confine said vapor horizontally and having its upper portion freely open to the atmosphere, combined substantially as set forth.

3. A paper drier comprising, a vertical series of rotary drying cylinders adapted for the reception of a web of wet paper in serpentine fashion, a second vertical series of rotary drying cylinders arranged alongside the first series and adapted to receive the partially dried paper from the first series and carry the paper in serpentine fashion in the opposite direction, combined substantially as set forth.

4. A paper drier comprising, a vertical series of rotary drying cylinders adapted for the reception of a web of wet paper in serpentine fashion, an elevator car adapted to travel vertically at one end of said series of drying cylinders, means for moving said elevator car up and down at the speed of vertical advance of the paper, and controlling devices for arresting the motion of the elevator car and for determining its direction of motion, combined substantially as set forth.

5. A paper drier comprising, a vertical series of rotary drying cylinders adapted for the reception of a web of wet paper in serpentine fashion, a second vertical series of drying cylinders disposed alongside the first series and adapted to receive the drying paper from the first series of drying cylinders, an elevator car disposed at the end of said series of drying cylinders and having a platform adapted to support an attendant in position to handle the web of paper on the drying cylinders of either of said series, means for moving said elevator car up and down at the speed of vertical advance of the paper, and controlling devices for arresting the motion of the elevator car and for determining its direction of motion, combined substantially as set forth.

1,130,180. HEADLIGHT ATTACHMENT. WILLIAM FRANCIS LENNON, Willimantic, Conn. Filed Dec. 8, 1914. Serial No. 876,009. (Cl. 240—47.)



1. In a protecting device for incandescent lamps, a cup-shaped body arranged to cover one side of the lamp, and elastic globe-engaging means with means carried by the body for holding said elastic globe-engaging means at the front and at the rear, whereby said cup-shaped body may be detachably and adjustably connected to the shank of the lamp and to the opposite end or tip of the lamp.

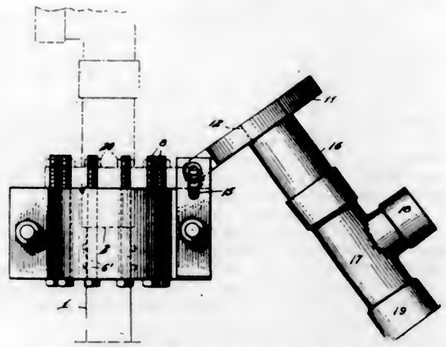
2. In a protecting device for incandescent lamps, a cup-shaped body arranged to cover one side of the lamp, an elastic means carried by said body and arranged to engage the lamp at the front and rear edges of said body to adjustably hold said protecting device thereon, the edge of said body being channeled, said elastic means being located in said channel, with two openings in said channel to permit said elastic means to be engaged with said lamp.

3. In a protecting device for incandescent lamps, a cup-shaped body arranged to cover one side of the lamp, an elastic means carried by said body and arranged to engage the lamp at the front and rear edges of said body to adjustably hold said projecting device thereon, the forward and rear edges of said body being recessed, the elastic means spanning said recessed portions.

4. In combination, an incandescent lamp comprising a bulb, a plug terminal at one end and a forwardly projecting tip at the other end, a protector conformed substantially to one side of said bulb, said protector having recesses to afford clearance for said plug and tip, an elastic band carried by said protector and spanning said recesses and arranged to yieldingly engage said plug and tip to hold the protector in place on said bulb.

5. In combination, an incandescent lamp comprising a bulb, a plug terminal at one end and a forwardly projecting tip at the other end, a protector conformed substantially to one side of said bulb, said protector having recesses to afford clearance for said plug and tip, an elatic band carried by said protector and spanning said recesses and arranged to yieldingly engage said plug and tip to hold the protector, the edges of said protector between said notches being channeled to receive and hide the major portion of said elastic band.

1,130,181. OIL-WELL CAPPER. JOHN R. LOCK, Fellows, Cal., assignor to Alex Wark, Bakersfield, Cal. Filed May 14, 1914. Serial No. 838,615. (Cl. 166—14.)



1. The combination with the outlet tube of an oil well, of a tube engaging capping member, a swinging member hinged to said tube engaging member, said tube engaging member and hinged member being provided with interlocking elements for securing them together in operative position.

2. The combination with the outlet tube of an oil well, of a tube engaging capping member having elements projecting above its upper end, a swinging member hinged to said tube engaging member and having apertures positioned to register with the projecting elements on said tube engaging member, when the members are in operative position.

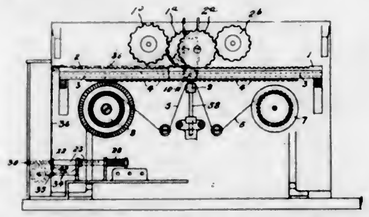
3. The combination with the outlet tube of an oil well, of a tube engaging capping member having a longitudinally extending slot at its upper end, a swinging member pivoted to slide in said slot, said members being provided with interengaging connecting elements.

4. A well capper comprising a longitudinally divided two-part capping member adapted to encircle a well casing and having a plurality of longitudinally extending bores, bolts extending through said bores, a swinging member hinged to said two-part member and provided with a base plate having apertures positioned to register with and engage said bolts.

5. A well capper comprising a longitudinally divided two-part capping member adapted to encircle a well casing and having an annular series of longitudinally extending bores, bolts extending through said bores, a swinging member hinged to said two-part member and provided with a base plate having an annular series of apertures positioned to register with and engage said bolts, nuts for engaging said bolts for locking said members in connected position.

[Claim 6 not printed in the Gazette.]

1,130,182. CASH-REGISTER. GEORGE MACBETH, Liverpool, England. Filed Jan. 19, 1912. Serial No. 672,115. (Cl. 235—3.)



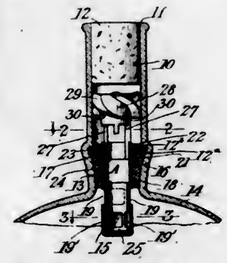
1. In a recording apparatus of the class described, the combination of cash recording mechanism including movable bars containing cash characters, disks disposed adjacent the movable bars, said disks having characters to indicate time of sale, automatic means for operating the disks, a tape for receiving the imprint of the cash and time characters, delivery and time recording mechanism including disks and a slide, means connecting the movable bars and the disks to rotate the latter in one direction, means for automatically rotating the latter disks in the opposite direction, a handle for operating movable bars and impressing the tape against the time and cash characters on the movable bars and the disks adjacent thereto, and a cash drawer for operating the slide to eject a ticket after the disks of the delivery mechanism have operated.

2. In a recording apparatus of the class described, the combination of cash registering and time recording mechanism, a movable ticket printing and delivering mechanism including rotating disks having characters to print the amount of and the time of sale, and a slide, belts between the cash registering and time recording mechanism to rotate the ticket printing disks in one direction, means for automatically rotating said ticket printing disks in the opposite direction, means for simultaneously operating the cash registering and time recording mechanism and the ticket disks, and means for operating the slide to eject a printed ticket.

3. In a recording apparatus of the class described, the combination of cash registering and time recording mechanism, ticket printing and delivering mechanism including printing disks, means between the cash recording mechanism and the disks to rotate the latter in one direction to set said disks, means independent of the aforesaid rotating means for reversely rotating the disks, a single actuating member for setting the cash registering mechanism and the disks, and to subsequently operate to record the amount of and the time of sale and print a ticket.

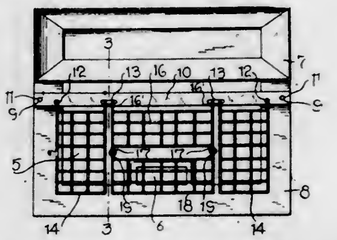
4. A cash and time recording apparatus comprising cash and time recording mechanism, an actuating member for setting the cash recording mechanism, and for subsequently actuating both the cash and time recording mechanisms for effecting the record; a ticket printing and delivering mechanism comprising a tiltable frame carrier fitted with cash and date wheels and with a lever, means between the cash and time recording mechanisms to rotate the wheels in one direction, means for subsequently rotating the wheels in the reverse direction, and a slide which engages the lever and tilts the frame; a spring and a drawer rod which is actuated by the spring in one direction and by hand in the other direction, and is connected to the slide, and is released by the actuating member, the movement effected by the spring, moving the slide over the lever and effecting the tilting of the frame carrier and the printing of a ticket and the movement effected by hand restoring the parts to the inoperative position and the delivery of the printed ticket.

1,130,183. BOTTLE-CLOSURE. LOUIS MARCONI, New York, N. Y. Filed Mar. 26, 1912. Serial No. 686,227. (Cl. 215—65.)



In a device of the class described, a cylindrical bottle neck having an enlargement forming a shoulder and tapered at its lower part, a lower tubular casing having a peripheral flange at its upper end to fit snugly in the neck, said casing open laterally a distance below the flange for communication with the interior of a bottle, a packing material around the casing for snug engagement upon said tapered part and with the flange below the shoulder, and a guard element constructed for fixed engagement with the upper end of the casing and having a flange thereon smaller than the first named flange, an annular retaining member between the flanges and extending into the said enlargement, the guard having a passage therethrough corresponding in size to that of the casing; also an extension below the last named flange engaged with the lower casing, and a gravity valve operable within the lower casing, and constructed to be checked in decanting position by the guard element.

1,130,184. GUARD FOR POTS OR CRUCIBLES. THOMAS F. MARTIN, Sabraton, W. Va. Filed Dec. 6, 1913. Serial No. 805,138. (Cl. 94—7.)

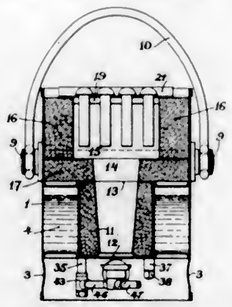


1. The combination with a metal receiving pot or the like, of a supporting plate secured to the pot and provided with up standing pins, a bar having openings in its opposite ends to loosely receive said pins, additional openings in the bar, a plurality of screens movably mounted at one of their ends upon the bar and adapted, when in their operative positions to extend over the open top of the pot and rest at their free ends upon said supporting plate.

2. The combination with a metal receiving pot or the like, of a supporting plate secured upon said pot, a bar removably mounted upon said plate and provided with a plurality of openings, a series of screens having hooks

loosely engaged in said openings, and a supplementary screen movably connected to one of the first named screens, said latter screen and the other first-named screens resting at their free ends upon the supporting plate when disposed over the open top of the pot, said screens being detachable from the bar and movable with respect thereto to permit of access to the pot.

1,130,185. OIL-FIRED PORTABLE RIVET-HEATING FURNACE. WILLIAM MELAS, Ridley Park, Pa., assignor of one-half to David Townsend, Philadelphia, Pa. Filed Mar. 11, 1914. Serial No. 823,959. (Cl. 75—40.)



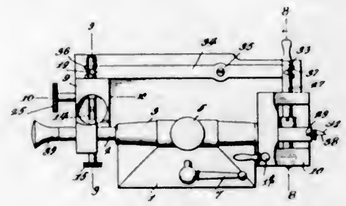
1. In an oil fired portable rivet heating furnace the combination of a cylindrical furnace shell, open at both ends and fitted with means for handling it; a liquid-fuel compartment of ring-shaped cross section contained within said shell; a refractory furnace lining supported by the fuel compartment and open at both ends; and a burner, connected by suitable piping to a compressed air supply and to the fuel compartment.

2. In an oil fired portable rivet heating furnace a closed fuel compartment of ring shaped cross section, containing a hollow, cylindrical combustion chamber, open at both ends; a heating chamber in communication with the combustion chamber and supported by the fuel compartment; a rectangular slot of equal width for the introduction of rivet shanks into said heating chamber, said width being larger than the shank diameter and smaller than the head diameter of the rivets; and a stationary, but removable burner at the lower end of the combustion chamber, connected to suitable means for the supply of compressed air and oil under pressure.

3. In an oil fired portable rivet heating furnace a closed liquid fuel compartment, with an inner shell, forming a combustion chamber; and an outer shell, extending above the upper head of said compartment and also extending below the lower head of said compartment; a burner below the lower head of said compartment and in axial alinement with the combustion chamber; a pipe connection to a compressed air supply, a valve in said pipe connection said valve being in communication with two branches of piping, one branch communicating with the tank space above the liquid fuel, the other branch connecting with a burner; a liquid fuel pipe with a regulating valve, said pipe being in communication with the liquid fuel and with a burner; a refractory lining for the combustion chamber, open at both ends and supported by the fuel compartment; and a refractory heating chamber of triangular cross section located above the combustion chamber and in communication therewith, and an open slot of equal width on top of the heating chamber, said width being larger than the shank diameter and smaller than the head diameter of the rivets.

1,130,186. JEWELING-TOOL. CHARLES W. MINER, Albion, N. Y. Filed May 15, 1914. Serial No. 838,830. (Cl. 29—10.)

1. A jeweling tool for use in connection with a lathe comprising a frame plate, bearings carried by said plate and by which the same is swung on the tail-stock spindle of the lathe, means carried by said plate and bearings to hold a cutting tool to cut an orifice through the exact measured dimension of the jewel, and said holding means and the connecting mechanism thereof so arranged that a burnishing point may be inserted in place of the cutter and by a subsequent adjustment the tool may be used to secure the jewel in said orifice.



2. A tool adapted for use in connection with a lathe to cut an orifice to the exact dimension of a member to be fitted in said orifice comprising a frame plate, bearings carried by said frame plate and mounted on the tail-stock of the lathe on either side of the standard supporting the same, means to measure the member carried by one of said bearings, and cutting means fitted in the second bearing to have movement with respect to said bearings, and a connection between said measuring means and said cutting means so arranged that as the measurement is taken the cutting means is adjusted to proper operative relation to cut an orifice to the dimension of the member to be fitted therein.

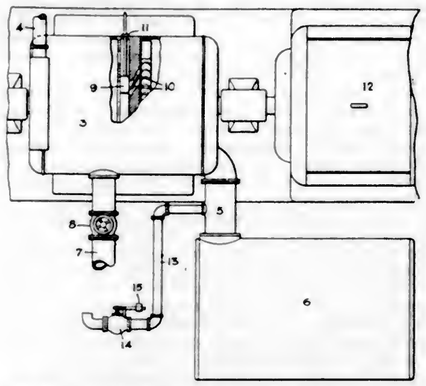
3. A tool adapted to be used in connection with a lathe to cut an orifice of the exact dimension of a member to be fitted in said orifice comprising a frame plate, bearings carried by said frame plate to be fitted to the tailstock spindle of the lathe on either side of the standard supporting the same, a cutting tool mounted upon one of said bearings to be capable of adjusting movement, a gage to take the measurement of the member fitted to the second of said bearings mounted on the tailstock spindle, and means pivoted to said frame plate and connected between said gage and cutting tool in such relation that as the measurement is taken the tool is adjusted to cut to the exact dimension.

4. A tool adapted for use in connection with a lathe to cut a recess of a size to receive a member to be fitted into the recess comprising a frame plate, a bearing carried at each end of said frame plate which bearings are adapted to be received upon the tailstock spindle of the lathe upon either side of the standard by which the same is supported, a gage fitted to one of said bearings to have the member engaged by parts thereof, a cutting tool carried by said second bearing to be capable of horizontal movement with respect to the center of the tailstock spindle, and means carried by said plate and connected between the gage and cutting tool in such a manner that as the gage is set the cutting tool is moved to a position to cut the orifice of the proper dimension.

5. A tool adapted to be used in connection with the tailstock of a lathe comprising a frame plate, bearings carried by said plate to be received around the tailstock spindle on either side of the standard supporting the same to hold said plate connected to have movement therewith, a gage mounted in connection with one of said bearings and having gage members to receive the member for which the holding means is to be cut therebetween, a member mounted with respect to said plate to be capable of horizontal adjustment, a cutting tool carried by said member, and means pivotally mounted on said plate and connected between the gage and the movable member to adjust the cutting tool horizontally as the gage is brought to the proper measurement.

[Claims 6 to 14 not printed in the Gazette.]

1,130,187. ELASTIC-FLUID TURBINE. SANFORD A. MOSS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 3, 1914. Serial No. 829,228. (Cl. 121—118.)



1. The combination with a turbine having a conduit leading from a region of intermediate pressure, and a condenser into which the turbine exhausts, of a valve controlling a passage leading from a region of lower pressure, and means for automatically opening said valve when the turbine changes from condensing to non-condensing operation so as to insure a circulation of fluid through the final stages of the machine at all times.

2. The combination with a turbine having a conduit leading from an intermediate stage and a condenser into which the final stage exhausts, of a vent pipe connected with the final stage of the turbine, a normally closed valve in said pipe, and means for automatically opening said valve when the condenser vacuum is lost and restoring it when the vacuum is regained so as to insure a circulation of the fluid through the final stages of the machine at all times.

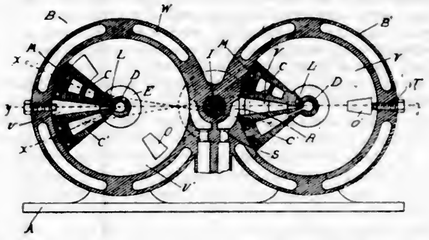
3. The combination of a turbine having a plurality of stages, a conduit leading from an intermediate stage, a stage valve controlling the passage of steam from such stage to the next lower, a stop for limiting the movement of the stage valve toward closed position, a condenser into which the turbine exhausts, and an automatic relief valve connected with the final stage of the turbine and adapted to open when the turbine changes from condensing to non-condensing operation.

1,130,188. ROTARY OSCILLATORY ENGINE. KURT L. E. MUELLER, Detroit, Mich., assignor to Frederick A. Roese, Mount Clemens, Mich. Filed May 23, 1908. Serial No. 434,600. (Cl. 123—18.)

1. The combination with a cylinder, of a pair of oppositely moving oscillatory pistons therein dividing the cylinder into suction and explosion chambers, means for admitting the explosive charge into said suction chamber and retaining it for a preliminary compression, and means for transferring said compressed charge to the explosion chamber and for displacing the products of a previous explosion thereby.

2. The combination with a cylinder, of a pair of oppositely moving oscillatory pistons therein dividing said cylinder into suction and explosion compartments alternately expanded and contracted, means for admitting an explosive charge into said suction chamber during the expansion thereof and for retaining it therein for a preliminary compression during the opposite movement of the pistons, and means operating upon the completion of said preliminary compression for transferring the compressed charge to the explosion chamber and displacing thereby the products of a previous explosion.

3. The combination with a cylinder, of a pair of oppositely moving rotary oscillatory pistons dividing said cylinder into alternately contracted and expanded explosion and suction chambers, valves operated by the movement of said pistons controlling the exhaust from said explosion chamber, and a passage between said suction and explosion chambers and an induction valve for admitting the explosive mixture into said suction chamber during the expansion thereof and for retaining it therein for a preliminary compression, said piston controlled valve operating upon the completion of said preliminary compression and transferring the compressed charge to said explosion chamber and displacing thereby the products of a previous explosion.

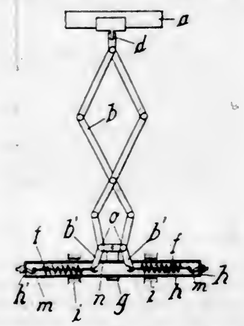


4. The combination of a pair of cylinders, a pair of oppositely moving rotary oscillatory pistons in each of said cylinders dividing the same into suction and explosion compartments, a common crank to which said pistons are connected, means for admitting an explosive mixture to the suction compartment during the expansion thereof and for retaining it therein for a preliminary compression, means for transferring the compressed charge to the explosion chamber of the same cylinder and for displacing thereby the products of a previous explosion, the operations in the two cylinders being alternate, and means for alternately exploding the compressed charges in the explosion chambers of the cylinders, whereby an explosion is given for each half revolution.

5. The combination with a cylinder, of a pair of rotary oscillatory pistons therein, a cheek plate attached to one of said pistons movable therewith in contact with the one head of the cylinder, said cheek plate and cylinder head being provided with coöperating ports which are thrown into registration at predetermined points in the movement of said pistons.

[Claims 6 and 7 not printed in the Gazette.]

1,130,189. BALANCING MECHANISM FOR VEHICLE-WINDOWS. GOTTFRIED BERNHARD MÜNCH, Leipzig, Germany, assignor to Allvor-Apparate-Gesellschaft mit beschränkter Haftung, Wurzen, Germany. Filed Aug. 8, 1913. Serial No. 783,715. (Cl. 16—115.)



1. The combination, with a vehicle door and a window sliding in said door, of a lazy tongs system, a spring

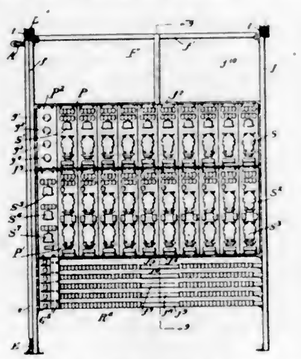
device engaged with said lazy tongs and tending to hold same in its extended position, a pivot connecting said lazy tongs to the door and enabling the lazy tongs system to assume varying angles to the plane of the door, and a pivot connecting the lazy tongs to the window and enabling the lazy tongs system to assume varying angles to the plane of the window.

2. The combination, with a vehicle door, and a window sliding in said door, of a lazy tongs system, a pivot connecting the lazy tongs to the bottom edge of the window, enabling the lazy tongs system to assume varying angles to the plane of the window, a tubular pivot connecting the lazy tongs to the door, enabling the lazy tongs system to assume varying angles to the plane of the door, said tubular pivot having a slot and the lazy tongs having two lever arms extending through said slot into said tubular pivot, and springs attached within said tubular pivot, engaged with said arms and tending to hold said lazy tongs system in its extended position.

3. The combination, with a vehicle door and a window sliding in said door, of a lazy tongs system, a pivot connecting the lazy tongs to the bottom edge of the window, enabling the lazy tongs system to assume varying angles to the plane of the window, a tubular pivot connecting the lazy tongs to the door, enabling the lazy tongs system to assume varying angles to the plane of the door, said tubular pivot having a slot and the lazy tongs having two lever arms extending through said slot into said tubular pivot, and springs attached within said tubular pivot, engaged with said arms and tending to hold said lazy tongs system in its extended position, said tubular pivot being adapted to hold a lubricant.

4. The combination, with a vehicle door, and a window sliding in said door, of a lazy tongs system, a pivot connecting the lazy tongs to the bottom edge of the window, enabling the lazy tongs system to assume varying angles to the plane of the window, a tubular pivot mounted in said door and having a slot, a fastening connecting the lazy tongs to said tubular pivot, the latter enabling the lazy tongs system to assume varying angles to the plane of the door, and the lazy tongs having two lever arms, with their fulcra spaced apart on said fastening, extending through said slot into said tubula pivot, and springs attached within said tubular pivot, engaged with said arms and tending to hold said lazy tongs system in its extended position.

1,130,190. TELEPHONE-EXCHANGE APPARATUS. CHARLES H. NORTH, Cleveland, Ohio, assignor, by mesne assignments, to Frederick C. Stevens, Attica, N. Y. Filed Apr. 4, 1911. Serial No. 618,829. (Cl. 179—27.5.)



1. In a telephone exchange system, multiple unit sections arranged in predetermined order, each section including unit interchangable groups of apparatus, each group including a plurality of interchangeable automatically operating electrical selective switching units of different order, and suitable connections between the several sections, between the several groups of each section, and between the several units of each group.

2. In a telephone exchange system, switch board frames, a unit section carried by each frame, each unit section including unit interchangeable groups of apparatus, each group including a plurality of interchangeable automatically operating electiracal selective switching units of different order, and suitable connections between the several sections, between the several groups of each section, and between the several units of each group.

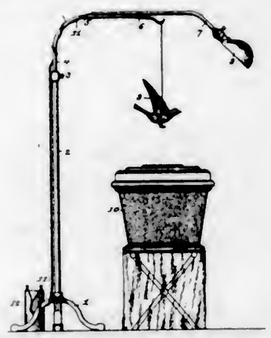
3. In a telephone exchange system, a unit section comprising multiple unitary interchangeable groups of apparatus mounted upon seperate detachable plates, each group including interchangeable automatically operating electrical selective switching units of different order, and suitable connections between the groups and between the units of each gronp.

4. In a telephone exchange system, an interchangeable unit of apparatus, comprising a rectangular base plate having means for securing it to a support, and detachable interchangeable automatically operating devices including all the switches and relays pertaining to a single trunk mounted on said plate within the perimeter thereof whereby a plurality of said plates may be assembled side by side to constitute a board of substantially unbroken area.

5. In a telephone exchange system, a unitary interchangeable group of apparatus, comprising a perforated base plate having means for securing it to a support, automatic switch and relay mechanisms detachably mounted on said plate, the actuating elements of said mechanisms being secured to the front of said plate and the terminal contact elements being disposed to the rear of said plate.

[Claims 6 to 14 not printed in the Gazette.]

1,130,191. MORTUARY-ILLUMINATING APPARATUS. JOHN O'BRIEN, Chicago, Ill. Filed Sept. 25, 1914. Serial No. 863,474. (Cl. 240—81.)



1. An illuminating apparatus for mortuary rooms, comprising a supporting base, a vertical post carried by said base, a vertically adjustable stem having movement in said post, means for securing said stem at its required adjustment, a curved crane arm on the upper end of said stem and formed with a lower and shorter branch and an upper and longer branch, means for suspending an emblem from said shorter branch, and an electric lamp carried by said longer branch, substantially as set forth.

2. In an illuminating apparatus for mortuary rooms, comprising a supporting base, a vertical post carried by said base, a vertically adjustable stem having movement in said post, means for securing said stem at its required adjustment, a curved crane arm on the upper end of said stem and formed with a lower and shorter branch and an upper and longer branch, means for suspending an emblem from said shorter branch and an electirc lamp carried by said longer branch, said longer branch having a tubular form and adapted to receive a flexible conductor carrying the electric current to the lamp, substantially as set forth.

1,130,192. PROCESS OF PRODUCING SULFITE CELLULOSE. ERIK ÖMAN, Stockholm, Sweden. Filed Jan. 19, 1914. Serial No. 813,129. (Cl. 92—1,)

1. In a process of boiling sulfite cellulose, a method consisting in adding a basic agent and sulfur dioxid to waste liquor obtained by previous boiling, and using the waste liquor thus prepared for boiling another quantity of wood, substantially as and for the purpose set forth.

2. In the process of boiling sulfite cellulose, a method consisting in adding a basic agent and sulfur dioxid to waste liquor obtained by previous boiling, using the waste liquor thus prepared for boiling another quantity of wood, and repeating the said operations until the waste liquor has attained the desired concentration with reference to the substances dissolved, substantially as and for the purpose set forth.

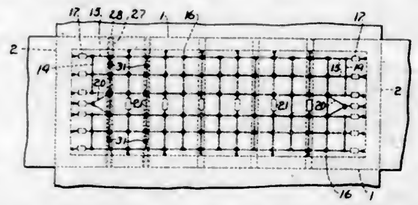
3. In the process of boiling sulfite cellulose, a method consisting in adding a basic agent, sulfur dioxid and water to waste liquor obtained by previous boiling, and using the waste liquor thus prepared for boiling another quantity of wood, substantially as and for the purpose set forth.

4. In the process of boiling sulfite cellulose, a method consisting in adding a basic agent, sulfur dioxid and water to waste liquor obtained by previous boiling, using the waste liquor thus prepared for boiling another quantity of wood, and repeating said operations until the waste liquor has attained the desired concentration with reference to the substances dissolved, substantially as and for the purpose set forth.

5. In the process of boiling sulfite cellulose, a method consisting in washing the pulp with water, adding a basic agent, sulfur dioxid, and the washing-water to waste liquor obtained by previous boiling, and using the waste liquor thus prepared for boiling another quantity of wood, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,130,193. COUCH-HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Original application filed Mar. 28, 1908, Serial No. 423,914. Divided and this application filed Oct. 13, 1908. Serial No. 457,466. (Cl. 5—61.)



1. A couch hammock comprising in combination, a frame having side and end members, cross bars supported by the hammock frame and spaced from the end members, a hammock body independent of but adapted to override said frame and having portions adapted to pass beneath said cross rods, a resilient seating independent of said body and attached to said frame, and padding positionable at different places between the hammock body and frame, and means to secure the padding in selected position.

2. A couch hammock comprising, in combination, a frame, a hammock body overlying the frame, a seating independent of said body and attached to the frame, padding positionable at different places between the hammock body and frame, and means to secure the padding in selected position.

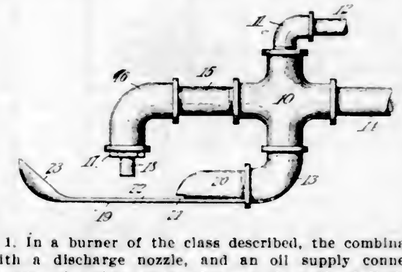
3. A hammock frame adapted for engagement with a hammock and provided with connected end members, a hammock body adapted to receive said frame, said hammock body being provided with transversely disposed pockets, slats for said pockets and sectional padding adapted to be located between said pockets and between said frame and hammock body.

4. A hammock frame having side-members and connecting end-members, a seating connected to members of said frame, a hammock cloth overlying the side members of the frame and said seating, and having supporting engagement with the frame, padding positionable at different places between the seating and hammock cloth, and padding-securing devices to secure the padding in selected position.

5. A hammock frame having side members and connecting end members constituting a substantially rectangular frame, a seating directly connected to the members of said frame, a hammock cloth constituting the hammock body and overlying the side members and end members of the frame, said hammock cloth having supporting engagement with the frame and being comtinued to constitute suspension means, and a padding interposed between said hammock cloth and the said seating, said padding being arranged in transverse sections and means for securing said sections removably and adjustably in position.

[Claims 6 to 13 not printed in the Gazette.]

1,130,194. OIL-BURNER. ALFRED PAPILLON, Lowry, La. Filed Dec. 31, 1912. Serial No. 739,504. (Cl. 158—77.)



1. In a burner of the class described, the combination with a discharge nozzle, and an oil supply connected thereto, of a plate arranged across the path of discharge of said nozzle to receive the oil therefrom, a nipple associated with said plate and provided with an opening through which a propelling agent may be discharged onto said plate to take up the oil discharged thereagainst, and means carried by said plate against which the combined oil and propelling agent are projected to be atomized.

2. In a burner of the class described, the combination with a discharge nozzle, and an oil supply connected thereto, of a plate arranged across the path of discharge of said nozzle to receive the oil therefrom, a nipple associated with said plate and provided with an opening through which a propelling agent may be discharged onto said plate to take up the oil discharged thereagainst, and a deflector carried by said plate and arranged at a point beyond the nozzle for the combined oil and propelling agent to be projected thereagainst for atomization.

3. In a burner of the class described, the combination with a discharge nozzle, and an oil supply connected thereto, of a plate arranged across the path of discharge of said nozzle to receive the oil therefrom, a nipple associated with said plate and provided with an opening through which a propelling agent may be discharged onto said plate to take up the oil discharged thereagainst, and a cup-shaped deflector carried by said plate and arranged at a point beyond the nozzle for the combined oil and propelling agent to be projected thereagainst for atomization.

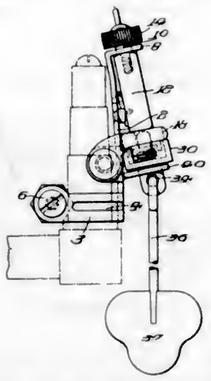
4. In a burner of the class described, the combination with a discharge nozzle, and an oil pipe connected thereto, of a chambered connection through which said oil pipe passes, a steam supply connected to said chambered connection for heating the oil pipe, a plate arranged across the path of discharge of said nozzle to receive the oil therefrom, a tubular connection between said plate and said chambered connection for conducting the steam from the latter to said plate for propelling the oil discharged

against said plate, and means also carried by said plate and against which the combined oil and steam are projected for atomization.

5. In a burner of the class described, the combination with a discharge nozzle, and an oil pipe connected thereto, of a heating chamber surrounding said oil pipe, a steam supply connected to said chamber for heating the latter, a tubular connection also connected to said heating chamber, a plate supported by said tubular connection across the path of discharge of said nozzle to receive the oil therefrom, said plate serving to guide the steam discharged from said tubular connection, and a deflector also associated with said plate and against which the combined oil and steam are projected for atomization.

[Claims 6 to 11 not printed in the Gazette.]

1,130,195. GAS-LIGHTER. JOHN Y. PARKE, Philadelphia, Pa. Filed Apr. 24, 1914. Serial No. 834,074. (Cl. 67—20.1.)



1. In a gas lighter, the combination with a plate having clamping means adapted to embrace a gas burner, of a shaft, a friction wheel upon said shaft, means operative to maintain a piece of pyrophoric material in contact with said wheel, means operative to produce a relatively slow initial rotation of said shaft, and independent means operative to complete the rotation of said shaft at relatively greater speed.

2. In a gas lighter, the combination with a friction wheel fixedly mounted upon a main shaft, of a piece of pyrophoric material maintained in permanent contact with said friction wheel, a squared wheel at the lower end of said main shaft, a spring in permanent contact with said squared wheel, and means to produce an initial rotation of said wheel, said spring being operative to assist the final rotation thereof.

3. In a gas lighter, the combination with a plate adapted for attachment to a gas burner, of a friction wheel, a shaft carrying said wheel, a key operative to rotate said shaft, a spring, and means upon said shaft in permanent contact with said spring operative to vary the speed of rotation of said shaft.

4. In a gas lighter the combination with a vertical plate having clamping means at its lower end, of a shaft journaled in said plate, a friction wheel permanently mounted at the upper end of said shaft, a spring mounted upon said plate, a key for producing an initial rotation of said shaft, and means mounted upon said shaft operative with said spring to continue the rotation thereof at relatively greater speed.

5. In a gas lighter, the combination of a friction wheel fixedly mounted upon a main shaft, a piece of pyrophoric material maintained in permanent contact with said friction wheel, a stub shaft in longitudinal alinement with said main shaft, a key operative to rotate said stub shaft, and connecting means between said stub shaft and said main shaft operative to assist in the rotation of said main shaft in one direction after the initial movement of said stub shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,130,196. TREATMENT OF ALUMINIUM TO RENDER IT UNALTERABLE. FRANCESCO PUCILLO, Genoa, Italy. Filed Feb. 6, 1911. Serial No. 606,982. (Cl. 91—70.)

1. A process of treatment of aluminium consiting in: (*a*) treating the aluminium object with an alkaline solution, neutralizing it by acidified water and washing it with pue water; (*b*) then treating said object with solutions of chlorids; (*c*) then treating it with an ammoniacal solution of copper chlorid with addition of tartrates; (*d*) treating it afterward by alcoholic zinc acetate and neutralizing it by an aqueous solution of an alkaline carbonate; (*e*) then treating it by acidified water, washing and cleaning it carefully and heating it to a temperature above 100° C.

2. A process of treatment of aluminium consisting in: (*a*) treating the aluminium object with an alkaline solution, neutralizing it by acidified water and washing it with pure water; (*b*) then treating said object with solutions of chlorids; (*c*) then treating it with an ammoniacal solution of copper chlorid with addition of tartrates; (*d*) treating it afterward by alcoholic zinc acetate and neutralizing it by an aqueous solution of an alkaline carbonate; (*e*) then treating it by acidified water, washing and cleaning it carefully and heating it to a temperature above 100° C.; (*f*) then washing the object with a hot solution of crude mineral oil, drying oils and balsams, mixed with a small proportion of gum-resins, the mixture being treated with an oxidizing agent before being used; (*g*) finally, completely drying the object by heat and washing it with a hot energetic alkali.

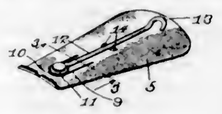
1,130,197. PROCESS FOR PRODUCING TUNGSTEN POWDER. ROBERT RAFN, Porsgrund, Norway, assignor to General Electric Company, Schenectady, N. Y., a Corporation. Filed Sept. 20, 1912. Serial No. 721,443. (Cl. 75—17.)

1. A process for producing metallic tungsten powder which is suitable for making filaments, consisting of heating tungsten-trioxid at a dull red heat in ammonia gas to produce blue tungsten-oxid and then heating said blue oxid in an atmosphere of hydrogen at a higher temperature.

2. A process for producing metallic tungsten powder, consisting of reducing tungsten-trioxid to blue tungsten-oxid by heating it in ammonia gas, then substituting an atmosphere of hydrogen for the ammonia gas and rapidly raising the temperature of the blue oxid to reduce it to metal.

3. A process for producing fine metallic tungsten powder, consisting of reducing tungsten tri-oxid in the first stage to blue oxid by one reagent, then in the second stage at a certain temperature and completely reducing the blue oxid to metal by another reagent at a higher temperature.

1,130,198. COMBINED SHOE-HORN AND BUTTON-HOOK. CONRAD ROSINE, Chicago, Ill. Filed Nov. 24, 1913. Serial No. 802,791. (Cl. 7—1.)



1. As a new article of manufacture, a shoe horn, a handle pivotally mounted thereon and adapted to be swung back and lie close to the body of the horn when in closed position, and means integral with said horn for holding said handle in closed position.

2. As a new article of manufacture, a shoe horn, a handle pivotally mounted thereon and adapted to be swung back and lie close to the body of the horn when in closed position, and means integral with said horn for holding said handle in open position.

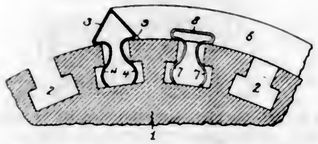
3. As a new article of manufacture, a shoe horn, a handle pivotally and springingly mounted thereon and adapted to be swung back and lie close to the body of the horn when in closed position.

4. A shoe horn comprising an integral sheet of metal, a spring member integral therewith, a handle pivotally mounted on said spring member and means for securing said handle in open or closed position.

5. A shoe horn comprising an integral sheet of metal, a spring member integral therewith, a handle terminating in a hooked end mounted on said spring member and means for securing said handle in open or closed position.

[Claims 6 to 10 not printed in the Gazette.]

1,130,199. MULTIGRAPH PRINTING-MACHINE. WASHINGTON W. ROWLEY, Jr., and WALTER T. BROWN, Philadelphia, Pa. Filed May 16, 1913. Serial No. 768,184. (Cl. 101—179.)



1. The combination of the grooved printing drum of a multigraph printing machine with a line member having one or more spring clips for engaging said groove and retaining said line member in place on the surface of the drum, whereby said line member can be placed radially in position upon the drum.

2. The combination of the grooved printing drum of a multigraph printing machine with a line member of triangular cross section having one or more spring clips for engaging said groove and retaining said line member in place on the surface of the drum.

3. The combination of the grooved printing drum of a multigraph printing machine with a column rule consisting of a flexible strip provided with a plurality of clips each having spring arms for engaging walls of the grooves of the drum and retaining said strip in position thereon, whereby said column rule can be placed radially in position upon the drum.

4. The combination of the grooved printing drum of a multigraph printing machine with a flexible rule strip, and a clip engaging a groove of the drum and having a recessed head for receiving and retaining the base of said rule strip.

5. The combination of the grooved printing drum of a multigraph printing machine with a rule strip of triangular cross section, and a clip engaging a groove of the drum and having a head with undercut recess therein for receiving the base of said triangular strip.

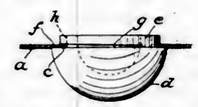
[Claims 6 and 7 not printed in the Gazette.]

1,130,200. RAIL-JOINT. HERMIT W. RYDER, Mountain Grove, Va. Filed Mar. 21, 1914. Serial No. 826,313. (Cl. 239—8.)



A rail joint including a pair of rails one of which has a portion of its web directly below the head, extended beyond one end to provide spaced longitudinally extending parallel arms for engagement in complementary cut-out portions in the end of the opposite rail, said arms having the upper margins enlarged for snug engagement with the head of the rail, the opposite rail having arms integrally formed with the base flange and extending beyond the end of the rail whereby one rail braces the other against lateral displacement.

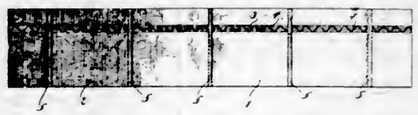
1,130,201. ILLUMINATED-LENS SIGN. WALTER M. SCARBOROUGH, Lancaster, Pa. Filed Mar. 25, 1914. Serial No. 827,082. (Cl. 240—111.)



1. In a sign, a face plate of sheet metal containing a substantially circular orifice having a projection extending inward from the margin thereof, and a lens having a head and a shank of a diameter substantially smaller than that of the head and not greater than the diameter of the orifice in the face plate, said shank being cut away throughout its height to form a recess of an area not less than that of said projection so as to permit the projection to enter into said recess without distortion, the unrecessed part of the shank provided with a groove beneath the shoulder, one end of said groove opening into said recess and the other end being closed, the open end of the groove being of a width only sufficiently greater than the thickness of said projection to admit the latter's free entry and the groove diminishing in width toward its closed end until it is at most no wider than the thickness of the projection.

2. In a sign, a face plate of sheet metal containing a substantially circular orifice having a projection extending inward from the margin of the orifice, and a lens having a head and a shank of a diameter substantially smaller than that of the head and not greater than the diameter of the orifice in the face plate, said shank being cut away throughout its height to form a recess of an area not less than that of the projection so as to permit the projection to enter into said recess without distortion, the unrecessed part of the shank provided with a groove opening at one end into said recess and whose base and one of whose side walls substantially coincide respectively with the two circumferentially extending walls of said recess, the other end of said groove being closed, said groove having plain side walls and toward its closed end a width not greater than the thickness of the face plate whereby the projection on the plate will be held within the groove by frictional engagement between the side walls thereof.

1,130,202. GIRDLE. JOSEPH W. SCHLOSS, New York, N. Y., assignor to Castlebone Co., a Corporation of New York. Filed Oct. 7, 1914. Serial No. 865,445. (Cl. 241—8.)



1. A girdle foundation comprising a band of stiff fabric fluted transversely of its length and having an elastic tape secured longitudinally thereto.

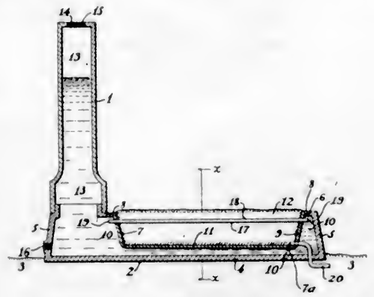
2. A girdle foundation comprising a band of stiff fabric fluted transversely of its length and having an elastic tape secured longitudinally thereto intermediate of its upper and lower edges.

3. A girdle foundation comprising a band of stiff fabric fluted transversely of its length and having an elastic

tape secured longitudinally thereto intermediate of its upper and lower edges, said tape being secured under tension to the fabric.

4. A girdle foundation comprising a band of stiff fabric fluted transversely of its length, an elastic tape applied to the face of the band in a longitudinal direction and zig-zag stitching securing the tape to the band for the purpose set forth.

1,130,203. COMBINED MONUMENT, MOUND, AND FLOWER-BED. FREDERICK SCHREYER, New York, N. Y. Filed June 8, 1914. Serial No. 843,667. (Cl. 47—21.)



1. The combination of a hollow mound-base, a hollow monument superposed on said base and communicating therewith, a pervious receptacle coutained within said base, a perforated pipe passing through the upper portion of said receptacle, and a pipe leading from said receptacle to the outside of said base.

2. The combination of a hollow mound-base, a hollow monument superposed on said base and communicating therewith, a pervious receptacle contained within said base, and a pipe leading from said receptacle to the outside of said base.

3. The combination of a hollow mound-base, a hollow monument superposed on said base and communicating herewith, and a pervious receptacle contained within said base.

4. The combination of hollow monument-base having a reservoir portion adaptable to contain a head of water, a pervious receptacle contained within said base adaptable to hold earth, a perforated pipe passing through the upper portion of said receptacle, and a pipe leading from said inner receptacle to the outside of said base.

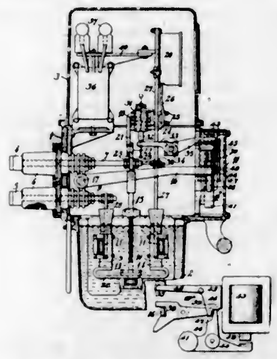
5 In a flower bed, the combination of an outer receptacle having a reservoir portion adaptable to hold a head of water, a pervious receptacle contained within said outer receptacle adaptable to hold earth, a perforated pipe passing through the upper portion of said inner receptacle, and a pipe leading from said inner receptacle to the outside of said outer receptacle.

1,130,204. ELECTRIC SWITCH. HJALMAR R. SCHULTZ and FREDERICK BRERETON HOLT, Manchester, England, assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 31, 1910. Serial No. 590,097. (Cl. 175—269.)

1. Electric switching apparatus for high-tension circuits comprising an overload tripping coil having an electrical connection to one of the high-tension circuit leads and supported thereby, an ammeter mainly supported by said high tension lead by one of its conducting leads from which it is insulated, and a casing for said apparatus.

2. In a switch for high-potential circuits, a main casing having terminal rods mounted in one of its walls, an overload magnet supported upon one of said rods and electrically connected thereto by a single means, a measuring instrument mainly supported upon one of said terminal rods and electrically connected to the other rod by the supporting connection and the separable switch members.

3. In a switch for high-potential circuits, a main casing having terminal rods at one side and an auxiliary casing at the opposite side, stationary and movable contact terminals, an overload magnet supported by one of said terminal rods, locking and releasing mechanism for said movable contact terminals located in said auxiliary casing, and an operating lever for said releasing mechanism that projects into said auxiliary casing and is actuated by said overload magnet.

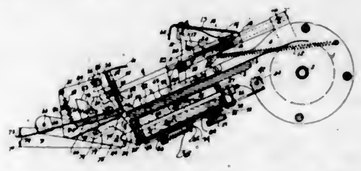


4. In a switch for high-potential circuits, a main casing, an auxiliary casing, contact terminals and an overload magnet in said main casing, and a no-voltage magnet and locking and releasing mechanism in said auxiliary casing.

5. In a switch for electrical circuits, the combination with a main casing having terminal rods mounted in one of its walls, of an overload magnet supported by one of said rods, a supplemental casing, a no-voltage magnet and locking and releasing devices in said supplemental casing, and a tripping-lever interposed between said releasing devices and said overload magnet.

[Claims 6 to 8 not printed in the Gazette.]

1,130,205. STAMP-AFFIXING INSTRUMENT. ADOLPH JOSEPH SIEDLE and JOHN HENRY REGINALD YARDLEY, London, England. Filed Apr. 9, 1913. Serial No. 760,031. (Cl. 216—24.)



1. A stamp affixing apparatus comprising a frame, means on the frame for carrying a stamp roll, means for cutting a stamp from the roll, a guide for guiding the stamps to the cutting means, a movable carriage supported by the frame, means carried by the carriage for moving the stamps to the cutting means, means for applying fluid to the article to which the stamp is to be affixed, an affixing means and means operated by the carriage for releasing the affixing means for allowing the same to be operated.

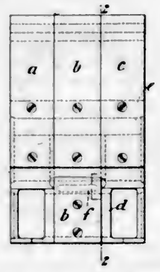
2. A stamp affixing apparatus comprising a frame, a stamp roll supported by the frame, a cutting blade, means for feeding stamps to the blade, a thumb carriage operating on the frame, a cylinder, a piston in the cylinder, and means operated by the thumb carriage for moving the piston in the cylinder, whereby water is forced from the cylinder.

3. A stamp affixing apparatus comprising a frame, a stamp roll supported on the frame, a stamp feeding board, a thumb carriage operating above the feeding board, a knife for severing stamps from the roll, pins carried by the thumb carriage for engaging the stamps and moving the same to the knife, a cylinder, a piston operating in the cylinder, means operated by the movement of the thumb carriage for operating the piston and forcing fluid from the cylinder, and means for affixing stamps.

4. A stamp affixing apparatus comprising a frame, a stamp roll supported by the frame, a stamp feeding board disposed adjacent the stamp roll, means supported under the stamp board for delivering fluid, a lever pivotally mounted on the frame, one end of the lever being in engagement with the fluid feeding apparatus, a thumb carriage adapted to move on the frame, means for delivering stamps from the stamp roll and means for severing the stamps, and means carried by the carriage for engaging the lever for forcing fluid from the fluid container, and means for affixing stamps.

5. A stamp affixing apparatus comprising a frame, a stamp roll supported by the frame, a carriage movable on the frame, a fluid containing cylinder supported under the frame, a piston in the cylinder, a sliding plate under the cylinder, means for connecting the piston and sliding plate, and means operated by the carriage for operating the piston for forcing fluid from the cylinder.

1,130,206. MAGNETO-ELECTRIC MACHINE FOR COMBINED IGNITION AND ILLUMINATION PURPOSES. FREDERICK RICHARD SIMMS, London, England, assignor to The Simms Magneto Company, Bloomfield, N. J., a Corporation of New York. Filed July 14, 1913. Serial No. 778,975. (Cl. 171—252.)



1. In a magneto electric machine, the combination with magnets, of two pairs of poleshoes carried thereby, the adjacent members of each pair being integral with each other, said integral poleshoes being each provided with cutaway portions located substantially between the separate members thereof for securing the partial magnetic insulation of said members from each other.

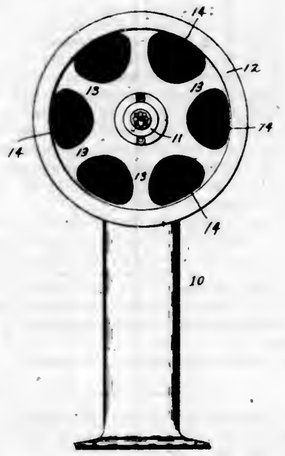
2. In a magneto electric machine, the combination with a plurality of magnets, a pair of poleshoes carried by certain of said magnets, a second pair of poleshoes carried by the other of said magnets and located in a different horizontal plane from the first mentioned poleshoes, the members of each pair of poleshoes adjacent to each other being integral and being provided with cutaway portions disposed horizontally and substantially between the members thereof for securing the partial magnetic insulation of said members from each other.

3. In a magneto electric machine, the combination with magnets, of two pairs of pole shoes for the reception of two independent armatures, the individual members of each pair of pole shoes being each integral with the adjacent individual member of the other pair, said integral pole shoes being provided with horizontally disposed slots in a plane between the individual pole shoes for securing the partial magnetic insulation of the individual pole shoe

4. In a magneto electric machine, the combination with three sets of magnets arranged side by side, a pair of poleshoes carried by the exterior magnets, the central magnet being provided with portions of greater length than the exterior magnets and extending below the ends thereof, and pole pieces carried by said extending portions of the central magnet, said pole pieces being each integral with one of the pole pieces of the other pair, said integral pole pieces being provided with cutaway portions extending horizontally therein, and located in a plane substantially between the upper and lower poleshoes.

5. In a magneto electric machine, the combination with a plurality of magnets, of two pairs of poleshoes adapted to receive between them separate generating armatures, each member of each pair being connected to a corresponding member of the other pair and said pairs of poleshoes being located one above the other, certain of said magnets being detachably connected to the upper poleshoes and one of said magnets having arms extending below the arms of the first mentioned magnets and being detachably connected to the lower pair of poleshoes, said connected poleshoe members being separated horizontally by cutaway portions disposed substantially in a plane between the upper and lower members thereof, whereby said magnets having the extended arms may be detached and raised sufficiently to afford access to the poleshoe members for the purpose of enlarging said cutaway portions without effecting the relation between the poleshoes and their armatures.

1,130,207. GUARD FOR WHEELS. OBERLIN SMITH, Bridgeton, N. J. Filed May 14, 1913. Serial No. 767,617. (Cl. 64—17.)



1. The combination of a machine member or element having an opening through it and made of cast metal, and a guard for the opening that consists of wire cloth, the edge of which is embedded in the portion of the member contiguous to the opening.

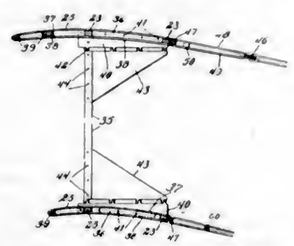
2. A cast metal wheel in combination with a guard embedded at its edges in the wheel, said guard being of wire cloth.

3. A cast metal wheel, comprising a rim and a hub, the wheel having openings between the rim and the hub, in combination with a guard for each of the openings consisting of wire cloth all of whose edges are embedded in the wheel.

1,130,208. FLYING-MACHINE. REXFORD M. SMITH, Washington, D. C., assignor, by mesne assignments, to Connecticut Aircraft Company, New Haven, Conn., a Corporation. Filed Jan. 20, 1912. Serial No. 672,277. (Cl. 244—12.)

1. In a flying machine, a pair of superposed supporting surfaces extending lengthwise at right angles to the line of flight, each of said surfaces having a lifting curvature and the upper surface being of greater dimensions than the lower surface and projecting marginally at all sides be-

yond the latter, the lifting curvature of the upper surface being constantly less than that of the lower surface, the arrangement of said surfaces being such as to bring their centers of pressure in a coinciding line.



2. In a flying machine, a pair of superposed supporting surfaces each curved between its lead and trail edges and each having a rigid and inflexible body portion and a flexible tail portion, the upper supporting surface having a constant or fixed lesser degree of curvature than the lower supporting surface and extending marginally at all points beyond the same.

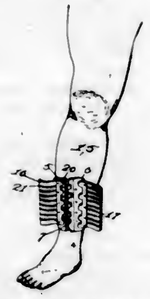
3. In a flying machine, a nacelle provided with receiving sockets in its sides at different elevations to receive the wing bars of the wings of a monoplane surface or the wing bars of the wings of the lower plane of a multiplane surface, and masts at the top and bottom of the nacelle for the extension of stays therefrom to the wings, the upper mast being vertically adjustable to regulate its position for monoplane or multiplane wing bracing.

4. In a flying machine, a nacelle provided with receiving sockets, masts projecting above and below the nacelle, the upper mast being provided with receiving sockets, upper and lower supporting surfaces composed of wings adapted to engage said sockets, and stays for bracing the wings from the respective masts.

5. In a flying machine, the combination of a nacelle, upper and lower supporting surfaces comprising superposed pairs of wings detachably mounted upon the nacelle, struts pivotally connecting the wings of each pair to permit them to fold in parallel relation, and a tail including horizontal fins adapted to fold to a vertical position to permit the collapsed planes to be secured longitudinally at the sides of the nacelle.

[Claims 6 to 28 not printed in the Gazette.]

1,130,209. PROPELLER FOR SWIMMERS. AUGUST SOMMERFELD, St. Louis, Mo. Filed Apr. 20, 1914. Serial No. 833,297. (Cl. 9—21.)



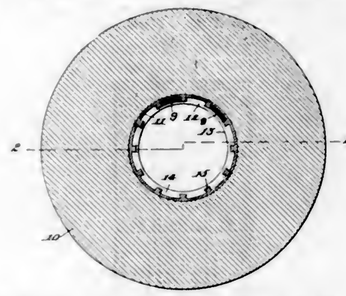
1. A device of the class described comprising a two part hinged body portion, means for attaching the same to the shin of a swimmer; and wings hingedly attached to the parts comprising the body portion, substantially as specified.

2. A device of the class described comprising a two part hinged body portion, straps attached thereto by which said body portion is firmly fastened over the shin of a swimmer, wings hingedly attached to the parts forming the body portion; projecting lugs formed on the wings for limiting the extended movement of the wings, substantially as specified.

3. A device of the class described comprising a body portion, consisting of two curved members, each provided with loops and connected together forming a hinge; means for fastening the members to the limb of a swimmer; a pair of corrugated wings hingedly attached to the outer surface of the member, and means for limiting the extended movement of said wings but permitting said wings to conform with the contour of the fastening member, substantially as specified.

4. A device of the class described comprising a semicircular body portion composed of two parts hingedly connected together, straps connected to the free ends of said parts, whereby the same is supported over the shin; a pair of wings hingedly connected to said parts, each of said wings having projecting lugs extending beyond the hinge for limiting the outward movement of said wings, substantially as specified.

1,130,210. BALANCED ABRASIVE WHEEL. JOHN C. SPENCE, Worcester, Mass., assignor to Norton Company, Worcester, Mass, a Corporation of Massachusetts. Filed Nov. 15, 1913. Serial No. 801,250. (Cl. 51—1.)



1. An abrasive wheel having a balance weight rigidly secured in the central plane thereof, and near the axis of rotatfon of the wheel.

2. A balanced abrasive wheel having a balanced weight within its lateral planes and near its axis of rotation, the central plane of said weight lying substantially in the central plane of the wheel.

3. In an abrasive wheel, a metal center containing a chamber or chambers located in the central plane of the wheel, and a weight or weights in said chamber or chambers.

4. In an abrasive wheel, a metal center or bushing provided with one or more chambers in the central plane of the wheel, and a weight or weights rigidly secured therein and adjusted to balance said wheel.

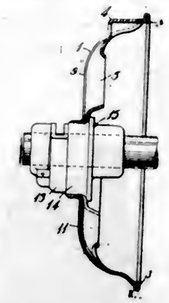
5. In an abrasive wheel, a metal center or bushing provided with one or more chambers, a weight or weights immovably secured therein and adjusted to balance said wheel, said weight or weights located between the lateral planes of the wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,130,211. DYNAMO-ELECTRIC MACHINE. CHARLES W. STARKER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 1, 1912. Serial No. 674,799. (Cl. 171—252.)

1. An end bracket for dynamo-electric machines comprising a bell-shaped member having an approximately central outwardly projecting cylindrical flange, a plurality of radial integral ribs separated by openings having inwardly projecting walls, and a bearing-housing supported by the cylindrical flange.

2. An end bracket for dynamo-electric machines comprising a bell-shaped member having an approximately central flanged hole and a plurality of radial integral ribs separated by holes having inwardly projecting walls.

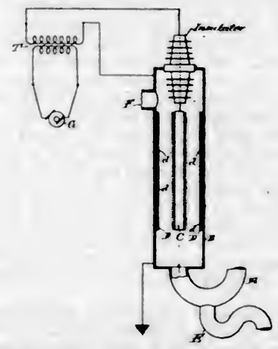


3. An end bracket for dynamo-electric machines comprising a bell-shaped member having an approximately central flanged hole, a plurality of radial ribs formed integral with it and separated by holes having inwardly projecting walls, and a bearing-housing supported in the flanged hole.

4. An end bracket for dynamo-electric machines comprising a punched or stamped sheet metal member having an approximately central flanged hole, a plurality of radial integral ribs and a bearing-housing supported in the flanged hole.

5. An end bracket for dynamo-electric machines comprising a punched or stamped sheet metal member having an approximately central flanged hole and a bearing-housing supported in the flanged hole.

1,130,212. ART OF REMOVING TARRY SUBSTANCES FROM GAS. FRANK W. STEERE, Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of Pennsylvania. Filed Jan. 7, 1914. Serial No. 810,905. (Cl. 75—30.)



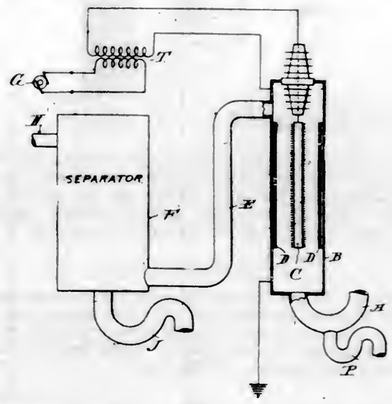
1. The improvement in the art of removing tar and similar particles from gas which consists in passing the gas through an electrical field of alternating polarity between a receiving and a discharging electrode, whereby the particles are caused to be deposited upon the receiving electrode.

2. The improvement in the art of removing tar and similar particles from gas which consists in passing the gas through an electrical field of alternating polarity and subjecting it in its passage to brush discharges of electricity.

3. The improvement in the art of removing tar and similar particles from gas which consists in causing a high difference of potential between opposed electrodes by delivering thereto an alternating electric current and thereby producing brush electric discharges from one of said electrodes and subjecting the gas and the particles contained therein to the action of said discharges while passing between said electrodes.

4. The improvement in the art of removing tar and similar particles from gas which consists in causing the particles to coalesce by passing the gas through an electric field of alternating polarity between a discharging electrode having a pointed surface and a receiving electrode and by brush discharges from said discharging electrode causing the aggregated particles to travel to and deposit on the receiving electrode.

1,130,213. ART OF REMOVING TAR FROM GAS. FRANK W. STEERE, Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of Pennsylvania. Filed Jan. 7, 1914. Serial No. 810,906. (Cl. 75—30.)



1. The improvement in the art of removing tar and similar suspended particles from gas which consists in causing an agglomeration of the particles by moving the gas through an electric field of alternating polarity, removing the gas while holding the agglomerated particles in suspension from such field and afterward separating the particles from the gas.

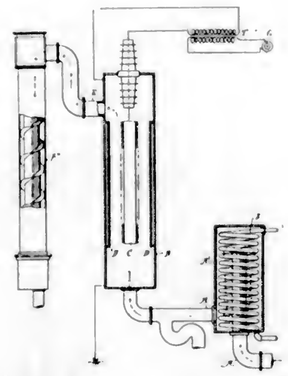
2. The improvement in the art of removing tar and similar suspended particles from gas which consists in causing an agglomeration of the particles by subjecting them to the action of a brush discharge in an electric field of alternating polarity, moving the gas through the field at such speed that the particles are removed from the field with the gas and afterward separating the particles from the gas.

3. The improvement in the art of removing tar and similar suspended particles from gas which consists in subjecting the particles to the action of a brush discharge in an electric field of alternating polarity, moving the gas through the field at such speed that the particles are removed from the field with the gas and afterward separating the particles from the gas.

1,130,214. ART OF REMOVING TAR FROM GAS. FRANK W. STEERE, Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of Pennsylvania. Filed Apr. 24, 1914. Serial No. 834,039. (Cl. 75—30.)

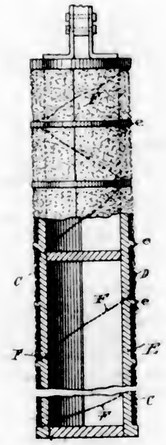
1. The improvement in the art of removing tar from gas which consists in heating the gas sufficiently to liquefy the tar and raise the gas above its water vapor saturation temperature and then passing the gas through an electric field of alternating polarity between opposed electrodes, whereby the tar particles are caused to coalesce.

2. The improvement in the art of removing tar from gas which consists in heating the gas to a temperature above its water vapor saturation temperature and then passing it through an electric field of alternating polarity between opposed electrodes.



3. The improvement in the art of removing tar from gas which consists in first softening the tar particles by heating the gas and then passing the gas through an electric field of alternating polarity between opposed electrodes whereby the tar particles are caused to coalesce.

1,130,215. DISCHARGING-ELECTRODE AND METHOD OF FORMING THE SAME. FRANK W. STEERE, Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y., a Corporation of Penusylvania. Filed June 10, 1914. Serial No. 844,226. (Cl. 75—30.)



1. A discharging electrode having a body of coke provided with discharging points.

2. A discharging electrode of coke having a surface presenting a multiplicity of fine discharging points.

3. A discharging electrode having a perforated metal base, and a body of coke secured to said base and having a surface presenting discharging points.

4. An electrode comprising a supporting core and a surface of coke secured to said core and having superficial discharging points.

5. An electrode comprising a supporting core provided with circumferential ribs and a surface of coke secured to the core between said ribs and having superficial discharging points.

[Claim 6 not printed in the Gazette.]

1,130,216. KNIT UNDERGARMENT. BURT W. THAYER, Minneapolis, Minn., assignor to Charles E. Ovenshire, Minneapolis, Minn. Filed Feb. 12, 1914. Serial No. 818,230. (Cl. 2—98.)

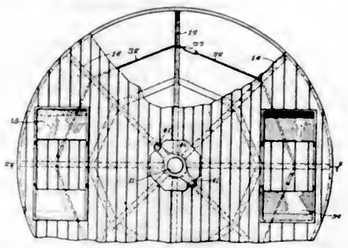


1. An undergarment comprising a body portion formed of an elastic knit fabric having neck and arm openings and shoulder straps between them, and inelastic tapes secured to the front and back of the garment substantially throughout their length and to said shoulder straps, the rear portions of said tapes being crossed and extending from said straps diagonally across the back of the garment to the sides thereof, the front ends of said tapes being also extended to said side portions of the garment and secured thereto and forming a junction with the crossed rear portions at the sides beneath the arm openings and having means for attaching lower garments thereto, downward pull on said tapes operating to draw said shoulder straps inwardly and bracing the shoulders of the wearer of the garment.

2. An undergarment comprising a body portion formed of an elastic knit fabric, having neck and arm openings and shoulder straps between them, and inelastic tapes secured to the front and back of the garment and to said shoulder straps, the rear portions of said tapes being crossed and extending from said straps diagonally across the back of the garment to the sides thereof and secured thereto the front ends of said tapes being also extended to said side portions of the garment and secured thereto and forming a junction with the crossed rear portions at the sides beneath the arm openings and having means for attaching lower garments thereto, downward pull on said straps operating to draw said shoulder straps inwardly and bracing the shoulders of the wearer of the garment, and additional inelastic strips extending from the shoulder straps in substantially vertical directions on the front and rear to the lower part of the garment, substantially as described.

3. An undergarment comprising a body portion formed of an elastic knit fabric, having neck and arm openings and shoulder straps between them, and inelastic tapes secured to the front and back of the garment and to said shoulder straps, the rear portions of said tapes being crossed and extending from said straps diagonally across the back of the garment to the sides thereof and secured thereto, the front ends of said tapes being also extended to said side portions of the garment and secured thereto and forming a junction with the crossed rear portions at the sides beneath the arm openings and having means for attaching lower garments thereto, downward pull on said straps operating to draw said shoulder straps inwardly and bracing the shoulders of the wearer of the garment, and an additional inelastic strip extending from the crossing point of said tapes in a substantially vertical direction to the lower part of the garment, substantially as described.

1,130,217. MERRY-GO-ROUND. WILLIAM S. TOTHILL, Chicago, Ill. Filed Mar. 5, 1914. Serial No. 822,602. (Cl. 46—27.)



1. The combination of a standard, a frame revolubly mounted on said standard, a supporting plate having a rigid connection with said standard below said frame, anti-friction devices interposed between said plate and said frame, a collar fixedly secured to said standard and held in non-adjustable position above said frame, anti-friction devices interposed between said collar and said frame, and adjustable means for taking up any play of the anti-friction devices and said frame between said supporting plate and said collar.

2. The combination of a standard, a frame revolubly mounted on said standard, a supporting plate having a rigid connection with said standard below said frame, anti-friction devices interposed between said plate and said frame, a collar fixedly secured to said standard and held in permanent fixed position above said frame, anti-friction devices interposed between said collar and said frame, and adjustable means carried by the collar for taking up any play of the anti-friction devices and said frame between said supporting plate and said collar.

3. The combination of a standard, a frame revolubly mounted on said standard, a supporting plate having a rigid connection with said standard below said frame, anti-friction devices interposed between said plate and said frame, a collar fixedly secured to said standard above said frame, a pressure-plate loosely mounted on said standard below said collar, anti-friction devices interposed between said pressure-plate and said frame, and set-screws adapted to space said pressure-plate away from said collar for taking up any play of the anti-friction devices and said frame between said supporting plate and said collar.

4. The combination of a standard, a frame revolubly mounted on said standard, a supporting plate having a rigid connection with said standard below said frame, anti-friction devices interposed between said plate and said frame,—a cap comprising a collar fixedly secured to said standard above said frame, a pressure-plate adjustably secured to said collar, and set-screws carried by said collar adapted to space said pressure-plate therefrom,—and anti-friction devices interposed between said pressure-plate and said frame.

5. In a merry-go-round, the combination of a base, a standard fixedly secured to said base and rising therefrom, a platform revolubly mounted on said standard, anti-friction devices interposed between said base and said platform, a collar above said standard above said platform, a pin extending through said collar and through said standard for holding the collar non-adjustably in position, anti-friction devices interposed between said collar and said platform, and adjustable means for taking up any play of the anti-friction devices and said platform between said base and said collar.

[Claims 6 to 12 not printed in the Gazette.]

1,130,218. SOLDERING-IRON. SAMUEL TROOD, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 29, 1913. Serial No. 781,737. (Cl. 219—28.)

1. A heating apparatus comprising a working member, a removable electric heater coöperating therewith, a handle member, and expansible means for associating said working member and said handle member.



2. A soldering-iron comprising a recessed working member, an electric heater removably disposed therein, a handle member, and adjustably expansible means for associating said working member and said handle member.

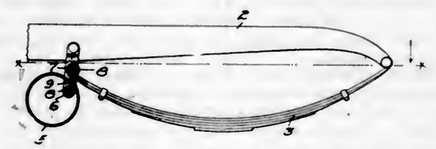
3. A soldering-iron comprising a conically-recessed working member, a conical electric heater removably disposed therein, a handle, and an adjustably expansible member for engaging said working member and said handle.

4. A soldering-iron comprising a conically-recessed tip provided with a plurality of exteriorly-disposed lugs, a conical electric heater removably disposed in said tip, a handle, a split member disposed intermediate said tip and said handle and adjustable means for causing said split member to expansibly engage them.

5. A soldering-iron comprising a conically-recessed tip having an interior annular groove and provided with a plurality of exteriorly-disposed lugs, a conical electric heater removably disposed in said tip, a hollow handle having an interior annular groove, a split perforated tube disposed intermediate said tip and said handle and having exteriorly-disposed end flanges, an adjustable screw for engaging the several parts of said split tube and forcing the end flanges thereof into expansible engagement with the said internal grooves, and a plurality of supply conductors for said heater severally extending through said handle and said perforated tube.

[Claims 6 to 11 not printed in the Gazette.]

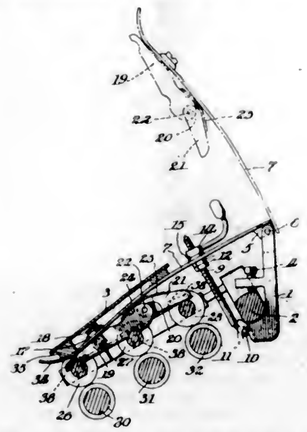
1,130,219. FLEXIBLE SPRING-COUPLING. CHRISTIAN ULVEN, St. Paul, Minn., assignor to Minneapolis Iron Store Company, Minneapolis, Minn., a Corporation. Filed Sept. 14, 1914. Serial No. 861,488. (Cl. 21—50.)



The combination, with a section of vehicle spring, of a flexible coupling, circular in form and composed of a single helical convolution having its ends lapping by one another, the outer end of the convolution being pivotally connected with said spring section, straps pivotally connected at one end with the inner end of said convolution and extending upwardly on each side of said outer end, and a member connected with the opposite end of said spring section and arranged above the same and pivotally connected with the upper ends of said straps and through which member and said straps the load is transmitted to said

coupling, the inner end of said coupling being disposed near the top thereof adjacent to the outer end for allowing a maximum of uniform flexing and an equal distribution of the strain.

1,130,220. SPRING-SADDLE FOR FEED-ROLLS. EDWARD J. VALES, Augusta, Ga. Filed July 17, 1914. Serial No. 851,534. (Cl. 118—22.)



1. A device of the class described including in combination, a roll stand carrying feed rolls, a clamp adapted to be mounted upon the rack rail of the roll stand, a long leaf spring hinged to said clamp, a pair of fingers formed on said clamp, an adjusting bolt passing through a slot in said leaf spring, a T-head on said bolt in engagement with the said fingers, a pair of lock nuts below said spring and adjustable to act as a stop, a crank nut above said spring capable of operation to determine the amount of pressure said spring is to work under, and a saddle carried by the free end of said leaf spring, said saddle bearing upon certain of said feed rolls.

2. In a device of the class described in combination, a clamp adapted to engage the back rail of a roll stand carrying feed rolls, a long leaf spring supported at one end by said clamp, a saddle mounted on the other end of the leaf spring, said saddle comprising a front portion and a rear portion hinged to the front portion, a short spring carried by the front portion and bearing against the rear portion, said saddle bearing on certain of the feed rolls, and means to regulate the pressure of the long leaf spring against the saddle.

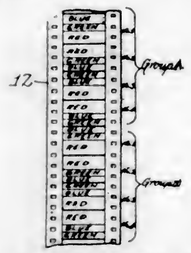
3. A device of the class described including in combination, a roll stand provided with under feed rolls and upper feed rolls resting upon the lower feed rolls, a long leaf spring extending over the upper feed rolls, a support for one end of said spring, a saddle carried by the other end of said spring and resting upon said upper feed rolls, said saddle comprising two portions hinged together, and adjustable means capable of being operated to regulate the pressure exerted by said saddle upon the upper feed rolls.

4. In a device of the character described in combination, a roll stand, a support at the rear of said roll stand, feed rolls operatively mounted in said roll stand, said feed rolls including upper and lower rolls, a saddle coöperating with said upper feed rolls, a member carried at one end by said support at the rear of the lower stand and coöperating at the other end with said saddle, and adjustable means intermediate said support and said saddle for adjusting the pressure exerted on said saddle by said member.

5. In a device of the character specified in combination, a support, a leaf spring hinged to the support, a saddle adapted to rest upon the top feed rolls of a roll frame, and adjusting means connected to said leaf spring and capable of operation to exert pressure thereon to cause the leaf spring to exert a yielding pressure upon the saddle on the top feed rolls.

[Claims 6 to 8 not printed in the Gazette.]

1,130,221. ART OF TAKING AND PROJECTING MOTION-PICTURES IN COLORS. LEWIS C. VAN RIPER, New York, N. Y. Filed Apr. 8, 1912. Serial No. 689,264. (Cl. 88—16.4.)



1. The method of producing motion pictures in colors, which consists in projecting a single series of photographs of the subject a single series of differently colored images in which the color or colors having the lower persistency value occur in any given portion of the projection more frequently than the color or colors having higher persistency value.

2. The method of producing motion pictures in colors, which consists in projecting from a single series of photographs of the subject a single series of images colored red, green and blue, in which series the red occurs, in any given portion of the projection, more frequently than the blue or green.

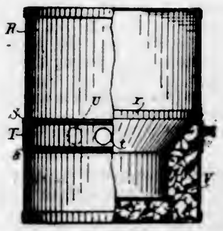
3. The method of producing motion pictures in colors, which consists in projecting a series of images in which each image has differently colored areas arranged so that in any given portion of the projection a color having relatively low persistency value appears more frequently than a color or colors having higher persistency values.

4. The method of producing motion pictures in colors, which consists in projecting a series of images in which each image has differently colored areas arranged so that in any given portion of the projection a color having relatively low persistency value appears more frequently than a color or colors having higher persistency values, the colors being so arranged that when a certain number of images have been projected each color has been produced in each portion of the projection.

5. The method of producing motion pictures in colors, which consists in projecting from a single series of photographs of the subject a single series of colored images containing red and another color or colors, in which series the red occurs, in any given portion of the projection, more frequently than the other color or colors.

[Claims 6 to 11 not printed in the Gazette.]

1,130,222. FOOD CONTAINER AND HEATER. JOSEPH WACHTELSCHNEIDER, New York, N. Y. Filed Mar. 14, 1914. Serial No. 824,741. (Cl. 126—263.)



1. A food container and heater, comprising a food-receiving compartment, a compartment provided with a charge of unslaked lime and having a wall constructed with a weakened portion, and a member movably mounted and normally arranged to cover the weakened portion of the said wall and movable to uncover the said weakened portion.

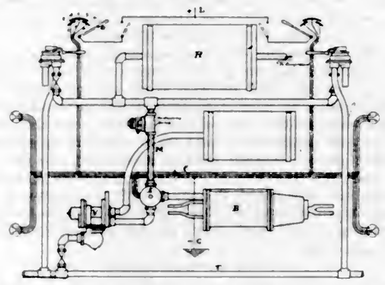
2. A food container and heater, comprising a food-receiving compartment, a compartment provided with a charge of unslaked lime and having a wall constructed with a weakened portion, a movably mounted band normally arranged to cover the weakened portion of the said wall and movable to uncover the said weakened portion, and means for retaining and guiding the band.

1,130,223. ARTIFICIAL STONE. JESSE W. WAGNER, Kansas City, Kans. Filed June 14, 1913. Serial No. 773,731. (Cl. 106—36.)

1. A new composition of matter for the purpose described, comprising asbestos fiber fifteen pounds, ground asbestos two hundred and thirty-five pounds, grease sixteen pounds, mussel shells six pounds, hemp fiber one-half pound, Portland cement one hundred and fifty pounds, glue one pound.

2. A composition of matter, consisting of cement one hundred and fifty pounds, a fiber binder fifteen and one-half pounds, grease sixteen pounds, mussel shells six pounds, glue one pound, and ground asbestos two hundred and thirty-five pounds.

1,130,224. AIR-BRAKE SYSTEM. JOHN EUGENE WALLACE, New York, N. Y. Filed Dec. 1, 1904. Serial No. 235,005. (Cl. 188—4.)



1. A system of valves rotated by magnetic torque into various positions for the purpose of controlling the admission and discharge of fluid pressure to and from the brake cylinders on a train of one or more cars, and put in parallel operative relation by the use of three or more train wires in which electric current shall flow in a given direction.

2. A system of valves using resultant magnetic forces for the purpose of controlling the admission and discharge of fluid pressure to and from the brake cylinders of a train of one or more cars, and put in parallel operative relation by the use of three or more train wires in which electric current shall flow in a given direction.

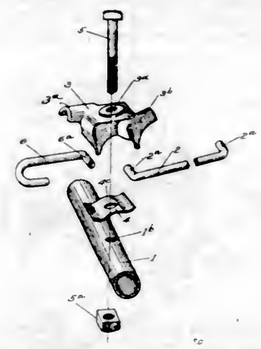
3. An air-brake cylinder, a valve controlling the admission and discharge of fluid pressure to and from said cylinder, and a plurality of electro-magnets actuating said valve to release, lap and brake positions and to positions intermediate of said release, lap and brake positions.

4. An air-brake cylinder, a valve controlling the admission and discharge of fluid pressure to and from said cylinder, and electric means for moving said valve part way to give partial release of said cylinder to the atmosphere.

5. An air-brake cylinder, a rotatable single element valve controlling the admission and discharge of fluid-pressure to and from said cylinder, and electric means for rotating said valve to and holding the same at lap-position.

[Claims 6 to 17 not printed in the Gazette.]

1,130,225. FLEXIBLE HARROW. FREDERICK C. WARNE, Mansfield, Ohio, assignor to The Roderick Lean Manufacturing Company, Mansfield, Ohio, a Corporation of New Jersey. Filed Oct. 1, 1914. Serial No. 864,378. (Cl. 55—76.)



1. A flexible harrow, comprising transversely extending tooth carrying bars, link connecting bearings detachably mounted thereon, connecting links detachably mounted in said bearings and having a limited movement therein, and link retaining plates beneath said bearings and links.

2. A flexible harrow, comprising tooth carrying bars, link connecting bearing members mounted thereon, connecting links having bearing ends mounted beneath said bearing members, link retaining plates mounted beneath the bearing ends of said connecting links, and attaching bolts extending through said tooth carrying bars and said bearing members and retaining plates.

3. A flexible harrow, comprising transversely extending tooth carrying bars, link retaining auxiliary clips mounted thereon, link members mounted on said clips, and link connecting bearing clips mounted above said link retaining auxiliary clips and provided with oppositely extending stop members adapted to receive and coöperate with said link members.

4. A flexible harrow, comprising tooth carrying bars, a plurality of links having their ends bent at right angles thereto, link connecting and retaining members receiving the angular ends of said links and having a limited movement with respect to the latter, and attaching elements for securing said parts in assembled position upon said tooth carrying bars.

5. A flexible harrow, comprising tooth carrying bars, link retaining clips mounted above the same, link members provided with right angled bearing portions resting on said link retaining clips, link connecting clips mounted above said link retaining clips and provided with oppositely arranged stop and bearing portions receiving said links and link bearing portions, respectively, and attaching elements securing said parts in assembled position.

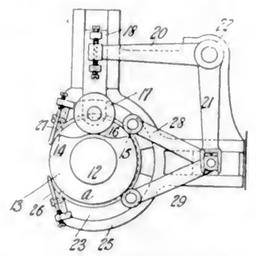
[Claims 6 to 8 not printed in the Gazette.]

1,130,226. THREAD-FORMING MECHANISM. GEORGE T. WARWICK, Springfield, Mass., assignor to International Machine and Screw Company, Springfield, Mass., a Corporation of Maine. Filed Mar. 13, 1912. Serial No. 683,469. (Cl. 80—6.)

1. A thread-rolling machine having a pair of coacting thread forming rolls having means on the periphery to roll a thread on a blank placed between the rolls, a pair of arms movable to and from the coacting adjacent portions of the rolls to support the blank in roll-engaging position, and means for reciprocating said arms from one of said rolls in timed relation.

2. A thread-rolling machine having a pair of coacting thread forming rolls having means on the periphery to roll a thread on a blank placed between the rolls, a pair of arms movable to and from the coacting adjacent portions

of the rolls to support the blank in roll-engaging position, a cam carried by one of the rolls, a slide that is spring pressed against said cam so as to be reciprocated thereby, and means connecting the slide and said arms, whereby the cam will advance the arms to engage a blank between the rolls and hold the blank in such position during a portion of the rotation of the rolls, and will also cause recession of the arms and subsequent return to holding position.



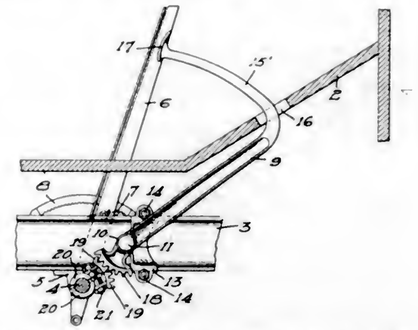
3. A thread-rolling machine having a pair of coacting thread forming rolls that have means on the periphery to roll a thread on a blank placed between the rolls, a pair of arms movable to and from the coacting adjacent portions of the rolls, to support the blank in roll engaging position, a cam carried by one of the rolls, a slide carrying a roller and guided to reciprocate, a spring on the slide for retaining the roller in engagement with the cam, a bent lever having one arm connected with said slide, and a pair of links connected to the other arm of the lever, the links being connected respectively with said arms whereby the arms are moved to and from the blank as the slide is reciprocated by said cam.

4. A thread rolling machine having a pair of coacting thread forming rolls that have means on the periphery to roll a thread on a blank placed between the rolls, a frame member having a channel concentric with one of the rolls, a pair of curved blocks slidable in said channel, an arm carried by each block that is adapted to be brought to engage the blank in its position for engagement by the rolls, a two armed lever pivoted on the frame, a pair of links connecting said lever with said blocks respectively, a slide guided for movement in the frame and connected with the other arm of said lever, a roller on the slide, a cam adjacent one of the rolls and engaged by said roller, a spring on the slide for retaining the roller in engagement with the cam whereby the roller and slide are reciprocated to swing said lever and links to move the arms to and from the blank engaging position, and to retain the arms in such position during operation on the blank by a portion of the rolls.

1,130,227. CONTROL MECHANISM. WILLIAM L. WATSON, McKenzie, N. D. Filed Jan. 30, 1914. Serial No. 815,369. (Cl. 21—90.)

1. The combination, with a channel bar side rail, of a plate seated in said channel bar between the flanges of said rail, bolts having heads engaging the inner wall of said rail for locking said plate thereon, a lever having a hub pivotally supported on said plate and provided with an upwardly projecting part terminating in a pedal, a control shaft, an operating lever mounted thereon, and operative connections between said first named lever and said shaft for throwing said shaft lever from its forward to its backward position when said first named lever is depressed.

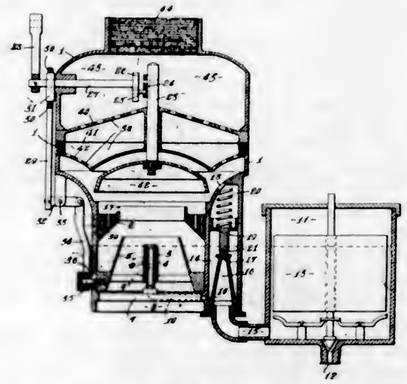
2. The combination, with an automobile frame, of a foot board mounted thereon, a shaft journaled in said frame beneath said board, a control lever mounted on said shaft and projecting upwardly through said board, a toothed rack carried by said shaft, a foot operated lever having one arm journaled in said frame beneath said foot board and provided with a toothed rack meshing with said first named rack, the other arm of said foot operated lever projecting upwardly through said foot board, the depression of said foot operated lever rocking said control lever shaft and lever, said toothed racks having a relative rotary adjustment, for the purpose specified.



3. The combination, with an automobile frame, of a foot board mounted thereon, a shaft journaled in said frame beneath said foot board, a control lever mounted on said shaft and projecting upwardly through said foot board, jaws clamped on said shaft and having a rotary adjustment thereon and provided with a toothed rack, an L-shaped lever having one arm journaled in said frame and provided with a toothed rack adjacent to its bearing meshing with a said first named rack, the other arm of said L-shaped lever projecting upwardly through said foot-board, the adjustment of said jaws regulating the engagement of the teeth of said racks, the depression of said L-shaped lever rocking said control lever shaft and lever.

4. The combination, with an automobile frame, of a foot board mounted thereon, a shaft journaled in said frame, a control lever mounted on said shaft and projecting upwardly therefrom, jaws clamped on said shaft and having a rotary adjustment thereon and provided with a toothed rack, a lever journaled in said frame and having one arm provided with a toothed rack to mesh with the rack of said jaws, the other arm of said lever projecting upwardly through said foot board, the adjustment of said jaws regulating the adjustment of the teeth of said racks and the depression of said rack lever rocking said control lever shaft and lever.

1,130,228. VAPORIZER FOR INTERNAL-COMBUSTION ENGINES. HERMAN E. WHITING, Palmyra, N. Y., assignor to Garlock Auto Specialty Company, Palmyra, N. Y., a Corporation of New York. Filed May 23, 1910. Serial No. 562,840. (Cl. 48—154.1.)



1. In a vaporizer, the combination with an extensible fuel discharging nozzle, of a choke chamber about the nozzle adjustable to correspond to the length of the fuel discharge nozzle.

2. In a vaporizer, the combination with a fuel discharge nozzle having an extensible portion provided with an atomizing opening, of a choke chamber surrounding the nozzle and connected to the extensible portion to be adjusted therewith.

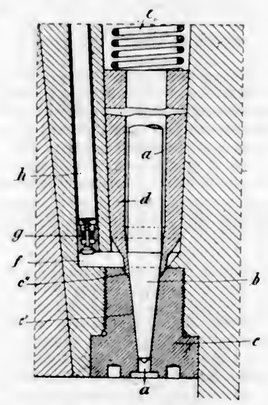
3. In a vaporizer for internal combustion engines, a carbureting chamber, an atomizing nozzle for the liquid fuel extending into the carbureting chamber and including two members, one being extensible axially beyond the other for varying the height of the nozzle, a choke chamber around the nozzle and movable with the extensible member thereof, and means for moving the extensible member and the choke chamber, substantially as and for the purpose specified.

4. In a vaporizer, the combination with a fuel discharging nozzle arranged to discharge directly upward and a carbureting chamber into which the nozzle delivers, of a contracted wall in said carbureting chamber at a point above the discharge of the nozzle and in concentric relation to said discharge opening, and a bell-shaped baffle arranged above said contracted wall so that the nozzle discharges directly at the center of the baffle, the baffle having a greater diameter than the contracted wall to cause the mixture to return upon itself.

5. In a vaporizer for internal combustion engines, a carbureting chamber, an atomizing nozzle for liquid fuel extending into the carbureting chamber and including two members, one being extensible axially beyond the other for varying the height of the nozzle, a throttle valve for controlling the flow through the carbureting chamber, and means for moving the extensible member of the nozzle and for operating the valve synchronously, substantially as and for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]

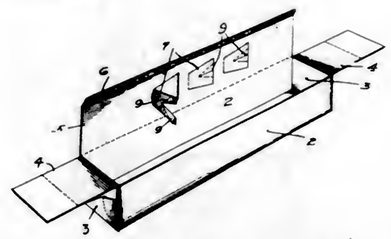
1,130,229. FUEL-SPRAYER. SVEN GUSTAF WIGELIUS, Stockholm, Sweden, assignor to Aktiebolaget Wigelius Motorer, Stockholm, Sweden. Filed Nov. 25, 1911. Serial No. 662,280. (Cl. 123—131.)



1. The combination in a fuel sprayer for internal combustion engines, of a fuel chamber, a fuel valve communicating with said fuel chamber and adapted to be actuated by the fuel supply, an air channel, a valve disposed in said air channel, and communicating with said fuel chamber, and a spindle valve actuated by the engine and adapted to establish communication between the chamber and the combustion chamber of the engine through the valve in said air channel.

2. The combination in a fuel sprayer for internal combustion engines, of a fuel chamber, a fuel valve communicating with said fuel chamber, spring means normally holding said fuel valve in the closed position, said valve being adapted to be actuated by the incoming fuel, a channel having compressed air supplied thereto, a pressure actuated valve disposed in said air channel and communicating with said fuel chamber, and a reciprocating spindle valve actuated by the engine, and adapted to establish communication between the chamber and the combustion chamber of the engine, through the pressure operated valve in said air channel.

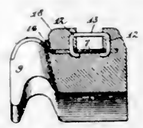
1,130,230. SHIPPING-BOX. WILLIAM C. WILLETS, Minneapolis, Minn. Filed Aug. 3, 1911. Serial No. 642,171. (Cl. 229—29.)



1. A shipping package adapted for canned goods or the like having flaps of flexible material depending between the walls of the cans in the same row, said flaps having lips or tongues formed by making a short bend in the edges of the flaps, said lips normally projecting outwardly from said flaps when folded but adapted to yield under pressure of the cans and resist contact of the abutting cans with one another.

2. A shipping package adapted to contain articles, such as canned goods, a sheet of flexible material therein having a depending longitudinal crimp adapted to fit between the abutting ends of the opposite cans of parallel rows, said sheet also having depending flaps between the adjacent cans of the same row, said flaps having bent edges presenting yielding lips or tongues to the sidewise pressure of the cans.

1,130,231. BRAKE-SHOE. CHARLES N. WINTER, Mahwah, N. J., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed Nov. 18, 1914. Serial No. 872,685. (Cl. 188—82.)



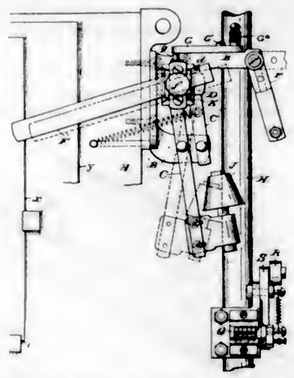
1. A brake shoe having at or adjacent to the back of the body a reinforcing plate the ends of which, at one side thereof, are flanged to extend over similar flanges projecting from said body, and a rib formed integral with said back and connecting said flanges, and extending above said body.

2. A reinforcing back for a brake shoe consisting of a plate formed with a central opening and with a recess for the attachment of a key lug, one edge of said plate being flanged near its ends, and a continuous wall connecting said flanges and bent upwardly at substantially right angles to said plate.

1,130,232. PLATEN PRINTING-PRESS. CHARLES WOLSTENHOLME, Blackpool, England, assignor of two-thirds to John Scholes and Richard Joseph Barton, Lancaster, England. Filed July 16, 1913. Serial No. 779,262. (Cl. 101—115.)

1. In a platen printing press, the combination of a platen, a lifting finger for the printed sheet mounted on said platen, means for lifting the finger during the open-

ing stroke of the platen, means for withdrawing the finger from opposite the area of the platen occupied by a sheet, and means for returning the finger to and closely upon the area occupied by a sheet, substantially as set forth.



2. In a platen printing press the combination of a platen, a lifting finger for the printed sheet, means for lifting the finger during the opening stroke of the platen, means for laterally withdrawing the finger and bringing it down on the platen clear of the sheet area during the impression stroke, and means for laterally moving the end of the finger along the platen to and upon the sheet area during the opening stroke of the platen, substantially as set forth.

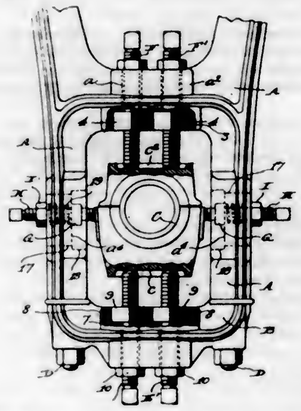
3. In a platen printing press the combination of a platen, a lifting finger for the printed sheet which lifting finger after lifting a printed sheet is withdrawn from opposite the sheet area until another impression stroke has been made when it is again returned to and upon the sheet area to again lift, and means for operating the said finger such means comprising parallel swing arms attached to the platen, means for reciprocating said parallel swing arms, a tilting finger carrying block mounted on the parallel swing arms, and means for tilting the said block as it is reciprocated by the parallel swing arms, substantially as set forth.

4. In a platen printing press the combination of a platen, a lifting finger for the printed sheet which lifting finger after lifting a printed sheet is withdrawn from opposite the sheet area until another impression stroke has been made when it is again returned to and upon the sheet area to again lift, and means for operating the said finger, comprising a weighted lever hinged to the platen so as to remain vertical, parallel swing arms attached to the platen and reciprocated by said weighted lever, a tilting finger carrying block mounted on the swing parallel arms, and means for tilting the said block as it is reciprocated by the said weighted lever, substantially as set forth.

1,130,233. SHAFT-HANGER. CHARLES O. WOOD, Chambersburg, Pa., assignor to T. B. Wood's Sons Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed Jan. 24, 1914. Serial No. 814,093. (Cl. 64—14.)

1. A shaft hanger comprising a frame, a shaft bearing in the frame, rigid means in the hanger frame for engaging and holding the top of the bearing and rigid means in the frame for engaging and holding the bottom of the bearing, one of said means including devices to rotate or tilt the bearing and hold it unsymmetrically with respect to the frame, said means arranged to permit the bearing to rock fore and aft thereon, and side screws for laterally adjusting the bearing with respect to both of said means.

2. A shaft hanger comprising a frame, a shaft bearing, holding means mounted in the frame and engaging the bearing on its top, and supporting means mounted in the frame and engaging its bottom, side screws for engaging and laterally adjusting the bearing in the frame on said means while permitting the rocking of the bearing, one of said means comprising a plurality of screws adjustable to different extents to rotate or tilt the bearing, the axis of said screws adjacent the hanger sides being normally spaced from the line of the center of the load, and said means and screws arranged to permit the bearing to rock fore and aft.



3. A shaft hanger comprising a frame, a shaft bearing, holding means mounted in the frame and engaging the bearing on its top, and supporting means mounted in the frame and engaging its bottom, side screws for laterally adjusting the bearing in the frame on said means, one of said means comprising a plurality of screws adjustable to different extents to rotate or tilt the bearing and arranged substantially in a plane at right angles to the longitudinal axis of the bearing, the axis of the outermost screw of said plurality of screws being normally spaced from the line of the center of the load, said means and screws arranged to permit the bearing to rock fore and aft.

4. A shaft hanger comprising a frame, a shaft bearing, rigid holding means mounted in the frame engaging the top of the bearing and rigid supporting means mounted in the frame engaging the bottom of the bearing, side screws for engaging the sides of the bearing to laterally adjust it on said means, both of said means comprising a plurality of screws adjustable to different extents to rotate or tilt said bearing, the axes of the screws of each of said means adjacent the hanger sides being spaced apart to cause the center of the load to be maintained between them under all conditions of adjustment.

5. A shaft hanger comprising a frame, a shaft bearing, rigid holding means mounted in the frame engaging the top of the bearing and rigid supporting means mounted in the frame engaging the bottom of the bearing to rotate or tilt the bearing, side screws for engaging the sides of the bearing to laterally adjust it on said means, both of said means comprising a plurality of screws arranged in substantially one plane at right angles to the axis of the bearing while permitting the bearing to rock fore and aft, the axes of the outermost screws of each of said means being spaced apart to cause the center of the load to be maintained between them under all conditions of adjustment.

[Claims 6 to 14 not printed in the Gazette.]

1,130,234. COOKING UTENSIL. WLADYSLAW WROBEL, Little Falls, N. Y. Filed Jan. 27, 1914. Serial No. 814,648. (Cl. 53—6.)

A cooking vessel comprising a plate having a flat upper surface, and provided with a flange extending across the width of the rear edge of the plate, partly along one side edge, and throughout the length of the other side edge of the plate to provide cover supports at the rear corners of the plate, a handle projecting rearwardly from the plate flange, and a cover corresponding in dimensions with said

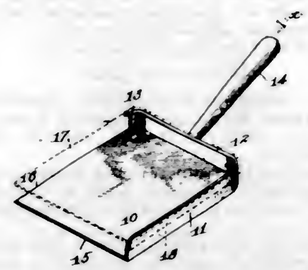
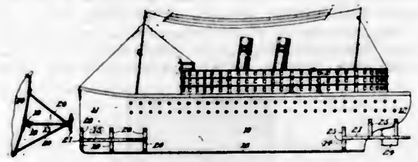


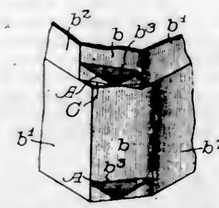
plate and provided with a depending flange extending along the rear edge and one side edge of said cover to engage over the plate flange leaving spaces at the front and one side of the vessel between the plate and cover for the discharge of cooked articles.

1,130,235. SHIP-STABILIZER. NICOLAS ZDUNIEWICZ, Northampton, Mass. Filed Dec. 14, 1914. Serial No. 877,129. (Cl. 114—126.)



A device of the class described, comprising in combination with a ship hull, bow and stern boards having their inner edges conforming to the adjacent sides of the hull, and having opposite outer parallel edges, brackets rigidly secured between the said boards and hull, the said outer edges of said boards being in substantial longitudinal alinement with the intermediately positioned portion of the ship hull, and strips longitudinally engaging the said board edges and secured thereto perpendicularly to the said boards.

1,130,236. BERRY-BOX. JOSEPH F. ADAMS, St. Clair, Mich. Filed June 10, 1912. Serial No. 702,782. (Cl. 229—23.)



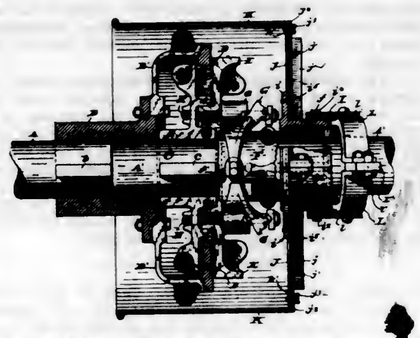
1. In berry boxes, a box comprising a square bottom, and a band folded around said bottom, provided with corner portions having slots for the corners of said bottom, and sections alternating with said portions to form the side walls of the box, each said portion forming an obtuse angle with one section and a more acute angle with another section, whereby the said sections are necessarily of different lengths to enable the said band to fit the said bottom, and another box of similar construction the slotted

corner portions of one box being disposed at an angle above those of the other box, when one box is placed upon the other, as and for the purpose set forth.

2. A box comprising a bottom and a band therefor, said band having corner portions and side sections, each corner portion forming obtuse angles of different degrees with two of said sections, the sections forming the more obtuse angles being shorter than the other two sections.

3. A box comprising a bottom and a band therefor, said band having corner portions and side sections, each said portion forming obtuse angles of different degrees with two of said sections, said bottom being square, and the side sections all conforming to the edges of said bottom.

1,130,237. DRIVING-CLUTCH AND GUARD. EDWIN HUGH AHARA, Mishawaka, Ind., assignor to Dodge Manufacturing Company, Mishawaka, Ind., a Corporation of Indiana. Filed Sept. 29, 1913. Serial No. 792,431. (Cl. 192—1.)



1. In safety devices, a continuously moving member, an intermittently moving member, means for connecting and disconnecting the members as desired, a non-rotative member adapted to effect such control, and a protective shield carried thereby and extending axially and radially to inclose the movable members.

2. In safety devices, continuous and discontinuously moving members, a non-rotative control, and an inclosing shield carried thereby.

3. In safety devices, a suitable casing, slidable and non-rotative projections inclosed therein and means for supporting said casing by means of said projections.

4. In safety devices a cylindrical casing inclosing rotative elements rotative means for controlling the action of said elements, a slidable non-rotative member adapted to actuate said control, and removable segmental supporting sections interposed between the same and said casing.

5. In safety devices, a cylindrical casing, radial supports therefor, a slidable non-rotative member attached to said radial supports, rotative members within the casing, rotative means for throwing them into or out of action as desired, and suitable connections between the latter and the slidable member.

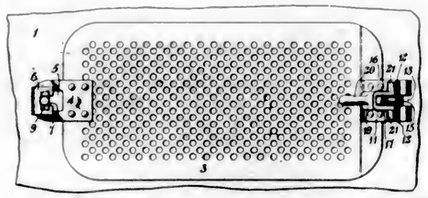
[Claims 6 to 11 not printed in the Gazette.]

1,130,238. COVER-PLATE AND LOCKING DEVICE THEREFOR. JOHN ANDERSON, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 2, 1905. Serial No. 263,493. (Cl. 70—3.)

1. The combination with a casing and a cover-plate having a slot at one end and a superposed lip having a notch, of a member projecting from said casing and having a head to coöperate with said slot and said notch, and a locking means for the other end of the cover-plate.

2. The combination with a casing provided with an opening and with a projection located adjacent to one end thereof, of a cover-plate having an extension provided

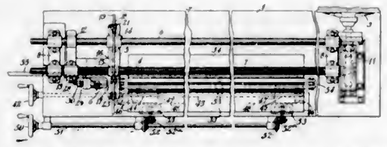
with a slot to receive the free end of said projection and a bent-over end provided with a notch to coöperate with the said free end, and a locking means for the opposite end of said cover-plate.



3. The combination with a frame or casing having an opening and a bolt adjacent to one side of the opening, of a cover plate provided with a resilient extension piece having a slot through which the head of the bolt will pass when the plate is longitudinally displaced from its normal position and having a notch which engages the bolt head when the plate is in its normal position, and locking means for engaging the plate at another side of the opening.

4. The combination with a frame or casing having an opening, and a projection having an enlarged outer end and located adjacent to one side of the opening, of a cover plate provided with a resilient extension piece having a slot through which the enlarged end of said projection will pass when the plate is longitudinally displaced from its normal position and having means for making a locking engagement with said enlarged end when the plate is in its normal position, and locking means for engaging said plate at another side of said opening.

1,130,239. WELDING-MACHINE. CARL B. AUEL, Wilkinsburg, and JAMES A. BURNS, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 22, 1911. Serial No. 628,736. (Cl. 113—59.)



1. In a welding machine, the combination with a heating device and means for moving said heating device in coöperative relationship with the work to be welded, of work-holding means adapted to clamp the work throughout its entire length and means for releasing one end of said work holding means prior to the other.

2. In a welding machine, the combination with a heating device and means for moving said device in coöperative relationship with the work to be welded, of adjustable means for clamping said work rigidly in position and a linkage mechanism for releasing one portion of said clamping means prior to the other.

3. In a welding machine, the combination with a heating device and means for moving said device longitudinally in coöperative relationship with the work to be welded, of a plurality of longitudinally disposed clamping members adapted to secure the work rigidly in position and means for obtaining vertical and horizontal relative adjustment between the clamping members.

4. In a welding machine, the combination with a heating device and means for moving said device in coöperative relationship with the work to be welded, of longitudinally grooved supporting members extending substantially the length of the machine to receive the work, and coöperating clamping members movable in the direction in which the said heating device is applied to the work and adapted to force the work into said grooved members throughout their entire length.

5. In a welding machine, the combination with supporting means, a movable carriage associated therewith, a source of heat associated with said carriage in coöperative relationship with the work to be welded, and means for moving said carriage longitudinally at a uniform rate, of work-holding means for clamping the work throughout its entire length and means for releasing one end of said work-holding means prior to the other end.

[Claims 6 to 17 not printed in the Gazette.]

1,130,240. ASBESTOS-CONTAINING COMPOSITION FOR MAKING SHINGLES. CHARLES B. AYERS, Philadelphia, Pa. Filed July 21, 1913. Serial No. 780,231. (Cl. 106—29.)

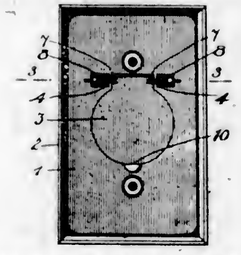
1. An artificial stone adapted for use in sheet form comprising a product of magnesite, chlorid of aluminum, asbestos and soapstone in substantially the proportions described.

2. An artificial stone adapted for use in sheet form, comprising a product of magnesite, asbestos fiber, soapstone, and chlorid of aluminum, in such proportions as to produce a substantially waterproof material.

3. An artificial stone adapted for use in sheet form, comprising a product of magnesite, asbestos fiber, soapstone, silex and chlorid of aluminum, in such proportions as to produce a substantially waterproof material.

4. An artificial stone adapted for use in sheet form, comprising a product of magnesite, asbestos fiber, soapstone, silex, wood pulp and chlorid of aluminum.

1,130,241. HINGE CONSTRUCTION FOR FACE-PLATES AND THE LIKE. WILBERT L. BABCOCK, Waterbury, Conn., assignor to The Waterbury Brass Goods Corporation, Waterbury, Conn., a Corporation of Connecticut. Filed Sept. 30, 1914. Serial No. 864,197. (Cl. 16—104.)

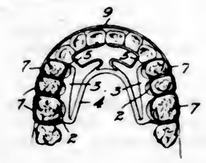


1. In a hinge for a plate having a passage therethrough, and a door conformed to said passage and adapted to swing therein, said hinge comprising two pivot pins arranged in line, a cavity in each edge of said door, the metal of said door at the back of said cavity being displaced to form ridges on the back of the door, grooves in the back of said plate at the opposite edges of the passage in said plate, said pins being located in said grooves, a portion of the metal adjacent to said grooves being displaced and overstanding said pins at the back to hold them in place.

2. In a hinge for a plate having a passage therethrough and a door conformed to said passage and adapted to swing therein, said hinge comprising two pivot pins arranged in line, a cavity in each edge of said door, the metal of said door at the back of said cavity being displaced to form ridges on the back of the door, grooves in the back of said plate and at the opposite edges of the passage in said plate, said pins being located in said grooves, and means for holding said pins against sidewise displacement in said grooves.

1,130,242. APPLIANCE FOR REGULATING TEETH. DEXTER S. BACON, Minneapolis, Minn. Filed June 22, 1914. Serial No. 846,478. (Cl. 32—19.)

1. A device for regulating teeth, comprising in combination a pair of oppositely arranged thin plates, shaped to conform to the inner surfaces of the teeth, but contacting therewith only at their edges, anchor bars in which the rear portions of said plates are embedded, and an arched spring member connecting said anchor bars, substantially as described.

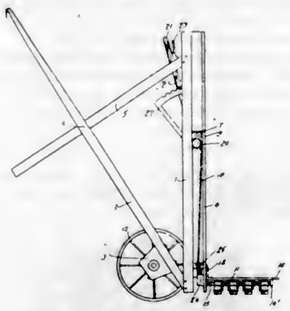


2. A device for regulating teeth, comprising in combination, a pair of oppositely arranged plates having sharp edges shaped to conform to the inner surfaces of the teeth, and contacting therewith only at the bulge of the teeth below the free edge of the gum, anchor bars in which said plates are partially embedded, and a resilient member connecting said anchor bars, substantially as described.

3. A device for regulating teeth, comprising in combination, a pair of oppositely arranged plates having sharp edges shaped to conform to the inner surfaces of the teeth and contacting therewith only below the bulge of the teeth below the free edge of the gum, anchor bars to which said plates are firmly secured, and a resilient member connecting said anchor bars, substantially as described.

4. A device for regulating teeth, comprising in combination, a pair of oppositely arranged downwardly and outwardly inclined plates disposed to bear against oppositely positioned teeth and having sharp edges shaped to conform to the inner surfaces of the teeth and contact therewith only below the bulge of the teeth below the free edge of the gum, and a resilient spreading member connected with said plates to spread the plates apart from each other, substantially as described.

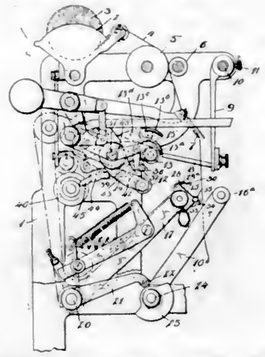
1,130,243. TRUCK FOR HANDLING BRICK AND LIKE MATERIAL. WILLIAM HENRY BARNES, Spokane, Wash. Filed Feb. 24, 1914. Serial No. 820,704. (Cl. 21—116.)



1. In a truck for handling bricks and the like in combination, a frame, members pivoted to said frame and extending substantially parallel thereto, supporting members fixed to said first mentioned members and extending forwardly from said frame, rods pivotally mounted beneath said supporting members, grasping fingers mounted on said rods, and means for turning said first mentioned members whereby said grasping fingers are brought into operative engagement with objects to be transported, said means comprising levers rigid with said shafts and extending parallel to the planes of said first mentioned members, said levers being arranged in pairs, the levers of each pair being arranged in contact at one end and having cam-like surfaces at their points of contact, the opposite ends of said levers from said cam surfaces being connected to flexible members, and means for tensioning said flexible members.

2. In a truck for handling bricks and the like in combination, a frame, members pivoted to said frame and arranged to move in a plane substantially parallel thereto, supporting members fixed to said first mentioned members and extending substantially at right angles thereto, shafts pivotally supported by said members and extending parallel to said supporting members underneath said supporting members, grasping fingers yieldably connected to said shafts, levers fixed to shafts, said levers being arranged in pairs and provided with cam-like surfaces, the cam surfaces of the levers of each pair being in contact and the ends of said levers removed from said cam surface being perforated, flexible members attached to the perforated ends of said levers, a shaft to which said flexible members are connected, an operating lever connected to said shaft, a notched segment, and releasable means for engaging said lever with said segment.

1,130,244. PAPER-TUCKING AND WRAPPING MECHANISM. CHARLES S. BATDORF, Brooklyn, N. Y., assignor to Automatic Coinwrapping Machine Company, New York, N. Y., a Corporation of New York. Filed Apr. 11, 1910. Serial No. 554,641. (Cl. 93—2.)



1. In an article wrapping machine, the combination with a wrapper supply mechanism, of a plurality of wrapping rolls including a roll movable toward and from the other or others, wrapper laying and tucking mechanism comprising a member adapted to lay said wrapper smoothly about said article or articles, and a second member adapted to guide the leading end of said wrapper between said article or articles and the following portion of the wrapper during the wrapping operation, said laying and tucking mechanism being carried by said movable roll and adapted to be operated by the article or articles during the travel of said roll to wrapping position.

2. In an article wrapping machine, the combination with a wrapper supply mechanism of a plurality of wrapping rolls, wrapper laying and tucking mechanism carried axially by one of said rolls and comprising a frame having a member adapted to lay said wrapper smoothly about said article or articles and a second member adapted to guide the leading end of said wrapper between said article or articles and the following portion of the wrapper during the wrapping operation.

3. In an article wrapping machine, the combination with a wrapper supply mechanism of a plurality of wrapping rolls, wrapper laying and tucking mechanism carried by one of said rolls and comprising a frame rotatably mounted thereon, said frame having a member adapted to lay said wrapper smoothly about said article or articles and a second member adapted to follow said first member in said rotative movement and to guide the leading end of said wrapper snugly against said article or articles and between the latter and the following portion of said wrapper during the wrapping operation.

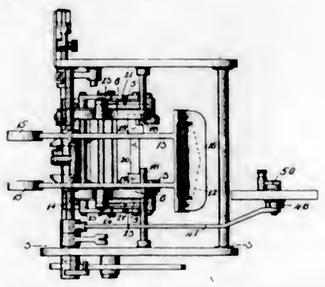
4. In an article wrapping machine, the combination with wrapper supply mechanism, of a plurality of wrap-

ping rolls, means for conveying the articles to said rolls, and means operated by said conveying means and acting by direct contact with the articles in their travel to wrapping position to lay the wrapper snugly about said article or articles and to guide the leading end of said wrapper between said article or articles, and the following portion of said wrapper during the wrapping operations.

5. In an article wrapping machine, the combination with a wrapper supply mechanism of a plurality of wrapping rolls, wrapper laying and tucking means carried axially by one of said rolls comprising a member adapted to lay said wrapper snugly about said article or articles and a second member adapted to guide the leading end of said wrapper between the article or articles and the following portion of said wrapper during the wrapping operation, said laying and tucking mechanism being constructed to be operated by engagement of the article or articles therewith during the travel of said article or articles to operative position between said rolls.

[Claims 6 to 22 not printed in the Gazette.]

1,130,245. COIN-HANDLING MACHINE. CHARLES S. BATDORF, Brooklyn, N. Y., assignor to Automatic Coin-wrapping Machine Company, New York, N. Y., a Corporation of New York. Filed May 11, 1910. Serial No. 560,555. (Cl. 93—2.)



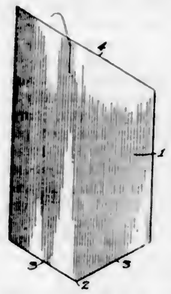
1. In a coin handling machine, the combination with coin wrapping mechanism of a pair of crimper fingers for crimping the ends of the wrapper on the opposite ends of the stack of articles to be wrapped, a wrapper supply mechanism and a severing knife for severing the required length of wrapper from said supply, and means for adjusting said crimper fingers to accommodate stacks of articles of different lengths and to simultaneously center said knife with respect to said fingers.

2. In a coin handling machine, the combination with coin wrapping mechanism, of a pair of crimper fingers for crimping the wrapper upon the ends of the stack of articles to be wrapped, a wrapper supply mechanism, a severing knife therefor, and means for simultaneously adjusting said fingers to accommodate stacks of articles of different lengths and for centering said knife with respect to said fingers in all positions of adjustment, and independent means for adjusting said knife toward and from said wrapping mechanism to sever wrappers of different lengths according to the diameter of the stack to be wrapped.

3. In a coin handling machine, the combination with coin wrapping mechanism, of crimping mechanism for crimping the ends of the wrapper on the opposite ends of a stack of articles to be wrapped, a wrapper supply mechanism and means for severing the required quantity of wrapping material from the wrapper supply and means for coördinately adjusting the crimping mechanism and severing mechanism to accommodate stacks of articles of different lengths and to adjust the severing mechanism in accordance with the adjustment of the crimping mechanism.

4. In a coin handling machine, the combination with a coin wrapping mechanism, of crimping mechanism for crimping the ends of a wrapper on the opposite ends of a stack of articles to be wrapped, a wrapper supply mechanism, and means for severing the required amount of wrapping material from the wrapper supply and means for adjusting the crimping mechanism to accommodate stacks of articles of different lengths and means to adjust the severing mechanism to vary the length of the wrapping material supplied in accordance with the diameter of the stack of articles to be wrapped.

1,130,246. COIN-PACKAGE WRAPPER. CHARLES S. BATDORF, Brooklyn, N. Y., assignor to Automatic Coin-wrapping Machine Company, New York, N. Y., a Corporation of New York. Filed June 7, 1912. Serial No. 702,149. (Cl. 133—10.)



1. A package wrapper having a pointed leading end and a diagonal rear end.

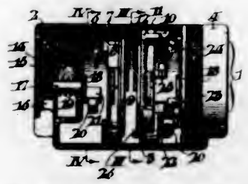
2. A package wrapper having its forward end pointed substantially at the center and having its rear end cut on the diagonal from side to side of the wrapper.

3. A coin package wrapper having its forward end cut upon diagonal lines meeting within the sides of the wrapper strip and having its rear end cut on a diagonal line from side to side.

4. A coin package wrapper having its forward end pointed at the center by means of straight diagonal lines cut from said center point back to the rear end of the wrapper and having its rear end cut on the diagonal from side to side of the wrapper.

5. A coin package wrapper having its forward end cut upon opposite diagonal lines meeting at the longitudinal center of the wrapper and having its rear end cut upon a diagonal line parallel to one of said forward diagonal end edges.

1,130,247. TIMING DEVICE FOR PIGEONS. JAMES H. BELL, Philadelphia, Pa. Filed May 10, 1913. Serial No. 766,663. (Cl. 161—18.)



1. A timing device including in combination a case formed of two sections having a threaded engagement with each other, a timepiece supported by each section, each section of the case having a recess formed therein, and a receiver for a countermark associated with each recess, a device for locking each receiver in closed position and for simultaneously releasing the time piece there for.

2. A timing device including in combination a case formed in two sections having a threaded engagement with each other, the outer ends of each section being closed and formed with a recess, a receiver for each recess, a supporting ring adjacent the open end of each section, a timepiece mounted in each ring, a device located in each section for locking the receiver associated therewith and for simultaneously releasing the timepiece.

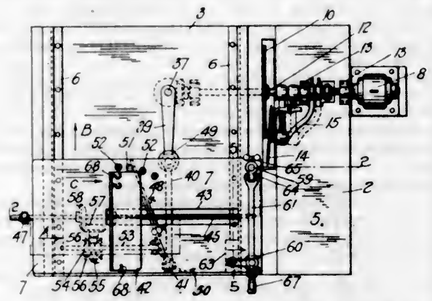
3. A timing device including in combination a case formed in two sections having a threaded engagement with each other, the outer ends of each section being closed and formed with a recess, a receiver for each recess, a supporting ring adjacent the open end of each section, a timepiece mounted in each ring, a device located in each section for locking the receiver, associated therewith and for simultaneously releasing the timepiece, and means operable from a point adjacent the face of the timepiece, for resetting the locking device and releasing the receiver.

4. A timing device including in combination a case formed in two sections having a threaded engagement with each other, the outer ends of each section being closed and formed with a recess, a receiver for each recess, a supporting ring adjacent the open end of each section, a timepiece mounted in each ring, a device located in each section for locking the receiver, associated therewith and for simultaneously releasing the timepiece, said locking device for the receiver being mounted on the supporting ring for the timepiece, whereby said locking device may be removed with the timepiece upon the removal of the supporting ring.

5. A timing device including in combination a case formed in two sections having a threaded engagement with each other, the outer ends of each section being closed and formed with a recess, a receiver for each recess, a supporting ring adjacent the open end of each section, a timepiece mounted in each ring, a device located in each section for locking the receiver, associated therewith, and for simultaneously releasing the timepiece, said locking device for the receiver being mounted on the supporting ring for the timepiece, whereby said locking devices may be removed with the timepiece upon the removal of the supporting ring, and means for preventing the speeding of each timepiece, said means being mounted on the seating ring therefor.

[Claims 6 and 7 not printed in the Gazette.]

1,130,248. MEAT-CUTTING MACHINE. EARL M. BENTON, Greeley, Colo. Filed Mar. 11, 1913. Serial No. 753,500. (Cl. 17—24.)



1. In a meat-cutting machine, a rotary saw, arms mounted to move about the axis of rotation thereof, knives rotatably mounted on said arms, means on said arms to transmit the rotary movement of the saw to the knives, a reciprocating carriage, and means for the simultaneous operation of said saw and said carriage, said knives and said saw being disposed to successively engage a joint of meat carried on said carriage.

2. In a meat-cutting machine, a rotary saw, arms mounted to move about the axis of rotation thereof, knives rotatably mounted on said arms, means on said arms to transmit the rotary movement of the saw to the knives, springs to yieldingly oppose a movement of said arms, a reciprocating carriage, and means for the simultaneous operation of said saw and said carriage, said knives and said saw being disposed to successively engage a joint of meat carried on said carriage.

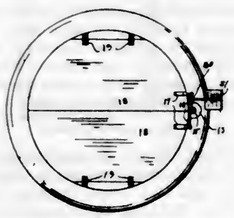
3. In a meat-cutting machine, a reciprocating carriage, a pair of rotary knives and a rotary saw disposed to successively engage a joint of meat carried on said carriage, and an auxiliary cutter adapted to cut a path for the saw through the portion of the meat adjacent the bone of the joint, which is not severed by the knives.

4. In a meat-cutting machine, a reciprocating carriage, a pair of rotary knives and a rotary saw disposed to successively engage a joint of meat carried on said carriage, and an auxiliary cutter comprising a self-adjusting knife disposed to sever meat adjacent the bone of a joint prior to its engagement with the saw.

5. In a meat-cutting machine, a reciprocating carriage, a pair of rotary knives and a rotary saw disposed to successively engage a joint of meat carried on said carriage, and an auxiliary cutter comprising a pivoted knife disposed to sever meat adjacent the bone of a joint prior to its engagement with the saw, and a spring to yieldingly maintain said knife against a movement about its pivot.

[Claims 6 to 11 not printed in the Gazette.]

1,130,249. FLUSHING-CUSPIDOR. HENRY F. BLACK, Sioux City, Iowa. Filed Aug. 10, 1914. Serial No. 855,945. (Cl. 4—40.)



1. In a cuspidor, the combination with a source of water supply and a normally-closed receptacle having an outlet therein, of a valved passage between the source of water supply and the receptacle for flushing the latter, and means controlled by the valve for opening the receptacle coincidentally with the flushing.

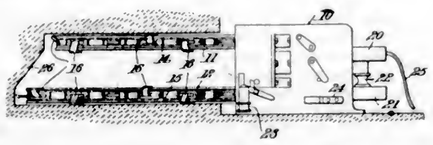
2. In a cuspidor, the combination with a source of water pressure and a receptacle having an outlet therein, of a closure for the receptacle, pressure-operated means for opening said closure and including a cylinder, a piston and a connection between the piston and closure, a normally-closed passage to admit water for flushing the receptacle and controlled by said means, and a valved passage between the source of water pressure and cylinder.

3. In a cuspidor, the combination with a source of water pressure, and a receptacle having an outlet therein and a hinged cover therefor, of means for opening the cover and flushing the receptacle, said means including a cylinder, a piston, a connection between the piston and cover, a valved passage between the source of water pressure and the cylinder, and a passage between the upper portion of the receptacle and the cylinder.

1,130,250. MACHINE FOR MINING COAL. CHARLES H. BOARDMAN, Columbus, Ohio, assignor to Sundries Manufacturing Company, Portland, Me. Filed Mar. 24, 1914. Serial No. 826,963. (Cl. 125—14.)

1. A mining machine of the character described comprising a frame, spaced apart endless chains carried by said frame, the forward working extremity of one of said chains extending beyond the forward working extremity of the other chain, and cutters carried by said chains for cutting the material and removing the severed material as the cutting progresses.

2. A mining machine of the character described comprising a frame, spaced apart endless chains carried by said frame and arranged one above the other, the forward working extremity of the lower chain extending beyond the forward working extremity of the other chain, and cutters carried by said chains for cutting the material and removing the severed material as the cutting progresses.

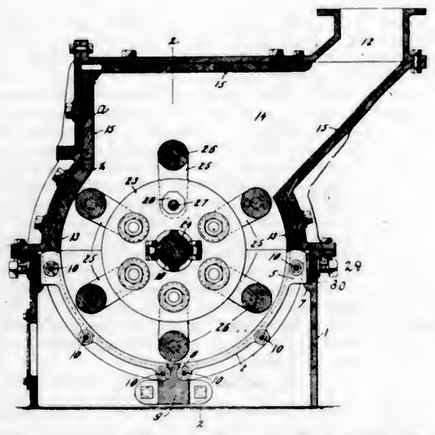


3. A mining machine of the character described comprising a frame, arms extending horizontally from said frame, the forward end of one arm extending beyond the forward end of the other arm, endless chains carried by said arms, and cutters carried by said chains for cutting the material and removing the severed material as the cutting progresses.

4. A mining machine of the character described comprising a frame, upper and lower arms extending horizontally from said frame, the forward end of the lower arm extending beyond the forward end of the upper arm, endless chains carried by said arms, and cutters carried by said chains for cutting the material and removing the severed material as the cutting progresses.

5. A mining machine comprising endless traveling cutter carriers mounted to travel in the same direction, one above the other, the forward working extremity of one of said carriers being in advance of the forward working extremity of the other, cutters carried by said carriers, and movable supporting means for said carriers.

1,130,251. PULVERIZER. JOSEPH BOERO, New York, N. Y., assignor to Stedman's Foundry & Machine Works, Aurora, Ind., a Corporation of Indiana. Filed Mar. 3, 1914. Serial No. 822,191. (Cl. 83—11.)

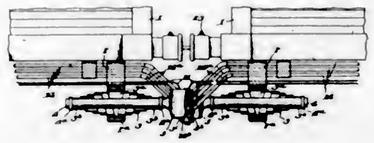


1. A machine of the class described comprising in combination an annular casing providing a circumferential crushing abutment surface, a rotary member having a pair of radial extensions, and a crusher independently rotatably mounted between the ends of said extensions, longitudinally approximately coextensive of said crushing surface and in a plane parallel therewith.

2. A machine of the nature described, combining a casing interiorly having a partly circumferential grinding surface, and an abutment surface extended from one end of said circumferential surface coincident with a chord line thereof to provide a crusher shoulder at the juncture of said surfaces, a rotary member having a series of swinging radial arms arranged in pairs oppositely, a hammer independently rotatively mounted between the ends of each pair of radial arms longitudinally approximately coextensive of said grinding surface and in a plane parallel therewith.

3. A machine of the nature described, combining a casing interiorly having a partly circumferential grinding surface, and an abutment surface extended from one end of said circumferential surface coincident with a chord line thereof to provide a crusher shoulder at the juncture of said surfaces, and a series of swinging planetary hammers within said circumferential surface revoluble about a common axis, each axially approximately coextensive of said surface and independently rotative about its own axis.

1,130,252. TRAIN-LINE COUPLING. MILES L. BOOKWALTER and SAMUEL SAUNOOKE, Altoona, Pa. Continuation of application Serial No. 786,774, filed Aug. 26, 1913. This application filed Mar. 12, 1914. Serial No. 824,085. (Cl. 188—13.)



1. A train line coupling comprising members adapted to be connected with respective cars, valves carried by said members, devices journaled relatively to said valves and having train line sections therein, and train line sections connected in communicating relation with the train line sections of the respective devices in the different positions thereof, each of said devices being adapted for engaging the member to which it is not journaled and being automatically turned on bringing them together and the train line sections in said devices being automatically registered thereby.

2. A train line coupling comprising members adapted to be connected with respective cars, journaled devices carried by the respective members, one of said devices engaging the member to which it is not journaled, said devices containing conduits, train line conduits connected with the conduits of said devices in the different positions thereof, and stationary means for opening and closing the conduits in said devices in different positions thereof.

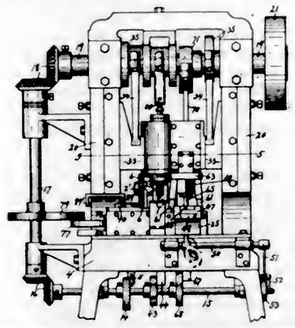
3. A train line coupling comprising members and adapted to be connected with respective cars, devices having bearings journaled in the respective members, passages in the respective devices and valves on which the respective devices are journaled, said valves opening and closing said passages in different positions of said devices.

4. A train line coupling comprising members adapted to be connected with respective cars, valves carried by the respective members, devices journaled on the respective valves, each of said devices containing a passage controlled by the valve on which it is journaled, a train line section connected with each of said devices in the different positions thereof and communicating with the respective passages, said devices being turned automatically by engagement with said members to open and connect said passages.

5. A train line coupling comprising members adapted to be connected with respective cars, bearings on said members, blocks, devices on said blocks and journaled in said bearings, each of said blocks containing a passage and an intersecting valve seat, valves in the respective seats for controlling said passages, and springs and support therefor relative whereto said blocks are adapted to turn and whereby said valves are pressed against said seats.

[Claims 6 to 10 not printed in the Gazette.]

1,130,253. MACHINE FOR MAKING BEAD CHAINS. WILLIAM W. BRADLEY, Syracuse, N. Y., assignor of one-half to William L. Day, Syracuse, N. Y. Filed Mar. 28, 1913. Serial No. 757,336. (Cl. 59—2.)



1. In a machine for making bead chains, coacting dies for cutting sheet-metal bead-blanks, additional dies for cupping the blanks, means for forming bar-links with end heads, additional means for feeding the cupped bead-blanks into position to be applied to the links, and separate means for closing the cupped blanks onto the bar-links.

2. A machine for forming bead chains comprising wire feeding means, mechanism for cutting the wire into relatively short links, cupping-dies for the bead-blanks, and means for applying the cupped bead-blanks to the adjacent ends of adjacent links.

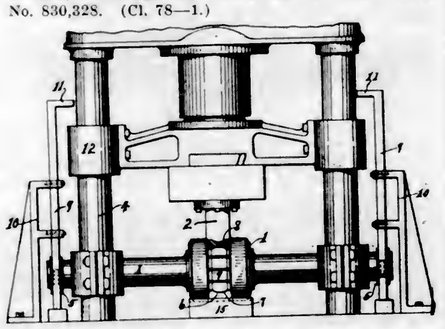
3. A machine for making bead chains comprising dies for cupping bead-blanks, means for displacing the cupped blanks from the dies to a certain position, means for feeding headed links into registration with the cupped blanks when in such position, and additional means for closing the cupped blanks upon the links.

4. In a machine of the character described, coacting dies for cutting flat sheet-metal bead-blanks, additional dies for cupping the blanks and displacing them one by one from the first named dies, separate co-acting dies for forming radial lugs on the ends of bar-links, means for feeding the displaced cupped blanks to the last named dies, and additional means for closing the cupped blank onto the lugged ends of the bar-links.

5. A machine for making bead chains comprising dies for closing bead-blanks upon the links, link-heading dies at one side of the bead-closing dies, and means for feeding a wire to the heading dies and thence to the bead closing dies.

[Claims 6 to 8 not printed in the Gazette.]

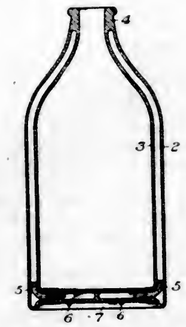
1,130,254. METAL-FORMING PRESS. CHARLES R. BRYSON, Pittsburgh, Pa. Filed Apr. 8, 1914. Serial No. 830,328. (Cl. 78—1.)



1. In combination with a reciprocally actuated presshead, a forming member mounted for rotation in the path of the presshead, said forming member involving a circumferential groove having inclined side walls, the bottom of said groove being divided into a plurality of tangentially arranged working surfaces.

2. In combination with a reciprocally actuated presshead, a lower disposed forming die member mounted for intermittent rotation in the path of the presshead, said rotatable die member being provided with a circumferential groove having inclined side walls, the bottom of said groove being divided into a plurality of tangentially arranged working surfaces, and automatic means for turning said die member during the upward stroke of the presshead to present in sequence said working surfaces in horizontal attitude.

1,130,255. VACUUM-BOTTLE. CLARENCE P. BYRNES, Sewickley, Pa. Original application filed May 12, 1908, Serial No. 432,372. Divided and this application filed May 15, 1912. Serial No. 697,485. (Cl. 215—118.)



1. As a new article of manufacture, a glass vacuum bottle having a solid glass neck and a mold-formed outer wall, said bottle having inner and outer walls spaced apart from each other to afford an annular vacuum space; substantially as described.

2. As a new article of manufacture, a glass vacuum bottle having two spaced apart walls with an annular vacuum space between them, said walls being united for a major portion of the length of the neck and the outer wall being mold-formed to a predetermined shape; substantially as described.

3. As a new article of manufacture, a glass vacuum bottle having spaced apart walls providing an annular vacuum space between them, said walls being integrally united at the neck for a length equal to several times the thickness of the wall, the outer wall being mold-formed to a predetermined shape; substantially as described.

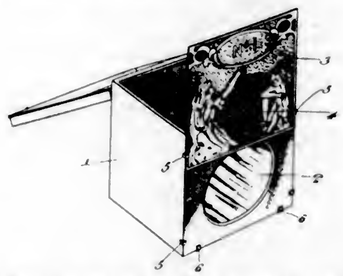
4. As a new article of manufacture, an integral glass vacuum bottle having inner and outer walls spaced apart from each other to provide an annular vacuum space between them, the outer wall being mold-formed to a predetermined shape and the inner wall being supported against sagging by a relatively long solid glass connection at the neck with the outer wall; substantially as described.

5. As a new article of manufacture, a glass vacuum bottle having a solid glass neck and a mold-formed outer wall, said bottle having inner and outer walls spaced apart from each other to afford an annular vacuum space, said bottle having a vacuum test within a recess of the outer wall to protect it; substantially as described.

1,130,256. DISPLAY-CAN. THOMAS M. CAMPBELL, Los Angeles, Cal. Filed Aug. 20, 1913. Serial No. 785,745. (Cl. 220—91.)

1. A display can having a transparent panel in one side thereof, and a detachable plate secured to that side of the can having the said transparent panel, the said

detachable plate having a sight opening located near the bottom thereof, and registering with said transparent panel.

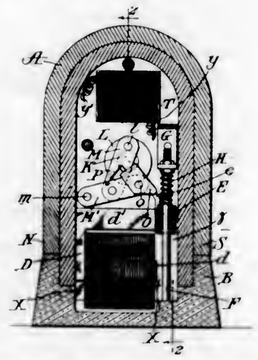


2. A display can having a transparent side and a plate detachably secured over the panel, said plate having an irregularly shaped sight opening whereby the upper portion of said plate partially covers the transparent panel and exposes the lower part of the transparent panel.

3. A display can provided with a transparent panel in one side thereof, a plate over the said side having the panel, said plate having a sight opening of less area than the said panel and located near the bottom of the plate so as to register with the lower portion of said transparent panel, and means for slidably supporting said plate on the can.

4. A display can provided with a transparent panel in one side thereof, a plate over the said side having the panel, said plate having a sight opening of less area than the said panel and located near the bottom of the plate, and clips on the can slidably engaging the front face of the plate at the edge portions of said plate.

1,130,257. GENERATOR FOR INTERMITTENT ELECTRIC CURRENTS. JONAS CARTER, Waukegan, Ill., assignor of three-fourths to August Long, Waukegan, Ill. Filed Mar. 9, 1914. Serial No. 823,434. (Cl. 171—209.)



1. A generator for intermittent electric currents, comprising a permanent magnet having a duplex core or pole piece attached to one pole thereof, wire coils on one member of the core, an armature adapted to reciprocate between the opposite pole of the magnet and the two members of the core, and means for actuating the armature.

2. A generator for intermittent electric currents, comprising a permanent magnet having a duplex core or pole piece attached to one pole thereof, wire coils on one member of the core, an armature adapted to reciprocate between the opposite pole of the magnet and the two members of the core, power operated means for moving the armature in one direction, and a spring for moving it in the opposite direction.

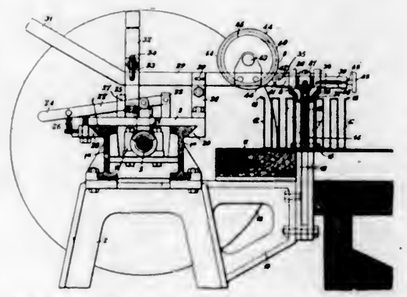
3. A generator for intermittent electric currents, comprising a permanent magnet having a duplex core or pole piece attached to one pole thereof, wire coils on one member of the core, an armature adapted to reciprocate between the opposite pole of the magnet and the two members of the core, guides for the armature, a power driven shaft, a crank carried thereby, a link connected with the crank, a lever jointed to the link, a dog carried by the lever and adapted to engage the armature, and a spring for moving the armature in one direction after being moved in the opposite direction by the dog.

4. The combination of a non-magnetic base, a permanent horse-shoe magnet attached thereto, a duplex pole piece attached to one pole of the magnet, an armature adapted to reciprocate between the opposite pole of the magnet and the two members of the core, guide posts for the armature, a spring for moving the armature in one direction, cushioning springs on the guide posts for the armature, and power driven devices for moving the armature and putting said before mentioned spring under tension.

5. A generator for intermittent electric currents, comprising a permanent magnet having a duplex core or pole piece attached to one pole thereof, wire coils on one member of the core, an armature adapted to reciprocate between the opposite pole of the magnet and the two members of the core, and a circuit breaker included in the circuit of the coils and which is operated by the armature as it reciprocates.

[Claims 6 and 7 not printed in the Gazette.]

1,130,258. WELDING-MACHINE. JOHN COOK, Manchester, England, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 21, 1911. Serial No. 634,586. (Cl. 78—82.)



1. In a welding machine, the combination with a work-holding means, a source of heat, and means for moving said source of heat longitudinally in coöperative relationship with said work, of means movable in synchronism with said source of heat for effecting pressure on said work both in advance of and behind said source.

2. In a welding machine, the combination with a work-holding means, a device for applying heat to said work, and means for moving said heating device along said work, of means for effecting a transverse movement of said heating device.

3. In a welding machine, the combination with a work-holding means, a device for applying heat to said work, and means for longitudinally moving said heating device along said work, of means for effecting a reciprocating transverse movement thereof.

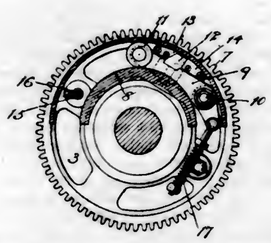
4. In a welding machine, the combination with a work-holding means, a device for applying heat to said work, and means for effecting a uniform longitudinal movement of said heating device in coöperative relationship with said work, of means for simultaneously effecting a periodic reciprocating transverse movement thereof.

5. In a welding machine, the combination with a work-holding means, and a supporting bed, of a heating device

mounted on said bed and adapted to be moved uniformly in coöperative relationship with said work, and movable pressure members mounted on said bed and adapted to effect pressure on said work both immediately in advance of and behind said heating device.

[Claims 6 to 11 not printed in the Gazette.]

1,130,259. PRINTING MECHANISM. CHARLES P. COTTRELL, Westerly, R. I., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of Delaware. Filed June 27, 1911. Serial No. 635,621. (Cl. 101—111.)

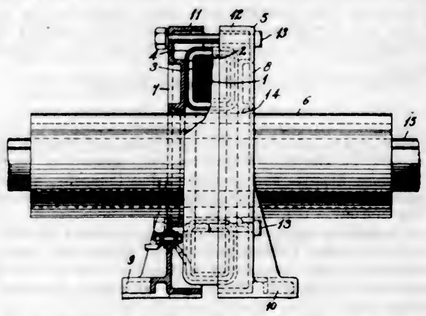


1. Printing mechanism including a gear, a plate cylinder having a limited rotary movement with respect thereto, a stationary cam, a rocking lever carried by the cylinder and a wedge on the rocking lever moved by said cam into engagement with the gear for bringing the cylinder into register therewith.

2. Printing mechanism including a gear, a plate cylinder having a limited rotary movement with respect thereto, a stationary cam, seats on the gear, a rocking lever carried by the cylinder and a wedge on the rocking lever moved by said cam into locking position between said seats for bringing the cylinder into register with said gear.

3. Printing mechanism including a gear, a plate cylinder, means for securing the gear to the cylinder with a limited rotative lost motion, a stationary cam and means carried by the cylinder moved by said cam into engagement with the gear for bringing the cylinder into register therewith.

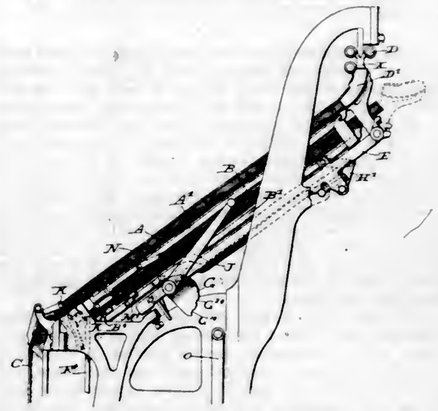
1,130,260. TRANSFORMER. WALTER M. DANN, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 7, 1911. Serial No. 642,882. (Cl. 171—124.)



1. A transformer comprising an annular core member, a winding therefor having its turn uniformly distributed about the core member, a pair of annular members substantially inclosing the winding, means for forcing said members toward each other in order to press said winding against opposite faces of the core member, and a tubular insulator extending through the opening in the core member.

2. A transformer comprising an annular core member, a winding therefor having its turns uniformly distributed about the core member, an outer casing substantially inclosing the winding and comprising a pair of flanged end members and bolts for clamping their inner faces against the winding, and an insulating sleeve or bushing extending through the opening in the core member.

1,130,261. TYPOGRAPHICAL MACHINE. PHILIP T. DODGE, New York, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 28, 1914. Serial No. 841,417. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of magazines, and a single series of escapements adapted to engage within the magazines, the said magazines being movably arranged so that one or another may be brought into operative relation to the escapements.

2. In a typographical machine, the combination of a plurality of magazines, and a single series of escapements therefor, the said magazines being each provided with openings in its face to receive the escapements and movably arranged so that the escapements may be engaged in the openings in one or another thereof.

3. In a typographical machine, the combination of a magazine and its sustaining frame, with a series of escapements mounted independently of the frame, the said magazine being provided with openings in its face to receive the escapements and movable relatively to its frame into and out of operative relation to the escapements.

4. In a typographical machine, the combination of a plurality of magazines movable as a whole to bring one or another into use, and a stationary series of escapements, the said magazines being each provided with openings in its face to receive the escapements and arranged so as to be movable, one independently of another, into and out of operative relation to the escapements.

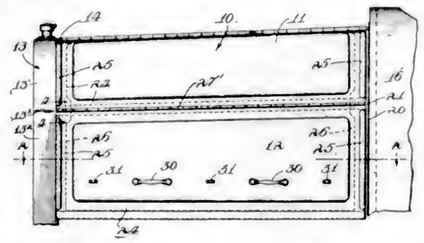
5. In a typographical machine, the combination of a stationary series of escapements, a plurality of magazines each provided with openings in its face to receive the escapements, a movable frame wherein the magazines are mounted, the said magazines being movable, one independently of another, relatively to the frame into and out of operative relation to the escapements.

[Claims 6 to 17 not printed in the Gazette.]

1,130,262. AUTOMOBILE-HOOD. JAMES F. DURYEA, Springfield, Mass., assignor to Stevens-Duryea Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Oct. 19, 1912. Serial No. 726,690. (Cl. 21—90.)

1. An automobile hood, said hood being provided with a rib or corrugation adjacent each end, and a wearing

strip secured to the under surface of said hood beneath said rib.



2. An automobile hood, said hood being provided with a rib or corrugation adjacent each end, and a wearing strip secured to the under surface of said hood beneath said rib, the edge of said hood being bent downwardly to lie flush with the under surface of said wearing strip.

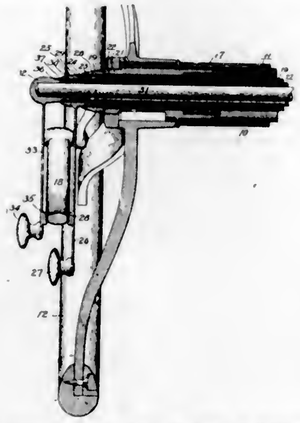
3. In a vehicle having a radiator, a hood, said hood being supported to rest slightly outside the projection of the peripheral surface of said radiator, said hood being capable of a sliding movement relative to said radiator.

4. In combination with an automobile dash, a flange secured to the forward side thereof, said flange being provided with a depressed outward portion, a supporting strip carried by said depressed portion of said flange, and a hood adapted to rest on and be supported by said flange and supporting strip.

5. In combination with an automobile dash, a flange secured to the forward side thereof, said flange being provided with a depressed outward portion, a supporting strip carried by said depressed portion of said flange, and a hood adapted to rest on and be supported by said flange and supporting strip, said supporting strip being of such size as to hold said hood slightly out of contact with the underpressed portion of said flange.

[Claims 6 to 11 not printed in the Gazette.]

1,130,263. STEERING-WHEEL CONSTRUCTION FOR AUTOMOBILES. JAMES F. DURYEA, Springfield, Mass., assignor to Stevens-Duryea Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Jan. 27, 1913. Serial No. 744,435. (Cl. 74—39.)



1. In a device of the class described, a steering column comprising a fixed sleeve, a rotatable controlling member located in said sleeve and spaced therefrom, said controlling member being provided with a tapered bearing member, said fixed sleeve being provided with a collar bearing adapted to space said rotatable controlling member from said sleeve, said collar bearings being provided with a tapered socket, said tapered bearing member of said controlling member being adapted to fit in said tapered socket and rotate thereon, and means to maintain said bearing member in contact with said tapered socket.

2. In a device of the class described, a steering column comprising a fixed sleeve, a rotatable controlling member located in said sleeve and spaced therefrom, said controlling member being provided with a tapered bearing member, said fixed sleeve being provided with a collar bearing adapted to space said rotatable controlling member from said sleeve, said collar bearing being provided with a tapered socket, said tapered bearing member of said controlling member being adapted to fit in said tapered socket and rotate thereon, and means to maintain said bearing member in contact with said tapered socket, said means comprising a spring member adapted to coact with said sleeve and said controlling member to hold said controlling member rotatably seated in said sleeve member.

3. In a device of the class described, a steering column comprising a fixed sleeve, a rotatable controlling member located in said sleeve and spaced therefrom, said controlling member being provided with a tapered bearing member, said fixed sleeve being provided with a collar bearing adapted to space said rotatable controlling member from said sleeve, said collar bearing being provided with a tapered socket, said tapered bearing member of said controlling member being adapted to fit in said tapered socket and rotate thereon, and means to maintain said bearing member in contact with said tapered socket, said means comprising a spring member having an extremity coacting with the extremity of their fixed sleeve and having another extremity coacting with the extremity of said rotatable controlling member and adapted to move the latter away from the former to maintain said controlling member in position in said sleeve member.

4. In a device of the class described, a steering column comprising a fixed sleeve, a rotatable controlling member located in said sleeve and spaced therefrom, said controlling member being provided with a tapered bearing member, said fixed sleeve being provided with a collar bearing adapted to space said rotatable controlling member from said sleeve, said collar bearing being provided with a tapered socket, said tapered bearing member of said controlling member being adapted to fit in said tapered socket and rotate thereon, and means to maintain said bearing member in contact with said tapered socket, said means comprising a spring member having an extremity coacting with the extremity of their fixed sleeve and having another extremity coacting with the extremity of said rotatable controlling member and adapted to move the latter away from the former to maintain said controlling member in position in said sleeve member.

5. In a device of the class described, a steering column comprising a fixed casing, a rotatable controlling member mounted in said casing and spaced therefrom, means to space said controlling member from said casing, said means being adapted to furnish a bearing for said rotatable controlling member, and means comprising a U-shaped clip for maintaining said controlling member in constantly uniform association with said first named means.

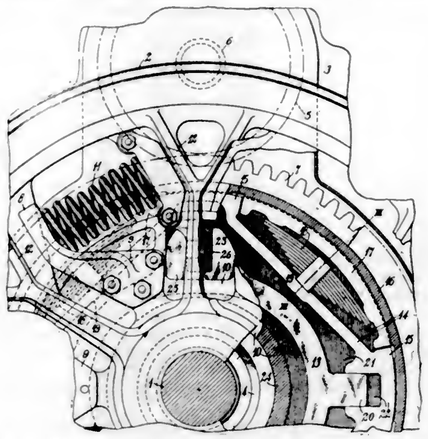
[Claims 6 to 9 not printed in the Gazette.]

1,130,264. RESILIENT DRIVING CONNECTION. GEORGE M. EATON, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 27, 1912. Serial No. 700,037. (Cl. 105—259.)

1. A driving connection comprising a driving member, a driven member yieldingly connected thereto and shock-absorbing means comprising a friction clutch driving connection interposed between the yieldingly connected parts.

2. A driving connection for railway vehicles comprising a driving motor, a wheel axle, a yielding connection between the motor and axle and a friction clutch-connection between the said parts in multiple relation to the yielding connection.

3. A driving connection for railway vehicles comprising a driving motor, a wheel axle, a yielding connection between the motor and axle and a friction clutch-connection between the said parts in multiple relation to the yielding connection and comprising a plurality of radial shoes, elliptical springs and a universal joint connection.



4. A driving connection for railway vehicles comprising a driving motor, a wheel axle, a quill loosely surrounding the axle, a gear wheel structure secured to one end of the quill and operatively connected to the motor shaft, a plurality of tangential springs interposed between the wheel spokes and a portion of the gear wheel structure and a direct connection between the wheel spokes and the gear wheel structure including a friction clutch.

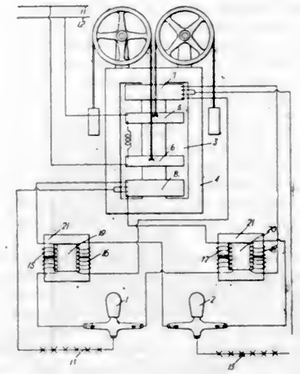
5. A driving connection for railway vehicles comprising a driving motor, a wheel axle, a quill loosely surrounding the axle, a gear wheel structure secured to one end of the quill and operatively connected to the motor shaft, a plurality of tangential springs interposed between the wheel spokes and a portion of the gear wheel structure and a direct connection between the wheel spokes and the gear wheel structure including a friction clutch comprising a floating member within the gear wheel structure, a plurality of friction shoes, springs interposed between the floating members and the shoes and forcing the latter into engagement with the gear wheel and a universal joint connection between the floating member and the wheel spokes.

1,130,265. RECTIFIER SYSTEM. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 21, 1912. Serial No. 705,015. (Cl. 171—253.)

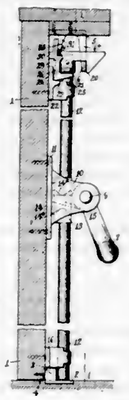
1. The combination with transforming apparatus comprising two secondary windings, of two current rectifiers connected to said windings, and two impedance devices each comprising two normally supplementary windings that are respectively interposed in the connections between the rectifiers and the secondary windings of the transforming apparatus.

2. The combination with transforming apparatus comprising two secondary windings, of two current rectifiers connected to said windings, and two impedance devices each comprising two normally supplementary windings that are respectively interposed in the connections between the rectifiers and the secondary windings of the transforming apparatus, the connections to each rectifier including a winding of each impedance device.

3. The combination with transforming apparatus comprising two separate secondary windings, of two current rectifiers connected to said windings, one being connected to one of said windings and the other to the other winding, and two impedance devices each comprising two normally supplementary windings that are respectively interposed in the connections between the rectifiers and the secondary windings of the transforming apparatus, the connections to each rectifier including a winding of each impedance device.



1,130,266. PANIC-BOLT MECHANISM. RUSSELL SKIFF GOLD, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed July 3, 1914. Serial No. 848,719. (Cl. 70—120.)



1. A panic bolt mechanism for doors including a gravity actuated bar carried by and extending substantially vertically of the door and having bolt members connected therewith and located at points adjacent the top and bottom edges of the door, said bar being movable substantially vertically of the door, stationary abutments adjacent the top and bottom edges of the door respectively and in the path of door-opening movement of said bolt members when the door is closed and said bar is in its gravity actuated position, a manually operated actuating member movable toward and from the door and arranged to move said bar to position said bolt members to clear said abutments whereby the door may be moved to open position, with means arranged, when the bar is so moved, to hold the same in such clearing position until the door is again closed, and with abutment means stationary relative to the door and coöperating with the aforesaid holding means, when the door closes, to release said bar.

2. A panic bolt mechanism for doors comprising a gravity-actuated rigid bar structure carried by and extending

substantially vertically of the door to points adjacent its top and bottom edges, respectively, and movable substantially vertically of the door, a stationary abutment adjacent the bottom edge of the door, a second stationary abutment adjacent the upper edge of the door, both of said abutments being positioned in the path of door opening movement of said bar structure when the door is closed and said structure is in its gravity-actuated position, and a cross bar carried by the door to move toward and from the same with operative connection to said bar structure whereby movement of said cross bar relative to said door moves said bar structure to clear said aubtments, whereby the door may be moved to open position, and means carried by the door arranged to coöperate with said bar structure, when so moved, to hold the same in such clearing position until the door is closed.

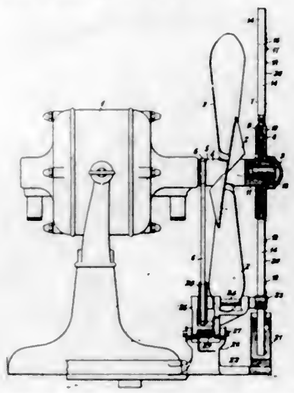
3. A panic bolt mechanism for doors comprising a gravity-actuated rigid bar structure carried by and extending substantially vertically of the door to points adjacent its top and bottom edges respectively, and movable substantially vertically of the door, a stationary abutment adjacent the bottom edge of the door, a second stationary abutment adjacent the upper edge of the door, one of said abutments providing a latching plate, and said bar structure adjacent thereto being provided with a coöperating laterally extending hooked member, both of said abutments being positioned in the path of door-opening movement of said bar structure when the door is closed and said structure is in the gravity-actuated position, and a bar hingedly carried by and extending transversely of the door for movement toward and from the same, with operative connections between said transverse bar and said bar structure whereby the swinging movement of said transverse bar toward said door moves said bar structure vertically of the door to clear said abutments, whereby the door may be moved to open position, and gravity-operated means carried by the door and coöperating with said bar structure, when so moved, to hold the same in abutment-clearing position until the door is closed, with abutment means stationary relative to the door and coöperating with said gravity member to release said bar structure when the door reaches closed position.

4. A panic bolt mechanism for doors including a gravity-actuated latching bar carried by and movable substantially vertically of the door, a relatively stationary latching abutment positioned in the path of door-opening movement of said bar when the door is closed and said bar is in its gravity-actuated position, manually operable means for moving said bar structure to clear said abutment whereby the door may be moved to open position, and means carried by the door and automatically coöperating with said bar when so moved, to retain said bar in abutment clearing position while the door remains open, with an abutment means stationary relative to the door and coöperating with said bar-retaining means, when the door is closed, to release said bar whereby it may move by gravity into locked position relative to its abutment.

5. In a panic bolt mechanism for doors including a gravity-actuated latching bar carried by and movable substantially vertically of the door, said bar having an offset latching member, a relatively stationary abutment carried by the door casing and extending in the path of door-opening movement of said latching member when the door is closed and said bar and its latching member is in gravity-actuated latching position, manually operable means for moving said bar to bring its latching member in position to clear said abutment whereby the door may be moved to open position, gravity latching means carried by the door and automatically coöperating with said latching member, when said bar is so moved, to retain said bar and its latching member in abutment clearing position while the door remains open, with means stationary relative to the door and coöperating with said gravity retaining means upon the closing of the door to release said bar with its latching member whereby the latter may be moved by gravity into locked position relative to its abutment.

[Claims 6 to 9 not printed in the Gazette.]

1,130,267. HUMIDIFIER AND AIR-CLEANER. GEORGE BREWER GRIFFIN, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 11, 1911. Serial No. 637,999. (Cl. 98—44.)



1. The combination with a fan motor and a fabric-covered wheel concentrically mounted with respect to the fan blades, of speed-reducing gearing between the motor shaft and said wheel and a liquid-containing trough in which successive portions of the outer edge of said fabric are submerged as the wheel is rotated.

2. The combination with an electric motor having fan blades mounted upon its shaft, of a wheel concentrically mounted with respect to said fan blades and provided with a circular fabric-cover, speed-reducing gearing between the motor and said wheel and a trough containing liquid in which the outer edge of the fabric dips as the wheel is rotated.

3. The combination with an electric motor having fan blades mounted upon its shaft, of a wheel having sheets of fabric mounted thereon to cover the spaces between its spokes, speed-reducing gearing between the motor and said wheel, and a trough containing liquid into which the outer edges of the sheets of fabric successively dip as the wheel is rotated.

4. The combination with an electric motor and fan blades mounted upon the motor shaft, of a concentrically mounted wheel in front of the fan blades and provided with detachable segments of fabric, speed-reducing gearing between the motor and said wheel, and a liquid-containing trough into which the outer edges of the fabric segments dip as the wheel is rotated.

5. The combination with a fan motor and a fabric covered wheel mounted in front of the fan blades, of speed-reducing gearing between the motor and said wheel, and a liquid-containing trough into which the outer edges of the fabric dips as the wheel is rotated.

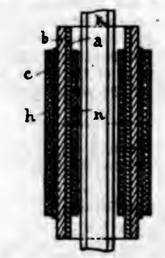
[Claims 6 to 9 not printed in the Gazette.]

1,130,268. ELECTRICAL TRANSFORMER. EMIL HAEFELY, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 10, 1912. Serial No. 670,531. (Cl. 171—124.)

1. An insulating structure for electrical apparatus comprising a layer of hard rigid non-porous insulating material, a layer of soft porous insulating material supported thereby, and an oil bath.

2. An insulating structure for electrical apparatus comprising a layer of rigid non-porous insulating material, a layer of absorbent insulating material supported thereby, and a bath of insulating fluid.

3. An insulating structure for electrical apparatus comprising a layer of insulating material that imparts rigidity to the barrier, a layer of absorbent insulating material, and an immersion bath of insulating fluid.

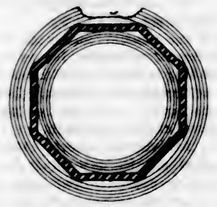


4. An insulating structure for electrical apparatus comprising a sleeve of insulating material that imparts rigidity to the barrier, a sleeve of absorbent insulating material, and an immersion bath of insulating fluid.

5. An insulating structure for electrical apparatus comprising an oil bath, a sleeve of insulating material that imparts rigidity to the barrier, and a sleeve of material that absorbs oil and thereby constitutes the principal insulating medium.

[Claims 6 to 10 not printed in the Gazette.]

1,130,269. ELECTRICAL TRANSFORMER. EMIL HAEFELY, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 10, 1912. Serial No. 670,532. (Cl. 171—124.)



1. Electrical apparatus comprising a coil of curved cross-section and an adjacent insulating member of polygonal cross section, said coil engaging the insulating member at its vertices.

2. Electrical apparatus comprising a coil of curved cross section, and a concentrically disposed insulating member of polygonal cross-section, whereby ventilating spaces are provided between adjacent surfaces of the coil and insulating member.

3. Electrical apparatus comprising a plurality of concentric circular coils and an insulating sleeve of polygonal cross-section interposed between and supporting the coils, the outer coil engaging the insulating sleeve at its vertices.

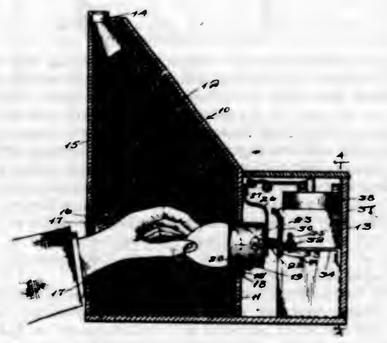
4. Electrical apparatus comprising a plurality of concentric circular coils and an insulating sleeve of polygonal cross section interposed between the coils, the inner coil engaging the insulating sleeve at points intermediate its vertices.

5. Electrical apparatus comprising a plurality of coils arranged one within the other, and an insulating sleeve of polygonal cross section interposed between and supporting the coils, the circumscribed coil engaging the insulating sleeve at its vertices and the inscribed coil engaging the sleeve at points intermediate its vertices.

[Claims 6 to 8 not printed in the Gazette.]

1,130,270. EGG-TESTER. JAMES M. HALLEY, Keytesville, Mo. Filed Jan. 7, 1914. Serial No. 810,810. (Cl. 99—6.)

1. An egg tester of the character described, comprising a bodily movable egg receiving receptacle adapted to be moved to the active position by engagement with an egg, means to normally retain the receptacle in the inactive position and automatically return the same to such inactive position when moved therefrom and released, an electric bulb connected with the receptacle for movement therewith, and means to cause the electric bulb to glow upon the bodily movement of the receptacle to the active position.



2. An egg tester of the character described, comprising a reciprocatory egg receiving receptacle, an electric bulb connected with the receptacle for movement therewith and including a socket having inner and outer electrical conducting elements, an electrical conducting spring connected with the outer socket element and serving to move the reciprocatory receptacle in one direction, a contact disposed in the path of travel of the inner socket element, a source of current, and electrical connections between the electrical conducting spring and one pole of the source of current and between the contact and the opposite pole of the source of current.

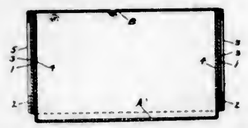
3. An egg tester of the character described, comprising a reciprocatory egg receiving receptacle, an electric bulb connected with the receptacle for movement therewith and including a socket having inner and outer electrical conducting elements, an electrical conducting spring connected with the outer socket element and serving to move the reciprocatory receptacle in one direction, means to positively limit the movement of the receptacle in such direction, a contact disposed in the path of travel of the inner socket element, a source of current, and electrical connections between the electrical conducting spring and one pole of the source of current and between the contact and the opposite pole of the source of current.

4. An egg tester of the character described, comprising a reciprocatory egg receiving receptacle, an electric bulb connected with the receptacle for movement therewith and including a socket having inner and outer electrical conducting elements, an electrical conducting spring connected with the outer socket element and serving to move the reciprocatory receptacle in one direction, means to positively limit the movement of the receptacle in such direction, a contact disposed in the path of travel of the inner socket element, separate means to move the contact into engagement with the inner socket element when the latter is occupying its normal starting position, a source of current, and electrical connections between the electrical conducting spring and one pole of the source of current and between the contact and the opposite pole of the source of current.

5. An egg tester of the character described, comprising a testing shell having one wall thereof provided with an opening and its upper end portion provided with a peep hole, an egg receiving receptacle mounted to reciprocate within said opening, an electric bulb mounted within said receptacle, and means to cause the bulb to glow upon the movement of the receptacle in one direction.

[Claim 6 not printed in the Gazette.]

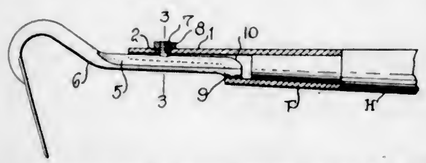
1,130,271. SELF-LOCKING BOX. ROBERT O. HAMMOND, Farmingdale, N. Y., assignor to James B. Stoddard, New York, N. Y. Filed Mar. 26, 1914. Serial No. 827,379. (Cl. 229—45.)



1. A box or receptacle comprising telescoping members, each member being formed with an abutment arranged to interlock one with the other, and one member formed with an opening in its wall registering with one of the abutments to permit disengagement of the abutments in separating the telescoping members, said opening affording communication between the interior and exterior of the box on partial separation of the two members of the box and the registering abutment extending across the opening in a plane parallel with adjacent walls of the members and bearing against the other abutment in the plane of the two abutments when the two members are telescoped one with the other.

2. A box or receptacle comprising telescoping members, one member being provided with a free flap on its outer face and the other provided with an abutment on the inside of one of its walls to interlock with the edge of said flap and formed with an opening in its wall opposite the flap to enable the flap and abutment to be disengaged in separating the two members, said flap constituting a closure to said opening and a cut-off to communication between the interior and exterior of the box when the two members are in locked engagement.

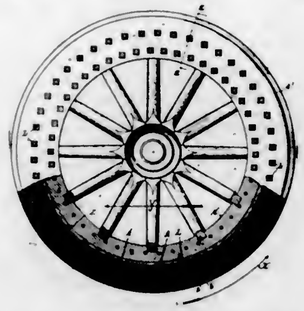
1,130,272. HANDLE CONNECTION. WILLIAM H. HAMMOND, Clifford, Mass. Filed Oct. 9, 1914. Serial No. 865,880. (Cl. 55—101.)



1. In combination, a handle member having a ferrule secured to one extremity thereof and projecting therebeyond, an extension carried by the ferrule, the longitudinal marginal portions thereof being disposed in parallelism, an implement provided with a shank having opposite sides flattened and positioned between the parallel marginal portions of the extension of the ferrule, said shank having its free extremity projected within the outer end of the ferrule, a laterally disposed extension carried by the shank of the implement intermediate the length thereof, the extension of the ferrule being provided with an opening through which the extension of the shank is directed, and a clamping means coacting with the extension of the shank and the extension of the ferrule, the outer extremity of the shank being provided with a protuberance to contact with the inner wall of the ferrule at a point opposite to the extension of the ferrule.

2. In combination, a handle member having a ferrule secured to one extremity thereof and projecting therebeyond, an extension carried by the ferrule, the longitudinal marginal portions thereof being disposed in parallelism, an implement provided with a shank having opposite sides flattened and positioned between the parallel marginal portions of the extension of the ferrule, said shank having its free extremity projected within the outer end of the ferrule, a laterally disposed extension carried by the shank of the implement intermediate the length thereof, the extension of the ferrule being provided with an opening through which the extension of the shank is directed, and a clamping means coacting with the extension of the shank and the extension of the ferrule, the outer extremity of the shank being provided with a protuberance to contact with the inner wall of the ferrule at a point opposite to the extension of the ferrule, the opposite side of the extremity of the shank being rounded to facilitate the insertion of the shank within the ferrule.

1,130,273. TIRE. CLEMENT A. HARDY, Chicago, Ill. Filed Aug. 26, 1905. Serial No. 275,928. (Cl. 152—1.)



1. A solid tire for vehicle wheels comprising an integrally united series of alternate layers of woven fabric and rubber extending along curved lines from the inner part of the tire across its circumferential axis to the outer part, substantially as set forth.

2. A solid tire for vehicle wheels comprising an integrally united series of alternate layers of woven fabric and rubber extending along curved lines from the inner part of the tire across its circumferential axis to the outer part, some of the layers of fabric having loops at their inner ends, substantially as set forth.

3. A solid tire for vehicle wheels comprising an integrally united series of alternate layers of woven fabric and rubber extending along curved lines from the inner part of the tire across its circumferential axis to the outer part, the fabric layers being arranged in pairs with the layers of each pair united at their inner ends, substantially as set forth.

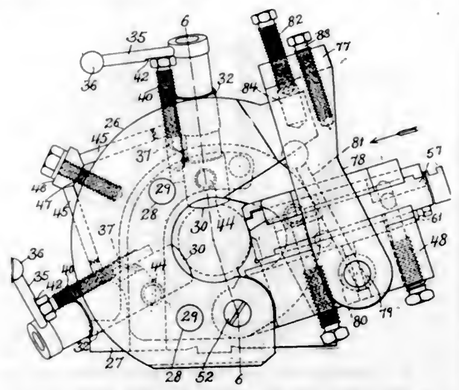
4. A solid tire for vehicle wheels comprising an integrally united series of looped strips of rubber covered fabric, said strips having their looped ends innermost and extending along curved lines from the inner part of the tire and across its circumferential axis to the outer part, substantially as set forth.

5. A solid tire for wheels comprising an integrally united series of alternate layers of woven fabric and rubber extending from the inner part of the tire across its circumferential axis to the outer part, such layers of rubber being comparatively thin in proportion to their length whereby the layers of fabric and rubber extensively overlie each other circumferentially.

[Claims 6 and 7 not printed in the Gazette.]

1,130,274. METAL-TURNING TOOL. JAMES HARTNESS, Springfield, Vt. Original application filed Nov. 17, 1908, Serial No. 463,002. Divided and this application filed July 30, 1912. Serial No. 712,264. (Cl. 82—35.)

1. In a metal-turning tool, a frame having a passageway for the work, a cutter carrier pivoted to the frame, a cutter thereon approximately radial with respect to said passageway, a member pivoted to the cutter carrier, and adapted to engage said frame to support the cutter carrier, one or more rotatable work rests arranged with their axes approximately radial with respect to said passageway, and a plurality of sets of abutments, one set for each work rest and one set for the said pivoted member, whereby the cutter and the work rests are adapted to be located in predetermined positions.



2. In a metal-turning tool, the combination with a frame having a work-receiving passageway, and a cutter carrier connected with said frame, of a rotatable and axially adjustable work rest on the frame arranged approximately radially with respect to said passageway, and a plurality of abutments by any one of which the work rest may be located and held against axial movement.

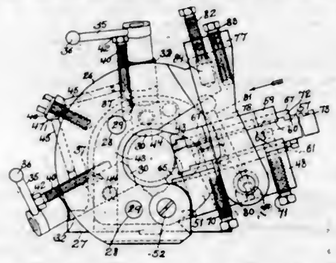
3. In a metal-turning tool, the combination with a frame having a work-receiving passageway, and a cutter carrier connected with said frame, of a rotatable and axially adjustable work rest on the frame arranged approximately radially with respect to said passageway, a socket member therefor having a lateral projection, and an abutment for engaging said projection to hold said socket member against axial movement.

4. In a metal-turning tool, the combination with a frame having a work-receiving passageway, and a cutter carrier connected with said frame, of a rotatable and axially adjustable work rest on the frame arranged approximately radially with respect to said passageway, a socket member therefor having a lateral projection, and a plurality of abutments with any one of which said lateral projection may be engaged to position the work rest.

5. In a metal-turning tool, the combination with a frame having a work-receiving passageway, and a cutter carrier connected to said frame, of a plurality of rotatable work rests arranged on said frame and approximately radial with respect to said passageway, and a plurality of abutments for each work rest for positioning it axially.

[Claim 6 not printed in the Gazette.]

1,130,275. METAL-TURNING TOOL. JAMES HARTNESS, Springfield, Vt. Original application filed Nov. 17, 1908, Serial No. 463,002. Divided and this application filed July 30, 1912. Serial No. 712,265. (Cl. 82—1.)



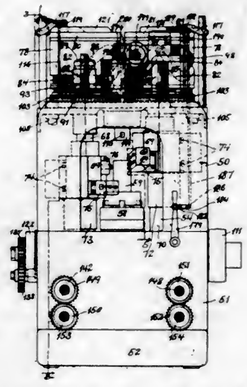
1. In a metal-turning tool, a cutter holder, a cutter thereon having an inner face and a top slope, and a shoe for the cutter having a chip-deflecting surface located adjacent the top slope adapted to deflect the chip out of its natural path.

2. In a metal-turning tool, a cutter holder, a cutter thereon having an inner face and a top slope, a shoe for the cutter having a chip-deflecting surface located adjacent the top slope adapted to deflect the chip out of its natural path, and means coöperating with said surface to automatically bend and break said chip into sections.

3. In a metal-turning tool, a cutter holder, a cutter thereon, comprising a bar having a cutting edge, a shoe on the holder having a chip deflecting portion located at the side of said cutting edge, and extending laterally therefrom, and a chip-breaking member located on said holder above said deflecting portion to coöperate therewith in breaking the chip into sections.

4. In a metal-turning tool, a cutter holder, a cutter thereon, comprising a bar having a cutting edge, chip-breaking members located on said holder and spaced apart to provide a chip-receiving aperture, said aperture extending laterally from said cutter and having opposing walls and an open mouth for the discharge of the chip sections.

1,130,276. AUTOMATIC CHUCKING-LATHE. JAMES HARTNESS, Springfield, Vt. Filed Feb. 18, 1914. Serial No. 819,439. (Cl. 29—27.)



1. A lathe comprising a spindle, a tool slide provided with means for the reception of a plurality of tools, means for reciprocating said tool slide lengthwise of the spindle axis to obtain a length feed of the tools, and means for positively oscillating said tool slide to obtain a cross-feed of the tools in either direction, said means being operable in sequence, whereby the tools may be first positioned to the work and then fed lengthwise thereof.

2. A lathe comprising a work spindle, a tool slide adapted to oscillate about a center approximately parallel with the axis of the work spindle, means for positively oscillating said slide about its center in opposite directions to advance the tool toward and from the work, and means for axially reciprocating said tool slide in lines parallel to the spindle axis.

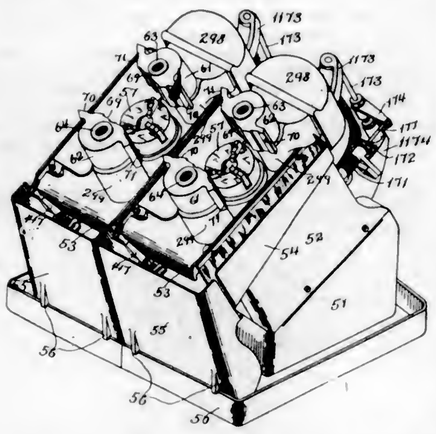
3. A lathe comprising a work spindle, a tool slide adapted to oscillate about a center approximately parallel with the axis of the work spindle, cutters on opposite sides of said center, a cam drum, means operated by said drum for axially reciprocating said slide, and means operated by said cam drum for positively oscillating said tool slide in opposite directions about its center to select and advance the desired cutter to cutting position.

4. A lathe comprising a frame, a work spindle journaled in said frame, separated bearings on the frame, a slide mounted to slide in said bearings in parallelism to the spindle axis, a tool holder movable with the slide and arranged between said bearings to oscillate about a center parallel with said axis.

5. A lathe comprising a work spindle, a slide bar parallel thereto, means for longitudinally reciprocating said bar, a tool holder mounted on said slide bar and longitudinally adjustable thereon, oppositely arranged tools on said holder, and means for positively oscillating said tool holder to cross-feed the tools thereon alternately.

[Claims 6 to 59 not printed in the Gazette.]

1,130,277. MULTISPINDLE LATHE. JAMES HARTNESS, Springfield, Vt. Filed July 25, 1914. Serial No. 853,114. (Cl. 29—27.)



1. A multi-spindle lathe comprising a plurality of separable or detachable units arranged side by side, each unit having a work holder, and a tool carrier, arranged to feed the tools lengthwise and crosswise of the work, mechanism for operating the same, and means for detachably connecting said units.

2. A multi-spindle lathe comprising a plurality of units arranged substantially in parallelism side by side, each unit being provided with a work holder accessible at its front end, a tool holder movable to cause length feeds and cross feeds of the tools, mechanism for operating said tool holder, a controller at said front end for controlling said mechanisms, and mechanism for moving said tool holder longitudinally and transversely of the work holder for the length feed and cross feed of the tools.

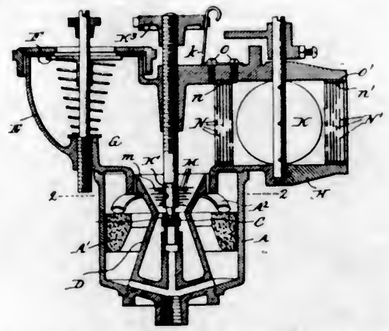
3. A multi-spindle lathe comprising a plurality of units arranged side by side, each unit being provided with a work holder accessible at its front end, a tool holder movable both longitudinally and transversely of the work holder, clutch-controlled mechanism for operating said holders, and a clutch controller, and a common drive shaft for all of said units.

4. A multi-spindle lathe comprising a plurality of substantially parallel independent units, each unit comprising a narrow frame, a work holder located to be accessible from the front end of said frame, a tool holder movable longitudinally and laterally with respect to the work holder, clutch-controlled mechanism for operating said work holder and tool holder, a controller lever at the front end of the frame, and a drive shaft, in combination with means for securing said frames together, and means for coupling said shafts together.

5. A multi-spindle lathe comprising a plurality of substantially parallel narrow units arranged side by side and each having a work holder with its axis at an angle to the vertical and accessible at its front end of the unit whereby a single operator may inspect and control the operations on the work of a plurality of such units simultaneously.

[Claims 6 to 57 not printed in the Gazette.]

1,130,278. FUEL-MIXING DEVICE FOR INTERNAL-COMBUSTION ENGINES. CHARLES B. HATFIELD, Elmira, N. Y. Filed Jan. 7, 1914. Serial No. 810,860. (Cl. 48—180.)



1. In a fuel mixture for internal combustion engines, the combination with the conduit through which the mixture is conducted to the engine having two air entrance branches, and means for supplying liquid fuel to one of said branches, of a multiplicity of fine vibratory baffle rods located in said last mentioned branch for nebulizing the liquid fuel supplied thereto before the same is combined with the air entering through the other branch.

2. In a fuel mixer for internal combustion engines, the combination with the conduit through which the mixture is conducted to the engine and a liquid fuel nozzle opening into said conduit, of a valve for said nozzle having its stem extending into the conduit and a multiplicity of vibratory baffle rods mounted on said stem and projecting into the conduit in position to nebulize the liquid fuel supplied by the nozzle.

3. In a fuel mixer for internal combustion engines, the combination with the conduit through which the mixture is conducted to the engine, of a separate annulus mounted in said conduit and a multiplicity of radially arranged vibratory baffle rods fixed at one end in said annulus whereby the rods and annulus may be formed complete and subsequently positioned in the conduit.

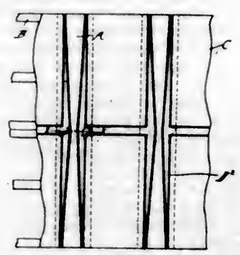
4. In a fuel mixer for internal combustion engines, the combination with the conduit through which the mixture is conducted to the engine having two air entrance branches, one of said branches being in the form of a Venturi tube, a liquid fuel nozzle located at the constricted portion of said tube, and a multiplicity of vibratory baffle rods mounted in said Venturi tube branch of the conduit above the liquid fuel nozzle and in position to nebulize the fuel passing from said nozzle before said fuel combines with the air entering the other branch of the conduit.

5. In a fuel mixer for internal combustion engines, the combination with the conduit through which the mixture is conducted to the engine having two air entrance branches, one of said branches being in the form of a Venturi tube, and a liquid fuel nozzle located at the constricted portion of said tube, of a valve for said nozzle having a stem extending transversely across the conduit, and a multiplicity of vibratory baffle wires mounted radially on said stem in position to nebulize fuel issuing from the nozzle.

[Claims 6 and 7 not printed in the Gazette.]

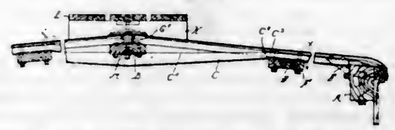
1,130,279. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 22, 1910. Serial No. 578,303. (Cl. 108—5.)

1. In a car roof, the combination with carlines, of a roof sheet spanning the space between adjacent carlines and having upstanding flanges, said carlines being positioned intermediate the upstanding flanges of adjacent sheets and tapered from the eave to the ridge portions, for the purpose described.



2. In a car roof, the combination with relatively movable roofing sheets having upstanding side flanges, of carlines positioned intermediate the upstanding flanges of adjacent sheets, the portion of said carlines adjacent the upstanding flanges toward the eave portion being of greater width than the portion of the carlines adjacent the upstanding flanges toward the ridge portion.

1,130,280. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 2, 1910. Serial No. 595,255. (Cl. 108—5.)



1. In a car roof, the combination with purlins, of a carline arranged beneath the ridge purlin and above the intermediate purlins.

2. In a car roof, the combination with a plurality of purlins, of a roof plate supported directly by said purlins, and a carline having different portions of the length extending upon opposite sides of different purlins.

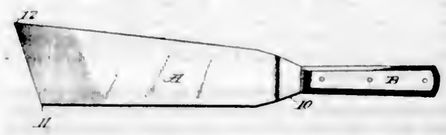
3. In a car roof, the combination with a pitched roofing sheet, of a carline having different portions of the length thereof arranged with the neutral axis upon opposite sides of the plane of said roofing sheet.

4. In a car roof, the combination with metallic roofing sheets extending from eaves to ridge, of a carline extending from eave to eave having its outer portions projecting above the plane of the body of roofing sheets, and a central portion beneath the plane thereof.

5. In a car roof, the combination with a ridge purlin, and side plates, of pitched roofing sheets extending between said side plates and ridge, and a carline between adjacent sheets having its central portion beneath the ridge purlin and the plane of the body of roofing sheet, and its outer portions projecting above the plane of said sheet.

[Claims 6 to 15 not printed in the Gazette.]

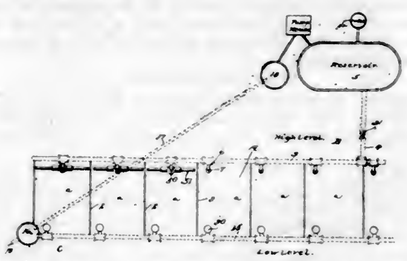
1,130,281. PRINTER'S INK-KNIFE. LEVI C. HAY, Jersey City, N. J., assignor to American Type Founders Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 12, 1913. Serial No. 778,661. (Cl. 101—52.)



1. A printer's ink knife comprising a blade and a handle, the handle and blade being off-set in relation to each other by an angle and said blade being formed increasing in width and decreasing in thickness from said off-set angle to its outer end, and said outer end being formed straight and extending at an oblique angle, substantially as set forth.

2. A printer's ink knife comprising a blade and a handle off-set in relation to each other by an oblique angle, said blade being formed of resilient metal and of decreasing thickness from the angle toward its outer end and with its opposite side edges straight, one side being of greater length than the other, and the point of the blade being formed with a thin edge and straight from the point of one edge to the point of the other edge, whereby it is formed at an oblique angle, substantially as set forth.

1,130,282. IRRIGATING SYSTEM. NATHAN A. HEACOCK, Sullivan, Ill. Filed June 3, 1913. Serial No. 771,568. (Cl. 137—66.)



1. An irrigating system of the character described including a supply pipe and a drainage pipe, said pipes extending approximately parallel to each other, the land between the supply pipes and the drainage pipes being divided into relatively small sections by means of transverse dikes, a plurality of upwardly extending outlet pipes connected at intervals to the supply pipe, each of said outlet pipes being formed in two sections, one of said sections terminating approximately level with the ground, the upper section being removable from the first-named section, and a screening member adapted to be disposed upon the lower section of each of said pipes.

2. An irrigating system of the character described including a supply pipe and a drainage pipe extending approximately parallel to each other, the supply pipe being disposed at a higher level than the drainage pipe, a reservoir with which the supply pipe is connected, means for controlling the passage of water from the reservoir to the supply pipe, a plurality of vertical pipes connected to the supply pipe, each of said vertical pipes having a downwardly extending discharge end, valves for controlling the discharge from the respective discharge ends, upwardly extending inlet pipes connected at intervals to the drainage pipe and opening at the surface of the field, screened inlet members carried upon said last named pipes, removable hoods for controlling the passage of water through said drainage inlet pipes, a receiving reservoir into which the drainage pipe empties, a pipe leading from the receiving reservoir, a reservoir into which said pipe discharges, and a drainage outlet from the receiving reservoir.

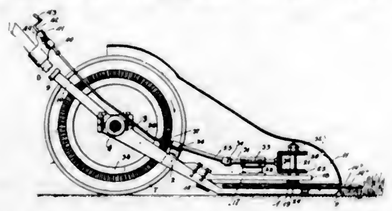
3. An irrigating system for fields divided into relatively small sections by transverse dikes, said dikes extending from the upper portion of the field to the lower, comprising a supply reservoir, a main delivery pipe leading from said reservoir in the direction of the inclination of the land, secondary pipes leading from said main pipe and extending transversely of the inclination of the land and of said dikes, discharge outlets from these secondary pipes discharging onto the surface of the land, valves for controlling said discharge outlets, a drainage pipe extending parallel to the secondary pipes and disposed at the lowest portion of the land and formed with drainage openings between each pair of dikes, means for control-

ling the inlet of water through said drainage openings, a reservoir into which said drainage pipe empties, a return pipe leading from said reservoir, and a reservoir into which the return pipe empties.

4. In an irrigating system, a pipe disposed below the surface of the ground, a vertical pipe extending upward therefrom and formed in two sections, the upper section being removable and being extended over to discharge downward upon the surface of the ground, and screened intake members adapted to be disposed in place of the discharge sections of said vertical pipe to provide for using the first named pipe as a drainage means.

5. In an irrigating system, a plurality of parallel supply pipes disposed beneath the surface of the ground, a drainage pipe connected to all of said pipes, valves controlling the discharge from said first named pipe into the drainage pipes, discharge pipes each made in two sections extending upward from the first named pipes at intervals, the upper section being removable at a point approximately level with the surface of the ground, and screened intake members adapted to be disposed in the lower sections of the discharge pipes at the surface of the ground when the upper sections of said discharge pipes are removed.

1,130,283. LAWN-MOWER. CHARLES E. HEWETT, JOHN BERNOR, and FREDERICK J. BACON, Forestdale, Vt. Filed Sept. 23, 1913. Serial No. 791,392. (Cl. 56—19.)

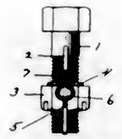


1. In a mower, the combination of a downwardly and forwardly inclined frame, a shoe carried by the lower end of the frame and adapted to run on the ground in advance of the same, a bracket secured to the frame near the lower end thereof and projecting forwardly therefrom over the shoe, a vertical shaft extending through the bracket near the front end of the same and having its lower end journaled in the shoe, a cutter carried by said shaft immediately above the shoe and extending beyond the same, a hollow shaft journaled in the bracket and fitting around the first mentioned shaft, a cutter carried by the lower end of the hollow shaft and bearing upon the first mentioned cutter, a spring arranged between the bracket and the second mentioned cutter and bearing against said cutter to hold it to the first mentioned cutter, opposed beveled gears on the upper ends of said shafts, a bearing on the upper side of the bracket in rear of the shafts, a horizontal shaft journaled in said bearing, a beveled gear on the front end of said shaft meshing with the opposed beveled gears, and means on the frame connected with the rear end of the horizontal shaft to rotate the same.

2. In a mower, a frame consisting of downwardly and forwardly inclined spaced side bars, an axle mounted in the upper rear end of the frame, ground wheels mounted upon the axle and supporting the said frame for travel, the frame being of a width less than the distance between the wheels and having laterally projecting bracket portions at its lower front end, a shoe extending forwardly from the lower end of the frame and also of a width less than the distance between the wheels, a rotary cutting member supported upon the shoe and having cutting portions projecting laterally and forwardly beyond the shoe, means for rotating the said member, a hood pivotally supported at the rear upon the axle and resting upon the laterally projecting bracket portions and extending over the frame and shoe and covering a portion of the cutting member and the actuating mechanism therefor, and retaining means on said laterally projecting bracket portions engaging the hood.

3. A mower comprising a frame consisting of downwardly and forwardly inclined spaced side bars, a shoe extending forwardly from the lower end of the frame, an axle journaled upon the upper end of the frame, carrying-wheels on said axle mounted laterally beyond the frame, a yoke pivoted on the axle, a handle bar extending rearwardly from the yoke, a bracket projecting forwardly from the frame above and parallel with the shoe, oppositely rotating cutters arranged between said bracket and the shoe, a flexible shaft mounted longitudinally upon the bracket, the frame and the handle bar, gearing connecting the front end of said shaft with the cutters, means at the rear end of said shaft for manually rotating the same, a pinion on said shaft at an intermediate point of its length, and a gear on the axle between the said bars of the frame meshing with said pinion, said pinion being adapted to be at times disengaged from the said gear.

1,130,284. LOCK-WASHER. HARVEY J. HIPPLE, Lancaster, Pa. Filed Oct. 24, 1913. Serial No. 796,982. (Cl. 151—8.)



1. In a lock-washer of the class described, the combination with a bolt having a keyway, of a washer formed with a bolt encircling portion, a keyway engaging portion, and an extending portion adapted to be bent against the side of a nut, and an extending portion adapted to be bent into engagement with the notches of a castellated nut, for the purpose of preventing the nut from turning on the bolt.

2. In a device of the class described, the combination of a bolt having a longitudinal keyway, a threaded nut engaging the same, a locking device comprising a strip of malleable material surrounding the bolt and having one end engaging the keyway and projecting from the end of the bolt, and adapted to be bent into engagement with the castellation of the nut, and the other end extending outwardly at right angles to the bolt forming a loop adapted to be bent into engagement with one of the faces of the nut, and the return end of said loop engaging the keyway in the bolt.

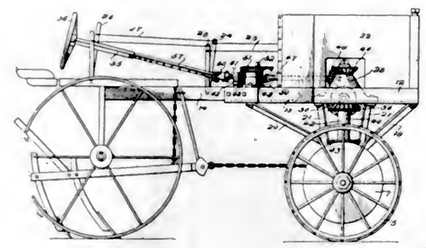
3. In a device of the class described, the combination of a bolt having a longitudinal keyway, a threaded nut engaging the same, of a locking device comprising a strip of malleable material surrounding the bolt and having a body portion lying in said keyway with its upper edge extending above the bottom of the threads of said bolt for the purpose of being cut by the threads of the nut, said body portion extending beyond the end of the bolt and adapted to be bent into one of the castellations of said nut.

1,130,285. TRACTOR. FRANK HONNOLD, Climbing Hill, Iowa, assignor of one-third to Ira Vermilyea, Climbing Hill, Iowa. Filed Mar. 7, 1913. Serial No. 752,723. (Cl. 21—114.)

1. In a tractor, the combination of a cross bar, traction wheels supporting said bar, a frame disposed above said bar, a tongue secured to said bar and extending rearwardly therefrom and secured to the frame and braces extending from the said cross-bar to the frame at the sides and at the front thereof.

2. In a tractor, the combination of a frame, spindles mounted vertically in the frame, axles rigid with the spindles and extending laterally therefrom, traction wheels mounted upon the axles, gears rigid with the upper ends of the spindles, rearwardly converging steering shafts

mounted on the frame and equipped at their forward ends with pinions meshing with the gears on the spindles, pinions at the rear ends of the steering shafts, a master gear mounted at the rear of the frame and meshing with said pinions, and means for rotating said master gear.



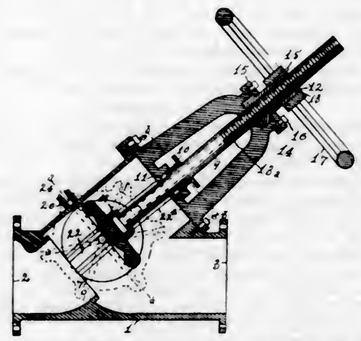
3. In a tractor, the combination of a frame, spindles mounted vertically in the frame, axles rigid with the spindles and extending laterally therefrom, traction wheels mounted on the axles, gears rigid with the upper ends of the spindles, rearwardly converging steering shafts mounted on the frame, pinions at the front ends of said shafts meshing with the gears at the upper ends of the spindles, pinions on the rear end of said shafts, a master gear meshing with said pinions, a steering post mounted in rear of the master gear, and a pinion on the front end of the steering post meshing with the master gear.

4. In a tractor, the combination of a cross bar, a brace secured to and diverging downwardly from the cross bar, a spindle mounted vertically in the cross bar and the brace, an axle rigid with and extending laterally from the spindle between the cross bar and the brace, filling blocks fitted around the axle and the spindle between the cross bar and the brace, a traction wheel on the axle, and means for turning the spindle.

5. In a tractor, the combination of a frame, a tongue extending rearwardly therefrom, traction wheels supporting the frame, a master gear disposed horizontally on the tongue, steering shafts on the frame, gearing between said shafts and the traction wheels, pinions on said shafts meshing with the master gear, and means for rotating said master gear.

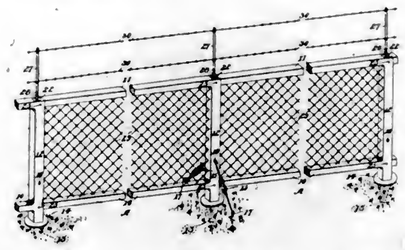
[Claims 6 to 8 not printed in the Gazette.]

1,130,286. BLOW-OFF VALVE. HENRY HORKMAN, Neenah, Wis. Filed Aug. 8, 1914. Serial No. 855,719. (Cl. 137—4.)



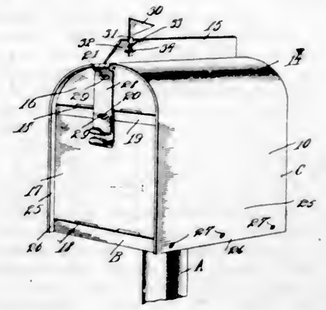
In a blow-off valve for pulp digesters and similar uses, a suitable shell for containing a valve having receiving and discharge openings, a valve seat around the receiving opening, a valve adapted to be seated thereon, ears upon opposite edges of the valve, mechanism for opening and closing the valve, a hand hole through the shell at opposite sides thereof and giving access to the valve, a cover for each hand hole, means for securing the covers over the hand holes, a groove upon the inner face of each cover fitted for receiving an ear of said valve and to guide the valve when opening and closing, and a continuation of said grooves upon the inside of the shell for guiding the valve for its full opening.

1,130,287. PORTABLE FENCE. JOHN HORVÁTH, Youngstown, Ohio. Filed Oct. 19, 1914. Serial No. 867,363. (Cl. 256—24.)



A fence formed of a plurality of sections, each section comprising a post, upper and lower rails carried by the post, sockets in the outer end face of the upper and lower ends of the post, said post having alined transverse openings registering with said sockets, said rail ends having vertical openings therein and alined transverse openings registering with the vertical openings, said post having a vertical opening therein communicating with the upper post socket, said post openings and rail openings adapted to register when the rail ends are received in said sockets, a rod mounted in the vertical registering openings, said rod having a plurality of spaced openings therein, and a cross pin mounted in the registering transverse openings of the post, rail ends, and rod.

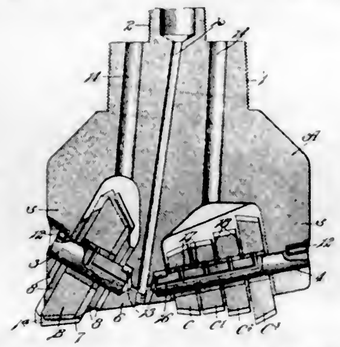
1,130,288. MAIL-BOX. MATTIE B. HUBBARD, Earlsboro, Okla. Filed Mar. 13, 1914. Serial No. 824,492. (Cl. 232—45.)



In a mail box, a body having a plurality of independent compartments, each permanently closed at one end, swinging doors on the body for closing the opposite ends of the said compartments, a parting strip arranged between the doors and forming a permanent part of the body, a staple mounted in the parting strip, a swinging hasp mounted upon the body and adapted to be moved across the path of movement of the said doors, a staple carried by one of said doors, the said hasp being provided with openings for receiving the said staple on the parting strip and door, a perforated ear on the other door and engage-

able with the staple on the parting strip and is adapted to underlie the hasp when engaging both of said staples, and outwardly and upwardly bent finger-engaging extensions formed on the ear and hasp respectively.

1,130,289. ROLLER BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed June 20, 1913. Serial No. 774,772. (Cl. 255—71.)



1. A well drill comprising a vertically-disposed head that is adapted to be connected to a drill stem, a roller mounted on a spindle on said head and provided with a cutting surface that removes the material from the side wall of the hole and thus maintains the clearance for the head, and means for enabling said roller to be adjusted longitudinally of said spindle so as to compensate for wear on said cutting surface or to vary the clearance for the head.

2. A well drill comprising a vertically-disposed head that is adapted to be connected to a drill stem, a roller arranged in a pocket in said head and having a cutting surface that extends approximately parallel to the side wall of the hole which removes sufficient material from said side wall to maintain the clearance for the head, and removable devices arranged between the ends of said roller and the side walls of said pocket for enabling said roller to be adjusted so as to compensate for wear on said cutting surface.

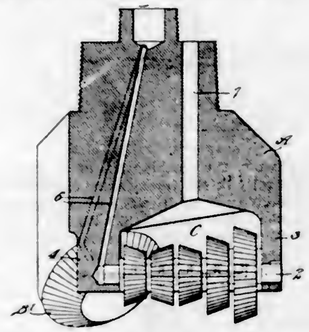
3. In a well drill, a vertically disposed head that is adapted to be connected to a drill stem, means on said head for disintegrating the material at the center of the hole, a rotatable cutter arranged in a pocket in said head for removing the material from the side wall of the hole so as to maintain clearance for the drill head, and removable devices interposed between the ends of said cutter and the walls of said pocket so as to enable said cutter to be adjusted to compensate for wear on same.

4. In a well drill, a vertically-disposed head that is adapted to be connected to a drill stem, a substantially frusto-conical-shaped cutter arranged on said head in such a manner that the tapered portion of same acts on the bottom of the hole adjacent the side wall of the hole, a cutting surface at the base end of said cutter that removes the material from the side wall of the hole so as to maintain clearance for the head, means for enabling said cutter to be adjusted so as to compensate for wear on the cutting surface at the base end of same, and an independent group of cutting rollers mounted on a spindle that extends transversely of the head for acting on the bottom of the hole that lies inside of the cutting zone of said frusto-conical-shaped cutter.

5. A well drill comprising a vertically-disposed head that is adapted to be connected to a drill stem, an approximately frusto-conical-shaped cutting roller on said head that acts on the bottom of the hole and which is provided at its outer end with a cutting surface that acts on the material at the side of the hole, the head being provided with portions that are arranged opposite to the end faces of said roller, and removable devices interposed between said portions and the roller for enabling said roller to be adjusted so as to compensate for wear on said cutting surface.

[Claims 6 to 15 not printed in the Gazette.]

1,130,290. ROLLER BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed June 20, 1913. Serial No. 774,775. (Cl. 255—71.)



1. A roller boring drill comprising a head provided with a transversely disposed spindle that is equipped with a pair of oppositely tapered centering cutters arranged one at each side of the vertical axis of the head and also having a plurality of tapered cutters arranged at one side of said centering cutters with their large ends presented inwardly toward the vertical axis of the head, and an inwardly inclined frusto-conical-shaped cutting roller on said head that maintains the clearance for the head.

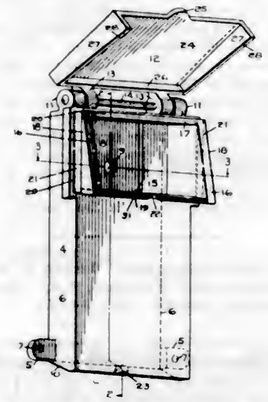
2. A roller boring drill comprising a head provided with horizontally disposed spindle that extends transversely of the head from one side of same to a point beyond the vertical axis of the head, a group of cutting rollers on said spindle, and a plurality of approximately frusto-conical-shaped cutting rollers on said head arranged adjacent the inner end of said spindle on opposite sides of same and having their axes of rotation inclined downwardly and inwardly toward the vertical axis of the head.

3. A roller boring drill comprising a head, a horizontally disposed spool-shaped cutting means rotatably mounted on said head in longitudinal alinement with the vertical axis of the head, an inwardly inclined frusto-conical shaped cutter on said head provided at its base end with a cutting surface that acts on the side wall of the hole, and a plurality of rotatable tapered cutters extending transversely of the head in longitudinal alinement with said spool-shaped cutting means and arranged with their large ends presented inwardly toward the vertical axis of the head.

1,130,291. CARD-BOX FOR RAILROAD-CARS. THOMAS B. HUNT, Chicago, Ill. Filed June 7, 1913. Serial No. 772,254. (Cl. 232—45.)

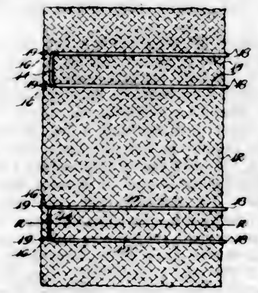
1. A card box of the character described, comprising, a hollow member provided with an opening on the front side thereof near the top through which a card may be inserted and removed, said member having its bottom wall inclined downwardly and outwardly and provided also with a transversely extending rib below the lower edge of the opening on the front side thereof, whereby a card within the box will normally be inclined with its upper edge away from the opening.

2. A card box of the character described, comprising a hollow member having an opening therein near the top on the front face thereof through which a card may be inserted and readily removed, said member being provided with an outwardly extended box like flange surrounding said opening, said flange having the side portions thereof inclined downwardly and outwardly and a lid pivotally connected to the said member at the top thereof, said lid having flanges on top and sides thereof fitting over the



box-like flange surrounding the opening whereby to close said opening and prevent rain or the like entering within the box.

1,130,292. MAT FOR RUNNING-BOARDS. HERBERT L. HUSSEY, Winthrop, Mass. Filed Nov. 24, 1914. Serial No. 873,769. (Cl. 15—62.)



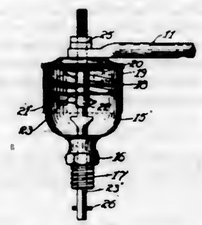
1. A mat provided with a securing clip composed of a resilient clamping arm provided with penetrative attaching means inserted in the body of the mat between the top and bottom surfaces of the latter, and having stop members bearing on opposite edge portions of the mat, said clamping arm being yieldingly pressed toward the bottom surface of the mat, and adapted to yieldingly secure the mat to a running board.

2. A mat provided with a securing clip composed of a resilient U-shaped clamping arm composed of a neck and two spaced-apart branches adapted to bear simultaneously on the bottom of a running board, and provided with bodkins inserted in the body of the mat between the top and bottom surfaces of the latter and having bent portions constituting stop members bearing on opposite edge portions of the mat, said clamping arm being yieldingly pressed toward the bottom surface of the mat.

3. As an article of manufacture, a mat-securing clip composed of a resilient clamping arm having integral penetrative attaching means insertible in the body of a mat between the top and bottom surfaces thereof and engageable with opposite edge portions of the latter, the clamping arm being pressed yieldingly toward the attaching means and adapted to bear yieldingly on the bottom of a running board supporting a mat to which the arm is secured.

4. As an article of manufacture, a mat-securing clip composed of a U-shaped resilient clamping arm including a neck and spaced-apart branches provided with penetrative bodkins insertible in the body of a mat and engageable with opposite edge portions of the latter, the clamping arm being pressed yieldingly toward said bodkins and adapted to bear yieldingly on the bottom of a running board supporting a mat to which the arm is secured.

1,130,293. ADDITIONAL AIR-SUPPLY FOR EXPLOSIVE-ENGINES. NORMAN ISACHSON, Albion, Idaho. Filed Aug. 4, 1914. Serial No. 854,998. (Cl. 137—26.)



1. A system of auxiliary air supply for internal combustion engines comprising an air conducting pipe attached to the manifold between the carbureter and the engine, and means for admitting an increasing amount of air to said pipe comprising a cup shape member on said pipe and a rotatable closure over said cup shape member having openings of successively increasing area therein differently distanced from the top thereof for the purpose of admitting an increasing amount of air to said pipe.

2. An auxiliary air valve for automobiles comprising a cup shaped member having a closure therefor, openings therein of successively increasing area and differently distanced from the top, and means for rotating and elevating said closure to render said openings operative comprising screw threads on the interior of the cup shaped member, a central pin extending through the valve, and wings having differently directioned ends carried by said pin and engaging said threads.

1,130,294. PENCIL-SHARPENER. SOREN JENSEN, Los Angeles, Cal., assignor of one-half to Oscar Theodore Grover, Los Angeles, Cal. Filed Oct. 20, 1913. Serial No. 796,196. (Cl. 120—90.)



1. A pencil sharpener, comprising a tubular body member formed with a pair of longitudinally extending slots on one side thereof, a bridge separating said slots, a removable blade extending beneath said bridge with its cutting edge arranged across one of the slots in the body member, ears projecting from the sides of the other slot beneath the blade, integral means on the body member for detachably engaging the blade, comprising a spring tongue having a slot therein, and a finger on the blade engageable with said slot.

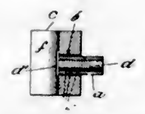
2. A pencil sharpener, comprising a body member adapted to slide upon a pencil having a longitudinally extending slot therein, a bridge member formed thereon, a spring tongue extending toward the bridge having a slot therein, a removable blade extending beneath the bridge with its cutting edge arranged across the slot, a finger on said blade engageable with the slot in the tongue, whereby the blade is held in position.

3. A pencil sharpener, comprising a body member adapted to slide on a pencil and formed with pencil clamping members and having a longitudinally extending slot, a

bridge member, a pair of inturned ears adjacent said bridge member, a curved spring tongue formed with a shoulder and having a slot therein extending toward the ears, and a removable blade having a finger thereon engageable with the slot in the tongue, and shoulders engageable with the shoulders on the tongue, said blade supported on said ears and extending beneath the bridge member.

4. A pencil sharpener, comprising a body member formed substantially as a sleeve arranged to slide upon a pencil and clamped thereon having a plurality of slots therein, two of said slots being separated by a bridge and having a resilient tongue with a slot therein projecting longitudinally toward said bridge, ears formed on the sides of the slot, and a sharpening blade having a finger formed on its end oppositely disposed from the sharpened end thereof, said finger being inserted in the slot in said tongue and engaging said bridge and said ears and resiliently held in position by said tongue, the whole when fastened upon a pencil adapted to form a finger rest.

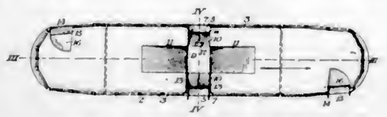
1,130,295. STRIP-FASTENER. FRED S. JEWETT, Laconia, N. H. Filed Sept. 19, 1914. Serial No. 862,429. (Cl. 16—29.)



1. The combination of a window-frame member formed with a groove; a parting bead mounted in said groove; and a rotary locking device for locking and unlocking said bead to and from said window-frame member, said locking device being formed with teeth inclined to the longitudinal axis thereof and arranged to prevent movement of said device in one direction along said axis, when said device is turned.

2. The combination of a window-frame member formed with a groove; a parting bead mounted in said groove and formed with an aperture; and a locking device for locking and unlocking said bead to and from said window-frame member, said locking device comprising a T-headed rotatable shaft driven into said aperture and formed with teeth inclined to the longitudinal axis of said shaft and arranged to prevent the lengthwise movement of said shaft in the direction of the head thereof, when the shaft is turned.

1,130,296. PASSENGER-CAR. PEARL N. JONES, Pittsburgh, Pa. Filed Sept. 23, 1912. Serial No. 721,789. (Cl. 105—205.)



1. A passenger car without interior partitions, having a side doorway at the central portion of the car, a step within the car adjacent to said doorway, and a ramp extending transversely from the step toward the longitudinal center of the car; substantially as described.

2. A passenger car without interior partitions, having a side doorway at the central portion of the car, and a ramp extending transversely of the car from the doorway toward the longitudinal center of the car; substantially as described.

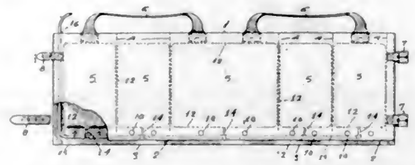
3. A passenger car without interior partitions, having side doorways at the central portion of the car, steps within the car adjacent to each of said side doorways, and transversely extending ramps leading from the steps toward the longitudinal center of the car; substantially as described.

4. A passenger car without interior partitions, having side doorways at the central portion of the car, steps within the car adjacent to each of said side doorways, transversely extending ramps leading from the steps toward the longitudinal center of the car, and a front doorway adjacent to the motorman; substantially as described.

5. A passenger car without interior partitions, having side doorways at the central portion of the car, a platform below the level of the floor and approximately on the longitudinal and transverse centers of the car, steps within the car adjacent to each of the side doorways, ramps extending transversely from the steps toward the platform, longitudinally extending ramps leading from the platform to the level of the floor of the car, and a front doorway adjacent to the motorman; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,130,297. LIFE-PRESERVER. JOSEPH B. KASSER and MORRIS KASSER, San Francisco, Cal. Filed June 8, 1914. Serial No. 843,893. (Cl. 9—17.)



1. A life preserver comprising a belt having a plurality of pockets therein, said pockets being open at their lower ends and having the inner sides thereof extending below the outer sides; and means for inflating the pockets.

2. A life preserver comprising a belt having a plurality of pockets therein open at the lower ends thereof, the inner sides of the said pockets extending below the bottom of the outer sides thereof; inflatable bags within the pockets; and means for inflating the inflatable bags.

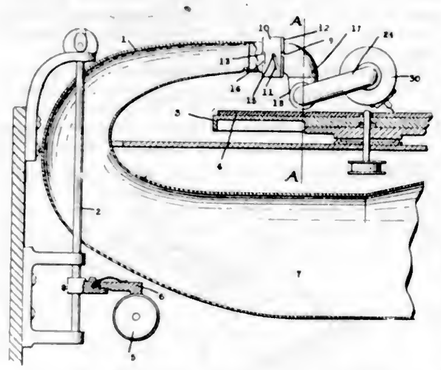
3. A life preserver comprising a belt having a plurality of pockets therein open at the lower ends thereof, the inner sides of the said pockets extending below the bottom of the outer sides thereof; inflatable bags within the pockets; means for inflating the inflatable bags; and means for retaining the air within the bags when inflated.

4. A life preserver comprising a belt having a plurality of pockets therein open at the lower ends thereof, the inner sides of the said pockets extending below the bottom of the outer sides thereof; inflatable bags within the pockets; means for inflating the inflatable bags; and suitable valves adapted to retain the air within the bags.

5. A life preserver comprising a belt having a plurality of pockets therein open at their lower ends, inner sides of the said pockets extending below the bottom of the said pockets; inflatable bags within the pockets; a suitable valve secured to each bag and adapted to retain the air therein; and a tube extending above the top of the front portion of the belt and connected with all of the valves secured to the bags and adapted to inflate the said bags through the valves.

1,130,298. SPEAKER CONNECTION FOR TALKING-MACHINES. FREDERICK C. KENT and CARL WILLIAM LINDHOLM, Newark, N. J. Filed May 27, 1914. Serial No. 841,190. (Cl. 181—3.)

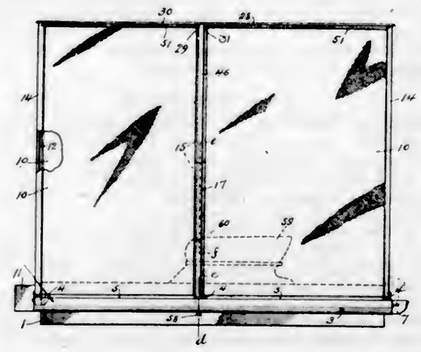
1. A speaker connection for talking machines comprising in combination a tubular neck-piece having one end adapted to receive the tone-arm of a talking machine and the other end directed downward, a tubular elbow telescopically receiving said downward end of the neck-piece, the overlapping portions of said elbow and neck-piece having opposite grooves, a spring ring in said grooves, preventing separation of the parts while permitting relative rotation, and a reproducer tube rotatably connected to the other end of said elbow to swing in an upright plane.



2. In combination with a talking machine having a revolving table and a tone arm open longitudinally at one end, of a neck having a portion adapted to receive said open end of the tone arm longitudinally and another portion turning downward adjacent said end of the tone arm, an elbow supported at the lower end of said neck free to turn with respect thereto in a plane parallel to said table and having its lower end opening laterally of the tone arm, a reproducer tube in the laterally opening end of said elbow free to be turned therein, and a reproducer at the outer end of said reproducer tube.

3. In combination with a talking machine having a revolving table and a tone arm open longitudinally at one end, of a neck having a portion adapted to receive said open end of the tone arm longitudinally and another portion turning downward adjacent said end of the tone arm, an elbow supported at the lower end of said neck free to turn with respect thereto in a plane parallel to said table and having its lower end opening laterally of the tone arm, a reproducer tube in the laterally opening end of said elbow free to be turned therein, a reproducer at the outer end of said reproducer tube, and means for retaining said neck connected to said tone arm and preventing rotation thereof.

1,130,299. VEHICLE-CANOPY. JOHN L. KOLLENBORN, Kansas City, Mo. Filed June 14, 1912. Serial No. 703,665. (Cl. 21—62.)



1. In a vehicle canopy, the combination with the body of a vehicle, of three housings disposed respectively at opposite sides and at the rear of and supported by said body, corner standards pivoted respectively to said body and adapted to be swung from vertical positions to longitudinal horizontal positions within the adjacent side housings, releasable bracing devices respectively connecting the rear corner standards with the forward corner standards, two transverse brace members disposed respectively adjacent to the rear and forward standards and having means for being detachably secured to said bracing devices, a roller mounted in the rear housing, a curtain secured to and adapted to be wound on said roller and being adapted to be extended upwardly to and over the rear transverse brace member, and means for releasably attaching said curtain to said bracing devices adjacent to the forward transverse brace member.

2. In a vehicle canopy, the combination with the body of a vehicle of two housings disposed respectively at opposite sides of and supported by the body, corner standards respectively pivoted to the body and adapted to be swung from vertical positions to longitudinal horizontal positions within the adjacent housings, releasable bracing devices respectively connecting the rear corner standards with the forward corner standards, two transverse brace members disposed respectively adjacent to the rear and forward standards and having means for being detachably secured to said bracing devices, intermediate standards pivoted to said body and adapted to be releasably secured respectively to said bracing devices, said intermediate standards being foldable and adapted to be swung from the vertical position to horizontal positions in said housings respectively, rollers in said housings respectively and disposed respectively intermediate of the corner and intermediate standards, four curtains respectively attached at one set of ends to said rollers, and means for respectively securing the other set of ends of said curtains to the adjacent corner and intermediate standards adjacent to the upper ends thereof, when said standards are in the vertical position.

3. In a vehicle canopy, the combination with the body of a vehicle, of housing means carried thereby, a collapsible frame pivotally supported by the body and having means for being releasably locked in an upright operative position and adapted to be swung downwardly into said housing means, curtains adapted to be stored in said housing means and provided with means for being extended and to be supported by said frame in the extended position, and sealing means carried by the frame for engaging the opposite sides of said curtains adjacent to the longitudinal edges thereof, and with which the curtains have slidable engagement.

4. In a vehicle canopy, the combination with the body of a vehicle, of a housing carried thereby, two standards pivoted to the body and adapted to be swung from a vertical position to a horizontal position in the housing, a curtain roller in said housing, a longitudinally extensible curtain attached to and adapted to be wound on said roller, releasable means for holding the standards in the vertical position, and means for fastening the upper end of said curtain when in the extended position to said standards.

5. In a vehicle canopy, the combination with the body of a vehicle, of a housing carried thereby, two standards pivoted to the body and adapted to be swung from a vertical position to a horizontal position in the housing, and provided respectively on adjacent sides with longitudinal grooves, a curtain roller in said housing, a longitudinal extensible curtain attached to and adapted to be wound on said roller and to have its longitudinal edges travel respectively in said grooves, releasable means for holding the standards in the vertical position, and means for fastening the upper end of the curtain, when extended, to said standards.

[Claim 6 not printed in the Gazette.]

1,130,300. TURPENTINE-CUP SUPPORT. CHARLES L. KRAGER, Daisy, Tenn. Filed Mar. 10, 1913. Serial No. 753,370. (Cl. 248—22.)

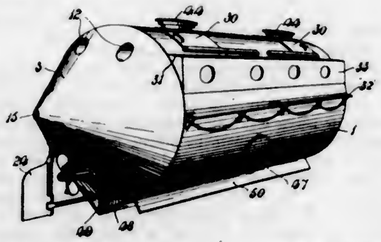
As an article of manufacture, a turpentine cup support composed of two members made from wire, one of the members being straight with a flat end and a pointed end,

the flat end forming a blow receiving end therefor, and the other member being bent substantially U-shaped with the ends of the terminals extended outwardly in opposite directions, said straight member being attached to the U-



shaped member at a point intermediate of the terminals of the U-shaped member with the blow receiving end projected beyond the material of the U-shaped member and toward the terminals thereof.

1,130,301. LIFE-BOAT. LEON LA FONTAINE, Toronto, Ontario, Canada. Filed Mar. 15, 1913. Serial No. 754,656. (Cl. 9—4.)



1. In a life boat comprising an outer shell provided with window apertures, hinged closures for said window apertures, means for normally holding said hinged closures in an open position, a passenger car suspended within said outer shell and freely rotatable with respect thereto, means operated by the rotation of said passenger car for closing said window closures, and a keel for said boat.

2. In a life boat comprising an outer shell, a passenger car suspended within said outer shell and rotatable with respect thereto, a hollow V-shaped keel extending longitudinally on the lower side of said outer shell, said keel being open at either end, radially disposed vanes at either side of said keel and extending continuously therealong, a dividing plate extending centrally within said keel, means for propelling said boat, and means for controlling the direction of progress of said boat.

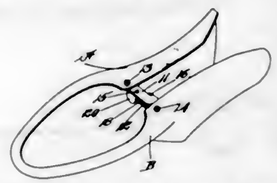
3. In a life boat comprising an outer shell, partitions at either end of said outer shell, a passenger car suspended within said outer shell between said partitions and rotatable with respect to said outer shell, a hollow V-shaped keel extending longitudinally on the lower side of the said outer shell, said keel being open at either end, radially disposed vanes at either side of said keel and extending continuously therealong, a dividing plate extending centrally within said keel, means for propelling said boat, and means for controlling the direction of progress of said boat.

4. In a life boat comprising an outer shell, provided with window apertures, hinged closures for said window apertures, a passenger car suspended within said outer shell and rotatable with respect thereto, and means operated by the rotation of said passenger car for closing said window closures.

5. In a life boat comprising an outer-shell, a passenger car suspended within said outer shell, a hollow V-shaped keel on the lower side of the outer shell, said keel being open at either end, radially disposed protective vanes at either side of said keel and a dividing plate extending centrally within said V-shaped keel.

[Claim 6 not printed in the Gazette.]

1,130,302. SHOE-FORM. ALFRED G. LEGGE, Brockton, Mass. Filed Mar. 13, 1914. Serial No. 824,528. (Cl. 12—128.)



1. The combination with a shoe form provided at its bottom with opposite inturned sides, of a toggle comprising two members each of which is pivoted to one of said inturned sides, one of said members being provided with a slot and the other with a stud adjustable in said slot and serving as the central pivot of the toggle, and a latch pivoted to one of said inturned sides coincidently with one of said toggle members and provided with a plurality of notches either of which may be engaged with said stud to hold the toggle in any desired position of adjustment.

2. The combination with a shoe form provided at its bottom with opposite inturned sides, of a toggle comprising two members each of which is pivoted to one of said inturned sides, one of said members being provided with a slot and the other with a stud adjustable in said slot and serving as the central pivot of the toggle, and a latch pivoted to one of said inturned sides coincidently with one of said toggle members and provided with a plurality of notches either of which may be engaged with said stud to hold the toggle in any desired position of adjustment, said latch being so arranged as to be interposed between said toggle member when the toggle is closed.

3. The combination with a shoe form provided at its bottom with opposite inturned sides, of a toggle comprising two members each of which is pivoted to one of said inturned sides, one of said members being provided with a slot and the other with a stud adjustable in said slot and serving as the central pivot of the toggle, and a latch pivoted to one of said inturned sides coincidently with one of said toggle members and provided with a plurality of notches either of which may be engaged with said stud to hold the toggle in any desired position of adjustment, said latch and one of said toggle members being each provided with an operating thumb-piece.

1,130,303. PROCESS OF WATERPROOFING PAPER TUBES. CHARLES F. LINDSAY, Fairfield, and WALTER R. HIBBARD, Bridgeport, Conn., assignors to Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 28, 1914. Serial No. 841,529. (Cl. 93—77.)

1. The process of waterproofing paper tubes which consists in surface treating unsized tubes with a polymerizable oil, sizing the same by passage through suitable dies, and thereafter gelatinizing the polymerizable oil.

2. The process of waterproofing paper tubes which consists in coating the unsized tubes with a polymerizable oil, sizing the same, and gelatinizing the polymerizable oil by heat.

3. The process of waterproofing paper tubes which consists in treating the unsized paper tubes with a mixture of a polymerizable oil and other lubricant and thereafter sizing the same and by any suitable means gelatinizing the polymerizable oil contained therein.

4. The process of waterproofing paper tubes which consists in surface coating the unsized tubes with a solution of Chinese wood oil substantially as described, sizing the same and gelatinizing the Chinese wood oil by immersion in a bath of molten wax.

5. The process of waterproofing paper tubes which consists in coating the same with a solution of Chinese wood oil, sizing and heating the tubes to gelatinize the Chinese wood oil contained therein, and thereafter impregnating with paraffin wax.

1,130,304. PROCESS OF MAKING AND WATERPROOFING PAPER TUBES. CHARLES F. LINDSAY, Fairfield, and FRANK H. MALONEY, Bridgeport, Conn., assignors to Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 28, 1914. Serial No. 841,530. (Cl. 91—68.)



1. The process of waterproofing paper tubes which consists in treating the tubes with a polymerizable oil partially saponified by ammonia and emulsified in water, and thereafter heating the tubes in order to evaporate the ammonia and gelatinize the oil.

2. The process of waterproofing paper tubes which consists in treating, by impregnation or coating, the paper tubes with Chinese wood oil partially saponified by ammonia and emulsified in water, and thereafter heating the tubes in order to evaporate the ammonia and gelatinize the oil.

3. The process of waterproofing paper tubes which consists in treating the pasted but unsized paper tubes with a partially ammonia saponified water emulsion of Japan wax and Chinese wood oil, drying the same, and thereafter passing the tubes through suitable heated dies, whereby the tubes are sized, polished and waterproofed in one operation.

4. The process of waterproofing paper tubes which consists in treating the tubes with a partially ammonia saponified water emulsion of Chinese wood oil and wax and thereafter heating the tubes whereby the ammonia is driven off and the oil gelatinized therein.

1,130,305. SHOE. ERWIN B. LOEWENBACH and CHARLES M. HUNTER, Milwaukee, Wis., assignors to E. B. L. Shoe Mfg. Co., Milwaukee, Wis. Filed Mar. 18, 1914. Serial No. 825,478. (Cl. 36—48.)



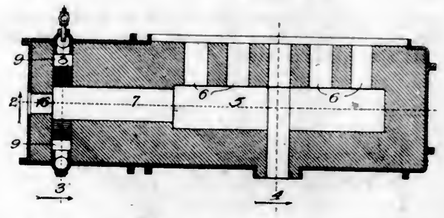
1. A shoe upper formed from a pair of blanks stitched together at their front and rear ends each blank comprising a vamp portion and a quarter portion cut away to form a lace-stay opening that extends to the top of the quarter, and a blank comprising a tip having lace-stay strips extending therefrom, the tip portion being sewed to the vamp to form a toe and the lace-stay portions lapping the edges of the cut away portions to which they are sewed to form a single thickness of lace-stay.

2. A shoe upper comprising a vamp and quarter cut away approximately the width of the lace-stay, and a lace-stay secured to the cut away edges of the vamp and quarter to form a single thickness of lace-stay.

3. A shoe upper comprising a vamp and quarter cut away approximately the width of the lace-stay, and a lace-stay secured to the cut away edges of the vamp and quarter to form a single thickness of lace-stay, and a tongue secured to the vamp and quarter having tabs overlapping the inner faces of the lace-stay and quarter to conceal the seam between said lace-stay and quarter.

4. A shoe upper comprising a vamp and quarter, the vamp and quarter being cut away to form a lace-stay opening the width of a standard lace-stay.

1,130,306. FURNACE. WALDO G. LUNGER, Chicago, Ill., assignor to American Shop Equipment Co., Chicago, Ill., a Corporation of Maine. Filed Dec. 8, 1913. Serial No. 805,269. (Cl. 75—40.)



1. A furnace comprising a heating chamber, a second, oil-vaporizing, chamber communicating with said heating chamber, a preliminary, oil-vaporizing, combustion chamber opening into said second chamber, means for introducing streams of air into said preliminary combustion chamber from opposite sides thereof for the impingement of said streams against each other, and means for introducing oil into one or both of said streams of air.

2. A furnace comprising a heating chamber, a second, oil-vaporizing, chamber communicating therewith, a preliminary, oil-vaporizing, combustion chamber communicating with said second chamber and extending above the latter, means for introducing streams of air into said preliminary combustion chamber at opposite sides thereof and in the upper portion of said chamber for impingement of said streams of air against each other, and means for introducing oil into one or both of said streams of air.

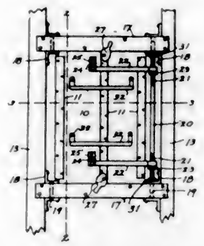
3. A furnace comprising a heating chamber, an oil-vaporizing chamber external of said heating chamber and in communication at one end therewith and with its opposite end of enlarged dimensions, forming a preliminary oil-vaporizing space, means for introducing streams of air into said second chamber at its enlarged end from opposite sides thereof for the impingement of said streams against each other, and means for introducing oil into one or both of said streams of air.

4. A furnace comprising a heating chamber, an oil-vaporizing chamber external of said heating chamber and in communication at one end therewith and having at its opposite end an oil-vaporizing space, means for introducing streams of air into said second chamber from opposite sides thereof for the impingement of said streams against each other, and means for introducing oil into one or both of said streams of air.

1,130,307. SILO. ALONZO R. MACCALLUM and MERRITT H. EGGLESTON, Spokane, Wash., assignors to Interstate Silo Company, a Corporation. Filed Nov. 18, 1913. Serial No. 801,763. (Cl. 20—1.4.)

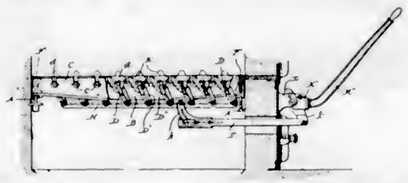
A silo and its complemental openings, transverse plates provided for said openings, serving as top and base edges therefor, vertical bores in alinement provided for said plates and at one side thereof, an anchor adjustably se-

cured in said bores, hangers adjustably mounted thereon, a cover mounted on said hangers, brackets secured to said



cover and pivotally secured to said hangers, substantially as described.

1,130,308. FURNACE-GRATE. JOHN W. F. MACDONALD, Boston, Mass. Filed Aug. 21, 1911. Serial No. 645,265. (Cl. 126—169.)



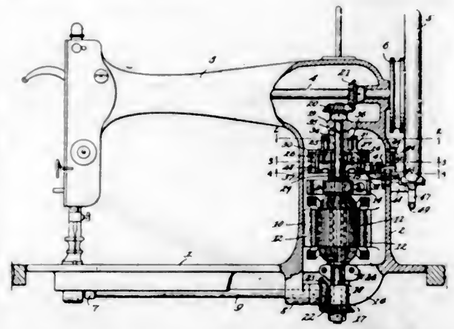
1. In a shaking grate for furnaces, the combination with the oscillating grate sections, a pivoted bell crank connected with said grate sections for oscillating the same, an operating handle detachably connected with said crank said handle provided with a recess, means for locking the grate sections against oscillations and for preventing the removal of the handle when the grate sections are out of normal position, consisting of a latch operative independently of the handle, pivotally mounted on the bell crank, a support for said bell crank having a recess whose walls coöperate with said latch, and a projection on the latch extending into the recess in the handle when the latch is out of engagement with the walls of the recess, whereby the handle is secured to the bell crank, substantially as described.

2. In a shaking grate for furnaces, the combination with the oscillatory grate sections of substantially equilateral cross section, pivoted bell crank lever connected with said grate sections, a locking latch pivoted on the bell crank above the axis, a support for the bell crank having a recess in which said latch engages when the grate sections are in normal position to lock the bell crank, a handle mounted removably in the bell crank lever by which movement is imparted to the bell crank, said handle having a recess with which the latch engages when the grate sections are out of normal position preventing withdrawal of the handle.

3. In a furnace grate, the combination with the oscillatory grate sections, a rocker bar connected to said sections an arm pivotally connected to said bar having a series of equally spaced openings therein, a link having a series of equally space openings at its inner end, the distance between centers of the holes in the two members being different and means for securing the members together through holes brought into registry.

1,130,309. SEWING-MACHINE. ARTHUR T. MACE, East Cleveland, Ohio. Filed Mar. 30, 1914. Serial No. 828,148. (Cl. 112—29.)

1. In a sewing machine having a hollow head, an upper shaft and a lower shaft, the combination of an electric motor located within the head and having a hollow, vertically disposed armature shaft, a shaft which extends through the armature shaft of the motor and operatively connects the upper and lower shafts of the sewing machine, and a driving connection between the armature shaft of the motor and the shaft which extends therethrough which connection is of such nature as will allow the latter shaft to be rotated in one direction independently of the former shaft.



2. In a sewing machine having a hollow head, an upper shaft and a lower shaft, the combination of an electric motor located within the head and having a hollow, vertically disposed armature shaft, a shaft which extends through the armature shaft of the motor and operatively connects the upper and lower shafts of the sewing machine, and a ratchet connection between the armature shaft of the motor and the shaft which extends therethrough.

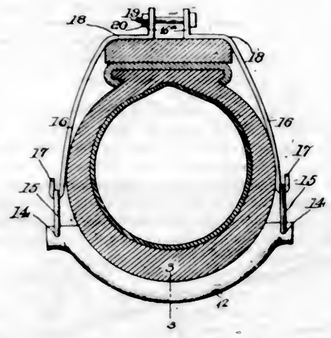
3. In a sewing machine having a hollow head, an upper, and a lower shaft, the combination of an electric motor located within the head of the sewing machine and having a hollow, vertically disposed armature shaft, a shaft which extends through the armature shaft and operatively connects the upper and lower shafts of the sewing machine, a pulley secured to the armature shaft, a second pulley loosely mounted upon the shaft which passes through the armature shaft, ratchet connection between the second pulley and the shaft upon which it is mounted, a pair of idlers, and a belt which passes over the first mentioned pulley, the idlers and the second mentioned pulley.

4. In a sewing machine having a hollow head, an upper, and a lower shaft, the combination of an electric motor located within the head of the sewing machine and having a hollow, vertically disposed armature shaft and operatively connects the upper and lower shafts of the sewing machine, a pulley secured to the armature shaft, a second pulley loosely mounted upon the shaft which passes through the armature shaft, ratchet connection between the second pulley and the shaft upon which it is mounted, a member movable toward and from the pulley, a pair of idlers carried by said member, a belt which passes over the first mentioned pulley, the idlers and the second mentioned pulley, and a means tending to move the aforesaid member away from the pulleys.

5. In a sewing machine having a hollow head, an upper shaft and a lower shaft, the combination of an electric motor located within the head of the sewing machine and having a hollow, vertically disposed armature shaft, a shaft which extends through the armature shaft and operatively connects the upper and lower shafts of the sewing machine, a pulley secured to the armature shaft, a second pulley loosely mounted upon the shaft which passes through the armature shaft, ratchet connection between the second pulley and the shaft upon which it is mounted, a belt through which the second pulley is driven from the first pulley, guides for said belt, and means whereby the tension of said belt may be varied.

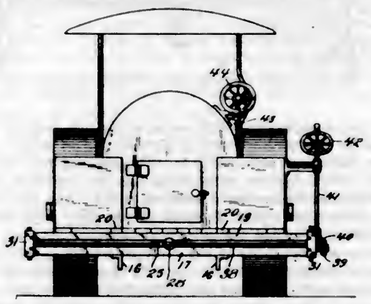
[Claims 6 to 8 not printed in the Gazette.]

1,130,310. ANTISKID ATTACHMENT FOR TIRES. JOHN MARCZI, La Belle, Pa. Filed Feb. 19, 1914. Serial No. 819,679. (Cl. 152—14.)



An anti-skidding attachment for wheel tires comprising a shoe of segment form triangular in cross-section throughout its curvilinear length and having its inner face conforming to the tread of the tire, the ends of the segment being perforated and projecting beyond the radial planes of the sides of the tire and positioned outwardly of the transverse center line of the tire, and clamping means connected with said perforated ends for clamping the segment to the wheel felly.

1,130,311. HITCHING DEVICE FOR TRACTION-ENGINES. WILLIAM L. MAST, Arthur, Ill. Filed Dec. 19, 1913. Serial No. 807,696. (Cl. 21—114.)

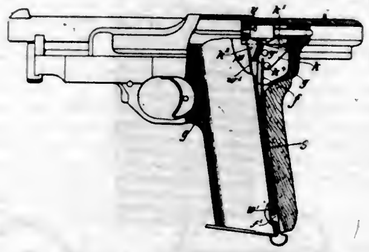


1. A tractor having rearwardly extending brackets, opposed rear and front angle bars mounted on said brackets and having upwardly extending flanges, an inverted angle bar supported above the rearward angle bar, obliquely disposed brackets supporting said inverted angle bar, a slide supported in the housing formed by the three angle bars and having a hitch yoke extending through the space between the vertical flanges of the rearward angle bar and the inverted angle bar, said slide having a threaded bore, a screw threaded shaft extending through said bore and supported for rotation adjacent to the ends of the housing, and means for rotating the shaft.

2. In a hitching device for traction engines, a housing comprising three angle bars supported in spaced relation at three corners of a rectangle, brackets supporting said angle bars, a slide mounted in the housing and having a transverse threaded bore, bearing members at the ends of the housing, each bearing member comprising separable box members, external hoops surrounding the housing at the ends thereof, fastening members extending through said hoops to secure the bearing members in position, a screw threaded shaft supported for rotation in the bearings and engaging the bore in the slide, and a hitching yoke securely connected with the slide and extending between the vertical flanges of two angle bars of the housing.

3. In a hitching device for traction engines, a housing supported on the tractor, said housing comprising three angle bars suitably supported and spaced apart, a slide supported on the housing, said slide consisting of a block having concave recesses at the ends thereof, and a threaded bore extending between said recesses, a hitching yoke connected with the slide and extending between the vertical flanges of two angle bars of the housing, a screw threaded shaft supported for rotation adjacent to the ends of the housing and extending through the threaded bore of the slide, and means for rotating the shaft.

1,130,312. AUTOMATIC FIREARM. PAUL MAUSER, Oberndorf, Germany. Filed Feb. 12, 1913. Serial No. 747,920. (Cl. 42—3.)



1. In a firearm, the combination of a breech block, a detachable magazine, a pivoted two-armed lever, one arm of said lever being adapted to act as an ejector when the magazine is in the frame, and the other arm being adapted to lock the breech block in the open position when the magazine is removed, and means for bringing said lever into locking engagement with said breech block, said means being adapted to be counteracted by said magazine to hold said lever out of locking engagement with said breech block.

2. In a firearm, the combination of a breech block, a detachable magazine, a pivoted two-armed lever, one arm of said lever being adapted to act as an ejector when the magazine is in the frame and the other arm being adapted to lock the breech block in the open position when the magazine is removed, and a spring for holding said magazine in the frame and adapted to press said lever into locking engagement with said breech block.

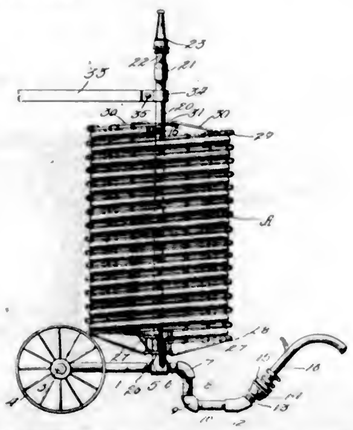
3. In a firearm, the combination of a breech block, a detachable magazine, means connected with said magazine for locking said breech block in the open position after the last shot from the magazine is fired, and a pivoted two-armed lever, one arm of said lever being adapted to act as an ejector when the magazine is in the frame and the other arm being adapted to hold the breech block in the open position when the magazine is removed, said magazine, when in position, holding said lever with its locking arm out of locking position.

4. In a firearm, the combination of a breech block, a detachable magazine, a cartridge follower adapted to lock said breech block in the open position after the last shot from the magazine is fired, and a pivoted two-armed lever, one arm of said lever being adapted to act as an ejector when the magazine is in the frame, and the other arm being adapted to hold the breech block in the open position when the magazine with the cartridge follower is removed, said magazine, when in position, holding said lever with its locking arm out of locking position.

1,130,313. SELF-DRAINING HOSE-REEL. CLARENCE M. MCCALL, Marion, N. C. Filed June 18, 1912. Serial No. 704,262. (Cl. 242—87.)

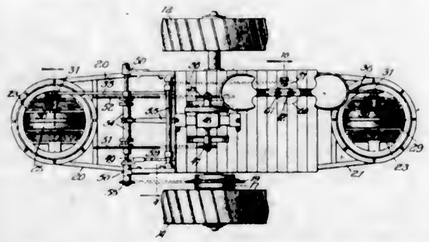
1. In a device of the character described, comprising a hub having oppositely positioned apertured edge flanges,

a plurality of triangular wire brackets passing through said flanges and extending outwardly, a centrally apertured disk having concentrically arranged apertures adjacent the outer edge thereof, a plurality of wire spokes secured within said concentrically arranged apertures, a spiral wire coil having one end secured to said wire brackets and the opposite end to said spokes, a plurality of sinuous stay wires bent inward to form hose receiving seats and outward to provide seats for said wire coil, said stays being secured to said wire coil to hold said coils in spaced relation, and a support passing through said hub and disk.



2. In a device of the character described, the combination of a plurality of sinuous stay wires bent inwardly to form spaced hose receiving seats, a spiral wire coil securing said stay wires in spaced relation, a hub disposed centrally of said wire coil at one end thereof, an apertured disk spaced centrally of said wire coil adjacent the opposite end thereof, a support passing through said hub and disk and means extending from said hub and disk for retaining said coil and hose seats concentrically to said support.

1,130,314. TRACTOR. EDDY T. MCKAIG, Chicago, Ill., assignor of one-half to H. G. Hascall, Chicago, Ill. Filed Dec. 23, 1911. Serial No. 667,441. (Cl. 21—114.)



1. In a device of the class described, a pair of U-shaped frames having pivotal collars at their ends, a shaft passing through said collars, lateral drive wheels mounted on the ends of said shaft, and a single pilot wheel mounted in the closed end of each of the frames in line with each other and in a line intermediate the drive wheels.

2. In a device of the character described, a pair of U-shaped frames having pivotal collars at their ends, the collars on the ends of one of said frames being offset with relation to the collars on the ends of the other frame whereby to cause said frames to extend in longitudinal alinement, a shaft passing through said collars, lateral drive wheels mounted on the ends of said shaft, and a single pilot wheel mounted in the closed end of each of the frames in line with each other and in a line intermediate the drive wheels.

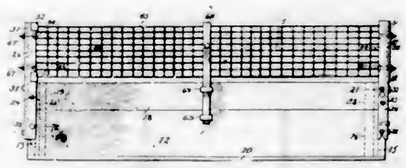
3. In combination a driving-shaft and driving-wheels, frame-members pivoted thereto and extending forward and back, pilot wheels at the ends of the frame-members, a platform, links connecting the platform to the frame-members and an adjustable radius rod connecting the drive-shaft and the platform.

4. In combination a driving-shaft and driving-wheels, frame-members pivoted thereto and extending forward and back, pilot wheels at the ends of the frame-members, a platform, links connecting the platform to the frame-members, an adjustable radius rod connecting the drive-shaft and the platform, and power-transmitting sprocket-wheels on the drive-shaft and platform, that on the platform being central with respect to the corresponding end of the radius rod.

5. In combination, a drive-shaft, driving-wheels, frame-members pivoted to the driving-shaft, pilot wheels at the ends of the frame-members, a platform, links connecting the platform to the frame-members, an engine on the platform, a shaft on the platform, means for driving the shaft from the engine, a sprocket connection between the shaft and the drive-shaft and a radius rod adjustable in length connecting the shaft and the drive-shaft.

[Claim 6 not printed in the Gazette.]

1,130,315. STOCK-RACK. FREDRICK E. MCKINNIS, Arlington, S. D. Filed Oct. 11, 1912. Serial No. 725,337. (Cl. 21—74.)



1. In an apparatus of the class described, L bars adapted to be engaged around the corners of a wagon body, sides including end members engaging against the side webs of said L bars, ends including end members engaging against the rearward webs of said L bars, and clamping devices operating through the L bars and through the end members of the sides and ends.

2. In an apparatus of the class described, L bars adapted to be engaged around the corners of a wagon body, sides including end members engaging against the side webs of said L bars, ends including end members engaging against the rearward webs of the L bars, the end members of said ends having bayonet slots, and clamping devices operating through the slots of the L bars and through the end members of the sides and ends.

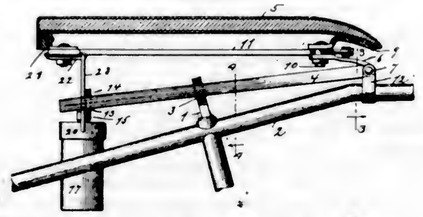
3. In a device of the class described, corner supporting members adapted to be attached to a wagon body, sides including end members engaging said corner members, ends including rigid end members and flexible longitudinal members, means for detachably coupling the end members of the sides to said corner supporting members, means for connecting one of the rigid end members to one of the corner members, and means for detachably coupling the other rigid end member to one of the other corner members.

4. In a device of the class described, corner supports adapted to be attached to a wagon body, sides including end members engaging said corner supports, ends including rigid end members and flexible longitudinal members, means for connecting the end members of said sides to said corner supports, means for rigidly connecting one of the end members of said ends to said corner supports, and means for detachably coupling the other end members of said ends to said corner supports.

5. A wagon body having headed studs, supports extending above the body and having apertures for engaging over the heads of said studs and reduced at their upper portions for receiving the shanks of the studs, sides and ends extending between said supports and above the body, and means for detachably connecting the sides and ends to the supports.

[Claims 6 to 10 not printed in the Gazette.]

1,130,316. SADDLE FOR MOTOR-CYCLES. HENRY MESINGER, New York, N. Y. Filed Oct. 21, 1914. Serial No. 867,791. (Cl. 208—15.)



1. A saddle having a saddle top, a longitudinal bar pivoted at its forward end to said top and extending axially beneath the same, a transverse bar engaged by the rear end of the longitudinal bar, and members of a rear cushioning system secured to the transverse bar.

2. A saddle having a saddle top, a longitudinal bar pivoted at its forward end to the front of said top and extending axially beneath the same, a transverse bar engaged by the rear end of the longitudinal bar, relatively fixed members of a rear cushioning system secured to the transverse bar, and co-acting relatively movable members of said system carried by the back of the saddle top.

3. A cycle having a frame and a seat post extending above said frame and having a squared eye, combined with a saddle having a top, a squared longitudinal bar pivoted at its forward end to said top and to the frame, said bar passing through the squared eye of the seat post, a back cushioning system, and means for connecting said system to the rear end of the bar.

4. A cycle having a frame and a seat post extending above said frame and having a squared eye, combined with a saddle having a top, a squared longitudinal bar pivoted at its forward end to said top and to the frame, said bar passing through the squared eye of the seat post, a transverse rear bar, having a square-eyed lug that is engaged by the longitudinal bar, and a back cushioning system, carried by the saddle top and by the transverse bar.

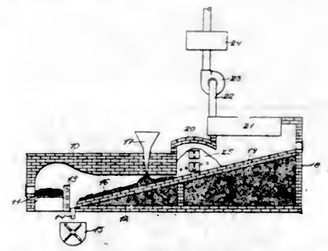
5. A cycle having a frame and a seat post extending above the frame and having a squared eye, combined with a saddle having a top, a bail pivoted to the top, a yoke embracing the forward end of the frame, a squared longitudinal bar passing through the squared eye and pivotally connected to the bail and yoke, a transverse rear bar having a squared eye that is engaged by the longitudinal bar, and a back cushioning system secured to the rear bar.

1,130,317. PROCESS OF MAKING SODIUM SULFID. HUGH KELSEA MOORE, Berlin, N. H. Filed Aug. 14, 1913. Serial No. 784,803. (Cl. 23—13.)

1. The herein described process which consists in smelting and fusing sodium sulfate and sodium carbonate in the presence of a reducing agent.

2. The herein described process which consists in feeding into a heating chamber sodium carbonate, sodium sulfate and a reducing agent, melting the same and reducing the sodium sulfate to sodium sulfid, fluxing the sodium carbonate and sodium sulfid, and withdrawing the same in molten condition.

3. The herein described process which consists in continuously reducing sodium sulfate to sodium sulfid by a reducing agent in the presence of sodium carbonate, fluxing the sodium sulfid and sodium carbonate, and reclaiming the products of sublimation by passing them through a liquid spray.

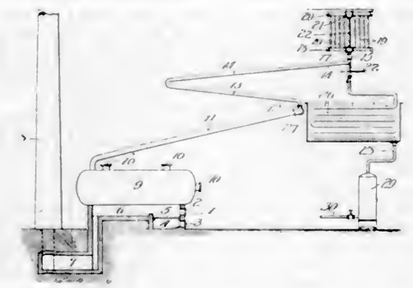


4. The herein described process which consists in reducing sodium sulfate by a reducing agent in the presence of sodium carbonate, fluxing the sodium sulfid and the sodium carbonate, causing the molten mass to flow under or through a carbonaceous material to prevent oxidation of the sulfid, and withdrawing the products of fusion.

5. The herein described process which consists in forming a layer of carbonaceous material, fusing sodium sulfate and sodium carbonate adjacent said layer, radiating heat to the carbonaceous material for the conduction of heat to the products of fusion whereby the heat for the endothermic reaction of the sulfate to sulfid is supplied, and continuously withdrawing the fused sodium and sodium carbonate.

[Claim 6 not printed in the Gazette.]

1,130,318. APPARATUS FOR DISTILLING PETROLEUM-OILS. JOHN B. MOORE, Whiting, Ind., assignor to Standard Oil Company, Chicago, Ill., a Corporation of Indiana. Filed Oct. 19, 1914. Serial No. 867,456. (Cl. 196—5.)

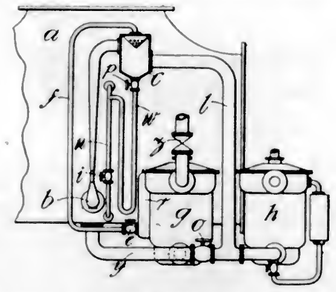


The combination with a petroleum oil still, of an air condenser in the form of a vapor outlet pipe inclining upwardly therefrom, a header above and connected with the upper end of said pipe, upwardly extending condenser tubes in communication with said header at their lower ends whereby the liquid condensed in said condenser tubes drains backwardly through said inclined pipe, a second header connecting the upper ends of said condenser tubes, a vapor outlet pipe extending downwardly from said upper header, a by-pass pipe connecting said first-named and second-named vapor pipes below the said first named header, means for controlling the flow of vapors through said by pass pipe, and a second condenser in communication with said last-named vapor pipe, for the purpose set forth.

1,130,319. APPARATUS RELATING TO THE WITHDRAWAL OF AIR AND WATER FROM STEAM-CONDENSERS. DONALD BARNS MORISON, Hartlepool, England. Filed Apr. 18, 1914. Serial No. 832,957. (Cl. 257—24.)

1. In steam condensing apparatus, the combination with a main steam condenser of a steam jet device ar-

ranged to discharge aerated vapor from the condenser into a heater, a pump for discharging the condensate from said condenser, means for admitting condensate discharged from said pump into said heater, means for withdrawing the aerated vapor and heated water from said heater and means for cooling said heated water in the condenser when required, for the purpose specified.



2. In steam condensing apparatus, the combination with a main steam condenser of a steam jet device arranged to discharge aerated vapor from the condenser into a direct contact heater, a pump for discharging the condensate from said condenser into a tank, a valve for suppiying water from said tank into said heater, means for withdrawing the aerated vapor and heated water from said heater and means for cooling said heated water in the condenser when required, for the purpose specified.

3. In steam condensing apparatus, the combination with a main steam condenser of a steam jet device arranged to discharge aerated vapor from the condenser into a direct contact heater, a pump for discharging the condensate from said condenser, means for admitting condensate discharged from said pump into said heater, means for withdrawing the aerated vapor from said heater, a water sealed looped pipe connecting the heater with the upper and lower portions of said condenser and means whereby the heated water can be delivered into the upper or lower portions of the condenser for the purpose specified.

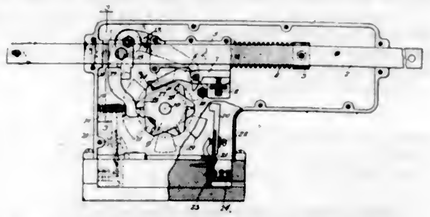
4. In steam condensing apparatus, the combination with a main steam condenser of a steam jet device arranged to discharge aerated vapor from the condenser into a direct contact heater, a pump for discharging the condensate from said condenser into a tank, a valve for supplying water from said tank into said heater, a reciprocating air pump for withdrawing aerated vapor together with heated water from said heater and means for passing heated water withdrawn from said heater into the condenser when required, for the purpose specified.

5. In steam condensing apparatus, the combination with a main steam condenser of a steam jet device arranged to discharge aerated vapor from the condenser into a direct contact heater, a reciprocating air pump for discharging the condensate from said condenser into a tank, a valve for supplying water from said tank into said heater, another reciprocating air pump for withdrawing aerated vapor together with heated water from said heater, and means for passing heated water from said heater into the condenser when required, for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

1,130,320. CIRCUIT-CONTROLLER. WILLIAM MORRISON, Des Moines, Iowa. Filed Jan. 15, 1913. Serial No. 742,277. (Cl. 172—179.)

1. The combination with a rotatable circuit-closing controller, of an escapement mechanism permitting step-by-step rotation in one direction only, controller-rotating means comprising a reciprocating member and a resilient device, and means for causing said reciprocating member to store on its forward stroke in said resilient device sufficient energy to rotate said controller through two successive steps, and means connected to the said reciprocating member to release said escapement.



2. The combination with a rotatable circuit-closing controller, of an escapement mechanism permitting step-by-step rotation in one direction only, a reciprocating actuator for said controller, and means connected to said actuator for causing said controller to rotate one step on each forward and one step on each return movement of said actuator.

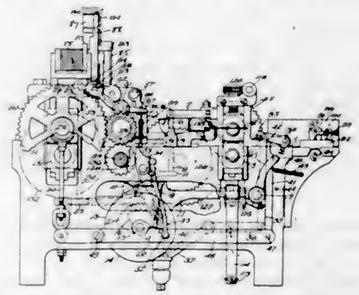
3. The combination with a rotatable circuit-closing controller, of an escapement mechanism permitting step-by-step rotation in one direction only, a reciprocating actuator for said controller, and means including a resilient device connected to said actuator for causing said controller to rotate one step on each forward and one step on each return movement of said actuator.

4. The combination with a rotatable circuit-closer, of an escapement mechanism permitting step-by-step rotation in one direction only, a reciprocating member, a spring-operated actuator for rotating said controller, means connected to said reciprocating member for energizing the spring, and means for releasing said escapement upon each movement of said reciprocating member.

5. In an electrical circuit-closer, the combination of a rotatable member, an actuating bar, an escapement mechanism permitting step-by-step rotation in one direction only, a device for operating said rotatable member movable on said bar, and a compression spring between said bar and said device.

[Claims 6 to 8 not printed in the Gazette.]

1,130,321. MACHINE FOR EVENING AND GRADING CUT SOLES AND THE LIKE. ELMER P. NICHOLS, Manchester, N. H., assignor to Lacene Manufacturing Company, Manchester, N. H., a Corporation of Maine. Filed Aug. 23, 1912. Serial No. 716,776. (Cl. 101—186.)



1. In a machine of the kind described, grading mechanism, feeler mechanism governing said grading mechanism for detecting the thinnest edge portion in a piece of stock being graded, and automatic positioning means for controlling the position of said stock with reference to said feeler mechanism so as to position the said edge portions of the stock in proper relation to the feeler mechanism for said edge detection of the stock.

2. In a machine of the kind described, grading mechanism, feeler mechanism governing said grading mechanism for detecting the thinnest edge portion in a piece of stock being graded, and automatic means for automatically shifting the stock edgewise to a central position at its edges with relation to the feeler mechanism prior to the feeling operation.

3. In a machine of the kind described, grading mechanism, feeler mechanism governing said grading mechanism for detecting the thinnest edge portion in a piece of stock being graded, and opposite yielding positioning devices mounted to engage the opposite edges of a piece of stock for controlling the position edge of the latter with relation to the feeler mechanism.

4. In a machine of the kind described, grading mechanism, feeler mechanism governing said grading mechanism for detecting the thinnest edge portion in a piece of stock being graded, and oppositely movable guides for engaging opposite edges of the stock pivotally mounted for properly positioning said edge portions of the stock with relation to the feeler mechanism.

5. In a machine of the kind described, grading mechanism, feeler mechanism governing said grading mechanism for detecting the thinnest edge portion in a piece of stock being graded, and guides for engaging opposite edges of the stock pivotally mounted and spring held for shifting the stock with relation to the feeler mechanism.

[Claims 6 to 24 not printed in the Gazette.]

1,130,322. TUBULAR RECEPTACLE. EDWARD E. NOLAN, Chicago, Ill. Filed Dec. 26, 1913. Serial No. 808,855. (Cl. 229—15.)



1. The combination with a tubular receptacle, of a series of transverse partitions therein, said partitions being arranged in pairs, the members of which are spaced apart, and a separate support for each pair of partitions, said partition supports being removably mounted in the receptacle in end-to-end relation.

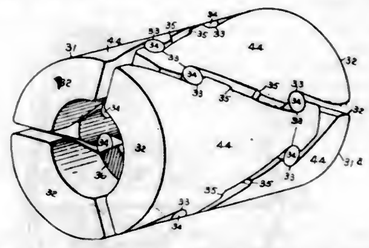
2. The combination with a tubular receptacle, of a series of transverse partitions therein, said partitions being arranged in pairs, the members of which are spaced apart, a separate support for each pair of partitions, said partition supports being removably mounted in the receptacle in end-to-end relation, and end closures for the receptacle, said closures having means for holding the partition supports in end-to-end contact.

3. The combination with a tubular receptacle, of a series of separate drums removably mounted therein in end-to-end relation, a pair of transverse partitions in each drum intermediate the ends thereof, the members of said pair being spaced apart, and end closures for the receptacle, said closures having means for holding the drums in end-to-end contact.

4. The combination with a tubular receptacle, of a series of drums removably mounted therein end to end, transverse partitions in the drums intermediate the ends thereof, and caps closing the ends of the receptacle, said caps carrying drums engageable with the end drums of the aforesaid series of drums, and said drums of the caps also having transverse partitions.

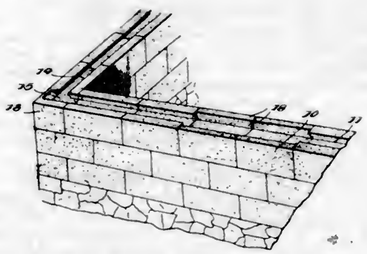
1,130,323. FRICTION DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 14, 1913. Serial No. 754,223. (Cl. 213—64.)

In a draft gear in combination, a hollow cylinder, springs within the cylinder, and friction mechanism within said cylinder, the friction mechanism including two sets of oppositely arranged annular segmental wedging friction shoes and antifriction rollers interposed between the adjacent edges of said shoes, there being a plurality of rollers between each pair of adjacent edges



and said rollers being arranged with their axes extending radially of the longitudinal axis of the cylinder.

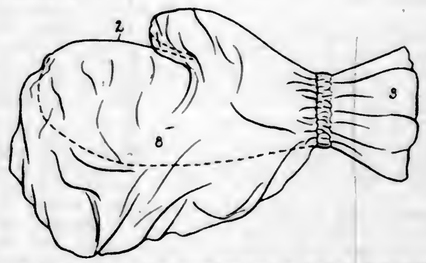
1,130,324. BUILDING-BLOCK FOR WALL CONSTRUCTIONS. ROBERT C. D. OWEN, Vancouver, British Columbia, Canada. Filed Aug. 22, 1913. Serial No. 786,173. (Cl. 46—35.)



1. In a set of building blocks comprising line blocks, key blocks and corner blocks, all of said blocks having longitudinal dovetailed ribs on their under sides and longitudinal grooves in their upper sides to receive the ribs on superposed blocks, the grooves in the key blocks having parallel walls, and the grooves in the line blocks and the corner blocks having undercut walls.

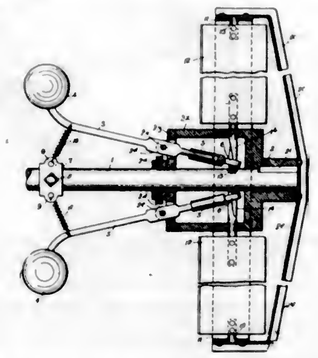
2. A set of building blocks comprising line blocks, key blocks and corner blocks, all of said blocks having longitudinal dovetailed ribs on their under sides, the key blocks being provided in their upper sides with longitudinal grooves having parallel walls, the line blocks being provided on their upper sides with longitudinal grooves having undercut walls and the corner blocks being provided in their upper sides with longitudinal and transverse grooves having undercut walls.

1,130,325. DUSTER. FRANCES M. PAGE, Springfield, Mass. Filed Apr. 1, 1914. Serial No. 828,926. (Cl. 15—16.)



As a new article of manufacture, a device of the class described comprising a hand covering, and an attached bag-like application cloth adapted to be collapsed and gathered in a mass into the covered hand.

1,130,326. WINDMILL. VERNE T. PALMER, Tuscarora, N. Y. Filed Mar. 20, 1913. Serial No. 755,766. (Cl. 170—68.)



1. In a windmill the combination of a shaft, a wheel consisting of a rim and hub keyed to said shaft, blades or sails radially mounted between said rim and said hub, shanks having square ends fastened to the lower ends of said blades or sails, said square end of said shanks being slightly twisted, the ends of said shanks being pivotally mounted in suitable recesses in said shaft, a series of levers engaging said twisted square ends of said shanks for the purpose of adjusting the angle of presentation of said blades or sails.

2. In a wind wheel the combination of a shaft, a rim for said wheel, blades or sails for said wheel radially mounted upon the shaft and the rim, each of said blades having a square shank adjacent to the shaft, a series of levers pivotally mounted around the shaft, each of which levers has a sleeve at one end thereof, each of said sleeves having a positive engagement with said square shank, and a ball at the opposite end thereof, a spring for normally holding each of said levers in toward the shaft, said levers operating upon the rotation of the wheel to change their position by centrifugal force and rotate the sails.

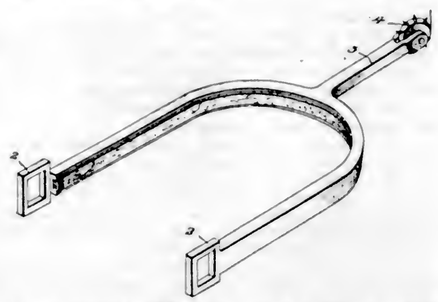
3. In a wind mill the combination of a shaft, blades pivotally mounted on radial axes around said shaft, said blades being capable of oscillating on their radial axes, each of said blades having a twisted square shank near the inner end thereof, said shank having a pivotal engagement with the shaft and a pivot pin at the outer end thereof, a rim supported by said shaft, said pivot pin engaging said rim, means moving radially along said square shank to cause the oscillation of said shanks and the blades attached thereto.

4. In a windmill the combination of a shaft, blades pivotally mounted on radial axes around said shaft, said blades being capable of oscillating on their radial axes, each of said blades having a twisted square shank near the inner end thereof, said shank having a pivotal engagement with the shaft and a pivot pin at the outer end thereof, a rim supported by said shaft, said pivot pin engaging said rim, means moving radially along said square shank to cause the oscillation of said shanks and the blades attached thereto, a governor rotating with said shaft for shifting said means in proportion to the speed of rotation.

5. In a wind mill the combination of a shaft, blades pivotally mounted on radial axes around said shaft, said blades being capable of oscillating on their radial axes, each of said blades having a twisted square shank near the inner end thereof, said shank having a pivotal engagement with the shaft and a pivot pin at the outer end thereof, a rim supported by said shaft, said pivot pin engaging said rim, means moving radially along said square shank to cause the oscillation of said shanks and the blades attached thereto, a shell keyed to said shaft inclosing said means, a governor mounted on said shell to govern the oscillation of said blades.

[Claim 6 not printed in the Gazette.]

1,130,327. SPUR. THOMAS W. S. PARSONS, Terrace, British Columbia, Canada. Filed June 17, 1913. Serial No. 774,161. (Cl. 54—83.)



1. The combination with the arch of a spur, of a lining therefor and a flexible backing member for the lining removably fitted to the inner side of the arch.

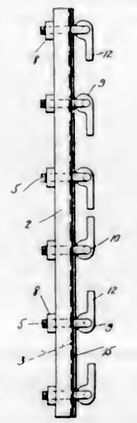
2. The combination with the arch of a spur, of a channeled flexible backing member removably fitted to the inner side of the arch, and a lining having a bead portion fitted within the channeled backing member.

3. The combination with the arch of a spur, the said arch being formed in its inner side with a groove extending the entire length thereof and of dove-tiled form, of a flexible channeled backing member removably fitted within the groove, and a lining for the arch having a bead extending longitudinally thereof and fitting within the channeled backing member.

4. The combination with the arch of a spur, of a flexible backing member removably fitted to the inner face of the arch, and a lining removably fitted within the backing member.

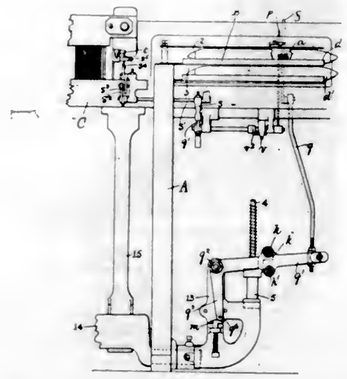
5. The combination with a spur arch having a dovetailed groove extending throughout the entire length of its inner face, of a flexible channeled backing member removably fitted within the groove, a lining for the arch, and a bead extending longitudinally of the lining and received within the backing member.

1,130,328. WIRE-FENCE CLAMP. WILLIAM E. PAYNE, Owosso, Mich. Filed Mar. 23, 1914. Serial No. 826,618. (Cl. 254—83.)



A fence clamp comprising a single main post provided with a series of holes arranged in pairs, said holes being arranged vertically in line with each other and upon opposite sides of the middle part of the post, of staple-shaped pivot bolts having their shanks secured in the said holes, a flat clamping bar normally slidable in the spaces between the shanks of the pivot bolts and arranged opposite the middle part of the main post, and locking cams pivoted on the pivot bolts and bearing against the said clamping bar.

1,130,329. DETECTOR DEVICE FOR WEFT-REPLENISHING MECHANISM OF LOOMS. THOMAS PERKS, Keighley, England, assignor to George Hattersley and Sons Limited, Keighley, England. Filed Feb. 12, 1913. Serial No. 747,934. (Cl. 139—85.)



1. In looms having automatic weft replenishing mechanism a movable shuttle box having a plurality of compartments, a detector device mounted upon each of said compartments, means whereby the detector device may be brought into action to contact with the weft in the shuttle and to be withdrawn therefrom during the movements of its respective compartment, and means for actuating said detectors together with devices whereby the indications transmitted through said detectors will cause the actuation of the weft replenishing mechanism, substantially as herein specified.

2. In a loom having automatic weft replenishing mechanism and shuttle boxes with a plurality of compartments, a support movable with the shuttle boxes, detectors slidably mounted in the support so as to be movable at all times with the shuttle boxes, each compartment having its respective detector, a slidable bar engaging the detectors and provided with an offset portion to permit the detectors to enter their respective shuttle boxes, means for actuating the bar, and means whereby the indicating movement of said detectors will cause the actuation of the weft-replenishing mechanism.

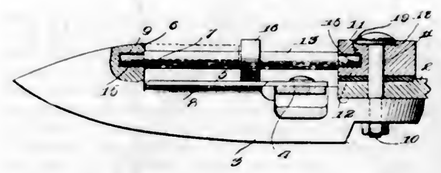
3. In a loom having automatic weft replenishing mechanism and shuttle boxes with a plurality of compartments, detectors mounted upon said shuttle box so as to be moved at all times therewith, each compartment having its respective detector, springs for normally pressing said detectors in one direction, a sliding bar having inclined surfaces for actuating said detectors, a notched rod for engaging with catches carried by said detectors, lever devices whereby said notched rod will bring into action mechanism for automatically effecting the weft replenishing of the loom substantially as herein specified.

4. In a loom having automatic weft replenishing mechanism and shuttle boxes with a plurality of compartments, detectors mounted upon said shuttle box so as to be moved at all times therewith, each compartment having its respective detector, springs for normally pressing said detectors in one direction, a sliding bar having inclined surfaces for actuating said detectors, lever devices for transmitting motion to said inclined sliding bar, and means whereby said lever devices will be operated by the shuttle box operating mechanism, substantially as herein specified.

5. In a loom having automatic weft replenishing mechanism and shuttle boxes with a plurality of compartments, detectors mounted upon said shuttle box so as to be moved at all times therewith, each compartment having its respective detector, springs for normally pressing said detectors in one direction, a sliding bar having inclined surfaces for actuating said detectors, a box-operating rod having a projecting ear, a lever having spaced pins engaging said ear, a rod connecting the lever with the sliding bar, and means for actuating the box operating rod substantially as herein specified.

[Claims 6 and 7 not printed in the Gazette.]

1,130,330. GUARD-FINGER FOR MOWING AND REAPING MACHINES. LLOYD A. PICOTTE, Los Angeles, Cal., assignor of one-half to I. J. Muma, Los Angeles, Cal. Filed Nov. 3, 1913. Serial No. 798,970. (Cl. 56—44.)



1. In a mower or reaper, the combination with a finger bar having a plurality of fingers mounted thereon and extending therefrom, and a knife bar operating upon the upper faces of the fingers, of rollers mounted above the knife bar and extending longitudinally of each guard finger, each roller being rotatably supported at its forward end in the guard finger and at its rear end being operatively and rotatably supported upon the finger bar, certain of the rollers being of approximately uniform diameter from end to end and certain other rollers being provided with flanges adapted to have rolling contact with a set of cutters.

2. In a mower or reaper, the combination with a finger bar, a guard finger having a vertically extending shoulder at its forward end, a cutter bar and knives operating across the face of the guard fingers, of a roller rotatably mounted upon said shoulder and extending rearwardly entirely across the cutter bar and knives and above and parallel to the cutting plane of said knives and cutter bar.

3. In a mower and reaper, the combination with a finger bar, and a plurality of fingers thereon, of a plurality of rollers one for each guard finger, and a plurality of supporting blocks mounted on the finger bar one at the base of each guard finger, each of said rollers being rotatably supported at its forward end in the forward end of the guard finger and at its rear end in a corresponding block and each roller extending above and parallel to the body of the guard finger.

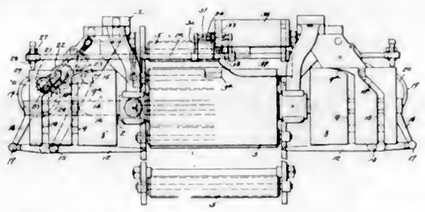
4. In a mower and reaper, the combination with a finger bar, and a plurality of fingers thereon, of a plurality of rollers one for each guard finger, and a plurality of supporting blocks mounted on the finger bar one at the base of each guard finger, said rollers each being rotatably supported at its forward end in the forward end of the guard finger and at its rear end in a corresponding block, said blocks being adjustable, each roller extending above and parallel to the body portion of its corresponding guard finger.

5. In a mowing and reaping machine, a finger bar, a finger mounted thereon, a supporting block mounted on the guard finger bar at the base of the guard finger and having a bearing recess formed therein, a bolt holding the block to the finger bar, a knife bar and cutting knives operating over the upper face of the guard finger, and a roller having reduced extremities and disposed above the knife bar and knives, the forward extremities of said roller being

rotatably mounted in the forward end of the guard finger, the rear extremity of the roller being rotatably mounted in the recess of said block.

[Claims 6 to 8 not printed in the Gazette.]

1,130,331. ROOF-TILE-CUTTING APPARATUS. JOHN PISETTA, Oil City, Pa. Filed June 19, 1912. Serial No. 704,592. (Cl. 25—108.)



1. In a tile machine, the combination of a frame, guide means upon the frame for receiving a continuous strip of plastic material, a reciprocating frame, cutting means upon the reciprocating frame, an operating lever for moving the reciprocating frame, an eccentric, an operative connection between the eccentric and the reciprocating frame, and cam means for controlling the eccentric, the said eccentric serving to direct the movements of the reciprocating frame for causing the cutting means to act upon the strip of plastic material and cut the same into lengths.

2. In a tile machine, the combination of a frame, guide means upon the frame for receiving a continuous strip of plastic material, a reciprocating frame, cutting means upon the reciprocating frame, an operating lever for moving the reciprocating frame, an eccentric, an operative connection between the eccentric and the reciprocating frame, gearing for turning the eccentric, and cam means for controlling the gearing, the said eccentric serving to direct the movement of the reciprocating frame for causing the cutting means to act upon the strip of plastic material and cut the same into lengths.

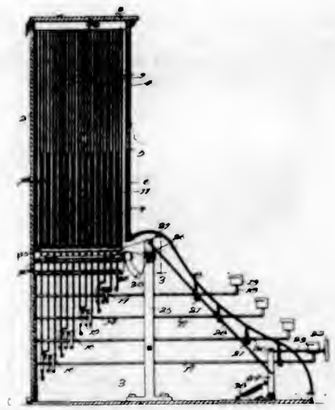
3. In a tile machine, the combination of a frame, guide means upon the frame for receiving a continuous strip of plastic material, a reciprocating forked frame, a cutting wire connecting the arms of the forked frame, cam means for operating the reciprocating frame, and independent cam means for directing the movements of the reciprocating frame and causing the cutting means to act upon the strip of plastic material and to cut the same into lengths.

4. In a tile machine, the combination of a frame, guide means upon the frame for receiving a continuous strip of plastic material, a reciprocating frame, cutting means upon the reciprocating frame, a disk provided with a pair of peripheral grooves formed with cam portions, an operating lever connected to the reciprocating frame and provided with means for engaging one of the peripheral grooves, a movable member provided with means for engaging the opposite peripheral groove, and an operative connection between the movable member and the reciprocating frame whereby the path of the reciprocating frame is controlled by the said movable member.

5. In a tile machine, the combination of a frame, guide means upon the frame for receiving a continuous strip of plastic material, a reciprocating frame, cutting means upon the reciprocating frame, a disk provided with a pair of peripheral grooves formed with cam portions, an operating lever connected to the reciprocating frame and provided with means for engaging one of the peripheral grooves, an eccentric, an operative connection between the eccentric and the reciprocating frame, a movable member provided with means for engaging the second peripheral groove, and an operative connection between the said movable member and the eccentric, the said eccentric serving to direct the movement of the reciprocating frame for causing the cutting means to act upon the strip of plastic material and cut the same into lengths.

[Claims 6 to 10 not printed in the Gazette.]

1,130,332. INDEX-CABINET. CHARLES E. PITTENGER, Falls City, Nebr., assignor of one-half to John Whitworth, Falls City, Nebr. Filed Dec. 31, 1913. Serial No. 809,785. (Cl. 40—65.)



1. In a structure of the character described, the combination of a casing having a display opening, a plurality of vertically movable slides mounted in the casing, means for supporting the slides normally above the display opening, means for dropping the slides singly to display position, a rock shaft mounted in the casing below the display opening, an arm extending from the rock shaft and having its terminal extending angularly to bear against the lower edges of all the dropped slides, and means for actuating said rock shaft whereby to return all said slides to normal position.

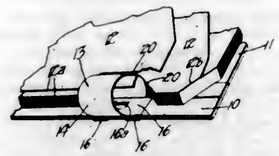
2. In a cabinet of the character described, a case having a display opening at the lower portion of its front and provided with a plurality of vertical guideways, a plurality of sliding index members mounted one in each guideway, a plurality of latches disposed one in each guideway and projected into position to engage the lower edges of the index members to thereby retain said members in a raised position, key-operated means for shifting any one of said latches to permit the corresponding index member to drop to a display position, and key-actuated resetting mechanism adapted upon actuation to shift all of the dropped index members to a raised position, said resetting mechanism including parallel rock-shafts, arms extending from said rock-shafts parallel to each other, said arms having angular terminal ends extending beneath all of the index members.

3. In a structure of the character described, a case, a plurality of vertical guideways, a plurality of slides carried in the guideways for vertical movement, and means for raising said slides and comprising parallel rock-shafts extending from front to rear and each carrying a bevel gear wheel, angular arms mounted on said rock shafts, the terminal ends of said arms extending from front to rear of the case, a rock shaft extending transversely of the case and having sector gears mounted thereon engaging with the bevel gears on said rock-shaft, and key-actuated means for rocking said second-named rock-shaft.

4. In a structure of the character described, a case, a plurality of vertical guideways, a plurality of slides carried in the guideways for vertical movement, and means for raising said slides and comprising parallel rock-shafts extending from front to rear and each carrying a bevel gear wheel, angular arms mounted on said rock-shafts, the terminal ends of said arms extending from front to rear of the case, a rock shaft extending transversely of the case and having sector gears mounted thereon engaging with the bevel gears on said rock-shaft, and key-actuated means for rocking said second-named rock-shaft, and including an arm projecting from the rock-shaft, a button movable outward by manual actuation, and operative connections between said button and the arm and the rock-shaft.

5. In a structure of the character described, a vertically disposed case for containing index members, said case being formed with a display opening at its lower portion, the sides of the case being formed with vertically disposed guides, a plurality of index members slidably mounted in said guides for free vertical movement, a plurality of latches, one for each index member mounted in said guideways, each latch being pivoted at its middle and being vertically disposed, a plurality of rock-shafts extending inward from the front of the case, one for each latch, a crank mounted on each rock shaft, a connecting rod from said crank to the corresponding latch, springs acting to rotate the rock-shafts in such position as to project the upper ends of the latches inward, the outer ends of the rock-shafts being formed each with a crank-arm and a key thereon, and manually actuatable key-operated means for lifting said index members from a lowered to a raised position.

1,130,333. FLAT-OPENING BINDER. AUGUST B. PLUSHKELL. Alhambra, Cal. Filed Mar. 9, 1914. Serial No. 823,562. (Cl. 129—1.)



1. In combination with a back, a binder ring formed of a flat strip of metal with ends overlapping, hook and aperture means formed in the overlapping ends for holding the ends together, and laterally projecting tabs on one of the ends forming clenchers for engagement with the back.

2. In combination with a back, a binder ring formed of a flat strip of metal with ends overlapping, the end which is outside having an aperture therein, a hook on the other end adapted to enter said aperture, and laterally projecting tabs on the inner end to form clenchers to engage the back, so that the outer apertured end is held tightly between the inner end and the back.

3. In combination with a back, a binder ring formed of a flat strip of metal with ends overlapping, the end which is outside having an aperture therein, a hook on the other end adapted to enter said aperture, and laterally projecting tabs on the inner end to form clenchers to engage the back, so that the outer apertured end is held tightly between the inner end and the back, and sheets with slots near and parallel to one edge for reception of the binder ring, said sheets being cut diagonally on their corners adjacent said edge and the diagonal edges thus formed being glued together, the sheets being otherwise disconnected from each other.

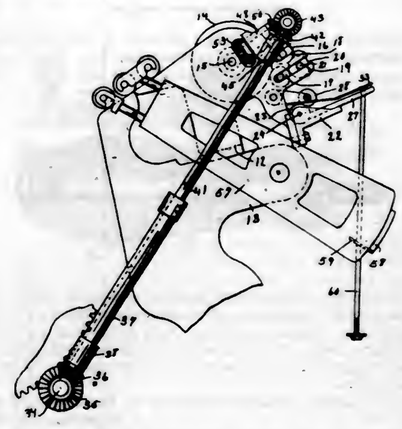
4. A binder ring, comprising a body formed of a flat metal strip with overlapping ends, one of said ends having an aperture, a hook on the other of said ends, and laterally projecting tabs on one of said ends to form a means for fastening the binder ring.

5. A binder ring, comprising a body formed of a flat metal strip with overlapping ends, the outside end having an aperture, a hook on the inner end adapted to enter the aperture, the resiliency of the metal strip tending to expand the ring and pull the hook tightly in the aperture, and fastening tabs projecting laterally from the inside hooked end of the strip.

[Claims 6 to 8 not printed in the Gazette.]

1,130,334. INKING MECHANISM FOR PRINTING-PRESSES. JAMES PRINCE, Los Angeles, Cal. Filed Apr. 13, 1914. Serial No. 831,391. (Cl. 101—79.)

1. In a platen printing press mechanism comprising a frame secured to the frame of the press; an inking cylinder revolubly mounted in said frame; composition rollers adjustably mounted in said frame having their peripheries adapted to be brought into contact with the periphery of the inking cylinder; a vibrating distributing roller contacting with the peripheries of said composition rollers and connecting the same rotatably mounted in said frame; an ink fountain; a feed roll revolubly mounted in said fountain; a ductor roller revolubly mounted in said frame to oscillate between said feed roll and the vibrating roller; means to operate said feed and ductor roller; and means to rotate said inking cylinder comprising an oscillating telescopic shaft operatively connecting said inking cylinder and the driving shaft of the press.



2. The combination with a Gordon press of an inking device comprising a frame bolted to the side arms of the machine; an inking cylinder for the form rollers revolubly mounted in said frame; distributing rollers mounted in said frame in contact with said inking roller and spaced apart; a vibrating roller contacting with said distributing rollers and connecting the same mounted in said frame to rotate therein; an ink fountain secured to said frame; a feed roller revolubly mounted in said ink fountain; a transfer roller mounted in said frame to oscillate between said feed and vibrating rollers; a telescopic connection between the inking cylinder and the driving shaft of the press for revolving the cylinder; means for intermittently oscillating said transfer roller; and means for intermittently revolving the feed roller.

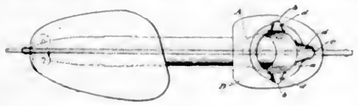
3. An inking device for a press of the Gordon type comprising a frame; an inking cylinder mounted in said frame to rotate therein; distributing rollers adjustably and revolubly mounted in said frame in contact with said inking cylinder; a vibrating roller contacting with said distributing rollers adjustably and revolubly mounted in said frame; an ink fountain; a feed roller revolubly mounted in said ink fountain; a transfer roller mounted in said frame to oscillate between the feed roller and the vibrating roller; an oscillating telescopic connection from said inking cylinder to the driving shaft of the press; means to cause said transfer roller to contact first with the feed roller and then with the vibrating roller; and means to intermittently rotate said feed roller.

1,130,335. HOCKEY-SKATE. WILLIAM F. REACH, Chicopee, Mass., assignor to A. G. Spalding & Bros. Manf'g Company, Chicopee, Mass., a Corporation of Massachusetts. Filed June 15, 1914. Serial No. 845,224. (Cl. 46—50.)

1. In a heel structure for a hockey skate, a heel cup having a flange with radiating extensions, and a heel plate having a depressed center fitting the flange and extensions of the heel cup, substantially as described.

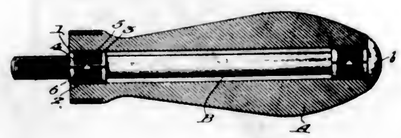
2. In a heel structure for a hockey skate, a tubular heel cup having a flange at its upper end, and ribbed extensions,

and a heel plate suitably secured to the heel cup and having a depression corresponding to the flange of the heel



cup fitting like recesses in the heel flange, said extensions being ribbed, substantially as described.

1,130,336. METAL BUSH. EDWARD J. RENKENBERGER, Buffalo, N. Y., assignor to American Tool Handle Company, Buffalo, N. Y., a Corporation of New York. Filed May 3, 1913. Serial No. 765,330. (Cl. 64—10.)



1. A bush comprising a blank to be formed into a split ring and having at one end thereof a projection and at its other end a recess to receive said projection, the latter having a wedge fit in the recess and the projection at one point having a width greater than the greatest width of the recess.

2. A bush comprising a blank to be formed into a split ring and having at one end thereof a projection and having at its other end a relatively narrow longitudinal slot terminating in an enlarged recess to receive said projection, the latter at its base having a greater width than the width of the recess and having a wedge fit in the recess.

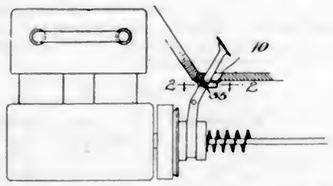
3. A bush comprising a blank to be formed into a split ring and having at one end thereof a wedge like projection and having at its other end a recess to receive the projection and formed with a narrow longitudinal slot extending rearwardly from said recess.

4. A bush comprising a blank to be formed into a split ring and having at one end thereof a projection and at its other end a recess to receive said projection, the base of the projection being of greater width than the mouth of the recess.

5. A bush comprising a blank to be formed into a split ring having one face thereof corrugated, the blank having at one end thereof a projection and at its other end a recess to receive said projection, the base of the projection being of greater width than the mouth of the recess.

[Claim 6 not printed in the Gazette.]

1,130,337. LOCK. HAROLD E. ROBB, Florence, S. D. Filed Feb. 25, 1914. Serial No. 821,034. (Cl. 70—78.)



1. In a lock, a casing, a key actuated bolt slidable therethrough, a pair of spaced lock plates arranged within the casing, said plates being adapted to receive a key between them, there being openings formed in the plates, a plurality of lock rods extending in spaced relation to the plates, and lock pins carried by the plates.

2. In a lock, a casing, a key actuated bolt slidable therethrough, a pair of spaced parallel lock plates arranged within the casing and provided with openings through which the webs of a key positioned between the lock plates may be projected, a plurality of lock rods extending in spaced relation to the plates and exteriorly thereof, and lock pins coöperating with the rods to prevent the rotation of a false key between the plates.

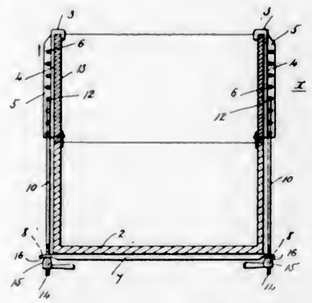
3. In a lock, a casing, a key actuated bolt slidable therethrough, spaced parallel plates arranged within the casing, said plates being provided with openings having H-shaped outlines, a plurality of lock rods extending in parallel spaced relation to the plates and exteriorly thereof, and lock pins projecting laterally from the plates, said lock pins being positioned to coöperate with the lock rods for preventing a false key from engaging the bolt.

4. In a lock, a casing, a key actuated bolt slidable therethrough, spaced plate members arranged in parallel spaced relation to each other and provided with transversely alined substantially H-shaped openings, and a pair of lock pins disposed adjacent each plate member, said pins extending in parallel spaced relation to each other and to the plates and being arranged upon opposite sides of the transverse portions of the openings, said pins being located to prevent a false key from engaging the bolt.

5. A lock including a body casing, an open top casing arranged within the body casing and extending transversely thereof, a bolt slidable along one side of the body casing, and a pair of apertured lock plates arranged within the second mentioned casing, said plates being adapted to receive between them a key which may be rotated to project its webs through the apertures of the plates and into engagement with the bolt to operate the latter.

[Claims 6 and 7 not printed in the Gazette.]

1,130,338. TOP-IRON FASTENER. CHARLES AMONS ROBERTS, Rensselaer, Ind. Filed Sept. 1, 1914. Serial No. 859,634. (Cl. 21—7.)

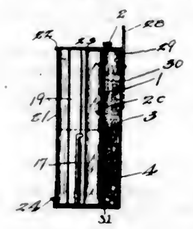


The combination, with a wagon body, and a top box; of hooks which engage with the top edge of the top box and which have shanks formed of flat bars arranged to bear on the sides of the top box and which are provided with laterally projecting ribs, said ribs each having a series of holes arranged one above another, a crossbar arranged under the wagon body and having openings in its end portions, rods having hooks for engaging with the holes in the lateral ribs and having screwthreaded end portions which project through the openings of the crossbar, and fastening nuts screwed on the rods under the crossbar.

1,130,339. ACETYLENE-GAS LAMP. GERMAIN ROUSSEL, Broughton, Pa., assignor to Thomas Klein, Broughton, Pa. Filed Aug. 11, 1914. Serial No. 856,215. (Cl. 240—11.)

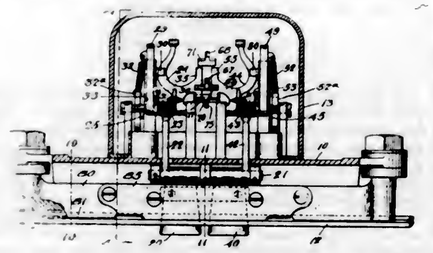
A portable gas lamp of elliptical cross section comprising in combination a water tank with a slotted projecting top and a lower carbid tank with a projecting bottom and means for detachably fastening said parts together, a

movable plate glass front in the slotted top resting on the bottom forming a reflecting chamber, a gas burner in the



reflecting chamber, and a reflector at the rear of the burner.

1,130,340. TROLLEY-SWITCH. JOHN J. RUDDICK, Newton, Mass., assignor to United States Electric Signal Company, West Newton, Mass., a Corporation of Massachusetts. Filed Mar. 10, 1913. Serial No. 753,222. (Cl. 246—54.)



1. In a trolley-switch, the combination of a pivoted contact-member, a pivoted trolley-engaging trip, a spring connecting said contact member and trip, said contact-member and trip being arranged for movement about parallel axis arranged in parallel relation with the trolley-wire, substantially as described.

2. In a trolley-switch, the combination of a trolley-engaging trip, a pivoted contact-member arranged for operation by said trip, an inertia device associated with said contact-member and arranged for movement in one direction by said member and for moving said member on its return movement, and a return spring attached to said inertia device by which said device and contact-member are returned, substantially as described.

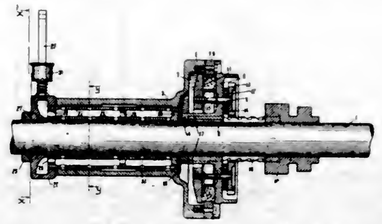
3. In a trolley-switch, the combination of a trolley-engaging trip, a pivoted contact-member arranged for operation by said trip, an inertia device yieldingly connected with said contact-member and also arranged for movement in one direction by said member and for moving said member on its return movement, and a return spring attached to said inertia device by which said device and contact-member are returned, said yielding connection between said contact-member and inertia device premitting the latter to move independently in advance of the former at the end of its movement in one direction, substantially as described.

4. In a trolley-switch, the combination of a pivoted trip arranged for engagement with a trolley-wheel, a movable contact-member yieldingly connected with said trip and an inertia-device arranged for movement in one direction by said contact-member when said member is moved by the trip to close a circuit, and means arranged to return said inertia device, said device being arranged on its return movement to engage the contact-member and move said member to open the circuit, substantially as described.

5. In a trolley-switch, the combination of a pivoted trip arranged for engagement with the trolley-wheel, a movable contact-member yieldingly connected with said trip and operated by it in one direction and an inertia-device arranged to be moved by said contact-member in one direction and said device having means associated with it to move it in the other direction to move the contact-member on its return movement and restore said member to normal position, substantially as described.

[Claims 6 to 31 not printed in the Gazette.]

1,130,341. POWER-TRANSMISSION MECHANISM. GILBERT J. SCOFIELD, Elmira, N. Y., assignor to The Hilliard Clutch & Machinery Co., Elmira, N. Y., a Corporation of New York. Filed May 6, 1913. Serial No. 765,739. (Cl. 192—7.)



1. In power transmission mechanism, in combination, a driving member, a driven member, means for connecting and disconnecting said members at will, a stationary member positioned between the driving and driven members adapted to prevent motion being transmitted from one to the other by friction, said stationary member comprising two concentric cylindrical sleeves having a space therebetween for the admission of lubricant to the adjacent surfaces of said members, and means whereby the lubricant may be distributed to the inner and outer surfaces of the stationary member.

2. In power transmission mechanism, in combination, a driving member, a driven member, means for connecting and disconnecting said members at will, and a stationary member positioned between the driving and driven members adapted to prevent motion being transmitted from one to the other by friction, said stationary member comprising two concentric cylindrical sleeves, and a hollow annular lubricant chamber closely fitting said driving member and discharging between said sleeves, into which one of said cylindrical sleeves is adapted to be pressed.

3. In power transmission mechanism, in combination, a driving member, a driven member, and a stationary bushing therebetween, said bushing comprising two perforated cylindrical sleeves spaced apart and held against rotation.

4. In power transmission mechanism, in combination, a driving member, a driven member, and a bushing therebetween, said bushing comprising two cylindrical sleeves one within the other, the outer sleeve being held against movement, and a space provided between said sleeves for the admission of lubricant to all relatively movable adjacent surfaces.

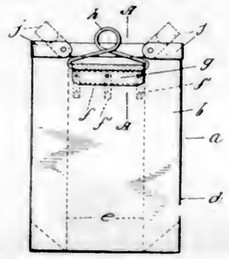
5. In power transmission mechanism, in combination, a driving member, a driven member, and a bushing therebetween, said bushing comprising two substantially concentric perforated cylinders having a space therebetween, means holding said cylinders against rotation, and spacing lugs on one of said cylinders adapted to hold the other in proper position with respect thereto.

[Claims 6 to 14 not printed in the Gazette.]

1,130,342. CLOSURE FOR MOTHPROOF BAGS. JACOB JULIUS SCHEUCH, New York, N. Y., assignor to The White Tar Company, New York, N. Y., a Corporation of New York. Filed Dec. 17, 1910. Serial No. 597,756. (Cl. 150—7.)

1. A bag of the character described having a front wall and a back wall, one of which walls projects above the other a distance sufficient to permit the projecting wall to be folded over the other wall without folding the latter and which is provided with a pair of swinging clasps pivoted on the projecting wall below the line of the first fold and free to swing in a plane parallel to said walls and

over the lateral edges of the bag; said clasps being adapted and arranged to lie in their closing position opposed to and over the lateral edges of the folded portions of said walls and to cover and close the ends of the folded portions of the bag.

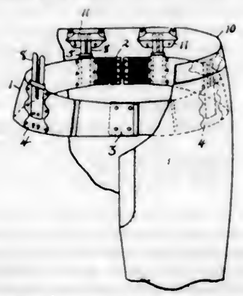


2. A bag of the character described having a front wall and a back wall, one of which walls projects above the other a distance sufficient to permit the projecting wall to be folded over the other wall without folding the latter and the upper edge of which is provided with a reinforcing strip; the wall having the projecting foldable portion being provided with a pair of swinging clasps pivoted below the reinforcing strip and free to swing in a plane parallel to said walls and over the lateral edges of the bag; said clasps being adapted and arranged to lie in their closing position opposed to and over the lateral edges of the folded portions of said walls and to cover and close the ends of the folded portions of the bag.

3. A bag of the character described having a front wall and a back wall and open at only its mouth; one of which walls projects above the other a distance sufficient to permit the projecting wall to be folded over the other wall without folding the latter and which is provided with a pair of swinging clasps pivoted on the projecting wall and free to swing in a plane parallel thereto and arranged and adapted to fit in their closing position over and to cover and close the ends of the folded portions of the bag only after said projecting wall has been twice folded upon itself.

4. A bag of the character described having a front wall and a back wall and open at only its mouth; one of which walls projects above the other a distance sufficient to permit the projecting wall to be folded over the other wall without folding the latter and which is provided with a pair of swinging hook-shaped clasps pivoted on the projecting wall and free to swing in a plane parallel thereto; the hook ends of said clasps being arranged to swing over the lateral edges of the bag and to embrace and close the ends of the folded portions of the bag only after the projecting wall has been twice folded upon itself.

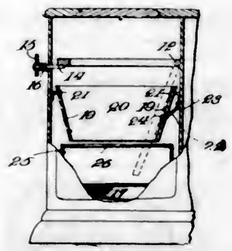
1,130,343. GARMENT-SUPPORT. KENT L. SEAMAN, Fort Wayne, Ind. Filed Aug. 19, 1912. Serial No. 715,767. (Cl. 241—8.)



1. A device for supporting garments comprising a form-fitting belt, a series of anchor-plates fixed upon the belt, and a corresponding series of supporting members in adjustable connection with the plates, each of said members having two upwardly projecting flexible supports extending parallel to each other and adapted severally to afford support for the garment.

2. A device for supporting garments comprised of a form-fitting belt, and a series of supporting members attached to the belt and each being comprised of a flat plate having two upwardly projecting flexible supports that extend parallel to each other and severally afford support for the garment.

1,130,344. STOVE-GRATE. ANNA STEINLY, Mongo, Ind. Filed Oct. 6, 1913. Serial No. 793,633. (Cl. 126—158.)



1. The combination with a fuel burner, of a grate hingedly mounted in the combustion chamber thereof, means for limiting the downward swinging movement of the grate, and a supporting member for normally holding the grate in horizontal position, said supporting member including a head-board, a plurality of pins carried thereby and adapted to project through the wall of the fire box for supporting the free edge of the grate, and a plurality of helical springs wound about the pins and secured at their terminals to the wall of the fire box and the head-board, said springs being adapted to normally hold the pins in supporting relation to the grate.

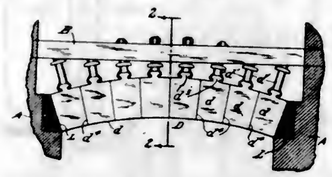
2. The combination with a fuel burner, of a grate adapted to be hingedly mounted in the combustion chamber thereof, a hinge-rod carried by the grate and journaled in the walls of the combustion chamber, a squared head formed on one end of the hinge-rod and disposed exteriorly of the combustion chamber, for the application of an operating tool, and means for supporting the grate in horizontal position, said means including a plurality of plunger pins mounted for movement through apertures formed in the walls of the combustion chamber, springs for normally holding the inner rods of the plunger pins in supporting relation to the grate, and a head-board connected to the plunger pins and disposed exteriorly of the combustion chamber, whereby all the pins may be simultaneously withdrawn from supporting relation to the grate.

3. The combination with a fuel burner, of a grate hingedly mounted in the combustion chamber thereof, means for normally supporting the grate in horizontal position, a guide chute positioned in the combustion chamber below the grate, and a stop arm secured to the wall of the combustion chamber and projecting into the chute, said stop arm being formed of resilient strap metal and being adapted to limit the downward swinging movement of the grate.

1,130,345. FIRE-BRICK ARCH. CHARLES F. STEVENS, Chicago, Ill. Filed Feb. 16, 1914. Serial 818,875. (Cl. 110—99.)

1. In a fire brick or tile arch, the combination of tiles or fire bricks, suspending devices, and supporting beams, said suspending devices comprising elastic members and body members and means to attach said suspending devices to said fire bricks or tiles with said elastic members interposed between said supported tiles and said supporting beams, means to adjust said elastic and body members relative to each other, and means to hold them in said adjusted position.

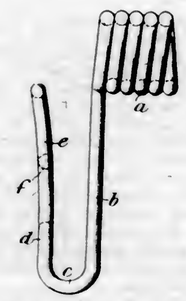
2. In a fire brick or tile arch, the combination of tiles or fire bricks, supporting beams, suspending devices, means to attach said suspending devices to said supporting beams, and to said fire bricks or tiles, said suspending devices comprising elastic members and body members adjustably interposed between said supported tiles and said supporting beams, said body member provided with a slot, and means engageable through said slot to secure said elastic and body members in an adjusted position.



3. In a fire brick or tile arch, the combination of tiles or fire bricks, suspending devices, supporting beams, and side walls, said suspending devices comprising elastic members and body members, said elastic members attached to said tile and adjustably attached to said body members, and lugs on said body members, said lugs adapted to engage with said supporting beams.

4. A fire brick sprung arch suspended from supporting beams, and comprising a plurality of members arranged in a plurality of rows, and respectively provided with projections on the top sides thereof, and a corresponding plurality of suspending means respectively attached to said supporting beams and to a member of said arch, said supporting means respectively comprising an elastic member interposed between said arch members and said supporting beams, said elastic members adapted to engage said projections when said arch members are forced upward into said arch.

1,130,346. MOUTH-GAG FOR HORSES AND OTHER ANIMALS. FRANK SWALES, Holloway, London, England. Filed Mar. 13, 1914. Serial No. 824,376. (Cl. 128—27.)



1. A gag for horses and other animals, comprising a part extending within the mouth longitudinally of the animal's head and beyond the corner of the mouth, a part extending inwardly therefrom and adapted to lie between the upper and lower molar teeth and a support secured to the longitudinally extending part and projecting outside of the animal's mouth when the device is in use.

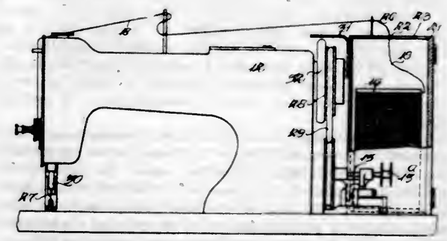
2. A gag for horses and other animals constructed of a main inner portion designed to be introduced between the animal's upper and lower molar teeth, a rod carrying the said main inner portion and adapted to lie between the animal's cheek and outer side or the lower molars, and an outer portion designed to lie against the outer side of the animal's cheek and to be held by the operator, substantially as set forth.

3. A gag for horses and other animals constructed of a main inner portion designed to be introduced between the animal's upper and lower molar teeth, a rod carrying the said main inner portion and adapted to lie between the animal's cheek and outer side of the lower molars, and an outer portion designed to lie against the outer side of the animal's cheek and to be held by the operator, the said outer portion being formed into a ring whereby the gag can be held by the operator, substantially as set forth.

4. A gag for horses and other animals constructed of a main inner portion designed to be introduced between the animal's upper and lower molar teeth, a rod carrying the said main inner portion and adapted to lie between the animal's cheek and outer side of the lower molars, and an outer portion designed to lie against the outer side of the animal's cheek and to be held by the operator, the said outer portion being formed into a ring whereby the gag can be held by the operator, and the ring being provided with a bar for receiving a strap whereby the gag can be attached to the animal's halter when required, substantially as set forth.

5. A gag for horses and other animals constructed of a main inner portion designed to be introduced between the animal's upper and lower molar teeth, a rod carrying the said main inner portion and adapted to lie between the animal's cheek and the outer side of the lower molars, and an outer portion designed to lie against the outer surface of the animal's cheek and to be held by the operator, the said main inner portion being formed by coiling the wire of which the rod is a part into the form of a tube projecting at a right angle to the said rod, substantially as set forth.

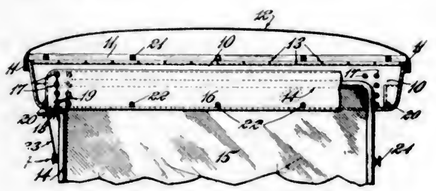
1,130,347. GUARD AND THREAD-CONTAINER FOR SEWING-MACHINES. MORRIS TAPLITSKY, Boston, Mass. Filed Aug. 6, 1914. Serial No. 855,400. (Cl. 112—29.)



1. A thread protecting and supplying attachment for sewing machines, comprising a box adapted to inclose the supply spools on which the needle and shuttle threads are stored, said box having an open side for the insertion and removal of said spools, thread outlets in its top, and thread guides above the top, one arranged to guide the needle thread across the driven pulley and hand wheel of the machine, and the other arranged to guide the shuttle thread to the bobbin winder of the machine, and a guard attached to one side of the box and formed to overhang the said driven pulley and hand wheel and prevent the needle thread from fouling therewith.

2. A thread protecting and supplying attachment for sewing machines, comprising a box adapted to inclose the supply spools on which the needle and shuttle threads are stored, said box having an open side for the insertion and removal of said spools, thread outlets in its top, narrow slots leading from one edge of the top to said outlets, whereby the leading ends of the needle and shuttle threads may be quickly guided to said outlets, and thread guides above the top, one arranged to guide the needle thread across the driven pulley and hand wheel of the machine, and the other arranged to guide the shuttle thread to the bobbin winder of the machine, and a guard attached to one side of the box and formed to overhang the said driven pulley and hand wheel and prevent the needle thread from fouling therewith.

1,130,348. AUTOMOBILE TOP ATTACHMENT. FRANCIS A. TEMM, St. Louis, Mo. Filed May 15, 1914. Serial No. 838,632. (Cl. 21—148.)



1. An automobile having a top and a movable wind shield adapted to be positioned with its upper rim below the front of said top, a narrow flap of flexible material permanently secured along one edge across the front of said top with its free edge suspended therefrom and depending below said rim, said flap having a marginal pocke, along its free edge into which said rim projects in its raised position.

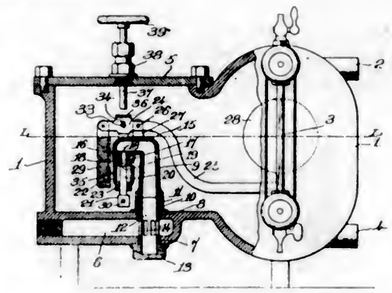
2. An automobile having a top and a movable wind shield adapted to be positioned with its upper rim below the front of said top, a narrow flap of flexible material permanently secured along one edge across the front of said top with its free edge suspended therefrom and depending below said rim, said flap having a marginal pocket along its free edge into which said rim projects in its raised position, and means for releasably securing said rim in said pocket whereby said wind shield can be moved without readjusting said flap.

3. An attachment for automobile tops comprising a flap adapted to be secured across the front of an automobile top with its free edge depending below the top rim of the wind shield of the automobile, said flap having a marginal pocket along its free edge, said pocket opening downward and being adapted to receive the top of the wind shield, rows of alining eyelets in said pocket parallel to its ends and spaced inwardly therefrom, each of said rows being adapted to receive a lacing whereby said attachment may be applied to wind shields of various widths.

4. An attachment for automobile tops comprising a flap adapted to be secured across the front of an automobile top with its free edge depending below the top rim of the wind shield of the automobile, said flap having a marginal pocket along its free edge, said pocket opening downward and being adapted to receive the top rim of the wind shield, rows of alining eyelets in said pocket parallel to its ends and spaced inwardly therefrom, each of said rows being adapted to receive a lacing whereby said attachment may be applied to wind shields of various widths, and a clip adapted to be snapped through alining eyelets in said pocket adjacent to the rim of said wind shield to embrace the latter and retain it in said pocket.

1,130,349. STEAM-TRAP. WILLIAM R. TEMPLETON, Boston, Mass., assignor to Templeton Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed May 11, 1912. Serial No. 696,556. (Cl. 137—103.)

1. The combination, with a casing of a steam trap having at its bottom a discharge outlet, of an upright discharge tube fixedly held in the casing and at its lower end communicating directly with said outlet, said tube being downturned at its upper end, a valve-seat in said downturned end, a weighted discharge valve movable vertically toward and away from the valve-seat, a float-controlled, rocking actuator mounted on the discharge tube, and a lost-motion connection between said actuator and valve, the actuator operating through said connection to move downward and unseat the valve when the water in the casing reaches a predetermined level, the weight of the valve thereupon causing it to drop immediately to full open position, the actuator lifting the valve against the valve-seat and closing communication between the discharge tube and the interior of the casing immediately upon discharge of the trap.



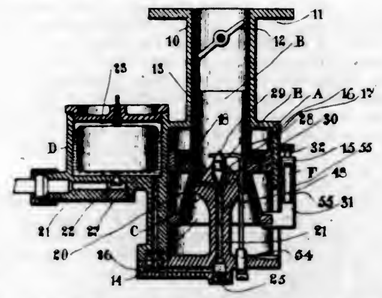
2. The combination, with a casing of a steam trap having at its bottom a discharge outlet, of an upright discharge tube fixedly held in the casing and at its lower end communicating directly with said outlet, said tube being downturned at its upper end, a double-ended, reversible valve-seat removably mounted in said downturned end, a discharge valve movable vertically toward and from the valve-seat and having a depending, weighted spindle, a loosely coöperating guide for said spindle, permitting the valve to seat itself firmly upon the seat when lifted against it, a float-controlled rocking actuator mounted on the discharge tube, and a lost-motion connection between said actuator and valve, the actuator operating through said connection to move downward and unseat the valve when the water in the casing reaches a predetermined level, the weight of the valve thereupon causing it to drop immediately to full open position, the actuator lifting the valve against it, a float-controlled rocking actuator mounted on the discharge tube, and a lost-motion connection between said actuator and valve, the actuator operating through said connection to move downward and unseat the valve when the water in the casing reaches a predetermined level, the weight of the valve thereupon causing it to drop immediately to full open position, the actuator lifting the valve against the valve-seat and closing communication between the discharge tube and the interior of the casing immediately upon discharge of the trap.

3. The combination, with a casing of a steam trap having at its bottom a discharge outlet, of an upright discharge tube fixedly held in the casing and at its lower end communicating directly with said outlet, said tube being downturned at its upper end, a valve-seat in said downturned end, a discharge valve movable vertically toward and from the valve-seat and having a depending, weighted spindle, a loosely fitting latteral guide for the spindle at a distance below the valve, permitting the valve to accommodate itself to the seat when lifted against it, a float-controlled, rocking actuator mounted on the discharge tube, and a lost-motion connection between said actuator and valve, the actuator operating through said connection to move downward and unseat the valve when the water in the casing reaches a predetermined level, the weight of the valve thereupon causing it to drop immediately to full open position, the actuator lifting the valve against the valve-seat and closing communication between the discharge tube and the interior of the casing immediately upon discharge of the trap.

4. The combination with a casing of a steam trap having at its bottom a discharge outlet, of an upright discharge tube fixedly held in the casing and at its lower end communicating directly with said outlet, said tube being downturned at its upper end, a double ended reversible valve seat removably mounted in said downturned end, a valve chamber provided with a series of inlet openings removably mounted on the lower end of said reversible valve seat, a discharge valve movable vertically toward and from the valve seat and having a depending weighted spindle extending through said valve chamber, said valve chamber acting as a loosely fitting lateral guide for the spindle at a distance below the valve, permitting the valve to accommodate itself to the seat when lifted against it, a float controlled, rocking actuator, mounted on the discharge tube, and a lost motion connection between said actuator and valve, the actuator operating through said connection to move downward and unseat the valve when

the water in the casing reaches a predetermined level, the weight of the valve thereupon causing it to drop immediately to full open position, the actuator lifting the valve against the valve seat and closing connection between the discharge tube and the interior of the casing immediately upon discharge of the trap.

1,130,350. CARBURETER. EDMUND JOHN THOMPSON, Ottawa, Ontario, Canada. Filed June 24, 1911. Serial No. 635,096. (Cl. 48—150.3.)



1. In a carbureter and in combination, a reciprocable element actuated by the engine, a hinged inclined plane carried by said element, a tongue on said plane, an adjusting screw adapted to bear against the tongue, spring means for forcing the tongue against the adjusting screw, a spray nozzle, a valve member therefor and actuating means for the valve member including a contact member bearing on the inclined plane.

2. In a carbureter and in combination, a reciprocable element actuated by the engine carrying an inclined plane, a spray nozzle, a valve member therefor, actuating means for the valve member including a roller adapted to bear on the contact plane and be actuated thereby and adjusting means for the roller including a threaded pin carrying a roller, lugs supporting the pin, means for preventing rotation of the pin, and a thumb nut mounted on the pin between the lugs.

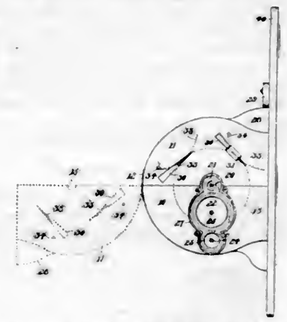
3. In a carbureter and in combination, a tubular suction valve adapted to regulate the amount of air introduced, an annular piston around the same, a cylinder for the piston forming an air chamber, said suction valve having communication with said air chamber, and a spray nozzle and valve therefor operated by the suction valve.

4. A carbureter comprising a casing which forms an engine inlet member and a chamber, a compensating plunger slidably mounted with respect to said member having an enlarged portion in said chamber, said plunger forming between it and a part of the casing a restricted air passage of variable size, a fuel nozzle arranged to discharge into the restricted passage, a fuel inlet valve, and a communicating passage between said chamber and said air passage for changing the pressure in said chamber in proportion to variations in pressure in the air passage, to cause said plunger to move to thereby vary the size of said air passage, and an actuating connection between the plunger and the valve.

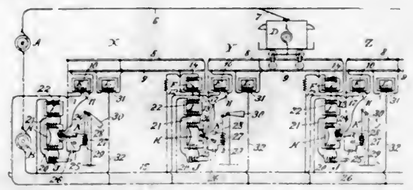
1,130,351. [WITHDRAWN.]

1,130,352. KNIFE-SHARPENER. GEORGE TKACH, Hastings-upon-Hudson, N. Y. Filed Dec. 8, 1914. Serial No. 876,080. (Cl. 51—7.)

A device of the class described comprising a semi-cylindrical water receiving casing, a similar casing hinged to the top thereof and having tapered alining blade receiving slots through its opposite sides, a grinding wheel having its axle centrally journaled through the said casings and having its periphery in the same plane as the pointed ends of said slots, gearing operatively connected to the said axle, a case for the said gearing, a transverse rod fixed within said hinged casing above the larger ends of the said slots, a leaf spring having one end thereof rigidly secured to the said rod and curvingly extending transversely of the plane of the said slots and closure retaining means for the said hinged casing.



1,130,353. SYSTEM OF AUTOMATIC BLOCK-SIGNALING. FITZHUGH TOWNSEND, New York, N. Y., assignor to General Railway Signal Company, a Corporation of New York. Filed June 16, 1904. Serial No. 212,798. (Cl. 246—36.)



1. A system of automatic block signaling for electric railways, embodying two rails divided into sections by insulated joints, bonds arranged to bridge said joints, said bonds each having a core and a coil thereon, said coil connected across the traffic rails, and two adjacent bonds connected together at their centers, and a second coil on one of said bonds connected across a source of alternating current.

2. A system of automatic block signaling for electric railways, embodying two rails divided into sections by insulated joints, bonds constructed and connected as described, arranged to bridge said joints, means for exciting a difference of potential between the rails of each section, supplemental bonds constructed as described and connected across the rails in each section, and a return auxiliary conductor connected to the central point of the coil in each supplemental bond.

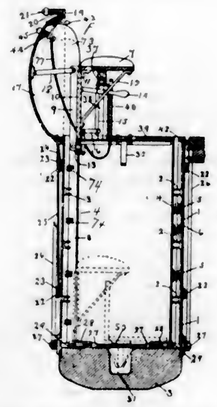
3. In a system of automatic block signaling for electric railways, the combination of a series of blocks or sections, relays responsive to currents of one frequency and phase controlled by the blocks or sections, signals controlled by said relays, transformers energizing the sections with current of this particular frequency, the connections of the transformers in adjacent blocks being reversed through 180 electrical degrees so that this phase of the current in adjacent blocks is different and each relay being connected to pick up in response to the phase impressed by the transformer of its block.

4. In a system of automatic block signaling for electric railways, the combination of a trackway divided into block sections, a coil connected across the trackway, an independent return conductor for the power current, and a conductor connecting the central point of the coil with the return conductor.

5. In a system of automatic block signaling for electric railways, the combination with a track having both rails divided into sections of a power current and a signaling current of different characteristics flowing in both rails of a track divided into sections, the signaling current supplied to each section by a transformer, the primary current of this transformer flowing into the middle point of the winding of the secondary and returning to the generator through both rails equally, the secondary of the transformer connected across the track and carrying the full power current.

[Claims 6 to 16 not printed in the Gazette.]

1,130,354. SAFETY ATTACHMENT FOR LOCOMOTIVE-CABS. WILLIAM A. UTTZ, Fort Worth, Tex. Filed Aug. 25, 1914. Serial No. 858,447. (Cl. 105—205.)



1. A safety attachment for the cabs of locomotives comprising a casing attached to the cab and provided with a lid, a seat provided with means for holding the lid in open position, and means by which a person can, after entering the casing, close the lid.

2. A safety attachment for the cabs of locomotives comprising a casing detachably attached to the cab for containing a person, a seat adapted to drop into said casing, a lid for closing the casing, and means by which a person can cause the seat to descend into the casing and simultaneously close the lid and detach the casing from the cab.

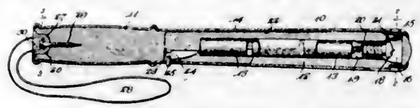
3. A safety attachment for the cabs of locomotives comprising a casing detachably attached to the cab and provided with a lid hingedly connected therewith, a seat and means supporting the seat at the entrance to the casing, means for detaching the seat from its support, and means to be actuated by the falling seat for automatically detaching said casing and simultaneously closing said lid.

4. A safety attachment for the cabs of locomotives comprising a casing detachably mounted in the cab standing normally open, a seat supported above the casing and adapted to descend into the casing, means for closing the casing, and means by which a person can, after entering the casing, close the casing and detach the casing from the cab.

5. A safety attachment for the cabs of locomotives comprising a casing detachably mounted in the cab, a seat, means for supporting the seat at the entrance to said casing consisting of T-irons having stationary portions connected to the interior of the casing and hinged portions connected to the stationary portions, channel bars attached to the seat and engaging said T-irons and breaking the joints thereof while supporting the seat, pins supporting said channel bars on said T-irons, and a lever operatively connected with said pins.

[Claims 6 to 14 not printed in the Gazette.]

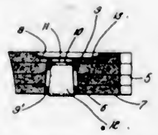
1,130,355. POLICEMAN'S BILLY. EDWARD L. VON ESCHEN and ELEANOR B. VON ESCHEN, Kirksville, Mo. Filed Nov. 18, 1913, Serial No. 801,723. Renewed Jan. 26, 1915. Serial No. 4,576. (Cl. 46—4.)



1. In a billy, the combination with a core, said core having a recess therein, of a dish shaped member in the said recess, a second member in the dish shaped portion of the dish-shaped member, a holding strap passing around the second member, with its ends lying within the recess of the dish-shaped member, and a screw for swivelly holding the second member in the recess of the dish-shaped member, said screw passing through the ends of the holding strap to secure the same against removal from the recess of the dish-shaped member.

2. In a billy, the combination with a core, said core being provided with a recess in one end thereof, a member in the recess, of a screw for swivelly holding the said member therein, and a holding strap having its ends embedded in the said member, with the screw passing through the ends of the strap to secure the ends of the strap rigidly in the said member.

1,130,356. HEEL FOR BOOTS AND SHOES. ERNEST C. WALLACE, Woodfords, Me. Filed Apr. 4, 1914. Serial No. 829,655. (Cl. 36—59.)



1. In combination, a heel having a recess, a plug located in said recess, one end of said plug normally projecting below the tread surface of said heel, a spring engaging said plug and arranged to force the same toward said tread surface, and yielding means fixed within said recess and engaging the periphery of said plug to prevent said plug from dropping out of said recess.

2. In combination, a heel having a recess, a plug located in said recess, one end of said plug normally projecting below the tread surface of said heel, a spring engaging said plug and arranged to force said plug toward said tread surface and means fixed within said recess and engaging the periphery of said plug arranged to prevent said plug from dropping out of said recess, and arranged to yield to allow said plug to be forced out of said recess.

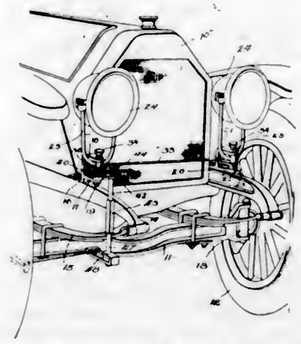
3. In combination, a heel having a recess, a sleeve of resilient material fixed within said recess, a plug tightly fitting said sleeve and having an annular groove in its periphery, one end of said plug projecting normally below the tread surface of said heel, a spring engaging said plug and arranged to force said plug toward said tread surface, and a flange on said sleeve projecting into said groove, whereby said plug is prevented from dropping out of said sleeve, but may be forced out of said sleeve.

4. In combination, a heel having a recess, a plug located in said recess, one end of said plug normally projecting below the tread surface of said heel, a spring engaging said plug and arranged to force the same toward said tread surface, said heel having a recess provided in the top thereof, a plate of spring metal located in said last named recess and arranged to bear against the opposite end of said plug and yielding means fixed within said recess and arranged to prevent said plug from dropping out of said recess.

5. In combination, a heel having a recess, a sleeve of resilient material fixed within said recess, a tapered plug tightly fitting said sleeve and having an annular groove in its periphery, one end of said plug projecting normally below the tread surface of said heel and having a recess provided in the top thereof, a plate of spring metal located in said last-named recess and arranged to bear against the opposite end of said plug and an annular flange on said sleeve projecting into said annular groove of said plug, whereby said plug is prevented from dropping out of said sleeve but may be forced out of said sleeve.

[Claim 6 not printed in the Gazette.]

1,130,357. DIRIGIBLE-HEADLIGHT MECHANISM. CLIFTON WATERS, Brookfield, Mo. Filed May 5, 1914. Serial No. 836,487. (Cl. 240—62.)



1. A dirigible headlight for motor vehicles including a bracket adapted for attachment to a vehicle frame and having vertically spaced arms, a lamp supporting fork having a standard rotatably mounted between the arms, retaining means for the standard, and means adapted for operative connections between a steering knuckle of the vehicle and such standard for causing synchronous movement of the two.

2. A dirigible headlight for motor vehicles including a bracket adapted for attachment to a vehicle frame and having vertically spaced arms, a lamp supporting fork having a standard rotatably mounted between the arms, a gear carried by the standard, and means adapted for operative connections between a steering knuckle of the vehicle and such gear for causing synchronous movement of the two, said means including a shaft journaled in the bracket, a gear carried by such shaft and meshing with the first gear, a second bracket adapted for attachment to the vehicle axle, a shaft journaled in said second bracket and having sliding telescopic engagement with the before-mentioned shaft, an arm carried by the axle supported shaft, and a link pivotally connected to the arm and adapted for pivotal connection to a steering knuckle carried arm.

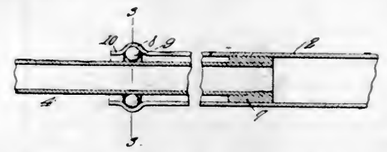
3. A dirigible headlight for motor vehicles including a bracket adapted for attachment to a vehicle and having vertically spaced arms, a lamp supporting fork having a standard rotatably mounted between the arms, a pin extending through the arms and standard and provided with a lubricant chamber opening through its upper end and side walls, means for supplying lubricant to the chamber, a gear on the shaft, and means operatively engaging the gear and adapted for connection to the steering knuckle of the vehicle.

4. A dirigible headlight for motor vehicles including a bracket adapted for attachment to a vehicle and having vertically spaced arms, a lamp bracket including a tubular body portion adapted to be positioned between the arms, pivotal fastening means extending through the arms and bore of the lamp bracket, and means co-acting between the lamp bracket and steering knuckle for turning the bracket.

5. A dirigible headlight for motor vehicles including a bracket adapted for attachment to a vehicle and having vertically spaced arms, the lower of said arms having a circular recess in its upper face, a lamp bracket including a tubular standard portion insertible between the arms with its lower end seating in the recess of the lower arm, a gear carried by the standard, means adapted for operative connection between the steering knuckle of a vehicle, and standard, and means for securing the lamp bracket against displacement.

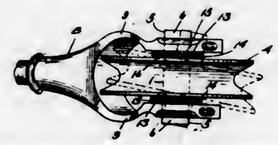
[Claim 6 not printed in the Gazette.]

1,130,358. TROMBONE-SLIDE. ELMER E. WHITNEY, Biddeford, Me. Filed Feb. 19, 1914. Serial No. 819,792. (Cl. 74—84.)



In a device of the character described, a pair of telescoping tubes, the outer tube having an annular bulge adjacent its end, and a series of ball bearing fitted within the said bulge and embracing the inner tube.

1,130,359. TROLLEY-WHEEL MOUNT. JULIAN WILDER, Augusta, Me. Filed May 16, 1914. Serial No. 839,148. (Cl. 64—68.)



1. A wheel mount comprising a harp member having undercut bearing channels, and a wheel axle coöperating with the harp and formed with independent bearing surfaces for coöperation with distinctive portions of said bearing channels.

2. A wheel mount comprising a harp member having undercut bearing channels opening through the ends of the arms and recesses opening from the inner sides of the arms and coinciding with the channels, and a wheel axle having squared portions to coöperate with the walls of the channels and rounded portions to coöperate with the walls of the recesses.

3. A wheel mount comprising a harp member having undercut bearing channels, a wheel axle having distinctive bearing portions to coöperate with independent surfaces of said channels, and washers closing the inner portions of said channels about the axle.

4. A wheel mount comprising a harp member having undercut bearing channels, a wheel axle having distinctive bearing portions to coöperate with independent surfaces of said channels, washers closing the inner portions of said channels about the axle, and means for removably connecting said washers to the trolley wheel.

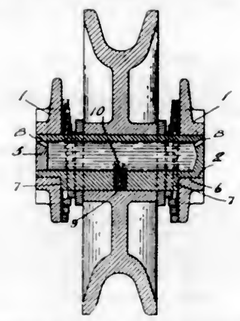
5. A wheel mount comprising a harp member having undercut bearing channels, a trolley wheel, an axle therefor having distinctive bearing portions to coöperate with independent surfaces of said channels, washers closing the inner portions of said channels about the axle, and springs bearing between the washers and trolley wheel to maintain said washers in channel closing positions.

[Claims 6 and 7 not printed in the Gazette.]

1,130,360. TROLLEY-WHEEL MOUNT. JULIAN WILDER, Augusta, Me. Filed Sept. 28, 1914. Serial No. 864,008. (Cl. 64—26.)

1. The combination with a trolley-harp having elongated slots, an axle for a trolley-wheel having its end-

portions arranged in said slots, said axle having recesses with shoulders at their under sides preventing its rotary and longitudinal movement, but permitting angular movement with respect to the harp, said axle being made hollow to form a large oil-well and having an orifice leading from said well at a point intermediate its length, preferably containing a wick and having an orifice at one end of the axle, at the top, which extends obliquely downward into open communication with the well, and a trolley wheel arranged on said axle, substantially as described.



2. The combination with a trolley-harp having elongated slots, an axle for a trolley-wheel arranged in said slots and movable angularly therein and held against longitudinal and rotary movements, a trolley-wheel mounted on said axle, and volute springs arranged on the axle between said wheel and the side walls of the harp, said springs being normally held under compression to hold said wheel in a middle position on the axle, yet yieldable to permit longitudinal movements of the wheel on the axle, substantially as described.

3. The combination with a trolley-harp having elongated slots, an axle for a trolley-wheel arranged in said slots and movable angularly therein and held against longitudinal and rotary movements, a trolley-wheel mounted on said axle, and volute springs arranged on the axle between said wheel and the side walls of the harp, said springs being composed of strips of wire, quadrangular in cross-section, substantially as described.

4. The combination with a trolley-harp having elongated slots, an axle for a trolley-wheel arranged in said slots and movable angularly therein and held against longitudinal and rotary movements, a trolley-wheel mounted on said axle, and volute springs arranged on the axle between said wheel and the side walls of the harp, said springs being composed of strips of wire having flat sides, substantially as described.

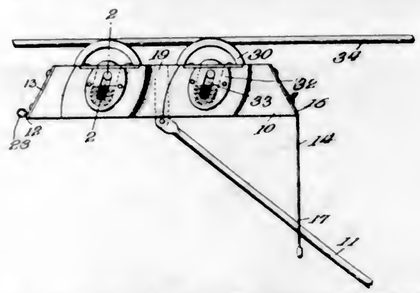
1,130,361. TROLLEY-HEAD. ALFONZO L. WILLIAMS, Los Angeles, Cal. Filed May 15, 1914. Serial No. 838,791. (Cl. 191—58.)

1. The combination with a trolley pole, of a head pivotally connected thereto and including supporting members, a trolley wheel slidably mounted upon said members, resilient cushioning means for said wheel, and means connecting one extremity of the head with the trolley pole, said means having slidable connection with the pole.

2. The combination with a trolley pole, of a head pivotally connected thereto and including supporting members, a trolley wheel slidably mounted upon said members and operatively connected therewith, and means carried by one extremity of the head and arranged to engage the trolley pole.

3. A trolley head adapted for pivotal connection with a trolley pole and including supporting members, a resiliently supported trolley wheel operatively connected with said members and slidable thereon, and means carried by the head and disposed to slidably engage the trolley pole, said means being arranged to form a guard for the head.

4. A trolley head adapted for pivotal connection with a trolley pole and including supporting members, a plurality of trolley wheels detachably mounted upon said members and slidably connected therewith, resilient cushioning means for said wheels, and means carried by one extremity of the head and arranged to slidably engage the trolley pole.



5. A trolley head adapted for detachable connection with a trolley pole, said head including spaced supporting members having oppositely disposed recesses formed therein, the walls of said recesses being inclined obliquely with reference to the longitudinal axis of said members, bearing blocks mounted in said recesses, a trolley wheel mounted for rotation in said bearing blocks, means detachably connected with said supporting members and arranged to maintain said bearing blocks in operative position within said recesses, and means carried by one extremity of the head and disposed to slidably engage the trolley pole.

[Claims 6 to 16 not printed in the Gazette.]

1,130,362. COMBINED CURTAIN RING AND CLAMP. MICHAEL WOGAN, Philadelphia, Pa. Filed Feb. 27, 1914. Serial No. 821,532. (Cl. 156—21.)

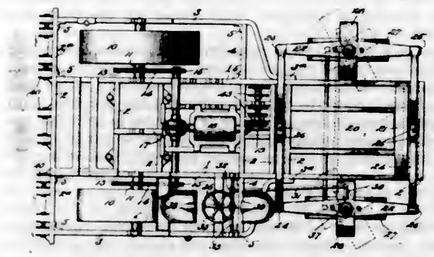


A combined curtain ring and clamp constructed of a single strand of wire bent back upon itself to form an eye and twisted throughout the majority of its length, said twisted member being bent into circular form and the terminal ends of the strands being separated and bent at right angles, a button secured upon the separated right angular ends, the aforesaid eye being bent so as to be engaged by the button and being arranged between the separated ends of the strand, the inherent resiliency of the rings normally tending to engage the button with the eye.

1,130,363. TRACTOR. WILLIAM C. ZELLE, St. Louis, Mo., assignor to Plantation Equipment Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 1, 1912. Serial No. 687,929. (Cl. 21—114.)

1. A tractor comprising a platform frame, two downwardly extending side frames secured to said platform frame near one end of each side thereof, an axle supported between the two side frames on each side of said platform frame, a traction wheel mounted on each of said axles, an auxiliary frame pivotally connected to said platform frame at a point between the sides of said platform frame near the other end thereof, said auxiliary frame being adapted to swing vertically, a steering wheel swiveled on said auxiliary frame near each side of said platform frame, said tractor having an unobstructed clearance between the underside of said platform frame and the underside of said auxiliary frame and the ground throughout the length of said tractor.

2. A tractor of the character described, comprising a platform frame provided near one end with depending side frames and having a clearance from the ground to its underside unobstructed throughout its length between said side frames, traction wheels mounted within and supporting said side frames, and an auxiliary carrier frame supporting the opposite end portion of said platform frame, said auxiliary carrier frame being supported on wheels at its sides and having a clearance under it the same as the platform frame, the clear undersides of said platform frame and auxiliary carrier frame being in a plane above the center of gravity of the entire machine.



3. A tractor comprising a platform frame having side extensions adjacent to one end, pedestal underframes supporting said side extensions of the platform frame, traction wheels mounted within said pedestal frames, an auxiliary carrier frame having a medial longitudinal swivel connection with the end portion of the platform frame opposite to the end which is adjacent to said pedestal frames, and steering wheels having holders swiveled vertically in said auxiliary carrier frame in line with said traction wheels.

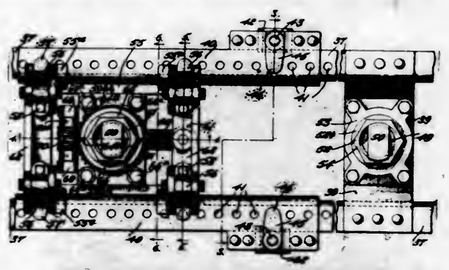
4. A tractor comprising a platform frame, pedestal frames at the sides of said platform frame, said pedestal frames being braced longitudinally and laterally to the platform frame, axles mounted transversely on said pedestal frames, traction wheels mounted on said axles, an auxiliary carrier frame, a medial longitudinal swivel connection between said platform frame and said auxiliary carrier frame, and steering wheels having holders swiveled vertically in said carrier frame in line with said traction wheels.

5. A tractor comprising a platform having rigid pedestal side frames adjacent to one end, transverse shafts mounted on said pedestal frames, traction wheels mounted on said shafts within said pedestal frames, an auxiliary carrier frame having S-shaped transverse members whose waist portions are swiveled medially to said platform, and steering wheels having a vertical swivel mounting in the side members of said auxiliary carrier frame.

[Claims 6 to 18 not printed in the Gazette.]

1,130,364. IMPLEMENT-HOLDER FOR TILLING-MACHINES. WILLIAM C. ZELLE, St. Louis, Mo., assignor to Plantation Equipment Company, St. Louis, Mo., a Corporation of Missouri. Original application filed June 17, 1912, Serial No. 704,037. Divided and this application filed Dec. 4, 1912. Serial No. 734,834. (Cl. 55—94.)

1. The combination with a pair of spaced supports, of an implement holder comprising a frame engaging said supports at its opposite sides, locking elements on said frame adapted for releasable engagement with said supports, a member swiveled horizontally in said frame, means for rocking and holding said horizontally swiveled member in adjusted position, a member swiveled vertically in said horizontally swiveled member, means for rotating and holding said vertically swiveled member in adjusted position, said vertically swiveled member having an axial opening therethrough, an implement shank slidable endwise through said axial opening in the vertically swiveled member, but held from rotation therein, and means on said vertically swiveled member for moving said shank endwise and holding it in adjusted position.



2. An implement holder comprising an open frame having means of support at opposite sides, locking elements on said frame adapted for releasable engagement with carrier members for said frame, a member swiveled horizontally on opposite sides of the frame, said horizontally swiveled member having a toothed sector at one side, a worm screw swiveled vertically on the adjacent side of said frame in operative engagement with said sector, a member swiveled vertically in said horizontally swiveled member, the axes of the two swiveled members intersecting, said vertically swiveled member having an axial opening therethrough, an implement shank slidable endwise through said axial opening but held from rotation therein, said shank being screw-threaded, a nut swiveled axially on said vertically swiveled member and engaging the threaded portion of said implement shank so as to support and adjust said shank, and a worm gear on said vertically swiveled member, a worm screw swiveled on said horizontally swiveled member in operative engagement with said worm gear.

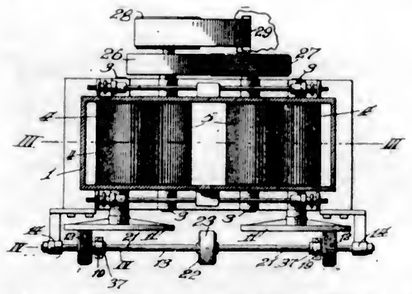
3. The combination with a pair of spaced supports, of an implement holder comprising a supporting base engaging said supports at its opposite sides, a member swiveled horizontally on said base and having a toothed sector thereon, a worm-screw on said base engaging said sector, a shank-receiving portion swiveled vertically in said horizontally swiveled member, said vertically swiveled member having a worm-gear thereon, a worm-screw on said horizontally swiveled member engaging said worm-gear, a screw-threaded implement shank fitted slidably in said shank-receiving portion, and a nut swiveled on said vertically swiveled member and adapted to engage the screw-threaded portion of the implement shank.

4. An implement holder of the character described, comprising a horizontal body frame having provision for its support at opposite sides, a pivotal member having trunnions at opposite ends journaled in said body frame in a horizontal plane, means for rocking said pivotal member and holding it in rocked position, said means including a toothed sector on said pivotal member and a coöperating worm screw on said body frame, a shank-receiving member swiveled vertically through said pivotal member, said shank-receiving member having an axial opening therethrough adapted to receive an implement shank and arranged so that the latter may move endwise but not rotatably therein, a nut swiveled on said shank-receiving member and adapted to engage the implement shank so as to move the latter endwise and hold it in adjusted position, and means for turning said shank-receiving member and holding it in adjusted position, said means including a toothed gear on said shank-receiving member and a worm screw on said pivotal member.

5. In an implement holder, a pair of supports each provided with a series of apertures, an implement holder mounted on said supports at its opposite sides, and having two series of apertures adapted to register with said first-named series of apertures, pivoted locking members mounted on said holder and adapted to enter registered apertures in said supports and said holder, and screw-threaded means for operating said locking members.

[Claims 6 and 7 not printed in the Gazette.]

1,130,365. ROLLER-MILL. AUGUST F. ALTHEIDE, Mount Carmel, Ill. Filed July 15, 1912. Serial No. 709,305. (Cl. 83—12.)



1. In a roller mill, the combination of fast and slow rolls, means adjacent the fast rolls for varying their speed, and means adjacent the slow rolls for varying their speed while said mill is in operation.

2. In a roller mill, the combination of fast and slow grinding rolls, means adjacent the fast rolls for varying their speed, and means adjacent the slow rolls for varying their speed in relation to the speed of the fast rolls, said varying means being operable without any interchanging of parts.

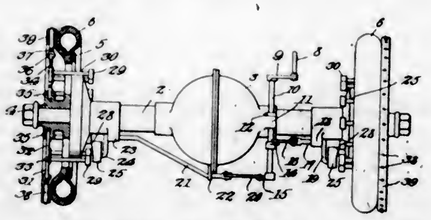
3. In a roller mill, the combination of fast and slow rolls, said fast and slow rolls being driven independently of each other, and means combined with the driving means of said slow rolls for varying their speed while the mill is in motion.

4. In a roller mill, the combination of fast and slow rolls, said rolls being driven by frictional drive, and means adjacent said frictional drive for varying the speed of said rolls independently of each other while said rolls are in motion.

5. In a roller mill, a fast roll and slow roll, a line shaft, a countershaft geared to said line shaft, a slidable friction drum mounted on said countershaft, and a friction disk secured to said slow roll, said friction disk adapted to be driven by said drum.

[Claims 6 and 7 not printed in the Gazette.]

1,130,366. AUTO WHEEL ATTACHMENT. FRANK H. BABCOCK, Punxsutawney, Pa. Filed Apr. 7, 1913. Serial No. 759,516. (Cl. 21—210.)



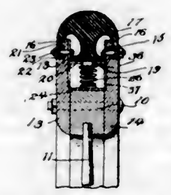
1. In a device of the class described, a wheel comprising a rim and a hub; a grip slidable in the rim; a link pivoted to the grip; a link pivoted to the hub; a pivot element uniting the inner ends of the links and independent of the hub; shoe-engaging means carried by the pivot element; a shoe under the control of an operator; and means for moving the shoe into and out of the orbit described by the shoe engaging means on the pivot element as the wheel rotates, thereby to actuate the links and to advance the grip with respect to the rim.

2. In a device of the class described, a wheel including a rim and a hub; a grip slidable in the rim; a link pivoted to said grip; a link pivoted to the hub; a pivot element uniting the links and extending transversely of the wheel; an anti-friction member mounted upon the pivot element; a shoe movable into and out of the circumference described by the anti-friction element as the wheel rotates; a spring secured to one link and bearing on the other link; and means under the control of an operator for manipulating the shoe.

3. In a device of the class described, a wheel comprising a rim and a hub; a grip slidable in the rim; a link pivoted to the grip; a link pivoted to the hub; a pivot-element uniting the links; a spring secured to one link and bearing upon the other link; the links and the pivot element forming an expansible structure, a portion of which projects laterally; a shoe movable into and out of the circumference described by the laterally projecting portion of the expansible structure; and means for operating the shoe.

4. In a device of the class described, a wheel including a rim and a hub; grips mounted to move on the wheel; yieldable connections between the respective grips and the wheel, each yieldable connection being provided with a projection the end of which is movable in an orbit the plane of which is substantially parallel to the side face of the wheel; a shoe mounted to move transversely of the wheel and into intersecting relation to the orbit described by the ends of the projections, one end of the shoe having a lateral lip disposed transversely of the plane defined by said orbit and adapted to engage one projection, thereby pushing the same outwardly and permitting the next projection to ride on the outer face of the shoe.

1,130,367. SPRING-TIRE. JOHN H. BARRETT, Paso Robles, Cal. Filed Feb. 7, 1913. Serial No. 746,947. (Cl. 152—8.)



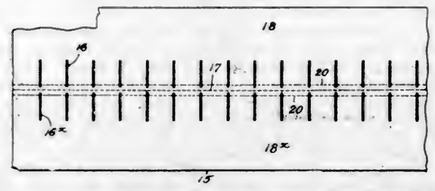
1. A vehicle wheel including a rim, circular plates secured to the opposite faces of the rim and extending beyond the periphery thereof to form an annular chamber, a tread member having an annular inwardly extending portion adapted to be freely received within said annular chamber, and cushioning means interposed between the tread member and the rim for yieldably supporting the tread thereon, said means including a plurality of circumferentially spaced helical springs arranged with their longitudinal axes extending radially with respect to the rim, the terminal convolutions of each of said spring members being bent outwardly at diametrically opposite points, link members having hooks engaging the outwardly bent portions of the springs for connecting each spring to the next adjacent springs and means carried by the links and engageable with the plate for guiding the springs, whereby they are expanded or contracted along radial lines with respect to the rim.

2. A vehicle wheel including a rim, spaced plates secured to the sides of the rim and extending beyond the periphery thereof, said plates having grooves formed in their inner faces, a tread member provided with an extension insertible between the plates, cushioning means interposed between the tread and the rim, said means including a plurality of helical springs, links connecting the terminals of each spring to the terminals of the adjacent springs, and guide arms extending laterally from certain of the links and engaging in the grooves of the plates whereby the springs are guided to move radially with respect to the rim when yielding to or recovering from a shock.

3. A vehicle wheel including a rim, a tread member, and a plurality of helical springs interposed between the tread member and the rim, the terminal convolutions of each of said springs being bent outwardly at diametrically opposite points, and links connecting the springs and engaging their outwardly bent portions.

4. A vehicle wheel including a rim, circular plates secured at the opposite faces of the rim and extending beyond the periphery thereof to form an annular chamber, the inner face of each of said plates being provided with a plurality of radially extending grooves, the grooves of the two plates being transversely alined in pairs, a tread member, and a plurality of helical springs arranged in the said annular chamber and interposed between the tread member and the rim for yieldably supporting the tread thereon, each of said springs having the terminal convolutions bent to form outwardly extending loops, and link members connecting the loops of each spring with the loops of the next adjacent springs, each of said links being provided with terminal hooks adapted to engage with the loop portion of the spring, and laterally extending arms carried by certain of said links, the outer terminals of each of said arms being mounted for sliding movement in one of said grooves whereby the springs are guided during expansion and contraction to move along radial lines with respect to the rim.

1,130,368. ROOFING-STRIP. REGINALD W. BIRD, Brookline, Mass., assignor to Flintkote Manufacturing Company, Rutherford, N. J., a Corporation of New Jersey. Filed Feb. 5, 1912. Serial No. 675,650. (Cl. 108—7.)



1. A roofing strip composed of flexible sheet material and having a series of narrow slots of which each extends transversely of the length of the strip, said series extending longitudinally of the strip, the strip having two continuous longitudinal marginal portions, and a longitudinal bend, the marginal portion on one side of said bend lying against that on the other side and crossing below said slots, whereby the aggregate thickness is increased, said bend intersecting said slots, whereby the slots are made to appear to be open at the ends.

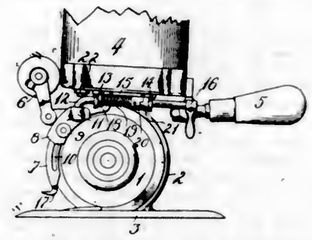
2. A roof covering comprising overlapping strips of flexible sheet material, each strip having along its exposed edge a series of tabs, the strip having a straight continuous narrow marginal portion along said edge connecting the outer ends of said tabs.

3. A roofing covering comprising overlapping strips of flexible sheet material, each strip having along its exposed edge a series of tabs, the outer ends of said tabs being folded under, said strip having a straight continuous narrow marginal portion connecting the folded-under ends of the tabs and exposed by the slots between the tabs.

4. The combination with a supporting surface, of a plurality of overlapping strips of sheet material, each strip having along its exposed edge a series of tabs of which the extremities are folded under, the strip having a straight continuous marginal portion connecting the folded-under extremities, fasteners extending through both layers of the doubled portions of the tabs, and through the strip next below, and anchoring fasteners extending through the upper portion of each strip and into said supporting surface, said anchoring fasteners being concealed by the strip next above.

5. A roof covering comprising overlapping strips of flexible sheet material, each strip having a series of exposed tabs extending downwardly, and having straight portions connecting said tabs below their upper ends and exposed by the slots which form the tabs.

1,130,369. CLOTH-CUTTING MACHINE. EMANUEL W. BORTMAN, Norristown, Pa., assignor to Wildman Mfg. Co., a Corporation of Pennsylvania. Filed Nov. 25, 1913. Serial No. 802,969. (Cl. 164—76.)



1. In combination in a cloth cutting machine, a cutter, a guard therefor movable to and from guard position in relation to the cutter, and an automatic spring lock for holding the guard in guarding position, substantially as described.

2. In combination in a cloth cutting machine, a cutter, a guard movable laterally and upwardly in relation to the cutter and a spring lock for holding the said guard in guard position, substantially as described.

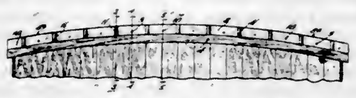
3. In combination in a cloth cutting machine, a cutter, a guard therefor movable automatically, when released, away from the cutter to expose the same, and a lock for holding the guard in guard position, substantially as described.

4. In combination in a cloth cutting machine, a frame with a rear handle, a cutter mounted thereon, a guard for the cutter turnable about an axis parallel with the side of the cutter, a spring for turning the guard away from the cutter when released, and a lock for holding the guard in guard position, the said spring exerting force axially to hold the lock set, substantially as described.

5. In combination, a frame, a cutter mounted thereon, a guard having movement laterally and upwardly in respect to the cutter and about an axis parallel with the side of the cutter, a lock for holding the guard in guard position and comprising a member shiftable in line with the axis of the guard to release and lock the same, and a spring for operating the guard when released.

[Claims 6 to 9 not printed in the Gazette.]

1,130,370. CAR-ROOF. WILLIAM A. BREWER, Pittsburgh, Pa., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed May 5, 1913. Serial No. 765,510. (Cl. 108—5.)



1. A flashing strip and retaining member for the end of a curved car roof and having a horizontally disposed flange portion and a vertical flange portion, the vertical portion of said strip being corrugated vertically, whereby it is vertically flexible.

2. In a curved car roof, the combination with an end sheet, of an upwardly curved flexible flashing strip and retaining member conformable to the curve of the roof, said flashing strip consisting of a vertical flange portion fastened to the end of the car below the eaves and a horizontal flange portion overlapping the adjacent marginal portion of the end sheet, the vertical flange portion of said flashing and retaining member being corrugated vertically, the corrugations being widened toward the bottom edge of the flange portion, whereby said flashing and retaining member is flexible in a vertical plane and substances may readily escape from under it.

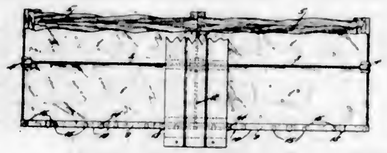
3. In a car roof, the combination with an end sheet, the marginal portion of said end sheet, being turned down over the end of the car, of an end flashing strip and retaining member comprising an angle shape sheet metal cap having one flange corrugated vertically and fastened to the end of the car between the corrugations and having the other flange smooth and overhanging said end sheet, whereby said end sheet is retained at the end of the car, said corrugations stiffening said flange to retain said end sheet and making said cap flexible between its ends.

4. In a car roof, the combination with an end sheet, the marginal portion of said end sheet being turned down over the end of the car, of an end flashing strip and retaining member comprising an angle shape sheet metal cap having one flange turned down and fastened to the end of the car and having its other flange horizontally disposed over the end sheet, whereby said end sheet is movably secured at the end of the car, the downturned flange of said cap being corrugated vertically, the corrugations being widened toward the bottom edge of said downturned portion, whereby said cap can be bent on its longitudinal axis in a vertical direction.

5. In a curved arched car roof, the combination with an end sheet extending continuously across the car from eaves to eaves, of a continuous angle shape retaining member one of whose flanges is secured along the end of the car, the other flange being disposed inwardly so as to overhang the end sheet, said retaining member being corrugated transversely whereby it is flexible to conform to the curvature of the roof.

[Claims 6 and 7 not printed in the Gazette.]

1,130,371. CAR-ROOF. WILLIAM A. BREWER, Pittsburgh, Pa., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed May 5, 1913. Serial No. 765,511. (Cl. 108—5.)

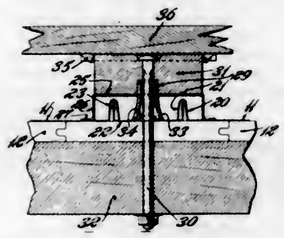


1. In a car roof, the combination with two coöperating end sheets, said sheets extending transversely of the car and being connected at the ridge by an upstanding seam, of two coöperating angle shape retaining members fastened to the end of the car and having one of their flanges overhanging the adjacent marginal portions of the respective end sheets, said retaining members extending from the ridge to the eaves, the inner end portions of said retaining members being overlapped and provided with hood portions straddling the ridge seam of said end sheets.

2. In a car roof, the combination with two coöperating end sheets, said sheets extending transversely of the car and being connected at the ridge by an upstanding seam, of two coöperating angle shape retaining members fastened to the end of the car and having one of their flanges overhanging the adjacent marginal portions of the end sheets, said retaining members extending from the ridge to the eaves, the inner end portions of said retaining members being overlapped and provided with hood portions straddling the ridge seam of said end sheets, and the outer end portions of said retaining members being turned against the sides of the car and fastened thereto.

3. In a car roof, the combination with two coöperating end sheets, said sheets being movably mounted on the substructure, said sheets extending transversely of the car and being connected at the ridge by an upstanding seam, the end of the car having a rabbet into which the outer side marginal portions of said sheets are turned down, of an elongated angle shape end flashing and retaining member one of whose flanges is secured to the end of the car below said rabbet, its other flange being disposed inwardly so as to overhang and bear loosely upon the adjacent end sheet, said overhanging flange extending continuously from ridge to eaves and turned down at the eaves end and having a hood portion at the ridge end adapted to straddle and cover over the end of the ridge seam of the end sheets.

1,130,372. METAL CAR-ROOF. WILLIAM A. BREWER, Pittsburgh, Pa., assignor to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed Nov. 28, 1913. Serial No. 803,448. (Cl. 108—5.)



1. In a car roof, metal roof sheets having main portions extending from eaves to eaves and each provided with inverted U-shape flanges along a side margin, inverted channel-shape seam covers spanning the marginal flanges of adjacent roof sheets, and resting upon the main portions thereof, sheet metal channels adjacent to the side margins of said roof sheet main portions, and each having a marginal flange projecting up under the U-shape flange of the main portion of an adjacent roof sheet to form a flexible water-tight joint therewith, said seam covers covering the open tops of said channels and having end walls closing the ends thereof, and pivotal securing means for said channels at the ridge, said roof sheets and channels being free to move upon the roof substructure at other joints.

2. In a car roof, in combination with a roof covering comprising roof sheets extending from eaves to eaves, and connectible by flexible joints along their side margins, seam covers spanning said joints out of contact therewith, and arranged to bear on said roof covering adjacent thereto, ridge bolts passing through said seam covers and roof covering, thimbles surrounding said ridge bolts and bearing on the roof covering and inclosing the bolt holes therein, said thimbles extending through said seam covers, and means associated with said bolts for closing the tops of said thimbles and clamping said thimbles and seam covers upon said roof covering.

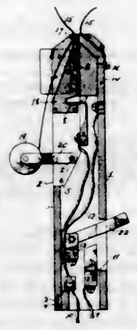
3. In a car roof, in combination with a roof covering comprising roof sheets extending from eaves to eaves, and connected by joints along their side margins, seam covers spanning said joints out of contact therewith, ridge bolts passing through said seam covers and roof covering, thimbles surrounding said ridge bolts and bearing on the roof covering and inclosing the bolt holes therein, said thimbles extending through said seam covers, and means associated with said bolts for closing the tops of said thimbles and clamping said thimbles upon said roof covering.

4. In a car roof, in combination with a roof covering comprising roof sheets extending from eaves to eaves, and connected by joints along their side margins, seam covers spanning said joints out of contact therewith, ridge bolts passing through said seam covers and roof covering, thimbles surrounding said ridge bolts and bearing on the roof covering and inclosing the bolt holes therein, said thimbles extending through said seam covers, and running board saddles arranged on said seam covers and provided with recesses on their under sides to receive said thimbles, said ridge bolts securing said running board saddles and thimbles in place.

5. A metal car roof comprising roof sheets each of which has an inverted U-shape flange projecting up from and overhanging one side margin, the vertical sides of said flange being spaced apart, and a straight flange projecting up from the opposite side margin, the U-shape flange of one sheet inclosing the straight flange of the next sheet, an inverted U-shape corrugation formed in each sheet intermediate said flanges and parallel therewith, said corrugations having its sides spaced apart, securing means for said roof sheets positioned in the channel between said flange and corrugation, and an inverted channel-shape seam cover straddling said flange and corrugation and cooperating therewith to form a watertight joint.

[Claims 6 and 7 not printed in the Gazette.]

1,130,373. DEVICE FOR CAPPING GLASS CYLINDERS. ALBERT W. BRIGHT, Washington, D. C., assignor to The Columbus Glass Company, Lancaster, Ohio. Filed Aug. 2, 1913. Serial No. 782,688. (Cl. 49—50.)



1. A glass severing tool composed of a two part handle adapted to be separated and united at each operation of the tool, each part having a metal terminal for an electric heating wire, mechanical means for detachably connecting said parts and means for electrically connecting the terminal on one of said parts with a conductor on the other part, when the said parts are mechanically connected.

2. A glass severing tool composed of a two part handle adapted to be separated and united at each operation of the tool, each part having a metal terminal for an electric heating wire, mechanical means for detachably connecting said parts, a heating wire having contact with a terminal on each part, means for electrically connecting the terminal on one part with a conductor on the other part and means for taking up the slack in the wire.

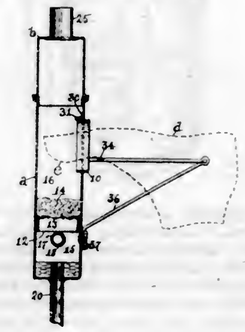
3. A glass severing tool composed of a two part handle adapted to be separated and united at each operation of the tool, a metal terminal on each part, a heating wire in contact with both of said terminals, conductors carried by one part of said handle, one of said conductors being connected with the terminal on said part, and means for electrically connecting the terminal on other of said part with a conductor on the other part, when the two parts of said handle are in assembled position.

4. A glass severing tool composed of a two part handle adapted to be separated and united at each operation of the tool, means for detachably connecting the two parts, a metal contact piece on each part, a heating wire adapted to encircle the article to be severed and connected with both contact pieces, and electric conductor connected with each contact piece, means carried by the two parts of the handle for electrically connecting the contact piece on one part of the handle with one of the conductors on the other part of the handle when the two parts of the latter are assembled and a switch for closing the circuit through the conductors and heating wire.

5. A glass severing tool composed of a two part handle adapted to be separated and united at each operation of the tool, electric conductors and a switch carried by one part of the handle, a contact piece on each part thereof, heating wire adapted to embrace the article to be heated and contacting with both contact pieces and means adapted when the two parts of the handle are assembled to connect the contact piece on one part to an electrical conductor in the other part.

[Claims 6 and 7 not printed in the Gazette.]

1,130,374. APPARATUS FOR MOISTENING TOE-PIECES OF SHOES. CARL A. CARLSON and KNUTE E. CARLSON, Campello, Mass. Filed Mar. 20, 1911. Serial No. 615,719. (Cl. 12—1.)



1. In an apparatus of the character described, in combination, a metal box provided with a removable cover having inclined portions extended toward the sides of the box, and having in one face an opening for the insertion of the toe portion of a shoe, a porous diaphragm or partition wall within said box below said opening separating said box into chambers, a steam pipe extended through the lower chamber and provided with a perforation for the passage of steam into said lower chamber, a water outlet pipe for said lower chamber having its mouth above the bottom of the latter, a collar for said opening, and a supporting frame for the shoe secured to the said box in front of said opening and open at its front end to permit the shoe to be inserted into and withdrawn from the opening in the box in a substantially straight path, substantially as described.

2. In an apparatus of the character described, in combination, a metal box provided with a removable cover having inclined portions extended toward the sides of the box, and having in one face an opening for the insertion of the toe portion of a shoe, a porous diaphragm or partition wall within said box below said opening separating said box into chambers, means for supplying steam under pressure to the lower of said chambers, an outlet for water of condensation from said lower chamber, and a support for the shoe in line with the opening in the box, substantially as described.

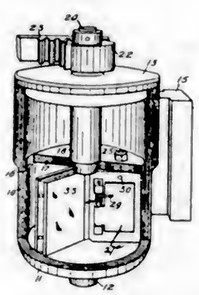
3. In an apparatus of the character described, in combination, a box provided with an opening in one of its vertical faces for the insertion of the toe portion of a shoe, a partition wall in said box below said opening forming chambers in communication with each other, and a steam inlet pipe extended through the lower part of said box and provided within the box with an inlet port for said lower chamber, substantially as described.

4. In an apparatus of the character described, in combination, a box provided with an opening in one face for the insertion of the toe portion of a shoe, a deflector above said opening, and a support for said shoe in line with said opening, substantially as described.

5. In an apparatus of the character described, in combination, a metal box provided with an opening in one of its vertical faces and having a removable cover provided with inclined portions, a porous partition wall within the box below said opening separating the box into chambers, and a steam inlet for the chamber below the said partition, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,130,375. DASH-POT. HERBERT W. CHENEY, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed May 13, 1909. Serial No. 495,756. (Cl. 74—69.)



1. In combination, a casing, a partition dividing said casing into two compartments, said partition being provided with an aperture, a shaft extending through one compartment and into the second compartment, a sleeve in the first compartment through which said shaft extends, a cushioning fluid and a fluid displacing member in said second compartment, and means associated with said shaft and said sleeve for intercepting fluid that may leak from said fluid containing compartment and returning said leakage to the first compartment whereby it may pass back to the fluid containing compartment through said apertured partition.

2. In a dash-pot, a cylinder having a compartment adapted to be filled with a cushioning fluid, a second compartment, a shaft extending centrally through said second compartment and into said first compartment, an apertured partition between said two compartments, a stationary partition extending between the shaft and the wall of the first compartment, said stationary partition having a hinged or swinging valve and a comparatively small opening through which the cushioning fluid may pass when the valve is closed, and a vane secured to said shaft and extending between the latter and the inner wall of the cylinder.

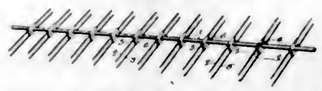
3. In a dash-pot, a cylinder, a transverse partition dividing the same into two compartments, one above the other, the lower compartment being adapted to be filled with a cushioning or retarding fluid, said transverse partition having an opening to permit a flow of said fluid from one compartment to the other compartment, a shaft extending vertically into said cylinder and through the upper compartment thereof, a substantially radial partition extending between the shaft and the inner wall of the lower compartment and being provided with a valve and with a comparatively small opening through which the cushioning fluid may pass slowly from one side of the partition to the other when the valve is closed, and a vane secured to the shaft and adapted to be swung back and forth in said lower compartment, said transverse and radial partitions, shaft, and vane being removable as a unit from said cylinder.

4. In a dash-pot, a cylinder having a cover provided with a centrally located tubular flange, a disk partition in said cylinder and dividing the same into two compartments, one above the other, said disk having an opening which receives the lower end of the tubular flange, said disk having another opening to permit the flow of cushioning fluid from one compartment to another, a shaft extending downwardly through said flange and disk, a substantially radial partition in the lower compartment between the shaft and the wall of the cylinder, said partition having a valve and valve opening, and having a restricted opening through which the cushioning fluid may pass slowly when the valve is closed, and a movable vane secured to said shaft and engaging the bottom and cylindrical wall of the lower compartment and the lower face of the disk, said cover, partitions, shaft, and vane being removable as a unit from the cylinder.

5. In a dash-pot, a cylinder provided with a cover having a centrally located depending tubular flange, a shaft supported in said flange, a disk in said cylinder dividing the latter into two compartments, said disk having a central opening which receives the lower end of the tubular flange and having a small opening, placing the two compartments in communication with each other, said lower compartment and part of the upper compartment being adapted to contain a cushioning fluid, the small opening in said disk permitting the flow of cushioning fluid from one compartment to another, a stationary partition in the lower compartment provided with a valve opening and valve and with a transverse opening through which the fluid may pass slowly, and a vane in the lower compartment secured to the shaft and adapted to be rotated therewith.

[Claims 6 to 9 not printed in the Gazette.]

1,130,376. ICING-RACK. GEORGE COLLIS, Clinton, Iowa. Filed June 9, 1913. Serial No. 772,644. (Cl. 91—6.)

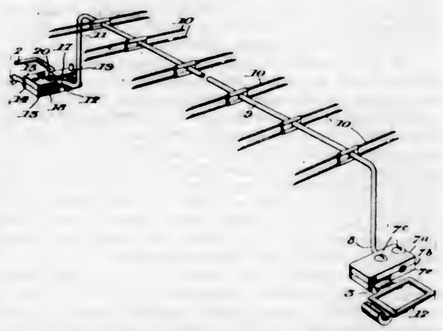


1. A device for coating or icing articles of food and the like, including an elongated supporting-instrumentality, a series of article-holding elements of relatively small dimension in cross-section arranged in closely juxtaposed pairs and mounted on said supporting-instrumentality, and reinforcing means for retaining said elements on the supporting-instrumentality.

2. An article-coating or icing device, including an elongated supporting-member; a series of pointed article-holding elements disposed in pairs and extending at right angles from opposite sides of said supporting-member, and formed of relatively small diametral dimensions; juxtaposed plates attached to said member and to said article-holding elements for holding the latter in spaced relation.

3. An article-coating or icing device, including an elongated supporting-member; a series of pointed article-holding elements disposed in pairs and extending at right angles from opposite sides of said supporting-member; and a pair of holding-plates encompassing said supporting-member and soldered thereto and to each other for securing the article-holding elements to said member in spaced relation with respect to each other and to said supporting-member.

1,130,377. ICING DEVICE. GEORGE COLLIS, Clinton, Iowa. Filed June 9, 1913. Serial No. 772,645. (Cl. 193—2.)



1. Apparatus for holding articles of food for icing or coating, including a traveling carrier comprising a pair of link chains formed of links provided with extensions; a rack adapted to be interposed between said chains; and rack-attaching blocks mounted on said link extensions, one of said blocks including a latch.

2. Apparatus for holding articles of food to be iced or coated, including in combination, a pair of traveling link chains, the links of which are provided with extensions; a block mounted on one of said extensions and including a pair of companion plates embracing said extension and an angulated end of said rack; and a second block comprising a pair of plates of different size adapted to embrace a link extension, and a latch pivoted to one of said blocks and extending beyond the end thereof so as to overlie a portion of the other plate, and a stud carried by said other plate adapted to project into an eye provided on an angulated end of said rack.

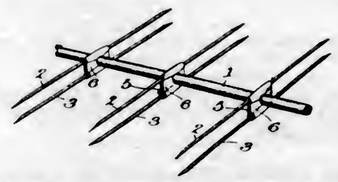
3. Apparatus for holding articles of food for icing and coating, including in combination, a pair of carrier chains, the links of which are provided with extensions formed with bearing portions; wheels for supporting said chains; an article-holding rack adapted to be interposed between said chains and comprising a body-portion, angulated end-portions, one of said portions being provided with an eye; a rack-attaching block embracing a link extension and one of said angulated rack end-portions; and a second rack-attaching block comprising two plates, a stud carried by one of said plates, and a latch carried by the other of said plates and adapted to occupy a position over said stud when said eye embraces the stud.

4. Coating apparatus including an article-holding rack, means for turning the same comprising a traveling, endless carrier, and means mounted on the carrier for attaching the rack at opposite ends to said carrier consisting of rack-attaching blocks mounted on the carrier and embracing the ends of said rack, one of said blocks carrying a latching-device engageable with the rack.

5. Coating apparatus including an article-holding rack, means for turning the same comprising a traveling, endless carrier, means mounted on the carrier for attaching the rack at opposite ends to said carrier consisting of rack-attaching blocks mounted on the carrier and embracing the ends of said rack, one of said blocks being formed with a rack-receiving recess, and the other including a latching-device engageable with the rack and supporting wheels upon which said carrier is mounted.

[Claim 6 not printed in the Gazette.]

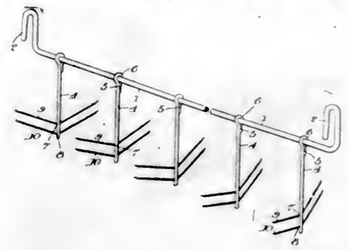
1,130,378. METHOD OF PRODUCING ARTICLE-HOLDING DEVICES. GEORGE COLLIS, Clinton, Iowa. Original application filed June 9, 1913, Serial No. 772,644. Divided and this application filed Apr. 29, 1914. Serial No. 835,321. (Cl. 29—148.)



1. The method of producing article-holding devices, and the like, which consists in welding to a metallic bar of relatively large diametral dimension a pair of article-holding wires of relatively smaller diametral dimension; then attaching to said bar and wires metallic strengthening plates; and finally soldering said plates to the bar, to the wires, and to each other.

2. The method of producing apparatus for coating or icing articles of food and the like, which consists in welding to a metallic bar of relatively large diametral dimension a series of pairs of article-holding wires of relatively smaller diametral dimension; then attaching to the bar and wires at one side of the latter a metallic strengthening plate; then attaching to the bar and wires at the opposite side of the latter another metallic strengthening plate; and then soldering the plates together and to the wires and bar by dipping the structure in its entirety into molten tin and whereby soldering of all joints and surfacing of the elements of which the structure is composed are effected.

1,130,379. ICING-RACK. GEORGE COLLIS, Clinton, Iowa. Filed Apr. 29, 1914. Serial No. 835,322. (Cl. 91—6.)



1. A device of the kind described, including an elongated supporting-bar provided on its side with incuts, a series of pendant drop-wires clenched around the bar and in said incuts, each of said drop-wires being provided adjacent its lower end with a hole, and a wire extending through said hole and projecting away from each side of the drop-wire.

2. A device of the kind described, including an elongated supporting-bar provided on its side with incuts, a series of pendant drop-wires clenched around and welded to the bar and in said incuts, each of said drop-wires being provided adjacent its lower end with a hole and extending at an angle to the axis of the supporting-bar, and a wire extending through said hole and projecting away from each side of the drop-wire.

3. A structure of the kind described, including an elongated supporting-bar provided on its side with a series of incuts; a series of pendant drop-wires having their upper ends bent around and against their body-portions and welded thereto, a section of said bent portion having a flat surface to engage in one of said incuts; each of said drop-wires having at its lower end a pair of holes; and a pair of article-holding wires mounted in said holes and extending away from each side of the drop-wires in parallelism.

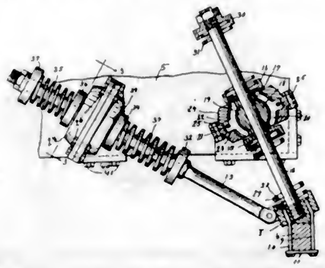
4. A structure of the kind described, including an elongated supporting-bar provided on its side with a series of incuts; a series of pendant drop-wires having their upper ends bent around and against their body-portions and welded thereto, a section of said bent portion having a flat-surface to engage in one of said incuts; each of said drop-wires having at its lower end a pair of holes; and a pair of article-holding wires mounted in said holes and extending away from each side of the drop-wires in parallelism, said structure being coated with tin to solder the parts together and to present a smooth surface.

1,130,380. VEHICLE-SPRING. CARY W. CRAWFORD, Los Angeles, Cal., assignor to Eureka Shock Absorber Company, Los Angeles, Cal., a Corporation of California. Filed May 7, 1914. Serial No. 836,912. (Cl. 21—50.)

1. In a vehicle means to connect the body and running gear comprising casings connected to the body of the vehicle at or near the corners thereof, said casings having chambers therein; sockets revoluble in said chambers; bearing members passing through said sockets, said bearing members having enlargements in said sockets; rods passing through said bearing members, said rods being secured to the running gear; and springs mounted on said rods at each side of said casings.

2. In a vehicle means to connect the body and running gear comprising casings connected to the body of the vehicle at or near the corners thereof, said casings having elliptical spherical chambers therein and elliptical circular openings at the ends thereof; sockets in said cham-

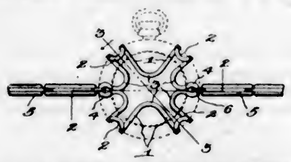
bers, said sockets being in shape the segment of a hollow sphere; springs mounted in said chambers between the sockets and the outer walls thereof; tubular bearing members passing through said sockets, said bearing members having spherical enlargements within said sockets; rods passing through said bearing members, said rods being connected to the running gear; and springs mounted on said rods at each side of said bearing members.



3. In a vehicle means to connect the body and running gear comprising a pair of rods at or near each corner of the body, said rods being connected to the running gear and set angularly to each other; casings connected to the body of the vehicle at each corner thereof through which said rods pass; compression springs on said rods between the running gear and casings; and rebound springs on the outer ends of said rods.

4. In a vehicle means to connect the body and running gear comprising a pair of casings secured to the body at or near each corner thereof, said casings having chambers therein; rods secured to the running gear in pairs and passing through said casings; bearing members surrounding said rods, said bearing members passing through said casings and having spherical enlargements within said casings; means for permitting said bearing members to move circularly in a direction longitudinally to the vehicle body within said casings and to move circularly and longitudinally in a transverse direction to the body; and springs on said rods at both sides of said bearing members.

1,130,381. WATCH-HOLDER ATTACHMENT FOR BRACELETS. ALEXANDER Y. CUNNINGHAM, Attleboro, Mass., assignor to The D. F. Briggs Company, Attleboro, Mass., a Corporation of Massachusetts. Filed Sept. 21, 1914. Serial No. 862,661. (Cl. 224—4.)



1. In a watch holder attachment for bracelets, a holder composed of a piece of spring wire bent to form a series of spaced arms having spaced sides the free ends of which latter are connected and formed to provide watch gripping jaws, and connections between the arms, two of said connections being bent to form eyes to receive the ends of the bracelet.

2. In a watch holder attachment for bracelets, a holder having a series of spring jaws, and connections between the jaws, two of said connections being bent to form eyes to receive the ends of the bracelet.

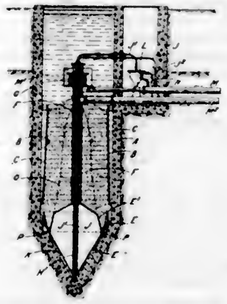
3. In a watch holder attachment for bracelets, a piece of wire bent to form a plurality of arms having spaced sides, watch gripping parts connecting the sides of the arms, and a pair of eyes bent from the wire and disposed between two of the arms to engage the ends of the bracelet.

4. A watch holder attachment for bracelets formed of flexible wire to provide a series of spaced arms having watch gripping parts, and formed to provide a pair of bracelet end engaging parts located between two of the arms.

5. In a watch holder attachment for bracelets, a holder constructed of spring wire and formed to have a multiplicity of radial jaws which emanate from a point central of the holder, said jaws being connected so that the connections form a central seat for the watch, and means connected to the jaws to enable attachment of both ends of the bracelet to the holder.

[Claim 6 not printed in the Gazette.]

1,130,382. FILTERING APPARATUS. MARTIN DEACON and WILLIAM GORE, London, England. Filed Dec. 3, 1912. Serial No. 734,734. (Cl. 210—8.)



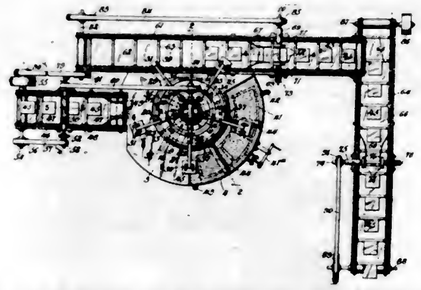
1. In a filter, the combination of an outer vessel or casing, an inner chamber or liner adapted to contain the filtering medium and having apertures or spaces in its periphery through which the liquid to be filtered can pass from the space between the outer vessel and the inner chamber into the mass of filtering material, a central perforated tube into which the filtered liquid can pass from the filtering medium, a second pipe within the perforated pipe, and means whereby the filtering medium may be transferred from the bottom of the outer vessel through said second pipe and returned to the top of the filtering mass.

2. In a filter, the combination of an outer vessel or casing, an inner chamber or liner adapted to contain the filtering medium and having apertures or spaces in its periphery through which the liquid to be filtered can pass from the space between the outer vessel and the inner chamber into the mass of filtering material, a central perforated tube into which the filtered liquid can pass from the filtering medium, another pipe within the perforated pipe forming a conduit for two pipes J J' by means of which the filtering medium is transferred from the bottom of the outer vessel and returned to the top of the filtering mass.

1,130,383. TILE-COATING MACHINE. FREDERICK C. ELLISON, Perth Amboy, N. J., assignor of one-half to William H. Peach, Zanesville, Ohio. Filed Oct. 27, 1913. Serial No. 797,583. (Cl. 91—46.)

1. In a machine for the purpose described, pneumatic means for suporting a tile, said pneumatic means including a suction head and air exhaust means communicating therewith, a liquid container, and means for moving the pneumatic means in a direction to dip the tiles carried thereby into liquid in the container.

2. In a machine for the purpose described, pneumatic means constructed to engage and transport tiles, said pneumatic means including a suction head and air exhaust means communicating therewith, a dipping tank in the path of tiles carried by the pneumatic means, means for moving the pneumatic carrying means in a direction to dip the tiles face downwardly in liquid in the dipping tank, and means associated with the pneumatic means for releasing the dipped tiles with the dipped face uppermost.



3. In a machine for the purpose described, a rotatable series of hollow arms mounted for individual up and down movement, each arm terminating at one end in a suction head and at the other end communicating in common with the other arms with an air suction means, means for raising and lowering the arms, a receptacle for fluid into which the tiles are to be dipped arranged in the path of tiles carried by the heads of the arms, and means for inverting the tiles after dipping and then causing their release from the suction heads.

4. In a machine for the purpose described, a rotatable series of hollow arms each termination in a suction head and each arm being arranged for communication with air suction means during a portion of the rotative movement, a support for tiles in the path of the arms, a dipping tank in the path of the arms, means for causing movement of the arms toward and from the tile support and toward and from the dipping tank, and means associated with the arms for causing each arm to move in a direction to invert the dipped tile carried thereby and to then release the tile from the arm.

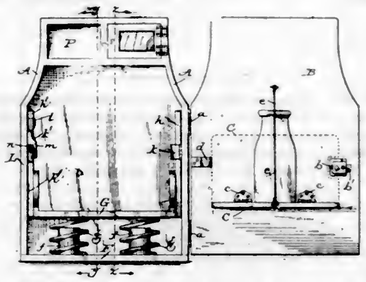
5. In a machine for the purpose described, a supporting member, a hollow post mounted thereon and provided with an extended passage defining a gate between the ends of the passage, a sleeve mounted to rotate on the post, a series of flexibly mounted hollow arms carried by the sleeve and opening to the interior thereof, each arm terminating at the end remote from the sleeve in a suction head, a weight carried by each arm with connections thereto capable of being wound on the arm, a support for the series of arms arranged in the path thereof to cause up and down movements of the arms, and means for causing a partial rotation of each arm at a predetermined point in the travel thereof.

[Claims 6 to 15 not printed in the Gazette.]

1,130,384. AUTOMATICALLY-CONTROLLED CABINET FOR PROTECTING MILK. ALFRED J. FAGER and JOHN W. MILBERY, Dayton, Ohio. Filed June 24, 1914. Serial No. 846,931. (Cl. 232—41.)

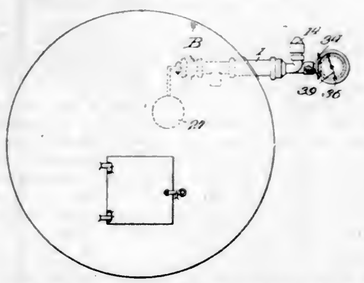
1. A cabinet for protecting milk having a door provided with a lock constructed with a spring-bolt; a shelf connected to said door which is adapted to fold up when in its normal position and to extend at right angles therefrom when in its operative position; a spring actuated movable platform having arms held in position by guides connected to the body of the cabinet, from one of said arms there is hung a swinging-arm formed with a notch and adapted to engage the spring-bolt of said lock when said platform moves downward; all substantially in the manner and for the purposes described.

2. The combination in a cabinet for protecting milk, of a door to said cabinet provided with a lock having a spring-bolt, also having a folding shelf connected thereto; a spring actuated platform provided with arms held in position by guides projecting from the body of the cabinet, and adapted when a weight is placed thereon to compress said springs; a swinging-arm pivotally hinged to one of the arms of said platform and formed with a recess adapted to be brought in alinement with the spring-bolt of said lock when said platform has compressed its springs, whereby the spring-bolt of said lock will now engage the recess in said swinging-arm when the cabinet door is closed; substantially as described.



3. The combination in an automatically controlled cabinet for protecting milk,—of an inclosing body to said cabinet; a door to said inclosing body provided with a lock having a projecting bolt; a folding shelf attached to said door; supporting stops and springs projecting from the floor of said inclosing body; a movable platform mounted upon said springs and having arms held in position by means of guides connected to the inclosing body of said cabinet; a swinging-arm pivotally hinged to an extension of one of the arms of said movable-platform and formed with a notch and adapted to be brought in alinement with the bolt of said lock through the action of said platform, so as to receive said bolt, when said door to the cabinet is closed, thereby securely locking said cabinet; substantially in the manner and for the purposes described.

1,130,385. LOW-WATER ALARM FOR STEAM-BOILERS. JOHN L. FITZGERALD, Boston, Mass. Filed Sept. 10, 1913. Serial No. 789,128. (Cl. 73—82.)
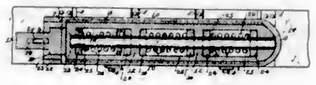


1. In a low water alarm, a casing having an inlet, a steam conducting pipe rotatably mounted in the casing and having an opening adapted to be brought into communication with the inlet, float actuated means for rotating the pipe, and indicator mechanism including an actuating stem extending within the pipe and connected to said means for rotation therewith.

2. In a low water alarm, a casing having an inlet, a steam conducting pipe rotatably mounted in the casing and having an opening adapted to be brought into communication with the inlet, indicator mechanism including a stem extending within the pipe, a float having an arm, and means connecting the arm with the pipe and stem for rotating the said pipe and stem.

3. In a low water alarm, a casing having an inlet, a steam conducting pipe rotatably mounted in the casing

and having an opening adapted to be brought into communication with the inlet, an audible signal in communication with the pipe, a head rotatably fitted upon one end of the casing and having a tubular extension, the pipe having a portion fitting within the extension, indicator mechanism including an actuating stem extending through the pipe and having one end fitted within the said portion of the pipe, a float having an arm provided with a head fitted to the tubular extension of the first-mentioned head, and means extending through the interfitted elements to connect the stem and pipe for rotation with the casing head upon rise and fall of the float.

1,130,386. REMOVABLE ASSEMBLED DRAFT-GEAR. WILLIAM D. FORSYTH, Youngstown, Ohio, assignor, by mesne assignments, to Railway Products Corporation, Buffalo, N. Y., a Corporation of New York. Filed Mar. 31, 1913. Serial No. 757,812. (Cl. 213—42.)



1. A draft gear comprising a spring case having compartments therein, a draw bar yoke mounted on said spring case and having shoulders abutting the front end of said spring case, the end portions of said yoke extending beyond the front end of said spring case, the ends of said end portions of said yoke being inturned toward each other, a draw bar mounted between said end portions and having shoulders engaging said inturned ends, said draw bar being in contact with the front end of said spring case, and detachable means for holding said yoke in place on said draw bar.

2. A draft gear comprising a draw bar yoke having the ends thereof inturned toward each other, a spring case removably mounted in said yoke, a draw bar mounted between the end portions of said yoke and having shoulders engaging said inturned ends of said yoke, said draw bar being in contact with the front end of said spring case, a removable collar surrounding said end portions of said yoke and retaining said yoke in position on said draw bar, and a removable pin passing through said draw bar and holding said collar in place.

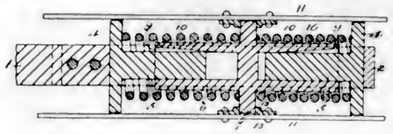
3. In a draft gear, a draw bar yoke, a draw bar removably secured to said yoke, and a spring case removably mounted in said yoke and bearing against said draw bar and said yoke, said spring case having two flanges projecting from each of two opposite longitudinal faces thereof, said yoke lying between said flanges.

4. In a draft gear, a draw bar yoke, a draw bar removably secured to the ends of said yoke, a spring case removaly mounted within said yoke and bearing against said draw bar, said spring case having compartments therein, a pair of follower plates in each of said compartments, a spring between each pair of said follower plates, and a removable rod extending longitudinally of said spring case through said follower plates and said springs.

5. In a draft gear, a draw bar yoke, a spring case removably mounted within said yoke, said spring case having compartments therein, a pair of follower plates and a spring in each of said compartments, and a removable rod extending longitudinally of said spring case through said follower plates and said springs.

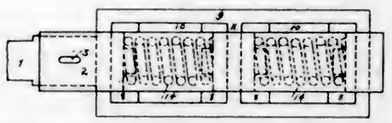
1,130,387. DRAFT-GEAR. WILLIAM D. FORSYTH, Youngstown, Ohio, assignor to Railway Products Corporation, Buffalo, N. Y., a Corporation of New York. Filed Dec. 4, 1913. Serial No. 804,679. (Cl. 213—42.)

1. In a draft gear, a plate secured to the draft sills of a car and having cylinders with open ends projecting therefrom in opposite directions, a draw-bar yoke, follower-plates mounted within said yoke and each having a piston adapted to enter one of said cylinders, a spiral spring mounted between each follower-plate and said plate and surrounding the corresponding cylinder, said follower-plates following the movements of said yoke, the lengths of said cylinders and said pistons being such that when the end of one piston is near the bottom of one cylinder the end of the other piston is near the open end of the other cylinder, said pistons operating to draw air into said cylinders and to compress it therein as said pistons are respectively withdrawn from and pushed into said cylinders, the inside wall of each of said cylinders having a groove therein decreasing in cross-section from the open end of said cylinder to a point spaced from the bottom thereof.



2. In a draft gear, cylinders each having one end open and fixed to the draft sills of a car, a draw-bar yoke, pistons supported by said yoke and following the movements thereof, said pistons being adapted to enter said cylinders and being arranged so that when one piston is near the bottom of one cylinder, the other piston is partly out of the other cylinder, an opening communicating with each cylinder and restricting the exhaust of air from the cylinder during part of the movement of said piston in entering said cylinder, said opening terminating at a distance from the bottom of said cylinder, and a check valve communicating with each cylinder near the bottom thereof and adapted to prevent the escape of air therefrom while permitting the entrance of air.

1,130,388. DRAFT-GEAR. WILLIAM D. FORSYTH, Youngstown, Ohio, assignor to Railway Products Corporation, Buffalo, N. Y., a Corporation of New York. Filed Dec. 4, 1913. Serial No. 804,680. (Cl. 213—42.)

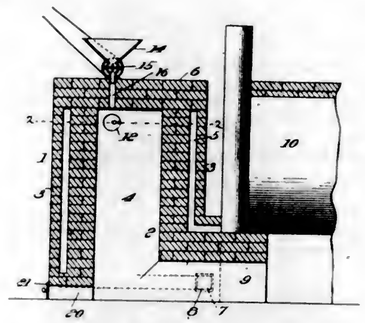


In a draft gear, a U-shaped draft yoke, a draw-bar removably secured between the ends of said yoke, a spring case removably mounted between the sides of said yoke and engaging the closed end of said yoke and said draw-bar said spring case having compartments therein which have two closed sides and two open sides, said open sides facing said yoke, a pair of follower plates mounted in each of said compartments and having portions extending beyond said yoke, and springs between each pair of said follower plates.

1,130,389. CULM-BURNING FURNACE. JOHN S. S. FULTON, New York, N. Y., assignor to Elias T. Jester, trustee. Filed Mar. 31, 1911. Serial No. 618,152. (Cl. 110—28.)

1. In a culm burning furnace, the combination with a vertically disposed combustion chamber and means for supplying powdered fuel at the top thereof, and permitting it to gravitate therein, of a preheated atmospheric air supply leading from a point remote from said combustion chamber and passing adjacent the latter throughout its length, and entering its top so as to intersect the gravitating column of fuel supply, and means for accelerating the preheated air at its point of union with the fuel.

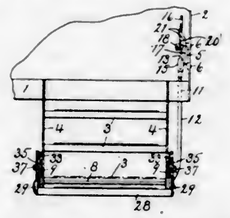
2. In a culm burning furnace, in combination, a vertically disposed combustion chamber having two walls separated to provide an intermediate air space, means for introducing atmospheric air to said space at or near the bottom of said combustion chamber, and means for regulating said air supply, the inner wall of said combustion chamber being formed with a horizontal port at its top establishing communication between said air space and the interior of said combustion chamber, and means for supplying fuel to said combustion chamber through the top thereof and allowing it to gravitate therein in line with said port.



3. In a culm burning furnace, a combustion chamber in communication with a boiler fire box, an atmospheric air supply entering said furnace at or near the bottom thereof on opposite sides of the fuel leading from said combustion chamber to said fire box and entering said combustion chamber near the top thereof, and means for supplying a gravitating column of fuel to said combustion chamber through the top thereof near the point of entrance of said air supply.

4. In a culm burning furnace, a cylindrical combustion chamber having two walls separated to provide an intermediate air space, the inner wall having a port leading from said air space to the interior of said combustion chamber in a tangential direction, and the outer wall having a fluid pipe in line with said port, and a torch opening adjacent said fluid pipe, and means for supplying fuel to said combustion chamber.

1,130,390. EXTENSION CAR-STEP. CLARENCE E. GAUTHIER, West Springfield, Mass. Filed Dec. 26, 1914. Serial No. 879,037. (Cl. 105—86.)



1. The combination, in an appliance of the class described, with a platform provided with a stairway, of a tread having rising from the ends therefor and rigidly attached thereto brackets provided with rearwardly extending arms, links pivotally supported from the sides of said stairway and pivotally connected with said brackets, a rock-shaft journaled at the back of said stairway, rocker-arms mounted on said shaft and pivotally connected with said bracket arms, and means to operate said rocker-arms to project said tread into operative position and retract it therefrom.

2. The combination, in an appliance of the class described, with a platform provided with a stairway, of a tread having rising from the ends thereof and rigidly attached thereto brackets provided with rearwardly-extending arms, links pivotally supported from the sides of said stairway and pivotally connected with said brackets, a rock-shaft journaled at the back of said stairway, rocker-arms mounted on said shaft and pivotally connected with said bracket arms, and means applied to one of said rocker-arms to operate both rocker-arms to project said tread into operative position and retract it therefrom.

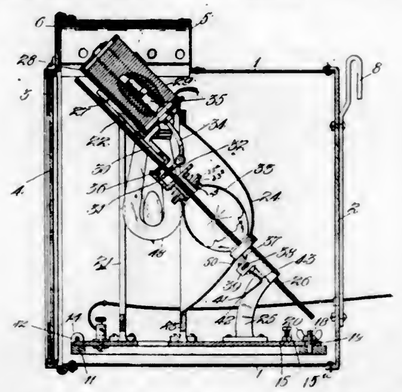
3. The combination, in an appliance of the class described, with a platform provided with a stairway and with a fixed vertical member above, of a tread having end brackets provided with arms, links pivotally supported from said stairway and pivotally connected with said brackets, a rock-shaft journaled at the back of said stairway, rocker-arms mounted on said shaft and pivotally connected with said bracket arms, operating means attached to said fixed vertical member, such means consisting in part of a rod which is pivotally connected with one of said rocker-arms, and means to lock said operating means in either of two positions.

4. The combination, in an appliance of the class described, with a platform provided with a stairway, of a rock-shaft journaled at the back of said stairway, a pair of rocker-arms mounted on said shaft, a pair of links pivotally supported from the sides of said stairway, a pair of brackets and a tread supported by said brackets, such brackets being suspended from said rocker-arms and links and having said tread rigidly attached thereto and operating means for said rocker-arms.

5. The combination, in an appliance of the class described, with a platform provided with a stairway and with a fixed vertical member above, of a rock-shaft journaled at the back of said stairway, a pair of rocker-arms mounted on said shaft, a pair of links pivotally supported from said stairway, a pair of brackets and a tread supported between said brackets, such brackets being suspended from said rocker-arms and links, a bell-crank-lever supported by said fixed vertical member, a rod connecting said bell-crank-lever with one of said rocker-arms, and means to lock said bell-crank-levers at either end of its travel.

[Claims 6 to 15 not printed in the Gazette.]

1,130,391. HEADLIGHT. CHARLES J. GETERMAN, Canton, Ohio, assignor to John E. McLain, Canton, Ohio. Filed Mar. 21, 1908. Serial No. 422,449. (Cl. 176—51.)



1. In a head-light, the combination of a casing open at one end, a lamp base, a two-part connection between the front end of said lamp base and the open end of said casing constituting means by which the lamp base may be rocked into and out of position within the casing through said open end thereof, and lamp mechanism secured upon said base.

2. In a head-light, the combination of a casing open at one end, a lamp base, a tongue and socket connection between the front end of said lamp base and the open end of said casing constituting means by which the lamp base

may be rocked into and out of position within the casing through said open end thereof, and lamp mechanism secured upon said base.

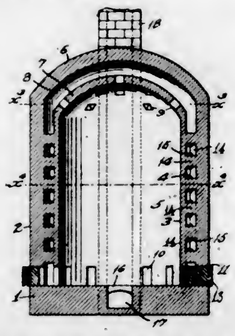
3. The combination of a concave reflector having a single opening thereto arranged at one side of the focal axis of the reflector, inclined arc light carbons having their adjacent ends between the front end and center of said reflector and the lower carbon extending through said opening therein, a support for said reflector, a support for the lower arc light carbon, a regulating mechanism for the upper carbon extending with said upper carbon through the front open end of said reflector, and a support for said regulating mechanism arranged in front of said reflector.

4. The combination of a base, a reflector provided with an opening in its lower portion, a support for the reflector carried by said base and connected to said reflector, inclined upper and lower arc light carbons arranged within the reflector, a support for the lower carbon carried by the said base, and arranged rearward of the reflector support, the said lower carbon and its support extending through said opening, a support for the upper carbon carried by the said base and arranged forward of the said reflector support, and regulating means for the upper carbon carried by the upper carbon support and arranged forward of the reflector.

5. The combination of a base, a reflector provided with an opening in its lower portion, a support for the reflector carried by the said base, inclined upper and lower arc light carbons arranged within the reflector, a support for the lower carbon carried by the said base, and arranged rearward of the reflector support, the said lower carbon and its support extending through said opening, a support carried by the said base extending around the reflector and provided with a depending guide for supporting and guiding the upper carbon, and regulating means for the upper carbon mounted on the last mentioned support, the said upper carbon and its regulating means being arranged forward of the reflector.

[Claims 6 to 15 not printed in the Gazette.]

1,130,392. ELECTRICAL OVEN AND KILN. LAWSON HENRY GIDDINGS, Pasadena, Cal. Filed June 29, 1911. Serial No. 636,088. Renewed July 20, 1914. Serial No. 852,196. (Cl. 219—35.)



1. A kiln or oven comprising outer and inner chambers, ports between the chambers at top and bottom thereof, an air-chamber overlying the top of the inner chamber and communicating with the top ports, electrical resistance in one of the chambers, a stack, an outlet in the floor of the other chamber, and a flue connecting between the outlet and the stack.

2. A kiln or oven comprising two chambers communicating with each other at two levels, resistance in one of the chambers; there being an outlet from the other chamber below both of said levels, and means to yieldingly seal the outlet.

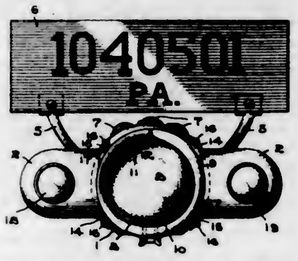
3. A kiln or oven comprising two chambers communicating with each other at two levels, electrical resistance in one of the chambers; there being inlets for external air into such chambers; means to close said inlets, there being an outlet from the other chamber below both of said levels, and means to yieldingly seal said outlet.

4. A kiln or oven comprising two chambers communicating with each other at two levels, electrical resistance in one of the chambers; there being an outlet from the other chamber, and alined ports in the walls of the two chambers; plugs slidable in said ports to control the same, and means to yieldingly seal the outlet.

5. A kiln or oven comprising an outer wall; an inner wall; there being a chamber between said walls; bridges in said chamber; electrical resistance on the bridges; there being ports at top and bottom of the inner wall and an outlet from the inner chamber below the levels of said ports; and means to yieldingly seal the outlet.

[Claims 6 to 11 not printed in the Gazette.]

1,130,393. SIGNALING DEVICE. ROBERT W. GIESE and PATRICK F. REILLY, Philadelphia, Pa. Filed Nov. 9, 1914. Serial No. 871,127. (Cl. 240—22.)



1. A signaling device, comprising a central casing, a lamp in the casing, two lamps supported on the outside of the casing, and end casings removably secured to the first-mentioned casing and inclosing the last-mentioned lamps, said casings each having transparent portions, substantially as described.

2. A signaling device, comprising a central casing, a lamp in the casing, two lamps supported on the outside of the casing, end casings removably secured to the first-mentioned casing and inclosing the last-mentioned lamps, all of said casings having lenses therein, the lenses being of different colors, substantially as described.

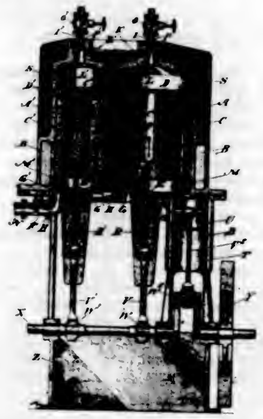
3. A signaling device comprising a central spherical casing, end casings having annular flaring flanges at their inner ends, said flanges having slots therein, screws in the center casing positioned in the slots and removably clamping the flanges to the center casing, lamps in each casing, lenses of different colors in the respective castings, and all of said lamps supported by the central casing, substantially as described.

1,130,394. COMPRESSOR FOR GASES. HORATIO G. GILLMOR, Washington, D. C. Filed May 10, 1901. Serial No. 59,567. (Cl. 60—14.)

1. A compressor for gases including, in combination with a compression cylinder provided with means whereby one end thereof may be maintained at relatively high temperature, and means whereby the walls of the other end thereof may be cooled, a displacer piston adapted to move within said compression cylinder, a regenerator through which gases may be transferred from one end to the other of said compression cylinder by movements of said displacer piston, a valve for the admission of gases to and a valve for the discharge of gases from said cylinder.

2. A compressor for gases including, in combination with a plurality of compression cylinders of suitable sizes provided with means whereby one of the ends of each may be maintained at relatively high temperature and means whereby walls of the other ends thereof may be cooled

displacer pistons adapted to move within said compression cylinders, means whereby suitable motions may be produced and maintained in said displacer pistons, valves for the admission of gases to and valves for the discharge of gases from said compression cylinders.



3. A compressor for gases, comprising a plurality of compression cylinders of suitable sizes provided with means whereby one of the ends thereof may be maintained at relatively high temperature, and means whereby the walls of the other ends thereof may be cooled, displacer pistons adapted to move within said compression cylinders, valves for the admission of gases to, valves for the discharge of gases from said cylinders, a working cylinder communicating at one end with one of said compression cylinders, a working piston adapted to move therein, and means whereby suitably related motions are transmitted to the said working piston and said displacer pistons.

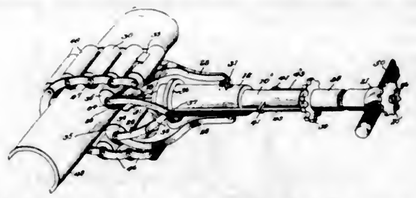
4. In a compressor for gases the combination with compression cylinders, one of the ends of each of which may be maintained at high temperature while the other ends thereof are maintained at comparatively low temperature, of displacer pistons located therein, regenerators in free communication with the two ends of the said compression cylinders, valves for the admission of gases to and valves for the discharge of gases from the said compression cylinders, and means whereby suitable motions are transmitted to and maintained in said displacer pistons.

5. In a compressor for gases the combination with compression cylinders, one of the ends of each of which may be maintained at high temperature while the other ends thereof are maintained at comparatively low temperature, of displacer pistons located therein, regenerators giving free communication between the two ends of each of the said compression cylinders, valves for the admission of gases to the valves for the discharge of gases from the said compression cylinders, a working cylinder on and communicating with one of said compression cylinders, a working piston within the said working cylinder, and a mechanism to impart to and maintain in said displacers and working piston suitable motions.

[Claims 6 to 18 not printed in the Gazette.]

1,130,395. PIPE AND IRON CUTTER. MARRIAM L. GILMOUR, Davenport, Iowa. Filed Jan. 12, 1914. Serial No. 811,657. (Cl. 81—191.)

1. A tool of the class described including a stock, a cutter mounted at one end of the stock, and work engaging means carried by the stock and adapted to clamp the tool with the cutter in engagement with the work, said means including work engaging jaws swingingly connected to the stock, and a flexible element having detachable engagement with the jaws and adapted to encircle the work.



2. A tool of the class described including a stock, a cutter mounted at one end of the stock, and work engaging means carried by the stock and adapted to clamp the tool with the cutter in engagement with the work, said means including work engaging jaws swingingly connected to the stock, and a flexible element having detachable engagement with the jaws and adapted to encircle the work, the work engaging jaws terminating in rollers which bear against the work.

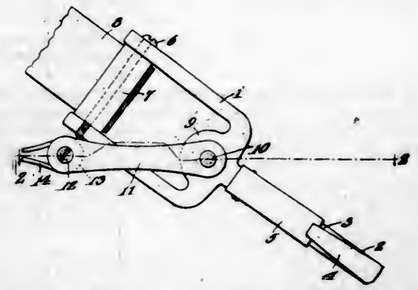
3. A tool of the class described including a stock, a cutter mounted at one end of the stock, and work engaging means carried by the stock and adapted to clamp the tool with the cutter in engagement with the work, said means including work engaging jaws swingingly connected to the stock, and a flexible element having detachable engagement with the jaws and adapted to encircle the work, the flexible elements being constructed with rollers which engage against the work.

4. A tool of the class described including a stock, a cutter mounted at one end of the stock, and work engaging means carried by the stock and adapted to clamp the tool with the cutter in engagement with the work, said means including work engaging jaws swingingly connected to the stock, and a flexible element having detachable engagement with the jaws and adapted to encircle the work, the work engaging jaws and flexible element being povided with work engaging rollers.

5. A tool of the class described including a stock, a cutter mounted at one end of the stock, means for advancing and retracting the cutter, work-engaging jaws swingingly mounted upon the stock, a work engaging chain detachably connecting the jaws, and means for swinging the free ends of the jaws toward and away from each other.

[Claims 6 to 10 not printed in the Gazette.]

1,130,396. SNAP-HOOK FOR BREAST AND MARTINGALE STRAPS. FRANK A. GRAHAM, Centerville, Wash. Filed May 27, 1914. Serial No. 841,302. (Cl. 54—59.)



In a device of the character described, a U-shaped body, the yoke portion of which has attaching means and a lobe projecting between the arms of the body, an anti-frictional breast strap roller mounted between the arms of the said body, a pivot member engaged through the said lobe, links connected to the said pivot member having their free ends offset away from each other, the links

extending angularly beyond one arm of the body, a spindle engaged through the free ends of the said links, and an anti-frictional martingale strap roller mounted upon the said spindle.

1,130,397. LENS-MOUNTING. DALLAS F. GREEN, Fort Wayne, Ind. Filed Sept. 24, 1913. Serial No. 791,469. (Cl. 88—50.)

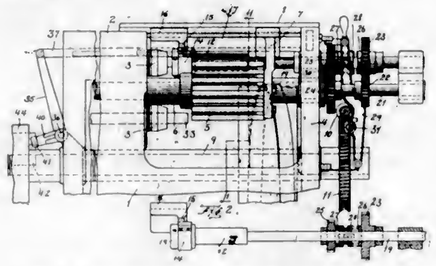


1. A lens mounting comprising a box for attachment to a lens, a bridge secured at one end to the box and extending immediately forwardly and upwardly from its point of attachment to the box, and a spring-pressed guard having its pivoted support above the point of attachment of the bridge and box and in the plane of the lens.

2. A lens mounting comprising a box for attachment to a lens, a bridge secured at one end to the box and extending immediately forwardly and upwardly from its point of attachment to the box, a lug projecting from the box in the plane of the lens and above the point of attachment of the bridge to the box and a spring-pressed guard arm pivotally mounted on the lug.

3. A lens mounting comprising a box for attachment to a lens, a bridge rigidly secured at one extremity to the face of the box and extending immediately forwardly and upwardly, with respect to the plane of the lens, from its point of connection with the box, a lug projecting from the face of the box above the said point of connection and extending in the plane of the lens and a spring guard pivotally mounted on the lug.

1,130,398. SCREW-THREADING MECHANISM. GEORGE O. GAIDLEY, Windsor, Vt. Filed July 14, 1909. Serial No. 507,511. (Cl. 29—37.)



1. In a multiple-spindle metal-working machine, the combination of a turret, a plurality of work-carrying spindles journaled in said turret, a tool slide movable toward and from said turret having a steadying arm, a bar parallel to the line of movement of said slide by which the arm is guided, a die, and a supporting guide secured to said bar on which said die is supported and along which it is enabled to move toward and from said turret independently of the slide.

2. In a multiple-spindle metal-working machine, the combination of a turret, a plurality of work-carrying spindles journaled in said turret, a tool slide movable toward and from said turret, a guide bar separate from said tool slide having flanges at its edges, and a threading tool holder having lips embracing the flanges of said guide bar and movable along the same toward and from the turret.

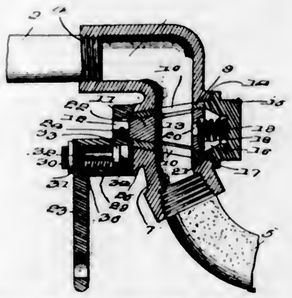
3. In a multiple-spindle metal-working machine, the combination of a turret, a plurality of work-carrying spindles journaled in said turret, a tool slide movable toward and from said turret and independent thereof, a guide bar parallel with said tool slide but independent thereof and of the turret, a slide mounted on said guide bar so as to hang therefrom and be independent of both the turret and tool slide and provided with a bearing, and a screw-threading tool journaled in said bearing and movable with said slide along the guide bar toward and from the turret.

4. A screw-threading mechanism, comprising a rotary work-holding spindle, a rotary threading tool, mechanism for causing rotation of said tool at either of two speeds respectively greater and less than that of the spindle, and automatic means for making said mechanisms operative in alternation, said means having provision for causing said mechanisms to become operative in either of two sequences, whereby the machine is adapted for cutting either right or left-hand threads.

5. A screw-threading mechanism comprising a rotary work-holder, a rotary die, and automatic mechanism for causing the rotation of said die to take place at alternately faster and slower speeds than said work holder, including clutches, a clutch shifter, a lever, and a link connected to the clutch shifter, adapted to be joined with the lever on either side of the fulcrum, for changing the order in which the different speeds are given to the die.

[Claims 6 to 19 not printed in the Gazette.]

1,130,399. ANGLE-COCK. CARL G. GUSTAFSON, Sioux City, Iowa. Filed Aug. 16, 1912. Serial No. 715,444. (Cl. 137—7.)



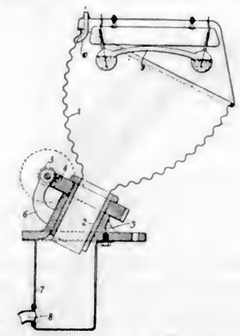
An angle cock for train-pipes comprising a tubular body having a vertically disposed portion, a tapered turning plug seated horizontally in said vertically disposed portion, means on the smaller end of said plug for turning the same, a socketed cap secured in the side of the body over the larger end of the plug, an opening through said end of the plug establishing communication between the socketed portion of the cap and the bore of a plug, and a drain passage in the wall of the body establishing communication between the socket of the cap and the bore of the body below the plug.

1,130,400. PROCESS FOR ARTIFICIALLY MATURING OR AGING WINES, SPIRITS, OR OTHER POTABLE LIQUORS. VICTOR HENRI, ANDRÉ HELBRONNER, and MAX VON RECKLINGHAUSEN, Paris, France, assignors, by mesne assignments, to The R. U. V. Company, Inc., a Corporation of New York. Filed May 31, 1910. Serial No. 564,062. (Cl. 195—10.)

1. The process for artifically maturing or aging wines, spirits and other potable liquors which consists in submitting the liquor to the action of concentrated ultraviolet rays.

2. The process for artifically maturing or aging wines, spirits and other potable liquors which consists in submitting the liquor to the direct action of concentrated ultraviolet rays produced by a vapor electric lamp in close proximity to the wine under treatment.

3. The process for artifically maturing or aging wines, spirits and other potable liquors which consists in submitting the liquor to the action of ultra-violet rays produced by a mercury vapor electric lamp.

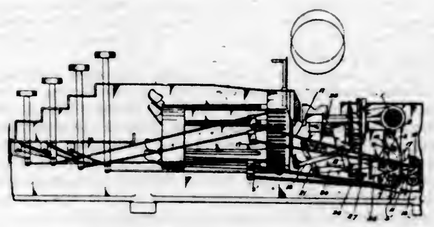


4. The process for artifically maturing or aging wines, spirits and other potable liquors, which consists in submitting the liquor to the action of concentrated ultraviolet rays produced by a vapor electric lamp having a quartz container.

5. The proces for artificially maturing or aging wines, spirits and other potable liquors, which consists in submitting the liquor in the form of a thin film, to the action of ultra-violet rays, said rays being produced by a vapor electric lamp having a quartz container.

[Claims 6 to 8 not printed in the Gazette.]

1,130,401. RIBBON MECHANISM FOR TYPE-WRITING MACHINES. EDWARD B. HESS, New York, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed June 15, 1912. Serial No. 703,772. (Cl. 197—83.)



1. A typewriting machine comprising the combination of type bars, type bar operating connections, keys therefor, most of the keys being ordinary printing keys and some of them "silent" keys, a swinging universal bar, permanent mechanical operating connections connecting the ordinary printing keys and the universal bar, silent key devices and permanent operative connections connecting the same with the silent keys, bi-chrome ribbon mechanism, means for adjusting it to effect printing from either an upper or lower zone of a ribbon and means whereby printing may be effected at will from either zone of the ribbon whenever a "silent" key or an ordinary printing key is operated.

2. In a typewriting machine having ordinary printing keys whose operation is accompanied by feed of the carriage and "silent" keys whose operation is unaccompanied by feed of the carriage, bi-chrome ribbon mechanism, a swinging universal bar frame, a swinging plate pivoted on the universal bar frame and adapted to act upon the bi-chrome ribbon mechanism when the universal bar frame is operated and also independently of movement of the universal bar frame, and a part actuated by the "silent" keys to move said swinging plate and effect actuation of the ribbon mechanism without moving the universal bar.

3. In a typewriting machine having ordinary printing keys and "silent" keys, the combination of a universal bar, a swinging universal bar frame comprising pendant swinging arms in which the universal bar is mounted, a swinging plate mounted on the universal bar frame and movable with the universal bar and adapted to actuate ribbon mechanism independently of the universal bar, means for actuating the universal bar and its swinging frame when ordinary printing keys of the machine are depressed and means for actuating the swinging plate without actuation of the universal bar when "silent" keys of the machine are operated.

4. In a typewriting machine, the combination of a universal bar, a swinging frame comprising pendent arms in which the universal bar is mounted, a transverse rod connecting said arms above the universal bar, a fixed plate carried by the universal bar and said transverse bar, a swinging plate pivoted on the fixed plate and adapted to move with and also independently thereof for the purposes described.

5. The combination with ribbon-mechanism of a typewriting machine of a universal bar and a ribbon-mechanism actuating-member mounted on the universal bar and movable therewith to actuate the ribbon mechanism whenever a printing key is depressed, and means for operating said actuating-member independently of the universal bar whenever a "silent" key is depressed.

1,130,402. PRACTICE APPARATUS FOR SMALL-ARMS. HORATIO B. HOLLIFIELD, Washington, D. C. Filed Oct. 30, 1914. Serial No. 869,384. (Cl. 124—15.5.)



1. In a device of the class described, the combination with a practice rod tube, of two spring centering devices detachably secured to said tube near its ends, respectively, and each adapted for frictional engagement with the interior of gun barrels of different internal diameters, the forward or outer device being arranged for adjustment longitudinally of the tube to bring it into the muzzle of a longer or shorter barrel in which the tube may be inserted.

2. In a device of the class described, the combination with a practice rod tube, or members detachably secured to the rear and forward end portions of the tube, respectively, and each having a series of angularly spaced spring bars bent outwardly from the tube between their ends for frictionally engaging the interiors of barrels of different internal diameters, and means for locking the forward member to the muzzle portion of a gun barrel.

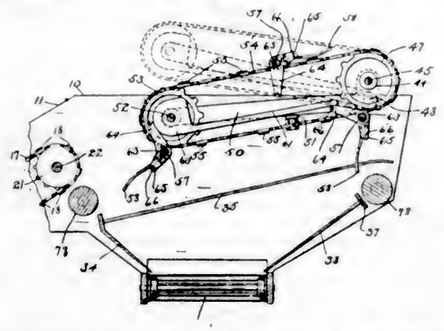
3. In apparatus of the class described, the combination with a practice rod tube, of a radially compressible spring centering device detachably fixed upon the inner end of the tube, and a second similar device adjustable along the tube, means for locking the second device to the barrel, and means always without the barrel in which the tube is used for locking the second device to the tube.

4. The combination with a practice rod tube to be inserted in the barrel of small arms, of spring tube-centering devices removably mounted on the end portions of the tube, respectively, means for locking the forward device to the tube, and means for clamping the said forward device to the muzzle of the barrel in which it may be inserted.

1,130,403. COMBINED POTATO-DIGGER AND VINE-SEPARATOR. ISAAC W. HOOVER, Avery, Ohio. Filed Mar. 31, 1911. Serial No. 618,073. (Cl. 130—32.)

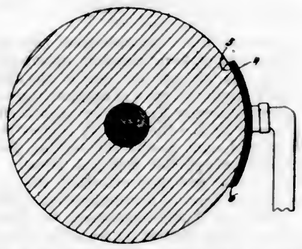
In a device of the character described, the combination of an outer frame, a vine separator mounted in said

frame, said vine separator comprising a frame pivotally supported in the outer frame, a shaft mounted at the rear end of said separator frame, a shaft mounted at the front end of said separator frame, sprocket wheels mounted on said shafts, sprocket chains carried by said sprocket wheels, shafts journaled on said chains, prongs rigidly mounted on said shafts, a pair of bell-lever-shaped plates secured on each of the prong carrying shafts, one plate being arranged at each side of the central prong thereon, means for forming a resilient connection between said



bell-lever shaped plates on each shaft and the central prong thereon and a track forming member mounted on the forward shaft of the separator frame and having a rearwardly extending portion lying parallel with the chains, and the arrangement is such that when the said plates are traveling over the forward end and along the under side of the separator frame one of the arms of each plate will come in contact with said track forming member and cause a rotation of the prong carrying shafts to which said plates are secured and means for driving said chains.

1,130,404. PRINTING. CHARLES WESLEY HOWELL, Jr., Newark, N. J., assignor to The Sun Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed May 25, 1911. Serial No. 629,361. (Cl. 101—182.)

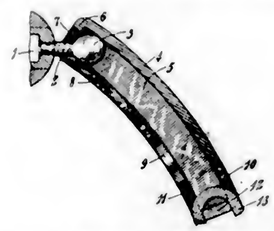


1. The method of printing consisting in separating the sheets to be printed by a double faced, yielding and non-elastic transfer sheet, and printing through one of said sheets to be printed by means of pin pointed type and through said transfer sheet upon the other of said sheets substantially as described.

2. The method of printing with penetrating type consisting in backing the sheet to be printed with a colored yielding and non-elastic body, said backing and sheet of an aggregate thickness about equal to the length of the penetrating portions of said type.

3. The method of printing with penetrating type consisting in separating the sheets to be printed by a sheet of colored yielding and non-elastic material, one of said sheets and said material of an aggregate thickness about equal to the length of the penetrating portion of said type.

1,130,405. BRACELET. HAROLD L. JEFFERY and ARTHUR W. WADSWORTH, Fort Thomas, Ky., assignors to The Wadsworth Watch Case Company, a Corporation of Kentucky. Filed Jan. 30, 1914. Serial No. 815,359. (Cl. 224—4.)



1. In an article of jewelry of the character described, an encircling element with separated ends, an object to be retained between the ends of the element, and connection between said ends and the object, permitting universal swinging of the end parts of the element with respect to the object, the connection between one of said ends and the object being separable.

2. In an article of jewelry of the character described, an encircling element with separated ends, an object to be retained between the ends of the element, and detachable connection between said ends and the object, permitting universal swinging of the end parts of the element with respect to the object.

3. In an article of jewelry of the character described, an encircling element with separated ends, an object to be retained between the ends of the element, and swivel connections between said ends and the object, permitting universal swinging of the end parts of the element with respect to the object, and permitting reversal of the object with respect to the element, the swivel connection between one of said ends and the object being separable.

4. In an article of jewelry of the character described, an encircling element with separated ends, an object to be retained between the ends of the element, and swivel connections between said ends and the object, permitting universal swinging of the end parts of the element with respect to the object, and permitting reversal of the object with respect to the element, each of said swivel connections being separable.

5. In an article of jewelry of the character described, an elastic encircling element with separated ends, an object to be retained between the ends of the element, and trunnions forming the connections between the object and adjacent ends of the elements and permitting universal swinging of the end parts of the element with respect to the object, an end part of the element being separable from its trunnion.

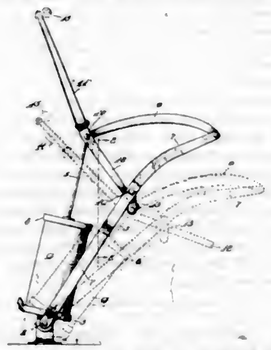
[Claims 6 to 12 not printed in the Gazette.]

1,130,406. PUMP. LAWRENCE H. JENSEN, St. Charles, Ill. Filed Jan. 19, 1914. Serial No. 812,977. (Cl. 103—62.)

1. A pump comprising a base plate, a pump cylinder pivoted thereto, straps also pivoted to said base plate upon either side of said pump cylinder, a piston within said cylinder, a piston rod extending from said piston, a link connecting said piston rod with the upper ends of said straps and an operating handle pivoted intermediate its ends to the top of the piston rod and having a sliding connection with said straps at a point intermediate their ends.

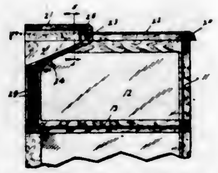
2. A pump comprising a base plate, a pump cylinder pivoted thereto, straps also pivoted to said base plate upon either side of said pump cylinder, a piston within said cylinder, a piston rod extending from said piston, a link connecting said piston rod with the upper ends of said straps and an operating handle pivoted intermediate its ends to the top of the piston rod, and a bridle pivoted between said straps intermediate their ends through which said handle slides.

3. A pump comprising a base plate, a pump cylinder pivoted thereto, straps also pivoted to said base plate upon either side of said pump cylinder, a piston within said cylinder, a piston rod extending from said piston, a



link connecting said piston rod with the upper ends of said straps and an operating handle, a portion of which extends between and connects with said piston rod and a point intermediate the ends of said straps.

1,130,407. SHOW-CASE. LAFE JOHNSON, Indianapolis, Ind. Filed Nov. 28, 1913. Serial No. 803,469. (Cl. 211—25.)



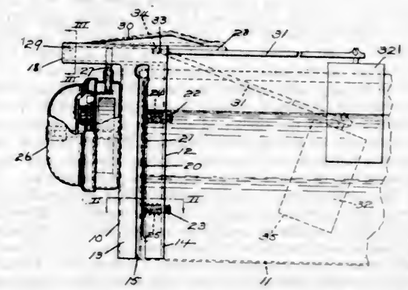
1. A store show case having a top comprising a rear section and a front section which is movable forwardly and rearwardly beneath said rear section by access from the rear, and a partition extending lengthwise of the show case and extending backwardly and downwardly from a point beneath the rear edge of the front section when the latter is in its forward position, the rear section and the partition thus forming a pocket into which an attendant may reach from the rear of the show case to grasp the rear edge of the front section.

2. A store show case having a top comprising a rear section and a front section which is movable forwardly and rearwardly beneath said rear section by access from the rear, a partition extending lengthwise of the show case and extending backwardly and downwardly from a point beneath the rear edge of the front section when the latter is in its forward position, the rear section and the partition thus forming a pocket into which an attendant may reach from the rear of the show case to grasp the rear edge of the front section, and sliding doors beneath the rear end of said partition.

3. A store show case having a top comprising a fixed rear section and a slidable front section, said front section being movable forwardly and rearwardly beneath said rear section and when in forward position having its rear edge rearward of the front edge of the rear section and forward of the rear edge of the rear section, and partitions which with said rear section form a pocket open to the rear of the show case but separated by such partitions from the space within the show case, the front section when in forward position having its rear edge within said pocket so that an attendant may reach into said pocket from the rear of the show case to grasp said rear edge.

4. A store show case having a top comprising a fixed rear section and a slidable front section, said front section being movable forwardly and rearwardly beneath said rear section and when in forward position having its rear edge rearward of the front edge of the rear section and forward of the rear edge of the rear section, partitions which with said rear section form a pocket open to the rear of the show case but separated by such partitions from the space within the show case, the front section when in forward position having its rear edge within said pocket so that an attendant may reach into said pocket from the rear of the show case to grasp said rear edge, and a slide way for said front section, said slide way being provided with a forwardly presented shoulder in front of which said front section lies when in forward position.

1,130,408. ALARM DEVICE. MEYER KEILSON, New York, N. Y. Filed Sept. 10, 1912. Serial No. 719,601. (Cl. 116—15.)



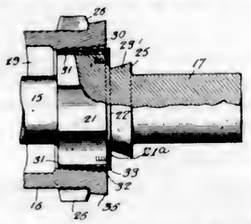
1. An alarm, comprising in combination, a supporting member adapted to be attached to a liquid containing vessel, a movable stem, a spring controlled movable plate mounted upon the said supporting member and adapted to normally hold said movable stem in operative position to sound said alarm, a lever pivoted at a point near one of its ends to the said supporting member, whereby the end of said lever will engage the said spring controlled movable plate to free said plate from contact with said movable stem when the opposite end of said lever is lowered, a float carried on said lever at its said opposite end and adapted to swing the said end upwardly, thereby allowing the spring controlled plate to descend into engagement with the movable stem of the alarm when the liquid in the vessel rises to a predetermined height.

2. An alarm, comprising in combination, a supporting member adapted to be attached to a receptacle, a movable stem adapted to sound said alarm, a spring controlled movable plate mounted upon the said supporting member and adapted to normally hold said movable stem in operative position to sound said alarm, a lever pivoted at a point near one of its ends to the said supporting member, whereby the end of said lever will engage the said spring controlled movable plate to free said plate from contact with said movable stem when the opposite end of said stem is lowered, means carried on the said opposite end of said lever and adapted to swing the said opposite end upwardly thereby allowing the spring controlled movable plate to descend into engagement with the movable stem of the alarm.

1,130,409. KEYING DEVICE FOR ROLLS. WILLIAM F. KIRK, Hollidaysburg, Pa. Filed Sept. 16, 1911. Serial No. 649,702. (Cl. 74—8.)

1. In combination, a shaft provided near each end with an enlarged portion polygonal in cross section, and with an annular shoulder at the outer end of each of the said portions, a shell having each end of its bore of a cross section similar to the enlarged portion of the shaft to fit said portions loosely, said ends of the bore of the shell tapering from without inward, a wooden wedge between each of the adjacent faces of the shell and shaft, a me-

tallic wedge inserted in each of the wooden wedges, a ring on each of the annular shoulders, and screws passing through the ring and engaging with the enlarged portion of the shaft, said shaft having a frusto-conical enlargement at the outer side of each shoulder.



2. In combination, a shaft provided near each end with an enlarged portion polygonal in cross section, and with an annular shoulder at the outer end of each of the said portions, a shell having each end of its bore of a cross section similar to the enlarged portion of the shaft to fit said portions loosely, said ends of the bore of the shell tapering from without inward, a wooden wedge between each of the adjacent faces of the shell and shaft, a metallic wedge inserted in each of the wooden wedges, a ring on each of the annular shoulders, and screws passing through the ring and engaging with the enlarged portion of the shaft.

3. In combination, a shaft provided near each end with an enlarged portion polygonal in cross section, and with an annular shoulder at the outer end of each of the said portions, a shell having each end of its bore of a cross section similar to the enlarged portion of the shaft to fit said portions loosely, said ends of the bore of the shell tapering from without inward, a wooden wedge between each of the adjacent faces of the shell and shaft, a metallic wedge inserted in each of the wooden wedges, and a ring secured to the shell at each end, said ring resting on the annular shoulder.

4. In combination, a shaft provided near each end with an enlarged portion polygonal in cross section, and with an annular shoulder at the outer end of each of the said portions, a shell having each end of its bore of a cross section similar to the enlarged portion of the shaft to fit said portions loosely, said ends of the bore of the shell tapering from without inward, a wooden wedge between each of the adjacent faces of the shell and shaft, a metallic wedge inserted in each of the wooden wedges, and means for holding the wedges in place.

5. In combination, a shaft provided near each end with an enlarged portion polygonal in cross section, and with an annular shoulder at the outer end of each of the said portions, a shell having each end of its bore of a cross section similar to the enlarged portion of the shaft to fit said portions loosely, said ends of the bore of the shell tapering from without inward, a wooden wedge between each of the adjacent faces of the shell and shaft, and a metallic wedge inserted in each of the wooden wedges.

1,130,410. LAMINATED BOARD AND PROCESS OF MAKING SAME. MAURICE LACHMAN, New York, N. Y., assignor to Lachman Manufacturing Company, New York, N. Y., a Corporation of Delaware. Filed May 15, 1912. Serial No. 697,437. (Cl. 154—40.)



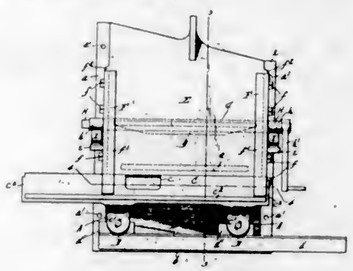
1. As a new article of manufacture, a laminated board comprising a thin sheet metal veneer, a laminated paper backing, and a cement including silicate of soda and rosin uniting said metal veneer and said backing to form an integral structure.

2. As an article of manufacture, a laminated board comprising a metallic member, a dense sound deadening member, and a binder between said members, said binder including silicate of soda and rosin, all of the specified parts being united to form an integral board.

3. The process of constructing metal faced laminated boards consisting in coating a thin sheet of metal with a liquid comprising silicate of soda and rosin, then applying a sheet of paper to the coated surface, then passing said sheets between pressure rolls until the parts are dry and set, then applying a cement upon said paper, then superposing a second sheet of paper upon said cement and applying pressure until the cement is dry, then alternately applying cement and sheets of paper and applying pressure after the application of each sheet of paper until the parts become dry, to make up a board of the required thickness.

4. The process of constructing metal faced paper boards as follows; cleaning the surface of a thin metal sheet, applying a binder comprising silicate of soda and rosin, superposing a sheet of paper upon said binder, then applying pressure until the parts are dry, then applying cement to the paper, superposing a sheet of paper upon said cement, then again applying pressure until the cement is dry, substantially as set forth.

1,130,411. FEEDING AND STOKING ATTACHMENT FOR FURNACES. JAMES A. LANIGAN, Lancaster, and DAVID J. CARSON, Buffalo, N. Y. Filed Oct. 14, 1912. Serial No. 725,602. (Cl. 110—108.)



1. A casing adapted to inclose the fuel door opening of a furnace and adapted to contain a charge of fuel, said casing having upright stationary side walls and a front wall comprising a section which is movable horizontally sidewise of the casing and is provided with a relatively small hole for the passage of a stoking iron which is shifted to different positions laterally of the casing by the movement of said section, and a vertically movable front wall section slidably arranged with reference to said side walls and movable toward and from said horizontally movable section.

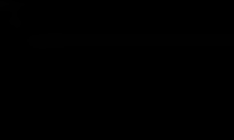
2. The combination of a casing adapted to inclose the fuel door opening of a furnace and adapted to contain a charge of fuel, a member which is movable relatively to said casing to discharge said charge of fuel from said casing into the door opening of the furnace, said casing having at its front an opening which extends horizontally for substantially the full width of the furnace door opening, and a closure for said opening in the casing, which closure is provided with a relatively small hole for the passage of the stoking iron and is movable horizontally to shift said stoker hole laterally to enable the use of the stoking iron to different desired positions.

3. The combination of a casing adapted to inclose the fuel door opening of a furnace and to contain a charge of fuel, said casing comprising upright stationary side walls and a front wall, said casing having an opening in its front wall which extends substantially from side to side thereof, and a closure plate for said opening mounted on said casing to move edgewise transversely of the casing, said plate being provided with a relatively small hole communicating with the interior of the casing for the passage of the stoking iron through the same.

4. The combination of a casing adapted to be secured at the front of a furnace to inclose the fuel door opening therein and having stationary upright side walls and a bottom, a partition pivoted to said upright walls intermediate of the ends thereof and dividing said casing into upper and lower compartments, the lower compartment having an opening at the front of the casing which is relatively long horizontally, and a closure for said opening which is provided with a relatively small hole for the passage of a stoking iron and is movable horizontally to shift said stoker laterally to enable the use of the stoking iron in different desired positions.

5. A casing adapted to inclose the fuel door opening of a furnace and adapted to contain a charge of fuel, said casing having bottom and side walls, and a front wall comprising a section which is movable horizontally sidewise of the casing and has a relatively small hole for the passage of the stoking iron, which hole is shifted laterally of the casing by the movement of said section, and an upper front wall section which is movable toward and from said horizontally movable section, one side of said hole for the stoking iron being closed by said last mentioned front wall section whereby the stoking iron can be inserted into and removed from said hole when said upper front wall section is moved away from said horizontally movable section.

1,130,412. FEED-WATER HEATER. SHERMAN S. LAWSON, Chicago, Ill. Filed Mar. 7, 1914. Serial No. 823,211. (Cl. 122—425.)



1. In combination with the fire box, smoke box and the flues of a boiler, of a feed water heater unit comprising a header adapted to be secured on the outside of the smoke box front, said smoke box front having an opening therethrough, piping extending from said header into the smoke box and into and through one of the boiler flues, said header having an inlet and an outlet for water, the water flowing through said piping to be heated by the products of combustion passing through said flue and said smoke box.

2. In combination with a water heating structure involving a fire box, a smoke box having an opening to the exterior, and a boiler having flues extending between the fire box and the smoke box, of a feed water heater unit comprising a header adapted to be secured on the outside of the smoke box, and a piping loop communicating with and extending from said header across said smoke box and into a flue of said boiler, said header having inlet and outlet for water.

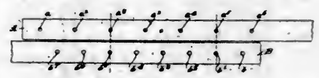
3. In combination with a water heating structure involving a fire box, a smoke box having an opening to the exterior, and a boiler having flues extending between the fire box and the smoke box, of a feed water heater unit comprising a header adapted to be secured on the outside of the smoke box, a main piping loop communicating with and extending from said header across the smoke box and into a flue of said boiler, a plurality of auxiliary loops communicating with and extending from said header through said opening and into the smoke box, said header having a feed water inlet and having an outlet connected with said boiler.

4. In combination with a fire box, smoke box and the flue of a boiler extending therebetween, the smoke box front having an opening opposite the flue, of a feed water heater unit comprising a header adapted to be detachably secured on the outside of the smoke box front about said opening, a piping loop communicating with and extending from said header across the smoke box and into said flue, a feed water inlet for the header and a controllable water connection from said header to the boiler.

5. In combination with a fire box, smoke box and the flue of a boiler connecting between the fire box tube sheet and the smoke box tube sheet, the smoke box front having an opening opposite said flue, a header adapted to be detachably secured to the outside of the smoke box front about said opening, parallel pipes extending from said header across the smoke box and into said flue and joined at their inner ends, an inlet chamber and an outlet chamber in said header, said chambers communicating respectively with said pipes and connected respectively with a source of water supply and with the boiler, and a plugged entrance to each chamber in alinement with the pipe extending therefrom whereby said pipes may be readily cleaned.

[Claims 6 to 8 not printed in the Gazette.]

1,130,413. BARREL-HOOP. HENRY LLOYD, Lexington, Ky. Filed Mar. 30, 1912. Serial No. 687,319. (Cl. 24—20.)



1. As an article of manufacture, a hoop strip provided at each end with a longitudinal series of openings, the openings of the one series being spaced apart equally from each other a predetermined multiple of a predetermined unit, and the openings of the other series being spaced apart equally from each other a predetermined multiple of the before mentioned predetermined unit, the spacing of one series differing from the spacing of the other series by the before mentioned predetermined unit.

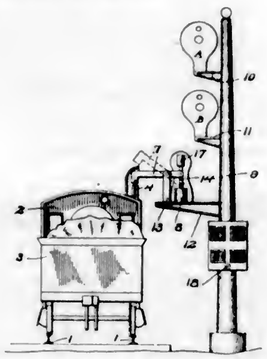
2. As an article of manufacture, a hoop strip provided at each end with a longitudinal series of openings, the openings of one series being spaced apart equally from each other a predetermined multiple of a predetermined unit, and the openings of the other series being spaced apart equally from each other a predetermined multiple of the before-mentioned predetermined unit, the said multiples being prime to each other, that is, having no common factor, whereby when the ends are lapped upon each other, those openings of the two series will register which are spaced apart from each other that number of times the before mentioned predetermined unit which is the least common multiple of the two before mentioned predetermined multiples, and, starting from any position of registry, a longitudinal movement of one end over the other end equal to the before-mentioned predetermined unit, will result in a second position of registry.

3. As an article of manufacture, a hoop strip provided at each end with a longitudinal series of openings, the openings of the one series being spaced apart equally from each other a predetermined multiple of a predetermined unit, and the openings of the other series being spaced apart equally from each other a predetermined multiple of the before-mentioned predetermined unit, the said multiples being prime to each other, that is, having no common factor, and differing from each other by one, whereby when the ends are lapped upon each other, those openings of the two series will register which are spaced apart from each other that number of times the before-mentioned predetermined unit which is the least common multiple of the two before-mentioned predetermined multiples, and starting from any position of registry, a longitudinal movement of one end over the other end equal to the before-mentioned predetermined unit will result in a second position of registry.

1,130,414. APPARATUS FOR PREVENTING RAILWAY ACCIDENTS. HAVARD L. LOCKART, Philadelphia, Pa. Filed Oct. 16, 1913. Serial No. 795,400. (Cl. 246—59.)

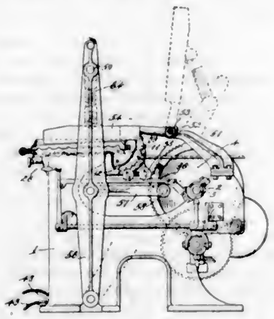
1. The combination with a support, of a tripping lever pivotally mounted intermediate its ends on the said sup-

port, an electro-magnet adjacent one end of said lever, a dash pot adjacent the same said end and opposite said electro-magnet, the armature of said electro-magnet being extended to project within said dash pot, and being connected intermediate its ends to said lever end, and a plunger within said dash pot and connected to said armature, substantially as described.



2. The combination with a support, of a tripping lever pivotally mounted intermediate its ends on said support and being heavier at one end than at the other to normally lie in horizontal position, an electro-magnet adjacent the lighter end of said lever, a dash pot adjacent the same end and upon the opposite side of said lever, the armature of said electro-magnet being extended to project within said dash pot, a plunger within said dash pot connected to said armature, and the said lighter end of said lever being connected to said armature, substantially as described.

1,130,415. IRONING-PRESS. ALBERT L. LORD and BLUFORD W. BROCKETT, Cleveland, Ohio, assignors to The Guggenheim Laundry Machinery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 22, 1912. Serial No. 692,236. (Cl. 68—9.)



1. In an ironing press, an ironing board, a neck band former comprising a portion fixed relative to the ironing board and a movable portion, means for simultaneously moving the ironing board and the movable portion of the neck band former to adjust the latter to various sizes of neck bands, an ironing chest coöperating with the ironing board, and means for bringing about a relative movement of the ironing board and chest.

2. In an ironing press, an ironing chest having a recess for the neck band former, an ironing board, a neck band former comprising a portion fixed against movement with the ironing board and other portions movable with the ironing board, means for moving the board and the movable portions of the neck band former to adjust the neck band former to various sizes of neck bands, and means for bringing about a relative movement of the ironing chest and the ironing board.

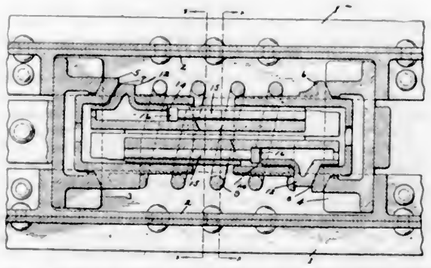
3. In an ironing press, an ironing chest having a recess for the neck band former, an ironing board, a neck band former comprising a forward curved portion fixed against movement with the ironing board and having a fixed relation with respect to the neck band recess of the chest and also having foot portions movable with the ironing board, means for moving the ironing board and the foot portions of the neck band former to adjust the latter to various sizes of neck bands, and means for bringing about a relative movement of the ironing chest and ironing board.

4. In an ironing press, a movable ironing member having a neck band recess, an ironing board, yoke ironing mechanism, coöperating with the ironing board, a neck band former mounted upon the ironing board and having a portion fixed with respect to the board and a movable portion, means for shifting the board, the yoke ironing mechanism and the movable portion of the neck band former to adjust the neck band former to various sizes of neck bands, and means for bringing about a relative movement of the ironing member and the ironing board.

5. In an ironing press, an ironing chest having a neck band recess, a movable ironing board, a yoke ironing member carried thereby, a yoke presser coöperating with the yoke ironing member, a neck band former mounted upon the board and having a portion fixed against movement with the ironing board, and a movable portion, means for simultaneously shifting the ironing board and the movable portion of the neck band former to adjust the latter to various sizes of neck bands, and means for bringing about an engagement of the ironing chest with the ironing board.

[Claims 6 to 20 not printed in the Gazette.]

1,130,416. FRICTION DRAFT AND BUFFING APPARATUS. JOHN H. MCCORMICK, Bexley, Ohio. Filed Jan. 15, 1912. Serial No. 671,299. (Cl. 213—64.)



1. In a draft gear, a shock absorbing device comprising wedging means, and a plurality of friction blocks divided into sections, the sections of each block having wedging engagement with each other and adjacent blocks being arranged to have relative movement longitudinally while in frictional engagement with each other.

2. In a draft gear, a shock absorbing device comprising wedging means, sectional friction blocks in multiple units of hard and soft metal alternated, and loose soft metal connections between the said sections of each block.

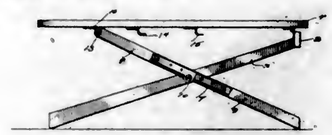
3. In a draft gear, a shock absorbing device comprising wedging means, sectional friction blocks in multiple units of hard and soft metal alternated, the said sections having inclined meeting surfaces.

4. In a draft gear, a shock absorbing device comprising wedging means, a plurality of friction blocks disposed in contacting engagement with each other, said blocks being arranged to give the cushioning resistance by a relative movement between them when they are in contacting engagement with each other and being divided transversely into longitudinally alining sections, and faces on said blocks independent of those in contacting engagement arranged to coöperate with said means, the sections of each block having engaging surfaces to afford a limited wedging and friction movement.

5. In a draft gear, a shock absorbing device comprising wedging means, friction blocks formed in longitudinally alining sections, and connecting means between each pair of such longitudinally alining sections.

[Claims 6 to 9 not printed in the Gazette.]

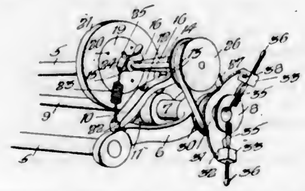
1,130,417. COMBINED IRONING-BOARD AND STEP-LADDER. GORDON E. MCLENDON, Memphis, Tenn. Filed July 22, 1913. Serial No. 780,501. (Cl. 228—32.)



1. In combination an elongated baseboard, two elongated legs hingedly connected to one end of the base board, braces connecting said legs together, a pair of sectional legs pivotally connected to the sides of said elongated legs, the members of said sectional legs having a butt joint, the stops carried by said base-board against which the ends of said sectional legs may abut whereby to cause the legs to intersect to horizontally support said base-board.

2. In combination, a table-board, a stepped elongated frame hingedly connected to one end of said table-board, oppositely-arranged two-section legs pivotally connected to the sides of said frame, said two sections, when extended, arranged to have a butt joint, said sections when extended and adjoined arranged to intersect said frame, stops carried by said table-board engaged by certain of said sections whereby to hold said sections in alinement, stops carried by said table-board in advance of said other props engaged by certain of said sections, whereby to hold said frame in an angular position relatively to said table-board.

1,130,418. ATTACHMENT FOR BOTTLE-WASHING MACHINES. STEPHEN MARTINELLI, Jr., Watsonville, Cal. Filed June 8, 1914. Serial No. 843,773. (Cl. 141—7.)



1. An attachment of the class described including a bridge adapted to be secured to the yoke of a bottle washing machine, an arm pivoted at one end to one end of the bridge, a grease box carried at the opposite end of the arm, a brace arm carried by said arm, said brace arm provided with a second grease box, a shaft journaled in the grease boxes, a disk carried at one end of said shaft, a friction disk detachably secured to said disk, and engaging the spindle of the machine, a driving pulley carried at the oposite end of the shaft from the disk, a spring connected at one end to the opposite end of the bridge from the connection point of the arm and bridge, a clip connected to said spring, means for detachably securing the clip to one of the grease boxes whereby the friction disk may be maintained in constant contact with the spindle, a sleeve rotatably mounted upon the nozzle of said machine in advance of the yoke, said sleeve provided with a guideway, a driving belt carried by said driving pulley and engaging the guideway of the sleeve, a disk formed on said sleeve, said disk provided with oppositely extending similarly curved arms, said arms provided at their outer ends with lugs, brushes extending through said lugs, means whereby the brushes may be adjusted relatively to the lugs, said brushes being oppositely disposed and adapted to engage the crown groove of a bottle when the latter is placed against the mouth piece of the bottle washing machine.

2. An attachment of the class described comprising a bridge adapted to be secured to the yoke of a bottle washing machine, an arm carried by said bridge, a support carried by the arm, a shaft, means carried by the arm and support for journaling the shaft, a friction disk connected with said shaft and adapted to be driven by the spindle of the bottle washing machine, means for maintaining said disk in constant contact with said spindle, a pulley carried by the shaft, a sleeve rotatably mounted upon the nozzle of the machine, driving means between said sleeve and pulley, and brushes supported by said sleeve and adapted to engage the crown groove of a bottle when the latter is placed against the mouth piece of the bottle washing machine.

3. An attachment of the class described including a shaft, means for swingingly supporting the same relatively to the spindle of a bottle washing machine, a friction drive between the spindle and shaft, means for taking up wear in the drive, a rotary brush journaled relatively to the nozzle of the machine, and a compensating drive means between the shaft and brush.

4. An attachment of the class described including a brush holder adapted to be journaled on the nozzle of a bottle washing machine, said holder comprising a sleeve having a groove provided therein, and having a flange at one end adapted to bear against the yoke of the machine, and a disk at the opposite end adapted to co-act with said flange in forming a guideway, arms carried by said disk, said arms being oppositely disposed and being provided with lugs, brushes carried by said lugs, means whereby the brushes may be adjusted relatively to the lugs, and means for connecting the brush holder and spindle of the machine for driving said brush holder and consequently the brushes in a contra-direction relative to the direction of rotation of the spindle.

5. A device of the class described comprising a brush holder adapted to be journaled adjacent the mouth piece of a bottle washing machine, means for driving the brush holder, said holder including a plurality of curved arms, brushes carried by said arms and extending toward the axis of the holder, said arms being so curved as to dispose said brushes at an angle to each other and directed toward the mouth piece of the machine, whereby to engage a bottle neck well within the crown groove thereof, when the bottle is placed against the mouth piece.

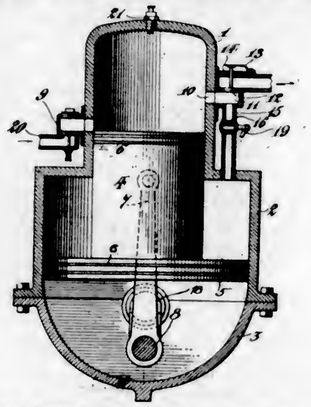
[Claim 6 not printed in the Gazette.]

1,130,419. GAS-ENGINE. ROBERT MILLER, New York, N. Y., assignor to R. M. Owen and Company, New York, N. Y., a Corporation of New York. Filed Jan. 19, 1909. Serial No. 473,046. (Cl. 123—40.)

1. In a gas engine of the two-cycle type, an explosion cylinder and a piston working therein, a vacuum chamber, a valved by-pass between the explosion chamber and the vacuum chamber, a valved exhaust port for the explosion chamber, a fuel inlet port therefor, and means for opening the said by-pass and establishing communication between the interior of the explosion cylinder and the vacuum chamber after the force of the exhaust blast has practically spent itself.

2. In a gas engine, a pair of cylinders of different size forming respectively explosion and vacuum chambers, a differential piston in said cylinders, in combination with means consisting of a valved by-pass leading from the explosion chamber to the vacuum chamber, a valved exhaust port, a fuel inlet port, means for opening the by-pass and closing the exhaust port and establishing communication between the two cylinder chambers after the force of the exhaust blast has practically spent itself, and an inlet valve for opening the valve inlet to the explosion chamber while the by-pass is closed.

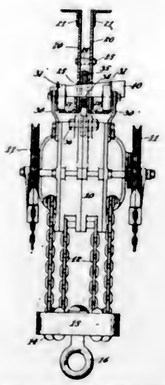
3. In a gas engine, the combination of a pair of cylinders of different size forming respectively explosion and vacuum chambers, a differential position, a valved by-pass leading from the explosion chamber to the vacuum cham-



ber, a valved exhaust port, a fuel inlet port, valve mechanism which opens the by-pass and closes the exhaust port and establishes communication between the two cylinder chambers after the force of the exhaust blast has practically spent itself, and means for opening the fuel inlet to the explosion chamber while the by-pass is closed,

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1,130,420. HOISTING MECHANISM. EDWARD Y. MOORE, Cleveland, Ohio. Filed July 13, 1914. Serial No. 850,582. (Cl. 212—145.)



1. The combination, with a trackway and a hoist suspended therefrom, of means for suporting the weight of the hoist without supporting the weight of the load whereby the hoist may be transported along the trackway, and independent means for supporting the hoist and load.

2. The combination of a flanged trackway, a depending hoist provided with wheels adapted to roll on said trackway, and means to support the hoist from the trackway independently of the wheels.

3. The combination, with a trackway, of a hoist provided with wheels riding on the trackway, a member rising from the hoist, and means for locking said member to the trackway to suport the weight of the load.

4. The combination of a trackway, a hoist provided with wheels adapted to travel on the trackway, a member rising from the hoist, and a wedge adapted to engage said member and the trackway and thereby support the hoist from the trackway independently of the wheels.

5. The combination of a flanged trackway having a downward opening, a hoist having wheels riding on the flanges and provided with a member extending upwardly into said opening, and means to lock said member to the trackway.

[Claims 6 to 14 not printed in the Gazette.]

1,130,421. ACCOUNT-REGISTER. EMERSON B. MOSELEY, Alliance, Ohio, assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed Mar. 11, 1909. Serial No. 482,693. (Cl. 45—2.)



1. In a filing appliance, the combination of a series of leaves pivotally mounted to swing relative to each other, means for swingably supporting the said series of leaves at its rear end, and oscillating means for supporting the said series of leaves at its front end, the last mentioned means being pivoted to the front leaf of the series of leaves above its lower end and operating when said leaf is swung and oscillated on its pivots to elevate the said series of leaves into operative position.

2. In a filing appliance, the combination of a casing, a series of leaves normally arranged face to face and pivotally mounted to swing relative to each other, means for swingably supporting the rear end of said series of leaves in the casing and permitting them to swing bodily relative thereto, and oscillating means pivotally connected to the front leaf of the series of leaves above its lower end for swingably supporting its front end in the casing and automatically operating when said front leaf is swung and oscillated on its pivots to elevate said series of leaves.

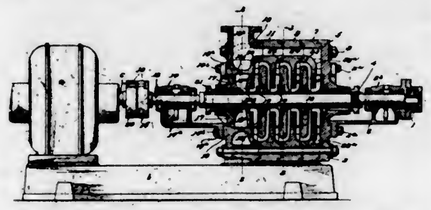
3. In a filing appliance, the combination of a casing, a series of leaves normally arranged face to face and pivotally mounted to swing relative to each other, means for swingably supporting the rear end of said series of leaves in the casing, and a support pivotally connected to the front leaf of the series of leaves for supporting the series of leaves at its front end, the axis of said front leaf on said support being arranged above the axis on which said leaf swings relative to the adjoining leaf of the series, whereby all the leaves are raised and lowered bodily as said front leaf is reclined.

4. In a filing appliance, the combination of a base and a series of leaves each pivoted to said base whereby they may be reclined relative to each other, means pivotally connected to the base at its rear end, and means pivotally connected with the front leaf of the series of leaves and coöperating with the first mentioned pivotal connecting means to swingably support the base and leaves as a unit.

5. In a filing appliance, the combination of a base and a series of leaves each pivoted to said base whereby they may be reclined relative to each other, means pivotally connected to the base at its rear end, and means pivotally connected with the front leaf of the series of leaves and coöperating with the first mentioned pivotal connecting means to swingably support the base and leaves as a unit, the last mentioned connecting means having movement relative to the said front leaf and operating to elevate the base and leaves into operative position when said front leaf is operated.

[Claims 6 to 19 not printed in the Gazette.]

1,130,422. MULTISTAGE CENTRIFUGAL PUMP. ALEXANDER V. MUELLER, Oswego, N. Y. Filed Apr. 16, 1914. Serial No. 832,294. (Cl. 103—43.)



1. A multi-stage centrifugal pump comprising end heads, vertical transverse casing sections, said heads and sections being removably secured together, a pump shaft, and removable impellers, one of said heads being provided with the suction inlet and the discharge outlet of the pump, whereby the other end head and said sections and impellers can be removed without disconnecting the suction and discharge pipes coupled to said inlet and outlet.

2. A multistage centrifugal pump of the vertically split type having one casting forming a section thereof and provided with the pump suction inlet and the pump discharge outlet.

3. A multistage centrifugal pump embodying a series of vertical sections arranged side by side and vertical end heads, one end head provided with the pump suction inlet and with the pump discharge outlet, substantially as described.

4. A multistage centrifugal pump comprising removable parallel sections clamped together end to end and removable longitudinally of the pump shaft, one end section provided with the pump suction inlet and the pump discharge outlet, said sections providing a longitudinal return passage from the opposite end of the pump to said section provided with said outlet.

5. A multistage centrifugal pump comprising parallel casing sections secured removably together end to end and removable longitudinally of the pump shaft and providing passages for the flow of the liquid operated on by the pump from the pump suction inlet at one end of the pump to the opposite end of the pump and providing a return discharge passage longitudinally of the pump and to the pump discharge outlet at said end of the pump provided with the suction inlet.

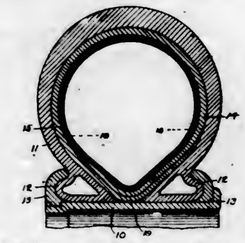
[Claims 6 to 15 not printed in the Gazette.]

1,130,423. LAST FOR FOOTWEAR. EBERHARD MÜLLER, Frankfort-on-the-Main, Germany. Filed May 16, 1914. Serial No. 839,159. (Cl. 12—133.)



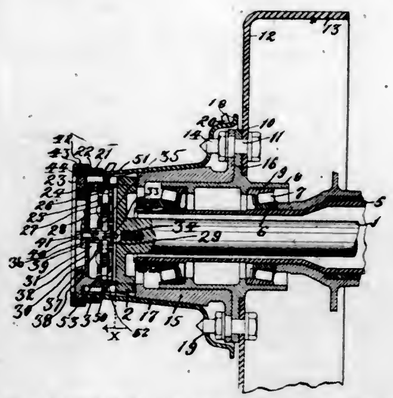
A last having a ridge line extending from the center point of the heel through a transverse line at the greatest width of the last at a point spaced from one end of said transverse line a distance equal to four-fifths of the length of said transverse line.

1,130,424. REINFORCEMENT FOR PNEUMATIC TIRES. ALBERT LINN MURRAY, Auburn, Ind. Filed Dec. 28, 1912. Serial No. 738,971. (Cl. 152—18.)



An inner reinforcement for pneumatic tires having overlapping portions along its inner periphery, the edges of which portions are beveled and extend, in use, above the beads of the tire, said portions being adapted to slide upon each other as the tire is inflated to cause the reinforcement to conform to the inner wall of the tire and to the outer surface of the wheel rim between the beads and lock the same within the tire.

1,130,425. WHEEL-HUB. EDWARD NALL and WILLIAM C. TYLER, Akron, Ohio, assignors to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 8, 1914. Serial No. 837,282. (Cl. 21—31.)



1. In a vehicle wheel, a permanent hub member provided at its outer end with a plurality of spaced lugs providing notches between them, the inner faces of said lugs provided with a continuous screw thread, an axle having means adapted to engage in the notches between said lugs, a detachable hub member sleeved over said permanent hub member, a locking member having screw threads engaging with the screw threads on said lugs and provided with means engaging the removable hub for locking it in operative position, a ring-shaped member provided with a plurality of lugs adapted to be positioned in the spaces between the lugs on said permanent hub, and releasable means carried by said locking member and engaging said ring-shaped member for holding the former against independent rotation.

2. In a vehicle wheel, a permanent hub member provided at its outer end with a plurality of spaced lugs providing notches between them, the inner faces of said lugs provided with a continuous screw thread, an axle having

means adapted to engage in the notches between said lugs, a detachable hub member sleeved over said permanent hub member, a locking member having screw threads engaging with the screw threads on said lugs and provided with means engaging the removable hub for locking it in operative position, a ring-shaped member having peripheral lugs adapted to be inserted in the notches between the lugs on said permanent hub, the inner face of said ring being provided with teeth, an outwardly spring-pressed detent carried by said locking member and engaging said teeth for holding said locking member against rotation.

3. In a vehicle wheel, a permanent hub member provided at its outer end with a plurality of spaced lugs providing notches between them, the inner faces of said lugs provided with a continuous screw thread, an axle having means adapted to engage in the notches between said lugs, a detachable hub member sleeved over said permanent hub member, a locking member having screw threads engaging with the screw threads on said lugs and provided with means engaging the removable hub for locking it in operative position, a ring-shaped member carried by said locking member and provided with peripheral lugs adapted to be inserted in the notches between the lugs on said permanent hub, a member carried by said locking member and moving outwardly for engagement with the inner face of said ring for preventing said locking member from independent reverse rotation.

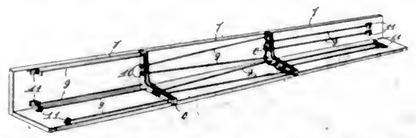
4. In a vehicle wheel, a permanent hub member provided at its outer end with a plurality of spaced lugs providing notches between them, the inner faces of said lugs provided with a continuous screw thread, an axle having means adapted to engage in the notches between said lugs, a detachable hub member sleeved over said permanent hub member, a locking member having screw threads engaging with the screw threads on said lugs and provided with means engaging the removable hub for locking it in operative position, a ring-shaped member having peripheral lugs adapted to be positioned in the notches between the lugs on said permanent hub, a radially-shiftable detent carried by said locking member and engaging the inner face of said ring for preventing the reverse rotation of said locking member, resilient means for normally moving said shiftable member outwardly to engage the inner face of said ring, and a second locking member engaging said shiftable member for holding it against inward movement.

5. In a vehicle wheel, a permanent hub member provided at its outer end with a plurality of spaced lugs providing notches between them, the inner faces of said lugs provided with a continuous screw thread, an axle having means adapted to engage in the notches between said lugs, a detachable hub member sleeved over said permanent hub member, a locking member having screw threads engaging with the screw threads on said lugs and provided with means engaging the removable hub for locking it in operative position, a ring-shaped member having peripheral lugs adapted to be positioned in the spaces between the lugs on said permanent hub, said ring provided with an inwardly-projecting flange positioned between it and said locking member, an outwardly-moving spring-pressed detent carried by said locking member and engaging the inner face of said ring for holding said locking member against rotation, said detent engaging the lateral flange on said ring for coupling the ring and locking member together.

[Claims 6 to 8 not printed in the Gazette.]

1,130,426. BRACE FOR CABINETS. NORDAHL O. NELSON, Westby, Wis. Filed Nov. 12, 1914. Serial No. 871,767. (Cl. 189—37.)

1. In a device of the class described the combination with a plurality of sections, said sections provided with grooves adjacent their end portions, angular brackets carried by said sections and partially fitting within said grooves, lateral projections formed integral upon said brackets, means for securing said lateral projections to said sections and tie rods spanning said sections and engaging said brackets for holding said sections in engagement with each other thereby forming a one-piece structure.

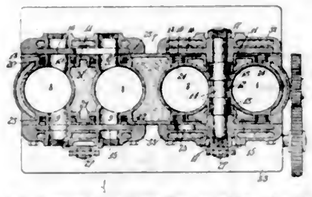


2. In a device of the class described the combination with a plurality of sections having grooves adjacent their end portions, angular brackets carried by said sections and partially fitting within said grooves, said brackets provided with a plurality of transverse apertures, a plurality of tie rods spanning said sections and passing through said apertures, a plurality of said rods converging toward each other, to accommodate different sized section and take up the slack in the tie rods whereby the sections will be held in engagement with each other to form a one-piece structure.

3. In a device of the class described the combination with a plurality of sections, having grooves adjacent their inner portions, angular brackets carried by said sections, said brackets provided with ribs upon their outer portions, said ribs fitting within said grooves, said brackets provided with transverse apertures, tie rods passing through said apertures and spanning the distance between said brackets, said tie rods being adapted to be secured in position so as to allow said sections to be held in engagement with each other to form a one-piece structure.

4. A device of the class described comprising a plurality of brackets arranged in close proximity, each bracket provided with a plurality of threaded apertures, one of said brackets provided with hollow threaded plugs threaded into the apertures formed therein, the other of said brackets provided with lugs threaded into the apertures formed therein and adapted to project from one side thereof, and the plugs of one bracket fitting in the socket plugs of the other bracket for firmly anchoring said brackets together.

1,130,427. DISK VALVE FOR INTERNAL-COMBUSTION ENGINES. JOHN S. O'NEAL, Cincinnati, Ohio. Filed Sept. 23, 1913. Serial No. 791,295. (Cl. 123—52.)



1. In an internal combustion engine,—a plurality of units, each comprising a pair of cylinders and each cylinder having oppositely disposed inlets and outlets; yielding valve seats in said unit, one about said inlets and the other about said outlets, said valve seats having means preventing the gases from passing behind said seat; a disk valve in engagement with each of said valve seats, one for controlling the inlets of the unit and the other the outlets of the same; and transmission means from the main shaft of the engine to said valves for rotating the same at a predetermined speed.

2. In an internal combustion engine having a plurality of units, each comprising a pair of cylinders and each cylinder having oppositely disposed inlets and outlets; valve seats in said units, one for the two inlets and one for the two outlets, each of said seats having means adapted to prevent a leak of gases about the seat; a disk valve in engagement with each of said valve seats for controlling the inlets to the cylinders of the unit and the outlet of the same; means connecting said valves and maintaining said valves in a relatively fixed position to each other; and transmission means from the main shaft to said means binding said valves whereby said valves can be rotated at a predetermined speed.

3. In an internal combustion engine comprising a plurality of units, each formed of two cylinders having oppositely disposed inlet and outlet ports, each of the units having a recess about the inlets and a recess about the outlets of the same; a valve seat positioned in each of said recesses, and having means adapted to prevent the leak of gases between the seat and the bottom of the recess; a disk valve engaging each of said seats for controlling the inlets to said cylinders of the unit and the outlets of the same; means positioned intermediate the cylinders of the unit connecting said valves and maintaining the same in relative fixed position; and transmission means from the main shaft to said means whereby said valves can be rotated at a predetermined speed.

4. In an internal combustion engine having a plurality of units, each formed of a pair of cylinders having oppositely disposed inlets and outlets, each of the units having a recess about the inlets and the outlets and an annular groove about each inlet and each outlet of each cylinder; a valve seat positioned in each of said recesses and having annular projections engaging said annular grooves; a disk valve engaging each of said seats for controlling the inlets and the outlets of the unit; resilient means in said units for maintaining the engagement between the valve seat and the valve; a shaft positioned intermediate the cylinders of the unit engaging said valves and maintaining the same in fixed relative position; and transmission means from the main shaft of the engine to said shaft between the cylinders whereby said valves are rotated at a predetermined speed.

5. In an internal combustion engine having a plurality of units, each comprising a pair of cylinders, each cylinder having an oppositely disposed inlet and outlet, each of the units having a recess about the inlets and the outlets and an annular groove about each inlet and outlet; a valve seat positioned in each of said recesses, one for the inlets and the other for the outlets, the inlet valve seat having lateral annular extensions engaging the annular grooves about the inlets and the outlet valve seat having lateral annular extensions engaging the annular grooves about the outlets; packing rings on said lateral extensions of said valve seat; a disk valve for the inlet valve seat and a disk valve for the outlet valve seat; springs in said units binding said valve seats for maintaining the contact between said valve seats and said valve; a shaft connecting said valve disks and positioned intermediate the cylinders of the unit; and transmission means from the main shaft to said shaft positioned intermediate the cylinders for rotating said disks at a predetermined speed, whereby said inlets and outlets of a unit are controlled.

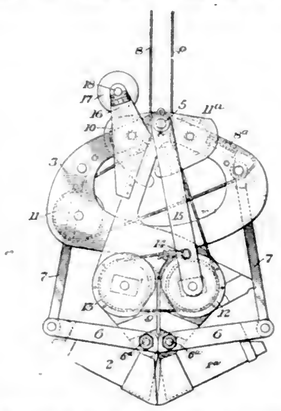
[Claim 6 not printed in the Gazette.]

1,130,428. GRAB-BUCKET. EARL F. OYSTER, Alliance, Ohio, assignor to The Alliance Machine Company, Alliance, Ohio, a Corporation of Ohio. Filed Jan. 30, 1914. Serial No. 815,439. (Cl. 37—30.)

1. A grab bucket of the type having separate opening and closing cables, of a member attached to the said bucket and adapted to move inward to engage the opening cable to force it toward the vertical center of the bucket as the bucket opens; substantially as described.

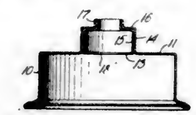
2. The combination with a grab bucket of the type having separate opening and closing cables, and having pivoted members carrying the bucket sections, of a device attached to one of said pivoted members and adapted to engage the opening lines of the bucket as the bucket is opened, and thereby deflect said lines to a position over the vertical center of the bucket; substantially as described.

3. The combination with a grab bucket having separate opening and closing lines, and pivoted members carrying the bucket sections, of a bracket secured to one of said pivoted members, and a sheave journaled on said bracket and adapted to engage an opening line to deflect the line



toward the center of the bucket as the bucket is opened; substantially as described.

1,130,429. TUBULAR LANTERN. BENNARD H. POMEROY, Rochester, N. Y., assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Filed Sept. 15, 1914. Serial No. 861,773. (Cl. 240—28.)



1. The combination with an oil pot, of an air chamber having its peripheral wall and its top formed of an inner and an outer thickness of sheet metal which are integral with each other.

2. The combination with an oil pot, of an air chamber having its peripheral wall and its top formed of an inner and an outer thickness of sheet metal and having its bottom formed integrally with said inner thickness.

3. The combination with an oil pot, of an air chamber having its peripheral wall and top formed of two thicknesses of sheet metal which are integral with each other and with the oil pot.

4. The combination with an oil pot, of an air chamber having its peripheral wall and top formed of two thicknesses of sheet metal and having its bottom and its double top and peripheral wall formed integrally with the oil pot.

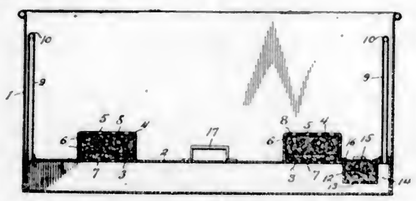
5. The combination with an oil pot, of an air chamber having its peripheral wall, its top and its upstanding collar formed integrally of an inner and an outer thickness of sheet metal.

1,130,430. WASHBOILER. ALBERT A. POTTERF, Kansas City, Mo. Filed Dec. 7, 1914. Serial No. 875,871. (Cl. 68—30.)

1. A wash boiler having a washing chamber and a pressure chamber below the washing chamber, the pressure chamber having an inlet and an outlet communicating with the washing chamber, said inlet comprising a cup-shaped portion having a bottom opening, a perforated cover for said inlet adapted to be moved to the open or to the closed position, and filtering material in said cup-shaped portion.

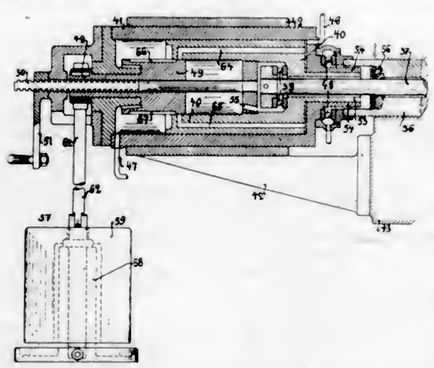
2. A wash boiler having a washing chamber and a pressure chamber below the washing chamber, the pressure chamber having a discharge opening in its upper side and

provided with an annular flange encircling said opening and provided with an inlet communicating with the washing chamber, a cup-shaped member having a discharge opening communicating with the washing chamber and provided with a screw-threaded engagement with said annular flange, and filtering material in said inlet and in said cup-shaped member.



3. A wash boiler having a washing chamber and a pressure chamber below the washing chamber, the pressure chamber having an inlet and an outlet communicating with said washing chamber, a discharge conductor communicating with said pressure chamber and discharging into the washing chamber at a point higher than the point of discharge of said outlet, and filtering material in said outlet, the capacity for the discharge of water through said outlet with the filtering material therein being sufficiently restricted to permit the pressure chamber to force water therefrom through said discharge conductor into said washing chamber.

1,130,431. APPARATUS FOR CONTROLLING ROTARY MACHINES. REINHOLD PROELL, Dresden, Germany. Filed Apr. 21, 1914. Serial No. 833,423. (Cl. 121—112.)



1. In an apparatus for automatically controlling rotary machines by the pressure of a motive fluid, the combination with an engine-cylinder and a servomotor, of a shaft-governor controlling the charge of said cylinder, a hollow shaft carrying said governor, an adjusting spindle inclosed within the hollow shaft mentioned, a piston provided in the servomotor, a ball-bearing joining said piston direct with the adjusting spindle mentioned, a piping connecting the interior or chamber of the servomotor-cylinder with a pump supplying an oily fluid under pressure to the front of one side of the servomotor cylinder-piston.

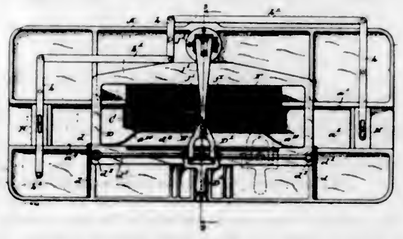
2. In an apparatus for automatically controlling rotary machines by the pressure of a motive fluid, the combination with an engine-cylinder and a servomotor, of a shaft-governor controlling the charge of said cylinder, a hollow shaft carrying said governar, an adjusting spindle inclosed within the hollow shaft mentioned, a hollow piston arranged within the servomotor, a rotary valve, controlling said servomotor-piston, a rack and pinion connecting said rotary valve with a pressure controlling device, a ball-bearing joining said servomotor-piston direct with the adjusting spindle mentioned, a piping connecting the interior or chamber of the servomotor-cylinder with a pump supplying an oily fluid under pressure to one side of the servomotor-piston.

3. In an apparatus for automatically controlling rotary machines by the pressure of a motive fluid, the combination with an engine-cylinder and a servomotor, of a shaft-governor controlling the charge of said cylinder, a hollow shaft carrying said governor, an adjusting spindle inclosed within the hollow shaft, a hollow piston arranged within the servomotor and provided with axial passages, a pump supplying an oily fluid under pressure by said axial passages to the front of one side of the servomotor-piston, a rotary valve provided with helical grooves on its periphery and arranged to open or close the passages of the servomotor-piston, a rack and pinion connecting said rotary valve with a pressure controlling device and a ball-bearing joining said servomotor-piston direct with the adjusting spindle.

4. In an apparatus for automatically controlling rotary machines by the pressure of a motive fluid, the combination with an engine-cylinder and a servomotor, of a shaft-governor consisting of a stationary cylinder, a movable piston provided with passages, a rotary valve projecting into said cylinder, fly-bodies oscillating around stationary bolts fastened to rotating disks and loaded by coiled springs suspended with their stationary ends to bolts fastened to operating-levers insuring a permanent tension of the coiled springs movably guided with their ends during the oscillation of the fly-bodies, in a circle around bolts forming parts of pivoted rods and simultaneously increasing or reducing, by their simultaneous oscillating movement, the tension and the distance of the said coiled springs from the bolts or centers of the fly-bodies mentioned.

5. In an apparatus for automatically controlling rotary machines by the pressure of a motive fluid, the combination with an engine cylinder and a servomotor, of a shaft-governor, a hollow shaft supporting the fly-body weighted disks of said governor, an adjusting spindle inclosed within said hollow shaft, a hollow servomotor-piston and a ball-bearing direct receiving the reaction caused by the oil-pressure and taking place within the cylinder of the servomotor, from the shaft of the governor, which together with the servomotor forms a system represented by interior forces equilibrated to another only.

1,130,432. COMPOSING MECHANISM FOR TYPOGRAPHS. WILLIAM A. READE and GEORGE O. CROMWELL, Cleveland, Ohio, assignors to The Ludlow Typograph Company, Cleveland, Ohio, a Corporation of Maine. Filed May 6, 1910. Serial No. 559,835. (Cl. 199—5.)



1. In mechanism of the class described, the combination of a suitable support, a plurality of independently movable matrix bars adapted to remain where placed on such support, and a member movable into and out of engagement with said bars, said member also being movable longitudinally of said bars when in engagement therewith to bring successive bars into any desired position on said support with relation to a fixed transverse line.

2. In mechanism of the class described, the combination of a suitable support, a plurality of independently movable matrix bars adapted to remain where placed on such support, and a member movable into and out of engagement with said bars, said member also being directly manually movable longitudinally of said bars when in engagement therewith to bring successive bars into any desired position on said support with relation to a fixed transverse line.

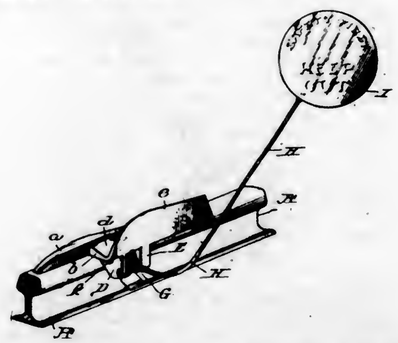
3. In mechanism of the class described, the combination of a suitable support; a plurality of normally independently movable matrix bars adapted to remain where placed on said support; and a member movable into engagement with said bars when collected in a body, said member also being movable longitudinally of said bars when thus in engagement therewith and being adapted thereupon to disengage successive bars, whereby the latter may be left in desired position on said support.

4. In mechanism of the class described, the combination of a suitable support; a plurality of normally independently movable matrix bars adapted to remain where placed on said support; and a member movable into engagement with said bars when collected in a body, said member also being directly manually movable longitudinally of said bars when thus in engagement therewith and being adapted thereupon to disengage successive bars, whereby the latter may be left in desired position on said support.

5. In mechanism of the class described, the combination of a suitable support; a plurality of matrix bars movable thereon, and a member directly manually movable both longitudinally and transversely of said bars and adapted to engage therewith, whereby successive bars may be brought and left in desired position with reference to a fixed transverse line.

[Claims 6 to 53 not printed in the Gazette.]

1,130,433. DERAILER FOR CARS. SAMUEL G. RICHTER, Doltons Station, Ill. Filed May 22, 1914. Serial No. 840,156. (Cl. 104—127.)



1. A portable derailer for cars comprising a suitably shaped body adapted to be mounted upon and wholly supported by a rail and having a depending flange along one side thereof the lower edge of which is bent inward and catches under the ball of the rail, a movable clamping member pivotally connected to the opposite side of said body that engages the side of the rail opposite said flange, and a weight including a suitably shaped plate supported by the dog for retaining said dog in engagement with said rail.

2. A portable derailer for cars comprising a suitably shaped body adapted to be mounted upon and wholly supported by a rail and having a depending flange along one side thereof, the lower edge of which is bent inward and catches under the ball of the rail, a clamping dog pivoted to the underside of said body opposite said flange and has its lower portion bent toward and adapted to engage the underside of the adjacent side of the rail, and a staff the lower end of which is secured to the lower portion of the dog, and a weight supported by said staff for retaining said dog in engagement with said rail.

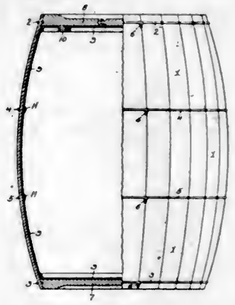
3. A portable derailer for cars comprising a suitably shaped body adapted to be mounted upon and wholly supported by a rail and having a depending flange along one side thereof, the lower edge of which is bent inward and catches under the ball of the rail, a movable clamping member pivotally connected to the opposite side of said body that engages the side of the rail opposite said flange, and a suitable removable lock that prevents said clamping member from accidentally moving out of engagement with said rail.

4. A portable derailer for cars comprising a suitably shaped body adapted to be mounted upon a rail and having a depending flange along one side thereof, the lower edge of which is bent inward and catches under the ball of the rail, a movable clamping member pivotally connected to the opposite side of said body that engages the side of the rail opposite said flange, a weight supported by and adapted to retain said clamping member in engagement with the rail, and a suitable removable lock that prevents said clamping member from moving out of engagement with said rail.

5. A portable derailer for cars comprising a suitably shaped body adapted to be removably mounted upon a rail, having a depending flange along one overhanging side thereof, and lugs depending from the opposite overhanging side thereof, a dog pivoted between said lugs having its depending edge bent inward toward said rail, and a removable lock the bolt of which passes through a suitable hole in one of said lugs and prevents the dog from moving outward.

[Claims 6 and 7 not printed in the Gazette.]

1,130,434. BARREL. EDWARD W. ROBINSON, Savannah, Ga., assignor to International Barrel Company, Savannah, Ga., a Corporation of Georgia. Filed Jan. 12, 1914. Serial No. 811,595. (Cl. 217—3.)



The combination of an outer wooden barrel composed of bilged staves interwoven with pairs of wires united at their opposite ends, and an internal bilged metal barrel having grooves therein to receive the inner wires of the intermediate pairs of wires of said wooden barrel, whereby the metal barrel fits snugly to and is supported by the staves of the wooden barrel.

1,130,435. PENDULUM. TOREY ROSS, Chicago, Ill. Filed May 29, 1914. Serial No. 841,703. (Cl. 58—135.)

1. The combination with a pendulum and a bob having a loose sliding connection with each other, of a rack and pinion by which the bob is raised and lowered on the rod, said rack and pinion being so arranged that the weight of the bob is at all times supported by contact between the teeth of said rack and pinion, from turning under the weight of the bob, a manually operated device connected to the pinion by which it may be turned to adjust the bob on the rod, and an indicator for such adjustment.

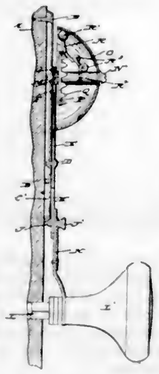
2. The combination with a pendulum rod and a bob, of a rack secured to the rod, a pinion having a bearing in the bob, manually operated means for turning said pinion to move the bob on the rod, and a frictional connection serving to restrain the pinion from turning when the weight of the bob is supported on the teeth of the rack.



3. The combination with a pendulum rod and a bob, of a rack secured to the rod, a pinion supported on the teeth of the rack and having a bearing in the bob, a spring washer secured to the pinion and engaging the bob to furnish resistance to turning the pinion in its bearing, means for adjusting the tension of the washer to vary the frictional resistance, means by which the pinion may be manually adjusted, and a scale for indicating the amount of such adjustment.

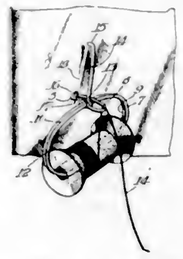
4. The combination with a pendulum rod and a bob, of a rack secured to the rod, an axial shaft extending through the bob and having a pinion engaging the rack, a spring washer between the pinion and the bob, a nut by which the washer is put under tension, an indicating hand secured to the shaft and located adjacent to the front face of the bob, and a scale in the path of the hand.

1,130,436. DOOR-BELL AND BURGLAR-ALARM. MARTIN R. SCHAFFER, Reading, Pa. Filed Mar. 13, 1914. Serial No. 824,423. (Cl. 116—44.)



A supporting base, a lever mounted thereon and having at one end a yoke with teeth and at the other end an elongated slot, a strap having one end provided with an angular opening to fit upon the spindle of a door knob, a stem carried by the other end of said strap and engageable in the slot of the lever, a stud carried by the base, a pinion loosely mounted on said stud and engaging the teeth of said yoke, a toothed wheel loosely mounted on said stud and connected to said pinion, a bell and a hammer mounted on said stud, said hammer having spring bends and a portion in the path of said toothed wheel, said strap adapted to be rocked by turning of the door knob.

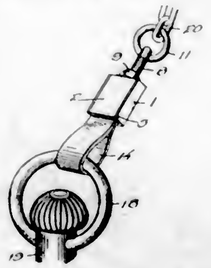
1,130,437. SPOOL-HOLDER. SARAH G. SCHIFF, Chicago, Ill. Filed Feb. 7, 1914. Serial No. 817,110. (Cl. 242—136.)



1. A spool holder made of a single wire to provide two opposing spool engaging horns, each horn bent back upon itself at its free end to provide two parallel members, one end of said wire bent into a thread eye, at an intermediate point, and terminating in a pin hook, the other end of the wire twisted around both horn wires at said intermediate point and continued vertically and bent downwardly upon itself to form a pin for engagement with said hook.

2. A spool holder made of a single wire to provide two opposite spool engaging horns, each horn bent back upon itself at its free end to provide two parallel members, one end of said wire bent into a thread eye, at an intermediate point, and terminating in a pin hook, the other end of the wire extending in the form of a pin for engagement with said hook.

1,130,438. HOLDING DEVICE FOR WATCHES. CHARLES G. SCHMIDT, Okemah, Okla. Filed Nov. 10, 1913. Serial No. 800,141. (Cl. 24—166.)

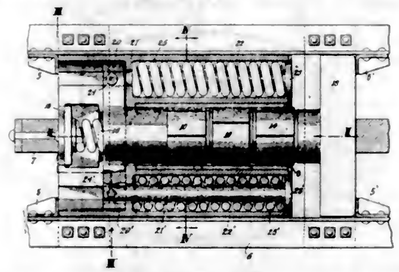


1. A holding device for watches and the like comprising a looped strap adapted to engage a watch ring, a clasp in which both ends of said strap are detachably held, said clasp comprising a body portion and a relatively movable manually operated member, and means for attaching said clasp to a chain or guard.

2. A holding device for metal rings and the like, comprising a strap adapted to be passed through the ring, a clasp comprising a body portion and a member pivoted thereto for detachably holding the ends of the strap together to form a loop, and a ring or eye carried by said clasp.

3. In a holding device of the character described, a clasp comprising a box-like body having bottom, front and side walls, a pin projecting upwardly from the bottom a distance less than the height of said walls, a cover pivoted at its rear end between said side walls, and means for maintaining said cover closed, such means comprising a screw stud extending from the front wall of the box, a tongue projecting from the free edge of the cover and arranged to lie adjacent said stud when the cover is in closed position, and a nut constructed to embrace both said stud and tongue, and thus lock the parts in place.

1,130,439. FRICTION DRAFT-RIGGING. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 21, 1912. Serial No. 704,944. (Cl. 213—64.)



1. In frictional shock absorbing mechanism, a member having a longitudinally extending friction surface, sets of coacting friction shoes adapted to be wedged against said friction surface, wedges interposed between adjacent sets of friction shoes, said wedges and sets of shoes being arranged alternately and in tandem, compression springs arranged parallel to the longitudinally extending friction surface and externally thereto, and means for transmitting the pressure of said springs to the shoes and wedges, said means comprising plunger members and an equalizer.

2. In frictional shock absorbing mechanism, a casing, sets of friction shoes and wedges arranged alternately and in tandem within said casing, an equalizer member adapted to transmit pressure to said wedges and shoes, supplementary longitudinally extending chambers within the casing, springs within the chambers, and plunger members connected at one end to said equalizer, and having abutments at their other ends bearing against said springs.

3. In frictional shock absorbing mechanism, a casing having a plurality of longitudinally extending chambers, wedges and sets of friction shoes, arranged alternately and in tandem within one of said chambers, springs located in the other chambers, an equalizer arranged in tandem with the wedges and sets of shoes, and plunger members operatively connecting the equalizer and said springs.

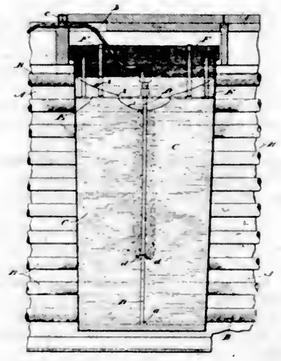
4. In frictional shock absorbing mechanism, a longitudinally extending friction member, frictional parts bearing against said friction member, comprising alternately arranged wedges, and sets of shoes, springs arranged externally of said friction member and extending parallel thereto, and an equalizer member and plunger members coacting therewith and adapted to transmit pressure from the springs to the frictional parts.

5. In a draft gear, a friction chamber, friction mechanism and springs therein, springs without said chamber, and means connecting said last mentioned springs with the friction mechanism, whereby said last mentioned springs assist to absorb buffing and draft strains transmitted to the friction mechanism, and also serve as a positive releasing means to return the friction mechanism to normal position when the strain is removed.

[Claims 6 to 10 not printed in the Gazette.]

1,130,440. MANUFACTURE OF ICE. THOMAS SHIPLEY, York, Pa. Filed Oct. 20, 1914. Serial No. 867,624. (Cl. 62—159.)

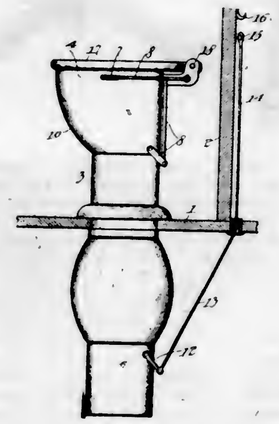
1. In apparatus for the manufacture of ice by the can system, the combination of a brine tank; a can immersed in the brine in said tank, and filled with water to a height above the brine level; means for continuously forcing air under pressure into the lower part of, and thence upward through the can; and a perforated separating plate or diaphragm of thin metal or other conducting material, fitting and removably held in the upper part of the can above the brine level and at or near the level of the water with which the can is filled, arranged and operating to define the top of the ice block to be produced and to separate the same from the irregular ice above, to hasten the freezing action in the upper part of the can, and to modify and reduce the form and size of the pocket or cup usually formed in the top of can ice, substantially as and for the purposes hereinbefore set forth.



2. The combination of the can, the perforated metallic separating plate or diaphragm fitting and removably held in the upper portion of the can, and the air pipe passing down through and supported at its upper end by said separating plate, and, at its closed lower end, stepped in the bottom of the can, substantially as set forth.

3. In the manufacture of ice by the can system, the combination of the brine tank, a can adapted to be held in the brine in said tank, and to be filled with water to a height above the brine level, means for continuously forcing air under pressure from below upward through the water, and a perforated metallic separating plate or diaphragm fitting and supported in the upper part of the can at a point above the brine level, and at or near the level of the water in the can before the freezing operation, substantially as set forth.

1,130,441. TOILET. WILLIAM E. SOMERVILLE, Coal City, Ill. Filed May 4, 1914. Serial No. 836,192. (Cl. 4—17.)



1. A device of the class described, comprising a pair of communicating receptacles arranged one over the other and each having a discharge opening, a closure for each

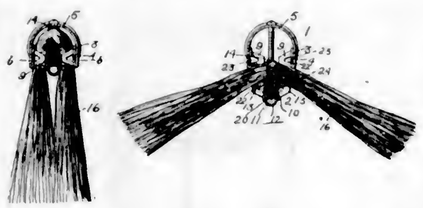
opening to retain the contents in each receptacle and forming a sealed compartment of the lower receptacle between the closures, and a manually controlled operating means for each closure, said operating means being separate and distinct from and operable wholly independent of each other.

2. A device of the class described, comprising a pair of communicating receptacles arranged one over the other and each having a discharge opening, a closure for each opening to retain the contents in each receptacle and forming a sealed compartment of the lower receptacle between the closures, a manually controlled operating means for each closure, each of said operating means being separate and distinct from and operable wholly independent of each other, and means for securing the lower closure in an open position.

3. A device of the class described, comprising a pair of communicating receptacles arranged one over the other and each having a discharge opening, a closure for each opening to retain the contents in each receptacle and forming a sealed compartment of the lower receptacle between the closures, a manually controlled operating means for each closure, each of said operating means being separate and distinct from and operable wholly independent of each other, the operating means of the lower closure being inaccessible to a person using the other closure operating means, and means for securing the lower closure in an open position.

4. A toilet, comprising a pair of communicating receptacles arranged one above the other, a sealing closure for each of said receptacles adapted to form a sealed chamber between the closures, and a separate operating means for each of said closures, said operating means being positioned distant from each other to prevent the user of one from using the other and whereby the lower closure can be closed to form said sealed chamber between the closures and leaving the upper closure free to be operated without opening the lower closure.

1,130,442. BRUSH. JASPER SPEESE, West Milton, Pa., assignor to The Speese Manufacturing Company, Sunbury, Pa., a Corporation of Pennsylvania. Filed Sept. 7, 1910, Serial No. 580,844. Renewed Jan. 7, 1915. Serial No. 1,048. (Cl. 15—13.)

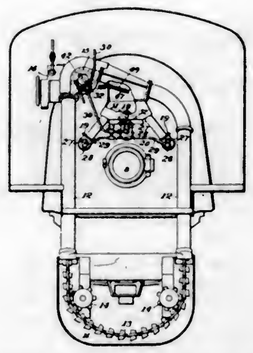


1. In a brush, a casing comprising an inner member having tongues projecting outwardly from its sides and an outer member of inverted U shape in cross-section adapted to receive the inner member into the space between its sides, having tongues projecting inwardly from its sides, the tongues on the inner member being arranged to extend into spaces between the tongues of the outer member.

2. In a brush, a casing of sheet metal bent into the shape of an inverted U having the lower portion of its sides bent inward and upward to rest against the upper portion of its sides and provided with tongues formed integral therewith and extending inward adapted to engage a mass of bristles between the sides of the casing.

3. In a brush, a casing comprising an outer member, and an inner member formed of sheet metal bent into U form, the upper portion of the sides being bent downward to rest against the lower portion of the sides and provided with tongues formed integral therewith adapted to engage a mass of bristles between the inner and outer members.

1,130,443. MECHANICAL STOKER. CLEMENT F. STREET, Cleveland, Ohio, assignor to The Locomotive Stoker Company, Wilmerding, Pa., a Corporation of Pennsylvania. Continuation of application Serial No. 418,837, filed Mar. 2, 1908. This application filed June 7, 1910. Serial No. 565,579. (Cl. 110—104.)



1. In a locomotive, the combination with the boiler furnace and its firing door, of a mechanical stoker apparatus mounted on the locomotive and comprising a fuel receptacle below the firing floor, an elevator for conveying the fuel from said receptacle to a point above the level of the fuel bed, and means for delivering the fuel therefrom into the furnace.

2. In a locomotive and tender, the combination with the boiler furnace, or a mechanical stoker apparatus mounted on the locomotive and comprising a fuel receptacle below the firing floor, means below said floor for delivering fuel from the tender into said receptacle, an elevator for conveying the fuel from said receptacle to a point above the level of the fuel bed, and means for delivering the fuel therefrom into the furnace.

3. In a locomotive, the combination with the boiler furnace and its firing door, of a mechanical stoker apparatus mounted on the locomotive and comprising a fuel receptacle below the firing floor, an elevator for conveying the fuel from said receptacle to a point above the said door, and a gravity discharge conduit for delivering fuel from said point into the furnace.

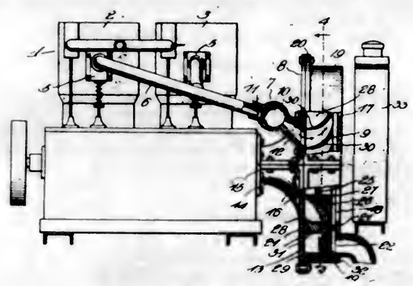
4. In a locomotive, the combination with the boiler furnace and its firing door, of a mechanical stoker, apparatus mounted on the locomotive and comprising a fuel receptacle below the firing floor, a conduit located above said door, an elevator for conveying fuel from said receptacle to said conduit, and a gravity discharge passage leading from said conduit into the furnace independently of the firing door.

5. In a locomotive, the combination with the boiler furnace and its firing door, of a mechanical stoker apparatus mounted on the locomotive and comprising a fuel receptacle below the firing floor, a conduit located above said door, an elevator for conveying fuel from said receptacle to said conduit, and a distributer communicating with said conduit and leading into the furnace independently of said door.

[Claims 6 to 14 not printed in the Gazette.]

1,130,444. TURBINE-WHEEL AND CASING THEREFOR. MICHAEL H. SULLIVAN, Poughkeepsie, N. Y. Filed Aug. 16, 1912. Serial No. 715,423. (Cl. 123—194.)

1. The combination with an engine having its shaft projecting beyond one end thereof, and a turbine wheel fixed on said projecting shaft end, of a casing inclosing said wheel and having a fluid tight engagement with said wheel, said casing having central openings in its end walls encircling said shaft, the walls of said openings being disposed out of contact with said shaft and one of them having means for attaching the casing to the engine.



2. The combination with an engine having its shaft projecting beyond one end thereof, of a casing inclosing an outer annular chamber and a central chamber, a turbine wheel fixed to said shaft and mounted to revolve in said casing and having a fluid tight engagement with the casing separating the outer annular chamber from the central chamber, a series of blades mounted on said turbine wheel within the outer annular chamber, the central chamber being open to the atmosphere and the end walls thereof having openings at their center around said shaft, the walls of the openings being spaced from the shaft and one of them having means for attaching the casing to the engine, and means for discharging an actuating fluid into said outer annular chamber.

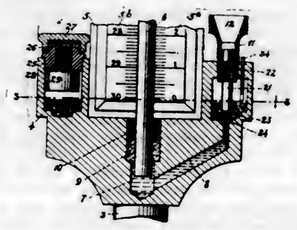
3. The combination of a casing having an annular chamber, a turbine wheel provided with a hub mounted in said casing and having an annular chamber extending into said annular casing chamber, a plurality of blades mounted in said turbine wheel chamber, said casing and wheel having a fluid tight engagement at the inner walls of said annular chambers, said casing having enlarged openings in the end walls thereof opposite the hub of the turbine wheel, said openings being larger than said wheel hub and one of them having means for attaching the casing to the engine, and means for discharging an actuating fluid into the annular chambers of said wall and casing.

4. The combination of a turbine wheel casing having a hollow extension on one end wall thereof for securing it to an engine, said casing having an annular outer chamber and a central chamber, the end walls of which have large central openings surrounding said shaft, one of which is formed by said hollow extension, a turbine wheel revolubly mounted in said casing and having a fluid tight connection at its opposite sides with the opposite side walls of said casing at the inner side of the annular chamber thereof, blades arranged in said wheel and disposed in the open central chamber of said casing, blades arranged in said wheel beyond its fluid tight connection with the casing, and means for discharging exhaust gases into said annular chamber and onto the blades therein.

5. In an internal combustion engine, a turbine wheel casing comprising an inner section secured to the engine and having therein a series of air inlet openings and an outer section comprising a plate having therein a centrally disposed air discharging opening, an annular flange on the outer edge of said plate to form the sides of the casing, said flange having a detachable engagement with the inner section of the casing, annular packing rings on the inner sides of said sections of the casing, an accumulator connected with one side of the outer portion of the casing, an exhaust pipe connected with the opposite side thereof, an exhaust gas conducting pipe engaged with said accumulator, a turbine wheel revolubly mounted in said casing and having a fixed engagement with the drive shaft of the engine, said wheel having therein annular packing ring grooves adapted to receive the packing rings on the sections of the casing, a series of turbine blades arranged in the outer portion of the wheel and having an operative engagement with the casing between the packing rings and the outer sides thereof, and an annular series of fan blades arranged within the inner part of said turbine wheel and adapted to force a draft of air through the air inlet and discharge openings of the casing.

[Claims 6 to 10 not printed in the Gazette.]

1,130,445. GAGE. CHARLES J. TAGLIABUE, New York, N. Y. Filed July 20, 1909. Serial No. 508,624. (Cl. 73—4.)

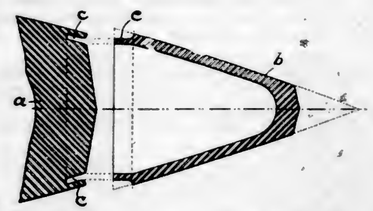


1. In a gage, a substantially opaque mercury chamber having curved vertical walls and substantially straight end walls connecting said curved walls, a scale plate extending upwardly from said mercury chamber between the end walls thereof, a mercury tube connected with said mercury chamber and located adjacent to said scale plate, a sight glass in the one end wall of said mercury chamber, an indicator in said mercury chamber visible through said sight glass, and means for adjusting the level of the mercury in said mercury chamber relatively to said indicator.

2. In a gage, a substantially opaque mercury chamber substantially semi-circular in shape, a tube extending upwardly therefrom, and connected therewith, an adjustable valve for regulating the flow of mercury from said chamber to said tube, an adjustable plunger in said chamber for varying the level of the mercury therein and a sight glass located in said chamber so as to make the operative end of said valve and the variations in the level of the mercury visible therethrough.

3. In a gage, a mercury chamber, a tube connected therewith, an inlet nipple movably mounted on said chamber and communicating therewith and an adjustable channeled valve movably secured in said nipple and arranged to permit or prevent the flow of mercury from said chamber to said tube and by its channel to control the communication between said nipple and said mercury chamber.

1,130,446. MEANS FOR SECURING WIND-SHIELDS TO CAPS OF ARMOR-PIERCING PROJECTILES. JOSEPH PANNEL TAYLOR, Philadelphia, Pa. Filed Feb. 25, 1913. Serial No. 750,469. (Cl. 102—28.)



1. In an armor piercing projectile, a cap and a wind shield and interlocking members thereon one of which, by pressure of the cap and wind shield toward each other in the direction of the axis of the projectile, is deformed and thereby held in interlocking relation with the other member.

2. In an armor piercing projectile, a cap and a windshield and interlocking members thereon, one of which is

deformable, adapted for interlocking engagement by pressure of the cap and wind-shield toward each other in the direction of the axis of the projectile, said members extending approximately longitudinally of the projectile but at an angle to each other.

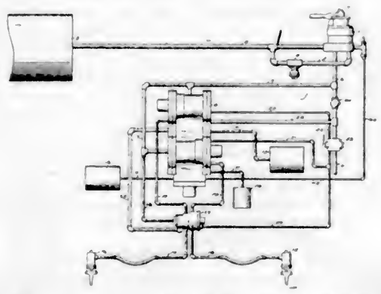
3. In an armor piercing projectile, a cap and a wind shield, a deformable flange and a complementary groove, one of which is located at the front wall of the cap and the other of which is located at the opposing end of the wind shield, and adapted, solely by pressure of the cap and wind shield toward each other in the direction of the axis of the projectile, to rivet the shield and cap together.

4. In an armor piercing projectile, a cap and a wind shield, a deformable flange and a complementary groove, one of which is located at the front wall of the cap and the other of which is located at the opposing end of the wind shield, said flange in the direction of its height and said groove in the direction of its depth extending approximately longitudinally of the projectile but at an angle to each other.

5. In an armor piercing projectile, a cap, a wind-shield and complementary riveting members, respectively at the front wall of the cap and the opposing rear end of the wind-shield and both offset inwardly with respect to the outer face of the projectile and adapted to mutually engage and permanently interlock solely by pressure of the cap and wind-shield toward each other in the direction of the axis of the projectile.

[Claims 6 to 13 not printed in the Gazette.]

1,130,447. AUTOMATIC TRAIN-BRAKE-CONTROL APPARATUS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 1, 1907. Serial No. 381,773. (Cl. 188—1.)



1. In an automatic train brake control apparatus, the combination with a brake valve and train pipe, of a valve mechanism subject to train pipe pressure for effecting service and emergency applications of the brakes, and means governed by said valve mechanism for controlling communication from the brake valve through the train pipe.

2. An automatic train brake control apparatus, comprising a valve mechanism for controlling a train pipe vent port, of a valve device operated by fluid pressure for closing said vent port, upon a predetermined reduction in train pipe pressure.

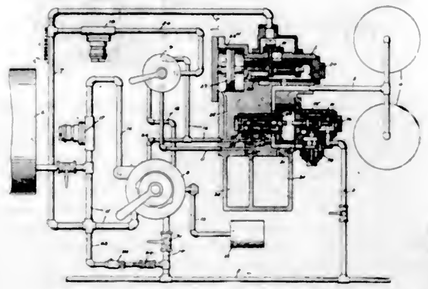
3. An automatic train brake control apparatus, comprising a valve mechanism for controlling a train pipe vent port, of a valve device operated by fluid at train pipe pressure for closing said vent port, upon a predetermined reduction in train pipe pressure.

4. An automatic train brake control apparatus, comprising a valve mechanism for controlling a train pipe vent port, of a valve for governing said train pipe vent port, and an actuating piston, subject on one side to a spring and operated by a reduced train pipe pressure to close said vent port.

5. An automatic train brake control apparatus, comprising a valve mechanism for controlling a train pipe vent port, and means controlled by fluid at train pipe pressure for closing said vent port, said valve mechanism being adapted to govern the admission of fluid at train pipe pressure to said means.

[Claims 6 to 10 not printed in the Gazette.]

1,130,448. FLUID-PRESSURE BRAKE FOR LOCOMOTIVES. WALTER V. TURNER, Edgewood, Pa., assignor to the Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 8, 1907. Serial No. 401,243. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a chamber containing a movable abutment or piston, the admission of pressure to which causes the application of the brakes, of another chamber normally in open communication with said piston chamber in service applications, and means for automatically closing communication between said chambers in emergency applications of the brakes.

2. In a fluid pressure brake, the combination with a chamber containing a movable abutment or piston, operated by an increase in fluid pressure for supplying air to the brake cylinder, of another chamber and automatic valve device for supplying fluid under pressure to both chambers in one position, but only to the piston chamber in another position.

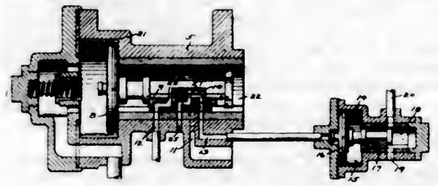
3. In a fluid pressure brake, the combination with a chamber containing a movable abutment or piston, the admission of pressure to which causes the application of the brakes, of another chamber and a valve device subject to variations in train pipe pressure and operating in service applications to supply fluid to both chambers, and in emergency applications to cut off the second chamber from the piston chamber and supply fluid to the latter chamber.

4. In a fluid pressure brake, the combination with a chamber containing a movable abutment or piston, the admission of pressure to which causes the application of the brakes, and another chamber normally communicating with said piston chamber, of an auxiliary pressure chamber, and valve means for opening communication from said auxiliary chamber to both the other chambers in service applications, but adapted to cut off the second chamber and open communication from the auxiliary chamber to the piston chamber in emergency applications of the brakes.

5. In a fluid pressure brake, the combination with a chamber containing a movable abutment or piston, the admission of pressure to which causes the application of the brakes, and another chamber normally communicating with said piston chamber, of an auxiliary pressure chamber, and a valve device operated by variations in train pipe pressure and adapted to open communication from the auxiliary chamber to both the other chambers in service application position, but adapted to cut off said second chamber from the piston chamber and open communication from the auxiliary chamber to the said piston chamber in emergency application position.

[Claims 6 to 24 not printed in the Gazette.]

1,130,449. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 20, 1908. Serial No. 463,606. (Cl. 188—10.)



1. In a fluid pressure brake, the combination with a brake cylinder, train pipe, of a release valve mechanism constantly subject on one side to brake cylinder pressure and operated by fluid supplied to the opposite side in applying the brakes for closing the brake cylinder exhaust and an automatic valve device operated by a reduction in train pipe pressure for supplying fluid to the brake cylinder through a port independent of the release valve mechanism.

2. In a fluid pressure brake, the combination with a brake cylinder, a valve for controlling the exhaust of fluid from the brake cylinder, and a movable abutment constantly subject on one side to brake cylinder pressure for actuating said valve, of a train pipe and an automatic valve device having a piston subject to train pipe pressure and valve means operated by said piston and provided with a port for supplying fluid to the brake cylinder and a separate port for supplying fluid to the opposite side of said movable abutment to operate said abutment and valve for closing the brake cylinder exhaust.

3. In a fluid pressure brake, the combination with a valve for controlling the release of air from the brake cylinder and a movable abutment constantly subject on one side to brake cylinder pressure for actuating said valve, of an automatic valve device operated upon a reduction in train pipe pressure for supplying fluid from the auxiliary reservoir to the brake cylinder and through a separate passage to the opposite side of said abutment to close the communication for releasing air from the brake cylinder.

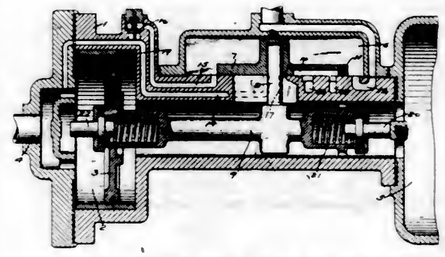
4. In a fluid pressure brake, the combination with a valve for controlling the release of air from the brake cylinder and a movable abutment constantly subject on one side to brake cylinder pressure for actuating said valve, of an automatic valve device operating upon an increase in train pipe pressure for connecting the opposite side of said abutment with the atmosphere to open the exhaust from the brake cylinder and operating upon a reduction in train pipe pressure to supply air from the auxiliary reservoir to the brake cylinder and through a separate passage to said abutment to close the communication for releasing air from the brake cylinder.

5. In a fluid pressure brake, the combination with a valve for controlling the release of air from the brake cylinder and a movable abutment constantly subject on one side to brake cylinder pressure for actuating said valve, of an automatic valve device subject to train pipe pressure and adapted upon a graduated increase in train pipe pressure to first move to release position and connect the opposite side of said abutment with the atmosphere and means for then moving said valve device to a position for supplying air from the auxiliary reservoir to said opposite side of the abutment.

[Claim 6 not printed in the Gazette.]

1,130,450. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 20, 1909. Serial No. 497,166. (Cl. 188—1.)

1. In a fluid pressure brake, the combination with a train pipe, brake cylinder, and a source of fluid under pressure, of an automatic valve device comprising a piston subject to the opposing pressures of the train pipe and a chamber and a valve contained in a valve chamber and operated by said piston for controlling the admission of fluid from said source of pressure to the brake cylinder and for closing communication from the valve chamber to one side of said piston.



2. In a fluid pressure brake, the combination with a train pipe, brake cylinder, and a source of fluid under pressure, of an automatic valve device comprising a piston subject only to the opposing pressures of the train pipe and a chamber and a valve contained in a valve chamber and operatively connected to said piston and operating upon a reduction in train pipe pressure to supply fluid from said source of pressure to the brake cylinder, said valve being adapted to prevent leakage of fluid from the valve chamber to one side of said piston.

3. In a fluid pressure brake, the combination with a train pipe, brake cylinder, and a source of fluid under pressure, of an automatic valve device subject to the opposing pressures of the train pipe and a chamber and having means operating upon a reduction in train pipe pressure for opening communication from said source of pressure to the brake cylinder and upon a reduction in pressure in said chamber below the train pipe pressure for closing said communication.

4. In a fluid pressure brake, the combination with a train pipe, brake cylinder, and a source of fluid under pressure, of an automatic valve device subject to the opposing pressures of the train pipe and a chamber and operated by the pressure in said chamber upon a reduction in train pipe pressure for opening communication from said source of pressure to the brake cylinder and operated by the train pipe pressure upon venting air from said chamber to close said communication,

5. In a fluid pressure brake, the combination with a train pipe, brake cylinder, and reservoir, of an automatic valve device subject to the opposing pressures of the train pipe and a chamber normally charged with fluid under pressure and operated by a reduction in train pipe pressure for effecting a service application of the brakes, and means adapted to vent fluid from said chamber to the atmosphere in service application position.

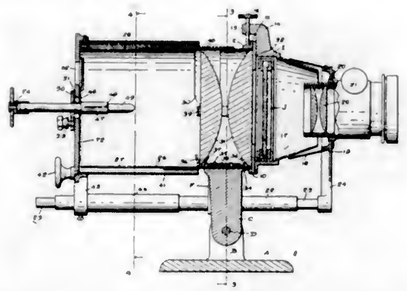
[Claims 6 to 23 not printed in the Gazette.]

1,130,451. PROJECTING-LANTERN. ERNEST UNGER, New York, N. Y. Filed Mar. 6, 1913. Serial No. 752,292. (Cl. 176—51.)

1. A lamp house for projecting lanterns comprising a sheet metal cylinder open at one end, a rigid plate attached to the cylinder and closing the other end of the same, said plate having a pair of spaced extensions projecting below the cylinder, long parallel tubes fixed to said extensions, rods telescoping within said tubes for supporting the lamp house, means for slidably mounting an electrode in position in said plate and other means adjacent said rigid plate for mounting a coacting electrode in the wall of said sheet metal cylinder, said last named means including a plate affixed to the wall to transmit strains on the coacting electrode over a relatively large area of the sheet metal wall.

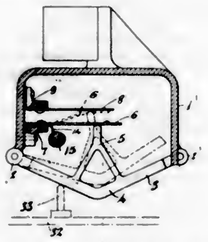
2. In a projecting lantern, a lamp house comprising a light sheet metal cylinder, a relatively heavy strain resist-

ing cast metal wall for one end of said cylinder, means attached to said cast metal wall for slidably mounting said house, an electrode held in adjustable position in the rear wall and a second electrode extending through and held in said sheet metal cylinder and means reinforcing said sheet metal cylinder about said second electrode to distribute the strains on said second electrode.



3. A lamp house for projecting lanterns comprising a relatively heavy band having depending arms with tubular portions, longitudinal rods mounted in said tubular portions and extending rearwardly therefrom, a sheet metal tube supported from said band and extending rearwardly therefrom, a sheet metal cylinder telescoping said sheet metal tube and movable relative thereto, a rear closing wall for said tube fixed to said cylinder, long sleeves fixed to said rear wall and slidably mounted on the rearwardly extending portion of said longitudinal rods, said tube and cylinder being independently supported and means integral with the band for supporting the latter.

1,130,452. RECORDER FOR FREIGHT-CARS. JOSEPH R. VEDDER, Reading, Ohio. Filed Sept. 18, 1911. Serial No. 649,883. (Cl. 234—27.5.)



1. A mechanism for automatically registering identification marks on freight cars and the like, comprising a series of contact devices normally inactive, with a casing for holding the contact devices in fixed location, and means on the car for selecting in a selective sequence different individual contact devices for each car, a recording instrument to register the devices selected, said recording instrument comprising a series of recording devices to correspond with the selecting means, and a record sheet to receive the record, means for advancing the record sheet with each actuation and means for electrically connecting the contact devices selected with said recording instrument.

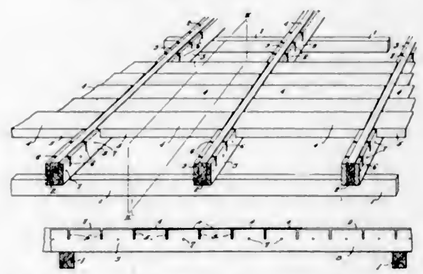
2. A mechanism for automatically registering identification marks on freight cars and the like, comprising a series of contact devices normally inactive, with a casing for holding the contact devices in fixed location, fixed actuators differently disposed for each car and mounted thereon, for selecting in a selective sequence different individual contact devices for each car, a recording instrument to register the devices selected, said recording instrument comprising a series of recording devices to correspond with the fixed actuators, and a record sheet to receive the record, means for advancing the record sheet with each actuation and means for electrically connecting the contact devices selected with said recording instrument.

3. In a device of the character specified, a casing, with a series of selector arms pivotally mounted therein, contact fingers normally out of contact therewith, actuating fingers differently disposed for each car and mounted thereon, to enforce connection between the arms selected and the contact fingers in a selective sequence, a recording instrument comprising a series of recording devices to correspond with the actuating fingers, and a record sheet to receive the record, means for advancing the record sheet with each actuation, and means for electrically connecting the contact fingers therewith.

4. In a device of the character specified, a selection box, with a series of selector arms pivotally mounted therein, a series of movable contact plates in said box, and a corresponding series of fixed plates with which said movable plates contact, a recording instrument with electrical connection therefor, with said movable and fixed contact plates and fixed actuators located on the car for actuating prearranged selector arms in a pre-arranged sequence to register the particular car passing the box, a series of recording devices to correspond with the fixed actuators, a record sheet to receive the record, with means for advancing the record sheet with each actuation.

5. In a device of the character specified, a selection box, with a series of selector arms pivotally mounted therein, a series of movable contact plates in said box, and a corresponding series of fixed plates with which said movable plates contact, a recording instrument with electrical connection therefor, with said movable and fixed contact plates and fixed actuators located on the car for actuating pre-arranged selector arms to register the particular car passing the box, a series of recording devices to correspond with the fixed actuators, a record sheet to receive the record, with means for advancing the record sheet with each actuation, a switch to control the electrical circuit between the fixed contact plate and the recording instrument normally open, with actuator pins on the car to open and close the switch.

1,130,453. FORM FOR CONCRETE FLOORS OR WALLS. WILLIAM MAYO VENABLE, Pittsburgh, Pa., assignor to Blaw Steel Construction Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 25, 1914. Serial No. 827,088. (Cl. 25—131.5.)



1. In combination in a form for concrete bodies, a pair of parallel joists removably supported in position, a pair of opposing bearing strips lying removably supported along the inner sides of the joists, and a plurality of stiffened lagging plates with their ends terminating at the sides of the joists and supported upon the bearing strips, the said plates overlapping at their side edges, and the upper edges of the joists and the upper surfaces of the lagging plates lying at substantially the same level.

2. In combination in a form for flat concrete bodies, a pair of parallel joists, a pair of opposing bearing strips lying along the inner faces of the joists, and a plurality of sheet metal lagging plates with their ends terminating at the sides of the joists and with their upper surfaces in substantial alinement with the upper surfaces of the joists, the said lagging plates being provided along their side edges with downwardly projecting flanges engaging the bearing strips, and one of the bearing strips being notched to engage the flanges and space the plates.

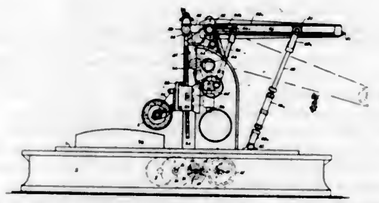
3. In combination in a form for flat concrete bodies, a pair of parallel joists, a pair of opposing bearing strips lying along the inner faces of the joists and each provided with a plurality of spaced notches, and a plurality of sheet metal lagging plates with their ends terminating at the sides of the joists and each provided with a flange fitting into the said notches.

4. In combination in a form for flat concrete bodies, a pair of parallel joists, a pair of opposing bearing strips lying along the inner faces of the joists and each provided with a plurality of spaced notches, and a plurality of sheet metal lagging plates with their ends terminating at the sides of the joists and each provided with a flange fitting into the said notches, the said bearing strips having their upper edges below the upper edges of the joists a distance approximately equal to the thickness of the lagging plates.

5. In combination in a form for flat concrete bodies, a plurality of purlins, a pair of joists extending transversely of the purlins and supported thereon, a pair of opposing bearing strips lying along the inner faces of the joists and resting upon the purlins and each provided with a plurality of spaced notches, and a plurality of sheet metal lagging plates with their ends terminating at the sides of the joists and each provided with a flange fitting into the said notches.

[Claim 6 not printed in the Gazette.]

1,130,454. SHAPING-MACHINE. JULIUS WEGNER, Astoria, N. Y. Filed June 10, 1913. Serial No. 772,759. (Cl. 51—12.)



1. A shaping machine comprising a work carrier mounted for rectilinear reciprocatory movements, a tool carrier mounted for rectilinear reciprocatory movements, substantially at right angles to the movements of the work carrier, and connections between the work carrier and the tool carrier compelling one of these carriers to make a plurality of rectilinear movements in opposite directions while the other makes a single rectilinear movement.

2. A shaping machine comprising a work carrier mounted for rectilinear reciprocatory movements, a tool carrier mounted for rectilinear reciprocatory movements, substantially at right angles to the movements of the work carrier, and connections between the work carrier and the tool carrier for imparting to the tool carrier two opposite rectilinear movements while the work carrier is making one rectilinear movement, the movements of the tool carrier being interrupted substantially sine curve movements as compared to the movements of the work carrier.

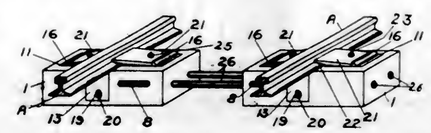
3. A shaping machine comprising a work carrier and a tool carrier mounted for relative rectilinear reciprocatory movements in directions of movement at an angle to each other, and connections between the work carrier and the tool carrier for synchronizing their relative movements, such connections including adjusting means for varying the relative extent of the movements of the carriers.

4. A shaping machine comprising a work carrier mounted for rectilinear reciprocatory movements, a tool carrier mounted for rectilinear reciprocatory movements substantially at right angles to the movements of the work carrier, and connections between the work carrier and the tool carrier compelling one of these carriers to make two opposite rectilinear movements while the other makes a single rectilinear movement, such connections including adjusting means for varying the relative extent of the movements of the carriers.

5. A shaping machine comprising a work carrier mounted for rectilinear reciprocatory movements, a tool carrier mounted for rectilinear reciprocatory movements substantially at right angles to the movements of the work carrier, and movement synchronizing connections between these carriers including a radius link arranged to connect rectilinear movement in one direction with rectilinear movement at right angles thereto.

[Claims 6 to 12 not printed in the Gazette.]

1,130,455. RAILROAD-TIE. WILL W. WILLARD, Saginaw, Mich. Filed Dec. 11, 1913. Serial No. 805,993. (Cl. 238—6.)



1. A railroad tie comprising a block having a longitudinal groove in its upper surface, said groove being surrounded by seating ledges, said upper surface having transversely extending side seats, and the body having seats on its sides that communicate with the transverse seats, a plate seated on the ledges and having side flanges and wings that enter the transverse and side seats, said plate having slots that communicate with the groove, rail fasteners having bolts that extend through the groove and slots, and means for fastening the plate to the body.

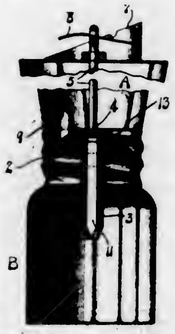
2. A railroad tie comprising a block having a top groove, a plate seated on the block, and having side flanges and wings that overlap the sides of the block, said plate having longitudinal slots terminating at their outer ends in enlarged heads, said plate having end abutment lugs, fastening bolts removable through said heads of the slots, said bolts normally having their heads in the grooves and their shanks projecting through the slots, rail clamps carried by the bolts, and means engaging the flanges for fastening the plate to the block.

3. A rail tie comprising a block having its upper surface provided with a central, longitudinal groove, said groove having its ends and sides provided with seating ledges, said upper surface having central transverse seats that communicate with the grooves and the sides of the block having central vertical seats therein which are continuations of the upper seats, a rail plate seated on the ledges of the groove and having side flanges and wings that fit within the upper and side seats of the block, the center of the plate including the flanges forming a flat seat for a rail that extends across the upper surface of the block, said plate having transversely extending abutments adjacent its ends and having longitudinal slots adjacent the abutments, rail clamps engaging the abutments, fasteners engaging the clamps and extending through the slots of the plate, and means for fastening the plate to the block.

1,130,456. ACETYLENE-GAS LAMP. JOHN H. WININGER, Collinsville, Ill. Filed July 6, 1914. Serial No. 849,300. (Cl. 48—4.)

1. A lamp comprising a water receptacle, a carbid receptacle arranged below and secured to said water receptacle, a water supply tube leading from the water receptacle into the carbid receptacle, a valve seat being formed at the upper end of said water supply tube, a vertically movable and rotatable valve rod extending through the water receptacle, a valve secured to said valve rod

adapted to engage said valve seat, said valve being arranged below said valve seat, and a scraper blade secured to and extending downwardly from said valve, the lower end of said scraper blade being tapered and the lower end of said water supply tube being tapered to receive the lower end of said scraper blade.



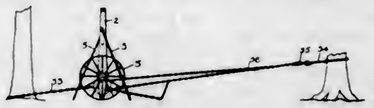
2. A lamp comprising a water receptacle, a carbid receptacle, a water supply tube leading from said water receptacle and extending into said carbid receptacle, and a flat scraper blade extending across and rotatably mounted in said water supply tube, said flat scraper blade being provided with a plurality of cutting edges which frictionally engage the inner face of said water supply tube.

3. A lamp comprising a water receptacle, a carbid receptacle arranged below and secured to said water receptacle, a water supply tube leading from the water receptacle into the carbid receptacle, a valve seat being formed at the upper end of said water supply tube, a valve rod extending through the water receptacle, a valve secured to said valve rod adapted to engage said valve seat, and a flat scraper blade secured to and extending downwardly from said valve, said flat scraper blade being arranged within said water supply tube and provided with cutting edges which frictionally engage the inner face of said tube, said valve being arranged below said valve seat to permit a downward movement of the valve and flat scraper blade, and the said rod being operable to rotate and to reciprocate said valve and flat scraper blade.

4. A lamp comprising a water receptacle, a carbid receptacle arranged below and secured to said water receptacle, a water supply tube leading from the water receptacle into the carbid receptacle, a valve seat being formed at the upper end of said water supply tube, a vertically movable and rotatable valve rod extending through the water receptacle, a valve secured to said valve rod adapted to engage said valve seat, said valve being arranged below said valve seat, a scraper blade secured to and extending downwardly from said valve, said scraper blade being arranged within said water supply tube, a spring tending to move said valve, valve rod and scraper blade downwardly, an operating handle secured to said valve rod, and an inclined cam to which said operating handle is fitted, said valve being movable to its open position in response to the pressure of said spring and said inclined cam constituting a stop for limiting the movement of said valve.

1,130,457. STUMP-PULLER. RICHARD O. WIPPERMAN, Chicago, Ill. Filed May 26, 1911. Serial No. 629,561. (Cl. 254—176.)

1. A truck, a multiplying gear mounted thereon, an endless power chain for operating the same, an equalizer bar connected with the multiplying gear, an independent sheave connected with the equalizing bar, an anchor chain connected with the equalizing bar, a block attached to the object to be moved, a pulling chain attached at one end thereto and trained around said independent chain sheave, thence through said block and thence around the weight sheave of the multiplying gear, the otherwise free end of said chain being attached to the return lead of the chain from the independent gear to the block.



2. A supporting frame, a power multiplying chain hoisting gear suspended thereon, an endless power chain for operating the same, an equalizer bar connected with the multiplying gear, an independent chain sheave carried on the equalizing bar, an anchor chain connected with the equalizing bar, a block attached to the object to be moved, a pulling chain attached at one end thereto and trained around said independent chain sheave, thence through said block and thence around the weight sheave of the multiplying gear, and the end thereof attached to the return lead of the chain from the independent gear to the block.

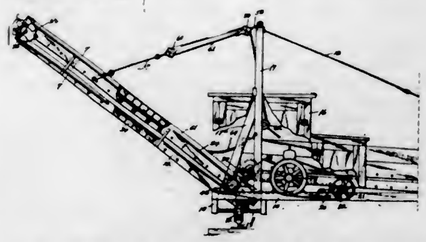
3. A portable frame, a multiplying chain hoisting gear mounted thereon, means for operating the same, an equalizer bar connected with the multiplying gear, an independent chain sheave secured thereto, anchoring means connected with the equalizing bar, a block attached to the object to be moved, a pulling chain attached at one end thereo and trained around said independent chain sheave, thence through said block and thence around the weight sheave of the multiplying gear, the fall end of said chain being attached to the return lead of the chain from the independent gear to the block.

4. A machine of the class described embracing a frame, and wheels affording a truck, a power multiplying chain hoisting gear swingingly supported on said frame, an anchor chain attached to the gear casing and adapted for engagement with a fixed object, means for actuating the hoisting gear, a sheave attached to the body to be moved, and a weight moving chain trained through said sheave and about the weight sheave or sheaves of the multiplying gear.

5. A machine of the class described embracing a frame, an axle extending therethrough near one end thereof, supporting wheels on said axle, a brace for supporting the frame vertically, a power multiplying hoisting gear swingingly supported on said axle, a chain sheave on the frame, a power chain trained about said sheave and about the power sheave of the hoisting gear, an independent sheave to operate with the gear, a sheave attached to the body to be moved, a weight moving chain trained through said sheave and said independent sheave and about the weight sheave or sheaves of the multiplying gear, and anchoring means secured to the gear casing and extending in alinement with the draft.

[Claims 6 to 14 not printed in the Gazette.]

1,130,458. CONVEYER. HERBERT B. WYCKOFF, Cincinnati, Iowa. Filed Jan. 11, 1909. Serial No. 471,715. (Cl. 193—2.)



1. In a device of the class described, the combination of a series of cross slats pivotally connected with each other, and a series of buckets of uniform width, one bucket being fixed to each cross slat, the forward walls of said buckets being positioned in the rear of the forward edges of the slats, and the rear edges of the buckets being projected beyond the rear edges of the slats so that the bottoms of said buckets overlap the spaces between the slats.

2. In a device of the class described, the combination of a series of links, a cross slat fixed to the body portion of each of said links, a bucket on each of said cross slats, comprising a bottom with its rear edge projected beyond the rear edge of the slat and its forward edge spaced apart from the forward edge of the slat, and also comprising two upright side members lying in alinement with the successive upright side members, and an upright front member lower than said side members.

3. In a device of the class described, the combination of a series of cross slats, a bucket fixed in an offset position on each cross slat, each bucket having an upright front member, some of said front members being higher than others for the purposes stated, the side members extending above the front members.

4. In a device of the class described, the combination of a boom, a conveyer pivoted near the base of the boom, adjusting means for raising and lowering the other end of the conveyer, an integral member pivotally mounted to the boom and swinging in conformity to the raising or lowering of the conveyer, said member resting on said conveyer frame and slipping along the same when the conveyer is raised and lowered, said member being spaced somewhat above the conveyer buckets and being concaved to form a receptacle for holding material which may roll down over the conveyer buckets when working at a steep inclination.

1,130,459. SWITCH MECHANISM. HUGH D. YOAKUM, Waco, Tex., assignor of one-fourth to J. Knox Greer, Allen, Okla. Filed June 1, 1914. Serial No. 842,106. (Cl. 104—24.)

1. In a switch mechanism of the character described, the combination with the switch members and the switch bar, said bar having a pair of oppositely disposed pendent bearings, of an operating shaft, bearings in which the shaft is loosely mounted, a cam disk on the shaft having alternately disposed cams on its opposite faces for coacting with oppositely disposed pendent bearings on the switch bar, means for cushioning and equalizing the end thrusts on the said operating shaft, means for imparting intermittent rotary movement in one direction, said means including a pawl and ratchet mechanism, a bell crank lever device operable by a passing car, and connections that join the said bell crank lever and the pawl and ratchet devices.

2. In a switch mechanism of the character described, the combination with the switch members and the switch bar, said bar having a pair of oppositely disposed pendent bearings, of an operating shaft, bearings in which the shaft is loosely mounted, a cam disk on the shaft having alternately disposed cams on its opposite faces for coacting with oppositely disposed pendent bearings on the switch bar, means for cushioning and equalizing the end thrusts on the said operating shaft, means for imparting intermittent rotary movement in one direction, said means including a pawl and ratchet mechanism, a bell crank lever device operable by a passing car, connections that join the said bell crank lever and the pawl and ratchet devices, and means for automatically returning the pawl and ratchet devices to the normal position.

3. In a switch mechanism of the character described, the combination with a pair of oppositely disposed switch members and a switch bar that connects said members, the said bar including a pair of oppositely disposed pendent bearings; of an operating shaft, bearings in which the said shaft is loosely mounted, a disk mounted on the shaft to turn therewith having oppositely disposed cam faces for co-acting with the oppositely disposed pendent bearings on the switch bar, means for equalizing the end thrusts of the aforesaid operating shaft, other means for imparting intermittent rotary movement to the said shaft in one direction, and a bell crank lever device operable by a passing car and coöperatively connected with the ratchet mechanism.

1,130,460. ELECTRIC-ARC LAMP. ARMANDO ZANOTTA, Milan, Italy. Filed Oct. 31, 1914. Serial No. 869,657. (Cl. 176—51.)

1. In a projection apparatus, a lens, means for holding three electrodes so as to converge toward the lens with one of the electrodes in substantial alinement with the axis of the lens, and means for moving said latter electrode axially and the other two electrodes toward and away from it.

2. In a projector type arc lamp, a lens, means for holding three electrodes in substantially the same plane, with the outer two inclined with respect to the central electrode to cause the three to converge toward a common point with the axis of the central electrode substantially coincident with the axis of the lens, means for moving the outer two electrodes toward and from the axis of the third or central electrode and for moving the latter axially, respectively, toward and away from the point of convergence of the electrodes.

3. In a projector type arc lamp, means for holding three electrodes in substantially the same plane, with the outer two inclined with respect to the central electrode to cause the three to converge toward a common point, manually operable means for simultaneously moving the outer two electrodes toward and away from the axis of the third or central electrode and for moving the latter axially, respectively, toward and away from the point of convergence of the electrodes.

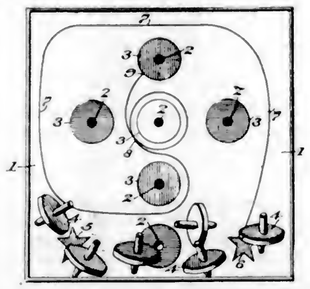
4. In a projection apparatus, a lens, means for holding three electrodes so as to converge toward the lens with one of the electrodes in substantial alinement with the axis of the lens, means for moving said latter electrode axially and the other two electrodes toward and away from it, including a support extending substantially parallel to the axis of the central electrode, a holder for one of said electrodes slidable on said support and manually operable means for moving said holder relative to said support.

5. In a projection apparatus, a lens, means for holding three electrodes so as to converge toward the lens with

one of the electrodes in substantial alinement with the axis of the lens, means for moving said latter electrode axially and the other two electrodes toward and away from it, and means for moving the end of one of the outer electrodes toward or away from the plane defined by the axes of the other two electrodes.

[Claims 6 to 10 not printed in the Gazette.]

1,130,461. PUZZLE. WILHELM ZOLPER, Wilmington, Del., assignor of one-half to Harry F. Schnepf, Wilmington, Del. Filed Nov. 3, 1914. Serial No. 870,029. (Cl. 46—41.)

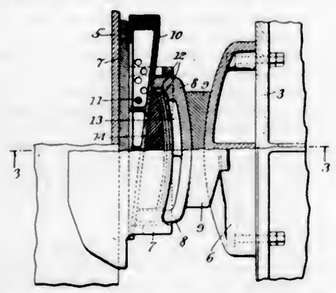


1. A game composed of a field, bases thereon, and pocket-openings in the field at said bases, said bases being of different colors, and spinning tops of different colors having their pegs adapted to be placed in the openings of bases of corresponding colors, said bases being disposed on the field of the form of a cross-shaped figure.

2. A game composed of a field, bases thereon, pockets in the field, said bases being of different colors, spinning tops of different colors adapted to be placed in said pockets, and a devious course line on said field extending around the pockets from a starting point to one of said pockets.

3. In a game composed of a field, bases on said field, and openings in said bases, a devious course on said field, the same extending from a starting place on the field and continuing on the latter around said bases to one of the latter as a terminal and the goal of the game.

1,130,462. CHAFING DEVICE FOR RAILWAY DRAFT-GEAR. HERMAN F. BALL, New York, N. Y. Filed Mar. 6, 1914. Serial No. 822,888. (Cl. 213—3.)



1. In a draft gear for railway vehicles, the combination of a draw bar pivotally connected at its ends to the respective vehicles, two chafing plates, each connected to the end of a vehicle, and having convex outer surfaces, an interposed floating chafing block having double concave faces coöperating with the convex faces of the adjoining chafing plates, one of said chafing plates being longitudinally adjustable, and having a cavity, and a spring located in said cavity.

2. In a draft gear for railway vehicles, the combination of a draw bar pivotally connected at its ends to the respective vehicles, two chafing plates, each connected to the end of a vehicle, and having convex outer surfaces, an interposed floating chafing block having double concave faces coöperating with the convex faces of the adjoining chafing plates, one of said chafing plates being longitudinally adjustable, and having a cavity, and a spring block and leaf springs located in said cavity.

3. In a draft gear for railway vehicles, the combination of a chafing plate having an outer convex surface, another chafing plate also having a convex surface, a floating chafing block having double concave surfaces interposed between said chafing plates, one of said chafing plates being longitudinally adjustable, a transverse wedge for adjusting said chafing plate, and a spring acting between the wedge and said adjustable chafing plate.

4. In a draft gear for railway vehicles, the combination of a draw bar pivotally connected at its ends to the respective vehicles, and having convex outer surfaces, an interposed floating chafing block having double concave faces coöperating with the convex faces of the adjoining chafing plates, one of said chafing plates being longitudinally adjustable, and having a cavity, a transverse wedge for adjusting said chafing plate, a spring block located in said cavity and bearing against the wedge, and a spring acting between said spring block and the adjustable chafing plate.

1,130,463. OPERATING-HANDLE FOR ADDING-MACHINES. GLENN J. BARRETT, Grand Rapids, Mich., assignor to Barrett Adding Machine Company, Philadelphia, Pa., a Corporation of Delaware. Filed Apr. 19, 1913. Serial No. 762,186. (Cl. 235—60.)



1. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece oscillatably supported on said member, elastic cushioning means interposed between said member and said finger piece, and means for permitting limited movement of said finger piece with respect to said member.

2. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece oscillatably supported on said member, a spring-acting means having connection with said finger piece and said member which means, when the finger piece is moved forwardly, causes corresponding movement of said member, and thereafter permits independent forward movement of said finger piece.

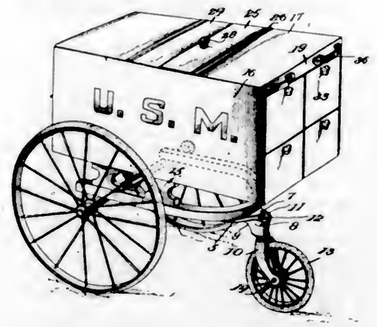
3. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece oscillatably supported on said member, and cushioning means interposed between said member and said finger piece and having connection with said member and said finger piece.

4. An operating handle for a computing machine comprising a member having connection with the operative mechanism of such machine, a finger piece pivotally connected to the said member, and cushioning means interposed between and having connection with said member and said finger piece to resist forward movement of the said finger piece in relation to the said member.

5. In an operating handle for a computing machine the combination of a member having connection with the operative mechanism of such machine, the said member having rearwardly and forwardly extending portions, a finger piece pivoted to the forwardly extended portion of the said member, and a cushioning spring having connection at one end to the rearwardly extended portion of the said member and at its other end to the said finger piece.

[Claims 6 to 10 not printed in the Gazette.]

1,130,464. MAIL-CART. KATHRINE G. BARRON, Faribault, Minn. Filed May 26, 1914. Serial No. 841,125. (Cl. 21—7.)



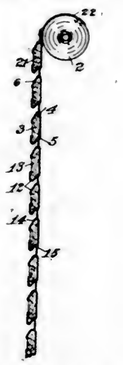
1. In a cart of the class described, a wheeled supporting frame, a body mounted upon the frame and divided by transverse partitions located one forwardly and the other rearwardly of its transverse middle to provide a package receiving compartment, a plurality of drawers mounted in the ends of the body, and a closure for the first-mentioned compartment comprising door sections hinged at the top of the compartment and arranged when in closed position to overlap the edges of the sides of the body, the said door sections being arranged at their free edges to overlap when in closed position.

2. In a cart of the class described, a wheeled supporting frame, a body mounted upon the frame and including a top comprising sections spaced from the transverse middle of the top of the body, partitions dividing the body transversely beneath the adjacent edges of the said top sections and forming a compartment, and a closure for the compartment comprising door sections hinged to the adjacent edges of the said top sections and having their free edges overlapped.

1,130,465. SCREEN. CONRAD BAUER, Pittsburgh, Pa. Filed May 9, 1912. Serial No. 696,154. (Cl. 156—16.)

1. In a screen, a plurality of slats having recesses formed in the rear faces thereof, and means for connecting the slats together in parallel relationship, comprising band-like clips embracing the slats and having substantially T-shaped openings disposed opposite the recesses in the slat and having substantially T-shaped tongue portions, the tongue of one clip being pivotally supported by the body of the clip carried by the next adjacent slat, and the clips being so arranged as to enable independent removal and insertion of the slats in the screen without total disassembling of the screen.

2. In a screen, a plurality of slats having recesses formed in their rear faces, and means for connecting the slats together in parallel relationship, comprising band-like clips so embracing the slats as to have a wall portion leading along the back of the screen, said wall having a T-shaped recess disposed opposite a recess in the slat and a T-shaped tongue portion, the tongue of one clip being adapted to be inserted into the recess of and bear upon the next adjacent clip, said clips having wall portions along the top and bottom of each slat, whereby the slats



are prevented from rubbing one on the other in the process of moving them.

1,130,466. TREATING PRINTED PAPER TO REMOVE THE INK AND RECOVER THE PULP. HORACE M. BELL and EDMUND R. LAPE, Swanton, Vt. Filed June 20, 1914. Serial No. 846,262. (Cl. 92—3.)

1. A process of treating printed paper stock to remove the ink and recover the pulp, comprising subjecting small sheets or pieces of the printed paper to the action of a soap solution and effecting removal of the ink by continuously subjecting the stock during the action of the soap solution, to an agitation sufficient to practically rub the ink off the surfaces of the sheets or pieces and insufficient to materially disintegrate the stock, washing the stock so treated, and finally pulping.

2. A process of treating printed paper stock to remove the ink and recover the pulp, comprising subjecting small sheets or pieces of the printed paper to the action of a soap solution and effecting removal of the ink by continuously subjecting the stock during the action of the soap solution to an agitation sufficient to practically rub the ink off the surfaces of the sheets or pieces and insufficient to materially disintegrate the stock, subjecting the stock to a series of washing operations, and finally pulping.

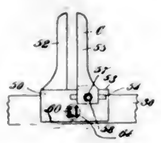
3. A process of treating printed paper stock to remove the ink and recover the pulp, comprising subjecting small sheets or pieces of the printed paper to the action of a soap solution and effecting removal of the ink by continuously subjecting the stock during the action of the soap solution, to an agitation sufficient to practically rub the ink off the surfaces of the sheets or pieces and insufficient to materially disintegrate the stock, washing the stock and again agitating the same, and finally pulping.

4. A process of treating printed paper stock to remove the ink and recover the pulp, comprising subjecting small sheets or pieces of the printed paper to the action of a soap solution and effecting removal of the ink by continuously subjecting the stock during the action of the soap solution, to an agitation sufficient to practically rub the ink off the surfaces of the sheets or pieces and insufficient to materially disintegrate the stock, washing the stock, beating up the washed stock to form a pulp, and subjecting the stock to the action of a second soap solution during the beating operation.

1,130,467. CONDENSER-GUIDE. THOMAS BELLWOOD, Methuen, and HOLLAN GARTH, Lawrence, Mass. Filed Mar. 30, 1911. Serial No. 617,937. (Cl. 118—7.)

In a machine for drawing worsted sliver, the combination of back rolls, front rolls, and carrier rolls between them, with a brace bar below the carrier rolls, and a condenser guide which comprises a base with a leg fixed thereto and a shoulder in which is a slot at right angles

to said leg together with a movable leg having a ridge adapted to slide along the shoulder and adjustably attached to the base by means of a bolt which passes



through the slot therein and a nut, said condenser guide being so pivoted to the brace bar as to swing laterally as described.

1,130,468. EYEPIECE ADJUSTMENT FOR SURVEYORS' TELESCOPES. WILLIAM L. BIERBRAUER and PAUL A. H. SACHSE, Chicago, Ill., assignors to Eugene Dietzgen Company, Factory, Chicago, Ill., a Corporation of Illinois. Filed May 20, 1914. Serial No. 839,689. (Cl. 88—32.)



1. In a telescope, the combination of a main tube, an eye-piece having a cylindrical body, a sleeve surrounding the body of the eye-piece for supporting the same, the outer end of said sleeve being held against transverse movement in said tube and the inner end of said sleeve being adjustable transversely to the axis of said tube for thereby adjusting the eye-piece.

2. In a telescope, the combination of a main tube, a sleeve within said tube, means at the outer end of said tube for supporting the outer end of said sleeve and preventing transverse movement thereof, means at the inner end of said sleeve for adjusting it transversely to the axis of said tube, and an eye-piece fitting into and completely supported by said sleeve.

3. In a telescope, the combination of a main tube, a bushing at the outer end of said tube, an eye-piece having a cylindrical body, a sleeve surrounding the body of the eye-piece for supporting the same, and means for adjusting the inner end of the sleeve transversely to the axis of the main tube to thereby accomplish the adjustment of the eye-piece.

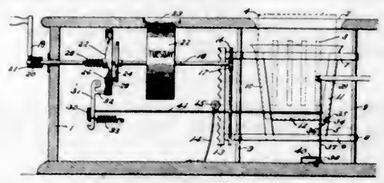
4. In a telescope, the combination of a main tube, an eye-piece having a cylindrical body, a sleeve surrounding the body of the eye-piece for supporting the same, means at the outer end of said sleeve for preventing transverse movement thereof with respect to the tube, and adjusting means at the inner end of said sleeve for adjusting said sleeve and the inner end of the eye-piece transversely to the axis of the tube, said adjusting means including set screws operable from the outside of said tube.

5. In a telescope, the combination of a main tube, an eye-piece located chiefly within said tube, said eye-piece having a cylindrical body, a sleeve into which the body of the eye-piece slidingly fits, means at the outer end of said tube for supporting the outer end of said sleeve and holding it against transverse movement, means at the inner end of said tube adjacent to the inner end of the eye-piece for reinforcing said sleeve, and means for adjusting the inner end of the sleeve transversely to the main tube.

[Claims 6 to 11 not printed in the Gazette.]

1,130,469. RECORDING APPARATUS. ROBERT S. BLAIR, New Rochelle, N. Y. Filed Aug. 14, 1907. Serial No. 388,477. (Cl. 234—43.)

1. In a time recorder, in combination, printing means, means adapted to control the position of a record card with respect to said printing means, a hand actuated device for causing the operation of said printing means, a lock coacting with said hand actuated device to prevent the operation thereof, a clock driven member, and means adapted upon being brought into a predetermined relation to said clock driven member to properly position said second means and release said lock.



2. In a time recorder, in combination, printing means, a vertically movable device adapted to control the position of a card with respect to said printing means, a hand actuated lever, means connected with said lever adapted to form an impression from said printing means, a lock coacting with said lever, a clock driven member, means adapted upon being brought into a predetermined relation to said clock driven member to correctly position a record card with respect to said printing means and release said lock, and an indicating device adapted to register the day for which said card holding device is set.

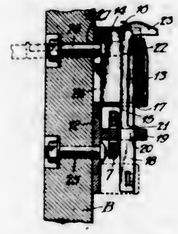
3. In a time recorder, in combination, printing means, a movable card receiver having non-parallel non-yielding card engaging sides, and means adapted to move said receiver to vary the position of a card therein with respect to said printing means.

4. In a time recorder, in combination, printing means, a movable card receiver having non-parallel card engaging sides rigidly held in position, means adapted to move said receiver to vary the position of a card therein with respect to said printing means, and means adapted to guide said receiver in its movement with respect to said printing means, the non-parallel card-engaging sides being formed at an angle of less than 45 degrees with the length of a card in said receiver.

5. In a time recorder, in combination, printing means, a device having non-parallel sides adapted to engage opposite edges of a record card and hold the same in position and means to vary the position of said card with respect to said printing means with said card in engagement with said non-parallel sides and in operative relation to said printing means.

[Claims 6 to 16 not printed in the Gazette.]

1,130,470. CAR-DOOR FASTENER. CHARLES W. BOOTH, Chicago, Ill. Filed Oct. 2, 1914. Serial No. 864,571. (Cl. 70—102.)



1. A car door fastener comprising a hinged hasp comprising a base member and a pivoted member, said base member being provided with a notch adapted for engagement by the pivoted hasp member when turned into fully open position and to maintain said pivoted hasp member in such position, and with a cam surface which connects the bottom of said notch with the operative seat of said pivoted hasp member on said base member and a locking member comprising a base plate, a locking pin, spaced projections on said base plate provided with bearings for said locking pin, said base plate being provided with an opening to permit said locking pin to be inserted into and withdrawn from its bearings, and cooperating stops on said locking pin and the upper bearing projection, the relation being such that said stops will prevent withdrawal of said locking pin from its bearing in the lower bearing projection when said locking pin is in operative position and will permit such withdrawal when said pin is turned axially, and a hasp lug on the base plate of said locking member provided with an opening to receive the lower end of the locking pin, substantially as described.

2. A car door fastener comprising a hinged hasp comprising a base member and a pivoted member, said base member being provided with a notch adapted for engagment by the pivoted hasp member when in fully open position and to maintain said pivoted member in such position and a cam surface connecting the bottom of said notch with the operative seat of said pivoted hasp member on said base member, and a locking member comprising a base plate, a hollow housing on the front side of said base plate, a locking pin, said base plate provided with an opening which communicates with the hollow interior of said housing and said housing being provided in its ends with bearings for said locking pin, said locking pin being adapted to be inserted into and withdrawn from its bearings through the opening in said base plate, and coöperating stops on said locking pin and housing, the relation being such that said stops will prevent withdrawal of said locking pin from its bearing in the lower end of the housing when said locking pin is in operative position and will permit such withdrawal when said pin is turned axially, but will prevent disengagement of said locking pin from its upper bearing except through the opening in the base plate of said locking member, and a hasp lug on said locking member provided with an opening to receive the lower end of the locking pin, substantially as described.

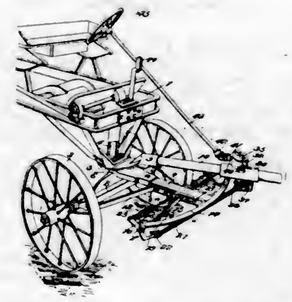
3. A car door fastener comprising a reversible hinged hasp comprising a base member and a pivoted member, bearing lugs on said base member provided with notches at the rear sides of their adjacent ends the lower of which is adapted for engagement by the pivoted hasp member when turned into fully open position and to maintain said pivoted hasp member in such position, and with cam surfaces which connect the bottoms of said notches with the operative seats of said pivoted hasp member on the adjacent ends of said bearing lugs, and a locking member comprising a base plate, a hollow housing on the front side of said base plate, a locking pin, said base plate being provided with an opening which communicates with the hollow interior of said housing and said housing being provided in its ends with bearings for said locking pin, said locking pin being adapted to be inserted into its bearings through the opening in said base plate, and cooperating stops on said locking pin and housing, the relation being such that said stops will prevent withdrawal of said locking pin from its bearings in the lower end of the housing when said locking pin is in operative position and will permit such withdrawal when said pin is turned axially but will prevent disengagement of said locking pin from its upper bearing except through the opening in the base plate of said locking member, and a hasp lug on said locking member provided with an opening to receive the lower end of the locking pin, substantially as described.

4. A hinged hasp for a car door fastener comprising a base member and a pivoted member, said base member being provided with a notch adapted for engagement by the pivoted hasp member when in fully open position and to maintain said pivoted hasp member in such position, and with a cam surface which connects the bottom of said notch with the operative seat of said pivoted hasp member on said base member, substantially as described.

5. A hinged hasp for a car door fastener comprising a reversible base member and a pivoted member, and bearing lugs on said base member provided with notches at the rear sides of their adjacent ends, the lower of which is adapted for engagement by the pivoted hasp member when in fully open position and to maintain said pivoted hasp member in such position and with cam surfaces which connect the bottoms of said notches with the operative seats of said pivoted hasp member on the adjacent ends of said bearing lugs, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,130,471. STEERING-GEAR FOR ROAD-MACHINES. DAVID C. BOYD, Galion, Ohio, assignor to The Galion Iron Works and Manufacturing Company, Galion, Ohio, a Corporation of Ohio. Filed Nov. 13, 1912. Serial No. 731,097. (Cl. 21—137.)



1. In steering mechanism of the class described, a steering member including a transversely extending support, a rock-lever mounted at each end of the support, a draft element, a gear mounted upon the draft element, means for rotating the gear, a flexible gear element connected at its ends with one end of each of the rock-levers, and shock absorbing means connected with the other end of each rock-lever.

2. In steering mechanism of the class described, a steering member including a transversely extending support, a rock-lever mounted at each end of the support, a draft element, a gear mounted upon the draft element, means for rotating the gear, a flexible gear element connected at its ends with one end of each of the rock-levers, and means connecting with the other end of each rock-lever for yieldably holding the flexible gear element taut.

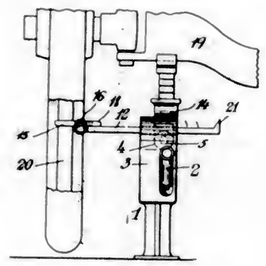
3. In steering mechanism of the class described, a steering member including a transversely extending support, a rock-lever mounted at each end of the support, a draft element, a gear mounted upon the draft element, means for rotating the gear, a flexible gear element connected at its ends with one end of each of the rock-levers, and means connected with the other end of each rock-lever for taking up slack in the flexible gear element.

4. In steering mechanism of the class described, a steering member including a transversely extending support, a rock-lever mounted at each end of the support, a draft element, a gear mounted upon the draft element, means for rotating the gear, a flexible gear element connected at its ends with one end of each of the rock-levers, and means connected with the other end of each rock-lever tending to yieldably hold the rock-levers in position to hold the flexible gear element taut.

5. In steering mechanism of the class described, a steering member, a draft element, the steering member having a transverse head, a rotatable gear element for the draft element, spaced attaching members upon the head of the steering member, a flexible gear element extending between the said attaching members and coöperating with the rotatable gear element, and springs coöperating with the attaching members and the said flexible gear element to hold the gear element taut.

[Claim 6 not printed in the Gazette.]

1,130,472. JACK FOR AUTOMOBILES. WILLIAM R. BROSS, Babylon, N. Y. Filed May 14, 1914. Serial No. 838,416. (Cl. 254—1.)

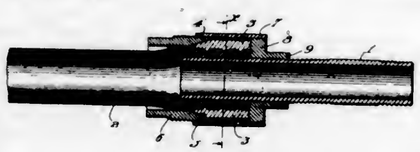


1. The combination with a lifting jack, of an arm, means for rotatably mounting said arm on said jack, said means comprising a stud carried by said jack and a member pivoted to said stud, said member having a recess receiving said arm and a set screw for positioning said arm on said member at any desired point longitudinally of said arm.

2. The combination with a lifting jack, of an arm, a tool element carried at one end of said arm, means for rotatably mounting said arm on said jack, said means comprising a stud fixed to a stationary portion of said jack and a member pivoted to said stud, said member having a recess receiving said arm and a set screw for positioning said arm on said member at any desired point longitudinally of said arm.

3. The combination with a lifting jack, of an arm, a stud carried by the stationary element of the jack, a block rotatably mounted on said stud, cam elements, a spring coöperating with said cam elements and said block to hold said block at certain predetermined positions relatively to the stationary element of the jack, said block being provided with a recess receiving said arm, and fastening means for positioning said arm at any desired point longitudinally of said arm.

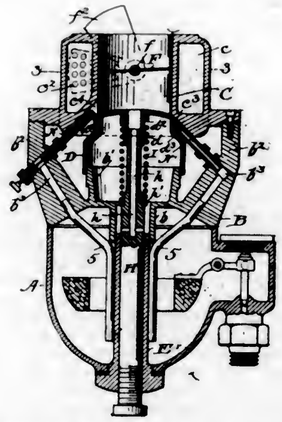
1,130,473. HOSE-COUPLING. THOMAS A. BROWN, Chicago, Ill., assignor of one-half to Albert Mohr, South Chicago, Ill. Filed Oct. 4, 1913. Serial No. 793,307. (Cl. 137—28.)



1. The combination with a hose, of a nipple adapted to enter said hose; a plurality of beveled gripping members arranged about the hose; a threaded wrench receiving member; an internally threaded sleeve threaded on said wrench receiving member; and an internally beveled sleeve coöperating with the beveled portions of the gripping members and having exterior threads opposite the beveled portions coöperating with the internal threads of said sleeve, substantially as described.

2. The combination with a hose, of a threaded nipple extending thereinto; a plurality of beveled gripping members arranged about the hose; a threaded wrench receiving flange threaded onto the nipple; an internally threaded sleeve threaded on said wrench receiving member; and an internally beveled sleeve coöperating with the beveled portions of the gripping members and having exterior threads opposite the beveled portions coöperating with the internal threads of said sleeve, substantially as described.

1,130,474. CARBURETER. ALANSON P. BRUSH, Detroit, Mich. Filed June 2, 1913. Serial No. 771,195. (Cl. 48—154.1.)



1. In a carbureter, the combination of a mixing chamber, a suction operated air valve controlling the admission of air thereto, and a plurality of fuel discharge orifices which are differently arranged with respect to the air valve and to the zone of suction which is created and widened by the opening of the air valve, whereby the said nozzles will be progressively included within said widening zone of suction, and means for independently adjusting the nozzles to change the position of their discharge orifices with respect to said zone of suction.

2. In a carbureter, the combination of a mixing chamber, containing a throttle valve and having at its lower end a tapered valve seat, a vertically movable hollow air valve adapted to engage at its upper end with said seat, which air valve is of greater external diameter at its lower end than at the upper end thereof which engages with said seat, and there being air ducts which establish communication between the mixing chamber and the under side of said air valve, a guide flange which projects into the lower end of said air valve and forms therewith a chamber which is closed except for the air duct referred to, a plurality of inclined fuel discharge nozzles arranged around the said air valve with the discharge orifices of said nozzles at different distances from that part of the valve seat with which the valve engages.

3. In a carbureter, the combination of a mixing chamber, containing a throttle valve and having at its lower end a tapered valve seat, a vertically movable hollow air valve adapted to engage at its upper end with said seat, which air valve is of greater external diameter at its lower end than at the part which engages with said seat, and there being air ducts which establish communication between the mixing chamber and the under side of said air valve, a guide flange which projects into the lower end of said air valve and forms therewith a chamber which is closed except for the air duct referred to, a plurality of inclined fuel discharge orifices of said nozzles at different distances from that part of the valve seat with which the valve engages, said valve seat having a groove which communicates with the mixing chamber, and a fuel nozzle located within said groove.

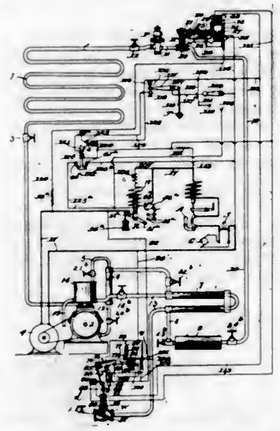
1,130,475. HOSE-COUPLING. WILLIAM A. CAMPBELL, Maricopa, Cal. Filed Dec. 23, 1912. Serial No. 738,334. (Cl. 137—28.)

1. In a hose coupling, a tubular member provided with an enlarged end, a packing ring mounted in said enlarged end, a sleeve rotatably mounted on said tube and provided with an inwardly extending flange overlapping the outer edge of said packing ring, the inner edge of said flange being smooth and means pivotally connected to the sleeve, extending beneath said flange and adapted to connect said coupling releasably to a second tube.



2. In a hose coupling, a tubular member provided with an enlarged end, a packing ring mounted in said enlarged end, a sleeve rotatably mounted on said tube and provided with an inwardly extending flange overlapping the outer edge of said packing ring, the inner edge of said flange being smooth and means carried by the sleeve, extending beneath said flange and adapted to connect said coupling releasably to a second tube, said means comprising a pair of bent levers pivoted to said sleeve and having inwardly extending opposed ends provided with arcuate screw threaded portions, and springs normally urging said opposed ends together.

1,130,476. RHEOSTAT-CONTROLLER. GEORGE P. CARROLL, Bridgeport, Conn. Original application filed Apr. 12, 1907, Serial No. 367,836. Divided and this application filed May 6, 1909. Serial No. 494,298. (Cl. 172—288.)



1. In combination two conductors adapted to be connected in series, a rheostat arm adapted to so connect said conductors, a main electric device when energized causing said arm to so connect said conductors, said arm disconnecting said conductors upon the cessation of such energization, two branch conductors adapted when connected in series to transmit an energizing current to said device, a secondary electric device operating upon the passage of a current through one part thereof to so connect said branch conductors and upon the passage of a current through another part thereof to disconnect said branch conductors, wires to and from said first part of said secondary electric device, wires to and from said second part of said secondary electric device, and a thermostatic member operating upon a predetermined change of temperature in one direction to close a circuit in said former wires and upon a predetermined reverse change of temperature to close a circuit in said latter wires.

2. In combination two conductors adapted to be connected in series, a rheostat arm adapted to so connect said conductors, a main electric device when energized causing said arm to so connect said conductors, said arm disconnecting said conductors upon the cessation of such energization, two branch conductors adapted when connected in series to transmit an energizing current to said device, a secondary switch tending to be open but on being closed so connecting said branch conductors, a core operatively connected to said secondary switch, a magnet winding operating upon being energized to energize said core so as to close said secondary switch, a detent device operating upon the cessation of the energization of said winding to hold said secondary switch closed but nevertheless remaining subject to retraction so as to permit said secondary switch to open, another magnet winding operating upon being energized to retract said detent device, wires to and from said first magnet winding, wires to and from said second magnet winding, and a thermostatic member operating upon a predetermined change of temperature in one direction to close a circuit in said former wires and upon a predetermined reverse change of temperature to close a circuit in said latter wires.

3. In combination an electric motor, two conductors adapted when connected in series to transmit an operating current to said motor, a rheostat arm adapted to so connect said conductors, a main electric device when energized causing said arm to so connect said conductors, said arm disconnecting said conductors upon the cessation of such energization, two branch conductors adapted when connected in series to transmit an energizing current to said device, a secondary electric device operating upon the passage of a current through one part thereof to so connect said branch conductors and upon the passage of a current through another part thereof to disconnect said branch conductors, wires to and from said first part of said secondary electric device, wires to and from said second part of said secondary electric device, and a thermostatic member operating upon a predetermined change of temperature in one direction to close a circuit in said former wires and upon a predetermined reverse change of temperature to close a circuit in said latter wires.

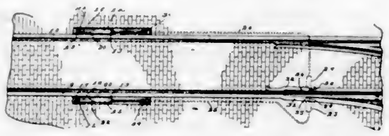
4. In combination an electric motor, two conductors adapted when connected in series to transmit an operating current to said motor, a rheostat arm adapted to so connect said conductors, a main electric device when energized causing said arm to so connect said conductors, said arm disconnecting said conductors upon the cessation of such energization, two branch conductors adapted when connected in series to transmit an energizing current to said device, a secondary switch tending to be open but on being closed so connecting said branch conductors, a core operatively connected to said secondary switch, a magnet winding operating upon being energized to energize said core so as to close said secondary switch, a detent device operating upon the cessation of the energization of said winding to hold said secondary switch closed but nevertheless remaining subject to retraction so as to permit said secondary switch to open, another magnet winding operating upon being energized to retract said detent device, wires to and from said first magnet winding, wires to and from said second magnet winding, and a thermostatic member operating upon a predetermined change of temperature in one direction to close a circuit in said former wires and upon a predetermined reverse change of temperature to close a circuit in said latter wires.

5. In combination an electric motor, a compressor operatively connected with said motor, a refrigerant condensing and storing apparatus leading from said compressor, an expansion coil leading from said apparatus into said compressor, means for regulating the expansion of refrigerant from said apparatus into said coil, two conductors adapted when connected in series to transmit an operating current to said motor, a rheostat arm adapted to so connect said conductors, a main electric device when energized causing said arm to so connect said conductors, said arm disconnecting said conductors upon the cessation of such energization, two branch conductors adapted when

connected in series to transmit an energizing current to said device, a secondary electric device operating upon the passage of a current through one part thereof to so connect said branch conductors and upon the passage of a current through another part thereof to disconnect said branch conductors, wires to and from said first part of said secondary electric device, wires to and from said second part of said secondary electric device, and a thermostatic member affected by the expansion of refrigerant in said coil and operating upon a rise of temperature to a predetermined high limit to close a circuit in said former wires and upon a fall of temperature to a predetermined low limit to close a circuit in said latter wires.

[Claim 6 not printed in the Gazette.]

1,130,477. PNEUMATIC RAILWAY-SWITCH. CHARLES CHAPPELLE, Oklahoma, Okla., assignor of one-half to Doctor John Hayden, Oklahoma, Okla. Filed May 9, 1912. Serial No. 696,170. (Cl. 104—26.)



1. A pneumatically operable railway switch, consisting of a switch located at the intersection of railway lines, of a switch tongue associated with said switch and adapted to be urged to normal positions with respect to each line, cylinders located in juxtaposition with said switch, pistons operable in said cylinders and adapted to operate against the tongue alternately, cylinders located remotely from the first named cylinders, pistons operable therein for creating air pressure, means for operating said last named pistons, means for positioning said pistons normally, and an air line communicating with each set of cylinders.

2. A pneumatically operable railway switch, consisting of a switch located at the intersection of railway lines, of a switch-tongue associated with said switch and adapted to be urged to normal positions with respect to each line, cylinders located in juxtaposition with said switch, spring-actuated pistons operable in said cylinders and adapted to operate against said tongue alternately, cylinders located remotely from the first named cylinders, spring-actuated pistons operating therein, means carried by the second named pistons for urging them to pressure-creating positions, and an air line communicating with each set of cylinders.

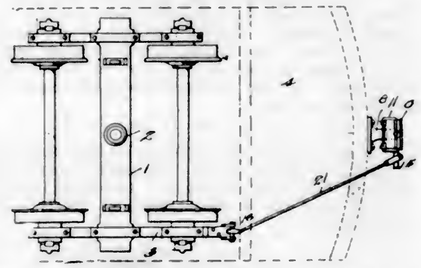
3. A pneumatically operable railway switch, consisting of a switch located at the intersection of railway lines, of a switch tongue associated with said switch and adapted to be urged to normal positions with respect to each line, cylinders located in juxtaposition with said switch, pistons operable in said cylinders and adapted to operate against said tongue alternately, cylinders located remotely from the first named cylinders, pistons operable therein for creating air-pressure, means for operating said last named piston, means for positioning said pistons normally, an air-line communicating with each set of cylinders, and means interposed in the air-line for relieving pressure in the system.

4. A pneumatically operable railway switch, consisting of a switch located at the intersection of railway lines, of a switch-tongue associated therewith and adapted to be urged to normal positions with respect to each line, cylinders located in juxtaposition with said switch, pistons operable in said cylinders and adapted to operate against said tongue alternately, cylinders located remotely from the first named cylinders, pistons operable therein for creating air-pressure, means for operating said last named pistons, means for positioning said pistons normally, an air-line communicating with each set of cylinders, and means suitably located, for relieving pressure in the system.

5. A pneumatically operable railway switch, consisting of a switch located at the intersection of railway lines, of a switch-tongue associated therewith and adapted to be urged to normal positions with respect to each line, cylinders located in juxtaposition with said switch, spring-actuated pistons operable in said cylinders and adapted to operate against said tongue alternately, cylinders located remotely from the first named cylinders, spring-actuated pistons operating therein, means carried by the second named pistons for urging them to pressure-creating positions, an air-line communicating with each set of cylinders, and a pressure-relieving medium suitably located in the system.

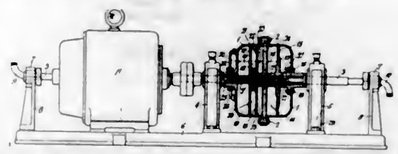
[Claims 6 to 9 not printed in the Gazeete.]

1,130,478. DIRIGIBLE HEADLIGHT. JOHN CHURCHILL, Mount Carmel, Pa. Filed May 26, 1914. Serial No. 841,135. (Cl. 240—62.)



The combination in a dirigible headlight with a car body a lamp post revolubly supported thereon, and a truck frame, of a lever arm on the lamp post, an integral cross tubular member loosely attached to said lever arm, a draw bar loosely attached to one of said crossed tubular members, a similarly crossed tubular member journaled on the car truck, and said draw bar loosely connected to the second element of said crossed tubular member.

1,130,479. APPARATUS FOR CLEARING BEER. EDGAR RALPH CURTIS, Brighton, and JAMES WILLIAM HUXLEY, Stoughton, near Guildford, England. Filed Jan. 9, 1915. Serial No. 1,440. (Cl. 127—3.)



1. In a centrifugal machine for clearing liquids a closed rotating vessel in two separable parts, a series of diaphragms rotating with the vessel, openings in the diaphragms alternately near to the axis and the periphery, an inlet and an outlet for the liquid concentric with the axis of rotation of said vessel and means for revolving the vessel.

2. In a centrifugal machine for clearing liquids a closed rotating vessel in two separable parts, a series of diaphragms fitting the interior of said vessel and rotating with it, openings in the diaphragms alternately near to the axis and the periphery of the vessel, an inlet and an outlet for the liquid concentric with the axis of rotation of said vessel, and means for revolving the vessel.

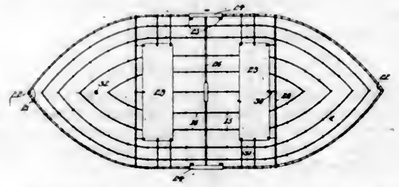
3. In a centrifugal machine for clearing liquids a closed rotating vessel in two separable parts, a series of diaphragms fitting the interior of said vessel and rotating with it, openings in the diaphragms alternately near to the axis and the periphery of the vessel, vanes upon the diaphragms, an inlet and an outlet for the liquid concentric with the axis of rotation of said vessel, and means for revolving the vessel.

4. In a centrifugal machine for clearing liquids a closed rotating vessel in two separable parts, a series of diaphragms fitting the interior of said vessel and rotating with it, openings in the diaphragms alternately near to the axis and the periphery of the vessel, an inlet and an outlet for the liquid concentric with the axis of rotation of said vessel, vanes upon the diaphragms fitting against the end of the vessel, the diaphragms, and the inner periphery of the vessel, and means for revolving the vessel.

5. In a centrifugal machine for clearing liquids a closed rotating vessel in two separable parts, radial pipes leading from the inlet near to the periphery of the vessel, a series of diaphragms fitting the interior of said vessel and rotating with it, openings in the diaphragms alternately near to the axis and the periphery of the vessel, an inlet and an outlet for the liquid concentric with the axis of rotation of said vessel, vanes upon the diaphragms fitting against the end of the vessel, the diaphragms, and the inner periphery of the vessel, and means for revolving the vessel.

[Claims 6 and 7 not printed in the Gazette.]

1,130,480. INFLATING FOLDABLE BOAT. WOJCIECH CZARNIK, Chicago, Ill. Filed Nov. 30, 1914. Serial No. 874,746. (Cl. 9—2.)



1. A foldable boat comprising an inflatable bag, a flexible outer covering flatly engaging the said bag, rivets arranged in rows and secured through the said bag and covering, eyes upon said rivets, an inner covering provided with slots adapted for seating over the said eyes, ropes threaded through the said eyes, and a foldable gunwale rod secured to the outer adjacent edges of the said outer and inner coverings.

2. A foldable boat comprising an inflatable bag, an outer covering flatly engaging one surface of the bag and having eyelets through the projecting marginal edge thereof, an inner covering flatly engaging the opposite surface of the bag and provided with spaced slots therethrough and also having eyelets through its projecting marginal edge, rivets secured in spaced relations through the said bag and outer covering and registering with the said slots, eyes upon the said rivets projecting inwardly of the inner covering and through the slots thereof, ropes arranged in substantial parallelism within the boat and threaded through the said eyes, and securing means positioned through the eyelets of both of said coverings.

3. A foldable boat comprising an inflatable bag, an outer and an inner covering for the said bag having alined eyelets through their projecting marginal edges, a plurality of rivets vulcanized through the said bag and outer covering, eyes upon the inner ends of said rivets positioned inwardly of the said inner covering, strengthening ropes threaded through the said eyes and positioned interiorly of the boat, a gunwale rod provided with bow and stern and centrally positioned side hinges, cords connecting the said eyelets with the said gunwale rod, brackets positioned over the said side hinges when the boat is in its operative position, inwardly projecting rods between the said side hinges having threaded inner ends, a turn sleeve having its opposite ends reversely screw threaded and receiving the adjacent threaded ends of the said inwardly projecting rods, transverse cables carried by the gunwale rod, and thwarts suspended from the said cables and gunwale rod.

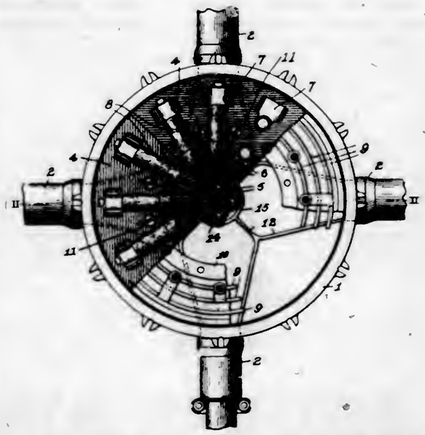
1,130,481. SELF-LOCKING NUT. THOMAS MARION DANIELS, Chicago, Ill. Filed Sept. 17, 1913. Serial No. 790,148. (Cl. 151—25.)



1. The combination of a nut and a bolt, said nut being provided with a recess therein adjacent said bolt, the outer portion of said recess being provided with lateral extensions forming a T-shaped recess with the stem of the T pointing toward said bolt; and a locking member mounted in said recess and provided with an edge arranged to impinge upon the threads of said bolt, said locking member being T-shaped in cross section at its outer end to fit said recess, substantially as described.

2. The combination of a nut and a bolt, said nut being provided with a recess therein adjacent said bolt and extending but part way through said nut, the outer portion of said recess being provided with lateral extensions to form a recess T-shaped in cross section with the stem of the T pointing toward said bolt; and a locking member mounted in said recess, T-shaped in cross section to fit said recess and provided with an edge arranged to impinge upon the threads of said bolt, said member being of less depth than said recess and the edges of said recess being upset over the outer portion of said member to maintain the same in position, substantially as described.

1,130,482. JUNCTION-BOX. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed Mar. 24, 1909, Serial No. 485,476. Divided and this application filed Jan. 11, 1913. Serial No. 741,574. (Cl. 247—11.)



1. In a junction box structure, the combination of a casing, a removable transversely extending partition mounted within said casing and dividing it into two chambers, electrical conductor studs extending through

said partition, a supplementary chamber-forming member secured to the lower side of said partition and provided with conductors having electrical connection to some of said studs, and electrical conductors entering said casing beneath said partition and connected to other studs of said partition.

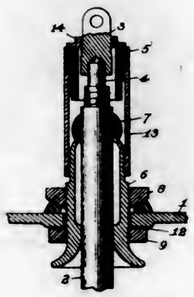
2. In a junction box structure, the combination of a casing, a removable transversely extending partition mounted within said casing and dividing it into two chambers, electrical conductor studs extending through said partition, an annular trough-shaped member below said partition and having its open side adjacent to the face thereof, conductors within said annular member electrically connected to some of said studs, and electrical conductors entering said casing beneath said partition and connected to other studs thereof.

3. In a junction-box structure, the combination of a cylindrical casing provided interiorly with a plurality of compartment-forming walls, a transversely-extending removable partition provided with a plurality of electrical studs arranged in inner and outer circumferential lines and having contact portions adapted to receive radially-arranged fuses, a peripheral chamber-forming member secured to the lower side of said partition and removable therewith, said chambered member and said partition being supported by said walls, a bus-bar within said chambered member electrically connected to said outer studs, and means for connecting said inner studs to electrical cable conductors.

4. In a junction-box structure, the combination of a circular casing, a transversely-extending partition mounted within said casing and dividing it into two chambers, said partition consisting of separately supported central and peripheral portions each provided with electrical studs, and electrical conductors entering said casing beneath said partition and connected to the studs of each portion of said partition.

5. In a junction-box structure, the combination of a circular casing, a transversely extending partition mounted within said casing and dividing it into two chambers, said partition consisting of separately supported and separately removable central and peripheral portions each provided with electrical studs, electrical conductors entering said casing beneath said partition, and connected to the studs of each portion of said partition, and a leakage-preventing screen between said partition portions.

1,130,483. TERMINAL FOR CABLES ENTERING JUNCTION-BOXES. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1913. Serial No. 755,480. (Cl. 247—1.)



1. The combination of a junction-box having an orifice in a wall thereof, an electrical-conductor cable entering said box through said orifice, a terminal structure secured to said cable and having as a part thereof a metal thimble, means for clamping said terminal-provided cable to said box, said means including a nut having a spherical bearing surface, and a washer between said nut and said box wall having a spherical bearing surface corresponding with and adjacent to said nut bearing surface.

2. A thimble adapted to be bolted in an orifice in the wall of a junction-box and to surround and engage a cable entering such box, said thimble being provided with a shoulder adapted to bear upon a surface of a junction-box wall, and a washer adapted when the parts are assembled to lie interposed between said shoulder and the surface of the junction-box wall against which it bears, the contacting surfaces of the washer and the shoulder which engages it forming a ball-and-socket joint.

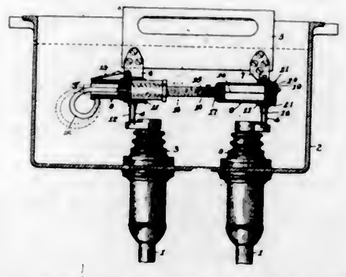
3. In a terminal structure for electrical conductor cables, the combination of a thimble adapted to be secured to a cable, a lead-out adapted to be secured to a conductor of such cable, an annular insulator, and a sleeve engaging said thimble and insulator.

4. A terminal structure adapted to be introduced in an orifice in the wall of a junction box, said terminal structure including a thimble adapted to surround a cable, to be secured thereto, and to be secured to a junction box wall, an annular insulator adapted to surround the end of the cable, a lead-out adapted to be connected electrically with the cable core and to engage said insulator, and a sleeve engaging at its opposite ends said thimble and insulator.

5. The combination of a junction-box having an orifice in a wall thereof, a lead-sheathed cable entering said box through said orifice, means including a wiped soldered joint for holding said cable rigidly to the wall of said junction-box, and means for preventing a rupture of the sheath of said cable at the point of said joint, said means consisting of a bearing surface exteriorly of said joint and affording strain-sustaining contact with proximate portions of the surface of said cable when said cable is flexed.

[Claim 6 not printed in the Gazette.]

1,130,484. ELECTRIC FUSE. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 22, 1913. Serial No. 762,889. (Cl. 175—273.)



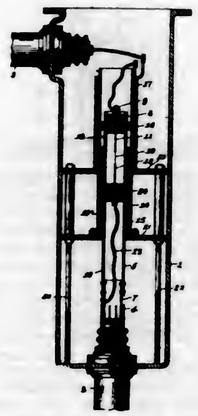
1. In an electric fuse, the combination of a fuse strip, an electro-magnet comprising a coil and a core movable with relation to each other, said coil being in circuit with said strip and having its several convolutions immovable with relation to each other in the operation of the fuse, and means for connecting the movable member of the magnet to said strip for exerting a tension thereon, said movable member becoming effective to widen the gap between the adjacent free ends of said strip when blown.

2. In an electrical fuse, the combination of a fuse strip, an electro-magnet having a movable core secured to one end of said strip, and the coil of said magnet being in circuit with said strip and adapted to receive said core upon the blowing of said strip, the several convolutions of said coil in the operation of the fuse being immovable with relation to each other.

3. In an electric fuse, the combination of a fuse strip, an electro-magnet having a coil in circuit with said strip, and the core of said magnet being electrically and structurally connected at its opposite ends to said coil and to an end of said strip, the several convolutions of said coil in the operation of the fuse being immovable with relation to each other.

4. In an electric fuse, the combination of a frame, a pair of terminal contacts secured to said frame, a casing borne by one of said terminal contacts, a fuse strip within said casing and secured thereto at one end, an electromagnet having its coil secured to the other of said terminal contacts, the core of said magnet being secured to one end of said fuse strip and movable through said coil, said fuse strip, coil and contact terminals being in a series circuit.

1,130,485. ELECTRIC FUSE. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 3, 1913. Serial No. 765,184. (Cl. 175—273.)



1. In an electric fuse, the combination of a fuse box containing a body of arc-dampening liquid, a pair of contactors submerged in said liquid and movable to and from engagement with each other, a casing secured to one of said contactors, a fuse strip within the casing, and means for applying the explosive force of said fuse when blown to separate said contactors and to force a stream of arc-dampening liquid between them when separated.

2. In an electric fuse, the combination of a fuse box containing a body of arc-dampening liquid, a fixed contactor submerged in the liquid, a fuse casing provided with a contactor movable to and from engagement with the first named contactor and adapted to contain a portion of the liquid within the fuse box, an expulsion opening in said casing adjacent to the point of engagement of said contactors, a fuse strip within said casing, and means for applying the explosive force of said fuse strip when blown to move the contactor borne by the casing from its engagement with said fixed contactor and to expel the liquid from the fuse casing through said opening and between the separated contactors.

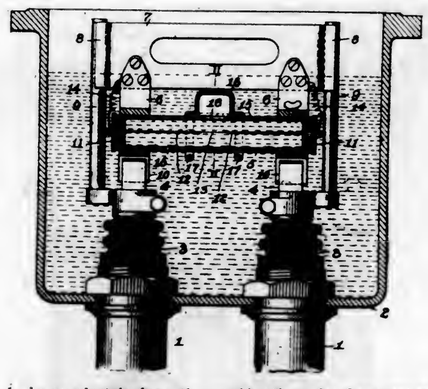
3. In an electric fuse, the combination of a contactor, a movable fuse casing provided with a contactor adapted to electrically engage said first-named contactor, a fuse strip within said casing, and means effective upon the passage of an abnormal current through said fuse strip to engage and move said casing, thereby disengaging said contactors.

4. In an electric fuse, the combination of a contactor, a movable fuse casing provided with a contactor adapted to electrically engage said first-named contactor, a fuse strip within said casing, an electro-magnet having its coil in circuit with said fuse and a movable plunger in the magnetic field of said coil and means for applying the moving force of said plunger to said casing upon the passage of an abnormal current through said fuse.

5. In an electric fuse, the combination of a fuse-box containing a body of arc-dampening liquid, a contactor submerged in said liquid, a movable fuse casing provided with an expulsion opening beneath the surface of said liquid, a contactor secured to and a fuse strip within said casing, and means effective upon the passage of an abnormal current through said fuse strip to move said casing for disengaging said contactors, and means for applying the expansive forces of the gases of fusion generated by the blowing of said fuse strip to expel the liquid from said casing and between said disengaged contactors.

[Claims 6 and 7 not printed in the Gazette.]

1,130,486. ELECTRIC FUSE. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 19, 1913. Serial No. 768,597. (Cl. 175—273.)



1. In an electric fuse, the combination of a fuse casing, a conductor therein comprising a low fusion portion and adjoining high fusion portions, means for rendering the expansive forces generated upon the blowing of said low fusion portion effective to widen the gap formed between the ends of said high fusion portions, a body of arc-dampening liquid in said casing, and a gas-containing chamber above and in communication with the liquid within said casing, the gas within said chamber affording a compressible medium for the initial expansive forces upon the blowing of said low fusion portion of the conductor.

2. In an electric fuse, the combination of a fuse casing, a conductor therein comprising a low fusion portion and adjoining high fusion portions, means for rendering the expansive forces generated upon the blowing of said low fusion portion effective to widen the gap formed between the ends of said high fusion portions, said conductor being submerged in a body of arc-dampening liquid, and a gas-containing chamber adjacent to said low-fusion portion and in communication with the interior of the fuse casing.

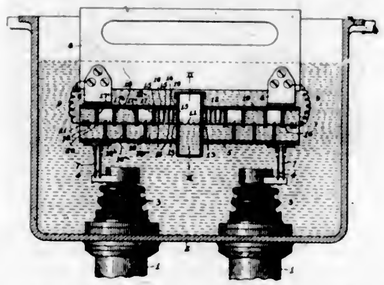
3. In an electric fuse, the combination of a tubular open-ended fuse casing, a conductor extending therethrough comprising a central low fusion portion and adjoining high fusion portions, removable closures for the ends of said casing each secured to one of said high fusion conductor portions and removable by the expansive forces generated upon the blowing of said low fusible portion, a body of arc-dampening liquid within said casing, and a gas-containing chamber above the body of liquid within said casing adjacent to said low-fusible portion and in communication with the interior of the fuse casing.

4. The combination with a junction box, a pair of electrical cables entering therein and a conductor extending

between the cores of said cables and comprising a low fusion portion and adjoining high fusion portions; of a fuse casing inclosing said conductor, means for rendering the expansive forces generated upon the blowing of said low fusion portion effective to widen the gap formed between the ends of said high fusion portion, a body of arc-dampening fluid within said junction box and within the casing surrounding the fuse, and a gas-containing chamber above and in communication with the liquid within said casing, the gas within said chamber affording a compressible medium for the initial expansive forces generated by the blowing of said low fusion conductor portion.

5. In an electric circuit opener, the combination of a pair of electrically united conducting elements adapted when separated to break an electric circuit and movable with relation to each other when thus separated, an arc-dampening fluid surrounding the point of connection of said conductors, and a member forming a gas-containing chamber being in communication with the interior of the fuse casing and adjacent to said point of connection, the gas in said chamber affording a compressible medium for the initial expansive force effected by the arc formed upon the separation of said conductors.

1,130,487. ELECTRIC FUSE. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 18, 1913. Serial No. 774,430. (Cl. 175—273.)



1. In an electric fuse installation, the combination with a fuse box provided with a body of arc-dampening liquid, and a pair of electric conductors entering therein; of a fuse structure connecting said conductors and comprising a casing submerged in said liquid and having an expulsion opening, a conductor within the casing provided with a fusible element, and means for providing within said casing between its expulsion opening and said fusible element a plurality of adjoining and communicating liquid-containing and gas-containing compartments.

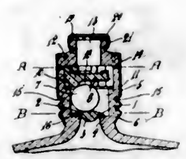
2. In an electric fuse, a dapted when in use to be submerged in a body of arc-dampening liquid, the combination of an elongate open-ended casing, a supplementary casing forming an explosion chamber at the central portion of the elongate casing, a plurality of spaced plates depending from the top of the elongate casing adjacent to each side of the supplementary casing, a plurality of plates extending alternately from the top and bottom of the elongate casing and between said first mentioned plates and the ends of the elongate casing and forming compartments within the elongate casing, a fluid passage through the upper wall of alternate compartments, and a fuse strip comprising a central low fusion portion within said supplementary casing and high fusion portions exteriorly thereof.

3. In an electric fuse installation, the combination of a junction box, electric cables entering therein, a fuse structure connecting the conductors of said cables and comprising a casing, a conductor within said casing having a fusible element as a part thereof, a plurality of adjoining compartments within said casing arranged successively adjacent to said conductor, a body of arc-dampening liquid within said junction box submerging said fuse casing, and fluid passages through the upper walls of alternate compartments, the intervening compartments being closed to form air chambers.

4. In an electric fuse installation, the combination of a junction box, electric cables entering therein, a fuse structure connecting the conductors of said cables and comprising an open-ended casing, a conductor within said casing having a fusible element at the central portion thereof, a plurality of plates extending alternately from the top and bottom of said casing and forming communicating compartments therein, fluid passages through the upper walls of alternate compartments, and a body of arc-dampening fluid within said junction box submerging said casing

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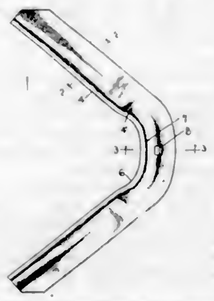
1,130,488. PROTECTIVE BOTTLE. CLARENCE FREDERIC DAVY, Fitzroy, New Zealand. Filed Nov. 20, 1913. Serial No. 802,173. (Cl. 215—62.)



1. In a device of the character indicated the combination of a bottle neck, a valve, a shoulder within said bottle neck forming a seat for said valve, a ball weight above said valve, a second shoulder within said bottle neck located between the aforesaid shoulder and the top of the bottle neck, a top disk having radially-extending wings projecting above and below the disk and engaging said second shoulder, and a cap on the top of the bottle neck for holding said top disk stationary against said second shoulder.

2. In a device of the character indicated the combination of a bottle neck, a disk valve having projections around its circumference and weighted on its underside, a shoulder within said bottle neck forming a seat for said valve, a ball weight above said valve, a second shoulder within said bottle neck located between the aforesaid shoulder and the top of the bottle neck, a stop disk having radially-extending wings projecting above and below the disk and engaging said second shoulder, a cap on the top of said bottle neck for holding said stop disk stationary, an orifice in said cap, and means for closing said orifice.

1,130,489. HEEL-SWEEP. HENRY A. DEAN, Rome, Ga. Filed June 30, 1913. Serial No. 776,691. (Cl. 97—9.)

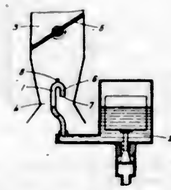


1. A heel sweep for cultivation, comprising a single sheet of metal bent into substantially V-shape in plan view, the outer and front side of the sweep thus formed being inclined upwardly and rearwardly, and being dished at its angle and for a short distance from each end thereof, said sweep having its rear side tapering downwardly and

forwardly and being provided with a reinforcing rib at the upper and rear portion thereof, substantially as described.

2. The herein described heel sweep formed of a single strip of metal beat into substantially V-shape in plan view, the outer side of the sweep thus formed being inclined upwardly and rearwardly and being dished at its angle and at its two ends, whereby said angle and ends will be drawn equi-distantly into the earth, and the portion of said outer side between said angle and said ends being flat.

1,130,490. CARBURETER. ROBERT DELAUNAY-BELLEVILLE, St.-Denis, France, assignor to Societe Anonyme des Automobiles Delaunay-Belleville, St.-Denis, France, a Corporation of France. Filed Mar. 31, 1913. Serial No. 758,003. (Cl. 48—150.3.)



1. A carbureter comprising an air conduit and fuel injecting means having a fuel delivery orifice to direct a jet of fuel in said conduit in the same direction as the air passing through said conduit, and a fuel delivery orifice to direct a jet of fuel in an opposite direction to the air passing through the conduit.

2. A carbureter comprising an air conduit and fuel injecting means associated with said conduit, said injecting means comprising a nozzle adapted to direct a jet of fuel in the same direction as the current of air passing through said conduit, and a second nozzle adapted to direct a second jet of fuel in an opposite direction to said current of air.

3. A carbureter comprising an air conduit, a fuel injecting nozzle adapted to direct a jet of fuel in the same direction as the current of air passing through said conduit, and a second nozzle adapted to direct a second jet of fuel in the opposite direction to the air current, said second nozzle adapted to permit the air in said conduit to retard the discharge of fuel therefrom.

4. A carbureter comprising an air conduit and fuel delivery means having one fuel delivery orifice so disposed that its supply of fuel increases as the velocity of air in said conduit increases, and a second fuel delivery orifice the supply of fuel from which decreases as the velocity of air in said conduit increases, such decrease being due solely to the disposition of said second orifice.

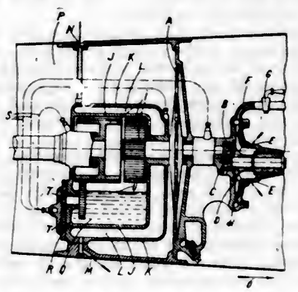
1,130,491. WATER-JACKETED GEAR-CASING FOR TORPEDOES. ROBERT DELAUNAY-BELLEVILLE, St.-Denis, France, assignor to Societe Anonyme des Etablissements Delaunay-Belleville, St.-Denis, France, a Corporation of France. Filed July 20, 1914. Serial No. 852,076. (Cl. 74—56.)

1. In a torpedo, a gear casing adapted to completely inclose the gears therein, and a water jacket associated therewith to protect the gears against the heat of the torpedo gases.

2. The combination with the speed reduction gearing of a torpedo, of a casing completely inclosing the same, and a water jacket associated with said casing whereby the gears are protected against the heat of the gases of the torpedo.

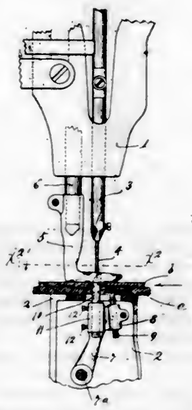
3. In a torpedo, a gear casing adapted to completely inclose the gears therein and adapted to contain lubricant, a pump for circulating said lubricant, and a water jacket associated with said casing to protect the gears and pump against the heat of the gases in the torpedo.

4. In a torpedo, a gear casing, a water jacket surrounding the same, means to admit external water to said jacket comprising a passage placing the interior of the jacket in communication with the exterior of the torpedo, and means



to discharge the water from the jacket after it has circulated through the same.

1,130,492. SLIP-TRIMMING ATTACHMENT FOR FAIR-STITCHING MACHINES. FRANCIS A. DEVEREAUX, Minneapolis, Minn., assignor of one-half to Patric F. Devereaux, Minneapolis, Minn. Filed Apr. 20, 1914. Serial No. 833,080. (Cl. 112—20.)



1. In a fair stitching machine having in combination stitch-forming mechanism, a groove cutting tool and a slip trimming knife arranged to cut a groove in the sole and to trim the slip to the sole simultaneously with the operation of said stitch-forming mechanism in stitching the slip to the sole.

2. In a fair stitching machine having an oscillatory arm provided with a groove cutting tool, a slip trimming knife also applied to said vibratory arm and arranged to automatically trim the slip to the sole, simultaneously with the operation of stitching the slip to the sole and cutting the groove in the sole.

1,130,493. SYRINGE. FAIRLEIGH S. DICKINSON, Rutherford, N. J. Filed Oct. 27, 1914. Serial No. 868,812. (Cl. 128—25.)



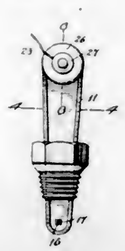
1. A syringe attachment, comprising a coil spring adapted to bear on the plunger adjacent the rear end of

the barrel to hold the plunger against accidental movement in the barrel, and a support adapted to engage the rear end of the barrel and to which the ends of the suspended coil spring are attached.

2. A syringe attachment, comprising a ring adapted to engage the barrel of the syringe at the rear end thereof, finger pieces on the said ring, and a coil spring connected at its ends to the said finger pieces and normally extending diametrically across the said ring, the said coil spring being adapted to be placed under tension by the syringe plunger to bear on the latter.

3. A syringe attachment, comprising a ring adapted to engage the barrel of the syringe at the rear end thereof, finger pieces on the said ring, loops held on the said finger pieces and bearing against the said ring, and a coil spring attached at its ends to the said loops to normally extend diametrically across the ring, the said spring being adapted to be deflected and placed under tension by the syringe plunger to bear on the surface thereof.

1,130,494. SPARK-PLUG. ALLEN HOOVER DINGMAN, Allison Park, Pa., assignor of one-half to Herman Kappeler, Allison Park, Pa. Filed Apr. 23, 1914. Serial No. 834,030. (Cl. 123—169.)



1. In a spark-plug,—an elongated shallow casing, an electrode in said casing; means insulating the electrode from the casing, said casing having apertures at the lower end thereof through which the electrode ends project; means insulated from the casing adapted to connect the conductor to the electrode; and means carrying the casing whereby the same can be secured.

2. In a spark-plug,—an elongated shallow casing; an electrode in said casing; means sealed in the casing insulating the electrode from the casing, said casing having apertures in the faces at the lower end thereof, said electrode having terminals projecting through the apertures in the faces and from which the same is separated by a spark gap; and a binding post from the electrode at the upper end of the casing and insulated therefrom.

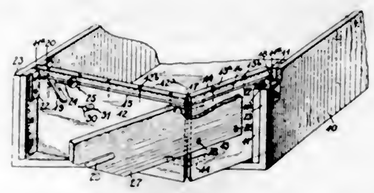
3. In a spark-plug,—a shallow, keystone-shaped casing; an electrode in said casing; means sealed in the casing insulating the electrode therefrom, said casing having apertures in the faces at the narrower end thereof, said electrode having terminals projecting through the apertures in the faces and spaced from said apertures by a spark gap; a binding post for the electrode at the wider end of the casing and insulated therefrom; and means associated with the casing whereby the same may be secured.

4. In a spark-plug,—a shallow, keystone-shaped casing rounded at the ends, said casing being enameled interiorly; an electrode in the casing; means sealed in the casing insulating the electrode from the casing, said casing having apertures in the faces thereof at the narrower end of the casing, said electrode having terminals projecting through the apertures; a binding post associated with the electrode at the wider end of the casing and insulated therefrom; and means carrying the casing whereby the same can be secured.

5. In a spark-plug,—a shallow, keystone-shaped casing; an electrode in said casing; means sealed in the casing insulating the electrode from the casing, said casing having apertures in the faces thereof at the lower end, said electrode having terminals projecting through the apertures; said insulating means sealing the bottom of the apertures adjacent the electrodes; and means associated with the casing whereby the same can be secured.

[Claim 6 not printed in the Gazette.]

1,130,495. WAGON END-GATE. CHARLES JOHN DONAT, Verdigre, Nebr., assignor of one-half to Frank C. Maly, Verdigre, Nebr. Filed Oct. 24, 1914. Serial No. 868,429. (Cl. 21—21.)



1. An end gate composed of sections hinged together to swing relatively to each other in a horizontal plane, each of said sections terminating in a rigid cleat-engaging end to enter between the usual wagon cleats, the rigid outer end of one section having a latch member rigid therewith to engage a wagon cleat, and the rigid, cleat-engaging end of the other section having a latch positioned thereon to enter with said end between the wagon cleats and pivoted to swing in a horizontal plane relatively to the said rigid cleat-engaging end of the last mentioned section.

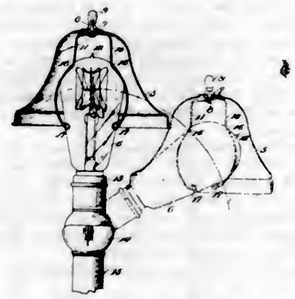
2. An end gate composed of sections hinged together to swing relatively to each other in a horizontal plane, each of said sections terminating in rigid, cleat-engaging outer ends to enter between the usual wagon cleats, and latches on the said rigid cleat-engaging ends of the respective sections to enter with the said rigid ends between the said cleats, the said latches having rearwardly extending heads, one of the latches being rigid with the adjacent end gate section and the other latch being pivoted to swing in a horizontal plane relatively to the rigid cleat-engaging end of the adjacent section and adapted, when in the inner position, to lie substantially in the vertical plane of said section.

3. An end gate composed of sections hinged together to swing relatively to each other in a horizontal plane, each of said sections terminating in a rigid, cleat-engaging end to enter between the usual wagon cleats, the rigid outer end of one section having a latch member rigid therewith to engage a wagon cleat, and the rigid, cleat-engaging end of the other section having a latch positioned thereon to enter with said end between the wagon cleats, and pivoted to swing in a horizontal plane relatively to the said rigid cleat-engaging end of the last mentioned section, and a locking element rigid with one of the end gate sections and overlapping the companion section, the free end of the said element extending over the said pivoted latch, and means to hold the said element in position against the said pivoted latch.

4. A wagon end gate composed of sections hinged to swing relatively to each other, a metallic bar secured to said sections and itself formed of sections hinged to swing with the end gate section, a latch member rigid with the bar section of one end gate section, and a latch pivoted to the other end gate section adjacent to the bar section thereof and adapted to swing in a horizontal plane.

5. An end gate comprising sections hinged to swing relatively to each other, a latch rigid with one end section at the end thereof and adapted to engage the adjacent end of a wagon body, and a latch pivoted to the other end gate section at the outer end thereof to engage a wagon body, the end gate section to which the latch is pivoted being provided with a horizontal slot for receiving the pivoted latch when the latter is in the latching position.

1,130,496. LAMP-SHADE. JAMES W. DUNHAM, New York, N. Y. Filed July 17, 1914. Serial No. 851,543. (Cl. 240—108.)



1. In a device of the character described, a lamp shade capable of adjustment to any desired angle relative to the longitudinal axis of the bulb and adapted to be attached directly to the bulb, and a gripping device for the shade comprising a pair of resilient wires each bent back upon itself, and having a twisted connection with the other adapted to form a plurality of similar gripping arms, each arm being bent irregularly to engage the bulb at two points.

2. In a device of the character described, a lamp shade capable of adjustment to any desired angle relative to the longitudinal axis of the bulb and adapted to be attached directly to the bulb, and a gripping device for the shade comprising a pair of resilient wires each bent back upon itself, and having a twisted connection with the other adapted to form a plurality of gripping arms, each arm being bent irregularly to engage the bulb at two points, and means passing through the twisted connection of said arms for securing the gripping device to said shade.

1,130,497. STAND. JAMES W. DUNHAM, New York, N. Y. Filed July 17, 1914. Serial No. 851,544. (Cl. 132—11.)



1. In a device of the character described, in combination, a supporting member, a receptacle mounted at the upper end thereof, a cover for said receptacle, a mirror associated with said cover adapted to occupy a flush position with respect to the upper edge of said receptacle, and a second cover having a pivotal connection with said receptacle adapted to overlie said first mentioned cover.

2. In a device of the character described, in combination, a supporting member, a receptacle mounted at the upper end thereof, a cover for said receptacle, a mirror associated with said cover adapted to occupy a flush position with respect to the upper edge of said receptacle, a second cover adapted to overlie said first mentioned cover and having a pivotal connection with said receptacle whereby it may swing in a horizontal plane, and means associated therewith and said receptacle adapted to lock said second cover in closed position.

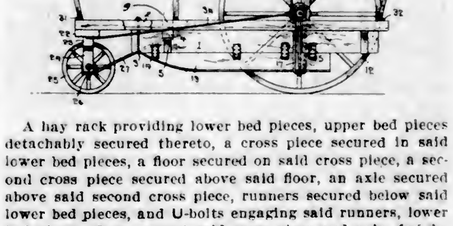
3. In a device of the character described, in combination, a support, a receptacle mounted at the upper end thereof, a mirror pivoted at one side of said receptacle adapted to lie flush with the upper surface thereof when in closed position and cover said receptacle, a tray hinged to one side of said receptacle adapted to swing over said mirror, means for limiting the swinging movement of said tray, and means for locking said tray in closed position.

4. In a device of the character described, in combination, a support, a receptacle mounted at the upper end thereof, a mirror pivoted at one side of said receptacle adapted to lie flush with the upper surface thereof when in closed position and cover said receptacle, a tray hinged to one side of said receptacle adapted to swing over said mirror, means for limiting the swinging movement of said tray and means for locking said tray in closed position, said receptacle being provided with a removable partition dividing said receptacle into a plurality of compartments.

5. In a device of the character described, in combination, a receptacle, a removable member fitting within said receptacle and dividing the same into a plurality of compartments, and a tray having a pivotal connection at one side of the said receptacle, the partition about which said tray turns being so shaped as to permit removal when the tray occupies a predetermined position with respect to said receptacle.

[Claims 6 and 7 not printed in the Gazette.]

1,130,498. HAY-RACK. WILLIAM ECKELBERG, Gettysburg, S. D. Filed June 18, 1913. Serial No. 774,402. (Cl. 21—74.)



A hay rack providing lower bed pieces, upper bed pieces detachably secured thereto, a cross piece secured in said lower bed pieces, a floor secured on said cross piece, a second cross piece secured above said floor, an axle secured above said second cross piece, runners secured below said lower bed pieces, and U-bolts engaging said runners, lower bed pieces, floor, second said cross piece and axle, for detachably securing the same together.

1,130,499. FINISH-REMOVER. CARLETON ELLIS, Montclair, N. J., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed June 23, 1911. Serial No. 635,009. (Cl. 87—5.)

1. The non-inflammable finish remover comprising approximately 40 parts of dimethyl phthalic ester, 10 parts of dichlor naphthalene, 20 parts of ethyl alcohol, 25 parts of trichlorethylene, 5 parts of celluloid and 1 part of fractionated hard paraffin wax having a melting point of about 65° C.

2. The non-inflammable finish remover comprising approximately 40 parts of dimethyl phthalic ester, 10 parts of dichlornaphthalene, 20 parts of alcoholic finish solvent, 25 parts of chlorinated inflammability suppressing solvent material and incorporated stiffening material including wax and nitro-cellulose.

3. The non-inflammable finish remover comprising a large proportion of dimethyl phthalic ester, a considerable

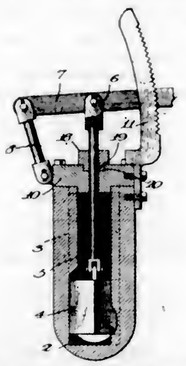
proportion of dichlor naphthalene incorporated therewith and incorporated miscible solvent material including loosening finish solvent material and chlorinated solvent and stiffening material.

4. The non-inflammable finish remover comprising a large proportion of a liquid finish solvent ester of phthalic acid, a considerable proportion of dichlor naphthalene and incorporated finish solvent material including an inflammability suppressing solvent and incorporated stiffening material.

5. The substantially non-inflammable finish remover comprising a large proportion of a finish solvent ester of phthalic acid, an appreciable amount of dichlor naphthalene incorporated therewith and incorporated finish solvent material including an inflammability suppressing solvent.

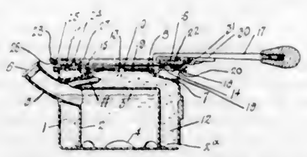
[Claims 6 to 18 not printed in the Gazette.]

1,130,500. THROTTLE-VALVE. JOHN ELLIS, Salem, Mo. Filed June 8, 1911. Serial No. 632,097. (Cl. 137—5.)



In combination, a valve casing having an open end, a valve in said casing, a closure for said open end, a stem on said valve projecting through said closure, a toothed curved bar secured at its lower end to said closure and to the adjacent portion of said casing, means connected with said stem for operating said valve, and means on said operating means adapted to coöperate with the teeth of said bar to lock the valve in adjusted position.

1,130,501. VAPOR-BURNER. ADOLPH C. E. ERICHSEN, Cranston, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed May 31, 1910. Serial No. 564,043. (Cl. 158—97.)



1. A vapor-burner comprising a casing, a liquid fuel receptacle within said casing having a closed top and an opening at the lower end communicating with said casing, and a quantity of asbestos located around said receptacle, and above the closed top thereof.

2. A vapor-burner comprising a casing, a liquid fuel receptacle within said casing having a closed top and an opening at the lower end communicating with said casing, a quantity of asbestos located around said receptacle, and above the closed top thereof, and a section of wire gauze overlying said asbestos.

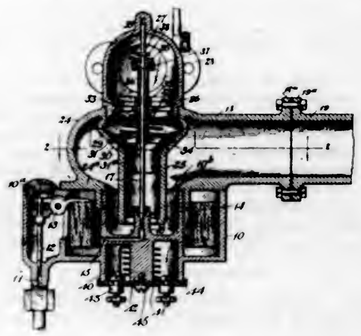
3. A vapor burner comprising a casing, a liquid fuel receptacle within said casing, said receptacle having a closed top and an opening at the lower end, a feed-tube extending from the exterior of said casing into said receptacle, and a vapor outlet from said receptacle.

4. A vapor burner comprising a casing, a liquid fuel receptacle within said casing provided with a closed top and a series of openings in the lower end thereof, a feed-tube extending from the exterior of said casing into said receptacle at the side thereof, and a vapor outlet from said receptacle.

5. A vapor-burner comprising a casing, a liquid fuel-receptacle secured to the bottom of said casing and provided with a closed top and with a series of openings at its lower end, a feed-tube extending from the exterior of said casing into said receptacle, a quantity of asbestos in said casing surrounding said receptacle, and a section of wire-gauze overlying said asbestos.

[Claims 6 to 12 not printed in the Gazette.]

1,130,502. CARBURETER. LYNN MYERS FRANCISCO, Baldwinsville, N. Y. Filed Feb. 12, 1914. Serial No. 818,278. (Cl. 48—148.)

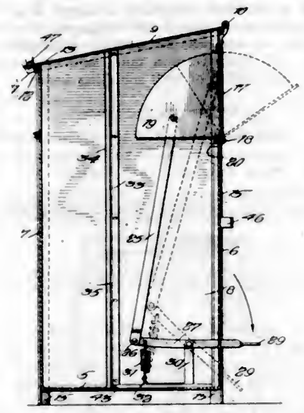


1. In a carbureter, a mixing tube, means to conduct air to said tube, a fuel nozzle discharging into said tube and having a base below the latter, a heating chamber beneath the nozzle, and means for heating said chamber, said heating means comprising a pendent stud on the base of the nozzle and an electric heating element around said stud.

2. In a carbureter, a mixing tube having a main air inlet, and an auxiliary air inlet above the main inlet, a fuel nozzle discharging to the mixing tube below the auxiliary air inlet, a needle valve commanding the nozzle and extending upwardly through the said tube, a valve commanding the air inlet and disposed at the interior of the tube, the latter valve having a sleeve through which the needle valve extends, a throttle lever, a lifting member operatively connected with the throttle lever, a member on one of said valves with which the lifting member engages, and a member on the other of said valves with which the member on the first valve engages, so that the action of the lifting member will lift both valves.

3. In a carbureter, a mixing tube having a main air inlet, and an auxiliary air inlet above the main air inlet, a fuel nozzle discharging to said tube, a tubular valve at the interior of the mixing tube and commanding the auxiliary air inlet, a helical spring bearing at its lower end on said valve, a fixed abutment against which the upper end of the spring bears, a sleeve extending upwardly through the said abutment and in fixed relation to the valve, a needle valve commanding the fuel nozzle and extending through said sleeve, a throttle, a throttle valve, and means operative by said throttle valve and adapted to actuate both of said valves.

1,130,503. GARBAGE-CAN. EMILE FRANCKAERTS, San Francisco, Cal. Filed June 4, 1914. Serial No. 842,919. (Cl. 220—115.)



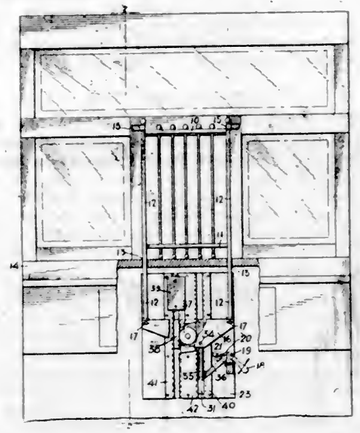
1. A receptacle of the class described including a flat bottom, side walls, a front wall having an opening therein, and a rear wall, the upper edges of the side walls being beveled rearwardly, a top hinged to the front wall and provided with side flanges overhanging the sides of the can, and having a keeper provided near its rear edge, the upper edges of the can being beaded, said keeper adapted to engage the bead for normally maintaining the top in closed position, a plate hinged to the front wall and adapted to normally close the opening therein, substantially sector shaped guard plates carried by said plate and extending through the opening into the can, a housing for one of the guard plates, a foot operable mechanism secured to the opposite guard plate whereby the closure plate may be opened at will, a housing for protecting said opposite guard plate and mechanism, and means for removably positioning last said housing within the receptacle.

2. A receptacle of the class described having its front wall provided with an opening, a plate hinged to the receptacle and adapted to normally close said opening, said plate provided near its ends with guard plates extending through the opening into the can, said plate and guard plates forming a chute, a housing secured within the can for protecting one of the guard plates, said last mentioned plate extending into the housing, a foot operable mechanism connected to the other guard plate, said mechanism comprising a link swiveled at one end to said other plate, a lever swiveled at one end to the opposite end of the link, an upright to which said lever is pivoted, a spring connected at one end to the lever adjacent said link and at the opposite end to the receptacle for normally holding the chute in closed position, said link, lever and upright being disposed within the receptacle, said lever extending through the opening in the receptacle and provided with a foot pedal, and a housing for protecting said opposite guard plate and foot operable mechanism, and means for removably positioning the housing within the receptacle.

3. A receptacle of the class described having a chute hingedly connected thereon for normally closing an opening in the receptacle, a foot operable mechanism contained within the receptacle for operating the chute, a guide strip secured to one wall of the receptacle within the latter, said guide strip provided with a groove, a second guide strip secured to another wall of the receptacle within the latter, and provided with a groove, and a housing for protecting the foot operable mechanism, said housing including a strip having a flange formed on each longitudinal edge thereof and extending in opposite directions, said flanges adapted to engage the grooves in the guide strips whereby the housing may be removably positioned within the receptacle.

4. A receptacle of the class described having an opening in one wall, a chute pivoted to the receptacle for normally closing the opening, said chute including a closure plate and guard plates, a foot operable mechanism positioned within the receptacle and connected with one of the guard plates for operating the chute, means contained within the receptacle for protecting the foot operable mechanism and the plate to which it is secured, means for removably positioning the protecting means within the receptacle, and means for protecting the other guard plate.

1,130,504. WINDOW-WICKET-OPERATING MECHANISM. HYMAN B. GABBE, New York, N. Y. Filed Apr. 15, 1914. Serial No. 832,118. (Cl. 39—140.)



1. A mechanism as characterized, comprising a wicket; a reciprocating supporting member therefor, said member having an engaging shoulder formed in the edge thereof; a dog for engaging said shoulder; and a manually-movable latch for engaging said dog to release the same from engagement with said shoulder, said latch yielding in the retractive movement thereof.

2. A mechanism as characterized, comprising a wicket; a reciprocating supporting member therefor, said member having an engaging shoulder formed in the edge thereof; a dog for engaging said shoulder; a manually-rotatable latch plate; a latch pivotally mounted on said plate to extend into the path of, to engage, said dog; and resilient means for holding said latch in operative position to yield when said latch is moved in one direction only.

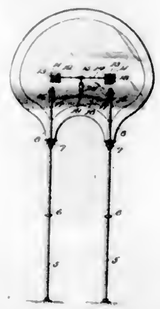
3. A mechanism as characterized, comprising a wicket; a reciprocating bar operatively connected with said wicket to support the same; means for governing the movement of said bar, embodying a multi-recessed member adjacent said bar; a latch for engaging said recessed member, said latch being pivotally mounted on said bar; manually-operative means for reciprocating said bar; a sliding plate operatively connecting said bar and manually-operative means; and means embodied in said plate for rotating said latch prior to the movement of said bar.

4. A mechanism as characterized, comprising a wicket; a reciprocating bar operatively connected with said wicket to support the same; means for governing the movement of said bar, embodying a multi-recessed member adjacent said bar; a latch for engaging said recessed member, said latch being pivotally mounted on said bar; manually-operative means for reciprocating said bar; a sliding plate operatively connecting said bar and manually-operative means; and means operatively connecting said latch and said plate, embodying a plurality of pins projecting from

the sides of the pivot thereof, and a plurality of elongated slots formed in said plate to engage said pins, said slots being disposed in relatively staggered relation to extend in oppositite directions from a line incorporating said pins and the pivot of said latch.

5. A mechanism as characterized, comprising a wicket; a reciprocating bar operatively connected with said wicket to support the same; means for governing the movement of said bar, embodying a multi-recessed member adjacent said bar; a latch for engaging said recessed member, said latch being pivotally mounted on said bar; manually-operative means for reciprocating said bar; a sliding plate operatively connecting said bar and manually-operative means; and means operatively connecting said latch and said plate, embodying a plurality of pins projecting from the side of said latch at opposite sides of the pivot thereof, and a plurality of slots engaging said pins, the engaging ends of both of said slots engaging their respective pins when said latch is in locked position, both of said slots having extension from the engaging end in relatively opposite directions to permit the free movement in each, of its respective pin when said latch is operated upon by means of the other slot.

1,130,505. SOUNDING-BOARD. GODFRIED J. GAUL, Chicago, Ill., assignor to Daprato Statuary Company, Chicago, Ill. Filed June 29, 1914. Serial No. 847,864. (Cl. 181—5.)



1. A sound wave reflector, comprising, in combination a support, a sounding board mounted on said support, an upper flexible member connected at its ends to the rear of said sounding board at points to one side the center thereof, a lower flexible member connected at its ends to said support, and a member connecting said flexible members intermediate their ends and provided with means for varying its length to lessen or increase the distance between said flexible members and thereby to change the angle of inclination of said sounding board.

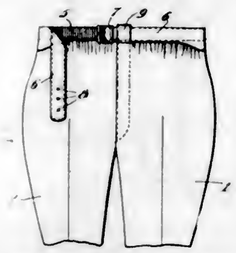
2. A sound wave reflector, comprising, in combination, a support, a sounding board mounted upon said support, a member having its ends connected to said sounding board, a second member having its ends connected to said support, and means connecting both of said members intermediate their ends and adapted to vary the distance between said members and thereby to cause a variance of the angle of inclination of said sounding board.

3. A sound wave reflector comprising, in combination, a support, a sounding board mounted upon said support, a flexible member mounted upon said sounding board, a second flexible member carried by said support and means connecting said flexible members adapted to vary the angle of inclination of said sounding board.

4. A sound wave reflector comprising, in combination, a support, a sounding board mounted thereon, a chain carried by said sounding board, a second chain mounted upon said support and a turn buckle connecting said chains to control the angle of inclination of said sounding board.

5. A sound wave reflector comprising, in combination, a support, a sounding board mounted upon said support, a chain provided with a centrally disposed enlarged link mounted upon said sounding board, a second chain provided with a centrally disposed enlarged link carried by said support, and a turn buckle engaging the centrally disposed links of said chains whereby operation of the turn buckle will cause tension upon said chains to vary the angle of inclination of said sounding board.

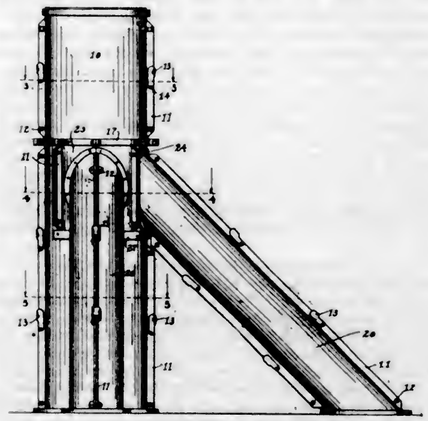
1,130,506. TROUSERS. SOLOMON A. GOODMAN, Chicago, Ill., assignor of one-half to George Brucato, Chicago, Ill. Filed July 23, 1913. Serial No. 780,644. (Cl. 2—143.)



1. A pair of trousers comprising front and rear portions, the rear portions extending above said front portions; elastic waist band sections stitched to the top edges of said front portions, the latter being gathered to said sections; and belt sections carried by said rear portions and extending over said elastic sections covering the latter, substantially as described.

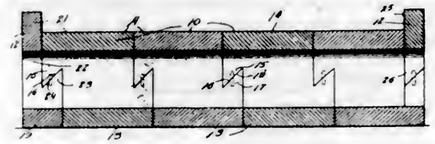
2. A pair of trousers comprising front and rear portions, the rear portions extending above said front portions; elastic waist band sections stitched to the top edges of said front portions, the latter being gathered to said sections; belt sections formed on said rear portions and extending over said elastic sections and covering the latter; and a lining in said trousers, the rear ends of said elastic waist band sections being stitched to said lining, substantially as described.

1,130,507. CONCRETE-POST MOLD. ENOS W. HADLEY and HAROLD W. GOSSETT, Danville, Ind. Filed Apr. 14, 1913. Serial No. 760,964. (Cl. 25—121.)



A main post mold divisible into a plurality of vertical sections, a brace mold formed of two longitudinal sections secured to said main mold, the main mold and brace mold being separable in substantially the same plane, an opening formed in the side of the main mold and an additional brace mold secured to a plate removably secured in said opening, said main mold being divided into vertical sections united in the same plane as the union of said additional brace mold sections.

1,130,508. SECTIONAL CONCRETE CULVERT. OWEN S. HALL, Red Lodge, Mont. Filed Apr. 14, 1914. Serial No. 831,769. (Cl. 72—51.)

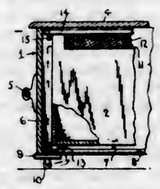


1. In a sectional culvert, the combination of a plurality of tubular members aranged end to end, and extensions on the adjacent ends of said sections disposed in overlapping relation, the abutting sides of said extensions being correspondingly inclined to interlock the sections and secure the latter against relative longitudinal movement.

2. In a sectional culvert, the combination of a plurality of intermediate sections arranged end to end, extensions on the adjacent ends of said sections disposed in overlapping relation and having their abutting sides correspondingly inclined to interlock the sections and secure same against relative longitudinal movement, and terminal sections detachably interlocked with respective limiting intermediate sections, said terminal sections having cross dimensions in excess of the cross dimensions of the intermediate sections.

3. In a sectional culvert the combination of a plurality of intermediate sections arranged with their longitudinal axes in alinement each of which is provided with extensions at its ends, said extensions being disposed respectively at the top and bottom of the sections and having their terminal portions correspondingly inclined, the terminal portions of one extension being engaged with the terminal portions of the opposite extension of the next intermediate section, a terminal section at one end of the culvert having an inwardly directed extension at its lower end provided with the inclined terminal portions engaging with the inclined terminal portions of the extension of the adjacent intermediate section, and a terminal section at the other end of the culvert of substantially U-shape and having the inner sides of its arm cut away and the inner ends of the cut away portion inclined and engaged with respective terminal portions of the extension of the adjacent intermediate section.

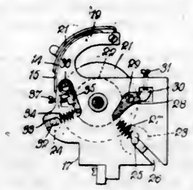
1,130,509. SANITARY CLOTHES-HAMPER. ASBURY H. HAMILTON, Brooklyn, N. Y. Filed Nov. 26, 1913. Serial No. 803,152. (Cl. 217—42.)



1. In combination, a portable case having imperforate side and end walls and a bottom provided with a ventilating screened opening, a clothes receptacle adapted to fit in the case and provided with a screened ventilating wall, and an imperforate cover for the case.

2. In combination, a case having imperforate side walls and a ventilating screened bottom, means for supporting the bottom out of contact with the floor, a receptacle provided with a bottom and side walls of foraminous material and disposed in the case and spaced from the side walls thereof, and an imperforate cover for the case.

1,130,510. PAPER-FEED. MARSHMAN W. HAZEN and OTTO PETERMANN, New York, N. Y., assignors, by mesne assignments, to Corona Typewriter Company, Incorporated, a Corporation of New York. Original application filed Mar. 27, 1909, Serial No. 486,181. Divided and this application filed June 7, 1909, Serial No. 500,696. Renewed Aug. 10, 1912. Serial No. 714,472. (Cl. 197—138.)



1. In a typewriting machine, the combination with a carriage, of a platen mounted to move with the carriage, a large feed roll, two smaller rolls adapted to engage the larger roll about which latter the work sheet is adapted to pass to be fed about the platen when the larger roll is rotated, pivotally held levers, springs connecting the levers to the smaller rolls, and means for varying the tension of said springs.

2. In a typewriting machine, the combination with a carriage, of a platen mounted to move with the carriage, a large feed roll, two smaller rolls adapted to engage the larger roll about which latter the work sheet is adapted to pass to be fed about the platen when the larger roll is rotated, pivotally held levers, springs connecting the levers to the smaller rolls, and screws for varying the tension of said springs.

3. In a typewriting machine, the combination with a carriage, of a large roll mounted on the carriage, two smaller feed rolls adapted to engage the larger roll to feed the work sheet, pivotally held levers arranged on the outside of the carriage, springs connecting the levers to the smaller rolls, and means for varying the tension of the springs.

4. In a typewriting machine, the combination with a carriage, of a large roll mounted on the carriage, two smaller feed rolls adapted to engage the large roll to feed the work sheet, pivotally held levers arranged on the outside of the carriage, springs connecting the levers to the smaller rolls, and screws engaging the levers for varying the tension of said springs.

5. In a typewriting machine, the combination of a carriage, a large roll, two smaller rolls adapted to engage the larger roll between which latter and the two smaller rolls the work is adapted to pass to be fed when the larger roll is rotated, and levers located on the outside of the ends of the carriage and yieldingly connected to the smaller rolls to yieldingly hold the smaller rolls against the large roll.

[Claims 6 to 8 not printed in the Gazette.]

1,130,511. RAILWAY-TIE. SAMUEL H. HERBST, Jr., Fullerton, Pa. Filed Nov. 9, 1914. Serial No. 871,045. (Cl. 238—5.)



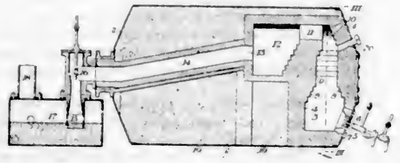
1. The combination with the rails of a railway track, of a tie, comprising upper and lower plates, the former of

which is provided with an opening therethrough in the position of each rail, a resilient block for the corresponding rail projecting through each opening, a longitudinally removable block for supporting said resilient block, a metal plate interposed between each rail and resilient block, a metal plate interposed between the blocks of each rail, and means for locking the respective rails, blocks, and metal plates together.

2. The combination with the rails of a railway track, of a tie, comprising upper and lower plates, brackets connecting the same and arranged between said rails, supplemental brackets connecting the ends of said plates, said upper plate being provided with an opening therethrough beneath each rail, a resilient block for each rail projected through the corresponding opening and a longitudinally removable supporting block for said resilient block, said brackets being removable and serving to maintain the respective blocks in position.

3. The combination with the rails of a railway track, of a tie comprising upper and lower plates, the former of which is provided with an opening beneath each rail, brackets connecting said plates, between said rails, supplemental brackets connecting said plates at the ends thereof, detachably, two superimposed resilient blocks interposed between the brackets of each pair, a metal filler plate between said blocks, a resilient plate projected through each opening and resting upon the upper block, a rail plate over said resilient plate, and means for locking each rail to its rail plate, resilient plate, upper block, and filler plate, detachably.

1,130,512. METHOD OF AND APPARATUS FOR THE MANUFACTURE OF PRODUCER-GAS. LEON E. HIRT, Pittsburgh, Pa. Filed Feb. 25, 1913. Serial No. 750,506. (Cl. 48—74.)



1. The method of making producer gas, consisting in injecting fuel in comminuted form by means of steam into a combustion chamber, supplying air thereto and burning the same passing through the products of combustion through a contracted passage into an expansion chamber, then passing the expanded products into a reduction tube in contact with incandescent carbon on the walls thereof, and then injecting steam into said gases, substantially as described.

2. The method of making producer gas, consisting in injecting fuel in comminuted form by means of steam into a combustion chamber, supplying air thereto and burning the same passing products of combustion through a contracted passage into an expansion chamber, expanding the products therein to at least five times their initial volume, then passing the expanded products into a reduction tube in contact with incandescent carbon on the walls thereof, and then injecting steam into said gases, substantially as described.

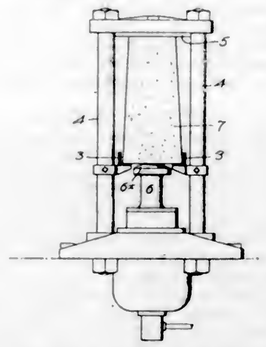
3. The method of making producer gas, consisting in injecting fuel in comminuted form by means of steam into a combustion chamber, supplying air thereto and burning the same passing the products of combustion through a contacted passage into an expansion chamber, then passing the products through a contracted passageway into another expansion chamber, expanding the gases a second time therein, then passing them through a reducing channel of relatively small area in contact with incandescent carbon on the walls thereof, substantially as described.

4. The method of making producer gas, consisting in injecting fuel in comminuted form by means of steam into a combustion chamber, supplying air thereto and burning the same, passing the products of combustion through a contracted passage into an expansion chamber, then passing the products through a contracted passageway into another expansion chamber, expanding the gases a second time therein, then passing them through a reducing channel of relatively small area in contact with incandescent carbon on the walls thereof, and then injecting steam into said gases, substantially as described.

5. The method of making producer gas, consisting in atomizing oil by steam injector action within a combustion chamber, supplying air thereto and burning the same passing the products through a contracted channel into an expansion chamber, expanding the gases therein, and then feeding them through a reducing tube of relatively small area and in contact with incandescent carbon on the walls thereof, and then introducing steam into said products, substantially as described.

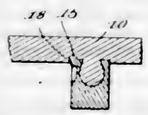
[Claims 6 to 9 not printed in the Gazette.]

1,130,513. PROCESS OF TREATING INGOTS. HIRAM W. HIXON, Philadelphia, Pa. Filed Apr. 9, 1914. Serial No. 830,726. (Cl. 29—148.)



The herein described process of treating ingots, which consists in compressing the opposite ends of the ingot after the outer portions of the ingot have solidified and while the interior portion is in a liquid state.

1,130,514. HORSESHOE. GEORGE E. HOWE, East Smethport, Pa., assignor of one-half to Ellis J. Janowitz, Buffalo, N. Y. Filed Oct. 27, 1913. Serial No. 797,637. (Cl. 168—25.)



1. A horse shoe having a rib formed thereon and being provided with a depression adjacent said rib, and a calk mounted on the rib, said calk having an inwardly directed slot formed in one side face thereof in alinement with said depression and providing a horizontally arranged shoulder at the inner extremity of the slot whereby a tool may be engaged with said shoulder to force the metal of the calk adjacent said depression into locking engagement within the depression.

2. A horse shoe including a body portion of substantially uniform thickness throughout its entire area, the said body portion at the toe having an upstanding rib formed thereon and having a slot formed in the adjacent face thereof upon each side of said rib, the said slots opening through the outer edge of the shoe and said shoe having a recess formed therein medially of said rib, and a calk arranged upon said rib and engaging within said slots, the said calk being disposed entirely within the lines of the body portion of the shoe and having a vertically disposed slot formed in one side face thereof terminating at its inner extremity in a horizontally arranged shoulder whereby a punch or other tool may be readily engaged with said shoulder to force the metal of the calk into locking engagement within the recess formed in the shoe.

1,130,515. SURFACE-FINISHING MACHINE FOR PAPER. HENRY P. HOWE, Holyoke, Mass., assignor to American Writing Paper Company, Holyoke, Mass., a Corporation of New Jersey. Filed Mar. 16, 1914. Serial No. 824,847. (Cl. 92—68.)



1. In a surface finishing machine for paper, a plurality of sets of rotative cylinders, those of each set being circumferentially contiguous one to another and having coöperative surface-finishing peripheral faces comprising circumferential portions of the cylinders and reduced and non-coacting parts comprising other circumferential portions of the cylinders, the coöperative surface finishing faces of one set of the cylinders being effective for imparting the surface finishing of the running web of paper in separated portions in the length thereof, while the succeeding set of the cylinders have their coöperative faces so relatively positioned that they impart the surface finishing to the portions of the web which are intermediate between the portions of the web finished by the portion finished by preceding set of cylinders.

2. In a surface finishing machine for paper, a plurality of sets of rotative cylinders, each set comprising in its perimeter coöperative peripheral surface-finishing faces and circumferentially reduced and non-coacting portions, the cylinders of one set having their coöperative peripheral faces all at the same sides of such cylinders while the cooperative faces of the cylinders of the other set are in a reversed relation to the corresponding faces of the cylinders of the first set.

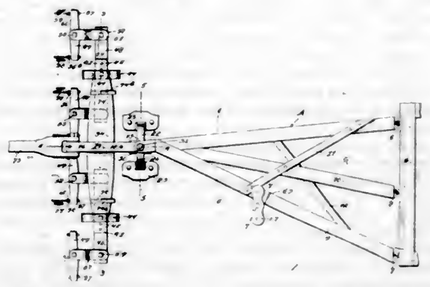
3. In a surface finishing machine for paper, a plurality of sets of cylinders, those of each set having coöperative surface finishing peripheral faces comprising circumferential portions of the cylinders and reduced and non-coacting parts comprising other circumferential portions of the cylinders, the coöperative surface finishing faces of one set of the cylinders being effective for imparting the surface finishing of the running web of paper in separated portions in the length thereof, while the succeeding set of the cylinders have their coöperative faces so relatively positioned that they impart the surface finishing to the portions of the web which are intermediate between the portions finished by the preceding set of cylinders, means for maintaining the cylinders with their coöperative faces in pressure bearing relations, and spring means for preventing the cylinders from approaching one another while the reduced portions thereof are in conjunction.

4. In a surface finishing machine for paper, a plurality of sets of rotative cylinders, each set comprising in its perimeter coöperative peripheral surface-finishing faces and circumferentially reduced and non-coacting portions, the cylinders of one set having their coöperative peripheral faces all at the same sides of such cylinders while the coöperative faces of the cylinders of the other set are in a reversed relation to the corresponding faces of the cylinders of the first set, movable journal boxes for the cylinders, and springs between, and exerting separating pressures against, the adjacent boxes.

5. In a surface finishing machine for paper, a plurality of sets of rotative cylinders, each set comprising in its perimeter peripheral portions and circumferentially reduced portions, the full or peripheral portions of the cylinders being overlaid by a covering of surface finishing sheet material, which is extended to within the said reduced portions, and means within said reduced portions and with which the opposite ends of the sheet material are connected for tensioning the latter,—the cylinders of the one set having their coperative peripheral faces all at the same sides of such cylinders while the coöperative faces of the cylinders of the next set are in a reversed relation to the corresponding faces of the cylinders of the first set.

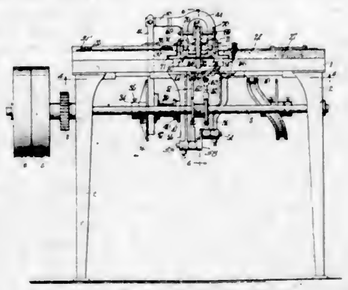
[Claims 6 to 21 not printed in the Gazette.]

1,130,516. DRAFT APPLIANCE. HIRAM C. HUFF, Vegreville, Alberta, Canada. Filed Mar. 2, 1912. Serial No. 681,084. (Cl. 21—189.)



In a draft appliance, the combination with a front end sill; of a main tongue connected to said sill adjacent one end thereof, a brace connecting the free end of the tongue with the opposite end of the sill, said tongue and brace being arranged for vertical swinging movement, a bearing fixed to the tongue and brace and extending vertically up the front ends of said tongue and brace, an extension tongue secured to said bearing for horizontal swinging movement, an evener carried by the extension tongue, and a draft pole pivoted to the extension tongue for vertical swinging movement.

1,130,517. MACHINE FOR CUTTING AND PASTING STAMPS TO CIGARETTE-BOXES OR ANY OTHER PACKAGES. JOSÉ IBARRA, Habana, Cuba. Filed Sept. 20, 1911. Serial No. 650,399. (Cl. 216—51.)



1. A machine as characterized, comprising a conveying mechanism operating intermittently from a receiving station toward a delivery station; a receptacle for holding boxes in column form; a receptacle for holding individual stamps associated in sheet form; means for transferring said boxes successively from said receptacle to said receiving station; means for separating said stamps successively; means for delivering said stamps in the path of said boxes intermediate said receptacle and said receiving station; means for folding the ends of said stamps over said boxes, embodying plates forming the boundaries of said receiving station, and means for disposing said

plates in superposed and contactual relation with said boxes and interposed ends of said stamps; and means for moistening said stamps prior to delivery thereof in the path of said boxes.

2. A machine as characterized, comprising a conveying mechanism operating intermittently from a receiving station toward a delivery station; a receptacle for holding boxes in column form; a receptacle for holding individual stamps associated in sheet form; means for transferring said boxes successively from said receptacle to said receiving station; means for separating said stamps successively; means for delivering said stamps in the path of said boxes intermediate said receptacle and said receiving station; means for turning the ends of said stamps upward to surround the edges of said boxes, said means embodying plates forming the boundary of said receiving station; means for overturning one of the ends of each of said stamps, embodying rollers and means for advancing the same over said boxes and interposed ends of said stamps prior to the engagement of said boxes by said conveying mechanism; and means for moistening said stamps prior to delivery of the same in the path of said boxes.

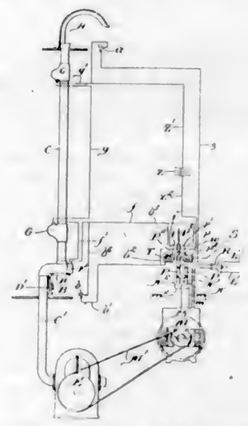
3. A machine as characterized, comprising a conveying mechanism operating intermittently from a receiving station toward a delivery station; a receptacle for holding boxes in column form; a receptacle for holding individual stamps associated in sheet form; means for transferring said boxes successively from said receptacle to said receiving station; means for separating said stamps successively; means for delivering said stamps in the path of said boxes intermediate said receptacle and said receiving station; means for folding the ends of said stamps in parallel relation to the edges of said boxes and upon the upper side of said boxes successively, said means embodying a stationary plate and a movable plate, said plates forming the boundary of said receiving station; and an operating mechanism for said movable plate to move the same toward said delivery station, said stationary plate being adapted for extension above, while in contact with, said boxes and stamped ends interposed therebetween.

4. A machine as characterized, comprising a conveying mechanism operating intermittently from a receiving station toward a delivery station; a receptacle for holding boxes in column form; a receptacle for holding individual stamps associated in sheet form; means for delivering boxes successively from said receptacle to said receiving station, said means embodying a movable push-block operable in a plane coincident with the lowermost box of said column, a plurality of hook-ended side bars disposed in the same plane and in advance of said block, and yielding means for said side bars to normally hold the hook ends thereof at a distance from said blocks less than the width of said boxes; means for separating said stamps successively; means for delivering said stamps in the path of said boxes intermediate said receptacle and said receiving station; means for folding the ends of said stamps over said boxes after placement of said boxes at said receiving station; and means for moistening said stamps prior to delivery in the path of said boxes.

5. A machine as characterized, comprising a conveying mechanism operating intermittently from a receiving station toward a delivery station; a receptacle for holding boxes in column form; a receptacle for holding individual stamps associated in sheet form; means for delivering boxes successively from said receptacle to said receiving station, said means embodying a movable push-block operable in a plane coincident with the lowermost box of said column, a plurality of hook-ended side bars disposed in the same plane and in advance of said block, and yielding means for said side bars to normally hold the hook ends thereof at a distance from said blocks less than the width of said boxes; means for separating said stamps successively, said means embodying a feeding mechanism operating to deliver said sheets step by step toward the path of said conveying mechanism; means for delivering said stamps in the path of said boxes intermediate said receptacle and said receiving station; means for folding the ends of said stamps over said boxes after placement of said boxes at said receiving station; and means for moistening said stamps prior to delivery in the path of said boxes.

[Claims 6 to 8 not printed in the Gazette.]

1,130,518. PNEUMATIC-DESPATCH-TUBE APPARATUS. CHESTER SNOW JENNINGS, Boston, Mass., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass., a Corporation of Delaware. Filed June 27, 1907. Serial No. 381,028. (Cl. 243—7.)



1. In a pneumatic despatch tube apparatus, a single tube for the transmission of carriers in either direction, stations located at opposite ends of the tube, an air pump connected with said tube adjacent one of said stations, a motor for driving said pump, a motor controlling device, means located at one of said stations for controlling said motor controlling device to start the motor in one direction, means located at the other station for controlling said motor controlling device to start the motor in the opposite direction, and means for automatically stopping said motor upon the arrival of the carrier at one of said stations, said motor stopping means including a trip projecting into said tube and means co-acting with said trip for rendering a movement thereof, by a passing carrier, idle when said carrier is traveling in one direction and operative when the carrier is moving in an opposite direction.

2. In a pneumatic despatch tube appartus, a tube for the transmission of carriers in either direction, said tube provided at an orifice thereof with a closure having a bias for normally closing said orifice, a latch for locking said closure in its closed position, means for actuating said latch, an air pump, a motor for driving said pump, and means co-acting with said latch actuating means for starting said motor when said latch actuating means are rendered operative to dispose said latch in its locking position.

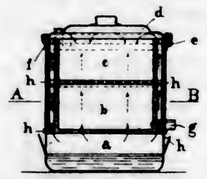
3. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers in either direction, stations located substantially at orifices of said tube, an air pump connected with said tube, connections leading from said pump to a point in said tube adjacent one of said stations, a motor for driving said pump, a controlling device for said motor and pump, means, a controlling part of which is located at one of said stations, for causing said motor to drive said pump in one direction, means, a controlling part of which is located at another of said stations, for causing said motor to drive said pump in an opposite direction, said motor controlling device comprising movable parts all of which are normally movable solely by said last two mentioned means, said controlling parts located at said stations each having a bias for a determined position thereof and being respectively adapted to exercise control of said motor and pump in manner aforesaid only when moved out of said position, said apparatus having provisions for causing said motor to continue to drive in whichever direction it has been started at least until the delivery of the carrier being propelled by the air current through said tube resulting from such driving of the motor, said controlling parts being each free to return to their respective determined positions aforesaid, after being actuated, while leaving the motor and pump subject to said provisions.

4. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers in either direction, said tube provided at an orifice thereof with a closure having a bias for normally closing said orifice, a positively acting member for locking said closure in its closed position, means for actuating said positively acting member, an air pump, a motor for driving said pump, and means co-acting with said actuating means for starting said motor when said positively acting means is disposed in its locking position.

5. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers in either direction, said tube provided at an orifice thereof through which carriers emerge, with a closure having a bias for normally closing said orifice, a movable part adapted to retain said closure in its closed position against pressure exerted in said tube tending to open said closure when a carrier is being transmitted through said tube away from said orifice, said part having a tendency for movement into a position to free said closure, whereby the emergence of a carrier traveling toward said orifice may be substantially unimpeded, means for holding said part in engagement with said closure, and means for establishing a carrier propelling current of air in either direction through said tube, said holding means being operative only when said last mentioned means is operative to establish said current of air in a direction to transmit a carrier away from said orifice.

[Claim 6 not printed in the Gazette.]

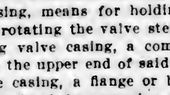
1,130,519. APPARATUS FOR USE IN EXTRACTING FRUIT-JUICES AND COMPRISING VESSELS FOR RECEIVING THE FRUIT AND THE JUICE. HERMANN ADOLF KELLER, Frankfort-on-the-Main, Germany. Filed Mar. 24, 1914. Serial No. 826,984. (Cl. 53—1.)



A vessel for extracting fruit juices, comprising double walled vessels for the fruit and juice, the vessels being superposed and fitting one into the other, the vessel for the fruit having a perforated bottom, a cover on the vessel for the fruit, a removable ring on said vessel, hinged locking members on said ring, said locking members being adapted to lock the lid in position, and a steam generator, the space between the double walls providing communication from the steam generator to the cover.

1,130,520. CURTAINLESS SHOWER-BATH. ANDREW E. KENNEY, North Plainfield, N. J. Filed Aug. 20, 1913. Serial No. 785,631. (Cl. 4—26.)

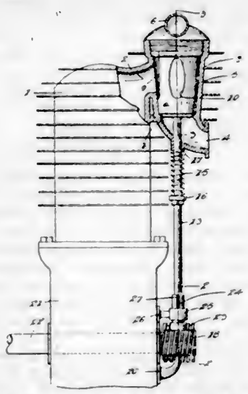
1. In a shower bath, a tub, a water faucet having a vertically disposed portion, a supporting member, having a clamping surface on one of its side edges adapted to engage the vertically disposed portion of the faucet, and having a vertically disposed socket in its upper surface, a nipple extending from the lower surface of the supporting member and communicating with the socket, an upright tube, seated in said socket, provided with a sprinkler head, a water connection between the faucet and the nipple, a clamping bar also engaging the vertically disposed portion of the faucet, and means for securing the supporting member and clamping bar together.



2. In a shower bath, a tub, a water faucet having a vertically disposed portion, a supporting member having a vertically disposed socket in its upper surface, a nipple extending from the lower surface of the supporting member and communicating with the socket, an upright tube seated in the socket and provided with a sprinkler head, a water connection between the faucet and the nipple, and means for clamping the supporting member on the vertically disposed portion of the faucet aforesaid.

3. In a shower bath, a clamp comprising two members having two complementary edge surfaces adapted to clamp a vertically disposed faucet, and means for securing said members together, a support extending forwardly from one of said members having a socket in its upper surface, and a nipple on the lower surface of said support communicating with said socket.

1,130,521. ROTARY VALVE. JACOB P. KING, Philadelphia, Pa. Filed July 25, 1914. Serial No. 853,200. (Cl. 123—190.)



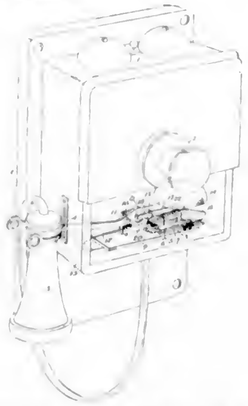
1. A rotary valve comprising a tapering casing, a valve head mounted in the casing and provided with a flange or bead at its upper edge, said valve head having an inlet opening extending from the upper edge downward, and an exhaust port extending inward at a point below the upper edge of the valve head and opening out into an exhaust port in the casing, means for holding the valve seated, and means for rotating the valve stem and valve.

2. A tapering valve casing, a combined cap and inlet pipe for closing the upper end of said casing, a valve head mounted in the casing, a flange or bead upon the upper end of the valve head for engaging a corresponding surface on the inner wall of the casing, said valve head having a bevel upon its lower end to fit a corresponding bead in the casing, a valve stem connected to said head, said valve head having an inlet and an outlet port, and means for rotating said valve stem.

1,130,522. PARTY-LINE LISTENING-IN-DETECTING DEVICE. CHRISTOPH ANTON KRAMER, Spokane, Wash. Filed Mar. 6, 1914. Serial No. 822,884. (Cl. 179—28.)

1. In a listening-in detecting device, the combination of a transmitter, a receiver, a receiver-holding means includ-

ing a pivoted element, a lever, a lost motion connection between the lever and element, a hammer pivotally carried by the said lever, a bell arranged to be struck by the hammer, and spring means for actuating the lever after the same has received an initial movement by the said element, whereby the spring means causes the striking stroke of the hammer.



2. In a listening-in detecting device, the combination of a telephone transmitter, a receiver, a receiver-holding means, an element associated with and receiving an initial movement from the holding means, a hammer on said element, a bell arranged to be struck by the hammer, and means for imparting a final sudden movement to the said element after the same starts to move by the said holding means, whereby such sudden movement imparts momentum to the hammer to strike the bell.

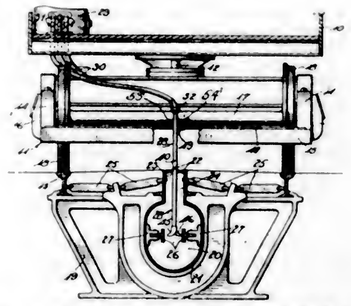
3. In a listening-in detecting device, the combination of a telephone transmitter, a bell associated therewith to receive sound vibrations from the bell, a swinging element, a hammer carried by and loosely mounted on the element, a spring connected with the element to normally hold the latter in a position with the hammer retracted from the bell, said spring acting as an actuator for the hammer-carrying element after the hammer has moved a predetermined extent, and a movable telephone receiver holder for imparting an initial movement to the said element to a point where the said spring becomes operative as an actuator for the said element.

4. In a listening in detecting device, the combination of a telephone transmitter, a bell associated therewith, a receiver fork, members on the said fork, a pivoted lever having one extremity disposed between the members whereby the lever is initially moved by one member or the other as the receiver fork moves to and from normal position, means operating on the lever to hold the same in either extreme position and to actuate the lever after the same has been moved by the members of the fork to a predetermined position, and a hammer pivotally mounted on the lever and arranged to strike the said bell.

1,130,523. DEVICE FOR REMOVING SNOW, ICE, AND SLEET FROM CHANNELS AND CHANNEL-RAILS OF UNDERGROUND RAILWAYS. FRANK J. KROHOTH, New York, N. Y. Filed Nov. 5, 1914. Serial No. 870,503. (Cl. 104—103.)

1. A device for removing snow, ice and sleet from channels and channel rails of underground railways, comprising a fitting having a plurality of passages with independent exhaust nozzles, one of which is adapted to be directed between the channels of such system through the slot thereof and the others of which are adapted to discharge against the conductor rails.

2. A device for removing snow, ice and sleet from channels and channel rails of underground railways, comprising a fitting having a plurality of passages with independent exhaust nozzles, one of which is adapted to be directed between the channels of such system through the slot thereof and the others of which are adapted to discharge against the conductor rails and a source of steam supply for said passages with means to independently control the same.



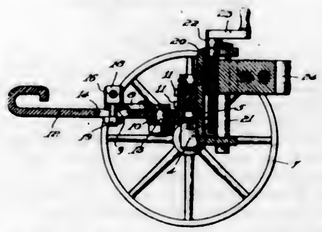
3. A device of the class described, comprising a fitting having a plurality of series of passages therethrough, independent inlets for each series of passages for the discharge of steam therethrough, one series of passages having a discharge nozzle forming a part of the fitting, located intermediate the ends thereof, and the bottom portion of the fitting being provided with oppositely projecting nozzles communicating with the other series of passages.

4. A device of the class described, embodying a fitting formed of a casting of tough malleable material with incased passages having independent inlets and outlets at the upper and lower ends thereof respectively and castings at said ends, the castings at the upper ends having means for the attachment of pipes thereto and the castings at the lower ends having discharge nozzles.

5. A device for removing ice and the like from the channels and channel rails of underground railway systems, comprising a relatively flat fitting having a plurality of independent passages therethrough with separate discharge nozzles, one nozzle being designed to discharge into the slot of the channel and the other nozzles being designer to discharge into the channel and against the conductor rails therein.

[Claims 6 to 8 not printed in the Gazette.]

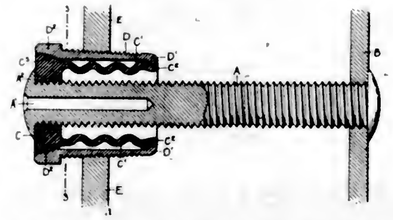
1,130,524. PLOW. MICHAEL KUNIK, Chicago, Ill. Filed Nov. 12, 1913. Serial No. 800,475. (Cl. 97—36.)



1. A device of the kind described comprising a frame; plows carried by said frame; an axle at the forward end of said frame; steering knuckles pivoted to said frame; steering wheels journaled on said knuckles; a connecting link connecting said steering knuckles and provided with a longitudinal slot therein; a tongue pivoted on said front axle and having a longitudinal slot therein; the slot in said connecting link being disposed across the slot in said tongue; a pin passing through said slots; and an adjusting screw mounted on said connecting link and threaded through said pin, substantially as described.

2. A device of the kind described comprising a plow frame; a front axle secured to said frame and having steering knuckles thereon; a connecting link connecting said steering knuckles, there being a slot in said connecting link; bearings on said connecting link at the ends of the slot in the latter; a tongue pivoted to said front axle and having a slot therein crossing the slot of said link; a pin passing through said slots and having an enlargement at its upper end; a nut threaded on the lower end of said pin below said tongue; and a screw journaled in said bearings and threaded in the enlargement of said pin, substantially as described.

1,130,525. STAY-BOLT FOR BOILERS. HARRY ANTHONY LACERDA, Schenectady, N. Y. Filed Jan. 2, 1915. Serial No. 115. (Cl. 85—1.5.)



1. A stay bolt for boilers and like structures, comprising a bolt, a plug and a sleeve nut screwing on the said bolt and having at one end a ball and socket joint with the corresponding end of the plug and having its other end rigidly connected to the other end of the plug.

2. A stay bolt for boilers and like structures, comprising a bolt adapted to be held on one boiler sheet, a tubular plug adapted to screw in the other boiler sheet and having a ball and socket at its outer end and a sleeve nut extending within the said plug and engaging the said bolt, the said sleeve nut having a ball at its outer end seated on the said socket and having its inner end rigidly connected with the inner end of the said plug.

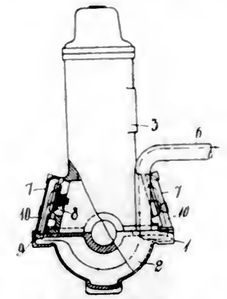
3. A stay bolt, a tubular plug and a sleeve nut extending within the said tubular plug, the said sleeve nut having its sleeve portion spaced from the plug, and having its inner end rigidly connected with the inner end of the plug, the outer end of the sleeve nut forming with the other end of the said plug a ball and socket joint.

4. In a stay bolt, a tubular plug and a sleeve nut extending within the said tubular plug, the said sleeve nut having its sleeve portion spaced from the plug and corrugated in a direction transverse to the axis of the stay bolt, the inner end of the said sleeve nut being rigidly connected with the inner end of the said plug, and the outer end of the sleeve nut engaging the stay bolt and being seated on the outer end of the said plug.

5. In a stay bolt, a tubular plug, and a sleeve nut extending within the said tubular plug, the said sleeve nut having its sleeve portion spaced from the plug and corrugated in a direction transverse to the axis of the stay bolt, the inner end of the said sleeve nut being rigidly connected with the inner end of the said plug, the outer end of the said sleeve nut screwing on the stay bolt and having a ball and socket joint connection with the outer end of the said plug.

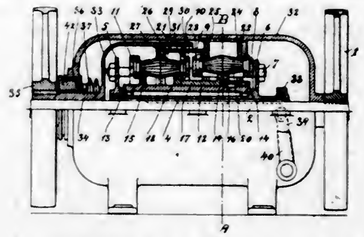
1,130,526. INTERNAL-COMBUSTION ENGINE. LAURENTIUS LAURIN, Lysekil, Sweden. Filed June 24, 1914. Serial No. 847,026. (Cl. 123—73.)

An internal-combustion engine of the kind set forth, comprising a lower part having a wall in which is a cavity, an upper part, a suction valve located in the upper part, and a protective cover spaced from said valve; the lower part being provided with a hollow flange to which the upper part is secured; the cavity in said flange connecting the cavity in the wall of the lower part with the space between the suction valve and its



protective cover, and the cavity in said wall being in open communication with the atmosphere.

1,130,527. FRICTION-GEARING. JENS CHRISTIAN MARTINS, Copenhagen, Denmark, assignor to Transmission Akts., Copenhagen, Denmark. Filed Aug. 25, 1913. Serial No. 786,516. (Cl. 74—26.)

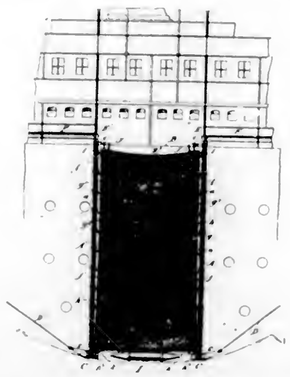


1. A friction gearing comprising a shaft, a planet wheel carrier slidably keyed thereon, two sets of double conical bodies acting as planet wheels, two connected sets of mutual non-rotatable but revoluble flanges adapted to be in frictional contact with said double conical bodies, a pair of non-rotatable and non-revoluble outer rings adapted to coact with one set of said double conical bodies, a driven shaft, and a set of outer rings connected therewith and adapted to frictionally engage the other set of said double conical bodies.

2. A friction gearing comprising a shaft, a planet wheel carrier slidably keyed thereon, two sets of double conical bodies acting as planet wheels, two connected sets of mutually non-rotatable but revoluble flanges adapted to be in frictional contact with said double conical bodies, a pair of non-rotatable outer rings, non-revolubly but relatively movable axially, adapted to coact with one set of said double conical bodies, a driven shaft, and a set of outer rings connected therewith but relatively movable axially, and adapted to frictionally engage the other set of said double conical bodies, the two axially movable rings having connections to cause them to move together.

3. A friction gearing comprising a shaft, a planet wheel carrier slidably keyed thereon, two sets of double conical bodies acting as planet wheels, said double conical bodies being movable radially and axially on said carriers, two connected sets of mutual non-rotatable but revoluble flanges adapted to be in frictional contact with said double conical bodies, a pair of non-rotatable outer rings, non-revoluble but relatively movable axially, adapted to coact with one set of said double conical bodies, a driven shaft, and a set of outer rings connected therewith but relatively movable axially, and adapted to frictionally engage the other set of said double conical bodies, the two axially movable rings having connections to cause them to move together.

1,130,528. LIFE-SAVING APPARATUS. ARTHUR N. MCGRAY, New York, N. Y. Filed Dec. 3, 1913. Serial No. 804,373. (Cl. 9—14.)



1. The combination of a ship, with an apparatus for the embarking and disembarking of passengers, said apparatus comprising a pair of booms held a fixed distance apart at their inboard ends on the ship and free to rise and fall at their outer ends independently of each other by the motion of the waves, means between the ship and booms for preventing lateral swinging thereof while permitting swinging up and down in a vertical plane, and a device carried by the booms to form a way on which persons can walk in embarking and disembarking.

2. The combination of a ship, with an apparatus for the embarking and disembarking of passengers, said apparatus comprising a pair of booms held a fixed distance apart at their inboard ends on the ship and free to rise and fall at their outer ends independently of each other by the motion of the waves, means between the ship and booms for preventing lateral swinging thereof while permitting swinging up and down in a vertical plane, a device carried by the boom to form a way on which persons can walk in embarking and disembarking, and means connected with the outer ends of the booms for rendering the same buoyant.

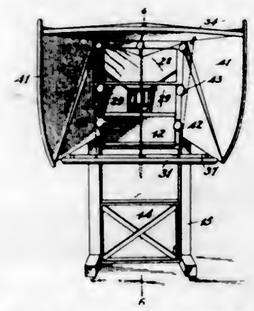
3. The combination of a ship, with an apparatus for permitting persons to embark and disembark, said apparatus comprising a pair of booms, means for connecting the inboard ends of the booms with the side of the ship and in spaced relation and permitting the booms to swing up and down on the inboard ends as centers, buoyant means on the outboard ends of the booms, and a net carried by the booms and including transverse members spaced apart whereby the net is supported in a manner approximating steps for facilitating the movement of persons in embarking and disembarking.

4. The combination of a ship, with a life saving apparatus, said apparatus comprising an inclined way having its inboard end movably connected with the side of the ship adjacent the main deck thereof, means on the outboard end for rendering the same buoyant, said means including a landing to which life boats may be moored, and fore and aft guys connected with the outboard ends of the said inclined way and connected with the ship at points fore and aft of the inboard end of the inclined way, said way including booms which rise and fall with the waves of the water and maintain the said landing from the ship to the ship.

5. The combination of a ship, with a life saving apparatus, said apparatus comprising an inclined way having its inboard end movably connected with the side of the ship adjacent the main deck thereof, means on the outboard end for rendering the same buoyant, said means including a landing to which life boats may be moored, fore and aft guys connected with the outboard ends of the said inclined way and connected with the ship at points fore and aft of the inboard end of the inclined way, and a topping lift connected with the outer end of the inclined way and with the ship for hauling up the inclined way.

[Claims 6 to 19 not printed in the Gazette.]

1,130,529. FLASH-LIGHT. WALTER S. MCGUIRE, Shadyside, Ohio. Filed May 18, 1914. Serial No. 839,310. (Cl. 67—30.)



1. In a flash light, a cabinet having a glass front; a partition in said cabinet dividing the same into two chambers, a lower one and an upper one; means for producing a flash in the lower chamber; ventilating means associated with the upper chamber for eliminating the product of combustion produced by the flash; mirrors within the cabinet for directing the light produced by the flash through the glass front; and movable screens associated with the glass front for varying the intensity of the light produced by the flash.

2. In a flash light, a cabinet having a glass front; a partition within the cabinet dividing the same into an upper and a lower chamber; flash producing means in the lower chamber; ventilating means associated with the upper chamber for eliminating the products of combustion due to the setting off of the flash; means controlling the ventilating means, becoming operable when the flash is set off; reflectors within the cabinet for directing the light to the glass front; movable screens associated with the glass front for varying the intensity of the light; and canvas reflectors associated with said screen and glass front substantially as and for the purpose set forth.

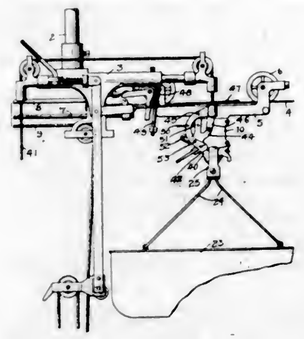
3. In a flash light, a cabinet having a glass front; means for setting off a flash in the cabinet; mirrors for directing the light of the flash through the glass front; a white reflector adjustably mounted on the top of the cabinet; a screen associated with the glass front; a second adjustable screen associated with the cabinet and the white reflector; adjustable shade screens positioned between the said screens; and side reflectors for closing the space between the screens, the reflector and the glass front.

4. In a flash light, a cabinet having a glass front; means for the setting off of a flash in the cabinet; mirrors for directing the light of the flash through the glass front; a white reflector extending from the top of the cabinet over the front of the same; means for varying the angle the said reflector makes with the front; an adjustable screen mounted at the glass front of the cabinet; a second adjustable screen in front of the first and spaced therefrom; shade screens between the said screens; and side white reflectors for closing the space between the front top reflector and the screens.

5. In a flash light, a cabinet having a glass front; means for setting off a flash in the cabinet; mirrors within the cabinet for directing the light to the glass front; means for varying the effect and intensity of the light coming from the cabinet; and lamps positioned on the exterior side of the glass front and inclosed within said means for varying the light coming from the cabinet, whereby the desired light effect of the flash is gaged from said lamps.

[Claims 6 to 10 not printed in the Gazette.]

1,130,530. PACKAGE-CARRIER. CHARLES J. MILLER, Minneapolis, Minn., assignor, by mesne assignments, to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Mar. 3, 1911, Serial No. 612,158. Renewed Mar. 24, 1914. Serial No. 827,012. (Cl. 186—29.)



1. A store service carrier having a locking member in combination with a basket, also having a locking member, a lever pivoted at a point intermediate to its ends in one of said members, means yieldingly engaging the lower end of said lever and operating to center it in the member wherein it is pivoted, means on the other member operating to engage and lock said lever on the initial raising and releasing of said basket, said means also operating to release said lever when said basket is raised a second time.

2. A store service carrier having a locking head in combination with a basket having a shank to enter said head, a lever pivoted at a point intermediate to its ends in said shank, means yieldingly engaging said lever and operating to center it in said shank, means operating to engage and lock said lever on the initial raising and releasing of said basket, and means also operating to release said lever when said basket is raised a second time.

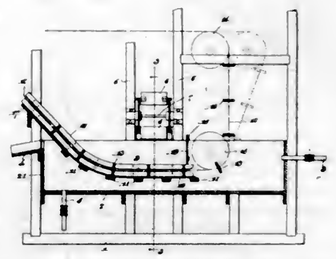
3. A store service carrier having a locking member in combination with a basket also having a locking member, a lever pivoted in one of said members, the upper end of said lever having laterally projecting pins, bosses mounted in the walls of one of said members in the path of said pins, said bosses operating to engage and limit the upward movement of said lever and locking it against downward movement on the initial raising and releasing of said basket, said bosses also permitting the disengagement of said pins and lever therefrom when said basket is raised a second time.

4. A store service carrier having a locking head and a basket having a ball provided with means to enter said head, in combination with a hook having a part to engage said ball and raise or lower said basket, and means carried by said hook for temporarily preventing the disengagement of said hook from said ball, said means including a pivoted plate normally overhanging that portion of said hook which engages the basket ball.

5. A store service carrier having a locking box or head in combination with a basket having a shank to enter said head, an upright lever pivoted at a point intermediate to its ends in said shank, means yieldingly engaging the lower end of said lever and operating to center it in said shank, the upper end of said lever having laterally projecting pins, bosses mounted in the walls of said box in the path of said pins, said bosses operating to engage and limit the upward movement of said lever and lock it against downward movement on the initial raising and releasing of said basket, said bosses also permitting the disengagement of said pins and lever therefrom when said basket is raised a second time.

[Claims 6 to 17 not printed in the Gazette.]

1,130,531. WASHER. LUTHER O. MILLER, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Feb. 13, 1913. Serial No. 748,152. (Cl. 146—14.)



1. In a washer of the sort described, the combination of a trough adapted to be filled with water, and a conveyer movable through the trough and having flat flights perpendicular to the sides and bottom of the trough and with their edges closely adjacent thereto, each of the said flights having a large central aperture and being imperforate between its edges and the said aperture.

2. In a washer of the sort described, the combination of a trough having openings in its bottom, a tank inclosing the trough and adapted to be filled with water to a level as high as the top of the trough, and a conveyer movable through the trough and having flat flights perpendicular to the sides and bottom and with their edges closely adjacent thereto, each of these said flights having a large central aperture and being imperforate between its edges and the said aperture.

3. In a washer of the sort described, the combination of a trough having longitudinal slots in its bottom, a tank inclosing the trough and adapted to be filled with water to a level as high as the top of the trough, and a conveyer movable through the trough and having flat flights perpendicular to the sides and bottom of the trough and with their edges closely adjacent thereto, each of the said flights having a large central aperture and being imperforate between its edges and the said aperture.

4. In a washer of the sort described, the combination of a trough adapted to be filled with water and having longitudinal grooves in its side walls, and a conveyer movable through the trough and having chains positioned in the said grooves and flat flights perpendicular to the sides and bottom of the trough and with their edges closely adjacent thereto, each of the said flights having a large central aperture and being imperforate between its edges and the said aperture.

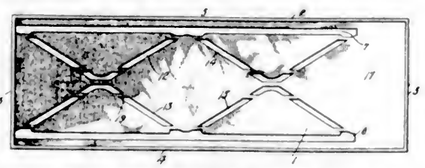
5. In a washer of the sort described, the combination of a trough adapted to be filled with water, a conveyer movable through the trough and having flat sides perpendicular to the sides and bottom of the trough and with their edges closely adjacent thereto, the spaces between the flights being exposed at their tops, and a feed conveyer for delivering articles to be washed to the water above the said exposed spaces, the said articles settling downward through the water into the said spaces.

[Claim 6 not printed in the Gazette.]

1,130,532. STATIONARY MORTAR-SPREADER. FRANKLIN H. NEUBERGER, Jeffersonville, N. Y. Filed Sept. 5, 1912, Serial No. 718,608. Renewed Dec. 31, 1914. Serial No. 879,960. (Cl. 72—128.)

1. In a mortar-spreader of the class described, a bottom formed with a plurality of spaced solid sections, connecting bars for connecting said sections so as to hold the same in correct positions, said connecting bars being of less thickness than the edges of said sections, whereby mortar passing through the slots between said sections will pass beneath said connecting bars and make a con-

tinuous mortar bed, and an outside body or frame connected with the end sections of said bottom.



2. In a mortar spreader of the class described, a bottom formed with a plurality of slots whereby the bottom is divided into solid sections, connecting bars for connecting said sections, an outside frame connected to the end sections of said bottom, said outside frame being formed with upwardly extending walls for preventing the spilling of mortar, and an end section arranged in line with said bottom for receiving the excess mortar from said bottom, whereby said excess mortar will not be spilled when moving the spreader from one position to another.

1,130,533. MANUFACTURE OF FURNACE TUBES OR CHAMBERS. RAOUL PIERRE PICTET, Walsall, England. Filed July 30, 1914. Serial No. 854,162. (Cl. 18—48.)

1. A process of making furnace chambers consisting in mixing powdered refractory materials with finely divided carbon produced by the dissociation of a hydrocarbon, making a paste of such mixture and shaping and subsequently firing the said paste in a non-oxidizing atmosphere.

2. A process of making furnace chambers consisting in mixing powdered refractory oxids with finely divided carbon produced by the dissociation of a hydrocarbon, making a paste of such mixture and shaping and subsequently firing the said paste in a non-oxidizing atmosphere.

3. A process of making furnace chambers consisting in mixing powdered refractory materials with finely divided carbon produced by the dissociation of methane, making a paste of such mixture and shaping and subsequently firing the said paste in a non-oxidizing atmosphere.

4. A process of making furnace chambers consisting in mixing powdered refractory materials with finely divided carbon produced by the dissociation of a hydrocarbon, making a paste of such mixture and shaping and subsequently firing the said paste in a non-oxidizing atmosphere to such a temperature that it softens without deformation.

5. A process of making furnace chambers, consisting in mixing powdered refractory materials with finely divided carbon produced by the dissociation of a hydrocarbon, making a paste of such mixture and shaping and subsequently heating the said paste to incipient fusion in a non-oxidizing atmosphere.

1,130,534. CLOTHES-LINE SUPPORT. JOHN THOMAS PILKINGTON, Enderby, British Columbia, Canada, assignor of one-third to Patrick Henry Murphy, Enderby, British Columbia, Canada. Filed July 5, 1913. Serial No. 777,596. Renewed July 23, 1914. Serial No. 852,760. (Cl. 68—12.)



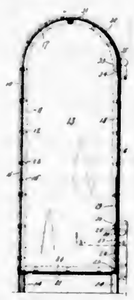
1. A clothes line support, comprising an arm, a pulley thereon to receive a clothes line, said arm being mounted to turn on a horizontal pivot and subject to sag in the line to swing downwardly under the weight of clothes on said line, to dispose the pulley at a desired angle in response to the sagging of the line, and a brace arm pivoted to swing in a vertical plane and movably engaging with the pulley-supporting arm to accommodate itself to a downward movement of the latter.

2. In a clothes line support, a pulley-carrying arm, a pulley thereon, a rack on the upper side of the arm, the said arm being pivoted to assume a downward inclination, and an arm above the pulley-supporting arm, pivoted at one end to rock in a vertical plane, the free end of the second mentioned arm engaging the rack on the pulley-supporting arm.

3. In a clothes line support, a vertical pin, securing devices for the pin, clips on the pin at its upper and lower ends respectively, a pulley-supporting arm pivotally connected with the lower clip to rock in a vertical plane, a brace arm pivoted to the upper clip to swing in a vertical plane, a pulley on the under side of the first arm, and a rack on the upper side of said arm, the brace arm extending diagonally downward and engaging by its free end with the said rack.

4. A clothes line and support comprising arms pivoted at one end to swing in a vertical plane, main pulleys on said arms near the free ends, an endless clothes line running around said pulleys, and guard pulleys carried by the pivoted arms to swing therewith, said guard pulleys turning on horizontal axes and said main pulleys turning in planes approximately at right angles to the planes in which the guard pulleys turn, said guard pulleys having their peripheries above and adjacent to the path of movement of the line and being positioned nearer the free ends of the arms than the first pulleys whereby to determine the point of bending of the line as the latter sags under the weight of clothes hung thereon.

1,130,535. GARBAGE-RECEPTACLE. RUDOLF PRIBIS, New York, N. Y., assignor of one-half to Stephen Vass, New York, N. Y. Filed July 7, 1914. Serial No. 849,530. (Cl. 220—115.)

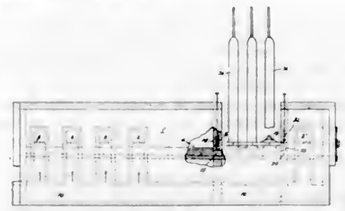


1. A garbage receptacle having a semi-cylindrical top and comprising front, rear, side and bottom sections, means for securing together said sections, said rear section having a curved upper portion forming the rear half of said semi-cylindrical top, a curved lid constituting the front half of said semi-cylindrical top hinged to said rear section and contacting with the top edge of said front section for closing a receiving opening, a discharge opening being formed between the lower edge of said front section and the front edge of said bottom section, means for closing said discharge opening, and guideways including resilient strips made integral with said front section and coöperating with the closing means for said discharge opening.

2. A garbage receptacle having a semi-cylindrical top and comprising front, rear, side and bottom sections, means for securing together said sections, said rear section having a curved upper portion forming the rear half of said semi-cylindrical top, a curved lid constituting the front half of said semi-cylindrical top hinged to said rear section and contacting with the top edge of said front section for closing a receiving opening, a discharge opening being formed between the lower edge of said front section and the front edge of said bottom section, and means for closing said discharge opening, the lower portion of said front section being set off to form a seat for the closing means of said discharge opening when the latter is open.

3. A garbage receptacle having a semi-cylindrical top and comprising front, rear, side and bottom sections, means for securing together said sections, said means comprising angle-irons uniting said side sections to said front and rear sections, said rear section having a curved upper portion forming the rear half of said semi-cylindrical top, a curved lid constituting the front half of said semi-cylindrical top hinged to said rear section and contacting with the top edge of said front section for closing a receiving opening, a discharge opening being formed between the lower edge of said front section and the front edge of said bottom section, and means for closing said discharge opening, the lower portion of said front section being set off to form a seat for the closing means of said discharge opening when the latter is open.

1,130,536. GLASS-FURNACE. JULES J. QUERTINMONT, Point Marion, Pa. Filed Aug. 2, 1913. Serial No. 782,655. (Cl. 49—56.)



1. A glass furnace comprising in a single structure or unit a melting furnace, a drawing tank directly connected with said melting furnace and adapted to directly receive the fluid glass from said melting furnace, and a reheating or auxiliary furnace directly connected with the drawing tank and arranged to directly receive the cooled glass from said drawing tank, the bottoms of said melting furnace, drawing tank and reheating furnace being in one plane and inclined downwardly from the melting furnace to the reheating furnace.

2. A glass furnace comprising in a single structure or unit a melting furnace, a divided drawing tank having separate and direct connections with said melting furnace and adapted to receive the fluid glass directly from said melting furnace, and a reheating or auxiliary furnace having separate and direct connections with the divided drawing tank and arranged to directly receive the cooled glass from said drawing tank, the bottoms of said melting furnace, drawing tank and reheating furnace being in one plane and inclined downwardly from the melting furnace to the reheating furnace.

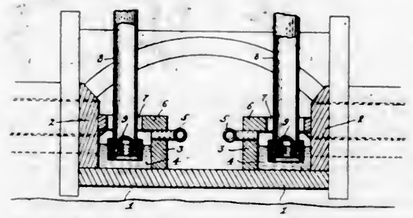
3. A glass furnace comprising in a single structure or unit a melting furnace, a drawing tank directly connected with said melting furnace and adapted to directly receive the fluid glass from said melting furnace and provided with openings on its upper side or top, floaters in said drawing tank, and a reheating or auxiliary furnace directly connected with the drawing tank and arranged to directly receive the cooled glass from said drawing tank, the bottoms of said melting furnace, drawing tank and reheating furnace being in one plane and inclined downwardly from the melting furnace to the reheating furnace.

4. A glass furnace comprising in a single structure or unit a melting furnace, a drawing tank directly connected with said melting furnace, and a reheating furnace directly connected with said drawing tank, the bottom of the melting furnace inclined toward the drawing tank, said melting furnace and drawing tank being separated by a wall having an opening whose upper edge or side is below the normal level of the molten glass flowing from the melting tank into the drawing tank, the bottoms of said melting furnace, drawing tank and reheating furnace, being in one plane and inclined downwardly from the melting furnace to the reheating furnace.

5. A glass furnace comprising in a single structure or unit a melting furnace, a divided drawing tank directly connected with said melting furnace having openings on its upper side adapted to receive the bait, and a reheating furnace directly connected with said drawing tank, the bottom of the melting furnace inclined toward the drawing tank, said melting furnace and drawing tank being separated by a wall having an opening whose upper edge or side is below the normal level of the molten glass flowing from the melting tank into the drawing tank, the bottoms of said melting furnace, drawing tank and reheating furnace being in one plane and inclined downwardly from the melting furnace to the reheating furnace.

[Claim 6 not printed in the Gazette.]

1,130,537. FLOATER OR GLASS-DRAWING RING. JULES J. QUERTINMONT, Point Marion, Pa. Original application filed Aug. 2, 1913. Serial No. 782,655. Divided and this application filed Apr. 20, 1914. Serial No. 833,131. (Cl. 49—61.)



1. A floater for glass furnace drawing tanks comprising a perforated bottom section, a single inner vertical wall and a single outer vertical wall separated from each other and extending upwardly from the upper side of and connected to the perforated bottom and of such relative dimensions as to project a substantial distance above the level of the glass in the tank, thereby forming a single pocket or trap for molten glass between said walls above the upper plane of the bottom and adapted to receive the molten glass under a substantial head.

2. A floater for glass furnace drawing tanks comprising an outer annular vertical section, an inner annular vertical section connected at its lower portion to the interior of the outer section by a perforated extension, thereby forming an annular pocket between said sections open at its top and partially closed at the bottom and a circular chamber within the inner section, the bottom of said annular pocket having communication with the outside of the bottom of the floater and the circular chamber formed by the inner section.

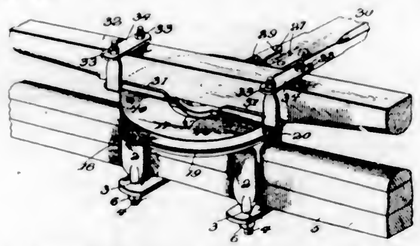
3. A floater for glass furnace drawing tanks comprising an outer vertical section, an inner vertical section, a horizontal section connecting the lower end of the inner section to the inner side of the outer section, a cover over the top portion of the inner section, thereby forming a pocket between said inner and outer sections open at its top and closed at the bottom, the bottom of said pocket having communication with the outside of the floater by means of perforations in the horizontal section of said floater.

4. A floater for glass furnace drawing tanks comprising an outer vertical section, an inner vertical section, a horizontal section connecting the lower end of the inner section to the inner side of the outer section, a cover over the top portion of the inner section, thereby forming a pocket between said inner and outer sections open at its top and closed at the bottom, the bottom of said pocket having communication with the outside of the floater by means of perforations in the inner vertical section of said floater.

5. A floater for glass furnace drawing tanks comprising an outer vertical section, an inner vertical section, a horizontal section connecting the lower end of the inner section to the inner side of the outer section, a removable cover over the top portion of the inner section, thereby forming a pocket between said inner and outer sections open at its top and closed at the bottom, the bottom of said pocket having communication with the outside of the floater by means of perforations in the horizontal section of said floater.

[Claims 6 and 7 not printed in the Gazette.]

1,130,538. FIFTH-WHEEL. HARVEY S. RADER, Palmerton, Pa. Filed Oct. 18, 1912. Serial No. 726,514. (Cl. 21—24.)

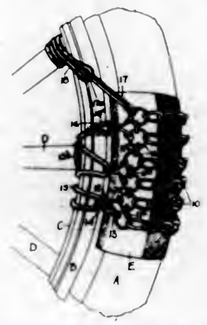


1. A fifth wheel comprising a lower plate for attachment to the axle of a vehicle, said plate having three concentric annular grooves in its upper surface, the middle groove constituting one part of a ball race and the grooves at either side of the ball race constituting packing grooves, said lower plate also having annular ribs at the outer edge of the packing outer groove, and at the inner edge of the inner packing groove an upper plate for attachment to the bolster of the vehicle, said upper plate having a groove in its under surface to complete the ball race, and flat portions extending across said annular ribs on the lower plate, and packing rings arranged in the grooves provided therefor and engaging said flat portions of the upper plate, the upper edges of the ribs on the lower plate being on a different level from the edges of the middle groove in said plate for effectively excluding dust from the ball race.

2. A fifth wheel comprising a lower plate for attachment to the axle of a vehicle, said plate having three concentric annular groove in its upper surface, the middle groove constituting one part of a ball race and the grooves at either side of the ball race constituting packing grooves, said lower plate also having annular ribs at the outer edge of the outer packing groove, and at the inner edge of the inner groove an upper plate having a groove in its under surface to complete the ball race, and flat portions extending across said annular ribs on the lower plate, said upper plate being designed to be attached to the bolster of the vehicle, and packing rings arranged in the grooves provided therefor, and engaging said flat portions of the upper plate, said ribs on the lower plate extending above the edges of the middle groove in said plate, whereby the working space between the two plates at the ball race and at the upper edges of said ribs break joints for effectively excluding dust from the ball race.

3. A fifth wheel comprising a lower plate for attachment to the axle of a vehicle, said plate having three concentric annular grooves in its upper surface, the middle groove constituting one part of a ball race and the grooves at either side of the ball race constituting packing grooves, said lower plate also having annular ribs at the edges of the packing grooves, an upper plate having a groove in its under surface to complete the ball race, said upper plate being designed to be attached to the bolster of the vehicle and having a depending peripheral flange fitting down around the periphery of the lower plate, means of connection between said flange and the lower plate, and packing rings in the grooves provided therefor, the rib nearer the periphery of said lower plate having openings therethrough for permitting oil to find its way from the adjacent packing groove out between the periphery of the lower plate and the depending peripheral flange on the upper plate.

1,130,539. TIRE-PROTECTOR AND ANTISKID DEVICE. WILLIAM S. RAWLINGS, Marshall, Ind. Filed Nov. 17, 1914. Serial No. 872,531. (Cl. 152—14.)



1. A tire protector of the character described, comprising a series of transverse chains, a series of hooks connected with the chains at the sides of the attachment, said hooks of each series having the bills disposed in a zone at each side and adapted to receive a lacing cord to prevent transverse shifting of the chains, and anchor hooks on the attachment at the sides thereof adapted to receive an anchor cord, said anchor hooks being of greater length than the adjacent lacing hooks and having their bills disposed out of the zones of the said lacing hooks.

2. A tire attachment of the character described, comprising a series of connected tranverse chains, a series of hooks connected with the chains at the sides of the attachment and adapted to receive a lacing cord, and anchor hooks on the attachment additionsl to the lacing hooks and of greater length than the said lacing hooks.

3. A tire attachment of the character described comprising a series of connected transverse chains adapted to extend across a tire, a series of lacing hooks connected with the chains and disposed in zones at the sides of the attachment, said hook being adapted to receive a lacing cord, and anchor hooks on the attachment at the sides thereof, said anchor hooks having their bills disposed out of the zones of the lacing hooks.

4. An attachment of the character described, comprising a series of transverse chains, means at each side of the attachment connecting said chains, a series of hooks on the attachment at each side, said hooks extending radially inward from the chains and adapted to receive a lacing cord, and anchor hooks additional to the lacing hooks and adapted to receive an anchor cord, said anchor hooks being disposed obliquely.

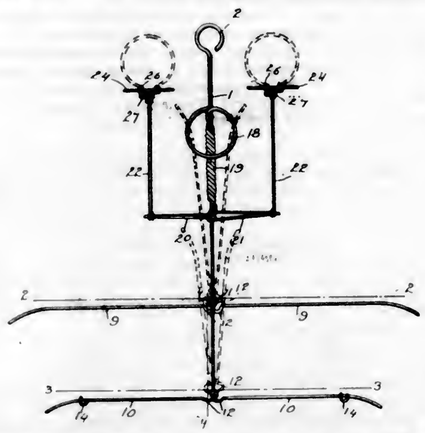
5. The combination with a wheel having spokes, and a tire upon said wheel, of a series of transverse chains, means connecting the chains at the sides of the attachment, a series of lacing hooks secured to said connecting means, a cord laced alternately through the hooks at opposite ides of the chains and looped around the spokes, the ends of the cord being fastened, anchor hooks on the chains at the sides thereof additional to the lacing hooks, and an anchor cord engaging said anchor hooks and engaging a spoke of the wheel.

[Claim 6 not printed in the Gazette.]

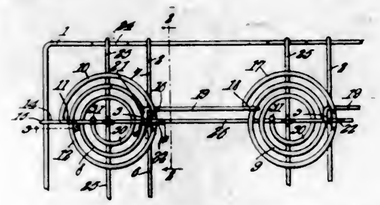
1,130,540. GARMENT-HANGER. FANNIE L. REED, Kokomo, Ind. Filed Oct. 29, 1913. Serial No. 797,927. (Cl. 211—13.)

A hat rack comprising a standard, a wire coiled around the upper portion of said standard adjacent its upper

end, the lower ends of the wire extending outwardly from said standard on opposite sides thereof to form angular arms, a pair of standards secured at their lower terminals to said arms, their upper ends bent to form loops, rings pivotally mounted in said loops providing means for holding hats thereon.



1,130,541. SPRING-BED. THOMAS JACKSON RIDGWAY, Wichita, Kans. Filed Apr. 10, 1914. Serial No. 831,085. (Cl. 5—29.)



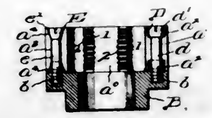
1. In a spring bed, a cross tie having an upstanding bend the side portions of which are of unequal length, thereby to form a high portion and a lower portion in the cross tie; a spring, the upper convolution of which passes across the bend in the cross tie; and a connecting element located between the said convolution of the spring and the lower portion of the cross tie, thereby to prevent a tilting of said upper convolution of the spring and to permit the same to set level, the connecting element terminating in a hook which passes between the bend of the tie and said convolution of the spring.

2. In a spring bed, a cross tie having an upstanding bend, the side portions of which are of eunequal length, thereby to form a high portion and a lower portion in the cross tie; a spring, the upper convolution of which is provided with a depending bend which overlaps the bend in the cross tie; and a connecting element located between said convolution of the spring and the lower portion of the cross tie thereby to prevent a tilting of said convolution of the spring and to permit the same to set level in abutment with both bends, the connecting element terminating in a hook which passes between the bends.

3. In a spring bed, a cross tie having a bend; a spring one convolution of which is provided with a bend which overlaps the bend of the cross tie; and a connecting element passing between said convolution and the cross tie to one side of the bends, the connecting element including a hook which passes between the bends, the hook terminating in an underlying tip which extends beneath the bend of the spring and engages the same.

4. In a spring bed, a cross tie having a bend; a spring, one convolution of which is provided with a bend overlapped upon the bend of the cross tie; and a connecting element comprising a body which extends between the cross tie and the said convolution of the spring, the body being bent at right angles to form a straight finger parallel to both bends, the finger being bent at right angles to form a straight extension parallel to the body and passing between the bends at right angles to the planes defined by the bends.

1,130,542. SCREW-CUTTING DIE. WHITMAN RUSSELL, Greenfield, Mass., assignor to Russell Manufacturing Company, Greenfield, Mass., a Corporation of Massachusetts. Filed Apr. 28, 1914. Serial No. 835,011. (Cl. 10—117.)

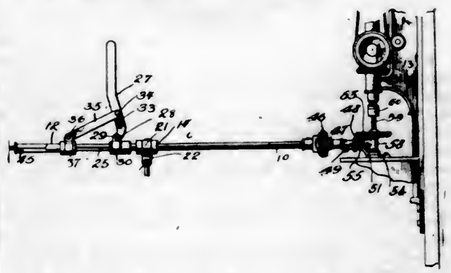


1. A screw cutting die comprising a plurality of oppositely-disposed reversible members, each member being provided with lands and cutting teeth thereon, said teeth having cutting edges at each end adapted to operate when said die is turned in either direction, and to cut from either face when die is in either original or reversed position, with means for holding said die in either original or reversed position, substantially as described.

2. A screw cutting die comprising two oppositely-disposed reversible members, each member being provided with lands and cutting teeth thereon, said teeth having cutting edges at each end adapted to operate when said die is turned in either direction, and to cut from either face when die is in either original or reversed position, with means for holding said die in either original or reversed position, and with means for adjusting said members, substantially as described.

3. A screw cutting die comprising a plurality of oppositely-disposed reversible members, each member being provided with lands and cutting teeth thereon, said teeth having cutting edges at each end adapted to operate when said die is turned in either direction, and to cut from either face when die is in either original or reversed position, with means for holding said die in either original or reversed position, with means for adjusting said members, substantially as described.

1,130,543. DRIVING MECHANISM FOR POWER-TOOLS. EDWARD SAULER, St. Edward, Nebr. Filed Mar. 31, 1914. Serial No. 828,565. (Cl. 77—15.)



1. A driven tool adapted for connection to a power drill press including a drive shaft having a universal joint, means carried by one terminal of the shaft for operative connection to the drill chuck of said drill press, a tool chuck reciprocally mounted upon the other end of the shaft, and adjustable means for supporting said latter end of the shaft.

2. A driven tool adapted for connection to a power drill press including a drive shaft having a universal joint, means carried by one terminal of the shaft for operative connection to the drill chuck of said drill press, a tool chuck reciprocally mounted upon the other end of the shaft, and means for reciprocating the tool chuck.

3. A tool driving mechanism adapted for connection to a power drill press including a driven shaft, means carried by one end of the shaft for operative connection to the drill chuck of said drill press, the opposite end of the shaft being squared, a tool chuck having a squared socket for slidable engagement over the squared end of the driven shaft, collars mounted upon the driven shaft and tool chuck and free to turn on such elements but held against longitudinal movement with respect thereto, a hand lever pivotally connected to one of the collars, and a link pivotally connecting the other collar and an intermediate portion of the hand lever.

4. A power transmitting mechanism for tools including a drive shaft adapted for connection with the tool to be driven, a plate adapted for connection to the bed of a power drill press, an upwardly and outwardly directed bracket carried by the plate, a compound bearing carried by the bracket and plate and adapted to receive one end of the drive shaft, a second shaft journaled in the bearing at right angles to the first and having a squared end for engagement with the drill chuck of said drill press, and beveled gears carried by the shafts and meshing with each other.

1,130,544. [WITHDRAWN.]

1,130,545. TREE PROTECTION. WILLIAM M. SCOTT, Baltimore, Md. Filed Sept. 30, 1914. Serial No. 864,308. (Cl. 47—36.)



1. A method of protecting trees against borers and the like which consists in encircling a tree-trunk, at the ground-line portion thereof, with a protector composed of flexible, insect-impenetrable material and formed to lie in surface contact with the ground substantially throughout the area of the protector and having an impenetrably-sealed and expansible adherence to the tree-trunk.

2. A method of protecting trees against borers and the like which consists in encircling a tree-trunk, at the ground-line portion thereof, with a protector composed of flexible, insect-impenetrable material of relatively wide outspreading area, the instrumentality being formed to lie in surface contact with the ground substantially throughout its area and having an expansible and impenetrably sealed adherence to the tree-trunk.

3. A method of protecting trees against borers and the like which consists in mounding the ground that surrounds the tree and encircling its trunk, at the ground-line portion thereof, with a protector composed of flexible, insect-impenetrable material and formed to lie in surface contact with the mound substantially throughout the area of the protector, the latter having an impenetrably-sealed and expansible adherence to the tree-trunk.

4. A method of protecting trees against borers and the like which consists in encircling a tree-trunk, at the ground-line portion thereof, with a flexible, insect-impenetrable protector-instrumentality so that it lies in surface contact with the ground substantially throughout the area of the instrumentality, and effecting an impenetrable and expansible adhesion between the instrumentality and the tree-trunk.

5. A method of protecting trees which consists in encompassing the tree at the ground-line with an outstanding, flexible protector-instrumentality that is impenetrable to insects and effecting an insect-obstructing contact of the instrumentality with the ground by disposing it in surface contact therewith substantially throughout the area of the instrumentality and, then, effecting an impenetrable sealing of the instrumentality expansibly to the tree while said instrumentality is in contact with the ground.

[Claim 6 not printed in the Gazette.]

1,130,546. TREE PROTECTION. WILLIAM M. SCOTT, Baltimore, Md. Original application filed Sept. 30, 1914, Serial No. 864,308. Divided and this application filed Jan. 19, 1915. Serial No. 3,151. (Cl. 47—28.)



1. A tree protector composed of flexible material constructed to lie in surface contact with the ground substantially throughout its area, and means for sealing said protector expansibly to the tree at the ground-line portion thereof.

2. A tree-protector composed of an expansible tree-encircling protector-element impenetrable to insects and formed to lie in surface contact with the ground substantially throughout its area and having an impenetrably sealed and expansible adherence to the tree.

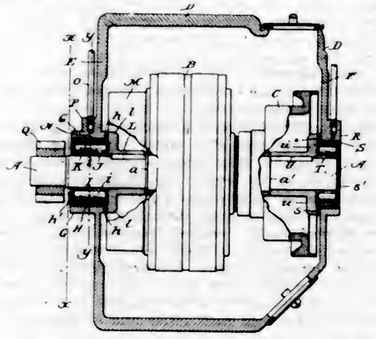
3. A structure for protecting trees including a tree-encircling protector-instrumentality composed of flexible material constructed to lie in surface contact with the ground substantially throughout its area, and means initially in a plastic condition for expansibly sealing said instrumentality to a tree at the ground-line portion thereof and thereby effecting a holding of the instrumentality against the ground.

4. A tree-protecting structure including a flexible soil-covering and tree-encircling protector-mat constructed to lie in surface contact with the ground substantially throughout its area and impenetrable to insects; and a viscous, insect-impenetrable mass thereon for sealing the mat expansibly to the tree at the ground-line portion thereof and for holding the mat against the ground.

5. A tree-protecting structure including a flexible tree-encircling protector-instrumentality composed in part of paper impenetrable to fruit-tree borers and constructed to lie in surface contact with the ground substantially throughout its area, and, in part, of a viscous material for expansibly sealing the instrumentality of the tree at the ground-line portion thereof and which is itself impenetrable to the borers.

[Claim 6 not printed in the Gazette.]

1,130,547. ELECTRIC MOTOR. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Aug. 16, 1906, Serial No. 330,874. Renewed July 18, 1914. Serial No. 851,814. (Cl. 172—36.)



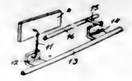
1. In an electric motor of the inclosed box type, the combination of the armature, the field magnet having the end walls in transverse planes close to the ends of the rotary parts of the armature, the armature shaft passing through the said end walls, the bearing chambers in the end walls, the bearing rollers in said chambers between the shaft and the end walls, and the abutment collar rotating with the shaft and bearing against the end wall outside of the rollers, the outer face of said collar being approximately in line with the end of the armature and the end walls of the field being adapted to be lifted away from the abutment collar without impinging upon the rotary parts of the armature, substantially as set forth.

2. In an electric motor of the inclosed box type, the combination of the armature, the field magnet having the end walls in transverse planes close to the ends of the rotary parts of the armature, the armature shaft passing through the said end walls, the bearing rollers between the shaft and the end walls, and the rotary stops or abutments L, U, abutting inward against the shaft and outward against the end walls, each of said abutments having its outer face approximately in line with the adjacent end of the armature, substantially as set forth.

3. In an electric motor of the inclosed box type, the combination of the armature, the field magnet having the end walls in transverse planes close to the ends of the rotary parts of the armature, the armature shaft passing through the said end walls, the bearing rollers between the shaft and the end walls, the bushings inserted into the apertures in the end walls, and having plates transverse to the shaft extending across the outer ends of the roller chambers, and stop devices rotating with the shaft closing the inner ends of the roller chambers and bearing against the end walls, each of said stop devices having its outer face approximately in line with the adjacent end of the armature, substantially as set forth.

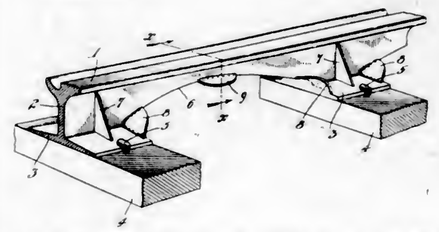
1,130,548. ATTACHMENT FOR INDICATING CHANGES IN LIQUID-LEVELS. ALFONSO SGRITTA, Brooklyn, N. Y. Filed Aug. 21, 1913, Serial No. 785,962. Renewed Jan. 23, 1915. Serial No. 4,075. (Cl. 116—15.)

In an alarm apparatus, a pivoted shaft having two U-shaped arms thereon, a float controlled lever for operating said shaft and connected to one of said arms, a second pivoted shaft to which is connected a hammer and a tappet piece as well as a third arm which normally makes contact with the second of the arms carried by said first mentioned shaft, and a toothed wheel for coöperating with said tappet piece, said wheel being normally held



from revolution by said tappet piece but being permitted to revolve and being adapted to actuate said tappet piece and thereby oscillate said hammer to said second mentioned shaft when said second mentioned shaft is turned from normal position by said arms on account of the operation of said float controlled lever.

1,130,549. RAILROAD-RAIL. PHILIP SHERMAN, Chicago, Ill. Filed Nov. 19, 1914. Serial No. 872,976. (Cl. 239—14.)



1. A railroad rail comprising a head; a web depending from said head; and base portions spaced along the lower edge of said web, the portions of said web intermediate said base portions being reduced in width, substantially as described.

2. A railroad rail comprising a head; a web depending from said head; and base portions spaced along the lower edge of said web, the portions of said web intermediate said base portions being cut away at the lower edges thereof to reduce the width of said portions, substantially as described.

3. A railroad rail comprising a head; a web depending from said head; and base portions spaced along the lower edge of said web, the portions of said web intermediate said base portions being gradually reduced in width toward the centers of said portions, substantially as described.

4. A railroad rail comprising a head; a web depending from said head; and base portions spaced along the lower edge of said web, the portions of said web intermediate said base portions being cut away at the lower edges thereof, said lower edges of said intermediate web portions being of arched formation, substantially as described.

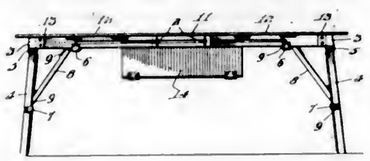
5. A railroad rail comprising a head; a web depending from said head; base portions spaced along the lower edge of said web, the portions of said web intermediate said base portions being reduced in width; and reinforcing flanges formed integral with and laterally projecting from said web and base portions, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

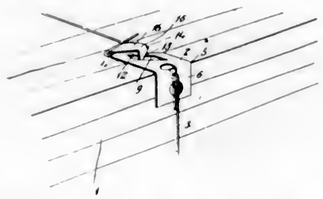
1,130,550. COMBINED COLLAPSIBLE TABLE AND LUNCH-BOX. CYRUS STEPHENS, Flat Rock, and VINA M. CARTER, Columbus, Ind. Filed Oct. 13, 1913. Serial No. 794,894. (Cl. 45—48.)

A construction of the class described comprising supporting rails; a socket at each end of each of said rails opening downwardly, each socket consisting of a substan-

tially U-shaped strip having its ends secured to opposite sides of said rails; a leg detachably engaging each socket; a stop on each leg limiting the movement thereof into its socket, a similar socket on the inner edge of each leg intermediate its ends, corresponding sockets on the under edges of the rails adjacent said leg sockets, a brace for each leg and angularly disposed members on the ends of said braces for engagement in said sockets on the legs and rails respectively, substantially as described.



1,130,551. BALE-TIE. IRWIN M. THOMPSON, Bannister, La. Filed Oct. 25, 1913. Serial No. 797,200. (Cl. 24—28.)



1. A bale tie formed with a body portion having an aperture therein, near one edge, and with an extension formed with a spur on the extreme end, said spur having a shoulder, said extension being bent at an angle so that said spur may be driven through said aperture, and said shoulder overlap said body.

2. A bale tie comprising a body formed with an aperture therein, and a tongue extending from near one end of said body, said tongue having a shoulder or hooked portion, said shoulder being designed to be passed through said aperture, said tongue extending in such a direction as to cause said shoulder to overlap part of said body, the tongue and body being sufficiently resilient for causing the shoulder to snap past the body and interlock therewith when in operative position.

3. A bale tie comprising a body formed with an aperture for receiving a tie wire and with a resilient bar, said body having an extension formed with a spur, said spur being formed with a shoulder over which said bar is adapted to move when the spur is driven into position, said extension being bent at an angle to the general direction of said body whereby, when said tie wire is engaged therewith on the side of the shoulder, the pull of the wire will give said extension a tendency to press said shoulder beneath said bar.

1,130,552. SPIRIT-LEVEL. EPHRAIM ALLEN TRENHOLM, Sparta, Minn. Filed Oct. 23, 1913. Serial No. 796,933. (Cl. 33—211.)



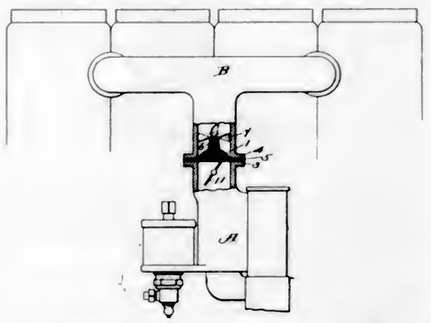
1. In a combination with a stock having a transverse aperture therethrough, a collar adapted to seat in said aperture, said collar being internally screw threaded for a portion of its length, a second collar externally screw threaded and adapted to mate with the first said collar and a pair of spirit level tubes disposed one in each collar and at right-angles to each other.

2. In a combination with a stock having a transverse aperture therethrough, a collar adapted to seat in said aperture, said collar being internally screw threaded for a portion of its length, a second collar adapted to be threaded into the first said collar, a housing secured within each of said collars, and a pair of spirit-level tubes, one of which is positioned in each of said housings, so as to form a right-angle with each other.

3. In combination with a stock having a transverse aperture therethrough, a collar removably seated in said aperture, said collar being internally screw threaded for a portion of its length and having the non-screw threaded portion enlarged to form a shoulder adjacent the inner ends of said screw threads, a second collar adapted to be threaded into the first said collar and to have its inner terminal rest against said shoulder a pair of housings one of which is secured to each of said collars and a pair of spirit-level tubes one of which is adapted to be disposed within each of said housings.

4. The combination with a stock having a transverse aperture therethrough of a collar removably seated in said aperture, said collar being internally screw-threaded for a portion of its length and having the non-screw-threaded portion enlarged to form a shoulder adjacent the inner ends of said screw threads, a second and smaller collar adapted to be threaded into the first said collar and to have its inner terminal rest against said shoulder so that an unbroken passage is formed through said stock thereby, flanges formed on each of said collars, means for securing said flanges to said stock and a pair of level tubes disposed one in each collar and at right-angles to each other.

1,130,553. ANTIBACKFIRING ATTACHMENT FOR CARBURETERS. JULIUS VON WLADKOWSKY, New York, N. Y. Filed June 9, 1913, Serial No. 772,627. Renewed Jan. 22, 1915. Serial No. 3,841. (Cl. 48—180.)



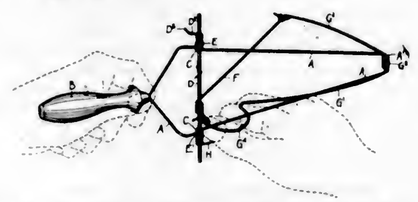
1. A carbureter attachment of the class described comprising a gauze screen, a vaporizer thereon including absorbent material, and a baffling device also mounted on the screen.

2. An attachment of the class described comprising a screen, a baffling device, and means connecting the device with the screen and forming a vaporizer.

3. A carbureter attachment of the class described comprising a screen, a hollow central stem thereon, a baffling device carried by the stem, and porous material in the stem.

4. A carbureter attachment of the class described comprising a screen having a central portion formed into a hollow stem, porous material in the stem, means attached to the screen for holding the said material in the stem, and a baffling device secured to the extremity of the stem.

1,130,554. SPINNING DEVICE. FRANK WANKEL, New York, N. Y., assignor to American Toy Works, New York, N. Y. Filed Dec. 11, 1914. Serial No. 876,674. (Cl. 46—32.)

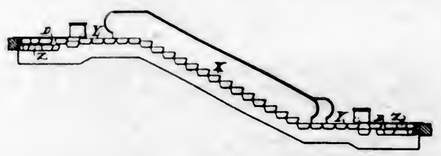


1. A spinning device, comprising a handled frame, a shaft journaled on the said frame, a bow mounted to swing on the said frame in a plane at an angle to the axis of the said shaft, the bow having a stretched cord winding on the said shaft to rotate the latter on imparting a swinging motion to the said bow, and retaining means on the said shaft for holding an article to be actuated temporarily in position on the said shaft to rotate the article with the shaft and to release the article on the shaft coming to a standstill.

2. A spinning device, comprising a handled frame, a shaft journaled on the said frame, a bow mounted to swing on the said frame in a plane at an angle to the axis of the said shaft, the bow having a stretched cord winding on the said shaft to rotate the latter on imparting a swinging motion to the said bow, and a retaining arm extending at an angle from one end of the said shaft for engagement by the article to be rotated on turning the shaft and for releasing the article on stopping the rotation of the shaft.

3. A spinning device for tops, propellers and like articles, comprising a handled frame provided with bearings near the handle, a shaft journaled in the said bearings and projecting beyond the same, a bow having a frame formed of diverging arms, and a cord connecting the free ends of the arms with each other, the cord being wound around the said shaft and the apex of the bow frame being mounted to swing on the free end of the said handled frame and in a plane at an angle to the said shaft, one of the arms of the bow frame being provided near its free end with a handle, and a retaining and releasing pin on the projecting end of the shaft for engagement by the article to be actuated to hold the article in place, to rotate the article on turning the shaft and to release the article on stopping the rotation of the shaft.

1,130,555. MOVING STAIRWAY. GEORGE A. WHEELER, New York, N. Y.; H. M. Wheeler administrator of said George A. Wheeler, deceased. Filed Nov. 16, 1909. Serial No. 528,426. (Cl. 104—165.)



1. In a device of the class described, the combination of substantially straight ascending and descending runs connected by curved runs, carriages arranged to travel on said runs, the curved portions of the runs being so shaped that alternate carriages will obliquely overlap and underlap respectively in passing around the curve, substantially as described.

2. The combination, in a device of the class described, of endless guides, a series of carriages arranged in an endless chain, said guides having straight portions and curves, the curved portions in part diverging from a single vertical plane, and being so laid out that alternate carriages will underlap the others in passing around the curves, substantially as described.

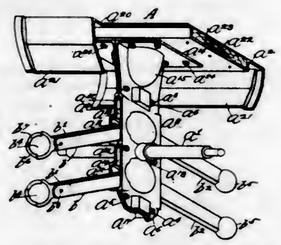
3. The combination, in a device of the class described, of substantially straight guides and curved lateral guides, carriages arranged to travel on said guides, the guides being so arranged that each alternate carriage only will move to a position on a different level from that of the succeeding one before turning, substantially as described.

4. In a device of the class described, a plurality of carriages mounted upon antifriction devices and comprising more than one series intermingled in a regular order, the supporting devices of each series being attached in such relative planes as not to track with those of another series, guides for the supporting devices of each series and consisting of substantially straight horizontal and inclined portions and laterally curved portions connecting the substantially straight portions into an endless way, the guides on the curved portions being so arranged as to cause the series of carriages to overlap and underlap each other respectively in passing around the curves, substantially as described.

5. In a device of the class described, a plurality of carriages, each mounted upon a single pair of wheels, and comprising two series intermingled in a regular order, the wheels of one series being attached in such vertical planes as not to track with the wheels of the other series, tracks for the wheels of each series, said tracks consisting of substantially straight horizontal and inclined portions and laterally curved portions, connecting the substantially straight portions into an endless way, the tracks on the curved portions being in such relative horizontal planes as to cause the two series of carriages to overlap and underlap each other respectively in passing around the curves, substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,130,556. MOVING STAIRWAY. GEORGE A. WHEELER, New York, N. Y.; H. M. Wheeler administrator of said George A. Wheeler, deceased. Filed Apr. 24, 1911. Serial No. 623,089. Renewed Feb. 11, 1913. Serial No. 747,796. (Cl. 104—165.)



1. In a device of the class described, continuous vertically parallel chains of constant length to which carriages are pivoted, substantially as described.

2. In a device of the class described two continuous chains with carriages pivoted to the chai. at points on the carriages equidistant, above and below their axes or axles, substantially as described.

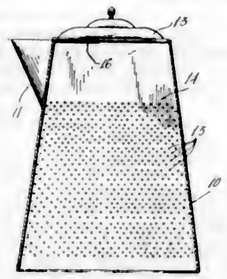
3. In a device of the class described, two continuous chains pivoted to the carriages so as to be held in vertical parallelism, substantially as described.

4. In a device of the class described, two continuous independent chains with carriages pivoted to said chains at points equidistant, one over the other, on said carriages, substantially as described.

5. In a device of the class described, the combination with a series of carriages and an endless guideway including laterally curved portions, of a continuous endless chain to which the carriages are pivoted, substantially as described.

[Claims 6 to 33 not printed in the Gazette.]

1,130,557. COFFEE-POT STRAINER. JACOB O. WICK, Clifford, N. D. Filed Apr. 1, 1914. Serial No. 828,804. (Cl. 55—3.)

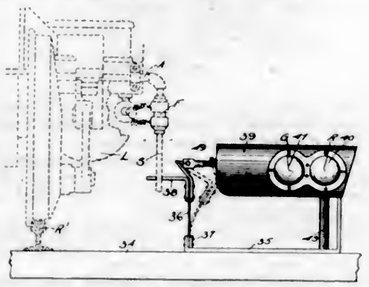


1. The combination with a coffee pot provided with diametrically opposed handle and spout carrying portions, of a vertically disposed strainer fixed within said pot and extending diagonally between the handle and spout portions thereof.

2. The combination with a coffee pot provided with diametrically opposed handle and spout carrying portions, of a vertically disposed strainer fixed within said pot and extending diagonally between the handle and spout portions thereof, said strainer comprising a sheet of material extending from top to bottom of the pot, said sheet being perforated from a point below the spout portion of the pot to the bottom thereof and being imperforate thereabove.

3. The combination with a coffee pot provided with diametrically opposed handle and spout carrying portions, of a vertically disposed strainer fixed within said pot and extending diagonally between the handle and spout portions thereof, said strainer comprising a sheet of material extending from top to bottom of the pot, said sheet being perforated from a point below the spout portion of the pot to the bottom thereof and being imperforate thereabove, and a lateral plate arranged at the top of the pot and extending between the strainer and the top edge of the pot at the forward portion thereof, said plate being located on the side of the strainer opposite the spout portion of the pot.

1,130,558. ROADSIDE DEVICE FOR AUTOMATIC TRAIN-STOPS. MARSHALL C. WRIGHT, New York, N. Y. Original application filed Apr. 22, 1914, Serial No. 833,675. Divided and this application filed Sept. 2, 1914. Serial No. 859,790. (Cl. 246—59.)



1. The herein described roadside device for automatic train stops comprising a strong spring, means to hold the lower end of the spring in fixed position, the spring extending naturally vertically from its holding means, an obstacle arm carrier entirely by the upper end of the spring and projecting laterally therefrom, and means acting upon the spring against the tension thereof to tilt and hold the obstacle arm out of position to be struck when the track is clear.

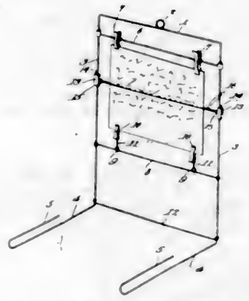
2. In a roadside device, the combination of a bracket, a flat spring standing upwardly therefrom, an obstacle arm carried by the upper end of the spring, and adapted in danger position to be struck, and means acting upon the spring to hold it in bent position with the obstacle arm out of position to be struck when the track is clear.

3. In an automatic train stop, the combination of an obstacle along the roadside and comprising an arm movable toward and from the track, a strong flat spring secured in a stationary position at one end and connected at its free end to said obstacle arm, the force of the spring tending to hold the arm in position to be struck, and means connected to the arm and operated co-incidentally with the movement of the switch or signal to clear position to withdraw the arm out of striking position.

4. In an automatic train stop, the combination of a rigid stationary support, a flat leaf spring connected at one end to said support, an obstacle arm carried by the other end of the spring, the force of the spring tending to hold the arm in one position with the spring straight, power means supported upon said support, pivoted link connections between the power means and said arms, and means acting upon said power means coincidentally with the movement of the track equipment to clear position to move the arm into a different position from that aforesaid, placing the flat spring under tension in the form of an arc.

5. In an automatic train stop, the combination of roadside devices including a stationary supporting standard, a flat leaf spring connected to the standard and extending upwardly therefrom, an obstacle arm carried by the upper end of the spring and adapted to extend inwardly toward the railway track under the force of the spring, power devices associated with the standard, said power devices including a rigid member adapted to reciprocate in a horizontal plane toward and from the track, a pivoted link connection between the rigid member and the obstacle arm, and means to apply power to said reciprocating member to hold the same in clear position to retain the obstacle arm out of striking position against the tension of the spring aforesaid.

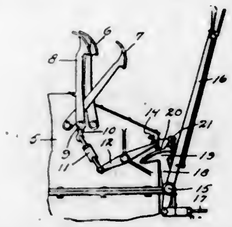
1,130,559. COPY-HOLDER. FANNIE A. ALLEN, Louisville, Ky. Filed Nov. 22, 1913. Serial No. 802,538. (Cl. 120—28.)



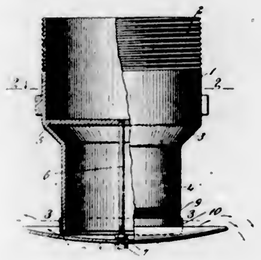
A copy holder including a frame having side strips, forwardly extending arms at the lower ends of the side strips and adapted to rest flat upon a supporting structure, fingers integral with and extending above the arms, said fingers being extended rearwardly toward the frame from the front ends of the arms and being spaced from said arms and constituting means for yieldably engaging the bottom of a typewriter extending over the arms, and means carried by the frame for engaging and supporting manuscript.

1,130,560. CLUTCH-RELEASE FOR FORD AUTOMOBILES. FRANK C. ALLEN, Monon, Ind. Filed Aug. 12, 1914. Serial No. 856,417. (Cl. 74—39.)

In combination with the clutch throwing lever of a Ford automobile, comprising a pivoted foot lever, an arm thereon, a link pivotally connected with said arm, a pivoted rocker arm pivotally connected with said link and a screw extending through the rear end of said rocker arm and projecting downwardly therebeyond; a clutch release lever mounted upon the hand brake lever actuated rock shaft, the upper surface of said release lever engaging the end of said screw, and a projection on the upper face of said release lever engaging the side of said screw, for preventing forward movement of said hand brake lever with the resultant release of the engagement of said screw with said release lever and the throwing of the clutch into high gear, the engagement of said projection with said screw being released by the forward movement of said pivoted foot lever to elevate said screw out of engagement with said projection and the continued forward movement of said hand brake lever to rock said release lever out of the path of said screw.



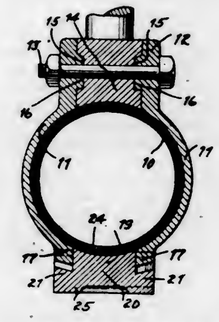
1,130,561. LEACH-SPRAYER. BENJAMIN FRANKLIN AMISS, Salem, Va. Filed Oct. 25, 1913. Serial No. 797,203. (Cl. 137—57.)



1. In a spraying device of the character described, a tubular member, a bar arranged transversely in said tubular member intermediate the length thereof, a supporting rod connected with said bar, a cup-shaped plate arranged below said tubular member and through which the said supporting rod extends, the concave face of said plate facing the end of said tubular member, a pair of nuts mounted on said rod for adjustably connecting said plate with said rod, and a ring threaded on the lower end of said tubular member and beveled to form an edge, said ring being adjustable to cause said edge to approach or recede from said plate.

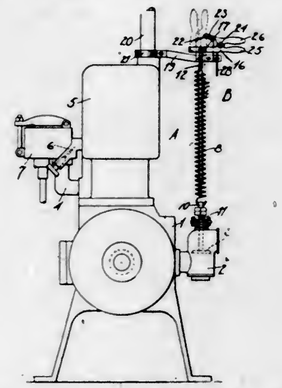
2. In a spraying device, of the character described, a tubular member having a threaded end for attachment to a supply means, the said member having an offset forming a reduced portion, a cross bar arranged at said offset, a supporting member removably secured at one end to said cross bar and extending through the reduced portion of said tubular member, a cup shaped plate having its concave face facing the said reduced end of the tubular member, the said plate being adjustable on the projecting end of said supporting member toward and from the reduced end of said tubular member, so that the said end of the tubular member may be either within the cup or exterior to it, and a ring threaded on the end of the reduced portion of the tubular member and having its edge beveled, the said ring being adjustable to move said edge toward and from the inner or concave face of said cup shaped plate.

1,130,562. TIRE-ARMOR. JAMES H. ANDERSON, Chicago, Ill. Filed Sept. 16, 1913. Serial No. 790,053. (Cl. 152—35.)



In a tire protector, a casing comprising two concavo-convex rings arranged on opposite sides of a pneumatic tire, both the inner and outer portions of the rings being extended radially of the tire in parallel relation, the inner parallel portions being secured to the rim, the outer parallel portions having peripheral lugs and recesses arranged alternately therearound, the end faces of said lugs being oppositely inclined, and a tread member disposed between the outer parallel portions of the rims, said tread member having an inwardly directed portion engaging the pneumatic tire and laterally disposed shoulders facing toward the center of the tire, said shoulders being formed with inwardly directed lugs and recesses having their ends oppositely inclined and loosely engaging with the lugs and recesses of the rings.

1,130,563. GAS-ENGINE SPEED-CONTROLLER. RICHARD SIMPSON ANDERSON, Coban, Guatemala. Filed July 30, 1914. Serial No. 854,110. (Cl. 123—73.)



1. An engine including a cylinder, a crank case in which air is compressed, means through which the air passes from the crank case to convey fuel to the cylinder, an air valve for the crank case, variable weighting means for yieldingly resisting the opening of the said valve, a controller element to which the said means is adjustably connected for varying the tension of the said means, and a device for holding the controller element in different positions of adjustment.

2. An engine including an automatic inlet valve, with a regulator attachment therefor, said attachment comprising a bracket rigidly secured to the engine, a lever carried by the bracket, a member hingedly connected with the lever, a spring device adjustably connected with the member and connected with the valve, means for holding the lever in different positions of adjustment, and an adjustable stop on the bracket for engagement by the lever when the latter is in position to hold the device under maximum tension.

3. The combination of an engine including an inlet valve, a helical extension spring connected therewith, a lever connected with the spring for adjusting the tension thereof, a catch on the lever, a toothed sector with which the catch engages to hold the lever in different positions of adjustment, and an adjustable stop with which the lever engages when it is in the position of maximum tension of the spring.

4. An engine including an automatic air inlet valve and a regular attachment for controlling the operation of said automatic air inlet valve, said regulator attachment comprising a helical extension spring connected with the valve, a lever connected with the spring for adjusting the tension thereof, means for holding the lever in different positions of adjustment, and an adjustable stop member for limiting the movement of the lever.

5. An engine including an automatic air inlet valve and a regulator attachment for controlling the operation of said automatic air inlet valve, said regulator attachment comprising a helical extension spring connected with the valve, a lever connected with the spring for adjusting the tension thereof, means for holding the lever in different positions of adjustment, an adjustable stop member for limiting the movement of the lever, said adjustable stop member comprising a slidable bar having a laterally bent end arranged to extend in the path of the lever, and means for securing said bar in adjusted positions.

1,130,564. ARTIFICIAL FUEL AND METHOD OF MAKING THE SAME. EARLE JAY BABCOCK, Grand Forks, N. D. Filed Mar. 5, 1912. Serial No. 681,851. (Cl. 44—1.)

1. The process of producing artificial fuel or briquets which consists in first converting a non-coking low grade coal into a carbonized residue by removing the moisture and the gases therefrom, then reducing such residue into small particles, then mixing this finely reduced residue with ground or finely crushed coking coal and pith, then heating the mixture to the melting point of the pitch, then adding a small portion of glutinous matter thereto, and finally molding or pressing such mixture into suitable forms or briquets.

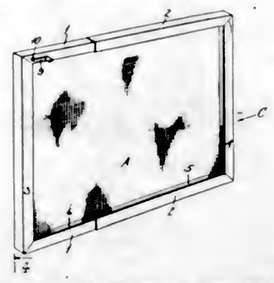
2. The herein described artificial fuel which consists of the combination of a non-coking carbonized residue obtained from lignite or low grade non-coking coal, finely crushed coking coal and pitch, and a suitable amount of glutinous matter.

3. The herein described artificial fuel which consists of a base of specially prepared carbonized non-coking lignite residue, approximately 7 per cent. of round coking coal, approximately 6 per cent. of pitch, and approximately 1½ per cent. of glutinous matter, all combined substantially as hereinbefore described.

4. The herein described process of making artificial fuel which comprises the treatment of a low grade non-coking coal by heating and roasting to drive off moisture and volatile gases leaving a carbonized non-coking residue which constitutes the major portion of the product, then reducing this carbonized residue into small particles, then adding to this finely divided residue a quantity of from 4 to 10 per cent. of finely ground coking coal and a quantity of from 4 to 8 per cent. of pitch, then thoroughly mixing this compound mixture of carbonized residue, coking coal and pitch, then heating the compound mixture, and then adding to the heated mixture a quantity of from ½ to 2 per cent. of glutinous matter, substantially as and for the purposes set forth.

5. The herein described artificial fuel which consists of the combination of a non-coking carbonized residue obtained from lignite or low grade non-coking coal, finely crushed coking coal and pitch, and a suitable amount of dry flour from ground grain or seeds.

1,130,565. EXTENSIBLE WINDOW-SCREEN. RAYMOND T. BISHOP, New York, N. Y. Filed July 23, 1914. Serial No. 852,625. (Cl. 156—38.)



1. An extensible window screen comprising a frame made of two slidably connected sections, a netting having one end fastened to one section, a roll in the other section and to which the opposite end of the netting is fastened to wind and unwind, spring means operatively related to the sections to force the same apart as the roll unwinds the netting, and gearing housed and concealed within the roll-containing section for turning the roll and forming a lock for preventing the sections from spreading apart under the tension of said spring means.

2. An extensible window screen comprising a frame made of two sections of metal tubing formed of a vertical bar and two horizontal bars, the horizontal bars of one section telescoping within those of the other, the bars having their inner surfaces provided with longitudinal slits, a netting having its upper and lower edge and one end extending into the slits of one section and secured to the bars thereof, and the netting having its upper and lower edges and end disposed in the slits of the other bars of the other section and free from said bars, a roll to which the free end of the netting is fastened and disposed within the vertical bar of the section in which the netting is free, a worm wheel on the roll, a worm meshing with the worm wheel for turning the roll, means for turning the worm, and springs housed in the horizontal bars of the section to which the netting is rigidly secured to exert constantly a force tending to separate the sections.

1,130,566. WINDOW-CLEANER. LESLIE F. BRIGGS, Brooklyn, N. Y. Filed Apr. 6, 1914. Serial No. 829,964. (Cl. 15—59.)

1. In a window cleaner of the character described, the combination with a guide bar of constant length, of means for detachably securing one end portion of said bar to a sash, means adjustable along said bar between its ends for attaching the other end portion thereof to the sash whereby said cleaner may be attached to sashes of various heights without altering the guide bar, a carriage movable along the guide bar, and a cleaning tool mounted on said carriage.

2. In a window cleaner of the character described, the combination with a guide bar and a cleaning tool movable along said bar, of means for detachably securing said bar to a sash including a thin plate carried by the bar and having upwardly and downwardly extending portions arranged in the same vertical plane and adapted to be inserted between rails of the two sashes of a window for the purpose specified.

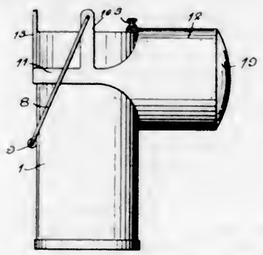
3. In a window cleaner of the character described, the combination with a guide bar and a cleaning tool movable along said bar, of means for detachably securing said bar to a sash including a collar mounted on the bar, means for clamping the collar to the bar at any desired point, and a connecting device adapted to engage the sash and adjustable on said collar transversely of the bar.



4. In a window cleaner of the character described, the combination with a guide bar and a cleaning tool movable along said bar, of means for detachably securing said bar to a sash including a collar mounted on the bar and comprising a plate having an opening through which the bar passes, there being lugs extending from the plate at the opposite edges of the bar, strap members fitted around the edges of the bar and including the lugs, means for clamping said strap member for fastening the collar at any desired point on the bar, the end portions of said lugs being bent to form shoulders to prevent the strap members from becoming disconnected from said lugs when loosened, and a connecting device adapted to engage the sash and adjustable on the plate transversely of the bar

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1,130,567. ELECTRIC LANTERN. BURT KING BUNCH, Marshall, Mo. Filed Aug. 5, 1914. Serial No. 855,158. (Cl. 240—8.5.)

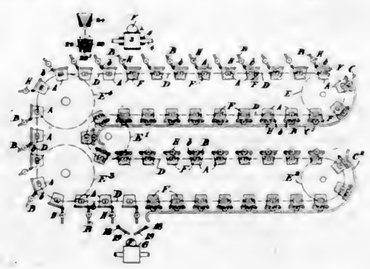


1. A device of the class described comprising the combination with a battery; of a hood secured upon said battery, a handle supported by said hood, a contact plate carried by said battery, a bulb mounted in said hood, means for forming electrical connections between said battery and said bulb, and a contact plate carried by said handle for engagement with the first mentioned contact plate to complete a circuit through said bulb.

2. A device of the class described comprising the combination with a battery; of a contact plate carried by said battery, a hood mounted upon said battery, a lens secured in said hood, a reflector plate secured in said hood, a bulb mounted in said reflector plate, said reflector plate having connections with said hood, electrical connections between said bulb and said battery, handle supporting members projecting upwardly from said hood, a handle mounted in said handle supporting members, and a contact plate carried by said handle for engagement with the first mentioned contact plate upon movement of said handle to operative position.

3. A device of the class described comprising the combination with a battery; of a hood formed of a single blank bent into circular form and having opposite arms for engagement around the battery, said arms projecting from one end of the hood, and being connected at their rear ends to secure said hood upon said battery, upstanding ears formed on said arms, one of said upstanding ears being provided with an opening to receive a suspending member by means of which the device may be suspended upon a stationary support, a handle mounted in the remaining ears said battery having a pair of binding posts, a contact plate projecting from one of said binding posts, a combined reflector and bulb support mounted in said hood, a lens for the offset combined reflector and bulb support, a bulb mounted in said combined reflector and bulb support, a connecting plate extending from said bulb to the section binding post of the battery, an ear projecting from said hood and engaged upon the last mentioned binding post and insulated from the same and from the connecting plate, and a contact plate carried by the handle for engagement with the first mentioned contact plate to complete a circuit through said battery and bulb upon movement of the handle to operative position.

1,130,568. APPARATUS FOR PROVING DOUGH. JOHN CALLOW, Liverpool, England. Filed Feb. 27, 1909. Serial No. 480,410. (Cl. 107—57.)



1. A dough proving apparatus comprising in combination a movable carrier, a series of receptacles attached to said carrier one after another, and means for covering said receptacles so that said receptacles will keep the dough moist when closed, the arrangement being such that said receptacles will be turned during the travel of the carrier and that the dough will be discharged from said receptacles when in their lowest position.

2. A dough proving apparatus comprising in combination a movable carrier, receptacles attached to said carrier, means for covering said receptacles so that said receptacles will keep the dough moist when closed, the arrangement being such that the receptacles will be turned a plurality of times during the travel of the carrier and that the dough will be discharged after the last inversion of said receptacles.

3. A dough proving apparatus comprising in combination a movable carrier, receptacles attached to said carrier, means for covering said receptacles so that said receptacles will keep the dough moist when closed, a dough divider adapted to deliver charges of dough of substantially smaller volume than the internal volume of said receptacles when closed, means to feed said dimensioned charges of dough into said receptacles, the arrangement being such that the receptacles will be turned a plurality of times during the travel of the carrier.

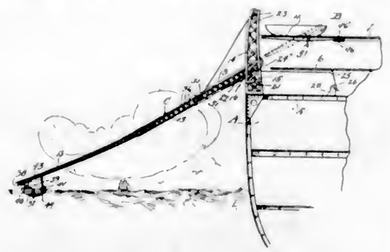
4. A dough proving apparatus comprising in combination a movable carrier, receptacles attached to said carrier, means for covering said receptacles so that said receptacles will keep the dough moist when closed, means to form charges of dough of substantially smaller volume

than the internal volume of said receptacles when closed, means to feed said dimensioned charges to the receptacles, the arrangement being such that the receptacles will be turned a plurality of times during the travel of the carrier.

5. A dough proving apparatus comprising in combination a movable carrier, a series of receptacles attached to said carrier one after another, means for covering said receptacles so that said receptacles will keep the dough moist when closed, means to form charges of dough of substantially smaller volume than the internal volume of said receptacles when closed, means to feed said dimensioned charges to the receptacles, the arrangement being such that the receptacles are turned during the travel of the carrier.

[Claims 6 to 25 not printed in te Gazette.]

1,130,569. LIFE-BOAT-LAUNCHING APPARATUS. RALPH R. COCKING, La Salle, Ill. Filed Dec. 1, 1913. Serial No. 803,975. (Cl. 9—22.)



1. A life boat launching apparatus comprising the combination with a vessel, of a trackway at the side thereof, a turntable mounted adjacent the trackway and a pivoted platform carried by the turntable and adapted to swing to discharge a boat onto the trackway.

2. A life boat launching apparatus comprising the combination with a vessel, of a trackway at the side thereof, of a turntable adjacent the trackway, a pivoted platform carried by the turntable, said platform and turntable being provided with alining grooves and boat guiding grooves in the vessel adapted to selectively aline with the first-named grooves.

3. A life boat launching apparatus comprising the combination with a vessel of a trackway pivoted to the side thereof and comprising a plurality of telescoping sections, means for telescoping said sections, means for moving the trackway vertically and a float carried at the free end of the trackway.

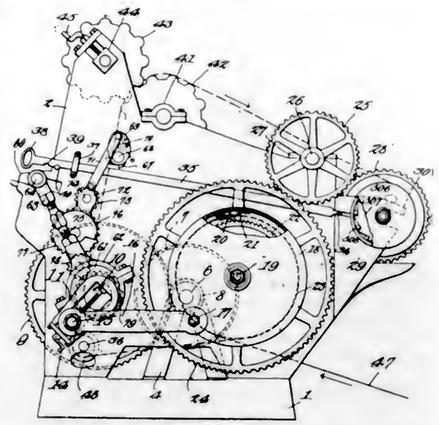
4. A life boat launching apparatus comprising the combination with a vessel of a pair of spaced standards at the side thereof, a shaft carried by the standard, a trackway comprising a plurality of telescoping sections, the larger section being pivoted to the shaft, means for swinging the trackway vertically, and means for telescoping the sections including a drum on the shaft and a cable wound on the drum and secured to the smallest section.

5. A life boat launching apparatus comprising the combination with a vessel of a trackway pivoted to the side thereof and comprising a plurality of telescoping sections, means for telescoping said sections, means for swinging the trackway vertically, a float pivoted to the outer end of the smallest section and a brace rod pivoted to the intermediate portion of the smallest section and adapted to engage the float to prevent pivotal movement thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,130,570. WIRE-FENCE-MAKING MACHINE. GEORGE HOLMES COCKS, Ashland, Ky. Filed June 18, 1914. Serial No. 845,912. (Cl. 140—11.)

1. In a machine for making wire fabric, a supporting structure; a shaft journaled therein and having a crank; an auxiliary shaft journaled in the supporting structure; a measuring wheel on the auxiliary shaft; a drum shaft journaled in the supporting structure; a drum loose on the drum shaft; means for connecting the drum with the drum shaft for rotation thereon and for rotation therewith; clutch mechanism coacting with the auxiliary shaft; a connecting rod operatively connected with the clutch mechanism; a support movable in the crank; means for adjusting the position of the support on the crank; and means for operatively uniting the support with the connecting rod.



2. In a machine for making wire fabric, a supporting structure; a main shaft journaled therein and having a crank; an auxiliary shaft journaled in the supporting structure; a measuring wheel on the auxiliary shaft; a ratchet wheel fixed to the auxiliary shaft; a drum journaled on the auxiliary shaft; a pawl on the drum and coacting with the ratchet wheel; a connecting rod pivoted to the drum; a support slidable in the crank; means for adjusting the position of the support with respect to the crank; and means for uniting the support operatively with the connecting rod.

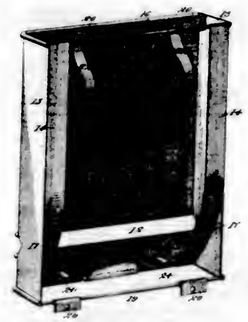
3. In a machine for making wire fabric, a supporting structure; a drum shaft journaled therein; a drum loose on the drum shaft; a nut threaded on the drum shaft and adapted to exert pressure against the drum, the nut being provided with a projection; an actuating member supported to move with respect to the projection and adapted to move into and out of engagement with the projection; and means for actuating the shaft.

4. In a device of the class described, a supporting structure; a drum shaft journaled therein; a drum rotatable upon the drum shaft and rotatable with the drum shaft; an auxiliary shaft journaled in the supporting structure; a measuring wheel on the auxiliary shaft; a gear train operatively connecting the drum shaft with the auxiliary shaft; and means for imparting a step-by-step rotation to the auxiliary shaft.

5. In a machine for making wire fabric consisting of longitudinal wires, transverse wires and staples connecting the wires, a supporting structure; a main shaft journaled in the supporting structure; a cutter shaft adapted to coact with the transverse wires; means for intermittently rotating the cutter shaft from the main shaft; mechanism for advancing the longitudinal wires; means for driving said mechanism intermittently from the main shaft; a combined staple forming and clenching mechanism; and means for operatively connecting the forming and clenching mechanism operatively with the main shaft; the staple forming and clenching mechanism being timed to act alternately with the mechanism for advancing the longitudinal wires.

[Claims 6 to 18 not printed in the Gazette.]

1,130,571. LOOSE-LEAF-DISPENSING DEVICE. MAX M. COHN, Piedmont, Cal. Filed July 22, 1914. Serial No. 852,395. (Cl. 211—29.)



1. A paper towel dispenser and holder for cartons including a case having a pair of spaced guides at its rear which guides have curved lower ends, and a pair of spring fingers connected to the case at the top thereof and having free portions alined with the space between the guides adapted to engage and press the front of the carton against said guides.

2. A paper towel dispenser and holder for cartons including a case having a pair of spaced guides at its rear which guides have curved lower ends, and a pair of spring fingers connected to the case at the top thereof and having free portions alined with the space between the guides adapted to engage and press the front of the carton against said guides, and a carton engaging bracket at the front lower end of the casing adapted to be received in a notch provided therefor in the carton.

3. A paper towel dispenser and holder for cartons including a case having rear guiding means for the carton rear, and means to engage the top portion of the carton to force same against said guiding means to thereby assume the greater part of the weight of the carton.

4. A paper towel dispenser and holder for cartons including a case having a withdrawal slot and a projection below the slot and at the front of the case, said projection being adapted to be received in a notch at the carton bottom so as to engage the towels to hold the same above the carton bottom.

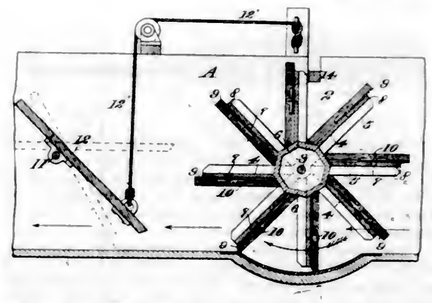
5. A paper towel dispenser and holder for cartons including a case having a withdrawal slot and a pair of spaced bracket members below the slot and adjacent the front of the case, said members being adapted to be received in a pair of notches provided therefor at the carton bottom so as to engage the towels to hold the latter above the carton bottom.

[Claims 6 to 8 not printed in the Gazette.]

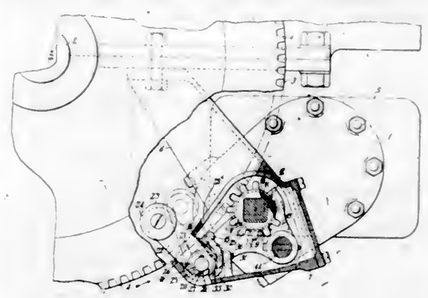
1,130,572. CURRENT WATER-METER. ADONIRAM J. COLLAR, Yreka, Cal. Filed June 16, 1914. Serial No. 845,378. (Cl. 170—106.)

1. In a meter of the character described the combination with a water gateway, of a wheel journaled therein, rigid paddle sections mounted on the wheel, a hinged paddle section carried on the outer edge of each rigid paddle section, a flexible packing strip secured on the outer edge of each hinged section and on the sides of the rigid sections, an adjustable gate mounted in the gateway to control the flow of water through the wheel, a semi-circular section mounted in the bottom of the gateway with which the hinged paddle sections are adapted to contact, and means for locking the wheel against revolving.

2. In combination with a water gateway, a wheel having rigid inner paddle sections, outer paddle sections hinged to the inner sections, and sheets of packing extending across the joints formed by the adjacent edges of the sections to seal said joints and having the free outer sides thereof engaging the bottom of the gateway.



1,130,573. SAFETY DEVICE FOR STARTING-MOTORS. FRANK CONRAD, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 2, 1913. Serial No. 758,313. (Cl. 74—7.)



1. In combination, two gear wheels, one of which is relatively shiftable into and out of mesh with the other, and mechanical means which automatically prevents the meshing of said gear wheels when one of them is rotating.

2. In combination, two gear wheels, one of which is shiftable into and out of mesh with the other, and mechanical means for locking said shiftable gear wheel in an inoperative position upon an attempt to mesh said gear wheels when one of them is rotating.

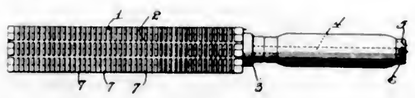
3. In combination, two gear wheels, one of which is shiftable into and out of mesh with the other, and means for preventing the meshing of said gear wheels when one of them is rotating, said means being operative only when said first gear wheel is shifted.

4. In combination, two gear wheels, one of which is shiftable into and out of mesh with the other, and mechanical means for automatically preventing the meshing of said gear wheels when one of them is rotating, said means being operative only when said first gear wheel is shifted.

5. In combination, a gear wheel, a second gear wheel shiftable into and out of mesh with said first wheel, and means for preventing the engagement of said gear wheels when one of them is rotating, said means comprising a member which engages said first gear wheel in advance of said second gear wheel.

[Claims 6 to 17 not printed in the Gazette.]

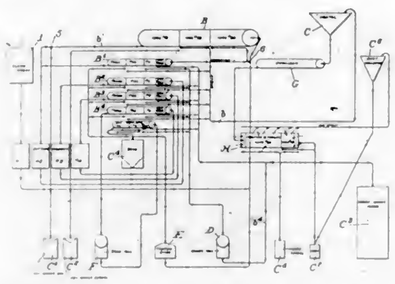
1,130,574. BRUSH. BURLEY W. CORLEY, Chattanooga, Tenn. Filed Apr. 2, 1913. Serial No. 758,478. (Cl. 34—26.)



1. An integral metallic brush comprising a body having a plurality of rows of teeth, said teeth being tapered and having flat sides, the base of all of the teeth being alined so as to produce a substantially flat ironing surface between the teeth and an integral shank boss projecting longitudinally from the body.

2. An integral metallic brush comprising a base, a plurality of rows of teeth formed on the upper side of said base, said teeth tapering to a point at their upper extremities, the teeth in each row being alined with the corresponding teeth of the next row, and spaced in close proximity at the base, the teeth having flat sides so as to produce a substantially flat ironing surface between the teeth and an integral shank projecting longitudinally from the base of the brush.

1,130,575. FOOD CEREAL AND PROCESS OF MAKING THE SAME. EZEKIEL B. COX, Newtown, Pa., assignor to Newtown Cut Wheat Cereal and Trading Company, a Corporation of Pennsylvania. Filed Sept. 25, 1913. Serial No. 791,812. (Cl. 99—10.)



1. A food cereal consisting of wheat berries sliced or cut into a finely divided state with bran particles maintained on the wheat granules by natural attachment, said cereal being freed from flour, substantially as described.

2. A food cereal consisting of wheat berries sliced or cut into a finely divided state with bran particles maintained on the wheat granules by natural attachment, said granules with the attached bran being roasted, and thereby rendered ready for subsequent cooking, substantially as described.

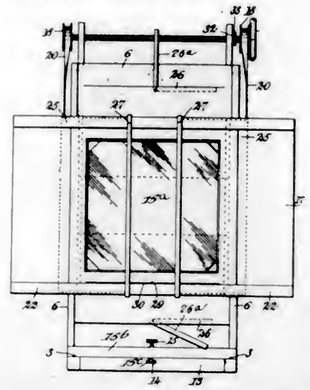
3. A food cereal consisting of wheat berries sliced or cut transversely with the bran naturally attached to the sliced granules.

4. A food cereal consisting of a mass of wheat berries finely divided by slicing or cutting and freed from flour, said mass having bran evenly distributed throughout the same and naturally attached to the sliced wheat granules, substantially as described.

5. The herein described process consisting in slicing wheat berries and their attached husks to form granules with naturally attached bran, screening off the flour and bran that becomes detached, and roasting the wheat granules together with the bran maintained thereon by natural attachment, to render the material ready for cooking, substantially as described.

[Claim 6 not printed in the Gazette.]

1,130,576. PHOTOGRAPHIC CAMERA. JEAN A. DE BOUZEK, Salt Lake City, Utah. Filed Mar. 27, 1909. Serial No. 486,108. (Cl. 95—37.)



1. A photographic camera having a focusing plate, a locking pin mounted on said plate; an elevator frame for said plate, said frame having transverse length necessary to support said plate when moved to either side of the vertical median plane of the camera a distance sufficient for the exposure of the edges of said plate adjacent both vertical edges thereof: a rack on said elevator frame to be engaged by said locking pin on said plate; a plurality of light exclusion slides mounted on said elevator frame and main frame for interposition between said plate and said camera; a vertically disposed guide frame to support said elevator frame; and manually operative means for lifting said elevator frame on said guide frame.

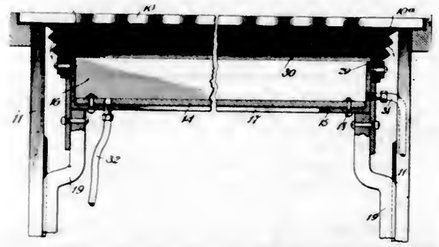
2. In a photographic camera of the character described, a main frame, a focusing plate; an elevator frame for said plate, having transverse length necessary to permit lateral shift of said holder for exposure of the section of the plate adjacent both vertical edges thereof; light exclusion slides mounted on said elevator frame and main frame; and manually operative horizontally and vertically to vary the dimension of the opening provided in said elevator frame for the passage of light from said camera to said plate and spacing rods visibly carried by said slides for showing on the back of the said plate the size of the light opening formed by the adjustment of said slides.

3. In a photographic camera, a horizontally adjustable frame, an elevator mounted on the said frame, means for raising and lowering the elevator frame, a focusing plate carried by the elevator frame, horizontally movable slides carried by the elevator frame, and vertically movable slides carried by the adjustable frame.

1,130,577. SIDEWALK-SKYLIGHT. HORACIO DE CORDOVA, Habana, Cuba. Filed Mar. 11, 1914. Serial No. 823,911. (Cl. 94—7.)

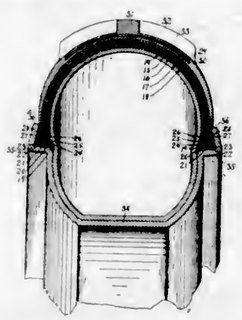
1. In a device of the character set forth, the combination with a grating, of a horizontal vertically movable frame beneath the grating, a transparency supported by the frame in spaced relation to the grating, collapsible reticulated devices between said frame and said grating allowing for a circulation of air through the grating and to prevent the entrance of foreign matter with the air, and means to flush accumulations of dust or the like from the upper surface of the transparency.

2. The combination of a grating including a base flange surrounding it, a frame beneath the grating, a transparency carried by said frame and constituting a closed bottom therefor, means to adjust the frame and its transparency vertically with respect to the grating and its base flange, and means to flush accumulations of dust or the like from within the frame and the top of the transparency in any position of adjustment thereof.



3. The combination with a grating including a closed base flange surrounding it, of a frame beneath the grating, a transparency supported by said frame, means to adjust the frame and its transparency vertically toward or from the grating, and a compressible rim secured to the frame and extending above the same and adapted to coöperate with the grating base flange, substantially as set forth.

1,130,578. RUBBERIZED FABRIC AND RUBBER TIRE. MARK A. DEES, Lubbock, Tex. Filed Apr. 4, 1914. Serial No. 829,522. (Cl. 152—13.)



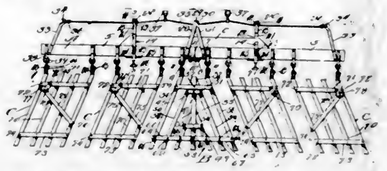
1. A tire structure comprising a series of plies of fabric; each ply having its edges doubled upon and laid against the body of the ply providing a fold and a metallic ring located in the pocket of the fold, the folds of the plies increasing in width from the inner fold to the outer fold.

2. A tire structure comprising a series of plies of fabric; each ply having its edges doubled upon and laid against the body of the ply providing a fold and a metallic ring located in the pocket of the fold, the folds of the plies increasing in width from the first fold to the last fold forming beads or packs.

3. A tire structure comprising a series of plies of fabric; each ply having its edges doubled upon and laid against the body of the ply providing a fold and a metallic ring located in the pocket of the fold, the folds of the plies increasing in width from the first fold to the last fold forming beads or packs of squared dovetail shape.

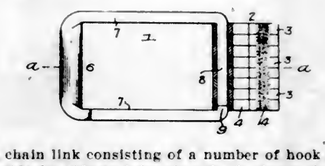
1,130,579. MULTIPLE HARROW. CHARLES E. DEIBLER, Lakeville, Minn. Filed Sept. 19, 1912. Serial No. 721,259. (Cl. 55—84.)

1. In an agricultural implement, a draw bar comprising in combination, a pair of main sections arranged end to end, a front section overlapping the inner ends of the main sections, and means for connecting all of said sections to form a unitary structure, said means comprising a pair of U-shaped clamps which are respectively disposed around the outer ends of the front section and the inner ends of the main sections, a transverse bolt carried by each clamp and operating against the front section, and an adjusting screw carried by each clamp and operating against the respective main section for drawing said clamp tightly to said sections.



2. In an agricultural implement, a draw bar comprising in combination, a pair of main sections arranged end to end, a front section overlapping the inner ends of the main sections, plates respectively secured to the rear faces of the inner ends of the main sections, one of said plates being bent rearwardly and formed with a threaded opening, an eye carried by the other plate, a hook bolt having its hook engaged in the eye and having its shank engaged in the opening, and a nut engageable with the shank and bearing against the first mentioned plate for locking said sections against longitudinal movement, and means connecting the main and front sections for preventing lateral movement therebetween.

1,130,580. CHAIN-LINK. JAMES M. DODGE, Philadelphia, Pa. Filed Feb. 8, 1913. Serial No. 747,101. (Cl. 74—44.)



1. A chain link consisting of a number of hook elements placed side by side and forming the hook member of the link; and a link member having an end bar extending transversely through the hook member and securing the several hook elements together.

2. A chain link having a quadrangular link member and a hook member, said hook member being made of a number of flat elements placed side by side, each of said elements having a hook and being perforated back of the hook; each link member having a cross bar extending through the perforations and secured to the hook elements.

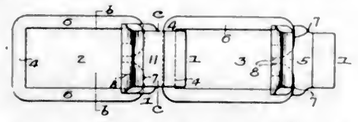
3. The combination in a chain link, of a hook member and a quadrangular link member, the hook member being made of a series of elements assembled side by side, each element having a hook; a transverse quadrangular opening back of the hook; a link member having a cross bar quadrangular in section and adapted to the openings in the elements forming the hook member, whereby the said elements are held in alinement in respect to the link element.

4. The combination in a chain link, of a hook member and a link member, the hook member being made of a number of punched elements, each of said elements being perforated at the rear of the hook and secured together, the link member having a cross bar extending through the openings in the hook elements and secured to the said hook member.

5. The combination in a quadrangular chain link, of a hook member and a quadrangular link member having integral end bars, one end bar of the link member being secured to the hook member, the other end of the bar of the link being round and having abutting longitudinal surfaces and having a greater amount of metal than the side bars of the said link member, the abutting surfaces of the end bar being on the inner side thereof.

[Claims 6 and 7 not printed in the Gazette.]

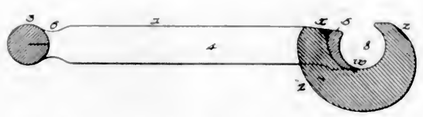
1,130,581. CHAIN. JAMES M. DODGE, Philadelphia, Pa. Filed May 24, 1913. Serial No. 769,590. (Cl. 74—44.)



1. The combination of a link member made of a blank bent to form an end bar, two side and two end members, said end members being bent at the ends to form two longitudinal projections; and a socket member recessed to receive the end members and perforated to receive the projections of said end members and having a socket for the reception of the end bar of an adjoining link.

2. The combination in a chain having detachable link elements, of two links each having an open center; a double hook member for the reception of the two adjoining bars of the said link elements, one of said link elements being secured to the hook member so as to prevent it from turning therein, the other link element being arranged to turn freely in the hook member; and a block arranged to close the hook member so as to confine both link elements against longitudinal movement in the hook member, but allowing for the free turning of the other hook member, both hook members being capable of being detached on the removal of the block.

1,130,582. CHAIN-LINK. JAMES M. DODGE, Philadelphia, Pa. Filed July 8, 1913. Serial No. 777,912. (Cl. 74—43.)



1. The combination in a chain link, of a body portion made rectangular and having two end bars and two side members connecting the bars; and a hook section having a transverse socket shaped to receive one of the end bars of the link section, the parts being secured together to form a unitary structure, the end bar forming the rear wall of the socket for an adjoining link.

2. The combination of a link consisting of a rectangular body portion, two end bars and side members connecting the end bars, one of said end bars being rounded and the other being narrow and curved; and a hook section having a socket therein arranged to receive the narrow end bar of the body portion, the parts being secured together and said end bar forming the rear wall of the socket of the hook section.

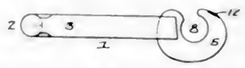
3. The combination of a link consisting of a rectangular body portion having end bars and side members connecting the end bars; a series of hooked elements, each having a socket, said elements being arranged side by side to form a hook member, one end bar of the body portion being located in the socket and secured to the several elements and forming the rear wall of the socket of the hook section.

4. The combination in a link, of a body portion rectangular in form having two end bars and side members connecting the bars, one of the end bars being round in cross section and the other of a greater width than the end bars and curved in cross section; a hook member having a socket therein, the rear wall of the socket being shaped to conform to the end bar of the body portion, said parts being secured together, the end bar forming the rear wall of the socket of the completed link.

5. The combination in a body portion having two end bars and side members connecting the end bars, one of said end bars being rounded in cross section, the other being curved, the side members being curved in cross section forming upper and lower ribs on the outer surface; a hook section made of a series of elements spaced side by side, said hook section having a transverse socket therein of a size to receive the end bar of the body portion and the round end of the adjoining link, said first mentioned end bar being secured to the hook section.

[Claims 6 and 7 not printed in the Gazette.]

1,130,583. CHAIN-LINK. KARL DODGE, Philadelphia, Pa. Filed Feb. 8, 1913. Serial No. 747,135. (Cl. 74—44.)

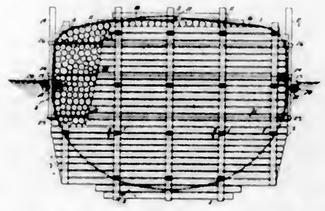


1. The combination of a quadrangular link section having transverse bars and side members and a hook section having a socket therein for the reception of a cross bar of an adjoining link and having an independent transverse slot back of the socket, said slot being open on one face of the link for the reception of one of the transverse bars of the above mentioned link section, said parts being secured together to form a unitary structure.

2. The combination in a chain link, of a link section having transverse bars and side members; a hook section made of a series of elements placed side by side, each element having a socket; and an independent slot at the rear of the socket so that, when the said elements are assembled side by side, an open slot will extend across the hook member back of the socket, one of the cross bars of the link resting in the slot in the link section and secured thereto to form a unitary structure.

3. The combination in a chain link, of a quadrangular link section; a hook section having a transverse socket therein for the reception of a cross bar of an adjoining link and having an independent transverse slot directly back of the socket and open at the under side of the link, one of the cross bars of the quadrangular link section resting in the slot and secured to the hook section to form a unitary structure.

1,130,584. CRADLE FOR LOG-RAFTS. PATRICK F. DUNDON, San Francisco, Cal. Filed Sept. 28, 1912. Serial No. 722,931. (Cl. 9—15.)



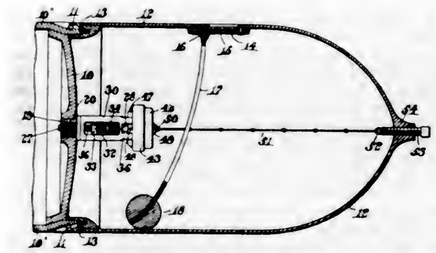
1. In a cradle for logs, means for preventing the lateral escape of the logs from the cradle comprising, on each side of the cradle, a pair of longitudinal logs secured together, and a post between the logs, a cable connecting the lower ends of opposite posts, a cable connecting opposite posts a short distance above said beams, and a cable around the logs of the cradle and between the longitudinal logs on each side of the cradle.

2. In a cradle for logs, means for preventing the lateral escape of the logs from the cradle comprising, on each side of the cradle, a pair of longitudinal logs secured together, and a post between the logs, the logs being mortised to receive said posts, a cable connecting the lower ends of opposite posts, a cable connecting opposite posts a short distance above said beams, and a cable around the logs of the cradle and between the longitudinal logs on each side of the cradle.

3. In a cradle for logs, means for preventing the lateral escape of the logs from the cradle comprising, on each side of the cradle, a longitudinal series of pairs of longitudinal logs secured together, cables connecting the several pairs of the series, and posts between the logs, cables connecting opposite posts above and below said logs, and cables around the logs of the cradle, and passing between the longitudinal logs on each side of the cradle.

4. In a cradle for logs, means for preventing the lateral escape of the logs from the cradle comprising, on each side of the cradle, a longitudinal series of pairs of longitudinal logs secured together, cables connecting the several pairs of the series, and posts between the logs, the logs being mortised to receive said posts, cables connecting opposite posts above and below said logs, and cables around the logs of the cradle, and passing between the longitudinal logs on each side of the cradle.

1,130,585. DEVICE FOR SAVING TORPEDOES. ERNEST DURR, U. S. Navy. Filed Nov. 20, 1914. Serial No. 878,664. (Cl. 114—20.)



1. In combination with a torpedo having a compressed air chamber; an exercise head; means whereby water may be admitted to or expelled from said head; and a valve between said air chamber and head normally closed by the pressure within the air chamber but adapted to be opened when the pressure in the exercise head acting on said valve exceeds the pressure in the air chamber acting thereon.

2. In combination with a torpedo having a compressed air chamber; an exercise head having a water passage in its wall and communicating with said air chamber by an air passage; and a valve normally closing said passage but adapted to be operated to admit air from said chamber to said head when the pressure in said head acting on said valve exceeds the air pressure in said chamber acting on the opposite face of said valve.

3. In combination with a torpedo having a compressed air chamber; an exercise head having a water passage in its wall; a valve between said chamber and exercise head; and means for regulating the operation of said valve whereby it will be opened when the pressure on the head face thereof exceeds the pressure on the chamber face thereof.

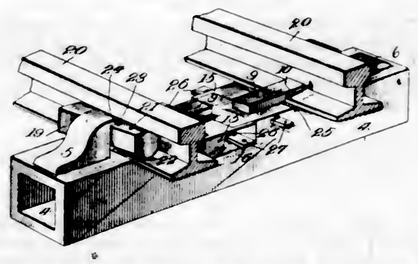
4. In combination with a torpedo having a compressed air chamber; an exercise head therefor; a flexible tubular member extending through the casing of the head into the interior thereof; a valve between the air chamber and head normally closed by the pressure in the air chamber acting on one face thereof but adapted to be opened by an excess of pressure acting on the opposite face of said valve.

5. In combination with a torpedo having a compressed air chamber; an exercise head therefor; a flexible tubular member extending through the casing of the head into the interior thereof; a weight on the free end of said tubular member; a valve between the air chamber and head normally closed by the pressure within said air chamber but adapted to be opened by an excess of pressure acting upon the opposite face of said valve.

[Claims 6 to 18 not printed in the Gazette.]

1,130,586. METALLIC RAILWAY-TIE. JOHN O. FREEMAN, Greenville, S. C. Filed July 29, 1914. Serial No. 853,930. (Cl. 238—5.)

1. A tie of the class described, comprising a hollow body portion having a recess in its top wall and a communicating recess in its side wall, the latter recess extending beyond the side walls of the recess in the top wall, the body portion having an integral rail brace, a locking member formed with a reduced central portion which forms upper and lower lateral flanges, one of the upper flanges being beveled to engage the base of a rail, the locking member fitting in the recess in the top wall of the body portion and the upper and lower lateral flanges embracing the upper wall of the body portion, one side of the locking member abutting against a wall of the body portion, a filling block having a horizontal flange which passes through the recess in the side wall of the body portion and abuts against the locking member, said filling block having an outer flange which extends down and laterally from the horizontal flange to engage the outer surface of the body portion, the flange on the filling block having an opening, a wedge fitted in said opening, and an opening in the rear wall of the body portion to wedge and lock the locking member against a rail, and means for locking the wedge in position.



2. A railroad tie comprising a body portion formed in its upper wall with a recess and a communicating recess in its side wall, the latter recess extending laterally beyond the walls of the recess in the top wall of the body portion, a rail brace on the top of the body portion, a locking block fitted in the top recess and formed with upper and lower flanges which embrace the top wall, a filling block fitted in the recess in the side wall, said filling block abutting against the locking member, the filling block having an outer flange which extends below and beyond the sides and bottom of the block, said flange having a recess and the under surface of the block being cut away to form a wall in alinement with one of the walls of the latter recess, a wedge fitting in the recess in the flange and engaging the wall on the under side of the block, and a wall of the locking member, the opposite end of the wedge extending through an opening formed in the rear wall of the body portion, and pins passed through the opposite ends of the wedge to hold the same in position.

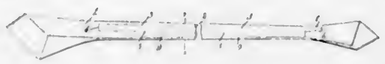
3. A railroad tie comprising a hollow body portion formed with a recess in its top and a communicating recess in one wall, a rail brace on the top of the body portion, a locking element fitted in the recess in the top wall, said locking element having a rail engaging flange, a filling block fitted in the recess in the side wall and abutting against the locking block, said locking block having an outer flange formed with a recess, a wedge passing through the latter recess and engaging the locking block, the opposite end of the wedge passing through a recess formed in the rear wall of the hollow body portion, means for locking the wedge in position, a second wedge engaging the rail brace and a rail, and means for locking said second wedge in position.

4. A rail road tie comprising a body portion formed in its upper wall with a recess and a communicating recess in its side wall, the latter recess extending laterally beyond the walls of the recess in the top wall of the body portion, a rail brace on top of the body portion, a locking block fitting in the top recess and formed with upper and lower flanges which embrace the top wall, a filling block fitted in the recess in the side wall and abutting against the locking block, said filling block having a recess in aline-

ment with an opening formed in the opposite wall of the body portion, a wedge fitting in the recess and the opening in the opposite wall, and pins passing through the opposite ends of the wedge to hold same in position.

5. A railroad tie comprising a body portion formed in its upper wall with a recess and a communicating recess in its side wall, the latter recess extending laterally beyond the walls of the recess in the top wall of the body portion, a rail brace on top of the body portion, a wedge engaging the inner surface of the rail brace, said wedge acting to bind against a rail supported on the body portion, pins to fasten the wedge in position, a locking block fitting in the top recess and formed with upper and lower flanges which embrace the top wall, a filling block fitted in the recess in the side wall and abutting against the locking block, said filling block having a recess in alinement with an opening formed in the opposite wall of the body portion, a wedge fitting in the recess and the opening in the opposite wall, and pins passing through the opposite ends of the wedge to hold same in position.

1,130,587. NECKTIE. SAMUEL S. FREEMAN, Oakland, Cal.; Dorothy Freeman administratrix of said Samuel S. Freeman, deceased. Filed Dec. 30, 1913. Serial No. 809,435. (Cl. 2—11.)



A necktie comprising a body turned to tubular shape with its longitudinal edges united by a seam, and a filling on the inside of said tubular body, having one of its longitudinal edges incorporated in the seam which unites the edges of the body, said filling being additionally secured to the body by stitches which pass through the inner thickness only of said body.

1,130,588. FRUIT AND VEGETABLE DUST AND PROCESS OF MAKING SAME. HANS FRIEDENTHAL, Berlin-Nicolassee, Germany. Filed July 30, 1913. Serial No. 782,071. (Cl. 99—11.)

1. A process for the manufacture of vegetable dust which consists in drying the vegetable, then grinding it to a coarse powder and finally removing and collecting the finest dust particles weighing about one one-billionth of a gram each by an air current of low velocity.

2. A process for the manufacture of fruit dust which consists in drying the fruit, then grinding it to a coarse powder and finally removing and collecting the finest dust particles weighing about one one-billionth of a gram each by an air current of low velocity.

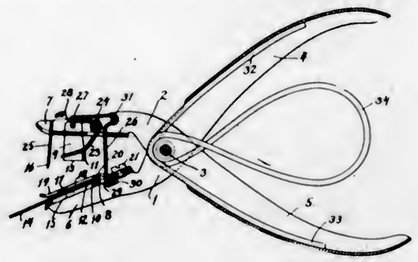
3. A process for the manufacture of vegetable dust which consists in drying the vegetable, then grinding it to a coarse powder, removing and collecting the finest dust particles weighing about one one-billionth of a gram each by an air current, then grinding the coarse powder again and removing the dust of the same fineness by an air current until merely the woody portions are left, the velocity of the air current in each instance being so low, that it will remove only dust of the said fineness.

4. A process for the manufacture of fine fruit powder which consists in drying the fruit, then grinding it to a coarse powder, removing and collecting the finest powder particles weighing about one one-billionth of a gram each by an air current, then grinding the coarse powder again and removing the powder of the same fineness by an air current until merely the woody portions are left, the velocity of the air current in each instance being so low, that it will remove only dust of the said fineness.

5. A vegetable dust containing no woody portions, each particle of said dust weighing less than one one-billionth of a gram.

[Claim 6 not printed in the Gazette.]

1,130,589. PAPER-FASTENER. DANIEL W. GAGE, Cambridge, Mass., assignor to J. C. Hawkins, Newton, Iowa. Filed May 11, 1910. Serial No. 560,611. (Cl. 93—1.)



1. A paper fastening implement comprising pivotally connected arms, a punch and a slitter carried by one of said arms, a die carried by the other arm, a folder pivotally mounted upon the punch arm, means whereby the arms may be brought together for forming a tongue and slit within the paper, the said folder adapted to bend the tongue into engagement with the slitter whereby the slitter upon its return movement will draw the tongue through the slit within the paper, and a returning lever for returning the folder to its normal position.

2. An implement for fastening paper comprising a coöperating punch and die formed to cut a tongue in the paper, a slitter, a tucker for bending the tongue toward the slitter, the slitter having a tongue engaging part whereby it is adapted to draw the tongue through an adjacent part of the paper, and a returning lever for returning the tucker to its normal position.

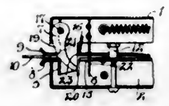
3. A paper fastening implement comprising a pair of arms adapted to be forced together, a die formed within one of said arms, a punch carried by one of said arms, a piercing device carried by the last mentioned arm, a folder, said punch coöperating with the die when the arms are brought together to form a tongue within the paper, said piercing device adapted to form a slit in the paper adjacent to the tongue, said folder adapted to force the tongue into engagement with the piercing device when the arms are brought together, whereby the piercing device will pull the tongue through the slit formed within the paper, and a returning lever coöperating with said folder for returning the same into its normal position when the arms have been forced apart.

4. A paper fastening device comprising a cutter constructed to form a tongue in the paper, a piercing device adjacent to said cutter and arranged to pass through the paper at the same time with the cutter, said piercing device having an eye, a folder operative while said cutter and piercing device are in the paper for bending back the tongue and passing the same through the eye whereby when the piercing device withdraws it will pull the end of the tongue through the opening which it had previously made, and a returning lever adapted to coöperate with said folder for returning the folder to its normal position after the paper has been fastened.

5. A paper fastening device comprising two coöperating jaws, a die carried by one of said jaws, a punch and a piercing device carried by the other of said jaws, a folder pivotally mounted upon one of said jaws, the said punch adapted to form a tongue within the paper, and said piercing device to form a slit within the paper when the jaws are brought together, said folder adapted to force the tongue backward into an eye formed within the piercing device whereby upon the separation of the jaws, the piercing device will draw the tongue through the slit formed within the paper, a returning lever pivotally mounted upon one of said jaws, an arm extending from said lever adapted to coöperate with said folder whereby when the jaws are open the folder will be returned to its normal position.

[Claim 6 not printed in the Gazette.]

1,130,590. PAPER-FASTENER. DANIEL W. GAGE, Cambridge, Mass., assignor to J. C. Hawkins, Newton, Iowa. Filed Sept. 16, 1911. Serial No. 649,622. (Cl. 93—1.)



1. The combination in a paper fastening machine having a tongue cutter and a penetrating device or slitter, of a tongue folder or tucker pivotally mounted within the tongue cutter, and means for positively swinging the tucker from the tongue cutter toward the slitter after said parts have penetrated the paper.

2. The combination in a paper fastening machine having a tongue cutter and a penetrating device or slitter, of a tongue folder or tucker pivotally mounted within the tongue cutter, and a stripper plate having a part to coact with the tongue folder to positively swing it toward the penetrating device.

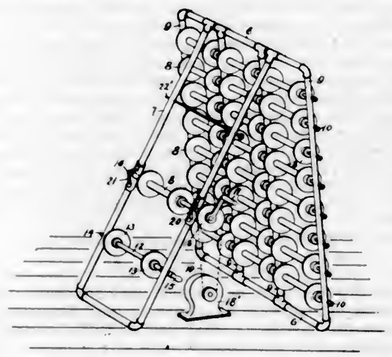
3. In a paper fastening apparatus having relatively movable members, one of which carries a die and the other a tongue cutter and a penetrating device for forming an opening through which the tongue is passed to fasten the paper, a tongue tucker pivoted within and normally lying within the cutter, and means supported by the die carrying member for positively moving the tucker out from within the cutter after the cutter has penetrated the paper.

4. The combination in a paper-fastening machine having a tongue cutter and a slitter, provided with an eye, of a tucker pivotally mounted within the tongue cutter, and cam means for positively swinging the tucker toward the eye of the slitter.

5. In a paper-fastening machine, the combination of relatively movable opposed members, a tongue cutter on one of said members, a slitter having an eye on one of said members, said cutter and slitter being adapted to penetrate sheets placed between the members when the members are moved relatively together, a tucker pivoted upon one of the members and having a cam surface, and an abutment on the other member arranged to engage such cam surface when the members are brought together and forcibly move the tucker about its pivot.

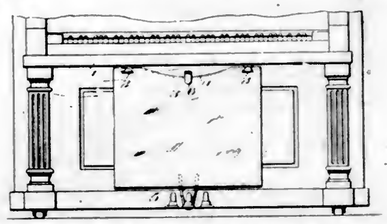
[Claims 6 to 27 not printed in the Gazette.]

1,130,591. DISPLAY-RACK FOR ELECTRIC WIRES. LOU GRAY, New York, N. Y. Filed May 13, 1914. Serial No. 838,298. (Cl. 242—55.)



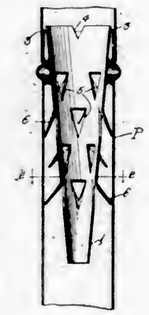
In a removable electric wire rack made from pipe, the combination of a frame having a series of uprights, a series of spools removably journaled between said uprights, a back support or prop connected to the frame, a coil holder removably journaled on said prop, and a reel shaft also removably journaled on said prop and adapted to hold successively the spools of said series for filling them from coils supplied to said coil holder, substantially as set forth.

1,130,592. PIANO-PROTECTOR. MARTIN GUNTHER, Chicago, Ill. Filed Oct. 22, 1912. Serial No. 727,229. (Cl. 84—98.)



A protector for a musical instrument of the upright pianoforte type, the same comprising a flexible apron having the intermediate portion of its upper edge cut away and having openings in its upper corner portions, a loop located centrally of the lower edge of the apron, and a strap at the upper edge of the apron about in line with the said loop.

1,130,593. FLAME AND SPARK CHECKING DEVICE. ADAM HAUSAM, Visalia, Cal., assignor of one-half to James F. Kite, Visalia, Cal. Filed Dec. 10, 1914. Serial No. 876,539. (Cl. 110—130.)



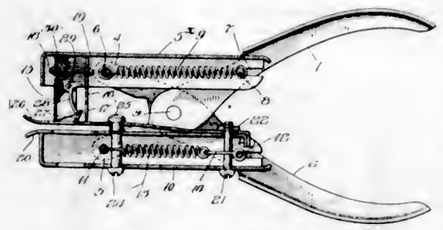
1. The combination with a flue, of a hollow inverted cone-shaped member therein and having a plurality of openings in its circular wall, and a plurality of laterally extending smoke deflecting plates integrally joined at their inner ends to said wall adjacent the openings therein, the outer ends of said plates being in contact with the flue whereby to retain the cone-shaped member therein.

2. The combination with an upright cylindrical flue, of a hollow inverted cone-shaped member therein and having a plurality of openings in its circular wall, and a plurality of laterally extending smoke deflecting plates having their inner ends joined integrally with said wall directly above the openings therein, said plates being inclined downwardly and outwardly and having their outer ends disposed in contact with the flue, to retain said member therein.

1,130,594. PAPER-FASTENER. J. C. HAWKINS, Newton, Iowa. Filed Nov. 3, 1911. Serial No. 658,331. (Cl. 93—1.)

1. In an implement for securing together a plurality of sheets, the combination of opposing members movable relative to one another with a straight line movement, cutting means carried by one of said members, a stripper for clearing cut paper from said cutting means, a substantially inelastic folder independent of said cutting means and

pivotally mounted to swing with respect to said cutting means and arranged to push the cut paper backward under the stripper, and a spring pressing against said pivotally mounted folder to hold it in position.



2. In a device for fastening sheets of paper, the combination of a cutting knife adapted to form a tongue from the paper, a slitting knife arranged to slit the paper near the base of the tongue, said slitting knife being provided with an eye near its cutting edge, a folder pivoted near said knives to swing toward said slitting knife, an arm projecting from said folder, and means for engagement with said arm to insure positive action of said folder in moving the tongue of paper into the eye of the slitting knife.

3. In a device for securing together sheets of paper, the combination of a cutting die, a knife coöperating therewith and adapted to form a tongue from the sheets of paper, a slitting knife arranged for slitting the paper near the base of the tongue, said knives being rigidly mounted with respect to one another, a folder pivoted between said knives, a spring normally urging said folder toward said slitting knife, and means brought into engagement with said folder near the end of the folding operation to insure positive operation of the folder in pressing the tongue backward through the eye in the slitting knife.

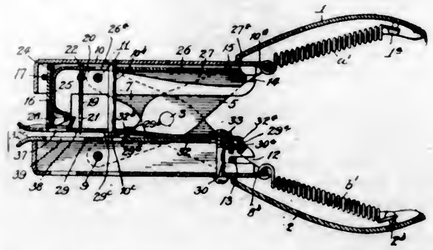
4. In an implement for securing together sheets of paper, the combination of two jaws mounted to move toward one another, operating handles for insuring parallel movement of said jaws, a tongue cutting knife and a slitting knife carried by one of said jaws, said slitting knife having an eye for the reception of a tongue of paper, a stripper plate yieldingly mounted between said jaws and having a projecting shoulder, and a folder pivotally mounted to move with one of said jaws and having an arm initially contacting with the shoulder on said stripper plate, said folder having a second arm arranged for contact with said shoulder when the jaws are at the limit of their movement toward one another, the stop on said stripper plate serving to insure positive action of said folder in bending the paper tongue backward through the eye of the slitting knife and for holding said tongue in such position that when said jaws move apart, the end of the tongue will be drawn through the opening previously made by the slitting knife.

5. In a paper fastener of the type described and in combination, a punch, a needle having an opening, a tucker operating part and a pivotally mounted tucker having a portion below its pivot coöperating directly with the tongues cut by the punch and having a portion above its pivot normally arranged in the path of said tucker operating part and designed to coact with the latter for moving the part of the tucker below the pivot toward the opening of the needle, substantially as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,130,595. PAPER-FASTENER. J. C. HAWKINS, Newton, Iowa. Filed Nov. 6, 1911. Serial No. 658,635. (Cl. 93—1.)

1. In a paper fastener, the combination of a cutting knife to form a tongue from the paper, a slitting knife movable to slit the paper near the base of the tongue, said slitting knife being provided with an eye near its slitting edge, and a substantially inelastic folder separate from said knives and movable bodily to force the end of the tongue into the eye of the slitting knife whereby the slitting knife upon its return movement will draw the end of the tongue through the slit in the paper.



2. In a paper fastener, the combination of a cutting knife to form a tongue from the paper, a slitting knife to slit the paper near the base of said tongue, said slitting knife being provided with an eye near its slitting edge, a slidingly mounted folder separated from said knives and normally having its free end away from the eye of the slitting knife, and means for sliding said folder with a positive movement to bend said tongue through said eye, whereby the slitting knife automatically draws the end of the tongue through the slit when said knife is withdrawn.

3. In a paper-fastener, the combination of a cutting knife to form a tongue from the paper, a slitting knife to slit the paper near the base of said tongue, said slitting knife being provided with an eye near its slitting edge, a folder separate from said knives and normally having its free end away from the eye of the slitting knife, and means for bodily shifting said folder toward said slitting knife to cause the free end of said folder to bend the tongue through said eye, whereby the slitting knife automatically draws the end of said tongue through the slit when the knife is withdrawn.

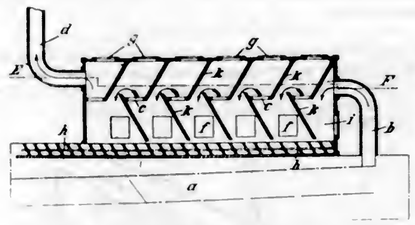
4. In a paper-fastener, the combination of a pair of jaws, a cutting knife to form a tongue from the paper, a slitting knife to slit the paper near the base of the tongue, said knives being rigidly mounted in one of said jaws, a slidingly mounted folder associated with said knives for causing the slitting knife to draw the end of the tongue through the slit in the paper when the jaws are opened, said folder being separate from said slitting knife, and means for closing and opening said jaws.

5. In a paper-fastener, the combination of a pair of jaws, a cutting knife to form a tongue from the paper, a slitting knife to slit the paper near the base of the tongue, said slitting knife having an eye, said knives being rigidly mounted in one of said jaws, a folder associated with said knives, said folder comprising a portion extending between said knives and a portion extending longitudinally in the jaw which carries the knives, a pair of pivotally connected gripping members for closing and opening said jaws, and a connection between the inner end of said folder and one of said gripping members for bodily shifting the folder relatively to said jaws into folding position when the same are closed, whereby the free end of the folder bends the tongue through said eye and causes the slitting knife to draw the tongue through the slit when the jaws are opened.

[Claims 6 to 13 not printed in the Gazette.]

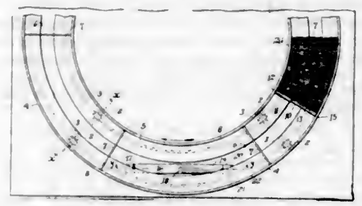
1,130,596. APPARATUS FOR EXTRACTING DUST FROM AIR OR VAPOR. JOHANNES HERBING, Halle-on-the-Saale, Germany. Filed Oct. 3, 1913. Serial No. 793,192. (Cl. 110—152.)

1. In apparatus for removing dust from dust-laden gases or vapor, the combination of a chamber having an inlet and an outlet, partition walls dividing the chamber into a series of cells located between the inlet and the outlet, and a filter mounted in each partition, the filters being of gradually increasing fineness toward the outlet and each partition wall being inclined at an angle of less than sixty degrees to the vertical.



2. In apparatus for removing dust from dust-laden gases or vapor, the combination of a chamber having an inlet and an outlet, partition walls dividing the chamber into a series of cells located between the inlet and the outlet, and a filter mounted in each partition, the filter being of gradually increasing fineness toward the outlet; a channel at the bottom of the chamber below the partition walls, and means for conveying dust out of the channel.

1,130,597. RECEPTACLE FOR CARDS. LEONARD J. HOGG, Philadelphia, Pa. Filed May 16, 1914. Serial No. 839,181. (Cl. 129—16.)



1. In a device of the character stated, a receptacle for cards having a slot in the bottom thereof, an ejecting device adapted to partially project through said slot and into the path of movement of said cards, and means to movably support said receptacle.

2. In a device of the character stated, the combination of a receptacle provided with a circular trough to hold cards, and having a slot in the bottom of said trough, means to rotatably support said receptacle, and a card ejecting device fixed relative to said receptacle and adapted to partially project through said slot into the path of movement of said cards whereby one or more cards are moved to project above the remaining cards.

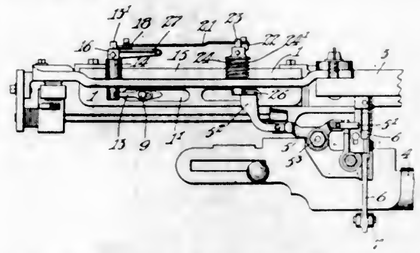
3. In a device of the character stated, the combination of a receptacle provided with a circular trough to hold cards, and having a slot in the bottom of said trough, means to rotatably support said receptacle, a card ejecting device having inclined surfaces adapted to partially project through said slot into the path of movement of said cards whereby one or more cards are caused to project above the remaining cards in either direction of rotation of said receptacle.

4. In a device of the character stated, the combination of a receptacle for holding cards, having a slot in the bottom thereof, spacing elements for said receptacle, means to removably secure each spacing element to said receptacle, means to rotatably support said receptacle, and a card ejecting device fixed relative to said receptacle and adapted to partly project through said slot into the path of movement of said cards whereby one or more cards are moved to project above the remaining cards.

5. In a device of the character stated, a circular receptacle for cards having a slot in the bottom thereof, an ejecting device adapted to partially project through said slot and into the path of movement of said cards, circular track members supported beneath said receptacle, and a plurality of rollers suitably supported to engage said track members whereby said receptacle may be rotated at will.

[Claims 6 to 9 not printed in the Gazette.]

1,130,598. FEELER-MOTION FOR WELT-REPLENISHING LOOMS HAVING MOVABLE SHUTTLE-BOXES. DENIS MACHELL HOLLINS, Blackburn, England, assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 25, 1913. Serial No. 763,572. (Cl. 139—85.)



1. A feeler motion for weft replenishing looms having two movable shuttle boxes at one end of the lay, comprising a feeler member located above the boxes and adapted to contact with the filling in the shuttle in the upper box when the lower box is brought opposite the race way, a feeler member located below the boxes and adapted to contact with the filling in the shuttle in the lower box when the upper box is brought opposite the race way, and means whereby operation of either feeler member will control the position of a part carried by the lay and adapted when filling exhaustion is indicated by either feeler member, to cause filling replenishment to be brought about.

2. In a filling replenishing loom, the combination of a shifting shuttle-box for containing a plurality of shuttles, a feeler to feel into and detect the condition of the filling in a shuttle, and means to render the feeler effective by shifting movement of the shuttle-box as it moves the shuttle to inactive position.

3. In a filling replenishing loom, the combination of a shifting shuttle-box for containing a plurality of cells for the reception of shuttles, a feeler for each of said cells to detect the condition of the filling in a shuttle, and means to render effective by shifting movement of the shuttle-box as it moves the shuttle away from the line of the race into inactive position.

4. In a filling replenishing loom, the combination of a shifting shuttle-box having a plurality of cells for the reception of shuttles, a feeler mechanism comprising a feeler above and a feeler below the shifting shuttle-box, and means to render the feeler mechanism effective to indicate the condition of the filling in a shuttle as said shuttle is carried into inoperative position by shifting movement of the shuttle-box.

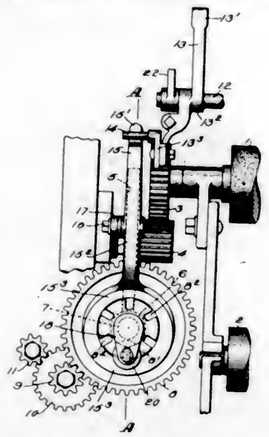
5. In a filling replenishing loom, the combination of a shifting shuttle-box comprising two cells for the reception of shuttles, a feeler, means to render the feeler effective by shifting movement of the shuttle-box to detect the condition of the filling in the shuttle as it is carried to inactive position, and means controlled by said feeler to initiate filling replenishment when the filling in the inactive shuttle has reached a predetermined condition.

[Claims 6 to 12 not printed in the Gazette.]

1,130,599. TAKE-UP MOTION OF LOOMS FOR WEAVING. DENIS M. HOLLINS, Blackburn, England, assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Dec. 15, 1913. Serial No. 806,748. (Cl. 139—60.)

1. In a take-up motion for looms, the combination of a shaft, a sand or take-up roll, means for driving the latter from the former including a continuously driven pinion or

spur wheel having a series of openings or recesses, an arm fixed to said shaft and carrying a pin adapted to engage in one or other of said openings or recesses, said pin being provided with a flange or collar, a lever having a portion underlying said flange or collar, and means to rock said lever to disengage the pin from said openings or recess when filling is absent or substantially exhausted.



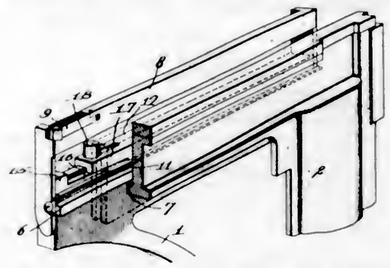
2. In a loom take-up motion, the combination with a shaft carrying a worm by which motion is transmitted to the sand roll and a driven spur wheel loosely mounted on said shaft, of an arm fast on said shaft, a spring actuated stud carried by said arm, a boss on said spur wheel having in its face a series of radial openings or recesses in one or other of which the inner end of the spring actuated stud is adapted to engage, a pivoted lever having a circular portion or ring encircling or concentric with the said boss, a flange, collar or the like on the stud adapted to be engaged by said ring or circular portion, and means to cause said lever to be rocked, on indication by the weft fork motion of breakage or absence of weft, or on indication by the weft feeler motion of weft exhaustion.

3. In a take-up motion for looms, the combination of a pinion or spur wheel continuously operated by a going part of the loom, a take-up, means for transmitting motion from said pinion or spur wheel to the take-up including a shaft, an arm carried by said shaft and having a pin for operatively engaging the pinion or spur wheel and said shaft, a flange or collar mounted on said pin, a lever having a part underlying said flange or collar and bearing upon a face of the pinion spur wheel, and means for causing said lever to move the pin and interrupt the operative relation between the shaft and pinion or spur upon detection of filling absence or substantial exhaustion.

4. In a take-up motion for looms, the combination of a shaft, a take-up or sand roll, means for driving the latter from the former, said means including a continuously driven pinion or spur wheel, a combined manually and automatically controlled pin device for operatively connecting and disconnecting the shaft and pinion or spur wheel and having a hand engaging head and a flange or collar, a lever having a bearing portion on which said flange or collar travels, and means for actuating the lever to automatically disengage the operative connections between the pin and pinion or spur wheel upon detection of filling absence or substantial exhaustion.

5. In a take-up motion for looms, the combination of a shaft, a worm fixed thereto, a take-up or sand roll, operating connections between the worm and take-up or sand roll, a continuously driven pinion or spur wheel mounted on said shaft and having a series of openings or recesses, an arm mounted on the shaft and carrying a spring actuated pin for engaging any one of the said series of openings or recesses, a flange or collar on the pin, a lever having a bearing portion upon which said flange or collar rests, and means for tilting the lever to disengage the pin from the openings or recesses upon absence or substantial exhaustion of filling.

1,130,600. LINOTYPE-MACHINE. THOMAS S. HOMANS, Hempstead, N. Y., assignor to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed July 25, 1912. Serial No. 711,516. (Cl. 199—7.)



1. In a linotype machine, an assembling elevator embodying rails for supporting matrices at different levels, one of said rails having a portion bendable vertically to and from operative position to control the assembling of the matrices at the different levels.

2. An assembling elevator for linotype machines embodying upper and lower rails for supporting matrices at different levels, the upper rail being in one piece and having its receiving end bendable vertically to and from operative position to control the assembling of the matrices at the different levels.

3. The combination with an assembling elevator for linotype machines adapted to handle matrices having a plurality of characters, of a rail in the elevator for supporting the matrices at an upper level and embodying a continuous strip of yieldable material having its receiving end bendable to and from a position to receive and support the incoming matrices whereby the latter may be assembled on or beneath said rail.

4. In a linotype machine and in combination with an assembling elevator for receiving and carrying matrices having a plurality of characters, a rail in said elevator for supporting the matrices in an upper position, one end of said rail having a tendency to spring out of the path of the incoming matrices, and means to force said rail into the path of the incoming matrices whereby the matrices may be assembled on or under the rail at will.

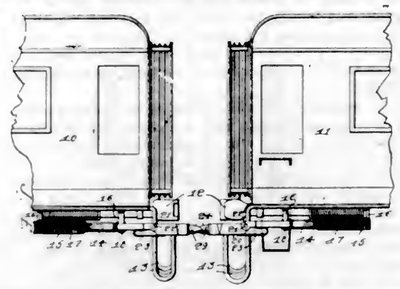
5. In a linotype machine and in combination with an assembling elevator for receiving and carrying matrices having a plurality of characters, of a rail in said elevator for supporting the matrices in an upper position, said rail having a continuous supporting surface and being made of elastic material having an inherent tendency to curl or bend out of the path of incoming matrices, and means to force said rail into the path of the incoming matrices at will.

[Claim 6 not printed in the Gazette.]

1,130,601. AUTOMATIC AIR AND STEAM COUPLING. JOE E. HOWARD and EMIL M. KNOTHE, Seattle, Wash. Filed Feb. 14, 1913. Serial No. 748,371. (Cl. 188—13.)

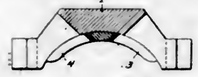
1. A train pipe coupler comprising a frame, a spring carried within said frame, said frame provided with laterally extending arms adapted to engage the body of a car for holding the frame in its correct position, a T-bar slidably mounted within said frame, said T-bar provided with a longitudinal slot, a bolt passing through said slot and engaging the outer portion of said frame thereby limiting the outward movement of said T-bar and also holding said frame together, said T-bar provided with a coupling means at its outer end, said spring being adapted to yieldably hold said T-bar in position.

2. A train pipe coupler comprising a frame, said frame provided with laterally extending arms adapted to engage a car for holding the frame in position, a T-bar slidably mounted within said frame, resilient means carried within said casing for holding said T-bar in an extended position, said T-bar provided with a longitudinal slot, means passing through the slot for limiting the outward movement of said T-bar, a neck rotatably mounted upon the



outer portion of said bar and extending into said slot, a washer engaging said neck, means for retaining said washer, whereby said neck may have rotary movement, and a hollow head pivotally secured to said neck, means carried by said head for forming a coupling for train pipes, said resilient means adapted to yieldably hold said T-bar in position, and said neck adapted to allow the coupling to swing or pivot when necessary.

1,130,602. JOURNAL-BOX BRASS. GEORGE E. HOYT, New Orleans, La. Filed Apr. 8, 1913. Serial No. 759,707. (Cl. 64—20.)

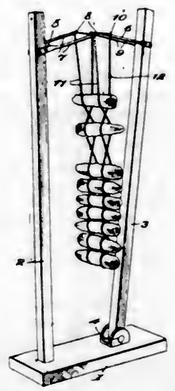


1. The combination with a brass for journal boxes, of a Babbitt bearing arranged on the journal side of the brass and having diagonally arranged bearing strips of uniform width throughout disposed in criss-cross relation longitudinally of the brass to the ends thereof and intersecting each other at the central point of the latter to form spaces therebetween at opposite sides of their point of intersection, the surfaces next to the journal of the bearing strips being curved to conform to the curvature of the said journal, and also the adjacent ends of the respective strips being spaced apart a distance less than the diameter of the journal, and pieces connecting the ends adjacent to each other of the respective strips, the said brass having its crown provided with openings correspondingly shaped to and coincident with the spaces formed in the Babbitt bearing by the diagonally arranged strips and end pieces to allow for expansion and contraction of the crown and Babbitt, the width at a point centrally of the intersection of the strips being identical to the width of the longitudinal stretches of the strip beyond the intersection thereof, the inner faces of the strips being in contact throughout their area with the brass.

2. In a brass for journal boxes, a crown piece, and a Babbitt bearing arranged on the journal side of the crown piece, the said crown piece and Babbitt bearing being formed with coincident openings tapering in a direction toward each other and arranged at opposite sides of the medial portion thereof.

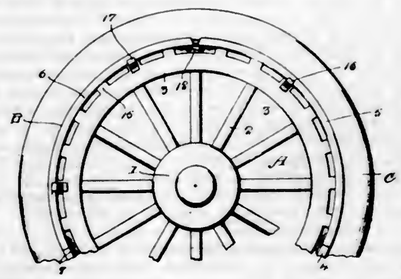
1,130,603. CORN-LOOM. CLAYTON B. HUTCHINS, Algona, Iowa. Filed Feb. 7, 1913. Serial No. 746,898. (Cl. 139—32.)

A device for bundling or weaving ears of corn comprising a base, a fixed standard rising from the base, a weaving fork upon the upper end of said fixed standard, said fork being inclined at an upward and inward angle of inclination and having its arms provided with cord receiving notches, a second standard hinged at its lower end to the base for movement toward and from the fixed standard, said second standard being adapted to tilt by gravity to a normally inclined position in a direction away from the fixed standard, and a weaving fork upon the upper



end of the hinged standard for coöperation with the fork upon the fixed standard, said fork upon the hinged standard being also inclined at an upward and inward angle and having its arms provided with cord receiving notches, the said forks being adapted for relative movement on converging lines and the fork upon the hinged standard being movable between the arms of the fork upon the fixed standard, substantially as and for the purpose described.

1,130,604. COLLAPSIBLE AND DEMOUNTABLE TIRE-RIM. OSCAR COLLIS IVERS, New York, N. Y. Filed Nov. 7, 1914. Serial No. 870,892. (Cl. 152—21.)

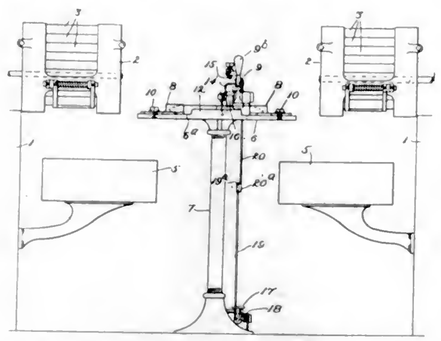


1. A collapsible vehicle wheel rim, embodying a plurality of arcuate sections which collectively form an annular rim structure, said sections being hinged together and each provided with tire holding means, one of the connecting hinges comprising separable knuckles, a hinge pin carried by one of said knuckles, a shaft journaled in the other of said hinge knuckles, and a latch fast on said shaft and movable thereby into and out of engagement with said hinge pin.

2. A collapsible vehicle wheel rim, embodying a plurality of arcuate sections which collectively form an annular rim structure, said sections being hinged together and each provided with tire holding means, one of the connecting hinges comprising separable knuckles, a hinge pin carried by one of said knuckles, a shaft journaled in the other of said hinge knuckles, a latch fast on said shaft

and movable thereby into and out of engagement with said hinge pin and an operating head on one end of said shaft.

1,130,605. LOOM SHUTTLE-RELOADER. SIMEON S. JACKSON, Boston, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Filed Aug. 1, 1913. Serial No. 782,461. (Cl. 139—18.)



1. A manually-controlled reloader for loom-shuttles having a through-passage for insertion and discharge of filling-carriers and a clip which holds a filling-carrier in place within the shuttle by grasping the head of such filling-carrier, for enabling an operative to effect the reloading of a shuttle which has been removed from a loom in which such shuttle is employed, the said reloader comprising a shuttle-rest for a shuttle free from the said loom, a weft-carrier inserter distinct from the elements of the regular automatic weft-replenishing mechanism of a loom and acting in the direction of the said through-passage, and means for operating the parts at the will of the operative to insert a fresh weft-carrier bodily transversely into the clip or other grasping means of the said shuttle and expel the weft-carrier previously contained in the shuttle.

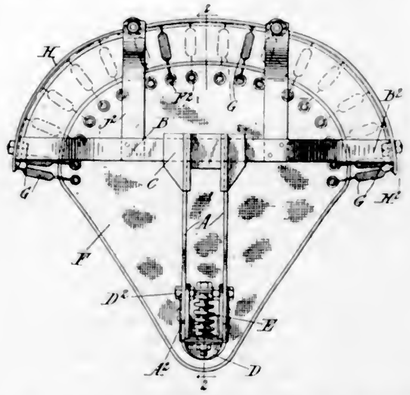
2. Means for reloading shuttles which have been removed from the loom or looms in which they are employed, said shuttles having each a through-passage for insertion and discharge of filling-carriers and a clip which holds a filling-carrier in place within the shuttle by clasping the head of the filling-carrier, comprising a shuttle-rest for a shuttle free from its loom, and a manually-operated weft-carrier inserter distinct from the elements of the regular automatic weft-replenishing instrumentalities of a loom, and acting in the direction of the said through-passage, for inserting a fresh weft-carrier into the clip or other grasping means of the said shuttle and expelling the weft-carrier previously contained in the shuttle.

3. A manually-controlled reloader for loom-shuttles having a through-passage for insertion and discharge of filling-carriers and a clip which holds a filling-carrier in place within the shuttle by grasping the head of such filling-carrier, for enabling an operative to effect the reloading of a shuttle which has been removed from a loom in which such shuttle is employed, the said reloader comprising a shuttle-rest for a shuttle free from the said loom, a weft-carrier inserter distinct from the elements of the regular automatic weft-replenishing mechanism of a loom and acting in the direction of the said through-passage, means for positioning the shuttle lengthwise with relation to the weft-carrier-inserter, and means for operating the parts at the will of the operative to insert a fresh weft-carrier bodily transversely into the clip or other grasping means of the said shuttle.

4. A manually-controlled reloader for loom-shuttles having a through-passage for insertion and discharge of filling-carriers and a clip which holds a filling-carrier in place within the shuttle by grasping the head of such filling-carrier, for enabling an operative to effect the reloading of a shuttle which has been removed from a loom in which such shuttle is employed, the said reloader comprising a shuttle-rest for a shuttle free from the said loom, a weft-carrier-inserter distinct from the elements of the regular automatic weft-replenishing mechanism of a loom and acting in the direction of the said through-passage, end-gaging means for positioning the shuttle lengthwise with relation to the weft-carrier-inserter, means for adjusting said end-gaging means to suit the length of the shuttle, and means for operating the parts at the will of the operative to insert a fresh weft-carrier bodily transversely into the clip or other grasping means of the said shuttle.

5. A manually-controlled reloader for loom-shuttles having a through-passage for insertion and discharge of filling-carriers and a clip which holds a filling-carrier in place within the shuttle by grasping the head of the filling-carrier, for enabling an operative to effect the reloading of a shuttle which has been removed from a loom in which such shuttle is employed, the said reloader comprising a shuttle-rest for a shuttle free from the said loom, a weft-carrier-inserter distinct from the elements of the regular automatic weft-replenishing mechanism of a loom and acting in the direction of the said through-passage, means for positioning the shuttle lengthwise with relation to the weft-carrier-inserter, means for operating the parts at the will of the operative to insert a fresh weft-carrier bodily transversely into the clip or other grasping means of the said shuttle, and means to limit the inserting stroke.

1,130,606. SADDLE FOR USE PREFERABLY ON MOTOR-CYCLES. JAMES GEO. JELLEY, Coventry, England. Filed Nov. 28, 1914. Serial No. 874,542. (Cl. 208—15.)

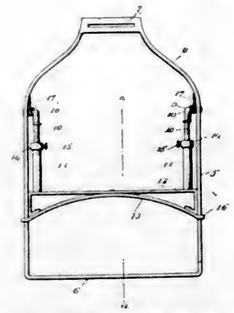


1. In a cycle saddle, a T-shaped frame, a peak hinged thereto, spring means for said peak adapted to resist its movement about its hinge, a cantle plate hinged to said frame, a spring supporting said cantle plate, a cover connected to said peak, and springs connecting the rear of said cover to said cantle plate, substantially as set forth.

2. In a cycle saddle, longitudinal frame members, a spring held peak pivoted thereto, resilient cross frame members with upturned ends, a cantle plate pivoted to said upturned ends, a spring supporting said cantle plate, a cover connected to said spring held peak, and springs connecting the rear of said cover to said cantle plate, substantially as set forth.

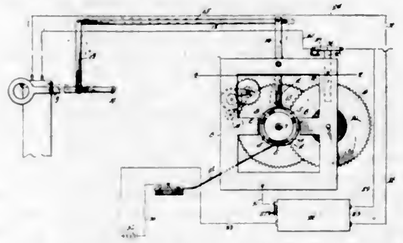
3. In a cycle saddle, longitudinal frame members, a spring held peak pivoted thereto, resilient cross frame members with upturned ends, a cantle plate pivoted to said upturned ends, a spring supporting said cantle plate, a cover connected to said spring held peak, springs connecting the rear of said cover to said cantle plate, an arched flexible pad over said connecting springs, and a flap to said cover substantially as set forth.

1,130,607. STIRRUP. JOHN JERZYK, Rainier, Oreg. Filed Mar. 17, 1914. Serial No. 825,301. (Cl. 54—49.)



A safety stirrup comprising a frame, levers pivotally connected to the sides of the frame and interiorly thereof, an arched safety plate disposed above the tread of the frame and having laterally extending stop ears at opposite ends thereof to abut the sides of the frame at the front only thereof, cylindrical bosses fixed to and rising from the safety plate and adjustably receiving therein the levers, set screws threaded in the bosses and engageable with the levers to permit the locking of the safety plate in adjusted position, and tension springs having portions thereof coiled about the pivots of the levers with their ends working against the frame and said levers respectively to normally hold the ears on the safety plate in abutting relation to the sides of the frame.

1,130,608. TELEPHONE ATTACHMENT. PHILIP AUGUSTUS JOHNSON, Springfield, Oreg. Filed Nov. 12, 1912. Serial No. 730,843. (Cl. 179—28.)



1. In an apparatus of the character described, the combination with line conductors and a receiver hook member, of an element having a plurality of contacts, a second contact having engagement with contacts of said element, said element and second contact being movable one with respect to the other, a device for producing fluctuating current in said line conductors, operable upon completion of a circuit through any of the contacts of said element and said second contact, a windable spring motor for producing relative movement between said element and second contact when the said receiver hook member is moved in one direction, and means for breaking the circuit of said line conductors when said motor becomes unwound to a predetermined extent.

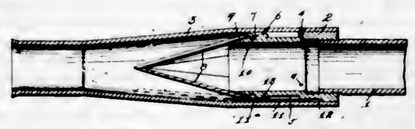
2. In an apparatus of the character described, the combination with line conductors and a receiver hook member, of an element having a plurality of contacts, a second contact for engagement with contacts of said element, said element and second contact being movable one with respect to the other, a device for producing fluctuating currents in said line conductors, operable upon completion of a circuit through any of the contacts of said element and said second contact, a cut out switch in one of said line conductors, normally closed, coil spring operated means for producing movement of said element and second contact, one relative to the other, when said receiver hook is moved in one direction, and means operatively connected with said switch and coöperating with said coil spring to open said switch when said spring is unwound to a predetermined extent.

3. In an apparatus of the character described, the combination with line conductors and a receiver hook member, of a revoluble member having a plurality of contacts spaced apart from each other; a second contact for engagement with the said contacts of said revoluble member; a spark coil including primary and secondary windings, and a circuit breaker; an electric generator; means providing a circuit including said revoluble element, second contact, electric generator and the said primary winding of said spark coil; means having a spark gap conductively connecting the leads of the secondary winding of said spark with said line terminals; and, means effecting rotation of said revoluble element when said hook member is raised from a normal position.

4. In an apparatus of the character described, the combination with line conductors and a receiver hook member, of an element having a plurality of contacts; a second contact for engagement with contacts of said element, said element and second contact being movable one with respect to the other; a spark coil including primary and secondary windings, and, a circuit breaker; an electric generator; means providing a circuit including said element having a plurality of contacts, second contact, electric generator and the said primary winding of said coil; means having a spark gap conductively connecting the leads of the said secondary winding of said spark coil with said line terminals; and, means effecting movement of said element and second contact, one relative to the other, when said receiver hook member is moved from a normal position.

5. In an apparatus of the character described, the combination with line conductors and a receiver-hook member, of a revolubly mounted element having a plurality of contacts, a motor for intermittently revolving said element, a pawl revoluble with said element, an escapement member adapted to be actuated by removal and replacement of a receiver with respect to said receiver-hook member and mounted to operate coöperatively with said pawl and to free said pawl for the revolution of said element through power derived from said motor upon the removal of the receiver from the hook, a second contact for engagement with the contact of said revoluble element upon turning movement of the same, means for producing a current, and means to cause a fluctuation of said current in its passage as a circuit is completed through any one of the contacts of said revoluble element and said second contact.

1,130,609. MUFFLER FOR SHOTGUNS. SETH T. JONES, Clinton, Ill. Filed Dec. 15, 1913. Serial No. 806,884. (Cl. 89—31.)

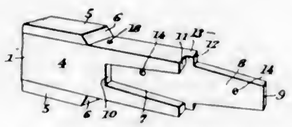


1. A muffler comprising a tubular body, said body provided with longitudinally extending notches near one end thereof, a circumferential flange formed near the outer end thereof and provided with a plurality of notches, a plurality of tapering lips secured to said body, longitudinally extending springs secured within said first mentioned notches and positioned within said last mentioned notches

and engaging said lips for normally holding the outer ends of said lips together, and means for securing the same to a gun.

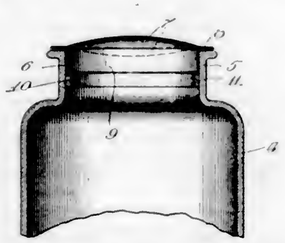
2. A muffler comprising a tubular body, said body provided with a circumferential rim near its outer end, said body provided with a circumferential groove adjacent said rim, a plurality of closure lips provided with laterally extending tongues, said tongues working in said circumferential groove, said body tapering toward its forawrd end, and longitudinally extending springs engaging said lips and secured to said body for normally holding said lips in a closed position over the outer end of said body.

1,130,610. RULE. DAVID LEETE KANE, Cincinnati, Ohio. Filed July 28, 1914. Serial No. 853,753. (Cl. 33—75.)



A rule of the class described comprising an elongated body including separable sections, one end of each section being provided with a longitudinally tapering dove-tailed recess opening through one of its side faces, a longitudinally tapering dove-tailed projection formed upon the said end of each section in prolongation of the inner wall of the recess for reception within the recess of the companion section when the sections are united, and means for securing the tongue of one section end detachably within the recess of the other section end, the joint end of each section being provided above and below its recess and tongue respectively with parallel, longitudinally inclined faces forming shoulders therebetween adapted to interlock with the corresponding shoulders of the coacting joint end of the adjacent section.

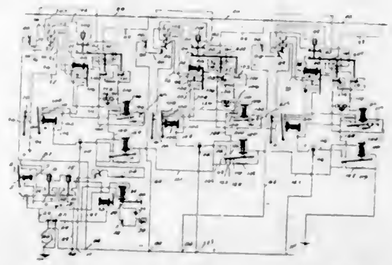
1,130,611. RECEPTACLE-CLOSURE. CHARLES R. KEERAN, Bloomington, Ill. Filed Dec. 14, 1912. Serial No. 736,727. (Cl. 215—80.)



1. A closure for glass receptacles made from a single piece of spring metal stamped to provide a cover, and a vertical ring-like portion depending therefrom, said ring-like portion being pressed inward at its lower edge to provide a circumferential groove to receive a sealing gasket, said ring-like portion being entirely open at its lower end to permit of expansion and contraction thereor, and said ring-like portion being placed under spring tension when inserted in the mouth, whereby it configures itself to any irregularities of the inner wall of said mouth.

2. A closure for glass receptacles made from a single piece of spring metal stamped to provide a cover, a vertical ring-like portion depending therefrom, said ring-like portion being pressed inward at its lower edge to provide a circumferential groove to receive a sealing gasket, said ring-like portion being entirely open at its lower end to permit of expansion and contraction thereof, and said ring-like portion being placed under spring tension when inserted in the mouth whereby it configures itself to any irregularities of the inner wall of said mouth, and a coating of substance about the lower edge of said ring-like portion to prevent corrosion of the raw metal at said edge, substantially as described.

1,130,612. TROLLEY PROTECTIVE SYSTEM. ALBERT KLIMES, Chicago, Ill., assignor of two-fifths to James Kolda, Chicago, Ill. Filed Dec. 20, 1910. Serial No. 598,329. (Cl. 246—36.)



1. In a trolley protective system, a trolley wire divided into sections, means adapted to conect each section with a source of power, electro-responsive means for actuating said first-named means to closed position, and means holding said first-named means in closed position and under the control of the particular trolley wire section to release said first-named means when the particular section breaks.

2. In a trolley protective system, a trolley wire divided into sections, means adapted to connect each section with a source of power, means for actuating said first-named means to closed position, means holding said first-named means in closed position and under the control of the particular trolley wire section to release said first-named means when the particular section breaks, and means preventing said second-named means from operating in the event of defect in said trolley wire section.

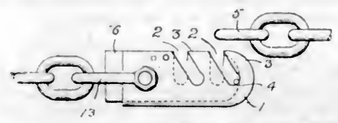
3. In a trolley protective system, a trolley wire divided into sections, means adapted to connect each section with a source of power, means for actuating said first-named means to closed position, means holding said first-named means in closed positon and under the control of the particular trolley wire section to release said first-named means when the particular section breaks, means preventing said second-named means from operating in the event of defect in said trolley wire section, a source of energy connected to said trolley wire section independently of the power source for testing the electrical continuity of said section, and means in circuit with said testing source and controlling said last means and whereby said last means will be put into operation to permit the operation of said first means when the trolley wire section is intact.

4. In a trolley protective system, a trolley wire divided into sections, a switch adapted to connect each section with a source of power, electroresponsive means for actuating said switch to closed position, and an electroresponsive device holding said switch in closed position and under the control of the particular trolley wire section to release said switch when the particular trolley wire section breaks.

5. In a trolley protective system, a trolley wire divided into sections, a switch adapted to connect each section with a source of power, an electroresponsive device for actuating said switch to closed position, an electroresponsive device holding said switch in closed position and under the control of the particular trolley wire section to release said switch when the particular trolley wire section breaks, and means for preventing the energization of said first electroresponsive device in the event of defect in said trolley wire section.

[Claims 6 to 20 not printed in the Gazette.]

1,130,613. CHAIN-HOOK. ARDEN S. KLOCK, Duluth, Minn., assignor of one-half to Edward G. Hilliard, Duluth, Minn. Filed Jan. 21, 1914. Serial No. 813,597. (Cl. 24—241.)



1. A hook of the character described comprising a case having obliquely arranged slots extending rearwardly, and a sliding locking member mounted within the case and having obliquely arranged slots extending forward.

2. A hook of the character described comprising a case having obliquely arranged slots extending rearwardly, and a sliding locking plate having obliquely arranged slots, said plate mounted within the case and adapted to extend across the said slots in the case.

3. A hook of the character described comprising a case having obliquely arranged slots extending rearwardly, a sliding plate within the case, said plate having obliquely arranged slots and adapted to extend across the outer ends of the slots in the case, registering holes in the sliding member and in the case for the reception of a cotter-pin, providing means whereby the sliding plate may be positively locked in its forward position across the ends of the slots.

4. A hook of the character described comprising an elongated case U-shaped in cross section having obliquely arranged slots extending rearwardly, a plate sliding within said U-shaped case, said plate having obliquely arranged slots extending forwardly and the upper portions of the plate adapted to extend across the outer end of the obliquely arranged slots in the case, registering holes in the sliding member and in the case for the reception of a cotter-pin providing means for locking the plate in its outward position across the ends of the obliquely arranged slots.

5. A hook of the character described comprising a case U-shaped in cross section and having obliquely arranged slots extending rearwardly, a sliding plate within the said case, and having obliquely arranged slots extending forwardly, the upper portions of the sliding member adapted to entirely close the upper portions of the slots in the case, and means carried by the case and sliding member for the reception of a clevis.

[Claim 6 not printed in the Gazette.]

1,130,614. PRICE-TAG. FREDERICK KOHNLE, Dayton, Ohio, assignor, by mesne assignments, to The Monarch Tag Company, a Corporation of Ohio. Filed Mar. 11, 1912. Serial No. 683,160. (Cl. 40—25.)

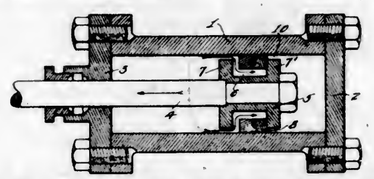


1. A new article of manufacture comprising a strip divided into tag lengths by divisional notches laterally extended from one edge of the strip inwardly toward the longitudinal medial line of the strip and in relatively equal spaced parallelism, a staple permanently clenched through each tag length between the notches and serially in longitudinal alinement with the notched margin of the strip with the notches extending beyond the longitudinal line of the staple to provide abutments, whereby the strip may be engaged to be fed in appropriate step intervals.

2. A new article of manufacture comprising a strip divided into tag lengths by divisional notches in parallelism extended from one edge of the strip toward its medial line, a series of staples secured to the strip in relative longitudinal alinement and in parallelism with the notched marginal edge of the strip, one staple connected to each tag length between the divisional notches having its prongs passed through the tag and offset or shouldered to overlap on the reverse side of the tag and the said notches extending beyond the longitudinal line of staples providing abutments whereby the strip may be engaged to be fed in appropriate step movements.

3. A new article of manufacture comprising a strip divided into tag lengths by divisional apertures in longitudinal alinement at one of its margins, a staple secured to each tag length between the apertures in longitudinal alinement, said apertures each providing a shoulder for engagement by feeding mechanism to internally advance the strip and a presevered portion adjacent the staple.

1,130,615. PISTON-PACKING. LAURITS A. LAURSEN, Eau Claire, Wis. Filed Jan. 21, 1914. Serial No. 813,551. (Cl. 103—63.)



1. The combination with a liquid pressure cylinder, of a piston therein having an annular peripheral groove and a packing in said groove comprising a strip of flexible elastic material wound in helical form about the piston, the helix being of a greater inner diameter than the diameter of the piston at the base of the groove and the helix being shorter than the width of the groove, the coils of the helix being movable relative to each other for enabling longitudinal circumferential travel of the strip and consequent radial expansion and contraction of the helix and the material of the strip being susceptible of radial deflection owing to its elasticity and flexibility for freely responding to surface variations of the cylinder.

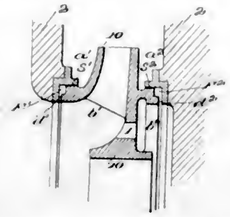
2. The combination with a cylinder, of a piston having an annular peripheral groove and a packing in said groove comprising a strip of flexible material wound in helical form about the piston, the helix being of a greater inner diameter than the diameter of the piston at the base of the groove and the helix being shorter than the width of the groove, the coils of the helix being movable relative to each other for enabling longitudinal circumferential travel of the strip and consequent radial expansion and contraction of the helix for freely responding to surface variations of the cylinder.

3. The combination with a liquid pressure cylinder, of a piston therein having an annular peripheral groove, and a packing in said groove comprising a strip of flexible plastic material wound in helical form about the piston, the helix being of greater diameter than the diameter of the piston at the base of the groove and less in width than the width of the groove for enabling the pressure fluid to have access between the base of the groove and the inner surface of the helix for exerting radial outward pressure thereon, the coils of the helix being thus movable relative to each other for enabling variations in the circumference of the helix proportional to variations in the cylinder, each portion of the packing strip contacting with the inner face of the cylinder being susceptible of conforming to the part of the cylinder contacted with, independently of adjacent portions of the strip.

1,130,616. BALANCING DEVICE FOR CENTRIFUGAL PUMPS, TURBINES, BLOWERS, AND THE LIKE. FRIEDRICH LORENZ, Wildau, near Berlin, Germany, assignor to Thomas P. Kingsford and Virginia K. Higgins, Oswego, N. Y. Filed Aug. 19, 1911. Serial No. 644,938. (Cl. 103—43.)

1. In combination, a casing having transverse walls, one of said walls being approximately closed and the other having an inlet opening, said walls being provided with rings forming cylindrical inner surfaces and inner transverse surfaces at the outer ends of said cylindrical sur-

faces, and a rotor at its inlet end having a hollow hub in said opening and at its other end having an annular projecting flange, said hub and flange having cylindrical exterior surfaces running within said cylindrical surfaces of the rings to form sealing fissures S^1, S^2, and at their outer end edges having annular recesses and annular transverse flat faces to coöperate with said transverse surfaces of the rings in forming balances chambers F^1, F^2, and throttling fissures d', d^2, said rotor having an opening, such as 1, from its inlet end to the space inclosed by said flange and the adjacent wall of the casing.



2. In combination, a casing having transverse walls provided with rings forming elongated cylindrical inner surfaces and inner transverse surfaces at the outer ends of said cylindrical surfaces, and a rotor having annular end projections formed with cylindrical exterior surfaces running within said cylindrical surfaces of the rings to form sealing fissures S^1, S^2, and at their outer end edges having annular recesses and annular transverse flat faces to coöperate with said transverse surfaces of the rings to form balancing chambers F^1, F^2, and throttling fissures d', d^2, substantially as described.

1,130,617. PILE-WIRE. ALFRED F. MCCOLLUM, Bloomsburg, Pa., assignor of three-fifths to James Magee, 2d, Bloomsburg, Pa. Filed Feb. 28, 1914. Serial No. 821,690. (Cl. 139—63.)



1. A pile wire for use in the manufacture of pile fabrics, having flat side surfaces extending from the base and both inclined in the same direction.

2. A pile wire for use in the manufacture of pile fabrics, having a substantially flat base and side surfaces extending from the latter inclined in the same direction.

3. A pile wire for looms having at least one of its side surfaces inclined to the plane of its base.

4. A pile wire having a grooved body portion and a knife-guiding section, the groove of said body portion being of increased width adjacent the knife-guiding section, and the latter having an inclined surface flush with one side of the groove to insure the entrance of the knife into said groove without injury to the cutting edge thereof.

5. A pile wire, for use in the weaving of pile fabrics, having that portion which is woven in the fabric formed with a flat base.

[Claim 6 not printed in the Gazette.]

1,130,618. PILE-WIRE. ALFRED F. MCCOLLUM, Bloomsburg, Pa., assignor of three-fifths to James Magee, 2d, Bloomsburg, Pa. Filed July 1, 1914. Serial No. 848,458. (Cl. 139—63.)



1. A pile wire having its fabric-engaging base surface longitudinally recessed.

2. A pile wire having its fabric-engaging base surface recessed to provide a plurality of relatively sharp fabric-engaging edges.

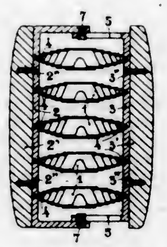
3. A pile wire having its fabric-engaging base surface longitudinally recessed to provide two longitudinally extending relatively sharp fabric-engaging edges.

1,130,619. PROCESS FOR PRODUCING LEATHER SUBSTITUTES. RICHARD ALEXANDER MCLAURIN, Glasgow, Scotland. Filed Jan. 8, 1912. Serial No. 670,080. (Cl. 91—68.)

1. The process of making a leather substitute, which consists in dyeing a web of closely felted fibrous material, coating said web on both faces with a solution of flexible glue, coating one face of the web with a solution of nitrocellulose and camphor, and finally coating said face with a solution of pure nitrocellulose.

2. The process of making a leather substitute, which consists in dyeing a web of closely felted fibrous material, drying and calendering the web, coating both faces of the web with a solution of flexible glue, drying and calendering the web, applying a plurality of coats of nitrocellulose and camphor to the web and drying and calendering it after the application of each coat, finally coating the web with a solution of pure nitrocellulose and calendering the same.

1,130,620. SPRING-GRIP DUMB-BELL AND EXERCISER. UGO MALVISI, Turin, Italy. Filed May 13, 1912. Serial No. 697,017. (Cl. 208—69.)



1. A spring grip dumb-bell, having a right hand and a left hand shell, said shells interengaging with each other and being provided with a plurality of oppositely situated pins, a plurality of volute springs between said shells held in position by said pins.

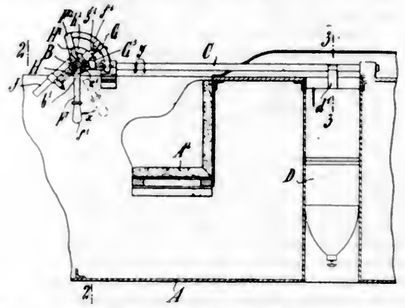
2. A spring grip dumb-bell, having a right hand and a left hand shell, said shells interengaging with each other and being provided with a plurality of oppositely situated pins, a plurality of volute springs between said shells held in position by said pins, said springs being of bi-conical shape with their smaller ends engaging said pins.

3. A spring grip dumb-bell, having a right hand and a left hand shell, said shells interengaging with each other and being provided with a plurality of oppositely situated pins, a plurality of volute springs between said shells held in position by said pins, said springs being of bi-conical shape with their smaller ends engaging said pins, an external cover for each shell shaped to provide a comfortable grip.

1,130,621. COMBINED SIGHTING DEVICE AND AUTOMATIC PROJECTILE-RELEASER FOR AIR-VEHICLES. LUDWIG MANDELARTZ, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Oct. 30, 1913. Serial No. 798,381. (Cl. 244—1.)

1. A combined sighting and projectile releasing device for air vehicles having a sight carrier, a movable releaser causing the projectile to drop when assuming a predetermined position and means for locking said sight carrier and releaser together in different positions corresponding to the desired sighting angles.

2. A combined sighting and projectile releasing device for air vehicles, having a revoluble sight carrier and a revoluble projectile releaser and means for locking said carrier and releaser together in different angular positions, a common horizontal shaft for said carrier and releaser.



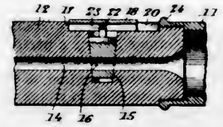
3. A combined sighting and projectile releasing device for air vehicles, having a revoluble sight carrier, and a revoluble projectile releaser and means for locking said carrier and releaser together in different angular positions, a common horizontal shaft for said carrier and releaser; said releaser constructed to release a projectile when in a certain angular position.

4. A combined sight and projecting releasing device for air vehicles, having a revoluble sight carrier and a revoluble projectile releaser and means for locking said carrier and releaser together in different angular positions, a common horizontal shaft for said carrier and releaser; said locking means comprising an arcuate arm on said carrier, and another arcuate arm on said releaser, both arms concentrically curved around the axis of said shaft, a slide with suitable guide ways slidably engaging said arcuate arms respectively, and gearing for slidably displacing said slide relative to each of said arms.

5. A combined sighting and projectile releasing device for air vehicles, having a revoluble sight carrier and a revoluble projectile releaser and means for locking said carrier and releaser together in different angular positions, a common horizontal shaft for said carrier and releaser; said releaser comprising a bearing for said shaft having a short circumferential slot and a stud in the shaft extending through said slot, and permitting a limited oscillation of the shaft, a spring tending to turn said shaft into its normal position of supporting a projectile.

[Claims 6 to 9 not printed in the Gazette.]

1,130,622. FOUNTAIN-PEN. JAMES MARLBOROUGH, Topsfield, Mass. Filed Apr. 7, 1914. Serial No. 830,252. (Cl. 120—48.)

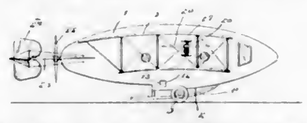


1. In a fountain pen, the combination with a barrel, of a nib-supporting member for threaded engagement with the barrel and provided with a recess and a longitudinal passage, a nib carried by the nib-supporting member, said passage being adapted to convey ink from the barrel to the said nib, a valve mounted to turn in the said nib-supporting member and provided with a passage which can be moved into or out of registration with the passage in the nib-supporting member, a slide member mounted to slide in the recess in the said nib-supporting member, and means projecting from the said valve and coöperating with the slide member for operating the said valve to move its passage into or out of registration with the passage in the nib-supporting member when the said slide member is actuated.

2. In a fountain pen, the combination with a barrel, of a nib-supporting member for threaded engagement with the barrel and provided with a recess and a longitudinal passage, a nib carried by the nib-supporting member, said passage being adapted to convey ink from the barrel to the said nib, a valve mounted to turn in the said nib-supporting member and provided with a passage which can be moved into or out of registration with the passage in the nib-supporting member, a slide member mounted to slide in the recess in the said nib-supporting member, means projecting from the said valve and coöperating with the slide member for operating the said valve to move its passage into or out of registration with the passage in the nib-supporting member, and a bead formed on the forward end of the barrel and engaged by the said slide member when the nib-supporting member is attached to the barrel, to limit the movement of the slide member in the said recess.

3. In a pen, the combination with a barrel, of a nib-supporting member for connection therewith, said nib-supporting member having a longitudinal passage communicating with the barrel, a valve mounted to turn on the said nib-supporting member to interrupt the said passage, a stem on the valve, a bead projecting from the stem and extending into a recess in the said nib-supporting member, a slide member in the said recess and adapted to be moved forward and backward therein, and a slot formed in the under side of the slide member and into which the bead of the said stem extends whereby, when the slide member is advanced or retracted in the said recess, the said valve will be actuated to open or close the passage in the said nib-supporting member.

1,130,623. FLYING-MACHINE. MATTS JACOB MUSTONEN, Newberry, Mich. Filed Apr. 17, 1914. Serial No. 832,624. (Cl. 244—2.)



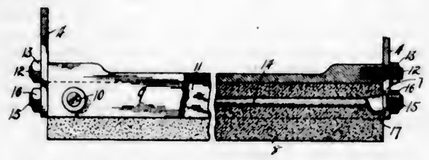
1. A flying machine including a body having a supporting and suitable steering gear, said body being partitioned to provide a pilot's compartment, buoying compartments and a bottom ballasting compartment, a motor within the body, propelling means driven thereby, a pump for exhausting water from the ballasting compartment, means for driving said pump from the motor, lifting and stabilizing propellers, and means for driving the same from the motor.

2. A flying machine including a body having a supporting surface and suitable steering gear, said body being partitioned to provide a pilot's compartment, buoying compartments having valved passages and a bottom ballasting compartment having inlet and exit apertures, gates controlling said apertures, and operating means for opening and closing the gates, a motor within the body, propelling means driven thereby, a pump for exhausting water from the ballasting compartment, means for driving said pump from the motor, lifting and stabilizing propellers, and means for driving the same from the motor.

1,130,624. SHARPENER FOR LAWN-MOWERS. JOHN ONSEL, Risingsun, Ohio. Filed Aug. 5, 1914. Serial No. 855,143. (Cl. 51—8.)

1. In combination, a grinding stone of bar-like form, a holder member for said stone having studs projecting from its ends, carrying arms having apertures for receiving said studs, and means coöperating with said studs to secure the arms to said holder member and to cause the arms to have a binding action against the ends of the stone.

2. In combination, a channel bar, a grinding stone carried thereby with its ends exposed at the ends of said bar, and carrying arms adjustably secured to the ends of said bar and having clamping action against the ends of the stone.



3. A sharpening device of the character described having a sharpening stone provided with metallic end portions, carrying arms for said stone and means for causing said arms to have frictional binding contact with the metallic end portions of the stone.

4. In a device of the character described, a bar-like grinding stone, a reinforcing member embedded in said stone and exposed at the ends thereof, carrying arms for said stone, and means for frictionally clamping the arms in adjusted relation to the exposed end portions of said reinforcing member.

5. In combination, a bar-like grinding stone, reinforcing means embedded in the stone and having parts projecting from the ends thereof, carrying arms having apertures for receiving said parts, and means for co-acting with said parts to frictionally clamp the arms to the stone.

[Claims 6 and 7 not printed in the Gazette.]

1,130,625. ASTRONOMICAL INSTRUMENT FOR INDICATING POSITIONS OF CELESTIAL OBJECTS. WILLIAM PECK, Edinburgh, Scotland. Filed Nov. 1, 1913. Serial No. 798,760. (Cl. 33—46.)



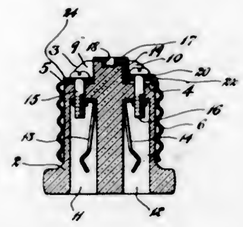
1. An instrument for directly indicating the direction of celestial objects in both hemispheres comprising a planisphere, a support therefor, the said planisphere including a horizon plate provided with a map of the heavens, a pointer support centrally mounted over the said horizon plate, said support having a lateral guide, a pointer mounted in the lateral guide, whereby the pointer may be moved radially and laterally over the map, an indicator and means between the pointer and the indicator to cause the latter to be correspondingly moved by and with the pointer.

2. An instrument for directly indicating the directions of celestial objects in both hemispheres comprising a base, a graduated card and a magnetic needle mounted thereon, a support extending upwardly from the base, a rotatable planisphere pivoted on the support and including a horizon plate having a map of the heavens, and a compound indicator and pointer mounted upon the said planisphere and adapted when pointed to any object depicted upon the said map to automatically point to the corresponding object in the heavens.

3. An instrument for directly indicating the directions of celestial bodies in both hemispheres comprising in combination a base, a graduated card and magnetic needle mounted thereon, pillars carried by the said base, a semicircular disk pivotally mounted between the said pillars and provided with indications of latitude for the northern and southern hemispheres, a planisphere and equatorial horizon plate pivotally mounted on said disk, and an indicator and a radially movable pointer rotatably mounted upon said plate, the movement of the said indicator automatically corresponding with true vertical and lateral angular movements on the planisphere.

4. An instrument for directly indicating the directions of celestial bodies in both hemispheres comprising in combination a base, a graduated card and magnetic needle mounted thereon, pillars on said base, a semicircular disk pivotally mounted between said pillars and provided with indications of latitude for the northern and southern hemispheres, a planispheres and equatorial horizon plate pivotally mounted on the said disk, a map carried by the plate, a centrally pivoted support above the horizon plate, a radially slidable pointer mounted on the support and cooperating with the map, a celestial indicator having a semicircular disk pivoted on said support, and means for interconnecting the indicator and the pointer substantially as described.

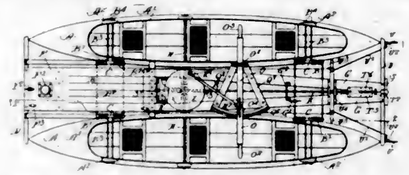
1,130,626. BASE MEMBER FOR SEPARABLE ATTACHMENT-PLUGS. JOHANN G. PETERSON, Jersey City, N. J., assignor to Manhattan Electrical Supply Company, Jersey City, N J., a Corporation of New Jersey. Filed May 7, 1914. Serial No. 836,896. (Cl. 173—343.)



1. A base-member for separable attachment-plugs, comprising a one-piece insulating core having an extension, and a shoulder at the junction of the body portion and extension, a contact shell surrounding the body portion, provided with an inturned flange bearing against said shoulder, said flange having inward projections constituting keys, and the extension and the body portion having keyways to receive said keys, the latter having perforations, a contact device in the core, a screw for holding said contact device in place, electrically connected with said shell, one of the projections having a perforation to receive said screw, a second contact device in the core, a second screw for holding the second contact device in place, an end contact having an extension to which the second screw is connected, the other projection having a perforation of greater diameter than and through which the second screw passes, an insulating material between said second extension and the contact shell.

2. An insulating base member for separable attachment plugs, a shell surrounding said base member and having an inturned annular flange, the base member having an annular shoulder against which said flange bears, contacts in the base member, a screw for holding one of the contacts in place and for electrically connecting the same with said shell, a second screw for holding the shell in place, insulated from said shell and connected with the other contact, and a central end contact electrically connected with the second screw and provided with a projecting stud, the base member being socketed to receive said stud.

1,130,627. CATAMARAN. MARCUS PHILLIPS, Chicago, Ill. Filed May 22, 1911. Serial No. 628,658. (Cl. 115—22.)



1. In a catamaran, in combination with the two hulls, members laterally connecting said hulls, each comprising a rod formed with spring coils at two places in its length, such connectors being employed in pairs positioned with the corresponding middle portions between the coils separated longitudinally of the hulls and occupying the interval between them, the coils lying within the fore and aft interval between said middle portions, and the extending ends of the coils engaging the respective hulls in pairs adjacent to each other.

2. In a catamaran, in combination with the two hulls, members laterally connecting said hulls, each comprising a rod formed with spring coils at two places in its length, the portion of the rod between said coils occupying the interval between the hulls and the extending end of each coil projecting transversely of one of the hulls and engaging said hull at both sides thereof.

3. In a catamaran, in combination with the two hulls, members laterally connecting said hulls, each comprising a rod formed with spring coils at two places in its length, such connectors being employed in pairs, each pair being arranged with its coils axially alined in pairs, and a separate cylindrical core axially located in each pair of coils thus alined.

4. In a catamaran, in combination with two hulls, flexible connectors joining said hulls and laterally spacing them apart; beams which connect the two hulls at their forward and rear ends, said beams being pivoted to the hulls substantially at the ends of their longitudinal axes, whereby each hull is adapted to rock about its said axis, and a deck positioned in the interval between the hulls and supported upon said transverse end beams.

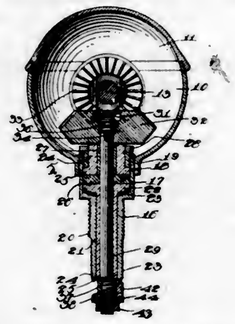
5. In a catamaran, in combination with two hulls, flexible connectors joining said hulls and laterally spacing them apart; beams which connect the two hulls at their forward and rear ends, said beams being pivoted to the hulls substantially at the ends of their longitudinal axes, whereby each hull is adapted to rock about its said axis, and a deck positioned in the interval between the hulls and supported upon said transverse end beams, said deck intermediate its ends being lodged upon said flexible connectors.

[Claims 6 to 9 not printed in the Gazette.]

1,130,628. ROTARY IGNITER. BYRON W. PIERCE, Appleton, Wis. Filed Feb. 18, 1913, Serial No. 749,271. Renewed Dec. 10, 1914. Serial No. 876,537. (Cl. 123—161.)

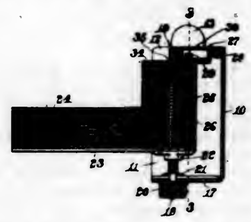
1. An igniter comprising a housing, a casing carried by said housing, said casing being provided with an enlarged upper end portion forming a cup, a lining of insulating material extending through said casing and provided with an enlarged upper end portion positioned in the lower end portion of said cup, a protecting washer between the enlarged upper end portion of said lining and the bottom of said cup, a collar positioned in the upper portion of said cup, a protecting washer between said collar and the inner end portion of said lining, a gland screwed into said cup for holding said collar in place, a stem passing through said casing, a contact arm carried by said stem, a plate carrying contact points carried by said casing and adapted to be engaged by said contact arm when said stem is rotated, and means for rotating said stem.

2. A device of the character described comprising a housing, a casing carried by said housing and provided with cup shape upper end portion, a stem extending through said casing, a lining of insulating material positioned in said casing and surrounding said stem and having its inner end portion formed into an enlarged head positioned in said cup, a collar in said cup surrounding said stem, a protecting washer between said collar and the inner end of said lining, means for holding said collar in place, a plate carried by said casing, contact points formed upon said plate, a contact arm carried by said stem and engaging said contact points when said stem is rotated, and means for rotating said stem.



3. A device of the character described comprising a casing, a stem passing through said casing and insulated therefrom, a plate carried by said casing, contact points carried by said plate, a contact arm carried by said stem, an enlarged head at the upper end of said stem, said stem being provided adjacent its upper end with a longitudinally extending slot, a gear mounted upon the upper end portion of said stem and provided with a pocket in which the enlarged head fits, a pin extending through said gear having its inner end extending into said slot for slidably connecting said stem with said gear, and a spring surrounding said stem between the enlarged head of said stem and the bottom of the pocket formed in said gear whereby said contact arm will be normally held in a position to engage said contact points and permitted to ride over the same.

1,130,629. HOLDER FOR SALES-CHECKS. GEORGE W. PROUTY, Dorchester, Mass. Filed Nov. 15, 1913. Serial No. 801,303. (Cl. 211—37.)



1. A device of the class described comprising a boxlike frame having an open side and end; a threaded sales-check retaining spindle supported in the closed end of said box and extending lengthwise thereof through openings in said checks; a cover hinged to the open end of said frame adapted to be locked over the end of said spindle; and a nut movable lengthwise of said spindle beneath the sales checks and adapted to clamp said checks against the inner face of said hinged cover.

2. A device of the class described comprising a boxlike frame having an open side and end; a threaded sales-check retaining spindle supported in the closed end of

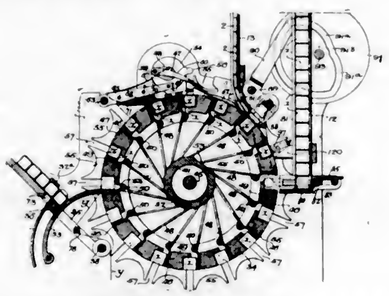
said box and extending lengthwise thereof through openings in said checks; a cover hinged to the open end of said frame and adapted to be locked thereto, said cover being provided with an opening therein adapted when locked to receive the end of said spindle; and a nut movable lengthwise of said spindle beneath the sales checks and adapted to clamp said checks against the inner face of said cover and provided with a bottom plate adapted to support the checks and extending to the outer ends thereof.

3. A device of the class described comprising a boxlike frame having an open side and end; a revoluble threaded sales-check retaining spindle supported in the closed end of said box and extending lengthwise thereof through openings in said checks; a cover hinged to the open end of said frame adapted to be locked over the end of said spindle; and a nut threaded to the spindle beneath the sales checks and adapted to be moved lengthwise thereof to clamp the sales checks against the inner face of the locked cover.

4. A device of the class described comprising a boxlike frame having an open side and end; a threaded sales-check retaining spindle extending lengthwise of said box; a cover hinged to the open end of said box and provided with a spring extension having an opening therein through which the end of said spindle is adapted to extend; a nut on said spindle adapted to bear against said sales checks; and means beneath the box for rotating said spindle.

5. A device of the class described, comprising a boxlike frame having an open side and end; a threaded sales-check retaining spindle extending lengthwise of said box; a cover for the open end of said box adapted to be locked over the end of said spindle and to be removed therefrom; and a nut movable lengthwise of said spindle adapted to clamp said checks.

1,130,630. PACKAGING-MACHINE. JOSEPH PERCY REMINGTON, Philadelphia, Pa. Filed Apr. 1, 1913. Serial No. 758,237. (Cl. 93—6.)



1. The combination in a packaging machine of a carrier formed to receive a succession of boxes; means for delivering rows of tablets radially of the carrier to the boxes supported thereby; and means for capping the filled boxes.

2. The combination in a packaging machine of a rotary magazine formed to receive a succession of boxes; means for simultaneously delivering a plurality of tablets in the form of a row to each of the successive boxes in the magazines; and means for capping the filled boxes.

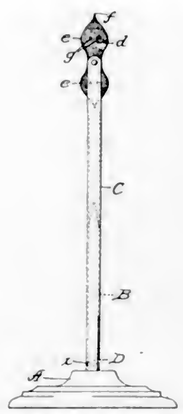
3. The combination in a packaging machine of a rotary magazine having radial recesses for the reception of a succession of boxes; means for delivering rows of tablets radially of the magazine to the boxes therein; means for capping the filled boxes; and means for automatically ejecting the filled boxes from the carrier.

4. The combination in a packaging machine of a carrier; means for feeding boxes radially into the carrier; means for delivering filling material radially of the carrier into the boxes; means for delivering caps radially of the carrier to the boxes; and means for automatically discharging the boxes from the carrier after they have been filled and capped.

5. The combination in a packaging machine of a carrier; means for feeding boxes thereto; means for filling and simultaneously lining the boxes; means for capping the boxes; and means for automatically discharging the boxes from the carrier.

[Claims 6 to 30 not printed in the Gazette.]

1,130,631. BILL OR LETTER FILE. LESTER S. RILEY, Boston, Mass., assignor of one-half to Atwood L. Boggs, Boston, Mass. Filed Aug. 29, 1913, Serial No. 787,341. Renewed July 20, 1914. Serial No. 852,089. (Cl. 129—22.)



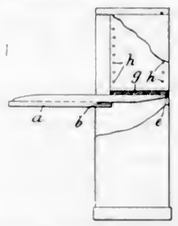
1. A safety bill or letter file comprising a base, a spindle, a removable sheath having a pivoted impaling point carried at its upper end and adapted to assume a vertical or horizontal position as required, substantially as described.

2. In combination in a base, a spindle, a sheath, an impaling point pivoted thereto having double ends of uniform shape and adapted to assume either a vertical or a horizontal position, substantially as described.

3. In combination with a base, a spindle, a sheath having an impaling point with means for locking the impaling point in a vertical position, substantially as described.

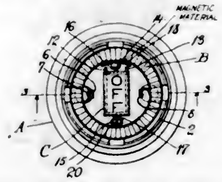
4. In combination with a base, a spindle, a sheath removable from said spindle having an impaling point and a threading eye at the lower end of the said sheath, substantially as and for the purpose set forth.

1,130,632. ADJUSTABLE PIECE OF FURNITURE. SÖREN PETER RINGER, Copenhagen, Denmark. Filed Mar. 24, 1911. Serial No. 616,691. (Cl. 45—54.)



A piece of furniture comprising a casing, a detachable door, arms extending from said door and forming continuations in the plane of the surface of said door, said arms having slots running in the direction of the arms, said slots being open at one end for removing the door, horizontal journals located near the front of the casing and engaging with said slots to permit oscillation of the door around the journals for opening and closing the door, supports engaging said arms to limit the swinging of the door around said journals whereby said door, when so engaged forms a shelf outside the casing, hooks at the free ends of said arms engaging with corresponding recesses in the casing for the purpose of preventing displacement of the door in the direction of said arms, but permitting removal of the door when partly open and not so engaged; a plurality of door-securing members at front and rear of the casing for engaging below and above said arms respectively, thereby permitting the adjustment of the detached door in a plurality of positions both as to height and angularity, when serving as an external shelf.

1,130,633. POLARITY-INDICATOR. FRANK W. ROLLER, East Orange, N. J., assignor to Roller-Smith Company, a Corporation of New York. Filed Dec. 27, 1912. Serial No. 738,815. (Cl. 171—95.)



1. An electric current indicator comprising a movable member, means carried by the indicator tending to hold said member in a certain position, and means for causing the movement of said member to a single definite position when the current flows in one direction, and to another different single definite position when the current flows in the opposite direction.

2. A three position current indicator comprising a movable member, means carried by the indicator tending to hold said member in a position to indicate no current, and means for causing the movement of said member to a definite position on each side of said no-current position according to the direction of current to be indicated.

3. A three position electric current indicator comprising a movable member having definite separated positions corresponding to the two directions of current and to no current respectively, means carried by the indicator tending to normally hold said member in the no-current position, and means for causing the movement of said member into the two other definite positions according to the respective direction of the current.

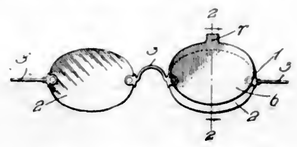
4. A three position current indicator comprising a movable member having three definite separated positions corresponding to the two directions of current and to the no-current conditions respectively, the position of no current being located between the other two, means carried by the indicator tending to hold said member in the mid position when no current is flowing, and means for causing the movement of said member into the other two positions according to the respective direction of the current.

5. A polarized movable member for an electrical instrument comprising a spindle, rods of magnetic material extending along the same and separated member supporting said rods on said spindle, one of said separated members being of magnetic material and the other being of non-magnetic material.

[Claims 6 to 22 not printed in the Gazette.]

1,130,634. EXERCISING LENS-SHADE. MARTIN J. ROONEY, Butte, Mont. Filed Oct. 22, 1914. Serial No. 868,066. (Cl. 128—11.)

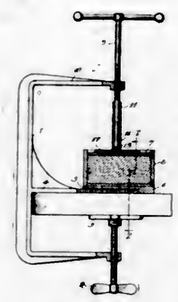
1. A lens shield comprising a shielding member having a configuration conforming substantially to that of a standard lens, an inwardly projecting flange formed around the upper edge of said member, a holder, an inwardly projecting flange on the latter whose edge is adapted to abut that of the first mentioned flange whereby to dispose said holder in offset relation with respect to said shielding member and form a pocket to receive an eye glass lens, and a pair of coacting extensions formed on the upper edge of said shield and holder respectively whereby to form a handle for the same.



2. A lens shield comprising a shielding member corresponding approximately in shape and size to a standard spectacle lens, an inwardly projecting flange formed on the upper edge of said member and extending from one extremity of its longitudinal axis to the other, an integrally formed upwardly projecting extension disposed upon the upper edge of said shielding member, a holder having configuration corresponding to that of said shielding member, a flange formed around the upper edge of said holder, the outer edges of said flanges being adapted to abut, whereby to dispose said holder in offset relation with respect to said shield, means for uniting the abutting edges of said flanges, and an extension formed on the upper edge of said holder and adapted to coincide with the extension on said shielding member whereby to coact with said extension, whereby to form a handle.

3. A lens shield of the character described comprising a translucent shielding member having a configuration corresponding to that of a standard eye-glass lens, an integrally formed grip rising vertically from the upper edge of said member at a point thereon coincident with the vertical axis of the latter, a holder having its upper extremity secured to the central portion of the upper edge of said member and depending therefrom in offset relation to said member for coöperation with the latter to produce a seat for the reception of said lens, said holder having its lower edge adjacent that of said member whereby said seat will have a depth corresponding substantially as and for the purpose set forth.

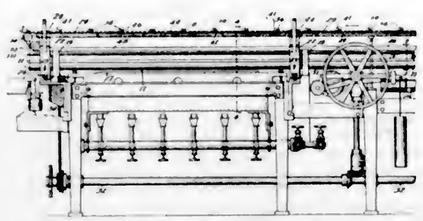
1,130,635. MOLDING DEVICE. JOSEPH C. ROUSHAR, Cedar Rapids, Iowa. Filed July 31, 1914. Serial No. 854,351. (Cl. 31—25.)



A butter mold, comprising a base plate, a form adjustable to and removable from the base plate, and constructed to engage the same to prevent lateral displacement thereon, a follower coöperating with the plate and working in said form for compressing the butter, a frame for supporting and positioning the mold, embodying an upright member, and three parallel arms extending therefrom; the upper and lower arms carrying respectively, a pressure screw and a clamping screw and the intermediat arm serving the combined purpose of opposing the clamp-

ing screw and positioning the plate of the mold, said follower having a bearing socket for receiving and guiding the pressure screw.

1,130,636. CAN-BODY SUPPORT. FRANK RUDOLPHI, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 2, 1911. Serial No. 642,016. (Cl. 113—61.)



1. In a soldering machine, in combination: a stationary, outside solder horn adapted to support can bodies; a solder bath; a solder roll rotatable in said bath and about an axis parallel to the horn and adapted to apply solder to the seams of the can bodies while in the horn; and an endless, continuously moving can body conveyer provided with gripping devices adapted to grip the cans firmly and prevent the same from turning, substantially as specified.

2. In a soldering machine, in combination: an outside, stationary solder horn; said horn including two members, one of which is pivotally mounted on the other and adapted to be swung about said pivot, each section of the horn having a plurality of parallelly arranged ribs; a solder bath; and means for applying solder to the seams of the can bodies while supported by said horn; substantially as specified.

3. In a soldering machine, in combination: a stationary, outside solder horn, said horn including two members, one of which is pivotally mounted upon the other; a solder bath; means for applying solder to the seams of the can bodies while supported by said horn; and an endless conveyer adapted to propel the can bodies through said horn, said conveyer being supported by one of said members of the horn; substantially as specified.

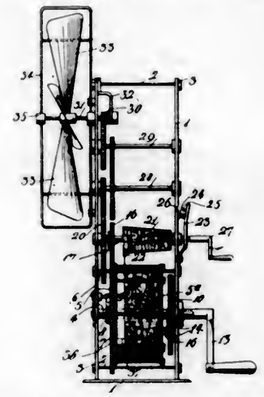
4. In a soldering machine, in combination: a solder horn adapted to support can bodies while being moved therealong; a solder bath; a solder roll rotatable about an axis parallel to the horn and adapted to apply solder to the side seams of the can bodies while supported by the horn, said roller having a continuous smooth surface throughout its length; and a can body conveyer adapted to propel the can bodies along said horn, said conveyer being provided with a plurality of gripping devices, each adapted to grip a can firmly and prevent the same from turning, substantially as specified.

5. In a soldering machine, in combination: an outside solder horn provided with a gap along the bottom thereof; a solder bath; a solder roll rotatable about an axis parallel to said horn and adapted to apply solder to the side seams of the can bodies while said seams are positioned in said gap; and a conveyer adapted to propel the cans through the horn, said conveyer having means thereon adapted to grip the can bodies and prevent the latter from turning, substantially as specified.

[Claim 6 not printed in the Gazette.]

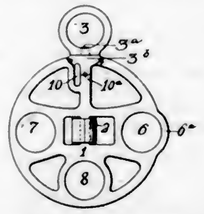
1,130,637. SPRING-MOTOR. CHARLES SCHATTE, New York, N. Y. Filed May 20, 1914. Serial No. 839,770. (Cl. 185—37.)

A spring motor comprising, in combination, a spiral spring within a spring casing integral with a main gear wheel, mounted on a main shaft, said main gear wheel normally in engagement with intermediate gearing the final link of which is rigidly mounted on a shaft carrying said fan; a conical drum adapted to engage one member of said intermediate gearing when said intermediate gearing is out of engagement with said main gear wheel; a wire rope with one end attached to and normally wound around said spring, adapted to have its free end attached to said conical drum and to put the said spring under tension by being coiled up around said conical drum; a



crank handle each on said main shaft and on an auxiliary shaft carrying said conical drum; and a clamping lever adapted to push forward in its journals and lock in that position said auxiliary shaft, thereby disengaging the gear wheel mounted on said auxiliary shaft from said main gear wheel and forming a ratchet coupling between the said gear wheel mounted on the auxiliary shaft and another gear wheel mounted on the same shaft.

1,130,638. BRIDLE-BIT. HENRY SCHLUETER, Scribner, Nebr. Filed July 28, 1914. Serial No. 853,610. (Cl. 54—7.)

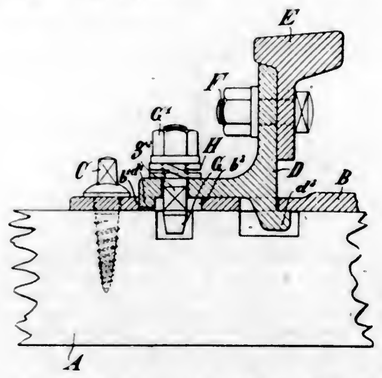


1. A bridle bit comprising a bit iron and branches; the branches having suspending loops above the bit iron, jaw-pressing portions in rear of the bit irons, and rein-attaching loops forward of the bit iron, in position to develop a lateral turning of the branches from a pull on the reins and forming increased leverages from the bit iron, and said branches having attaching loops opposite said swivels, whereby the bit may be inverted and made to produce curb effects of different degrees of severity.

2. A bridle bit comprising a bit iron and branches; the branches having suspending loops above the bit iron, jaw-pressing portions in rear of the bit irons, and rein-attaching loops forward of the bit iron, in position to develop a lateral turning of the branches from a pull on the reins and forming increased leverages from the bit iron, and said branches having attaching loops opposite said swivels, whereby the bit may be inverted and made to produce curb effects of different degrees of severity, vertical bars being provided between the swivel loops and the bit iron, and chin-strap loops being associated with said vertical bars.

3. A bridle bit comprising a bit iron and cheek pieces hinged to the ends thereof; each of said cheek pieces being constructed with a reduced suspending loop at each end of its vertical diameter, a pair of rein-attaching loops at opposite ends of its horizontal diameter; the attaching loops on the vertical diameter being at different radial distances from the bit iron, and the bit being adapted to have a chin strap associated with each suspending loop, whereby different degrees of curb-effect may be developed.

1,130,639. DEVICE FOR SECURING GUARD-RAILS ON CROSS-TIES. DIETRICH SCHWEMANN, Berlin-Wilmersdorf, Germany. Filed Apr. 28, 1914. Serial No. 834,987. (Cl. 239—18.)



1. In a device for securing guard rails on cross ties, a tie plate, a supporting angle mounted on the tie plate, the upper shank of said supporting angle being attached to the guide rail, the lower shank of said supporting angle being attached to the guide rail, the lower shank of said supporting angle being provided with a hook gripping beneath the tie plate on the side nearest the running rail and pointing toward said running rail and flexible means for securing the contact of said lower shank of the supporting angle with said tie plate.

2. In a device for securing guard rails on cross ties, a tie plate, a supporting angle mounted on the tie plate, the upper shank of said supporting angle being attached to the guide rail, the lower shank of said supporting angle being provided with a hook gripping beneath the tie plate on the side nearest the running rail and pointing toward said running rail, a screw hook connecting said lower shank to the tie plate, said lower shank being provided with a hole surrounding the shank of said screw with very slight play, flexible means securing the contact of said lower shank with said tie plate.

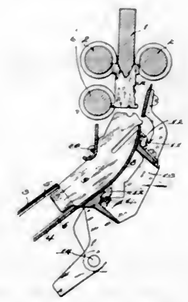
1,130,640. BATTERY-SEPARATOR AND PROCESS OF MAKING THE SAME. JAMES M. SKINNER, Philadelphia, Pa., assignor to Philadelphia Storage Battery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 13, 1914. Serial No. 838,406. (Cl. 204—29.)

1. The process of preparing battery separators which consists in shaping pieces of the wood of coniferous trees into the form of separators; and boiling said wood in water for a period equivalent to from 24 to 48 hours boiling in water at atmospheric pressure.

2. The process of preparing battery separators which consists in boiling the wood of coniferous trees in water for a period of from 24 to 48 hours.

3. A battery separator produced by the herein described process which consists of coniferous wood containing a relatively small percentage of acetic acid forming compounds and including such an amount of insulating compounds that its resistance is relatively low.

1,130,641. MAGAZINE-ENTRANCE GUIDE FOR LINE-COMPOSING MACHINES. SAMUEL E. SPERRY, Woodhaven, N. Y., assignor to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed Apr. 23, 1913. Serial No. 763,140. (Cl. 199—7.)



1. In a machine of the linotype class, in combination, the matrix-containing magazine, the distributing mechanism, and means for guiding matrices from the distributing mechanism to the magazine, said means having laterally widened guiding parts projecting into but unattached to the magazine.

2. In a machine of the linotype class, a channeled matrix magazine, and means for guiding matrices thereto, said means having laterally widened portions within the magazine and occupying positions between but unattached to the top and bottom plates of the magazine.

3. In a machine of the class described, the combination of a matrix-containing magazine, a matrix distributer, and guiding means arranged to receive matrices from the distributer and to direct them into the magazine, portions of said guiding means being laterally widened and projecting into the magazine and being positioned freely between the top and bottom plates thereof.

4. In a machine of the class described, the combination of a magazine having channels to receive matrices, a distributer, and guiding means arranged to receive matrices from the distributer and to direct them into the appropriate channels of the magazine, portions of said guiding means being laterally widened and projecting into the magazine at points between adjacent channels therein and being positioned freely between the top and bottom plates of the magazine.

5. In a machine of the class described, the combination of a magazine having matrix-receiving channels, a matrix distributer, and guiding means arranged to receive matrices from the distributer and to direct them into the different magazine channels, said guiding means having rigid laterally widened portions projecting into but unattached to the matrix-receiving end of the magazine and lying in planes wholly between the top and bottom plates thereof.

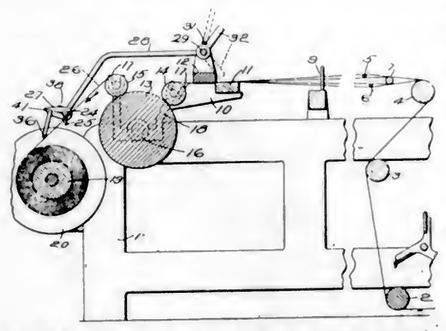
[Claims 6 and 7 not printed in the Gazette.]

1,130,642. SLASHER. GEORGE E. SPOFFORD, New Market, N. H., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed June 14, 1913. Serial No. 773,596. (Cl. 28—14.)

1. In a slasher, the combination of a warp beam on which the warp threads are to be wound, means for arranging the warp threads in sheet form to be wound upon the beam, a comb, means for positioning the comb upon the sheet of warp threads between the warp beam and said arranging means, and permitting said comb to freely move with the sheet of threads in a direction transverse to the axis of the warp beam as the diameter of the load increased.

2. In a slasher, the combination of means for forming the warp threads in a single sheet, a beam on which the sheet of warp threads is to be wound, and means resting upon and movable with the sheet or warp threads in a

direction transverse to the axis of the beam as the load upon the beam increases in diameter for directing the threads of the sheet in parallel relation side by side as they are wound on the warp beam.



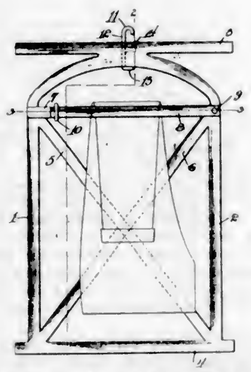
3. In a slasher, the combination of a beam, means for delivering a single sheet of warp threads to be wound upon said beam, a comb bar supported by and above the sheet of warp threads between said means and the beam and having teeth for separating and directing the warp threads in parallel relation side by side as they are wound upon said beam, and means for holding the comb in the said position and permitting the comb to be moved away from said position.

4. In a slasher, the combination of means for arranging warp threads in a sheet, a beam on which said sheet of warp thread is to be wound, a comb between said means and the beam for arranging the warp threads in parallel relation and directing them in such undisturbed condition to the beam, and means engaging the comb to position it above and to be moved by the sheet of warp threads as said sheet changes inclination during the winding operation.

5. In a slasher, the combination of means for arranging warp threads in sheet form, a beam upon which the sheet of threads is to be wound, a comb supported by the warp threads between said means and beam and having teeth intersecting the path of travel of the sheet of warp threads and means for maintaining the comb in said position and permitting the comb to be moved away from the plane of movement of the warp threads.

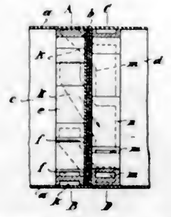
[Claims 6 to 20 not printed in the Gazette.]

1,130,643. SUIT-HANGER. JEROME B. STAADEKER, Louisville, Ky. Filed Sept. 4, 1912. Serial No. 718,409. (Cl. 211—13.)



A garment hanger comprising a flat rigid frame having an intermediate trousers supporting portion, a pair of end bars of the same relative length, the said bars having their ends extended beyond the sides of the frame, and a rigid curved coat supporting bar extended at its ends into the sides of the frame and also extended directly into the adjacent end bar, the extension of the said end bars beyond the sides of the frame being adapted to permit the sides of the coat to be arranged wholly within the plane of the ends of said bars when the coat is in position upon the frame.

1,130,644. TUBULAR GRINDING-MILL. REINHOLD STEINBACH, Magdeburg-Buckau, Germany, assignor to Fried. Krupp, Aktiengesellschaft, Grusonwerk, Magdeburg-Buckau, Germany. Filed Jan. 9, 1914. Serial No. 811,223. (Cl. 83—9.)



1. A compound grinding mill comprising an imperforate drum having a plurality of partitioned off chambers in alinement the one with the other, grinding plates on either side of a partition, said grinding plates being provided with a plurality of passages from one chamber to the next and situated adjacent the concave surface of the drum, said passages being obliquely directed relative to said concave surface so as to facilitate the conveyance from one chamber to the next in approximately axial direction near the wall of the drum of the material under treatment.

2. A compound grinding mill comprising an imperforate drum having a plurality of partitioned off chambers in alinement the one with the other, grinding plates on either side of a partition, said grinding plates being provided with a plurality of passages from one chamber to the next and situated adjacent the concave surface of the drum, said passages being obliquely directed relative to said concave surface so as to facilitate the conveyance in approximately axial direction of the material under treatment, said grinding plates also having a pocket for each of said passages situated at the foremost side of the passage during rotation, said pocket collecting material in a preceding chamber prior to discharging it through a passage into a subsequent chamber.

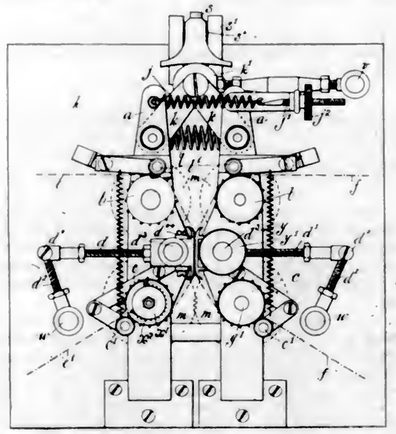
3. A compound grinding mill comprising an imperforate drum having a plurality of partitioned off chambers in alinement the one with the other, grinding plates on either side of a partition, said grinding plates being provided with a plurality of passages from one chamber to the next and situated adjacent the concave surface of the drum, said passages being obliquely directed relative to said concave surface so as to facilitate the conveyance in approximately axial direction of the material under treatment, said grinding plates also having a pocket for each of said passages situated at the foremost side of the passage during rotation, said pocket collecting material in a preceding chamber prior to discharging it through a passage into a subsequent chamber, and means at the entrance of said pocket for segregating the finer from the coarser material.

4. A compound grinding mill comprising an imperforate drum having a plurality of partitioned off chambers in alinement the one with the other, grinding plates on either side of a partition, said grinding plates being provided with a plurality of passages from one chamber to the next and situated in the body of the grinding plates adjacent the concave surface of the drum, said pasasges being obliquely directed relative to said concave surface so as to facilitate the conveyance in approximately axial direction of the material under treatment.

5. A compound grinding mill comprising an imperforate drum having a plurality of partitioned off chambers in alinement the one with the other, grinding plates on either side of a partition, said grinding plates being provided with a plurality of passages from one chamber to the next and situated in the body of the grinding plates, the side of the passages adjacent the concave surface of the drum being open, said passages being obliquely directed relative to said concave surface so as to facilitate the conveyance in approximately axial direction of the material under treatment.

[Claims 6 to 11 not printed in the Gazette.]

1,130,645. METHOD OF COLORING FILMS. PERCIVAL E. SHOW, Croydon, England, assignor of one-third to Harry Martin Valentine Sharp, Croydon, England, and one-third to Henry Vassar Lawley, Battersea Park, London, England. Filed Nov. 22, 1913. Serial No. 802,563. (Cl. 101—132.)



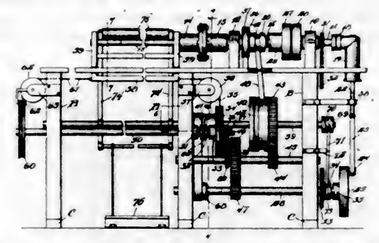
1. A method of coloring a film consisting in making a stencil corresponding to the portion of the picture on the film to be colored, producing an image of the stencil on a separate film, coloring said image and subsequently transferring said coloring from said image to the film to be colored.

2. A method of coloring a film consisting in making an enlarged stencil corresponding to the portion of the picture on the film to be colored, producing a reduced image of the enlarged stencil on a separate film, coloring said image, and subsequently transferring said coloring from said image to the film to be colored.

3. A method of coloring a film consisting in cutting out a stencil corresponding to the portion of the picture to be colored from an enlarged image of said picture transmitted on to suitable material, producing a reduced image of the enlarged stencil on a separate film, coloring said image and subsequently transferring said coloring from said image to the film to be colored.

1,130,646. TUBE-FORMING MACHINE. LOUIS E. STUCKER, Brooklyn, N. Y. Filed May 26, 1914. Serial No. 841,089. (Cl. 93—81.)

1. In a tube forming machine, a hollow perforated forming mandrel, a head on one end of said mandrel, pump mechanism having a hollow chuck detachably engaged with the head and adapted to create a suction in the mandrel, ejector means movable longitudinally of the mandrel for removing a tube formed thereby therefrom, mechanism for driving the mandrel, pump and ejector means, means operated by the last-named mechanism for reversing the direction of movement of the ejector means, a foot controlled presser roll coöperative with the mandrel, cam actuated means for stopping the mandrel at predetermined intervals, and cam actuated means for stopping the pump at determined intervals.



2. In a tube forming machine having driving mechanism, a frame having a bed, a mandrel supported above the bed, a feed table supported by the bed and arranged in the plane of the mandrel, mechanism for creating a suction in the mandrel, means for simultaneously operating the mandrel and pump, an ejector frame movable longitudinally of the mandrel and supported by the bed, a counter shaft journaled in the frame, loose and fixed pulleys on the shaft, cables each having one end fixed to the ejector frame and its opposite end fixed to one of said pulleys, a clutch member fixed to the loose pulley, a clutch member fixed to the shaft, a loose clutch member arranged between the said first-named clutch members and alternately engageable therewith, and cam means operated by the driving mechanism for controlling the loose clutch to shift the same for controlling the movement of the ejector frame.

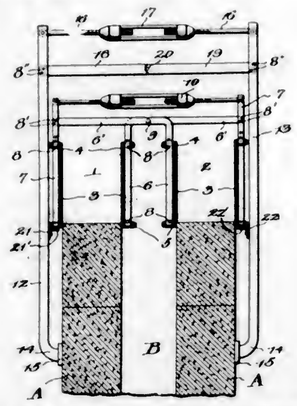
3. In a tube forming machine having driving mechanism, a frame having a bed, a mandrel supported above the bed, a feed table supported by the bed and arranged in the plane of the mandrel, a pump, mechanism for creating a suction in the mandrel, means for simultaneously operating the mandrel and pump, an ejector frame movable longitudinally of the mandrel and supported by the bed, a counter shaft journaled in the frame, loose and fixed pulleys on the shaft, cables each having one end fixed to the ejector frame and its opposite end fixed to one of said pulleys, a clutch member fixed to the loose pulley, a clutch member fixed to the shaft, a loose clutch member arranged between the said first-named clutch members and alternately engageable therewith, cam means operated by the driving mechanism for controlling the loose clutch to shift the same for controlling the movement of the ejector frame, and a presser roller coöperative with the mandrel.

4. In a tube forming machine having driving mechanism, a frame having a bed, a mandrel supported above the bed, a feed table supported by the bed and arranged in the plane of the mandrel, a pump, mechanism for creating a suction in the mandrel, means for simultaneously operating the mandrel and pump, an ejector frame movable longitudinally of the mandrel and supported by the bed, a counter shaft journaled in the frame, loose and fixed pulleys on the shaft, cables each having one end fixed to the ejector frame and its opposite end fixed to one of said pulleys, a clutch member fixed to the loose pulley, a clutch member fixed to the shaft, a loose clutch member arranged between the said first-named clutch members and alternately engageable therewith, cam means operated by the driving mechanism for controlling the loose clutch to shift the same for controlling the movement of the ejector frame, a presser roller coöperative with the mandrel, and cam operated means for controlling the driving mechanism for the starting and stopping of both the mandrel and pump.

1,130,647. APPARATUS FOR CONSTRUCTION OF CEMENT BUILDINGS. JACOB M. THOMPSON, Fond du Lac, Wis. Filed Sept. 21, 1914. Serial No. 862,809. (Cl. 25—131.)

1. A mold comprising a plurality of laterally spaced parallel plates, uprights secured to the outermost plates

and extending above the tops thereof, adjustable means connecting the uprights on opposite sides of the mold and pivotally connected members attached to the innermost plates and to said uprights, said members extending transversely across the chambers formed by the parallel plates.

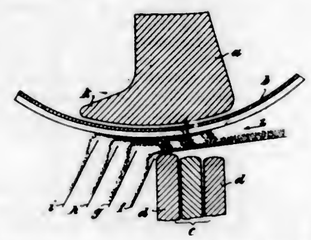


2. A mold comprising a plurality of laterally spaced parallel plates, uprights secured to the outermost plates and extending above the tops thereof, adjustable means connecting the uprights on opposite sides of the mold, uprights secured to the innermost plates and having laterally extending pivotally connected arms at their upper ends, said arms being also secured to the first mentioned uprights, and extending transversely relatively to the mold.

3. A mold comprising a plurality of laterally spaced parallel plates, uprights secured to the outermost plates and extending above the tops thereof, adjustable means connecting the uprights on opposite sides of the mold, uprights secured to the innermost plates and having laterally extending pivotally connected arms at their upper ends, the arm on one plate crossing the arm on the other and secured to said first mentioned uprights.

4. A mold comprising a plurality of laterally spaced parallel plates, uprights secured to the outermost plates and extending above the tops thereof, adjustable means connecting the uprights on opposite sides of the mold, uprights secured to the innermost plates and having laterally extending pivotally connected arms at their upper ends, the arm on one plate crossing the arm on the other and secured to said first mentioned uprights, said arms being connected with the outer uprights below the adjustable connecting means of said uprights.

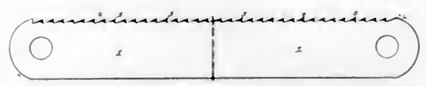
1,130,648. MAGNETIC SEPARATOR. GEORG ULLRICH, Magdeburg, Germany, assignor to Fried. Krupp Aktiengesellschaft, Grusonwerk, Magdeburg-Buckau, Germany. Filed Nov. 25, 1913. Serial No. 802,945. (Cl. 83—71.)



1. A magnetic separator of the kind set forth, comprising upper and lower stationary poles, a traveling member moving through the field gap in the direction of feed of material, and means for feeding the material to be separated into the gap, means for increasing the strength of the field in steps and then decreasing the same in the same direction of feed, and means for separately collecting the grades progressively released from the traveling member.

2. A magnetic separator of the kind set forth, comprising upper and lower stationary poles, a traveling member moving through the field gap, and means for feeding the material to be separated into the gap beneath and in the same direction as the traveling surface of said member moves across the magnetic field, means for dividing said field into sharply defined adjustable zones of strength increasing in the direction of feed, said zones extending transversely of the direction of feed, means for subsequently decreasing the field strength in the same direction, and means for separately collecting the different grades of material as released from the traveling member.

1,130,649. CUTTING-TOOL. JOHN WHITAKER, North Wales, Pa. Filed Dec. 6, 1910. Serial No. 595,867. (Cl. 29—95.)



1. As a new article of manufacture, a toothed cutting implement comprising a flexible body or blade spring tempered throughout, having a cutting edge of hardened teeth integral therewith, and a zone of toughened metal between the points forming the teeth of said cutting edge and the blade.

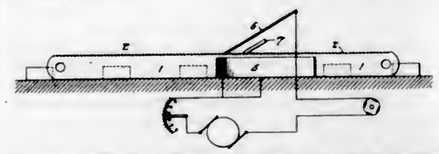
2. As a new article of manufacture, a hack-saw comprising a flexible body or blade of steel spring tempered throughout, with teeth having points of a higher degree of hardness and temper than said body or blade, there being a zone of tough metal connecting the points and the blade.

3. A hack-saw comprising a cutting edge with teeth having hardened points and a body or blade integral with said teeth, and spring tempered throughout, there being a zone of tough metal connecting the points and the blade.

4. A hack saw blade having a cutting edge composed of teeth having points of a high degree of hardness and temper, and a spring tempered body integral with said teeth but less hard.

5. A hack saw having a cutting edge with teeth having points of a high degree of hardness and temper, a spring tempered body integral with said teeth but less hard, and a zone of tough metal between the hardened points of the teeth and the spring tempered body.

1,130,650. PROCESS OF HARDENING THE CUTTING PORTIONS OF CUTTING-TOOLS. JOHN WHITAKER, North Wales, Pa. Filed Aug. 23, 1910, Serial No. 578,564. Renewed May 15, 1914. Serial No. 838,896. (Cl. 148—10.)



1. The process of treating cutting tools which consists in tempering the body or blade of the same to the point of spring flexibility, and then hardening the edge of such spring tempered body by separate momentary applicaations to isolated portions thereof of a high degree of heat.

2. The process of treating cutting tools which consists in tempering the body or blade of the same to the point of spring flexibility and then hardening the edge of such spring tempered body by separate momentary applications to isolated portions thereof of a current of electricity to heat the same to a high degree.

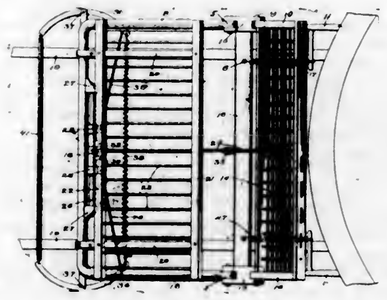
3. The process of preparing hack saw blades which consists in tempering the blade to the degree of spring flexibility, and then hardening the toothed portion of such blade by separate and momentary applications of a high degree of heat to the points of said teeth.

4. The process of preparing hack saw blades which consists in tempering the blade to the degree of spring flexibility, and then hardening the teeth by momentary application of a high degree of heat to each of said teeth separately and independently.

5. The process of treating hack saw blades which consists in tempering the body of the blade to the flexibility of spring metal and then subjecting the points of the teeth to a high degree of heat, such heating being momentary and applied separately to each point, and the engagement of the teeth by the heating agent being alternated by movements of the heating agent or saw with respect to the other.

[Claims 6 to 8 not printed in the Gazette.]

1,130,651. CAR-FENDER. HARRY THOS. WILLIAMS-EATON, Seattle, Wash., assignor, by mesne assignments, to National Automatic Fender Company, Seattle, Wash., a Corporation. Filed June 29, 1912. Serial No. 706,783. (Cl. 105—127.)



1. In a fender, a back frame adapted to be connected with a car, links pivoted to the bottom of the back frame, a main frame pivoted to the front ends of the links, means to retract the links, means to hold the main frame in elevated position and the links in forward position, and obstacle engaging means to release the holding means when such obstacle is encountered.

2. In a fender, a back frame adapted to be rigidly connected with a car, links pivoted at their rear ends to the lower edge of the back frame, a spring adapted to normally retract the links, a main frame, knuckle-joints connecting it to the front ends of the links, a chain extending from the top of the back frame to the forward end of the main frame, a branch member extending from the chain intermediate its ends to support the links against the tension of the spring, and means for releasing the forward end of the chain from said frame.

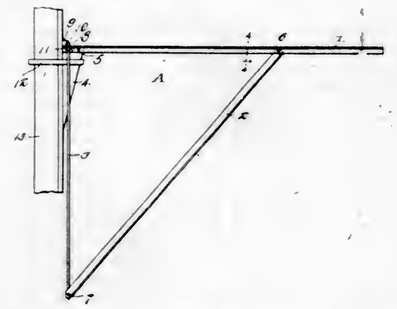
3. In a fender, a plurality of frames, links pivotally connecting their adjacent edges whereby one frame is movable with reference to the other, a chain extending from the top of one of the frames to the forward end of the other frame, a branch chain extending from the first-named chain and connected with a cross bar connecting the links, keepers slidable along the forward edge of the frame last mentioned and arranged to engage the first-named chain, levers for holding the keepers normally in engagement, and a cord carried by the levers in advance of the frames and adapted to actuate the levers to release the keepers.

4. In a fender, a member adapted to be fixedly secured to a car, a main frame disposed in front of said member, links pivotally connecting said frame and member, a spring for retracting links, means to hold the main frame in elevated position and to hold the links against the tension of the spring, levers carried by the main frame, a cord carried by the levers and extending in front of the main frame, and means carried by the levers for releasing the holding means.

5. In a fender, the combination with a back frame adapted to be carried by the car, links pivoted to said back frame, and springs tending normally to swing the links downward around their pivots; of a main frame, knuckle-joints between it and the front ends of said links, a chain attached to the upper edge of said back frame, a latch detachably connecting its front end with the center of said main frame, means for tripping said latch when an obstacle is encountered, and a branch chain connecting the mid-length of the main chain with a cross bar connecting said links, for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,130,652. SCAFFOLD-BRACKET. LEWIS S. WIXSON, Rochester, N. Y. Filed Jan. 14, 1913. Serial No. 742,033. (Cl. 20—84.)



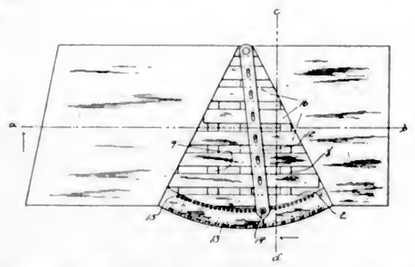
The herein described means for detachably connecting a bracket to a support comprising a slotted member, means formed integral with said member for supporting the same to said support, a wedged-shape member carried by the bracket and adapted to extend through the slot of said member, a head formed integral with and on the straight top edge of the wedge-shaped member for its entire transverse width at one end thereof, said head adapted to be disposed between and rigidly secured to portions of the bracket flush with one end thereof, said head being disposed wholly above the plane of the bracket, the front face of said head being downwardly and inwardly inclined, a member connected with the bracket and having its upper end formed with an offset portion adapted to frictionally engage with the inclined face of said head for preventing any accidental displacement of the bracket from the support.

1,130,653. DEVICE FOR PRINTING DIAGRAMS FOR TAILORS' PATTERNS. LOUIS ALFANO, Southington, Conn., assignor of one-half to Frank Galietti, Southington, Conn. Filed Mar. 16, 1914, Serial No. 825,105. Renewed Dec. 17, 1914. Serial No. 877,807. (Cl. 101—83.)

1. A device for printing tailors' diagrams comprising a frame provided with a printing edge, a series of vertical markers having printing edges slidably mounted in said frame, a lever pivoted in the frame, and coupling-pieces between the lever and the several vertical markers.

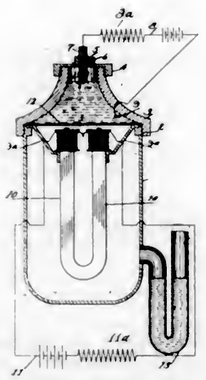
2. A device for printing tailors' diagrams comprising a frame having a printing edge and printing scales, a series of vertical markers mounted in the frame and each pro-

vided with a printing edge, a lever coupled with the frame and connected with the several markers, and a segmental



scale on the frame with which the outer end of the lever may be locked.

1,130,654. RELAY. HARRY R. ALLENSWORTH, Columbus, Ohio. Filed Apr. 14, 1911. Serial No. 620,999. (Cl. 179—17.)



1. A relay comprising a diaphragm for receiving vibrations, a circuit upon which said vibrations are to be impressed, a fluid medium for transmitting said vibrations from said diaphragm to said circuit, and means for counterbalancing the static effect of said fluid medium on said diaphragm.

2. A relay comprising a vibratory diaphragm, a circuit upon which said vibrations are ultimately impressed, a fluid medium for transmitting said vibrations from said diaphragm to said circuit, said medium being of a form to deliver the vibrations in an accentuated form, and means for counterbalancing the static effect of said fluid medium on said diaphragm.

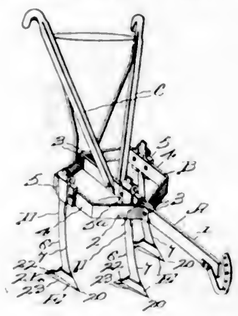
3. A relay comprising, in combination with a receiving circuit and a transmitting circuit, a diaphragm for receiving vibrations, a fluid medium forming a portion of one of said circuits and contacting directly with said diaphragm, a pressure medium effective on the opposite side of said diaphragm to counterbalance the static effect of said fluid medium, and means for vibrating said diaphragm.

4. A relay comprising, in combination with a receiving circuit and a transmitting circuit, a diaphragm for receiving vibrations, a fluid medium forming a portion of one of said circuits and contacting directly with said diaphragh, a confining structure for said fluid gradually decreasing in section area from said diaphragm to the transmitting point of the confined fluid, a pressure medium effective on the opposite side of said diaphragm to counterbalance the static effect of said fluid medium, and means for vibrating said diaphragm.

5. A relay comprising, in combination with a receiving circuit and a transmitting circuit, a diaphragm adapted to be vibrated by the receiving circuit, fluids exerting an equal pressure on each side of said diaphragm, one of the fluids being in the transmitting circuit whereby the vibrations are impressed on the transmitting circuit.

[Claims 6 to 15 not printed in the Gazette.]

1,130,655. SUBSOIL PLOW OR CULTIVATOR. JAMES T. ANDREW and ALBERT W. LANDERS, Montgomery, Ala. Filed June 13, 1914. Serial No. 844,942. (Cl. 97—32.)

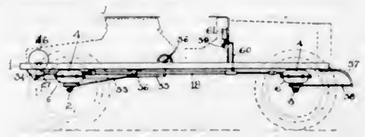


1. A subsoil cultivator comprising a metal beam and framework connected thereto, standards connected to said framework and to said beam, and provided with elongated feet, and shoes fitting said feet and detachably connected to said standards, the said shoes being provided with double inclined heels with longitudinal tapering V-shaped channels in the sides thereof, substantially as described.

2. A subsoil cultivator comprising a metal beam and framework connected thereto, standards connected to said framework and to said beam, and provided with elongated feet with cylindrical bosses at the bottom of said feet, and shoes fitting said feet and detachably connected to said standards, substantially as described.

3. A subsoil cultivator comprising a metal beam and framework connected thereto, standards connected to said framework and to said beam, and provided with elongated feet with cylindrical bosses at the bottom of said feet, and shoes fitting said feet and detachably connected to said standards, the said shoes being provided with double inclined heels with longitudinal tapering V-shaped channels in the sides thereof, substantially as described.

1,130,656. PNEUMATIC SPRING FOR VEHICLES. WARREN W. ANNABLE, Grand Rapids, Mich., assignor to Annable Pneumatic Spring Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 10, 1906. Serial No. 342,881. (Cl. 21—50.)



1. In an air spring for vehicles, the combination of a rigid cup-shaped member, a full flexible diaphragm secured to the edges thereof, a plate centrally secured to the diaphragm, connections from the plate to the frame and running gear respectively of the vehicle, such connections permitting the plate to assume varied angular relations to the cup-shaped member, an air bag between the two members, a storage receptacle, and means for allowing the air to pass freely from the air bag to the receptacle but compelling a more restricted return.

2. In a pneumatic spring for vehicles, a dished flexible diaphragm forming one wall of a compressed air chamber, a supporting plate secured centrally thereof, a pivotal connection between said plate and the vehicle, and a complementary-shaped opposing rigid wall against which the supporting plate is adapted to strike if the spring is collapsed.

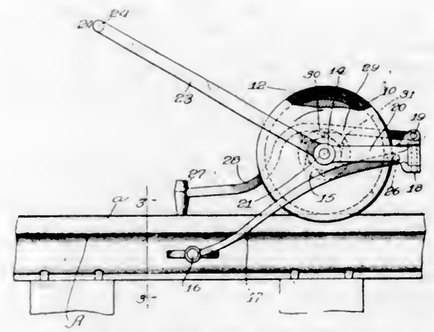
3. In an air spring for vehicles, the combination of a pneumatic spring, a storage chamber, a connection between the chamber and spring permitting a free outflow of air from the spring to the chamber and a more restricted return, and manually operable means in said connection for varying the rapidity with which the air returns to the spring.

4. In an air spring for vehicles, the combination of a rigid member, a flexible diaphragm secured to the edges of said member, a plate centrally secured to the diaphragm, and a pivotal supporting connection rigidly attached to the diaphragm.

5. The combination with the frame and running gear of a vehicle, of an air spring therebetween, comprising a rigid member secured to one of said vehicle parts, a flexible diaphragm secured to said rigid member, a plate centrally secured to the diaphragm, and a pivotal connection between said plate and the other of said vehicle parts.

[Claims 6 to 8 not printed in the Gazette.]

1,130,657. RAIL-TESTING DEVICE. HARRY YARRINGTON ARMSTRONG, Springfield, Mass. Filed July 27, 1914. Serial No. 853,536. (Cl. 73—51.)



1. A rail testing device comprising an organized unitary series of hammers with means for alternately operating them, and a support therefor adapted to travel on the rail to be tested.

2. A rail testing device comprising an organized unitary series of hammers with actuating means therefor and supporting means for said hammers adapted to travel along the rail to be tested.

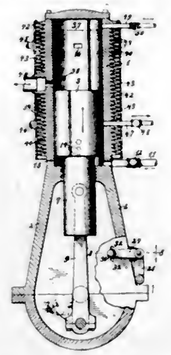
3. A rail testing device comprising side and top rail striking hammers with means to actuate the hammers, and a wheeled support for said hammers adapted to travel on the rail to be tested.

4. A rail testing device comprising a wheeled frame adapted to travel on the rail to be tested, arms pivoted thereto to swing toward and from the sides of the rail and carrying side striking hammers at their free ends, and an arm carried by the frame to swing vertically toward and from the rail and carrying a top striking hammer, with means controlled by the forward movement of the device to operate said hammers.

5. A rail testing device comprising a frame, arms pivoted thereto to swing toward and from the sides of the rail and carrying side striking hammers at their free ends, and an arm carried by the frame to swing vertically toward and from the rail and carrying a top striking hammer with means controlled by forward movement of the device to alternately operate said hammer arms.

[Claims 6 to 12 not printed in the Gazette.]

1,130,658. TWO-CYCLE INTERNAL-COMBUSTION ENGINE. LEONARD ATWOOD, Farmington, Me., assignor of one-half to A. H. Gillard, Englewood, N. J. Filed Nov. 26, 1912. Serial No. 733,589. (Cl. 123—74.)



1. An internal combustion engine of the two-cycle type comprising, a cylinder with piston, a fuel inlet port to a compression compartment within said cylinder, said port being near the inner end of the cylinder and active during the compression stroke of the piston, lengthwise arranged graduated ports in the cylinder near the inlet port, a channel on the cylinder in connection with said ports, an adjustable induction valve at the end of said channel, and an inlet port in the explosion zone of the cylinder, said fuel charge being compressed during the power stroke of the piston and heated by the hot surfaces of the cylinder and piston.

2. An internal combustion engine of the two-cycle type comprising, a cylinder with piston, and an inlet port to a compression compartment within said cylinder, said port being located near the inner end of the cylinder and active during the compression stroke, lengthwise arranged graduated ports for connecting with the explosion zone near said inlet port and active during the power stroke, and graduated exhaust ports arranged annularly and helically in the center portion of the cylinder and adapted to be opened toward the end of the power stroke while closing the graduated inlet ports.

3. An internal combustion engine comprising a cylinder and a piston therein, the cylinder being provided with a series of over-run, helically arranged exhaust ports, of varying size.

4. An internal combustion engine comprising a cylinder, a piston therein, exhaust means comprising a series of over-run helically arranged exhaust ports of gradually increasing size toward the inner end of the cylinder.

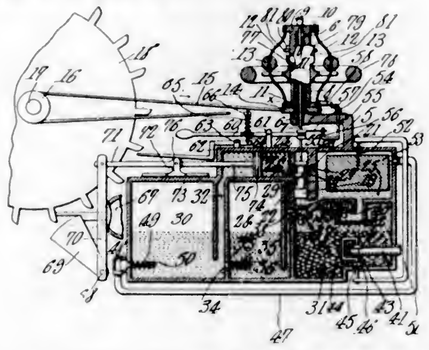
5. An internal combustion engine of the two cycle type, comprising a cylinder having a piston therein dividing said cylinder into a combustion compartment and compression compartment; a valved fuel inlet for said compression compartment; a by-pass for connecting said compression and combustion compartments, a valve in said by pass for introducing the fuel charge into the combustion chamber, at a point near the outer end thereof; exhaust means for the combustion compartment comprising a series of helically arranged ports of gradually increasing size toward the inner end of the cylinder located near the end of the power stroke, said valve for introducing the gases into the combustion compartment being operable after the closing of said exhaust means.

[Claim 6 not printed in the Gazette.]

1,130,659. GOVERNOR MECHANISM. NATHANIEL BALDWIN, Midway, Utah. Filed July 29, 1910. Serial No. 574,519. (Cl. 121—112.)

1. A governor comprising a piston arranged for the control of power supplying means for a prime-mover, a valve, a valve-rod carrying said valve, means operatively con-

nected with said rod for controlling the same and responsive to conditions of speed, inertia controlling means associated with the second mentioned means and responsive to conditions of acceleration, including a lever having operative connection with said valve-rod, a lever-arm, and tension-controlling means between said lever and said lever-arm, said lever-arm being adapted to be oscillated upon the movement of said piston.



2. A governor comprising a piston arranged for the control of power supplying means for a prime-mover, a valve, a valve-rod carrying said valve, means operatively connected with said rod for controlling the same and responsive to conditions of speed, and inertia-controlling means associated with the second mentioned means and responsive to conditions of acceleration and retardation, including a lever having operative connection with said valve-rod, a lever-arm, and tension-controlling means between said lever and said lever-arm, said lever-arm being adapted to be oscillated upon the movement of said piston.

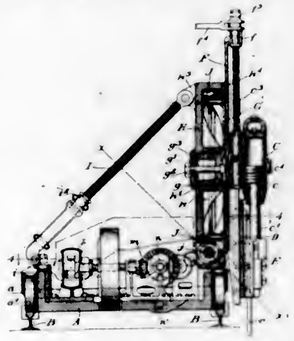
3. A governor comprising a piston arranged for the control of power-supplying means for a prime-mover, a valve, a rod carrying said valve, means having operative connection with the valve-rod and responsive to conditions of speed for raising and lowering said valve-rod, and inertia-controlling means associated with the second mentioned means and movable independently thereof and responsive to conditions of acceleration, said inertia controlling means being arranged to actuate said valve-rod through the medium of the means responsive to conditions of speed, including a lever having operative connection with said valve-rod, a lever-arm, and tension-controlling means between said lever and said lever-arm, said lever-arm being adapted to be oscillated upon the movement of said piston.

4. A governor comprising a piston arranged for the control of power supplying means for a prime-mover, a valve, a valve-rod, means having operative connection with the valve-rod and responsive to conditions of speed for raising and lowering said valve-rod, and inertia-controlling means associated with the second mentioned means and movable independently thereof and responsive to conditions of acceleration and retardation including a lever having operative connection with said valve-rod, a lever-arm, and tension-controlling means between said lever and said lever-arm, said lever-arm being adapted to be oscillated upon the movement of said piston.

5. In a governor, a valve rod, a sleeve shaft mounted to rotate upon the valve rod, governor heads carried by the sleeve shaft, means connecting the heads for relative movement and responsive to conditions of speed, one of said heads being connected with the valve rod, and inertia controlling means responsive to conditions of acceleration, mounted upon the said sleeve shaft and operatively connected with that one of the shafts carrying the governor head which is connected with the valve rod, a lever having operative connection with said valve-rod, a lever-arm, tension-controlling means between said lever and said lever-arm, and means for controlling the supply of the motive agent for a prime-mover, said lever-arm being adapted to be oscillated by the action of said last-referred to means.

[Claims 6 to 20 not printed in the Gazette.]

1,130,660. CHANNELING-MACHINE. ALBERT BALL and HENRY H. MERCER, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 3, 1906. Serial No. 329,004. (Cl. 125—2.)



1. A channeling machine having cutting means, an oscillating or swinging carrier for said cutting means mounted to swing lengthwise the channel groove, a support on which said carrier is pivoted, said support being adjustable for tipping movement about an axis lengthwise the channel groove, a worm gear secured to said carrier and a worm engaging the same, the latter being in line with the tipping axis of the support.

2. A channeling machine having a reciprocatory tool adapted to swing lengthwise the channel groove, means to adjust the inclination of its swinging plane and a worm for effecting swinging movement, the said worm being in line with the axis about which adjustment takes place.

3. A channeling machine having a reciprocatory tool adapted to swing lengthwise the channel groove while undergoing reciprocation, means to adjust its plane of swinging movement, a worm for effecting swinging movement alined with the axis of adjustment, a motive device, and transmission gearing between said motive device and said worm.

4. A channeling machine having cutting means, means for imparting cutting movement thereto, said cutting means being adapted to swing lengthwise the channel groove, means to adjust the plane of swinging movement, a worm for effecting swinging movement, said worm being in line with the axis of adjustment, a motive device for effecting swinging movement, transmission gearing between said motive device and said worm and means for reversing the direction of swinging movement.

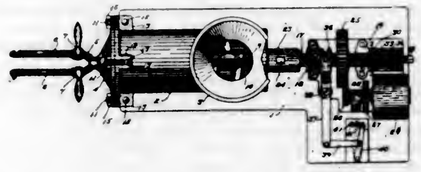
5. A channeling machine adapted to be moved progressively for cutting an ordinary channel groove, power driven means upon the machine for imparting progressive movement thereto, means for maintaining said carriage stationary and means for giving the tool a swinging movement for corner cutting while the carriage is stationary.

[Claims 6 to 47 not printed in the Gazette.]

1,130,661. SAUSAGE-STUFFING MACHINE. WILLIAM H. BAZLEY, Everett, Mass. Filed May 12, 1911. Serial No. 626,716. (Cl. 17—6.)

1. In combination, a cylinder having an outlet through which material contained within the cylinder is expressed an expressing screw or worm within the cylinder acting by its spiral vane upon the said material, power means for rotating the said screw or worm, and means for throwing

the driving-power on and off controlled by the pressure within the cylinder and operating to maintain substantial uniformity of pressure within the cylinder.



2. In combination, a cylinder having an outlet through which material contained within the cylinder is expressed, an expressing screw or worm within the cylinder acting by its spiral vane to express the material through the said outlet, power devices for rotating the said expressing screw or worm, and power-controlling devices operated through the reaction of the material upon the screw or worm to maintain substantial uniformity of pressure within the cylinder.

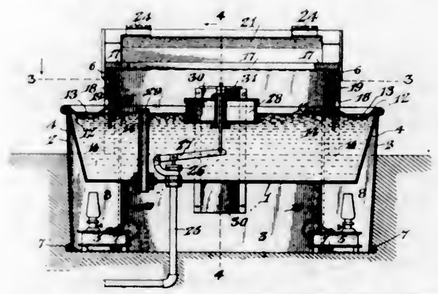
3. In combination, a cylinder, a screw or worm working within the said cylinder, power devices for rotating the said screw or worm, and power controlling devices controlled by the pressure within the cylinder and operating to throw the power off and on to maintain substantial uniformity of pressure.

4. In combination, a cylinder having an outlet through which material contained within the cylinder is expressed, a longitudinally-movable expressing screw or worm within the cylinder acting by its spiral vane to express the material through the said outlet, power means for said expressing screw or worm and means whereby said power means is controlled as to its action in rotating the expressing screw or worm by the longitudinal position of the latter and acting to throw the power off and on to maintain substantial uniformity of pressure within the cylinder.

5. In combination, a cylinder having an outlet through which material contained within the cylinder is expressed, a longitudinally-movable expressing screw or worm acting by its spiral vane to express the material through the said outlet, an electric motor in driving connection with the said screw or worm, and a controlling-switch for the said motor, itself controlled by the longitudinal position of the expressing screw or worm and operating to throw the power off and on to maintain substantial uniformity of pressure within the cylinder.

[Claim 6 not printed in the Gazette.]

1,130,662. HOG-WATERER. PHILIP BERNARD, Sioux City, Iowa. Filed Apr. 19, 1913. Serial No. 762,427. (Cl. 119—73.)



1. A device of the class described including a casing provided with opposite openings, a tank of a width less than the casing and a length greater than the same and extending across the said casing and projecting through the openings thereof, the terminal portions of the tank forming exterior drinking portions and permitting animals to drink directly from the tank, and exterior extension jackets connected with the casing at opposite sides of the said openings, said jackets being also connected with the terminal portions of the tank and spaced at points therefrom to provide intervening spaces to permit heated air to circulate around the end portions of the said tank.

2. A device of the class described including an approximately cylindrical casing provided at opposite sides with openings, an oblong tank of a width less than the diameter of the casing and of a length greater than the same extending across the casing and having its terminal portions projecting through the said openings to form exterior drinking troughs to permit animals to drink directly from the tank, said tank being arranged above the lower end of the casing to provide spaces for heating devices, and the intermediate portion of the tank being spaced from the walls of the casing to afford access to the space below the tank, and exterior extension jackets connected with the casing at opposite sides of the said openings and with the terminal portions of the tank at the upper edges thereof, said jackets being spaced at points from the end portions of the tank to provide intervening spaces to permit heated air to circulate around the terminal portions of the said tank.

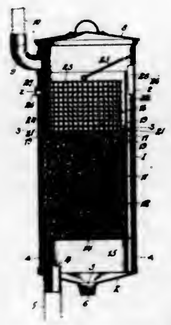
3. A device of the class described including an approximately cylindrical casing constructed of sheet metal and designed to be mounted in the ground with its upper portion projecting therefrom, a rectangular frame fitted over the upper projecting portion of the casing and designed to be arranged above the ground, a tank extending across the casing and projecting through the sides of the same and also through the said frame to provide exterior drinking troughs, and a cover for the casing supported by the said frame.

4. A device of the class described including a casing constructed of sheet metal and provided with opposite openings, a tank extending across the casing and projecting through the said openings to form exterior drinking troughs, a rectangular frame fitted over the upper portion of the casing and provided at opposite sides with openings through which extend the terminal projecting portions of the tank, said casing being extended below the frame and a cover supported by the rectangular frame.

5. A device of the class described including a casing, an exterior drinking trough projecting from the casing, and a water protecting plate arranged over the drinking trough and extending into the same and engaging and removably supported by the walls of the said trough, said plate having an opening.

[Claims 6 to 12 not printed in the Gazette.]

1,130,663. RAIN-WATER FILTER. PHILIP BERNARD, Sioux City, Iowa. Filed Apr. 20, 1914. Serial No. 833,216. (Cl. 210—4.)



1. A filter of the class described, including an outer casing having an upper inlet and provided with a substantially conical bottom having a centrally arranged drain

opening, said bottom being also provided with an eccentrically arranged outlet, means located within the casing for holding filtering material, and removable closures for the drain opening and the outlet.

2. A filter of the class described, including an outer casing having an upper inlet and provided with a substantially conical bottom having a centrally arranged drain opening, said bottom being provided with an eccentrically arranged outlet consisting of a tube projecting into the outer casing, a closure for the drain opening, a cap adapted to be placed on the upper end of the outlet tube for closing the same when cleaning the filter, and means removably arranged within the outer casing for holding filtering material.

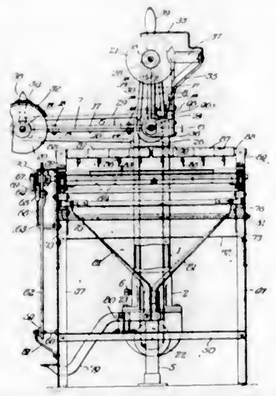
3. A filter of the class described, including an outer casing having an upper inlet and a lower outlet, an inner casing open at the top and bottom and provided at points intermediate of its ends with spaced foraminous partitions forming a compartment for the reception of filtering material, the lower partition being fixed and the upper partition being adjustable, a locking bar connected with the upper partition, and means for adjustably securing the terminals of the said bar to the inner casing.

4. A filter of the class described, including an outer casing having an upper inlet and a lower outlet, an inner casing having a compartment for the reception of filtering material and provided above the same with an open upper portion or chamber arranged to receive water from the said inlet, and a removable open top receptacle arranged within the upper portion of the inner casing and having a portion of its exposed surface constructed of foraminous material to form a screen and another portion of the said surface constructed of imperforate material to prevent a direct passage of the water therethrough.

5. A filter of the class described, including an outer casing having an upper inlet and a lower outlet, an inner casing having a compartment for the reception of filtering material and provided above the same with an open upper portion or chamber arranged to receive water from the said inlet, and a removable open top receptacle arranged within the upper portion of the inner casing and composed of foraminous side walls and an imperforate bottom spaced from the lower edge of the body to provide an intervening space between it and the bottom of the chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,130,664. MEAT-CUTTING MACHINE. PULASKI J. BRYAN, Chicago, Ill., assignor of one-third to Edward W. Rusk, Callaway, Nebr., one third to Louis A. Bryan, Gary, Ind., and one-third to George N. Harris, Adrian, Mich. Filed June 23, 1911. Serial No. 634,937. (Cl. 17—24.)



1. In a meat cutting machine, the combination of a pivoted standard, separate arms of different length independently pivoted to said standard, lateral projections on said arms, shafts rotatably mounted in said lateral projections, a circular saw secured to rotate with one of said shafts, a disk cutter secured to rotate with the other of said shafts, and means for rotating said shafts, substantially as described.

2. In a meat cutting machine, the combination of a pivoted standard, separate arms of different length independently pivoted to said standard, lateral projections on said arms, shafts rotatably mounted in said lateral projections, a circular saw secured to rotate with one of said shafts, a disk cutter secured to rotate with the other of said shafts, and means for rotating said shafts, said means comprising a motor mounted on said standard, and driving connections between said motor and said saw and cutter shafts, substantially as described.

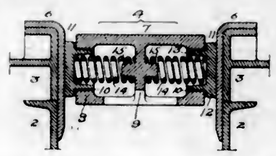
3. In a meat cutting machine, the combination of a pivoted standard, separate arms of different length independently pivoted to said standard, lateral projections on said arms, shafts rotatably mounted in said lateral projections, a circular saw secured to rotate with one of said shafts, and a disk cutter secured to rotate with the other of said shafts, means for rotating said shafts, said means comprising a motor mounted on said standard, a shaft rotatably mounted in said standard as aforesaid, driving connections between the shaft of said motor and said shaft mounted in said standard and between said shaft and the saw and the disk cutter shafts, substantially as described.

4. In a meat cutting machine, the combination of a pivoted standard, separate arms of different length independently pivoted to said standard, lateral projections on said arms, shafts rotatably mounted in said lateral projections, a circular saw secured to rotate with one of said shafts, a disk cutter secured to rotate with the other of said shafts, and means for rotating said shafts, said means comprising a motor mounted on said standard, a shaft rotatably mounted in said standard concentric with the pivots of the arms pivoted to said standard as aforesaid, and driving connections between the shaft of said motor and said shaft mounted in said standard and between said saw and the disk cutter shafts, substantially as described.

5. In a meat cutting machine, the combination of a pivoted standard, bosses on opposite sides of said standard adjacent to its upper end, separate arms of different length independently pivoted to said bosses, lateral projections on said arms, shafts rotatably mounted in said lateral projections, a circular saw secured to rotate with one of said shafts, a disk cutter secured to rotate with the other thereof, a shaft rotatably mounted in said bosses, driving connections between said shaft and the saw and disk cutter shafts, said connections comprising pulleys secured to rotate with said shafts, respectively, and belts adjusted to said pulleys, a motor mounted on said pivoted standard and driving connection between the motor shaft and said shaft mounted in said standard, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,130,665. SWING-DAMPENER FOR TRUCK-BOLSTERS. SAMUEL A. BULLOCK, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 6, 1914. Serial No. 816,987. (Cl. 105—103.)



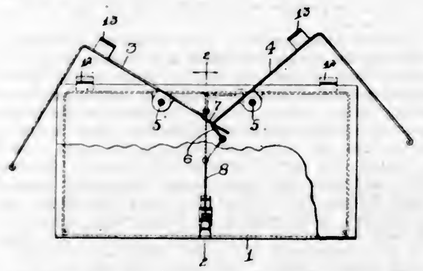
The combination in a car truck, of side frames; transoms connected to the side frames and spaced apart; chafing plates on each transom near each end thereof; a bolster mounted between the transoms, said bolster having a central web, the bolster having openings therein at each side and near each end; lugs projecting from the central web in line with the openings; a shoe mounted in each opening and having an extended head and a flange, the flange entering the openings; and a spring mounted between each head and the central web, the lugs holding the springs in position and the heads of the shoes bearing against the chafing plates.

1,130,666. DEVICE FOR CONNECTING BLADES TO SNATHES. ALCÉE CAILLOUETTE, Central, La., assignor of one-half to Joseph Caillouette, Jr., Central, La. Filed Sept. 9, 1914. Serial No. 860,909. (Cl. 56—27.)



In a device of the class described, a snathe, a blade, a plate secured to the blade adjacent one end and having opposite ends curled into hinge knuckles, plates secured to opposite sides of the snathe and hingedly connected with the inner knuckle, arms hinged to the outer knuckle and arranged to straddle the plates, and bolts for binding the arms against said plates.

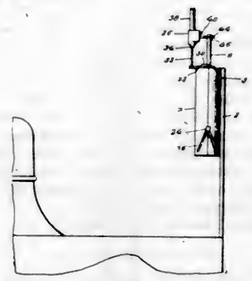
1,130,667. CAGE ANIMAL-TRAP. ALBERT CARLSON, Walcott, N. D. Filed May 26, 1914. Serial No. 841,137. (Cl. 43—19.)



1. A cage animal-trap comprising rigidly related bottom and side walls, a pair of doors having hinging connection with the side walls of the cage, and trigger mechanism adapted to hold the doors open; each of said doors forming a movable end wall to the cage, and said doors together forming the entire top wall of the cage; said doors meeting on an intermediate transverse line of the top, and their hinging connections comprising transverse pintles near their meeting line; the top-forming portions of the doors having interengaging projections meeting between their pintles, whereby one door becomes a controlling door and the other a controlled door adapted to be held open by said controlling door.

2. A cage animal-trap comprising rigidly related bottom and side walls, a pair of doors having hinging connection with the side walls of the cage, and trigger mechanism adapted to hold the doors open, each of said doors forming a movable end wall to the cage, and said doors together forming the entire top wall of the cage; said doors meeting on an intermediate transverse line of the top, and their hinging connections comprising transverse pintles near their meeting line, the top-forming portions of the doors having interengaging projections meeting between their pintles, one door having an extension which underlaps and slides upon the edge of the other door, whereby one door becomes a controlling door and the other a controlled door adapted to be held open by said controlling door; the trigger mechanism being connected with the controlling door, and the controlled door being adapted to open independently of the controlling door for emptying the trap.

1,130,668. OPERATING DEVICE FOR WHIPS. AUGUSTE JOSEPH CHANUT, Kennedy, Saskatchewan, Canada. Filed Apr. 14, 1914. Serial No. 831,818. (Cl. 21—129.)



1. A whip-operating device comprising a body, a vertical shaft rotatably and slidably mounted within the body, a supporting member mounted upon the body for horizontal swinging movement and being provided with an opening slidably receiving the shaft, means for preventing relative rotation of the supporting member on the shaft, means for securing the supporting member against vertical movement upon the body, a whip-holding member pivotally mounted upon the supporting member for vertical movement thereon, means for connecting the said holding member pivotally with the shaft, and means by which the shaft may be depressed and given a semi-rotation in one direction.

2. A whip-operating device comprising a body, a vertical shaft rotatably and slidably mounted within the body, a supporting member mounted upon the body for horizontal swinging movement and being provided with an opening slidably receiving the shaft, means for preventing relative rotation of the supporting member on the shaft, means for securing the supporting member against vertical movement upon the body, a whip-holding member pivotally mounted upon the supporting member for vertical movement thereon, means for connecting the said holding member pivotally with the shaft, means by which the shaft may be depressed and given a semi-rotation in one direction, and means by which the shaft may be depressed and given a semi-rotation in the opposite direction.

3. A whip-operating device comprising a body, a vertical shaft rotatably and slidably mounted within the body, a supporting member mounted upon the body for horizontal swinging movement and being provided with an opening slidably receiving the shaft, means for preventing relative rotation of the supporting member on the shaft, means for securing the supporting member against vertical movement upon the body, a whip-holding member pivotally mounted upon the supporting member for vertical movement thereon, means for connecting the said holding member pivotally with the shaft, means by which the shaft may be depressed and given a semi-rotation in one direction, and yieldable means for normally sustaining the said shaft in elevated inoperative position.

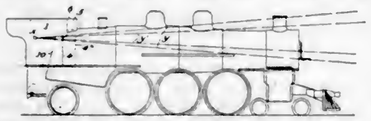
4. A whip-operating device comprising a body, a vertical shaft rotatably and slidably mounted within the body, a supporting member mounted upon the body for

horizontal swinging movement and being provided with an opening slidably receiving the shaft, means for preventing relative rotation of the supporting member on the shaft, means for securing the supporting member against vertical movement upon the body, a whip-holding member pivotally mounted upon the supporting member for vertical movement thereon, means for connecting the said holding member pivotally with the shaft, the body of the device being in the form of a hollow cylindrical casing arranged concentric to the shaft and being provided with a spirally arranged slot therein, and pedal fixedly connected with the shaft and including a radial arm projecting outwardly from the body through the slot.

5. A whip-operating device comprising a body, a vertical shaft rotatably and slidably mounted within the body, a supporting member mounted upon the body for horizontal swinging movement and being provided with an opening slidably receiving the shaft, means for preventing relative rotation of the supporting member on the shaft, means for securing the supporting member against vertical movement upon the body, a whip-holding member pivotally mounted upon the supporting member for vertical movement thereon, means for connecting the said holding member pivotally with the shaft, the body of the device being in the form of a hollow cylindrical casing arranged concentric to the shaft and being provided with inverted V-shaped slots in diametrically opposite sides thereof in alinement with each other, and a pedal device mounted fixedly upon the shaft and including oppositely projecting arms extending through the respective body slots for movement therethrough.

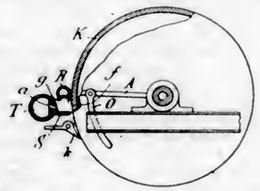
[Claim 6 not printed in the Gazette.]

1,130,669. LOCOMOTIVE. JOSEPH CHIDLEY and WILLIAM HOLLAND WINTERROWD, Cleveland, Ohio. Filed Sept. 28, 1912. Serial No. 722,993. (Cl. 105—17.)



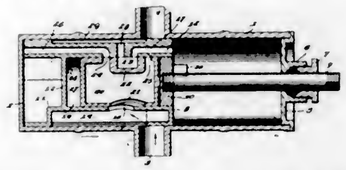
A railroad locomotive having a steam turret with its regulating valves located on top of the boiler near the rear end thereof, an engineer's station including engine controlling mechanism located at the rear end of the boiler, and an engineer's cab inclosing the engineer's station, with its front wall located in a plane between the engineer's station and the turret, said front wall having an observation window therein, whereby said front wall is brought nearer the engineer's station with increased vertical angle of vision, and access to the turret is unobstructed by the cab, said turret having a removable independent housing restricted in lateral dimensions to avoid interfering with the range of vision from the engineer's station.

1,130,670. APPARATUS FOR COOLING MOLTEN OR EMULSION-LIKE SUBSTANCES ON A COOLING-SURFACE. CHRISTEN CHRISTENSEN, Copenhagen, Denmark. Filed Feb. 8, 1913. Serial No. 747,176. (Cl. 18—15.)



In an apparatus for cooling warm fluid matter such as molten substances or heated fatty emulsions, the combination with a cooling surface of a hollow sprinkler adapted to be adjusted relatively to same and having at its side, facing the cooling surface, fine discharge apertures directed toward the cooling surface and serving to spread the substance onto the same, and a hollow regulator adapted to be adjusted circumferentially as well as radially to said sprinkler and said cooling surface and to be heated by means of a heat transmitting fluid being passed through its cavity and serving to remove any surplus of the substance deposited.

1,130,671. WATER-MOTOR. HARRY J. CRINER, Burlington, Iowa, assignor to Alfred Oliphant. Filed Aug. 2, 1913. Serial No. 782,650. (Cl. 138—2.)



1. The combination in a water motor, of a cylinder, a hollow piston having concentric partition forming semi-annular chamber and a cylindrical valve chamber, and a hollow cylindrical valve reciprocal in said chamber and having limited motion between the heads of the piston, said valve being carried bodily by the piston in its reciprocations, said valve and piston having ports adapted to register with each other, and an auxiliary valve adapted to admit water pressure at alternate sides of the hollow valve to control the same.

2. The combination in a water motor, of a cylinder, a hollow piston having concentric partition forming semi-annular chamber and a cylindrical valve chamber, and a hollow cylindrical valve reciprocal in said chamber and having limited motion between the heads of the piston, said valve being carried bodily by the piston in its reciprocations, said valve and piston having ports adapted to register with each other, said valve being a 'floating' valve, and an auxiliary valve adapted to admit water pressure at alternate sides of the floating valve to control the same.

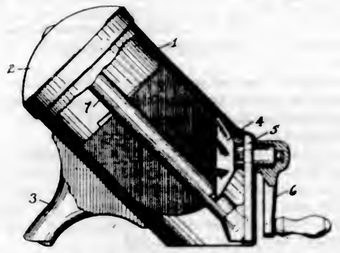
3. The combination in a water motor, of a cylinder, a hollow piston having concentric partitions forming semi-annular chamber and a cylindrical valve chamber, and a hollow cylindrical valve reciprocal in said chamber and having limited motion between the heads of the piston, said valve being carried bodily by the piston in its reciprocations, said valve and piston having ports adapted to register with each other, said valve being a 'floating' valve, said valve and piston having coöperating ports to permit flow of the liquid to the rear of the piston, and an auxiliary valve adapted to admit water pressure at alternate sides of the floating valve to control the same.

4. The combination in a water motor, of a cylinder, a hollow piston having a concentric partition forming a semi-annular chamber and a cylindrical valve chamber, and a hollow cylindrical floating valve reciprocal in said chamber and having limited motion between the heads of the piston, said valve being carried bodily by the piston in its reciprocations, said valve and piston having co-operating ports to permit flow of water to the ends of the piston, the concentric chamber of the piston having a port adapted to register with an inlet port in the cylindrical valve, and an auxiliary valve adapted to admit water pressure at alternate sides of the cylindrical valve.

1,130,672. SOAP-DISPENSING MACHINE. HENRY R. EVANS, New York, N. Y., assignor to Granulator Soap Company, a Corporation of New York. Filed June 28, 1910. Serial No. 569,290. (Cl. 146—9.)

1. In a soap dispensing machine, in combination, a container, a cutter, a support for said cutter, said support

comprising a separate member mounted in said container, a stationary spindle attached to said support and adapted to receive a cake of soap in position to be rotated when operated upon by said cutter and to maintain said cake of soap and cutter in a positive relationship to each other.



2. In a soap dispensing machine, in combination, a container, a rotary cutter, and a stationary support comprising a separate member mounted in said container and having a bearing in which said cutter is rotated and also having a stationary spindle positioned at an angle with the axis of said cutter adapted to receive a cake of soap and permit the same to be engaged by said cutter on one side only of said spindle whereby when said cutter is rotated the cake of soap is rotated.

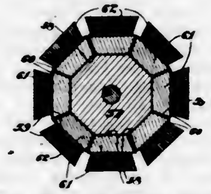
3. In a soap dispensing machine, in combination, a container, a rotary cutter, a spindle adapted to receive a cake of soap and maintain the same in position to be operated upon by said cutter, and a support comprising a separate member mounted in said container and upon which said cutter is rotatively mounted and to which said spindle is attached, thereby maintaining the same in an exact relationship to each other.

4. In a soap dispensing machine, in combination, a container, a rotary cutter, a stationary spindle adapted to receive a cake of soap and maintain the same in position to be operated upon by said cutter, and a support comprising a separate member mounted in said container and upon which said cutter is rotatively mounted and to which said spindle is rigidly attached, thereby maintaining the same in an exact relationship to each other.

5. In combination with a soap dispensing machine, a receptacle for a cake of soap, a cutter for comminuting said cake of soap, and a finger operative in conjunction with said cutter to engage said cake of soap and to move the same to cause a progressive operation of said cutter thereupon.

[Claims 6 to 10 not printed in the Gazette.]

1,130,673. BRUSH. JOHN A. FRITSCH, Pittsburgh, Pa. Continuation of application Serial No. 741,484, filed Jan. 11, 1913. This application filed Apr. 7, 1913. Serial No. 759,358. (Cl. 15—37.)



In a rotatable brush, the combination of a supporting shaft, a supporting base mounted centrally thereon polygonal in cross section, a plurality of brush housings having base portions abutting against the polygonal faces of said base longitudinally thereof and secured thereto, each of said housings having radially disposed diverging side walls extending outwardly from the base conforming to the side walls of adjacent housings and having inwardly turned terminal lips and an endmost wall extending outwardly from the base portion, a series of individual brushes having backs corresponding in cross section to the housings and fitting snugly therein and provided with outwardly extending bristles for the full length of said backs and endmost collars removably secured on the shaft and engaging the ends of said housings and holding them fixedly in position, one of said collars also engaging the backs at one end whereby they may be individually withdrawn longitudinally of the housings upon movement of said collar, substantially as set forth.

1,130,674. BEARING. DAVID J. KELLY, Salt Lake City, Utah; A. H. Kelly, administrator of said David J. Kelly, deceased, assignor to The Kelly Filter Press Company, Salt Lake City, Utah, a Corporation of Utah. Filed Sept. 26, 1913. Serial No. 792,030. (Cl. 64—36.)



1. A bearing comprising an outer casing, packing rings rotatably mounted on one end thereof, a shaft within the casing having an extended end enlarged to substantially the same diameter as the rings and adapted to make a thrust bearing against the end of the casing, and a flexible sleeve covering adjacent portions of the casing, the rings, the thrust bearing, and the extended portion of the rotatable shaft.

2. A bearing comprising an outer casing, a rotatable shaft mounted therein, and having ends projecting therefrom, a flexible sleeve embracing adjacent portions of the casing and shaft, and rings within the sleeve adapted to support said sleeve against external pressure and to provide for free torsional movement thereof.

3. In combination with a stationary casing and a shaft revolubly mounted therein, a bearing adapted to operate in a medium of fluid under pressure, said bearing comprising means for the prevention of leakage of fluids to the atmosphere, and said means including a flexible sleeve adapted to free torsional movement and covering a portion of the movable shaft and a portion of the stationary casing in which the shaft is rotatably mounted, and packing rings between the flexible sleeve and casing.

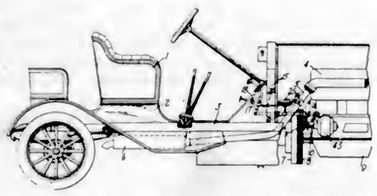
4. A bearing comprising a casing, a shaft rotatably mounted in and having its ends projecting through said casing, a flexible sleeve covering one of the projecting ends of the shaft and the adjacent portion of the casing, packing rings between the casing and sleeve and means for attaching the bearing to the pressure chamber to expose the flexible sleeve and the parts it covers to pressure inside of the chamber, the other end of the bearing leading to the atmosphere.

5. A bearing to transmit motion between the interior and exterior of a liquid container, or a fluid pressure receptacle, said bearing comprising a casing, means for attaching the casing to the receptacle, a rotatable shaft mounted in and projecting from the ends of the casing, a flexible sleeve covering a portion of the stationary casing and a portion of the rotatable shaft inside the receptacle,

ball-bearings to provide for end thrust and rotation of the shaft, an annular packing on the casing for supporting the flexible sleeve against external pressure, and an exterior extension of the shaft for transmitting motion to or from the interior of the receptacle.

[Claim 6 not printed in the Gazette.]

1,130,675. SAFETY DEVICE FOR STARTING-MOTORS. CHESTER B. MILLS, East McKeesport, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial N. 752,617. (Cl. 123—179.)



1. In combination, an engine having a shaft, a starting motor, means for operatively connecting said motor to said engine shaft, and means operated by fluid pressure for locking said connecting means in a disengaged position when said engine is operating under its own power.

2. In combination, an engine having a shaft, a starting motor, means for operatively connecting said motor to said engine, and a device actuated by fluid pressure generated by said engine for locking said connecting means in a disengaged position.

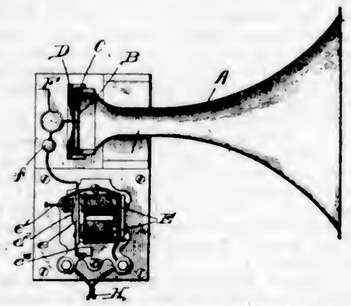
3. In combination, an engine shaft, a starting motor, means for operatively connecting said motor to said shaft, and means actuated by fluid pressure for preventing the connecting of said motor to said shaft when the engine is running under its own power.

4. In combination, an engine shaft, a starting motor, means for operatively connecting said motor to said shaft, and means actuated by fluid pressure to prevent the actuation of said first means to connect said motor to said shaft when the engine is operating under its own power.

5. In combination, an engine having a shaft, a starting motor, gearing mechanism for connecting said motor to said shaft and means actuated by fluid pressure for preventing the meshing of said gearing mechanism when the engine operates under its own power.

[Claims 6 to 10 not printed in the Gazette.]

1,130,676. ELECTRIC HORN. DAVID P. PERRY, Chicago, Ill. Filed Nov. 3, 1905. Serial No. 285,766. (Cl. 177—7.)



1. In a horn, the combination of a resonator, a thin and springy or resilient diaphragm closing the mouth of said resonator, and an electric buzzer or circuit-breaking device, spring means for connecting said circuit breaking device with said diaphragm for communicating vibration thereto for the purpose of vibrating the column of air within the horn.

2. In a horn, the combination of a thin sheet-metal member made hollow with a flaring forward end and a slightly enlarged mouth or rear end, a flexible metal diaphragm closing the mouth of said member, means for preventing the vibrations of the diaphragm from being mechanically communicated to said sheet-metal member, and means back of the diaphragm for mechanically vibrating the same.

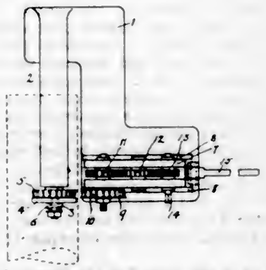
3. In a horn, the combination of a diaphragm, an electric buzzer or circuit-breaking device, and a spring connection between said diaphragm and the armature of said electric buzzer or circuit-breaking device.

4. In a horn, the combination of a diaphragm, an electro-magnet, a spring-mounted armature for said electro-magnet, a spring-mounted armature for said electro-magnet, circuit-controlling contacts operated by said armature, a spring connecting said armature with said diaphragm, and a weight carried by said spring.

5. In an electric alarm device, a horn, a diaphragm arranged in operative relation thereto, an electromagnet, an armature influenced by said electromagnet and an elastic intermediary part fixed on one hand to said diaphragm and on the other hand to said armature, whereby the vibrations of the armature are mechanically transmitted to the diaphragm in such a manner that the vibrations of the diaphragm may differ from those of the armature.

[Claims 6 and 7 not printed in the Gazette.]

1,130,677. MACHINE FOR CUTTING AND CRIMPING CYLINDERS OF SHEET METAL. CHARLES HARVEY PHINNEY, Richmond, Va., assignor to Carroll O. Willis, Richmond, Va. Filed Apr. 8, 1914. Serial No. 830,343. (Cl. 153—9.)



1. The combination, in a pipe cutting and crimping machine, of a fixed shaft, a rotary shaft adjustable with reference to the fixed shaft, a circular cutter loosely mounted at the free end of the fixed shaft, a rotary crimping wheel secured to the inner face of the said circular cutter, and of less diameter than the latter, a second circular cutter loosely mounted on the rotary shaft, and arranged to cut against the inner edge of the first cutter, a second crimping wheel secured to the inner face of the second cutter, and of less diameter than the latter, means for revolving the second cutter and crimping roll, and means for bringing the second cutter and crimping roll into operating relation with the first cutter and crimping roll.

2. The combination, in a pipe cutting and crimping machine, of the frame, a fixed shaft, a rotary shaft carried in bearings slidably mounted on the frame and adjustable to and from the fixed shaft, a circular cutter mounted on the fixed shaft, a rotary crimping wheel secured to one face of the said cutter, a second circular cutter mounted on the rotary shaft, a second crimping wheel secured to the second cutter, means for revolving the second cutter and crimping wheel, and means for adjusting the position of the second cutter and crimping roll with reference to the first cutter and crimping roll.

3. The combination, in a pipe cutting and crimping machine, of two shafts approximately parallel with one another, one of the said shafts being arranged so that its position may be adjusted with reference to that of the other, cutting and crimping rolls mounted on each of the shafts, means for operating one of the cutting and crimping rolls, and means for changing the position of the movable shaft with reference to the position of the other shaft, to bring the rolls into operative relation with one another.

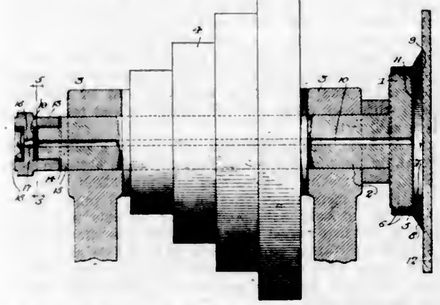
4. The combination, in a pipe cutting and crimping machine of two shafts approximately parallel with one another, one of the said shafts being arranged so that its position may be adjusted with reference to that of the other, cutting and crimping rolls mounted on each one of the shafts, means for operating one of the cutting and crimping rolls, means for bringing the said cutting and crimping rolls into operative relation with the other cutting and crimping rolls, and a feed roll elastically mounted with the operated cutting and crimping rolls, substantially as set forth.

1,130,678. PROCESS OF MANUFACTURING AN IRON ALLOY FOR DYNAMO-ELECTRIC PURPOSES. WALTER RÜBEL, Westend, near Berlin, Germany. Filed July 9, 1912. Serial No. 708,479. (Cl. 75—1.)

1. The process of manufacturing alloys for dynamo sheet, which comprises deoxidizing purified and superoxidized iron by means of a small quantity of an earth alkali metal and forming the desired alloy of the iron.

2. The process of manufacturing copper-iron alloy for dynamo sheet, which comprises deoxidizing purified and superoxidized iron by means of an earth alkali metal added in the form of an alloy of copper, whereby the desired alloy is formed.

1,130,679. VACUUM WORK-HOLDER. GRAY STAUNTON, Chicago, Ill. Filed Sept. 19, 1906. Serial No. 335,197. (Cl. 29—107.)



1. The combination with a suitable support, a head mounted on said support, and a washer of soft rubber mounted on the face of said head, said washer having a flat work engaging face yieldable only by the compression of the body of said washer and a flexible beveled lip at the edge of said working face extending forwardly slightly beyond the same, and said head having a passage therethrough leading from its face, substantially as described.

2. The combination with a suitable support, of a head movably mounted thereon, a washer of soft rubber mounted on the periphery of said head and projecting beyond its face, said washer having an inwardly projecting portion overlapping the face of said head and a beveled lip at its edge extending forwardly slightly beyond the face of the washer, and said head having a passage therethrough leading from its face, substantially as described.

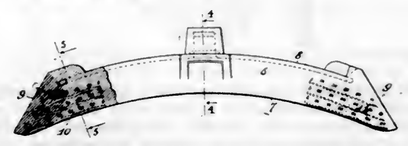
3. The combination with a suitable support, of a head having a shank portion movably mounted in a suitable bearing on said support, a washer of yielding material mounted on the face of said head, said head having a work engaging face yieldable only by the compression of the body of the washer, said head and shank having a passage therethrough leading from the face of said head, and an outwardly-opening check valve mounted in said passage, substantially as described.

4. A vacuum work holder comprising a suitable support, a shank movably mounted on said support, a head having a stem and socket connection with said shank, the stem of said connection fitting within the socket thereof and freely removable therefrom, a packing ring interposed between said stem and shank, a washer mounted on the face of said head against which the work is held, said head and shank having a passage leading therethrough from the face of said head and an outwardly opening check valve for said passage, substantially as described.

5. A vacuum work holder comprising a suitable support, a shank having a universal joint with said support, means for clamping said shank in any desired position upon said support, a removable head on said shank, a washer of yielding material mounted upon the face of said head against which the work is held, said head and shank having a passage leading therethrough from the face of said head and an outwardly opening check valve for said passage, substantially as described.

[Claim 6 not printed in the Gazette.]

1,130,680. BRAKE-SHOE. JAMES SHIELDS THOMPSON, Pelham, N. Y. Filed June 17, 1914. Serial No. 845,538. (Cl. 188—26.)

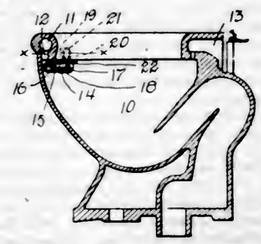


1. A brake shoe comprising a body portion of unchilled metal and provided with prolonged ends of chilled metal, and a reticulated metal insert embedded in the prolonged chilled ends and extending a short distance into the unchilled metal of the body whereby to tie or bind the chilled and unchilled metals together.

2. A brake shoe comprising a body portion of unchilled metal and having prolonged ends of chilled metal, and an insert of expanded metal embedded in the prolonged chilled ends and extending a short distance into the unchilled metal of the body whereby to securely bind or tie the prolonged chilled ends onto the unchilled body.

3. A brake shoe comprising a body of unchilled metal, and provided with chilled ends, and a metal insert covered with a heat resisting material embedded in the chilled ends and extending into the unchilled metal of the body.

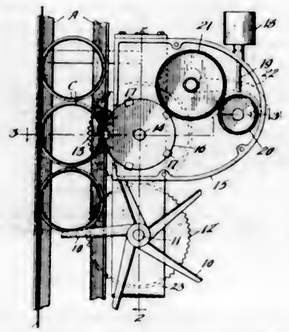
1,130,681. DEODORIZING DEVICE. GEORGE H. ALBERTSON, Pittsburgh, Pa. Filed Feb. 7, 1914. Serial No. 817,184. (Cl. 4—30.)



A deodorizing device for water closet bowls comprising a hollow cylindrical element adapted to contain a body of

deodorant and segment-shaped in plan and having its upper portion formed with openings, said element further having the lower portion formed with an outlet, caps adaptably mounted on said elements for closing each end of said element, and resilient hanger members carried by said element and formed with inclined arms terminating in a spring loop adapted for engagement with the walls of the discharge passage for detachably connecting the said element to the bowl.

1,130,682. COMBINED COUNTING AND STAMPING MECHANISM. AUGUST M. AUGENSEN, Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y., a Corporation of New York. Filed June 20, 1912. Serial No. 704,904. (Cl. 101—83.)



1. A combined can counting and stamping mechanism including, in combination: a chute along which the cans are adapted to be fed; counting mechanism adjacent said chute and having an element thereof projecting into the chute and operated by the cans as the same pass thereby; means for stamping the cans as the same pass along the chute, said stamping means having a type-carrying member projecting into the chute at the side of the cans and toward the opposite side of the chute, which stamping means is opposed by the opposite side of the chute; and gearing between said counting mechanism and the stamping means for operating the latter from the former, substantially as specified.

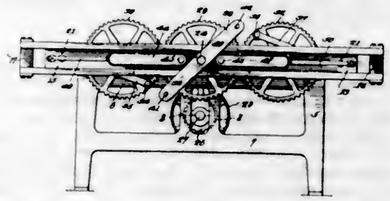
2. In a device of the class described, in combination, a can-body chute, mechanism including an element extending into the chute and actuated by the can bodies for counting the same, and stamping means having its operative surface within the side of the chute and arranged opposite to the sides of the cans and to an opposing side of the chute, and operatively connected with the said can-actuated element to be presented to the side of each passing can body; substantially as described.

3. In a device of the class described, in combination, a can body chute, mechanism for counting the can bodies as the same pass through the chute, said mechanism including a star wheel operated by the can bodies and means for stamping the sides of the can bodies as they pass through the chute, said means including a type carrying roller having type on the circumference thereof, and gearing from said star wheel to the type carrying roller whereby the counting mechanism and the stamping device are operated simultaneously.

4. In a combined can counting and stamping mechanism, a can body chute, mechanism adapted to count the can bodies as they pass through the chute, stamping means arranged to oppose one side of the chute, between which side of the chute and the stamping means the can bodies successively pass in a direction transverse to their axes, and operating means connected with the counting mechanism whereby the stamping means is successively presented to the sides of the several can bodies; substantially as specified.

5. The combination of a can printing mechanism and a can counting mechanism intergeared and coöperating with one another; a substantially upright can chute having a side opening by which the sides of the cans are caused to pass and through which the printing mechanism operates on the sides of the cans; and a movable element extended into the said chute, operated by the successive can bodies and connected with said mechanisms to actuate them; substantially as specified.

1,130,683. CANDY-PULLING MACHINE. HENRY S. BREWINGTON, Baltimore, Md., assignor of one-third to Charles G. Guth and one-third to Richard B. Tippett, Baltimore, Md. Filed Feb. 24, 1914. Serial No. 820,449. (Cl. 107—30.)



1. A candy pulling machine, comprising a pair of substantially parallel pins having a common axis, means for revolving said pins about said axis, a pair of pins substantially parallel with the revolving pins, and bodily slidable means for moving said pins in right lines diametrically opposite each other and radially to said axis and in the same plane with each other and with said axis and into and out of the path of movement of the revolving pins.

2. A candy pulling machine, comprising a pair of substantially horizontal pins having a common horizontal axis, means for revolving said pins about said axis, a pair of substantially parallel horizontal pins one on each side of said axis, and bodily slidable means for moving the last-named pins in right lines diametrically opposite each other and radially to said axis and in the same plane with each other and with said axis and toward and from said axis.

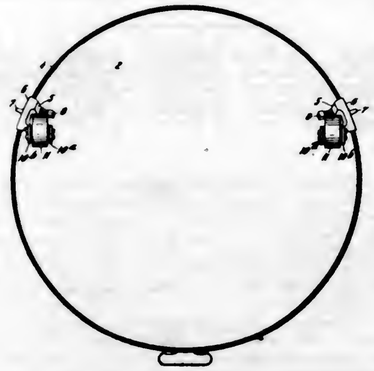
3. A candy pulling machine, comprising a pair of substantially parallel horizontal pins having a common horizontal axis, means for revolving said pins about said axis, a pair of substantially parallel horizontal pins, one on each side of said axis, and bodily slidable means for moving the last-named pins in a right line diametrically opposite each other and radially to said axis and in the same plane with each other and with said axis and toward and from said axis and into and out of the path of the revolving pins.

4. A candy pulling machine, comprising a pair of substantially parallel pins having a common axis, means for revolving said pins about said axis, a pair of pins substantially parallel with the revolving pins, and bodily slidable means for moving said pins in a right line diametrically opposite each other and radially to said axis and in the same plane with each other and with said axis and toward and from said axis and into and out of the path of movement of the revolving pins, the outward movement of the sliding pins being simultaneous.

5. A candy pulling machine, comprising a pair of substantially parallel pins having a common axis, means for revolving said pins about said axis, a pair of pins substantially parallel with the revolving pins, and bodily slidable means for moving said pins in a right line diametrically opposite each other and radially to said axis and in the same plane with each other and with said axis and toward and from said axis and into and out of the path of movement of the revolving pins, the inward movements of the sliding pins being simultaneous.

[Claims 6 to 9 not printed in the Gazette.]

1,130,684. CAN-CASTER. SILAS B. BROWN, Cincinnati, Ohio, assignor to The Rockaway Manufacturing Company, a Partnership consisting of E. W. Edwards and S. B. Brown, Cincinnati, Ohio. Filed Nov. 10, 1913. Serial No. 800,017. (Cl. 16—165.)



1. In a device of the nature disclosed, a body to be trucked and untrucked, a roller holding member pivotally suspended from a portion of the body base, shiftable under the influence of gravity, enabling the body to be ground-tilted on either side of said member, whereby said member may be moved to either side of a vertical line, and means limiting its movement to one side of the vertical line defining the truck position of the roller.

2. In a device of the nature disclosed, a body, a roller holding member pivotally suspended from a portion of the body base, shiftable under the influence of gravity, enabling the body to be ground-tilted on either side of said member, and means limiting the movement of said member in one direction.

3. A trucking device for a body comprising an attaching bracket, a roller holding member pivotally suspended therefrom and free to swing under the influence of gravity, means on the bracket limiting the movement of said member in one direction, and means on the bracket bracing the member against torsional strains.

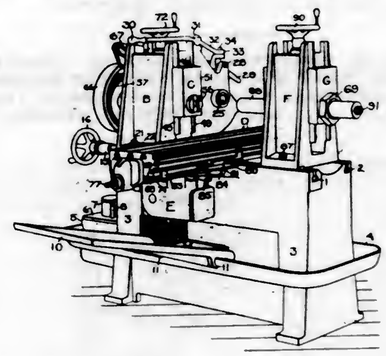
4. In a device of the nature disclosed, a body, a roller holding member pivotally suspended from a portion of the body base enabling said body to be ground-tilted on either side of said member, the roller being movable in the arc of a circle from a position above the ground-line of the body base, where the roller is upon one side of the vertical line of the pivot point of the holder, to a position below the ground-line of the body base where the roller is on the other side of said vertical line, when the body is ground tilted on one end, and returnable to normal position when the body is reversely tilted, and means limiting the movement of said member to determine its trucking position.

5. In a device of the nature disclosed, a body having a base formed with a housing above the ground line, a roller holding member pivotally suspended from the base and movable into and out of said housing, and means operated by tilting the body on its base rendering said body selectively roller-supported or base-supported.

[Claims 6 and 7 not printed in the Gazette.]

1,130,685. MACHINE-TOOL ORGANIZATION. ADOLPH L. DE LEEUW, Plainfield, N. J., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 9, 1914. Serial No. 865,861. (Cl. 90—21.)

1. A machine-tool organization combining a frame-unit providing a first slide-way and also providing a second slide-way disposed transversely to said first slide-way; a feed-change mechanism carried by said frame-unit and located at one end of said first slide-way; a table overlying said first slide-way and adapted to feed in the direction thereof and over said feed-change mechanism; another frame-unit coöperating with said second slide-way; a tool-supporting member; means for mounting said tool-supporting member on said other frame-unit; hand-operating means carried by said first-mentioned frame-unit for manually controlling said feed-change mechanism; and a transmission extending through said feed-change mechanism for propelling the table at the rate of feed determined thereby.



2. A machine-tool of the nature disclosed combining a bed: a power-driven shaft extending therethrough and terminating at the front of the bed; a table slidable on said bed over said shaft; a feed-screw journaled on and reciprocating with said table and located over said shaft; a feed-change box mounted at the front of said bed underneath said table and establishing connection between said shaft and feed-screw; operating instrumentalities extending from said feed change-box and located at one side of the longitudinal edge of said table, and automatic trip means adjustably mounted at the longitudinal edge of said table and adapted to actuate said instrumentalities.

3. A machine-tool organization combining a spindle-supporting member; a spindle in journaled relation with said member; a table; means intervening between the table and the spindle-supporting member and providing for relative movements between said spindle and table in a vertical and in a horizontal direction transverse to the spindle; a feed-change mechanism arranged below said table and adapted to effect a relative feed between said table and said spindle in one of said directions; and a manually operable element arranged at the front of the machine-tool and constituting means for controlling said feed change mechanism, whereby the rate of relative feed between the spindle and table may be varied.

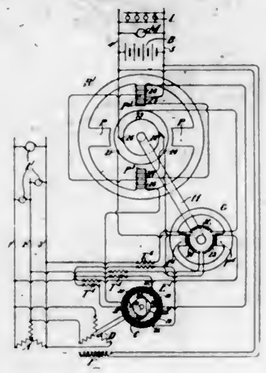
4. A machine-tool of the nature disclosed combining an elongated bed, a power-driven shaft journaled transversely in the bed and terminating at the front thereof; a table slidable transversely on the bed; a feed-screw journaled on and reciprocating with said table and overlying said shaft in parallelism therewith; a speed-change box into which both said feed-screw and shaft extend and establishing operative connection therebetween; an operating instrumentality uprising from said box at one side of and closely adjacent the longitudinal edge of said table; and automatic trip means adjustably mounted at the longitudinal edge of said table and adapted to actuate said instrumentality.

5. A machine-tool organization combining a tool-supporting member; a table; a first frame-unit on which said member is mounted; a second frame-unit slidably supporting said first frame-unit whereby the distance between said tool-supporting member and said table may be varied;

means comprising another frame-unit intervening between said table and said second frame-unit and constructed to provide for a relative movement in two transverse horizontal directions between said table and tool-supporting member; a feed-change mechanism mounted directly on said last-mentioned frame-unit in underlying relation with the path of feed of said table; a prime-mover mounted on said second frame-unit; and a transmission extending from said prime-mover through said feed-change mechanism to said table to propel it at a rate determined by said feed-change mechanism; and means mounted at the side of said last-mentioned frame-unit for manually adjusting said feed-change mechanism.

[Claims 6 to 16 not printed in the Gazette.]

1,130,686. MEANS FOR EXCITING THE COMMUTATING-POLES OF A DYNAMO-ELECTRIC MACHINE. JOSEPH LESTER WOODBRIDGE, Philadelphia, Pa. Filed June 8, 1912. Serial No. 702,428. (Cl. 171—228.)

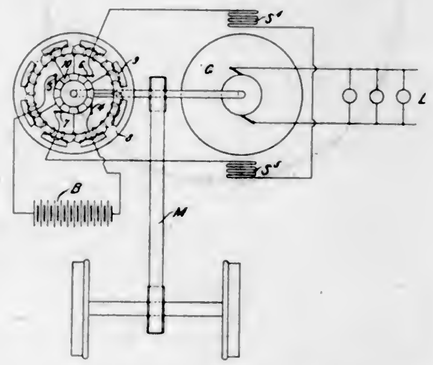


1. In combination, an armature having both alternating current and direct current external connections, a commutating pole for said armature, means responsive to both the alternating and the direct current flow through said connections for exciting the commutating pole, main poles for said armature and means for developing in said main poles a field flux independent of the flux in said commutating pole.

2. In combination, converting apparatus including a field structure and its correlated armature whereof the field structure is provided with commutating poles and their windings, and the armature is provided with alternating current and direct current terminals, means for furnishing to said commutating poles excitation proportional to the combined flow of direct current and alternating current to or from said terminals respectively, said means including a synchronously driven exciter provided with an armature winding and its commutator, means for supplying to said armature winding alternating currents proportional to the alternating current flow at the alternating current terminals of the converting apparatus, and two sets of brushes for the commutator whereof one set is connected to windings on the commutating poles of the converting apparatus and the other set is interconnected by an independent conducting circuit.

3. In combination, a synchronous converter of the split-pole type having main poles, regulating poles and commutating poles with their appropriate windings, alternating current and direct current leads for said converter, an exciter for the commutating poles including an armature winding and its commutator, current transformers having their primary windings connected into the alternating current leads of the converter and their secondary windings connected to the armature winding of the exciter, two sets of brushes for the exciter commutator whereof one set is short-circuited and the other set is connected to the commutating pole windings of the converter, means for driving the exciter in synchronism with the converter, and means for furnishing to the commutating poles of the converter a component of excitation proportional to the current flow in the direct current leads.

1,130,687. CAR-AXLE LIGHTING SYSTEM. JOSEPH LESTER WOODBRIDGE, Philadelphia, Pa. Original application filed Jan. 10, 1908, Serial No. 410,259. Divided and this application filed June 30, 1913. Serial No. 776,551. (Cl. 171—224.)



1. A dynamo and its exciter mechanically connected, a source of constant potential independent of the dynamo, and two sets of electrically displaced brushes for the exciter, whereof one set is connected to the source of constant potential and whereof the other is connected to the field windings of the dynamo.

2. A dynamo and its exciter mechanically connected, a source of potential independent of the dynamo, and two sets of electrically displaced brushes for the exciter, whereof one set is connected to the source of potential and whereof the other is connected to the field windings of the dynamo.

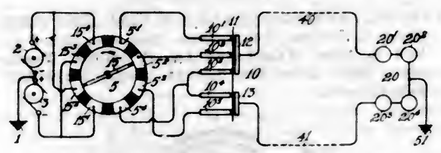
3. A dynamo, a variable speed driving source for said dynamo, an exciter, means for driving the exciter at a speed proportional to that of the dynamo, a source of constant potential independent of the dynamo, and two sets of electrically displaced brushes for the exciter, whereof one set is connected to the source of constant potential and whereof the other is connected to the field windings of the dynamo.

4. A dynamo, a variable speed driving source for said dynamo, an exciter, means for driving the exciter at a speed proportional to that of the dynamo, a source of potential independent of the dynamo, and two sets of electrically displaced brushes for the exciter, whereof one set is connected to the source of potential and whereof the other is connected to the field windings of the dynamo.

5. In combination a commutator, two sets of brushes bearing upon said commutator, independent electrical circuits connecting the opposite brushes of each set, means including a magnetic circuit and windings connected to the commutator for producing between the opposite brushes of each set an electro-motive-force determined by the current in the circuit connecting the other set, a dynamo having field windings connected in series with one of said circuits, a source of electromotive-force independent of said dynamo included in the other circuit, and means for producing relative rotation of brushes and commutator proportional to the speed of the dynamo.

[Claim 6 not printed in the Gazette.]

1,130,688. RAPID PRINTING-TELEGRAPH SYSTEM. CHARLES G. ASHLEY, Chicago, Ill., assignor, by mesne assignments, to General Engineering and Construction Company, Limited, a Corporation of Ontario, Canada. Filed Apr. 28, 1910, Serial No. 558,134. Renewed May 20, 1912. Serial No. 698,622. (Cl. 178—30.)



1. In a system of printing telegraphy, a transmitter; a receiver; and conductors connecting same; said transmitter comprising a plurality of insulated conducting members; means for impressing upon said conducting members in predetermined sequence and at predetermined time intervals current impulses of predetermined polarity, and means for selectively transferring said current impulses to said conductors.

2. In a system of printing telegraph, a tranamitter; a receiver, and conductors connecting same, said transmitter comprising a plurality of insulated conducting members; means for impressing upon said conducting members in predetermined sequence and at predetermined time intervals current impulses of predetermined polarity and duration; collecting members bearing upon said conducting members and adapted to transfer said impulses selectively to said conductors.

3. In a system of printing telegraphy, a transmittter; a receiver; and a pair of line wires and ground connecting same, said transmitter comprising a plurality of insulated conducting members; a plurality of collecting members bearing upon said conducting members; a source of current; and means whereby impulses from said source, of predetermined polarity and duration, may be placed through said collecting means upon said conducting means in a predetermined sequence and thence may be selectively placed on either of said lines and the ground.

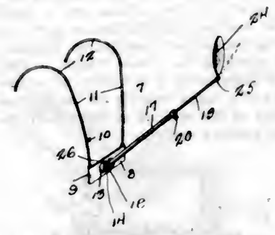
4. In a system of printing telegraphy, a transmitter; a receiver; line conductors and ground connecting same; said transmitter comprising a plurality of conducting members; means for impressing upon said conducting members in predetermined sequence and at predetermined time intervals current impulses of predetermined polarity and duration; and means for selectively transferring said current impulses in a predetermined sequence to either of said line conductors and ground; the duration of said impulses on such transfer depending wholly upon the impressing means.

5. In a system of printing telegraphy, a transmitter; a receiver; line conductors and ground connecting same; said transmitter comprising a plurality of conducting members; collecting members bearing upon said conducting members; transfer members bearing upon said conducting members and connected to said line conductors; a source of current; means whereby current impulses from said source, of predetermined polarity and duration, may be placed in a predetermined sequence at predetermined time intervals through said collective members on said conducting members; and means whereby said impulses may be placed upon either of said lines and ground through said transfer members.

[Claims 6 to 21 not printed in the Gazette.]

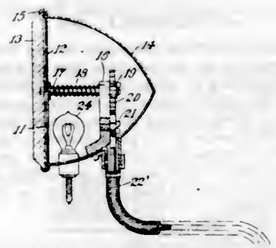
1,130,689. ADJUSTABLE SUPPORTING-BRACKET FOR MIRRORS AND READING-GLASSES. RAY E. ATKINSON, Fowler, Ind. Filed Jan. 28, 1914. Serial No. 814,953. (Cl. 45—97.)

An adjustable supporting bracket for mirrors and reading glasses, consisting of a base member having rolled edges, a U-shaped supporting member attached to said base member by the rolled edges thereof, said base member being cut out thus producing spaced parallel ears, said ears having slots therein, an arm pivoted between said locking ears, a locking member passing through the



arm and said slots, an extension rod carried by the arm, and a frame adjustable upon the extension rod, for supporting a mirror or reading glass.

1,130,690. DIRECTION-INDICATING DEVICE. EMANUEL AUFIERO, Brooklyn, N. Y. Filed Jan. 16, 1915. Serial No. 2,699. (Cl. 240—23.)



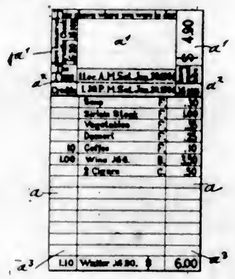
1. In a direction indicator for automobiles, the combination of a lamp having a housing with an opening in one face thereof, a disk substantially filling said opening and rotatable about a center coincident with the center of said opening, said disk being translucent throughout its area and having on its exposed surface a design in different colors adapted to present a distinctive appearance in different positions of adjustment about its center, said colors presenting a contrasting appearance either by transmitted light from the lamp or by daylight and means operatable by an occupant of said vehicle for rotatably adjusting said disk.

2. In a direction indicator for automobiles, the combination of a lamp having a housing with a circular opening in one face thereof, a disk substantially filling said opening and rotatable about a center coincident with the center of said opening, said disk consisting of white translucent glass and having a portion of its exposed surface covered with a translucent enamel of a color contrasting with the white of the uncovered portion and means operatable by an occupant of said vehicle for rotatably adjusting said disk.

1,130,691. WAITER'S CONTROLLING-CHECK. AUGUST N. E. BOOS, New York, N. Y. Filed Mar. 11, 1910. Serial No. 548,545. (Cl. 11—15.)

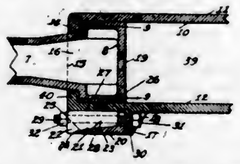
1. A restaurant check composed of two integral separable sections having an indicated line of severance and bearing on both sections corresponding waiter and check numbers, one section constituting a waiter's stub and having an item space, and the other section constituting a guest coupon and having a blank bearing an inscription designating it for entry of the name of the place visited, a blank bearing an inscription designating it for entry of a time of a customer's visit and a blank bearing an inscription designating it for entry of the cash disbursed on the waiter's section.

2. A restaurant check composed of two integral separable sections having an indicated line of severance and bearing on both sections corresponding waiter and check numbers, one section constituting a waiter's stub and having an item space, a price column and a credit column, and the other section constituting a guest coupon and having a blank bearing an inscription designating it for entry of the name of the place visited, a blank bearing an inscription designating it for entry of a time of a customer's visit and a blank bearing an inscription designating it for entry of the amount or balance of the cash disbursed on the waiter's section.



3. A restaurant check composed of two integral separable sections having an indicated line of severance, one section constituting a waiter's stub and having an item space, and the other section constituting a guest coupon and having a blank bearing an inscription designating it for entry of the name of the place visited, a blank bearing an inscription designating it for entry of a time of a customer's visit and a blank bearing an inscription designating it for entry of the cash disbursed on the waiter's section.

1,130,692. DRAFT-YOKE FOR RAILWAY-CAR DRAFT-RIGGING. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Aug. 4, 1913. Serial No. 782,756. (Cl. 213—42.)



1. In railway car draft rigging, the combination with a draw bar, of a draft yoke comprising a limb having an integral band surrounding the draw bar and a detachable limb, of a key to secure one end of said detachable limb within said band.

2. In railway car draft rigging, the combination with a draw bar, of a draft yoke having a pair of limbs, one of said limbs being provided with an integral band to receive the draw bar and a detachable limb, of a key to secure one end of said detachable limb within said band, said key being tapered to wedge said detachable limb against the draw bar.

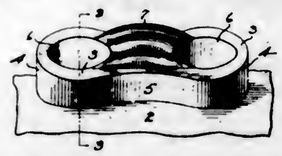
3. In a railway car draft rigging, in combination, a draw bar, a key, and a draft yoke having a pair of limbs, one of said limbs being provided with a band to surround the draw-bar, the other limb being detachable, and said key being adapted to be received in a forward opening of said band to hold the detachable limb to the draw bar.

4. In a draft rigging for railway cars, in combination, a draft bar, a key, and a draft yoke comprising a limb having a band integral therewith to surround the draw bar and a detachable limb, the said detachable limb being received within said band, and said key engaging between said limb and an internal face of the band.

5. In a draft rigging for railway cars, in combination, a draw bar, a key, and a draft yoke comprising a limb having a band integral therewith and a detachable limb, said detachable limb being provided at its rear end with means for engaging the other limb, and being adapted at its other end to enter the band and engage the draw bar, the said key securing the detachable limb within the band.

[Claims 6 to 18 not printed in the Gazette.]

1,130,693. ANTISKID TREAD FOR RESILIENT TIRES. HUGH T. HUGHES, Youngstown, Ohio, assignor of one-half to Isaac Wilkoff and Leo S. Wilkoff, Youngstown, Ohio. Filed Jan. 6, 1913. Serial No. 740,420. (Cl. 152—14.)

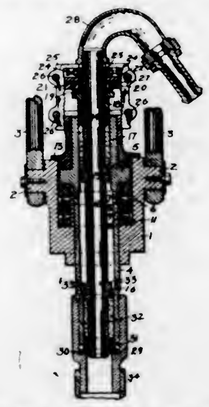


1. A tire body having its tread composed of a plurality of lug units each having suction cups, and also having a ribbed bearing projection on its outer face between the said cups.

2. A tire body having its tread composed of a plurality of lug-units each having suction cups, and a convexed bearing projection formed between the said cups and projecting beyond the plane of the outer face thereof, said projection having a plurality of longitudinal ribs.

REISSUES.

13,888. HYDRAULIC SWIVEL. CLYDE S. WRIGHT, Toledo, Ohio, assignor to The National Supply Company, Toledo, Ohio, a Corporation of Ohio. Filed Jan. 15, 1915. Serial No. 2,506. Original No. 1,113,397, dated Oct. 13, 1914, Serial No. 782,123. (Cl. 255—25.)



1. In a hydraulic swivel, a trunnion-block, a swivel-stem supported within the same, a hose-stem within the swivel-stem, packing between the two stems, a gland beneath the packing, and means rotatable on the swivel-stem for supporting the gland and adjusting the same.

2. In a hydraulic swivel, a trunnion-block, a swivel-stem supported within the same, a hose-stem within the swivel-stem, packing between the two stems, a gland beneath the packing, means for supporting the lower end of the gland, and means for causing the hose-stem to compress the packing, the said means being operable while the swivel is rotating.

3. In a hydraulic swivel, a trunnion-block, a swivel-stem supported within the same, a hose-stem within the swivel-stem, packing between the two stems, means for supporting the lower end of the packing, a collar carried by the hose-stem and resting on the upper end of the packing, a cap connected to the trunnion-block and the hose-stem for causing the hose-stem to descend and the collar to compress the packing.

4. In a hydraulic swivel, a trunnion-block, a swivel-stem supported within the same, a hose-stem within the swivel-stem, packing between the two stems, a gland beneath the packing, means for supporting the lower end of the gland, and means rotatable with respect to the swivel-stem for causing the gland to adjust the packing.

5. In a hydraulic swivel, a trunnion-block, a swivel-stem therein, a hose-stem in the swivel-stem, separate packings between the two stems, and means for separately compressing the packings without removing or loosening the said parts of the swivel.

6. In a hydraulic swivel, a trunnion-block, a swivel-stem therein, a hose-stem in the swivel-stem, and a packing between the two stems, there being port-holes in the swivel-stem above the packing for the escape of material passing the packing.

7. In a hydraulic swivel, a trunnion-block, a swivel-stem therein, a hose-stem in the swivel-stem, a packing between the two stems, there being port-holes in the swivel-stem above the packing for the escape of material passing the packing, and a second packing between the two stems and above the port-holes.

8. In a hydraulic swivel, a trunnion-block, a swivel-stem therein, a hose-stem in the swivel-stem, a packing between the upper portions of the stems, a gland on the packing, and a cap connected to the trunnion-block and transmitting pressure to the gland, the cap being composed of lateral sections and means for securing them together.

9. In a hydraulic swivel, a trunnion-block, a swivel-stem therein, a hose-stem in the swivel-stem, a packing collar on the hose-stem, packing on the collar, a gland for the packing, and a cap removably connected to the trunnion-block and bearing on the gland, whereby the hose-stem is freely removable when the cap has been disconnected from the trunnion-block.

10. In a hydraulic swivel, a trunnion-block, a swivel-stem therein, a hose-stem in the swivel-stem, a coupling on the lower end of the swivel-stem, a packing gland seated on a shoulder in the coupling, and means for causing the gland to compress the packing.

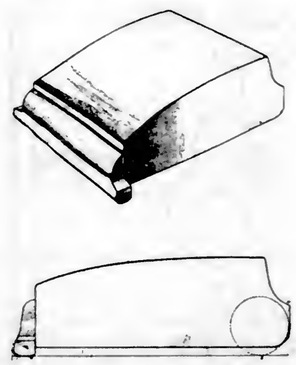
DESIGNS.

47,019. PAPER-WEIGHT, CURIO, TOY FIGURE, OR SIMILAR ARTICLE. CHARLES BLESCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 13, 1914. Serial No. 872,025. Term of patent 14 years.



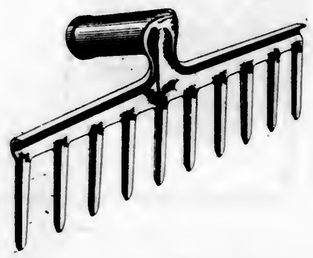
The ornamental design for a paper weight, curio, toy figure, or similar article, substantially as shown.

47,020. VACUUM-CLEANER CASING. CHARLES A. BOYER, Warsaw, Ind., assignor to Hugro Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 13, 1914. Serial No. 972,026. Term of patent 14 years.



The ornamental design for a vacuum cleaner casing, as shown.

47,021. RAKE. AVERY C. BRUCE, Birmingham, Ala., assignor to Senn Pressed Steel Hoe & Tool Company, Birmingham, Ala., a Corporation. Filed Nov. 10, 1914. Serial No. 871,408. Term of patent 14 years.



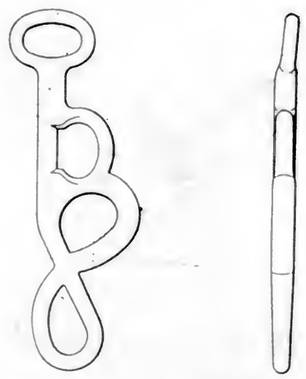
The ornamental design for a rake substantially as shown and described.

47,022. COOLER. KARL E. BRUTON, Whitney, Tex. Filed Sept. 16, 1914. Serial No. 862,108. Term of patent 14 years.



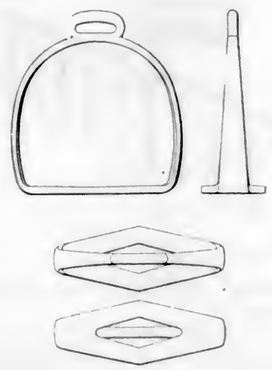
The ornamental design for a cooler, as shown.

47,023. CHEEK-PIECE FOR BITS. GEORGE BUERMANN, Newark, N. J. Filed Nov. 19, 1914. Serial No. 873,055. Term of patent 14 years.



The ornamental design for a cheek piece for bits, as shown.

47,024. STIRRUP. GEORGE BUERMANN, Newark, N. J. Filed Dec. 17, 1914. Serial No. 877,818. Term of patent 14 years.



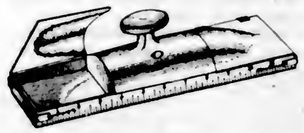
The ornamental desgn for a stirrup, as shown.

47,025. FONT OF TYPE. RICHARD F. BURFEIND, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation. Filed May 27, 1913. Serial No. 770,255. Term of patent 14 years.

ABCDEFGHIJKLMNOP
QRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
.,':;-?$1234567890

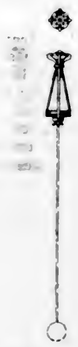
The ornamental design for a font of type shown in the accompanying drawing.

47,026. INK-WELL. ERNEST R. CARNAHAN, Chicago, Ill. Filed June 1, 1914. Serial No. 842,316. Term of patent 7 years.



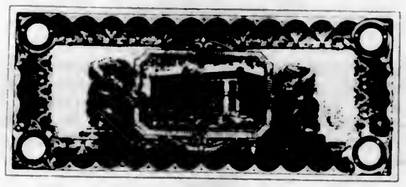
The ornamental design for an ink well as shown.

47,027. HAT-PIN GUARD. JOSEPH CHALUPSKÝ, Weed, Cal. Filed Dec. 2, 1914. Serial No. 875,169. Term of patent 3½ years.



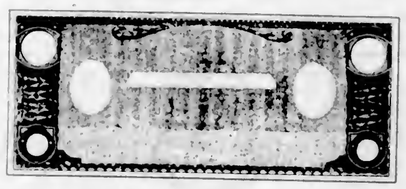
The ornamental design for a hat-pin guard, as shown.

47,028. ARTICLE OF MANUFACTURE. LÁZARO DE LA GARZA, Torreon, Mexico. Filed Oct. 14, 1914. Serial No. 866,714. Term of patent 3½ years.



The ornamental design for an article of manufacture, as shown.

47,029. ARTICLE OF MANUFACTURE. LÁZARO DE LA GARZA, Torreon, Mexico. Filed Oct. 14, 1914. Serial No. 866,715. Term of patent 3½ years.



The ornamental design for an article of manufacture, as shown.

47,030. ARTICLE OF MANUFACTURE. LÁZARO DE LA GARZA, Torreon, Mexico. Filed Oct. 14, 1914. Serial No. 866,716. Term of patent 3½ years.



The ornamental design for an article of manufacture, as shown.

47,031. ARTICLE OF MANUFACTURE. LÁZARO DE LA GARZA, Torreon, Mexico. Filed Oct. 14, 1914. Serial No. 866,717. Term of patent 3½ years.



The ornamental design for an article of manufacture, as shown.

47,032. ARTICLE OF MANUFACTURE. LÁZARO DE LA GARZA, Torreon, Mexico. Filed Oct. 14, 1914. Serial No. 866,718. Term of patent 3½ years.



The ornamental design for an article of manufacture, as shown.

47,033. ARTICLE OF MANUFACTURE. LÁZARO DE LA GARZA, Torreon, Mexico. Filed Oct. 14, 1914. Serial No. 866,719. Term of patent 3½ years.



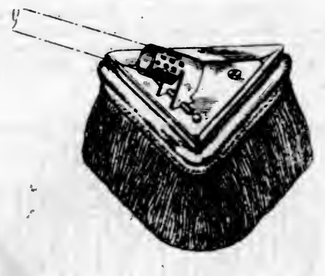
The ornamental design for an article of manufacture, as shown.

47,034. HANDLE. FAIRLEIGH S. DICKINSON, Rutherford, N. J. Filed Nov. 21, 1914. Serial No. 873,414. Term of patent 14 years.



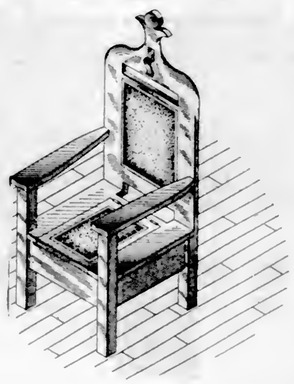
The ornamental design for a handle, as shown.

47,035. MOP. HARRY L. FEASEL, Philadelphia, Pa., assignor to O-So-Ezy Mop Company, a Corporation of Michigan. Filed Sept. 23, 1914. Serial No. 863,235. Term of patent 14 years.



The ornamental design for a mop, as shown.

47,036. CHAIR. JOSEPH P. GIBSON, Dayton, Ohio. Filed Dec. 18, 1914. Serial No. 877,995. Term of patent 7 years.



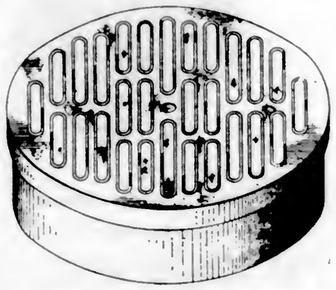
The ornamental design for a chair as shown.

47,037. DOLL. LENA GOULD, Rochester, Ind. Filed Sept. 21, 1914. Serial No. 862,814. Term of patent 7 years.



The ornamental design for a doll, as shown.

47,038. MAGNETIC CHUCK. WINFRED S. GRIFFITH, Worcester, Mass., assignor to Heald Machine Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 13, 1914. Serial No. 831,647. Term of patent 7 years.



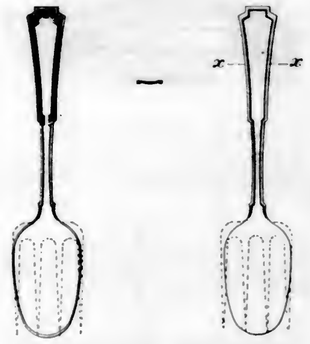
The ornamental design for a magnetic chuck as shown.

47,039. ELECTRIC STEAM-RADIATOR. ANSEL C. HULBERT, San Francisco, Cal. Filed Sept. 16, 1914. Serial No. 862,115. Term of patent 7 years.



The design for an electric steam radiator substantially as shown in the drawing annexed hereto.

47,040. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM A. JAMESON, Niagara Falls, N. Y. Filed Oct. 24, 1914. Serial No. 868,530. Term of patent 7 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

47,041. DOLL. ERNST KARG, Hoboken, N. J. Filed Dec. 2, 1914. Serial No. 875,167. Term of patent 3½ years.



The ornamental design for a doll, as shown.

47,042. PACKAGE-TIE. HARRY T. KEEL, Chester, Pa. Filed Nov. 24, 1914. Serial No. 873,837. Term of patent 14 years.



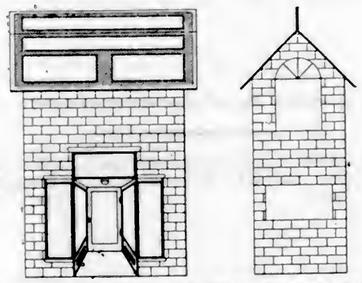
The ornamental design for a package tie, as shown.

47,043. SPOON, FORK, OR SIMILAR ARTICLE. ALFRED G. KINTZ, Wallingford, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed Nov. 27, 1914. Serial No. 874,345. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article as shown.

47,044. TOY STORE. PATRICK J. MCALLISTER, Columbus, Ohio, assignor to The Toystor Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 23, 1913. Serial No. 808,501. Term of patent 7 years.



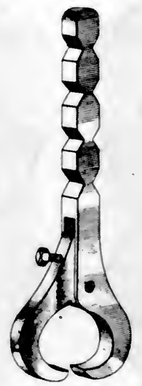
The ornamental design for a toy store, substantially as shown.

47,045. TOY. GEORGE OTSTOT, Springfield, Ohio. Filed Nov. 30, 1914. Serial No. 874,950. Term of patent 7 years.



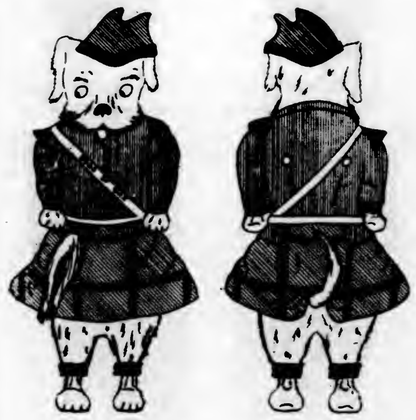
The ornamental design for a toy, as shown.

47,046. SPIKE-GRIPPING TOOL. CONSTANT T. PARARO, Benhaden, Fla. Filed Oct. 31, 1914. Serial No. 869,710. Term of patent 14 years.



The ornamental design for a spike gripping tool, as shown.

47,047. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,854. Term of patent 7 years.



The ornamental design for a toy dog, as shown.

47,048. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,855. Term of patent 7 years.



The ornamental design for a toy dog, as shown.

47,049. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,856. Term of patent 7 years.



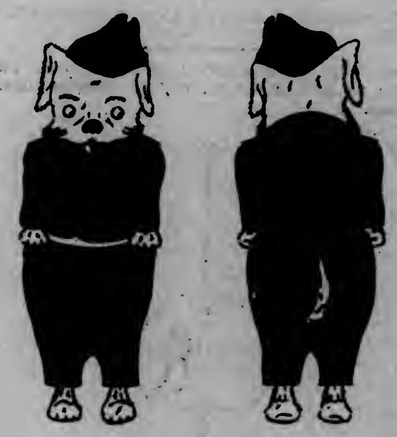
The ornamental design for a toy dog, as shown.

47,050. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,857. Term of patent 7 years.



The ornamental design for a toy dog, as shown.

47,051. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,858. Term of patent 7 years.



The ornamental design for a toy dog, as shown.

47,052. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,859. Term of patent 7 years.



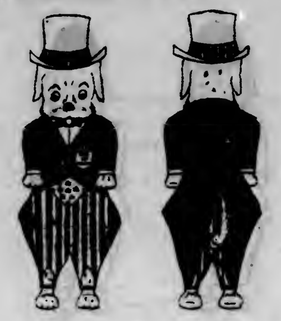
The ornamental design for a toy dog, as shown.

47,053. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,860. Term of patent 7 years.



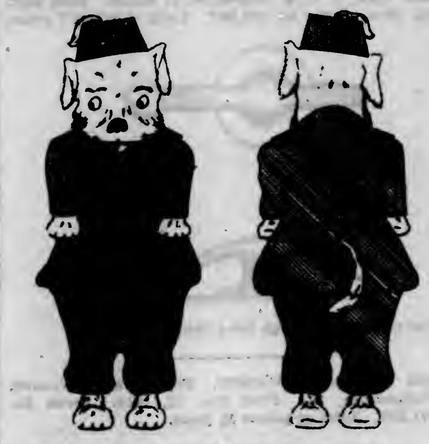
The ornamental design for a toy dog, as shown.

47,054. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,861. Term of patent 7 years.



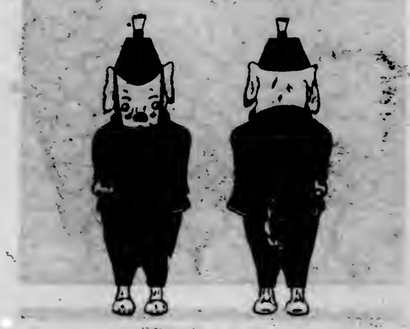
The ornamental design for a toy dog, as shown.

47,055. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,862. Term of patent 7 years.



The ornamental design for a toy dog, as shown.

47,056. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,863. Term of patent 7 years.



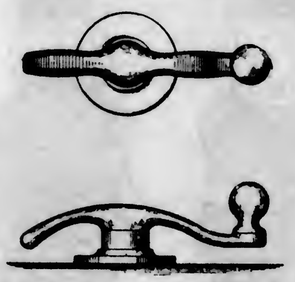
The ornamental design for a toy dog, as shown.

47,057. TOY DOG. WESSON SEYBURN, Detroit, Mich. Filed Nov. 18, 1914. Serial No. 872,864. Term of patent 7 years.



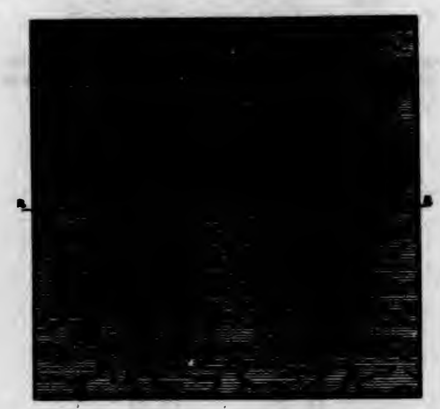
The ornamental design for a toy dog, as shown.

47,058. HANDLE. ALVAR K. TERNSTEDT, New York, N. Y., assignor to Perfect Window Regulator Company, New York, N. Y., a Corporation of Maine. Filed Sept. 15, 1914. Serial No. 861,897. Term of patent 7 years.



The ornamental design for a handle, as shown.

47,059. EMBOSSED FABRIC. FREDERICK H. WALKER, Philadelphia, Pa. Filed Nov. 12, 1914. Serial No. 871,797. Term of patent 3½ years.



The original design for an embossed fabric, as shown.

47,060. LOAF OF BISCUIT. ASHLEY F. WARD, Boston, Mass., assignor to The A. F. Ward Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Nov. 25, 1914. Serial No. 874,084. Term of patent 14 years.



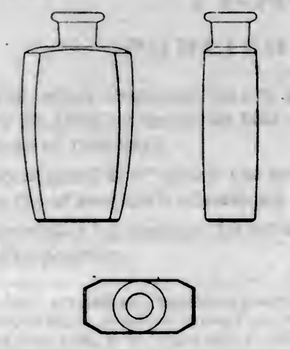
The ornamental design for a loaf of biscuit, substantially as shown.

47,061. LOAF OF BISCUIT. ASHLEY F. WARD, Boston, Mass., assignor to The A. F. Ward Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Nov. 25, 1914. Serial No. 874,085. Term of patent 14 years.



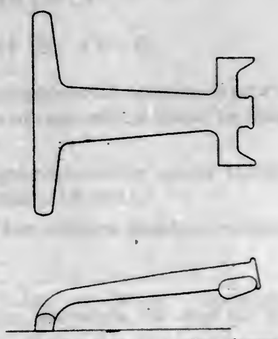
The ornamental design for a loaf of biscuit, substantially as shown.

47,062. BOTTLE. FRANK K. WOODWORTH, Rochester, N. Y. Filed Dec. 10, 1914. Serial No. 876,589. Term of patent 7 years.



The ornamental design for a bottle as shown.

47,063. SUCTION-CLEANER NOZZLE. WALTER G. DOTY, Dayton, Ohio. Filed June 4, 1914. Serial No. 843,108. Term of patent 3½ years.



The ornamental design for a suction cleaner nozzle, as shown.

TRADE-MARKS

PUBLISHED MARCH 2, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 53,730. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AMERICAN PIANO CO., Jersey City, N. J., and New York, N. Y. Filed Jan. 7, 1911.

APC

Particular description of goods.—Note-Sheets for Automatic or Partly-Automatic Musical Instruments, Piano-Players, and Player-Pianos.
Claims use since Aug. 31, 1910.

Ser. No. 65,382. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & Co., Prague-Wrschowitz, Austria-Hungary. Filed Sept. 20, 1912.



Particular description of goods.—Snap-Fasteners.
Claims use since May 18, 1912.

Ser. No. 71,205. (CLASS 39. CLOTHING.) BRIEDE & ROGOVSKY, Chicago, Ill. Filed June 20, 1913.

Fair and Square

Particular description of goods.—Men's Suits, Trousers, and Overcoats, Which are Tailored to Order for Each Particular Purchaser on His Special Order, to be Made to His Personal Measurement and Specifications, Not Including Ready-Made Clothing.
Claims use since about July, 1906.

Ser. No. 74,142. (CLASS 39. CLOTHING.) SIMON NIEDERMAN, Philadelphia, Pa. Filed Nov. 22, 1913.

PACER

Particular description of goods.—Men's and Women's Leather Boots and Shoes.
Claims use since about Sept. 1, 1911.

Ser. No. 74,676. (CLASS 39. CLOTHING.) ISAAK HELLER, New York, N. Y. Filed Dec. 18, 1913.

XLNT

The letters "X L N T" being disclaimed.
Particular description of goods.—Waistbands for Trousers.
Claims use since July 1, 1913.

Ser. No. 74,803. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ENRIQUE GRANA E HIJOS, Malaga, Spain. Filed Dec. 23, 1913.

GRANA
MALAGA

Disclaiming the word "Malaga."
Particular description of goods.—Olive-Oil for Table Use.
Claims use since the year 1862.

Ser. No. 75,735. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ROY A. PHILLIPS, Cleveland, Ohio. Filed Feb. 6, 1914.

HOUSE HOLD FRIEND

Particular description of goods.—Furniture-Dressing.
Claims use since Feb. 2, 1914.

Ser. No. 75,923. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ERWIN BOLGAR, Cleveland, Ohio. Filed Feb. 16, 1914.

PURGARET

Particular description of goods.—Candy Laxatives.
Claims use since Jan. 1, 1913.

Ser. No. 76,464. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FORER PRODUCTS COMPANY, Chicago, Ill. Filed Mar. 9, 1914.

KEM-O
4E
FOR EASE

Particular description of goods.—Cleaning Compounds for Garments, Gloves, and other Articles of Wearing-Apparel.
Claims use since Nov. 15, 1913.

Ser. No. 76,501. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERMAN KALLENBERG, Jr., New Rochelle, N. Y. Filed Mar. 10, 1914.

H. K. JR.

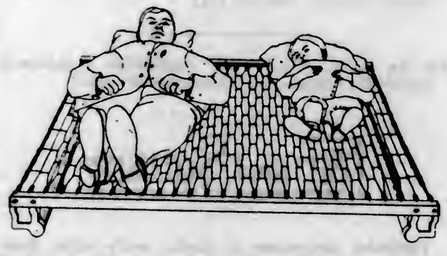
Particular description of goods.—A Hair-Restorer.
Claims use since about February, 1914.

Ser. No. 76,593. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WILLARD IRVING TWOMBLY, New York, N. Y. Filed Mar. 12, 1914.

Twombly

The name "Twombly" being the facsimile of applicant's handwriting.
Particular description of goods.—Automobiles, Cycle-Cars, and Motor-Cycles.
Claims use since the early part of May, 1913.

Ser. No. 77,446. (CLASS 32. FURNITURE AND UPHOLSTERY.) MINNEAPOLIS BEDDING COMPANY, Minneapolis, Minn. Filed Apr. 13, 1914.



No claim being made for the representation of the bed-spring alone.
Particular description of goods.—Bed-Springs.
Claims use since the 1st day of June, 1910.

Ser. No. 78,789. (CLASS 39. CLOTHING.) THE FAIR, Chicago, Ill. Filed June 4, 1914.

FAIRCREST

Particular description of goods.—Hats.
Claims use since January, 1912.

Ser. No. 79,008. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LOCKHART-HODGE CO., INC., Buffalo, N. Y. Filed June 11, 1914.

LOCKHART HODGE CO. INC.

-Safety First-

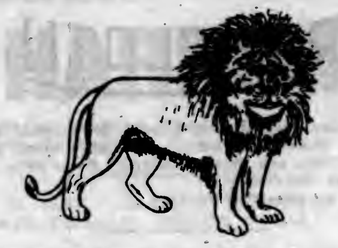
The words "Lockhart Hodge Co. Inc., Safety First" being disclaimed.
Particular description of goods.—Safety Devices for Circular Saws, Band-Saws, Shapers, Jointers, Belts, Gears, Shafting, Open Area-Ways, and All other Places or Machines Involving Hazard.
Claims use since May 23, 1914.

Ser. No. 79,540. (CLASS 37. PAPER AND STATIONERY.) NASHUA CARD GUMMED & COATED PAPER COMPANY, Nashua, N. H. Filed July 3, 1914.

SERVICE
NASHUA
QUALITY

The trade-mark consists of a triangle, no claim being made to the exclusive use of any of the words or the character resembling a "Q."
Particular description of goods.—Paper Wrappers for Food Products.
Claims use since Sept. 20, 1911.

Ser. No. 79,651. (CLASS 39. CLOTHING.) HEILPERN & GROSS, Hartford, Conn. Filed July 8, 1914.



Lion Mills

No claim being made to the word "Mills."
Particular description of goods.—Sweaters.
Claims use since January, 1910.

Ser. No. 79,877. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) KENNEDY MANUFACTURING COMPANY, Fort Wayne, Ind. Filed July 17, 1914.



Particular description of goods.—Travelers' Bags and Hand-Grips.
Claims use since Apr. 27, 1914.

Ser. No. 79,933. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT GARDNER BLACKIE, Halifax, Nova Scotia, Canada. Filed July 20, 1914.

No-D-Ka

for the teeth.

I disclaim all use of the words "For the Teeth."
Particular description of goods.—Dentifrices and Mouth-Wash.
Claims use since July 1, 1914.

Ser. No. 80,453. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) ANNIN & CO., New York, N. Y. Filed Aug. 11, 1914.

DEFIANCE

Comprising the word "Defiance."
Particular description of goods.—Manufactured Flags
Claims use since Mar. 21, 1914.

Ser. No. 80,560. (CLASS 39. CLOTHING.) COHEN, GOLDMAN & Co., New York, N. Y. Filed Aug. 14, 1914.

TROPICLOTH

Particular description of goods.—Men's Outer Suits, Trousers, Dusters, and Office-Coats, Ladies' Outer Suits, Dusters, Coats, and Dresses, Children's Outer Suits, Dusters, Coats, and Dresses.
Claims use since June 25, 1914.

Ser. No. 80,577. (CLASS 12. CONSTRUCTION MATERIALS.) ANGLO MEXICAN PETROLEUM PRODUCTS COMPANY, LIMITED, London, England, and New York, N. Y. Filed Aug. 15, 1914.

MEXPHALTE

The word "Mexphalte."
Particular description of goods.—Asphaltnm.
Claims use since the 22d day of December, 1911.

Ser. No. 80,578. (CLASS 12. CONSTRUCTION MATERIALS.) ANGLO MEXICAN PETROLEUM PRODUCTS COMPANY, LIMITED, London, England, and New York, N. Y. Filed Aug. 15, 1914.

FLUXPHALTE

The word "Fluxphalte."
Particular description of goods.—Bitumen and Asphalt.
Claims use since Sept. 17, 1912.

Ser. No. 80,728. (CLASS 32. FURNITURE AND UPHOLSTERY.) NORTHWESTERN BEDDING AND MANUFACTURING Co., St. Paul, Minn. Filed Aug. 21, 1914.

MASCOT

Particular description of goods.—Mattresses and Bedsteads.
Claims use since June 1, 1914.

Ser. No. 81,401. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) AMERICAN ASBESTOS COMPANY, Norristown, Pa. Filed Sept. 22, 1914.

TESTBESTOS



Particular description of goods.—Brake-Linings.
Claims use since about June 1, 1914.

Ser. No. 81,421. (CLASS 38. PRINTS AND PUBLICATIONS.) ECLIPSE PHOTO SUPPLY Co., Duluth, Minn. Filed Sept. 23, 1914.

KAMERAGRAPHS

Particular description of goods.—Photographs.
Claims use since June 1, 1914.

Ser. No. 81,447. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HENRY W. HOLLY, Brooklyn, N. Y. Filed Sept. 24, 1914.

Crescent

Particular description of goods.—Sanitary Napkins.
Claims use since Jan. 1, 1913.

Ser. No. 81,506. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BELLE VERNON MAPES DAIRY Co., Cleveland, Ohio. Filed Sept. 28, 1914.



Particular description of goods.—Milk and Cream.
Claims use since about Jan. 20, 1914.

Ser. No. 81,629. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) THE ESSEX-BICKFORD COMPANY, Simsbury, Conn. Filed Oct. 3, 1914.



Particular description of goods.—Fuses.
Claims use since Jan. 1, 1910.

Ser. No. 81,742. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE CLEVELAND-AKRON BAG COMPANY, Cleveland, Ohio. Filed Oct. 8, 1914.

WIND-O-KLEAN

Particular description of goods.—Cotton Piece Goods.
Claims use since about the 1st of February, 1913.

Ser. No. 81,828. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PLYMOUTH MILLING COMPANY, Le Mars, Iowa. Filed Oct. 12, 1914.

PLYMCO

Particular description of goods.—Wheat-Flour and Corn-Flour.
Claims use since Apr. 1, 1914.

Ser. No. 82,006. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES J. WALSH, Buffalo, N. Y. Filed Oct. 19, 1914.

OPCO

Particular description of goods.—A Carbon-Remover.
Claims use since May 15, 1913.

Ser. No. 82,121. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL Co., New York, N. Y. Filed Oct. 24, 1914.

HARROW

Particular description of goods.—Fertilizers.
Claims use since 1894.

Ser. No. 82,157. (CLASS 39. CLOTHING.) VASSAR CAP Co., Chicago, Ill. Filed Oct. 24, 1914.

THE Mary Pickford CAP

The use of the words "The Cap" being hereby disclaimed.
Particular description of goods.—Hats, Caps.
Claims use since the 30th day of September, 1914.

Ser. No. 82,181. (CLASS 39. CLOTHING.) JACOB MILLER SONS & Co., Philadelphia, Pa. Filed Oct. 26, 1914.

LOOM TO
EAGLE SHIRT
WEARER

No claim is made to the words "Loom to Wearer" or to the word "Shirt."
Particular description of goods.—Woven Dress-Shirts, Negligée Shirts, and Undershirts, Drawers, and Sleeping-Garments.
Claims use since October, 1868.

Ser. No. 82,233. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LANGLEY & MICHAELS Co., San Francisco, Cal. Filed Oct. 28, 1914.

CALA

Particular description of goods.—Toilet Cream, Dental Cream, Bandoline, Floor-Wax, Theatrical Cold-Cream, Tooth-Powder, Toilet Ammonia, Toilet Witch-Hazel, Shampoo Preparations, and Peroxid of Hydrogen.
Claims use since May 22, 1914.

Ser. No. 82,243. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) JOSE TORRES, Brooklyn, N. Y. Filed Oct. 28, 1914.

Simplex

REG. U.S. PAT. OFF.

Disclaiming the words "Reg. U. S. Pat. Off."

Particular description of goods.—Granulated-Composition-Cork Disks and Tin Bottle-Caps Made Up with Granulated-Cork Disks.

Claims use since Oct. 1, 1914.

Ser. No. 82,294. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN MELVIN ALEXANDER, Marshalltown, Iowa. Filed Oct. 31, 1914.

Reso

Particular description of goods.—Preparations for the Treatment of Dandruff and Diseases of the Bladder and Kidneys.

Claims use for about ten years.

Ser. No. 82,357. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) TRIUMPH LIQUID SOAP COMPANY, Grinnell, Iowa. Filed Nov. 2, 1914.

DEL-LU-ZON

Particular description of goods.—Soaps.

Claims use since Aug. 15, 1914.

Ser. No. 82,415. (CLASS 5. ADHESIVES.) WILLIAMSON GLUE & GUM WORKS, Chicago, Ill. Filed Nov. 4, 1914.

"USITCOL"

Particular description of goods.—Glue.

Claims use since September, 1912.

Ser. No. 82,426. (CLASS 39. CLOTHING.) THE A. E. PITTS SHOE COMPANY, Columbus, Ohio. Filed Nov. 5, 1914.

FORE-MOST

Particular description of goods.—Ladies' Leather Shoes and Canvas Shoes.

Claims use since about Jan. 1, 1894.

Ser. No. 82,428. (CLASS 39. CLOTHING.) THE A. E. PITTS SHOE COMPANY, Columbus, Ohio. Filed Nov. 5, 1914.

NA-BOB

Particular description of goods.—Men's Leather Shoes and Canvas Shoes.

Claims use since about Feb. 1, 1899.

Ser. No. 82,649. (CLASS 39. CLOTHING.) ALEXANDER WILKIE, Edinburgh, Scotland. Filed Nov. 17, 1914.

WYLKEDIN

Particular description of goods.—Ladies' Coats and Costumes.

Claims use since May 10, 1913.

Ser. No. 82,691. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE NATIONAL PIN COMPANY, Derby, Conn. Filed Nov. 19, 1914.

Particular description of goods.—Headed Wire Pins for Toilet and Desk Use.

Claims use since prior to Jan. 1, 1890.

Ser. No. 82,912. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Portland, Me., and Salem, Mass. Filed Nov. 25, 1914.

YOUNG AMERICA

Particular description of goods.—Games.

Claims use since Oct. 19, 1914.

Ser. No. 82,913. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Portland, Me., and Salem, Mass. Filed Nov. 25, 1914.

TUXEDO

Particular description of goods.—Games.

Claims use since Apr. 1, 1908.

Ser. No. 82,936. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) INTERNATIONAL HIGH SPEED STEEL COMPANY, New York, N. Y. Filed Nov. 27, 1914.

INTERNATIONAL

Particular description of goods.—Hollow and Solid Bars of Steel.

Claims use since 1905.

Ser. No. 82,947. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. S. HILLS COMPANY, Boston, Mass. Filed Nov. 28, 1914.

WHITE PUFF

THE IDEAL FLOUR FOR CAKE BISCUITS & PASTRY

No claim being made to the words "The Ideal Flour for Cake, Biscuits & Pastry."

Particular description of goods.—Wheat-Flour.

Claims use since on or about the 25th day of November, 1914.

Ser. No. 83,001. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HOLZER & WICKNER, New York and Brooklyn, N. Y. Filed Nov. 27, 1914.

STAMPED REGAL ART NEEDLEWORK MADE IN AMERICA

The words "Stamped Art Needlework, Made in America" being disclaimed, also the letters "U. S."

Particular description of goods.—Stamped Art Needlework and Embroidery.

Claims use since Oct. 1, 1914.

Ser. No. 83,006. (CLASS 39. CLOTHING.) STEINER & SON, Asbury Park, N. J. Filed Dec. 1, 1914.

UNIVERSAL

Particular description of goods.—Night-Shirts and Pajamas.

Claims use since about 1884.

Ser. No. 83,027. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) RUTHERFORD RUBBER COMPANY, Rutherford, N. J. Filed Dec. 2, 1914.

Particular description of goods.—Fiber Hoof-Protectors.

Claims use since Sept. 10, 1914.

Ser. No. 83,117. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE KAMM & SCHELLINGER BREWING CO., Mishawaka, Ind. Filed Dec. 7, 1914.

PREMONA

Particular description of goods.—Beer.

Claims use since the 13th day of August, 1914.

Ser. No. 83,145. (CLASS 12. CONSTRUCTION MATERIALS.) AMERICAN CREOSOTING COMPANY, New York, N. Y. Filed Dec. 8, 1914.

Brownie

Particular description of goods.—Wood Paving-Blocks.

Claims use since Dec. 1, 1914.

Ser. No. 83,156. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) EUGENE J. DEUTH, New York, N. Y. Filed Dec. 8, 1914.

DEUTH & CO. DECO

The words "Deuth & Co." being disclaimed.
Particular description of goods.—Incandescent Bulbs.
Claims use since May, 1910.

Ser. No. 83,163. (CLASS 12. CONSTRUCTION MATERIALS.) PEYTON PAPER CO., Duluth, Minn. Filed Dec. 8, 1914.

GREAT LAKES

Particular description of goods.—Rubber Roofing Material and Also Roofing Material Composed of Asphalt and Wool Felt.
Claims use since May, 1913.

Ser. No. 83,211. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SIMS CEREAL COMPANY, INC., Minneapolis, Minn. Filed Dec. 10, 1914.



No claim being made to the exclusive use of the words "Say Sims," the portrait of the boy being that of the child of Mrs. Minnie M. Snyder and Mr. Corydon G. Snyder.
Particular description of goods.—Malt and Wheat Breakfast Food.
Claims use since Sept. 15, 1914.

Ser. No. 83,283. (CLASS 39. CLOTHING.) THE N. L. BIRGE SONS COMPANY, Bristol, Conn. Filed Dec. 14, 1914. Under ten-year proviso.

BIRGE

Particular description of goods.—Knitted Underwear—Namely, Shirts, Drawers, and Union Suits.
Claims use since 1850.

Ser. No. 83,289. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE ELECTRIC CABLE COMPANY, New York, N. Y., and Bridgeport, Conn. Filed Dec. 15, 1914.

SECURITY.

Particular description of goods.—Rubber-Covered Electrical Wires and Cables.
Claims use since the 1st day of September, 1914.

Ser. No. 83,339. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WOOD-BEASLEY SEED CO., Springfield, Mo. Filed Dec. 16, 1914.

SHOW ME

Particular description of goods.—Seeds—Namely, Alfalfa, Clover, Timothy, Blue-Grass, Red-Top, Orchard-Grass, and Millet.
Claims use since Feb. 3, 1911.

Ser. No. 83,355. (CLASS 12. CONSTRUCTION MATERIALS.) SIOUX CITY BRICK AND TILE COMPANY, Sioux City, Iowa. Filed Dec. 17, 1914.

CLA-ROX

Particular description of goods.—Brick.
Claims use since Mar. 1, 1910.

Ser. No. 83,403. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CONTINENTAL RUBBER WORKS, Erie, Pa. Filed Dec. 19, 1914.

VITALIC

"Vitalic."
Particular description of goods.—Hockey-Putts, Rubber Balls, Billiard and Pool Cushions, Dolls, Life-Preservers, Foot-Balls, Golf-Balls, and Striking-Bags.
Claims use since Sept. 15, 1913.

Ser. No. 83,469. (CLASS 15. OILS AND GREASES.) CARDALITOS OIL COMPANY, New York, N. Y. Filed Dec. 23, 1914.



Particular description of goods.—Crude Petroleums, Fuel-Oils, Lubricating-Oils, Illuminating-Oils, Naphthas, Paraffin-Wax, and Petroleum Residuum.
Claims use since Dec. 16, 1914.

Ser. No. 83,470. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HENRY JAMES COLLIS, Taunton, Mass. Filed Dec. 23, 1914.



Particular description of goods.—Athletic Ankle-Supporters and Athletic Wristbands.
Claims use since Dec. 4, 1914.

Ser. No. 83,471. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS, New York, N. Y. Filed Dec. 23, 1914. Under ten-year proviso.

PEPSIN MINTS

Particular description of goods.—Candies in Tablet Form.
Claims use since the year 1892.

Ser. No. 83,497. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPRINGFIELD CREAMERY CO., Springfield, Mo. Filed Dec. 28, 1914.

BANQUET

Particular description of goods.—Butter.
Claims use since January, 1911.

Ser. No. 83,490. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY R. TIPPENHAUER, New York, N. Y. Filed Dec. 23, 1914.

PEARL OF WEST INDIA

Particular description of goods.—Coffee.
Claims use since Nov. 12, 1914.

Ser. No. 83,514. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed Dec. 24, 1914.

LOLITA

Particular description of goods.—Biscuit.
Claims use since on or about Sept. 23, 1914.

Ser. No. 83,518. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE B. SHONINGER CO., New Haven, Conn. Filed Dec. 24, 1914. Under ten-year proviso.

B. Shoninger.

Particular description of goods.—Organs and Pianos.
Claims use since 1865.

Ser. No. 83,519. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE B. SHONINGER CO., New Haven, Conn. Filed Dec. 24, 1914. Under ten-year proviso.

SHONINGER

Particular description of goods.—Organs and Pianos.
Claims use since 1865.

Ser. No. 83,540. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) NORTHFIELD IRON COMPANY, Northfield, Minn. Filed Dec. 26, 1914.

NICO

Particular description of goods.—Shapes, Bars, and Sheets of Metal.
Claims use since Jan. 1, 1914.

Ser. No. 83,552. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAWRENCEBURG ROLLER MILLS CO., Lawrenceburg, Ind., and Boston, Mass. Filed Dec. 28, 1914.

TOM THUMB

Particular description of goods.—Wheat-Flour.
Claims use since Dec. 1, 1914.

Ser. No. 83,554. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALVIN PRICE, Chicago, Ill. Filed Dec. 28, 1914.

SMILE

Particular description of goods.—Chewing-Gum.
Claims use since Nov. 14, 1914.

Ser. No. 83,595. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ROLAND CO., Seattle, Wash. Filed Dec. 30, 1914.



Particular description of goods.—A Food-Flavor.
Claims use since Oct. 20, 1914.

Ser. No. 83,601. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHOCTAW SALES COMPANY, Kansas City, Mo. Filed Dec. 31, 1914.



Particular description of goods.—Cotton-Seed Meal and Cake.
Claims use since on or about Feb. 1, 1914.

Ser. No. 83,644. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. STAMER, Savannah, Ga. Filed Jan. 2, 1915.

WIZARD

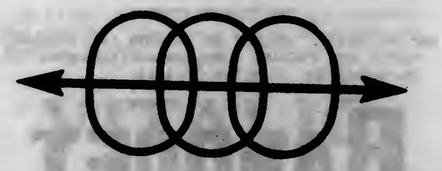
Particular description of goods.—A Remedy for Overcoming or Curing the Tobacco Habit.
Claims use since Dec. 1, 1914.

Ser. No. 83,653. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) DRACHMANN PIANO CO., Chicago, Ill. Filed Jan. 2, 1915.



No claim being made to the exclusive use of the words "Highest Quality Piano."
Particular description of goods.—Pianos and Player-Pianos.
Claims use since Oct. 29, 1913.

Ser. No. 83,669. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TEMPY ROBINSON, Guthrie, Okla. Filed Jan. 4, 1915.



Particular description of goods.—Dropsy and Kidney, Bladder, and Stomach Troubles.
Claims use since Oct. 20, 1914.

Ser. No. 83,683. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHURCH & DWIGHT COMPANY, New York, N. Y. Filed Jan. 5, 1915. Under ten-year proviso.



Particular description of goods.—Saleratus, Bicarbonate of Soda, and Sal-Soda.
Claims use since the year 1874.

Ser. No. 83,684. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHURCH & DWIGHT COMPANY, New York, N. Y. Filed Jan. 5, 1915. Under ten-year proviso.

ARM & HAMMER

Particular description of goods.—Saleratus, Bicarbonate of Soda, and Sal-Soda.
Claims use since the year 1874.

Ser. No. 83,710. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THORNTON SANITARY DRINKING DEVICE CO., Kansas City, Mo. Filed Jan. 7, 1915.

SANASEPTIC

Particular description of goods.—A Disinfectant Powder for Household Deodorizing Purposes.
Claims use since April, 1911.

Ser. No. 83,734. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NEUSS, HESSLEIN & CO., New York, N. Y. Filed Jan. 8, 1915.



Particular description of goods.—Woven Cotton Plaids.
Claims use since March, 1913.

Ser. No. 83,752. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) DETROIT GRAPHITE CO., Detroit, Mich. Filed Jan. 9, 1915.

IRON-GARD

Particular description of goods.—Mixed Paints.
Claims use since on or about Dec. 15, 1914.

Ser. No. 83,838. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADIATOR-FIX COMPANY, INC., New York, N. Y. Filed Jan. 13, 1915.

Rad-Fix

NO ACIDS - NO CEMENT

No claim being made for the exclusive use of the words "No Acids—No Cement." The trade-mark consists of the phrase "Rad-Fix" in script, with a heavy line above and beneath it.
Particular description of goods.—A Chemical Solution for Stopping and Filling Up Leaks in Radiators of Internal-Combustion Engines.
Claims use since Dec. 22, 1914.

Ser. No. 83,847. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNA D. ADAMS, Chicago, Ill. Filed Jan. 14, 1915.

MERMAID

Particular description of goods.—Bath-Salt.
Claims use since Sept. 12, 1914.

Ser. No. 83,918. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN J. WITTWER, Senior, Seattle, Wash. Filed Jan. 16, 1915.

DRI-POO

Particular description of goods.—Hair-Cleanser.
Claims use since Dec. 1, 1914.

Ser. No. 83,932. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SAMUEL HIRD & SONS, INC., Passaic, N. J., and New York, N. Y. Filed Jan. 18, 1915.



Particular description of goods.—Worsted Goods in the Piece.
Claims use since June, 1910.

Ser. No. 83,986. (CLASS 39. CLOTHING.) TEXTILE PRODUCTS COMPANY, Boston, Mass. Filed Jan. 20, 1915.

Boston Maid

Particular description of goods.—Women's, Misses', and Children's Dresses.
Claims use since Jan. 1, 1913.

Ser. No. 83,995. (CLASS 38. PRINTS AND PUBLICATIONS.) BOOT AND SHOE RECORDER PUBLISHING COMPANY, Boston, Mass. Filed Jan. 21, 1915.

THE SHOE MANUFACTURER

Particular description of goods.—A Monthly Shoe-Trade Publication.
Claims use since Jan. 1, 1915.

Ser. No. 84,021. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) J. I. CASE PLOW WORKS, Racine, Wis. Filed Jan. 22, 1915. Under ten-year proviso.

J.I.CASE

Particular description of goods.—Plows, Cultivators, Planters, Harrows, Stalk-Cutters, Drills, and Parts Thereof.
Claims use since Jan. 1, 1878.

Ser. No. 84,022. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) J. I. CASE PLOW WORKS, Racine, Wis. Filed Jan. 22, 1915. Under ten-year proviso.

CASE

Particular description of goods.—Plows, Cultivators, Planters, Harrows, Stalk-Cutters, Drills, and Parts Thereof.
Claims use since Jan. 1, 1884.

Ser. No. 84,076. (CLASS 39. CLOTHING.) CHIPMAN, HARWOOD & Co., Boston, Mass. Filed Jan. 25, 1915.

MOVIE

Particular description of goods.—Leather and Canvas Boots and Shoes.
Claims use since Jan. 21, 1915.

Ser. No. 84,087. (CLASS 39. CLOTHING.) KNOX HAT COMPANY, INC., New York, N. Y. Filed Jan. 25, 1915.



Particular description of goods.—Hats and Caps.
Claims use since Dec. 24, 1914.

Ser. No. 84,107. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ACME SHEAR COMPANY, Bridgeport, Conn. Filed Jan. 26, 1915.

Americut

Particular description of goods.—Scissors and Shears.
Claims use since Dec. 8, 1914.

Ser. No. 84,213. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BENNET VISE & TOOL WORKS INC., Philadelphia and Allentown, Pa., and New York, N. Y. Filed Jan. 30, 1915. Under ten-year proviso.

INDISPENSABLE

Particular description of goods.—Vises and Lathe-Dogs.
Claims use since about Jan. 1, 1892.

Ser. No. 84,257. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CASTLEBONE COMPANY, New York, N. Y. Filed Feb. 2, 1915.

TURQUILL

Particular description of goods.—Stiffening Cords, Blades, and Tapes.
Claims use since Jan. 28, 1915.

Ser. No. 84,269. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Feb. 2, 1915.

DRES-TEX

Particular description of goods.—Velvets and Plushes in the Piece.
Claims use since about Dec. 20, 1914.

Ser. No. 84,270. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Feb. 2, 1915.

VEL-CORD

Particular description of goods.—Velvets and Plushes in the Piece.
Claims use since about Dec. 1, 1914.

Ser. No. 84,297. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH FAHYS & COMPANY, New York, N. Y. Filed Feb. 4, 1915.

SILMET

Particular description of goods.—Knife-Blades.
Claims use since about Oct. 1, 1914.

Ser. No. 84,301. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) STIX, BAER & FULLER DRY GOODS COMPANY, St. Louis, Mo. Filed Feb. 4, 1915.

SEMINARY

Particular description of goods.—Cotton Piece Goods.
Claims use since on or about Sept. 15, 1914.

Ser. No. 84,342. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PRESSED STEEL MANUFACTURING COMPANY, Philadelphia, Pa. Filed Feb. 6, 1915.



Particular description of goods.—Antifriction-Bearings.
Claims use since about June 1, 1914.

TRADE-MARK REGISTRATIONS GRANTED

MARCH 2, 1915.

102,886. POLISHES FOR METAL. Adams & Elting Company, Chicago, Ill.
Filed October 15, 1914. Serial No. 81,886. PUBLISHED DECEMBER 22, 1914.

102,887. CERTAIN NAMED ARTICLES OF SOLID GOLD AND GOLD FILLED. Miles F. Bixler, Cleveland, Ohio.
Filed June 8, 1914. Serial No. 78,732. PUBLISHED DECEMBER 22, 1914.

102,888. LIQUID AND PASTE POLISH FOR LEATHER. Boyer & Co., Philadelphia, Pa.
Filed October 30, 1914. Serial No. 82,263. PUBLISHED DECEMBER 22, 1914.

102,889. LIQUID AND PASTE POLISH AND OIL COLORING FOR LEATHER. Boyer & Co., Philadelphia, Pa.
Filed October 30, 1914. Serial No. 82,264. PUBLISHED DECEMBER 22, 1914.

102,890. LUBRICANT. Walter L. Day, Westfield, N. J.
Filed September 18, 1914. Serial No. 81,314. PUBLISHED DECEMBER 1, 1914.

102,891. LEAD, COLORED, COPYING, INK, SCREW, AND RUBBER PENCILS, RUBBER ERASERS, AND PENHOLDERS. A. W. Faber, Stein, near Nuremberg, Germany.
Filed April 1, 1914. Serial No. 77,123. PUBLISHED DECEMBER 22, 1914.

102,892. CHEMICAL COMPOUND FOR PURIFYING GASOLENE AND PREVENTING FORMATION OF CARBON IN EXPLOSIVE-ENGINES. Jay Falkenberg, Akron, Ohio.
Filed November 13, 1914. Serial No. 82,557. PUBLISHED DECEMBER 22, 1914.

102,893. WHISKY. The Gottschalk Co., Baltimore, Md.
Filed November 3, 1914. Serial No. 82,371. PUBLISHED DECEMBER 29, 1914.

102,894. OINTMENT. Curtis Hixon, Tampa, Fla.
Filed November 24, 1914. Serial No. 82,802. PUBLISHED DECEMBER 22, 1914.

102,895. BOTTLED BEER. Houston Ice & Brewing Co., Houston, Tex.
Filed May 21, 1914. Serial No. 78,439. PUBLISHED DECEMBER 22, 1914.

102,896. PRINTED BOOKS, PAMPHLETS, AND PERIODICALS PUBLISHED AT CERTAIN INTERVALS. The Hydrex Felt & Engineering Company, Portland, Me.; New York, N. Y., and Rahway, N. J.
Filed August 23, 1913. Serial No. 72,500. PUBLISHED DECEMBER 22, 1914.

102,897. TOILET, PRINTING, WRITING, AND WRAPPING PAPER, ENVELOPS, LEAD-PENCILS, METALLIC PENS, TABLETS, NOTE-PAPER. Klauber Wangenheim Co., San Diego, Cal.
Filed October 10, 1914. Serial No. 81,790. PUBLISHED DECEMBER 22, 1914.

102,898. SEMILIQUID SAPONACEOUS COMPOUND FOR CLEANING OR DETERGENT PURPOSES. John Knight, Limited, Silvertown, London, England.
Filed July 11, 1914. Serial No. 79,785. PUBLISHED DECEMBER 15, 1914.

102,899. PIANOS. Paul G. Mehlin & Sons, New York, N. Y.
Filed June 22, 1914. Serial No. 79,268. PUBLISHED DECEMBER 22, 1914.

102,900. LIQUID CLEANER. The Perkins-Campbell Co., Cincinnati, Ohio.
Filed August 14, 1914. Serial No. 80,568. PUBLISHED DECEMBER 22, 1914.

102,901. CLOTHS AND STUFFS OF WOOL WORSTED OR HAIR, LINEN AND HEMP PIECE GOODS. Perrotts Limited, Leeds, England.
Filed November 21, 1914. Serial No. 82,746. PUBLISHED DECEMBER 29, 1914.

102,902. MEDICINAL PREPARATION TAKEN INTERNALLY FOR THE CURE OF CERTAIN NAMED DISEASES. Peters & Company Proprietary Limited, Melbourne, Victoria, Australia.
Filed July 29, 1914. Serial No. 80,160. PUBLISHED DECEMBER 22, 1914.

102,903. GAME-BOARDS AND ACCESSORIES. Alice A. Rees, Spring City, Pa.
Filed November 4, 1914. Serial No. 82,412. PUBLISHED DECEMBER 22, 1914.

102,904. SOIL AND SEED INOCULATOR. Max Oscar Reiche, Milwaukee, Wis.
Filed September 11, 1914. Serial No. 81,197. PUBLISHED DECEMBER 8, 1914.

102,905. MEN'S OUTER SUITS. Hart Schaffner & Marx, Chicago, Ill.
Filed October 10, 1914. Serial No. 81,798. PUBLISHED DECEMBER 29, 1914.

102,906. MATTRESSES, BOX-SPRINGS, FEATHER PILLOWS AND CUSHIONS. Schultz & Hirsch Co., Chicago, Ill.
Filed July 20, 1914. Serial No. 79,934. PUBLISHED DECEMBER 22, 1914.

102,907. HAIR-OIL, ARNICA SALVE, CARBOLIC SALVE, WITCH-HAZEL, AND TOOTHACHE-DROPS. South Texas Drug Company, San Antonio, Tex.
Filed September 4, 1913. Serial No. 72,679. PUBLISHED OCTOBER 20, 1914.

102,908. JEWELRY FOR PERSONAL ADORNMENT ONLY. E. L. Spencer Company, Providence, R. I.
Filed July 27, 1914. Serial No. 80,110. PUBLISHED DECEMBER 22, 1914.

102,909. MONTHLY MAGAZINE. The Suburban Press, New York, N. Y.
Filed September 28, 1914. Serial No. 81,534. PUBLISHED DECEMBER 22, 1914.

102,910. SOAP, SOAP POWDER, AND CLEANSERS IN POWDERED AND CAKE FORM. P. C. Tomson & Co., Philadelphia, Pa.
Filed May 22, 1914. Serial No. 78,484. PUBLISHED DECEMBER 22, 1914.

102,911. TONIC OR STIMULANT. Tona Vita Medicine Co., Dayton, Ohio.
Filed November 23, 1914. Serial No. 82,796. PUBLISHED DECEMBER 22, 1914.

102,912. PIANOS, PLAYER-PIANOS, AND PARTS THEREOF. The Trayser Piano Company, Richmond, Ind.
Filed October 3, 1914. Serial No. 81,664. PUBLISHED DECEMBER 22, 1914.

102,913. WHISKY. Hiram Walker & Sons Limited, Walkerville, Ontario, Canada, and Detroit, Mich.
Filed October 7, 1914. Serial No. 81,738. PUBLISHED DECEMBER 15, 1914.

102,914. HAIR-TONIC. WILLIAM H. BLACK, New York, N. Y.
Filed September 8, 1914. Serial No. 81,028. PUBLISHED OCTOBER 20, 1914.

102,915. SHERRY-WINE. JOHN WM. BURDON, Puerto de Santa Maria, Spain.
Filed September 15, 1914. Serial No. 81,256. PUBLISHED DECEMBER 29, 1914.

102,916. MONTHLY MAGAZINE. CEMETERY BEAUTIFUL PUBLISHING COMPANY, Chicago, Ill.
Filed October 1, 1914. Serial No. 81,594. PUBLISHED DECEMBER 8, 1914.

102,917. GAS-GENERATORS. THE CLEFTON COMPANY, Owatonna, Minn.
Filed October 19, 1914. Serial No. 81,971. PUBLISHED DECEMBER 22, 1914.

102,918. POCKET-KNIVES, KITCHEN-KNIVES, PRUNERS, BUDDERS, AND ERASERS. DWIGHT DIVINE & SONS, Ellenville, N. Y.
Filed October 26, 1914. Serial No. 82,167. PUBLISHED DECEMBER 15, 1914.

102,919. WOOLEN PIECE GOODS AND WOOLEN BLANKETS. FARIBAULT WOOLEN MILL COMPANY, Faribault, Minn.
Filed November 12, 1914. Serial No. 82,538. PUBLISHED DECEMBER 22, 1914.

102,920. SHIRT-WAISTS. FELDMAN BROS., New York, N. Y.
Filed October 10, 1914. Serial No. 81,784. PUBLISHED DECEMBER 15, 1914.

102,921. HATS. FRENCH FEATHER NOVELTY & HAT CO. INC., New York, N. Y.
Filed December 5, 1914. Serial No. 83,088. PUBLISHED DECEMBER 29, 1914.

102,922. HAIR-NETS. A. J. HAGUE & CO. INC., New York, N. Y.
Filed March 28, 1914. Serial No. 77,022. PUBLISHED MAY 12, 1914.

102,923. CLOTHES-CLEANER, SILVER CLEANER AND PLATER, AND RUST-REMOVER. C. H. HULTZEN, Norwich, N. Y.
Filed July 31, 1913. Serial No. 72,066. PUBLISHED DECEMBER 22, 1914.

102,924. CERTAIN NAMED PAPER. KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich.
Filed October 14, 1914. Serial No. 81,870. PUBLISHED DECEMBER 22, 1914.

102,925. COFFEE. KNICKERBOCKER MILLS COMPANY, New York, N. Y.
Filed April 22, 1911. Serial No. 55,906. PUBLISHED FEBRUARY 27, 1912.

102,926. BAKING-PANS. THE AUGUST MAAG CO., Baltimore, Md.
Filed October 1, 1914. Serial No. 81,601. PUBLISHED NOVEMBER 10, 1914.

102,927. CERTAIN NAMED ARTICLES MADE OF OR PLATED WITH PRECIOUS METAL. MORRIS, MANN & REILLY, New York, N. Y.
Filed September 26, 1914. Serial No. 81,491. PUBLISHED DECEMBER 22, 1914.

102,928. CANNED VEGETABLES. NORFOLK PACKING CO., Norfolk, Nebr.
Filed September 15, 1914. Serial No. 81,270. PUBLISHED DECEMBER 15, 1914.

102,929. LEATHER SLIPPERS. JOHN J. O'CONNELL, Lynn, Mass.
Filed November 7, 1914. Serial No. 82,469. PUBLISHED DECEMBER 29, 1914.

102,930. LINIMENTS FOR RHEUMATISM AND THE LIKE. GEORGE G. REPAST, Coatesville, Pa.
Filed November 28, 1914. Serial No. 82,948. PUBLISHED DECEMBER 29, 1914.

102,931. AUTOMOBILE-PUMPS. ROTHWEILER & CO., Seattle, Wash.
Filed August 3, 1914. Serial No. 80,276. PUBLISHED DECEMBER 22, 1914.

102,932. STOVE-POLISH AND STRAW-HAT CLEANER. UNITED DRUG COMPANY, Boston, Mass.
Filed August 8, 1914. Serial No. 80,410. PUBLISHED DECEMBER 22, 1914.

102,933. CANNED CORN, SUCCOTASH, AND LIMA BEANS. H. C. BAXTER & BRO., Brunswick, Me.
Filed April 11, 1914. Serial No. 77,404. PUBLISHED DECEMBER 1, 1914.

102,934. FLAVORING COMPOUNDS FOR FOODS. LUCY FORD BRAGGER, Los Angeles, Cal.
Filed August 26, 1914. Serial No. 80,811. PUBLISHED DECEMBER 15, 1914.

102,935. INCANDESCENT ELECTRIC LIGHTS. CENTRAL TELEPHONE & ELECTRIC COMPANY, St. Louis, Mo.
Filed October 12, 1914. Serial No. 81,805. PUBLISHED DECEMBER 8, 1914.

102,936. PLASTIC COMPOUNDS FOR REPAIRING BRICKWORK AND LAYING UP BRICKWORK. CHICAGO FIRE BRICK CO., Chicago, Ill.
Filed October 2, 1914. Serial No. 81,620. PUBLISHED DECEMBER 29, 1914.

102,937. INHALATION APPARATUSES. ERWIN P. DIESELDORFF, Berlin, Germany.
Filed August 19, 1913. Serial No. 72,410. PUBLISHED DECEMBER 29, 1914.

102,938. TYPE-WRITING-MACHINE ATTACHMENT FOR MANIFOLDING WRITINGS. THE EGRY REGISTER COMPANY, Dayton, Ohio.
Filed August 8, 1914. Serial No. 80,394. PUBLISHED OCTOBER 20, 1914.

102,939. AUTOGRAPHIC REGISTERS AND MANIFOLDING DEVICES, PARTS THEREOF, AND STATIONERY THEREFOR. THE EGRY REGISTER COMPANY, Dayton, Ohio.
Filed August 8, 1914. Serial No. 80,395. PUBLISHED DECEMBER 22, 1914.

102,940. PRINTED BLANK FORMS. THE A. S. GILMAN PRINTING COMPANY, Cleveland, Ohio.
Filed August 27, 1913. Serial No. 72,554. PUBLISHED DECEMBER 22, 1914.

102,941. SELF-RISING WHEAT-FLOUR. EVA GILSTER, Chester, Ill.
Filed March 31, 1914. Serial No. 77,102. PUBLISHED NOVEMBER 17, 1914.

102,942. SHOE DRESSING AND POLISH. LOUIS B. KUNKEL, St. Louis, Mo.
Filed May 16, 1914. Serial No. 78,328. PUBLISHED DECEMBER 15, 1914.

102,943. COMPOUND FOR DESTROYING SCALE ON TREES. DAVID S. LATTA, Tatesville, Pa.
Filed November 9, 1914. Serial No. 82,497. PUBLISHED DECEMBER 22, 1914.

102,944. OVERALLS, TROUSERS, COATS, JUMPERS, AND MEN'S OUTER SHIRTS. MARGLOUS MANUFACTURING COMPANY, St. Louis, Mo.
Filed November 20, 1914. Serial No. 82,712. PUBLISHED DECEMBER 29, 1914.

102,945. CANDY. PACKAGE CONFECTIONERY COMPANY, Boston, Mass.
Filed September 10, 1914. Serial No. 81,166. PUBLISHED DECEMBER 15, 1914.

102,946. COMPOUND USED IN WATERPROOFING ALL KINDS OF TEXTILES. PERROTTS LIMITED, Leeds, England.
Filed November 21, 1914. Serial No. 82,745. PUBLISHED DECEMBER 29, 1914.

102,947. CERTAIN NAMED TOILET PREPARATIONS. BELLINGER BROS. & CO., South Bend, Ind.
Filed October 22, 1913. Serial No. 73,559. PUBLISHED DECEMBER 29, 1914.

102,948. COAL. SCHWIND BROTHERS COAL COMPANY, Louisville, Ky.
Filed November 24, 1913. Serial No. 74,174. PUBLISHED DECEMBER 8, 1914.

102,949. MEDICATED PADS. JOHN A. TROTTER, Milwaukee, Wis.
Filed October 21, 1912. Serial No. 66,436. PUBLISHED DECEMBER 29, 1914.

102,950. APPAREL-BELTS. THE UNITED JEWELERS INC., New York, N. Y.
Filed August 19, 1914. Serial No. 80,691. PUBLISHED OCTOBER 13, 1914.

102,951. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed October 19, 1914. Serial No. 82,005. PUBLISHED NOVEMBER 17, 1914.

102,952. VINEGAR. YAKIMA FRUIT PRODUCTS CO., INC., North Yakima, Wash.
Filed July 12, 1912. Serial No. 64,689. PUBLISHED OCTOBER 8, 1912.

TRADE-MARK REGISTRATIONS RENEWED.

12,396. SEWING-MACHINES AND SEWING-MACHINE ATTACHMENTS AND SUPPLIES. THE SINGER SEWING MACHINE COMPANY, New York, N. Y.
Registered July 7, 1885. Renewed July 7, 1915.

LABELS

REGISTERED MARCH 2, 1915.

18,273.—*Title:* "E Z SHINE." (For Stove and Nickel Polish.) BUSY BEE MANUFACTURING Co., Springfield, Mass. Filed December 10, 1914.

18,274.—*Title:* "KLENZGLAS KLOTH." (For a Glass-Cleaning Cloth.) DOUTMACO SELLING ASSOCIATES INCORPORATED, Chicago, Ill. Filed December 24, 1914.

18,275.—*Title:* "AIR-VULC." (For a Preparation for Repairing Pneumatic Tires.) WILLIE ALFRED FREBURGER, Calgary, Alberta, Canada. Filed January 4, 1915.

18,276.—*Title:* "OLD FASHION." (For Whisky.) INTERSTATE DISTILLING Co., Kansas City, Mo. Filed December 31, 1914.

18,277.—*Title:* "LAXTON CONSTITUTION BUILDER FOR MEN." (For Medicine.) JOHN W. R. LAXTON, Lynn, Mass. Filed November 13, 1914.

18,278.—*Title:* "LAXTON CONSTITUTION BUILDER FOR WOMEN." (For Medicine.) JOHN W. R. LAXTON, Lynn, Mass. Filed November 13, 1914.

18,279.—*Title:* "AQUATONE THE WATER-WAY TO HEALTH." (For Mineral Water.) PAULSON MEDICINAL WELL Co., Saratoga, Wyo. Filed November 23, 1914.

18,280.—*Title:* "CREAM OF PEARLS." (For Face-Cream.) GEORGIA W. RICHIE, New York, N. Y. Filed January 16, 1915.

18,281.—*Title:* "NONPARIEL." (For Shampoo-Tonic, Hair-Grower, and Dandruff-Remover.) CHARLES H. TIGNER, Kansas City, Mo. Filed January 5, 1914.

18,282.—*Title:* "EX-PILES." (For an Ointment.) MARIA WEISSMANN, New York, N. Y. Filed January 29, 1915.

18,283.—*Title:* "S. S. WHITE CLEANSING POWDER." (For a Cleansing-Powder.) THE S. S. WHITE DENTAL MANUFACTURING COMPANY, Philadelphia, Pa. Filed November 14, 1914.

18,284.—*Title:* "AMBASSADOR." (For Whisky.) M. WOLLSTEIN MERCANTILE Co., Kansas City, Mo. Filed December 31, 1914.

PRINTS

REGISTERED MARCH 2, 1915.

3,832.—*Title:* "PERFECTION IN MUNSINGWEAR." (For Underwear.) THE MEYERCORD COMPANY, Chicago, Ill. Filed December 31, 1914.

3,833.—*Title:* "S. S. WHITE TOOTH PASTES." (For Tooth-Pastes.) THE S. S. WHITE DENTAL MANUFACTURING Co., Philadelphia, Pa. Filed November 9, 1914.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Supreme Court of the United States.

DOWAGIAC MANUFACTURING COMPANY *v.* MINNESOTA MOLINE PLOW COMPANY *et al.* DOWAGIAC MANUFACTURING COMPANY *v.* SMITH AND ZIMMER.

Decided January 11, 1915.

1. PATENTS—INFRINGEMENT—PROFITS—APPORTIONMENT.

Where a patent is infringed by selling machines embodying improvements covered by the patent and the value of the machines as marketable articles is attributable in part to the patented improvements and in part to unpatented parts or features, *Held* that the profits arising from the infringing sales belong to the owner of the patent in so far as they are attributable to the patented improvements and in so far as they are due to the other parts or features they belong to the seller.

2. SAME—SAME—SAME—SAME.

Where the plaintiff's patent covered only a part of the infringing machine and created only a part of the profits, *Held* that he is required to take the initiative in presenting evidence looking to an apportionment.

3. SAME—SAME—DAMAGES—LOSS OF SALES.

Where damages are sought for infringing sales and it does not appear that the plaintiff thereby lost the sale of a like number of machines or of any definite or even approximate number, *Held* that no adequate basis is laid for an assessment of damages upon the ground of lost sales.

4. SAME—SAME—MEASURE OF DAMAGES—HOW SHOWN.

As the exclusive right conferred by a patent is property and infringement of it is a tortious taking of a part of that property, the normal measure of damages is the value of what was taken. *Held* that this may be shown by proof of an established royalty, if there be such, and, if not, by proof of what would have been a reasonable royalty, considering the nature of the invention, its utility and advantages, and the extent of the use involved. (*Coupe* v. *Royer*, 155 U. S., 565; 70 O. G., 729; 1895, C. D., 163, explained.)

ON WRITS of certiorari to the United States Circuit Court of Appeals for the Eighth Circuit.

Mr. Fred L. Chappell for the petitioner.

Mr. Thomas A. Banning for the respondents.

Mr. Justice VAN DEVANTER delivered the opinion of the Court.

We have here to review two decrees dealing with an accounting of profits and an assessment of damages resulting from the infringement of a patent granted February 10, 1891, for certain—

new and useful improvements in grain-drills, commonly known as "shoe-drills."

The suits wherein these decrees were rendered were both brought by the same plaintiff but were against different defendants charged with separate infringement. The plaintiff, besides owning the patent, was manufacturing and selling drills embodying the patented improvements; and the defendants, who were wholesale dealers in agricultural implements, were selling drills embodying substantially the same improvements. The drills made by the plaintiff were sold under the name "Dowagiac," and the names "McSherry" and "Peoria" were applied to most of the others. The defendants purchased from manufacturers who, as has since been settled, were infringing the plaintiff's rights. At an early stage in the litigation the validity of the patent was sustained, the defendants were held to be infringers, further infringement by them was enjoined, and the cases were referred in the usual way for an accounting of profits and an assessment of damages. (108 Fed., 67; 118 *Id.*, 136.) Upon the evidence submitted the masters reported that the recovery should be limited to nominal damages and their reports were confirmed by the circuit court. Its action was affirmed by the circuit court of appeals. (183 Fed., 314.)

The conclusion that the recovery should be thus restricted was rested upon these grounds: first, that the patent was not for a new and operative drill, but only for designated improvements in a type of drill then in use and well known; second, that the value of drills embodying this invention, as marketable machines, was not wholly attributable to the designated improvements, but was due in a material degree to other essential parts which were not patented; third, that the plaintiff failed to carry the burden, rightly resting upon it, of submitting evidence whereby the profits from the sale of the infringing drills could be apportioned between the patented improvements and the unpatented parts; and, fourth, that, although the number of sales made by the defendants was disclosed, the evidence did not present other data essential to an assessment of the damage sustained by the plaintiff by reason of the defendants' infringement.

Partly because another circuit court of appeals seemingly had reached a different conclusion in other litigation arising out of this patent (see *Mc-*

Sherry Co. v. *Dowagiac Co.*, 160 Fed., 948; 163 *Id.*, 34; *Brennan & Co.* v. *Dowagiac Co.*, 162 *Id.*, 472) and partly because of the importance of the questions involved, writs of certiorari were granted requiring that these cases be certified here for review and determination. (See Judicial Code, sec. 240.)

Since the writs were granted the rules bearing upon the apportionment of profits in such cases, the relative obligations of the parties to submit evidence looking to an apportionment, and the character of evidence which may be submitted, have been extensively considered and comprehensively stated in *Westinghouse Co.* v. *Wagner Co.*, (225 U. S., 604; 180 O. G., 323; 1912, C. D., 641.) What was said there materially lessens our present task.

At the outset it should be observed that, while the defendants were infringers and bound to respond as such to the plaintiff, their infringement was not wanton or wilful. The masters and the courts below expressly so found and the evidence sustained the finding. The defendants, therefore, were not in the situation of the infringing manufacturer in *Brennan & Co.* v. *Dowagiac Co.*, *supra*, of whom the Circuit Court of Appeals for the Sixth Circuit said:

> It has made and sold these infringing drills with a purpose to imitate the patentee's construction.

It is quite plain, as we think, that the patent was not for a new and operative grain-drill, but only for particular improvements in a type of grain-drill then in use and well known. The invention was so described in the specification forming part of the patent. The inventor there said:

> This invention relates to new and useful improvements in grain-drills commonly known as "shoe-drills;" and it consists in a certain construction and arrangement of parts, as hereinafter more fully set forth, the essential features of which being pointed out particularly in the claims.
>
> The object of the invention is to provide an independent spring-pressure for each of the shoes and covering-wheels of the drill, whereby the work of the drill is rendered efficient in uneven ground, and to provide means whereby said shoes and covering-wheels may be raised from the ground when the implement is not in use or when transporting it from one field to another.

In keeping with this statement the claims in the patent were limited to a suitable construction and arrangement of spring-pressure rods in combination with certain correlated elements of the seeding part of a grain-drill—the part which opens the furrows, guides the seed into them and then closes them. Of course, this was an important part, but it was only that; for other parts were required to complete the machine and make it operative. Some of these were simple and easily supplied, such as the tongue and attachments to which the horses were hitched. Others were complex and required careful adjustment. This was especially true of the feeding mechanism whereby the grain was fed from the feed box or reservoir into the several hoppers in continuous, uniform and precisely measured streams, so that it might be deposited in the furrows evenly and in suitable quantity. Only when all the parts were present and so adjusted as to perform their respective functions was the drill a practical and successful machine. In this respect no change resulted from the invention covered by the patent. It effected material improvements in one part, but did not obviate or diminish the necessity for the others.

We think the evidence, although showing that the invention was meritorious and materially contributed to the value of the infringing drills as marketable machines, made it clear that their value was not entirely attributable to the invention, but was due in a substantial degree to the unpatented parts or features. The masters and the courts below so found and we should hesitate to disturb their concurring conclusions upon this question of fact, even had the evidence been less clear than it was.

In so far as the profits from the infringing sales were attributable to the patented improvements they belonged to the plaintiff, and in so far as they were due to other parts or features they belonged to the defendants. But as the drills were sold in completed and operative form the profits resulting from the several parts were necessarily commingled. It was essential therefore that they be separated or apportioned between what was covered by the patent and what was not covered by it, for, as was said in *Westinghouse Co.* v. *Wagner Co.*, *supra*:

> In such case, if plaintiff's patent only created a part of the profits, he is only entitled to recover that part of the net gains.

In the nature of things the profits pertaining to the patented improvements had to be ascertained before they could be recovered by the plaintiff, and therefore it was required to take the initiative in presenting evidence looking to an apportionment. Referring to a like situation, it was said in the case just cited:

> The burden of apportionment was then logically with the plaintiff, since it was only entitled to recover such part of the commingled profits as was attributable to the use of its invention.

But the plaintiff did not conform to this rule. It neither submitted evidence calculated to effect an apportionment nor attempted to show that one was impossible; and this, although the evidence upon the accounting went far toward showing that there was no real obstacle to a fair apportionment. Certainly no obstacle was interposed by the defendants. It well may be that mathematical exactness was not possible, but, as is shown in *Westinghouse Co.* v. *Wagner Co.*, *supra*, that degree of accuracy is not required but only reasonable approximation, which usually may be attained through the testimony of experts and persons informed by observation and experience. Testimony of this character is generally helpful and at times indispensable in the solution of such problems. Of course, the result to be accomplished is a rational separation of the net profits so that neither party may have what rightfully belongs to the other, and it is important that the accounting be so conducted as to secure this result, if it be reasonably possible. As was said in *Tilghman* v. *Proctor*, (125 U. S., 136, 145; 43 O. G., 628; 1888, C. D., 363:)

> It is inconsistent with the ordinary principles and practice of courts of chancery, either, on the one hand, to permit the wrongdoer to profit by his own wrong, or on the other hand, to make no allowance for the cost and expense of conducting his business, or to punish him by obliging him to pay more than a fair compensation to the person wronged.

Coming to the question of damages,* we think the masters and the courts below were right in holding that the evidence did not present sufficient data to justify an assessment of substantial damages.

While the number of drills sold by the defendants was shown, there was no proof that the plaintiff thereby lost the sale of a like number of drills or of any definite or even approximate number. During the period of infringement several other manufacturers were selling drills in large numbers in the same localities in direct competition with the plaintiff's drill, and under the evidence it could not be said that, if the sales in question had not been made, the defendants' customers would have bought from the plaintiff rather than from the other manufacturers. Besides, it did not satisfactorily appear that the plaintiff possessed the means and facilities requisite for supplying the demands of its own customers and of those who purchased the infringing drills. There was therefore no adequate basis for an assessment of damages upon the ground of lost sales.

As the exclusive right conferred by the patent was property and the infringement was a tortious taking of a part of that property, the normal measure of damages was the value of what was taken. So, had the plaintiff pursued a course of granting licenses to others to deal in articles embodying the invention, the established royalty could have been proved as indicative of the value of what was taken, and therefore as affording a basis for measuring the damages. (*Philp* v. *Nock*, 17 Wall., 460, 462; *Birdsall* v. *Coolidge*, 93 U. S., 64, 70; 10 O. G., 748; 1876, C. D., 503; *Clark* v. *Wooster*, 119 U. S., 322, 326; 37 O. G., 1477; 1886, C. D., 548; *Tilghman* v. *Proctor*, 125 U. S., 136, 143; 43 O. G., 628; 1888, C. D., 363.) But, as the patent had been kept a close monopoly, there was no established royalty. In that situation it was permissible to show the value by proving what would have been a reasonable royalty, considering the nature of the invention, its utility and advantages, and the extent of the use involved. Not improbably such proof was more difficult to produce, but it was quite as admissible as that of an established royalty. In *Suffolk* v. *Hayden*, (3 Wall., 315, 320,) where a like situation was presented, this Court said that—

> in order to get at a fair measure of damages, or even an approximation of it, general evidence must necessarily be resorted to.

(See also *Packet Co.* v. *Sickles*, 19 Wall., 611, 617; *Root* v. *Railway Co.*, 105 U. S., 189, 198; 21 O. G., 1112; 1882, C. D., 167.) And in many cases in the other Federal courts the damages have been assessed upon proof of a reasonable royalty. The practice is illustrated by the following extract from the opinion in *Hunt* v. *Cassiday*, (12 C. C. A., 316, 318; 64 Fed., 585, 587:)

> The plaintiff was clearly entitled to damages for the infringement. If there had been an established royalty, the jury could have taken that sum as the measure of damages. In the absence of such royalty, and in the absence of proof of lost sales or injury by competition, the only measure of damages was such sum as, under all the circumstances, would have been a reasonable royalty for the defendant to have paid. This amount it was the province of the jury to determine. In so doing, they did not make a contract for the parties, but found a measure of damages.

True, some courts have regarded *Coupe* v. *Royer* (155 U. S., 565; 70 O. G., 779; 1895, C. D., 163) as impliedly holding that this practice was not permissible, but the decision does not admit of such an interpretation. In that case—an action at law—there was no proof of what would have been a reasonable royalty but only of what the defendant had made or might have made out of the infringement; and all that the Court held was (*a*) that the damages were not to be measured by what the defendant had gained or might have gained but by what the plaintiff had lost, and (*b*) that, as the evidence disclosed—

> no license fee, no impairment of the plaintiff's market, in short, no damages of any kind,

the verdict could not exceed a nominal sum. In *Cassiday* v. *Hunt*, (75 Fed., 1012,) where the scope of that decision was carefully considered by one of the circuit judges for the ninth circuit, the conclusion was reached that it did not militate against an assessment of damages upon the basis of what would have been a reasonable royalty; and a like view was expressed and applied by the Circuit Court of Appeals for the Third Circuit in *McCune* v. *Baltimore & O. R. Co.* (154 Fed., 63) and *Bemis Car Co.* v. *Brill Co.* (200 Fed., 749, 762) and by the Circuit Court of Appeals for the Sixth Circuit in *United States Frumentum Co.* v. *Lauhoff*, (216 Fed., 611.) But, although the plaintiff was entitled to prove what would have been a reasonable royalty, and thereby show a proper basis for an assessment of damages, no proof upon that subject was presented.

There are still other grounds upon which damages may be assessed in infringement cases, as where hurtful competition is shown, but the present record does not require that they be specially noticed.

Some of the drills, about 261, sold by the defendants were sold in Canada, no part of the transaction occurring within the United States, and as to them there could be no recovery of either profits or damages. The right conferred by a patent under our law is confined to the United States and its Territories (Rev. Stat., sec. 4884) and infringement of this right cannot be predicated of acts wholly done in a foreign country. (See *United Dictionary Co.* v. *Merriam Co.*, 208 U. S., 260, 265; 133 O. G., 515; 1908, C. D., 559.) The case of *Manufacturing Co.* v. *Cowing* (105 U. S., 253; 21 O. G., 1277; 1882, C. D., 202) is cited as holding otherwise but is not in point. There the defendant made the infringing articles in the United States. Here, while they were made in the United States, they were not made

* Revised Statutes, section 4921, provides that "upon a decree being rendered in any such case for an infringement, the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained thereby; and the court shall assess the same or cause the same to be assessed under its direction. And the court shall have the same power to increase such damages, in its discretion, as is given to increase damages found by verdicts in actions in the nature of actions of trespass upon the case." (See *Birdsall* v. *Coolidge*, 93 U. S., 64, 69; *Tilghman* v. *Proctor*, 125 U. S., 136, 143.)

by the defendants. The latter's infringement consisted only in selling the drills after they passed out of the makers' hands. The place of sale is therefore of controlling importance here.

Ordinarily what has been said would lead to an affirmance of the decrees below. But there are special reasons why a final disposition of the cases should not be made upon the present record at this time. The patent was valid and the invention meritorious. The infringing sales covered 2,500 or more drills, the profits were substantial, and the damages, if rightly measured, were evidently more than nominal. The hearings before the masters were had prior to the decision in *Westinghouse Co. v. Wagner Co., supra*, at a time when the decisions bearing upon the apportionment of profits, as also upon the admeasurement of damages, were not harmonious; and this resulted in the evidence being so imperfectly presented as not to afford the data requisite to a final adjustment of the matters in controversy according to their merits.

The decrees are accordingly reversed, without costs, with directions to recommit the cases to a master in order that the questions involved in the original reference may be heard anew upon the evidence heretofore taken and such further evidence as may be submitted, and for further proceedings in conformity with this opinion.

Decrees reversed.

Mr. Justice McREYNOLDS did not participate in the consideration or decision of these cases.

ADJUDICATED PATENTS.

(U. S. D. C.) The De Laski and Thropp patent, No. 1,011,450, for a tire-wrapping machine, *Held* valid and infringed. *De Laski Thropp Circular Woven Tire Co. v. William R. Thropp & Sons Co.*, 218 F., 458.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 25, 1915.

The Red Seal Remedy Company and Globe Chemical Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of P. C. Tomson & Co., 25, 27, and 29 Washington avenue, Philadelphia, Pa., for registration of a trade-mark and trade-mark registered July 2, 1895, No. 26,765, to The Red Seal Remedy Company, Rockland, Me., and trade-mark registered May 8, 1894, No. 24,680, to Globe Chemical Company, Cleveland, Ohio, and notices of such declaration sent by registered mail to The Red Seal Remedy Company and Globe Chemical Company at the said addresses having been returned by the post-office undeliverable, notice is hereby given that unless said The Red Seal Remedy Company and Globe Chemical Company, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 19, 1915.

Pace & Sizer, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Mi Favorita Cigar Co., Inc., 200 Fifth avenue, New York, N. Y., for registration of a trade-mark and trade-mark registered March 10, 1885, No. 12,005, to Pace & Sizer, of Richmond, Va., and a notice of such declaration sent by registered mail to said Pace & Sizer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Pace & Sizer, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 17, 1915.

Forrest F. Tebbetts, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Treinis Bros., of 126–142 Thirteenth street, New York, N. Y., for registration of a trade-mark and trade-mark registered April 23, 1889, No. 16,528, to Forrest F. Tebbetts, of Providence, R. I., and a notice of such declaration sent by registered mail to said Forrest F. Tebbetts at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Forrest F. Tebbetts, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON. *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 12, 1915.

The Eustis Manufacturing Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Cleveland Foundry Company, No. 7609 Platt avenue southeast, Cleveland, Ohio, for registration of a trade-mark and trade-mark registered July 5, 1892, No. 21,427, to The Eustis Manufacturing Company, Jersey City, N. J., and New York, N. Y., and notices of such declaration sent by registered mail to said The Eustis Manufacturing Company at the said addresses having been returned by the post-office undeliverable, notice is hereby given that unless said The Eustis Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 5, 1915.

Aloysius E. Offutt, his assigns or legal representatives take notice:

An interference having been declared by this Office between the application of Goldberg, Bowen & Co., Sutter and Kearney streets, San Francisco, Cal., for registration of a trade-mark and trade-mark registered June 25, 1889, No. 16,758, to Aloysius E. Offutt, 340 West Fifty-ninth street, New York, N. Y., and a notice of such declaration sent by registered mail to said Aloysius E. Offutt at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Aloysius E. Offutt, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

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ISSUE OF MARCH 9, 1915.

Patents	954	No. 1,130,694 to No.	1,131,647, inclusive.
Designs	31	No. 47,064 to No.	47,094, inclusive.
Trade-Marks	39	No. 102,953 to No.	102,991, inclusive.
Labels	16	No. 18,285 to No.	18,300, inclusive.
Prints	13	No. 3,834 to No.	3,846, inclusive.
Reissues	2	No. 13,889 to No.	13,890, inclusive.
Total	1055		

The patents of this issue were pending an average of 23.9 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	1	.....	North Carolina	11	.....
Arizona	2	.....	North Dakota	4	.....
Arkansas	6	.....	Ohio	63	3
California	41	2	Oklahoma	7	.....
Colorado	14	.....	Oregon	11	.....
Connecticut	18	1	Pennsylvania	94	10
Delaware	3	.....	Rhode Island	5	.....
Florida	3	.....	South Carolina	.....	.....
Georgia	5	.....	South Dakota	3	.....
Idaho	8	.....	Tennessee	9	.....
Illinois	118	12	Texas	15	4
Indiana	17	3	Utah	7	.....
Iowa	15	.....	Vermont	1	.....
Kansas	17	.....	Virginia	9	.....
Kentucky	9	2	Washington	9	2
Louisiana	4	.....	West Virginia	5	1
Maine	4	.....	Wisconsin	22	.....
Maryland	6	.....	Wyoming	.....	.....
Massachusetts	53	2			
Michigan	32	1	Alaska, District of	1	.....
Minnesota	19	.....	Canal Zone	.....	.....
Mississippi	4	.....	District of Columbia	7	.....
Missouri	21	2	Hawaii Territory	2	.....
Montana	5	.....	Philippine Islands	.....	.....
Nebraska	6	1	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	3	3	U. S. Navy	1	.....
New Jersey	55	2			
New Mexico	1	.....	Total to residents of the United States	908	66
New York	132	15			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	.....	.....	Netherlands	.....	.....
Belgium	1	.....	New South Wales	2	.....
British India	.....	.....	New Zealand	1	.....
Brazil	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Portugal	.....	.....
Canada	15	.....	Queensland	1	.....
Cape Colony	.....	.....	Roumania	.....	.....
Chile	.....	.....	Russia	.....	.....
Costa Rica	.....	.....	Scotland	1	.....
Cuba	1	.....	South Australia	.....	.....
Denmark	2	.....	Spain	.....	.....
England	21	1	Sweden	4	.....
Finland	.....	.....	Switzerland	2	.....
France	4	1	Transvaal, South Africa	.....	.....
Germany	19	.....	Victoria	1	.....
India	.....	.....	Wales	.....	.....
Ireland	.....	.....			
Italy	.....	.....	Total to residents of foreign countries	75	2
Japan	.....	.....			
Mexico	.....	.....			

Witnesses to Specifications and Drawings.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 5, 1915.

By act approved March 3, 1915, sections 4888 and 4889, Revised Statutes, have been amended so as to omit the requirement of witnesses to the signatures to the specification and drawing.

Witnesses on the specification will not be objected to, and the draftsman may sign the drawing as a witness, as has been heretofore customary.

THOMAS EWING,
Commissioner of Patents.

Adverse Decisions in Interference.

PATENT NO. 1,065,214.

On February 6, 1915, a decision was rendered that Maurice A. Carter was not the first inventor of the subject-matter covered by claims 1, 2, and 3 of his Patent No. 1,065,214, subject, "Chain mat for resilient tires," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,097,317.

On January 22, 1915, a decision was rendered that Lemuel J. Hatt was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, 5, 6, 7, and 9 of his Patent No. 1,097,317, subject, "Clam-shell buckets," and no appeal having been taken within the time allowed such decision has become final.

PATENT NO. 1,107,153.

On February 6, 1915, a decision was rendered that Edward E. Clement was not the first inventor of the subject-matter covered by claim 5 of his Patent No. 1,107,153, subject, "Electric switches," and no appeal having been taken within the time allowed such decision has become final.

APPLICATIONS UNDER EXAMINATION.

Condition at close of business March 6, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Nov. 11	Dec. 17	464
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 1	Jan. 4	687
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Feb. 18	Feb. 25	78
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Aug. 15	Feb. 15	627
167	5. Bookbinding; Harvesters; Jewelry; Music.	Sept. 24	Jan. 26	368
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Sept. 3	Feb. 15	531
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Dec. 9	Jan. 29	470
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Aug. 11	Feb. 15	1240
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Jan. 22	Oct. 26	761
235	10. Carriages and Wagons	Oct. 6	Feb. 15	760
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Jan. 14	Feb. 19	140
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Aug. 15	Feb. 10	855
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Jan. 23	Jan. 26	435
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Sept. 8	Feb. 1	346
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Aug. 22	Feb. 15	755
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	July 6	Dec. 7	650
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Nov. 17	Feb. 23	192
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Feb. 6	Jan. 22	263
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Jan. 13	Feb. 2	235
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 2	Jan. 30	258

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	d	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Oct. 22	Dec. 31	458
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Feb. 9	Feb. 6	171
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 17	Dec. 19	328
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Sept. 11	Feb. 12	450
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Feb. 2	Feb. 10	191
106	26. Electricity, Generation; Motive Power.	June 9	Jan. 23	629
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Nov. 19	Feb. 18	319
65	28. Internal-Combustion Engines	Dec. 29	Jan. 30	419
147	29. Cooperage; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Jan. 11	Jan. 7	323
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Nov. 9	Feb. 19	331
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Nov. 12	Jan. 27	336
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Aug. 24	Feb. 18	691
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Oct. 21	Jan. 21	368
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Jan. 9	Feb. 19	211
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Oct. 15	Feb. 25	583
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Dec. 8	Feb. 19	494
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	July 6	Jan. 13	847
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Sept. 1	Jan. 22	611
321	39. Water Distribution	Nov. 7	Jan. 2	508
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Sept. 1	Feb. 1	943
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Jan. 6	Feb. 8	270
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Dec. 15	Jan. 7	272
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Jan. 26	Jan. 6	285

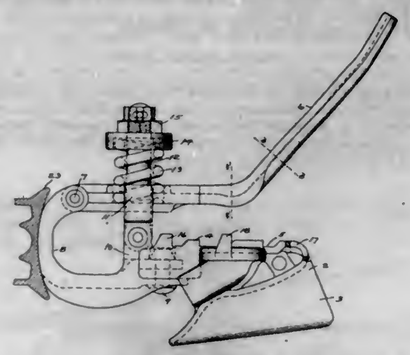
Oldest new case, June 9; oldest amended, Oct. 26.
Total number of applications awaiting action..... 20,151

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Jan. 2	Feb. 8	765
	Designs	Nov. 12	Oct. 26	440
	Labels and Prints	Feb. 19	Feb. 19	123

PATENTS

GRANTED MARCH 9, 1915.

1,130,694. AUTOMATIC TRAIN-PIPE COUPLING. ROBERT E. ADDISON, St. Louis, Mo., assignor to Westinghouse Automatic Air & Steam Coupler Company, St. Louis, Mo., a Corporation of Illinois. Filed Feb. 17, 1908. Serial No. 416,300. (Cl. 188—13.)



1. In an automatic pipe coupling, the combination with a coupling head having a fixed arm and a gathering arm pivoted to the fixed arm, of a member pivoted to the fixed arm and a spring mounted between said member and the pivoted gathering arm for yieldingly resisting the movement of said gathering arm on its pivot.

2. In an automatic pipe coupling, the combination with a coupling head having a fixed arm and a gathering arm pivoted to the fixed arm, of a member pivoted to the fixed arm and provided with an abutment, and a spring interposed between the abutment and said gathering arm to yieldingly resist the movement of said arm on its pivot.

3. In an automatic pipe coupling, the combination with a coupling head having a fixed arm and a gathering arm pivoted to the fixed arm, of a bolt pivoted to the fixed arm and extending through said gathering arm, a movable member mounted on said bolt, a spring interposed between said member and the gathering arm, and a nut having screw threaded engagement with said bolt for holding the spring in position, the movement of the bolt on its pivot being adapted to permit the gathering arm to be swung open upon removal of the nut from said bolt.

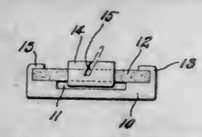
4. In an automatic pipe coupling, a coupling head, a spring buffer for resisting longitudinal movement of said head, and means operating on said buffer for preventing return movement thereof upon movement of the coupling head in the opposite direction.

5. In an automatic pipe coupling, a coupling head, a spring buffer for resisting longitudinal movement of said head, in one direction, and means for locking said buffer to prevent return movement thereof, upon movement of the coupling head in the opposite direction.

[Claims 6 to 11 not printed in the Gazette.]

1,130,695. SCISSORS-SHARPENER. JAMES M. ALLEN, St. Louis, Mo., assignor to Allen Novelty Company, a Corporation of Missouri. Filed Sept. 8, 1914. Serial No. 860,519. (Cl. 51—7.)

In a device of the class described, a base in the top of which is formed a longitudinally extending recess, ears on the ends of said base, a block of abrasive material positioned on the base over the recess therein, which block of abrasive material is held in position on the base by said ears, and a tubular block loosely mounted on said block of abrasive material, the lower portion of which



tubular block passes transversely through the recess in the top of the base, and the upper portion of said tubular block being provided with a transversely disposed inclined tool receiving slot.

1,130,696. PENCIL-HOLDER. CHARLES A. ANDERSON and SAMUEL TREPP, East Orange, N. J. Filed Apr. 18, 1914. Serial No. 832,678. (Cl. 120—18.)



1. A pencil-holder comprising a cylindrical casing having a threaded bore, a cap mounted to rotate horizontally on one end of the casing, a slotted tube telescoped wholly within the casing having one end affixed to said cap and the other end free within the casing, a tubular lead carrier, open at both ends, longitudinally movable within the slotted tube, means engaging said carrier and said threaded bore to advance or retract said carrier, and a pin affixed to said cap to expel the lead from the carrier when the latter is retracted against the pin.

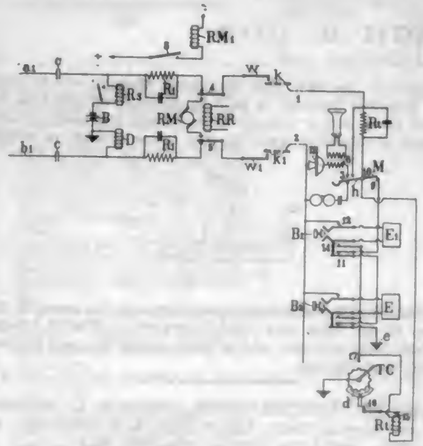
2. A pencil-holder comprising a cylindrical casing having a threaded bore, a cap mounted to rotate horizontally on one end of the casing, a slotted tube telescoped wholly within the casing having one end affixed to said cap and the other end free within the casing, a tubular lead carrier, open at both ends, longitudinally movable within the slotted tube, means engaging said carrier and said threaded bore to advance or retract said carrier, and a pin affixed to one end of, and concentrically within, said casing to expel the lead from the carrier when the latter is retracted against the pin.

1,130,697. AUTOMATIC TELEPHONE-EXCHANGE SYSTEM FOR SUBSCRIBERS' LINES WITH EXTENSION SETS. FRITZ ALDENDORFF, Antwerp, Belgium, assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Sept. 4, 1913. Serial No. 788,146. (Cl. 179—26.)

1. In a telephone exchange system in which connections are established by selector switches, telephone stations each comprising an attendant's station and an extension station, a special selector releasing circuit extending to each said attendant's station and controllable at this station, and means for transferring the control of the said special selector releasing circuit to the said extension station prior to the response of the subscriber at said station.

2. In a telephone exchange system in which the connections are established by selector switches, telephone stations each comprising an attendant's station and a pin-

rality of extension stations, a special selector releasing circuit extending to each attendant's station and controllable at this station, and means for transferring the control of the said special selector releasing circuit to any of the said plurality of extension stations prior to the response of the subscriber at said station.



3. In a telephone exchange system in which the connections are established by selector switches, telephone stations each comprising an attendant's station and an extension station, a microphonic battery supply circuit extending from the said exchange system to a said attendant's station, a special selector releasing circuit extending to each said attendant's station and controllable at this station, means for transferring the control of the special selector releasing circuit to a said extension station.

4. In a telephone exchange system in which the connections are established by selector switches, telephone stations each comprising an attendant's station and an extension station, a microphonic battery supply circuit extending from the said exchange system to a said attendant's station, a special selector releasing circuit formed of a part of the said microphonic battery supply circuit said special selector releasing circuit being controllable at a said attendant's station, means for transferring the control of the said special selector releasing circuit to a said extension station.

5. In a telephone exchange system in which the connections are established by selector switches, telephone stations each comprising an attendant's station and a plurality of extension stations, a two-position switch at each said attendant's station, a conductor connected to each of said two-position switches to a contact at a point between the two positions of the said two-position switch, a special selector releasing circuit extending to each said attendant's station and including the said conductor which is connected to the said two-position switch, said special selector releasing circuit being controllable at the said attendant's station, means for opening the said conductor connected to the said two-position switch and for transferring the control of the said special selector releasing circuit to a said extension station.

[Claims 6 to 16 not printed in the Gazette.]

1,130,698. PROCESS OF REFINING ANIMAL AND VEGETABLE OILS. CHARLES BASKERVILLE, New York, N. Y. Filed Mar. 13, 1914. Serial No. 824,486. (Cl. 87—12.)

1. In a process of refining cottonseed or similar oils, the steps which consist in neutralizing the oil by caustic alkali, and hardening the resulting alkali soaps by acting thereon with a suitable dehydrating agent.

2. In a process of refining cottonseed or similar oils, the steps which consist in neutralizing the oil, and acting thereon with an anhydrous salt capable of taking up water of crystallization.

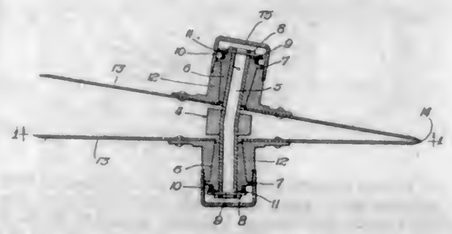
3. In a process of refining cottonseed or similar oils, the steps which consist in neutralizing the oil, and adding thereto dry sodium carbonate.

4. The herein described process of treating cottonseed or similar oils, which consists in treating the oil with caustic alkali and a saline electrolyte, adding a dehydrating agent, heating the oil until coagulation occurs, and separating the coagulum.

5. The herein described process of treating cottonseed or similar oils, which consists in treating the oil with caustic alkali and a saline electrolyte, adding dry sodium carbonate, heating the oil until coagulation occurs, and separating the coagulum.

[Claim 6 not printed in the Gazette.]

1,130,699. DISK ATTACHMENT. EDWIN R. BEEMAN and THOMAS BRENNAN, Jr., St. Louis Park, Minn., assignors to Monitor Drill Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Aug. 28, 1914. Serial No. 859,040. (Cl. 111—11.)



1. In a disk attachment, the combination with a downwardly depending boot, of an axle member carried by the lower end of the same and having its end portions projecting to the sides of the boot, a sleeve slidably mounted on each projecting end portion, the outer end of each sleeve being provided with a transversely extending slot, a cotter pin or the like extended through each projecting end portion and lying within the slot of the corresponding sleeve, a spring interposed between each of said cotter pins and the corresponding sleeve and serving to force the sleeve toward the boot, a peripheral flange on each sleeve, and a disk rotatably mounted adjacent to each sleeve and provided with a bearing portion adapted to rotate on the sleeve and seat against the corresponding flange.

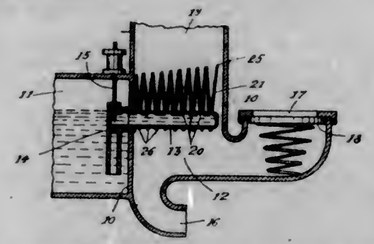
2. In a disk attachment, the combination with a downwardly depending boot, of an axle member supported by and projecting to each side of the boot, a sleeve slidably mounted on each projecting end portion, means for forcing each sleeve toward the boot, means for retaining each sleeve against rotation, an annular flange encircling each sleeve near the outer end thereof, a disk rotatably mounted with respect to each sleeve, and a bearing portion on each disk adapted to rotate on the corresponding sleeve and seat against the flange thereof.

3. In a disk attachment, the combination with a downwardly depending boot, of an axle member secured to and projecting to each side of the boot, a sleeve slidably mounted on each projecting portion of the axle member, means for retaining each sleeve against rotation with respect to the axle member, springs tending to carry the sleeves toward each other, each sleeve being provided with an annular projecting flange near its outer end, a disk rotatably mounted with respect to each sleeve, and a bearing portion on each disk, each bearing portion being adapted to rotate on the corresponding sleeve and seat against the flange thereof.

4. In a disk attachment, the combination with a downwardly depending boot, of an axle member secured to and projecting to the sides of the boot, a sleeve slidably mounted on each projecting portion of the axle member, means for retaining each sleeve against rotation with respect to the axle member, means for carrying the sleeves toward each other and toward the boot, each sleeve being provided with an anuular projecting flange near its outer end and tapering in size toward its inner end, a disk rotatably mounted with respect to each sleeve and a bearing member on each disk rotatably mounted on the tapering portion of the corresponding sleeve and seating against the annular flange thereof.

5. In a disk attachment, the combination with a downwardly depending boot, of an axle member secured to and projecting to the sides of the boot, a sleeve slidably mounted on each end of the axle, means for retaining each sleeve against rotation with respect to the axle member, means for carrying the sleeves toward each other and toward the boot, an annular projecting flange on each sleeve near the outer end thereof, a disk rotatably mounted with respect to each sleeve, a bearing member on each disk rotatably mounted on the corresponding sleeve, each sleeve tapering in diameter from the annular flange toward the inner end thereof and the corresponding disk bearing member rotating on said tapered portion and being of a size to seat against the corresponding annular flange.

1,130,700. CARBURETER. ASHLEY C. BENNETT, Minneapolis, Minn. Filed Feb. 1, 1913. Serial No. 745,631. (Cl. 48—155.1.)

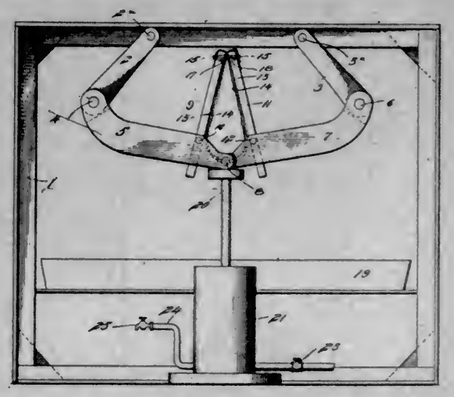


1. A carbureter comprising a casing forming an air passageway, an oil feed pipe extending horizontally across said air passageway and provided with openings along one side, means to deliver fuel oil into the pipe and to the openings, a series of plates or fins secured along said pipe across the air passageway and extending away from said openings, the adjacent members of said plates being yieldingly flared so as normally to contact and restrict the area of the air passages in the pipe, said flared portions being movable by the current of air passing through the pipe to vary the amount of said flare and increase the area of the air passageways in proportion to the strength of the air current.

2. A carbureter comprising a pipe for delivering fuel mixture, a feed pipe extending horizontally across said delivery pipe and having apertures along the top thereof, means for delivering fuel oil into said feed pipe and to said apertures, a series of double walled spreader members on said feed pipe, each member having a wall thereof on each side of an aperture, said walls being extended upwardly into the delivery pipe away from the feed pipe, and means for conducting a current of air into said delivery pipe from below the feed pipe and flaring members.

3. A carbureter comprising a pipe for delivering fuel mixture, a feed pipe extending horizontally across said delivery pipe and having apertures along the top thereof, means for delivering fuel oil into said feed pipe and to said apertures, a series of double walled spreader members on said feed pipe, each member having a wall thereof on each side of an aperture, said walls being extended upwardly into the delivery pipe away from the feed pipe, and means for conducting a current of air into said delivery pipe from below the feed pipe and flaring members, the walls of said spreader members progressively increasing in height from the inlet end of the feed pipe.

1,130,701. APPARATUS FOR EXPRESSING LIQUIDS FROM SOLIDS. JOHN J. BERRIGAN, Orange, N. J., assignor to Henry R. Worthington, a Corporation of New Jersey. Filed Aug. 22, 1911. Serial No. 645,407. (Cl. 100—50.)



1. In a press, a press unit comprising coöperating press members, a plurality of filtering media of different degrees of fineness arranged between said members, the finest of said filtering media being disposed next the working faces of said press members, and means for forcing one of said plates toward the other.

2. In a press, a press unit comprising a pair of coöperating press plates, coarse and fine filter cloths disposed between said plates, the coarse cloth being arranged to contact directly with material to be pressed and to separate the fine cloth from contact with such material, and means for forcing said press plates toward each other.

3. In a press, a press element comprising a pair of press plates pivotally joined along adjacent edges to form a V-shaped chamber, and sealing plates covering the broad end of said chamber, said sealing plates being pivotally connected to said pressure plates and to each other.

4. Apparatus for expressing liquids from solids, comprising a supporting framework, pivotally connected members supported by said framework, and coöperating press members pivoted upon certain of said connected members and arranged to be brought into and out of pressing relation by the movement of said connecting members.

5. Apparatus for expressing liquids from solids, comprising a supporting framework, pivotally connected members supported by said framework, and a V-shaped press chamber having movable walls pivotally mounted upon a pair of said connected members, said connected members being arranged to act as lever arms to approximate the walls of said press chamber and to produce lateral pressure on material contained therein.

[Claims 6 to 28 not printed in the Gazette.]

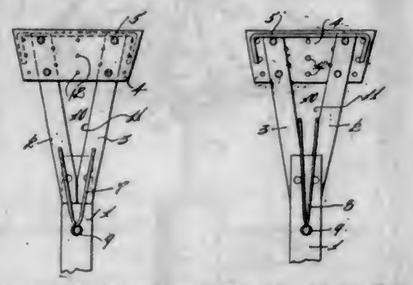
1,130,702. FILM. RASMUS BJERREGAARD, Copenhagen, Denmark. Filed Feb. 26, 1912. Serial No. 680,062. (Cl. 88—19.5.)



A film for the projection of animated pictures in their natural colors provided with series of consecutive pictures, corresponding to the number of basic colors used,

each of said pictures being framed by a non-transparent black frame, said frames being all of the same size and separating the single pictures from each other, substantially as described and for the purpose specified.

1,130,703. WINDOW-CLEANING DEVICE. MATHEW BLACK, New York, N. Y. Filed Mar. 6, 1914. Serial No. 822,820. (Cl. 15—50.)

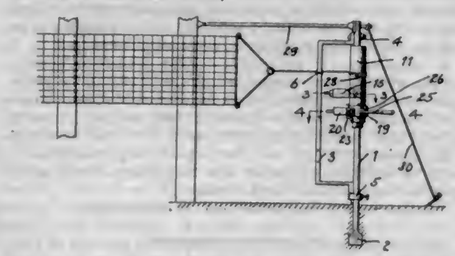


1. A window-cleaner, comprising a plate, a handle, a plurality of resilient arms connecting said plate and said handle, said arms being spaced apart to thereby provide an opening therebetween, a rail carried by said plate adapted to retain a cloth, a clamp carried by said handle adapted to force a portion of said cloth against the arms, and a clamp also carried by said handle adapted to force a portion of the cloth into the space between said arms.

2. A window-cleaning device, comprising a handle, a plurality of resilient arms projecting therefrom and bent out of alinement therewith, a plate secured to the outer end of each arm, a cloth-retaining rail mounted on said plate, and a resilient cloth-retaining clamp pivotally secured to the handle.

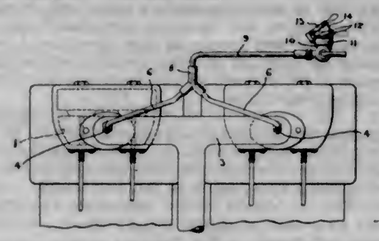
3. A window-cleaning device, comprising a handle, a plurality of resilient arms projecting therefrom and bent out of alinement therewith, a plate secured to the outer end of each arm, a cloth-retaining rail mounted on said plate, and a cloth-retaining clamp secured to the handle.

1,130,704. WIRE-STRETCHER. THOMAS J. BLOSICK, Shaniko, Oreg. Filed June 18, 1914. Serial No. 845,953. (Cl. 256—41.)



A device of the class described comprising a post, a sleeve secured thereto, said sleeve having a plurality of holes therein, one edge of each hole being abrupt and the other edge inclined, a second sleeve revolubly mounted on and inclosing the first sleeve, a bracket secured to the last mentioned sleeve, a spring pressed bolt extending through said sleeve and arranged to engage any one of the holes in the first mentioned sleeve, means to rotate the revoluble sleeve comprising a collar revolubly mounted thereon, a spring pressed bolt mounted in said collar and arranged to engage a plurality of apertures in the sleeve, an operating handle, and means to detachably secure the handle to the said collar, a U-shaped member secured to the post and having a roller thereon, and means on the said revoluble sleeve to secure a wire thereto after the same has passed over said roller.

1,130,705. PRIMER FOR INTERNAL-COMBUSTION ENGINES. JOHN BOWMAN and BENJAMIN BOWMAN, Toronto, Ontario, Canada. Filed Dec. 20, 1913. Serial No. 807,901. (Cl. 123—180.)



1. A primer for internal combustion engines, comprising a conduit extending into the inlet chamber adjacent to the valve and having an open receptacle secured at the inner end, said receptacle having an open area greater than the cross sectional area of the conduit and means for allowing an inflow of air through said receptacle to effect the carburation of the priming fluid.

2. A primer for internal combustion engines, comprising a conduit open to the outer atmosphere and extending into the inlet chamber and having an open cupped receptacle supported at its inner end, said conduit being of lesser cross sectional area than the open area of the receptacle, and a receptacle at the outer end of said conduit adapted to contain a charge of priming spirit.

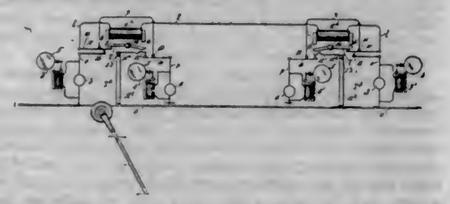
3. A primer for internal combustion engines, comprising a conduit open to the outer atmosphere and extending into the inlet chamber and having an open cupped receptacle supported at its inner end, said conduit being of lesser cross sectional area than the open area of the receptacle, a receptacle at the outer end of said conduit adapted to contain a charge of priming spirit, and a valve arranged in said conduit for controlling the flow of air therethrough.

4. A primer for internal combustion engines, comprising, a conduit open to the outer atmosphere and extending into the inlet chamber and having an open cupped receptacle supported at its inner end, said conduit being of lesser cross sectional area than the open area of the receptacle, and a three-way valve arranged in said conduit having a large opening to allow the free inflow of the priming spirit or air and a smaller opening adapted on the turning of the valve to restrict the flow of air.

5. A primer for internal combustion engines, comprising, a conduit opening to the atmosphere at the outer end and extending into the inlet chamber having its inner end shaped into an elongated cupped receptacle presenting an open area greater than the area of the conduit and adapted to temporarily retain a charge of priming spirit, and means arranged at the outer end of said conduit for directing the priming spirit thereinto.

[Claim 6 not printed in the Gazette.]

1,130,706. RAILWAY SIGNAL SYSTEM. ROY B. BRYANT, Little Rock, Ark. Filed Nov. 20, 1908. Serial No. 463,505. (Cl. 246—36.)



1. In a signal system for single track trolley roads, a block having a normally open circuit, clear and danger signals, contacts for selectively including said signals in said circuit, armatures operated mechanically by the passage of a car for operating said contacts, a magnet at each end of the block and included in said circuit for retaining said armatures in displaced relations, the magnet at the opposite end of the block from the entering end retaining the armature with sufficient force to prevent any change in the signals when the car enters an occupied block from said opposite end of the block.

2. In a signal system, a tappet at one end of a block adapted to be displaced by the passage of a car, a magnet having its armature moved by the tappet, a signaling circuit closed on movement of said armature by a car entering the block, a magnet and armature at the opposite end of said block, said signaling circuit including both magnets, a tappet, a spring thereon, the armature at the opposite end being in the path of said spring but being held with sufficient force by said magnet when energized to prevent the spring from actuating said armature, whereby a car entering from the opposite end is prevented from actuating the armature at that end when the signal circuit is closed.

3. In a signaling system, a line wire extending between two stations and connected at each station with two branches, a normally closed switch at each station connecting one branch with one pole of a source of energy, a normally open switch at each station connecting the other branch with the other pole of the source of energy, a magnet at each station in the line conductor, an armature for each magnet pivoted between its ends so that one end is acted on by one pole of the magnet and the other end by the other pole, said ends being normally held at different distances from their respective poles, a tappet at each end of the block in the path of a moving vehicle, each tappet when moved by a car entering the block being adapted to displace its armature and thereby close the normally open switch, and adapted, when moved by a car departing from the block, to open the normally closed switch, whereby a car entering the block will close the circuit through both magnets, the magnet at the entering end holding its armature displaced to hold the circuit closed, and the magnet at the opposite end holding its armature to prevent displacement thereof by a car entering the block from that end.

4. In a signal system, magnets having armatures mechanically displaced by the passage of a trolley wheel, means actuated by a mechanically displaced armature for energizing said magnets to attract the other armature and hold the mechanically displaced armature in its displaced relation, danger and clear signals at each entrance to a block, and means actuated by the movements of said armatures for selectively exhibiting the signals at the respective ends of the block.

5. In a signal system, magnets having armatures mechanically displaced by the passage of a trolley wheel, clear signals having a circuit adapted to be closed by such displacement when a car enters the block, said circuit energizing both magnets whereby the mechanically displaced armature is retained, and the other armature is magnetically displaced to the alternate position, and a danger signal at the remote end of the block normally included in said circuit.

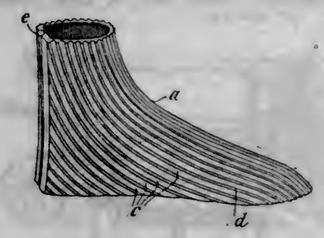
[Claims 6 to 9 not printed in the Gazette.]

1,130,707. BOOT AND SHOE TREE. HANS BUCHNER, Munich, Germany. Filed Aug. 27, 1912. Serial No. 717,326. (Cl. 12—128.)

1. A boot and shoe tree whose body constitutes a liquid container and whose surface is covered with grooves separated by narrow ribs, which extend upwardly from the sole, where they run substantially parallel with each other in transverse direction.

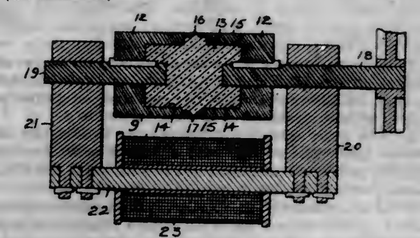
2. A boot and shoe tree whose body constitutes a liquid container and whose surface is covered with grooves separated by narrow ribs, which extend upwardly from the sole, where they are directed substantially at right angles to the longitudinal sole-axis, along which they are interrupted.

3. A boot or shoe tree whose body constitutes a liquid container and whose surface is covered with grooves separated by narrow ribs, extending upwardly from the sole, which latter presents a passage located substantially in its longitudinal axis and communicating throughout its length



with the said grooves through thin-walled channels directed substantially at right angles to the sole-axis and each leading to one of the said grooves.

1,130,708. SKELP-CHARGING APPARATUS. STEWART CLARK COEY, Youngstown, Ohio, assignor to The Youngstown Sheet and Tube Company, Youngstown, Ohio, a Corporation of Ohio. Filed Jan. 16, 1914, Serial No. 812,411. Renewed Jan. 15, 1915. Serial No. 2,474. (Cl. 214—23.)



1. The combination of a charging table, a rotary charging roller carried by the table and having a magnetizable periphery with an annular gap, a winding stationary relatively to the table, a magnetic circuit energized by the winding and including the said charging roller, the latter being arranged externally of the winding, and means for rotating the roller.

2. The combination of a table, a magnetizable roller having an annular gap, a winding stationary relatively thereto, a magnetic circuit energized by the said winding and including the said roller, the roller being arranged with the said gap transverse of the flux through the roller, and means for rotating the roller.

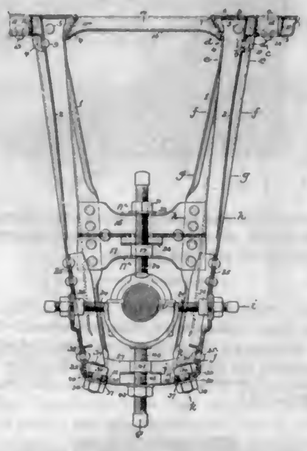
3. The combination of a table, a trough thereon, a magnetizable roller supported by the table and having its axis of rotation transverse of the trough and its periphery arranged to be engaged by magnetizable material in the trough, a winding stationary with respect to the table, and a magnetic circuit energized by the winding and including the roller arranged lengthwise therein.

4. The combination of a table, a trough thereon, a magnetizable roller supported by the table and having its axis of rotation transverse of the trough and its periphery arranged to be engaged by magnetizable material in the trough, a winding stationary with respect to the table, and a magnetic circuit energized by the winding and including the roller arranged lengthwise therein, there being a peripheral gap in the roller.

5. The combination of a table, a feed roller having opposite axially-alined shells of magnetizable material separated by a peripheral gap, non-magnetizable material connecting the shells, means for rotating the roller, a magnetic circuit including the roller arranged lengthwise therein, and a winding stationary with respect to the roller for energizing the said circuit.

[Claims 6 to 8 not printed in the Gazette.]

1,130,709. SHEET-METAL SHAFT-HANGER. CHARLES A. CONDÉ, Camden, N. J., assignor to Bond Foundry and Machine Company, Manheim, Pa., a Corporation of Pennsylvania. Filed July 26, 1910. Serial No. 574,007. (Cl. 64—14.)



1. In a sheet metal shaft hanger, the combination of a hollow, girder-shaped leg, a foot member having a socket thereon for the reception of said leg, and a cup-like portion extending outwardly from said socket.

2. In a sheet metal shaft hanger, the combination of a hollow, girder-shaped leg, with a foot member to which said leg is secured, said foot member having a cup-shaped portion with an internal transverse channel bar.

3. In a sheet metal shaft hanger, the combination of a hollow, girder-shaped leg, with a foot member to which said leg is secured, said foot member having a cup-shaped portion with an internal transverse channel bar, and a pair of longitudinal angle bars spaced apart within said transverse channel bar.

4. A sheet metal shaft hanger having girder-shaped side legs, a yoke for connecting the bottom portions of the legs, a reinforcing plate on each leg, having flanges at the bottom, and bolts passing through the bottom web of the yoke and through the flanges of the reinforcing plate.

5. A sheet metal shaft hanger having girder-shaped side legs, a yoke connecting the lower portions of said legs, reinforcing plates having inturned flanges both on its back web and on its side webs, and bolts passing through said flanges and through the bottom web of the yoke.

[Claims 6 to 8 not printed in the Gazette.]

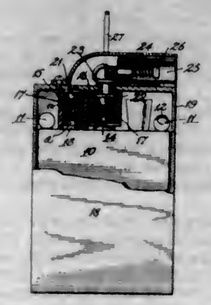
1,130,710. ELECTRIC BATTERY. HENRY CSANYI, New York, N. Y., assignor to Maxivolt Primary Battery Co., New York, N. Y., a Corporation of New Jersey. Filed Nov. 3, 1913. Serial No. 798,930. (Cl. 204—52.)

1. An electric battery having a contact for an element thereof, a line terminal on a circuit line, a wire conductor adapted to yieldingly engage the said battery terminal and the said line terminal, and a non-corrodible jacket enveloping said terminals and said conductor.

2. An electric battery having a terminal for an element thereof, a line terminal on a circuit line, a wire conductor adapted to yieldingly engage the said battery terminal and the said line terminal, a non-corrodible jacket enveloping said terminals and said conductor, and a cover carrying the line terminal and closing the upper end of said jacket.

3. An electric battery having resilient terminals made of a helical coil of wire, each inclosed in a yielding non-corrodible jacket open at its outer end, and terminals on a circuit line adapted to engage said battery terminals and be sealed by said jackets.

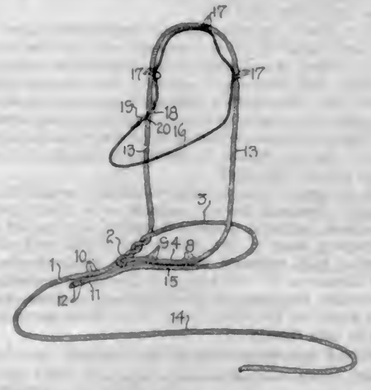
4. An electric battery inclosed in a case with a removable cover, line terminals mounted on said cover and projecting from the inner side thereof, terminals on the battery in position to be engaged by the line terminals when the cover is closed, and a jacket of yielding non-corrodible material attached to each battery terminal for inclosing each connected pair of terminals.



5. An electric battery inclosed in a case with a removable cover, line terminals mounted on said cover and projecting from the inner side thereof, combined with resilient terminals on the battery cell made of helical coils of wire adapted to be engaged by the line terminals when the cover is closed, and a jacket of yielding non-corrodible material attached to each battery terminal for inclosing each connected pair of terminals.

[Claims 6 to 9 not printed in the Gazette.]

1,130,711. HALTER. LOGAN CURTIS, Browns, Ill. Filed Apr. 29, 1914. Serial No. 835,197. (Cl. 54—24.)

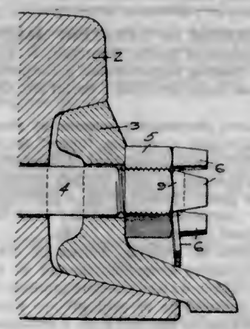


In combination with a head stall, a throat latch comprising a length of flexible material arranged at the top portion thereof, sets of loops carried by the throat latch and slidably mounted upon the head stall, the sets of loops being arranged in spaced relation, whereby one set of loops may be moved with respect to the others to adjust the throat latch, and means for detachably connecting the ends of the throat latch.

1,130,712. NUT-LOCK. THOMAS D. DALLMEYER, Oakmont, Pa. Filed Apr. 11, 1913. Serial No. 760,523. (Cl. 151—42.)

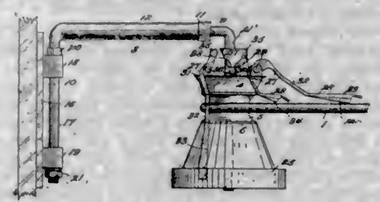
1. A nut-lock comprising a nut having a beading on its outer end, a plate riveted to said nut by said beading, and a flexible tongue on said plate.

2. A nut-lock comprising a nut having a polygonal beading on its outer end, a plate having a correspondingly



shaped opening engaging said beading, said beading being upset to engage said plate to secure it to said nut, and a flexible tongue on said plate.

1,130,713. CLOTHES-LINE SUPPORT. WALTER J. DALY and BERNHARD WIMMER, Rahway, N. J. Filed Nov. 27, 1914. Serial No. 874,316. (Cl. 68—12.)



1. In a clothes line support, a bracket, a grooved line supporting pulley rotatably mounted upon the bracket, a series of independently movable keepers mounted on the pulley for normally bridging the groove of the pulley, and a means for operating the keepers to successively move outwardly from the groove for the purpose set forth.

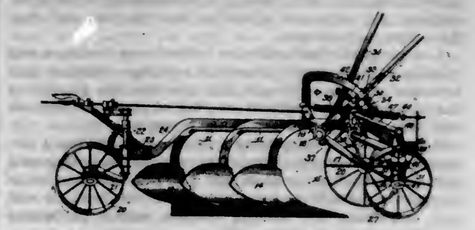
2. In a clothes line support, a bracket, a grooved line supporting pulley rotatably mounted upon the bracket, a series of radially arranged and independently movable keepers mounted on the pulley for normally bridging the groove of the pulley and a means mounted on the bracket for operating the keepers to successively move outwardly from the groove as set forth.

3. In a clothes line support, a bracket, a grooved line supporting pulley rotatably mounted on the bracket, a series of radially arranged and independently movable keepers mounted on the pulley for normally bridging the groove of the pulley, and a cam mounted on bracket for operating the keepers to successively move outwardly from the groove for the purpose set forth.

4. In a clothes line support, a bracket, a grooved line supporting pulley rotatably mounted on the bracket, a series of radially arranged and independently movable keepers pivotally mounted on the pulley for normally bridging the groove of the pulley and a cam mounted on the bracket for operating the keepers to successively move outwardly from the groove for the purpose set forth.

5. A clothes line support comprising an inverted U-shaped bracket formed of a pair of angularly shaped telescopic members, means for yieldingly connecting said members together, a spindle formed on one of the members, a grooved line supporting pulley rotatably mounted on the spindle, a spindle formed on the other of said members, and an attached plate pivotally mounted on the second mentioned spindle for connecting the bracket to a suitable support, substantially as described.

1,130,714. PLOW. FRANK E. DAVIS, La Crosse, Wis., assignor to La Crosse Plow Co., La Crosse, Wis., a Corporation of Wisconsin. Filed Dec. 12, 1913. Serial No. 806,148. (Cl. 97—36.)



1. In a plow, the combination of a plow-carrying structure, carrying-wheels including a furrow-wheel, plow-shifting mechanism comprising a crank between said furrow-wheel and the carrying-structure, a bracket mounted on the crank and shifted vertically relatively to said structure when the crank is operated, said bracket having an opening extending transversely therethrough and a spindle for said furrow-wheel, extending transversely through and fixedly and adjustably held in the opening in said bracket.

2. In a plow, the combination of a plow carrying structure, carrying-wheels including a furrow-wheel, plow-shifting mechanism comprising a crank between said furrow wheel and the carrying-structure, a spindle for said furrow wheel, means for causing the spindle to remain at a constant angle during the shift of the crank, and means for longitudinally adjusting the spindle.

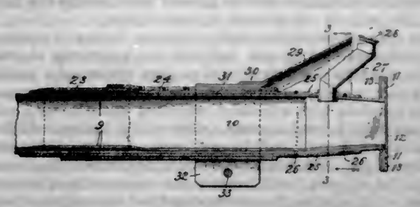
3. In a plow, the combination of a plow carrying structure, carrying-wheels including a furrow-wheel, plow-shifting mechanism comprising a crank between said furrow-wheel and the carrying structure, a spindle for said furrow-wheel, means for causing the spindle to remain at a constant angle during the shift of the crank, and screws for angularly adjusting the spindle.

4. In a plow, the combination of a plow carrying structure, carrying-wheels including a furrow wheel, plow-shifting mechanism comprising a crank between said furrow wheel and the carrying structure, a spindle for said furrow wheel, means for causing the spindle to remain at a constant angle during the shift of the crank, and means for angularly and longitudinally adjusting the spindle.

5. In a plow, the combination of a plow-carrying structure, carrying-wheels including a furrow-wheel, plow-shifting mechanism comprising a crank between said furrow-wheel and the carrying-structure, a spindle for said furrow-wheel, a bracket pivoted to and raised and lowered relatively to said structure by the crank, a spindle for the furrow-wheel longitudinally adjustable and fixedly held in said bracket, and means for preventing angular movement of the bracket when the crank-arm is shifted.

[Claims 6 to 20 not printed in the Gazette.]

1,130,715. PERCH-POLE. LEWIS H. DORN, Carthage, Mo. Filed Nov. 19, 1913. Serial No. 801,855. (Cl. 119—25.)



1. A perch-pole comprising a hollow cylindrical body formed of sheet material having its longitudinal edges

lapping each other, and absorbent wicking encircling said pole and extending between the lapping portions to the interior of the pole.

2. A perch-pole comprising a hollow body having a slot laterally opening to its interior, and absorbent wicking encircling said pole and extending through said slot into the interior of the pole.

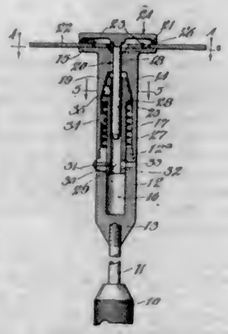
3. A perch-pole comprising a hollow body having a slot opening to its interior, absorbent wicking encircling said pole and extending through said slot into the interior of the pole, and an absorbent covering of sheet material on said pole enveloping the wicking thereon.

4. A perch-pole comprising a hollow body having a slot opening to its interior, absorbent wicking encircling said pole and extending through said slot into the interior of the pole, an absorbent covering of sheet material on said pole enveloping the wicking thereon, and a perforated sheath enveloping said covering.

5. A perch-pole comprising a hollow body, an absorbent covering of sheet material on said pole, means for conveying liquid from the interior of the pole to said covering, and a perforated sheath enveloping said covering.

[Claims 6 to 12 not printed in the Gazette.]

1,130,716. DENTAL TOOL. HENRY G. DRESSEL, Chicago, Ill. Filed Nov. 12, 1914. Serial No. 871,672. (Cl. 32—10.)



1. A dental tool comprising a tubular two part casing having a detachable connection between the parts thereof, means for attaching abrasive elements to said casing, a clamping plate coöperating with said means and provided with a shank arranged to be received within said casing, a spring actuated locking cylinder mounted for reciprocation in said casing for locking the shank against movement, and means for moving said cylinder free from the exterior of the casing and against the action of the spring aforesaid.

2. The combination with a casing having a passage therein provided at one end with an apertured contraction to which the wall of said passage tapers, of a locking cylinder mounted for reciprocation in the casing aforesaid and provided with a passage extending therethrough, a tapered head formed on said cylinder and having radiating ball races therein, ball in said races, and means for forcing the cylinder and its tapered head toward the taper in the wall of the passage of the cylinder.

3. The combination with a casing having a passage therein provided at one end with an apertured contraction to which the wall of said passage tapers, of a locking cylinder mounted for reciprocation in the casing aforesaid and provided with a passage extending therethrough, a tapered head formed on said cylinder and having radiating ball races therein, ball in said races, a spring interposed between the cylinder and the casing for forcing the former and its tapered head toward the contraction aforesaid, means for moving the cylinder against the action of said spring, a shank carrying a clamping plate arranged to enter the aperture of said contraction and extend into the passage of the cylinder where it is clamped by the balls aforesaid when the said cylinder is acted upon by said spring.

1,130,717. PROCESS OF TREATING MASSES OF CONCRETE. CARLETON ELLIS, Montclair, N. J., assignor to New Jersey Testing Laboratories, a Corporation of New Jersey. Filed Sept. 25, 1911. Serial No. 651,185. (Cl. 91—68.)

1. The process of treating masses of concrete which comprises roughening a surface thereof in impregnating such surface with a water-resistant binding material and in filling the depressions of said surface substantially to a level with the peaks thereof, with a dust-preventing and waterproofing material; whereby the wear is taken substantially by said peaks.

2. The process of treating masses of concrete which comprises roughening a surface thereof in impregnating such surface with a water-resistant binding material and in filling the depressions of said surface substantially to a level with the peaks thereof, with a dust-preventing and waterproofing material of a finish coating character; whereby the wear is taken substantially by said peaks.

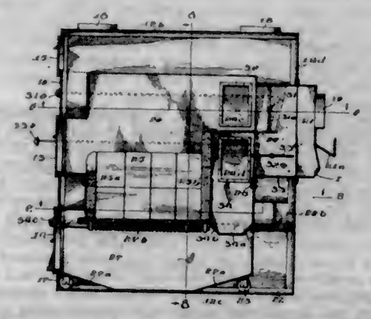
3. The process of treating masses of concrete which comprises roughening a surface thereof in impregnating such surface with a water-resistant material as an anchoring coat or layer and in filling the depressions of said surface substantially to a level with peaks thereof, with a material of a dust-preventing and waterproofing character, carrying an extremely hard granular arbasive serving as frictional material; whereby the wear is taken substantially by said peaks.

4. The process of treating masses of concrete and similar material used for flooring purposes which comprises roughening the surface thereof by removal of very fine cement material and consequent exposure of coarser aggregate and sand grains, in superficially impregnating the roughened surface thereof with a water-resistant material as an anchoring layer, and in filling the depressions of said surface substantially to a level with the rugosities thereof, but no higher, with a dust preventing and waterproofing binding material of an organic character; whereby the wear is taken substantially by said peaks.

5. The process of treating masses of concrete which comprises roughening and superficially impregnating a surface thereof with a water-resistant binding material and in filling the depressions of said surface substantially to a level with the peaks thereof, with a dust preventing and waterproofing material of a finish coating character; whereby the wear is taken substantially by said peaks.

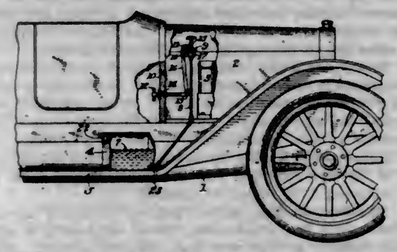
[Claim 6 not printed in the Gazette.]

1,130,718. HOT-AIR FURNACE. JOHN EDWARD ERCANBRACK, Woodstock, Ill. Filed May 17, 1912. Serial No. 697,833. (Cl. 126—99.)



A furnace comprising a casing adapted to contain an ash receiving compartment, a grate suspended above the same, a fire box located above said grate, a horizontal smoke-flue located on each side of said fire box, said flues having a plurality of outlet ports at one end thereof, one of which connects with the upper portion of the fire-box and the other of which connects with the smoke outlet, and a baffle plate in each smoke-flue extending from between said outlet ports to a point adjacent the passageway from said fire-box, an outer casing into and out of which said first-mentioned casing is adapted to be moved, and a smoke conduit connected with the smoke outlet ports of said inner casing.

1,130,719. PROCESS OF AUTOMATICALLY EXTINGUISHING FIRES. JAMES B. ERWIN and ORLANDO R. ERWIN, Milwaukee, Wis. Filed Mar. 20, 1914. Serial No. 825,958. (Cl. 169—12.)

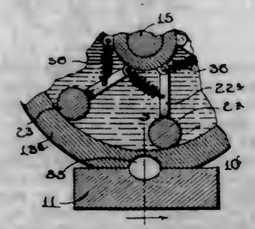


1. The process of extinguishing fires in internal combustion motor hoods, consisting in storing in the vicinity thereof a fire extinguishing liquid capable of rapid volatilization under the influence of heat to produce a fire extinguishing gas, utilizing the heat of a fire to release such liquid, discharging the same upon the preheated motor surfaces and utilizing the heat of such surface and of the fire to vaporize such liquid and fill the hood with said fire extinguishing gas.

2. The process of extinguishing fires upon and about inclosed, normally heated surfaces, consisting in storing an inelastic, gas producing, fire extinguishing liquid in a suitable receptacle under pressure of an elastic fluid, utilizing the heat of a fire to release said liquid and cause its discharge upon the said normally heated surfaces and utilizing the heat of the fire and of said surfaces to convert said liquid into a fire extinguishing gas blanket enveloping said inclosed motor surfaces.

3. The herein described process of extinguishing fires in a vehicle carrying a normally heated motor, consisting in storing a fire extinguishing liquid in a suitable receptacle upon said vehicle, utilizing the heat of the fire to release said liquid to permit its discharge directly upon said heated motor and thereby converting said liquid into a fire extinguishing gas whereby the fire is extinguished.

1,130,720. SEAM-SEALING DEVICE FOR CIGARETTE-MACHINES. ALEXANDER L. EWERS, Durmid, Va., assignor to United Cigarette Machine Co. Ltd., London, England, a Corporation of Great Britain and Ireland. Filed Apr. 29, 1913. Serial No. 764,324. (Cl. 131—43.)



1. In a cigarette making machine, the combination with a forming channel through which the cigarette rod passes, of a fixed metallic member arranged to bear upon the seam of the cigarette rod, and rapidly moving heat generating means contacting frictionally with said metallic member for heating the latter by friction and for transmitting such heat to the seam of the cigarette rod by conduction.

2. In a cigarette making machine, the combination with a wrapper folding channel having a relatively thin metal wall, of a heater for said wall comprising a stationary member in contact with the thin wall of the channel, and a rapidly moving heat generating member contacting with said stationary member for heating the latter by friction and transmitting such heat through the said thin wall by conduction.

3. In a cigarette making machine, the combination with a wrapper folding channel, of a heater for said channel, comprising a stationary hollow member in contact with the channel, and a movable member within and bearing against the hollow member.

4. In a cigarette making machine, the combination with a wrapper folding channel, of a heater for said channel, comprising a stationary hollow member in contact with said channel, and a revoluble member within said hollow member and in frictional contact with the inner surface thereof.

5. In a cigarette making machine, the combination with a wrapper folding channel, of a heater for said channel, comprising a stationary hollow member in contact with the channel, a revoluble member within said stationary member in frictional contact with the inner wall thereof, and a liquid also within said hollow member adapted to be heated by the friction between the said members and distribute the heat to contiguous parts.

[Claims 6 to 14 not printed in the Gazette.]

1,130,721. DELIVERY APPARATUS FOR MAIL OR THE LIKE. WILLIAM E. FISHER, Miller, Nebr. Filed July 6, 1914. Serial No. 849,343. (Cl. 104—146.)



1. A device of the character described including a hanger, a supporting wheel mounted on the hanger, a car connected with the hanger, a propeller carried by the hanger and capable of movement therearound, an operative connection between the propeller and the supporting wheel, and means carried by the hanger for controlling the connection between the supporting wheel and the propeller.

2. A device of the character described including a hanger, a supporting wheel mounted on the hanger, a car connected with the hanger, a propeller carried by the hanger and capable of movement therearound, an operative connection between the propeller and the supporting wheel, and movable means carried by the hanger for controlling the connection between the supporting wheel and the propeller.

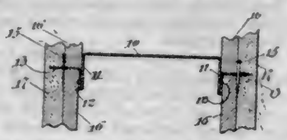
3. A device of the character described including a hanger, a supporting wheel mounted on the hanger, a car connected with the hanger, a propeller carried by the hanger and capable of movement therearound, an operative connection between the propeller and the supporting wheel, a movable plate carried by the hanger provided with means for imparting endwise movement thereto, and means operated by the movable plate for controlling the connection between the supporting wheel and the propeller.

4. A device of the character described comprising a car, a hanger connected therewith, a supporting wheel mounted on the hanger, a sleeve rotatably engaged with the hanger, a tubular arm projecting from the sleeve, a shaft mounted in said tubular arm, an operative connection between the shaft and the supporting wheel, and a propeller operatively mounted upon the shaft.

5. A device of the character described comprising a car, a hanger connected therewith, a supporting wheel mounted on the hanger, a sleeve rotatably engaged with the hanger, a tubular arm projecting from the sleeve, a shaft mounted in said tubular arm, an operative connection between the shaft and the supporting wheel, a propeller operatively mounted upon the shaft, and a blade carried by the tubular arm.

[Claims 6 to 9 not printed in the Gazette.]

1,130,722. STUDDING FOR PLASTER-BOARDS AND THE LIKE. ERNEST EDMUND FLETCHER, Chicago, Ill. Filed May 1, 1912. Serial No. 694,315. (Cl. 72—115.)



A studding of the class described, formed of sheet metal and consisting of a flat body portion with parallel side members formed at approximately right angles to the flat body portion, the outer extremities of the said parallel side members being folded back flat upon themselves on the exterior sides of the said parallel side members and thence deflected out of the plane of the said parallel side members at approximately right angles thereto, forming seats at the intersections of the last said members with the parallel side members in which the side edges of the plaster boards rest, and means for securing the side edges of the boards to the studding.

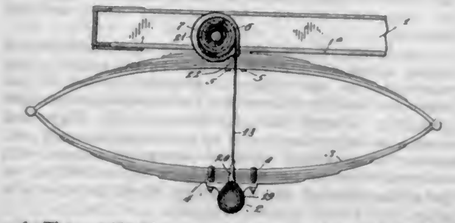
1,130,723. FOOD PRODUCT AND PROCESS OF MAKING SAME. HERMAN FORSCHER, New York, N. Y. Filed Jan. 14, 1914. Serial No. 811,954. (Cl. 99—11.)

1. A process of producing a food product consisting of the following steps: first cooking a mixture of sugar and comminuted meat in about equal quantities by weight until it becomes viscid; second cooling and pulverizing the same; boiling the same with raw eggs and about the same amount of sugar as before until it becomes viscid again; pulverizing it again and finally boiling it with water until it becomes thickened.

2. A process of producing a food product comprising the following steps, cooking a mixture of eggs and pulverized meat and sugar until it becomes viscid, pulverizing it and finally boiling it till it becomes thickened.

3. A cooked food product composed approximately of two parts of granulated sugar and one part of pulverized meat mixed with eggs and reduced to thickened form.

1,130,724. SHOCK-ABSORBING DEVICE. CLAUD H. FOSTER, Cleveland, Ohio. Filed July 21, 1911. Serial No. 639,702. (Cl. 21—105.)



1. The combination, with a pair of relatively movable members, of a shock absorbing device comprising a spiral spring having its inner portion operatively connected with one of such members, a flexible friction band operatively connected to the outer end of said spring and wrapped spirally around the spring a plurality of times, and means connecting said band and the other member.

2. The combination, with a pair of relatively movable members, of a shock absorbing device comprising a spiral spring the inner portion of which is of relatively stiff metal and the outer portion of which is of relatively yielding metal, friction material interposed between convolutions of the outer spring section, means connecting the inner end of the inner spring section with one of the members, and a connection between the outer portion of the outer section and the other member.

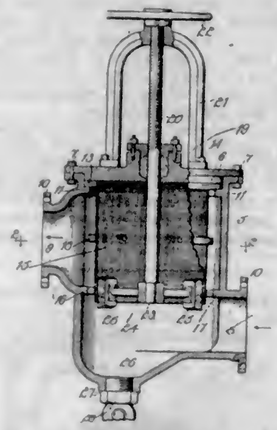
3. The combination, with a pair of relatively movable members, of a shock absorbing device comprising a spiral spring the inner portion of which is of relatively stiff material having convolutions spaced apart and the outer portion of which is of relatively yielding material, means connecting the inner end of the spring with one of the members, friction material interposed between the outermost convolutions of the spring, and means connecting the outer end of the spring with the other member.

4. The combination, with a pair of relatively movable members, of a shock absorbing device comprising a spiral spring the inner portion of which is of relatively stiff material having its inner convolutions spaced apart and the outer portion of which is of relatively yielding material, means connecting the inner end of the spring with one of the members, and means connecting the outer end of the spring with the other member.

5. The combination, with a pair of relatively movable members, of a shock absorbing device comprising a spiral spring having a relatively open central portion, means connecting the inner end of the spring to one of the members, and a flexible device connected to said spring and wrapped spirally around the same a plurality of times and operatively connected to the other member.

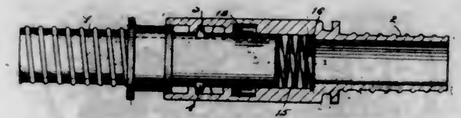
[Claims 6 to 9 not printed in the Gazette.]

1,130,725. LIQUID-STRAINER. FRANK E. GETTS, Chicago, Ill. Filed July 12, 1913. Serial No. 778,628. (Cl. 210—16.)



A liquid strainer comprising a casing having inlet and outlet passages and a blow off passage, a thin cylindrical wire screen in said casing interposed between said inlet and outlet, a plurality of small substantially rectangular brushes bearing on the interior of said screen and disposed at a plurality of substantially equidistant points lying substantially in the same plane on the interior of said screen, a spider having a plurality of arms for supporting said brushes, a screw threaded yoke attached to said casing, a screw threaded shaft passing through said yoke and casing, and secured to said spider, said shaft having motion axially sufficient to move each of said brushes substantially the full length of the screen, and a hand wheel for rotating said shaft.

1,130,726. COUPLING. LOUIS W. GREVE, Cleveland, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 29, 1913. Serial No. 792,329. (Cl. 137—28.)

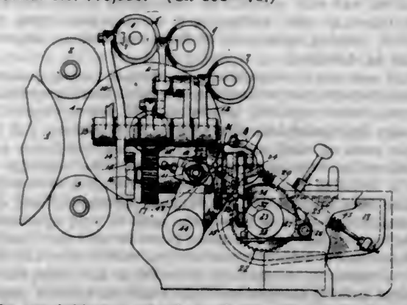


1. In combination in a coupling, a plug member, a sleeve member having its interior of substantially uniform diameter telescopically arranged with respect thereto with a shoulder upon the interior of the sleeve member at the inner end thereof, a bayonet joint connecting means on the interfitting surfaces of the two members, an annular recess in the surface of one of the members between the bayonet joint connecting means and the inner end of the plug member and at a point removed from such inner end, a compression spring between the inner end of the plug member and the said shoulder at the inner end of the sleeve member, and a packing means in the said recess, the said plug member slidably engaging the interior of the sleeve member in advance of the said packing means and to the rear thereof.

2. In combination in a coupling, a plug provided at a point removed from its end with a lug and with a collar to the rear of such lug, a sleeve having its interior of substantially uniform diameter and having upon its interior and removed from its end an interrupted rib, a packing recess provided with packing to the rear of the front end of the plug, a shoulder at the inner end of the sleeve, and a coil spring interposed between the end of the plug and said shoulder, the said inner end of the plug being in sliding engagement with the interior of the sleeve in advance of the packing and said collar fitting slidably in the outer end of the sleeve when the said lug is in locking position in advance of the said rib.

3. In combination in a coupling, a plug, a sleeve with a shoulder at its inner end telescopically arranged with respect thereto, bayonet joint connecting means on the interfitting surfaces of the sleeve and plug, a compression spring lying between the end of the plug and said shoulder comprising a plurality of coils in the sleeve member and pressing against the plug member when the members are in coupled relation, the sleeve having an annular groove in its side walls adjacent the end of the spring and the spring having one of its coils of larger diameter than the other coils and fitting the said groove, whereby the spring is held yieldingly against removal from the sleeve, and packing means between the end of the plug and the bayonet joint connecting means, the said plug having sliding engagement with the sleeve in advance and to the rear of said packing means.

1,130,727. INKING MECHANISM. JOHN J. HALLIWELL, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed June 25, 1913. Serial No. 775,666. (Cl. 101—71.)



In an inking mechanism, the combination with distributing cylinder 4 of horizontal shaft 18 driven therefrom, hub 31 on the shaft, crank 34 adjustably carried in the hub, pawl arm 27 and ball 36 connecting the crank and arm.

1,130,728. TENT. THOMAS HACKERSON, Newark, Ill. Filed July 20, 1914. Serial No. 851,949. (Cl. 135—1.)



1. The combination with a tent, of a pair of oscillatory posts correspondingly offset between their ends, means for pivotally supporting the upper and lower ends of said posts adjacent each other, and means for securing to said posts the tent covering at each side of an opening therethrough.

2. The combination with a tent, of a pair of oscillatory posts correspondingly offset between their ends, means for pivotally supporting the upper and lower ends of said posts adjacent each other, means for securing to said posts the tent covering at each side of an opening therethrough, and means for detachably fastening said posts together intermediate of their ends.

3. The combination with a tent, of an oscillatory post offset between its ends, means for pivotally supporting the upper and lower ends of said post within an opening in the tent covering, means for securing to said post the tent covering at one side of the opening therethrough, and means for retaining said post in position to close the opening.

4. The combination with a tent, of an oscillatory post offset between its ends and having a longitudinal channel in the outer surface thereof, a rope secured at its ends adjacent the top and bottom of said post and lying within the channel therein, a coiled spring interposed between one end of said rope and its connection with the adjacent end of the post, means for securing to said rope the tent covering at one side of the opening therethrough, and means for retaining said post in position to close the tent opening.

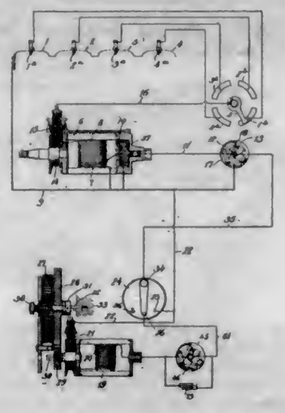
5. In a collapsible tent, the combination with a ridge pole comprising alining separable sections, of a post comprising detachable sections movably connected with one end of said ridge pole, a pair of oscillatory posts correspondingly offset between their upper and lower ends and formed with detachable sections, means for detachably pivotally connecting the upper ends of said pair of posts with the other end of said ridge pole, and means for pivotally supporting the lower end of said pair of posts adjacent each other upon the ground.

[Claim 6 not printed in the Gazette.]

1,130,729. ELECTRICAL IGNITION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. OTTO HEINS, Edgewater, N. J., and CHARLES M. WILD, Springfield, Mass., assignors to Bosch Magneto Company, New York, N. Y., a Corporation of New York. Filed Mar. 19, 1913. Serial No. 755,473. (Cl. 123—184.)

1. In an electrical ignition system for igniting the combustible gases in an internal combustion engine, a service generator having a primary winding and a secondary winding wherein the generator is positively connected to the engine for furnishing sparking voltages thereto from the secondary winding during running, an auxiliary supply of fluctuating current, and electrical connections for conducting the auxiliary supply of fluctuating current into

the primary winding to generate sparking voltages in the secondary winding when the engine is at rest; substantially as described.



2. In an electrical ignition system for igniting the combustible gases in an internal combustion engine; a service generator positively connected to the engine for furnishing sparking voltages thereto during running, an auxiliary generator having driving means independent of the engine for producing current in the auxiliary generator, and electrical connections for conducting the current from the auxiliary generator into the winding of the service generator to generate sparking voltages therein when the engine is at rest; substantially as described.

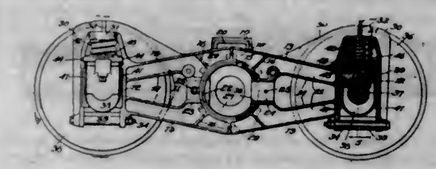
3. In an electrical ignition system for igniting combustible gases in an internal combustion engine, a service generator positively connected to the engine for furnishing sparking voltages thereto during running, an auxiliary supply of current comprising an auxiliary generator having driving means independent of the engine and a mechanical interrupter electrically connected to the auxiliary generator, and electrical connections for conducting the auxiliary supply of current into the winding of the service generator to generate sparking voltages therein when the engine is at rest; substantially as described.

4. In an electrical ignition system for igniting the combustible gases in an internal combustion engine, a service magneto positively connected to the engine for furnishing sparking voltages thereto during running, an auxiliary supply of current comprising an auxiliary magneto having driving means independent of the engine and designed to produce a periodicity of the auxiliary current of a value which is high compared with that produced by the service magneto at normal running speed, and electrical connections for conducting the auxiliary supply of current into the winding of the service magneto to generate sparking voltages therein when the engine is at rest and also to produce therein at some part of each ignition period a resultant voltage capable of generating a satisfactory spark in the engine during running; substantially as described.

5. In an electrical ignition system for igniting combustible gases in an internal combustion engine, a service generator driven from the engine and having rotatable primary and secondary windings, an auxiliary supply of current, a mechanical interrupter driven from the engine and electrically connected to the primary winding of the service generator, electrical connections arranged to conduct the auxiliary supply of current into the primary winding when the interrupter contacts of the mechanical interrupter are separated, and a supplementary switch and electrical connections arranged to effect the flow of the auxiliary supply of current into the primary winding of the service generator when the interrupter contacts are in engagement; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,130,730. CAR-TRUCK. HERBERT H. HEWITT, Buffalo, N. Y. Filed Nov. 25, 1913. Serial No. 802,872. (Cl. 105—243.)



1. A car truck comprising wheels and wheel axles, boxes for receiving the journals of said wheel axles, side frames having pedestal yokes at their ends wherein said boxes are vertically guided, supporting springs interposed between the tops of said boxes and the upper ends of said yokes, said side frames having enlarged, central, cylindrical bearing openings substantially in line with said car axles, a transverse connecting member having car-supporting center and side bearings and provided with end journals arranged within the bearing openings of said side frames, and means for detachably connecting said side frames to said journals in a manner permitting the independent rocking movement of said side frames, substantially as described.

2. A car truck comprising parallel side frames having pedestal yokes at their ends, journal boxes vertically guided in said yokes, supporting springs interposed between the tops of said journal boxes and the upper ends of said yokes, and a truck bolster having car-supporting center and side bearings directly mounted thereon and provided with end journals, said side frames being removably mounted on the end journals of said bolster in manner permitting the limited rocking movement thereof in vertical planes, substantially as described.

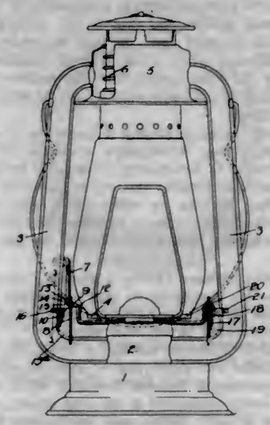
3. A car truck comprising parallel side frames having pedestal yokes at their ends, journal boxes vertically guided in said yokes, supporting springs interposed between the tops of said journal boxes and the upper ends of said yokes, said side frames having central, cylindrical, bearing openings, and a cast metal truck bolster having integral car-supporting center and side bearings, and integral end journals arranged within the bearing openings of said side frames and removably connected thereto, substantially as described.

4. A car truck comprising side frames having pedestal yokes at their ends and enlarged, central, bearing openings, journal boxes vertically guided in said yokes, supporting springs interposed between the tops of said boxes and the upper ends of said yokes, a truck bolster of metal provided with car-supporting center and side bearings directly mounted thereon and having integral, hollow end journals extending into said bearing openings and shoulders at the inner ends of said journals bearing against the inner faces of said side frames, and removable keys extending transversely through the walls of said bearing openings and said journals for detachably connecting said side frame to said bolster in a manner permitting the limited rocking movement of said side frames, substantially as described.

5. A car truck comprising side frames having pedestal yokes at their ends and enlarged, central bearing openings, journal boxes vertically guided in said yokes, supporting springs interposed between the tops of said boxes and the upper ends of said yokes, a truck bolster of metal provided with car-supporting center and side bearings directly mounted thereon, and having enlarged, cylindrical, hollow ends journaled in the bearing openings of said side frames and flanges at the inner ends of said cylindrical ends bearing against the inner faces of said side frames, and means for detachably connecting said bolster and said side frames in a manner permitting the independent limited rocking movement of the latter in vertical planes, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,130,731. LANTERN. JAMES H. HILL, Rochester, N. Y., assignor to Defiance Lantern & Stamping Co., Rochester, N. Y. Filed July 1, 1909. Serial No. 505,400. (Cl. 240—32.)



1. In a lantern, the combination with the air tubes, globe-plate, globe, spring for holding down the globe and plate, and lifting lever, of a bearing-plate for the operating end of the lever, said plate being formed at its upper end with an eye for the lever and a hook or head spaced from the air-tube to permit the passage of the lever from above to below the head and formed with a recess to receive the lever to lock it in position to secure the globe in an elevated position against the tension of said spring, substantially as described.

2. In a lantern, the combination with the air tubes, globe-plate, globe, spring to hold down the globe and plate, and lifting lever, of a bearing plate for the operating end of the lever, said plate having a flange extending at an angle therefrom and formed at its upper end with an eye for the passage of the lever and with a hook or head spaced from the air tube and formed with a notch or recess to receive the lever when in position to support the globe in a raised position, against the tension of said spring, said spring operating to draw the lever against the flange of the bearing-plate when the globe is lowered and the lever into the locking recess when the globe is elevated, substantially as described.

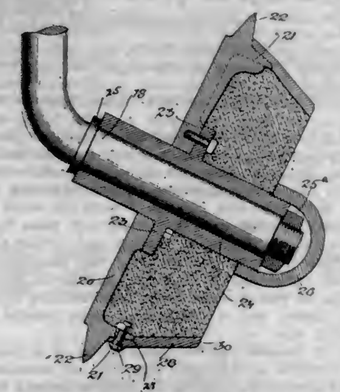
3. In a lantern, the combination with the air tubes, globe-plate, and lifting lever, of a bearing plate for the operating end of the lever, said plate being fitted in the throat of the elbow and secured to the vertical and horizontal portions of the air tube and provided at its upper end with an eye for the passage of the lifting lever and a hook or head spaced from the air tube and formed with a recess to receive the lever when in position to support the globe in an elevated position, substantially a described.

4. In a lantern, the combination with the air-tubes, globe-plate, and lifting lever, of a bearing plate for the operating end of the lever fitted in the throat of the elbow and secured to the vertical and horizontal portions of the air-tube, said plate having a lateral lip or ear secured to the air tube and also formed at its upper end with an eye for the lever and a hook or head spaced from the air tube and formed with a recess to receive the lever when in position to support the globe in its elevated position, substantially as described.

5. In a lantern, the combination with the air tubes, globe-plate, and lifting lever, of angularly-bent bearing-plates for the opposite ends of said lever, said plates being located in the throats of the air-tube elbows and secured to the vertical and horizontally disposed portions of the tubes, the bearing-plate for the operating end of the lever being formed at its upper end with a hook or head spaced from the air-tube to leave a space for the passage of the lever from above to below the head and formed with a recess to receive the lever when in position to support the globe in its raised position, substantially as described.

[Claim 6 not printed in the Gazette.]

1,130,732. WHEELED PLOW. HARRY J. HIRSHHEIMER, La Crosse, Wis., assignor to La Crosse Plow Company, La Crosse, Wis., a Corporation of Wisconsin. Filed Aug. 22, 1912. Serial No. 716,371. (Cl. 97—73.)



1. A plow wheel having a body, an outwardly extending flange and a tread integral with said flange, an extension rim fitting on the periphery of the tread and having its periphery tapered and extending inwardly from that of the tread and means extending through the tread-flange and said rim for removably securing the extension rim on the wheel.

2. A plow-wheel having a body, a tread and an outwardly extending flange at one side of the tread, and an extension rim removably secured to said tread and being provided with a tapered portion to project from the other side of the tread.

3. A plow-wheel having a body, a tread and an outwardly extending flange, an extension rim having an annular seat fitting around the tread of the wheel, and a laterally extending tapered portion, and bolts extending through said extension and the tread of the wheel for securing the extension on the rim.

4. A plow wheel having a body, a tread and an outwardly extending flange, an extension rim having an annular seat fitting around the tread of the wheel, and a laterally extending tapered portion, and bolts extending through said extension and the tread of the wheel for securing the extension on the rim.

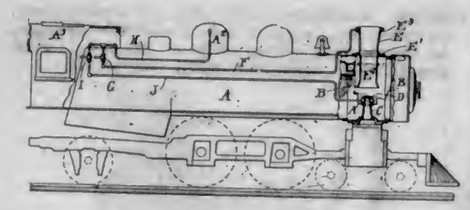
5. A plow-wheel having a hub, a solid wall, a tread at one side thereof and an extension rim having its inner periphery tapered from the tread laterally and toward the axis of the wheel to retain a plastic filling adjacent said wall.

1,130,733. LOCOMOTIVE SMOKE-LIFTER. HARRY A. HOKE, Altoona, Pa. Filed Jan. 2, 1914. Serial No. 809,819. (Cl. 110—150.)

1. In a locomotive, the combination with the locomotive smokestack of means for discharging steam at the top of said stack in upwardly and inwardly directed jets disposed around the circumference of the stack at the top thereof adapted to lift the smoke issuing from the stack well above the upper end of the latter.

2. In a locomotive, the combination of a locomotive smokestack provided at its upper end with a chamber surrounding the passageway for smoke, and with nozzle passages leading upwardly and inwardly therefrom so that steam supplied to said chamber will issue from said passages in jets impinging against and lifting the body of

gaseous products issuing from the smokestack well above the upper end of the latter, and means for supplying steam to said chamber from the locomotive boiler comprising piping and a controlling valve located in the locomotive cab.

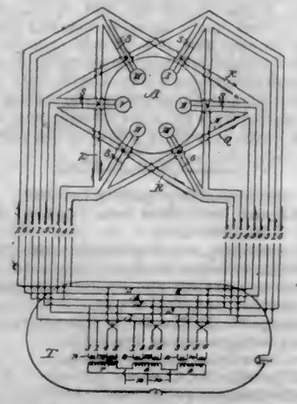


3. In a locomotive, the combination with the locomotive smokestack provided at its upper end with a chamber surrounding the pasasgeway for smoke and with a plurality of small size nozzle passages leading upwardly and inwardly therefrom, and inclined toward the stack axis so that steam supplied to said chamber will issue from said passages in jets impinging against and lifting the body of gaseous products issuing from the smokestack well above the upper end of the latter, and means for supplying steam to said chamber from the locomotive boiler comprising piping and a controlling valve located in the locomotive cab.

4. In a locomotive, the combination of a locomotive stack provided at its upper rim with an annular steam chamber surrounding the smoke passage through the stack and having a series of small orifices so directed that steam jets issuing therefrom will focus at a point in the axis of the stack some distance above the top of the latter so that the body of gaseous products issuing from the smokestack will be lifted well above the upper end of the latter, and a steam pipe connecting said chamber to the boiler.

5. In a locomotive, the combination with the locomotive smokestack of means for discharging steam at the top of said stack in upwardly directed jets inwardly inclined somewhat toward the axis of said stack and uniformly distributed about the latter, said jets being adapted to lift the smoke issuing from the stack well above the upper end of the latter.

1,130,734. ELECTRIC FURNACE. WILLIAM SMITH HORRY, Niagara Falls, N. Y., assignor to Union Carbide Company, New York, N. Y., a Corporation of Virginia. Filed Jan. 21, 1914. Serial No. 813,534. (Cl. 204—64.)



1. An electric furnace having a multiplicity of electrodes, means for supplying multiphase currents thereto, each of said electrodes receiving current of different phase from that of neighboring electrodes and by different routes from the source of current, each route being interlinked with others carrying currents of opposing phase.

2. An electric furnace having a multiplicity of symmetrically disposed electrodes, means for supplying multiphase currents thereto, each of said electrodes receiving current of different phase from that of neighboring electrodes and by different routes from the source of current, each route being interlinked with others carrying currents of opopsing phase.

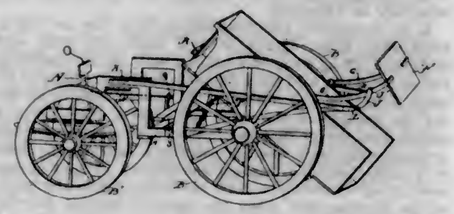
3. An electic furnace having a plurality of electrodes, means for supplying multiphase currents thereto comprising a plurality of conductors in parallel for each phase leading to said electrodes, the conductors for each electrode extending thereto by different routes, each route being interlinked with others carrying current of opposing phase, whereby the self-induction of the system is minimized.

4. An electric furnace having a plurality of sets of electrodes, means for supplying to said electrodes a plurality of independent three-phase currents, each set of electrodes being delta-connected to its own supply.

5. An electric furnace having a plurality of sets of electrodes, means for supplying to said electrodes a plurality of independent 3-phase currents, each set of electrodes being delta-connected to its own supply, a plurality of conductors in each phase, said conductors being interlinked with others carrying current of opposing phase.

[Claims 6 and 7 not printed in the Gazette.]

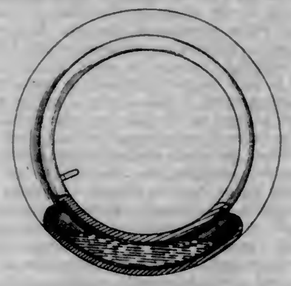
1,130,735. AUTOMATIC DUMPING AND READJUSTING WAGON. JOHN F. HUGHES, Darby, Pa. Filed Nov. 11, 1908. Serial No. 462,043. (Cl. 21—20.)



1. In a dumping wagon having a frame, the combination of a pivotally supported wagon body, the center of gravity of said body when empty being forward of its pivot and the center of gravity of the combined body and load carried thereby being in rear of said pivot, a tail-board for said body, curved levers pivoted to said body and rigidly secured to said tail-board, bifurcated arms carried by said frame, and slidably supporting said levers in rocking relation therewith, and a spring carried by said frame tending to uplift the forward end of said body and thereby supplement the action of gravity and forming a buffer for said body when returned to its normal position, after being dumped.

2. In a dumping wagon having a frame, the combination of a tiltable body pivoted to rock on said frame, its greater portion extending rearward of its pivotal axis, a relatively movable tail-board for said body, downwardly curved levers pivoted to said body and secured to said tail-board, means supporting the curved portion of said levers in slidable rocking relation, and means tending to uplift the forward end of said body and operative as a buffer when said body is returned to its normal position, and means for locking said body in normal position opposed to said buffer, the curved levers being coöperative with their supporting means to effect the greatest leverage upon the wagon body when in its dumped position, said leverage gradually diminishing as said body is returned to its normal position.

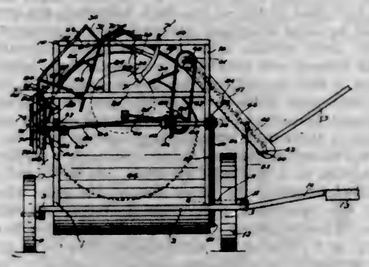
1,130,736. PROCESS OF PRESERVING RUBBER. ISRAEL D. JEWETT, St. Paul, Ind. Filed Aug. 19, 1913. Serial No. 785,482. (Cl. 134—1.)



1. The process of preserving rubber which consists of coating its surface with a mixture of glycerin and syrup.

2. The process of preserving rubber which consists of coating its surface with a mixture of glycerin and corn syrup in substantially equal parts.

1,130,737. SHOCKING-MACHINE. GUDMUNDUR JOHNSON, Glenboro, Manitoba, Canada. Filed Feb. 10, 1913. Serial No. 747,361. (Cl. 56—121.)



1. The combination comprising a portable main frame, a sheaf receiving and shock forming basket having one end thereof closed and the other end open and provided with an opening in the upper side thereof designed to admit sheaves to the basket, a rotatably mounted cross shaft carried by the main frame and secured permanently to the closed end of the basket, said shaft having a cranked end, a rotatably mounted counter shaft carried by the frame, means for driving the counter shaft, a trip mechanism normally engaging with the basket and suspending the same normally in the horizontal position, pressure bars engageable with the trip mechanism and extending within the basket, said bars being designed when pressed to release the trip mechanism, an operating wheel rotatably mounted on the counter shaft, a rod connecting the wheel with the cranked end of the cross shaft, a disk fixed on the counter shaft and adjoining the actuating wheel, normally depressed means carried by the operating wheel and engageable with the disk and means actuated by the trip mechanism for releasing said latter means to couple said actuating wheel to the disk, as and for the purpose specified.

2. The combination comprising a portable main frame, a sheaf receiving and shock forming basket having one end thereof closed and the other end open and provided with an opening in the upper side thereof designed to admit sheaves to the basket, a rotatably mounted cross shaft carried by the main frame and secured permanently to the closed end of the basket, said shaft having a cranked end, a rotatably mounted counter shaft carried by the frame, means for driving the counter shaft, a trip mechanism normally engaging with the basket and suspending the same normally in the horizontal position, pressure bars engageable with the trip mechanism and extending within the basket, said bars being designed when pressed to release the trip mechanism, an actuating wheel rotatably mounted on the counter shaft and provided with an extending concentric flange with openings therein, said wheel having a notch in the periphery thereof, a rod connecting the actuating wheel with the cranked end of the cross rod, a disk fixed on the counter shaft and provided with a concentric flange which receives a portion of the latter flange, said disk flange having a series of suitably located openings therein, a spring pressed slidably mounted detent carried by the operating wheel, pins extending from the detent and entering the openings aforesaid in the flange of the operating wheel, one of said pins being longer than the other and passing to the side of the disk flange, a spring bar carried by the frame and provided with an offset end arranged to enter the notch in the actuating wheel and engage with and depress the long pin and means actuated by the trip device for withdrawing the offset end of the spring bar from the notch, as and for the purpose specified.

1,130,738. SYRUP-PITCHER. JAMES SAMUEL JONES, Harrison, Ark. Filed Dec. 27, 1913. Serial No. 809,069. (Cl. 65—31.)



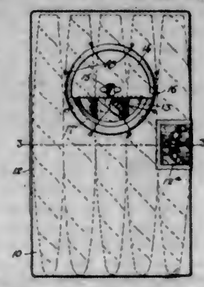
In a device of the character described, a receptacle, a spout therefor, there being a drip chamber between the rim of the receptacle and the spout, the spout having a lateral opening leading from the drip chamber to the interior of the receptacle, a clip including a body portion resting snugly against the outer side of the spout above the said opening, the body portion of the clip having an upper flexible tongue bent back over the upper end of the spout and a lower flexible tongue projecting through the said opening and bent upwardly, and a cap hinged to the body portion of the clip and seatable on the upper end of the spout.

1,130,739. RECEPTACLE FOR CIGARS OR THE LIKE. MAX L. KAUFMANN, New York, N. Y. Filed Apr. 15, 1913. Serial No. 761,180. (Cl. 206—41.)

1. A receptacle for cigars dimensioned to accommodate a predetermined number of cigars or the like and comprising two sections movable relatively to each other to permit a removal of the contents, one of said sections being provided in its face with an opening of a size to expose the contents to view but to prevent the removal of said contents therethrough and a cover movable relatively to said one section and arranged to expose or close said opening.

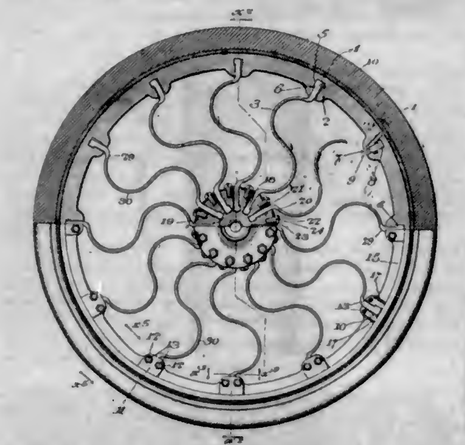
2. A receptacle for cigars dimensioned to accommodate a predetermined number of cigars or the like and comprising two sections movable relatively to each other to permit a removal of the contents, one of said sections being provided in its face with an opening of a size to expose the

contents to view but to prevent the removal of said contents therethrough, an annular guide surrounding said opening and a cover rotatable in said guide to expose or



close said opening, said one section being provided with a series of relatively small ventilating apertures located about said guide.

1,130,740. SPRING-WHEEL. WESLEY E. KEESEE, Los Angeles, Cal. Filed Nov. 6, 1913. Serial No. 799,474. (Cl. 152—50.)



1. In a spring wheel, a hub provided with a plurality of spoke receiving recesses, the inner end of each recess being larger than the outer, a plurality of spring spokes, a single spoke fitting in each recess against one wall thereof, the inner end of the spoke being larger than that portion of the spoke at the outer end of the recess, and a wedge tapering radially and adjustable radially in said recess and bearing against the outer wall of the recess, and against the spoke and holding it in engagement with the other wall of the recess, means for adjusting said wedge radially, a felly, and means securing the outer end of the spoke to the felly.

2. In a spring wheel, a hub provided with a spoke receiving recess, the inner end of the recess being larger than the outer, a spring spoke fitting in said recess, the inner end of the spoke being larger than that portion of the spoke at the outer end of the recess, a wedge in said recess removably independent of the spoke and bearing against the spoke and holding it in engagement with the wall of the recess, a felly, means securing the outer end of the spoke to the felly, and a series of plates detachably secured to the periphery of said hub and extending over the respective outer ends of said wedges to detachably retain the wedges in position.

3. In a spring wheel, a hub provided with a spoke receiving recess, the inner end of the recess being larger than the outer, a spring spoke fitting in said recess, the inner end of the spoke being larger than that portion of the spoke at the outer end of the recess, a wedge in said recess bearing against the spoke and holding it in engagement with the wall of the recess, a felly, means securing the outer end of the spoke to the felly, a stud in said hub, the hub being recessed on its outer face, a plate in said recess and projecting over the outer end of the wedge, said stud extending through the plate, and a nut screwed on the stud to hold the plate against the end of the wedge.

4. In a spring wheel, a hub, a felly, a spring spoke with its inner end secured to the hub, the felly having a series of enlargements, each enlargement having a recess formed with a shoulder, the spoke having its end portion formed with a shoulder engaging the shoulder in the recess, a wedge in said recess, bearing against the spoke and holding said shoulders interlocked, said recess opening through the side wall of the enlargement, said enlargement having rabbeted recesses, a plate with flanges fitting said rabbeted recesses and bearing against the side of the spoke and wedge, and studs detachably securing said plate.

1,130,741. LEAD-PENCIL. CHARLES R. KEERAN, Bloomington, Ill. Filed Oct. 10, 1913. Serial No. 794,508. (Cl. 120—18.)



1. In a lead pencil of the class described, the combination of an outer sheathing constituting a chambered body, a core piece within said body extending partially the length thereof and formed with an axial bore adapted to receive a lead, a follower for forcing said lead through said bore, said follower being enlarged for a portion of the length thereof and exteriorly threaded on said enlarged portion, a threaded surface located interiorly of the body, adapted to receive the threads on said head, a hollow member serving as a magazine for leads, the outer end of the magazine abutting the inner end of the core when the parts are assembled, means for centering the abutting edges of the magazine and core, said magazine having a sliding and turning fit within said chambered portion, said magazine engaging the threaded portion of the follower, and means located exteriorly of said casing for turning the magazine, substantially as described.

2. In a lead pencil of the class described, the combination of a body, a core piece within said body extending partially the length thereof, an interiorly threaded sleeve within the body extending from the inner terminus of the core to the rear end of the body, said core having an axial bore adapted to receive a lead, a follower for forcing the lead through said bore, said follower being enlarged for a portion thereof, and exteriorly threaded to mesh with the threads on said sleeve, a hollow member serving as a magazine for leads, said magazine having a sliding and turning fit within said sleeve, said magazine engaging the threaded portions of the follower, and means exteriorly of said casing for turning the magazine, substantially as described.

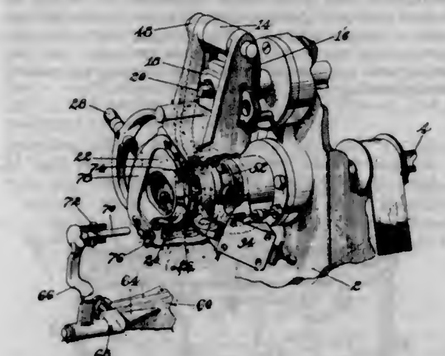
3. In a lead pencil of the class described, the combination of a sheathing forming a chambered body, a core piece in said body extending partially the length thereof, and provided with an axial bore to receive a lead, a follower for forcing the lead through said bore embodying an exteriorly threaded head, the interior of said chamber being provided with a threaded surface for receiving the threads on said head, a chambered magazine member having a rotating and sliding fit in said chamber and engaging said head, means exteriorly of said sheathing for rotating said magazine member, said member serving as a stop for limiting the non-rotative outward movement of the magazine member from the body, whereby the amount of retraction thus allowed the magazine gives an indication of the amount of lead remaining in the pencil, substantially as described.

4. In a lead pencil of the class described, the combination of a sheathing forming a chambered body, a core piece in said body, an axial bore in said core to receive a lead, a follower for forcing the lead through the bore embodying an exteriorly threaded head, a magazine comprising shell-like members arranged to lie upon opposite sides of said head, said members having a sliding and rotatable fit in said chambered portion, the outer end of the magazine portion abutting the inner end of the core, means for centering said abutting ends, a threaded surface in said chamber for receiving the threads on said head, and means exteriorly of said sheathing for turning said magazine portion, substantially as described.

5. In a lead pencil of the class described, the combination of a sheathing forming a chambered body, a core piece in said body extending partially the length thereof and provided with an axial bore to receive a lead, a follower for forcing the lead through the bore embodying an exteriorly threaded head, a sleeve within said sheathing provided with an interior thread with which the threads on the head engage, said sleeve extending from the rear end of the core to the rear of the sheathing, a magazine comprising companion members of shell-like formation adapted to lie upon each side of the head, said member having a slidable and rotatable fit in said sleeve, and means exteriorly of said head for rotating said magazine, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,130,742. TRIMMING-MACHINE. EUGENE L. KEYES, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 7, 1913. Serial No. 759,421. (Cl. 12—92.)



1. A machine for operating upon an insole attached to the bottom of a last having, in combination, means for trimming the edge of the insole, means for beveling the margin of the bottom face of the insole, means for positioning the last and the insole to present the insole in operative relation to said trimming and beveling means, and means for variably controlling the relative positions of the insole and the beveling means so as to insure the formation of a bevel of constant depth.

2. A machine for operating upon an insole attached to the bottom of a last having, in combination, means for trimming the edge of the insole, means for beveling the margin of the bottom face of the insole, means for positioning the last and the insole to present the insole in operative relation to said trimming and beveling means, and means arranged to control by contact with the insole the position of the beveling means with reference to said last and insole positioning means.

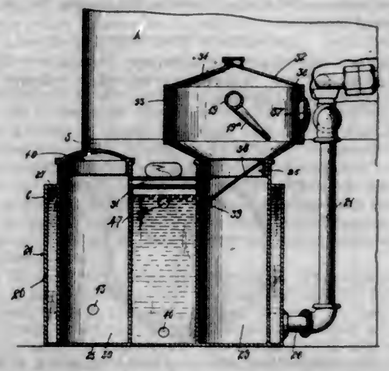
3. A machine for operating upon an insole attached to the bottom of a last having, in combination, a cutter for trimming the edge of the insole, a cutter for beveling the margin of the bottom face of the insole, a guide upon which to position the last with the insole in operative relation to said cutters, the beveling cutter being adjustable toward and from said guide in directions transverse to the plane of the insole, and means for effecting said adjustment of the beveling cutter in accordance with the thickness of the insole presented.

4. A machine for operating upon an insole attached to the bottom of a last having, in combination, a cutter for trimming the edge of the insole, a cutter for beveling the margin of the bottom face of the insole, a guide upon which to position the last with the insole in operative relation to said cutters, said guide including means for supporting the insole on the side adjacent to the last, the beveling cutter being adjustable in directions toward and from said guide, a presser member arranged to contact yieldingly with the bottom face of the insole, and connections from said member to the beveling cutter for adjusting the position of said cutter in accordance with the thickness of the insole.

5. A machine of the class described having, in combination, a rotary edge trimming cutter, a second rotary cutter arranged to operate simultaneously therewith to bevel the work, an abutment or rest upon which to position the work in operative relation to said cutters, and automatic means for varying the relative positions of said abutment and the beveling cutter so as to regulate the depth of the bevel.

[Claims 6 to 29 not printed in the Gazette.]

1,130,743. TURPENTINE-DISTILLING APPARATUS. HENRY E. BRYANT, Jacksonville, Fla., assignor to American Patent Manufacturing Company, Jacksonville, Fla., a Corporation of Arizona. Filed Sept. 5, 1911. Serial No. 647,659. (Cl. 203—3.)

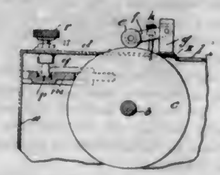


In a distilling apparatus, the combination with a tank adapted to contain a cooling agent, of a separating tank located within the cooling tank, a casing mounted on top of the separating tank, a turpentine discharge pipe extending through the casing and provided with a discharge nozzle, a turpentine receiver also located within the cooling tank and spaced apart from the separating tank, a pipe connecting the upper portions of the separating tank and the turpentine receiver, and a glass test strip obliquely disposed within said tank adjacent to a window in said tank and beneath said nozzle and removable for ascertaining the character of the discharge from said nozzle.

1,130,744. ADHESIVE-APPLYING MECHANISM. ELIE W. LABOMBARDE, Nashua, N. H. Original application filed Dec. 7, 1909, Serial No. 531,860. Divided and this application filed Nov. 26, 1910. Serial No. 594,304. (Cl. 91—51.)

1. In a machine having carrier-belts for rapidly and continuously moving blanks in close succession, a continuously operating wheel for applying glue to the blanks following each other through the machine, a glue receptacle having a cover provided with two narrow slots in aline-

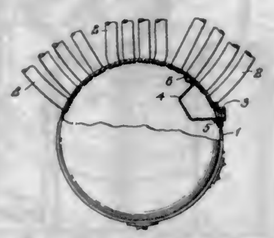
ment, said wheel being mounted in the receptacle and projecting through one of the slots, means in said receptacle for preventing the rapidly moving wheel from carrying up an excessive quantity of glue, and means located between the two slots in the cover for detaching glue strings that tend to follow the blanks to permit such strings to drop through the second slot directly into the receptacle.



2. In a device of the character described, a glue receptacle having a slotted cover, a wheel or disk having a portion of its periphery projecting through the slot of the cover, said cover being in a lower plane at the rear of the wheel or disk, the portion of the cover which is in the lower plane having an opening to permit the return of glue strings to the interior of the receptacle.

3. In a device of the character described, the combination with a glue receptacle having a slotted cover and a disk or wheel partially projecting through the slot of the cover, of a longitudinally adjustable scraper located within the receptacle and extending along the sides of the wheel or disk, means being provided for preventing lateral movement of the scraper relatively to the wheel or disk, adjusting means for said scraper comprising abutments carried by the scraper, a cam between said abutments, means for adjusting said cam, and means for locking the cam in adjusted position.

1,130,745. WATER-TUBE BOILER. GEORGE T. LADD, Pittsburgh, Pa. Filed Jan. 22, 1914. Serial No. 813,779. (Cl. 122—302.)



1. The combination with a water tube boiler of a removable box arranged in one of the drums to inclose and isolate the ends of a portion of the tubes connected to said drum and the feed or blow-off nozzle.

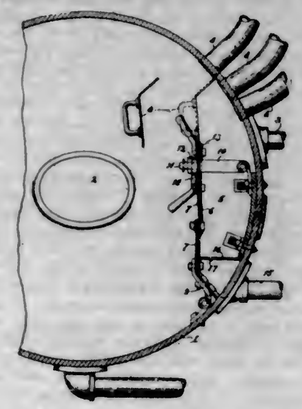
2. The combination of a water tube boiler of a hinged box arranged within one of the drums to inclose and isolate the ends of a portion of the tubes connected to said drum and the feed or blow-off nozzle, and removable means for holding the box in closed position.

1,130,746. WATER-TUBE BOILER. GEORGE T. LADD, Pittsburgh, Pa. Filed Sept. 21, 1914. Serial No. 862,710. (Cl. 122—393.)

1. The combination with a water tube boiler, of a box arranged in one of the drums to inclose and isolate the ends of a portion of the circulating tubes, and the blow-off nozzle, and a perforated partition interposed between the ends of the tubes and the blow-off nozzle.

2. The combination with a water tube boiler, of a box arranged in one of the drums to inclose and isolate the ends of a portion of the circulating tubes and the feed and blow-off nozzles, a portion of the side or outer wall of the box being detachable.

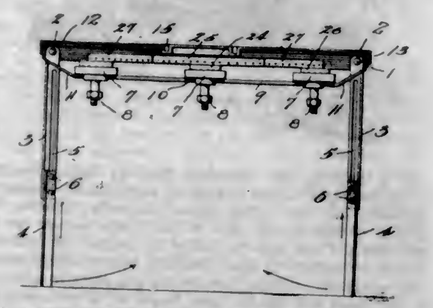
3. The combination with a water tube boiler, of a box hinged to the drum and adapted to inclose and isolate the ends of a portion of the circulating tubes and the feed and blow-off nozzles, a portion of the main or outer wall of the box being detachable.



4. The combination with a water tube boiler, of a box hinged to the drum and adapted to inclose and isolate the ends of a portion of the circulating tubes and the feed and blow-off nozzles, a portion of the box being detachable, and means for holding the box and detachable portion in operative position.

5. The combination with a water tube boiler, of a box arranged in one of the drums to inclose and isolate the ends of a portion of the circulating tubes and the feed and blow-off nozzles, said box being provided with a chamber surrounding the outlet of the blow-off nozzle and connected with the portion of the box inclosing the ends of the circulating tubes.

1,130,747. LIQUID AND GASEOUS FUEL BURNER. ANTONIO LOZANO, Corpus Christi, Tex. Filed June 13, 1914. Serial No. 844,873. (Cl. 158—116.)

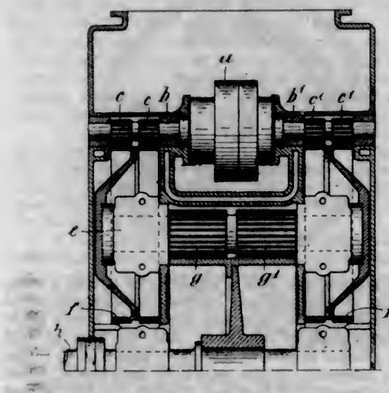


1. A burner cap comprising two inverted cups with perforations in their walls, a tubular member superposed on said cups, and having perforations therein, and a central partition separating said member into compartments opening into the cups.

2. A burner cap comprising spaced inverted cups each having an annular serrated flange therein and perforations in its walls, and a tubular member superimposed upon said cups with perforations in its walls and opening into said cups.

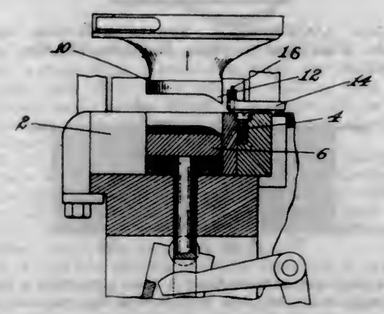
3. The combination with a gaseous fuel stove of a sectional burner comprising a plurality of sections each having an open bottom inverted cup and a perforated tubular member superimposed thereon, and said sections co-acting with each other to afford an alined sectional burner, substantially as described.

1,130,748. TOOTHED GEARING FOR STEAM-TURBINES. BIRGER LJUNGSTRÖM, Stockholm, Sweden, assignor to Aktiebolaget Ljungströms Ångturbin, Liljeholmen, Sweden. Filed Mar. 14, 1913. Serial No. 754,331. (Cl. 74—7.)



In gearing for steam-turbines of the double rotating type, a pair of shafts in the same axial line but rotating in opposite directions, a pair of wheels respectively mounted on said shafts and turning therewith, a shaft having two large wheels mounted thereon and turning therewith, one of which wheels directly meshes with one of the pair of wheels first mentioned, an additional gear wheel transmitting motion from the other wheel of the first pair to the corresponding wheel of the second pair, a wheel smaller than those of the second pair arranged between them on the same shaft to turn therewith, a driven shaft and a wheel mounted thereon and turning therewith engaging said smaller wheel and arranged between and in proximity to the wheels of the second pair.

1,130,749. COMPRESSING-MACHINE. THOMAS LUND, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 6, 1909. Serial No. 470,965. (Cl. 12—48.)



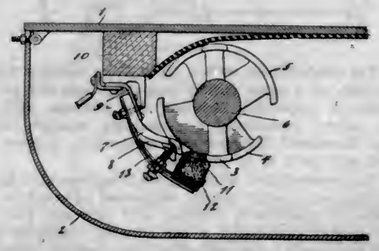
1. In a compressing machine, the combination of a mold adapted to receive a blank to be compressed, means for feeding a blank to said mold, and means arranged to enter the mold cavity for removing a compressed blank from the mold in the direction of the feeding movement.

2. In a compressing machine, the combination of a mold adapted to receive a blank to be compressed, means for feeding a blank to said mold, and means, carried by said feeding means and arranged to enter the mold cavity, for removing a compressed blank from the mold during the feeding movement.

3. In a compressing machine, the combination of a mold adapted to receive a blank to be compressed, feeding mechanism, comprising a pair of fingers, for feeding a blank to said mold, and yielding blank engaging devices carried by said fingers and arranged to engage with and remove a compressed blank from the mold.

4. In a compressing machine, the combination of a mold adapted to receive a blank to be compressed, feeding mechanism, comprising a pair of gripping fingers, for feeding a blank to said mold and spring pressed pins carried by the fingers and adapted to enter the mold and push the compressed blank therefrom.

1,130,750. CONTACT-OILER. PETER GRAHAM MACGREGOR, New York, N. Y., assignor to Peter G. MacGregor, Edward M. Davidson, and Peter L. Wilbur. Filed Dec. 13, 1912, Serial No. 736,644. Renewed July 18, 1914. Serial No. 851,815. (Cl. 172—179.)



1. In a device of the class described, the combination with a series of movable contacts, of a series of independent non-rotatable absorbent members each positioned to engage one of said contacts and to be compressed thereby, and a series of independent resilient members upon each of which one of said absorbent members is mounted.

2. In a device of the class described, the combination with a series of movable contacts and contact fingers positioned to engage therewith, of a series of independent non-rotatable absorbent members each positioned to engage one of said contacts and to be compressed thereby, and a series of independent resilient members each operating in conjunction with one of said contact fingers and upon each of which one of said absorbent members is mounted.

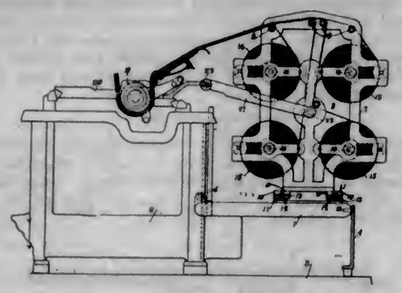
3. In a device of the class described, the combination with a movable contact, of an absorbent member having its inner surface projecting beyond the path of said contact member and having its forward edge beveled so that as the same is engaged by said contact it is first compressed and then raised by the further movement of the contact and caused to pass over the face thereof, and a resilient member upon which said absorbent member is mounted.

1,130,751. MANIFOLDING DEVICE FOR TYPE-WRITING MACHINES. AXEL C. V. MALM, LEOPOLD RAUH, and CHELSEA R. AKER, Dayton, Ohio, assignors to The Egry Register Company, Dayton, Ohio, a Corporation of Ohio. Filed July 20, 1914. Serial No. 852,024. (Cl. 197—133.)

1. The combination, with a typewriting machine having a carriage, of a paper carrier supported adjacent to said machine, and a connection between said carriage and said paper carrier, whereby the movement of the former will impart movement to the latter, said connection being such as to permit said carriage to have movement relatively to said paper carrier during the normal operation of said parts.

2. The combination, with a typewriting machine having a carriage, of a paper carrier, supported adjacent to said machine, and a connection between said carriage and said paper carrier constructed and arranged to yield during the normal movement of said carriage.

3. The combination, with a typewriting machine having a carriage, of a paper carrier supported adjacent to said machine, and a connection between said carriage and said paper carrier comprising a spring arranged to be placed under tension by the normal movement of said carriage.



4. The combination, with a typewriting machine having a carriage, of a paper carrier supported adjacent to said machine, a connection between said carriage and said paper carrier comprising a connecting member, and a spring interposed between said connecting member and one of said parts to be connected.

5. The combination, with a typewriting machine having a carriage, of a paper carrier supported adjacent to said machine, a connection between said carriage and said paper carrier comprising a bar slidably connected with one of said parts to be connected, and a spring interposed between said bar and said part to be connected.

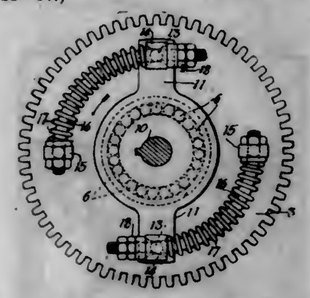
[Claims 6 to 10 not printed in the Gazette.]

1,130,752. SEED-GERMINATOR. ELMER E. MARSHALL, Erie, Kans. Filed Mar. 13, 1913. Serial No. 754,084. (Cl. 47—30.)



A seed germinator comprising in combination; a casing having moist heat generating means in the lower portion thereof, a plurality of perforated supporting trays positioned to closely fit the casing transversely thereof to close transmission of moist heat laterally of said trays, and devices for supporting said trays in superposed spaced relation above said generating means thereby causing the moist heat to successively pass through the contents of the trays from the lowermost to the uppermost, the said casing having an opening above the uppermost tray, as and for the purpose set forth.

1,130,753. DRIVING MECHANISM FOR ROTARY VALVES. CYRUS E. MEAD, Dayton, Ohio, assignor to The Mead Engine Company, Dayton, Ohio, a Corporation of Ohio. Filed Mar. 7, 1912. Serial No. 682,313. (Cl. 121—97.)



1. The combination, with a rotary valve having a stem, of a driving member having a curved slot therein mounted independently of said valve and adapted to rotate about an axis substantially coincident with the axis of said valve, of a sleeve to receive said valve stem and to rotate in unison therewith, an arm carried by said sleeve, a bolt extending through said arm and through the slot in said driving member, said bolt having an apertured head, a curved rod mounted on said driving member, extending through the apertured head of said bolt and having a stop at a point remote from said apertured head, and a spring confined between the apertured head of said bolt and said stop.

2. The combination, with a rotary valve having a stem, of a driving member having a curved slot therein mounted independently of said valve and adapted to rotate about an axis substantially coincident with the axis of said valve, of a sleeve to receive said valve stem and to rotate in unison therewith, an arm carried by said sleeve, a bolt extending through said arm and through the slot in said driving member, said bolt having an apertured head, a curved rod mounted on said driving member, extending through the apertured head of said bolt and having a stop at a point remote from said apertured head, a spring confined between the apertured head of said bolt and said stop, and adjustable means for limiting the movement of said bolt with relation to said rod.

1,130,754. LOCK-STRIKE. EDWARD A. MILLER, Ionia, Mich. Filed Nov. 11, 1914. Serial No. 871,490. (Cl. 70—15.)



1. A lock strike, comprising a base plate and a block projecting from the plate and having its outward side or face inclined, the said plate being longer than the width of the block, and the said block having a groove formed below its front edge next to the said plate and extending lengthwise with respect to the said plate, one side of the groove being flush with the surface of the plate.

2. A lock strike, comprising a base plate and a block projecting from the plate and having its outward side or face inclined, the said plate being longer than the width of the block, the said inclined side being greater in width than the said base plate, and the said block having a groove formed below its front edge next to the said plate and extending lengthwise with respect to the said plate, one side of the groove being flush with the surface of the plate.

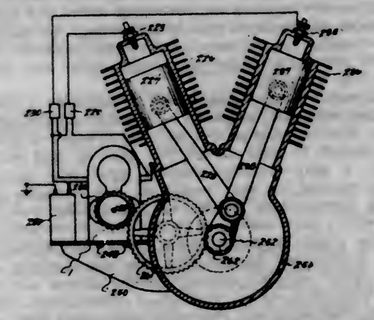
3. A lock strike, comprising a base plate and a block projecting from the plate and having its outward side or face inclined, the said plate being longer than the width of the block, the rear of the said block being formed flush with the back of the said plate, the said block being greater in width than the said plate and the front edge of the block being constructed to project beyond the front edge of the said plate, and the said block having a groove formed below its front edge next to the said plate and extending lengthwise with respect to the said plate, one side of the groove being flush with the surface of the plate.

4. A lock strike, comprising a base plate and a block projecting from the plate and having its outward side or face inclined, and the said block having grooves formed next to the said plate and partly separating the block from the plate, one side of each groove being flush with the surface of the plate.

5. A lock strike, comprising a base plate and a block projecting from the plate and having its outward side or face inclined, the said block being greater in width than the said base plate, and the said block having grooves formed next to the said plate below the front edge of the block and on two sides of the block partly separating the block and plate, one side of each groove being flush with the surface of the plate.

[Claim 6 not printed in the Gazette.]

1,130,755. ELECTRIC GENERATOR. JOHN LEWIS MILTON, Anderson, Ind. Filed May 15, 1914. Serial No. 838,650. (Cl. 123—149.)



1. An electric ignition generator including in combination, a timer shaft, a generating rotor, and gearing connecting said timer shaft and the shaft of said rotor, whereby said rotor is driven at a higher rate of speed than said timer shaft with a single source of current, said parts forming a single unit.

2. An electric ignition generator having in combination, a timer shaft a generating rotor, gearing connecting said timer shaft and the shaft of said rotor, whereby said rotor is driven at a higher rate of speed than said timer shaft, and an adjustable timer member with a single source of current, said parts forming a single unit.

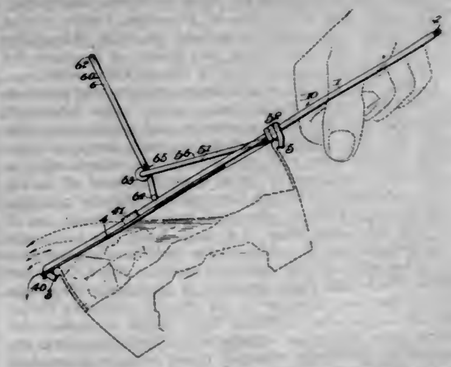
3. An electric ignition generator including, in combination, a generating rotor, a shaft for said generating rotor, a timer having an adjustable member and a shaft other than the rotor shaft, and a single piece containing a bearing for said timer shaft, a bearing for the shaft of said generating rotor, and having a boss for supporting the adjustable member of said timer.

4. An electric ignition generator having in combination, a timer shaft an adjustable timer member, a plurality of notches in said timer member, a spider having prongs adapted to fit in said notches, and a cover adapted to exert pressure on said spider, whereby said prongs are prevented from coming out of said notches.

5. An electric ignition generator, including in combination, an adjustable member, notches in said adjustable member, a spider having a plurality of prongs adapted to fit in said notches, and a stationary cover adapted to exert pressure against spider, whereby said prongs are retained in said notches.

[Claims 6 to 19 not printed in the Gazette.]

1,130,756. STRAINER ATTACHMENT FOR COOKING UTENSILS. THOMAS J. NASH, Lincoln, Nebr. Filed Mar. 16, 1914. Serial No. 824,980. (Cl. 53—8.)



1. An appliance of the character stated, comprising a main or body frame, including side members whose outer ends terminate in hooks for engaging over one edge of a cooking utensil, a second frame of spring wire bent to form a cross member and side arms, the latter having loops that slidably engage the side members of the main frame and whose ends terminate in hooks for engaging the other edge of the cooking utensil and a third frame pivotally mounted on the cross member of the second frame to fold flatwise with respect to the said second frame and the main frame, the said third frame having cam-like extensions for engaging the side arms of the main and the second frames, whereby, when the said third frame is swung up, tension is applied to the side arms of the second frame for causing its loops to frictionally bind upon the side arms of the main frame, and a strainer plate secured flatwise upon the outer ends of the side arms of the main frame.

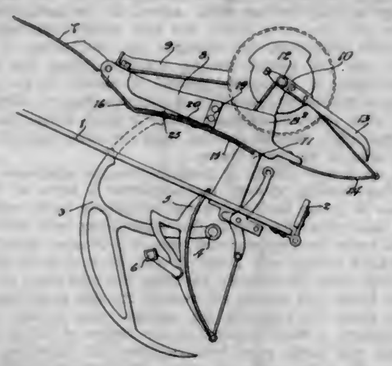
2. As a new article of manufacture, an appliance for holding cooking utensils that embodies a main or body frame of spring wire and which includes a cross member and side arms, the ends of the latter being bent down to form hooks for engaging one edge of a cooking utensil, a U-shaped spring wire frame having its side arms coiled to form loops for slidably engaging the side arms of the main frame and having the ends of its side arms bent to form hooks for engaging the opposite edge of the cooking utensil, a third U-shaped frame formed of spring wire whose side arms have bent portions for engaging the upper side of the side arms of the slidable frame, said portions terminating with loops that pivotally engage the cross member of the slidable frame, said loops terminating in crank-like extensions including outwardly projected members that engage the upper face of the side arms of the main frame and so arranged relatively to the main and the sliding frame whereby when the U-shaped frame is swung to the vertical position, tension is applied to the U-shaped frame to cause its loops to become frictionally locked upon the side arms of the main frame.

3. As a new article of manufacture, an appliance for holding cooking utensils that embodies a main or body frame of spring wire and which includes a cross member and side arms, the ends of the latter being bent down to form hooks for engaging one edge of a cooking utensil, a U-shaped spring wire frame having its side arms coiled to form loops for slidably engaging the side arms of the main frame and having the ends of its side arms bent to form hooks for engaging the opposite edge of the cooking

utensil, a third U-shaped frame formed of spring wire whose side arms have bent portions for engaging the upper side of the side arms of the slidable frame, said portions terminating with loops that pivotally engage the cross member of the slidable frame, said loops terminating in crank-like extensions including outwardly projected members that engage the upper face of the side arms of the main frame and so arranged relatively to the main and the sliding frame whereby when the U-shaped frame is swung to the vertical position tension is applied to the U-shaped frame to cause its loops to become frictionally locked upon the side arms of the main frame, and a straining plate secured flatwise upon the outer ends of the side arms of the main frame, and means on the plate for holding it fixedly connected with the said side arms.

4. As a new article, an attachment adapted for suspending cooking vessels comprising a main frame formed of stout wire, and including a cross or end member and side arms, the outer ends of which are bent down to form hooks for engaging with one side of the utensil edge, a U-shaped frame bent up from a single strand of spring wire, said frame including loop coils for slidably engaging with the side arms of the main frame, the lower end of the said side arms being at a plane below the coils, said coils terminating in pendent hook members for engaging the other edge of the cooking utensil, a third U-shaped frame whose side arms are bent to form loops that take around the cross member of the slidable U-shaped frame, said side arms also including right angled extensions for riding upon the upper ends of the slidable member, the loop of the pivotally mounted frame and crank portions at a point below the pivotal loop, a strainer device mounted upon the outer ends of the main frame and means for fixedly holding it in position.

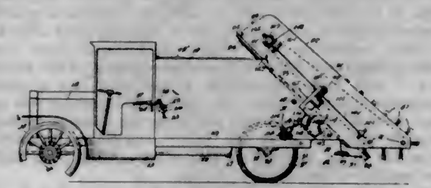
1,130,757. ATTACHMENT TO BINDERS. WILLIAM MANUEL NICOL, Hildebrand, Saskatchewan, Canada. Filed Nov. 28, 1913. Serial No. 803,554. (Cl. 56—126.)



1. The combination with the breastplate of a binder, said breastplate having the usual needle slot therein, of a shield carried by the breastplate and provided with a slot registering with the slot in the breastplate, a guard pivotally secured to the shield at one side of its longitudinal center and located between the shield and the breastplate, said guard being adapted to pass across the slots and a spring connected with the guard, as and for the purpose specified.

2. The combination with the breastplate of a binder, said breastplate having the usual needle slot therein, of a shield carried by the breastplate and provided with a slot registering with the slot in the breastplate, an eye carried by said shield, a guard pivotally secured to the shield at one side of its center and located between the breastplate and shield, said guard being adapted to pass across said slots, an actuating rod having one end pivotally secured to the guard and the opposite end slidably mounted in said eye, an adjusting nut on the rod on the end remote from the eye and a spring inserted on the rod between the eye and the nut, as and for the purpose specified.

1,130,758. STREET-SWEEPER. MORDECAI M. NIXON, Edenton, N. C. Filed Jan. 7, 1914. Serial No. 810,824. (Cl. 15—17.)



1. A street sweeper comprising a receptacle, a trough connected with said receptacle for vertical adjustment, an endless cleaner passing through said trough, a driving shaft carried by said trough for rotating said endless cleaner, a gear slidably mounted upon said shaft, a bracket carried by said receptacle and engaging said gear, a driven shaft carried by said bracket and provided with a gear meshing with said first-mentioned gear, a rotary clutch, a clutch collar carried by said driven shaft, pivotally mounted operating means for said clutch collar carried by said receptacle, resilient means yieldably holding said pivotally mounted means in its normal position to normally hold said clutch collar and rotary clutch out of engagement, actuating means for said operating means, resilient means connecting said actuating means and operating means, and means carried by said trough for engaging said actuating means when said trough is moved to a lowered position to bring said clutch collar and rotary clutch into engagement.

2. A street sweeper comprising a receptacle, a trough connected with said receptacle for vertical adjustment, an endless cleaner passing through said trough, a driving shaft carried by said trough for rotating said endless cleaner, a gear slidably mounted upon said shaft, a bracket carried by said receptacle and engaging said gear, a driven shaft carried by said bracket and provided with a gear meshing with said first-mentioned gear, a rotary clutch, a clutch collar carried by said driven shaft, a bell-crank lever having one end engaging said clutch collar, resilient means yieldably holding said bell-crank lever in a normal position, a rocker shaft having an arm, resilient means connecting said rocker shaft arm with said bell-crank lever, and means carried by said trough for engaging said rocker shaft arm and moving said clutch collar into engagement with said rotary clutch when said trough is moved to a lowered position.

3. A street sweeper comprising a receptacle, a trough carried by said receptacle, said trough comprising side walls, a flooring, means for longitudinally adjusting said flooring, a guide-way connecting the upper portion of said flooring with the interior of said receptacle, sweeping means traveling through said trough and engaging said flooring, and operating means for said sweeping means.

4. A street sweeper comprising a receptacle, a trough carried by said receptacle, means for vertically adjusting the position of said trough, a flooring for said trough, means for longitudinally adjusting said flooring, cleaning means in said trough, and operating means for said cleaning means.

5. A street sweeper comprising a receptacle, a trough carried by said receptacle, a flooring for said trough, eyes carried by said flooring, crank shafts carried by the side walls of said trough and passing through said eyes, a cleaner positioned in said trough, movement of said crank shafts adjusting said flooring with respect to said cleaner, guiding fingers carried by said flooring means for longitudinally adjusting the position of said flooring in said trough, and means for operating said cleaner.

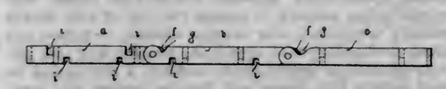
[Claims 6 to 8 not printed in the Gazette.]

1,130,759. PAINT-BRUSH. FRANK H. OSBORN, Sacramento, Cal. Filed Apr. 21, 1914. Serial No. 833,472. (Cl. 15—36.)



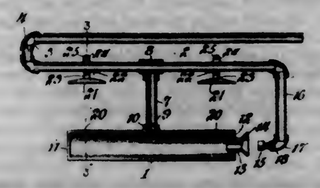
In a device of the class described, a brush including an applying element; a receptacle surrounding the applying element and spaced peripherally therefrom to define a drip compartment; and feeding fingers secured at their inner ends to the receptacle and prolonged transversely of the compartment to dispose their outer ends adjacent the applying element, the fingers being spaced to permit the material applied by the brush to pass between the fingers from the applying element into the compartment when the applying element projects upwardly, and to permit air to enter the compartment when the applying element projects downwardly, the fingers being disposed in a continuous series around the applying element.

1,130,760. FOLDING GRIDIRON. FRITZ PAFFRATH, Schmalkalden, Germany. Filed Apr. 8, 1913. Serial No. 759,773. (Cl. 126—30.)



A folding gridiron comprising in combination a plurality of grate-shaped grids pivotally connected at the ends thereof one to another, one of the side-plates of all the grids but one having a notch adjacent to the pivoted end thereof, and the adjacent end of each side-plate pivoted to a notched side-plate having a lug adapted to engage in the adjacent notch when the gridiron is folded out rectilinearly, the side-plates of all the grids but one having notches for receiving the notches of the cross bars of the grids in the folded position thereof, and the cross-bars of all the grids but one having notches for receiving the notches of the side-plates of the grids in the folded position thereof.

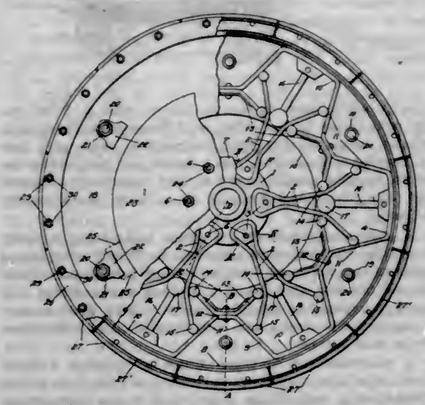
1,130,761. OIL-BURNER. DAVID B. PATE, Hornbeck, La. Filed Feb. 24, 1914. Serial No. 820,531. (Cl. 158—64.)



1. A burner of the class described comprising a mixing chamber having jet apertures at the top, an inlet having a funnel-shaped outer portion and provided with a tubular inner portion extending through one wall of the mixing chamber and projecting slightly into the same, a generator located above the mixing chamber and having a depending arm terminating at its lower end opposite the said inlet, means carried by the mixing chamber for supporting the generator in spaced relation with the top of the said mixing chamber, and a horizontal nozzle composed of an exteriorly threaded tubular body having one end screwed into the lower end of the depending arm of the generator, and a cap screwed onto the other end of the tubular body and having a jet aperture, said nozzle being spaced from and discharging into the funnel-shaped outer portion of the inlet, the said inlet and nozzle being both adjustable horizontally toward and from each other.

2. A burner of the class described, including a mixing chamber or burner proper having jet apertures at the top and closed at one end and provided at the other end with an air and vapor inlet, spaced standards extending upwardly from the receptacle or burner proper and provided at their upper ends with alined forked portions, a superimposed generator adjustably arranged in the forked portions of the standards and having a depending arm provided with a discharge nozzle located opposite the said air and vapor inlet, and an approximately U-shaped guide receiving the depending arm of the generator and the adjacent standard and having means connecting the sides of the guide and securing the same to the standard and retaining the generator in its adjustment.

1,130,762. RESILIENT WHEEL. CLAIBORNE PIETLE, Cleveland, Ohio. Filed Dec. 6, 1912. Serial No. 735,219. (Cl. 152—28.)



1. In a vehicle wheel, a hub member, a rim member, cam paths attached to one member and having inclinations at an angle to the radius, springs attached to the other member and having cam paths thereon, the ends of the springs riding lengthwise of the first cam paths, and springs connected to one of the members and coöperating with the cam paths on the first springs.

2. In a vehicle wheel, a hub member, a rim member, double cam paths attached to one member and having inclinations at an angle to the radius, springs attached to the other member and having double cam paths meeting at an angle less than 180°, the springs riding lengthwise of the first cam paths, and springs connected to one of the members and coöperating with the cams on the first springs.

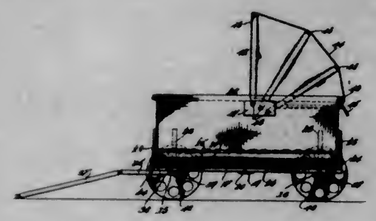
3. In a vehicle wheel, a hub member, a rim member, double cam paths attached to one member, springs attached to the other member and having double cam paths meeting at an angle less than 180°, the springs riding lengthwise of the first cam paths, and other springs connected to one of the members and coöperating with both cam paths within the angle formed by their meeting.

4. In a vehicle wheel, a hub member, a rim member, cam paths attached to one member, each cam path having

a bend from which its parts lie in chords drawn at opposite sides of the center of the wheel, springs attached to the other member and having their ends normally in the bends of the cam paths and provided with cam paths, each having a transverse bend, and springs attached to one of the members and having their ends normally at the bends of the cam paths in the springs.

5. In a vehicle wheel, a hub member, a rim member, a spring attached to one member, and having a transverse bend therein, a cam path for the end of the spring, attached to the other member, the cam path having a transverse bend in the direction opposite the bend in the spring, in which bend the end of the spring normally rests, and a spring bearing on the first spring at the inside of the bend, whereby both springs are placed under increased tension when the hub or rim moves approximately in radial lines through the said bends.

1,130,763. PERAMBULATOR. FRANCES F. PUTNAM, Rye, N. Y. Filed Feb. 11, 1914. Serial No. 817,982. (Cl. 21—83.)



1. A perambulator having a frame with a joint enabling said frame to be folded, said frame comprising bolsters and stakes having joint connections with said bolsters adapted to fold upon said bolsters and adapted to assume an upright position, and a body removably supported by said frame and adapted to be held thereupon by said stakes.

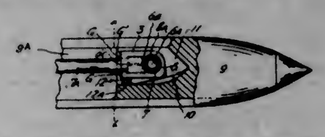
2. A perambulator having a frame comprising a reach with a joint enabling said frame to be folded, said frame comprising bolsters and stakes having joint connections with said bolsters adapted to fold upon said bolsters and adapted to assume an upright position, and a body removably supported by said frame and adapted to be held thereupon by said stakes.

3. A perambulator having a frame comprising a reach with a hinge joint enabling said reach to fold, and means for reinforcing said hinge joint, said frame comprising bolsters and stakes having joint connections with said bolsters adapted to fold upon said bolsters and adapted to assume an upright position, and a body removably supported by said frame and adapted to be held thereupon by said stakes.

4. A perambulator having a frame comprising a reach with a hinge joint enabling said reach to fold, and means for reinforcing said hinge joint, said frame comprising bolsters and stakes having joint connections with said bolsters adapted to fold upon said bolsters and adapted to assume an upright position, a body removably supported by said frame and adapted to be held thereupon by said stakes, said bolsters being attached respectively to the parts of said reach, wheels removably carried by the rear bolster, an axle pivotally attached to the forward bolster and wheels removably carried by said axle.

5. In a perambulator, in combination, a basket-like body, a folding supporting frame removable from said body and comprising a hinge-jointed reach and a transverse bar or bolster on each section of said reach, the parts of which frame are of such proportions that they may be folded up in said body, and removable wheels for said bolsters having a diameter less than the width of said body.

1,130,764. SHUTTLE FOR WEAVING. THOMAS REDMAN, Green Royd, Arnside, England. Filed May 8, 1914. Serial No. 837,218. (Cl. 139—89.)



1. The combination with a shuttle casing and shuttle tongue, of means for mounting said tongue in said casing, comprising a hollow box, supporting means within said box adapted to engage the end of said shuttle tongue, a member passing through said supporting means and having its ends engaging the shuttle casing to provide a pivotal support for the shuttle tongue, substantially as described.

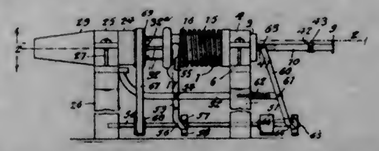
2. A loom shuttle comprising in combination a shuttle casing having a recess formed therein, a shuttle tongue provided with a hollow skewer, a hollow box pivotally mounted within said recess, supporting means within said box adapted to engage the hollow skewer of the shuttle tongue and adjusting means located beneath the forward end of the hollow box for adjusting the position of the shuttle tongue in relation to the base of the shuttle casing.

3. A loom shuttle comprising in combination a shuttle casing having a recess formed therein, a shuttle tongue provided with a hollow skewer, a hollow box pivotally mounted within said recess, supporting means within said box adapted to engage the hollow skewer of the shuttle tongue, adjusting means located beneath the forward end of the hollow box for adjusting the position of the shuttle tongue in relation to the base of the shuttle casing, and spring means within said recess adapted to bear against the hollow box, substantially as described.

4. A loom shuttle comprising in combination a shuttle casing having a recess formed therein near its end, a shuttle tongue provided with a hollow skewer, a split tubular member transversely disposed within said recess, supporting means adapted to engage the end of said skewer pivotally carried on said tubular member, a hollow box casing surrounding said supporting member and also pivotally carried on said tubular member, a flat spring located within said recess and bearing against the lower rearward edge of said hollow box and resilient adjusting means located near the forward edge of said hollow box adapted to vary the relation of the shuttle tongue to the base of the shuttle casing, substantially as described.

5. The combination with a shuttle casing and shuttle tongue, of means for mounting said tongue in said casing, comprising a hollow sheet metal box, supporting means within said box engaging the end of said shuttle tongue, a member passing through said supporting means and the sides of said sheet metal box and having its ends engage the shuttle casing to provide a pivotal support for the shuttle tongue, substantially as described.

1,130,765. BROOM-MACHINE. FREDERICK W. REESE, Paris, Ill. Filed Nov. 25, 1910. Serial No. 594,078. (Cl. 15—4.)



1. In a device of the character specified, means for gripping a handle, means for releasing the said gripping means, a latch for engaging the releasing means for holding the gripping means in inoperative position, a movable stop for engagement by the end of the handle, and means whereby the moving of the stop by the handle will release the latch.

2. In a device of the character specified, a releasable gripping device for holding a handle, a latch for restraining the action of the said device, means in connection with the said latch for engagement by a handle when the handle is inserted in the gripping device for releasing the latch to permit the gripping device to grasp the handle.

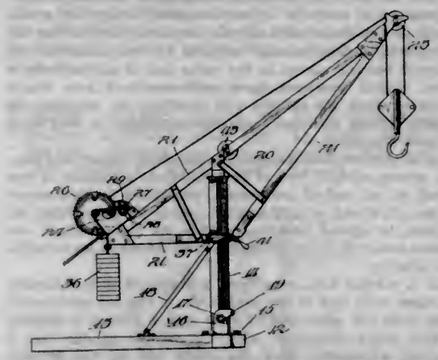
3. In a device of the character specified, a barrel for receiving a broom handle, a chuck having jaws for grasping the handle, a spring normally pressing the jaws of the chuck into engagement with the handle, a lever for releasing the jaws, a shaft journaled adjacent to the barrel, and a disk on the shaft having a radial pin for engaging the lever to operate the same.

4. In a device of the character specified, a releasable gripping device for holding a handle, means for holding the gripping device in inoperative position, a stop for engagement by the end of a handle, and a connection between the stop and the holding means for releasing the said holding means when the stop is moved away from the gripping device by the handle.

5. In a device of the character specified, a holder for broom handles or the like, comprising a barrel having a frusto-conical chamber for receiving the handle, gripping jaws within the chamber, each jaw having an inclined face for engaging the interior of the chamber to move the said jaws into and out of contact with the handle when the said jaws are moved longitudinally, a sleeve movable toward and from the barrel, resilient stems connecting the jaws to the sleeve, said stems normally holding the jaws in contact with the inner wall of the chamber, and means for moving the sleeve toward and from the chamber to operate the jaws.

[Claims 6 and 7 not printed in the Gazette.]

1,130,766. DERRICK. MICHAEL J. SAGEN, Chicago, Ill., assignor to Sagen Derrick Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 30, 1912. Serial No. 674,395. (Cl. 212—61.)



1. In a hand-operated circle swing builder's derrick, the combination of a base, a mast secured to the base, a boom mounted upon the mast to swing completely about the mast, said boom being of triangular formation with the upper rail forming the long leg of the triangle, said upper rail being of a length to extend across the mast and lie upon opposite sides thereof, said upper rail being placed at an angle with the inner end located in a plane intermediate the ends of the mast, sheave mechanism on one end of the upper rail, geared windless mechanism on the other end of said rail, whereby the windlass and sheave mechanisms are spaced a relatively long distance apart to permit of the use of a relatively wide windlass, and means for locking the boom against revolution about the mast, substantially as described.

2. In a hand-operated circle swing builder's derrick, the combination of a base, a mast secured to the base, a boom mounted on the mast to have complete revolution about the mast, said boom being of triangular formation with the upper rail forming the long leg of the triangle, said upper rail extending to opposite sides of the mast, sheave mechanism on one end of the upper rail, windlass mechanism on the opposite end of said rail whereby the sheave and windlass mechanisms are spaced a relatively long distance apart and the use of a relatively wide windlass permitted, a detachable bearing connection between the upper rail and upper end of the mast, and a detachable bearing connection between the mast and the remaining rails of the boom, said connection being located approximately medially of the mast and constituting a means for controlling the revolution of the boom about the mast, substantially as described.

3. In a circle swing derrick, the combination of a base, a mast fixedly secured to the base, a boom arranged to swing completely about the mast, said boom consisting of an upper rail, a rail extending from the inner end of the upper rail to the mast, a rail extending from the outer end of the upper rail to the mast, a sleeve and pin connection between the upper rail and the upper end of the mast, a ring located medially of the mast comprising a body portion provided with an outwardly extending flange, two straps each provided with a semi-circular portion adapted to embrace the body of said ring, a connection between said straps and the inner end of that rail extending from the inner end of the upper rail, members extending from the inner end of that rail connected to the outer end of the upper rail, a pin-like member connecting the straps and the extending members, and a locking member mounted on said pin-like member for drawing and releasing said strap sections into and out of engagement with said ring, whereby the boom is locked against and permitted circular movement about the mast, substantially as described.

4. In a circle swing derrick, the combination of a base, a mast fixedly secured to the base, a boom arranged to swing completely about the mast, said boom consisting of an upper rail, a rail extending from the inner end of the upper rail to the mast, a rail extending from the outer end of the upper rail to the mast, a sleeve and pin connection between the upper rail and the upper end of the mast, a ring located medially of the mast comprising a body portion provided with an outwardly extending flange, two straps each provided with a semi-circular portion adapted to embrace the body of said ring, a connection between said straps and the inner end of that rail extending from the inner end of the upper rail, members extending from the inner end of that rail connected to the outer end of the upper rail, a pin-like member connecting the straps and extending members, and a locking member mounted on said pin-like member for drawing and releasing said strap sections into and out of engagement with said ring, whereby the boom is locked against and permitted circular movement about the mast, one of said strap sections being hinged, whereby a releasable bearing is provided between the mast and boom, substantially as described.

5. In a circle swing derrick, the combination of a base, a mast fixedly secured to the base, a boom arranged to swing about the mast, said boom consisting of an upper rail, a rail extending from the outer end of the upper rail to the mast, and a rail extending from the inner end of the upper rail to the mast, a detachable connection between the upper end of the mast and upper rail, members extending from the inner end of that rail connected to the inner end of the upper rail, members extending from the inner end of that rail connected to the outer end of the upper rail, said extending members serving to detachably connect the mast and the rails with which they are associated, and a single locking member for maintaining said extending member in connected position with respect to the mast, substantially as described.

[Claim 6 not printed in the Gazette.]

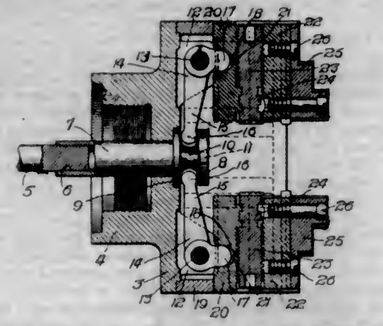
1,130,767. COMPOSITION FOR MAKING GLASS. OTTO SCHOTT, Jena, Germany, assignor to the Firm of Schott and Gen., Jena, Germany. Filed Sept. 12, 1912. Serial No. 719,977. (Cl. 49—90.)

1. Glass containing at least 50 per cent. silicic acid and having as its other glass forming components alumina

4 to 15 per cent., lime 3 to 11 per cent., boracic acid 5 to 15 per cent. and alkali 4 to 14 per cent., the total percentage of alumina and lime being at least half and at most five times that of the boracic acid.

2. Glass containing at least 50 per cent. silicic acid and having as its other glass forming components alumina 6 to 12 per cent., lime 3 to 11 per cent., boracic acid 5 to 15 per cent. and soda 8 to 12 per cent., the total percentage of alumina and lime being at least half and at most five times that of the boracic acid.

1,130,768. CHUCK. HERMAN A. SCHULTZ, Chicago, Ill., assignor to Hannifin Manufacturing Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1914. Serial No. 830,651. (Cl. 29—129.)



1. In a chuck, the combination of radially movable jaws, levers mounted within the chuck each having angularly disposed arms one of which is arranged to engage with one of said jaws, and a member in engagement with the other arm of each of said levers, and longitudinally movable within the chuck, whereby said jaws may be caused to move radially and in unison, said jaws coöperating with the member-engaging arm of each of said levers to positively limit the swinging movement thereof in one direction, substantially as described.

2. In a chuck, the combination of radially movable jaws, levers mounted within the chuck each having angularly disposed arms one of which is arranged to engage with one of said jaws, and a member in engagement with the other arm of each of said levers, and longitudinally movable within the chuck, whereby said jaws may be caused to move radially and in unison, said jaws coöperating with the member-engaging arm of each of said levers to positively limit the swinging movement thereof in one direction, and said member coöperating with the chuck body to positively limit the swinging movement of each of said levers in the opposite direction, substantially as described.

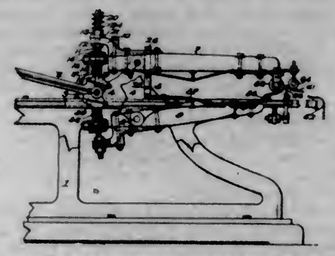
1,130,769. LEATHER-STAKING MACHINE. FRANK F. SLOCOMB, Philadelphia, Pa., assignor to F. F. Slocomb & Co., Incorporated, a Corporation of Delaware. Original application filed Nov. 6, 1911, Serial No. 658,646. Divided and this application filed June 26, 1914. Serial No. 847,398. (Cl. 149—21.)

1. In a leather staking machine, an upper jaw, means for reciprocating and rocking the same, and means independent of said rocking and reciprocating means for limiting the upward rocking movement of the forward end of the upper jaw.

2. In a leather staking machine, an upper jaw, means for reciprocating and rocking the same, and a fixed stop separate from said means limiting the upward rocking movement of the forward end of the upper jaw.

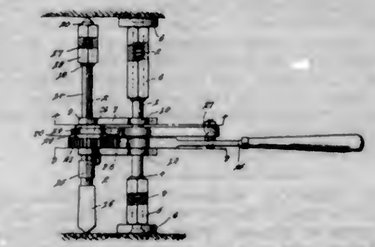
3. In a leather staking machine, upper and lower jaws, journal-supports pivoted to laterally oscillate upon the same, rollers journaled in such supports, cams bearing against said rollers to open and close said jaws, and means for rocking and reciprocating said cams.

4. In a leather staking machine, upper and lower jaws, brackets carried thereby, threaded stems carried by said brackets, rollers pivotally carried by said stems to have



laterally oscillatory movement, cams bearing against said rollers to actuate said jaws, and means for rocking said cams.

1,130,770. RATCHET-DRILL. OSBORNE SMEDSTAD, Portland, Oreg. Filed Dec. 29, 1913. Serial No. 809,407. (Cl. 77—47.)



1. A ratchet drill including a standard, adjustable bearing means at each end of said standard, a spindle, a tool chuck on one end of said spindle, means for supporting the spindle in spaced parallel relation to the standard, adjustable bearing means at the other end of said spindle, a lever loosely mounted upon said standard and means mounted upon the spindle and standard for rotating the spindle in one direction upon the movement of said lever in both directions.

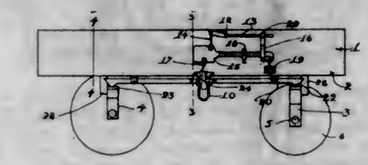
2. A ratchet drill including a standard, adjustable bearing means at each end of the standard, a spindle, a tool chuck at one end of the spindle, adjustable bearing means at the other end of said spindle, means for supporting the spindle in spaced parallel relation to the standard and means mounted upon the spindle and standard for rotating the spindle.

3. A ratchet drill comprising a standard, collars threaded upon each end of the standards, a bearing plate swiveled upon the outer end of each of the collars, a spindle, a tool chuck connected with the spindle at one end, a bearing adjustable upon the other end of the spindle, means for operatively connecting the supporting standard with the spindle, a lever loosely mounted upon the supporting standard and adapted for oscillatory movement and means for rotating the spindle in one direction upon the movement of the lever in both directions.

1,130,771. WAGON-SCALE. HUGH A. SMITH, Louisville, Ky., assignor of one-fourth to Gustav Flexner and one-fourth to Morris Abraham, Louisville, Ky. Filed Aug. 26, 1914. Serial No. 858,764. (Cl. 73—8.)

1. The combination with the running gear and body of a wagon or like vehicle of a transverse bar pivoted to said wagon body in spaced relation thereto and at one end, a lever pivoted intermediate its ends to one side of said body, a scale beam, links connecting the scale beam on opposite sides thereof with the lever at the pivoted end thereof, and the free end of said transverse bar, balance

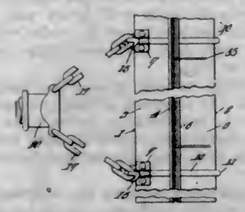
bars pivoted intermediate their ends upon the under part of the wagon body and having certain ends thereof extended toward the center of the body, a bearing plate pivotally connected with said last named means, a bearing on said transverse bar coöperating with said bearing plate, bearings on the other ends of said bars and fixed bearing members upon the running gear of the wagon coöperating with said last named bearings.



2. The combination with the running gear and wagon body of a vehicle, of a plurality of balance bars pivoted intermediate their ends upon said body and having certain ends thereof extended toward the center of the body, a bearing plate pivotally connecting said last mentioned ends with each other, a transverse balance bar pivoted at one end to one side of the body and extending thereacross, an operating lever pivoted on one side of the body, a scale beam, a link connecting said scale beam with said operating lever, a link connecting said transverse balance bar with said scale beam, a bracket slidably supporting the free end of said transverse bar, a bearing on said last named bar to coöperate with the bearing plate and the other ends of said bars resting upon the running gear.

3. The combination wth a body and running gear of a vehicle of balance bars pivoted intermediate their ends upon said body and having certain ends resting upon said running gear, a bearing plate pivotally connecting the other ends of the balance bars with each other, a transverse balance bar pivoted at one end to one side of the body, a bearing on said bar to coöperate with the bearing plate, scale mechanism and means whereby the weight of the load of the body may be placed upon the scale beam operatively connected with said last named bar, body and scale beam.

1,130,772. CLAMP. SAMUEL W. TATE, Parma, Idaho. Original application filed Sept. 10, 1913, Serial No. 789,120. Divided and this application filed Apr. 9, 1914. Serial No. 830,742. (Cl. 254—83.)

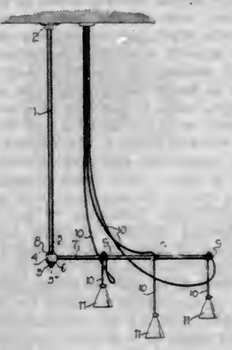


1. A wire fence clamp comprising angle members, two of the flanges of the angle members being opposed and two of the flanges of the angle members being approximately alined; a securing element extended loosely through the opposed flanges, thereby to permit the angle members to tilt on the securing element and move the inner edges of the alined flanges toward each other, the securing element having means to engage with the alined flange of one angle member; and movable means upon the securing element for engaging the alined flange of the other angle member.

2. A wire fence clamp comprising angle members, two of the flanges of the angle members being opposed and two of the flanges being approximately alined; a securing element extended through the opposed flanges and having means to engage with the alined flanges, one of the last specified flange-engaging means being adjustable; and means upon the securing elemnt for receiving a stretching device, whereby, when tension is applied to the clamp, the opposed flanges of the angle members will tend to open at their outer edges and to approach each other at their inner edges, thereby increasing the grip of the clamp.

3. A wire fence clamp comprising angle members, two of the flanges of the angle members being opposed and two of the flanges of the angle members being approximately alined; a securing element extended loosely through the opposed flanges and having means to engage with the alined flanges; and means upon the clamp for receiving a stretching device, whereby, when tension is applied to the clamp, the opposed flanges of the angle members will tend to open at their outer edges and to approach each other at their inner edges, thereby increasing the grip of the clamp.

1,130,773. LIGHT-SUPPORT. THOMAS J. TAYLOR, Homer, La. Filed Feb. 7, 1914. Serial No. 817,281. (Cl. 248—30.)

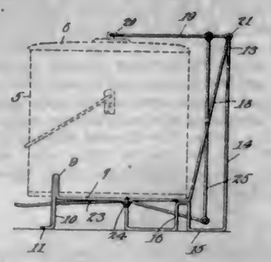


In a device of the class described including a supporting plate having a threaded opening therein, a substantially perpendicular supporting rod having its end removably engaged within said opening, a sleeve rotatably mounted upon the lower end of said rod, means for retaining said sleeve against sliding movement upon the rod, an arm formed integral with the sleeve and projecting outwardly at an angle with respect to the supporting rod, a plurality of sleeves slidably mounted upon said arm, supporting arms formed integral with the sleeves and extending outwardly therefrom, set screws carried by the sleeves and adapted to retain the same in adjustable position and catch members formed by the striking out portion of the material at the supporting arms to provide resilient tongues as and for the purpose set forth.

1,130,774. STAND AND LID-OPERATING MEANS FOR GARBAGE-CANS AND OTHER RECEPTACLES. MICHAEL J. TIERNEY, Pittsfield, Mass. Filed Mar. 25, 1914. Serial No. 827,162. (Cl. 220—115.)

1. A stand for receptacles having a lid, said stand comprising converging base bars on which the receptacle seats, said bars having upward bends at their converging ends, the other ends of the bars having upward and downward bends extending respectively above and below the bars, the upward bends forming retaining means for the receptacle seating on the bars, and the downward bends serving as supporting legs for the bars, a standard at the converging ends of the base bars composed of component members having a cross bar at the top to which the aforesaid upward bends at the converging ends of the base bars are connected, and said members having horizontal bends

at their lower ends forming supports for the converging ends of the base bars, said horizontal bends being connected to the base bars and having bracing portions engaging said base bars, a lid supporting member pivoted to the aforesaid cross bar, and treadle-operated means for swinging said lid supporting member.



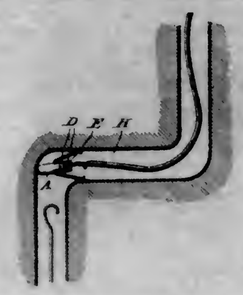
2. A stand for receptacles having a lid, said stand comprising converging base bars on which the receptacle seats, said bars having upward bends at their converging ends, the other ends of the bars having upward and downward bends extending respectively above and below the bars, the upward bends forming retaining means for the receptacle seating on the bars, and the downward bends serving as supporting legs for the bars, a standard at the converging ends of the base bars composed of component members having a cross bar at the top to which the aforesaid upward bends at the converging ends of the base bars are connected, and said members having horizontal bends at their lower ends forming supports for the converging ends of the base bars, said horizontal bends having outward bends connected to the base bars, and also having bracing portions engaging said base bars, a treadle fulcrumed on said outward bends, a lid supporting member pivoted to the aforesaid cross bar, and a connection between the treadle and the lid supporting member.

3. A stand for receptacles having a lid, said stand comprising base bars on which the receptacle seats, said bars having upward bends at one end, the other ends of the bars having upward and downward bends extending respectively above and below the bars, the upward bends forming retaining means for the receptacle seating on the bars, and the downward bends serving as supporting legs for the bars, a standard at the first-mentioned ends of the base bars composed of component members having a cross bar at the top to which the first-mentioned upward bends of the base bars are connected, and said members having horizontal bends at their lower ends forming supports for the first-mentioned ends of the base bars, said horizontal bends being connected to the base bars and having bracing portions engaging said base bars, a lid supporting member pivoted to the aforesaid cross-bar, and treadle-operated means for swinging said lid supporting member.

1,130,775. WIRE FINDING AND COUPLING DEVICE. IRA J. H. TOFFEY, Waterbury, Conn. Filed Aug. 25, 1913. Serial No. 786,562. (Cl. 247—24.)

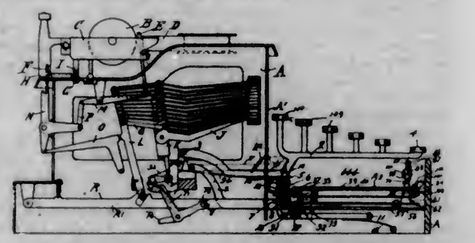
1. A device of the kind described comprising a hollow body slotted upon the sides, a plug adapted to fit therein, wings having an enlarged inner end portion resting within said body and engaged by said plug, said wings projecting through said slots, and a spring arranged in said hollow body and adapted to bear upon the inner end portions of said wings.

2. A device of the kind described comprising a hollow body open at one end and longitudinally slotted adjacent its open end, wings having enlarged head portions adapted to fit within said hollow body, said wings being adapted to work in said slots, a plug fitting within said hollow body and closing the entrance thereto and bearing upon the enlarged inner end portion of the wings, said plug having a reduced inner end portion extending inwardly between said wings, and a coil spring bearing at one end upon the wings and at the other end upon the closed end



of the hollow body and receiving the reduced portion of said plug.

1,130,776. TYPE-WRITING MACHINE. GEORGE VOELKER, St. Paul, Minn. Filed Apr. 25, 1910. Serial No. 557,372. (Cl. 197—19.)



1. In a typewriting machine, the combination with typewriting instrumentalities and keyed actuating levers therefor, of a pivoted universal bar between said instrumentalities and said levers, mechanism to change the relations of said levers to said instrumentalities, said mechanism having operative connection with said bar and levers, and means for rendering said mechanism operative or inoperative.

2. In a typewriting machine, the combination with typewriting instrumentalities and keyed actuating levers therefor, of a pivoted universal bar operatively connected to said instrumentalities and levers and means operatively connected with said bar to render said levers inoperative to actuate said instrumentalities for a predetermined length of time.

3. In a writing in sight typewriting machine the combination with key operated writing mechanism, of indicating means to preliminarily indicate the writing, said means being operatively connected with said mechanism, and means for rendering said indicated writing visible to the operator.

4. In a typewriting machine the combination with key operated typewriting mechanism including breakable connections, of a general coupling point in said mechanism including a pivoted universal bar operatively connected with said mechanism, movable connecting members to engage said bar and traveling cams to actuate said members when said mechanism is actuated.

5. In a typewriting machine the combination of typebars, a plurality of levers operatively connected to said typebars so that the pressure applied on said levers by the operator will move said typebars, and a normally open connection in said levers adapted to be moved to join said levers by the initial portion of a continuous pressure applied to said levers the subsequent portion of said pressure being utilized to directly move said type bars when said levers are joined.

[Claims 6 to 47 not printed in the Gazette.]

1,130,777. COLLAPSIBLE AND PORTABLE BATH-TUB. WILLIAM R. WARD, Kansas City, Kans. Filed July 31, 1913. Serial No. 782,321. (Cl. 4—27.)



1. A collapsible bathtub comprising duplicate longitudinal side frames having holes in the ends thereof, a fabric body forming the bottom and sides of the tub, said sides having holes therein to register with the holes in the ends of the side frames, and end frames having dowels projecting from the extremities thereof and adapted to pass through the registering holes in the fabric and the longitudinal side frames, substantially as described.

2. A collapsible bathtub comprising duplicate longitudinal side frames having holes in the ends thereof, a fabric body forming the bottom and sides of the tub, said sides having holes therein to register with the holes in the ends of the side frames, end frames having dowels projecting from the extremities thereof and adapted to pass through the registering holes in the fabric and the longitudinal side frames, eyes on the side frames, and hooks pivoted on the end frames and adapted to engage said sides to secure the whole in operative position, substantially as described.

3. A collapsible bathtub consisting of four longitudinal side strips pivoted together in pairs, uprights to support said strips, diagonal braces connecting said uprights and the side strips, a one-piece fabric constituting the bottom, sides and ends of the tub, two end strips hinged at their central portions to lie against the inner upper ends of said fabric to keep the same taut, dowels projecting from said end strips through registering holes in the fabric and the side strips, and means on the end strips and the side strips to detachably-connect said strips, substantially as described.

1,130,778. COMBINED RAIN-COAT, SLICKER-SUIT, AND LIFE-PRESERVER. PETER WASKIN, Somerville, N. J. Filed Sept. 14, 1914. Serial No. 861,687. (Cl. 9—20.)



1. A combined raincoat, and life preserver having an inflatable body compartment and a foldable inflatable collar, and means to inflate said compartment and collar.

2. A combined raincoat and life preserver having an inflatable body compartment and a foldable collar, and means to inflate said compartment and said collar said means located beneath to be concealed by the collar when folded down.

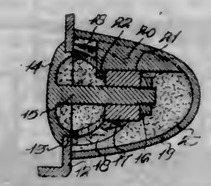
3. A combination garment formed into separate receptacles, one to receive the body and arms of the wearer when employed as a coat, and the other formed watertight to inclose the body of the wearer including the hands and feet.

4. A combination garment having an outer portion and an inner lining, the lining having foldable leg and glove portions formed therewith to be folded between the lining and the outer portion when not required for use, said lining being detached from the outer portion at the neck thereof to form a receptacle to receive the body of the wearer.

5. A combination garment having an outer portion and an inner lining connected together to form a space therebetween, said lining portion formed into integral foot and leg portions, to be folded into said space when not required for use, and detached from the outer portion at the neck for ingress of the body of a wearer to said space.

[Claims 6 to 14 not printed in the Gazette.]

1,130,779. PROTECTOR FOR HAND-HOLE COVERS. FRANK WEBB, Melrose, Mass. Filed May 23, 1914. Serial No. 840,650. (Cl. 220—124.)

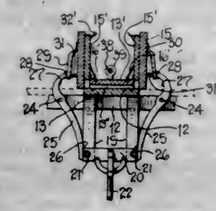


1. A hand hole cover protector composed of a cup formed to bear on a boiler head around a hand hole therein, and a securing member engaged with the cup and adapted to detachably engage a hand hole cover fastener projecting from said head, the cup being adapted to confine a body of heat-insulating material.

2. The combination with a boiler head and a hand hole cover having a bolt, nut, and yoke projecting through the hand hole in said head, of a cup formed to bear on the head around the hand hole, and a securing member engaged with the cup and adapted to detachably engage said yoke and hold the mouth of the cup against the head.

3. The combination with a boiler head and a hand hole cover having a bolt, nut, and yoke projecting through the hand hole in said head, of a cup formed to bear on the head around the hand hole, and an internal shouldered lug engaged with the cup and formed to engage the periphery and inner end of the yoke hub.

1,130,780. BALING-PRESS. THELO GLENN WHITE, Cedar Rapids, Iowa. Filed June 1, 1914. Serial No. 842,213. (Cl. 100—31.)



1. In a baling press, a table formed of a plurality of hinged sections, and a plate mounted to overlie the hinge connection between the sections.

2. In a baling press, a table formed of a central fixed section, side sections hinged to the central section, said central section having a longitudinal groove adjacent each side edge, and resilient angle plates mounted in the grooves and adapted to overlie the hinge connections.

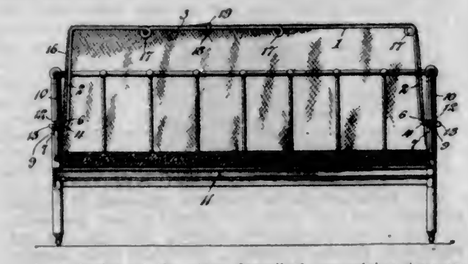
3. In a baling press, a table formed of hinged sections, a presser bar arranged above the sections, pivoted arms having the outer ends engaging the hinged sections, and cushioned wear plates disposed between the hinged sections and the arms.

4. In a baling press, a supporting frame, a table comprising a stationary leaf section and two hinged leaf sections, resilient angle plates carried by the stationary section and overlying the hinge connections, a removably mounted rod above the stationary section, and means for moving the hinged sections to a position at right angles to the stationary section and coöperating to hold the hinged sections in folded position.

5. The combination with a baling press having a stationary section and two hinged sections, of a false bottom therefor, said false bottom comprising a central section positioned above the said stationary section, side sections hinged thereto, and plates carried by the central section adapted to overlie the side hinge connections.

[Claims 6 and 7 not printed in the Gazette.]

1,130,781. COVER-HOLDER FOR CHILDREN'S BEDS. CHARLES LAFAYETTE WILEY, Atlanta, Ga. Filed Dec. 10, 1913. Serial No. 805,820. (Cl. 5—22.)



1. A device of the class described comprising two approximately U-shaped frames of a size to extend across the head and foot of a bed along the sides thereof, means for mounting the frames on the bed to permit the said frames to swing downwardly against the bed clothes at opposite sides of the bed, and means carried by the frames for holding the bed clothes in a spread condition against displacement, said frames permitting the bed clothes to be lifted and being also adapted to swing upwardly over the bed and form a support for mosquito netting or the like.

2. A device of the class described comprising two approximately U-shaped frames of a size to extend across the head and foot and along the sides of a bed, said frames being resilient and coiled at intervals to form bed clothes engaging portions for holding the bed clothes in a spread condition against displacement, and means for mounting the frames on the bed to permit the said frames to swing downwardly against the bed clothes at opposite sides of the bed, said frames being also adapted to swing upwardly over the bed and form a support for mosquito netting or the like.

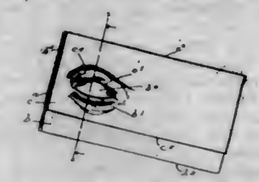
3. A device of the class described including two approximately U-shaped frames, means for mounting the frames on a bed to permit said frames to swing downwardly against the bed clothes at opposite sides of the bed, means carried by the frames for holding the bed clothes in a spread condition against displacement, said frames being also adapted to swing upwardly over the bed and form a support for mosquito netting or the like, and means for connecting the frames to maintain them in their elevated position.

4. A device of the class described including two approximately U-shaped frames, means for mounting the frames on a bed to permit the said frames to swing downwardly against the bed clothes at opposite sides of the bed, means carried by the frames for holding the bed clothes in a spread condition against displacement, said frames being also adapted to swing upwardly over the bed and form a support for mosquito netting or the like, and a transverse connecting rod provided with means for engaging the frames and adapted to maintain the same in an upwardly and outwardly inclined position.

5. An attachment for beds having spaced vertical rods at the head and foot, said attachment including two hinged frames, clamps for mounting the frames on the bed to permit the said frames to swing downwardly against the bed clothes at opposite sides of the bed, said clamps each consisting of a body portion having its terminals bent inwardly on themselves and slidably embracing the vertical rods for raising and lowering the said frames, means for adjusting the terminal portions of the body for causing the same to clamp the rods, and means carried by the frames for holding the bed clothes in a spread condition against displacement, said frames being also adapted to swing upwardly over the bed and form a support for mosquito netting or the like.

[Claims 6 and 7 not printed in the Gazette.]

1,130,782. MAILING-FOLDER. SAMUEL WILLENS, Chicago, Ill. Filed Apr. 29, 1914. Serial No. 835,167. (Cl. 46—37.)



1. A folder having a main leaf which is adjoined on two opposite sides by leaves, the adjoining leaves being of a width transverse to the folds less than that of the main leaf, one leaf of which has a generally channel or arch shaped slit forming a tongue, the crown of said slit being toward the adjacent fold, another leaf having a slit designed to receive said tongue in a direction opposite to the action of the leaves in opening said folder, forming a lock for the folder, the narrower adjoining leaves permitting the two folded edges of the main leaf to be forced toward each other for the purpose of unlocking the folder.

2. A folder having two or more leaves, one end leaf of which has a generally channel or arch shaped slit forming a tongue to be used as one member of the folder's lock, the crown of said slit being toward the adjacent fold, another leaf having a slit designed to receive said tongue, a picture imprinted directly over or adjacent said slit, said picture designed and placed so as to apparently move, disappear, or change when operating the lock.

3. A folder having two or more leaves, one end leaf of which has a generally channel or arch shaped slit forming a tongue, the crown of said slit being toward the adjacent fold, another leaf having a slit designed to receive said tongue, both slits mutually forming a lock, and pictures directly relating to each other, imprinted directly over or adjacent each slit, said pictures designed and placed so as to apparently create action, disappear or change when operating the lock.

4. A folder having two or more leaves, one leaf of which has a generally channel or arch shaped slit forming a tongue, the crown of said slit being toward the adjacent fold, the tongue to be used as one member of the folder's lock, another leaf being wider between the folds than any of the others, permitting the folded edges of the latter mentioned leaf to be forced toward each other, for the purpose of unlocking the folder.

5. A folder having a main leaf which is adjoined on two opposite sides by leaves, the adjoining leaves being of a width transverse to the folds less than that of the main leaf, one adjoining leaf of which has a generally channel or arch shaped slit forming a tongue, the crown of said slit being toward the adjacent fold, and another leaf having a slit designed to engage said tongue forming a lock which opens in a direction opposite to the action of the leaves in opening the folder, the adjoining leaves being of width between the folds less than that of the main leaf, permitting the two folded edges to be forced toward each other, for the purposes of unlocking the folder.

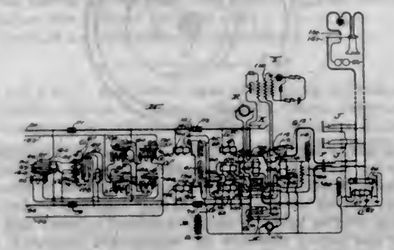
[Claim 6 not printed in the Gazette.]

1,130,783. BOTTLE AND CAP-FASTENER. GEORGE A. WILLIAMS, Waterbury, Conn., assignor to The Williams Sealing Corporation, Waterbury, Conn., a Corporation of Connecticut. Filed May 31, 1912. Serial No. 700,784. (Cl. 215—88.)



The combination with a cap having a flexible skirt, a ring, and a lever for expanding and contracting said skirt, of a bottle neck adapted to receive said cap said neck being circumferentially undercut to receive said ring, and having an annular shoulder adjacent the undercut portion and below the same, the top face of said shoulder being flat, the side and underface of the shoulder being rounded, and an exterior collar formed on said bottle neck and below and spaced from said shoulder, the free end of the lever bearing against the neck and above the collar when the cap is locked, and lever locking means carried by the bottle between the said shoulder and the collar.

1,130,784. MEASURED-SERVICE TELEPHONE SYSTEM. BERNARD D. WILLIS, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 17, 1913. Serial No. 761,809. (Cl. 179—6.5.)



1. In a telephone system, a plurality of subscribers' lines, means including an operator's connecting link for establishing a connection between two of said lines, an operator's talking set associated with said link, means for rendering the calling telephone inoperative upon completion of the connection with the called line, and means for rendering the calling telephone again operative without breaking the connection between said operator's link and the called line when said operator's set is connected with the connecting link before the called subscriber answers.

2. In a telephone system, a plurality of subscribers' lines, means including an operator's connecting link for establishing a connection between two of said lines, an operator's talking set associated with said link, means for rendering the calling telephone inoperative upon completion of the connection with the called line, means for rendering the calling telephone again operative without breaking the connection between said operator's link and the called line when said operator's set is connected with the connecting link before the called subscriber answers, and means for preventing the operator from rendering the calling telephone operative after the called subscriber answers.

3. In a telephone system, a plurality of subscribers' lines, means including an operator's connecting link for establishing a connection between two of said lines, an operator's talking set associated with said link, means for rendering the calling telephone inoperative upon completion of the connection with the called line, means for rendering the calling telephone operative without breaking the connection between said operator's link and the called line when said operator's set is connected with the connecting link before the called subscriber answers, and means for rendering the calling telephone operative upon the response of the called subscriber, and means for preventing the operator from rendering the calling telephone operative after the called subscriber answers.

4. In a telephone system, a calling and a called subscriber's line, an operator's trunk circuit adapted to be connected with the called line, means including automatic switches for extending a connection from the calling line to said trunk circuit, an operator's talking set associated with said trunk circuit and adapted to be connected thereto, means for rendering the calling telephone inoperative when connection is completed with the called line, and means for rendering said telephone operative when said operator connects the talking set with said trunk circuit.

5. In a telephone system, a calling and a called subscriber's line, an operator's trunk circuit adapted to be connected with the called line, means including automatic switches for extending a connection from the calling line to said trunk circuit, an operator's talking set associated with said trunk circuit and adapted to be connected thereto, means for rendering the calling telephone inoperative when connection is completed with the called line, and means for rendering said telephone operative when said operator connects the talking set with said trunk circuit without breaking the connection with the called line and before the called subscriber answers.

[Claims 6 to 36 not printed in the Gazette.]

1,130,785. ALUMINUM ALLOY. ALFRED WILM, Schlachtensee, near Berlin, Germany. Filed July 31, 1911. Serial No. 641,625. (Cl. 75—1.)

1. An alloy comprising aluminum, copper, magnesium and manganese.

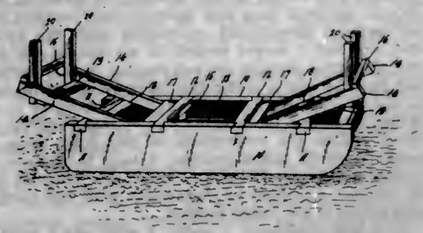
2. An alloy comprising aluminum, copper, magnesium and manganese, the copper not exceeding 6 per cent.

3. An alloy comprising aluminum, copper, magnesium and manganese, the manganese not exceeding 3 per cent.

4. An alloy comprising aluminum, copper, magnesium and manganese, the copper not exceeding 6 per cent. and the mangenese not exceeding 3 per cent.

5. An alloy comprising about 95.5 per cent. of aluminum, about 0.5 per cent. of magnesium, about 3 per cent. of copper and about 1 per cent. of manganese.

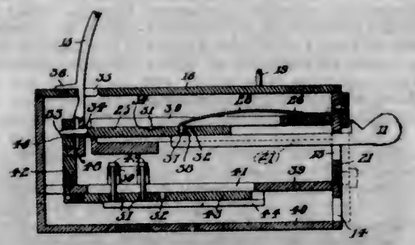
1,130,786. FODDER-CARRIER. GEORGE A. WIET, Greensburg, Ind. Filed Dec. 2, 1912. Serial No. 734,454. (Cl. 21—48.)



A farm sled fodder carrier comprising the combination of a pair of main side bars 10 which are also sled runners,

a substantially horizontal ledge 13 carried by each side bar on its face toward the other side bar, two cross bars 12 connecting the two side bars and located substantially over the ends of the ledges, two other cross bars 11 located near the ends of the side bars and connecting them; and a pair of detachable end frames each comprising a pair of oblique members 14, a pair of upright members 20, cross bars 17 and 18 connecting said side bars and located on their upper and lower sides respectively, and the cross bars 16 and 19 which brace the oblique members 14 and the upright members 20 together, each of said detachable frames when in place having its side bars 14 extending between the side bars 10 and over the cross bars 11 and under the cross bars 12 and resting on the ledges 13, and its cross bars 17 and 18 bearing against the sides of the cross bars 12 and 11 respectively.

1,130,787. PADLOCK. FRANK WOJTKOWSKI and DOMINIK RADZISZEWSKI, Chrome, N. J. Filed Nov. 25, 1914. Serial No. 873,970. (Cl. 70—105.)



1. A lock comprising a casing having an opening in one wall thereof, a hasp positionable within said opening and provided with a perforation adjacent its inner end and having an annular flange at its inner end, a slidably mounted keeper within said casing having a perforation and a side notch therein in normal alinement with the perforation and extension respectively of the hasp when the hasp is in its closed position, and a locking bolt positioned through the perforations of said hasp and keeper when the elements are in their locked positions.

2. A lock comprising a casing having an opening in one wall thereof, a hasp positionable within said opening and provided with a perforation adjacent its inner end and having an angular flange at its inner end, a slidably mounted keeper within said casing having a perforation and a side notch therein in normal alinement with the perforation and extension respectively of the hasp when the hasp is in its closed position, a plate to which the said keeper is secured and provided with perforations therethrough, locking pins slidable transversely of the said plate and adapted for entering the said plate perforations when the keeper is in its locked position, and a slidable locking bolt positioned in alinement with the perforations of said hasp and keeper.

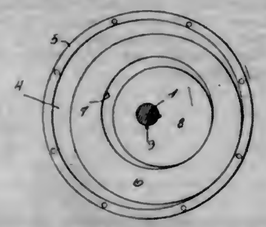
3. A lock comprising a casing, a shelf and a partition within the said casing parallel to each other and each provided with a central longitudinal slot and the said partition also having an end opening, an operating plate slidably mounted upon said partition and provided with perforations therethrough registering with the slot of said partition, a keeper secured to one end of said plate and projecting through the end opening of said partition and provided with a perforation therethrough and a notch in one face thereof, locking pins slidably mounted in said casing projecting through the slot of said partition and seated within the perforations of said plate when the keeper is in its locked position, a hasp having one end thereof positioned within said casing and provided with an angular extension in engagement with the notch of said keeper in its locked position.

4. A lock comprising a casing, a shelf and a partition within the said casing parallel to each other and each provided with a central longitudinal slot and the said partition also having an end opening, an operating plate slidably mounted upon said partition and provided with perforations therethrough registering with the slot of said partition, a keeper secured to one end of said plate and projecting through the end opening of said partition and provided with a perforation therethrough and a notch in one face thereof, locking pins slidably mounted in said casing projecting through the slot of said partition and seated within the perforations of said plate when the keeper is in its locked position, a hasp having one end thereof positioned within said casing and provided with an angular extension in engagement with the notch of said keeper when in its locked position, the said hasp being provided with a perforation therethrough positionable in alinement with the perforation of said keeper, a slidable bolt upon said shelf and projecting through the perforations of said hasp and keeper when the elements are in their locked positions.

5. A lock comprising a casing, a slotted shelf positioned therein, a hasp provided with an angular extension and a perforation adjacent one end thereof and positionable within the said casing, a bolt member slidably mounted upon said shelf and having inclined notches in its upper face and being further provided with a perforation intersecting one of the said notches, a leaf spring having one end thereof secured to said shelf and having its other end in normal engagement with the said bolt member and in seating engagement with the notch which is provided with the perforation when the bolt member is in its locked position, a hasp member in the path of movement of the said bolt member, a shifting key for the said bolt member provided with a ward adapted for engaging the free end of said spring when projected through the said perforation and spring engaged notch of the lock member.

[Claims 6 and 7 not printed in the Gazette.]

1,130,788. CLUTCH MECHANISM. OTIS N. BALDWIN, Baxter Springs, Kans. Filed May 23, 1912. Serial No. 699,258. (Cl. 192—2.)

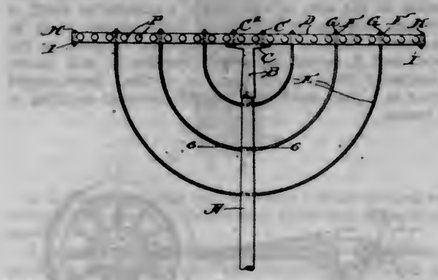


A device for transmitting rotary motion comprising a driving element, a cam member carried by said driving element, a driven element having an internal friction surface, and an eccentric band having continuous inner and outer friction surfaces loosely mounted between said driving and driven elements for engagement therewith when in a predetermined position.

1,130,789. RAKE. GEORGE N. BARBIE, Brookline, Mass. Filed Apr. 20, 1914. Serial No. 833,072. (Cl. 55—10.)

1. In a rake, the combination of a head, consisting of a tube of resilient material, perforated for rake-teeth at opposite sides, and split through the perforations along one side, teeth adapted to insertion in the perforations in the head, a rake handle, arch wires, said wires passing through the rake handle and comprising means to hold the head closed on the teeth at the split side thereof

2. In a rake, the combination of a head, consisting of a tube of resilient material, perforated for rake-teeth at opposite sides, and split through the perforations along one side, teeth adapted to insertion in the perforations in the head, a rake handle, arch wires, provided with laterally projecting fins at the center of each wire and near the ends, said fins at the center engaging the material of the handle, those near the ends engaging the side of the rake head, the ends of the arch wires being threaded, and passing through the rake head, and nuts to engage the ends of the arch wires.



3. In a rake, the combination of a head, consisting of a tube of resilient material, perforated for rake-teeth at opposite sides, and split through the perforations along one side, teeth adapted to insertion in the perforations in the head, and making a close driving fit in the perforations in the unsplit side, a rake handle, arch wires, said wires passing through the rake handle and comprising means to hold the head closed on the teeth at the split side thereof.

4. In a rake, the combination of a head, consisting of a tube of resilient material, perforated for rake-teeth at opposite sides, and split through the perforations along one side, teeth adapted to insertion in the perforations in the head and making a close driving fit in the perforations in the unsplit side, a rake handle, arch wires, provided with laterally projecting fins at the center of each wire and near the ends, said fins at the center engaging the material of the handle, those near the ends engaging the side of the rake head, the ends of the arch wires being threaded, and passing through the rake head, and nuts to engage the ends of the arch wires.

5. In a rake, the combination of a head consisting of a tube of resilient material, with inwardly burred perforations along one side and perforations along the other side, and split through said latter perforations, teeth adapted to insertion in the perforations and to make a driving fit in the burred perforations, and means to hold the head closed on the teeth at the split side.

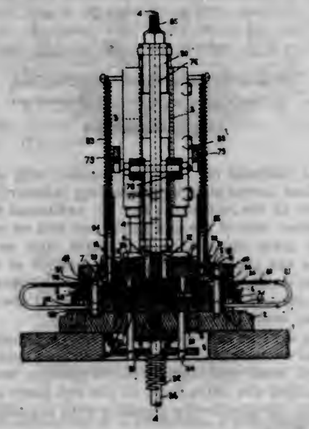
[Claim 6 not printed in the Gazette.]

1,130,790. MACHINE FOR COVERING EYEGLASS-CASES. LOUIS E. BROWN, Roxbury, Mass., assignor to Farrington Manufacturing Company, Roxbury, Mass., a Corporation of Maine. Filed Dec. 31, 1913. Serial No. 809,802. (Cl. 93—54.)

1. In a machine for applying covering material to a form, a pair of dies to shape the covering material to the form, operating means to cause relative movement between the dies, a tension member normally held in inoperative position adapted to engage the edge of the covering material and hold it under tension during the operation of the dies and means coöperating with said operating means to bring into operation the tension member upon operation of the dies.

2. In a machine for applying covering material to a form, relatively movable dies adapted to receive a form, and covering material therefor and to shape the covering material to the form and a jaw having teeth engaging the covering material adjacent the dies and each tooth presenting an extended bearing edge extending toward the dies in the direction of movement of the covering material during the operation of the dies.

3. In a machine for applying covering material to a form, a plunger, a member having a recess adapted to receive the form and cover presenting an edge adapted to turn the edge of the covering material upwardly around the form as the form and cover are forced downwardly into said recess, and a jaw having teeth engaging the covering material adjacent the edge of the recess, said teeth presenting elongated edges engaging the covering material and lying in the direction of movement of said material as it is drawn toward said recess, whereby the material is held under tension and smoothly shaped to the form.



4. In a machine for affixing covering material to a form, in combination, a yieldably-supported member, a member closely embracing said yieldably-supported member for a portion of its periphery and presenting a turning edge adjacent said yieldably-supported member, a vertically movable plunger adapted to press the form and yieldably-supporting member downwardly relative to the embracing member whereby the turning edge will fold the edge of the covering material upwardly, and jaws operable upon the descent of the plunger to yieldably engage the edges of the covering material where it extends beyond the edges of the form to hold said covering material under tension.

5. In a machine for affixing covering material to an article, in combination, a yieldably-supported member for receiving the covering material and the article to be covered, a member closely embracing said yieldably-supported member for a portion of its periphery and presenting a turning edge adjacent said yieldably-supported member, a vertically movable plunger adapted to press the yieldably-supported member and article downwardly whereby the turning edge will fold the edge of the covering material upwardly, pivoted jaws positioned to engage the covering material where it extends beyond the edges of the article, spring-pressed plungers movable with said vertically movable plunger and arranged to engage said pivoted jaw upon the descent of the plunger to force the jaws into engagement with the covering material whereby the covering material is held in tension as it is drawn over the turning edge and downwardly with the yieldably-supported member and article to be covered.

[Claims 6 to 14 not printed in the Gazette.]

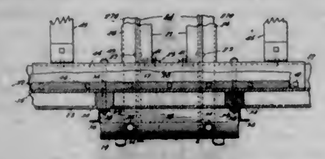
1,130,791. RAILWAY FREIGHT-CAR. RICHARD WEBB BURNETT and HENRY H. VAUGHAN, Montreal, Quebec, Canada. Filed June 12, 1914. Serial No. 844,633. (Cl. 105—192.)

1. In a railroad car, the combination with the end of a car having end posts therein, of a reinforcing member secured to each end post, an additional inner lining and means for securing the additional lining and reinforcing members together.

2. In a railroad car, the combination with the end of the car having end posts, of Z-bar members extending longitudinally of the posts, an additional inner end lining, and means passing through the end of the cars for connecting the Z-bar members to the additional inner lining.

3. In a railroad car, the combination with a car end, end sill and center sills, of reinforcing members above the

outer face of the end of the car, an additional end lining on the inner face of the end of the car, and an end sill reinforcing plate secured to the longitudinal sills and passing above the end sill and underneath a portion of the end of the car.

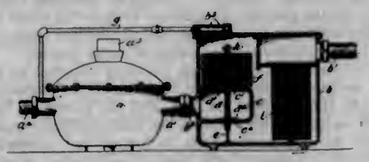


4. In a railroad car, the combination with a car end, end sill and center sills, of reinforcing members above the outer face of the end of the car, an additional end lining on the inner face of the end of the car and an end sill reinforcing plate secured to the center sills and passing above the end sill and underneath a portion of the end of the car to support same, the reinforcing members being secured to the end sill and through the end of the car to the additional inner lining.

5. In a railway car, a car end having end posts therein, inner and outer lining associated with such end posts, an additional inner end lining and reinforcing members extending along the outer faces of the end posts and means connecting the reinforcing members with the additional inner end lining.

[Claims 6 to 8 not printed in the Gazette.]

1,130,792. SEPARATOR FOR METERS. JAMES M. BURTON, Long Island City, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 6, 1911. Serial No. 664,131. (Cl. 137—78.)

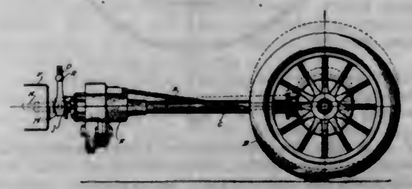


The combination with a meter of a closed vessel having an inlet for volatile liquids adjacent the top thereof, a valve casing within the vessel having an outlet for liquid disposed below the level of said inlet, said outlet communicating with the inlet for the meter through a relatively short passage and being formed in substantial alinement with the inlet to the meter, the meter being disposed in juxtaposition to the vessel, ports in the valve casing to permit the flow of liquid from the first named vessel to the outlet, valves to control the ports, a float operatively connected to said valves to control the same, an independent outlet for gas adjacent the top of said first named vessel, a valve carried on the float and arranged to coöperate directly with the said outlet for gas to control the flow of gas from the vessel, and a by-pass communicating directly with the outlet for gas and with the outlet of the meter at a point in juxtaposition to the meter.

1,130,793. VEHICLE DRIVE MECHANISM. ALANSON P. BRUSH, Detroit, Mich. Filed June 1, 1914. Serial No. 842,119. (Cl. 21—90.)

1. The combination with a vehicle frame and a drive axle, of a power transmission shaft extending from said frame to said drive axle, a housing for said shaft through which the thrust is transmitted to said frame, and universal couplings respectively for said power transmission shaft and between said housing and frame having their centers arranged in a line parallel to said drive axle; laterally offset in relation to each other.

2. The combination with a frame and a drive axle, of a power transmission shaft extending from said frame to the axle, a forward extension from the axle for transmitting thrust to the frame, a universal coupling between said forward extension and the frame, laterally offset in relation to the axis of said power transmission shaft, a universal coupling in said power transmission shaft in transverse alinement with said universal coupling to the frame, and a second universal coupling in said power transmission shaft, permitting the vertical displacement thereof in a path concentric to said universal coupling to the frame.



3. The combination with a frame and a drive axle, of a power transmission shaft extending from said frame to said axle, a forward extension from said axle for transmitting thrust to the frame, a universal coupling between said forward extension and the frame, laterally offset in relation to the axis of said power transmission shaft, a universal coupling in said power transmission shaft having its center in aline passing through the center of the universal coupling to the frame and parallel to the axle, a drive member journaled in fixed bearings on the frame, and an angularly displaceable shaft between said drive member and universal coupling in said power transmission shaft, permitting displacement of the latter in a path concentric to the universal coupling of said forward connection with the frame.

4. The combination with a frame and a drive axle, of a power transmisaion shaft extending from the one to the other, a forward extension from said axle for transmitting the thrust to the frame and in which said power transmission shaft is journaled, a universal coupling between said forward extension and the frame, laterally offset in relation to the axis of said power transmission shaft, a rotary drive member journaled in fixed bearings upon the frame, a universal coupling for said power transmission shaft in transverse alinement with the universal coupling to said frame, and an angularly displaceable shaft between said universal coupling in the power transmission shaft and said rotary drive member on the frame.

5. The combination with the frame and a drive axle, of a power transmission shaft extending from one to the other, a forward extension from the axle forming a housing and journal for said power transmission shaft and also the means for transmitting the thrust from the axle to the frame, a transmission gearing mounted on the forward portion of said forward extension, a universal coupling between said forward extension and the frame, laterally offset in relation to the axis of said power transmission shaft, a connection between said power transmission shaft and the drive mechanism on said shaft in a path concentric to said universal coupling, and a control for said transmission gearing mounted on said frame and laterally offset in relation to said universal coupling, said control permitting the universal movement of said transmission and being operable in all positions of adjustment thereof.

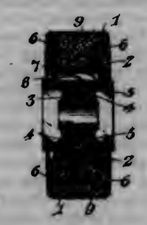
[Claims 6 to 8 not printed in the Gazette.]

1,130,794. WHEEL FOR ROLLER-SKATES. BURTON EARL CLARK, Pittsburgh, Pa. Filed Feb. 11, 1913. Serial No. 747,751. (Cl. 46—52.)

1. A wheel for roller skates having a tread portion composed of hardened and tempered porcelain.

2. A wheel for roller skates having a tread portion of porcelain containing additional silica.

3. A wheel for roller skates having a tread portion of porcelain containing arsenic and additional silica.

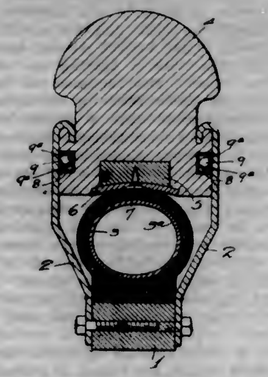


4. A wheel for roller skates having a tread portion composed of porcelain, a toughening agent and a hardening agent.

5. A wheel for roller skates comprising an annulus of porcelain with a metallic hub secured thereto, and protecting face plates at the sides thereof exterior to the hub and there provided with clamping means connecting said face plates.

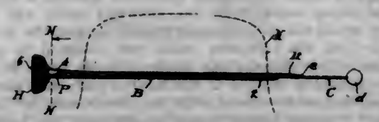
[Claims 6 to 10 not printed in the Gazette.]

1,130,795. VEHICLE WHEEL-TIRE. MELVILLE CLARK, Chicago, Ill. Filed Oct. 4, 1913. Serial No. 793,272. (Cl. 152—10.)



A vehicle wheel tire comprising, in combination an air spring or pneumatic tube whose outer surface at its outer circumference is formed of fibrous fabric; an endless leather belt encompassing the air spring and having its inner surface in contact with the latter, and an outer tread member of which the leather belt forms a facing at its inner circumference.

1,130,796. HAT-PIN. CLEMENT CLEVELAND, New York, N. Y. Filed Jan. 23, 1914. Serial No. 813,870. (Cl. 24—150.)

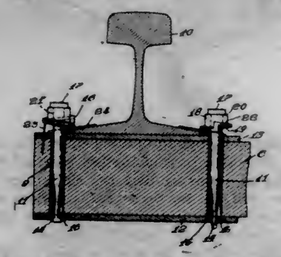


1. A duplex hat-pin comprising a tubular pin having at the head-end thereof a point-stop in line with the bore of the tube, with an adjacent branch-way entrance for a central pin, and having at the other end thereof a resilient point normally located in line with the bore of the tube and thereby tensioned against a central pin which is longer than the tubular pin when such central pin is inserted within the tubular pin from either direction.

2. A duplex hat-pin comprising a tubular pin having a head, said head forming a point stop in line with the bore of the tube, and an adjacent branch-way entrance in said head for a central pin.

3. A duplex hat-pin comprising a tubular pin having a central bore, said central bore being enlarged at the head end of said pin, a point stop in line with the bore of the tube at the head end, there being an entrance eccentric of said bore in said enlargement for a central pin.

1,130,797. RAIL-FASTENER. CHARLES H CORNELL, Valentine, Nebr. Filed Mar. 16, 1914. Serial No. 825,034. (Cl. 238—4.)



1. The combination of a tie having a hole therethrough, a plate under said tie having a slot in alinement with the hole through the tie and having depressions at the sides of the slot, a bolt having a locking end adapted to be inserted through the slot and turned to engage with the depressions, a rail, and a cam washer rotatably engaging with the upper end of the bolt, with its cam surface engaging with the lower flange of the rail.

2. The combination of a railway tie, an upper plate on said tie and rail resting on said plate, said plate and tie having a hole therethrough, adjacent to the rail, a lower plate having a slot in alinement with said hole, and having a depression in its lower surface arranged transversely to the slot, a bolt having a lug at its lower end adapted to be passed through the slot and turned to engage with the depression in the lower plate and having a head at its upper end, a locking member rotatably engaging with said bolt and having a camlike lower surface for locking the rail in position, and also having an upwardly extending portion adapted to be engaged by wrench for turning the same, said locking member also having a plurality of recesses in its outer periphery, and a nail engaging with the tie and passing through one of said recesses.

3. The combination with a fastening bolt for a rail, of a removable locking member having its lower surface made in the form of a helicoidal cam.

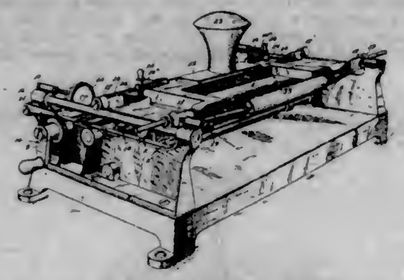
4. The combination with a fastening bolt for rails having an angularly formed upper portion, of a locking member, having an angularly shaped hole therethrough for engagement with the bolt, and having a cam-like lower surface for engagement with a rail or the like for pressing the same down.

5. The combination of a tie, a plate on the lower surface of the tie, a bolt passing through said tie, means for locking the lower end of the bolt to the plate, a rail, a clamping member engaging with the flange of the rail, a cam washer rotatably mounted on said bolt, having its cam surface engaging with the clamping member, and means for holding said washer in adjusted position.

1,130,798. MEANS FOR OPERATING UPON CHARACTER-BEARING SURFACES. GEORGE R. CORNWALL, Rye, N. Y., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Apr. 25, 1906. Serial No. 313,629. Renewed July 24, 1914. Serial No. 852,935. (Cl. 101—166.)

1. A machine, adapted to operate upon character-bearing strips, including in combination means for registering

a plurality of strips so that the characters upon the said strips will be in registered relation with each other, and means for fixing the said strips in position with reference to each other so as to preserve the characters thereon in such registered relation.



2. A machine, adapted to operate upon character-bearing surfaces, including in combination means for registering a plurality of strips so that the characters upon the several strips will be in registered relation with each other, and means for attaching the strips together to preserve the characters in the said relation.

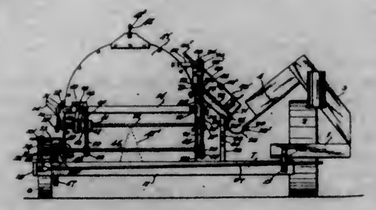
3. A machine adapted to operate upon strips bearing lines of characters, including in combination means for registering a plurality of strips so that the lines of characters upon the several strips will be in registered relation with each other, and means for fixing the said strips in position with reference to each other so as to preserve the characters thereon in such registered relation.

4. A machine adapted to operate upon strips bearing lines of characters, including in combination means for registering a plurality of strips so that the lines of characters upon the several strips will be in registered relation with each other, and means for attaching the strips to each other to preserve the lines of characters in the said relation.

5. A machine adapted to operate upon strips bearing lines of characters including in combination means for supporting a line-bearing strip, means for supporting a second line-bearing strip, means for moving one of said strips relatively to the other so that the lines of characters upon the two strips will be brought into registered relation, and means for fixing said strips in position to preserve the said lines in such relation.

[Claims 6 to 35 not printed in the Gazette.]

1,130,799. SHOCKING-MACHINE. PAUL COTA and WALTER COTA, Langdon, Alberta, Canada. Filed Mar. 19, 1914. Serial No. 825,865. (Cl. 56—121.)



1. The combination with a binding machine and a shocking machine frame having the inner end thereof pivotally secured to the binder frame on the deck side and the outer end thereof mounted on a carriage wheel, of a sheaf receiving and shock forming basket pivotally mounted on the frame, a conveyer carried by the shocker frame and disposed between the binder deck and the basket and designed to elevate the sheaves from the deck and deposit them in the basket, a spring pressed pressure arm pivotally secured to the basket on the side opposing the conveyer, said pressure arm having one end thereof extending upwardly within the basket but clear of the same and the other end extending outwardly beyond the basket in the form of a trip and engaging with the shocker frame and normally locking the basket in the sheaf receiving postion said arm having the inner end thereof designed to be actuated by sheaf pressure upon the complete formation of a shock within the basket to release the trip end thereof from the frame and free the basket to dump, a stationary butting plate carried by the frame and adjoining the forward end of the basket, a rotatably mounted counter shaft carried by the shocker frame and normally rotated by the carriage wheel in the advancement of the machine, an auxiliary shaft mounted on the shocker frame, a chain wheel fixed on the counter shaft, a chain wheel rotatably mounted on the auxiliary shaft and connected through a chain with the latter chain wheel, shiftable spring pressed means for coupling the chain wheel on the auxiliary shaft to the auxiliary shaft, a lever pivotally secured to the butting plate having one end thereof connected with the shiftable coupling means aforesaid and the opposite end turned inwardly through the butting plate toward the basket, a trip bar secured to the forward end of the basket and normally engaging with the lever and normally holding the coupling means disengaged, said trip bar being designed in the unlocking of the basket to free the lever and release the shiftable means to couple the chain wheel to the auxiliary shaft and effect the rotation of the auxiliary shaft with said chain wheel, means actuated by the auxiliary shaft in rotating for dumping the basket and returning the same to the initial position, as and for the purpose specified.

2. The combination with a binding machine and a shocking machine frame having the inner end thereof pivotally secured to the binder frame on the deck side and the outer end thereof mounted on a carriage wheel, of a sheaf receiving and shock forming basket pivotally mounted on the frame, a conveyer carried by the shocker frame and disposed between the binder deck and the basket and designed to elevate the sheaves from the deck and deposit them in the basket, a spring pressed pressure arm pivotally secured to the basket on the side opposing the conveyer, said pressure arm having one end thereof extending upwardly within the basket but clear of the same and the other end extending outwardly beyond the basket in the form of a trip and engaging with the shocker frame and normally locking the basket in the sheaf receiving position, said arm having the inner end thereof designed to be actuated by sheaf pressure upon the complete formation of a shock within the basket to release the trip end thereof from the frame and free the basket to dump, a stationary butting plate carried by the frame and adjoining the forward end of the basket, a rotatably mounted counter shaft carried by the shocker frame, a drive connection between the carriage wheel and the counter shaft, a drive connection between the counter shaft and the conveyer, an auxiliary shaft mounted on the shocker frame and parallel with the counter shaft, a chain wheel fixed on the counter shaft, a chain wheel freely mounted on the auxiliary shaft and operating between a pair of collars fixed to the auxiliary shaft, said latter chain wheel being provided with a series of concentrically arranged openings, a chain connecting the chain wheels, a spring pressed sleeve mounted on the auxiliary shaft and adjoining one of the collars, a pin extending from the sleeve slidably into the adjoining collar and designed to pass into one or the other of the openings in the chain wheel, a lever pivotally secured to the butting plate and having one end thereof connected with the sleeve and the opposite end thereof turned inwardly through the butting plate toward the basket, a trip bar secured permanently to the forward end of the basket and engaging normally with the lever and retaining the same normally in a position such that the pin is free of the chain wheel, said trip bar being designed in the unlocking of the basket to pass away from the lever and thereby free the pin to pass under the action of the spring into the chain wheel and effect the rotation of the auxiliary shaft with the counter shaft, cranks located at the ends of the auxiliary shaft, actuating arms extending from the basket and links connecting the actuating arms with the cranks, as and for the purpose specified.

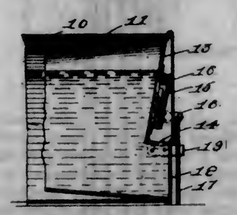
3. The combination with a binding machine and a shocking machine frame having the inner end thereof connected to the binding machine and the outer end pivotally mounted on a carriage wheel, of a sheaf receiving and shock forming basket pivotally carried by the shocker frame and comprising an opposing pair of converging side bars secured by opposing pivot pins to the frame, a pair of normally closed gates forming the bottom of the basket, said gates being hinged to the side bars, out-turned guide bars secured to the shocker frame and arranged concentric to the pivot pins, foot pieces extending from the under side of the gates and riding on the guide bars, said foot pieces holding the gates closed in the formation of the shock within the basket, a normally open top hinged to one of the cross bars, a stationary butting plate closing the forward end of the basket and carried by the shocker frame, automatically operated means actuated by the carriage wheel for upending the basket to dump the shock and returning the same to the initial position, a pressure rod pivotally connected to the butting plate and provided with a hooked end, a slotted guide bar secured to the top of the basket and receiving the hooked end of the rod, said pressure rod being designed to effect the closing in of the top of the basket in the dumping position thereof, as and for the purpose specified.

4. In a shocking machine the combination with a pivoted basket provided with a hinged top, of a pressure bar located on the inner side of the top and having one end permanently secured to the top and the other end thereof provided with an extending pin slidably received within the top, as and for the purpose specified.

5. The combination with a binding machine, a shocking machine frame having the inner end thereof pivotally connected to the binder frame and the outer end thereof pivotally mounted on a carriage wheel, a sheaf receiving and shock forming basket pivotally carried by the frame and having an opening in the side thereof toward the binder and an inclined conveyer carried by the shocker frame and designed to receive sheaves from the binder deck, elevate them and deposit them in the basket, of a rotatably mounted elevated ejector shaft passing across the upper end of the conveyer and provided with a centrally disposed crank and means actuated by the carriage wheel for rotating the ejector shaft, as and for the purpose specified.

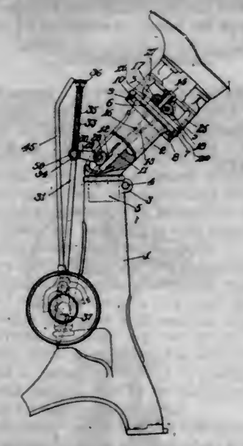
[Claim 6 not printed in the Gazette.]

1,130,800. FOUNTAIN. WILLIAM H. COTTON, Salem, N. Y. Filed Sept. 25, 1913. Serial No. 791,813. (Cl. 119—73.)



In a drinking fountain of the class described the combination with an outer receptacle, an inner receptacle positioned within said outer receptacle, said inner receptacle provided with converging sides, thereby forming a dead-air space between said inner and outer receptacles, said inner receptacle provided upon its lower portion with a vertical front wall, a slanting front wall formed integral upon said inner receptacle so that the lower end of said slanting front wall will be spaced at a distance from the upper portion of said vertical front wall, the forward portion of said outer receptacle extending for a distance beyond the forward face of said slanting wall of said slanting receptacle, said inner wall provided with an enlarged hand opening, a threaded neck formed about said enlarged opening, a cap threaded into engagement with said neck for forming a closure for said opening, said cap adapted to be removed to allow a person to pass a hand through said opening for cleaning the interior of said inner receptacle, said body and neck being positioned within said outer receptacle so as to prevent a foreign object from swinging across the front of said drinking fountain and knocking the cap from engagement with said neck.

1,130,801. WORK-SUPPORT. ERNEST ALBERT CRIDLAND, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 10, 1910. Serial No. 586,249. (Cl. 12—124.)



1. A machine for reforming turn shoes comprising a standard having a portion arranged at a fixed acute angle to the vertical, an expansible last mounted on said standard, power operated mechanism for repeatedly and forcibly expanding the last while it is within the shoe, and means for controlling the number of power operations to which the shoe is subjected.

2. In a device of the class described a standard, a head extending therefrom at a permanent angle of substantially 45° to the horizontal, a last support arranged on said head to rotate about an axis inclined at said angle, and means comprising a depending flange on the last support and a coöperating ring thereon and engaging the head for holding the last support upon the head.

3. A device of the character described comprising an upright column, an inclined head mounted for adjustment axially of said column in the top thereof, an expansible last mounted on said head for rotation with respect thereto, and means for expanding said last.

4. In a device of the class described, the combination with an upright standard, of an inclined head mounted thereon, an expansible last comprising toe and heel portions rotatably mounted on said head, and means for moving the toe and heel parts of the last toward and from each other independent of the rotative movements of the last.

5. In a device of the class described, the combination of an expansible last having heel and toe portions, means for maintaining said last in constant angular relation to a horizontal plane, means permitting the last to be rotated about an axis in the said angular relation, and power-operated means under manual control and acting independently of said rotation for resiliently moving said heel and toe portions simultaneously from each other and, upon further manipulation of said manual control, for moving them toward each other.

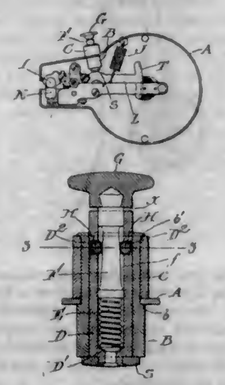
[Claims 6 to 13 not printed in the Gazette.]

1,130,802. FLUID-HOLDER. STUART S. CRIPPEN, Chicago, Ill., assignor to L. B. Allen Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 1, 1911. Serial No. 663,460. (Cl. 113—111.)



The combination of flux holder of soft collapsible metal, a threaded neck of harder material forced thereon, a nozzle therefor and an aluminum tip therefor attached to said nozzle, said tip being traversed by a V-shaped channel.

1,130,803. RELEASING DEVICE. ERNEST B. CROCKER, Bridgeport, Conn., assignor to The Ashcroft Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 28, 1913. Serial No. 770,308. (Cl. 33—147.)



1. The combination in a gage, of measuring jaws, resilient means normally urging the jaws to position of closure, means to open said jaws, and means to retard the otherwise ungoverned action of the resilient closing means to prevent the sudden closing of said jaws.

2. The combination in a gage having measuring jaws, comprising a fixed member and a movable member, of resilient closing means normally urging the jaws to position of closure, means to move said movable members away from said fixed member, and means to retard the otherwise ungoverned action of the resilient closing means to prevent the sudden closing of said jaws.

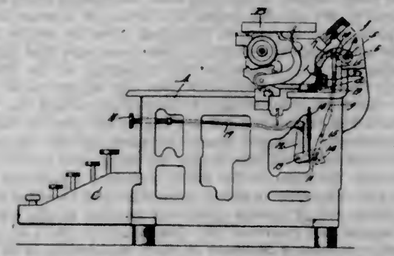
3. The combination with a gage having a casing and measuring jaws, comprising a fixed member and a pivoted member, of means adapted normally to hold said pivoted member in engagement with said fixed member, a guide mounted on said casing, a push rod slidably mounted in said guide, means to lock said rod against movement in said guide, and means to release said locking means.

4. The combination with a gage having a casing and measuring jaws, comprising a fixed member and a pivoted member, of means adapted normally to hold said pivoted member in engagement with said fixed member, a guide mounted on said casing, a push rod slidably mounted in said guide, means frictionally to lock said rod against movement in said guide, and means to release said locking means.

5. The combination with a gage having a casing and measuring jaws, comprising a fixed member and a pivoted member, of means adapted normally to hold said pivoted member in engagement with said fixed member, a guide mounted on said casing and having a slot, a push rod slidably mounted in said guide, a roller in said slot, means normally to hold said roller in engagement with said guide to lock said rod against movement, and means to release said roller.

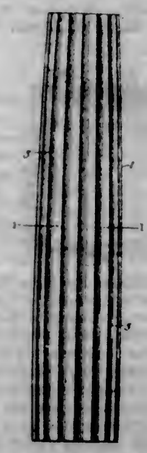
[Claims 6 to 8 not printed in the Gazette.]

1,130,804. MARGIN-ADJUSTING ATTACHMENT FOR TYPE-WRITERS. FRANK M. DILLON, Durham, N. C. Filed Oct. 5, 1912. Serial No. 724,131. (Cl. 197—179.)



The combination with a typewriter carriage, and a toothed bar carried thereby, of a margin stop normally engaging and moving the bar, means interposed between the bar and the top of the stop for yieldingly supporting the stop to hold it in engagement with the teeth on the bar, a rock shaft held against longitudinal movement said shaft being parallel with the bar, a finger extending from the shaft, an arm radiating from the rock shaft, a lever, a connection between said lever and the arm, a spring connected to the lever for holding the finger on the rock shaft normally elevated out of the path of the stop, and means for actuating the lever to rock the shaft against the action of the spring connected to the lever, said shaft, when rocked, constituting means for shifting the finger into engagement with the stop to depress the stop out of engagement with the teeth upon the bar and to hold the stop against movement with the bar, there being a recess in the stop for the reception of the finger.

1,130,805. COLUMN. HERBERT C. DRUMM, Canton, Ohio, assignor to The Union Metal Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed June 5, 1912. Serial No. 701,802. (Cl. 189—38.)



1. As an improved article of manufacture, an entasis column formed of sheet metal, the body of said column

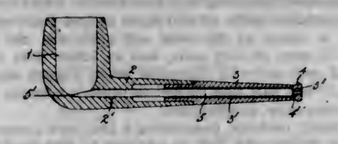
provided with shallow flutes between its ends and the flutes of greater depth in the end portions thereof, said flutes curved longitudinally.

2. An entasis column consisting of a sheet metal body portion, said body portion provided with corrugations, the corrugations in the central portion of the column being less in depth than the corrugations in the end portions thereof, the corrugations extended from the central portion continued in different degrees of depth in opposite directions, said corrugations curved throughout the entire length.

3. As an improved article of manufacture, an entasis column made of sheet metal and corrugated longitudinally, the valleys of the corrugations in the longitudinal central portion of the column being of less depth than the end portions of said corrugations.

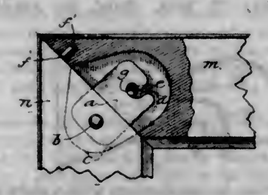
4. As an improved article of manufacture, an entasis column made of sheet metal and corrugated longitudinally, the valleys of the corrugations in the longitudinal central portion of the column being of less depth than the portions of said corrugations, and the apexes of the corrugations curved longitudinally.

1,130,806. TOBACCO-PIPE. ALFRED DUNHILL, London, England. Filed Mar. 7, 1913. Serial No. 752,656. (Cl. 131—12.)



In a tobacco pipe, in combination, a bowl portion provided with a stem, a mouth-piece removably supported by said stem, said mouth-piece being provided at its outer end with an inwardly extending shoulder, and a tube extending through said mouth-piece and said stem and into said bowl portion, one end of said tube engaging said shoulder and the other end of said tube being cut away to conform approximately to the shape of the bowl portion.

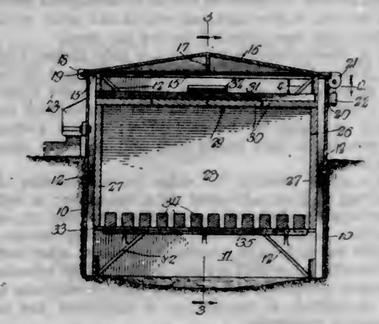
1,130,807. FRAME-JOINT. CARL FINGERHUT, Chicago, Ill. Filed July 29, 1912. Serial No. 712,125. (Cl. 20—92.)



1. In frame joints, the combination of a frame piece having a pivotal tongue projecting therefrom, said tongue having a cam slot undercut to form a hook at the end of the tongue, a companion frame piece recessed to seat said tongue and having a lock pin cross cut to engage said cam slot and arranged to coöperate with the hook of said tongue to draw the frame pieces together and swing said tongue upon its pivot, substantially as described.

2. In frame joints, the combination of a frame piece having a pivotal tongue projecting therefrom, said tongue having a cam slot at its end undercut to form a hook at the end of the tongue, a companion frame piece having a lock pin cross cut to engage said cam slot of said tongue and arranged to coöperate with the end hook thereof to draw said frame pieces together and swing said tongue upon its pivot, one of said frame pieces having a projecting dowel pin and the other a hole to receive the same to thereby aline said frame pieces, substantially as described.

1,130,808. BATTERY-WELL. JOHN M. FITZ GERALD, Chicago, Ill., assignor to The Railroad Supply Co., Chicago, Ill., a Corporation of Connecticut. Filed Sept. 27, 1913. Serial No. 792,082. (Cl. 204—53.)

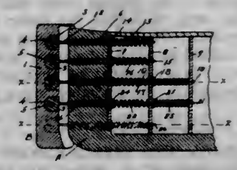


1. A knock-down battery well comprising side walls, means for detachably locking said walls together at their vertical edges to form a box which is open top and bottom, said walls being provided with means on their inner surface defining an air jacket spaced within the box, two opposite walls of the box being provided with means forming supports located above the bottom of said box, and a knock-down frost box adapted to rest upon said supports within the said defined air jacket space.

2. A knock-down battery well, comprising side walls, means for detachably locking said side walls together at their vertical edges to form a box open top and bottom, said walls being provided with spacing ribs to define an air jacket within the box, and two of the opposite walls being provided with flanges located above the bottom of said box, and a knock-down frost box adapted to be supported on said flanges and to be contained in the jacket space defined by said spacing ribs.

3. A knock-down battery well, comprising side walls, means for detachably locking said side walls together at their vertical edges to form a box open top and bottom, said walls being provided with spacing ribs to define an air jacket within the box, and two of the opposite walls being provided with flanges located above the bottom of said box, and a knock-down frost box comprising side walls adapted to be assembled together within the battery, and when thus assembled to form a box, open top and bottom, resting upon said flanges and contained within the jacket space defined by said spacing ribs, a floor comprising a plurality of parellel floor beams and transverse members attaching said floor beams together and a removable cover for said frost box, in combination with a separable cover for said battery well, and means for locking the same in position.

1,130,809. SHIP-BOW SHIELD AND SHOCK-ABSORBER. CHRISTIAN GERBER, Morgan, Utah. Filed Oct. 19, 1914. Serial No. 867,552. (Cl. 114—219.)



1. In a shield and shock absorber for ship collisions, a V-shaped shield spaced from the bow of the ship; buffer bars slidably carried in the bow of the ship and to which said shield is pivoted; and spiral springs carried on said buffer bars to normally maintain the space between said shield and the bow of the ship.

2. In a ship-bow shield and shock absorber the combination of horizontally disposed buffer bars slidably carried in the prow of the ship and extended in front thereof; a V-shaped shield pivoted on said buffer bars and spaced from and around the prow of the ship; and spiral springs carried on said buffer bars and within the prow to normally hold said bars extended beyond the prow.

3. In a shock absorber for ships, a ship having a narrowed prow; buffer bars horizontally disposed in said prow; pipes within which said buffer bars are slidably carried; spiral springs carried on said bars to hold them yieldingly extended beyond said prow; and a V-shaped shield pivoted on said buffer bars and normally spaced from said prow.

4. In a shock absorber for ships the combination of a ship having a prow narrowed as a cut-water; a buffer bar horizontally disposed and slidably carried in said prow with a portion extended; a spiral spring carried on said buffer bar to hold it yieldingly extended; other buffer bars vertically below said bar and similarly held extended; and a shield pivoted on the extended ends of said bars and shaped to conform to the contour of said prow and normally spaced therefrom.

5. In a shock-absorber for ships the combination of a ship having a prow narrowed as a cut-water; a buffer bar horizontally disposed and slidably carried in said prow with a portion extended in front of the prow; a perforated pivot plate on the extended end; a spiral spring carried on said bar to yieldingly hold it extended; another bar vertically below the first mentioned bar; springs carried thereon to hold it normally extended; another buffer bar vertically below the last mentioned bar; a cross-head on the rear end thereof; parallel bars horizontally extended from the rear side of said cross-head; springs carried on said bars to normally hold said buffer bar extended; two parallel spaced apart buffer bars below said last mentioned bar with portions of each forwardly extended; pivot plates on each; and a V-shaped shield pivoted on the extended ends of said bars spaced from said prow.

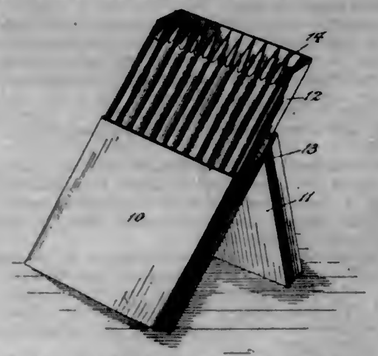
1,130,810. NUT-LOCK. FRANK GOFF, Camden, N. J., assignor of one-half to W. H. Cox, Camden, N. J. Filed Apr. 18, 1914. Serial No. 832,843. (Cl. 151—24.)



In a nut lock, the combination with a threaded bolt, of a nut having a threaded diagonally arranged bore disposed perpendicularly of the outer inclined side faces of the threads of the bolt, a locking screw mounted in the threaded bore of the nut and having a flat inner end face set at an angle or inclination and coinciding with the inclined outer side faces of the threads of the bolt and arranged to fit flat against and frictionally engage one of the side faces of the same, and a coiled spring disposed on the outer portion of the locking screw and having its outer end engaged with the same, the inner end of the spring being extended to form an engaging portion, and the screw being located at one of the front corners of the polygonal nut, whereby a plurality of angularly disposed nut faces is presented to the engaging inner end of the spring.

1,130,811. SHIPPING AND DISPLAY BOX. BYRON B. GOLDSMITH, New York, N. Y. Filed Jan. 13, 1913, Serial No. 741,823. Renewed July 30, 1914. Serial No. 854,168. (Cl. 206—44.)

1. A combined shipping box and display frame, comprising a container made in two parts movable angularly with respect to each other, and an inner slide fitting said container and made long enough to slide through one of the parts of said container and project into the other part, substantially as described.



2. A combined shipping box and display frame consisting of a container made of two parts hinged together, and an inner slide fitting said container and long enough to slide through one of said parts and into the other, substantially as described.

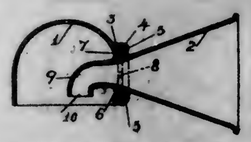
3. A combined shipping box and display frame consisting of a container made of two parts hinged together, one of which is closed at its outer end only, and the other of which is open at both ends, and an inner slide adapted to hold said parts in alinement when slipped into the open end of one part and caused to project into the other part, substantially as described.

4. A display package, comprising a tray and a separable jacket into which said tray is adapted to slip lengthwise having a plurality of sections movably joined end to end together to permit of placing one of them at an angle below said tray and supporting it while the adjacent section embraces it.

5. A display package, comprising a tray and a separable jacket into which said tray is adapted to slip lengthwise having two sections hinged end to end together, one of said sections when removed from covering said tray being adapted to turn down and form a support below said tray when the latter is inclined thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,130,812. AUDIPHONE. NOEL R. GORDON, Springfield, Ill. Filed May 23, 1914. Serial No. 840,450. (Cl. 181—25.)

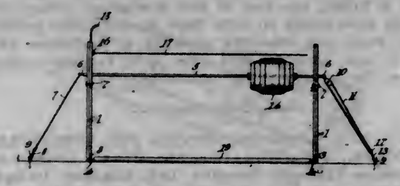


In an audiphone, in combination with a main structure having a dome-shape chamber, a circular lateral opening and a boss surrounding said lateral opening and provided with a circular groove and entrance notches communicating with said groove; a flared sound collector rotative in the lateral opening of the main structure and having a reduced part provided with an aural opening, said sound collector also having lugs adapted to enter the notches in the boss of the main structure and adapted to engage on the walls of the circular groove of said boss, to hold the sound collector in variable positions on the main structure.

1,130,813. AMUSEMENT DEVICE. PHILIP S. GREENE, Wilkes-Barre, Pa., assignor of one-half to Albert F. Lampman, Wilkes-Barre, Pa. Filed Mar. 4, 1914. Serial No. 822,334. (Cl. 46—69.)

1. In a device of the character described, suitable supports, a rod carried by said supports, and a revoluble seat slidably mounted on said rod.

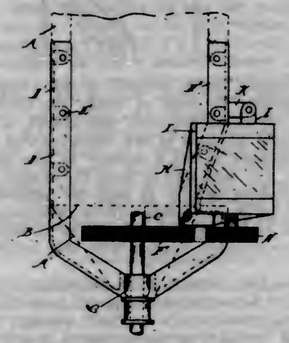
2. In a device of the character described, suitable supports, a rod carried by said supports, a seat revolubly mounted on said rod, and means for pulling said seat along said rod.



3. In a device of the character described, suitable supports, a rod carried by said supports, a cylindrical seat revolubly mounted on said rod between said supports, and means for pulling said seat along said rod.

4. In a device of the character described, suitable supports, a horizontally disposed rod carried by said supports, a seat mounted on said rod between said supports, and manually operable means for pulling said seat along said rod.

1,130,814. STARTER ATTACHMENT FOR MOTOR-VEHICLES. FREDERICK M. GUY, Detroit, Mich., assignor to The Disco Electric Starter Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 21, 1914. Serial No. 873,334. (Cl. 123—195.)



1. In a starter attachment for motor vehicles provided with a motor frame, a starting motor, and a frame adapted to form a replacement for a portion of the motor frame, providing clearance for a gear-wheel mounted on the crank-shaft and adapted to form a mounting for the starting-motor.

2. In a starter attachment for motor vehicles provided with a starting crank bearing, a frame adapted to form a replacement for the starting crank bearing, providing clearance for a gear-wheel mounted on the crank-shaft and having a mounting for a starting-motor.

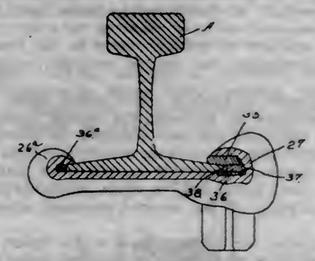
3. In a starter attachment for motor vehicles provided with a motor frame, a frame adapted to form a replacement for the forward suspension of the motor frame, said replacement frame providing clearance for a gear-wheel mounted on the crank-shaft and having a mounting for a starting-motor thereon.

4. In a starter attachment for motor vehicles provided with a starting crank bearing, an integral frame adapted to form a replacement for the starting crank bearing and forward suspension of the motor frame, said replacement frame providing clearance for a gear-wheel on the crank-shaft and having a rest or mounting for the starting-motor.

5. In a starter attachment for motor vehicles provided with a frame, a yoke-shaped frame adapted to form a replacement for the forward portion of the motor frame, including the starting crank bearing and forward motor suspension, said frame providing clearance for a gear-wheel mounted on the crank-shaft and having an upwardly-extending bracket-arm with a laterally-extending bed or table constituting a mounting for the starting-motor.

[Claim 6 not printed in the Gazette.]

1,130,815. RAIL-STAY. LOUIS HANSON, Racine, Wis., assignor to Otto R. Barnett, Chicago, Ill. Filed May 22, 1913. Serial No. 769,238. (Cl. 238—4.)



1. In a rail stay, the combination with a tie abutting member, of rail gripping means comprising two co-engaging elements, and a body of relatively soft material interposed between said elements so as to absorb vibration.

2. In a rail stay, the combination with a tie abutting member, of rail gripping means comprising elements one of which is movable with respect to the other to produce a grip of the device upon the rail, and a body of relatively soft material interposed between said elements.

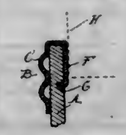
3. In a rail stay, the combination with a tie abutting member, of rail gripping means comprising a wedge, a jaw between which and the rail said wedge is adapted to be driven, and a body of relatively soft material between the wedge and the opposed surface of said jaw.

4. In a rail stay, the combination with a tie abutting member, of rail gripping means comprising a wedge, a jaw between which and the rail said wedge is adapted to be driven, the back edge of said wedge being formed with a recess, and a body of relatively soft material fitted into said recess.

5. In a rail stay, the combination with metal rail gripping members adapted to engage opposite edges of the base flange of a rail, one of said members being provided with a tie abutting flange, of a body of material softer and more adhesive than the metal of said rail and rail gripping means arranged in wedging position between one of said members and the rail.

[Claims 6 to 13 not printed in the Gazette.]

1,130,816. CAP-FERRULE FOR PAPER BOXES. JERVIS R. HARBECK, Detroit, Mich., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Feb. 2, 1910. Serial No. 541,632. (Cl. 229—3.)



1. In a box or package, the combination of a body formed of fibrous material, and a ferrule stamped from a single piece of metal comprising a wide seamless screw-threaded portion engaging one wall of the body, a lateral portion engaging the end of the body, and a portion notched to form a plurality of spaced prongs engaging the other body wall, said prongs having transversely extending points embedded within the body.

2. A ferrule for paper boxes, stamped from a single piece of sheet metal, and comprising a cylindrical screw-threaded portion adapted to engage the exterior of a paper

box body, and a flange extending inwardly from the upper edge of the said cylindrical portion, said flange comprising a lateral portion adapted to engage the edge of the box body and a plurality of spaced prongs having downwardly extending points.

1,130,817. PROCESS OF TREATING WASTE SULFITE LIQUOR. MORRIS W. HEDDEN, Oregon City, Oreg. Filed Dec. 12, 1914. Serial No. 876,978. (Cl. 149—4.)

1. In a process of treating waste sulfite liquors, which consists essentially of digesting the neutral liquor with a cyanogen compound and thus removing the sulfur bearing group, the addition of sodium chlorid to the remaining liquor to precipitate the organic cyanogen compounds therein.

2. In a process of treating waste sulfite liquor, which consists essentially of digesting the neutral liquor with a cyanogen compound and thus removing the sulfur bearing group therefrom, the addition of sodium chlorid to the remaining liquor at ordinary temperatures until the saturation point is reached, to effect substantially complete precipitation of the organic cyanogen compounds therefrom.

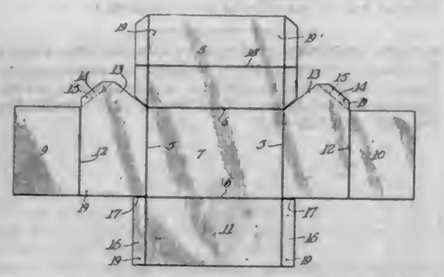
3. In a process for treating waste sulfite liquor, which consists essentially of digesting the neutral liquor with a cyanogen compound and thus removing the sulfur bearing group, the addition of a soluble mineral salt to the remaining liquor to precipitate the organic cyanogen compounds therefrom.

4. In a process for treating waste sulfite liquor, which consists essentially of digesting the neutral liquor with a cyanogen compound, thus removing the sulfur bearing group therefrom, the addition of a soluble mineral salt to the remaining liquor at ordinary temperatures until the saturation point is reached, effecting substantially complete precipitation of the organic cyanogen compounds therein.

5. In a process for treating waste sulfite liquor, which consists essentially of the digestion of the neutral liquor with a cyanogen compound, thus removing the sulfur bearing group therefrom, the addition of an electrolyte, other than a mineral acid, to the remaining liquor at ordinary temperatures to the saturation point, to effect substantially complete precipitation of the organic cyanogen compounds therein.

[Claim 6 not printed in the Gazette.]

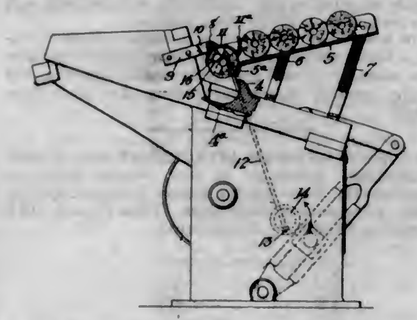
1,130,818. CARTON-BLANK. KARL I. HEAMAN, Chicago, Ill. Filed Apr. 18, 1914. Serial No. 832,860. (Cl. 46—37.)



1. A blank for cartons having a unitary, substantially T-shaped, flat sheet, having two creases extending from end to end of the upright portion near the edges thereof, two transverse creases substantially in line with the upper and lower edges of the cross piece, the portion of the blank above the upper of said creases having a transverse crease, the portions outside of said first-named creases being centrally creased, the inner section of said side portions being peaked.

2. A blank for cartons, foldable into a gable roofed house, comprising a unitary flat sheet divided into central, upper and lower side portions by two pairs of parallel and perpendicular creases, the side pieces being centrally creased and having peaked tops on the portions within said central creases, to form the gable ends when the blank is folded, one pair of said first-named creases extending downwardly to form flaps on said lower portion of the blank, and extending upwardly in said upper portion to form seats for said gable ends, thereby tending to keep the parts in proper alinement.

1,130,819. FEEDING DEVICE FOR PINEAPPLE-SLICERS. JOHN HILL, Honolulu, Hawaii, assignor to Hawaiian Pineapple Company, Ltd., Honolulu, Hawaii, a Corporation of Hawaii. Filed Jan. 24, 1914. Serial No. 814,143. (Cl. 146—11.)



1. In a pineapple slicing machine, a feed trough, a reciprocating member in front of which the fruit is deposited when so discharged from said trough, a feeding member pivotally mounted at the discharge end of said trough, said member having a concave surface to engage a single fruit and discharge it from the trough and an upwardly projecting portion to hold the adjacent fruit in the trough in proper position to be subsequently discharged by the concave surface, and means to actuate said feeding member in timed relation with said reciprocating member.

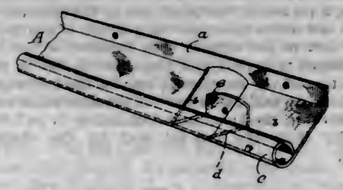
2. In a pineapple slicing machine, a reciprocating head provided with a forwardly and upwardly projecting lower jaw adapted to entirely support a fruit, whereby the fruit is reciprocated by the head and supported thereby during its reciprocation.

3. In a pineapple slicing machine, a reciprocating head, a feed trough disposed above the reciprocating head and adapted to discharge fruit in front of the reciprocating head when the same is at the end of its rearward stroke, and a feed controlling member pivotally mounted at the discharge end of said trough and operated in timed relation with the reciprocating head to discharge a single fruit in front of the head at the end of each rearward stroke of the latter.

4. In a pineapple slicing machine, a feed trough from which the fruit is discharged downwardly at one end thereof, a reciprocating member in front of which the fruit is deposited when so discharged from the trough, a feeding member pivotally mounted at the discharge end of said trough to swing about a horizontal axis, said member having a concave surface to engage a single fruit and discharge it downwardly from the trough in front of said reciprocating member and an upwardly projecting portion to hold the adjacent fruit in the trough in proper position to be subsequently discharged by the concave surface, and means to actuate said feeding member in timed relation with said reciprocating member.

5. In a machine of the kind described, a reciprocating head provided with a forwardly projecting lower jaw having an article-supporting surface, a portion of which is inclined upwardly to retain the article on the projecting jaw whereby the article is reciprocated by the head and supported thereby during its reciprocation.

1,130,820. TROLLEY-TRACK. PETER L. HOFFMAN, Aurora, Ill., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed Feb. 24, 1914. Serial No. 820,642. (Cl. 16—7.)



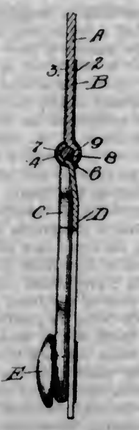
1. A trolley-track formed of a single strip of sheet metal and comprising an upper member adapted to be secured to a support, an intermediate outwardly-extending member, and a hollow rail member, the lower edge of the said sheet metal strip being over and in close proximity to the said intermediate member, whereby it may bear against and receive support from the said intermediate member when downward pressure is applied to the rail.

2. A trolley-track formed of a single strip of sheet-metal and comprising an upper member adapted to be secured to a support, an intermediate outwardly-extending member, a rail member at the lower part of said outwardly-extending member, and a brace formed of a piece cut from the strip except at its end adjacent to the rail member, said brace having its free end portion turned to present one face thereof to the said support.

3. A trolley-track formed of a single strip of sheet-metal and comprising an upper member adapted to be secured to a support, an intermediate outwardly-extending member, a hollow rail member, and a brace formed of a piece partly cut away from said outwardly-extending member.

4. In a door hanger support, the combination of a metallic plate composed of a vertical web providing a bearing against the wall, an integral, outwardly extending track portion, the edge of which is rolled inwardly to provide a convex bearing for a wheel, and a tongue struck out from said vertical web and serving as a wall attaching device.

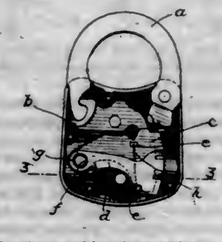
1,130,821. GARMENT-SUPPORTER. WALTER A. HOLDEN, Ansonia, Conn., assignor to The Robert N. Bassett Company, Shelton, Conn., a Corporation of Connecticut. Filed Feb. 25, 1913. Serial No. 750,533. (Cl. 24—245.)



1. A garment supporter consisting of a supporting strap having a sheet metal binder swedged on to its lower extremity, a button loop and a button tab, the lower end of said supporting strap and the upper end of said tab being rolled around the top side of said loop, and the said binder being provided with a depending tongue which is rolled around the top side of said loop to fasten the said supporting strap, tab and loop to said binder.

2. A garment supporter consisting of a supporting strap having a sheet metal binder swedged on to the lower extremity thereof, a button loop and a button tab, the said binder being provided with a depending tongue and a transversely disposed slot through which the tab end is inserted, and the said tongue being folded around the top side of said loop to engage said tab end to fasten said loop and tab to said binder.

1,130,822. LOCK. ARTHUR C. JACKSON, Philadelphia, Pa., assignor to Miller Lock Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 29, 1914. Serial No. 815,135. (Cl. 70—105.)



1. In a lock, the combination with a plurality of tumblers, of a plate, vertical lugs projecting from said plate, and wires passing between said lugs and lying between contiguous tumblers.

2. In a lock, the combination with a plurality of tumblers, of vertical lugs extending transversely of the direction of extension of the tumblers, means independent of the tumblers to support the lugs, and spacing devices extending between said lugs and lying between contiguous tumblers.

3. In a lock, the combination of a plurality of tumblers, a pivot pin upon which said tumblers are mounted, spacers surrounding said pin and extending between contiguous tumblers, said spacers being separate and independent from each other and held in operative position by said pin, and spacing devices lying between contiguous tumblers at a point removed from the pivotal point.

4. In a lock, the combination of a plurality of tumblers, a pivot pin upon which said tumblers are mounted, spacers surrounding said pin and between contiguous tumblers, vertical lugs extending transversely of the direction of extension of the tumblers, and spacing devices extending between said lugs and lying between contiguous tumblers.

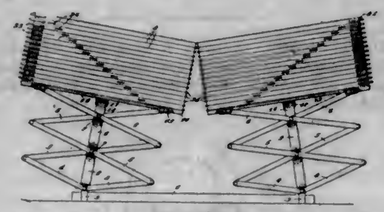
5. In a lock, the combination with a plurality of tumblers and a plate, of a pivot pin upon which said tumblers and plate are pivotally mounted, spacing devices extending between contiguous tumblers, and means on the plate to support said spacing devices.

1,130,823. CREDIT-ACCOUNTING APPLIANCE. GEORGE JACOBS, Cleveland, Ohio. Filed June 14, 1912. Serial No. 703,714. (Cl. 45—2.)

1. In a device of the character described, the combination, with a plurality of leaves hinged together at their inner edges, of a rigid supporting plate at each side of the point of hinging of said leaves and receiving the end leaves of the series respectively, means yieldingly maintaining said plates in elevated position, and means for permitting a limited movement of said plates toward and from each other while maintaining said plates substantially horizontal at all times.

2. In a device of the character described, the combination, with a base, of a pair of supporting devices carried thereby, rigid plates secured to the upper portions of said

supporting devices, and lying adjacent to each other, said supporting devices comprising vertically yielding portions whereby said plates are supported in elevated position, means for maintaining substantially a fixed angular relation between said plates and said supporting devices, means for permitting a limited movement of said plates toward and from each other while maintaining said plates substantially horizontal at all times, a plurality of leaves hingedly connected together at their inner edges, part of said leaves being supported upon each of said plates, and the point of connection of said leaves being between said plates.



3. In a device of the character described, the combination, with a base, of a pair of supporting devices separately pivoted thereto and capable of swinging toward and from each other, rigid plates secured to the upper portions of said supporting devices, said supporting devices comprising flexible portions whereby said plates are supported yieldingly in elevated position, means for maintaining substantially a fixed angular relation between said plates and said supporting devices, and a plurality of leaves hingedly connected together at their inner edges, part of said leaves being supported upon each of said plates and the point of connection of said leaves being between said plates.

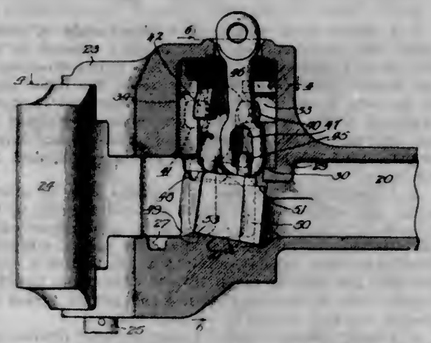
4. In a device of the character described, the combination, with a base, of lazy-tongs pivotally connected to separate longitudinal portions thereof and capable of swinging toward and from each other, rigid plates secured to the upper ends of said lazy-tongs, and means yieldingly maintaining said lazy-tongs in extended position, the inner edges of said plates lying adjacent to each other in separate vertical planes and the axes of said pivotal connections being substantially parallel to said planes, whereby each of said plates may receive the outermost of a series of pivotally connected leaves and maintain the uppermost of said leaves in substantially a fixed plane, while permitting the transfer of leaves from one plate to the other.

5. In a device of the character described, the combination, with a base, of a pair of lazy-tongs connected to opposite points of separate longitudinal portions thereof, means connecting together similar points of each pair of lazy-tongs whereby they are caused to move together, a rigid plate secured to the upper ends of each pair of lazy-tongs, means yieldingly maintaining said lazy-tongs in extended position, the inner edges of said plates lying adjacent to each other in separate vertical planes, whereby each of said plates may receive the outermost of a series of pivotally connected leaves and maintain the uppermost of said leaves in substantially a fixed plane, and means permitting a limited movement of said plates toward and from each other whereby leaves may be transferred from one plate to the other.

[Claims 6 to 10 not printed in the Gazette.]

1,130,824. COUPLING. ROBERT E. L. JANNEY, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Nov. 20, 1911. Serial No. 661,404. (Cl. 213—10.)

1. A car coupler comprising a coupler head, a swinging knuckle having a transverse shoulder on the tail thereof, a lock, and a lock-set shoulder on the head in rear of the front face of the lock, said lock having a seat portion to seat upon the lock-set shoulder and also provided at the front of the lock with a depending portion to engage the front wall of the shoulder on the knuckle tail and thereby hold the lock with its seat portion in front of the lock-set shoulder when the lock is dropped from an elevation above the lock-set position and in an open position of the knuckle, a portion of the front face of the shoulder on the knuckle tail which is beyond the position of the projection on the lock in the normal open position of the knuckle being shaped to permit said projection to line in front of said portion of the shoulder in an abnormal open position of the knuckle, said portion of the shoulder being eccentric to the pivot of the knuckle and operating to pull the lock forwardly from the lock-set seat by the closing the knuckle.



2. A car coupler comprising a coupler head, a swinging knuckle having a transverse shoulder on the tail thereof, a lock, and a lock-set shoulder on the head in rear of the front face of the lock, said lock having a seat portion to seat upon the lock-set shoulder and also provided at the front of the lock with a depending portion to engage the front wall of the shoulder on the knuckle tail and thereby hold the lock with its seat portion in front of the lock-set shoulder when the lock is dropped from an elevation above the lock-set position and in an open position of the knuckle, the extremity of the transverse shoulder on the extension knuckle-tail being chamfered to receive the depending portion of the lock in an abnormal open position of the knuckle, said chamfered portion being eccentric to the pivot of the knuckle and operating to pull the lock forwardly from the lock-set seat by the closing of the knuckle.

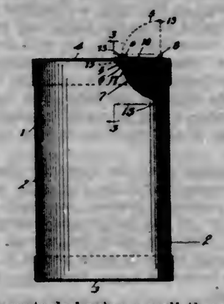
3. A coupler comprising a coupler head, a swinging knuckle provided with a transverse shoulder on the tail thereof, said shoulder having a face on its forward side eccentric with respect to the pivot of the knuckle, a lock having a projection, and lock-setting means including a lock-set shoulder disposed wholly to the rear of the front face of the lock, the projection on the lock engaging the front face of the shoulder on the knuckle tail when the knuckle is open, and the eccentricity of the eccentric face of the shoulder on the knuckle tail being such as to draw the lock forwardly during the closing of the knuckle.

4. A coupler comprising a coupler head, a swinging knuckle provided with a transverse shoulder on its tail, said shoulder having its front face inclined rearwardly of the knuckle in opposite directions from an intermediate portion, a lock having a projection, and a lock-set seat disposed wholly to the rear of the front face of the lock, the projection on the lock being in position to be engaged by one of the inclined faces of the shoulder during opening of the knuckle and when the lock is on the lock-set seat, whereby to positively draw the lock forwardly from its lock-set position during opening of the knuckle, and said projection engaging the other inclined face of the shoulder during the initial closing movement of the knuckle to prevent re-setting of the lock on the lock-set seat during the closing of the knuckle.

5. A coupler comprising a coupler head, a swinging knuckle provided upon its tail with a shoulder extending transversely thereof, a lock having a projection, and a lock-set seat disposed wholly to the rear of the front face of the lock, the projection on the lock engaging the forward face of the shoulder during opening of the knuckle to positively draw the lock forwardly from its lock-set position, the initial point of contact of the projection with the front face of the shoulder being disposed inwardly from the inner side of the tail of the knuckle to permit of an initial opening movement of the knuckle before engagement with the projection.

[Claims 6 to 11 not printed in the Gazette.]

1,130,825. PAPER CAN OR RECEPTACLE. HARRY W. JONES, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 30, 1911. Serial No. 605,456. (Cl. 221—11.)



1. A paper receptacle having a wall thereof composed of a single thickness of material and provided with a spout-opening portion, and a sheet metal opening-and-closing pouring spout having a back member and two side members, said spout having at one end an integral tang securing it by a hinge connection to said wall, the back member of the spout normally lying flat against the inner side of the spout-opening portion of said wall, substantially as specified.

2. A paper receptacle having a wall thereof composed of a single thickness of material and provided with a spout-opening portion, and a sheet metal opening and closing pouring spout having a back member and two side members, said spout having at one end an integral tang securing it by a hinge connection to said wall, said spout-opening portion of the receptacle wall having scores at the edge thereof to facilitate its severance by the opening of the spout, substantially as specified.

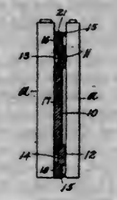
3. A paper receptacle having a wall thereof composed of a single thickness of material and provided with a spout-opening portion and an opening and closing spout having a back member and two side members, said spout having at one end an integral tang securing it by a hinge connection to said wall, said spout opening portion of the receptacle wall having scores at the edges thereof to facilitate its severance by the opening of the spout, said spout having furthermore an integral tang embracing the spout-opening portion of the receptacle wall, whereby the spout-opening portion of said wall remains fastened to the back member of the spout when the latter has been opened, substantially as specified.

4. A paper receptacle having a wall thereof composed of a single thickness of material, and provided with a spout-opening portion, and a sheet metal opening and closing pouring spout having a back member and two side members, said spout having at one end an integral tang securing it by a hinge connection to the receptacle wall, said side wing members of the spout being normaly divergent and adapted to be sprung toward each other as the spout is opened by engagement with the edges of the spout opening as the spout is swung open, and being furnished with stops at their free ends to limit the opening movement of the spout, substantially as specified.

5. The combination of a receptacle having a slit in one of its walls, with a discharge spout on the interior of said receptacle and having a nose projecting through said slit, and means securing said spout to the interior face of said wall of the receptacle.

[Claims 6 to 8 not printed in the Gazette.]

1,130,826. COMPRESSIBLE TYPE-JUSTIFYING SPACE AND METHOD OF MAKING THE SAME. WILLIAM M. KELLY, New York, N. Y. Filed Mar. 13, 1912. Serial No. 683,611. (Cl. 101—199.)



1. A compressible space having a substantially rectangular body, and a plurality of cylindrical spacing projections located on one side of and compressible into the body, without any bending movement during compression and formed to offer a uniform resistance to the compression force.

2. A compressible space having a substantially rectangular body, a plurality of cylindrical projections located on one side of the body, and a plurality of related cylindrical cavities on the opposite side of the body, the said projections being adapted to enter the said cavities when the space is compressed, without any bending movement of the projections.

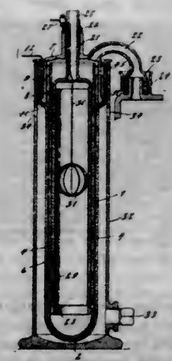
3. A compressible space comprising a substantially rectangular body and a plurality of lateral spacing projections carried by the body, the outer surface of said projections being in a plane parallel with the opposite side of the body, and the projections being uniformly compressible into spaces within the body.

4. A compressible space having an inelastic and compressible sealing head whereby molding material is prevented from flowing between the said space and adjacent type.

5. A compressible space provided with a plurality of inelastic compressible bosses and an inelastic compressible lip adapted to form a sealing head between the space and adjacent type.

[Claims 6 to 11 not printed in the Gazette.]

1,130,827. APPARATUS FOR GENERATING OZONE. WILLIAM JOHN KNOX, New York, N. Y., assignor to Knox Terpezone Company of America, a Corporation of West Virginia. Filed Dec. 1, 1910. Serial No. 595,014. (Cl. 204—32.)



1. An electrode element consisting of two concentrically positioned glass tubes separated by an annular space

closed at one end, one of which tubes is roughened on the inner surface, and a liquid electrode contained within the annular space, and in contact with the roughened surface.

2. An electrode element consisting of an annular double walled cylindrical glass vessel, and a liquid conductor within the annular spacing, one of said walls constituting a dielectric part and the liquid conductor the electrode part.

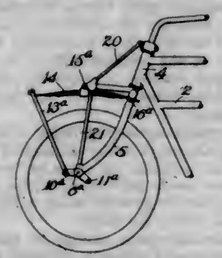
3. An electrode element consisting of an annular double walled cylindrical glass vessel, and a body of mercury within the annular spacing, one of said walls constituting the dielectric part and the mercury the electrode part.

4. An electrode element consisting of a roughened dielectric plate, a parallel inclosing part and an inclosed fluid electrode part in contact with the roughened surface of the dielectric, said electrode part entering the indentations of said roughened surface to provide said electrode with a plurality of fine discharge points.

5. A fluid electrode containing vessel consisting of two concentrically positioned glass cylinders separated by an annular space closed at one end and having one of the inner annular surfaces roughened.

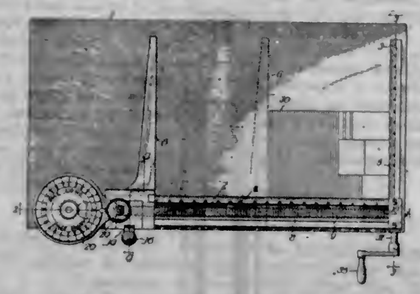
[Claims 6 to 40 not printed in the Gazette.]

1,130,828. SPRING-MOUNTING FOR BICYCLE-WHEELS. ALFRED KUHN, Milwaukee, Wis. Filed Apr. 9, 1913. Serial No. 759,854. (Cl. 208—94.)



A bicycle comprising a rigid wheel-carried portion provided with spaced apart spring supports, swinging wheel carrier members pivotally connected to said rigid wheel-carried portion, and a spring intermediately pivoted in one of said spaced supports and having an end portion engaged in the other of said spaced supports and its opposite end attached to said swinging carrier members.

1,130,829. PAGE COMPRESSOR AND JUSTIFIER. RANDOLPH LANOSETH, Hammond, Ind., assignor, by mesne assignments, to Automatic Justifier Company, Hammond, Ind., a Corporation of Indiana. Filed Aug. 22, 1913. Serial No. 786,084. (Cl. 101—52.)



1. In an apparatus of the character described, a table adapted to support a body of typographical matter, mechanism on the table for compressing said body, and means coöperating with said mechanism to indicate the difference in length between said body and a predetermined arbitrary unit.

2. In an apparatus of the character described, a table adapted to support a body of typographical matter, a graduated ledge on the table, mechanism coöperating with said ledge to compress a body of typographical matter lying on the table adjacent to the ledge, and means coöperating with said mechanism to indicate the distance between the end of the compressed body and a predetermined point on the ledge.

3. In an apparatus of the character described, a table, a graduated ledge on the table, a combined presser foot and gage slidable along the ledge and projecting across the table, a screw shaft lying beside and extending throughout the length of said ledge for actuating the combined presser foot and gage, and an indicator connected to said screw shaft, said indicator being graduated to represent fractional parts of the scale unit on the ledge.

4. In an apparatus of the character described, a table, a graduated ledge on the table, a combined compressor and gage device slidable along the ledge and projecting across the table, an actuating screw for said device lying parallel with the ledge, an indicator connected with said screw and graduated so as to indicate fractional parts of a unit of the scale on the ledge, and means for adjusting said indicator so as to make it possible to set it at zero regardless of the position of said device along the ledge.

5. In an apparatus of the character described, a table, two ledges arranged at right angles to each other upon the table, a combined presser and gage device slidably mounted on one of the ledges and extending across the table parallel with the other ledge, and means for supporting the latter ledge so as to permit it to be retracted sufficiently to bring its upper face into the plane of the top of the table.

[Claims 6 to 10 not printed in the Gazette.]

1,130,830. PROCESS FOR PRECIPITATING COPPER-AMMONIA SOLUTIONS OF CELLULOSE FOR THE PURPOSE OF MANUFACTURING ARTIFICIAL-SILK THREADS OR SIMILAR PRODUCTS. EMILE GEORGES LEGRAND, Ste. Adresse, France. Filed Aug. 29, 1912. Serial No. 717,677. (Cl. 18—54.)

1. The improvement in processes of the kind described which consists in subjecting cupro-ammonium solutions of cellulose in suitable form to a bath comprising a solution of caustic alkaline lye and diastase for the purpose described.

2. The improvement in processes of the kind described which consists in subjecting cupro-ammonium solutions of cellulose in suitable form to a bath composed of a weak solution of caustic lye and diastase for the purpose described.

1,130,831. ADJUSTABLE CLAMPING DEVICE. FREDERICK J. MADELL, Newark, N. J. Filed Apr. 11, 1914. Serial No. 831,275. (Cl. 248—3.)



1. An adjustable clamping device comprising a socket having a bore therein, a rod in the bore, the socket on one side having a wall adapted to be frictionally engaged by the rod, an abutment on the socket on the side of the rod opposite said wall, the inner face of the abutment having a transverse groove, a latch having one end formed into a stirrup with a bar on its end to fit into the groove whereby the bar is held in the groove so that it can swing therein, the inner end of the stirrup being adapted to have its edge engage the rod to lock the rod and also acting to prevent the displacement of the bar from the groove, the outer end of the stirrup passing around the wall and having a weight thereon, and means for yieldingly pressing the latch to its operative position.

2. In an adjustable clamping device, a rod, a socket having a bore and a transverse opening, the socket also having a groove arranged in one of the walls of the opening, the opposite wall of the opening being adapted to be frictionally engaged by the rod, and a latch having a bar arranged in the groove whereby the latch can swing, the latch also having an edge to engage the side of the rod to lock the bar in the socket, the rod when in place locking the bar in the groove.

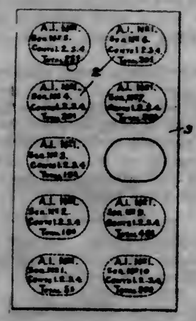
3. In an adjustable clamping device, a rod, a socket having a bore and a transverse opening, the socket also having a groove arranged in one of the walls of the opening, the opposite wall of the opening being adapted to be frictionally engaged by the rod, a latch having a bar arranged in the groove whereby the latch can swing, the latch also having an edge to engage the side of the rod to lock the bar between said edge and the opposite wall, the rod when in place locking the bar in the groove, side arms on the latch extending beyond the socket, a weight on the end of the arms and connecting them, and means for raising the weight to permit the release of the rod by the edge of the latch.

4. An adjustable clamping device comprising a supporting tube having an annular groove near its end, a socket having a bore therein, the bore being provided with a shoulder to rest on the end of the tube, a pin passing through the socket and the groove to permit the relative rotation of the tube and socket, a rod sliding in the socket and tube, a latch on the socket, and yielding means for forcing the latch against the rod.

5. An adjustable clamping device comprising a supporting tube having an annular groove near its end, a socket having a bore therein, the bore being provided with a shoulder to rest on the end of the tube, a pin passing through the socket and the groove to permit the relative rotation of the tube and socket, a rod sliding in the socket and tube, and a latch surrounding the rod and having one end pivoted to the socket, the latch having an opening to receive the rod, one side of the opening forming a gripping edge for engaging the rod, the free end of the latch being weighted.

[Claim 6 not printed in the Gazette.]

1,130,832. ACCOUNTING MEANS. JAMES MAHER, East Liverpool, Ohio. Filed Oct. 12, 1912. Serial No. 725,542. (Cl. 11—19.)



1. In a sales check system, a plurality of individually-detachable sales checks having common merchant and customer designations, each check also having an amount indication individual to itself, the several amount indications increasing in a definite progression, the designations of a check providing a merchant bills receivable accountability when detached, and the absence of the check in the regular sequence of checks indicating a customer bills payable accountability.

2. In a sales check system, a plurality of individually-detachable sales checks having common merchant and customer designations, each check also having an amount indication individual to itself, the several amount indications increasing in a definite progression, the designations of a check providing a merchants bills receivable accountability when detached, and the absence of the check in the regular sequence of checks indicating a customer bills payable accountability, the detaching of a succeeding check increasing the accountability by the difference between the amount indications of the two checks.

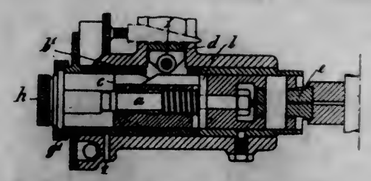
3. In a sales check system a plurality of individually-detachable sales checks having common merchant and customer designations, each check also having an amount indication individual to itself, the several amount indications increasing in a definite progression, said checks being chargeable as bills receivable only when detached, the chargeable amount being limited to that carried by the detached check of highest amount indication, said latter check providing a visual indication of the totality of bills payable charge against the customer.

4. A sales check system element comprising a plurality of individually-detachable sales checks having common merchant and customer designations, each check also having an amount indication individual to itself, the several amount indications increasing in a definite progression, said checks being relatively positioned to permit removal of a selected check from the element and leave the remaining checks intact, said removed check forming a visible bills receivable indication in the hands of the merchant, and its absence in the check sequence indicating the sales amount chargeable against the customer.

5. A sales check system element comprising a plurality of individually-detachable sales checks having common merchant and customer designations, each check also having an amount indication individual to itself, said checks being serially numbered, the several amount indications increasing in a definite progression in correspondence with numbering, the removal of a selected check providing a bills payable accountability of the amount indicated by check to the customer through the absence of the check from the series and a bills-receivable accountability of similar amount to the merchant through his possession of the check.

[Claim 6 not printed in the Gazette.]

1,130,833. ARRANGEMENT FOR REVERSING INTERNAL-COMBUSTION ENGINES. MAX RICHARD MATTI, Falun, Sweden. Filed Sept. 9, 1913. Serial No. 788,912. (Cl. 123—41.)



1. In internal combustion engines the combination with the engine cylinder and the reciprocating piston, of a fuel pump, a reciprocating cam-piece adapted to operate said fuel pump, said cam-piece being arranged to complete the cycle of operation of said fuel pump in both directions of movement of the said reciprocating piston prior to its completing its stroke, and means for reciprocating said cam-piece.

2. In internal combustion engines the combination with the engine cylinder and the reciprocating piston, of a

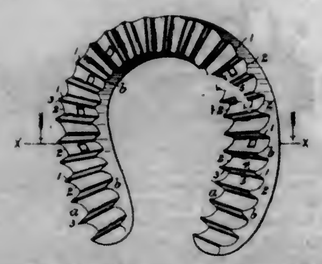
fuel pump, a reciprocating cam-piece adapted to operate said fuel pump, said cam-piece being arranged to complete the cycle of operation of said fuel pump in both directions of movement of the said reciprocating piston prior to its completing its stroke, means for reciprocating said cam-piece, a movable sleeve carrying said cam-piece, a second cam-piece arranged on said sleeve for effecting the reversal of the engine, and means for reciprocating said sleeve.

3. In internal combustion engines the combination with the engine cylinder and the reciprocating piston, of a fuel pump, a reciprocating cam-piece adapted to operate said fuel pump, said cam-piece being arranged to complete the cycle of operation of said fuel pump in both directions of movement of the said reciprocating piston prior to its completing its stroke, means for reciprocating said cam-piece, a movable sleeve carrying said cam-piece, a second cam-piece arranged on said sleeve for effecting the reversal of the engine, means for reciprocating said sleeve, and means for adjusting the position of said second cam-piece relative to said first cam-piece.

4. In internal combustion engines the combination with the engine cylinder and the reciprocating piston, of a fuel pump, a reciprocating cam-piece adapted to operate said fuel pump, said cam-piece being arranged to complete the cycle of operation of said fuel pump in both directions of movement of the said reciprocating piston prior to its completing its stroke, means for reciprocating said cam-piece, a movable sleeve carrying said cam-piece, a second cam-piece arranged on said sleeve for effecting the reversal of the engine, means for reciprocating said sleeve, means for adjusting the position of said second cam-piece relative to said first cam-piece, and a movable projection adapted to prevent said second cam-piece from operating said fuel pump.

5. In internal combustion engines the combination with the engine cylinder and the reciprocating piston, of a fuel pump, a reciprocating cam-piece adapted to operate said fuel pump, said cam-piece being arranged to complete the cycle of operation of said fuel pump in both directions of movement of the said reciprocating piston prior to its completing its stroke, means for reciprocating said cam-piece, a movable sleeve carrying said cam-piece, a second cam-piece arranged on said sleeve for effecting the reversal of the engine, means for adjusting the position of said second cam-piece relative to said first cam-piece, a movable projection adapted to prevent said second cam-piece from operating said fuel pump, and a tilting member adapted to cooperate with said movable projection, when the speed of the engine has been reduced to withdraw the said projection permitting the said second cam-piece to operate the fuel pump substantially as and for the purpose described.

1,130,834. HORSESHOE. MICHAEL CHARLES NOLAN, Bromsgrove, England. Filed July 11, 1914. Serial No. 850,303. (Cl. 168—29.)



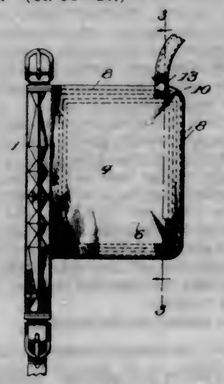
A horse shoe formed from a cross grooved and ribbed steel or other metallic bar the cross ribs forming a plurality of teeth on the under-surface of the shoe extending across the shoe from side to side and continuous from heel to heel one side of each of the said teeth being substantially at right angles to the surface of the shoe and the other side of each of the said teeth being inclined and concaved from the surface to the base of the substantially right angled side of the adjoining tooth, the right angled side of the teeth of one side of the shoe facing toward the heel of the right angled side of the teeth of the other side of the shoe facing toward the toe.

1,130,835. SAFETY-RAZOR. FRANK M. OSTERBERG, Rockford, Ill. Filed July 5, 1911. Serial No. 636,854. (Cl. 30—12.)



In a safety razor, a blade, a holder for the blade, registering slots opening through the back of the holder and the blade, a detachable handle having a portion adapted to fit into said slots and having also a screw threaded portion below the latter portion, the handle below the screw threaded portion being larger in diameter than the screw threaded portion, a head permanently secured upon the end of the handle for engaging with one side of the holder, and a nut arranged on the screw threaded portion of the handle beneath the head for engagement with the opposite side of the holder.

1,130,836. WINKER-STRAP ATTACHMENT. JOHN T. PALMATARY, Richmond, Va. Filed Nov. 29, 1913. Serial No. 803,693. (Cl. 54—10.)

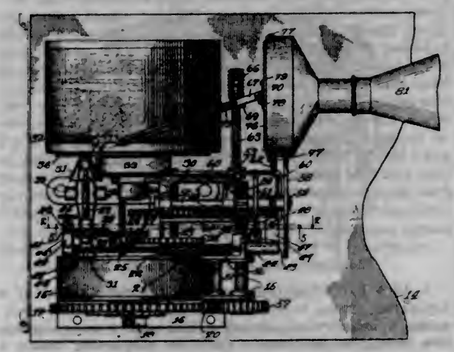


1. A blind comprising a metal plate, a leather covering for the inside and outside of the plate and extending beyond the plate and stitching passing through the covering beyond the plate, said covering and plate having registering cut-away portions through which the winker strap passes.

2. A blind comprising a metal plate having a cut-away portion at its upper edge, a leather covering for the inside and outside of the plate and extending beyond the plate and stitching passing through the covering beyond the plate, said covering having openings registering with the cut-away portion of the plate, and a winker strap passing through the openings in the covering and the cut-away portion of the plate.

1,130,837. GRAPHOPHONE. ARCHIE E. PARNALL, Chicago, Ill., assignor, by mesne assignments, to Frank W. Williams, Chicago, Ill. Filed Mar. 15, 1913. Serial No. 754,444. (Cl. 181—9.)

1. In a device of the class described, a record carrier, a needle-arm, a motor to actuate the carrier, a notched disk rotated by the motor, a swinging frame coöperating with the disk, a reversing worm carried by the frame and driven from the motor, and means to connect the worm and needle-arm when the frame co-acts with the notched portion of the disk to raise and retract the arm to its initial position.



2. In a device of the class described, a record carrier, a needle-arm, a motor to actuate the carrier, a notched disk rotated by the motor, a vertically swinging frame coöperating with the disk, a reversing worm carried by the frame and driven from the motor, and a projection on the arm to travel in the worm when the frame rises in the notch of the disk.

3. In a device of the class described, a record carrier, a needle-arm, a motor to actuate the carrier, a notched disk rotated by the motor, a vertically swinging frame having a lug to enter the notch in the disk, a spring to move the lug into the notch, a reversing worm carried by the frame and driven from the motor, and means to connect the worm and needle-arm when the lug enters the notched portion of the disk.

4. In a device of the class described, a record carrier, a needle-arm, a motor to actuate the carrier, a notched disk rotated by the motor, a vertically swinging frame having a lug to enter the notch in the disk, a spring to move the lug into the notch, a pinion driven by the motor, a reversing worm carried by the frame and having a pinion actuated by the first pinion, and a projection on the needle-arm to engage the worm to raise the needle-arm and retract it to its initial position.

5. In a device of the class described, a sound-box having a diaphragm, a plate having pivotal connection to the box to swing vertically thereon, a needle-arm having a pivotal connection to the plate to swing horizontally thereon, a spring acting on the plate to hold the needle-arm in operative relation with the record, a rotating reversing worm, and means to elevate the worm into engagement with means or the needle-arm to raise the latter from the record against the tension of the spring and return it to its initial position.

[Claims 6 to 14 not printed in the Gazette.]

1,130,838. SAND-CREEPER FOR AUTOMOBILES. FRANK L. PEARSON, Boyne Falls, Mich. Filed Apr. 30, 1914. Serial No. 835,550. (Cl. 152—16.)



1. In a sand creeper for automobiles, a flexible belt surrounding the tire, cleats mounted on the outer surface of said belts and extending from each edge to the center of the belt the adjacent ends of said cleats chamfered to an edge, and ribs made to conform to the lateral contour of the tire and secured to the belt, and means for stretching and securing the creeper on the tire.

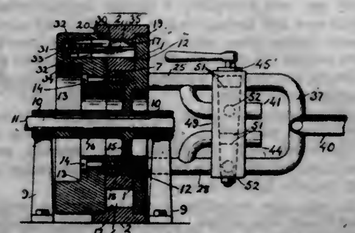
2. In a creeper for automobile wheels, a flexible belt, cleats secured to the outer surface of the belt and extending from the edges to near the center of the belt, the meeting ends of the cleats chamfered to form an outwardly opening angle between said ends, a second series of cleats shorter than the width of the belt and secured thereto alternately with the first series of cleats, ribs secured to the opposite side of the belt and arranged to conform to the lateral contour of the tire, and means for securing the creeper around the tire.

3. In a creeper for automobiles, a flexible belt, a series of cleats divided laterally at their longitudinal center and the adjacent ends of the two pieces of each cleat chamfered to form outwardly opening angles between these ends, ribs secured to the opposite side of the belt and made to conform to the lateral contour of an automobile tire, circular loops formed at the inner ends of the ribs, eye bolts passed through said loops, chain links connected with said eye bolts to form a continuous chain of links around the inner edge of the creeper ribs, means for drawing and firmly securing the belt around an automobile wheel and for securing and holding the meeting pieces of the belt.

4. In a sand creeper for automobile wheels and tires, a flexible belt, cleats secured crosswise of the outer surface of the belt, ribs secured to the inner surface of the belt and made to conform to the lateral contour of the tire, said ribs made of sheet metal and having a closed outer wall and a smooth even surface to bear upon the surface of the tire, chains connected with, and connecting the inner ends of the ribs, offsets formed in the surface plates of the ribs to engage the surface of the tire to prevent the creeper from slipping on the tire, and swivel nuts and screws connected with the outer corner and the inner ends of the two ribs adjacent to the meeting ends of the belt to draw and hold the belt firmly on the tire, and means for holding the meeting ends of the belt securely on the surface of the tire.

5. In a sand creeper for automobile wheels and tires, a flexible belt, cleats secured at intervals to the outer surface of the belt, and means for drawing the belt firmly around the tire and securing the ends thereof, in combination with a series of ribs made of sheet metal secured to the inner face of the flexible belt and having a body with sides cut and bent to conform to the contour of the tire, a fold having upturned flanges at the edges to lap upon the sides, said fold formed to conform to the concave edges of the sides of the ribs and the concave surface of the tire, and means connected therewith to draw and hold the creeper firmly on the tire.

1,130,839. ROTARY ENGINE. VALENTINE PERAZIO, Philadelphia, Pa. Filed Jan. 11, 1908, Serial No. 410,438. Renewed July 19, 1913. Serial 780,028. (Cl. 14—76.)



1. An engine comprising two stationary concentric rings with curved spaces intervening therebetween, a centrally mounted rotary member with opposite flanges reaching

out so as to inclose said spaces and convert them into channels for the motive fluid, and disappearing impellers carried by said rotary member crosswise between its said flanges and adapted successively to be driven by the motive fluid from one channel to another.

2. An engine comprising two stationary rings of different diameters held concentrically one within the other so as to have a circular line of spaces between them, a two-part rotary member fitted in the inner one of said rings and extended outwardly to cover said line of spaces on both sides and adapt the same as channels for the motive fluid, and a plurality of spring-pressed impellers lodged in pockets in one part of said rotary member and projecting therefrom into said channels toward the other part of the rotary member, said impellers retreating in their said pockets while passing the breaks in the line of channels.

3. An engine comprising two concentric stationary rings, the outer ring standing on edge upon a suitable base and the inner ring being held within the other so as to leave a line of curved spaces therebetween, a centrally mounted rotary member with flanges extending therefrom outwardly to wall in and form tubular channels of the spaces between the two rings, a series of impellers carried by said rotary member crosswise between its said flanges and projecting successively into said channels, and supports arranged on both sides of the base and provided with bearings for the shaft of the rotary member.

4. An engine comprising two stationary concentric rings with a plurality of curved spaces between them, a centrally-mounted rotary member with flanges extended out so as to cover both sides of said spaces and form channels of the same for the motive fluid, said channels having ports at both ends, impellers carried by the rotary member crosswise of its said flanges and adapted to travel either way from one channel to another, and piping to supply the motive fluid to and exhaust it from the channels in either direction.

5. An engine comprising two stationary concentric rings with spaces therebetween, a rotary member composed of two parts brought together from the opposite sides of and through the inner ring, and extended so as to inclose said spaces and form channels of the same for the motive fluid, a system of pipes connected with both ends of said channels and having branches adapting them to be used for feed or exhaust at option, and valves with ports alternately open to the several pipes and closed to their respective branches, and the reverse.

[Claims 6 to 10 not printed in the Gazette.]

1,130,840. EGG-CASE. CHESTER A. PERKINS, South Bend, Ind. Filed Jan. 19, 1914. Serial No. 812,882. (Cl. 217—28.)

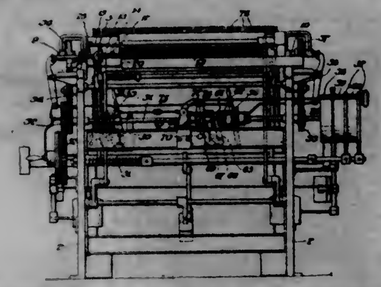


1. An egg case including a carrier section comprising end walls and side strips, clamps carried by the section for removable coöperation with the strips, and flexible egg carriers having portions adapted to be interposed between the clamps and strips, whereby to support the carriers intermediate the strips.

2. An egg case including a carrier section comprising end walls and side strips, clamps carried by the section for coöperation with the strips from beneath, and egg carriers adapted to partially surround the strips and be secured thereto by the clamps.

3. An egg case including a carrier section comprising end walls and side strips, clamps movably supported by the end walls for coöperation with the lower edges of the strips, and egg carriers having flattened flexible ends adapted to partly surround the strips and be secured thereto by the clamps.

1,130,841. PATTERN-SETTING MACHINE. HOWARD L. PETRAS, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Oct. 1, 1914. Serial No. 864,421. (Cl. 28—14.)



1. In a pattern-setting machine, the combination of a supporting frame, rotatable spool-supporting means, mechanism to rotate the spool-supporting means, means operative to stop the rotation of the spool supporting means, a permanent spacing and guiding device to space and guide a plurality of threads to a spool supported by said spool supporting means, a carriage adjacent to said permanent device and adapted to receive a portable spacing device for said threads, said carriage being movable from an inoperative position supporting said portable device away from said threads, to an operative position in which said portable device maintains said threads spaced from each other, and means controlled by the third named means to move said carriage into said operative position.

2. In a pattern-setting machine, the combination of a supporting frame, rotatable spool supporting means, mechanism to rotate the spool supporting means, means to automatically stop the rotation of the spool supporting means after the same has rotated a predetermined number of revolutions; a permanent spacing and guiding device to space and guide a plurality of threads to a spool supported by said spool supporting means, a carriage adjacent to said permanent device and adapted to receive a portable spacing device for said threads, said carriage being movable from an inoperative position supporting said portable device away from said threads to an operative position in which said portable device maintains said threads spaced from each other, and means controlled by the automatic stopping means to move said carriage into said operative position.

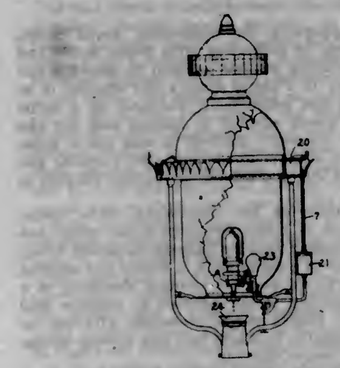
3. In a pattern-setting machine, the combination of a supporting frame, rotatable spool supporting means, mechanism to rotate the spool supporting means, means operative to stop the rotation of the spool supporting means, a permanent spacing and guiding device to space and guide a plurality of threads to a spool supported by said spool supporting means, a carriage adjacent to said permanent device and adapted to receive a portable spacing device for said threads, said carriage being movable from an inoperative position supporting said portable device away from said threads, to an operative position in which said portable device maintains said threads spaced from each other and means operated by the third named means to move said carriage into said operative position before the stoppage of the rotation of the spool supporting means.

4. In a pattern-setting machine, the combination of a supporting frame, rotatable spool supporting means, mechanism to rotate the spool supporting means, means to automatically stop the rotation of the spool supporting means after the same has rotated a predetermined number of revolutions; a permanent spacing and guiding device to space and guide a plurality of threads to a spool supported by said spool supporting means, a carriage adjacent to said permanent device and adapted to receive a portable spacing device for said threads, said carriage being movable from an inoperative position supporting said portable device away from said threads, to an operative position in which said portable device maintains said threads spaced from each other and means operated by the automatic stopping means to move said carriage into said operative position before the stoppage of the rotation of the spool supporting means.

5. In a pattern-setting machine, the combination of a supporting frame, rotatable spool supporting means, mechanism to rotate the spool supporting means, means operative to stop the rotation of the spool supporting means, a permanent spacing and guiding device to space and guide a plurality of threads to a spool supported by said spool supporting means, a carriage adjacent to said permanent device and adapted to receive a portable spacing device for said threads, said carriage being movable from an inoperative position supporting said portable device away from said threads, to an operative position in which said portable device maintains said threads spaced from each other and means to automatically move said carriage into said operative position after the spool supporting means has been rotated a predetermined number of revolutions.

[Claims 6 to 15 not printed in the Gazette.]

1,130,842. GENERATOR. SIMEON F. PEIRCE, St. Paul, Minn. Filed Mar. 21, 1914. Serial No. 826,380. (Cl. 67—40.)

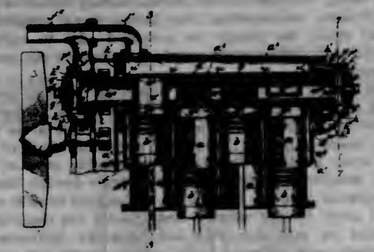


1. An oil burner of the class described comprising a generator, a reservoir positioned above said generator, a tube leading from the reservoir to the generator, and a relatively large oil storage chamber inset in said tube at a point outside the heat radius of the generator and above the oil inlet thereof for the purpose set forth.

2. An oil burner of the class described comprising a generator, a reservoir positioned above said generator, a tube leading from the reservoir to the generator, and a relatively large oil storage chamber inset in said tube at a point outside the heat radius of the generator and above the oil inlet thereof, said tube passing into and out of the opposed upper and lower ends of said chamber to cause said chamber to constitute in its entirety a storage enlargement of the passage way from the reservoir to the generator.

1,130,843. INTERNAL-COMBUSTION ENGINE. RICHARD T. ROBINSON, Jr., Colorado Springs, Colo., assignor to Robinson & Robinson, a Copartnership consisting of Richard T. Robinson and Richard T. Robinson, Jr., Colorado Springs, Colo., and Racine, Wis. Filed May 31, 1913. Serial No. 770,870. (Cl. 123—177.)

1. In an internal combustion engine, the combination of a casing having a water-chamber therein, a cylinder, a horizontally disposed cylindrical rotary valve mounted in the casing and having a chamber for the passage of water longitudinally therethrough, and means for conducting water to said chamber, the valve having an outlet for the water at one end which is substantially unrestricted to permit water to flow freely from all parts of the chamber to prevent the formation of air or steam pockets in the valve.



2. In an internal combustion engine, the combination of a casing having a water-chamber therein, a cylinder, and a cylindrical horizontally disposed rotary valve mounted in the casing having a chamber for the passage of water longitudinally therethrough and having open ends, the openings at the ends being substantially unrestricted to permit water to flow freely through all portions of the chamber to prevent the formation of air or steam pockets in the valve.

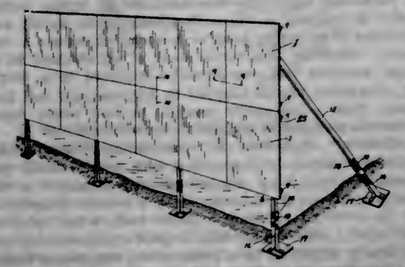
3. In an internal combustion engine, the combination of a casing having a water-chamber therein, a cylinder and a rotary valve mounted in the casing, having a chamber for the passage of water longitudinally therethrough and having open ends, the opening at one end leading from substantially the highest point of the chamber in the valve and the opening at the other end leading to substantially the top of the chamber in the valve.

4. In an internal combustion engine, the combination of a casing, a cylinder, a valve seat in the casing, a water-jacket around the cylinder, a rotary valve having ports for controlling fluid to and from the cylinder, means in the casing for conducting water to one of the ends of the valve, the valve having a chamber for the passage of water longitudinally through the valve, the valve having an outlet-opening in one of its ends substantially as large as the chamber in the valve.

5. In an internal combustion engine, the combination of a casing having a water chamber therein, a cylinder, a rotary valve mounted in the casing, having a chamber for the passage of water longitudinally therethrough and having one of its ends open, and means for conducting water into said valve, the opening in said end of the valve leading from the top of the chamber in the valve to prevent the formation of air or steam pockets in the valve.

[Claim 6 not printed in the Gazette.]

1,130,844. SIGN. FREDERICK W. RUBY, Jackson, Mich., assignor to Ruby Manufacturing Company, Jackson, Mich. Filed Jan. 8, 1910, Serial No. 537,046. Renewed Mar. 28, 1914. Serial No. 828,097. (Cl. 189—34.)



1. In a sign, the combination with a plurality of panels formed of sheet metal; frames for said panels formed of L-shaped angle iron, arranged on the sides of the panels with the angles inwardly with one arm projecting rearwardly; projecting joint pieces on the top and sides of said panels, said joint pieces being L-shaped in cross sec-

tion and arranged in the angles of the panel frames over the infolded edges of the panels, the arms of the joint pieces being secured to the corresponding arms of the panel frames, the meeting joint pieces being adapted to interlap when the panels are arranged edge to edge to close the joint between the panels and support the panels in alinement.

2. In a sign, the combination with a plurality of panels formed of sheet metal; frames for said panels formed of L-shaped angle iron arranged with one of the arms projecting rearwardly, the rearwardly projecting arms of the frame irons having slots therein to provide support engaging members; supports for said panels having flange-like engaging members adapted to be engaged in said slots in said panel frames whereby said panels are detachably supported on said supports; and hook-like retainers on said panels, said supports being provided with holes suitably spaced to receive said retainers.

3. In a sign, the combination with a plurality of panels formed of sheet metal; frames for said panels formed of L-shaped angle iron arranged with one of the arms projecting rearwardly, the rearwardly projecting arms of the frame irons having bayonet slots therein to provide support engaging members; angle iron supporting members for said panels arranged with one of their arms projecting forwardly and flange-like panel engaging members secured on the forwardly projecting arms of said supporting members to engage said slots in said panel frames; and hook-like retainers on said panels, said supporting members being provided with holes suitably spaced to receive said retainers.

4. In a sign, the combination with a plurality of panels formed of sheet metal; frames for said panels formed of L-shaped angle iron arranged with one of the arms projecting rearwardly, the rearwardly projecting arms of the frame irons having slots therein to provide support engaging members; angle iron supporting members for said panels arranged with one of their arms projecting forwardly, to engage said slots in said panel frames; and hook-like retainers on said panels, said supporting members being provided with holes suitably spaced to receive said retainers.

5. In a sign, the combination with a plurality of panels formed of sheet metal; frames for said panels formed of L-shaped angle iron, arranged with the angles outwardly; projecting joint strips for said panels, said joint strips being angle shaped in cross section and arranged in the angles of the panel frames, the arms of the joint pieces being secured to the corresponding arms of the panel frames, the meeting joint pieces being adapted to overlap when the panels are arranged edge to edge to close the joint between the panels and support the panels in alinement.

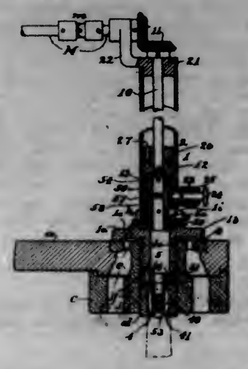
[Claims 6 to 9 not printed in the Gazette.]

1,130,845. NECK-ROLL APPARATUS FOR BOTTLE-MAKING. SIGMUND SCHIFF, New York, N. Y. Filed Jan. 14, 1914. Serial No. 811,942. (Cl. 49—23.)

1. Neck-roll apparatus for conforming bottle necks, adapted to operate in connection with bottle molds and comprising a mounting member adapted to mount a roll operably relatively to a bottle mold, a roll adapted to be located, revolved and eccentrically displaced in a bottle mold, displacing means adapted to displace said roll and its axis from a concentric position in said bottle mold, and driving mechanism adapted to revolve said roll.

2. Neck-roll apparatus for conforming bottle necks, adapted to operate in connection with bottle molds and comprising a mounting member adapted to mount a roll operably relatively to a bottle mold, a former adapted to mold the outward nozzle of a bottle neck, a roll adapted to be located adjacent to said former, and revolved and eccentrically displaced in a bottle mold, displacing means adapted to displace said roll and its axis from a concentric position in said bottle mold, and driving mechanism adapted to revolve said roll.

3. Neck-roll apparatus for conforming bottle necks, adapted to operate in connection with bottle molds and comprising a mounting member adapted to mount a roll operably relatively to a bottle mold, a roll adapted to be located, revolved and eccentrically displaced in a bottle mold, conformations on said roll corresponding with conformations to be formed in bottle necks, displacing means adapted to displace said roll and its axis from a concentric position in said bottle mold, and driving mechanism adapted to revolve said roll.

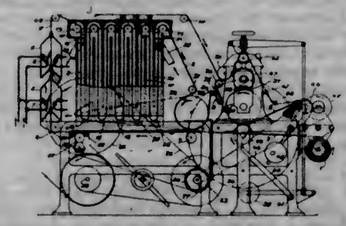


4. Neck-roll apparatus for conforming bottle necks, adapted to operate in connection with bottle molds and comprising a mounting member adapted to mount a roll operably relatively to a bottle mold, a roll adapted to be located, revolved and eccentrically displaced in a bottle mold, displacing means adapted to displace said roll and its axis from a concentric position in said bottle mold, graduating means adapted to graduate the eccentric displacement of said roll, and driving mechanism adapted to revolve said roll.

5. Neck-roll apparatus for conforming bottle necks, adapted to operate in connection with bottle molds and comprising a mounting member adapted to mount a roll operably relatively to a bottle mold, a hollow roll adapted to be located, revolved and eccentrically displaced in a bottle mold, displacing means adapted to displace said roll and its axis, cooling means connected with the interior of and adapted to cool said roll, and driving mechanism adapted to receive said roll.

[Claims 6 to 20 not printed in the Gazette.]

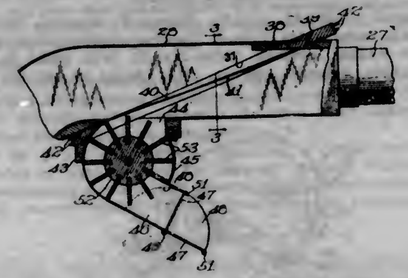
1,130,846. MACHINE FOR DRESSING OR FINISHING SILK STUFFS. EMIL SCHNEEBELI, Affoltern-on-the-Albis, Switzerland. Filed June 12, 1914. Serial No. 844,820. (Cl. 26—2.)



1. A machine for dressing or finishing silk stuffs comprising in combination means for spraying dressing compositions on to the fabric consisting of two superposed chambers through which the fabric moves vertically, nozzles arranged within said chambers, a drying box, finishing elements, and means for moving the fabric successively to the various devices.

2. A machine for dressing or finishing silk stuffs comprising in combination means for spraying dressing compositions on the fabric, a drying box having a zig-zag passage and means for guiding the fabric therethrough, means for causing two independent streams of air to pass one on each side of the fabric in the opposite direction to its travel, finishing elements for said fabric, and means for moving the fabric successively to the various devices.

1,130,847. COTTON-PICKING MACHINE. EUGENE H. SCHOFIELD, Atlanta, Ga.; Ray H. Schofield administrator of said Eugene H. Schofield, deceased. Filed Apr. 6, 1911. Serial No. 619,255. (Cl. 13—19.)



1. In a cotton picking machine, the combination with a separator chamber having an inlet, an air outlet, and a cotton discharge outlet, of means for creating a suction through the separator chamber, a screen comprising parallel wires disposed across the separator chamber impinged in the cotton, the cotton sliding on the wires to the lower end of the screen, the ends of the wires terminating adjacent the cotton discharge outlet, and a rotatable bladed member disposed in the cotton discharge outlet, the blades being adapted to contact with the lower end of the screen and to wipe material lodged against the screen from the screen, and to discharge it through the discharge opening.

2. In a cotton picking machine, a separating screen comprising parallel wires extending in one direction diagonally in the path of the cotton and inclined downwardly in the direction of the entering cotton, pneumatic means for forcing cotton against the screen and toward the bottom thereof, and a rotatable element having radially disposed flexible blades adapted to contact with the screen to wipe away cotton lodged against the screen.

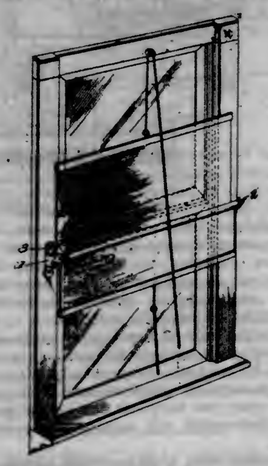
3. In a cotton picking machine, the combination with a separator chamber of means for creating a suction through the chamber, a cotton discharge outlet at the bottom of the chamber, a screen consisting of wires disposed diagonally in the chamber and terminating at the side of the discharge opening opposite the inlet end of the chamber, a wiping device comprising a hub member with radially disposed blades spaced apart at their outer extremities and adapted to engage the lower extremities of the wires to wipe away cotton lodged against the lower end of the screen and to eject it from the discharge opening.

4. In a cotton picking machine, the combination with a separator chamber comprising an inlet opening, an air outlet opening, and a cotton discharge opening in the bottom thereof, a screen disposed diagonally across the chamber from a point adjacent the lower end to the opposite side of the discharge opening, a circular housing in connection with the discharge opening, a rotatable member disposed in the housing and having a plurality of spaced apart radially disposed flexible blades adapted to engage the lower extremity of the screen to wipe cotton therefrom into the said housing, the housing being formed with a discharge opening, and a spout to close the discharge opening at will.

5. A cotton picking machine comprising a separator chamber, a screen disposed therein embodying a plurality of flexible and parallel members extending in one direction from the top to the bottom of the separator chamber in the direction of movement of the cotton, means for tightening said members, and a wiping device comprising a rotatable member with flexible blades adapted to engage the members and move longitudinally in contact therewith to wipe material lodged against the bottom end of said members from contact therewith.

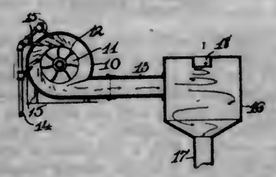
[Claim 6 not printed in the Gazette.]

1,130,848. SHADE-BRACKET. OTIS P. SEWARD, Fredericksburg, Va. Filed Mar. 3, 1910, Serial No. 547,108. Renewed Jan. 21, 1915. Serial No. 3,661. (Cl. 156—24.)



A shade bracket comprising an attaching portion and a wing projecting therefrom, a forward extension at the upper end of the wing and having an opening therein to receive the gudgeon of a shade roller, the forward edge of the wing below the extension and on the inside of a vertical line with the opening of the extension having a slot leading horizontally rearwardly and turned downward and adapted to receive the square gudgeon of the shade roller and said wing having a round opening adjacent to the horizontal slot whereby the inner and lower shade may be mounted to work up or down from the inside and the roller thereof at all times covered by the outer upper shade.

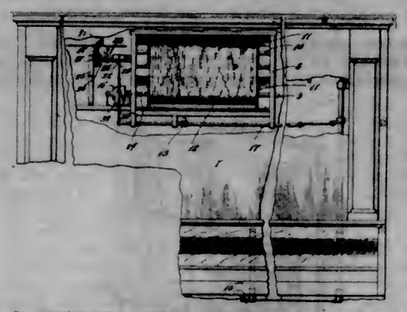
1,130,849. AIR COOLING AND FILTERING DEVICE. JAMES M. SEYMOUR, Jr., Newark, N. J. Filed Apr. 10, 1913. Serial No. 760,202. (Cl. 98—41.)



1. An air cooling and filtering device comprising means for propelling dust-laden air, means for moistening the particles of dust, and a drum with a tangential inlet pipe from the propelling means, the drum having a centrally arranged upper outlet for the air, the drum also having a lower outlet for moistened particles.

2. In an air cooling and filtering device, a pipe for conducting air containing moistened particles, a cylindrical drum, the pipe entering the drum so as to direct the air and its particles tangentially into the drum, the drum having a centrally arranged upper outlet for the air, the drum also having a lower outlet for moistened particles, which latter outlet is adapted to receive said particles from the side walls of the drum.

1,130,850. PHONOGRAPH ATTACHMENT FOR PLAYER-PIANOS. JACOB SHANKS, St. Louis, Mo., assignor of one-half to Isadore Fry, St. Louis, Mo. Filed Jan. 3, 1914. Serial No. 810,265. (Cl. 84—193.)

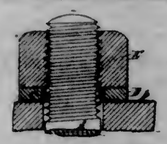


1. In combination with a player piano mechanism having a tempo control, a phonograph, means including a reverse cone and belt drive connection between the player mechanism and the phonograph whereby, when the tempo of the player mechanism is varied, the speed of the phonograph will be substantially uniform.

2. In combination with a player piano mechanism having a tempo control, a phonograph, and means including a variable speed connection between said player mechanism and the phonograph connected with said tempo control whereby, when the tempo of the player mechanism is varied, the phonograph will operate at a substantially uniform speed.

3. In combination with a player piano mechanism having had a tempo control, a phonograph, means including a variable speed connection between said player mechanism and the phonograph connected with said tempo control whereby, when the tempo of the player mechanism is varied, the phonograph will operate at a substantially uniform speed, and means whereby said variable speed connection may be thrown in and out of gear.

1,130,851. LOCK-NUT. JAMES HARDGRAVE SHEKLETON, Darlinghurst, New South Wales, Australia. Filed Nov. 13, 1913. Serial No. 800,712. (Cl. 151—3.)



1. In lock nuts, in combination, a bolt, a nut on said bolt, a washer provided with a compressible annular projection for the nut, and a second washer adapted to surround and engage said annular projection to compress the same, and means for locking said nut from said washer.

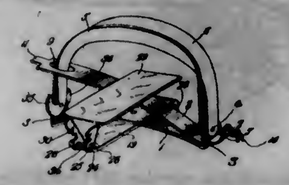
2. In nut locks, in combination, a bolt, a nut on said bolt, a washer provided with a compressible annular projection for the nut, and a second washer adapted to surround and engage said annular projection to compress the same, one of the edges of the aperture in said second washer being chamfered, and means for locking said nut from said washer.

3. In nut locks, in combination, a bolt, a nut threaded on said bolt, a washer provided with a compressible annular projection for the nut, said projection being non-resilient, and a second washer adapted to surround and engage said annular projections to compress the same against the threads of the bolt, and means for locking the nut from said washers.

4. In nut locks, in combination, a bolt, a nut threaded on said bolt, a washer provided with a thin annular compressible non-resilient projection for the nut, and a second washer adapted to surround and engage said annular projection to compress the same, and means for locking the nut from said washers.

5. In combination, a bolt provided with threads, a washer upon said bolt and provided with a compressible annular projection, and a second washer surrounding and engaging said annular projection, a nut threaded on the bolt, the aperture of said second washer being of such a diameter that when it engages said projection the latter will be compressed and forced into intimate engagement with the threads of the bolt.

1,130,852. ANIMAL-TRAP. ENOCH F. SIDDONS, Red Lodge, Mont.; Mrs. John T. Flaherty administratrix of said Siddons, deceased. Filed Jan. 23, 1912, Serial No. 672,818. Renewed Aug. 20, 1914. Serial No. 857,801. (Cl. 43—23.)



1. In a trap of the class described, spring pressed jaws, a pan having its end provided with hooks adapted to be engaged by one of the jaws, and means for adjusting the pan to permit any of its series of hooks being engaged by the said jaw to regulate the tension of the spring of the jaws.

2. In a trap of the class described, spring pressed jaws, a pan having its end provided with hooks and adapted to be engaged by one of the jaws, and means comprising a turning rod for adjusting the pan to permit any of its series of hooks being partly or wholly engaged by the said jaw, substantially as and for the purpose set forth.

3. In a trap of the class described, a base plate, spring pressed jaws pivotally secured to the base plate, a pan having one of its ends provided with a series of hooks, a pan bar pivotally connected with the hooked end of the pan, a spring between the bar and pan, said bar having an elongated opening, a nut secured to the base plate and passing through the opening, the free end of the pan bar having a downturned shoulder provided with a threaded opening, and an oppositely threaded turning rod engaging within the threaded opening and within the bore of the nut, all substantially as and for the purpose set forth.

1,130,853. CAR CONSTRUCTION. ALBERT H. SISSON, Chicago, Ill., assignor to Forsyth Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 27, 1910. Serial No. 599,560. (Cl. 105—201.)



1. In a car construction, the combination of an inner sheathing having a recess therein, a car post engaging said recess and an outer sheathing connected with said inner sheathing, substantially as described.

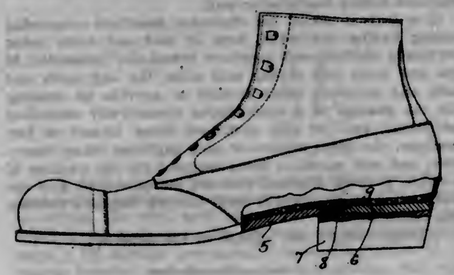
2. In a car construction, the combination of an outer sheathing having a strengthening member formed integrally therewith, and a readily removable finishing sheet outside of said outer sheathing, substantially as described.

3. In a car construction, the combination of an outer sheathing, a belt rail, a guard rail extending outwardly beyond the outer sheathing, a supporting member, and readily removable finishing sheets outside of said outer sheathing and extending from said belt rail to said guard rail and from said guard rail to said supporting member, thereby forming an insulating air space between the outer sheathing and said finishing sheets, substantially as described.

4. In a car construction, a sheathing having obliquely disposed strengthening members integrally formed in the body thereof, and a removable finishing sheet outside thereof substantially as described.

5. In a car construction, sheathing of sheet metal paneled to form intermediate obliquely disposed integral strengthening members, and a substantially plane finishing sheet secured ontside thereof substantially as described.

1,130,854. BOOT OR SHOE. HENRY W. STEDLER, Boston, Mass. Filed Aug. 21, 1913. Serial No. 785,899. (Cl. 36—31.)



1. As a new article of manufacture, a shoe sole consisting of a plurality of portions having abutting edges, and stitches located entirely between the faces of the sole and connecting said abutting edges together.

2. As a new article of manufacture, a shoe sole consisting of a plurality of portions having abutting edges, said portions having channels parallel to and adjacent said edges, and a line of stitches located in said channels and connecting said abutting edges.

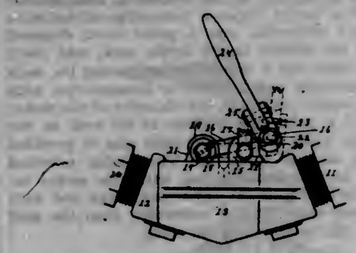
3. As a new article of manufacture, an outer sole for boots and shoes, the same comprising complemental portions having abutting edges, all the portion of said sole, which is to be exposed when the boot or shoe having the sole is completed, being formed of a single piece of relatively high grade leather and the remainder of said sole being formed of cheap or low grade leather, and fastenings located entirely between the faces of said sole for securing the abutting edges together.

4. A boot or shoe having an outer sole consisting of a plurality of parts with abutting edges transverse to the length of the sole and perpendicular to the faces thereof, stitches located entirely between the faces of the sole for securing said abutting edges together, and means exterior to said sole for covering said abutting edges.

5. A boot or shoe having a sole consisting of a plurality of parts formed of relatively high grade and low grade leather respectively, said parts having transverse perpendicular abutting edges with adjacent channels, fastenings located in said channels between the surfaces of the sole for securing said edges together, and means exterior to said sole and secured thereto and overlapping said abutting edges and channels.

[Claims 6 and 7 not printed in the Gazette.]

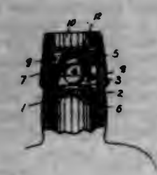
1,130,855. ECCENTRIC STEAM-HOSE LOCK. ELZA S. STOTTS, Des Moines, Iowa. Filed Apr. 20, 1914. Serial No. 833,810. (Cl. 137—89.)



1. A steam-hose lock, comprising spaced lugs, one of said lugs having a transverse bearing, a yoke-shaped link having its legs formed as pivots, one of said pivots being journaled in said bearing, an eccentric clamp journaled on the opposite pivot of said link, said clamp being forked at its outer end, and a handle pivoted in the fork of said eccentric clamp.

2. A steam-hose lock, comprising spaced lugs, one of said lugs having a transverse bearing, a yoke-shaped link having its legs formed as pivots, one of said pivots being journaled in said bearing, an eccentric clamp journaled on the opposite pivot and adapted to engage the outer face of said other lug, and a handle pivoted on said clamp, the pivoting of said handle being at right angles to the pivoting of said clamp.

1,130,856. NON-REFILLABLE BOTTLE. WILLIAM CHARLES SUTCLIFFE, Lismore, New Zealand. Filed Dec. 19, 1913. Serial No. 807,619. (Cl. 215—65.)

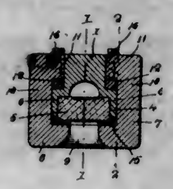


1. A bottle closure of the class described, comprising a centrally apertured washer forming an inner valve seat and adapted to fit tight within a bottle neck, a free disk valve disposed outwardly of the washer to seat against the same, a free weight disposed outwardly of the valve for engagement therewith, and a gullet block disposed outwardly of the washer in the bottle neck, said block having in its inner end a socket accommodating with clearance the weight and valve and providing in its walls an outer seat for the valve, the block being provided further with ports communicating with the socket inwardly and outwardly of the outer valve seat and with tortuous passage ways leading outwardly from the said ports through the outer end of the block.

2. A bottle closure of the class described, comprising a centrally apertured washer forming an inner valve seat and adapted to fit tight within a bottle neck, a free disk valve disposed outwardly of the washer to seat against the same, a free weight disposed outwardly of the valve for engagement therewith, and a gullet block disposed outwardly of the washer in the bottle neck, said block having in its inner end a socket accommodating with clearance the weight and valve and providing in its walls an outer seat for the valve, the block being provided further with ports communicating with the socket inwardly and outwardly of the outer valve seat and with tortuous passage ways leading outwardly from the said ports through the outer end of the block, the portions of the ports disposed outwardly of the outer valve seat being splayed.

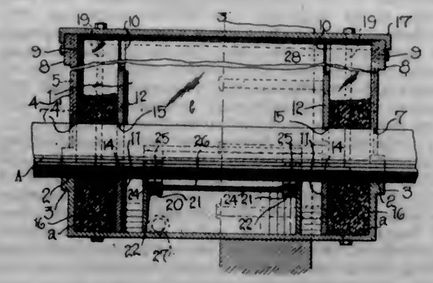
3. A bottle closure of the class described, comprising a centrally apertured washer forming an inner valve seat and adapted to fit tight within a bottle neck, a free disk valve disposed outwardly of the washer to seat against the same, a free weight disposed outwardly of the valve for engagement therewith, and a gullet block disposed outwardly of the washer in the bottle neck, said block having in its inner end a tapered socket having its walls converging outwardly and adapted to accommodate with clearance the weight and valve, the diameter of the socket being equal at a point intermediate of its ends to the diameter of the valve whereby an outer seat is provided at this point for the valve, the block being provided further with ports communicating with the socket inwardly and outwardly of the outer valve seat and with tortuous passage-ways leading outwardly from the said ports through the outer end of the block.

1,130,857. WATER-GAGE GLASS. SAMUEL W. TAYLOR, South Richmond, Va. Filed Mar. 4, 1914. Serial No. 822,437. (Cl. 73—54.)



A water gage glass comprising a body having a channel formed therein and a recess contiguous the channel, a sight glass seated within said recess, flanges formed on the opposite sides of said body at the front side thereof and projecting outwardly therefrom and having the rear faces thereof inclined, a retainer surrounding said body and adapted to slide onto and off of the same and comprising a front wall having a sight opening therein and side walls projecting rearwardly from said front wall and having the rear edges thereof formed with inwardly extending flanges, the inner faces of said flanges confronting the rear faces of said first flanges and coöperating therewith to form wedge-shaped pockets, and wedge-shaped keys slidably disposed within said pockets to lock the retainer to the body.

1,130,858. JOURNAL-BOX. COMADORE J. THOMAS, Green Bay, Wis. Filed July 20, 1914. Serial No. 852,031. (Cl. 64—10.)



1. A journal box including a casing having upwardly extending intermediate walls on the bottom of the casing, the walls being spaced from each other to provide a compartment between the walls and being spaced from the end walls of the casing to provide end compartments, said casing having shaft openings at its ends, removable slides insertible through the top of the casing and normally held in alinement with said intermediate walls, packing disposed in the end compartments and between said slides in the end walls of the casing, a shaft bearing mounted in the intermediate compartment, said intermediate compartment having a drain opening, and a cover closing said casing, the intermediate walls and slides being formed to embrace a shaft passing through the casing.

2. A journal box of the character described comprising a casing divided into three compartments adapted to permit the passage of a shaft entirely through the casing, packing disposed in the end compartments, and a shaft bearing disposed in the intermediate compartment and less in length and width than the intermediate compartment, the intermediate compartment having a drainage opening, the entrance end of which is exterior to the shaft bearing.

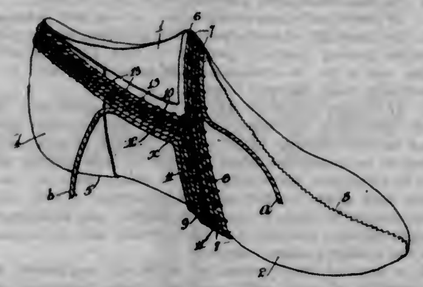
3. A device of the character described comprising a casing having alined open ended slots, slides insertible within said slots, said slides having portions overlying the adjacent portions of the casing, and means coacting with the casing and the overlying portions of the slides for holding the slides against removal.

4. A journal box of the character described comprising a casing having an end wall vertically slotted, an end member detachably attached to the end wall and closing said slot, the end wall and said member being formed to provide an opening for the passage of a shaft, an interior wall formed in upper and lower sections and designed to permit the passage of a shaft, packing disposed between the interior wall and the end wall, and a shaft bearing disposed within the interior wall.

5. A journal box of the character described comprising casing having end walls, both of said end walls being vertically slotted, end members detachably connected to the end walls and closing said slots, the end walls and said end members being formed to provide an opening for the passage of a shaft, inner transversely extending partitions, each of said partitions being formed of two sections, the upper section of each partition being removable, and said partition being designed for the passage of a shaft, packing disposed between the partitions and the end wall, and an elevated shaft bearing disposed between the partitions.

[Claims 6 and 7 not printed in the Gazette.]

1,130,859. METHOD OF MAKING SHOES. JOSEPH S. THOMAS, Greenville, Miss. Filed Oct. 31, 1913. Serial No. 798,605. (Cl. 12—142.)



1. The herein described method of forming a shoe which comprises mounting a lining over a last, winding cord over the lining, and securing the cord to the lining.

2. The herein described method of forming a shoe body which comprises mounting a lining over a last, winding cord about the last and over the lining, and securing each strand of cord to said lining as the winding progresses.

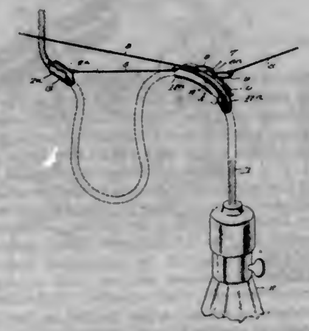
3. The herein described method of forming a shoe body which comprises securing a lining upon a last, winding cord about the lining to dispose the winds in lateral abutting relation and cover the lining, and stitching the cords to each other and to the lining.

4. The herein described method of forming a shoe body which comprises fitting a lining to a last, winding cord about the last with the winds in a lateral abutting relation to cover the lining, and successively stitching the winds to each other and to the lining as the cord is being wound.

5. The herein described method of forming a shoe body which comprises anchoring a single length of cord to one portion of a last, winding one end portion of the cord around the last in one direction, and winding the other end portion of the cord around the last in another direction.

[Claims 6 to 10 not printed in the Gazette.]

1,130,860. CORD-ADJUSTER FOR ELECTRIC DROP-LIGHTS. GEORGE E. THORBERG, Mandan, N. D. Filed Mar. 18, 1913, Serial No. 755,178. Renewed Aug. 8, 1914. Serial No. 855,935. (Cl. 248—9.)



1. A cord adjuster for electric drop lights including a cord engaging member, an independent spring clip adapted to engage the cord, said spring clip being curved longitudinally to conform to the curvature of the electric light cord, a tie member permanently connecting the cord engaging member and the clip, and a retaining cord connected to the clip.

2. A cord adjuster for electric drop lights including a cord engaging member, an independent cord engaging spring clip formed from a single sheet of spring material, said spring clip having a substantially U shaped cross-section and being longitudinally curved to conform to the curvature of the electric light cord, a tie member permanently connecting the cord engaging member and the clip, and a retaining cord connected to the clip.

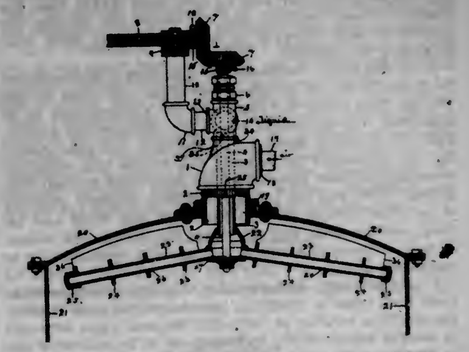
3. A cord adjuster for electric drop lights including a cord engaging spring clip formed from sheet material and being substantially U shaped in cross-section, one of the edges of the clip being provided with a longitudinal slit to provide a tongue which is bent to form a hook member, a retaining cord, and means upon the retaining cord for detachably engaging the hook member.

4. A cord adjuster for electric drop lights including a spring cord engaging clip formed from a single sheet of spring material and having a U shaped cross-section, the said spring clip being provided at the mouth thereof with longitudinally disposed side flanges and one of the side flanges being returned and slit to provide a tongue which is bent to form a hook, and a retaining cord provided with means for detachably engaging the hook.

5. A cord adjuster for electric drop lights including a cord engaging spring clip formed from a single sheet of spring material and having a substantially U shaped cross-section, side flanges being provided at the mouth of the clip and one of the side flanges being slit to provide a tongue which is bent to provide a double hook, a pair of retaining cords and means upon the two retaining cords for independently engaging the before mentioned double hook.

[Claims 6 to 10 not printed in the Gazette.]

1,130,861. GAS-GENERATOR. WALLER P. TINSLEY, Fort Worth, Tex., assignor of one-half to Jno. A. Wisherd, Fort Worth, Tex. Filed Mar. 1, 1913, Serial No. 751,496. Renewed July 23, 1914. Serial No. 852,761. (Cl. 48—114.)

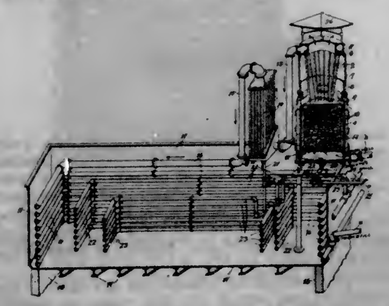


1. Feeding devices for gas generators comprising a liquid container suspended within a generator, perforated distributing arms connected to and communicating with and carried by said container, baffle rings mounted on said arms, the baffle rings on each arm being placed at different distances from the container relative to the baffle rings on every other arm and means for rotating said container.

2. In a generator provided with a perforated top, a hollow neck connected in the perforation in said top, a connection with said neck for feeding compressed air into the generator, a pipe projected through said neck for feeding liquid elements to the generator, a shaft projected through said pipe into the generator, a liquid container carried by said shaft and loosely connected with said pipe, perforated distributing pipes carried by said container, a stuffing gland for said shaft, and means for driving said shaft.

3. Feeding devices for gas generators comprising a liquid container suspended within a generator, perforated distributing arms communicating with and carried by said container, agitating wings carried by said arms, and means for rotating said container.

1,130,862. FRACTIONAL CONDENSER FOR SEPARATING HYDROCARBONS IN DISTILLING PETROLEUM. JOHN W. VAN DYKE and WILLIAM M. IRISH, Philadelphia, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed Oct. 4, 1909, Serial No. 520,937. Divided and this application filed Apr. 18 1911. Serial No. 621,904. (Cl. 196—21.)



1. A fractional condenser for separating hydrocarbons from each other in distilling petroleum, the same being arranged to receive vapors of the hydrocarbons to be separated and to discharge the condensate formed from said vapors and the uncondensed vapors, and including (1) ap-

pliances for dividing the vapors received by said condenser into numerous streams separated from each other by heat conducting walls and flowing in directions which are largely at least vertical and for causing laterally confined currents of aeriform cooling fluid to flow over said walls and between said streams in directions which also are largely at least vertical, and (2) valves for varying the volume of said currents of aeriform cooling fluid, substantially as described.

2. A fractional condenser for separating hydrocarbons from each other in distilling petroleum, the same having (1) an inlet below for vapors of the hydrocarbons to be separated, (2) an outlet above for uncondensed vapors, and (3) an outlet below for condensate, and also including (4) appliances for dividing said vapors into numerous ascending streams separated from each other by heat conducing walls and for causing laterally confined currents of aeriform cooling fluid to flow over said walls and between said streams, and (5) valves for varying the volume of said currents of aeriform cooling fluid, substantially as described.

3. A fractional condenser for separating hydrocarbons from each other in distilling petroleum, the same consisting of (1) a number of vertically disposed pipes arranged to receive vapors of the hydrocarbons to be separated and to discharge the condensate formed from said vapors and the uncondensed vapors, (2) a surrounding casing arranged for the introduction of air into and its escape from the same, and (3) means for regulating the volume of air supplied to said casing, substantially as described.

4. A fractional condenser for separating hydrocarbons from each other in distilling petroleum, the same consisting of (1) a number of pipes arranged to be cooled and to receive vapors of the hydrocarbons to be separated and to discharge the condensate formed from said vapors and the uncondensed vapors, and (2) means for stricturing the said pipes and for automatically relieving an excess of pressure in said pipes, substantially as described.

5. A fractional condenser for separating hydrocarbons from each other in distilling petroleum, the same being arranged to receive vapors of the hydrocarbons to be separated and to discharge the condensate formed from said vapors and the uncondensed vapors, and including (1) an annular header, (2) a chamber, (3) a number of vertically disposed pipes communicating at opposite ends with said annular header and said chamber respectively, and (4) a casing inclosing said pipes and open to the air at one end through said header and at the other end through lateral openings, substantially as described.

[Claim 6 not printed in the Gazette.]

1,130,863. WRENCH. ARCHIBALD LYLE WALLACE, London, England. Filed June 13, 1914. Serial No. 845,036. (Cl. 81—65.)

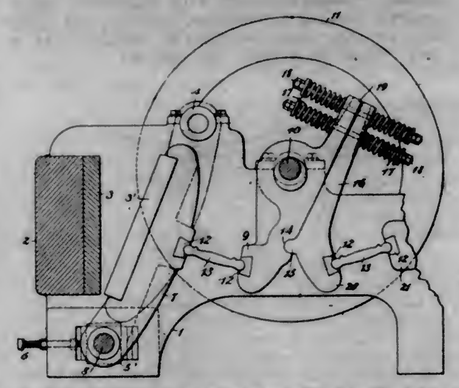


1. In a pipe wrench, the combination of a chain, a screw bolt jointed to one end of the said chain, an abutment piece jointed to the other end of the said chain, a lever, a block attached to the head of the said lever and adapted to receive the said abutment piece, a nut mounted on the said lever and engaging with the said screw bolt, and a spring fastened to the said lever and adapted to press the said chain on the pipe.

2. In a pipe wrench, the combination of a chain, a screw bolt jointed to one end of the said chain, an abutment piece jointed to the other end of the said chain, a lever, a block attached to the head of the said lever and adapted to receive the said abutment piece, a nut mounted on the said lever and engaging with the said screw bolt, a spring fastened to the said lever and adapted to press the said chain on the pipe, and a strip of protective material interposed between the said chain and the pipe.

3. In a pipe wrench, the combination of a chain, a screw bolt jointed to one end of the said chain, an abutment piece, a hollow lever inside which the said screw bolt is lodged, a block attached to the head of the said lever and adapted to receive the said abutment piece, a nut mounted on the said lever and engaging with the said screw bolt, and a spring fastened to the said lever and adapted to press the said chain on the pipe.

1,130,864. CRUSHER. AUGUST W. WARSEN, New York, N. Y. Filed May 20, 1914. Serial No. 839,779. (Cl. 83—53.)



1. In a crusher,—a frame; a jaw carried by the frame; a lever mounted to oscillate in the frame; a jaw carried by the lever; a crank shaft in the frame; a pitman on the crank; a toggle intermediate the pitman and the lever; a second toggle on the other side of the pitman associated with the frame; and means positioned between the said second toggle and the pitman adapted to maintain said lever, immovable, while the pitman moves, when an object of high resistance enters between the crushing jaws.

2. In a crusher,—frame; a jaw carried by the frame; a lever mounted to oscillate in the frame; a jaw carried by the lever; a crank shaft in the frame; a pitman on the crank; a toggle intermediate the pitman and the lever; a second toggle on the other side of the pitman associated with the frame; means between the pitman and said last mentioned toggle including resilient members whereby said lever is adapted to remain immovable, while the pitman moves, when an object of high resistance enters between the crushing jaws.

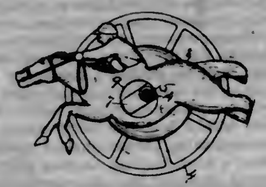
3. In a crusher,—a frame; a crushing jaw in the frame; a lever mounted to oscillate in the frame; a jaw in the lever; a pitman in the frame; means for actuating the pitman; a toggle between the pitman and the lever; a second toggle on the opposite side of the pitman associated with the frame; an arm mounted to oscillate on the pitman engaging said second toggle; and resilient means normally preventing the oscillation of said arm on the pitman, the resistance of said resilient means being such as to permit the lever to remain immovable, while the pitman moves, when an object of high resistance enters between the jaws.

4. In a crusher,—a frame; a jaw in said frame; a lever mounted to oscillate in the frame; a jaw carried by the lever; means for oscillating the lever; and means associated with said means for oscillating the lever, positioned exteriorly of said lever, whereby the said lever remains immovable during the movement of said means for oscillating the lever when an object of high resistance enters between the jaws.

5. In a crusher,—a frame; a jaw in said frame; a lever mounted to oscillate in the frame; a jaw carried by the lever; means for oscillating the lever; an arm associated with said means for oscillating the lever; and a resilient member normally maintaining the arm against said means for oscillating the lever, said resilient member preventing injury to any moving part of the crusher when an object of high resistance enters between the crushing jaws.

[Claims 6 to 8 not printed in the Gazette.]

1,130,865. TOY. CLIFFORD M. WATROUS, East Hampton, Conn., assignor to The Gong Bell Manufacturing Company, East Hampton, Conn., a Corporation of Connecticut. Filed Oct. 7, 1914. Serial No. 865,415. (Cl. 46—45.)



1. A toy including wheels with an axle secured thereto, an eccentric secured to said axle, an object having a hole to receive the eccentric and mounted thereon and otherwise unsupported, means for preventing movement of the object lengthwise of the axle, and a draft member secured to the object to move the toy along.

2. A toy including wheels, an axle secured to the wheels, an eccentric secured to said axle, an object mounted on the eccentric and having a hole to receive the eccentric, said object being unsupported at both ends, means for preventing movement of the object lengthwise of the axle, and a draft member secured to the object to exert a substantially uniform draft thereon to move the toy along.

3. A toy including a set of wheels, an axle secured to the wheels, an eccentric secured to the axle, an object loosely mounted and unrestrainedly movable upon said eccentric, means for maintaining the object in its position upon said eccentric, and a draft member secured to the object to move the toy along.

4. A toy including a set of wheels, an axle secured to said wheels, an eccentric secured to said axle, an object loosely and unrestrainedly mounted on said eccentric and substantially balanced thereon with its ends disposed to move into the plane of the surface upon which the wheels rest, and means for retaining the object upon said eccentric.

5. A toy including a set of wheels, an axle secured to said wheels, an eccentric secured to said axle, an object loosely mounted and unrestrainedly movable upon said eccentric, and gongs secured to the axle upon opposite sides of said object to retain it in place upon the eccentric.

[Claim 6 not printed in the Gazette.]

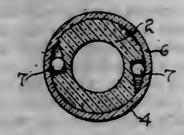
1,130,866. THREAD-GAGE. FRANK O. WELLS and FRANKLIN JUDGE, Greenfield, Mass., assignors to Greenfield Tap & Die Corporation, Greenfield, Mass., a Corporation of Massachusetts. Filed Jan. 24, 1913. Serial No. 743,884. (Cl. 33—199.)



1. A thread gage comprising in combination, a body member formed with a tapered threaded opening therein, arranged to receive a screw to be measured, said body being provided with a flattened upper portion having a graduation thereon to indicate the correct size of said screw and other graduations to indicate deviations from said correct size, said flattened upper portion intersecting the threaded opening, means to set the gage from a standard reference plug, all constructed and arranged so that the size of the screw to be measured is indicated by the distance said screw can be turned into said opening.

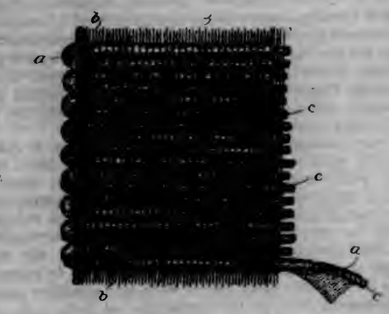
2. A thread-gage formed with a tapered threaded opening in the upper portion thereof, and an enlarged opening communicating therewith, the upper end of the gage being flattened and intersecting said opening, said surface being provided with numerals designating the fractional parts of an inch, whereby when a tap is threaded into said opening, the correct size of the inserted tap may be determined, means for adjusting the diameter of the tapered threaded opening, said means comprising set-screws for adjusting said first mentioned opening.

1,130,867. TELLTALE BOTTLE. ALPHONS L. WESTRICH, Tooele, Utah. Filed Apr. 6, 1914. Serial No. 829,978. (Cl. 215—103.)



In combination with a bottle having a screw-threaded neck and a locking pocket formed therein, a closing cap screw-threaded to correspond with the bottle neck and having a locking flange overlying the pocket in the neck, and a cylindrical locking dog interposed between the locking flange and the wall of the pocket; a wall of the locking pocket opposing the locking flange being at an angle to the latter and the cylindrical surface of said locking dog and the opposed surfaces of the locking flange and pocket between which it lies, being toothed to drive the locking dog to binding position by rotation of the cap in the direction of unscrewing.

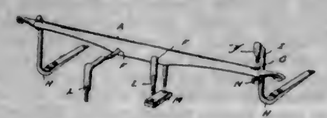
1,130,868. WOVEN FABRIC. JOHN M. WHITTEMORE, Boston, Mass. Filed Apr. 21, 1913. Serial No. 762,596. (Cl. 139—9.)



1. A woven fabric consisting wholly or in part of strands or yarns composed of an exterior of woven material in strip form, and a core or filling constituting a relatively large body or interior for the said strands or yarns.

2. The herein described woven rag carpeting consisting of a rag weft or filling composed of an outer strip or covering of woven material in strip form, and a core or filling constituting a relatively large body or interior for the said rag weft.

1,130,869. HANGER-BAR AND BODY-LOOP. FRANK E. WILCOX, Mechanicsburg, Pa. Filed Mar. 14, 1913. Serial No. 754,246. (Cl. 21—11.)



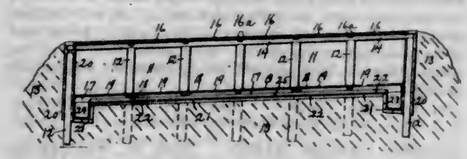
1. A metallic hanger bar having a vertical web, a top flange terminating in solid perforated ends, a spring plate at substantially right angles to the edge of the vertical web and in a plane parallel with the top flange, and holes through the vertical web above the spring plate.

2. A metallic hanger bar having a top flange terminating in perforated ends, a vertical web, and a spring plate at right angles to the vertical web, said top flange, vertical web, and plate forming a longitudinal recess B at the vertical side of the bar.

3. The combination of a spring; a metallic hanger bar having a top flange, a vertical web, a spring plate parallel and in line with the flange, and holes through the vertical web; clips with threaded prongs, a prong of each clip passed through a hole in the vertical web and bent down over the spring plate and leaves of the spring; and yokes and nuts for clamping the spring plate to the spring.

4. As an article of manufacture, a metallic hanger bar having a perforated vertical web, a top flange terminating in solid ends each end having a tapered hole, and a spring plate at substantially right angles to the vertical web and below the top flange, the perforated web being adapted to receive clips and the tapered holes adapted to receive the ends of body loops.

1,130,870. APPARATUS FOR UTILIZING SOLAR HEAT. HENRY E. WILLSIE, Cranford, N. J. Filed June 19, 1903. Serial No. 162,169. (Cl. 60—2.)



1. The combination with a reservoir adapted to retain heat in a fluid of an inclined receptacle adapted to expose beneath a transparent cover a contained fluid to sunshine, said reservoir and said receptacle being in communication, means for flowing a fluid through said receptacle into said reservoir, mechanical means for returning the fluid to said receptacle, thermostatic control of the fluid through said receptacle, and an engine adapted to be operated by the heat in said solar heated fluid.

2. The combination with a reservoir adapted to retain heat in a fluid of a receptacle adapted to expose a contained fluid to solar heat, said reservoir and said receptacle being in communication, means for flowing said fluid through said receptacle, mechanical means for completing the circulation of said fluid through said reservoir and said receptacle, thermostatic control of the fluid through said receptacle, an engine adapted to be operated by the heat in said solar heated fluid, and auxiliary means for furnishing heat by the combustion of fuel.

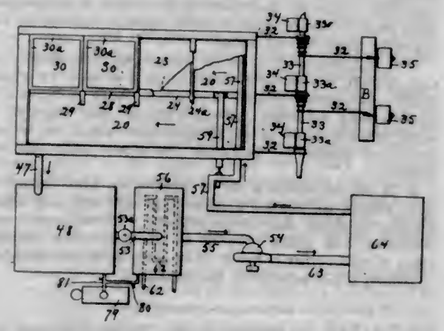
3. In a solar apparatus, the combination of a solar heater adapted to heat a heat-receiving medium circulated therein, an insulated reservoir for the storage of the solar heated medium, connections between said heater and said reservoir, mechanical means for circulating the medium through said heater and said reservoir, means for regulating said circulation according to the temperature of the medium circulated, an engine, a feed pump and means for operating it, a vaporizer connected to said engine and to said feed pump, mechanical means for circulating the solar heated medium about said vaporizer, a condenser connected to said engine and to said feed pump, and means for circulating a cooling medium about said condenser, said engine, feed pump, vaporizer and condenser being adapted to contain and to operate with a fluid like sulfur dioxid.

4. In a solar apparatus, the combination of a solar heater adapted to heat a heat-receiving medium circulated therein, an insulated reservoir for the storage of the solar heated medium, connections between said heater and said reservoir, mechanical means for circulating the medium through said heater and said reservoir, and engine, a feed pump and means for operating it, a vaporizer connected to said engine and to said feed pump, mechanical means for circulating the solar heated medium about said vaporizer, a condenser connected to said engine and to said feed pump, and means for circulating a cooling medium about said condenser, said engine, feed pump, vaporizer and condenser being adapted to contain and to operate with a fluid like sulfur dioxid.

5. In a solar apparatus, the combination of a solar heater adapted to heat a heat-receiving medium circulated therein, an insulated reservoir for the storage of the solar heated medium, connections between said heater and said reservoir, a pump adapted to circulate the medium through said heater and said reservoir and means for operating the pump, a thermostat adapted to regulate the speed of said pump, an engine, a feed pump and means for operating it, a vaporizer connected to said engine and to said feed pump, mechanical means for circulating the solar heated medium about said vaporizer, a condenser connected to said engine and to said feed pump, and means for circulating a cooling medium about said condenser; said engine, feed pump, vaporizer and condenser being adapted to contain and to operate with a fluid like sulfur dioxid.

[Claims 6 to 11 not printed in the Gazette.]

1,130,871. SOLAR APPARATUS. HENRY ELMER WILLSIE, New York, N. Y. Filed June 3, 1904. Serial No. 210,943. (Cl. 126—271.)



1. In a solar apparatus, the combination of a liquid container, line focusing lenses, means for adjusting said lenses upon said liquid container, a reservoir connected to said container and adapted to store liquid heated in said container, and auxiliary means adapted to put heat from the combustion of fuel into said reservoir.

2. In a solar apparatus, the combination of a liquid container, line focusing lenses, means for adjusting the focus of said lenses upon said liquid container, a reservoir connected to said container and adapted to store liquid heated in said container, and thermostatic means for regulating the flow of liquid from said reservoir.

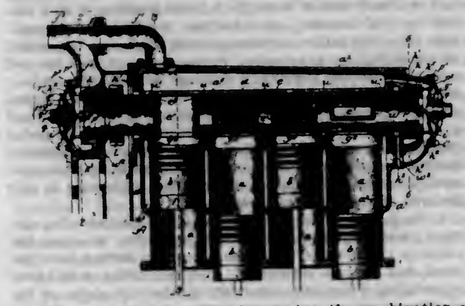
3. In a solar apparatus, the combination with a solar heater adapted to heat a fluid circulated therein, a pump for circulating the fluid through said heater, thermostatic means for regulating the flow of fluid through said heater, and auxiliary means for heating said fluid by the combustion of fuel.

4. In a solar apparatus, the combination of a liquid container, line focusing lenses, means for adjusting the focus of said lenses upon said liquid container, a reservoir connected to said container adapted to store liquid heated in said container, and means adapted to circulate a liquid through said container and said reservoir.

5. In a solar apparatus, a series of liquid containers inclosed in a compartment with a heat retaining bottom, flexible sides and a prism glass cover, said containers being provided with inlets and outlets for liquid.

[Claims 6 to 23 not printed in the Gazette.]

1,130,872. INTERNAL-COMBUSTION ENGINE. AAGE E. WINCKLER, Racine, Wis., assignor to Robinson & Robinson, a Copartnership consisting of Richard T. Robinson & Richard T. Robinson, Jr., Colorado Springs, Colo., and Racine, Wis. Filed May 31, 1913. Serial No. 770,958. (Cl. 123—173.)



1. In an internal combustion engine, the combination of a cylinder, a hollow rotary valve having openings in its ends and which has a passage for cooling liquid to flow longitudinally therethrough, a casing, a valve seat in said casing, a water-jacket extending around the seat and said cylinders, means for conducting cooling liquid from the water-jacket to one end of said valve, an outlet from the water-jacket through which water will flow which has not passed through the valve, and means for conducting water which has passed through the valve to the water from said outlet.

2. In an internal combustion engine, the combination of a cylinder, a hollow rotary valve having openings in its ends, a casing extended to inclose one end of the valve, a valve seat in said casing, a water-jacket in the casing and extending around the cylinder and the seat, a water-duct in the casing between the water-jacket and one end of the valve, and a water-outlet from the jacket through which water will flow which has not passed through the valve, a water-outlet connected to the other end of the valve, and a common discharge to which both of said outlets are connected.

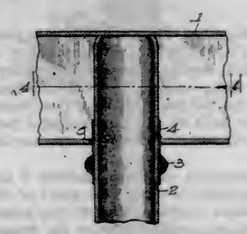
3. In an internal combustion engine, the combination of a casing, a cylinder, a water-jacket in the casing around the cylinder, a hollow rotary valve having a passage for water, means for supplying cooling water to said water, means for conducting a portion of the water which has passed through said jacket into the rotary valve, an outlet for the water in the valve, and an outlet for the water in the water-jacket which causes the remainder of the water to circulate through the jacket without passing through the valve.

4. In an internal combustion engine, the combination of a casing, a cylinder, a valve-seat in the casing, a hollow rotary valve having both of its ends open and formed with a chamber for the passage of water therethrough, a water jacket around the cylinder and the seat and extended and inclosing around one end of said valve, and having a duct therein communicating with the open end of the valve inclosed thereby, a head inclosing the other end of said valve and having a chamber therein communicating with the end held in the head, and a gear on the valve and disposed between said head and said jacket.

5. In an internal combustion engine, the combination of a casing, a cylinder, a valve-seat in the casing, a water-jacket in the casing and extending around said seat and said cylinder, a hollow rotary valve having openings in its ends and a passage for water therethrough, a conduit in the casing and between the water-jacket and one end of the valve for conducting a portion of the water which has passed through the jacket to the said valve, a water-outlet at the other end of the valve, and an outlet for the escape of the remainder of the water from the jacket which has not passed through the valve.

[Claims 6 to 22 not printed in the Gazette.]

1,130,873. METAL BEDSTEAD. JOHN M. ADAMS, Chicago, Ill. Filed May 22, 1911. Serial No. 628,695. (Cl. 5—4.)



1. A bedstead comprising a first member which is hollow and is provided with a hole in the side thereof, a second member, and a hollow "ornament," said "ornament" comprising an expansible section inserted through the hole in said hollow first member, and the second bedstead member inserted through said "ornament" into said hollow first member, the initial size of the section of said "ornament" which extends through the hole in said hollow first member being substantially the same as said hole and the hole through said section of said "ornament" inserted through said hole being initially smaller than the bedstead member which is inserted therethrough, whereby inserting said second bedstead member through said hollow ornament into said first bedstead member will expand the section of said ornament within said first bedstead member into strong engagement with the sides of the hole in said first bedstead member, substantially as described.

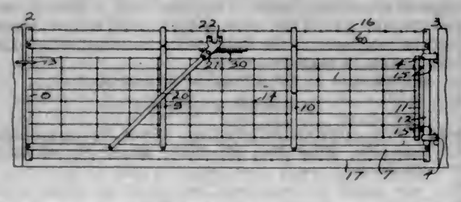
2. A bedstead comprising a first member which is hollow and is provided with a hole in the side thereof, a second member and a hollow "ornament," said "ornament" comprising an expansible section inserted through the hole in said hollow first member, and the second bedstead member inserted through said "ornament" into said hollow first member, the section of said "ornament" which extends through said hole in said hollow first member being initially slightly tapered inside, and the hole through the tapered section of said "ornament" being initially slightly smaller than the second member which is inserted through the same, whereby inserting said second bedstead member through said hollow ornament into said first bedstead member will expand the section of said ornament within said first bedstead member into strong engagement with the sides of the hole in said first bedstead member, substantially as described.

1,130,874. GATE. EDWIN C. ANDREWS, Adrian, Mich. Filed Mar. 27, 1914. Serial No. 827,520. (Cl. 39—34.)

1. The combination of a gate having a jointed frame, a diagonal bar pivoted to one of the parts of the frame of the gate, a rack secured to another part of the frame of the gate, and a pinion having only two diametrically disposed pins coacting with said rack for shifting the end of the bar along the rack and locking the bar with respect to the rack.

2. The combination of a gate having a jointed frame, a diagonal bar pivoted to the lower horizontal part of the frame, a rack located on the upper horizontal part of the

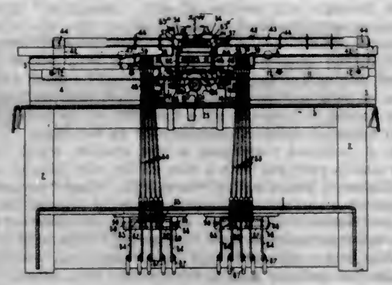
frame, the upper end of the diagonal bar having a housing, a pinion located in the housing and having two diametrically disposed pins rotatably movable along the rack, means for rotating the pinion, and rollers mounted in the housing and disposed on the side of the upper part opposite the side to which the rack is attached.



3. The combination of a gate having a jointed frame, a diagonal bar pivoted to one of the parts of the frame, a rack and pinion coacting to shift the other end of the diagonal bar along another part of the frame, the rack having teeth and the pinion having two diametrically disposed pins, the teeth of the rack having a height substantially equal to the distance between the centers of the pins of the pinion.

4. The combination of a gate having a jointed frame, diagonal bar pivoted to one of the parts of the frame and a rack and pinion coacting to shift the other end of the diagonal bar along another part of the frame, the center of the pinion being located within the line passing through the ends of the teeth of the rack.

1,130,875. TYPE-WRITING MACHINE. JOHN H. BARR, New York, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Apr. 28, 1914. Serial No. 834,888. (Cl. 197—178.)



1. In a typewriting machine, the combination of a carriage; and tabulating mechanism operative to arrest the carriage at the same letter space position during both forward and reverse tabulation, said tabulating mechanism comprising a series of denomintational stops, a series of key controlled nested actuating members for said stops, and means for affording a limited bodily movement of said denominational stops and nested members with the carriage in the travel of the latter in one direction.

2. In a typewriting machine, the combination of a carriage; and tabulating mechanism operative to arrest the carriage at the same letter space position during both forward and reverse tabulation, said tabulating mechanism comprising a housing mounted on the top plate of the machine in the rear of the carriage and having a limited movement in the direction of the travel of the carriage and in one direction from the normal position, a stop carried by said housing, and an actuating device which is separate from but which coöperates with said stop to control its operation, said actuating device being carried by and movable with the housing.

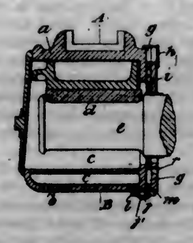
3. In a typewriting machine, the combination of a carriage; and tabulating mechanism operative to arrest the carriage at the same letter space position during both forward and reverse tabulation, said tabulating mechanism comprising a housing mounted on the top plate of the machine in the rear of the carriage and having a limited movement in the direction of the travel of the carriage and in one direction from the normal position, a stop carried by said housing, an actuating device which is separate from but which coöperates with said stop to control its operation, said actuating device being carried by and movable with the housing, and a carriage releasing device carried by said housing and movable therewith, the operation of said releasing device being controlled by said stop.

4. In a typewriting machine, the combination of a carriage; and tabulating mechanism operative to arrest the carriage at the same letter space position during both forward and reverse tabulation, said tabulating mechanism comprising a housing mounted on the top plate of the machine in the rear of the carriage and having a limited movement in the direction of the travel of the carriage and in one direction from the normal position, a stop carried by said housing, an actuating device which is separate from but which coöperates with said stop to control its operation, said actuating device being carried by and movable with the housing, a carriage releasing device carried by said housing and movable therewith, the operation of said releasing device being controlled by said stop, and a second carriage releasing device carried by the frame of the machine and with which said first mentioned releasing device is operatively connected, a disconnection between said releasing devices being effected by a movement of said housing from its normal position.

5. In a typewriting machine, the combination of a carriage; and tabulating mechanism operative to arrest the carriage at the same letter space position during both forward and reverse tabulation, said tabulating mechanism comprising a housing mounted on the top plate of the machine in the rear of the carriage and having a limited movement in the direction of the travel of the carriage and in one direction from the normal position, a stop carried by said housing, an actuating device which is separate from but which coöperates with said stop to control its operation, said actuating device being carried by and movable with the housing, a carriage releasing device carried by said housing and movable therewith, the operation of said releasing device being controlled by said stop, a second carriage releasing device carried by the housing and controlled by said first mentioned device, and a third carriage releasing device carried by the frame of the machine and with which said second releasing device is cooperative, a disconnection between said second and third releasing devices being effected by a movement of the housing from its normal position.

[Claims 6 to 83 not printed in the Gazette.]

1,130,876. JOURNAL-BOX. JOSEPH BLOCKLEY BEADMAN, Keighley, and HARRY JOHNSON MACKLIN, Ulverston, England. Filed June 12, 1914. Serial No. 844,651. (Cl. 64—24.)



1. In an axle box for railway vehicles the combination of a receptacle adapted for the reception of a fluid lubricant having a specific gravity less than that of water and provided with a rear compartment communicating at its bottom with the receptacle, an axle extending into said receptacle, said receptacle having vertical grooves in one side thereof, a shield engaging in said grooves adapted to prevent the free entrance of water into the receptacle, and a pair of vertical partitions extending from the bottom of said rear compartment, said rear compartment having water outlets in the side thereof whereby to admit of the escape of the water by gravity from the compartment.

2. In an axle box the combination of a receptacle adapted to contain a fluid lubricant and having a separating chamber communicating therewith for removing water from the lubricant, said receptacle having an aperture therein leading to the sperating chamber, a plurality of partitions arranged in said separating chamber providing a number of compartments therein, said partitions being arranged whereby to provide a central compartment smaller than the remaining compartments, said separating chamber having in one side an outwardly tapering opening communicating with said smaller compartment to admit of the escape of the separated water.

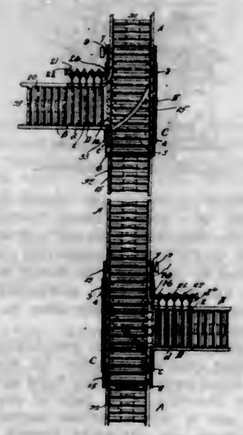
3. In an axle box, the combination of a receptacle adapted for the reception of a fluid lubricant and having a separating chamber communicating therewith, partitions arranged in said separating chamber whereby to provide a number of compartments therein, said receptacle having vertical grooves in one side thereof, a shield mounted in said grooves adapted to prevent the free entrance of water to said receptacle and constituting a partition between the receptacle and the separating chamber, a plurality of partitions arranged in the lower part of said separating chamber provided with knife edges and forming a plurality of compartments in the separating chamber, said separating chamber having an opening through one side thereof communicating with one of the compartments whereby to admit the escape of water overflowing into said compartment.

4. In an axle box for railway vehicles, the combination of a receptacle provided with a compartment for holding a fluid lubricant having a specific gravity less than that of water, an axle extending into said receptacle, said axle box having vertical grooves in one side thereof arranged opposite to each other, a shield engaging in the grooves providing a compartment for the reception of water separated from the lubricant, said axle box having a chamber communicating with the fluid lubricating compartment and with the separated water chamber, and vertical partitions arranged in the lower part of the separating chamber dividing the same into a number of compartments, the central of such compartments being smaller than the remaining ones and being in communication with the fluid lubricant chamber, said central compartment being adapted to receive the water from said lubricant, the water being adapted to overflow from the central compartment into the other compartments, said separating chamber having in the wall thereof outward flaring holes communicating with the central compartment through which the water is adapted to escape from the axle box.

1,130,877. CONVEYING SYSTEM. MORRIS U. BERNHEIM, Louisville, Ky., assignor, by mesne assignments, to The Alvey-Ferguson Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 3, 1909. Serial No. 526,140. (Cl. 193—1.)

1. A transferring means for package-conveying systems, comprising two members arranged approximately at right angles with each other, each of said members having its bed or way provided with a series of power-driven package-feeding rollers, the rollers of one member having their axes disposed approximately at right angles with the rollers of the other member, and the rollers of the two members being relatively so arranged that the end roller of one will be adjacent to the ends of rollers of the other, whereby the rollers of the two members will act conjointly upon a package, and a switch arranged as a bar to the path of travel of the package on one series of rollers for guiding said package from one series toward the other series.

2. A transferring means for package-conveying systems, comprising two members arranged approximately at right angles with and adjacent to each other, each of said members having its bed or way provided with a series of power-driven package-feeding rollers, the rollers of one member having their axes disposed approximately at right angles with the rollers of the other member, and driving mechanism for said rollers, including endless traveling elements connected with one series thereof to cause the same to travel longitudinally of their members, a power-transmitting element connected with said traveling element, and connections between said power-transmitting element and the rollers of the other series, the end roller of the latter series being adjacent to the ends of the traveling series of rollers and a switch arranged as a bar in the path of the packages so as to divert packages from one series of rollers to the other.



3. A transferring means for package-conveying systems, comprising two members arranged approximately at right angles with and adjacent to each other, each of said members having its bed or way provided with a series of power-driven package-feeding rollers, the rollers of one member having their axes disposed approximately at right angles with the rollers of the other member, means whereby the rollers of one series are given traveling movement in a path adjacent to and longitudinal of the end roller of the other series and are caused to rotate, a switch disposed over the traveling series of rollers, for guiding the package toward the other series of rollers, and driving elements for said other series of rollers.

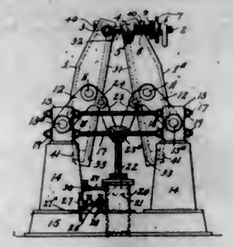
4. A transferring means for package-conveying systems, comprising a frame, one side of which is interrupted intermediate of its length, means for propelling a package along said frame comprising a series of rollers and endless traveling means for imparting movement thereto, a second frame extending laterally with relation to the first frame and joining the same at the interruption in the latter, a series of power-driven rollers carried by the second frame and having their axes approximately at right angles with the axes of the rollers of the first mentioned frame, a guard arranged between the two series of rollers over the traveling means of the first frame at the interruption in the latter, and disposed approximately in the horizontal plane of the surfaces of the rollers, and a switch intersecting the path of movement of a package on the first series of rollers, for guiding the package toward the other series of rollers.

5. In a conveying mechanism, a plurality of members arranged approximately at right angles with each other, and respectively comprising a series of package-propelling rollers forming its bed or way, one of said members having endless-traveling chains which carry its rollers longitudinally thereof, and means whereby said rollers are caused to rotate during said traveling movement, the other member having a shaft, provided with driving connections between it and the rollers of said member and with a sprocket which is engaged by a chain of the first-mentioned

member, and a switch intersecting the path of a package on the traveling rollers, for guiding said package therefrom to the other rollers.

[Claims 6 to 9 not printed in the Gazette.]

1,130,878. PRESSING APPARATUS. JOHN J. BERRIGAN, Orange, N. J., assignor to Henry R. Worthington, a Corporation of New Jersey. Filed June 30, 1913. Serial No. 776,567. (Cl. 100—50.)



1. In a pressing apparatus, the combination, with a pair of fulcrums, of a pair of thrust devices angularly movable about the respective fulcrums and extending toward each other, and a pair of coöperating pressing members, each carried by its respective thrust member, both members being arranged to move downward under the action of gravity and toward each other in a direction transverse to that due to gravity.

2. In a pressing apparatus, the combination, with cooperating pressing members mounted for gravital movement downward and having pressing faces extending in a general upward direction, of a pair of stationary fulcrums, and a pair of thrust devices angularly movable about said fulcrums and extending toward each other, said thrust devices being pivotally connected to the pressing members.

3. In a pressing apparatus, the combination, with cooperating pressing members mounted for gravital movement downward and having pressing faces extending in a general upward direction, of means for causing the downward movement of said members to produce an increasing pressure on said members to move them toward each other, and means for braking said downward movement of the pressing members.

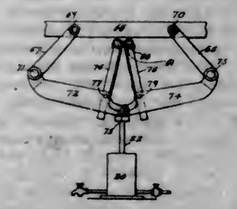
4. In a pressing apparatus, the combination, with a pair of coöperating pressing members mounted for movement downward under the action of a vertical force, and means for pivotally connecting said pressing members together, of means for causing the downward movement of the pressing members to produce a gradually decreasing angular movement of said pressing members about their pivotal connection and toward each other.

5. In an apparatus for expressing liquids from solids, the combination, with a pair of stationary fulcrums and a pair of thrust devices angularly movable about said fulcrums and extending toward each other, of a pair of cooperating pressing members pivotally connected to the respective thrust members, and means for pivotally connecting the pressing members together along a pivotal axis out of the plane through the pivotal connections of said pressing members and their respective thrust devices.

[Claims 6 to 21 not printed in the Gazette.]

1,130,879. METHOD OF EXPRESSING LIQUIDS. JOHN J. BERRIGAN, Orange, N. J., assignor to Henry R. Worthington, a Corporation of New Jersey. Original application filed Aug. 22, 1911, Serial No. 645,407. Divided and this application filed July 8, 1913. Serial No. 777,974. (Cl. 100—50.)

1. The process of expressing liquids from solids, which comprises inclosing the material to be pressed within filtering media comprising filtering fabrics of different degrees of fineness arranged one inside another, the finer filtering fabric being outside, and then subjecting the material to pressure.



2. The process of expressing liquids from solids, which comprises inclosing the material to be pressed within filtering media comprising filtering fabrics of different degrees of fineness arranged one inside another, the finer filtering fabric being outside, and then subjecting the material first to a relatively light pressure and later to a heavier pressure.

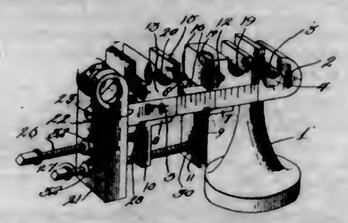
3. The process of expressing liquids from solids, which comprises inclosing the material to be pressed within filtering media comprising filtering fabrics of different degrees of fineness arranged one inside another, the finer filtering fabric being outside, and then subjecting the material to a gradually increasing pressure.

4. The process of expressing liquids from solids, which comprises inclosing the material to be pressed within filtering media comprising filtering fabrics of different degrees of fineness arranged one inside another, the finer filtering fabric being outside, and then subjecting the material to a pressure heavier at one end of said material than toward the other end.

5. The process of expressing liquids from solids, which comprises inclosing the material to be pressed within filtering media comprising filtering fabrics of different degrees of fineness arranged one inside another, the finer filtering fabric being outside, and then subjecting the material to a pressure heavier at one end of said material than toward the other end, and then gradually increasing the amounts of such different pressures.

[Claims 6 to 11 not printed in the Gazette.]

1,130,880. ADJUSTABLE ROLLER-HOLDER. ARTHUR J. BLACKWOOD, Carrboro, N. C. Filed July 20, 1914. Serial No. 852,053. (Cl. 118—7.)



1. A roll stand for spinning machines having a standard, a rearwardly extending extension bar upon its upper portion provided with a longitudinal slot and terminating at its rear end in a downwardly extending portion, a pair of roller bearing members mounted upon the bar to slide thereon, a pair of angular members carried by the bearing members, and means mounted in said downwardly extending portion provided with swiveled connections with said angular members, whereby the bearing members may be adjusted individually.

2. A roll stand for spinning machines having a standard, a rearwardly protruding extension bar upon its upper end provided with a longitudinal slot and adjoining guides, a pair of roller bearing members having tongues engaging said guides, a pair of angular members below the bar and provided with tongues extending through

the slots, means for securing the angular members and the bearing members together, said means passing through the tongues of the angular members and into the bearing members and being removable whereby the bearing members and angular members may be disconnected, said extension bar at its rear end terminating in a detachably connected downwardly extending portion, means to prevent said portion from twisting or displacement, screws threaded through the downwardly extending portion one above the other, each screw having a detachable swiveled connection with each angular member, means for holding each screw in adjusted positions, said screws acting to individually adjust each angular member and its attending bearing member.

1,130,881. FISHING-TOOL. BENJAMIN FRANKLIN BLANCHARD, Fullerton, Cal. Filed Feb. 10, 1914. Serial No. 817,803. (Cl. 57—9.)



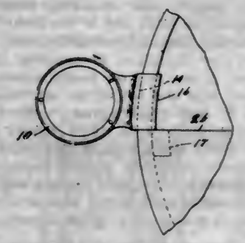
1. A fishing tool comprising a shank, a barrel secured to the lower end of the shank and provided with slots, an extension on said barrel provided with slots which register with the slots in the barrel, slips sliding in the slots in the barrel, fingers slidable in the slots in the extension and projecting into the slots in the barrel adapted to be engaged by the slips, a head slidable in the barrel carrying said slips, and a stem on the head projecting up through the shank.

2. A fishing tool comprising a shank with a threaded lower end, a barrel screwed to the lower end, a stem sliding in the shank, a head on the lower end of the shank slidable in the barrel, said barrel having a plurality of slots, slips slidable in said slots and pivotally engaging said head, an extension screwed to the barrel and provided with longitudinal slots which register with the slots in the barrel, the slots in the extension converging toward their lower ends, and fingers slidable in the slots in the extension and projecting into the slots in the barrel to be engaged by the downward movement of said slips.

3. A fishing tool comprising a barrel with a threaded lower end, an extension screwed to said lower end, a head on the lower end of the shank slidable in the barrel, said barrel having a plurality of slots, slips slidable in said slots and pivotally engaging said head, an extension screwed to the barrel and provided with longitudinal slots which register with the slots in the barrel, the slots in the extension converging toward their lower ends, fingers slidable in the slots in the extension and projecting into the slots in the barrel to be engaged by the downward movement of said slips, and springs between the head and slips for pressing the slips outward to engage said fingers.

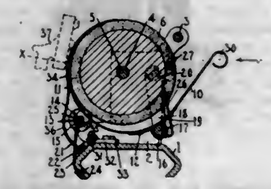
1,130,882. HOLDER FOR DRINKING-CUPS. GEORGE J. BOHLMAN, Everett, Mass., assignor to American Water Supply Company of New England, Boston, Mass., a Corporation of Massachusetts. Filed June 22, 1914. Serial No. 846,442. (Cl. 211—8.)

1. The cup-holder herein described arranged to be supported on the tub of a water-cooler having outer and inner vertical walls connected together at their upper ends and arranged with a space between them to receive the upper edge of the tub of the cooler, said walls being curved longitudinally, and the end of the inner wall being extended beyond the corresponding end of the outer wall, for arrangement beneath a fixed cover-portion of the tub of the cooler.



2. The cup-holder herein described arranged to be supported on the tub of a water-cooler having outer and inner vertical walls connected together at their upper ends and arranged with a space between them to receive the upper edge of the tub of the cooler, the inner wall being curved longitudinally and having one end extended beyond the corresponding end of the outer wall for arrangement beneath the fixed cover-portion of the tub of the cooler, said extension of the inner wall having a rearwardly extended ear.

1,130,883. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 22, 1913. Serial No. 786,108. (Cl. 197—127.)



1. In a typewriting machine, the combination of a rotative platen, a paper apron extending from the rear of the platen beneath the same and to the front thereof, and substantially vertically disposed swinging links arranged at different points fore and aft of the machine and on which said paper apron is mounted for bodily substantially horizontal movement fore and aft of the machine.

2. In a typewriting machine, the combination of a rotative platen, a combined paper table and apron extending from the rear of the platen beneath the same and to the front thereof, substantially vertically disposed swinging links arranged at different points fore and aft of the machine and on which said combined paper table and apron is mounted for bodily substantially horizontal movement fore and aft of the machine, and paper feed rollers carried by said combined paper table and apron.

3. In a typewriting machine, the combination of a rotative platen, a combined paper table and apron extending from the rear of the platen beneath the same and to the front thereof, substantially vertically disposed swinging links arranged at different points fore and aft of the machine and on which said combined paper table and apron is mounted for bodily substantially horizontal movement fore and aft of the machine, and paper feed rollers carried by said combined paper table and apron at the front thereof and below the printing line, which rollers are released by a forward bodily movement of the combined paper table and apron.

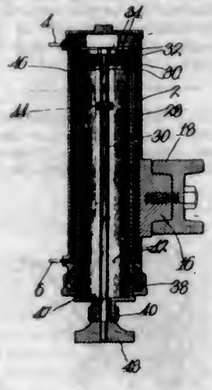
4. In a typewriting machine, the combination of a rotative platen, a paper apron extending from the rear of

the platen beneath the same and to the front thereof, a pair of substantially vertically disposed parallel links, a cross rod connecting said links and extending in the rear of the paper apron and to which the latter is connected, and a substantially vertically disposed link connected to the front of said paper apron.

5. In a typewriting machine, the combination of a rotative platen, a paper apron extending from the rear of the platen beneath the same and to the front thereof, substantially vertically disposed swinging links arranged at different points fore and aft of the machine and on which said paper apron is mounted for bodily substantially horizontal movement fore and aft of the machine, paper feed rollers carried by said paper apron at the front thereof and below the printing line, which rollers are released by a forward bodily movement of the paper apron, and springs operatively connected to said paper apron to effect a bodily rearward movement thereof and to maintain said paper feed rollers against the platen.

[Claims 6 to 15 not printed in the Gazette.]

1,130,884. PNEUMATIC JACK FOR MOTOR-CARS. EDWARD B. BLAKEY and RUFUS B. MCCOLLUM, Kansas City, Mo. Filed Nov. 20, 1913. Serial No. 802,073. (Cl. 138—9.)

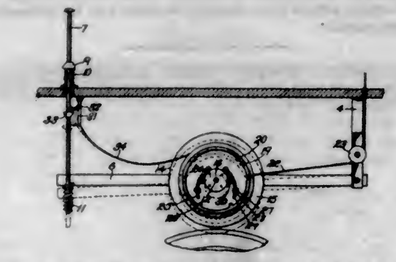


1. In a pneumatic jack, the combination of a cylinder having compressed air inlet and outlet openings, a second cylinder within the first cylinder and provided with a piston head engaging the same, a rod extending through the second cylinder and provided with a piston within the latter, a head secured to the lower end of the rod and provided with a rod extending parallel with and externally of the first-named cylinder, a block secured to the said first-named cylinder, through which said last-named rod slidingly extends, and a latch bolt carried by said block and adapted to be fitted over said rod when the jack is fully extended.

2. In a pneumatic jack, the combination of a cylinder having compressed air inlet and outlet openings adjacent its opposite ends respectively, a second cylinder within said first cylinder and spaced therefrom, the inner end of said second cylinder being open, an annular piston head carried by said inner end, and bridging the space between the cylinders, means confining said piston head to movement between said openings, said second cylinder being provided with openings communicating with said space between the cylinders when the latter are telescoped, and a rod provided with a piston operating within said second cylinder under pressure transmitted through said last-named openings and the inner end of said second cylinder respectively.

3. In a pneumatic jack, the combination of a cylinder having compressed air inlet and outlet openings, a second cylinder provided with a piston rod operating within said first cylinder, a rod provided with a piston actuated within said second cylinder by means of pressure transmitted through said openings, a foot piece secured to the exterior end of said rod, a rod fixed to said foot piece and extended upward alongside said first cylinder, and means carried by the latter for engaging said second named rod and maintaining said cylinders and piston rod in extended position after shutting off the compressed air supply.

1,130,885. FLUSHING DEVICE. CLINTON S. BURNS, Kansas City, Mo. Filed May 11, 1914. Serial No. 837,734. (Cl. 4—18.)



1. The combination with relatively movable members, of a toilet bowl mounted on one of the members and comprising flushing mechanism, means operable from the other member for actuating the flushing mechanism, and manually operable means for establishing coöperation between the actuating mechanism and said other member.

2. The combination with relatively movable members, of a closet bowl mounted on one of the members and comprising flushing mechanism, means operable from the other member for actuating the flushing mechanism, and comprising a governor whereby actuation of the flushing mechanism is determined by the speed of travel of the relatively movable parts, and manually operable means for establishing coöperation between the actuating mechanism and said other member.

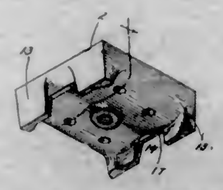
3. The combination with a railway car comprising running gear, of a closet bowl, normally inert flushing mechanism adapted for actuation from the running gear, and means for moving said mechanism into coöperative relation with the running gear.

4. The combination with a railway car, comprising running gear, of a closet bowl, flushing mechanism including a clutch member adapted for actuation from the running gear of the car, and means for controlling engagement of the clutch member with said running gear.

5. The combination with a railway car comprising running gear, of a closet bowl, flushing mechanism including a clutch member adapted for operative engagement with the running gear, means for yieldingly retaining said clutch member out of its driving engagement, and means for moving said clutch into engagement with the running gear against the tension of said yielding means.

[Claims 6 to 19 not printed in the Gazette.]

1,130,886. WHEEL. WILLIAM W. BYAM, Chicago, Ill., assignor to Byam Tire and Rim Company, a Corporation of Illinois. Filed Oct. 6, 1911. Serial No. 653,165. (Cl. 152—9.)

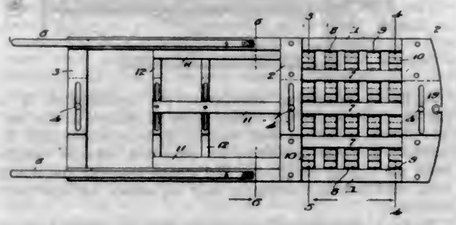


1. In a device of the class described, a rim, a series of tire base segments, each of said segments contacting with said rim at its ends and being spaced therefrom between its ends, and means for securing said segments to said rim.

2. In a device of the class described, a rim, a series of intermediate and directly secured base segments, each of said segments having an inwardly projecting flange at each end resting upon said rim, each of said flanges having a recess in its inner edge, outwardly projecting lugs upon said rim engaging said recesses, and means for securing said directly secured segments to said rim, said intermediate segments having lugs engaging the flange recesses in the adjacent directly secured segments.

3. In a device of the class described a rim, a series of tire base segments, each of said base segments having two inwardly projecting flanges extending transversely of said segments and rim, said rim and segments contacting only on the comparatively narrow edges of said flanges whereby said segments conform with substantial accuracy to rims of different diameters.

1,130,887. CULTIVATOR. CHAUNCEY C. CARPENTER, Conconully, Wash. Filed May 9, 1914. Serial No. 837,431. (Cl. 97—10.)



1. In a cultivator, the combination with a frame, of soil cutters carried thereby, an inclined screen over and through which the loosened soil is adapted to travel, the screen being located in the rear of the cutters, and a mulcher adapted to act on the earth.

2. In a cultivator, the combination with a frame, of soil cutters carried thereby, an inclined screen over and through which the loosened soil is adapted to travel, the screen being located in the rear of the cutters, and a mulch bar having an inclined face and located in the rear of the screen and adapted to act on the earth treated by said screen.

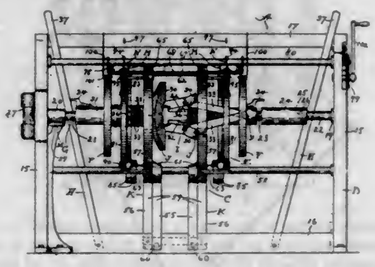
3. In a cultivator, the combination with a frame, of soil cutters, a horizontal knife located in the rear of the cutters and adapted to raise the slice of earth cut by the cutters, an inclined open screen over and through which the soil is adapted to pass, and a mulcher adapted to treat the soil which passes through the screen.

4. In a cultivator, the combination with a frame, of soil cutters carried thereby, an inclined screen composed of longitudinal and crushing and mulching cross bars located in the rear of said cutters, a horizontal knife located in advance of the screen in position to raise the slice of earth cut by the cutters and direct it to said screen, and a mulch bar located in the rear of the screen and adapted to mulch the soil which passes from said screen.

5. In a cultivator, the combination with a frame, of depending cutters having horizontal knives, a screen having inclined and lower transverse crushing and mulching bars and located in the rear of the cutters, a horizontally arranged knife at the front of the screen, and a mulch bar at the rear of the screen.

1,130,888. BARREL-MAKING MACHINE. CLAUDE D. CLARK, New Britain, Conn. Filed June 13, 1912. Serial No. 703,577. (Cl. 147—1.)

1. In a barrel making machine, a divided shaft having one of the shaft parts pivotally mounted by one end, and having barrel forming mechanism on the said one of the shaft parts and a sliding sleeve operative to slide over the junction of the two shaft parts to the coupling position and away from such position, and the said barrel forming mechanism comprising a collapsible drum and a collar slidably mounted on the said one of the shaft parts, and means for opening and collapsing the said drum responsive to the sliding movements of the said collar on the said shaft, means for sliding the said sleeve along the said shaft to the coupling position, the said sleeve operative in being moved to such coupling position to engage with the said collar and thereby move the said collar to the position corresponding to the open position of the said drum.



2. A barrel making machine comprising a shaft made up of two parts in alinement, one of the said parts in fixed axial position, the other of the said parts pivotally mounted so as to swing away from the normal axial position and provided with barrel forming devices, and means for connecting and disconnecting the said shaft parts, the said barrel forming devices comprising a collapsible drum, means for coupling the said shaft parts together, and the said means operative to hold the said drum in the extended position.

3. In a barrel making machine, a shaft, a collapsible drum mounted thereon, and lateral forming devices adjacent the said drum, the said drum comprising a plurality of sector members peripherally divided from one another and suitable for being brought alternately to the extended and to the collapsed positions, one part of the said sector members being brought to the extended position by an axial movement in one direction and the other part being brought to the extended position by an axial movement in the opposite direction.

4. In a barrel making machine, a shaft, and a collapsible drum mounted thereon, the said drum being composed of a plurality of sector members, and comprising two peripherally divided sets of alternate members, means for bringing the said members alternately to the extended and to the collapsed conditions, and comprising means connected to each of the said sets and operative to move one of the sets by a movement in one direction and to move the other of the said sets by a movement in the opposite direction.

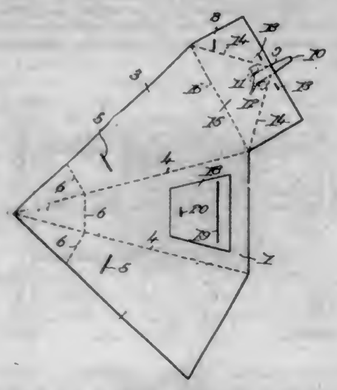
5. In a barrel making machine comprising a shaft and a collapsible drum mounted thereon, means for distending the said drum comprising as one of the elements a sliding collar on the said shaft, the said shaft divided into two parts and a sleeve operative to connect the ends of the shaft parts, an operating lever connected to the said sleeve and operative to move the same to the position for connecting the said shaft, and operative through the said sleeve to move the said collar to the position for distending the said drum.

[Claims 6 to 14 not printed in the Gazette.]

1,130,889. MAILING-PACKAGE. MARGARET M. CLARK, Newport, Pa. Filed June 26, 1914. Serial No. 847,494. (Cl. 229—75.)

1. A wrapper including a triangular body, complemental side flaps extending from the margins thereof and folded upon the body to provide a package, a tongue formed by folding the vertices of the body and flaps upon themselves, said tongue being insertible in the registering slots in the flap for closing one end of the package, a retangu-

lar tongue formed on the base of one of said flaps, a metallic clip associated therewith, said rectangular flap being foldable into a triangular form to reinforce said clip, said last mentioned tongue being insertible in a slot in said body, and said clip being locked in the solt in said body for closing the opposite end of the package.



2. A wrapper including a triangular body, complemental side flaps extending from the opposite margins thereof and folded upon the body to provide a package, a tongue formed by folding the vertices of said body and side flaps upon themselves, said tongue being insertible in the registering slots in the flaps for closing one end of the package, a reinforcing strip secured to the inner surface of the body conforming substantially to the contour thereof, said body being provided with registering slots, a rectangular tongue formed on the base of one of the side flaps, a metallic clip associated therewith, said rectangular flap being foldable into a triangular form to facilitate the securing of said clip, said last mentioned tongue being insertible in one of the registering slots in the body and strip, and said clip being locked in the other of the slots in the body and the strip for closing the other end of the package.

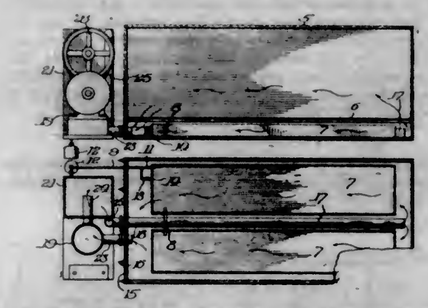
3. A wrapper including a triangular body, said flaps extending therefrom and foldable upon the body to provide a package, means for closing one end of the package, a rectangular flap formed upon one of the side flaps at the opposite end of the package, a T-shaped metallic flap associated with the rectangular tongue, said clip including oppositely extending arms and a tongue, the arms being insertible in slots in the rectangular tongue, said rectangular tongue being foldable into a triangular form and again engageable with the arms of the clip for facilitating the securing of the clip, said triangular tongue being insertible in the slot in the body, and the tongue of said clip being arranged in locked engagement with another slot in the body for closing the opposite end of the package.

1,130,890. DESICCATING APPARATUS. WILLIAM R. CLAYTON, Barberton, Ohio. Filed May 12, 1913. Serial No. 767,064. (Cl. 99—5.)

1. In a desiccating apparatus, the combination of a casket, a perforated support for the body arranged within said casket, a receptacle for drying material disposed beneath said support, and means for permitting overflow of liquid from said receptacle without admitting air to the casket.

2. In a desiccating apparatus, the combination of a casket adapted to contain the body to be desiccated, a perforated support, spaced from the bottom of the casket, upon which the body is supported, an opening in the end of the casket beneath said support, and a temporary closure for said opening provided with an inlet pipe terminating adjacent the opposite end of the casket and an outlet pipe terminating just inside said closure.

3. In a desiccating apparatus, the combination of a casket, a receptacle adapted to contain drying material disposed within said casket, an air pump and a drying chamber disposed outside the casket, a pipe leading from the casket to said pump through which air is withdrawn from the casket, and a pipe leading from said drying chamber to the casket through which air is admitted to the casket, the exhaust of said pump being delivered to said drying chamber whereby a closed circulation of air through the casket and the drying chamber is maintained by the pump.

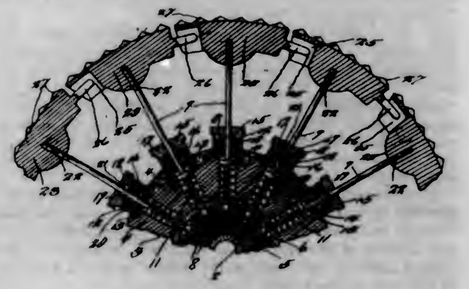


4. In a desiccating apparatus, the combination of a casket, a receptacle for drying material located in the bottom of said casket, a body support disposed above said receptacle, a closed container for receiving overflow liquids from the drying receptacle, and means whereby the liquid from said drying receptacle may be drawn off into said container.

5. In a desiccating apparatus, the combination of a casket, a drying receptacle located in the bottom thereof, an overflow pipe leading from said receptacle, a container arranged to receive the overflow liquids from said pipe, a drying chamber located outside the casket, a pipe for delivering displaced air from said receptacle into said drying chamber, said pipe being provided with a liquid seal, a pump, and connections whereby a closed circulation of air may be maintained through said casket and said drying chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,130,891. RESILIENT AUTOMOBILE-WHEEL. WILLIAM A. DAWSON, Delta, Colo. Filed Mar. 13, 1913, Serial No. 754,071. Renewed July 20, 1914. Serial No. 852,086. (Cl. 152—31.)

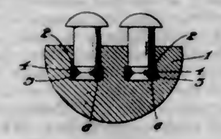


1. In a resilient automobile wheel, a hub member having a tubular sleeve or skein, a plate through which the tubular sleeve or skein extends and provided with an annular series of tubular members, said plate having an annular recess, a rubber disk seated in the recess and provided with a series of sockets, said sleeve extending through the disk, a second member threaded upon the sleeve, a metal band or ring surrounding the rubber disk adjacent the inner ends of the tubular member, spokes mounted in the tubular members and passing through the metal band and provided with rubber balls at their inner ends to act in the sockets of the rubber disks, and a sectional rim carried by the outer ends of the spokes.

2. In a resilient automobile wheel, a hub member having a tubular sleeve or skein, a plate through which the tubular sleeve or skein extends and provided with an annular series of tubular members, said plate having an annular recess, a rubber disk seated in the recess and provided with a series of sockets, said sleeve extending through the disk, a second member threaded upon the sleeve, a metal band or ring surrounding the rubber disk adjacent the inner ends of the tubular member, spokes mounted in the tubular members and passing through the metal band and provided with rubber balls at their inner ends to act in the sockets of the rubber disks, and a sectional tire carried by the outer ends of the spokes, said spokes having shoulders, springs mounted in the tubular members and acting between the shoulders and the metal band, and packing devices threaded in the outer portions of the tubular members to exclude the dust and the like therefrom.

3. In a resilient automobile wheel, a hub member having a tubular sleeve or skein, a plate through which the tubular sleeve or skein extends and provided with an annular series of tubular members, said plate having an annular recess, a rubber disk seated in the recess and provided with a series of sockets, said sleeve extending therough the disk, a second member threaded upon the shleeve, a metal band or ring surrounding the rubber disk adjacent the inner ends of the tubular member, spokes mounted in the tubular members and passing through the metal band and provided with rubber balls at their inner ends to act in the sockets of the rubber disks, and a sectional rim carried by the outer ends of the spokes, said spokes having shoulders, springs mounted in the tubular members and acting between the shoulders and the metal band, and packing devices threaded in the outer portions of the tubular members to exclude the dust and the like therefrom, said packing devices consisting of two parts threaded together, members in said packing devices dividing the same into two compartments, packing saturated with lubricant located in one compartment, and ball bearings arranged in the other compartments.

1,130,892. ARTIFICIAL TOOTH. JOHN G. DETTINGER, Jr., and FRANK H. WELKER, Philadelphia, Pa. Filed June 18, 1914. Serial No. 845,911. (Cl. 32—9.)

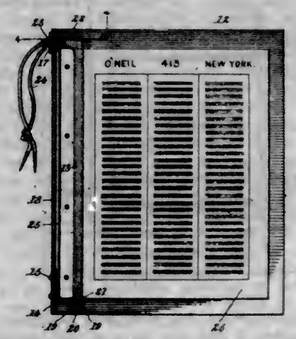


A tooth having a recess therein, a platinum coil in said recess, a pin having a groove therein, and a ring of solder in said groove adapted to be melted to unite with the coil.

1,130,893. BINDER. HUGO GORDON DUVAL, New York, N. Y. Filed May 4, 1914. Serial No. 836,267. (Cl. 129—38.)

1. A binder comprising a back, a pair of covers thereon, a member rigidly secured to said back adjacent to one of its ends, an attaching member adapted to engage at one end with said member and at its other end to extend through said back adjacent to the other end of said back, and a suspending member engaging the end of said attaching member projecting beyond said back, substantially as specified.

2. A binder comprising a back, and a pair of covers connected thereto, a support rigidly secured to said back adjacent to its lower end, an attaching member adapted for detachable engagement with said support and having one end extending through said back, and a suspending member adapted to engage the portion of said attaching member extending through said back whereby to secure said attaching member to said binder and to secure a book in position below said attaching member, substantially as specified.



3. A binder comprising a back and a pair of covers connected thereto; said back having an opening therein adjacent to its upper end, an angular support secured upon an inner side of said back adjacent to its lower end, an attaching member adapted to interlock at one end with said supporting member, and its other end to extend through the opening in the upper end of said back, and a securing member engaging the portion of said attaching member projecting beyond the rear of said back, substantially as specified.

4. A binder comprising a back and a pair of covers hinged thereto; said back having an aperture therein adjacent to its upper end, a bracket secured upon the inner side of said back adjacent to its lower end, a flat attaching member provided at one end with means adapted to interlock with said bracket, and at its upper end with an angular projection adapted to be passed through the opening in the upper portion of said back, and a detachable securing member adapted to engage the portion of said attaching member extending through said back, substantially as specified.

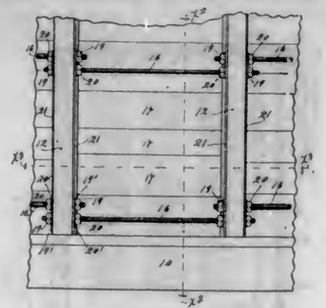
5. A binder comprising a back and a pair of covers hinged thereto, said back having a vertically extending slot therein adjacent to its upper end, an angular bracket rigidly secured upon the inner side of said back adjacent to the lower end thereof and provided in its free portion with a transversely extending slot, a flat, longitudinal attaching member provided at its lower end with a reduced portion adapted to interlock with the transverse slot in said bracket, a laterally projecting portion provided at the upper end of said attaching member adapted to be passed through the slot adjacent to the upper end of said back, and an attaching member removably secured to the free end of said laterally projecting portion extending beyond the rear of said back, substantially as specified.

1,130,894. SILO. CLEMENT L. FLYNN, Bellingham, Wash., assignor to Welles Thompson Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Feb. 21, 1914. Serial No. 820,095. (Cl. 217—4.)

1. A self-sustaining skeleton for an approximately circular silo, which skeleton comprises a series of uprights and a series of horizontally disposed combined-coupling and spacing rods serving to couple or tie together and to space apart all pairs of adjacent uprights independently of any other pair of the entire series of uprights and also to couple together and space apart all the uprights of the entire series approximately on the chords of arcs of a common circle, substantially as described.

2. An approximately circular silo comprising a series of uprights grooved on their vertical faces to receive horizontal panel-boards, a series of horizontally disposed combined-coupling and spacing rods serving to couple together and space apart all pairs of adjacent uprights in-

dependently of any other pair of the entire series of uprights, and to couple together and space apart all the uprights of the entire series, approximately on the chords of



arcs of a common circle, and horizontal panel-boards seated in the grooves of adjacent pairs of said uprights, substantially as described.

1,130,895. HOCKEY-GLOVE. JOHN GAMBLE, Philadelphia, Pa., assignor to George A. Reach, Bala, Pa. Filed July 28, 1914. Serial No. 853,700. (Cl. 2—195.)



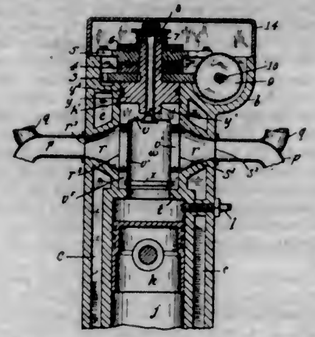
1. In a glove for use in hockey or lacrosse, an elongated pad for the middle finger, shorter pads for the adjacent fingers and pads for the thumb and little finger having their base ends bent inwardly, substantially as described.

2. In a glove for use in hockey or lacrosse, pads for the thumb and little finger, having their base ends bent inwardly with a space between said ends, and a central finger pad extending into said space, substantially as described.

1,130,896. ROTARY VALVE FOR INTERNAL-COMBUSTION ENGINES. WILLIAM A. GILL, Portland, Oreg., assignor to Gill-Cook Valve Co., Portland, Oreg., a Corporation of Oregon. Filed Nov. 6, 1913. Serial No. 799,535. (Cl. 123—80.)

1. In a gas engine, valve mechanism comprising a cylindrical valve chamber and a hollow rotary valve therein made of a plurality of detached segmental sections having longitudinal abutting faces, the interior of the valve communicating with the combustion chamber, and the driving fluid being conducted through said valve and the pressure of such fluid being thereby utilized to hold said valve parts in fluid-tight relation with the valve seat, the interior of the valve constituting a part of and being made proportional to the compression space of the engine.

2. In a gas engine, valve mechanism comprising a cylindrical valve chamber and a cup-shape valve therein made of a plurality of detached segmental sections having longitudinal abutting faces, the open end of the interior of the valve communicating with the combustion chamber, and the driving fluid being conducted through said valve and the pressure of such fluid being thereby utilized to hold said valve parts in fluid-tight relation with the valve seat, the interior of the valve constituting a part of and being made proportional to the compression space of the engine.



3. In a gas engine, valve mechanism comprising a cylindrical valve chamber and a hollow rotary valve therein made of a plurality of detached segmental sections having longitudinal abutting faces, the interior of the valve communicating with the combustion chamber, and the driving fluid being conducted through said valve and the pressure of such fluid being thereby utilized to hold said valve parts in fluid-tight relation with the valve seat; a thrust bearing for the inner end of the valve; and means holding the valve against said bearing.

4. In a gas engine, valve mechanism comprising a cylindrical valve chamber and a hollow rotary valve therein made of a plurality of detached segmental sections having longitudinal abutting faces, the interior of the valve communicating with the combustion chamber, and the driving fluid being conducted through said valve and the pressure of such fluid being thereby utilized to hold said valve parts in fluid-tight relation with the valve seat; a thrust bearing for the inner end of the valve; yielding resilient means holding the valve against said bearing; and means holding the valve sections to their seat portions.

5. In a gas engine, valve mechanism comprising a cylindrical valve chamber and a hollow rotary valve therein made of a plurality of detached segmental sections having longitudinal abutting faces, the interior of the valve communicating with the combustion chamber, and the driving fluid being conducted through said valve and the pressure of such fluid being thereby utilized to hold said valve parts in fluid-tight relation with the valve seat; a thrust bearing for the inner end of the valve; yielding resilient means holding the valve against said bearing; and means holding the valve sections to their seat portions, part of such means being included in said means yieldingly holding the valve to the thrust bearing.

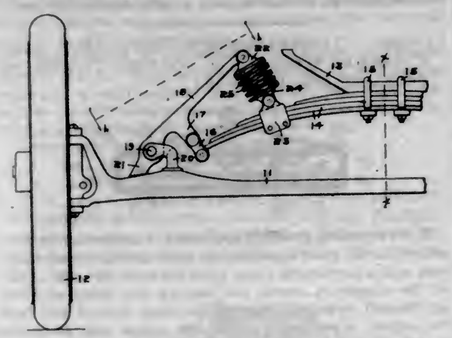
[Claims 6 to 20 not printed in the Gazette.]

1,130,897. SPRING SUSPENSION FOR VEHICLES. ROBERT H. HASSLER, Indianapolis, Ind. Filed Apr. 26, 1913. Serial No. 763,763. (Cl. 21—101.)

1. In a vehicle, a support, a leaf spring, a lever pivoted to the support, means to limit the play of the lever on the pivot, means connecting the lever to the end of the leaf spring, and a supplementary spring connected at one end to that portion of the vehicle subject to rebound and at the other end to the lever.

2. In a vehicle, a support, a leaf-spring, a lever pivoted to the support, an extension to limit the play of the lever on the pivot by contact with the support, means connecting the lever to the end of the leaf-spring, and a supplementary spring connected with the leaf spring to which the other end of the lever is attached.

3. In a vehicle, an axle, a leaf-spring, a lever pivotally supported from the axle, shackles connecting other portions of the lever with the end of the leaf-spring, and a supplementary spring adapted to become non-yielding at predetermined heavy loads, connecting the end of the lever opposite said pivotal support with the leaf-spring, said lever and auxiliary spring both being on the same side of the leaf-spring.

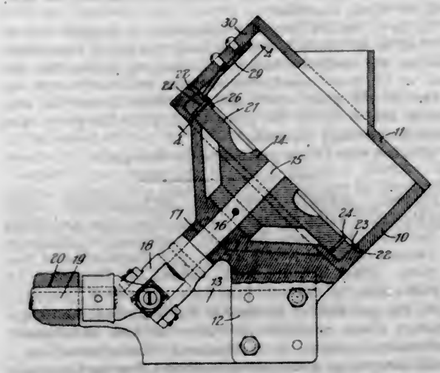


4. In a vehicle, an axle, a leaf-spring, a lever pivotally supported from the axle, shackles connecting the end of the leaf-spring with the lever intermediate the ends of the latter, a compression spring and a pair of spring seats between which the compression spring is mounted, one of said seats being pivotally secured to an end of said lever and the other seat being pivotally secured to the leaf-spring.

5. In a vehicle, a support, a leaf spring, a lever pivoted to the support, an extension at one end of the lever beyond the pivot to limit the play of the lever on the pivot by contact of the extension with the support, shackles connecting the lever to the end of the leaf spring, and a resilient member between the other end of the lever and other portions of the leaf spring.

[Claims 6 and 7 not printed in the Gazette.]

1,130,898. HOPPER. ARTHUR R. HAVENER, Waltham, Mass., assignor to Judson L. Thomson M'f'g Co., a Corporation of Massachusetts. Filed Dec. 5, 1914. Serial No. 875,739. (Cl. 218—2.1.)



1. A hopper for feeding articles provided with a recess in one face thereof having, in combination, a casing, a picker plate rotatably mounted in said casing and having an inclined upper face and a projection on said upper face arranged to project into said recess between the edge and the center thereof and at one side only of said center.

2. A hopper for feeding articles provided with a recess in one face thereof having, in combination, a casing, a picker plate rotatably mounted in said casing and having an inclined upper face and a projection on said upper face arranged to project into said recess, said projection being of less diameter where it projects into said recess than one-half the width of said recess.

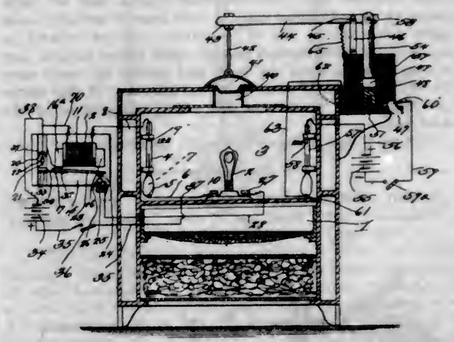
3. A hopper for feeding articles having a recess in one face thereof and a projection within said recess, said hopper having, in combination, a casing, a picker plate rotatably mounted in said casing and having an inclined upper face and a projection on said upper face arranged to project into said recess between the edge thereof and one side only of the projection on said rivet cap.

4. A hopper for feeding circular articles provided with a recess in one face thereof having, in combination, a casing, a picker plate rotatably mounted in said casing and having an inclined upper face and a series of pins concentrically arranged on said picker plate and projecting from said upper face, each of said pins arranged to project into said recess between the edge and the center thereof and at one side only of said center.

5. A hopper for feeding circular articles provided with a recess in one face thereof having, in combination, a casing, a picker plate rotatably mounted in said casing and having an inclined upper face, a series of pins concentrically arranged on said picker plate and projecting from said upper face, each of said pins arranged to project into said recess between the edge and the center thereof and at one side only of said center and a deflector plate located between said pins and the adjacent wall of said casing constructed and arranged to deflect any of said caps into which said pins do not project toward the lower end of said picker plate.

[Claims 6 to 8 not printed in the Gazette.]

1,130,899. HEAT-REGULATOR FOR INCUBATORS. CHARLES P. HEIMBURGER, Beardstown, Ill. Filed June 21, 1913. Serial No. 775,127. (Cl. 219—35.)

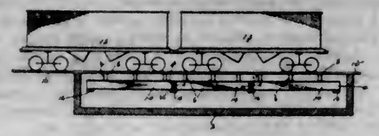


In combination, a support, an electromagnet on said support and having a vibrating armature adjustably mounted on the support and including an electric circuit, means for holding the armature in adjusted positions, a device and battery in said circuit, said magnet being deenergized when said circuit is closed to operate said device, a second circuit coöperating with said magnet, a circuit closer having a stationary and movable contact, the movable contact adapted to be actuated by said device to connect with the stationary contact, thereby closing the second circuit, which will energize said magnet, said magnet when energized attracting the vibrating armature thereby opening the first circuit to stop the operation of said device.

1,130,900. WEIGHING-SCALE. HALVOR O. HEM, Kansas City, Mo. Filed Apr. 20, 1914. Serial No. 833,126. (Cl. 73—121.)

1. In a weighing scale, a load-supporting beam comprising a plurality of rigid sections, and connecting elements forming joints between the ends of adjacent sections, said elements having outwardly extending resilient portions acting to permit slight relative angular move-

ment between said ends while holding the latter constantly against relative vertical displacement.



2. In a weighing scale, a load-supporting beam comprising a plurality of rigid sections, and a plurality of connecting elements forming the joint between the ends of each pair of adjacent sections and secured rigidly thereto and to each other, one of said elements being slightly resilient to permit slight relative angular movement between said ends while acting to maintain the latter against relative vertical displacement.

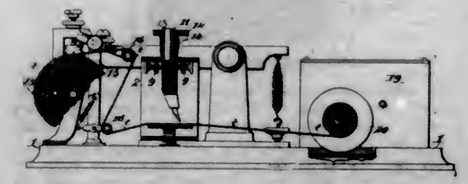
3. In a weighing scale, a load-supporting beam comprising a plurality of rigid sections, the ends of adjacent sections being connected by comparatively flexible and slightly resilient joint members acting to maintain said sections normally in substantially rigid alined relation while permitting slight relative angular movement between the sections due to deflections in the beam.

4. In a weighing scale, a load-supporting beam comprising two or more sections joined together, each of the joints between said sections comprising a series of angle pieces rigidly connected to the sections and to each other and acting to hold the sections normally in substantially rigid alined relation while permitting slight relative angular movement between the ends of the sections due to deflections in the beam under loads.

5. In a weighing scale, a load-supporting beam comprising a plurality of sections joined together, each of the joints between said sections comprising a pair of angle pieces at the adjoining ends of each pair of sections, each angle piece having one of its flange portions secured to the adjacent beam section and its other flange portion projecting outward from the beam and having its outer margin only secured to the outer margin only of the corresponding flange portion of the other angle piece of the same pair.

[Claims 6 to 8 not printed in the Gazette.]

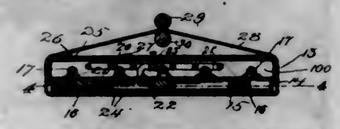
1,130,901. TELEGRAPH APPARATUS. CLAUD HENRY, Edgemont, Ark. Filed Dec. 6, 1913. Serial No. 805,071. (Cl. 178—96.)



1. In a telegraph receiver, the combination with a sounder, of a vertical standard disposed adjacent to one end of the armature of said sounder, an arm pivoted to said standard adjacent to the upper end thereof, a yoke on the outer end of said arm, a marking device pivotally connected to the limbs of said yoke and disposed between the same, a connection between said marking device and the armature of said sounder whereby the marking device will be operated in the operation of the sounder, and means for feeding tape across the path of said marking device.

2. In a telegraph receiver, the combination with a sounder, of a vertical standard disposed adjacent to one end of the armature of said sounder, an arm pivoted to said standard adjacent to the upper end thereof, a yoke on the outer end of said arm, a marking device pivotally connected to the limbs of said yoke and disposed between the same, the end of the armature of said sounder adjacent to said marking device being offset and formed with an aperture, a shank on the upper end of said marking device projecting through said aperture, a spring surrounding said shank and forming a yieldable connection between the armature and marking device whereby the marking device will be operated in the operation of the sounder and means for feeding tape across the path of said marking device.

1,130,902. CLOTHES-PRESSING APPARATUS. ADON J. HOFFMAN, Syracuse, N. Y. Filed May 21, 1908. Serial No. 434,134. (Cl. 68—9.)



1. In a clothes pressing apparatus, a garment support, a non-rotatable press head having non-communicating chambers and a perforated press plate forming one side of one of the chambers, means for heating the other chamber, mechanical means for forcing the head toward and from the suport, a moistened press cloth across said plate, and an air conduit passing through the heating chamber and discharging into the other chamber.

2. In a clothes pressing apparatus, a garment support, an oscillatory press head, a press cloth across the bottom of the head, means for applying moisture to the press cloth, mechanical means for forcing the press head to its pressing position, and means for supplying heated air to the press cloth while the press head is in its pressing position.

3. In a clothes pressing apparatus, a support, a buckboard secured to said support, a pressing iron adapted to press said article, means for heating said iron, an endless traveling sponge cloth adapted to supply moisture to said article to be pressed, and means for passing air through said heated iron for drying off said moisture from said article.

4. In a clothes pressing apparatus, a stationary support for an article to be pressed, a non-rotatable press head movable toward and from the support and provided with separate non-communicating chambers, means for moving said head, a press cloth extending across the bottom of the head, means for applying moisture to the exterior of the press cloth, and means within one chamber for heating the other chamber.

5. In a clothes pressing apparatus, a support for an article to be pressed, a press head having a foraminous bottom, an endless press cloth extending across the bottom of the head, means for applying moisture to the exterior of the press cloth, and additional means for supplying heated air to the press cloth while the press head is in its pressing position.

[Claims 6 to 15 not printed in the Gazette.]

1,130,903. PRODUCTION OF VULCANIZED SYNTHETIC CAOUTCHOUC. FRITZ HOFMANN and KURT GOTTLOB, Elberfeld, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Oct. 16, 1913. Serial No. 795,506. (Cl. 106—23.)

1. The process of producing a vulcanized caoutchouc product which comprises incorporating with an autopolymerization product of beta-gamma-dimethylbutadiene a small amount of a methylene base and heating the resulting product with a vulcanizing agent to effect vulcanization.

2. The process of producing a vulcanized caoutchouc product which comprises incorporating with an autopolymerization product of beta-gamma-dimethylbutadiene a small amount of a piperidin base, and heating the resulting product with a vulcanizing agent to effect vulcanization.

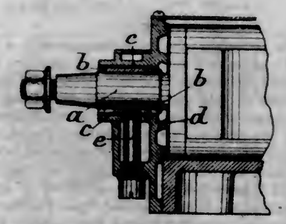
3. The process of producing a vulcanized caoutchouc product which comprises incorporating with an autopolymerization product of beta-gamma-dimethyl-butadiene a small amount of piperidin, and heating the resulting product with a vulcanizing agent to effect vulcanization.

4. The process of producing a vulcanized caoutchouc product which comprises incorporating a vulcanizing agent and a small amount of a methylene base not fugitive at the vulcanization temperature with beta-gamma-dimethyl-butadiene caoutchouc and heating the resulting product to effect vulcanization.

5. The process of producing a vulcanized caoutchouc product which comprises incorporating a vulcanizing agent and a small amount of a piperidin base with beta-gamma-dimethylbutadiene caoutchouc and heating the resulting product to effect vulcanization.

[Claims 6 to 12 not printed in the Gazette.]

1,130,904. BEARING FOR ELECTROMAGNETIC SPARKING MACHINES. GOTTLOB HONOLD, Stuttgart, Germany, assignor to the Firm of Robert Bosch, Stuttgart, Germany. Filed Feb. 12, 1908. Serial No. 415,483. (Cl. 171—209.)



1. In an electro-magnetic machine, the combination of the machine body having a bearing, an armature shaft having a journal rotatably supported in the bearing, a bushing arranged between the journal and bearing and in fixed relation to one of these parts, and an insulating layer disposed between the bushing and such part.

2. In an electro-magnetic machine, the combination of the machine body having a bearing, an armature shaft having a journal rotatably supported in the bearing, a bushing arranged between the journal and bearing and in fixed relation to the bearing, and an insulating layer disposed between the bushing and bearing.

3. In an electro-magnetic machine, the combination, with the machine body having a bearing, of an insulating layer lining the bearing, a bushing within the insulating layer, said bushing and insulating layer being fixed relative to the bearing, and an armature shaft having a journal rotatable in the said bushing.

4. In an electro-magnetic machine, the combination of a machine body having a bearing, an armature frame rotatably mounted within the body and out of electrical contact therewith, said frame having its axle formed integral therewith and journaled in the bearing, a bushing arranged between the journal and bearing and in fixed relation to one of the parts, and an insulating layer disposed between the bushing and such part whereby to insulate the frame from the body.

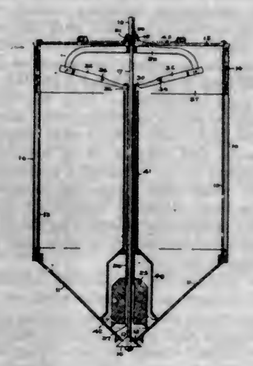
1,130,905. MANUALLY-REMOVABLE BOTTLE-CAP. ERNEST H. HOSIER, White Haven, Pa. Filed Dec. 31, 1912. Serial No. 739,552. (Cl. 215—26.)

As a new article of manufacture, the herein described manually removable bottle cap including a cap adapted to be applied to the mouth of a bottle, a transverse strip extending across the top of the cap and having the ends thereof bent downwardly to provide retaining arms, the extremities of the said arms being bent inwardly to form claws adapted to engage a shoulder on the bottle neck and one of the arms having an opening therein, fastening means securing the transverse strip to the cap, and a looped wire finger piece, the extremities of the looped wire being inserted through the before mentioned opening in one of the retaining arms and bent around the edges of the retaining arm to hold the looped finger piece in position, said finger piece being adapted to be bent inwardly into an out of the way position when not in use and providing



a means for pulling the retaining arm outwardly to remove the cap from the bottle when bent outwardly so as to be grasped by the fingers.

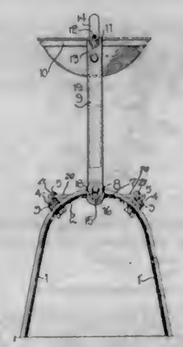
1,130,906. VALVE-ACTUATING MECHANISM FOR CARBID-RECEPTACLES. JOHN A. JOHNSON, Crawfordsville, and THEODORE N. JOHNSON, Waveland, Ind., assignors, by direct and mesne assignments, to Johnson Acetylene Gas Company, Crawfordsville, Ind., a Corporation. Filed July 28, 1914. Serial No. 853,780. (Cl. 48—53.1.)



1. The combination, with a carbid holding receptacle having a discharge opening, of a valve mounted externally of said receptacle for sealing said opening from below, a valve-stem extending vertically through said receptacle for actuating said valve, means for holding said valve to normally close the said discharge opening in said receptacle, a secondary valve arranged within said receptacle for sealing said discharge opening from above, a hollow tube surrounding the valve-stem for actuating the secondary valve, lifting-means engaging the opposite sides of the hollow tube for applying a uniform lifting force to the opposite sides of said hollow tube, means engaging and uniformly actuating said lifting means when the valve-stem is depressed.

2. The combination, with a carbid holding receptacle having a discharge opening, of a valve mounted externally of said receptacle for sealing said opening from below, a valve-stem extending vertically through said receptacle for actuating said valve, means for holding said valve to normally close the said discharge opening in said receptacle, a secondary valve arranged within said receptacle for sealing said discharge from above, means extending parallel with said valve-stem for actuating said secondary valve, a flange around the upper end of said parallel means, lifting means for applying a uniform lifting force to the opposite sides of said flange, means for connecting and uniformly actuating said lifting-means to cause the secondary valve to move upwardly when the valve-stem and its valve are depressed.

1,130,907. ADJUSTABLE SUPPORT FOR WASH-BASINS. GEORGE H. KING, Salt Lake City, Utah. Filed Mar. 18, 1914. Serial No. 825,611. (Cl. 45—38.)



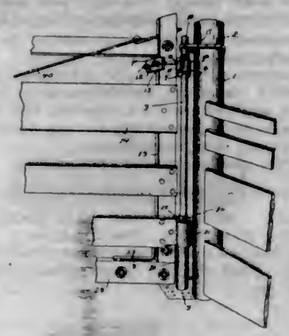
1. A device of the class described including spaced U-shaped supporting standards, perforated ears formed upon the intermediate portions of said standards, angular plates secured to said ears and having their horizontal portions projecting outwardly from the standards and provided with openings, supporting members having their lower ends slotted and arranged parallel with the vertical portions of the angular plates, removable bolts extended through the slots in the supporting members and through the vertical portions of the angular plates and the perforated ears, a wing nut threaded upon the inner ends of each of the bolts to retain said supporting members in an adjusted position, the lower ends of said supporting members being tapered and adapted to be normally disposed within the openings in the horizontal portions of the angular plates to retain said supporting members in their upright position, and auxiliary supporting legs pivotally connected to the supporting members adjacent their outer ends to support said members in a horizontal position, as and for the purpose set forth.

2. A device of the class described including spaced standards, ears formed on the upper portions thereof, angular plates secured to said ears, supporting members pivotally mounted upon said plates, a basin support mounted for pivotal movement between the upper ends of said members, the horizontal portions of said angular plates having openings to receive the lower ends of said members to retain the same in an upright position, and means whereby said members are supported in a horizontal position.

3. A device of the class described including spaced U-shaped standards, angular plates secured to the intermediate portions thereof and having their horizontal portions projecting outwardly and provided with openings, a bolt extending through the vertical portions of each of the angular plates, supporting members having their lower ends adjustably mounted upon said bolt and provided with points to engage within the openings in the angular plates, whereby to normally retain the supporting members in a vertical position, a ring mounted for pivotal movement between the outer ends of said supporting members, means for retaining said ring in a horizontal position, and auxiliary suporting legs pivotally connected to the supporting members adjacent their outer ends, to support said members in a horizontal position.

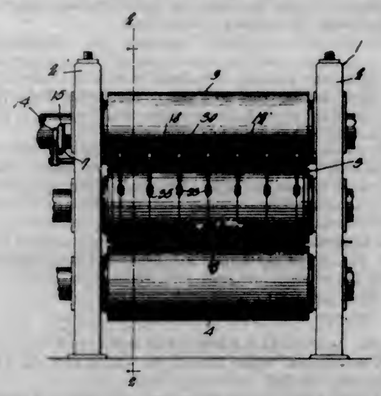
1,130,908. GATE-HINGE. ANDREW J. KOLASHINSKE, Glenwood City, Wis. Filed Aug. 21, 1914. Serial No. 857,915. (Cl. 16—49.)

1. In a gate structure, the combination of a vertical gate post, a gate, a rod positioned parallel with said gate post and rigidly connected thereto, the lower end of said rod being rectangular and seated in a block mounted in the ground below said gate for preventing rotation of said rod, a plurality of sleeves rotatably mounted upon said rod, said sleeves being rigidly connected to said gate for swingably supporting said gate by said rod, and anti-friction rollers mounted within said sleeves and encompassing said rod to facilitate the swinging movement of said gate.



2. In a gate structure, the combination with a vertical gate post and a gate, of a rod positioned adjacent the gate post and parallel therewith, said rod having its upper end rigidly connected to said gate post, the lower end of said rod being rectangular and seated in a bearing block which is inserted in the ground for preventing rotation of said rod, a plurality of sleeves rotatably mounted upon said rod, one of said sleeves having tangential lugs formed thereupon, said lugs being securely attached to said gate, transversely extending flanges formed upon another of said sleeves for securely attaching said last named sleeve to said gate, whereby said gate will be swingably supported by said vertical rod, and anti-friction rollers positioned within said sleeves and about said rod for facilitating the swinging movement of said gate.

1,130,909. CIRCULAR CALENDER-CUTTER. FRANKLIN W. KREMER, Carlstadt, N. J. Filed May 21, 1912. Serial No. 698,790. (Cl. 164—65.)



1. In a device of the class described, a roll; means for supporting the roll; a rotary knife; and means for adjusting the knife in a fixed straight line longitudinally of the roll, and transversely of the roll.

2. In a device of the class described, a roll; means for supporting the roll; a rotary knife; means for adjusting the knife longitudinally of the roll; means for adjusting the knife transversely of the roll; and yieldable means, independent of the last specified adjusting means, for limiting the movement of the knife transversely of the axis of the roll.

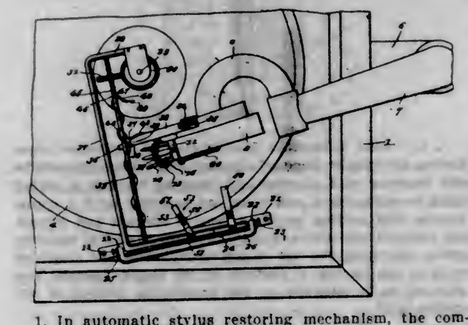
3. In a device of the class described, a roll; means for supporting the roll; a knife support; and a rotary knife adjustable along the support only in the direction of the length of the roll and coöperating with the roll.

4. In a device of the class described, a roll; means for supporting the roll; a knife support rotatably mounted adjacent the roll; a rotary knife adjustable along the support only in the direction of the length of the roll; and means for rotating the support to move the knife transversely of the roll.

5. In a device of the class described, a roll; means for supporting the roll; a knife support mounted for rotation adjacent the roll; a rotary knife adjustable along the support only in the direction of the length of the roll; means for rotating the support to move the knife transversely of the roll; and independent, resilient means for limiting the movement of the knife transversely of the axis of the roll.

[Claims 6 to 12 not printed in the Gazette.]

1,130,910. TALKING-MACHINE ATTACHMENT. CHARLES IRA LAMB, Nashville, Tenn. Filed Feb. 11, 1914. Serial No. 818,071. (Cl. 181—3.)



1. In automatic stylus restoring mechanism, the combination of a support adapted to be mounted adjacent the periphery of the turntable of a sound reproducing mechanism, a frame pivotally mounted thereon and adapted to overlie said table, a restoring worm carried by and rotatably mounted therein, a detachable connection at the free end of the frame adapted when in an operative position to make contact with the turntable spindle, and transmission means between said connection and said worm.

2. In automatic stylus restoring mechanism, the combination of a support adapted to be mounted adjacent the periphery of the turntable of a sound reproducing mechanism, a frame overlying the table, screws passing through said support and pivotally engaging said frame whereby the latter may move vertically in an arc of a circle, a restoring worm carried by and rotatably mounted in said frame, a detachable connection at the free end of the frame adapted when in operative position to make contact with the turntable spindle, and transmission means between said connection and said worm.

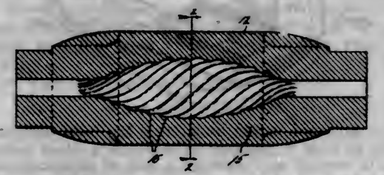
3. In a talking machine, the combination with the turntable and sound box thereof, means overlying the table and operating to restore the sound box to initial position from the inner end of a record, a needle holder on said sound box adapted to hold a plurality of needles and rotatable to advance successive needles to operative position, and means on said restoring means to advance said holder to present a fresh needle in operative position at each restoration of the sound box to initial position.

4. In automatic stylus restoring mechanism, the combination of a support adapted to be mounted adjacent the periphery of the turntable of a sound reproducing mechanism, a U-shaped frame, screws passing through said support and pivotally engaging one limb of said frame, a restoring worm journaled in the parallel limbs of said U-shaped frame, a shaft having one extremity rotatably mounted in said frame and its remaining extremity adapted to be detachably connected to the spindle of the turntable, and transmission means between said shaft and worm.

5. In a talking machine, the combination with the turntable and pivoted sound box thereof, a pivoted U-shaped frame overlying said table, a worm journaled in said frame, transmission means between said worm and the turntable spindle, an arm secured to said sound box, and a lug carried by said arm and adapted to be alternately positioned on opposite sides of said worm, said worm being so arranged with relation to said sound box that said lug during the arcuate travel of said sound box will leave said worm adjacent the periphery of said turntable.

[Claim 6 not printed in the Gazette.]

1,130,911. HOT MILL-ROLL. JACOB LOOMIS, Wheeling, W. Va. Filed July 31, 1912, Serial No. 712,398. Renewed July 3, 1914. Serial No. 848,947. (Cl. 80—58.)



1. A roll having an axial chamber whose surface is formed by adjacent helical channels of decreasing radii at both ends.

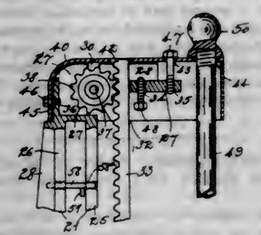
2. A roll having an axial chamber whose surface is formed by adjacent helical channels.

3. A roll having an axial chamber whose surface is a surface other than of revolution and is of less average diameter at both ends than in the middle.

4. A roll having an axial chamber whose surface is provided with grooves which intersect at an angle any plane drawn through the axis of the roll.

5. A roll of cast metal, said roll being hollow, and the internal surface comprising inwardly projecting integral ribs having a general direction at an angle both to the axis of the roll and a plane at right angles thereto.

1,130,912. MEASURING-PUMP. JOHN EARNEST LOWE, Good Hope, Ill. Filed Nov. 17, 1913. Serial No. 801,512. (Cl. 221—103.)

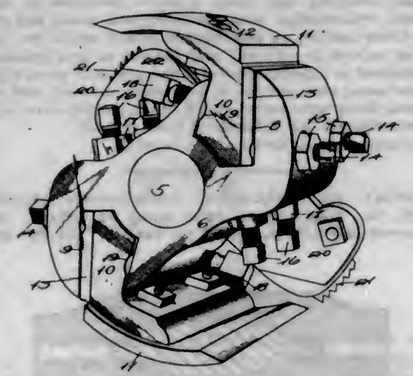


A measuring pump including a cylinder, a piston therein, a piston rod connected to the piston, a frame removably secured to the cylinder, a hollow head carried by the frame, a rack bar connected to the piston rod and operable through the frame, a solid partition disposed within the head, and a screw stop adjustably mounted in said partition and arranged in the path of movement of said stop, said screw stop being wholly secured within the head.

1,130,913. TENONING-HEAD. ANDREW MADSON, Salt Lake City, Utah. Filed Nov. 3, 1914. Serial No. 870,102. (Cl. 144—229.)

1. A tenoning device comprising a head recessed to form a plurality of seatings, a cutter carrying block seated in each of said recesses, adjusting pressure elements bearing

upon the inner ends of said blocks, adjusting pressure elements bearing upon the outer faces of said blocks, and binding elements bearing upon the inner faces of said blocks.



2. A tenoning cutter comprising the body portion recessed to form a plurality of seatings, a blade carrying block in each of said seatings, a pair of adjusting screws threaded into the body and bearing against the inner ends of said blocks, a second pair of adjusting screws threaded through the head and arranged to exert pressure upon the outer faces of the blocks and a binding screw threaded through the head and arranged to exert pressure upon the inner faces of the block.

3. A tenoning cutter comprising the body portion recessed to form a plurality of seatings, a blade carrying block in each of said seatings, a pair of adjusting screws threaded into the body and bearing against the inner ends of said blocks, a second pair of adjusting screws threaded through the head and arranged to exert pressure upon the outer faces of the blocks and a binding screw threaded through the head and arranged to exert pressure upon the inner faces of the block, said blocks being of such size with relation to the recesses as to be capable of a slight rocking movement therein.

4. A tenoning cutter comprising the body portion recessed to form a plurality of seatings, a blade carrying block in each of said seatings, a pair of adjusting screws threaded into the body and bearing against the inner ends of said blocks, a second pair of adjusting screws threaded through the head and arranged to exert pressure upon the outer faces of the blocks and a binding screw threaded through the head and arranged to exert pressure upon the inner faces of the block, and filling plates disposed between the second named set of binding screws and each of said blocks.

1,130,914. DISK-HOLDER. JOHN A. MAKER, Duluth, Minn. Filed Apr. 28, 1914. Serial No. 834,924. (Cl. 32—13.)

1. In a disk holder, the combination of a mandrel stem provided with an axially disposed opening and a transverse slot crossing said opening and merging therein, a spring latch mounted on the mandrel stem, and provided with a portion extending into said slot and partially into the axial opening, and a cap for engaging a disk said cap provided with a pin, said pin having a reduced portion adapted to be engaged by the latch when inserted in the axial opening.

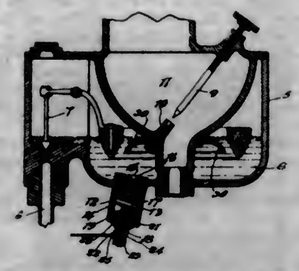
2. In a disk holder, the combination of a mandrel stem provided with an axially disposed opening and with a slot crossing said opening and merging therein, a spring latch mounted upon said mandrel stem and provided with a portion extending through said slot and partially into said opening, a disk engaging said mandrel stem, and a fastening member engaging said disk and provided with a pin having a shoulder, said pin extending into said opening so that said shoulder engages said portion of said latch.

3. In a disk holder the combination of a mandrel provided with an axially disposed opening and a transverse slot crossing said opening and merging therein, a spring latch mounted on said mandrel stem and provided with a portion extending through said slot and partially into the axial opening, a disk engaging said mandrel stem and a fastening member engaging said disk and provided with a pin, said pin provided with means for engagement by the latch when the pin is inserted in the axial opening.



4. In a disk holder the combination of a mandrel stem having an axially disposed opening and with a transverse slot crossing said opening and merging therein, a spring latch mounted upon said stem and provided with a transversely bent portion having a central opening and extending through said slot and partially into the axial opening, and a fastening member engaging said disk and provided with a pin having a portion of its shank reduced and adapted to be engaged by the transverse portion of the spring latch.

1,130,915. VAPORIZING ATTACHMENT. ARNOLD WILLIAM MANSBRIDGE and SIDNEY JOHN NASH, Winnipeg, Manitoba, Canada. Filed Mar. 17, 1914. Serial No. 825,288. (Cl. 219—38.)



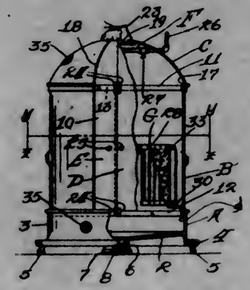
1. The combination with an engine carbureter having an oil well, mixing chamber and communicating orifice, of a receptacle opening to the well and designed to be filled with oil from the well, means for heating the oil within the receptacle, and means coöperating with the receptacle for deflecting the vaporized oil toward the orifice.

2. The combination with an engine carbureter provided with the usual oil well, of a receptacle opening to the well and designed to be filled with oil from the well and means for electrically heating the oil in the receptacle, as and for the purpose specified.

3. The combination with an engine carbureter provided with the usual oil well, of a cup shaped receptacle secured to the bottom of the well and opening to the interior thereof, an insulating casing within the receptacle, an electrical heating coil within the casing and a suitable electric circuit containing the coil, as and for the purpose specified.

4. The combination with an engine carbureter provided with the usual oil well and outlet orifice, of a cup shaped receptacle screw threaded into the bottom of the well and opening to the interior of the same, an insulating casing contained within the receptacle, an electrical coil mounted in the casing and contained within a suitable electric circuit and a collecting hood contained in the well above the inlet orifice and overhanging the receptacle, as and for the purpose specified.

1,130,916. ELECTRIC BATH-CABINET. HONORA C. MARRINAN and JOHN GORMAN, St. Paul, Minn. Filed Oct. 5, 1914. Serial No. 865,059. (Cl. 4—13.)



1. A combination bath and heating cabinet, comprising, in combination, a series of superimposed sections, the lower section being formed with an inwardly inclined floor, a drain outlet in said floor and an upwardly projecting side formed with an inwardly projecting shoulder, the intermediate section consisting of a casing removably mounted upon said shoulder and the top section being in the form of a dome mounted upon said intermediate section and formed with a neck opening near its top, said intermediate and top sections being formed with a door-way extending upwardly and connected with said neck opening, a door in said door-way, said sections being formed with ventilating openings near the top and bottom whereby air may be circulated through the chamber formed by said sections and a heating element removably mounted within said chamber.

2. A combination bath and heating cabinet, comprising, in combination, a plurality of superimposed sections, the lower section consisting of a tray having a drain outlet in its floor, an upwardly projecting side formed with an inwardly projecting shoulder, an intermediate section in the form of a casing resting upon said shoulder and a top section in the form of a dome resting upon said intermediate section and having a neck opening near its top portion, said intermediate and top sections being formed with a doorway, a door mounted in said door-way, a heating element removably mounted within the chamber formed by said sections, a guard in front of said heating element and a spray element leading into the top of said chamber and adapted to be connected with a source of water supply for the purposes specified.

1,130,917. MEMORANDUM-RING. MAXIMILIAN C. MEYER, Brooklyn, N. Y. Filed Apr. 29, 1914. Serial No. 835,121. (Cl. 63—15.)



1. A finger ring having a transparent stone set therein, a member beneath said stone affording a memorandum-receiving surface, and means for exposing said surface for the purpose of receiving a memorandum without removing the ring from the finger.

2. A finger ring set with a large transparent stone and having means on which to inscribe memoranda, said means being normally beneath and visible through the stone and being accessible for the purpose of receiving memoranda without removing the ring from the finger.

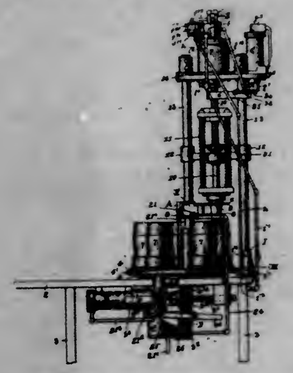
3. A finger ring having a hollow head inclosing a recess provided with a closed top and a transversely elongated opening in one of its sides, and a platform normally received in the recess in the head and movable edgewise through said opening.

4. A finger ring having a hollow head formed so that its interior constitutes a recess tightly inclosed except for an opening in one side, and a platform movable edgewise through said opening and normally closing the same.

5. A finger ring having a head formed with a recess open at one side and a large transparent stone covering said recess, in combination with a platform normally contained in said recess and movable into and out of the same through said open side without removing the ring from the finger.

[Claims 6 to 26 not printed in the Gazette.]

1,130,918. APPARATUS FOR PRESSING GLASS ARTICLES. WILLIAM J. MILLER, Swissvale, Pa. Filed Apr. 9, 1913. Serial No. 760,057. (Cl. 49—38.)



1. The combination with the plunger of a glass press and its piston and cylinder, of a casing mounted on said cylinder, a fluid-actuated controlling valve in said casing operable to regulate supply and exhaust to and from said cylinder, a plunger casing on the end of the valve casing in fluid communication therewith and provided with a valve controlled outlet a plunger therein provided with an inwardly disposed stem adapted to abut against said controlling valve, and a fluid conduit connecting the plunger casing with the cylinder above its piston for actuating said plunger and its stem dependent on the resistance to the plunger in the mold.

2. The combination with the plunger of a glass press and its piston and cylinder, of a superimposed valve casing, a fluid actuated controlling valve therein, an abutting plunger therefor, a casing for said plunger in fluid communication with said valve casing and provided with a valve controlled outlet, and a fluid pressure connection between the upper portion of the cylinder and the plunger casing adapted to transmit accumulated pressure from above the piston to the valve plunger upon the glass press plunger encountering resistance of the glass in the mold.

3. The combination with the plunger cylinder and its piston, of a superimposed supply and exhaust controlling valve, means for exhausting pressure from either end of said valve to effect shifting thereof, and a supplemental fluid-actuated plunger and a casing therefor at one end of said controlling valve provided with an adjustable limit-

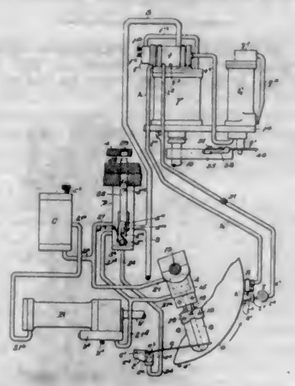
ing set screw for said plunger to arrest its movement away from said controlling valve and to locate its inner end with relation thereto.

4. The combination with the plunger cylinder and its piston, of a supply and exhaust controlling valve, means for exhausting pressure from either end of said valve to effect shifting, and a device operable to effect reverse movement of the valve controlled by pressure within the plunger cylinder.

5. The combination with the plunger cylinder and its piston, of a supply and exhaust controlling valve, means for exhausting pressure from either end of said valve to effect shifting, and a shiftable head subject to pressure from within the cylinder adapted to reverse the controlling valve.

[Claims 6 to 26 not printed in the Gazette.]

1,130,919. APPARATUS FOR PRESSING GLASS ARTICLES. WILLIAM J. MILLER, Swissvale, Pa. Original application filed Apr. 9, 1913, Serial No. 760,057. Divided and this application filed Jan. 21, 1914. Serial No. 813,436. (Cl. 49—14.)



1. Shear mechanism for a glass press comprising an actuating cylinder having a bearing extension, a piston, and a stem extending through said extension; a shear pivot support extending underneath the bearing extension of the cylinder, shear blades pivoted thereto, a crosshead on the piston stem operatively engaging the blades, a clamp securing the pivot support to the bearing extension, and a spring attached to and extending from the clamp underneath the blades for holding them together and against said support in such manner that the pivot may be adjusted to or from the cylinder.

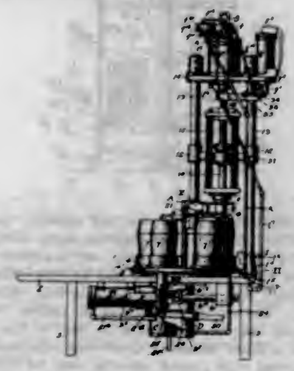
2. In an apparatus for pressing glass articles, the combination of a rotatable mold table, a shifting cylinder therefor, shears and an actuating cylinder therefor, and a controlling valve for the shears cylinder and shifting cylinder having a part forming a locking and unlocking device for the table, a fluid supply, and means for effecting release from one end of said valve to open communication to the shifting cylinder and shears cylinder and to unlock the table.

3. In an apparatus for pressing glass articles, the combination of a rotatable mold table, a shifting cylinder therefor, shears and an actuating cylinder therefor, a controlling valve for the shears cylinder and shifting cylinder having a connected coacting locking and unlocking device for the table, an air pressure supply therefor, and a releasing valve operable to reduce pressure at one end of said controlling valve to effect shifting thereof.

4. In an apparatus for pressing glass articles, the combination of a rotatable mold table, a shifting cylinder therefor, shears and an actuating cylinder therefor, a controlling valve for the shears cylinder and shifting cylinder having a connected coacting locking and unlocking device for the table, an air pressure supply therefor, and a releasing valve operable to reduce pressure at one end of said controlling valve to effect shifting thereof, and means for actuating the locking pin.

5. In an apparatus for pressing glass articles, the combination of a rotatable mold table, a shifting cylinder therefor, shears and an actuating cylinder therefor, a controlling valve for the shears cylinder and shifting cylinder having a connected coacting locking and unlocking device for the table, an air pressure supply therefor, and a releasing valve operable to reduce pressure at one end of said controlling valve to effect shifting thereof, and a shiftable head subject to pressure from within the cylinder adapted to reverse the controlling valve, and means for actuating the locking pin.

1,130,920. APPARATUS FOR PRESSING GLASS ARTICLES. WILLIAM J. MILLER, Swissvale, Pa. Original application filed Apr. 9, 1913, Serial No. 760,057. Divided and this application filed Jan. 21, 1914. Serial No. 813,437. (Cl. 49—38.)



1. Means for shifting and locking the mold table of a glass press comprising a shifting pin, a lever connected to the shifting pin to move it in and ont of engagement with the table, a locking pin having a portion adapted to actuate the lever of the shifting pin, and means for actuating the locking pin.

2. Means for shifting and locking the mold table of a glass press comprising a shifting pin, a lever connected to the shifting pin to move it in and out of engagement with the table, a locking pin having a portion adapted to actuate the lever of the shifting pin, a holding latch therefor adapted to be disengaged by the end of said lever, and means for actuating the locking pin.

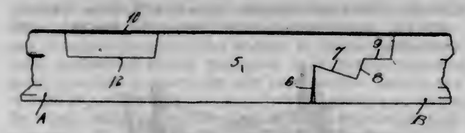
3. Means for shifting and locking the mold table of a glass press comprising an annularly movable arm having a spring-actuated pin adapted to engage and swing the table, a lever pivoted on said arm connected with said pin at one end and having an opposite terminal, a locking pin for the table having a portion adapted to engage and actuate the terminal of the lever of the shifting pin, and means for actuating the locking pin.

4. Means for shifting and locking the mold table of a glass press comprising an annularly movable arm having a spring-actuated pin adapted to engage and swing the table, a lever pivoted on said arm connected with said pin at one end and having an opposite terminal, a locking pin for the table having a portion adapted to engage and actuate the terminal of the lever of the shifting pin, a holding latch for said portion adapted to be disengaged by said terminal upon making engagement with said portion, and means for actuating the locking pin.

5. In an apparatus for pressing glass articles, the combination of a rotatable mold table, a shifting arm having a spring-actuated shifting pin engaging a socket in the table, a fluid actuated locking pin for the table having a co-acting arm, a latch normally holding said arm and the locking pin retracted, and a lever pivoted on the shifting arm connected to the shifting pin and adapted to strike against and discharge the latch of the co-acting arm of the locking pin.

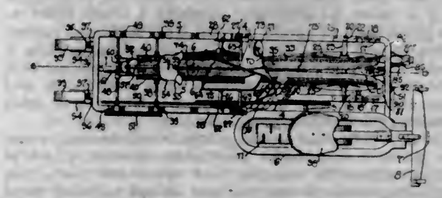
[Claims 6 to 24 not printed in the Gazette.]

1,130,921. RAIL-JOINT. THOMAS E. MISEE and EMMETT L. TAYLOR, Barling, Ark. Filed May 10, 1913. Serial No. 766,860. (Cl. 239—8.)



A rail joint comprising abutting rails, each rail being longitudinally halved for a distance adjacent its end, the end having thereon a lateral extension the width of the rail tread and being cutaway below said lateral extension to provide steps having inclined faces, and each rail being further provided at the other end of the longitudinally halved portion with a socket extending across the entire tread and being further provided with a step portion at said socket and having inclined surfaces, the lateral extension of each rail fitting within the socket on the other rail, the first named inclined step portion of each rail fitting upon the second named inclined step portion of the other rail and each longitudinal halved portion co-acting with the other.

1,130,922. BEET-HARVESTING MACHINE. ALBERT S. MOORE, Sault Ste. Marie, Ontario, Canada. Filed May 23, 1914. Serial No. 840,570. (Cl. 55—108.)



1. In a beet harvesting machine, opposed traveling grippers adapted to grip the beet stalks in the forward movement of the machine and pull the beets from the ground, means arranged above the grippers to cut the tops from the beets, and relatively stationary means disposed between the traveling grippers at a point intermediate of their ends to remove the beet tops therefrom.

2. In a beet harvesting machine, opposed endless traveling grippers adapted to grip the beet stalks in the forward movement of the machine and pull the beets from the ground, means arranged above the upper stretches of the grippers at a point intermediate of their ends to cut the tops from the beets, and a vertically disposed stationary bar arranged between the opposed grippers to remove the beet tops therefrom.

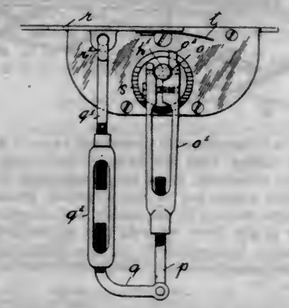
3. In a beet harvesting machine, opposed endless traveling grippers adapted to grip the beet stalks in the forward movement of the machine and pull the beets from the ground, a reciprocatory cutter arranged above the upper stretches of the grippers intermediate of their ends, and an obliquely disposed stationary element arranged above said grippers to direct the beet tops to said cutter.

4. In a beet harvesting machine, opposed endless traveling grippers adapted to engage the beet stalks in the forward movement of the machine and pull the beets from the ground, a transversely disposed reciprocatory cutter arranged above the upper stretches of said grippers, and an obliquely disposed stationary element provided with means to receive the beet stalks and constrict the same and direct said stalks to the cutter in the movement of the grippers.

5. In a beet harvesting machine, opposed endless traveling grippers adapted to engage the beet stalks in the forward movement of the machine and pull the beets from the ground, brushes arranged at the rear ends of the grippers to engage and clean the beets, means for cutting the roots from the beets, a reciprocating cutter arranged above the traveling grippers to sever the beet tops, and relatively stationary means for directing the beet tops to said cutter.

[Claims 6 to 14 not printed in the Gazette.]

1,130,923. DOOR-CLOSER OR DOOR-CHECK. JOHN CRAWFORD MOORE, Lower Edmonton, London, England. Filed Apr. 28, 1913. Serial No. 764,280. (Cl. 16—88.)



1. In a door closer, the combination with a vertical rotary spindle carrying a cross-piece outside the casing a forked lever arm pivotally connected to said crosspiece an eccentrically disposed cam ring surrounding the upper extremity of said rotary spindle, which ring has an upward graduating surface adapted to bear against said forked lever arm, and designed to move it in a vertical manner, substantially as and for the purpose specified.

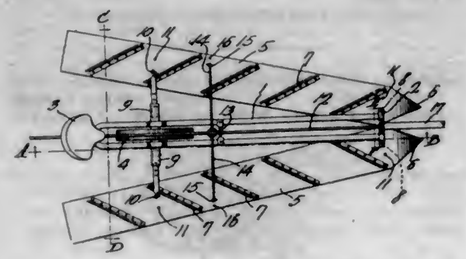
2. In a door closer the combination with a vertical rotary spindle carried in a casing on the top of the door, which spindle is operated by the opening of the door against the force of springs of a bracket secured on the lintel of the door which bracket carries a spring, of a lever arm connected to said bracket bent laterally at its outward extremity from said bracket, which bent part is designed to pass underneath the lintel of the door, and the straight part thereof operates against the spring on said bracket when the door is opened to about 95 degrees of a circle away from the side said casing is on.

3. In a door closer with a casing secured on a door carrying a vertical rotary spindle which is adapted to be turned by the opening of the door, of springs located around separately supporting spindles on said casing flexible bands which connect said rotary spindle with these springs in such a manner that whichever way this rotary spindle is turned these springs are tensioned.

1,130,924. CULTIVATOR. WILLIAM P. MORROW, Woodward, Okla. Filed Dec. 6, 1913. Serial No. 805,170. (Cl. 55—22.)

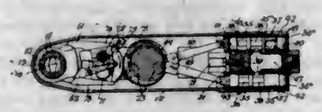
1. A cultivator including a frame, telescoping arms having their inner end portions fixedly connected to the rear portion of the frame, the outer end portions of said telescoping arms being downturned, a supporting wheel journaled within the rear end portion of the frame, an elongated plate at each side of the frame and connected adjacent its front end to the frame, each plate being mounted for vertical and horizontal angular adjustment relative to the frame, soil engaging devices carried by the plates, a lever and means connecting the lever to the plates for tilting the plates simultaneously about longitudinal axes irrespective of the horizontal angular adjustment of the plates, said plates being connected to the telescoping arms.

2. The combination with an elongated frame, a supporting wheel mounted at one end portion thereof, and a lever journaled upon the front end of the frame and extending over the wheel, of elongated plates at opposite sides respectively of the frame and pivotally connected adjacent their front ends to the front end portions of the frame, said connections permitting angular adjustment of the plates horizontally and vertically relative to



the frame, a telescopic arm connected to each side of the frame and alining with the axis of the wheel, the outer ends of the telescopic arms being extended downwardly and pivotally connected to the adjacent plates, soil engaging devices carried by the plates, and means connecting said plates to the lever whereby the plates may be tilted simultaneously independently of the horizontal angular adjustment thereof.

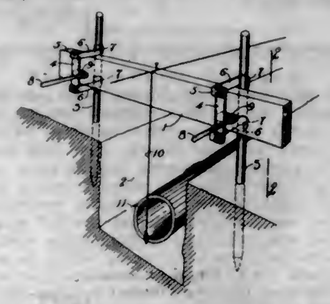
1,130,925. RATCHET MECHANISM. REINHOLD A. NORLING, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Original application filed May 7, 1907, Serial No. 372,407. Divided and this application filed Apr. 30, 1910. Serial No. 558,616. (Cl. 74—54.)



1. In combination, a spindle, two reversely swinging, spindle-actuating levers mounted concentrically with said spindle and a crank-shaft arranged parallel with the spindle and having two crank-pins located at 180° apart and severally engaging said levers, said parts being so arranged that each driving stroke of each lever is effected in the movement of the crank-pin engaged therewith through the part of its path remote from the spindle and through an angular distance of more than 180° and means affording driving connection between each of said levers and the spindle acting to effect driving engagement of the spindle with the lever at the end of each backward stroke of the lever and give turning movement to the spindle with the lever through an angular distance equal to that of the full stroke of the lever and to also effect the release of the spindle from the lever during each backward stroke of the lever, whereby the turning movement of the spindle through the action of one lever begins before the turning movement of the said spindle through the action of the other lever ceases and continuous motion is imparted to said spindle.

2. In combination, a rotative spindle, two reversely swinging, spindle-actuating levers mounted concentrically with said spindle, said spindle and levers being provided with coacting pawls and ratchet teeth, and a crank-shaft arranged parallel with the spindle and having two crank-pins located at 180° apart and severally engaging said levers, said parts being so arranged that the driving stroke of each lever takes place in the movement of the crank-pin engaged therewith through the part of its path remote from the spindle and through an angular distance of more than 180°, said ratchet teeth being spaced at angular distances apart equal to the total throw of the levers, so that each pawl will come into driving engagement with one of the ratchet teeth at the end of each backward stroke of the lever and will give turning movement to the spindle throughout the full length of each driving stroke of the lever, and the turning movement of the spindle with one lever will begin before its turning movement with the other lever ceases.

1,130,926. BATTER-BOARD. RUSSELL H. PECK, Palmerton, Pa. Filed July 7, 1914. Serial No. 849,484. (Cl. 33—169.)



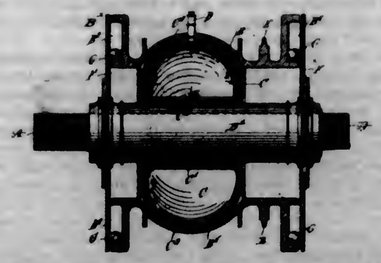
1. A clamp for adjustably clamping a batter board to its guide post to permit vertical and horizontal adjustment of said board relative to said post, comprising a spring plate vertically disposed and having a pair of spaced clamping arms hooked over said post, and a tightening lever having a cam end engaging said spring plate and spacing said plate from said board for tightening said clamp.

2. A clamp for adjustably clamping a batter board to its guide post to permit vertical and horizontal adjustment of said board relative to said post, comprising a spring plate vertically disposed and having a pair of horizontally disposed spaced clamping arms hooked over said post, and a cam lever operable by a partial swing in either direction for tightening said clamp.

3. In a device for setting grades in combination, a batter board, incompressible guide posts therefor, a pair of clamps adjustably engaging said board and posts, and tightening members engaging said clamps and said board for clamping said board flatly against said posts.

4. In a device for setting grades in combination, a batter board, incompressible cylindrical guide posts therefor, a clamp comprising a pair of connected post engaging arms and means for tightening said clamps and engaging the connection for said arms and engaging said board for clamping said board flatly against said posts.

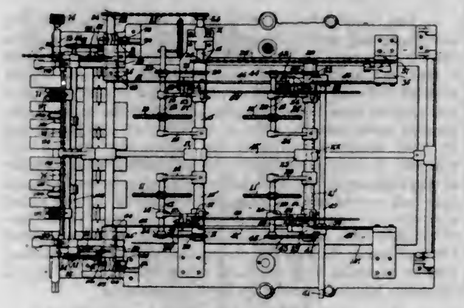
1,130,927. BUFFER FOR VEHICLE-WHEELS. PAUL DE PFEFFER, Kelowna, British Columbia, Canada. Filed Apr. 27, 1911. Serial No. 623,610. (Cl. 152—41.)



1. As an article of manufacture, a buffer for a vehicle wheel to be used intermediate the sections of a two part hub, consisting of a tubular ring having an inner axle portion of rubber reinforced by spaced threads running in a direction parallel to the axis of the axle to hold the said inner portion against stretching in the said axial direction, and to allow the said inner portion to dilate radially, and an outer portion of rubber reinforced by an inelastic fabric material to render the said outer portion flexible and to hold it against dilation.

2. As an article of manufacture, a buffer for a vehicle wheel to be used intermediate the sections of a two part hub, consisting of a tubular ring having an inner axle portion of rubber reinforced by spaced threads running in a direction parallel to the axis of the axle to hold the said inner portion against stretching in the said axial direction, and to allow the said inner portion to dilate radially, an outer portion of rubber reinforced by a flexible inelastic fabric material to render the said outer portion flexible and to hold it against dilation, and annular partitions within the ring extending axially and forming concentric compartments in the ring, the partition being formed by a flexible material inelastically reinforced held against dilation.

1,130,928. COMBING MECHANISM. MYRON H. PIPER, Walpole, Mass., assignor to United Printing Machinery Company, Boston, Mass., a Corporation of Maine. Filed Mar. 15, 1910. Serial No. 549,481. (Cl. 101—39.)



1. Sheet-feeding mechanism comprising combing devices adapted to rest freely upon a pile or bank of sheets, independently movable carriers for lifting said combing devices, each of said carriers having oppositely disposed surfaces extending parallel to the movement thereof, and lifting devices having oppositely disposed surfaces adapted to engage said surfaces of the carriers, said lifting devices being capable of angular movement for gripping and releasing said carriers.

2. Sheet-feeding mechanism comprising combing devices adapted to rest freely upon a pile or bank of sheets, independently movable carriers for lifting said combing devices, each of said carriers having oppositely disposed surfaces extending parallel to the movement thereof, lifting devices having oppositely disposed surfaces adapted to engage said surfaces of the carriers, said lifting devices being capable of angular movement for gripping and releasing said carriers, and means for actuating said lifting devices in unison to lift said combing devices.

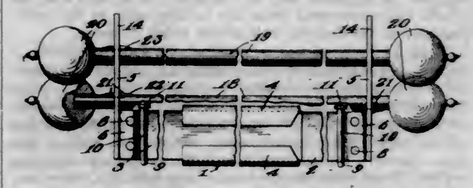
3. Sheet-feeding mechanism comprising combing devices adapted to rest freely upon a pile or bank of sheets, independently movable carriers for lifting said combing devices, each of said carriers having oppositely disposed surfaces extending parallel to the movement thereof, lifting devices having oppositely disposed surfaces adapted to engage said surfaces of the carriers, said lifting devices being capable of angular movement for gripping and releasing said carriers, means for positioning said lifting devices so as to render said carriers free to move when the combing devices rest upon the pile or bank of sheets, and means for actuating said lifting devices to grip and move said carriers.

4. Sheet-feeding mechanism comprising combing devices adapted to rest freely upon a bank or pile of sheets, oscillatory carriers for said combing devices, gripping devices movable about the axis of said carriers, means for actuating said gripping devices to lift said combing devices, each of said carriers having oppositely disposed surfaces concentric to the axis of said carriers, each of said gripping devices having oppositely disposed surfaces adapted to engage said concentric surfaces, said gripping devices being capable of angular movement for enabling them to grip and release said concentric surfaces.

5. Sheet feeding mechanism comprising front and rear combing devices for each side of the sheet, said devices being adapted to rest independently of each other upon the sheet, means for lifting the combing devices on one side, and means for lifting the combing devices on the other side, said first and second lifting means being adapted to operate simultaneously or at different times, and each being adapted to disengage its respective combing devices simultaneously from the sheet when said combing devices are supported in various relative initial planes, and to lift them equidistantly and release them simultaneously so that they are caused to strike simultaneously parts of the sheet which lie in various planes.

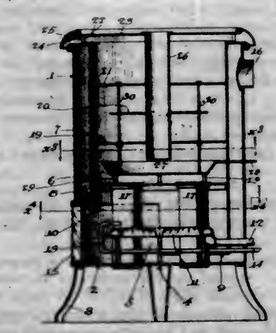
[Claims 6 to 11 not printed in the Gazette.]

1,130,929. WINDOW SHADE, CURTAIN, AND DRAPERY HANGER. THEOPHILUS M. RAWLS and ROBERT A. MILLER, Dublin, Tex. Filed July 27, 1914. Serial No. 853,358. (Cl. 156—23.)



In a device of the character described, a pair of brackets having apertures, and a tubular pole fitting in the said apertures and having a pair of outstruck stops having outstanding shoulders facing each other and inclined faces extending from the surface of the pole toward each other to the shoulders, the shoulders being engageable with the opposite sides of one of the said brackets to hold the pole against longitudinal movement, and the said inclined faces enabling the stops to snap through the apertures of the brackets.

1,130,930. STOVE. JAMES R. RICKETTS, Los Angeles, Cal. Filed Jan. 24, 1914. Serial No. 814,086. (Cl. 126—90.)



1. In a stove, an outer chamber, an inner chamber, a bottom wall for each of said chambers, a combustion chamber, a burner in the combustion chamber, the lower front part of the wall of the inner chamber having a cut-out portion opposite the burner, leaving a depending portion of the wall of the inner casing, the bottom wall of the inner chamber being located above the burner and forming the

top of the combustion chamber and with the depending portion of the said inner casing wall causing the products of combustion to be drawn downward and forward against the adjacent wall of the outer casing.

2. In a stove, an outer chamber, an inner chamber, a bottom wall for each of said chambers, a combustion chamber, a burner in the combustion chamber, the lower front part of the wall of the inner chamber having a cut-out portion opposite the burner, leaving a depending portion of the wall of the inner casing, the bottom wall of the inner chamber being located above the burner and forming the top of the combustion chamber and with the depending portion of the said inner casing wall causing the products of combustion to be drawn downward and forward against the adjacent wall of the outer casing, a pilot above the burner and a fuel pipe leading under the burner to the pilot light.

3. In a stove, an outer chamber, an inner chamber, a bottom wall for each of said chambers, a combustion chamber, a burner in the combustion chamber, the lower front part of the wall of the inner chamber having a cut-out portion opposite the burner, leaving a depending portion of the wall of the inner casing, the bottom wall of the inner chamber being located above the burner and forming the top of the combustion chamber and with the depending portion of the said inner casing wall causing the products of combustion to be drawn downward and forward against the adjacent wall of the outer casing, and a series of air tubes extending from the bottom wall of the outer chamber to the bottom wall of the inner chamber.

4. In a stove, an outer chamber, an inner chamber, a bottom wall for each of said chambers, a combustion chamber, a burner in the combustion chamber, the lower front part of the wall of the inner chamber having a cut-out portion opposite the burner, leaving a depending portion of the wall of the inner casing, the bottom wall of the inner chamber being located above the burner and forming the top of the combustion chamber and with the depending portion of the said inner casing wall causing the products of combustion to be drawn downward and forward against the adjacent wall of the outer casing, and a series of air tubes extending from the bottom wall of the outer chamber to the bottom wall of the inner chamber, said burner having a series of cavities which partially receive the respective air tubes.

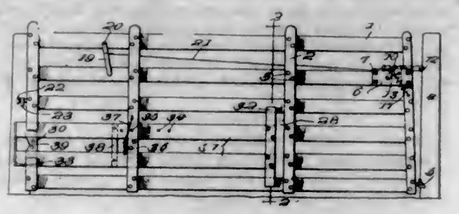
5. In a stove, an outer chamber, an inner chamber, a bottom wall for each of said chambers, a combustion chamber, a burner in the combustion chamber, the lower front part of the wall of the inner chamber having a cut-out portion opposite the burner, leaving a depending portion of the wall of the inner casing, the bottom wall of the inner chamber being located above the burner and forming the top of the combustion chamber and with the depending portion of the said inner casing wall causing the products of combustion to be drawn downward and forward against the adjacent wall of the outer casing, and a series of air tubes extending from the bottom wall of the outer chamber to the bottom wall of the inner chamber, the outer chamber being provided with an outlet for the passage of products of combustion from the space between the outer and inner chambers.

[Claims 6 and 7 not printed in the Gazette.]

1,130,931. FARM-GATE. JAMES D. RODGERS, Georgetown, Ky. Filed Aug. 6, 1913. Serial No. 783,434. (Cl. 39—25.)

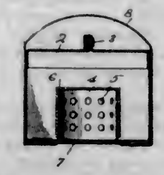
1. The combination with a gate and its hinge post, of a guide member carried by the gate and including plates secured upon opposite sides of one of the rails of the gate with their upper edges projecting above the upper edge of the said rail, a rack bar hingedly connected to the hinge post and slidably fitted between the projecting edges of the plates and upon the said edge of the rail, and a locking bail pivoted to straddle the plates and the rack bar and to coöperate with the teeth of the rack bar whereby to support the gate in various tilted adjustments.

2. The combination with a gate and its hinge posts, of a guide member carried by the gate and including plates secured upon opposite sides of one of the rails of the gate with their upper edges projecting above the upper edge of the said rail, a rack bar hingedly connected to the hinge post and slidably fitted between the projecting edges of the plates and upon the said edge of the rail, a locking bail pivoted to straddle the plates and the rack bar and to coöperate with the teeth of the rack bar whereby to support the gate in various tilted positions, means yieldably holding the bail in engagement with the rack bar, a lever mounted upon the gate and connection between the lever and the bail whereby the bail may be moved out of position to coöperate with the rack bar upon movement of the lever in one direction.



3. The combination with a gate and its hinge post, the gate including rails and spaced bars secured upon opposite sides of the rails and connecting and spacing the rails, of a rack bar hingedly connected with the post and fitting slidably between the bars at the hinged end of the gate and resting upon the upper edge of one of the rails, plates secured upon opposite sides of the said rail and projecting at their upper edges above the upper edge of the rail whereby to form a guide for the rack bar, a wear member of approximately inverted U-form fitted between the said bars and straddling the rack bar, the plates having offset portions forming shoulders resting against the inner edges of the said bars, a locking bail having side portions pivoted at their lower ends to the plates and having a connecting portion engaging with the teeth of the rack bar, and means yieldably holding the bail in such engagement.

1,130,932. RECEPTACLE. JULIUS RUMPEL, Weston, Mo. Filed June 8, 1914. Serial No. 843,696. (Cl. 220—14.)

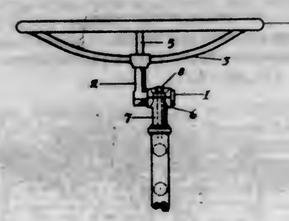


A box, a compartment of waterproof material mounted upon the bottom of the box and having a series of spaced rows of perforations formed therein, the lowermost row of perforations being spaced above the bottom of the compartment, and a cap detachably engaged over the compartment for covering the perforations to prevent liquid from the compartment entering the box.

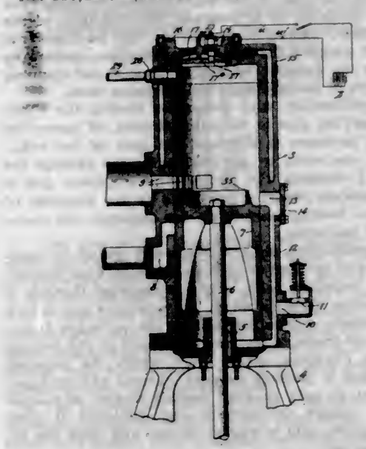
1,130,933. BICYCLE ATTACHMENT. GEORGE G. RUPERT, Decatur, Ill., assignor of one-half to William T. Russell, Macon, Ill. Filed Mar. 23, 1914. Serial No. 826,468. (Cl. 208—45.)

1. As an article of manufacture, an attachment for bicycles including a bundle carrying means comprising a circular rim member and downwardly curved radial members, a vertical post member, said radial members being permanently connected to said post member and said post member having a right angled and horizontally extending arm or extension for attachment in place of the usual handle bar.

2. As an article of manufacture, a combined handle bar and bundle carrying means including a circular rim member 4 large enough to receive bundles and having the diametric member 3 and radial member 5 connected together, the post member 2 to which said diametric and radial members are connected at their junction, said post member having a right-angled extension 1 for attachment, said diametric and radial members being curved downwardly as shown to provide the bundle carrier.



1,130,934. INTERNAL-COMBUSTION ENGINE. JOHN F. SANDELL, Chicago, Ill. Filed Mar. 25, 1914. Serial No. 827,110. (Cl. 123—30.)

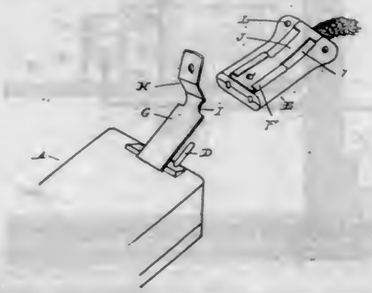


1. In an internal-combustion engine of the character described, the combination of an electric circuit, a cylinder having air-inlet and exhaust ports, a piston in the cylinder, a nozzle for introducing liquid hydrocarbon into the cylinder near its head-end and provided with an inclined discharge-opening in its inner end, a numerously-perforated concavo-convex metal plate confined about its edge in said head to form a chamber behind it and toward which said opening inclines, and a metal-capped electrical resistance-coil in said circuit, protruding through the cylinder-head and plate into the cylinder and into the path of liquid hydrocarbon discharging from said opening.

2. In an internal-combustion engine of the character described, the combination of a cylinder having air-inlet and exhaust ports, a piston in the cylinder, a supplemental head secured in the cylinder-head, a concavo-convex numerously-perforated metal plate confined in the cylinder-head by said supplemental head to present its concave face to the direction of the piston-stroke and forming with the supplemental head a chamber, and a nozzle extending through the cylinder-head into the cylinder for introducing therein liquid hydrocarbon, said nozzle having a discharge-opening in its inner end inclining toward said plate.

3. In an internal-combustion engine of the character described, the combination of an electric circuit, a cylinder having air-inlet and exhaust ports, a piston in the cylinder, a supplemental head secured in the cylinder-head, a concavo-convex numerously-perforated metal plate confined in the cylinder-head by said supplemental head and forming with the latter a chamber, a plug extending into the cylinder through the supplemental head and carrying on its inner end a metal-capped electrical-resistance coil included in said circuit, and a nozzle extending through the cylinder-head into the cylinder for introducing therein liquid hydrocarbon, said nozzle having a discharge opening in its inner end inclining toward said plate.

1,130,935. CONNECTOR-PLUG FOR ELECTRICAL INSTRUMENTS. FRANK E. SHAILOR, Detroit, Mich., assignor to Frank Kuhn, Detroit, Mich. Filed Oct 25, 1913. Serial No. 797,187. (Cl. 219—21.)



1. The combination with an electrically-heated instrument of a terminal contact therefor, a handle bracket extending parallel to said contact, and a detachable connector plug slidably interlocking directly with said parallel portion of said brackets to be guided thereby into engagement with said terminal contact.

2. The combination with an electrically-heated instrument, of a terminal contact projecting therefrom, a handle bracket extending parallel to said contact, an insulator connector plug, and a metallic guide upon said plug slidably engageable with the parallel handle bracket, to be guided thereby into engagement with said terminal contact.

3. The combination with an electrically-heated instrument of a terminal contact projecting therefrom, a handle bracket having a portion extending parallel to said contact and a bent portion for attachment to the handle, a plug connector, and guides upon said connector for embracing the parallel portion of said handle bracket to guide said plug into engagement with said terminal contact.

4. The combination with an electrically-heated instrument of a terminal contact projecting therefrom, a handle bracket having a portion extending parallel to said contact, a plug connector and guides on opposite sides of said plug for alternative engagement with said parallel portion of the bracket to guide said plug into engagement with said terminal contact.

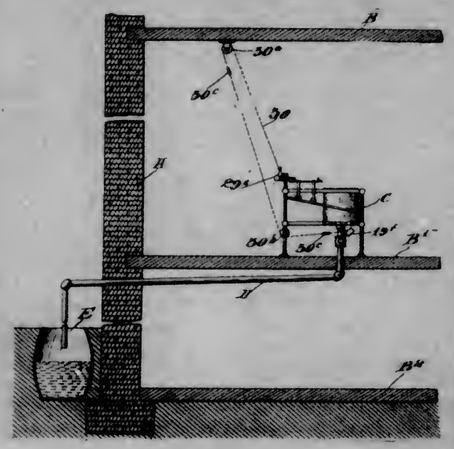
5. The combination with an electrically-heated instrument of a terminal contact projecting therefrom, a handle bracket having a portion extending parallel to said terminal contact, an insulator connector plug, a metallic strap embracing said plug, and guides struck-up from opposite sides of said strap for alternatively engaging said parallel portion of the handle bracket to guide said plug into engagement with said terminal contact.

[Claims 6 to 12 not printed in the Gazette.]

1,130,936. TANK. FRANK T. SLOAN, New York, N. Y. Filed Feb. 9, 1910. Serial No. 542,878. (Cl. 220—121.)

1. The combination with a dipping tank having a valved opening and thermostatically controlled means for opening the valve, of inclined rails juxtaposed to said tank, a horizontally disposed cover for said tank, means depending from said cover upon which the latter is maintained in horizontal position while moving laterally upon said rails toward and away from the tank, and upon which

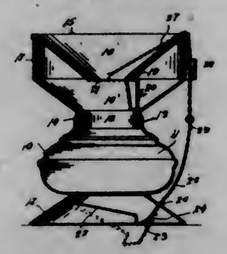
it may be returned on said rails by gravity to close said tank, and thermostatically controlled means for releasably holding said cover at one side of said tank.



2. The combination with a dipping tank having a valved opening and thermostatically controlled means for opening the valve, of a frame within which the tank is fixed, inclined rails oppositely arranged, a cover provided with depending means for moving on said rails horizontally away from the tank, pivotally mounted counter-balanced means for engagement with said cover to hold it normally to one side of the tank, and fusible holding means connected with said pivoted means to normally prevent the releasing of the cover.

3. The combination with a dipping tank having a valved opening and thermostatically controlled means for opening the valve, of inclined rails on opposite sides of the tank, a cover for the tank, standards of different length depending from and connected to the cover and having rollers at their lower ends for slidably supporting the cover upon the rails in horizontal position, and thermostatically controlled means for releasably holding the cover at one side of the tank, whereby the cover may be returned by gravity to close the tank.

1,130,937. CUSPIDOR. FRANK S. SMELIK, Nokomis, Ill. Filed Sept. 14, 1914. Serial No. 861,661. (Cl. 4—38.)



A non-spillable cuspidor comprising a receptacle, a top detachably mounted upon the open end of the receptacle and having a central opening therein, a valve swingingly mounted upon the under face of the top for closing said opening, and means for actuating said valve, said means comprising a chain having one end connected with the valve and passing over said top with its other end loosely inserted through a guide arranged exteriorly of the latter, a spring arm secured at one end to the base of the receptacle with its free end adapted to engage the floor, and a second chain having one end secured to the arm and its other end detachably connected with the loose end of the first mentioned chain.

1,130,938. WRAPPING-MACHINE. EDWIN GUSTAVE STAUDE, Minneapolis, Minn. Filed July 3, 1911. Serial No. 636,805. (Cl. 93—7.)



1. The combination, with a wrapping machine with means for feeding the wrappers, of means for feeding the packages to be wrapped into the path of the wrappers, means engaged by a package for starting the feed of the wrappers, and means governed by the wrapper feeding mechanism for moving a stop into the path of the package.

2. The combination, with means for feeding the wrappers and applying glue to the edges thereof, of means for feeding the packages to be wrapped into the path of the glued wrappers, means controlled by the packages for starting and stopping the feed of the wrappers, and means governed by the wrapper feeding mechanism for stopping the movement of the packages and releasing them.

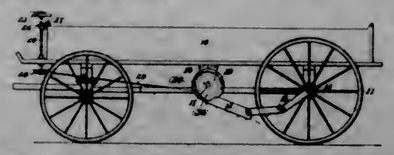
3. The combination, with means for feeding the wrappers and applying glue to the edges thereof, of means for feeding the packages to intersect the path of the wrappers, means controlled by the position of the package for starting and stopping the feed of the wrappers, and a clutch mechanism rendered operative by the stopping of said wrapper feeding mechanism for stopping the movement of the packages.

4. The combination, with a frame and means for feeding wrappers at one end of said frame lengthwise thereof, said means including belts, grippers mounted thereon, a gumming means through which the wrappers are drawn by said grippers, means for feeding the packages transversely of said frame to instresect the path of the moving wrappers, a wrapping carrier over which the gummed blanks are fed, a package support whereto the packages are delivered by said package feeding means, and arms mounted to engage the package and discharge it from said support into said wrapping carrier and upon the interposed wrapper.

5. The combination, with a frame and means for feeding the wrappers at one end of the frame lengthwise thereof, of means for gumming the edges of the wrappers, means for feeding the packages transversely of said frame, endless belts operating lengthwise of said frame, a series of wrapping carriers supported by and between said belts and over which carriers the gummed blanks are fed, means for delivering a package into a carrier and upon the wrapper therein, and means for centering the package on the panel of the wrapper.

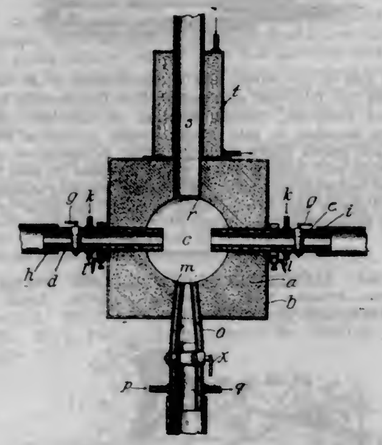
[Claims 6 to 38 not printed in the Gazette.]

1,130,939. VEHICLE BRAKE-SHOE. MICHAEL STEFANKA, Cleveland, Ohio. Filed June 3, 1914. Serial No. 842,680. (Cl. 21—8.)



A brake of the class described comprising a brake shoe having upstanding lateral flanges beveled at their forward ends and downwardly projecting spurs, a link connected with the axle of a vehicle and a second link connected with the free end of the first link and with the rear end of the brake shoe, a winding mechanism and a flexible connection between the shoe and the winding mechanism, the lengths of the links being such that when the shoe is in inoperative position, its rear end will be removed a sufficient distance from the rim of the adjacent wheel to prevent any interference between the members.

1,130,940. PROCESS FOR THE SYNTHESIS OF GASES. LELAND L. SUMMERS, Chicago, Ill. Filed Nov. 25, 1911. Serial No. 662,452. (Cl. 204—311.)



1. The process for the synthesis of gaseous compounds consisting in highly heating one or more of the constituent gases and mixing other gas or gases with it in a region of intense heat and while the latter are in a cool state.

2. The process for the synthesis of gaseous compounds consisting in highly heating one or more of the constituent gases and mixing other gas or gases with it in a region of intense heat and while the latter are in a cool state and quickly cooling the resultant gases.

3. The process for the synthesis of gaseous compounds consisting in highly heating one or more of the constituent gases in a heated zone or region, bringing the other constituent gas or gases in contact therewith in said zone and quickly removing the resultant gases from the heated zone.

4. The process for the synthesis of gaseous compounds consisting in highly heating one or more of the constituent gases in a heat zone and injecting thereinto a relatively cool gas under pressure whereby the gases are caused to combine and at once removed from the heated zone.

5. The process for the synthesis of gaseous compounds consisting in highly heating one or more of the constituent gases to be combined for an appreciable period and then injecting a relatively cool gas thereinto whereby the gases are caused to combine and at once removed from the heated zone.

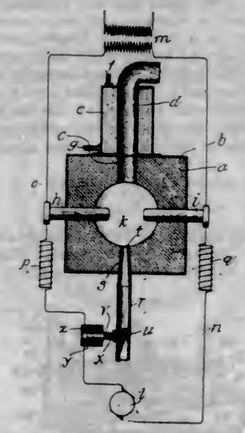
[Claims 6 to 17 not printed in the Gazette.]

1,130,941. PROCESS FOR PRODUCING REACTIONS IN GASES AND APPARATUS FOR PRACTISING THE SAME. LELAND L. SUMMERS, Chicago, Ill. Filed Nov. 25, 1911. Serial No. 662,453. (Cl. 204—31.)

1. A process for the formation of gaseous compounds which consists in feeding the component gases separately to a source of heat and then extinguishing the latter.

2. A process for the synthesis of gases consisting in feeding the component gases separately to an electric arc and then extinguishing the arc.

3. A process for the synthesis of gases consisting in first feeding the more inert gas to an arc, then feeding the more active gas thereto, and finally extinguishing the arc.

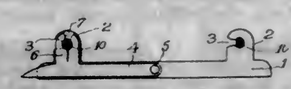


4. A process for the synthesis of gaseous compounds consisting in forming an arc feeding gas thereto and injecting another gas under pressure into the arc and thereby extinguishing the latter.

5. An intermittent process for the formation of gaseous compounds consisting in establishing an arc, feeding one of the gases thereto, injecting the other gas under pressure into the arc, and thereby extinguishing the same, and immediately reëstablishing the arc.

[Claims 6 to 17 not printed in the Gazette.]

1,130,942. LOCK-LEVER CLIP FOR TEMPORARY BINDERS. JOSEPH M. TOWNE, East Orange, N. J. Filed May 6, 1914. Serial No. 836,768. (Cl. 129—1.)



1. In a device of the character described, the combination of a binder plate having hook-like parts extending from one edge which receive the retaining members of a temporary binder, and a locking lever carried by said plate and having a portion extending from its inner edge and adapted in closed position to coöperate with one of said projecting parts to complementarily inclose one of said retaining members.

2. In a device of the character described, the combination of a binder plate having clips with open gates which receive the retaining members of a temporary binder, and a locking lever carried by said plate and adapted to be operated athwart the gate of one of said clips and beyond a sheet retaining member.

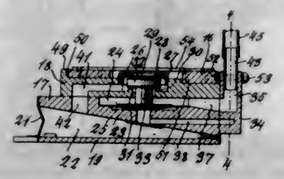
3. In a device of the character described, the combination of a binder plate having clips with open gates which receive the retaining members of a temporary binder, and a locking lever carried by said plate and having a tongue and adapted to be operated to cause the latter to close the gate of one of the aforesaid clips immediately beyond the sheet retaining member contained therein.

4. In a device of the character described, the combination of a binder plate having clips that extend from one of its edges and are provided with gates that open in a direction substantially parallel with the length of said plate and that receive the retaining members of a temporary binder, and a locking lever pivoted to one side of said plate and having extending from its inner edge a tongue which in the locked position of said lever closes one of said gates, whereby the sheet retaining members are confined in the latter.

5. In a device of the character described, the combination of a sheet metal binder plate having clips that extend from one of its edges and are provided with gates whose side walls are resilient and which receive the retaining members of a temporary binder, and a locking lever pivoted at one end to said plate about midway of the length of the latter and having extending from its inner edge near the other end a clip provided with a gate having resilient side walls and adapted to receive one of said retaining members, the gates in the clips of said plate and lever opening in directions that are substantially at right angles.

[Claim 6 not printed in the Gazette.]

1,130,943. PNEUMATIC ACTION FOR PIANOS. BARTHOLOMEW T. TREAHY, Detroit, Mich. Filed May 20, 1913. Serial No. 768,787. (Cl. 84—178.)



1. A pneumatic action for pianos comprising independent pneumatic actuating units having each a flange, a supporting frame for the units along which the units are adjustable, said frame having front and rear parts, one of said parts engaging the flanges of the actuating units, and clamping means carried by the units and engaging the other part of said supporting frame, and being adjustable toward the flanges and coöperating therewith to fix the units in adjusted position on the frame.

2. A pneumatic action for pianos comprising independent pneumatic actuating units, a supporting frame for the units, said frame being composed of separate longitudinally alined sections on which the actuating units are separately mounted and adjustable longitudinally, and means for fixing the units in adjusted position on the frame.

3. A pneumatic action for pianos comprising independent pneumatic actuating units having each a flange, a supporting frame for the units along which the units are adjusted, said frame having front and rear parts, one of said parts engaging the flanges of the actuating units, and set screws carried by the actuating units and engaging the other part of said supporting frame, and coöperating with the aforesaid flanges to fix the units in adjusted position on the supporting frame.

4. A pneumatic action for pianos comprising independent pneumatic actuating units having each a flange, a supporting frame having front and rear cross-rails, one of said rails engaging the flanges of the actuating units, and set screws carried by the actuating units and engaging the other cross-rail.

5. A pneumatic action for pianos comprising independent pneumatic actuating units having each a flange which is grooved, a supporting frame having front and rear cross-rails, one of said rails having its edge seating in the groove of the aforesaid flange, and set screws carried by the actuating units and engaging the other cross-rail, the edge of said rail being grooved to receive the points of the set screws.

[Claim 6 not printed in the Gazette.]

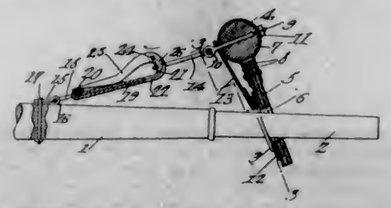
1,130,944. FOUNTAIN-PEN. WILLIAM F. ULLRICH, Warren, Pa. Filed Feb. 5, 1914. Serial No. 816,776. (Cl. 120—42.)

A fountain pen comprising a barrel closed at one end and having its inner surface contiguous to its open end flared outwardly, a longitudinally extending partition disposed therein, said partition forming reservoirs, a slotted cylindrical head telescoping into said barrel, said head having oppositely disposed longitudinally extending channels therein, the inner end of said head being slightly tapered and transversely slotted to receive one end of said partition and to form yieldable sections, each having an opening therein whereby when the inner end of said head is telescopically engaged with said barrel, said sections will project on opposite sides of the partition in the respective reservoirs formed thereby and owing to their tapered formation they will coact with the outwardly



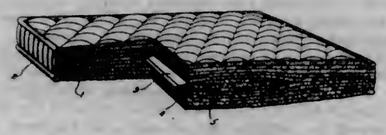
flared end of the barrel and be compressed so as to be brought into frictional engagement with the opposite faces of said partition, thereby forming an ink-tight joint, feeders disposed in said longitudinally extending channels, pen points disposed in the latter in operative relation with said feeders, and a sleeve threaded on said barrel and inclosing said head, there being engaging shoulders in said sleeve and on said head, whereby the latter is securely fastened to said barrel.

1,130,945. SAFETY NECK-YOKE HOLDER. JUSTIN M. VANDY, Atlanta, N. Y. Filed Oct. 12, 1914. Serial No. 866,359. (Cl. 21—77.)



In a device of the character described, a neck yoke, a sleeve embracing the same and having a pair of flanges, a flexible eye piece secured between the said flanges, a sheet metal washer secured to the back of the eye piece, a bolt engaged through the yoke and sleeve, an arm hinged to the washer and having its free end engaged to the said bolt, and means for connecting the said bolt to a pole.

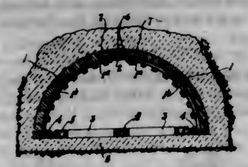
1,130,946. MATTRESS. MOZES VAN GELDER, Chicago, Ill. Filed Feb. 27, 1914. Serial No. 821,440. (Cl. 5—13.)



1. A mattress comprising a suitable covering and a plurality of layers of filling extending from side to side and end to end of the mattress, and a plurality of separate flat intermediate layers of filling located between certain of the first-mentioned layers and extending from side to side of said mattress said intermediate layers being superposed and of different lengths and considerably shorter than the first mentioned layers and tapered at their ends.

2. A mattress comprising a suitable covering and a plurality of layers of filling extending from side to side and end to end of the mattress, and a plurality of separate flat intermediate layers of filling located between certain of the first-mentioned layers and extending from side to side of said mattress but of different lengths and considerably shorter than the first mentioned layers, said shorter layers being reduced in thickness at their ends.

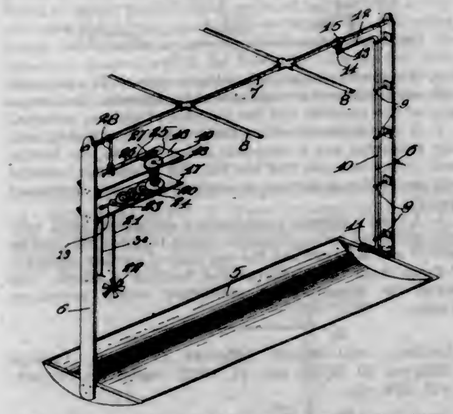
1,130,947. COLLAPSIBLE CONCRETE-FORM. ELMER G. WATSON, College Place, Wash. Filed Apr. 14, 1913. Serial No. 760,869. (Cl. 25—131.5.)



1. In a collapsible concrete form, the combination with segmental arch members provided at their crown portions with guide pulleys and at their base portions with contractible tie supports; of a key member interposed between the crown portions of said arch members and provided with longitudinally extending guide ways for said guide pulleys.

2. A collapsible concrete form, comprising segmental arch members provided with guide pulleys at their crown portions, a key member provided with track or guide members interposed between said guide pulleys, and a longitudinally extending operating member provided with a plurality of pivotally mounted tie members connected to the base portions of said segmental arch members.

1,130,948. SWING. LEO J. WENDLING, Chicago Heights, Ill. Filed Feb. 2, 1914. Serial No. 816,132. (Cl. 230—7.)



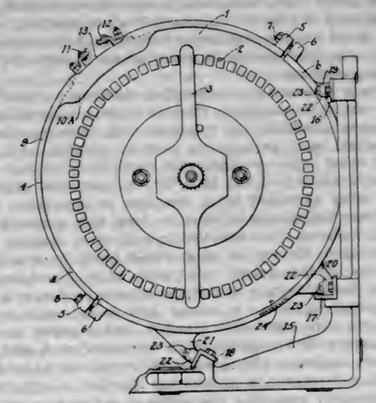
The combination of a swing having suspension bars, a stationary shaft supporting the suspension bars, a shelf carried by one of the suspension bars, a ratchet wheel and a lever carried by said shelf, said lever having pawls which engage the ratchet wheel, a fan geared to the ratchet wheel, and a fork rigidly mounted on the shaft, between the branches of which fork the lever loosely extends.

1,130,949. RHEOSTAT. HENRY J. WIEGAND, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 2, 1912. Serial No. 712,929. (Cl. 219—48.)

1. A rheostat provided with a rigid flat base for carrying the electrical parts, and a supporting band extending around said base and interlocked therewith to prevent slippage thereon.

2. A rheostat provided with a rigid flat circular base for carrying the electrical parts and a reinforcing and supporting band extending around the periphery of said base, said band being clamped to said base and positively secured against lateral displacement.

3. A rheostat provided with a flat base and a band surrounding the same and clamped thereto, said band having side flanges on opposite sides of said base.

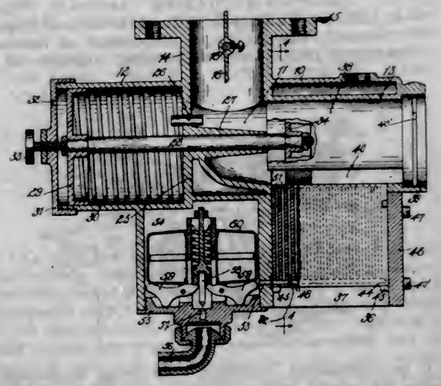


4. A rheostat provided with a circular base and a peripheral band clamped thereto, said band being provided with annular side flanges.

5. A rheostat provided with a circular base and a peripheral band clamped thereto, said band being provided with annular side flanges, and peripheral supporting lugs.

[Claims 6 and 7 not printed in the Gazette.]

1,130,950. CARBURETER. LYNN A. WILLIAMS, Evanston, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 3, 1912. Serial No. 675,146. (Cl. 48—154.1.)



1. In a carbureter, a carbureting chamber, a plurality of fuel passageways leading thereto, said fuel passageways being arranged in a row and having thir ends lengthened and narrowed down to form slots disposed end to end, and a valve sliding over said slots.

2. In a carbureter, a carbureting chamber, a plurality of fuel passageways leading thereto, said fuel passageways being arranged in a row and having their ends lengthened and narrowed down to form slots disposed end to end, a valve sliding over said slots, and an air inlet adjacent to said fuel inlets.

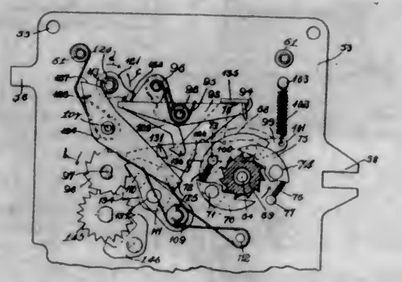
3. In a carbureter, a carbureting chamber, a cylindrical valve chamber connected therewith, an air opening extending substantially the length of said valve chamber, a fuel nozzle block arranged in said air opening, said fuel nozzle block being provided with a plurality of fuel pas-

sageways leading to the face thereof, said fuel passageways being arranged in a row and having their ends lengthened and narrowed down to form slots disposed end to end, and a piston valve mounted in said valve chamber and sliding upon the top of said nozzle block to positively close some of the nozzles, said piston valve also determining the part of the air opening in communication with the carbureting chamber.

4. In a carbureter, a carbureting chamber, a cylindrical valve chamber connected therewith, an air opening extending substantially the length of said valve chamber, a fuel nozzle block arranged in said air opening, said fuel nozzle block being provided with a plurality of fuel passageways leading to the face thereof, said fuel passageways being arranged in a row and having their ends lengthened and narrowed down to form slots disposed end to end, a piston valve mounted in said valve chamber and sliding upon the top of said nozzle block to positively close some of the nozzles, said piston valve also determining the part of the air opening in communication with the carbureting chamber, a second and larger cylinder in alinement with said valve chamber, and a piston in said last-named cylinder mechanically connected with said piston valve to form a sliding structure responsive to suction.

5. In a carbueter, a carbureting chamber, a cylindrical valve chamber connected therewith, an air opening extending substantially the length of said valve chamber, a fuel nozzle block arranged in said air opening, said fuel nozzle block being provided with a plurality of fuel passageways leading to the face thereof, said fuel passageways being arranged in a row and having their ends lengthened and narrowed down to form slots disposed end to end, a piston valve mounted in said valve chamber and sliding upon the top of said nozzle block to positively close some of the nozzles, said piston valve also determining the part of the air opening in communication with the carbureting chamber, and a manually operated sleeve valve partly surrounding said piston valve for varying the other dimension of the air inlet.

1,130,951. REGISTER MECHANISM. ARTHUR H. WOODWARD, Chicago, Ill., assignor to The International Register Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 25, 1909. Serial No. 524,318. (Cl. 235—33.)



1. In combination, totalizing registering mechanism, means for locking said mechanism against operation at predetermined counts and means for automatically causing the release of said mechanism so that it may proceed as before.

2. In combination, totalizing registering mechanism, and means for automatically locking said mechanism against operation at predetermined counts and for automatically unlocking said mechanism.

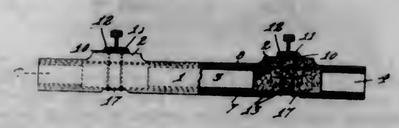
3. In combination, manually operated totalizing mechanism and means operable after one setting thereof for locking said mechanism against operation for a predetermined period, said locking occurring a plurality of times, each time at a predetermined count.

4. In combination manually operated totalizing mechanism, means operated at a plurality of predetermined counts for locking said mechanism against operation for a predetermined interval of time.

5. In combination, manually operated totalizing registering mechanism and means for automatically locking said mechanism against operation at predetermined counts, and for automatically unlocking said mechanism.

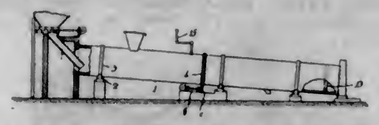
[Claims 6 to 51 not printed in the Gazette.]

1,130,952. RAIL TIE AND CLIP. AI LACY WORSWICK, San Francisco, Cal. Filed Oct. 30, 1913. Serial No. 798,253. (Cl. 238—3.)



A reinforced concrete tie comprising a concrete mass having hollowed portions and a solid concrete mass under each rail, an upper and a lower set of reinforcing rods, clips for holding the rails in place, and a plurality of bolts for securing the clips to the tie, the lower ends of the bolts being hooked under the lower set of reinforcing rods and projecting through the lower side of the tie.

1,130,953. ROTARY FURNACE. HARRY G. AKERS, Toronto, Ontario, Canada. Filed May 14, 1913. Serial No. 767,672. (Cl. 75—138.)

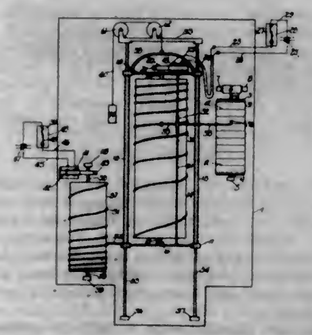


1. A rotary furnace comprising a cylindrical shell suitably supported and a composite lining therefor, the bottom part of one material and the top part of another material.

2. A rotary furnace comprising a cylindrical shell suitably supported and a composite lining therefor, the bottom part of one material and the top part of another material and means for imparting an oscillating rotary movement thereto.

3. A rotary furnace comprising a cylindrical shell suitably supported and a composite lining therefor, the bottom part of one material and the top part of another material, a flange near the discharge end forming a hearth, and means for imparting an oscillating rotary movement thereto.

1,130,954. RECORDER. HARLEY C. ALGER, Chicago Heights, Ill. Filed Oct. 21, 1912. Serial No. 727,051. (Cl. 234—6.)



1. A device for recording the evaporation of a boiler comprising a record sheet, means for recording thereon, means operated in accordance with the amount of liquid evaporated to cause the recording means to record a higher value and means operated in accordance with the amount of fuel consumed to cause the recording means to record a lower value, whereby the record made upon the record sheet represents the evaporation of the boiler.

2. A device for indicating the evaporation of a boiler comprising a graduated member, means for indicating thereon, means operated in accordance with the amount of liquid evaporated to cause the indicating means to indicate a higher value and means operated in accordance with the amount of fuel consumed to cause the indicating means to indicate a lower value whereby the value indicated represents the evaporation of the boiler.

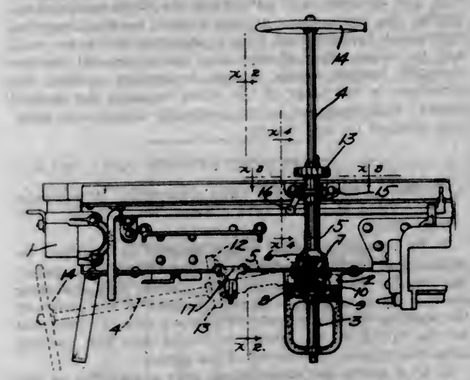
3. A device for indicating the evaporation of a boiler comprising a graduated member, means for indicating thereon, means operated in accordance with the amount of liquid evaporated to cause the indicating means to indicate a higher value, means operated in accordance with the amount of fuel consumed to cause the indicating means to indicate a lower value and means actuated by change of pressure within the boiler to alter the value indicated.

4. A device for indicating the evaporation of a boiler comprising a graduated member, means for indicating thereon, means operated in accordance with the amount of liquid evaporated to cause the indicating means to indicate a higher value, means operated in accordance with the amount of fuel consumed to cause the indicating means to indicate a lower value and means actuated by change of temperature of the liquid entering the boiler for altering the value indicated.

5. A device for indicating the evaporation of a boiler comprising a graduated member, means for indicating thereon, means operated in accordance with the amount of liquid evaporated to cause the indicating means to indicate a higher value, means operated in accordance with the amount of fuel consumed to cause the indicating means to indicate a lower value, means actuated by change of pressure within the boiler for altering the value indicated and means actuated by change of temperature of the liquid entering the boiler for altering the value indicated.

[Claims 6 to 15 not printed in the Gazette.]

1,130,955. ADJUSTABLE BRAKE-STAFF. FRANKLIN L. BARBER and EDWIN W. WEBB, Chicago, Ill., assignors to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 2, 1914. Serial No. 864,597. (Cl. 188—52.)



1. A car brake staff having a relatively local windlass, and provided with a hinge joint adapting its main body portion to be moved pivotally from an upright into a down-turned position, and the said brake staff also having means rendering the same operative on said windlass in both of its said positions.

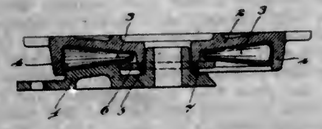
2. In a car brake mechanism, the combination with a relatively local brake windlass, of a brake staff connected to said windlass by a hinge joint adapting it to be moved from an upright into a down-turned position, and a drive operatively connecting said brake staff to said windlass in both of said positions.

3. The combination with a car body, of a brake mechanism comprising a windlass support secured to said car body, a windlass journaled in said support, a brake staff casing journaled on said windlass and having a hinge joint adapting its body portion to be turned from an upright into a downturned position, a brake staff journaled in the hinged portion of said support, and a gear connection between said brake staff and windlass, maintaining an operative connection between the same in the different positions of said brake staff.

4. The combination with a car body, of a brake mechanism comprising a windlass support secured to and depending from said body, a windlass journaled in said support, a brake staff casing journaled for movement around the axis of said windlass and provided with a hinge joint adapting its body portion to be turned from an upright into a down-turned position, a brake staff journaled in said casing, means for locking said staff to said casing against rotation in one direction, and a nest of three beveled gears connecting said staff to said windlass, one of the said gears being on said staff, one on said windlass, and the other journaled around the axis of said hinge joint.

5. The combination with a car body, of a brake mechanism comprising a windlass support secured to and depending from said body, a windlass jonrnaled in said support, a brake staff casing journaled for movement around the axis of said windlass and provided with a hinge joint adapting its body portion to be turned from an upright into a down-turned position, a brake staff journaled in said casing, means for locking said staff to said casing against rotation in one direction, a nest of three beveled gears connecting said staff to said windlass, one of the said gears being on said staff, one on said windlass, and the other journaled around the axis of said hinge joint, means for securing said casing in an upright position, and means for supporting the same in a down-turned position.

1,130,956. ROLLER CENTER-BEARING FOR CARS. JOHN C. BARBER, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 1, 1912. Serial No. 729,035. (Cl. 64—64.)

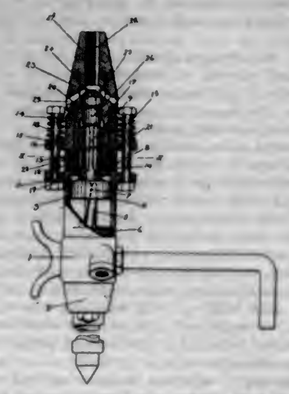


In a roller bearing, the combination with a bearing plate and radially disposed conical rollers interposed between the same, one of said bearing plates having a thrust flange engageable with the outer ends of the rollers and having a hub that is located entirely inward of the inner ends of said rollers, and a separately formed retaining ring secured to said hub and lapping the inner ends of said rollers and directly engageable therewith to secure said rollers to said bearing plate with freedom for rotary and traveling movements in respect thereto, the radial distance between the said thrust flange and the outermost portion of said hub being greater than the length of said rollers.

1,130,957. FRONT-HEAD CONSTRUCTION FOR SELF-ROTATING HAMMER-DRILLS. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 5, 1914. Serial No. 816,814. Renewed Jan. 4, 1915. Serial No. 509. (Cl. 121—10.)

1. In a fluid operated percussive drill, a cylinder, a front head secured to said cylinder, a drill steel receiving chuck having a shank portion rotatably mounted in said front head and a head portion of larger diameter over-

lapping the front end of said front head and having an angular steel receiving aperture therein, a split ring engaging said chuck shank and the rear end of said front head to prevent forward movement of said chuck and means for rotating said chuck.



2. In a fluid operated percussive drill, a cylinder, a self rotating piston having a forward extension, a front head secured to said cylinder, a drill receiving chuck having a rearward portion rotating in said front head and slidably engaged by said piston extension, said chuck having a head portion of larger diameter overlapping the forward edge of said front head and having an angular drill receiving aperture, and a split ring engaging said chuck and the rear edge of said front head to prevent forward movement of said chuck.

3. In a fluid operated percussive drill, a cylinder, a front head therefor, a drill chuck rotatably mounted in said front head, said drill chuck having an enlarged head portion overlapping the front edge of said front head and a ring secured to its rear end engaging the rear edge of said front head to prevent longitudinal movement, means to secure said front head to said cylinder, and means to rotate said drill chuck.

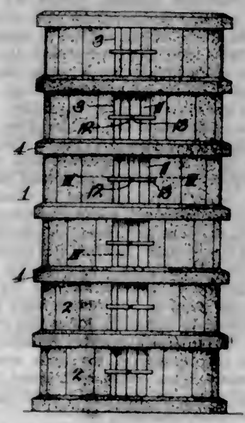
4. In a fluid operated percussive drill, a cylinder, a front head therefor, a drill chuck rotatably mounted in said front head, said drill chuck having an enlarged head portion overlapping the front edge of said front head and a ring secured to its rear end engaging the rear edge of said front head to prevent longitudinal movement, means to secure said front head to said cylinder and a piston having a fluted extension engaging said drill chuck.

5. In a fluid operated percussive drill, a cylinder, a front head secured thereto, a drill chuck having a shank portion rotatably mounted in said front head, and a head portion overlapping the end of said front head, said head portion having a tappet receiving bore in its front end, a tappet in said bore having a shank projecting into said chuck shank portion, a nose piece secured in said bore to retain said tappet in position, said nose piece having an angular aperture therethrough for the reception of a drill steel, and a piston having a forward extension sliding in said chuck and adapted to strike said tappet.

[Claims 6 and 7 not printed in the Gazette.]

1,130,958. CONCRETE SILO. JAMES A. BRODRICK, Marshalltown, Iowa. Filed Apr. 17, 1914. Serial No. 832,656. (Cl. 72—6.)

1. A building structure composed of a plurality of tiers of blocks, the blocks of one tier breaking joint with the blocks of adjacent tiers, each block having communicating grooves in its sides and ends, and a cement bonding material filling said grooves and uniting adjacent blocks of the same tier and adjacent tiers firmly together and horizontal circumferential bands formed completely around the structure in the plane of the joints between the tiers of blocks; said structure having vertically alined door openings bridged by said bands; said bands having ribs projecting inwardly of said door openings and forming lintels for overlying and sills for underlying the door openings.



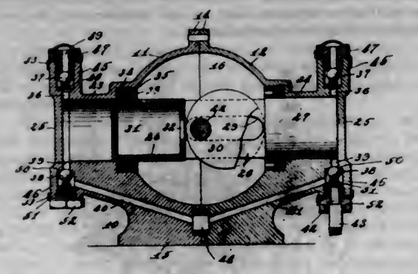
2. A building structure composed of a plurality of tiers of blocks, the blocks of one tier breaking joint with the block of adjacent tiers, each block having communicating grooves in its sides and ends, and a cement bonding material filling said grooves and uniting adjacent blocks of the same tier and adjacent tiers firmly together and horizontal circumferential cement bands formed completely around the structure in the plane of the joints between the tiers of blocks; said structure having vertically alined openings which taper outwardly and of which the bands form the upper and lower ends, and tapered doors fitting in said openings.

3. A building structure composed of a plurality of tiers of suitably reinforced blocks, the blocks of one tier breaking joint with the blocks of adjacent tiers, each block having communicating grooves in its sides and ends, a cement bonding material filling said grooves and uniting adjacent blocks of the same tier and adjacent tiers firmly together; said blocks having inwardly projecting vertical ribs, and an inner wall paralleling the outer wall and engaging the inner edges of said blocks, bonding material interposed between and firmly engaging the inner wall and the inner edges of said ribs, and horizontal circumferential cement bands formed completely around the structure in the plane of the joints between the tiers of blocks; said structure having vertically alined door openings bridged by said bands.

1,130,959. PUMP. ROSS LYON CAMPBELL, Wilmington, Del. Filed Mar. 28, 1914. Serial No. 827,995. (Cl. 230—27.)

1. In a pump, a hollow piston adapted to contain a lubricant and having an opening in its walls, and an operating member for reciprocating the piston, said operating member being adapted to engage the wall of the piston at the opening therein whereby to contact with the lubricant as the latter by its inertia is forced into the opening upon the outward movement of the piston.

2. In a pump, the combination with a plurality of cylinders open at their inner ends, a shaft and an eccentric fixed on the shaft, of a hollow piston movable in each of said cylinders adapted to contain a lubricant and having an inner end wall with an aperture therethrough, said eccentric being in operative contact with each of said inner end walls of the pistons in line with the apertures, said pistons upon the movement of the same being adapted to force the lubricant by its inertia against said end walls of the pistons and into said apertures therethrough whereby to present the lubricant to said eccentric as the latter passes over the apertures.



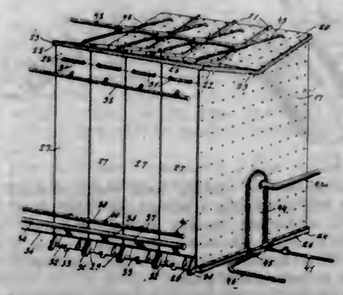
3. In a pump, the combination with a plurality of cylinders open at their inner ends, a shaft, and an eccentric fixed on the shaft, of a hollow piston movable in each of said cylinders adapted to contain a lubricant and having an inner end wall with an aperture therethrough, said pistons upon the movement of the same being adapted to force the lubricant by its inertia against said inner walls and into the apertures therein, said eccentric being in line with the apertures whereby the periphery of the same is in constant operative contact with each of said inner end walls of the pistons adjacent the apertures therein whereby to partially choke the apertures and prevent the ejection of an excess amount of lubricant and whereby the periphery of said eccentric is adapted to contact with the lubricant and to collect the same thereon.

4. In a pump, the combination with a plurality of opposed cylinders, a shaft, and an eccentric fixed on said shaft, of a plurality of connected hollow pistons movable in said cylinders, said eccentric bearing at its periphery against the opposite inner ends of said pistons whereby to reciprocate the same, said pistons being adapted to contain a lubricant therein and having openings at their inner ends adapted to be substantially closed by said eccentric at the end of a stroke of the pistons, said pistons upon their outward strokes being adapted to force the lubricant by its inertia through the openings against the periphery of the eccentric.

5. In a pump, a piston, a chamber within the piston adapted to contain a lubricant and having an outlet through the wall of the piston, a shaft, and operating means comprising an eccentric for reciprocating the piston, said eccentric being adapted to engage the wall of the piston at the outlet therein whereby to contact with the lubricant as the latter by its inertia is thrown against said end wall and into the outlet upon the outward movement of the piston.

[Claims 6 and 7 not printed in the Gazette.]

1,130,960. ICE-MAKING APPARATUS. WILLIAM T. CARTER, Chicago, Ill. Filed Mar. 3, 1913. Serial No. 751,787. (Cl. 62—105.)



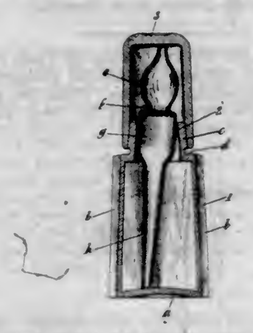
1. In an ice-making apparatus, a freezing tank having a swinging door forming one of the walls thereof, to which door the finished block of ice adheres, said door being hollow and having a hinged section at the top, and means for introducing a heating medium into the hollow of the door.

2. In an ice-making apparatus, a freezing tank having a sloping top, and a hollow door forming one of the walls of the tank, said door being hinged at the bottom to swing downward and outward and closing against the sloping top, and means for introducing a heating medium into the hollow of the door.

3. In an ice-making apparatus, a freezing tank surrounded by a refrigerant jacket, and having a swinging closure which is hollow, means for introducing a heating medium into the jacket and the hollow of the closure, and water inlets to the tank through the closure.

4. In an ice-making apparatus, a freezing tank surrounded by a refrigerant jacket, and having a swinging hollow closure to which the finished block of ice adheres, means for introducing a heating medium into the jacket to thaw the block off the tank walls and permit the closure to be swung open, and means for introducing a heating medium into the hollow of the closure to thaw the block off the same.

1,130,961. NASAL LIQUID-INHALER. EPAMINONDAS CLARK, New York, N. Y. Filed Sept. 16, 1914. Serial No. 861,028. (Cl. 128—17.)



1. A nasal liquid inhaler comprising a substantially straight liquid-inhaling suction tube open at both ends and having at its upper end a liquid-holding bulb having a construction forming a throat below the bulb and having an enlargement forming a liquid-holding reservoir below the throat.

2. A nasal liquid inhaler comprising a liquid-container having a mouth at the top, and a substantially straight liquid-inhaling suction tube open at both ends loosely supported in the container and projecting at its upper end from the mouth of the container, the inhaling tube having at its upper end a bulb tapered toward the open upper end of the inhaling tube to form fluid-tight communication with the nasal passages at the nostril, the inhaling tube also having a reduced lower stem and a liquid-holding enlargement forming a reservoir above the stem, and having a constriction separating the reservoir and the bulb, a free entrance for the liquid being provided to the stem at the lower end of the inhaling tube and the inhaling tube fitting loosely in the mouth of the container to provide free entrance of air to the container.

3. A nasal liquid inhaler comprising a substantially straight liquid-inhaling suction tube open at both ends and having at its upper end a bulb tapered toward the open upper end of the inhaling tube to form fluid-tight communication with the nasal passages at the nostril, the inhaling tube having a liquid-holding enlargement forming a reservoir below the bulb and a constriction separating the bulb and the reservoir, the inhaling tube having a reduced stem below the reservoir.

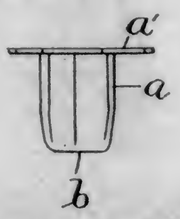
4. A nasal liquid inhaler comprising a liquid-container having a mouth at the top, and a substantially straight liquid-inhaling suction tube open at both ends loosely sup-

ported on the bottom of the container and projecting at its upper end from the mouth of the container, the inhaling tube having a lower stem, the wall of the stem being longer at one place than at another place to provide an opening for the free entrance of the liquid to the inhaling tube with the inhaling tube resting on the end of the stem and having at its upper end a bulb tapered toward the open upper end of the inhaling tube to form fluid-tight communication with the nasal passages at the nostril, the inhaling tube fitting loosely in the mouth of the container to provide free entrance of air to the container.

5. A nasal liquid inhaler comprising a liquid-container having a mouth at the top, a substantially straight liquid-inhaling suction tube open at both ends loosely supported on the bottom of the container and projecting at its upper end from the mouth of the container, the inhaling tube having a lower stem, the wall of the stem being longer at one place than at another place to provide an opening for the free entrance of the liquid to the inhaling tube with the inhaling tube resting on the end of the stem and having at its upper end a bulb tapered toward the open upper end of the inhaling tube to form fluid-tight communication with the nasal passages at the nostril, the inhaling tube fitting loosely in the mouth of the container to provide free entrance of air to the container, and a cup-shaped cover cap fitting closely over the top of the container to form a closure therefor inclosing the inhaling tube.

[Claims 6 to 10 not printed in the Gazette.]

1,130,962. HOLLOW RIVET. ELMER M. COBB, Portland, Me., assignor to Southworth Machine Company, Portland, Me., a Corporation of Maine. Filed Apr. 18, 1912, Serial No. 691,764. Renewed Aug. 22, 1914. Serial No. 858,129. (Cl. 85—40.)



1. A hollow rivet having a head and a hollow shank, said shank being composed of an integral end and longitudinal strips integral with said end and being formed with a tapering section at the end, making an angle with the body of the rivet, the longitudinal joints or spaces between said strips extending over or by said angle whereby said angle is made the bending point.

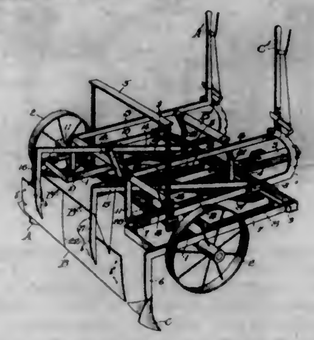
2. A hollow rivet having a head and a hollow shank, said shank being composed of an integral indented end and longitudinal strips integral with said end and being formed with a tapering section at the end, making an angle with the body of the rivet, the longitudinal joints or spaces between said strips extending over or by said angle whereby said angle is made the bending point.

3. A hollow rivet having a head and a hollow shank, said shank being composed of longitudinal strips and a closed and indented end formed integral with said strips.

4. A hollow rivet having a head and a hollow shank, said shank having a closed end, and a tapering section at the end making an angle with the body of the rivet and being formed with a plurality of longitudinal sections separated by longitudinal joints extending over or by said angle and capable of giving way and permitting the sections to bend outward at said angle.

1,130,963. ORCHARD-FURROWER. LYSANDER W. CUSHMAN, Ontario, Cal. Filed Jan. 6, 1914. Serial No. 810,667. (Cl. 97—12.)

1. In a furrower, a carriage, two side furrowing shovels, and a scraper shovel located in a line substantially between said furrowing shovels the length of the scraper shovel being substantially equal to the distance between the furrowing shovels, said several shovels being movable up and down independently of one another, and means to operate said shovels individually.



2. In a furrower, a carriage, two side furrowing shovels and a scraper shovel, said several shovels being movable up and down independently of one another, means normally and yieldingly to hold said furrowing shovels downward in operative position, means normally and yieldingly to hold said scraper shovel upward in inoperative position, and means to operate said shovels individually.

3. In a furrower, a carriage, two side furrowing shovels and a scraper shovel, said several shovels being movable up and down independently of one another, independent hand levers to operate said furrowing shovels, and a foot pedal to operate said scraper shovel.

4. In a furrower, a carriage, two side furrowing shovels, and two scraper shovels extending outward to the right and left from the furrowing shovels respectively, separate frames on which said several shovels are supported, said frames being independently and movably mounted on the carriage, and means to move said frames individually to raise and lower said shovels independently of one another.

5. In a furrower, a carriage, two side furrowing shovels carried on separate independently movable frames mounted on the carriage, a scraper shovel made in two sections, and means to operate said two sections of the scraper shovel together as one part, or independently, at the will of the operator.

[Claims 6 to 9 not printed in the Gazette.]

1,130,964. METHOD OF MAKING TIRES. MARK A. DEES, St. Louis, Mo., assignor to American Tire Company, St. Louis, Mo., a Corporation. Filed Jan. 20, 1913. Serial No. 743,115. (Cl. 154—14.)



1. The method of making tires which consists in assembling in a tire casing structure, an inner ply of readily extensible rubberized threads, and an outer ply of rubberized threads less extensible than the threads in the inner ply, then expanding said structure, and finally vulcanizing the rubber on said plies.

2. The method of making tires, which consists in building a tire casing structure of layers of fabric and raw rubber; the outer layer or layers being tensioned when put in position, with the fabric in the innermost of said layers left extensible relative to the outer layer or layers, confining said tire casing structure in a suitable case, then expanding said structure to a degree sufficient to stretch the fabric in the layer or layers except the innermost layer to, approximately, the limit of the elasticity of the threads of such outer fabric layer or layers, and vulcanizing said tire casing structure.

3. The method of making tires, which consists in building a tire casing structure of layers of fabric and raw rubber, the fabric in all the layers except the innermost being severely stretched when put in position, with the fabric in the innermost of said layers left extensible relative to the fabric in the outer layer or layers, confining said tire casing structure in a suitable case, then expanding said structure to a degree sufficient to stretch the fabric in the layer or layers except the innermost layer to, approximately, the limit of the elasticity of the threads of such outer fabric layer or layers, and vulcanizing said tire casing structure.

4. The method of making tire casings, which consists in building a tire casing structure of layers of fabric and raw rubber, the fabric in all the layers except the innermost being severely stretched when put in position, with the fabric in the innermost of said layers left extensible relative to the fabric in the outer layer or layers, confining said tire casing structure in a suitable case, and stretching the fabric in the layer or layers except the innermost layer to, approximately, the limit of the elasticity of the threads of such fabric by subjecting said tire casing structure to pressure by introducing a pressure medium into the structure, and vulcanizing said casing structure.

5. The method of making tire casings, which consists in building a tire casing structure of layers of fabric and raw rubber, all the layers except the innermost layer being severely stretched when put in position, with the fabric in the innermost of said layers left extensible relative to the fabric in the outer layer or layers, confining said tire casing structure in a suitable case, then placing the threads in the fabric in the outer layer or layers of fabric and raw rubber under uniform tension to, approximately, the limit of elasticity of such threads by pressure applied internally of said tire casing structure, and vulcanizing said structure, whereby the stretched threads in the outermost layer or layers are set in their stretched condition.

[Claims 6 to 8 not printed in the Gazette.]

1,130,965. TRAIN-PIPE. JOSEPH MICHEAL DORAN, Ogden, Utah. Filed May 5, 1913. Serial No. 765,484. (Cl. 137—34.)

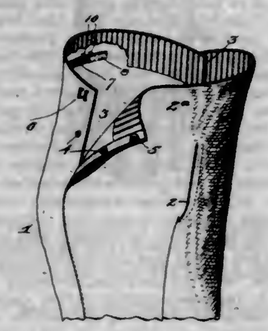


1. A pipe connection, comprising a pipe section having at one extremity a lateral offset, an elbow attached to the offset, a main elbow mounted to turn in the first elbow and provided with a gudgeon, a nipple mounted in the main elbow and having a coupling nut at its end, and a U-shaped saddle secured to the pipe section at the bend thereof and provided with an opening receiving the gudgeon of the main elbow.

2. A pipe connection, comprising a pipe section having at one end a lateral offset, an elbow attached to the offset, a main elbow connected to turn in the first elbow and provided with a gudgeon, and a U-shaped saddle straddling and secured to the pipe section at the bend thereof, said saddle being provided with an apertured ear into which the gudgeon of the main elbow projects.

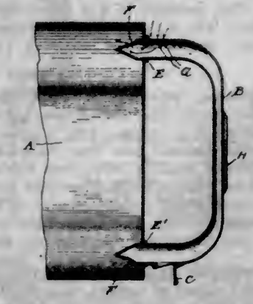
3. A pipe-connection comprising pipe-sections having offsets at their adjacent extremities, elbows carried by said offsets and projecting substantially at right angles to each other, a main elbow having legs rotatably mounted in said first elbows and having gudgeons on the outer side thereof opposite said elbows, and U-shaped brackets rigidly attached to said pipe-sections adjacent to said offsets and having openings receiving said gudgeons.

1,130,966. TROUSERS. WILLIAM H. DOWNS, Morristown, N. J. Filed Apr. 11, 1910. Serial No. 554,627. (Cl. 2—143.)



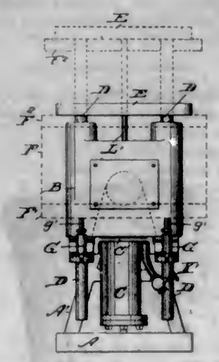
A pair of trousers having plackets at its opposite sides extending from its upper edge downward and provided with suitable closures, the front and rear portions of the upper end of said trousers being continuous from placket to placket, the said trousers being provided on the inner face of its rear portion with a series of longitudinally spaced eyes, and an elastic strip having flexible tabs at its opposite ends secured to the inner face of the rear portion of the trousers at points beyond both terminal eyes of the series, and hooks secured to said strip at the inner ends of said tabs, the bills of said hooks extending inwardly toward each other and adapted to be engaged with the eyes on the trousers.

1,130,967. MILK-CAN PERFORATOR AND POURER. DOMINIQUE D. DU BOE, Washington, D. C. Filed May 28, 1914. Serial No. 841,460. (Cl. 221—11.)



In a can perforator and pourer, the combination, with the can, of a tube having the ends bent downwardly and a portion of the tube near the ends larger in diameter than the main body, said ends forming an acute angle, the apices of which terminating in points for piercing the can, the ends being open to allow for circulation of air through the milk in the can, and a series of air inlets in one of the ends of the tube to admit air in said tube, the opposite end of the tube being provided with a weighted valve upon its outer surface for opening and closing the orifice for pouring out the milk, and securing rings secured to the ends of the tubes.

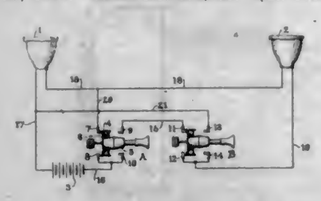
1,130,968. MOLDING-MACHINE. GEORGE L. GRIMES, Detroit, Mich. Filed Oct. 14, 1912. Serial No. 725,572. (Cl. 22—9.)



1. In a molding machine, a revolving frame, a cylinder supported by the frame, a flask carrying platform supported in the frame, a sliding piston in the cylinder connected with the flask carrying platform, swinging projecting arms carried by the frame adapted to bear upon the cover of the flask, means for conveying air into the cylinder, a valve for controlling the delivery of air under pressure to the cylinder to lift the platform, an exhaust port to release the air from the cylinder following the lifting of the platform whereby a vibratory motion may be imparted to the flask, a valve for controlling the discharge of air through the exhaust port whereby the sand in the flask may be compressed and the cover plate of the flask held in position when brought into contact with the projecting arms adapted to bear upon said cover plate, and locking means for securing the revolving frame in its adjusted position.

2. Apparatus of the kind described, comprising a flask holder mounted on a trunnion bearing and with a pressure head coöperative therewith, means for holding the flasks pressed against said pressure head as they are inverted and means for effecting a preliminary jolting of the flask holder.

1,130,969. CIRCUIT-CONTROLLER. ARTHUR H. FLEET, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 20, 1913. Serial No. 802,135. (Cl. 171—97.)



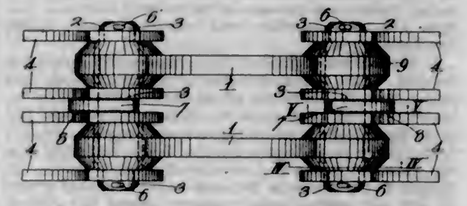
1. In an automobile lighting system, the combination with lamps and a source of current, of a circuit controller therefor having two independently movable push-and-pull actuating members and contactors selectively operable thereby for establishing either series or parallel lamp connections and for controlling the continuity of circuit from said source to said lamps.

2. In combination, a source of current, a plurality of translating devices, and a circuit-controller therefor having four pairs of contacts and having means to electrically connect said contacts in different combinations, said means being operable by two independently movable operating members to establish either series or parallel circuit connections for said translating devices and also to disconnect the latter from circuit.

3. In combination, a battery, a pair of lamps, and two two-way switches having four make and break points and being operable in predetermined relations to connect said points in pairs only for establishing an independent circuit for one of said lamps, or either series or parallel circuit for both, and further to disconnect both of said lamps from circuit.

4. In an electric lighting system, in combination, a battery, a pair of lamps, and two independently operable switches, each having two pairs of contacts to be alternately connected in opposite extreme positions of such switch whereby four variations in the circuit connections may be effected in different combinations of positions of said switches, one contact of each switch being interconnected with another contact of said switch, a third contact of each of said switches being electrically connected together, and the fourth contacts of said switches being respectively connected to said lamps intermediate the same and to one pole of said battery, and said interconnected contacts of said switches being respectively connected to the other pole of said battery and one of said lamps, the other of said lamps being connected to said first-mentioned pole of said battery.

1,130,970. CHAIN. IRA G. HEDRICK and VICTOR H. COCHRANE, Kansas City, Mo. Original application filed July 31, 1911, Serial No. 641,650. Divided and this application filed Sept. 26, 1912. Serial No. 722,477. (Cl. 74—32.)



1. A chain consisting of parallel cylindrical pins having flat faces at and midway between their ends, a pair of parallel links pivotally connecting adjacent pins between the flattened faces thereof, links arranged alternately with respect to the first-named links, and between and outward of the adjacent ends of the latter and engaging non-rotatably the midway and end flattened portions of the pins, and yokes secured to the links between the first-named links and non-rotatably engaging said midway flattened portions of the pins.

2. A chain consisting of parallel cylindrical pins having flat faces at and midway between their ends, a pair of parallel links pivotally connecting adjacent pins between the flattened faces thereof, links arranged alternately with respect to the first-named links, and between and outward of the adjacent ends of the latter and engaging non-rotatably the midway and end flattened portions of the pins, yokes secured to the links between the first-named links and non-rotatably engaging said midway flattened portions of the pins, and retaining devices to prevent endwise movement of said pins.

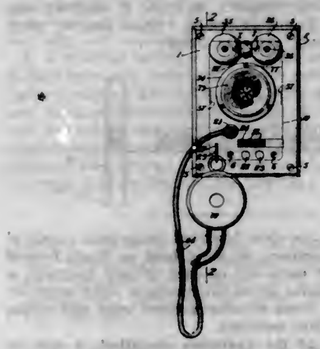
3. A chain, comprising parallel pins arranged in pairs, links pivotally connecting each pair of pins, and pairs of links bridging the spaces between adjacent pairs of pins, yokes carried by one of said pairs and nonrotatably engaging said pins at the inner sides of the first-named links, and another of said pairs fitting nonrotatably on said pins at the outer sides of the first-named links.

4. A chain, comprising parallel pins arranged in pairs, parallel links connecting each pair of pins and spaced apart, parallel links arranged alternately with respect to the first-named links and consisting of an inner pair of links mounted on the adjacent pins between the first-named links and an outer pair of links mounted on the extremities of the pins and disposed outward of the first-named links, means whereby the pins are secured in fixed relation to said inner and outer pairs of links, and yokes nonrotatably engaging the pins at points between and carried by said inner pair of links.

5. A chain, comprising parallel pins arranged in pairs and provided with flattened outer ends and flattened central portions, parallel links pivotally connecting the pins between the flattened central portions of said pins and the flattened end portions thereof, four links connecting adjacent pins of adjacent pairs of pins, two of each set of said links fitting between the flattened central portions of the pins and the said pivoted links, and the other two of each set of said links fitting nonrotatably on the flattened end portions of said pins outward of said pivoted links, and yokes fitting between and secured to the inner pair of each set of four links and nonrotatably engaging the flattened central portions of the adjacent pins.

[Claim 6 not printed in the Gazette.]

1,130,971. INTERCOMMUNICATING TELEPHONE. WILLIAM WEIR HENRY, Wollaston, Mass., assignor to S. H. Couch Co. Inc., Atlantic, Mass. Filed June 19, 1914. Serial No. 846,152. (Cl. 179—99.)



1. In telephones of the inter-communicating type, a wall plate so formed of thin material as to give the appearance of a flat plate of added thickness and a molded block of insulating material adapted to be secured to and partially within said wall plate, said block being provided with integrally formed gong support and cord bushing adapted to protrude through suitable, close-fitting openings in said wall plate; in combination with means for attaching said block to said wall plate.

2. In telephones of the inter-communicating type, a wall plate so formed of thin material as to give the appearance of a flat plate of added thickness and a formed block of insulating material adapted to be secured to and partially within said wall plate, said block being provided with integrally formed gong support and cord bushing adapted to protrude through suitable, close-fitting openings in said wall plate, and means for attaching said block to said wall plate; in combination with a cover box of thin material and provided with a plurality of spring snaps adapted to automatically engage suitable recesses in said block for the purpose of uniting said block and said box.

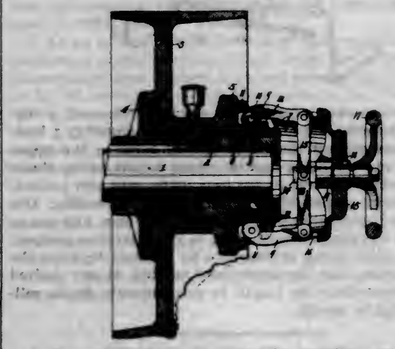
3. In telephones of the inter-communicating type, a molded block of insulating material and provided with a variety of recesses and bolt holes, the former adapted to snugly receive and hold against lateral movement a series of metal connectors and the latter, one for each connector, being adapted to house the bolts for retaining said connectors within said recesses, a wall plate adapted for mounting on said block and provided with close-fitting openings for suitable gong-support and cord bushing, and suitable gong-support and cord bushing integrally formed on said block and adapted to project through said openings; in combination with means for securing said block to said wall plate.

4. In telephones of the inter-communicating type, a wall plate of sheet metal and provided with a suitable opening for mounting the transmitter mechanism, a spun metal disk adapted to receive the mouth-piece, the diameter of said disk being larger than the diameter of said opening, and an annular ring, the difference of whose radii spans the periphery of said opening, said disk and said ring being adapted for mounting on opposite surfaces of said wall plate and over said opening, thereby inclosing the mountings for said transmitter mechanism; in combination with bolts for uniting and clamping the whole together, said bolts being so positioned as to pass through said disk and said ring and said opening, thereby engaging the periphery of the latter to prevent lateral movement of said disk with respect to said opening.

5. In telephones of the inter-communicating type, a wall plate of sheet metal and provided with a suitable opening for mounting the transmitter mechanism, means whereby said transmitter mechanism may be mounted on said wall plate and secured against lateral or perpendicular movement with respect to said plate, and a formed block of insulating material and adapted for the mounting thereon of the switch, bell-magnet and connectors, means for detachably securing said block to said wall plate, and means for securing said transmitter mechanism against rotation with respect to said plate, said means comprising an attachment between said block and said transmitter mountings.

[Claims 6 and 7 not printed in the Gazette.]

1,130,972. CLUTCH. ANTHONY L. HERKENHOFF, Minster, Ohio. Filed Sept. 10, 1914. Serial No. 861,109. (Cl. 192—7.)



1. In combination, a rotatable member, an element loosely carrying said member and having stationary parts at opposite sides of said member, a shiftable clutch member for engagement with said rotatable member in opposition to one of said parts, a collar loosely mounted for axial shifting movements intermediate said clutch member and one of said stationary parts, and a clutch lever fulcrumed to said collar and operable to exert opposed thrust action on said clutch member and the adjacent stationary part.

2. In combination, a rotatable member, an element loosely carrying said member, said element having relatively movable clutch parts for said member and having a relatively stationary thrust part, and a control lever fulcrumed intermediate said thrust part and the adjacent clutch part independently of each and operable to coact with said thrust part to impart relative clutch movements to said clutch parts and to frictionally unite said rotary member and element.

3. In combination, a rotatable member, an element loosely carrying said member, said element having relatively movable member clutching parts, a collar mounted for free axial movements on said element without one of said clutch parts, a thrust part adjustably carried by said element without said collar, and means having lever mem-

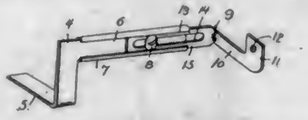
bers fulcrumed to said collar and operable to exert opposing thrusts on said thrust part and one of said clutch parts to relatively move the clutch parts to engage said rotatable member.

4. In combination, a rotatable member, a shaft, a sleeve fixed to said shaft and loosely carrying said member, said sleeve having a fixed clutch part and a movable clutch part at opposite sides of a portion of said member, a thrust-collar adjustably mounted on said sleeve without said movable clutch part in spaced relation thereto, a floating-collar intermediate said thrust-collar and movable clutch part, levers fulcrumed to said floating-collar and movable to exert opposing thrusts on said thrust-collar and movable clutch part to effect a gripping of said member by the clutch parts, and means operable to control the movements of said levers.

5. In a device of the character described, a shaft, an element rotatable with said shaft and having fixed and axially movable coöperating clutch parts, a thrust-collar without said movable part, a member mounted intermediate said movable clutch part and thrust-collar for free axial movements, levers fulcrumed to said member and having shoulders for opposed thrust contact with said thrust-collar and movable clutch part and operable to move the movable clutch part toward its companion, and a common control means for said levers.

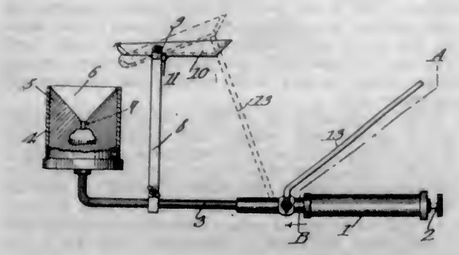
[Claim 6 not printed in the Gazette.]

1,130,973. SHADE-SUPPORT. MAX E. HERTWIG, Elizabeth, N. J. Filed July 11, 1913. Serial No. 778,605. (Cl. 156—24.)



A shade bracket including an attaching element, a supporting element, said attaching element comprising a horizontal base plate arranged to extend between the upper side of a window frame and the upper molding strip thereof, an upstanding arm on the base plate, said arm projecting at right angles thereto, a laterally extending arm formed at the upper end of the upstanding arm, and means to secure the supporting element to the attaching element, the base plate being arranged to be inserted between the window frame and the upper molding strip at any desired point intermediate its length to accommodate shade rollers varying in length.

1,130,974. CASTING APPARATUS. FREDERICK C. HINMAN, Lincoln, Nebr. Filed Sept. 8, 1914. Serial No. 860,671. (Cl. 22—73.)



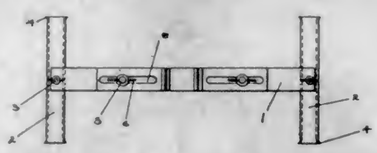
1. The combination with an investment ring, means for creating a suction therefrom, and a valve for preventing said suction, of a metal crucible tiltably mounted adjacent said investment ring, a valve stem, and means operated by said stem after the opening of the valve for tilting the crucible to discharge its contents into the ring.

2. The combination with an investment ring, means for creating a suction therefrom, and a valve for preventing the suction, of a tiltably mounted metal crucible, means for supporting said crucible in active position, and means operated by the opening of the valve for discharging the contents of the crucible into the investment ring subsequent to the opening of the valve and the establishment of the suction.

3. The combination with a suction element, a pipe extending therefrom, and an investment ring supported by said pipe, of a valve normally closing the pipe, a standard supported by the pipe, a metal crucible movably mounted upon the standard, and means operated by the opening of the valve for discharging the contents of the metal crucible into the investment ring after the valve has been opened.

4. The combination with an investment ring, means for creating a suction therefrom, a valve for preventing such suction, of a crucible tiltably mounted, and means operated by the opening of the valve for discharging the contents of said crucible into the investment ring after the valve has been opened.

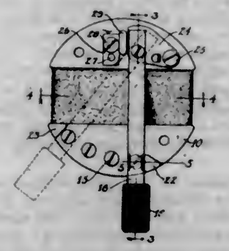
1,130,975. DOOR-SUPPORT. SAMUEL J. HOPPER and HARRY SOLEY, Woodstock, Oreg. Filed Dec. 6, 1912. Serial No. 735,247. (Cl. 144—296.)



1. An article of the class described comprising a pair of cylindrical base members, an edged bead or flange formed transversely about each end of each of said members, a spring element secured at an intermediate point upon the base members and clamp members secured upon said spring intermediate the base members.

2. In a device of the character described, a pair of cylindrical base members, a floor engaging flange formed at each terminal of said members, a spring element detachably secured at an intermediate point upon the base members, clamps adjustable relatively to each other secured centrally thereon, and a facing element secured upon each clamp.

1,130,976. RHEOSTAT. ALBERT J. HORTON, White Plains, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 9, 1912. Serial No. 719,341. (Cl. 219—48.)



1. A rheostat comprising a flat and substantially circular base having a transverse portion of reduced cross section providing a channel around the same, a resistance wound around said base in said channel, a series of contacts mounted on said base on one side of said channel and terminals and a pivoted contact lever mounted on said base on the opposite side of said channel, said contact lever coöperating with the aforesaid contacts.

2. A rheostat comprising a substantially circular base having oppositely disposed segmental portions and an intermediate portion of reduced cross section providing a channel between said segmental portions, a resistance wound around said base in said channel, an insulating filler for said channel covering said resistance, terminals and a pivoted lever mounted upon one of said segmental portions of said base and a series of contacts mounted on the other segmental portion of said base to be engaged by said contact lever.

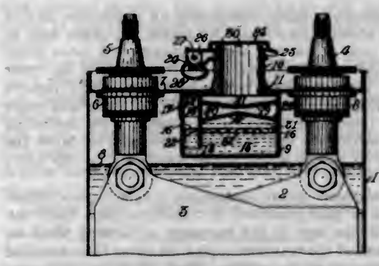
3. A rheostat comprising a flat base, a resistance wound around the same transversely thereof, said base having a series of apertures therethrough contiguous to its edge, taps for said resistance looped through said apertures and around the edge of said base to engage certain turns of said resistance and contacts fixed to said base and connected to said taps.

4. A rheostat comprising a substantially circular and flat base, a resistance wound around said base transversely thereof leaving only segmental exposed portions of said base, one of said segmental portions of said base being provided with a perpendicularly disposed barrier, and terminals fixed to said base on opposite sides of said barrier, a lever fulcrumed to one of said terminals, and a series of contacts fixed to the other segmental portion of said base to be engaged by said lever and having electrical connection with said resistance.

5. A rheostat having a base, a resistance, contacts fixed to said base and connected to said resistance, a pivoted resilient contact arm coöperating with said contacts, said arm being yieldable perpendicularly to its plane of pivoted movement and having spaced projections extending perpendicularly to its plane of pivoted movement for centering of said arm on said contacts.

[Claim 6 not printed in the Gazette.]

1,130,977. SAFETY DEVICE. MILLER REESE HUTCHISON, West Orange, N. J., assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Filed Mar. 28, 1914. Serial No. 827,784. (Cl. 204—53.)



1. The combination with a battery cell, of a fluid-containing vessel, said vessel having connections with said cell which cause gases which escape from said cell to pass through the fluid in said vessel, and means for preventing the expulsion of the fluid from said vessel by an explosion within said cell, substantially as described.

2. The combination with a receptacle, of a fluid-containing vessel having connections with said receptacle which cause gases escaping from said receptacle to pass through the fluid in said vessel, said vessel being provided with means for preventing depletion of the fluid therein when the pressure within said receptacle falls below the pressure outside thereof, substantially as described.

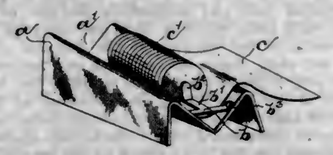
3. A safety device for storage batteries and the like, comprising a fluid-containing vessel having an inlet and an outlet above the normal level of the fluid therein, and means whereby gas passing from the inlet to the outlet is caused to pass through said fluid, said vessel being provided with means for preventing the depletion of the fluid therein when the pressure at the outlet exceeds that at the inlet, substantially as described.

4. A safety device for storage batteries and the like, comprising a fluid-containing vessel having an inlet and an outlet above the normal level of the fluid therein and a vertical partition extending into said fluid and disposed between said inlet and outlet, said partition terminating above the bottom of said vessel and being provided with a small opening below the normal level of the fluid, substantially as described.

5. In a storage battery, the combination with the container thereof, of a fluid-containing vessel supported by said container and communicating with the outside thereof, said vessel having an opening above the level of the liquid therein to establish communication with the interior of said container, and foraminous means disposed over said opening, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

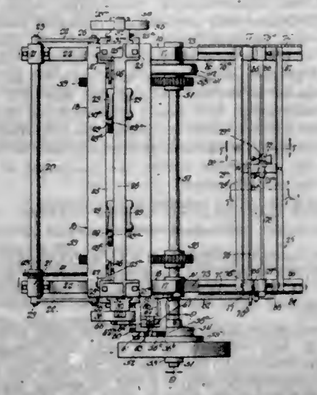
1,130,978. COIN-WRAPPING DEVICE. ALBERT CALDWELL JACKSON, Dayton, Ohio. Filed Mar. 9, 1912. Serial No. 682,772. (Cl. 133—1.)



1. As an article of manufacture, a coin wrapping device comprising in combination, a body having an unobstructed open inclined V-shaped groove, a bridge member at the lowermost end of the groove and a stop finger projection from said member along the axis of the groove and separated therefrom.

2. As an article of manufacture, a coin wrapping device comprising in combination, a body having an unobstructed substantially open inclined V-shaped groove, a bridge member at the lowermost end of the groove, a stop finger projecting from said member arranged to stop a plurality of coins a distance from said member and arranged to pass one end of a sheet of paper between the stop finger and groove to the end of said groove.

1,130,979. CUTTING-MACHINE. FRANK W. JOHNSON, Chicago, Ill., assignor of one-fourth to Bestwall Manufacturing Company, Chicago, Ill., a Corporation of Delaware. Filed Feb. 24, 1913. Serial No. 750,055. (Cl. 164—48.)



1. In a machine for cutting predetermined lengths from a continuously fed strip, a horizontally reciprocable bed-plate, a vertically reciprocable knife co-acting with said bed-plate during the movement of the bed-plate in the direction of feed of said strip, means for actuating said

bed-plate and knife in proper timed relation to complete the severing movement of the knife during the movement of the bed-plate in the said direction, said means being intermittent in operation, and a tripping mechanism located at a distance from said knife in the path of said strip and adapted to be actuated thereby for automatically starting said means into operation.

2. In a machine for cutting predetermined lengths from a continuously fed strip, a horizontally reciprocable bed-plate, a vertically reciprocable knife co-acting with said bed-plate during the movement of the bed-plate in the direction of feed of said strip, means for actuating said bed-plate and knife in proper timed relation to complete the severing movement of the knife during the movement of the bed-plate in the said direction, said means being intermittent in operation, a tripping mechanism located at a distance from said knife in the path and adapted to be actuated by said strip, to automatically start said means into operation, the position of said tripping mechanism with reference to said knife being adjustable.

3. In combination, a horizontally reciprocable bed-plate over which a strip to be cut is fed, a vertically reciprocable knife mounted upon and horizontally movable wtih said bed-plate, said knife co-acting with said bed-plate during the movement of the bed-plate in the direction of movement of said strip, means for actuating said bed-plate and knife in proper timed relation to complete the severing movement of the knife during the movement of the bed-plate in the said direction, said actuating means being intermittent in operation, a trigger mechanism spaced from said knife and adapted to be struck by the severed end of said strip, said trigger mechanism acting to start said actuating means into operation, and means for adjusting the spaced relation between said knife and trigger mechanism.

4. In combination, a horizontally reciprocable bed-plate over which a strip to be cut is fed, a vertically reciprocable knife mounted upon and horizontally movable with said bed-plate, said knife co-acting with said bed-plate during the movement of the bed-plate in one direction, means for actuating said bed-plate and knife in proper timed relation to complete the severing movement of the knife during the movement of the bed-plate in the said direction, a presser-bar actuated in the descent of said knife, a trigger mechanism spaced from said knife and adapted to be struck by the severed end of said strip, said trigger mechanism acting to start said actuating means into operation, and means for automatically stopping the movement of said bed-plate and knife when they have reached their initial positions.

5. In combination, a horizontally reciprocable bed-plate over which a continuously fed strip is adapted to pass, a vertically and longitudinally reciprocable frame mounted on said bed-plate and horizontally movable therewith, a knife carried by said frame, a presser bar actuated in advance of the downward movement of said frame, said knife and presser-bar co-acting with said bed-plate during the movement of the bed-plate in the direction of movement of said strip, and means for actuating said frame, presser-bar and bed-plate in proper timed relation to complete the severing movement of the knife and lifting movement of the presser-bar during the movement of the bed-plate in the said direction.

[Claims 6 to 12 not printed in the Gazette.]

1,130,980. RAILWAY-SIGNAL AND AUTOMATIC TRAIN-STOPPING DEVICE. HOWARD F. JONES, Warrenton, N. C. Filed June 11, 1914. Serial No. 844,535. (Cl. 246—59.)

1. A semaphore signal comprising an outer tube, a packing box in said outer tube, an inner tube telescopically mounted in the outer tube below the packing box, the tubes being of contrasting colors, a rod extending through the packing box, a piston mounted on the rod and operating in the upper portion of the outer tube, a lamp having two pairs of lenses of contrasting colors and mounted on the lower end of the inner tube and below the end of the outer tube, means communicating with the outer tube above the packing box to act on the piston to raise the inner tube into the outer tube, and means between the outer and inner tubes to partially rotate the latter.



2. A semaphore signal comprising an outer tube flared at its lower end and provided intermediate its length with a packing gland, an inner tube mounted in the outer tube below the packing gland, said tubes being contrastingly colored, a lamp on the lower end of the inner tube and provided with colored lenses corresponding to the colors of the tubes, said lamp having heat exit openings, the heat passing up into the flared end of the outer tube, means between the inner and outer tubes to cause rotation of the inner tube when same is raised or lowered, a rod extending from the inner tube and through the packing gland, a piston on the rod, and an air supply pipe communicating with the outer tube above the packing gland to supply pressure to the piston and elevate the inner tube and lamp.

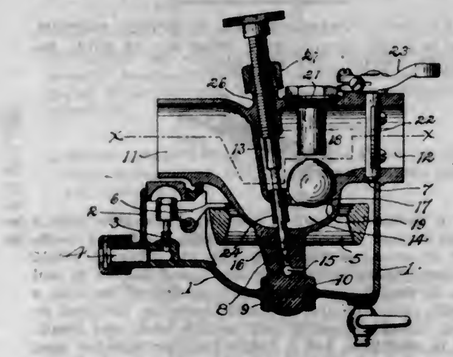
3. A semaphore signal comprising an outer tube having a packing gland intermediate its length, an inner tube in the outer tube below the packing gland, said tubes being contrastingly colored, a lamp on the lower end of the inner tube, said lamp having a series of contrastingly colored lenses corresponding to the colors on the outer and inner tubes, the inner tube having a spiral slot, a pin extending from the outer tube and into the spiral slot to cause the inner tube to rotate when moved vertically in the outer tube.

4. A semaphore signal comprising a fixed hollow standard, a pipe in said standard, a transverse pipe communicating with the pipe in the standard, a packing block on the outer end of the transverse pipe, an outer tube mounted in the lower end of the packing block, an inner tube operating in said outer tube, a lantern having contrasting lenses on the lower end of the inner tube, means for rotating the inner tube when same is moved vertically in the outer tube, a tube on the top of the packing block, a piston in the last mentioned tube, a rod extending from the piston and through the packing box and connected to the inner tube, and a branch pipe extending from the transverse pipe to the tube above the packing block to supply air to operate the piston.

1,130,981. CARBURETER. GEORGE KINGSTON, Kokomo, Ind. Filed Oct. 13, 1913. Serial No. 794,825. (Cl. 48—155.1.)

1. In a carbureter, the combination of a float chamber, a float in said chamber, a member formed with a passage formed intermediate its ends with a portion extending below the normal level of fuel in the fuel chamber and communicating with said float chamber to form a fuel puddle therein, a suction actuated valve in said passage, and an auxiliary passage opening at one end into said passage adjacent to the fuel puddle and at its opposite end into the passage at the opposite side of the valve.

2. In a carbureter, the combination of a member provided with a passage extending therethrough, means for supplying fuel to said passage, a suction actuated valve to close said passage, and a by-pass member extending past said valve with one end opening adjacent to the fuel supply and its opposite end opening into said passage at the other side of said valve.



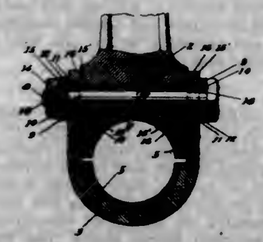
3. In a carbureter, the combination of a member forming a main air passage, a wall extending across said passage and provided with an opening, a suction actuated valve to close said opening, means for supplying fuel to said passage, and a tubular member forming a by-pass around said valve with an open end adjacent to and adjustable toward and from said fuel supplying means.

4. In a carbureter, the combination of a member forming a main air passage, a float chamber, a float in said chamber, means communicating with the float chamber to receive fuel therefrom and opening into said passage, a suction actuated valve in said passage for closing the same, and a by-pass around said valve opening at its ends into said passage at each side of said valve wth one end adjacent to and adjustable toward and from said fuel supply means.

5. In a carbureter, the combination of a member forming a main air passage, a wall extending across said passage intermediate its ends and provided with an opening forming a valve seat, a suction actuated valve engaging said seat, means for supplying fuel to the passage at the inlet side of said valve, and a by-pass comprising a tubular member extending through said wall and adjustable therethrough.

[Claims 6 and 7 not printed in the Gazette.]

1,130,982. CONNECTING-ROD. ROBERT S. KINKEAD, Minneapolis, Minn. Filed Nov. 22, 1912. Serial No. 732,939. (Cl. 74—17.)



1. The combination, with a connecting rod having a bearing at one end and a transverse hole near said bearing and guides on its outer faces on each side of said hole, of a U-shaped strap having a central bearing and end portions adapted to move between said guides and provided with holes to register with the hole in said rod, said strap holes being of greater diameter than the hole in said rod, a bolt fitting snugly within the hole in said rod and projecting through the holes in said strap and provided with a head at one end and a lock nut at its opposite end, and a pair of eccentric sleeves interposed between each of the ends of said bolt and the walls of each of said strap openings and capable of rotation in said openings, the inner sleeve of each pair being rotatable in the opposite direction from the outer sleeve of the same pair to move said strap lengthwise between said guides, both sleeves of a pair being of the same degree of eccentricity.

2. The combination, with a connecting rod having a bearing at one end and a transverse hole near said bearing, of a substantially U-shaped strap having a bearing opposite the bearing on said rod, and ends adapted to bear on the outer faces of said rod and having holes adapted to register with the hole in said rod, a bolt fitting within the hole in said rod and extending through the holes in said strap and having means for locking it in said rod, and eccentric sleeves arranged one within the other at each end of said bolt and between it and the walls of said strap holes, said sleeves being rotatable in opposite directions to move the ends of said strap lengthwise on said rod.

3. The combination, with a connecting rod having a transverse hole therein, of a U-shaped strap having ends adapted to bear on the opposite sides of said rod and having holes to register with the hole in said rod, a sleeve fitting within the hole in said rod, a bolt within said sleeve and projecting outwardly through the holes in said strap ends and having means for locking it on said strap, eccentric sleeves disposed one within another in said strap holes, one eccentric sleeve at each end of said bolt having means connecting it with said first named sleeve for simultaneous movement, the other eccentric sleeves having a key-way on said bolt, whereby the rotation of the corresponding sleeves at opposite ends of said bolt will be simultaneous.

4. The combination, with a connecting rod having a bearing at one end and a transverse hole near said bearing, of a substantially U-shaped strap having a bearing opposite the bearing on said rod and ends adapted to bear on the outer faces of said rod and having holes adapted to register with the hole in said rod, a bolt fitting within the hole in said rod and extending through the holes in said strap and having means for locking it in said rod, eccentrics arranged on said bolt, said eccentrics being rotatable in opposite directions for relative movement of said strap and rod.

5. The combination, with a connecting rod having a bearing at one end and a transverse hole near said bearing, of a substantially U-shaped strap having a bearing opposite the bearing on said rod and ends adapted to bear on the faces of said rod and having holes to register with the hole in said rod, a bolt fitting within the hole in said rod and extending through the holes in said strap and having means for locking it on said rod, eccentrics arranged one within the other on said bolt and rotatable in opposite directions for relative movement of said strap and rod.

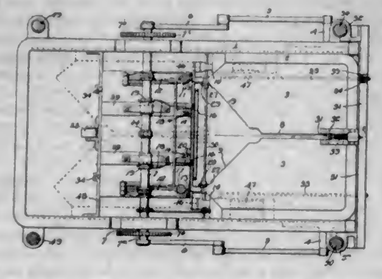
1,130,983. METAL-SHEET-SEPARATING MACHINE. WILLIAM R. KINNEAR, New Castle, Pa. Filed Sept. 22, 1910. Serial No. 583,300. (Cl. 29—17.)

1. In a machine for separating adhering sheets of metal, a separating slide comprising two blades having a space between them, the edge of each blade being broken to form a forwardly protruding point.

2. In a machine for separating adhering sheets of metal, a separating slide comprising two blades, having a space between them extending in the direction of the separation movement, the edge of each blade being broken to form a forwardly protruding point.

3. In a machine for separating adhering sheets of metal, a separating slide comprising two blades having a space between them extending longitudinally to the separation movement, along the middle line of the slide,

the edge of each blade being broken to form a forwardly protruding point.

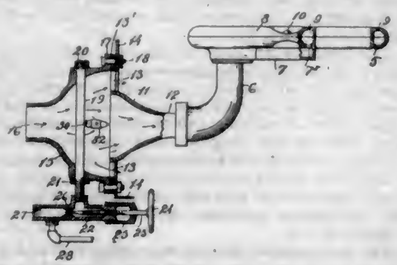


4. In a machine for separating adhering sheets of metal, a separating slide comprising two similar blades symmetrically disposed and spaced apart on opposite sides of the middle longitudinal line of the slide, the edge of each blade being broken to form a forwardly protruding point.

5. In a machine for separating adhering sheets of metal, a separating slide comprising two similar blades symmetrically disposed and spaced apart on opposite sides of the middle longitudinal line of the slide and having receding forward edges, the edge of each blade being broken to form a forwardly protruding point.

[Claims 6 to 32 not printed in the Gazette.]

1,130,984. GAS BURNER AND MIXER. ADOLPH H. KOCH, Los Angeles, Cal. Filed June 9, 1913. Serial No. 772,695. (Cl. 158—118.)



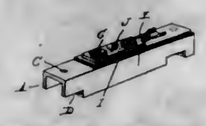
1. In a burner, a burner body, a mixer attached thereto comprising a funnel-shaped member with radial arms, a bell-shaped member, larger diametrically than the funnel-shaped member and having means for attaching the same to the funnel-shaped member, said bell shaped member having a gas-ejecting nipple and mixer within, means for supplying gas through said nipple to said funnel-shaped member, and means for supplying air to said funnel-shaped member through said bell-shaped member.

2. In a burner, in combination with a stove or heater wall, a burner body, a mixer comprising a funnel-shaped member, with its reduced end connected to the burner and attached to the inside of the stove or heater wall, a bell-shaped member diametrically larger than the funnel-shaped member attached to the enlarged end of said funnel-shaped member, the bell-shaped member having centrally a reduced air inlet opening, and discharge openings surrounding the funnel-shaped member, and a gas-mixing ejecting nipple within the bell-shaped member.

3. In a burner, a burner body, a mixer comprising a funnel member with its reduced end connected with the burner body, a bell-shaped member, larger diametrically than the funnel member and secured to said funnel member, said bell-shaped member being provided with a reduced inlet end and having discharge openings on the outer side of the funnel member, and a gas-mixing ejecting device within the bell-shaped member.

4. In a device of the character described, a funnel-shaped mixing chamber, a gas burner, a pipe leading from the small end of said mixing chamber to said burner, an air chamber communicating with said mixing chamber, means for introducing gas into said mixing chamber, and means for introducing air into said mixing chamber through said air chamber, said air chamber being provided with outlets to permit the escape of exhaust air from said chamber.

1,130,985. THERMOSTATIC ELECTRIC SWITCH. FRANK KUHN, Detroit, Mich. Filed Apr. 18, 1913. Serial No. 762,157. (Cl. 177—128.)



1. A thermostatic switch, comprising a metallic tube, a bowed member formed of metal having a different co-efficient of expansion than said tube and arranged within the same, means for securing said bowed member to said tube, an insulation mounted upon one face of the tube, a metallic strip mounted upon said insulation, insulated securing means connecting said metallic strip and insulation to said tube, and a contact member mounted upon said metallic strip, insulated from said tube and projecting into the latter into operative relation to the bowed member.

2. A thermostatic switch, comprising a metallic tube, a bowed member formed of a metal having a different co-efficient of expansion arranged within said tube and secured to one of the sides thereof at its opposite ends, a contact member mounted upon and insulated from said tube on the side opposite said bowed member, means for securing said contact member to said tube and a contact screw engaging said outer contact member and passing through an aperture in said tube into operative relation with said bowed member.

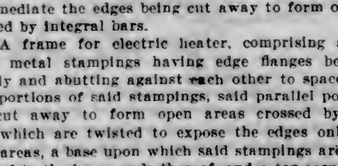
3. A thermostatic switch, comprising a metallic tube of rectangular cross section, a bowed bar formed of a metal having a different coefficient of expansion arranged within said tube and secured at its opposite ends to one of the sides of said tube, a contact member adjacent to the outer face of said side, insulation interposed between said contact member and said tube, insulated devices for securing said contact member to said tube, and a contact screw engaging said contact member and extending through an aperture in said tube into operative relation with said bowed bar.

4. A thermostatic switch, comprising a metallic tube of rectangular cross section, a bowed bar formed of metal having a different coefficient of expansion arranged within said tube and secured at its opposite ends to one of the sides of the tube, the opposite side of said tube opposite the ends of said bowed bar being cut away, a contact member adjacent to the outer face of the side of the tube to which said bowed member is secured, said contact member being insulated therefrom, and a screw engaging said contact member and extending within said tube into operative relation with said bowed bar.

1,130,986. AIR-HEATER. FRANK KUHN, Detroit, Mich. Filed June 28, 1913. Serial No. 776,254. (Cl. 219—37.)

1. The combination with a casing for containing an air heater, of a grated top for said casing having upwardly-extending lugs or pins, a super-grating supported upon said upwardly-projecting lugs or pins and provided with sockets for engaging the same, said super-grating having down-turned marginal flanges spaced from the edges of said top, and tie-bolts for securing the super-grating in place, said bolts passing through apertures in the grated top.

2. The combination with a casing for containing an air heater, of a grated top member, and a super-grating member, one of said members being provided with lugs or pins and the other member with sockets for securing said pins, whereby the super-grating is supported at a distance above



the grated top, said super-grating having down-turned marginal flanges extending but a slight distance below and spaced from the sides of the casing, providing exit for heated air.

1,130,987. ELECTRICAL HEATER. FRANK KUHN, Detroit, Mich. Filed Jan. 5, 1914. Serial No. 810,469. (Cl. 219—19.)

1. A frame for electric heater, comprising a pair of complementary sheet metal stampings having inturned edge flanges abutting against each other, and a portion of said stampings being cut away to form open areas crossed by transversely-extending integral bars, said bars being twisted to expose the edges only in the open areas.

2. A frame for electric heater, comprising a pair of sheet metal stampings having transversely-extending marginal flanges abutting against each other, the opposite edges being provided with inturned flanges, forming a guide and support for the heater element, and the portion intermediate the edges being cut away to form open areas crossed by integral bars.

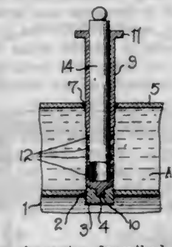
3. A frame for electric heater, comprising a pair of sheet metal stampings having edge flanges bent transversely and abutting against each other to space the parallel portions of said stampings, said parallel portions being cut away to form open areas crossed by integral bars which are twisted to expose the edges only in said open areas, a base upon which said stampings are mounted secured to the lower ends thereof, and a top secured to the upper ends of said stampings.

4. A frame for electric heater, comprising a pair of sheet metal stampings cut away to form open grids, the edges of said stampings being turned in to abut against each other, a top formed of a sheet metal stamping having downturned ends secured to the top flanges of said pair of stampings, and a sheet metal base to which the lower ends of said pairs of stampings are secured, said base being slotted for the insertion of the heating element therethrough and in between said pair of stampings.

5. A frame for electric heater, comprising a sheet metal base having downturned marginal flanges, a sheet metal top having edge flanges and downwturned ends, and a pair of sheet metal stampings extending vertically intermediate the base and the top, having side and top flanges bent inward and abutting, and secured to the downturned ends of the top, the lower ends of said pair of stampings having a bent tongue engaging with said base.

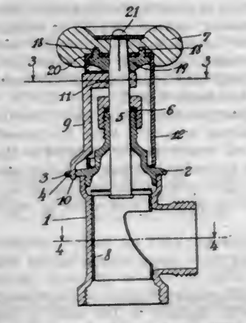
[Claims 6 to 11 not printed in the Gazette.]

1,130,988. CONTAINER. WILLIAM L. LAPE, Markleton, Pa. Filed May 29, 1914. Serial No. 841,866. (Cl. 220—120.)



A device of the character described comprising a hollow body, an outer casing surrounding said body and spaced therefrom, said body and casing being provided with alined openings, a hollow key insertible through the openings, the inner end of the key being closed and the adjacent portion thereof perforated, the imperforate portion of the key being of a length in excess of the distance between the body and the outer casing, and a plug insertible within the hollow key for closing the perforations in the key, said plug being of such a length as to contact with the closed end of the key and project beyond the open end thereof.

1,130,989. VALVE. THOMAS K. LEMON, Arverne, N. Y. Filed May 12, 1914. Serial No. 837,975. (Cl. 137—7.)



1. A valve composed of a casing, with an inlet and an outlet with a full passage way, a plug therein provided with a stem and a through way increasing in size in a lateral direction, but with its upper wall substantially horizontal, the upper part of the through way being adapted to register with the full way of the outlet, substantially as set forth.

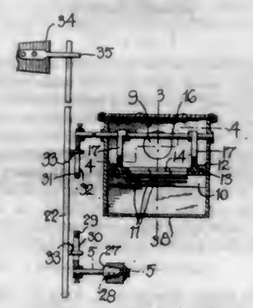
2. A regulating valve, composed of a casing, a stem, a plug, an inlet, an outlet, an adjustable casing stop, openings in the casing to receive said stop, an adjustable stem stop, means for securing it to the stem, a series of openings for the adjustable placing of the said means, all combined substantially as set forth.

3. A regulating valve composed of a casing, a stem and a plug, an inlet and outlet, an adjustable stem stop provided with a cap pierced with a series of openings, a handle, a button fitted to the stem and provided with pins adapted to register with the openings in said cap and an extension projecting toward the casing, which is also provided with a series of stop engaging openings, a cas-

ing stop swiveled on the stem and provided with a projection adapted to engage either of the casing openings and arranged as described to coöperate with the stem stop, all substantially as set forth.

4. A regulating valve, composed of a casing, with an inlet, an outlet and a series of stop engaging openings, a stem provided with a shell with a graduated opening adapted to register with a passage through the casing, a locking arm swiveled on the stem and engaging one of the openings in the casing, a stem stop with a cap extending over the stem a projection coöperating with the locking arm, said cap being provided with a series of apertures, a button fitted to the stem and provided with a pin registering with the apertures in the cap and with an aperture in the handle, a handle fitted to the stem and the pin and means for removably holding said handle to said sleeve, all substantially as set forth.

1,130,990. AUTOMATIC TRAIN-STOP DEVICE. JAMES A. LOVE, Red Springs, N. C. Filed Aug. 26, 1914. Serial No. 858,696. (Cl. 246—59.)



1. The combination with an engine throttle valve, of an operating lever for said valve fulcrumed at one of its ends, relatively stationary means adapted to engage the other end of said lever in the movement of the train in either direction to actuate the lever and close the valve, and means for latching said lever against movement after the throttle valve has been closed.

2. The combination with an engine throttle valve provided with a slotted arm, of a lever fulcrumed at one end and provided with means loosely engaged in the slot of the valve arm, and normally stationary means adapted to engage and move said lever in the movement of the train in either direction to actuate said throttle valve and close the same.

3. The combination with an engine throttle valve and an air controlled valve, each of said valves being provided with a slotted arm, of a lever pivotally mounted at one end and normally disposed in a vertical position, spaced pins on said lever engaged in the slots of the respective valve arms, stationary means adapted to engage said lever in the movement of the train in either direction to move the lever and simultaneously close said valves, and means for automatically locking the lever at the end of its movement to maintain the valves in closed position.

1,130,991. PRINTING-MACHINE. JOHN F. MAHLSTEDT, Los Angeles, Cal. Original application filed July 29, 1913, Serial No. 781,750. Divided and this application filed Jan. 19, 1914. Serial No. 812,960. (Cl. 101—78.)

1. In a printing machine, an ink plate having a stem formed with radial teeth on its end, a post having radial notches adapted to receive the radial teeth, said teeth having beveled ends, the portions of said post lying between the notches in the post having beveled ends, for automatically turning the stem to bring its teeth into register with the notches in the post.

2. In a printing machine, an ink plate, a rotatable post with which the ink plate is detachably connected, a ratchet on said post, a lever pivoted concentric with the ink plate and traveling bodily therewith, pawls on said lever engaging said ratchet, a traveling bed supporting the foregoing elements, said pawl lever having a finger, and stationary means in the path of movement of said finger for swinging said pawl lever when the finger is moved into engagement with said stationary means.



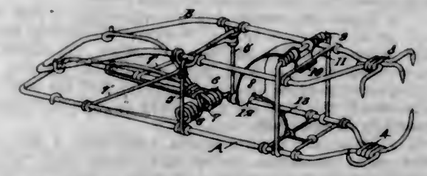
3. In a printing machine, a traveling bed, a U bar mounted thereon, a vertical post rotatable in the U bar, an ink plate detachably connected to said post, a ratchet, a pawl lever pivoted on the U bar concentric with the ink plate, a pawl carried by said pawl lever and engaging said ratchet, said pawl lever having an offset finger, and stationary means in the path of movement of said finger.

4. In a printing machine, a traveling bed, a U bar carried by the bed, a post rotatable in the U bar, an ink plate detachably mounted on said post, a ratchet on said post, a pawl lever pivoted concentric with said post, pawls on said lever engaging said ratchet, a spring connected between the U bar and pawl lever for moving the lever in one direction, said pawl lever having a finger and a stationary roller in the path of movement of said finger.

5. In a printing machine, a traveling bed, a U bar carried by the bed, a post rotatable in the U bar, an ink plate detachably mounted on said post, a ratchet on said post, a pawl lever pivoted concentric with said post, pawls on said lever engaging said ratchet, a spring connected between the U bar and pawl lever for moving the lever in one direction, said pawl lever having a finger, a stationary roller in the path of movement of said finger, pivoted means on which said roller is mounted, and spring means for yieldingly holding said pivoted roller supporting means in normal position in the path of movement of said finger.

[Claims 6 to 9 not printed in the Gazette.]

1,130,992. ANIMAL-TRAP. WALTER P. MANSFIELD, King City, Cal. Filed Jan. 3, 1914. Serial No. 810,150. (Cl. 43—21.)

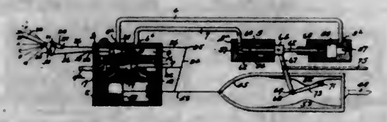


An animal trap consisting of a pair of spring actuated jaws, an arched guide carried by one of the jaws, a sear carried by the other jaw, and a trigger pivoted to the guide and adapted to be engaged by the sear to hold the jaws in set position.

1,130,993. CONTROLLING MECHANISM FOR REVERSING-ENGINES. WALTER W. MCBANE, Youngstown, Ohio, assignor to The William Tod Company, a Corporation of Ohio. Filed June 17, 1914. Serial No. 845,675. (Cl. 121—98.)

1. An engine controlling mechanism including a transmitting element for the reversing gear, a transmitting element for the throttle, said transmitting elements having parts which shiftably and reversibly interengage, a motor for operating the throttle element, and separate means for effecting one movement of the reversing element.

2. An engine controlling mechanism including an operating unit having transmitting elements respectively for the throttle and reversing gear, the throttle element having a shiftable actuating engagement with the reversing element, and a fluid pressure actuating unit for causing an automatic operation of said operating unit.



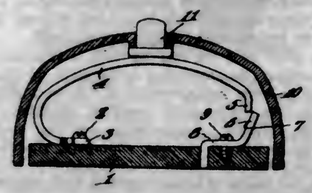
3. An engine controlling mechanism including transmitting elements respectively for the throttle and the reversing gear of an engine, the throttle element having actuating means for effecting a variable movement of the reversing element, separate means for automatically effecting an opposite movement of said reversing element, and a motor for automatically reciprocating the throttle element.

4. An engine controlling mechanism including transmitting elements respectively for the throttle and reversing gear of an engine, the throttle element being interengaged with the reversing element and having means for effecting a variable movement thereof, an automatic device actuating the reversing gear element in an opposite direction, and a fluid pressure actuating unit having means for actuating the throttle element.

5. An engine controlling mechanism including transmitting elements respectively for the throttle and reversing gear of an engine, the throttle element interengaging with the reversing gear element and having actuating means for effecting one movement of the latter, and a separate automatic device for actuating the reversing gear element in an opposite direction, said automatic device including means for reversing the operative relation of the reversing gear element to the throttle element.

[Claims 6 to 22 not printed in the Gazette.]

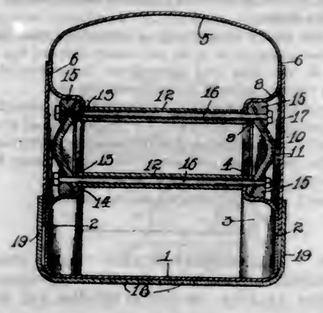
1,130,994. PUSH-BUTTON OR CIRCUIT-CLOSER. LOUIS C. F. METZGER, St. Louis, Mo. Filed Mar. 4, 1914. Serial No. 822,408. (Cl. 177—10.)



A circuit closer, including a base of insulating material, a resilient contact member made from a single strand of wire, one end being provided with a base entering terminal and an eye, a screw insertible through the eye for holding the contact member to the base, said screw forming one terminal connection for an electrical circuit, the other end of the contact members being straight, and a stationary contact member having a prong entering the base and provided with an aperture, a screw entering the aperture of the stationary contact member for securing the same to the base and forming the other terminal of the electrical circuit, said stationary contact member being provided with an upwardly inclined plate bent outwardly relatively to the free straight terminal or end of the resilient contact member, whereby when the resilient contact member is depressed, the end of the straight terminal thereof will slidably engage and wipe the inner inclined face of said plate.

1,130,995. ARMORED PNEUMATIC TIRE. WILLIAM ROBERT MORRISON, Chicago, Ill. Filed May 12, 1913. Serial No. 767,000. (Cl. 152—34.)

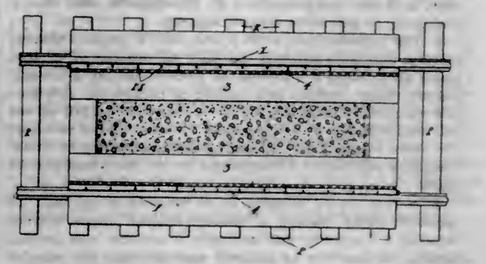
1. In a device of the class described, rim and tread members, oppositely directed flanges on each side of said rim and tread members which are substantially straight for a portion of their length and then curved inwardly and near their margins outwardly, transverse tubular members connecting the inner faces of the outwardly curved portions of said flanges, flexible air tight connections between the corresponding flanges of said rim and tread channel, annular rings positioned against the ends of said flexible connections, and bolts extending through said tubular members, flanges, flexible connections and annular rings, and adapted when tightened to firmly bind said annular rings and flexible members firmly against said respective rim and tread flanges.



2. In a device of the class described, rim and tread members, transverse tubular members connecting the inner faces of the rim and tread members, flexible air tight connections between the corresponding sides of said rim and tread members, annular rings positioned against the ends of said flexible conections, and bolts extending through said tubular members, flexible connections and annular rings and adapted when tightened to firmly bind said annular rings and flexible members firmly against said respective rim and tread flanges.

3. In a device of the class described, rim and tread members, flanges integral therewith, transverse tubular members extending within said tread members and connecting the inner faces of said flanges, flexible air tight connections between the corresponding sides of said flanges, and bolts extending through said transverse tubular members and flexible connections and adapted when tightened to firmly bind said flexible members against the sides of said flanges.

1,130,996. FLANGEWAY-GUARD FOR HIGHWAY-CROSSINGS. WALTER S. NEWHALL, Cleveland, Ohio. Filed Apr. 20, 1914. Serial No. 833,056. (Cl. 104—50.)



1. The combination with a rail and a plank adjacent thereto and substantially parallel therewith, of a foot guard comprising a longitudinal member having a trough-shaped upper surface and having a web portion adapted to be supported by the base of the rail at one side and a projection abutting the web of the rail, said guard bearing against the edge of the plank whereby said guard is supported at the other side.

2. The combination with rails and the filler between the rails at a crossing of a trackway, of a foot guard compris-

ing a longitudinal member adapted to engage the under side of the head of the rail and having transverse webs projecting downwardly and resting at one side on the base of the rail and abutting at the other side of the edge of the filler between the rails, and having a projection extending under the plank.

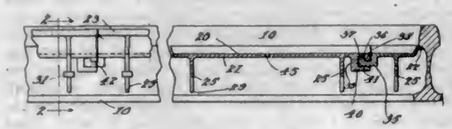
3. The combination, with a rail and the usual filler between the rails of a crossing, of a foot guard comprising a longitudinal member having a portion adapted to fit under the head of the rail and having transverse webs abutting the web and the base of the rail at one side and resting against the edge of the filler between the rails at the other side, whereby the foot guard is supported by the rail and by the filler.

4. A foot guard comprising a trough-shaped longitudinal member adapted to abut the under side of the head of the rail at one side and formed at the other side with means to extend beneath an adjacent plank.

5. A foot guard comprising a longitudinal trough-shaped member providing a clearance for the flanges of the wheels of a vehicle on a trackway, said member carrying on its under side near the end means whereby it may be interlocked with an alined member.

[Claims 6 to 11 not printed in the Gazette.]

1,130,997. FLANGEWAY-GUARD FOR HIGHWAY-CROSSINGS. WALTER S. NEWHALL, Cleveland, Ohio. Filed Nov. 19, 1914. Serial No. 873,040. (Cl. 104—14.)



1. A foot guard adapted to fit between a rail and an adjacent plank having a trough-shaped surface forming a flangeway and having a transverse web portion, one edge abutting the under side of the rail head and the upper face of the flange and formed to bear against the web immediately below the head and immediately above the flange and having a cut-away portion at the center of this edge, the other edge of said web portion being formed to bear against the vertical edge of the plank.

2. A foot guard adapted to fit between a rail and an adjacent plank having a trough-shaped surface forming a flangeway and having a transverse web portion, one edge abutting the under side of the rail head and conforming to the shape of the web and resting on the flange of the rail and having a cut-away portion at the center of this edge, said web being provided at the opposite edge with a projection to extend beneath the plank.

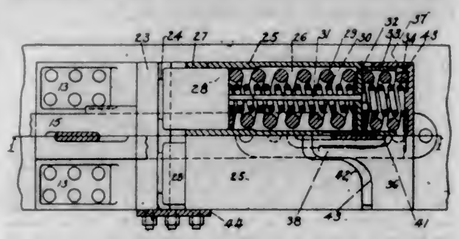
3. The combination with a rail and a plank adjacent thereto and substantially parallel therewith, of a foot guard comprising a longitudinal member having a trough-shaped upper surface and having a transverse web portion adapted to be supported by the base of the rail at one side and adapted to bear against the edge of the plank at the other side and having a projection extending in under the plank adapted to be supported by the filler beneath the plank.

4. A foot guard adapted to fit between a rail and an adjacent plank having a through-shaped upper surface forming a flangeway and having a transverse web portion resting on the base of the rail and abutting the edge of the plank and having a projection extending in under the plank, said projection being wider than the web portion and adapted to rest on the filler beneath the plank.

5. The combination, with a rail and an adjacent plank, of a plurality of alined foot guards in the space between the rail and the plank, said adjacent foot guards being provided with means interlocking with another for preventing upward movement of either foot guard with reference to the other.

[Claims 6 to 10 not printed in the Gazette.]

1,130,998. HIGH-CAPACITY TWIN-FRICTION DRAFT-GEAR. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Dec. 13, 1913. Serial No. 806,390. (Cl. 213—64.)



1. In a draft gear, in combination: a draw-bar; links connected therewith; two casings longitudinally movable with respect to each other and having preliminary compression springs interposed therebetween; a key connecting said links and passing through slots in both of said casings; and twin arranged friction mechanisms in one of said casings, substantially as specified.

2. A draft gear including, in combination: a draw-bar; a front follower; links connected with said draw-bar; a casing having main spring chambers in twin arrangement therewithin one above the other, said casing having also friction shells in alinement with the spring chambers; springs within said chambers; friction shoes and spreaders within the friction shells, the spreaders being in engagement with the front follower; another casing located at the rear of said first named casing; preliminary compression springs interposed between said casings; and a key connecting said casings and links, substantially as specified.

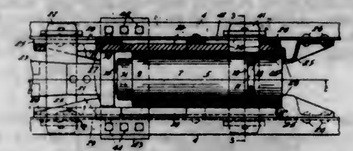
3. In a draft gear, in combination: a draw-bar; two casings longitudinally movable with respect to each other; preliminary compression springs interposed between said casing; a key passing through slots in both of said casings to thereby hold the same together; twin arranged friction mechanisms in one of said casings; and means connected with the draw-bar for operating said casings and compressing the springs and friction mechanisms.

4. In a draft gear for railway cars, a shell having forwardly opening chambers and rearwardly opening chambers, each in twin arrangement, a follower, preliminary springs in the rearwardly opening chambers bearing against the follower, compression resisting elements in each of the forwardly opening chambers, the shell being provided on either side with a median groove between the chambers, the follower being provided with wings adapted to reciprocate in said grooves.

5. In a draft gear for railway cars, a shell, chambers in said shell in twin arrangement, compression resisting elements in each of said chambers, preliminary springs and a follower, the preliminary springs being seated between the follower and the shell, the shell being provided at either side with longitudinal grooves, the follower being provided with wings adapted to reciprocate in said grooves.

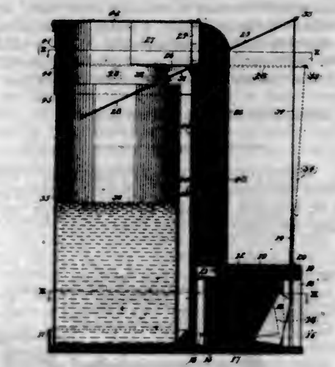
1,130,999. RAILWAY DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 4, 1914. Serial No. 822,405. (Cl. 213—64.)

1. In a draft rigging for railway cars, the combination with a draw-bar, draft sills and stop members secured to the inner sides of the draft sills and provided with rear stop shoulders, of front and rear followers, a draft gear comprising a shell provided with chambers in vertical twin arrangement therein, friction and spring elements in each of said chambers, and a transversely extending key, the rear follower being slidably connected to the shell and the key passing through the shell and draft sills to slidably engage the rear follower with the shell, the rear follower abutting the rear stop shoulders under buff and in normal position of the parts.



2. In a draft rigging for railway cars, in combination, draft sills, stop members secured thereto and provided with rear stop shoulders, a draw-bar, links connected with said draw-bar, two casings longitudinally movable with respect to each other, a preliminary compression spring interposed between said casings, a key connecting said links and passing through slots in both of said casings, and friction mechanism located in one of said casings, the rear one of said casings abutting the rear stop shoulders in normal position of the parts.

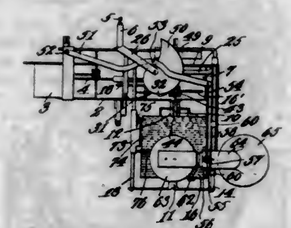
1,131,000. RAT-TRAP. SILVESTER ONYSKOW, Jenkins, Ky., assignor of one-half to Peter Godiesky, Jenkins, Ky. Filed July 30, 1914. Serial No. 854,164. (Cl. 43—26.)



A trap comprising a catching casing having an exit opening in the top thereof, a drop door slidably mounted at the front thereof, a trip board pivoted within said casing, a lock arm forwardly positioned upon said board and adapted for projecting beneath said door when the latter is in its open position, a relatively larger casing, said last named casing having an entrance opening adjacent the top thereof, a passageway between the openings of said casings, a liquid container within said casing, a bail arm pivoted to the upper edge of the front wall, a flexible connection between the outer end of the bail arm and the upper end of the drop door, a platform rigidly secured within the larger casing adjacent the upper edge of the front wall thereof, said bail having its ends curved and positioned beneath the platform and extending within the larger casing beyond its pivot point and terminating adjacent the inner edge of the platform, and a tilting platform secured to the inner bent ends of the bail arm normally lying in a plane continuous with the rigid platform, the connection between the bail ends and tilting platform adapted to be moved relative to the inner edge of the rigid platform to afford a space between the meeting edges of the platforms when the drop door is held elevated.

1,131,001. PHONOGRAPH ATTACHMENT FOR CLOCKS. JAMES H. PEARSON, St. Louis, Mo., assignor of one-third to William W. Carter and one-third to Harvey L. Doney, Bloomfield, Ind. Filed Apr. 24, 1913. Serial No. 763,406. (Cl. 181—9.)

1. The combination with power actuated mechanism of a rod, a carriage mounted to slide and rotate on the rod, a reproducer and a sound amplifier connected to the carriage, means operated by said mechanism for sliding the carriage in one direction, a guide member parallel with the rod and having a resilient depending end portion, means on the reproducer adapted to travel under said guide member to hold the reproducer in contact with a record during the movement of the reproducer in one direction and to move out of contact with said depending end portion when the reproducer reaches one end of the record in said means and the depending end portion of the guide member coöperating to lift the reproducer out of contact with the record during the movement of the reproducer in the opposite direction, and means for automatically shifting the reproducer in the last named direction when released from the action of the means for sliding it.



2. The combination with a record support, and power actuated mechanism for driving the same, of a rod, a carriage mounted to slide and rotate upon the rod, a reproducer movable with the carriage and normally bearing upon the record, a guide having a resilient depending finger, means for shifting the carriage along the rod in one direction, means for automatically returning the carriage and reproducer to their initial position, and means upon the reproducer and movable under the guide member during the movement of the carriage in one direction for holding the reproducer in contact with the record, said last named means being adapted to push the finger upwardly out of its path during such movement, and to move over the depending finger and onto the guide member during the movement of the reproducer in the opposite direction for supporting said reproducer out of contact with the record.

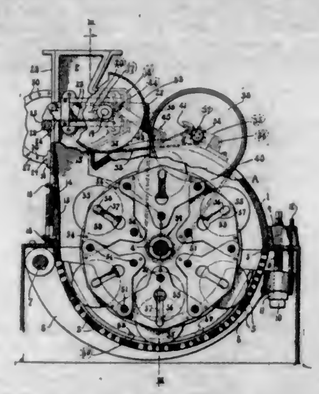
3. The combination with a carriage mounted to slide and rotate, a reproducer movable with the carriage, and a horn extending from the carriage, of a casing having an outlet opening, a slide for closing the opening, means for actuating the slide, and means upon the slide for engaging the horn to rotate the carriage when the slide is moved to closed position and move the reproducer out of operative position.

4. The combination with a guide member having a spring finger at one end thereof, said finger being downturned, of a carriage, a pin movable with the carriage and adapted, during the movement of the carriage in one direction, to ride under the guide and finger, said pin engaging the finger to lift the finger out of normal position and being movable past and out of contact with the finger, said pin being movable onto the finger and guide when the carriage is moved in the opposite direction, and means for moving the carriage back and forth relatively to the guide, said guide and finger coöperating to hold the carriage in lowered position during its movement in one direction and to lift the carriage durings its return movement.

1,131,002. CRUSHER. THEODORE F. PHILIPPI, East St. Louis, Ill. Filed Apr. 24, 1914. Serial No. 834,045. (Cl. 83—9.)

1. A crusher comprising a casing, a movable crushing element in said casing, a grate adjacent to said movable crushing element, arms at the sides of said grate, means for adjusting said arms and grate to shift the grate toward said movable crushing element, said casing being provided with slots, and screws passing through said slots and secured to said arms, said crews being provided with heads which lie exteriorly of said casing.

2. A crusher comprising a casing, and a rotor in said casing, said rotor comprising a series of slotted frames arranged in pairs, a series of pins each of which is slidably mounted in the slots of a pair of said frames, said pins being movable toward and away from the axis of said rotor, and crushing rollers rotatably mounted on said pins, each of said pins being provided with an enlarged middle portion which lies between a pair of said frames, and the slots in the frames being closed at their outer ends and enlarged near their inner ends to permit the removal of said pins.



3. A crusher comprising a casing, and a rotor in said casing, said rotor comprising a series of frames provided with keyhole slots, a series of pins each of which is slidably mounted in a pair of said frames, each of said pins being provided with reduced ends which lie in the slots of a pair of said frames and also provided with a circular middle portion which lies between said frames, said pins being movable toward and away from the axis of the rotor, and crushing rollers rotatably mounted on the circular middle portion of said pins.

4. A crusher comprising a casing, and a rotor in said casing, said rotor comprising frames provided with slots, a series of pins slidably mounted in said slots and adapted to move toward and away from the axis of said rotor, crushing rollers rotatably mounted on said pins, the inner end portions of said slots being enlarged to permit the removal of said pins, and abutments, removably secured to said rotor, adapted to limit the inward movement of said pins.

5. A crusher comprising a casing, and a rotor in said casing, said rotor comprising side members, a series of rods mounted in said side members, a series of crusher holders removably mounted on said rods, each of said crusher holders comprising a pair of frames rigidly connected to each other, and crushing rollers arranged between said frames, each of said crushing rollers being provided with a supporting pin which extends into a pair of said frames.

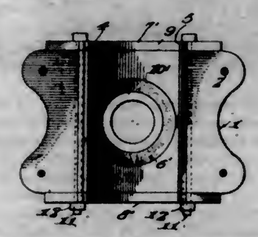
[Claims 6 to 12 not printed in the Gazette.]

1,131,003. HIGH-PRESSURE-PIPE SADDLE. DALTON U. POWELL and JOHN W. HARDWICK, Cambridge, Ohio. Filed May 4, 1914. Serial No. 836,246. (Cl. 137—73.)

1. A pipe saddle provided with a concave inner face to conform to the peripheral portion of the pipe and having an opening extending centrally therethrough, ribs extending longitudinally of said saddle on opposite sides of said opening, a packing arranged around said opening between said ribs, and followers slidable longitudinally on said saddle between said ribs.

2. A pipe saddle having a packing seat arranged on one face thereof, a packing disposed in said seat, and removable and fixed means for compressing said packing longitudinally and transversely respectively.

3. A pipe saddle having a concave inner face with a central opening therein provided with a surrounding flange, a packing adapted to encircle said opening, and means for compressing said packing in directions at right angles to each other, one of said means being movable and the other being fixed.

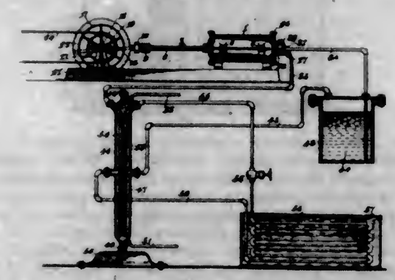


4. A pipe saddle having a concave inner face with a central opening therein provided with a surrounding flange, a packing adapted to encircle said opening, and means for compressing said packing in directions at right angles to each other, one of said means being fixed and carried by said saddle and the other being movable, and means for adjusting said movable means.

5. A pipe saddle having a concave inner face with an opening extending therethrough, a flange surrounding said opening, ribs extending longitudinally of said saddle on opposite sides of said opening, and followers operable between said ribs for compressing said packing in one direction.

[Claim 6 not printed in the Gazette.]

1,131,004. REFRIGERATING APPARATUS. WILLIAM M. PRUETT, Greensboro, N. C., assignor of two-thirds to Joseph W. Krueger, Atlanta, Ga. Filed Sept. 25, 1913. Serial No. 791,796. (Cl. 62—115.)

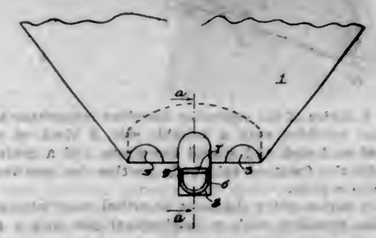


1. In a refrigerating apparatus, a refrigerating coil, a compressor having an intake and discharge, a spiral condenser coil connected on one side with the compressor and on the other side with the refrigerating coil, a cooling chamber inclosing the condenser coil and provided with means for the flow of a cooling medium therethrough, and another spiral coil within the cooling chamber in close and substantially parallel relation to the first-named coil therein, said second coil being connected on one side to the refrigerating coil and on the other side to the intake of the compressor.

2. In a refrigerating apparatus, a refrigerating coil, a compressor having an intake and a discharge, a spiral condenser coil connected at the central portion with the discharge of the compressor and at the marginal portion with the refrigerator coil, a cooling chamber or casing inclosing the condenser coil and provided with means for the inlet and discharge of a cooling medium, and another spiral coil housed within the cooling chamber in close and substantially parallel relation to the first-named coil, the second-named spiral coil having its central portion connected to the refrigerating coil and its marginal portion to the intake of the compressor.

3. In refrigerating apparatus, a condenser comprising a casing with two closely associated coils in parallel relation, each coil being in the form of a spiral and provided at the ends with inlet and outlet means with those of one coil being independent of those of the other, and the casing having inlet and outlet means for a cooling medium independent of the coils.
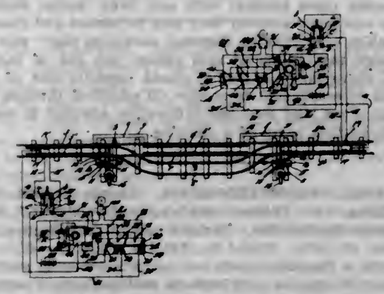
1,131,005. TAB FOR PERFORATED MUSIC-SHEETS. WILLIAM H. REES, New York, N. Y. Filed Oct. 22, 1913. Serial No. 796,579. (Cl. 84—162.)



1. The combination with a perforated music sheet, of a strip of flexible material secured to said sheet, and provided with a downwardly projecting doubled over tongue, the inner layers of said tongue having notches in the side edges and the two layers of the tongue being secured together above and below said notches to form a transverse pocket on the back of the tongue and a metal loop having a straight cross piece resting within said pocket, the upper ends of the shanks of the loop passing through the above mentioned notches in the inner layer of said tongue, substantially as set forth.
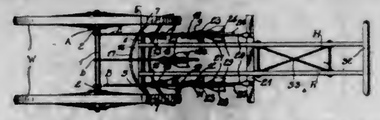
2. The combination with a perforated music sheet, of a strip of flexible material secured to the end of the same and provided with a downwardly extending doubled over tongue, having two opposite notches in the side edges of its inner layer, the two layers of said tongue being secured together above and below said notches to form a transverse pocket on the rear of the tongue and a metal loop having a straight cross piece within said pocket, the ends of the shanks being in the notches and the loop being curved or angularly bent downward and outward from the back of the tongue, substantially as set forth.

1,131,006. ELECTRIC SIGNAL SYSTEM. EDWARD A. REYNOLDS and HENRY V. REYNOLDS, Anderson, Ind. Filed Nov. 9, 1912. Serial No. 730,457. (Cl. 246—26.)



In an electrical train signal system, the traffic rails, two parallel conductors, a partial circuit carried by a train and including a source of electrical energy, two independent contact members carried by the train and in said partial circuit, said members engaging the respective parallel conductors, a pole changer included in the partial circuit, a signal device also included in the partial circuit, a telephone set, a conductor leading from the telephone set and grounded through the wheels of the train to the traffic rails, and a switch having a plurality of members, one of which is connected to the source of electrical energy at all times, and another of which connects and disconnects the telephone set to and from said source and one of the independent contact members.

1,131,007. GARDEN-PLOW. JAMES H. RHOTEN, Danville, Ill. Filed Feb. 12, 1914. Serial No. 818,368. (Cl. 97—42.)



A hand plow comprising a supporting axle, a number of draw-bars extending rearwardly therefrom, a transverse rod passing through said draw-bars, an operating handle in the form of spaced side bars inclining upwardly and rearwardly from said rod and having their forward ends mounted thereon, spacing sleeves between said forward ends of the bars and said draw-bars, nuts on the opposite ends of said rod, a transverse hand grip carried by the rear ends of said side bars, and adjustable brace bars connected to certain of said draw-bars and to said side bars.

1,131,008. IRONING-BOARD. EDWARD O. RINGLAND and WILLIAM F. ENGLISH, Petros, Tenn. Filed Nov. 3, 1910, Serial No. 590,465. Renewed July 31, 1914. Serial No. 854,398. (Cl. 68—10.)

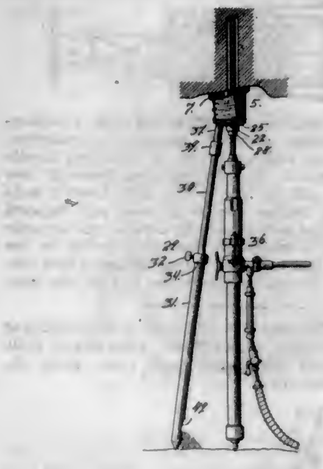


An ironing board including a back board having a recess, a sleeve board hingedly connected thereto, and foldable into the recess, a stop block secured to the back board adjacent the recess, a combined stop and spacing element secured to the lower face of the sleeve board, a bracing element hingedly connected to the lower face of the sleeve board and limited in its swinging movement by said block, an ironing board hingedly connected to the back board, a bracing element hingedly connected to the lower face of the ironing board, said ironing board being movable upwardly against the block on the lower face of the sleeve board to swing said board into the recess, the said ironing board contacting with the block and with the stop block when the two boards are folded, and a catch for automatically engaging the ironing board to lock the boards in folded position.

1,131,009. DUST-COLLECTOR FOR ROCK-DRILLS. FRANK RYLANDER, Dumont, Colo. Filed Mar. 17, 1914. Serial No. 825,278. (Cl. 255—50.)

1. A dust collector for rock drills, comprising a hood and supporting standard connected with the hood and formed hollow to permit the escape of the rock cuttings.

2. A dust collector for rock drills, comprising a hood having a shoulder at its outer extremity, a rigid bottom and an expanding spring located between the bottom and the shoulder, the bottom having an opening through which the drill steel passes and a second opening for the escape of the rock cuttings, and a supporting standard communicating with the bottom of the hood and having a passage registering with the second opening for guiding the rock cuttings downwardly therethrough.



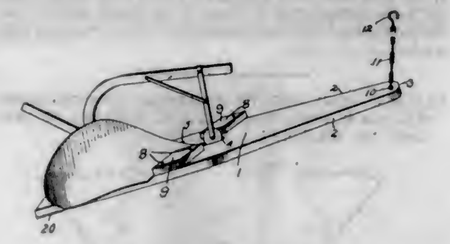
3. A dust collector for rock drills, comprising a hood having a shoulder at its outer extremity, a rigid bottom and an expanding spring located between the bottom and the shoulder, the bottom having an opening through which the drill steel passes and a second opening for the escape of the rock cuttings, and a supporting standard communicating with the bottom of the hood and having a passage registering with the second opening for guiding the said rock cuttings downwardly therethrough, the bottom being also provided with a collar projecting therefrom inwardly around the drill steel to prevent the rock cuttings from entering the bottom opening through which the steel passes.

4. A dust collector for rock drills, comprising a hood having a shoulder at its outer extremity, a rigid bottom, an expanding spring located between the bottom and the shoulder, the bottom having an opening through which the drill steel passes, the said opening being surrounded by an inwardly projecting collar, the bottom also having a second opening for the escape of the rock cuttings, an exteriorly located sleeve swiveled on the bottom of the hood and having an opening shaped to approximately fit the drill steel and rotatable therewith, while allowing the steel to pass freely therethrough in the direction of its axis, a gasket located within the sleeve and also surrounding the drill steel, a second sleeve threaded into the first sleeve and acting on the gasket to form a dust tight joint around the drill steel.

5. A dust collector for rock drills, comprising a hood having a shoulder at its outer extremity, a rigid bottom, an expanding spring located between the bottom and the shoulder, the bottom having an opening through which the drill steel passes, said opening being shaped to allow the drill steel to rotate therein as well as pass therethrough, and a second opening for the escape of the rock cuttings, means applied exteriorly to the bottom of the hood to form a dust tight joint, the said means being rotatable with the drill steel, and a hollow supporting standard connecting with the bottom of the hood to allow the rock cuttings to enter as they pass through the second opening in the bottom, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

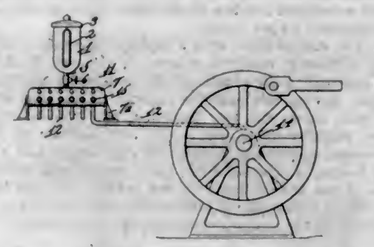
1,131,010. PLOW-DRAG. GEORGE A. SANFORD, Tipton county, Tenn. Filed July 30, 1914. Serial No. 854,103. (Cl. 21—120.)



1. A device of the character described comprising a body portion provided with a suitable slot, a block on either side of said slot, and spaced therefrom, and a chain carried by the front of said body portion for securing the same to a plow.

2. A device of the character described comprising a body portion provided with a longitudinal slot and a transverse slot, a block on either side of said longitudinal slot, and spaced therefrom, and means for securing said body portion to a plow.

1,131,011. GRAVITY-FEED LUBRICATING SYSTEM. FRANK A. SHOEMAKER and WILLIAM E. ARCHER, Norristown, Pa. Filed Aug. 19, 1914. Serial No. 857,462. (Cl. 184—81.)

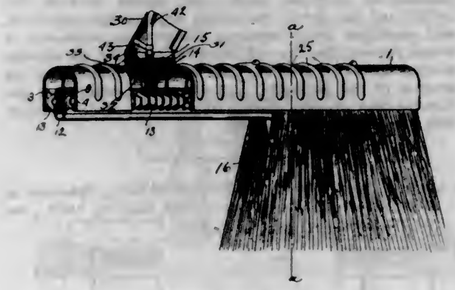


In a device of the kind described in combination, an oil retainer, a casing, said retainer mounted above said casing, a distributing tank mounted within said casing, a pipe leading from said retainer to said tank, a plurality of outlet pipes integral with said tank, means mounted upon said pipes whereby they may be opened and closed, a plurality of vertically disposed conveying-pipes mounted through the bottom of said casing, one end of each of said conveying-pipes being placed opposite one of said outlet pipes adapted to receive oil admitted through said outlet pipes, and said conveying-pipes adapted to convey oil to various parts of a machine.

1,131,012. FOUNTAIN-BRUSH. JASPER SPEESE, West Milton, Pa. Original application filed Sept. 7, 1910, Serial No. 580,844. Divided and this application filed Jan. 20, 1913. Serial No. 743,228. (Cl. 15—47.)

1. In a fountain brush two opposite clamping surfaces, a mass of bristles held between said surfaces, a series of tongues having their upper edges inclined outward and downward from their bases carried by one of said clamping surfaces extending into the mass of bristles, and means for supplying liquid to the mass of bristles.

2. In a fountain brush, two opposite clamping surfaces, a mass of bristles held between said surfaces, tongues having their upper edges inclined outward and downward from their bases carried by one of said clamping surfaces extending into the mass of bristles and separating them into bunches, absorbent material extending through the bases of the tongues and means for supplying liquid to the clamping surface carrying the tongues above the upper edges of the bases of the tongues.



3. In a fountain brush, two opposite clamping surfaces, a mass of bristles held between them, tongues having their upper edges inclined outward and downward from their bases carried by one of said clamping surfaces extending into the mass of bristles and separating them into bunches, absorbent material extending along the ends of the tongues, and means for supplying liquid to the clamping surface carrying the tongues above the upper edges of the bases of the tongues.

4. In a fountain brush, two opposite clamping surfaces, a mass of bristles held between them, a series of tongues carried by each of said clamping surfaces having their upper edges inclined outward and downward from their bases, extending through the mass of bristles and separating them into bunches, absorbent material extending through the bases of the tongues and means for supplying liquid to one of the clamping surfaces above the edges of the bases of the tongues carried by it.

5. In a fountain brush, two opposite clamping surfaces, a mass of bristles held between them, a series of tongues carried by each of said clamping surfaces, having their upper edges inclined outward and downward from their bases and having their lower edges inclined outward and upward from their bases, the tongues of one clamping surface extending into the spaces between the tongues of the other clamping surface, absorbent material extending through the bases of each series of tongues, the length of the tongues being such that their tips are in contact with the absorbent material passing through the opposite set of tongues and means for supplying liquid to one of the clamping surfaces above the upper edges of the bases of the tongues carried by it.

[Claim 6 not printed in the Gazette.]

1,131,013. PLANTER. DEWEY D. STEPHENS, Ainsworth, Iowa. Continuation in part of application Serial No. 394,860, filed Sept. 27, 1907. This application filed Aug. 15, 1911. Serial No. 644,118. (Cl. 111—6.)

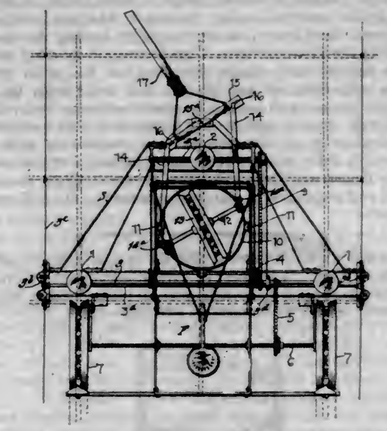
1. In a corn planter of the kind described, driving wheels, a single steering wheel and a set of seed boxes located in triangular relation to each other in advance of the driving and steering wheels.

2. In a corn planter of the kind described, driving wheels, a single steering wheel, a seed box located in advance of each of said wheels, and a fifth wheel in which said steering wheel is mounted.

3. In a corn planter of the kind described, a single steering wheel, a movable draft tongue, an operating connection between tongue and the steering wheel, and a seed box located in advance of said single steering wheel.

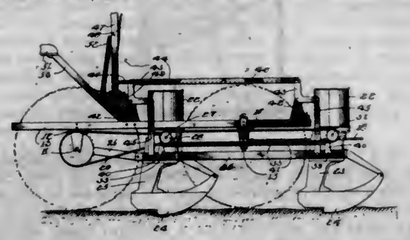
4. In a corn planter of the kind described, a pair of driving wheels, a seed box in front of each driving wheel, a fifth wheel, and a steering wheel mounted in said fifth wheel in advance of the driving wheels, and a seed box located in advance of the steering wheel.

5. In a three row corn planter, a pair of driving wheels spaced a distance equal to twice the distance between two adjacent rows to be planted, planting means immediately in advance of each of said wheels whereby the wheels act as covering wheels, a steering wheel carried in advance of the driving wheels and positioned to travel over the



row intermediate the rows covered by the driving wheels, and seed planting means in front of said steering wheel whereby the steering wheel also acts as a covering wheel.

1,131,014. ELEVATING MECHANISM FOR CORN-PLANTERS. DEWEY D. STEPHENS, Ainsworth, Iowa. Filed Nov. 20, 1911. Serial No. 661,271. (Cl. 111—5.)



1. In a three-row corn planter, lateral seeding devices, each including a shoe, and an intermediate seeding device in advance of the lateral devices, and including a shoe, and means to simultaneously lift all of said shoes substantially equal distances from the ground.

2. In a three-row corn planter, lateral seeding devices, each including a shoe, an intermediate seeding device spaced in advance of the lateral devices a distance equal to one hill, said last-mentioned device including a shoe, and means for simultaneously raising all of said shoes substantially equal distances from the ground.

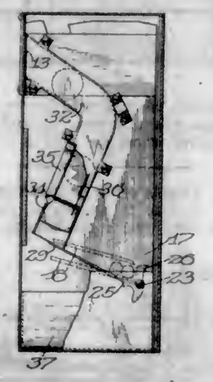
3. In a three-row corn planter, the combination of a main frame, three ground wheels upon which the frame is solely supported, two of the wheels being positioned at transversely opposite points and the third wheel being positioned between the two said wheels and a substantial distance in advance of them, a secondary frame mounted for parallel vertical movement relative to itself and to the main frame, means within the control of an operator on the planter for moving the secondary frame with respect to the main frame, and three seed separating and depositing devices mounted on the secondary frame, each device comprising a furrow opening runner directly in advance of a ground wheel, the ground wheels thus serving as covering devices.

4. In a three-row corn planter, a main frame, a secondary frame, seeding devices carried by the rear portion of the secondary frame, an intermediate seeding device carried by the front portion of said frame in advance of the rear devices, bell cranks journaled on the main frame,

links connecting an arm of each bell crank with the secondary frame, and means to simultaneously rock all of said bell cranks.

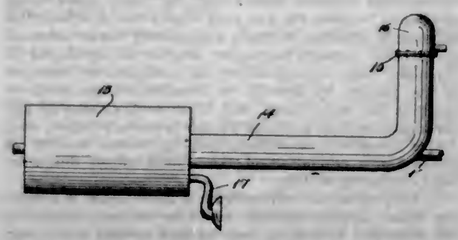
5. In a three-row corn planter, a main frame, a secondary frame, seeding devices carried by the rear portion of the secondary frame, an intermediate seeding device carried by the front portion of said frame in advance of the rear devices, bell cranks journaled on the main frame, links connecting an arm of each bell crank with the secondary frame, and means to simultaneously rock all of said bell cranks, said means comprising links extending longitudinally of the planter and connecting said bell cranks in pairs, a latch lever and quadrant carried on the main frame, and links extending forwardly from the latch lever and connected to the links connecting the bell-cranks in pairs.

1,131,015. VENDING-MACHINE. HARRY L. SULTZBAUGH, Chicago, Ill., assignor to Universal Pencil Company, Chicago, Ill., a Corporation of Arizona. Filed Aug. 7, 1911. Serial No. 642,854. (Cl. 194—102.)



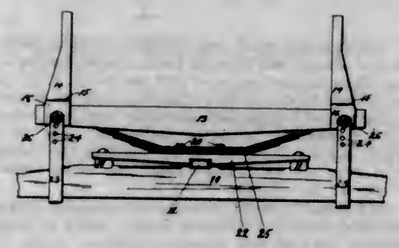
In a check controlled vending machine, the combination of check selective means comprising a curved check chute, a check selective member pivoted in the sides of the chute and having a diagonal portion extending diagonally across the chute and provided with a selective finger extending along the edge adjacent the inside of the curve and with the end portion thereof extending diagonally across the chute in a direction opposite to the other diagonal portion, the said selective finger being effective to engage a check of proper size whereby the member is raised and the check allowed to slip under the member and to permit an undersized check to slip by the said finger unengaged and to be ejected from the chute by said first mentioned diagonal portion.

1,131,016. AIR-HEATING DEVICE FOR EXPLOSIVE-ENGINES. EUGENE THORNTON and GEORGE M. WHEELER, Butte, Mont. Filed May 20, 1913. Serial No. 768,792. (Cl. 123—122.)



The combination with the carbureter exhaust pipe, and muffler of an explosive engine, of a casing surrounding the muffler in spaced relation to the latter, a reduced extension on said casing surrounding a portion of the exhaust pipes and having a laterally directed free end, a longitudinal partition within the casing between the muffler and the end of the casing adjacent the extension, said partition being disposed beneath the extension, a casing surrounding the carbureter and having its interior in communication with the inlet of the carbureter and the interior of the extension, and a funnel mounted on the forward end of said casing and beneath the extension, said funnel opening forwardly.

1,131,017. SPRING-BOLSTER MOUNTING. STEPHEN A. THRELKELD, Charlton, Iowa. Filed May 25, 1914. Serial No. 840,938. (Cl. 21—102.)



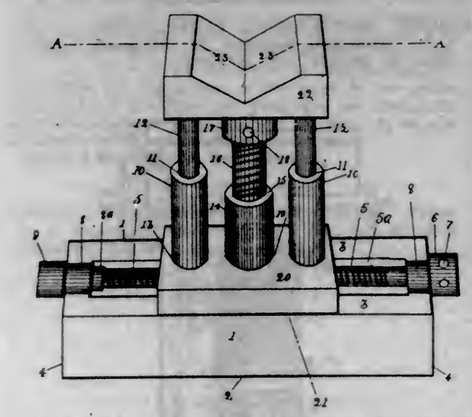
1. The combination of an axle and spaced hounds resting thereon, a bolster, a leaf spring arranged between the axle and the bolster with its ends supporting the bolster, a plate having its ends resting on said hounds above the axle and supporting at its middle the central downwardly extending portion of the spring, and downwardly extending flanges on said plate, tapering from their central portion toward their outer portions.

2. The combination of an axle and spaced hounds thereon, a reach resting upon said axle between said hounds, a bolster, a leaf spring arranged between the axle and the bolster with its ends supporting the bolster, a plate having its ends resting on said hounds above the axle and supporting at its middle the central downwardly extending portion of the spring, downwardly extending flanges on said plate, tapering from their central portions toward their outer portions, said flanges being provided with notches to receive said reach.

3. The combination of an axle and spaced hounds resting thereon, a bolster, a leaf spring arranged between the axle and the bolster with its ends supporting the bolster, a plate having its ends resting on said hounds above the axle and supporting at its middle the central downwardly extending portion of the spring, and downwardly extending flanges on said plate, tapering from their central toward their outer portions, and means secured to the ends of the bolster and adapted to engage the axle and to limit the upward movement of the respective ends of the bolster with relation to the respective ends of the axle.

4. In a device of the class described, the combination of an axle with spaced hounds resting thereon, a reach resting on said axle between said hounds, a plate resting upon said hounds and secured thereto and to said axle, said plate being provided with downwardly extending flanges having central notches to receive the reach, and being tapered from the reach to the outer ends, a spring having its lower central portion resting upon and secured to said plate, a downwardly opening, channel shaped bolster having its ends supported by the ends of said spring, upright standards on the ends of said bolster having bifurcated ends receiving said bolster, U shaped keeper devices having said axle received between their lower ends, and having the bifurcated ends of the respective standards and said bolster received between their upper free ends, and bolts extended through said keeper devices, said bifurcated ends and said bolster at each end of the latter.

1,131,018. TRAVERSING JACK. GEORGE W. TROUTMAN, Caldwell, Kans. Filed June 25, 1914. Serial No. 847,192. (Cl. 254—85.)



1. In a device of the character described, a traversing jack, comprising a rectangular shaped base member whose sides and ends form a central rectangular shaped recess open at the top, said rectangular shaped recess adapted to receive a horizontal screw member, a screw member centrally positioned within said recess, bearing perforations in the ends of said base member adapted to form bearings for the screw member, and means for rotating the screw member, a rectangular shaped traversing member whose lower surface is adapted to slide upon the upper surfaces of said base member, said traversing member having a downwardly projecting member adapted to traverse in the rectangular shaped recess formed in the previously mentioned base member, a screw threaded perforation in said downward projecting member adapted to receive a horizontally positioned screw member and two vertically positioned, centrally and vertically perforated guide-way members rigidly secured to and projecting upward from the upper surface of said traversing member.

2. In a traversing jack, comprising in combination a rectangular shaped base member having sides and ends forming a rectangular shaped recess open at the top, a horizontal screw member positioned in said recess, bearing perforations in the ends of said base member adapted to form bearings for the screw member and means for rotating the screw member, a rectangular shaped traversing member whose lower surface is adapted to slide upon the upper surfaces of said base member, said traversing members having a downward projecting member adapted to traverse in the rectangular shaped recess formed in the previously mentioned base member, a screw threaded perforation in said downward projecting member adapted to receive a horizontally positioned screw member, two vertically positioned, centrally and vertically perforated guide-way members rigidly secured to and projecting upward from the upper surface of said traversing member, and a centrally, vertically perforated, screw threaded, vertically positioned screw guide-way member adapted to receive a vertically positioned screw member, said screw guide-way member centrally positioned and rigidly secured to the upper surface of said traversing member.

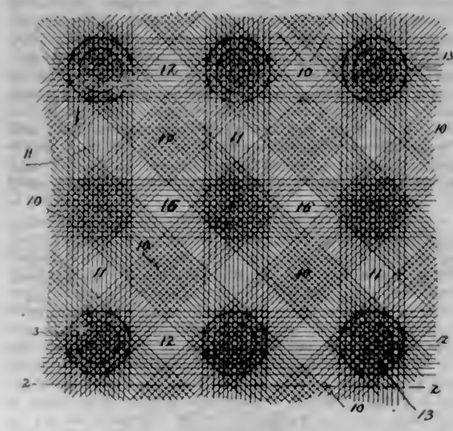
3. In a combination of the character described, a traversing jack, comprising a base member rectangular shaped, whose sides and ends form a central rectangular shaped recess open at the top, said rectangular shaped recess adapted to receive a horizontal screw member, a screw member centrally positioned within said recess, bearing perforations in the ends of said base member adapted to form bearings for the screw member and means for rotating the screw member, a rectangular shaped traversing member whose lower surface is adapted to slide upon the upper surfaces of said base member, said traversing member having a downward projecting member adapted to traverse in the rectangular shaped recess formed in the previously mentioned base member, a screw threaded perforation in said downward projecting member adapted to receive a horizontally positioned screw member, two vertically positioned, centrally and vertically perforated guide-way members rigidly secured to and projecting upward from the upper surface of said traversing member, and a centrally, vertically perforated, screw threaded, vertically positioned screw guide-way member adapted to receive a vertically positioned screw member, said screw guide-way member centrally positioned and rigidly secured to the upper surface of said traversing member, and a vertically positioned, externally screw threaded, screw member adapted to being vertically actuated within said vertical screw guide-way member and means for rotating the screw member.

4. In a device of the character described, a traversing jack, comprising a rectangular shaped base member having sides and ends forming a central rectangular shaped recess open at the top, adapted to receive a horizontally positioned screw member, a screw member centrally positioned within said recess, bearing surfaces at opposite ends of the screw member, bearing perforations in the ends of said base member adapted to form bearings for the screw member and means for rotating the screw member, a rectangular shaped traversing member having its lower surface adapted to slide upon the upper surfaces of the base member, perforated screw threaded means on the lower surface of the traversing member, adapted to receive a screw, a screw member adapted to actuate the traversing member and means for rotating the screw member, a plurality of vertically positioned cylindrically perforated guide-way members rigidly secured to the upper surface of the traversing member and positioned at its opposite ends adapted to receive and guide a plurality of vertically positioned cylindrical shaped guide members, a vertically positioned and centrally located screw-threaded guide-way member rigidly secured to the upper surface of said traversing member and adapted to receive a vertical actuating screw member, a vertically positioned screw member adapted to being actuated within the screw-threaded guide-way member and means for rotating the screw member.

5. In a device of the character described, a traversing jack, comprising a rectangular shaped base member having sides and ends forming a central rectangular shaped recess open at the top, adapted to receive a horizontally positioned screw member, a screw member centrally positioned within said recess, bearing surfaces at opposite ends of the screw member, bearing perforations in the ends of said base member adapted to form bearings for the screw member and means for rotating the screw member, a rectangular shaped traversing member having its lower surface adapted to slide upon the upper surfaces of the base member, perforated screw threaded means on the lower surface of the traversing member, adapted to receive a screw, a screw member adapted to actuate the traversing member and means for rotating the screw member, a plurality of vertically positioned cylindrically perforated guide-way members rigidly secured to the upper surface of the traversing member and positioned at its opposite ends adapted to receive and guide a plurality of vertically positioned cylindrical shaped guide members, a vertically positioned and centrally located screw-threaded guide-way member rigidly secured to the upper surface of said traversing member and adapted to receive a vertical actuating screw member, a vertically positioned screw member adapted to being actuated within the screw-threaded guide-way member and means for rotating the screw member, a rectangular shaped upper member adapted to move with the traversing member, having a V-shaped depression in its upper surface, a plurality of vertically positioned cylindrical shaped guide members rigidly secured to the lower surface of the upper member adapted to move vertically in the perforations in the previously mentioned guide-way members and a screw member adapted to vertically actuate the upper member.

[Claim 6 not printed in the Gazette.]

1,131,019. REINFORCED-CONCRETE SLAB CONSTRUCTION. CLAUDE A. P. TURNER, Minneapolis, Minn. Filed Jan. 18, 1912. Serial No. 671,920. (Cl. 72—15.)



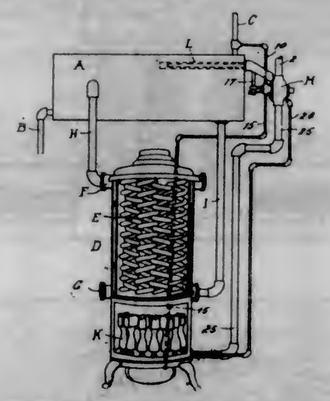
1. An arrangement of reinforcement for a column supported flat floor slab, the combination of groups of columns arranged to form oblong panels each supported by a group of four columns, belts of reinforcement extending from column to column upon the sides of the panel formed by a group of four columns, and belts of reinforcement extending obliquely from column to column, the obliquely extending belts reaching from a column of one panel to the column of a panel beyond, said belts being in the zone of tension above the columns and between the columns.

2. In an arrangement of reinforcement for a column supported flat floor slab of concrete, the combination of groups of columns arranged to form oblong panels each supported by a group of four columns, belts of reinforcement extending from column to column upon the sides of the panel formed by a group of four columns, and belts of reinforcement extending obliquely from column to column, the obliquely extending belts reaching from a column of one panel to the column of a panel beyond, and a belt of reinforcement extending parallel with the belts forming the shorter sides of the panels and crossing the obliquely extending belts where they intersect, said belts being in the zone of tension above the columns and between the columns.

3. In an arrangement of reinforcement for a column supported flat floor slab of concrete, the combination of groups of columns arranged in parallel lines, the lines being farther apart than the distance between adjacent columns of a line, belts of reinforcement crossing the columns in the direction of the lines of columns, belts of reinforcement crossing the columns at right angles to such lines, and belts of reinforcement extending from the columns of one line to the columns of the other line in an oblique direction, the columns between which an oblique belt extends being the alternate columns of the respective lines, said belts being in the zone of tension above the columns and between the columns.

4. In an arrangement of reinforcement for a column supported flat floor slab of concrete, the combination of groups of columns arranged in parallel lines, the lines being further apart than the distance between adjacent columns of a line, belt of reinforcement crossing the columns in the directions of the lines of columns, belts of reinforcement crossing the columns at right angles to such lines, and belts of reinforcement extending from the columns of one line to the columns of the other line in an oblique direction, the columns between which an oblique belt extends being the alternate columns of the respective lines, and a belt of reinforcement midway between the lines or columns and parallel therewith, said belts being in the zone of tension above the columns and between the columns.

1,131,020. WATER-HEATER CONSTRUCTION. FRANK L. O. WADSWORTH, Sewickley, Pa. Filed Oct. 3, 1911. Serial No. 652,378. (Cl. 126—351.)



1. In combination in a water heater system, a burner, a valve for controlling the supply of gas thereto, means for closing the gas valve when the pressure is released from the system and operating automatically upon the release of such pressure, a thermostat controlled by the water in the system, power means for opening the gas valve, and a pilot mechanism operated by the thermostat throwing on such power means to give a quick opening of the valve when the temperature of the water in the heater reaches a predetermined point.

2. In combination in a water heater system, a burner, a valve for controlling the supply of gas thereto normally maintained yieldingly in closed position, an element operated by the water pressure in the system for opening the gas valve and permitting the automatic closure of the gas valve when the water pressure in the system is released, thermostatic means operated by the water of the system, and means operated by the thermostatic means for permitting the application of the pressure in the system to the said element to secure the opening of the gas valve when the temperature of the water in the system drops below a predetermined point.

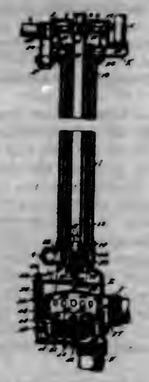
3. In combination in a water heater system, a burner, a valve for controlling the supply of gas thereto normally maintained yieldingly in closed position, an element operated by the water pressure in the system for opening the gas valve and permitting the automatic closure of the gas valve when the water pressure in the system is released but cut off from the application of such pressure when the temperature of the water in the system is above a predetermined point, thermostatic means operated by the water of the system, and means operated by the thermostatic means for permitting the application of the pressure in the system to the said element to secure the opening of the gas valve when the temperature of the water in the system drops below a predetermined point.

4. In combination in a water heater system, a burner, a valve for controlling the supply of gas thereto normally maintained yieldingly in closed position, an element adapted to be operated by the water pressure in the system for opening the gas valve and permitting the closure of such valve when the pressure in the system is released, a pilot valve for controlling the application of pressure from the system to the element, and thermostatic means controlled by the water of the heater for opening the pilot valve when the temperature of the water in the system drops below a predetermined point.

5. In combination in a water heater system, a burner, a valve for controlling the supply of gas thereto normally maintained yieldingly in closed position, an element adapted to be operated by the water pressure in the system for opening the gas valve and permitting the closure of such valve when the pressure in the system is released, a pilot valve for controlling the application of pressure from the system to the element, and thermostatic means controlled by the water of the heater for opening the pilot valve when the temperature of the water in the system drops below a predetermined point and for closing the pilot valve when the temperature of the water in the system rises above a second predetermined point.

[Claim 6 not printed in the Gazette.]

1,131,021. WATER-HEATER CONSTRUCTION. FRANK L. O. WADSWORTH, Sewickley, Pa. Filed Jan. 25, 1913. Serial No. 744,197. (Cl. 126—351.)



1. In a water heater, a burner, a pair of relatively movable coöperating valve parts for controlling the passage of gas therebetween to the burner, with one of the said parts acting as the seat for the other part, a member actuated by the differences of water pressure caused by opening and closing the outlet from the heater, a thermostatic means operated by the heater water, a connection from the said member to one of the valve parts whereby such valve part is moved to position to permit the passage of gas to the burner when the outlet from the heater is opened, and a connection from the thermostatic means to the other valve part whereby such other valve part is caused to move to a position to cut off the flow of the gas to the burner when the temperature of the heater water rises above a predetermined point.

2. In a water heater, a burner a pair of relatively movable coöperating parts one of which comprises a valve and the other the seal or seat for such valve for controlling the passage of gas therebetween to the burner, a member actuated by the differences of water pressure caused by opening and closing the outlet from the heater for securing the actuation of one of the said valve parts, and a thermostatic means operated by the heater water for governing the movement of the other valve part.

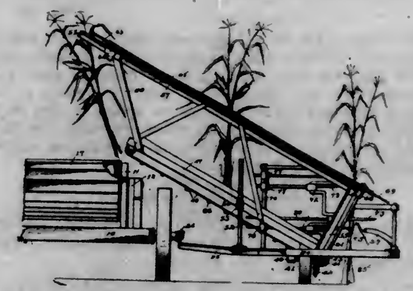
3. In a water heater, a burner a pair of relatively movable coöperating valve parts one of which is the seal for engaging the other part for controlling the passage of gas therebetween to the burner, a member actuated by the differences of water pressure caused by opening and closing the outlet from the heater for securing the movement of one of the said valve parts to permit the passage of gas between the valve parts when the outlet from the heater is opened and the temperature of the heater water below a predetermined point, and a thermostatic means operated by the heater water for causing the other valve part to close with respect to the first valve part when the temperature of the heater water rises above a predetermined point for which the thermostatic means is set.

4. In a water heater, a burner, a gas valve for controlling the flow of gas to the burner, and a thermostat for operating the gas valve and controlled by the heater water, the said thermostat being compound and having one of its elements exposed to the inflowing water and the other element exposed to the outflowing water.

5. In a water heater, a burner, a gas valve for controlling the flow of gas to the burner, and a thermostat for operating the gas valve and controlled by the heater water, the said thermostat being compound and having one of its elements exposed to the inflowing water and the other element exposed to the outflowing water with said parts of the thermostat so arranged that the contraction of the part exposed to the relatively cool inflowing water tends to secure the movement of the gas valve in the same direction as does the expansion of the part exposed to the relatively hot outflowing water.

[Claims 6 to 8 not printed in the Gazette.]

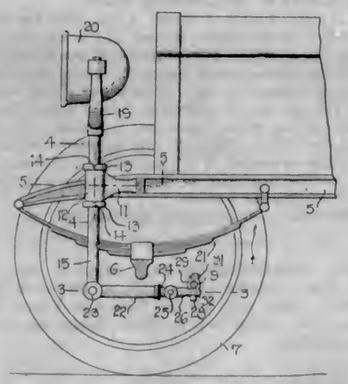
1,131,022. CORN-HARVESTER. DAVID R. WAY, Fairfield, Iowa, assignor of one-half to Edwin M. Krum, Fairfield, Iowa, and Ira D. Way and Everet Berry, Chicago, Ill. Filed Oct. 9, 1913. Serial No. 794,347. (Cl. 56—107.)



1. In a device of the class described, a frame, a shaft mounted thereon, a traction wheel on said shaft, means for securing said frame to a wagon, gathering arms at the forward end of said frame, a shaft arranged longitudinally in said frame, means for transmitting rotary motion from said first shaft to said second shaft, a conveyer frame pivotally mounted on said second shaft, at its end adjacent to the point of delivery from the receiving arms, means for adjustably securing said conveyer frame in different positions of its tilting movement, a traveling conveyer mounted in said frame, gearing devices interposed between said second shaft and said conveyer for operating said conveyer from said second shaft in all positions of the conveyer, a frame mounted on said conveyer frame and extending above the same, sprocket wheels on said upper frame, a sprocket chain on said sprocket wheels, carrying arms mounted on said chain, and means for operating said chain from said second shaft.

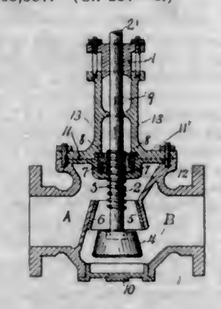
2. In a device of the class described, a frame, a shaft mounted thereon, a traction wheel on said shaft, gathering arms at the forward end of said frame, a shaft arranged longitudinally in said frame, means for transmitting motion from said first shaft to said second shaft, a conveyer frame pivotally mounted on said second shaft at its end adjacent to the point of delivery from the gathering arms, means for adjustably securing said conveyer frame in different positions of its tilting movement, a traveling conveyer mounted in said conveyer frame, gearing devices interposed betwen said second shaft and said conveyer for operating said conveyer in all positions of the conveyer frame, an upper frame mounted on said conveyer frame, a shaft mounted in the conveyer frame and in the upper frame at the lower ends thereof, a sprocket wheel on said last described shaft, a sprocket wheel on the upper end of the upper frame, a sprocket chain on said sprocket wheels, and gearing devices interposed between the second shaft and the last described shaft for transmitting motion from the second shaft to the last described snaft in all positions of the latter.

1,131,023. DIRIGIBLE HEADLIGHT FOR AUTOMOBILES. CHARLES T. WEEKS, Chelsea, Mass. Filed Apr. 4, 1914. Serial No. 829,622. (Cl. 240—62.)



The combination with a revoluble lamp support, and a transversely shiftable steering rod, of a tube pivotally connected with the lamp support, a cap threaded upon the free end of the tube and provided with an opening, a rod slidably arranged within the tube, a vertically and horizontally movable rod pivotally connected with the first named rod, and a stud carried by the steering rod loosely engaging the free end of said rod.

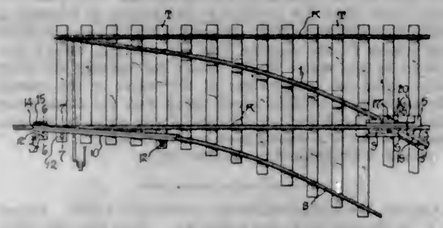
1,131,024. VALVE. CHARLES S. ALLENDER and GEORGE G. MCNEE, Clay Center, Kans. Filed Apr. 25, 1913. Serial No. 763,557. (Cl. 137—4.)



A valve comprising a casing having a seat mounted therein, a stuffing-box depending into the casing and having an annular flange for closing the upper end of the casing, a hub having a flanged base for attachment to the casing, said base serving to clamp the flange of the stuffing-box to said casing, a bush removably mounted in the stuffing box, said hub having a shoulder which overhangs the chamber of the stuffing-box for engaging the bush to hold the same against accidental removal from the stuffing box, a stem operable in the bush and stuffing-box, a disk carried by the lower end of the stem for engaging the seat when said stem is moved upwardly.

1,131,025. RAILWAY-SWITCH. WILLIAM K. ANDERSON, Colorado Springs, Colo. Filed Sept. 14, 1914. Serial No. 861,655. (Cl. 104—112.)

1. A railway switch including a tread arranged for swinging movement in a vertical plane from one of the rails of a siding to overlie the rail of a main track to provide for the passage of the car wheels above the plane of the main rail, the forward extremity of the tread being enlarged transversely to overlie the rail, the free longitudinal margin of the transversely enlarged portion being provided with a depending channel member.

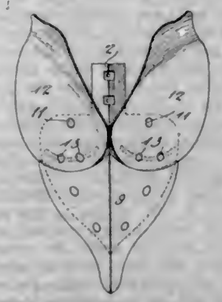


2. A railway switch including a tread arranged for swinging movement in a vertical plane from one of the rails of a siding to overlie the rail of a main track to provide for the passage of the car wheels above the plane of the main rail, said tread being provided with a depending channel member adapted to overlie the inner side of the rail.

3. The combination with a main trackway, of a siding removably secured to one of the rails thereof, a rail secured to one extremity of the frog and interposed between the rails of the main track on the proper curvature and terminating in close proximity to the opposite rails of the main trackway, a siding rail secured to the frog, a second siding rail terminating in close proximity to the rail of the main track with which the frog is engaged, and a tread pivotally supported by the last mentioned rail of the siding and adapted for movement in a vertical plane to overlie the adjacent rail of the main track, the forward extremity of the tread being enlarged transversely to overlie the rail, the free longitudinal margin of the transversely enlarged portion being provided with a depending channel member.

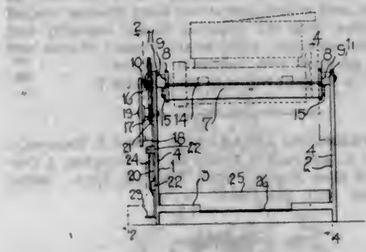
4. A switch of the type described including a frog arranged to form a seat for a main track rail, having arranged laterally of the seat, receiving the said rail, elevated portions to provide for the passage of the wheels of the car in a plane above said main track rail, said shoe having a flange contiguous to one end of the rails of said siding, the opposite portion of said shoe being provided with a shoulder to guard the car wheel in its passage across the main rail onto a rail section extension, and arranged about in alinement with the inner end of one of the said siding rails.

1,131,026. PLOW. RICHARD B. ARMENTRAUT, Eden, Tex. Filed Jan. 13, 1913. Serial No. 741,807. (Cl. 97—9.)



In a plow comprising a substantially heart-shaped supporting plate with an integral attaching shank projecting from the center of its upper end, said plate being substantially V-shaped in cross section and having a pivot opening on each side near its upper end, an arcuate slot disposed beneath each of the pivot openings and struck from the same as a center, a shield shaped plow point substantially V-shaped in cross section to conform with the shape of the plate and secured to the lower part of the latter, a pair of arcs formed by the upper edge of said point with their inner ends converged at the center of said top edge and the said arcs being spaced below and concentric with the arcuate slots that are disposed on each side of the said supporting plate, a pair of soil deflecting wings pivotally mounted on the pivot openings near the top of the supporting plate, said wings having clamping bolts carried near their lower ends to project through the said arcuate slots below the pivot holes to hold the wings in any desired adjusted position, the lower inner edges of said wings are adapted to lightly contact with one another as the same are swung on the plate, and the lower edges of said wings are rounded to conform with the arcs on the upper edges of the plow point and having a sliding frictional engagement with the same, thereby maintaining said engagement at any adjusted position of the wings with the plow point.

1,131,027. ENGINE-RACK. CHARLES ARTHUR ARNHOLM, St. Albans, Vt., assignor to St. Albans Foundry and Implement Company, St. Albans, Vt. Filed June 27, 1914. Serial No. 847,695. (Cl. 29—89.)



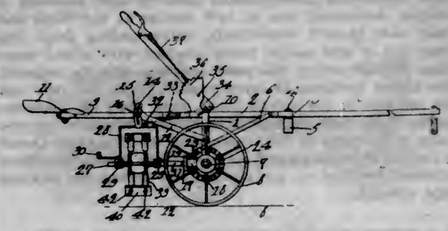
1. A device of the character described comprising spaced uprights, shafts supported by said uprights, means for axially adjusting said shafts, bars pivotally connected to the shafts and spaced longitudinally thereof, the opposite extremities of said bars being provided with elongated longitudinally disposed slots, side bars engaged with the first named bars and provided with extensions disposed through the slots of the first named bars and means carried by said extensions and coacting with the first named bars for clamping the side bars against movement independently of the first named bars.

2. A device of the character described comprising spaced uprights, shafts supported by said uprights, means for axially adjusting said shafts, bars pivotally connected to the shafts and spaced longitudinally thereof, the opposite extremities of said bars being provided with elongated longitudinally disposed slots, side bars engaged with the first named bars and provided with extensions disposed through the slots of the first named bars and means coacting with the shaft for locking the shafts in their different axial movements.

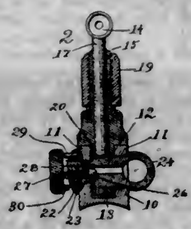
1,131,028. COTTON-CHOPPER. WILLIAM A. BAKER, Georgetown, Tex. Filed Aug. 17, 1914. Serial No. 857,235. (Cl. 97—46.)

1. In a device of the class described, a main frame; an axle journaled thereon; a supplemental frame mounted to swing vertically with respect to the main frame; a chopper shaft journaled in the supplemental frame; means for operatively connecting the chopper shaft with the axle; a yoke in which the chopper shaft is journaled; means for supporting the yoke; and forwardly presented elements connected with the yoke and in contact with the supplemental frame on opposite sides of the chopper shaft.

2. A cotton chopper embodying a main frame; an axle journaled therein; a ground wheel on the axle; a supplemental frame pivoted to the axle; a chopper shaft journaled in the supplemental frame; means for operatively connecting the chopper shaft with the axle; a yoke having bearings receiving the chopper shaft; a lever fulcrumed on the main frame; and a yieldable connection between the lever and the yoke.



1,131,029. SIGHT FOR FIREARMS. GEORGE L. BARNES, Montowese, Conn., assignor to The Lyman Gun Sight Corporation, Middlefield, Conn., a Corporation of Connecticut. Filed June 4, 1914. Serial No. 843,005. (Cl 33—57.)



1. In a sight for fire arms, the combination of a base, a sight-carrying member, a hinge connection between the latter and the base, a latch device comprising a notch-carrying member, and a detent movable into and out of engagement with the notch of said notch-carrying member, one of said parts being mounted on the base and the other on the sight-carrying member, a rotatable detent lock, and means to limit the rotation thereof, comprising two projections on the exterior of the device, one of which is carried by said lock and the other is supported by the base.

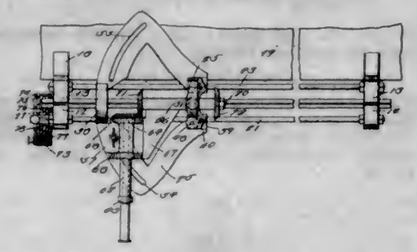
2. In a sight for firearms, the combination of a base, a journal bolt mounted in the base, a radially movable detent seated in the body of the journal bolt spring actuated to normally project exteriorly to the circumference of the journal, a rotatable detent lock adapted to hold the detent in its exterior position and projecting from the bolt, the projecting end of the rotatable lock having an operating head, a lock nut screwed upon the journal bolt, interengagable stops carried respectively upon the lock nut and the operating head adapted for limiting the rotation of the screw in relation to the nut, and a folding sight part hinged upon the journal bolt and having a detent notch.

3. In a sight for firearms the combination of a base, a journal bolt mounted in the base having a threaded end, a lock nut screwed upon the threaded end of and securing the bolt in the base provided with a stop projection, a folding sight part journaled upon the bolt having a detent notch, a detent mounted in the journal bolt engageable with the notch of the sight part, a screw seated longitudinally of the journal bolt engageable with the detent to chock it in engagement with the detent, an operating head carried upon the screw provided with a stop projecting in the revolving path of the stop of the lock nut and adapted to engage the same to limit the rotation of the screw relatively to the nut.

1,131,030. SAW-FILING MACHINE. ROY R. BEERS, Tulsa, Okla. Filed Jan. 22, 1914. Serial No. 813,752. (Cl. 76—40.)

1. In a saw filing machine, the combination of clamping member comprising spaced U-shaped members having their

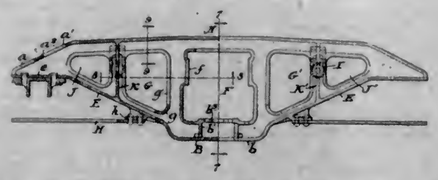
arms hingedly connected, clamping jaws connecting the free ends of corresponding arms of said members, guide rods connecting corresponding arms of said members, a carrier, depending legs on said carrier at the front and rear ends thereof respectively, corresponding front and rear legs of said carrier being provided with alined openings through which the guide rods are slidably engaged, the alined openings in corresponding front and rear legs on one side of the carrier being wider than the diameter of the guide rods engaged therethrough whereby the free ends of the arms of the U-shaped members may be moved a limited distance away from each other, a rotatable filing element mounted on the carrier, and means for rotating said element.



2. In a saw filing machine, the combination of a saw clamping mechanism, a carrier slidable on said clamping mechanism, a feed screw journaled on said clamping mechanism, a leg depending from the carrier, a block carried by said leg and engaged on the feed screw, a disk fixed on said feed screw and having a plurality of series of circumferentially arranged recesses, a bracket mounted upon the clamping mechanism, a pin adjustable on said bracket to engage successively in the recesses of a given series of recesses during the rotation of the disk, a filing element rotatably mounted on the carrier, and means for rotating said filing element.

3. In a saw filing machine the combination of a saw clamping mechanism, a carrier slidably adjustable on said saw clamping mechanism, said carrier being provided with an arcuate groove, a frame slidably in said groove whereby same may be adjusted into different angular relations with respect to a saw blade carried by the clamping mechanism, a bearing yieldingly mounted in said frame, a shaft journaled in said bearing, means for rotating the shaft, and a filing element fixed on said shaft.

1,131,031. SIDE FRAME FOR CAR-TRUCKS. EDWIN H. BENNERS, Elizabeth, N. J. Filed July 30, 1914. Serial No. 854,056. (Cl. 105—243.)



1. A side frame for car trucks comprising upper and lower chords and upright struts connecting said chords and forming with the same a central bolster opening and a plurality of other openings positioned at the respective sides of said central opening, said chords and struts being channel shaped in cross section with the channels facing inwardly and bounding the openings, said side openings being provided with reëntrant flanges.

2. A side frame for car trucks comprising upper and lower chords and upright struts connecting said chords and forming with the same a central bolster opening and a plurality of other openings positioned at the respective sides of said central opening, said chords and struts being channel shaped in cross section with the channels facing inwardly and bounding the openings, and said bottom chord being box shaped in cross section and provided at the top thereof with reëntrant flanges.

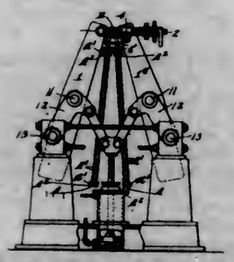
3. A side frame for car trucks comprising upper and lower chords and upright struts connecting said chords and forming with the same a central bolster opening and a plurality of other openings positioned at each side of the central opening, and other struts positioned intermediate the side openings and connecting the top and bottom chords, said chords and struts being channel shaped in cross section with the channels facing inwardly and bounding the openings.

4. An integral side frame for car trucks comprising upper and lower chords, side webs and a plurality of vertical struts, said side webs and vertical struts connecting said top and bottom chords and forming a central bolster opening and a plurality of other openings at each side of the central opening, said chords, webs and struts being channel shaped in cross section with the channels facing inwardly and bounding the openigs, certain of said vertical struts being positioned intermediate the side openings, and said last named struts being adapted to carry the brake beam hangers.

5. An integral side frame comprising upper and lower chords and struts connecting said chords and forming therewith a central bolster opening and a plurality of side openings, said chords and struts being channel shaped in cross section with the channels facing inwardly and bounding said openings, said channel-shaped chords and struts being provided with reëntrant flanges.

[Claims 6 to 13 not printed in the Gazette.]

1,131,032. PRESSING APPARATUS. JOHN J. BERRIGAN, Orange, N. J., assignor to Henry R. Worthington, a Corporation of New Jersey. Filed June 16, 1914. Serial No. 845,364. (Cl. 100—50.)



1. In a filter press, the combination, with a pair of platens having their pressing faces extending in a general upward direction, and means whereby a relative movement of said platens toward and from each other is produced, of a partition device intermediate said platens, and means carried by the platens for supporting said partition device.

2. In a filter press, the combination, with a pair of platens having their pressing faces extending in a general upward direction, and means for producing an angular movement of the platens toward and from each other, of a supporting means carried by both platens, a partition device supported by said supporting means and capable of movement with relation thereto, and means for restricting the movement of the partition device.

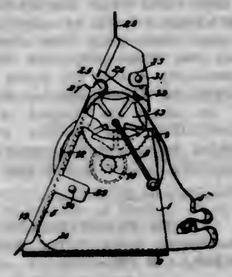
3. In a filter press, the combination, with a pair of platens having their pressing faces extending in a general upward direction, means for connecting said platens for pivotal movement near their upper sides, and means for producing an angular movement of the platens about said pivotal connection, of supporting means extending through and loosely mounted in each platen near its upper edge, partition devices carried by said supporting means, and means carried by each platen for limiting the movement of the partition device farthest from it.

4. In a filter press, the combination, with a pair of platens having their pressing faces extending in a general upward direction, means for connecting said platens for pivotal movement near their upper sides, and means for producing an angular movement of the platens about said pivotal connection, of supporting bolts extending through and loosely mounted in each platen near its upper edge, partition devices carried by said supporting bolts, each partition device having downward discharging liquid channels, and distance bolts carried by each platen for limiting the movement of the partition device farthest from it.

5. In a pressing apparatus, the combination, with cooperating members mounted for gravital movement downward and having pressing faces extending in a general upward direction, of means for causing the downward movement of said members to produce an increasing pressure on said members to move them toward each other, supporting means carried by the platens near their upper sides, and partition devices loosely hung on said supporting means.

[Claims 6 to 8 not printed in the Gazette.]

1,131,033. TOY MOTION-PICTURE MACHINE. WALTER W. BLACKMAN, Birmingham, Ala. Filed Feb. 23, 1912. Serial No. 679,254. (Cl. 88—18.)



1. In a display apparatus for moving pictures, a support and external guide for the display strip, a guide plate having a display opening over said guide, a friction feed roll, two means which coöperate therewith, one to press the strip against the roll and the other tending to frictionally retard the strip, and means to intermittently turn the feed roll.

2. In an apparatus for producing moving pictures, a friction feed roll, means to intermittently rotate same, a flexible display strip which is engaged by said roll, and means on each side of the roll to frictionally engage said strip and hold it against said roll, and a cover having a display opening under which said strip is adapted to be intermittently moved.

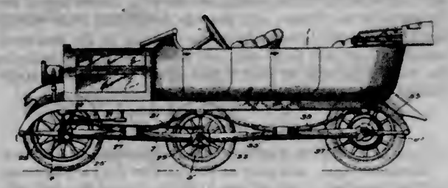
3. In an apparatus for displaying a series of correlated pictures displayed on a flexible strip, a guide over which the strip is adapted to slide, a guide plate which holds the strip against said guide and has a sight opening, a friction feed roll for said strip, a presser roll which engages the fed roll on the side farthest from said guide plate, and means to give said rolls an intermittent movement, substantially as described.

4. In a display apparatus for producing moving pictures, the combination with an endless flexible opaque strip of pictures, of a mechanism to display same comprising a frame having a slideway for the strip, a cover having a sight opening over said slideway, and an intermittently operable feed mechanism which engages and moves the strip.

5. In an apparatus of the character described, a metallic support having a guide surface, a cover over said surface having a sight opening, a friction roll projecting above said surface, and frictional means disposed on both sides of said roll and adapted to engage and hold a picture strip pressed against said roll, for the purposes described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,034. AUTOMOBILE. ELLIS B. BLISS, New York, N. Y. Filed June 11, 1913. Serial No. 772,980. (Cl. 21—90.)



1. A wheeled vehicle, comprising a frame consisting of longitudinal bars comprising telescoping members, cross axles carried in said frame and adjustable toward or from each other through the movement of telescoping members of said bars, springs swingingly carried on the axles, and a body frame mounted on said springs.

2. A wheeled vehicle, comprising tubular longitudinal members having longitudinal bars telescoping therewith at each end, cross axles mounted on said movable telescoping bars, depending arms pivotally mounted on said axles, springs swingingly carried on said arms, and a body frame mounted on said springs.

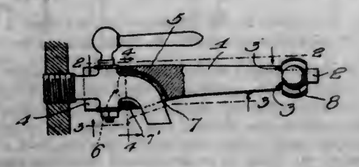
3. A wheeled vehicle comprising a frame of telescoping tubular longitudinal members, cross axles mounted on said telescoping members, depending arms pivotally mounted on said axles, forwardly and rearwardly extending links pivotally carried by the front and rear axles respectively and pivotally connected to the body of the vehicle, springs swingingly carried on said depending arms and a body frame mounted on said springs and links.

4. In a wheeled vehicle the combination with a rigid frame comprising longitudinal tubular members having cross braces, longitudinally extending bars, movably carried in said tubular members, a cross axle mounted on said rigid frame and cross axles mounted on said movable bars, depending arms pivotally mounted in said axles, springs swingingly carried on said arms between the axles, links pivotally mounted on said front and rear axles extending forwardly and rearwardly respectively, and a body frame pivotally mounted on said links and springs.

5. In a wheeled vehicle, the combination with a frame of telescoping tubular longitudinal members, cross axles carried on the ends of the movable members thereof and an intermediate cross axle carried on the rigid portion thereof, depending arms pivotally mounted on said axles, leaf springs pivotally carried on said arms between the axles, upwardly extending springs, carried by said first mentioned springs, horizontal links pivotally mounted on said front and rear axles extending forwardly and rearwardly, respectively, and a body frame mounted on said links and springs.

[Claims 6 to 11 not printed in the Gazette.]

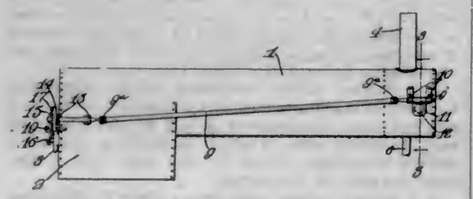
1,131,035. WRENCH. JOHN H. BROWN, Grand Forks, N. D. Filed June 4, 1914. Serial No. 843,009. (Cl. 81—119.)



The herein-described wrench for removing faucets, comprising a body having one end enlarged, the other provided with an operating handle, a pair of spaced ears projecting in parallel planes from said enlarged end and extending longitudinally of said body for engagement with opposite sides of a faucet to revolve the latter, said enlarged end portion having therein an arcuately extending annular passage, one end of said passage opening inter-

mediate said ears, the other end thereof opening on that side of said body which lies in substantial alinement with the lower edge of said ears, whereby to form a passageway conforming to the configuration of a faucet spout for reception of the latter, said passage forming a transversely extending bridge intermediate the opening in the last-mentioned side of said body and said ears, whereby to underlie the curved portion of said faucet spout to assist in maintaining said body in adjusted position.

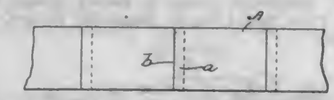
1,131,036. DRAFT-REGULATOR. STEPHEN E. BURKE, Hamilton, Ind., assignor of one-half to Jonas Allamong, Hamilton, Ind. Filed June 9, 1914. Serial No. 844,069. (Cl. 110—158.)



1. The combination with a boiler including a shell having a discharge chamber, flues leading to the said chamber, a stack communicating with the said chamber, and an exhaust pipe projecting within the said chamber and having its nozzle end projecting toward the said stack, of an air inlet pipe communicating with the atmosphere and projecting into the said chamber, the discharge end of the air pipe projecting above and directly adjacent the nozzle end of the exhaust pipe, being cut obliquely, and being disposed at that side of the exhaust pipe remote from the flues, and means for controlling the inlet of air into the air pipe.

2. The combination with a boiler including a fire box door, and an exhaust pipe for creating a forced draft, of an air inlet pipe coöperating with the said exhaust pipe, a shaft, a valve adapted to be actuated by the shaft for controlling the inlet of air into the said pipe, a lever mounted loosely upon the said shaft, a link connecting the lever and door, a plate secured rigidly upon the shaft adjacent the said lever, and a pair of pins carried by the said plate and adapted to be engaged by the said lever when it is swung, one of the said pins being adjustable to regulate the amount to which the valve is opened when the door is opened.

1,131,037. METHOD OF MAKING BANDS FROM SHEET METAL. SPENCER C. CARY, New York, N. Y., assignor to Cary Manufacturing Co., Brooklyn, N. Y., a Corporation of New York. Filed Dec. 26, 1913. Serial No. 808,708. (Cl. 219—10.)



1. The improvement in the art of making bands from metal sheets which consists in electrically welding the sheets at their adjacent edges, such weld extending continuously across the sheets, and cutting the sheets on parallel lines and across the welds between said sheets, the lines of cut being at predetermined intervals and irrespective of the condition of the union between said sheets.

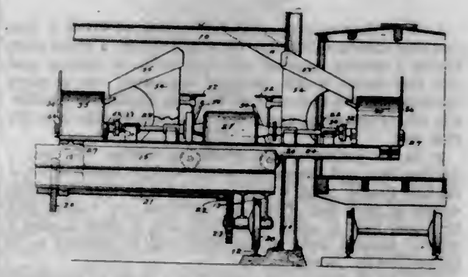
2. The improvement in the art of making bands from sheet metal which consists in assembling sheets of predetermined size and gage in lapping contact at their contiguous edges, joining the sheets at the lapping edges by electrically heating the sheets and pressing them together, and cutting the sheets on predetermined lines and across the welds between the individual sheets.

3. The improvement in the art of making bands or straps from sheet metal which consists in assembling sheets of predetermined size and gage to bring the end edges thereof contiguous to each other, joining the sheets at said contiguous edges by electrically welding said edge portions and producing transverse joints or seams which extend continuously across the sheets and are free from outstanding rough edges, and cutting the sheets lengthwise and across the welded seams or joints between the connected sheets, said sheets being cut on a series of lines parallel to, and at predetermined intervals from, each other, thereby producing long narrow bands or straps characterized by an absence of free rough edges at the joints or welds.

4. The improvement in the art of making bands or straps from sheet metal which consists in electrically welding the metal sheets at their adjacent edge portions, thus producing a transverse and substantially flush seam between adjoining sheets, and subsequently cutting the sheets lengthwise and across the welded seams to produce relatively narrow bands or straps substantially uniform in both width and gage, said sheets being retained by said transverse welds in predetermined fixed relation to each other during the operation of cutting through said welded portions of the sheets.

5. The improvement in the art of making narrow bands or straps from sheet metal which consists in uniting the edge portions of adjacent sheets by electrically welding the same to produce substantially flush seams which extend continuously and transversely with respect to the sheets, and subsequently cutting the sheets on predetermined lines, lengthwise thereof and across the welded seams, whereby the sheets are retained by the welded seams in predetermined fixed relation while cutting through the welded seams and the resulting bands or straps are substantially uniform in both gage and width.

1,131,038. LOADER FOR BOX-CARS. JOSEPH M. CHRISTY, Des Moines, Iowa. Filed Feb. 19, 1912. Serial No. 678,949. (Cl. 193—19.)



1. In a device of the class described, the combination of a main frame, a loader truck mounted for movement transversely of the main frame, a main power shaft carried by the loader truck, means for rotating the power shaft, two independent loaders, one mounted on each end of the loader truck, and means for operatively connecting either loader with the power shaft.

2. In a device of the class described, the combination of a main frame, a loader truck mounted for movement transversely of the main frame, a main power shaft carried by the loader truck, means for rotating the power shaft, two independent loaders, one mounted on each end of the loader truck, each loader being rotatably mounted and being provided with a driving shaft, a coupling device on each end of the power shaft and a coacting coupling device on each of the loader driving shafts.

3. In a device of the class described, the combination of a main frame, a loader truck mounted for movement transversely of the main frame, a main power shaft carried by the loader truck, means for rotating the power shaft, two independent loaders, one mounted on each end of the loader truck, each loader being rotatably mounted and being provided with a driving shaft, a coupling device on each end of the power shaft and a coacting coupling device on each of the loader driving shafts, said clutch members being so constructed as to automatically engage each other when the loader frame is moved to position substantially at right angles to the loader truck and to automatically disengage when the loader frame is moved away from said position, whereby the power shaft will operate only the mechanism of the loader that is in position for operative movement.

4. In a device of the class described, the combination of a main truck or carriage, a loader truck mounted for movement transversely of the main truck or carriage, a loader on each end of the loader truck, a power shaft on the loader truck for operating either loader and two chutes carried by the loader truck, each being fixed in position with its discharge end in position to deliver material to the adjacent loader and with its upper end in position to receive material from a chute.

5. In a device of the class described, the combination of a main truck or carriage, a loader truck mounted for movement transversely of the main truck or carriage, a loader on each end of the loader truck, a power shaft on the loader truck for operating either loader and two chutes carried by the loader truck, each being fixed in position with its discharge end in position to deliver material to the adjacent loader and with its upper end in position to receive material from a chute, said chutes so shaped and positioned that the loader frames may rotate freely beneath them.

[Claims 6 to 11 not printed in the Gazette.]

1,131,039. LEATHER-BOARD AND PROCESS OF PRODUCING THE SAME. ALBERT L. CLAPP, Braintree, Mass., assignor to Hide-Ite Leather Company, Boston, Mass., a Corporation of Maine. Filed Jan. 11, 1913. Serial No. 741,478. (Cl. 92—3.)

1. The process of producing leather-board stock from chrome leather, which consists in beating out said leather in the presence of tannic acid.

2. The process of producing leather-board stock from chrome leather, which consists in comminuting said stock while dry, and subsequently beating out said stock in the presence of tannic acid.

3. The process of producing leather-board stock from chrome leather, which consists in comminuting said stock while dry, and subsequently beating out the same in the presence of ordinary tanned leather, whereby the chrome salts will be converted by the action of the tannic acid derived from the ordinary tanned leather and the whole charge rendered waterproof.

4. The process of producing leather-board stock from chrome tanned leather, which consists in comminuting such scrap while dry; beating out said comminuted scrap along with a charge of ordinary tanned leather scrap, and finally adding alum to precipitate the soluble matters present in the charge.

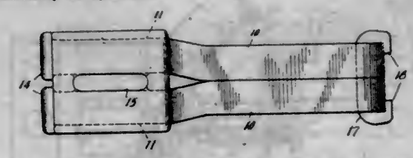
5. The process of producing leather-board stock from chrome scrap, which consists in beating up said scrap in the presence of a reagent capable of converting the chrome salts present in the chrome scrap.

[Claim 6 not printed in the Gazette.]

1,131,040. YOKE FOR DRAFT-RIGGINGS. ALFRED COPONY, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,806. (Cl. 213—42.)

1. A horizontal yoke for railway draft rigging having the arms thereof made of wrought iron, the arms having secured thereto at the ends, separate slotted cast steel members through which the ends of the yoke arms pass, the ends of the yoke arms being upset to secure the castings in place, substantially as specified.

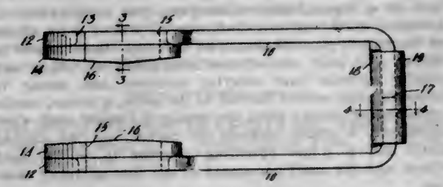
2. A yoke of the character described comprising two straps of wrought iron bent to form the arms and rear of a yoke, and slotted steel castings secured to the ends of said straps, the ends of the straps extending through the slots and being headed to unite the parts, said castings being slotted to receive a coupler-connecting key, substantially as specified.



3. A horizontal yoke for railway draft gears consisting of two wrought iron straps bent to form the arms and rear of a yoke, the free ends of said straps being spaced apart in a vertical plane, and slotted steel castings secured to the ends of said straps, the ends of said straps being upset whereby the castings are held in place on the straps.

4. A combined wrought iron and cast steel horizontal yoke for railway draft gears comprising two separate, vertically arranged steel castings slotted to receive a coupler connecting key and wrought iron straps, the wrought iron straps and castings being rigidly connected to each other by integral interengaging portions, the ends of said straps passing through slots in said castings.

1,131,041. COMBINED CAST-STEEL AND WROUGHT-IRON YOKE. ALFRED COPONY, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,807. (Cl. 213—42.)



1. A yoke for railway draft gears comprising two slotted cast pieces each of which is provided with a boss, the slots extending through the bosses, and two wrought iron straps each of which is doubled upon itself and formed with an elongated recess at the bend and in which is received one of the bosses of the cast pieces, the portions of each strap being offset adjacent the rear of said bosses whereby the cast pieces are permanently held in position in the recesses formed by the bent straps.

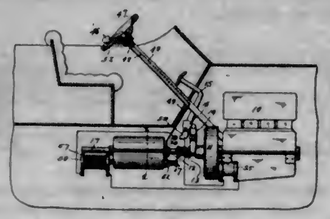
2. A horizontal yoke for railway draft gears comprising two wrought iron straps each of which is doubled upon itself and provided with an elongated recess located at the front ends of the yoke arms, the portions of each strap to the rear of said recesses formed therein being brought together and a cast member secured to each of said straps, each cast member having a boss seated within the elongated recess of the corresponding wrought iron straps.

3. A yoke for railway draft gears comprising two cast steel end pieces each of which is slotted to receive a coupler connecting key and provided with an elongated boss, two straps of wrought iron, each of which is bent around a boss of one of said cast pieces, said wrought iron straps having their rear ends bent to form the rear portion of the yoke, and means for rigidly connecting the rear bent ends of said wrought iron straps, substantially as specified.

1,131,042. AUTOMOBILE GEAR-SHIFT. MYRON S. CURTIS, Pawtucket, R. I. Filed July 10, 1914. Serial No. 850,165. (Cl. 74—58.)

1. In a transmission mechanism, the combination of a driving shaft, a driven shaft, several sets of gears adapted to connect the two shafts at different times, and means

to change the gear connections comprising a rotary and axially movable cam carrying member, and means to transmit axial motion thereof to the gears.



2. In a transmission mechanism, the combination of a driving shaft, a driven shaft, several sets of gears adapted to connect the two shafts at different times, means to change the gear connections comprising a rotary and axially movable cam carrying member, and means to transmit motion thereof to the gears, a clutch for the driving shaft, and a single operating member to control said clutch and the axial movement of the cam-carrying member.

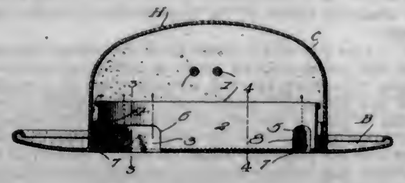
3. In a transmission mechanism, the combination of a driving shaft, a driven shaft, several sets of gears adapted to connect the two shafts at different times, means to change the gear connections comprising a rotary and axially movable cam-carrying member, and means to transmit axial motion thereof to the gears, a motor, and means transmitting energy from the motor to impart such axial movement.

4. In a transmission mechanism, the combination of a driving shaft, a driven shaft, several sets of gears adapted to connect the two shafts at different times, means to change the gear connections comprising a rotary and axially movable cam carrying member, and means to transmit axial motion thereof to the gears, a motor, means transmitting energy from the motor to impart such axial movement, a clutch between the motor and the driving shaft and a single operating member to control said clutch and the axial movement of the cam carrying member.

5. In a transmission mechanism, the combination of a driving shaft, a driven shaft several sets of gears to connect the shafts at different times, and means to change the gear connection comprising a gear shifting device for one gear of each set, a rotary and axially movable member carrying a plurality of cam surfaces that coact with said gear shifting devices, means to rotate said member to select the cam surfaces to act, and means to move the member axially after such selection.

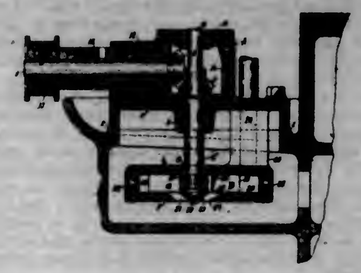
[Claims 6 to 8 not printed in the Gazette.]

1,131,043. SWEAT-BAND. JAY JUDSON DECKER, San Diego, Cal. Filed Apr. 20, 1914. Serial No. 833,242. (Cl. 2—32.)



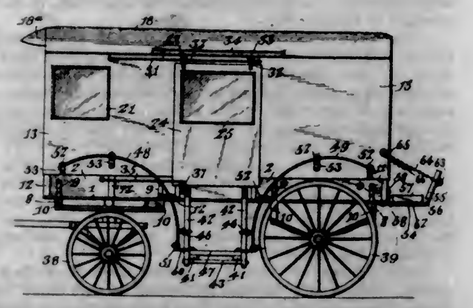
The combination with a hat, of an encircling sweatband vertically disposed therein in offset relation to the inner surface thereof, said band having therein two pairs of relatively disposed notches, those of one pair being half the length of those of the other pair, a vertically arranged non-porous band encircling said hat and situated at the rear of said sweat band, whereby to reinforce the lower edge of the latter and prevent soiling of the hat by perspiration, the height of said non-porous band being approximately half of that of said sweat band, a screening band disposed to the rear of each of said notches and intermediate the non-porous and sweatbands respectively, the upper edge of said screening band being in a plane substantially parallel with the upper edges of said notches, the lower extremities of each of said bands being united, substantially as and for the purpose set forth.

1,131,044. PUMP. ADOLPH L. DE LEEUW, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 27, 1913. Serial No. 776,017. (Cl. 103—43.)



A centrifugal pump of the nature disclosed combining a casting providing a dome, a cover-plate and a casing depending therefrom and forming a chamber underneath said cover-plate, and also providing a discharge aperture leading from said chamber and terminating through said cover-plate, a centrifugal fan horizontally mounted in said chamber, a shaft vertically extending from said fan to said dome, and means entering said dome for actuating said shaft.

1,131,045. DELIVERY-WAGON. JAMES STEWARD DUNHAM, Birmingham, Mich. Filed Sept. 19, 1912. Serial No. 721,208. (Cl. 21—7.)



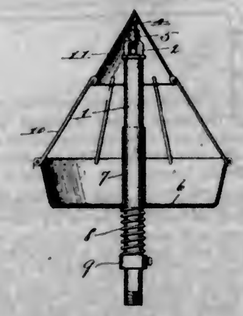
1. A wagon of the class described including a body provided at opposite sides with openings, hangers depending from the sides of the wagon body at the said openings, a platform located beneath the body and extending entirely across the same and supported by the hangers, said platform being provided with spaced bars disposed longitudinally of the platform and having terminal portions projecting outwardly beyond the platform, steps mounted upon the projecting terminals of the longitudinal bars, and mud guards supported at their inner adjacent ends by the said projecting terminal portions of the bars and provided at intervals with arms secured to the wagon body.

2. A wagon of the class described including a body provided at opposite sides with openings, hangers depending from the sides of the body at the said openings and composed of vertical bars provided at their lower ends with supporting arms, and horisontal bars arranged upon and secured to the supporting arms, and a platform or shelf extending across the wagon below the body and provided at its lower face with bars resting upon the horizontal bars of the hangers and supported by the same.

3. A wagon of the class described including a body provided at opposite sides with openings, a platform located below the wagon body and extending entirely across the same and having spaced projecting bars, hangers supporting the platform, steps carried by the projecting portions of the said bars, mud guards located in advance and in rear of the steps, and brackets secured at their inner ends to the steps and diverging outwardly therefrom, said brackets having outer attaching portions secured to the inner ends of the mud guards, said brackets offsetting the mud guards from the steps, both laterally and longitudinally thereof.

4. A wagon of the class described including a body provided at opposite sides with openings, steps located below the openings of the body and connected therewith, brackets consisting of body portions diverging from the steps and having inner transversely disposed attaching terminals secured to and extending across the steps, said brackets being also provided with outer transversely disposed supporting portions having vertical attaching flanges, and front and rear mud guards having their inner ends arranged upon the outer supporting portions of the brackets and secured to the vertical attaching flanges thereof, said mud guards being offset from the steps both laterally and longitudinally of the vehicle by the diverging brackets.

1,131,046. AUTOMATIC DRINKING-FOUNTAIN. SAMUEL DYER, Inglewood, Cal. Filed May 22, 1914. Serial No. 840,270. (Cl. 119—81.)

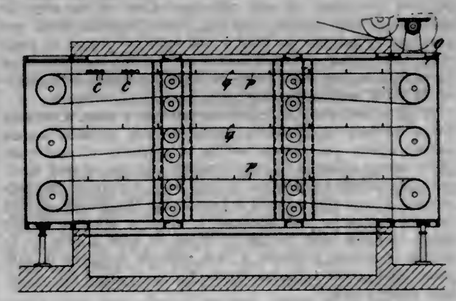


1. The combination with a water supply pipe, of a drinking vessel movable vertically and in parallel relation to said pipe, a valve at the upper end of the pipe, a water deflector carried above the plane of the vessel and above said valve, and a spring supporting said vessel, said deflector bearing on and closing the valve on downward movement of the vessel.

2. A device of the kind described comprising a vertically arranged supply pipe, a drinking vessel movable vertically with respect to said pipe, a spring for sustaining said vessel, a valve arranged upon said pipe, and means supported above the top of the vessel and above the pipe for deflecting the water discharged from the pipe into the vessel and also for actuating said valve upon downward movement of the vessel.

3. A device of the kind described comprising a vertically arranged water supply pipe, a valve cage carried at its upper end, a valve adapted to move vertically through said cage and to project thereabove, a drinking vessel movable vertically, yieldable means for normally supporting said vessel, and a deflector supported from said vessel and above said valve cage, said deflector engaging said valve and forcing the same into closed position upon downward movement of the vessel under a predetermined weight of the water.

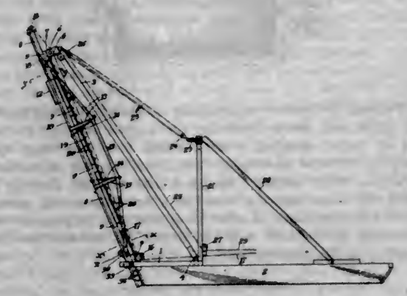
1,131,047. METHOD OF DRYING OBJECTS FORMED OF PLASTIC MASSES. OTTO EBERHARD, Heidenau, near Dresden, Germany. Filed Aug. 8, 1912. Serial No. 714,062. (Cl. 34—24.)



1. The herein described method for drying rollable articles formed from plastic material, consisting in imparting to the articles to be dried simultaneously a uniform constant rolling movement relatively to their base by supporting them on their entire length and limiting the position of said articles, so as to produce a constant uniform influence of the drying medium upon the whole surface of the rolling articles.

2. A method for drying rollable articles formed from plastic material consisting in imparting to the articles to be dried disposed traversely, in several consecutive horizontal rows of limited length, simultaneously a uniform constant rolling movement and locking in position the first article of the several rows, so as to produce a constant uniform influence of the drying medium upon the whole surface of the rolling article.

1,131,048. PILE-DRIVING MECHANISM. JAMES ERICKSON, Philadelphia, Pa. Filed May 5, 1914. Serial No. 836,395. (Cl. 61—13.)



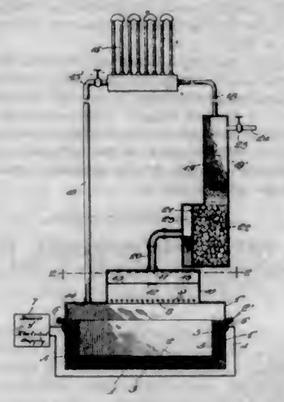
1. In a device of the character stated, a base, a driving frame pivotally connected to said base, means for pivotally connecting said frame at different points longitudinally thereof to said base whereby it may be longitudinally adjusted, a boom connected to one end of said frame, a ram mounted for sliding movement on said frame, power transmitting means for raising and lowering the upper end of said boom to raise and lower the upper end of said frame to vary the angular position thereof relative to said base, a fixed frame to which the power actuating means is connected and means for holding a pile in the path of movement of said ram regardless of the angular position of said frame.

2. In a device of the character stated, a base adapted to be secured to a suitable support and arranged to form a throat, a driving frame having one end positioned within said throat, pivotal connections between said base and said frame whereby the latter may be swung forwardly

and rearwardly, said pivotal connections being adjustable, guides on said frame, a ram mounted to slide on said guides, a transversely arranged bar adjacent one end of said frame for maintaining a pile in position within the path of movement of said ram regardless of the angular position of said frame, said bar being movable from one position to another so that a pile may be placed in position, and power actuated means for raising and lowering the upper end of said frame to vary its position of angularity with respect to said base.

3. In a device of the character stated, a base, a driving frame formed by a pair of substantially parallel beams spaced apart, each beam having a plurality of openings, pivot means adapted to pass through any one of said openings and secure said frame to said base, a pair of brackets secured at one side of said frame, a bar removably carried by said brackets and adapted to close a portion of the space between said beams in order to hold a pile to be driven in proper position, a ram slidably mounted in said frame and power actuated means for controlling the actuation of said ram.

1,131,049. STEAM-HEATING APPARATUS. JAY A. FERGUSON, Chicago, Ill. Filed Jan. 26, 1914. Serial No. 814,425. (Cl. 122—40.)

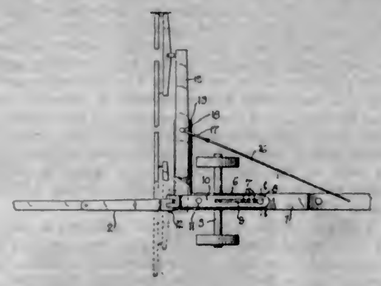


A steam generator comprising a heating casing including upper and lower sections, the former having an inlet and an outlet opening, a hood rising from the inlet opening and likewise having an inlet opening, an imperforate deflecting plate within the hood and located directly beneath the inlet opening therein, a transverse rod secured at its opposite ends to said hood whereby to support said deflecting plate, and a grate extending across the inlet opening of the heating casing.

1,131,050. TRUCK-ADJUSTING MECHANISM. FRANK E. FURRER, Wishek, N. D. Filed Aug. 8, 1914. Serial No. 855,800. (Cl. 21—93.)

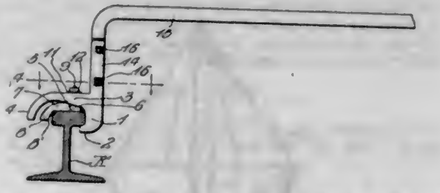
1. In combination with a truck rotatively mounted in a stub tongue upon a vertical pillar, a radial arm rigidly connected with said pillar, a guiding tongue adjuster pivotally connected to the stub tongue and to the free end of the radial arm by means of a pin or bolt passing through a longitudinal slot in said adjuster and located in a bolt hole in the radial arm substantially as and for the purposes set forth.

2. A truck adjusting mechanism consisting of a rotative truck pillar mounted in a stub tongue, a radial arm rigidly secured to the upper end of the truck pillar and having a series of bolt holes spaced apart at the opposite end, a guiding tongue adjuster formed with a longitudinal slot and pivoted to the stwb tongue in advance of said slot, a pin or bolt passing through the longitudinal slot in the adjuster and into one of a series of vertical holes in the radial tongue, and a guiding tongue vibratively connected with the tongue adjuster substantially as hereinbefore set forth.



3. The combination of a stub tongue, of a depending rotatable pillar, a truck carried thereby, a radial arm extending rearward from the pillar and disposed above the stub tongue, a guiding tongue adjuster comprising a bar pivoted intermediate its ends to the stub tongue, the rear extremity of the bar having sliding pivotal engagement with the arm, and a guiding tongue attached to the forward end of the adjuster for common movement in a horizontal plane.

1,131,051. RAIL-LIFTING TOOL. PRIM GAGNON, Hammond, Ind. Filed Aug. 27, 1914. Serial No. 858,945. (Cl. 57—9.)



1. A rail lifting tool comprising an upright rigid jaw having a laterally extending nose on its lower end, a rigid arm spaced from said nose and projecting laterally from the upper end of said rigid jaw, a substantially L-shaped movable jaw beneath said arm, means whereby said L-shaped jaw may be locked in contact with said arm, and an operating handle projecting laterally from the rigid jaw.

2. A rail lifting tool comprising an upright rigid jaw having a laterally turned nose on its lower end, an arm projecting laterally from the upper end of said jaw and overlying said nose, the lower face of said arm inclining upwardly and outwardly from its juncture with said rigid jaw, a substantially L-shaped movable jaw beneath said arm and having an inclined upper surface contacting with the inclined surface thereof, means whereby said movable jaw may be locked in adjusted position and an operating handle projecting laterally from the rigid law.

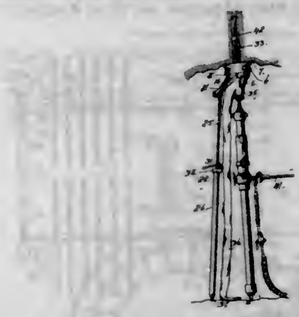
3. A rail lifting tool comprising an upright rigid jaw having a laterally turned nose on its lower end, a slotted arm projecting laterally from the upper end of said rigid jaw and overlying said nose, a substantially L-shaped movable jaw beneath said arm and contacting therewith, an adjusting bolt passing through said movable jaw and through a slot in said arm, and an operating handle projecting laterally from the rigid jaw.

4. A rail lifting tool comprising an upright rigid jaw having a laterally turned nose on its lower end, a slotted arm projecting laterally from the upper end of said rigid jaw and overlying said nose, said arm having its lower surface inclined upwardly and outwardly from its juncture with said rigid jaw, a substantially L-shaped movable jaw beneath said arm and having an inclined upper surface contacting with the inclined lower surface thereof, an adjusting bolt passing through said movable jaw and through the slot in said arm, and an operating handle projecting laterally from the rigid jaw.

5. A rail lifting tool comprising an upright rigid jaw having a laterally turned nose on its lower end, an arm projecting laterally from the upper end of said jaw and overlying said nose, said arm having its free end bent downwardly to form a stop, a substantially L-shaped movable jaw beneath said arm and designed to be limited in its outward movement by said stop, means for locking said movable jaw in adjusted position, and an operating handle projecting laterally from said rigid jaw.

[Claim 6 not printed in the Gazette.]

1,131,052. DUST-COLLECTOR FOR ROCK-DRILLS. EMMET F. GALLIGAN, Idaho Springs, Colo., assignor of one-half to Henry E. Woodward, Denver, Colo., and one-fourth to William H. Galligan, Idaho Springs, Colo. Filed May 14, 1914. Serial No. 838,495. (Cl. 255—50.)



1. A dust collector for rock drills, comprising a hood, a supporting standard and a universal joint connection between the standard and hood for supporting the latter in place against the breast of the rock, the universal joint connection comprising two pivotal joints having their axes at right angles to each other, the parts of each joint being freely movable at all times during the operation of the device.

2. A dust collector for rock drills, comprising a hood, a supporting standard and a bracket pivotally connected with the hood at one extremity and with the standard at the other extremity, the axes of the pivots at the opposite ends of the bracket extending at right angles to each other, the bracket being free to move on said pivots at all times during the operation of the device.

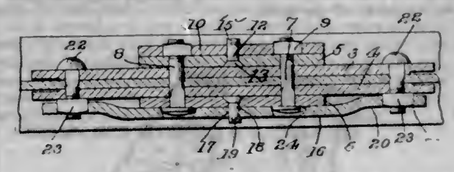
3. A dust collector for rock drills, comprising a hood adapted to engage the breast of the rock around the drill hole, a supporting standard, a reinforcing member surrounding the hood and whose axis is substantially coincident with the axis of the hood, and a universal joint connection between the standard and said member, the parts of said joint being freely movable at all times.

4. A dust collector for rock drills, comprising a hood, a supporting standard, a reinforcing member surrounding the hood, the axis of said member being substantially coincident with the axis of the hood, and a bracket having one extremity pivotally connected with the said reinforcing member, while the other extremity is pivotally connected with the standard, the axes of the two pivots extending at right angles to each other, the parts connected by both pivots being freely movable at all times.

5. A dust collector for rock drills, comprising a hood, a supporting standard and a forked bracket whose arms embrace the hood on opposite sides and are pivotally connected therewith, the base of the bracket having a stem journaled on the standard, the axes of the pivots and journal extending at right angles to each other.

[Claims 6 to 9 not printed in the Gazette.]

1,131,053. NUT-LOCK. JOHN G. GARLAND, High Point, N. C. Filed July 29, 1914. Serial No. 853,848. (Cl. 151—54.)



1. A nut lock in combination with fish plates of a rail joint, spacing plates mounted upon said fish plates and opposed to one another, pins having heads countersunk in the inner faces of said spacing plates and projecting outwardly from said plates, locking plates having central openings therein to receive said pins and provided with openings adjacent to each end of angular formation to receive nuts, one of said locking plates being longer than the other and provided with openings to receive the heads of bolts, bolts inserted through the rails and plates, nuts turned on said bolts, all of said nuts being disposed within the openings to receive the nuts and held against rotation, and certain of the heads of said bolts being disposed within the longer locking plate.

2. The combination with the rails of a rail joint, and fish plates mounted on opposite sides of said rails, of spacing plates of less length than the fish plates mounted upon opposed sides of the rails and on the fish plates, pins removably secured to the spacing plates and extending outwardly therefrom, locking plates having central openings therein to receive said pins, one of said locking plates being approximately the same length as the spacing plates and having squared openings adjacent to its end, the other of said locking plates being approximately the same length as the fish plates and having squared openings formed therein adjacent to its ends, bolts inserted through the rails, fish plates and outer ends of said last named locking plate, nuts turned on said bolts and to be received within the openings in the outer ends of said last named locking plate, said last named locking plate having its ends offset inwardly and provided centrally of its ends with spaced openings that are enlarged inwardly, bolts inserted through the fish plates, locking plates and spacing plates and having their heads disposed within the last named openings in said last named locking plate, nuts turned on said last named bolts and disposed within the squared openings in said first named locking plate and cotter pins inserted transversely through the outer ends of the pins carried on said spacing plates.

3. In a nut lock the combination with the fish plates of a rail joint, spacing plates mounted upon said fish plates, pins carried by said spacing plates, locking plates having central openings therein and polygonal openings in the ends thereof mounted upon the spacing plates and having the pins received in the central openings therein, one of said locking plates being longer than the other and having its ends offset inwardly, bolts inserted through the several plates and the rails, nuts turned on said bolts and disposed within said polygonal openings in the locking plates, and means to hold said locking plates upon the spacing plates.

1,131,054. SCABBARD OR HOLSTER HANGER. ISADOR GLASSMAN, Kalamazoo, Mich. Filed May 4, 1912. Serial No. 695,237. (Cl. 2—61.)

1. In a scabbard or holster hanger, the combination with a coat having a horizontal slit-like opening across one of its side seams; a fly arranged on the inside of the coat to extend upwardly from said opening, the ends of the fly being secured to the coat, its lower edge being secured to the lower edge of said opening, the upper edge of the fly being open to receive a sling; a hanger strap secured to the side seam of the coat above said opening having a loop at its upper end encircling the arm opening, the loop

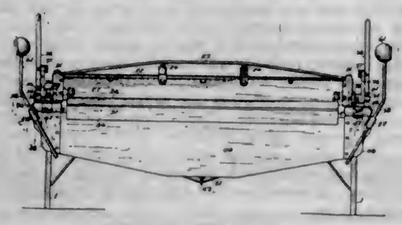
being secured in the arm seam, the lower end of the hanger strap terminating in a sling attaching ring above the upper edge of said fly; and a sling suspended from said hanger strap and adapted to hang through said side opening or inside of the coat.



2. In a scabbard or holster hanger, the combination with a coat having a horizontal slit-like opening across one of its side seams; a hanger strap secured to the side seam of the coat above said opening having a loop at its upper end encircling the arm opening, the loop being secured in the arm seam, the lower end of the hanger strap terminating in a sling attaching ring above the said opening; and a sling suspended from said hanger strap and adapted to hang through said side opening or inside of the coat.

3. In a scabbard or holster hanger, the combination with a coat having horizontal slit-like opening at one side; a fly arranged on the inside of the coat to extend upwardly from said opening, the ends of the fly being secured to the lower edge of said opening, the upper edge of the fly being open to receive the sling; a hanger strap secured to the coat above said opening, the lower end of the hanger strap terminating above the upper edge of said fly; and a sling suspended from said hanger strap and adapted to hang through said side opening or inside of the coat.

1,131,055. SHEET-METAL-BENDING MACHINE. FREDERICK GOELER, San Francisco, Cal. Filed Sept. 2, 1913. Serial No. 787,557. (Cl. 153—16.)

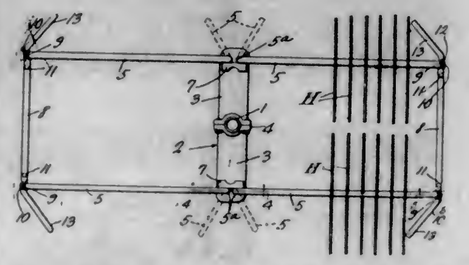


1. In a sheet metal bending machine, a pivoted jaw having end arms or plates, a rod in bearings in said plates, a rod, links through the lower ends of which the ends of the rod pass, levers fulcrumed upon the ends of the machine and to which are pivotally connected the upper ends of the links, each lever being formed in its front edge with a recess the upper side of which can engage the corresponding end of the rod to receive part of the upward stress on the rod.

2. In a sheet metal bending machine, a pivoted jaw comprising a cylinder, pivoted end arms or plates, around and secured to the cylinder and rod in bearings in said plates, links through the lower ends of which the ends of the rod pass, levers fulcrumed upon the ends of the machine and to which are pivotally connected the upper ends of the links, each lever being formed in its front edge with a recess the upper side of which can engage the corresponding end of the rod to act as a cam to depress the jaw.

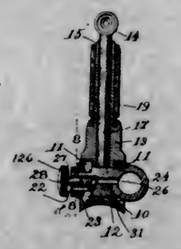
3. In a sheet metal bending machine, a pivoted jaw having end arms or plates, a rod in bearings in said plates, a rod, links through the lower ends of which the ends of the rod pass, levers fulcrumed upon the ends of the machine and to which are pivotally connected the upper ends of the links, each lever being formed in its front edge with a recess the upper side of which can engage the corresponding end of the rod to receive part of the upward stress on the rod, the parts being arranged so that the lower ends of the links swing to their closing position past the center lines between the pivots of the levers on the machine and the pivots of the links on the levers.

1,131,056. CLOTHES-DISPLAY RACK. THOMAS F. GRAHAM, Tampa, Fla. Filed Sept. 18, 1914. Serial No. 862,372. (Cl. 211—14.)



A display rack embodying a standard, a bracket secured thereto and projecting in opposite directions therefrom, two hanger-supporting arms pivoted to each end of the bracket, the arms being arranged in pairs at the opposite sides of the bracket, the bracket having stops for limiting the movement of the arms of each pair toward each other, and tie rods detachably engaged to the free ends of the arms of the respective pairs for holding the arms against the stops.

1,131,057. SIGHT FOR FIREARMS. DAVID GRANT, Middlefield, Conn., assignor to The Lyman Gun Sight Corporation, Middlefield, Conn., a Corporation of Connecticut. Filed June 4, 1914. Serial No. 843,054. (Cl. 33—57.)



1. In a sight for fire arms, the combination of a base, a sight carrying member, a hinge connection between the latter and the base, a latch device comprising a notch-carrying member, and a detent movable into and out of engagement with the notch of said notch-carrying member, one of said parts being mounted on the base and the other on the sight-carrying member, and a detent lock movable into and out of engagement with the detent.

2. In a sight for fire arms, the combination of a base, a folding sight part hinged to the base and provided with a detent notch, a detent mounted for engagement with said detent notch, and a detent lock movable into and out of the range of motion of the detent.

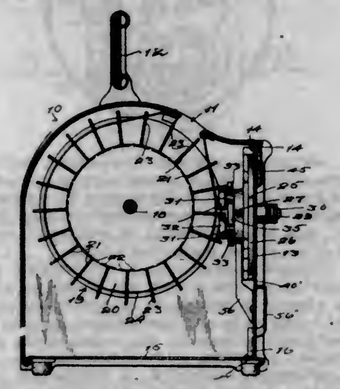
3. In a sight for fire arms, the combination of a base having a shoulder, a folding sight part hinged upon the base and provided with a detent notch, a detent mounted for engagement with said detent notch, and a lock insertible between the detent and said shoulder.

4. In a sight for firearms, the combination of a base, a folding sight part hinged upon the base and provided with a detent notch, a detent mounted for engagement with said detent notch, and a rotatable lock movable by its rotation into and out of the path of movement of the detent.

5. In a sight for fire arms, the combination of a base provided with a pair of ears, a cylindrical journal bolt mounted through the ears of the base, a folding sight part journaled upon the hinge bolt and provided with a detent notch, and a radially movable detent mounted in the hinge bolt and adapted for engagement with said detent notch, and a chocking part mounted within the hinge bolt and insertible in the path of the detent.

[Claims 6 to 10 not printed in the Gazette.]

1,131,058. VENDING-MACHINE. MILTON O. GRISWOLD, Rock Island, Ill., assignor to Griswold Manufacturing Co., Rock Island, Ill., a Corporation of Illinois. Filed Jan. 12, 1914. Serial No. 811,658. (Cl. 211—8.)



1. A vending machine of the character described, comprising a plurality of movable connected article holding pockets, a pivoted head disposed near and upon one side of the pocket, a pair of spaced members secured to one side of pivoted head and arranged to be moved into and out of engagement with the walls of the pockets to advance the same and hold them against improper movement, and means to move the pivoted head.

2. A machine of the character diescribed, comprising a plurality of movably mounted connected article holding receptacles, a pivotally manually operated operating element arranged near and upon one side of the adjacent receptacles, and a laterally extending member carried by the said element to rotate therewith and have slidable engagement during a portion of its movement with the outer extension of one of the receptacles.

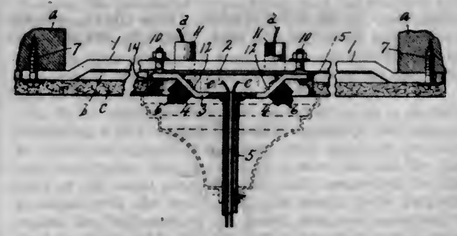
3. A machine of the character described, comprising a plurality of movably mounted connected article holding receptacles having their side walls provided with openings in registration for forming in effect a groove, a rotatable element mounted near the connected receptacles, and a plurality of members carried by the rotatable element and so arranged that when one of them is operating in slidable engagement with the side wall of one receptacle the other is operating within the groove.

4. A machine of the character described, comprising a rotatable drum provided with a plurality of radially arranged partitions affording article holding receptacles therebetween, a manually operated pivoted element arranged near and upon one side of the rotatable drum, and a member carried by the said element and adapted to operate in engagement with the partitions.

5. A machine of the character described, comprising a rotatable drum provided with a plurality of lateral extensions, a rotatable element arranged near and upon one side of the drum, and a member carried by the rotatable element for rotation therewith and arranged to successively engage and disengage the lateral extensions.

[Claims 6 to 14 not printed in the Gazette.]

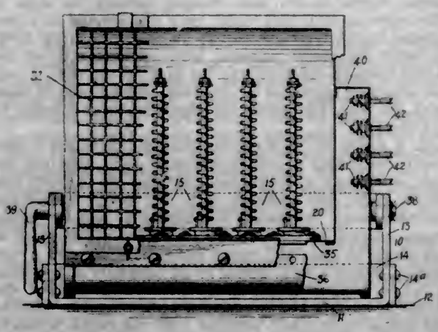
1,131,059. SUPPORT FOR ELECTRIC FIXTURES. CHARLES H. GROFFMAN, Syracuse, N. Y. Filed May 8, 1913. Serial No. 766,380. (Cl. 248—10.)



1. In a support for electric fixtures, the combination of a hollow base, a fixture-supporting bar removably mounted within and upon the base and having its central portion depressed below its ends and provided with means for attaching a fixture, insulators secured to said bar at opposite sides of said fixture attaching means, and binding posts for supply and fixture wires mounted on the insulators.

2. In a support for electric fixtures, the combination of an inverted cup-shape base, a cross-bar within the base and movable relatively thereto, means for holding the bar in operative position on the base, said bar having central attaching means for a fixture, insulators on the bar at opposite sides of the fixture attaching means, and binding posts for the fixture wires secured to the insulators.

1,131,060. ELECTRIC HEATER. WILLIAM S. HADAWAY, Jr., New Rochelle, N. Y. Filed Sept. 26, 1913. Serial No. 791,932. (Cl. 219—34.)

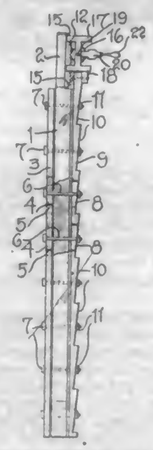


1. An electric heater comprising a standard, a casing pivotally mounted on the standard, a substantially horizontal bar forming a part of the casing, a plurality of sockets secured to the bar, and a plurality of heater units each comprising a plug coöperating with one of the sockets, the upper part of said casing being shaped to provide a reflector for the heaters.

2. An electric heater comprising a stationary standard, having a pair of spaced uprights, a U-shaped rib pivotally mounted on the uprights of the standard, a casing secured to the rib, a substantially horizontal bar forming a part of the casing, a plurality of sockets secured to the bar and extending therethrough, and a plurality of heater units, each comprising a plug coöperating with one of the sockets, the upper part of said casing being shaped to provide a reflector for the heaters.

3. An electric heater comprising a standard, a support pivotally mounted thereon, a casing secured to the support and having an open reflector portion and a closed terminal box, a plurality of sockets secured to the top of the terminal box and extending therethrough, heater units removably mounted in the sockets and extending into the reflector portion, and means for adjusting the position of the support.

1,131,061. WIRE-STRETCHER. FRED HAYS, Assumption, Ill. Filed Sept. 10, 1914. Serial No. 861,107. (Cl. 254—83.)

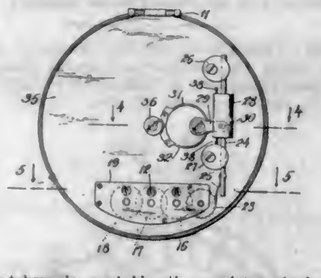


1. A device of the character described including a wire clamp comprising a body, a clamping plate overlying one face of the body, a wedge-plate overlying the opposite face of the body, said clamping plate and wedge plate being provided with elongated longitudinally disposed slots, means carried by the body disposed through the slots of the clamping plate and wedge plate and serving as a tensioning means, a rack carried by an extremity of the body, a frame detachably engaged with an extremity of the wedge member and overlying the rack on the body, a pinion rotatably supported by the frame and adapted to mesh with the rack, and means for imparting axial rotation to the pinion.

2. A device of the character described including a wire clamp comprising a body, a clamping plate overlying one face of the body, a wedge plate overlying the opposite face of the body, said clamping plate and wedge plate being provided with elongated longitudinally disposed slots, means carried by the body disposed through the slots of the clamping plate and wedge plate and serving as a tentioning means, a rack carried by an extremity of the body, a frame detachably engaged with an extremity of the wedge member, a pinion provided with trunnions whereby the pinion is rotatably engaged with the frame, a forked member straddling the pinion and pivotally engaging the trunnions thereof, said forked member being provided in its base portion with an opening, and an operating lever projecting from the opening and engageable with the pinion, said lever being capable of longitudinal movement relative to the pinion.

3. A device of the character described including a wire clamp comprising a body, a clamping plate overlying one face of the body, a wedge plate overlying the opposite face of the body, said clamping plate and wedge plate being provided with elongated longitudinally disposed slots, means carried by the body disposed through the slots of the clamping plate and wedge plate and serving as a tensioning means, a rack carried by an extremity of the body, a frame detachably engaged with an extremity of the wedge member, a pinion provided with trunnions whereby the pinion is rotatably engaged with the frame, a forked member straddling the pinion and pivotally engaging the trunnions thereof, said forked member being provided in its base portion with an opening and an operating lever projecting from the opening and engageable with the pinion, said lever being capable of longitudinal movement relative to the pinion, and means for normally maintaining the lever in engagement with the pinion.

1,131,062. PEDOMETER ATTACHMENT FOR WATCHMEN'S PORTABLE TIME-REGISTERS. CHARLES H. JENKINS, Belleville, N. J., assignor to Newman Clock Company, New York, N. Y., a Corporation of New York. Filed Jan. 4, 1911. Serial No. 600,712. (Cl. 235—105.)



1. A watchman's portable time-register, including a clock-case having a lid, a pivoted support carried by the lid, and means mounted on the support for registering the distance traversed by the watchman carrying the time-register, said means including an oscillatory device arranged at one side of the pivoted support.

2. A pedometer, comprising, in combination, an elongated pawl, a support at each end thereof in which the pawl is adapted to reciprocate, a pivoted arm having its free end connected to said pawl between the ends thereof, and mechanism actuated by the motion of the pawl for counting and registering units of distance.

3. A pedometer, comprising, in combination, an elongated pawl, a support at each end thereof in which the pawl is adapted to reciprocate, a pivoted arm having its free end connected to said pawl between the ends thereof by means of a lost motion connection, and means actuated by the motion of the pawl for counting and registering units of distance.

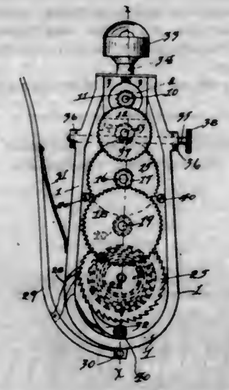
4. A pedometer, comprising, in combination, an elongated pawl and weight, a support at each end thereof in which the pawl is adapted to reciprocate the weight on said pawl located between the supports, a pivoted arm having its free end connected to said pawl, opposing springs contacting with said arm and adapted to damp the movement of said pawl, and means actuated by the motion of the pawl for counting and registering units of distance.

5. A pedometer, comprising, in combination, an elongated pawl, a support at each end thereof in which the pawl is adapted to reciprocate, means on said pawl to regulate the amplitude thereof, registering means, and means also on said pawl for converting the reciprocity motion thereof into rotary motion of the registering means.

[Claims 6 to 11 not printed in the Gazette.]

1,131,063. PORTABLE MAGNETO-ELECTRIC MACHINE. CONRAD KLEMMER, Bisbee, Ariz. Filed Feb. 19, 1912. Serial No. 678,477. (Cl. 171—76.)

1. A mechanism for generating electric current adapted to be held in the hand and manually operated, comprising the combination of a horse shoe magnet, an armature and pole pieces located between its poles, side plates mounted on its sides, a train of gears adapted to rotate said armature, a spring which drives the master gear, a ratchet wheel journaled on the shaft which carrigs the master gear having an annular recess therein in which the said spring is located, one end of said spring being secured to the hub of the master gear, the other end being secured to the ratchet wheel, a detent to prevent the reverse movement of said ratchet wheel, a lever pivotally attached to said magnet, a pawl, carried by the lever, which engages the teeth of the ratchet wheel, and a spring to hold said lever normally away from said magnet, all of said mechanism being located between the side plates, which together with the magnet completely inclose said mechanism, whereby it is protected from dust and dirt.



2. A mechanism for generating electric current adapted to be held in the hand and manually operated, comprising the combination of a horse shoe magnet, an armature and pole pieces located between its poles, side plates mounted on its sides, a train of gears adapted to rotate said armature, a spring which drives the master gear, a ratchet wheel journaled on the shaft which carries the master gear having an annular recess therein in which the said spring is located, one end of said spring being secured to the hub of the master gear, the other end being secured to the ratchet wheel, a detent to prevent the reverse movement of said ratchet wheel, a lever pivotally attached to said magnet, a pawl, carried by the lever, which engages the teeth of the ratchet wheel, and a spring to hold said lever normally away from said magnet, a brake for said train of gears to hold them from said rotation, all of said mechanism being located between the side plates, which together with the magnet completely inclose said mechanism, whereby it is protected from dust and dirt.

1,131,064. HORSESHOE-PAD. FREDERICK KOPF, Memphis, Tenn. Filed Jan. 11, 1915. Serial No. 1,482. (Cl. 168—13.)



1. A horseshoe pad of the class described, comprising a metallic shoe formed of a length less than the length of the shoe proper, an elastic pad located upon the upper face of the shoe, said pad extended beyond the heel ends of the shoe and provided with heel calks, a metal plate inlaid in the heel calks and pad, a second pad located upon said pad having the inlaid plate and a pad having located thereon wool secured to said second pad.

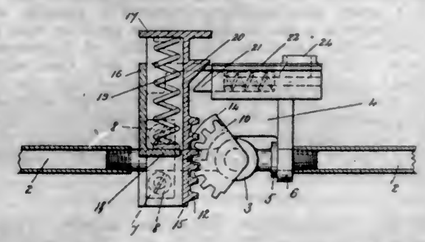
2. In a horseshoe pad of the character described, the combination of a metallic shoe, a pad provided with heel calks, said pad formed of a size and shape to correspond with a horse's foot, a metallic plate located in the heel portion of the pad, a sheepskin pad located above the pad provided with the heel calks and upon the upper side of the shoe.

3. In a horseshoe pad, the combination of a metallic horseshoe, a pad located upon said horseshoe and adapted to cover the bottom of a horse's foot, said pad provided with heel calks, said heel calks located beyond the heel ends of the metal shoe, a metal plate secured to the pad provided with the heel calks, said metal plate extended beyond the heel ends of the metal shoe and embedded in the heel calks.

4. In a horseshoe pad, the combination of a metallic horseshoe, a pad located upon said horseshoe and adapted to cover the bottom of a horse's foot, said pad provided with heel calks, said heel calks located beyond the heel ends of the metal shoe, a metal plate secured to the pad provided with the heel calks, said metal plate extended beyond the heel ends of the metal shoe and embedded in the heel calks, and in the heel calk tie member.

5. In a horseshoe pad, the combination of a metallic horseshoe, a pad located upon said horseshoe and adapted to cover the bottom of a horse's foot, said pad provided with heel calks, said heel calks located beyond the heel ends of the metal shoe, a metal plate secured to the pad provided with the heel calks, said metal plate extended beyond the heel ends of the metal shoe and embedded in the heel calks and in the heel calk tie member, and a sheepskin having the natural wool located thereon, adapted for contact with the sole of a horse's foot.

1,131,065. LOCKING VALVE. HERMAN E. KUHNER, Oxford, Md.; Rose L. Kuhner executrix of said Herman E. Kuhner, deceased. Filed Jan. 23, 1914. Serial No. 813,968. (Cl. 137—7.)



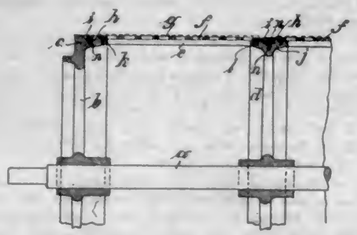
1. The combination, with a horizontal supply pipe, and a valve secured thereto; of a frame secured to and supported by the said parts and provided with a vertical guide and a horizontal socket, a push-bar slidable in the guide and having a foot-plate at its top and a laterally projecting tooth, a spring which normally holds the foot-plate raised and the valve open, intermediate operating mechanism between the push-bar and the valve, and an automatic catch slidable in the said socket and engaging with the said tooth and holding the valve closed when the foot-plate is depressed.

2. The combination, with a frame provided with a guide and a lug arranged at opposite ends of said frame, of a valve provided with a casing having horizontal tubular end portions one of which engages with the said lug, a clamp which secures the other end portion to the frame, a push-bar having a foot-plate at its top and slidable vertically in the said guide, intermediate operating mechanism connecting the push-bar with the valve, a spring which slides the push-bar in one direction and normally holds the valve open, and a catch which engages automatically with the push-bar when it is slid in the reverse direction to close the valve.

3. The combination, with a frame provided with a guide and an abutment, of a valve secured to the frame,

a hollow push-bar slidable in the guide and having a foot-plate at one end, a spring arranged in the push-bar between its foot-plate and the said abutment, intermediate operating mechanism connecting the push-bar with the valve, and a catch which engages automatically with the push-bar when it is slid forcibly against the pressure of the said spring to close the valve.

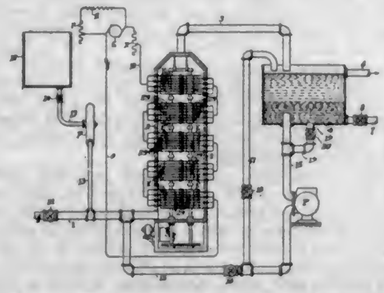
1,131,066. PAPER-SIEVE CYLINDER. CARL KURTZ-HÄHNLE, Reutlingen, Germany. Filed Jan. 23, 1913. Serial No. 743,711. (Cl. 92—43.)



1. A paper sieve cylinder comprising a plurality of wheel members, a rim for each member provided with a circumferential groove and a plurality of transverse grooves, connecting bars between the said rims, each having a longitudinal groove therein alined with two of said transverse rim grooves, a plurality of sieve supporting sections carried by the rims and bars, and a plurality of sieve sections resting upon the supporting sections, and means for removably securing each sieve section to said rims and connectiug bars, said means comprising segmental and straight bars for fitting within said grooves and over the edges of the sieve sections whereby the outer surface of said sieve is substantially unobstructed.

2. A paper sieve cylinder comprising a plurality of wheel members, a rim for each member provided with a circumferential groove and a plurality of transverse grooves, connecting bars between the said rims, each having a longitudinal groove therein alined with two of said transverse rim grooves, a plurality of sieve sections, a hoop fastening device fitting each circumferential groove and a rod fastening device fitting each connecting bar groove whereby said sieve sections are removably secured to said wheel members.

1,131,067. PROCESS OF TREATING LIQUID. CLARENCE P. LANDRETH, Philadelphia, Pa. Filed June 10, 1914. Serial No. 844,120. (Cl. 204—25.)



1. The process of precipitating matter suspended in liquid, which consists in the reintroduction into liquid of a coagulant previously formed in that liquid in the presence of electric current.

2. The process of precipitating matter suspended in liquid, which consists in passing current through liquid, forming coagulant or flocculant in the liquid, sedimentizing the suspended matter with said coagulant or flocculant, and re-introducing said coagulant or flocculant into liquid under electrical treatment.

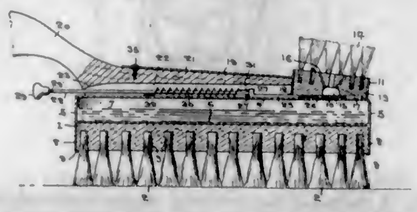
3. The process of precipitating matter suspended in liquid, which consists in passing electric current through liquid, sedimentizing the suspended matter therein with coagulant or flocculant, and introducing said coagulant or flocculant into raw liquid subjected to electrical treatment therewith.

4. The process of precipitating matter suspended in liquid, which consists in passing electric current through liquid, sedimentizing the suspended matter therein with a coagulant or flocculant, introducing said coagulant or flocculant into raw liquid subjected to electrical treatment therewith, and introducing a part of said sedimentized coagulant or flocculant into liquid subsequent to its electrical treatment.

5. The process of treating liquid, which consists in electrically treating the same and forming flocculant therein, and subjecting the same to previously sedimentized flocculant.

[Claims 6 to 12 not printed in the Gazette.]

1,131,068. BRUSH. ALFRED LIGHTFOOT, Williamsport, Pa. Filed Feb. 6, 1914. Serial No. 817,088. (Cl. 15—46.)



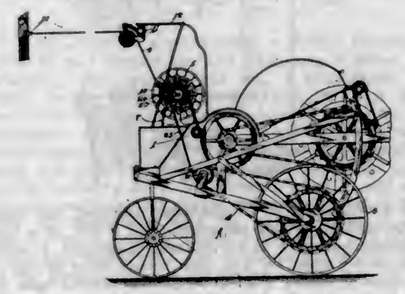
1. A brush of the class described, comprising a reservoir, a compartment upon the upper side and adjacent the forward end thereof, a dauber brush seated in said compartment, said reservoir and said dauber brush having registering ports, a channel formed in the head of said dauber brush between said ports, and a valve slidably mounted in said channel for establishing communication between said ports.

2. A brush of the class described, comprising a reservoir, a compartment upon the upper side and adjacent the forward end thereof, a dauber brush seated in said compartment, said reservoir and said dauber brush having registering ports, a channel formed in the head of said dauber brush between said ports, a valve slidably mounted in said channel and having a port for establishing communication between said ports, an ear formed at one end of said valve, and a stem secured to the ear of said valve and projecting beyond the rear end of said reservoir for actuating said valve.

3. A brush of the class described, comprising a reservoir, a compartment upon the upper side and adjacent the forward end thereof, a dauber brush seated in said compartment, said reservoir and said dauber brush having registering ports, a channel formed in the head of said dauber brush between said ports, a valve slidably mounted in said channel and having a port for establishing communication between said ports, an ear formed at one end of said valve, a stem secured to the ear of said valve and projecting beyond the rear end of said reservoir for actuating said valve, and a retracting spring having one end secured to the ear of said valve and its opposite end secured to the top of said reservoir for holding said valve rearwardly for normally closing the ports of said reservoir and said dauber brush.

4. A brush of the class described, comprising a reservoir, a compartment upon its upper side and adjacent the forward end thereof, a dauber brush seated in said compartment, said reservoir and said dauber brush having registering ports, a housing secured upon said reservoir and extending from the dauber brush compartment to the rearward end of said reservoir, said dauber brush compartment having an opening therein communicating with said housing, a channel formed in the head of said dauber brush between said ports and extending into said opening, a valve slidably mounted in said channel and having a port for establishing communication between the ports of said reservoir and said dauber brush, the rearward portion of said valve projecting through the opening of said dauber brush compartment and into said housing, an ear formed upon the projecting end of said valve, a handle for said brush, a shank formed upon said handle and secured in said housing, said shank having an elongated groove formed in its under side, a stem operating within said groove of said shank and having one of its ends secured to the ear of said valve and its opposite end projecting rearwardly beyond said reservoir and beneath said handle, a knob upon the projecting end of said stem and adapted to be pushed inwardly for actuating said stem and said valve, and a retractile spring within the groove of said shank having one of its ends secured to the ear of said valve and its opposite end secured to the top of said reservoir at a point rearwardly of said ear of said valve for holding said valve rearwardly for normally closing the ports of said reservoir and said dauber brush.

1,131,069. AUTOMATIC TAKE-UP REEL. GEORGE W. LORIMER, Piqua, Ohio, assignor to Sand Mixing Machine Company, Greenfield, Ohio, a Corporation of Ohio. Filed Apr. 20, 1911. Serial No. 622,195. (Cl. 242—91.)

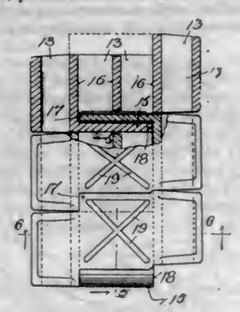


In an apparatus of the class described, the combination of a movable carriage and its driving mechanism, a shaft mounted on said carriage, a reel fixed on said shaft, a flexible cable having one end secured at a fixed point and the other connected to said reel, a counter shaft driven by said driving mechanism, a sprocket wheel loose on said reel shaft, a pawl and ratchet device on said counter shaft, means for driving said sprocket wheel from said counter shaft through said pawl and ratchet device, a pair of friction disks keyed to said reel shaft and between which said sprocket wheel is held and a spring tension device for coupling said sprocket wheel to said reel shaft.

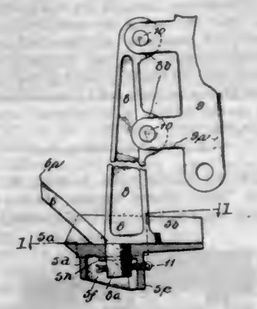
1,131,070. METALLIC TREAD FOR TIRES. PETER D. MILLOY, New York, N. Y. Filed Apr. 4, 1913. Serial No. 758,755. (Cl. 152—16.)

1. A metallic tread or armor for tires, composed of units coupled together, each unit presenting a smooth uninterrupted bearing surface for the tire, and having integral, reversely presented hook members extending partially across the same in opposite directions at the respective ends thereof for coupling engagement with coöperating hook members on the proximate ends of adjacent units, said hook members respectively terminating in off-set shoulders at the respectively opposite sides of the unit.

2. A metallic tread or armor for tires, composed of units coupled together, each unit presenting a smooth uninterrupted bearing for the tire, and having integral reversely presented hook members extending partially across the same from opposite sides of the same at the respective ends thereof, the unit at each end being extended at one side beyond the proximate end of the hook member at that end to form an abutting shoulder, the body of said unit having longitudinal air ducts or channels therethrough.



1,131,071. OPEN-TYPE BUCKET FOR EXCAVATING-MACHINES. FRANK J. MONAHAN, Joliet, Ill. Filed Nov. 5, 1913. Serial No. 799,280. (Cl. 37—24.)



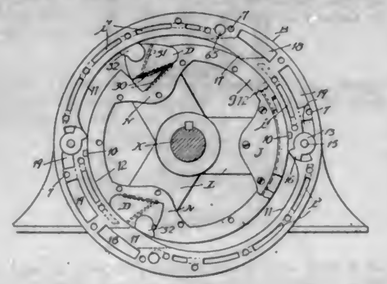
In combination with a trench digging machine, a substantially flat bucket, the front edge of which is pointed, and its two ends raised above its main body portion or face, a front and a rear wall running longitudinally the length of said bucket, and below or under said face, a series of transverse walls dividing the space between said front and rear walls into compartments, a series of teeth sharpened at their outer ends, adapted to pass through apertures in the face of said bucket and protrude forwardly therefrom, the lower ends of said teeth abutting against shoulders in said rear wall, cotter pins passing through said transverse walls and said teeth, and arms having lugs which pass through said bucket, and cotter pins passing through said lugs, said arms being adapted to be secured to the chain of said machine.

1,131,072. GAS TURBINE-ENGINE. JACQUES A. MORIN, Quebec, Quebec, Canada. Filed Jan. 6, 1913. Serial No. 740,572. (Cl. 123—17.)

1. In combination, an internal combustion motor casing, a motor shaft journaled therein, a rotor keyed to said shaft and revoluble in said casing, swinging pistons pivotally mounted in the rim of said rotor, valves controlling admission of fuel to said motor casing, a cam disk keyed to said motor shaft and provided with cams and pins, levers carried by said valves and adapted to be engaged and actuated by said cams, and spark plug terminals adapted to be engaged and actuated by said pins.

2. In combination, an internal combustion motor casing, a motor shaft journaled therein, a rotor keyed to said shaft and revoluble in said casing, swinging pistons pivotally mounted in the rim of said rotor, valves controlling admission of fuel to said motor casing, levers for operating

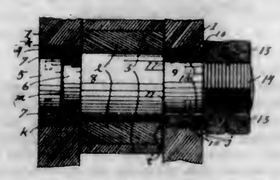
said valves, spark plug terminals arranged for igniting the explosive charge and a rotary part carried by said motor shaft and provided with means for actuating said levers and means for engaging and actuating said terminals.



3. A rotor and its casing, in combination with means for introducing an explosive mixture and means for exploding it between the said rotor and casing, a swinging piston carried by said rotor and means for moving said piston out toward said casing, the said piston being provided with a transverse bore 31 for the purpose set forth.

4. A rotor and its casing, in combination with means for introducing an explosive mixture and means for exploding it between said rotor and casing, a swinging piston, a pivoted part carried by said piston and a spring acting on said piston to press said pivoted part against the casing, said piston having a transverse bore 31 for the purpose set forth.

1,131,073. CROSS-HEAD PIN. SAMUEL M. MOSHER and WILLIAM G. WOOD, Grand Rapids, Mich. Filed Aug. 5, 1914. Serial No. 855,308. (Cl. 121—106.)



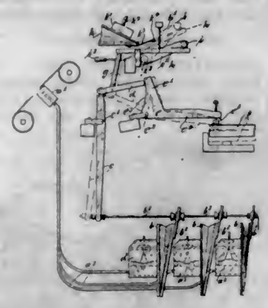
1. In combination with a locomotive cross-head having conical openings through the sides; a pin made smaller than said openings and provided with a shoulder and a small bearing at each end, detached conical collars divided longitudinally and arranged to fit closely in the conical openings in the cross head, and around the small bearings at the ends of the pin, all so arranged that by forcing the pin backward a short distance the collars may be removed and the pin drawn out toward the operator.

2. In combination with the cross-head having an inwardly tapering conical opening through each side, a collar fitted into the opening in one side of the cross-head and having an offset in the inner surface, the other collar fitted into the opening in the other side of the cross-head and having a plain inner surface, a wrist pin having a large central bearing and a small bearing at each end, one of said bearings having an offset on its surface to interlock with the offset in the surface of its collar, and means connected with said wrist pin for forcing the collars firmly into the tapering openings in the cross-head to cause them to clamp the small bearings on the pin very firmly.

3. In combination with a cross-head having an inwardly tapering conical opening through each side in direct central alinement, divided annular collars fitted a trifle larger than the openings through the cross-head, a wrist pin having a large central bearing and a small bearing at each end concentric therewith, said end bearings slightly larger than the inner diameter of the collars, means for preventing longitudinal movement of the pin in the collars and means for preventing the revoluble movement of the pins or the collars in their bearings, and means for forcing the collars into the openings in the cross-head and to firmly clamp the small bearings of the pin.

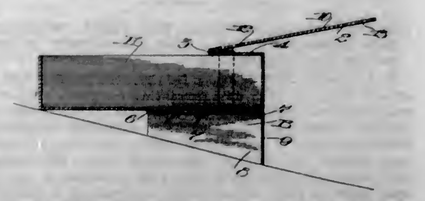
4. In combination with a locomotive cross-head having concentric inwardly tapering conical openings through its sides, a wrist pin having a large central bearing and smaller end bearings concentric therewith, divided conical collars made to clamp the smaller bearings on the pin firmly and having an outside diameter slightly larger than the internal diameter of the openings through the cross-head, the collar on the back end of the pin made to interlock with, and prevent longitudinal movement of the pin, keys and corresponding keyseats in the collar, the pin and the cross-head to prevent the collars and pin from revolving in their bearings, and means for forcing the collars to a firm bearing in the cross-head and on the pin.

1,131,074. PIANO-PLAYER. MARTIN NEWCOMER, New York, N. Y. Filed Apr. 27, 1912. Serial No. 693,616. (Cl. 84—160.)



In a mechanism of the character described, the combination with a striking pneumatic, and a key, of a lever positively connected to the striking pneumatic, a second lever to act upon the key, said second lever having an arm with a curved face, a thrust rod pivoted upon the first lever and coöperating with the curved face of said arm of the second lever, and means to shift said thrust rod toward and away from the fulcrum of the second lever whereby a uniform throw of the second lever is produced by a variable throw of the first lever, the second lever serving to check positively the travel of the movable member of the striking pneumatic when the second lever has completed its throw.

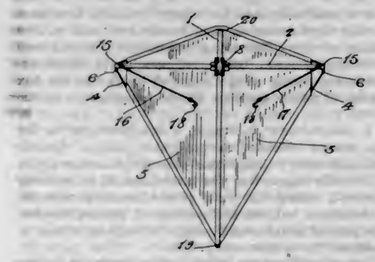
1,131,075. DISPLAY-BOX. WILLIAM J. O'DONNELL, Alameda, Cal. Filed Dec. 26, 1912. Serial No. 738,518. (Cl. 211—28.)



1. A display box comprising a box portion having a supplemental member hinged to the bottom of the box intermediate its ends, said member having trapezoidal side walls connected by rectangular end and bottom pieces in such manner as to form a reinforcing covering adapted to inclose half of the bottom, a portion of the sides and one end of the box during shipment thereof, and also capable of being turned about its hinge on the bottom of the box to form a support for said box to hold it in angular relation to the display counter.

2. A display box comprising a box portion having a supplemental member hinged entirely to the bottom of the box substantially intermediate its ends, said supplemental member being constructed and arranged to inclose one end and part of the sides and bottom of the box when in one position, and to form a flat bearing surface for substantially half the bottom of the box and hold it in angular relation to the supporting surface, when in the other position.

1,131,076. KITE. LE ROY S. PATCHEL, Darby, Pa. Filed Oct. 29, 1914. Serial No. 869,263. (Cl. 244—22.)



In a kite structure, a vertical arm, a bracket detachably carried by said vertical arm and comprising a socket for engagement with said vertical arm, a transversely extending socket formed integrally therewith, said first named socket having its marginal edges bent inwardly for engagement with the front side of said vertical arm, a resilient cross arm carried by said transversely extending socket, said cross arm having its ends slotted, a kite body, a string extending about the marginal edges of said kite body and seated in said slotted ends, lugs carried by said string for engagement with the under surface of said cross arm for preventing sliding movement of said string through said slotted ends, and means secured to said cross arm for bowing the same for bowing out the body of the kite.

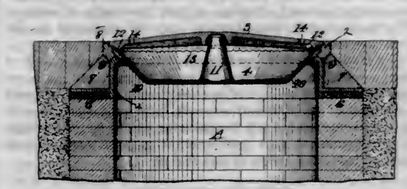
1,131,077. TIRE-COVER. PAUL PEIRCE, Los Angeles, Cal., assignor to R. B. Bailey Company, Los Angeles, Cal., a Corporation of California. Filed July 17, 1911. Serial No. 639,037. (Cl. 150—54.)



1. A tire cover adapted to surround a tire, said cover opening around its inner periphery, a bifurcated flap on one side of the cover forming a pair of circumferential flap members adapted to rest within the inner periphery of the tire, a flap on the other side of the cover adapted to be inserted between the members of said bifurcated flap, and spring means along the edge of the inner member of said bifurcated flap adapted to press the flaps toward the inner periphery of the tire to form a water-tight joint between said flaps.

2. A tire cover adapted to surround a tire, said cover opening around its inner periphery, a bifurcated flap on one side of the cover forming a pair of circumferential flap members adapted to rest within the inner periphery of the tire, a flap on the other side of the cover adapted to be inserted between the members of said bifurcated flap, and a circumferential spring ring extending along the edge of the inner member of said bifurcated flap adapted to press the flaps toward the inner periphery of the tire to form a water-tight joint between said flaps.

1,131,078. MANHOLE-COVER. CHARLES K. PICKLES, San Francisco, Cal., assignor to P. David & Company, San Francisco, Cal., a Corporation of California. Filed Apr. 1, 1914. Serial No. 828,686. (Cl. 94—7.)

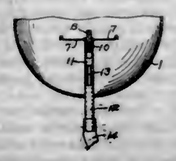


1. In a device of the character described, the combination with a frame of a manhole, of a cover having a plurality of vent holes formed therein, a pan supported in the frame below the cover, and a stand-pipe in the pan forming communication between the manhole and the vent holes to the atmosphere, said stand-pipe extending to a plane above the vent holes in the cover.

2. In a device of the character described, the combination with a frame of a manhole, of a cover having a plurality of vent holes formed therein, a conically shaped seat flange formed in the interior of the frame, a conically shaped pan supported on said seat, and a stand-pipe in the pan forming communication between the manhole and the vent holes to the atmosphere.

3. In a device of the character described, the combination with the frame of a manhole, of a cover having a plurality of vent holes formed therein near its outer periphery, said cover being convex in form and having an annular downwardly projecting flange formed on its lower surface, one side of which is corrugated, a conically shaped seat flange formed on the interior of the frame, a conically shaped pan supported on said seat and secured in position by the corrugated interior flange of the cover, and a stand-pipe in the pan forming communication between the manhole and the vent holes in the cover, the upper end of said stand-pipe being on a higher plane than the vent holes, substantially as described.

1,131,079. INCANDESCENT LAMP. CHARLES E. PIERCE, Cambridge, Mass. Filed Nov. 5, 1913. Serial No. 799,391. (Cl. 176—30.)



1. A non-renewable incandescent lamp having a bulb provided with a tip projecting from the bulb, a base, a

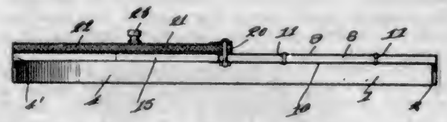
centrally arranged filament support extending from the stem, laterally extending supporting arms on said support, a filament carried thereby, and a prolongation of the filament support extending to and connected with the bulb to prevent entrance through the tip for purposes of renewal, the termination of said prolongation having a cross sectional area at least as great as that of the projecting tip, thereby overlying the entire tip, and thus preventing renewal of the filament.

2. A non-renewable incandescent lamp having a bulb provided with a tip projecting from the bulb, a base, a stem, a centrally arranged filament support extending from the stem, a filament, and a prolongation on said support preventing entrance to the bulb through the tip for purposes of renewal, the termination of said prolongation having a cross sectional area at least as great as that of the projecting tip, thereby overlying the entire tip, and thus preventing renewal of the filament.

3. A non-renewal incandescent lamp having a bulb, a base, a stem, a centrally arranged filament support extending from the stem, and a tubular prolongation secured to the end of the filament support, said prolongation having lateral openings within the bulb whereby a projection of said prolongation may be employed to exhaust the lamp prior to sealing off.

4. A non-renewable, incandescent lamp having a bulb, a base, a stem, a centrally arranged filament support extending from the stem, and a tubular prolongation secured to the end of the filament support, said prolongation having communication with the interior of the bulb, whereby the projection of said prolongation may be employed to exhaust the lamp prior to sealing off.

1,131,080. CONTAINER-COVER. WILLIAM PLAGG, Spokane, Wash. Filed July 10, 1913. Serial No. 778,373. (Cl. 217—84.)

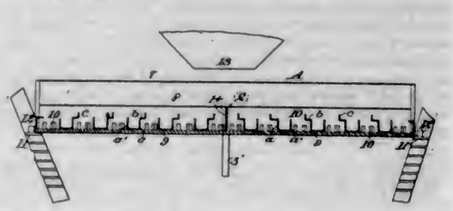


1. A cover comprising a rim formed from a strip of sheet material bent longitudinally to form inner and outer leaves, the inner leaf having its upper edge portion bent between said leaves to form a substantially solid base, the outer leaf extending above said inner leaf and having its edge portion bent to form a flange extending inwardly above the upper edge of said inner leaf and providing a seat, a stationary closure partially filling said rim and having its outer edge portion seated in said seat, and a movable closure pivotally connected with said stationary closure and having its outer edge portion resting upon said rim.

2. A cover comprising a rim having a substantially solid lower portion and provided with an upper flange overhanging the lower portion to form a seat, a stationary closure having its outer edge portion seated in said seat, said closure partially filling the space inclosed by said rim, and a movable closure having its inner end pivotally connected with said stationary closure and having its outer edge portion resting upon said rim.

3. A cover comprising a rim provided with an internal annular seat, a stationary closure partially filling the space inclosed by said rim, and having its outer edge portion fitting within said seat, a binding for the free edges of said stationary closure provided with an upper flange extending over the same and with lower tongues extending beneath the same, the outer end portion of said binding being bent to conform to the outer edge portion of said closure, and a movable closure for closing the unfilled portion of the space within said rim having its inner end portion pivotally connected with said stationary closure and having its outer edge portion resting upon said rim whereby said movable closure may be swung from a closed position to an open position.

1,131,081. GRAVITY-TRAP DRY SEPARATOR. DAVID F. PLATNER, Monterey, Cal., assignor of one-fourth to Ernest Michaelis and one-fourth to C. N. Tibbits, Monterey, Cal. Filed Mar. 17, 1914. Serial No. 825,272. (Cl. 83—54.)



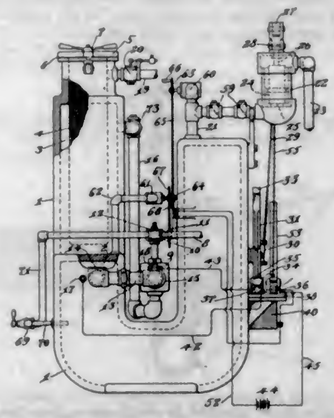
1. In a concentrator, a box, a series of spaced U-shaped riffles having their bases secured to the box bottom, one of the sides of the riffles being extended outwardly and then upwardly to form upper L-shaped parts which extend toward the center of the box, and staples in the box bottom some of which underlie the L-shaped parts of the riffles.

2. In a concentrator, a frame, a box mounted in the frame in spaced relation to the sides thereof, flexible standards connected to the frame and to the center of the box for pivotally supporting the latter, means to movably and adjustably engage the ends of the box to permit the latter to be set at varying inclinations by moving the box about its pivotal points, and means connected to one of the standards for reciprocating same.

3. In a concentrator, a frame, a box mounted in the frame in spaced relation to the sides thereof, flexible standards connected to the frame at their lower ends and to the center of the box at their upper ends so as to allow the box to be tilted at its ends with respect to the standards and about its pivotal points, means to reciprocate one of the standards, and means to slidably engage the box ends upon the angle of inclination of same being varied.

4. In a concentrator, a frame, a box in the frame spaced therefrom, means to movably support the box to allow same to be adjustably tilted or inclined relative to the support, means to reciprocate the box, and means to movably support the box in its adjusted inclined position.

1,131,082. VACUUM-PRODUCING APPARATUS. JOHN PARENT, Philadelphia, Pa. Filed July 8, 1914. Serial No. 849,736. (Cl. 60—22.)



1. In a device of the character stated, a casing having an explosion chamber therein provided with a mixture inlet and an exhaust outlet, a receptacle forming a receiving chamber adjacent said explosion chamber, an air conduit forming a means of communication between said receiving chamber and said explosion chamber, a check valve controlling said conduit, a filtering device located within said receiving chamber, an air supply pipe communicating with the interior of said filtering device, a gas supply pipe for delivering gas through said mixture inlet to said explosion chamber to form an explosive mixture, and means to fire said mixture whereby a vacuum is produced to exhaust said receiving chamber.

2. In a device of the character stated, a casing having an explosion chamber formed therein provided with a mixture inlet and an exhaust outlet, a carbureter connected to said mixture inlet, a gas supply pipe communicating with said carbureter, a receptacle forming a receiving chamber adjacent said explosion chamber, an air conduit providing communication between said receiving chamber and said carbureter, a filtering device located within said receiving chamber, a main air supply pipe having communication with the interior of said filtering device, check valves located respectively in said mixture inlet and exhaust outlet, a valve for controlling the supply of gas, means for producing an initial vacuum in said explosion chamber to draw in an explosive mixture, and means for firing said mixture within said explosion chamber whereby a vacuum is produced for the purpose of exhausting said receiving chamber.

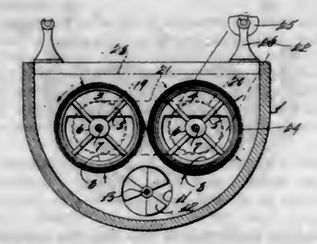
3. In a device of the character stated, a casing having a plurality of separated explosion chambers therein, each provided with a mixture inlet and an exhaust outlet, a carbureter common to said mixture inlets, a gas supply pipe communicating with said carbureter, a receptacle forming a receiving chamber adjacent said explosion chambers, a filtering device located within said receiving chamber, a main air supply pipe having communication with the interior of said filtering device, an air conduit forming communication between said receiving chamber and said carbureter, check valves located respectively in said mixture inlets and exhaust outlets, a valve for controlling the supply of gas, means for introducing a priming mixture into each of said explosion chambers, and means for alternately firing said explosion mixtures whereby a vacuum is produced in each of said chambers to draw in a new explosive mixture and also to exhaust said receiving chamber.

4. In a device of the character stated, a casing having a plurality of separate explosion chambers therein, each provided with a mixture inlet and an exhaust outlet, a carbureter common to said mixture inlets, a gas supply pipe communicating with said carbureter, a receptacle forming a receiving chamber adjacent said explosion chambers, a filtering device located within said receiving chamber, a main air supply pipe having communication with the interior of said filtering device, an air conduit forming communication between said receiving chamber and said carbureter, check valves located respectively in said mixture inlet and exhaust outlets, a valve for controlling the supply of gas, means for introducing a priming mixture into each of said explosion chambers, means for alternately firing said mixtures to produce an initial vacuum to draw in a new charge in each chamber, and means to automatically regulate said firing means whereby a substantially constant vacuum is produced to exhaust said receiving chamber.

5. In a device of the character stated, a casing having an explosion chamber therein provided with a mixture inlet and an exhaust outlet, a receptacle forming a receiving chamber adjacent said explosion chamber, a conduit forming a means of communication between said receiving chamber and said explosion chamber, a filtering device located within said receiving chamber, a supply pipe communicating with the interior of said filtering device, a carbureter connected to said conduit, a check valve in said conduit between said carbureter and said receiving chamber, a gas supply pipe connected to said carbureter, check valves located respectively in said mixture inlet and exhaust outlet, means to fire an explosive mixture within said explosion chamber, and means operated by the expelled gases after an explosion to control the timing of said firing means.

[Claims 6 to 14 not printed in the Gazette.]

1,131,083. DYEING PROCESS. ALBERT J. RAU, Clifton, N. J. Filed Mar. 4, 1914. Serial No. 822,815. (Cl. 8—5.)



1. The process of dyeing a fabric, which consists in forming a mass of a plurality of layers of the fabric arranged adjacent to each other, forcing the dye liquor through the said layers in succession in a certain direction, forming a second mass of the same fabric with the same layers arranged in reverse order, and forcing the dye liquor through the last named layers in succession in the same direction as before.

2. The process of dyeing a fabric, which consists in forming a mass of a plurality of layers of the fabric arranged adjacent to each other, forcing the dye liquor through the said layers in succession in a certain direction, forming a second mass of the same fabric with the same layers arranged in reverse order, forcing the dye liquor through the last named layers in succession in the same direction as before, and passing the fabric from one of said masses to the other while the dye liquor is being forced through said layers.

3. The process of dyeing a fabric, which consists in forming an open coil of layers of the fabric, forcing the dye liquor through the said layers in succession in a certain direction, forming a second coil of the same fabric of layers coiled in a reverse direction with respect to said first coil, and forcing the dye liquor through the second named coil in the same direction as before.

4. The process of dyeing a fabric, which consists in wrapping the fabric into a coil, forcing a dye liquor through the layers of said coil in succession, wrapping said web into a second coil coiled in a reverse direction with respect to said first coil, forcing the dye liquor through the layers of the second coil in succession so that the direction of movement of the liquor with respect to both coils is the same, and maintaining the coils immersed in a bath of the dye liquor.

5. The process of dyeing a fabric, which consists in wrapping the fabric into a coil, forcing a dye liquor through the layers of said coil in succession, wrapping said web into a second coil coiled in a reverse direction with respect to said first coil, forcing the dye liquor through the layers of the second coil in succession so that the direction of movement of the liquor with respect to both coils is the same, maintaining the coils immersed in a bath of the dye liquor, and circulating the dye liquor.

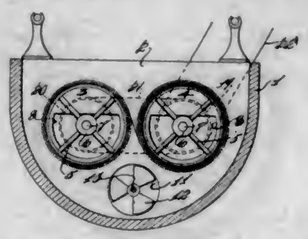
[Claims 6 and 7 not printed in the Gazette.]

1,131,084. DYEING APPARATUS. ALBERT J. RAU and JULIUS A. RAU, Clifton, N. J. Filed Mar. 11, 1914. Serial No. 823,847. (Cl. 8—19.)

1. In dyeing apparatus or the like, the combination of means for forming a plurality of layers of fabric in a position adjacent to each other, means for forming a plurality of layers of the same fabric in a reverse order, and means for forcing a liquid through the said layers in succession.

2. In dyeing apparatus or the like, the combination of means for forming a plurality of layers of fabric in a position adjacent to each other, means for forming a plurality of layers of the same fabric in a reverse order, and means for forcing a liquid through the layers in succession, both of said means for forming a plurality of layers

being movable so that the fabric may be passed from one of said means to the other.

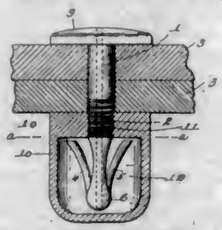


3. In dyeing apparatus or the like, the combination of means for forming an open coil of layers of fabric, means for forming a second coil of the same fabric of layers, and for coiling the same in a reverse direction with respect to the direction produced by the first said means, and means for forcing a liquid through the said layers in succession.

4. In dyeing apparatus or the like, the combination of a bath for containing a liquid, two separte means for forming a plurality of layers of the same fabric in a reverse order with respect to each means, and means for forcing a liquid through the said layers in succession, both of said first means being adapted to immerse the layers of fabric in the liquid in said bath, and means for causing a circulation of the liquid in the bath.

5. In dyeing apparatus or the like, the combination of a bath for containing a liquid, two rotatable drums immersed in said bath and adapted to wind a fabric on them in a reverse direction on each with the opposite surfaces of said fabric presented toward said drums in succession, and means for causing a circulation of the liquid.

1,131,085. NUT-LOCK. MATTHEW J. REILLY, West New Brighton, N. Y. Filed Aug. 31, 1912. Serial No. 718,090. (Cl. 151—28.)

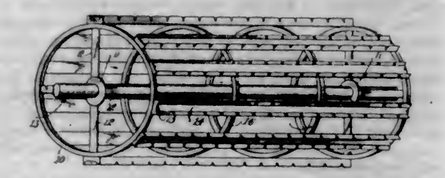


1. In a nut lock, a bolt having an uninterrupted threaded portion between its head and its nut ends, and provided beyond its threaded portion adjacent its nut end with a spring tongue struck up from the body of the bolt and normally projecting outwardly therefrom with its free end extending toward the head end of the bolt, and a hollow nut inclosing the tongue and nut end of the bolt and having one wall provided with a threaded aperture adapted to be turned onto the threaded portion of the bolt and serving to engage the free end of said tongue, thereby preventing loosening of the nut, substantially as described.

2. In a nut lock, a bolt having a threaded portion and provided with one or more tongues struck up from the body of the bolt adjacent its nut end and having free ends projecting toward the head end of the bolt, and a hollow nut inclosing said tongues and nut end of the bolt and provided in one of its walls with a threaded aperture for engagement with the threaded portion of the bolt, the apertured wall of the nut being adapted for engagement with the free ends of the tongues to prevent loosening of the nut, substantially as described.

3. In a nut lock, a bolt having a threaded portion and a nut retaining means on its end comprising a resilient portion struck up from the body of the bolt and normally disposed outwardly from the periphery of the bolt but shaped to be forced into at least flush relation with the periphery of the bolt, and a hollow nut having only one opening therein provided with threads and adapted to be forced over said end of the bolt and resilient portion to collapse the latter and thereafter release it and permit of expansion of said resilient portion abreast of one interior wall portion of the nut upon turning movement of the threaded opening of the nut onto the threaded portion of the bolt, substantially as described.

1,131,086. TOOTHLESS ATTACHMENT FOR THRESHING-MACHINES. JOHN S. RICHARDSON, Gibbs, Idaho. Filed Feb. 21, 1913. Serial No. 749,918. (Cl. 130—27.)

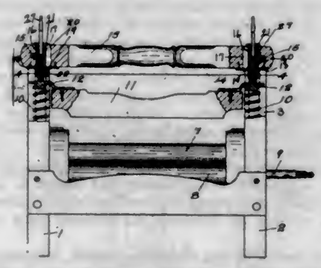


1. A threshing cylinder comprising a shaft, hoops positioned about said shaft, and longitudinally extending bars carried by said hoops, said bars being formed of channel bar provided with side flanges tapered for their entire depth and provided with alined cut outs extending the full depth of the side flanges.

2. An attachment for a threshing cylinder comprising a bar formed of channel bar having its side flanges tapered throughout their depth and provided with alined cut outs extending the full depth of the flanges.

3. An attachment for a threshing cylinder comprising a bar provided with a longitudinally extending flange tapered for its entire depth and having cut outs formed therein and extending substantially the entire depth of the flange.

1,131,087. WRINGER. WILLIAM ROBERTSON, Erie, Pa., assignor to Lovell Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Apr. 9, 1913. Serial No. 760,013. (Cl. 68—32.)

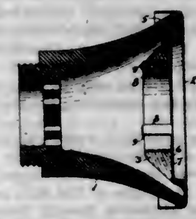


1. In a clothes wringer, the combination of a presser roll; a frame in which the rolls are mounted comprising as a permanent member of the frame a top rail, said top rail having a key-hole slot therein with a substantially flat surface on the under side of the rail adjacent to the slot; a spring exerting pressure on the roll; a rotary catch arranged in said slot, said catch having a lateral projection thereon adapted to engage the underside surface of the rail when the catch is turned, said catch being in the form of a nut for holding the spring under pressure, the pressure being in the direction of the axis of the catch; and a presser screw extending through the catch for adjusting the pressure on the spring.

2. In a clothes wringer, the combination of presser rolls; a frame in which the rolls are mounted comprising a top rail; springs arranged at each end of the rolls and extending upwardly; rotary catches swiveled in the top rails for holding the springs under pressure, the pressure on the catch being in an axial direction, said catch having projections interlocking with the rail and adapted to be released by a rotary motion; a screw arranged in each catch and each adapted to adjust one of the springs; and a connecting means between said catches whereby they may be rotated simultaneously.

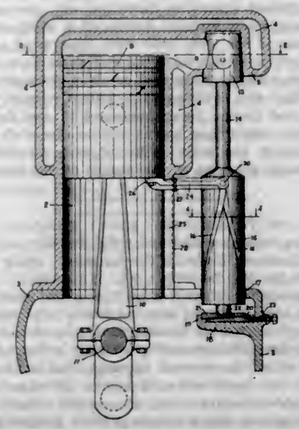
3. In a clothes wringer, the combination of presser rolls; a frame comprising side stiles in which the rolls are mounted and a top rail; springs arranged at each end of the rolls and extending upwardly in the side stiles; nuts rotatively and slidingly mounted in the rail above the springs, said nuts having interlocking projections thereon; means on the rail locking said projections and adapted to release the nuts when the nuts are rotated; screws in the nuts adjusting the pressure on the springs; a link connecting said nuts whereby they may be simultaneously operated; and a stop on one of the nuts co-acting with the link to stop the nut in locking position.

1,131,088. ANTISEPTIC ATTACHMENT FOR TELEPHONE-MOUTHPIECES. IRVING S. ROSENBLATT, San Francisco, Cal. Filed May 13, 1913. Serial No. 767,276. (Cl. 179—185.)



Means for maintaining a mouthpiece antiseptic comprising a ring of antiseptic material and an annular sheet metal holder securing said ring within the mouthpiece, having means engaging the front portion of the mouthpiece to hold it in place, the inner edge of the holder having rearwardly and outwardly extending fingers engaging the inner surface of the ring to hold the ring in position.

1,131,089. ROTARY VALVE. JOSEPH D. ROURK, Bridgeport, Conn. Filed Dec. 13, 1913. Serial No. 806,392. (Cl. 121—97.)



1. The combination with a cylinder and a reciprocatory member, of a rotary valve located outside of said cylinder and having a stem substantially parallel with said reciprocatory member, and means reciprocating with said reciprocatory member and coöperating with said valve stem for rotating said valve on the reciprocation of the reciprocatory member.

2. The combination with a cylinder having a reciprocatory piston therein and a lateral extension forming a valve seat, of a rotary valve located in said seat and having an enlarged portion extending in substantial parallelism with said piston, and means carried by said piston within the cylinder and coöperating with said enlarged portion for rotating the valve on the reciprocation of said piston.

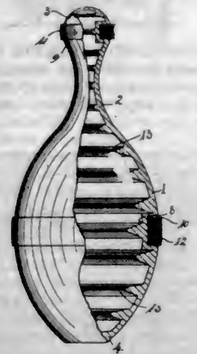
3. The combination with a cylinder having a lateral extension forming a tapered valve seat located exteriorly of the cylinder, of a rotary valve located in said seat, a reciprocatory piston in said cylinder, and connecting means extending through the side wall of said cylinder and adapted to impart rotary motion to said valve on the reciprocation of said piston.

4. The combination with a cylinder having a lengthwise extending slot and provided with means for the reception of a valve seat, and a reciprocatory piston within said cylinder, of a rotary valve comprising a head located in said seat, a valve stem provided with a plurality of oppositely extending spiral grooves, and a rod secured to said piston and extending through the slot in said cylinder and having a projection adapted to enter said grooves thereby to rotate the valve on the reciprocation of said piston.

5. The combination with a cylinder having a lengthwise extending slot, and provided with means for the reception of a valve seat, of a rotary valve located in said seat, and adapted to close said port, a valve stem connected to said valve and provided with a plurality of oppositely extending spiral grooves, a reciprocatory piston in said cylinder, and a rod connected to said piston and extending through the slot in said cylinder and having at its opposite end a yoke-shaped member provided with rollers for engaging a pair of said grooves thereby to rotate said valve on the reciprocation of said piston.

[Claims 6 to 29 not printed in the Gazette.]

1,131,090. TENPIN. HARRY F. SEIDEL and CHARLES W. VOSKAMP, Pittsburgh, Pa. Filed Sept. 16, 1914. Serial No. 862,121. (Cl. 46—66.)



1. A ten pin comprising a unitary hollow structure including a body, neck, and head, and reinforcing ribs formed integral with the inner face of said body, neck and head.

2. A ten pin comprising a unitary hollow structure including a body, neck, and head, triangular reinforcing ribs formed integral with the inner face of said body, neck and head, said ribs being triangular in cross section.

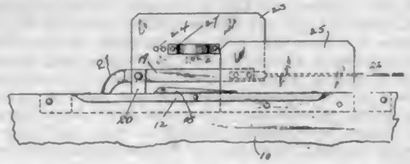
3. A ten pin comprising a hollow body terminating in a hollow neck, spaced reinforcing ribs formed integral with the inner faces of said neck and body, and a head detachably mounted on said neck.

4. A ten pin formed of a unitary hollow element including a body, neck and head, and annular spaced reinforcing ribs formed integral with the inner faces of said head, neck and body, said head and said body having an inset portion forming a circumferential groove, and bands mounted in said grooves and being of different material than that of the head and body.

5. A ten pin comprising a hollow metallic element including a body, neck, and head, and reinforcing ribs integral with the inner faces of said body, neck and head, and bands seated in said body and head, said bands formed of different material from the material of the body and head.

[Claim 6 not printed in the Gazette.]

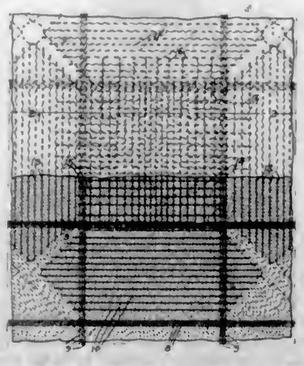
1,131,091. KAFIR-CORN HEADER. WILLIS P. SHELHAMER, Ashton, Kans. Filed Aug. 25, 1913. Serial No. 786,527. (Cl. 56—131.)



1. In a device for heading Kafir corn, a deck adapted to be secured to a wagon body, a guide member secured to the deck, said guide member and deck being positioned to form a throat for the stalks, a knocker carried by said guide member, and a knife blade carried by the deck to intersect said throat, said knife blade being inclined upwardly from front to rear, and also being upwardly inclined toward its cutting edge on a transverse section of the blade.

2. In a device for heading Kafir corn, a deck adapted to be secured to a wagon body, a guide member secured to the deck, said guide member and deck being positioned to form a throat for the stalks, a knocker carried by said guide member, and a knife blade carried by the deck to intersect said throat, said knocker extending over the knife blade to knock the stalks against the same and being adjustably mounted on said guide member in the direction of length of the throat to vary its position relative to the knife.

1,131,092. REINFORCED CONCRETE CONSTRUCTION. ALBERT H. SCHUETT, St. Paul, Minn., assignor to Patented Devices Company, Portland, Me., a Corporation of Maine. Filed Sept. 15, 1910. Serial No. 582,269. (Cl. 72—15.)



1. In a reinforced concrete building structure, the combination with a series of reinforced columns, of reinforced brackets formed integrally with said columns, and projecting therefrom in opposite directions, reinforcing girder rods 8 and 9, extending from column to column at right angles to each other and diagonally through the said brackets, near the ends thereof, and dividing the floor space into a series of panels, and a series of reinforcing floor slab rods arranged in each panel, parallel to each other, the rods in one row of panels being at right angles to the rods in the adjacent row of panels, substantially as described.

2. In a reinforced concrete building structure, the combination with a series of reinforced columns, of reinforced brackets formed integrally with said columns and projecting therefrom in opposite directions, reinforcing girder rods 8 and 9 arranged at right angles to each other and extending from column to column and through said brackets, near the outer ends thereof, and dividing the floor space into a series of panels, a series of floor slab rods 17 extending through each panel, at right angles to the girder rods 9, and a series of floor slab rods 19 extending through the panels of the next adjacent rows, at right angles to the girder rods 8, and a flat slab floor formed upon and supported by said girder rods and provided with hollow tile between said floor slab rods, substantially as described.

3. A girderless monolithic reinforced-concrete construction consisting of a plurality of main supports and a flat slab of concrete over the main supports, said supports being located at the angles of the slab, said slab comprising a central portion, reinforcement within the slab forming a plurality of beams having intersecting ends and arranged in the form of a polygon, said central portion being surrounded and supported by said beams, and reinforcement within the slab forming cantalivers over the main supports and supporting the beams at the angles of the polygon.

4. A girderless monolithic reinforced-concrete construction consisting of a plurality of main supports and a flat slab of concrete over the main supports, said supports being located at the angles of the slab, said slab containing reinforcement extending directly from one support to another and forming beams of a width exceeding the thickness of the slab, said slab comprising a central portion, reinforcement within the slab forming a plurality of beams lying between the first mentioned beams and the central portion, the second mentioned beams being arranged in the form of a polygon, and reinforcing means within the slab forming cantalivers over the main supports and supporting the second mentioned beams at the angles of the polygon.

5. A girderless monolithic reinforced-concrete construction consisting of a plurality of main supports and a flat slab of concrete over the main supports, said supports being located at the angles of the slab, said slab containing reinforcement extending directly from one main support to another and forming beams of a width exceeding the thickness of the slab, said slab comprising a central portion, reinforcement within the slab forming a plurality of beams lying between the first mentioned beams and the central portion and carrying said central portion, the second mentioned beams being arranged in the form of a polygon, and reinforcing means within the slab forming cantalivers over the main supports and supporting the second mentioned beams at the angles of the polygon.

1,131,093. SWITCH-PLATE. HENRY T. SPERRY, Waterbury, Conn., assignor to Waterbury Manufacturing Company, Waterbury, Conn., a Corporation. Filed May 12, 1913. Serial No. 767,076. (Cl. 173—330.)

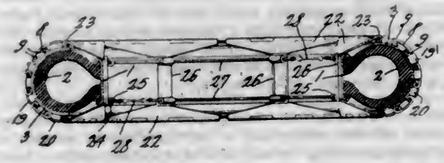
1. The combination with a switch plate formed from sheet metal with a central opening and a screw hole above said opening, the metal around said hole struck inward forming an inwardly extending integral collar, of a door adapted to close the central opening, and a hinge plate with which the upper end of the door is connected, said hinge plate formed with an opening to set over said collar by the upsetting of which the hinge plate is rigidly secured to the rear face of said switch plate.

2. The combination with a sheet metal switch plate formed with a central opening and with a screw hole above and a screw hole below said opening, the metal around said hole struck inward forming inwardly projecting collars, of a door adapted to close said opening, a hinge plate with which the said door is pivotally connected, said hinge plate formed with an opening adapted



to set over the upper collar the upsetting of which rigidly connects said hinge plate to the rear face of the switch plate, and a stop set over the lower collar which is upset whereby the said stop is rigidly secured to the inner face of the switch plate.

1,131,094. AUTO TIRE-PROTECTOR. JOHN K. TOMLINSON, Pickaway, W. Va., assignor of one-third to Robert M. Bell, Lewisburg, W. Va., and one-tenth to J. J. Townley, Ronceverte, W. Va. Filed Jan. 9, 1914. Serial No. 811,271. (Cl. 152—16.)



1. A tire protector comprising a plurality of strands; primary cleats connecting certain of the strands in pairs; secondary cleats disposed between the primary cleats and connecting the strands of said pairs respectively with other laterally disposed strands; and a filler having its ends inserted into the primary cleats, the filler including a projecting rib fitting in the space defined by the primary and secondary cleats.

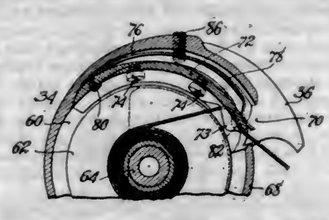
2. A tire protector comprising a tread; opposed side plates attached to the longitudinal edges of the tread and provided with projecting tongues; open links engaged over the tongues of opposed plates; and circumferential tightening devices slidably engaged with the tongues of the plates upon opposite sides of the tread, the links lying between the longitudinal edges of the plates and the tightening devices.

1,131,095. SHUTTLE. LAURENCE E. TOPHAM, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 20, 1912. Serial No. 698,458. (Cl. 112—23.)

1. A shuttle having an open-topped bobbin-receiving recess with a notch in the top of its side wall, and having a thread-tension comprising two relatively yielding, downwardly extending fingers at one side of the notch adapted to hold the bobbin thread between them.

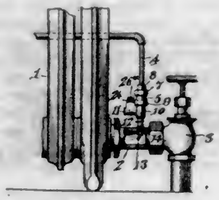
2. A shuttle having, in combination, a body having a bobbin-receiving recess, a plate secured to the shuttle body and forming a part of the face of the bobbin-receiving recess, and a thread-tension spring held between the plate and the shuttle body.

3. A shuttle having, in combination, a cup-shaped discoidal body having a substantially circular bobbin-receiving recess with a notch in the top of its side wall, a plate secured to the shuttle body, forming a part of the curved face of the bobbin-receiving recess, and terminating in a downwardly extending finger in proximity to the notch, and a leaf-spring held between the plate and the shuttle body with its end bearing against the finger to yieldingly engage the bobbin thread and form a thread-tension.



4. A shuttle having, in combination, a cup-shaped discoidal body having a substantially circular bobbin-receiving recess with a notch in the top of its side wall, a plate secured to the side wall within the bobbin-receiving recess and terminating in a thread engaging finger in proximity to the notch, a leaf-spring held between the plate and the shuttle body with its end bearing against the finger to yieldingly engage the bobbin thread and form a thread-tension, and a screw threaded through the side wall of the shuttle and bearing against the spring for adjusting the tension of the spring.

1,131,096. VACUUM RADIATOR-VALVE. GEORGE VAN DYKE, New Brunswick, N. J. Filed May 18, 1914. Serial No. 839,377. (Cl. 237—73.)



1. A nipple structure for radiators having a longitudinal bore and provided at the end portions with means for connecting the structure to pipes, the bore having adjacent passages leading laterally therefrom and at the ends remote from the passages provided with a common connection to the atmosphere, and a valve in and movable along the common connection to the atmosphere between said passages and beyond the atmospheric side of the passage closer to the atmospheric end of the common connection, that passage leading from the bore which is the nearer to the atmosphere being of smaller diameter than the other passage and the valve being free to move under pressures set up in the respective passages to close said common connection against communication with the atmosphere.

2. A nipple structure for radiators having a longitudinal bore with an air outlet from an intermediate portion of the bore, said outlet comprising a plurality of passages of different sizes with another passage connecting them together and opening to the atmosphere, said last-named passage being provided with spaced valve seats on opposite sides of the one of the first-named passages of smaller size, and a valve movable in the connecting passage between the valve seats and responsive to differences of pressure established in the passages.

3. A nipple structure for radiators, comprising an elongated body member having a nozzle at one end, and means for the connection of a pipe thereto at the other end, the body member being provided with a lateral offset and both the body member and nozzle having a continuous

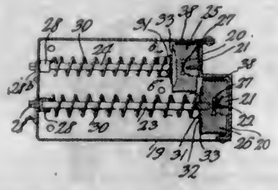
bore therethrough, the lateral offset being provided with passages of different sizes leading from the bore and having a bridging passage connecting them and extended to the atmosphere, and a pressure responsive valve in the bridging passage and movable therein to close said passage to the atmosphere.

4. A nipple structure for radiators comprising a body member with a nozzle continuation at one end for introduction into the steam inlet pipe of a radiator and at the other end provided with means for the attachment of a pipe thereto, said nozzle end being arranged at an angle to the longitudinal center line of the nipple structure and the latter having a bore leading therethrough from one end to the other with passages of different sizes leading laterally therefrom to and connected together before reaching the atmosphere, and an automatically operable valve located in said connection and subject on opposite sides to difference in pressure established in the passages of different sizes to be moved by said difference in pressure into position to close the common connection against communication with the atmosphere.

5. A nipple structure for radiators, comprising an elongated body member with a longitudinal bore, said body member having an axial continuation terminating in a nozzle and communicating with the bore of the body member by a bore of smaller diameter leading through the nozzle, and said body member having a lateral offset with passages therein of different diameters communicating with the bore and with another passage intersecting both of the first-named passages and leading to the atmosphere, and a differential valve in the intersecting passage responsive to differences of pressure established in the first-named passages for closing them to the atmosphere.

[Claims 6 to 11 not printed in the Gazette.]

1,131,097. WINDOW-BALANCE. JOHN B. WALSER, Lebanon, Mo. Filed May 15, 1914. Serial No. 838,789. (Cl. 16—148.)

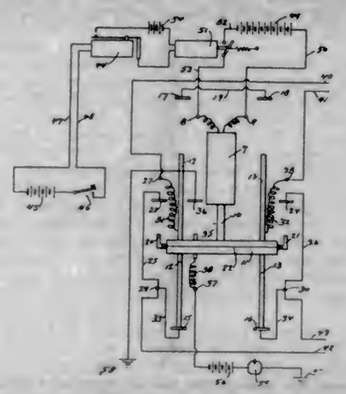


1. In a device of the class described, a casing; a collar journaled in the casing and having a polygonal end; a pawl pivoted to the casing and adapted to engage the polygonal end of the collar; a shaft journaled at one end in the collar and provided at its other end with a pulley; means upon the casing for supporting the pulley for rotation; a flexible element trained about the pulley; and a spring secured at one end to the collar, the other end of the spring being secured to move with the shaft and the pulley.

2. In a window balance, a casing; a rotatable element journaled in the casing and provided with a polygonal key receiving end; a movable locking device on the casing and adapted to engage directly with the polygonal, key receiving portion of the rotatable element to hold the latter against rotation; a spring secured at one end to the rotatable element; a drum; means for connecting the drum with the other end of the spring; and a flexible sash-controlling member wound upon the drum.

3. In a device of the class described, a casing; a collar journaled in the casing; releasable means coöperating with the collar to hold the collar against rotation; means for rotating the collar; a shaft journaled at one end in the collar and provided at its other end with a pulley; means upon the casing for supporting the pulley for rotation; a flexible element trained about the pulley; and a spring secured at one end to the collar, the other end of the spring being secured to move with the shaft and the pulley.

1,131,098. LINE-TESTING SWITCH. JAMES M. WATKINS, Buffalo, N. Y. Filed Apr. 30, 1914. Serial No. 835,435. (Cl. 175—183.)



1. A line testing switch comprising means, controllable at a distant point, for cutting the main circuit into two parts, and means for short-circuiting each part, whereby each may be separately tested.

2. A line testing switch, controllable from a distant point, for cutting a main line in two independently closed circuits comprising a movable switch member, means governing the action of said switch member, contact means for the main line and contact points for the two parts when short-circuited.

3. A line testing switch, controllable from a distant point, for cutting the main line in two independently closed circuits comprising a movable switch member carrying all of the movable switch parts, means for operating said movable switch member and a dash pot for damping the movement of said member.

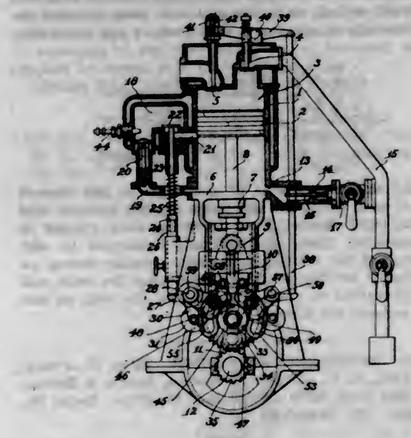
4. A line testing switch, controllable from a distant point, for cutting the main line in two independently closed circuits comprising a movable switch member, a solenoid governing the action of said switch member, mercury cups, vertical contact rods carried by said member and arranged to have their lower ends enter said mercury cups to close the main line, and contact points, whereby the two parts of the main line will be short-circuited when the switch is operated.

5. A line testing switch, controllable from a distant point, for cutting the main line in two independently closed circuits, a solenoid, a core for said solenoid, a cross bar carried by said core, contact rods and contact points carried by said cross bar, mercury cups having the lower ends of said contact rods emersed therein to close the main circuit, upper contact plates co-acting with the upper ends of said rods, means connecting said upper plates, lower contact plates co-acting with said contact points, flexible leads connecting one side of the main line with said contact rods, and leads connecting said lower contact plates with said mercury cups and the other side of said main line, whereby the main line will be opened and the two parts thereof short-circuited when the switch is operated.

1,131,099. INTERNAL-COMBUSTION ENGINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed May 4, 1906. Serial No. 315,140. (Cl. 123—37.)

1. An internal-combustion engine, having, in combination, a working cylinder, a piston therein, means for igniting an explosive charge in the cylinder, and means for igniting and thereafter introducing a supplemental charge into the cylinder during the working stroke of the piston, substantially as described.

2. An internal-combustion engine, having, in combination, a working cylinder, a piston therein, means for igniting an explosive charge in the cylinder, and means for igniting and thereafter introducing a supplemental charge into the cylinder subsequently to the ignition of the charge in the cylinder and during the working stroke of the piston, substantially as described.



3. An internal-combustion engine, having, in combination, a working cylinder, a piston therein, and means for forming and independently compressing a plurality of separate charges, and for imparting them successively to the cylinder during the same working stroke of the piston, substantially as described.

4. An internal-combustion engine, having, in combination, a working cylinder, a piston therein, a plurality of combustion chambers connected with the cylinder, means for supplying the chambers with explosive mixture, and an igniting device in each chamber, substantially as described.

5. An internal-combustion engine, having, in combination, a cylinder, a piston therein, an auxiliary combustion chamber, a connection between the chamber and the cylinder for conducting the ignited charge to the cylinder, a cam-actuated valve controlling said connection, means for supplying explosive mixture to the cylinder and the auxiliary combustion chamber, and igniting devices for igniting separately the mixture in the cylinder and the auxiliary chamber, substantially as described.

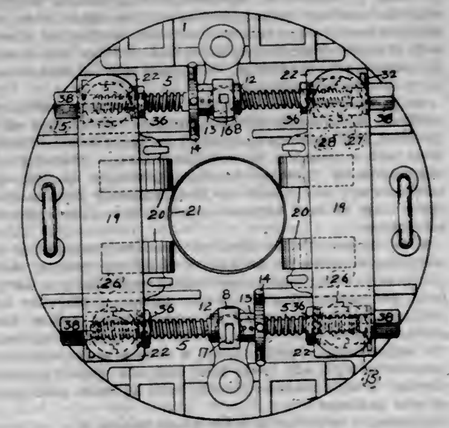
[Claims 6 to 28 not printed in the Gazette.]

1,131,100. ROTARY DRILLING-MACHINE. CLYDE S. WRIGHT, Toledo, Ohio, assignor to The National Supply Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 24, 1914. Serial No. 820,554. (Cl. 255—23.)

1. In a rotary drilling machine, a rotary table, a pair of opposed gripper carriers thereon, a pair of screws for moving the carriers toward and away from each other, rotary sleeve-nuts for the screws carried by the carriers, means for rotating the screws, said sleeve nuts provided with means whereby they may be rotated, means for releasably preventing the rotation of the screws, and means for releasably preventing the rotation of the sleeve-nuts.

2. In a rotary drilling machine, a rotary table, a pair of opposed gripper carriers thereon, a pair of opposed screws for moving the carriers toward and away from each other, and a driving-fork for each screw, comprising a stem carried by the table and a vertically slotted upper end, the screws being seated in the slots in the respective driving-forks and vertically movable therein.

3. In a rotary drilling machine, a rotary table, a pair of opposed gripping carriers thereon, a pair of opposed screws for moving the carriers toward and away from each other, a driving-fork for each screw, comprising a stem carried by the table and having a vertically slotted upper end, the screws being seated in the slots in the respective driving-forks, and means for locking each screw and its respective driving-fork together.

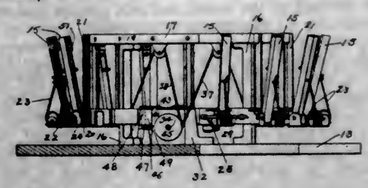


4. In a rotary drilling machine, a rotary table, a pair of opposed gripper carriers thereon, a pair of opposed screws for moving the carriers toward and away from each other, a driving-fork for each screw, comprising a stem carried by the table and having a vertically slotted upper end, the screws being seated in the slots in the respective driving-forks, and a locking pin extending vertically through the slot in each driving-fork and through its respective screw for locking each screw and its respective driving-fork together and permitting the screw to reciprocate vertically.

5. In a rotary drilling machine, a rotary table, a pair of opposed gripper carriers thereon, a pair of opposed screws for moving the carriers toward and away from each other, a driving-fork for each screw, comprising a stem carried by the table and having a vertically slotted upper end, the screws being seated in the slots in the respective driving-forks, and means for locking each screw and its respective driving-fork together, so that the screw cannot rotate but may reciprocate vertically.

[Claims 6 and 7 not printed in the Gazette.]

1,131,101. FITTING-PLATFORM FOR LADIES' GARMENTS. ADOLPH YELIN and JOHN O. HOUSER, Buffalo, N. Y. Filed Aug. 15, 1912. Serial No. 715,243. (Cl. 38—10.)



1. A device of the character described comprising a platform, a vertically movable carriage surrounding said platform, a plurality of hammers pivotally carried by said carriage, means for simultaneously moving the upper ends of said hammers away from said carriage and means for simultaneously forcing the upper ends of said hammers against said carriage.

2. A device of the character described comprising a platform, a vertically movable carriage surrounding said platform, a plurality of simultaneously operated hammers pivotally carried by and engaging with said carriage and marking means carried by the upper ends of said hammers.

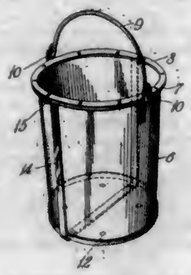
3. A device of the character described comprising a platform, a vertically movable carriage surrounding said platform, a plurality of hammers pivotally carried by said carriage, marking means carried by the upper ends of said hammers, means for simultaneously moving the upper ends of said hammers away from said carriage and means for simultaneously forcing the upper ends of said hammers against said carriage.

4. A device of the character described comprising a platform, a vertically movable carriage surrounding said platform, said carriage comprising an upper band, a lower band and a plurality of vertical braces, a plurality of simultaneously operated hammers pivotally carried by said carriage and means for simultaneously forcing the upper ends of said hammers against the upper ends of said braces.

5. A device of the character described comprising a platform, a vertically movable carriage surrounding said platform, said carriage comprising an upper band, a lower band and a plurality of vertical braces, a plurality of hammers pivotally carried by said carriage, means for normally holding the upper ends of said hammers against the upper ends of said braces, a second band revolubly mounted around said lower band and cam shaped spacers secured to said second revoluble band between each pair of said hammers.

[Claims 6 to 17 not printed in the Gazette.]

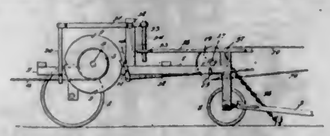
1,131,102. GARBAGE-CONTAINER. FRANK ALDRICH, Detroit, Mich., assignor of one-half to John M. Nicol, Detroit, Mich. Filed Dec. 15, 1911. Serial No. 666,052. (Cl. 220—118.)



In a garbage receptacle, means forming an annular support, a thin sheet metal vessel, an external marginal flange around the mouth thereof, a rigid frame having a middle portion extending diametrically across the under side of the vessel bottom plate to which it is connected adjacent the wall of the vessel, and side portion that extend longitudinally up the outside of the vessel, a pair of oppositely disposed outturned end portions on the frame that underlie the flange of said vessel, a reinforcing ring secured on the upper face of the vessel flange, and to the outturned end portions of the frame, a pair of bail ears secured to diametrically opposed sides of the vessel that extend outwardly and upwardly past the flanged ring in a plane at substantially right angles to the plane of the frame, the outwardly extending portions of said ears coöperating with the end portions of the frame in providing a bearing for said vessel upon said annular support, and a bail connected to said ears and adapted to fold down on the vessel below the upper surface of said support.

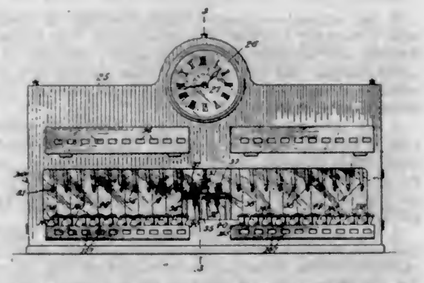
1,131,103. HOISTING-MACHINE. FRED L. ARDUSER, Parkston, S. D. Filed Jan. 17, 1913. Serial No. 742,661. (Cl. 242—157.)

A hoisting machine including in combination, a wheeled supporting frame, a reel mounted for rotation at one end thereof, means rotating said reel, uprights upon said supporting frame, a shaft connecting said uprights, the latter serving as a stop means, a shifting member mounted for sliding movement upon said shaft, said shifting member being movable from one to the other of the said stop means, the said shaft being disposed in spaced relation to, at one side of, and above said reel, a guide member pivoted to depend from the free end of said shifting member, the element wound upon the said reel being adapted to extend through an opening in said guide, a rod depending



from said shifting member at the opposite end thereof from that upon which the said guide member extends, said rod being rigid therewith, an operating lever pivoted to said supporting frame and pivotally connected to said depending rod for shifting said guide member during an unwinding or winding of the element upon the reels, and means actuatable to control rotation of the reel, as and for the purpose set forth.

1,131,104. EFFICIENCY-RECORDER. MOÏS H. AVRAM, New York, N. Y., assignor to Slocum, Avram & Slocum, Inc., New York, N. Y. Filed Jan. 23, 1914. Serial No. 813,850. (Cl. 234—1.5.)



1. An efficiency recorder of the class described comprising a clock, a shaft controlled thereby, an axle intergeared with said shaft, a friction clutch comprising relatively fixed and loose members that are both carried by the axle, an axially removable spindle adapted to be coupled to the loose clutch-member, a drum carried by the spindle, a time sheet adapted to be clamped to said drum, and a recording member adapted to engage said sheet.

2. An efficiency recorder of the class described comprising a clock, a shaft controlled thereby, an axle intergeared with said shaft, a friction clutch comprising relatively fixed and loose members that are both carried by the axle, a slide, a spindle rotatably supported thereby and adapted to be coupled to the loose member of the friction clutch, a drum carried by the spindle, a time sheet adapted to be clamped to said drum, and a recording member adapted to engage said sheet.

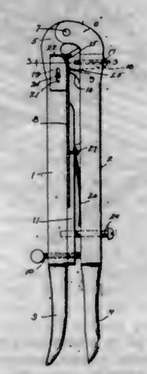
3. An efficiency recorder of the class described comprising a clock, a flexible shaft controlled thereby, an axle intergeared with said shaft, a friction clutch arranged at each end of said axle, each clutch comprising relatively fixed and loose members that are both carried by the axle, a pair of axially removable spindles adapted to be coupled to the loose clutch-members, drums carried by the spindles, time sheets removably secured to the drums, and recording members adapted to engage said sheets.

4. An efficiency recorder of the class described comprising a clock, a shaft controlled thereby, an axle intergeared with said shaft, a pair of slides, spindles rotatably supported by the slides and arranged in alinement with the axle, friction clutches adapted to operatively connect the spindles to the axle, drums carried by the spindles, time sheets removably secured to the drums, and recording members adapted to engage said sheets.

5. An efficiency recorder comprising a clock, a shaft controlled thereby, a spindle frictionally connected to said shaft, a grooved drum carried by the spindle, a time sheet encircling the drum and having overlapping ends, a spring-influenced clamping bar adapted to draw said overlapping ends into the drum-groove, a seat arranged sidewise of the groove and adapted to support the bar during an exchange of the time sheet, and a recording member adapted to engage said sheet.

[Claims 6 to 10 not printed in the Gazette.]

1,131,105. SAW-SET. SYLVESTER BALLARD, Cloverdale, W. Va. Filed July 2, 1914. Serial No. 848,644. (Cl. 76—64.)



A saw set comprising a pair of levers positioned parallel to one another and having their inner ends turned and interlocked, said inner ends being pivotally connected, a saw body supporting member secured against the inner face of one of said levers to hold a saw in position against said lever, an anvil block mounted upon the inner face of said lever adjacent the inner end thereof and having a beveled portion, a hammer block mounted upon the remaining lever opposite the anvil block and having a beveled face to coöperate with the beveled portion of said anvil block and force the saw tooth against the latter, means for drawing together said levers, and a flat leaf spring member carried by said saw supporting member and pressing against the inner face of the second mentioned lever.

1,131,106. SMOKE-PREVENTER. WILLIE C. BEAM, Rockford, Ill., assignor of one-half to Thomas D. Reber, Rockford, Ill. Filed June 14, 1913. Serial No. 773,709. (Cl. 110—55.)



1. A regulator comprising a cylinder, a piston reciprocable within the cylinder and having a longitudinal opening forming a passage therethrough, a valve covering said opening and movable to open said passage, an adjustable by-pass valve carried by said movable valve and movable therewith, said movable valve adapted to be held yieldingly closed, operable means having connection with said by pass valve, said operable means being adjustable to vary the opening of said by-pass valve, and means for operating said operable means for moving said movable valve to operative and inoperative positions in said piston passage.

2. A regulator comprising a cylinder, a piston reciprocable within the cylinder and having an opening forming a longitudinal passage therethrough, a valve covering said opening and movable to open said passage, an adjustable by-pass valve carried by said movable valve and being movable therewith, means for holding said movable valve from radial displacement, an operable member, a universal connection between said member and said by-pass valve, and said operable member extending to the outer side of the cylinder and being movable with said movable valve.

3. A regulator comprising a cylinder, a piston reciprocable within the cylinder and having a longitudinal passage therethrough, a movable valve for closing said passage and being moved to an operative and inoperative position through the reciprocations of the piston, an opening in the valve, an adjustable by-pass valve stem carried by said valve and located in said valve opening, means movable with said movable valve and having an operable connection with said by-pass valve stem, and said means being movable to move said cylinder passage valve to an operative and inoperative position and movable independent of said movement to adjust said by-pass valve stem in its opening.

4. A regulator comprising a cylinder, a piston for the cylinder having a longitudinal passage therethrough, a piston rod for the piston, a check valve adapted to control said passage, a port passing through said check valve, a valve stem screw-threaded with said check valve and located in said port, a rod reciprocable and rotatable within said piston rod, and said rod having a movable connection with said valve stem, and an operable extension at the free end of the piston rod adapted upon being rotated to adjust said valve stem in the valve opening and upon being reciprocated to move said check valve to operative and inoperative positions.

5. A regulator comprising a cylinder, a piston for the cylinder having a longitudinal passage therethrough, a piston rod for the piston, a check valve adapted to control said passage, a port passing through said check valve, an adjustable valve carried by said check valve and located in said port, an operable member for controlling the adjustment of said adjustable valve and means for maintaining said operable member in a positive position relative to said check valve during the operative movements of said check valve.

[Claims 6 to 13 not printed in the Gazette.]

1,131,107. SMOKE-PREVENTER. WILLIE C. BEAM, Rockford, Ill., assignor of one-half to Thomas D. Reber, Rockford, Ill. Original application filed June 14, 1913, Serial No. 773,709. Divided and this application filed May 25, 1914. Serial No. 840,888. (Cl. 110—174.)

1. The combination with a furnace having a fire-door opening formed through its front wall, of a steam supply pipe leading to and discharging into said opening at a point adjacent to the outer end thereof, a fire-door covering the outer end of said fire-door opening and having an air opening therein, a movable closure for said air opening, means for operating the said closure and the steam discharge simultaneously, and a deflector on the inner side of the fire-door, said deflector forming an air guide from said air opening to a point adjacent to the discharge end of said steam supply pipe, whereby air being so guided in its passage to the fire is diffused with the steam adjacent to the point of discharge thereof and within said fire-door opening.

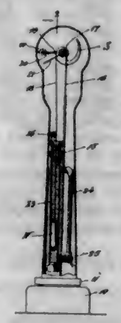
2. The combination with a furnace having a fire-door opening formed through its front wall, of an outwardly offset fire door covering the outer end of said fire-door

opening, and having an air opening therein, a steam supply pipe extending through the top of said fire-door and discharging into the outer end of said fire-door opening, a movable closure for said air opening, means for operating said closure and the steam discharge simultaneously, and a deflector on the inner side of said fire-door, said de-



flector being inclined upwardly and inwardly of said fire-door opening to a point adjacent to and beneath the discharge end of said steam supply pipe, whereby air being guided by said deflector in its passage to the fire is diffused with steam adjacent to the point of discharge thereof, and within said fire-door opening.

1,131,108. WEIGHING-MACHINE. JOHN BISHOP and EDWARD P. HUGHES, Detroit, Mich. Filed Feb. 9, 1914. Serial No. 817,532. (Cl. 73—29.)

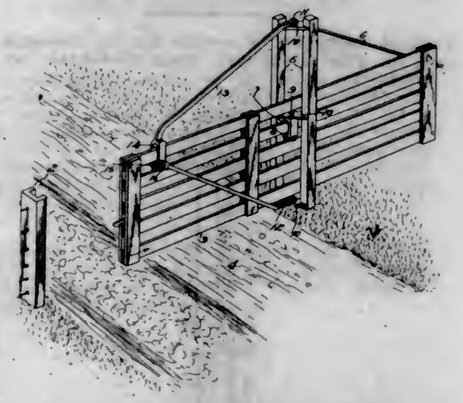


1. A weighing machine comprising a load-receiving platform, a rotatable drum coöperatively connected therewith, a snail carried by said drum, a weight, and a flexible band for connecting said weight and snail, whereby when said snail is rotated the active point of connection between said weight and snail will be proportionately moved away from the center during the descent of said platform under load, a vertical liquid containing tube containing said weight to retard the movement thereof, and a guide for said band attached to said tube for guiding the weight thereon.

2. A weighing machine comprising a load-receiving platform, a weight counterbalancing the same, means for automatically varying the resistance offered by said weight proportionately to the descent of said platform under load, a liquid-containing tube closed at the bottom loosely surrounding and for guiding said weight, and for retarding the upward movement of said counter-balancing weight.

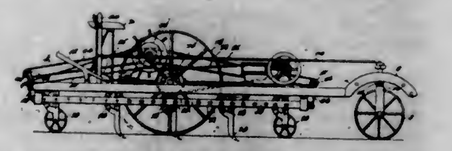
3. A weighing machine comprising a load-receiving platform, a weight counter-balancing the same, means for automatically varying the resistance of said weight proportionately to the descent of said platform under load, a liquid containing tube containing said weight and a by-pass connecting the upper end and lower end of said tube and having a regulating valve for retarding the upward movement of said counter-balancing weight.

1,131,109. FARM-GATE. GEORGE WESLEY BLAZER, Copperopolis, Cal. Filed June 25, 1914. Serial No. 847,277. (Cl. 39—34.)



In combination with a keeper post and a pair of spaced diagonally offset posts, a gate mounted in the space between said posts, brackets connecting the posts and disposed at the ends and central of the lengths of the posts, a stirrup pivoted to the central bracket between the ends of the latter and straddling one of the gate rails and having a roller connected to its free end on which said gate rail rides to support the gate against downward movement, and a hanger for the gate consisting of an upper and a lower bar, said bars being convergent at their front ends and at their rear ends being pivoted to the respective upper and lower brackets, said hanger having a roller at its front end which rides on said rail, the two pivotal points of the hanger and the pivotal point of the stirrup being disposed in the same vertical plane.

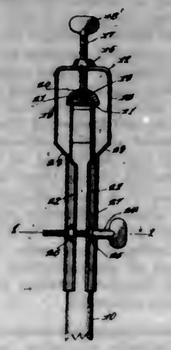
1,131,110. CULTIVATOR. ALBERTIS BOWDISH, Norwich, N. Y., assignor of three-fourths to John W. Rhines, Foster K. Rhines, and Robert T. Shaw, Cortland, N. Y. Filed Feb. 12, 1914. Serial No. 818,338. (Cl. 97—34.)



1. A cultivator including a frame, beams arranged longitudinally in pairs in said frame, teeth mounted on each pair of said beams for engagement with the earth, and means for simultaneously disengaging said teeth from the earth, said means being actuatable from either the top or rear of the frame at the option of the operator.

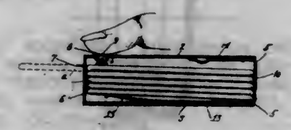
2. A cultivator including a frame having a plurality of beams associated therewith, teeth adjustably mounted on said beams, means for detachably engaging the teeth on the beam and permitting said teeth to be automatically disengaged from said beams when contacting with rigid objects in the earth to preserve the teeth from incapacitation.

1,131,111. CLAMP FOR CUE-TIPS. HENRY BROSIUS, Warm Springs, Mont. Filed Jan. 22, 1914. Serial No. 813,795. (Cl. 46—10.)



A clamp comprising a body portion formed from a blank of resilient material bent intermediate its length to form a bridge having a threaded bearing, the end portions of said blank extending from said bridge to form arms extending in spaced relation and having their end portions bent toward each other and then carried in spaced relation, the end portion of said arms being bent to form longitudinally extending jaws for receiving a cue, side wings extending from said arms and provided with bearings, one set of said last mentioned bearings being threaded, set screws passing through said last mentioned bearings for moving said arms into clamping position, a set screw passing through said first mentioned bearing, a tip engaging head carried by said set screw.

1,131,112. CASE FOR CHEWING-GUM, TICKETS, OR OTHER SIMILAR ARTICLES. DELBERT C. BROWN, Acres, Kans. Filed Dec. 9, 1913. Serial No. 805,610. (Cl. 206—40.)



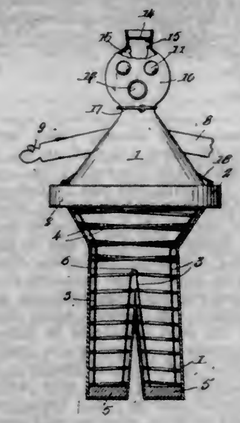
A chewing gum holder comprising a casing having sides, a bottom, a top, an open rear end and a slotted forward end, an ejecting mechanism secured to the top near the slotted end and adapted to force a package of gum through the slotted forward end, a combined gum retainer and closure for the open rear end having integrally connected therewith and formed of a single piece of material an upper section adapted to frictionally engage the inner side of the top and a spring adapted to rest within and against the bottom of the casing to support and force the packages of gum in said casing toward the ejecting mechanism.

1,131,113. LIFE-PRESERVER. WALLACE BRUCE, Manton, Cal. Filed July 1, 1913. Serial No. 776,841. (Cl. 9—20.)

1. A life preserver including an outer water proof casing, an inner lining, and a skeleton frame extending from the waist line of the casing to the base thereof, the said frame being interposed between the said lining and the said casing, as and for the purpose set forth.

2. A life preserver including an outer water proof casing, buoyant means for sustaining the casing upon the surface of the water, weight members disposed at the base of said casing, and a pair of oppositely coiled springs extending from the said buoyant means to the said weight members and interposed between the said outer casing and the said lining, as and for the purpose set forth.

3. In a life preserver, the combination of an outer water proof casing, valve controlled air openings formed within the said casing, buoyant means carried by the said casing for sustaining the same upon the surface of the water, an inner lining disposed in spaced relation to the said outer casing, weight members disposed at the base of the said casing, and a pair of oppositely coiled springs, one end of which is embedded in the said buoyant means and the opposite end in the said weight members, adapted to be interposed between the said outer casing and the said lining, as and for the purpose set forth.



4. In a life preserver, the combination of an outer water proof casing, a buoyant band encircling the waist line of the said casing, a head portion formed integrally with the said casing, means disposed upon the exterior of the casing for closing communication between the said head portion and the balance of the casing, valve controlled air inlets formed within the said head portion, weight members disposed at the base of the said casing, the latter being divided at the base thereof, into duplicate leg portions, an inner lining disposed within the said casing, and a pair of oppositely coiled spiral springs adapted to extend from the said band to the said weight member, one into each of the said leg portions, the said springs being interposed between the said lining and the said outer casing, as and for the purpose set forth.

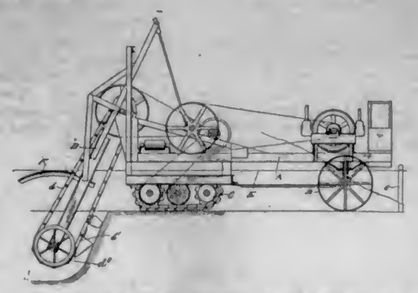
5. A life preserver including an outer water proof casing shaped to inclose the body of the wearer, an inner lining therefor, and a resilient skeleton frame interposed between the said casing and the said lining, said frame extending throughout that portion of the preserver lying upon a plane below the surface of the water, as and for the purpose set forth.

1,131,114. EXCAVATING-MACHINE. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Feb. 28, 1910. Serial No. 546,347. (Cl. 37—53.)

1. In an excavator, an element which works in the ground to form the ditch, and an indicator on said element, movable therewith, in fixed relation thereto, adapted to coöperate with a line above ground, comprising a member having an edge curved about a point at the lower end of said element, whereby the grade line is maintained for the ditch.

2. In an excavator, an element which works in the ground to form the ditch, having an axis of operation for the lower end thereof, means whereby the said element is subject to variations in the angle thereof, means above the ground for determining the grade line of the bottom of said ditch, and mechanism for indicating any up and down deviation from said line, said mechanism having means for keeping the indicating point thereof (for all

operating angles of said element) on a vertical line intersecting said axis.



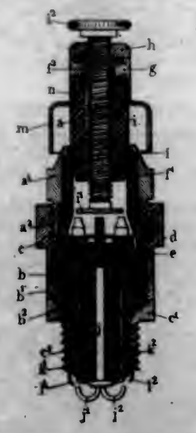
3. In an excavator, an element which works in the ground to form the ditch, pivoted at its upper end, adapted to be raised and lowered on the excavator to vary or preserve the grade line, and an indicator on said element for showing deviation from the grade line, including a member curved about a center at the lower end of said element, movable therewith and in fixed relation thereto, projecting rearwardly therefrom, disposed above ground, adapted to indicate the necessity for and character of adjustment required to maintain the grade line.

4. In an excavator, an element which works in the ground to form the ditch adjustable to different angles, a grade line suitably supported above ground, and a curved indicator on said element, projecting rearwardly therefrom, disposed above ground, said indicator being formed on the line of a circle struck from a point at the lower end of said element, whereby said element, when disposed at different angles, but always with the periphery of said indicator on said grade line, will keep the bottom of the ditch a uniform distance below said line.

5. In an excavator, an element which works in the ground to form the ditch, adapted to be disposed at different angles, by tilting in a vertical plane, and a curved indicating arm thereon, said arm being formed on the line of a circle struck from an axis at the lower end of said element, said element having supporting means arranged for rotation about said axis.

[Claim 6 not printed in the Gazette.]

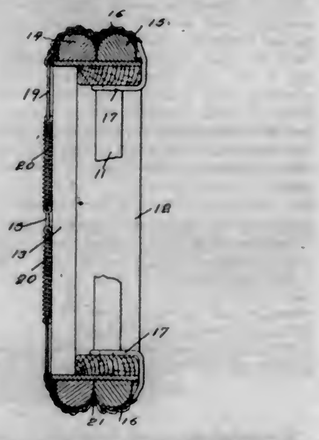
1,131,115. SPARKING PLUG. RODOLPHE CARPENTIER, St.-Denis, France, assignor to Société Carpentier, Bal & Cie., St.-Denis, France. Filed June 9, 1914. Serial No. 844,032. (Cl. 123—169.)



1. In an explosion engine, a spark plug adapted to insure the ignition and the spontaneous unsooting of the electrodes, consisting in a group of two insulated adjacent electrodes of like polarity, terminating at a short distance from a third earthed electrode, a conductor adjustable in position, terminating at a short distance from the other ends of the insulated electrodes of like polarity for conducting the current thereto through the medium of supplementary sparks produced between the said conductor and the insulated electrodes of like polarity.

2. In an explosion engine, a spark plug adapted to insure the ignition and the spontaneous unsooting of the electrodes, comprising two insulating sleeves connected by metal sleeves, a closed chamber between the insulating sleeves, a group of two electrodes of like polarity embedded in the insulation of the lower sleeve, an earthed electrode terminating at a short distance from the insulated electrodes, a central conductor adjustably mounted in the insulation of the upper sleeve and conducting the current to the insulated electrodes of like polarity through the medium of supplementary sparks springing forth in the closed chamber between the conductor and each of the insulated electrodes.

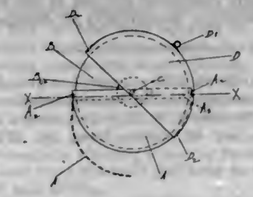
1,131,116. ANTISLIPPING DEVICE FOR TIRES. ORLO P. CHUBBUCK, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Filed Mar. 7, 1910. Serial No. 547,825. (Cl. 152—14.)



1. An anti-skidding device for a wheel tire, having the following parts in combination and permanently secured in fixed positions of engagement with each other to constitute a unitary structure, a series of anti-skid chain sections, each adapted to encircle a tire and each provided with an open hook adapted to engage the outer end of a wheel spoke, a spring structure connected to the said chains at the ends opposite to the hooks and exerting tension thereon, and a flexible spacing device extending around the axis in lines near the periphery of the wheel and connected to the chain sections, the said structure being adapted to be, as a unitary entirety, attached to and separated from a wheel by merely engaging and disengaging the said open hooks.

2. An anti-skidding device for a wheel tire, having the following parts in combination and permanently secured in fixed positions of engagement with each other to constitute a unitary structure, namely, a series of radial coiled springs, a common connecting device at the inner ends of the springs, a series of anti-skid chain sections respectively linked to the outer ends of the radial springs, each chain adapted to encircle a tire and provided with an open hook adapted to engage the outer end of a wheel spoke and exert tension thereon in an outward axial direction on the side of the wheel opposite to that adjacent the radial springs, and a flexible spacing device extending around the axis in lines near the periphery of the wheel and connected to the chain sections, the said structure being adapted to be, as a unitary entirety, attached to and separated from a wheel by merely engaging and disengaging the said open hooks.

1,131,117. DEVICE FOR DELIVERING MATERIAL FROM A CONTAINER. ALBERT CLEMENS, Louisville, Ky. Filed May 25, 1914. Serial No. 840,963. (Cl. 132—28.)

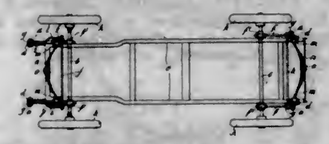


1. In a device for distributing and applying material from a container, a flexible circular revoluble carrier, whose flat surface is adapted to be impregnated with material, and a box forming a reservoir and provided with a slit, said carrier being so placed in relation to the reservoir that as the carrier revolves, portions of the carrier pass through the slit, into the interior of the reservoir and out again through the slit.

2. In a device for distributing and applying material from a container, a flexible circular carrier whose flat surface is adapted to be impregnated by a material in powdered form, plates attached thereto on either side adjacent to the center, a pivot on which said carrier with plates attached is adapted to revolve, and means for impregnating said carrier with material from the reservoir.

3. In a device for distributing and applying material from a container, a flexible revoluble carrier to the flat side of which material tends to adhere, and a reservoir fixed adjacent thereto and having a slit through which portions of the carrier move as it revolves, the said slit being of such dimensions that no serious leakage takes place between its sides and the carrier.

1,131,118. RESILIENT SUSPENSION DEVICE FOR THE BODIES OF MOTOR-CARS AND SIMILAR ROAD-VEHICLES. VICTOR RAOUL COLLARD, Balaclava, Victoria, Australia. Filed Oct. 14, 1913. Serial No. 795,071. (Cl. 21—101.)



1. A resilient suspension device for vehicles, comprising a pair of bell crank levers having long and short arms and pivoted to the chassis at their angle portion, means for swivelly connecting the long arms to the wheel axle, a semi-elliptic spring transversely disposed on the chassis, shackle links at each end of said semi-elliptic spring, a transverse rod connecting said shackle links, and means connecting said transverse rod with the short arms of said bell crank levers.

2. A resilient suspension device for the bodies of vehicles comprising a pair of bell-crank levers having long and short arms, the long arms of said bell-cranks being connected swivelly to the wheel axle and the angle portions pivotally mounted on the chassis, links connecting the short arms of said bell-cranks to a transverse rod adapted to bear against the ends of a semi-elliptic spring disposed transversely on the chassis, substantially as described.

3. A resilient suspension device for the bodies of vehicles, comprising a pair of bell crank levers having long and short arms, the long arms of said bell crank levers being connected swivelly to the wheel axle and the angle portion pivotally mounted on the chassis, links connecting the short arms of the said bell crank levers to a transverse rod adapted to bear against the ends of a semi-elliptic spring disposed transversely on the chassis, and one or more resilient springs bearing on said transverse rod in opposition to the said semi-elliptic spring, substantially as described and for the purpose set forth.

1,131,119. METHOD OF GRINDING. JAY ELLIS CRANDALL, Belvidere, Ill., assignor to The Warner Brothers Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 17, 1914. Serial No. 851,485. (Cl. 51—15.)



1. The method of producing an elongated tempered article having a relatively more flexible portion, which comprises feeding a strip of tempered material with relation to suitable grinding devices to contact with the opposite flat faces of said strip, moving said strip in the direction of length thereof while moving said grinding devices one toward another with their grinding faces in substantial parallelism to each other until a predetermined point is reached and simultaneously cooling the portion of the article subjected to grinding, and then separating said grinding devices.

2. The method of producing an elongated tempered article having a relatively more flexible portion, which comprises feeding a strip of tempered material having a substantially uniform thickness with relation to suitable grinding devices to contact with the opposite flat faces of said strip, moving said strip in the direction of length thereof at a certain rate of speed while moving said grinding devices one toward another with their grinding faces in substantial parallelism to each other at a speed related to said certain speed and simultaneously cooling the portion of the article subjected to grinding, and then after a predetermined point has been reached separating said grinding devices.

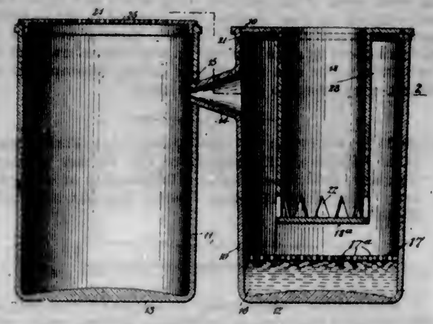
3. The method of producing a tempered corset-stay having a relatively more flexible portion, which comprises feeding a tempered steel in the form of a strip intermediate oppositely disposed grinding devices to contact with the opposite flat faces of said strip, imparting to said strip a certain rate of speed in its direction of length while moving said grinding devices one toward the other with their grinding faces in substantial parallelism to each other at a rate of speed related to said certain speed to form a gradual taper in the direction of length of the corset-stay and simultaneously subjecting the strip to a flow of cooling fluid.

4. The method of producing a tempered steel corset-stay having a relatively more flexible portion, which comprises feeding a strip of tempered steel intermediate oppositely disposed grinding devices to contact with the opposite flat faces of said strip, imparting to said strip a certain rate of speed in its direction of length while moving said grinding devices one toward the other at a rate of speed related to said certain speed to form a gradual taper and simultaneously subjecting the strip to a flow of cooling fluid, and then separating said grinding devices at a rate of speed greater than said related rate of speed.

5. The method of producing a corset steel having a relatively more flexible portion, which comprises feeding a strip of tempered material intermediate oppositely disposed grinding devices to contact with the opposite flat faces of said strip, imparting to said strip a certain rate of speed in its direction of length while moving said grinding devices one toward the other at a rate of speed related to said certain speed to form a taper and simultaneously subjecting the strip to a flow of cooling fluid, and then reversing the direction of movement of said strip while moving said grinding devices away from one another.

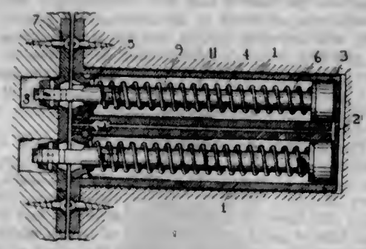
[Claims 6 to 9 not printed in the Gazette.]

1,131,120. FLY-TRAP. JAMES CRAWFORD, El Paso, Tex. Filed Jan. 17, 1914. Serial No. 812,688. (Cl. 43—22.)



A trap of the character described, comprising two separable glass containers, each resting on its own bottom independently of the other, the one glass container consisting of a jar-like body constituting a collecting chamber and having a lateral inlet opening, and the other container constituting a trap and lure chamber and comprising a jar-like glass body, a tapering lateral extension entering the inlet opening of the collecting chamber, a removable glass cover having a depending cylindrical inlet tube of glass open at its upper end and having a closed bottom end above the bottom of the body, the said inlet tube having lateral outlets in annular series adjacent to the closed bottom of the said inlet tube, the cylindrical wall of the tubular inlet being free from lateral projections at the said outlets, and a false bottom between the bottom of the inlet tube and the bottom of the body, there being a clear space at all sides of the inlet tube, and below the bottom of the said tube, in communication with the lateral extension on the body.

1,131,121. DOOR-CHECK. JOHN J. DALY, New Brunswick, N. J., assignor to The Banker Manufacturing Company, New Brunswick, N. J., a Corporation of New Jersey. Filed July 14, 1914. Serial No. 850,994. (Cl. 16—87.)



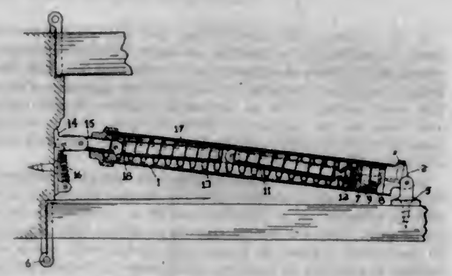
1. In a door-check, a cylinder adapted to be connected to a door, a piston fitting therein, a piston-rod, a plate adapted to be secured to the door-jamb, and arm pivoted to the plate, and an extensible link connecting the end of the arm and the end of the piston-rod, substantially as described.

2. In a door-check, a cylinder adapted to be received in a mortise in the door, a piston fitting therein, a piston-rod, a plate adapted to be secured to the door-jamb, an arm pivoted to the plate opposite the cylinder so that the end is free to swing into the path of travel of the mouth of the cylinder, and an extensible link connecting the end of the arm and the end of the piston-rod, substantially as described.

3. In a door-check, a cylinder adapted to be connected to a door, a piston fitting therein, a piston-rod, an arm adapted to be supported from the door-jamb, and a link consisting of spring-controlled telescoping parts connecting the end of the arm and the end of the piston-rod, substantially as described.

4. In a door-check, a cylinder adapted to be received in a mortise in the door, a piston fitting therein, a piston-rod, a plate adapted to be secured to the door-jamb, an arm pivoted to the plate opposite the cylinder so that the end is free to swing into the path of travel of the mouth of the cylinder, and a link consisting of spring-controlled telescoping parts connecting the end of the arm and the end of the piston-rod, substantially as described.

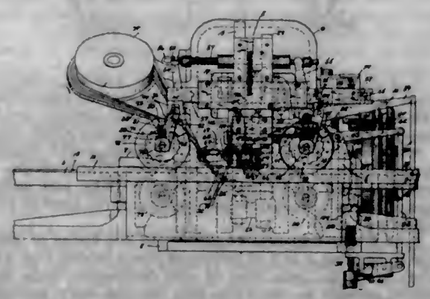
1,131,122. DOOR-CHECK. JOHN J. DALY, New Brunswick, N. J., assignor to The Banker Manufacturing Company, New Brunswick, N. J., a Corporation of New Jersey. Filed Dec. 30, 1914. Serial No. 879,628. (Cl. 16—87.)



1. In a door-check, a cylinder adapted to be connected to a door, a piston fitting therein, a piston-rod, a plate adapted to be secured to the door-jamb, an arm pivoted to the plate, a spring for drawing the arm into an erect position, and an extensible link connecting the end of the arm and the end of the piston-rod, substantially as described.

2. In a door-check, a cylinder adapted to be connected to a door, a piston fitting therein, a piston-rod, a plate adapted to be secured to the door-jamb, an arm pivoted to the plate, a spring for drawing the arm into an erect position, and a link consisting of spring-controlled telescoping parts connecting the end of the arm and the end of the piston-rod, substantially as described.

1,131,123. EYELETING-MACHINE. RAYMOND E. DODGE, New Haven, Conn., assignor to The Simplex Machine Co., New Haven, Conn., a Corporation. Filed Apr. 29, 1914. Serial No. 835,006. (Cl. 218—15.)



1. An eyeleting machine comprising a table arranged to support a piece of work, automatic feed rolls constructed and arranged to impart step by step movement to said work, a punch, a complementary set arranged forward of the feed rolls and constructed and arranged to be brought into operation while the feed rolls are at rest, and a pair of delivery rolls timed to move with the feed rolls.

2. An eyeleting machine comprising a table arranged to support two pieces of work the edges of which are parallel, automatic feed rolls constructed and arranged to impart step by step movement to said pieces, a pair of punches, and complementary sets arranged forward of the feed rolls and constructed and arranged to be brought into operation while the feed rolls are at rest, and a pair of delivery rolls timed to move with the feed rolls.

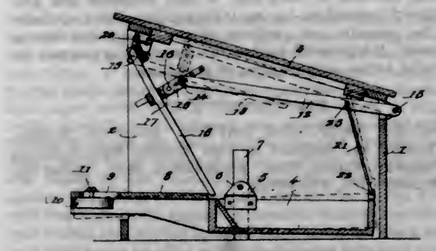
3. In an eyeleting machine, the combination with a table, of a pair of feed rolls adapted to automatically move two pieces of work forward over the table, two sets of eyelet-setting mechanism simultaneously operating for setting an eyelet in each piece, chutes for delivering eyelets to the eyelet-setting mechanisms, cut-offs in said chutes, and a lever connected with said cut-offs and normally held in its open position by the pieces passing through the machine whereby when the pieces have passed the end of said lever the lever will drop to move said cut-offs to block said chutes.

4. In an eyeleting machine, the combination with a table, of a pair of feed rolls, means for imparting intermittent movement to said feed rolls, a pair of eyelet-setting mechanisms in advance of the feed rolls, and means for operating said eyelet-setting mechanisms, chutes constructed and arranged to deliver eyelets beneath said setting mechanism, and a pair of fingers extending into each of said chutes and operated by the means for operating the punches whereby said fingers retire sufficiently to allow one eyelet to be fed between each setting operation.

5. In an eyeleting machine, the combination with a table adapted to support two pieces of work in parallel position, means for advancing said pieces step by step, eyelet-setting mechanisms adapted to set eyelets in said pieces, delivery rolls for moving said pieces, a vertically arranged plunger bearing upon the pieces being fed and constructed and arranged to drop down after the work has passed thereunder, a latch released by said plunger, and a clutch mechanism moved by said latch whereby the operation of the machine is arrested.

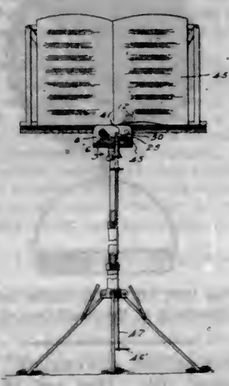
[Claims 6 and 7 not printed in the Gazette.]

1,131,124. TRAP-NEST. JOHN V. DODSON, Norwich, Kans. Filed Dec. 11, 1913. Serial No. 806,025. (Cl. 119—19.)



A poultry trap nest including a box like frame open at one end, a nest fulcrumed within the frame, a weighted platform projecting forwardly of the nest, the platform being elevated slightly above the nest to form an abutment, a door pivoted to swing inwardly, the abutment serving as a stop means limiting outward movement of the door and maintaining the door at an angle when closed, a link rigid with the door adjacent its pivot point, said link extending at a right angle thereto, a lever pivoted at one terminal to the free end of the link and at its opposite terminal to the frame at a point adjacent the rear top portion thereof, and a rod connected to the lever adjacent its point of connection with the frame, said rod being connected to the nest whereby to bodily move the lever and the link to raise and open the door upon movement of the nest against action of the weight, as and for the purpose set forth.

1,131,125. MUSIC-LEAF TURNER. WALTER ELLMAN, Long Island, N. Y. Filed Aug. 21, 1914. Serial No. 857,913. (Cl. 84—135.)



1. A music leaf turner comprising a frame structure, a plurality of arms pivotally mounted in said frame structure, means normally tending to swing said pivoted arms, a plurality of locking members pivotally mounted in said frame structure for locking said pivoted arms against swinging movement, a shaft rotatably mounted in said frame structure, a disk non-rotatably mounted on said shaft and movable successively against said locking members, means normally tending to move said disk forwardly on said shaft into engagement with said locking members, and means on said disk for engaging and releasing said locking members.

2. A music leaf turner comprising a frame structure, a plurality of arms pivotally mounted in said frame structure, means normally tending to swing said pivoted arms, a plurality of locking members pivotally mounted in said frame structure, means normally tending to swing said pivoted arms, a plurality of locking members pivotally mounted in said frame structure for locking said pivoted arms against swinging movement, a shaft rotatably mounted in said frame structure, a disk non-rotatably mounted on said shaft and slidable longitudinally on the latter, a spring normally tending to move said disk into engagement with the free ends of said locking members, said locking members being adapted, when released, to swing out of the path of said disk to permit the latter to move forwardly under the influence of the spring into engagement with the next locking member, and means on said disk adapted to engage and release said locking members.

1,131,126. COMPUTING-SCALE. WILLIAM C. FARRELL, San Jose, Cal. Filed Sept. 24, 1913. Serial No. 791,499. (Cl. 73—104.)

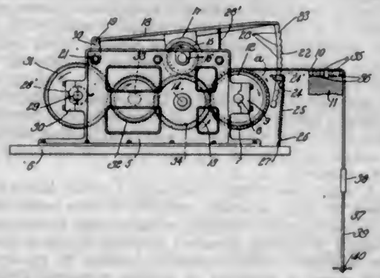
In a computing scale, a casing having a segmental opening on its front face and at the lower portion of said front face, a radial hair-like reading line borne by the front face of the casing, and arranged centrally of the space between the sides of the opening, said casing having a divided fixed rate scale extending radially thereof and arranged on the front face of the casing adjacent to but beyond one of the sides of said segmental opening, a dial actuated by the tray member of the scale, said dial having a circular weight scale at he circumferential portion thereof, and a series of price scale rings between the center of the dial and the weight scale which price scale rings register with the respective divisions of the fixed rate scale, said hair-like reading line by reason of centrally

bisecting the segmental opening enabling the scales on the dial to be read for equal distances on each side of



the said reading line, all of the scales being in registry and readable circularly of the front face of the casing.

1,131,127. LIFE-SAVING APPARATUS. ISAAC FEIGENBAUM, Cleveland, Ohio. Filed Apr. 16, 1914. Serial No. 832,384. (Cl. 254—152.)

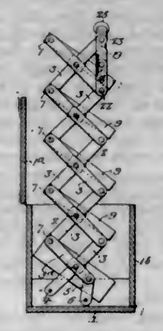


1. A life saving apparatus having, in combination, a reel, a flexible member arranged to be coiled on said reel, a drum connected to said reel, a brake lever arranged to bear against said drum, an arm on the free end of said lever with teeth thereon, a collar slidable on said arm adapted to engage said teeth, and a spring connecting said collar to the frame of said apparatus, whereby the pressure of said brake on said drum may be varied.

2. A life saving apparatus having, in combination, a reel, a flexible member arranged to be coiled on said reel, a drum connected to said reel, a brake lever arranged to bear against said drum, a pivot for said lever, a segmental arm on the free end of said lever substantially concentric with said pivot and with teeth thereon, a collar slidable on said arm adapted to engage said teeth and a spring connecting said collar to the frame of said apparatus, whereby the pressure of said brake on said drum may be varied.

3. A life saving apparatus having, in combination, a reel, a flexible member arranged to be coiled on said reel, a drum connected to said reel, a brake lever arranged to bear against said drum, an arm on the free end of said lever with teeth on one edge thereof, a collar slidable on said arm and having a hole extending therethrough and inclined at an angle, the lower edge of said collar arranged to engage one of said teeth and the upper edge of said collar arranged to engage the opposite edge of said arm from that upon which said teeth are located and a spring connecting said collar to the frame of said apparatus whereby the pressure of said brake on said drum may be varied.

1,131,128. TOOL-BOX. LEWIS W. GOODMAN, Lansdowne, Pa. Filed Sept. 29, 1911. Serial No. 652,021. (Cl. 211—14.)

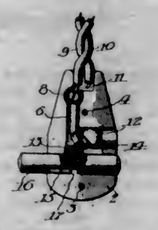


1. The combination of a plurality of sets of lattice work supports; and a series of receptacles each having each of its end portions permanently connected, adjacent the corners at the ends of one side, to the joint between the ends of two adjacent elements of said supports; said receptacles being also pivotally and removably connected, adjacent the middle of their end portions, to each of the lattice work supports adjacent the joint between the middle parts of the second one of said elements and a third element; the second side of each receptacle extending adjacent the end of said second element.

2. The combination with two sets of collapsible lattice work supporting structures of a plurality of receptacles each permanently connected at the upper part of each of its ends to the pivot between the ends of two elements of said supporting structures; each of the receptacles being inclined downwardly from said pivots when the supporting structures are extended and being also detachably connected at the middle of its ends to the pivots between the middle parts of two elements and projecting downwardly beyond the same.

3. The combination of a plurality of sets of lattice work supports; a series of receptacles each having opposite end portions connected to the ends of two adjacent elements of the lattice work supports; pivots connecting the middle portions of each pair of said elements and provided wth extensions having V-shaped grooves; and plates on the opposite end portions of the receptacles having recesses; the grooved portions of the pivot extensions removably fitting said recesses of the plates.

1,131,129. SWITCHING DEVICE. DAVID D. GORDON, Chicago, Ill., assignor to Yost Electric Manufacturing Company, Toledo, Ohio. Filed Oct. 5, 1911. Serial No. 652,943. (Cl. 175—283.)

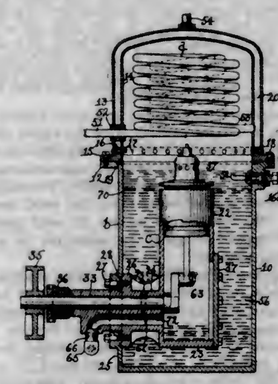


1. A device of the character described having a contact terminal, a spherical contact element for said terminal, a runway for said element, a coiled spring engaging said element, and a reciprocating plunger for controlling the free end of said spring so that a movement of said free end in one direction moves said element by snap action into engagement with said terminal and a movement in the opposite direction moves said element away from said terminal.

2. A device of the character described having a contact terminal, a slidable contact element for said terminal, a runway for said element, a coiled spring engaging said element, and a reciprocating plunger for controlling the free end of said spring to compress the same and move it beyond its position of repose to thereby move said element from either limiting position to the other by snap action.

3. A device of the character described having a contact terminal, a spherical contact element for said terminal, a runway for said element, a coiled spring engaging said element, and a reciprocating plunger for controlling the free end of said spring to compress the same and move it beyond its position of repose to thereby move said element from either limiting position to the other by snap action.

1,131,130. REFRIGERATING APPARATUS. CYRUS H. HAPGOOD, Boston, Mass., assignor to Montclair Refrigerating Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 1, 1913. Serial No. 751,894. (Cl. 62—115.)



1. In a refrigerating apparatus, in combination, a casing for containing a fluid lubricant and a liquid refrigerant, a self clearing reciprocating pump located in said casing and comprising a cylinder discharging into said casing, a valved piston reciprocating in said cylinder, a substantially fluid tight crank case, a rotatable crank shaft having a crank revoluble in said crank case and acting upon liquid therein to splash the same up into the said cylinder, said crank shaft being extended to the outside of said casing and sealed by the lubricant surrounding the crank case against the escape of refrigerant out of the casing along said crank shaft, an expansion chamber located outside of said casing and having its fluid inlet communicating with said casing and its fluid outlet discharging into said crank case, for the purpose specified.

2. In a refrigerating apparatus, in combination, a casing for containing a body of fluid lubricant, a self clearing reciprocating pump having a substantially fluid tight crank case located in said casing and surrounded by said lubricant, an expansion chamber located outside of said casing and having a fluid outlet discharging into said crank case and means for returning to said casing the lubricant discharged by said pump.

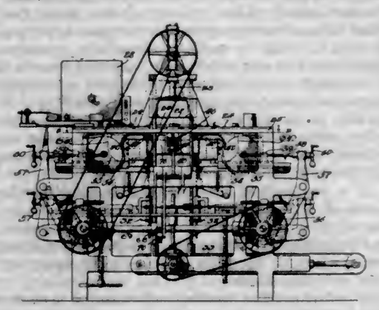
3. In a refrigerating apparatus, in combination, a casing for containing a fluid lubricant and a liquid refrigerant, a self clearing reciprocating pump provided with a substantially fluid tight crank case and located in said casing to have the crank case surrounded by fluid lubricant therein, and communicating with said casing to return to the latter fluid lubricant which may accumulate in the crank case, an expansion chamber located outside of said casing and having its fluid inlet communicating with said casing and its fluid outlet discharging into the crank case of said reciprocating pump.

4. In a refrigerating apparatus of the character described, in combination, a casing for containing a body of fluid lubricant, a self clearing reciprocating pump located in said casing and having a substantially fluid tight crank case surrounded by said fluid lubricant, and an expansion chamber located outside of said casing and having its fluid outlet discharging into said crank case.

5. In a refrigerating apparatus, in combination, a casing for containing a fluid lubricant, a reciprocating pump located in said casing and provided with a cylinder communicating with said casing and having a substantially fluid-tight crank case communicating with said cylinder, a valved piston reciprocating in said cylinder, a crank shaft extended from within said crank case to the outside of said casing and provided with a crank revoluble in said crank case, and an expansion chamber having its outlet extended into said casing and discharging into said crank case.

[Claims 6 to 16 not printed in the Gazette.]

1,131,131. BOX-MAKING MACHINE. JOHN N. J. HILBERT, Chicago, Ill., assignor to J. Philip Bird, New York, N. Y. Filed Aug. 12, 1908. Serial No. 448,159. (Cl. 93—41.)



1. A box making machine comprising a blank feeding mechanism, forming mechanism, means for feeding the tape into operative position, means for partially severing said tape before it is secured in place upon the box, means for pressing said tape in place, and means for completely severing the tape.

2. A box making machine comprising a blank feeding mechanism, a forming mechanism, means for feeding the tape into operative position, adjustable means for partially severing said tape before it is secured in place upon the box, means for pressing said tape in place, and means for completely severing the tape.

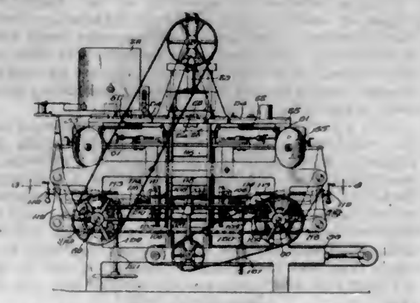
3. A box making machine comprising a blank feeding mechanism, forming mechanism, means for feeding the tape into operative position, a series of adjustable cutters for partially severing said tape before it is secured in place upon the box, means for pressing said tape in place, and means for completely severing the tape.

4. A box making machine comprising a blank feeding mechanism, forming mechanism, means for feeding the tape into operative position, a series of adjustable cutters for partially severing said tape before it is secured in place upon the box, means for pressing said tape in place, acting in conjunction with said cutters, and means for completely severing the tape.

5. In a box making machine, means for bringing tape into position to be secured to the box and means for securing said tape to the box and folding only such tape as is secured to the box, said means including devices for a partial severing only of said tape.

[Claims 6 to 21 not printed in the Gazette.]

1,131,132. BOX-MAKING MACHINE. JOHN N. J. HILBERT, Chicago, Ill., assignor to J. Philip Bird, New York, N. Y. Filed Oct. 7, 1911. Serial No. 653,379. (Cl. 93—41.)



1. In a paper box making machine, the combination of a well of sufficient length to receive and hold a plurality of boxes, a reciprocating former adapted to work in the upper end of the well to fold the box blank into finished shape, means for supplying an adhesive tape to each corner of the well and applying it to the adjacent corner of the box after the box is formed in the well, means for pressing the tape thus drawn in against the corners of the box while the reciprocating former is withdrawn from the well, whereby by said folding operation the boxes will be pushed down into the well in succession and each preceding box will pull into the well a sufficient length of tape to extend the full length of the corners of the next succeeding box, whereby upon discharge from the lower end of the well the boxes will all be flexibly connected together at their corners by said tapes, means for severing the tape between the boxes, and means for automatically preventing the severing means from cutting a box.

2. In a box making machine, box forming mechanism, a series of severing means whereby the lowermost of a string of completed boxes or covers are successively cut from the string, and means for automatically holding said lowermost box or cover in position until operated upon by said severing means.

3. In a box making machine, box forming mechanism, a series of severing means whereby the lowermost of a string of completed boxes or covers are successively cut from the string, means for automatically holding said lowermost box or cover in position until operated upon by said severing means, and means for bringing said holding means into and out of operative engagement.

4. In a box making machine, box forming mechanism, a series of severing means whereby the lowermost of a string of completed boxes or covers are successively cut from the string, means for automatically holding said lowermost box or cover in position until operated upon by said severing means, and means including a cam for bringing said holding means into and out of operative engagement.

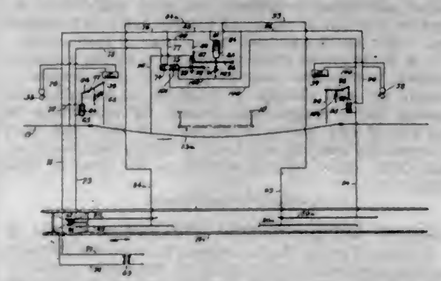
5. In a box making machine, box forming mechanism, a series of severing means whereby the lowermost of a string of completed boxes or covers are successively cut from the string, and spring controlled means for automatically holding said lowermost box or cover in position until operated upon by said severing means.

[Claims 6 to 25 not printed in the Gazette.]

1,131,133. AUTOMATIC WARNING SYSTEM FOR ELECTRIC RAILWAYS. ERNEST ROWLAND HILL, East Orange, N. J. Filed Mar. 3, 1913. Serial No. 751,811. (Cl. 246—1.)

1. In an automatic low-bridge warning system for an electric railway having a trolley wire arranged above the rails, in combination, a tactual warning device adjacent to the trolley wire, mechanism for shifting the warning device relatively to the trolley wire, and means set in operation by an approaching vehicle traveling on the track rails to actuate said mechanism.

2. In an automatic low-bridge warning system for an electric railway having a trolley wire arranged above the rails, in combination, a tactual warning device adjacent to the trolley wire; power-actuated mechanism for shifting the warning device relatively to the trolley wire, and electromagnetic controlling means for said mechanism, dependent for operation upon the approach of a vehicle traveling on the rails.



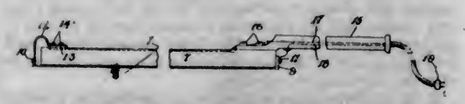
3. In an automatic low-bridge warning system for an electric railway having a trolley wire arranged above the rails, in combination, a tactual warning device adjacent to the trolley wire and normally in the path of a current-taking device moving along the trolley wire, and means dependent for operation upon the approach of a vehicle traveling on the rails to shift the warning device out of the path of the current taking device.

4. In an automatic low-bridge warning system for an electric railway having a trolley wire arranged above the rails, in combination, a tactual warning device adjacent to the trolley wire and movable relatively thereto, mechanism for shifting the said warning device, visual and audible warning devices associated with the said mechanism for operation, and controlling means for said mechanism, dependent for operation upon the approach of a vehicle traveling on the rails.

5. In an automatic low-bridge warning system for an electric railway having a trolley wire arranged above the rails, in combination, a tactual warning device adjacent to the trolley wire and movable relatively thereto, electromechanical means to actuate the said warning device and dependent for operation upon the approach of a vehicle traveling on the rails, and electrically operated audible and visual warning devices associated with said mechanism for operation simultaneously therewith.

[Claims 6 to 12 not printed in the Gazette.]

1,131,134. APPARATUS FOR SPLITTING GLASS CYLINDERS. HARRY F. HITNER, Mount Vernon, Ohio, assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 28,1912. Serial No. 686,934. (Cl. 49—50.)

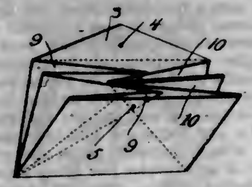


1. A glass splitting device comprising a relatively rigid bar having one edge straight, a relatively thin band of metal extending along and supported flatwise by the said edge, and means for sending a current of electricity through the strip of metal to heat it.

2. A glass splitting device comprising a relatively rigid bar of non-conducting material having one edge straight, a strip of metal of concave convex cross-section extending along and supported by the said edge with the concave surface inward, and means for sending a current of electricity through the strip of metal to heat it.

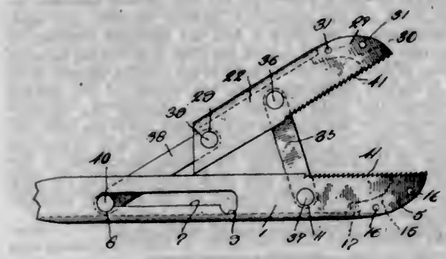
3. A glass splitting device comprising a relatively rigid bar of non-conducting material having one edge straight, a strip of metal of concave convex cross-section extending along and suported by the said edge with the concave surface inward, and means for sending a current of electricity through the strip of metal to heat it, the edge of the bar in contact with the strip being convex to fit the concave surface of the bar.

1,131,135. ENVELOP. EDWIN V. HUDSON, Wilkinsburg, Pa. Filed Sept. 5, 1912. Serial No. 718,779. (Cl. 229—68.)



A safety envelop comprising longitudinal, front and rear flaps and a series of triangular end flaps, projecting toward each other, and the inner terminus of the first mentioned end flaps extending between the two opposing flaps of the other pairs, a sealing flap formed integral with the front flap, an inner fastening member extending through the ends of the end flap, the rear flap and through and projecting from said sealing flap, and an outer fastening member arranged upon the projecting end of the fastening member so that the sealing flap, end flap and the rear flaps are secured together.

1,131,136. WRENCH. EDWARD HUFFMAN, Minburn, Alberta, Canada. Filed Mar. 21, 1914. Serial No. 826,454. (Cl. 81—117.)



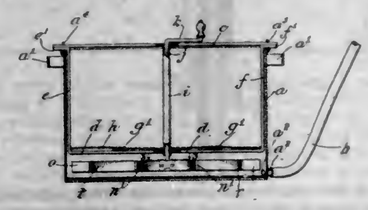
1. In a wrench, a rigid jaw formed from a blank of sheet metal, the sides of said jaw provided with slots extending longitudinally therein, a bar pivotally connected to said jaw, a jaw formed from a blank of sheet metal pivotally connected to said bar, a second bar pivotally connected to said last named jaw, a pin carried by said last named bar and slidably seated in said slots.

2. In a wrench, a rigid jaw formed from a blank of sheet metal, the sides of said jaw provided with slots extending longitudinally therein, a bar pivotally connected to said jaw, a jaw formed from a blank of sheet metal pivotally connected to said bar, a second bar pivotally connected to said last named jaw, a pin carried by said last named bar and slidably seated in said slots, blocks mounted within the ends of said jaws and reinforcing the same and the adjacent edges of said jaws having serrations formed thereupon.

3. In a wrench, a rigid jaw formed from a blank sheet of metal, the sides of said jaw provided with slots extending longitudinally therein, a bar pivotally connected to said jaw, a second jaw formed from a blank sheet of metal pivotally connected to said bar, a second bar pivotally connected to said second jaw and having one end slidable in said slots of said rigid jaw, and means in said slots for retaining said second jaw in different positions relative to said rigid jaw.

4. In a wrench, a rigid jaw formed from a blank sheet of metal, the sides of said jaw provided with slots extending longitudinally therein, a bar pivotally connected to said jaw, a second jaw formed from a blank sheet of metal pivotally connected to said bar, a second bar pivotally connected to said second jaw, a pin carried by said last-named bar and slidable in said slots, said slots provided with semicircular cut-out portions adjacent the ends thereof to receive said pin, whereby said second jaw will be held in a desired position relative to said rigid jaw.

1,131,137. DISH-WASHING MACHINE. URIAH HUTCHINSON, New York, N. Y. Filed June 1, 1914. Serial No. 842,089. (Cl. 141—9.)



1. A dish washing machine embodying therein a tank for the washing fluid, a rigid frame having a top bar extending across and engaging the edge of said tank, whereby said frame may be removably mounted in said tank, and a bottom bar adjacent the bottom of said tank, a rotatable shaft mounted in said top and bottom bars, a plurality of paddle blades carried by said shaft, means whereby said shaft is supported to position said blades adjacent, but out of contact with, the bottom of said tank, said paddle blades having vertically disposed bucket surfaces whereby the cleaning fluid will be swirled about the tank, and a reticulated support for dishes mounted upon said frame above said paddle blades.

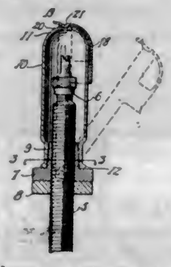
2. A dish washing machine embodying therein a tank for the washing fluid, having diametrically opposite slots in the edge thereof, a rigid frame having parallel top and bottom bars and connecting bars, said top bar having laterally projected lugs adapted to seat in said slots, whereby said frame is suspended within said tank, a rotatable shaft mounted in said top and said bottom bars, a plurality of paddle blades carried by said shaft between said bottom bar and the bottom of the tank, said paddle blades having vertically disposed bucket surfaces whereby the cleaning fluid will be swirled about said tank, an operating crank handle upon said shaft bearing upon said top bar and a reticulated support for dishes mounted upon the upper face of said bottom bar.

3. A dish washing machine embodying therein a tank for the washing fluid, having diametrically opposite slots in the edge thereof, a rigid frame having parallel top and bottom bars and connecting bars, said top bar having laterally projected lugs adapted to seat in said slots, whereby said frame is suspended within said tank, cross bars carried by said bottom bars, a rotatable shaft mounted in said top, and said bottom bars, a plurality of paddle blades carried by said shaft between said bottom bar and the bottom of the tank, said paddle blades having vertically disposed bucket surfaces whereby the cleaning fluid will be swirled about said tank, an operating crank handle upon said shaft bearing upon said top bar, and a reticulated support for dishes mounted upon the upper face of said bottom bar and said cross bars.

4. A dish washing machine embodying therein a tank for the washing fluid, a rigid frame having a top bar extending across and engaging the edge of said tank whereby said frame may be removably mounted in said tank, and a bottom bar adjacent the bottom of said tank, a rotatable shaft mounted in said top and bottom bars, a tubular bearing for said shaft extending from said top bar to said bottom bar, a plurality of paddle blades carried by said shaft, means whereby said shaft is supported to

position said blades adjacent, but out of contact with the bottom of said tank, said paddle blades having vertically disposed bucket surfaces whereby the cleaning fluid will be swirled about the tank, and a reticulated support for dishes mounted upon said frame above said paddle blades.

1,131,138. DUST-PROOF CAP FOR TIRE-VALVES. CLIFFORD E. IVINS, Los Angeles, Cal. Filed Mar. 3, 1914. Serial No. 822,225. (Cl. 152—12.)

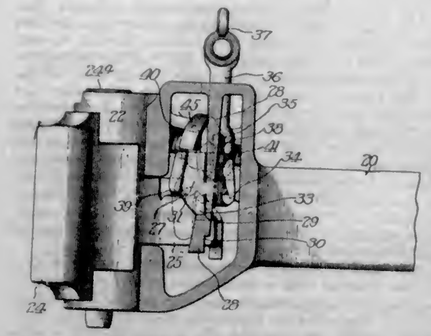


1. A dust cap for pneumatic tire valves, comprising a sleeve adapted to be threaded on the valve casing, a cap adapted to inclose the end portion of the valve casing and to seat on the sleeve, an arm pivoted on said sleeve and resilient clamping means on said arm for retaining the dust cap in position.

2. In a dust cap for pneumatic tire valves, a sleeve threaded to be screwed on the valve casing, a cap adapted to seat on said sleeve to inclose the outer end of the valve casing, a pair of connected arms pivoted to said sleeve, and resilient means for connecting said arms to the cap to retain the latter in position.

3. In a dust cap for pneumatic tire valves, a sleeve formed with a collar and threaded to receive the externally threaded end portion of the valve casing, a cylindrical cap having a dome-shaped end wall and adapted to encircle and engage the collar on the sleeve to inclose the upper portion of the valve stem, a pair of connected pivoted arms on said sleeve having a boss thereon adapted to engage a socket formed in the cap, whereby the latter is retained in position on the sleeve.

1,131,139. COUPLING. ROBERT E. L. JANNEY, Chicago, Ill., and EDMUND P. KINNE, Alliance, Ohio, assignors to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 21, 1911. Serial No. 603,858. (Cl. 213—10.)



1. A coupler, comprising, in combination, a coupler head, a knuckle pivoted therein, means for locking said knuckle in closed position, and a knuckle thrower mounted in said head and having a portion adapted to contact the tail of the knuckle, the said thrower being pivoted in loose bearings for compound movement whereby the direction of force applied by said thrower is at all times substantially tangent to the path of travel of said knuckle tail, substantially as described.

2. A coupler of the class described, comprising, in combination, a coupler head, a knuckle pivoted therein, means for locking said knuckle in closed position, and a knuckle thrower pivoted within said coupler head out of parellelism with the longitudinal axis of said coupler head out of parallelism with a horizontal plane, the pivotal bearings for said thrower being arranged to permit a limited vertical movement thereof, substantially as described.

3. A coupler comprising, in combination, a coupler head, a knuckle pivoted therein, means for locking said knuckle in closed position, and a thrower for opening said knuckle, trunnions on said knuckle thrower, bearings in said head for said trunnions, said bearings being out of parallelism with a horizontal plane and with the longitudinal axis of said coupler and being so arranged as to permit a limited bodily, compound movement of said knuckle thrower, substantially as described.

4. A coupler comprising a coupler head, a swinging knuckle provided on its tail with a shoulder extending transversely thereof, a lock having a projection, and lock-setting means including a lock set shoulder disposed to the rear of the front face of the lock, the projection on the lock frictionally and slidably engaging the forward face of the shoulder on the knuckle tail during opening movement of the knuckle to positively draw the lock forwardly from its lock set position, and said projection being in frictional and slidable engagement with the front face of the shoulder on the knuckle tail during closing movement of the knuckle to prevent the lock from going back on the lock set shoulder during the closing of the knuckle, substantially as described.

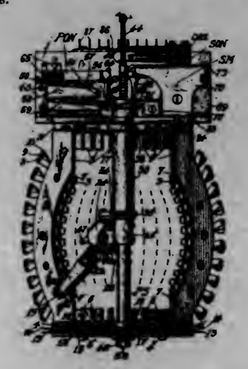
5. A coupler comprising a coupler head, a swinging knuckle having a groove on the tail thereof eccentric to the pivot of the knuckle, a locking member, and lock-setting means including a lock set shoulder disposed to the rear of the front face of the lock, said locking member being provided on the forward lower portion thereof with a projection depending below the bottom of the locking member and lying in the groove during the opening movement of the knuckle to positively draw the lock forwardly from its lock set position, and said projection lying in the groove during the closing movement of the knuckle to prevent the lock from going back on the lock set shoulder during the closing of the knuckle, subatantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,140. AUTOMATIC SWITCH FOR TELEPHONE SYSTEMS. WILLIAM KAISLING, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,664. (Cl. 179—27.5.)

1. An automatic switch, comprising bank contacts arranged in groups, wipers adapted to coöperate with said contacts, a primary magnet adapted upon operation to move said wipers to a group, a spring member adapted to act upon said wipers to retard said primary movement, a secondary magnet adapted upon operation to move the wipers to a contact in the selected group, a second spring member adapted to act upon said wipers to retard said secondary movement, said secondary magnet being adapted to advance said wipers to a position beyond the last contact in the selected group, means actuated upon said wipers assuming such position whereby said wipers are restored by said spring members.

2. In an automatic switch, passive contacts arranged in rows, movable arms having contact ends adapted to engage said contacts, an electromagnet and apparatus controlled thereby for rotating said contact ends to select a row, elastic means for retarding the movement of said contact ends, a second electromagnet and apparatus controlled thereby for rotating said contact ends in an intersecting plane to select a contact of a row, elastic means for retarding said latter rotation, said second electromagnet also being adapted to rotate said contact ends to a position beyond the last contact in the row, whereby said elastic means are adapted to automatically restore said contact ends.



3. In an automatic switch, passive contacts arranged in rows, movable arms having contact ends adapted to engage said contacts, an electromagnet and apparatus controlled thereby for rotating said contact ends to select a row, a second electromagnet and apparatus controlled thereby for rotating said contact ends in an intersecting plane to select a contact of a row, said second electromagnet also being adapted to rotate said contact ends to a position beyond the last contact in the row, whereby said contact ends are automatically restored.

4. An automatic switch including passive contacts arranged in rows, movable contact ends adapted to engage said passive contacts, a spring retarded shaft for moving said contact ends to select a row, a primary magnet for actuating said shaft, a second spring retarded shaft for moving said contact ends to select a contact in a row, a secondary magnet for actuating said second shaft, said secondary magnet being adapted to actuate said second shaft to move said contact ends to a position beyond the last contact of the row, and means actuated upon movement of the contact ends to such position whereby said contact ends and said shafts are automatically restored.

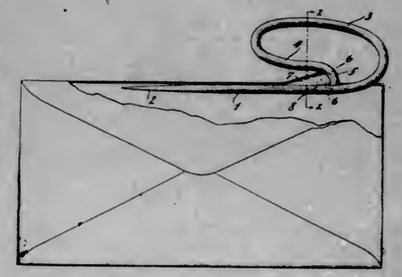
5. An automatic switch including passive contacts arranged in rows, movable contact ends adapted to engage said passive contacts, a rotatable shaft for rotating said contact ends to select a row, an electromagnet for rotating said shaft, a longitudinally movable shaft and connecting mechanism for rotating said contact ends in an intersecting plane to connect with a contact in a row, a second electromagnet for moving said second shaft, said second electromagnet being adapted to continue the movement of said second shaft to advance said contact ends in a position beyond the last contact of the row, and means thereupon actuated whereby said shafts and contact ends are automatically restored.

[Claims 6 to 21 not printed in the Gazette.]

1,131,141. PAPER-CUTTER. ARION S. KALENBORN, San Francisco, Cal. Filed Oct. 3, 1913. Serial No. 793,084. (Cl. 120—35.)

1. A cutter of the class described comprising a leader consisting of a relatively long rod having no cutting edges, a handle at the rear end of said rod, a relatively short cutting blade arranged at the rear of said leader, said handle extending over the cutting edge of said blade and serving as a guard therefor.

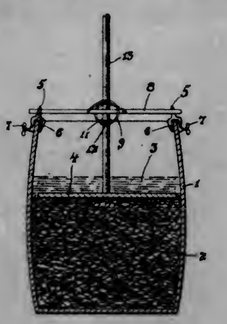
2. A cutter of the class described comprising a rod having one portion thereof straight and pointed to form a relatively long leader having no cutting edges, and having the other portion of said rod curved to form a loop-shaped handle, and a relatively short cutting blade arranged to the rear of said leader, said blade having its cutting edge extending at an angle to said leader.



3. A cutter of the class described, comprising a leader consisting of a relatively long straight pointed rod having no cutting edges, a handle at the rear end of the rod, and a relatively short cutting blade at the rear end of the rod, and arranged with its edges at an angle to said rod.

4. A cutter of the class described comprising a leader consisting of a relatively long straight pointed rod having no cutting edges and adapted to be inserted beneath the material to be severed, a handle fastened to the rear end of said rod and being positioned on one side of said rod and adapted to extend above the material to be severed, and a relatively short cutting blade having its cutting edge at an obtuse angle to the main portion of the pointed rod, said blade being supported between the rod and handle.

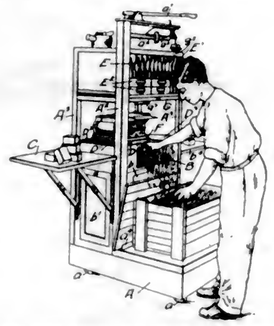
1,131,142. PRESS. OTTO KARCHER, Canton, Ohio, assignor to Francis X. Volzer, Canton, Ohio. Filed Oct. 21, 1914. Serial No. 867,779. (Cl. 100—57.)



1. In a device of the character described, the combination with a receptacle and a follower located therein, of a plunger, an adjustable grip mounted upon said plunger, a spring carried by said grip, a lever connected to said spring and means upon said receptacle for receiving the extremities of said lever.

2. In a device of the character described, the combination with a receptacle and a follower located therein, of a plunger, a gripping ring slidably mounted upon said plunger and adapted to grip said plunger when pressure is exerted thereon, a lug located upon said gripping ring and provided with an aperture therethrough, a circular spring located through the aperture in said lug, a lever provided with apertures intermediate its ends, the extremities of said circular spring being passed through said apertures and detachable hooks adapted to be secured upon the upper edge of said container, said hooks adapted to receive the extremities of said lever.

1,131,143. SHIPPER'S CABINET. HENRY FRANCIS KEIL, New York, N. Y. Filed Oct. 2, 1913. Serial No. 792,991. (Cl. 211—8.)



1. A cabinet consisting of a plurality of stationary receptacles and movable devices contained in a framework, and having lower and upper chambers, a hollow post comprising a vertical runway or guide, a portion located centrally in the cabinet and permanently open to the user in the sides of which are positioned horizontal runways or guides, and a base portion projecting outwardly from the bottom of the cabinet in which is formed an opening comprising an enlarged but low vertical runway or guide.

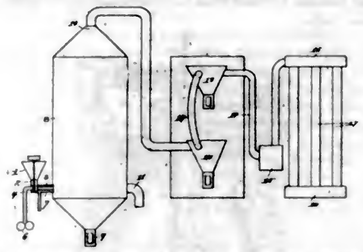
2. A cabinet consisting of a plurality of stationary receptacles and movable devices contained in a framework, and having lower and upper chambers, a hollow post comprising a vertical runway or guide, a portion located centrally in the cabinet and permanently open to the user in the sides of which are positioned horizontal runways or guides, and a base portion projecting outwardly from the bottom of the cabinet in which is formed an opening comprising an enlarged but low vertical runway or guide, and devices adapted to be permanently retained in the said runways or guides, the whole number of the said elements being connected together and serving to form a unitary structure.

3. A cabinet consisting of a plurality of stationary receptacles and movable devices contained in a framework, and having lower and upper chambers, a hollow post comprising a vertical runway or guide, a portion located centrally in the cabinet and permanently open to the user in the sides of which are positioned horizontal runways or guides, a table to cover the lower chamber, a guide at the top of the cabinet, and a base portion projecting outwardly from the bottom of the cabinet in which is formed an opening comprising an enlarged but low vertical runway or guide, and movable devices adapted to be permanently retained in the said runways or guides, the whole number of the said elements being connected together and serving to form a unitary structure.

4. A cabinet consisting of a plurality of stationary receptacles and movable devices contained in a framework, and having lower and upper chambers, a central portion located in the body of the cabinet and permanently open to the user in the sides of which are positioned horizontal runways or guides, a vertical guide or runway at the top of the cabinet, a base portion projecting from the cabinet in which is formed an opening comprising an enlarged but low vertical runway or guide, and devices adapted to be permanently retained by and to operate in the said runways or guides, the whole number of the said elements being connected together and serving to form a unitary structure.

1,131,144. METHOD OF MAKING A WHITE PIGMENT. HENRY W. KESSLER, Cleveland, Ohio, assignor to The Kessler Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 22, 1909. Serial No. 534,407. (Cl. 134—67.)

1. The method of making a white pigment, which consists in discharging an ignited combustible mixture of powdered metallic lead, air, and hydrocarbon fuel into a body of carbon dioxid, and then separating the carbonate from the gases wherewith it is mingled.



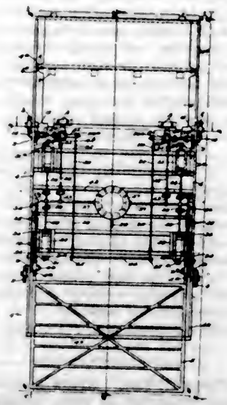
2. The method of making a white pigment, which consists in discharging an ignited combustible mixture of powdered metallic lead, air, and gaseous hydrocarbon fuel into a chamber containing carbon dioxid, and then separating the carbonate from the gases in said chamber.

3. The method of making a white pigment, which consists in burning powdered metallic lead and reacting upon the freshly formed lead oxid, with carbon dioxid and steam.

4. The method of making a white pigment, which consists in discharging an ignited combustible mixture of powdered metallic lead, air, and hydrocarbon fuel into a body of carbon dioxid, and admixed steam, and then separating the carbonate from the gases wherewith it is mingled.

5. The method of making a white pigment, which consists in discharging an ignited combustible mixture of powdered metallic lead, air, and gaseous hydrocarbon fuel into a chamber containing carbon dioxid, and admixed steam and then separating the carbonate from the gases in said chamber.

1,131,145. MOLD-MAKING MACHINE. WILLIAM C. LANG, Cleveland, Ohio. Filed May 28, 1914. Serial No. 841,461. (Cl. 22—33.)



1. In a molding machine, a fluid actuated mold compressing table, and head and pattern-plate carriers pivotally and adjustably mounted on opposite sides of said table.

2. In a mold making machine, a pair of pattern-plate and flask-section engaging and latching members terminating at their base ends in elongated guide loops, and adjusting members mounted on said loops.

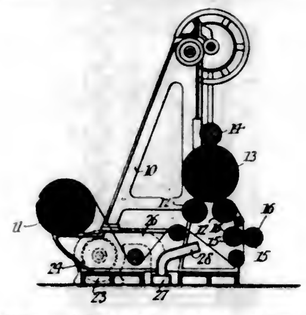
3. In a mold making machine, a frame provided with a pair of vertical bearing posts provided at their top with bearing guide slots, a pair of pattern-plate carriers, and bearing bolts extending through said carriers and said guide slots and vertically movable in the latter.

4. In a mold making machine, a pair of pattern plate and flask-section engaging and latching members terminating at their base ends in elongated guide bearing loops, bearing clips adjustably mounted in said loops, and latches carried at the free ends of said engaging and latching members.

5. In a mold making machine, a pair of pattern-plate and flask-section engaging rods pivotally and adjustably mounted at one end, a cross bar adjustably connected to and carried by the free ends of said rods, and counter-balanced latching members mounted on said cross bar.

[Claims 6 to 21 not printed in the Gazette.]

1,131,146. SLITTER AND REWINDER. SAMUEL M. LANGSTON, Camden, N. J. Filed Mar. 27, 1913. Serial No. 757,083. (Cl. 164—65.)



1. A slitter and rewinder including cutting mechanism for removing strips from the side edges of a sheet, winding mechanism for the body of the sheet, a blower, a distributing duct connected thereto and two separate nozzles pivoted to said duct and adjustable to deliver air against said sheet adjacent to the side edges of the latter.

2. A slitter and rewinder including cutting mechanism for removing strips from the side edges of a sheet, winding mechanism for the body portion of the sheet, a blower, driven by the machine so as to operate only when the machine is operating and means for delivering air from said blower toward said sheet.

3. A slitter and rewinder including cutting mechanism for slitting a sheet into strips, winding mechanism for said strips, power means for driving said cutting mechanism and said winding mechanism, clutch connections for said power means, and a blower operatively connected to said cutting sheet while said cutting mechanism is in operation.

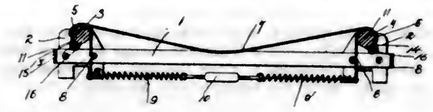
4. A slitter and rewinder including separate cutting mechanisms for removing strips from the side edges of a sheet, said mechanisms being adjustable toward and from each other to leave the body of the sheet of any desired width, winding mechanism for the body portion of the sheet, a blower, a distributing duct connected thereto and two separate nozzles connected to said duct and adjustable toward and from each other in accordance with the width of the body of the sheet and adapted to deliver air against said sheet adjacent to the side edges of the latter.

5. A slitter and rewinder including cutting mechanism for removing strips from the side edges of a sheet, winding mechanism for the body portion of the sheet, a blower, nozzles connected thereto for delivering air from said blower against said sheet adjacent the side edges of the latter and power transmitting mechanism connecting said blower and said machine, whereby the former is automatically stopped and started upon the stopping and starting of the latter.

[Claim 6 not printed in the Gazette.]

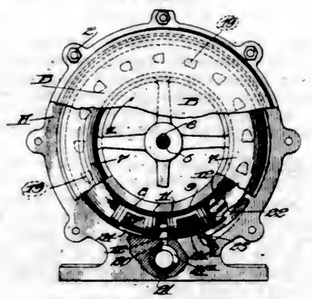
1,131,147. BED. JOHN MACKIN, Brooklyn, N. Y. Filed Nov. 30, 1912, Serial No. 734,369. Renewed July 28, 1914. Serial No. 852,764. (Cl. 5—67.)

A device of the kind described comprising a substantially rectangular frame, four brackets secured at the corners of said frame and having bottom recesses, a transversely-extending roller mounted in said brackets at each end of said frame, coextensive rods of lesser diameter than said rollers, a sheeting wound around a portion of each of said rollers and completely around said rods, staples



straddling said rods and engaging said rollers to secure said sheeting to said rollers, a plurality of levers carried by said rollers, and extensible springs carried by said levers and being connected to one another substantially in alinement with said frame.

1,131,148. ROTARY ENGINE. FRANK C. MANUEL, San Francisco, Cal., assignor of one-third to Chester A. Kenney, San Francisco, Cal. Filed May 18, 1914. Serial No. 839,275. (Cl. 121—48.)



1. In a rotary engine, a casing, a rotor connected to the casing and forming an annular chamber in conjunction with the casing, said casing having a pocket, a spring pressed pivoted latch in the pocket having a cam which with the latch proper projects into the chamber, a pair of pistons in the chamber, each piston having a pocket and a steam port which leads from the pocket through the adjacent piston end, a pivoted latch in each piston pocket, each piston having a chamber in one end thereof, and a plunger connected to the opposite end of each piston and receivable in the chamber of the other piston, said pistons having recesses in their peripheries arranged to one side of the latches thereof to receive the latch of the casing, and said rotor having a circular series of depressions in its inner circumference to receive said latches of the pistons.

2. In a rotary engine, a casing, a rotor connected to the casing and forming an annular chamber in conjunction with the casing, said casing having a pocket, a spring pressed pivoted latch in the pocket having a cam which with the latch proper projects into the chamber, a pair of pistons in the chamber, each piston having a pocket and a steam port which leads from the pocket through the adjacent piston end, a latch in each piston pocket, and means whereby steam may enter each pocket and act against the rear face of the latch to move the latter outwardly, said rotor having depressions to receive the piston latches, and said pistons having recesses in their peripheries arranged to one side of the latches thereof to receive the latch of the casing.

3. In a rotary engine, a casing, a rotor connected to the casing and forming an annular chamber in conjunction with the casing, said casing having a pocket, a spring pressed pivoted latch in the pocket having a cam which with the latch proper projects into the chamber, a pair of pistons in the chamber, each piston having a pocket and a steam port which leads from the pocket through the adjacent piston end, a pivoted latch in each piston pocket

arranged so that the steam which enters the pocket will act upon the rear face of the last named latch to move the same outwardly, said rotor having depressions to receive the piston latches and said pistons having recesses in their peripheries arranged to one side of the latches thereof to receive the latch of the casing.

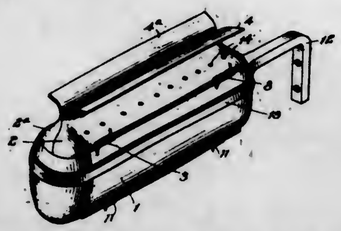
1,131,149. SPIKE OR NAIL. CHARLES E. MARTIN, Hinton, Va., assignor of one-third to George P. Fritze and one-third to Charles R. Cole, Chicago, Ill. Filed Apr. 16, 1914. Serial No. 832,337. (Cl. 85—20.)



1. A spike comprising a shank, one end of which is provided with diametrically opposed spiral blades projecting laterally beyond said shank, said blades having sharpened edges which converge toward and meet each other to form a driving point, said blades being flat or blunt at the top, the other end of the shank being formed to provide a head.

2. A spike comprising a shank, one end of which is provided with diametrically opposed spiral blades projecting laterally beyond said shank, said blades having more or less sharpened edges which converge toward and meet each other to form a driving point, said blades being flat or blunt at the top, the other end of said shank being formed to provide a head, of a diameter greater than the combined width of said blades.

1,131,150. CIGAR-HOLDER. EDWARD W. MCCARROLL, Pittsburgh, Pa. Filed Mar. 19, 1914. Serial No. 825,843. (Cl. 131—51.)



1. A cigar holder comprising a casing, a perforate cigar support in the upper portion thereof, and means below said support for preventing ash dust from rising through the casing.

2. A cigar holder comprising a casing, a cigar-supporting screen in the upper portion thereof, a cover hinged to the casing and extending over the support, and means below said support for preventing ash dust from rising through the casing.

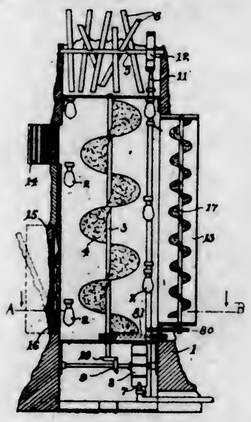
3. A cigar holder comprising a casing, a perforate cigar support in the upper portion thereof, and series of downwardly-extending alternately-arranged baffle plates below said support.

4. A cigar holder comprising a basing, a perforate cigar support in the upper portion thereof, means below said support for preventing ash-dust from rising through the casing, and means for removing the ashes from the bottom of the casing.

5. A cigar holder comprising a casing, a perforate cigar support in the upper portion thereof, means below said support for preventing ash dust from rising through the casing, and a hinged-door forming the bottom of the casing and held yieldingly in closed position.

[Claims 6 and 7 not printed in the Gazette.]

1,131,151. APPARATUS FOR STAGE ILLUSIONS. LANGDON MCCORMICK, London, England. Filed Mar. 16, 1914. Serial No. 825,138. (Cl. 46—70.)



1. Apparatus for producing stage illusions comprising a structure, electric lamps in the structure, rotatable members comprising reflectors adapted to intensify the light of said lamps located within the structure, means for driving the said members and means for creating an updraft of air through the structure.

2. Apparatus for producing stage illusions comprising a structure, electric lamps in the structure, rotatable members in the structure, steam pipes and nozzles to rotate the members and means to produce an updraft through the structure.

3. Apparatus for producing stage illusions comprising a structure representing a tree trunk made in sections to telescope, streamers of light fabric attached to the sections, electric lamps in the trunk and a blower for producing an updraft of air through the trunk.

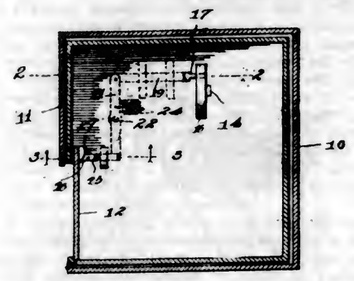
4. Apparatus for producing stage illusions comprising a structure representing a tree trunk made in sections to telescope, streamers of light fabric attached to the sections, electric lamps in the trunk and means for supplying air at about the bottom of the structure to produce an up-draft therethrough.

5. Apparatus for producing stage illusions comprising the representation of a tree trunk, movable portions in the trunk, lights within the trunk means for reflecting said lights and means for producing an updraft through the trunk and to cause a movement of said movable members.

[Claim 6 not printed in the Gazette.]

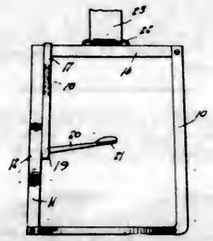
1,131,152. SAFETY DEVICE FOR ELEVATORS. WLADYSLAW MIELCAREK, Chester, Pa. Filed Apr. 9, 1914. Serial No. 830,695. (Cl. 187—47.)

A device of the class described comprising an elevator car, a slidable door within the car and movable therewith, a beveled block carried by the inner side of the door adjacent to its inner edge, a controller lever within the elevator, a bracket adjacent to the lever, a stud carried by the bracket and arranged to project within the path of travel of the lever, an angular lever carried by the stud and projecting from the bottom of the car and arranged for sliding movement relative thereto, a second angular lever provided with a roller arranged in the path of the beveled block, a link connecting the two levers, and a spring co-acting with the link and operating normally to



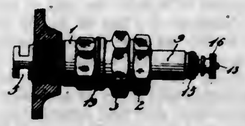
hold the stud in the path of movement of the controller lever.

1,131,153. SAFETY-STIRRUP. ARTHUR MOAKE, Marion, Ill. Filed June 3, 1914. Serial No. 842,686. (Cl. 54—49.)



In a safety stirrup, the combination with an L-shaped main member forming one side and the bottom of the stirrup, top and outside members pivoted respectively to the first mentioned side and the bottom, of co-acting engaging means carried by the top and outside side members, a bell crank lever pivoted to the outside side member and having a hooked end engaging the top member when the device is in locked position, a spring holding said hooked end in engagement, and a toe piece formed on the opposite end of said lever and arranged in position to be engaged by the rider's toe when the foot is moved to abnormal position in the stirrup.

1,131,154. SEPARABLE SPARK-PLUG. ARTHUR R. MOSLER, New York, N. Y., assignor to A. R. Mosler & Co., New York, N. Y., a Corporation of New York. Filed Nov. 19, 1908. Serial No. 463,474. (Cl. 123—169.)



A spark plug comprising a shell composed of inner, outer and intermediate sections, said inner section having holes through its inner ends and side walls, said intermediate section having an interior annular flange intermediate its ends, a conducting wire and insulating block having reduced end portions and an enlarged intermediate portion, packing rings interposed between the enlarged intermediate portion of the block, the flange and the outer section of the shell, for holding the insulating block independently of the inner section, and another packing ring interposed between the said flange and the outer end of the inner section of the shell.

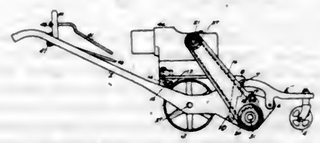
1,131,155. NEEDLE. THOMAS W. MURPHY, Pierpont, S. D. Filed Oct. 8, 1913. Serial No. 794,070. (Cl. 128—44.)



1. A needle, the head of which is longitudinally split to afford a pair of opposing spring sections, the inner faces of said sections being cut away transversely to the needle intermediate the ends of the slit, to afford an eye that is expansible and contractable with the movements of said sections, said sections outward of said eye, being approximately semi-cylindrical in form.

2. A needle, the head of which is longitudinally split to afford a pair of opposing spring sections, the inner faces of said sections being cut away transversely to the needle intermediate the ends of the slit, to afford an eye that is expansible and contractable with the movements of said sections, said sections, outward of said eye, being approximately semi-cylindrical in form and internally serrated.

1,131,156. POWER LAWN-MOWER. RANSOM E. OLDS, Lansing, Mich. Filed May 22, 1914. Serial No. 840,328. (Cl. 56—19.)



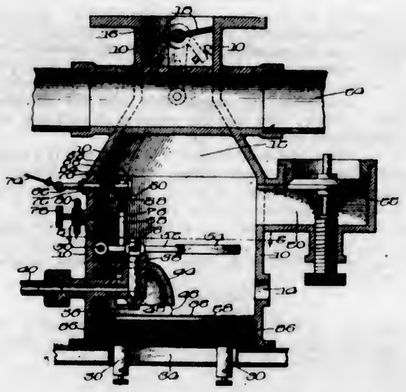
1. In a lawn mower, the combination with a main frame, a wheel support therefor, cutting mechanism mounted on the main frame in advance of the wheel support, of an auxiliary frame at the front of the main frame provided with ground wheels, said auxiliary frame being adapted to support the front of the main frame at different elevations, the auxiliary frame being pivotally connected to the main frame for adjustment relative thereto, and means for locking the auxiliary frame to the main frame in different positions of adjustment, said means including a bar pivoted to the main frame at its lower end and provided with a plurality of seats, an operating rod connected with the said bar, and means for locking said rod to the main frame, said auxiliary frame being provided with a portion adapted to be engaged with the seats of said bar.

2. In a lawn mower, the combination with a main frame, a wheel support therefor, cutting mechanism mounted on the main frame in advance of the wheel support, of an auxiliary frame at the front of the main frame provided with ground wheels, said auxiliary frame being adapted to support the front of the main frame at different elevations, the auxiliary frame being pivotally connected to the main frame for adjustment relative thereto, and means for locking the auxiliary frame to the main frame in different positions of adjustment, said means comprising a bar pivotally connected at its lower end to the main frame, a plate mounted on the bar for adjustment along the same, said plate being provided with a plurality of notches, an operating rod connected to the said bar, and means for locking the rod to the main frame, said auxiliary frame being provided with a portion adapted to be engaged with the notches in the said plate, substantially as described.

1,131,157. KEROSENE-GAS GENERATOR. FRANK N. PERCIVAL and WILLIAM PATTERSON, Chicago, Ill. Filed July 10, 1913. Serial No. 778,371. (Cl. 48—103.)

1. In a device of the class described, the combination with a mixing chamber provided with constantly open air entrance and exhaust ports, a heatable plate within the

mixing chamber, means other than exhaust from the engine to which the device is to be applied for heating said plate, means for admitting oil to said plate within the mixing chamber, and means operated by the pull of the air passing through said mixing chamber for controlling the admission of oil to said plate.



2. In a device of the class described, the combination with a mixing chamber provided with constantly open air entrance end exhaust ports, a heatable plate within the mixing chamber, means heating said plate, means for admitting oil to said plate within the mixing chamber, means operated by the pull of the air passing through said mixing chamber for controlling the admission of oil to said plate, and means operatable from outside the mixing chamber for regulating said oil controlling means.

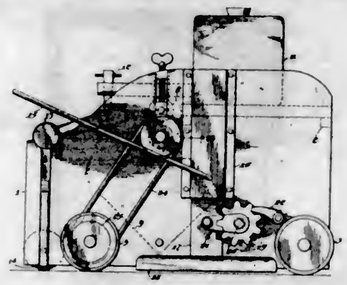
3. In combination with a casing having therein a mixing chamber provided with ports for the entrance and exhaust of air, a nozzle device inside the heating chamber provided with a port discharging directly at a fixed point in the wall of the chamber, means for heating by independent external means said portion of the wall of the chamber, a valve controlling the supply of oil delivered from said nozzle, and a lever member controlling said valve, the end of said lever member being in the form of a blade or wing lying within the body of the chamber in the path of air passing through the mixing chamber whereby whenever air passes through said chamber it strikes said blade or wing to open the valve and admit oil to the heater plate, for the purposes set forth.

4. A device of the class described including a casing having therein a mixing chamber provided with ports for the entrance and exhaust of air, the exhaust port for the air being located in the upper portion thereof, a nozzle device inside the mixing chamber provided with a port discharging downward toward the bottom of the chamber, means for heating by independent external means the portion of the wall of the chamber which is directly below said nozzle, a valve controlling the supply of oil delivered from said nozzle, a lever member controlling said valve, the end of said lever member being in the form of a blade or wing lying within the body of the chamber in the path of air passing through the mixing chamber whereby whenever air passes through said chamber it strikes said blade or wing to open the valve and admit oil to said heated portion of the chamber for the purposes set forth.

5. In a device of the class described, in combination with a mixing chamber having entrance and exhaust ports for air, a heatable plate forming one portion of an exterior wall of said mixing chamber, a nozzle inside the chamber directed toward said heatable plate, means for supplying oil to said plate, a hood over said nozzle insuring the oil contacting said plate, and means operated by air passing through the mixing chamber for regulating said oil nozzle, for the purposes set forth.

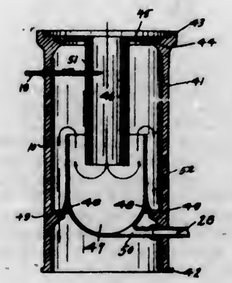
[Claims 6 to 19 not printed in the Gazette.]

1,131,158. SCRUBBING-MACHINE. FRANK PETERSON, Lynden, Wash. Filed Oct. 17, 1913. Serial No. 795,792. (Cl. 15—14.)



In a scrubbing machine comprising a frame provided with front and rear wheels, a rotary scrubbing brush carried at the front of said frame, vertically movable racks carried by said frame adjacent its rear end, shoes terminally carried by said racks capable of supporting the rear end of said frame and means carried by said frame cooperating with said racks whereby the latter may be depressed to take the weight of the rear end of said frame off the rear wheels.

1,131,159. SMOKE-CONDUCTING PIPE. LOUIS W. PIETSCH, Post Falls, Idaho. Filed June 16, 1913. Serial No. 773,954. (Cl. 110—183.)



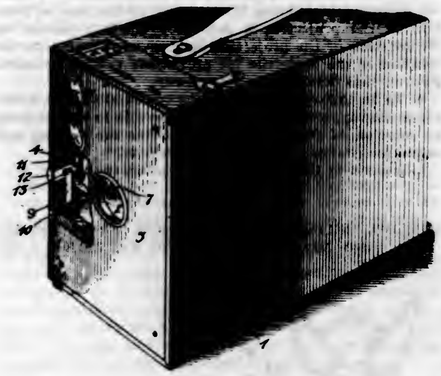
1. In a spark arrester, a smoke conducting pipe having an upright pipe section interposed therein provided with cup supporting lugs projecting interiorly thereof, a collecting cup of reduced cross section with respect to the interior cross section of said pipe section and provided with lugs adapted to seat on the lugs of said pipe section to removably support the cup in spaced relation in and with respect to the interior of said pipe section, a separating pipe having a flange engaging said pipe section to removably support said separating pipe in said pipe section and said separating pipe being of sufficient length to project downwardly into said cup, substantially as described.

2. In a spark arrester, a smoke conducting pipe having an upright pipe section interposed therein and provided with cup supporting lugs projecting interiorly thereof, a collecting cup of reduced cross section with respect to the interior of said pipe section and provided with lugs adapted to seat on the lugs of said pipe section to removably support the cup in spaced relation in and with respect to the interior of said pipe section, a separating pipe having a flange engaging said pipe section to partially close the same and to removably support said separating pipe in said pipe section, said separating pipe being of sufficient length to project downwardly into said cup, said cup having a drainage pipe, and a drainage connection extending through said pipe section and connected with the drainage pipe of said cup, substantially as described.

3. In a spark arrester, a conducting pipe having an upright pipe section interposed therein and including cup supporting means, a collecting cup removably supported in said pipe section on said means, the upper end of said section having an inner flange closure seat portion and outer annular pipe seat portion one being above the other, a separating pipe having a closure flange seated on said inner annular portion and said pipe being of sufficient length to depend downwardly into said cup, said cup having a drainage pipe, and a drainage connection extending through said upright pipe section and coupled to said cup drainage pipe, substantially as described.

4. In a spark arrester, a smoke conducting pipe having an upright pipe section interposed therein for a downward passage of smoke thereto, a separating pipe of reduced cross section with respect to the cross section of said pipe section and extending downwardly therein, a collecting cup disposed in said pipe section and having its upper open end disposed in surrounding relation and above the lower end of said separating pipe to cause the smoke flowing downwardly through separating pipe to flow upwardly over the open end of said cup and then downwardly outside of said cup in said pipe section, a nozzle for projecting a stream into said separating pipe at substantially right angles to the longitudinal axis thereof, and a drainage pipe leading from said cup, substantially as described.

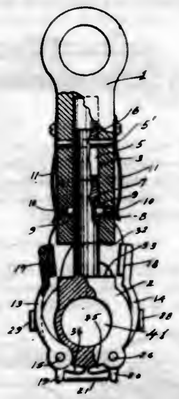
1,131,160. SAFETY SHUTTER-CONTROLLER FOR CAMERAS. WILLIAM L. POLLOCK, Jr., New York, N. Y. Filed Sept. 25, 1914. Serial No. 863,418. (Cl. 95—53.)



1. In a camera of the character described, a shutter, a shutter operating device arranged to be moved to and fro and to operate the shutter on both movements, and manually operable means carried by the camera to hold said shutter operating device against accidental movement in either direction, said means comprising a movable latch located within the camera adjacent to the shutter operating handle and arranged to be moved into and out of the path of movement of said operating device, said latch having an exposed finger piece.

2. In a camera of the character described, a shutter, a shutter operating device arranged to be moved to and fro and to operate the shutter on both movements, and manually operable means carried by the camera to hold said shutter operating device against accidental movement in either direction, said means comprising a movable latch located within the camera adjacent to the shutter operating device and arranged to be moved into and out of the path of movement of said operating device, said latch having a swinging movement, said latch having an exposed finger piece.

1,131,161. SAFETY DEVICE FOR PUNCHING-MACHINES. CHARLES F. ROOT, Ravenna, Ohio, assignor of one-fourth to Byron O. Conn, Mansfield, Ohio. Filed Jan. 2, 1914. Serial No. 809,805. (Cl. 164—107.)



1. The combination with a work-performing element and its actuating means, of normally collapsible connections therebetween, means whereby said connections are rendered rigid and against collapsing, and means to automatically operate said second named means during the operative movement of the work-performing element and just prior to the engagement of said element with the work and when the path of the element is free to render said connections rigid and against collapsing.

2. The combination with a moving part of a machine and its actuating means, of normally yieldable connections therebetween, adapted to yield when the movement of said part is resisted, means whereby said connections are rendered rigid and against collapsing, and means to automatically operate said second named means at a predetermined point in the movement of said part to render said connections rigid and non-yielding when the path of the element is free and just prior to the engagement of said element with the work.

3. The combination with a moving element of a machine and its actuating means, of normally yieldable connections comprising relatively movable parts, means to positively connect said parts, and means to actuate said connecting means at a predetermined point in the operative movement of said element, said parts being adapted to yield and move relatively to each other when the movement of said element is resisted by an extraneous obstruction before said predetermined point is reached.

4. In combination with a reciprocating member, and its driver, a telescopic actuating device in connection with said member and driver, means to prevent telescoping of said device and to allow telescoping of the device upon the member engaging an obstruction extraneous to the work on the operative movement of said member, and means to actuate said first named means after said device has moved a predetermined distance.

5. In combination with a reciprocating member, a multipart actuating device in connection with said member the parts of which device are normally movable relative to each other, and means to automatically effect rigid connection between and simultaneous movement of said parts on the operative stroke of said member and just prior to the member contacting with the work and when the path of the member is free.

[Claims 6 to 21 not printed in the Gazette.]

1,131,162. DEVICE FOR CLAMPING PATCHES ON TIRES. JOSEPH S. SACKETT, Williamsburg, Ohio. Filed Dec. 13, 1912. Serial No. 736,465. (Cl. 152—27.)

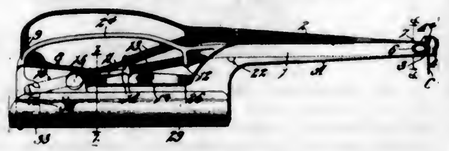
In a device for clamping patches on tires, the combination with two pressing plates having apertures therein di-

rimetrically opposite each other, a tension bar passing through the apertures on one side of the plates and bent to form a hinge to allow said plates to be moved in planes parallel with each other, a downwardly extending portion on said tension bar having a notch therein for en-



gagement with the lower plate, said extension passing through the apertures in said plates opposite the hinge to lock said plates together, of means on said tension bar for forcing said plates together to press a tire therebetween, substantially as set forth.

1,131,163. SURGICAL NEEDLE-HOLDER. EDWARD W. SAUNDERS and EDWIN H. STEEDMAN, St. Louis, Mo. Filed June 30, 1913. Serial No. 776,659. (Cl. 128—44.)



1. A needle-holder comprising an eye portion gripping member, a point portion gripping member that surrounds or embraces the point of the needle when said members are separated and in normal position with relation to each other, and means for holding said members separated so as to protect the needle point when the holder is being arranged in operative position.

2. A needle-holder comprising coöperating means for alternately gripping the opposite end portions of the needle, said means being adapted to be moved toward each other to uncover one end or the other of the needle and one of said means having a portion that protects the point of the needle when said means are separated, and means for holding said means separated when the holder is being arranged in proximity to the part to be sewed.

3. A needle-holder comprising a device for protecting the point of the needle after it has passed through the part into which it was inserted, and a device for supporting and manipulating the needle, said devices comprising means whereby the protecting device can be moved toward said supporting device out of longitudinal alinement with the needle to uncover the point of the needle.

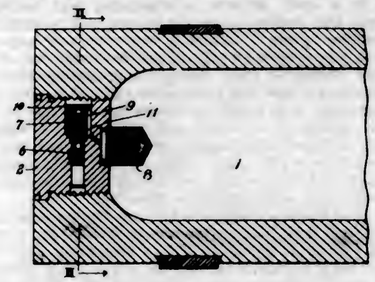
4. A needle-holder comprising means for gripping the eye portion of the needle so as to enable the needle to be inserted in the part to be sewed, and means for gripping the point portion of the needle so as to enable the needle to be drawn through said part, said means being normally separated and positioned at the opposite ends of the needle and adapted to be moved toward each other to uncover one or the other end of the needle.

5. A needle-holder comprising relatively movable needle-operating members that are adapted to alternately grip the opposite end portions of the needle during the operation of sewing with the needle, said members being normally positioned at the opposite ends of the needle and designed in such a manner that they both lie at the same side of that end of the needle which is free or uncovered during the sewing operation.

[Claims 6 to 56 not printed in the Gazette.]

1,131,164. PROJECTILE. JOHN B. SEMPLE, Sewickley, Pa. Filed Apr. 29, 1914. Serial No. 835,131. (Cl. 102—39.)

1. In an explosive projectile, the combination of a burster charge and a detonator charge movable the one with respect to the other, under centrifugal force on the rotation of the projectile, from positions of relative remoteness, to detonation-imparting positions.



2. In an explosive projectile, the combination of a burster charge, a fuse, and a detonator charge, the said detonator charge being movable with respect to the fuse on the one hand and the burster charge on the other by the rotation of the projectile, from a position remote from the burster charge to a position of operative relationship to the fuse on the one hand and to the burster charge on the other.

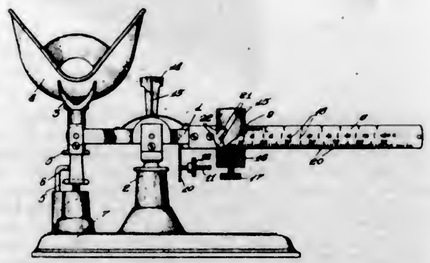
3. In an explosive projectile the combination of a burster-charge chamber, a detonator runway extending transversely with respect to the axis of rotation of the projectile and from a remote point to a point of operative proximity to said burster-charge chamber, a detonator movable in said runway by rotation of the projectile from the said remote to the said proximate point, and means for firing the said detonator when in advanced position.

4. In an explosive projectile the combination of a detonator runway extending tranaversely to the axis of rotation of the projectile, a detonator movable therein by the rotation of the projectile, and means operated by the rotation of the projectile for preventing retrograde movement of said detonator in its runway.

5. In an explosive projectile the combination of a transverse runway, a detonator charge movable in said runway by rotation of the projectile and means for holding said detonator charge against such movement.

[Claims 6 to 10 not printed in the Gazette.]

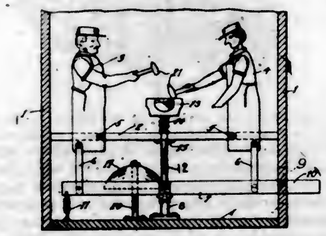
1,131,165. SCALE-BEAM. LE ROY M. SMITH, Chicago, Ill. Filed Aug. 27, 1913. Serial No. 786,863. (Cl. 73—30.)



1. In a scale or balance, a beam equipped upon its face with graduations, in combination with a weight slidably mounted upon the said beam, there being coacting recess and projection formations disposed respectively upon the weight and one longitudinal edge of the beam for interlocking the weight and beam in predetermined relative positions, and friction means associated with said weight and the opposite longitudinal edge of the beam; said friction means coöperating with the said formations to hold the beam and weight interlocked in the said predetermined positions, and said friction means operating independently of the said formations for interlocking the beam and weight in positions other than said predetermined ones.

2. In a scale or balance, a beam equipped with direct-reading and proportionately computed graduations; in combination with a weight slidably mounted upon the said beam and enabling the said graduations to be read simultaneously; the said weight having a plurality of relatively angularly disposed openings transverse to the face of the beam and angularly disposed with reference to the axis of the beam, each of the said openings causing said weight to present an acute tip alining with one of the said graduations upon the beam.

1,131,166. TOY. MATHIAS SMOLIK, Pittsburgh, Pa. Filed Feb. 11, 1914. Serial No. 818,002. (Cl. 46—46.)



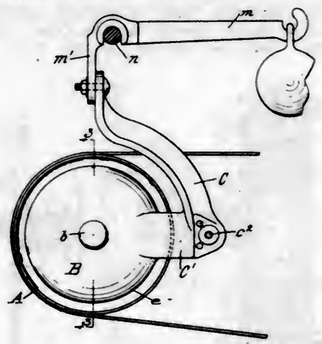
1. In a toy comprising a housing and a transverse partition within the same, oppositely disposed images pivoted to said partition, a spring-connected operating lever fulcrumed in said housing and projected therebeyond, connection between said lever and the said images, hammers carried by said images, an anvil disposed in the plane of movement of said hammers, a pitman carrying said anvil and passing through said partition, a spring disposed upon said pitman between said partition and anvil, a secondary lever fulcrumed in said box and connected to said pitman, a gong, and a hammer carried by said secondary lever adapted to strike said gong in response to each movement of the said operating lever.

2. In a toy comprising a housing and a transverse partition within the same, oppositely disposed images pivoted to said partition and provided with striking hammers, a pitman disposed between said images and passing through said partition and adapted for limited movement in a vertical plane, an anvil carried by said pitman in the plane of operation of the said hammers, manually operable means fulcrumed within said housing and projected therebeyond and connected to said images for causing the hammers thereof to intermittently strike said anvil, a gong, a hammer, and connection between said hammer and the said pitman whereby movement of the latter in one direction will bring said hammer into contact with said gong.

1,131,167. PROTECTOR-GUARD FOR TENSION-PULLEYS OF TEXTILE-MACHINES. MOSES SPENCER, Saylesville, R. I. Filed June 1, 1914. Serial No. 841,972. (Cl. 64—17.)

1. A guard-device for tension-pulley mounts for textile spinning and twisting machines comprising the combination with a weighted, pivotally supported swinging hanger member provided with a pair of laterally separated arms having bearings in the free ends thereof, and a revoluble tension-pulley having a short axle mounted in said bearings, of a pair of metal guard disks disposed parallel with and adjacent to the respective lateral sides of the tension-pulley so as to prevent the accumulation in the bearings of loose fibrous matter, and having said guard disks arranged to swing or oscillate bodily with said hanger and pulley members.

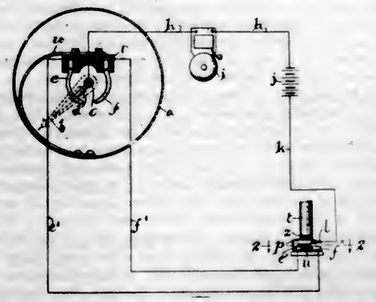
2. In a device of the general character described adapted for use in textile spinning and twisting machines, the combination of a tension-pulley mount arranged for swinging movements in a circular arc, said mount having a frame member integral therewith, a tension-pulley, means connected with said frame member for revolubly supporting said pulley therein, and a non-revoluble guard disk positioned contiguous to a side of the pulley, said guard member being secured to and encircling said pulley supporting means, substantially as described.



3. In mounts for tension-pulleys for use in spinning and twisting machines, arranged to automatically take up the slack of traveling endless bands rotating the tension pulleys, a swinging frame member provided with horizontally disposed alining recesses, bearing members removably positioned in the said recesses, a tension-pulley having its axle supported in the bearing members, caps closing the outer ends of the bearings, and a pair of oppositely arranged disk-like guard members located contiguous to the respective sides of the tension-pulley, said guard members being secured to and extending radially from the said bearing members.

4. In a device of the character described, the combination of a frame member mounted for movement, a pair of spaced apart inwardly facing bearing members alining with each other longitudinally removably secured in the frame member, a tension-pulley disposed between the bearing members and revolubly journaled therein, and a pair of protector or guard-disks fixed to the said bearings respectively, said guard-disks being positioned adjacent to the outer lateral sides of the tension-pulley, constructed and arranged so that the assembled said pulley, bearing and guard members are capable of removal bodily from the frame member without segregation.

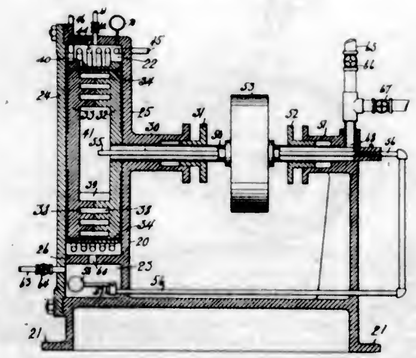
1,131,168. ELECTRIC SIGNALING APPARATUS FOR SHIPS' TELEGRAPHS AND LIKE PURPOSES. HARRIS LAWRENCE STOCKS, Kirkcaldy, Scotland. Filed Oct. 13, 1913. Serial No. 794,974. (Cl. 177—339.)



In electrical apparatus for signaling disagreement between engine controlling means and order apparatus, the combination with a ship's telegraph provided with a casing; of a pointer in the telegraph, a shaft supporting said

pointer, a rotary contact brush on the shaft and normal thereto, a loose spring fixed to the inner wall of said casing, an insulating block at the free end of said loose spring, and contacts fixed to the insulating block and adapted for engagement by the rotary contact brush.

1,131,169. ROTARY REFRIGERATING APPARATUS. JUNIUS H. STONE, Noroton Heights, Conn. Filed Apr. 16, 1913. Serial No. 761,463. (Cl. 62—115.)



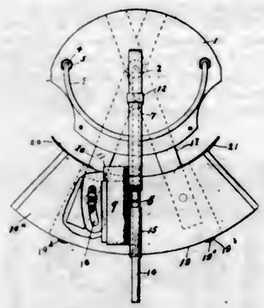
1. In a rotary refrigerating apparatus the combination of a compression chamber, a compressing wheel in said chamber, a collecting chamber in said wheel, a spiral port extending from the collecting chamber to the outer periphery of the wheel, means to rotate the wheel, means to circulate charges of compressing fluid from the compression chamber to the collecting chamber, means to charge the collecting chamber with the refrigerant after having been volatilized and means to lead the compressed refrigerant from the compression chamber.

2. In a rotary refrigerating apparatus the combination of a compression chamber, a compressing wheel in said chamber, a collecting chamber within the wheel, a spiral port extending from the collecting chamber to the outer periphery of the wheel, a shaft conduit extending into the collecting chamber of the wheel and with one end fastened to the latter, means to turn the shaft conduit, a condensing cooling coil in the compression chamber, a regulating valve chamber connected with the compression chamber, a conduit leading from the regulating valve chamber and extending into the collecting chamber, a gas inlet pipe connected to the said shaft conduit, and outlet piping extending from the regulating valve chamber.

3. In a rotary refrigerating apparatus the combination of a compression chamber, a rotative element therein to compress a volatile refrigerant by means of a compressing fluid, means to lead the compressed refrigerant from the compression chamber, means to lead the volatile refrigerant to the rotative element in the compression chamber and means to circulate the compressing fluid from the compression chamber to the rotative element.

4. In a rotary refrigerating apparatus the combination of a compression chamber, a compressing wheel in the chamber, a collecting chamber in the wheel, a spiral port extending from the collecting chamber to the outer periphery of the wheel, a regulating valve chamber connected by a port to the compression chamber, a shaft conduit journaled in a bearing of the compression chamber and fastened to the compressing wheel, and extending into the chamber of said wheel, an induction pipe in the shaft conduit, a conduit extending from the regulating valve chamber and connecting with the induction pipe, means to rotate the shaft conduit and thereby the compressing wheel, means to lead an expanded refrigerant to the shaft conduit, means to lead the refrigerant after compression from the valve regulating chamber, and a condensing and cooling coil in the compression chamber.

1,131,170. DEVICE FOR SHARPENING RAZOR-BLADES. ROBERT H. STRONG, Galesburg, Ill. Filed June 29, 1910. Serial No. 569,495. (Cl. 51—16.)



1. In a device for sharpening razor blades, a base, a flat arc-shaped sharpening element associated with the base to be reversible thereon, a curved guide attached to the base, a bar or arm pivotally attached to the base and maintained in engagement with the guide to be oscillated above the sharpening element, a blade-holder maintained in swinging engagement with the bar or arm and resilient means movable with the bar or arm for pressing the blade-holder and a blade carried thereby toward the sharpening element.

2. In a device for sharpening razor blades, a base or frame, a guide maintained in fixed engagement with the base or frame, a support for a sharpening element maintained by the base and provided with a concave edge beyond the guide and parallel therewith, an arm pivoted to the base, means for holding the arm in movable engagement with the guide, a blade-holder or carrier mounted upon the arm to swing thereon, and a spring movable with the arm for engagement with the blade-holder or carrier.

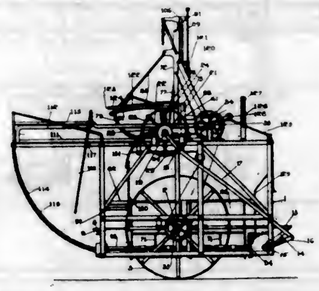
3. In a device of the character set forth, a base, a support for a segmental sharpening element, a segmental sharpening element maintained by said support above the plane of the base, an arm pivoted to the base to extend beyond the sharpening element, a razor blade carrier maintained in oscillatory engagement with the arm, engagement means on the support for the segmental sharpening element with which the razor blade carrier engages to raise the same from the sharpening element when the arm is moved beyond the sharpening element and means for oscillating the razor blade carrier when beyond the engagement means.

4. In a device for sharpening razor blades, a base, a segmental sharpening element associated with the base, an arm attached to the base to be movable over the sharpening element, a razor-blade-holder associated with the arm to swing thereon; and provided with a recess, a spring movable with the arm and provided with a bifurcated end a part of which enters the recess in the blade-holder to prevent longitudinal movement of the blade-holder on the arm and end portions which engage the blade-holder to press the same toward the sharpening element and means maintained to engage with the blade-holder before the same is carried beyond the ends of the sharpening element.

5. In a device for sharpening razor blades, a base, an arm pivoted to the base, a curved guide, means for associating the arm with the guide, a flat spring having bent ends for engagement with the arm, means movable on the arm and the spring for varying the tension of the spring, a razor-blade-carrier maintained in swinging engagement with the arm to be engaged by the spring, a sharpening element and means adjacent to the ends of the sharpening element with which an inner end portion of the razor-blade-carrier will engage.

[Claims 6 to 12 not printed in the Gazette.]

1,131,171. APPARATUS FOR SHOCKING GRAIN. JAMES HERVEY TALLMAN, Hamilton, Ontario, Canada. Continuation of application Serial No. 642,593, filed Aug. 7, 1911. This application filed Nov. 11, 1913. Serial No. 800,320. (Cl. 56—121.)



1. In grain shocking apparatus the combination of a shock receptacle; pivoted shock-gripping arms independent of the receptacle; a horizontally traveling carriage therefor; means for closing said arms to grip a shock and for opening them to release it; and means for moving the carriage rearwardly and for tilting it to bring said arms to a substantially horizontal position.

2. In grain shocking apparatus the combination of a shock receptacle; pivoted shock-gripping arms; a horizontally traveling carriage therefor; means for closing said arms to grip a shock and for opening them to release it; means for moving the carriage rearwardly and for tilting it to bring said arms to a substantially horizontal position; and means for bodily lowering the carriage at the rearward end of its path.

3. In grain shocking apparatus the combination of a shock receptacle; pivoted shock-gripping arms; a horizontally traveling carriage therefor; means for closing said arms to grip a shock and for opening them to release it; means for moving the carriage rearwardly and for tilting it to bring said arms to a substantially horizontal position; means for bodily lowering the carriage at the rearward end of its path and for raising it after the discharge of a shock.

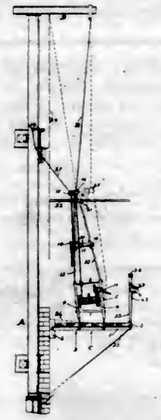
4. In grain shocking apparatus the combination of a shock receptacle adapted to receive sheaves and compress them into a shock; pivoted shock-gripping arms independent of the receptacle; a horizontally traveling carriage therefor; means for moving said arms on the carriage toward and from the shock receptacle and for closing said arms to grip a shock and for opening them to release it; and means for moving the carriage rearwardly and for tilting it to bring said arms to a substantially horizontal position.

5. In grain shocking apparatus the combination of a shock receptacle adapted to receive sheaves and compress them into a shock; pivoted shock-gripping arms; a horizontally traveling carriage therefor; means for moving said arms on the carriage toward and from the shock receptacle and for closing said arms to grip a shock and for opening them to release it; means for moving the carriage rearwardly and for tilting it to bring said arms to a substantially horizontal position; and means for bodily lowering the carriage at the rearward end of its path.

[Claims 6 to 16 not printed in the Gazette.]

1,131,172. SCAFFOLD-SUPPORT. JAMES MADISON THORP, Alameda, Cal. Filed Mar. 12, 1914. Serial No. 824,210. (Cl. 20—82.)

1. A scaffold support, comprising putlog members, a drum supporting frame rigidly secured to the central portion of said putlog members and disposed at an angle of approximately 84 degrees thereto, a vertical extension stabilizer frame detachably secured to said drum supporting frame, said stabilizer frame having an eye-block secured to the apex thereof, and cable winding means mounted upon said drum supporting frame, substantially as and for the purpose described.



2. In a scaffold support, putlog members having a drum supporting and vertical extension stabilizing frame mounted approximately at right angles thereto, and rigidly secured to the central portion thereof, eye-bolt and cleat arrangement upon one side of said stabilizer frame, and an eye-block at the apex thereof, and cable winding means located within said drum supporting frame, substantially as set forth.

3. In a scaffold support, a vertical extending stabilizing frame having an eye-block at the apex thereof, a sectional spacing sleeve secured by a cleat-headed bolt, intermediate the ends of the said frame between the sections of which sleeve the eye-block may be alternatively placed, in combination with a scaffold platform and scaffold hoisting means.

4. In a scaffold support, a guard post having a drum, crank and pawl mounted thereon, said post being socketed to one end of a scaffold putlog, hoisting means secured to the central portion of said putlog and a platform supported thereby, substantially as shown and described.

1,131,173. BEAD-ADJUSTING DEVICE. JOHN E. THROPP, Trenton, N. J. Filed Oct. 20, 1908. Serial No. 458,676. (Cl. 154—10.)

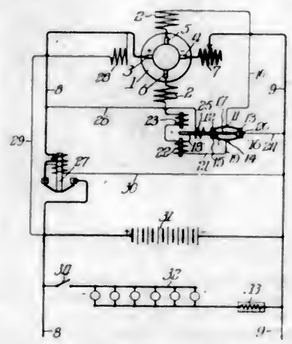


1. Tire forming apparatus comprising in combination a core upon which the tire may be formed, a bead adjusting device having an annular seat thereon for receiving and carrying a clencher bead and provided with means for centering the device with respect to the core, the said device being arranged to move laterally into position to bring the bead thereon into close contact with a tire on the core.

2. Tire forming apparatus comprising in combination a core upon which the tire may be formed, a bead adjusting device comprising an annular ring having a seat on its periphery for the reception of a bead, and a shoulder thereon for centering the ring with respect to the core, whereby a bead on the core may be accurately located on a tire formed on the core by a lateral movement of the bead adjusting device.

3. A tire forming machine comprising in combination a core upon which the tire may be formed, a bead applying form adapted to hold a formed bead ring and to be placed adjacent to fabric on said core, and means for centering the said form with respect to said core.

1,131,174. ELECTRICAL SYSTEM OF DISTRIBUTION. WILLIAM A. TURBAYNE, Buffalo, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee, a Corporation of New York. Filed Oct. 27, 1910. Serial No. 589,377. (Cl. 171—313.)



1. A generator having field coils and an exciting coil displaced from the axes of said field coils, a source of current and connections whereby said exciting coil may be connected through the armature of the generator across said source.

2. A generator provided with field coils and with an exciting coil spaced 90 electrical degrees from one of said coils, a source of current, and connections whereby said exciting coil may be connected through the armature of the generator across said source.

3. A generator having a plurality of field coils and an exciting coil located between two consecutive coils, spaced ninety electrical degrees from each, a source of current and connections whereby said exciting coil may be connected through the armature of the generator across said source.

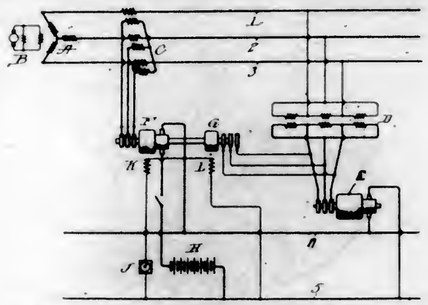
4. A generator having a plurality of main brushes, a plurality of field coils, and a plurality of auxiliary brushes, said auxiliary brushes serving to connect two of said field coils through the armature, a source of current, and an exciting coil connected through said main brushes across said external source to cause a difference of potential across said auxiliary brushes.

5. A generator having a plurality of main brushes, a plurality of field coils, and a plurality of auxiliary brushes, each pair of auxiliary brushes serving to connect two of said field coils through the armature, an exciting coil of constant polarity arranged to induce a current in two of said connected field coils in a direction depending on the direction of rotation of the armature, whereby the proper polarity of said field coils is established, and a pole changing device actuated by the exciting current and by the current from the main brushes, whereby the voltage of the exciting current is added to that of the main field energizing current to build up the field strength rapidly.

[Claims 6 to 16 not printed in the Gazette.]

1,131,175. SYSTEM OF ELECTRICAL REGULATION. WILLIAM A. TURBAYNE, Niagara Falls, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee, a Corporation of New York. Filed Dec. 23, 1910. Serial No. 598,901. (Cl. 171—311.)

1. In combination, an alternating current circuit, a direct current circuit supplied thereby, a battery connected across said direct current mains, and a booster in series with said battery, said booster having its armature connected directly to respond to variations of current in the alternating current circuit.



2. In combination, an alternating current circuit, a direct current circuit supplied thereby, a battery connected across the direct current mains and a booster in series with said battery, said booster having its field winding connected across the direct current mains and means for admitting the alternating main line regulating component of current to said booster.

3. In combination an alternating current circuit, a direct current circuit, means connecting said circuits and including a rotary converter, a battery connected across the direct current mains and a booster in series with said battery, said booster having its field winding connected across said direct current mains, and having means whereby current from said A. C. circuit may be admitted to said booster, said current acting to set up a field opposing said direct current field and tending to neutralize the same.

4. In combination, an alternating current circuit, a direct current circuit, connections between said circuits including a transformer and a rotary converter, a storage battery connected across said direct current circuit, a booster in series with said battery and a synchronous motor for driving said booster, said motor being connected with said transformer in parallel with said rotary converter, said booster having its field winding connected across said direct current circuit, and means for admitting a component of current from said alternating circuit to the armature of said booster to produce a flux rotating in a direction opposite to the rotation of said armature and at substantially the same speed, whereby said flux opposes the booster field causing said booster to produce a voltage which either assists said battery, opposes said battery or produces no voltage, depending on whether the booster field or said flux predominates.

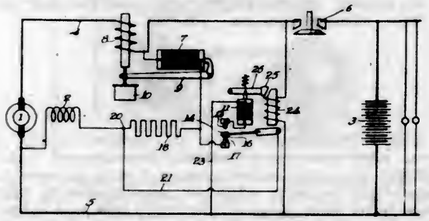
5. In a system of distribution, in combination, an alternating current circuit including a generator, means for transmitting electrical energy from said alternating current circuit as direct current supplying a direct current circuit, a storage battery connected to said circuit, means associated with said battery for assisting or opposing the flow of current therefrom under varying conditions, and means for rendering said last means ineffective under normal working conditions, said last means being associated directly with said alternating current circuit.

[Claims 6 to 9 not printed in the Gazette.]

1,131,176. AUTOMATIC REGULATOR. WILLIAM A. TURBAYNE, Niagara Falls, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee, a Corporation of New York. Filed Apr. 18, 1913. Serial No. 762,053. (Cl. 171—313.)

1. Means for regulating a generator comprising a current operated resistance in series with the field thereof, a voltage operated resistance in a circuit in shunt to the field, and voltage operated means for controlling the circuit of said voltage operated resistance.

2. In a regulating system, a variable speed generator, means tending to cause the generator to produce constant current, and means tending to cause the generator to operate at a constant potential, said last named means comprising a resistance in shunt to the generator field, means for decreasing said resistance as the generator voltage tends to rise, and means operated by a predetermined voltage rise in the system for connecting said last named resistance in circuit.



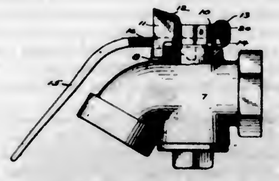
3. In a regulating system, a variable speed generator, a shunt circuit around the field thereof, and a single means operating to close said shunt circuit when the voltage of the system reaches a predetermined value and thereafter responding to a predetermined lower voltage to vary the resistance of said shunt circuit.

4. In a regulating system, a variable speed generator, means tending to cause the generator to produce constant current, a shunt circuit around the generator field, and a single means to close said shunt circuit at a predetermined voltage of the system and thereafter operating responsive to a predetermined lower voltage to vary the resistance of said shunt circuit.

5. In a regulating system, a variable voltage source, means tending to regulate the voltage of said source to cause the same to produce a constant current, and an auxiliary regulating means operating upon a predetermined voltage condition to predominate in regulating said source and to maintain constant potential therefrom, said constant potential being less than the predetermined voltage at which said auxiliary regulator begins to operate.

[Claims 6 to 13 not printed in the Gazette.]

1,131,177. STOP-COCK HANDLE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 21, 1907. Serial No. 363,711. (Cl. 137—7.)



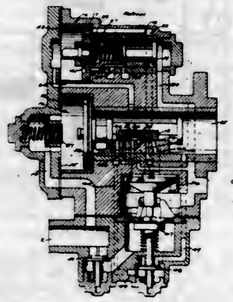
1. A stop cock device, comprising a plug cock or valve, a casing having a stop, a bracket member secured to the cock-key and having a projecting wing portion, a handle member pivoted to and surrounding said bracket and having a slot or opening for receiving said wing in the raised position of the handle, and means carried by said handle for engaging said stop and locking the cock against accidental movement.

2. A stop cock device, comprising a plug cock or valve, a casing having stops to limit the movement of the cock, a bracket member secured to the cock-key, a handle member pivoted to said bracket and having a slot or opening, said bracket being provided with a wing portion adapted to enter into said slot or opening and a flange for engaging said handle when in its raised position, and means carried by said handle for engaging one of said stops and locking the cock against accidental movement.

3. A stop cock device, comprising a plug cock or valve, a casing therefor having fixed stops to limit the movement of the cock and define its open and closed positions, a bracket member secured to the plug cock, a handle member pivoted on said bracket, and locking means operated by the movement of the handle upon its pivot for engaging said stops in the open and in the closed positions to prevent accidental movement of the cock.

4. A stop cock device, comprising a plug cock or valve, a casing having stops to limit the movement of the cock, a bracket member secured to the plug cock, and a handle member pivoted to said bracket, and having means for engaging said stops in the open and in the closed positions to lock the cock against accidental movement.

1,131,178. TRIPLE-VALVE DEVICE FOR FLUID-PRESSURE BRAKES. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1907. Serial No. 364,215. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a train pipe and an automatic valve device in which the usual cavity for connecting the brake cylinder passage with an exhaust port is eliminated and operated by variations in train pipe pressure, of a supplemental valve mechanism subject to fluid pressure on opposite sides for controlling the brake cylinder exhaust port and means controlled by said automatic valve device for varying the fluid pressure on said valve mechanism.

2. In a fluid pressure brake, the combination with a train pipe and an automatic valve device operated by variations in train pipe pressure, of a valve for controlling the brake cylinder exhaust, a movable abutment for actuating said valve, and means controlled by said valve device for varying the fluid pressure on opposite sides of said abutment.

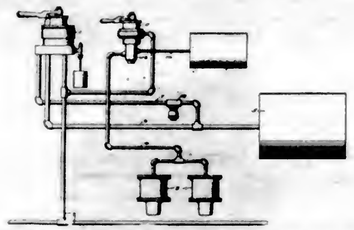
3. In a fluid pressure brake, the combination with a train pipe, reservoir, brake cylinder, and an automatic valve device operating in response to variations in train pipe pressure for supplying fluid from said reservoir to the brake cylinder and having no large cavity open to atmospheric pressure in release position, of a supplemental valve mechanism comprising a valve for controlling the brake cylinder exhaust port and a movable abutment operated by fluid under pressure for actuating said valve, and means controlled by said valve device for varying the fluid pressure on said abutment.

4. In a fluid pressure brake, the combination with a train pipe, source of fluid under pressure, brake cylinder, and an automatic valve device operated upon a reduction in train pipe pressure for supplying fluid from said source to the brake cylinder, of a supplemental valve for controlling the brake cylinder exhaust port, a piston for actuating said valve, and means controlled by said valve device for varying the fluid pressures on opposite sides of said piston.

5. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of a main abutment subject to the opposing pressures of the train pipe and the auxiliary reservoir, a supplemental piston controlled by variations in fluid pressure, a valve operated by said supplemental piston for controlling the brake cylinder exhaust port, and a main valve means operated by said main abutment for controlling variations in fluid pressure on said supplemental piston and adapted, upon a reduction in train pipe pressure, to admit fluid pressure to one side of said supplemental abutment to operate said valve and thereby close the brake cylinder exhaust port, and to open a communication from the auxiliary reservoir to the brake cylinder.

[Claims 6 to 34 not printed in the Gazette.]

1,131,179. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 11, 1908. Serial No. 432,195. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a brake pipe, and an automatic valve device operated by variations in brake pipe pressure for supplying and releasing air to and from the brake cylinder, of a manually operated valve having means for also controlling the operation of said valve device to apply and release the brakes and having a position for releasing air directly from the brake cylinder.

2. In a fluid pressure brake, the combination with a brake pipe and an automatic valve device operated by reduction in brake pipe pressure for supplying air to the brake cylinder, of an independent manually operated valve, having means for controlling the operation of said valve device to apply and release the brakes and having a position for closing the outlet from the brake cylinder exhaust of said automatic valve device.

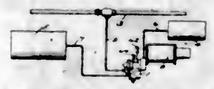
3. In a fluid pressure brake, the combination with a brake pipe, engineer's brake valve, auxiliary reservoir, and a triple valve device operated by a reduction in brake pipe pressure for supplying air from the auxiliary reservoir to the brake cylinder, of an independent brake valve having ports for releasing air from said triple valve to apply the brakes and having a position for connecting said brake pipe to the triple valve device and for closing the outlet from the brake cylinder exhaust port to the triple valve device.

4. In a fluid pressure brake, the combination with a brake pipe, engineer's brake valve, auxiliary reservoir, and a triple valve device operated by a reduction in brake pipe pressure for supplying air from the auxiliary reservoir to the brake cylinder, of an independent brake valve having ports adapted in one position to release air from the piston of the triple valve device to supply air to the brake cylinder, and in another position to supply air from the brake pipe to said piston and close the outlet from the brake cylinder exhaust port of the triple valve device.

5. In a fluid pressure brake, the combination with a brake pipe, and an automatic valve device operated by variations in brake pipe pressure for supplying and releasing air to and from the brake cylinder, of a manually operated valve having ports adapted in one position of the valve to release air from the piston of said automatic valve device and open the fluid pressure supply passage to the brake cylinder and in another position thereof to close the outlet for releasing air from the brake cylinder and to supply air to said piston to close the supply passage.

[Claims 6 to 8 not printed in the Gazette.]

1,131,180. TRIPLE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed Mar. 8, 1909, Serial No. 481,942. Divided and this application filed July 23, 1909. Serial No. 509,163. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a brake pipe, triple valve, auxiliary reservoir, and brake cylinder, of a supplemental source of fluid pressure, a valve device normally subject on opposite sides to fluid pressure for controlling communication from said source to the brake cylinder, and means governed by the triple valve for venting fluid from one side of said valve device to the atmosphere upon a sudden reduction in brake pipe pressure to operate said valve device.

2. In a fluid pressure brake, the combination with a brake pipe, auxiliary reservoir, and brake cylinder, of a supplemental reservoir, a valve device comprising valve means for controlling communication from said supplemental reservoir to the brake cylinder and a piston having differential piston heads for operating said valve means and normally subject to opposing fluid pressures and atmospheric pressure on one side, and means operating upon a sudden reduction in brake pipe pressure for venting air from one side of said piston to the atmosphere to operate the same.

3. In a fluid pressure brake, the combination with a brake pipe, brake cylinder, reservoir, and apparatus adapted upon a reduction in brake pipe pressure to supply air from said reservoir to the brake cylinder, of an additional source of fluid pressure, valve means for controlling the supply of fluid from said additional source to the brake cylinder, and a movable abutment for operating said valve means having differential piston heads, one head being normally subject to opposing fluid pressures and the other head to atmospheric pressure on one side, and means for venting fluid from one side of the first head to the atmosphere upon a sudden reduction in train pipe pressure to operate said valve means.

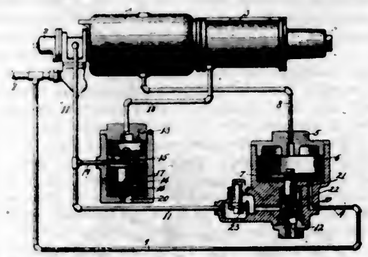
4. In a fluid pressure brake, the combination with a brake pipe and auxiliary reservoir, of a triple valve device comprising a piston subject to the opposing pressures of the brake pipe and auxiliary reservoir and adapted in normal release position to open an unobstructed feed passage from the brake pipe to the auxiliary reservoir, and a main valve and a graduating valve operated by said piston, said piston having a movement independent of said valves to thereby cut off the feed passage upon the initial movement of the piston.

5. In a fluid pressure brake, the combination with a brake pipe and auxiliary reservoir, of a triple valve device comprising a piston subject to variations in brake pipe pressure and controlling a feed port from the brake pipe to the auxiliary reservoir, and a main valve and a graduating valve operated by said piston, the piston having an independent movement to permit the feed port to be closed before moving the valves.

[Claims 6 to 22 not printed in the Gazette.]

1,131,181. DEVICE FOR GRADUATING THE RELEASE OF THE BRAKES. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 26, 1910. Serial No. 583,712. (Cl. 188—10.)

1. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir, and brake cylinder, of a valve device subject to the opposing pressures of the train pipe and auxiliary reservoir for controlling the exhaust port of said triple valve and a check valve for preventing back flow through said exhaust port.



2. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir, and brake cylinder, of a movable abutment having differential piston heads subject to the opposing pressures of the train pipe and auxiliary reservoir and a valve operated by said abutment for controlling the release of fluid from the brake cylinder.

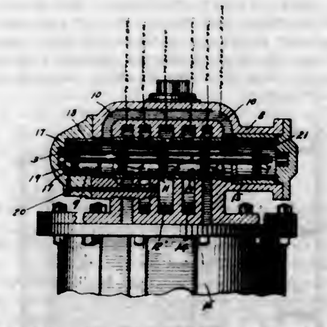
3. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir, and brake cylinder, of a movable abutment subject on one side to auxiliary revervoir pressure and on the opposite side over a reduced area to train pipe pressure and a valve operated by said abutment for controlling the gradual or partial release of fluid from the brake cylinder.

4. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir, and brake cylinder, of a valve device operated by an increase in train pipe pressure for controlling the gradual release of air from the brake cylinder and a second valve device for also controlling the release of air from the brake cylinder.

5. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir, and brake cylinder, of a valve device operated by an increase in train pipe pressure for controlling the gradual release of air from the brake cylinder and a second valve device for effecting the final release of air from the brake cylinder.

[Claims 6 to 12 not printed in the Gazette.]

1,131,182. STEAM-PUMP DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed May 16, 1912. Serial No. 697,722. (Cl. 136—10.)



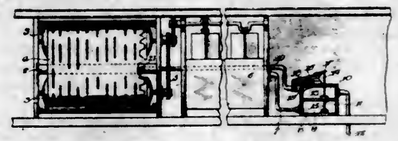
1. In a steam pump, the combination with a fluid actuated piston valve mechanism comprising a plurality of pistons for controlling the admission and exhaust of steam to and from the pump cylinders, of an additional piston carried by said valve mechanism and constantly subject on one side to steam pressure and having a chamber on the opposite side and ports controlled by said piston and in position to be opened near the end of the outward stroke of the piston into the chamber for supplying steam from the steam side of the piston to said chamber.

2. In a steam pump, the combination with a fluid actuated piston valve mechanism comprising a plurality of pistons for controlling the admission and exhaust of steam to and from the pump cylinders, of an additional piston mounted on one end of said valve mechanism and subject on the inner side to steam pressure and on the outer side to the pressure of a chamber, ports controlled by said piston for connecting the steam pressure side of the piston with said chamber near the end of the outward stroke thereof as the piston recedes from the steam pressure side, and an exhaust port leading into said chamber.

3. In a steam pump, the combination with a fluid actuated piston valve mechanism comprising a plurality of pistons for controlling the admission and exhaust of steam to and from the pump cylinders, of an additional piston mounted on one end of said valve mechanism and subject on the inner side to steam pressure and on the outer side to the pressure of a chamber, ports controlled by said piston for connecting the steam pressure side of the piston with said chamber near the end of the outward stroke thereof, and a restricted exhaust port leading into said chamber and adapted to be closed by a further outward movement of said piston.

4. In a steam pump, the combination with a fluid actuated piston valve mechanism comprising a plurality of pistons for controlling the admission and exhaust of steam to and from the pump cylinders, of an additional piston mounted on the end of said valve mechanism, an exhaust port leading from the chamber at the outer face of said piston and tending to normally maintain said chamber at atmospheric pressure, and ports controlled by said piston for supplying steam to said chamber upon movement of the piston valve mechanism toward said chamber.

1,131,183. TEMPO-CONTROLLER FOR PIANO-PLAYERS. EUGENE T. TURNEY, New York, N. Y., assignor, by mesne assignments, to American Player Action Company, New York, N. Y., a Corporation of New York. Filed Sept. 18, 1911. Serial No. 649,851. (Cl. 84—168.)



1. A pneumatic tempo-controller in combination with means for varying the pressure therein, said means including a part with a single port in communication with said controller, a movable sheet having tempo-controlling perforations and a motor for advancing the sheet over said port, the speed of said motor being controlled by said controller, said port and said perforations being shaped and located so as to normally and automatically vary the opening through said port as the sheet is advanced in a straight line.

2. A pneumatic controller in combination with means for exhausting air therefrom, a triangular inlet port to said controller and a movable sheet having a meandering line of perforations which pass over said port as the sheet is advanced.

3. The combination of a motor, a sheet moved thereby, a part having a triangular port, said sheet having an undulating series of perforations in position to pass over said port as the sheet is advanced, and pneumatic means communicating with said port for controlling the speed of said motor.

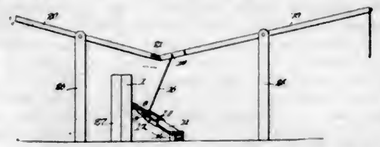
4. In a piano player in combination with a music sheet having auxiliary perforations, a tracker board having a triangular port in the path of said perforations, said per-

forations being shaped and arranged to vary the opening through said port as the sheet advances, and means controlled by the air passing through said port for controlling the movement of said sheet.

5. In a piano player, a motor for advancing a music sheet, a part over which said sheet passes, said part having a single port, in combination with a music sheet having openings out of line with each other positioned to pass over said port and to automatically vary the area of opening through said port as said music sheet advances in a straight line, and means for controlling the operation of said motor by the area of opening through said port.

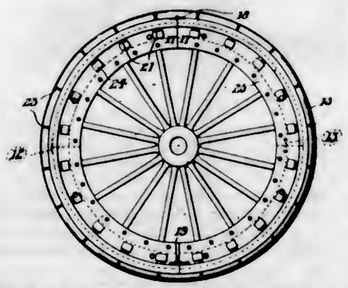
[Claim 6 not printed in the Gazette.]

1,131,184. GATE. EPHRAIM S. UMPHRYES, Macomb, Ill. Filed Apr. 15, 1914. Serial No. 832,084. (Cl. 39—14.)



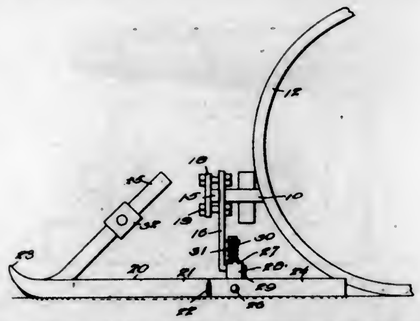
In gate operating mechanism, the combination with the gate, of a pivoted weight member curved in cross section, a locking member to which the weight member is fastened, said locking member comprising a substantially U-shaped strip, the connecting portion of the strip being bent longitudinally to conform to the curved portion of the weight member, the connecting portion of the strip serving as an abutment therefor to maintain the weight member and the locking member alined in the closed position of the gate, the extensions of the U-shaped member being connected at their respective terminals and to the gate, a pin connecting the extensions, and means fastened to the pin, said last mentioned means being actuable to bodily move the weight member and the U-shaped member out of alinement during an opening of the gate, the weight member operating to either automatically close or open the gate when swung in a plane other than the vertical.

1,131,185. AUTOMOBILE WHEEL CONSTRUCTION. ANDREW VAKULA, Caro, Mich. Filed Aug. 3, 1914. Serial No. 854,813. (Cl. 21—212.)



A device of the class described comprising in combination with a wheel felly, an auxiliary rim secured to one side of the felly and embodying two semi-circular sections, said sections having two adjacent ends connected by a hinge on the exterior side thereof and the remaining ends detachably connected, said sections each also having a plurality of radial perforations therethrough, tubular casings within the perforations, headed calks slidably-mounted within the casings and extending outwardly of the periphery of the auxiliary rim, expansion springs within the casings and bearing against the inner end of the calks, and means upon the inner projecting ends of the casings for adjusting the tension of the springs.

1,131,186. GRAIN-DIVIDER. HERMAN A. VOGEL, Kiel, Wis. Filed Mar. 22, 1913. Serial No. 756,215. (Cl. 56—30.)



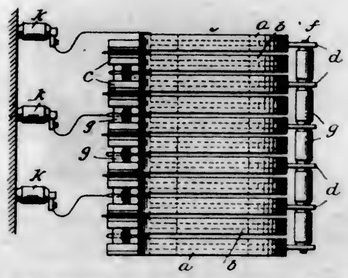
1. A grain divider comprising a supporting frame, vertically adjustable hangers thereon, a plow including a transverse yoke, the ends of the hangers being extended beneath the yoke, a bolt loosely engaged through each hanger and the yoke, a spring on top of the yoke adjacent each bolt, and means on the bolts to compress the springs to hold the plow yieldably against upward movement.

2. In a device of the class described, a divider support comprising a supporting bar, a divider, hangers connected thereto each comprising in combination bars provided with a multiplicity of longitudinally spaced apertures, short bars having an aperture adjacent each end, bolts engaged through each aperture of the short bars and registered apertures of the first named bars, and nuts on the bolts, said supporting bar being held between the apertured bars.

3. A grain divider including a plow, a yoke pivotally connected to the plow on an axis transverse thereto, a supporting frame connected to the yoke, and check lugs carried by the yoke and arranged to engage the plow rearwardly of the said axis when the plow is at a predetermined limit of its pivotal movement.

4. A grain divider comprising two bars connected at forward ends and diverging rearwardly, a transverse yoke having an arm pivoted on each bar rearwardly of the center of gravity of the divider, a check lug on the yoke engaging the divider to limit its depression at the forward end, hangers adjacent the ends of the bars, and resilient sliding connections between the yoke and the hangers.

1,131,187. SELF-INDUCTIVE MEANS FOR ELECTRICAL OSCILLATORY CIRCUITS. GEORG VON ARCO, Berlin, Germany, and RAGNAR HAKAN RENDAHL, Lilienholm, near Stockholm, Sweden. Original application filed Jan. 29, 1910, Serial No. 540,914. Divided and this application filed Sept. 30, 1913. Serial No. 792,682. (Cl. 171—242.)



1. A high tension variometer for electrical oscillatory circuits comprising a plurality of fixed coils and a plurality of movable coils alternating with the fixed coils, all of said coils being in inductive relation to each other and all coils being connected electrically in series so that the drop in potential between two adjacent coils represents only a part of the whole drop in potential at the variometer, all of said movable coils being suitably connected to move together for varying the self-induction of the entire system of coils.

2. A high tension variometer for electrical oscillatory circuits comprising a plurality of fixed coils and a plurality of movable coils alternating with the fixed coils, all of said coils being in inductive relation to each other and all coils being connected electrically in series so that the drop in potential between two adjacent coils represents only a part of the whole drop in potential at the variometer, all of said movable coils being suitably connected to move together for varying the self-induction of the entire system of coils, each of said coils having the form of an annular disk.

3. A high tension variometer for electrical oscillatory circuits comprising a plurality of fixed coils and a plurality of movable coils alternating with the fixed coils, all of said coils being in inductive relation to each other and, all coils being connected electrically in series so that the drop in potential between two adjacent coils represents only a part of the whole drop in potential at the variometer, all of said movable coils being suitably connected to move together for varying the self-induction of the entire system of coils, each of said coils having the form of an annular disk, the inner diameter of each coil being substantially equal to one half of its outer diameter.

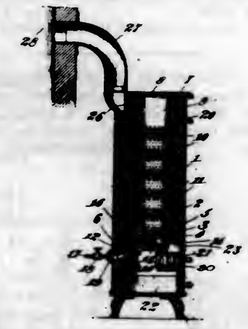
4. A high tension variometer for electrical oscillatory circuits, comprising a plurality of fixed coils and a plurality of movable coils alternating with the fixed coils, all of said coils being in inductive relation to each other, each of said coils having the form of a flat disk, all of said coils being connected electrically in series, the movable coils being wound to produce fields opposing those produced by their adjacent fixed coils, all of said movable coils being mechanically fixed together to permit their simultaneous removal from between the fixed coils for varying the self-induction, said movable coils being pivoted on an axis at right angles to the plane of the disks and disposed laterally thereof.

5. A high tension variometer for electrical oscillatory circuits, comprising a plurality of fixed coils and a plurality of movable coils, alternating with the fixed coils, and normally in axial alinement therewith, all of said coils being in inductive relation to each other and being electrically connected in series, the movable coils being wound to produce fields opposing those produced by their adjacent fixed coils, each pair of opposing adjacent movable and fixed coils forming an individual variometer, all of the movable coils being mechanically fixed together to permit their simultaneous removal from alinement with said fixed coils for varying the self-induction of the entire variometer, the maximum inductance of the entire variometer, with removed movable coils being larger than the sum of the inductances of the individual coils, and the minimum inductance of the entire variometer with all coils in alinement being substantially only equal to the sum of the inductances of the individual variometer with its pair of coils in axial alinement.

1,131,188. INCINERATOR. HERBERT H. WEAVER, Southmont, Lower Yoder township, Cambria county, Pa. Filed June 2, 1914. Serial No. 842,405. (Cl. 126—225.)

1. In an incinerator, an outer shell or casing, a lining mounted therein and spaced apart from the inner surface of said casing, a garbage receptacle mounted within said lining and spaced apart therefrom, means for supplying burning gas and air to and around said receptacle, and openings in the upper portion of said outer casing, the annular channel formed between the inner side of the casing and the outer side of the lining, being adapted to conduct the air entering through the openings aforesaid to the combustion region of the incinerator.

2. An incinerator provided with an outer shell or casing, a lining mounted therein and spaced apart therefrom, exterior openings in the upper portion of said outer casing thereby uniting the exterior atmosphere with the space between said casing and said lining, means for controlling and regulating the size of said openings, a ring gas burner located below said lining provided with gas and air supply thereto, a perforated receptacle mounted within and spaced apart from said lining, and a flue connection therefrom adapted to receive the waste gases.



3. In an incinerator, an outer casing provided with adjustable air openings near its upper portion, an inner lining, the upper part of which is spaced apart from said outer casing, the lower portion of said lining sloping outwardly toward, and supported by, said outer casing, openings in said lower inclined portion adapted to supply air, and communicating with the openings in the upper part of said casing, a perforated receptacle mounted within and spaced apart from said lining, a discharge flue connected with the space between said receptacle and the lining, and means for supplying burning gases to and around said receptacle.

4. In an incinerator, an outer casing, an inner lining spaced apart therefrom, air openings in the upper part of the outer casing controlled by a damper, openings in the lower part of the lining adapted to communicate with the openings in the casing aforesaid, a perforated receptacle mounted within and spaced apart from the lining, a discharge flue connected with the space between the receptacle and the lining, and means for supplying burning gases to and around said receptacle.

5. In an incinerator, an outer casing, an inner lining spaced apart therefrom, air openings in the upper part of the outer casing controlled by a damper, openings in the lower part of the lining adapted to communicate with the openings in the casing aforesaid, a perforated receptacle mounted within and spaced apart from the lining, a discharge flue connected with the space between the receptacle and the lining, openings in the lower part of the outer casing provided with an adjustable damper for regulating the same, and means for supplying burning gases to and around said receptacle.

1,131,189. JOINING LAMP-FILAMENTS TO CURRENT-SUPPLY WIRES. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 27, 1909. Serial No. 524,942. (Cl. 176—38.)

1. A fused joint between a filament and a current supply wire comprising a portion of said wire rendered readily fusible and capable of adhering to the material of the filament by the presence of boron.

2. A joint between a carbon filament and a current supply wire, comprising a bead of boron and a metal as essential ingredients and being fusible at the temperature of the gas flame.

3. The method of joining a filament to a current supply wire, which consists in adding boron material to the

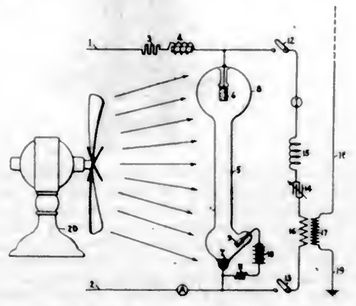
wire, producing a fusion of said material and the end of the wire and introducing the end of the filament into the fusion.

4. The method of adjoining a filament to a current supply wire which consists in forming a bead of fused metallic borid on the end of said wire and then embedding the filament end in said fused bead.

5. The method of joining a filament to a current supply wire, which consists in adding boron to the end of the wire, heating said end to form a borid bead which wets the end of said filament, and pulling out said bead into an elongated form.

[Claims 6 to 8 not printed in the Gazette.]

1,131,190. PRODUCTION OF HIGH-FREQUENCY CURRENTS. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 18, 1910. Serial No. 567,568. (Cl. 250—37.)



1. The combination of a capacity circuit, a source of energy therefor, and a vapor electric device connected across said circuit and having inherent uni-directional conductivity at the maximum discharging potential of said capacity circuit.

2. An apparatus for producing periodically varying currents of high frequency, comprising in combination a vapor electric device containing means for operating from one of the main electrodes and auxiliary arc, a capacity circuit connected directly across said device, and a source of energy connected to supply current to said capacity circuit.

3. The combination of a capacity circuit, a source of current, a device comprising an evacuated envelop, a cathode and an anode, said device having inherent uni-directional conductivity, ionizing means at the cathode for rendering said device conductive, and means for deionizing in part the current-carrying path of said device between current pulsations, and connections between said electrodes and said capacity circuit.

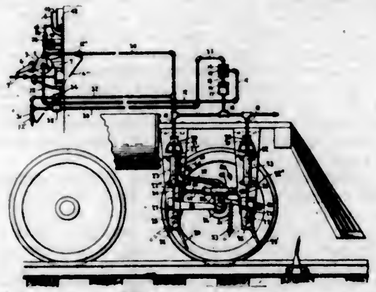
4. In an apparatus for producing high frequency pulsations, a capacity circuit, a mercury vapor device for producing current pulsations therein, said device being conductive for current in one direction and arresting current flow in the opposite direction.

5. In a high frequency apparatus, the combination of a work circuit, a capacity circuit inductively related thereto, a metal vapor arc device comprising an evacuated envelop, connections between said capacity circuit and said device, means for continuously furnishing ionized vapor in said device and means for deionizing the arc path between successive current pulsations from said capacity circuit.

[Claims 6 to 52 not printed in the Gazette.]

1,131,191. AUTOMATIC TRAIN-CONTROLLING DEVICE. LOUIS C. WERNER, Webster, Mass. Filed Feb. 19, 1914. Serial No. 819,631. (Cl. 246—59.)

1. A train controlling mechanism comprising in combination with a locomotive and the air brake system of a train, a governor carried by the locomotive, a valve in the air brake system, a valve supporting means carried by the locomotive and adapted to hold the valve in closed position, means carried by the track for coacting with the valve means carried by the track for coacting with the valve holding means to release the same, and means operated by the governor on the locomotive for opening said valve when the track carried means is in valve releasing position.



2. A train controlling mechanism comprising in combination with a locomotive and the air brake system of a train, a bracket supported by the locomotive, and having depending legs on opposite sides thereof, a valve in the air brake system on opposite sides of the locomotive, a valve stem depending from each of said valves, a guide for each of said valve stems carried by each of the depending legs of the bracket, means secured to the lower extremity of each of the valve stems and operated by means on the track to open the valves, a third depending leg of the bracket on one side of the locomotive and out of line with the first mentioned leg on the same side therewith, a valve in the air brake system, a stem depending therefrom in proximity to the last mentioned depending leg, means for holding said valve in its closed position, means for securing the valve holding means in normal position, means carried by the lower extremity of the last named depending leg for releasing the valve securing means, a governor carried by the locomotive, and means operated by the governor for operating the valve holding means to open the valve when the valve securing means is in releasing position.

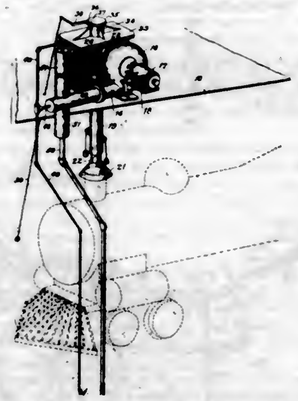
3. A train controlling mechanism comprising in combination with a locomotive and the air brake system of a train, a bracket having depending legs on opposite sides of the locomotive, a valve in the air brake system and on opposite sides of the locomotive, means pivoted to each of the depending legs of the bracket and engageable with means on the track to open either of the valves, a third depending leg on the bracket and having a right angular extension, a valve in the air brake system, a stem depending from said valve, a plurality of coöperating cams for holding the valve in closed position, means carried by the lower extremity of the third depending leg to lock the cams against rotation, means on the track other than the first named track means to release the cam locking means, means carried by the right angular extension for rotating the cams to open the last named valve, and a governor for controlling the action of the cam rotating means.

4. A train controlling mechanism comprising in combination with a locomotive and the air brake system of a train, a bracket having three depending legs on opposite sides of the locomotive, a valve in the air brake system adjacent each of said depending legs, a valve stem depending from each of said valves and extending through a guide on each of the depending legs of the bracket, means carried by the lower extremity of each of two of the depending legs and operable by means on the track to open either of two of the valves, a governor carried by the locomotive, a second track obstacle, valve locking mechanism, means carried by the lower extremity of the third depending leg and operable by the second track obstacle to release the valve locking mechanism, and means carried by said depending leg and operable by the governor for operating the valve after the valve locking mechanism has been released.

5. A train controlling mechanism comprising in combination with a locomotive and the air brake system of a train, a bracket having three depending legs, a valve in the air brake system adjacent each of the depending legs, a valve stem for each of the valves, and depending parallel with the legs of the bracket, a guide for each valve stem and carried by the legs of the bracket, means carried by the lower extremity of each of two of the legs of the bracket and operable by a track obstacle for operating the valve stems to open the valves, a second track obstacle, means on the lower extremity of the third depending leg and operable by the second track obstacle to release the valve stem carried thereby, and means controlled by the speed of the locomotive to open the valve after the valve stem has been released.

[Claim 6 not printed in the Gazette.]

1,131,192. ROUNDHOUSE EQUIPMENT. WILLIAM WHITE, Chicago, Ill. Filed July 20, 1914. Serial No. 851,904. (Cl. 104—208.)



1. In a round-house equipment, the combination of an exhauster, a conduit connected to conduct products of combustion to the exhauster and provided with means whereby it may be connected to the stack of a locomotive and an outlet through which the products of combustion from the conduit may escape without passing through the exhauster.

2. In a round-house equipment, the combination of an exhauster, a conduit connected to conduct products of combustion to the exhauster and provided with means whereby it may be connected to the stack of a locomotive, and with an outlet through which the products of combustion from the conduit may be discharged without passing through the exhauster, and a closure for said outlet.

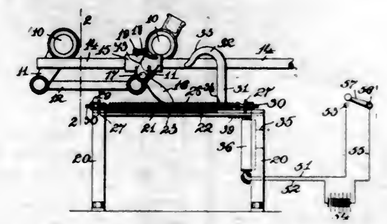
3. In a round-house equipment, the combination of an exhauster, an uptake pipe, means on the up-take whereby it may be connected to the stack of a locomotive, a box between the up-take and the exhauster, an outlet in the box leading to the atmosphere to permit the products of combustion to be discharged without passing through the exhauster, and a closure for the outlet.

4. In a round-house equipment, the combination of an exhauster, a conduit connected to conduct products of combustion to the exhauster and comprising a pivotally sustained uptake provided with means whereby its lower end may be connected to the stack of a locomotive, and an outlet through which the products of combustion from the conduit may escape without passing through the exhauster.

5. In a round-house equipment, the combination of an exhauster, a conduit connected to conduct products of combustion to the exhauster and comprising a pivotally sustained uptake provided with means whereby it may be connected to the stack of a locomotive, and an outlet through which the products of combustion from the conduit may be discharged without passing through the exhauster, and means for closing said outlet.

[Claims 6 to 32 not printed in the Gazette.]

1,131,193. ENGINE-STOPPING DEVICE. LORENZO WILT, Newark, N. J. Filed Sept. 25, 1914. Serial No. 863,443. (Cl. 121—97.)



1. An engine-stopping device comprising a guide-way, a slide on the guide-way, a cam on the slide, yielding means to force the slide along the guide-way, and a latch to hold the slide against the influence of the spring.

2. An engine-stopping device comprising a guide-way, a slide, a cam on the slide, an abutment on the slide beneath and to one side of the cam, means for forcing the slide in one direction, and a latch to hold and release the slide.

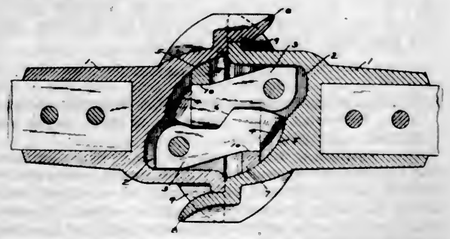
3. An engine-stopping device comprising a guide-way, a slide, springs connecting the guide-way and the slide, a cam on the top of the slide, an abutment on the slide beneath and to one side of the cam, and a latch to hold and release the slide.

4. An engine-stopping device comprising a guide-way, a slide on the guide-way, the guide-way and slide having projecting arms, springs connecting the arms, a cam projecting upward from the slide, an abutment on the slide, a rack on the slide, a pinion engaging the rack, and means for locking and releasing the pinion.

5. An engine-stopping device comprising a guide-way consisting of separated side strips, a slide movable between said strips, a spring to move the slide in one direction, a cam secured to the slide and at a material distance above the slide, an abutment below and to one side of the slide, a rack on said slide, a pinion in mesh with the rack, and means for holding and releasing the pinion.

[Claims 6 to 9 not printed in the Gazette.]

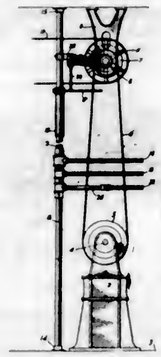
1,131,194. AUTOMATIC CAR-COUPLING. MORRIS WUERPEL, St. Louis, Mo., assignor to Westinghouse Automatic Air & Steam Coupler Company, St. Louis, Mo., a Corporation of Illinois. Filed Oct. 16, 1907. Serial No. 397,601. (Cl. 213—17.)



A coupler head comprising a casting having guide members and a central rigid lateral projection adapted to engage the guide members of a counterpart coupling head in the act of coupling, a shoulder formed in said projection,

and a flange on the casting for engaging the shoulder of the counterpart coupling in the coupled position, to prevent lateral movement.

1,131,195. BELT-SHIFTING MECHANISM. EUGENE A. BALSLEY, Chicago, Ill. Filed Sept. 11, 1913. Serial No. 789,252. (Cl. 64—4.)



1. In a belt shifting mechanism the combination with a belt driving mechanism comprising a driven cone pulley, a countershaft, a driving cone pulley thereon, a belt connecting said cone pulleys, fast and loose pulleys on the countershaft, and a driving belt for the fast and loose pulleys, of a belt shifter for throwing the belt on the driving cone pulley, a shifter for throwing the belt on the driven cone pulley, a shifter for throwing the belt on the fast and loose pulleys, independently movable shifter operating hand levers connected one to each of the belt shifters, and a vertical support on which said hand levers are pivotally mounted, said vertical support forming the means operatively connecting one hand lever and shifter.

2. In a belt shifting mechanism the combination with a belt driving mechanism comprising a driven cone pulley, a countershaft, a driving cone pulley, a belt connecting said cone pulleys, fast and loose pulleys on the countershaft, and a driving belt for the fast and loose pulleys, of a belt shifter for throwing the belt on the driving cone pulley, a shifter for throwing the belt on the driven cone pulley, a shifter for throwing the belt on the fast and loose pulleys, a vertical post operatively connected to the shifter for the belt on the fast and loose pulleys, a rotary post telescoping over the first post and operatively connected to the shifter for moving the belt on the driving cone pulley, horizontally extending levers for independently rotating said posts to actuate said shifters, and a lever pivoted on the vertical post having a shifter connected to and throwing the belt on the driven cone pulley.

3. A belt shifter comprising a driven pulley and a driving pulley, belts thereon, a shifter for each belt, a rotating post for each shifter and a manually operated handle on each post, one post being telescoped on the other, and each post being independently movable.

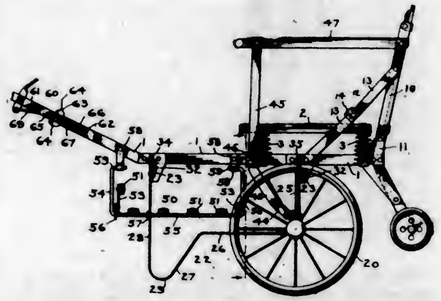
1,131,196. SHEATH OR SCABBARD. FRANK R. BATCHELDER, Worcester, Mass. Filed Apr. 9, 1912. Serial No. 689,526. (Cl. 224—2.)

The combination with an interior body having an exterior enlargement at one end thereof and a substantially uniform size beyond such enlargement, of a cover consisting of a tubular woven fabric having a normal diameter which fits the main length of the said body, and seamless throughout said main length, said tubular fabric having a longitudinal slit in the portion thereof surrounding the said enlargement and such portion spread to fit the enlargement, a suspension device, and a tab securing said suspension device to the cover, said tab bridging the slit and fastened to the cover at opposite sides of the slit so as to hold the said sides permanently spread apart and



thereby produce a widening of the cover to fit the enlargement of the interior body.

1,131,197. CHILD'S SULKY. CLARENCE W. BENNETT, Toledo, Ohio. Filed Dec. 27, 1913. Serial No. 808,930. (Cl. 21—83.)



1. In combination in a carriage, a supporting frame, a foot-board, U-bars for supporting side edges of the foot-board, means for causing the U-bars to fold inwardly toward each other to move the foot-board to a position in substantially the same plane with the seat of the carriage.

2. In combination in a carriage, a supporting frame, a foot-board, rods for supporting the foot-board, links connecting the rods and foot-board to permit swinging movements of the rods and parallel movements of the foot-board.

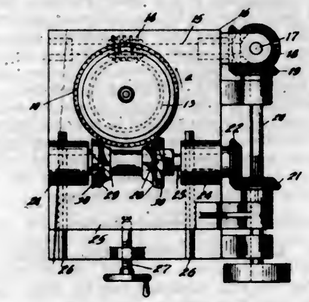
3. In combination in a carriage, a supporting frame, a foot-board, U-bars for supporting the foot-board, links connecting the U-bars and foot-board to permit swinging movements of the U-bars and parallel movements of the foot-board, means for giving swinging movements to the U-bars.

4. In combination in a carriage, a supporting frame, a foot-board, foldable side frames, links for connecting the side frames with the foot-board to permit parallel movements of the foot-board and swinging movements of the side frames.

5. In combination in a carriage, a supporting frame, a foot-board, foldable side frames, links for connecting the side frames with the foot-board to permit parallel movements of the foot-board, and swinging movements of the side frames, means for causing swinging movements of the side frames.

[Claims 6 to 22 not printed in the Gazette.]

1,131,198. PROCESS OF CUTTING WORM-GEARS. ANDREW BENSON, Chicago, Ill., assignor to Benson Gear Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 3, 1913. Serial No. 745,891. (Cl. 90—4.)



1. The process of cutting worm-gears for use with worms of the Hindley screw type having a plurality of threads, which consists in rotating the worm-gear blank about its axis, simultaneously and synchronously cutting successive advancing faces only of the worm-gear teeth at one point of its circumference and simultaneously and synchronously cutting successive receding faces only of other teeth of the worm-gear at another point of its circumference, the cutters being rotated about an axis parallel to that of the worm with which the worm-gear is to coöperate, substantially as specified.

2. The process of cutting worm-gears for use with worms of the Hindley screw type, which consists in rotating the blank in which the worm-gear is to be cut, and simultaneously progressively cutting the forward or advancing faces only of the teeth at one point, and cutting the rear or receding faces only of the teeth at another point, substantially as specified.

3. The process of cutting worm-gears, which consists in rotating the blank in which the worm-gear is to be cut, and at the same time cutting only all the sides of the teeth facing in one direction at one point, and cutting only all the sides of the teeth facing in the opposite direction at another point, substantially as specified.

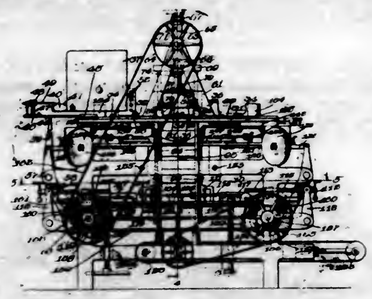
4. The process of cutting worm-gears, which consists in rotating the blank form which the worm-gear is to be formed and simultaneously cutting oppositely facing sides only of non-consecutive teeth, successively, substantially as specified.

5. The process of cutting worm-gears of the class described, which consists in rotating the blank from which the worm-gear is to be formed, and successively cutting only oppositely facing sides of non-consecutive teeth at two separated points by cutters rotating in synchronism with the rotating blank, and about an axis perpendicular to the axis of rotation of the blank, substantially as specified.

[Claim 6 not printed in the Gazette.]

1,131,199. BOX-MAKING MACHINE. JAMES PHILIP BIRD, New York, N. Y. Filed Aug. 12, 1908. Serial No. 448,160. (Cl. 93—41.)

1. In a paper box making machine, the combination of a well of sufficient length to receive and hold a plurality of boxes, a reciprocating former adapted to work in the upper end of the well to fold the box blank into finished shape, means for supplying an adhesive tape to each corner of the well and applying it to the adjacent corner of the box after the box is formed in the well, means for pressing the tape thus drawn in against the corners of the box while the reciprocating former is withdrawn from the well, whereby by said folding operation the boxes will be pushed down into the well in succession and each preceding box will pull into the well a sufficient length of tape to extend the full length of the corners of the next succeeding box, whereby upon discharge from the lower end of the well the boxes will all be flexibly connected together at their corners by said tapes.



2. In a paper box making machine, the combination of a well of sufficient length to receive and hold a plurality of boxes, a reciprocating former adapted to work in the upper end of the well to fold the box blank into finished shape, means for supplying an adhesive tape to each corner of the well and applying it to the adjacent corner of the box, whereby each preceding box will draw sufficient tape into the well to extend the full length of the corners of each succeeding box, whereby the boxes will be pushed down into the well in succession and each preceding box will pull into the well a sufficient length of tape to extend the full length of the corners of the next succeeding box, whereby upon discharge from the lower end of the well the boxes will all be flexibly connected together at their corners by said tapes, means being provided for spacing each succeeding box away from its predecessor so that the tapes may be severed at points between the boxes without injuring the boxes or the corner fastenings.

3. In a box machine, a well of sufficient length to receive and hold a plurality of shaped boxes, a reciprocating former adapted to enter the upper end of the well to thus fold the blanks into box form, means for engaging the upper edge of each box to hold it in the well upon withdrawal of the reciprocating former, whereby successive operations of the former will charge the well with a series of superposed boxes, means for leading an adhesive tape into each corner of the well at a point where it will contact with the adjacent corner of the box, and means for pressing the tapes against the corners of the box during the outward movement of the plunger, whereby each preceding box when it is pushed down by a succeeding box will draw into the well a sufficient length of tape to extend the full length of the corners of the succeeding box, whereby when the completed boxes are discharged from the well they will be connected together by the tapes.

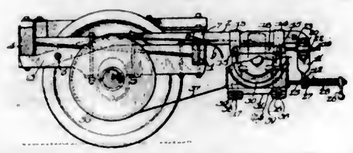
4. In a paper box making machine, a well, a reciprocating former adapted to enter the upper end of the same to fold and shape the blank into box form, means for leading an adhesive tape into each corner of the well, these tapes entering the well at a point below the upper end thereof so that each box will be shaped before it comes in contact with the tape, and means for pressing the tapes against the corners of the box while the former is being withdrawn from the well, whereby as each box is forced down into the well it will draw into the well, a sufficient length of tape to extend the full length of the corners of the succeeding box, substantially as set forth.

5. In a paper box making machine of the class described, a well, a reciprocating former adapted to fold a blank as it enters the upper end of the well, said well having sufficient length to accommodate a plurality of superposed boxes, means for leading a tape into the well coincident with each vertical joint in the box, the tapes entering the well at a point below the upper end thereof so as to come into contact with the joints of the box after the same is shaped by the folding means, means for pressing the tapes against the joints in the box during the outward reciprocation of the former, whereby as each preceding box is

forced down into the well it will draw into the well, a sufficient length of tape to extend the full length of the joints of the succeeding box, substantially as set forth.

[Claims 6 to 17 not printed in the Gazette.]

1,131,200. SUPPORT FOR DYNAMO-ELECTRIC MACHINES. WILLIAM L. BLISS, Brooklyn, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee, a Corporation of New York. Filed Apr. 23, 1909. Serial No. 491,704. (Cl. 105—238.)



1. In a support for dynamo electric machines, in combination, a pair of substantially U-shaped members pivotally supported and arranged substantially parallel.

2. In a support for dynamo electric machines, in combination, a pair of substantially parallel supporting bars, and a pair of substantially parallel U-shaped members pivotally suspended from said bars.

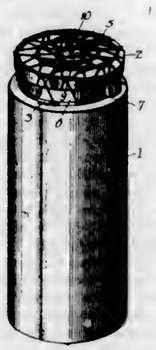
3. In a support for dynamo electric machines, in combination, a pair of substantially parallel supporting bars, and a pair of U-shaped slings pivotally suspended from said bars and movable longitudinally thereof.

4. In a support for dynamo electric machines, in combination, a pair of substantially parallel supporting bars, a pair of U-shaped members pivotally suspended from said bars and arranged substantially at right angles thereto, said members being movable longitudinally of said bars, and means for holding said members in spaced relation.

5. In a support for dynamo electric machines, in combination, a pair of substantially parallel supporting bars, a pair of sliding members carried by each of said bars, a pair of substantially parallel U-shaped slings pivoted to said sliding members and arranged substantially at right angles to said bars, and means for holding the sliding members in spaced relation and adjusting the same longitudinally of said bars.

[Claims 6 to 70 not printed in the Gazette.]

1,131,201. BOTTLE SEAL AND CAP. EDWIN BLUTHARDT, Chicago, Ill. Filed Mar. 5, 1913. Serial No. 752,193. (Cl. 215—20.)



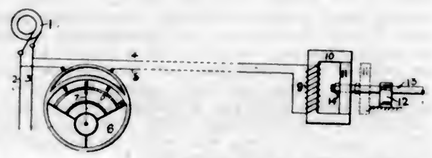
1. The combination with a container having a closure, of a cap covering said closure comprising a cord so interlooped upon itself that the cord may be unraveled and the cap removed by pulling one end of the cord, and means for normally preventing the unraveling of said cap.

2. A bottle cap made of an openly knitted fabric capable of being unraveled and suitably formed to contain the head of a bottle, and a fastening device for preventing the unraveling of said fabric.

3. The combination with a bottle having a closure and a reduced part below its mouth, and a cap extending over said closure and fitting into said reduced part, said cap comprising a cord so looped upon itself that the cord may be unraveled and thereby uncover the closure, and means normally preventing the unraveling of said cap.

4. A container having a closure, means for sealing said closure comprising a cap secured in position over said closure and including a cord secured to the remainder of the cap, suitably woven that it may be unraveled and the cap removed by pulling the cord, and a device for securing one end of said cord to the bottle closure.

1,131,202. ELECTRIC INDICATING SYSTEM. JOHN HANSON BOYDEN, Glenn Dale, Md. Filed Oct. 2, 1906. Serial No. 337,142. Renewed July 17, 1914. Serial No. 851,645. (Cl. 177—337.)



1. In an electric signaling system, a transmitter and a receiver, said receiver comprising a movable element, and electrically operated means for moving the same, and said transmitter comprising a coil and a mass of magnetic metal, means for progressively producing at will a relative shifting of position between said mass and coil in accordance with the signal to be transmitted, means for causing a periodic current to flow in said coil and a corresponding flux in the mass of metal, and a single pair of conductors constituting a permanently closed circuit connecting said transmitting and receiving devices, and including said coil.

2. In an electric signaling system, a transmitter and a receiver, said receiver comprising a movable element, and electrical means for operating the same, and said transmitter comprising a coil and a mass of magnetic metal adjacent thereto, means for creating a periodically varying magnetic flux through said coil, means for progressively changing at will the relative position of said mass and coil in accordance with the signal to be transmitted, and thus producing corresponding changes in the value of such flux, and a single pair of conductors constituting the sole connection between said transmitter and receiver, said conductors including the said coil and operating means in a permanently closed circuit.

3. In an electric signaling system, a transmitter and a receiver, said receiver comprising a movable element, and means for operating the same, and said transmitter comprising a mass of magnetic metal, and a coil, a single pair of conductors connecting the ends of said coil with said operating means, and constituting a permanently closed circuit, means for impressing a periodically varying electromotive force on said circuit, and means for shifting at will the relative position of said coil and mass so as to vary the induction of said coil as desired, whereby a similar movement is imparted to the movable element of said receiver.

4. In an electric signaling system, a receiving instrument comprising a movable pointer, said receiving instrument being responsive to variations in current strength, a transmitting instrument comprising a coil and a mass of magnetic material, a single permanently closed circuit extending from one to the other of said instruments and including said coil, said circuit being the sole connection between said instruments, means for continuously generating a periodic current in said circuit, and means for progressively shifting the relative position of such coil and mass so as to vary the strength of such current in accordance with the signal to be transmitted.

5. In an electric signaling system, a transmitter comprising a coil, a core of magnetic material associated therewith, means for producing a current in said coil and a magnetic flux in said core, means for progressively varying the flux in said core in accordance with the signal to be transmitted, a receiver comprising a movable element responsive to such flux variations, and a single, permanently closed circuit extending from said coil to said receiver, such circuit being the sole connection between said transmitter and receiver.

[Claims 6 to 13 not printed in the Gazette.]

1,131,203. VALVE FOR SELF-PLAYING MUSICAL INSTRUMENTS. WILLIAM A. BRAUER, North Tonawanda, N. Y. Filed July 25, 1912. Serial No. 711,522. (Cl. 137—4.)



1. The combination with two ports and two seats arranged in alinement, of a single, flat, double-faced valve having a stem comprising parts extending out from its opposite flat sides, both parts of said stem being tapered or coned where they join the faces of the valve, the said stem being loosely and freely received in the ports and of a size and so positioned as to adapt them to engage the margins of the ports when closing against a seat, the entire valve being unmounted and free from other connection with said ports and seats.

2. The combination with two ports and two seats arranged in alinement, of a flat, single, double-faced valve having a stem comprising parts extending out from its opposite sides or faces, said parts of the stem being loosely and freely received in the ports aforesaid, the ports constituting the sole guides for the valve, the latter being otherwise entirely unmounted and free for movement.

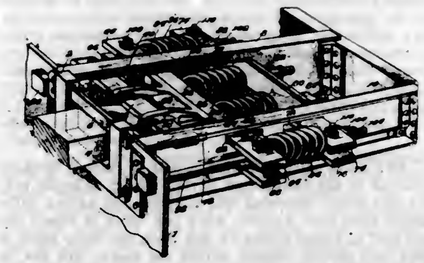
1,131,204. WINDOW-SCREEN. WALTER S. BRIDGES, Chicago, Ill. Filed May 4, 1914. Serial No. 836,242. (Cl. 156—14.)



1. A screen frame comprising spaced end bars, sectional top and bottom rails, the sections of said rails being pivoted to the respective end bars, and free to be placed in crossed relation to bring the end bars toward each other, and to be placed side by side in parallelism to space the end bars farther apart, means for clamping the sections in the last-mentioned position, and means for securing a screen fabric to the end bars.

2. A screen frame comprising spaced end bars, sectional top and bottom rails, the sections of said rails being pivoted to the respective end bars, and free to be placed in crossed relation to bring the end bars toward each other, and to be placed side by side in parallelism to space the end bars farther apart, a clamping yoke straddling the sections, a set screw carried by the yoke for clamping the sections together in the last-mentioned position, and means for securing a screen fabric to the end bars.

1,131,205. DRAFT-RIGGING. PERRY BROWN, Coraopolis, Pa. Filed June 24, 1913, Serial No. 775,557. Renewed Oct. 8, 1914. Serial No. 865,778. (Cl. 213—42.)



1. In draft rigging and in combination with the shank of a draw bar, longitudinal sills having slots therein, cushioning means located between said sills, two bars one over the other passing through the slots in said sills in front of said cushioning means, two bars one over the other passing through the slots in the sills in the rear of said cushioning means, a member supported independently of said bars and cushioning means and backing up against the forward bar and free to move at either side, with either of said bars, independently of the other bar, and means for securing said member to the draw bar.

2. In draft rigging and in combination with the shank of a draw bar, longitudinal sills having slots therein, cushioning means located between said sills, two bars one over the other passing through the slots in said sills in front of said cushioning means, two bars one over the other passing through the slots in the sills in the rear of said cushioning means, a member connected with the draw bar and supported independently of said bars and cushioning means and backing up against the forward bar and free to move at either side, with either of said bars, independently of the other bar, and bars projecting rearwardly from said member between the aforesaid two sets of bars and connecting the rear set of bars, behind the cushioning means, with said draw bar.

3. In draft rigging and in combination with a draw bar, a socket piece having an opening to receive the shank of said draw bar, slots in said socket piece, sills having slots therein in alinement with the slots in the socket piece, a bar passing through the slots in the sills and through the slots in said socket piece and securing the shank in said socket piece and supporting said socket piece between said sills, bars having their ends projecting into the rear of said socket piece, one on each side of the shank of said draw bar whereby the shank holds the bars in position, and shock absorbing or cushioning means supported by said bars.

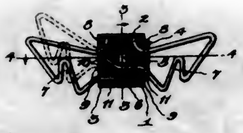
4. In draft rigging and in combination with a draw bar, a socket piece having an opening to receive the shank of said draw bar, slots in said socket piece, sills having slots therein in alinement with the slots in the socket piece, a bar passing through the slots in the sills and through the slots in said socket piece and securing the shank in said socket piece and supporting said socket piece between said sills, headed bars having their heads projecting into said socket piece, one head on each side of the shank of said draw bar, whereby the shank holds the bars in position, and shock absorbing or cushioning means supported by said bar.

5. In draft rigging and in combination with the shank of a draw bar, longitudinal sills, cushioning means located between said sills, two sets of slots in each of said sills,

and duplex bars passing through the slots in said sills and connecting with said cushioning means, one bar of each set being directly over the other.

[Claims 6 to 13 not printed in the Gazette.]

1,131,206. WINDOW-BLIND CATCH. WILLIAM N. BUTTON, Providence, R. I., assignor of one-half to William Lunnie, Providence, R. I. Filed Aug. 20, 1914. Serial No. 857,763. (Cl. 16—128.)



1. In a blind catch, a casing, a pair of catches movably connected to the casing, and having spaced adjacent portions and means inclosing said portions and having parts engaged therewith whereby when one catch is raised the other will be raised therewith and when the other catch is raised said portion thereof within the means will idle in the latter.

2. In a blind catch, a casing, a pair of catches pivoted to the casing so as to have their pivotal points spaced longitudinally of the casing, and coupling means for the latches extending transversely across the space between said pivotal points.

3. In a blind catch, a casing, a pair of catches pivotally connected to the casing, slidable coupling means in the casing for engaging the pivoted ends of the catches, and guiding means carried by the casing and movably engaged with the coupling means to prevent longitudinal movement of the coupling means relative to the casing.

4. In a blind catch, a casing having slots in its side walls, catches pivotally connected to the casing, and coupling means for the pivoted ends of the catches whereby one catch may be operated independently of the other, said coupling means being slidably associated with the slots of the casing.

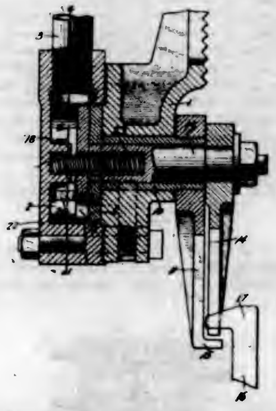
5. In a blind catch, a casing having slots formed in its side walls, catches having their inner ends pivotally connected to the side walls of the casing, a link slidably engaged in said slots and encircling and engaging the inner ends of the catches adjacent their pivotal connection with the casing, whereby when one catch is operated the other is operated therewith, and when said other catch is operated the first named catch will remain stationary.

[Claims 6 and 7 not printed in the Gazette.]

1,131,207. AUTOMATIC TRAIN-STOP DEVICE. WILLIAM M. CADY, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 19, 1911. Serial No. 622,061. (Cl. 246—59.)

1. In an automatic train stopping device, the combination with a train pipe, a main trip lever, a track trip for engaging said lever, and a valve operated by said trip lever for opening communication for venting fluid from said train pipe to effect an application of the brakes, of an additional valve having a seat for the train pipe vent valve for also controlling said communication and an auxiliary trip lever in close proximity to the main trip lever for operating said additional valve to close said communication.

2. In an automatic train stopping device, the combination with a casing having a chamber communicating with the train pipe of an automatic fluid pressure brake, a main rotary slide valve in said chamber having a port, an additional rotary slide valve having a port normally registering with an exhaust port, of a main trip lever for actuating said main slide valve to effect the registry of the port therein with the port in the additional slide valve, and an auxiliary trip lever for actuating said additional valve to close communication from the train pipe to said exhaust port.



3. In an automatic train stopping device, the combination with a casing having a chamber comunicating with the automatic train pipe of a fluid pressure brake system, an auxiliary valve having a port normally communicating with an atmospheric exhaust port, a main trip lever, and a main valve having a port and operated by said main trip lever for effecting the registry of the ports in said valves, of an auxiliary trip lever operated by an obstacle along the track for shifting said auxiliary valve to close communication to said atmospheric exhaust port.

4. An automatic train stopping device comprising a valve mechanism for effecting an application of the brakes, means for rendering said valve mechanism ineffective to apply the brakes, a main trip lever for actuating said valve mechanism, an auxiliary trip lever in close proximity to said main trip for operating said means, said auxiliary trip having a portion partly inclosing said main trip, and a track trip adapted to operate the main trip only.

5. An automatic train stop device comprising a valve having a port normally communicating with the atmosphere, a trip lever for operating said valve, a valve having a port adapted to register with the first port for venting air from the train pipe, a trip lever for actuating said valve, and a track trip for actuating the second trip lever.

[Claim 6 not printed in the Gazette.]

1,131,208. SAW-SET. VICTOR CARLSON, Chatcolet, Idaho. Filed Dec. 13, 1913. Serial No. 806,500. (Cl. 76—69.)

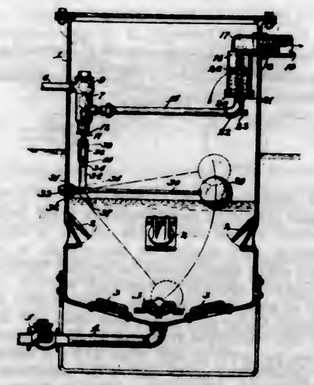


1. In a saw set, the combination with a U-shaped member comprising a bifurcated and a non-bifurcated leg, of two levers pivoted to one of the legs thereof, one of said levers comprising means for clamping the saw and the other comprising means for operating the setting means, means for setting the saw and adapted to be operated by the last mentioned lever, an extension carried by the non-bifurcated leg of said U-shaped member, and adjustable means for adjusting the angle of the saw as positioned in the said saw set whereby the set of the teeth of the saw may be regulated, said adjusting means being carried by the said extension, substantially as described.

2. In a saw set, the combination with a U-shaped member having one leg bifurcated and the other a non-bifurcated leg having a recess adapted to receive the saw teeth adjacent the bend, a lever pivoted to said bifurcated leg and having a jaw on one end thereof adapted to clamp the saw against the other leg of said bifurcated member, a second lever pivoted to said bifurcated leg and having a recess in the end adjacent the non-bifurcated leg, a setting member disposed with said recess and adapted to be moved against the tooth of the saw when said levers are squeezed together, and means for adjusting the angle of the saw as positioned in the device.

3. In a saw set, the combination with a U-shaped member having one leg bifurcated and the other a non-bifurcated leg having an aperture therethrough adjacent the bended portion, a lever pivoted to said bifurcated leg and having a jaw on one end thereof adapted to clamp the saw against the other leg of said bifurcated member, a second lever pivoted to said bifurcated leg and having a recess in the end adjacent the non-bifurcated leg, a setting member having a reduced portion on the surface thereof, said setting member being adapted to lie in the said recess and be moved toward said non-bifurcated leg to a position wherein said reduced portion enters said aperture when said levers are squeezed together, means for adjusting the angularity of the saw as positioned in the device, and a spring disposed between said levers and serving to keep them normally separated.

1,131,209. LIQUID-ELEVATING APPARATUS. EDWIN CHAMBERLIN and ANDREW M. GARDNER, Avella, Pa.; said Chamberlin assignor to said Gardner. Filed May 27, 1913. Serial No. 770,151. (Cl. 103—8.)



1. In a liquid elevating apparatus, the combination with a tank, of automatically operable air inlet and exhaust valve mechanisms, a pipe for air leading from the inlet to the exhaust valve mechanism, said exhaust valve mechanism including a plunger adapted to be operated by the air from the inlet valve mechanism, means for actuating the inlet valve mechanism including a float and adjustable means intermediate the float and the inlet valve mechanism, a liquid intake valve within the tank, and a liquid discharge pipe.

2. In a liquid elevating apparatus, a submergible tank having air inlet and exhaust pipes, automatically operable air inlet valve mechanism, means for actuating the inlet valve mechanism, an air exhaust valve mechanism, a pipe in the tank leading from the air inlet to the air exhaust valve mechanism, said exhaust valve being in communication with said pipe and actuated by air therefrom means coöperating with the pipe for directing air to the exhaust valve mechanism and to the interior of the tank, a liquid intake valve for the tank, and a liquid discharge pipe, said tank constituting a housing for the above mentioned elements.

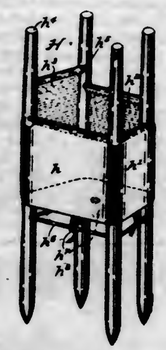
3. In a liquid elevating apparatus, a submergible tank having air inlet and exhaust pipes, automatically operable air inlet valve mechanism, means for actuating the inlet valve mechanism, an air exhaust valve mechanism, a pipe for air leading from the air inlet to the air exhaust valve mechanism, means coöperating with the pipe for directing air to the exhaust valve mechanism and to the interior of the tank, a liquid intake valve for the tank, and a liquid discharge pipe, said tank constituting a housing for the above-mentioned elements.

4. In a liquid elevating apparatus, the combination with a tank, of automatically operable air inlet and exhaust valve mechanism, means for actuating the inlet valve mechanism including a float and intermediate adjustable means, a pipe for air leading from the inlet to the exhaust valve mechanism, means coöperating with the pipe for directing air to the exhaust valve mechanism and the interior of the tank, a liquid intake valve within the tank, and a liquid discharge pipe.

5. In a liquid elevating apparatus, the combination with a submergible tank, of automatically operable air inlet and air exhaust valve mechanisms, means for actuating the inlet valve mechanism including a float, a pipe for conveying air from the inlet valve to the exhaust valve, means coöperating with the pipe for directing air to the exhaust valve and to the interior of the tank, inwardly opening valves in the wall of the tank to admit liquid to the tank, and a liquid discharge.

[Claim 6 not printed in the Gazette.]

1,131,210. GAME APPARATUS. GEORGE HARDY CLARK, Waterloo, Iowa. Filed May 23, 1914. Serial No. 840,537. (Cl. 46—59.)



1. An inclosure, comprising a plurality of spaced stakes, and a flexible cover stretched about said stakes to provide three sides of respectively increasing altitudes, the cover being closed at the bottom between the stakes.

2. A receptacle with sides of differing elevations, and an elongated throw-stick therefor, said stick having weights plugged into its ends.

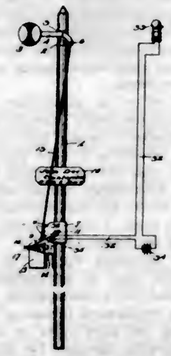
3. A receptacle having four sides, of which two are of the same height, while the other sides are offset in different heights from the sides of even height, the upper edges of the said sides being horizontal.

4. A receptacle of rectangular form, having three of its sides offset to be of differing heights, and an elongated throw-stick of less length than either side to be cast thereinto.

5. A combination game, comprising a receptacle with sides of differing heights, an elongated throw-stick adapted to be cast thereinto from a base, separately stationed wickets through which the throw-stick may be cast from a base, and pins which may be toppled over by said throw-stick when cast from bases spaced therefrom.

[Claims 6 and 7 not printed in the Gazette.]

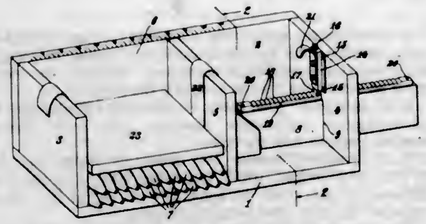
1,131,211. RURAL-MAIL-DELIVERY SIGNALING APPARATUS. CLYDE F. COLLIER, Lakeville, Ohio, assignor of one-half to John C. Lake, Big Prairie, Ohio. Filed Jan. 4, 1912. Serial No. 669,402. (Cl. 116—22.)



1. In a rural mail delivery signaling apparatus, a supporting post, a signal target pivotally mounted thereon, means whereby said target is elevated, means to support the same at different angles, a mail box secured to said post, and means carried by said target operating mechanism to engage and hold down the cover of the box when the target is in a raised position.

2. In a rural mail delivery signaling apparatus, a supporting post, a signal target arm pivotally mounted thereon, a signal target arranged on said arm, a lever supporting plate secured to the post, ratchet teeth arranged on said plate, a target operating lever pivoted on said plate, an operating rod to connect said lever with said target arm whereby when the lever is swung around into engagement with said teeth, said arm and target will be held at different angles, thereby forming different signals, a mail box secured to said post, a finger carried by said lever to engage and hold the cover of the box in closed position, an electric alarm circuit, an alarm arranged therein and a circuit closer arranged on said lever supporting plate and adapted to be engaged and closed by said lever when the latter is depressed to raise the target.

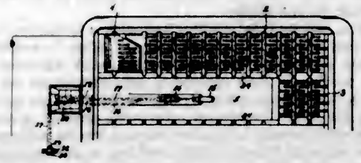
1,131,212. PRESS. LESTER O. CONDUITT, East St. Louis, Ill. Filed May 11, 1914. Serial No. 837,637. (Cl. 131—18.)



1. A cigar press comprising a stationary base, end pieces and a back member, the back member having a linear measuring scale graduated thereon, a guide in one of said end pieces, a partition slidably mounted on said base between the end pieces, a rack push bar secured at one end to the movable partition, and a pawl secured to one of the said end pieces above the guide coöperating with said rack bar to hold the said partition in an adjusted position.

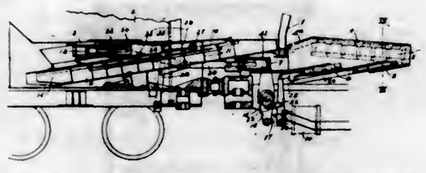
2. A cigar press comprising a stationary base, end pieces and a back member, a guide in one of said end pieces, a partition mounted on said base between said end pieces and having a pin and slot connection with said base whereby it is movable thereon, a rack bar secured at one end to the said partition while its other end portion extends through said guide, and a pawl on the end piece having the guide, coöperating with said rack bar to lock the partition in an adjusted position.

1,131,213. STOKER. DAVID F. CRAWFORD, Pittsburgh, Pa. Filed May 8, 1909. Serial No. 494,893. (Cl. 110—44.)



In combination in an underfeed stoker, a feed trough, a reinforcing member along the side edge of the trough and overlapping the top thereof and provided with recesses for receiving the ends of grate bars, means for detachably securing the reinforcing member to the edge of the trough and against movement thereon, and grate bars constituting a side grate and having their inner edges supported in the said recesses.

1,131,214. AUTOMATIC STOKER. DAVID FRANCIS CRAWFORD, Pittsburgh, Pa. Filed June 27, 1910. Serial No. 569,161. (Cl. 110—44.)



1. The combination in a locomotive, of a furnace, a feed trough extending therethrough, a main reciprocatory feed member at the end of the trough, a supplemental reciprocatory feed member in the trough, a transverse oscillatory shaft, power means for rocking the shaft, crank arms projecting oppositely from such shaft, a connection from one of such crank arms, to the main feed member, a lever pivoted at the side of the said shaft and below such shaft, a link connection from the other crank arm to the lever above the pivot of said lever, and a pivotal link connection between the upper end of the lever and the supplemental feed member.

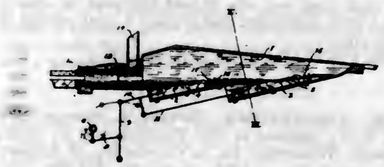
2. In combination in a furnace, a feed trough extending into the furnace, substantially flat rocking grates at the sides of the trough below the top thereof, grate supporting bars secured along the sides of the trough but spaced away therefrom and carrying the ends of the grate bars, and substantially flat coking plates fixed against movement upon the upper edges of the trough with their lower faces lying above and spaced away from the top surfaces of the grate supporting bars.

3. In combination in a furnace, a feed trough extending into the furnace, grates at the sides of the trough below the upper edges thereof, grate supporting members carried by the sides of the trough below its upper edges, and substantially flat coking plates fixed against movement on the upper edges of the trough with their lower faces spaced away from the grate supporting members to provide air spaces and lying above the top surfaces of the grates.

4. The combination in an underfeed stoker for a furnace, an underfeed trough extending longitudinally through the furnace and having its rear edge reduced in height to permit a lateral feed over such rear edge, and a side grate having its rear portion downwardly inclined to the rear to receive the feed over the said rear edge of the trough.

5. The combination in an underfeed stoker for a furnace, an underfeed trough extending longitudinally through the furnace and having its rear edge downwardly inclined to the rear, and a side grate having its rear portion downwardly inclined to correspond to the inclination of the rear edge of the trough.

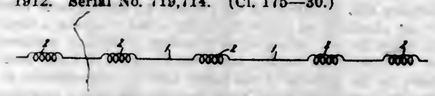
1,131,215. AUTOMATIC STOKER. DAVID FRANCIS CRAWFORD, Pittsburgh, Pa. Filed June 27, 1910. Serial No. 569,162. (Cl. 110—44.)



1. The combination with a feed trough, of an auxiliary feed piston mounted for reciprocation longitudinally of the trough through the bottom thereof and having adjacent its front end an agitating projection upon its upper face.

2. The combination with a feed trough, of an auxiliary feed piston mounted for reciprocation longitudinally of the trough through the bottom thereof and having adjacent its front end a toothed upper face.

1,131,216. TRANSMISSION-LINE. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 11, 1912. Serial No. 719,714. (Cl. 175—30.)



1. A transmission line comprising a conductor having impedance irregularly distributed along said conductor to render equal and adjacent lengths of said conductor electrically dissimilar and the whole conductor electrically irregular.

2. A transmission line comprising a conductor having impedance unsymmetrically distributed along said conductor at comparatively great intervals to render every section of said conductor electrically different from an adjoining section of equal length and said conductor electrically irregular throughout its length.

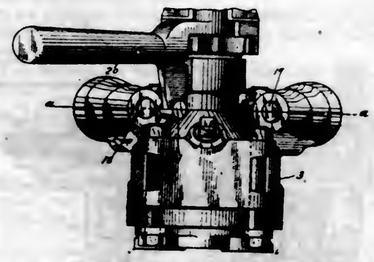
3. A transmission line comprising a conductor, and impedance unsymmetrically distributed at comparatively great intervals along said conductor to cause said conductor to be irregularly loaded with impedance.

4. A transmission line comprising a conductor, and impedances equal in amount distributed along said conductor at markedly unequal distances from one another.

5. A transmission line comprising a conductor, and impedances equal in amount and distributed along said conductor so that the distance between each impedance and the next on one side differs by a substantial amount from the distance between said impedance and the next on the other side.

[Claims 6 to 9 not printed in the Gazette.]

1,131,217. SANDING DEVICE. EDWARD H. DEWSON, New York, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed June 15, 1912. Serial No. 703,817. (Cl. 105—263.)



1. In a track sanding device, the combination with a brake valve device comprising valve means and an operating handle therefor movable only in a direction to operate said valve means, of a valve for controlling the track sanding and a lug carried by said handle and adapted to operate the sand valve upon movement of the brake valve handle beyond release position.

2. In a track sanding device, the combination with a brake valve device comprising valve means and an operating handle therefor movable only in a direction to operate said valve means, of a valve for controlling the track sanding and a fixed lug on said brake valve handle for operating said sand valve both in applying and in releasing the brakes.

3. In a track sanding apparatus, the combination with a brake valve provided with an operating handle, of two valves for supplying fluid for track sanding, and means carried by the brake valve handle for operating one valve with the brakes released and for operating the other valve upon effecting an application of the brakes.

4. In a track sanding apparatus, the combination with a brake valve provided with the usual operating handle and having a release position and an emergency application position, of a valve operated by movement of the brake valve handle beyond release position for supplying fluid for track sanding and a valve operated upon movement of the handle to emergency application position for also supplying fluid for track sanding.

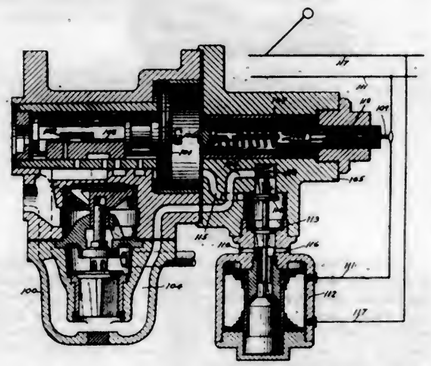
1,131,218. ELECTRICALLY-CONTROLLED BRAKE MECHANISM. EDWARD H. DEWSON, New York, N. Y., and WALTER V. TURNER, Edgewood, Pa., assignors to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Original application filed May 9, 1910, Serial No. 560,172. Divided and this application filed June 21, 1912. Serial No. 705,073. (Cl. 188—4.)

1. In a fluid pressure brake, the combination with a triple valve, brake cylinder, and train pipe, of an electrically controlled valve mechanism adapted to effect a reduction in pressure on the triple valve piston and cut off communication from the train pipe to said piston and a switch device controlled by said triple valve for governing the circuit of said mechanism.

2. In a fluid pressure brake, the combination with a triple valve, brake cylinder, and train pipe, of valve means adapted to effect a reduction in pressure on the triple valve piston and cut off communication from the train pipe to said piston, electrically controlled means for operating said valve means, and a switch device operating upon a reduction in pressure on said triple valve piston for controlling the electric circuit of said electrically controlled means.

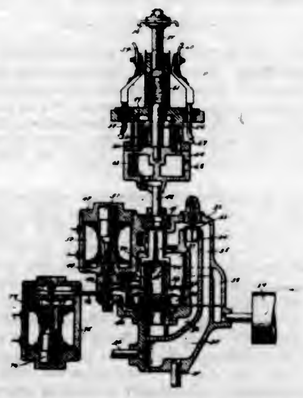
3. In a fluid pressure brake, the combination with a triple valve, brake cylinder, and train pipe, of a valve for controlling communication from the triple valve piston chamber to the atmosphere and a valve for controlling

communication from the train pipe to said chamber and electrically controlled means adapted upon movement of the triple valve to operate said valves to cut off communication from the train pipe and vent air from the triple valve piston chamber.



4. In a fluid pressure brake, the combination with a triple valve, brake cylinder, and train pipe, of valve means for controlling communication from the triple valve piston chamber to the atmosphere and from the train pipe to said chamber and electrically controlled mains for operating said valve means to cut off communication from the train pipe and vent air from the triple valve piston chamber, and an electric switch operated by the movement of the triple valve for controlling the circuit of said electrically controlled means.

1,131,219. ELECTROPNEUMATIC VENT-VALVE DEVICE. EDWARD H. DEWSON, New York, N. Y., and WALTER V. TURNER, Edgewood, Pa., assignors to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Original application filed May 9, 1910, Serial No. 560,172. Divided and this application filed June 21, 1912. Serial No. 705,074. (Cl. 188—4.)



1. In a fluid pressure brake, the combination with a train pipe and a valve device for controlling the application of the brakes, of a pneumatically operated valve mechanism adapted to effect a reduction in train pipe pressure and electrically controlled means for also operating said valve mechanism.

2. In a fluid pressure brake, the combination with a brake cylinder, train pipe, and means operating upon a reduction in train pipe pressure for effecting an application of the brakes, of a valve mechanism operating upon a sudden reduction in train pipe pressure for locally venting the train pipe and electrically controlled means for also operating said valve mechanism.

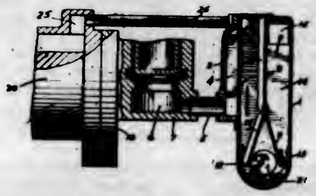
3. The combination with an automatic brake apparatus operating upon a reduction in train pipe pressure for effecting an application of the brakes, of a vent valve mechanism adapted to locally vent the train pipe, electrically controlled means for effecting the operation of said vent valve mechanism, and an electric switch device governed by said vent valve mechanism for controlling the electric circuit of said electrically controlled means.

4. In a fluid pressure brake, the combination with a train pipe and brake cylinder, of a vent valve mechanism for locally venting the train pipe, having an electrically controlled device for effecting the operation of the vent valve mechanism, an electric circuit for said electrically controlled device, and an electric switch governed by the vent valve mechanism for controlling said electric circuit.

5. In a fluid pressure brake, the combination with a train pipe, of a vent valve mechanism having a movable abutment normally subject to opposing fluid pressures, one of which is train pipe pressure, and electric means for venting fluid from one side of said abutment to operate said vent valve mechanism and produce a local venting of the train pipe.

[Claims 6 to 13 not printed in the Gazette.]

1,131,220. AIR-STRAINER. EDWARD H. DEWSON, New York, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Aug. 3, 1912. Serial No. 713,089. (Cl. 98—45.)

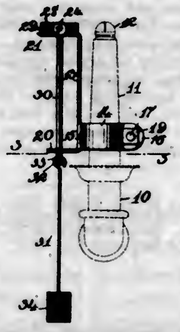


1. An air strainer comprising a casing, a partition forming two chambers in the casing, an atmospheric inlet to one chamber, an outlet from the other chamber, a layer of liquid in the bottom of said casing, diverging members on said partition having their lower edges in close proximity to the surface of the liquid and an intermediate deflecting member secured to one of the diverging members and having its lower edge immersed in the liquid, to thereby direct the flow of air against the surface of the liquid first around one diverging member and then around the other.

2. An air strainer comprising a casing, a layer of oil in said casing, a partition dividing the casing into two chambers and provided with downwardly diverging portions the lower edges of which are in close proximity to the surface of the oil, an atmospheric air inlet to one chamber, an air outlet from the other chamber, and a baffle plate carried by one of the diverging portions and arranged intermediate said downwardly diverging portions and having its lower edge immersed in the oil, to thereby direct the current of air over the upper free edge thereof.

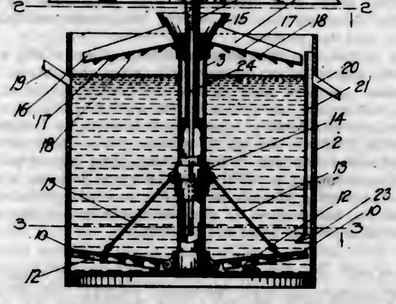
1,131,221. LIGHTING ATTACHMENT. GEORGE DIETZ, EDMUND J. LAFFERTY, and GEORGE J. BESSINGER, Newark, N. J. Filed Nov. 13, 1914. Serial No. 871,862. (Cl. 67—20.1.)

A lighting device comprising a bracket formed of a single sheet of metal and consisting of a strip having arms intermediate its ends bent to one side thereof to form a clamp, means for drawing the arms toward each other, the metal of the strip being bent to the side opposite the clamp at the ends of the strip so as to form separated bearing plates, the top bearing plate having a barrel formed integral therewith, a spring in the barrel, a sparking block



in the barrel, a shaft rotatably arranged in the bearing plates, a sparking wheel on the top of the shaft and which acts to limit the outward movement of the sparking block, and a handle on the bottom of the shaft.

1,131,222. AGITATOR. JOHN VAN NOSTRAND DORR, Denver, Colo. Filed July 29, 1911. Serial No. 641,244. (Cl. 75—86.)



1. An agitator comprising a vessel, an upright conduit having an ingress-opening near the bottom thereof, and an egress opening at its opposite end, means for conveying subsiding matter toward the said ingress-opening, means adapted to raise the said matter within the conduit to its egress-opening, and a launder disposed to receive matter discharged through the latter, and provided with openings for the distribution of said matter over the surface of material contained in the vessel and with adjustable aprons extending obliquely relative to the said openings.

2. An agitator comprising a vessel, an upright rotary conduit having an ingress opening near the bottom thereof and an egress opening at its opposite end, outwardly extending arms at the lower end of the conduit, having obliquely arranged scraper blades, and adapted to be raised to a vertical position, means for raising matter conveyed to the ingress-opening, to the egress-opening of the conduit, means for distributing matter discharged through the latter uniformly over the surface of material contained in the vessel, according to the size of its particles, and a vertically adjustable, upright flue having at its lower end an inlet within the vessel.

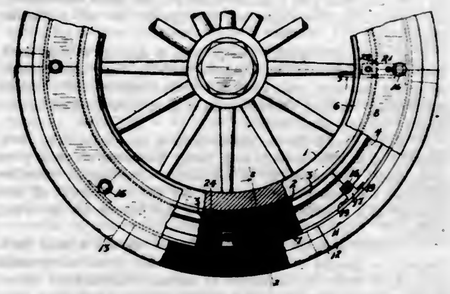
3. In an agitator, a vessel having a substantially flat bottom, means for effecting a continuous movement of matter from a point near the said bottom to a point adjacent the surface of material contained in the vessel, and mechanical means for conveying subsided matter toward the first-mentioned point.

4. In an agitator, a trough having discharge openings, and adjustable aprons extending obliquely relative to said openings.

5. In an agitator, a trough having discharge openings and integral aprons extending obliquely beneath said openings.

[Claims 6 to 21 not printed in the Gazette.]

1,131,223. RESILIENT RIM. PATRICK F. DUNDON, San Francisco, Cal. Filed June 11, 1913. Serial No. 772,957. (Cl. 152—36.)

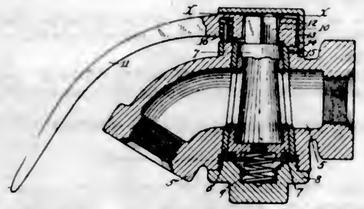


1. A resilient attachment for a non-resilient wheel comprising a tire adapted to be secured around the felly of the wheel, rubber cushions loosely surrounding the tire in circular series and contacting with each other at their ends, said cushions being of greater width than the tire, rings on opposite sides of the cushions, and extending inwardly past said tire, said rings having inwardly extending cylindrical members for retaining the cushions between the rings and having smooth inner surfaces, means for detachably securing said rings at a distance apart greater than the width of the tire, said cushions being recessed to receive said means, said tire and rings having parts loosely engaging each other to limit relative circumferential movement thereof.

2. A resilient attachment for a non-resilient wheel comprising a tire adapted to be secured around the felly of the wheel and extending beyond its edges and having marginal recesses, rubber cushions loosely surrounding the tire in circular series and contacting with each other at their ends, said cushions being of greater width than the tire, rings on opposite sides of the cushions, and extending inwardly past said tire, means for retaining the cushions between the rings, means for detachably securing said rings at a distance apart greater than the width of the tire, said cushions being recessed to receive said means, and keys, rigid with said rings and passing through said recesses.

3. A resilient attachment for a non-resilient wheel comprising a flat tire adapted to be secured around the felly of the wheel, and extending beyond its edges, and having marginal recesses, rubber cushions loosely surrounding the tire in circular series and contacting with each other at their ends, said cushions being of greater width than the tire, rings on opposite sides of the cushions, and extending inwardly past said tire, means for retaining the cushions between the rings, means detachably securing said rings at a distance apart greater than the width of the tire, said cushions being recessed to receive said means, an endless rubber band surrounding the tire, its edges contacting with the inner surfaces of said rings, and keys, rigid with said rings and passing through said recesses.

1,131,224. ANGLE-COCK DEVICE. THOMAS B. ELLWOOD, Marshall, Tex., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 23, 1909. Serial No. 524,160. (Cl. 137—7.)



1. A stop cock device comprising a casing, a plug cock therein, an oscillating handle loosely and freely mounted on the plug cock and a guard rigidly fixed upon said casing for preventing removal of the handle in all positions thereof.

2. A stop cock device comprising a casing, a plug cock therein, an oscillating handle loosely and detachably mounted on said plug cock with the capacity of vertical movement relative thereto, and a guard for retaining the handle on the plug cock.

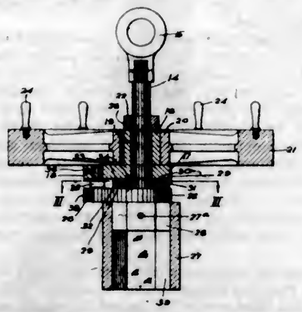
3. A stop cock device comprising a casing, a plug cock therein, a handle loosely and freely mounted on said plug cock with the capacity of oscillatory movement relative thereto, locking means operated by the movement of the handle, and a guard for retaining the handle on the plug cock.

4. A stop cock device comprising a casing, a plug cock therein, a handle loosely and detachably mounted on said plug cock with the capacity of vertical oscillatory movement relative thereto, and a guard rigidly fixed upon said casing for retaining the handle on the plug cock.

5. A stop cock device comprising a casing, a plug cock therein, a handle loosely mounted on said plug cock and free from connection thereto and adapted to be vertically oscillated, locking means operated by said vertical movement, and a guard fixed upon said casing for retaining the handle on the plug cock.

[Claims 6 and 7 not printed in the Gazette.]

1,131,225. NUT-TIGHTENING DEVICE. GEORGE C. FARRELL, Elyria, Ohio. Filed May 29, 1914. Serial No. 841,881. (Cl. 81—54.)



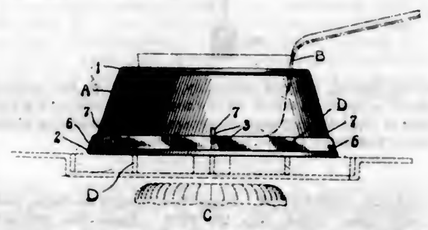
1. Nut tightening apparatus comprising a flanged spindle having a nut engaging socket on one end thereof, a flanged sleeve mounted to turn on the spindle having a fly wheel thereon, an anti-friction bearing between the flanges of the sleeve and the spindle and projecting means on the adjoining faces of the flanges whereby the spindle is caused to turn with the sleeve.

2. Nut tightening apparatus comprising a flanged spindle having a nut engaging socket on one end thereof, a flanged sleeve mounted to turn on the spindle having a fly wheel thereon, a roller bearing between the adjoining faces of the flanges on said sleeve and spindle and means on said flanges whereby the spindle and socket are caused to turn with the sleeve and fly-wheel.

3. Nut tightening apparatus comprising a flanged spindle having a nut engaging socket on one end thereof, a flanged sleeve mounted to turn on the spindle having a fly-wheel thereon, and removable plugs on said flanges arranged to engage and thereby cause the spindle and socket to turn with the sleeve and fly-wheel.

4. Nut tightening apparatus comprising a flanged spindle having a nut engaging socket on one end thereof, a flanged sleeve mounted to turn on the spindle having a fly-wheel thereon, lugs on said flanges and plugs removably secured to the lugs and arranged to engage, to thereby cause the spindle and socket to turn with the sleeve and fly-wheel.

1,131,226. HEATING DEVICE. WILLIAM J. FRANK, Webster Groves, Mo. Filed July 27, 1914. Serial No. 853,462. (Cl. 126—215.)



1. A device of the character described comprising a flue member open at the top to receive cooking utensils, and open at the bottom to receive the flame or hot air passing from a stove burner, and a grate extending across the lower portion of said flue member so as to form a seat for the cooking utensils, said grate being composed of intersecting grate bars interlocked with each other at the point of intersection and having their ends interlocked with said flue member.

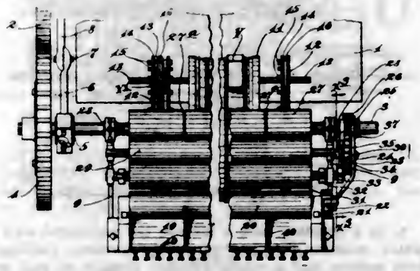
2. A device of the character described comprising a receiver consisting of a conico-cylindrical sheet metal flue member provided with annular reinforcing wires at its top and bottom edges, said flue member being open at the top to receive cooking utensils and open at the bottom to receive the flame and hot air passing from a stove burner; combined with a pair of intersecting grate bars extending across the lower portion of said flue and forming a seat for the cooking utensils, said grate bars being interlocked with the flue member at their ends and interlocked with each other at the point of intersection.

1,131,227. LIFE-PRESERVER. CARL J. FRID, Stege, Cal. Filed Sept. 22, 1913. Serial No. 791,241. (Cl. 9—20.)



In a life preserver, a water tight suit, a floating baggage-carrying belt, encircling said suit and flexibly secured thereto, a head-piece for said suit, a ventilator opening downwardly and outwardly carried by said head-piece, a water bag arranged inside said suit, a water passage connecting said water bag and the aforesaid ventilator, and water discharge means for said water bag.

1,131,228. COLOR-PRINTING ATTACHMENT FOR PRINTING-PRESSES. CHARLES N. GALLAND, Minneapolis, Minn. Filed Sept. 29, 1909, Serial No. 520,178. Renewed Sept. 26, 1914. Serial No. 863,782. (Cl. 101—89.)



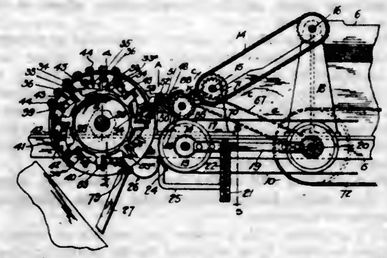
1. The combination with a printing press having a paper delivery cylinder, of an auxiliary printing cylinder cooperating with said paper delivery cylinder, printing wheels axially alined but laterally spaced form said auxiliary cylinder, said cylinder and wheels having means for holding type, means for moving said auxiliary cylinder and printing wheels with a common timed action in respect to said paper delivery cylinder, and an inking mechanism comprising a multiplicity of rollers and a single inking trough, said trough having partitions to divide it into compartments for different colored inks, said auxiliary printing cylinder and each of said printing wheels being fed by separate compartments.

2. The combination with a printing press having a paper delivery cylinder, of an auxiliary printing cylinder cooperating with said paper delivery cylinder, printing wheels axially alined with but laterally spaced from said auxiliary cylinder, said cylinder and wheels having means for holding type, means for moving said auxiliary cylinder and printing wheels with a common timed action in respect to said paper delivery cylinder, and an inking mechanism comprising a multiplicity of rollers and an inking trough, the delivery member of said rollers having a groove and the said trough having a partition, the said groove and partition being alined in a vertical plane that extends between said auxiliary cylinder and one of said printing wheels, substantially as described.

3. The combination with a printing press having a paper delivery cylinder, of an auxiliary printing cylinder cooperating with said paper delivery cylinder, printing wheels laterally adjacent said printing cylinder and likewise coöperating with said paper delivery cylinder, means for moving said printing cylinder and said wheels in the same relation to the delivery cylinder, and a single inking mechanism for said printing cylinder and said wheels, comprising an ink trough, a plurality of transfer rollers, and an ink delivery roller coöperating with the latter and divided into sections, one of which coacts with the printing cylinder while the others coact with the respective printing wheels.

1,131,229. GRINDING-MILL. FRANK D. GIDDINGS, Fort Collins, Colo. Filed Nov. 27, 1912. Serial No. 733,846. (Cl. 83—14.)

1. In a grinding mill, a concave including a section composed of a plurality of hinged-covers mounted to move independently about a common axis and adapted to separately open the concave for the ejection of obstructive objects, by outward pressure, shearing-pins holding said covers against rotation, and a grinding element having a rotary movement in said concave.



2. In a grinding mill, a stationary hinge-member, a concave including a movable section hinged upon said member to open the concave for the ejection of obstructive objects, by outward pressure, a shearing pin occupying normally alined openings in said support and the section hinged thereon, to be sheared by movement of the latter about its pivotal axis, and a grinding element having a rotary movement in said concave.

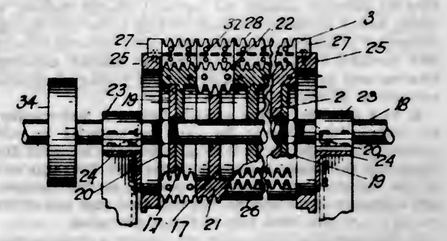
3. In a grinding mill, a stationary hinge-member, a concave including a section composed of a plurality of covers hinged on said member to move independently about a common axis and adapted to separately open the concave for the ejection of obstructive objects, by outward pressure, shearing pins occupying normally alined openings in the said member and the several covers to be sheared by movement of the latter about the said axis, and a grinding element having a rotary movement in the concave.

4. In a grinding mill, a stationary hinge-member having knuckles and intermediate thereof, exteriorly curved lugs, a shaft extending through said knuckles, a concave including a section composed of covers provided with knuckles which are hinged upon the said shaft and with curved flanges disposed adjacent said lugs, said lugs and said flanges having openings which register when the covers are in the closed position, shearing pins in the said registering openings, to be sheared by movement of the covers about the said shaft, and a grinding element having a rotary movement in the concave.

5. In a grinding mill, a concave including a movable section having series of inwardly extending teeth and adapted to open the concave for the ejection of obstructive objects, by pressure against the said teeth, and a grinding element having a rotary movement in the concave and provided with teeth which pass through those on the said section.

[Claims 6 and 7 not printed in the Gazette.]

1,131,230. GRINDING-MILL. FRANK D. GIDDINGS, Fort Collins, Colo. Filed June 10, 1913. Serial No. 772,816. (Cl. 83—14.)



1. In a grinding mill, a concave having inwardly projecting cutter-bars, each composed of a plurality of separately reversible sections provided with teeth along their opposite, longitudinal edges, and a rotary grinding element having cutter-bars composed of separately re-

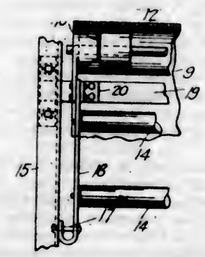
versable sections provided with teeth along their opposite longitudinal edges, the bars on the said element being arranged so that the teeth on one of their said edges will pass between those on the corresponding edges of the bars on the concave.

2. In a grinding mill, a concave comprising a cylindrical casing and radially inwardly projecting cutter bars each composed of a plurality of alined, individually reversible sections, provided with teeth along opposite edges, and a grinding element rotatable in said concave and having radially outwardly projecting cutter-bars each composed of a plurality of alined, individually reversible sections provided with teeth along opposite edges.

3. In a grinding mill of the character described, a normally rigid cutter bar bendable along a line determined by a series of apertures.

4. In a grinding mill, a cutter bar capable of resisting the stress to which it is subjected in the ordinary operation of the mill and having a weakened portion to permit of its bending under excessive stress, along a line substantially parallel to its cutting edge.

1,131,231. GRINDING-MILL. FRANK D. GIDDINGS, Fort Collins, Colo. Filed Mar. 28, 1914. Serial No. 827,954. (Cl. 146—26.)



1. In a grinding mill, an endless belt-conveyer yieldingly mounted at its discharge-end for downward deflection, a rotary roller disposed above the said end of the conveyer to form a restricted passage for material carried thereon, a rotary device mounted rearward of said roller and having peripheral projections for impelling said material toward said passage, and an auxiliary rotary member mounted between the said roller and the said device.

2. In a grinding mill, an endless belt-conveyer, a rotary roller disposed above the discharge end of the conveyer to form a restricted passage for material carried thereon, a rotary device mounted rearward of said roller and having peripheral projections for impelling said material toward said passage, and an auxiliary rotary member mounted between said roller and said device.

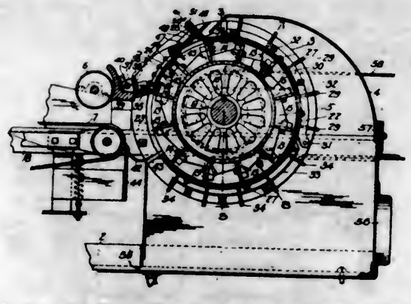
3. In a grinding mill, an endless belt conveyer, a rotary roller disposed above the discharge end of the conveyer to form a restricted passage for material carried thereon, a rotary device mounted rearward of said roller and having peripheral projections for impelling said material toward said passage, and an auxiliary rotary member mounted between said roller and said device and having peripheral projections to engage the material.

4. In a grinding mill, a concave having a feed-opening, an endless belt-conveyer for carrying material to said opening, its discharge end being yieldingly mounted for downward deflection, means above the said discharge end of the conveyer for engaging material carried thereon, and a flexible apron between the said discharge end of the conveyer and the lower edge of the said opening.

5. In a grinding mill, a concave having a feed-opening, an endless belt-conveyer for carrying material to said opening, its discharge-end being yieldingly mounted for downward deflection, means above the said discharge end of the conveyer for engaging material carried thereon, a scraper for removing adherent matter from the surface of the conveyer at its discharge-end, and a flexible apron between said scraper and the lower edge of said opening.

[Claims 6 to 9 not printed in the Gazette.]

1,131,232. GRINDING-MILL. FRANK D. GIDDINGS, Fort Collins, Colo. Filed Mar. 28, 1914. Serial No. 827,955. (Cl. 146—19.)



1. In a grinding mill, a concave the peripheral wall of which includes a hinged outwardly movable, yieldingly-held section, and a rotary grinding element in said concave, the said section having an inwardly projecting, toothed bar, a surface of which slants in the direction of rotation of the said element, and the said element having teeth passing through those on the said bar, the said bar being disposed on the section with relation to the hinge of the same, to cause the section to open by outward pressure on its said slanting surface.

2. In a grinding mill, a concave the peripheral wall of which includes a section composed of a series of independently outwardly movable, yieldingly-held covers, and a rotary grinding element in said concave, the said covers having inwardly projecting, alined, toothed bars the exterior surfaces of which slant in the direction of rotation of the said element, and the said element having teeth passing through those on the said bar.

3. In a grinding mill, a concave having in its peripheral wall, a feed-opening adjacent an edge thereof, an outwardly movable section composed of a series of hinged, yieldingly held covers, and a rotary element in said concave, said covers having their ends at the said edge of the feed-opening and at their said ends alined, toothed members projecting into the concave slantingly in the direction of rotation of the rotary element, and the said element having teeth passing between those on said members.

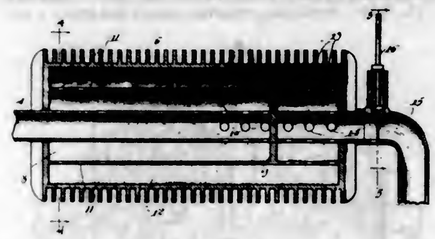
4. In a grinding mill, a concave having in its peripheral wall, a feed-opening, adjacent an edge thereof, an outwardly movable section composed of a series of hinged, yieldingly held covers, and a rotary element having outwardly projecting cutter bars, in said concave, the said covers having their ends, at the said edge of the feed opening, and at their said ends alined members which project into the concave, and the lower surfaces of which slant in the direction of rotation of said element.

5. In a grinding mill, a concave including an outwardly movable, yieldingly-held section, and a rotary grinding element in said concave, having outwardly projecting cutter bars, the said section having at its end forward with relation to the direction of rotation of said element a member projecting into said concave with its lower surface extending slantingly in the said direction.

[Claims 6 to 20 not printed in the Gazette.]

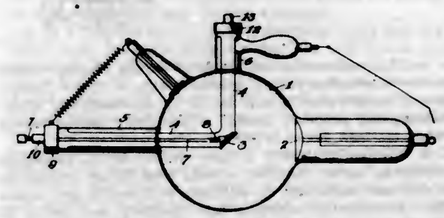
1,131,233. MUFFLER. CARL GOROSA, Jamaica, N. Y. Filed June 16, 1913. Serial No. 773,957. (Cl. 121—116.)

In a muffler for automobiles, an apertured gas-conveying pipe divided into sections comprising an inlet and an outlet pipe, a sectional gas chamber disposed about said gas-conveying pipe and formed with apertures communicating with both sections of said pipe, another gas chamber disposed about said sectional gas chamber and having



an apertured wall in common therewith and valve-controlled outlet means for said muffler.

1,131,234. RAY-TUBE. EMIL H. GRUBBÉ, Chicago, Ill. Continuation of application Serial No. 788,597, filed Sept. 8, 1913. This application filed May 27, 1914. Serial No. 841,267. (Cl. 250—35.)



1. In a ray-tube, the combination of a main body, a tubular member passing through said main body and open at its respective ends to the atmosphere to form a flue, means for effecting a draft through said tubular member, and an anode or target associated with said tubular member within the main body, substantially as set forth.

2. In a ray-tube, the combination of a main body, a tubular member of an angular form passing through said main body and open at its respective ends to the atmosphere to form a flue and an anode or target associated with said tubular member within the main body, substantially as set forth.

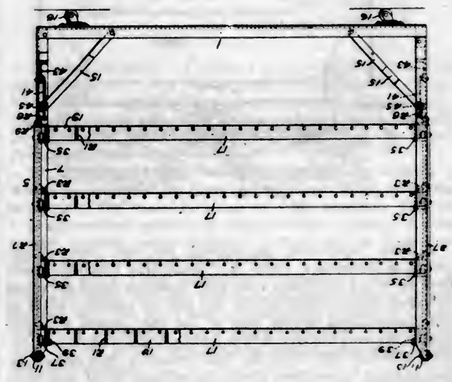
3. In a ray-tube, the combination of a main body, a tubular member passing through said main body and open at its respective ends to the atmosphere to form a flue, an anode or target associated with said tubular member within the main body, and a tube extending through said tubular member into adjacent relation to the anode aforesaid and adapted to discharge a cooling medium against the same, substantially as set forth.

4. In a ray-tube, the combination of a main body, a tubular member passing through said main body and open at its respective ends to the atmosphere to form a flue, an anode or target associated with said tubular member within the main body, and a tube extending through said tubular member into adjacent relation to the anode aforesaid and adapted to discharge a cooling medium against the same, the anode having heat dissipating projections adjacent to the point of discharge from said tube, substantially as set forth.

5. In a ray-tube, the combination of a main body, a tubular member of an angular form passing through said main body and open at its respective ends to the atmosphere to form a flue, an anode or target associated with said tubular member within the main body, and a tube extending through said tubular member into adjacent relation to the anode aforesaid and adapted to discharge a cooling medium against the same, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,131,235. RACK. WILLIAM P. HAMMOND, Charlestown, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 13, 1913, Serial No. 741,627. Renewed Dec. 16, 1914. Serial No. 877,502. (Cl. 211—14.)



1. A rack comprising, in combination, uprights having provision for supporting shelves; elements for holding said shelves in place; and a member common to said elements having provision permitting axial and rotative movement thereof to adjust said elements into and out of securing position.

2. A rack comprising, in combination, uprights having provision for supporting shelves; locking elements for the latter; a member common to said elements; a rocking arm connected to said member; a link connected to said arm; and a crank connected to said link for operating the same.

3. A rack comprising, in combination, uprights having provision for supporting shelves; locking elements for holding said shelves in place; a member common to said elements; an arm pivoted to one of said uprights; a crank pivoted to another of said uprights; a link connecting said arm with the crank, said parts being constructed and arranged to permit said crank to be rocked and held in locking position.

4. A rack comprising, in combination, uprights having provision for supporting shelves between them; locking elements for said shelves; and tubes secured to said elements and having rotative and sliding connections permitting the adjusting of said elements to locking and releasing positions.

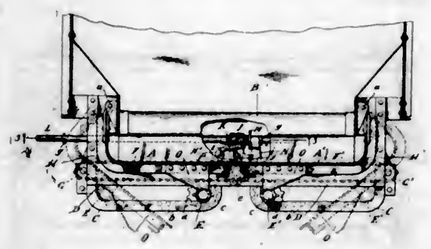
5. A shoe rack comprising in combination, upright frames; shelf-supporting brackets distributed at intervals along said frames; a member extending along each frame common to the shelves on said brackets; and elements on said member for engagement with said shelves, said member having provision permitting the adjustment of said elements to and from positions for preventing the dislocation of said shelves from said brackets.

[Claims 6 and 7 not printed in the Gazette.]

1,131,236. DOOR-OPERATING MECHANISM FOR RAILWAY-CARS. HARRY S. HART and FREDERICK SHARBERG, Chicago, Ill., assignors to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 19, 1910. Serial No. 550,365. (Cl. 105—185.)

1. A car provided with downwardly swinging doors, members rotatably mounted beneath the doors and adapted to move in a direction transversely of the car and on opposite sides of the longitudinal center line thereof, means pivotally mounted beneath the car, a portion of said means being adapted to oscillate, a flexible connection

between said means and the members on both sides of the longitudinal center line of the car, and means whereby the oscillations of the first mentioned means will force the members in reverse directions.



2. Door operating mechanism for the downwardly swinging doors of a dump car, comprising rotatable members on which the doors rest, said members being arranged to rotate transversely of the car and on opposite sides of the longitudinal center line of the car, means provided with a primary and secondary pivotal point and having operative connection with the said members, said means being adapted to oscillate about the primary point and operate the members, while a portion of said means is adapted to oscillate about the secondary point, the oscillations of said means, when the portion is moved one way about the secondary point, tending to rotate the members on both sides of the longitudinal center line of the car in directions away from the longitudinal center line of the car, while the oscillations of the means, when said portion is moved the other way about the secondary point, will rotate the members on both sides of the longitudinal center line in directions toward said center line.

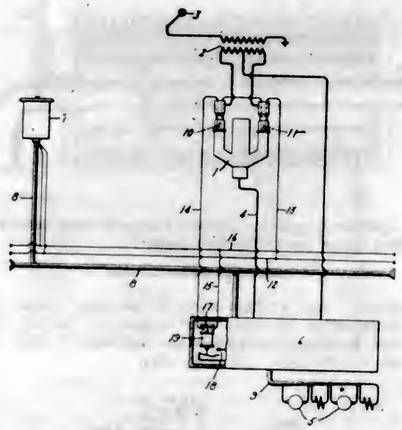
3. A car provided with downwardly swinging doors, members mounted beneath the doors and arranged to move transversely thereof, means pivotally mounted beneath the car and adapted to be oscillated, and mechanism pivoted on said means and arranged to have operative relation with said members, whereby the members are moved in one direction through the oscillations of said means when the mechanism has been moved to one side of its pivotal point, and in the opposite direction when the mechanism is moved to the other side of its pivotal point on said means.

4. A car provided with downwardly swinging doors on opposite sides of the longitudinal center line of the car, a member rotatably mounted on each side of said center line and beneath the doors, a rocking member mounted centrally of the dumping sections of the car, mechanism pivoted on said rocking member and having operative connection with the members beneath the doors, said mechanism being adapted when swung to one side of its pivotal point to move the members in one direction and open the doors and when swung to the opposite side of its pivotal point to move the members in another direction and close the doors.

5. Mechanism for simultaneously operating the oppositely disposed doors of a dump car comprising means, located on opposite sides of the longitudinal center line of the car adapted to travel in a transverse direction beneath the doors and have operative relation therewith, an oscillating member, and mechanism pivoted to said member and adapted to have operative connection with said means when moved to either side of its pivotal point, the connection obtained when said mechanism is moved to one side of the pivotal point compelling the oscillations of said member to force the means on both sides of the longitudinal center line of the car in one direction and open the doors, while the connection had when the mechanism is moved to the other side of its pivotal point will compel the oscillations of said member to force said means in the other direction and close the doors.

[Claims 6 to 33 not printed in the Gazette.]

1,131,237. SYSTEM OF DISTRIBUTION. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 11, 1914. Serial No. 823,872. (Cl. 176—43.)



1. The combination of a current supply circuit, a load device consuming energy intermittently, a vapor electric device in said circuit, and means for automatically maintaining the anode or anodes of the vapor device heated when the load device is idle.

2. The combination of a vapor electric device, an energy supplying circuit therefor, a main load device consuming energy intermittently, an auxiliary load device, and means for automatically inserting said auxiliary load device in circuit with the vapor electric device when the main load device is deënergized.

3. The combination of a vapor electric rectifier, electrical means for heating the anode or anodes of said rectifier, an electrical translating device in the direct current circuit of said rectifier, a control device for varying the energy taken by said translating device and for closing the circuit of said heating means when the energy taken by the translating device falls below a predetermined minimum.

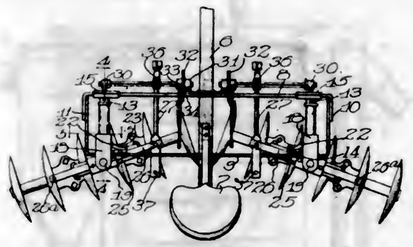
4. The combination of a source of alternating current, a mercury vapor rectifier connected thereto, said rectifier having anodes provided respectively with electric heaters, a load device supplied with direct current by said rectifier and a controller provided with contacts arranged to substitute the anode heating circuit in place of the load device when the load device is deënergized.

5. The combination of a metal-walled, high powered mercury rectifier having anodes of solid material, means for heating the anodes of said rectifier, a load device taking energy intermittently from said rectifier, and means for automatically energizing said heating means when the load current is reduced below a value insufficient to maintain the rectifier anodes heated to a temperature at which mercury will not condense thereon.

1,131,238. REVERSIBLE DISK HARROW. EDWARD M. HEYLMAN, Rock Island, Ill., assignor to Rock Island Plow Company, Rock Island, Ill., a Corporation of Illinois. Filed Sept. 2, 1911. Serial No. 647,323. (Cl. 55—81.)

1. In a disk harrow, a frame comprising front and rear frame bars, a fore-and-aft arbor mounted between said frame bars, a saddle plate pivotally mounted upon said fore-and-aft member, and a disk gang supported by said saddle plate to the rear of said rear frame bar.

2. In a disk harrow, a frame comprising front and rear frame bars, a saddle plate mounted in said frame and adapted to be adjusted transversely thereof and about a fore-and-aft axis, a yoke-shaped portion on the rear end of said saddle plate, a vertical standard supported by said yoke-shaped portion to the rear of said rear frame bar, and a disk gang carried by said standard.



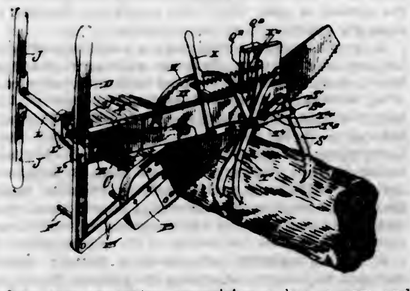
3. In a disk harrow, a frame comprising front and rear frame bars, a saddle plate mounted in said frame and adapted to be adjusted transversely thereof and about a fore-and-aft axis, a yoke-shaped portion on the rear end of said saddle plate, a vertical standard supported by said yoke-shaped portion to the rear of said rear frame bar, a disk gang carried by said standard, and means for adjusting said gang about said vertical standard.

4. In a disk harrow, a frame comprising front and rear frame bars, a saddle plate mounted in said frame and adapted to be adjusted transversely thereof and about a fore-and-aft axis, a yoke-shaped portion on the rear end of said saddle plate, a vertical standard supported by said yoke-shaped portion to the rear of said rear frame bar, a disk gang carried by said standard, a rock shaft mounted upon said front frame bar, and means for rotating said rock shaft to rotate said gang about said vertical standard.

5. In a disk harrow, a frame, a disk gang mounted in said frame, a transversely extending bar connected with said gang, a forwardly extending link connected to the inner end of said bar, a rock shaft, connections from said forwardly extending link to said rock shaft, a lever for rotating said rock shaft to cause a fore-and-aft movement of said link for adjusting said gang about a vertical axis, means for reversing said disks, and means for connecting said transverse bar to said forwardly extending link at a second point when the disks are in reversed position.

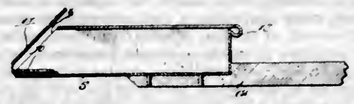
[Claims 6 and 7 not printed in the Gazette.]

1,131,239. DRAG-SAW. ASAPH MERIAM HIGLEY, Cummings, Kans. Filed Mar. 11, 1914. Serial No. 824,010. (Cl. 143—64.)



A drag saw apparatus comprising a bar, a saw and means for reciprocating the latter, a lever pivotally mounted upon the bar, gripping jaws arranged side by side and pivotally mounted upon the bar, brackets projecting from the opposite sides of the lever, springs secured to the upper portions of the shanks of said gripping jaws, the shank of one of said jaws having a lug thereon, a third gripping jaw pivotally mounted upon the bar and links pivotally connecting the upper end thereof with said lug, as set forth.

1,131,240. OLIVE-PICKER. GEORGE HILL, Arlington, Iowa. Filed May 28, 1914. Serial No. 841,578. (Cl. 56—99.)



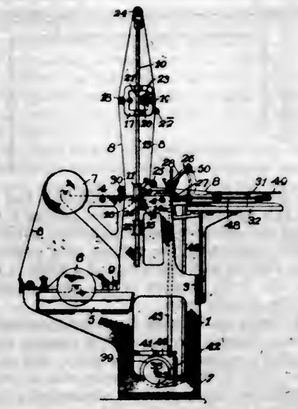
1. An olive picker including a receptacle, fingers carried by the receptacle, one end of said receptacle being extended, reversely folded and provided with a plurality of openings through which said fingers engage, said reversely folded portion engaging the inner terminal of the fingers to prevent their displacement.

2. An olive picker including a receptacle, the bottom of which is extended, picking fingers associated with the receptacle, the inner terminal of each engaging through a complemental opening in said extended portion, the extended portion being reversely folded on the fingers to retain the latter from displacement.

3. An olive picker including a receptacle, one end of which is closed and the opposite end open, fingers in connection with the open end and reversely folded to extend above the receptacle, and a closure detachably associated with the top of the receptacle to permit dispensing of the contents thereof.

4. An olive picker including a receptacle, the sides of which are turned at right angles to the bottom to provide guide flanges, one end of said receptacle being closed and the opposite end open, the terminals of the sides of said receptacle being inclined, fingers associated with said open end, the bottom of said receptacle being extended at said open end and reversely folded upon the inner terminals of said fingers for preventing the displacement of the latter, and a closure slidably engaged with said guide flanges.

1,131,241. PAPER-BOX-TOPPING MACHINE. SAMUEL T. HOBBS, Worcester, Mass., assignor to Hobbs Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed July 27, 1912. Serial No. 711,790. (Cl. 93—54.)



1. In a machine of the class described, means for gumming the topping strip, means for severing a gummed strip, and means for forming a loop in the gummed strip between the gumming and severing mechanism, said loop forming means comprising a vertical framework, a roll carried at the top of said framework, and rolls at the base of and on opposite sides of said framework, whereby the sides of the looped strip are brought substantially parallel and contiguous to each other and intermediate rolls between said top and base rolls to contact with the

gummed surfaces of the sides of said loop to separate them and prevent their curling.

2. In a machine of the class described, means for gumming a covering strip, means for forming a loop in the covering strip comprising a vertically movable framework, a roll carried at the top of said framework, rolls held in fixed positions at the base of said framework, whereby a loop is formed with its sides substantially parallel and contiguous to each other, rolls between said top and base rolls to contact with the gummed surfaces of the sides of said loop to separate them and prevent their curling, and means for raising and lowering said framework.

3. In a machine of the class described, means for gumming a covering strip, means for severing the gummed strip, means between the gumming and severing mechanisms for forming a loop in the gummed covering strip with the sides of the loop in substantially vertical planes and contiguous to each other, and means between the ends of the loop to contact with the gummed surfaces of its sides to separate them and prevent their curling.

4. In a machine of the class described, means for gumming a covering strip, means for severing the gummed strip, means between the gumming and severing mechanisms for forming a loop in the gummed covering strip with the sides of the loop in substantially vertical planes and contiguous to each other, and vertically adjustable means between the ends of the loop to contact with the gummed surfaces of its sides to separate them and prevent their curling.

5. In a machine of the class described, a mechanism for forming a loop in a gummed covering strip, with the gummed surfaces of the strip opposite each other and contiguous, and means for preventing the contact of the gummed sides of the loop with each other, consisting of an interposed roll, and means for varying the position of said roll.

[Claim 6 not printed in the Gazette.]

1,131,242. BRACKET FOR DRAPERY. CHARLIE EDWARD HUFFMAN, Beatrice, Nebr. Filed Apr. 2, 1914. Serial No. 829,096. (Cl. 156—19.)

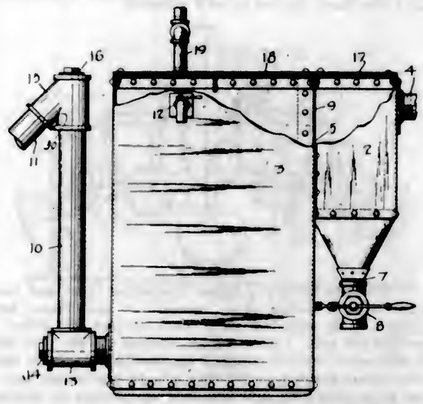


1. The combination with a curtain pole and supporting brackets, of a one piece wire bracket having a front member, angled end members and longitudinal extending loops, the bracket supporting the curtain pole passing through said loops and the said pole forming a support for the end members, the front member of the bracket being in advance of the curtain pole.

2. In a device of the kind described comprising a short piece of wire bracket having a front slightly curved member, rearwardly extending end members, said end members being bent intermediate their ends and at substantially right angles, then again bent at substantially right angles and projecting longitudinally with respect to the bracket, and then being bent back upon themselves to form loops, said loops lying in a plane below and in the rear of the front portion as and for the purpose specified.

3. A drapery supporting bracket comprising a front member adapted to support a narrow width drapery, angled end members adapted to rest upon a curtain pole and loops through which a pole supporting bracket is adapted to pass, said loops being arranged out of both the horizontal and vertical planes of the remainder of the bracket.

1,131,243. OIL-SEPARATOR. HAROLD K. HUGHES, Brooklyn, N. Y. Filed Nov. 3, 1914. Serial No. 870,000. (Cl. 210—5.)



1. An oil separator comprising separating chambers communicating in series, means for admitting the mixture to be separated to one of said chambers, an uptake water outlet connected with the lower part of the second chamber, means for drawing off oil from the upper part of the second chamber, a sedimentation basin at the bottom of the admission chamber, and means distinct from the water outlet for discharging accumulations from said basin.

2. An oil separator comprising separating chambers having means of communication between their upper portions, an inlet for admitting the mixture to be separated to one of said chambers, the said chamber having a sedimentation basin at its bottom, means for discharging accumulations therefrom, an uptake water outlet connected with the second chamber only and terminating in an overflow above the bottom level of the communication between the chambers, and means for drawing off oil from the top of said second chamber.

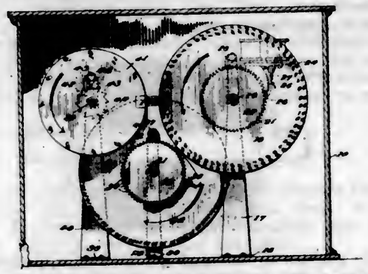
3. An oil separator comprising an inclosure having an inlet for the mixture to be separated, an uptake water outlet terminating in an overflow disposed at such height that the influent enters the inclosure from said inlet substantially without fall, a wall opposed to said inlet to cause the influent to throw down solid matter, a sedimentation basin below said wall and inlet, means distinct from the water outlet for discharging accumulations from the bottom of said basin, and means for drawing off oil from the upper part of the inclosure.

4. An oil separator comprising a main separating chamber, an inlet chamber alongside said main chamber and having a sedimentation basin at its bottom, an inlet delivering substantially horizontally into the upper part of the inlet chamber, means opposed to said inlet to cause the influent to throw down solid matter, an outlet from the upper part of the inlet chamber to the main chamber at a region laterally removed from said inlet, an uptake water outlet from the lower part of the main chamber, means for drawing off oil from the upper part of said main chamber, and means distinct from the water outlet for discharging accumulations from the bottom of the sedimentation basin.

5. An oil separator comprising a primary separating chamber, an inlet for admitting the mixture thereto, means for collecting solids of greater specific gravity than water in the lower part of said chamber and discharging the accumulations therefrom from time to time, a secondary separating chamber in communication with the upper part of the primary chamber, means for retaining solids of less specific gravity than water in said primary chamber, an uptake water outlet connected with the lower part of said secondary chamber only, and means for drawing off oil from the upper part thereof.

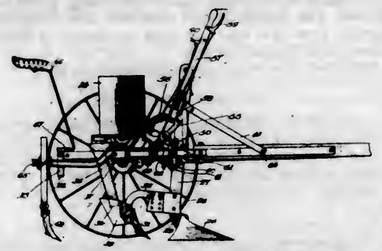
[Claims 6 to 9 not printed in the Gazette.]

1,131,244. TIME-INDICATOR. WILLIAM M. JEFFREYS and WILLIAM H. CREAHEN, Youngstown, Ohio, assignors of one-half to Harry W. Kerr and Dennis T. Murray, Youngstown, Ohio. Filed May 17, 1912. Serial No. 697,984. (Cl. 58—125.)



An electric time indicator including an electromagnet, a plurality of U-shaped brackets, shafts extending between the arms of each of said brackets and at points intermediate the length thereof, a plurality of dial disks mounted upon the said shafts, means operable by the magnet for intermittently rotating one of the said disks, means operable by the movement of said disk for intermittently rotating the second disk, and means for holding each of said disks against counter-rotation, said last-mentioned means consisting of a pawl pivoted to the arm of each of said bracket members above the shaft thereof and engageable with the disk of the said shaft.

1,131,245. COTTON-PLANTER. WILLIAM E. JOHNSON, Rock Island, Ill., assignor to Rock Island Plow Company, Rock Island, Ill., a Corporation of Illinois. Filed Sept. 12, 1908. Serial No. 452,801. (Cl. 111—6.)



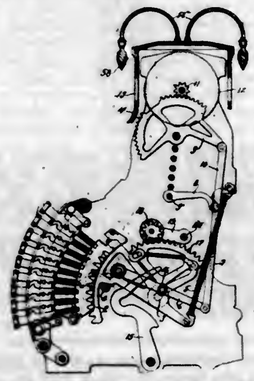
1. In a cotton planter, a frame, a plow or furrow opener, a vertically movable standard for supporting said plow, a bearing in said frame for said standard, and an adjustable casting secured to said frame and bearing against said standard to take up the wear on said standard.

2. In a planter, seed dropping mechanism, a furrow opener, a transversely disposed shaft for operating said mechanism, and means for automatically disengaging said seed dropping mechanism from said shaft, said means including a raising lever for said furrow opener, a clutch, a series of levers having one end connected to said clutch and the other end loosely connected to the clutch member lever raising lever.

3. In a planter, seed dropping mechanism, a furrow opener, a transversely disposed shaft for operating said mechanism, and means for automatically disengaging said seed dropping mechanism from said shaft, said means including a raising lever for said furrow opener, a clutch member, a lever connected to said clutch member, a bell crank lever loosely connected to said raising lever, and a connection between said lever and bell crank lever.

4. In a planter, seed dropping mechanism, a furrow opener, a transversely disposed shaft for operating said mechanism, and means for automatically disengaging said seed dropping mechanism from said shaft, said means including a raising lever, a clutch member, a bell crank lever provided with a hole in one arm and a pin secured to said raising lever passing through said hole to thereby loosely connect said raising lever with said bell crank, and connections from the other arm of said bell crank lever to said clutch.

1,131,246. ILLUMINATED CASH-REGISTER INDICATOR. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (Incorporated in 1906.) Original application filed Sept. 2, 1908, Serial No. 451,446. Divided and this application filed Apr. 27, 1911. Serial No. 623,576. (Cl. 235—23.)



1. In a machine of the class described, the combination with an indicator and operating mechanism therefor, of an electrically operated signaling device for attracting attention to the indicator, a circuit including a switch for the signaling device, a movable cash receptacle, and a spring positioned under the control of said receptacle for operating the switch and thereby opening and closing the circuit.

2. In a machine of the class described, the combination with an indicator and operating mechanism therefor, of a lamp for attracting attention to the indicator, a circuit including a switch for the lamp, a movable cash receptacle, and a spring positioned under the control of said receptacle for operating the switch and thereby opening and closing the circuit.

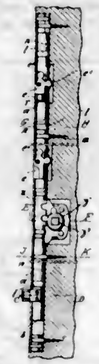
3. In a machine of the class described, the combination with an indicator and operating mechanism therefor, of an electrically operated signaling device for attracting attention to the indicator, a circuit including a snap switch for the signaling device, a movable cash receptacle, and a spring controlled element carried by the receptacle and having its spring tensioned by the movement of the receptacle for the purpose of operating the switch and thereby opening and closing the circuit.

4. In an accounting machine, the combination with an indicator and operating mechanism therefor, of an electrically operated signaling device for attracting attention to the indicator, a circuit for the signaling device including a snap switch, the latter having a V shaped lug thereon, a movable cash receptacle, and a spring actuated device carried by the receptacle for engaging the V shaped lug of the switch and operating the latter for the purpose of opening and closing the circuit.

5. In an accounting machine, the combination with a cash receptacle, of an electric lamp, and a circuit therefor including a stationary contact and a movable contact, of a pivoted arm carrying said movable contact and bearing a wedge-shaped element, and a spring pressed arm carried with said receptacle, and having a roller positioned to engage said wedge-shaped element.

[Claims 6 to 24 not printed in the Gazette.]

1,131,247. WINDOW-CLOSING MECHANISM. ALBERT KIEKERT, Heiligenhaus, Germany. Filed Oct. 7, 1913. Serial No. 793,865. (Cl. 16—63.)



1. A casement sash having a longitudinal groove at its free edge, a U shaped rail fitted therein, an oppositely disposed U shaped slide encompassed by the rail, a bolt operatively engaging the slide, and means for operating the slide.

2. A casement sash having a longitudinal groove at its free edge, a U shaped rail fitted therein, an oppositely disposed U shaped slide encompassed by the rail, a bolt pivoted to the rail and engaged by the slide, and means for operating the slide.

1,131,248. HORSESHOE-NAIL. ALFRED WILLIAM KNIGHT, London, England. Filed July 12, 1912. Serial No. 709,070. (Cl. 85—12.)

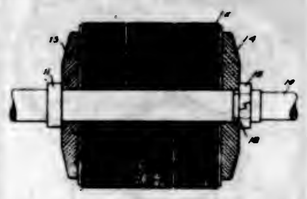


A horse shoe nail having a suitably shaped shank, a tapered head, a portion of which is made of less length than the countersunk hole into which it is to be driven, and an extension for allowing the nail to be driven, so that the tapering head enters and binds against the inner end of the countersunk hole, said extension having reinforcing ribs on its sides.

1,131,249. RETAINING-RING FOR DYNAMO-ELECTRIC MACHINES. EARLE R. KNIGHT, Norwood, Ohio, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed May 1, 1909. Serial No. 493,399. (Cl. 171—252.)

1. In combination with a support of approximately cylindrical cross-section and provided with an annular recess, an element mounted on said support, and a ring made up of segmental pieces disposed in said recess and bearing against a side thereof, said segmental pieces having interlocking projections and being held together by pressure on opposite sides of said ring, and said ring acting to prevent movement of said element axially of said support.

2. In combination with a support, an inherently expansible element mounted on said support, and a ring made up of segmental pieces having interlocking projections which extend parallel to the axis of the support, said segmental pieces being held in position with their interlocking projections in engagement by pressure on opposite sides of said ring, and said ring acting to prevent movement of said core axially of said support.



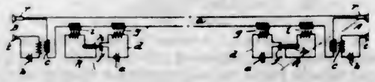
3. A device for holding laminations on a cylinder, comprising a ring composed of a plurality of similar, interchangeable, segmental members, each having male and female portions, the male portions of each member extending parallel to the axis of the ring and in opposite directions.

4. In combination, a shaft, a body mounted thereon and comprising an inherently expansible part, a shoulder on said shaft, and means for holding said body against axial movement comprising a ring composed of a plurality of similar sections and engaging said shoulder, each section of said ring being provided with interengaging portions to prevent radial displacement and being removable from said shaft by axial movement of one section toward said expansible part.

5. In combination, a shaft, a body mounted thereon and comprising an inherently expansible part, a shoulder on said shaft and means for holding said body against axial movement comprising a ring composed of a plurality of similar, interchangeable sections, each section provided with oppositely-disposed, axially-extending projections at its ends and engaging said shoulder, said ring being removable from said shaft by axial movement of one section toward said expansible part.

[Claims 6 and 7 not printed in the Gazette.]

1,131,250. TELEPHONE REINFORCING-CIRCUIT. CHARLES D. LANNING, Boston, Mass. Original application filed Dec. 26, 1905, Serial No. 293,216. Divided and this application filed Aug. 2, 1911. Serial No. 641,946. (Cl. 179—170.)



1. In combination with a telephone system main line and its terminal station instrumentalities, a line-actuated line-current reinforcing arrangement operatively related by undivided series connection to said line and free of bridge connection therewith.

2. In combination with a telephone line system and its terminal station instrumentalities, a conductor operatively related to said system and energized by voice-caused line-currents and a current reinforcing arrangement operatively related by undivided series connection to said conductor and free of bridge connection therewith.

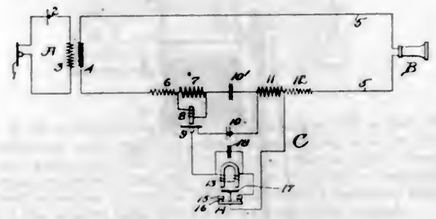
3. In combination with a telephone system main line and its terminal station instrumentalities, a line-actuated line-current reinforcing arrangement comprising a receiving element and a transmitting element operated thereby, said receiving element being serially related to said line and said transmitting element being also serially related to the same side of said line.

4. In combination with a telephone system main line and its terminal station instrumentalities, a line-actuated line-current reinforcing arrangement comprising a receiving element and a transmitting element operated thereby, said receiving element being serially related to said line and said transmitting element being also serially related to said line, and being each magnetically independent of the other.

5. In combination with a telephone system main line and its terminal station instrumentalities, a line-actuated line-current reinforcing arrangement comprising a receiving element and a transmitting element operated thereby, said receiving element being serially related to said line and said transmitting element being also serially related to said line, each by undivided series connection to said line.

[Claims 6 to 40 not printed in the Gazette.]

1,131,251. MEANS FOR CONTROLLING DIRECT CURRENTS. CHARLES D. LANNING, Boston, Mass. Filed May 29, 1912. Serial No. 700,457. Renewed Sept. 29, 1914. Serial No. 864,189. (Cl. 179—171.)



1. Means for increasing the amplitude of variation of a varying current on a conductor, embodying, in combination with said conductor, a device energized by such conductor and current-varying means controlled by said device and in series with said conductor, the latter being in series through the windings of said device and through said means.

2. Means for increasing the amplitude of variation of a varying current on a conductor, embodying, in combination with said conductor, an electro-magnetic device having its winding in series with said conductor and resistance-varying means controlled by said device and in series with said conductor, the latter being in series through the windings of said device and through said means.

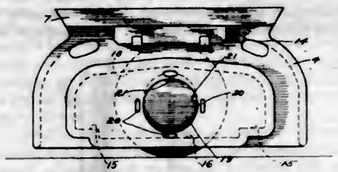
3. Means for intensifying the undulations of a varying direct-current, comprising, in combination with a direct-current-energized conductor and means to give the current thereon and undulatory form, an electro-magnetic device operatively related to said conductor and an instrumentality operated by said device and having means in series with said conductor adapted to control current flow therethrough responsively to the varying energization of said electro-magnetic device, said conductor being in series through the windings of said device and through said means.

4. Means for intensifying the undulations of a varying direct-current, comprising, in combination with a direct-current-energized conductor and means to give the current thereon an undulatory form, an electro-magnetic device having its windings in series with said conductor and an instrumentality operated by said device and having means in series with said conductor adapted to control current flow therethrough responsively to the varying energization of said electro-magnetic device, said conductor being in series through said windings and said means.

5. Means for intensifying the undulations of a varying direct-current, comprising, in combination with a direct-current-energized conductor and means to give the current thereon an undulatory form, an electro-magnetic device having its windings in series with said conductor and a variable-resistance instrumentality controlled by said device and in series with said conductor, the latter being in series through said windings and said instrumentality.

[Claims 6 to 10 not printed in the Gazette.]

1,131,252. SIDE BEARING. ELMER A. LAUGHLIN, Chicago, Ill. Filed Jan. 28, 1914. Serial No. 814,921. (Cl. 64—64.)



1. A side bearing, comprising a support having a roller runway formed therein, a roller mounted in said runway and adapted to have a limited range of travel therein, trunnions on said roller, said frame having guide surfaces adapted to support said trunnions when the load is relieved from said roller, said guide surfaces being formed with a series of shoulders stepped successively downward from the ends of said guideways toward the middle thereof.

2. A side bearing, comprising a support having a roller runway formed therein, a roller mounted in said runway and adapted to have a limited range of travel therein, trunnions on said roller, said frame having guide surfaces adapted to support said trunnions when the load is relieved from said roller, said guide surfaces being formed with a series of shoulders stepped successively downward from the ends of said guideways toward the middle thereof, each of said shoulders being so located that when the trunnion of the roller is in contact therewith the center of gravity of the roller is inward of such shoulder whereby the roller will be caused to roll toward a middle position in said runway.

3. A side bearing, comprising a support having a roller runway formed therein, a roller mounted in said runway and adapted to have a limited range of travel therein, trunnions on said roller, said frame having lower horizontal guide surfaces adapted to support said trunnions when the load is relieved from said roller, and shoulders on said frame located adjacent to the ends of said guide surfaces and spaced above the plane thereof, said shoulders being adapted to engage the trunnions of the roller when said roller is released from the load at the end of its travel and cause said roller to roll by gravity toward a middle position in said runway.

4. A side bearing, comprising a support having a roller runway formed therein, a roller mounted in said runway and adapted to have a limited range of travel therein, trunnions on said roller, said frame having guide surfaces adapted to support said trunnions when the load is relieved from said roller, said guide surfaces being formed with substantially horizontal end ledges and a substantially horizontal middle ledge located at respectively different elevations.

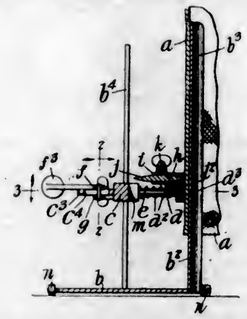
5. A side bearing, comprising a support having a roller runway formed therein, a roller mounted in said runway and adapted to have a limited range of travel therein, trunnions on said roller, said frame having guide surfaces adapted to support said trunnions when the load is relieved from said roller, said guide surfaces being formed with a plurality of ledges located in successively lower positions from the ends to the middle part thereof.

[Claims 6 to 11 not printed in the Gazette.]

1,131,253. SKIRT-MARKING DEVICE. ALBERT LICHTNER, New York, N. Y. Filed Sept. 29, 1914. Serial No. 864,120. (Cl. 33—9.)

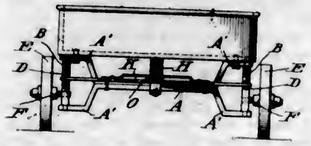
1. A skirt marking device, comprising a baseboard or support having an upright back, a supplemental vertically adjustable support mounted in front of said back, a transversely arranged cross head mounted between the supplemental support and the back and adapted to bear on said back, hand-operated devices for moving said cross head forwardly, and automatic devices for moving it backwardly, said cross head being also provided with a chalk holder movable horizontally thereon.

2. A skirt marking device, involving a main baseboard or support having an upright back, a vertically adjustable supplemental support mounted in front of said back, rods movable forwardly and backwardly through the supplemental support and provided at their rear ends with a cross head adapted to bear on said back, springs mounted



on said rods between said supplemental support and said cross head and normally serving to force said cross head backwardly, and devices connected with the front ends of said rods to move them and the cross head forwardly, said cross head being also provided with a horizontally movable chalk holder.

1,131,254. CHILD'S AND TOY WAGON. CHARLES A. LONGMAN and JOHN C. MINSHALL, Logan, Iowa. Filed Sept. 9, 1914. Serial No. 860,867. (Cl. 21—139.)



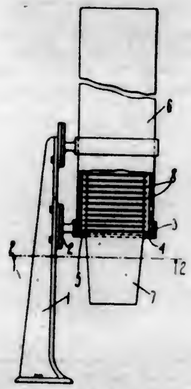
A toy wagon comprising a beam having forked ends with oppositely disposed registering apertures therein, a wagon box secured to the upper arms, rocking bars journaled in said apertures, a laterally projecting arm upon each bar, a stub axle connected to each bar, a bar connecting said arms, a rod secured to the bottom of the box and extending forward of the forked beams and upwardly extending, a steering member pivoted to the upwardly projecting end of said rod and to said bar which connects the arms of the stub axle.

1,131,255. DISPENSING APPARATUS. LAWRENCE W. LUELLEN, Mountain Lakes, N. J. Original application filed Mar. 24, 1911, Serial No. 616,714. Divided and this application filed Nov. 18, 1914. Serial No. 872,677. (Cl. 211—8.)

1. In a cup-dispensing apparatus, the combination with a bracket provided with circumferentially-arranged cup-supporting means, said cup-supporting means being adapted to engage the cup to be dispensed at a zone near its greatest diameter and support same in delivery position, a removable cup reservoir closed at its top supported in substantially vertical position by the cup-supporting means, said reservoir having an internal diameter greater than the maximum diameter of the cup to be dispensed.

2. In a cup-dispensing device, the combination of a supporting delivery member provided with a delivery opening and supporting means for a stack of nested cups, said supporting means adapted to engage the cups successively near their greatest diameter when being withdrawn, and a cup reservoir removably supported by the delivery member, having an internal diameter greater than the maximum diameter of the cups.

3. In a cup-dispensing device, the combination with a circular delivery member provided with means for securing it in upright position and a circular delivery aperture through which the bottom of a pile of nested cups may normally project, of a vertically-disposed cup reservoir consisting of a glass tube of larger diameter than the greatest diameter of the cups and normally closed at the top, said reservoir being removable from and supported by said delivery member; and internally-projecting means adapted to engage the cups successively near their greatest diameter and to normally retain them with the bottom of the pile projecting downward through the delivery aperture and permit their withdrawal one by one by grasping the exposed portion of the bottom cup.



4. In a cup-dispensing device, the combination with an annular dispensing member having a supporting bracket and provided with a delivery aperture and a vertically-projecting annular flange, of a cup reservoir adapted to contain a pile of nested cups and consisting of a vertically-arranged glass tube normally closed at the top, said reservoir being removable from said dispensing member but normally resting thereon with its lower end within the vertical flange on said member, and internally-projecting means normally adapted to engage the bottom cup above its lower end to hold the same but to permit the bottom of said cup to project through the dispensing aperture when it may be grasped for ready removal therefrom.

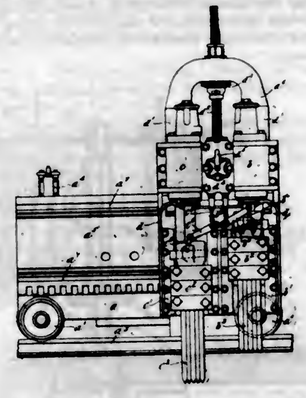
1,131,256. TOOL-ACTUATING DEVICE. HENRY H. MERCER and ALBERT E. CHAMPAGNE, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 8, 1909. Serial No. 488,588. (Cl. 121—10.)

1. In a channeling machine, the combination with a pair of channeling units each with its tool or gang of tools, means including independently operable controlling devices for synchronously insuring the operation of said tools in opposed step, and joint opposed step-controlling means for continuing the operation of either of said tool gangs in case of stoppage of the other.

2. In a stone-working machine, the combination with a pair of cutting units, joint controlling means including independently operable controlling devices for operating the same together in definitely timed relation, and means for insuring the continued operation of either one in case of stoppage of the other.

3. In a stone working machine, the combination with a pair of engines, cutting means operated by each engine, valves controlling said engines, and means for moving said valves to maintain said engine in out of step relation, said means providing for the continued operation of one engine in the event of the unintentional stoppage of the other.

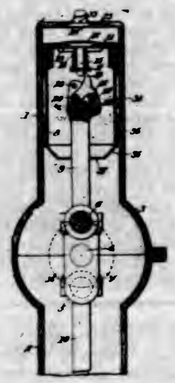
4. In a duplex engine, the combination with a pair of cylinders each with its coöperating piston, a reversing valve for each, and coöperative connections between the valve for one engine and the other engine whereby said valve acts to control the movements of its own engine and of the other engine while maintaining them in out of step relation.



5. In a duplex engine, the combination with a pair of cylinders, each with its coöperating piston, a valve for each engine movable with the piston of such engine, there being provided within the control of each valve pressure fluid passages serving to admit controlling pressure fluid for the control both of its own and the other engine.

[Claims 6 to 31 not printed in the Gazette.]

1,131,257. GAS-ENGINE. ROBERT S. MOORE and JAMES LEE SIMMONS, Washington, D. C., assignors to Gyro Motor Company, Washington, D. C., a Corporation of Delaware. Filed Nov. 1, 1910. Serial No. 590,286. (Cl. 123—47.)



1. A two cycle gas engine including in combination, a cylinder, a piston, a piston rod pivoted thereto, a reciprocating intake valve located centrally of said piston, a yielding cam finger carried by said piston rod for engaging and opening said intake valve as the piston moves relative to the cylinder, said cam finger being cut away in rear of the cam face thereof whereby when said cam finger slips by the stem of the intake valve the same is allowed to quickly close.

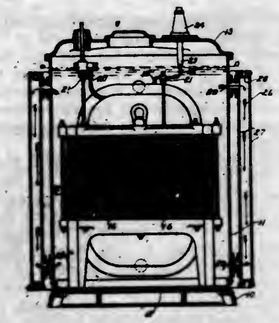
2. A gas engine including in combination, a cylinder, a piston located therein, a piston rod pivoted to said piston, an intake valve mounted in said piston, a cam finger pivoted to said piston rod, a stop for limiting the movement of said cam finger, whereby said valve is positively opened, and means for yieldingly holding said cam finger in contact with said stop.

3. A two-cycle rotary cylinder gas engine including in combination, a rotating casing, a cylinder carried thereby, a stationary crank shaft, a piston, a piston rod connecting said piston to said crank shaft, a reciprocating intake valve located in said piston, and yielding means carried by said piston rod for opening said intake valve as said cylinder rotates, said yielding means being so constructed and positioned as to pass by the stem of the intake valve and release the same.

4. A two-cycle rotary cylinder gas engine including in combination, a rotating casing, a cylinder carried thereby, a stationary crank shaft, a piston, a piston rod connecting said piston to said crank shaft, a reciprocating intake valve located in said piston, and a yielding cam finger carried by said piston rod and engaging said intake valve as the cylinder rotates, for opening the intake valve, said yielding cam finger being cut away in rear of the cam face thereof whereby when said finger slips by the stem of the intake valve the same is allowed to quickly close.

5. A two-cycle rotary cylinder gas engine including in combination, a rotating casing, a cylinder carried thereby, a stationary crank shaft, a piston, a piston rod connecting said piston to said crank shaft, an intake valve located centrally of said piston, a pivoted cam finger carried by the piston rod and adapted to engage said intake valve, a stop for limiting the movement of said finger in one direction, and a spring for holding said finger yieldingly in contact with said stop.

1,131,258. TRANSFORMER. LOUIS C. NICHOLS, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Feb. 28, 1910. Serial No. 546,518. (Cl. 171—124.)



1. In combination, a fluid-containing casing for electrical apparatus, and a hollow shell surrounding said casing and arranged laterally outside of all fluid-containing portions thereof, said shell being connected with and supported by said casing through the side walls of both said casing and said shell.

2. A transformer casing adapted to contain insulating fluid, a cooling shell surrounding the normal fluid-containing portion of said casing and spaced therefrom to form a ventilating passageway between said casing and said shell, and conduits connecting said casing and said shell, said conduits being located wholly within the ends of both said casing and said shell.

3. A casing for the reception of electrical apparatus adapted to contain insulating fluid, a cooling shell surrounding the normal fluid-containing portion of said casing and spaced therefrom to form a ventilating passageway between said casing and said shell, and conduit connections between said casing and said shell, said connections being located within the ends of said casing and said shell, and the outer surface of said shell permitting contact at any instant with a support having a plane surface

throughout the greater portion of the axial length of said shell.

4. In combination with a casing for electrical apparatus adapted to contain insulating fluid, a hollow shell surrounding said casing and spaced therefrom to form a ventilating passageway between said casing and said shell, and tubular connecting means between said casing and said shell adjacent the upper and lower ends of said shell, said connecting means being disposed wholly within the end portions of said shell, and that portion of the connecting means adjacent the lower end of said shell communicating with the side wall of said shell at a point appreciably removed from the lower end of the shell to form a pocket in said shell below the opening therein.

5. In combination with a casing for electrical apparatus adapted to contain insulating-fluid, a hollow shell surrounding said casing and spaced therefrom to form a ventilating passageway between said casing and said shell, and means for connecting said shell to said casing, said means being located wholly within the end portions of said shell and the normal fluid-containing portion of said casing, and the axes of those portions of said connecting means immediately associated with said casing and said shell being in alinement and normal to the wall of said casing and the inner wall of said shell.

[Claims 6 to 13 not printed in the Gazette.]

1,131,259. MOHAIR FABRIC. WILLIAM S. NUTTER, Sanford, Me., assignor to Goodall Worsted Company, Sanford, Me., a Corporation of Maine. Filed Nov. 26, 1913, Serial No. 803,310. Renewed Jan. 11, 1915. Serial No. 1,714. (Cl. 139—9.)



1. A fabric comprising warp threads and weft threads, one of said threads containing the fibers of the Angora fleece that will readily take a dye and also the so-called kemp fibers of the fleece that will not readily take a dye, and the other thread being a variegated thread showing different colors throughout its length to break up the streaky appearance of the fabric due to the presence of the kemp fibers in the first named thread.

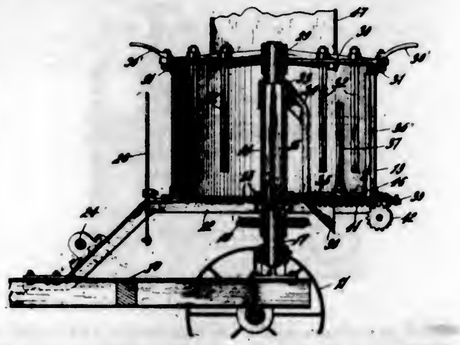
2. A fabric comprising a weft formed from mohair yarn spun from tops containing both the fibers of the Angora fleece which will readily take a dye and the fibers constituting the kemp, and a two-ply warp formed of a white strand and a colored strand twisted together.

3. A fabric comprising a weft formed from mohair yarn spun from tops having both the fibers of the Angora fleece that will readily take a dye and the fibers constituting the kemp, and a two-ply warp formed of a white strand and a colored strand twisted together, said colored strand being approximately twice the size of the white strand.

1,131,260. PLASTER-MIXER. ADOLPH NYDEGGER, Milwaukee, Wis., assignor to C. H. & E. Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 4, 1914. Serial No. 870,178. (Cl. 83—73.)

1. A plaster mixer comprising a vertical fixed drum having an upstanding central sleeve, a suitably driven shaft turning within the sleeve and having an angular shoulder, a socket removably fitting on the angular shoulder of the shaft, a downwardly extending arm on the socket, upstanding rotary mixing rods carried by the arm, a frame removably clamped to the drum and having a bearing receiving the end of the shaft, and stationary mixing rods mounted on the frame out of the path of travel of the rotary mixing rods.

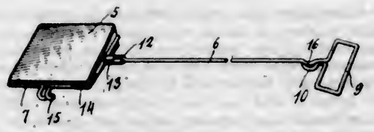
2. A plaster mixer, comprising a vertical stationary cylindrical drum, a tubular sleeve fixed in the center of the bottom of the drum and extending upwardly therein, a suitably operated shaft within the sleeve having an angular shoulder projecting thereabove, a frame removably clamped to the upper end of the drum and having a bearing receiving the upper end of the shaft, a socket removably fitting on the shaft and engaging the driving shoulder thereof to be turned thereby, an arm projecting downwardly from the socket, a scraper blade carried by the arm for scraping the bottom of the drum, an upstanding scraper rod at the end of the scraper blade for scraping the side walls of the drum, and downwardly extending mixing rods on the frame.



3. A plaster mixer, comprising a vertical cylindrical stationary drum, an upstanding tubular sleeve fitting in a central opening in the bottom thereof, a suitably driven square shaft fitting within the sleeve with a reduced upper end circular in cross section, a spider frame having arms releasably clamped to the upper edge of the drum and provided with a bearing to receive the reduced end of the shaft, stationary mixing rods projecting downwardly from the arms of the spider frame, a socket removably fitting on the upper end of the square portion of the shaft and around the reduced portion of the shaft and around the upper end of the sleeve, a downwardly projecting arm on the socket spaced from the sleeve, a scraper blade carried by the lower end of the arm to scrape the bottom of the drum, an upstanding scraper rod carried by the upper end of the scraper blade to scrape the inner walls of the drum, and an upstanding mixing rod secured to the scraper blade and traveling between the stationary mixing rods.

4. A plaster mixer, comprising a stationary vertical cylindrical drum, an upstanding tubular sleeve in the bottom of the drum, a suitably driven shaft turning within the sleeve, a socket removably secured to the shaft above the sleeve, upstanding mixing rods carried by the socket, clamping bolts at the edge of the drum, a frame fitting on the edge of the drum and having slots extending in the rotary direction of the shaft for engaging the clamping bolts, a bearing carried by the frame and receiving the upper end of the shaft, and stationary mixing rods carried by the frame and projecting into the drum to coöperate with the upstanding mixing rods.

1,131,261. PAPER-WEIGHT. VICTOR OLSEN, Chicago, Ill. Filed July 3, 1914. Serial No. 848,833. (Cl. 129—26.)



1. A paper weight comprising a weight body, a shank carrying said body, means on said shank for pivotally connecting the same to a support, and suspension means on one side of the weight body.

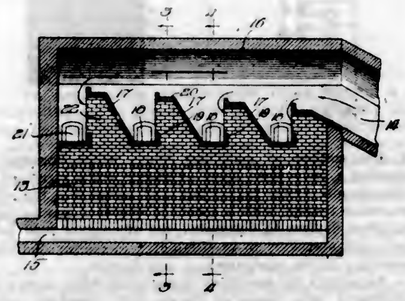
2. A paper weight comprising a weight body, a shank carrying said body, means on said shank for pivotally connecting the same to a support, and suspension means on one side of the weight body, said body being tapered transversely and the suspension means being on the narrow side of the body.

3. A paper weight comprising a weight body, a shank having at one end a loop extending around the sides of the body, and supporting the same, and means on the other end of the shank for pivotally connecting the same to a support.

4. A paper weight comprising a shank having at one end a bend to form a pivot eye, and a weight body carried by the other end of the shank.

5. A paper weight comprising a shank having at one end a bend to form a pivot eye, above which eye the shank has a laterally extending part, and a weight body carried by the other end of the shank.

1,131,262. REGENERATOR FOR FURNACES. FRANK ORTH, Indiana Harbor, Ind. Filed Mar. 22, 1913, Serial No. 756,167. Renewed July 31, 1914. Serial No. 854,391. (Cl. 75—94.)



1. In a regenerator or the like, the combination with a suitable heat-absorbing structure and an inlet flue or conduit, of a receptacle for flue dust, interposed between the upper portion of the heat-absorbing structure and the flue, and means independent of said receptacle for abruptly changing the direction of movement, adjacent the receptacle, of gases coming from the flue into the upper portion of the heat-absorbing structure, to cause them to precipitate their suspended flue dust into such receptacle.

2. In a regenerator or the like, the combination with a suitable heat absorbing structure, an inclosing structure, and an inlet flue or conduit, of a plurality of partitions or the like within said inclosing structure, said partitions being interposed in consecutive order between the heat absorbing structure and the inlet flue or conduit, and serving to provide a plurality of receptacles for flue dust and deflectors for abruptly changing the direction of movement of flue gases incoming from the flue to cause them to precipitate their suspended flue dust into such receptacles, substantially as described.

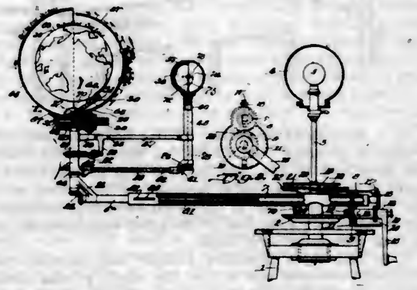
3. In a regenerator or the like, the combination with a suitable heat absorbing structure, an inclosing structure for the same serving to provide a relatively large chamber above the heat absorbing structure, and an inlet flue or conduit communicating with said relatively large chamber, of a plurality of partitions within said chamber serving to provide receptacles for flue dust or the like, and partitions interposed in consecutive order between the heat absorbing structure and the inlet flue or conduit for abruptly changing the direction of movement of gases incoming from the flue within said chamber for the purpose of causing them to precipitate suspended flue dust into said receptacles, substantially as described.

4. In a regenerator or the like, the combination with a suitable heat absorbing structure, an inclosing structure surrounding the same and serving to provide an expansion chamber above the heat absorbing structure, and an inlet flue communicating with said chamber, of partitions within said chamber and between the inlet flue and the heat absorbing structure serving to provide receptacles in consecutive order between the inlet flue or conduit and the heat absorbing structure for the reception of flue dust or the like, and means for precipitating flue dust from the gases incoming from the flue into said receptacles before the gases reach the heat absorbing structure, substantially as described.

5. In a regenerator or the like, the combination with a heat absorbing structure, an inclosing structure surrounding the same, and an inlet flue or conduit, of a plurality of receptacles for flue dust or the like, there being an opening in the inclosing structure in communication with each of said receptacles, and a baffle wall or deflector corresponding to each receptacle and interposed between the inlet flue and the heat absorbing structure for the purpose of precipitating flue dust or the like from gases incoming from the flue into said receptacles before the gases reach the heat absorbing structure, said baffle walls or deflectors ranging in size according to their distance from the inlet flue, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,131,263. TELLURIAN. WILLIAM PARK, Brantford, Ontario, Canada. Filed Aug. 18, 1913. Serial No. 785,345. (Cl. 35—3.)



1. In a tellurian, the combination of an earth globe comprising a highly reflecting spherical mirror; an inclined axis on which said sphere is journaled; means for rotating the said sphere on its axis; a bright sun globe; and means for carrying the reflecting sphere about the sun globe while its axis is maintained in a constant direction in space.

2. In a tellurian, an earth globe comprising a highly reflecting spherical mirror in combination with a bright sun globe; means for carrying the reflecting sphere about the sun globe; a hemispherical hood having a mirror-like outer surface supported about the earth globe with its circular edge in a vertical plane substantially intersecting the earth's center; a moon globe; means for carrying the moon globe about the earth globe; and means whereby the hood is constantly maintained with its convex surface directed away from the sun as the earth globe is carried about the latter.

3. In a tellurian, an earth globe comprising a highly reflecting spherical mirror in combination with a bright sun globe; means for carrying the reflecting sphere about the sun globe; a moon globe; means for carrying the moon globe about the earth globe, the sun and moon globes being so proportioned and placed as to give reflected images approximately the same size; and means for giving ellipticity to the earth's orbit to vary the relative size of the reflected images of the sun and moon globes.

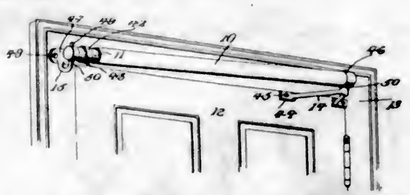
4. In a tellurian, an earth globe comprising a highly reflecting spherical mirror in combination with a bright sun globe; means for carrying the reflecting sphere about the sun globe; a moon globe; means for carrying the moon globe about the earth globe; a hemispherical hood having a mirror-like outer surface supported about the earth

globe with its circular edge in a vertical plane substantially intersecting the earth's centers; means whereby the hood is constantly maintained with its convex surface directed away from the sun as the earth globe is carried about the latter; and a dark non-reflecting spot formed at the center of the convex surface of the hood.

5. In a tellurian, the combination of a sun globe; an earth globe; means for carrying the earth globe about the sun globe; a moon globe comprising an outer translucent sphere and an inner dark hemisphere; means for carrying the moon globe as a whole about the earth globe in an orbit inclined to the earth's orbit and with its dark hemisphere constantly directed away from the sun globe; and means for automatically tilting the dark hemisphere as the moon globe rises and falls in its orbit.

[Claims 6 to 19 not printed in the Gazette.]

1,131,264. DOOR-CHECK. JAMES H. PEARSON, St. Louis, Mo., assignor of one-third to George A. Haines, Bloomfield, Ind., and one-third to Osceola Calvert, Shelburn, Ind. Filed May 22, 1913. Serial No. 769,312. (Cl. 16—87.)



1. A door check including tubular body members telescopically mounted one within the other, a head closing the outer end of one body member and provided with a valve passage, a flap valve mounted on the inner end of the head and movable to open and close said passage, a head closing the outer end of the other body member, and springs connecting said heads.

2. A door check including tubular body members telescopically mounted one within the other, a head closing the outer end of one of the body members, a head closing the outer end of the other body member and providing with the first head and body members a variable air chamber, said latter head being provided with an air passage, a valve carried by the head and movable to open and close said passage, means for limiting the inward movement of said valve, and a spring extending through the air chamber and connected at its ends to the heads.

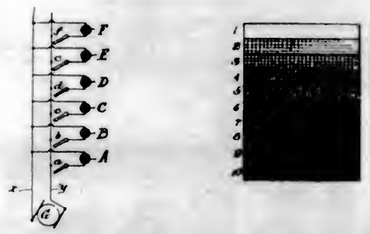
3. A door check including tubular body members telescopically mounted one within the other, a head closing the outer end of one of the body members, a head closing the outer end of the other body member and co-acting with the first head and body members to provide a variable air chamber, springs extending through the chamber and connected at their ends to the heads to normally hold the body members in contracted position, one of said heads being provided with an air passage communicating with the chamber, and a valve carried by said head and movable to open and close said passage, said valve being perforated to permit slight escape of air from the chamber when the valve is closed.

4. A door check including tubular body members telescopically mounted one within the other, heads closing the outer ends of said body members and provided with transverse bores, springs connecting said heads, a valve mounted in one of the heads and controlling the passage of air into and out of an air chamber formed by the body members and heads, and brackets adapted for attachment to a door and door casing and provided with pintle pins adapted to engage through the bores of the heads.

5. A door check including tubular body members telescopically mounted one within the other, heads closing the outer ends of said body members and provided with transverse bores, springs connecting said heads, a valve mounted in one of the heads and controlling the passage of air into and out of an air chamber formed by the body members and heads, brackets adapted for attachment to a door and door casing and provided with pintle pins adapted to engage through the bores of the heads, a collar adjustably mounted upon the outer end of the inner body member, and means for clamping the collar in adjusted position upon said body member to limit the telescopic movement of the body members.

[Claims 6 to 8 not printed in the Gazette.]

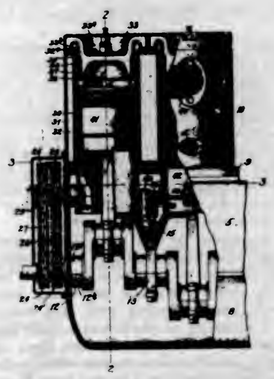
1,131,265. METHOD OF AND APPARATUS FOR THE MATCHING OF COLORS. MUNROE R. PEVEAR, Boston, Mass. Filed July 16, 1914. Serial No. 851,296. (Cl. 88—14.)



1. The method of matching colors which consists in projecting a color light beam of known color standard on to the sample under inspection, and comparing the color appearance thereof with a series of standard graded light absorption devices to determine the amount of said color appearance necessary to be eliminated to reduce said color appearance to the equivalent of said sample.

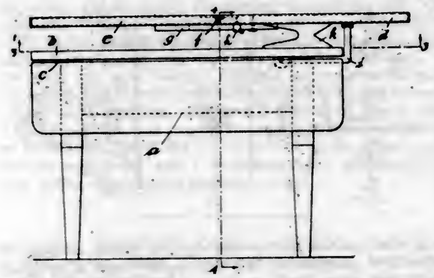
2. Apparatus for matching colors comprising means for producing a light beam of known color standard and a series of devices graded as to their capacity to absorb color from said light beam.

1,131,266. INTERNAL-COMBUSTION ENGINE. STANLEY A. PHILLIPS, Chicago, Ill. Filed Nov. 4, 1912. Serial No. 729,372. (Cl. 123—81.)



In an internal combustion engine, the combination with the cylinder, piston and crank shaft, of a valve sleeve concentric with said piston and cylinder, said cylinder having inlet and exhaust ports and said valve sleeve having ports, secondary shafts parallel with said crank shaft, a connecting rod having eccentric connection with said secondary shafts, and a link parallel with said connecting rod and pivoted to said connecting rod and said valve sleeve whereby said sleeve is given a combined oscillatory and longitudinal reciprocatory motion and said sleeve ports moved to coöperate with said cylinder ports to control the in-take and exhaust.

1,131,267. COMBINED TABLE AND IRONING-BOARD. ERNEST C. PRESCOTT, Haverhill, Mass., assignor to Prescott-Adams Table Co., Haverhill, Mass., a Corporation of Massachusetts. Filed Apr. 29, 1914. Serial No. 835,076. (Cl. 68—10.)



1. In combination with a table frame having a top pivoted thereon to permit it to be swung upwardly therefrom, an ironing-board pivotally connected to the frame at a point remote from that at which the top is pivoted to permit each to be swung out of the path of movement of the other when swung on its pivot, and means to support the board above the top in position for use, substantially as described.

2. In combination with a table frame having a movable top and a receiving-recess therebeneath, an ironing-board having a link connection with said frame arranged to permit said board to be swung longitudinally downward into said recess and upward above the level of the top, and means, independent of said links, for holding the board in horizontal position while supported thereby above said top, substantially as described.

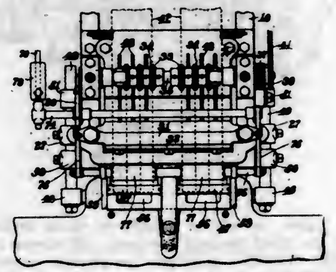
3. In combination with a table frame having a movable top and a receiving-recess therebeneath, an ironing-board having a link connection with said frame arranged to permit said board to be swung longitudinally downward into said recess and upward above the level of the top, a stop arranged to limit the downward swinging movement of said link connection beyond the highest point at which it is adapted to support the board, to provide a fixed point of support for one portion of the board above the table top, and means, interposed between the board and the top to provide another fixed point of support therefor, substantially as described.

4. In combination with a table frame having a movable top and a recess beneath said top, an ironing-board, a link pivoted to one end-portion of said board and to said frame constructed and arranged to permit the board to be swung downwardly into said recess and to be swung upwardly and supported thereby above the level of the board, and a support on the under side of the board arranged to rest on the table top, to hold the board in horizontal position, substantially as described.

5. In combination with a table frame having a top pivoted to one end thereof to swing upwardly therefrom and having a receiving-recess therebeneath, an ironing-board having a link connection between one end portion thereof and the opposite end of said frame and arranged to permit said top and said board to be swung upwardly away from each other and to be lowered either over the other, said link connection being arranged to extend about the free end of said top, when the latter is in lowered position, and above the same, to support the board at a distance above the level of the table top and to permit the board to be lowered into said recess when the top is raised, and means to hold the board against downward swinging movement on said link connection when in a horizontal position above the top, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,131,268. PRINTING-PRESS. GEORGE W. PROUTY, Dorchester, Mass. Filed Sept. 29, 1913. Serial No. 792,531. (Cl. 164—49.)



1. In a device of the class described, the combination of a stock feeding mechanism; mechanism for cutting said stock into strips; a removable receptacle into which the ends of said strips are fed; a vertically movable bottom for said receptacle frictionally supported therein; a knife mechanism for cutting from said strips sections of equal length; and means operable by said knife mechanism acting upon the strips on said bottom to move the latter with the strips thereon downwardly a predetermined distance.

2. In a device of the class described, the combination of a stock feeding mechanism; mechanism for cutting said stock into strips; a removable receptacle into which the ends of said strips are fed; a vertically movable bottom for said receptacle frictionally supported therein; a pivoted member operable by said knife mechanism for moving said bottom downwardly a predetermined distance after each feeding operation; and a knife mechanism for cutting from said strips sections of equal length.

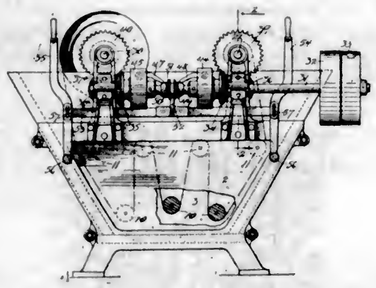
3. In a device of the class described, the combination of a stock feeding mechanism; mechanism for cutting said stock into strips; a removable receptacle into which the ends of said strips are fed; knife mechanism for cutting from said strips sections of equal length; a frictionally supported bottom for said receptacle; and a device operable by said knife mechanism acting upon the strips on said bottom to move the latter with the strips thereon downwardly a predetermined distance.

4. In a device of the class described, the combination of a stock feeding mechanism; mechanism for cutting said stock into strips; a removable receptacle into which the ends of said strips are fed; knife mechanism for cutting from said strips sections of equal length; a frictionally supported bottom for said receptacle; an adjustable support for said receptacle; means for positioning said receptacle thereon; and a device operable by said knife mechanism acting upon the strips on said bottom to move the latter with the strips thereon downwardly a predetermined distance.

5. In a device of the class described, the combination of a stock feeding mechanism; mechanism for cutting said stock into strips; a removable receptacle into which the ends of said strips are fed; knife mechanism for cutting from said strips sections of equal length; a frictionally supported bottom for said receptacle; an adjustable support for said receptacle; means for positioning said receptacle thereon consisting in part of a cam controlled lever the end of which normally abuts the front of said receptacle but is adapted to be moved from its path to permit the removal of said receptacle; and a device operable by said knife mechanism acting upon the strips on said bottom to move the latter with the strips thereon downwardly a predetermined distance.

[Claims 6 to 9 not printed in the Gazette.]

1,131,269. JIGGER FOR DYEING FABRICS AND SIMILAR PURPOSES. HOWARD L. QUICK, New York, N. Y. Filed Jan. 7, 1914. Serial No. 810,756. (Cl. 8—17.)



1. A jigger, embodying a tank, revoluble members for jigging the fabric through the tank, and means for operating the revoluble members, comprising a gear drive therefor, shafts for said revoluble members, the entire gear drive being mounted independent of said revoluble members and their shafts, and flexible connections between the gear drive and said shafts.

2. A jigger, embodying a tank, revoluble members for jigging the fabric through the tank, shafts therefor, and means for operating the revoluble members, comprising a drive shaft, gears for transmitting power from said drive shaft to each of said first shafts, said drive shaft and all of said gears being mounted independently of said revoluble members and their shafts, and flexible connections between said gears and the respective shafts of said revoluble members.

3. A jigger, comprising a tank, revoluble members for jigging the fabric through the tank, shafts therefor, supports for said shafts including bearing sleeves, and driving mechanism for said revoluble members, including a drive shaft, gears for operating said first shafts from said drive shaft, said drive shaft and all of said gears being mounted independently of said first shafts, and including gears revolving on said bearing sleeves, and flexible connections between said first gears and said first shafts.

4. A jigger, comprising a tank, revoluble members for jigging the fabric through the tank, shafts therefor, supports for said shafts, including bearing sleeves, driving mechanism for the revoluble members, including a drive shaft, gears for operating said first shafts from said drive shaft, all of said gears being mounted independently of said first shafts and the revoluble members and including gears revolving on said bearing sleeves, and flexible connections between said latter gears and said first shafts and comprising clutches for independently disconnecting said gears from the said first mentioned shafts.

5. A jigger, comprising a tank, revoluble members for jigging the fabric through said tank, shafts therefor, bearings, said shafts extending through said bearings, gears mounted to revolve on said bearings, clutches for connecting the gears to said shafts, a drive shaft and gears operated by said drive shaft for operating said first-mentioned gears.

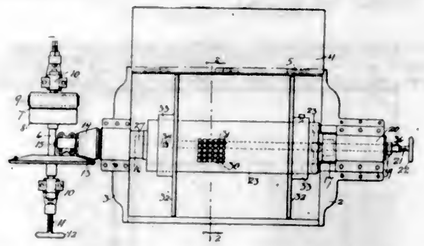
[Claims 6 and 7 not printed in the Gazette.]

1,131,270. METHOD OF TREATING FABRICS. HOWARD L. QUICK, New York, N. Y. Filed Jan. 7, 1914. Serial No. 810,757. (Cl. 8—5.)

1. The method of treating fabrics, which consists in winding a quantity of fabric in layers upon itself to form a roll, in introducing a treating liquor to the interior of the roll and in revolving the roll to force the liquor therethrough by centrifugal force.

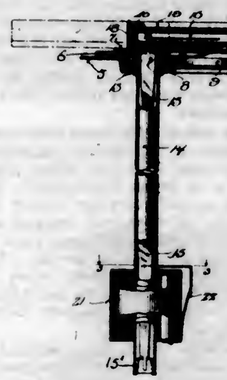
2. The method of treating fabrics, which consists in winding a quantity of fabric upon itself in layers under tension, to form a tight roll, in introducing a treating liquor to the interior of the roll and in revolving the roll to force the liquor therethrough by centrifugal force.

3. The method of dyeing fabrics, which consists in winding a quantity of fabric evenly in layers upon itself to form a roll, in introducing a dyeing liquor to the interior of the roll and in revolving the roll to force the liquor therethrough by centrifugal force.



4. The method of treating fabrics, which consists in winding a quantity of fabric in layers upon a perforate shell and upon itself to form a roll, in introducing a liquor to the interior of the shell, and in revolving the shell and roll to force the liquor through the fabric by centrifugal force.

1,131,271. TANK. MARTIN RASMUSSEN, Racine, Wis., assignor to Bartholomew C. Thronson, Racine, Wis. Filed Apr. 18, 1914. Serial No. 832,742. (Cl. 73—82.)



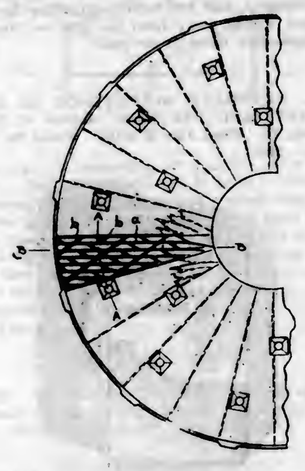
1. The combination of a filler-head of a tank having an opening therein, a removable cap for which the opening in the head is provided with a seat, and a liquid gage having a chart and pointer casing thereof in pivotal connection with said head and normally positioned over said cap.

2. The combination of a filler-head of a tank having an opening therein, a removable cap for which the opening in the head is provided with a seat, a spring latch on the cap, and a liquid gage having a chart and pointer casing thereof in pivotal connection with said head and normally positioned over said cap and in engagement with said latch.

3. The combination of a filler head of a tank having an opening therein, a removable cap for which the opening in the head is provided with a seat, a plug in said head, a casing in pivotal connection with the plug and normally positioned over said cap, a longitudinally slotted tube depending from said plug, a spiral-strip having pivot ends that turn in the plug and a bearing provided in the tube, a float guided on said tube, a spring arm with the float extending through the tube slot and notched to engage the spiral-strip, the extent of play of the float being predetermined by the length of said slot, a pointer on the upper end of the pivot-end of said strip, and a measuring-chart stationary in said casing opposite the pointer.

4. The combination of a filler-head of a tank having an opening therein, a removable cap for which the opening in the head is provided with a seat, a plug in said head, a separable glazed casing in pivotal connection with the plug and normally positioned over said cap, a longitudinally slotted tube in detachable depending connection with said plug, a spiral-strip having pivot ends that turn in the plug and in a bearing provided in the tube, a float guided on said tube, a spring arm on the float and extending through the tube slot and notched to engage the spiral-strip, extent of play of the float being predetermined by the length of said slot, a pointer fast on the upper pivot end of said strip, and a measuring-chart stationary in said casing opposite the pointer.

1,131,272. GRINDING-DISK. ROBERT A. REYNOLDS, Port Huron, Mich. Filed Nov. 30, 1914. Serial No. 874,599. (Cl. 83—3.)



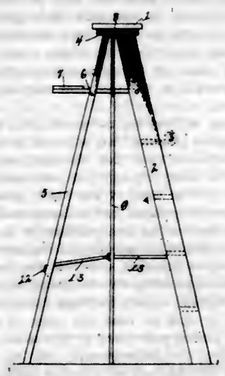
1. A grinding plate, having a face provided with a plurality of cutting ribs forming grooves and provided with a plurality of obliquely set baffles beveled at one end and having cutting edges.

2. A grinding plate, having a face provided with a plurality of ribs having cutting edges and forming grooves, and obliquely set baffles in the said grooves, provided with beveled ends at the ends toward the outside of the plate.

3. A grinding plate, having a face provided with ribs having cutting edges and forming grooves and baffles in the grooves, the alternate baffles of a groove being disposed with opposite obliquities with respect to the adjacent ribs and the ends of the baffles toward the outside of the plate being beveled, whereby a tortuous passage is formed in a groove.

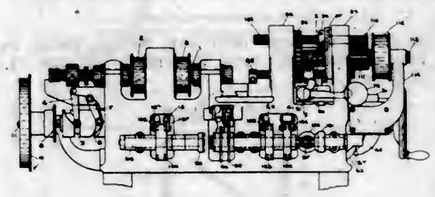
1,131,273. LADDER. WILLIAM H. RICE, Hamilton, Mich. Filed Oct. 24, 1911. Serial No. 656,433. (Cl. 228—15.)

A step ladder, supporting legs for said step ladder, lateral supports for said step ladder, arms pivotally connected with said step ladder and supporting legs, arms pivotally connected with said lateral supports, a pivot pin for one set of arms having its outer ends provided



with eyes, and eye members carried by the second set of arms and pivotally mounted in the eyes of said pivot pin.

1,131,274. SCREW-MACHINE. CHARLES A. RICH, Providence, R. I., assignor to Brown & Sharpe Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 2, 1911. Serial No. 647,307. (Cl. 29—41.)



1. A screw machine having in combination a main slide, a tool carrying auxiliary slide mounted on said main slide, and means for imparting a quick return movement to said auxiliary slide.

2. A screw machine having in combination a main slide, a tool carrying auxiliary slide mounted on said main slide, means for advancing said auxiliary slide, and means for imparting a quick return movement to said auxiliary slide.

3. A screw machine having in combination a main slide, a tool carrying auxiliary slide mounted on said main slide, means for advancing both of said slides, and means for imparting a quick return movement to said auxiliary slide.

4. A screw machine having in combination a main slide, a tool carrying auxiliary slide mounted on said main slide, and means mounted upon said main slide adapted to effect a quick return movement of said auxiliary slide.

5. A screw machine having in combination a main slide, an auxiliary slide, means for advancing said slides, a spring acting upon said auxiliary slide tending to return the same, and means for controlling the action of said spring.

[Claims 6 to 56 not printed in the Gazette.]

1,131,275. PRODUCTION OF SHEETED RUBBER STOCK. CHARLES H. ROPER, Belmont, Mass., assignor to Hood Rubber Company, Boston, Mass. Filed Oct. 25, 1909, Serial No. 524,512. Renewed May 20, 1912. Serial No. 698,630. (Cl. 18—48.)

1. The herein described method of manufacturing articles of sheet rubber, having different wearing qualities which consists in simultaneously forming a plurality of

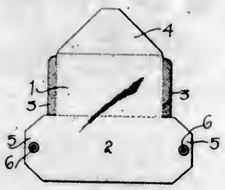
sheets from a plurality of rubber stocks having different wearing qualities and uniting said sheets by pressure into a single integral sheet with the line or lines of juncture of the separate sheets in straight lines disposed longitudinally of the composite sheet, and subsequently cutting the articles from such sheet in such a manner that the portions of the sheet of better wearing qualities are disposed in each article at the point or points which receive the greatest wear.

2. The process of forming cut-soles for rubber boots or shoes, consisting in passing two or more batches of rubber compound of different qualities through calender rolls at the same time so that the edge of one quality will overlap and be forced into that of the other quality for forming one homogeneous sheet and subsequently cutting the sheet into outsoles having one portion of a quality different from that of the other portion of the sole.

3. The process of forming outsolea for rubber boots or shoes consisting of passing two or more batches of rubber compound of different colors through calender rolls at the same time side by side so that the edge of one color will overlap and be forced into that of the other, forming one homogeneous sheet and subsequently cutting the sheet into outsoles having one portion of a collar different from that of the rest of the outsole.

4. The process of forming outsoles for rubber boots or shoes consisting of passing two or more batches of rubber compound of different qualities and colors through calender rolls at the same time so that the edge of one quality and color will overlap and be forced into that of the other, forming one homogeneous sheet having different portions of different qualities and colors, and subsequently cutting the sheet into out-soles having one portion of a different quality and color than the other portion of the sole.

1,131,276. ENVELOP. EDMUND D. SANXAY, Yerkes, Pa. Filed Nov. 25, 1914. Serial No. 874,024. (Cl. 229—74.)

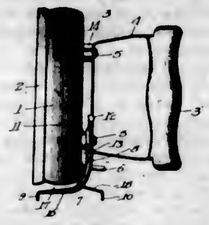


An envelop including a substantially rectangular body having each end thereof bent inwardly to form end portions, a longitudinal strip formed integral with one side of the body and adapted to fold inwardly upon the body and be secured to the end members to form the back portion of the envelop, said back portion having its ends extended beyond the ends of the body and provided with reinforced openings, a closure flap formed integral with the side of the body opposite the back portion and adapted to be folded over on to the back portion, and a cord adapted to be extended through the openings and passed around the package to which the envelop is applied, as and for the purpose set forth.

1,131,277. FLAT-IRON. ROBERT P. SHANNON, Chicago, Ill., assignor to Charles R. Barrett, Chicago, Ill. Filed Apr. 1, 1914. Serial No. 828,710. (Cl. 68—26.)

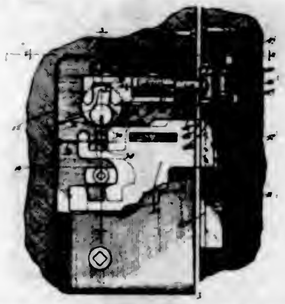
1. The combination with a flat iron and a handle therefor secured to the iron by a screw passing through the same and into the iron near the rear portion thereof, of a supporting bracket having a forwardly extending part provided with an opening to receive the said screw and an offset part to space the bracket away from the iron, said bracket having rearwardly extending feet spaced away from the iron to form a rest for the same when tilted upon its rear edge.

2. In combination with an electric flat iron having a handle and a plurality of electric terminals projecting upwardly from the iron at the rear of the handle, of a supporting bracket perforated to overlie said terminals without contact therewith and having outwardly extending feet spaced apart from the iron, and a common means for attaching the handle and bracket to the iron.



3. The combination with an electric flat iron, of a handle therefor secured to the iron by a screw passing through the same and into the iron near the rear portion thereof, a plurality of electric terminals projecting upwardly from the iron at the rear of the handle, a supporting bracket having a forwardly extending part provided with an opening to receive the said screw and an offset part to space the bracket away from the iron, said support having perforations to overlie the said terminals without contact therewith and rearwardly extending feet on the said bracket spaced away from the iron to form a rest for the same when tilted to the rear.

1,131,278. AUTOMATIC SUPERVISION OF SERVICE IN HOTELS AND THE LIKE. HENRY W. SKINNER, Maywood, Ill. Filed July 5, 1913. Serial No. 777,412. (Cl. 177—203.)



1. The combination with a door having a lock, of signal initiating means comprising a part movable in response to locking and unlocking of the door, and a latch for said part controlled by the bodily movments of the door.

2. In a device of the character described, the combination with a door, its frame, and a door lock, of a service bolt operating oppositely to the door lock, a signal initiating part movable to operative position by projection of said bolt, and a latch therefor controlled by the swinging movements of the door.

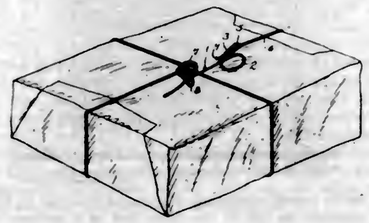
3. In a device of the character described, the combination with the door, frame, and door lock, of a service bolt operable oppositely to the lock-bolt, for projection when the door is unlocked, a lever carried by the frame and movable to one position by the projection of the bolt, and a latch for holding said lever in the position to which it is so moved, controlled by the door movements, said latch being disabled while the door is closed, and made operative by the movement of said latch accompanying the opening of the door.

4. Signaling means of the character described, comprising, in combination with a door, its lock, and a frame; a key operated service bolt arranged to be projected when the locking bolt is withdrawn, a coöperating lever carried by the door frame and movable to acting position by the projection of the service bolt, and a latch for holding said lever in active position, disabled by the service bolt while the latter is in the position which it occupies while the door is closed, and arranged to latch said lever when the service bolt is swung out of engagement with the latch by the swinging movement of the door.

5. Means of the character described, comprising a service bolt operable for projection from the door when the lock is unlocked, a movable part on the door frame, movable by the projection of the bolt, a switch controlled by said movable part, a latch for locking said movable part in switch closing position, said latch movable to latching or unlatching position in harmony with the swinging movements of the service bolt when the latter swings with the door.

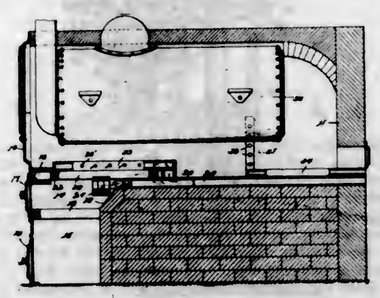
[Claims 6 to 11 not printed in the Gazette.]

1,131,279. PACKAGE-TIE. WILLIAM H. SLAWSON, Dayton, Tenn. Filed Apr. 10, 1914. Serial No. 830,969. (Cl. 24—18.)



A package tie consisting of a single piece of spring wire being first bent at one end to form a hook and then bent intermediate its ends to form a single loop, said wire being also bent adjacent its other end to form a plurality of coils disposed on the opposite side of the bent portion of the wire as compared with the large loop and being smaller than the large loop and a plurality of coils formed adjacent said last named coil and disposed in a plane at right-angles to the last named coil to one side thereof in an angular plane with relation to the last named coil.

1,131,280. SMOKE-CONSUMER. SAVILLE SMITH and HERBERT LANGTON, Philadelphia, Pa. Filed June 2, 1914. Serial No. 842,427. (Cl. 110—73.)

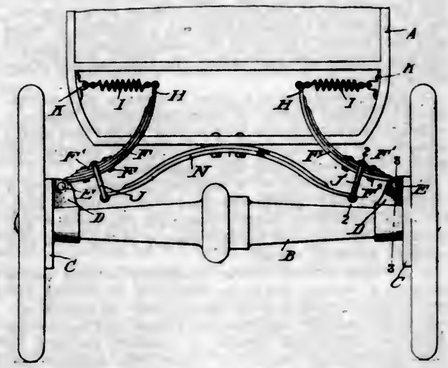


1. In boiler furnace construction, the combination with a fire pit and bridge wall, of an air tube opening out of the furnace at the rear and terminating at its forward end in a fan shaped enlargement at the front of the bridge wall, a rear arch disposed in front of the bridge wall and open at its front and back for the passage of air from the fan shaped extension of the air tube, and a plurality of partition members in the arch.

2. In boiler furnace construction, the combination with a fire pit and bridge wall, of an air tube opening out of the furnace at the rear and terminating at its forward end in a fan shaped enlargement at the front of the bridge wall, a rear arch disposed in front of the bridge wall and open at its front and back for the passage of air from the fan shaped extension of the air tube, and a plurality of partition members in the arch, said members extending from front to rear to form passageways.

3. In boiler furnace construction, the combination with a fire pit and bridge wall, of an air tube opening out of the furnace at the rear and terminating at its forward end in a fan shaped enlargement at the front of the bridge wall, a rear arch disposed in front of the bridge wall and open at its front and back for the passage of air from the fan shaped extension of the air tube, and a plurality of partition members in the arch, said members extending from front to rear to form passageways, certain of the said members being broken away intermediate their length to provide communication between the passageways thus formed.

1,131,281. VEHICLE SPRING SUSPENSION. THOMAS H. SPARKS, Wichita, Kans. Filed Aug. 26, 1914. Serial No. 858,726. (Cl. 21—101.)

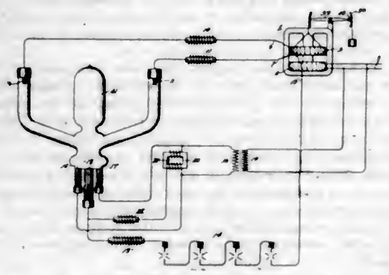


1. An apparatus for taking up vibrations and preventing swaying of vehicle bodies, comprising, in combination with an axle and body of the vehicle, projections upon the axle, leaf springs connected to said projections, hangers pivotally mounted one upon each leaf spring and having apertured ends, resilient connections between the upper ends of the leaf springs and the side walls of the body of the vehicle, springs secured to the bottom of the body and supported at their ends upon said hangers.

2. An apparatus for taking up vibrations and preventing swaying of vehicle bodies, comprising, in combination with an axle and body of the vehicle, projections upon the axle, leaf springs connected to said projections, a hanger pivotally mounted upon said springs and having apertured ends positioned one upon each side of the axle, springs secured to the body of the vehicle, one upon either side of the axle and engaging an apertured end of the hanger.

3. An apparatus for taking up vibrations and preventing the swaying of vehicle bodies, comprising in combination with an axle and body of a vehicle, hub flanges upon the axle, leaf springs having their lower outer ends connected to said hub flanges, staple-shaped hangers pivotally mounted one upon each leaf spring and having apertured ends, coiled springs connecting the upper ends of the leaf springs with the opposite sides of the body of the vehicle, and supporting springs secured to the bottom of the body and having their ends secured in the apertures of said staple-shaped members, as set forth.

1,131,282. CONSTANT-CURRENT RECTIFIER SYSTEM. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 23, 1905. Serial No. 261,868. (Cl. 171—253.)



1. In a system of electrical distribution, the combination of a source of constant potential alternating current, a transformer connected thereto and adapted to deliver current of varying potential from its secondary, a single phase vapor rectifier connected to said transformer secondary, reactances for maintaining said rectifier conductive for currents of one direction, a series circuit containing a plurality of translating devices, a reactance in series with said devices, and means for passing current from said rectifier through said last named reactance and said translating devices.

2. The combination of a vapor rectifier, a high voltage constant current source for supplying current thereto, a constant potential alternating current circuit and means connected to said circuit for rendering said rectifier conductive for current from said transformer.

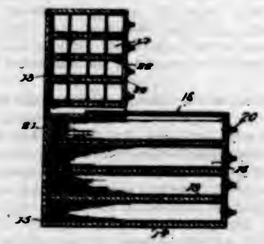
3. The combination of a constant potential circuit, a constant current transformer connected thereto, a rectifier tube supplied by current from said transformer, and means for exciting said rectifier tube by energy from said constant potential circuit.

4. A vapor rectifier having a mercury cathode and a plurality of anodes, means for supplying alternating current to said anodes and for maintaining the supply substantially constant, supplemental anodes, and means for supplying alternating current at constant potential to said supplemental anodes to render the rectifier conductive.

5. The combination of a transformer having relatively movable coils, a source of constant potential for supplying current to one of said coils, a vapor rectifier connected to the other of said coils, a tap at or near the center of said last named coil, a constant current series circuit connected between said tap and said vapor rectifier and a reactance device in said circuit.

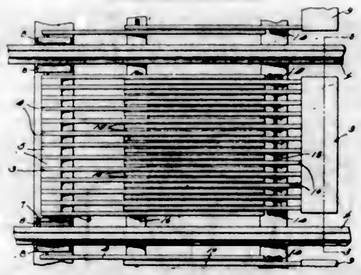
[Claims 6 to 12 not printed in the Gazette.]

1,131,283. MERCHANDISE-CABINET. CHARLES F. STEWART, Nashville, Kans. Filed Sept. 23, 1913. Serial No. 791,351. (Cl. 211—7.)



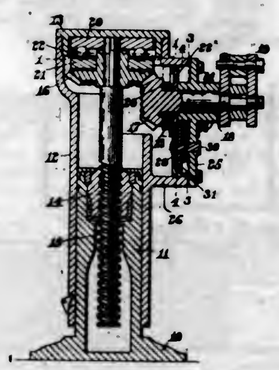
A cabinet including side walls and a transparent front wall and being formed with a lower compartment and a reduced upper compartment, partition walls carried by the upper compartment adjacent the lower compartment, said partition walls being arranged in spaced relation, drawers mounted in said compartments and including end walls adapted to bear indicia visible through said transparent front wall, and a removable transparent closure for the lower compartment, the contents of the drawer mounted in said lower compartment being visible through said closure, said closure resting upon the adjacent upper edges of the side walls of the cabinet and being reduced at one extremity and disposed between the partition walls carried by the reduced upper compartment and supported at said end by one of said walls.

1,131,284. CATTLE-GUARD. FERNAND A. STIEVENARD, Grand Forks, British Columbia, Canada. Filed Sept. 29, 1914. Serial No. 864,141. (Cl. 39—42.)



A cattle guard consisting of a guard element to be pivoted adjacent to one of the cross ties of a railway track and being normally in down position, below the level of the top of the rails of the track, an operating member pivoted at one end to said guard element at a point intermediate the ends of said guard element, a pivot rod extending through the other end of said operating member, longitudinally slotted guide blocks adapted to be secured to an adjacent cross tie and slide blocks secured to the ends of said pivot rod and being slidably mounted within said guide blocks.

1,131,285. LIFTING-JACK. JOSEPH O. ST. PIERRE, Boston, Mass. Filed Mar. 4, 1912. Serial No. 681,661. (Cl. 254—103.)

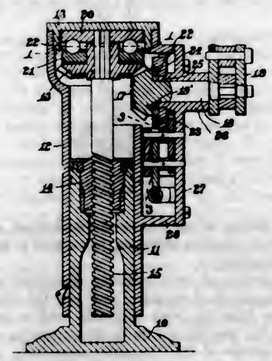


1. In a quick action self lowering jack, the combination of a stationary member, a movable member, a revoluble member for raising and lowering said movable member, a shaft, a gearing having a low ratio of speed reduction transmitting motion from said shaft to the revoluble member, an extended train of gears having a high ratio of speed multiplication and adapted to act as a speed controller and retarder, a pawl and ratchet drive between said shaft and the low speed end of said multiplying gearing, and a freely and manually controllable friction member driven by the high speed end of said multiplying gearing, substantially as described.

2. In a quick action self lowering jack, the combination of a stationary member, a movable member, a revoluble member for raising and lowering said movable member, a shaft, gears having a low ratio of speed reduction which connect said shaft and revoluble member, an extended train of spur gears designed and adapted to produce a high ratio of speed multiplication and to act as a speed controller and retarder, a gear casing in which said gears are mounted, a pawl and ratchet drive between said shaft and multiplying gearing to disconnect the latter from the shaft when the latter is turned to raise the jack, a friction disk driven by the high speed end of said multiplying gearing and exposed to be controlled by hand, and brake means adjustable to positively engage said friction disk, substantially as described.

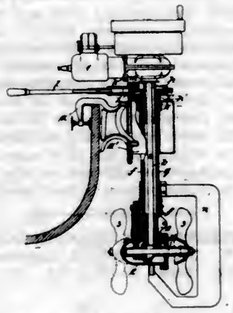
3. In a quick action self lowering jack, the combination of a stationary member, a movable member, a revoluble member for raising and lowering said movable member, a shaft, a driving connection between said shaft and revoluble member, an extended train of gears, a pawl and ratchet driving connection between the low speed end of said train of gears and parts movable with said movable member and adapted to drive said train of gears only during the descent of said revoluble member, said gears having a sufficiently high ratio of speed multiplication to substantially retard by its inertia the speed of descent of said movable member, a friction brake element driven by the high speed end of said train of gears, and a freely and manually adjustable brake which co-acts with said friction element, substantially as described.

1,131,286. LIFTING-JACK. JOSEPH O. ST. PIERRE, Boston, Mass. Filed Sept. 4, 1912. Serial No. 718,757. (Cl. 254—103.)



In a quick action self lowering jack, the combination of a stationary member, a movable member, a revoluble member for raising and lowering said movable member, a shaft, a gearing having a low ratio of speed reduction and serving as a driving connection between said shaft and revoluble member, a second train of gearing comprising a train of spur gears designed and arranged to afford a high ratio of speed multiplication and a worm gearing connected at the high speed end of said train of spur gears, said worm gearing comprising a worm wheel and a worm having its threads pitched to permit the jack to start automatically to descend under its own load when its brake is released, a pawl and ratchet drive between the low speed end of said train of spur gears and said shaft which automatically disconnect the spur gears from the shaft when the latter is turned to lift the jack, and a friction brake means driven by the worm, substantially as described.

1,131,287. STEERING AND PROPELLING MECHANISM FOR VESSELS. ERNST STÖCKEMANN, Berlin, Germany. Filed Aug. 16, 1913. Serial No. 785,060. (Cl. 115—18.)



1. A device of the character described comprising a vertically disposed driving shaft, a tubular shaft rotatably surrounding the same, a casing fast on the tubular shaft, a propeller journaled in the casing and intergeared with the driving shaft, said propeller being adapted to impart a rotary movement to the casing and to the tubular shaft, means for checking said rotary movement, an additional tubular shaft surrounding the first named tubular shaft, and a rudder carried by said additional shaft.

2. A device of the character described, comprising a vertically disposed driving shaft, an inner tubular shaft rotatably surrounding the same, a casing fast on the lower end of the inner tubular shaft, a propeller journaled in the casing and intergeared with the driving shaft, a first coupling member on the upper end of the inner tubular shaft, an outer tubular shaft encompassing the inner tubular shaft, a rudder carried by the outer tubular shaft, a housing on the upper end of the outer tubular shaft, a tiller engaging said housing, and a second coupling member on said tiller.

3. In a propelling and steering device for vessels, a motor, a vertically disposed driving shaft rotatable by said motor, a horizontally disposed propeller shaft, a propeller secured thereon, intermeshing gear wheels on said driving and propeller shafts, a casing wherein said propeller shaft is journaled, a tubular shaft secured to said casing, arranged concentrically with said vertical driving shaft and rotatable relatively thereto, a disk secured to the upper end of said hollow shaft, stops provided on the upper and on the lower side of said disk diametrically opposite to each other, a tiller adapted to be rotated about its own axis, and also about the axis of said driving and tubular shafts, said tiller being provided with a fork adapted by the rotation of the tiller about its axis to be brought into engagement with one or other of said stops.

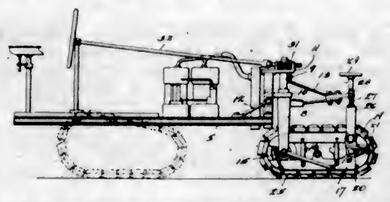
4. In a propelling and steering device for vessels, a motor, a vertically disposed driving shaft rotatable by said motor, a horizontally disposed propeller shaft, a propeller secured thereon, intermeshing gear wheels on said driving and propeller shafts, a casing wherein said propeller shaft is journaled, a tubular shaft secured to said casing, arranged concentrically with said vertical driving shaft and rotatable relatively thereto, a disk secured to the upper end of said hollow shaft, stops provided on the upper and on the lower side of said disk diametrically opposite to each other, a tiller adapted to be rotated about its own axis, and also about the axis of said driving and tubular shafts, said tiller being provided with a fork adapted by the rotation of the tiller about its axis to be brought into engagement with one or the other of said stops, a suspension block whereon said propelling and steering device is suspended, and a clamping device carried by said suspension block whereby said block can be clamped to a vessel to be propelled and steered.

5. In a propelling and steering device for vessels, a

motor, a vertically disposed driving shaft rotatable by said motor, a horizontally disposed propeller shaft, a propeller secured thereon, intermeshing gear wheels on said driving and propeller shafts, a casing wherein said propeller shaft is journaled, a tubular shaft secured to said casing, arranged concentrically with said vertical driving shaft and rotatable relatively thereto, a rudder plate secured to said tubular shaft, a disk secured to the upper end of said hollow shaft, stops provided on the upper and on the lower side of said disk diametrically opposite to each other, a tiller adapted to be rotated about its own axis, and also about the axis of said driving and tubular shafts, said tiller being provided with a fork adapted by the rotation of the tiller about its axis to be brought into engagement with one or other of said stops.

[Claims 6 to 12 not printed in the Gazette.]

1,131,288. STEERING MECHANISM FOR TRACTION-MACHINES. WILLIAM STRAIT, Appleton, Wis. Filed Nov. 9, 1912. Serial No. 730,473. (Cl. 21—114.)



1. In a traction machine, the combination of a frame having an upwardly arched front end, bearings carried by said front end, a main fork revolubly mounted in the bearings, an axle carried by the fork, a forward strut carried by the fork, a front axle depending from the strut, a belt wheel on each of the axles, and a tractor belt passing around the wheels.

2. In a traction machine, the combination of a frame, upwardly arched front members thereon, bearings extended forward from said arched members, a main fork pivoted in the bearings, an axle and sprocket carried by said fork, radius members extending forward from the axle, a front axle carried by said radius members, a lifting fork connected to said radius members, a strut extending forward from the main fork, a screw connected with the lifting fork and engaging a nut carried by the strut for lifting the front end of the radius members, a sprocket carried by the front axle, and a tractor belt passing around the sprockets.

3. In a traction machine, the combination of side frame members, upwardly arched front members connected to said side members, bearings extended forward from said front members and a steering tractor pivotally carried in said bearings.

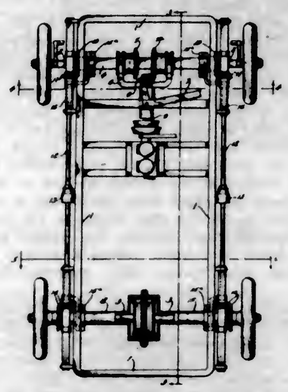
4. In a traction machine, the combination of side frame members, upwardly arched front members connected to the side members, a main fork pivoted to said front members, a sprocket carried by said fork, another sprocket forward of the one first mentioned, a forward strut carried by said fork and a lifting fork connected to said strut.

5. In a traction machine, the combination of side frame members, upwardly arched front members connected to the side members, a main fork pivoted to said front members, a sprocket carried by said fork, another sprocket forward of the one first mentioned, a forward strut carried by said fork, a lifting fork connected to said strut, and radius members connecting the axes of the two sprockets.

[Claims 6 to 10 not printed in the Gazette.]

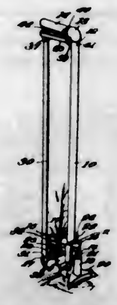
1,131,289. AUTOMOBILE. VICTOR ADOLPH STROM, Hoffman, Minn. Filed May 13, 1914. Serial No. 838,232. (Cl. 21—90.)

In a power propelled vehicle, a frame, a front axle therefor, a rear axle, a sleeve loose upon said front axle, a sleeve disposed about said rear axle, sliding gears secured to said front axle sleeve, manually operable control



for said gears, a power shaft capable of engaging either of said gears, and transmission mechanism connecting said front and rear axle sleeves.

1,131,290. STALK-PULLER. ENOCH H. STUDEBAKER, Waverly, Va., assignor of one-half to John L. Birdsong, Kenbridge, Va. Filed Aug. 12, 1913. Serial No. 784,462. (Cl. 55—65.)



1. In a device of the character described, a body member, a pair of coacting gripping jaws, and a spring-pressed tamping member.

2. In a device of the character described, a body member, a spring-pressed tamping foot carried thereby, a pair of co-acting gripping jaws normally held in open position, and means for moving the jaws into gripping relation.

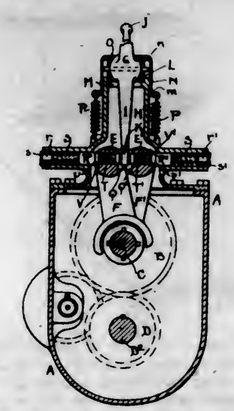
3. In a device of the character described, a body member, a head member movably attached thereto, a spring-pressed tamping foot mounted on the head member, a pair of co-acting gripping jaws carried by the head member and normally disposed in open position, and means for moving the jaws into gripping relation.

4. In a device of the character described, a body member, a spring pressed tamping foot carried thereby, a pair of co-acting gripping jaws mounted on the head member, said tamping foot being adapted to antomatically and simultaneously move downwardly upon the forward movement of the body member.

5. In a device of the character described, a body member, a spring-pressed tamping foot, and a pair of co-acting gripping jaws, the first of said jaws being fixedly mounted and the second of said jaws being pivotally mounted, and means for varying the normal space comprehended between the jaws when in open position.

[Claims 6 to 14 not printed in the Gazette.]

1,131,291. CHANGE-SPEED GEARING. HORACE T. THOMAS, Lansing, Mich. Filed June 11, 1914. Serial No. 844,398. (Cl. 74—39.)



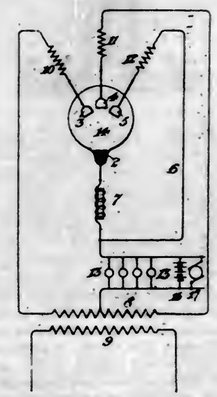
1. In a change-speed gearing, the combination of the rods E and E¹ adapted to reciprocate in parallel adjacent paths, said rods having adjacent faces provided with slots Q, Q¹ adapted to register, a lever movable in a plane parallel to the motion of said rods and in a plane at right angles to the same, adapted to engage in one or the other of said slots, said rods having apertures U, U¹ therein extending transversely of the same, pins T and T¹ adapted to reciprocate in said apertures, stationary bearings, and pins Rr, R¹r¹ adapted to reciprocate in stationary bearings and engage in said apertures, a pin T or T¹ respectively being adapted to be actuated by said lever when moved toward the side of said pin to displace the pin Rr or R¹r¹ respectively from its aperture while permitting the other of said last mentioned pins to engage in the other of said apertures.

2. In a change-speed gearing, the combination of the rods E and E¹ adapted to reciprocate in parallel adjacent paths, said rods having adjacent faces provided with slots Q, Q¹ adapted to register, a lever movable in a plane parallel to the motion of said rods and in a plane at right angles to the same, adapted to engage in one or the other of said slots, said rods having apertures U, U¹ therein extending transversely of the same, pins T and T¹ adapted to reciprocate in said apertures, stationary bearings, and pins Rr, R¹r¹ adapted to reciprocate in stationary bearings and engage in said apertures, a pin T or T¹ respectively being adapted to be actuated by said lever when moved toward the side of said pin to displace the pin Rr or R¹r¹ respectively from its aperture while permitting the other of said last mentioned pins to engage in the other of said apertures, said rods being provided with surfaces e, e¹ for the pins Rr, R¹r¹ to travel on, said rods having the surfaces W W¹ at the ends of the surfaces e, e¹ adapted to be engaged by the pins Rr, R¹r¹.

3. In a change-speed gearing, the combination of the rods E and E¹ adapted to reciprocate in parallel adjacent paths, said rods having adjacent faces provided with slots Q, Q¹ adapted to register, a lever movable in a plane parallel to the motion of said rods and in a plane at right angles to the same, adapted to engage in one or the other of said slots, said rods having apertures U, U¹ therein extending transversely of the same, stationary bearings, and pins T and T¹ adapted to reciprocate in said apertures, pins Rr, R¹r¹ adapted to reciprocate in stationary bearings and engage in said apertures, a pin T or T¹ respectively being adapted to be actuated by said lever when moved toward the side of said pin to displace the pin Rr or R¹r¹ respectively from its aperture while permitting the other of said last mentioned pins to engage in the other of said apertures, said rods being provided with surfaces W and W¹ adapted to be engaged by the pins Rr, R¹r¹, for the purpose described.

4. In a change-speed gearing, the lever GJI having a ball G at its center, a stationary ring L, a ring O, a cap N extending over the ring O and springs P, P drawing upon said cap to force the ring O against said ball and the ball against the ring L.

1,131,292. VAPOR-CONVERTER AND CIRCUITS THEREFOR. PERCY H. THOMAS, Montclair, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Apr. 25, 1905, Serial No. 257,302. Renewed June 21, 1910. Serial No. 568,170. (Cl. 171—253.)



1. A vapor electric apparatus provided with main positive electrodes, a common negative electrode, and a supplemental positive electrode, in combination with an alternating current source and circuits connecting the apparatus thereto, the said circuits including an inductance, and a shunt circuit including the said inductance and also including the common negative electrode, the supplemental positive electrode and an interposed impedance.

2. In a system of electrical distribution, the combination with a vapor rectifier including an hermetically sealed and completely exhausted container and a plurality of electrodes therein, one at least of which is a vaporizable reconstructing cathode, a work circuit and suitable connections therefor, of means for storing energy at times of abundant supply and a supplementary circuit including an auxiliary anode for discharging energy thus stored through the said container, and means in said last named supplementary circuit to divide the stored energy between the normal circuit and the supplementary circuit.

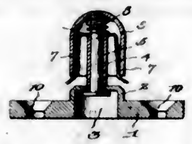
3. The combination with an alternating supply, an hermetically sealed and completely exhausted container, a plurality of anodes and a vaporizable reconstructing cathode therein, an inductance connected in the lead to the cathode and connections between said inductance and the source, of an impedance connected between an anode and that terminal of the inductance remote from that connected to the cathode.

4. In a system of electrical distribution, the combination with a vapor rectifier, including an exhausted container, a plurality of anodes and a vaporizable reconstructing cathode therein, a work circuit having a counter-electro-motive-force and suitable connections between these parts including an alternating electric supply, of means for storing electrical energy, said means being electrically adjacent the negative electrode and a circuit in shunt to said storage means and the negative electrode, said circuit including an anode in said rectifier, and means located in said shunt circuit adapted to cause the energy stored at times of abundant supply to divide between the normal circuit and the shunt circuit while this energy exceeds a certain minimum.

5. The combination with an alternating supply, an hermetically sealed and completely exhausted container, a

plurality of anodes and a vaporizable reconstructing cathode therein, an industance connected in the lead to the cathode and connections between said inductance and the source, of a resistance connected between an anode and that terminal of the inductance remote from that connected to the cathode.

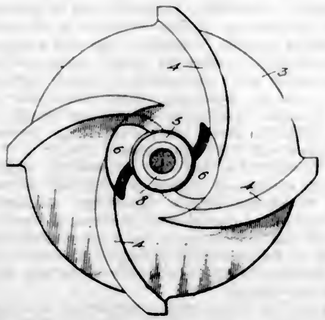
1,131,293. CURTAIN-FASTENER. JOHN WALKER TILTON, Atlantic City, N. J. Filed Oct. 14, 1913. Serial No. 795,120. (Cl. 24—213.)



1. A curtain-fastener, comprising an attaching-plate provided with an integral, hollow boss having a central aperture, a tubular post fitted to the apertured boss, a spring-arm spider seated upon the tubular post, and a headed operating-rod slidable in the tubular post, and a spring-pressed cap secured to the slidable rod, and adapted when operated to force the arms of the spider inward, so as to permit an object confined between the ends of the spring-arms and the hollow boss to be released.

2. A curtain-fastener, comprising an attaching-plate provided with an integral, hollow boss having a central aperture, a sleeve attached to the apertured boss, a spring-arm spider seated upon the sleeve, a movable rod operative through the sleeve and spider, a cap secured to the movable rod, said cap adapted when operated to force the spring-arms of the spider inward to release the curtain confined between the ends of said arms and the hollow boss, means for limiting the movement of the rod in one direction, and a spring interposed between the spider and cap for returning said rod and cap to normal position.

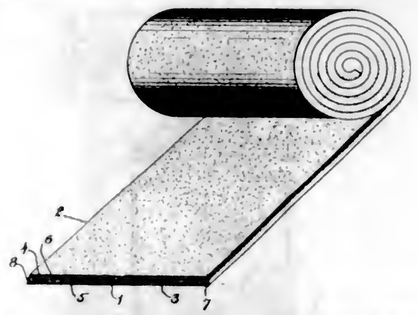
1,131,294. ROTARY RUNNER FOR ROTARY AND CENTRIFUGAL PUMPS. JOHN A. TRAYLOR, Denver, Colo. Filed June 17, 1913. Serial No. 774,178. (Cl. 103—43.)



A balanced runner for centrifugal pumps comprising a web portion, a hub portion, water lifting blades extending from a short distance from said hub portion to and beyond the periphery of said web portion, said web portion being provided with water passageways between its hub portion and the adjacent ends of said water lifting blades.

1,131,295. SURGICAL SPLINT. MAXIMIN D. TOUART, New York, N. Y. Filed Dec. 14, 1912. Serial No. 736,682. (Cl. 128—3.)

1. A surgical splint comprising three or more layers of woven fabric of organic material such as gauze secured in place one above another with intervening layers of plaster of Paris or equivalent hardening material carried by and between said layers of woven fabric.



2. The combination of three or more strips of fabric folded lengthwise to form each two layers of fabric secured together along the line of folding, one strip being stitched to another strip along the line of folding common to both, and a third strip being stitched to the first strip at one of its edges, one layer of each strip lying directly above a layer of another strip, and plaster of Paris or equivalent hardening material carried by and between the layers.

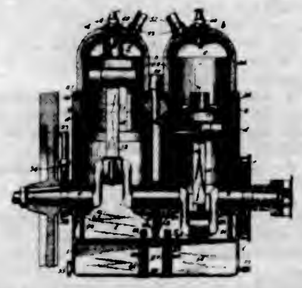
3. A surgical splint comprising a plurality of strips of fabric folded lengthwise to form each two layers of fabric secured together along the line of folding, one layer of each strip lying directly above a layer of another strip, and plaster of Paris or equivalent hardening material carried by and between the layers.

4. A surgical splint comprising a plurality of strips of woven fabric of organic material stitched together and folded along the line of stitching to form a plurality of layers thereof, one above another, and plaster of Paris or equivalent hardening material between said layers.

5. A surgical splint comprising a plurality of strips of woven fabric of organic material stitched together along two longitudinal substantially parallel lines, said strips being folded along the lines of stitching to form a plurality of layers thereof one above another, and plaster of Paris or equivalent hardening material between said layers.

[Claims 6 to 8 not printed in the Gazette.]

1,131,296. INTERNAL-COMBUSTION ENGINE. WILLARD IRVING TWOMBLY, New York, N. Y., assignor to Twombly Motors Company, New York, N. Y., a Corporation of New York. Filed Dec. 18, 1911. Serial No. 666,617. (Cl. 123—52.)



1. In a two cycle internal combustion engine, the combination of a crank case; a piston cylinder fixed to said case; fuel intake and exhaust ports in the cylinder; a crank shaft journaled in said case; and a piston in the cylinder connected to the crank shaft controlling the opening and closing of the ports, said piston separating the cylinder into a combustion chamber and a fuel pumping chamber, and said piston with the crank case constituting an air pumping and compression chamber; a port in the piston; and a by-pass port in the cylinder with which the piston port communicates to connect the air pumping chamber with the combustion chamber when the piston uncovers the exhaust port in the cylinder, substantially as and for the purpose specified.

2. The combination of a crank case separated into a pair of compartments; a crank shaft journaled therein; a pair of piston cylinders fixed to said crank case; pistons in said cylinders connected to the crank shaft; said pistons separating the cylinders into superposed combustion chambers having fuel-intake and exhaust ports adapted to be uncovered by the pistons as they approach the end of their outward strokes, and fuel-pumping chambers connected with the fuel supply and with the combustion chambers of their companion cylinders, and said piston with the crank case constituting air pumping and compression chambers having valved air-inlets; a port in the pistons; and by-pass ports in the cylinders with which the piston ports coöperate to open communication between the combustion chambers and their associated air pumping chambers in the crank case as the exhaust ports of the combustion chambers are uncovered by the pistons and previcus to the uncovering of the inlet ports in said chambers, whereby to expel the burnt gases from the combustion chambers by means of the compressed air from the air chambers.

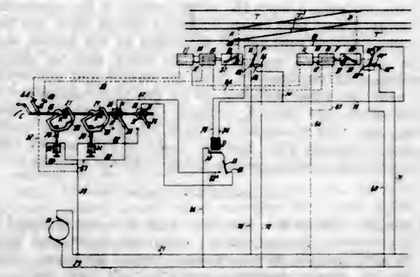
3. In an internal combustion engine, the combination of a crank case having two compartments; a crank shaft journaled in said case; a pair of cylinders fixed to the crank case so that one compartment of the crank case will communicate with one cylinder and have no communication with the other compartment and cylinder, and each of the cylinders having an enlarged portion toward the crank case; duplex pistons for the cylinders, said pistons separating the cylinders into combustion chambers and fuel-pumping chambers, and said piston with the compartments in the crank case constituting air pumping and compression chambers; means connected with the source of fuel supply to connect the fuel-pumping chambers with the combustion chambers of their companion cylinders; valve mechanism to control the admission of fuel to the fuel pumping chambers and from the fuel pumping chambers to the combustion chambers of their companion cylinders; a port in each piston; and by-pass ports in the cylinders with which the piston ports coöperate to open communication between said combustion chambers and their associated chambers in the crank case at a predetermined point in the power strokes of the pistons whereby to inject the compressed air from the air chambers into the combustion chambers, substantially as and for the purpose specified.

4. In an internal combustion engine, the combination of a crank case having two compartments; a crank shaft journaled in said case; a pair of cylinders fixed to the crank case so that one compartment of the crank case will communicate with one cylinder and have no communication with the other compartment and cylinder, and each of the cylinders having an enlarged portion toward the crank case; duplex pistons for the cylinders, said pistons separating the cylinders into combustion chambers having intake and exhaust ports normally closed by the pistons and adapted to be uncovered by the pistons as they approach the ends of their power strokes; and fuel pumping chambers having ports; and said piston with the compartments in the crank case constituting air pumping and compression chambers having air inlets; normally spring closed valves for said air inlets to the air chambers; means connected with the source of fuel supply to connect the fuel-pumping chambers with the source of fuel supply with the intake ports of the combustion chambers of their companion cylinders; valve mechanism to control the admission of fuel to the fuel-pumping chambers; and the charge of fuel from said latter chambers to the combustion chambers; a port in each piston; and by-pass ports in the inner cylinder walls with which the piston ports coöperate to open communication between the combustion chambers and their associated air chambers in the crank case as the exhaust ports of the combustion chambers are uncovered by the pistons, substantially as and for the purpose specified.

5. In an internal combustion engine, the combination of a crank case separated into two chambers; a crank shaft journaled in said case; a pair of cylinders fixed to the crank case and having an enlarged portion toward the crank case; pistons for the respective cylinders connected to the crank shaft, said pistons having supplemental heads to engage in the enlarged portions of the cylinders whereby the head portions of the cylinders constitute combustion chambers having fuel-intake and exhaust ports normally covered by the pistons and adapted to be uncovered by the pistons when they approach the end of their outward strokes, and the enlarged portions of the cylinders fuel-pumping chambers each having a port; a fuel chest having a pair of compartments, one compartment connected to the port of the fuel-pumping chamber of one cylinder and the fuel-intake port of the combustion chamber of its companion cylinder, the other compartment connected to the port of the fuel-pumping chamber of the other cylinder and the fuel-intake port of the combustion chamber of its companion cylinder, and each compartment having a fuel-intake port connected to the source of fuel supply; valve mechanism operated from the crank shaft, to control the admission of fuel to the compartments of the fuel chest and the fuel-pumping chambers; a port in each piston; a by-pass port in the inner walls of the cylinders with which the piston ports coöperate to connect the combustion chambers with their associated air chambers, substantially as and for the purpose specified.

[Claims 6 to 14 not printed in the Gazette.]

1,131,297. INDICATION-CIRCUIT FOR RAILWAY-TRAFFIC-CONTROLLING DEVICES. PER UTNE, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Aug. 13, 1914. Serial No. 856,706. (Cl. 246—53.)



1. In combination, a railway crossover comprising two switches, indication means for said switches, an electromagnetic device responsive to reversals of current for controlling said indication means, a source of current, means associated with one switch for connecting one terminal of the electromagnetic device with one pole or the other of said source according as the switch occupies one extreme position or the other, and means associated with the other switch for connecting the other terminal of said electromagnetic device with one pole or the other of said source, according as the switch occupies one extreme position or the other, the two terminals of said electromagnetic device being connected with opposite poles of said source when the switches occupy corresponding extreme position.

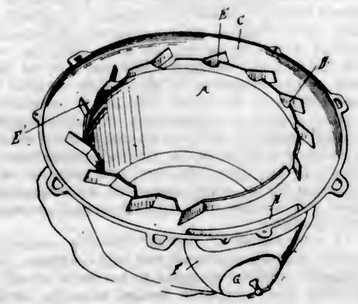
2. In combination, a railway crossover comprising two switches, indication means for said switches, an electro-magnetic device responsive to reversals of current for controlling said indication means, a source of current, means associated with one switch for connecting one terminal of the electro-magnetic device with one pole or the other of said source according as the switch occu-

pies one extreme position or the other, and means associated with the other switch for connecting the other terminal of said electromagnetic device with one pole or the other of said source according as the switch occupies one extreme position or the other, the two terminals of said electromagnetic device being connected with opposite poles of said source when the switches occupy corresponding extreme positions, and the two terminals of said electromagnetic device being connected with the same pole of said source when the switches occupy non-corresponding extreme positions whereby the electromagnetic device is then deënergized and on short circuit.

3. In combination, a railway crossover comprising two switches, indication means for said swtches, an electromagnetic device responsive to reversals of current for controlling said indication means, a source of current, means associated with one switch for connecting one terminal of the electromagnetic device with one pole or the other of said source according as the switch occupies one extreme position or the other, and means associated with the other switch for connecting the other terminal of said electromagnetic device with one pole or the other of said source according as the switch occupies one extreme position or the other, the two terminals of said electromagnetic device being connected with opposite poles of said source when the switches occupy corresponding extreme positions, and means also associated with each switch for placing said electromagnetic device on short circuit when the switch occupies an intermediate position.

4. In combination, a railway crossover comprising two switches A and B, indication means for said switches an electromagnetic device responsive to reversals of current for controlling said indication means, a source of current, means associated with one switch A for connecting one terminal 23 of the electromagnetic device with one pole or the other of said source according as the switch occupies one extreme position, or the other and for disconnecting said terminal from the source and connecting it with the other terminal 24 of the electromagnetic device when the switch occupies an intermediate position, and means associated with the other switch B for connecting terminal 24 of said electromagnetic device with one pole or the other of said source according as the switch occupies one extreme position or the other and for disconnecting said terminal 24 from the source and connecting it with the other terminal 23 of the electromagnetic device when the switch occupies an intermediate position, the two terminals of said electromagnetic device being connected with opposite poles of said source when the switches occupy corresponding extreme positions.

1,131,298. STOVE. EDWIN G. VAN WIE and RANSOM W. DAVENPORT, Detroit, Mich., assignors to Detroit Stove Works, Detroit, Mich., a Corporation of Michigan. Filed Feb. 11, 1914. Serial No. 818,173. (Cl. 126—146.)



1. In a stove, the combination with a fire pot section and a superposed combustion chamber section, of a hollow ring surrounding the stove, intermediate said sections and provided with an air inlet, said ring having apertures in one of its walls and a plurality of obliquely arranged deflector plates independent of the walls of the ring for discharging the air inward in a direction oblique to radial lines.

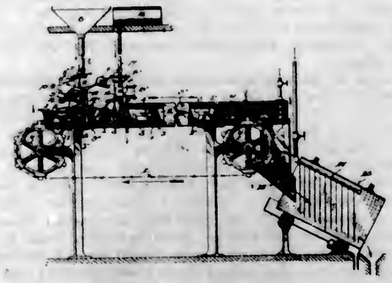
2. In a stove, the combination with a fire pot section and a superposed combustion chamber section, of a hollow ring surrounding the stove intermediate said sections and having an air inlet, said ring being provided with apertures in the inner wall thereof and with obliquely arranged deflectors adjacent the said apertures and independent of the walls of the ring for discharging the air inward in a direction oblique to radial lines.

3. In a stove, the combination with a fire pot section and a superposed combustion chamber, of a hollow ring extending around the stove and arranged intermediate said sections, said ring having a series of apertures in its inner wall, deflector plates adjacent to said apertures extending obliquely to radial lines, and an air inlet chamber having a segmental slot connection with said ring.

4. In a stove, the combination with a fire pot section and a superposed combustion chamber section, of a hollow ring extending around the stove and arranged intermediate said sections and having an air inlet, said ring being provided with apertures in the inner wall thereof and with obliquely arranged deflectors within the ring adjacent said apertures for discharging the air inward in a direction oblique to radial lines, said deflectors being substantially of the same size and form, and some of the openings in the ring being larger than others.

5. In a stove, the combination with a fire pot section, a superposed combustion chamber section, of a hollow ring extending around the stove and located intermediate said sections, said ring being provided with a series of apertures in its inner wall and with obliquely arranged deflectors within the ring adjacent the said apertures for discharging the air inward in a direction oblique to radial lines, said deflectors being substantially of the same size and form and some of the apertures in the ring being larger than others, said ring having an air inlet at only one point.

1,131,290. APPARATUS FOR COOKING PULSE. EDWARD J. VAUDREUIL, Vaudreuil, Wis. Filed Apr. 4, 1914. Serial No. 829,560. (Cl. 99—2.)



1. A cooking apparatus comprising an oven, a bucket-carrying conveyer arranged to travel therethrough, a product supply pipe and a liquid supply pipe, and valve-controlled means in communication with each pipe for delivering measured quantities of the product and liquid to the buckets.

2. A cooking apparatus comprising an oven, a bucket-carrying conveyer arranged to travel therethrough, a product supply pipe and a liquid supply pipe, valve controlled means in communication with each pipe for delivering measured quantities of the product and liquid to the buckets, and a screening mechanism arranged to receive the bucket contents.

1,131,300. PARACHUTE. JÓZSEF VIG, Witherbee, N. Y. Filed Dec. 15, 1914. Serial No. 877,353. (Cl. 244—21.)



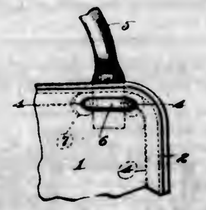
1. In a device of the character described the combination with a foldable parachute having a tubular staff provided with air inlet ports immediately below the covering of the parachute, of an inflatable life saver adapted to be attached to the body of the aviator, and a tube connecting said hollow staff with said life saver.

2. In a device of the character described, the combination with a foldable parachute having a tubular staff provided with air inlet ports immediately below the covering of the parachute, of an inflatable life saver adapted to be attached to the body of the aviator, a tube leading from said life saver, and coacting separable means for connecting said tube with said hollow staff.

3. In a device of the character described, the combination with a foldable parachute having a tubular staff provided with air inlet ports immediately below the covering of the parachute, of an inflatable life saver adapted to be attached to the body of the aviator, a tube leading from said life saver, coacting separable means for connecting said tube with said hollow staff, and means for attaching that portion of said connecting means which is associated with said tube to the arm of the aviator.

4. In a device of the character described, the combination with a foldable parachute having a tubular staff provided with air inlet ports immediately below the covering of the parachute, of an inflatable life saver adapted to be attached to the body of the aviator, a tube connecting said hollow staff with said life saver, and a check valve in said tube.

1,131,301. HARNESS. NOAH CHARLES WEIMER, Grand Junction, Colo. Filed Feb. 27, 1914. Serial No. 821,620. (Cl. 54—10.)



1. The combination with a blinder composed of different layers of material, of a holder extending between said layers of material, a clamping device extending through said layers of material on both sides of said holder, and means for tightening and releasing said clamp device.

2. The combination with a blinder composed of different layers of material, stitches holding said layers together, and a holder extending between said layers, of a clamp device extending through said layers at opposite sides of said holder adjacent to said stitches, to reinforce said stitches and to hold said holder between the layers of said blinder, and manipulative means for tightening and releasing said clamp device substantially as described.

3. The combination with a blinder composed of different layers of material, a holder extending between said layers, and stitches binding said layers together, of a clamp device extending through said blinder at both sides of said holder adjacent to said stitches, and releasable means for clamping said clamp device in position to hold said blinder in connection with said holder, substantially as described.

4. The combination with a blinder, and a holder extending into said blinder, of a clamp device extending through said blinder at both sides of said holder and embracing said holder and a part of said blinder, and releasable means for holding said clamp device in position, substantially as described.

5. The combination with a blinder composed of different layers of material, a holder extending between said layers of material, and stitches holding said layers of material together at each side of said holder, of a clamp device extending through said blinder at both sides of said holder adjacent to said stitches, and releasable means for clamping said clamp device in position to hold said holder and blinder together and to reinforce said stitches at both sides of said holder, substantially as described.

1,131,302. PORTABLE FENCE. SAMUEL H. WELLS, Oxford, Miss. Filed Dec. 16, 1913. Serial No. 807,111. (Cl. 256—28.)

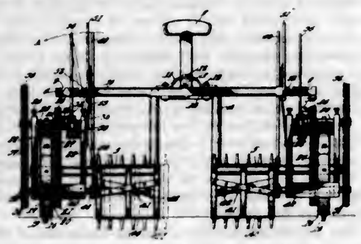


A portable fence comprising like panels of uniform size, each of such panels comprising upper and lower pairs of longitudinal rails, uprights secured between the pairs of longitudinal rails, the latter having their end portions projecting beyond the end uprights to admit of the projecting ends of the longitudinal rails interlocking by interfitting, the uprights projecting above the upper longitudinal rails, longitudinal wires secured to the uprights of each panel between and above the longitudinal rails, pegs adapted to be driven into the ground between the lower pairs of longitudinal rails against the end uprights of adjacent panels, brace wires engaging the upper rails and adapted to be secured at their lower ends to the ground upon opposite sides of the panels, the corner panels having the outer longitudinal rails projecting to overlap the end uprights of contiguous panels, and a binder for securing the corner panels by engaging the adjacent uprights.

1,131,303. CULTIVATOR. SQUIER WILDER, Huntingdon, Tenn. Filed Sept. 19, 1913. Serial No. 790,741. (Cl. 97—25.)

1. In a cultivator of the class described, a main frame including an axle; a ground wheel on the axle; an auxiliary frame pivoted upon the axle and having angularly related portions extended downwardly and forwardly with respect to the axle; a sprocket wheel mounted to move with the ground wheel; a primary sprocket wheel journaled on the lower end of the downwardly extended portion of the auxiliary frame; a secondary sprocket wheel journaled for rotation at the angle between said frame portions, the sprocket wheels on the auxiliary frame acting as weights for depressing the forward end of the auxiliary frame; a soil engaging element operatively connected with the primary sprocket wheel; a sprocket chain forming an operative connection between the primary and secondary sprocket wheels; a sprocket chain forming an

operative connection between the secondary sprocket wheel and the sprocket wheel which is mounted to move with the ground wheel; and means for raising and lowering the forward end of the auxiliary frame with respect to the axle.



2. In a cultivator of the class described, a main frame including an axle; a ground wheel on the axle; an auxiliary frame pivoted upon the axle and having angularly related portions extended forwardly and downwardly with respect to the axle; a sprocket wheel mounted to move with the ground wheel; a primary sprocket wheel journaled on the lower end of the downwardly extended portion of the auxiliary frame; a larger, secondary sprocket wheel journaled for rotation at the angle between said frame portions, the sprocket wheels on the auxiliary frame acting as weights for depressing the forward end of the auxiliary frame; a soil engaging element operatively connected with the primary sprocket wheel; a sprocket chain forming an operative connection between the primary and secondary sprocket wheels; a sprocket chain forming an operative connection between the secondary sprocket wheel and the sprocket wheel which is mounted to move with the ground wheel; a lever fulcrumed intermediate its ends on the main frame; and a substantially vertical link forming an operative connection between one end of the lever and the forward portion of the auxiliary frame.

1,131,304. BOTTLE AND CLOSURE THEREFOR. SAMUEL S. WILLIAMSON and GEORGE R. CAROTHERS, Philadelphia, Pa. Filed May 15, 1912. Serial No. 697,469. (Cl. 215—52.)



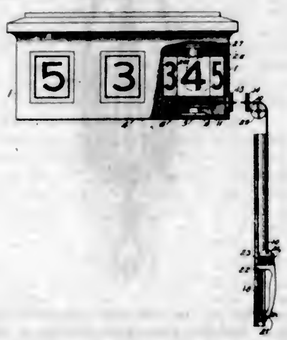
1. In combination with a bottle having lugs in the neck thereof, a stopper comprising a head, a neck, a locking bar and a foot, said locking bar adapted to co-act with either face of said lugs while the foot co-acts with the lower faces of said lugs.

2. In combination with a bottle having lugs in the neck thereof, a stopper comprising a head, a neck, a locking bar and a foot, said locking bar and foot adapted to co-act with the lugs for locking the stopper in the neck of the bottle when corked and uncorked.

3. In combination with a bottle having lugs in the neck thereof, a stopper comprising a head, a neck, a locking bar, a foot and a flexible ring coöperating with said foot, said ring and locking bar co-acting with the lugs for locking the stopper in the neck of the bottle when corked and uncorked.

1,131,305. SIGNAL OR INDICATOR. WILLARD S. WOODRUFF, Brooklyn, N. Y., and HENRY KISSINGER, Union Hill, N. J. Filed Jan. 29, 1914. Serial No. 815,203. (Cl. 40—77.)

1. In a signal the combination of a movable member bearing numerals; a connection for moving said member; a sliding member comprising a pivoted key handle joined to said connection; a projection associated with said handle; and a board having a slideway in which said sliding member fits, said board also having perforations corresponding to said numerals into which said projection may fit, substantially as described.

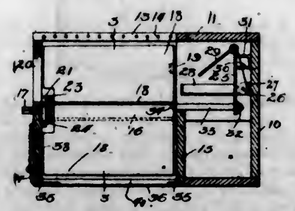


2. In a signal the combination of a rotatable member bearing numerals; means tending to normally rotate said member in a predetermined direction; a flexible connection by which said member may be turned in an opposite direction; a board provided with a perforation for each of said numerals, and with a slideway; a key supporting slide fitting said slide way and joined to said flexible connection; a key handle pivoted to said slide; and a projection carried by said handle adapted to enter said perforations one at a time, substantially as described.

3. In a signal the combination of a rotatable member bearing numerals; means comprising a spring tending to normally rotate said member in a predetermined direction; a flexible connection by which said member may be turned in an opposite direction; perforated guide members for said flexible connection; a board provided with a perforation for each of said numerals, and with a slideway; a key supporting slide fitting said slideway and joined to said flexible connection; a key handle pivoted to said slide; and a spring controlled projection carried by said handle adapted to enter said perforations one at a time, substantially as described.

4. In a signal the combination of a plurality of rotatable members located side by side and bearing a plurality of numerals; springs for normally rotating said members in a predetermined direction; flexible connections for rotating said members in an opposite direction; a key supporting slide joined to each flexible connection; a pivoted key handle member on each key supporting slide; a projection carried by each handle member; a spring for each projection; and a board provided with a slideway for each slide and with a perforation for each projection, substantially as described.

1,131,306. ANIMAL-TRAP. DAVID M. WRIGHT, Bergholz, Ohio. Filed Feb. 20, 1914. Serial No. 819,992. (Cl. 43—24.)



1. In an animal trap, a movable platform, and a trigger device arranged to coact with the platform, said trigger device including a standard pivoted intermediate its ends, a trip member operatively connected to said standard upon one side of the pivot point thereof and normally engaging the platform, and bait supporting devices secured to the standard upon the opposite side of its pivot point, said bait supporting devices being arranged in spaced relation and one thereof being disposed to normally catch and retain a bait falling from the other of said bait supporting devices.

2. In an animal trap, a movable platform, and a trigger device arranged to coact with the platform, said trigger device including a standard pivoted intermediate its ends, a trip member operatively connected to the standard upon one side of its pivot point and normally engaging the platform, a bait pan secured to the standard upon the opposite side of its pivot point, and a bait hook carried by the standard and supported thereby in spaced relation above the bait pan whereby bait falling from the bait hook will normally be caught and retained by the bait pan.

1,131,307. PERFUME-DISTRIBUTER. OTTO B. WUNSCHOW, Chattanooga, Tenn. Filed Mar. 26, 1914. Serial No. 827,509. (Cl. 98—44.)



1. The combination with a fan, of a wire guard therefor, and a perforated container having an external groove for engaging the wire of said guard, said container having also a perforated rear cover arranged to be rotated on the container and the perforations of which may be brought into register with the perforations of the container, said rear cover having a forwardly projecting handle whereby the same may be turned without danger from the fan blades.

2. The combination with a fan, of a wire guard therefor, and a perforated container having an external groove for engaging the wire of said guard, said container having also a perforated rear cover arranged to be rotated on the container and the perforations of which may be brought into register with the perforations of the container, said rear cover having a forwardly projecting handle whereby the same may be turned without danger from the fan blades, said container also having a perforated front cover rotatably mounted thereon.

3. A perfume container comprising in combination, a body of generally cylindrical outline and provided with front and rear end walls having perforations therein, and perforated front and rear covers the perforations of which may be brought into register with those of the end walls, said end walls having flanges at their edges and said covers being seated over said flanges whereby the covers and end walls are attached one to the other, but the covers are permitted to rotate.

4. A perfume container comprising in combination, a body of generally cylindrical outline and provided with front and rear end walls having perforations therein, and perforated front and rear covers the perforations of which may be brought into register with those of the end walls, said end walls having flanges at their edges and said covers being seated over said flanges whereby the covers and end walls are attached one to the other, but the covers are permitted to rotate, said front wall being separable from the body of the device and having a laterally projecting flange adapted to swing over the end of the body of the device to normally hold the front end in place.

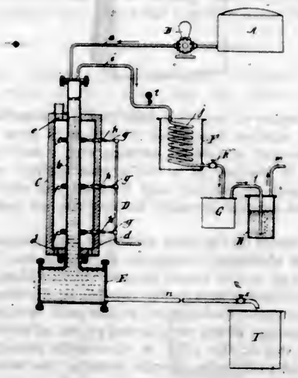
5. A perfume container comprising in combination, a body of generally cylindrical outline and provided with front and rear end walls having perforations therein, and perforated front and rear covers, the perforations of which may be brought into register with those of the end walls, said end walls having flanges at their edges and said covers being seated over said flanges whereby the covers and end walls are attached one to the other, but the covers are permitted to rotate, said front wall being separable from the body of the device and having a laterally projecting flange adapted to swing over the end of the body of the device to normally hold the front end in place, and a forwardly projecting handle rigidly secured to said rear cover.

1,131,308. METHOD FOR DECOLORIZING LIQUIDS. FREDERICK RICHARD BACHLER, Los Angeles, Cal., assignor to Kieselguhr Company of America, Los Angeles, Cal., a Corporation of California. Filed Sept. 20, 1913. Serial No. 790,938. (Cl. 127—1.)

1. The method of decolorizing liquids containing oxidizable coloring matter, which consists in mixing with such a liquid a composition comprising hydrogen dioxid absorbed in kieselguhr.

2. The method of decolorizing a liquid containing oxidizable coloring matter, which consists in mixing with such liquid, while in a cool condition, a composition consisting of hydrogen dioxid absorbed in finely divided kieselguhr, and then heating the liquid.

1,131,309. MANUFACTURE OF GASOLENE. RAYMOND F. BACON, BENJAMIN T. BROOKS, and CLINTON W. CLARK, Pittsburgh, Pa., assignors to Gulf Refining Company, Pittsburgh, Pa., a Corporation of Texas. Filed May 2, 1913. Serial No. 764,982. (Cl. 196—25.)

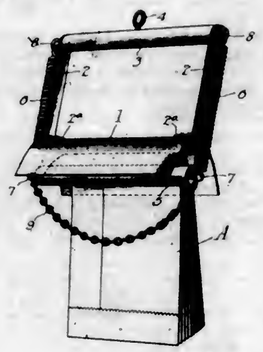


1. The method of producing from petroleum oils which have a boiling point of 250° C. and upward, a mixture of hydrocarbons boiling below 200° C., which consists in subjecting the petroleum oils treated to a combined cracking and distilling operation at a temperature within the range of 350° C. to 500° C., and at a pressure within the range of 60 lbs. to 300 lbs. per square inch, progressively removing from the heating zone the particles of tar and coke produced therein and depositing them out of contact with the walls of said heating zone; substantially as described.

2. The method of producing from petroleum oils which have a boiling point of 250° C. and upward, a mixture of hydrocarbons boiling below 200° C., which consists in subjecting an upright column of the oil to a combined cracking and distilling operation at a temperature within the range of 350° C. to 500° C. and at a pressure within the range of 60 lbs. to 300 lbs. per square inch, and permitting particles of tar and coke produced in the upright column of oil to fall by gravity from the upright column into a receiving space below said column; substantially as described.

3. The method of producing from petroleum oils which have a boiling point of 250° C. and upward, a mixture of hydrocarbons boiling below 200° C., which consists in subjecting the petroleum oils treated to a combined cracking and distilling operation at a temperature within the range of 350° C. to 500° C., and at a pressure within the range of 60 lbs. to 300 lbs. per square inch, and establishing during the cracking and distilling operation, a ratio (expressed in comparable units) of cracking heating surface to the volume of oil not substantially less than 1:4.7, this ratio being derived when the inch is employed as the unit of measurement; substantially as described.

1,131,310. HOLDER FOR PAPER BAGS AND THE LIKE. MILTON H. BALCH and FELIX LANGE, Chicago, Ill.; said Lange assignor to said Balch. Filed Nov. 4, 1912. Serial No. 729,411. (Cl. 211—2.)



1. In a device of the class described, the combination of a frame, a member depending therefrom to form a receptacle for one end of a bunch of bags, etc., a bar capable of movement in the arc of a circle, and springs connected with the ends of the bar and forming the sole support thereof, said springs normally holding the bar toward said receptacle.

2. In a device of the class described, the combination of an inverted U-shaped receptacle to receive one end of a bunch of bags, etc., a frame secured thereto along its central longitudinal axis, a roller capable of a swinging and rocking movement and located within said receptacle, and a pair of springs which are pivoted at one of their ends to the frame and at the other of their ends directly to the ends of said roller, the springs forming the sole support for the roller.

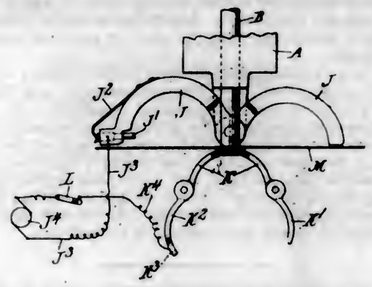
3. In a device of the class described, the combination of a shell which is substantially U-shape in cross section, a frame secured to the shell along its central longitudinal axis, a roller located within the shell, and a pair of independent springs rotatably supporting the opposite ends of the roller and secured to the frame to normally hold such roller to the innermost portion of the shell; substantially as described.

4. In a device of the class described, the combination of a shell which is substantially U-shaped in cross section, a bar positioned within the shell, a frame on said shell, and independent springs connected at one of their ends with the ends of the bar and forming the sole support therefor, the other ends of the spring being pivotally connected with said frame.

5. In a device of the class described, the combination of a shell which is substantially U-shaped in cross section, a bar positioned within the shell, independent springs connected with the ends of the bar and forming the sole support therefor, and a handle depending from the bar and connected with the opposite ends thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,131,311. PROCESS OF WIRE-TYING BAGS. ADELMAR MARCUS BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Dec. 13, 1911. Serial No. 665,536. (Cl. 218—5.)



1. The process of wire-tying bags which consists in gathering the folds thereof together, inclosing the same with a wire, heat-joining the ends of the wire to form an inclosing ring about the bag and then tightening such ring upon the object.

2. The process of wire-tying bags which consists in gathering the folds thereof together, inclosing the same with a wire, heat-joining the ends of the wire while protecting the fabric of the bag from the heat so as to form an inclosing ring about the bag, and then tightening the ring upon the bag.

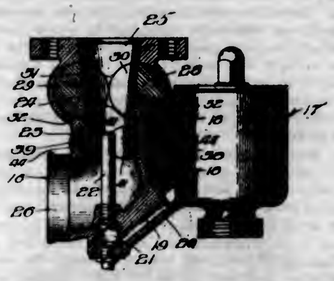
3. The process of wire-tying bags which consists in gathering the folds thereof together, inclosing the same with a wire, heat-joining the ends of the wire to form an inclosing ring about the bag, and then tightening the ring upon the bag.

4. The process of wire-tying bags which consists in gathering the folds thereof together, inclosing the same with a wire, heat-joining the ends of the wire while protecting the fabric of the bag from the heat so as to form an inclosing ring about the bag, and then tightening the ring upon the bag by twisting an untying loop therein.

5. The process of wire-tying bags which consists in gathering the folds thereof together, inclosing the same with a wire, heat-joining the ends of the wire to form an inclosing ring about the bag, and then tightening the ring upon the bag by twisting an untying loop therein.

[Claims 6 to 20 not printed in the Gazette.]

1,131,312. CARBURETER. WILLIS D. BRAMER and JAMES FRANK DUFFY, Chicago, Ill. Filed Dec. 26, 1913. Serial No. 808,847. (Cl. 48—155.1.)



1. In a carbureter the combination of a casing having a passage therethrough embodying a Venturi tube, a nozzle having its open end located adjacent the throat of said tube, means for controlling the outlet from said passage, means for varying the area of said Venturi throat, a crank for operating said outlet controlling means, a crank for operating said throat area varying means, a link connecting said cranks and means for longitudinally moving said link to adjust the position of said throat area varying means independent of actuating said outlet controlling means whereby a mixture is produced in accordance with the climatic requirements, substantially as described.

2. In a carbureter the combination of a casing having a passage therethrough embodying a Venturi tube, companion rollers mounted in the walls of said passage and lying partially within said walls and partially within said passage, each of said rollers being cut away to form an opening therebetween, the walls surrounding said cut-away portion being configured to form the throat of the Venturi tube, and to form a portion of the wall of the passage when the rollers are moved to establish the maximum throat area, means for actuating said rollers in unison to vary the size of the Venturi throat area, a spray nozzle extending into the opening between the rollers, means for controlling the manifold end of the casing passage to vary the area of the passage at that point, and a connection between the roller actuating means and manifold end controlling means to operate them in unison, substantially as described.

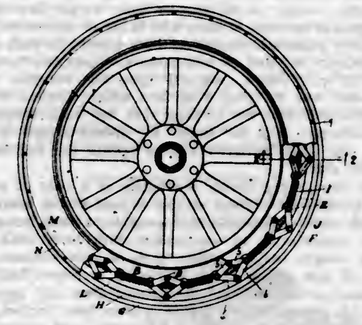
3. In a carbureter the combination of a casing having a passage therein embodying a Venturi tube, companion rollers mounted in the walls of said passage and lying partially within said passage, each of said rollers being cut away at oppositely disposed points to form an opening between the rollers, said cuts producing concavo-convex walls about said opening, the convex portion forming the throat of said Venturi tube, means for actuating said rollers in unison to vary the size of the Venturi throat opening, a spray nozzle extending into the opening between the rollers, means for controlling the manifold end of the casing passage to vary the area of the passage at that point, and a connection between the roller actuating means and manifold end controlling means to operate them in unison, substantially as described.

4. In a carbureter the combination of a casing having a passage therein embodying a Venturi tube, companion rollers mounted in the walls of said passage and lying partially within said walls and partially within said passage, each of said rollers being cut away at oppositely disposed points to form a passage therebetween, said cuts producing concavo-convex walls surrounding said roller passage with the convex portion forming the throat of the venturi, the width of the cuts above the convex portion being less than the width of the cut below the convex portion, means for actuating said rollers in unison to vary the size of the Venturi throat, a spray nozzle extending into the opening between the rollers, means for controlling the manifold end of the casing passage to vary the area of the passage at that point, and a connection between the roller actuating means and manifold end controlling means to operate them in unison, substantially as described.

5. In a carbureter the combination of a casing having a passage therein embodying a Venturi tube, companion rollers having portions thereof configured to form the throat of the Venturi passage, companion rollers located adjacent the manifold end of said passage and mounted in the walls of the passage and extending partially within said walls and partially within said passage and cut away to form the manifold passage of the casing and a connection between the rollers located at the throat of the venturi and the rollers located adjacent the manifold end of the case passage whereby they are operated in unison to vary the area of the throat and simultaneously vary the area of the manifold opening, substantially as described.

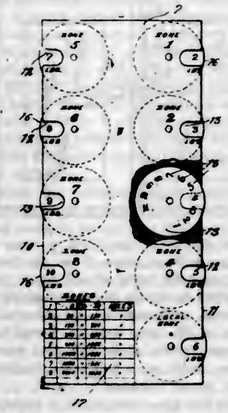
1,131,313. RESILIENT TIRE FOR VEHICLES. CLEMENT E. BEARD, Columbiana, Ohio. Filed Aug. 4, 1910. Serial No. 575,453. (Cl. 152—8.)

1. The combination with a wheel, of an inner ring U-shaped in cross-section mounted on the rim of said wheel, an outer ring inverted U-shaped in cross-section, toggle link connections between the inner ring and the outer ring on both sides thereof, a series of bolts spaced apart and extending through said inner ring to connect the toggle links thereto, a corresponding series of bolts spaced apart and extending through the outer ring to connect the toggle links thereto, springs between the free ends of the said toggle link, intermediate cross bolts between the ends of the toggles, sleeves on said intermediate cross bolts for centering the springs, and an outer tread rim around said outer ring.



2. The combination with a wheel, of an inner ring U-shaped in cross-section, means for connecting said ring and rim of said wheel, an outer ring inverted U-shaped in cross-section, a double set of toggle link connections between the inner and outer rings, a continuous series of tension springs connected to the joints of the toggles, and centering mechanism to hold the springs between the toggle connections out of lateral contact therewith and out of contact with either the inner or outer rings.

1,131,314. INDICATING DEVICE. CLINTON W. BEDELL, New York, N. Y. Filed Feb. 24, 1913. Serial No. 750,093. (Cl. 235—114.)

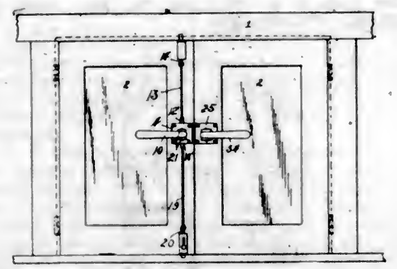


1. In a calculating device, the combination of a pair of superposed plates, one of said plates being provided with weight indicating characters, the other of said plates having indicia for indicating coin denominations, and a plurality of disks interposed between said plates, the surfaces of each disk having numerals thereon of different values relative to said weight characters and said coin indicia and means whereby said disks may be rotated to bring a specified numeral in register with a weight indicia and simultaneously bring a numeral on the opposite side of the disk into register with a coin indicia, for the purposes specified.

2. In a device for indicating postage rates on parcels within specified zones of a parcels post system, the combination of a pair of plates having a plurality of rotatable disks interposed therebetween, one disk being provided for each zone in the system, each of said disks having on one surface thereof a series of figures indicating weight, the opposite surface of each disk bearing postage rates as specified for each zone, the prescribed rate for a specific weight of parcel and such weight indicia on the opposite surfaces of each disk being in alinement, and oppositely positioned elongated slots located in each plate in proximity to each of said disks and merging into the edges of said plates, whereby upon the rotation of a particular disk to bring a certain weight indicia within the adjacent slot, the postage rate for such weight in the particular zone for which the operated disk is provided, will simultaneously appear within the slot in the opposite plate.

3. A calculating device consisting of a pair of superposed plates, the surface of one of said plates bearing a distance table sub-divided into zones, said plate being sectioned numerically to correspond with each zone and having weight indicia within each of said sections, the other of said plates being sectioned correspondingly to said zone sections of said first-named plate and provided with coin denomination indicia within each section, and a plurality of disks interposed between said plates and having on their opposite surfaces numerals of different value, and means whereby said disks may be rotated to bring a specified numeral into register with a specified zone section on said first plate to show a given weight and thereby simultaneously effect the registration of a numeral on the opposite side of said disk with the coin indicia on said second plate within the zone section corresponding to that on the first plate, to indicate a relative coin value of a specified weight within such zone.

1,131,315. LATCH. FRANK BEHM, Toledo, Ohio. Filed Jan. 23, 1914. Serial No. 813,871. (Cl. 70—42.)

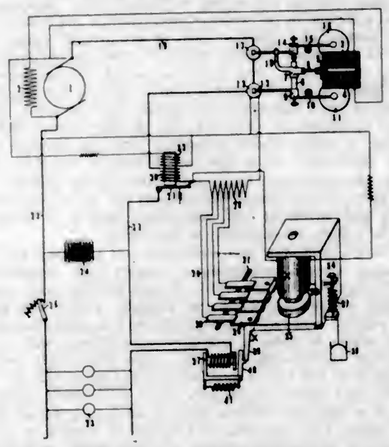


1. In a lock of the class described, a case, a lever having oppositely projecting arms, links in reversible connection with the opposite ends of said lever, means urging said lever and links to stand in one position of their respective movements, said means being reversible from one side to the other of the case, and an operating lever having a part in engagement with said first lever to impart movement thereto, said operating lever having a part extending transversely of the case.

2. In a lock of the class described, a case having openings in opposite edge portions thereof, and an opening in its front, pivot studs secured interiorly of said case adjacent to opposite side edges thereof, a lever pivoted within the case and having oppositely projecting arms, members having parts projecting through respective edge openings of the case and reversibly connected at their inner ends to respective ends of said lever, a spring for acting against one of said members to influence a movement thereof in one direction and being removably carried by either one of said studs, and control means disposed without the case and having a part projecting through the front opening of the case and having connection with said lever for controlling the movements thereof.

3. In a lock of the class described, a case having an opening therein, a three-arm lever pivoted within said case and having oppositely projecting arms and a third arm which is forked and in register with said opening, a link member pivotally connected to one arm of said lever and having an opening in register with the opening in said case and also having a part projecting without the case, a second link member pivotally connected to another arm of said lever and having a part projecting without said case, means influencing an outward movement of said link members, and a control lever pivoted without the case and having a portion projecting into the case through the case and link member openings and engaging within the forked arm of said first lever whereby rocking movements of the control lever impart rocking movements to said first lever.

1,131,316. ELECTRICAL SYSTEM OF DISTRIBUTION. JOSEPH BIJUR, New York, N. Y., assignor to The Safety Car Heating and Lighting Co., New York, N. Y., a Corporation of New Jersey. Filed Apr. 7, 1911. Serial No. 619,490. (Cl. 171—313.)



1. In an apparatus of the class described, in combination, a generator having a shunt field winding, a variable resistance medium operatively related to said winding, electro-magnetic means adapted to affect said variable resistance, said electro-magnetic means comprising a voltage coil and a current coil, both continuously operative upon said medium and the voltage coil being of predominating effect and means adapted to vary automatically the power of said voltage coil in accordance with the condition of the battery.

2. In apparatus of the class described, in combination, a generator, electro-magnetic means tending to limit the voltage of the output of the generator, and an intermittently operative current-controlled device adapted to cut down the generator output upon the current exceeding a predetermined value, said electro-magnetic means comprising a voltage coil and a current coil coacting therewith.

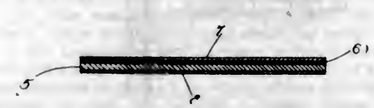
3. In apparatus of the class described, in combination, a generator, a storage-battery connected to be charged from said generator, a coil wound and connected to render its field substsntially proportional to the generator current, a compound coil having a generator voltage winding and a current winding traversed by generator current, both of said coils being continuously connected in the use of the apparatus during the charging of said battery, means adapted to vary the generator output, and means adapted to render said output-varying means continuously affected by one of said coils and intermittently affected by the other thereof.

4. In apparatus of the class described, in combination, a generator, a variable resistance in the field of said generator, a magnet continuously connected to receive the current output of said generator, a magnet having a winding continuously connected in a circuit across said generator and a winding traversed by generator current, and means adapted to be operated by one or both of said magnets to vary said resistance.

5. In apparatus of the class described, in combination, a generator, a storage-battery, a magnet continuously connected to receive the current output of said generator, a magnet having a voltage winding connected in a circuit across said generator and a current winding traversed by generator current, and means adapted to be operated by one or both of said magnets to cut down the current flowing from said generator.

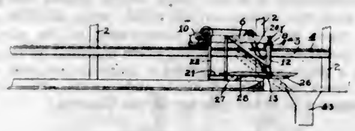
[Claims 6 to 33 not printed in the Gazette.]

1,131,317. FLOOR-COVERING. CHARLES S. BIRD, East Walpole, Mass. Filed Jan. 30, 1913. Serial No. 745,257. (Cl. 154—49.)



Floor covering comprising an elastic fibrous waterproofed base having a backing coating of hard Montan wax into which is received loose fibers of said waterproof material and constitutes a hard layer against which said elastic material may be compressed, and a top layer of paint applied directly to said elastic base and of a thickness and hardness adapted to distribute an impact pressure thereon throughout a considerable area of said base.

1,131,318. STARCH-SHOVEL. CHARLES F. BLACK, Waukegan, Ill. Filed Oct. 30, 1911. Serial No. 657,589. (Cl. 214—10.)



1. In a machine of the class described the combination with a plurality of parallel troughs, of a traveling power operated carriage movable thereover, a support thereon for an operator, a manually operated shovel pivotally supported on said carriage to raise, carry and discharge the material, and a rotatable support for said shovel whereon the same may be shifted laterally from trough to trough.

2. In a machine of the class described the combination with a plurality of parallel troughs, of a traveling power operated carriage movable thereover, a support thereon for an operator, a manually operated shovel supported on said carriage to raise, carry and discharge the material therefrom, and a rotatable shaft on which said shovel is pivotally supported and whereon the same may be shifted laterally from trough to trough.

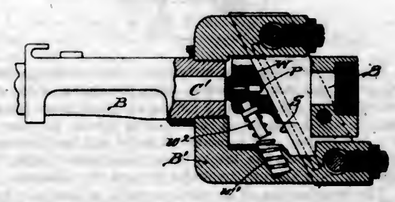
3. In a machine of the class described the combination with a plurality of parallel troughs, of a traveling power operated crane movable thereover, longitudinally the troughs, a platform thereon for an operator, a manually operated shovel on said crane acting to raise, carry and discharge the material from the troughs, a rotatable shaft whereon said shovel is pivotally supported and whereon the same may be shifted laterally from trough to trough, said shovel in carrying position assuming a horizontal position partly supported on the platform.

4. In a machine of the class described, a plurality of groups of parallel troughs, a track arranged longitudinally each group of troughs, a power driven crane movable over the troughs on any of said tracks, one or more shovels adjustably supported on said carriage to operate in one or more of the troughs of a group, a transversely operating transfer carriage adapted to receive said crane thereon and to deliver the same in position to enter the track for a succeeding group of troughs, and an operator's platform on the crane adapted to afford a support for the shovel or shovels in carrying position.

5. A machine of the class described embracing a power driven shovel having a cutting nose for engaging and lifting the material, and a movable or anti-friction bed to receive the material thereon, and facilitate discharge therefrom, and a scraper positioned at the receiving end of the shovel to clear the surface of said movable bed as the material is discharged therefrom,

[Claims 6 to 20 not printed in the Gazette.]

1,131,319. BREECH-CLOSURE FOR FIREARMS. JOHN BLISH, Brookline, Mass. Filed June 30, 1913. Serial No. 776,586. (Cl. 89—17.)



1. A breech closure system for firearms, characterized by a mechanically unobstructed abutment slideway inclined to the axis of the firearm barrel and a breech closure on said slideway; the breech closer and slideway adapted to be immovably clamped together by relatively high discharge pressure exerted on the breech closer, and relieved from said clamped condition by reduction of discharged pressure to allow the breech closer to slide on the slideway under discharge pressures of relatively low value.

2. A breech closure system for firearms, characterized by a mechanically unobstructed abutment slideway fixed with relation to and inclined to the axis of the firearm barrel and a breech closer on said slideway; the breech closer and slideway adapted to be immovably clamped together by relatively high discharge pressures exerted on the breech closer, and relieved from said clamped condition by reduction of discharge pressure to allow the breech closer to slide on the slideway under discharge pressures of relatively low value.

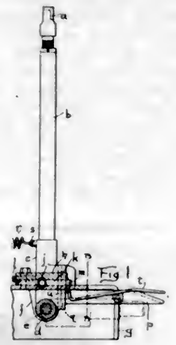
3. In a firearm, the combination of a breech closer having a rearward surface inclined to the axis of the barrel and a forward surface normal to the axis of the barrel, an abutment having an inclined surface against which the rearward surface of the breech closer rests, said abutment adapted in coöperation with the cartridge case or its analogue, to clamp the breech closer immovably under higher values of discharge pressure, and to relax said clamping effect under a lower value of discharge pressure.

4. In a firearm, the combination of a slideway inclined to the axis of the barrel and a breech closer between the slideway and the cartridge chamber, adapted to be clamped immovably between the slideway and a cartridge case by discharge pressure alone, under higher values of the same, and to slide freely in the slideway under impulse from the cartridge case in response to lower values of discharge pressure.

5. In a firearm, the combination of a slideway fixed with relation to the barrel and inclined to the axis of the barrel and a breech closer between the slideway and the cartridge chamber, adapted to be clamped immovably between the slideway and a cartridge case by discharge pressure alone, under higher values of the same, and to slide freely in the slideway under impulse from the cartridge case in response to lower values of discharge pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,131,320. ANVIL-PEDAL. HERBERT R. BLISS and LEONARD JOHNSTON, Detroit, Mich.; said Johnston assignor to George M. Tuttle, Niagara Falls, N. Y. Filed May 27, 1914. Serial No. 841,343. (Cl. 1—15.)



1. The combination of a swinging anvil spindle, a base for pivoting the same, a stop to limit the swing of the anvil spindle in one direction, a spring-actuated latch for engaging the anvil spindle on the opposite side of the stop to hold it in position, and a combined pedal and latch release adapted to retract the latch from engagement with the spindle and pull the anvil spindle toward the operator.

2. The combination of an anvil spindle, a base to which the anvil spindle is pivoted, a stop to limit the swing of the anvil spindle in one direction, a spring-actuated latch for engaging the anvil spindle on the side opposite the stop to hold the spindle in a given position, a pedal attached to the anvil spindle for swinging the anvil spindle forward when the latch is released, and a latch release comprising a bar pivoted to the pedal and having an obliquely cut end which engages with the latch, the said obliquely cut end being ordinarily on the latch so as to force the free end of the latch release above the free end of the pedal.

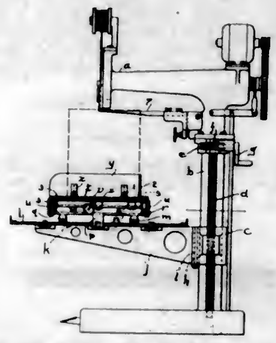
3. The combination of an anvil spindle, a base to which the same is pivoted, a stop to limit the swing of the anvil in one direction, a spring-actuated latch for engaging the side of the anvil spindle opposite the stop, a portion of the anvil spindle being provided with a vertical slot T-shaped in cross section and having a stop at the lower end of the slot, a pedal provided with a T-bar end for fitting into the T-shaped slot, and a latch release pivoted to the pedal and provided with an obliquely cut up-turned end adapted to engage with and to be normally pressed by the latch so that the free end of the latch release is held above the free end of the pedal.

1,131,321. WORK-TABLE FOR A MACHINE FOR DRIVING METALLIC FASTENERS. HERBERT R. BLISS and LEONARD JOHNSTON, Detroit, Mich.; said Johnston assignor to George M. Tuttle, Niagara Falls, N. Y. Filed May 27, 1914. Serial No. 841,344. (Cl. 1—15.)

1. The combination with a metallic fastener driving machine, of a blade-like anvil, a vertically adjustable arm or rack, and a plate or work holder guided upon said rack and movable toward or away from the blade anvil and transversely of said first-mentioned movement and constructed also for swiveling action.

2. The combination with a metallic fastener driving machine, and a blade-anvil therefor, of a rack or arm, and a carriage movable on said rack or arm, the said carriage comprising a lower truck movable toward or away from said blade anvil, an upper truck movable on said first-mentioned truck transversely of the path of movement of said first-mentioned truck, and a swiveling plate carried upon said upper truck.

3. The combination with a metallic fastener driving machine and a blade anvil therefor, of an arm or rack, a carriage movable toward or away from said blade anvil on said rack or arm, and comprising a lower truck movable away from or toward said blade anvil, an upper truck mounted on said lower truck and movable transversely of the direction of movement of the lower truck, a swiveling plate mounted on the top of said upper truck, and means for effecting a slight lock in said swiveling plate to determine positions in the arc of swing of said swiveling plate.

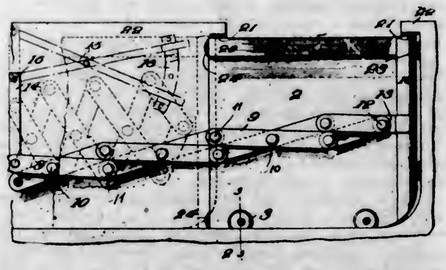


4. The combination of a machine for driving metallic fasteners and a blade anvil therefor, of a rack or arm adjustable vertically with respect to said machine, and a carriage movable on said rack or arm toward or away from the blade anvil and comprising a lower truck which moves toward or away from the blade anvil, and an upper truck movable on the lower truck in a direction transversely of the movement of the lower truck, and a swiveling plate mounted on the upper truck.

5. The combination of a machine for driving metallic fasteners and a blade anvil therefor, of a rack or arm mounted upon said machine, and a carriage movable on said rack or arm toward or away from the blade anvil and comprising a lower truck which moves toward or away from the blade anvil, an upper truck movable on the lower truck in a direction transversely of the movement of the lower truck, a swiveling plate mounted on the upper truck, a plate at the rear and a plate at one side of the upper truck, and an adjustable plate at the other side.

[Claims 6 to 9 not printed in the Gazette.]

1,131,322. SLIDING DOOR FOR AUTOMOBILES. JACOB M. BOWER, Durham, N. C. Filed Apr. 15, 1913. Serial No. 761,404. (Cl. 39—91.)



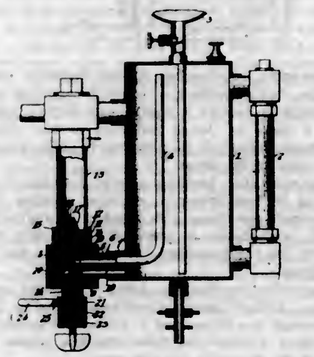
1. The combination with a vehicle having a hollow side wall and a door opening intersecting said wall, of a hollow door slidingly mounted in said wall for bodily movement and adapted to close said opening, a handle mounted upon the face of the wall, and a lazy-tongs operatively mounted within the hollow wall of the vehicle and extending within the hollow door and operatively connected to the forward end of the door, the other end of the lazy-tongs being operatively connected to the handle.

2. The combination with a hollow wall provided with a door opening intersecting said wall, of a hollow door slidingly mounted in said wall for bodily movement to close said opening, a handle mounted upon the face of the wall, and operative mechanism inclosed within the hollow wall and extending into and connected to the hollow door adjacent the forward edge thereof, said operative mechanism at its rear end being operatively connected to the handle.

3. The combination with a vehicle having a hollow side wall having an arcuate slot opening into the interior of the wall and a door opening intersecting said wall, of a door slidingly mounted in said wall, said door being adapted to close said opening, a handle mounted upon the interior face of the wall, a lazy-tongs composed of crossed pairs of pivotally connected links disposed within the hollow wall and connected at one end of said door, a vertically disposed link pivoted to one of the rearmost pairs of links at the other end of the lazy-tongs, a fixed pivot upon which the other of the rearmost pair is mounted, a pin projecting through the arcuate slot in the side face of the outer wall and connected to the rear end of the handle, and a locking rack over which the handle moves.

4. The combination with a vehicle having a hollow side wall and a door opening intersecting the wall, of a hollow door mounted in the wall for bodily sliding movement and adapted to close said opening, a handle disposed upon the interior face of the wall and operating in a plane parallel to the inner face of the wall, a lazy-tongs within the hollow wall, the forward end of the lazy-tongs extending into the hollow door and being connected to the forward end thereof, said lazy-tongs being formed of a plurality of pairs of pivoted links, a fixed pivot for the rear end of one of the links of the rearmost pair of links, and operative connection between said handle and the rear end of the other of said links of the rearmost pair, whereby said lazy-tongs may be actuated by the handle.

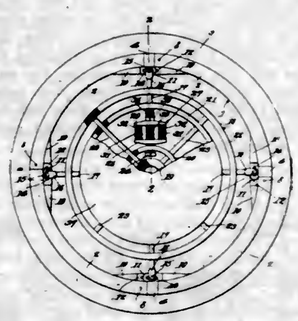
1,131,323. ATTACHMENT FOR DISPLACEMENT-LUBRICATORS. ROBERT F. BURKE and JOHN E. CRAVEN, Philadelphia, Pa. Filed Apr. 29, 1914. Serial No. 835,214. (Cl. 184—96.)



1. In a displacement lubricator, a tank, a sight-feed, a valve casing connecting said tank and sight-feed, bores in said casing for the admission of oil or water, a valve within said casing provided with ports registering alternately with said bores, and mechanism carried by said valve for controlling the amount of flow.

2. In a displacement lubricator, a tank, a sight-feed, a valve casing connecting said tank and sight-feed, bores in said casing for the admission of oil or water, a valve in said casing provided with ports registering alternately with said bores, said valve being provided with a central longitudinal bore, and a needle valve in said valve for regulating the amount of flow.

1,131,324. AUTOMOBILE-WHEEL. SCHUYLER COLFAX BURSON, Axtell, Kans., assignor of one-half to Dorus H. Piper, Axtell, Kans. Filed June 2, 1913. Serial No. 771,283. (Cl. 152—29.)



1. In a wheel, a rim comprising sections; a resilient block located between the ends of the sections; a pin terminally mounted in the rim sections and extended through the block; a compression spring surrounding the pin and extended through the block and engaged with the rim sections; and a spoke assembled with the rim.

2. In a wheel, a rim comprising sections; a resilient block interposed between the ends of the sections; a pin terminally mounted in the sections and extended through the block; a compression spring extended through the block and surrounding the pin, the spring abutting against the sections; and a spoke connected with the rim for movement circumferentially of the rim.

3. In a wheel, a rim comprising sections; a resilient block interposed between the sections; a pin extended through the block and terminally mounted in the sections; and a spoke having pin and slot connection with the rim, permitting the spoke to move circumferentially of the rim.

4. In a wheel, a rim comprising sections; a spring interposed between the sections; a pin extended through the spring and terminally engaged with the sections; and a spoke connected with the rim by a pin and slot connection to permit the outer end of the spoke to move circumferentially of the rim.

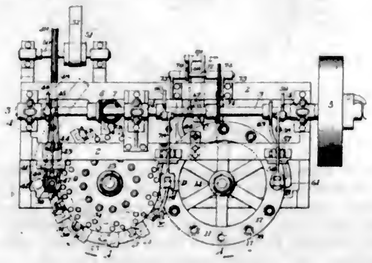
5. In a spring wheel, a body comprising radially spaced inner and outer parts; a spoke slidable in said parts; a rim carried by the spoke and movable independently of the body; resilient, compressive structures abutting at their remote ends against said parts; and an abutment on the spoke and engaging the adjacent ends of the resilient structures, the abutment being movable upon the spoke to adjust both resilient structures at once.

1,131,325. MACHINE FOR ASSEMBLING BOTTLE-STOPPERS. HERMAN F. BUSCH, Millvale, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 11, 1912. Serial No. 736,197. (Cl. 144—2.)

1. In a machine for assembling bottle stoppers composed of two parts, the combination of two rotary carriers mounted to rotate in horizontal planes and having their peripheral portions overlapped at one side, the upper carrier having a plurality of vertical seats or pockets each adapted to hold one of the stopper parts, and said seats or pockets having yielding portions through which the parts can be forced and the other carrier having a plurality of holders for the other stopper parts arranged to be brought successively below the pockets of the first named holder at the overlapping portions of the carrier and into position to receive the parts forced therethrough; substantially as described.

2. In a machine for assembling bottle stoppers composed of two parts, the combination of two rotary carriers mounted to rotate in horizontal planes and having

their peripheral portions overlapped at one side, the upper carrier having a plurality of vertical seats or pockets each adapted to hold one of the stopper parts, and said seats or pockets having yielding portions through which the parts can be forced, and the other carrier having a plurality of holders for the other stopper parts arranged to be brought successively below the pockets of the first named holder at the overlapping portions of the carrier and into position to receive the parts forced therethrough, together with means for automatically forcing said parts through said pockets and into assembled relation to the parts on the second carrier; substantially as described.



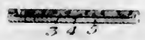
3. In a machine for assembling bottle stoppers composed of two parts, the combination of two rotary carriers mounted to rotate in horizontal planes and having their peripheral portions overlapped at one side, the upper carrier having a plurality of vertical seats or pockets each adapted to hold one of the stopper parts, and said seats or pockets having yielding portions through which the parts can be forced, and the other carrier having a plurality of holders for the other stopper parts arranged to be brought successively below the pockets of the first named holder at the overlapping portions of the carrier and into position to receive the parts forced therethrough, together with a cutting tool arranged to operate successively upon the stopper parts in one of said carriers; substantially as described.

4. A machine of the character described, having a rotary horizontal carrier for one of the stopper parts, means for imparting a step-by-step movement to the carrier, and a cutting tool arranged to operate upon the parts while in the carrier and operated in timed relation to the movement thereof, together with a lifting and holding device for the stopper parts while being acted upon by the cutting tool substantially as described.

5. In a machine of the character described, the combination with a rotary carrier having a plurality of pockets for the stopper parts, a corrugating tool arranged over one portion of said carrier, and an adhesive-applying device adjacent to another portion of the carrier, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,131,326. CORK SEAL FOR BOTTLE-STOPPERS AND THE LIKE AND METHOD OF MAKING THE SAME. HERMAN F. BUSCH, Millvale, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 29, 1914. Serial No. 853,978. (Cl. 154—40.)



1. The herein described method of making a compound cork article, which consists in uniting a piece of inferior cork material and a piece of better grade cork material by means of an interposed layer of adhesive paper, substantialy as described.

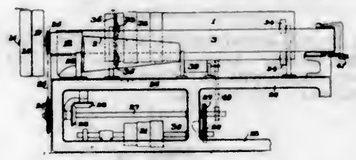
2. A new article of manufacture, consisting of a cork layer of high grade material, and another cork layer of inferior quality united to the first named layer by an interposed layer of adhesive paper, substantially as described.

1,131,327. MANHOLE-COVER. GEORGE CALDWELL, Philadelphia, Pa. Filed June 22, 1914. Serial No. 846,446. (Cl. 94—7.)



A box having on its upper end an inturned rim, the inner wall of which constitutes the opening of the box of conical form, a segmental passage in said wall, a throat in said rim adapted to lead to the inlet end of said passage, said passage being directly in said wall intermediate of the top and bottom of said rim, and a cover for said box having on the periphery thereof a lug which is outturned directly from said periphery intermediate of the top and bottom of said cover and adapted to enter said passage and engage with a wall thereof.

1,131,328. APPARATUS FOR MOLDING, SHAPING, AND COMPRESSING DOUGH AND LIKE PLASTIC MATERIALS. JOHN CALLOW, Liverpool, England. Filed Apr. 2, 1909. Serial No. 487,457. (Cl. 107—9.)



1. Apparatus for forming plastic material, comprising a rotating hollow drum; a conveyer moving longitudinally within it having a continuous surface adapted to support a mass of dough adjacent to one side of the drum; means adapted to push such mass against said adjacent side of the drum.

2. Apparatus for forming plastic material comprising a rotating hollow drum; a conveyer moving longitudinally through the drum and adapted to support a mass of dough; and means to push said mass into the angle formed by the juxtaposition of said carrier and the side of said drum.

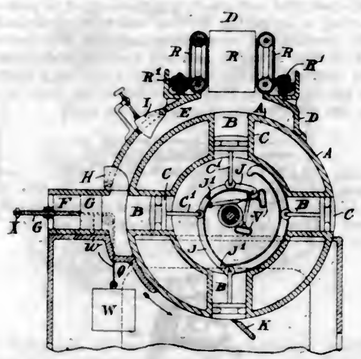
3. Apparatus for forming plastic material comprising a rotating hollow drum, a conveyer moving longitudinally through the drum and a pusher reciprocating over the conveyer toward and from the line where the conveyer and the drumside are adjacent.

4. The combination of rotating hollow drum and a conveyer moving longitudinally through it having a continuous surface adapted to support a mass of dough adjacent to one side of the drum, and a scraper fixed between the drum-side and the conveyer and adapted to act upon the interior surface of the drum.

5. The combination of a rotating hollow drum, a stiff plate fixed within it adjacent to its inside wall, a flexible belt, and means to draw the belt longitudinally through the drum, the plate supporting the belt; and a pusher reciprocating over the belt toward and from the line where the conveyer and drum wall are adjacent.

[Claims 6 to 31 not printed in the Gazette.]

1,131,329. APPARATUS FOR DIVIDING AND MOLDING DOUGH AND OTHER PLASTIC MATERIAL. JOHN CALLOW and HERSCHEL LIVINGSTONE CALLOW, Liverpool, England. Filed Sept. 27, 1909. Serial No. 519,870. (Cl. 107—15.)



1. In apparatus for dividing dough, the combination with a rotary drum provided with cavities therein and plungers arranged in said cavities with means for operating the same, of a hopper of smaller diameter than the drum and placed vertically thereover and a chamber concentric with the drum communicating with the hopper and extending over one of the upper quadrants of the drum and closed at the end, the walls of said chamber being fixed with respect to circumferential movement of the drum so that the feed takes place by reason of the pressure developed within the chamber owing to the rotation of the drum acting against the whole of the concentric fixed wall of the chamber.

2. In apparatus for dividing and molding dough or other plastic material, a rotatable drum carrying plungers, receivers in which said plungers work, a hopper, a segmental space or charging chamber extending part way around the drum which coöperates with the hopper and drum to feed the plastic material into the receivers, and a valve in said charging chamber so arranged and operating as to allow the dough to be carried forward when the drum rotates, but at intervals to close, and impose a definite pressure upon the dough in the receivers, said valve being in the form of an oscillating quadrant and opening alternately to allow the receivers to fill and closing to impart a definite pressure on the dough in the receivers.

3. In an apparatus for compressing and dividing dough and like plastic material, the combination with a continuously rotatable drum having plungers operating radially in cavities adapted to be filled by the rotation of the drum without application of external force, of a feeding device comprising a hopper placed above the center of the drum, traveling bands at the sides of said hopper mounted in such manner as to be automatically moved as the dough fall downward by the action of gravity, and a device for dusting said bands with flour, substantially as described.

1,131,330. AUTOMATIC RAILWAY-GATE. ARTHUR E. CLEMENTS, Tampa, Fla. Filed Oct. 29, 1912. Serial No. 728,391. (Cl. 39—35.)



1. A gate operating device for railroad crossings comprising a hollow standard, a shaft extending therethrough and carrying gates, said shaft having a crank and a lug within the standard, a pulley mounted on the crank, a guideway within the standard, a weight slidable in the guideway, a cable passing over the pulley and having one end attached to the weight, a shaft extending into the base of the standard and having a crank connection with the cable, a latch on the standard for engaging the lug to normally retain the gate shaft in position to hold the gates raised, a cable connection between the base shaft and the latch for releasing the latch, and train actuated mechanism for rotating the base shaft to first release the latch and then rotate the gate shaft to lower the gates.

2. A gate operating device for railroad crossings comprising a hollow standard, a shaft extending therethrough and carrying gates, said shaft having a crank, a guideway within the standard, a weight slidable in the guideway, a pulley, a cable passing over the pulley and having one end attached to the weight, a shaft extending into the base of the standard and having a crank connection with the cable, a lug on the gate shaft, a latch on the standard for engaging the lug to normally retain the gate shaft in position to hold the gates raised, a cable connection between the base shaft and the latch for releasing the latch, train actuated mechanism for rotating the base shaft to first release the latch and then rotate the gate shaft to lower the gates, detent means located in the road-bed for retaining said gates lowered, and train actuated means for releasing said detent.

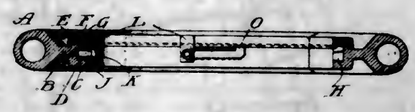
1,131,331. HAIR DRYING AND CURLING COMB. JACK COHN, New York, N. Y. Filed Oct. 12, 1914. Serial No. 866,302. (Cl. 34—26.)



1. In an implement of the character described, the combination with a comb having a hollow back, of a heater adapted to be inserted into said hollow back, a handle attached to said heater, and a sleeve upon said handle, said sleeve projecting a distance beyond the end of said handle and having a longitudinal slot therein, the projecting section of said sleeve being adapted to receive a portion of said back and said slot a portion of the body of the comb to prevent rotation of the latter relative to said handle.

2. In an implement of the character described, the combination with a comb having a hollow back, of a heater adapted to be inserted into said hollow back, a handle attached to said heater, and a sleeve upon said handle, said sleeve projecting a distance beyond the end of said handle and having a longitudinal slot therein, the projecting section of said sleeve being adapted to receive a portion of said back and said slot a portion of the body of the comb to prevent rotation of the latter relative to said handle, said hollow back being provided with perforations that extend in substantially parallel relation to the body of said comb and are located as near as possible to said comb body.

1,131,332. TIRE-FORMING CORE. FORD COLEMAN, Akron, Ohio. Filed Mar. 21, 1911. Serial No. 615,988. (Cl. 18—45.)



1. A tire forming core composed of a plurality of sections, the inner face of each of which is provided with a longitudinal recess terminating in a lateral opening, and a locking section movable upon the core and provided with devices engaging said recesses in the sections.

2. A tire forming core composed of a plurality of sections, the inner face of each of which is provided with a longitudinal recess terminating in a lateral opening, and a locking section provided with a plurality of plates or arms each of which is provided with means engaging the corresponding recess of the adjacent section.

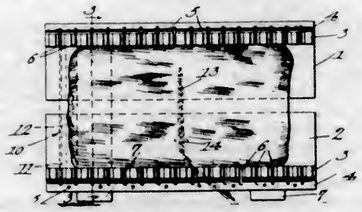
3. A tire forming core composed of a plurality of sections the inner face of each of which is provided with a longitudinal recess terminating in a lateral opening, the extremities of said sections being provided with an inlet slot and a projecting lug adapted to engage the corresponding slot and lug of the adjacent section when the sections are assembled to form an interlocking connection.

4. A tire forming core composed of a plurality of sections the inner face of each of which is provided with a longitudinal recess terminating in a lateral opening, the extremities of said sections being provided with an inlet slot and a projecting lug adapted to engage the corresponding slot and lug of the adjacent section when the sections are assembled to form an interlocking connection, and means engaging said recesses in the sections for retaining the sections in place when the core is assembled.

5. A tire forming core composed of a plurality of sections the inner face of each of which is provided with a longitudinal recess terminating in a lateral opening, the extremities of said sections being provided with an inlet slot and a projecting lug adapted to engage the corresponding slot and lug of the adjacent section when the sections are assembled to form an interlocking connection, and a locking section slidable upon the core and provided with devices engaging the recesses of the sections for retaining the sections in place when the core is assembled.

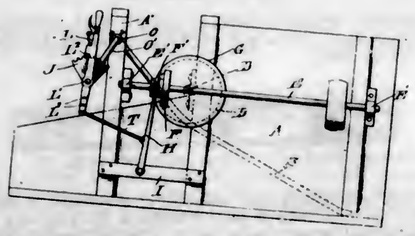
[Claims 6 to 8 not printed in the Gazette.]

1,131,333. BREAD-CUTTING GAGE. URI G. COON, Medina, N. Y. Filed Nov. 24, 1914. Serial No. 873,754. (Cl. 146—12.)



A cutting gage comprising a bottom and slotted sides carried thereby, and a stop including a strip insertible into a pair of slots of the sides, and a cleat carried by one side of the strip and adapted to have the end of a loaf of bread rest thereagainst between two pairs of slots of the sides.

1,131,334. BAND-CUTTER AND FEEDER. ERNEST T. CROAN, Mound City, Kans., assignor of one-half to Thomas J. Croan, Mound City, Kans. Filed Aug. 21, 1914. Serial No. 857,942. (Cl. 130—1.)



A band cutting and feeding apparatus, comprising a frame, a feeding shaft journaled therein, cutting blades fixed to the shaft, a friction disk fixed to said shaft, a counter shaft, a friction disk splined thereto, the two disks coöperating to regulate the speed of the feeding shaft, a rock shaft journaled in the frame, fingers fixed thereto and projecting intermediate and below said blades, a crank upon said rock shaft, a segment fixed to said crank and having a projecting portion which is perforated, adjustable pivotal rod connections between the perforated portion of the segment and the friction disk upon the driving shaft, a lever pivoted upon a laterally extending end of the crank, and a pawl carried by the lever and engaging the teeth of the segment, as set forth.

1,131,335. GAS TANK AND REGULATOR. JOHN L. CREVELING, New York, N. Y., assignor to The Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Apr. 1, 1908. Serial No. 424,671. (Cl. 220—108.)

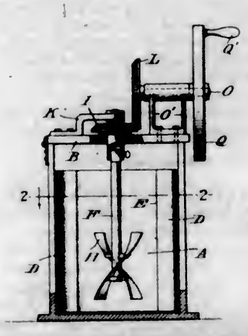


1. The combination with a closed receptacle adapted to hold a fluid under pressure; of a pressure regulator, for controlling the flow of fluid from said receptacle, comprising in its structure supporting means attached to an external portion of said receptacle; and means for operatively and directly connecting said regulator with the interior of said receptacle.

2. The combination with a tank for holding fluid under pressure; of a pressure regulator for controlling the flow of fluid from said tank having a case forming a part of said regulator; means for attaching said case in place directly upon the tank; and means, including an extension from said case, for establishing direct operative communication between the tank and regulator.

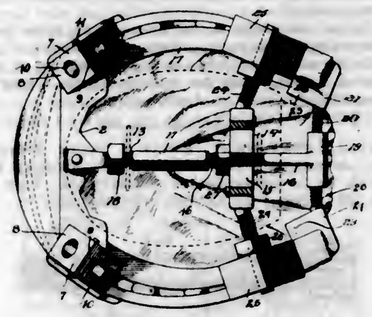
3. The combination with a tank for holding fluid under pressure; of a pressure regulator for controlling the flow of fluid from said tank; coöperating means between the regulator and tank for attaching said regulator directly upon said tank; means for establishing direct operative communication between said regulator and said tank; and means for controlling the operative communication between said regulator and tank.

1,131,336. CHURN. CHARLES BOHN CROFFORD, Binghamton, Tenn. Filed May 6, 1914. Serial No. 836,741. (Cl. 31—42.)



A churn comprising a body portion having opposite parallel sides with double concaved portions at each corner, the adjacent edges of the concaved portions terminating in an inwardly extending ridge, and a vertically disposed, rotatable winged dasher, as shown and described.

1,131,337. ANTISLIPPING HORSESHOE ATTACHMENT. JAMES A. DAVIS, Washington, D. C. Filed Mar. 31, 1913. Serial No. 758,031. (Cl. 168—30.)



1. A horseshoe attachment of the character described, including a toe clamp, oppositely disposed heel clamps, means for drawing the heel clamps toward the toe clamp, and means for laterally adjusting the heel clamps with relation to the means for drawing the heel clamps toward the toe clamp.

2. A horseshoe attachment of the character described, including toe clamps, heel clamps, toe calks and heel calks, means for drawing the heel clamps toward the toe clamps, and means for laterally adjusting the heel calks and the heel clamps independently of each other.

3. A horseshoe attachment of the character described, including a toe clamp, heel clamps, toe calks and heel calks, means for drawing the heel clamps toward the toe clamps, means for laterally adjusting the heel clamps and means for laterally adjusting the heel calks independently of the heel clamps.

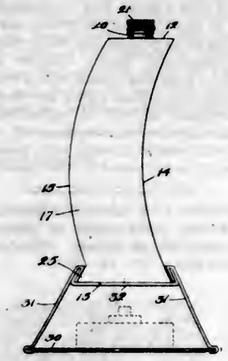
4. A horseshoe attachment of the character described, including a toe clamp, heel clamps, a longitudinally disposed tensioning member operatively connected at its ends to the toe and heel clamps, means for longitudinally adjusting the heel clamps relative to the tensioning member, heel calks, and means for laterally and longitudinally adjusting the heel calks, independently of the heel clamps.

5. A horseshoe attachment of the character described, including a toe clamp, oppositely disposed heel clamps, a longitudinally extending tightening member operatively connected to the toe and heel clamps, a calk supporting member, means operatively connecting the tightening member to the supporting member for longitudinal adjustment of the supporting member relative to the tightening member, said means permitting the lateral adjustment of the calk supporting member relative to the tightening member, calks supported upon the supporting member, heel clamps operatively connected to the tightening member and longitudinally adjustable relative to the supporting member, and means for laterally adjusting the supporting members and the corresponding heel calks independently of each other.

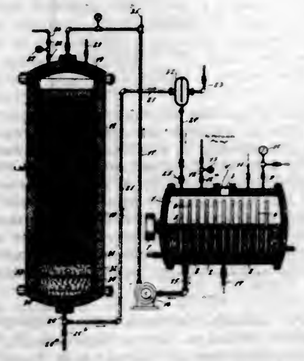
[Claims 6 to 9 not printed in the Gazette.]

1,131,338. METALLIC RECEPTACLE FOR HOT WATER. JULIETTA S. DE FORREST, Andover, Mass. Filed May 23, 1912. Serial No. 699,172. (Cl. 128—39.)

As a new article of manufacture, a metallic receptacle for heating water comprising parallel side walls, parallel top and bottom walls, and curved front and back walls, the curved front wall of shorter radius than the curved back wall, the top and bottom walls being approximately at right angles to the chord of the front wall, the back wall at its juncture with the bottom wall being projected at an angle to such wall corresponding approximately to the angular relation of the front wall and bottom wall, and a hollow base formed in the upper portion with a recess to slidably receive and interlock with the lower portion of the receptacle.



1,131,339. HYDROGENIZING FATTY MATTER. FREDRIK W. DE JAHN, New York, N. Y. Filed Apr. 1, 1913. Serial No. 758,194. (Cl. 87—12.)



1. The process of hydrogenizing fatty matter containing unsaturated compounds, which consists in first forming an intimate mixture of fatty matter with hydrogen in a finely divided condition in one vessel, and subsequently subjecting the said mixture to the action of a catalytic agent in another vessel and out of contact with the matter in the first vessel.

2. The process of hydrogenizing fatty matter containing unsaturated compounds, which consists in first forming an intimate mixture of fatty matter with hydrogen in a finely divided condition in one vessel, and subsequently subjecting the said mixture to the action of a catalytic agent in another vessel and circulating the fatty matter continuously through said vessels.

3. The process of hydrogenizinz fatty matter containing unsaturated compounds, which consists in forming an intimate mixture of fatty matter with hydrogen by agitation in one vessel, subsequently subjecting the said mixture to the action of a catalytic agent in another vessel separate from the first named vessel, continuously circulating the fatty matter through said vessels and continuing the mixing the fatty matter by agitation with hydrogen in said first vessel during the circulation.

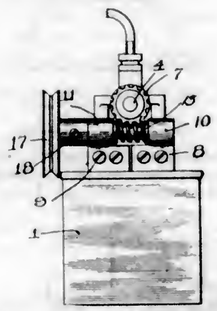
4. The process of hydrogenizing fatty matter containing unsaturated compounds, which consists in first forming an intimate mixture of fatty matter with hydrogen by agita-

tion in the presence of heat in one vessel, subsequently subjecting the said mixture to the action of a catalytic agent in another vessel, continuously circulating the fatty matter through said vessels, and continuing the agitation of the matter in said first vessel during the circulation.

5. The process of hydrogenizing fatty matter containing unsaturated compounds, which consists in introducing fatty matter into a mixing vessel and a reaction chamber containing a catalyst, withdrawing air from said vessels, forming an intimate mixture by agitation of the fatty matter with hydrogen in the mixing vessel, and circulating the mixture continuously through said vessels.

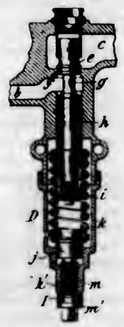
[Claims 6 and 7 not printed in the Gazette.]

1,131,340. DRIVE FOR LUBRICATORS. THOMAS A. DELANEY, Chicago, Ill., assignor to Hills-McCanna Company, a Corporation of Illinois. Filed Oct. 12, 1910. Serial No. 586,599. (Cl. 74—36.)



A device of the class described, comprising a worm gear, a shaft therefor, a bracket in which said shaft is journaled, a worm, a worm shaft to which said worm is fixed, a pulley removably secured on one end of said worm shaft, a pair of brackets removably mounted on said worm gear shaft bracket, bearings carried by said brackets for supporting said worm shaft and adapted to engage the same on opposite sides of said worm, said worm shaft and worm being adapted to be removed and reversed upon the removal of said pulley and one of said worm shaft brackets.

1,131,341. SPEED CONTROL FOR AUTOMOBILE TORPEDOES. WILLIAM DIETER, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Apr. 15, 1913. Serial No. 761,291. (Cl. 50—35.)



1. In an automobile torpedo, a reducing valve having a screw adjustment for regulating the pressure of fluid, combined with a speed gage consisting of a filling piece for determining the adjustment corresponding to a given speed.

2. In an automobile torpedo, a reducing valve having a screw adjustment for regulating the pressure of fluid, combined with a speed gage consisting of an annular filling piece adapted to fit beneath the head of such screw for determining the adjustment thereof corresponding to a given speed.

3. In an automobile torpedo, a reducing valve having a screw adjustment for regulating the pressure of fluid, combined with a series of speed gages consisting of filling pieces of different sizes for determining the adjustment corresponding to a series of given speeds.

1,131,342. STAY-BOLT. ETHAN I. DODDS, Zellenople, Pa., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 18, 1914. Serial No. 832,745. (Cl. 85—1.5.)

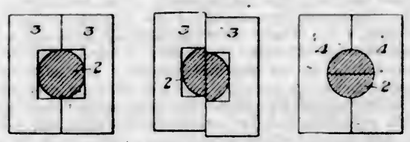


1. A bolt having an internal and an external body portion connected to each other at the ends but separated between the ends, the outer body portion having a plurality of members connected to each other at the ends but separate between the ends, substantially as described.

2. A bolt having an internal and an external body portion connected to each other at the ends but separated between the ends, the outer body portion having a plurality of members connected to each other at the ends but separate between the ends, said body portion being twisted about the axis of the bolt, substantially as described.

3. A bolt comprising inner and outer concentric body portions connected to each other at the ends, said body portions having a plurality of members between the ends, both of said body portions being twisted about the axis of the bolt at the central portion thereof, substantially as described.

1,131,343. METHOD OF MAKING BOLTS. ETHAN I. DODDS, Zellenople, Pa., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 26, 1914. Serial No. 847,453. (Cl. 10—27.)



1. The method of forming bolts, which comprises the steps of shearing the body portion along a radial line by means of oppositely moving die members, and then restoring the blank to its initial shape, substantially as described.

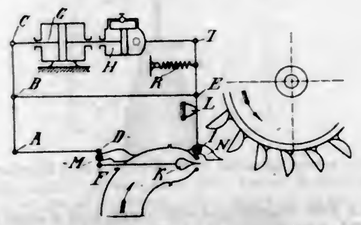
2. The method of forming bolts, which comprises the steps of shearing the body portion along a radial line by means of oppositely moving die members, restoring the blank to its initial shape, and then forming securing heads on the ends of the bolts, substantially as described.

3. The method of forming bolts, which comprises the steps of shearing the body portion along a radial line by means of oppositely moving die members, restoring the blank to its initial shape, then upsetting the heads on the ends of the blank, and then screw-threading said heads, substantially as described.

1,131,344. REGULATING DEVICE FOR HYDRAULIC TURBINES. LÉON DUFOUR, Geneva, Switzerland. Filed Apr. 26, 1913. Serial No. 763,738. (Cl. 138—18.)

1. In an apparatus to operate and control a dual regulating system of hydraulic turbines, and in combination,

a nozzle, a device for deflecting a jet of liquid as the same leaves the nozzle, a lever forming one side of a parallelogram and connected to the said device, a second lever forming the opposite side of the said parallelogram, a connection forming a third side of the parallelogram and pivotally connected to the aforesaid levers, a servo-motor associated with the said connection, a device for controlling the volume of the flow of the liquid and forming a portion of the fourth side of the parallelogram, connections completing the said fourth side of a parallelogram, and to which the last aforesaid device is secured, and a rod extending between and connecting the said levers which form the said opposite sides of the parallelogram.



2. In an apparatus to operate and control a dual regulating system of hydraulic turbines and in combination, a nozzle, a device for deflecting a jet of liquid as the same leaves the nozzle, a lever forming one side of a parallelogram and connected to the said device, a lever forming the opposite side of the said parallelogram, a servo-motor in a connection forming the third side of the parallelogram, and devices for controlling the volume of the flow of the liquid in connections forming the fourth side of the parallelogram.

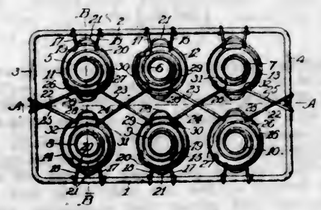
3. In an apparatus to operate and control a dual regulating system of hydraulic turbines, and in combination, a nozzle, a device for deflecting a jet of water as the same leaves the nozzle, a lever forming one side of a parallelogram and connected at one end to the said device, a lever forming the opposite side of the said parallelogram, a connection forming the third side of the parallelogram and pivotally connected at its ends to the said levers, a servo-motor mounted in the said connection, a device for controlling the volume of the flow of the water and forming a part of the fourth side of the said parallelogram, connections completing the fourth side of the parallelogram, and to which the last aforesaid device is secured, a rod extending between and pivotally connected to the levers forming the opposite sides of the said parallelogram, a stop, and means for normally maintaining the first aforesaid lever against the said stop.

4. An apparatus to operate and control a dual regulating system of hydraulic turbines, and in combination, a nozzle, a device for deflecting a jet of water as the same leaves the said nozzle, a lever forming one side of a parallelogram, connected at one end to the said device, a lever forming the opposite side of the said parallelogram, a connection forming the third side of the parallelogram and pivotally connected at its ends to the said levers, a servo-motor, a dash pot, the said servo-motor and dash pot being connected in alinement with the said connection, a device for controlling the volume of the flow of water and forming a part of the fourth side of the said parallelogram, connections secured to the said device and completing the fourth side of the said parallelogram, and a rod extending between and pivotally connected to the said levers forming the opposite sides of the said parallelogram.

5. In an apparatus to operate and control a dual regulating system of hydraulic turbines, and in combination, a nozzle, a device for deflecting a jet of water as the same leaves the said nozzle, a lever forming one side of a parallelogram, connected at one end to the said device, a lever forming the opposite side of the said parallelogram, a connection forming the third side of the parallelogram and pivotally connected at its ends to the said levers, a servo-motor, a dash pot, the said servo-motor and dash pot being connected in alinement with the said connection, a device for controlling the volume of the flow of water and forming a part of the fourth side of the said parallelogram, connections secured to the said device and completing the fourth side of the said parallelogram, a rod extending between and pivotally connected to the said levers forming the opposite sides of the said parallelogram, a stop, and means for normally maintaining the first aforesaid lever in position against the said stop.

1,131,345. [WITHDRAWN.]

1,131,346. BED-SPRING. ORA L. DURST, Indianapolis, Ind. Filed Sept. 5, 1911, Serial No. 647,765. Renewed July 26, 1913. Serial No. 781,452. (Cl. 5—29.)



1. A spring structure comprising a frame, a group of coil springs arranged in the frame in parallel rows, a plurality of main tie-wires permanently connected to substantially opposite portions of the frame and each detachably connected at two separate points with alternate springs of two adjacent rows, and devices detachably connecting marginal springs of the group to the frame.

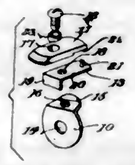
2. In a spring structure, the combination with a rectangular frame, and a plurality of springs arranged in parallel rows in the frame, there being a ring formed on each spring, of a plurality of tie devices connected to two opposite portions of the frame opposite the rings of the springs in the two outermost rows, each device comprising two rod portions extending from the frame convergently to an adjacent ring, each rod portion having a hook removably connected to the ring, and a loop connected to the ends of the hooks, the middle portion of the loop extending between the rod portions and to the plane of the rod portions, all portions of each device being formed integrally; and a plurality of main tie-wires comprising each a plurality of rod portions having hooks thereon loosely embracing the rings, the ends of each two hooks that embrace one ring having a bow-shaped loop connected thereto, the middle portion of the loop extending over to the plane of the rod portions, the end portions of the main tie-wires being connected to other two opposite portions of the frame.

3. In a spring structure, the combination of a rectangular frame, a group of coil springs arranged in the frame, a plurality of main tie-wires comprising each a plurality of rod portions having hooks thereon loosely embracing the springs, one coil of each spring being embraced by one of the hooks of two adjacent rod portions, the ends of the two hooks that embrace one coil having a bow-shaped loop connected thereto, the middle portion of the loop extending over to the plane of the rod portions, the end portions of the tie-wires being connected to two opposite portions of the frame, and wire devices connecting coils of the springs to other two opposite portions of the frame.

4. In a spring structure, the combination of a rectangular frame, a plurality of coil springs arranged in the frame, a plurality of main tie-wires permanently connected to substantially opposite portions of the frame and each detachably connected at two separate points with coils of the springs, and a plurality of tie devices connected to the other two opposite portions of the frame

opposite to coils of the springs adjacent thereto, each device comprising two rod portions extending from the frame convergently to an adjacent coil, each rod portion having a hook removably connected to the coil, and a loop connected to the ends of the hooks, the middle portion of the loop extending between the rod portions and to the plane of the rod portions, all portions of each device being formed integrally.

1,131,347. FASTENER. ERNEST G. DUSTIN, Kewanee, Ill. Filed Apr. 30, 1914. Serial No. 835,559. (Cl. 16—18.)



1. A fastener including a body plate having an opening adapted to receive a fastening device, a laterally extending ear formed on the body plate, said ear being provided with a threaded opening, a screw threaded into the last-mentioned opening, a keeper rotatable on the screw, a substantially L-shaped leaf spring having its one leg interposed between the keeper and the ear and its other leg bearing against the body plate, and a stud formed in the leaf spring and engageable with the keeper whereby the keeper may be yieldably held in either open or closed position.

2. A fastener including a body plate, a lateral ear formed thereon, said ear having a threaded opening, a screw threaded into the opening, a keeper rotatable on the screw, the one terminal of said keeper projecting, when in closed position, beyond the body plate, the other terminal of the keeper projecting beyond the free end of the ear, the last-mentioned terminal of the keeper being cut-away on its lower face and having a recess formed in the cut-away portion, a substantially L-shaped leaf spring having its one leg interposed between the keeper and the ear and its other leg bearing against the body plate, and a stud formed on the leaf spring and engageable in the recess of the keeper for holding the keeper in closed position, said stud being adapted to yieldably hold the keeper in open position by engagement with the side edges of the keeper.

3. A fastener including a body plate having a lateral ear provided with a threaded opening, a screw passing through the opening, a keeper rotatable on the screw, a substantially L-shaped leaf spring having one leg interposed between the keeper and the ear, said leg being provided with a stud which is engageable with the keeper for holding the same against rotation, said leg also having an opening receiving the screw, the other leg of the spring being engaged flatly against the body plate whereby the spring is held against rotation on the screw.

4. A fastener including a body plate having a lateral ear provided with a threaded opening, a screw passing through the opening, a keeper mounted for rotation on the screw, a leaf spring having an opening receiving the screw, said spring being interposed between the keeper and the said ear, a stud formed on the terminal of the spring and arranged for engagement with the adjacent face of the keeper whereby the same is yieldably held against rotation, and means formed integral with the spring and engaging against the body plate for holding the spring against rotation on the screw.

1,131,348. MOP. ALBERT J. EAN, New York, N. Y. Filed Aug. 27, 1914. Serial No. 858,905. (Cl. 141—10.)

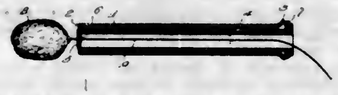
1. A mop comprising a wire shank with a cross bar at one end, mop material the bight of which is supported on said cross bar, and a retaining cap resting on the bight of said mop material, said wire shank being twisted and having converging clamping members between said cross bar and twist and said cap and mop material firmly held in position by said clamping members and twist.



2. A mop comprising a wire shank with a cross bar at one end, mop material the bight of which is supported on said cross bar, and a retaining cap resting on the bight of said mop material, said wire shank being twisted and having converging clamping members between said cross bar and twist and said cap and mop material firmly held in position by said clamping members and twist, said cap having notches at its ends receiving the adjacent portions of said clamping members.

3. A mop comprising a wire shank with a cross bar at one end, mop material the bight of which is supported on said cross bar, and a retaining cap resting on the bight of said mop material, said wire shank being twisted and having converging clamping members between said cross bar and twist and said cap and mop material firmly held in position by said clamping members and twist, said cap being parallel with the cross bar and of substantially semicircular cross section and having end notches receiving said converging clamping members of the wire shank.

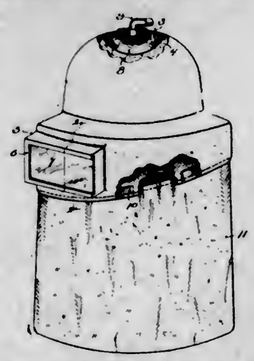
1,131,349. APPLICATOR. AVARD AUGUSTUS ELLIS, Denver, Colo., assignor to The American Tampon and Applicator Company, a Corporation of Colorado. Filed May 25, 1914. Serial No. 840,783. (Cl. 128—28.)



1. The combination with a tube for the insertion into the vagina or rectum and a tampon, with a cord attached thereto, to be placed within the tube, of a hollow plunger, through which said cord may be threaded, for ejecting the tampon from the end of said tube after insertion into said vagina or rectum.

2. An applicator comprising a tube having its front end edges rounded to present a smooth surface, the rear end being outwardly flared to form a grasping means for said tube, an inner tube of substantially the same length as the outer tube slidably mounted within the latter, said inner tube having its front end closed and provided with a centrally disposed aperture, the opposite, rear, end being outwardly flared, a tampon adapted to be forced through and ejected from the inner end of said outer tube by the slidably disposed inner tube, and a cord having one end connected with said tampon, the other end being passed through the centrally arranged aperture in the closed end of said inner tube, whereby when said tampon has been ejected by the former into the vagina or rectum, the cord will remain on the exterior, permitting said tampon to be easily removed.

1,131,350. HELMET. WILLIAM F. ENGELFRIED and GEORGE A. ELFERS, Milwaukee, Wis. Filed May 11, 1914. Serial No. 837,674. (Cl. 128—42.)

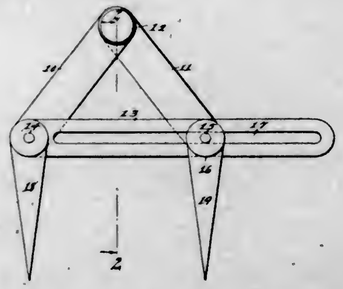


1. A molded stiff helmet of light material having an integral depending rim-flange, a guide frame molded in a front projection of the flange, and a plane of glazing material in sliding engagement with the frame.

2. A papier-mâché helmet having an integral depending rim-flange provided at the front with an angular hollow projection, and a guide frame for a pane of transparent material molded in said projection.

3. A manufacture comprising a papier-mâché helmet having an integral depending rim flange provided at the front with an angular hollow projection in which a guide frame for a pane of transparent material is molded, an air distributing nozzle in connection with the dome of the helmet to discharge therein, and a curtain suspended in connection with the flange aforesaid.

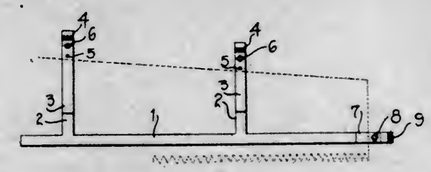
1,131,351. CALIPERS. ANTONIO VELEZ ESPINAL, Banes, Cuba. Filed June 25, 1914. Serial No. 847,232. (Cl. 33—149.)



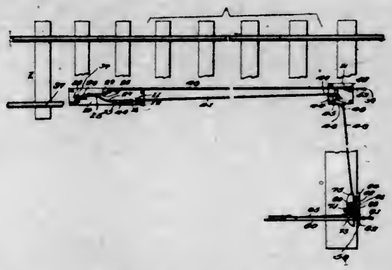
A device of the class described, comprising two similar arms, a pivot passed through one end of each arm, a leg for each arm provided with a pointed end and a pivot passed through the opposite end and through the corresponding arm, at the outer end thereof, and a brace in pivotal connection with the joint of one arm and leg, and in adjustable connection with the joint of the other arm and leg, each of said legs being foldable on the corresponding arm to be entirely contained within the edges of said arm, and being revoluble through a complete circle on the corresponding pivot.

1,131,352. SAW-GAGE. ELISHA J. FAIRES and CHARLES W. STOCKBURGER, McKinney, Tex. Filed May 23, 1914. Serial No. 840,610. (Cl. 145—35.)

A kerfing attachment for saws comprising a gage bar, arms of different lengths projected from one edge thereof, jaw members arranged in opposed relation to the arms, yoke shaped springs connecting the arms and jaw members, a jaw arranged in opposed relation to the outer end of the gage bar, and means for clamping the arm and jaws into contact with the saw blade.



1,131,353. SIGNALING MECHANISM. JOHN FEARS, Waco, Tex. Filed Nov. 21, 1912. Serial No. 732,696. (Cl. 246—45.)



1. In an apparatus of the class described, a signaling mechanism including a striker, means for operating said striker, a target movably mounted, means for operating said target, a trigger device located in the path of a moving train, yieldable means for holding said trigger device depressed, means whereby the striker operating mechanism and the target operating mechanism are actuated by said trigger device, and means whereby said yieldable trigger holding means is released by a moving train.

2. In a signaling apparatus, a gong, a striker mechanism for said gong, means for operating said striker mechanism, a target movably mounted, means for operating said target, a trigger device located in the path of a moving train, yieldable means for holding said trigger device depressed, means whereby the striker operating mechanism and the target operating mechanism are actuated by said trigger device, and means whereby said yieldable trigger holding means is released by a moving train.

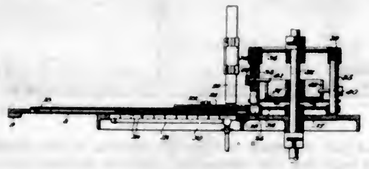
3. In a signaling apparatus, a gong, a rock shaft, a striker carried by said rock shaft in position to engage said gong, an arm extending from said shaft, a spring engaging said arm and operating to hold said shaft and its striker yieldably in one position, a lever engaging said rock shaft arm, a trigger device, connecting means between said trigger device and said lever, and trigger releasing means arranged to be operated by a moving train.

4. In a signaling apparatus, a trigger device located in the path of a moving train, yieldable means for holding said trigger device, a signal mechanism rendered operative by said trigger device, and means operated by a moving train for releasing said yieldable trigger holding means.

5. A signaling apparatus including a mechanism for operating the same, means for yieldably holding said mechanism in one position, means operative by an approaching train for releasing said holding means, means operative by an approaching train for restoring said holding means to its first position, and means operative by a departing train for releasing said holding means.

[Claim 6 not printed in the Gazette.]

1,131,354. BOTTLE-CAP MANUFACTURE. JAMES C. FORRESTER, New York, N. Y. Original application filed Jan. 23, 1913, Serial No. 743,749. Divided and this application filed May 23, 1913. Serial No. 769,532. (Cl. 113—80.)



1. The process of manufacturing bottle caps, which consists in first heating a tin containing only the adhesive binding material to thereby soften said adhesive material, then driving a cork into firm engagement with the said previously softened adhesive material and then momentarily increasing the pressure between the cork and the tin.

2. The improvement in the art of forming bottle caps which includes, placing adhesive disks in the tins, then moving the tins with the adhesive disks therein successively through a heating zone and gradually softening the adhesive, removing the tins one by one from the heating zone, then inserting by pressure a sealing disk into each tin after it leaves the heating zone and maintaining such pressure on the sealing disks while the adhesive is setting.

3. The improved art of assembling the parts of a device of the character described which includes forcibly inserting a cork into a tin with interposed adhesive material so as to cause adhesion between the cork and the tin, then momentarily exerting a pressure on the cork in excess of the force employed in inserting said cork so as to force the adhesive material into the pores of the cork, then releasing said excess of pressure so as to relieve excessive tension between the cork and the tin and afterward continuing pressure on the cork sufficient to hold the parts together while the adhesive material is setting.

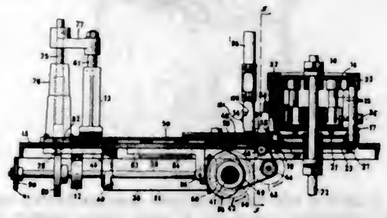
4. The improved art of assembling the parts of a device of the character described which includes heating a tin for softening adhesive material therein, inserting a cork into the tin so as to cause adhesion between the cork and the tin, then momentarily exerting a pressure on the cork in excess of the force employed in inserting said cork so as to force the adhesive material into the ports of the cork, then releasing said excess of pressure so as to relieve excessive tension between the cork and the tin and afterward continuing pressure on the cork sufficient to hold the parts together while the adhesive material is setting.

5. The process of manufacturing bottle caps which consists in heating a tin, then forcing a cooler cork into the previously heated tin with interposed tacky adhesive material between the tin and cork with pressure sufficient to suddenly compress the cork against the tacky adhesive material, and then reducing the pressure to allow the cork to expand somewhat and draw some of the adhesive into its surface pores and holding the cork in the tin under said reduced pressure while the adhesive is setting whereby tensional stresses in the cork and setting adhesive are relieved during the setting of the adhesive and before the adhesive has finally set.

[Claim 6 not printed in the Gazette.]

1,131,355. BOTTLE-CAP-ASSEMBLING MACHINE. JAMES C. FORRESTER, New York, N. Y. Filed June 20, 1913. Serial No. 774,764. (Cl. 113—80.)

1. In a bottle cap assembling machine, the combination with an assembling turret provided with pockets in the periphery thereof to receive the tins, a substantially horizontally disposed conveyer passage extending in a straight line to the peripheral portion of the assembling turret, an endless chain conveyer supported in the conveyer passage with the upper run thereof extending up to a point adjacent the periphery of the assembling turret and disposed substantially in the horizontal plane of the pockets in the assembling turret, means for supplying tins to the end of the chain conveyer farthest removed from the assembling turret, means operating said conveyer to carry the tins supplied thereto positively and in a short direct path through the conveyer passage on into the pockets in the turret, means for heating the tins being transported through the conveyer passage, means rotating the turret to bring the pockets therein into line with the line of feed of the conveyer and means arranged to supply corks to the tins after said tins have been transported by the chain conveyer past the heating means.



2. In a cap assembling machine, the combination of a pair of substantially parallel conveyer chains arranged to support the tins and spaced apart to leave an opening therebetween, a burner discharging up through the space between the chains to heat the tins being conveyed by the chains, means for depositing an adhesive medium in the tins, means for supplying corks to the tins, and an assembling device arranged to operate upon the tins advanced by the conveyer chains.

3. In a cap assembling machine, a guide passage for the tins, a continually operating endless conveyer in the bottom of said guide passage and having an opening therein, a burner discharging up through the opening in the conveyer to thereby heat the tins being transported through the guide passage, means for depositing a fusible adhesive medium in the tins, means for supplying corks to the tins, and an assembling device arranged to operate upon the tins advanced by the conveyer.

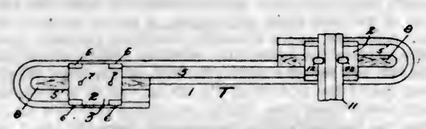
4. In a cap assembling machine, a guideway for the tins provided with a conveyer passage in the bottom thereof, conveyer chains disposed on opposite sides of the conveyer passage leaving an opening therebetween, a burner discharging up through the opening between the conveyer chains to thereby heat the tins being transported by the chains, means for depositing a fusible adhesive medium in the tins, means for supplying corks to the tins, and an assembling device arranged to operate upon the tins advanced by the conveyer chains.

5. In a cap assembling machine, the combination of an assembling device, conveyer chains for forwarding tins to said assembling device, a guide passage over the conveyer chains, means for heating the tins being transported through the guide passage on the conveyer chains, adhesive supplying means adjacent the end of said guide passage, a conveyer arranged to forward tins to the side of the adhesive supplying means farthest removed from the guide passage, and an intermittently operating pusher disposed above said second conveyer, reciprocating in the plane of movement of the conveyer chains and arranged to transfer a tin from the conveyer to a point beneath the adhesive supplying means and to push the tins preceding from beneath the adhesive supplying means into the guide passage onto the conveyer chains.

[Claims 6 to 11 not printed in the Gazette.]

1,131,356. METAL RAILWAY-TIE. WILLIAM D. FORSYTH, Youngstown, Ohio, assignor, by mesne assignments, to Railway Products Corporation, Buffalo, N. Y., a Corporation of New York. Filed Nov. 14, 1911. Serial No. 660,302. (Cl. 238—5.)

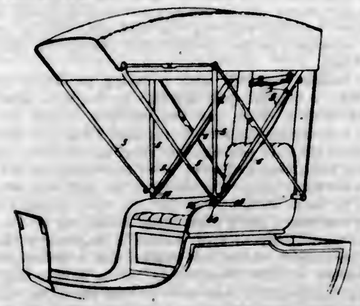
1. A metal railway tie comprising a piece of a railroad rail having both end portions thereof bent to extend parallel to the middle portion of said rail on opposite sides thereof, a wooden block between each of said end portions and said middle portion of said rail, said blocks being adapted to receive and retain means for holding the track rails to said tie, and adjustable rail saddles having downwardly extending flanges fitting closely around the head of the rail in each of said end portions thereof and in said middle portion, said saddles each having upwardly extending lugs near the corners thereof which are spaced to receive a track rail, said saddles having holes therein through which are driven the spikes for fastening the track rails to said tie.



2. A metal railway tie comprising a piece of a railroad rail having both end portions thereof bent to extend parallel to the middle portion of said rail, a wooden block between each of said end portions and said middle portion of said rail, said blocks being adapted to receive and retain means for holding the track rails to said tie, and rail saddles adjustably mounted on said tie and having downwardly extending flanges fitting closely around the head of said first-mentioned rail.

3. A metal railway tie comprising a piece of a railroad rail having both end portions thereof bent to extend parallel to the middle portion of said rail, means inserted between each of said end portions and said middle portion of said rail for receiving and retaining rail fastening-devices, and rail saddles slidably mounted on said tie for supporting track rails.

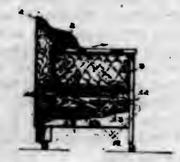
1,131,357. BUGGY-TOP-BOW PROTECTOR. NOAH FREDERICK, Portland, Oreg. Filed Apr. 15, 1914. Serial No. 831,959. (Cl. 21—61.)



1. An attachment for buggy tops comprising a spring metal support having an eye at one end for pivotally connecting with the buggy bows pivot bolt, a clip member bendable over a buggy bow, the said member having threaded shank ends, a clip bar and nuts coöperating with the said ends, a seat block removably held within the clip, the said block having means for locking it from displacement when in the clip and having a seat portion for engaging and clamping the pivot end of the yielding support against the clip bar, and a yielding member carried by the clip bar and extended in the longitudinal plane of the said block that forms a spring rest for the said yielding support.

2. As a new article of manufacture, an attachment for buggy tops comprising a spring sheet metal member having its opposite ends turned to form threaded shanks, the said member being bent to a clip shape whereby to fit over a buggy bow, a clip bar removably engaging the said shanks, means for holding the clip bar on the shanks, a bow spring member secured to the top at one end, yielding members projected in opposite directions from said clip bar, the free end of said bow spring member being projected between said shanks over said yielding members, said yielding members serving to press said bow spring member toward the top prop.

1,131,358. COUCH OR DAVENPORT BED. HYMAN FREEDMAN and NATHAN M. FREEDMAN, Chicago, Ill. Filed June 19, 1912, Serial No. 704,493. Renewed Aug. 1, 1914. Serial No. 854,542. (Cl. 5—50.)



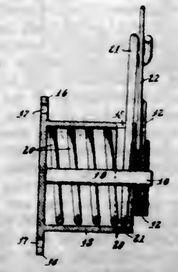
1. In a couch or davenport bed comprising a back and ends, and a seat movable with relation to said back and ends, means for assembling said seat with said back and ends comprising a bracket having a horizontally disposed slot therein, a pintle plate, a pintle carried thereby adapted to engage said slot, an arm extending from said bracket to a point in said pintle plate eccentrically and in vertical alinement with said pintle.

2. In a couch or davenport bed comprising a back and ends, and a seat movable with relation to said back and ends, means for assembling said seat with said back and ends comprising a bracket having a horizontally disposed slot therein, with an enlarged portion for the introduction of the head of the pintle, a pintle plate, a headed pintle carried thereby adapted to engage said slot, and an arm extending from said bracket to a point in said pintle plate eccentrically and in vertical alinement with said pintle.

3. In a couch or davenport bed comprising a back and ends, and a seat movable with relation to said back and ends, means for assembling said seat with said back and ends comprising a bracket having a horizontally disposed slot therein, with an enlarged angularly disposed portion at one end for the introduction of the head of the pintle, a pintle plate, a headed pintle carried thereby adapted to engage said slot and an arm extending from said bracket to said pintle plate eccentrically with said pintle.

4. In a couch or davenport bed comprising a back and ends, and a seat movable with relation to said back and ends, means for pivoting said seat between said ends, stops and a plate located upon said seat and ends respectively to the rear of said pivoting means for locating said seat in open and closed positions, and a pivoted latch upon the rear edge of said seat adapted to engage said back in closed position.

1,131,359. DAVENPORT-BED. HYMAN FREEDMAN and NATHAN M. FREEDMAN, Chicago, Ill. Filed Dec. 2, 1912, Serial No. 734,443. Renewed Aug. 1, 1914. Serial No. 854,543. (Cl. 5—51.)



1. A davenport bed comprising a back and arms, a front rail extending between the forward ends of said arms, a

seat frame pivoted adjacent said front rail, a standard extending from said seat frame, a coil spring one end whereof is extended to form a spring arm, a pivoted arm engaged by said spring arm and a link connecting said pivoted arm with said standard.

2. A davenport bed comprising a back and arms, a front rail extending between the forward ends of said arms, a seat frame pivoted adjacent said front rail, a standard extending from said seat frame, a link pivoted to said standard, spring mattress sections pivoted to said link, links for securing the opposite sides of said mattress sections respectively to the seat frame and the back and arms, a coil spring one end whereof is extended to form a spring arm, a pivoted arm engaged by said spring arm, and a link connecting said pivoted arm with said standard.

3. A spring structure for davenport beds comprising a spring casing, a coil spring mounted within said casing, an end extending from said spring and out of said casing to form a spring arm, a stud rising from the bottom of said casing, and a lever arm pivoted upon said stud and engaged by said spring arm.

4. A spring structure for davenport beds comprising a spring casing, means for securing said casing in position, a coil spring mounted within said casing, an end extending from said spring and out of said casing to form a spring arm, a stud rising from the bottom of said casing, and a lever arm pivoted upon said stud and engaged by said spring arm.

1,131,360. AUTOMATIC HAND-FIREARM. ANDREW FYRBERG, Worcester, Mass., assignor to Warner Arms Corporation, New York, N. Y. Filed Sept. 25, 1914. Serial No. 863,456. (Cl. 42—3.)



1. A firearm provided with a frame having a breech block bearing and a recoil rod bearing above the said breech block bearing, a barrel held on the said frame in front of the said breech block bearing, a breech block slidable in the said breech block bearing and having at its rear end a fixed head abutting against the rear end of the said recoil rod bearing, a spring-pressed recoil rod slidable in the said recoil rod bearing and having its rear end projecting into the said breech block head, and locking means mounted transversely on the said breech block head and adapted to be turned normally in opposite directions, the said locking means in one position engaging the said recoil rod to lock the breech block head and the recoil rod together, and the said locking means in another position disengaging the said recoil rod to unlock the breech block head relative to the recoil rod to allow movement of the breech block independently of the recoil rod.

2. A firearm provided with a frame having a breech block bearing and a recoil rod bearing above the said breech block bearing, a barrel held on the said frame in front of the said breech block bearing, a breech block slidable in the said breech block bearing and having at its rear end a fixed head abutting against the rear end of the said recoil rod bearing, a spring-pressed recoil rod slidable in the said recoil rod bearing and having its rear end projecting into a recess in the said breech block head, the said rear end of the recoil rod being provided with a notch, a transverse locking pin mounted to turn in the said breech block head and intersecting the said recess, the said pin having a cut-out portion adapted to register with the said recoil rod to allow the notched end thereof to pass into the recess, the said pin on being turned engaging the said notch to fasten the head and recoil rod together, and a handle on one outer end of the said pin to permit of turning the pin into locking or unlocking position.

3. A firearm provided with a casing having a breech block bore, a breech block slidable in the said bore and provided with a firing pin bearing and a slot leading thereto, a recoil device slidable in the said frame, a manually controlled locking device on the said breech block and engaging the said recoil device to normally lock the breech block and recoil device together, a firing pin slidable in the said firing pin bearing, a spring pressing the said firing pin, and a manually controlled abutment lever fulcrumed on the casing and normally projecting through the said slot into the bearing to form an abutment for the rear end of the said firing pin spring and to prevent the said breech block from falling out of the said bore at the time the breech block is disconnected from the recoil device by the said locking device, the said abutment lever having a fingerpiece extending to the outside of the said casing.

4. A firearm provided with a casing having a breech block bore, a breech block slidable in the said bore and provided with a firing pin bearing and a slot leading thereto, a recoil device slidable in the said frame, a manually controlled locking device on the said breech block and engaging the said recoil device to normally lock the breech block and recoil device together, a firing pin slidable in the said firing pin bearing, a spring pressing the said firing pin, a manually controlled abutment lever fulcrumed on the casing and normally projecting through the said slot into the bearing to form an abutment for the rear end of the said firing pin spring and to prevent the said breech block from falling out of the said bore at the time the breech block is disconnected from the recoil device by the said locking device, the said abutment lever having a fingerpiece extending to the outside of the said casing, and a locking device engaging the said abutment lever when in one position to normally hold the abutment lever against movement, the last mentioned locking device when in another position allowing the said abutment to swing out of position relative to the firing pin spring and the breech block.

5. A firearm provided with a casing having a breech block bore, a breech block slidable in the said bore and provided with a firing pin bearing and a slot leading thereto, a firing pin slidable in the said firing pin bearing, a spring in the said bearing and pressing the firing pin, a manually controlled abutment lever fulcrumed on the casing and normally projecting through the said slot into the bearing to form an abutment for the said spring and to prevent the breech block from being drawn out of the said bore the said abutment lever having a fingerpiece extending to the outside of the said casing, and a spring-pressed pin mounted to slide transversely in the said casing and normally engaging the said lever to hold the latter against swinging, the said pin having a cut-out portion adapted to move into register with the said lever on pressing the pin to allow the lever to swing into inactive position relative to the said firing pin spring and breech block.

[Claims 6 and 7 not printed in the Gazette.]

1,131,361. PROCESS OF MAKING GRANULAR NITRATE OF AMMONIA. FREDERICK LAREN GALLUP, Media, Pa., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed May 18, 1912, Serial No. 698,344. Renewed July 28, 1914. Serial No. 853,724. (Cl. 23—21.)

1. The process of making granular ammonium nitrate, which consists in granulating ammonium nitrate liquor at a definite degree of concentration according to the size of grains desired.

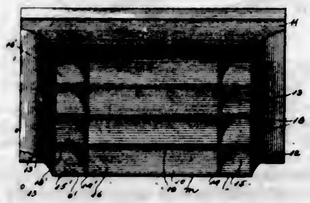
2. The process of making granular ammonium nitrate, which consists in crystallizing and stirring ammonium nitrate liquor having a definite degree of concentration according to the size of grains desired.

3. The process of making granular ammonium nitrate, which consists in varying the degree of concentration of ammonium nitrate liquor according to the size of grains desired, and stirring such liquor while crystallizing it.

4. The process of making granular ammonium nitrate, which consists in concentrating ammonium nitrate liquor to a predetermined concentration according to the size of grain desired and cooling while stirring it.

5. The process of making granular ammonium nitrate, consisting in concentrating ammonium nitrate liquor to a predetermined concentration according to the size of grain desired, and crystallizing such liquor by stirring and aerating, while cooling it.

1,131,362. VENTILATOR. THOMAS H. GARLAND, Chicago, Ill. Filed June 29, 1914. Serial No. 847,821. (Cl. 98—22.)



1. A ventilating structure comprising a housing curved transversely downwardly and having a transverse eduction passageway, a cowl adjacent each end of said passageway for directing air across the outlet of said passageway, said cowls being vertically sub-divided.

2. A ventilating structure comprising a housing curved transversely downwardly and having a transverse eduction passageway, a cowl adjacent each end of said passage for directing air across the outlet of said passageway, said eduction passageway and cowls being vertically sub-divided.

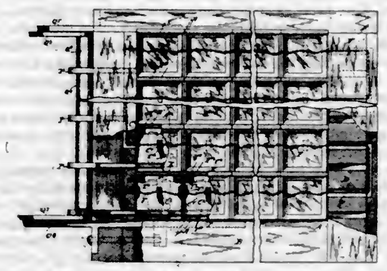
3. A ventilator structure comprising a laterally extending housing having passageways therethrough transverse to the direction of travel of the wind, said passageways deflecting vertically and tending to shift the wind from one level to another in its passage therethrough, and partitions vertically sub-dividing said passageways and extending in the same general direction as the walls thereof whereby the wind is forced to travel uniformly through said passageways throughout the extent thereof.

4. A ventilator structure comprising a laterally extending housing having an eduction passageway, a cowl at one end of the housing having its entrance facing the wind and having its outlet adjacent the eduction passageway outlet whereby wind passing through the cowl will be deflected across the eduction passageway outlet, said housing deflecting vertically and thereby tending to shift the wind from one level to another and thereby causing concentration of the wind toward the wall of the housing tending to effect such shift of the wind, and partitions vertically sub-dividing said passageway and cowl and extending in the same general direction as said passageway whereby the wind will be prevented from concentrating and will be forced to flow uniformly through the passageway and cowl and to flow in uniform density from the passageway and cowl.

1,131,363. VOTING-MACHINE. JAMES C. GARRETT, San Francisco, Cal., assignor, by mesne assignments, to George T. Cranmer, Clerk of the United States Circuit Court for the District of New Jersey, trustee. Filed June 8, 1895. Serial No. 552,153. (Cl. 235—55.)

1. A voting machine composed of tierable cases, individually aggregable and removable, each case having its independent counting device and actuator therefor, and means to permit only a predetermined number of actuators to be operated, substantially as described.

2. A voting machine composed of a plurality of separate cases each having its independent counting device and actuator therefor, each case representing a candidate, and each of said cases being removable from the machine, and means to permit only a predetermined number of actuators to be operated substantially as described.



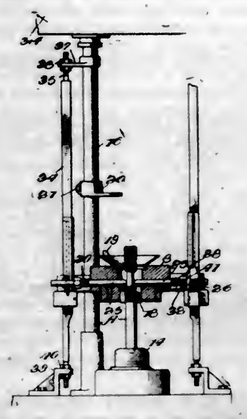
3. A voting machine composed of a plurality of separate cases each having a counting device and an actuator, each case being removable from the machine and means to permit only a predetermined number of actuators to be operated.

4. A voting machine composed of separate cases, adapted to be arranged in either a horizontal or vertical tier, each case being adapted to be placed in and removed from the machine, each case having its independent counting device and actuator and means to permit only a predetermined number of actuators to be operated.

5. A voting machine composed of a series of cases, each case being separate one from the other, each case having a counting device and actuator independent, both constructively and operatively, so that the cases can be added to or taken from the machine to suit the exigencies of an election and means to permit only a predetermined number of actuators to be operated.

[Claims 6 to 322 not printed in the Gazette.]

1,131,364. DETHREADING ATTACHMENT FOR STAY-BOLT MACHINES. SHIRLEY LACEY GARY, South Richmond, Va. Filed July 21, 1913. Serial No. 780,259. (Cl. 10—87.)



1. In a machine of the character specified embodying blank holding and rotating means, mechanism for forming screw threads upon the blank, means movable with the screw thread forming mechanism for reducing the blank intermediate its threaded ends, means for automatically throwing the screw threading mechanism into and

seat frame pivoted adjacent said front rail, a standard extending from said seat frame, a coil spring one end whereof is extended to form a spring arm, a pivoted arm engaged by said spring arm and a link connecting said pivoted arm with said standard.

2. A davenport bed comprising a back and arms, a front rail extending between the forward ends of said arms, a seat frame pivoted adjacent said front rail, a standard extending from said seat frame, a link pivoted to said standard, spring mattress sections pivoted to said link, links for securing the opposite sides of said mattress sections respectively to the seat frame and the back and arms, a coil spring one end whereof is extended to form a spring arm, a pivoted arm engaged by said spring arm, and a link connecting said pivoted arm with said standard.

3. A spring structure for davenport beds comprising a spring casing, a coil spring mounted within said casing, an end extending from said spring and out of said casing to form a spring arm, a stud rising from the bottom of said casing, and a lever arm pivoted upon said stud and engaged by said spring arm.

4. A spring structure for davenport beds comprising a spring casing, means for securing said casing in position, a coil spring mounted within said casing, an end extending from said spring and out of said casing to form a spring arm, a stud rising from the bottom of said casing, and a lever arm pivoted upon said stud and engaged by said spring arm.

1,131,360. AUTOMATIC HAND-FIREARM. ANDREW FYRBERG, Worcester, Mass., assignor to Warner Arms Corporation, New York, N. Y. Filed Sept. 25, 1914. Serial No. 863,456. (Cl. 42—3.)



1. A firearm provided with a frame having a breech block bearing and a recoil rod bearing above the said breech block bearing, a barrel held on the said frame in front of the said breech block bearing, a breech block slidable in the said breech block bearing and having at its rear end a fixed head abutting against the rear end of the said recoil rod bearing, a spring-pressed recoil rod slidable in the said recoil rod bearing and having its rear end projecting into the said breech block head, and locking means mounted transversely on the said breech block head and adapted to be turned normally in opposite directions, the said locking means in one position engaging the said recoil rod to lock the breech block head and the recoil rod together, and the said locking means in another position disengaging the said recoil rod to unlock the breech block head relative to the recoil rod to allow movement of the breech block independently of the recoil rod.

2. A firearm provided with a frame having a breech block bearing and a recoil rod bearing above the said breech block bearing, a barrel held on the said frame in front of the said breech block bearing, a breech block slidable in the said breech block bearing and having at its rear end a fixed head abutting against the rear end of the said recoil rod bearing, a spring-pressed recoil rod slidable in the said recoil rod bearing and having its rear end projecting into a recess in the said breech block head, the said rear end of the recoil rod being provided with a notch, a transverse locking pin mounted to turn in the said breech block head and intersecting the said recess, the said pin having a cut-out portion adapted to register with the said recoil rod to allow the notched end thereof to pass into the recess, the said pin on being turned engaging the said notch to fasten the head and recoil rod together, and a handle on one outer end of the said pin to permit of turning the pin into locking or unlocking position.

3. A firearm provided with a casing having a breech block bore, a breech block slidable in the said bore and provided with a firing pin bearing and a slot leading thereto, a recoil device slidable in the said frame, a manually controlled locking device on the said breech block and engaging the said recoil device to normally lock the breech block and recoil device together, a firing pin slidable in the said firing pin bearing, a spring pressing the said firing pin, and a manually controlled abutment lever fulcrumed on the casing and normally projecting through the said slot into the bearing to form an abutment for the rear end of the said firing pin spring and to prevent the said breech block from falling out of the said bore at the time the breech block is disconnected from the recoil device by the said locking device, the said abutment lever having a fingerpiece extending to the outside of the said casing.

4. A firearm provided with a casing having a breech block bore, a breech block slidable in the said bore and provided with a firing pin bearing and a slot leading thereto, a recoil device slidable in the said frame, a manually controlled locking device on the said breech block and engaging the said recoil device to normally lock the breech block and recoil device together, a firing pin slidable in the said firing pin bearing, a spring pressing the said firing pin, a manually controlled abutment lever fulcrumed on the casing and normally projecting through the said slot into the bearing to form an abutment for the rear end of the said firing pin spring and to prevent the said breech block from falling out of the said bore at the time the breech block is disconnected from the recoil device by the said locking device, the said abutment lever having a fingerpiece extending to the outside of the said casing, and a locking device engaging the said abutment lever when in one position to normally hold the abutment lever against movement, the last mentioned locking device when in another position allowing the said abutment to swing out of position relative to the firing pin spring and the breech block.

5. A firearm provided with a casing having a breech block bore, a breech block slidable in the said bore and provided with a firing pin bearing and a slot leading thereto, a firing pin slidable in the said firing pin bearing, a spring in the said bearing and pressing the firing pin, a manually controlled abutment lever fulcrumed on the casing and normally projecting through the said slot into the bearing to form an abutment for the said spring and to prevent the breech block from being drawn out of the said bore the said abutment lever having a fingerpiece extending to the outside of the said casing, and a spring-pressed pin mounted to slide transversely in the said casing and normally engaging the said lever to hold the latter against swinging, the said pin having a cut-out portion adapted to move into register with the said lever on pressing the pin to allow the lever to swing into inactive position relative to the said firing pin spring and breech block.

[Claims 6 and 7 not printed in the Gazette.]

1,131,361. PROCESS OF MAKING GRANULAR NITRATE OF AMMONIA. FREDERICK LAREN GALLUP, Media, Pa., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed May 18, 1912, Serial No. 698,344. Renewed July 28, 1914. Serial No. 853,724. (Cl. 23—21.)

1. The process of making granular ammonium nitrate, which consists in granulating ammonium nitrate liquor at a definite degree of concentration according to the size of grains desired.

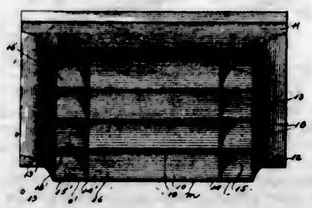
2. The process of making granular ammonium nitrate, which consists in crystallising and stirring ammonium nitrate liquor having a definite degree of concentration according to the size of grains desired.

3. The process of making granular ammonium nitrate, which consists in varying the degree of concentration of ammonium nitrate liquor according to the size of grains desired, and stirring such liquor while crystallizing it.

4. The process of making granular ammonium nitrate, which consists in concentrating ammonium nitrate liquor to a predetermined concentration according to the size of grain desired and cooling while stirring it.

5. The process of making granular ammonium nitrate, consisting in concentrating ammonium nitrate liquor to a predetermined concentration according to the size of grain desired, and crystallizing such liquor by stirring and aerating, while cooling it.

1,131,362. VENTILATOR. THOMAS H. GARLAND, Chicago, Ill. Filed June 29, 1914. Serial No. 847,821. (Cl. 98—22.)



1. A ventilating structure comprising a housing curved transversely downwardly and having a transverse eduction passageway, a cowl adjacent each end of said passageway for directing air across the outlet of said passageway, said cowls being vertically sub-divided.

2. A ventilating structure comprising a housing curved transversely downwardly and having a transverse eduction passageway, a cowl adjacent each end of said passage for directing air across the outlet of said passageway, said eduction passageway and cowls being vertically sub-divided.

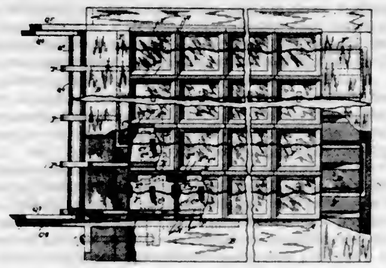
3. A ventilator structure comprising a laterally extending housing having passageways therethrough transverse to the direction of travel of the wind, said passageways deflecting vertically and tending to shift the wind from one level to another in its passage therethrough, and partitions vertically sub-dividing said passageways and extending in the same general direction as the walls thereof whereby the wind is forced to travel uniformly through said passageways throughout the extent thereof.

4. A ventilator structure comprising a laterally extending housing having an eduction passageway, a cowl at one end of the housing having its entrance facing the wind and having its outlet adjacent the eduction passageway outlet whereby wind passing through the cowl will be deflected across the eduction passageway outlet, said housing deflecting vertically and thereby tending to shift the wind from one level to another and thereby causing concentration of the wind toward the wall of the housing tending to effect such shift of the wind, and partitions vertically sub-dividing said passageway and cowl and extending in the same general direction as said passageway whereby the wind will be prevented from concentrating and will be forced to flow uniformly through the passageway and cowl and to flow in uniform density from the passageway and cowl.

1,131,363. VOTING-MACHINE. JAMES C. GARRETT, San Francisco, Cal., assignor, by mesne assignments, to George T. Cranmer, Clerk of the United States Circuit Court for the District of New Jersey, trustee. Filed June 8, 1895. Serial No. 552,153. (Cl. 235—55.)

1. A voting machine composed of tierable cases, individually aggregable and removable, each case having its independent counting device and actuator therefor, and means to permit only a predetermined number of actuators to be operated, substantially as described.

2. A voting machine composed of a plurality of separate cases each having its independent counting device and actuator therefor, each case representing a candidate, and each of said cases being removable from the machine, and means to permit only a predetermined number of actuators to be operated substantially as described.



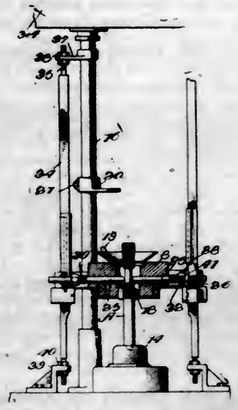
3. A voting machine composed of a plurality of separate cases each having a counting device and an actuator, each case being removable from the machine and means to permit only a predetermined number of actuators to be operated.

4. A voting machine composed of separate cases, adapted to be arranged in either a horizontal or vertical tier, each case being adapted to be placed in and removed from the machine, each case having its independent counting device and actuator and means to permit only a predetermined number of actuators to be operated.

5. A voting machine composed of a series of cases, each case being separate one from the other, each case having a counting device and actuator independent, both constructively and operatively, so that the cases can be added to or taken from the machine to suit the exigencies of an election and means to permit only a predetermined number of actuators to be operated.

[Claims 6 to 322 not printed in the Gazette.]

1,131,364. DETHREADING ATTACHMENT FOR STAY-BOLT MACHINES. SHIRLEY LACEY GARY, South Richmond, Va. Filed July 21, 1913. Serial No. 780,259. (Cl. 10—87.)



1. In a machine of the character specified embodying blank holding and rotating means, mechanism for forming screw threads upon the blank, means movable with the screw thread forming mechanism for reducing the blank intermediate its threaded ends, means for automatically throwing the screw threading mechanism into and

out of action, and other means for throwing the blank reducing mechanism into and out of action at predetermined periods, such means embodying a profile element mounted to move with the screw thread-forming mechanism during a portion of the travel of such mechanism.

2. In a machine of the character specified embodying blank holding and rotating means, mechanism for forming screw threads upon the blank, means movable with the screw thread forming mechanism for reducing the blank intermediate its threaded ends, means for automatically throwing the screw threading mechanism into and out of action, and other means embodying a profile element movable with the screw thread forming and reducing mechanisms for a part of their travel only for throwing the blank reducing mechanism into and out of action at predetermined periods.

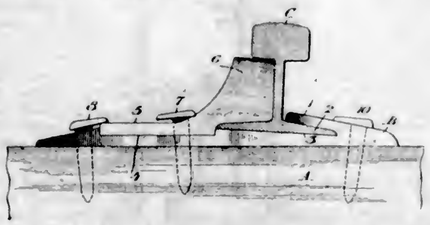
3. In a machine of the character specified embodying blank holding and rotating means, mechanism for forming screw threads upon the blank, means movable with the screw thread forming mechanism for reducing the blank intermediate its threaded ends, means for automatically throwing the screw threading mechanism into and out of action, actuating means for the reducing mechanism embodying a movable element for positively throwing the said reducing mechanism into and out of operation at predetermined intervals, and connecting means between the said actuating means and the thread forming and reducing mechanisms embodying relatively movable parts to admit of the said actuating means moving part way with the thread forming and reducing mechanisms.

4. In mechanism of the character specified embodying blank holding and rotating means, a carriage, mechanism mounted upon the carriage for forming screw threads upon the blank, mechanism for reducing the blank also mounted upon the said carriage, means for throwing the screw thread forming mechanism into and out of action, actuating means embodying a movable profile element for throwing the blank reducing mechanism into and out of action and connecting means between the said carriage and movable profile element comprising relatively movable parts to admit of the carriage having a greater travel in each direction than the said movable profile element.

5. In mechanism of the character specified embodying blank holding and rotating means, a carriage, mechanism mounted upon the carriage for forming screw threads upon the blank, mechanism for reducing the blank also mounted upon the said carriage, means for throwing the screw thread forming mechanism into and out of action, a guide parallel with the line of travel of the carriage, a profile element slidable upon the guide adapted to operate the blank reducing mechanism, and connecting means between the said carriage and the profile element.

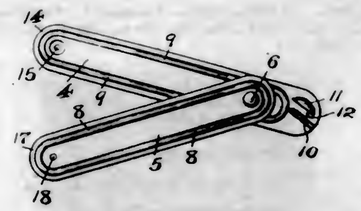
[Claims 6 to 25 not printed in the Gazette.]

1,131,365. CHAIR. PATRICK L. GOODMAN and JOHN PETERS, Charleston, Ill. Filed Sept. 5, 1913. Serial No. 788,353. (Cl. 238—2.)



The combination of a tie and a rail base mounted thereon, said base provided with an inclined surface tapering toward the inner end thereof upon which a rail is mounted and a recess formed in rear of said inclined surface, an integral jaw on the base engaging the rail, and a movable clamping plate mounted in the recess in the base adapted to engage the opposite side of the rail, a shoulder formed at the outer edge of the recess for forming a stop for the clamping plate and preventing it from moving, means passing through the clamping plate and chair for securing them to the tie for fastening the rail to the chair base, and spikes for fastening the chair to the tie, one of said spikes engaging an end of the clamping plate for maintaining it in the recess, and the other spike extending onto the integral jaw, so that it is located above the rail flange.

1,131,366. TRUNK OR CASE STAY. WILLIAM B. GOULD, South Orange, N. J. Filed Oct. 5, 1912. Serial No. 724,029. (Cl. 217—60.)



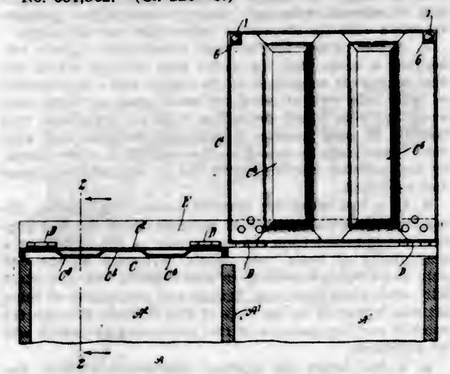
1. A trunk or case-stay comprising a pair of pivotally connected stay-members, said stay-members being provided with longitudinally extending reinforcing ribs forced out of said members and extending from one face of each member and providing each member in its opposite face with corresponding longitudinally extending depressions, and means upon one of said stay-members adapted to be sprung into one of said longitudinally extending depressions in the other stay-member for retaining said stay-members in their opened and separable holding relation.

2. A trunk of case-stay comprising a pair of pivotally connected stay-members, said stay-members being provided with longitudinally extending reinforcing ribs forced out of said members and extending from one face of each member and providing each member in its opposite face with corresponding longitudinally extending depressions, means upon one of said stay-members adapted to be sprung into one of said longitudinally extending depressions in the other stay-member for retaining said stay-members in their opened and separable holding relation, and a stop-projection upon the member which is provided with said holding means, with which the marginal edge-portion of the other stay-member is adapted to be brought into engagement to limit the pivotal movements of said stay-members.

3. A trunk or case-stay comprising a pair of pivotally connected stay-members, said stay-members being provided with longitudinally extending reinforcing ribs forced out of said members and extending from one face of each member and providing each member in its opposite face with corresponding longitudinally extending depressions, and an angularly disposed rib-like projection pressed out of one of said stay-members adapted to be sprung into one of said longitudinally extending depressions in the other stay-member for retaining said stay-members in their opened and separable holding relation.

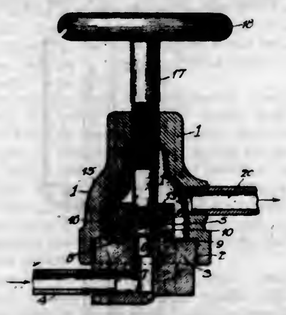
4. A trunk or case-stay comprising a pair of pivotally connected stay-members, said stay-members being provided with longitudinally extending reinforcing ribs forced out of said members and extending from one face of each member and providing each member in its opposite face with corresponding longitudinally extending depressions, an angularly disposed rib-like projection pressed out of one of said stay-members adapted to be sprung into one of said longitudinally extending depressions in the other stay-member for retaining said stay-members in their opened and separable holding relation, and a stop-projection pressed out of the member which is provided with said rib-like projection, with which the marginal edge-portion of the other stay-member is adapted to be brought into engagement to limit the pivotal movements of said stay-members.

1,131,367. COVER FOR WASHTUBS. HERBERT GREASON, Ridgewood, N. J. Filed Sept. 27, 1911. Serial No. 651,562. (Cl. 220—9.)



A rectangular metallic cover for receptacles having a downwardly extending marginal flange at each side, reinforcing corner pieces fitting and secured in the corners of the cover, said corner pieces being each formed of a piece of sheet metal bent to form two overlying horizontal members and two vertical members extending from adjacent sides and at right angles to the horizontal members, pins projecting from the horizontal members, and cushions on said pins.

1,131,368. HOMOGENIZING-VALVE. WILLIAM P. M. GERLOCK, Elgin, Ill. Filed Mar. 2, 1914. Serial No. 821,897. (Cl. 96—2.)



1. An homogenizing valve having a stationary seat provided with a central inlet opening, a movable head to cover the seat having a stem projected into said inlet opening to provide against lateral displacement, and means for adjustably holding said head in vertical relation to the seat, the proximate portions of said head and seat being formed to provide a plurality of substantially plane co-acting faces.

2. An homogenizing valve having a stationary seat provided with a central inlet opening, a movable head to cover the seat, a stem having a distributing depression adjacent to the head projected into the said opening to provide against lateral displacement and means for adjustably holding said head in vertical relation to the seat, the proximate portions of said seat and head being formed to provide a plurality of substantially plane co-acting faces.

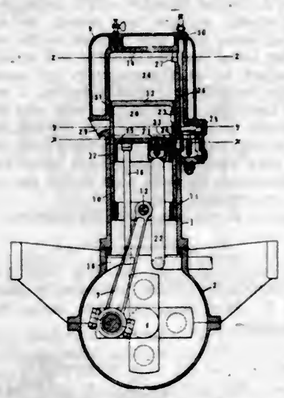
3. An homogenizing valve having a casing, a stationary valve seat in the casing provided with a central inlet opening, means for confining high pressure fluids to passage through said opening, a movable head to cover the seat, and means for adjustably holding said head in relation to the seat, the proximate portions of said head and seat being formed to provide a plurality of substantially plane co-acting faces, and one of said faces provided with an annular groove.

4. An homogenizing valve having a casing, a stationary valve seat in the casing provided with a central inlet opening, means for confining high pressure fluids to passage through said opening, a movable head to cover the seat, and means for adjustably holding said head in relation to the seat, the proximate portions of said head and seat being formed to provide a plurality of substantially plane co-acting faces, one of said faces provided with an annular groove and the other face provided with a similar groove facing the first.

5. An homogenizing valve having a casing, a stationary valve seat in the casing provided with a central inlet opening, means for confining high pressure fluids to passage through said opening, a movable head to cover the seat, and means for adjustably holding said head in relation to the seat, the proximate portions of said head and seat being formed to provide a plurality of substantially plane co-acting faces, the faces being provided with a plurality of pairs of annular grooves concentric with each other.

[Claims 6 to 8 not printed in the Gazette.]

1,131,369. INTERNAL-COMBUSTION MOTOR. GEORGE L. GRIFFITH, New York, N. Y. Filed July 13, 1908, Serial No. 443,223. Renewed Feb. 3, 1915. Serial No. 5,973. (Cl. 123—65.)

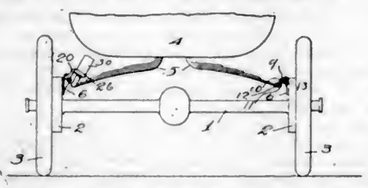


A two cycle internal combustion engine comprising an engine cylinder closed at one end, a hollow piston within the cylinder, a fixed head in the cylinder disposed beneath the head of the piston and coöperating with the inside wall of the piston to form a compression chamber inside the piston, a fuel supply pipe extending up inside the cylinder and piston and connected with the internal cylinder head, a valve carried by the internal cylinder head and opening into the compression chamber to admit fuel thereinto, the cylinder having a transfer passage extending from the compression chamber beneath the piston into the upper portion of the cylinder above the piston therein, a valve arranged to prevent reverse flow through the transfer passage back to the compression chamber, and the piston having a port therein arranged to register with the transfer passage in the cylinder whereby to provide communication between the compression chamber and the transfer passage.

1,131,370. AUXILIARY SPRING FOR MOTOR-VEHICLES. LEWIS P. HALLADAY, Streator, Ill. Filed Apr. 25, 1914. Serial No. 834,294. (Cl. 21—50.)

1. In a motor vehicle a leaf spring having a free end, an auxiliary spring and a connection between it and the free end of the leaf spring, the axis of the auxiliary spring being fixed and inclined downwardly and outwardly toward the ends of the leaf spring.

2. In a motor vehicle a leaf spring having a free end, an auxiliary spiral spring and a connection between it and the free end of the leaf spring, the axis of the auxiliary spiral spring being fixed and inclined downwardly and outwardly toward the end of the leaf spring.



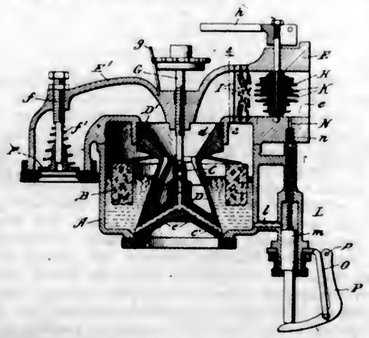
3. In a motor vehicle a leaf spring having a free end, an auxiliary spring and a connection between it and the free end of the leaf spring, the axis of the auxiliary spring being fixed and inclined downward and outwardly toward the end of the leaf spring, the inclination of said axis being such that no matter what load is applied to the leaf spring the line of connection between the free end thereof and the auxiliary spring is substantially in line with the axis of the auxiliary spring.

4. A spring suspension for motor vehicles and the like comprising a flat leaf spring relatively fixed in position at its center and free to move at its free end, a spiral spring and a support therefor, and a connection between the spiral spring and the leaf spring, the axis of the spiral spring being fixed and inclined to the vertical, the spiral spring being located above the leaf spring.

5. A support for auxiliary springs for motor vehicles and the like comprising a fixed platform, a bracket carrying said platform, a pair of apertured ears downwardly and outwardly projecting from the bracket beneath the platform, a plate projecting rearwardly from said ears, a U-shaped yoke passing through said plate and held in position thereon by suitable nuts and a pin upon which said ears are mounted.

[Claims 6 to 13 not printed in the Gazette.]

1,131,371. FUEL-MIXING DEVICE FOR INTERNAL-COMBUSTION ENGINES. CHARLES B. HATFIELD, Elmira, N. Y. Filed Sept. 13, 1913. Serial No. 789,657. (Cl. 48—180.)



1. In a fuel mixer for internal combustion engines, the combination with the conduit through which the fuel mixture is conducted from the carbureter to the engine, of a multiplicity of baffle rods rigidly supported at one end only and arranged radially in staggered relation in said conduit, out of contact with each other, and each flexible and susceptible of being set into vibration by the flow of fuel mixture through the conduit whereby globules of fuel contacting therewith will be nebulized.

2. A fuel mixer for internal combustion engines embodying a carbureter, an outlet pipe through which the fuel mixture is conducted to the engine, and a multiplicity of baffle rods each of realtively small cross sectional area projecting from the peripheral wall radially in said passage in staggered relation and with their inner portions out of contact with each other, whereby fuel globules traveling with the air will be intercepted and nebulized.

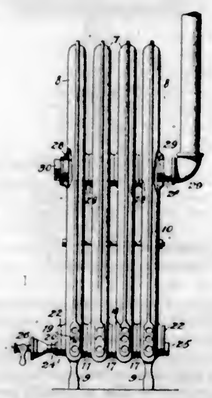
3. A fuel mixer for internal combustion engines embodying a carbureter, an outlet pipe through which the fuel mixture is conducted to the engine and a multiplicity of baffle rods each of relatively small cross sectional area and of varying length projecting from the peripheral wall radially in said passage in staggered relation and with their inner portions out of contact with each other, whereby fuel globules traveling with the air will be intercepted and nebulized.

4. In a fuel mixer for internal combustion engines, the combination with the conduit through which the fuel mixture is conducted from the carbureter to the engine, of a multiplicity of baffle rods rigidly supported at one end only and arranged radially in said conduit, out of contact with each other, and each flexible and susceptible of being set into vibration by the flow of fuel mixture through the conduit whereby globules of fuel contacting therewith will be nebulized.

5. A fuel mixer for internal combustion engines, embodying a carbureter, an outlet pipe through which the fuel mixture is conducted to the engine, and a multiplicity of baffle rods each of relatively small cross sectional area mounted in said pipe out of contact with and capable of vibrating independent of each other, said rods being in position to intercept and nebulize globules of fuel traveling with the air.

[Claim 6 not printed in the Gazette.]

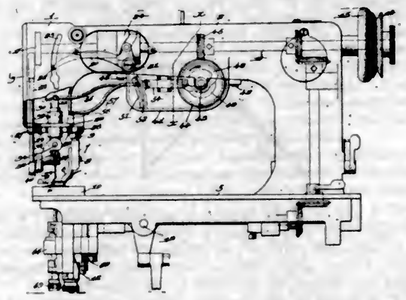
1,131,372. RADIATOR. WILLIAM HAWKS, Duluth, Minn., assignor to Hugo Manufacturing Company, Duluth, Minn., a Corporation of Minnesota. Filed Feb. 17, 1914. Serial No. 819,174. (Cl. 126—91.)



1. A radiator-column having a combustion-chamber in its interior near its base, an air-admission orifice opening to said chamber, in the upper portion of the column substantially U-shaped partition-walls having a passage leading downwardly therebetween, and at the lower end of said passage a discharge-opening arranged to receive products of combustion from said passage.

2. A radiator comprising a plurality of hollow columns and having near its base a combustion-chamber opening to the interior of the columns and formed with an air-inlet thereto, a burner within said chamber, in the upper portion of each column substantially U-shaped partition-walls having a passage leading downwardly therebetween, and a discharge-conduit communicating with said passages at their bottoms and opening to the exterior of the radiator.

1,131,373. BLINDSTITCH SEWING-MACHINE. THOMAS J. HAYES, Cleveland, Ohio, assignor to Arbetter Felling Machine Company, Boston, Mass., a Corporation of Maine. Filed Dec. 23, 1911. Serial No. 667,467. (Cl. 112—24.)



1. A sewing machine for blind stitching, comprising a work support; a curved oscillating needle and complemental stitch forming mechanism located above the work support; means for feeding the work across the work support; means, acting between successive stitches, for changing the angular relation of the plane of oscillation of the needle with respect to the work support while maintaining the said plane parallel to the line of feed.

2. A sewing machine for blind stitching, comprising a work support; a curved oscillating needle and complemental stitch forming mechanism located above the work support; means for feeding the work across the work support; means, acting between successive stitches, for changing the angular relation of the plane of oscillation of the needle with respect to the work support while maintaining the said plane parallel to the line of feed, and for moving the needle bodily laterally.

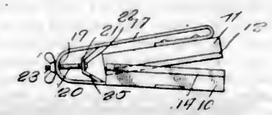
3. A sewing machine for blind stitching, comprising a work support; a curved oscillating needle and complemental stitch forming mechanism located above the work support; means for feeding the work across the work support; means, acting between successive stitches, for changing the angular relation of the plane of oscillation of the needle with respect to the work support while maintaining the said plane parallel to the line of feed; and means for presenting defined portions of the work in the path of the needle at each thrust.

4. A sewing machine for blind stitching, comprising a work support; a curved oscillating needle and complemental stitch forming mechanism located above the work support; means for feeding the work across the work support; means, acting between successive stitches, for changing the angular relation of the plane of oscillation of the needle with respect to the work support while maintaining the said plane parallel to the line of feed, and for moving the needle bodily laterally; and means for presenting defined portions of the work in the path of the needle at each thrust.

5. A sewing machine for blind stitching for felling the edge of a superimposed layer or layers to a main layer of material, comprising a curved oscillating needle and complemental stitch forming mechanism located and operating above the material and means for presenting the said needle during its penetration of the edge thereof, with the plane of oscillation obliquely inclined to the surface of the fabric and parallel to the line of feed, whereby the points of entrance and emergence of the needle, and consequently the ends of the stitch or the ends of the portion of the thread embedded in the superimposed layer or layers, are beneath the upper surface thereof and in a line substantially parallel to the edge.

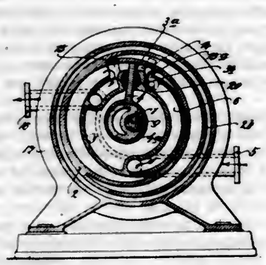
[Claims 6 to 25 not printed in the Gazette.]

1,131,374. KNIFE-SHARPENER. EDMUND B. HATWOOD, Raleigh, N. C. Filed Aug. 12, 1913, Serial No. 784,443. Renewed Aug. 3, 1914. Serial No. 854,850. (Cl. 76—86.)



A knife sharpening device comprising a pair of blocks, the opposed faces of the blocks carrying strips of abrasive material, the abrasing strips of one block being arranged in staggered relation to those of the other block, a bow spring embracing the blocks and secured at one of its ends to one of the blocks, the other end of the spring being bent under and secured to the other block, a bolt disposed through the doubled portion of the spring, and a double-winged member disposed within the doubled portion of the spring and bearing with its wings against the spring, said bolt being disposed through the double-winged member.

1,131,375. ROTARY ENGINE. HUGO HEINRICH, Zwickau, Germany. Filed July 14, 1914. Serial No. 850,860. (Cl. 121—65.)



1. A rotary engine, comprising a fixed cylinder, a rotary shaft, a forcing member mounted on said shaft and adapted to rotate eccentrically about the said cylinder, and a blade arranged to be guided co-axially with the said forcing member.

2. A rotary engine comprising a fixed hollow cylinder adapted to receive a heating or cooling medium, a rotary shaft, a forcing member mounted on said shaft and adapted to rotate eccentrically about the said cylinder, and a blade arranged to be guided co-axially with the said forcing member.

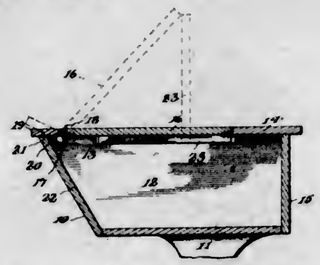
3. A rotary engine comprising a fixed cylinder, a rotary shaft, a forcing member mounted on said shaft, a blade arranged to be guided co-axially with the said forcing member, cut-off members and a casing for the reception of said cut-off members, built into the wall of said cylinder.

4. A rotary engine comprising a fixed cylinder, a rotary shaft, a forcing member mounted on said shaft, a blade arranged to be guided co-axially with the said forcing member, cut-off members, a casing for the reception of said cut-off members, and an opening in the wall of the said cylinder leading to the exterior for the reception of the said casing.

5. A rotary engine comprising a fixed cylinder, a rotary shaft, a forcing member mounted on said shaft, a blade arranged to be guided co-axially with the said forcing member, cut-off members, a casing for the reception of said cut-off members, and a bore arranged axially in the wall of the said cylinder for the reception of the said casing.

[Claim 6 not printed in the Gazette.]

1,131,376. SCHOOL-DESK. GEORGE H. HEITMULLER, Washington, D. C. Filed Nov. 6, 1912. Serial No. 729,852. (Cl. 45—91.)



1. An improvement in school desks comprising a desk body, a movable top hinged to said body, a ledge member having one edge hinged to a corresponding edge of said top, and means for causing said ledge member to turn on its hinge connection as said top is raised.

2. An improvement in school desks comprising a desk body, a movable top connected with said body, a ledge member having a hinged connection with said top and flush with the top when the latter is down, and means operated by the elevation of said top for causing said ledge member to turn on its hinge connection into an angular position with relation to the top.

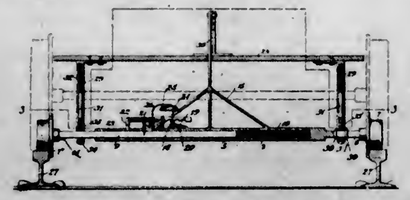
3. An improvement in school desks comprising a desk body, a movable top pivotally connected with said body, a ledge member hinged to said top, and a wedge carried by said ledge member and engaging one edge of said body, whereby said ledge is elevated when said top member is raised.

4. An improvement in desks comprising a body, a movable top having its under face hinged to said body, a ledge member having one edge hinged to the upper portion of a corresponding edge of said top, and means for causing the ledge member to turn on its hinge connection as said top is raised.

5. An improvement in desks comprising a desk body, a movable top having its under face pivotally connected with said body, a ledge member pivotally connected with the upper face of said top, and a wedge secured to said ledge member and engaging one edge of said body, whereby said ledge is elevated by an upward movement of said top.

[Claims 6 and 7 not printed in the Gazette.]

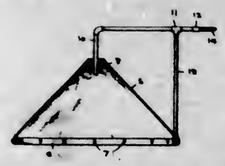
1,131,377. TRACK-GAGE. RICHARD ABRAHAM HENINGTON, Washington, Miss. Filed Mar. 10, 1914. Serial No. 823,790. (Cl. 33—146.)



1. The combination of a hand car having downwardly extending brackets with a track gage engaging said brackets; means carried by said gage adapted to engage the track; means adapted to indicate an increase in length between said means engaging the track; and means for moving the gage in said brackets whereby the same may be placed in operative or inoperative position.

2. The combination of a hand car having downwardly extending brackets with a track gage engaging said brackets; a plunger in each bracket normally forcing said track gage in engagement with the track; means carried by said gage adapted to engage the track; means adapted to indicate an increase in length between said means engaging the track; and means for raising the gage in said brackets whereby the same is maintained in inoperative position.

1,131,378. SNOW-REMOVING MACHINE. HORACE HILL, Brooklyn, N. Y. Filed June 3, 1914. Serial No. 842,691. (Cl. 126—271.1.)



1. A device of the character described including a hood, an apertured pipe supported by said hood and supporting it in extended position and means for conducting steam or hot air into said apertured pipe whereby it is dispensed upon the surface of the snow to be removed.

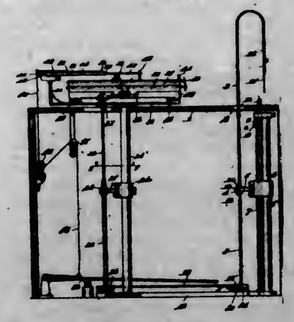
2. A device of the character described including a hood, an apertured block secured in the upper portion of said hood, a pipe leading through said apertured block, a second pipe supported by the lower portion of said hood and shaped to conform thereto and means for conducting steam or hot air to each of said pipes whereby it is dispensed upon the surface of the snow to be removed.

3. A device of the character described including a flexible hood, an annular pipe secured along the lower edge of said hood and serving to hold said hood extended, an apertured block secured in the upper portion of said hood and a steam or hot air pipe leading from a suitable source of supply into said hood through said apertured block and into said annular pipe.

4. In a device of the character described, a flexible supply pipe connected to a suitable source of steam or hot air supply, branch pipes connecting to said supply pipe flexible means for the prevention of the wasteful escape of the fluid and an apertured dispensing pipe connected to one of said branch pipes, and supported by said flexible hood continuously around the lower edge of the same.

5. In a device of the character described, a flexible supply pipe connected to a suitable source of steam or hot air supply, branch pipes connecting to said supply pipe flexible means for the prevention of the wasteful escape of the fluid and an apertured dispensing pipe connected to one of said branch pipes and also connected to said flexible means to hold the latter in its extended position when the device is being used.

1,131,379. ENGRAVING-MACHINE. FREDERICK C. F. HIRSCHMANN, Indianapolis, Ind. Filed Mar. 28, 1913. Serial No. 757,318. (Cl. 33—23.)



1. In a machine of the class described the combination of a universally mounted member; a vertically positioned lever mounted to slide longitudinally in said member; a tracing point carried by said lever; a work holder; a marking member in operative connection with said work holder; and an operative connection between said lever and said work holder, substantially as described.

2. In a machine of the class described, the combination of a member arranged to swing on two different horizontal axes; a vertically positioned lever mounted to slide longitudinally in said member and having its upper end turned downwardly; a tracing point carried by said downwardly turned end; a member mounted to float upon balls; a pivotal connection between the lower ends of said lever and said floating member; a movable work holder; an operative connection between said work holder and said floating member; and a marking member in operative relation with said work holder, substantially as described.

3. In a machine of the class described, the combination of a member arranged to swing on two different horizontal axes; a vertically positioned lever mounted to slide longitudinally in said member and having its upper end turned downwardly; a tracing point carried by said downwardly turned end; a member mounted to float upon balls; a pivotal connection between the lower ends of said lever and said floating member; a movable work holder; an operative connection between said work holder and said floating member; a marking member in operative relation with said work holder; and means for throwing said marking member into and out of operative relation with said work holder, substantially as described.

4. In a machine of the class described the combination of a universally mounted member, a vertically positioned lever mounted to slide longitudinally in said member and having its upper end turned downwardly; a tracing point mounted for vertical reciprocation relatively to said downwardly turned end; a work holder operatively connected with said lever, and a marking member in operative relation with said work holder, substantially as described.

5. In a machine of the class described the combination of a universally mounted member, a vertically positioned lever mounted to slide longitudinally in said member and having its upper end turned downwardly; a tracing point mounted for vertical reciprocation relatively to said downwardly turned end; a work holder operatively connected with said lever; a marking member in operative relation with said work holder, and means for throwing said marking member into and out of operative relation with said work holder, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,380. AUTOMATIC-STABILIZING AEROPLANE. WILLIAM HUEBNER and OTTO KUNKEL, Garfield, N. J. Filed June 6, 1913. Serial No. 772,061. (Cl. 244—29.)



1. The combination with elongated supporting planes extending radially from a common axis and a pivot rod longitudinally of said axis, said planes having openings adjacent to said rod, an operator's basket fixed to the rod and suspended within the area of said openings whereby the planes may swing laterally with respect to the rod and basket, a motor supported on the rod, oppositely rotatable propellers driven from the motor and rotatably journaled on the rod at the forward and rear ends of the openings, elevators at the front and rear ends of the supporting planes, a rudder at the rear end of the rod, and means for tilting the elevators and flexing the rudder independently from the basket.

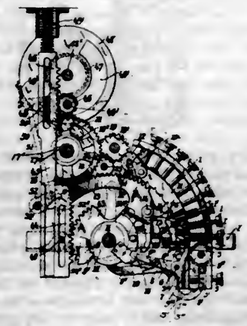
2. The combination with elongated supporting planes extending radially from a common axis and a pivot rod longitudinally of said axis, said planes having openings adjacent to said rod, an operator's basket fixed to the rod and suspended within the area of said openings whereby the planes may swing laterally with respect to the rod and basket, a motor supported on the rod, oppositely rotatable propellers driven from the motor and rotatably journaled on the rod at the forward and rear ends of the openings, elevators at the front and rear ends of the supporting planes, a rudder at the rear end of the rod, means for tilting the elevators and flexing the rudder independently from the basket, a shock absorbing wheeled truck suspended from the main supporting planes beneath the point of location of the openings forwardly of the longitudinal center of the axis, and machine wheels at the rear end of the planes, said latter wheels being normally out of contact with the ground and caused to engage the latter upon the machine entering into its flight.

4. An aeroplane of the class described, embodying crossed supporting planes, said planes having their longitudinal edges forked to provide web surfaces, elevating means for the planes, a rudder for the same, and propelling means for the planes.

5. An aeroplane embodying crossed supporting planes having their forward extremities tapered to a substantial point and their longitudinal edges forked, the longitudinal edges of the planes being braced together, a rod longitudinally of the planes at the line of crossing of the latter to permit the planes to tilt in angular positions under the action of air currents independently of the rod, and propelling and guiding mechanism fixed to the rod to remain normally stabilized.

[Claims 6 to 17 not printed in the Gazette.]

1,131,381. CHECK-TILL. GUSTAV HUTH, Charlottenburg, Germany, assignor to the Firm of H. Aron Elektrizitätszählerfabrik G. M. B. H., Charlottenburg, Germany. Filed Jan. 6, 1912. Serial No. 669,755. (Cl. 235—2.)



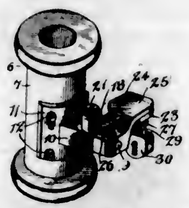
1. A cash registering apparatus comprising a bank of keys, an operating shaft, a recording mechanism, an indicating mechanism, means interposed between the keys and the operating shaft to connect and disconnect said shaft with the recording mechanism for said keys, a spring-pressed pawl for locking the indicating mechanism

in its set position at the completion of the recording operation, and means for releasing said pawl, said locking and releasing means comprising the lever 52, angle lever 54' and 54'' and the arms 55 and 56 carried by the operating shaft.

2. A cash registering apparatus comprising a bank of keys, a main operating shaft, a lever connected therewith and adapted to move forwardly and backwardly to rock said shaft, a recording mechanism, an indicating mechanism, a double segmental gear loosely mounted on the operating shaft, means controlled by each key for effecting the connection and disconnection of the double segmental gear with the operating shaft during the forward movement of the operating lever, a two-part rack having one of its parts connected to the segmental gear and its other part operating the indicating mechanism, means for returning the said racks to their normal position independently of each other, means for locking the indicator mechanism upon the completion of the indication and means operating to release the indicator at the beginning of the forward stroke of the operating lever, means to restore the keys to their normal position at the beginning of the backward movement of the operating lever and means to connect the segmental gear to the operating shaft during the backward movement of the operating lever, whereby the two-part operating rack will be returned to its normal position.

3. A cash registering apparatus comprising a bank of keys, an operating shaft, an operating lever connected thereto adapted to move forwardly and backwardly to rock said shaft, a recording mechanism and indicating mechanism, means operable through the rock shaft for actuating the recording and indicating mechanisms, means for connecting the rock shaft to the indicator actuating mechanism during the first part of the forward movement of the operating lever and disconnecting it therefrom after a predetermined movement fixed by the keys in the bank, means operated during the forward movement of the operating lever to release the indicator mechanism, means to quickly return said mechanism to normal condition, and means for setting the indicator mechanism during the completion of the forward movement of the operating lever, and means for locking said indicator mechanism and holding it locked until the beginning of the next forward movement of the operating lever.

1,131,382. VALVE. EDWARD F. JOHNSON, Pittsfield, Mass. Filed Dec. 14, 1912. Serial No. 736,860. (Cl. 137—7.)

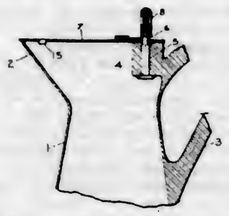


1. A device of the character described comprising a tube, a casing carried thereby, a valve in the tube provided with a shaft that extends through the casing, means in the casing for engaging the shaft to normally hold the valve open, a supporting arm projecting laterally from the casing and having a handle seat provided with an opening in its free end, a handle for rotating the shaft to close the valve, said handle adapted to lie on the seat of the support and having a tongue adapted to project through the opening, and a lock for engaging the tongue.

2. A device of the character described comprising a tube, a casing carried thereby, a valve in the tube and having a shaft journaled in and extending through the casing, a laterally projecting collar carried by the casing, said shaft having a notch formed therein, a plunger in the collar, a cap for closing the upper end of said collar, a spring bearing on the plunger to force the plunger in engagement with the notch to cause the shaft to normally retain the valve open, a handle carried by the extended portion of the shaft, a support carried by the casing, and means for locking the handle to the support to retain the valve closed.

3. A device of the class described comprising a tube, a disk valve mounted within said tube and adapted to open and close a passage therethrough, a shaft for supporting said valve, a casing secured to said tube, said casing provided with a laterally projecting enlarged locking plate engaging member provided with an upwardly extending flange extending therearound for constituting a pocket, a locking plate fixedly secured to said shaft and adapted to fit within said pocket formed for resisting the lateral movement of said locking plate and adapted to hold said valve supporting shaft against longitudinal movement, and means carried by said locking plate for holding the same against accidental removal from said pocket.

1,131,383. COVER FOR SYRUP-PITCHERS. GEORGE H. JUDIA, Cisco, Tex., assignor of one-half to B. S. Huey, Houston, Tex. Filed Feb. 10, 1914. Serial No. 817,723. (Cl. 65—31.)



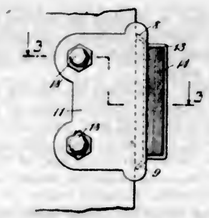
1. In a device of the character described, the combination with a pitcher, of a swivelly mounted cover surrounding the pitcher having the nature of a laterally movable plate, a spring acting upon said cover tending to maintain the same normally closed, and a protuberance formed upon the underside of the cover, serving to elevate the cover through contact with the spout as the cover undergoes a return motion to its closed position.

2. In a device of the character described, the combination with a pitcher, of a vertically disposed pivot pin mounted in the upper portion of the pitcher and restricted against rotation relative to the pitcher, a cover surmounting the pitcher having the nature of a metal plate, said pin being passed through the cover and projecting above the same, a cap mounted upon the upper extremity of said pin, a spring mounted upon said pin between the cap and cover, exerting a downward pressure upon the cover, maintaining the same seated, and exerting a rotative impulse upon the cover maintaining the same in its closed position, and a protuberance provided upon the underside of the cover, serving to contact with the spout as the cover returns to its closed position, thereby elevating the cover slightly above the spout.

1,131,384. LAVATORY-STRIKE. OSCAR KATZENBERGER, Chicago, Ill. Filed July 18, 1914. Serial No. 851,748. (Cl. 16—77.)

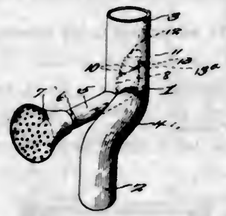
1. In a strike of the character described, a pair of plates, one of said plates acting as a front plate and the other as a clamping plate, a face plate extending from said front plate, said face plate being formed with diverging flanges, said clamping plate being formed with diverging slots designed to accommodate said flanges, means for holding a bumper on said face plate, and means for clamping said clamping plate and said front plate to a support.

2. In a strike of the character described, a pair of clamping plates adapted to fit on opposite sides of a support, a clamping bolt for clamping said plates to said support, one of said clamping plates being formed with a face plate extending substantially at right angles to the body of the plate, said face plate being formed with a pair of diverging flanges, which extend across the face plate to a position adjacent the body of said last mentioned clamping plate, the other of said clamping plates being formed with slots for receiving said flanges, whereby said face plate is held in proper position, the arrangement of said flanges falling short of the body of the first mentioned clamping plate allowing the ready application of said second mentioned clamping plate before the plates are arranged on said support, and means for holding a bumper on said face plate.



3. In a supporting fixture of the character described, a pair of plates, one of said plates acting as a front plate and the other as a clamping plate, and a face plate extending from said front plate, said face plate having obliquely arranged flanges, said clamping plate being formed with slots designed to accommodate said flanges.

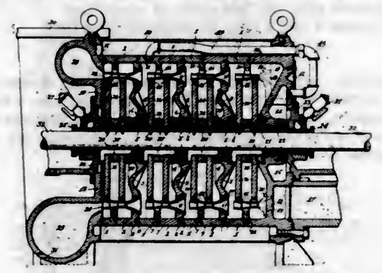
1,131,385. ATTACHMENT FOR BLACKSMITHS' BLOWERS. ANDREW C. KEPHART, Charlotte, Tenn. Filed May 10, 1913. Serial No. 766,791. (Cl. 75—196.)



In combination, a flue adapted for connections between a blower and a forge furnace, said flue having a compound curved elbow, an air pipe or tube extending laterally of the flue and disposed at an acute angle to the compound curved elbow, said laterally extending tube forming an integral part of one of the arms of the elbow and merging into the flue, a vertical partition extending partially into said flue and arranged at the merging junction between the air tube and the elbow for deflecting a portion of the air blast, an extension partition hinged to the first partition for deflecting a part of the blast through the air tube for keeping a blacksmith cool, and part through the furnace, or all the blast through one or the other, said extension partition having a projection arranged axially with the hinged connections of said extension partition, said projection having a lateral spring arm, and means arranged annularly on the flue and concentrically with the hinged connections to be engaged by said spring arm to hold the extension partition in adjusted positions, and a spray nozzle carried by said air tube.

1,131,386. STEAM-TURBINE. CHARLES V. KERR, Wellsville, N. Y. Filed May 9, 1914. Serial No. 837,527. (Cl. 121—58.)

1. A multicellular compound turbine comprising a cylinder composed of a series of separable and independent rings and webs or diaphragms for the several stages of expansion of the motive fluid, a rotary shaft extending through each of said diaphragms, nozzles passing through said diaphragms near their outer edges, each of said rings having an inwardly projecting flange provided with a series of reversing buckets, a rotary wheel on each side of the flanges and secured to the shaft, a series of driving buckets on the periphery of said rotary wheels and adjacent to the reversing buckets and in proximity to and receiving the motive fluid from the nozzles, a motive fluid inlet connected with the first stage of expansion and an exhaust connected with the last stage of expansion.



2. A multicellular compound turbine comprising a cylinder composed of a series of interlocking separable and independent rings and webs or diaphragms for the several stages of expansion of the motive fluid, a rotary shaft extending through each of said diaphragms, nozzles passing through said diaphragms near their outer edges, each of said rings having an inwardly projecting flange provided with a series of grooves, reversing buckets secured in said grooves, a rotary wheel on each side of the flanges and secured to the shaft, a series of driving buckets on the periphery of said rotary wheels and adjacent to the reversing buckets and in proximity to and receiving the motive fluid from the nozzles, a motive fluid inlet connected with the first stage of expansion and an exhaust connected with the last stage of expansion.

3. A multicellular compound turbine comprising a cylinder composed of a series of separable and independent rings and webs or diaphragms for the several stages of expansion of the motive fluid, a rotary shaft extending through each of said diaphragms, openings through said diaphragms near their outer edges, blocks provided with nozzles secured over said openings, each of said rings having an inwardly projecting flange provided with a series of reversing buckets, a rotary wheel on each side of the flanges and secured to the shaft, a series of driving buckets on the periphery of said rotary wheels and adjacent to the reversing buckets and in proximity to and receiving the motive fluid from the nozzles, a motive fluid inlet connected with the first stage of expansion and an exhaust connected with the last stage of expansion.

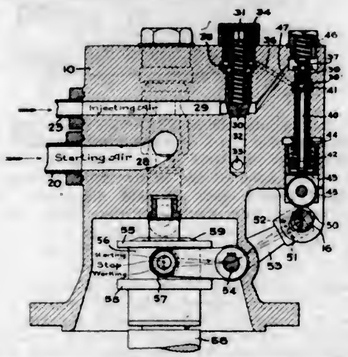
4. A multicellular compound turbine comprising a cylinder composed of a series of separable and independent rings and webs or diaphragms for the several stages of expansion of the motive fluid, each of said diaphragms being provided with a hub having a recess, an antifriction bearing supported in each of said recesses, nozzles passing through said diaphragms near their outer edges, inwardly projecting flanges on said rings provided with a series of reversing buckets, a rotary shaft extending through each of said diaphragms and supported in the antifriction bearings, a rotary wheel on each side of the flanges and secured to the shaft, a series of driving buckets on the periphery of said rotary wheels and adjacent to the reversing buckets and in proximity to and receiving the motive fluid from the nozzles, a motive fluid inlet connected with the first stage of expansion and an exhaust connected with the last stage of expansion.

5. A multicellular compound turbine comprising a cylinder composed of a series of separable and independent rings and webs or diaphragms for the several stages of expansion of the motive fluid, nozzles passing through said diaphragms near their outer edges, each of said rings having an inwardly projecting flange provided with

a series of reversing buckets, a rotary shaft having a series of radial sockets and extending through each of said diaphragms, pins in said sockets, sectional hubs engaging the pins, a rotary wheel on each side of the flanges and securely held in spaced relation and firmly around each of said sectional hubs, a series of driving buckets on the periphery of said rotary wheels and adjacent to the reversing buckets and in proximity to and receiving the motive fluid from the nozzles, a motive fluid inlet connected with the first stage of expansion and an exhaust connected with the last stage of expansion:

[Claims 6 and 7 not printed in the Gazette.]

1,131,387. STARTING MECHANISM FOR HIGH-COMPRESSION ENGINES. BERNHARD KRÄMER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Aug. 15, 1912. Serial No. 715,219. (Cl. 123—181.)



1. In an engine of the character described, the combination of a working cylinder, means for admitting fluid under pressure thereto for starting purposes, a starting valve for controlling said fluid, an injector, a normally open fluid actuated valve controlling the admission of fluid to the injector, and means for controlling the starting and fluid actuated valves.

2. In an engine of the character described, the combination of a working cylinder, a source of fluid under pressure for starting purposes, a valve controlling its admission to the cylinder, a conduit supplying fluid to the cylinder for normal working purposes, a normally open valve for controlling it, and means which causes the second valve to close when the first is opened.

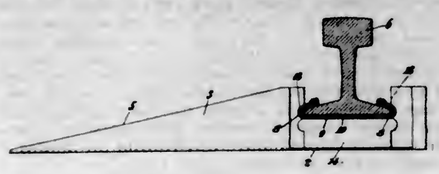
3. In an engine of the character described, the combination of a working cylinder, a conduit supplying fluid under pressure thereto for starting, a valve in said conduit, a second conduit supplying the blast to inject fuel into the cylinder, a pressure controlled valve in the second conduit, and means which directly actuates the first valve and controls the second valve.

4. In an engine of the character described, the combination of a working cylinder, a conduit supplying an elastic fluid thereto under pressure for starting purposes, a starting valve controlling the admission of said fluid to the cylinder, a second conduit supplying a blast of air to the cylinder for injecting fuel, a pressure actuated valve in the second conduit, a pilot valve means controlling the second valve, and means which actuates the pilot and starting valves.

5. In an engine of the character described, the combination of a working cylinder, a conduit supplying starting fluid thereto, a controlling means therefor, a second conduit for supplying injecting fuel to the cylinder, a normally open fluid actuated valve in said second conduit, and a single means for moving the controlling means to operating position and admitting fluid pressure to close the normally open valve.

[Claims 6 to 13 not printed in the Gazette.]

1,131,388. RAILROAD-TIE AND RAIL-GRIP. JEREMIAH E. LANGFORD, Salt Lake City, Utah. Filed June 20, 1914. Serial No. 846,266. (Cl. 238—2.)



1. In combination, a railroad tie having a recess to receive a rail and tapering clamping means at the side of the rail, comprising an inner and outer plate separated by an insulating plate.

2. In combination, a railroad tie having a recess to receive a rail and tapering clamping means at the side of the rail, comprising an inner and outer plate separated by an insulating plate, the inner plate and insulating plate having their ends turned over the end of the outer plate.

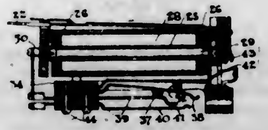
3. In combination, a railroad tie having a recess to receive a rail and tapering clamping means at the side of the rail, comprising an inner and outer plate separated by an insulating plate, the inner plate and insulating plate having their ends turned over the end of the outer plate into a recess in the outer plate.

4. In combination, a U-shaped railroad tie having a recess to receive a rail and tapering clamping means at the side of the rail, comprising an inner and outer plate separated by an insulating plate.

5. In combination, a U-shaped railroad tie having a recess to receive a rail and tapering clamping means at the side of the rail, comprising an inner an outer plate separated by an insulating plate, the inner plate and insulating plate having their ends turned over the end of the outer plate.

[Claims 6 to 12 not printed in the Gazette.]

1,131,389. COMBINED DROP AND JACK. WILLIAM LEAVER, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 9, 1908. Serial No. 466,611. (Cl. 177—329.)



1. The combination with a shell, of a drop-catch pivoted thereto, an armature removably secured to the drop-catch and positioned before an end of the shell, a coil within the shell, said armature being adapted to be completely removed without displacing the drop-catch, whereby the coil may be readily removed from the shell, substantially as described.

2. The combination with a shell, of a coil within the shell, a shutter positioned before the front end of the shell, a catch pivoted at the rear end of the shell and engaging said shutter, an armature removably secured to the rear end of the catch and positioned before the rear end of the shell, the removal of said armature facilitating the ready removal of the coil from the shell without displacing the catch, substantially as described.

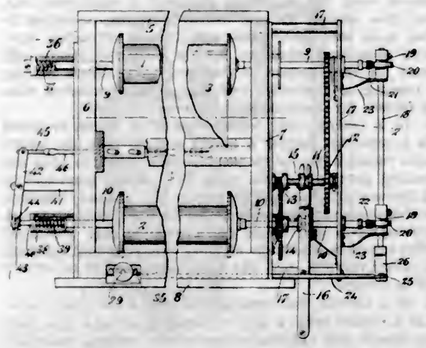
3. The combination with a shell, of a drop-catch pivotally secured to the rear end of the shell, an armature positioned before said rear end of the shell, means for removably securing said armature to the drop-catch whereby the armature may be forcibly removed, and means secured to said armature and adapted to be gripped for forcibly removing the armature from its engagement with the drop-catch, substantially as described.

4. The combination with a shell, of a coil removably secured in the hollow portion thereof, a drop-catch pivoted at the rear of said shell, a tongue on the rear end of said drop catch, an armature having an opening therein through which said tongue extends when the armature is placed in position, said tongue pressing the armature firmly against other portions of the drop-catch but in a manner permitting the removal of the armature and the coil without disturbing the adjustment of the drop-catch, substantially as described.

5. The combination with a shell, of a coil removably secured in the hollow portion thereof, a drop-catch pivoted at the rear of said shell, a tongue on the rear end of said drop-catch, an armature having an opening therein through which said tongue extends when the armature is placed in position, a groove extending across the top of the armature, a depression upon the under side of the drop-catch adapted to extend into said groove to hold the armature firmly in position, the spring of said tongue permitting the removal of the armature without disturbing the adjusted position of the drop-catch, substantially as described.

[Claim 6 not printed in the Gazette.]

1,131,390. PLAYER-PIANO. FRANK A. LEE, Cincinnati, Ohio, and ROBERT W. COOPER, Dayton, and RAY J. MEYER, Pineville, Ky.; said Lee and said Cooper assignors to The John Church Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 29, 1913. Serial No. 792,409. (Cl. 84—161.)



1. In combination with a transposition device for player pianos, tracker tubes, valves for selected tubes, means for automatically closing said valves and connections from said means to the transposition device, for the purpose described.

2. In combination with a transposition device for player pianos, tracker tubes, valves for selected tubes, means for closing selected valves, and connections from said means to the transposition device, for the purpose described.

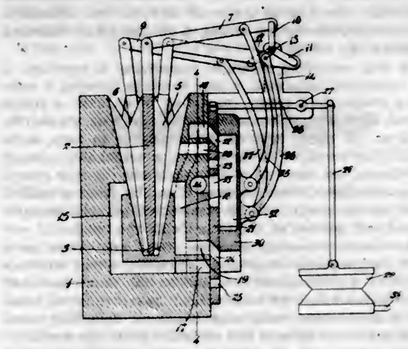
3. In combination with a transposition device for player pianos, tracker tubes, a valve chamber for selected tubes, means for closing the tubes from the chamber, and connections from said means to the transposition device, for the purpose described.

4. In a player piano, a tracker bar, a music sheet, means for transposing the sheet on the bar, tracker tubes, slots for said tubes in the bar, means for closing the tubes and connections from said means to the transposing means, for the purpose described.

5. In a player piano, a tracker bar, a music sheet, means for transposing the sheet, a series of tracker tubes, slots for said tubes in the bar, a valve chamber for the end ones of the series of tubes, a valve rod reciprocating therein, pistons on the rod and connections from the transposing means to the rod, for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]

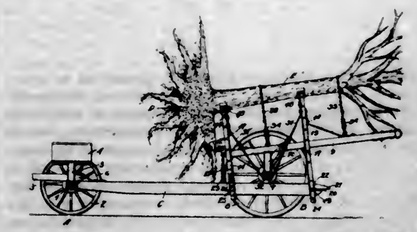
1,131,391. PNEUMATIC MOTOR FOR PIANO-PLAYERS. JOSEPH LEISCH, Tryon, N. C., assignor to The John Church Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 28, 1911. Serial No. 657,387. (Cl. 230—36.)



1. In a pneumatic motor, comprising a double acting bellows, with a single bellowsboard therefor, having crank shaft connections, the combination with a double set of passageways to each side of the bellowsboard for subjecting the interior of the bellows to vacuum and atmosphere, of a slide valve to alternately open and close a vacuum passageway to one side, and an atmosphere outlet to the other side of the double bellows, and a slide plate with ports therethrough adapted to register with one of the sets of passageways and to close the other said sets, with means for shifting said slide plate to reverse the order of opening of the passageways by the slide valves.

2. In a pneumatic motor, comprising a series of double acting bellows with bellowsboard therefor, having crank shaft connections, the combination with a double set of passageways to each side of said bellowsboard for subjecting the interior of the bellows to vacuum and atmosphere, of slide valves to alternately open and close a vacuum passageway to one side and an atmosphere outlet to the other of the double bellows, and interconnected slide plates with ports therethrough adapted to register with one of said sets of passageways and to close the other of said sets, with means for shifting said slide plates to reverse the order of opening of the passageways by the slide valves.

1,131,392. TREE-REMOVING MACHINE. HAROLD CARMAN LEWIS, East Rockaway, N. Y. Filed Sept. 1, 1914. Serial No. 859,608. (Cl. 55—120.)



1. A tree transplanting machine comprising a forecarriage, a reach, a rear carriage forming a tree-carrying cradle and embodying an axle, a frame mounted on the axle, and detachable connections between the frame and reach at points to the front and rear of the axle for adjusting the angle of the tree trunk carried by the cradle.

2. A tree removing machine comprising a carriage, a reach connected therewith, a rear carriage forming a tree-holding cradle, said cradle consisting of an axle, a frame mounted thereon and including front and rear standards, saddles on the upper ends of the standards to form seats in which the trunk of the tree rests, a detachable connection between the rear end of the reach and the rear standard, and an adjustable device arranged on the front standard to bear on the reach.

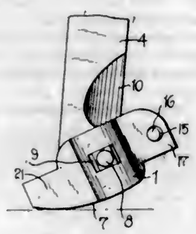
3. A tree removing machine comprising a carriage, a reach connected therewith, a rear carriage forming a tree-holding cradle, said cradle consisting of an axle, a frame mounted thereon and including front and rear standards, saddles on the upper ends of the standards to form seats in which the trunk of the tree rests, a detachable connection between the rear end of the reach and the rear standard, an adjustable device arranged on the front standard to bear on the reach, and an element detachably connecting the front portion of the frame with the reach.

4. In a tree removing machine, the combination of a forecarriage, a reach connected therewith, a rear carriage including a wheel-supported frame having front and rear standards composed of bars spaced apart to receive between them the said reach, and means for detachably connecting the lower ends of the said bars with the reach.

5. In a tree removing machine, the combination of a forecarriage, a reach connected therewith, a rear carriage including a wheel-supported frame having front and rear standards composed of bars spaced apart to receive between them the said reach, the rear end of the reach having a horizontal recess, a horizontal pin in one set of bars and arranged to enter the said recess, a removable pin on the reach and extending across the recess to form a keeper to engage the first-mentioned pin to detachably connect the reach with the cradle, and a pin adjustably mounted on the front set of bars, whereby the front of the cradle and the load sustained thereby are supported by the reach.

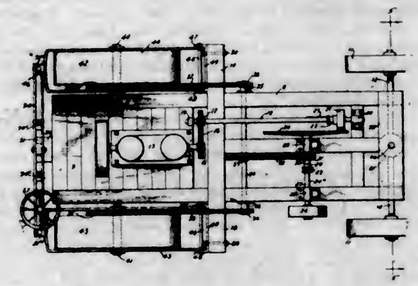
[Claims 6 to 8 not printed in the Gazette.]

1,131,393. CLAW-BAR. FRANK LIMER, McWhorter, W. Va. Filed Apr. 22, 1914. Serial No. 833,731. (Cl. 254—27.)



A device of the character described comprising an operating lever, gripping jaws pivotally connected intermediate of their lengths with the lower extremity of said lever and capable of relative lateral rocking movement, one of said jaws being provided with a lateral recess in its inner face in advance of its pivotal connection with the lever, a laterally directed inwardly disposed finger carried by the coacting jaw in advance of its pivotal connection with the lever and loosely accommodated within the lateral recess of the first named jaw, one of said jaws rearwardly of its pivotal connection with the lever being provided with a transverse opening, an inwardly disposed laterally directed finger carried by the adjacent jaw and directed within said opening, and means carried by the operating lever for imparting relative transverse rocking movement to the jaws in opposite directions.

1,131,394. TRACTOR. CHARLES WM. LOEFFLER, Solon township, Leelanau county, Mich. Filed Apr. 24, 1914. Serial No. 834,111. (Cl. 21—186.)



1. In a tractor, the combination of a main frame serving as a vehicle body, independent frames pivotally mounted upon said main frame, vehicle wheels journaled within said frames, and a lever mechanism connected with the free ends of the frames and controllable at the will of the operator for simultaneously adjusting said vehicle wheels to relatively different levels.

2. In a tractor, the combination of a frame provided with a cross bar having greater length than the general width of the frame and extending therefrom, brackets mounted upon the extending portions of said cross bar, pivot pins carried by said brackets, frames mounted to swing upon said pivot pins, said frames extending rearwardly from said cross bar, wheels journaled within said frames for the purpose of engaging the ground, gearing for turning said wheels; and mechanism connected with said frames for maintaining said wheels parallel.

3. In a tractor, the combination of a frame provided with a cross bar having a length greater than the width of said frame, a pair of frames pivotally mounted upon the extending portions of said cross bar, wheels journaled in said frames and adapted to engage the ground, brackets mounted upon the rear ends of said frames, guiding levers journaled upon said frame and extending into proximity to said brackets, and links slidably engaging said brackets and guided thereby, each link being connected to all of said guiding levers.

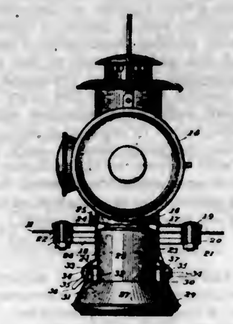
4. In a tractor, the combination of a main frame serving as a vehicle body, a pair of frames journaled upon said main frame and extending rearwardly, guiding members carried by said frames and located adjacent the rear ends thereof, guiding levers journaled upon said main frame, and adapted to swing relatively thereto, and links connecting said guiding levers in order to maintain the same parallel, said links also engaging said guiding members.

5. In a tractor, the combination of a main frame serving as a vehicle body, a pair of frames pivotally connected with said main frame and adapted to swing relatively to the same, brackets carried by said frames, links extending through said brackets and guided thereby, guiding levers connected with said links, said guiding levers being journaled upon said main frame, and springs engaging said guiding levers and said brackets.

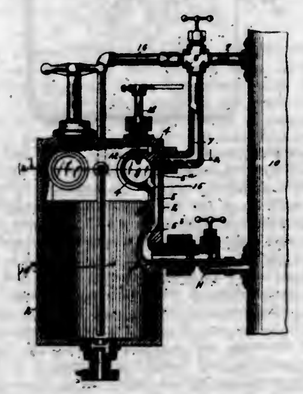
[Claims 6 to 8 not printed in the Gazette.]

1,131,395. MOTOR-VEHICLE. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 23, 1910. Serial No. 563,029. (Cl. 240—7.)

The combination with a support having an opening therethrough, of a lamp having a body portion adapted to extend through the opening and having a flange on the body portion larger than the opening and adapted to be secured to the support, said flange being arranged on the body portion above the bottom thereof, a fount extending into the body portion and removable from below said support, means below the support for detachably securing the fount to the body portion, and an adjusting device for the lamp above said flange.



1,131,396. DROP-FEED LUBRICATOR. FRANK LOWRY, Loudonville, Ohio, assignor to The Ohio Grease Company, Loudonville, Ohio, a Corporation of Ohio. Filed Aug. 31, 1914. Serial No. 859,284. (Cl. 184—50.)

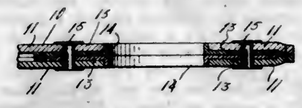


1. A lubricator including an outer case forming a grease chamber, an integral wall forming a feed chamber and a descending steam passage within the grease chamber, the upper end of the steam passage being located between the adjoining walls of the chambers and the feed chamber opening downward into the steam passage, a nipple leading downward from the grease chamber into the feed chamber, a pipe for delivering live steam into the upper end of the steam passage and a discharge pipe leading from the lower end thereof.

2. A lubricator including an outer case forming a grease chamber, an integral wall forming a feed chamber and a descending steam passage within the grease chamber, the upper end of the steam passage extending along the wall of the feed chamber and the feed chamber opening downward into the steam passage, a nipple leading downward from the grease chamber into the feed chamber, a pipe for delivering live steam into the upper end of the steam passage and a discharge pipe leading from the lower end thereof.

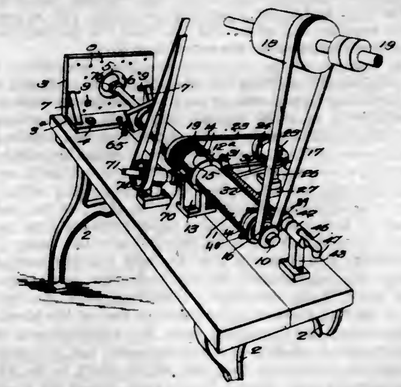
3. A lubricator including an outer case forming a grease chamber, an integral wall forming a feed chamber and a descending steam passage within the grease chamber, the upper end of the steam passage extending along the wall of the feed chamber, the feed chamber opening downward into the steam passage and the lower end of the steam passage being deflected from one side to the other, a nipple leading downward from the grease chamber into the feed chamber, a pipe for delivering live steam into the upper end of the steam passage and a discharge pipe leading from the lower end thereof.

1,131,397. TRACE-EYE. FRANKLIN LUTZ, Ada, Ohio, assignor of one-half to W. J. Schwenck, Bucyrus, Ohio. Filed Oct. 4, 1913. Serial No. 793,434. (Cl. 54—53.)



The combination with a horizontally split trace end, of a reinforcing device for the trace eye secured within the trace and comprising a pair of plates having apertured ears and a centrally enlarged apertured portion, and a laterally extending open ended tubular portion secured to the plate at the edge of the said opening, said plates being arranged back to back between the layers of the trace end with the tubular members extending into the openings of the said layers, and the ears in registry, and fastening devices disposed through the layers and the registered ears.

1,131,398. GRINDING-MACHINE. ROYDEN KEITH McDOUGAL, Lincoln, Nebr. Filed Aug. 4, 1914. Serial No. 854,914. (Cl. 51—4.)



1. A machine of the character specified, comprising a tube or cylinder, bearings for supporting the cylinder, a shaft arranged within the cylinder and extending beyond the cylinder at each end thereof, a grinding wheel at one end of the shaft, a pulley at the other end and adapted for connection with a source of power to rotate the shaft, a worm gear ring feathered on the tube, a worm shaft engaging the ring and having means for connection with a source of power, a bearing sleeve for the shaft at the end adjacent to the pulley, said sleeve being provided with oppositely extending trunnions intermediate its ends, a sleeve fitting within the tube at the said end and having openings for engagement by the trunnions, said last-named sleeve being detachably connected with the cylinder, a bearing sleeve for the opposite end of the shaft, a guide detachably connected with the adjacent end of the tube, said bearing sleeve having means for engaging the guide to permit the said end of the shaft to be adjusted laterally with respect to the tube, means for moving the sleeve, and feeding means for the tube operated by the rotation thereof, said means comprising a feed screw journaled adjacent to the tube and parallel therewith, manual means connected with the screw for operating the same, means for partially rotating the tube at predetermined intervals, and a connection between the tube and

the said means for operating the same, said partially rotating means comprising a cross head journaled on the screw, a ratchet wheel secured to the screw adjacent to the cross head, a pawl on the cross head for engaging the wheel, said pawl being reversible, and a connection between the screw and the tube for moving the tube longitudinally when the screw is rotated.

2. A machine of the character specified, comprising a tube or cylinder, bearings for supporting the cylinder, a shaft arranged within the cylinder and extending beyond the cylinder at each end thereof, a grinding wheel at one end of the shaft, a pulley at the other end and adapted for connection with a source of power to rotate the shaft, a worm gear ring feathered on the tube, a worm shaft engaging the ring and having means for connection with a source of power, a bearing sleeve for the shaft at the end adjacent to the pulley, said sleeve being provided with oppositely extending trunnions intermediate its ends, a sleeve fitting within the tube at the said end and having openings for engagement by the trunnions, said last-named sleeve being detachably connected with the cylinder, a bearing sleeve for the opposite end of the shaft, a guide detachably connected with the adjacent end of the tube, said bearing sleeve having means for engaging the guide to permit the said end of the shaft to be adjusted laterally with respect to the tube, means for moving the sleeve, feeding means for the tube operated by the rotation thereof, and a connection between the screw and the tube for moving the tube longitudinally when the screw is rotated.

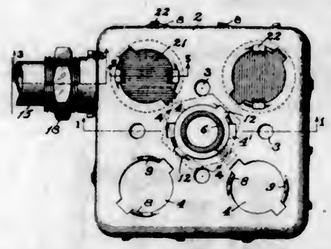
3. A machine of the character specified, comprising a tube or cylinder, bearings for supporting the cylinder, a shaft arranged within the cylinder and extending beyond the cylinder at each end thereof, a grinding wheel at one end of the shaft, a pulley at the other end and adapted for connection with a source of power to rotate the shaft, a worm gear ring feathered on the tube, a worm shaft engaging the ring and having means for connection with a source of power, a bearing sleeve for the shaft at the end adjacent to the pulley, said sleeve being provided with oppositely extending trunnions intermediate its ends, a sleeve fitting within the tube at the said end and having openings for engagement by the trunnions, said last-named sleeve being detachably connected with the cylinder, a bearing sleeve for the opposite end of the shaft, a guide detachably connected with the adjacent end of the tube, said bearing sleeve having means for engaging the guide to permit the said end of the shaft to be adjusted laterally with respect to the tube, means for moving the sleeve, feeding means for the tube operated by the rotation thereof, and a connection between the screw and the tube for moving the tube longitudinally when the screw is rotated.

4. A machine of the character specified, comprising a cylinder, bearings for supporting the cylinder for rotation, a shaft arranged within the cylinder and extending beyond the same at each end thereof, a grinding wheel at one end of the shaft, a pulley at the other end and adapted for connection with a source of power to rotate the shaft, means for rotating the cylinder, a bearing sleeve for the shaft at the end adjacent to the pulley, said sleeve having oppositely arranged trunnions pivoted to the cylinder, a bearing sleeve for the other end of the shaft, a guide plate detachably connected with the said end of the cylinder, means in connection with the bearing sleeve for engaging the guide plate to guide the bearing sleeve laterally with respect to the cylinder, means for moving the sleeve, and means for feeding the cylinder, said means comprising a screw journaled parallel with the cylinder, means for imparting intermittent rotation to the feed screw, and a driving connection between the cylinder and the said means.

5. A machine of the character specified, comprising a cylinder, bearings for supporting the cylinder for rotation, a shaft arranged within the cylinder and extending beyond the same at each end thereof, a grinding wheel at one end of the shaft, a pulley at the other end and adapted for connection with a source of power to rotate the shaft, means for rotating the cylinder, a bearing sleeve for the shaft at the end adjacent to the pulley, said sleeve having oppositely arranged trunnions pivoted to the cylinder, a bearing sleeve for the other end of the shaft, a guide plate detachably connected with the said end of the cylinder, means in connection with the bearing sleeve for engaging the guide plate to guide the bearing sleeve laterally with respect to the cylinder, means for moving the sleeve, and means for feeding the cylinder, said means being operated by the rotation of the cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,131,399. OUTLET-BOX. JAMES B. MCGINLEY, Pittsburgh, Pa., assignor to Handy Manufacturing Company, Pittsburgh, Pa., a Corporation of Delaware. Filed June 23, 1911. Serial No. 634,863. (Cl. 247—1.)



1. The combination of a sheet metal outlet box having an opening, the metal being bent adjacent the opening to form yieldable wedging surfaces, a coupling adapted to engage the surface of the box opposite the wedging surfaces and provided with a neck which projects through the opening, and lugs on the neck which engage and wedge against the wedging surfaces when the coupling is turned.

2. The combination of a sheet metal outlet box having a circular opening formed with offsets, the metal of the box adjacent the opening being bent to form yieldable wedging surfaces on one face of the box concentric to a wall of the opening, and a circular coupling extending through the opening and flanged to engage a surface of the box, said coupling having lugs spaced from the coupling flange and adapted to enter the opening offsets and overhang the surface of the box adjacent the wedging portions and engage said portions during turning movement of the coupling to its engaging position.

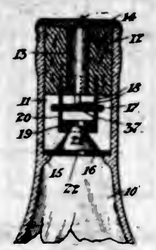
3. A sheet metal outlet box having openings formed through the walls thereof and the openings formed with offsets, the metal of the walls adjacent to the openings being bent to form, yieldable wedging surfaces which lead from the opening offsets, in combination with the covers having hook-like lugs struck up therefrom which are adapted to enter the opening offsets and engage the wedging surfaces when the covers are rotated.

4. The combination of an outlet box formed of sheet metal and having coupling openings, the metal adjacent the openings bent to form wedging surfaces, a coupling extending through one of the openings, a shoulder on the coupling adapted to engage one face of the box, and lugs projecting from the coupling and spaced from said shoulder a distance greater than the thickness of the metal of the box and adapted upon turning the coupling to frictionally engage said wedging surfaces and exert pressure thereon in the direction of the coupling shoulder, said wedging surfaces being free to move in the direction of pressure application during the lug engagement therewith.

5. An outlet box formed of sheet metal with openings through the box walls, the metal of the walls being bent outwardly adjacent the openings to form outwardly extending wedging projections on the exterior faces of the walls, said projections terminating in seats, a coupling within and adapted to engage the inner surface of the box and having a portion extending through one of said openings, and lugs on the extended portion of the coupling adapted when the coupling is turned to extend over and bear against the wedging projections on the outer surface of the box, said wedging projections being free to move in the direction of pressure application during the lug engagement therewith.

[Claim 6 not printed in the Gazette.]

1,131,400. BOTTLE-STOPPER. CHARLES MCKEEVER, Jersey City, N. J. Filed Feb. 27, 1914. Serial No. 821,363. (Cl. 215—65.)



1. In a non-refillable bottle, a stopper comprising a conical valve, a valve seat for the same, in which there is a discharge port, a ring co-acting with the inclined surface of the valve for returning the same to its seated position in righting the bottle, and a movable member normally seated adjacent the said ring and movable into the same to force and permanently maintain the said valve against its seat in attempts to tamper with the stopper.

2. In a non-refillable bottle, a stopper comprising a conical valve, a valve seat for the same provided with a discharge port, a ring co-acting with the inclined surface of the valve for returning the same to its seated position in righting the bottle, an annular plate, means for securing the said ring and annular plate together and in position in the stopper, and a movable member normally lying within the opening in the said annular plate and movable to a position within the said ring to force and maintain the said valve against its seat.

3. In a non-refillable bottle, a conical valve, a valve seat for the same, having a discharge port therein, a stopper, a ring co-acting with the said conical valve and upon which the same slides upon returning to its seated position, an annular plate to which the said ring is connected, a device for normally closing and opening the said annular plate, and means for connecting the said annular plate and ring to the said stopper.

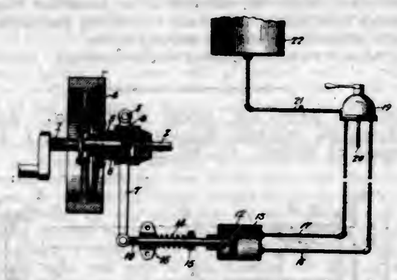
1,131,401. CLUTCH MECHANISM. JOHN G. MACPHERSON, Philadelphia, Pa., assignor to Joseph C. Baird, Washington, Pa. Filed June 17, 1914. Serial No. 845,673. (Cl. 192—8.)

1. The combination of a clutch having relatively movable engaging members, a spring normally tending to force said members into engagement, a second and stronger spring opposing the action of the first spring, and means for nullifying the effect of the second spring.

2. The combination of a clutch having relatively movable engaging members, a spring normally tending to force said members into engagement, a second and stronger spring opposing the action of the first spring, and means for gradually nullifying the effect of the second spring.

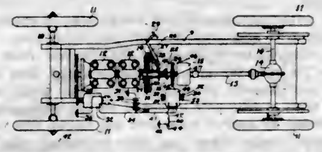
3. The combination of a clutch having relatively movable engaging members, a spring normally tending to force said members into engagement, a second and stronger spring opposing the action of the first spring, and fluid pressure actuated means for nullifying the effect of the second spring.

4. The combination of a clutch having relatively movable engaging members, a spring normally tending to force said members into engagement, lever mechanism for moving one clutch member in opposition to said spring, a second and stronger spring connected with said lever mechanism opposing the action of the first spring, and means for nullifying the effect of the second spring.



5. The combination of a clutch having relatively movable engaging members, a spring normally tending to force said members into engagement, a shipper lever for retracting the movable clutch member, a fluid pressure cylinder, a piston therein, a connecting rod between said piston and said shipper lever, a second and stronger spring interposed between said rod and a fixed abutment normally opposing the action of said first spring, a source of fluid pressure, and connections including a supply and relief valve between said source and said cylinder.

1,131,402. ELECTRIC SYSTEM FOR VEHICLES. RAY H. MANSON, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Apr. 18, 1912. Serial No. 691,684. (Cl. 123—179.)



1. In combination with the running gear of a vehicle, a prime mover normally connected thereto, a lever controlling the connection of said prime mover and running gear, a lug on said lever, a starting motor, means for connecting said motor to said prime mover, a movable member on said last named means adapted to engage the lug on the lever to prevent the connection of said motor to said prime mover when said prime mover is connected to said running gear and means to move said movable member out of the path of said lug when said lever is reciprocated whereby said starting motor may be connected to said prime mover.

2. In combination with the running gear of a vehicle, steering means therefor, a prime mover adapted to drive said running gear, means on said steering means controlling the operation of said prime mover, and a starting motor for said prime mover controlled by said prime mover controlling means, said starting motor being normally disconnected from said prime mover.

3. In combination with the running gear of a vehicle, steering means therefor, a prime mover adapted to drive said running gear, a spark control device on said steering wheel controlling the operation of said prime mover, and a starting motor for said prime mover controlled by said spark control device, said starting motor being normally disconnected from said prime mover.
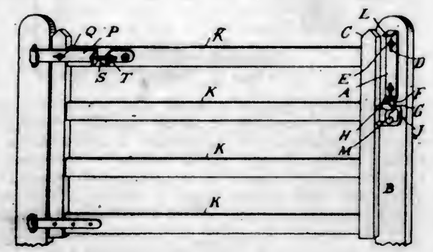
4. In combination with the running gear of a vehicle, a steering wheel therefor, a prime mover adapted to drive said running gear, a spark control lever on said wheel

controlling the operation of said prime mover, a starting motor for said prime mover normally disconnected therefrom, and means controlled by said lever for connecting said starting motor to said prime mover.

5. In combination with the running gear of a vehicle, a prime mover, means to connect said prime mover to said running gear, a starting motor normally disconnected from said prime mover but adapted to be connected thereto through said means, and means controlling the operation of the prime mover and the starting motor.

[Claims 6 to 84 not printed in the Gazette.]

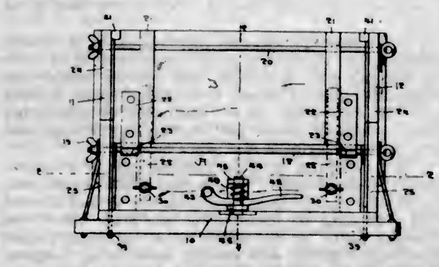
1,131,403. GATE OR DOOR FASTENING. EDWIN MATTHEWS, Hereford, England. Filed Sept. 4, 1914. Serial No. 860,202. (Cl. 70—28.)



1. A gate fastening device comprising a staple adapted to be fixed to and project from the swing post, a smaller staple adapted to be fixed to and project from the gate post so as to enter crosswise within the first mentioned staple and thereby to support the gate when closed, together with a drop-bolt mounted on the gate post adapted to be raised by and to drop over the upper arm of the first mentioned staple when the gate is closed, substantially as described.

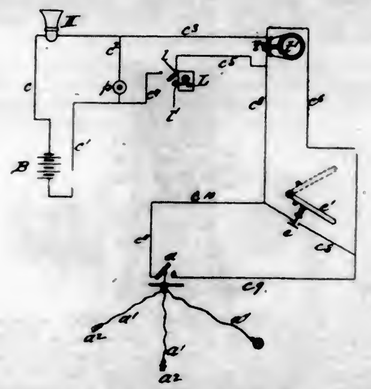
2. A gate-fastening device comprising a staple adapted to be fixed to and project from the swing-post, a smaller staple adapted to be fixed to and project from the gate post so as to enter crosswise within the first mentioned staple and thereby to support the gate when closed, together with a drop-bolt mounted on the gate post adapted to be raised by and to drop over the upper arm of the first mentioned staple when the gate is closed, the said bolt being flat and having vertical slots whereby it may be retained in working position by means of bolts passed loosely therethrough, and having also an inclined nose adapted to engage the top arm of the swing-post staple for the purpose of raising the bolt.

1,131,404. END-GATE. WILHELM L. MEINK, Portsmouth, Iowa. Filed Apr. 7, 1914. Serial No. 830,214. (Cl. 21—21.)



The combination with a wagon-box, of an end-gate comprising two hingedly connected sections; a securing latch mounted upon the outer surface of the lower section; flanged end-plates secured to the sides of the wagon box; coöperating flange plates attached to the ends of the lower section of said end-gate; removable braces positioned upon the inner surface of the upper section of the said end-gate; means to hingedly attach the said upper section to the sides of the said wagon-box; means to removably hinge the lower section of the said end-gate to the sides of the said wagon-box and to the upper section.

1,131,405. ELECTRICAL PROTECTOR FOR AUTOMOBILES AND SIMILAR VEHICLES. GUY ADAMS MERRILL, New York, N. Y. Filed Feb. 9, 1914. Serial No. 817,385. (Cl. 177—314.)



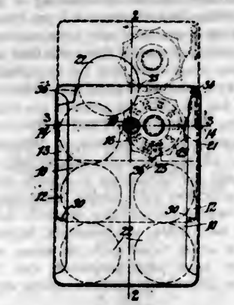
1. An electric alarm system of the character designated, comprising a primary circuit, an electric sounding device, a battery, a manually operated circuit closer interposed in said primary circuit, an auxiliary circuit in which is interposed a plurality of switches each adapted to be held normally open by contact with a removable article and to close automatically when said article is withdrawn, a single lock switch controlling the common connection between said primary circuit and said auxiliary circuit and locking the same without closing the electric circuit, and permitting completion of the auxiliary circuit by any one of the plurality of closing devices each independently of the other.

2. An electric alarm of the character designated, comprising an electric sounding device, a primary circuit to sound the same, a manual control therefor, a lock switch embodying a spring latch and a bell crank lever coöperating with and controlled by said latch and having one arm movable for contact with a conductor for automatically controlling a circuit and enabling the completion of an auxiliary circuit, and a plurality of closing devices included in the circuit system for completing such auxiliary circuit.

3. An electric alarm system of the character designated, comprising an electric sounding device and a manually operated circuit closer, a primary circuit in which said circuit closer is interposed, an auxiliary circuit, a plurality of normally open switches interposed therein, each adapted to be closed by the withdrawal of an article connected therewith, a lock switch embodying a spring latch and a bell crank lever coöperating with and controlled by said latch and having one arm movable for contact with a conductor for automatically locking the connection between a portion of the wires of the circuit without closing such circuit and permitting completion of the auxiliary circuit by any one of said normally open switches.

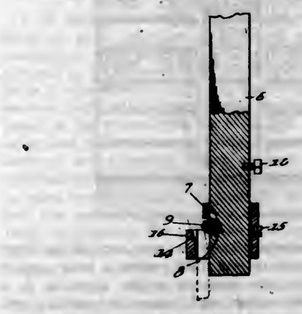
1,131,406. COIN-CASE. MAX H. METZAL, New York, N. Y. Filed Nov. 17, 1913. Serial No. 801,463. (Cl. 235—100.)

A coin-case, comprising side-plates guided one upon the other, the first plate comprising a side-wall having upturned edges and the second plate closing the space between the upturned edges of the first plate and comprising a side-wall having upturned edges and overturned flanges, said first plate closing the space between the flanges of the second plate, a bridge fixed transversely at the upper part of the first plate, a registering-disk pivoted to said bridge between the same and said first plate, said disk having a notched edge and an annular groove and a radial recess extending from the periphery of the disk to the groove, a check-spring secured to the bridge and engaging the edge of the disk, a series of numerals



at one side of the disk, a series of numerals at the other side thereof, said first plate having a coin-slot in the top of the same and an outlet-opening for the coins at its bottom, and both plates and the bridge having opening registering with the series of numerals of the disk when the plates are in closed position, a locking lug on the second plate adapted to enter said groove, and lugs on said second plate extending inwardly into the path of the first plate and adapted to limit the outward movement of the plates immediately in advance of exposure of the lower edge of the bridge.

1,131,407. SAW-SET. CHARLES E. MILLER, Bellingham, Wash. Filed Mar. 2, 1914. Serial No. 821,975. (Cl. 76—72.)



1. In a saw set, a housing having lugs, a plunger slidable in the housing and guided by the lugs, said plunger having a recess with a beveled wall, a portion of the housing extending beyond the lugs and having a wall, the inner side of which is beveled, and a roller fitting in the recesses of the plunger and coacting with the beveled inner wall of the housing to set saw teeth.

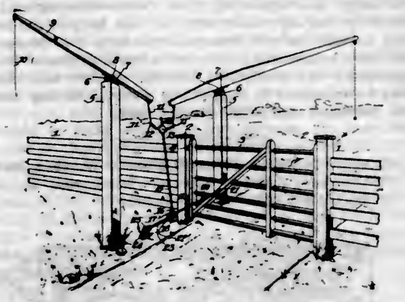
2. In a saw set, a housing, a portion of which is of increased cross sectional area at its lower end, the inner side of one wall of the larger portion being beveled, roller engaging ribs on the inner side of the beveled wall, a plunger in the housing having a recess with a beveled wall, a roller seated in the said recess and adapted to coact with the wall of the housing for setting saw teeth, and means for limiting the movement of the plunger with relation to the housing.

3. In a saw set, a housing, a portion of which is of increased cross sectional area at its lower end, the inner side of one wall of the larger portion being beveled, roller engaging ribs on the inner side of the beveled wall, a plunger having a recess with a beveled wall, a roller seated in the said recess and adapted to coact with the wall of the housing for setting saw teeth.

4. In a saw set, a housing, a portion of which is of increased cross sectional area at its lower end, the inner side of one wall of the larger portion being beveled, roller engaging ribs on the inner side of the beveled wall, a plunger having a recess with a beveled wall, a roller seated in the said recess and adapted to coact with the wall of the housing for setting saw teeth, and means adjustable in the housing for engaging the plunger to hold the housing, roller and plunger in assembled relation.

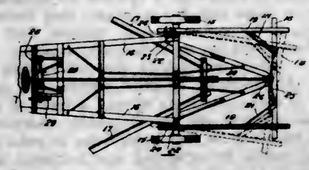
5. In a saw set, a housing, a portion of which is of increased cross sectional area at its lower end, the inner side of one wall of the larger portion being beveled, roller engaging ribs on the inner side of the beveled wall, a plunger slidable in the housing having a recess with a beveled wall, a roller seated in the said recess and adapted to coact with the wall of the housing for setting saw teeth, means for limiting the movement of the plunger with relation to the housing, and means adjustable in the housing for engaging the plunger to hold the housing, roller and plunger in assembled relation.

1,131,408. GATE. WILLIAM D. MILLER, Raywick, Ky. Filed Sept. 18, 1913. Serial No. 790,426. (Cl. 39—14.)



In combination with a swinging gate, posts at each side thereof, operating levers fulcrumed upon said posts, a rod having its upper end adjustably and flexibly connected to said lever, a weight connected loosely to the lower end of said rod and having a pair of longitudinal channels in its lower side and a single longitudinal opening in its upper portion, a rod having one end secured in said opening and its other end connected to the gate, a post, an arm having a forked end pivoted to the weight and fitting in the pair of channels in the lower side thereof, and its other end pivotally secured to said post.

1,131,409. ROAD-WORKING MACHINE. NATHANIEL S. MONROE, Arthur, Ill. Filed Mar. 12, 1914. Serial No. 824,162. (Cl. 37—7.)



1. The combination with a road machine of the character described and including a wheel supported frame having side members and rearwardly convergent scraper bars supported by said frame, of a drag comprising a

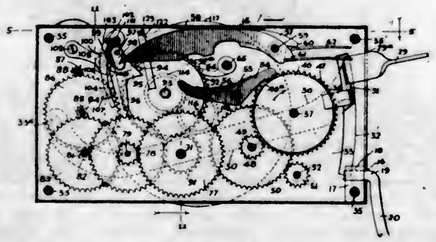
transverse trowel bar constituting a smoothing and packing element and rigid supporting bars rigidly connected with said trowel bar adjacent to the ends thereof, and means for connecting the forward ends of the supporting bars with the side members of the frame to maintain the trowel bar in earth engaging position to the rearward of the scraper bars.

2. The combination with a road machine of the character described and including a wheel supported frame having side members and rearwardly convergent scraper bars supported by said frame, of a drag comprising a transverse trowel bar constituting a smoothing and packing element and rigid supporting bars rigidly connected with said trowel bar adjacent to the ends thereof, means for pivotally connecting the forward ends of the supporting bars with the frame to maintain the trowel bar in earth engaging position to the rearward of the scraper bars, and means for lifting the trowel bar from engagement with the ground.

3. In a road machine, a wheel supported frame having side bars, rearwardly convergent scraper bars supported by the frame, a smoothing and packing element, rigid supporting bars with which said element is rigidly connected, and means for adjustably connecting the supporting bars with the frame of the machine to permit the smoothing and packing element to be positioned at various angles, transversely, with respect to the frame.

4. In a road machine, a wheel supported frame having side bars, rearwardly convergent scraper bars carried by the frame, a smoothing and packing element comprising a bar member positioned transversely in rear of the frame, means for connecting said bar member with the frame including rigid supporting bars, bolts connecting said bars pivotally and adjustably with the side bars of the frame, and convex washers interposed between the frame bars and the supporting bars, and adjusting means for the smoothing and compacting element whereby said element may be supported in the path of material issuing between the rearward ends of the scraper bars.

1,131,410. CAMERA ATTACHMENT. WILLIAM EDWARD MULHOLLAN, Juneau, Alaska. Filed Apr. 29, 1914. Serial No. 835,137. (Cl. 161—26.)



1. In a camera attachment, the combination of a casing, an arm journaled thereupon and movable relatively thereto, said arm being provided with a portion for engaging a shutter lever, a train of clockwork provided with means for shifting said arm back and forth in order to actuate said shutter lever, a dog for restraining movement of said train of clockwork, a hammer for striking said dog in order to cause said dog to release said train of clockwork, means for actuating said hammer, and time controlled mechanism for actuating said means.

2. In a camera attachment, the combination of a casing, an arm pivotally mounted within said casing and adapted to swing relatively thereto, a train of clockwork, a dog for starting and stopping said clockwork, a plurality of hammers for striking said dog in order to actuate the same, means for actuating said hammers in order to enable them to strike, separate restraining devices for preventing said hammers from striking, and time controlled mechanism for liberating said restraining devices at predetermined time intervals.

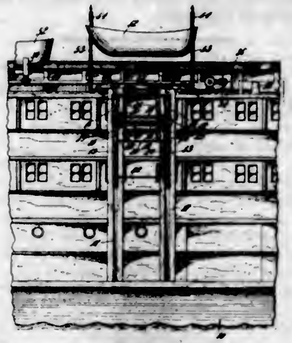
3. A device of the character described, comprising a movable member for actuating a camera shutter, a train of clockwork provided with means for actuating said movable member, an escapement connected with said train of clockwork, means including a movable dog for stopping and starting said train of clockwork, hammers for striking said dog in order to actuate the same, springs for actuating said hammers, time controlled mechanism for liberating said hammers at different moments, and indicating mechanism for disclosing the time interval between which said hammers are liberated.

4. A camera attachment, comprising a casing, a movable member connected thereto and provided with a portion for engaging a shutter lever, clockwork for actuating said movable member, means for actuating said clockwork, means including a movable dog, for stopping and releasing said clockwork, a pair of separate hammers, each adapted to strike said dog, in order to actuate the latter, a separate spring engaging each hammer, and time-controlled mechanism for liberating said hammers at different moments.

5. A device of the character described, comprising a movable member for actuating a camera shutter, a train of clockwork provided with means for actuating said movable member, means including a movable dog for stopping and releasing said train of clockwork, hammers for striking said dog in order to actuate the same, means for conferring motion upon said hammers, and time-controlled mechanism for liberating said hammers at different moments.

[Claims 6 and 7 not printed in the Gazette.]

1,131,411. MEANS FOR LOWERING BOATS AT SEA. AUGUST T. NELSON, Milwaukee, Wis., assignor, by direct and mesne assignments, of forty-one one-hundredths to John Graves and fifteen one-hundredths to Arthur C. Kleckhefer, Milwaukee, Wis. Filed Mar. 16, 1914. Serial No. 824,931. (Cl. 9—22.)



1. Means for lowering boats at sea, comprising fixed guides, guides movable in said fixed guides, a boat support slidably mounted on the movable guides movable to a position beneath the water, and means for raising and lowering the boat support and the movable guides.

2. A boat lowering device, comprising fixed guides, guides movable in said fixed guides, a boat support slidably mounted on said movable guides and for releasably securing a boat therein, and means for raising and lowering the boat support and the movable guides.

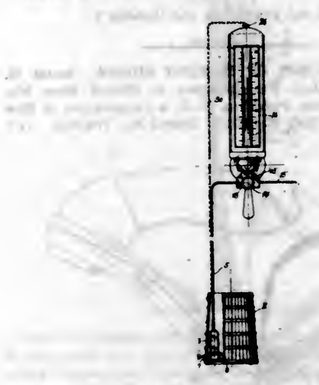
3. A boat lowering device, comprising fixed guides, guides movable in said fixed guides, a boat holding saddle slidably mounted on said movable guides and comprising brackets having arms pivotally connected therewith, means for automatically swinging the arms when the saddle is lowered beneath the water, and means for raising and lowering the saddle.

4. A boat lowering device, comprising substantially vertical guides, a boat supporting saddle slidably mounted on the guides and comprising brackets, a shaft journaled in the brackets, arms fixed on the shaft, a lever fulcrumed on one of the brackets, a bent link connecting the lever with one of the arms, the link connection with the lever being adapted to pass beyond the head center relation with the pivotal connection of the lever and the pivotal connection of the link with the arm, means in the path of the lever for causing it to swing and thereby move the arms, and means for raising and lowering the saddle.

5. A boat lowering device, comprising approximately vertical guides extending to the wale strip, supplemental guides slidably mounted therein and in their lower position extending to beneath the water level, boat supports slidably mounted in the supplemental guides, and means for raising and lowering the boat supports in the supplemental guides and the supplemental guides in the first mentioned guides.

[Claims 6 to 18 not printed in the Gazette.]

1,131,412. PNEUMATIC DEPTH-INDICATOR. HARRY S. PARKS, Philadelphia, Pa., assignor to Pneumercator Company, a Corporation of Maine. Filed May 19, 1913. Serial No. 768,407. (Cl. 73—54.)



1. A depth measuring apparatus comprising an indicator or gage operable by pressure, a conduit having a connection with said indicator and also having an inlet adapted to be submerged in the liquid of which the depth is to be measured, a source of pneumatic pressure in connection with said conduit, and controlling means interposed in the connections between said inlet and said indicator and said source of pressure, said means being constructed and operable either to open communication exclusively between the source of pressure and the conduit; to open communication exclusively between the indicator and the conduit; or to close all communications at one time; said means being further constructed to prevent release of the pressure in the indicator while being changed from one to another of the above stated conditions.

2. A depth measuring apparatus comprising an indicator or gage operable by pressure, a conduit having a connection with said indicator and also having an inlet adapted to be submerged in the liquid of which the depth is to be measured, a source of pneumatic pressure in connection with said conduit, and controlling means interposed in the connections between said inlet and said indicator and said source of pressure and exposed to the pressures acting in said indicator and conduit but so mounted as to be restrained from displacement by such pressures, said means being constructed and operable either to open communication exclusively between the source of pressure and the conduit; to open communication exclusively between the indicator and the conduit; or to close all communications at one time; said means being further constructed to prevent release of the pressure in the indicator while being changed from one to another of the above stated conditions.

3. A depth measuring apparatus comprising an indicator or gage operable by pressure, a conduit heving a connection with said indicator and also having an inlet adapted to be submerged in the liquid of which the depth is to be measured, a source of pneumatic pressure in connection with said conduit, and controlling means interposed in the connections between said inlet and said indicator and said source of pressure, said means being constructed and operable either to open communication exclusively between the source of pressure and the conduit; to open communication exclusively between the indicator and the conduit; or to close all communications at one time; said means being further constructed to prevent release of the pressure in the indicator while being changed from one to another of the above stated conditions and being so mounted as to be readily movable and at the same time to be retained by its mounting in any of said conditions.

4. A pneumatic depth measuring apparatus, comprising a conduit adapted to be submerged at one end in the liquid of which the depth is to be measured, a pressure indicator, a valve having three branches, one of which is connected to said conduit and another of which is connected to said indicator, and means for supplying compressed pneumatic fluid connected to the third branch, said valve including a plug mounted to oppose positive resistance to displacement by the pneumatic pressures acting upon it, and having passages arranged for connecting said supplying means with the conduit and for connecting the indicator with the conduit, and constructed to exclude all external communication while making such connections and while being shifted from one connection to the other.

5. A pneumatic depth measuring apparatus comprising a conduit adapted to be submerged at one end below the surface of a body of liquid, a pressure indicator, a container for compressed pneumatic fluid, and controlling means in connection with said conduit, indicator, and container, said means also including a vent opening to the atmosphere, and being constructed with capability for operation to make communication between the container and conduit, while shutting off the indicator and the vent, to make communication between the conduit and indicator while shutting off the container and the vent, and to make communication between the indicator and the vent while shutting off the container and the conduit; and being also operable for changing from either of the two first named communications to the other without making the third named communication.

[Claims 6 to 20 not printed in the Gazette.]

1,131,413. SURGICAL INSTRUMENT. EDWARD BLANCHARD PATTERSON, Sandpoint, Idaho. Filed May 19, 1914. Serial No. 839,525. (Cl. 128—20.)



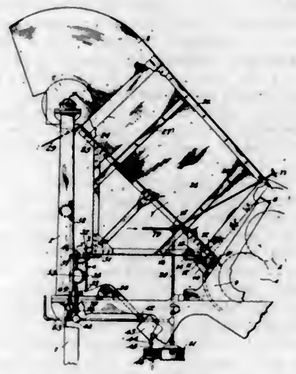
1. An obstetric instrument, comprising a slotted casing adapted for insertion into the vagina to inclose the umbilical cord of a child and prevent pressure thereon.

2. An obstetric instrument, comprising a casing having a longitudinal slot on one side thereof and adapted for insertion into the vagina to inclose the umbilical cord of a child and prevent pressure thereon.

3. An obstetric instrument, comprising a casing having a longitudinal slot on one side thereof and adapted for insertion into the vagina to inclose the umbilical cord of a child and prevent pressure thereon, said instrument being longitudinally curved to conform to the shape of the head of the child.

4. An obstetric instrument, comprising a casing having a slot on one side thereof and adapted for insertion into the vagina to inclose the umbilical cord of a child and prevent pressure thereon, said instrument being transversely concaved on its inner surface and transversely convexed on its outer surface, and said slot being in said convex side.

1,131,414. AUTOMATIC FEEDER FOR MILLS, CRUSHERS, SHREDDERS, AND THE LIKE. JAMES A. PIETSCH, New York, N. Y. Filed Mar. 13, 1914. Serial No. 824,408. (Cl. 83—44.)



1. In a feeding device, a chute, means for pivotally supporting said chute, a differential lever for maintaining said chute in any desired position according to the weight of the material on said chute, said lever being bent adjacent its fulcrum so as to produce a normally horizontal section on one side of the fulcrum and a normally downwardly inclined section on the other side of the fulcrum, said last mentioned section being provided with a weight, and means connected with said chute for reducing the power to the feeding device when the chute is moved against the action of said lever.

2. In a feeding device, a chute, means for pivotally mounting said chute, said means comprising a supporting shaft and bearing members connected with the chute and surrounding said supporting shaft, each of said bearing members being provided with a comparatively short circular portion, and with flaring portions extending from said circular portion, means for normally holding said chute in a predetermined position, and means actuated by said chute when said first mentioned means are overcome, whereby the power for operating the feeding device is shut off.

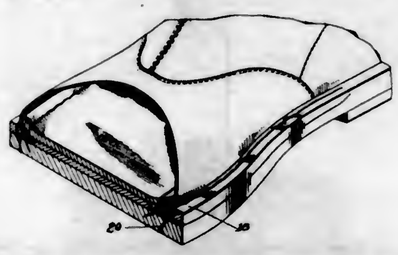
3. An automatic feed of the character described, comprising a pivotally mounted chute, a pair of supporting bars for supporting one end of said chute, a differential lever for each of said supporting bars, means arranged on the ends of each of said differential levers for normally overbalancing said chute so as to hold the same normally in a raised position, and means connected with said chute for shutting off the power, said means being open when said chute is held in its elevated position and closed when said chute overcomes the weights on said differential levers and moves to a lowered position.

4. In an automatic feed for mills, a rocking chute, weighted differential levers for supporting one end of said chute, supporting bars arranged between said differential levers and said chute, each of said supporting bars being provided with tapered ends, each of said levers being provided with a tapered socket for receiving said tapered ends so as to allow a substantially universal pivotal movement of said bars, said chute being also provided with means formed with tapered sockets for receiving the tapered ends of said bars, and means actuated by said chute when the same moves downwardly for shutting off the power to the feeding means.

5. In an automatic feed for mills, the combination with conveying or feeding means, of a chute for receiving material from said feeding means, means for pivotally supporting said chute, a pair of differential levers for supporting the free end of said chute, a bar rigidly secured to said levers, said bar being provided with an arc-shaped edge adjacent each end, bearing members engaging said arc-shaped edges for supporting said bar, weights arranged on said differential levers, and means actuated by said chute for shutting off the power to said feeding means when said chute and its material overcomes the weights on said differential levers.

[Claims 6 to 9 not printed in the Gazette.]

1,131,415. PROCESS OF MAKING SHOES. ADAM H. PRENZEL, Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 21, 1913. Serial No. 768,973. (Cl. 12—142.)



1. That improvement in the art of making stitch-down shoes which consists in providing an insole along its edge with a lip to which the lining may be secured, assembling an upper, lining and said insole upon a last, independently drawing the lining over the last and drawing together and uniting the lower edge of the lining and the insole lip, turning out the lower margin of the upper and securing an outsole to said upper.

2. That improvement in the art of making stitch-down shoes, which consists in providing an insole upon its under face to which the lining may be secured, assembling the upper, lining and said insole upon a last, independently drawing the lining over the last and drawing together the inner face of the lower edge of the lining and the upper face of the insole lip, and uniting said lining and said lip near the bottom edge of the insole, turning out the lower margin of the upper, and securing an outsole to said upper.

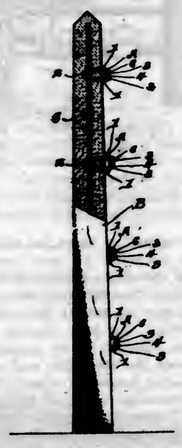
3. That improvement in the art of making stitch-down shoes which consists in providing an insole along its edge with a lip to which the lining may be secured, assembling an upper, lining and said insole upon a last, drawing together and uniting the lower edge of the lining and the insole lip, turning out the lower margin of the upper, the edge of the lining and the insole lip, and securing an outsole to the upper and to said outturned edges of the lining and the insole lip.

4. That improvement in the art of making stitch-down shoes which consists in securing to an insole a welt strip having a free edge to which the lining may be secured, assembling the upper, lining and insole upon a last, drawing together and uniting the lower edge of the lining and the free edge of the welt strip, turning out the lower margin of the upper and securing an outsole to said upper margin and to said welt strip.

5. That improvement in the art of making stitch-down shoes which consists in securing a welt strip by one of its edges along the edge of the bottom face of an insole, assembling an upper, lining and said insole upon a last, drawing the lining tight over the last and securing the bottom edge of the lining to the free edge of said welt strip, turning out the lower margin of the upper and securing an outsole to the upper and to said welt strip.

[Claims 6 to 9 not printed in the Gazette.]

1,131,416. CEMENT-POST WIRE-HOLDER. ARTHUR J. RADER, Chesterton, Ind. Filed July 22, 1914. Serial No. 852,418. (Cl. 256—50.)

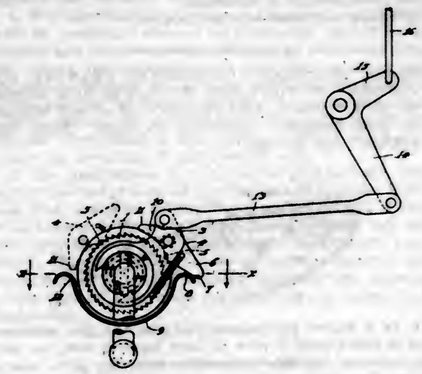


The combination with a composition post of a plurality of one-piece wire holders embedded therein formed from strips of metal bent centrally upon themselves each having the bend embedded within the post and the free portions projecting substantially horizontally beyond the post in line with each other and the ends bent toward each other in the same plane having angular spaced apart parallel end edges for the passage of a wire, and a tie rod within the post passing through apertures provided therefor in the body of the interior portions of each wire holder.

1,131,417. ENGINE-STARTER. JAMES F. RALEIGH, Chicago, Ill. Filed Dec. 1, 1913. Serial No. 803,997. (Cl. 123—185.)

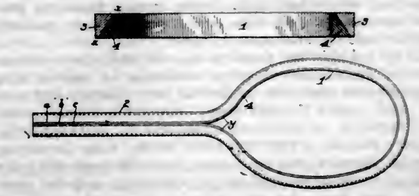
1. The combination with an engine shaft, of a ratchet wheel connected to operate said shaft; a pawl arm adjacent said ratchet wheel; a pawl pivoted on said arm adapted to engage said ratchet wheel and provided with a rearward extension; means for moving said arm through a portion of a revolution; an inwardly acting cam surface on the rear portion of said pawl; an outwardly acting cam surface on the forward portion of said pawl; and stationary cam members coöperating with said cam surfaces to throw said pawl out of engagement with said ratchet at each end of the stroke of said pawl arm, substantially as described.

2. The combination with an engine shaft, of a ratchet wheel connected to operate said shaft; a pawl arm adjacent said ratchet wheel; a pawl on said arm adapted to engage said ratchet wheel; a lever operatively connected with said pawl arm and arranged to revolve said pawl arm through a portion of a revolution; automatic means for locking said lever in position at the forward terminus of its movement; means at the forward terminus of movement arranged to hold said pawl out of engagement with said ratchet and means at the rearward terminus of said movement arranged to throw said pawl out of engagement with said ratchet automatically, substantially as described.



3. The combination with an engine shaft, of a ratchet wheel connected to operate said shaft; a pawl arm adjacent said ratchet wheel; a pawl on said arm adapted to engage said ratchet wheel; a lever operatively connected with said pawl arm and arranged to revolve said pawl arm through a portion of a revolution; automatic means for locking said lever in position at the forward terminus of its movement; and means at the forward and rearward termini of said movement arranged to throw said pawl out of engagement with said ratchet automatically and hold said pawl out of such engagement, substantially as described.

1,131,418. TENNIS-RACKET FRAME. MILTON B. REACH, Springfield, and WILLIAM RICHEY, Chicopee, Mass., assignors to A. G. Spalding & Bros. Manf'g. Co., Chicopee, Mass., a Corporation of Massachusetts. Filed Dec. 1, 1914. Serial No. 875,030. (Cl. 46—24.)



1. A tennis racket frame consisting of a plurality of strips having contacting faces inclined in respect to the outer faces of said frame and glued together, substantially as described.

2. A tennis racket frame consisting of a plurality of strips having contacting surfaces inclined in respect to the outer faces of said frame, the handle having its two sides glued together and each side having its two strips glued together along inclined surfaces, one strip having its sides wedged in between the sides of the other strip, substantially as described.

3. A tennis racket frame comprising two or more pieces having inclined faces, in wedging contact, with glue between said inclined faces uniting the pieces together, substantially as described.

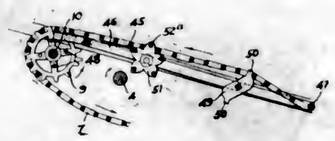
4. A tennis racket frame comprising two strips, one of which is formed with a channeled face and the other of which is formed with a protuberant portion to fit said channel, the two strips being glued together along the faces of their intermeshing portions.

5. A tennis racket frame comprising two strips, one of which is formed with a wedge-shaped channel and the other of which is formed with a protuberant wedge-

shaped portion to fit said channel, the two strips being glued together along their inclined contacting surfaces, said strips having a free space between their adjacent faces, substantially as described.

[Claim 6 not printed in the Gazette.]

1,131,419. MACHINE FOR DIGGING PEANUTS, POTATOES, AND THE LIKE. WILLIAM H. RICE, Rochester, N. Y.; John E. Rice administrator of said William H. Rice, deceased. Filed Feb. 23, 1909. Serial No. 479,632. (Cl. 55—51.)



1. In a digger for peanuts and the like, the combination of side-frames, a plow at their forward ends, an endless conveyer movable backwardly from the plow, means for moving the conveyer continuously, a pair of star-wheels engaging the conveyer, each star-wheel having a slot, and pivotal means, for supporting the star-wheels, attached to the side-frames and lying in said slots.

2. In a digger for peanuts and the like, the combination of side-frames, a plow at their forward ends, an endless conveyer movable backwardly from the plow, means for moving the conveyer continuously, a pair of star-wheels engaging the conveyer, each star-wheel having a slot, pivotal means for supporting the star-wheels, attached to the side-frames and lying in said slots, and collars rotatably mounted on the pivotal means and adapted to fill said slots and restrict the star-wheels to rotary movement.

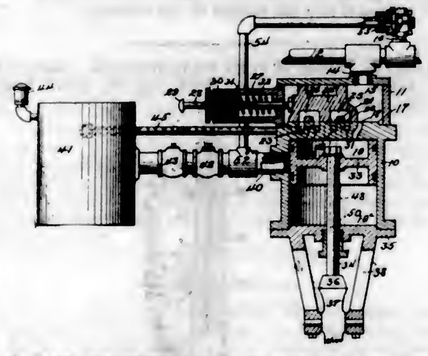
3. In a digger for peanuts and the like, the combination of side frames, a plow at their forward end and an endless conveyer movable backward from the rear end of said plow and having a supporting portion consisting of cross bars with open spaces between them, means for agitating material carried by said conveyer consisting of a pair of wheels having projecting arms adapted to project between the cross bars, and a series of bars connecting the ends of corresponding arms.

4. In a digger for peanuts and the like, the combination of an endless conveyer consisting of flexible side elements and cross-bars connecting said elements and having open spaces between them, means for vibrating the said conveyer in directions transverse to the supporting surface thereof, a pair of wheels having arms projecting through between said cross bars, and rods connecting the ends of corresponding arms for raising the material from said cross bars and depositing it again thereon, and means for simultaneously operating said conveyer and said means for vibrating it.

1,131,420. AIR-CONTROLLING VALVE. HARRY L. RIDER, Oil City, Pa. Filed Oct. 21, 1913. Serial No. 796,506. (Cl. 246—59.)

1. In an air controlling valve for air brakes, the combination with a train line, a cylinder in communication therewith, a piston in said cylinder, an air outlet from said cylinder, a pivotally-supported trip lever supporting the piston to normally hold the piston in position to close said outlet, a valve adapted when actuated to close communication between the train line and the cylinder, and constituting a means for returning the piston to normal position to permit resetting of the trip lever and means for closing communication between the train line and brake-pipe when said cylinder outlet is opened.

2. In an air controlling valve for air brakes, a cylinder in communication with the air brake train line, a piston in said cylinder having the rod thereof extending through the lower end of the cylinder, means pivotally suspended beneath the cylinder for supporting the piston and normally holding said piston in an elevated position, means for shutting off the train line air pressure from the cylinder, means for returning the piston to its normal position after the cylinder is shut off from train line air pressure consisting of a valve adapted to be actuated to close communication between the train line and said cylinder, and means for closing communication between the train line and brake-pipe when said cylinder outlet is opened.



3. In an air controlling valve for air brakes, an air receiving cylinder normally in open communication with the train line of the brake system and having an outlet port, means within the cylinder for closing said outlet port, pivotally-supported means beneath the cylinder for normally supporting the port closing means in closing position, a valve adapted to be actuated to close communication between the train line and said cylinder to return the port-closing means to normal position to permit re-setting said pivotally-supported means, and means for closing communication between the train line and brake-pipe when said cylinder outlet is opened.

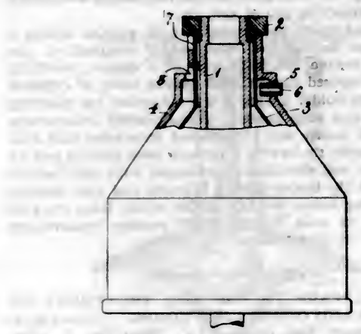
4. In an air controlling valve for automatic application of air brakes, the combination with the train line and the brake pipe of a brake system, of a cylinder normally in communication with the train line and having an outlet, a piston in said cylinder normally held in position to close said outlet and normally subjected to train line air pressure, a piston rod, a trip lever engaging the piston rod and holding said piston in normal position, means for closing communication between the train line and the cylinder when the trip-lever is actuated to permit movement of the piston and consequent opening of the cylinder outlet, and means for closing communication between the train line and the brake pipe of the brake system when said cylinder outlet is opened.

5. In means for automatically applying air brakes, the combination with the train line and the brake-pipe of an air brake system, of an air receiving cylinder normally in communication with the train line and having an outlet port, means for keeping said port normally closed, and means whereby when said outlet is opened, communication between the brake pipe and the train line is closed thus relieving the engineer of brake control and insuring an automatic application of the brakes by the track device.

[Claims 6 to 8 not printed in the Gazette.]

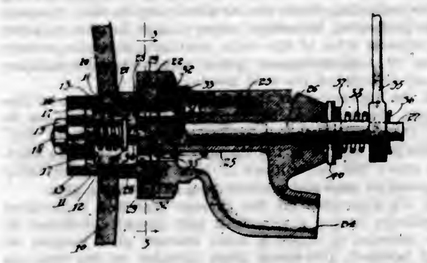
1,131,421. REGULATING MEANS FOR CENTRIFUGAL LIQUID-SEPARATORS. JOHANNES VALDEMAR MÅRTEN RISBERG, Södertelje, Sweden, assignor to Aktiebolaget Baltic, Södertelje, Sweden, a Corporation of Sweden. Filed Sept. 12, 1914. Serial No. 861,457. (Cl. 127—20.)

1. For the regulating of the proportions of the separated liquids in centrifugal liquid separators the combination of a regulating screw located in the wall of the drum and provided with a passage for the skimmed milk and an outlet opening for the greater quantity of the skimmed milk provided in the wall of the drum nearer to the axis of the drum.



2. For the regulating of the proportions of the separated liquids in centrifugal liquid separators the combination of a regulating screw located substantially radially in the wall of the drum and provided with a lateral outlet opening extending to the side of the screw which is located outside the wall of the drum, and an outlet opening for the greater quantity of the skimmed milk provided in the wall of the drum nearer to the axis of the drum.

1,131,422. BLOW-OFF COCK. GEORGE ROAN and HENRY HELMHOLZ, Chicago, Ill. Filed June 15, 1914. Serial No. 845,069. (Cl. 137—7.)



1. The combination of an apertured plug having a valve seat at one end thereof, a rotary valve fitted on said valve seat and adapted to coöperate therewith, a blow-off cock casing secured to the other end of said plug and provided with a valve seat opposite said plug, a rotary valve fitted to the seat on said casing and in axial alinement with the valve on said plug, means connecting said valves for simultaneous rotary movement, and adapted to permit the operation of the valve on said casing when the valve on said plug is locked by an obstacle.

2. The combination of a plug, a valve coöperating with said plug, a blow-off casing secured to said plug, a valve cooperating with said casing, and a connection between said valves causing the first mentioned valve to be operated upon operation of the second mentioned valve and adapted to permit the operation of the latter when the first mentioned valve is locked by an obstruction.

3. The combination of a pressure chamber wall provided with an opening, a centrally bored plug secured in the opening and provided with a hollow outer end and a passage for fluid, a peripheral flange upon the outer end of the plug, a blow-off cock normally controlling the passage of fluid through the plug and provided with an exteriorly handled controlling stem having a squared aperture upon its inner end, a half union nut upon the plug coöperating with the flange and blow-off cock to removably secure the cock to the plug, a bolt mounted for oscillation in the central bore of the plug and provided at its outer end with a squared extension engaging the squared aperture of the stem, and an aperatured disk fixed upon the inner end of the bolt for oscillation therewith for controlling the passage of fluid through the plug.

4. The combination of a pressure chamber wall provided with an opening, a blow-off cock normally controlling the opening and detachable from the wall, an additional device for closing the opening, and a frictional spring pressed connection between the blow-off cock and the additional device whereby the blow-off cock may be caused when operated to operate the additional device simultaneously, but whereby obstruction of the additional device will not obstruct the operation of the blow-off cock.

5. The combination of an apertured plug having a valve seat at one end, a blow-off cock secured to the other end of said plug, a disk valve fitted with said valve seat, a valve stem secured to said disk valve and extending into said plug into close proximity with said blow-off cock, and a clutch operatively connecting said valve stem with said blow-off cock and being adapted to permit the operation of the blow-off cock when the disk valve is locked by an obstruction.

[Claim 6 not printed in the Gazette.]

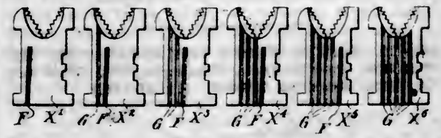
1,131,423. POULTRY COOP OR CRATE. GEORGE W. ROBERTS, Willow Grove, Pa. Filed Nov. 14, 1913. Serial No. 800,982. (Cl. 217—57.)



1. A coop of the character stated having on its top slats and rounds, and an entrance opening between portions of said slats, and other rounds connected with other portions of said slats back of said opening in a plane below that of the latter forming a pocket, and a door adapted to close said opening, and when opened to occupy said pocket and rest level therein or comparatively level in the same alinement as when it occupies its closed position.

2. A coop of the character stated having at the top, longitudinal slats and transverse rounds, the latter having their ends secured to said slots and an opening between said slats and rounds, and a door adapted to close said opening, and portions of the slats back of said opening having downwardly extending offsets, and rounds connected with said offsets in a plane below said opening forming a pocket into which said door may be swung and rest level or comparatively level therein in the same alinement as when occupying its closed position.

1,131,424. TYPE OR MATRIX. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Mar. 31, 1914. Serial No. 828,437. (Cl. 199—12.)



1. A type or matrix formed in its side face with an elongated distributing notch or groove terminating in its body.

2. A type or matrix formed in its side face with a notch or groove inclined edgewise thereof.

3. A type or matrix formed in its side face with a notch or groove inclined edgewise of the type or matrix and terminating in the body thereof.

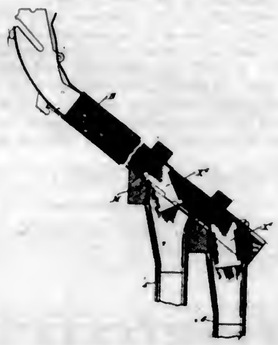
4. A type or matrix adapted to be engaged at its side face by a distributing shoulder, and formed in its side face with a notch or groove extending throughout its body to

permit it to pass a distributing shoulder for other type or matrices.

5. A type or matrix formed in its side face with two grooves or notches, one being unobstructed and extending throughout its body and the other terminating therein.

[Claims 6 to 20 not printed in the Gazette.]

1,131,425. TYPOGRAPHICAL MACHINE. JOHN B. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 27, 1913. Serial No. 792,098. (Cl. 199—7.)



1. Typographical distributing mechanism comprising a conductor, along which the type or matrices travel endwise uninterruptedly, and means for deflecting them sidewise therefrom at different points in its length.

2. Typographical distributing mechanism comprising a conductor, along which the type or matrices travel endwise, provided with a series of openings located at different points in its length, and further with a corresponding series of fixed shoulders to engage the type or matrices and deflect them laterally through said openings.

3. Typographical distributing mechanism comprising a conductor, along which the type or matrices travel endwise, and means for shifting the traveling type or matrices first edgewise and then laterally to discharge them from the conductor.

4. Typographical distributing mechanism comprising a conductor having a groove in which the ears of the type or matrices travel, the side of said groove being cut away or recessed at different points in its length, and means for deflecting the type or matrices laterally from the groove through said recesses.

5. Typographical distributing mechanism comprising a conductor having a groove in which the type or matrices travel, and means for shifting the traveling type or matrices edgewise in said groove to permit them to escape sidewise therefrom.

[Claims 6 to 35 not printed in the Gazette.]

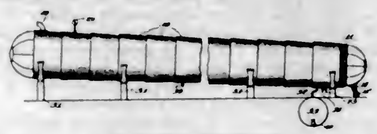
1,131,426. DIPPER-TOOTH FOR EXCAVATING-MACHINES. FRED O. RUSH, Wilmington, Del. Filed Aug. 20, 1912. Serial No. 716,008. (Cl. 37—16.)



1. A dipper tooth, comprising a body portion having a tapered nose and at its rear end a longitudinal slot adapted to engage the front wall of a dipper providing oppositely disposed shanks, said shanks being of different lengths, a tip holder having a tapered recess for receiving the nose of said body portion, means passing transversely through said holder and shanks and traversing said slot, and a reversible tip detachably connected with said holder, said tip and tip holder having recesses and ribs forming interengaging means for taking the strain from the connecting pin of said tip.

2. A dipper tooth, comprising a body portion having a tapered nose and at its rear end a longitudinal slot adapted to engage the front wall of a dipper, providing oppositely disposed shanks, said shanks being of different lengths, a tip holder having a tapered recess for receiving the nose of said body portion, means passing transversely through said holder and shanks and traversing said slot, and a reversible tip detachably connected with said holder, said tip and tip holder having recesses and ribs forming interengaging means for taking the strain from the connecting pin of said tip, and a reversible tip having a tapered nose portion and an inner curved end detachably connected with said holder, said tip and tip holder having recesses and ribs forming inter-engaging means for taking the strain from the connecting pin of said tip, said pin passing transversely through the tip and holder.

1,131,427. APPARATUS FOR THE TREATMENT OF RED GUM AND OTHER LIKE WOODS. THOMAS HARLOW SAMPSON, New Orleans, La. Filed July 8, 1912. Serial No. 708,386. (Cl. 99—12.)



1. An apparatus for the treatment of red gum and like woods, comprising a chamber, a manifold arranged adjacent one end of the chamber; said manifold having steam connections at its under face, a series of steam heating pipes extending from the manifold and in the chamber, and perforated live-steam pipes located in the chamber at opposite sides of the steam heating pipes; the perforations of said live-steam pipes being disposed to eject steam directly on the said heating pipes.

2. An apparatus for the treatment of red gum and like woods, comprising a chamber, a heating pipe disposed in the chamber lengthwise thereof, and a perforated live-steam pipe located in the chamber at one side of the heating pipe; the perforations of said live-steam pipe being disposed to eject steam directly on said heating pipe.

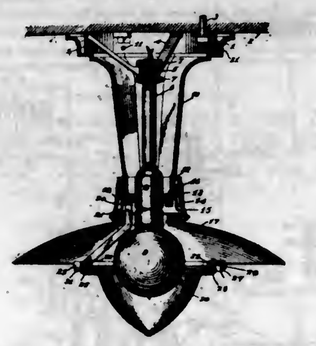
3. An apparatus for the purpose described, comprising a cylinder having a removable end, brackets arranged in the cylinder, at opposite sides thereof, rails secured on said brackets, live-steam pipes retained in the brackets and having inwardly-directed perforations, and steam-heating pipes extending lengthwise of the cylinder, between the live-steam pipes.

1,131,428. LAMP. LINDSLEY SCHERMERHORN, Hasbrouck Heights, N. J., assignor to Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed May 21, 1912. Serial No. 698,726. (Cl. 240—78.)

1. A lamp comprehending a supporting member; a source of illumination supported thereby; a shell carried by said supporting member and completely covering the latter; means carried directly by said shell for holding a shade; a shade carried thereby in operative relation to said source of illumination; and separate means also carried directly by said shell for supporting a bowl in operative relation to said source of illumination and below said shade.

2. A lamp comprehending a supporting member; a source of illumination carried thereby; a shell completely covering said supporting member; shade supporting means carried directly by said shell; a shade carried by said means; separate means also carried directly by said shell for supporting a bowl in operative relation to said source of illumination; and a bowl carried by said latter means.

3. A lamp comprehending a supporting member; a source of illumination carried thereby; a shell completely covering said supporting member; shade supporting means carried by said shell at its lower end; and bowl supporting means also carried by said shell and extending below the shade supporting means.

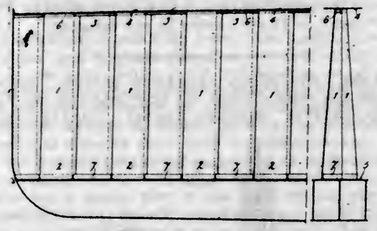


4. A lamp comprising a supporting member; a shell covering said member and having shade supporting means at its lower end; a shade carried by said means; means for carrying a bowl also carried by the lower end of said shell and extending from within downwardly below said shade supporting means; and a bowl carried by said means, whereby the shade and bowl are supported one above the other.

5. A lamp comprehending a supporting member; a source of illumination carried thereby; a shell covering said member and having a shade for directing rays emitted by said source of illumination; and a bowl also carried by said shell spaced a material distance from the shade to intercept direct rays of said source of illumination, transmit a portion of said rays, and reflect a portion of said rays upon said shade.

[Claims 6 to 11 not printed in the Gazette.]

1,131,429. CONSTRUCTION OF SHIPS. ARCHIBALD EDWARD SCOTT, West Hampstead, England. Filed Aug. 6, 1914. Serial No. 855,876. (Cl. 114—116.)

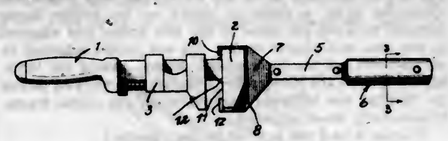


1. A bulkhead of zig-zag, angled or corrugated section built up of a number of trough shaped plates the troughs or curves of which are shallow at one end and deep at the other relatively to the width, which plates are secured together in a watertight manner by riveting or otherwise.

2. A bulkhead of zig-zag, angled or corrugated section built up from a number of plates of decreasing width from one end to the other, the said plates being formed into the shape of troughs the curves of which are shallow at the top and deep at the bottom relatively to the width and secured together in a watertight manner as set forth.

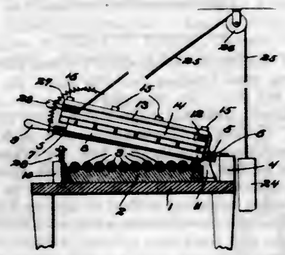
1,131,430. WRENCH ATTACHMENT. JOHN C. SHOWALTER, Three Rivers, Mich. Filed June 21, 1913. Serial No. 775,038. (Cl. 81—180.)

In combination with a wrench, of an attachment therefor, said attachment being formed from a blank of sheet metal so cut as to provide semi-circular handle sections, said sections terminating in shanks, said shanks and sections being riveted together, plates substantially triangular in shape formed integral with the shanks, said plates being connected by a plate at certain of their ends, an



extension formed integral with the plate and terminating in a right angle lip, spaced ears formed upon certain edges of the plates and adapted to slidably engage the fixed jaw of the wrench when the extension and lip are engaged therewith.

1,131,431. CRAYON-CUTTER. HARRY W. SMITH, West Chester, Pa. Filed Apr. 16, 1912. Serial No. 691,190. (Cl. 25—105.)



1. A crayon cutter comprising a support adapted to receive the sticks of plastic material thereon, a hinged slat frame adapted to be positioned over the sticks, a hinged cutter frame, and a series of blades on the cutter frame movable between the slats of the slat frame and adapted to cut into the plastic sticks, the end blades adapted to cut deeper than the intermediate blades, substantially as described.

2. A crayon cutter comprising a support adapted to receive the sticks of plastic material thereon, a hinged slat frame adapted to be positioned over the sticks, a hinged cutter frame longer than the slat frame and positioned above the same, blades on the cutter frame movable between the slats of the slat frame and adapted to cut into the plastic sticks, said cutter comprising a plurality of parallel blades, the end blades projected beyond the plane of the cutting edges of the intermediate blades, whereby the end blades only sever the sticks, substantially as described.

3. A crayon cutter comprising a support adapted to receive the sticks of plastic material thereon, a hinged slat frame adapted to be positioned over the sticks, a hinged cutter frame, blades on the cutter frame movable between the slats of the slat frame and adapted to cut into the plastic sticks, a weight, a pulley, a flexible cord connecting the cutter frame with the weight and passed over the pulley, and a spring connecting said flexible cord with the slat frame, substantially as described.

4. A crayon cutter comprising a support adapted to receive the sticks of plastic material thereon, a hinged slat frame adapted to be positioned over the sticks, a hinged cutter frame, blades on the cutter frame movable between the slats of the slat frame and adapted to cut into the plastic sticks, said cutter comprising a plurality of parallel blades, the end blades projected beyond the plane of the cutting edges of the intermediate blades, whereby the end blades only sever the sticks, a weight, a pulley, a flexible cord connecting the cutter frame with the weight and passed over the pulley, and a spring connecting said flexible cord with the slat frame, substantially as described.

5. A crayon cutter comprising a support adapted to receive the sticks of plastic material thereon, a hinged slat frame adapted to be positioned over the sticks, a hinged cutter frame longer than the slat frame and positioned above the same, a series of blades on the cutter frame movable between the slats of the slat frame and adapted to cut into the plastic sticks, the end blades adapted to cut deeper than the intermediate blades, means for limiting the downward movement of the slat frame, and means for limiting the downward movement of the cutter frame, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,432. CRAYON COMPOSITION. HARRY W. SMITH, West Chester, Pa. Filed Apr. 16, 1912. Serial No. 691,191. (Cl. 106—5.)

The herein described crayon composition consisting of seventy-five pounds of clay and seventy-five pounds of chalk mixed together, and to which is added a binder consisting of thirty ounces of starch, two ounces of acetic acid, and twelve ounces of soap, mixed with substantially four gallons of water, substantially as described.

1,131,433. METHOD OF MAKING CRAYONS. HARRY W. SMITH, West Chester, Pa. Filed Apr. 16, 1912. Serial No. 691,192. (Cl. 18—48.)

1. The herein described method of making crayons consisting in ejecting a continuous stock and manually breaking said stock into lengths with the several lengths located side by side, then drying the sticks, then breaking the sticks into crayon lengths, substantially as described.

2. The herein described method of making crayons consisting in ejecting a continuous stock and breaking with the hands the said stock upon a board, whereby a plurality of similar lengths of said stock are laid side by side on the board, then simultaneously cutting all of said lengths, and permitting them to dry, then breaking the sticks at the points where they are cut, substantially as described.

3. The herein described method of making crayons consisting in manually breaking into lengths, a continuously feeding stock, then drying the lengths, then breaking the lengths into crayons, substantially as described.

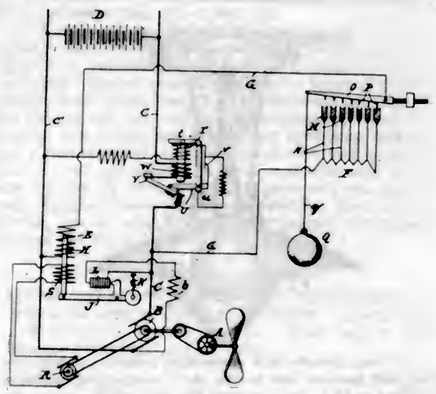
4. The herein described method of making crayons consisting in laying upon a grooved board a series of parallel plastic sticks manually broken from a continuously feeding stock, then nicking said sticks, then drying said sticks and breaking them at the nicks, substantially as described.

5. The herein described method of making crayons consisting in laying upon a grooved board a series of parallel plastic sticks manually broken from a continuously feeding stock, then nicking said sticks, then positioning a drying frame on the sticks, then inverting the frame and the board, leaving the sticks in the drying frame with the nicks in their lower faces, then drying the sticks, then breaking the sticks at the nicks by light blows on the sticks, substantially as described.

1,131,434. ELECTRICAL REGULATION. WILLIAM SNEE and JOHN A. SNEE, Jr., West Elizabeth, Pa. Filed Aug. 28, 1914. Serial No. 859,138. (Cl. 171—314.)

1. The method herein described consisting in driving an electric generator by means of a wind wheel, utilizing the generated current for maintaining a predetermined relation between the generator load and the speed of the wind wheel, and utilizing the variations of the speed of the wheel for varying the load in conformity with wheel speed variations as described.

2. The method herein described consisting in driving an electric generator by means of a wind wheel, utilizing the generated electro-motive force for tending to maintain the potential of the generator substantially constant for all speeds of the latter above a given minimum, utilizing a force derived from the wind as the speed of the wheel increases for raising the generator potential, and so proportioning the said regulating forces as to cause the wheel to run substantially at a predetermined fraction of the wind velocity.



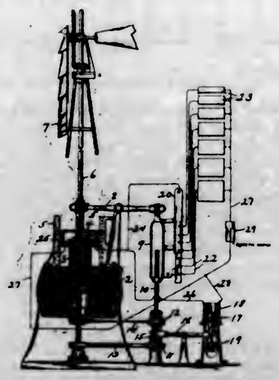
3. The method herein described consisting in charging a storage battery by means of a generator driven by a wind wheel, and governing the voltage of the generator by the conjoint action of the state of charge of the battery and the varying of the wind.

4. The method herein described consisting in charging a storage battery by means of a generator driven by a wind wheel, utilizing the generated electro-motive force and the state of charge of the battery and the intensity of the force derived from the wind for adapting the generator load to the speed of the wheel, and utilizing the state of charge of the battery for determining the approximate wind velocity at which current begins to flow.

5. The method herein described consisting in delivering to a circuit in series with a storage battery electrical energy from a generator driven by variable power, utilizing the state of charge of the battery for causing the generator potential to equal the battery potential whenever the generator runs at a given velocity, and utilizing the variable power for raising the generator potential as the speed of the generator exceeds such given velocity.

[Claims 6 to 13 not printed in the Gazette.]

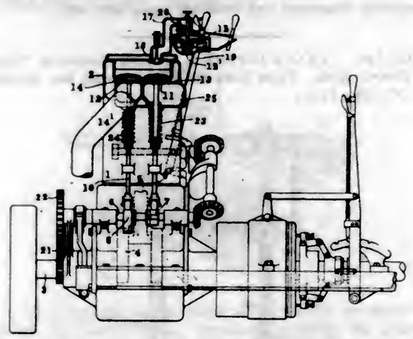
1,131,435. UTILIZING VARIABLE POWER. WILLIAM SNEE and JOHN A. SNEE, Jr., West Elizabeth, Pa. Filed Sept. 16, 1912. Serial No. 720,545. (Cl. 171—312.)



1. The combination of a variable power prime mover, an electric generator geared to the prime mover, regulating means for maintaining the generated current at a constant voltage, and means actuated by the generated electromotive force for maintaining a constant predetermined balance between the current output and the available variable power.

2. A generator actuated by variable energy, means for maintaining substantially constant the voltage of the generator, and means for adjusting the load on the generator to the available energy supply.

1,131,436. INTERNAL-COMBUSTION ENGINE. CHARLES L. SNYDER, Stratford, and FRED J. PEASE, Bridgeport, Conn., assignors to Wolverine Motor Works, Inc., Bridgeport, Conn., a Corporation of Michigan. Filed Aug. 22, 1913. Serial No. 786,069. (Cl. 123—31.)



1. The method of obtaining power from liquid hydrocarbon, which comprises introducing a mixture of air and relatively heavy liquid hydrocarbon at normal temperature into an expansible chamber filled with air, compressing the resultant mixture, igniting the compressed mixture, and allowing the ignited mixture to expand.

2. The method of obtaining power from liquid hydrocarbon, which comprises introducing an atomized mixture of air and relatively heavy liquid hydrocarbon at normal temperature into an expansible chamber filled with air, compressing the mixture so formed, igniting the compressed mixture, and allowing the ignited mixture to expand.

3. The method of obtaining power from liquid hydrocarbon, which comprises introducing an atomized mixture of air and relatively heavy liquid hydrocarbon at normal temperature into an expansible chamber filled with air received from an air supply at normal temperature, compressing the mixture so formed, igniting the compressed mixture, and allowing the ignited mixture to expand.

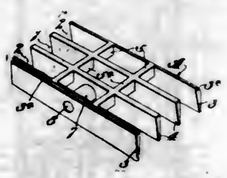
4. The method of obtaining power from an internal combustion engine which comprises introducing air into the cylinder for a larger part of the inlet stroke, and an atomized mixture of air and relatively heavy liquid hydrocarbon thereafter on the inlet stroke, compressing the mixture in the cylinder, igniting the compressed mixture, and allowing the ignited mixture to expand.

5. The method of obtaining power from an internal combustion engine which comprises sucking air into the cylinder for a larger part of the inlet stroke, and an atomized mixture of air and relatively heavy liquid hydrocarbon thereafter on the inlet stroke, compressing the mixture in the cylinder, igniting the compressed mixture, and allowing the ignited mixture to expand.

[Claims 6 to 12 not printed in the Gazette.]

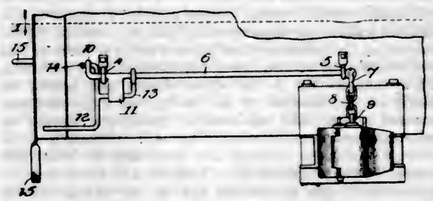
1,131,437. MOLDED WALL AND COLUMN STRUCTURE. PETER J. A. STOCKMANN, St. Louis, Mo. Filed Nov. 11, 1913. Serial No. 800,287. (Cl. 72—43.)

A building block comprising outer and inner slabs that extend longitudinally throughout the length of the block, each of said slabs being provided on its upper edge with a rabbet that extends the entire length of said slab, and having its lower edge reduced in thickness so as to fit in the rabbet of an adjacent block, a plurality of longitudinal partitions arranged intermediate said outer and inner slabs, the upper edge of each of said partitions being flush with the upper edge of said outer and inner slabs, and the lower edge lying in a higher horizontal plane than the



lower edges of said slabs, and a plurality of transversely extending tie members that integrally connect said partitions, said tie members being inwardly removed from the end portions of the block and having their lower edges lying in a higher horizontal plane than the lower edges of said partition members.

1,131,438. RELEASE-RIGGING. SVEN J. STRID, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed May 28, 1913. Serial No. 770,422. (Cl. 213—59.)



1. In a release rigging for a car coupler, a horizontally rotatable shaft having one end operatively connected to the locking pin of a car coupler, a handle at the opposite end of said shaft, means connecting said handle to the shaft whereby the shaft is rotated when the handle is turned, an offset on said shaft, a connection between said handle and said offset whereby said shaft is rotated when said handle is depressed.

2. In a release rigging a rock shaft connected with the coupler at the inner end, a crank arm on the outer end of the shaft, an operating handle having an arm pivotally engaging the said crank on the shaft, and another arm extending inwardly and provided with an eye loosely engaging the said shaft intermediate the ends of said shaft.

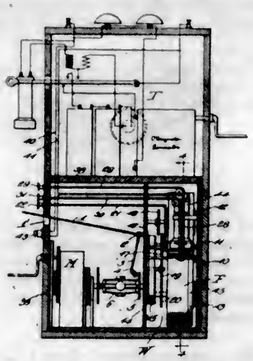
3. In a release rigging for a car coupler, a horizontally rotatable shaft flexibly connected at one end with the locking pin of the coupler, an operating handle pivoted at two points, whereby the shaft is rotated and the locking pin is raised by a downward push of said handle, and an extension on said rod adapted to be engaged by said handle, whereby the shaft is rotated and said pin is raised when the handle is rotated.

4. In a release rigging, a rock shaft flexibly connected with the coupler at its inner end, a crank arm on the outer portion of said shaft, an operating handle pivotally engaging the shaft and said crank arm, whereby the shaft is rotated and the locking pin is operated by a downward push of said handle, said handle also engaging the rock shaft at another point whereby said shaft is rotated and the locking pin operated by an upward pull of said handle.

5. In a release-rigging for car-couplers, a rock-shaft, a connection between the rock-shaft and pin of the coupler, an axially movable raising and lowering handle for the shaft, a shoulder on the shaft in the path of axial turning of the handle, to be engaged thereby and rock the shaft when the handle is turned, to release the pin, the handle being eccentrically connected with the shaft whereby when depressed, it rocks the shaft and releases the pin, as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,131,430. TELEPHONE-RECORDER. EDWIN R. TALLEY and ROBERT P. NORTON, Algona, Iowa. Filed Aug. 25, 1913. Serial No. 786,496. (Cl. 179—6.)



1. The combination with a telephone and its casing, a supplemental casing adjacent the first-named casing and separated therefrom by a transverse partition, the wall of said supplemental casing having a hole, a supplemental receiver within the supplemental casing, a shunt circuit connecting the telephone line wires with said receiver and itself consisting of two wires led through said partition, and a snap switch in the shunt circuit and having its handle on the exterior of the casing; of a graphophone mounted within said suplemental casing and having its recording mechanism actuated by said supplemental receiver, a motor for winding and rewinding the sensitized element of the graphophone, a tape on said sensitized element and passing across the hole in the casing for the purpose set forth, and manual controls for all the graphophone mechanisms leading to the exterior of the casing.

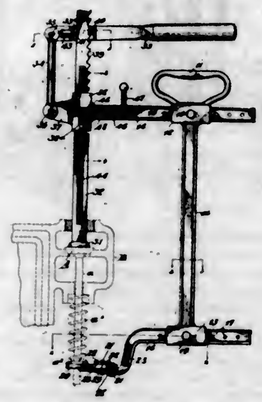
2. The combination with a telephone and its casing, a supplemental casing below the first-named casing and divided therefrom by a transverse partition, the wall of said supplemental casing having an upright slot, a supplemental receiver within the supplemental casing, a shunt circuit connecting the telephone line wires with said receiver and itself consisting of two wires led through a hole in said partition, and a snap switch in one of said wires of the shunt circuit and having its handle on the exterior of the casing; of a graphophone mounted within said supplemental casing and having its recording mechanism actuated by said supplemental receiver, a motor for winding and rewinding the sensitized element of the graphophone, a brake for the motor, a brake-lever extending through said slot and normally holding the brake applied, and manual controls for the graphophone mechanisms leading to handles outside of the supplemental casing.

3. The combination with a telephone and its casing, a supplemental casing whose wall has an upright slot and a hole, a supplemental receiver within the supplemental casing, a shunt circuit connecting the telephone line wires with said receiver, and a switch in the shunt circuit and having its handle on the exterior of the casing; of a graphophone mounted within said supplemental casing and having its recording mechanism actuated by said supplemental receiver, a motor for winding and rewinding the sensitized element of the graphophone, a brake for the motor whose lever extends through said slot, and a tape paralleling said sensitized element and passing across the hole in the casing, for the purpose set forth.

4. The combination with a telephone including a casing, a supplemental receiver therein, a shunt circuit connecting the line wires of the telephone with said receiver, and a switch in said circuit; of a graphophone also mounted in said casing and having its recording mechanism actuated by said supplemental receiver, a motor also arranged in the casing for winding and rewinding the sensitized elements of the graphophone, a governor for said motor including a brake disk, an angular lever fulcrumed at the junction of its arms within the casing and having one arm thereof disposed loosely through the front wall of said casing, the last mentioned wall of said casing being provided with a slot through which said arm is disposed, and a brake shoe carried on the end of the other arm of said lever adapted for normal engagement with the brake disk whereby to prevent the operation of said motor until said lever is raised on its fulcrum point.

5. In a device of the character described, a recorder having a needle, a smooth flexible sensitized band, means whereby said band may be fed past said needle, and a comparatively rough tape formed on one edge of said band, whereby the beginning and end of a conversation may be manually inscribed and recorded upon said tape.

1,131,440. VALVE-LIFTER. GEORGE GUSTAVE THAU, Evart, Mich. Filed June 16, 1914. Serial No. 845,393. (Cl. 29—87.1.)



1. In a device of the character described, a frame, a laterally disposed arm on the frame having means to engage valve parts near one end of a valve stem, a second laterally disposed arm spaced from the first arm, a presser bar movable in the second arm toward or from the said means carried by the first arm, to clamp a valve, and actuating means for said presser bar, said actuating means being mounted on the said second arm and having a member movable into engagement with said presser bar.

2. In a device of the character described, a frame, a laterally disposed arm on the frame having means to engage valve parts near one end of a valve stem, a second laterally disposed arm spaced a fixed distance above the first arm, a presser bar movable vertically in the second arm toward or from the said means carried by the first arm to clamp a valve, a lever, means connected with the said second arm and with the lever and forming a fulcrum for the lever, and interengaging elements on the lever and presser bar for actuating the latter.

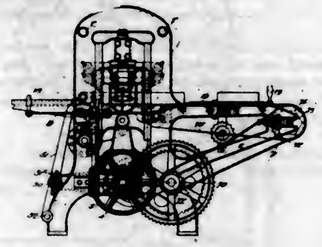
3. In a device of the character described, a frame, upper and lower lateral arms thereon, valve-engaging means on the lower arm, a valve-clamping bar slidable in the upper arm toward or from the lower arm, a lever for actuating the said bar, and means connecting the lever with said upper arm, the lever and presser bar having interengaging means to actuate the said bar.

4. In a device of the character described, a frame, upper and lower lateral arms thereon, valve-engaging means on the lower arm, a toothed valve-clamping bar slidable in the upper arm toward or from the lower arm, a lever for actuating the said bar, the lever having a member to engage the teeth of the bar, and a spring-pressed member on the lever bearing against the clamp bar at the side opposite the member engaging the teeth of the bar.

5. In a device of the character described, a frame, upper and lower lateral arms thereon, valve-engaging means on the lower arm, a valve-clamping bar slidable in the upper arm toward or from the lower arm, a lever, co-acting members on the lever and clamping-bar, to cause the lever to actuate the said bar, the said clamping bar having ratchet teeth, and a pawl on the upper arm engaging said ratchet teeth, to hold the said bar in the position to which it has been advanced by the lever.

[Claims 6 to 11 not printed in the Gazette.]

1,131,441. BRICK-SURFACING MACHINE. CHARLES F. THOMAS, Buckeystown, Md. Filed Mar. 31, 1913. Serial No. 757,897. (Cl. 25—1.)



1. In a machine for pressing brick, a table arranged to receive the plastic brick, means for moving the plastic brick along the table into operative position, means for subsequently compressing the sides of the brick, other means for subsequently compressing the ends of the brick, and additional means for subsequently pressing the top of the brick.

2. In a machine for pressing brick, a table arranged to receive the plastic brick, means for moving the plastic brick along the table into operative position, a stationary and a movable plate for compressing the sides of the brick, a pair of movable plates for compressing the ends of the brick, and a vertically movable plate for pressing the top of the brick.

3. In a machine for pressing brick, a table arranged to receive the plastic brick, means for moving the plastic brick along the table into operative position, a central partition carried by the table, a pair of plates movable toward and away from said central partition for compressing the sides of the brick, movable plates for compressing the ends of the brick, and vertically movable plates for pressing the top of the brick.

4. In a machine for pressing brick, a table arranged to receive the plastic brick, means for moving the plastic brick along the table into operative position, a central partition carried by the table, side plates movable toward and away from said central partition for compressing the sides of the brick, movable end plates for compressing the ends of the brick, vertically movable plates for compressing the top of the brick, means for causing a movement of said side plates into their operative positions and subsequently causing a movement of the end plates into their operative positions, and means for finally causing a movement of the top plates into their operative positions.

5. In a machine for pressing brick, a frame provided with a top or table, a central partition carried by the table, pusher plates normally disposed at one end of the table and slidable thereon, said pusher plates being separated by said central partition and vertically movable frame, means for reciprocating said vertically movable frame, presser plates pivotally connected with said vertically movable frame and arranged to engage said table, the contact of the presser plates with said table serving to move the plates toward the partition, and means for reciprocating said pusher plates toward and away from said vertically slidable frame.

[Claims 6 to 14 not printed in the Gazette.]

1,131,442. SOUND REPRODUCER AND RECORDER. WILLIAM J. TRAVERS, Buffalo, N. Y. Filed June 30, 1913. Serial No. 776,553. (Cl. 181—11.)



1. In a sound reproducer and recorder, a stylus bar; a support for the stylus bar; a magnet; and means associated with the magnet and said support forming the axis of oscillation for said stylus bar, said magnet adapted to maintain said support and stylus bar in a predetermined position.

2. In a sound reproducer and recorder, a stylus bar; a support for the stylus bar; and a magnet having means engaging said support whereby said support is spaced from the poles of the magnet, said means forming the axis of oscillation for the stylus bar and whereon the oscillation of the bar is influenced by the said magnet.

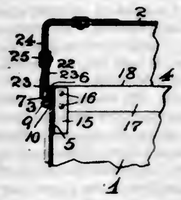
3. In a sound reproducer and recorder, a stylus bar, bearings upon which the stylus bar is mounted to oscillate, a magnet the poles of which are adjacent said bearings, and means associated with said bar adjacent the bearings, said means being spaced from the poles of the magnet and influenced thereby.

4. In a sound reproducer and recorder, a stylus bar, an armature therefor, and a magnet having means at the poles engaging the armature, whereby the poles of the magnet are spaced from the armature.

5. In a sound reproducer and recorder, a stylus bar; an armature for said stylus bar; a bearing for said armature on which the stylus bar is adapted to oscillate; and magnetic means forcing the armature in engagement with the bearing and also adapted to influence the displacement of the stylus bar on the bearing that may be produced by the vibration of the diaphragm or the movement of the record.

[Claims 6 to 14 not printed in the Gazette.]

1,131,443. SUITCASE. HUGO TUECKMANTEL, Irvington, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Mar. 10, 1913. Serial No. 753,193. (Cl. 190—49.)



1. In a receptacle, the combination with the body thereof and a cover therefor, of a rigid frame to give a bevel to the edge of said body, said frame comprising a pair of vertically disposed portions and an upper connecting member, arranged to provide a receiving part in which the upper portions of the body are arranged, an off-set extending outwardly from one of said vertically disposed portions and located upon the outer face-portions of said body, said off-set forming a seat, and a clamping edge-portion extending inwardly from said off-set in biting engagement with the said outer face-portions of said body,

said cover registering with said frame and coöperating with said seat to provide a perfect closure of said cover with said body.

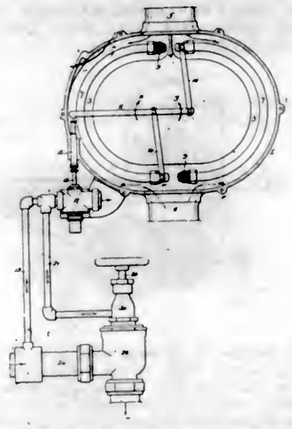
2. In a receptacle, the combination with the body thereof, of a rigid frame to give a bevel to the edge of said body, said frame comprising a pair of vertically disposed portions and an upper connecting member, arranged to provide a receiving part in which the upper portions of the body are arranged, an off-set extending outwardly from one of said vertically disposed portions and located upon the outer face-portions of said body, said off-set forming a seat, and a clamping edge-portion extending inwardly from said off-set in biting engagement with the said outer face-portions of said body, combined with a cover, a channel shaped frame arranged over the marginal edge-portions of said cover, and a means of pivotal connection between said channel-shaped frame and the frame of said body, said channel-shaped frame of the cover registering with the frame of said body and coöperating with said seat to provide a perfect closure of said cover with said body.

3. In a receptacle, the combination with the body thereof, and a cover therefor, of a rigid frame to give a bevel to the edge of said body, said frame comprising an inner body-portion adapted to be arranged upon the inner face-portions of said body at the upper marginal edge-portions thereof, said inner body-portion being formed upon its upper marginal edge-portion with a curved outwardly and downwardly extending connecting member, an outer member extending downwardly from said connecting member, said outer member being of less depth than the depth of said inner body-portion and forming with said inner body-portion a receiving part in which the upper portions of the body are arranged, and an off-set forming a seat extending outwardly from said vertically disposed outer member and located upon the outer face-portions of said body, and at a point below the said connecting member, said cover registering with said frame and coöperating with said seat to provide a perfect closure of said cover with said body.

4. In a receptacle, the combination with the body thereof, and a cover therefor, of a rigid frame to give a bevel to the edge of said body, said frame comprising an inner body-portion adapted to be arranged upon the inner face-portions of said body at the upper marginal edge-portions thereof, said inner body-portion being formed upon its upper marginal edge-portion with a curved outwardly and downwardly extending connecting member, an outer member extending downwardly from said connecting member, said outer member being of less depth than the depth of said inner body-portion and forming with said inner body-portion a receiving part in which the upper portions of the body are arranged, an off-set forming a seat extending outwardly from said vertically disposed outer member and located upon the outer face-portions of said body, and at a point below said connecting member, combined with a cover, a channel-shaped frame arranged over the marginal edge-portions of said cover, and a means of pivotal connection between said channel-shaped frame and the frame of said body, said channel-shaped frame of the cover registering with the frame of said body and coöperating with said seat to provide a perfect closure of said cover with said body.

[Claims 6 to 16 not printed in the Gazette.]

1,131,444. THERMOSTATIC HEAT-CONTROLLING DEVICE. FRANK TYSON and WILLIAM G. TYSON, Canton, Ohio. Filed Feb. 25, 1909. Serial No. 479,866. (Cl. 236—8.)



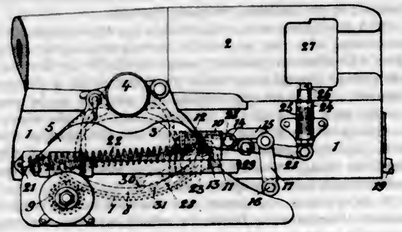
1. Thermostatic apparatus in which are combined a thermostat comprising a casing having therein a pair of elastic members, each secured to the casing at one end and free at the other, the fixed end of one member being adjacent to the free end of the other, a lever joined to the free ends of the elastic members by separated connections, one extending in one direction from the lever and the other extending in the opposite direction therefrom, a controlling valve for the heating fluid, and a slide connected to the stem of said valve and being acted upon by said lever.

2. Thermostatic apparatus in which are combined a thermostat comprising a casing having a groove therein and a partition whereby the flow through said groove is directed partly to the right and partly to the left, an elastic member in each part of the groove, a lever connected to each of said elastic members and operated by the expansion or contraction of the same, a controlling valve for the heating fluid, and a slide connected to the stem of said valve and being acted upon by said lever.

1,131,445. GUN ADAPTED TO BE FIRED AT HIGH ELEVATIONS. KARL VÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Apr. 4, 1911. Serial No. 618,911. (Cl. 89—41.)

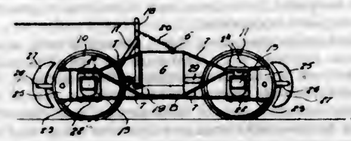
1. In combination with the barrel of a gun adapted to be fired at high elevations, and a carriage therefor to which the barrel is rigidly connected when in firing position and from which it is disconnected when the barrel is being turned into or from firing position, a coupling for so connecting the barrel and said carriage, and a spring connected at one end to the barrel on one side of its trunnions and connected at its other end to said carriage on the opposite side of said trunnions, said spring being placed under tension when the barrel is being moved from firing to loading position to effect the automatic return of the barrel from loading to firing position.

2. The combination with a gun and its support upon which its trunnions are pivotally mounted, said support having a groove eccentric to the axis of the trunnions, of a member projecting radially from one of said trunnions having a longitudinal slot, a pin fitted in said slot and extending into said groove, and a spring connected to the



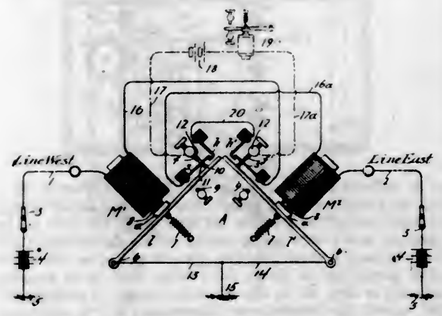
support on one side of the trunnions and at its other end to said pin, the turning movement of the force of the spring relatively to the axis of the trunnions having a predetermined value for any position of the gun.

1,131,446. BRAKE FOR CAR-TRUCKS. AUGUST WAGNER, Chester, Ill. Filed May 11, 1914. Serial No. 837,803. (Cl. 188—24.)



In combination with a car truck, a brake mechanism comprising a rock shaft operable by the brake setting rod of the car, oppositely extending arms on said rock shaft, extension blocks secured upon the ends of said trucks, cranks journaled through said blocks adjacent the outer edges of the truck wheels, brake shoes revolubly mounted on said cranks and links rigidly connected with said brake shoes and pivotally connected with said arms.

1,131,447. TELEGRAPH-REPEATER. FORREST EDWIN WALLACE, Franklin, Cal. Filed Sept. 10, 1913. Serial No. 789,043. (Cl. 178—72.)



1. In a telegraph repeater, the combination of separate lines each having a source of current, a key, and an electro-magnet, with a circuit make-and-break device associated with each electro-magnet and operated thereby, the device of one electro-magnet being in series with the other electro-magnet, and said devices having movable elements arranged in such relation to each other that either when in open circuit position interlocks with and holds the other in close circuit position, and a local sounder circuit controlled by the said make-and-break devices.

2. In a telegraph repeater, the combination of separate lines each including a source of current, a key, and an electro-magnet, with a circuit make-and-break device in series with each electro-magnet and operated by the other, each device including a movable contact moved to close circuit position by the energizing of its associated magnet, a yielding contact with which the first-mentioned contact engages when in close circuit position, the said movable contacts of the make-and-break devices being arranged to cause one contact when in open circuit position to interlock with and hold the other contact in close circuit position, fixed contacts with which the yielding contacts engage when the said movable contacts are in close circuit position, and a local circuit connected with the said fixed contacts.

3. A repeater of the class described comprising electro-magnets, a movable contact associated with each electro-magnet to be attracted thereby, means connected with each contact for moving the same away from its electro-magnet, said movable contacts being arranged in such relation that one is adapted to interlock with and hold the other in close circuit position, a spring contact associated with each movable contact to be engaged thereby, the spring contact associated with the movable contact at one electro-magnet being connected with the other electro-magnet, stop contacts for engaging the spring contacts after a limited movement with their associated movable contacts, fixed contacts with which the spring contacts engage when the movable contacts are in close circuit position, a local sounder circuit connected with the fixed contacts, and an electrical connection between the stop contacts.

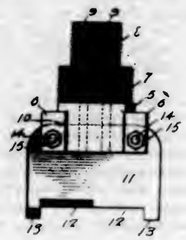
4. A telegraphic repeater comprising angularly disposed lever contacts, a spring on the tip of each contact, the spring on either contact being adapted to interlock with the tip of the other contact, electro-magnets for the respective lever contacts for moving the same to close circuit position, springs tending to oppose the movement of the lever contacts, spring contacts arranged to be engaged by the movable contacts, the spring contacts associated with the movable contact of one electro-magnet being connected with the other electro-magnet, contacts with which the spring contacts are adapted to engage when in close circuit position, each movable contact and its associated spring contact being adapted to have a limited movement together toward open circuit position, and stop means for arresting the movement of the spring contacts while the movable contacts continue to move to full open circuit position.

5. A telegraphic repeater comprising angularly disposed lever contacts, a spring on the tip of each contact, the spring on either contact being adapted to interlock with the tip of the other contact, electro-magnets for the respective lever contacts for moving the same to close circuit position, springs tending to oppose the movement of the lever contacts, spring contacts arranged to be engaged by the movable contacts, the spring contacts associated with the movable contact of one electro-magnet being connected with the other electro-magnet, fixed contacts with which the spring contacts are adapted to engage when in close circuit position, each movable contact and its associated spring contact being adapted to have a limited movement together toward open circuit position, stop means for arresting the movement of the spring contacts while the movable contacts continue to move to full open circuit position, an electrical connection between said stops, and a local sounder circuit connected with the said fixed contacts.

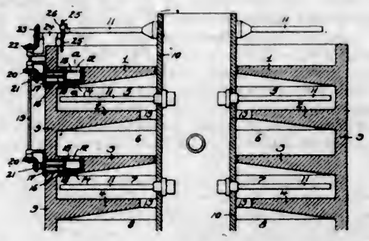
1,131,448. DRILL. FRED RICHARD WEATHERSBY, Houston, Tex. Filed June 16, 1913. Serial No. 773,887. (Cl. 255—61.)

A drill comprising a flat cutter having oppositely beveled straight cutting edges extending horizontally from the center toward the edges of the cutter, and extensions disposed at the outer ends of said horizontal cutting edges

and at right angles thereto, said extensions depending below said horizontal edges and having oppositely disposed horizontal cutting edges in a line below the line of the first mentioned edges of the cutter.



1,131,449. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed July 16, 1913. Serial No. 779,260. (Cl. 75—143.)



1. A furnace having a series of superposed hearths with working chambers above the same, each of said hearths having a valved passage therethrough for permitting flow of ore from the chamber above the hearth to that below the same, a rotary shaft having thereon arms located above the topmost hearth of the furnace, and means whereby the valves of the various hearths can be opened and closed by said arms.

2. A furnace having a series of superposed hearths with working chambers above the same, passages through the hearths each having therein a valve which can be moved to open or close the passage, and means for connecting the valves of the different hearths for joint and simultaneous operation.

3. A furnace having a series of superposed hearths with working chambers above the same, said hearths having therein passages through which ore can flow from an upper to a lower chamber, valves in said passages which at all times seal the same against upward flow of gas through the passages, a rotating shaft carrying rabble arms disposed in the working chambers of the furnace, and means carried by said shaft for effecting the operation of the valves in the hearth passages at predetermined intervals.

1,131,450. BLADE-SHARPENER. EDWARD L. WILLIAMS, Santa Cruz, Cal., assignor to Egite Manufacturing Company, Santa Cruz, Cal., a Corporation of California. Filed Aug. 31, 1914. Serial No. 859,583. (Cl. 51—16.)



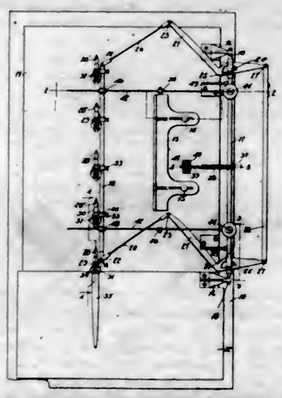
1. A stropping or honing device for safety razor blades, consisting of a rod or spindle having means for clamping a razor blade, anti-friction rollers freely rotatable on the spindle adapted to engage a suitable track-frame for a sharpening element, and hand-grip extensions adapted to be grasped one by each hand of the operator, whereby the blade may be traversed back and forth over the sharpening element with variable pressure thereon.

2. A stropping or honing device for safety razor blades, consisting of a rod or spindle having a movable clamping jaw, anti-friction rollers freely rotatable on the spindle adapted to engage a suitable track frame for a sharpening element, and hand-grip extensions adapted to be grapsed one by each hand of the operator, whereby the blade may be traversed back and forth over the sharpening element with variable pressure thereon, one of said hand-grip extensions being mounted for endwise movement to engage and release said clamping jaw.

3. In a blade-sharpener, the combination of a block of abrasive material, a frame in which said block is rigidly mounted, said frame being provided with laterally projecting trackways extending lengthwise of two opposite sides thereof, and said trackways being depressed below the plane of the upper surface of said block, a blade-carrier, a pair of rollers journaled on said blade-carrier and removably engaging said trackways and serving to both guide and support said blade, carrier relatively to the upper surface of said block, and a pair of handle members non-rotatably connected to the ends of said blade-holder and projecting laterally beyond said trackways in position to be grasped by the user whereby the blade-carrier may be moved back and forth upon, and tilted and reversed relatively to, said trackways.

4. In a blade sharpener, the combination of a rectangular frame provided with trackways on two of its opposite sides, a block of abrasive material rigidly mounted within and carried by said frame, a blade-carrier, a pair of rollers rotatably mounted on said blade-carrier, said rollers being adapted to removably engage and travel along said tracks and support and guide said blade-carrier above said block, and a pair of handle members non-rotatably attached to said blade-carrier so as to project lengthwise of the latter beyond said trackways, one of said handle members being movable lengthwise with respect to the blade-carrier to lock a blade in position in said blade-carrier.

1,131,451. MULTIPLE-SIGNATURE MACHINE. WILLIAM FRANK WILLIAMS, Miami, Ariz. Filed Aug. 8, 1914. Serial No. 855,886. (Cl. 33—23.)



1. In a machine of the class set forth, the combination with a main rock shaft, a pen rod and links and arms pivotally connected to the shaft and rod to maintain them in constant parallelism, of a lifting device for the pen rod comprising a pair of bars pivotally connected at one end to the shaft, a pair of swivels connected to the pen rod, each swivel carrying an antifriction roller, the other ends of the lifting bars passing freely through the swivels and engaging with said rollers, and a series of pens carried by the pen rod.

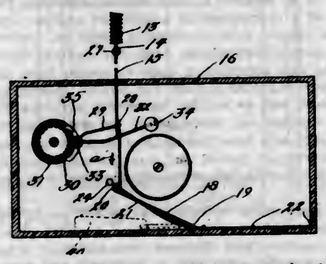
2. In a device of the character set forth, the combination with a main rock shaft, a pen rod, a plurality of pens carried by the pen rod and means connecting the shaft and rod to maintain them in constant parallelism, of lifting devices acting upwardly upon the pen rod and pens, said lifting devices including means tending to rotate the rock shaft, and a pair of lifting bars extending between the rock shaft and the pen rod and having their opposite ends connected by antifriction bearings to said shaft and rod.

3. In a device of the character set forth, the combination with two parallel members and means to maintain said members in constant parallelism, of a pair of bars forming with said parallel members a substantial parallelogram, antifriction ball bearings between one of said parallel members and said bars providing free angular movement, an a pair of swivels clamped to the other parallel member and each swivel carrying an antifriction roller co operating with the upper edge of the bar passing freely through the swivel.

4. In a device of the character set forth, the combination of a base, a plurality of bearings extending upwardly therefrom in alinement with one another, a rock shaft journaled in said bearings, pen mechanism connected for free movement with respect to the rock shaft, and lifting means for the pen mechanism comprising a lever secured to the rock shaft between the bearings and extending downwardly therefrom, a fixed bracket, a spring connected at one end to the lower end of the lever, and a screw connected to the other end of the spring and adjustably connected to said bracket.

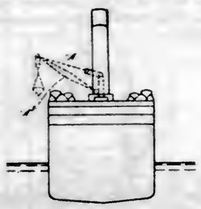
5. In a device of the character set forth, the combination of a base, a pair of bearings secured to the base and extending upwardly therefrom, a rock shaft journaled at its ends in said bearings, pen mechanism supported for universal movement upon said rock shaft, lifting mechanism tending to rotate the rock shaft and acting toward one side of the same, and a pair of guard bearings embracing the shaft and serving to resist lateral strain thereon due to said lifting mechanism.

1,131,452. AUTOMATIC ALARM DEVICE. ALFORD PERVIS WILLOUGHBY and WILLIAM D. BOLDING, Olney, Tex. Filed June 30, 1914. Serial No. 848,280. (Cl. 116—11.)



In combination with an escapement mechanism of a spring motor having a bell clapper, an arm having an eye at its free end carried by the rocking rod of the escapement mechanism, a wire spring, a trip wire or rod connected to the wire spring and provided with a member and adapted to be held against the action of the spring with the member in contact with the eye of the arm to prevent operation of the escapement mechanism, and means for holding the trip rod or wire set, which means when it becomes severed or its tension otherwise relieved releases said trip wire or rod, which in turn permits the escapement mechanism to actuate the clapper, a U-shaped pivoted lever having an eye engaged by the spring, said lever having an indicator or signal vane held obscured by the trip rod against the action of said spring, said spring also acting to throw the vane into vision when the trip rod is actuated.

1,131,453. METHOD OF AND MEANS FOR STOWING AND LAUNCHING SHIPS' BOATS. ARTHUR WILSON and JOHN ROBSON, Westminster, London, England, assignors to The Variable Speed Gear, Limited, Westminster, England. Filed Sept. 29, 1913. Serial No. 792,289. (Cl. 9—22.)



1. Apparatus for launching ships' boats or rafts, comprising a rotatable crane arranged upon the center line of the ship, a jib of said crane, means carried by said jib for raising and lowering a load, means for raising and lowering the jib so that it can be caused to describe an arc of a circle beneath which a number of boats or rafts are arranged on the deck of the ship, and means for automatically bringing said jib to rest in a position corresponding to the said arc.

2. Apparatus for launching ships' boats or rafts, comprising a rotatable crane arranged upon the center line of the ship, a jib of said crane, means carried by said jib for raising and lowering a load, means for raising and lowering the jib so that it can be caused to describe any one of several arcs of circles of different radius beneath which arcs a number of boats or rafts are arranged on the deck of the ship, and means for automatically bringing said jib to rest in positions corresponding to each of said arcs of circles.

3. Apparatus for launching ships' boats or rafts, comprising a rotatable crane arranged upon the center line of the ship, a jib of said crane, means carried by said jib for raising and lowering a load, a motor for raising and lowering the jib into any one of a number of positions, a member for controlling said motor, and means operating upon said control member for automatically bringing the motor to rest in successive positions.

4. Apparatus for launching ships' boats or rafts, comprising a rotatable crane arranged upon the center line of the ship, a jib of said crane, means carried by said jib for raising and lowering a load, a motor for raising and lowering the jib into any one of a number of positions, a member for controlling said motor, and means operating upon said control member for automatically bringing the motor to rest in successive positions, and for freeing the said member so that it can be actuated manually to restart the motor.

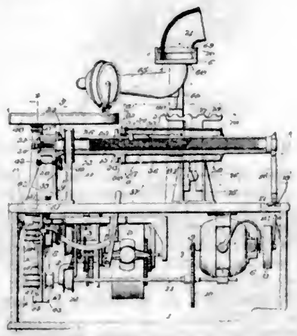
5. Apparatus for launching ships' boats or rafts, comprising a rotatable crane arranged upon the center line of the ship, a jib of said crane, means carried by said jib for raising and lowering a load, a motor for raising and lowering the jib into any one of a number of positions, a member for controlling said motor, a cam device driven by said motor and means interposed between said cam device and the control member for automatically moving the latter to bring the motor to rest.

[Claims 6 to 8 not printed in the Gazette.]

1,131,454. SOUND-REPRODUCING MACHINE. WILLIAM C. WOLFE, Lilly, Pa. Filed July 8, 1911. Serial No. 637,575. (Cl. 481—6.)

1. In a sound reproducing machine, the combination of a motor, a threaded shaft, a mandrel support mounted over the threaded shaft, a mandrel on the mandrel support, a threaded adjustable nut between the threaded shaft and the mandrel whereby to cause the latter to move laterally, a connection between the motor and the mandrel support, gears on the threaded shaft and the mandrel support, shiftable gears for engaging the gears on

the mandrel support and the threaded shaft, and means for holding the threaded shaft stationary when the shiftable gears are out of engagement with the gears on the threaded shaft and the mandrel support whereby when said gears are in mesh the threaded shaft and the mandrel support will be simultaneously rotated and the threaded shaft will retard the lateral movement of the mandrel and when said gears are out of mesh the mandrel support will be rotated alone.



2. In a sound reproducing machine, the combination of a motor, a threaded shaft, a mandrel support, a mandrel on the mandrel support, a connection between the motor and the mandrel support, gears on the threaded shaft and the mandrel support, shiftable gears for engaging the gears on the threaded shaft and the mandrel support, and a locking device for holding the threaded shaft in fixed position when the shiftable gears are out of engagement with the gears on the threaded shaft and the mandrel support.

3. In a sound reproducing machine, the combination of a motor, a screw threaded shaft, a mandrel support mounted on said screw threaded shaft, a mandrel on the mandrel support, a connection between the mandrel support and the motor to directly drive the mandrel, a shiftable nut between the mandrel and the threaded shaft, gears on the threaded shaft and the mandrel support, and shiftable gearing adapted to be brought into engagement with the gears on the threaded shaft and the mandrel support for retarding the lateral movement of the mandrel.

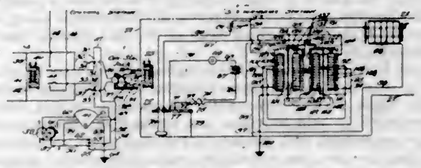
4. In a sound reproducing machine, the combination of a screw threaded shaft, a mandrel support, a mandrel mounted thereon, means for revolving the mandrel support alone, shiftable means for simultaneously revolving the threaded shaft with the mandrel support, and a nut interposed between the threaded shaft and the mandrel whereby the mandrel will move laterally at a given speed when the mandrel support is rotated alone and said mandrel will move laterally at a less speed than the aforesaid given speed when the mandrel support and screw shaft rotate together.

5. In a sound reproducing machine, the combination of a revolving mandrel support, a mandrel mounted thereon, a screw threaded shaft, means between the screw threaded shaft and the mandrel to cause the latter to travel laterally on the support, and means for revolving the screw threaded shaft to retard the lateral movement of the mandrel and maintains the revolving speed of said mandrel, and means for revolving the mandrel support.

[Claims 6 to 8 not printed in the Gazette.]

1,131,455. TELEPHONE SYSTEM. HARLEY MELVIN WRIGHT, Darlington, Okla. Filed Mar. 12, 1914. Serial No. 824,124. (Cl. 179—30.)

1. In a party line telephone system having a central station and a number of subscribers' stations, the combination of an electrically operated switch located at each subscriber's station, said switch being provided with a polarized core, a plurality of windings mounted upon said core and disposed concentrically, a polarized armature mounted adjacent said core and controllable thereby, a contact located adjacent said polarized armature and adapted to be closed by a movement thereof, an adjacent armature polarized and located in such position that when drawn toward the polarized core it disconnects said contact, mechanism controllable from the central station for electrically energizing the core and polarized armature associated therewith at different subscribers' stations having different polarities in order to render them selective, mechanism controllable by a number of said electrically operated switches for connecting the subscriber's set with the line and locking out other subscribers' stations, and mechanism controllable by said electrically operated switches for disconnecting the subscriber's set and then connecting the stations of other subscribers desiring to engage in secret conversation.



2. In a party line telephone system provided with a central station and a plurality of subscribers' stations, the combination of a plurality of electrically operated switches located at different subscribers' stations respectively, each switch being provided with polarized cores and armatures, the polarity of which at one station is different from that at another station in order to render them selective, mechanism controllable by said electrically operated switches for connecting the subscriber's set with the line and locking out other subscribers' stations, and mechanism controllable by said electrically operated switches for disconnecting the subscriber's set and then connecting the stations of subscribers desiring to engage in secret conversation.

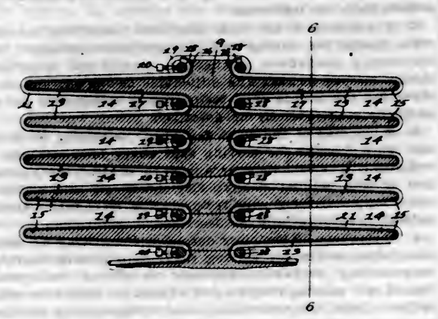
3. In a telephone system having a central station and a plurality of subscribers' stations, the combination of a plurality of electrically operated switches located one at each station and provided with polarized magnets, the polarity of a magnet at one station differing from the polarity of a corresponding magnet at another station in order to render said electrically operated switches selective, means controllable from the central station for energizing said switches in order to render them selective, mechanism controllable from the central station for locking out such sets as are not connected with the line, connecting mechanism controllable by said switches for bringing the sets into communication with the line when said sets are not locked out, and means controllable by the central station for restoring the line to normal condition.

4. An electrically operated switch for subscribers' stations comprising a polarized core, a plurality of windings mounted thereon, and disposed concentrically, a polarized armature movable relatively to said core and controllable thereby, a contact located adjacent to said polarized armature and adapted to be closed by a movement thereof, and an adjacent armature polarized and located in such position that when it is actuated from normal position and drawn toward the polarized core, it disconnects said contacts.

5. An electrically operated switch comprising a contact, a stirrup mounted thereupon, an arm engaging said stirrup and adapted to move the same for the purpose of opening said contact, an armature connected with said arm and mounted to rock for the purpose of actuating said arm, a polarized magnetic member located adjacent to said armature for the purpose of energizing the same, and magnetic mechanism independent of said polarized magnetic member for actuating said armature.

[Claims 6 and 7 not printed in the Gazette.]

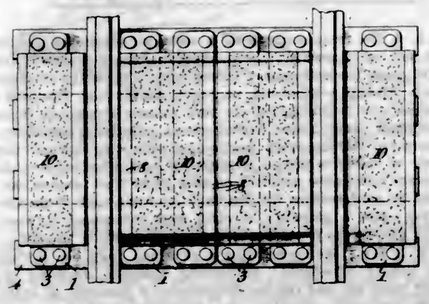
1,131,456. FILTER. CHARLES ALBERT YOUNGMAN, Louisville, Ky. Filed Nov. 3, 1914. Serial No. 870,013. (Cl. 210—16.)



1. A filter, comprising a rack formed of end plates and connecting bars, the edges of said plates being formed into complemental fingers having a groove in the edges thereof, a rod connecting corresponding fingers of said plates, a strip of filtering material extended between said plates and following the configuration of the edges thereof, a wire for locking said strip in said groove, and means for applying tension to said strip between said fingers.

2. A filter, comprising a rack formed of end plates and connecting bars grooved at their edges, said plates having a plurality of fingers formed on their edges, a strip of filtering material extended between said plates, a wire for locking said strip in the groove of said plates, rods for applying tension to said strip and wire, between said fingers, and rods for locking said strip in the grooves of said bars.

1,131,457. PORTABLE RAILWAY-CROSSING. CHARLES H. BAILEY, Irving, Ill. Filed July 16, 1914. Serial No. 851,325. (Cl. 104—14.)

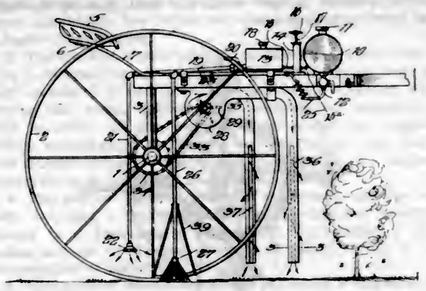


1. In a portable railway crossing, angular side members, angular end members secured transversely of said side members, a cement filler retained by said side and end members, and means for securing said crossing to the ties.

2. In a portable railway crossing, a frame comprising, angular side members, an angularly disposed upper edge on said side members, angular end members secured transversely of said side members, and a cement filler within said frame.

3. In a portable railway crossing, a frame comprising, side members, inwardly projecting angularly disposed base portions on said side members, angularly disposed edge protecting portions on the upper edge of said side members, end retaining members secured transversely of said side members, a cement filler within said frame, and means for securing said frame to the ties.

1,131,458. INSECT-DESTROYER. MERCER DEAN BAREFIELD, Hollandale, Miss. Filed July 9, 1914. Serial No. 849,968. (Cl. 43—1.)



1. An insect destroyer, comprising a wheel supported frame, a fan casing supported by the frame, a fan in the casing and having a driving connection with one of the wheels, said casing having outlet pipes extending forwardly and downwardly and spaced apart laterally and longitudinally of the machine, each pipe having a longitudinal slot in its inner side and having an opening in its bottom, said pipes being designed to pass on opposite sides of a row of plants and to blow the insects laterally from the plants, a tank supported by the frame at the front thereof and having delivery pipes extending downwardly in front of the axles on each side of the frame, a valve for controlling each pipe, each pipe having at its lower end an outwardly extending burner having outlet openings extending downwardly, and a hood over each burner.

2. An insect destroyer, comprising a wheel supported frame, a fan casing supported by the frame, a fan in the casing and having a driving connection with one of the wheels, said casing having outlet pipes leading forwardly and downwardly and spaced apart laterally and longitudinally of the machine, each pipe having a longitudinal slot in its inner side and having an opening in its bottom, said pipes being designed to pass on opposite sides of a row of plants and to blow the insects laterally from the plants.

3. An insect destroyer, comprising a wheel supported frame, a fan casing supported by the frame, a fan in the casing and having a driving connection with one of the wheels, delivery pipes leading from the said casing downwardly, said pipes being spaced apart laterally and longitudinally of the frame, and each having a longitudinally extending delivery opening at its inner side, a tank for containing fuel supported by the frame, burners arranged at each side of the frame and outside the adjacent delivery pipe from the fan, each of the said pipes having an outwardly extending burner discharged downwardly.

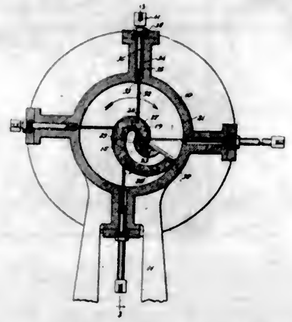
4. An insect destroyer, comprising a wheel supported frame, a fan casing supported by the frame, a fan in the casing and having a driving connection with one of the wheels, delivery pipes leading from the said casing downwardly, said pipes being spaced apart laterally and longitudinally of the frame, and each having a longitudinally extending delivery opening at its inner side.

5. An insect destroyer comprising a wheel supported frame, delivery pipes depending from the frame, said pipes being spaced apart laterally and longitudinally of the frame, each pipe having a longitudinally extending delivery opening at its inner side, and means operated by the wheels for discharging a current of air through the said pipes.

1,131,459. ROTARY ENGINE. EDWARD NEAL BATY, Des Moines, Iowa. Filed Dec. 6, 1913. Serial No. 805,040. (Cl. 121—70.)

1. In a rotary engine, a cylinder having sides with inwardly disposed bosses, and bearings in the bosses, shaft members journaled in the bearings and having inlet and exhaust passages, a piston disposed within the cylinder and mounted on the shaft members, aprons on the piston,

the aprons being disposed adjacent the shaft members and engaging the bosses, and inlet and exhaust ports in the piston communicating with the passages, and an abutment in the cylinder against which the fluid, passing through the inlet port, may act.



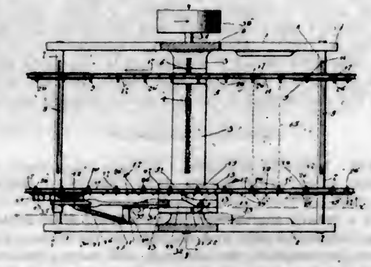
2. In a rotary engine, a cylinder having sides with inwardly disposed bosses and bearings in the bosses, shaft members journaled in the bearings, a piston disposed within the cylinder and mounted on the shaft members, aprons on the piston disposed adjacent the shaft members and engaging the bosses.

3. In a rotary engine, a cylinder having bearings, a shaft journaled in the bearings, a piston disposed in the cylinder and secured to the shaft, a valve in the cylinder, a disk on the shaft, two rims on the disk, curved around opposite sides of the shaft and with the terminals of the companion rims adjacent each other, the terminals of one of the rims being disposed nearer the shaft than the terminals of the other rim, and means for moving the valve operable by the rims.

4. In a rotary engine, a cylinder, a piston rotatably mounted in the cylinder, a valve movably disposed in the cylinder, a rotatable disk, two rims on the disk curved around opposite sides of the shaft, the terminal of one of the rims being disposed nearer the shaft than an adjacent terminal of the companion rim and means for engagement by the rims for operating the valve.

5. In a rotary engine, a cylinder having an opening, a piston rotatably mounted in the cylinder, a valve movably disposed in the cylinder, a rod secured to the piston and disposed through the opening, a bracket having a recess and an orifice at the inner end of the recess, the outer end of the rod being disposed in the recess, a pin on the said end of the rod disposed in the orifice, a spring between the said end of the rod and the bracket at the inner end of the recess and means for moving the bracket relatively to the cylinder with the rotation of the piston.

1,131,460. BOX-BLANK MACHINE. SERAPHINE F. BAUWENS, Chicago, Ill. Filed Feb. 24, 1911. Serial No. 610,550. (Cl. 1—15.)



1. A machine of the class described comprising a conveyer; means for moving said conveyer intermittently; reciprocating mechanism arranged to control the operation of said moving means; and means on said conveyer for controlling said reciprocating mechanism automatically, substantially as described.

2. A machine of the class described comprising a conveyer, means for moving said conveyer intermittently; reciprocating mechanism arranged to control the operation of said moving means; and adjustable means on said conveyer for controlling said reciprocating mechanism automatically, substantially as described.

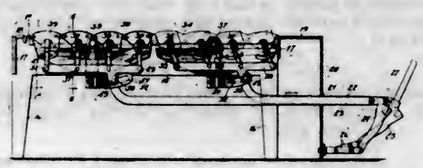
3. A machine of the class described comprising an endless chain; means for moving said chain intermittently; reciprocating mechanism arranged to control the operation of said moving means; and means on said endless chain for controlling said reciprocating mechanism automatically, substantially as described.

4. A machine of the class described comprising an endless chain; means for moving said chain intermittently; reciprocating mechanism arranged to control the operation of said moving means; and adjustable means on said endless chain for controlling said reciprocating mechanism automatically, substantially as described.

5. A machine of the class described comprising an endless conveyer; means for intermittently moving said conveyer; and means including an adjustable member on said conveyer arranged to control and vary the extent of the effective operation of said moving means, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,131,461. FIRE-GRATE. HENRY BENTON, Elizabeth, N. J. Filed Oct. 28, 1914. Serial No. 868,991. (Cl. 126—176.)



1. A fire grate, comprising a swinging cross bar having an arc of movement; supporting members mounted on said cross bar and resting thereabove; a plurality of grate bars pivotally mounted on said supporting members; means connecting said grate bars at points removed from the pivot center thereof, said means embodying manually-operative reciprocating mechanism extending beyond the area of said fire grate; a plurality of fire-bed-supporting sectors removably mounted on said grate bars; means carried by said sectors for spacing the same each from the other; and a plurality of rider bars interposed between said grate bars to maintain the spaced relation thereof.

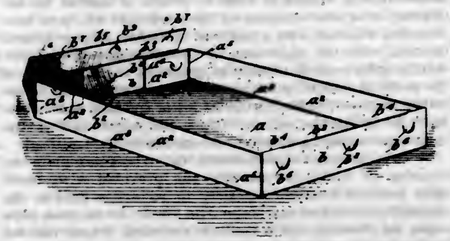
2. A fire grate, comprising a swinging cross bar having an arc of movement; supporting members mounted on said cross bar and resting thereabove; a plurality of grate bars pivotally mounted on said supporting members; means connecting said grate bars at points removed from the pivot center thereof, said means embodying manually-operative reciprocating mechanism extending beyond the area of said fire grate; a plurality of fire-bed-supporting sectors removably mounted on said grate bars; means carried by said sectors for spacing the same each from the other; and a plurality of rider bars removably supported by said grate bars, said rider bars having curved recesses to engage said grate bars to maintain the same in spaced relation while permitting them to rock on said supporting members.

3. A fire grate, comprising a swinging cross bar having an arc of movement; supporting members mounted on said cross bar and resting thereabove; a plurality of grate bars pivotally mounted on said supporting members; means connecting said grate bars at points removed from the pivot center thereof, said means embodying manually-operative reciprocating mechanism extending beyond the area of said fire grate; a plurality of fire-bed-supporting sectors removably mounted on said grate bars; means carried by said sectors for spacing the same each from the other; and a plurality of rider bars interposed between said grate bars to maintain the spaced relation thereof; and means mounted on said rider bars for engaging the swinging supports of said cross bar, to be retained in operative position thereby.

5. A fire grate, comprising a swinging cross bar having an arc of movement; supporting members mounted on said cross bar and resting thereabove; a plurality of grate bars pivotally mounted on said supporting members; means connecting said grate bars at points removed from the pivot center thereof, said means embodying manually-operative reciprocating mechanism extending beyond the area of said fire grate; a plurality of fire-bed-supporting sectors removably mounted on said grate bars; means carried by said sectors for spacing the same each from the other; a plurality of fire dogs supporting said cross bar and pivotally connected therewith; and stop members mounted on said dogs to determine the service position of said grate bars.

[Claims 6 and 7 not printed in the Gazette.]

1,131,462. FOLDING BOX. SAMUEL BERGSTEIN, Middletown, Ohio. Filed May 23, 1914. Serial No. 840,495. (Cl. 229—34.)



A folding box, comprising body, side and end members, said side and end members overlapping and said end members being formed of two portions overlapping each other, and tongues formed in said members in register with each other, whereby the tongues of one member may be forced into the tongue spaces of another member to lock said members together, the outer tongues in said end members being smaller than the two registering tongues, whereby they may resume their initial positions and thus avoid openings in the exterior box surface.

1,131,463. PROCESS OF SHAPING CERAMIC MATERIALS. EDWARD R. BERRY, Malden, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 21, 1913. Serial No. 775,154. (Cl. 25—156.)

1. The process which consists in shaping a mixture of earthy materials and a binder, heating the shaped article to a temperature above 100° C. to drive out the free water to render it strong and machineable, machining the article and subsequently firing the same to a higher temperature to eliminate the combined water.

2. The process which consists in extruding under pressure a mixture of ceramic material and a binder, air drying the shaped articles, baking at a temperature sufficiently high to drive out the free water to strengthen the same, machining the baked articles and finally firing at a higher temperature.

3. The process which consists in extruding under pressure a mixture of ceramic material and a binder into a body excessive in length with respect to its diameter, air drying the same, baking at a temperature sufficiently high to drive out the free water to render the shaped article machineable, machining and cutting up said body into articles of desired shape, and finally firing to a higher temperature to eliminate the combined water.

4. The process which consists in squirting a mixture of clay, talc and a binder, air drying the squirted objects, baking to a temperature above 100° C., machining the baked articles to desired shape, and finally firing to a temperature of about 800° C.

5. The process which consists in squirting a mixture of clay, talc and sodium silicate in the moist state, air-drying the resulting articles, baking at about 130° C. for several hours to give mechanical strength to said articles, machining the baked articles, and finally firing to a temperature of about 800° C. to eliminate combined water and harden said articles.

[Claim 6 not printed in the Gazette.]

1,131,464. POSTAGE-STAMP. WILLIE O. BESAW, Reedley, Cal. Filed Sept. 21, 1914. Serial No. 862,750. (Cl. 11—14.)



A stamp comprising a main body portion having one side gummed, a stub formed integral with one edge of the main body portion of the stamp and delineated therefrom by a line of perforations, the back face of said strip having a cancellation mark printed thereon in transfer ink, which mark is adapted to be transferred to the envelop or the like when the stamp is applied, said strip being subsequently separated from the stamp.

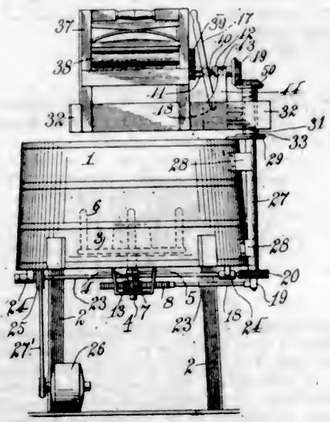
1,131,465. POTATO-GATHERER. LOUIS BRANDT, Louisburg, Wis. Filed Aug. 5, 1914. Serial No. 855,195. (Cl. 55—138.)



1. In a potato gatherer, the combination of a wheeled axle, a frame pivoted on said axle, gathering mechanism carried at the forward end of said frame, a conveyer mounted on the frame for receiving material from the gathering mechanism, a plurality of fingers carried by the frame, said fingers being of unequal length and successively long and short, the free ends of the long fingers being directed forward over the conveyer and relatively close thereto and the free ends of the short fingers being disposed in spaced relation to the rear of said conveyer, and a second conveyer mounted on the frame above the first named conveyer, said second conveyer carrying a plurality of transverse rake bars.

2. In a potato gatherer, the combination of a wheeled axle, a frame pivoted on said axle, gathering mechanism carried at the forward end of said frame, a conveyer mounted on the frame for receiving material from the gathering mechanism, a plurality of fingers carried by the frame, said fingers being of unequal length and successively long and short, the free ends of the long fingers being directed forward over the conveyer and relatively close thereto and the free ends of the short fingers being disposed in spaced relation to the rear of said conveyer, a second conveyer mounted on the frame above the first named conveyer, said second conveyer carrying a plurality of transverse rake bars, a roller rotatably mounted transversely of the frame at the rear of said fingers, and a plurality of radial arms on said roller movable between the fingers during rotation of the roller.

1,131,466. DRIVING MECHANISM. PETER T. COFFIELD, Dayton, and JOHN BREMER, Cincinnati, Ohio, assignors, by mesne assignments, to Maytag Company, Newton, Iowa, a Corporation. Filed Apr. 29, 1911. Serial No. 624,181. (Cl. 74—7.)



1. In a machine of the class described, a support, a vertical shaft thereon, means to drive said vertical shaft, a frame adapted to swing about said vertical shaft in a horizontal plane, a pair of adjacent roller shafts arranged one above the other supported in said frame, driving means whereby said roller shafts may be driven in any position of the support relative to the vertical shaft.

2. In a machine of the class described, a support, a vertical shaft thereon, a frame adapted to swing about said vertical shaft on an axis, a pair of parallel adjacent roller shafts geared together for rotation in opposite directions and arranged horizontally in said frame, provided with means whereby said roller shafts may be driven in any position of the support relative to said vertical shaft and means to lock said frame in adjusted position about said vertical shaft.

3. In a mechanism of the class described, the combination of a suitable support, a pair of horizontal roller shafts each end, two parallel roller shafts mounted in said bearings and movable with said frame, said frame being mounted to swing bodily in a horizontal frame, a pinion on one of said parallel shafts, a vertical shaft carried by said support in vertical alinement with the pivotal axis of said horizontally swinging frame, a pinion arranged on said vertical shaft to mesh permanently with said first mentioned pinion which rolls around said second pinion when said frame is swung horizontally, and a motor mounted on said support for actuating said vertical shaft.

4. In a mechanism of the class described, the combination of a suitable suport, a pair of horizontal roller shafts geared together and mounted on said support said shafts being adapted to swing in a horizontal plane, a pinion for one of said shafts, a vertical shaft carried by said support in vertical alinement with the pivotal axis of said horizontally swinging shafts, a pinion arranged on said vertical shaft to mesh permanently with said first mentioned pinion which rolls around said second pinion when the horizontal shaft is swung about its vertical pivot, a motor driven shaft mounted on said support, and a driving connection between said motor driven shaft and said vertical shaft.

5. In a mechanism of the class described, the combination of a support, a vertical shaft carried by said support, a pinion on said vertical shaft, a bracket mounted to swing about said vertical shaft as an axis, a frame supported by said bracket and having bearings, two parallel roller shafts carried by said frame and geared together, a pinion on the end of one of said roller shafts, said pinion meshing with the pinion of said vertical shaft and being adapted to roll around said last named pinion when said frame is swung around its vertical axis, means for securing said bracket after it has been swung to a new position, a motor below said support, and driving connections between said motor and said vertical shaft.

[Claims 6 to 11 not printed in the Gazette.]

1,131,467. GARTER. GEORGE A. BURGESS, Washington, D. C., assignor of one-third to Ella E. Seufferle, Washington, D. C. Filed July 3, 1913. Serial No. 777,274. (Cl. 241—6.)



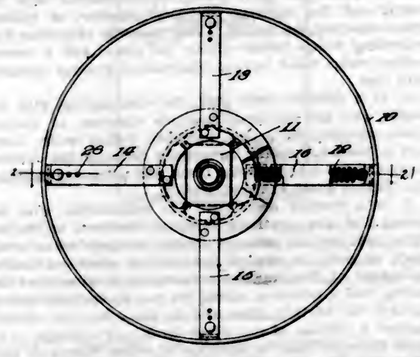
1. In a garter, a substantially flat plate provided with longitudinally extending slots to receive a flexible leg encircling band and carrying at its lower end an open hose engaging element, and a resilient clamping tongue formed integral with the upper end of the plate and bent downwardly with respect thereto to overhang the outer side of the plate in spaced relation thereto and extending downwardly beyond the plate with its lower end having a catch-head to releasably engage within the upper end of the open hose engaging element, substantially as described.

2. In a garter, a substantially flat triangular plate decreasing in width downwardly and provided with vertically inclined longitudinal slots to receive a flexible leg encircling band and carrying at its lower end an open hose engaging element, and a resilient clamping tongue carried by the upper end of the plate and bent downwardly with respect thereto to overhang the outer side of the plate in spaced relation thereto and extending downwardly beyond the plate with its lower end having a catch head to releasably engage within the upper end of the open hose engaging element.

3. In a garter, a substantially flat body portion provided with means to secure a flexible leg encircling band thereto and carrying at its lower end an open hose engaging element, and a resilient clamping tongue formed integral with the upper end of the body portion and bent downwardly with respect thereto to overhang the outer side of the body portion in spaced relation thereto and extending downwardly beyond the body portion with its lower end having a catching head to releasably engage within the open hose engaging element.

1,131,468. RESILIENT WHEEL. RICHARD H. BURGESS, Mullin, Tex. Filed May 27, 1913. Serial No. 770,248. (Cl. 152—52.)

1. A resilient wheel including a rim, spaced radially extending guard-plates arranged in pairs, an inwardly extending apertured ear formed on the outer terminal of each guard plate, the ears of each pair of guard plates being adapted to mate, a bolt extending through each pair of mating ears and passing through the rim whereby the guard plates are secured at their outer terminals to the rim, bolts extending transversely between the plates of each pair and adjustable longitudinally thereof, housing plates carried by the inner terminals of the guard-plates, a hub arranged between the housing plates, a plurality of helical springs detachably secured at their inner terminals to the hub, and a hook formed on the outer terminal of each spring whereby the springs may be detachably secured at their outer terminals to the bolts, said springs being each arranged between one of the pairs of guard-plates.

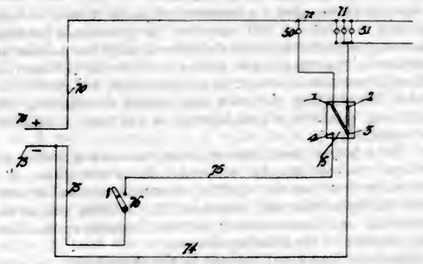


2. A resilient wheel including a rim, spaced radially disposed guard-plates arranged in pairs, a single bolt for securing the terminals of each pair of guard plates to the rim, annular housing plates carried by the inner terminals of the guard-plates and arranged in parallel spaced relation to each other, a hub mounted between the plates, radially extending helical springs arranged each between one pair of guard-plates, bolts passing transversely through the guard-plates adjacent the outer terminals thereof and adjustable longitudinally with respect to the guard plates, hooks formed on the outer terminals of the springs, said hooks being detachably engageable with the bolts, said hooks being adapted to be disengaged from the bolts without requiring the removal of the bolts, a hub formed with a plurality of apertures, and flexible members passing through the apertures and forming bails adapted to receive the lower terminals of the springs.

3. A resilient wheel including a rim, a hub, said hub being annular in shape and having a peripheral channel and having its faces cored to produce annular recesses, bail receiving bores formed in the hub and each opening at one terminal through the periphery of the hub and at its other terminal through one of the recesses, and bail members each extending through a pair of the bores, a portion of each bail being disposed in one of the recesses, a portion of each bail being disposed in the peripheral channel of the hub, and a plurality of helical springs for yieldably suspending the hub in the rim, said springs being detachably secured at their outer terminals to the rim and having hooks at their inner terminals detachably engageable with the portions of the bails which lie in the peripheral channel of the hub.

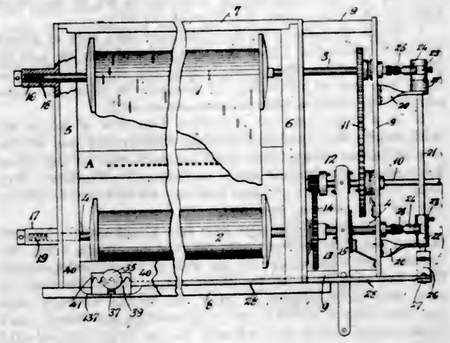
4. A resilient wheel including a rim, a hub, said hub being annular in shape and having a channel formed in its periphery, an annular recess formed in each face, and a plurality of bail receiving bores opening at heir outer terminals through the channel and at their inner terminals into both of the recesses, and means for yieldably suspending the hub in the rim, said means including a plurality of spring members and a plurality of bail members, each extending through a pair of the bores in a hub member and each having a portion disposed in one of the recesses of the hub and a portion disposed in the channel thereof, those bails which are diametrically opposed having their portions which are disposed in a recess arranged in the same recess, and those bails which are adjacent having their portions, which are disposed in a recess, located in the recesses of opposite faces of the head.

1,131,469. WIRING SYSTEM. JOHN APPLETON COLE. New York, N. Y. Filed Mar. 29, 1912. Serial No. 687,032. (Cl. 171—97.)



A wiring system, comprising a main conductor, a second main conductor, a switch between said conductors, a single lamp connected with the first conductor and one terminal of said switch, a bank of lamps connected with said first conductor and another terminal of said switch, said second main conductor being connected with a third terminal of said switch, an auxiliary conductor of the same polarity as the second main conductor connected with a fourth terminal of said switch, and a master-switch in the auxiliary conductor, said first-named switch being adapted at a single operation to close the circuit between the first and third and second and third terminals of the switch, and upon a further operation to break said connections, and connect the first and fourth terminals of said switch.

1,131,470. PLAYER-PIANO. FRANK A. LEE, Cincinnati, Ohio, and ROBERT W. COOPER, Dayton, and RAY J. MEYER, Pineville, Ky.; said Lee and said Cooper assignors to The John Church Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 26, 1913. Serial No. 791,930. (Cl. 84—161.)



1. In a player piano, a tracker and transposing device, comprising a part over which the perforated paper passes to be shifted, a lever for transposition, connections therefrom to the part to be shifted, and means for changing the relation of the lever and the connection without moving the lever, for purposes of tracking.

2. In a player piano, a tracking and transposing device comprising a lever, a rock arm for shifting the rolls, a receiving roll and storage roll to be shifted, connections between the lever and the rock arm, means for limiting mo-

tion of the lever to complete transpositions, and means mounted on said lever for all tracking less than one complete transposition and connections therefrom to the rock arm, for the purpose specified.

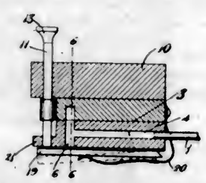
3. In a player piano, a tracking and transposing device, comprising a part over which the perforated paper passes to be shifted, a lever, connection therefrom to the part, means for limiting the movement of the lever to complete transpositions, a rack and pinion on the lever for all tracking less than one complete transposition, and connections therefrom to the part to be shifted.

4. In a player piano, a tracker bar, slots therein, a storage roll, a receiving roll carrying the perforated medium thereon, means for shifting the rolls to shift the perforated medium on the tracker bar, means for limiting the shifting means to motions of complete transposition, and additional means for shifting the rolls and means for limiting the additional means to a total motion of less than a complete transposition.

5. In a player piano, the combination with a means for shifting the storage and receiving rolls of the piano, of a means for limiting the shifting means to motion of complete transposition, and means on the shifting means for expanding and contracting it without altering its position with regard to its limiting means.

[Claims 6 and 7 not printed in the Gazette.]

1,131,471. CUT-OUT VALVE FOR PNEUMATIC INSTRUMENTS. ROBERT W. COOPER, Dayton, Ky., and FRANK A. LEE and RAY J. MEYER, Cincinnati, Ohio; said Cooper and said Lee assignors to The John Church Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 7, 1913. Serial No. 777,631. (Cl. 84—160.)



1. In an air valve, two air chambers, two sets of inlets for said chambers, a flap for opening and closing one of the sets of inlets, independent flaps for each inlet of the other set, and an actuating means common to all of the flaps adapted to actuate any one thereof, at will.

2. In an air valve, two air chambers, two sets of inlets for said chambers, a flap for opening and closing one of the sets of inlets, independent flaps for each inlet of the other set, and an actuating rod common to all of the flaps adapted to actuate any one thereof, at will.

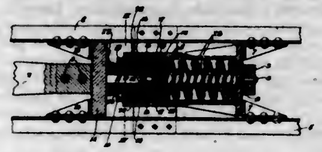
3. In a valve, two air chambers, two sets of inlets for said chambers, a flap for opening and closing one of the sets of inlets, independent flaps for each inlet of the other set, and a rod mounted so as to rock and reciprocate said flaps located one at the end and one on either side of the rod for the purpose specified.

4. In a valve, a chamber box, two air chambers located in said box, two sets of inlets for said chambers, a flap for opening and closing one of the sets of inlets, independent flaps for each inlet of the other set, a block mounted on said box, a rod carried by said box, means whereby said rod may tage a rocking and reciprocating movement, said flaps located one at the end, and one on either side of said rod.

1,131,472. DRAFT-GEAR. JOHN F. COURSON, Pitcairn, Pa. Filed June 23, 1914. Serial No. 846,771. (Cl. 213—64.)

1. In a friction draft gear, the combination with the casing and the relatively movable drawbar, of friction shoes engaging the casing, expanding wedge blocks, a central buffing wedge block, and a releasing spring interposed between the friction shoes and the central wedge block.

2. In a friction draft gear, the combination with the casing and the relatively movable drawbar, of friction shoes engaging the casing having inwardly extending lips, expanding wedge blocks, a central buffing wedge block having a lateral flange, and a releasing spring interposed between the lips of the friction shoes and said flange.



3. In a friction draft gear, the combination with the casing and the relatively movable drawbar, of friction shoes engaging the casing having inwardly extending lugs expanding wedge blocks within the shoes, and a central buffing wedge block having longitudinal grooves engaging said lugs.

4. In a friction draft gear, the combination with the casing and the relatively movable drawbar, of friction shoes engaging the casing, a central buffing wedge block, and a releasing spring interposed between the friction shoes and the central wedge block, and positively engaging the friction shoes and wedge block.

5. In a friction draft gear, the combination with the casing and the relatively movable drawbar, of friction shoes engaging the casing, a central integral buffing wedge block operable to expand the friction shoes on inward movement of the drawbar or outward movement of the casing, and a releasing spring bearing by one end directly against the friction shoes and by the other end directly against a portion of the wedge block and operable to release the same upon termination of either buffing or pulling pressure.

[Claim 6 not printed in the Gazette.]

1,131,473. WIRE-STRIPPER. JOSEPH H. COURTNEY, Magdalena, N. Mex. Filed Feb. 7, 1914. Serial No. 817,246. (Cl. 81—9.5.)



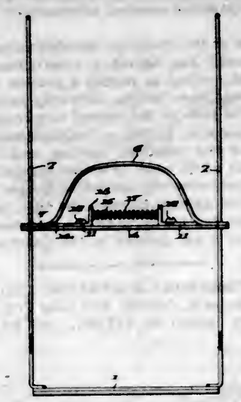
1. A pivoted member tool of the class described having operating handles and a pair of coacting jaws, the said jaws being transversely broadened and one of them having its inner edge flattened to provide an anvil, the inner edge of the opposite jaw being sharpened and adapted for engagement with the said anvil medially thereof, the said jaws being provided in their meeting edges with registering notches having their edges sharpened.

2. A pivoted member tool of the class described having operating handles and a pair of coacting jaws, the said jaws being transversely broadened and one of them having its inner edge flattened to provide an anvil, the inner edge of the opposite jaw being sharpened and adapted for engagement with the said anvil, the meeting edges of said jaws being provided with transversely spaced sets of registering notches of graduated sizes.

1,131,474. MAIL PACKER AND CARRIER. MINNIE F. CRAFTON, Mason City, Ill. Filed July 1, 1914. Serial No. 848,438. (Cl. 224—50.)

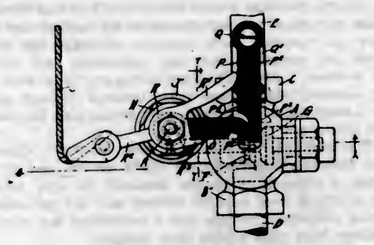
1. A mail packer and carrier comprising a base member, uprights rising therefrom and provided with spaced slots, a follower slidably engaging the uprights, a handle applied to the follower, locking bolts carried by the follower and adapted for engagement with said slots, said bolts being provided with finger pieces, whereby they may be simultaneously retracted, and a spring acting on said finger pieces for normally holding the bolts projected.

2. A mail packer and carrier comprising a base member, uprights rising therefrom, and provided with slots at spaced intervals, a follower slidably engaging the uprights, a handle having end portions secured to the follower and forming guide members, locking bolts engaging



said guide members and adapted for engagement with the slots in the uprights, said bolts being slidably connected with the follower and having finger pieces at their upper ends, and a spring disposed between said finger pieces for projecting the bolts.

1,131,475. VALVE. NELSON B. CREIGHTON, New York, N. Y. Filed July 21, 1914. Serial No. 852,196. (Cl. 137—92.)



1. A valve comprising a valve body having an inlet, an outlet and a valve seat intermediate the inlet and outlet, a spring-pressed valve disk adapted to be seated on the said seat, means including an arm for holding the valve disk normally off its seat, a movable retaining hook made in sections connected with each other by fusible solder to hold the sections together under ordinary temperature but disconnecting the sections at a high temperature, the said hook normally being engaged by the said arm, and a manually controlled lever adapted to engage the said hook to move the hook out of engagement with the said arm to release the latter and allow the valve disk to move to its seat and close the valve.

2. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the inlet and outlet, a spring-pressed valve disk adapted to be seated on the said seat, means including an arm for holding the valve disk normally off its seat, a movable retaining hook made in sections connected with each other by fusible solder to hold the sections together under ordinary temperature but disconnecting the sections at a high temperature, the said hook being pivoted and being engaged by the said arm to hold the valve disk normally in open position, and a manually controlled lever having a pushing member adapted to engage the said hook to swing the latter out of engagement with the said arm to release the latter and allow the valve disk to move into closed position.

3. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the inlet and outlet, a spring-pressed valve disk adapted to be seated on the said seat, means including an arm for holding the valve disk normally off its seat, a movable retaining hook made in sections connected with each other by fusible solder to hold the sections together under ordinary temperature but disconnecting the sections at a high temperature, the said hook being pivoted and being engaged by the said arm to hold the valve disk normally in open position, and a manually controlled lever having a pushing member adapted to engage the said hook to swing the latter out of engagement with the said arm, to release the latter and allow the valve disk to move into closed position, the said pushing member being adapted to engage the said arm after the latter is released by the hook.

4. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the inlet and outlet, a spring-pressed valve disk adapted to be seated on the said seat, means including an arm for holding the valve disk normally off its seat, a movable retaining hook made in sections connected with each other by fusible solder to hold the sections together under ordinary temperature but disconnecting the sections at a high temperature, the said hook being pivoted and being engaged by the said arm to hold the valve disk normally in open position, and a manually controlled lever having a pushing member adapted to engage the said hook to swing the latter out of engagement with the said arm to release the latter and allow the valve disk to move into closed position, the said lever having a lug adapted to engage the said arm to swing the latter into engagement with the hook and open the valve.

5. A valve, comprising a valve body having an inlet and an outlet and a valve seat intermediate the said inlet and outlet, a spring-pressed valve disk adapted to be seated on the said seat, a rock shaft having an operative connection with the said valve disk to normally hold the valve disk off its seat and against the tension of its spring, an arm attached to the said rock shaft, a hook pivoted on the said valve body and adapted to be engaged by the said arm to hold the valve disk normally in open position, the said hook being made in sections connected with each other by fusible solder to hold the sections together under ordinary temperature and to disconnect the sections at a higher temperature, a lever mounted to swing loosely on the said rock shaft as its fulcrum, the said lever having one end adapted to engage the said hook and extending over the said arm, and a flexible connection connected with the other end of the said lever and leading to a distant point.

[Claim 6 not printed in the Gazette.]

1,131,476. TIRE-BOLTING MACHINE. SAMUEL E. CRIM, Mechanicsburg, Ohio, assignor of one-half to W. B. Crim, Mechanicsburg, Ohio. Filed Aug. 11, 1913. Serial No. 784,279. (Cl. 81—57.)



1. In a tire bolting machine, the combination of a horizontally disposed support having means for supporting a wheel thereon, an arm secured to said support with a carrying frame positioned above the support and pivoted to said upright, and operating mechanism carried by the frame, said carrying frame extending longitudinally above the support and pivoted so as to swing vertically to bring the operative mechanism into and out of operative position relative to the wheel.

2. In a tire bolting machine, the combination of a horizontally disposed support having means for supporting a wheel thereon, an upright secured to said support, with a carrying frame positioned above the support and pivoted at one end to said upright, and operating mechanism carried by the frame, said carrying frame extending longitudinally above the support and pivoted so as to swing vertically to bring the operative mechanism into and out of operative position relative to the wheel, and means for holding the frame in an elevated position.

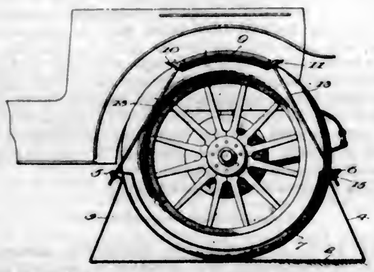
3. In a tire bolting machine, the combination of a horizontally disposed support having means for supporting a wheel thereon, with an arm secured to said support, a carrying frame secured to said arm, nut operating mechanism carried by said carrying frame, of means for holding the carrying frame in raised position, and tension means for counterbalancing the said carrying frame and upright.

4. In a tire bolting machine the combination of a horizontally disposed support having means for supporting a wheel thereon, with a spring member suspended from said support, an arm secured to said support, a carrying frame pivoted to said upright, nut operating mechanism carried by the said carrying frame, means for holding the carrying frame in raised position, the lower end of the arm connected to the spring member, and said spring member counterbalancing said carrying frame and upright.

5. In a tire bolting machine, the combination of an elongated disposed support, having means for supporting a wheel thereon, with an elongated frame extending longitudinally over said support, operating mechanism carried by said frame, said elongated frame being movable into and out of position relative to the periphery of the wheel and tension means for holding the said frame in raised position.

[Claims 6 to 8 not printed in the Gazette.]

1,131,477. AUTOMOBILE WHEEL-HOLDER. EDWIN H. CROFOOT, Findlay, Ohio, assignor of one-third to Cyrus L. Casterline and one-third to John E. Fennerty, Findlay, Ohio. Filed Sept. 17, 1914. Serial No. 862,229. (Cl. 21—8.)



1. A device of the character described comprising a base having a curved wheel supporting portion, a clamping member fitting the upper edge of the tire, and bolts secured to the base and the clamping member on the outside of the side of the tire whereby the wheel is clamped between the clamping member and the base.

2. A holder of the character described comprising an enlarged base having a curved wheel receiving portion and having at its upper end outwardly extending portions, a curved clamping member having outwardly extending portions, and adjustable bolts connecting the outwardly extending portion of the clamping member and base, substantially as shown and described.

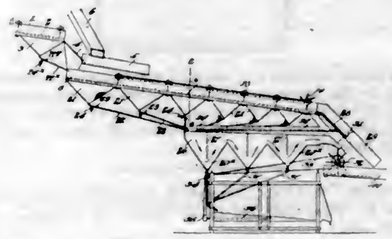
3. A holder of the character described comprising an elongated base having a longitudinal and transversely curved tire receiving portion, a curved clamping member, and bolts connecting the clamping member and the base on the outside of the curved portions substantially as shown and described.

4. A holder of the character described comprising a base formed of metal and having a longitudinal and transversely curved portion to receive a portion of the tire of the vehicle, a clamping member having a longitudinal and transversely curved portion to fit the upper face of the tire, and bolts connecting the clamping member and the base on the outside of a line with the curved portion of the base and clamping member, substantially as shown and described.

5. A holder of the character described comprising a base formed of metal and having a longitudinal and transversely curved portion to receive a portion of the tire of the vehicle, said base having outwardly extending looped portions at the ends of the curved tire receiving portion, a clamping member having a longitudinally and transversely curved tire receiving portion, and outwardly extending flanges at its ends, U-shaped clamping bolts passing through the outwardly extending flanges of the clamping member and passing through the base, and means for adjustably securing the bolts to the said base.

[Claims 6 to 8 not printed in the Gazette.]

1,131,478. VIBRATORY SCREENING AND SIZING DEVICE. ARTHUR E. CUSTER, Salt Lake City, Utah. Filed Feb. 8, 1913. Serial No. 747,097. (Cl. 83—56.)



1. The combination with a launder, of a screen arranged therein, a cushion supporting device for said screen comprising an upright guide member arranged to extend through the screen, means for supporting said upright guide member, a movable sleeve arranged to fit over said guide member, said screen being secured to said sleeve, and a spring disposed between said screen and the bottom of the launder.

2. The combination with a launder having a vibratory screen therein, of an oversize chute at the end of said launder, a stationary screen disposed in said oversize chute, a return feed launder having one end disposed below said stationary screen, and a receptacle for receiving the water from said return feed launder.

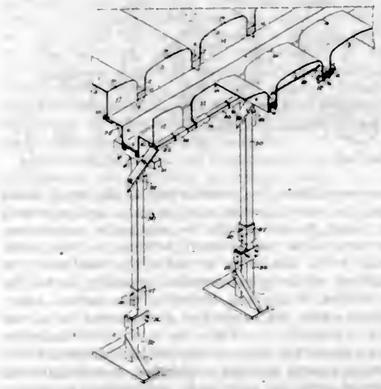
1,131,479. CENTERING-FORM FOR REINFORCED CONCRETE CONSTRUCTION. GEORGE E. DALE, Trenton, N. J., assignor, by mesne assignments, to Philadelphia Steel & Wire Co., Camden, N. J., a Corporation of New Jersey. Filed Feb. 10, 1909. Serial No. 477,047. (Cl. 25—131.5.)

1. Centering for concrete floor and ceiling construction, comprising channel members having side flanges, supports for said members, spacing means disposed between said channel members and carried by the flanges, and independent supports for said spacing means.

2. Centering for concrete floor and ceiling construction, comprising metal channel members having side flanges and spaced apart, supports for said members, bridging means carried by said flanges and spanning the space between said channel members, and independent supports for said bridging means.

3. Centering for concrete floor and ceiling construction, comprising integral channel members, supports for said members, spacing means disposed between said channel members, clamps for the adjacent walls of independent channel members retaining the spacing means in place, and independent supports for said spacing means.

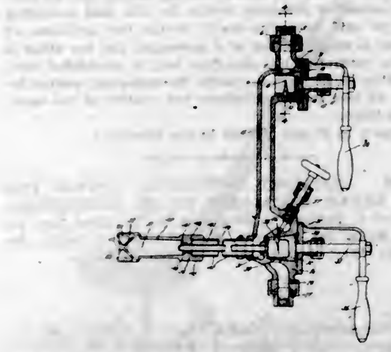
4. Centering for concrete floor and ceiling construction, comprising a plurality of channel members integral throughout and having side walls terminating in lateral flanges, supports for said members, spacing means disposed between the side walls of adjacent members, clamps in engagement with said side walls for retaining the spacing means in place, and independent supports for said spacing means.



5. Centering for concrete floor and ceiling construction, comprising flanged members having substantially horizontal portions between said flanges, said members being spaced apart, supports for said flanged members, bridging pieces overlying the spaces between said flanged members, and independent supports for said bridging pieces.

[Claims 6 to 16 not printed in the Gazette.]

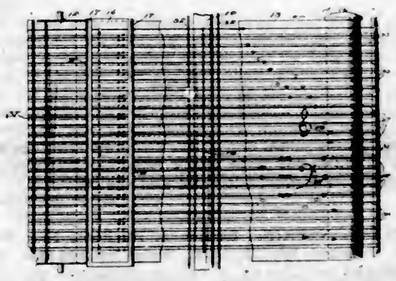
1,131,480. FUEL-OIL BURNER. LEON H. DAVID, Fort Casey, Wash. Filed June 2, 1914. Serial No. 842,463. (Cl. 158—75.)



1. In a device of the class described, steam and oil supply pipes, a valve for each of the pipes consisting of a chambered casing having an elongated aperture in its side wall, the major axis of the aperture lying parallel with the axis of the casing chamber, a rotatable valve member having an elongated triangular port whose greatest length is disposed transversely to the major axis of the aperture, and outer and inner concentric steam and oil tubes communicatively connected to the supply pipes.

2. In a device of the class described, a steam tube arranged to protrude within a furnace, an oil tube arranged concentrically within the steam tube, a steam supply pipe and oil supply pipe respectively connected with the tubes, valves in the supply pipes each consisting of a tapered valve chamber forming a portion of the supply duct, the valve chamber being provided with a restricted aperture of relatively elongated configuration, and a valve member arranged to be rotatively seated in the chamber and provided with a triangular port having its major axis arranged transversely to the like axis of the restricted aperture.

1,131,481. MUSIC-INDICATOR. WALTER M. DAVIS. Filed Dec. 12, 1913. Serial No. 806,352. (Cl. 84—48.)



1. The combination with a player piano tracker bar, and a perforated music sheet movable thereover; of a relatively fixed group of leaders extending from the tracker bar along the advancing portion of the sheet so that the latter may be seen between them, the leaders overlying the paths of such perforations as correspond with the notes on the lines of the usual staves, a clef on the leaders, and means for supporting them.

2. The combination with a player piano tracker bar, and a perforated music sheet movable thereover; of a relatively fixed indicator embodying two groups of five leaders extending from the tracker bar along the advancing portion of the sheet and overlying the paths of such of its perforations as correspond with the notes on the lines of the two staves of the usual notation, and a chart removably carried by one edge of said indicator and bearing letters opposite said leaders corresponding with the musical notes which they designate.

3. The combination with a perforated music sheet; of a relatively fixed indicator including two groups of leaders and other leaders parallel with but distinguished from them, and means for supporting the indicator over the music sheet so that the latter may be seen through it, said group-leaders overlying such of the perforations as correspond with the notes on the staff-lines, and the other leaders overlying other perforations in said sheet.

4. The combination with a movable perforated music sheet; of an indicator embodying two groups of heavy leaders and other light leaders parallel with them, and means for supporting the indicator in fixed position with its heavy leaders overlying such of the perforations as correspond with the notes on the staff-lines and its light leaders overlying other perforations in said sheet.

5. The combination with a perforated music sheet, of an indicator embodying two groups of heavy wires with five in each group, means for supporting the indicator with said wires overlying such of the perforations as correspond with the notes on the staff-lines of the ordinary notation, the indicator also embodying other lighter wires overlying perforations corresponding with the notes on added lines, and other still lighter wires overlying perforations corresponding with sharps and flats.

[Claims 6 to 13 not printed in the Gazette.]

1,131,482. CALF-WEANER. LEE ROY DEHLER, Gary, Ind. Filed Dec. 16, 1913. Serial No. 807,122. (Cl. 119—132.)

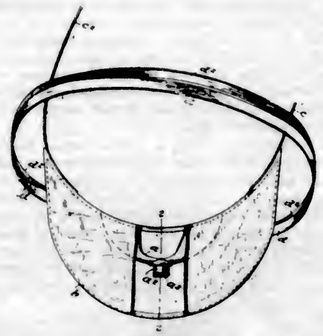
A device of the class described comprising in combination with a resilient ring having terminal bulbs, a plate having a forwardly extending tongue, rearwardly extending divergent arms, and a forwardly extending arm, the latter having a tip bent at an obtuse angle with respect to said arm, said divergent arms being terminally coiled

about and secured on the ring, and spring actuated prongs having sharp points guided through the tongue, the lower



portions being guided through the forwardly extending arm and the tip thereof, said prongs being provided with enlargements abutting on the said arm and tip.

1,131,483. NAPKIN. ERNEST A. DE ROSE, New York, N. Y. Filed Apr. 25, 1914. Serial No. 834,516. (Cl. 128—5.)

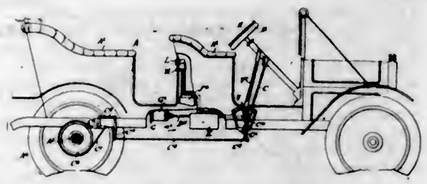


In a device of the character described, a waterproof sack open at its top for its full length, said opening being substantially oval, said sack being also provided with a vent at its lowermost point, a detachable cap removably secured to said sack for normally closing said vent, a pair of substantially crescent-shaped shields secured to the opposite edges of said sack, said shields extending beyond the ends of said sack where they are secured together, each of said shields being formed with a fabric inner section for engaging the patient, and a waterproof outer section, a retaining strap secured to each end of said shields at the point where they are secured together, and a pair of straps having their opposite ends secured to said shields adjacent their ends for holding the shields against the patient for preventing the spilling of any fluid from said sack.

1,131,484. AUXILIARY ACTUATING DEVICE FOR THE BRAKE MECHANISM OF AN AUTOMOBILE. EDWARD A. DIETERICH, New York, N. Y. Filed Dec. 31, 1913. Serial No. 809,784. (Cl. 21—90.)

1. In an automobile, the combination of the usual brake mechanism, the usual steering mechanism, a spring-pressed actuating device connected with the said brake mechanism, a locking mechanism for normally locking the said actuating device while the later is under the tension of its spring, and an electrically-controlled releasing device for the said braking device.

2. In an automobile, the combination of the usual brake mechanism, the usual steering mechanism, a spring-pressed actuating device connected with the said brake mechanism, a locking mechanism for normally locking the said actuating device while the latter is under the tension of its spring, an electrically-controlled releasing device for the said locking device, and including an electric passenger switch under the control of a passenger in a rear seat of the automobile, and an electric-controlling switch under the control of the chauffeur for rendering the said passenger switch ineffective.



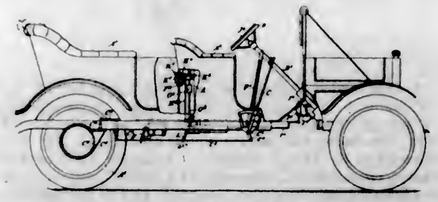
3. In an automobile, the combination of the usual brake mechanism, the usual steering mechanism, a spring-pressed actuating device connected with the said brake mechanism, a locking mechanism for normally locking the said actuating device while the latter is under the tension of its spring, and an electrically-controlled releasing device for the said locking device and including an electric emergency switch under the control of a passenger in a rear seat of the automobile to actuate the said releasing device.

4. In an automobile, the combination of the usual brake mechanism, the usual steering mechanism, a spring-pressed rod connected with the said brake mechanism, a locking device for locking the said rod against movement while under the tension of its spring, an electric releasing device including an electro-magnet having an armature for unlocking the said locking device, an electric switch under the control of a passenger, and an electric switch under the control of the chauffeur and associated with the said steering mechanism to be actuated when the chauffeur takes hold of or releases the steering wheel of the steering mechanism.

5. In an automobile, the combination of the usual brake mechanism, the usual steering mechanism, an auxiliary actuating device connected with the said brake mechanism, a locking device for the said actuating device, and an electrically-controlled releasing device for the said actuating device, the said releasing device having two switches, of which one is under control of a passenger and the other is under the control of the chauffeur and is associated with the steering mechanism to render the passenger switch ineffective as long as the chauffeur has control of the steering mechanism.

[Claims 6 to 23 not printed in the Gazette.]

1,131,485. AUXILIARY ACTUATING DEVICE FOR THE BRAKE MECHANISM OF AN AUTOMOBILE. EDWARD A. DIETERICH, New York, N. Y. Filed Nov. 19, 1913, Serial No. 801,957. Renewed Jan. 5, 1915. Serial No. 667. (Cl. 21—90.)



1. In an automobile, the combination of the usual brake mechanism, an auxiliary actuating device for the said brake mechanism and under the control of the occupant of a rear seat of the automobile, and a locking device under the control of the chauffeur and adapted to engage the auxiliary actuating mechanism to normally hold the latter locked against operation.

2. In an automobile, the combination of the usual brake mechanism, an auxiliary actuating device for the said brake mechanism and under the control of an occupant

of a rear seat, and a locking device for the said auxiliary actuating device and having a spring-pressed member under the control of the chauffeur, the said spring-pressed member when released actuating the said locking device to unlock the auxiliary actuating device.

3. In an automobile, the combination of the usual brake mechanism, an auxiliary actuating device for the said brake mechanism and under the control of an occupant of a rear seat of the automobile, a locking device under the control of the chauffeur and adapted to engage the said auxiliary actuating mechanism to normally hold the latter locked against operation, and an emergency application device connected with the said auxiliary actuating device to permit applying the brakes when the said locking device is in locking position.

4. In an automobile, the combination of the usual brake mechanism, an auxiliary actuating device for the said brake mechanism and under the control of an occupant of a rear seat, a locking device under the control of the chauffeur and adapted to engage the auxiliary actuating device to normally hold the latter locked against operation, and an electric switch controlled by the said auxiliary actuating device and arranged in the ignition circuit of the automobile motor to stop the motor on applying the brakes through the agency of the said auxiliary actuating device.

5. In an automobile, the combination of the usual brake mechanism, an auxiliary actuating device for the said brake mechanism and under the control of an occupant of a rear seat, and a locking device for the said auxiliary actuating device and having a spring-pressed controlling member in the form of a rim arranged adjacent to the rim of the steering wheel to be grasped with the latter by the chauffeur.

[Claims 6 to 22 not printed in the Gazette.]

1,131,486. GOLF-CLUB. HENRY P. DIXON, Wallingford, Pa. Filed Oct. 22, 1914. Serial No. 868,040. (Cl. 46—4.)



1. A golf club provided with a reinforcing member in the lower end of the shaft to stiffen the lower end and to locate the flexing point of the shaft at a point approximately midway between the handle and the head of the club.

2. A golf club, comprising a head, a shaft attached to the head, and a reinforcing member inserted in the lower end of the shaft and extending from within the head upwardly a distance beyond the head to stiffen the lower portion of the shaft and to locate the flexing point of the shaft at a point approximately midway between the shaft handle and the head.

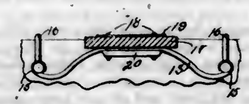
3. A golf club, comprising a head provided with a neck, the head and neck having a bore therethrough, a shaft, a handle at its upper end and having its lower end fastened in the said bore, the said shaft having a transverse split extending from the bottom of the shaft to a point a distance beyond the end of the neck, and a reinforcing strip fitting into the said split and fastened to the shaft.

4. A golf club, comprising a head provided with a neck, the head and neck having a bore therethrough, a shaft, a handle at its upper end and having its lower end fastened in the said bore, the said shaft having a transverse split extending from the bottom of the shaft to a point a distance beyond the end of the neck, a reinforcing strip fitting the said split, and a cord wrapping around the reinforced portion of the shaft and the reinforcing strip.

5. A golf club, comprising a head provided with a neck, the head and neck having a bore therethrough, a shaft, a handle at its upper end and having its lower end fastened in the said bore, the said shaft having a transverse split extending from the bottom of the shaft to a point a distance beyond the end of the neck, a reinforcing strip fitting the said split, and a cord wrapping around the reinforced portion of the shaft and the reinforcing strip, the wrapping extending at its lower end onto the said neck and extending at its upper end beyond the upper end of said reinforcing strip.

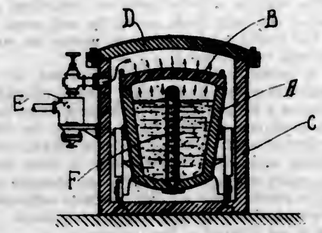
[Claims 6 and 7 not printed in the Gazette.]

1,131,487. VEHICLE-SEAT. JOHN DODD, Wawota, Saskatchewan, Canada. Filed Mar. 3, 1913. Serial No. 751,815. (Cl. 21—44.)



A seat for reversible suspension from the sides of a wagon box consisting of a pair of spaced bow springs, a seat element connecting said spring at their central portions and having its long axis disposed at right angles to the long axes of the springs, and hooks pivoted to the ends of said springs respectively for movement in a plane parallel to the long axes of the springs, said hooks being adapted for removable engagement over the sides of the wagon box whereby the springs may be supported from the wagon box with the seat element disposed either above and below the springs.

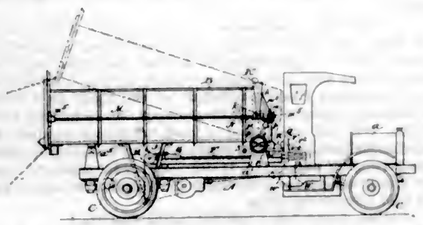
1,131,488. VACUUM PROCESS FOR PRODUCTION OF STEEL. EUGEN DOLENSKY, Frankfort-on-the-Main, Germany. Filed Oct. 22, 1912. Serial No. 727,122. (Cl. 75—51.)



1. A process for purifying metals, consisting in heating a clearing vessel to the temperature approximately of the molten metal to be purified, placing the molten metal therein and subjecting same to the action of a vacuum, substantially as and for the purpose described.

2. A process for purifying metals, consisting in placing a clearing vessel, heated approximately to the temperature of the molten metal to be purified and containing the molten metal, within a second container, and exhausting said second container, whereby the molten metal is cleared.

1,131,489. DUMPING-TRUCK. JOHN P. DOWD, Cleveland, and MERWIN S. THOMPSON, Painesville, Ohio, assignors of one-half to The Brown Hoisting Machinery Company, Cleveland, Ohio, a Corporation of Delaware, and one-half to The White Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 14, 1914. Serial No. 824,601. (Cl. 21—20.)



1. In a dumping truck, the combination of the truck frame which is mounted on wheels, a body which is tiltably supported thereon on a horizontal transverse axis located near the front end of the body, means for tilting the rear end of the body upward, a follower in said body, and means for forcibly moving said follower rearward in the body.

2. In a motor driven dumping truck, the combination of a truck frame which is mounted on wheels, and a motor mounted thereon, with a body tiltably mounted on said truck frame on a horizontal transverse axis which is located near the front end of said body, means operable by said motor for tilting the rear end of said body upward, a follower movably fitted in said body, and means operable by said motor for forcibly moving said follower rearward in the body.

3. In a motor driven dumping truck, the combination with the truck frame which is mounted on wheels, a motor mounted thereon, a body tiltably mounted on said frame, on a horizontal transverse axis which is located near the front end of said body, a follower movably fitted in said body, means located on both sides of the body and supported thereby and connected respectively to opposite sides of the follower for forcibly moving said follower rearward, and means operable by said motor for operating the said devices which directly engage and move the follower.

4. In a dumping truck, the combination of a truck frame which is mounted on wheels, a body tiltably mounted thereon on a horizontal transverse axis which is located near the front end of the body, two screws rotatably mounted on opposite sides of the body, a follower in said body, arms fixed to said follower and extending over the top edges of the body, nuts carried by said arms and embracing and fitting said screws, and means for simultaneously turning the screws.

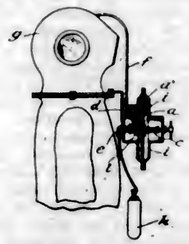
5. In a dumping truck, the combination of a truck frame which is mounted on wheels, a body tiltably mounted thereon on a horizontal transverse axis which is located near the front end of the body, a follower in said body, a power driven shaft mounted on said frame, and power transmitting mechanism intermediate of said shaft and follower, which mechanism includes one element which is mounted to rotate about an axis which is coincident with the axis about which the body turns when tilted.

[Claim 6 not printed in the Gazette.]

1,131,490. DIVING APPARATUS. ALEXANDER BERNHARD DRÄGER, Lübeck, Germany. Filed Oct. 22, 1913. Serial No. 796,648. (Cl. 61—7.)

1. In a driving apparatus, the combination with a diving dress, of a casing connected to and communicating with the dress and having a yielding wall arranged to be subjected to hydraulic pressure, means to supply compressed air to the casing, and means operable by the movement of the wall due to variation of hydraulic pressure thereon, to control the admission of air to the casing.

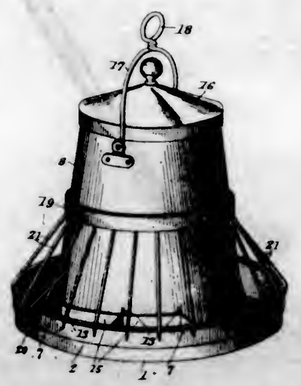
2. In a diving apparatus, the combination with a diving dress, of a casing carried by and communicating with the latter and having a flexible wall, a compressed air reservoir arranged to communicate with the chamber, a valve to control the admission of air to the latter, and means operated by variation of hydraulic pressure on the wall to open and close said valve.



3. In a diving apparatus, the combination with a diving-dress, of a casing connected to the dress and having an opening therein, a flexible diaphragm in the casing forming a closed chamber communicating with the dress, a compressed air reservoir arranged to communicate with the chamber, and a valve in the chamber operable by the diaphragm to control the admission of air to said chamber.

4. In a diving apparatus, the combination with a diving-dress, of a casing carried by the dress and having an opening to admit water to the casing, a flexible diaphragm in the latter forming a closed chamber communicating with the dress, a compressed air reservoir arranged to communicate with the chamber, a valve to control the admission of air to the chamber, a vent valve in the latter, and means operated by the diaphragm to open one valve and close the other.

1,131,491. POULTRY-FEEDER. SYLVESTER A. DRAKE, Jamestown, N. Y. Filed Apr. 4, 1914. Serial No. 829,552. (Cl. 119—53.)



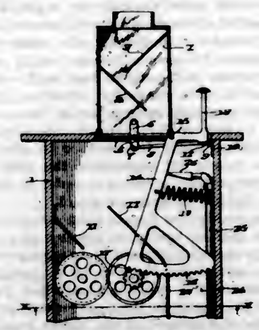
1. In a device of the class described, a tray having an upstanding circumferential flange and a conical bottom portion, radially disposed wall members rising from the tray and provided at their lower ends with extended flange portions connected with the circumferential upstanding flange and forming partitions, bridge members connecting said partitions, a hopper having notches at its lower edge engaging the partitions, and means for supporting the hopper at various adjustments with respect to the tray.

2. In a device of the class described, a tray having wall members rising therefrom, resilient rods extending upwardly from the tray and provided with apertured plates at their upper ends, and a hopper having inwardly extending pins engaging the apertured plates.

3. In a device of the class described, a tray having upstanding wall members tapered upwardly and provided at their outer edges with flanges formed at an obtuse angle thereto, a slightly tapering hopper interiorly engaged by the flanges of the wall members, and means for supporting the hopper adjustably with reference to the tray.

4. In a device of the class described, a tray having a circumferential upstanding flange, wall members rising from the tray and having flanges connected with the upstanding flange and forming partitions, bridge members connecting the partitions and spaced above the bottom of the tray, a hopper having notches at its lower edge engaging the partitions, means for supporting the hopper adjustably with respect to the tray, a lid for the hopper, and a guard comprising two hoops encircling, respectively, the hopper and the upstanding flange of the tray, and spacing bars connecting said hoops, said guard being detachably supported on the tray.

1,131,492. TICKET-CANCELER. JOSEPH E. DUNASKY, Cleveland, Ohio. Filed May 27, 1914. Serial No. 841,358. (Cl. 232—8.)



1. In means for receiving tickets and coin and comprising separate compartments for each, a canceling mechanism located in the ticket receiving compartment, deflectors arranged to direct the tickets to the canceling mechanism and away from the coin receiving compartment and means for delivering a blast of air across the coin receiving compartment to prevent any of the tickets entering such compartment.

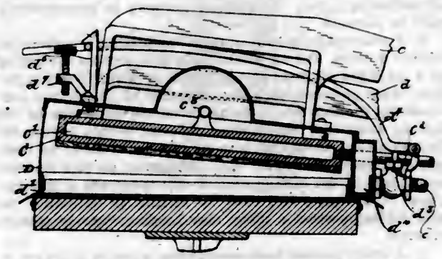
2. In a device of the character specified adapted to receive coin and tickets and provided with separate compartments for each, a canceling mechanism located in the ticket receiving compartment, a deflector arranged to direct the coin into the coin receiving compartment and extending over the canceling mechanism, a second deflector acting jointly with the first mentioned deflector to direct the tickets to the canceling mechanism and means for delivering a blast of air across the first mentioned deflector to prevent the tickets from dropping thereon and passing into the coin receiving compartment.

1,131,493. MACHINE FOR PRESSING GARMENTS. FRANK H. DUNBAR and JAMES H. JONES, Cleveland, Ohio. Filed Feb. 23, 1910. Serial No. 545,318. (Cl. 68—9.)

1. A pressing machine, comprising a supporting member, a shield movable toward and from said supporting member, a pressing member movable toward and from said supporting member and adapted to move within said shield, and independent means for projecting steam within said shield and between said members.

2. A pressing machine, comprising a supporting member, a shield movable toward and from said supporting member, a pressing member movable toward and from said supporting member and adapted to move within said shield and provided with a steam chamber, and independent means for projecting steam within said shield and between said members.

3. A pressing machine, comprising a supporting member, a shield movable toward and from said supporting member, a pressing member movable toward and from said supporting member and adapted to move within said shield and provided with a steam chamber, and a pipe opening within said shield and connected with a steam supply.



4. A pressing machine, comprising a supporting member, a shield movable toward and from said supporting member, a pressing member movable toward and from said supporting member and adapted to move within said shield and provided with a steam chamber, an apertured pipe adjacent to said pressing member and connected with a gas supply, a pipe opening within said shield and connected with a steam supply, and a valve in said pipe.

5. A pressing machine, comprising a supporting member, a shield movable toward and from said supporting member, a pressing member movable toward and from said supporting member and adapted to move within said shield and provided with a steam chamber, a pipe opening within said shield and connected with a steam supply, a valve in said pipe, and means, operable by said pressing member, upon movement, for successively opening and closing said valve.

[Claims 6 to 10 not printed in the Gazette.]

1,131,494. STORY PICTURE DEVICE. VICTOR M. EARLE, New York, N. Y. Filed Dec. 12, 1912, Serial No. 736,344. Renewed Dec. 23, 1914. Serial No. 878,824. (Cl. 46—37.)



1. A story picture leaf or sheet consisting of an over and over infolding sheet each fold or ply of which has a different picture, these pictures representing different scenes illustrating a story, the scenes on the different folds or plies, with the exception of the picture representing the first scene, being on the same side of the leaf or sheet, while the first scene is on the opposite side of the leaf or sheet, so that when one is displayed the others are hidden, and thus by folding or unfolding said sheet a story may be progressively told in pictures.

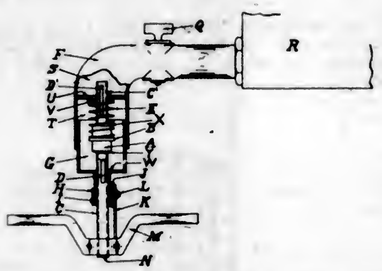
2. A story picture book comprising a series of over and over infolding leaves or sheets which are creased to form

folds or piles each of which bears a different picture, these pictures representing different scenes illustrating a story, the scenes on the different folds or piles, with the exception of the picture representing the first scene, being on the same side of the leaf or sheet, while the first scene is on the opposite side of the leaf or sheet, so that when one is displayed the others are hidden, and thus by folding or unfolding a leaf or sheet a story may be progressively told in pictures.

3. A story picture leaf or sheet comprising a permanent picture section, and an attached folding section consisting of a plurality of parts or folds each of which bears a picture, these pictures, with the exception of the picture representing the first scene, being all on the same side of the leaf or sheet and representing different scenes having fitting relations to the permanent picture section, so that, taken in connection with said permanent picture section, each scene of the folding section will illustrate a different phase of a story; and thus by folding or unfolding the said folding section a story may be progressively told in pictures.

4. A story picture book comprising a series of leaves or sheets each consisting of a permanent picture section and an attached folding section composed of a plurality of parts or folds each of which bears a picture, these folding part pictures, with the exception of the picture representing the first scene, being all on the same side of the leaf or sheet and representing different scenes having fitting relations to the permanent picture section; so that, taken in connection with said permanent picture section, each scene of the folding section will illustrate a different phase of a story; and thus by folding up or unfolding the said folding section a story may be progressively told in pictures.

1,131,495. LIQUID-SERVING DEVICE. WILLIAM P. EARNHEART, Indianapolis, Ind. Filed Oct. 27, 1913. Serial No. 797,469. (Cl. 221—115.)



1. A device for serving liquids from a container, consisting of a body portion having an upper and a lower chamber, said lower chamber adapted to be regulated in size and divided from said upper chamber by a partition, a valve member consisting of a tube for controlling the admission of fluid from the upper to the lower chamber and a tube for controlling the release of the liquid from said lower chamber, said first named tube normally admitting fluid to said lower chamber and said second named tube normally preventing the escape of liquid from said lower chamber, means for raising said valve member to open said lower chamber, and means for regulating the height to which said valve member may be raised in order to provide a continuous or a limited quantity of liquid.

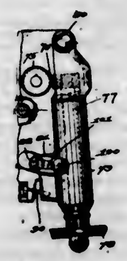
2. A device for serving liquids from a container, consisting of a body portion having an upper and a lower chamber, said lower chamber adapted to be regulated in size and divided from said upper chamber by a partition, a valve member extending through said partition and consisting of a tube for controlling the admission of fluid from the upper to the lower chamber and a tube for controlling the release of the liquid from said lower chamber, said first named tube normally admitting fluid to said lower chamber and said second named tube normally preventing the escape of liquid from said lower chamber, means for raising said valve member to open said lower chamber, and means for regulating the height to which said valve member may be raised in order to provide a continuous or a limited quantity of liquid.

3. A device for serving liquids from a container, consisting of a body portion having an upper and a lower chamber, said lower chamber adapted to be regulated in size and divided from said upper chamber by a partition, a valve member consisting of a perforated tube for controlling the admission of fluid from the upper to the lower chamber and a tube for controlling the release of the liquid from said lower chamber, said first named tube normally admitting fluid to said lower chamber and said second named tube normally preventing the escape of liquid from said lower chamber, means for raising said valve member to open said lower chamber, and means for regulating the height to which said valve member may be raised in order to provide a continuous or a limited quantity of liquid.

4. A device for serving liquids from a container, consisting of a body portion having an upper and a lower chamber, said lower chamber adapted to be regulated in size and divided from said upper chamber by a partition, a valve member extending through said partition and consisting of a perforated tube for controlling the admission of fluid from the upper to the lower chamber and a tube for controlling the release of the liquid from said lower chamber, said first named tube normally admitting fluid to said lower chamber and said second named tube normally preventing the escape of liquid from said lower chamber, means for raising said valve member to open said lower chamber, and means for regulating the height to which said valve member may be raised in order to provide a continuous or a limited quantity of liquid.

5. A device for serving liquids from a container, consisting of a body portion having an upper and a lower chamber, said lower chamber adapted to be regulated in size and divided from said upper chamber by a partition, a valve member consisting of a tube for controlling the admission of fluid from the upper to the lower chamber and a tube for controlling the release of the liquid from said lower chamber, said first named tube normally admitting fluid to said lower chamber and said second named tube normally preventing the escape of liquid from said lower chamber, means for raising said valve member to open said lower chamber, and a lever arm engaging said means for regulating the height to which said valve member may be raised in order to provide a continuous or a limited quantity of liquid.

1,131,496. FEED MECHANISM FOR MILLING-MACHINES, LATHES, &c. JOHN EDGAR, Hyde Park, Mass., assignor, by mesne assignments, to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 21, 1907, Serial No. 407,579. Renewed May 15, 1914. Serial No. 838,893. (Cl. 90—21.)



1. An automatic trip-instrumentality combining a reciprocating table; mechanism for propelling said table comprising two clutch-members; a table-support; an element movably mounted on said table-support and connected on the one hand with one of said clutch-members and on the other hand with the other of said clutch-members; and means whereby said element may be automatically actuated by motion derived from said table to effect a shifting of one of said clutch-members.

2. An automatic table-control combining a reciprocating-table; two dogs adjustably secured at the longitudinal edge thereof, the one dog presenting a contact-surface movable in a higher line of travel, the other dog presenting a contact-surface movable in a lower line of travel; a table-support; a trip-member pivoted about a vertical axis in said table-support and presenting two contact-surfaces, each in offset relation to said axis, and the one adapted to be brought into the line of travel of the one dog, and the other adapted to be brought into the line of travel of the other dog, and table-feeding mechanism having its operation determined by said trip-member.

3. An automatic table-control combining a table; a screw-shaft journaled in said table; a nut for translating said screw-shaft; a power-driven shaft parallel with screw-shaft; a sleeve loose on said shaft; gearing between said sleeve and nut, a clutch-member splined to said shaft and adapted to slide thereon to clutch said sleeve and drive it from said shaft; clutch-mechanism adapted in one arrangement to rotate said screw-shaft by motion derived from said other shaft and adapted in another arrangement positively to lock said screw-shaft against rotation; an operating-lever for said clutch-member; and a trip member adapted when swung anti-clockwise about its vertical axis to cause said clutch-mechanism to be thrown into its screw-locking arrangement and also to cause said lever to effect an engagement between said sleeve and said clutch-member.

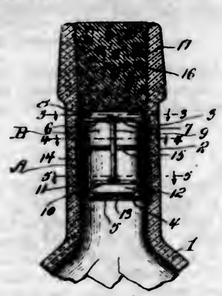
4. An automatic trip-instrumentality of the nature revealed combining a reciprocating table; a mechanism for propelling said table and comprising a shiftable clutch-member adapted in one position to cause said table to travel at a relatively slow or feeding rate and adapted in another position to cause said table to travel at a quick-traverse rate; a table-support; a trip-element movably mounted on said table-support; dogs mounted on said table and providing contact-surfaces movable in different paths of travel; said trip-element being constructed and arranged to be actuated by impact with one or the other of said contact points; and means enabling said trip-element to determine the position of said clutch-member.

5. A machine-tool including in combination a table-support; a trip-member mounted by said table-support and adapted to swing about a vertical axis, said trip-member providing two contact-points, each about equidistant from said axis and each in a different plane transversely to said axis, and spaced angularly apart from one another; a table adapted to translate on said support adjacent said trip-member; a first dog adjustably fixed to said table and providing an impact-surface traveling in a path adapted to be intersected by one of said contact-points when said trip-member has been swung into one position; a second dog also adjustably fixed to said table and providing an impact-surface traveling in a different path adapted to be intersected by said other contact-point when said trip-member has been swung into another position; and a table-propelling means controlled by said trip-member.

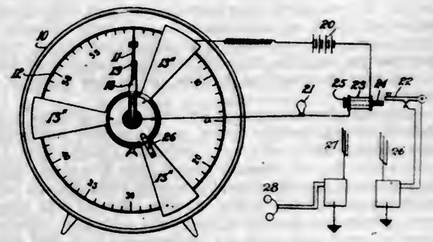
[Claims 6 to 26 not printed in the Gazette.]

1,131,497. NON-REFILLABLE BOTTLE. VERN WHEELER EMBREE, Gayville, S. D. Filed Feb. 11, 1914. Serial No. 818,078. (Cl. 215—65.)

A bottle having a cylindrical body in its neck said body being provided with a diaphragm at its upper end having openings near its periphery a diaphragm at the bottom having a central opening and being further provided with an intermediate diaphragm also having a central opening, a rod arranged in the center of the said body, passing through the central opening in the intermediate diaphragm and having its upper end attached to the upper diaphragm, said rod having a fixed diaphragm at its lower end spaced from the bottom diaphragm and provided with openings near its periphery and a disk valve arranged in the space and movable between the bottom diaphragm and the diaphragm at the lower end of the said rod.



1,131,498. INDICATOR OR TIMER. RALPH C. EMERY, Newton, Mass. Filed Oct. 18, 1912. Serial No. 726,407. (Cl. 161—1.)



1. Apparatus adapted for use with a system of radio-telegraphy, comprising mechanism and an element driven thereby at a regular rate through a circuit repeatedly; a screen extending over a definite part of the circuit; and means whereby the screen is rapidly adjustable to any position around the circuit, thereby indicating the time of recurrent disturbances.

2. Apparatus adapted for use with a system of radio-telegraphy, comprising mechanism and an element driven thereby at a regular rate through a circuit repeatedly; a screen, extending over a definite part of the circuit, rapidly adjustable and extensible around the circuit, thereby indicating the time of recurrent disturbances.

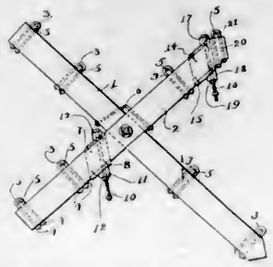
3. In a system of radio-telegraphy, means to avoid recurrent disturbances of operation comprising the combination, at a sending station, of mechanism and an element driven thereby at a regular rate through a circuit repeatedly; means adapted to represent a period of disturbance, extending over a definite part of the circuit, and means for rapid adjustment of the position thereof along said circuit, whereby a period of disturbance at the receiving station may be indicated recurrently at the sending station.

4. In a system of radio-telegraphy, means to avoid recurrent disturbances of operation, comprising the combination with sending means of a mechanism and an element driven thereby at a regular rate through a circuit repeatedly; a device rapidly adjustable in position, arranged along said circuit and adapted to represent a period of disturbance at the receiving station; and a lock for the sending means actuated by conjunction of said driven element with said device.

5. In a system of radio-telegraphy means to avoid recurrent disturbances of operation, comprising the combination, at a station having sending means, of a mechanism and an element driven thereby at a regular rate through a circuit repeatedly; a device rapidly adjustable in position, arranged along said circuit and adapted to represent

a period of disturbance at the receiving station; an electric circuit, and a signal operated thereby, upon conjunction of said device and said driven element.

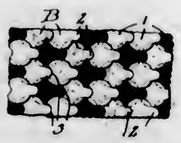
1,131,499. HARROW ATTACHMENT FOR CULTIVATORS. LESLIE E. FAWVER, Seligman, Mo. Filed Aug. 21, 1914. Serial No. 857,902. (Cl. 97—44.)



1. In a harrow attachment for ordinary cultivators, a pair of bars connected intermediate their ends and extending substantially at right angles to each other, U-shaped bolts carried by said bars for detachably attaching ordinary harrow teeth to the bars, and means carried by one of said bars for attaching the same to the plow beams of a cultivator.

2. In a harrow attachment for ordinary cultivators, embodying shovel carrying beams, a pair of bars connected intermediate their ends and extending substantially at right angles to each other, U-shaped bolts detachably connected to said bars for attaching harrow teeth thereto, serrated plates attached to the opposite edges of said bars, bolts adjustably carried by said bars and lugs slidably mounted upon said bolts for engagement with said serrated plates for holding said bolts in various adjusted positions upon said bar.

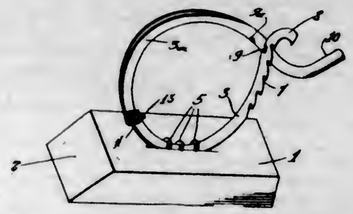
1,131,500. TIRE. CLIVE C. FERRY, Middlebury Center, Pa. Filed June 16, 1914. Serial No. 845,454. (Cl. 152—18.)



1. A pneumatic tire having incorporated therein a plurality of layers of puncture-proof plates so arranged relatively to each other that the plates of one layer break joint with the plates of the next layer, each plate being provided with a projecting tongue at one edge and a recess of corresponding shape opposite said tongue, the plates of one layer being so disposed with relation to the plates of the adjoining layer that a tongue of one plate lies in radial alinement with and covers the recess of another plate.

2. A pneumatic tire having incorporated in the fabric thereof a plurality of layers of puncture-proof plates so arranged relatively to each other that the plates of one layer break joint with the plates of the next layer, each plate being provided with a projecting tongue at one edge and a recess of corresponding shape opposite said tongue, the plates of one layer being so disposed with relation to the plates of the adjoining layer that a tongue of one plate lies in radial alinement with and covers the recess of another plate, the plies of the fabric being vulcanized together around and between the plates of each layer and through the said recesses in the plates.

1,131,501. FODDER-BINDER. EDWARD P. GADOW, Preston, Md. Filed Jan. 20, 1914. Serial No. 813,226. (Cl. 100—31.)



The herein described fodder binder comprising two members, each of which is formed of angle iron, one of said members permanently secured to a base and the other member being pivoted to the first named member, the stationary member being provided with a series of slots in the edges of both of the angular members of the angle iron for engaging the pivoted member and both of said members being provided with slots to carry the twine and to permit the release of the twine when the bundle is tied, said slots opening upwardly in the inner edges of the members.

1,131,502. TRAIN-STOPPING APPARATUS. ALBERT L. GAINER, St. Louis, Mo. Filed July 17, 1914. Serial No. 851,607. (Cl. 246—59.)



1. In train stopping apparatus, a trackway comprising ties each formed of a stationary section and a movable section, tension means holding said movable section in normal position and permitting such section to move under the weight of the rolling stock, track obstacles carried by certain of said ties and spaced apart, fluid motors for actuating said obstacles to active position, a source of supply for said motors, valves controlling communication between said motors and source and carried by certain of the remaining ties and each disposed in advance of the motor controlled thereby, and a connection between each valve and the movable section of the tie carrying the same whereby the valve will be opened in the passage of the rolling stock over the tie.

2. In train stopping apparatus, a trackway comprising ties each formed of a stationary section and a movable section, tension means holding said movable section in normal position and permitting such section to move under the weight of the rolling stock, track obstacles carried by certain of said ties and spaced apart, fluid motors for actuating said obstacles to active position, a source of supply for said motors, valves controlling communication between said motors and source and carried by certain of the remaining ties and each disposed in advance of the motor controlled thereby, a connection between each valve and the movable section of the tie carrying the same whereby the valve will be opened in the passage of the rolling stock over the tie, relief valves carried by certain of the remaining ties and controlling communication between the motors and the atmosphere, each relief valve being disposed in advance of the motor controlled thereby, and a connection between each relief valve and the movable section of the tie carrying the same whereby the motor will be opened to the atmosphere in the passage of the rolling stock over the tie.

3. In train stopping apparatus, a trackway comprising ties each formed of a stationary section and a movable section, tension means holding said movable section in normal position and permitting such section to move under the weight of the rolling stock, track obstacles carried by certain of said ties and spaced apart, fluid motors for actuating said obstacles to active position, a source of supply for said motors, valves controlling communication between said motors and source and carried by certain of the remaining ties and each disposed in advance of the motor controlled thereby, a connection between each valve and the movable section of the tie carrying the same whereby the valve will be opened in the passage of the rolling stock over the tie, and means for moving the obstacle to inactive position succeeding the opening of the relief valve.

1,131,503. PROCESS FOR THE PRODUCTION OF HYDRATED ALUMINOSILICATES OR ARTIFICIAL ZEOLITES. ROBERT GANS, Pankow, near Berlin, Germany, assignor to J. D. Riedel Aktiengesellschaft, Berlin, Germany. Filed Aug. 4, 1911. Serial No. 642,383. (Cl. 23—13.)

1. A process for the production of hydrated aluminosilicates or artificial zeolites comprising the fusion at a high temperature of a charge initially containing silicates of alumina having combined silica and alkali.

2. A process for the production of hydrated aluminosilicates or artificial zeolites comprising the fusion at a high temperature of a charge initially containing in addition to alumina mineral having combined silica and alkali.

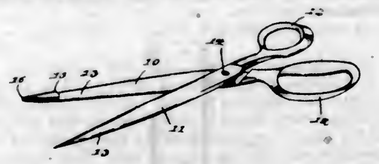
3. A process for the production of hydrated aluminosilicates or artificial zeolites comprising the fusion at a high temperature of a charge initially containing silicates of alumina combined silica and alkali, which charge has a relatively low content of alkali and silica.

4. A process for the production of hydrated aluminosilicates or artificial zeolites comprising the fusion at a high temperature of a charge initially containing silicates of alumina having combined silica and alkali, and in leaching the resulting melt with hot water.

5. A process for the production of hydrated aluminosilicates or artificial zeolites comprising the fusion at a high temperature of a charge initially containing in addition to alumina mineral having combined silica and alkali, and the hydration of the resulting melt with hot water.

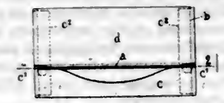
[Claims 6 to 11 not printed in the Gazette.]

1,131,504. THREAD-REMOVNG IMPLEMENT. ODENA M. GAREN, Springfield, Mass. Filed Mar. 4, 1914. Serial No. 822,451. (Cl. 30—14.)



In a thread removing implement, the combination with a plurality of similar pivotally connected members having their inner forward edges blunt, of a socket on one of the members and adapted to receive an end of the thread therein, whereby the thread can be engaged by the other member when the members are relatively closed to securely grip the thread in the socket, and a cutting edge formed on the socket, by sharpening the free longitudinal edge thereof, said edge lying adjacent to the inner edge of the socket carrying member whereby the thread can be cut while said thread is gripped by said members by passing said thread over the said cutting edge.

1,131,505. CASE FOR CIGARETTE-PAPERS. PAUL GOURSAT, Angoulême, France, assignor to Société Anonyme d'Exploitation des Papeteries L. Lacroix Fils, Angoulême, France. Filed Jan. 30, 1914. Serial No. 815,486. (Cl. 206—57.)

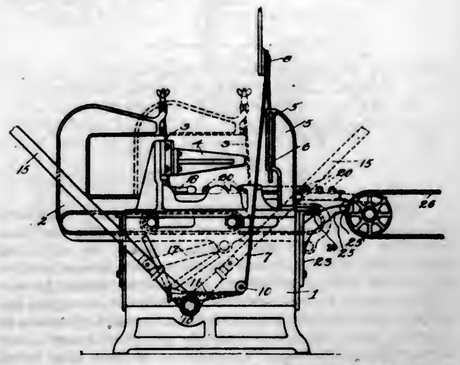


1. A case for cigarette papers, comprising a back upon which a stack of cigarette papers may be supported, an end flap arranged in extension of said back and adapted to embrace and overlie the stack at one margin, a cover flap arranged in extension of the other end of the back and adapted to embrace and overlie the opposite margin of the stack, together with an elastic passing from beneath the stack transversely across said end flap to hold the latter in position above the stack, the free end of the cover flap being adjustable beneath the elastic in the closed condition of the case, substantially as described.

2. A case for cigarette papers, comprising a back upon which a stack of cigarette papers may be supported, an end flap arranged in extension of said back and adapted to embrace and overlie the stack at one margin, a cover flap arranged in extension of the other end of the back and adapted to embrace and overlie the opposite margin of the stack, together with an elastic passing from beneath the stack transversely across said end flap to hold the latter in position above the stack, the free end of the cover flap being adjustable beneath the elastic in the closed condition of the case, said end flap being apertured at its opposite margins in register with the elastic whereby the latter may engage in said apertures to hold said end flap permanently in position.

3. A case for cigarette papers, comprising a back upon which a stack of cigarette papers may be supported, an end flap arranged in extension of said back and adapted to embrace and overlie the stack at one margin, a cover flap arranged in extension of the other end of the back and adapted to embrace and overlie the opposite margin of the stack, together with an endless elastic passing from beneath the stack transversely across said end flap to hold the latter in position above the stack, the free end of the cover flap being adjustable beneath the elastic in the closed condition of the case, substantially as described.

1,131,506. BRICKMAKING-MACHINE. EDMUND GURNEY, Portland, Oreg., assignor to P. J. Burns, Portland, Oreg. Filed Dec. 27, 1912. Serial No. 738,913. (Cl. 25—113.)



1. In a machine of the class described, the combination of a carriage having brick supporting means thereon, means for actuating said carriage to impart delivery movement thereto, a stop adapted to engage bricks supported by

the carriage to prevent movement of said bricks with the carriage, means adapted to receive the bricks thereon through the action of the stop on said bricks, and mechanism for controlling said stop.

2. In a machine of the class described, the combination of a carriage adapted to support bricks thereon, means to receive the bricks from the carriage, and mechanism for controlling the delivery of the bricks from the carriage to the last mentioned means, including a stop operable so as not to engage the bricks when the carriage moves in one direction, but to engage said bricks when the carriage moves in the other direction.

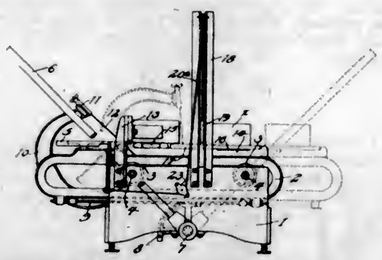
3. In a machine of the class described, the combination of a carriage adapted to support bricks thereon, means to receive the bricks from the carriage, and mechanism for controlling the delivery of the bricks from the carriage to the last mentioned means, including a stop operable so as not to engage the bricks when the carriage moves in one direction, but to engage said bricks when the carriage moves in the other direction, and means for operating the carriage adapted to control the operation of said stop.

4. In a machine of the class described, the combination of a carriage adapted to support bricks thereon, means to receive the bricks from the carriage, and mechanism for controlling the delivery of the bricks from the carriage to the last mentioned means, including a stop operable so as not to engage the bricks when the carriage moves in one direction, but to engage said bricks when the carriage moves in the other direction, a lever for reciprocating the carriage back and forth, and means intermediate the lever and said stop to control the operation of the latter.

5. In a machine of the class described, the combination of a carriage adapted to support bricks thereon, means to receive the bricks from the carriage, and mechanism for controlling the delivery of the bricks from the carriage to the last mentioned means, including a stop operable so as not to engage the bricks when the carriage moves in one direction, but to engage said bricks when the carriage moves in the other direction, an operating device for actuating the carriage, an actuating lever connected with the stop, and a member supported by the operating device and operative to impart movement to the actuating lever when the operating device is moved in one direction.

[Claims 6 to 13 not printed in the Gazette.]

1,131,507. BRICK-HANDLING MACHINE. EDMUND GURNEY, Portland, Oreg., assignor to P. J. Burns, Portland, Oreg. Filed Sept. 19, 1913. Serial No. 790,766. (Cl. 25—113.)



1. In a brick handling machine of the class described, the combination of a back and forth movable carriage, operating means for said carriage, means for supplying brick to the carriage, a stop board movable into a position out of the path of movement of the brick when the carriage is moved in one direction and adapted to engage the brick as the carriage is moved in an opposite direction to transfer said brick to a suitable point of deposit, and means for controlling the movement of said stop board comprising a trip lever and co-acting trip arm mounted independently of and operable from the carriage in its movement.

2. In a brick handling machine of the class described, the combination of a back and forth movable carriage, operating means for said carriage, means for supplying brick to the carriage, a stop board movable into a position out of the path of movement of the brick when the carriage is moved in one direction and adapted to engage the brick as the carriage is moved in an opposite direction to transfer said brick to a suitable point of deposit, means for controlling the movement of said stop board comprising a trip lever mounted independently of and operable from the carriage in its movement, and a trip arm having interlocking relation with respect to said lever and engageable by the carriage to impart movement to the lever.

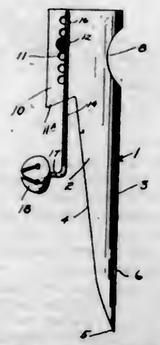
3. In a brick handling machine of the class described, the combination of a back and forth movable carriage, operating means for said carriage, means for supplying brick to the carriage, a stop board movable into a position out of the path of movement of the brick when the carriage is moved in one direction and adapted to engage the brick as the carriage is moved in an opposite direction to transfer said brick to a suitable point of deposit, means for controlling the movement of said stop board comprising a trip lever mounted independently of and operable from the carriage in its movement, a trip arm having interlocking relation with respect to said lever and engageable by the carriage to impart movement to the lever, and a common axis for the trip arm and lever.

4. In a brick handling machine of the class described, the combination of a back and forth movable carriage, operating means for said carriage, means for supplying brick to the carriage, a stop board movable into a position out of the path of movement of the brick when the carriage is moved in one direction and adapted to engage the brick as the carriage is moved in an opposite direction to transfer said brick to a suitable point of deposit, means for controlling the movement of said stop board comprising a trip lever mounted independently of and operable from the carriage in its movement, a trip arm coöperating with the lever to actuate the latter and arranged in the path of movement of the carriage for direct impingement by the latter, and a connection intermediate the lever and arm whereby said parts move together in one direction and are susceptible of movement one independently of the other in an opposite direction.

5. In a brick handling machine, the combination of a carriage and its operating means, a stop board associated with the carriage and movable into and out of the path of brick supported on the carriage, and means to control the movement of the said stop board comprising an operating member connected with the stop board and a trip member operable from the carriage to actuate said operating member and movable independently of the operating member so that the latter may remain inactive under certain conditions of service.

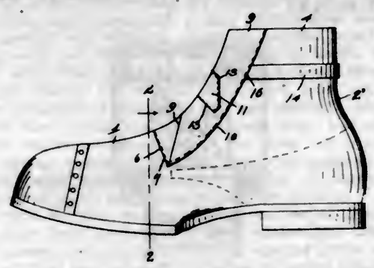
[Claims 6 and 7 not printed in the Gazette.]

1,131,508. FISHING-ROD SUPPORT. ALONZA C. HALL, Richmond, Va. Filed Mar. 6, 1914. Serial No. 822,955. (Cl. 248—37.)



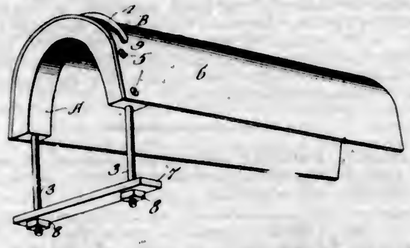
A fishing rod support comprising a sheet metal device having a pointed end, a perforation for receiving a screw eye to connect the support to the gunwale of a boat, said device being provided with spaced flanges having a series of perforations therein and a pin adjustably mounted in said perforations, said device being provided with an opening to receive a fishing rod and said pin adapted to be adjusted in said perforations to support the rod at any required inclination.

1,131,509. SHOE-FASTENING. OLAF H. HANSEN, Glasgow, Mont. Filed Apr. 25, 1914. Serial No. 834,454. (Cl. 36—50.)



A shoe having, in combination, an inner closure member extending from one side of the upper, an outer closure member secured to the other side of the upper, said outer member being slotted and the side walls of the slot brought together to give to the member a curvature corresponding to the configuration of the ankle, means holding the side walls in engagement, and means for securing the members in closed position.

1,131,510. SAND-BAND. GEORGE WM. HART, Auburn, Wash. Filed Jan. 25, 1910. Serial No. 540,054. (Cl. 21—40.)



1. A device of the class described comprising an axle engaging bow or saddle having vertically apertured side members, a yoke having limbs extending therethrough, and a guard plate clamped between the yoke and the saddle.

2. A device of the class described comprising an axle engaging saddle having perforated side members, a yoke having limbs extending through said side members, a clip plate and nuts on said limbs, a guard plate having apertures for the passage of the limb of the yoke, a portion of said guard plate being clamped between the yoke and the saddle, and fastening members whereby the corners of the guard plate are secured on the saddle.

1,131,511. MEANS FOR IMPARTING ENERGY FROM ONE BODY OF GASEOUS FLUID TO ANOTHER AND THE UTILIZATION OF THE RESULTING PRODUCT. JOHN A. HART, Blackburn, England. Filed May 4, 1912. Serial No. 695,298. (Cl. 60—28.)

1. Multi-stage injector apparatus for imparting energy from one body of gaseous fluid to another, comprising a plurality of stages arranged in series and each having a combining chamber, inlet means for the driving stream of gas, inlet means for the driven stream of gas, means for leading part of the gas from the combining chamber to one of the inlet means of the next chamber, means for leading another part out laterally, said means having the form of a passage parallel at the point at which the gas enters it with the direction of flow of the gas in the chamber adjacent this point, a side pipe into which the second portion of the gas is led, and means for leading the gas from the side pipe into one of the inlet means in another stage.



2. Multi-stage injector apparatus for imparting energy from one body of gaseous fluid to another, comprising a plurality of stages arranged in series and each having a combining chamber, inlet means for the driving stream of gas, inlet means for the driven stream of gas, the inlets and the chamber walls acting as means for causing the streams to flow side by side in directions which lie parallel with each other into and in the chamber, and outlet means for dividing the gas as it leaves the combining chamber into two parts and carrying these to different stages.
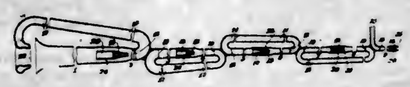
3. Multi-stage injector apparatus for imparting energy from one body of gaseous fluid to another, comprising a plurality of stages each having a combining chamber, inlet passages for the driving and driven streams, the walls of each of said passages being substantially parallel with the walls of the other passages in the neighborhood of the point of discharge so that the streams are sent into the combining chamber side by side in directions which lie parallel with each other, and outlet means for dividing the gas as it leaves the combining chamber into two parts and carrying them to different stages.

4. Multi-stage injector apparatus for imparting energy from one body of gaseous fluid to another, comprising a plurality of stages each having a combining chamber, means for causing a plurality of gas streams to flow side by side into the combining chamber in directions which lie parallel with each other, and outlet means for dividing the gas as it leaves the combining chamber into two parts and carrying them to different stages.

5. Multi-stage injector apparatus for imparting energy from one body of gaseous fluid to another, comprising a plurality of stages each having a combining chamber, inlet means for the driving stream of gas, inlet means for the driven stream of gas, means for leading part of the gas from the combining chamber to one of the inlet means of the next chamber, means for leading another part out laterally, said means having the form of a passage parallel at the point at which the gas enters it with the direction of flow of the gas in the chamber adjacent this point, a side pipe into which the second portion of the gas is led, and means for leading the gas from the side pipe into one of the inlet means in another stage.

[Claims 6 to 96 not printed in the Gazette.]

1,131,512. MEANS FOR PRODUCING AND UTILIZING ENERGIZED GASEOUS FLUID. JOHN ALSTON HART, Blackburn, England. Original application filed May 4, 1912, Serial No. 695,298. Divided and this application filed June 16, 1913. Serial No. 774,024. (Cl. 60—36.)



1. Means for producing energized gaseous fluid, comprising an engine receiving elastic fluid and working with expansion of said fluid, means for taking out a portion of the said fluid from the engine during expansion, injector means for transferring energy from the said portion to another body of gaseous fluid, and means for utilising the action of said injector means in producing the flow of a gaseous body into the working space of the engine.

2. Means for producing energized gaseous fluid, comprising an engine receiving elastic fluid and working with

expansion of said fluid, means for taking out a portion of the said fluid from the engine during expansion, means for limiting the range of pressure during which the said portion is taken out from the engine, injector means for transferring energy from the said portion to another body of gaseous fluid, and means for utilizing the action of said injector means in producing the flow of a gaseous body into the working space of the engine.

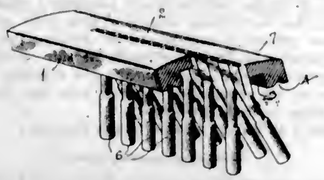
3. Means for producing energized gaseous fluid, comprising an engine receiving elastic fluid and working with expansion of said fluid, means for taking out a portion of the said fluid from the injector during expansion, a receiver for the fluid taken out from the engine, injector means connected with said receiver for transferring energy from the fluid supplied by the receiver to another body of gaseous fluid, and means for utilizing the action of said injector means in producing the flow of a gaseous body into the working space of the engine.

4. Means for producing energized gaseous fluid, comprising an engine receiving elastic fluid and working with expansion of said fluid, means for taking out a portion of the said fluid from the engine during expansion, means for limiting the range of pressure during which the said portion is taken out from the engine, a receiver for the fluid taken out from the engine, injector means connected with said receiver for transferring energy from the fluid supplied by the receiver, to another body of gaseous fluid, and means for utilizing the action of said injector means in producing the flow of a gaseous body into the working space of the engine.

5. Means for producing energized gaseous fluid, comprising an engine receiving elastic fluid and working with expansion of said fluid, means for taking out a portion of the said fluid from the engine during expansion, a receiver for the fluid taken out from the engine, injector means connected with said receiver for transferring energy from the fluid supplied by the receiver, to another body of gaseous fluid, a second receiver connected with the injector means, and means for putting this second receiver in communication with the working space of the engine.

[Claims 6 to 32 not printed in the Gazette.]

1,131,513. TRACKER-BAR. FOREST H. HARTZELL, Dayton, Ohio, assignor to The Crown Manufacturing Company, Dayton, Ohio, a Corporation of Ohio. Filed Jan. 2, 1913. Serial No. 739,747. (Cl. 84—165.)

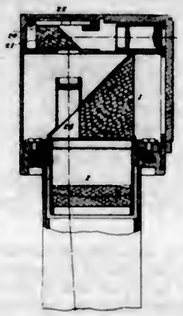


1. In a tracker bar for a mechanical player employing a perforated master sheet, a bar comprising a single unit having a single continuous longitudinal slot therein, a plurality of tubular members permanently secured side by side in said slot the terminal tubes of the plurality bearing upon the ends of the slots to maintain the intermediate tubes in contact one with the other.

2. In a tracker bar for a mechanical player employing a perforated master sheet, an integral continuous bar having a continuous slot longitudinally disposed therein, whereby an unslotted portion of the bar is left at each terminal thereof, a plurality of tubular members located side by side in said slot, each tubular member being in contact with the adjacent tubular members, the terminal tubular members being in contact with the opposite ends of the slot whereby the intermediate tubes are maintained in contact one with the other.

3. A tracker bar comprising, a collection of tubular members arranged side by side in contact one with the other, and a supporting bar having a continuous slot therein substantially equal in length to the length of the collection of tubular members into which the collection of tubular members is inserted, the contact of the intermediate members one upon the other being maintained by the engagement of the terminal members with the opposite ends of the slot.

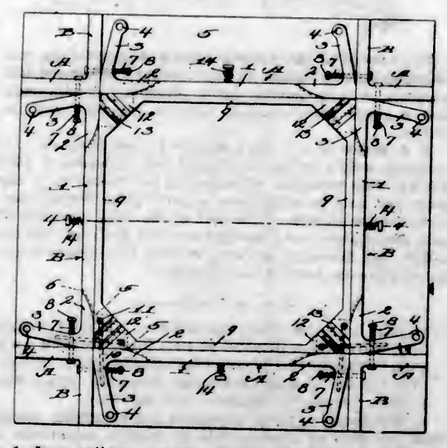
1,131,514. PERISCOPE AND THE LIKE. JOHN WILLIAM HASSELKUS, Clapham Common, London, England, assignor to Ross Limited, Clapham Common, London, England. Filed May 18, 1912. Serial No. 698,235. (Cl. 88—2.6.)



1. In a periscope, a main sighting aperture and a main prism for deflecting the image therefrom, in combination with an auxiliary sighting aperture and an auxiliary deflecting prism for deflecting the image therefrom, said main prism being apertured to permit the unimpeded passage therethrough of the image from the auxiliary deflecting prism system to the main system, substantially as described.

2. In a periscope having a main sighting aperture, a prism for deflecting the image therefrom, an auxiliary sighting aperture and means for deflecting the image from the latter through the main deflecting prism, the latter being apertured to permit the unimpeded passage therethrough of the image from the auxiliary sighting aperture, substantially as described.

1,131,515. RAILWAY-CROSSING. ARTHUR W. HERRING, Toledo, Ohio. Filed July 25, 1914. Serial No. 853,095. (Cl. 104—116.)



1. In a railway crossing the combination of intersecting rails, each comprising a fixed intermediate member and movable end members, pivotally mounted levers carrying said members and extending at angles therefrom and lever members extending between said end members at each side of the crossing and having their end portions pivotally connected to the end members between which they extend, each lever member having its end portions formed with cam faces arranged to coact with similarly formed cam faces provided at the adjoining ends of the angularly disposed lever members, the lever members being located adjacent and at the inner sides of said fixed rail members.

2. In a railway crossing the combination of intersecting rails, each comprising a fixed intermediate member and movable end members, pivotally mounted levers carrying said end members and extending at angles therefrom, lever members extending between said end members at each side of the crossing and having their end portions pivotally connected to the end members between which they extend, the lever members being located adjacent and at the inner sides of said fixed rail members, and spring means for holding said end members normally against those portions of the rails of which they form parts which are located beyond the crossing.

3. In a railway crossing the combination of intersecting rails, each comprising a fixed intermediate member and movable end members, pivotally mounted levers carrying said end members and extending at angles therefrom and lever members extending between said end members at each side of the crossing and having their end portions pivotally connected to the end members between which they extend, each lever member having its end portions formed with cam faces arranged to coact with similarly formed cam faces provided at the adjoining ends of the angularly disposed lever members, the lever members being located adjacent and at the inner sides of said fixed rail members, the adjoining end portions of the lever members being formed with overlapping flanges and the said cam faces being beveled off above said flanges.

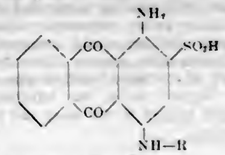
4. In a railway crossing the combination of intersecting rails, each comprising a fixed intermediate member and movable end members, pivotally mounted levers carrying said members and extending at angles therefrom, lever members extending between said end members at each side of the crossing and having their end portions pivotally connected to the end members between which they extend, each lever member having its end portions formed with cam faces arranged to coact with similarly formed cam faces provided at the adjoining ends of the angularly disposed lever members, the lever members being located adjacent and at the inner sides of said fixed rail members, and spring means for holding said end members normally against those portions of the rails of which they form parts which are located beyond the crossing.

5. In a railway crossing the combination of intersecting rails, each comprising a fixed intermediate member and movable end members, pivotally mounted levers carrying said end members and extending at angles therefrom, lever members extending between said end members at each side of the crossing and located adjacent and at the inner sides of said fixed rail members and connections between the ends of said lever members and the adjacent end members between which said lever members extend, comprising stems fitted to said end members for sliding movement in the direction of their axes and projecting therefrom under said lever members and angular extensions provided on the projecting ends of said stems and pivotally fitted to said lever members.

[Claims 6 to 9 not printed in the Gazette.]

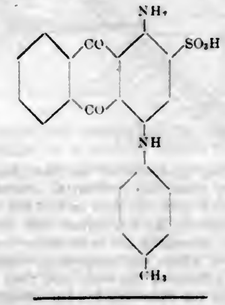
1,131,516. GREENISH-BLUE DYES OF THE ANTHRAQUINONE SERIES. WILHELM HERZBERG, Berlin-Wilmersdorf, and GERHARD HOPPE, Berlin-Treptow, Germany, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed July 1, 1914. Serial No. 848,430. (Cl. 8—1.)

1. The new dyes which are in the dry pulverized shape dark blue powders soluble in water with a greenish-blue color, which form with hydrochloric acid blue-red hydrochlorids, which dye wool greenish-blue tints and which correspond to the general formula:

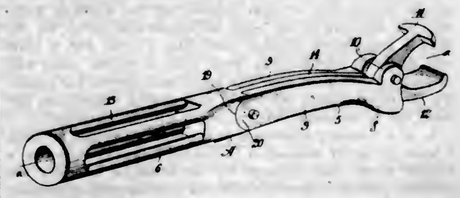


R meaning an aromatic radical.

2. The new dye which is in the dry pulverized shape a dark blue powder soluble in water with a greenish-blue color, the dye forming with hydrochloric acid a blue-red hydrochlorid, the dye producing on wool greenish-blue tints and consisting of 4-para-tolylaminoanthraquinone-2-sulfonic acid of the formula:



1,131,517. STOVE-LID LIFTER. RAYMOND L. HICKMAN, Portland, Oreg. Filed Apr. 7, 1914. Serial No. 830,241. (Cl. 126—323.)

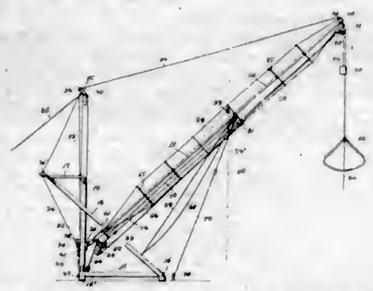


A device of the class described comprising an inner and outer section, said inner section having a base and spaced parallel members projecting therefrom, a fixed jaw formed on said base, a movable jaw pivoted on said inner section above the fixed jaw, a lever extension formed on the outer section and pivotally connected between said parallel members, the free end of said lever engaging said movable jaw for operating the same and adapted to abut said base to limit the movement of said lever in one direction, and a flat spring secured to said outer section and engaging said inner section to retain said lever positioned between said parallel members flush with the opposite edges thereof and to retain said jaws normally separated.

1,131,518. HAY-STACKER. BRUCE HODGMAN, Shoshone, Idaho. Filed Apr. 18, 1913. Serial No. 762,088. (Cl. 212—53.)

1. In a hoisting apparatus of the class described, a mast, a boom pivotally connected therewith, a flexible supporting element connected with the free end of the boom, a horizontally disposed sleeve at the upper end of said mast and a laterally adjustable pulley slidably mounted on said sleeve over which said supporting element is guided, the said pulley throwing the intermediate portion of said flexible supporting element out of the same vertical plane with its extremities.

2. In a hoisting apparatus of the class described, a mast, a boom pivotally connected therewith, a flexible supporting element connected with the free end of the boom, a horizontally disposed sleeve at the upper end of said mast, a laterally adjustable pulley adjustably mounted on said sleeve over which said supporting element is guided for throwing the intermediate portion of the flexible supporting element out of the same vertical plane with its extremities, and flexible means for adjusting the pulley transversely with respect to the mast and for securing it in hoisted position.



3. In a hoisting apparatus of the class described, a mast, a boom pivotally connected therewith, a flexible supporting element connected with the free end of the boom, a sleeve disposed transversely at the upper end of said mast, a slide adjustably mounted on said sleeve and carrying a guide pulley over which the supporting element is guided, and means for adjusting the slide and then securing it in adjusted position for throwing the intermediate portion of said flexible element out of the same vertical plane with its extremities.

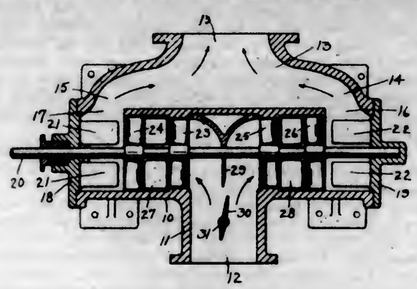
4. In a hoisting apparatus of the class described, a mast, a boom pivotally connected therewith, a winding drum, a flexible supporting element connecting the winding drum with the free end of the boom, an adjustable pulley for the flexible supporting element including a slide and a slide rest disposed transversely with respect to the mast and carried by said mast near the upper end thereof for throwing the intermediate portion of said flexible supporting element out of the same vertical plane with its extremities.

5. In a hoisting apparatus of the class described, a mast, a boom pivotally connected therewith to swing laterally, a flexible supporting element for the boom, a laterally adjustable guided element over which the supporting element is guided, a check member to limit lateral drift of the boom, means for swinging the boom laterally in a direction opposite to that in which it normally drifts by gravitation, said means including a winding drum and a flexible element having one extremity connected to said drum and the remaining extremity connected to a stationary support, means for rotating the winding drum including a load carrier hoisting element, a pulley over which said hoisting element is guided, and mating clutch members on the pulley and the winding drum, and means for moving the winding drum to place it into or out of locking engagement with the guide pulley.

[Claim 6 not printed in the Gazette.]

1,131,519. LIQUID-IMPELLING DEVICE. EDGAR P. HOLLY, Boston, Mass., assignor to Holly Steam Engineering Company, New York, N. Y., a Corporation of Rhode Island. Filed July 5, 1912. Serial No. 707,748. (Cl. 115—16.)

1. A fluid impelling device comprising a casing having a central inlet passageway, and a common discharge chamber having passageways leading therefrom toward and communicating with said casing ou either side of said inlet, a driving shaft in said casing, two sets of propellers each located on opposite sides of and between said supply opening and said discharge passageways and arranged to pull in opposite directions on said shaft, a stream dividing partition between said sets of propellers, and an adjustable deflecting blade in said inlet passageway.



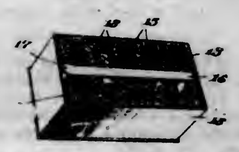
2. A fluid impelling device comprising a casing having a central inlet passageway, and a common discharge chamber having passageways leading therefrom toward and communicating with said casing near its ends, a driving shaft in said casing, two sets of propellers each located on opposite sides of and between said supply opening and said discharge passageways and arranged to pull in opposite directions on said shaft, a stream dividing partition between said sets of propellers, and a plurality of guide plates adjacent each set of propellers.

3. A fluid impelling device comprising a casing having a central inlet passageway and a common discharge chamber having passageways leading therefrom toward and communicating with said casing near its ends, a driving shaft in said casing, two sets of propellers each located on opposite sides of and between said supply opening and said discharge passageways and arranged to pull in opposite directions on said shaft, a stream dividing partition between said sets of propellers, an adjustable deflecting blade in said inlet passageway, and a plurality of guide plates adjacent each set of propellers.

4. A fluid impelling device comprising a casing having a central inlet passageway, discharge passageways on either side thereof, a driving shaft in said casing, two sets of propellers each located on opposite sides of and between said supply opening and said discharge passageways and arranged to pull in opposite directions on said shaft, a stream dividing partition between said sets of propellers, said casing having removable heads, and blades on said heads extending into said discharge passageways to prevent the fluid from whirling.

5. A fluid impelling device comprising a casing having a central inlet passageway, a common discharge chamber having passageways leading therefrom toward and communicating with said casing on either side of said inlet, a driving shaft in said casing, two sets of propellers each located on opposite sides of and between said supply opening and said discharge passageways and arranged to pull in opposite directions on said shaft, and an adjustable deflecting blade in said inlet passageway, said casing having removable heads, and blades on said heads extending into said discharge passageways to prevent the fluid from whirling.

1,131,520. BOX. FLORENCE A. HORNOR, Chesterfield, N. J. Filed May 29, 1914. Serial No. 841,846. (Cl. 229—51.)

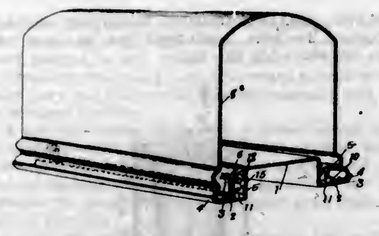


As a new article of manufacture, a box comprising a box body, a cover for the box body, a series of transversely extending cross pieces formed with the cover to provide a series of transverse openings through which the contents of the box body can be seen, said cover being rigidly secured to the box body, and a longitudinal tearing member crossing the cross pieces at their medial portions and secured thereto, with an edge of the tearing member free to form a handle whereby it can be grasped and removed, thereby tearing the cross pieces and mutilating the said cover, said tearing member lying flat against the cross pieces and also secured to the main portion of the cover.

1,131,521. WELDING-FLUX. WILLIAM W. HOUT, Cortland, N. Y. Filed June 23, 1914. Serial No. 846,876. (Cl. 75—187.)

A welding flux or compound consisting of boracic acid; iron or steel particles; furnace dross, and calcined marble-dust.

1,131,522. LOCK FOR GRAVE-VAULTS. CHARLES LESTER JOHNSON, Springfield, Ohio, assignor to The Champion Chemical Company, Springfield, Ohio, a Corporation of Ohio. Filed Nov. 20, 1914. Serial No. 873,086. (Cl. 27—12.)



1. The combination, with a base, and a closure, one of said members having a locking portion, of a locking device carried by the other of said members and having lateral movement into a plurality of different locking positions relatively to the member by which it is carried to enable it to coöperate with the locking portion of the first-mentioned member when the latter is in different positions relatively to the member carrying said locking device.

2. The combination, with a base, and a closure, one of said members having a locking portion, of a locking device yieldably mounted on the other of said members and having movement into a plurality of different operative positions relative to the member upon which it is mounted to enable it to coöperate with said locking portion when the latter is in different positions relative to the member carrying said locking device.

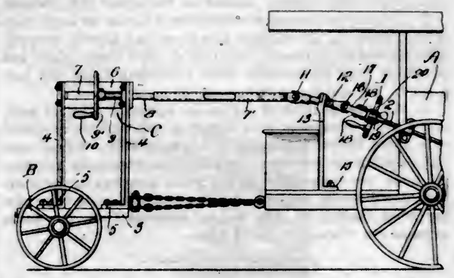
3. The combination, with a base, and a closure, one of said members having a locking portion, of a detent movably mounted on the other of said members and having a locking portion extending transversely to, and arranged for movement across the path of, the first-mentioned locking portion, the locking portion of said detent having different parts arranged to be moved successively into operative relation with the locking portion of said first-mentioned member.

4. The combination, with a base, and a closure, one of said members having a locking portion, of a detent pivotally mounted near one end on the other of said members and having at its other end a nose arranged to move transversely to and across the path of said locking portion to bring different parts of said nose into operative relation thereto.

5. The combination, with a base, and a closure, one of said members having a locking portion, of a detent pivotally mounted at one end on the other of said members and having a plurality of teeth arranged in a line remote from and extending transversely to its axis, any one of which teeth may be moved into operative relation to said locking portion by the pivotal movement of said detent, the operative position of each tooth being spaced a different distance from the member carrying said detent.

[Claims 6 to 16 not printed in the Gazette.]

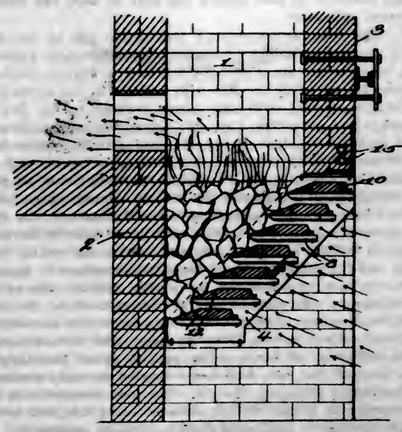
1,131,523. STEERING ATTACHMENT FOR TRACTION-ENGINES. ELMER JOHNSON, Claremont, S. D. Filed Mar. 6, 1914. Serial No. 822,987. (Cl. 21—192.)



1. Steering apparatus adapted to be connected to the steering mechanism of a traction engine and capable of being operated from the platform of the object drawn by the traction engine, the same comprising a longitudinally extensible steering shaft, a hand controlled wheel on the rear end thereof, means at the forward extremity of said shaft adapted to engage the hand controlled steering wheel of the traction engine, and a supporting rack along which the rear portion of said shaft is slidable laterally.

2. Steering apparatus adapted to be connected to the steering mechanism of a traction engine and capable of being operated from the platform of the object drawn by the traction engine, the same comprising a longitudinally extensible steering shaft, a hand controlled wheel on the rear end thereof, and means at the forward extremity of said shaft adapted to engage the hand controlled steering wheel of the traction engine, said extension shaft comprising a rear extensible section, an intermediate section connected by a universal joint to said rear section, a forward section connected by a universal joint to the intermediate section, and a bearing bracket in which said intermediate section is journaled.

1,131,524. FURNACE-GRATE. THOMAS M. KEKICH, Chicago, Ill. Filed June 28, 1913. Serial No. 776,391. (Cl. 126—152.)



1. A grate for furnaces embodying a series of horizontal relatively fixed grate bars spaced in an inclined direction

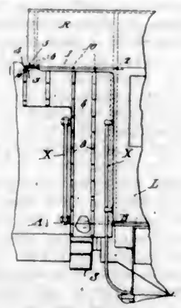
and also spaced vertically, said grate bars being substantially solid and having at their inner ends overlapping downwardly sloping surfaces and having air-feeding holes leading to said downwardly sloping surfaces.

2. A grate for furnaces embodying a series of relatively fixed grate bars spaced in an inclined direction and having at their upper inner ends overlapping downwardly sloping surfaces, each bar being solid and having a longitudinal row of air-feeding holes leading from the under side to the downwardly sloping surface on the upper side thereof.

3. A grate for furnaces embodying a series of grate bars spaced apart in an inclined direction and having overlapping downwardly sloping surfaces at their inner edges and provided with air-feeding holes extending from the bottoms to the sloping surfaces on the tops thereof.

4. The combination of a furnace having a vertical wall, and a grate composed of a series of spaced bars arranged in a plane inclined downwardly toward said vertical wall and forming therewith a fire-box of substantially triangular form, the inner ends of the grate bars having overlapping downwardly sloping surfaces, and the grate bars having holes leading to said sloping surfaces from the under sides of the respective grate bars.

1,131,525. LOCOMOTIVE-CURTAIN. WILLIAM F. KELLEY, Chicago, and ORIE L. WOOD, Clinton, Ill. Filed Dec. 4, 1914. Serial No. 875,507. (Cl. 105—17.)



1. The combination with a locomotive cab or the like, of a curtain, including a support having a seat at one end, a flexible element, spaced stiffening means extending from the top to the bottom of said element and lapping the floor of the cab, and a slidable connection between each of the stiffening means and the support, one of said connections being adapted to rest within the seat to hold the flexible element extended.

2. The combination with a locomotive cab or the like, of a curtain including a substantially horizontal supporting element having a seat at one end, a flexible element, means for securing one side edge thereof to the locomotive structure, spaced stiffening means secured to the flexible element and extending from the top to the bottom thereof and lapping the floor of the cab, and slidable connections between the upper ends of said stiffening means and the supporting element, one of said connections being adapted to engage the seat to hold the flexible element extended.

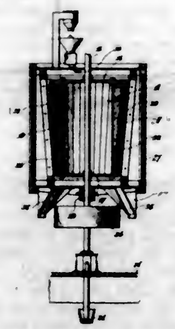
3. The combination with a locomotive cab or the like, of a curtain including a substantially horizontal supporting rod having a seat at one end, means extending from said end for engaging the locomotive structure to support the rod in active position, a flexible element, means for securing one side edge of said flexible element to the locomotive structure, stiffening elements secured to the flexible element and extending from the top to the bottom hereof, said stiffening elements being spaced apart and lapping the floor of the cab, and loops carried by said elements and slidably engaging the rod, that loop remote from the fastened side of the flexible element being adapted to engage the seat to hold said flexible element extended.

4. The combination with the cab of a locomotive or the like, of a supporting element secured to the roof thereof and having a seat adjacent one end, a curtain having its lower end extending below one side of the deck of the cab, spaced stiffening means secured to the curtain and extending from the top to the bottom thereof, and slidable connections between the upper ends of said stiffening means and the supporting means, one of said connections being adapted to engage the seat to hold the curtain extended, said stiffening means coöperating with the side of the deck to prevent the curtain from buckling inwardly.

5. The combination with the cab of a locomotive or the like, of a supporting element secured to the roof thereof and having a seat adjacent one end, a curtain having its lower end extending below one side of the deck of the cab, spaced stiffening means secured to the curtain and extending from the top to the bottom thereof, slidable connections between the upper ends of said stiffening means and the supporting means, one of said connections being adapted to engage the seat to hold the curtain extended, said stiffening means coöperating with the side of the deck to prevent the curtain from buckling inwardly, and a connection between one side edge of the curtain and the cab structure, said curtain being adapted to swing outwardly about its supporting means to permit the entrance or exit of a person to or from the cab.

[Claims 6 and 7 not printed in the Gazette.]

1,131,526. GRAIN-SCOURING MACHINE. ROBERT H. KLEISER, De Witt, Ark. Filed Oct. 29, 1913. Serial No. 798,082. (Cl. 83—31.)



1. In a machine of the class described, a cone-shaped scouring member comprising annularly flanged upper and lower heads, staves fitted between said heads and having bristles constituting brushes, clamp rods connecting the heads, and an annular resilient flange surrounding the scouring member and projecting between but not beyond the bristles.

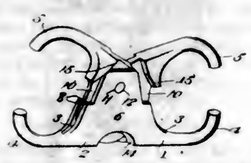
2. In a machine of the class described, a cone-shaped scouring member comprising annularly flanged upper and lower heads, staves fitted between said heads and having bristles constituting brushes, clamp rods connecting the heads, and an annular resilient flange surrounding the scouring member and projecting between but not beyond the bristles, in combination with a cone-shaped screen surrounding and concentric with the scouring member.

3. In a machine of the class described, a cone-shaped member carrying annularly flanged upper and lower heads, staves fitted between said heads and having bristles constituting brushes, clamp rods connecting the heads, and an annular resilient flange surrounding the scouring member and projecting between but not beyond the bristles, in combination with a cone-shaped screen surrounding and concentric with the scouring member, a vertical shaft carrying the scouring member, and means for effecting adjustment of the shaft to vary the space between the scouring member and the screen.

4. In a machine of the class described, a scouring member of circular cross section supported for rotation and having radially extending bristles, in combination with an annular flange supported in the interspaces between the bristles, said flange being of a width approximately equal to the length of the bristles, and a screen of circular cross section surrounding, concentric with and spaced from the scouring member.

5. In a machine of the class described, a scouring member of circular cross section supported for rotation and having radially extending bristles, in combination with an annular flange of flexible material fitted in the interspaces between the bristles, and supporting members for the said flange having forked heads wherein the flange is mounted.

1,131,527. COW-TAIL HOLDER. JOHN LOUIS KUNKLE, McCoysville, Pa. Filed Sept. 10, 1913. Serial No. 789,102. (Cl. 119—105.)



1. A reversible cow tail holder comprising a frame formed with oppositely disposed stationary jaws, a pair of jaws pivoted in said frame and movable toward and away from said stationary jaws, and means formed on said movable jaws and coöperating to simultaneously lock said jaws in closed position.

2. A cow tail holder comprising a frame having oppositely disposed stationary jaws and spaced resilient ears, a pair of oppositely movable jaws pivoted between said ears, means for opening said jaws against tension of the ears, and means for automatically locking said jaws under the tension of the ears.

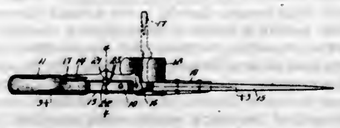
3. A cow tail holder comprising a frame having oppositely disposed stationary jaws and spaced resilient ears, a pair of oppositely movable coöperating jaws pivoted between said ears, means formed on said movable jaws for moving the latter to open position against the tension of said ears and locking means on the first mentioned means for retaining said jaws closed under the tension of said ears.

4. A cow tail holder comprising a frame formed with oppositely disposed stationary jaws and spaced resilient upstanding ears disposed between said jaws, a pair of cooperating movable jaws pivoted between said ears, and means for automatically locking said movable jaws closed under the tension of said ears.

5. A cow tail holder comprising a frame formed with oppositely disposed stationary jaws and spaced resilient upstanding ears disposed between said jaws, a pair of movable jaws having pivot lugs arranged in overlapping engagement and pivoted between said ears, and means formed on said lugs for automatically locking said jaws closed under tension of said ears.

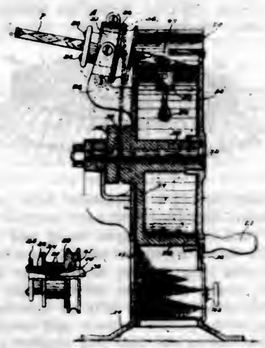
[Claims 6 to 11 not printed in the Gazette.]

1,131,528. MINER'S CANDLESTICK. THEODORE D. LANCE, Butte, Mont. Filed June 20, 1913. Serial No. 774,873. (Cl. 67—26.)



In a miner's candlestick the combination with a curved handle, of an integral shank formed by one end of the handle, a horizontal ledge formed with said shank and projecting from one side thereof, a supporting bar having its inner end lying upon said ledge and rigidly secured to said shank at the forward and rear ends of said shank with the other end of the handle bent inwardly to bear against an opposite face of the supporting bar and rigidly secured thereto, and a seat formed by cutting away a portion of said handle with said seat formed by the said cut away portion of the handle and a portion of the inner end of said supporting bar.

1,131,529. PENCIL-SHARPENER. ALBERT LEICHT, Sheboygan, Wis. Filed Oct. 9, 1911. Serial No. 653,659. (Cl. 51—1.)



In a pencil sharpener, the combination with a split spring drum, of a sharpening surface mounted upon said drum and adapted to be secured between the terminals thereof by means of the spring embodied in said drum, a plate secured to one terminal of said drum upon the inner surface thereof at a point centrally of the sides of said drum, and a cam lever pivotally secured to the other terminal of said drum at a point centrally of the sides thereof adapted to engage said plate, whereby the terminals of said drum may be forced apart to release said sharpening surface.

1,131,530. AUTO-SPRING. JOHN M. LIVESAY, Ronceverte, W. Va. Filed Aug. 25, 1914. Serial No. 858,537. (Cl. 21—13.)



A spring comprising a plurality of leaves and a base plate upon which the outer leaf rests, all of the leaves and the base plate being provided intermediate their ends and upon their edges with outstanding ears having openings, the openings in the ears of the base plate being countersunk and the base plate being thicker than any leaf, thereby to offset the weakening of the ears of the base plate caused by the countersinking thereof; bolts passing through the openings in the ears of the base plate and in the ears of the leaves, the bolts being provided with enlarged heads received in the countersunk openings of the ears of the base plate; and nuts threaded onto the bolts, the nuts bearing against the ears of the inner leaf; a portion of the constituent material of the base plate being struck downwardly, intermediate the securing devices and in alinement therewith, to form, at once, a hollow reinforcement for the base plate and a locking lug for holding the spring in place, the wall of the combined reinforcement and lug being of the same thickness as the base plate.

1,131,531. FUEL-BRIQUET COMPOSITION FOR IRON-ORE REDUCTION. WILLIAM LOESCH, Chicago, Ill., assignor of forty one-hundredths to George B. Storer, Chicago, Ill. Filed Apr. 14, 1913. Serial No. 761,126. (Cl. 44—1.)

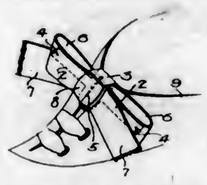
A plastic composition for forming fuel briquets for iron and ore reduction processes consisting of substantially one-hundred (100) parts of finely comminuted coke, from two (2) to five (5) parts of crude petroleum, from five (5) to ten (10) parts of ground limestone, twenty-five (25) parts of cement, and twenty-five (25) parts of water, said composition being mixed together and molded into briquets.

1,131,532. GARMENT. CHARLES W. MCCLURE, Atlanta, Ga. Filed Sept. 20, 1911, Serial No. 650,358. Renewed Nov. 17, 1914. Serial No. 872,636. (Cl. 2—98.)



A night shirt having a continuous neck and body portion of inelastic material, said neck portion being folded downwardly and upwardly upon itself and stitched circumferentially below its upper edge to provide a continuous pocket, said neck portion defining the pocket being taken up to permit expansion thereof, said downwardly folded portion being provided with an opening, an elastic tape inserted in the pocket through said opening, a buckle carried by one end of the tape and adapted to adjustably receive the opposite end so as to regulate the expansion and contraction of the pocket, and an integral flap closing said opening and detachably connected with the garment below said pocket.

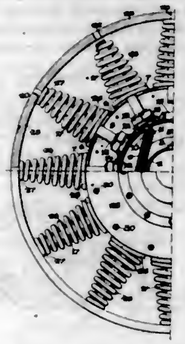
1,131,533. SHOE-LACE HOLDER. WILLIAM J. MCDEVITT, Philadelphia, Pa. Filed Feb. 25, 1913. Serial No. 750,554. (Cl. 24—119.)



A tie holder consisting of a flat body portion of sheet material having a flat integral projection lying substantially at right angles to its plane; a pin extending from said projection in a line substantially parallel to the plane of the body portion; and laterally extending supporting arms projecting in opposite directions from the body.

1,131,534. RESILIENT WHEEL. CHARLES MCKINNON and WILLIAM CHARLES BROUFF, Oaklands, New South Wales, Australia, assignors of one-half to Philip Parker Gell, Burrowgong, Corowa, Australia, and Clive McPherson, Yarrawonga, Moira, Australia. Filed Mar. 27, 1914. Serial No. 827,704. (Cl. 152—28.)

1. An improved resilient wheel, consisting in the combination with a hub, of an inner disk detachably secured to said hub, an outer ring around the hub and carried by said disk, said ring having a series of circumferentially elongated slots therein, an inner ring around said hub and disposed between the same and the outer ring, said inner ring having a series of holes formed therein, a rim around the outer ring, said rim having a series of holes formed therein, a tire carried by said rim, a series of spokes extending between the inner ring and the rim and passing through the slots, a reduced extremity at the outer end of each spoke, said reduced extremities being accommodated in the holes of the rim, a nut threaded upon the inner end of each spoke and bearing against the inner ring, the inner extremities of the spokes being accommodated in the holes of the inner ring, a helical spring encircling each spoke between the rim and the outer ring, and an outer disk extending between the outer ring and the hub.



2. An improved resilient wheel, consisting in the combination with a hub having studs protruding therefrom of an inner side disk secured to said studs, an outer ring encircling the hub and carried by said disk, said ring having a series of circumferentially elongated slots therein, an inner ring around the hub between the same and the outer ring, a series of holes formed in the inner ring, a series of spokes passing through the slots, the inner ends of said spokes being accommodated in the holes of the inner ring, a nut threaded upon the inner end of each spoke and bearing against the inner ring, a reduced extremity at the outer end of each spoke, a rim encircling the outer ends of the spokes, said rim having a series of holes therein into which the reduced spoke extremities pass, a tire secured to said rim, a helical spring encircling each spoke and bearing at its inner end against the outer ring and at its outer end against the rim, each spring being conical in elevation and oval in plan, an outer side disk detachably secured to the hub and extending to the outer ring, an annular protuberance projecting from said disk into said outer ring, and bolts passing through the inner and outer side disks.

3. In an improved resilient wheel, the combination with a hub having a series of lugs projecting therefrom, of a ring encircling said hub, said ring having a series of lateral keyways therein, a removable ring having a series of lateral keys projecting therefrom, said ring being disposed within the ring first mentioned with the keys engaging in the keyways, lugs projecting inwardly from the removable ring, and a series of pairs of tangential springs extending between and secured to the lugs of the hub and the lugs of the removable ring.

4. An improved resilient wheel, consisting of the combination with a hub of a first inner ring encircling said hub, a driving connection between and secured to the hub and said ring, a second inner ring around the first inner ring which latter is removable from within the second ring, said second inner ring having a series of holes formed therein, an outer ring encircling the second inner ring and attached to the hub, said outer ring having a series of slots formed therein, a rim around the outer ring, said rim having a series of holes formed therein, a series of spokes extending between the second inner ring and the rim and passing through the slots, the inner ends of the spokes being accommodated in the holes of the inner ring and the outer ends of the spokes being accommodated in the holes of the rim, a nut threaded upon the inner end of each spoke and bearing against the inner ring, and a helical spring encircling each spoke, each said spring bearing against the rim at its outer end and against the outer ring at its inner end.

5. An improved resilient wheel, consisting in the combination with a hub of a first inner ring encircling said hub, keys protruding outwardly from said ring, a second inner ring encircling the first inner ring, said second inner ring having keyways therein to accommodate said keys, a driving connection between and secured to the first inner ring and the hub, said second inner ring having a series of holes therein, an inner disk detachably secured to said hub, an outer ring around the hub and carried by said disk, said ring having a series of circumferentially elongated slots therein, a rim around the outer ring, said rim having a series of holes formed therein, a tire carried by said rim, a series of spokes extending between the second inner ring and the rim and passing through the slots, a reduced extremity at the outer end of each spoke, said reduced extremities being accommodated in the holes of the rim, a nut threaded upon the inner end of each spoke and bearing against the second inner ring, the inner extremities of the spokes being accommodated in the holes of the second inner ring, a helical spring encircling each spoke between the rim and the outer ring, and an outer disk extending between the outer ring and the hub.

[Claim 6 not printed in the Gazette.]

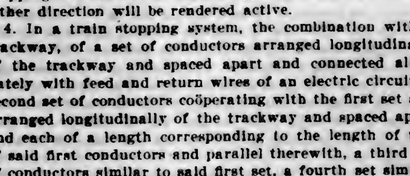
1,131,535. FLY-TRAP. LEONARD D. MCLEAN and GEORGE B. MCLEAN, Elizabeth, Ill. Filed Sept. 19, 1914. Serial No. 862,589. (Cl. 43—22.)



In a fly trap, the combination with two upright side bars consisting of strips made straight at their rear edges and curved at their upper ends, the bars being enlarged near their upper portion into wings, a series of transverse elements each having holes, a series of front panels of wire screening connecting the front edge of one element with the rear edge of the element above, and means for connecting the upright and transverse elements; of a sheet of screening connecting and secured to the rear edges of said side bars and extending over their curved upper edges and left free where it overlies said wings, a sheet metal strip secured across the free upper end of said sheet of screening and having rearwardly turned lips at its extremities, and fastening devices on the uppermost transverse element adapted to engage said strip, for the purpose set forth.

1,131,536. TRAIN-STOPPING SYSTEM. ANGELO MAINARDI, SEVERINO MAINARDI, and HENRY MAINARDI, Paterson, N. J., assignors of one-fifth to John Mainardi and one-fifth to Vittorio Mainardi, Paterson, N. J. Filed Dec. 5, 1913. Serial No. 804,815. (Cl. 246—26.)

1. In a train stopping system, the combination with a trackway, of a set of conductors arranged longitudinally of the trackway and spaced apart and connected alternately with feed and return wires of an electric circuit, a second set of conductors coöperating with the first set and arranged longitudinally of the trackway and spaced apart and each of a length corresponding to the length of two of said first conductors and parallel therewith, a third set of conductors similar to said first set, a fourth set similar to said second set and staggered relatively thereto and cooperating with said third set, car carried current collectors designed to bridge the coöperating sets of conductors and close the circuit therethrough when the cars are in close proximity to one another, and car carried stopping mechanism under the control of said current collectors.



2. In a train stopping system, the combination with a trackway, of a set of conductors arranged longitudinally of the trackway and spaced apart and connected alternately with feed and return wires of an electric circuit; a second set of conductors coöperating with the first set and arranged longitudinally of the trackway and spaced apart and each of a length corresponding to the length of two of said first conductors and parallel therewith, a third set of conductors similar to said first set, a fourth set similar to said second set and staggered relatively thereto and cooperating with said third set, car carried current collectors designed to bridge the coöperating sets of conductors and close the circuit therethrough when the cars are in close proximity to one another, a switch adapted to connect said trackway with a siding, car carried stopping mechanism under the control of said current collectors, and means under the control of said switch for effecting connections between certain of said conductors at the opposite sides of the switch whereby the car carried stopping mechanism of a train approaching the switch from either direction will be rendered active.

3. In a train stopping system, the combination with a trackway, of a set of conductors arranged longitudinally of the trackway and spaced apart and connected alternately with feed and return wires of an electric circuit, a second set of conductors coöperating with the first set and arranged longitudinally of the trackway and spaced apart and each of a length corresponding to the length of two of said first conductors and parallel therewith, a third set of conductors similar to said first set, a fourth set similar to said second set and staggered relatively thereto and cooperating with said third set, car carried current collectors designed to bridge the coöperating sets of conductors and close the circuit therethrough when the cars are in close proximity to one another, a switch adapted to connect said trackway with a siding, car carried stopping mechanism under the control of said current collectors, and a circuit closer under the control of said switch for effecting connections between certain of said conductors at the opposite sides of the switch whereby the car carried stopping mechanism of a train approaching the switch in either direction will be rendered active.

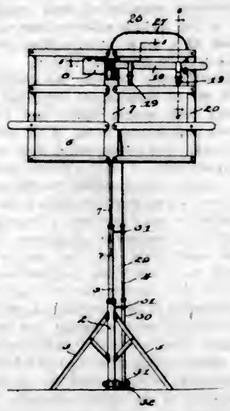
4. In a train stopping system, the combination with a trackway, of a set of conductors arranged longitudinally of the trackway and spaced apart and connected alternately with feed and return wires of an electric circuit, a second set of conductors coöperating with the first set and arranged longitudinally of the trackway and spaced apart and each of a length corresponding to the length of two of said first conductors and parallel therewith, a third set of conductors similar to said first set, a fourth set similar to said second set and staggered relatively thereto and cooperating with said third set, car carried current collectors designed to bridge the coöperating sets of conductors and close the circuit therethrough when the cars are in close proximity to one another, a switch adapted to connect said trackway with a branch line, sets of conductors for the branch line corresponding with those of said trackway, and means for effecting connections between certain of

said conductors at the opposite sides of said switch on said trackway whereby the circuit will be closed through said current collectors on a train approaching the switch from either direction, and car carried stopping mechanism under the control of said current collectors.

5. In a train stopping system, the combination with a trackway, of a set of conductors arranged longitudinally of the trackway and spaced apart and connected alternately with feed and return wires of an electric circuit, a second set of conductors coöperating with the first set and arranged longitudinally of the trackway and spaced apart and each of a length corresponding to the length of two of said first conductors and parallel therewith, a third set of conductors similar to said first set, a fourth set similar to said second set and staggered relatively thereto and cooperating with said third set, car carried current collectors designed to bridge the coöperating sets of conductors and close the circuit therethrough when the cars are in close proximity to one another, car carried stopping mechanism under the control of said current collectors, a branch line switch connected with said trackway, sets of conductors for the branch line corresponding with those of the trackway, and a switch controlled circuit closer for effecting connections between certain of said conductors at the opposite sides of said switch on said trackway and between the various sets of conductors of the branch line whereby the car carried stopping mechanism of a train approaching the switch from either direction on said trackway and from said branch line will be rendered active according to the position of the switch.

[Claims 6 to 9 not printed in the Gazette.]

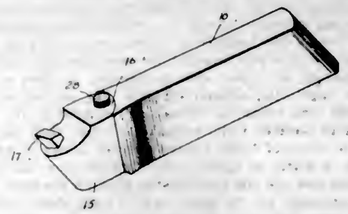
1,131,537. MUSIC-LEAF TURNER. RALPH MARINO, Clearfield, Pa. Filed Feb. 7, 1914. Serial No. 817,261. (Cl. 84—135.)



In a leaf turner, a turning arm, a spring for turning said arm in one direction, a hook for holding said arm against the action of said spring, a slidably mounted rod for operating said hook, a casing, a link having one extremity pivotally connected to said rod, and its remaining extremity slidably mounted in said casing so as to travel in a horizontal direction, a drum secured to one end of said arm, and a flexible element connecting one extremity of said link to said drum.

1,131,538. TOOL-HOLDER. GEORGE H. MASON, Lubec, Me. Filed June 20, 1914. Serial No. 846,315. (Cl. 29—98.)

1. A tool holder comprising a body, a head pivotally secured to said body, a tool adjustable in said head, said body having a recess therein provided at its forward end with an inclined wall, and means for simultaneously securing said head and said tool in adjusted position including a block movable against said inclined wall.



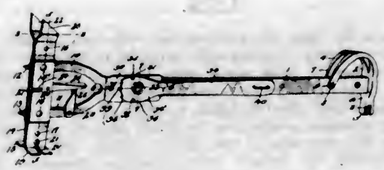
2. A tool holder comprising a body having a recess formed longitudinally therein provided with an inclined front wall, a head, a block positioned in said recess having a beveled end engaging said inclined wall, a bolt adjustably secured in said block having an apertured forward end, and a pin pivotally securing said head to said bolt.

3. A tool holder including a body having a recess provided with an inclined front wall, a block positioned in said recess having a beveled end engaging said inclined wall, a bolt adjustably secured in said slot and having an apertured forward end, a head, a tool adjustable in said head, a pin pivotally securing said head to the apertured end of said bolt, and means intermediate said tool and the forward end of said body for securing said tool in adjusted position.

4. A tool holder comprising a body, a head, a tool adjustable in said head, and means for simultaneously securing said head and tool in adjusted position including an eye bolt adjustably secured in said body and carrying a pin pivotally supporting said head.

5. A tool holder comprising a body having a longitudinal recess therein, a head, a tool adjustably positioned in said head, and means for simultaneously securing said head and tool in adjusted position including a block movable longitudinally in said recess and a bolt adjustable relative to said block and provided with means for adjustably securing said head.

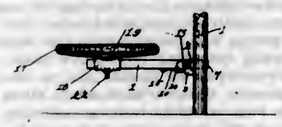
1,131,539. WIRE-FENCE TOOL. GEORGE W. MURPHY, Dixon, Tex. Filed Mar. 20, 1914. Serial No. 826,088. (Cl. 254—82.)



1. In a wire fence tool, a bar, arcuate arms upon one of the ends of the bar, plates connected with each of the opposite sides of the arms and with each other beyond their connection with the arm, said plates at one of their ends being curved outwardly and pointed, the opposite ends of the plates having lateral extensions forming a foot, said foot being provided with a longitudinal slot, the bars above the slot having a curved depression which communicates with the slot, substantially as and for the purpose set forth.

2. In a wire fence tool, a bar, arcuate arms upon one of the ends of the bar, plates connected with each of the opposite sides of the arms and with each other beyond their connection with the arm, said plates at one of their ends being curved outwardly and pointed, the opposite ends of the plates having lateral extensions forming a foot, said foot being provided with a longitudinal slot, the bars above the slot having a curved depression which communicates with the slot, and a wire splicer comprising mechanical means, said splicer being arranged between the said plates.

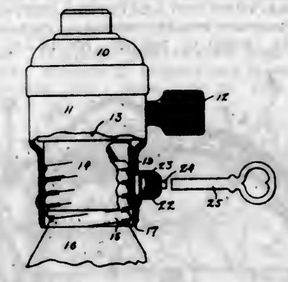
1,131,540. DETACHABLE MILK-SEAT. EDMUND J. NERENHAUSEN, Oconto, Wis. Filed Apr. 18, 1914. Serial No. 832,993. (Cl. 155—22.)



1. A device of the class described comprising an elongated seat bar, said bar having a depending neck at one end terminating in a lug, a bracket pivotally secured to said seat bar, said bracket having a hooked end, said hook adapted to fit around a standard, and said lug adapted to engage the opposite side of a standard whereby the device will be clamped in engagement with the standard for supporting the same, a spring carried by said bar and engaging said bracket for normally urging the same in one direction whereby the device may be easily attached to or detached from the standard, and a seat carried by said bar.

2. A device of the class described comprising a seat bar, said seat bar having an integral depending neck formed at one end, said neck terminating in an enlarged bearing lug, a bracket having a body portion, said body provided with integral off-set spaced sides, said sides pivotally secured to said seat bar, a reduced bridge connecting the lower portions of said sides, said body provided with a hook upon its opposite end, a spring carried upon said bar and engaging said bridge whereby said bridge will be normally urged in one direction for allowing a device to be attached to or detached from a standard, said hook being formed in alinement with said lug of said seat bar, whereby said hook and said lug may be detachably clamped to said standard.

1,131,541. ELECTRIC-LAMP SOCKET. ARVID H. NERO, New Britain, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 9, 1914. Serial No. 811,211. (Cl. 173—356.)



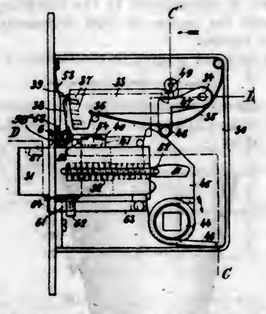
1. An electric lamp socket comprising a metallic casing, an insulating lining therefor, an apertured terminal for a lamp base within said lining, a clamping plate supported within said lining and having a portion lying in register with the aperture in the lamp terminal, and locking means carried by the socket casing and bearing upon the outer face of said insulating lining but in register with the free end of said clamping plate to force the latter through the apertured terminal into engagement with the lamp base to lock the latter against withdrawal.

2. An electric lamp socket, having an apertured screw shell terminal for a lamp base, a clamping tongue extending into said aperture, a socket casing surrounding said shell terminal, an insulating lining interposed between said casing and terminal, and means carried by said casing and bearing upon the outer face of said lining but in register with the free ends of said clamping tongue to force the latter into engagement with a lamp base inserted in said terminal and lock the same against withdrawal.

3. An electric lamp socket comprising an apertured screw shell terminal, a clamping piece adapted to be advanced through the aperture in said terminal into engagement with an inserted lamp base, a socket casing surrounding said terminal and means carried by said casing in register with the aperture in said screw shell terminal and insulated from said clamping piece for forcing the latter into engagement with the lamp base to lock the latter against withdrawal.

4. An electric lamp socket comprising a screw shell terminal having an aperture in the side thereof, a clamping plate secured to said shell and having a portion in register with said aperture, a socket casing surrounding said screw shell, insulating material between said terminal and casing, in combination with a locking screw carried by said casing in register with the aperture in the terminal and bearing upon the outer face of said insulating material but in register with the free end of the clamping plate to force the latter inward, for the purpose described.

1,131,542. SAFETY-LOCK. PETER OLSEN, Copenhagen, Denmark. Filed June 3, 1913. Serial No. 771,480. (Cl. 70—75.)



1. In a safety-lock for doors and the like adapted to be opened by turning of the handle, the combination of a lock plate, a locking-bolt, a lock-spring actuating said locking-bolt, tumblers adapted to turn around a stationary pivot and normally locking the locking-bolt in locked position, a key-hole cylinder for receiving a key provided with a web for controlling the movement of said tumblers and a spring-actuated handle pivotally mounted in said lock-plate for operating the locking bolt, with means whereby said tumblers are moved toward the key-hole, when the handle is turned in one direction and stopped in the position for the release of the locking-bolt by engagement with the web of the key inserted into the key-hole.

2. In a safety-lock for doors and the like adapted to be opened by turning of the handle, the combination of a lock-plate a locking-bolt, a lock-spring actuating said locking-bolt, a key-hole cylinder for receiving a key and a spring-actuated handle pivotally mounted in said lock-plate for operating the locking bolt, with tumblers arranged above the key-hole and adapted to turn around a stationary pivot and normally locking the locking bolt in locked position, and a support for said tumblers, which support is removed by the turning of the handle, so that the tumblers owing to their own weight can move down until they are stopped in the position for the release of the locking bolt by the key inserted into the key-hole.

3. In a safety-lock for doors and the like adapted to be opened by turning of the handle, the combination of a lock-plate, a locking-bolt, a spring actuating said locking bolt and arranged in a bore in the rear-end of said

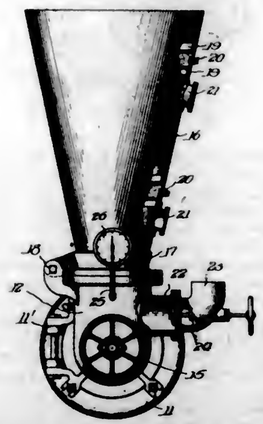
locking-bolt, tumblers, normally locking said locking-bolt in locked position, a key-hole cylinder for receiving a key provided with a web for controlling the movement of said tumblers and a spring-actuated handle pivotally mounted in said lock-plate for operating the locking bolt, with a strap encircling said lock-spring, and connections between said strap and handle whereby the strap is moved rearwardly when the handle is turned and compresses the lock-spring in the locking-bolt before the tumblers have released said locking-bolt.

4. In a safety-lock for doors and the like adapted to be opened by turning of the handle, the combination of a lock-plate a locking-bolt, a lock-spring actuating said locking-bolt, tumblers normally locking the locking bolt in the locked position, a key-hole cylinder for receiving a key provided with a web for controlling the movement of said tumblers and a spring-actuated handle pivotally mounted in said lock-plate for operating the locking bolt, with means actuated by the initial turning of the handle to cover the key-hole recess for the web of the key.

5. In a safety-lock for doors and the like adapted to be opened by turning of the handle, the combination of a lock-plate, a locking-bolt, a lock-spring actuating said locking-bolt, tumblers adapted to turn around a stationary pivot and normally locking the locking-bolt in locked position, a key-hole cylinder for receiving a key provided with a web for controlling the movement of said tumblers and a spring-actuated handle pivotally mounted in said lock-plate for operating the locking bolt, with springs by means of which the upward movement produced by the turning of the handle is transmitted to the tumblers and which springs absorb the excess of said movement, when the tumblers are stopped.

[Claims 6 to 8 not printed in the Gazette.]

1,131,543. EXHAUST-MUFFLER. CHESTER A. ORR, Cleveland, Ohio. Filed July 1, 1913. Serial No. 776,830. (Cl. 121—116.)



1. In a device of the class described, the combination with a hot blast stove of a relief valve therefor, means for actuating the valve disk in opening and closing said valve, a hollow truncated cone having its small end secured to the outlet of said relief valve and having its large end opening into the atmosphere, a series of pairs of transversely extending foraminous disks secured at spaced apart intervals within said cone to form expansion chambers therein, and finely divided solids filling the space between the adjacent disks forming each pair.

2. In a device of the class described, the combination with a hot blast stove of a relief valve therefor, means for actuating the valve disk in opening and closing said valve, a hollow truncated cone having its small end secured to the outlet of said relief valve and having its large end opening into the atmosphere, at least two pairs of transversely extending foraminous disks secured at spaced apart intervals within said cone to form expansion chambers therein, and finely divided solids filling the space between the adjacent disks forming each pair.

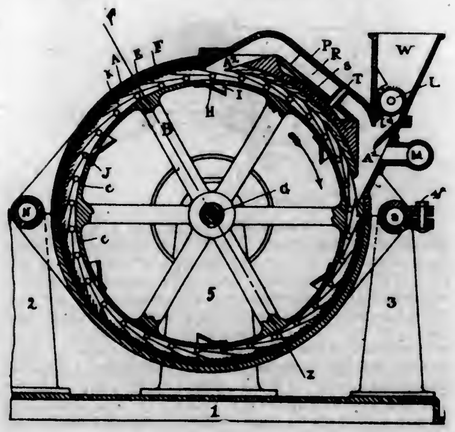
3. In a device of the class described, the combination with a hot blast stove of a relief valve therefor, means for actuating the valve disk in opening and closing said valve, a hollow truncated cone having its small end secured to the outlet of said relief valve and having its large end opening into the atmosphere, at least two pairs of transversely extending foraminous disks secured at spaced apart intervals within said cone to form expansion chambers therein, finely divided solids filling the space between the adjacent disks forming each pair, and a by-pass valve on the relief valve between the valve disk therefor and the small end of said truncated cone.

1,131,544. BOTTLE-CLOSURE. GEORGE T. PARR, Minneapolis, Minn. Filed Dec. 2, 1913. Serial No. 804,285. (Cl. 215—9.)



In a bottle closure, the combination with a locking ring encircling the neck of the bottle adjacent the mouth thereof, of a clamping member consisting of a metallic body having a central depressed portion, and a series of radially extending gripping members bent to pass around the open end of the bottle and have their free ends grip the under side of the locking ring whereby to hold the clamping member rigidly on the bottle, a cap lying between the clamping member and the opening to the bottle and encircled by the clamping member, and a disk closing the opening to the bottle and interposed between the opening and the cap, with the disk encircled by the cap and having the cap lying flat against its upper face.

1,131,545. MACHINE FOR DELINTING COTTON-SEED. CHARLES REGINALD PASLEY, Colchester, England. Filed Jan. 4, 1913. Serial No. 740,135. (Cl. 13—10.)



1. In a machine for delinting cotton seed the combination of an external casing having feed and discharge

means for the seed, a revolving wheel or rotor within said casing, a resilient inner lining for said casing formed of a plurality of fine metallic elements disposed at an angle conforming to the direction of rotation of the rotor, abrasive rubbing means mounted on said rotor on the face exposed to the lining, and means for preventing contact of said rubbing means with said lining.

2. In a machine for delinting cotton seed the combination of an external casing, a revolving wheel or rotor within said casing, and a flange extending perpendicularly outward from each of the outer edges of the rim of said rotor, the latter being provided with air passages or slots so formed in the rim thereof as to give said rotor the character of a centrifugal air collector or pressure fan.

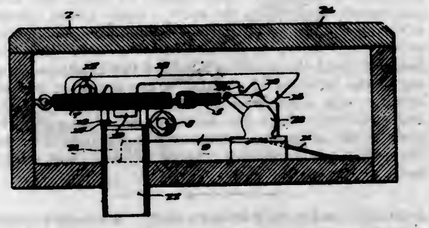
3. In a machine for delinting cotton seed the combination of an external casing having feed and discharge ports, a revolving wheel or rotor within said casing, a connecting conduit intermediate said ports and a movable door or deflector located in said conduit whereby seed ejected from the discharge port can be either passed through said conduit back into the casing for further treatment or discharged from said casing when the treatment is completed.

4. In a machine for delinting cotton seed the combination of an external casing having feed and discharge means for the seed, a revolving wheel or rotor within said casing, a resilient inner lining for said casing formed by a plurality of fine metallic elements disposed at an angle conforming to the direction of rotation of the rotor, a rubbing element on said rotor coöperating with said lining to delint the cotton seed, and a flange extending perpendicularly outward from each outer edge of the periphery of the rotor to form a channel in which said rubbing element is disposed.

5. In a machine for delinting cotton seed the combination of an external casing having feed and discharge means for the seed, a revolving wheel or rotor within said casing, a resilient inner lining for said casing formed by a plurality of fine metallic elements disposed at an angle conforming to the direction of rotation of the rotor, a rubbing element on said rotor coöperating with said lining to delint the cotton seed, a flange extending perpendicularly outward from each outer edge of the periphery of the rotor to form a channel in which said rubbing element is disposed, the periphery of said rotor being provided with air passages disposed at an angle opposed to the direction of rotation of the rotor.

[Claims 6 to 17 not printed in the Gazette.]

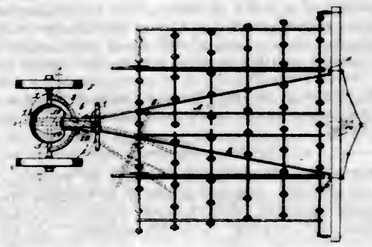
1,131,546. LOCKING MECHANISM FOR REVOLVING GATES. WILLARD J. PIERSON and HARRY W. LYNCH, Wilmington, Del. Filed Apr. 17, 1914. Serial No. 832,594. (Cl. 194—92.)



1. A coin controlled locking mechanism comprising a casing, a locking bar pivoted between its ends to one wall of said casing for swinging movement and having one end projecting into the casing and the opposite end extending out of the casing, a lever pivoted upon the opposite wall of said casing at one side of said bar adjacent to the inner end thereof, a cam on said lever disposed in the path of movement of the adjacent end of the bar whereby the lever may be swung in the swinging of the bar, a second lever pivoted upon the last mentioned wall of said casing at the opposite side of said bar and movable with the first lever, a lug on said lever confronting said cam and adapted to move into the path of said bar to hold the latter against movement to unlocking position, and coin controlled means for holding said last lever stationary whereby the locking bar may swing to unlocking position.

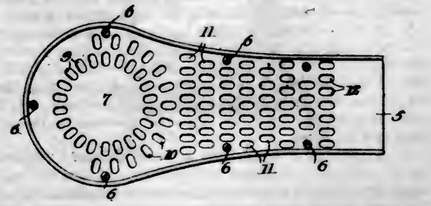
2. A coin controlled locking mechanism comprising a casing, a horizontal locking bar pivoted between its ends to one wall of said casing for swinging movement, a horizontal lever pivoted adjacent to one end to the opposite wall of said casing below said bar, a cam on said lever disposed in the path of movement of the bar whereby the lever may be swung in the swinging of the bar, a second horizontal lever pivoted to the last-mentioned wall of said casing above said bar and movable with said first lever, a lug on said last lever confronting said cam and adapted to move into the path of said bar to hold the latter against movement to unlocking position, a block carried by said first lever beyond the pivoted end thereof and having the upper surface thereof formed with a channel provided with a downwardly inclined lower wall, and a lug formed on the second-named lever and depending therefrom into said channel and having the lower end thereof inclined to conform to the inclination of the bottom wall of said channel to form a coin slot adapted to receive a coin whereby the second-named lever will be held stationary during the movement of the first lever under the action of said locking bar.

1,131,547. HARROW-CART. CHARLES O. PLUMMER, Fay, Okla. Filed Dec. 3, 1912. Serial No. 734,747. (Cl. 55—91.)



A harrow cart comprising a wheeled axle, a forwardly extending brace, a wear plate on top of the axle, fastening members connecting the forwardly extending brace and the wear plate with the axle, a reach bar pivoted on the forwardly extending brace and having forwardly divergent arms, a roller supported for rotation on the underside of the reach bar for engagement with the wear plate, said roller being of a length materially exceeding the width of the wear plate and the axle, and a seat supported on the reach bar.

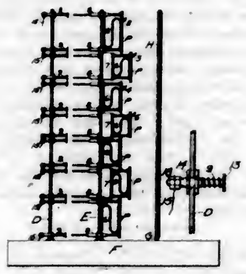
1,131,548. SHOE FOR BUR-MILLS. JAMES A. POPLIN, Ronda, N. C., assignor to Williams Mill Manufacturing Company, Inc., Ronda, N. C., a Corporation of North Carolina. Filed Mar. 18, 1914. Serial No. 825,562. (Cl. 130—15.)



A shoe for the purpose set forth, having a substantially circular intake end, and an elongated portion extending therefrom, a body, a marginal rim connected with the

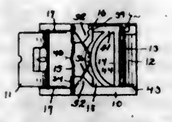
body and extending beyond its discharge end, a plate having a marginal contour corresponding with the rim, means for removably supporting the plate above the body, the plate at the intake end being provided with openings extending radially from the center thereof, the plate beyond the radial openings being provided with rows of spaced openings, the openings in each row being in alinement with the spaces of the adjacent rows, the end series terminating beyond the outlet end of the body.

1,131,549. SELF-SCORING TARGET. MARK ST. CLAIR ELLIS, U. S. Navy. Filed Jan. 21, 1911. Serial No. 603,980. (Cl. 177—345.)



A self scoring target consisting of an annunciator and a marking device in circuit therewith, said marking device consisting of a series of bullet proof vanadium steel designating plates bent S shaped leaf springs, yieldingly supporting the same a steel shuttle board with insulated contact making shuttles mounted therein for closing the electric circuit and actuating the annunciator when a portion of the target is hit, said S shaped springs being attached to the steel shuttle board substantially as shown and described.

1,131,550. BELT-BUCKLE. GEORGE E. PRENTICE, New Britain, Conn., asisgnor to The G. E. Prentice Manufacturing Company, New Britain, Conn., a Corporation. Filed Aug. 28, 1914. Serial No. 859,085. (Cl. 24—74.)



1. In a belt buckle comprising a frame, means at one end thereof for securing the fixed end of a belt comprising a clamping lever, means at the other end thereof for clamping the loose end of the said belt comprising a sliding device, the said frame comprising a body portion and lateral edge portions along the lateral edges of the said body portion, and the part of the said lateral edge portion adjacent the said one end being turned over to provide ears for the said clamping lever, and the part thereof adjacent the said other end being turned over to form a housing for operatively housing the said sliding device.

2. In a belt buckle, a frame having clamping means for the fixed end of a belt at one end and a sliding device at the other end for engaging with the loose end of a belt, a pair of lugs 34 on the said frame, and the said lugs serving on one side to limit the movement of the said slide devices and on the other to limit the position of the said fixed end of a belt.

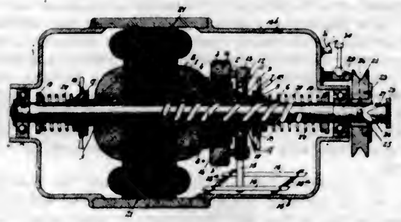
3. A belt buckle comprising a frame having a clamping lip at one end, a clamping roll having a to and fro movement relatively to the said lip, means for guiding the said roll, and spring means tending to move the said roll toward the said lip.

4. A belt buckle comprising a frame having a clamping lip at one end and guide ways along the lateral edges, a clamping roll, and a slide operatively engaged with the said ways and having slots for the ends of the said roll.

5. A belt buckle comprising a frame having a clamping lip at one end and guide ways along the lateral edges, a clamping roll, a slide engaged with the said ways and having slots for the ends of the said roll, and a spring engaged with the said slide.

[Claims 6 to 10 not printed in the Gazette.]

1,131,551. DYNAMO-ELECTRIC MACHINE. ALBERT ALEXANDER PRICE, London, England. Filed July 31, 1913. Serial No. 782,315. (Cl. 171—227.)



1. In a dynamo electric machine, the combination of an armature, an armature shaft formed with a spiral groove of diminishing pitch toward one end of the shaft, and means operative in said groove and coöperative with the armature to shift the armature axially with respect to the shaft upon the occurrence of relative rotation between the shaft and armature.

2. In a dynamo electric machine, the combination of a driving shaft formed with a spiral groove having a diminishing pitch toward opposite ends of the shaft, an armature mounted on the shaft, and means operative in said groove and coöperative with the armature to cause axial movement of the armature relatively to the shaft upon the occurrence of relative rotation between the shaft and armature.

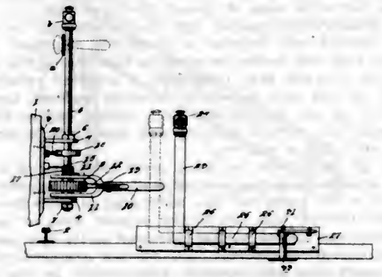
3. In a dynamo electric machine, the combination of a driving shaft formed with a spiral groove of diminishing pitch toward one end, an armature mounted on the shaft and having a commutator movable therewith, a brush holder rotatably relatively to the armature but movable axially therewith, and means operative in said groove of the shaft and coöperative with the armature to produce axial movement of the armature, commutator and brush holder relatively to the shaft when relative rotation occurs between such parts and the shaft.

4. In a dynamo electric machine, the combination of a driving shaft formed with a spiral groove of diminishing pitch toward its ends, an armature and commutator mounted on the shaft and capable of axial and rotary movements relatively to the shaft, a brush holder rotatable relatively to the armature and commutator and movable axially therewith, means coöperative with the brush holder to hold the latter in either of two positions according to the direction of rotation of the armature and commutator, and means operative in said groove of the shaft and coöperative with the armature to cause axial movement of the armature, commutator and brush holder upon the occurrence of relative rotation of such parts with respect to the shaft.

1,131,552. RAILWAY FOG-SIGNAL. WILLIAM J. PRIEST, Brooklyn, N. Y. Filed Dec. 2, 1913. Serial No. 804,260. (Cl. 246—14.)

1. A fog signal device comprising a supporting plate connected to the locomotive or car, a rotatable pole journaled in projections from said plate, an arm mounted to rotate on said plate, said arm carrying a pawl, a ratchet wheel on said pole, a brake for said pole, and a semaphore and light connected to the upper end of said pole, in combination with a signal pole located at the side of a track and adapted to be moved into and out of the path of said arm.

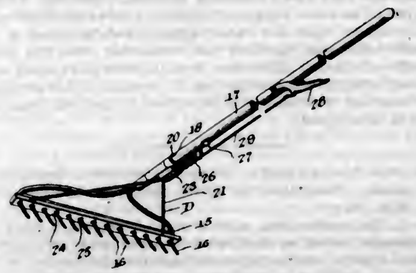
2. A fog signal device for locomotives, comprising a rotatable signal pole having a light and semaphore thereon, an arm journaled to move freely on said pole, a ratchet wheel fixed to said pole, a pawl pivoted to said arm, for engaging said ratchet wheel, in combination with a signal pole mounted to slide into and out of the path of the said freely journaled arm, said signal pole being operated from the semaphore.



3. In a fog or storm signal fo rrailways, the combination of a signal pole supported upon the locomotive and adapted to be rotated, an arm loosely mounted on said pole, a pawl carried by said arm, a ratchet wheel fixed to said pole, a signal pole located at the side of the track and adapted to be moved into and out of the path of the arm on the locomotive, an ordinary main signal or semaphore, said last named signal pole adapted to be operated simultaneously with the main signal or semaphore.

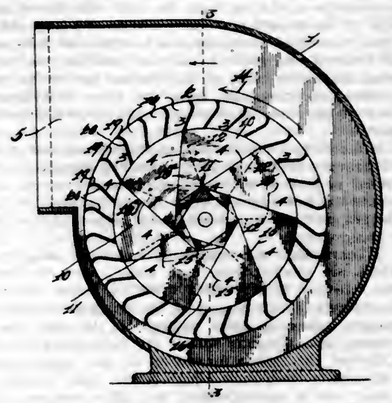
4. A railway fog and storm signal comprising a pole, a support to be mounted upon a locomotive, said pole rotatable upon the support, an arm connected to said pole, a ratchet wheel fixed to said pole, a pawl pivoted to said arm to coöperate with the ratchet wheel, said pole carrying a light and semaphore arm at its upper end and means adapted to be thrown into and out of the path of said arm for operating the signal pole to indicate to the engineer that the train must come to a stop.

1,131,553. LAWN AND GARDEN RAKE. CARL J. RETHORN, Shelley, Idaho. Filed July 31, 1914. Serial No. 854,352. (Cl. 55—146.)



The combination with a rake having a head provided with teeth and a handle provided with a transverse aperture parallel to the rake head, of a yoke including a loop having a bridge piece engaging the aperture of the handle, and divergent limbs lying in a plane substantially at right angles to the loop, a block having longitudinal bores engaging the limbs between the loop and the divergent portions of said limbs, an abutment on the rake handle, a spring interposed between said abutment and the block, an apertured strip carried by the yoke and engaging the rake teeth, and means for tilting the yoke against the tension of the spring.

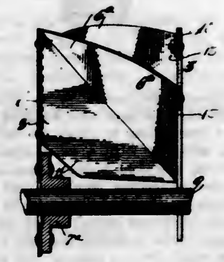
1,131,554. BLOWER. THEODORE JONATHAN RITTER, New York, N. Y., assignor of one-half to Henry Berg, Brooklyn, N. Y. Filed Sept. 10, 1913. Serial No. 789,035. (Cl. 230—11.)



1. A rotary fan member comprising a series of adjacent generally parallel peripheral vanes, and a smaller number of central vanes each disposed diagonally so as to take in a plurality of the peripheral vanes and being of angular formation presenting a valley extending diagonally from its inner portion at the intake side to its outer portion at the closed side of the fan, the end of the valley which is toward the intake side of the fan being located in advance of the opposite end as regards the direction of rotation.

2. A rotary fan member comprising a series of adjacent generally parallel peripheral vanes, said peripheral vanes having substantially flat, tangentially disposed inner portions and curved outer portions, and a smaller number of central vanes each disposed diagonally so as to extend across the tangential inner portions of a plurality of the peripheral vanes and being of angular formation presenting a valley extending diagonally from its inner portion at the intake side to its outer portion at the closed side of the fan, the end of the valley which is toward the intake side of the fan being located in advance of the opposite end as regards the direction of rotation.

1,131,555. BLOWER. THEODORE JONATHAN RITTER, New York, N. Y., assignor of one-half to Henry Berg, Brooklyn, N. Y. Original application filed Sept. 10, 1913, Serial No. 789,035. Divided and this application filed Mar. 27, 1914. Serial No. 827,561. (Cl. 230—11.)



1. A centrifugal fan comprising vanes disposed diagonally crosswise of the fan from the inlet side thereof rearwardly of the direction of movement to the back side of the fan, the vanes being composed each of two parts in angular relation, the valley between said parts being at the

forward face of the vane and extending diagonally from the inner and forward portion of the vane to the outer and rearward portion thereof.

2. A centrifugal fan comprising vanes disposed diagonally crosswise of the fan from the inlet side thereof rearwardly of the direction of movement to the back side of the fan, the vanes overlapping each other and being composed each of two parts in angular relation, the valley between said parts being at the forward face of the vane and extending diagonally from the inner and forward portion of the vane to the outer and rearward portion thereof.

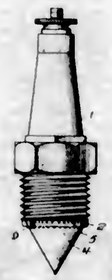
3. A centrifugal fan comprising vanes composed of two parts arranged to form a valley extending diagonally from the inner portion of the vane approximately at the inlet side outward toward the periphery and toward the back of the fan, and also rearwardly with respect to the direction of movement.

4. A centrifugal fan comprising vanes the inner parts of which are pitched from their inner edges rearwardly of the direction of movement while the outer parts are pitched forward with respect to the lower parts and also diagonally rearward, with respect to the direction of movement, from the inlet side of the fan toward the back side thereof, the valleys formed by the said parts extending diagonally from approximately the inner corners at the inlet side to approximately the outer corners at the back side of the fan.

5. A centrifugal fan having an open inlet side and a closed back side and comprising vanes extending from near the axis to the outer portion of the fan, the vanes comprising two planes set at an angle to each other and the junction of the planes extending diagonally approximately from the inlet and inner portion of the vane to the outer and back portion thereof and also pitched rearward with respect to the direction of movement, the inner plane being approximately the width of the fan at its inner portion and tapering toward its outer portion and the outer plane being widest at its outer portion and tapering toward its inner portion.

[Claims 6 to 9 not printed in the Gazette.]

1,131,556. SPARK-PLUG ATTACHMENT. EMILE ROLLE, Frontenac, Kans. Filed Feb. 13, 1914. Serial No. 818,522. (Cl. 123—169.)



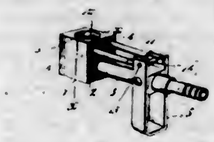
1. An attachment for spark plugs comprising a hollow cap having one end open and adapted to fit upon the lower end of a spark plug to cover the electrodes thereof, said cap being provided with rows of spaced perforations adjacent its open end and having diametrically opposed slots therein and means for securing said cap comprising a cylindrical body portion arranged to fit within a spark plug and a pair of spaced arms carried by said body portion and adapted to be inserted through the slots in said cap and to be bent over to engage the outer surface of said cap.

2. An attachment for spark plugs comprising a hollow cap having one end open and adapted to be secured to the lower end of a spark plug to cover the electrodes of said spark plug, said cap having rows of spaced perforations adjacent its open end, an opposed slot formed therein, a cylindrical body portion arranged within the spark plug, bendable securing tongues carried by said body portion and adapted to be inserted through the slots in said cap to secure said cap, and a lug formed adjacent the outer edge of said body portion and being provided with a V-shaped notch to receive one of the electrodes of said spark plug.

3. An attachment for spark plugs comprising a hollow cap having one end open and being provided adjacent its open end with rows of spaced apertures, said cap having diametrically opposed slots therein adjacent the open end thereof and designed to cover the electrodes of a spark plug and means for securing said cap to the lower end of a spark plug comprising a resilient cylindrical body portion and a pair of bendable opposed tongues formed on one end of said body portion and to extend through the slots in said cap and being bent to engage the outer face of said cap.

4. An attachment for spark plugs consisting of a hollow conical cap having one end open and to be secured adjacent to the lower end of a spark plug to cover the electrodes thereof, said cap having parallel rows of spaced perforations formed therein adjacent to its open end, a split cylindrical resilient body portion arranged within the spark plug and bendable arms carried by the body portion to coöperate with the cap to hold the cap in position.

1,131,557. AIR-VALVE CONNECTOR. AMOS J. SCHERMERHORN, Deposit, N. Y., assignor of one-third to John C. Greene, Deposit, N. Y. Filed June 28, 1913. Serial No. 776,314. (Cl. 137—28.)

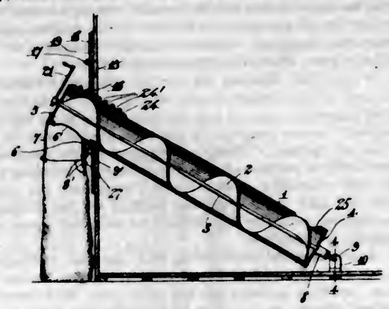


An air valve connector comprising a body having a valve receiving opening extending part way therein from one end, transverse openings at the sides of the valve receiving opening and intersecting therewith and a stem receiving opening parallel with the transverse openings, and extending across the inner end of the said valve receiving opening, a hollow stem secured in the said stem receiving opening and having a lateral opening leading into the said valve receiving opening, a packing secured within the valve receiving opening, a lever mounted upon the hollow stem, and valve engaging rods mounted in the said transverse openings and connected with the lever, said rods having their inner faces inclined and formed with longitudinally disposed fine ribs to correspond with the screw threads on the stem of the air valve to which the connector is to be coupled.

1,131,558. GRANARY. ALBERT P. SCHNELL, Grangeville, Idaho. Filed Mar. 26, 1913. Serial No. 756,958. (Cl. 193—20.)

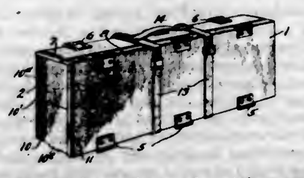
1. The combination with a bin constituting a grain receptacle having a front wall provided with an aperture and a plate obstructing said aperture and having an oblong opening, of a cylindrical casing, said casing projecting through the oblong slot, a corrugated strip on the upper side of the casing, means for hingedly supporting the lower edge of the casing, a slide adjustable on the slotted plate and having an arcuate recess at its lower edge, said plate adapted to engage the corrugated strip to retain the casing in adjusted position and to obstruct the slot, and a screw conveyer supported for rotation in the casing; the latter being provided with a discharge spout at its upper end and with an inlet aperture at its lower end.

2. A bin constituting a grain receptacle, said bin having an opening in the front wall thereof and a plate obstructing said opening and having an oblong slot, a cylindrical casing, said casing extending through the oblong slot, a corrugated strip secured on the casing, a slide adjustably mounted on the slotted plate and engaging the corrugated strip, and a screw conveyer supported for rotation in the



casing; the latter being provided at one end with an inlet aperture and at the other end with discharge spout consisting of a fixed flange, a leaf hingedly connected therewith, and a brace to secure said leaf at various adjustments.

1,131,559. COMBINED CARRIAGE AND SUITCASE. HERMAN SCHREK, Brooklyn, N. Y. Filed Apr. 17, 1914. Serial No. 832,525. (Cl. 21—83.)



1. A combined baby carriage and container comprising a box-like body composed of bottom, side and top sections, wheels attached to one of said sections, connections intermediate the sections whereby to hold the latter in positions forming a container in which the wheels are disposed, and permitting reversal of the sections to form a wheeled vehicle, and means for holding the sections in operative position when reversed to provide such vehicle, the bottom section comprising adjustable sections to permit of expansion or contraction thereof when in the positions mentioned.

2. A combined baby carriage and container comprising a body composed of sections, means for holding said sections in closed positions to form a box-like receptacle, wheels connected with one of the sections so as to be received in said receptacle, and connections intermediate the sections permitting of reversal of the latter to turn the body inside out to assume a position supported on the wheels and thus provide a wheeled vehicle, the section of the body carrying said wheels comprising relatively slidable parts whereby the width of the body may be increased when used as a vehicle body and decreased when used as a closed container.

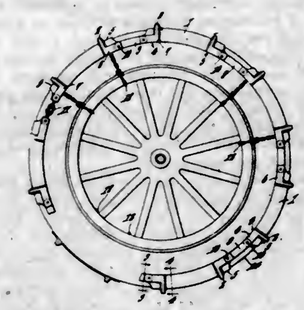
3. In a combined baby carriage and container, a body composed of bottom, side and top sections, supporting wheels carried by the bottom sections and received within the body when the latter is in closed condition, a handle composed of parts connected with the side sections and foldable into the body when closed, end members at the opposite ends of the body to form closures for the latter, one of said end members constituting a back rest when the sections are in open condition, and adjusting means carried by the handle parts and coacting with the back rest for adjusting its inclination.

4. In a combined baby carriage and container, a body composed of bottom, side and top sections, supporting wheels carried by the bottom sections and received within the body when the latter is in closed condition, a handle composed of parts connected with the side sections and foldable into the body when closed, and end members at the opposite ends of the body to form closures for the latter, the bottom member comprising relatively sliding parts each of which supports certain of the wheels aforesaid.

5. In a combined baby carriage and container, a body composed of bottom, side and top sections, supporting wheels carried by the bottom sections and received within the body when the latter is in closed condition, a handle composed of parts connected with the side sections and foldable into the body when closed, end members at the opposite ends of the body to form closures for the latter, the bottom member comprising relatively sliding parts each of which supports certain of the wheels aforesaid, and connections intermediate the side sections and the bottom section permitting reversal of the body inside out whereby to dispose the wheels in a position supporting the body to form a wheeled vehicle.

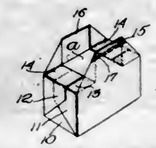
[Claims 6 and 7 not printed in the Gazette.]

1,131,560. NON-SKID MUD-SHOE FOR AUTOS. JOHN W. SEIBERT and JAMES WARREN RILEY, Galesburg, Ill. Filed Dec. 24, 1914. Serial No. 878,956. (Cl. 152—14.)



A tire protector comprising a plurality of rigid members, each including a trough-shaped body, the body being equipped with a single pair of transverse traction cleats which extend to the extreme longitudinal edges of the body, the cleats being spaced from the ends of the body to define tire protecting extensions, there being transversely spaced longitudinal ribs formed integrally with the cleats and with the extensions and at the extreme longitudinal edges of the extensions, and at the extreme ends of the extensions, the outer faces of the ribs merging unbrokenly into the outer faces of the cleats, the ribs having longitudinal slots; links terminally mounted in the slots; and pivot elements passing through the links and entering the ribs.

1,131,561. PACKAGE AND METHOD OF MAKING THE SAME. HENRI A. SÉVIGNÉ, Winthrop, and THOMAS B. DOOLEY, Chelsea, Mass.; said Dooley assignor to Benjamin A. Ball, Boston, Mass. Original application filed Sept. 11, 1908, Serial No. 452,651. Divided and this application filed Mar. 24, 1913. Serial No. 756,337. (Cl. 229—87.)



1. The herein described method of wrapping bread which consists in assembling a loaf and a wrapper with the top of the loaf in contact with the middle portion of the wrapper, then simultaneously folding the wrapper against

two opposite sides of the loaf with edge portions of the wrapper projecting substantially equally beyond the plane of the bottom of the loaf, simultaneously folding edge portions of the wrapper against the ends of the loaf to form outstanding corner folds, folding said corner folds in overlapping position against the ends of the loaf, and then successively turning in different edge portions of the wrapper and overlapping them against said bottom of the loaf with a single final flap or edge portion overlying all other turned in edge portions.

2. The herein described method of wrapping bread which consists in assembling a loaf and wrapper with the top of the loaf in contact with the middle portion of the wrapper, then simultaneously folding the wrapper against two opposite sides of the loaf with edge portions of the wrapper projecting substantially equally beyond the plane of the bottom of the loaf, simultaneously folding edge portions of the wrapper against the ends of the loaf to form outstanding corner folds, folding said corner folds in overlapping position against the ends of the loaf, then successively turning in different edge portions of the wrapper and overlapping them against said bottom of the loaf with a single final flap or edge portion overlying all other turned in edge portions, and sealing said flap directly to the underlying portions.

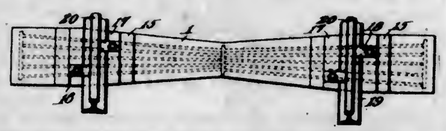
3. The herein described method of wrapping loaves of bread which consists in folding a wrapper in longitudinal U-shape over the top and two sides of a loaf with the sides and ends of the wrapper projecting beyond the loaf, folding the ends of the wrapper with an inner fold and outer folds overlapping the inner fold, folding the folded ends of the wrapper over the bottom of the loaf adjacent to its ends, folding the side-projecting portions of the wrapper over the said overlapping portions, and securing the final folded portions together.

4. The method of wrapping loaves of bread which consists in folding a rectangular wrapper across the top of the loaf and against the two sides thereof, the middle portion of the wrapper contacting with the top of the loaf, then successively bending end portions of the wrapper against the ends of the loaf, leaving the side edges of the wrapper unfolded, then turning doubled portions of the wrapper toward each other and overlapping them against the ends of the loaf, and then overlapping the side edges of the wrapper and the edges of the previously folded end portions upon each other against the bottom of the loaf, all of the folding operations being performed after assemblage of the article and its wrapper.

5. A package comprising a loaf of bread completely inclosed in a substantially rectangular flexible wrapper of a single thickness, said wrapper having its middle portion in contact with the top of the loaf and having all four of its corners supported against the bottom of the loaf with a single final flap or edge portion overlying all other turned in edge portions, mid-length edge portions of the wrapper being in contact with the ends of the loaf, the wrapper having oppositely laid folded flaps at each end which overlie said mid-length edge portions and hold them snugly against end portions of the loaf.

[Claim 6 not printed in the Gazette.]

1,131,562. REINFORCED-CONCRETE RAILROAD-TIE. ROBERT H. F. SEWALL, New Orleans, La., assignor of one-half to Samuel F. Heaslip, New Orleans, La. Filed Aug. 10, 1912. Serial No. 714,430. Renewed July 18, 1914. Serial No. 851,813. (Cl. 238—3.)



1. A concrete railroad tie having shallow rectangular ends, and a deep wedge-shaped central portion having its bottom tapering upward toward said ends, substantially as described.

2. A concrete railroad tie having shallow rectangular ends, and a deep wedge-shaped central portion having its bottom tapering upward toward said ends, with reinforcing rods inclined upward from the bottom of the ends of the tie to the central portion thereof, and downward from near the top of the ends of said ties to the central portion thereof to strengthen said tie against compressive and tensile strains, substantially as described.

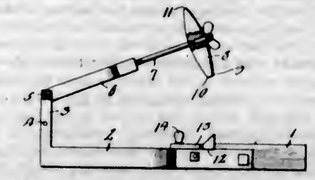
3. A concrete railroad tie having shallow rectangular ends, and a deep wedge-shaped central portion having its bottom tapering upward toward said ends, with inverted V-shaped trusses mounted in the rectangular ends of the tie, and an upright V-shaped truss mounted in the wedge-shaped central portion of said tie, with rods crossing each other and extending substantially throughout the length of the tie, and connecting the bottom of one V-shaped truss member with the top of the next and vice versa, substantially as described.

4. A concrete railroad tie having shallow rectangular ends, and a deep wedge-shaped central portion having its bottom tapering upward toward said ends, with inverted V-shaped trusses mounted in the rectangular ends of the tie, and an upright V-shaped truss mounted in the wedge-shaped central portion of said tie, with a plurality of rods connected to the bottom of the inverted V-shaped trusses at the ends of the tie and passing over the top of the V-shaped truss in the center of the tie, and a less number of rods leading from the top of the inverted V-shaped trusses in the ends of the tie to the bottom of the V-shaped truss in the center of the tie, whereby to reinforce the tie against compressive and tensile strains, substantially as described.

5. A concrete railroad tie having shallow rectangular ends, and a deep wedge-shaped central portion having its bottom tapering upward toward said ends, with inverted V-shaped trusses mounted in the rectangular ends of the tie, and an upright V-shaped truss mounted in the wedge-shaped central portion of said tie, with a plurality of rods connected to the bottom of the inverted V-shaped trusses at the ends of the tie and passing over the top of the V-shaped truss in the center of the tie, and a single rod leading from the top of the inverted V-shaped trusses in the ends of the tie to the bottom of the V-shaped truss in the center of the tie, whereby to reinforce the tie against compressive and tensile strains, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

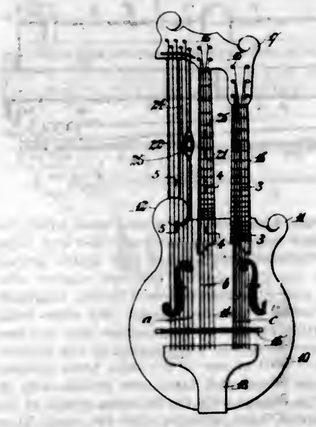
1,131,563. SAW-SET. ORVILLE R. SHOCKLEY, Sylvatus, Va. Filed June 10, 1914. Serial No. 844,273. (Cl. 76—65.)



A saw set comprising an anvil member, angular supporting members secured on opposite sides thereof and having a shaft adjustably mounted therebetween, a yoke member journaled on the shaft, a handle adjustably mounted in the yoke member, a hammer head reversibly mounted on the handle and adapted to engage the anvil member at different angles, and a gage member adjustable upon the anvil member for determining the degree of engagement of the hammer head with the tooth of a saw.

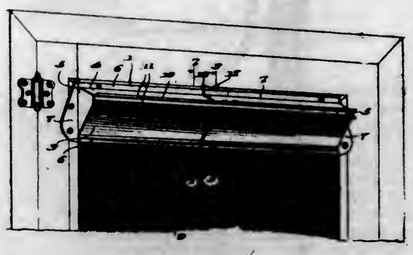
1,131,564. DOUBLE-BASS GUITAR. ALBERT SHUTT, Topeka, Kans. Filed Mar. 29, 1912. Serial No. 687,130. (Cl. 84—133.)

1. In a musical instrument, the combination with an instrument body, having strings passing longitudinally over the same, of a plurality of relatively spaced finger boards having connection with the body and projecting therefrom, with the said strings passing longitudinally over the said finger boards, a head common to both finger boards at their outer ends, with the said strings connected to the head, a scroll formed with the body at one end thereof, and a third member spaced from the other members and having connection with the said scroll and the said head.



2. In a musical instrument, the combination with an instrument body, of a plurality of relatively spaced members forming finger boards and projecting from one end of the body, said members being substantially parallel, a head common to the said members at the outer ends thereof, a set of strings passing longitudinally over the said body and connecting with the said head, said set of strings passing longitudinally over one of the said members, a second set of strings passing longitudinally over the said body and connected to the said head, with the said second set of strings passing longitudinally over the other member, a third set of strings passing longitudinally over the said body and connecting with the said head, said third set of strings being spaced from the said first and second sets of strings and from the said members, and a third member having connection with the said body and the said head and lying behind the third set of strings, with the said third member spaced from and parallel to the said first and second mentioned members.

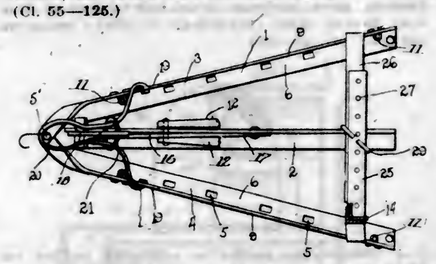
1,131,565. SCREEN ATTACHMENT. WILLIAM S. SIMONS, Houston, Tex. Filed May 2, 1914. Serial No. 835,916. (Cl. 156—37.)



1. An attachment for screens comprising a pair of adjustably connected sections each substantially V-shaped in cross section, said sections having alined exit openings at the apex of the V oppositely extending lips on opposite sides of the opening, means for attaching the device to a screen frame, and means for attaching one edge of the device to the screen fabric which conceals the ragged edge of the fabric.

2. An attachment for screens consisting of a pair of adjustably connected sections, each section comprising converging side members and an end member, said side members terminating short of the convergence point to provide an exit opening and being provided on opposite sides of the opening with oppositely extending lips, means for connecting the sections to the frame, and a clamping flange carried by each section and adapted to connect with the screen fabric and to conceal the raw edge thereof.

1,131,566. HARROW. JAMES MACK DUFFIE SINGLETON, Dublin, Ga. Filed June 17, 1914. Serial No. 845,650. (Cl. 55—125.)



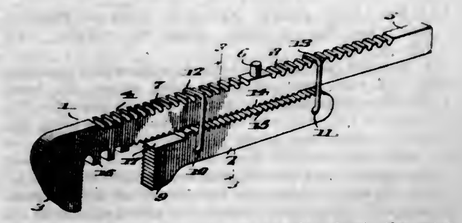
1. In a harrow, a pair of harrow teeth carrying bars pivotally connected at their forward ends, and adjustable harrow teeth carrying bars adjustably connecting the free ends of said first named bars.

2. In a harrow, a pair of harrow teeth carrying bars pivotally connected at their forward ends, and adjustable harrow teeth carrying brace bars connected to the rear ends of said first named bars, and a bracing bar disposed intermediate of said first named harrow teeth carrying bars and secured to said adjustable bracing bar.

3. In a harrow, a central bracing bar, a pair of harrow teeth carrying bars pivotally connected to the forward end of said central bracing bar and extending obliquely to the longitudinal lines of said central bar, means for detachably securing harrow teeth to said bars, and adjustable harrow teeth carrying bars for holding said pivoted harrow teeth carrying bars in various adjusted positions.

4. In a harrow, a central bracing bar, a pair of harrow teeth carrying bars pivotally connected to the forward end of said central bracing bar and extending obliquely to the longitudinal lines of said central bar, means for detachably securing harrow teeth to said bars, adjustable harrow teeth carrying bars for holding said pivoted harrow teeth carrying bars in various adjusted positions, handles secured to said central bracing bar, and adjustable supporting bars for said handles secured to said rear harrow teeth carrying bars.

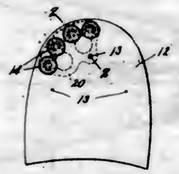
1,131,567. WRENCH. JOSEPH C. SKALICKY, Willow, Okla. Filed Nov. 12, 1913. Serial No. 800,577. (Cl. 81—134.)



In a wrench, a head having an angular shank, the outer edge of the said shank having a stop, said outer edge having a plurality of spaced grooves which are arranged to the opposite sides of the stop and the outer walls provided by the grooves being inclined in the direction of the stop,

the opposite edge of the shank having spaced teeth, a movable jaw member provided with a shank having teeth, links connected with the shank of the movable member and straddling the shank of the first mentioned member and adapted to be received within the transverse grooves of the said member to the opposite sides of the stop, and the said links being of a length to support the movable member and retain the same out of engagement with the shank of the movable member when disposed at a substantially right angle to the said shank, and to force the teeth of the movable member into engagement with the teeth of the shank and disposed angularly of the said shank.

1,131,568. CUSHION-HEEL. SAMUEL D. SMITH, East Dedham, Mass., assignor of one-half to John C. Kennedy, Boston, Mass. Filed Sept. 21, 1914. Serial No. 862,728. (Cl. 36—59.)



1. A cushion heel having an anchoring member embedded therein, said member having a series of guiding apertures in a curved row, and a series of wear-resisting members having shank portions slidably engaged in said apertures.

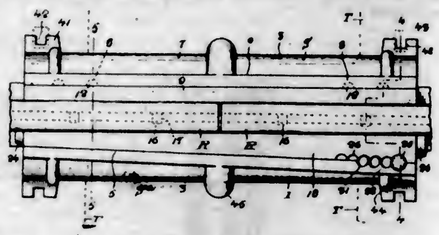
2. A cushion heel comprising an elastic body having holes extending upwardly from its tread surface, a wear-resisting member secured in the lower end of each hole and having a length less than the depth of said holes to permit the heel to be compressed without lessening the cushioning effect by the plugs, and anchoring means for preventing outward displacement of said members, said anchoring means extending in a direction away from the margin of the heel and embedded in the elastic body.

3. A cushion heel having holes extending upwardly from its tread surface, a wear-resisting member secured in the lower end of each hole and having a length less than the depth of said holes to permit the heel to be compressed without lessening the cushioning effect by the plugs, and an anchoring member for preventing outward displacement of said wear-resisting members, said latter members being loosely connected with the anchoring member to permit them to move vertically independently of the anchoring member.

4. A cushion heel comprising an elastic body having a plurality of wear-resisting members near its margin, and a single anchoring member connecting and extending inwardly from said members for preventing lateral displacement of said members, said anchoring member being embedded in the elastic body between its upper and lower surfaces.

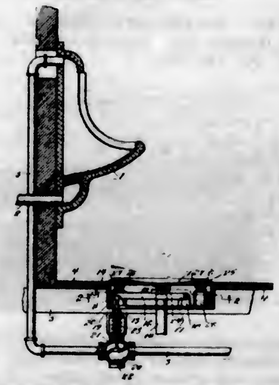
1,131,569. RAIL-JOINT. SAYLOR W. T. SWILL, Hunkers, Pa. Filed Mar. 4, 1914. Serial No. 822,498. (Cl. 239—6.)

1. In a rail joint, a chair having longitudinally arranged sides, the outer walls of which being arched, the inner walls of the sides having a channel at their juncture with the base of the chair and the said inner walls being disposed at a right angle to the base, the inner wall of one of the sides being inclined from one of the ends of the chair to the opposite end thereof, rails resting upon the base between the sides, a brace bar for each of the sides and engaging with the opposite sides of the rails and both of the brace bars having their outer faces complementary to the inner face of the side upon which it is arranged, integrally formed means upon one of the brace bars for retaining the same upon the side, the other brace bar having its outer face at its enlarged end provided with spaced depressions, the wall of the side having similar depressions, the base having openings which register with certain of the depressions, a key adapted to be arranged within two of the registering depressions to pass through one of the openings in the base, and said key having its shank formed with spaced malleable legs which are adapted to be spread in opposite directions below the base of the chair.



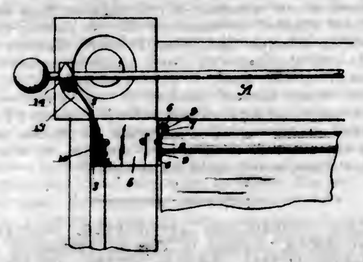
2. In a rail joint, a chair having a base upon which the rail ends rest, said base having integral sides and being provided at its corners with slotted lugs which project byond the sides, the chair having end and central reinforcements, the central reinforcements having longitudinally extending webs which are spaced, the sides being provided each with a channel at its juncture with the base and being arranged vertically with respect to the horizontal base, the inner wall of one of the sides being inclined from one end to its second end, brace bars having their inner faces formed to engage with the finishing spaces of the rails and their outer faces agreeing with the inner faces of the sides, one of the said bars having projecting studs which enter the bolt openings in the webs of the rails, the said member having its outer face formed with teats which engage within the depressions in the side of the chair, the second member having its outer face at its enlarged end provided with spaced depressions, the inner wall of the side being provided with similar depressions arranged to register with one of the depressions in the brace, the base of the chair having spaced openings, one of which adapted to register with the registering depressions, the said openings being countersunk at the underface of the base, ties supporting the chair at the opposite ends thereof, headed keys having slotted shanks adapted to be arranged within the registering depressions and to pass through one of the openings in base and to be spread in opposite directions and forced into contact with the tie.

1,131,570. FLUSHING APPARATUS. JOHN S. TAYLOR, Waipahu, Hawaii. Filed July 22, 1914. Serial No. 852,510. (Cl. 4—12.)



In flushing apparatus, the combination of an elevated bowl, a water supply pipe leading to said bowl, a depressible foot platform set into the floor adjacent to said bowl, a casing in which said platform is movable detachably seated in an opening in the floor, said casing having its bottom closed with the exception of an opening for a valve stem, an automatic cut off valve in said water supply pipe and under said casing, said valve having a stem extending upwardly into said platform casing, a valve opening lever fulcrumed in, attached to and removable with said casing and normally resting on said valve stem, and means for yieldingly upholding said platform.

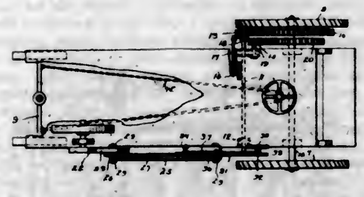
1,131,571. COMBINED CURTAIN-POLE AND WINDOW-SHADE BRACKET. EMIL THIEME, Warren, Ohio. Filed May 15, 1914. Serial No. 838,816. (Cl. 156—24.)



1. A device of the class described comprising a base plate having spaced ears at one shorter edge thereof and at right angles to the plane of the same, an extension formed at the other shorter edge of the plate and bent to form a socket, and a curtain shade bracket swingingly connected to the said ears whereby the same can be projected beyond either face of the base plate.

2. A device of the class described comprising a base plate having spaced ears at one shorter edge thereof and at right angles to the plane of the same, an extension formed at the other shorter edge of the plate and bent to form a socket, a curtain shade bracket swingingly connected to the said ears whereby the same can be projected beyond either face of the base plate, and a pole support insertible in the socket from either end thereof.

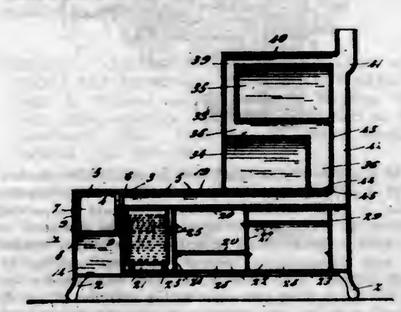
1,131,572. GEARING FOR TRACTION-ENGINES. MARTIN A. THORESON, Murdock, Minn. Filed Nov. 19, 1913. Serial No. 801,945. (Cl. 74—26.)



1. In combination, a support, a drive shaft rotatably mounted on said support, a drive wheel mounted on said shaft, a frame movable toward or away from said wheel, arms pivotally supporting said frame on said support, a wheel rotatably mounted in said frame for frictional engagement with the drive wheel, a driven shaft rotatably supported under said support, a driving connection between the second mentioned wheel and said driven shaft, means for shifting the frame longitudinally including a pivoted lever having yieldable connection with said frame.

2. In combination, a support, a drive shaft on said support, a drive wheel on said drive shaft, a U shaped frame, means for pivotally supporting said U shaped frame above said support, an intermediate shaft rotatably mounted between the free extremities of said U shaped frame, a wheel on said intermediate shaft adapted to engage said drive wheel, a driven shaft rotatably mounted under said support, a driving connection between said intermediate shaft and said driven shaft, the bight portion of said U shaped frame having an opening therethrough, a rod slidable in said opening, a guide bar secured transversely of said frame and slidably receiving said rod, a collar fixed on said rod between the web portion of said frame and said guide bar, a spiral spring coiled on said rod normally retaining said frame extended toward said drive wheel, and means for adjustably securing said rod.

1,131,573. STOVE AND RANGE. GEORGE W. THURMAN, Cache, Okla., assignor of forty-eight one-hundredths to Benjamin H. Good, Cache, Okla. Filed Jan. 14, 1914. Serial No. 812,699. (Cl. 126—1.)



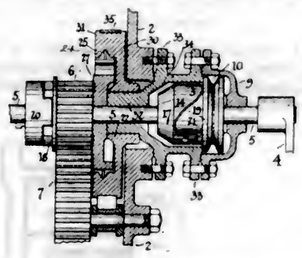
1. The herein described stove comprising a body having a fire box at one end, a flue leading from the fire box rearwardly and directly over the top of the stove, a vertical direct flue at the rear end of the stove and communicating at its lower end with the first named flue, a tortuous flue communicating at its lower end with the first named flue and at its upper end with the direct draft flue, a damper common to the first named flue, the direct draft flue and the tortuous flue to direct the products of combustion either through the direct draft flue or the tortuous flue and ovens arranged in the angles of the tortuous flue, one of said ovens being on the top of the stove and the other being arranged between the tortuous flue and the direct draft flue.

2. The herein described stove comprising a body having a fire box at one end, a flue leading from the fire box rearwardly and directly over the top of the stove a vertical direct flue at the rear end of the stove and communicating at its lower end with the first named flue, a tortuous flue communicating at its lower end with the first named flue and at its upper end with the direct draft flue a damper common to the first named flue, the direct draft flue and the tortuous flue to direct the products of combustion either through the direct draft flue or the tortuous flue and ovens arranged in the angles of the tortuous flue, one of said ovens being on the top of the stove and the other being arranged between the tortuous flue and the direct draft flue, the stove being further provided with an ash pit below the fire box, a water heating compartment next the fire box, and a hot or warm oven next the water heating compartment, said water heating compartment and said hot or warming oven being arranged below the first named flue.

1,131,574. WINCH MECHANISM. MARIO FRANCESCO TORAZZI, Ipswich, Queensland, Australia. Filed Dec. 11, 1913. Serial No. 806,128. (Cl. 74—13.)

1. In a device of the character described, the combination of a frame provided with a friction surface, a shaft slidably journaled in said frame, a transmission element mounted on said shaft, a clutch between said transmission element and shaft arranged to be disengaged when the

latter is moved in one direction, a friction head fixed on said shaft and adapted to engage the friction surface on said supporting structure and brake the shaft when the latter is moved to disengage said clutch, a ratchet wheel loosely mounted on said shaft, a pawl for engaging with said ratchet wheel to prevent rotation thereof in one direction, and means arranged between said ratchet wheel and friction head for moving the latter to engage the friction surface when the shaft is rotated in a direction to lock said ratchet wheel, substantially as described.



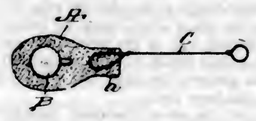
2. In a device of the character described, the combination of a supporting structure provided with a friction surface, a shaft slidably journaled in said supporting structure, a transmission element loosely mounted on said shaft, a brake drum mounted for rotation coaxial with said transmission element, yieldable gearing arranged between said brake drum and transmission element for interlocking the same during rotation in one direction, means for yieldingly holding said brake drum against rotation, a clutch between said transmission element and shaft arranged to be disengaged when the shaft is moved in one direction, a friction head fixed on said shaft and adapted to engage the friction surface on said supporting structure and brake the shaft when the latter is moved to disengage said clutch, and means associated with said friction head for moving the latter into engagement with the friction surface when the shaft is rotated in one direction, substantially as described.

3. In a device of the character described, the combination of a supporting structure provided with a friction surface, a shaft slidably journaled in said supporting structure, a transmission element loosely mounted on said shaft, a brake drum mounted for rotation coaxial of said transmission element, yieldable gearing arranged between said brake drum and transmission element for interlocking the same during rotation in one direction, means for normally holding said drum against rotation, means for controlling the release from said first-named means, a clutch between said transmission element and shaft arranged to be disengaged when the latter is moved in one direction, a friction head fixed on said shaft and adapted to engage the friction surface on said supporting structure and brake the shaft when the latter is moved to disengage said clutch, and means associated with said friction head to move the same to engage the friction surface when the shaft is rotated in one direction, substantially as described.

4. In a device of the character described, the combination of a supporting structure provided with a friction surface, a shaft slidably journaled in said supporting structure, a transmission element loosely mounted on said shaft, a brake element mounted for rotation coaxial with said transmission element, one of said elements being provided with an annular groove, coöperating pawls carried by the other of said elements for bearing in the annular groove and interlocking said elements during rotation in one direction, means for yieldingly holding said brake element against rotation, a clutch between said transmission element and shaft arranged to be disengaged when the shaft is moved in one direction, a friction head fixed on said shaft and adapted to engage the friction surface on said supporting structure and brake the shaft when the latter is moved to disengage said clutch, and means associated with said friction head for moving the same to engage the friction surface when the shaft is rotated in one direction, substantially as described.

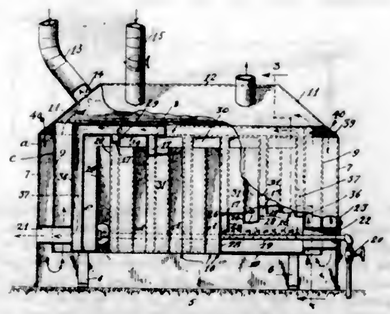
5. In a device of the character described, the combination of a supporting structure provided with a friction surface, a shaft slidably journaled in said supporting structure, a transmission element loosely mounted on said shaft, a brake element mounted coaxial with said transmission element, one of said elements being provided with an annular groove, coöperating pawls carried by the other of said elements for bearing in the annular groove and interlocking said elements during rotation in one direction, means for yieldingly holding said brake element against rotation, a clutch between said transmission element and shaft arranged to be disengaged when the shaft is moved in one direction, a friction head fixed on said shaft and adapted to engage the friction surface on said supporting structure and brake the shaft when the latter is moved to disengage said clutch, a ratchet wheel loosely mounted on said shaft, a pawl arranged to lock said ratchet wheel against rotation in one direction, and means interposed between said ratchet wheel and friction head for moving the latter to engage the friction surface when the shaft is rotated in a direction to lock said ratchet wheel, substantially as described.

1,131,575. COMBINED APPLICATOR, CONTAINER, AND SWAB. ARNOLD D. TUTTLE, Washington, D. C. Filed Dec. 14, 1914. Serial No. 877,190. (Cl. 128—28.)



A device for transporting and applying liquids comprising an absorbent, hollow pad, and a friable liquid container containing liquid connected to said pad, and with a handle also connected to said pad, substantially as described.

1,131,576. HOT-AIR FURNACE. RAYMOND H. VONDENBOSCH, Los Angeles, Cal., assignor to The Central Hardware Company, Los Angeles, Cal., a Corporation of California. Filed Jan. 27, 1913. Serial No. 744,407. (Cl. 126—116.)



1. An air heating furnace, comprising a combustion chamber, a horizontal flue arranged above the combustion chamber, a plurality of heat radiating units interposed between the combustion chamber and the flue, said units forming the sides and top of the combustion chamber, and formed with vertically disposed triangular shaped passages open at their vertical side and top and with adjacent passages oppositely disposed in relation to each other

so as to direct the currents of air from opposite sides of the radiators against the bottom and around the sides of the flue, a hot air chamber above the flue having discharge outlets, walls forming a vertical air passage surrounding the radiators and communicating with said hot air chamber and with the triangular passages, and walls forming a superheating air passage surrounding said vertical passage and connecting with the latter at its lower end and having an air intake opening at the top of the exterior passage.

2. An air heater, comprising an exterior casing, a partition paralleling the side and end walls of said casing and forming an air passage open at its top, said air passage communicating with the space inside of the partition at its bottom, a dome covering the space inclosed by the partition and forming a hot air space, a horizontally extending flue within the dome on a plane at the top of the partition, a series of heat radiators connected to the under side of said flue forming the top and sides of a combustion chamber, a floor forming the bottom of said combustion chamber on which said radiators are supported, vertical flues formed by the radiators and leading from the combustion chamber to the flue, and a series of vertical oppositely disposed triangular passages formed in the radiators between said flues, said passages opening to the space inclosed by the partition and adapted to direct air against the under side of the horizontal flue and to the hot air space from opposite sides of the radiators.

3. In a heater, a radiator unit, comprising an intermediate plate, oppositely disposed inclined plates on the opposite sides of the intermediate plate at right angles thereto, said intermediate plate being cut away below the angle of intersection of said inclined plates, vertically extending plates joined to the outer edges of the inclined plates, and oppositely extending side-wall plates affixed to the vertical edges of the intermediate plate and projecting beyond the outer faces of the vertically extending plates and adapted to abut against the vertical plates of adjacent complementary radiator units.

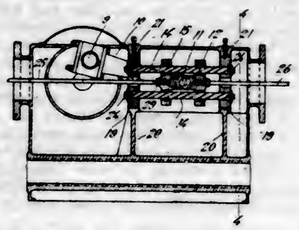
4. In an air heater, a radiator unit, comprising a vertical intermediate rectangular plate, an inclined plate on each side of the intermediate plate at right angles thereto extending diagonally from the opposite upper corners of said intermediate plate to its lower corners, outer plates joined to the edges of the inclined plates extending upward parallel with the intermediate plate and projecting a short distance above the upper edge of the latter, and oppositely extending side plates on the vertical edges of the intermediate plate extending beyond the outer plates and adapted to abut against the outer plates of adjacent radiator units to form vertical passages between adjacent units.

5. In an air heater, a plurality of radiator units, each of said radiators comprising a central vertically disposed rectangular plate, inclined rectangular plates on opposite sides of said central plate extending diagonally from the opposite upper corner of said plate to its lower corners, said central plate being cut away below the point of crossing of said diagonal plates, outer plates joined on the outer edges of the diagonal plates and forming triangular shaped passages above the diagonal plates leading from one side of the radiator to the other, said outer plates extending above the central plate to form communication between the passages on opposite sides of said central plate, and side-wall plates affixed to the vertical edges of the central plate and extending in opposite directions and projecting beyond the outer plates so as to form open ended vertical passages between adjacent radiator units.

[Claims 6 and 7 not printed in the Gazette.]

1,131,577. AIR-COMPRESSOR. CHARLES WAINWRIGHT, Erie, Pa. Filed Oct. 31, 1911, Serial No. 657,697. Renewed July 2, 1914. Serial No. 848,695. (Cl. 230—27.)

In an air compressor, the combination with a frame and pump mechanism mounted on the frame and including piston rods; of a pair of centering blocks detachably secured to the frame and arranged in spaced relation, cross head guides connected to said centering blocks, and a cross head adapted for connection to the piston rod of



the pump mechanism and including detachable sections mounted on said guides.

1,131,578. VARNISHES AND OTHER LIKE MATERIALS AND PROCESS FOR PRODUCING SAME. ALFRED B. WALKER and FRANKLIN P. WALKER, Cincinnati, Ohio, assignors of one-half to William R. Wood, Cincinnati, Ohio. Filed Oct. 31, 1910. Serial No. 590,036. (Cl. 134—26.)

1. A new article of manufacture, consisting of a liquid comprising a solution of aluminum soap with a metallic base.

2. A new article of manufacture, an anhydrous liquid varnish comprising a solution of aluminum soap with an oxid of an alkaline earth metal.

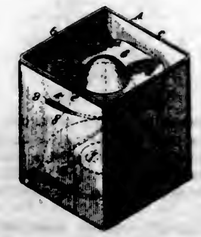
3. A varnish product comprising a liquid resulting from the solution of metallic soap with a metallic base having the property of entering into solution therewith, the said substances constituting the essential varnish base and said solution being reduced to proper fluid consistency by suitable varnish dilutant carrier.

4. A varnish product comprising a liquid resulting from the solution of an oil, metallic soap, and a base having the properties of dissolving therein.

5. A varnish comprising a liquid solution of a metallic soap of aluminum and an oxid of an alkaline earth metal, characterized by an absence of organic resins or gums.

[Claims 6 to 18 not printed in the Gazette.]

1,131,579. PARCEL-POST EGG-CARRIER. MACKEE B. WALLACE, San Francisco, Cal. Filed Oct. 22, 1913. Serial No. 796,627. (Cl. 217—29.)



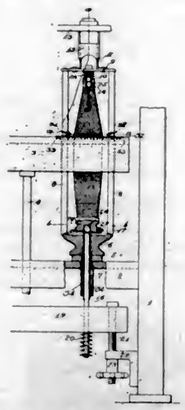
1. An individual egg carrier, comprising, an integral strip of material foldable to form a rectangular case of greater interior diameter and length than the diameter and length respectively of the egg, and disks having central openings to receive the ends of the egg to thereby positively retain the periphery of the egg out of contact with the sides of the case, said disks having portions projecting outwardly from the outer side faces of the case and located intermediate the sides of the strip whereby the sides of the strip project beyond the ends of the egg and form ends for the case which ends are each completely open and completely encircle the egg and hold same out

of contact with any support on which the ends of the case may be placed.

2. An individual egg carrier consisting of an openable wrapper which encircles the egg sides and which has a series of spaced slots adjacent each end thereof, and a pair of disks each having a single central aperture, said disks being disposed at the respective ends of said wrapper, each disk having a peripherally arranged lug which has an edge which is inclined radially of the disk, the peripheries of the disks extending through the respective slots of the wrapper, said disks being partially rotatable relative to the wrapper to enable the inclined edge of the lug to be brought to engage the outer face of one of the free side walls of the wrapper at a point beyond the ends of the slots through which the lugs pass to hold the wrapper.

3. An egg carrier consisting of an openable wrapper which has a series of spaced slots adjacent each end thereof, and a pair of disks each having an aperture, said disks being disposed at the respective ends of said wrapper, said disks having portions thereof which extend through the respective slots of the wrapper and having their apertures adapted for the reception of the egg ends to hold the eggs against endwise movement and out of engagement with the inner side faces of the wrapper, said disks being rotatable relative to the wrapper, and means on the disks extending through the slots and having a portion located exteriorly of the wrapper adapted to engage the outer face of one of the free ends of the wrapper to hold same against opening movement.

1,131,580. SPINNING-MACHINE. PAUL WALLACE, Philadelphia, Pa. Filed Sept. 18, 1912. Serial No. 721,031. (Cl. 118—27.)



1. The combination of a rigidly mounted tube; a rod rotatable within the tube and having a portion frictionally bearing thereon; a bobbin mounted on the end of said rod; means for winding yarn on the bobbin; and means for varying the friction between the said tube and the bobbin.

2. The combination of a rigidly mounted tube; a rod rotatable within said tube and having a portion in frictional engagement with the same; a bobbin secured to said rod; and means operable on said rod for varying the friction between the latter and said tube.

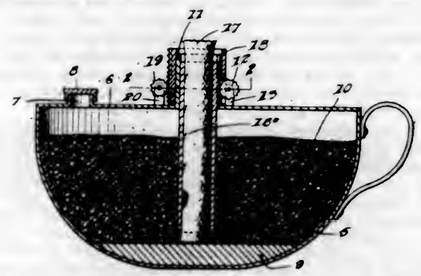
3. The combination of a rotatable filer; a bobbin; a rigidly mounted tube passing through said filer; a rod rotatable within said tube and detachably secured to said bobbin, said rod having a portion adapted to frictionally engage one end of said tube; with means operable on the rod for varying the intensity of friction between the latter and said tube.

4. The combination of a bobbin; a rigidly mounted tube; a rotatable rod passing through said tube and detachably secured to said bobbin, said rod having a portion adapted to frictionally engage one end of said tube; a spring operable upon the rod; a member operable on said spring; and adjusting means coöperating with said member to vary the intensity of friction between said rod and tube.

5. The combination of a supporting structure; a rotatable filer; a tube rigidly mounted on said supporting structure and forming a journal for said filer; a bobbin; a rod rotatably mounted in said tube and detachably connected to the bobbin, said rod having a portion adapted to frictionally engage said tube; and means operable on said rod for varying the intensity of friction between the latter and said tube.

[Claims 6 to 10 not printed in the Gazette.]

1,131,581. LAMP-BURNER. JOHN P. WALSH, New York, N. Y., assignor of one-half to Henry J. McGuckin, New York, N. Y. Filed June 17, 1914. Serial No. 845,636. (Cl. 67—65.)

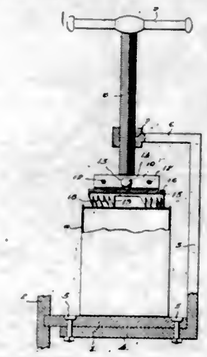


1. In combination, a body having a central opening and an upstanding annular flange at the edge of said opening, an absorbent filler positioned within said body in spaced relation to the top of the latter and having a central opening registering with the first mentioned opening, a wick tube slidable vertically within said opening and terminating in spaced relation to the bottom of said body, a wick removably positioned in said tube projecting from the lower end thereof and being in contact with said absorbent filler, said upstanding annular flange having a vertically elongated slot therein, and a plurality of teeth projecting laterally from the upper extremity of said wick tube slidably seated in said vertical slot, a plurality of pronga formed integral with the inner face of said wick tube and projecting inwardly and upwardly of tne latter, and a gear wheel rotatably mounted upon said body, projecting into said vertical slots and meshing with the laterally projecting teeth of said wick tube.

2. In combination, a body having a central opening and an annular upstanding flange at the edge thereof, a wick tube slidable vertically in said annular flange, said flange having a vertically elongated slot therein, teeth projecting laterally from the upper extremity of said wick tube slidably mounted in said slot, a gear wheel rotatably supported on the top of said body projecting through said slot and connecting with said teeth, a dimmer and extinguisher sleeve slidably mounted over said annular flange, a plurality of teeth projecting laterally of said sleeve, a gear wheel rotatably supported on said body meshing with the last mentioned teeth, said sleeve having a vertical slot extending upwardly from the lower edge thereof and slidably receiving the first mentioned gear wheel whereby said dimmer and extinguisher sleeve is secured against rotation.

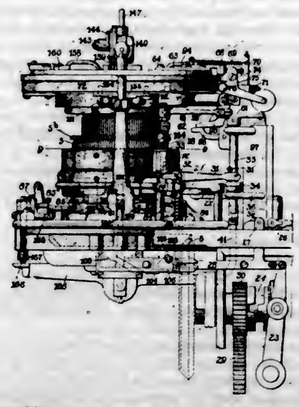
1,131,582. CAN-OPENER. JOHN P. WALSH, New York, N. Y., assignor of one-half to Henry J. McGuckin, New York, N. Y. Filed Oct. 3, 1914. Serial No. 864,913. (Cl. 30—3.)

1. A can opener comprising a bracket having a horizontal arm provided with a threaded bore therein, a threaded shaft or plunger mounted in the bore and provided with a handle, said shaft having separable members provided with a ball socket at one end, a cutter comprising a frame having a ball thereon to engage said socket, said frame being provided with projecting cutters or blades, each having an inclined cutting edge and a vertical unsharpened edge, said shaft or plunger being rotatable to force the blades or cutters into a can.



2. A can opener comprising a cutter frame, blades connected to said frame and each provided with an inclined cutting edge and an angular unsharpened edge, a plunger or shaft mounted in a bracket and connected to said cutter by a ball and socket joint, whereby the plunger may be moved toward a cam without rotating the cutter.

1,131,583. CIRCULAR-KNITTING MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Hemphill Manufacturing Company, Central Falls, R. I., a Corporation of Rhode Island. Filed Oct. 2, 1912. Serial No. 723,522. (Cl. 66—24.)



1. In combination in a circular stocking knitting machine, a cylinder having rotary and reciprocating movement, long butt heel and toe needles and short butt instep needles, mechanism for changing the cylinder from rotary to reciprocating movement and controlling mechanism for knitting on both the long and short butt needles during circular work, and for rendering the short butt needles inoperative, and knitting on the long butt needles alone during reciprocating work, including means for rendering the short butt needles inoperative, and a stitch cam adjustable radially of the machine out of operative relation to the short butt needles, substantially as described.

2. In combination in a circular stocking knitting machine, a cylinder having rotary and reciprocating movement, long butt heel and toe needles and short butt instep needles, mechanism for changing the cylinder from rotary to reciprocating movement, and controlling mechanism for knitting on both the long and short butt needles during circular work and for rendering the short butt needles inoperative, and knitting on the long butt needles alone during reciprocating work, including means for rendering the short butt needles inoperative, and a stitch cam adjustable radially of the machine and vertically in relation to the plane of movement of the needles, substantially as described.

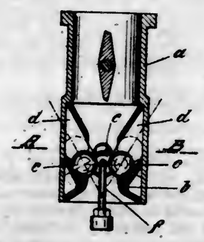
3. In combination in a circular stocking knitting machine, a cylinder having rotary and reciprocating movements, long and short butt needles, cams for operating the needles, mechanism for changing the cylinder from rotary to reciprocating movement and controlling mechanism for knitting on both the long and short butt needles during circular work and for rendering the short butt needles inoperative and knitting on the long butt needles alone during reciprocating work, substantially as described.

4. In combination in a circular stocking knitting machine, a rotary and reciprocating needle cylinder, a set of long butt needles, a set of short butt needles, a set of long butt call jacks controlling the short butt needles, a set of short butt call jacks controlling the long butt needles, cams for the needles, cams for the call jacks, means for rendering the long butt call jacks inoperative and narrowing and widening mechanism operating upon the short butt call jacks, substantially as described.

5. In combination in a circular stocking knitting machine, a cylinder having rotary and reciprocating movement, long and short butt needles, two stitch cams therefor disposed at different points circumferentially of the cylinder, means for automatically adjusting the stitch cams radially out of line with the short butt needles when the machine goes on reciprocating knitting, and means for rendering the short butt needles inoperative, substantially as described.

[Claims 6 to 73 not printed in the Gazette.]

1,131,584. SPRAY-CARBURETER. THEOPHILE WILDT, Bielefeld, Germany. Filed Mar. 6, 1914. Serial No. 822,954. (Cl. 48—155.2.)

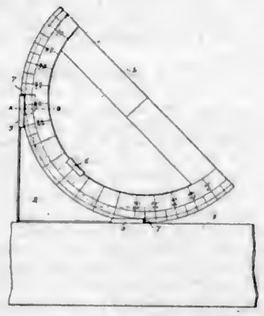


In a spray carbureter, the combination with the spray nozzle, of an intake pipe surrounding said nozzle and provided with a plurality of channels, a plurality of balls in said channels and adapted under all conditions of the air suction to move away from or toward said spray nozzle, whereby to increase or diminish the cross section of said air intake.

1,131,585. ATTACHMENT FOR PROTRACTORS. OWEN J. WILLIAMS, Duluth, Minn. Filed Mar. 28, 1914. Serial No. 827,906. (Cl. 33—75.)

1. The combination with a circular protractor, of an attachment therefor, said attachment comprising a body portion having two uninterrupted arms disposed at right angles to each other, of inwardly projecting flanges integral with the said arms, and an opposed flange intermediate the first-mentioned flanges and integral with said body portion, for the purpose described.

2. The combination with a circular protractor having a straight edge, of an attachment therefor comprising a body portion having two uninterrupted arms at right angles to each other, and of a length exactly equal to the radius of the protractor, said arms providing means whereby the attachment to the protractor is adjustably made and the angle of the said straight edge with respect to said arms may be determined.



3. The combination with a circular protractor having outer and inner peripheral edges, of an attachment therefor, comprising a right angular sheet, means integral with the said sheet for engaging the outer and inner peripheral edges of the protractor.

4. The combination with a circular protractor having outer and inner peripheral edges, of an attachment therefor comprising a right angular sheet, lips carried on the outer edge of the right angular sides of the said sheet, an arm integral with the said sheet intermediate the right angular sides, a lip carried by the outermost edge of the said arm, the said protractor having its inner and outer peripheral edges frictionally engaged by the lips carried by the sides and said arm respectively.

5. The combination with a circular protractor having outer and inner peripheral edges, of an attachment therefor compriaing a right angular plate having lips in its outer edges, an arm carried by the plate between its right angular sides having a lip thereon, said protractor arranged adjacent the plate and having its inner and outer peripheral edges frictionally engaged by the lips on the edges and the arm carried by the plate, the right angular edges of the said plate being of a length equal to the radius of the protractor.

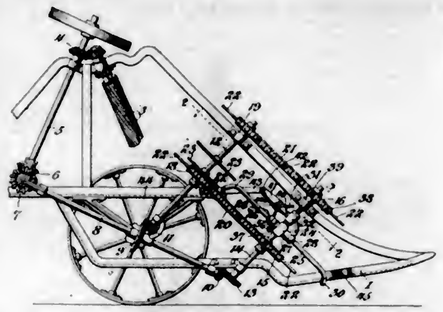
[Claims 6 to 8 not printed in the Gazette.]

1,131,586. CORN-HARVESTER. JAMES E. WOOD, deceased, Aurora, Ill., by Flora A. Wood, administratrix, Aurora, Ill., assignor of forty-six and one-third one-hundredths to Charles A. Love, Aurora, Ill. Filed Dec. 20, 1913. Serial No. 807,990. (Cl. 56—113.)

1. In a structure for the purpose described, an elongated rotatable member rockable about its longitudinal axis and having its axis of rotation inclined to the vertical and perpendicular to said longitudinal axis.

2. In a structure for the purpose described, a rotatable member having its axis of rotation inclined to the vertical and said member being extended perpendicular to the axis of rotation, said rotatable member being also mounted for rocking movements about its longitudinal axis, and said elongated rotatable member having its terminal portions both on one side of the axis of rotation and directed oppositely with respect one to the other.

3. In a structure for the purpose described, a rotatable member having its axis of rotation inclined to the vertical and said member being extended perpendicular to the axis of rotation, said rotatable member being also mounted for rocking movements about its longitudinal axis, and said elongated rotatable member having its terminal portions both on one side of the axis of rotation and directed oppositely with respect one to the other, said rotatable rocking member also being provided with operating fingers on opposite sides of its axis of rotation, and a relatively fixed member in the path of the fingers for engaging them in succession as the member rotates to cause the rocking movements thereof.



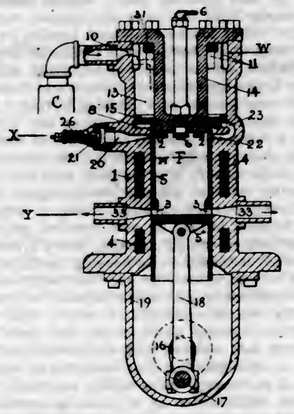
4. In a corn harvester, a lifting member for fallen stalks of corn comprising a shaft mounted in the harvester structure at a forwardly inclined angle, means for rotating the shaft, an elongated member mounted on the shaft with its longitudinal axis perpendicular to the axis of rotation of the shaft, said elongated member having oppositely directed treminal portions both projecting from one side of the longitudinal axis of the elongated member, actuating fingers mounted on the elongated member on opposite sides of its axis of rotation, and a relatively fixed member in the path of the fingers in position to be engaged in succession by the fingers to cause the rocking of the elongated member on its longitudinal axis.

5. In a corn harvester, a lifting member for fallen stalks of corn, comprising a shaft mounted in the harvester structure at a forwardly inclined angle, means for rotating the shaft, an elongated member mounted on the shaft with its longitudinal axis perpendicular to the axis of rotation of the shaft, said elongated member having oppositely directed terminal portions both projecting from one side of the longitudinal axis of the elongated member, actuating fingers mounted on the elongated member on opposite sides of its axis of rotation, and a relatively fixed member in the path of the fingers in position to be engaged in succession by the fingers to cause the rocking of the elongated member on its longitudinal axis, the relatively fixed member being in the form of a roller with a conical engaging portion for the fingers, and said fingers being curved with relation to the conical portion of the roller to cause the fingers to have a rolling engagement with the roller.

[Claims 6 to 15 not printed in the Gazette.]

1,131,587. INTERNAL-COMBUSTION ENGINE. FRANK O. WOODLAND, Worcester, Mass. Filed Mar. 22, 1912. Serial No. 685,580. (Cl. 123—65.)

1. In an internal-combustion two-cycle engine, in combination, a dual-bore cylinder, its upper portion being of larger internal diameter than its lower portion, the cylinder head provided with an internal cylindrical element extending within the larger diametered portion of the cylinder and into the piston, affording an annular chamber including a fuel-receiving chamber and a compression chamber within the upper part of the cylinder, the fuel supply conduit leading into the upper part of said chamber, a tubular piston having a piston-disk fixed therein, its tubular body fitting the smaller diametered portion of the cylinder, and extending into said annular chamber about said internal cylindrical element, and provided with an annular flange-head fitting within the chamber, said piston having exit-ports adjacent to the inner face of its piston-disk that register with exhaust ports in the cylinder, a series of ingress-ports located below said annular flange-head for passage of the charge from the cylinder chamber through the tubular part of the piston into the combustion chamber, said ports positioned to open when the piston approaches the limit of its downward stroke.



2. In an internal-combustion engine of the two-cycle type, the engine-cylinder formed with the internal diameter of its upper portion larger than the internal diameter of its lower portion, and with an intermediate annular offset, an interior cylindrical element carried by the cylinder head and projecting within the larger diametered portion of said cylinder, affording an annular compression chamber and charge-receiving chamber therein, the end of said element being near the edge of said offset, with a circular space between; a reciprocating unitary tubular piston movably fitting the smaller diameter of the cylinder and the exterior of said inwardly projecting element, and having an interior disk, and an upper head-member fixed on the tubular piston and fitting the annular chamber, said piston forming a combustion-chamber and means for the passage of the charge from the receiving chamber above, to the compression chamber below said head member and provided with exit-ports at the base of its chamber, and having near its upper end ingress ports that come into open relation adjacent to the end of said interior cylindrical element by downward stroke of the piston.

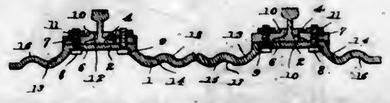
3. The combination of an engine cylinder provided with an internal cylindrical element, an annular chamber at its upper end surrounding said element, and an open lower end; a tubular piston having a disk, exit ports in the wall of the piston adjacent to said disk, and an upper annular outwardly projecting head that works within said annular chamber, said piston also provided with a ring of ports disposed therein at a position to uncover or become open at or near the end of said internal element, and means for delivering the fuel medium into said annular chamber and a by-pass therefor from above to beneath the annular head of the piston, when at the upper end of said cylinder, substantially as set forth.

4. In an internal-combustion engine of the two-cycle type, an engine cylinder including a pumping and compressing chamber within said cylinder, a reciprocating tubular piston having the combustion chamber located therein, and provided with means for compressing the charge of explosive mixture within said pumping chamber, said cylinder having the inlet for the explosive mixture at the upper end of the pumping chamber, the interior of the cylinder being provided about the upper part of said chamber with recesses that terminate somewhat below the inlet opening, and a pass-way at the lower end of said pumping chamber for transferring said charge directly therefrom into the combustion chamber, by and during the downward or power-stroke of the piston.

5. In a two-cycle internal-combustion engine, the combination of the dual-bore cylinder having the greater internal diameter at its upper end, and an intermediate annular offset, an internal cylindrical element fixed within said cylinder and affording an annular chamber at the cylinder head, the reciprocating tubular piston having an annular flange-head surrounding said internal element within the cylinder chamber, the upper part of said cylinder chamber having an internal area of greater diameter than said flange head, to permit gas to pass the piston-head when near the top of said chamber, means for supplying explosive gas into the upper part of said chamber, said flange head of the piston acting to cut off the inflowing charge for compression, the piston tube being provided with ports for the passage of said gas from said chamber to the interior of the piston when at a predetermined position.

[Claims 6 to 8 not printed in the Gazette.]

1,131,588. METALLIC TIE. JOHN FREDERICK ZIMMERMAN, Waynesboro, Pa. Filed Oct. 31, 1914. Serial No. 869,645. (Cl. 238—5.)



1. A tie formed from a strip of metal including elevated rail seats, the ends of which being inclined in opposite directions to the body of the tie, and the said body having transverse corrugations.

2. A tie constructed from a rectangular metal plate, including horizontally straight rail seats, the ends of which being inclined in opposite directions to the body of the tie, and the said body being corrugated.

3. A tie constructed from a rectangular metal plate including horizontally straight rail seats provided with spaced ribs, the said seats being curved in opposite directions to the central portion of the body and to the ends of the tie, and the said body and ends being corrugated transversely.

4. A tie formed from a rolled strip of metal provided with horizontally straight elevated rail seats, the said seats having their longitudinal edges formed with upstanding ribs, the ribs being provided with central depressions, the lower walls of the depressions being provided with openings, and the said openings communicating with the pockets arranged upon the underface of the tie, the sides of the rail seats being inclined in opposite directions toward the central portion of the body and to the ends of the tie, the said inclined portions being corrugated and the central portion of the body and ends of the tie being transversely corrugated.

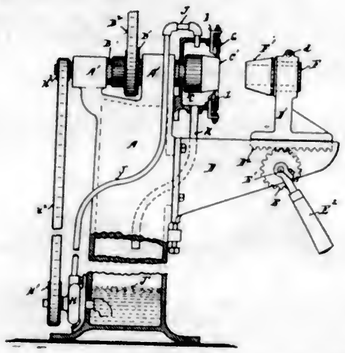
1,131,589. SKIVING-MACHINE. EDWARD E. ALLEN, Erie, Pa., assignor to Allen Machinery Company, Erie, Pa., a Corporation of Pennsylvania. Filed Dec. 29, 1913. Serial No. 809,374. (Cl. 164—69.)

1. The combination in a skiving machine of a rotary cutting knife, a hollow mandrel supported on and longitudinally movable along the axial lines of said knife, and having a tapering cylindrical surface in opposition to which said rotary knife may operate, substantially as and for the purpose set forth.

2. The combination in a machine of the class described, of a rotary knife adapted to make an annular cut parallel to the axis of its rotation, non-rotatable mechanism adapted to support the wall of a flexible tube in a conical form in opposition to said rotary knife, and mechanism to move said tube supporting mechanism toward and from said rotary knife, substantially as set forth.

3. The combination in a skiving machine of a hollow tapering mandrel, a rotary knife adapted to receive the smaller end of said mandrel within the orbit of its cutting edge and operate in opposition to the tapering surface of said mandrel, and means to move the one element toward the other, substantially as and for the purpose set forth.

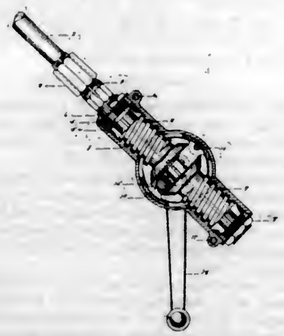
4. The combination in a skiving machine of a frame, a spindle journaled therein, a driving pulley on said spindle, a hollow cylinder having a cutting blade at the open end thereof secured on said spindle, a slidable mandrel holder mounted on said frame, a hollow mandrel having a tapering surface adapted to enter into the open end of said hollow cylinder so that said cutting blade thereon will operate in opposition to tapering surface of said mandrel, and means to move said mandrel holder toward and away from said spindle, substantially as set forth.



5. The combination in a skiving machine, of a frame, journal bearings thereon, a spindle mounted in said bearings, a driving pulley on said spindle, a cylinder secured on said spindle having an annular cutting edge at the open end thereof, a shield inclosing said cylinder, a lubricant pipe leading into said shield, a drainage pipe leading therefrom, a hollow mandrel having a tapering cylindrical surface supporting and longitudinally movable on the axial plane of said spindle, and means to move said mandrel forward and back, substantially as, and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,131,590. STEERING-GEAR FOR MOTOR-VEHICLES. WILLIAM H. APPLEMAN, Belmont, N. Y. Filed Nov. 11, 1912. Serial No. 730,707. (Cl. 74—79.)



1. The combination of a housing having a longitudinal chamber therein and carrying upper and lower internal threads, a rotatable steering post inserted within said longitudinal chamber, a pair of sleeve type members encircling and rotatable by said steering post, said sleeve type members having external threads which engage with the internal threads carried by said housing, and means for adjusting said externally threaded members toward or from each other.

2. The combination of a housing having a longitudinal chamber therein carrying upper and lower internal threads, a rotatable steering post inserted in said longitudinal chamber, a pair of sleeve type members encircling and rotatable by said steering post; having external threads which engage with the internal threads carried by said housing, a rocker journaled in said housing having an arm which engages with both of said externally threaded sleeve type members, and a means of adjusting said externally threaded sleeve type members toward and from each other.

3. The combination of a housing having a longitudinal chamber therein and carrying upper and lower internal threads, a rotatable steering post inserted within said longitudinal chamber, a pair of sleeve type members encircling and rotatable by said steering post, said sleeve type members having external threads which engage with the internal threads carried by said housing, a rocker journaled in said housing having an arm inserted between both of said rotatable externally threaded sleeve type members.

4. In the combination of a housing having a longitudinal chamber therein, a steering post inserted therein comprising two members which; while rotatable in unison, are also adjustably related rotatably, a sleeve type member encircling and moving longitudinally on each of said two members of said steering post, means for rotatably adjusting one of said steering post members in relation to the other and for locking them rigidly together.

5. The combination of a housing carrying internal threads, a rotatable steering post entering said housing, two members rotatable by, and moving longitudinally upon said steering post, each having external threads which engage with the internal threads carried by said housing, and means for adjusting one of said externally threaded members from or toward the other.

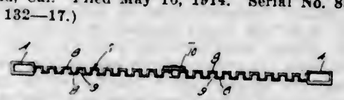
[Claims 6 to 9 not printed in the Gazette.]

1,131,591. CHECK-HOLDER. FREDERICK W. BAKER, Pittsburg, Kans. Filed Jan. 31, 1914. Serial No. 815,784. (Cl. 211—31.)



A check strip holder having sides, a bottom and a top, the latter being provided with a transverse slit at one end, a clip or guide over the other end, and a reel mounted for revolution between the sides of the holder, the strip on said reel being adapted to be passed through the said slit, over the top of the holder and under the clip, the top of the holder and the said clip presenting straight edges on which the check strip may be passed, the top of the holder and the said clip being provided with openings, to expose and enable the strip to be grasped.

1,131,592. SANITARY AND SELF-CLEANING COMB. THOMAS C. BAMFIELD and GEORGE RECHTER, Angel Island, Cal. Filed May 16, 1914. Serial No. 838,987. (Cl. 132—17.)



A comb and a cleaner therefor, said cleaner comprising a bar formed of a strip of metal bent into a series of oppositely disposed U-shaped members alternately arranged to inclose the teeth of the comb upon three sides of said teeth, and end loops on said bar for engaging the end teeth of the comb, stops to prevent the cleaner bar from being withdrawn entirely from the teeth of the comb during this operation, and a clasp for holding the cleaner up against the back of the comb.

1,131,593. GEM-SETTING. ULLA O. BASHOR, Dorris, Cal. Filed May 5, 1914. Serial No. 836,538. (Cl. 63—26.)



1. A casing for a cut gem or precious stone comprising a body of transparent material of shape and dimensions corresponding substantially to the shape and dimensions of the stone to be inclosed thereby, said body being provided with means for supporting the stone therein in close contiguity thereto so as to form a narrow intervening space between the surfaces of the stone and casing from which the air may be substantially exhausted.

2. The combination with a cut gem or precious stone, of a casing of transparent material inclosing the stone, said casing being substantially of the same shape as the stone, but of slightly larger dimensions, and means for holding the stone supported within the casing and in spaced relation thereto, the intervening space being substantially devoid of air.

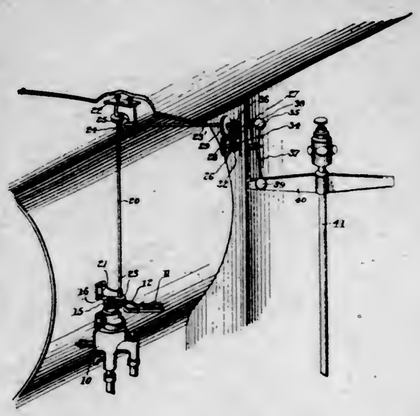
3. The combination with a cut gem or precious stone, of a casing of transparent material inclosing the stone, said casing being of substantially the same shape as the stone but of slightly greater dimensions, and notched shoulders upon the casing to engage portions of the surface of the stone and hold the same spaced from the wall of the casing, the intervening space being substantially devoid of air.

4. The combination with a cut gem or precious stone, said stone having a girdle, of a casing of transparent material inclosing the stone, said casing being of substantially the same shape as the stone but of slightly larger dimensions, and a series of spaced projections upon the casing to engage the girdle of the stone to support and hold the stone spaced from the casing, the space between the stone and casing being substantially devoid of air.

5. The combination with a cut gem or precious stone, of a casing of transparent material conforming substantially in size with and contour to the stone and completely enveloping the same, the casing and stone being held in slightly spaced relation and the intervening space being substantially devoid of air.

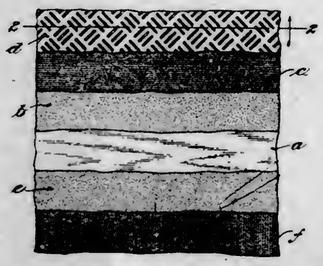
1,131,594. SAFETY APPLIANCE FOR RAILWAY-TRAINS. CLARENCE E. BAUMER and JOHN CORBEY, Troy, Ohio. Filed Apr. 15, 1913. Serial No. 761,279. (Cl. 246—59.)

In a safety device of the character described, the combination of a supporting plate a stub shaft, carried by and extending through said supporting plate, a gear wheel loosely mounted upon said shaft, a pawl carried by said gear wheel, a ratchet wheel positioned upon said shaft, said ratchet wheel provided with an integral sleeve fitting upon said shaft, said sleeve being fixedly secured to said shaft, said pawl engaging said ratchet wheel, a secondary gear wheel loosely mounted upon said shaft, said secondary gear wheel being held at a spaced distance from said first-mentioned gear wheel by means of said sleeve, a secondary ratchet wheel fixedly secured to said shaft adjacent said secondary gear wheel, a pawl carried by said secondary gear wheel and extending in the opposite direction to said first-mentioned pawl, cog wheels engaging the gear wheels whereby said cog wheels will rotate when said gear wheels are rotated, said cog wheels adapted to engage a valve-operating mechanism, an operating member fixedly secured to said shaft, said operating member adapted to strike a track obstacle whereby the same will be swung, said cogs



adapted to operate said valve-operating mechanism irrespective of the direction in which the shaft rotates.

1,131,595. FLOOR-COVERING. CHARLES S. BIRD and GEORGE R. WYMAN, East Walpole, Mass.; said Wyman assignor to said Bird. Filed Jan. 30, 1913. Serial No. 745,185. (Cl. 154—49.)



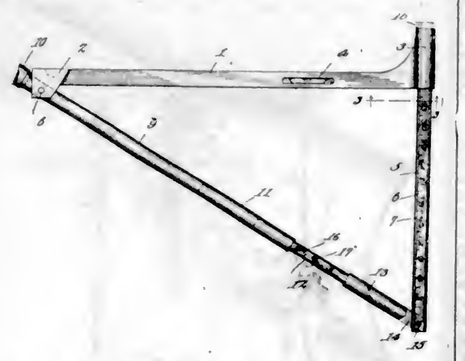
Floor covering of the nature described comprising a paper body or base treated with asphaltic material and having coatings of sand one of which has a sealing coating impervious to oil or asphalt, a wearing surface of paint applied to said sealing coating, and a backing coating applied to the other of said sand coatings, substantially as described.

1,131,596. DIRECTION-INDICATING ATTACHMENT FOR DRILLING-MACHINES. ROY ADDISON BOWEN, Commonwealth, Wis. Filed Apr. 25, 1914. Serial No. 834,425. (Cl. 33—88.)

1. A device for the purpose described, comprising a triangular frame having one side pivotally connected to the other side and pivotally connected to the end of the triangular frame, said end being in turn slidable in the second-named side, and the first-named side being variable as to length, said first-named side being also prolonged beyond the frame and there provided with means for attachment to the drill chuck of a drilling machine.

2. A device for the purpose described, comprising a triangular frame having an end member adjustable in one side member in a direction perpendicular to the length of said side member and the other side member pivoted to the first-named side member and to the end member and variable as to length, both the end member and the variable side member having graduations, and the

variable side member having a prolongation beyond its connection to the other side member and there adapted for introduction into the drill chuck of a drilling machine.



3. A device for the purpose described comprising a right angle frame with the hypotenuse member formed of parts telescoping one in the other and pivotally connected to the outer ends of the other two members, one of said other two members being slidably connected to the other of said members for varying its effective length, both the slidable member and the hypotenuse member having graduations, and the hypotenuse member being provided with a prolongation at the end remote from the slidable one of the other two members, said prolongation being adapted to the tool chuck of a drilling machine.

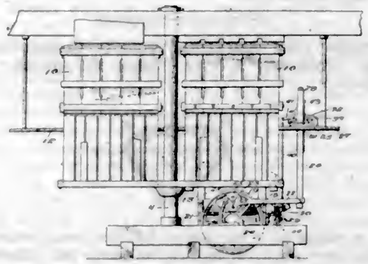
4. A device for the purpose described comprising a right angle frame consisting of a side of fixed length having ears at one end and a guiding sleeve at the other perpendicular to the length of said side, level indicating means on said side, a bar having graduations thereon and slidable in the sleeve and constituting a second one of the members of the triangular frame, and a telescoping hypotenuse member pivotally connected to the slidable member and pivoted between the ears of the first-named side with graduations at the telescoping portion, and said hypotenuse member having a continuation beyond the ears to which it is pivoted adapted for introduction into the tool chuck of a drilling machine.

5. A device for the purpose described, comprising a right angle frame having one side of fixed length and the other side and hypotenuse of variable length and adjustable with relation to the fixed member to vary the angle of the hypotenuse with respect to said sides, both the adjustable side and the hypotenuse being provided with graduations, and the hypotenuse having means for attachment to a drilling machine in the line of drilling, the graduations being proportional to the lengths of drill rods employed.

1,131,597. STOP MECHANISM FOR PRESSES. CHARLES THOMAS BULLOCK, Winterville, Ga. Filed June 26, 1913. Serial No. 775,945. (Cl. 100—8.)

1. The combination with a press having a movable reversing mechanism and a lever for controlling the same, of a bar connected with the lever, means for maintaining the bar at one limit of its movement, means connected with the press for permitting the bar to move to and checking its movement at a point intermediate its limits of movement, and means for releasing the bar entirely and permitting it to move to its other limit of movement.

2. The combination with a press having movable reversing mechanism and a lever for controlling the same, of a bar connected with the lever, a ratchet carried by the bar, a detent positioned to engage the ratchet, means connected with the press for raising the bar at one limit of the movement of the press, means connected with the press for releasing the detent at the other limit of movement of said press and permitting the bar to move to an intermediate position, and manually operable means for releasing the bar and permitting it to move to its lower limit of movement.



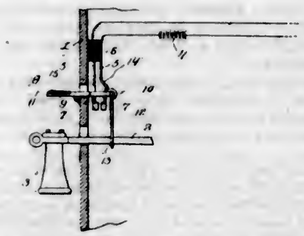
3. The combination with a press having a friction wheel embodying inner and outer rims, a friction drive wheel interposed between the rims, a control lever adapted to move the drive wheel into engagement with either of said rims, a bar connected with the lever and provided with a ratchet, and a detent movably positioned adjacent the ratchet; of a rock lever having one end beneath the control lever and its opposite end beneath a moving part of the press, a flexible member connecting said last-named end with said moving part of the press, a second flexible member connected to said rock lever and adapted to move said detent, a stop carried by the bar in position to engage the detent, and means permitting a manual operation of the detent to release the same from the stop.

4. The combination with a press having a friction wheel embodying inner and outer rims, and a drive wheel interposed and movable between the rims, of a vertically slidable bar positioned to control the driving wheel, a lever having one end under a moving part of the press and the other end adapted to raise the bar, a flexible connecting member having one end attached to a moving part of the press and the opposite end to the lever, a detent positioned to engage and maintain the bar in raised position, a stop intermediate the limits of movement of the bar adapted to engage the detent, and manually operable means for releasing the detent from the stop.

5. In a press, a bar engaging and releasing means comprising a base, a block slidable upon the base, a detent pivoted to the block, a lever pivoted upon the base and connections between the lever and the sliding block.

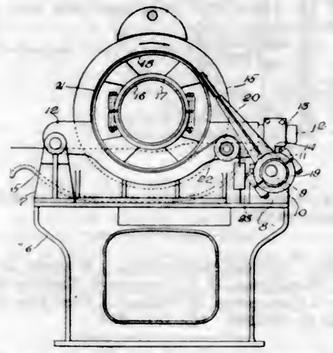
[Claims 6 to 8 not printed in the Gazette.]

1,131,598. TELEPHONE APPARATUS. WILLIAM M. BYRNES, Vail, Iowa. Filed Apr. 18, 1914. Serial No. 832,791. (Cl. 179—158.)



In telephone apparatus, a local battery, a switch for connecting said battery to the line and comprising a pair of contact strips disposed in parallelism and normally spaced apart, the outer surface of one of said strips having a pair of seats formed therein and spaced apart along the length thereof, a stem pivoted between its ends for swinging movement, a yoke on one end of said stem embracing said contact strips, a roller journaled in the limbs of said yoke and movable from one seat in the particular contact strip to the other, and a handle on the remaining end of said stem whereby the latter may be swung to move the roller from one seat to the other whereby the contact strips will be actuated into and out of engagement with each other.

1,131,599. ROTARY PULP-SCREEN. RALPH S. CLARKE, Walpole, Mass., assignor to Wandel Screen Manufacturing Company, a Corporation of Massachusetts. Filed July 6, 1914. Serial No. 849,160. (Cl. 92—35.)



1. A rotary pulp screen having a cylindrical friction drum, and a friction belt partially embracing said drum and having a slack take up, in combination with means for effecting relative movement between said drum and said belt whereby the frictional engagement between said belt and said drum causes intermittent rotation of said drum in one direction.

2. A rotary pulp screen having a friction drum, and a friction belt partially embracing said drum and having a slack take up, in combination with means for moving said screen and its drum intermittently vertically a limited degree against the frictional resistance of said belt on said drum.

3. A cylindrical pulp screen rotatably mounted and having a friction drum, and a friction belt partially embracing said drum and having a slack take up, in combination with a frame, a pivoted arm carried by said frame, and means for effecting vibration of said arm.

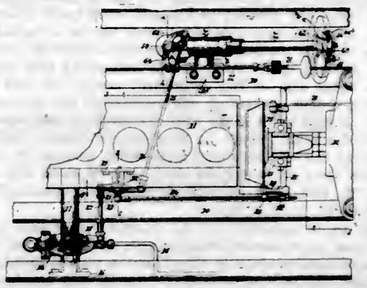
4. A pulp screen comprising a frame, arms mounted on said frame to swing, means for vibrating said arms, and a cylindrical pulp screen rotatably mounted on said arms and having a friction drum, in combination with a friction belt mounted in the machine and in contact with said drum and having a free end pivoted with a weight.

5. A pulp screen comprising a frame, arms mounted on said frame to swing a rotatable cylindrical pulp screen carried by said arms and having a friction drum, in combination with a rotatable shaft having cams for effecting vibration of said arms, a belt in frictional contact with said drum, and means carried by said shaft for intermittently actuating said belt in one direction.

[Claim 6 not printed in the Gazette.]

1,131,600. THROTTLE AND SPARK CONTROL FOR AUTOMOBILES. EDWIN K. CONOVER, Paterson, N. J., assignor to Conover Motor Car Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 30, 1907. Serial No. 390,793. (Cl. 74—39.)

1. In an apparatus of the character described, the combination with a controlling device comprising a plurality of coöperating levers, a main shaft, an operating lever thereon, a second shaft connected to, and revoluble with said main shaft, a bell-crank lever mounted upon said shaft and adapted for independent movement thereon, a main adjusting mechanism comprising a clutch lever, a transverse shaft, a pair of arms fixed thereon, a link connecting one of said arms with said clutch lever, and a link connecting the other of said arms with one of the arm members of the coöperating levers of said controlling device, a secondary adjusting mechanism comprising a foot lever, a link connecting said foot lever with one member of said bell-crank lever, and a link connecting the other member of said bell-crank lever with the other arm member of said controlling device for actuating said controlling device without disturbing the adjusted position of said primary adjusting mechanism, substantially as specified.



2. In an apparatus of the character described, the combination with a controlling device and an operating lever therefor, of a main shaft, a second shaft connected to and revoluble therewith, a bell-crank lever mounted upon said second shaft and adapted for independent movement thereon, a foot lever, a link connecting the same with one member of said bell crank lever for shifting a part of said controlling device lever beyond its normal adjusted position without disturbing the adjustment of the remaining parts, a third shaft, an arm fixed thereon, a rod connecting said arm with the other member of the bell-crank lever on said second shaft, a bell-crank lever mounted upon said third shaft, a link connecting one member of said last named bell-crank lever with the operating lever of said controlling device, means for restoring said controlling device and its operating lever to their normal adjustment, a transverse shaft having a pair of arms fixed thereon, a link connecting one of said arms with the remaining member of said last named bell-crank lever, a second foot lever, and a link connecting said foot lever with the remaining arm on said transverse shaft, for shifting said controlling device lever to its normal adjustment, substantially as specified.

3. In an apparatus of the character described, the combination with a controlling device and an operating lever therefor, of a main shaft, means for securing said shaft to its adjusted position, a gear on said shaft, a second shaft supported adjacent to said main shaft having a toothed sector thereon in mesh with the bevel gear on said main shaft, a tubular section arranged upon said second shaft and adapted for partial rotation thereon, means for rotating said second shaft and tubular section together, arms projecting from said tubular section, a foot lever, a link connecting said foot lever with one of the arms on said tubular section, a third shaft, a bell-crank lever mounted to rotate on said third shaft, a link connecting one of the arms of said bell-crank lever with the lever of said controlling device, a clutch shaft, an arm fixed thereon, a rod connecting the other arm of said bell-crank lever with the arm fixed on said clutch shaft, an arm fixed on said third shaft, and a link connecting said arm with the remaining arm on the tubular section arranged upon said second shaft, substantially as specified.

4. In an apparatus of the character described, the combination with a controlling device and an operating lever therefor, of a main shaft, means for securing said shaft to its adjusted position, a gear fixed on said main shaft, a second shaft supported adjacent to said main shaft having a toothed sector fixed thereon in mesh with the gear on

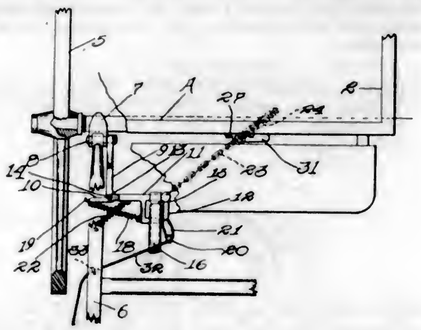
said main shaft, a collar on said second shaft having a segmental recess therein, a cylindrical section arranged upon said collar and surrounding said second shaft and provided with arms extending therefrom at right angles to each other, and a segmental projection extending into the segmental recess in said collar, a spring disposed about said second shaft having one end secured to the collar thereon and its other end secured to said cylindrical section, a foot lever, a link connecting said foot lever with one of the arms on said cylindrical section, a third shaft, a bell-crank lever mounted to rotate thereon, and provided with a segmental projection, a coil spring disposed about said third shaft having one end secured thereto, and its other end secured to the bell-crank lever thereon, an arm mounted upon said third shaft having a segmental recess therein adapted to receive the segmental projection on said bell crank lever, a link connecting said arm with the other arm of the cylindrical section of said second shaft, a link connecting one member of the bell-crank lever on said third shaft with the lever of said controlling device, a clutch shaft, an arm secured thereon, and a rod having one end secured to the other member of the bell-crank lever on said third shaft, and its other end secured to the arm fixed on said clutch shaft, substantially as specified.

5. In an apparatus of the character described, a throttle and spark control comprising a socket-member, a tubular housing projecting therefrom, a tube secured in said socket-member and extending through said housing, a segmental plate secured to the upper end of said tube, a tubular throttle shaft arranged within said tube having a gear fixed at its lower end, and a lever at its upper end, means for locking said lever to said segmental plate, a solid spark shaft disposed within said tubular throttle shaft, a gear fixed at the lower end of said solid shaft, a lever fixed at the upper end of said shaft, means for locking said lever to said segmental plate, a hollow steering shaft surrounding said tubular throttle shaft, a hand wheel secured to the upper end of said steering shaft, means arranged upon the lower end of said steering shaft within said socket-member adapted for connection with the steering mechanism of a vehicle, a bearing arranged outside of said socket-member and secured thereto, a hollow shaft mounted therein having a bell-crank lever at its upper end adapted for connection with a controlling device, and the operating lever therefor, a segmental gear secured to the lower end of said hollow shaft in mesh with the gear at the lower end of said tubular throttle shaft, a solid shaft disposed within said hollow shaft having an arm secured to its upper end adapted for connection with a sparking device, and a segmental gear at its lower end in mesh with the gear at the lower end of the solid spark shaft aforesaid, substantially as specified.

[Claim 6 not printed in the Gazette.]

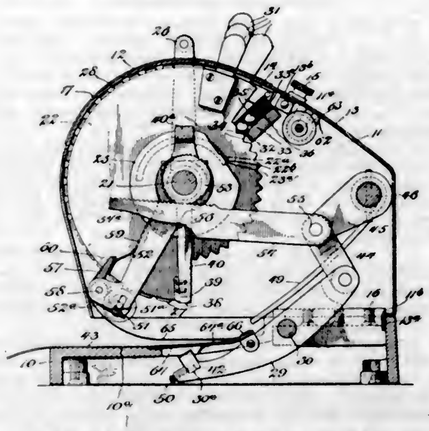
1,131,601. HORSE-CHECK. JOHN J. DIXON, St. Paul, Minn. Filed May 4, 1914. Serial No. 836,048. (Cl. 21—136.)

In combination, with a vehicle, a supporting arm hinged thereto to turn in a plane substantially parallel with one of its wheels, a blocking member support hinged to said supporting arm and adapted to swing laterally away from said wheel, a blocking member hinged to said blocking member support and adapted to engage one of the spokes of said wheel whereby the wheel and said blocking member support turn together when said wheel revolves in a forward direction, said blocking member support being formed with a stop adapted to impinge against the spoke engaged by said blocking member to limit the motion of said blocking member support in one direction, resilient means secured to said blocking member support and to said supporting arm tending to hold said member and arm in forward position and said blocking member in engagement with one of the spokes of said wheel, means for releasably holding said blocking member support with its blocking member out of engagement with said wheel, and a line secured to one of said parts and adapted to be secured to the head gear on the horse's head, said line being tightened by the movement of said



blocking member support with said wheel as said wheel revolves forwardly.

1,131,602. CHECK-PROTECTOR. WILLARD D. DORMUS, Washington, D. C., assignor to Exactograph Company, a Corporation of Delaware. Filed Apr. 10, 1914. Serial No. 830,981. (Cl. 101—57.)



1. In a machine of the character described, the combination with a supporting-frame, of a shaft journaled therein, type wheels rotatably mounted on the shaft, a platen pivoted in the frame and having surfaces coöperating with the type-wheels to produce an impression, toggle-levers operating said platen, a supplemental inking-roll, an inking-roll, arms pivoted on the shaft and carrying said inking-roll, and means operating the arms from the toggle-levers at different speeds with relation thereto so as to move the inking-roll quickly across the type-wheels in advance of the movement of the platen thereagainst and slowly to the supplemental inking-roll.

2. In a machine of the character described, the combination with a supporting-frame, of a shaft journaled therein, type wheels rotatably mounted on the shaft, a platen pivoted in the frame and carrying surfaces coöperating with the type-wheels to produce an impression, toggle-levers connected to and operating said platen, arms swingingly supported from the shaft and carrying an inking-roller for movement across the face of the type-wheels, spur-wheels connected to the arms, and rack-plates in mesh with the spur-wheels and connected to the toggle-levers for operation thereby.

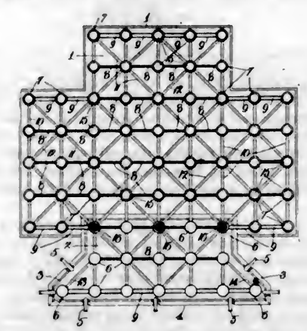
3. In a machine of the character described, the combination with a supporting-frame, of a shaft journaled therein, type wheels rotatably mounted on the shaft, a platen pivoted in the frame and carrying surfaces coöperating with the type wheels, means for operating the platen, eccentric spur-wheels mounted on the shaft and carrying arms, an inking-roller carried by the arms for movement across the face of the type-wheels, rack-plates in mesh with the spur-wheels, and means for reciprocating said rack-plates.

4. In a machine of the character described, the combination with a supporting-frame, of a shaft journaled therein, type wheels rotatably mounted on the shaft, a platen pivoted in the frame and having surfaces coöperating with the type-wheels to produce an impression, toggle-levers connected to and operating the platen, eccentric spur-wheels mounted on the shaft and carrying arms, an inking-roller carried by the arms and movable across the face of the type-wheels, rack-plates connected to the toggle-levers and in mesh with the eccentric spur-wheels, and pins engaging the rack-plates to maintain them in mesh with the spur-wheels.

5. In a machine of the character described, the combination with a supporting-frame, of a shaft journaled therein, type wheels rotatably mounted on the shaft and having engaging shoulders, washers keyed to the shaft and having shoulders coöperating with the shoulders on the type-wheels, respectively, a platen, and means for bringing the type-wheels and platen together.

[Claims 6 to 13 not printed in the Gazette.]

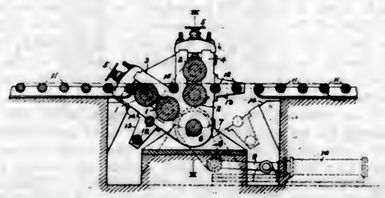
1,131,603. AMUSEMENT DEVICE. HELMUTH F. C. DUEBERG, Kansas City, Mo., assignor of one-third to Elbert E. Smith and one-third to W. M. Sloan, Kansas City, Mo. Filed July 6, 1914. Serial No. 849,087. (Cl. 46—64.)



1. An amusement device, comprising a game board divided to represent an attacking field and a defending field, the former being provided with fifty resting points arranged in horizontal and vertical series, and the defending field fifteen resting points and having widened portions at its lower corners, each containing an extra resting point, an attacking force of fifty "men" adapted to initially occupy the resting points of the attacking field, and a defending force of three men adapted initially to occupy the central and two endmost resting points of the defending field where such field meets the attacking field.

2. An amusement device, comprising a game board divided to represent an attacking field and a defending field, the former having fifty resting points and the defending field seventeen resting points; all of the resting points being arranged in nine horizontal series with the points of each of such series connected by horizontal lines, and in nine vertical series with the points of each of such series connected by vertical lines; intersecting diagonal lines also extending at angles of forty-five degrees to the vertical and horizontal lines and through certain of said resting points, certain of the horizontal lines being differentiated from the remaining horizontal lines, an attacking force initially upon and corresponding in number to the resting points of the attacking field, and a defending force upon some of the resting points of the defending field, there being a much greater number of resting points in the defending field than there are members of the defending force.

1,131,604. ROLLING-MILL. JOSEPH EDWARD FAWELL, Pittsburgh, Pa., assignor to Mackintosh, Hemphill & Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 31, 1914. Serial No. 869,692. (Cl. 80—1.)



1. In a rolling mill, the combination of two sets of rolls adapted to be shifted relative to a horizontal plane, and means for shifting said respective sets of rolls in sequence to and from reducing position.

2. In a rolling mill, the combination of two sets of rolls adapted to be shifted relative to a horizontal plane, and means for moving one set into and the other set out of operative relation to a common line of feed.

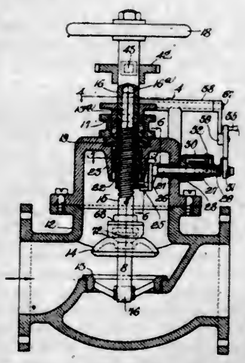
3. In a rolling mill, the combination of two sets of rolls, means for rotating said sets of rolls in opposite directions respectively, and means for shifting said sets of rolls into and out of operative relation to a common line of feed.

4. In a rolling mill, the combination of two sets of rolls, means for rotating said sets of rolls in opposite directions, respectively, and means for simultaneously shifting said sets of rolls, one into, and the other out of operative relation to a common line of feed.

5. In a rolling mill the combination of a stationary feed table, two sets of rolls adapted to be shifted relative to a horizontal plane and means for shifting said sets of rolls relatively to the feed table.

[Claims 6 to 18 not printed in the Gazette.]

1,131,605. EMERGENCY-VALVE. FREDERICK A. FISHER, Provincetown, Mass., assignor of one-fourth to Walter L. Conwell, Jr., Boston, Mass. Filed Mar. 23, 1914. Serial No. 826,479. (Cl. 137—4.)



1. In combination, a casing having a valve seat and a bearing for an operating member, a valve body coöperating

with said seat, a screw-threaded valve stem engaged with the valve body, a nut located within the casing and engaged with said stem and provided with a laterally projecting ear, the casing and nut being provided with complemental means for permitting longitudinal movements and preventing rotation of the nut, an operating member external to the casing journaled to rotate without endwise movement in said bearing and engaged with the valve stem to rotate and permit longitudinal movement of the latter, the nut being movable outwardly independently of the valve body and valve stem by the rotation of the operating member in one direction, a detent within the casing adapted to automatically engage the nut ear and confine the nut at the limit of its outward movement, the nut when thus confined permitting the valve stem and valve body to be moved outwardly to open the valve by a rotation of the operating member in the opposite direction, the said nut, valve stem and valve body being movable in unison to permit the automatic closing of the valve when the detent is displaced, and externally controlled means for displacing the detent.

2. In combination, a casing having a valve seat and a bearing for an operating member, a valve body coöperating with said seat, a screw-threaded valve stem engaged with the valve body, a nut located within the casing and engaged with said stem and provided with a laterally projecting ear, the casing and nut being provided with complemental means for permitting longitudinal movements and preventing rotation of the nut, an operating member external to the casing journaled to rotate without endwise movement in said bearing and engaged with the valve stem to rotate and permit longitudinal movement of the latter, the nut being movable outwardly independently of the valve body and valve stem by the rotation of the operating member in one direction, a detent in the casing adapted to automatically engage the nut ear and confine the nut to the limit of its outward movement, and externally controlled means for displacing the detent to release the nut and permit the automatic closing of the valve.

3. In combination, a casing having a valve seat, an operating member bearing, and a lateral bearing, a valve body coöperating with said seat, a screw-threaded valve stem engaged with the valve body, a nut within the casing engaged with said stem and provided with a laterally projecting ear, the casing and nut being provided with complemental means for permitting longitudinal movements and preventing rotation of the nut, an operating member external to the casing, journaled to rotate without endwise movement in said operating member bearing and engaged with the valve stem to rotate and permit longitudinal movement of the latter, the nut being movable outwardly independently of the valve body and stem by the rotation of the operating member in one direction, and a detent carrying member movable in the said lateral bearing and having a detent located within the casing and yieldingly held in the path of the nut ear, said detent being adapted to engage said ear and confine the nut at the limit of its outward movement, and means for moving said detent carrying member to displace the detent and release the nut.

4. In combination, a casing having a valve seat, an operating member bearing and a lateral bearing, a valve body coöperating with said seat, a screw-threaded valve stem engaged with the valve body, a nut within the casing engaged with said stem and provided with a laterally projecting ear, the casing and nut being provided with complemental means for permitting longitudinal movements and preventing rotation of the nut, an operating member external to the casing, journaled to rotate without endwise movement in said operating member bearing and engaged with the valve stem to rotate and permit longitudinal movement of the latter, the nut being movable outwardly independently of the valve body and valve stem by the rotation of the operating member in one direction, and a detent carrying member journaled in the said lateral bearing and having a detent which is yieldingly held in the path of the nut ear and is adapted to engage said ear and confine the nut at the limit of its outward movement, and operating means connected with said detent carrying member whereby said member may be moved by force transmitted from a distant point.

5. A valve comprising a casing having a valve seat and an operating member bearing, a valve body coöperating with said seat, a screw-threaded valve stem engaged with the valve body, a nut engaged with said stem and provided with a laterally projecting ear, the casing and nut being provided with complemental means for permitting longitudinal movements and preventing rotation of the nut, an operating member journaled to rotate without endwise movement in said bearing and engaged with the valve stem to rotate and permit longitudinal movement of the latter, the nut being movable outwardly independently of the valve body and valve stem and normally free to move inwardly with the valve stem and valve body to close the valve, and means for preventing rotation of the operating member in one direction when the valve is closed, said means including an annular ratchet attached to the operating member and a spring-pressed pawl normally engaging said ratchet and adapted to permit its rotation in one direction only, said pawl being displaceable from the ratchet.

[Claims 6 to 11 not printed in the Gazette.]

1,131,606. ANODE FOR DISCHARGE-TUBES. THEOPHIL H. GEBAUER, Cleveland, Ohio; Charles L. Gebauer, administrator of said Theophil H. Gebauer, deceased, assignor of one-third to Carl Frederic William Bates, one-third to said Charles L. Gebauer, *in propria persona*, and one-third to said Charles L. Gebauer, trustee, Cleveland, Ohio. Filed May 22, 1912. Serial No. 699,053. (Cl. 250—35.)



1. In a vacuum tube, an anode comprising a refractory body of high heat-resisting metal cast within a body of heat diffusing and dissipating metal, the former body being located at the focal point and having an exposed surface adapted to receive the cathode stream, and the latter body being of a nature to contract upon passing from a liquid to a solid state whereby the inner body is gripped.

2. In a vacuum tube, an anode comprising a heat-diffusing or dissipating body of material fusible at a high temperature and having a target face, and a smaller body of high heat resisting metal cast in said body and having an exposed surface coöperating with the target face, the area of such exposed surface being smaller than the cross sectional area of such smaller body at a point to the rear of such surface.

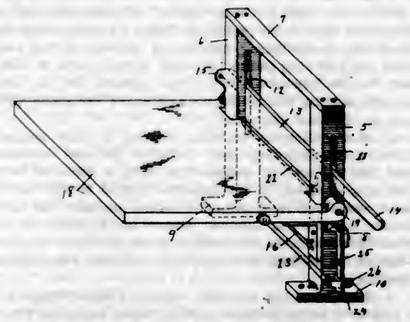
3. In a vacuum tube, an anode comprising a metallic body of high melting point and having a target face, and a relatively smaller body of high heat resisting metal cast in said body and having an exposed surface coöperating with the target face, the said bodies having interlocking engaging portions arranged to prevent displacement of the smaller body.

4. In a vacuum tube of the type having a converging cathode stream, an anode comprising a body of refractory electrically conductive material supported substantially at the point of convergence of the cathode stream, and a body of metal of high electric and heat conductivity cast about said first body, such first body being of an undercut nature, and said second body being of a material which contracts upon passing from a melted to a solid state whereby said first body may be gripped powerfully therewithin and a maximum of heat and electric conductivity secured.

5. An anode for apparatus of the character set forth comprising a body of heat diffusing and dissipating metal having a smaller body of high heat resisting metal cast entirely within the former body, the face of said former body being cut away to expose a portion of said smaller body.

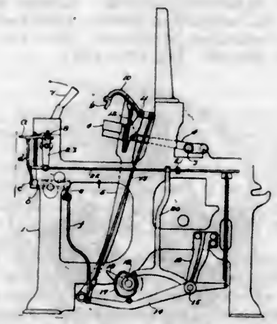
[Claim 6 not printed in the Gazette.]

1,131,607. SOLE-LEATHER CUTTING AND SKIVING MACHINE. GEORGE F. HILDEBRAND, San Francisco, Cal. Filed June 24, 1913. Serial No. 775,497. (Cl. 164—41.)



A sole leather cutting and skiving machine comprising a pair of slotted standards suitably connected; a knife pivoted to one of said standards and passing through the slots in the standards; brackets secured to said standards; and a swinging table pivotally connected to the standards and resting on the brackets when in a position to support the leather to be cut, and adapted to have its rear end swung upwardly to support leather being skived.

1,131,608. LOOM. SIMEON S. JACKSON, Readville, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Filed Nov. 21, 1911. Serial No. 661,478. (Cl. 139—85.)

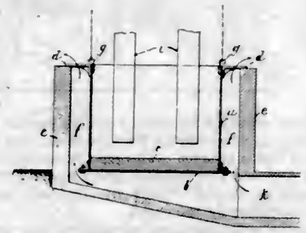


1. In an automatic weft-replenishing loom in which the replenishing is effected during suspension of the weaving action, the combination with a shipper, and with the front plate lifting means, of a shipper-lock combined with said means and caused thereby to lock the shipper to prevent the weaving mechanism from being shipped into action until the replenishing action has been safely completed.

2. In an automatic weft-replenishing loom, the combination with a shipper, and the front-plate lifting means, of a device operatively combined with said means and caused thereby to interfere with actuation of the shipper to ship the weaving mechanism into action until the front-plate has been closed into working position.

3. In an automatic weft-replenishing loom, the combination with a shipper and an arm connected therewith, and the front-plate lifting means, of an interference-arm operatively combined with said lifting means and operated thereby to prevent the shipper from shipping the weaving mechanism into action while the front-plate is lifted.

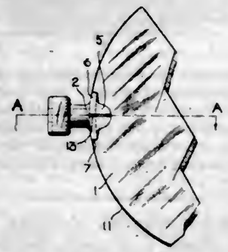
1,131,609. PROCESS OF COOLING ELECTRIC FURNACES BY AIR. HENRI MAGRON, Fos, Haute-Garonne, France. Filed Feb. 9, 1915. Serial No. 6,991. (Cl. 204—64.)



1. A method of cooling an electric furnace for smelting ores consisting in circulating air in heat interchanging relation with the walls of the furnace while expanding the air for the purpose of cooling the outer portions of the charge below its melting point.

2. A method of cooling an electric furnace for smelting ores consisting in circulating previously cooled air in heat interchanging relation with the walls of the furnace while expanding the air for the purpose of cooling the outer portion of the charge below its melting point.

1,131,610. EYEGLASS CONSTRUCTION. LAURENCE C. MARTIN, Providence, R. I. Filed Dec. 26, 1914. Serial No. 879,024. (Cl. 88—47.)



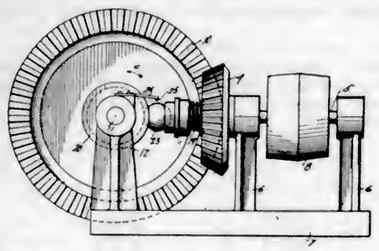
1. In eyeglass construction in combination; a lens having in its edge a circumferentially extending notch and a lens clamp provided with a pair of spaced side lugs embracing said lens and cemented thereto and with a strap portion fitting said notch and having all engaging surfaces cemented to the walls of said notch.

2. In eyeglass construction, in combination, a lens having a circumferentially extending notch provided with substantially radial end walls and a lens clamp provided with a pair of side lugs embracing said lens and with a strap portion extending circumferentially beyond said side portions and closely fitting said notch and having its outer surface substantially flush with the edge of the lens, all contacting surfaces of said clamp and said lens being adhesively secured one to the other.

1,131,611. VALVE-GRINDING MACHINE. EUGENE NEWMAN and LOUIS A. SEPPI, Brea, Cal. Filed May 16, 1914. Serial No. 839,042. (Cl. 51—4.)

1. A machine for grinding ball valves, comprising a spring pressed rotary member for revolving the valve seat, and means for rotating the ball valve in the valve seat

independent of the rotation of the valve seat revolving member.



2. In a valve grinding machine, a spring pressed rotary chuck for holding and revolving the valve seat, and a revoluble wheel having a grooved periphery arranged to engage a ball valve disposed in the valve seat, whereby the ball will be rotated in the valve seat simultaneous with the rotation of the latter by the chuck.

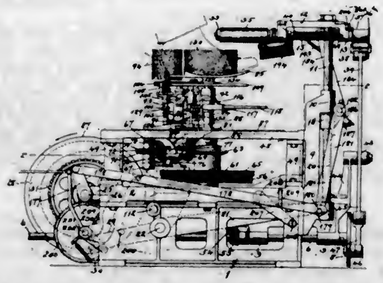
3. In a valve grinding machine, a revolving shaft, a spring pressed chuck on said shaft adapted to receive a valve seat, a pinion on said shaft, a gear wheel meshing with said pinion, a shaft on which said gear wheel is mounted extending at right angles to the drive shaft and on a plane therewith, a wheel formed with a grooved periphery on said shaft arranged in alinement with the drive shaft and adapted to engage the periphery of a valve interposed between the wheel and the valve seat carried by the chuck.

1,131,612. ROLLER-BEARING. SEBASTIAN ZIANI DE FERRANTI, Baslow, England. Filed Oct. 6, 1914. Serial No. 865,368. (Cl. 64—38.)



A roller for roller bearings comprising in combination a spindle, a plurality of laminæ each provided with a central aperture, said laminæ being held on the spindle in juxtaposed relation to one another, retaining means on each end of said spindle bearing against the outer laminæ, one of said retaining means being adjustable axially of said spindle.

1,131,613. SHOE-POLISHING MACHINE. HERBERT R. OLIVER and GEORGE P. OHLGART, Baltimore, Md., assignors, by direct and mesne assignments, to The American Automatic Shoe Polishing Machine Company, Baltimore, Md., a Corporation of New Jersey. Filed Sept. 5, 1911. Serial No. 647,735. (Cl. 15—61.)



1. A shoe polishing machine having a support, a polisher for the sides of the shoe while on the said support and with means for applying polish material to the sides of the shoe in combination with a toe polishing fabric; means for operating the latter across the toe of the shoe; means for moving the polishing fabric to and from the toe of the shoe; a brush movable between the toe-polishing fabric and the toe-end of the shoe to apply polish material to the toe of the shoe,—said brush being independent of the side polish-applying means and means for supplying polish material to the side and toe polish-applying means.

2. A shoe polishing machine having a shoe support with a polisher for the sides of the shoe and with means for moving the said polisher around the shoe support in combination with a toe-polishing fabric; a brush movable between the toe-polishing fabric and toe-end of the shoe support for applying polish material to the toe of a shoe; means for reciprocating the brush across the toe and means for moving the toe-fabric and brush vertically with respect to the shoe support.

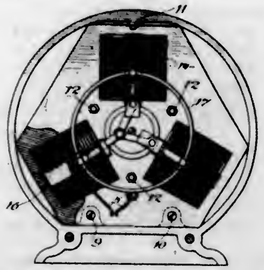
3. A shoe polishing machine having a shoe support with a polish-applying and polisher brushes movable around the support in combination with a table in front of the shoe support; a toe-polisher carried by the table; a brush sustained in front of the shoe support and movable over the toe-end thereof: means for holding the toe polisher idle while the last-named brush is being operated and means for holding the brush idle while the toe-polisher is operating.

4. A shoe polishing machine having a shoe support, a side polisher, a toe polisher and a polish applying device for the side of the shoe in combination with a separate polish-applying device for the toe of the shoe, and means movable with one polish-applying device and passing the other polish-applying device for supplying polish material to both of said devices.

5. A shoe polishing machine having a shoe support with a side polisher, a toe polisher and a polish applying device for the side of the shoe in combination with a separate polish-applying device for the toe of the shoe, and a polish receptacle having outlets in two sides thereof for the escape of polish whereby to supply polish material to both applying devices.

[Claims 6 to 15 not printed in the Gazette.]

1,131,614. ELECTRIC MOTOR. ALBERT A. RADTKE, Chicago, Ill., assignor to Electric Time Recorder Company, a Corporation of Illinois. Filed Dec. 12, 1910. Serial No. 596,767. (Cl. 172—126.)



1. The combination of a plurality of stationary windings, armatures for said windings, and movable therein, a shaft operatively connected for rotation by said armatures, a plurality of segments each connected to one of said windings, a slip ring, a switch mechanism actuated by said shaft and having a laminated contact member movable over said segments, and contacting with said slip ring and means for delivering current to said windings through said switch mechanism.

2. The combination of a plurality of stationary coils, an armature for each of said coils, a field frame common to all said coils, a rotary shaft, a link connecting each armature with said shaft, a rotary switch member carried by said shaft, a plurality of stationary segments each connected with one of said coils and each located in position for successive contact with said rotary switch member, and means for delivering current to said coils through said switch member.

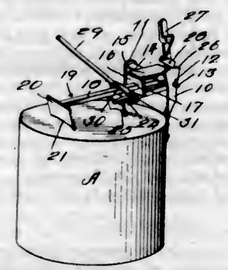
3. In an electric motor, the combination of a laminated field frame, a plurality of stationary coils seated within said frame and having their respective axes meeting at an angle of about 120°, an armature movable into and out of each of said coils, a main shaft, and means mechanically connecting said armatures to turn said shaft.

4. The combination of a field frame, a plurality of stationary coils embedded therein, an armature for each of said coils, a shaft, pivoted links connecting said armatures to said shaft, a stationary contact segment connected to each of said coils, a stationary slip ring, and a rotary switch member carried by said shaft and movable to establish contact between said stationary slip ring and each of said stationary segments in succession.

5. In an electric motor, the combination of a casing member, a laminated field frame secured to said member, a second casing member enveloping said field frame, three coils seated in said frame with their axes substantially 120° apart and a laminated armature for each of said coils movable therein with a sliding motion, a shaft, means connecting said armatures to turn said shaft, and a switch mechanism which is enveloped by said casing members and is adapted to deliver current to each of said coils intermittently.

[Claims 6 to 10 not printed in the Gazette.]

1,131,615. SANITARY MEAT-CLAMP. WILLIAM J. RICE, Corpus Christi, Tex. Filed July 14, 1914. Serial No. 850,943. (Cl. 17—14.)

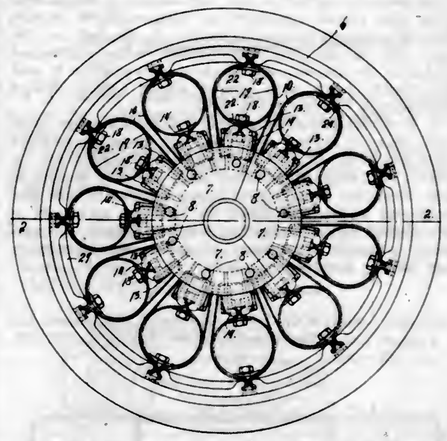


1. A meat clamp comprising spaced uprights adapted for application to a meat block, a shaft journaled in said uprights, a U-shaped supporting member fixed to said shaft and having guide means formed in the legs thereof, a clamping element slidably engaged in said guides and adapted to be swung into and out of clamping relation with the meat, and means for retaining said element in clamping position.

2. A meat clamp comprising spaced uprights, a shaft journaled in said uprights, a supporting member fixed to said shaft, a main clamping element carried by said supporting member, a supplemental clamping element also carried by said supporting member and adapted to be moved into and out of engagement with the meat when said main clamping element is in clamping position, and means for operating said elements.

1,131,616. SPRING-WHEEL FOR VEHICLES. CICERO G. SMITH, Palisade, Colo., assignor to Smith Spring Wheel Company, Albuquerque, N. Mex., a Corporation of Arizona. Filed May 17, 1912, Serial No. 697,908. Renewed June 20, 1914. Serial No. 846,358. (Cl. 152—50.)

1. In a wheel, the combination with a rim and hub having openings facing each other, the openings being constricted at their mouths, spring members the ends of which are hook-shaped to fit around the constrictions of said openings, bolts in said openings and nuts into which said bolts are threaded, each of said nuts having a concave face adapted to engage one of said spring members.



2. In a wheel, flat spring members, said wheel having an opening constricted at its mouth into which two of said spring members extend, a nut in the larger part of said opening and having a wedge-shaped face extending in the direction of the mouth of the opening and a bolt threaded into said nut.

3. In a wheel, a flat spring member having a hook-shaped extremity, said wheel having an opening constricted at its mouth into which said hook-shaped extremity extends, one side of said opening being of a shape the counterpart of said hook-shaped extremity, a nut in said opening, a bolt extending into said opening and threaded into said nut, said nut having a cam face adapted, when the bolt is tightened, to lock said hook-shaped extremity against the side of the opening.

4. In a spring wheel, a hub and rim, a circular spring member between said hub and rim, spring spokes engaging the sides of said circular spring member, said hub having a wedge-shaped opening into which said spokes extend, a wedge secured in said opening and a bolt for securing said circular spring member to said wedge.

5. In a spring wheel, a hub and rim, a spring ring between said hub and rim, said ring being formed of two members having hook-shaped extremities, spring spokes engaging the outer sides of said ring, said hub having a wedge shaped opening into which said spokes extend, a wedge secured in said opening, said wedge having a recess into which said hook-shaped extremities extend, the sides of said recess being shaped to conform to the shape of the hook-shaped extremities, a nut in said opening, a bolt extending into said opening and threaded into said nut, said nut having cam faces adapted, when the bolt is tightened, to lock the hook-shaped extremities against the sides of the recess, and means for securing the spring ring and spring spokes to the rim.

1,131,617. CURRENT-MOTOR. EMANUEL A. SPENGLE, Sawtelle, Cal. Filed Sept. 2, 1913. Serial No. 787,695. (Cl. 170—91.)

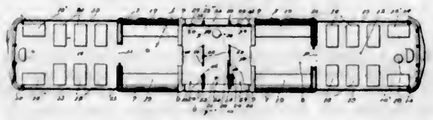


1. A current motor, comprising a float having a longitudinally disposed well therein, transversely mounted

shafts in said well, grooved radial arms disposed on said shafts, a belt engaging said arms adapted to be supported thereon in movable engagement, a plurality of blade carrying members carried on said belt adapted to engage said arms and extend therebetween, blades rigidly carried thereby arranged at an inclination to the belt on the inner side thereof, and blades hinged to the first-named blades on the opposite side of the belt in relation to said first-named blades, said hinged blades having limited movement in relation to the belt.

2. A current motor, comprising a floating member, revoluble means to support an endless belt thereon, triangular arms supported on said belt adapted to engage and revolve said supporting means, blade members secured to said triangular arms, hinged blades secured to said first mentioned blades, and means to limit the movement of said hinged blades, whereby a revoluble structure is provided to receive the impact of the current flowing by said floating member.

1,131,618. RAILWAY-CAR. EDWARD L. STEPHENS, Los Angeles, Cal. Filed Jan. 10, 1913. Serial No. 741,327. (Cl. 105—205.)



1. A car body having end portions provided with floors, a central platform between said end portions and connected therewith, said central platform having entrances and exits at each side, gates for controlling said entrances and exits, the entrances being oppositely disposed, and barriers extending transversely of the platform and terminating short of the edges thereof, the gates controlling the entrance openings being adapted to swing into contact with the barriers.

2. A car body comprising a floor having a central platform and having walls at the sides and ends of the car body inclosing the end portions of the car body at each side of said central platform to prevent ingress and egress except at said central platform, walls dividing said central platform from said end portions and provided with passages, barriers on said central platform facing the respective passages in said walls and spaced from one another and from said walls and from the sides of the central platform to provide passages extending between the barriers, between the walls and said barriers, and between the sides of the platform and said barriers, and gates at each side of said platform for closing the sides of the platform, one of the said gates at each side of the platform serving as an entrance gate and being mounted to swing against one of said barriers when the gate is opened.

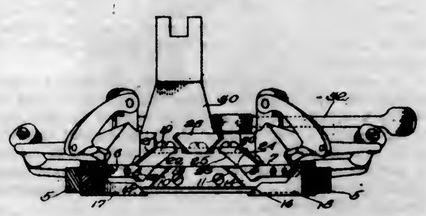
3. A car body comprising a floor having a central platform and having walls at the sides and ends of the car body inclosing the end portions of the car body at each side of said central platform to prevent ingress and egress except at said central platform, walls dividing said central platform from said end portions and provided with passages, barriers on said central platform facing the respective passages in said walls and spaced from one another and from said walls and from the sides of the central platform to provide passages extending between the barriers, between the walls and said barriers, and between the sides of the platform and said barriers, and gates at each side of said platform for closing the sides of the platform, said gates comprising a central entrance gate at each side of the platform adapted to swing against one of said barriers when the gate is in opened position and an exit gate at each side of said central entrance gate, said exit gate being opposite the space between said barriers and the passages leading to the end portions of the car body from the central platform.

4. A car body comprising a floor having a central platform and having walls at the sides and ends of the car body inclosing the end portions of the car body at each side of said central platform to prevent ingress and egress except at said central platform, walls dividing said central platform from said end portions and provided with passages, barriers on said central platform facing the respective passages in said walls and spaced from one another and from said walls and from the sides of the central platform to provide passages extending between the barriers, between the walls and said barriers, and between the sides of the platform and said barriers, and gates at each side of said platform for closing the sides of the platform, said gates comprising a central entrance gate at each side of the platform adapted to swing against one of said barriers when the gate is in opened position and an exit gate at each side of said central entrance gate, said exit gate being opposite the space between said barriers and the passages leading to the end portions of the car body from the central platform, said exit gates swinging to close the spaces between the said barriers and the side of the platform when said gates are in position to open the exits.

5. A car body comprising a floor having a central platform and having walls at the sides and ends of the car body inclosing the end portions of the car body at each side of said central platform to prevent ingress and egress except at said central platform, walls dividing said central platform from said end portions and provided with passages, barriers on said central platform facing the respective passages in said walls and spaced from one another and from said walls and from the sides of the central platform to provide passages extending between the barriers, between the walls and said barriers, and between the sides of the platform and said barriers, gates at each side of said platform for closing the sides of the platform, said gates comprising a central entrance gate at each side of the platform, an exit gate at each side of said central entrance gate, said exit gate being opposite the space between said barriers and the passages leading to the end portions of the platform from the central platform, said exit gates swinging to close the spaces between the said barriers and the side of the platform when said gates are in position to open the exits, and manually operated means on said central platform for operating both of the exit gates at one side simultaneously.

[Claims 6 and 7 not printed in the Gazette.]

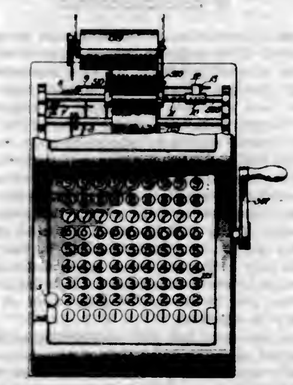
1,131,619. CAM-CYLINDER FOR KNITTING-MACHINES. ALBERT E. STEWART, Franklin, N. H., assignor to Acme Knitting Machine & Needle Company, a Corporation of New Hampshire. Filed Aug. 29, 1913. Serial No. 787,283. (Cl. 66—21.)



1. A cam cylinder for knitting machines comprising a cylindrical wall, a pair of stitch cams each consisting of upper and lower members of which the lower members are fixed to said wall and have upper needle leveling edges, a block slidably mounted to move radially between said fixed members of said stitch cams, said upper stitch cam members fixed to said block and having their lower edges in slidable contact with the needle leveling edges of said lower stitch cam members, and a top center cam mounted on said block.

2. A cam cylinder for knitting machines comprising a cylindrical wall, a pair of needle leveling stitch cam members fixed thereto and spaced apart, a bottom center cam fixed to said wall and having its upper edge in alinement with the needle leveling members of said stitch cams, a movable carrier above said bottom center cam, and a top center cam and a pair of stitch cam members mounted on said carrier, said latter pair of stitch cam members adapted in a position of said carrier to coöperate with said fixed stitch cam members.

1,131,620. ADDING-MACHINE. WILLIAM E. SWALM, Los Angeles, Cal., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed May 2, 1904. Serial No. 206,016. (Cl. 235—58.)



1. In a machine of the character described, the combination with accumulating means, printing means adapted to print both items and totals, the latter in coöperation with the accumulating means, and independently manipulative means for disabling the accumulating means at will to prevent accumulation while permitting the continued printing of items.

2. In a machine of the character described, the combination of an accumulator, type-carriers, actuators for the accumulator which also operate to set the type-carriers, and means for varying the periods of engagement and disengagement between the accumulator and actuators to effect either item printing and accumulating or total printing, with provisions for eliminating accumulation at will for the purpose described.

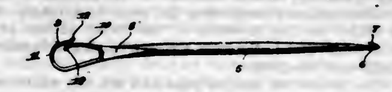
3. In a machine of the character described, the combination of an accumulator, type-carriers, actuators for the accumulator which also operate to set the type-carriers, means for varying the periods of engagement and disengagement between the accumulator and actuators to effect either item printing and accumulating or total printing, and manipulative devices for so adjusting said means as to eliminate accumulation for the purpose described.

4. In a machine of the character described, the combination of an accumulator, type-carriers, actuators for the accumulator which also operate to set the type-carriers, means for varying the periods of engagement and disengagement between the accumulator and actuators to effect either item printing and accumulating or total printing, and a key for establishing an intermediate adjustment of said means to eliminate accumulation; substantially as and for the purpose described.

5. In an adding machine having printing and adding mechanism and normally arranged to both print and add, and means for eliminating the adding function of the machine at the will of the operator, with provisions for partially eliminating the printing function.

[Claims 6 to 59 not printed in the Gazette.]

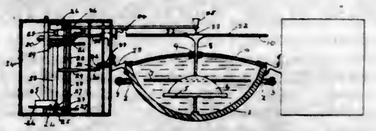
1,131,621. CROCHET-NEEDLE. ANNA WHITE, Enid, Okla., assignor to William H. Scott, Oklahoma, Okla. Filed Feb. 17, 1914. Serial No. 819,239. (Cl. 66—17.)



1. A crochet needle having means formed on one end thereof for holding the stitch when the needle is not in use.

2. A crochet needle having a loop-like snap hook at one end thereof for holding the stitch when the needle is not in use.

1,131,622. RECORDING-COMPASS. MELVIN B. BENSON, Duluth, Minn., assignor of one-half to G. Ashley Tomlinson, Duluth, Minn. Filed Apr. 13, 1914. Serial No. 831,620. (Cl. 234—26.)



In a recording compass, the combination with a compass bowl or chamber, of a spindle mounted therein and adapted to rotate or oscillate in opposite directions, a magnetic needle carried by said spindle for rotating or oscillating the same, a removable sheet adapted to receive a record and supported by said spindle and adapted to rotate or oscillate therewith, a recording arm extending over a portion of said chamber and provided with means for marking said sheet, said arm being pivoted at a point beyond the periphery of said sheet to a support carried by said bowl, and means supported by said bowl for swinging said recond arm upon its pivot.

1,131,623. METHOD OF TREATING YARN AND THE LIKE. GEORGE DEXTER BURTON, Boston, Mass., assignor to The Burton Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 14, 1912. Serial No. 715,054. (Cl. 28—7.)



1. The method of treating yarn and the like which consists in creating heat in the yarn, thereby causing the natural gummy, oily or greasy substance contained therein to come to the surface thereof, and subjecting the yarn to a rotary rubbing action in the direction of the twist of the yarn, thereby imparting to the yarn a natural glossy finish and increased strength and elasticity.

2. The method of treating yarn and the like which consists in passing the yarn through a finishing substance or sizing material, creating heat in the yarn, thereby causing the natural gummy, oily or greasy substance contained therein to come to the surface, and subjecting the yarn to a rotary rubbing action in the direction of the twist of the yarn, thereby imparting to the yarn a glossy finish and increased strength and elasticity.

3. The method of treating yarn and the like which consists in frictionally creating heat in the yarn, thereby causing the natural gummy, oily or greasy substance contained therein to come to the surface, and simultaneously subjecting the yarn to a rotary rubbing action in the direction of the twist of the yarn, thereby imparting to the yarn a natural glossy finish and increased strength and elasticity.

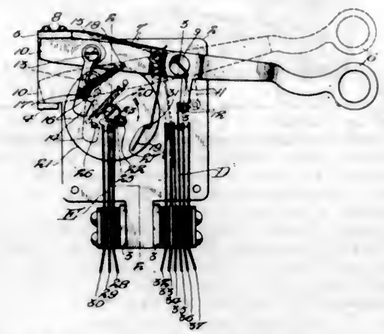
4. The method of treating yarn and the like which consists in passing the yarn through a finishing substance

or sizing material, frictionally creating heat in the yarn, thereby causing the natural gummy, oily or greasy substance contained therein to come to the surface thereor, and simultaneously subjecting the yarn to a rotary rubbing action in the direction of the twist of the yarn, thereby imparting to the yarn a glossy finish and increased strength and elasticity.

5. The method of treating yarn and the like which consists in softening the natural gummy, oily or greasy substance contained therein and bringing the same to the surface thereof by creating heat in the yarn, and imparting to the yarn a natural glossy finish and increased strength an delasticity by subjecting the yarn to a rotary rubbing action in the direction of the twist of the yarn.

[Claim 6 not printed in the Gazette.]

1,131,624. TELEPHONE APPARATUS. JOHN ERICKSON, Chicago, Ill., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Filed Nov. 12, 1906. Serial No. 343,044. (Cl. 179—90.)



1. A subscriber's switch-hook, a rotary member operated by the upward movement of a portion of the switch-hook, a set of switch springs operated by said rotary member, and means including said switch springs whereby the said member is restored to normal position when the hook reaches the limit of its motion.

2. A subscriber's switch-hook, a rotary member operated by the upward movement of a portion of the switch-hook, a set of switch springs closed by the forward rotation of said member, and means including said switch springs whereby the said member is restored to normal position when the hook reaches the limit of its motion.

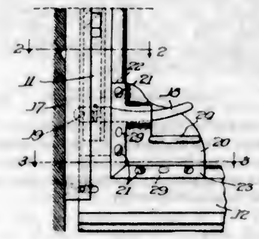
3. The combination of a switch-hook, a pivoted and spring-pressed catch on said hook, a rotary disk, a pin on the disk adapted to engage said catch when the hook is up, a set of switch springs, means on said disk for operating said switch springs, a second pin on the disk, a spring catch on the hook adapted to engage said second pin when the hook is down, and a pin on the hook for throwing said pivoted catch out of engagement with said first-mentioned pin when the hook reaches the limit of its downward movement.

4. In a telephone system, a switch-hook, springs, a rotary member provided with means for operating said springs, and means carried by the switch-hook for operating said rotary member by upward movement, adapted to be disengaged therefrom when the switch-hook reaches the limit of its motion, one of said springs adapted to restore said member to normal position.

5. In a telephone system, a rotary member, a switch-hook provided with means for rotating said member by upward movement when the receiver is hung up, adapted to release the rotary member to permit the latter to rotate back to normal position when the switch-hook reaches the limit of its motion, and switch springs controlled by said rotary member.

[Claims 6 to 17 not printed in the Gazette.]

1,131,625. METAL WINDOW CONSTRUCTION. GEORGE H. FORSYTH, Chicago, Ill. Original application filed Oct. 27, 1908, Serial No. 459,775. Divided and this application filed Dec. 10, 1913. Serial No. 805,738. (Cl. 189—76.)



1. In sash construction, the combination of sash members connected at an angle to form a sash corner, a reinforcing plate secured to both of the said members, the said plate being spaced a substantial distance from the outer edge of the sash members and having its edges deflected to hug the exterior face of the inner edges of the members, and a lock member carried by said plate and overlying the glass area of the sash, substantially as described.

2. In sash construction, the combination of sash members connected at an angle to form a sash corner, a reinforcing plate disposed in part within the angle and secured to both of the said members, the said plate lying substantially within the planes bounded by the two faces of the sash and having its outer edges deflected to hug the inner edges of the members, and a lock member carried by said plate and overlying the glass area of the sash, substantially as described.

3. In sash construction, the combination of sash members connected at an angle to form a sash corner, a reinforcing plate disposed in part within the angle formed by and secured to the inner edges of both of said members, the said plate having its outer edges deflected to hug the inner edges of the members and lying substantially within the planes bounded by the two faces of the sash, and an integral lock member carried by the plate and projecting laterally therefrom, substantially as described.

4. In sash construction, the combination of sash members connected at an angle to form a sash corner, a reinforcing plate disposed in part within the angle formed by and secured to the inner edges of both of said members, the said plate having its outer edges deflected to hug the inner edges of the members and lying substantially within the planes bounded by the two faces of the sash, the plate having also an integral lug extending into a sash member, substantially as described.

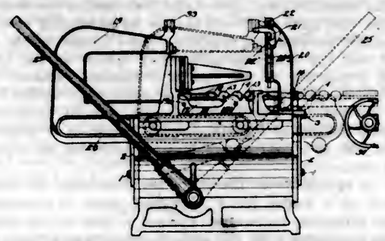
5. In sash construction, the combination of sash members connected at an angle to form a sash corner, an exterior reinforcing plate secured to the sash members at a substantial distance from the outer edge thereof and having an extended bearing along the inner edges of said mebers, and a separate reinforcing member disposed within the adjacent ends of the sash members and serving as an anchorage for the plate, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,131,626. BRICKMAKING-MACHINE. EDMUND GURNEY, Portland, Oreg., assignor to P. J. Burns, Portland, Oreg. Filed Jan. 16, 1912. Serial No. 671,439. (Cl. 25—113.)

1. In brick making machinery, the combination of a carriage, a sweeper, a spreader mounted on said carriage, a portable pallet, and means for actuating the carriage past the sweeper to transfer the bricks from the spreader to said pallet and for simultaneously actuating the spreader.

2. In brick making machinery, the combination of a carriage, a portable pallet mounted thereon, a spreader supported by the carriage, means for simultaneously actuating the carriage and spreader, and means for sweeping the bricks from the spreader to the portable pallet as the carriage is actuated.



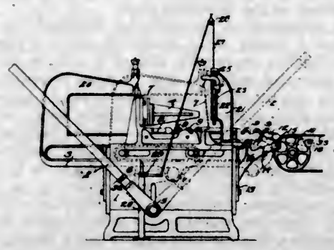
3. In brick making machinery, the combination of a spreader, a support adapted to receive bricks thereon, a stop arranged to engage the bricks while supported by the spreader, means for causing spreading action of the spreader, and means for moving the spreader to cause the stop aforesaid to shift the bricks from the spreader to the said support.

4. In brick making machinery, the combination of a spreader, a support adapted to receive bricks thereon, a stop arranged to engage the bricks while supported by the spreader, means for causing spreading action of the spreader, means for moving the spreader to cause the stop aforesaid to shift the bricks from the spreader to the said support, and means connected with the spreader moving means for rendering the stop operable.

5. In brick making machinery, the combination of a carriage, cutting mechanism on the carriage, a spreader mounted on said carriage and comprising a plurality of units, a stationary cam device coacting with one of the units of the spreader to move the same, means for actuating the carriage and thereby moving the spreader bodily relative to the cam device, and connections between the spreader units for causing simultaneous spreading movement of the same.

[Claims 6 to 11 not printed in the Gazette.]

1,131,627. BRICKMAKING-MACHINE. EDMUND GURNEY, Portland, Oreg., assignor to P. J. Burns, Portland, Oreg. Filed Feb. 8, 1912. Serial No. 676,391. (Cl. 25—113.)



1. In brick making machinery, the combination of a conveyer, means for delivering brick to said conveyer comprising a carriage, delivery arms on said carriage, means for delivering brick to said delivery arms, means for moving the carriage bodily toward and from the conveyer, and means connecting the arms and the carriage for relative movement of the arms and conveyer to deliver the bricks to the conveyer.

2. In a machine of the class described, the combination of a conveyer, a carriage, delivery arms movably mounted on the carriage, means for supporting said delivery arms to normally prevent delivery movement of the same with respect to the conveyer, means for moving the delivery arms to a delivery position in respect to the conveyer, and means whereby the delivery arms may be depressed by weight thereon when said arms are moved to a predetermined point in respect to the supporting means aforesaid, and pallet engaging stop means on the said arms.

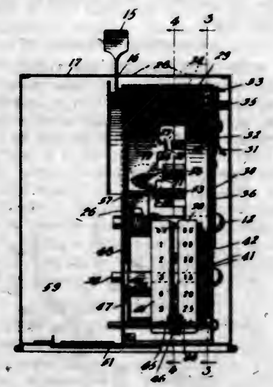
3. In a machine of the class described, the combination of a conveyer, a carriage, delivery arms movably mounted on the carriage, means for supporting said delivery arms to normally prevent delivery movement of the same with respect to the conveyer, means for moving the delivery arms to a delivery position in respect to the conveyer, means whereby the delivery arms by weight thereon when said arms may be depressed are moved to a predetermined point in respect to the supporting means aforesaid, and combined stop and anti-friction rollers carried by the delivery arms.

4. In a machine of the class described, the combination of a carriage, delivery arms at one end of the carriage, means including an operating lever for moving the carriage back and forth to transfer the bricks from one point on the carriage to said delivery arms, and means normally supporting the delivery arms in an elevated position, and connections between said arms and the carriage adapted to allow a downward depositing movement of the arms when the same are projected from their supporting means at a predetermined point in the movement of the carriage.

5. In a machine of the class described, the combination of a back and forth movable brick delivery carriage, delivery arms at one end of the carriage and adapted to support a pallet, anti-friction means normally supporting the delivery arms in a position to receive bricks thereon, means for moving the carriage and arms so as to project from said supporting means, a conveyer, and pivotal connections intermediate said arms and carriage whereby a delivery movement of the delivery arms to a plane below that of the conveyer may take place when the delivery arms are projected from the supporting means above mentioned.

[Claims 6 to 11 not printed in the Gazette.]

1,131,628. COIN-ACTUATED MECHANISM. WILLIAM M. HOLLOWAY, Austin, Ill., assignor to Charles W. Shonk Company, Chicago, Ill., a Corporation of New Jersey. Filed May 19, 1911. Serial No. 628,169. (Cl. 235—100.)



1. In a mechanism for registering coins of different denominations, a graduated coin carrier chute for holding the coins in different positions according to their size and in which the coins are held flatwise to the direction of movement of the chute, said chute being oscillatable about a horizontal axis and its graduations being arranged to hold coins of different diameters at different distances from said axis, registering mechanism, and devices intermediate the registering mechanism and the coin carrier chute engaged and directly operated by the coins in the chute when the latter is oscillated, substantially as specified.

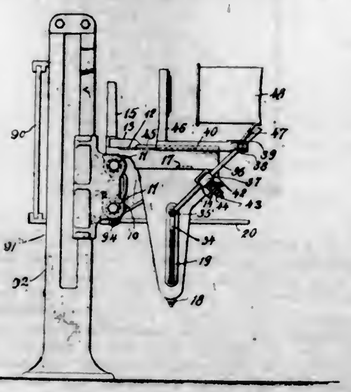
2. In a mechanism for registering coins of different denominations the combination of registering mechanism, a casing having a vertical partition therein provided with a coin discharge opening, and actuating devices therefor comprising a graduated, oscillatory coin carrier chute movable about a horizontal axis and adapted to hold the coins flatwise to the direction of movement of the chute and its graduations being arranged to hold coins of different diameters at different distances from said axis, said chute having one side thereof open adjacent to said vertical partition and adapted to discharge the coins through the discharge opening at the end of its forward movement, substantially as specified.

3. In a mechanism for registering coins of different denominations, a casing having a single deposit opening therein for all the different coins, a coin carrier chute oscillatable about a horizontal axis and adapted to retain the coins flatwise to the direction of movement of the chute, register wheels, and a cogged segment having a projection located so as to be directly engaged by a coin positioned flatwise in said chute, said cogged segment operating the register wheels, substantially as specified.

4. In a multiple coin registering and adding bank having a single deposit opening for coins of varying denominations, the oscillatory coin carrier chute having an open side adjacent to a stationary frame plate containing a coin discharge opening, the coin being received and positioned flatwise to the direction of the motion of said carrier chute, in combination with a cogged segment pivoted on the same axis as the carrier chute and having projections positioned to directly engage coins of different denominations held flatwise in the carrier, such projections having different angular relations to impart movement to the cogged segment corresponding to the value of the coin engaged.

5. In a multiple coin registering and adding bank, having a single deposit opening for coins of varying denominations and an oscillatory coin carrier chute, the combination of means for closing the deposit opening automatically by the movement of the coin carrier chute whereby the said deposit opening is closed at all times except when in registry with the mouth of the coin carrier chute, said means consisting of a pivoted spring-held guard plate provided with a spring trigger for connecting it with the carrier chute and disconnecting it therefrom by the movement of said carrier chute.

1,131,629. STEP AND REPEAT MACHINE. LOUIS J. R. HOLST and OSCAR CHOUINARD, New York, N. Y., assignors, by mesne assignments, to Lithotex Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 17, 1909. Serial No. 490,573. (Cl. 88—24.)



1. In a machine of the character described, the combination of a sensitized plate holder, a lens and an object holder, said plate holder and object holder being located in the conjugate foci of the lens, means for simultaneously altering the relative positions of the plate holder, lens and object holder along the line of projection while maintaining the said object holder and plate holder respectively in said conjugate foci, and means for producing relative movement between the sensitized plate holder on the one hand and the said lens and object holder on the other hand, transverse to the line of projection, without disturbing the positions of the lens and object holder relative to the plate-holder along the line of projection, whereby successive clearly defined images of a predetermined size of a unit design may be projected on a sensitized plate.

2. In apparatus of the character described, the combination of a holder for a sensitized plate, a supporting frame extending rearwardly thereof, a slide on the frame, a lens connected with the slide to move therewith, a second slide and an object holder connected to move therewith, the plate holder and object holder being located in the conjugate foci of the lens, means connecting the two slides for simultaneously moving them along the line of projection so as to continuously maintain the plate holder and the object holder in the conjugate foci of the lens, and means for producing relative movement between the sensitized plate holder on the one hand and said lens and object holder on the other hand, transverse to the line of projection, without disturbing the positions of said lens and object holder relative to the plate-holder along the line of projection, whereby successive clearly defined images of a predetermined size of an object may be projected on the sensitized plate.

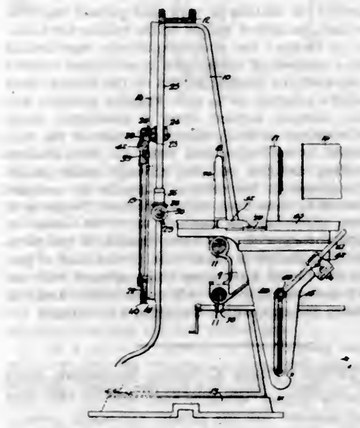
3. In apparatus of the character described, the combination of a holder for a sensitized plate, a supporting frame extending rearwardly of the plate holder, a slide mounted on said frame, a lens connected with said slide to move therewith, a second slide mounted on the first and an object holder connected with the second slide to move therewith, the plate holder and object holder being located in the conjugate foci of the lens, means connecting the two slides for simultaneously moving them along the line of projection so as to continuously maintain the plate holder and the object holder in the conjugate foci of the lens, and means for producing relative movement between the sensitized plate holder on the one hand and said lens and object holder on the other hand, transverse to the line of projection, without disturbing the positions of said lens and object holder relative to the plate-holder along the line of projection, whereby successive clearly defined images of a predetermined size of an object may be projected on the sensitized plate.

4. In apparatus of the character described, the combination of a holder for a sensitized plate, a supporting frame extending rearwardly thereof, a slide on the frame, a lens connected with the slide to move therewith, a second slide and an object holder connected to move therewith, the plate holder and object holder being located in the conjugate foci of the lens, automatic focus-maintaining mechanism connecting said slides for simultaneously shifting them along the line of projection so as to continuously maintain the plate holder in proper focus, said focusing mechanism comprising an oscillating sliding rod pivotally connected with the lens slide to move therewith along the line of projection and having a sliding pivotal connection with the second slide, and means for producing relative movement between the sensitized plate holder on the one hand and said lens and object holder on the other hand, transverse to the line of projection, without disturbing the positions of said lens and object holder relative to the plate-holder along the line of projection, whereby successive clearly defined images of a predetermined size of an object may be projected on the sensitized plate.

5. In a machine of the character described, the combination of a sensitized plate holder, a frame or support therefor, a supporting bracket supported from said frame and extending rearwardly thereof, a slide on said bracket and a lens connected with the slide to move therewith, a second slide mounted on the first slide and an object holder connected with said second slide to move therewith, the plate holder and object holder being located in the conjugate foci of the lens, automatic focus-maintaining mechanism connecting the two slides for simultaneously shifting them along the line of projection so as to continuously maintain the plate holder in proper focus, and means for producing relative movement between the sensitized plate holder on the one hand and the rearwardly extending frame and slides on the other hand, transverse to the line of projection, without disturbing the positions of said lens and object holder relative to the plate-holder along the line of projection, whereby successive clearly defined images of a predetermined size of an object may be projected on the sensitized plate.

[Claims 6 to 21 not printed in the Gazette.]

1,131,630. STEP AND REPEAT MACHINE. ALFRED H. MOTLEY, Jr., and OSCAR CHOUINARD, New York, N. Y., assignors, by mesne assignments, to Lithotex Corporation, New York, N. Y., a Corporation of New York. Filed Aug. 16, 1909. Serial No. 513,164. (Cl. 88—24.)



1. In a step and repeat machine for photographically reproducing designs, the combination of a lens, a holder for a sensitized plate, a holder for an object, said holders being located in the conjugate foci of the lens, means for simultaneously altering the relative positions of the lens and the holders with respect to each other along the line of projection to adjust the size of the image of the object while maintaining the focus, a supporting frame on which the plate holder is mounted in a plane transverse to the line of projection and in front of the lens, means for moving said plate holder in said plane horizontally and means for moving it vertically in said plane without disturbing the adjustment of the parts along the line of projection.

2. In a step and repeat machine for photographically reproducing designs, the combination of a lens, a holder for a sensitized plate, a holder for an object, said holders being located in the conjugate foci of the lens, means for simultaneously shifting the lens and object holder along the line of projection so as to adjust the size of the image of the object while maintaining the focus, a supporting frame on which the plate holder is mounted in a plane transverse to the line of projection and in front of the lens, means including screw gearing for moving said plate holder horizontally in said plane, means including screw gearing for moving said plate holder vertically in said plane, and dials equipped with markers, one operatively related to each of said screw gearing for determining the positioning of the images on the plate.

3. In a step and repeat machine for photographically reproducing designs, the combination of a lens, a holder for a sensitized plate, a holder for an object, said holders being located in the conjugate foci of the lens, means for simultaneously altering the relative positions of the lens and the holders with respect to each other along the line of projection so as to adjust the size of the image of the object while maintaining the holders respectively in said conjugate foci, a supporting frame on which the plate holder is mounted in a plane transverse to the line of projection and in front of the lens, means including a threaded shaft and a nut operating thereon and secured to the plate holder for moving said plate holder horizontally in said plane, a dial mounted concentric with the shaft, a marker also mounted concentric with the shaft and operatively related to the dial to indicate the desired movements of the shaft for shifting the plate, and a part mounted on the shaft to rotate therewith and movable over the dial to indicate the movements of the shaft.

4. In a step and repeat machine for photographically reproducing designs, the combination of a lens, a holder for a sensitized plate, a holder for an object, said holders being located in the conjugate foci of the lens, means for simultaneously shifting the lens and object holder along the line of projection to adjust the size of the image of the object while maintaining the focus, a supporting frame having two uprights, vertical guideways or tracks on the uprights, a vertically moving carriage slidingly mounted on said guideways and extending between the same, means including a vertical screw and a nut operating thereon, one mounted on the supporting frame and one on the carriage for moving the carriage on its guideways, a horizontal guideway or track on said carriage on which the plate holder is slidingly mounted, means including a horizontal screw mounted on the vertically moving carriage and a nut operating thereon and mounted on the plate holder for moving the plate holder along said horizontal guideway, operating handles, one actuating the rotatable member of the screw and nut for moving the carriage, and the other actuating the rotatable member of the screw and nut for moving the plate holder, and means operatively related to said rotatable members for determining respectively the vertical and horizontal movements of the plate holder.

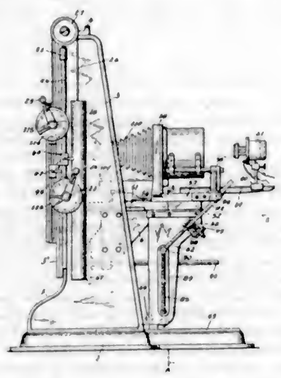
5. In a step and repeat machine for photographically reproducing designs, the combination of a lens, a holder for a sensitized plate, a holder for an object, said holders being located in the conjugate foci of the lens, means for simultaneously shifting the lens and object holder along the line of projection to adjust the size of the image of the object while maintaining the focus, a supporting frame having two uprights, vertical guideways or tracks on the uprights, a vertically moving carriage slidingly mounted on said guideways and extending between the same, a pair of vertical threaded shafts rotatively mounted on the frame, a threaded nut on each shaft secured to the carriage, means including a horizontal shaft geared to the threaded shafts for rotating the same to move the carriage vertically, a horizontal guideway or track on said carriage on which the plate holder is slidingly mounted, and means including a horizontal threaded shaft for moving the plate holder along said horizontal guideway.

[Claims 6 to 10 not printed in the Gazette.]

1,131,631. STEP AND REPEAT MACHINE. HERBERT M. PILKINGTON, Arverne, N. Y., assignor, by mesne assignments, to Lithotex Corporation, New York, N. Y., a Corporation of New York. Filed June 14, 1911. Serial No. 633,196. (Cl. 88—24.)

1. In a machine of the character described, the combination of a supporting frame, a sliding carriage having means for holding a sensitized plate and mounted on said frame in a plane transverse to the optical axis, means for moving the carriage horizontally in said plane, means for moving the carriage vertically in said plane, relatively adjustable stops for limiting the distance of successive movements of the carriage along its horizontal line of movement or for determining the starting or initial position of the carriage after it has been shifted, and relatively ad-

justable stops for limiting the distance of successive movements of the carriage along its vertical line of movement or for determining the starting or initial position of the carriage after it has been shifted, one stop of each set being respectively mounted along the lines of movement of the carriage and the other stop of each set being mounted respectively to move with the carriage along its respective lines of movement.



2. In a machine of the character described, the combination of a supporting frame, a sliding carriage having means for holding a sensitized plate and mounted on said frame in a plane transverse to the optical axis, means for moving the carriage on its support in said plane, and two relatively adjustable stops one mounted on the frame and the other mounted on the carriage in position to engage the first stop to limit the distance of successive movements of the carriage or to determine the starting or initial position of the carriage after it has been shifted, one of the parts on which the stops are mounted being provided with a graduated scale along which the adjustable stop is movable and by which its settings are indicated.

3. In a machine of the character described, the combination of a main supporting frame, a vertically movable supporting carriage consisting of two cross pieces connected by vertical members, one of said cross pieces being provided with a guideway, vertical guideways on the main frame on which said carriage is adapted to move, a horizontally moving carriage mounted on the guideway of the first carriage and having means for holding a sensitized plate, a slideway on one of the cross pieces of the first carriage, and a stop adjustably mounted thereon, a slideway on the second carriage adjacent said stop, and a second stop slidably mounted on said slideway, each of said stops being provided with means for gripping it in position, a vertical slideway on the main frame having a stop adjustably mounted thereon, a slideway on one of the vertical members of the first carriage adjacent the last stop, and a stop slidably mounted thereon to engage said last stop, and means including vertical and horizontal screws for moving said carriage in their planes.

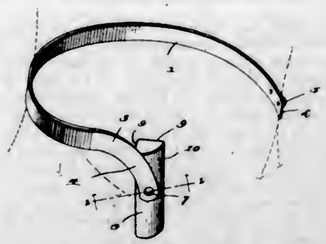
1,131,632. METHOD OF SETTING STEP AND REPEAT MACHINES. HERBERT MORRIS PILKINGTON, Arverne, N. Y., assignor, by mesne assignments, to Lithotex Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 5, 1913. Serial No. 752,232. (Cl. 88—24.)

1. The method of setting a step and repeat machine embodying a lens, an object holder and a holder for a sensitized plate to be used for photographically reproducing a component unit of a multiple color design a number of times upon a sensitized surface to be used for making a printing plate for one of the component colors of the design, which consists in projecting an image of the unit transparency onto one of the designs of an already made photographic plate for one of the component colors of said design, the plate being placed in the vertical plane to be occupied by the sensitized surface upon which the unit design is to be reproduced, and adjusting the machine until the image exactly falls upon and coincides with said design on the plate.

2. The method of setting a step and repeat machine embodying a lens, an object holder and a holder for a sensitized plate to be used for photographically reproducing a unit design a number of times upon a sensitized surface which is to be used for making prints of the design, each having a definite relation as to size, angular position and spacing, with designs formed upon a previously made plate, which consists in projecting an image of the unit design or object to be reproduced onto one of a number of corresponding designs on the already made photographic plate placed in the vertical plane to be occupied by the sensitized surface upon which the unit design is to be reproduced, and adjusting the machine until the image exactly falls upon or coincides with said design on the plate.

3. The method of setting a step and repeat machine embodying a lens, an object holder and a holder for a sensitized plate to be used for photographically reproducing a unit design a number of times upon a sensitized surface which is to be used for making prints of the design, each having a definite relation as to size, angular position and spacing, with designs formed upon a previously made plate, which consists in projecting an image of the unit design or object to be reproduced onto one of a number of corresponding designs on the already made photographic plate placed in the vertical plane to be occupied by the sensitized surface upon which the unit design is to be reproduced, adjusting the machine until the image exactly falls upon or coincides with said design on the plate, and then shifting the plate transverse to the line of projection until the image falls upon and registers with another of said designs on the already made plate, and noting the distance through which the plate was shifted.

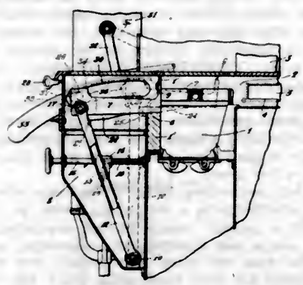
1,131,633. TRUSS. FRANK K. SMITH, Manhattan, Kans. Filed Dec. 16, 1913. Serial No. 807,097. (Cl. 128—26.)



1. A truss comprising a spring band, having at one end a portion extending downwardly and laterally at an oblique angle in a direction toward the opposite end of the supporting pin loosely mounted in an opening in said downwardly and laterally curved portion for pivotal and rocking movements, and a pad carried by said downwardly and laterally curved end of the band, said pad comprising an elongated block of equilateral triangular form in cross section throughout its length, the converging sides of said block forming an angular bearing surface at their lineal juncture and the base of said block being transversely of convex contour and receiving said supporting pin, whereby the convex base of the block is disposed to bear upon the downwardly and laterally curved end of the spring and to have pivotal and rocking movements thereon.

2. A truss, comprising in combination, a support for engagement with the person of the wearer, a truss pad having an obtrusive lineal engaging portion, and means loosely mounting said pad on said support for slight relative adjusting movement thereon conformable to displacement of the person to the wearer, substantially as described.

1,131,634. WATER-HEATER FOR RANGES, &c. EUGENE W. VEST, Tacoma, Wash. Filed June 2, 1913. Serial No. 771,241. (Cl. 126—34.)



1. In a stove, a fire-box having an opening in a side wall thereof, a water heating chamber slidable through the opening into the fire-box, and cam means interposed between the edge of the side wall opening and the chamber to support the latter in its projected position.

2. In a stove, a fire-box, a flue having communication with the fire-box through an opening in a wall thereof, a water heating chamber slidable through the wall opening into the fire-box, and cam means for elevating the bottom of the chamber from the adjacent edge of the wall opening to provide a passage for the escaping products of combustion from the fire-box to the flue.

3. In a stove, a fire-box, a flue having communication with the fire-box through a side wall thereof, a water heating chamber slidable in the flue for the projection into the fire-box, said chamber having an upwardly extending flange for closing the flue through the side wall of the fire-box when in its retracted position, and means for effecting movement of the chamber.

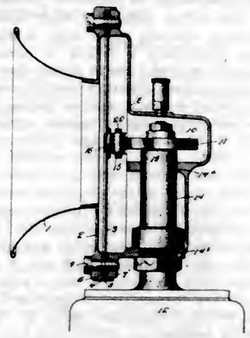
4. In a stove, a fire-box, a flue having communication with the fire-box through an opening in a wall thereof, a water heating chamber slidable through the wall opening into the fire-box, and a cam carried by the chamber for spacing the latter from an edge of the wall opening on projection into the fire-box to provide a passage for the products of combustion.

5. In a stove, a fire-box, a flue having communication with the fire-box through an opening in a wall thereof, a water heating chamber in the wall opening, a swinging support for the chamber for projecting the latter through the opening into the fire-box, and means carried by the chamber for elevating the same from the edge of the wall opening to provide a path of escape for the products of combustion.

[Claims 6 to 9 not printed in the Gazette.]

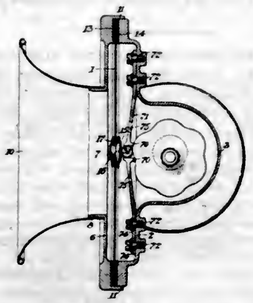
1,131,635. DIAPHRAGM-HORN. MILLER REESE HUTCHISON, West Orange, N. J., assignor to Lovell-McConnell Manufacturing Company, a Corporation of Delaware. Filed May 11, 1911. Serial No. 626,489. (Cl. 116—1.)

In an alram or signaling device, the combination of a diaphragm, a rotor presenting a series of camming projections, high speed means for driving said rotor, a guide member disposed between said rotor and said diaphragm and having an aperture therethrough and a loose concussion-cushioning, thrust-transmitting member disposed within said aperture and adapted to receive and cushion



the thrust from the rotor and apply the impulses to the diaphragm.

1,131,636. MECHANICAL HORN. MILLER REESE HUTCHISON, West Orange, N. J., assignor to Lovell-McConnell Manufacturing Company, a Corporation of Delaware. Filed Mar. 1, 1913. Serial No. 751,481. (Cl. 116—1.)



1. In an alram or signaling device of the class described, a horn or resonator and a diaphragm in combination with a rotor having a plurality of cam projections spaced apart and means for rotating it at high speed, the speed of rotation and configuration of the cam projections being such as to mechanically and positively force outward movement of the diaphragm at such velocity as to cause further outward movement of the diaphragm in the same direction by momentum against increasing elastic stress and to permit free inward movement of the diaphragm to a predetermined distance on the other side of normal, a thrust member intermediate of said rotor and said diaphragm and unattached to the latter and driven by the cams, and a guide for said thrust member.

2. In an alarm or signaling apparatus of the class described, a horn or resonator and a diaphragm in combination with a rotary cam, a thrust member actuated by said cam and a support for confining the bodily motion of said thrust member to a direction perpendicular to the diaphragm, said thrust member being rotatable about an axis parallel to said diaphragm and having opposed curved bearing surfaces in engagement with the surfaces of the support.

3. In a device of the class described, a motor free to vary its speed in proportion to the work done, a rotary cam mounted on the motor shaft, an elastic diaphragm having a natural frequency of vibration, a ball interposed between said cam and said diaphragm, a support for said

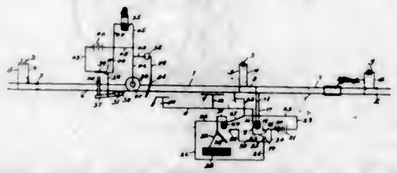
ball, the location of the cam with respect to the diaphragm being such and the diameter of the ball being such that the diaphragm is positively forced by the ball acting as a rigid thrust member a slight distance beyond its normal plane, whereby upon high speed rotation of said cam said diaphragm is forced by harmonious positively and rigidly applied thrusts of the cam through the ball to a predetermined distance beyond normal and is permitteld to swing freely a desired distance beyond the forcing movement, according to its own natural movement as determined by its elasticity and inertia and said ball being free to rotate about an axis parallel to said diaphragm as said cam engages with and passes the same.

4. In an alarm signal of the character described, a diaphragm, a plurality of cams, a rotatable carrier for said cams, an intermediate thrust transmitter arranged between said cams and said diaphragm, and simultaneously contacting with said diaphragm and one of said cams to forcibly displace said diaphragm, and a support for said intermediate thrust transmitter independent of said diaphragm, said thrust transmitter being in the form of a steel ball free to rotate.

5. In an alram signal of the character described, a diaphragm, a rotatable member presenting a series of cam surfaces, an intermediate thrust transmitter arranged between said cam surfaces and said diaphragm, and simultaneously contacting with said diaphragm and one of said cams to forcibly displace said diaphragm, and a support for said intermediate thrust transmitter independent of the diaphragm, said thrust transmitter being free to rotate about its own axis.

[Claims 6 to 12 not printed in the Gazette.]

1,131,637. SPEED-CONTROLLING MECHANISM FOR VEHICLES. FRANK T. JONES, Baltimore, Md., assignor, by mesne assignments, to The American Train Control Company, a Corporation of Maryland. Filed June 18, 1913. Serial No. 774,287. (Cl. 246—58.)



1. A safety controlling device for railways wherein the vehicle is provided with a controlling device, an actuating device, and a normal vehicle circuit controlled by the actuating device and including the controlling device, in combination with the track rails formed into blocks; a contact means for each block with which the actuating means on the vehicle coacts to effect an interruption of the normal vehicle circuit; a current supply and a normal connection from one side thereof to the contact means to supply a substitute current on the vehicle at times while the normal vehicle circuit is interrupted; means for interrupting the connection between the latter current supply and contact means when conditions in the block require low speed and means for reëstablishing a connection from the said latter current supply through the controlling device on the vehicle when the vehicle is traveling at a low speed.

2. A safety controlling device for railways wherein the vehicle is provided with a controlling device, an actuating device, and a normal vehicle circuit controlled by the actuating device and including the controlling device, in combination with the track rails formed into blocks; a contact means for each block with which the actuating means on the vehicle coacts to effect an interruption of the normal vehicle circuit; a current supply and a normal connection from one side thereof to the contact means to supply a substitute current on the vehicle at times while the normal vehicle circuit is interrupted; means for interrupting the connection between the latter current supply and contact means when conditions in the block require low speed and means actuated by the vehicle current for forming a connection from the said latter current supply through the controlling device on the vehicle when the latter is traveling at a low speed.

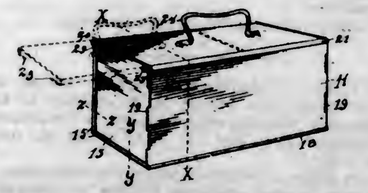
3. A safety controlling device for railways wherein the vehicle is provided with a controlling device, an actuating device and a normal vehicle circuit controlled by the actuating device and including the controlling device, in combination with the track rails formed into blocks; a contact means for each block with which the actuating means on the vehicle coacts to effect an interruption of the normal vehicle circuit; a current supply and a normal connection from one side thereof to the contact means to supply a substitute current on the vehicle at times while the normal vehicle circuit is interrupted; means for interrupting the connection between the latter current supply and contact means when conditions in the block require low speed and timing means actuated by the vehicle current for forming a connection from the said latter current supply to the said contact means when the vehicle is moving at a low speed.

4. A safety controlling device for railways wherein the vehicle is provided with a controlling device, an actuating device, and a normal vehicle circuit controlled by the actuating device and including the controlling device, in combination with the track rails formed into blocks; a contact means for each block with which the actuating means on the vehicle coacts to effect an interruption of the normal vehicle circuit; a current supply and a normal connection from one side thereof to the contact means to supply a substitute current on the vehicle at times while the normal vehicle circuit is interrupted; means for interrupting the connection between the latter current supply and contact means when conditions in the block require low speed and means interposed between the latter current supply and the said contact means and actuated by the vehicle current for forming a connection between said current supply and said contact means when the vehicle is traveling at a low speed.

5. A safety controlling device for railways wherein the vehicle is provided with a controlling device, an actuating device and a normal vehicle circuit controlled by the actuating device and including the said controlling device, in combination with the track rails formed into blocks; a contact means for each block with which the actuating means on the vehicle coacts to effect an interruption of the normal vehicle circuit; a local current supply having a normal connection from one side thereof to the said contact means; means for interrupting the said normal connection between the local supply and said contact means when conditions in the block require low speed, and means for forming a substitute circuit from the said local current supply through the controlling device on the vehicle when the latter is traveling at the required low speed.

[Claims 6 to 11 not printed in the Gazette.]

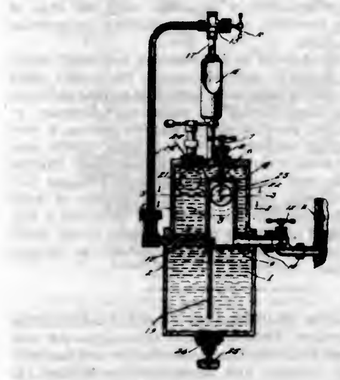
1,131,638. FOLDING LUNCH-BOX. HENRY A. LARSON, Jamestown, N. Y., assignor of one-half to Conrad T. Johnson, Jamestown, N. Y. Filed Nov. 30, 1912. Serial No. 734,273. (Cl. 220—17.)



A folding box comprising bottom and side plates hinged to each other, one side plate being of less length than the other side plate and bottom plate, end plates hinged to the ends of the shorter side plate and having their free ends

formed with beads, beads formed upon the ends of the other side plate, leaf springs fixed to the longer side plate and having their free ends spaced from the beads of the longer plate, the beads of the end plates and beads of the longer side plate being adapted to interlock when the free ends thereof bear against the inner side of the longer plate and at which time the free ends of said springs engage the end plates to hold the interlocked beads against accidental disengagement, the beads of the longer side plate being extended beyond the ends of the shorter plate when said plates are folded against the bottom, a top having inturned edges for slidably engaging beneath the beads of the longer plate, and inwardly directed wire stops carried by the cover for engaging said beads to limit the sliding movement of said cover in one direction.

1,131,639. GREASE LUBRICATOR. FRANK LOWRY, Steubenville, Ohio, assignor to The Ohio Grease Company, Loudonville, Ohio, a Corporation of Ohio. Filed June 13, 1912. Serial No. 703,369. (Cl. 184—50.)



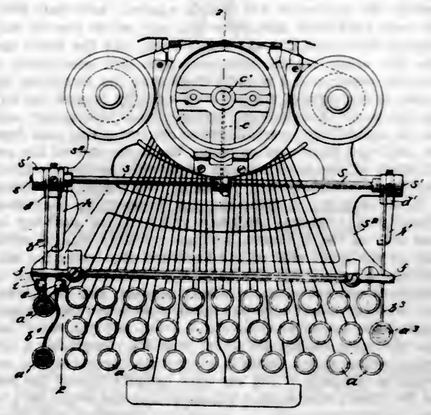
1. A lubricator including an outer case forming a grease chamber, an inner case forming a feed chamber within the grease chamber with a spaced interval between the upper walls of the cases, a straightway feed port in the upper wall of the inner case communicating directly downward from the grease chamber into the feed chamber, a delivery tube leading laterally from the lower end of the feed chamber, and a steam tube leading through the grease chamber into the feed chamber and discharging across the bottom thereof into the delivery tube.

2. A lubricator including an outer case forming a grease chamber, an inner case forming a feed chamber within the grease chamber with spaced intervals between the upper and lower walls of the cases, a straightway feed port in one end wall of the feed chamber leading directly from the grease chamber into the feed chamber, a delivery tube leading laterally from the other end of the feed chamber, and a steam tube leading through the grease chamber into the feed chamber and discharging across the same into the delivery tube.

3. A lubricator including an outer case forming a grease chamber, an inner case having certain of its walls including the top wall spaced bodily within the walls of the outer case forming a feed chamber therein, a feed port in said top wall of the inner case communicating from the grease chamber into the feed chamber, a delivery tube leading laterally from the other end of the feed chamber, and a steam tube leading through the grease chamber into the feed chamber and discharging across the same into the delivery tube.

4. A lubricator including an outer case forming a grease chamber, an inner case having its walls spaced bodily within the walls of the outer case forming a feed chamber therein, a feed port in the upper end wall of the inner case communicating from the grease chamber into the feed chamber, a delivery tube leading laterally from the lower end of the feed chamber, and a steam tube leading through the grease chamber into the feed chamber and discharging into the delivery tube.

1,131,640. TYPE-SHIFTING ATTACHMENT FOR TYPEWRITING MACHINES. ARTHUR LOPEZ, New York, N. Y., assignor to The Hammond Typewriter Co., a Corporation of New York. Filed July 30, 1913. Serial No. 781,957. (Cl. 197—48.)



1. A shift-key attachment for typewriting machines, comprising a capital shift-key and a figure shift-key at one side of the keyboard, and an auxiliary capital shift-key at the other side of the keyboard, key-levers for said shift-keys having circular hubs, a transverse rock-shaft to which the key-levers are loosely applied, two dogs fixed on said rock-shaft and extending one below one of said capital key-levers and the figure-lever, and the other under the other capital key-lever, each dog comprising a circular collar and a radially projecting lug extending exposed in the path of the key-lever radially beyond the hub of the same, independent lifting-springs one under each of the capital key-levers, and a rearwardly-extending arm fixed on said rock-shaft and engaging the lower end of the anvil-shaft of the machine.

2. In a typewriting machine, the combination, with a vertically-shiftable anvil provided with one or more type-shuttles, and its shaft, of two capital shift-keys arranged one at each side of the keyboard, a figure shift-key arranged at one side of the keyboard adjacent to the capital shift-key on that side, key-levers for said shift-keys, said key-levers having circular hubs, independent lifting springs for the capital key-levers, a rock-shaft to which all said key-levers are loosely applied, fixed dogs on said rock-shaft, one of said dogs extending beneath one of said capital key-levers and the other dog extending beneath the other capital key-lever and the figure key-lever, each dog comprising a circular collar and a radially projecting lug extending exposed in the path of the key-lever radially beyond the hub of the latter, a rearwardly-extending center-arm fixed on the rock-shaft and engaging the lower end of the anvil-shaft, and means for locking the capital and figure shift-keys at one side of the keyboard in lowered position.

3. A shift-key attachment for typewriting machines, comprising a capital shift-key and a figure shift-key at one side of the key-board, and an auxiliary capital shift-key at the other side of the keyboard, key-levers for said shift-keys having circular hubs, a transverse rock-shaft to which the key-levers are loosely applied, two dogs fixed on said rock-shaft and extending one below one of said capital key-levers and the figure-lever, and the other under the other capital key-lever, each dog comprising a circular collar

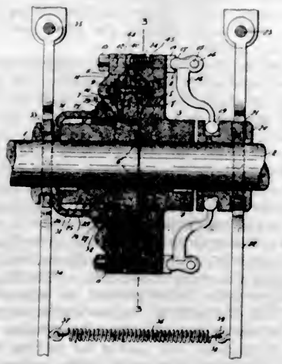
and a radially projecting lug extending exposed in the path of the key-lever radially beyond the hub of the latter, independent lifting-springs one under each of the capital key-levers, a rearwardly-extending arm fixed on said rock-shaft and engaging the lower end of the anvil-shaft of the machine, and means for limiting downward movement of one of said capital key-levers.

4. A shift-key attachment for typewriting machines, comprising a capital shift-key and a figure shift-key at one side of the keyboard, and an auxiliary capital shift-key at the other side of the keyboard, key-levers for said shift-keys having circular hubs, a transverse rock-shaft to which the key-levers are loosely applied, two dogs fixed on said rock-shaft and extending one below one of said capital key-levers and the figure-lever, and the other under the other capital key-lever, each dog comprising a circular collar and a radially projecting lug extending exposed in the path of the key-lever radially beyond the hub of the latter, independent lifting-springs one under each of the capital key-levers, a rearwardly-extending arm fixed on said rock-shaft and engaging the lower end of the anvil-shaft of the machine, and adjustable means for limiting downward movement of one of said capital key-levers.

5. A shift-key attachment for typewriting machines, comprising a capital shift-key and a figure shift-key at one side of the keyboard, and an auxiliary capital shift-key at the other side of the keyboard, key-levers for said shift-keys having circular hubs, a transverse rock-shaft to which the key-levers are loosely applied, two dogs fixed on said rock-shaft and extending one below one of said capital key-levers and the figure-lever, and the other under the other capital key-lever, each dog comprising a circular collar and a radially projecting lug extending exposed in the path of the key-lever radially beyond the hub of the latter, independent lifting-springs one under each of the capital key-levers, a rearwardly-extending arm fixed on said rock-shaft and engaging the lower end of the anvil-shaft of the machine, means for limiting downward movement of one of said capital key-levers, and means for limiting downward movement of the figure key-lever.

[Claims 6 to 8 not printed in the Gazette.]

1,131,641. CLUTCH. JAMES E. WILLCOX, Malden, Mass., assignor, by direct and mesne assignments, to Frank Wear, Gilmanton, N. H. Filed Sept. 23, 1912. Serial No. 721,849. (Cl. 192—7.)



1. A clutch, comprising in combination a driving shaft, a driven shaft, a clutch member fixed to the driven shaft and provided near its periphery with a double V-shaped channel, an interior clutch member secured to rotate with the driving shaft, a plurality of lugs on the faces of said interior clutch member, a plurality of friction shoes mounted on said faces and each having a recess for receiving one of said lugs, said shoes coöperating with said channel, and means for bringing said clutch members into engagement.

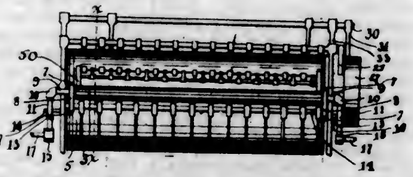
2. A clutch comprising in combination a driving shaft, a driven shaft, a clutch member mounted on each shaft, means for bringing the clutch members into engagement, a shipper for actuating said means, means for positively locking the clutch member on one shaft in engagement with the other shaft, a second shipper for actuating the last mentioned means, and spring means connecting said shippers.

3. A clutch, comprising in combination a driving shaft, a driven shaft, a clutch member secured to said driven shaft, a coöperating clutch member, a driving hub rigidly connected to said driving shaft, lugs on said driving hub engaging recesses in the said coöperating clutch member, a locking collar arranged to slide on, and rotate with, said hub, and lugs on said locking collar arranged to engage lugs on the clutch member mounted on said driven shaft.

4. A clutch, comprising in combination a driving shaft, a driven shaft, a clutch member mounted on each shaft and means for bringing said members into engagement, said means comprising a lever and a block arranged to slide along the outer face of one clutch member, said block being provided with a cam seat and one arm of said lever being provided with a cam surface coöperating with said cam seat.

5. A clutch, comprising in combination a driving shaft, a driven shaft, a clutch member fixed to the driven shaft and provided near its periphery with a V-shaped channel, an overhanging ring having an oppositely disposed V-shaped channel, an interior clutch member having a convex-curved bearing surface on said driving shaft, said interior clutch being provided with a four-sided friction shoe coöperating with said channels, resilient means normally separating said ring and member, a pair of bolts passing through said clutch member and ring and a toggle for moving said bolts with respect to said clutch member and ring, whereby said friction shoe will be gripped between the same.

1,131,642. PAPER-HEATER FOR PRINTING-PRESSES. MICHAEL CLINTON, Philadelphia, Pa., assignor of one-fourth to Penn Printing House, one-fourth to Harry Miller, Delaware county, and one-fourth to William E. Cunningham, Philadelphia, Pa. Filed Apr. 23, 1914. Serial No. 834,016. (Cl. 34—48.)



1. The combination with the cylinder of a printing press of a revolving heated cylinder yieldingly impelled toward the cylinder of the press.

2. The combination with the cylinder of a printing press, of a heated cylinder, yieldingly impelled toward the cylinder of the press, and stops limiting the movement of the heated cylinder toward the cylinder of the press.

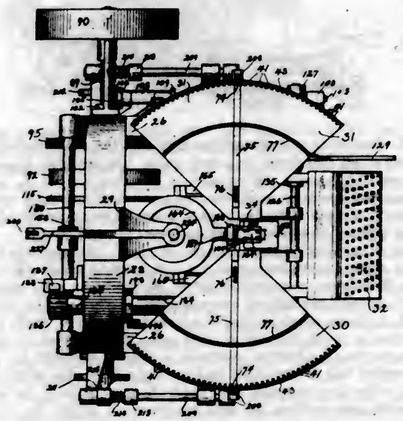
3. The combination in a paper heater for printing presses, of a heating pipe, and a freely revoluble cylinder surrounding the heater pipe and turning on roller bearings thereon, the exterior walls of the heating pipe between these bearings lying close to but not touching the interior of the cylinder, and being of substantially larger size than the portions of the heater pipe carrying the bearings.

4. The combination, in a paper heater for printing presses, with the cylinder of a printing press of a heating cylinder yieldingly impelled toward the cylinder of the printing press and a distance maintainer, operatively connected between the heated cylinder and the cylinder of the press.

5. The combination, in a paper heater for printing presses, with the cylinder of a printing press, of a heated, freely revoluble cylinder, yieldingly impelled toward the cylinder of the printing press, of wheels moving toward and from the press cylinder with the heated cylinder but revoluble independently of the latter, and running upon the press cylinder.

[Claims 6 and 7 not printed in the Gazette.]

1,131,643. COMPOSING-MACHINE. HENRY H. HARDINGE, Chicago, Ill., assignor, by mesne assignments, to Josiah Cratty. Filed Dec. 23, 1910. Serial No. 598,961. (Cl. 199—6.)



1. In a composing machine, a series of pivoted flexible matrix bars arranged to swing by gravity from their stored position into their assembled position in a common vertical line and a clamping device for clamping and alining said assembled line.

2. In a composing machine, a series of pivoted matrix bars arranged to swing by gravity from their stored position into their assembled position in a vertical line, a device for clamping and alining said assembled line of matrices, a series of keys and connections between the keys and matrix bars.

3. In a composing machine, a series of pivoted matrix bars arranged to swing by gravity from their stored position into their assembled position in a vertical line, a device for alining and clamping said assembled line of matrices, a series of escapements for retaining said matrices in a stored position and releasing them, a series of keys and connections between said keys and said escapements.

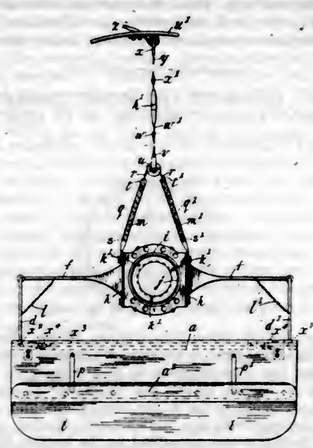
4. In a machine for casting slugs of type, a melting pot and a mold, a device for clamping and alining a vertical assembled line of matrix bars, two series of matrix bars pivoted in standards arranged in arcs concentric with said clamping device and on either side thereof and means for assembling the matrices in said vertical line.

5. In a machine for casting slugs of type, a melting pot and a mold, a device for clamping and alining a vertical assembled line of matrix bars, two series of flexible matrix bars pivoted in standards arranged in arcs concentric with said clamping device and located diametrically opposite on either side thereof and means for assembling said matrix bars in a vertical line in said clamping device.

[Claims 6 to 40 not printed in the Gazette.]

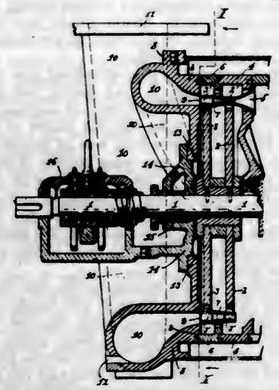
1,131,644. SIDE SPLASH MUD-GUARD. HARRY VOLLER NORRIS GRAVELEY, London, England. Filed Apr. 12, 1913. Serial No. 760,767. (Cl. 21—23.)

A splash mud guard comprising a hanger block pivotally mounted on a vehicle axle, a guard pivotally suspended from the hanger, a pulley yieldably suspended from the vehicle, a pair of tubular members carried by the hanger,



springs in the members, and a cable passing over the pulley and having its ends connected to the springs.

1,131,645. EXHAUST FOR STEAM-TURBINES. CHARLES VOLNEY KERR, Wellsville, N. Y. Filed Feb. 7, 1914. Serial No. 817,325. (Cl. 121—57.)



1. A steam turbine comprising a cylinder, a rotatable shaft, bucket wheels rotating with said shaft, a volute exhaust passage having an outlet and an annular inlet and of gradually increasing cross-sectional area from its inlet to its outlet, and an annular unobstructed nozzle having sections in planes passing through the axis of the shaft in the form of a diverging nozzle, the inlet of said annular nozzle being placed at the discharge side of the buckets on the wheel ajacent to the exhaust and the curvature of the outlet of the annular nozzle merging smoothly into the curvature of the annular inlet of the volute exhaust passage.

2. A steam turbine comprising a cylinder, a rotatable shaft, bucket wheels rotating with said shaft, a volute exhaust passage having an outlet and an annular inlet, and an annular nozzle having sections in planes passing through the axis of the shaft in the form of a diverging nozzle, the inlet of said annular nozzle being placed at the discharge side of the buckets on the wheel adjacent to the exhaust and the outlet of the annular nozzle merging

smoothly in the annular inlet of the exhaust passage, and said exhaust passage arranged so that exhaust steam from said buckets of said wheel flows around the exhaust passage and issues from said outlet in a direction backward to the direction of rotation of the said bucket wheel.

1,131,646. CONCRETE AND STEEL CONSTRUCTION. WALTER C. PARMLEY, Montclair, N. J. Filed Mar. 16, 1907. Serial No. 362,664. (Cl. 72—51.)



1. In a hollow structure, bottom blocks arranged in longitudinal alinement, a series of transverse rows of abutting blocks, the opposite ends of each transverse row resting upon the bottom blocks, the transverse joints between the rows of blocks lying in the same plane and occurring out of alinement with the joint between the bottom blocks, and reinforcing metal embedded in the bottom blocks and extending into the transverse joints between the transverse rows of blocks, and past a plurality of blocks.

2. In a hollow structure, bottom blocks arranged in longitudinal alinement, a series of transverse rows of abutting blocks, the opposite ends of each transverse row resting upon the bottom blocks, grooves formed in the ends of the blocks, the ends of the blocks in each transverse row lying in the same plane and occurring out of alinement with the joints between the bottom blocks, and reinforcing means embedded in bottom blocks and extending into the grooves formed in the ends of the superimposed blocks past a plurality of blocks.

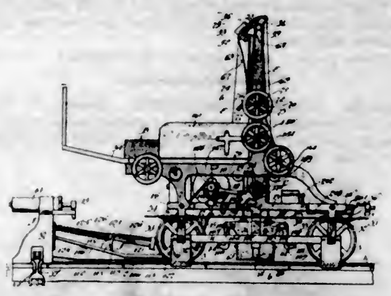
3. In a hollow structure, a longitudinal row of blocks, reinforcing rods embedded in said blocks and extending upon opposite sides thereof, a plurality of contiguous transverse rows of blocks, the opposite end blocks of each row resting upon the said longitudinal row of blocks, the said blocks of each transverse row being formed with grooves which are in alinement, the transverse rows of blocks being so placed in respect to the longitudinal row of blocks that the grooves lie in the same plane as the embedded rods, reinforcing rods extending through the said grooves, each rod being secured at opposite ends to the projecting ends of an embedded rod.

4. In a hollow structure, bottom blocks, side blocks and top blocks, the said top blocks and side blocks being arranged as a series of transverse rows, the end blocks in each transverse row lying in the same plane, the end blocks in each row abutting the bottom blocks, there being grooves formed in the ends of each side and top block, reinforcing metal embedded in the bottom blocks and extending into the said grooves, other reinforcing metal connected therewith and passing through said grooves encircling the side and top blocks, other reinforcing means passing longitudinally through grooves in the blocks, and mortar filling said grooves and embedding the metal therein.

5. In a hollow structure, bottom blocks, side blocks and top blocks, metal embedded in the bottom blocks in substantially the same plane with the transverse joints between the top side blocks, the said top and side blocks being provided with grooves or recesses, other reinforcing metal lying in said grooves or recesses and being connected with the said embedded metal in the bottom blocks, grooves or recesses formed in the external face of the side and top blocks in substantially the same plane with the ends of the bottom blocks and reinforcing metal passing through the joints at the ends of the bottom blocks and lying in the grooves on the external face of the side and top blocks, and mortar filling all of said grooves and joints and embedding the metal therein.

[Claims 6 to 11 not printed in the Gazette..]

1,131,647. CLOTH-PILING MACHINE. MORRIS L. SHAPERA and CHARLES M. SHAPERA, Chicago, Ill. Filed Jan 12, 1914. Serial No. 811,541. (Cl. 223—3.)



1. In a cloth piling machine carriage, the combination of supporting standards, a lower guide jaw member secured to said standards, an upper jaw member hinged to said lower jaw member, said lower jaw member having a guide groove, a cloth threading chain adapted to travel through said groove, and cloth receiving hooks on said chain.

2. In a cloth piling machine carriage, the combination of a cloth supporting platform and bearing standards rising therefrom, a rotatable shaft journaled in said standards having threads at one end and notches at the other end, a sleeve received by the notched end of the shaft and having a latch for coöperating with the notches to lock the sleeve in adjusted position, a sleeve received by the threaded end of the shaft and having a latch for coöperating with the threads, and guide boards secured to said sleeves and resting on said platform to guide the cloth thereon.

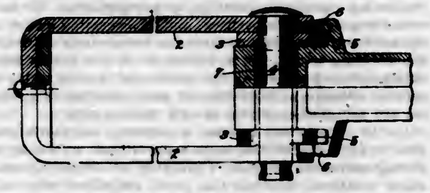
3. In a cloth piling machine carriage, the combination of a cloth supporting platform and bearing standards rising therefrom, a shaft extending between said standards and having latch notches, sleeves on said shaft, latch mechanism on said sleeves for coöperating with said notches to lock the sleeves in adjusted position, and guide boards extending from said sleeves over said platform to serve as guides for the cloth.

4. In a cloth piling machine the combination of a track, a carriage propelled back and forth on said track, cloth guide bars on said carriage, levers on said carriage for raising said bars, a clamping frame at each end of the track having upper and lower jaw members, each upper jaw member having a cam incline, dogs on the guide bars for engaging said cam inclines to effect raising of the upper jaw members to receive between the members the cloth from the respective guide bar, an abutment plunger on each clamping frame for coöperating with said levers to raise said guide bars, means connecting with each upper jaw member and the associated plunger for preventing raising of said member when the plunger is in normal position, locking means tending to hold the plungers in normal position, and releasing mechanism for each locking mechanism controlled by coöperation therewith of the carriage.

5. In a cloth piling machine the combination of a track, a carriage reciprocable on said track, cloth guide bars on said carriage, levers on said carriage for raising said bars, a clamping frame at each end of the said track having upper and lower jaw members, said guide bars having dogs for coöperating with the upper jaw members to effect raising thereof to receive the cloth from the guide bars, abutment plungers at the opposite sides of each clamping frame for engaging with said levers to effect raising of the guide bars, means connecting between said plungers and upper jaw frame for preventing raising of said frame when the plungers are in normal position, pawls for locking said plungers in normal position, and releasing rods extending from said pawls and into the path of said carriags to be engaged and actuated thereby to release said plungers and thereby said jaw frames.

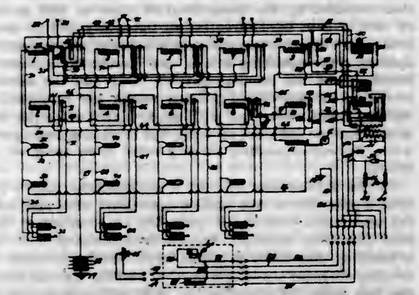
REISSUES.

13,889. COUPLING-SHANK AND YOKE CONNECTION. WALTER E. COFFIN, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 2, 1915. Serial No. 5,805. Original No. 1,097,536, dated May 19, 1914, Serial No. 667,346. (Cl. 213—42.)



In a coupler shank and yoke connection, a draft rigging yoke having upper and lower arms; a vertical portion connecting said arms at their rear ends, the forward ends of said arms having enlarged bosses of greater vertical depth than the thickness of the arms; pin-holes in said bosses; a coupler-shank adapted to angle laterally with said yoke and to seat between said bosses and having a pin-hole registering with the holes in said bosses, the bosses being rounded at their forward ends; projections on the top and bottom of the coupler shank, having concave vertical faces, said projections being adapted to overlie said bosses and prevent spreading of the arms; plane longitudinal bearing surfaces upon the top and bottom of the coupler-shank to the rear of said concave vertical faces; and engaging plane longitudinally-extending bearings on the inner faces of said bosses, whereby longitudinal movement of either yoke or coupler-shank, after removal of the pin, will permit the disengagement of said coupler.

13,890. MANUAL-CALL-DISTRIBUTING SYSTEM. JOHN H. LEVIS, Jr., Rochester, N. Y., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 31, 1914. Serial No. 859,556. Original No. 1,100,749, dated June 23, 1914, Serial No. 809,156. (Cl. 179—54.)



1. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, and circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay to prevent a second actuation of said selecting relay until the deënergization of said barring relay, an operator's telephone associated with the operating switch, and devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay.

2. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, and circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay to prevent a second actuation of said selecting relay until the deënergization of said barring relay.

3. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, and circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay, and the actuation of said barring relay causing the next actuation of the operating key to actuate the next selecting relay.

4. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, and an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays.

5. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent the actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays, and switching mechanism for removing a desired one of the series of selecting relays from its series without interfering with the operation of the remaining selecting relays.

6. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, an operating switch for the selecting relay, devices actuated by the operating switch for successively actuating said relays for successive actuations of said switch, an operator's telephone associated with the operating switch, and devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay.

7. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay to prevent a second actuation of said selecting relay until the deënergization of said barring relay, an operator's telephone associated with the operating switch, and devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay.

8. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay, the actuation of said barring relay causing the next actuation of the operating key to actuate the next selecting relay, an operator's telephone associated with the operating switch, and devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay.

9. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent

actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays, an operator's telephone associated with the operating switch, and devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay.

10. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays, switching mechanism for removing a desired one of the series of selecting relays from its series without interfering with the operation of the remaining selecting relays, an operator's telephone associated with the operating switch, and devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay.

11. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, an operating switch for the selecting relays, devices actuated by the operating switch for successively actuating said relays for successive actuations of said switch, and signal mechanism for indicating the operation of the selecting relays.

12. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay to prevent a second actuation of said selecting relay until the deënergization of said barring relay, and signaling mechanism for indicating the operation of the selecting and barring relays.

13. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay, the actuation of said barring relay causing the next actuation of the operating key to actuate the next selecting relay, and signaling mechanism for indicating the operation of the selecting and barring relays.

14. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays, and signaling mechanism for indicating the operation of the selecting and barring relays.

15. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays, switching mechanism for removing a desired one of the series of selecting relays from its series without interfering with the operation of the remaining selecting relays, and signaling mechanism for indicating the operation of the selecting and barring relays.

16. In a telephone system, a selecting operator's position, a plurality of line signals associated with said selecting operator's position, a plurality of connecting operators' positions, multiple line jacks associated with each connecting operator's position, cord circuits at each connecting operator's position for connecting desired ones of the line jacks for conversation, a selecting relay for each connecting operator's position, a barring relay for each connecting operator's position, and an operating switch at the selecting operator's position for successively actuating the selecting relays, the actuation of each selecting relay causing the operation of the associated barring relay to prevent subsequent actuation of said selecting relay during the actuated condition of said barring relay.

17. In a telephone system, a selecting operator's position, a plurality of line signals associated with said selecting operator's position, a plurality of connecting operators' positions, multiple line jacks associated with each connecting operator's position, cord circuits at each connecting operator's position for connecting desired ones of the line jacks for conversation, a selecting relay for each connecting operator's position, a barring relay for each connecting operator's position, a master selecting relay, an operating switch associated with the selecting operator's position for actuating said master relay, the successive actuations of said master relay serving to successively operate said selecting relays, actuation of each selecting relay operating the associated barring relay to prevent subsequent operation of said selecting relay while the barring relay is actuated.

18. In a telephone system, a selecting operator's position, a plurality of line signals associated with said selecting operator's position, a plurality of connecting operators' positions, multiple line jacks associated with each connecting operator's position, cord circuits at each connecting operator's position for connecting desired ones of the line jacks for conversation, a selecting relay for each connecting operator's position, a barring relay for each connecting operator's position, an operating switch associated with the selecting operator's position for successively actuating the selecting relays, a common barring relay, circuit connections extending from said common barring relay to each of the connecting operators' positions, switching mechanism at each connecting operator's position actuated by the connection of lines at said position by one of said cord circuits, an operating switch associated with the selecting operator's position for successively operating the selecting relays, and circuit connections extending from the common barring relay and the selecting relays to the associated barring relays for actuating the barring relay associated with an actuated selecting relay to prevent the subsequent actuation of said selecting relay while the corresponding barring relay is in operated condition.

19. In a telephone system, a selecting operator's position, a plurality of line signals associated with said selecting operator's position, a plurality of connecting operators' positions, multiple line jacks associated with each connecting operator's position, cord circuits at each connecting operator's position for connecting desired ones of the line jacks for conversation, a selecting relay for each connecting operator's position, a barring relay for each connecting operator's position, an operating switch associated with the selecting operator's position for successively actuating the selecting relays, a common barring relay, circuit connections extending from said common barring relay to each of the connecting operators' positions, switching mechanism at each connecting operator's position actuated by the connection of lines at said position by one of said cord circuits, a master selecting relay, an operating switch associated with the selecting operator's position for repeatedly actuating said master relay, the successive actuation of said master relay serving to successively energize said selecting relays, and circuit connections extending from said selecting relays to said barring relays for actuating a barring relay by the actuation of the corresponding selecting relay to prevent the subsequent operation of said selecting relay while the corresponding barring relay is in operated condition.

20. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, an operating switch for the selecting relays, devices actuated by the operating switch for successively actuating said relays for successive actuations of said switch, and a counter for registering the number of selections effected.

21. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, an operating switch for the selecting relay, devices actuated by the operating switch for successively actuating said relays for successive actuations of said switch, an operator's telephone associated with the operating switch, devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay, and a counter for registering the number of selections effected.

22. In a telephone system, a selecting operator's position, a plurality of line signals associated with said selecting operator's position, a plurality of connecting operators' positions, multiple line jacks associated with each connecting operator's position, cord circuits at each connecting operator's position for connecting desired ones of the line jacks for conversation, a selecting relay for each connecting operator's position, a barring relay for each connecting operator's position, an operating switch at the selecting operator's position for successively actuating the selecting relays, the actuation of each selecting relay causing the operation of the associated barring relay to prevent subsequent actuation of said selecting relay during the actuated condition of said barring relay, and a counter for registering the number of selections effected.

23. In a telephone system, a selecting operator's position, a plurality of line signals associated with said selecting operator's position, a plurality of connecting operators' positions, multiple line jacks associated with each connecting operator's position, cord circuits at each connecting operator's position for connecting desired ones of the line jacks for conversation, a selecting relay for each connecting operator's position, a barring relay for each connecting operator's position, a master selecting relay, an operating switch associated with the selecting operator's position for actuating said master relay, the successive actuations of said master relay serving to successively operate said selecting relays, actuation of each selecting relay operating the associated barring relay to prevent subsequent operation of said selecting relay while the barring relay is actuated, a slow-acting relay having an energizing circuit controlled by the operation of said master relay, and an electromagnetic counter controlled by the joint operation of said master relay and said slow-acting relay to indicate the number of selections effected.

24. In a telephone system, the combination of a plurality of connecting operators' positions, cord circuits associated with each position, selecting mechanism for successively selecting said positions, barring mechanism for each position for preventing the operation of the selecting mechanism for the corresponding position, and switching mechanism associated with each operator's position for controlling the operation of the corresponding barring mechanism by the connection of one of the cord circuits at said position.

25. In a telephone system, the combination of a plurality of connecting operators' positions, cord circuits associated with each position, selecting mechanism for successively selecting said positions, barring mechanism for each position for preventing the operation of the selecting mechanism for the corresponding position, and electromagnetic switching mechanism associated with each operator's position for controlling the operation of the corresponding barring mechanism by the connection of one of the cord circuits at said position.

26. In a telephone system, the combination of a plurality of connecting operators' positions, cord circuits associated with each position, selecting mechanism for successively selecting said positions, barring mechanism for each position for preventing the operation of the selecting mechanism for the corresponding position, and relay mechanism connected with the circuits at each of said positions for controlling the operation of the corresponding barring mechanism by the connection of one of the cord circuits at said position.

27. In a telephone system, the combination of a plurality of connecting operators' positions, cord circuits associated with each position, selecting mechanism for successively selecting said positions, barring mechanism for each position for preventing the operation of the selecting mechanism for the corresponding position, switching mechanism associated with each operator's position for controlling the operation of the corresponding barring mechanism by the connection of one of the cord circuits at said position, an operator's telephone set at each connecting operator's position, a selecting operator's position, a switching mechanism associated with the selecting operator's position for actuating the selecting mechanism, and circuit connections extending from the selecting mechanism to the connecting operators' telephone sets and the selecting operator's telephone set for selectively connecting the connecting operators' telephone sets with the selecting operator's telephone set.

28. In a telephone system, the combination of a plurality of connecting operators' positions, cord circuits associated with each position, selecting mechanism for successively selecting said positions, barring mechanism for each position for preventing the operation of the selecting mechanism for the corresponding position, electromagnetic switching mechanism associated with each operator's position for controlling the operation of the corresponding barring mechanism by the connection of one of the cord circuits at said position, an operator's telephone set at each connecting operator's position, a selecting operator's position, a switching mechanism associated with the selecting operator's position for actuating the selecting mechanism, and circuit connections extending from the selecting mechanism to the connecting operators' telephone sets and the selecting operator's telephone set for selectively connecting the connecting operators' telephone sets with the selecting operator's telephone set.

29. In a telephone system, the combination of a plurality of connecting operators' positions, cord circuits associated with each position, selecting mechanism for successively selecting said positions, barring mechanism for each position for preventing the operation of the selecting mechanism for the corresponding position, relay mechanism connected with the circuits at each of said positions for controlling the operation of the corresponding barring mechanism by the connection of one of the cord circuits at said position, an operator's telephone set at each connecting operator's position, a selecting operator's position, a switching mechanism associated with the selecting operator's position for actuating the selecting mechanism, and circuit connections extending from the selecting mechanism to the connecting operators' telephone sets and the selecting operator's telephone set for selectively connecting the connecting operators' telephone sets with the selecting operator's telephone set.

30. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, an operating switch for the selecting relays, devices actuated by the operating switch for successively actuating said relays for successive actuations of said switch, an operator's telephone associated with the operating switch, devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay, an auxiliary switch associated with the operating switch, and circuit connections extending from said auxiliary switch to an additional operator's telephone set to connect the said additional telephone set with the telephone set associated with the operating switch when desired.

31. In a telephone system, the combination of a plu-

rality of operators' positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay to prevent a second actuation of said selecting relay until the deënergization of said barring relay, an operator's telephone associated with the actuating key, devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay, an auxiliary switch associated with the actuating key, and circuit connections extending from said auxiliary switch to an additional operator's telephone set to connect the said additional telephone set with the telephone set associated with the actuating key when desired.

32. In a telephone system, the combination of a plurality of operator's positions, an operator's telephone set at each position, a selecting relay for each position, a barring relay for each position, an actuating key, circuit connections controlled by the actuating key for successively actuating the selecting relays, the actuation of a selecting relay serving to actuate the corresponding barring relay, the actuation of said barring relay causing the next actuation of the actuating key to actuate the next selecting relay, an operator's telephone associated with the actuating key, and devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay, an auxiliary switch associated with the actuating key, and circuit connections extending from said auxiliary switch to an additional operator's telephone set to connect the said additional telephone set with the telephone set associated with the actuating key when desired.

33. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays, an operator's telephone associated with the operating key, devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay, an auxiliary switch associated with the operating key, and circuit connections extending from said auxiliary switch to an additional operator's telephone set to connect the said additional telephone set with the telephone set associated with the operating key when desired.

34. In a telephone system, the combination of a plurality of operators' positions, an operator's telephone set at each position, a series of selecting relays one for each operator's position, a series of barring relays one for each selecting relay, an operating key for actuating the selecting relays, the actuation of a selecting relay causing the operation of the corresponding barring relay to prevent actuation of said selecting relay during the operative condition of the barring relay and to cause the next actuation of the operating key to actuate the next one in the series of selecting relays, switching mechanism for removing a desired one of the series of selecting relays from its series without interfering with the operation of the remaining selecting relays, an operator's telephone associated with the operating key, devices for connecting the last-named operator's telephone with the telephone at the position corresponding to the operated selecting relay, an auxiliary switch associated with the operating key, and circuit connections extending from said auxiliary switch to an additional operator's telephone set to connect the said additional telephone set with the telephone set associated with the operating key when desired.

35. In combination, a plurality of subscribers' lines, a plurality of jacks connected to said lines, a connecting operator's telephone set, a plurality of link circuits for connecting said subscribers' lines, means in each link circuit for connecting the corresponding link circuit to said operator's telephone, an observing operator's telephone set, means to connect said observing operator's telephone to said connecting operator's telephone, and means automatically actuated by connection of one of said link circuits to a line, said means disconnecting the connecting operator's telephone from the observing operator's telephone, and connecting the same to said link circuit.

36. In combination, a plurality of subscribers' lines, a plurality of jacks connected to said lines, a connecting operator's telephone set, a plurality of link circuits for connecting said subscribers' lines, means for applying ringing current to each link circuit, means in each link circuit for connecting the corresponding link circuit to said connecting operator's telephone, a distributing operator's telephone set, means to connect said distributing operator's telephone to said connecting operator's telephone, means automatically actuated by connection of one of said link circuits to a line, said means disconnecting the connecting operator's telephone from the distributing operator's telephone, and connecting the same to said link circuit, and means actuated by the application of ringing current to said link circuits for disconnecting the connecting operator's telephone set from said link circuit.

37. In combination, a calling line, a link circuit, a connecting operator's telephone, a distributing operator's telephone, a trunk line connecting said telephones, and means controlled by the connection of said link circuit to said calling line for disconnecting said trunk line.

38. In combination, a plurality of telephone lines grouped into operators' positions, a connecting operator's telephone set at each position, a distributing operator's position, a telephone set at said second position, line signals for said lines at said second position, a talking trunk line leading from said last telephone set, and automatic means for connecting said trunk line to an idle one of said connecting operators' telephones to establish a talking connection.

39. In combination, a plurality of telephone lines grouped into operators' positions, a connecting operator's telephone set at each of said positions, connecting link circuits under the control of said operators, a distributing operator's position, a distributing operator's telephone set at said last-named position, line-signaling means for said lines at said last-named position, a trunk line leading from said last-named telephone set, and automatic means for connecting said trunk line to an idle connecting operator's telephone set.

40. In combination, a plurality of telephone lines grouped into operators' positions, a connecting operator's telephone set at each of said positions, connecting cord circuits at each of said positions, a distributing operator's position, a distributing operator's telephone set at said last-named position, line-signals for said lines at said last-named position, a trunk line leading from said last-named telephone set, and automatic means for connecting said trunk line to an idle connecting operator's telephone set.

41. In combination, a plurality of telephone lines grouped into a plurality of connecting operators' positions, a connecting operator's telephone set at each position, a distributing operator's telephone set at a separate position, a talking trunk line leading from said distributing operator's telephone set, normally inactive means for automatically connecting said trunk line to each of said connecting operators' telephones in turn, means to prevent connection of said trunk line to a busy operator's set, and a normally open circuit for rendering said automatic means active.

42. In combination, a plurality of telephone lines having terminals grouped into a plurality of connecting operators' positions, a plurality of link circuits for connecting said lines, a plurality of connecting operators' telephone sets, a trunk line, a distributing operator's telephone connected to said trunk line, line signals for said telephone lines grouped at said distributing operators' positions, automatic means to connect said trunk line successively with each of said operator's telephone instruments, means to prevent connection of said trunk line with a busy operator's telephone set, and means to render an operator's position nonselectable.

43. A plurality of telephone lines having terminals grouped into a plurality of connecting operators' positions, a plurality of link circuits for connecting said lines, a plurality of connecting operators' telephone sets, each telephone set connectible to one of said link circuits, a trunk line, a distributing operator's telephone set connected to said trunk line, automatic means to connect said trunk successively with each of said connecting operator's telephones, and means controlled by the busy condition of a connecting operator's telephone for withdrawing said telephone set from selection by said automatic means.

44. A plurality of telephone lines having terminals grouped into a plurality of connecting operators' positions, a plurality of link circuits for connecting said lines, a plurality of connecting operators' telephone sets, each telephone set connectible to one of said link circuits, a trunk line, a distributing operator's telephone set connected to said trunk line, automatic means to connect said trunk successively with each of said connecting operators' telephones, means controlled by the busy condition of a connecting operator's telephone for withdrawing said telephone set from selection by said automatic means, and manual means for rendering each connecting operator's telephone set non-selectable.

45. A plurality of telephone lines having terminals grouped into a plurality of connecting operators' positions, a plurality of link circuits for connecting said lines, a plurality of connecting operators' telephone sets, each set connectible to one of said link circuits, a talking trunk line, a distributing operator's telephone connected to said trunk line, line signals for said line grouped at said distributing operator's position, automatic means to connect said trunk line successively with each of said connecting operators' telephones, means for preventing connection to a busy operator's telephone, a normally open circuit governing said automatic means, and a key maintaining said circuit closed during selection.

46. A plurality of telephone lines having terminals grouped into a plurality of connecting operators' positions, a plurality of link circuits for connecting said lines, a plurality of connecting operators' telephone sets, each set connectible to one of said link circuits, a talking trunk line, a distributing operator's telephone connected to said trunk line, automatic means to connect said trunk line successively with each of said connecting operators' telephones, means for preventing connection of said trunk to a busy operator's telephone, a normally open circuit governing said automatic means, a key maintaining said circuit closed during selection, and manual means for rendering each connecting operator's telephone nonselectable.

47. In combination, a plurality of telephone lines grouped into a plurality of connecting operators' positions, an operator's telephone set at each position, a plurality of connecting cords at each position, a trunk line, a distributing operator's telephone instrument connected to said trunk, automatic means for connecting said trunk to each of said connecting operators' telephones in turn, and means controlled by the connection of a busy cord to one of said operators' instruments for releasing the connection of said trunk to said connecting operator's telephone.

48. In combination, a plurality of telephone lines grouped into a plurality of operators' positions, a connecting operator's telephone set at each position, a plurality of cord circuits at each position, a trunk line, a distributing operator's telephone instrument connected to said trunk line, automatic means for connecting said trunk line to each of said connecting operators in turn, a normally open circuit under the control of said distributing operator for governing said automatic means, and means jointly under the control of the connecting operator, and the distributing operator for releasing said connection.

49. In combination, a plurality of telephone lines grouped into a plurality of operators' positions, a connecting operator's telephone set at each position, a plurality of cord circuits at each position, a trunk line, a distributing operator's telephone instrument connected to said trunk line, automatic means for connecting said trunk line to each of said connecting operators in turn, a normally open circuit under the control of said distributing operator for governing said automatic means, and means jointly controlled by the connection of a cord to the connecting operator's telephone and by opening of said normally open circuit for releasing said trunk connection.

50. In combination, a plurality of telephone lines having terminals grouped into a plurality of operators' positions, a plurality of connecting operators' telephone sets, a plurality of cord circuits for connecting said lines, a trunk line, a distributing operator's set connected to said trunk line, automatic means to connect said trunk line successively to each of said connecting operator's telephone, means controlled by the connection of a busy cord circuit to one of said operators' telephones to release said trunk connection, and means to render said connecting operator's telephone instrument non-selectable.

51. In combination, a connecting operator's telephone, a distributing operator's telephone, a trunk line, automatic means solely under the control of the distributing operator for connecting said telephones by said trunk line, means for preventing connection of said trunk to said operator's set when the same is busy, and release means under the control of said connecting operator for disconnecting said trunk line.

52. In combination, a connecting operator's telephone, a plurality of link circuits connectible to said telephone, a distributing operator's telephone, a trunk line, automatic means solely under the control of the distributing operator for connecting said telephones by said trunk line, means preventing connection of said trunk line with said operator's set when the same is busy, and means under the control of both of said operators for disconnecting said trunk line.

53. In combination, a plurality of subscribers' lines, a plurality of connecting operators' telephone positions, a plurality of connecting cords for each position, a distributing operator's position, a trunk line for connecting said distributing operator's telephone to the telephone of each connecting operator in turn, means under the control of said distributing operator for connecting said trunk line to the terminals of one of said connecting operators, and automatic means for determining the order of connecting said trunk line to said connecting operators' telephones.

54. In combination, a plurality of connecting operators' telephones, a distributing operator's telephone, a talking trunk line, automatic means for connecting said distributing operator's telephone to an idle one of said connecting operators' telephones, a normally open circuit, a key for closing said circuit to cause said automatic means to connect the trunk line to an idle one of said connecting operator's telephones to establish a talking connection.

55. In combination, a plurality of connecting operators' telephones, a distributing operator's telephone, a talking trunk line, automatic means for connecting said distributing operator's telephone to an idle one of said connecting operators' telephones, a normally open circuit, a key for closing said circuit to cause said automatic means to connect the trunk line to an idle one of said connecting operators' telephones to establish a talking connection, and means controlled by said connecting operator for disconnecting said trunk line.

56. In a telephone system, a plurality of telephone lines, line signals for said lines, multiple jacks to said lines, said multiple jacks grouped in front of a plurality of connecting operators' positions, a connecting operator's telephone at each position, said line signals grouped at a distributing operator's position, a distributing operator's telephone in said position, a connecting operator's telephone, normally inactive means set into action by said distributing operator for automatically connecting said distributing operator's telephone with each of said con-

necting operators in turn to establish a talking connection, and means to prevent connection with a busy operator's telephone.

57. In a telephone system, a plurality of subscribers' lines, multiple terminals for said lines grouped in a plurality of operators' positions, a line signal for each of said lines, said line signals grouped on a single distributing operator's position, a talkng trunk, automatic means under the control of a distributing operator for appraising the connecting operators in turn over said talking trunk of a call initiated on one of said subscribers' lines, and means for preventing connection of said trunk with a busy operator's telephone.

58. In combination, a plurality of telephone lines having terminals grouped into a plurality of connecting operators' positions, line signals for said telephone lines, said line signals grouped at a distributing operator's position, a distributing operator's telephone at said position, a trunk line connected to said telephone, and automatic means to connect said trunk successively to the connecting operator's telephones, means controlled by the connection of a cord to a calling line for disconnecting said trunk line from the connecting operators' telephone, means controlled by the application of ringing current to said cord circuit for disconnecting said connecting operator's telephone from said cord circuit, and means controlled by said operator controlling said last named means to reconnect said operator's telephone set with said cord circuit, and to render said connecting operator's telephone set non-connectible by said automatic means.

59. In combination, a plurality of subscribers' lines having terminals grouped in a plurality of connecting operators' positions, line signals for said telephone lines grouped at a distributing operator's position, a connecting operator's telephone set at each of said operator's positions, an operator's set at said distributing operator's position, a talking trunk line connected to said distributing operator's telephone, automatic means for connecting said trunk to an idle connecting operator's telephone to establish a talking connection thereover, signal means at the distributing operator's position indicating the connection made by said automatic means.

60. In combination, a plurality of subscribers' telephone lines having terminals grouped at connecting operators' positions, line signals connected to said telephone lines grouped upon a distributing operator's position, connecting cord circuits for said telephone lines, operators' instruments at each of said positions, a trunk line connected to said distributing operator's telephone instrument, automatic means for connecting said trunk line to an idle operator's position to allow transmission of the number of the calling line to an idle connecting operator, and signal means at the distributing operator's position for indicating the connection of an operator's telephone to a calling line by one of said cord circuits.

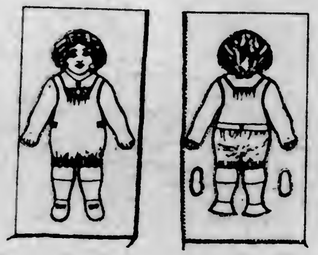
61. In combination, a plurality of subscribers' lines having terminals grouped in a plurality of connecting operators' positions, line signals for said telephone lines grouped at a distributing operator's position, a connecting operator's telephone set at each of said operators' positions, an operator's set at said distributing operator's position, a trunk line connected to said distributing operator's telephone, automatic means for connecting said trunk to an idle connecting operator's telephone, signal means at the distributing operator's position indicating the connection made by said automatic means, and signal means at the distributing operator's position for indicating the connection of a cord circuit to a calling line.

62. In combination, a plurality of telephone lines grouped into a plurality of connecting operators' positions, an operator's telephone set at each position, a plurality of connecting link-circuits under the control of each connecting operator, a trunk line, a distributing operator's telephone instrument connected to said trunk, automatic means for connecting said trunk to each of said connecting operators' telephones in turn, and means controlled by the connection of a busy link-circuit to one of said operators' instruments for releasing the connection of said trunk to said connecting operator's telephone.

63. In combination, a plurality of telephone lines grouped into a plurality of operators' positions, a connecting operator's telephone set at each position, a plurality of link-circuits under the control of each operator, a trunk line, a distributing operator's telephone instrument connected to said trunk line, automatic means for connecting said trunk line to each of said connecting operators in turn, a normally open circuit under the control of said distributing operator for governing said automatic means, and means jointly under the control of the connecting operator and the distributing operator for releasing said connection.

DESIGNS.

47,064. BAG. ARRA LEONE ADAMS, Arkadelphia, Ark. Filed Oct. 15, 1914. Serial No. 866,869. Term of patent 14 years.



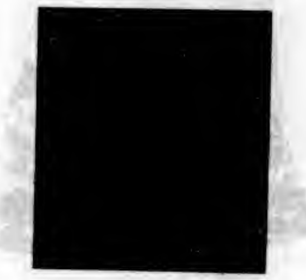
The ornamental design for a bag, as shown.

47,065. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. GROSVENOR N. ALLEN, Oneida, N. Y., assignor to Oneida Community, Limited, Oneida, N. Y., a Corporation of New York. Filed Feb. 2, 1915. Serial No. 5,796. Term of patent 3½ years.



The ornamental design for a handle for spoons, forks or similar articles as shown.

47,066. LEATHER. CARL BRANDT, Boston, Mass., assignor to Winslow Bros. & Smith Co., Boston, Mass., a Corporation of Massachusetts. Filed Dec. 1, 1914. Serial No. 875,028. Term of patent 7 years.



The ornamental design for leather as shown.

47,067. LEATHER. CARL BRANDT, Boston, Mass., assignor to Winslow Bros. & Smith Co., Boston, Mass., a Corporation of Massachusetts. Filed Dec. 17, 1914. Serial No. 877,815. Term of patent 7 years.



The ornamental design for leather as shown.

47,068. GLASS KNOB. WILBUR F. BURNS, Bridgeport, Conn., assignor to The Burns & Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Jan. 2, 1915. Serial No. 275. Term of patent 3½ years.



The ornamental design for a glass knob, as shown.

47,069. GLASS KNOB. WILBUR F. BURNS, Bridgeport, Conn., assignor to The Burns & Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 30, 1914. Serial No. 874,944. Term of patent 3½ years.



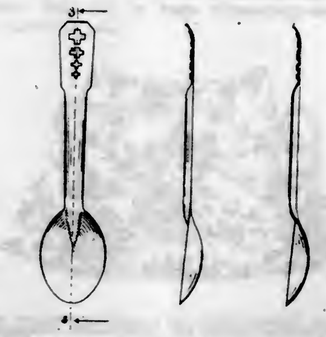
The ornamental design for a glass knob, as shown.

47,070. VEHICLE HUB-CAP. JOHN WALTER DRAKE, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 22, 1914. Serial No. 868,136. Term of patent 14 years.



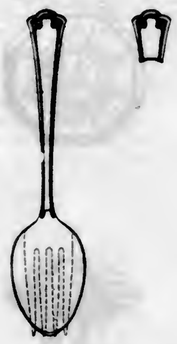
The ornamental design for a vehicle hub cap, as shown.

47,071. SPOON. ALEXANDER J. FRANKLAND, Tropico, Cal. Filed Dec. 31, 1914. Serial No. 879,977. Term of patent 3½ years.



The ornamental design for a spoon, as shown.

47,072. SPOON, FORK, OR SIMILAR ARTICLE. HENRIK HILLEBOM, Wallingford, Conn., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn., a Corporation. Filed Dec. 7, 1914. Serial No. 876,000. Term of patent 3½ years.



The ornamental design for a spoon, fork or similar article, as shown.

47,073. EMBROIDERED TRIMMING. CHARLES F. IKLÉ, New York, N. Y., assignor to Ikle Freres & Company, St. Gallen, Switzerland. Filed Jan. 2, 1915. Serial No. No. 281. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,074. EMBROIDERED TRIMMING. CHARLES F. IKLÉ, New York, N. Y., assignor to Ikle Freres & Company, St. Gallen, Switzerland. Filed Jan. 2, 1915. Serial No. 282. Term of patent 3½ years.



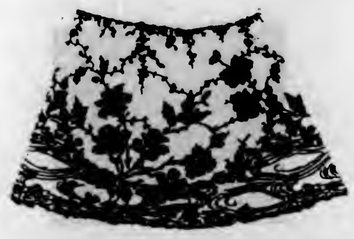
The ornamental design for embroidered trimming, as shown.

47,075. EMBROIDERED TRIMMING. CHARLES F. IKLÉ, New York, N. Y., assignor to Ikle Freres & Company, St. Gallen, Switzerland. Filed Jan. 2, 1915. Serial No. 284. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,076. EMBROIDERED TRIMMING. CHARLES F. IKLÉ, New York, N. Y., assignor to Ikle Freres & Company, St. Gallen, Switzerland. Filed Jan. 2, 1915. Serial No. 285. Term of patent 3½ years.



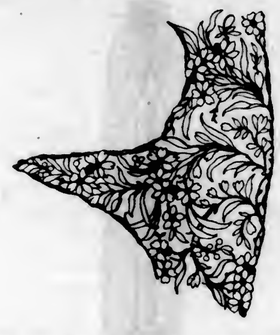
The ornamental design for embroidered trimming, as shown.

47,077. EMBROIDERED TRIMMING. CHARLES F. IKLÉ, New York, N. Y., assignor to Ikle Freres & Company, St. Gallen, Switzerland. Filed Jan. 7, 1915. Serial No. 1,051. Term of patent 3½ years.



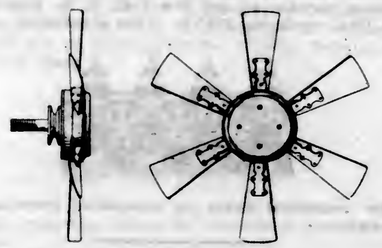
The ornamental design for embroidered trimming, as shown.

47,078. EMBROIDERED TRIMMING. CHARLES F. IKLÉ, New York, N. Y., assignor to Iklé Freres & Company, St. Gallen, Switzerland. Filed Dec. 23, 1914. Serial No. 878,818. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,079. GENERATOR AND RADIATOR COOLING FAN FOR MOTOR-VEHICLES. HAROUTIUN K. KOUYOUMJIAN, Cleveland, Ohio. Filed Dec. 18, 1913. Serial No. 807,560. Term of patent 7 years.



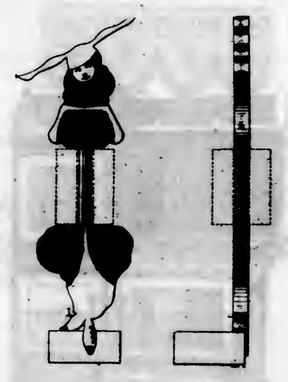
The ornamental design for a generator and radiator cooling fan for motor vehicles, substantially as shown.

47,080. GAS-LAMP HOUSING. JOSEPH LEDERER, New York, N. Y. Filed Dec. 11, 1914. Serial No. 876,739. Term of patent 7 years.



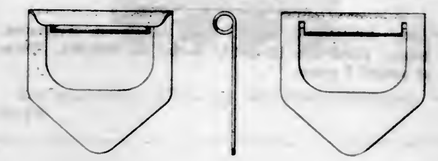
The ornamental design for a gas lamp housing, as shown.

47,081. TWINE-HOLDER. SARAH L. MURPHY, New York, N. Y., assignor to Mayfair, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 18, 1914. Serial No. 877,999. Term of patent 3½ years.



The ornamental design for a twine holder, as shown.

47,082. HANDLE. ALBERT F. SCHROEDER, Cleveland, Ohio. Filed Nov. 12, 1914. Serial No. 871,801. Term of patent 3½ years.



The ornamental design for a handle as shown.

47,083. CANDY-COATED CHEWING-GUM. MAYER M. SWAAB, Jr., New York, N. Y., assignor to Frank H. Fleer Corporation, Philadelphia, Pa., a Corporation of Delaware. Filed July 29, 1914. Serial No. 853,958. Term of patent 3½ years.



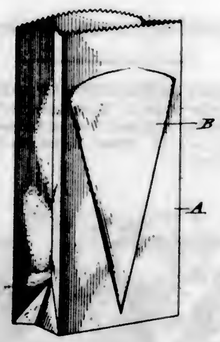
The ornamental design for candy coated chewing gum, as shown.

47,084. STOVE. EDWIN G. VAN WIE, Detroit, Mich., assignor to Detroit Stove Works, Detroit, Mich., a Corporation of Michigan. Filed Dec. 20, 1913. Serial No. 808,044. Term of patent 14 years.



The ornamental design for a stove, substantially as shown and described.

47,085. POPCORN-BAG. FRED A. VEITH, Arlington, Minn. Filed Oct. 12, 1914. Serial No. 866,391. Term of patent 7 years.



The ornamental design for a pop corn bag, as shown.

47,086. CANDLE. HAROLD H. WILL, Syracuse, N. Y., assignor to The Will & Baumer Co., Syracuse, N. Y., a Corporation of New York. Filed Dec. 5, 1914. Serial No. 875,733. Term of patent 3½ years.



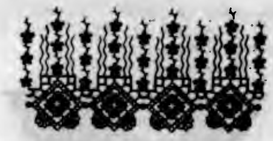
The ornamental design for a candle, substantially as shown and described.

47,087. EMBROIDERED TRIMMING. WALTER WIRTH, New York, N. Y., assignor to Kriesemer & Company, St. Gallen, Switzerland, and New York, N. Y. Filed Dec. 8, 1914. Serial No. 876,146. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,088. EMBROIDERED TRIMMING. WALTER WIRTH, New York, N. Y., assignor to Kriesemer & Company, St. Gallen, Switzerland, and New York, N. Y. Filed Dec. 8, 1914. Serial No. 876,147. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,089. EMBROIDERED TRIMMING. HANS ZELLER, Dumont, N. J., assignor to Embroidery Trading Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1914. Serial No. 873,658. Term of patent 3½ years.



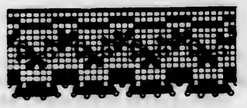
The ornamental design for embroidered trimming, as shown.

47,090. EMBROIDERED TRIMMING. HANS ZELLER, Dumont, N. J., assignor to Embroidery Trading Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1914. Serial No. 873,659. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,091. EMBROIDERED TRIMMING. HANS ZELLER, Dumont, N. J., assignor to Embroidery Trading Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1914. Serial No. 873,660. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,092. EMBROIDERED TRIMMING. HANS ZELLER, Dumont, N. J., assignor to Embroidery Trading Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1914. Serial No. 873,661. Term of patent 3½ years.



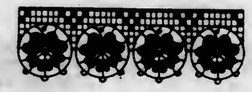
The ornamental design for embroidered trimming, as shown.

47,093. EMBROIDERED TRIMMING. HANS ZELLER, Dumont, N. J., assignor to Embroidery Trading Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1914. Serial No. 873,662. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

47,094. EMBROIDERED TRIMMING. HANS ZELLER, Dumont, N. J., assignor to Embroidery Trading Company, New York, N. Y., a Corporation of New York. Filed Nov. 23, 1914. Serial No. 873,663. Term of patent 3½ years.



The ornamental design for embroidered trimming, as shown.

TRADE-MARKS

PUBLISHED MARCH 9, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 59,086. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) E. I. Horsman Co., New York, N. Y. Filed Oct. 9, 1911.

FAIRY

Particular description of goods.—Dolls.
Claims use since about Sept. 1, 1911.

Ser. No. 59,623. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. B. Muench Co., Milwaukee, Wis. Filed Nov. 9, 1911.

SEA-BEAM
C.B.M.

Particular description of goods.—Fresh Oysters.
Claims use since Oct. 1, 1911.

Ser. No. 59,574. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) Russell-Miller Milling Company, Minneapolis, Minn. Filed Nov. 23, 1911.

OCCIDENT

Particular description of goods.—Bread.
Claims use since the 13th day of November, 1911.

Ser. No. 60,334. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. Silz, Inc., New York, N. Y. Filed Jan. 20, 1912.



Particular description of goods.—Prepared Ham and Bacon.
Claims use since Dec. 14, 1911.

Ser. No. 67,481. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RENZIE DRUG COMPANY, LIMITED, Wellington, New Zealand. Filed Dec. 18, 1912.



No claim is made for the exclusive use of the language appearing upon the drawing other than for the word "Pepso."

Particular description of goods.—Medicines or Specifics for the Relief of Indigestion, Dyspepsia, Heartburn, Flatulence, Catarrh of the Stomach, Acid Fermentation, and Malassimilation of Food.

Claims use since June 17, 1910.

Ser. No. 67,847. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) CHARLES A. KITTLE, New York, N. Y. Filed Jan. 11, 1913.



No claim being made herein to the words "Ever Ready."

Particular description of goods.—Absorbent Cotton in the Form of Rolls, in Bulk, and in the Form of Sanitary Napkins.

Claims use since on or about Sept. 20, 1912.

Ser. No. 68,424. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE W. DAVIS, Manorville, N. Y. Filed Feb. 10, 1913.

BLUE DIAMOND

Particular description of goods.—Cranberries.

Claims use since the year 1884.

Ser. No. 75,054. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOE & CO., LIMITED, Manchester, England. Filed Jan. 9, 1914. Under ten-year proviso.



Particular description of goods.—A Sauce or Relish.

Claims use since prior to Mar. 29, 1890.

Ser. No. 75,398. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RICHARD DEIGNAN, deceased, Columbus, Ga., by R. C. Deignan and John F. Deignan, Columbus, Ga., executors. Filed Jan. 24, 1914.

WILDWOOD

Particular description of goods.—Honey, Cane-Syrup.

Claims use since January, 1912.

Ser. No. 75,924. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOWERS RUBBER WORKS, San Francisco, Cal. Filed Feb. 16, 1914.



The trade-mark consisting of a plurality of parallel layers colored red and uniformly spaced from each other and separated by the material of the goods, no claim being made to the representation of the goods.

Particular description of goods.—Composite Rubber Packing for Pistons.

Claims use since about the 1st of November, 1913.

Ser. No. 76,452. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALBERT M. STOCKWELL, Rochester, N. Y. Filed Mar. 7, 1914.

L. K.

Particular description of goods.—Chewing-Gum.

Claims use since Feb. 1, 1914.

Ser. No. 78,751. (CLASS 38. PRINTS AND PUBLICATIONS.) PUCK PUBLISHING CORPORATION, New York, N. Y. Filed June 1, 1914.



Particular description of goods.—Weekly Periodicals.

Claims use since 1876.

Ser. No. 78,802. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE FAIR, Chicago, Ill. Filed June 4, 1914.

Fairview

Particular description of goods.—Carpet-Sweeper.

Claims use since March, 1909.

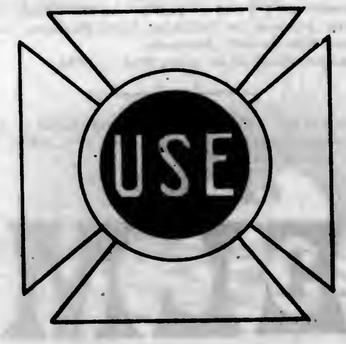
Ser. No. 79,092. (CLASS 2. RECEPTACLES.) UNITED STATES ENVELOPE COMPANY, Springfield, Mass. Filed June 13, 1914.

FINBACK

Particular description of goods.—Paper Drinking-Cups and Cartons and Cabinets Adapted to Contain Such Cups.

Claims use since Apr. 14, 1914.

Ser. No. 79,093. (CLASS 2. RECEPTACLES.) UNITED STATES ENVELOPE COMPANY, Springfield, Mass. Filed June 13, 1914.



Particular description of goods.—Paper Drinking-Cups and Cartons and Cabinets Adapted to Contain Such Cups.

Claims use since May 1, 1912.

Ser. No. 79,094. (CLASS 2. RECEPTACLES.) UNITED STATES ENVELOPE COMPANY, Springfield, Mass. Filed June 13, 1914.

TAKAKUP CARTON

The trade-mark consists of the word "Tak-A-Kup." The use of the word "Carton" is disclaimed.

Particular description of goods.—Paper Drinking-Cups and Cartons and Cabinets Adapted to Contain Such Cups.

Claims use since May 1, 1914.

Ser. No. 79,838. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HENRY HIRSCH, Toledo, Ohio. Filed July 16, 1914.

VALUE

Particular description of goods.—Clover, Alsike, Timothy, Alfalfa, and other Grass-Seeds.

Claims use since Jan. 1, 1913.

Ser. No. 80,339. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SARGENT & COMPANY, New Haven, Conn. Filed Aug. 5, 1914.

SARGENT

Particular description of goods.—Knives, Cleavers, and Choppers, Food-Choppers, Scissors, Carpet-Stretchers, Shears, Clippers, Punches, Pincers, Saw-Sets, Pliers, Can-Openers, Saws, Chisels, Gouges, Hammers, Screw-Drivers, Planes, Hatchets, Axes, Vises, Awls, Augers, Gimlets, Reamers, Bits, Awls and Tools, Tool-Handles, Spokeshaves, Scrapers, Wrenches, Stocks and Dies, Tap-Borers, Claws, Tongs, Clamps, Hoes, Mattocks, Picks, Axle-Pulleys, Screw-Pulleys, Side Pulleys, Tackle or Swing Pulleys, Clothes-Line Pulleys, and Well-Wheels.

Claims use since on or about the 30th day of April, 1908.

Ser. No. 80,423½. (CLASS 12. CONSTRUCTION MATERIALS.) BOONE BRICK TILE AND PAVING COMPANY, Boone, Iowa. Filed Aug. 24, 1914.

NUVOGUE

Particular description of goods.—Brick and Construction Tile.

Claims use since June 1, 1914.

Ser. No. 80,443. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SARGENT & COMPANY, New Haven, Conn. Filed Aug. 10, 1914.

SARGENT

Particular description of goods.—Door-Pulls, Door-Handles, Escutcheons, Push-Plates, Letter-Box Plates, Key-Plates, Push-Buttons, Bell-Pulls, Bell-Turns, Thumb-Knobs, Door-Knobs, Door-Knockers, Belts for Doors and Shutters, Door-Springs, Door Checks and Springs, Door-Closers, Door-Holders, Name-Plates, Hasps, Number-Plates, Door-Stops, Push-Bars, Door-Fasts, Door-Stays, Door-Hooks, Door-Fasteners, Door-Catches, Door-Rings, Door-Sheaves, Door-Rails, Door-Hangers, Door-Rollers, Casement-Window Adjusters, Sash-Fasteners, Sash-Centers, Sash-Lifts, Sash Rollers and Sheaves, Blind-Fasteners, Scuttle-Fasteners, Sash-Cord Irons, Transom-Plates, Transom-Chains, Transom-Lifters, Cleats, Espagnolette-Bars, Drawer-Knobs, Drawer-Pulls, Drawer-Handles, Chest-Handles, Box-Fasteners, Label or Card Plates, Brackets, Hinges, Screws, Nails, Tacks, Bolts, Screw-Eyes, Screw-Hooks, Metal Washers, Staples, Wrought-Iron Hooks and Eyes, Cornice-Hooks, Gate-Hooks, Hitching-Hooks, Staple-Hooks, Scuttle-Hooks, Awning-Hooks, Baggage-Hooks, Belt-Hooks, Bench-Hooks, Bird-Cage Hooks, Box-Hooks, Braced Screw-Hooks, Brush or Duster Hooks, Cabin-Door Hooks, Ceiling-Hooks, Chandelier-Hooks, Clothes-Line Hooks, Coat and Hat Hooks, Collar-Hooks, Corned-Beef Hooks, Cotton and Box Hooks, Cup-Hooks, Display-Hooks, Door-Hooks, Drive-Hooks, Fire-Pail Hooks, Hall-Stand Hooks, Hammock-Hooks, Hanging-Basket Hooks, Hotel-Hooks, Kitchen-Hooks, Lamp-Hooks, Leader-Hooks, Looking-Glass Hooks, Meat-Hooks, Mirror-Hooks, Molding-Hooks, Picture-Hooks, Pipe-Hooks, School-House Hooks, Shutter-Hooks, Sign-Hooks, Store-Rack Hooks, Swing-Hooks, Tassel or Picture Hooks, Telegraph-Hooks, Toilet-Hooks, Towel-Hooks, Wardrobe-Hooks, Well-Wheel Hooks, S-Hooks, Strap-Hooks, Hitching-Rings, Turnbuckles, Metal Chains, Stake-Irons, Mending-Plates, Corner-Braces, Looking-Glass Plates, Veneer-Points, Fire-Dogs, Fire-Iron Stands, Barrel-Swings, Carriage-Knobs, Casters.

Claims use since on or about the 19th day of November, 1907.

Ser. No. 80,592. (CLASS 39. CLOTHING.) RICE STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Aug. 15, 1914.

TEST

Particular description of goods.—Men's and Boys' Overalls, Jumpers, Work-Pants, Work-Shirts, Work-Coats, and Boys' Blouses.

Claims use since Aug. 1, 1914.

Ser. No. 81,094. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SEARS & NICHOLS CO., Chillicothe, Ohio. Filed Sept. 8, 1914.

DAFFODIL

Particular description of goods.—Canned Sauer-Kraut, Canned Vegetables, Canned Fruits, and Canned Hominy.

Claims use since June 30, 1902.

Ser. No. 81,436. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE AMERICAN HARDWARE CORPORATION, New Britain, Conn. Filed Sept. 24, 1914.

CORBIN

Particular description of goods.—Door-Bells; Door-Knobs; Door-Knockers; Door Stops, Holders, and Closers; Door-Quadrants; Door and Sash Pivots; Door Checks and Springs; Door-Pulls; Door-Openers; Door, Window, and Transom Fittings; Door-Hooks; Push and Pull Plates; Kick-Plates; Finger-Plates; Name-Plates; Rose-Plates; Number-Plates; Letter-Box Plates; Sash-Lifts; Sash and Transom Centers; Sash-Cord Irons; Sash Rollers and Sheaves; Coat and Hat Hooks; Cabin-Door Hooks; Wardrobe-Hooks; Ceiling-Hooks; Screw-Hooks; Push-Bars; Espagnolette-Bars; Turnbuckles; Flush Rings; Locker-Rings; Drawer Pulls, Handles, and Knobs; Picture-Knobs; Hinges; Spring-Hinges; Chest Corners and Fittings; Chest-Handles; Apartment-House Letter-Boxes; Letter-Boxes; Screws; Screw-Eyes; Butts; Cleats; Escutcheons; Hasps; Hangers; Metal Washers; Staples; Tacks; Nails and Studs; Nuts; Metal Chain; Trunk-Handles; Window-Stops; Umbrella-Clips; Metal Letters, Figures, and Monograms; Transom and Skylight Lifters and Openers; Cupboard-Turns; Bell Cranks, Levers, Pulls, and Turns; Casement and Shutter Adjusters; Shelf-Brackets; Push-Buttons; Sliding-Door Sheave and Rail; Mouthpieces for Speaking-Tubes; Press-Guards.

Claims use since 1901.

Ser. No. 81,473. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WASHBURNE F. OAKLEY, Minneapolis, Minn. Filed Sept. 25, 1914.

SANIGLOSS

Particular description of goods.—An Oil Polish That is Especially Adapted for Polishing Wood Surfaces, Leather, and other Non-Metallic Surfaces.

Claims use since on or about May 1, 1914.

Ser. No. 82,123. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Filed Oct. 24, 1914.

ELM

Particular description of goods.—Fertilizers.

Claims use since the spring of 1890.

Ser. No. 82,177. (CLASS 17. TOBACCO PRODUCTS.) MACLIN-ZIMMER-McGILL TOBACCO CO., INCORPORATED, Petersburg, Va. Filed Oct. 26, 1914.

LORD Beaconsfield

Particular description of goods.—Plug, Twist, Cut Plug, Smoking-Tobacco, and Leaf-Tobacco.

Claims use since March, 1883.

Ser. No. 82,208. (CLASS 12. CONSTRUCTION MATERIALS.) HARTIG & MILLER, Lawrence, Mass. Filed Oct. 27, 1914.

THE 11th HOUR

Particular description of goods.—Stove-Lining.

Claims use since about January, 1912.

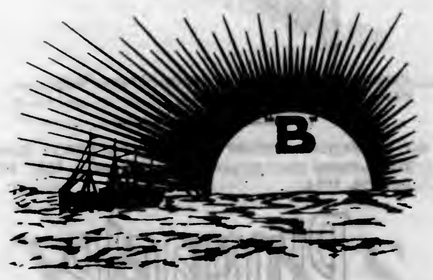
Ser. No. 82,544. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JULIUS L. MENDEL, New York, N. Y., assignor of one-half to Louis Bergman, New York, N. Y. Filed Nov. 12, 1914.

DENTOR

Particular description of goods.—Dentifrice-Dispensers.

Claims use since Sept. 15, 1914.

Ser. No. 82,637. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) W. V. BOWATER & SONS LTD., London, England. Filed Nov. 17, 1914.



Particular description of goods.—Waste Printed Papers for Remanufacture.

Claims use since Aug. 9, 1907.

Ser. No. 83,031. (CLASS 5. ADHESIVES.) UNITED DRUG COMPANY, Boston, Mass. Filed Dec. 2, 1914.

Rexall

Particular description of goods.—Sealing-Wax, Library-Paste, Mucilage, Glue, and Adhesive Cement.

Claims use since prior to February, 1913.

Ser. No. 83,032. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) UNITED DRUG COMPANY, Boston, Mass. Filed Dec. 2, 1914.

Rexall

Particular description of goods.—Braces, Surgical; Suspensories, Abdominal Bands, Surgical Bandages, Trusses, Artificial Limbs, Mechanical Vibrators, Massaging Devices, Arch-Supporters, Sterilizers, Glass Nasal Douches, Babies' Nursing-Bottles, Dental Engines, Dental and Surgical Forceps, Dental Cement, Stethoscopes, Catheters, Surgeons' Knives, Lancets, and Probes; Rubber Goods—Namely, Atomizers, Nipples, Operating-Gloves, Douches for the Administration of Medicaments, Inhalers, Hard-Rubber Pipes and Soft-Rubber Tubing Peculiarly Adapted to Use with Dental, Medical, and Surgical Appliances, Air-Cushions for Surgical Use, Air and Water Cushions for Invalid Use, Breast-Pumps, Nipple-Shields, Bath-Sprays, Invalid-Rings, Combination Attachment Sets for Use in Converting a Hot-Water Bottle into a Fountain-Syringe, Medicine-Droppers, and Baby-Comforters.

Claims use since prior to July 1, 1914.

Ser. No. 83,157. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THOMAS JANNEY & CO., Philadelphia, Pa. Filed Dec. 8, 1914.

WISSINOMING

Particular description of goods.—Leather in Unmanufactured Form.

Claims use since May 1, 1904.

Ser. No. 83,168. (CLASS 38. PUBLICATIONS.) YOUNG, SMYTH, FIELD COMPANY, Philadelphia, Pa. Filed Dec. 8, 1914.



Particular description of goods.—Monthly House Organs.

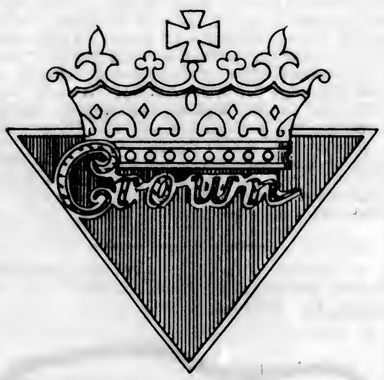
Claims use since Oct. 1, 1914.

Ser. No. 83,263. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE TERRYBERRY, Cleveland, Ohio. Filed Dec. 12, 1914.



The words "Whole Wheat" not being claimed.
Particular description of goods.—A Wheat-Flour.
Claims use since Sept. 1, 1914.

Ser. No. 83,343. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CROWN BRONZE POWDER COMPANY, Minneapolis, Minn. Filed Dec. 17, 1914.



Particular description of goods.—Bronzing-Powder.
Claims use since on or about June 1, 1914.

Ser. No. 83,397. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE BRIDGEPORT WOOD FINISHING CO., New Milford, Conn. Filed Dec. 19, 1914.



The panel being shaded for red.
Particular description of goods.—Ready-Mixed Paints, Paste Paints, Wood-Stains, Wood-Fillers, Enamel, Prepared Wax for Floors, Colors, Mirror-Finish, Floor-Oils, Paints, Varnishes, Paint-Removers, Wall-Paints, Floor-Varnish, Wall-Tints.
Claims use since 1908.

Ser. No. 83,526. (CLASS 2. RECEPTACLES.) BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis. Filed Dec. 26, 1914.

SUMMIT KRAFT

Particular description of goods.—Paper Bags.
Claims use since Oct. 1, 1914.

Ser. No. 83,527. (CLASS 2. RECEPTACLES.) BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis. Filed Dec. 26, 1914.

TUXEDO

Particular description of goods.—Paper Bags.
Claims use since Oct. 1, 1914.

Ser. No. 83,528. (CLASS 2. RECEPTACLES.) BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis. Filed Dec. 26, 1914.

REGDAB

Particular description of goods.—Paper Bags.
Claims use since Oct. 1, 1914.

Ser. No. 83,529. (CLASS 2. RECEPTACLES.) BADGER BAG & PAPER CO., Chicago, Ill., and Wausau, Wis. Filed Dec. 26, 1914.

Pinnacle

Particular description of goods.—Paper Bags.
Claims use since Oct. 1, 1914.

Ser. No. 83,561. (CLASS 11. INKS AND INKING MATERIALS.) UNITED DRUG COMPANY, Boston, Mass. Filed Dec. 28, 1914.

The Rexall Store

The words "The Store" being disclaimed.
Particular description of goods.—Writing Fluid, Carbon-Paper, Ink-Pads, and Ink-Ribbons.
Claims use since prior to Nov. 1, 1913.

Ser. No. 83,607. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PIERATT & COLLINS CO., Minneapolis, Minn. Filed Dec. 31, 1914.

HONEY SCOTCH

Particular description of goods.—Candy.
Claims use since on or about Dec. 9, 1914.

Ser. No. 83,652. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CRYSTAL PHARMACY, Quinton, Okla. Filed Jan. 4, 1915.

CRYS-PHAR

Particular description of goods.—Chill-Tonic, Liver-Tonic, and Antibilious Pills.
Claims use since Dec. 15, 1914.

Ser. No. 83,682. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHURCH & DWIGHT COMPANY, New York, N. Y. Filed Jan. 5, 1915. Under ten-year proviso.

ARM & HAMMER BRAND

Particular description of goods.—Saleratus, Bicarbonate of Soda, and Sal-Soda.
Claims use since the year 1874.

Ser. No. 83,744. (CLASS 38. PRINTS AND PUBLICATIONS.) AMERICAN MANUFACTURING CO., Boston, Mass., and New York, N. Y. Filed Jan. 9, 1915.

YARNS

Particular description of goods.—A Monthly Magazine.
Claims use since May 15, 1911.

Ser. No. 83,782. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) POLITZER TOY MFG. CO., INC., New York, N. Y. Filed Jan. 11, 1915.



Particular description of goods.—Dolls and Stuffed Toy Animals.
Claims use since Oct. 15, 1914.

Ser. No. 83,798. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE B. F. GOODRICH COMPANY, New York, N. Y. Filed Jan. 12, 1915.

WHIPPET



Particular description of goods.—Golf-Balls.
Claims use since about Aug. 6, 1914.

Ser. No. 83,846. (CLASS 2. RECEPTACLES.) ACME MOISTENER & MFG. CO., Chicago, Ill. Filed Jan. 14, 1915.

"AZTEC"

Particular description of goods.—Humidifiers.
Claims use since Nov. 10, 1914.

Ser. No. 83,859. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE MYSTO MFG. CO., New Haven, Conn. Filed Jan. 14, 1915.

ERECTOR

Particular description of goods.—Toys.
Claims use since on or about the 15th day of February, 1913.

Ser. No. 83,886. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) UNITED FUEL & SUPPLY CO., Detroit, Mich. Filed Jan. 15, 1915.

"Britelite"

Particular description of goods.—Coal.
Claims use since about Dec. 1, 1914.

Ser. No. 83,950. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AHRENDT & SONS CO., Toledo, Ohio. Filed Jan. 19, 1915. Under ten-year proviso.



Particular description of goods.—Stomach-Bitters.
Claims use since 1836.

Ser. No. 83,974. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHARLES R. MCDONALD, East Liverpool, Ohio, assignor to The Sanitary Ice Cream Sandwich Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 20, 1915.

SANISCO

Particular description of goods.—Ice-Cream-Sandwich Machines.
Claims use since Aug. 1, 1914.

Ser. No. 84,115. (CLASS 48. MALT EXTRACTS AND LIQUORS.) GERMAN AMERICAN BREWING CO., Buffalo, N. Y. Filed Jan. 26, 1915.



Particular description of goods.—Beer.
Claims use since about Sept. 1, 1901.

Ser. No. 84,220. (CLASS 48. THREAD AND YARN.) HARDING, TILTON & COMPANY, Boston, Mass. Filed Jan 30, 1915.

KORD-NET

Particular description of goods.—Mercerized and Otherwise-Processed Cotton Yarns.
Claims use since Jan. 11, 1915.

Ser. No. 84,254. (CLASS 39. CLOTHING.) WILKIN & ADLER, New York, N. Y. Filed Feb. 1, 1915.



Particular description of goods.—Ladies' Cloaks, Suits, and Skirts.
Claims use since Dec. 1, 1914.

Ser. No. 84,271. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Feb. 2, 1915.

DRES-TEX

Particular description of goods.—Women's, Children's, and Infants' Coats, Cloaks, Wraps, Suits, Costumes, and Capes.
Claims use since about Dec. 20, 1914.

Ser. No. 84,274. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ALQUA MEDICINAL WATER CO., San Francisco, Cal. Filed Feb. 3, 1915.

ALQUA

Particular description of goods.—Mineral Waters.
Claims use since Dec. 26, 1914.

Ser. No. 84,288. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALONZO FRANK RICHARDSON, New York, N. Y. Filed Feb. 3, 1915.

Olivmulsion

Particular description of goods.—Medicinal Tonics.
Claims use since on or about Jan. 1, 1910.

Ser. No. 84,316. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Feb. 5, 1915.

"BRIGHT EYES"

Particular description of goods.—Boys' Blouses.
Claims use since Oct. 1, 1914.

Ser. No. 84,324. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WILLIAM M. STEVENSON, Springfield, Mass. Filed Feb. 5, 1915.

BOZART

Particular description of goods.—Textile Carpets and Rugs.
Claims use since Oct. 1, 1914.

Ser. No. 84,341. (CLASS 39. CLOTHING.) ABRAHAM KAPLON, Summit, N. J. Filed Feb. 6, 1915.

Dollarset APRONS

The exclusive use of the word "Apron" not being claimed.
Particular description of goods.—Aprons.
Claims use since Jan. 15, 1915.

Ser. No. 84,358. (CLASS 39. CLOTHING.) DANIEL GREEN FELT SHOE COMPANY, Boston, Mass., and Dolgeville, N. Y. Filed Feb. 8, 1915.

COMFY

Particular description of goods.—Shoes and Slippers Made Wholly or in Part of Leather and Felt Shoes and Slippers.
Claims use since July, 1904.

Ser. No. 84,377. (CLASS 39. CLOTHING.) MILLER, HESS & COMPANY, INCORPORATED, Akron, Pa. Filed Feb. 8, 1915.

Mil-ess-co

Particular description of goods.—Ladies', Misses', and Children's Shoes Made of Rubber, Leather, or Canvas.
Claims use since Dec. 11, 1914.

Ser. No. 84,497. (CLASS 39. CLOTHING.) D. E. SICHER & Co., New York, N. Y. Filed Feb. 12, 1915.

Tripelope

Comprising the word "Tripelope."
Particular description of goods.—A Combination-Garment Comprising an Envelop-Chemise with Corset-Cover Attached, Forming Undervest, Drawers, and Corset-Cover.
Claims use since Jan. 15, 1915.

TRADE-MARK REGISTRATIONS GRANTED

MARCH 9, 1915.

102,953. DIGESTIVE OR FOOD TONIC FOR LIVE STOCK. THOMAS H. ADAMS, Vincennes, Ind.
Filed October 29, 1914. Serial No. 82,246. PUBLISHED DECEMBER 29, 1914.

102,954. COTTON BAGS. AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H.
Filed November 16, 1914. Serial No. 82,607. PUBLISHED JANUARY 5, 1915.

102,955. COTTON BAGS. AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H.
Filed November 16, 1914. Serial No. 82,608. PUBLISHED JANUARY 5, 1915.

102,956. CERTAIN TOILET PREPARATIONS AND COURT-PLASTER. J. & E. ATKINSON LIMITED, London, England.
Filed July 11, 1914. Serial No. 79,733. PUBLISHED DECEMBER 29, 1914.

102,957. LAUNDRY AND TOILET SOAP. CHARLES F. BARTENFELD, Lorain, Ohio.
Filed July 31, 1913. Serial No. 72,055. PUBLISHED OCTOBER 20, 1914.

102,958. COFFEE. BLEECKER & SIMONS, New York, N. Y.
Filed October 28, 1914. Serial No. 82,223. PUBLISHED DECEMBER 29, 1914.

102,959. REMEDIES FOR WHOOPING-COUGH, CROUP, COUGHS, AND COLDS. CACTOLA REMEDY CO., Emerson, Nebr.
Filed September 26, 1914. Serial No. 81,485. PUBLISHED OCTOBER 27, 1914.

102,960. CHAMPAGNE-WINE. CHANDON ET CIE., Epernay, France.
Filed February 13, 1911. Serial No. 54,469. PUBLISHED JANUARY 5, 1915.

102,961. CERTAIN NAMED CLOTHING. COHEN, GOLDMAN & CO., New York, N. Y.
Filed October 28, 1914. Serial No. 82,224. PUBLISHED DECEMBER 29, 1914.

102,962. SODA-ASH. THE COLUMBIA CHEMICAL COMPANY, Pittsburgh, Pa.
Filed November 27, 1914. Serial No. 82,930. PUBLISHED DECEMBER 29, 1914.

102,963. FACE-POWDER. DAGGETT & RAMSDELL, New York, N. Y.
Filed December 3, 1914. Serial No. 83,042. PUBLISHED DECEMBER 29, 1914.

102,964. RHEUMATIC REMEDIES. ISADORE M. DUKES, Knox, Ind.
Filed November 19, 1914. Serial No. 82,684. PUBLISHED DECEMBER 22, 1914.

102,965. TOOTH-POWDER, TOOTH-PASTE, AND MOUTH LOTION OR WASH. MARY A. EVANS, New York, N. Y.
Filed December 1, 1914. Serial No. 82,998. PUBLISHED DECEMBER 29, 1914.

102,966. DOLLS. FAIR & CARNIVAL TRADING CO. INC., New York, N. Y.
Filed November 13, 1914. Serial No. 82,556. PUBLISHED JANUARY 5, 1915.

102,967. PURGATIVES. PIETRO FERRI, New York, N. Y.
Filed November 7, 1914. Serial No. 82,461. PUBLISHED DECEMBER 29, 1914.

102,968. SERIES OF CARTOONS. HARRY C. FISHER, New York, N. Y.
Filed November 14, 1914. Serial No. 82,592. PUBLISHED DECEMBER 29, 1914.

102,969. COFFEE. JAS. H. FORBES TEA & COFFEE CO., St. Louis, Mo.
Filed October 26, 1914. Serial No. 82,169. PUBLISHED DECEMBER 29, 1914.

102,970. YARNS AND THREAD FOR EMBROIDERING, MENDING, CROCHETING, AND KNITTING. HOWARD MANUFACTURING COMPANY, Boston, Mass.
Filed November 23, 1914. Serial No. 82,785. PUBLISHED JANUARY 5, 1915.

102,971. HOT-WATER BOTTLES OF METAL AND OTHER MATERIALS. THE ICY-HOT BOTTLE COMPANY, Cincinnati, Ohio.
Filed November 13, 1914. Serial No. 82,561. PUBLISHED JANUARY 5, 1915.

102,972. CERTAIN SPECIFIED CHEMICAL AND PHARMACEUTICAL PREPARATIONS. JOHNSTOWN CHEMICAL COMPANY, Johnstown, Pa.
Filed October 12, 1914. Serial No. 81,821. PUBLISHED DECEMBER 29, 1914.

102,973. CHILDREN'S SHOES. CHARLES F. KOLB, Jr., Philadelphia, Pa.
Filed November 13, 1914. Serial No. 82,562. PUBLISHED JANUARY 5, 1915.

102,974. COUGHS, COLDS, AND CATARRH. LAXAGO BITTERS CO., Detroit, Mich.
Filed January 26, 1914. Serial No. 75,456. PUBLISHED JANUARY 5, 1915.

102,975. SHOE-POLISH. WALDO A. LAYMAN, Johnstown, Pa.
Filed November 11, 1914. Serial No. 82,521. PUBLISHED JANUARY 5, 1915.

102,976. BAKING-POWDER AND BAKING-SODA. LAYTON PURE FOOD COMPANY, East St. Louis, Ill.
Filed April 29, 1914. Serial No. 77,862. PUBLISHED DECEMBER 29, 1914.

102,977. PAINTS, DRESSINGS, AND FINISHES IN DRY, PASTE, AND READY-MIXED FORM FOR VEHICLE-TOPS. JOHN MANSFIELD, Houston, Tex.
Filed July 14, 1914. Serial No. 79,780. PUBLISHED DECEMBER 1, 1914.

102,978. LIQUID PREPARATION FOR EXTERNAL USE. ELLEN D. MARSH, New York, N. Y.
Filed November 19, 1914. Serial No. 82,692. PUBLISHED DECEMBER 29, 1914.

102,979. LYE. E. MYERS LYE COMPANY, St. Louis, Mo.
Filed December 4, 1914. Serial No. 83,073. PUBLISHED DECEMBER 29, 1914.

102,980. LIQUID TOILET SOAP. NATIONAL CHEMICAL COMPANY OF CALIFORNIA, Los Angeles, Cal.
Filed September 23, 1914. Serial No. 81,430. PUBLISHED DECEMBER 15, 1914.

102,981. MEDICINES PREPARED FROM ROOTS AND HERBS USED IN TREATING CERTAIN NAMED DISEASES. ORIENTAL AND OCCIDENTAL MEDICAL COMPANY, Seattle and Ellensburg, Wash.
Filed August 8, 1914. Serial No. 80,401. PUBLISHED JANUARY 5, 1915.

102,982. PREPARATIONS FOR LAXATIVES, BILIOUSNESS, CONSTIPATION, AND HEADACHES. RIKER & HEGEMAN CO., New York, N. Y.
Filed November 21, 1914. Serial No. 82,759. PUBLISHED DECEMBER 29, 1914.

102,983. NUTRITIVE TONICS. RIKER & HEGEMAN CO., New York, N. Y.
Filed November 21, 1914. Serial No. 82,760. PUBLISHED DECEMBER 29, 1914.

102,984. PREPARATIONS FOR THE FEET. RIKER & HEGEMAN CO., New York, N. Y.
Filed November 21, 1914. Serial No. 82,761. PUBLISHED DECEMBER 29, 1914.

102,985. MEDICINAL PREPARATION. RIKER & HEGEMAN CO., New York, N. Y.
Filed November 21, 1914. Serial No. 82,763. PUBLISHED DECEMBER 29, 1914.

102,986. BRUSHES AND MOPS. SARGENT BRUSH CO., Manchester, N. H.
Filed October 31, 1914. Serial No. 82,312. PUBLISHED JANUARY 5, 1915.

102,987. CERTAIN NAMED FURNITURE. THE JAKE TENNENBAUM CO., Cincinnati, Ohio.
Filed June 23, 1913. Serial No. 71,522. PUBLISHED OCTOBER 27, 1914.

102,988. CERTAIN NAMED FOODS. THE VAN CAMP PACKING CO., Indianapolis, Ind.
Filed November 17, 1914. Serial No. 82,648. PUBLISHED DECEMBER 22, 1914.

102,989. LEATHER SHOES. WASHINGTON SHOE MANUFACTURING CO., Seattle, Wash.
Filed October 22, 1914. Serial No. 82,085. PUBLISHED JANUARY 5, 1915.

102,990. FERRIC SULFATE. THE WESTMORELAND CHEMICAL AND COLOR COMPANY, Philadelphia, Pa.
Filed December 3, 1914. Serial No. 83,062. PUBLISHED DECEMBER 29, 1914.

102,991. FERRIC SULFATE. THE WESTMORELAND CHEMICAL AND COLOR COMPANY, Philadelphia, Pa.
Filed December 3, 1914. Serial No. 83,066. PUBLISHED DECEMBER 29, 1914.

LABELS

REGISTERED MARCH 9, 1915.

18,285.—*Title:* "TERESA DE ROSA." (For Alimentary Pastes.) FRANCESCO ALBANO, New York, N. Y. Filed February 15, 1915.

18,286.—*Title:* "BRIDGEPORT STANDARD." (For Prepared Paint.) THE BRIDGEPORT WOOD FINISHING CO., Bridgeport and New Milford, Conn. Filed December 26, 1914.

18,287.—*Title:* "VIRISOL." (For a Medicinal Preparation.) OTTO EDLER, West Hoboken, N. J. Filed December 16, 1914.

18,288.—*Title:* "GRANULATED." (For Coffee.) HEYNIGER, PITT & CO. INC., Corning, N. Y. Filed December 17, 1914.

18,289.—*Title:* "FOUR GLORIES." (For Whisky.) GOODMAN LIQUOR COMPANY, Waco, Tex. Filed February 5, 1915.

18,290.—*Title:* "SOME BISCUIT." (For Crackers.) THE GROCERS BISCUIT COMPANY, Louisville, Ky. Filed September 17, 1914.

18,291.—*Title:* "KENTUCKY CARLSBAD WATER." (For Water.) THE KENTUCKY CARLSBAD SPRINGS CO., Dry Ridge, Ky. Filed August 13, 1914.

18,292.—*Title:* "LOMAURO'S UNIVERSAL SALVE." (For a Salve.) FRANK R. LOMAURO, Passaic, N. J. Filed February 15, 1915.

18,293.—*Title:* "MARIAN'S BURNT OLIVE OIL CANDY." (For a Medicinal Preparation.) MARIAN MAY MAC GRATH, Philadelphia, Pa. Filed January 28, 1915.

18,294.—*Title:* "ROSINA." (For Medicine.) CARMINE NAPOLI, Philadelphia, Pa. Filed January 14, 1915.

18,295.—*Title:* "ULIKA RAISINETTE." (For Unfermented and Non-Alcoholic Grape-Juice.) NATIONAL FRUIT PRODUCTS COMPANY OF CALIFORNIA, Los Angeles, Cal. Filed December 26, 1914.

18,296.—*Title:* "ORR'S EXCELLENT CAKES." (For Cakes.) O. C. ORR BAKING COMPANY, New Castle, Pa. Filed January 12, 1915.

18,297.—*Title:* "G-R-S ORANGE XXXX MADE FROM BERKSHIRE'S FAMOUS SPRINGS." (For an Orange-Flavored Drink.) FRED M. OSTEYER, Pittsfield, Mass. Filed December 9, 1914.

18,298.—*Title:* "KLEENIT." (For Cleaners.) ROGER TAYLOR DAVIS, San Antonio, Tex. Filed November 25, 1914.

18,299.—*Title:* "ICE-LAND SEA-FOAM HAIR TONIC." (For a Hair-Tonic.) FRED SOELE, San Antonio, Tex. Filed February 4, 1915.

18,300.—*Title:* "SWAN-GRAIN BRAND." (For Food Products.) JOSEPH SWANGREN, Maywood, Ill. Filed January 15, 1915.

PRINTS

REGISTERED MARCH 9, 1915.

3,834.—*Title:* "PANAMA PACIFIC EXPOSITION." (For Smoking-Tobacco.) THE BLOCH BROS. TOBACCO CO., Wheeling, W. Va. Filed January 29, 1915.

3,835.—*Title:* "LOOK AROUND! 'THERE'S AN OWL DEALER RIGHT NEAR YOU.'" (For Cigars.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 23, 1915.

3,836.—*Title:* "'WORKMANSHIP'—'HAND WORKMANSHIP COUNTS HEAVILY IN A CIGAR.'" (For Cigars.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 23, 1915.

3,837.—*Title:* "'ELEVEN BUSY OWL FACTORIES PROVE WHAT SMOKERS THINK OF ME.'" (For Cigars.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 23, 1915.

3,838.—*Title:* "'FOR THE LOVE OF MILDNESS' LIGHT UP ANOTHER!" (For Cigars.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 23, 1915.

3,839.—*Title:* "'HAND WORK' MAKES ME—'HEAD WORK' BUYS ME." (For Cigars.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 23, 1915.

3,840.—*Title:* "'ELEVEN BUSY OWL FACTORIES PROVE WHAT SMOKERS THINK OF ME.'" (For Cigars.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 23, 1915.

3,841.—*Title:* "'ELEVEN BUSY OWL FACTORIES PROVE WHAT SMOKERS THINK OF ME.'" (For Cigars.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 23, 1914.

3,842.—*Title:* "PIEDMONT CIGARETTES OF QUALITY." (For Piedmont Cigarettes.) THOS. CUSACK COMPANY, Chicago, Ill. Filed January 25, 1915.

3,843.—*Title:* "FROZEN MINTS—THEY CAPTIVATE." (For Chewing-Gum.) EDWARDS & DEUTSCH LITHO. CO., Chicago, Ill. Filed August 12, 1914.

3,844.—*Title:* "KIRKS FLAKE SOAP, NO. 462." (For Soap.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed October 3, 1914.

3,845.—*Title:* "NUTTY CHOCOLATES." (For Candy.) CHARLES W. MILLER, Philadelphia, Pa. Filed January 20, 1915.

3,846.—*Title:* "VALENTINE'S VALSPAR—'THE VARNISH THAT WON'T TURN WHITE.'" (For Valentine's Valspar.) VALENTINE & COMPANY, New York, N. Y. Filed January 29, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

BISSELL *v.* FOTTINGER.

Decided January 4, 1915.

1. INTERFERENCE — PRIORITY — SECTION 4887 — AMENDED GERMAN APPLICATION—CONSTRUCTIVE REDUCTION TO PRACTICE.

Where F. filed an application in the German patent office on June 23, 1905, and on October 28, 1905, an amended application was filed, accompanied by drawings, which was a complete description of the invention embraced in the issue and was not a departure from the original application, and a complete application was filed in this country on June 19, 1906, *Held* that F. is entitled to the date of his amendment (October 28, 1905) as the date of his constructive reduction to practice.

2. SAME—SAME.

The evidence reviewed and *Held* that priority was properly awarded to F.

Mr. Helge Murray for the appellant.

Mr. C. W. Fairbank for the appellee.

SHEPARD, *C. J.*:

Bissell filed a reissue application on September 23, 1907, on a patent dated September 18, 1906, the application for which was filed March 21, 1906. Fottinger filed June 19, 1906.

The invention is a power-transmitting machine in which liquid is employed as a transmitting medium. The invention is in twenty-two counts, of which the following are sufficient to represent the invention:

1. An apparatus for transmitting or transforming power, having a turbine adapted to transmit energy to a fluid, and a turbine capable of receiving power from an energized fluid, the two turbines both having curved passages and arranged with respect to each other in such a manner that they comprise the whole circuit in which the said fluid circulates.

5. An apparatus for the transmission of power between adjacent shafts, comprising a primary turbine wheel mounted on the driving shaft and adapted to transmit energy to a fluid, and a secondary turbine wheel on the driven shaft and capable of receiving power from said energized fluid, the passage of both of the said wheels being curved and merging into each other to form a circuit in which the said fluid circulates.

13. In a hydraulic power transmitting apparatus, the combination with a centrifugally acting rotatable driving member, of a driven member adapted to rotate independently of said driving member, a casing inclosing said members and adapted to contain a liquid, a plurality of passages in said driving member and running in a direction which has a radial component, and a plurality of passages in said driven member, the passages of said driving member being adapted to direct liquid to the passages of said driven member, whereby the same is actuated.

19. In a hydraulic power transmitting apparatus, the combination with a rotatable driving member, of a driven member, adapted to rotate independently of said driving member, a water-tight casing inclosing said members and adapted to contain a liquid, a plurality of radially located buckets on said driving member, a plurality of buckets on said driven member, the buckets of said driving member being adapted to direct liquid in a direction which has a radial component to the buckets of said driven member.

22. The combination with a closed casing containing a confined volume of liquid, of a shaft rotatably mounted therein, a centrifugal pump impeller fixedly secured to said shaft, and a turbine-wheel located in said casing, said impeller being adapted to direct liquid to said turbine-wheel, whereby the same is actuated.

Bissell testified to the construction of a model early in 1902. This model was thrown into the scrap-heap. On his testimony the Examiner of Interferences decided that Bissell's evidence of reduction to practice of the model was insufficient and the other tribunals have agreed with him. We concur in this conclusion.

The chief controversy turns on the effect of Fottinger's application for a patent in Germany. Germany is one of the countries embraced in the treaties concerning patent applications. Section 4887, Revised Statutes, reads as follows:

An application for patent for an invention, discovery, or design filed in this country by any person who has previously regularly filed an application for a patent for the same invention, discovery, or design in a foreign country which, by treaty, convention, or law affords similar privilege to citizens of the United States shall have the same force and effect as the same application would have if filed in this country on the date on which the application for patent for the same invention, discovery, or design was first filed in such foreign country, provided the application in this country is filed within twelve months in cases within the provisions of section forty-eight hundred and eighty-six of the Revised Statutes and within four months in cases of designs, from the earliest date on which any such foreign application was filed. But no patent shall be granted on an application for patent for an invention or discovery or a design which had been patented or described in a printed publication in this or any foreign country more than two years before the date of the actual filing of the application in this country, or which has been in public use or on sale in this country, for more than two years prior to such filing.

Fottinger filed an application in the German patent office June 23, 1905, which was less than a year from the time of filing his application in the United States Patent Office. No drawings of the invention were filed with this application but it described the invention.

On October 28, 1905, an amended application was filed accompanied with drawings, which is conceded to be a complete description of the invention of the issue. This amendment is not a departure from the original application and the question is whether it may be taken as a constructive reduction to practice of the invention from the date of filing, having been followed by the necessary application within one year from the filing of the original application. The contention of Bissell is upon a strict construction of section 4887, Revised Statutes, limiting the effect of that law to the application as first filed. His contention is that the application was wholly insufficient to show the invention.

The Examiner of Interferences said in his decision that since the amendment clearly discloses the issue and has been embodied in the patent as issued in Germany, there seems to be no reason why Fottinger should not be given the benefit of the date of his amendment, that is, October 28, 1905, as the date of his constructive reduction to practice. This conclusion was adopted by the Examiners-in-Chief and the Commissioner of Patents on appeal to them respectively.

In the United States Patent Office an amendment specifically describing an invention disclosed in the original application would be allowed and would relate back to the date of filing the original.

We concur with the Patent Office tribunals that the construction of section 4887 contended for by Bissell is erroneous. The amendment clearly describes the invention of the issue and has been embodied in the patent as issued in Germany and we see no reason why Fottinger should not be given the benefit of the date of his amendment, that is, October 28, 1905, as the date of his constructive reduction to practice.

The decision is affirmed and the clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

CRABILL *v.* TEETER.

Decided January 4, 1915.

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* to establish that the invention in issue originated with T. and that he is entitled to the award of priority.

Mr. F. L. Chappell and *Mr. Otis A. Earl* for the appellant.

Mr. A. E. Dowell for the appellee.

VAN ORSDEL, *J.:*

This appeal is from a decision of the Commissioner of Patents in an interference proceeding reversing the decision of the Board of Examiners-in-Chief, which had affirmed the decision of the Examiner in Interferences, and awarding priority of invention to appellee on the following issue:

1. A hose clamp comprising a body and an outwardly projecting ear and a forwardly projecting joint tongue at each end of said body formed integrally of sheet metal, said ears being formed by outward folds in said body and being perforated to receive a clamping bolt, said tongues being diagonally opposed extensions of the ends of the body and adapted to cooperate to form a continuous bearing extending between the ears and from edge to edge of the clamp.

2. In a hose clamp, a body made from a single sheet of metal having bolt holes, the ends of the blank cut to form one-half of the width of the blank, each end of the blank bent between the holes and at each side thereof to form ears with the reduced ends lapping by each other and well under the body of the blank to firmly brace the ears and form a continuous uniform bearing entirely around a hose to which it may be applied, and a securing bolt passed through the ears.

Appellant's application was filed November 29, 1909. In his preliminary statement appellant claimed conception, disclosure, drawings and model of date November 1, 1909, and reduction to practice November 2, 1909. Appellee's application was filed May 15, 1911. In his preliminary statement, appellee claimed conception October 18, 1909, disclosure October 20, 1909, and reduction to practice the following day, October 21, 1909.

The question here presented is one of originality, each party claiming that he originated the invention, and that his opponent derived knowledge of it from him. The issue, therefore, is one wholly of fact. The time between the dates alleged is short and the testimony of the witnesses is given largely from memory at a period long after the occurrence of the events in issue.

It appears that at the time the invention was produced in the fall of 1909, appellee was employed as foreman in the shops of the Walker Hose Clamp Company, at Battle Creek, Mich. Appellant had been in the employ of this company as a traveling salesman, but was not in its employ at the date here in issue. Appellant's father was a salesman for this company, and in October, 1909, discovered a nut and bolt clamp on the market, a sample of which, accompanied by a letter dated October 15, 1909, he sent to the company, asking its cost and efficiency as compared with the Walker clamp. Appellant claims to have disclosed the invention in issue to one Webster and other officers and employees of the Walker Hose Clamp Company during the month of November, 1909, and, in the middle of that month, to have entered into a contract with the Walker Company, whereby it agreed to pay him a royalty on the clamps manufactured by it. He denies that he derived any knowledge of the invention from appellee. As to the contract it appears that the agreement was drawn by Webster without the knowledge of any of the other officers of the Walker Company, and that the company knew nothing of the existence of any such contract.

Dies for the production of the clamp claimed in issue were made at the factory of the Walker Company in December, 1909, and clamps were made therefrom to fill orders in January following. Appellee insists that these dies were produced for the company by him and other workmen under orders of Webster. The record indicates that appellee believed the dies were being made for the Walker Company and that in making them he was acting for the company. Appellant contends that the dies were made for him at his order, and that he bore the expense of their manufacture. Shortly after the dies had been completed and the first clamps made, Webster left the employ of the Walker Company, and, together with appellant and appellant's father, formed a company known as the Crabill Clamp Company for the purpose of manufacturing and selling these clamps.

Appellant's earliest date claimed is November 1, 1909. On the following day, in company with his father, he went to Battle Creek, Mich., and employed an attorney to prepare his application for a patent. The application was filed in the Patent Office on the 29th of the same month. Counsel for appellant make much of the delay of appellee of more than eighteen months in filing his application, and the Examiner of Interferences urges this cir-

cumstance against appellee in the following language:

Under such circumstances as have been shown to exist in the present case, and especially in view of the long delay on the part of Teeter in filing an application covering the invention in issue when both he and the Walker Hose Clamp Co. had every opportunity to learn that Crabill's company was engaged in manufacturing the clamp in issue, the burden is imposed upon Teeter to prove by evidence which shall be both clear and convincing that he made the invention prior to the time when he was ordered by Webster to make the dies. It is evident that at this time Crabill knew of the invention, for Teeter has in effect admitted this by his allegation that Crabill derived his first knowledge of the invention from him some weeks previous. Since both parties possessed a knowledge of the invention at the time when work was started on the dies it is incumbent upon Teeter to establish clearly that he made the invention prior to that time.

It is not strange that appellee delayed in asserting his claims to the invention in the Patent Office. When Webster, apparently on behalf of the Walker Company, authorized the development of the invention, appellee was given to understand that he would be protected. He was justified in relying upon his employers to this extent. (*Shuman* v. *Beall*, 27 App. D. C., 324.)

We think that little more suspicion can be attached to the delay of appellee in getting to the Patent Office than attaches to the precipitate haste of appellant. However that may be, it all resolves itself down to the weight to be given the testimony of the respective parties as to the facts occurring during the latter half of October and the early days of November, 1909. If appellee conceived the invention and reduced it to practice prior to November 1, 1909, it matters not how long he delayed in getting to the Patent Office, so far as this case is concerned. The case can be disposed of by discarding the evidence of both appellant and appellee. This course will avoid much discussion as to the leading character of the questions put to appellee, which objection can be applied with equal force to the testimony of appellant. It will also avoid the discussion of the apparent discrepancy as to dates between appellee's testimony-in-chief and in rebuttal, which amounted only to refreshing his memory in rebuttal from the date of the letter of the elder Crabill of October 15, 1909. On this point it may be suggested that the testimony of appellee in rebuttal, which is not in conflict with his testimony-in-chief, but more specific as to dates, corroborates the dates of conception and reduction to practice alleged in his preliminary statement which had been filed long before the evidence was given.

Eliminating, therefore, the testimony of the contending parties, which course, we think, is of advantage to appellant, we find that appellant's case rests upon the stipulated testimony of his father, who hastened with him to the attorney's office to make application for patent the day following appellant's alleged conception of the invention, and the testimony of Webster, an employee of the Walker Company, who, within a month after appellant's alleged discovery, severed his connection with his employer to form, in conjunction with appellant and his father, the Crabill Clamp Company for the manufacture and sale of the clamps in issue. This was done by Webster in the face of the fact that the Walker Company had already taken steps to manufacture some of the clamps and place them upon the market.

On the other hand, appellee is supported by four unimpeached and, so far as the record discloses, reputable witnesses, Walter Teeter, Burdick, Petrie and Hall. The testimony of these witnesses is to be entirely ignored if we are to hold that appellee did not conceive and reduce to practice the clamp in question prior to November 1, 1909, appellant's earliest date. This we decline to do. On the face of this record we are convinced of the soundness of the conclusion reached by the Commissioner.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) Profits awarded for infringement of the Westinghouse patent, No. 366,362, for an electric converter. *Westinghouse Electric Mfg. Co.* v. *Wagner Electric Mfg. Co.*, 218 Fed. Rep., 646.

(U. S. C. C. A.) The Sargent patent, No. 665,582, for an electric-lamp socket, *Held* valid and infringed. *General Electric Co.* v. *Independent Electrical Supply Co.*, 218 Fed. Rep., 639.

(U. S. C. C. A.) The Olmstead patent, No. 819,378, for an ice-cream disher, *Held* valid and infringed. *Walker* v. *Giles*, 218 Fed. Rep., 637.

(U. S. C. C. A.) The Frankel patent, No. 886,490, for a garment-form, *Held* not infringed. *Frankel* v. *Levin*, 218 Fed. Rep., 641.

(U. S. D. C.) The Reed patent, No. 981,111, for a concrete-mixer, *Held* not infringed. *Reed* v. *Cropp Concrete Machinery Co.*, 218 Fed. Rep., 643.

Foreign Patents, Trade-Marks, Etc.—Taxes, Fees, Etc.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 25, 1915.

This Office has received the following notice from the International Bureau of Industrial Property at Berne.

THOMAS EWING,
Commissioner.

[Translation.]

BUREAU INTERNATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE. CIRCULAR No. 159/111. SUBJECT: SWEDEN; MEASURES ADOPTED BY REASON OF THE PRESENT STATE OF WAR.

BERNE, *February 3, 1915.*

To the Offices of Industrial Property of the Countries of the Union.

GENTLEMEN: We have the honor to bring to your knowledge the following measures which have been adopted in Sweden by reason of the present state of war:

SWEDEN.

Ordinance granting an extension for the payment of certain taxes on Patents.

(No. 429, of December 23, 1914.)

We, Gustavus, by the grace of God King of Sweden, the Goths and Wends, give notice that, after hearing the delegates of the State Bank and of the Administration of the

Public Debt, and by virtue of the law of September 18, 1914, granting an extension for the payment of debts (*moratorium*), we have deemed it expedient to decide that the provision of section 11 of the ordinance relative to patents of May 16, 1884, to the effect that a patent shall become null and void if the taxes accrued thereon referred to in said section are not paid within the term specified, shall not be applicable until further order and until otherwise provided when the owner of the patent is settled outside of the kingdom and when the term within which the taxes were to be paid had not expired prior to this date.

This ordinance shall go into force immediately after publication of the same (published December 23, 1914), to which all whom it may concern shall conform.

By virtue whereof we have signed these presents with our own hand and caused our royal seal to be affixed thereto.

Castle of Stockholm, December 23, 1914.

GUSTAVUS. (R. S.)
BERNDT HASSELROT,
Ministry of Justice.

Asking you kindly to acknowledge receipt of this circular, we extend to you, gentlemen, etc.

BUREAU INTERNATIONAL DE L'UNION DE LA PROPRIÉTÉ INDUSTRIELLE.
COMTESSE,
Director.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 2, 1915.

Pace & Sizer, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Steeves & Tilton, 276 State street, Boston, Mass., for registration of a trade-mark and trade-mark registered August 11, 1885, No. 12,498, to Pace & Sizer, Richmond, Va., and a notice of such declaration sent by registered mail to said Pace & Sizer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Pace & Sizer, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 2, 1915.

Antonio Magliaro, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Kirk Geary & Co., Nos. 519–523 J street, Sacramento, Cal., for registration of a trade-mark and trade-mark registered December 30, 1913, No. 94,788, to Antonio Magliaro, No. 9 North Virginia avenue, Atlantic City, N. J., and a notice of such declaration sent by registered mail to said Antonio Magliaro at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Antonio Magliaro, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 25, 1915.

The Red Seal Remedy Company and Globe Chemical Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of P. C. Tomson & Co., 25, 27, and 29 Washington avenue, Philadelphia, Pa., for registration of a trade-mark and trade-mark registered July 2, 1895, No. 26,765, to The Red Seal Remedy Company, Rockland, Me., and trade-mark registered May 8, 1894, No. 24,680, to Globe Chemical Company, Cleveland, Ohio, and notices of such declaration sent by registered mail to The Red Seal Remedy Company and Globe Chemical Company at the said addresses having been returned by the post-office undeliverable, notice is hereby given that unless said The Red Seal Remedy Company and Globe Chemical Company, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 19, 1915.

Pace & Sizer, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Mi Favorita Cigar Co., Inc., 200 Fifth avenue, New York, N. Y., for registration of a trade-mark and trade-mark registered March 10, 1885, No. 12,005, to Pace & Sizer, of Richmond, Va., and a notice of such declaration sent by registered mail to said Pace & Sizer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Pace & Sizer, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 19, 1915.

The Capitol Manufacturing Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Benney Vise & Tool Works, Inc., 405 Stephen Girard Building, Philadelphia, Pa., for registration of a trade-mark and trade-mark registered February 24, 1891, No. 19,063, to The Capitol Manufacturing Company, 125–137 Rees street, Chicago, Ill., and because of evidence in the record to the effect that said The Capitol Manufacturing Company cannot be reached at the address given, notice is hereby given that unless said The Capitol Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 17, 1915.

Forrest F. Tebbetts, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Treinis Bros., of 126–142 Thirteenth street, New York, N. Y., for registration of a trade-mark and trade-mark registered April 23, 1889, No. 16,528, to Forrest F. Tebbetts, of Providence, R. I., and a notice of such declaration sent by registered mail to said Forrest F. Tebbetts at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Forrest F. Tebbetts, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 12, 1915.

The Eustis Manufacturing Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Cleveland Foundry Company, No. 7609 Platt avenue southeast, Cleveland, Ohio, for registration of a trade-mark and trade-mark registered July 5, 1892, No. 21,427, to The Eustis Manufacturing Company, Jersey City, N. J., and New York, N. Y., and notices of such declaration sent by registered mail to said The Eustis Manufacturing Company at the said addresses having been returned by the post-office undeliverable, notice is hereby given that unless said The Eustis Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Labels	12—No.	18,301 to No.	18,312, inclusive.
Prints	1—No.	3,867	
Reissues	2—No.	13,891 to No.	13,892, inclusive.
Total	1144		

The patents of this issue were pending an average of 23.4 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	.....	North Carolina	2	1
Arizona	3	1	North Dakota	2	.....
Arkansas	4	1	Ohio	67	8
California	36	14	Oklahoma	7	2
Colorado	10	2	Oregon	10	1
Connecticut	14	3	Pennsylvania	92	12
Delaware	1	2	Rhode Island	6	2
Florida	2	.....	South Carolina	2	.....
Georgia	4	.....	South Dakota	4	.....
Idaho	2	.....	Tennessee	7	3
Illinois	88	15	Texas	18	1
Indiana	15	2	Utah	5	.....
Iowa	12	1	Vermont	2	.....
Kansas	10	1	Virginia	13	1
Kentucky	5	1	Washington	7	1
Louisiana	2	3	West Virginia	4	.....
Maine	3	1	Wisconsin	18	7
Maryland	10	2	Wyoming	.....	.....
Massachusetts	56	19			
Michigan	38	3	Alaska, District of	.....	.....
Minnesota	13	3	Canal Zone	.....	.....
Mississippi	4	.....	District of Columbia	7	.....
Missouri	20	3	Hawaii Territory	.....	2
Montana	3	.....	Philippine Islands	.....	.....
Nebraska	6	2	Porto Rico	.....	.....
Nevada	2	.....	U. S. Army	.....	.....
New Hampshire	3	1	U. S. Navy	1	.....
New Jersey	30	8			
New Mexico	.....	.....	Total to residents of the United States.	807	205
New York	131	76			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	2	.....	Netherlands	.....	.....
Belgium	1	.....	New South Wales	.....	.....
British India	.....	.....	New Zealand	2	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	24	1	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
China	1	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	1	Scotland	2	.....
Denmark	.....	.....	South Australia	.....	.....
England	31	1	Spain	.....	.....
Finland	.....	.....	Sweden	1	.....
France	9	.....	Switzerland	7	.....
Germany	30	3	Transvaal, South Africa	.....	.....
Guatemala	.....	.....	Victoria	1	.....
India	.....	.....	Wales	1	.....
Ireland	8	2			
Italy	2	1			
Japan	.....	1	Total to residents of foreign countries	118	10
Mexico	1	.....			

Disclaimer.

931,904.—*Harry G. Webster*, Chicago, Ill. TELEPHONE SYSTEM. Patent dated August 24, 1909. Disclaimer filed March 8, 1915, by *Kellogg Switchboard and Supply Company*, assignee by mesne assignments.

Enters its disclaimer—

"To the claims of the patent, which read as follows, to wit:

"33. A telephone exchange system comprising a plurality of telephone lines, a plurality of associated link-circuits, automatic switching means for establishing connection between a calling line and an idle link-circuit, a pair of relays associated with the answering end of each link-circuit, and means whereby the energization of one of said relays is dependent upon the operative condition of the other.

"34. A telephone exchange system comprising a plurality of telephone lines, a plurality of associated link-circuits, automatic switching means for establishing connection between a calling line and an idle link-circuit, a pair of relays associated with the answering end of each link-circuit, one of said relays being under the control of a calling party when its link-circuit is connected to the calling line, and means whereby the energization of the other of said relays is dependent upon the condition of the first relay."

Amendments to Amendments.

RULE 74. When an amendatory clause is amended, it must be wholly rewritten, so that no interlineation or erasure shall appear in the clause, as finally amended, when the application is passed to issue. If the number or nature of the amendments shall render it otherwise difficult to consider the case or to arrange the papers for printing or copying, the Examiner or Commissioner may require the entire specification to be rewritten.

APPLICATIONS UNDER EXAMINATION.

Condition at close of business March 13, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Nov. 23	Dec. 21	476
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 1	Jan. 5	608
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Mar. 1	Mar. 4	75
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Aug. 18	Mar. 2	618
167	5. Bookbinding; Harvesters; Jewelry; Music.	Oct. 6	Jan. 29	363
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Sept. 4	Feb. 15	535
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Dec. 24	Feb. 2	528
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Aug. 20	Feb. 23	1219
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	July 1	Oct. 26	773
235	10. Carriages and Wagons	Oct. 12	Feb. 20	747
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Jan. 14	Feb. 27	138
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Sept. 4	Feb. 24	808
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Jan. 26	Jan. 27	457
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Oct. 5	Feb. 17	331
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Sept. 12	Feb. 19	739
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	July 10	Dec. 8	640
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Dec. 9	Mar. 1	189
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Feb. 11	Jan. 30	267
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Feb. 1	Feb. 11	241
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 12	Feb. 11	265

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Oct. 30	Jan. 9	468
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Feb. 17	Feb. 15	175
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 17	Dec. 22	445
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Oct. 3	Feb. 26	465
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Feb. 15	Feb. 10	175
106	26. Electricity, Generation; Motive Power.	June 22	Jan. 23	596
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Nov. 19	Feb. 19	311
65	28. Internal-Combustion Engines	Jan. 7	Feb. 11	415
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	Jan. 23	Jan. 18	319
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Nov. 9	Mar. 1	328
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Nov. 16	Feb. 1	332
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Sept. 1	Feb. 18	686
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Nov. 3	Feb. 6	363
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Feb. 5	Feb. 19	192
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Oct. 26	Mar. 4	566
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Dec. 15	Feb. 27	518
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	July 15	Jan. 13	838
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Sept. 21	Jan. 22	599
221	39. Water Distribution	Nov. 17	Jan. 6	499
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Spadial Receptacles and Packages; Wooden Receptacles.	Sept. 9	Feb. 3	980
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Jan. 14	Jan. 15	269
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Dec. 18	Jan. 8	276
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Feb. 2	Jan. 15	266

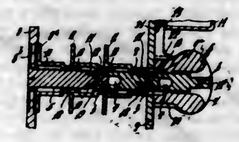
Oldest new case, June 22; oldest amended, Oct. 26.
Total number of applications awaiting action..... 20,198

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Jan. 14	Feb. 25	784
	Designs	Nov. 12	Oct. 26	446
	Labels and Prints	Feb. 19	Feb. 19	170

PATENTS

GRANTED MARCH 16, 1915.

1,131,648. LOOSE-LEAF BOOK AND THE LIKE. HAROLD HECTOR HENRY AHEARN, Wellington, New Zealand. Filed Apr. 22, 1914. Serial No. 833,667. (Cl. 129—12.)



1. A loose leaf binder of the kind described, comprising a binder bar, a back to which the binder bar is attached, a clamping bar, a front to which the clamping bar is attached, screw threaded pillars made in sections and secured to the binder bar and passing through holes in the clamping bar, and nuts upon the pillars, substantially as set forth.

2. In a loose leaf binder of the kind described, a binder pillar made in sections which are externally screw threaded, substantially as set forth.

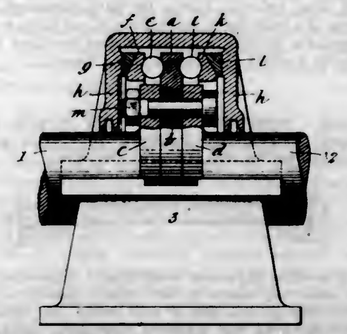
3. In a loose leaf binder of the kind described, a binder pillar made in sections and screw threaded outside, a portion of the thread being removed from the bottom of each section, a nut having a number of threads slightly less than the number of threads removed from each section, substantially as set forth.

4. In a loose leaf binder of the kind described, a binder pillar made in sections, each section having an extension screwed into its adjoining section, and pins passing through the sections and extensions, substantially as set forth.

5. In a loose leaf binder of the kind described, a binder pillar made in sections, each section having an extension screwed into its adjoining section, and pins passing diagonally through the sections and extensions, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,131,649. ANTIFRICTION-BEARING. WERNER AHRENS, Berlin, Germany. Filed Feb. 28, 1910. Serial No. 546,355. (Cl. 64—49.)



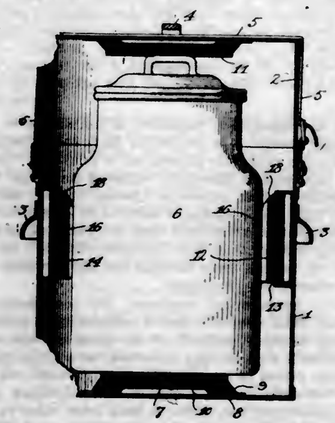
1. The combination of an anti-friction bearing, thrust abutments therefor, and a shaft constructed in two sections and detachably secured together between the abutments, the two sections being held together in fixed relations at a sufficient distance apart to permit the passage of the elements of the anti-friction bearing between them and without dismounting the shaft sections.

2. The combination of an anti-friction bearing, thrust abutments therefor, and a shaft constructed in two sections and detachably secured together between the abutments, the two sections being located at a sufficient distance apart to permit the passage of the elements of the anti-friction bearing between them and without dismounting the shaft sections, together with an interposed member to fill the space between the shaft sections.

3. The combination of an anti-friction bearing, with a shaft constructed in two sections and detachably secured together, the two sections being located at a sufficient distance apart to permit the passage of the elements of the anti-friction bearing between them and without dismounting the shaft sections, one of the members of the anti-friction bearing being interposed between the shaft sections and filling the space therebetween.

4. The combination of a shaft constructed in two sections, an antifriction bearing including a thrust member, which member is mounted removably between said sections, and means for connecting said sections and thrust member detachably together in fixed relations; whereby by the removal of said thrust member, the other parts of the bearing may be removed without demounting the shaft sections.

1,131,650. SHIPPING-CAN. WILSON H. ALEXANDER, Philadelphia, Pa. Filed May 7, 1914. Serial No. 837,065. (Cl. 220—138.)



1. In a shipping can to inclose a liquid container, the can, a holder with flared sides on the interior wall of the can, and a cushion block having flared sides to fit the holder and provided with a groove extending along its back to permit compression of the block on removal from and insertion in the holder.

2. In a shipping can to inclose a liquid container, the can, a holder with flared sides on the interior wall of the can, and a cushion block having flared sides to fit the holder and provided with a groove extending along its

back to permit compression of the block on removal from and insertion in the holder, and said block having a grooved face to bear against the liquid container and also a beveled upper end to facilitate the movement of the container against the block when the container is inserted within the can.

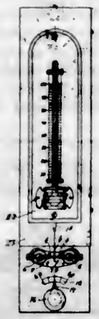
3. In a shipping can to inclose a liquid container, the can, a holder on the inner wall of the can, and an elongated cushion block seated in the holder to bear against the liquid container, said block having a groove extending the length of its face to form an extended divided contact face to bear against the liquid container.

4. In a shipping can to inclose a liquid container, the can, a socket on the interior wall of the can, a holder removably mounted in the socket, and a cushion block in the holder to bear against the liquid container to hold the latter in place.

5. In a shipping can to inclose a liquid container, the can, a flanged socket on the interior wall of the can, a holder with flared sides to fit the flanged socket removably mounted in said socket, and a cushion block having flared sides to fit the holder and provided with a groove extending along its back to permit the compression of the block to remove it from the holder, said block operating to bear against the liquid container to hold the latter in place.

[Claim 6 not printed in the Gazette.]

1,131,651. THERMOSTAT. GEORGE C. ANDREWS, Minneapolis, Minn. Filed Mar. 20, 1912. Serial No. 685,119. (Cl. 177—128.)



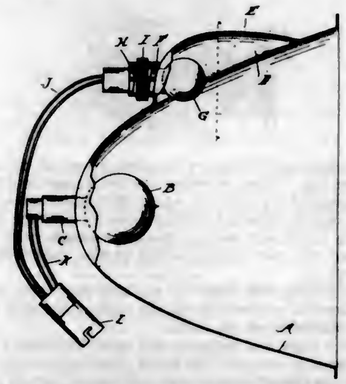
1. In a temperature regulator, a contact lever having knife edge contact lugs projecting from its opposite sides, seats for the said lugs formed on a relatively fixed part of said regulator, a thermally actuated controller for said lever having a link connected thereto on one side of its fulcrum lugs, and a spring connected to said lever on the opposite side of said fulcrum lugs, the said link and spring extending from said lever in the same direction and exerting a force on said lever holding the fulcrum lugs thereof seated irrespective of gravity.

2. In a temperature regulator, the combination with relatively fixed contacts and a coöperating intermediate relatively movable contact, of an upright lever carrying said movable contact and provided with knife edge fulcrum lugs seated in a relatively fixed part of said regulator, a thermally actuated expansible controlling element, a link connecting the latter to said lever close to but on one side of its fulcrum lugs, and a light coiled spring anchored at one end and connected at its other end to said lever on the other side of its fulcrum lugs.

3. In a temperature regulator, the combination with relatively fixed contacts and a coöperating intermediate thermally controlled contact, of a vibratory contact carrier adjustably supporting said relatively fixed contacts, an operating knob, and a link connecting an eccentric portion of said knob to said vibratory contact carrier for adjusting said relatively fixed contacts in respect to the intermediate contact.

4. In a temperature regulator, the combination with a base member, of relatively fixed contacts, a coöperating intermediate thermally actuated contact, an oscillatory contact carrier adjustably supporting said relatively fixed contacts, an operating knob, a crank disk having a stem passed through and rotatably seated in said base and frictionally driven into said knob, and a link having laterally bent ends pivotally connected to said contact carrier and to said crank disk.

1,131,652. LAMP. WILLIAM F. ANKLAM, Detroit, Mich., assignor to C. M. Hall Lamp Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 21, 1913. Serial No. 796,381. (Cl. 240—37.)



1. The combination with a main reflector and a lamp focusable in relation thereto, of an auxiliary lamp arranged in a niche in said reflector.

2. A parabolic lamp reflector having a niche or depression in a portion of its wall forming an auxiliary reflector, an auxiliary lamp in said niche, and a main lamp focusable in relation to said parabolic reflector.

3. A detachable lamp reflector, main and auxiliary electric lamp bulbs mounted on said reflector, electrical connections to said lamps, and a common socket attached to said connections and removable with the reflector.

4. A detachable lamp reflector of general parabolic form and provided with a niche or depression at one point in its wall, main and auxiliary lamps located respectively in focusable relation to the main reflector and in the niche therein, tubular lamp sockets for said lamps projecting rearwardly from said main reflector and niche, and a connector carried by and detachable with said reflector, including a common plug socket and branch connections therefrom to the respective lamps.

5. A lamp reflector, having its walls fashioned for the focusing of a main lamp, and having in one portion a niche or depression forming a reflector for an auxiliary lamp.

[Claims 6 and 7 not printed in the Gazette.]

1,131,653. PORTABLE MOLD FOR FENCE-POSTS. GEORGE ARMBRUSTER, Fairbury, Ill. Filed Jan. 24, 1914. Serial No. 814,119. (Cl. 25—118.)



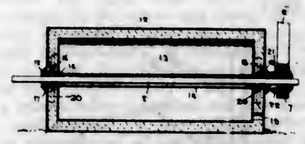
1. A molding apparatus comprising a supporting frame, molds removably seated in said frame, removable rods extending through one end of said frame and disposed to support flattened coil members removably engaged over said rods, holders inclosing said coil members and said rods, and laterally projecting arms carried by said holders engaging the tops of said molds.

2. A molding apparatus comprising a supporting frame, molds removably seated in said frame, a longitudinal running holder supported at each end from each of said molds, and rods removably positioned within said holders and engaged at one end through the adjacent end of said supporting frame to hold flattened coil members depending from said rod.

3. A molding apparatus comprising: end members detachably mounted to each other, side members detachably mounted upon said end members, detachable bracing members bracing said side members to said end members, right angular supporting means disposed on the inside of said end members, sectional molds supported by said supporting members, a longitudinal rod carried above the plane of each of said molds, one end of which is supported by one of said end members, and a longitudinal running holder having extensions thereto supported from each of said molds by means of said extensions, one end of which supporting said rod and said holders being of a contour to allow of a removable flattened coil member to be passed between said rod and said holder.

4. A molding apparatus comprising: a demountable frame, a right angular supporting member mounted on the inner face of each end of said frame, a plurality of sectional molds supported by said last mentioned members, a longitudinal running holder approximately semicircular in transverse section positioned above the plane of each of said molds, projections extending from each end of said holder over each of said molds and supporting said holder in position, a longitudinal running rod supported at one end in said demountable frame and in said holder, said rod adapted to support the coils of a coil member between said rod and said holder.

1,131,654. LAND-ROLLER. HOMER H. ARNETT, Osgood, Ohio. Filed Sept. 1, 1914. Serial No. 859,644. (Cl. 55—48.)



1. A roller comprising a shaft, a sleeve surrounding said shaft, boxings secured in the ends of said sleeve, an inner cylindrical drum surrounding said sleeve, an outer cylindrical drum surrounding said inner drum and in spaced relation thereto, a plastic filling between the inner and outer drums, and reinforcing elements embedded in said plastic filling and engaging said sleeve.

2. A land roller comprising a frame, a shaft carried thereby, a sleeve surrounding said shaft, boxings disposed in the ends of said sleeve, an inner drum surrounding said sleeve, an outer drum surrounding said inner drum and disposed in spaced relation thereto, securing means extending through said sleeve and boxings, the ends of said outer drum being bulged outwardly to accommodate said securing means, and a plastic filling between said inner and outer drums.

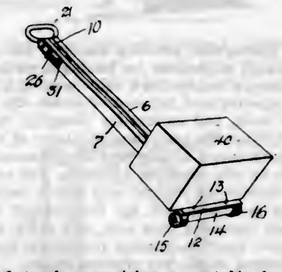
1,131,655. IGNITER. LOUIS V. ARONSON, Newark, N. J. Filed Dec. 2, 1913. Serial No. 804,175. (Cl. 67—7.1.)

1. An igniter comprising a pair of shells fitted into each other so as to form a closed receptacle, a spark producing alloy secured to the top of said receptacle, an absorbent material located within said receptacle, a wick projecting therefrom, a striker receiving element secured to and projecting within said receptacle, a lid for said receptacle, a striker secured to the inside of said lid and projecting beyond the edge thereof and adapted to be received by said striker receiving element when the receptacle is closed.

2. An igniter comprising a pair of shells fitted into each other so as to form a closed receptacle, a spark producing alloy secured to the toy of said receptacle, means for securing said alloy to said receptacle, said means comprising an open-ended channeled element provided with integral tongues designed to have holding engagement with the receptacle, an absorbent material located within said receptacle, a wick projecting therefrom, a lid adapted to engage with said receptacle, a spring frictionally secured in said lid, a bracket secured to one end of said spring and a removable striker carried by said bracket.



1,131,656. PORTABLE HAND-TRUCK. WILLIAM N. BLACK, Wilkinsburg, Pa. Filed Dec. 29, 1913. Serial No. 809,296. (Cl. 21—65.)



1. A hand truck comprising a portable body portion provided with stops at the lower part thereof, a longitudinally shiftable gripping member pivotally mounted in said body portion and capable of engaging the packing case for connecting it to said body portion a shaft rotatably mounted in said body portion, a flexible member secured to said shaft for shifting said gripping member longitudinally of the body portion and a drum carried by the shaft and body portion for winding said flexible member to shift the gripping member.

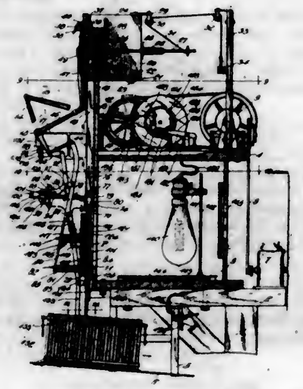
2. A hand truck comprising a portable body including a pair of spaced bars having grooves in their inner faces, a longitudinally shiftable gripping member provided with trunnions pivotally and slidably mounted in said grooves and capable of engaging a packing case for connecting it to said body, a shaft rotatably mounted in the upper end of said body portion, and a flexible member adapted to be wound on said shaft and connected to said gripping member for longitudinally shifting it.

1,131,657. POST-CARD-PRINTING MACHINE. HOSEA BLAIR, San Francisco, Cal., assignor of one-half to W. B. Grogan, San Francisco, Cal. Filed Feb. 26, 1914. Serial No. 821,235. (Cl. 95—73.)

1. In a photograph printing machine, the combination with a box having a light opening, a plate frame mounted thereover, a runway leading to the space forward of said frame, means for passing cards from the runway one at a time into said space, and means for clamping them momentarily with in the frame; of an electric bulk within said box, and means for illuminating the bulb only while a card is clamped in the frame.

2. In a photograph printing machine, the combination with a box having a light opening, a plate frame mounted over the opening, means for passing cards one at a time across the frame, and means for clamping them momentarily within the frame; of an electrric bulb within said

box, a circuit closer controlling the current thereto, a power shaft actuating said card-clamping means, and devices actuated by said power shaft to close the circuit closer and illuminate the bulb only while a card is clamped in the frame.



3. In a photograph printing machine, the combination with a runway, mechanism for feeding cards one at a time to the runway, a box having a light opening, a plate holder over said opening and forward of which the runway delivers the cards, and devices for clamping the cards one at a time against the plate in said holder; of a rock shaft, connections between it and said feed mechanism, means also driven by said shaft for advancing and retracting the clamping devices, an electric bulb within said box, a circuit closer in the circuit for illuminating the bulb, a power shaft connected with said rock shaft, and a sector on the power shaft for closing the circuit closer while a card is clamped within the printing frame.

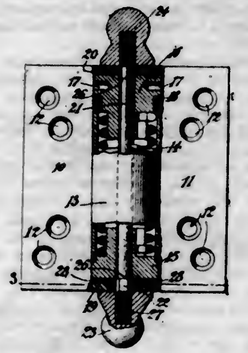
4. In a photograph printing machine, the combination with a magazine for containing a stack of cards, a runway leading downward therefrom, mechanism for feeding the cards one at a time from the magazine to the runway, a box having a light opening, a plate holder over said opening and forward of which the runway delivers the cards, and a pad for clamping the cards one at a time against the plate in said holder; of a rock shaft, connections between it and said feed mechanism, means also driven by said shaft for advancing and retracting the pad, an electric bulb within said box, a circuit closer in the circuit for illuminating the bulb, a power shaft connected with said rock shaft, and a sector on the power shaft for closing the circuit closer while a card is held within the printing frame.

5. In a photograph printing machine, the combination with the printing mechanism proper, means for feeding unprinted cards thereto one at a time, means for dropping the printed cards, an electric light, and a circuit closed in its feed wires; of a main shaft, a crank loose thereon and connected with said means, a sector carried by the crank for actuating said circuit closer, a normally oper clutch between the crank and shaft, and means for closing the clutch at intervals.

[Claims 6 to 22 not printed in the Gazette.]

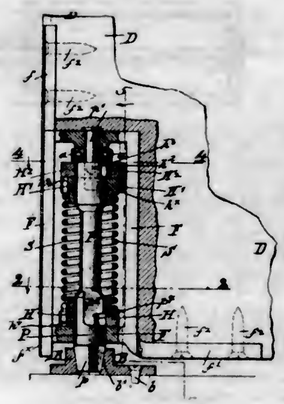
1,131,658. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed May 28, 1912, Serial No. 700,167. Renewed Jan. 16, 1915. Serial No. 2,722. (Cl. 16—25.)

1. In a spring-hinge, the combination of an ear having an opening with angular portions, a washer having an opening of a configuration substantially like that of the ear opening, and a threaded pintle having that portion engaging the openings of the ear and washer of substantially the same configuration as that of the openings of the ear and washer, and having its threaded portion of substantially the same configuration as that of the ear and washer openings, the ear and washer being locked to the engaging portion of the pintle, and the threaded end of the pintle permitting its insertion in the ear and washer.



2. In a spring-hinge, the combination of an ear having an opening of a hexagonal shape, a washer having an opening of hexagonal shape substantially like that of the opening in the ear, a threaded pintle having that portion engaging the openings of the ear and washer of hexagonal shape, and having its threaded portion of hexagonal shape, so as to permit the insertion of the pintle in the washer and ear, and a tip having an interior screw-thread engaged by the screw-threaded portion of the pintle.

1,131,659. SPRING-HINGE FOR DOORS. EMIL BOMMER, New York, N. Y. Filed Apr. 15, 1913, Serial No. 761,139. Renewed July 15, 1914. Serial No. 851,226. (Cl. 16—25.)



1. In a spring-hinge for doors, the combination of a non-rotatable pintle secured to the floor, an oblong hinge-frame attached to the door and journaled on said pintle, said pintle being provided with enlarged upper and lower ends having horizontal guide-grooves, a lower spring-holder on said pintle provided with an interior pin engaging the lower guide-groove, an upper spring-holder having radial holes, a coil-spring engaging said spring-holders, a tension-collar adjacent to the upper spring-holder provided with an interior pin engaging the upper guide-groove of the pintle, an exterior lug on the lower spring-holder and on the tension-collar, the lug of the latter being extended over the upper spring-holder, a tension-pin inserted into one of the holes of the upper spring-holder and abutting against the extension of the lug on the tension-collar, and cheeks on the inner wall of the hinge-frame adapted to engage either the lug on the lower spring-holder or the lug on the tension-collar according as the door is moved in one or the other direction.

2. In a spring-hinge, the combination with a non-rotatable pintle secured to the floor, an oblong hinge-frame attached to the door and journaled on said pintle, said pintle being provided with horizontal grooves and vertical guide-grooves connected therewith and with a socket in its upper end, an auxiliary pintle connecting the upper end of the pintle with the upper end of the hinge-frame, a lower spring-holder on the pintle provided with an inwardly-projecting pin for engaging the lower grooves of the main-pintle, an upper spring-holder, a coil-spring engaging said spring-holders, a tension-collar adjacent to the upper spring-holder provided with an inwardly-projecting pin for engaging the upper guide-grooves of the pintle, exterior lugs on the lower spring-holder and tension-collar, the lug of the tension-collar being provided with a downwardly-extending stop, and a tension-pin inserted into holes of the upper spring-holder and engaging the stop on the tension-collar, the auxiliary pintle being disconnectible from the upper portion of the hinge-frame and the upper end of the pintle, permitting the assembling of the spring-holders, coil-spring and tension-collar on the pintle.

3. In a spring-hinge for doors, the combination of a non-rotatable pintle, an oblong hinge-frame journaled on said pintle being provided with a socket in its upper end, a spring-holder at the lower end of the pintle, a spring-holder at the upper end of the pintle, a tension-collar above the upper spring-holder, a coil-spring engaging the lower and upper spring-holders, and an auxiliary pintle connecting the upper end of the hinge-frame with the socketed upper end of the pintle.

4. In a spring-hinge for doors, the combination of a non-rotatable pintle, an oblong hinge-frame journaled on said pintle, said pintle being provided with horizontal guide-grooves and said hinge-frame being provided with stop-cheeks at its upper and lower ends, a lower spring-holder, an upper spring-holder, a coil-spring connecting said spring-holders, a tension-collar above the upper spring-holder, interior pins on the lower spring-holder and tension-collar, exterior lugs on the same, the lug on the tension-collar extending over the upper spring-holder, a tension-pin in the upper spring-holder abutting against the extension-lug of the tension-collar, said horizontal guide-grooves extending in opposite directions toward the contact-faces of the exterior lugs.

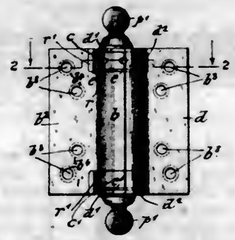
5. In a spring-hinge for doors, the combination of a non-rotatable pintle provided with horizontal guide-grooves, an oblong hinge-frame journaled on said pintle and the inner wall of which is provided with stop-cheeks at the upper and lower ends, a lower spring-holder, an upper spring-holder, a coil-spring connecting said spring-holders, a tension-collar above the upper spring-holder, an interior pin on the lower spring-holder and on the tension-collar, exterior lugs on the same, the lug of the tension-collar extending over the upper spring-holder, a tension-pin in the upper spring-holder abutting against the extension-lug of the tension collar, the lugs on the lower spring-holder and upper tension-collar being in the path of the lower or upper cheek of the hinge-frame when the door is opened in one or the other direction, the length of the horizontal grooves of the pintle determining the angular swing of the door.

[Claims 6 to 10 not printed in the Gazette.]

1,131,660. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Apr. 15, 1913, Serial No. 761,141. Renewed July 15, 1914. Serial No. 851,227. (Cl. 16—25.)

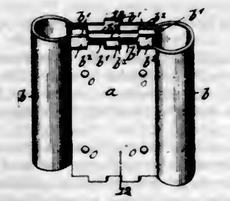
1. In a spring-hinge, a barrel provided with a leaf bent up in two layers integrally with the barrel, said layers having extensions, one extension having its edge adjacent to the barrel bent and clenched around the other extension at its edge adjacent the barrel.

2. In a spring-hinge, a barrel provided with a leaf consisting of two layers bent up integrally with the barrel, both layers being provided with extensions above and below the upper and lower edges of the barrel, the extensions of the first layer being wider than the extensions of the second layer for being bent and clenched over the second layer, and screw-holes in both layers, the screw-holes of the second layer being of smaller diameter



than the screw-holes of the first layer, the stock forming the difference in size of the screw-holes being upset into the screw-holes of said first layer in a direction opposite to the bent and clenched edges of the extensions of the first layer over the second layer, for rigidly connecting the layers together.

1,131,661. DOUBLE-ACTING SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Apr. 15, 1913, Serial No. 761,142. Renewed July 15, 1914. Serial No. 851,228. (Cl. 16—25.)



1. A multiple web for the barrels of a spring-hinge, in which the upper and lower edges of the layers are provided with intermeshing recesses and projections which engage each other by the bending over of the projections into the recesses at the edges of the layers.

2. A multiple web for the barrels of a double-acting spring-hinge, in which the upper and lower edges of the outermost layers are provided with recesses and bent over projections interlocking with each other and with a recess or recesses and projections of the intermediate layer or layers of the web upon the upper and lower ends of the web.

3. A multiple web for the barrels of double-acting spring-hinges, in which the upper and lower edges of the outer layers or plies of the web are provided with alternating recesses and bent over projections interlocked with each other flush with the projections of the intermediate layer or layers upon the upper and lower edges of the web.

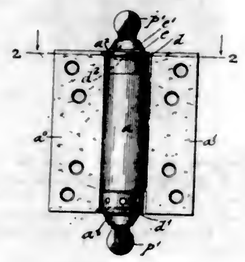
4. A multiple web for the barrels of a double-acting spring-hinge, in which the upper and lower edges of the outermost layers are provided with projections intermeshing with each other and with the projections and a recess or recesses of the intermediate layer or layers upon the upper and lower edges of the web, the recess or recesses of the intermediate layer or layers being of lesser height than the recesses between the projections on the outermost layers or plies.

5. A multiple web for the barrels of double-acting spring-hinges, in which the upper and lower edges of the outermost layers or plies of the web are provided with recesses and projections, said projections being bent over upon the recessed edges of the intermediate layer or layers or plies, and the intermediate layer or layers or plies

being provided with a recess or recesses for intermeshing with the bent-over projections of the outer layers, the bent-over projections of one outer layer abutting against the inner edge of the recess of the other outer layer and vice versa upon the upper and lower edges of the web.

[Claim 6 not printed in the Gazette.]

1,131,662. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Apr. 15, 1913, Serial No. 761,143. Renewed Jan. 6, 1915. Serial No. 868. (Cl. 16—25.)

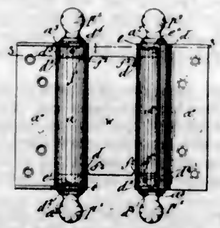


1. In a spring-hinge, the combination of a fixed spring-holder, a leaf, a pintle for the spring-holder and leaf, and a washer between the spring-holder and leaf, said washer being provided with a radial slot or channel to lubricate the surface between the washer and fixed spring-holder.

2. In a spring-hinge, the combination of a fixed spring-holder, a leaf, a pintle for the spring-holder and leaf, the spring-holder being provided with a depression or recess around the pintle for holding a lubricant, and means communicating with the depression or channel for supplying the lubricant in order to lubricate the surface of the fixed spring-holder.

3. In a spring-hinge, the combination of a spring-holder, a leaf, a pintle for the spring-holder and leaf, and a washer having a radial slot or channel, said spring-holder having a depression or recess around the pintle and in communication with the radial slot or channel of the washer.

1,131,663. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Mar. 16, 1914. Serial No. 825,039. (Cl. 16—25.)



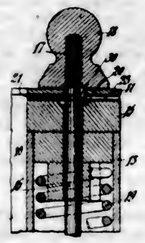
1. In a spring-hinge, the combination of a barrel, an adjustable spring-holder, and a bushing at the edge of the barrel adjacent to the adjustable spring-holder, said bushing being provided with a channel for supplying lubricating oil.

2. In a spring-hinge, the combination of a pintle, an adjustable spring-holder having a depression concentric with the pintle, a coil spring, and a non-rotatable bushing adjacent to the spring-holder, said bushing being provided with a radial depression or channel of right-angular cross-section for supplying lubricating oil to the contact surfaces between the bushing and spring-holder, and for lubricating the coil-spring.

3. In a spring-hinge, an improved bushing, comprising a vertical member with a channel and having an annular flange with a channel in continuation thereof.

4. In a spring-hinge, the combination of a bushing comprising a vertical member with a channel, and having a flange with a channel, and a barrel having a channel, the bushing being adapted to be non-rotatably seated in the barrel, and the channel of the vertical member of the bushing being in line with the channel of the barrel.

1,131,664. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Mar. 16, 1914, Serial No. 825,040. Renewed Jan. 16, 1915. Serial No. 2,723. (Cl. 16—25.)



1. In a spring-hinge, the combination of a spring-holder provided with a depression, a washer provided with a central perforation and a radial slot extending outwardly therefrom to the periphery of the washer, said slot communicating with the depression of the spring-holder, and a pintle having a lug, said lug extending into the radial slot of the washer.

2. In a spring-hinge, a spring-holder provided with a depression, a washer provided with a central perforation and a radial slot extending outwardly therefrom to the periphery of the washer, a hinge-leaf provided with an ear having a central perforation and an additional recess extending outwardly therefrom, and a pintle passing through the ear, the washer, and the spring-holder, and having a lug engaging the additional recess of the ear and the slot of the washer.

3. In a spring-hinge, the combination of a pintle provided with a lug forced out therefrom, forming an extension, a washer having a central perforation with a slot extending radially outward therefrom, the said slot having a slightly greater width than the width of the lug on the pintle, and an ear provided with a central perforation and having a recess extending outward therefrom for engaging the lug on the pintle.

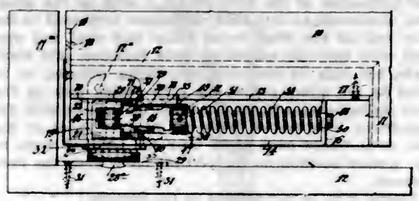
4. In a spring-hinge, the combination of an ear provided with a central perforation and a recess extending outward therefrom, a washer provided with a central perforation and a slot extending outward therefrom, of a pintle for said central perforation of the ear and washer, said pintle having a lug for said recess and said slot, the recess of said ear being located to retain the slot of the washer and lug of the pintle in predetermined position for the convenient injection of lubricating oil.

5. In a spring-hinge, the combination of a pintle having a lug forced out therefrom, a washer having a central perforation with a slot extending radially outward therefrom and an ear provided with a central perforation having a recess extending outward therefrom, the lug of the pintle, slot of the washer, and recess of the ear being loosely fitted for quickening the movement of the lubricant injected into the slot of the washer under the operation of the door.

[Claims 6 and 7 not printed in the Gazette.]

1,131,665. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed May 2, 1914. Serial No. 835,886. (Cl. 16—25.)

1. A spring-hinge, comprising spaced vertical rollers, a member for supporting the rollers, a bearing member contacting with the rollers, a channel in the upper part of the supporting member, adapted to guide a lubricant toward the upper part of the bearing member, and a channel on the bearing member adapted to guide the lubricant toward the lower part of said supporting member.



2. A spring-hinge, comprising spaced vertical rollers, a supporting member therefor, a bearing member contacting with the rollers, rollers on the bearing member having their periphery in proximity to the supporting member, means on the supporting member for guiding a lubricant to the upper part of the bearing member and to the roller uppermost thereon, said uppermost roller and supporting member being in proximity to each other when in one position, and means on the bearing member for guiding the lubricant to the lower part of the supporting member, the lowermost roller on the bearing member being in proximity to the lower part of the supporting member.

3. A spring-hinge, comprising a frame, a supporting member in said frame comprising a U-shaped member having horizontal flanges, spaced rollers supported by said flanges, a bearing member engaging said spaced rollers, a roller mounted on the upper side of the bearing member, and a roller mounted on the under side of the bearing member having their periphery in close proximity to the supporting member, guide-plates on the frame for guiding the rollers on the bearing member, means on the upper flange of the supporting member for conducting a lubricant to the edge in greatest proximity to the roller above the bearing member, means on the bearing member for guiding the lubricant to the spaced rollers, and means below the bearing member for guiding the lubricant from the spaced rollers to the lowermost guide-roller, the guide-rollers being adapted to be brought into close position to the flanges of the supporting member.

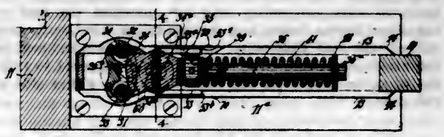
4. In a spring-hinge, a supporting member having flanges, the upper flange having an inclined surface for the purpose of conveying a lubricant, spaced rollers supported by said flanges, and a bearing member engaging said rollers having an inclined surface for the purpose of conveying the lubricant toward the rollers.

5. In a spring-hinge, spaced rollers a supporting member therefor, a frame for said supporting member, said supporting member having an inclined upper surface for the purpose of conveying a lubricant, a spring-actuated bearing member engaging said spaced rollers having an inclined upper surface for the purpose of conveying the lubricant, the inclination of the upper surface of the bearing member being in the direction of the supporting member and that of the supporting member being in the direction of the bearing member, and rollers on the bearing member having a united forward and backward movement therewith and adapted to approach the adjacent edge of the supporting member at one extreme limit of their movement sufficiently near to establish viscous cohesion and adhesion with the lubricant at the edge of the supporting member.

[Claims 6 to 10 not printed in the Gazette.]

1,131,666. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed May 2, 1914. Serial No. 835,887. (Cl. 16—25.)

1. A spring-hinge, comprising a fixed member, spaced rollers supported thereby, a transversely-fixed shaft, a bearing member movable transversely in respect to the fixed shaft and contacting with the spaced rollers, a fixed member having an opening, a spring-actuated rod extending from the bearing member and passing through the opening of the fixed member, and means for moving the bearing member transversely in respect to the shaft, while maintaining a transversely-fixed position of the fixed member, bearing-member shaft and fixed guide member.



2. A spring-hinge, comprising a fixed member having spaced rollers, a transversely-fixed shaft, a fixed guide member, a bearing member having an opening of larger size than the size of the fixed shaft and having a rod extending through the fixed guide member, and screw-threaded plugs for the bearing member and coöperating with the fixed shaft for adjusting the bearing-surface of the bearing member in relation to the spaced rollers when the hinge is not in operation.

3. A spring-hinge, comprising a frame, a U-shaped member for the frame, said U-shaped member having a shaft extending upwardly into the frame and having a shaft extending downwardly into the frame, spaced rollers supported by the U-shaped member, a bearing member coöperating with the spaced rollers, guide-rollers carried by the bearing member, guide-plates on the frame for guiding the guide-rollers of the bearing member, means for changing the position of the bearing member in respect to the spaced rollers, and means for maintaining in fixed transverse position the guide-rollers and one end of the bearing member.

4. A spring-hinge, comprising a frame, spaced rollers supported within said frame, a bearing member coacting with the spaced rollers, guide-plates arranged along the path of movement of the bearing member, and means for engaging the guide-plates and the bearing member for locking the bearing member in inoperative position.

5. A spring-hinge, comprising a frame, spaced rollers supported within said frame, a spring-actuated bearing member, guide-plates on the frame, guide-rollers on said bearing member adapted to slide in said guide-plates, said member being adapted to contact with both spaced rollers when the door is in its closed position and adapted to contact with only one of the rollers when the door is in its open position, the spring-actuated and guided bearing member when in the last-named position pressing on one of the rollers in a manner to prevent the independent change of position of the door to its first position.

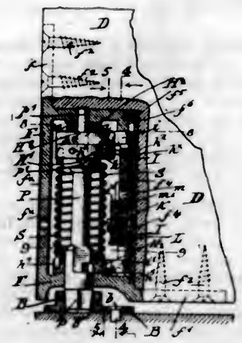
[Claims 6 to 15 not printed in the Gazette.]

1,131,667. SPRING-HINGE. EMIL BOMMER, New York, N. Y. Filed Apr. 15, 1913, Serial No. 761,140. Renewed Oct. 24, 1914. Serial No. 868,517. (Cl. 16—25.)

1. A spring-hinge, comprising a non-rotatable pintle secured to the floor and provided with horizontal grooves in its upper and lower portions, a hinge-frame attached to the door and journaled on said pintle, a lower spring-holder and an upper spring-holder on said pintle, a coil-spring engaging said spring-holders, a tension-collar adjacent to the upper spring-holder, the lower spring-holder and the tension-collar being provided with exterior lugs and with inwardly-projecting pins engaging the horizontal grooves of the pintle, a spring-actuated slide-plate guided on the inner wall of the hinge-frame and provided with lugs at its upper and lower ends, levers fulcrumed to said hinge-frame, and means between the levers and slide-plate adapted for raising the slide-plate with its lugs out of engagement or lowering them into engagement with the exterior lugs on the lower spring-holder and tension-collar.

2. A spring-hinge, comprising an oblong hinge-frame secured to the door, a floor-plate, a pintle non-rotatably socketed in said floor-plate and provided with horizontal recesses in its lower and upper portions, a lower spring-

holder and an upper spring-holder on said pintle, a coil-spring applied to said spring-holders, a tension-collar adjacent to the upper spring-holder, the lower spring-holder and the tension-collar being provided with exterior lugs and with inwardly-projecting pins, a spring-actuated slide-plate guided on the inner wall of said hinge-frame and provided with projecting lugs for engaging the lugs of the lower spring-holder and tension-collar, abutments connected with said slide-plate, operating levers fulcrumed on the hinge-frame below the abutments and adapted to raise the same together with the slide-plate from either side of the door.



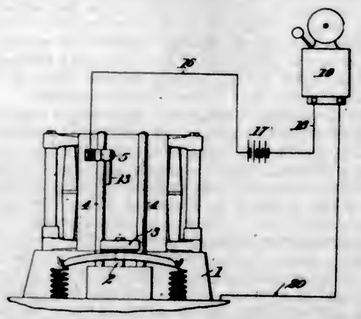
3. A spring-hinge, comprising an oblong hinge-frame adapted to be secured to the door, a floor-plate provided with a socket, a pintle non-rotatably secured to said floor-plate, a lower spring-holder and an upper spring-holder on said pintle, a coil-spring connected at its opposite ends with the spring-holders, a tension-collar adjacent to the upper spring-holder, said pintle being provided with vertical grooves at the upper and lower ends of the pintle and with horizontal grooves connected with the vertical grooves, inwardly-projecting pins on the lower spring-holder and tension-collar adapted to engage said horizontal grooves, exterior lugs having straight and inclined side-faces on the lower spring-holder and tension-collar, a slide-plate guided vertically in the inner wall of the hinge-frame and provided with inwardly-projecting lugs at its lower and upper ends, guide-cheeks on the inner wall of the hinge-frame alongside of said lugs, spring-actuated abutments connected with said slide-plate, and operating levers fulcrumed to the hinge-frame below said abutments and adapted to raise the same together with the slide-plate from either side of the door.

4. A spring-hinge, comprising an oblong frame adapted to be secured to the door, a socketed floor-plate, a pintle non-rotatably secured to said floor-plate, a lower spring-holder and an upper spring-holder on said pintle, the pintle being provided with lower and upper enlarged portions having vertical grooves and horizontal grooves connected therewith, a tension-collar adjacent to the upper spring-holder, exterior lugs on the lower spring-holder and the tension-collar, a coil-spring connected at opposite ends with the lower and upper spring-holders, inwardly-extending pins on the lower spring-holder and tension-collar projecting into said horizontal grooves, a spring-actuated slide-plate guided vertically in the inner wall of the frame, spring-actuated abutments guided on the inner wall of the hinge-frame and connected with said slide-plate, and operating levers fulcrumed below said abutments and provided with upwardly-extending heels adapted for raising the same together with the slide-plate from either side of the door.

5. In a spring-hinge, the combination of a non-rotatable pintle, a lower spring-holder having an exterior lug with a vertical and an inclined face, an upper spring-holder, a coil-spring connected thereto, a tension-collar adjacent to the upper spring-holder and provided with an exterior lug having a vertical and an inclined face, a hinge-frame journaled on said pintle, a spring-actuated slide-plate guided on the inner wall of said hinge-frame, said slide-plate having lugs at its upper and lower ends, one lug being located to the right and the other to the left of the vertical center-line of the hinge-frame, a stud on the slide-plate, abutments on said stud, and levers fulcrumed to the inner wall of the hinge-frame below said stud and provided with upwardly-extending heels engaging said abutments, the lugs on the slide-plate being adapted to be raised by the levers out of the path of the lugs on the lower spring-holder and tension-collar and swung with the hinge-frame into contact with the inclined faces of the same until forced back again over the inclined faces to their former position on the vertical faces when the door is closed.

[Claims 6 to 14 not printed in the Gazette.]

1,131,668. ATTACHMENT FOR SPEED-RECORDERS. CLYDE A. BOWDEN and JOSEPH F. GORDON, Garrett, Ind. Filed Mar. 30, 1914. Serial No. 828,366. (Cl. 177—10.)



1. In a device of the character described, in combination with a guide rod, a non-conducting clamp, arms extending from said clamp a fastening device passing through said arms for securing the clamp in its adjusted positions upon the guide rod, and a contact spring carried by the clamp and retained in position by said fastening device.

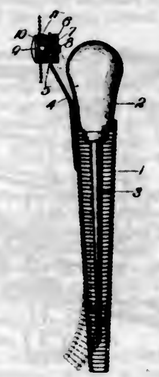
2. In a device of the character described, in combination with a guide rod, a non-conducting clamp having an opening therein for receiving the guide rod, spaced arms formed upon said clamp and provided with alining openings, a fastening device passing through said openings, one of said arms having a seat formed therein, a contact spring disposed within said seat and retained therein against displacement by the fastening device, locking means upon said fastening device, and a cap adjustable upon said fastening device.

3. In a device of the character described, in combination with a guide rod, a clamp formed of non-conducting material slidable upon said guide rod, said clamp having spaced arms extending therefrom, said arms having alining openings formed therein, a clamping screw passing through said openings, a seat formed upon one of said arms, a contact spring having a head disposed within said seat and retained therein by the clamping screw, a nut threaded upon said screw and engaging one of the clamping arms, and a cap threaded upon the screw and movable thereon to and from said nut, substantially as and for the purposes set forth.

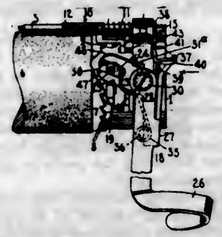
1,131,669. HOLSTER FOR ICE-PICKS. WALTER H. BREMER, Kansas City, Mo. Filed June 16, 1913. Serial No. 773,884. (Cl. 224—2.)

1. An ice pick holster comprising a single piece of spring wire arranged in a tapered spiral with the convolutions normally in contact throughout the length of the body, and means on the larger end of said body for supporting the same.

2. An ice-pick holster comprising a spiraled body of spring wire, a hanger having an aperture therein, an attaching screw, and a nut having a bushing projecting loosely through the apertured hanger, for the purpose set forth.



1,131,670. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 22, 1913. Serial No. 786,107. (Cl. 197—114.)



1. In a typewriting machine, the combination of a carriage, a rotative platen, a line spacing wheel, a combined rigidly united pawl and carrier mounted for rotative movement and for bodily axial movement longitudinally of the platen, and a hand lever operative to control the movement of the combined pawl and carrier axially into engagement with the line spacing wheel and to rotate the combined pawl and carrier after such engagement has been effected, the rotative movement of the combined pawl and carrier being effected directly by said hand lever.

2. In a typewriting machine, the combination of a carriage, a rotative platen, a line spacing wheel, a combined rigidly united pawl and carrier mounted on the platen shaft for movement around the axis thereof and for movement longitudinally of the shaft into and out of engagement with the line spacing wheel, and a hand lever cooperative with said combined pawl and carrier to control the movement thereof longitudinally of the platen shaft and to effect the movement of said pawl and carrier around said shaft.

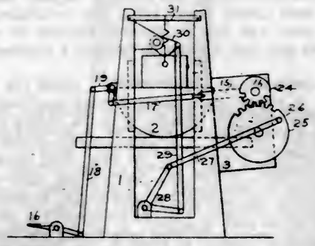
3. In a typewriting machine, the combination of a carriage, a rotative platen, a line spacing wheel, a combined rigidly united pawl and carrier mounted on the platen shaft for movement around the axis thereof and for movement longitudinally of the shaft into and out of engagement with the line spacing wheel, said combined pawl and carrier being in the nature of a lever of the first order, and a hand lever coöperative with one arm of the lever-like combined pawl and carrier.

4. In a typewriting machine, the combination of a carriage, a rotative platen, a line spacing wheel, a combined rigidly united pawl and carrier mounted on the platen shaft for movement around the axis thereof and for movement longitudinally of the shaft into and out of engagement with the line spacing wheel, a hand lever coöperative with said combined pawl and carrier to control its movement longitudinally of the platen shaft and around the axis of said shaft, and a spring coöperative with said combined pawl and carrier and which moves the same into engagement with the line spacing wheel.

5. In a typewriting machine, the combination of a carriage, a rotative platen, a line spacing wheel, a combined pawl and carrier mounted on the platen shaft for movement around the axis thereof and for movement longitudinally of the shaft into and out of engagement with the line spacing wheel, a hand lever coöperative with said combined pawl and carrier to control its movement longitudinally of the platen shaft and around the axis of said shaft, a spring coöperative directly with said combined pawl and carrier and which tends to force it toward the line spacing wheel, and a means for arresting the combined pawl and carrier in its return to normal position.

[Claims 6 to 37 not printed in the Gazette.]

1,131,671. STOP MECHANISM. CHARLES L. BRINK, Lansing, Mich. Filed Sept. 23, 1912. Serial No. 721,928. (Cl. 74—46.)



1. In a device of the class described, the combination of a shaft mounted for rotation, a clutch comprising a member adapted to revolve independently of the shaft, and a second member slidably mounted on the shaft for rotation therewith, said second clutch member being provided with a cam at one side thereof and with a portion extending transversely thereof, means for transmitting motion to the first mentioned member of the clutch, means for bringing the clutch members into engagement with each other, a pin movable into and out of engagement with the movable clutch member, said pin being adapted to cooperate with the cam to move the sliding clutch member out of engagement with the other clutch member, said pin being also adapted to engage the said transverse portion of the movable clutch member to limit the rotary movement of the shaft.

2. In a device of the class described, the combination of a shaft mounted for rotation, a gear fixed on the shaft for rotation therewith, and provided with a crank pin, a drive pulley and pinion connected together and sleeved for rotation on said shaft, a ratchet mechanism associated with said shaft to prevent rotation thereof in one direction, a second shaft arranged parallel with the first shaft, a pinion fixed on said shaft and engaging with said first mentioned gear and having a predetermined ratio thereto, a clutch on the second shaft, one member of the clutch being loosely mounted on the shaft and having a pinion connected thereto and in engagement with the pinion of the first shaft, the other member of the clutch being feathered on the shaft, means operatively connected with the crank pin to transmit reciprocatory motion, means for bringing said clutch members into engagement, and means acting automatically for disengaging said clutch members after a single revolution.

3. In combination, a gear having a crank pin mounted thereon; a pinion engaging with said gear and having a predetermined ratio thereto; a clutch having one mem-

ber revolubly mounted on the shaft of said pinion and the second slidably mounted on the said shaft so as to revolve therewith; means for transmitting motion to the first member of said clutch; a mechanically operated pin acting on the second member of said clutch to prevent engagement of said members; a spring acting on said second member tending to force it into engagement with said first member, and automatically operated means comprising a cam mounted on said second member and adapted to engage with said pin, so as to separate said clutch members after a single revolution, and a second pin adapted to engage with said mechanically operated pin to stop the revolution of said pinion shaft after one revolution.

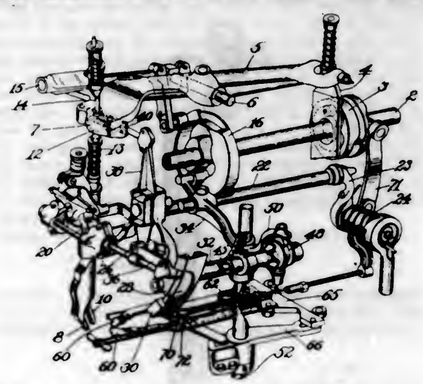
4. In combination, a gear having a crank pin mounted thereon; a pinion engaging with said gear and having a predetermined ratio thereto; a clutch having one member revolubly mounted on the shaft of said pinion and the second slidably mounted on the said shaft so as to revolve therewith; means for transmitting motion to the revoluble member of said clutch; a mechanically operated pin acting on the second member of said clutch to prevent engagement of said members; a spring acting on said second member tending to force it into engagement with said first member; automatically operated means comprising a cam mounted on said second member and adapted to engage with said pin, so as to separate said clutch members after a single revolution; a second pin adapted to engage with said mechanically operated pin to stop the revolution of said pinion shaft after one revolution, and a ratchet wheel and dog in operative relation to said first mentioned gear and adapted to prevent a reversed motion thereof.

5. In combination, a gear having a crank pin mounted thereon; a pinion engaging with said gear and having a predetermined ratio thereto; a clutch having one member revolubly mounted on the shaft of said pinion and the second slidably mounted on the said shaft so as to revolve therewith; means for transmitting motion to the first member of said clutch; a mechanically operated pin acting on the slidable member of said clutch to prevent engagement of said members; a spring acting on said second member tending to force it into engagement with said first member; automatically operated means comprising a cam mounted on said second member and adapted to engage with said pin, so as to separate said clutch members after a single revolution; a second pin adapted to engage with said mechanically operated pin to stop the revolution of said pinion shaft after one revolution; a ratchet wheel and dog in operative relation to said first mentioned gear and adapted to prevent a reversed motion thereof, and means operatively connected to said crank pin adapted to transmit reciprocating motion.

1,131,672. LASTING-MACHINE. WILLIAM J. BRISCOE, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 21, 1908. Serial No. 468,576. (Cl. 12—2.)

1. A lasting machine having, in combination, grippers and means for actuating them to pull an upper over a last, means for giving said grippers at times plaiting movements, wiper, actuating mechanism therefor, controlling means for the plaiting movements of the grippers, and means which is always independent in its operation from said plaiter controlling means and can be manipulated to set the wiper into or out of an operative position and to connect the wiper actuating mechanism with or disconnect it from the wiper.

2. In a lasting machine the combination with grippers of an actuator for turning the grippers to plait the upper, a wiper, an independent actuator for the wiper and continuously independent shiftable means for rendering either of said actuators operative or inoperative, one comprising a knee lever and suitable connections therefrom to one of said actuators and the other comprising a manually controlled device having an operating member located adjacent to the wiper and operatively connected with the wiper actuator whereby either the plaiting mechanism or the wiping mechanism may be independently rendered continuously operative or inoperative.



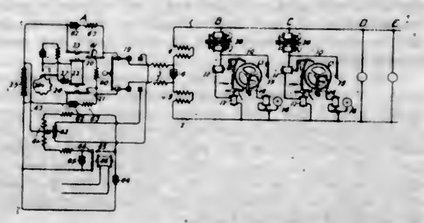
3. A lasting machine having, in combination, grippers and means for actuating them to pull an upper over a last, additional means for causing the grippers to plait the upper, means for controlling the plaiting movement, wipers, springs holding the wipers normally in a retracted position, a cam against which the springs hold the wipers and which is movable to advance the wipers, and means for shifting the cam to control the position of the wipers, said means having an operating member extending to the front of the machine and into convenient reach of the workman standing in position to present the shoe to the grippers.

4. A lasting machine having, in combination, grippers and means for actuating them to pull an upper, additional means for causing the grippers to plait the upper, and means for starting and varying the extent of the plaiting movements having provision for securing the parts in position against displacement under normal conditions but adapted to be overcome by voluntary effort of the operator for adjusting the parts to give different extents of plaiting movement.

5. In a shoe lasting machine the combination with grippers and mechanism adapted to be rendered operative or inoperative to impart plaiting movements to the grippers, a wiper and mechanism independent of the plaiting mechanism adapted to be rendered operative or inoperative to actuate the wiper, means arranged for actuation by the hand of the workman while he continues to present the shoe in operative relation to the grippers and wiper for continuously controlling the wiper, and means normally independent of said first mentioned means for controlling the operation of the grippers.

[Claims 6 to 9 not printed in the Gazette.]

1,131,673. SIGNALING SYSTEM FOR TRAIN-DESPATCHING. GREGORY BROWN, Brooklyn, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Mar. 31, 1911. Serial No. 618,166. (Cl. 179—4.)



1. In a signaling system in combination, a telephone line, a polarized signaling device in bridge of said line, a source of direct current, inductive means for connecting said source of current with said line wires, a telegraph line, and means controlled by impulses over said telegraph line for interrupting the primary circuit of said inductive means.

2. In a signaling system in combination, a telephone line, a polarized signaling device in bridge of said line, a source of direct current, an induction coil having its primary connected with said current supplying means and its secondary with said line wires, a telegraph line, and means controlled by impulses over said telegraph line for successively reversing the current flow through said primary winding.

3. In a signaling system the combination with a telephone line, a polarized signaling device in bridge of said line, current supplying means, an inductive device, the primary of said inductive device being divided into two parts and the secondary thereof connected with said line wires, a telegraph line and means actuated by impulses over said telegraph line for successively connecting the two parts of said inductive device primary with said current supplying means.

4. In a signaling system in combination, a telephone line, a polarized signaling device in bridge of said line, current supplying means, an induction coil having a divided primary, the secondary thereof being connected with said line wires, a telegraph line and a relay in said telegraph line having a front and back contact through which the two parts of said primary winding are separately connected with said source of energy in response to impulses impressed upon said telegraph line.

1,131,674. GARMENT. WILLIAM MORTON BUCKLEY, Winnipeg, Manitoba, Canada. Filed June 18, 1912. Serial No. 704,277. (Cl. 2—118.)



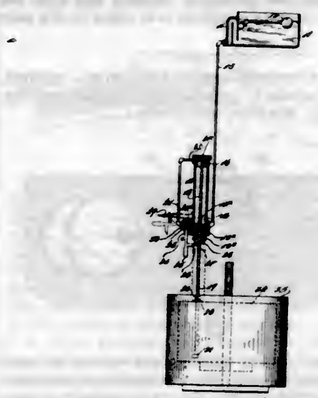
In a garment, an adjustable sailor collar having a plurality of button holes extending half across the same and adjacent to the back edge thereof, a plurality of buttons on the under side of the opposite half of the collar and adjacent to the back edge thereof, a plurality of button holes in one of the front edges of the collar adjacent to the neck band, a plurality of buttons on the other front edge of the collar adjacent to the neck band and on the under side thereof, the said collar being adapted to be closed up to the throat when the last said buttons and button-holes are in engagement and being designed to form a hood when the first said button and button-holes are also engaged, substantially as described.

1,131,675. APPARATUS FOR TREATING MATERIALS WITH LIQUIDS. RAYMOND U. BUNKER, Yonkers, N. Y. Filed Dec. 8, 1913. Serial No. 805,371. (Cl. 127—8.)

1. In an apparatus for treating materials with liquids, when such materials are being spun in a centrifugal, the combination of means for supplying the liquid from a suitable source, means for applying the same to the face of the material which is being spun, in a direction normal to the said face and means for utilizing hydraulic power of the liquid used for treating material to discontinue the treatment.

2. In an apparatus for treating materials with liquids, the combination of a source of liquid supply, a pressure chamber connected therewith, for receiving liquid therefrom, a discharge nozzle mounted for movement by the liquid in said pressure chamber in one direction, and means for connecting said pressure chamber with said source of supply and the latter with said nozzle, in such way that said nozzle may move in opposite direction.

3. In an apparatus for treating materials with liquids, the combination of a source of liquid supply, a pressure chamber connected therewith, for receiving liquid therefrom, a discharge nozzle mounted for movement by the liquid in said pressure chamber in one direction, means for connecting said pressure chamber with said source of supply and the latter with said nozzle, in such way that said nozzle may move in opposite direction, and a centrifugal machine out of and into which said nozzle is thereby movable

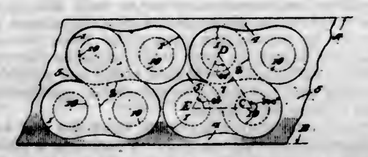


4. In an apparatus for treating materials with liquids, the combination of a source of liquid supply, a pressure chamber connected therewith, for receiving liquid therefrom, a discharge nozzle mounted for movement by the liquid in said pressure chamber in one direction, and valve-controlled liquid-shunting means for substantially establishing a hydrostatic balance in said pressure chamber, so that said nozzle may move in opposite direction.

5. In an apparatus for treating materials with liquids, the combination of a source of liquid supply, a pressure chamber connected therewith and located thereunder for receiving liquid therefrom, a discharge nozzle mounted for movement by the liquid in said pressure chamber in upward direction, and means for connecting said pressure chamber with said source of supply and the latter with said nozzle, in such way that said nozzle may move in downward direction.

[Claims 6 to 14 not printed in the Gazette.]

1,131,676. PROCESS OF FORMING BOTTLE-CAPS. HORACE M. CAKE, Washington, D. C. Filed Oct. 22, 1910. Serial No. 588,499. (Cl. 113—116.)



1. The method of manufacturing a cap which consists in gripping the stock over portions to be severed as blanks; then cutting a series of adjacent blanks upon contiguous lines; then cupping and crimping the edges of said blanks by compression; and then removing said blanks from the compression devices, the portion of stock forming the blank being gripped prior to the cutting of the blank, during the forming of the blank, and until the blank is released from the forming devices.

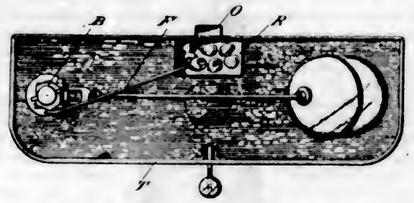
2. The method of making a bottle cap which consists in gripping the stock over portions of the metal which is adapted to form the crown of the cap; then cutting a group of adjacent blanks upon contiguous lines; and then

compressing the free edges of the blanks to cup and crimp the same.

3. The method of making a bottle cap which consists in cutting a blank, gripping substantially the central portion of said blank and leaving the edges free, then compressing the edges around a forming member to cup and grip said edges.

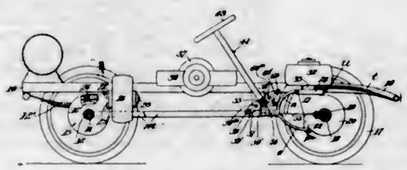
4. The method of making a bottle cap which consists in cutting a blank, gripping substantially the central portion of said blank prior to its being entirely severed from the surrounding metal, then passing a forming tool over the free edges of the blank to compress said edges to cup said blank.

1,131,677. DISINFECTOR FOR FLUSHING-TANKS. WILLIAM B. CAMPBELL, Gadsden, Ala. Filed Jan. 23, 1914. Serial No. 813,932. (Cl. 4—30.)



The combination with a flushing-tank having an overflow located outside thereof, and a disinfectant-receptacle located within the tank at the upper end thereof, and discharging into the overflow, of an after-fill tube which discharges directly into the disinfectant-receptacle.

1,131,678. MOTOR-VEHICLE. ARTHUR COLEMAN, Carmen, Okla. Filed Sept. 23, 1913. Serial No. 791,416. (Cl. 21—90.)



1. In a motor vehicle, a chassis, front and rear axles, a differential mechanism connected to each axle, a casing for each differential mechanism, a motor connected directly to and supported solely by each casing, and means to drive said motors.

2. In a motor vehicle, a chassis, front and rear axles, a differential mechanism connected to each axle, a casing for each differential mechanism, a motor connected to and supported by each casing, each motor being free of the chassis and having its drive shaft extending through the respective differential mechanism casing and coöperatively connecting with the respective differential mechanism, and means to drive said motors.

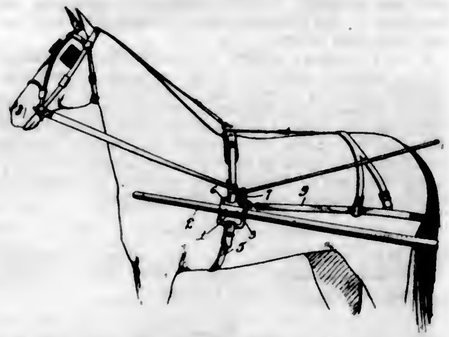
3. In a motor vehicle, a chassis, front and rear axles, a differential mechanism connected to each axle, a casing for each differential mechanism, each casing having a hollow lug provided with an annular flange, a motor connected to said flange of each casing and thereby supported within the chassis, each motor having its drive shaft extending through the hollow lug of the respective casing and operatively connected to the respective differential mechanism, and means for driving said motors.

4. In a motor vehicle, a chassis, front and rear axles, a differential mechanism connected to each axle, a casing for the front differential mechanism which has a hollow lug provided with an annular flange, a fifth wheel interposed between the differential mechanism casing of the front axle and the body of the vehicle, the aforesaid flange of the hollow lug of the front casing forming part of said fifth wheel, a reach bar having connection with the rear axle and at its front end having connection with the fifth wheel and with the front differential mechanism casing, and means for driving the differential mechanisms.

5. In a motor vehicle, a chassis, front and rear axles, a differential mechanism connected to each axle, a casing for each differential mechanism, a motor connected to and supported solely by each casing, an electric generator having electrical connection with said motors to drive the same, an engine to drive and operate the electric generator, and a controlling means whereby the electric motors may be operated separately or together.

[Claims 6 to 8 not printed in the Gazette.]

1,131,679. THILL-TUG. GEORGE W. COOK, Neosho Rapids, Kans. Filed Mar. 17, 1914. Serial No. 825,383. (Cl. 21—27.)



1. As a means for attaching portions of a harness to a vehicle shaft, a sleeve-like device adapted to be mounted on a shaft and having an upstanding loop, and a second upstanding loop transversely and symmetrically disposed with respect to the first-named loop and divided thereby to form two loop openings, substantially as described.

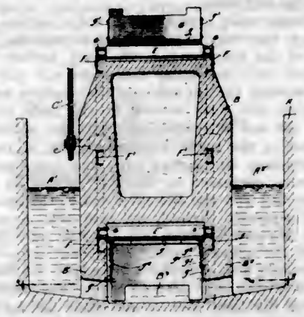
2. As a means for attaching portions of a harness to a vehicle shaft, the combination of a sleeve like device adapted to be mounted on the shaft, diametrically opposed longitudinal loops formed on said device, a transverse loop symmetrically disposed with respect to one of first said loops and divided thereby to form a pair of loop openings, and means carried by the last said longitudinal loop for threading a rein therethrough substantially as described.

3. As a means for attaching portions of a harness to the shaft of a vehicle, a device for attachment to the shaft of a vehicle and provided with a loop portion for attachment to the backstrap, a loop portion for attachment to the bellyband, a loop portion for attachment to the holdback strap, and a rein ring in one of said loop portions for holding the reins against upward movement, substantially as described.

4. In a shaft device, a sleeve having oppositely projecting portions, one for the back-band and one for the bellyband and a third attaching portion projecting from the sleeve for attachment to the holdback and connected with one of said first-named portions whereby one will support the other against stress or draft pull or back pull, and means carried by one of said portions for threading a rein therethrough, substantially as described.

1,131,680. CURRENT-MOTOR. CLARENCE C. COOKE, Howard, Pa., assignor of forty-nine one-hundredths to A. C. Leathers, Howard, Pa. Filed Mar. 31, 1914. Serial No. 828,542. (Cl. 170—89.)

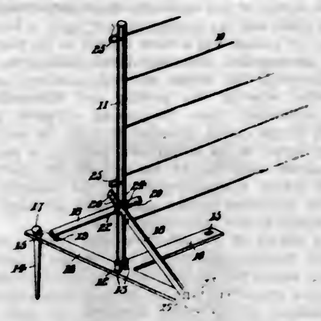
1. In a current motor of the character described, the combination of a main sluice way, a support extending through the main sluice way and spaced from the sides thereof to form side sluices and having lower walls spaced from one another to form a central sluice between them, the lower portions of the said walls of the support having series of openings extending obliquely therethrough and communicating between the side sluices and the sluice between the walls, sprocket wheels journaled in the ends of the support, and an endless chain extending around the sprocket wheels, said chain carrying a plurality of wings or blades and having its lower run extending and operating through the central sluice between the lower side walls of the support, all for the purpose described.



2. In a current motor of the character described, the combination of an endless chain having extending wings or blades, sprocket wheels for the chain, a support for the said sprocket wheels and around which the chain travels, and a sluice way in which the support is mounted, the said support comprising lower walls upon the opposite sides of the lower run of the chain and forming between them the main sluice in which the chain travels, said walls having series of openings extending obliquely therethrough whereby to deliver independent jets of water against each of the wings or blades of the lower run of the chain, all for the purpose described.

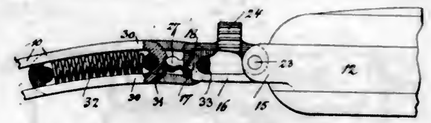
3. In a current motor of the character described, the combination of a support, an endless chain mounted to travel therein, a wing or blade pivoted at its inner end to each of the links of the chain, an angular connection between each wing or blade and its respectve chain link, said connection including a plurality of links, and an arm pivotally connected at one end to the intermediate link and similarly connected at its opposite end to the wing or blade adjacent the inner end of the latter, all for the purpose described.

1,131,681. PORTABLE FENCE. JOHN DEMAREE, Stevens Point, Wis. Filed Nov. 30, 1914. Serial No. 874,712. (Cl. 189—31.3.)



An article of manufacture comprising a T-shaped base, spaced lugs centrally mounted thereon, a post having its lower end pivoted between the said lugs, a bar transversely secured to the said post and having projecting opposite ends, opposite edge positioned lugs upon said base, struts pivoted to said edge positioned lugs and extending at opposite sides of the said post and having notches adjacent their free ends adapted for adjusted engagement with the projecting ends of said bar, locking devices for said struts secured to said bar and retaining means for the said base.

1,131,682. LOCKING DEVICE FOR WATCH-BRACELETS. CHARLES L. DEPOLLIER, New York, N. Y. Filed Apr. 9, 1912. Serial No. 689,637. (Cl. 24—232.)



1. In a bracelet, the combination of a fixed hook-shaped part integral therewith, a pivoted hook-shaped overlapping part having a handle which is adapted to be moved into a position within the contour of the bracelet and in engagement with a link thereof, said fixed and pivoted hook-shaped parts having a projection and a recess respectively at their overlapping portions adapted to lock into each other, said recess extending into only a part of the width of said pivoted member.

2. In a bracelet, the combination of a part having a projection, a movable part having a recess adapted to be engaged and disengaged from said projection, and having a second projection, a spring-actuated link having a recess adapted to be engaged by said second projection, said spring-actuated link being pressed against said second projection by said spring when said movable part is locked, said second projection engaging with said recess of said link when said movable part is locked.

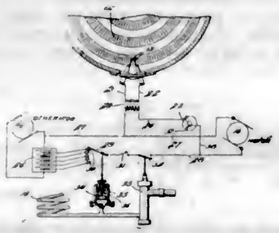
3. In a link watch-bracelet, a holder adapted to carry a watch, and permanently attached at one end to one of the links of said bracelet, said links having cross-bars, the opposite end of said holder having a locking-device for engaging the cross bar of the link of the bracelet adjacent thereto, said locking-device comprising a fixed hook attached to said holder, and the end of said hook having a projection away from said holder, the plane of said book being perpendicular to the plane of the holder of said bracelet, and a pivoted locking-member pivoted near said holder, and adapted to swing in a plane perpendicular to that of the holder, said pivoted locking-member having a recess adapted to be entered by and engaged by the said projection on the said fixed part, said pivoted locking-member having a handle extending away from said holder, the link adjacent said handle having a recess adapted to engage the head of said handle, and a spring for continually urging said adjacent link against said handle, the curve of the hook of said fixed member connected to said holder, providing a seat for the cross-bar of the adjacent link of the bracelet.

1,131,683. AUTOMATIC FUEL-CONTROL SYSTEM FOR BOILERS. JOHN A. DOBLE, Waltham, Mass. Filed Jan. 28, 1914. Serial No. 815,060. (Cl. 236—4.)

1. In an automatic fuel regulating system, the combination of means adapted to receive a heat-absorbing medium, a burner associated therewith, means for forming a combustible mixture, pressure-creating means for forcing the mixture to the burner, a sparking mechanism associated with the burner, a source of electricity, a motor supplied from said source and operating said mechanism and said pressure-creating means, and means, responsive to changes in conditions in the heat-absorbing medium, for controlling said motor.

2. In an automatic fuel regulating system, the combination of means adapted to receive a heat-absorbing medium, a burner associated therewith, means for forming a combustible mixture, pressure-creating means for forcing the mixture to the burner, a sparking mechanism asso-

ciated with the burner, a source of electricity, a motor supplied from said source and operating said mechanism and said pressure-creating means, means, responsive to pressure changes in the heat-absorbing medium, for varying the speed of said motor, and means, responsive to changes in temperature of the heat-absorbing medium, for stopping and starting the motor.



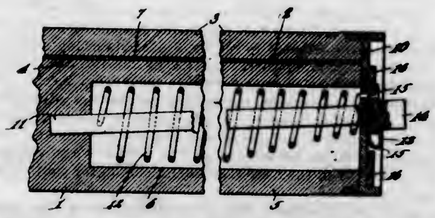
3. In an automatic fuel regulating system, the combination of means adapted to receive a heat-absorbing medium, a burner associated therewith, means for forming a combustible mixture, pressure-creating means for forcing the mixture to the burner, a sparking mechanism associated with the burner, a source of electricity, a motor supplied from said source and operating said mechanism and said pressure-creating means, means, responsive to the excess of pressure of the heat-absorbing medium above a predetermined pressure, for reducing the speed of said motor as the excess increases, and independent means, responsive to a predetermined temperature of the heat-absorbing medium, for stopping the motor.

4. In an automatic fuel regulating system, the combination of means adapted to receive a heat-absorbing medium, a burner associated therewith, means for forming a combustible mixture, pressure-creating means for forcing the mixture to the burner, a sparking mechanism associated with the burner, a source of electricity, a motor supplied from said source and operating said mechanism and said pressure-creating means, a switch adapted to be moved to vary the voltage at said motor, a cylinder having a piston therein, said piston being subjected on one side to the pressure of said medium and being operatively connected with said switch, means for moving said piston in opposition to the pressure thereof, a switch for stopping and starting the motor, and a thermostat operatively connected with said last-mentioned switch and actuated in response to the temperature of said medium.

5. In combination, a burner, a spark plug associated with the burner, a spark coil connected with the spark plug, an interrupter connected with the spark coil, a motor and means operated thereby for supplying fuel to said burner, and driving connections between said motor and said interrupter.

[Claim 6 not printed in the Gazette.]

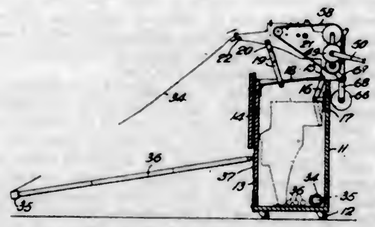
1,131,684. SHADE-ROLLER. JOSEPH O. DOBSON, Mount Vernon, Iowa. Filed June 8, 1914. Serial No. 843,793. (Cl. 156—25.)



1. A shade roller comprising a body portion having a flat side, a segmental cleat section coöperating with the flat side of the body portion, the body portion having a longitudinal bore extending from one end and disposed between the flat side and the opposite side, means for securing the cleat section to the body portion for clamping one end of a shade therebetween, a disk secured to the said end of the roller over the mouth of the bore, a spindle disposed within the said bore, the inner end of the spindle being journaled to the body portion at the inner end of the said bore and concentrically with the said bore, and the outer end of the spindle being journaled to the said disk concentrically of the roller, and a coiled spring surrounding the spindle, the inner end of the spring being secured to the spindle and the outer end of the spring being secured to the said disk.

2. A shade roller comprising a body portion having a flat side, a segmental cleat section coöperating with the flat side of the body portion, the body portion having a longitudinal bore extending from one end and disposed midway between the flat side and the opposite side, means for securing the cleat section to the body portion for clamping one end of a shade therebetween, a disk secured to one end of the roller over the mouth of the bore, a spindle disposed within the bore, the inner end of the spindle being journaled to the body portion at the inner end of the said bore and the outer end of the spindle being journaled centrally through the said disk, a spring connected at one end to the spindle and at its other end to the roller, the spindle having a notched collar upon the exterior of said disk, and pawls pivoted to the disk and coöperable with the said notched collar, the pawls and the flat side of the body portion and cleat section being arranged to prevent the roller being locked when the shade is completely unwound, as set forth.

1,131,685. WALL-PAPER PASTING AND TRIMMING APPARATUS. WILLIAM J. DUNN and HENRY B. TAYLOR, Montreal, Quebec, Canada. Filed Jan. 28, 1913. Serial No. 744,670. (Cl. 91—14.)



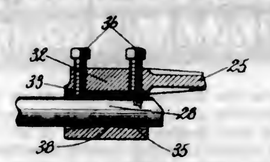
1. In a device of the character described, a casing, a paper pasting and trimming device within said casing flexibly connected thereto, means for supporting the pasting and trimming device above the casing, a paper supporting apron, and tensioning means for said apron extending between the free end thereof and the casing.

2. In a device of the character described, a casing having three sides and the bottom thereof rigid, a fourth side hinged to the bottom and a cover hinged to the fourth side, a paper pasting and trimming device within the casing, links supporting the casing with the pasting and trimming device whereby the pasting and trimming device may be withdrawn from the casing, supports pivotally connected to the casing arranged to hold the pasting and trimming device in its withdrawn position, a paper supporting apron securable at one end to the pasting and trimming device, and a support for the opposite end of said apron connected to the casing and arranged to tension the apron by the force of gravity.

3. In a device of the character described, a casing, a framework flexibly connected to the casing, a paper pasting means, means for feeding the paper through said pasting means, a scraper having an inclined edge engaging the pasted surface of the paper adjacent its edges, and a trough carried by the scraper under said scraping edge arranged to receive paste removed from the paper edges and return it to the pasting device.

4. In a device of the character described, a casing, a paper pasting and trimming device flexibly connected to said casing, a plurality of paper feeding rolls mounted in said pasting and trimming device, each of said rolls having a pivot at one end and a recess at the opposite end, a split pin slidably mounted in the pasting and trimming device insertible in said recess, a pin carried by the pasting and trimming device traversing the split of said first pin in transverse direction, and means for clamping the split pin around said second pin to hold the split pin rigidly.

1,131,686. CLICKING-MACHINE. HARRISON H. EATON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 16, 1914. Serial No. 851,353. (Cl. 164—23.)

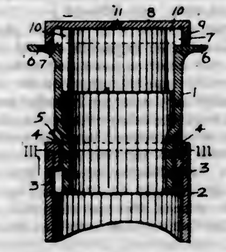


1. In a clicking machine, the combination with a laterally movable and vertically adjustable presser member, of an actuating lever arm movable with said presser member laterally, and movable relatively thereto about a fixed fulcrum when actuating the machine, said arm being constructed and arranged for adjustment in two directions in the plane of said relative movement in order to maintain a substantially constant relationship to said presser member in the different positions of adjustment of said member.

2. In a clicking machine, the combination with a laterally movable and vertically adjustable presser member, of a two-part actuating lever arm movable with said presser member laterally, and movable relatively thereto about a fixed fulcrum when actuating the machine, said two parts of said arm being connected with provision for adjustment in two directions in the plane of said relative movement in order to maintain a substantially constant relationship to the presser member, in the different positions of adjustment of said member, of that end of the arm which is adjacent to the operator.

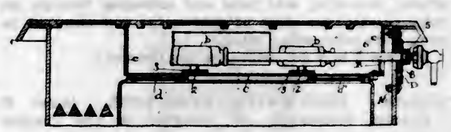
3. In a clicking machine, the combination with a laterally movable and vertically adjustable presser member, of a two-part actuating lever movable with said presser member laterally, and movable relatively thereto about a fixed fulcrum when actuating the machine, one part of said arm being provided with an adjustable three-point bearing to receive the other part of said arm whereby the end of the arm which is adjacent to the operator may be adjusted in two directions in the plane of said relative movement in order to maintain a substantially constant relationship to the presser member in the different positions of adjustment of said member.

1,131,687. SERVICE-BOX AND LID. FRANK M. EIBER, Millvale, Pa. Filed Mar. 21, 1913. Serial No. 755,873. (Cl. 137—13.)



The combination of a service box provided with laterally extending flat topped ears adjacent to the upper end of the box and the wall of said box being slotted vertically from its top down to said ears, with a lid provided with depending integral spring flanges adapted to be driven down into the interior of said box to hold the lid in place and having an annular depending flange on the head of said lid adapted to fit down over the top of the service box and rest upon said ears, substantially as and for the purpose set forth.

1,131,688. KITCHEN-RANGE. JOHN ERBEN, Cleveland, Ohio. Filed June 8, 1912. Serial No. 702,384. (Cl. 126—36.)



1. A convertible range having a burner chamber provided with holes in its bottom, in combination with burners in said chamber having projections adapted to enter said holes, and means adapted to engage said projections and hold said burners in a raised position in respect to said holes.

2. A kitchen range having gas burners removably supported in the top thereof, devices to support said burners at different elevations according to the kind of gas used and an invertible plate at the front of the range having a series of air inlet holes and a separate series of openings adapted to receive the pipes leading to said burners.

3. A kitchen range and gas burners in the top thereof, means to support said burners at different elevations according to the kind of gas used, burner pipes and a support therefor having notches of varying depths to support said pipes according to the elevations of said burners and a reversible air inlet plate having a series of holes for the admission of air to said burners and another series of holes for the burner pipes.

4. A convertible range having gas burners in its top provided with differential projections on their bottoms, in combination with a bar to support said burner pipes having recesses of varying depth in its top and adjustable lengthwise to bring recesses of different elevation into working position.

1,131,689. CASING FOR CONTAINERS. BEN K. FORD, Oak Park, and LESLIE E. BIRCH, Maywood, Ill., assignors to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 3, 1914. Serial No. 854,610. (Cl. 217—49.)



1. A casing for a container comprising a plurality of strips arranged to inclose said container and overlapping at adjacent edges, a band disposed about said strips, and fastening devices engaging said band and extending through the outer overlapping edges of said strips.

2. A casing for a container comprising a plurality of strips arranged to inclose said container and overlapping at adjacent edges, each strip having a longitudinal edge disposed outwardly of a longitudinal edge of an adjacent strip, a band disposed about said strips, and fastening means engaging said band and passing through the outer edges of said strips.

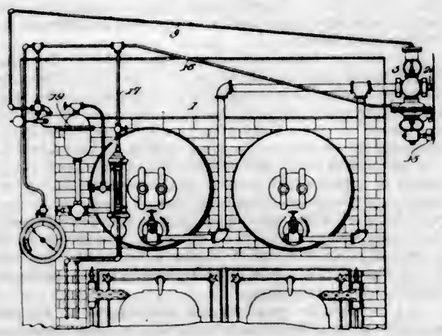
3. A casing for a container comprising a plurality of strips arranged to inclose the body of said container and having overlapping edges, a band disposed about said strips, and fastening means engaging said band disposed through the outer edges of said strips and clenched between the overlapping edges of said strips.

4. A casing for a container comprising a plurality of strips arranged to inclose said container and having overlapping edges, a band disposed about said strips, and staples passing through said band and through the outer and inner overlapping edges.

5. A casing for a container comprising a plurality of strips arranged to inclose said container and having overlapping edges, a band disposed about said strips, and staples embracing said band and extending through the outer overlapping edges of said strips and clenched between said overlapping edges.

[Claims 6 to 9 not printed in the Gazette.]

1,131,690. FEED-WATER REGULATOR. LOUIS B. FULTON, Pittsburgh, Pa., assignor to The Chaplin-Fulton Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 11, 1913. Serial No. 747,774. (Cl. 137—101.)



1. In combination with a boiler, and a feed-line, means periodically actuated to open up the feed line to supply water to the boiler, and auxiliary means for supplying relatively small quantities of water during the intervals between the first mentioned supplies, such auxiliary means being actuated by differences in pressure between different portions of the boiler.

2. In combination with a boiler, and a feed-line, means periodically actuated to open up the feed-line to supply water to the boiler, and auxiliary means for supplying relatively small quantities of water during the intervals between the first mentioned supplies, such auxiliary means being actuated by any fall in pressure in the outgoing steam.

3. In combination with a boiler, a feed-line, and means periodically actuated to open up the feed-line to supply water to the boiler, auxiliary means for supplying relatively small quantities of water during the intervals between the first mentioned supplies, a movable member for controlling such auxiliary means, such movable member being operable by differences in pressure between different portions of the boiler.

4. In combination with a boiler, a feed-line, and means periodically actuated to open up the feed-line to supply water to the boiler, auxiliary means for supplying relatively small quantities of water during the intervals between the first mentioned supplies, such auxiliary means comprising a valve normally held to its seat, such valve being automatically unseated by differences in pressure in different portions of the boiler to supply relatively small quantities of water during the intervals between the first mentioned supplies.

5. In combination with a boiler, a super-heater, and a feed-line, means periodically actuated to open up the feed-line to supply water to the boiler, and auxiliary means for supplying relatively small quantities of water during the intervals between the first mentioned supplies, such auxiliary means being actuated by differences in pressure between the boiler and the super-heater.

[Claims 6 to 13 not printed in the Gazette.]

1,131,691. PROCESS FOR DESULFURIZING ORES. GIOVANNI FUSINA, Genoa, Italy. Filed Apr. 25, 1912. Serial No. 693,183. (Cl. 75—60.)



1. A process for desulfurising ores which consists in passing a quantity of air through the material in one direction and then passing a quantity of air and steam through said material in the opposite direction.

2. A process for desulfurizing ores which consists in passing air through a mass of ore in one direction and then passing air through said mass in the reverse direction.

3. A process for desulfurizing ores which consists in igniting the surface of a mass of ore to a state of incandescence, sucking air through the mass to cause other parts of the mass to become incandescent, sucking air after a determined period of time through the mass in the opposite direction, and thereafter reversing the direction of flow of the mixture at determined intervals so as to cause the incandescent action continuously to change from the upper to the lower layer of ore and vice versa.

4. A process for desulfurizing ores of the kind described which consists in igniting the upper surface of a constantly moving mass or ore to be treated, sucking a quantity of combustion air through the mass in the downward direction, sucking a quantity of combustion air through the mass after a determined period of time and in the opposite direction, and in again reversing the direction of flow of said combustion air, to complete desulfurization.

5. A process of desulfurizing ores of the kind described which consists in adding a determined quantity of deoxidizing material to a mass of ore to be treated, progressively moving the mass on a conveyer during such time as the desulfurization continues, igniting initially the upper layer of the mass, sucking air through the mass in the downward direction to cause incandescence to extend to substantially the lower layer of the mass, sucking air through the mass in the opposite direction after a determined period of time to cause incandescing to extend gradually to the upper layer of fuel, and thereafter reversing the direction of flow of the air until the mass is completely desulfurized.

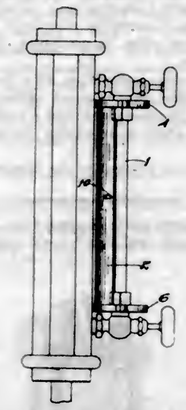
[Claim 6 not printed in the Gazette.]

1,131,692. GAGE-GLASS SHIELD AND REFLECTOR. FRANK P. GARDNER, Boston, Mass. Filed July 21, 1914. Serial No. 852,304. (Cl. 73—54.)

1. A protector for use with a gage glass for boilers, comprising two cylinder segments one of slightly greater diameter than the other, a head and a base each formed with two concentric annular grooves one of which is of the same diameter as the larger cylinder segment and the other of which is of the same diameter as the smaller cylinder segment, said grooves engaging said cylinder segments respectively and forming ways in which said cylinder segments are slidable in such manner that both segments may be brought to the rear, one inside of the other or at the will of the operator both segments may be brought to the front and adjusted to form an expanded front shield.

2. A protector for use with a gage glass for boilers, comprising two cylinder segments one of slightly greater

diameter than the other, a head and a base each formed with two concentric annular grooves one of which is of the same diameter as the larger cylinder segment and the other of which is of the same diameter as the smaller cylinder segment, said grooves engaging said cylinder segments respectively and forming ways in which said cylinder segments are slidable in such manner that both segments may be brought to the rear one nested inside of the other, or at the will of the operator both segments may be brought to the front and adjusted to form an expanded front shield, the said two segments being each of such portion of an entire cylinder that when combined at the front the two segments together will occupy more than one hundred eighty degrees and when shut together at the rear the combined segments will cover less than one hundred eighty degrees.

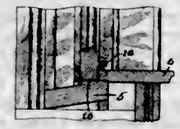


3. A protector for use with a gage glass for boilers, comprising two cylinder segments one of slightly greater diameter than the other, a head and a base each formed with two concentric annular grooves one of which is of the same diameter as the larger cylinder segment and the other of which is of the same diameter as the smaller cylinder segment, said grooves engaging said cylinder segments respectively and forming ways in which said cylinder segments are rotatable in such manner that both segments may be brought to the rear, one nested inside of the other, or at the will of the operator both segments may be brought to the front and adjusted to form an expanded front shield, each of said cylinder segments being substantially one hundred twenty degrees of a cylinder.

4. A protector for use with a gage glass for boilers, comprising two cylinder segments one of slightly greater diameter than the other, a head and a base each formed with two concentric annular grooves one of which is of the same diameter as the larger cylinder segment and the other of which is of the same diameter as the smaller cylinder segment, said grooves being engaged by said cylinder segments respectively and forming ways in which said cylinder segments are rotatable in such manner that both segments may be brought to the rear, one inside of the other or at the will of the operator both segments may be brought to the front and adjusted to form an expanded front shield one of said cylinder segments being provided with a peripheral projection near one of its edges which is engaged by one edge of the other segment when the two segments are in the front position to form a stop and which is engaged by the other edge when in the rear position to form a stop in the rear position.

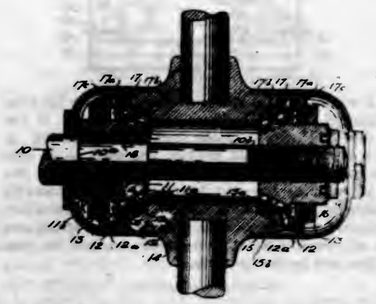
5. A protector for use with a gage glass for boilers, comprising two cylinder segments one of slightly greater diameter than the other, a head and a base each formed with two concentric annular grooves one of which is of the same diameter as the larger cylinder segment and the other of which is of the same diameter as the smaller cylinder segment, said grooves being engaged by said cylinder segments respectively and forming ways in which said cylinder segments are rotatable in such manner that both segments may be brought to the rear, one inside of the other or at the will of the operator both segments may be brought to the front and adjusted to form an expanded front shield, the said base being formed with slots in the bottom of the grooves which serve as discharge passages for accumulations in the grooves.

1,131,693. DUST AND WEATHER PROOFING CONSTRUCTION. JOHN B. GLOWACKI, Chicago, Ill. Filed Aug. 30, 1912. Serial No. 717,846. (Cl. 20—69.)



In a device of the class described, the combination with a sliding sash therein, of a metallic plate secured over the edge thereof comprising a channeled member, an out turned flange thereon, a resilient horizontally inturned flange integral with said out turned flange and adapted to engage over the inner sill of the window, and a downwardly projecting flange folded on the outer side of said channeled member and adapted to engage over the outer sill of said window.

1,131,694. BEARING. BERT G. GOBLE, Tulsa, Okla. Filed May 13, 1913. Serial No. 767,412. (Cl. 64—59.)



1. In a device of the character described, a cone member, a complementary member having faces extending angularly to each other, one of said faces opposing the cone member, a member carried by the cone member and having a face opposing the adjacent face of said complementary member, said opposing faces forming a race-way, a portion of which is vertically-disposed and the remainder inclined with respect to the axis of the cone member, a ball cage carrying rolling elements located in said raceway, and means for adjusting said cone member.

2. In a device of the character described, a cone member and a complemental member positioned to form an annular ball race-way, said raceway being angular in cross-section, to provide independent communicating portions for end and load thrusts, and a ball cage therein formed with pivotally connected ball-carrying wings, said wings in cross-section approximating the angularity of the raceway and carrying rolling elements in each of the angular portions.

3. In a device of the character described, a cone member and a complemental member positioned to form an annular ball race-way, said race-way being angular in cross-section with its opposing faces in parallelism to provide independent communicating portions for end and load thrusts, and a ball cage therein formed with pivotally con-

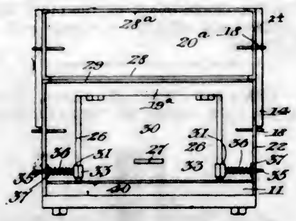
nected ball-carrying wings, said wings in cross-section approximating the angularity of the race-way and carrying rolling elements in each of the angular portions.

4. In a device of the character described, a cone member and a complemental member positioned to form an annular ball race-way, said race-way being angular in cross-section with its opposing faces in parallelism to provide independent communicating portions for end and load thrusts, and a ball cage therein formed with pivotally connected ball-carrying wings, said wings in cross-section approximating the angularity of the race-way and carrying rolling elements in each of the angular portions, said race-way having its walls relatively adjustable to take up for wear.

5. In a device of the character described, a cone member and a complemental member positioned to form an annular ball race-way, said race-way being angular in cross-section with its opposing faces in parallelism, and a ball cage therein formed with ball-carrying wings, said wings in cross-section approximating the angularity of the race-way, said wings being jointed together to permit change in angularity under such wear adjustment.

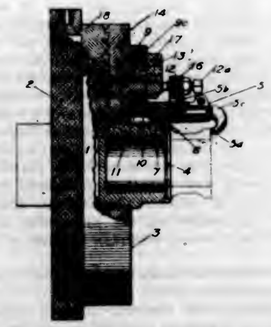
[Claims 6 to 8 not printed in the Gazette.]

1,131,695. WAGON-BOX. ARTHUR I. HEADLEY, Modale, Iowa. Filed Jan. 13, 1914. Serial No. 811,892. (Cl. 21—21.)



In a wagon box, an end gate having a door opening, and a flange at one edge thereof, a door hinged to the end gate to swing over the door opening and having an outwardly disposed hooked portion arranged to fit over the flange, and a spring pressed latch hinged to the end gate adjacent to the said flange having an inwardly facing oblique portion at its outer end against which the said hooked shoulder portion is arranged to strike and having a portion in rear of said oblique portion for engaging over the said hooked portion.

1,131,696. CHUCK. HENRY HESS, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, a Corporation of Delaware. Filed Mar. 19, 1912. Serial No. 684,708. (Cl. 29—124.)



1. In a chuck, the combination of a face-plate provided with a fixed seat for the work, a clamping jaw mounted on the face-plate and movable at its active end inwardly toward the work seat, an outwardly extending actuating arm on said jaw and radially operating means acting on said arm for actuating the jaw to cause it to clamp the work against the seat.

2. In a chuck, the combination of a face-plate, a clamping jaw mounted thereon and movable to clamp the work toward the face plate, and means movable radially in the direction of the plane of the face-plate for actuating the jaw.

3. In a chuck, the combination of a face-plate provided with a work seat, a clamping jaw on the face-plate movable at its active end inwardly toward the work-support to clamp the work against the same, and means movable radially in the direction of the plane of the face-plate for actuating said jaw.

4. In a chuck, the combination of a face plate, a work clamping jaw mounted thereon and movable to clamp the work, and a member movable relatively to the jaw and radially of the face plate in actuating the clamping jaw to clamp the work.

5. In a chuck, the combination of a face-plate, a work clamping jaw pivoted thereon on an axis extending parallel with the plane of the face-plate, and a member movable radially of the face-plate in actuating the jaw to clamp the work.

[Claims 6 to 9 not printed in the Gazette.]

1,131,697. METHOD OF CASTING. HENRY HESS, Philadelphia, Pa. Filed June 18, 1913. Serial No. 774,332. (Cl. 22—216.)



1. The method of casting ingots, which consists in rotating a mold containing molten metal to cause the same to flow to the outer sides of the mold and rise therein and thereby form a hollow in the body of the metal, supplying molten metal to the mold and into said hollow to cause the displaced metal to flow inwardly into the hollow, and continuing the supply until the mold is completely filled.

2. The method of casting ingots, which consists in rotating a mold containing molten metal to cause the same to flow to the outer sides of the mold and rise therein and thereby form a hollow in the center of the body, supplying molten metal to said hollow to cause the displaced metal to rise still higher at the sides, offering an obstruction to the further rise of the metal to cause the same to be turned inwardly and flow into said hollow, and continuing the supply of metal until the mold is completely filled.

3. The method of casting, which consists in rotating a partially filled mold of molten material, supplying additional molten material to the mold during its rotation, continuing the supply of material until the mold is completely filled and maintaining a "head" of the molten material after the mold is filled, and during solidification of the metal in the mold.

4. The method of casting, which consists in rotating a covered, partially filled mold of molten material introducing additional molten material through the cover of the mold during its rotation, and continuing the supply of metal to the mold to cause the metal therein to flow against the cover and be deflected thereby toward the center in the body of metal.

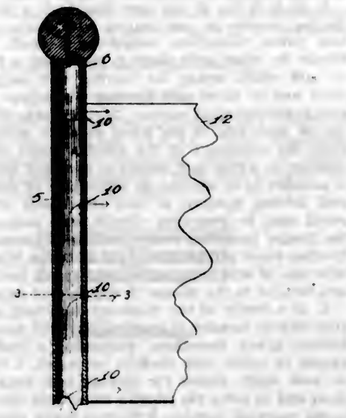
5. The method of casting, which consists in rotating a body of molten material about an upright axis situated within the body to cause its sides to rise and form a central hollow, and supplying additional molten material to the central hollow, while causing the rising sides of the body to be turned over onto itself into said hollow, and continuing the supply of metal until the mold is completely filled.

1,131,698. MANUFACTURE OF BREAD. WILBER A. HOBBS, Pittsburgh, Pa., assignor to Charles Adams, trustee, New Rochelle, N. Y. Filed Apr. 30, 1914. Serial No. 835,421. (Cl. 99—10.)

1. In the manufacture of bread, the method of obtaining loaves of superior whiteness from the flour employed, which comprises mixing a small quantity of calcium hypochlorite, as described, with the flour from which the bread dough is made, permitting the mixture to stand, preparing a dough batch from the mixture and fermenting the dough batch; substantially as described.

2. In the manufacture of bread, the method of obtaining loaves of superior whiteness from the flour employed, which comprises mixing a small quantity of calcium hypochlorite, as described, with the flour from which the bread dough it made, permitting the mixture to stand, preparing a dough batch from the mixture, adding as one of the ingredients of the dough a sufficient amount of a neutralizing agent to neutralize the alkalinity of the calcium hypochlorite, and fermenting the dough; substantially as described.

1,131,699. NOVELTY FOR ADVERTISING AND OTHER PURPOSES. THOMAS A. HOECKER and EUGENE A. BENZ, St. Louis, Mo. Filed Dec. 10, 1913. Serial No. 805,717. (Cl. 116—12.)

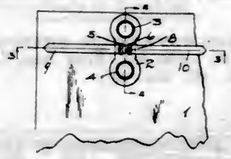


1. A novelty for advertising and other purposes comprising a hollow staff, a pliant body attached thereto, said staff having outlets through which air is directed under pressure in direct lines against the body.

2. A novelty for advertising and other purposes comprising a hollow staff, a body of pliant material, said staff having air outlets formed in itself in proper relation with the pliant body through which air is directed against the body in direct lines longitudinal with said body to keep the same in a waving position, and a tube connected to the hollow staff through which air is admitted to said staff from any source of supply, substantially as specified.

3. A device of the class described comprising a hollow staff the upper end thereof being closed, a body of pliant material attached to a portion of the hollow staff; a plurality of apertures formed in said staff at that portion to which the pliant body is attached for directing air under pressure against said body, and brackets for supporting the staff, substantially as specified.

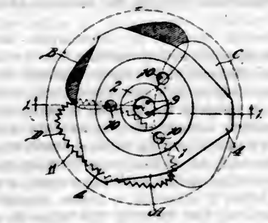
1,131,700. FASTENER FOR PAPERS. JOHN C. HUB, Lakewood, Ohio. Filed May 31, 1913. Serial No. 770,887. (Cl. 129—25.)



1. In a paper fastener, the combination of a suitable backing, a plate provided with spaced holes, eyelets permanently attaching said plate to said backing through such holes, said plate being provided with parallel slots between and in line with such holes and a metal strip passing through such two slots, thereby being held by said plate against said backing.

2. In a paper fastener, the combination of a suitable backing, a plate provided with two spaced holes, eyelets permanently attaching said plate to said backing through such holes, said plates being provided with two closely adjacent, parallel slots between, and in line with, such holes, and a metal strip passing through such two slots thereby being held by said plate against said backing.

1,131,701. ROTARY BORING-DRILL. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed June 20, 1913. Serial No. 774,774. (Cl. 255—71.)



1. A rotary boring drill provided with a plurality of comparatively sharp-edged cutters whose axes of rotation are inclined downwardly and outwardly from the vertical axis of the drill, said cutters being so arranged that the edge portions of same partly overlap.

2. A rotary boring drill comprising a head provided with a disk-shaped cutter whose lower edge portion inclines inwardly, said cutter being so arranged that the edge portion of same shears off the material from the side wall of the hole, and a portion on the head that prevents the edge of the cutter from catching on projections in the hole when the drill is being withdrawn from the hole.

3. A rotary boring drill comprising a head provided with a plurality of disk-shaped cutters that incline inwardly under the lower end of the head, said cutters being so arranged that the edge portions of same partly overlap.

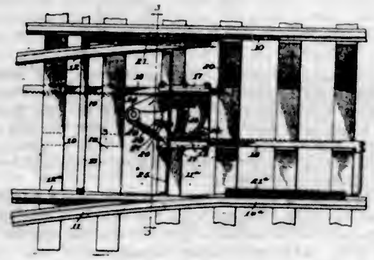
4. A rotary boring drill comprising a head provided with a plurality of disk-shaped cutters that incline inwardly under the lower end of the head, said cutters being so arranged that the edge portions of same partly overlap, and water-holes in the head which are so disposed that jets of water will be projected onto the cutters adjacent the points where they overlap.

5. A rotary boring drill consisting of a head, disk-shaped cutters on said head which incline under the lower end of the head, said cutters being so arranged that the edge portions of same shear off the material from the side wall of the hole, each cutter being provided with a substantially convexed crushing portion that disintegrates the material on the bottom of the hole when the drill is

in operation, and portions on the head that tend to prevent the cutters from catching on projections in the hole when the drill is being removed from the hole.

[Claims 6 and 7 not printed in the Gazette.]

1,131,702. RAILWAY-SWITCH SWEEPER. CHARLES M. HURST, St. Louis, Mo. Filed June 4, 1914. Serial No. 842,854. (Cl. 104—65.)



1. In a switch cleaner, in combination, with the line rail and a movable switch rail, a brush adapted to reciprocate between the line rail and the switch rail, and connection between the switch rail, and connection between the switch rail and the brush.

2. In a switch cleaner, in combination with the line rail and a movable switch rail, a brush adapted to reciprocate into and out of the space between the line and switch rails when separated, a rack bar, a pinion meshing therewith, and connection between the movable switch rail and the pinion.

3. In a switch cleaner, in combination with the line rails and the movable switch rails, a brush adapted to reciprocate into and out of the space between each line rail and its coöperating switch rail when open, and means for advancing and receding the brushes in alternation.

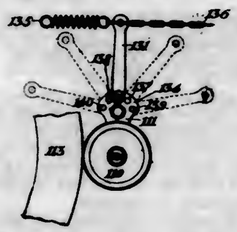
4. In a switch cleaner, in combination with the line rails and the movable switch rails, a brush adapted to reciprocate into and out of the space between each line rail and its coöperating switch rail when open, a rack bar to which each brush is attached, a pinion engaging the rack bar and advancing and receding the latter in alternation, and connection between the switch rails and the pinion.

5. In a switch cleaner, in combination with the line rails and the movable switch rails, a brush adapted to reciprocate into and out of the space between each line rail and its coöperating switch rail when open, a rack bar to which each brush is attached, a pinion engaging the rack bar and advancing and receding the latter in alternation, a reducing pinion fixed to the first mentioned pinion, a pivoted segment engaging the reducing pinion, a bar joining the switch rails, and an arm depending from the bar and engaging the segment.

[Claims 6 and 7 not printed in the Gazette.]

1,131,703. GEARING. MILLER REESE HUTCHISON, Summit, N. J., assignor to Lovell-McConnell Manufacturing Company, a Corporation of Delaware. Original application filed May 16, 1907, Serial No. 373,946. Divided and this application filed May 7, 1909, Serial No. 494,687. Renewed July 25, 1914. Serial No. 853,094. (Cl. 74—26.)

1. In a device of the class described, a power operated driving member in combination with means for transmitting power therefrom comprising a shaft, and pivoted hanger in which said shaft is journaled, a friction wheel on said shaft, means for moving said hanger about its pivot and to force said friction wheel into contact with said power operated member, friction brake shoes arranged one on each side of the wheel so as to serve as stops to limit the movement of the friction wheel and hanger, a member on which said hanger is pivotally mounted, which is adapted to be secured on either side of the power operated driving member, so that either side of the friction wheel may be presented thereto, and means for moving the hanger including means tending to normally force the friction wheel and hanger in one direction.



2. In a device of the class described, a power operated driving member in combination with means for transmitting power therefrom comprising a shaft, and pivoted hanger in which said shaft is journaled, a friction wheel on said shaft, means for moving said hanger about its pivot and to force said friction wheel into contact with said power operated member, friction brake shoes arranged one on each side of the wheel so as to serve as stops to limit the movement of the friction wheel and hanger, a member on which said hanger is pivotally mounted, which is adapted to be secured on either side of the power operated driving member, so that either side of the friction wheel may be presented thereto, and means for moving the hanger including means tending to normally force the friction wheel and hanger in one direction into engagement with one of said brake shoes.

3. In a device of the class described, a power operated driving member in combination with means for transmitting power therefrom comprising a shaft, and pivoted hanger in which said shaft is journaled, a friction wheel on said shaft, means for moving said hanger about its pivot and to force said friction wheel into contact with said power operated member, friction brake shoes arranged one on each side of the wheel so as to serve as stops to limit the movement of the friction wheel and hanger, a member on which said hanger is pivotally mounted, which is adapted to be secured on either side of the power operated driving member, so that either side of the friction wheel may be presented thereto, and means for moving the hanger including means tending to normally force the friction wheel and hanger in one direction into engagement with one of said brake shoes, said means including a lever arm secured to the hanger in any desired angular relation.

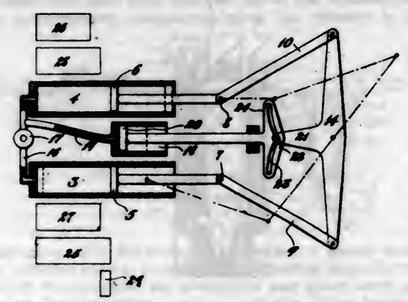
4. In a device of the character described, a power operated driving member in combination with means for transmitting power therefrom, comprising a shaft, a pivoted hanger in which said shaft is journaled, a friction wheel on said shaft, means for moving said hanger about its pivot and to force the friction wheel into contact with the power operated member, a friction brake shoe on one side of said wheel, to serve as a stop to limit the movement of the wheel and the hanger, and means for moving the hanger, including means tending to normally force the friction wheel into engagement with said brake shoe, said means including a lever secured to the hanger in variable angular relation.

1,131,704. HYDRAULIC CONTROLLING MECHANISM. REYNOLD JANNEY, New York, N. Y., assignor to The Waterbury Tool Company, New Britain, Conn., a Corporation of Connecticut. Filed May 15, 1914. Serial No. 838,716. (Cl. 138—2.)

1. The combination of a plurality of hydraulic actuating devices, and means for automatically variably augmenting the liquid capacity of said devices.

2. The combination of a plurality of hydraulic actuating devices, and means for automatically compensating for changes in space volume of said actuating devices.

3. The combination of a plurality of communicating hydraulic actuating devices, an oscillatory member having rods connected thereto, the actuating devices comprising movable members connected with said rods, and means for automatically compensating for changes in space volume of said hydraulic actuating devices.

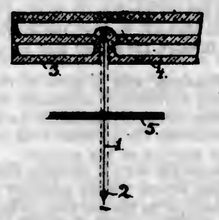


4. The combination of a plurality of communicating hydraulic devices, pump mechanism for circulating liquid between the hydraulic devices, an oscillatory member, rods connected with said oscillatory member at opposite sides of its axis of motion, the hydraulic devices having movable members connected with the rods, and means for automatically compensating for changes in space volume of said hydraulic devices.

5. The combination of a plurality of hydraulic actuating devices each comprising a movable member, means for circulating liquid between said hydraulic actuating devices, an oscillatory member, rods connected with the oscillatory member at opposite sides of its center of motion and also with said movable members, and means for automatically compensating for changes in space volume of the actuating devices.

[Claims 6 to 15 not printed in the Gazette.]

1,131,705. DEVICE FOR SIMULTANEOUSLY CUTTING AND CLOSING HOLLOW BRICKS. KARL JOHANNESMANN, Ferdinandgrube, Germany, assignor to Joseph Altmann, Kattowitz, Germany. Filed July 2, 1913. Serial No. 777,024. (Cl. 25—105.)

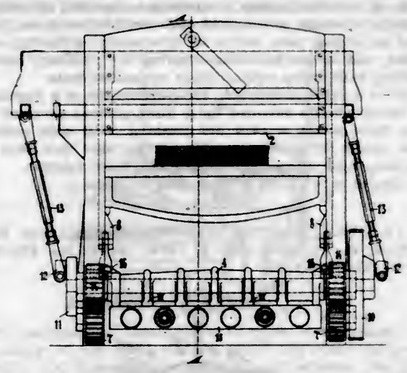


A device for simultaneously cutting and closing hollow bricks, comprising in combination, a rotary disk, a plurality of beaks on both sides of the circumferential edges of the latter, and a swing-axle for said disk, substantially as and for the purpose set forth.

1,131,706. CUTTING-MACHINE. OTTO JOHNS, Bautzen, Germany. Filed Apr. 21, 1913. Serial No. 762,657. (Cl. 164—54.)

1. A paper cutting machine, comprising in combination, an automatic spring actuated paper presser, a positive knife cutter adjacent said presser, said presser adapted to compress the paper before and during the operation of the knife, and serving to help raise the knife to inoperative position.

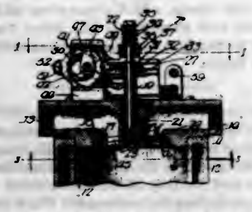
2. A paper cutting machine comprising in combination, an automatic spring actuated paper presser, a positive knife cutter, said presser adapted to compress the paper before and during the operation of the knife, said paper presser actuated by springs, one end of said springs adjacent a shaft and the other end secured in a yoke which is secured to a driving means attached to said shaft and the presser, substantially as described.



3. A paper cutting machine comprising in combination, a frame, an automatic spring actuated paper presser, a positive knife cutter adjacent said presser, a shaft revolubly mounted in said frame, a connection between said cutter and said shaft adapted to actuate said cutter, a horizontally disposed spring secured to said frame, gears carried by said shaft, and means connecting said gears to said spring and said presser, said means serving to simultaneously compress said spring and presser, simultaneously with the depression of said cutter, substantially as described.

4. A cutting machine comprising in combination, an automatic presser adapted to non-adjustably compress various size stacks of material, a cutter adjacent said presser, said presser and cutter adapted to be simultaneously actuated, said presser adapted to exert maximum pressure on the material before said cutter enters the material and adapted to exert a uniform pressure during the cutting operation, substantially as described.

1,131,707. VALVE MECHANISM. CLINTON L. JOHNSON, Rockford, Ill. Filed July 27, 1914. Serial No. 853,424. (Cl. 123—81.)



1. In a valve mechanism for gas engines, the combination of a plurality of valve disks each provided with an inlet and an exhaust port, and means for controlling said disks so that they both remain stationary during the compression and firing strokes and are moved to aline the inlet and exhaust ports during the inlet and exhaust strokes respectively.

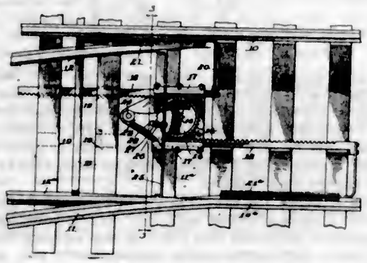
2. In a valve mechanism for gas engines, the combination of a plurality of concentrically mounted oscillatory valve disks, each provided with an inlet and an exhaust port, means for maintaining said disks stationary and in closed position during the compression and firing strokes of the engine, and means for moving said disks to open the inlet and exhaust ports at predetermined intervals.

3. In a valve mechanism, for gas engines, the combination of a plurality of valve disks concentrically mounted,

in operation, and portions on the head that tend to prevent the cutters from catching on projections in the hole when the drill is being removed from the hole.

[Claims 6 and 7 not printed in the Gazette.]

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2. In a switch cleaner, in combination with the line rail and a movable switch rail, a brush adapted to reciprocate into and out of the space between the line and switch rails when separated, a rack bar, a pinion meshing therewith, and connection between the movable switch rail and the pinion.

3. In a switch cleaner, in combination with the line rails and the movable switch rails, a brush adapted to reciprocate into and out of the space between each line rail and its coöperating switch rail when open, and means for advancing and receding the brushes in alternation.

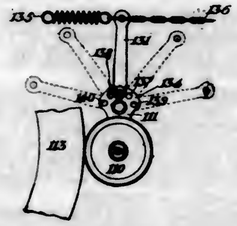
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5. In a switch cleaner, in combination with the line rails and the movable switch rails, a brush adapted to reciprocate into and out of the space between each line rail and its coöperating switch rail when open, a rack bar to which each brush is attached, a pinion engaging the rack bar and advancing and receding the latter in alternation, a reducing pinion fixed to the first mentioned pinion, a pivoted segment engaging the reducing pinion, a bar joining the switch rails, and an arm depending from the bar and engaging the segment.

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1,131,703. GEARING. MILLER REESE HUTCHISON, Summit, N. J., assignor to Lovell-McConnell Manufacturing Company, a Corporation of Delaware. Original application filed May 16, 1907, Serial No. 373,946. Divided and this application filed May 7, 1909, Serial No. 494,687. Renewed July 25, 1914. Serial No. 853,094. (Cl. 74—26.)

1. In a device of the class described, a power operated driving member in combination with means for transmitting power therefrom comprising a shaft, and pivoted hanger in which said shaft is journaled, a friction wheel on said shaft, means for moving said hanger about its pivot and to force said friction wheel into contact with said power operated member, friction brake shoes arranged one on each side of the wheel so as to serve as stops to limit the movement of the friction wheel and hanger, a member on which said hanger is pivotally mounted, which is adapted to be secured on either side of the power operated driving member, so that either side of the friction wheel may be presented thereto, and means for moving the hanger including means tending to normally force the friction wheel and hanger in one direction.



2. In a device of the class described, a power operated driving member in combination with means for transmitting power therefrom comprising a shaft, and pivoted hanger in which said shaft is journaled, a friction wheel on said shaft, means for moving said hanger about its pivot and to force said friction wheel into contact with said power operated member, friction brake shoes arranged one on each side of the wheel so as to serve as stops to limit the movement of the friction wheel and hanger, a member on which said hanger is pivotally mounted, which is adapted to be secured on either side of the power operated driving member, so that either side of the friction wheel may be presented thereto, and means for moving the hanger including means tending to normally force the friction wheel and hanger in one direction into engagement with one of said brake shoes.

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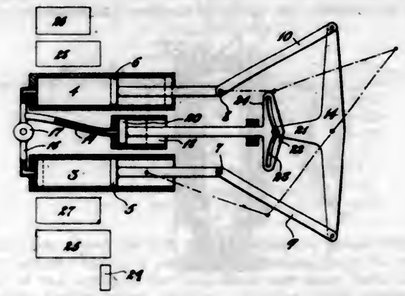
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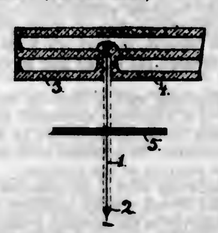


4. The combination of a plurality of communicating hydraulic devices, pump mechanism for circulating liquid between the hydraulic devices, an oscillatory member, rods connected with said oscillatory member at opposite sides of its axis of motion, the hydraulic devices having movable members connected with the rods, and means for automatically compensating for changes in space volume of said hydraulic devices.

5. The combination of a plurality of hydraulic actuating devices each comprising a movable member, means for circulating liquid between said hydraulic actuating devices, an oscillatory member, rods connected with the oscillatory member at opposite sides of its center of motion and also with said movable members, and means for automatically compensating for changes in space volume of the actuating devices.

[Claims 6 to 15 not printed in the Gazette.]

1,131,705. DEVICE FOR SIMULTANEOUSLY CUTTING AND CLOSING HOLLOW BRICKS. KARL JOHANNESMANN, Ferdinandgrube, Germany, assignor to Joseph Altmann, Kattowitz, Germany. Filed July 2, 1913. Serial No. 777,024. (Cl. 25—105.)

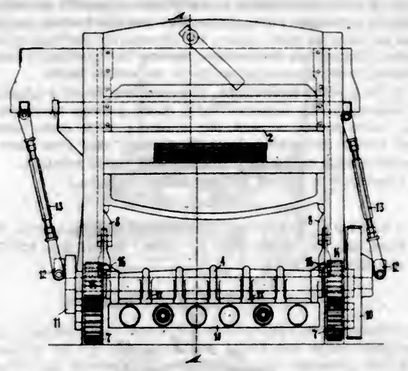


A device for simultaneously cutting and closing hollow bricks, comprising in combination, a rotary disk, a plurality of beaks on both sides of the circumferential edges of the latter, and a swing-axle for said disk, substantially as and for the purpose set forth.

1,131,706. CUTTING-MACHINE. OTTO JOHNS, Bautsen, Germany. Filed Apr. 21, 1913. Serial No. 762,657. (Cl. 164—54.)

1. A paper cutting machine, comprising in combination, an automatic spring actuated paper presser, a positive knife cutter adjacent said presser, said presser adapted to compress the paper before and during the operation of the knife, and serving to help raise the knife to inoperative position.

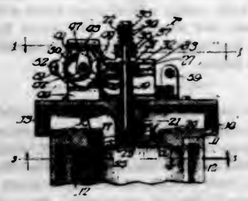
2. A paper cutting machine comprising in combination, an automatic spring actuated paper presser, a positive knife cutter, said presser adapted to compress the paper before and during the operation of the knife, said paper presser actuated by springs, one end of said springs adjacent a shaft and the other end secured in a yoke which is secured to a driving means attached to said shaft and the presser, substantially as described.



3. A paper cutting machine comprising in combination, a frame, an automatic spring actuated paper presser, a positive knife cutter adjacent said presser, a shaft revolubly mounted in said frame, a connection between said cutter and said shaft adapted to actuate said cutter, a horizontally disposed spring secured to said frame, gears carried by said shaft, and means connecting said gears to said spring and said presser, said means serving to simultaneously compress said spring and presser, simultaneously with the depression of said cutter, substantially as described.

4. A cutting machine comprising in combination, an automatic presser adapted to non-adjustably compress various size stacks of material, a cutter adjacent said presser, said presser and cutter adapted to be simultaneously actuated, said presser adapted to exert maximum pressure on the material before said cutter enters the material and adapted to exert a uniform pressure during the cutting operation, substantially as described.

1,131,707. VALVE MECHANISM. CLINTON L. JOHNSON, Rockford, Ill. Filed July 27, 1914. Serial No. 853,424. (Cl. 123—81.)



1. In a valve mechanism for gas engines, the combination of a plurality of valve disks each provided with an inlet and an exhaust port, and means for controlling said disks so that they both remain stationary during the compression and firing strokes and are moved to aline the inlet and exhaust ports during the inlet and exhaust strokes respectively.

2. In a valve mechanism for gas engines, the combination of a plurality of concentrically mounted oscillatory valve disks, each provided with an inlet and an exhaust port, means for maintaining said disks stationary and in closed position during the compression and firing strokes of the engine, and means for moving said disks to open the inlet and exhaust ports at predetermined intervals.

3. In a valve mechanism, for gas engines, the combination of a plurality of valve disks concentrically mounted,

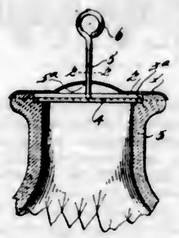
one above the other, each of said disks being provided with an inlet and an exhaust port, and means for oscillating said disks alternately and in the same directions, said disks being positioned to be held against their seats by the pressure in the engine cylinder.

4. A valve mechanism comprising a plurality of concentrically arranged valve disks each provided with an inlet and an exhaust port, means for alternately oscillating said disks, and means including a spring for yieldingly maintaining said valves against their respective seats.

5. In a valve mechanism, the combination of a plurality of concentrically mounted valve disks, pinions mounted on the valve stems, a rack bar meshing with each pinion, and means for positively reciprocating said rack bars to oscillate said valves in predetermined timed relation.

[Claims 6 to 15 not printed in the Gazette.]

1,131,708. BOTTLE-CLOSURE. OTTO KAMPFE, New York, N. Y. Filed Feb. 5, 1914. Serial No. 816,708. (Cl. 215—26.)



1. A bottle closure consisting of a resilient clamp adapted for insertion into the mouth of a bottle, a centrally located stationary guide projecting vertically therefrom, a cover plate movable on said guide and provided with a central opening adapted for the free passage therethrough of said guide, and a stop at the outer end of said guide.

2. A bottle closure consisting of a coiled clamp of resilient material, a rigid guide extending therefrom, and a cover-plate slidably mounted on said guide, and adapted to move by gravity longitudinally thereof.

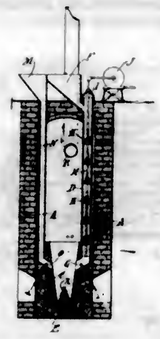
3. A bottle closure consisting of a coiled clamp of resilient material, a rigid guide extending therefrom, a cover plate slidably mounted thereupon, and a lock for said plate carried by said guide.

4. A bottle-closure comprising a clamp adapted for insertion into the mouth of a bottle, a stationary post projecting from said clamp, and a cover-plate slidably mounted on said post and adapted to tilt, when free from contact with the bottle, in a direction corresponding with any tilting of the bottle.

1,131,709. PLANT FOR THE REDUCTION AND SMELTING OF ORES. EDWARD D. KENDALL, Elizabeth, N. J., assignor of one-half to Louis T. Haggin, Closter, N. J., and Margaret V. Haggin and Allan McCulloh, New York, N. Y., and H. Esk. Moller, Montclair, N. J., executors of James B. Haggin, deceased. Filed July 14, 1914. Serial No. 850,950. (Cl. 75—57.)

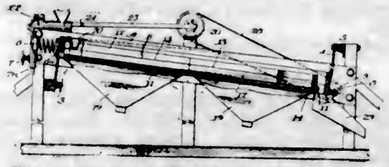
1. In a plant of the character described, a furnace having within its walls, and so arranged that it may be subjected to heat, a conduit for ore or ores and reducing agent or agents and within the conduit a removable pipe for the escape and transmission of gases generated within the conduit, the said pipe having through its sides a multiplicity of openings protected by hoods, as and for the purpose described.

2. In a plant of the character described, a furnace having within its walls, and so arranged that it may be subjected to heat, a conduit for ore or ores and reducing agent or agents and within the conduit a removable pipe for the escape and transmission of gases, generated within the conduit, the said pipe having through its sides a multiplicity of openings protected by hoods and being connected at its delivering end with an exhausting fan, as and for the purpose described.



3. In a plant of the character described, a furnace having within its walls, and so arranged that it may be subjected to heat, a conduit for ore or ores and reducing agent or agents, the interior of the conduit being connected by a multiplicity of openings with the interior of a pipe for the escape and transmission of gases generated within the conduit, the said openings being protected by suitable hoods, and the said furnace being provided with a separate conduit for fluxing material, substantially as described.

1,131,710. SCREEN FOR THE SEPARATION OF ORES. ALFRED H. KIDNEY, Orange, N. J. Filed Dec. 11, 1913. Serial No. 805,972. (Cl. 83—56.)



1. The combination with a shaking frame, of a screen frame reversibly mounted within the shaking frame, said shaking frame having openings formed on both sides of the screen and end thereof, so that the large particles which will not pass through the screen may be discharged at the end thereof.

2. The combination with a movable frame, and means for transmitting a vibratory movement thereto, of a plurality of screens invertibly mounted in said frame, and means for conducting the material from one screen to another in either position of the screens.

3. The combination with a movable frame, of a plurality of invertible screen frames mounted in the frame, a distributer connected to the movable frame for distributing the matter to one of the screens, of means for transmitting a vibrating movement to the frame for discharging the material from the distributer onto the screens, and for causing the material to pass through the various screens.

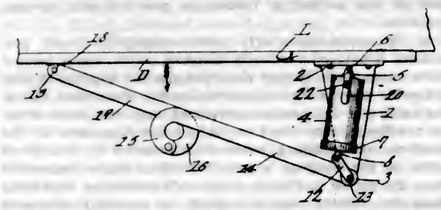
4. The combination with a frame, of a movable frame, flexible means supporting said movable frame upon the first-named frame, means for imparting vibratory movement to said movable frame, and invertible screens mounted in the movable frame.

5. A screen comprising a frame having fabric connected to the walls thereof, said frame provided with openings on both sides of the screens at the ends thereof.

[Claims 6 and 7 not printed in the Gazette.]

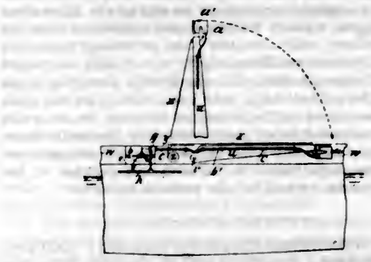
1,131,711. DOOR-CHECK. CHESTER E. KINARD, Cooper, Tex. Filed Nov. 18, 1914. Serial No. 872,797. (Cl. 16—87.)

In a device of the character described, a bracket having a base plate and a bearing at its free end, a lever having relatively short and long arms and a spindle between the arms journaled through the said bearing, the short arm being disposed above and seating upon the bearing and the long arm being disposed below the bearing, a cylinder, the base plate and one end of the cylinder having interengaging portions to pivot the cylinder to the



base plate above the body of the bracket, a piston within the cylinder having a piston rod projecting from the free end of the cylinder, the piston rod and short lever arm having interengaging portions pivoting them together, a link pivoted to the long lever arm, and means for pivotally connecting the link with a door.

1,131,712. PRESSURE CONTROL FOR SUBMARINE CHAMBERS. MARCELL KLEIN, Berlin, Germany. Filed Feb. 8, 1913. Serial No. 747,145. (Cl. 114—16.)



1. In a pressure control for submarine chambers, the combination of a chamber, and a vessel communicating on the one side with the chamber and on the other side with the sea, whereby water in the vessel maintains an air pressure in the chamber equal to the external water pressure.

2. In a pressure control for submarine chambers, the combination of a closed chamber, and a vessel communicating on the one side with the chamber, and on the other side with the sea, whereby water in the vessel maintains an air pressure in the chamber equal to the external water pressure.

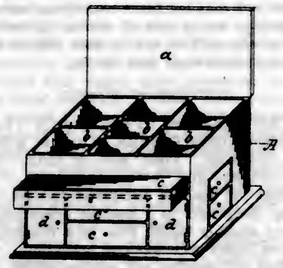
3. In a pressure control for submarine chambers, the combination of a closed chamber, a vessel communicating on the one side with the chamber and on the other side with the sea, and means to supply pressure to said vessel to keep a constant volume of air therein.

4. In a pressure control for submarine chambers, the combination of a closed chamber, a vessel closed at its top and open to the sea at its lower end, and means to establish communication between the chamber and the top portion of the vessel.

5. The combination of a submarine having an open compartment on the exterior thereof with a searchlight, a mast movable into and out of the compartment and carrying the searchlight, a vessel within the submarine communicating on one side with the searchlight and on the other with the sea, and means to supply pressure to said vessel to keep a constant volume of air therein.

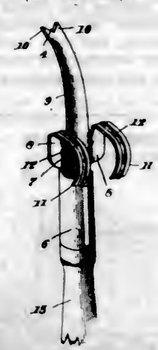
1,131,713. COVER FOR SEWING-MACHINE TABLES. CARL HEINRICH KRAMER, Berlin, Germany. Filed May 4, 1911. Serial No. 624,921. (Cl. 45—120.)

A removable sewing machine cover comprising a box having an inner compartment entirely open at the bottom and adapted to receive the arm of a sewing machine; end compartments abutting the ends of said inner compartment, certain of said end compartments being superposed; a drawer in each of the superposed compartments; side compartments abutting the inner and superposed compartments; corner compartments each abutting side compartments and an end compartment; a drawer for each



side compartment; doors for each corner compartment; a plurality of top compartments above the other compartments; an intermediate compartment between the top compartments and all of the other compartments; and a single lid for all of the top compartments; the drawers of the end and side compartments having their axes, lying in the direction of their movement, passing through said inner compartment, when said axes are prolonged.

1,131,714. WEEDER. JACOB A. KRESS, Canton, Ohio, assignor to The Victor Specialty Company, Canton, Ohio, a Corporation of Ohio. Filed June 5, 1914. Serial No. 843,130. (Cl. 55—65.)



1. An article of the character described, comprising a body portion, a sleeve adapted to fit upon a handle, an outwardly curved, rounded blade extending centrally from said body portion, and a pair of tangs located one at each side of said blade and bent backward toward said sleeve.

2. An article of the character described comprising a body portion, a split sleeve adapted to fit upon a handle, an outwardly curved rounded blade extending centrally from said body portion and a pair of tangs located one at each side of said blade and bent backward toward said sleeve, said tangs provided with strengthening beads throughout their length.

3. An article of the character described comprising a body having a central channel portion, a split sleeve adapted to fit upon a handle, an outwardly curved channeled blade extending from said channel portion, and a pair of tangs located one at each side of said blade and bent backward in an arc toward said sleeve, said tangs provided throughout their lengths with strengthening beads.

4. A tool of the character described formed of a single sheet of metal, the blank form of which comprises a

rectangular portion connected to the body portion by a restricted neck, a slightly tapered tongue extended outwardly from the center of the body portion and provided with a notch in its outer extremity, and elongated tangs extended outwardly from the body portion one at each side of the tongue.

5. An article of the character described comprising a body portion, a sleeve adapted to fit upon a handle, an outwardly curved rounded blade extending centrally from said body portion and a pair of spring fulcrums projecting from the body portion one at each side of said blade and bent backward toward said sleeve.

1,131,715. METHOD FOR OPENING OUT PLANTS OR LOOSENING THEIR FIBERS. CARL F. KÜBLER, Wilmersdorf, Germany. Filed Nov. 9, 1912. Serial No. 730,535. (Cl. 92—10.)

1. A method for opening out fibrous plants, consisting in subjecting the plants to a soaking operation adding a solvent to the soaking liquid, then to a freezing temperature and when frozen to a washing operation.

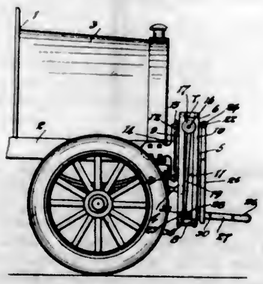
2. A method for opening out fibrous plants, consisting in subjecting the plants to a soaking operation adding a fatty emulsion to the soaking liquid, then to a freezing temperature and when frozen to a washing operation.

3. A method for opening out fibrous plants, consisting in subjecting the plants to a soaking operation, then to a freezing temperature and when frozen to a washing operation adding a solvent to the washing liquid.

4. A method of opening out fibrous plants, consisting in separating the skin and flesh of the plants from the coarser affixtures, then subjecting the material to a soaking operation in an emulsion, subjecting the material to a freezing operation, and then washing the material at the same time applying an artificial heat.

5. A method of opening out fibrous plants, consisting in soaking the material in an emulsion until the hard parts are soft, draining, and then artificially freezing the material throughout, washing the plants in the presence of an artificial heat and under pressure and finally adding an emulsion.

1,131,716. AUTOMOBILE-FENDER. JACOB KWIATKOWSKI, Winnipeg, Manitoba, Canada. Filed May 4, 1914. Serial No. 836,272. (Cl. 105—130.)



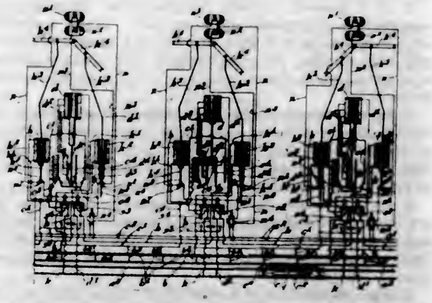
1. The combination of a main rectangular frame with a main cross shaft movable in a vertical direction between guide ways presented by the frame, hangers mounted on the cross shaft, auxiliary cross shafts carried by the hangers, a guide fending frame suspended from one of the auxiliary shafts, an actuating frame connected to the other of the auxiliary shafts and means for releasably locking the latter auxiliary shaft to the main frame, as and for the purpose specified.

2. The combination of a main rectangular frame presenting a pair of vertically disposed guide ways, with a main cross shaft having the ends thereof received within the guide ways, hangers mounted on the cross shaft and in the nature of bell cranks presenting long and short arms, an auxiliary cross shaft carried by the long arms of the hangers, an auxiliary cross shaft carried by the short arms of the hangers, a guard fending frame suspended from the latter auxiliary shaft, a normally advanced actuating frame connected with the former auxiliary cross shaft and releasable means for normally locking the former auxiliary shaft to the main frame in the advanced position of the actuating frame, as and for the purpose specified.

3. The combination of a main rectangular frame, presenting a pair of vertically disposed guide ways, with a main cross shaft having the ends thereof received within the guide ways, hangers mounted on the cross shaft and in the nature of bell cranks presenting long and short arms, an auxiliary cross shaft carried by the long arms of the hangers, an auxiliary cross shaft carried by the short arms of the hangers, a guard fending frame suspended from the latter auxiliary shaft, rods extending forwardly from the former auxiliary shaft, a normally advanced actuating fender provided with rearwardly extending tubes receiving the rods slidably, said tubes resting on the main frame and means for normally locking the former auxiliary shaft to the main frame in the advanced position of the actuating frame, as and for the purpose specified.

4. The combination of a main rectangular frame, presenting a pair of vertically disposed guide ways, with a main cross shaft having the ends thereof received within the guide ways, hangers mounted on the cross shaft and in the nature of bell cranks presenting long and short arms, an auxiliary cross shaft carried by the long arms of the hangers, an auxiliary cross shaft carried by the short arms of the hangers, a guard fending frame suspended from the latter auxiliary shaft, slotted rods extending forwardly from the former auxiliary shaft, a normally advanced actuating frame provided with rearwardly extending tubes receiving the rods slidably, said tubes resting on the main frame, pins carried by the tubes and entering the slots and a spring controlled catch piece carried by the main frame and normally engaging with and locking the former cross shaft to the main frame in the advanced position of the actuating frame, as and for the purpose specified.

1,131,717. COMBINED ELECTRIC RAILWAY AND SIGNAL SYSTEM. PAUL W. LEFFLER, Chicago, Ill.; Anna A. Leffler, administratrix of said Paul W. Leffler, deceased, assignor to Leffler Electric System, Chicago, Ill., a Corporation of Maine. Filed Aug. 13, 1908. Serial No. 448,270. Renewed Aug. 10, 1914. Serial No. 856,153. (Cl. 246—36.)



1. The combination with a car and a track for the same, of electrically operated signaling devices spaced apart from each other along the line of the car's travel, a dynamo of the type and construction which delivers a substantially constant predetermined current but variable in voltage according to load, a circuit from said dynamo into which the said signaling devices are connected in shunt by said car and automatic rheostats in said circuit controlled by the car, said signaling devices being connected around said rheostats, substantially as described.

2. The combination with a track and a car, of block towers spaced apart from each other along said track, a metallic supply circuit, a dynamo of the type and construction which delivers a substantially constant current but variable in voltage according to load, said dynamo being connected to said supply circuit, signaling devices at the towers located in normally opened shunts from said supply circuit, and automatic rheostats in said supply circuit at the said towers, controlled by said car and regulating the current delivered to said signaling devices.

3. The combination with a track and a car, of block towers spaced apart from each other along said track, a metallic supply circuit, a dynamo supplying current to said circuit and which dynamo is of the type and construction which delivers a substantially constant current but variable in voltage according to load, electric signal devices at said towers located in normally opened shunts from said supply circuit, at least one of said shunts including electrical connections between signaling devices at two consecutive towers and another shunt including a signaling device at another tower, and automatic rheostats in said supply circuit at the towers, controlled by said car, and themselves regulating the current delivered to the shunts for the three interconnected signal devices, substantially as described.

4. The combination with a car, of a track for the same, at least one rail of which is divided into blocks insulated from each other, a sectional third rail having its sections insulated from each other and from the ground, signaling towers, one for each of said track blocks, a metallic supply circuit, a dynamo supplying current to the said circuit and which dynamo is of the type and construction which delivers a substantially constant current but variable in voltage according to load, electrical signal devices at said towers, located in normally opened shunts from said supply circuit and including as elements thereof, sections of said sectional third rail and track rail, and automatic rheostats in the said supply circuit, one at each of said towers, normally connected to close the supply circuit at the said rheostat, but operating under the control of the car to regulate the amount of current delivered to said shunt circuit connections and thereby operate the said signal devices, substantially as described.

5. The combination with a car, of a track for the same, at least one rail of which is divided into blocks insulated from each other, a sectional third rail having its sections insulated from each other and from the ground, signal towers, one at each of said track blocks, a metallic supply circuit, a dynamo supplying current to said circuit and which dynamo is of the type and construction which delivers a substantially constant current but variable in voltage according to load, electric signal devices at said towers located in normally opened shunts from said supply circuit and including as elements thereof, sections of said sectional third rail and of the said sectional track rail, at least one of said shunts including electrical connections between signaling devices at two consecutive towers and another shunt including a signaling device at another tower, and automatic rheostats in said supply circuit, one at each tower, normally closing the supply circuit at the corresponding rheostats and operating under the control of the car, to regulate the amount of current delivered to said shunt circuit connections and thereby operating said signal devices and indicating the condition of the particular block section in which there is a car, substantially as described.

1,131,718. BURNER. CHARLES I. LINDAU, Pearce, Ariz. Filed Dec. 14, 1914. Serial No. 877,151. (Cl. 158—75.)



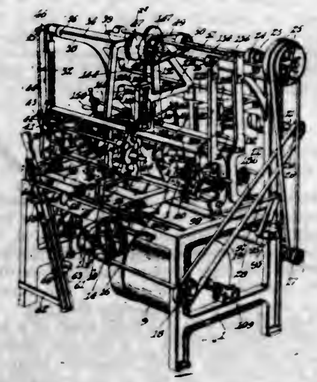
1. In a burner of the character described, an expansion chamber, a mixing chamber connected with the expansion chamber and having free communication therewith, a liquid fuel supply pipe extending into the mixing chamber, a spray nozzle connected with the outlet end of the liquid fuel supply pipe and discharging into the mixing chamber, an atomizing gas or gaseous mixture supply pipe extending through the liquid fuel supply pipe and discharging into the expansion chamber, and a burner-member having means of communication with the mixing chamber to receive gas therefrom.

2. In a burner of the character described, an expansion chamber having one end closed and its opposite end open, a mixing chamber connected with the open end of the expansion chamber and having free communication therewith, a liquid fuel supply pipe extending longitudinally into the mixing chamber, a spray nozzle connected with the outlet end of the liquid fuel supply pipe and discharging into the mixing chamber, an atomizing gas or gaseous mixture supply pipe extending through the liquid fuel supply pipe and discharging into the expansion chamber at a point remote from the spray nozzle, and a burner-member having means of communication with the mixing chamber to receive gas therefrom.

3. In a burner of the character described, a shell, an outer pipe leading into the shell to supply a liquid fuel thereto, a spray nozzle connected with the outlet end of the outer pipe and having spiral discharge passages, an inner pipe extending through the outer pipe and discharging a gas or gaseous mixture under pressure into the shell, and a burner-member having means of communication with the shell.

4. In a burner of the character described, a shell comprising a forward expansion chamber and a rear mixing chamber, an outer pipe extending axially through the mixing chamber, a spray nozzle connected with the forward end of the outer pipe and provided with rearwardly discharging spiral outlet passages discharging into the mixing chamber, an inner pipe extending axially through the outer pipe and spray nozzle and discharging into the expansion chamber, and a burner-member connected with the mixing chamber.

1,131,719. WOODWORKING-MACHINE. THOMAS LUND, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 27, 1911. Serial No. 657,142. (Cl. 142—14.)



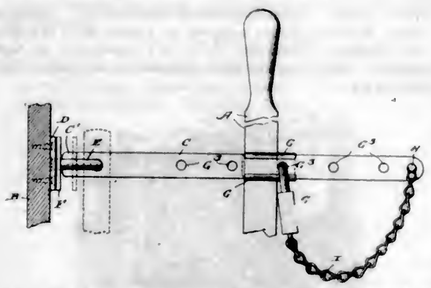
1. Apparatus of the class described, comprising stock working mechanism, model-supporting mechanism, blank-supporting mechanism, grading mechanism, and duplex blank-supporting mechanism, said mechanism coöperating for the simultaneous production of forms in duplicate graded series comprising symmetrical mates in pairs.

2. In a machine of the class described, a support comprising a bed and overhanging arms, a stock working device and its carriage movable horizontally upon said bed, actuating shafts supported by said arms, duplex swinging frames depending from said overhead arms on each side

of said stock-working device, and connected for opposed movements relatively thereto, a blank-supporting means carried by said frames respectively and connected operatively with said shafts, one of said frames being provided also with model-supporting mechanism, connected actuatively in tandem relation with said blank-moving mechanism, a model-controlling device opposite the portion of said frame carrying said model-supporting mechanism, and means to actuate said respective instrumentalities.

8. In a machine of the class described, stock-working mechanism, a swinging model-supporting frame provided also with blank-supporting mechanism, and a duplex blank-supporting frame to permit the symmertical treatment of another blank by said stock-working mechanism under the control of said model-supporting mechanism, model and blank-supporting centers forming part of said blank-supporting, duplex blank-supporting and model-supporting mechanism respectively; and a system of gears and shafts connecting said centers for corotation, said system including pinions fast to said centers on said model-supporting frame respectively, a horizontal shaft with pinions in mesh with said center-pinions, and having a bevel-gear, an upright counter shaft with bevel-gears above and below, the latter gear meshing with said bevel-gear on said horizontal shaft, an upper horizontal shaft having a bevel-gear meshing with said upper bevel-gear of said upright shaft, and a second upper horizontal shaft in alinement with the center of said duplex swinging frame, gears connecting said upper shafts for opopsite rotation, a second upright shaft on said duplex swinging frame, having upper and lower bevel-gears, and bevel-gears on said second upper shaft and said duplex blank center respectively in mesh with said bevel-gears on said duplex upright shaft, and means to drive one of said upper shafts, to rotate said centers in synchronism.

1,131,720. LOCKING DEVICE FOR AUTOMOBILES. WILLIAM L. MCCRAY, Bluefield, W. Va. Filed Dec. 5, 1914. Serial No. 875,691. (Cl. 70—90.)



1. In devices of the class described, the combination with a pivoted lever, of a bar pivoted to swing into position transverse to and alongside said lever and provided with devices to prevent its moving laterally from the lever and to prevent the lever from swinging in one direction, and a lock adapted to engage the bar and prevent the swinging of the lever in the opposite direction.

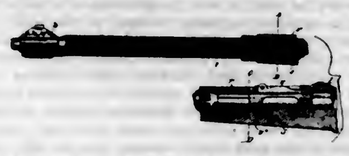
2. The combination with a pivoted lever, of a normally pendant bar pivoted to swing to a position transverse to and alongside the lever, a slide adjustable along the bar and adapted to embrace one side of the lever and obstruct its swinging except in one direction, and a lock for securing the slide to the bar and itself preventing the swinging of the lever in said one direction.

3. The combination with a pivoted lever, of a transversely perforated bar pivoted near one end to swing in the plane of the lever and having its end portion forked to embrace the latter, a transversely perforated U-shaped slide mounted upon the fork to prevent the swinging of the lever in one direction, and a lock adapted to secure the slide to the fork and bar the swinging of the lever in the opposite direction.

4. The combination with a pivoted lever, of a bar provided with a series of transverse perforations and pivoted to swing to a position transverse to and alongside the lever, a transversely perforated slide adjustable along the bar and adapted to embrace one side of the lever and prevent the lateral separation of the two and the swinging of the lever in one direction, and a lock arranged to pass through the perforations in the slide and bar, obstructing the swinging of the lever in the opposite direction and locking the slide to the bar.

5. The combination with a pivoted forked lever, of a plate secured to a fixed support by suitable fastenings, a second movable plate adapted to cover and protect said fastenings, a normally pendant forked lever pivotally supported from the first mentioned plate to swing to position transverse to and embracing said lever and adapted when so swung to hold said second plate in position for protecting said fastenings, a slide adjustable along the forked portion of the bar to embrace one side of the lever, and a lock adapted to secure the slide to the bar while preventing the swinging of the lever in a direction away from the side embraced by the slide.

1,131,721. AUTOMATIC FIREARM. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Aug. 30, 1913. Serial No. 787,514. (Cl. 42—3.)



1. A firearm including a barrel, a fluted tube arranged around said barrel and inclosing a space between the barrel and the inner face of said fluted tube, a stock and a wooden hand protecting casing arranged around the rear portion of said tube and provided with ribs corresponding to the flutes of said tube so as to tightly embrace said tube.

2. A firearm including a barrel, a fluted tube arranged around said barrel and inclosing a space between the barrel and the inner face of said fluted tube, a stock and a wooden hand protecting casing tightly inclosing the rear portion of said tube, and front and rear sights carried by said tube.

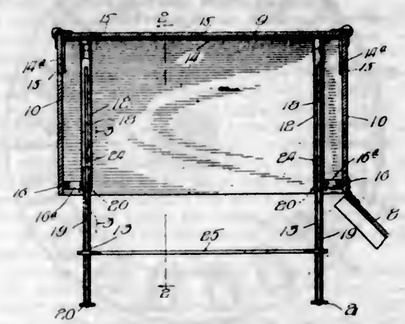
3. A firearm including a barrel, a fluted tube arranged with space around said barrel and connected at the rear end with said barrel and free to expand at its front end around the barrel, a stock and a wooden hand protecting casing tightly arranged around the rear portion of said tube and provided with ribs corresponding to the flutes of said tube so as to tightly embrace said tube.

1,131,722. GARMENT-SUPPORTING FIXTURE. FRANK W. MEYER, Oshkosh, Wis., assignor to The Oshkosh Trunk Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed Sept. 16, 1914. Serial No. 861,954. (Cl. 211—16.)

1. In a garment supporting fixture, the combination of a supporting member provided with an upwardly opening longitudinal slot, and an arm in slidable connection with said supporting member and provided with a longitudinal upwardly extending rib adapted to project into said slot, the upper surface of said rib being substantially flush with the adjacent upper surface of said supporting member.

2. In a garment supporting fixture, the combination of a tubular supporting member provided with an upwardly opening longitudinal slot, a rod slidably mounted in said tubular supporting member and provided with a longitudinally extending rib adapted to project into said slot, the upper surfaces of said supporting member and rib being substantially flush.

3. In a garment supporting fixture, the combination of a plurality of tubular supporting members, each being provided with an upwardly opening longitudinal slot, a rod slidably mounted in each of said supporting members and each rod being provided with a longitudinally extending rib adapted to project into the slot of its supporting member, the upper surfaces of said supporting members and ribs being substantially flush, and means for supporting said tubular members in fixed and parallel relation.

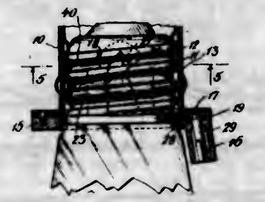


4. In a garment supporting fixture, the combination of a plurality of supporting members, spaced apart and arranged in parallel relation, each of said supporting members being provided with an upwardly opening longitudinal slot, a rod slidably mounted in each of said supporting members and adapted to be extended from one end thereof, each of said rods being provided with a longitudinal rib adapted to project vertically into the slot of its supporting member, and a fixed bar extending between and rigidly connecting said supporting members.

5. In a garment supporting fixture, the combination of two tubular supporting members, spaced apart and arranged in parallel relation, each of said supporting members being provided with an upwardly opening longitudinal slot, an arm slidably mounted in each of said supporting members and adapted to be extended from one end thereof, each arm being provided with a longitudinal rib adapted to project into the said slot of its supporting member, the upper surfaces of said ribs and tubular supporting members being substantially flush, and means for supporting said tubular members comprising a fixed bar extending between and rigidly connecting said supporting members at one end thereof, and brackets connected with the opopsite ends of said supporting members.

[Claims 6 to 8 not printed in the Gazette.]

1,131,723. LOCK ATTACHMENT FOR SOCKETS. ROBERT V. MILLER and JOHN ARVID MOLIN, Yonkers, N. Y. Filed May 8, 1914. Serial No. 837,135. (Cl. 173—356.)



1. An attachment for contact sockets comprising a member having curved ear projections adapted to be forced into a socket, and means for preventing rotary movement of the attachment and releasable means for preventing the removal of a base or plug after it has been inserted in the socket.

2. An attachment for contact sockets comprising a member having curved ear projections adapted to be forced into a socket, and having means for preventing rotary movement of the attachment and means for preventing the removal of a base or plug without interfering with its introduction into the socket.

3. An attachment for contact sockets comprising a member having curved ear projections adapted to be forced into a socket longitudinally, means on said projections for preventing rotary movement of the attachment, and a pawl lock adapted to be released by a suitable key for preventing the removal of a base or plug which has been inserted in the socket.

4. An attachment for contact sockets comprising a member having curved ear projections adapted to be forced into a socket and having means for preventing rotary movement of the attachment, a pawl lock, a spring arranged to press said pawl into locking position, a key for moving the lock out of locking position, and means for holding the key and the lock against the action of the spring.

5. An attachment for contact sockets comprising a ring-shaped body having a laterally projecting key socket lug, a pair of cylindrically curved ears or clips adapted to be inserted between the usual insulation and the outer walls of a contact socket, and having means for preventing rotary movement of the attachment and a pawl lock mounted in said ring and extending into the opening within the ring.
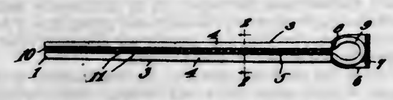
[Claims 6 to 9 not printed in the Gazette.]

1,131,724. ELECTRIC-LAMP SOCKET. CHARLES B. MILLS, Baltimore, Md., assignor of one-fourth to Alfred J. Carr, Baltimore, Md. Filed Sept. 24, 1913. Serial No. 791,681. (Cl. 173—340.)



The combination with a cable, of a lamp socket member, headed pins having the head ends thereof embedded in said socket member and electrically connected therewith, and the shanks thereof disposed at an acute angle to the normal axis of the pins and designed to penetrate the cable, the bent portions of the pins forming, at the junction with the straight portions, heels disposed in proximity to the upper surface of the socket member whereby the upper surface of such socket is caused to abut the adjacent portion of the cable and maintained in engagement with the cable.

1,131,725. GRIPPER, PERFORATOR, AND CREASER. SAMUEL S. MITCHELL, Weiser, Idaho. Filed Feb. 16, 1914. Serial No. 819,023. (Cl. 164—98.)



1. In a device of the character described, a clamp embodying a pair of elongated jaws, a blade disposed therebetween, and a sheath slipped longitudinally over the jaws and comprising a body portion having sides, the sides having lips projecting toward each other to provide a slot therebetween, the blade passing through the said slot, the sides of the sheath engaging the jaws to clamp the blade therebetween, and the jaws being held snugly between the said lips and body portion of the sheath.

2. In a device of the character described, a pair of elongated jaws having a loop at one end, the jaws being tapered from the loop to their other ends, a blade disposed between the jaws, and a sheath embracing the jaws and having a slot for the passage of the blade, the sheath being tapered from one end to the other corresponding to the jaws.

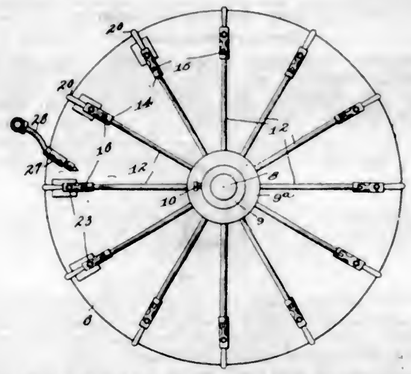
3. In a device of the character described, a pair of elongated jaws having a loop at one end, a blade disposed between the jaws, and means engageable longitudinally with the said jaws to clamp the blade therebetween and having retaining means engageable over the said loop.

4. In a device of the character described, a pair of elongated jaws having a loop at one end, a blade disposed between the jaws, and a sheath embracing the jaws and having a slot for the passage of the blade, the sheath having a resilient retaining member arranged to snap over the said loop.

5. In a device of the character described, a pair of elongated jaws having a loop at one end, and a sheath arranged to be slipped longitudinally over the jaws and having a longitudinal slot, and a flexible tongue at one end to project over one side of the said loop, the tongue having an angular flange at its free end to snap over the loop.

[Claims 6 to 9 not printed in the Gazette.]

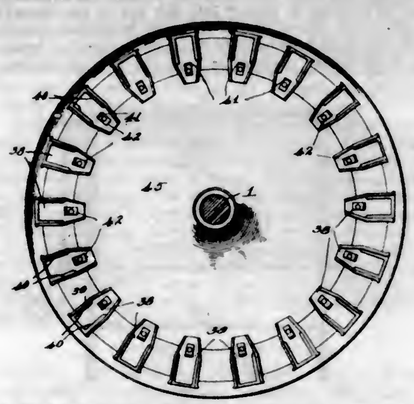
1,131,726. SOLDERING-MACHINE. NATHAN MUSHER, Washington, D. C. Filed Jan. 5, 1914. Serial No. 810,499. (Cl. 113—81.)



1. In a can soldering machine, the combination with a central shaft, of a flat imperforate circular table revolubly mounted thereon and adapted to support cans in upright positions, a collar adjustably secured upon said shaft co-axial with said table and provided with an annular base flange formed with a plurality of equi-distant peripheral radial sockets, a series of radial rods removably secured at their inner ends in said sockets, a plurality of clamping devices, each consisting of a tubular guide having a horizontal arm bored to form a socket, to receive the outer end of one of said rods, a perforated lug projecting upward from the inner end of said arm, a spring-pressed plunger extending through said guide, and a lever fulcrumed on said lug and having an elongated slot to receive the upper end of said plunger.

2. In a can-soldering machine, the combination with a central vertical shaft and a flat circular table revolubly-mounted thereon adapted to support and revolve cans in upright position, of a series of equi-distant radial rods, means for supporting the inner ends of said rods comprising a collar adjustably secured to said shaft, and having at its lower end an annular flange formed with peripheral sockets to receive said inner ends of the rods, an independent supporting means for the outer end of each of said rods, consisting of a vertically-disposed tubular guide formed on its inner side with a horizontal arm bored to form a socket alining with one of the collar flange sockets, a lug projecting upward from the inner end of said arm, a plunger extending through said guide, and rounded at its lower end, a stop on said plunger, a coil spring encircling the plunger between said stop and said guide, and a lever fulcrumed on said lug and slotted to receive the upper end of the plunger.

1,131,727. PACKAGE-FILLING MACHINE. NATHAN MUSHER, Washington, D. C. Filed Jan. 5, 1914. Serial No. 810,501. (Cl. 226—9.)



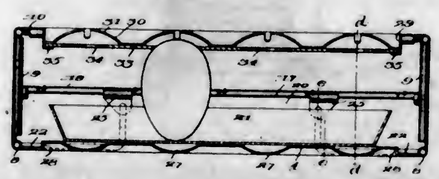
1. In a package-filling machine, the combination with a revoluble shaft, of a fixed circular cam-faced track-way, a hub secured to said shaft, radial arms projecting from said hub, a flanged drip pan supported by said arms and formed with a central opening for said shaft and a row of openings formed adjacent the periphery of said pan, upwardly projecting sleeve guards for each of said openings, a series of vertically-movable rods extending through said row of openings, a ring supported below said pan and formed with guide openings for said rods, rollers carried by the lower ends of said rods adapted to travel on said track-way, and a series of holders supported upon the upper ends of said rods.

2. A can-holder for filling machines, comprising an inclined base having side guards or flanges converging at their inner ends, and projections on said base to support a can above the inclined surface of the base.

3. A can-holder for filling machines, comprising an inclined base provided with side flanges converging at their inner ends, projections on said base to support a can above the latter, and a stop adjacent the inner end of said base to engage the can.

4. In a can-filling machine, the combination with a supporting rod, of a can-holder comprising a base having a depending socket to receive the upper end of said rod and side guards converging at their inner ends, projections on said base to support a can above the upper surface of the base, and a stop to limit the inward movement of the can.

1,131,728. EGG CARRIER OR BOX. PETER J. NAGLE, Rochester, N. Y. Filed May 24, 1913. Serial No. 769,689. (Cl. 220—111.)



1. In an egg carrier, the combination with a casing having pockets in the bottom thereof for receiving the lower ends of eggs, of a separator for holding the eggs separated from each other within the casing with their lower ends resting in the pockets, and a movable cover for the casing having pockets for receiving the upper ends of the eggs and holding said eggs against movement within the casing.

2. In an egg carrier, the combination with a casing having pockets in the bottom thereof for receiving the lower ends of eggs, of a separator for holding the eggs separated from each other within the casing with their lower ends in the pockets, and a movable cover carrying a yieldingly supported drum of card board having openings for receiving the upper ends of the eggs and holding said eggs against movement within the casing.

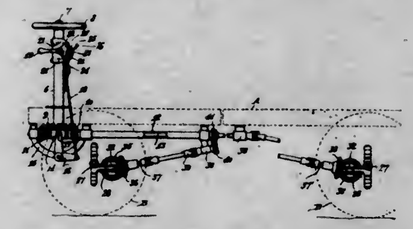
3. An egg carrier comprising a casing, a separator therein, a cover having sheet metal portion formed with upwardly pressed portions providing pockets and a drum formed of cardboard and secured to the cover, said drum having openings coincident with the pockets in the cover for receiving the upper ends of eggs within the casing.

4. An egg carrier comprising a casing having an intake opening at its top and a discharge opening in one of its side walls, a receptacle arranged in the casing to support the lower ends of the eggs, and removable with the eggs through the opening in the side wall, and a separator movably arranged within the casing above the receptacle and adapted to hold the eggs in the receptacle in a separated condition.

5. An egg carrier comprising a casing having pockets in the bottom wall thereof, a removable receptacle made of paper board and adapted to be supported on the bottom wall over said pockets, and separating means for holding the eggs separated within the receptacle, the receptacle being removable from said casing with the eggs therein.

[Claims 6 to 23 not printed in the Gazette.]

1,131,729. STEERING MECHANISM FOR MOTOR-VEHICLES. FREDERICK NEUDORFF, Atlanta, Ga. Filed Dec. 22, 1911. Serial No. 667,881. (Cl. 21—90.)



1. In a steering mechanism, a guided drag-link, pivoted wheel-spindles having arms projecting therefrom, and connecting means between said arms and said drag-links, said means being bodily movable transversely relative to the axis of said drag-link.

2. In a steering mechanism, a guided drag-link provided with elongated heads at each end, pivoted wheel-spindles having arms projecting therefrom, and connecting means between said arms and elongated heads, said means being bodily movable on said elongated heads and transversely relative to the axis of said drag-link.

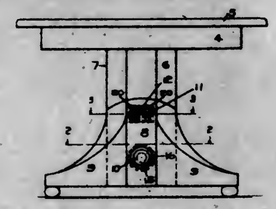
3. A steering mechanism, comprising a guided drag link having teeth upon a portion of its length and provided with heads at each end, blocks adapted to slide in said heads transversely relative to the axis of said drag-link and to which the ends of the steering arms of pivoted wheel spindles are pivoted, means mounted concentrically on said drag link and adapted to engage said teeth to reciprocate said drag link, and means for operating said reciprocating means.

4. A steering mechanism comprising a guided drag link having teeth, means for connecting the ends of said drag link to the steering arms of the pivoted wheel spindles of a vehicle, and means for reciprocating said drag link embodying an internally threaded gear wheel mounted on said drag link its internal threads adapted to engage the teeth on said link, a shaft provided with gear wheels on each end one of which meshes with said internally threaded gear wheel, a second shaft having gear wheels on each end one of which meshes with one of said gears on the first mentioned shaft, and a steering shaft having a hand wheel and a gear which meshes with a gear on said second mentioned shaft.

5. A steering mechanism, comprising a guided drag-link having teeth on a portion of its length, means for connecting the ends of said drag-link to the pivoted wheel spindles, an internally threaded gear mounted around said drag-link with its internal threads engaging the teeth on said link and fixed in position against other than rotary movement, and means for rotating said threaded gear.

[Claims 6 to 11 not printed in the Gazette.]

1,131,730. PEDESTAL-TABLE. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Oct. 16, 1913. Serial No. 795,429. (Cl. 45—117.)



1. In a pedestal table, a pedestal having longitudinal sections, legs for each of said sections, a pin pivotally connecting said sections, and springs, one of the sections of the pedestal having a recess, another section having an arm entering said recess, the springs being seated in said recess, and engaging said arm.

2. In a pedestal table, a pedestal having longitudinal sections, legs for each of said sections, a pin pivotally connecting said sections, and a pair of springs, one of the sections of the pedestal having a recess, another section having an arm entering said recess, the springs being seated on either side of said arm and each engaging a wall of the recess at one end and the said arm at the other end.

3. In a pedestal table, a pedestal having longitudinal sections, legs for each of said sections, a pin pivotally connecting said sections, springs, and an arm, one of said sections of the pedestal having a recess to receive the springs, the other section having the arm, said arm entering said recess and engaging between the springs, said arm being provided with an attaching flange.

4. In a pedestal table, a pedestal having longitudinal sections, legs for each of said sections, a pin pivotally connecting said sections, springs, and an arm, one of said sections of the pedestal having a recess to receive the springs, the other section having the arm engaged thereto, said arm entering said recess and engaging between the springs, said arm being provided with an attaching flange, the pin passing through the flange to secure the same to one section of the pedestal.

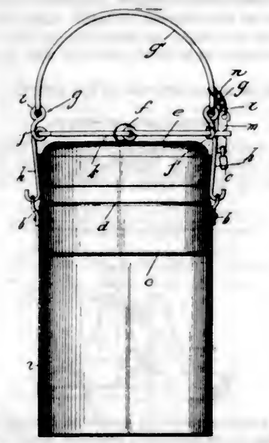
5. In a pedestal table, the combination with a top, of a pedestal formed in two sections, and a horizontally extending pivot for pivotally connecting said sections, one of said sections having the top secured thereto and forming the sole support for the top and the other section being adapted to swing about said horizontally extending pivot to thereby adjust itself to an uneven floor.

[Claim 6 not printed in the Gazette.]

1,131,731. PAIL. JOHN THOMAS ARTHUR PELLOW, Laurium, Mich. Filed Aug. 21, 1912. Serial No. 716,133. (Cl. 220—61.)

1. A receptacle of the character described having a cover, bail-ears and a bail the end portions of which are formed with eyes and are hooked detachably into the bail-ears; and a transverse locking-bar which is carried by the bail and extends between the end portions thereof and just above the cover; one end of said locking-bar being mount-

ed in the eye formed in one end portion of the bail and the other end of said locking-bar being releasably interlocked with the eye in the other end portion of the bail; said locking-bar being capable of ready and entire withdrawal from above the cover, when its last-named end is released from its interlock with the last-named eye.



2. A receptacle of the character described having a cover, bail-ears and a bail the end portions of which are formed with eyes and are hooked detachably into the bail-ears; a transverse locking-bar which is carried by the bail and extends between the end portions thereof and just above the cover; one end of said locking-bar being mounted in the eye formed in one end portion of the bail and the other end of said locking-bar being releasably interlocked with the eye in the other end portion of the bail; and means for detachably fastening the last-named end of said locking bar in interlocked relation with the last-named eye; said locking-bar being capable of ready and entire withdrawal from above the cover, when its last-named end is released from its interlock with the last-named eye.

3. A receptacle of the character described, including a body portion having bail-ears and a bail the end portions of which are formed with eyes and are hooked into the bail-ears; a box removably mounted in said body portion and provided with a cover; and a transverse locking-bar which is carried by the bail and extends between the end portions thereof and just above the cover and locks said box in said body portion; one end of said locking-bar being mounted in the eye formed in one end portion of the bail and the other end of said locking-bar being releasably interlocked with the eye in the other end portion of the bail; said locking-bar being capable of ready and entire withdrawal from above the cover, when its last-named end is released from its interlock with the last-named eye.

1,131,732. METHOD OF MAKING SHOES. ADAM H. PRENZEL, Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 14, 1913. Serial No. 773,753. (Cl. 36—20.)

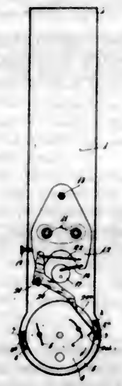


1. The method of making shoes consisting in supplying an inner sole with a flexible part at its edges on its outer face, lasting a lining to the inner sole and securing the edges of the lining to the flexible part thereof, placing an upper over the lining, securing the edges of the upper to the flexible part and to the lining edge, projecting the edges of the upper, lining and flexible part outwardly, applying an outer sole and uniting the edges of the upper, lining, flexible part and outer sole, substantially as described.

2. The art of making shoes consisting in providing an inner sole with a flexible attaching part on its under face adjacent to its edges, lasting a lining to the said flexible part below the edge of the inner sole by a line of stitches, placing an upper on the lining and securing the edges of the upper to the lining and to the flexible part below the edge of the inner sole, projecting the edge of the upper outwardly, placing an outer sole in position, placing a welt on the edge of the upper, and uniting the welt, upper and outer sole.

3. The art of making shoes consisting in providing an inner sole with a flexible edge portion, uniting the edge of a lining to said flexible edge portion, uniting the edge of an upper to the lining and to the flexible portion and connecting the upper, lining and flexible edge portion to the edge of the outer sole.

1,131,733. THERMOSTAT. HARRY T. RAYMOND, Minneapolis, Minn., assignor to George C. Andrews, Minneapolis, Minn. Filed Mar. 20, 1912. Serial No. 685,121. (Cl. 236—7.)



1. In a thermostatic temperature regulator, the combination with coöperating contacts, of means for relatively adjusting said contacts, comprising a time actuated tappet and a tappet engaged member, said engaged member operating as a stop to limit the movements of said tappet.

2. In a thermostatic temperature regulator, the combination with coöperating electrical contacts, of means for relatively adjusting said contacts, comprising a time actuated rotary tappet and a tappet engaged lever, said lever operating as a stop to intercept and limit the movements of said tappet.

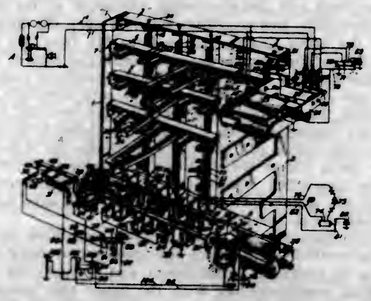
3. In a thermostatic temperature regulator, the combination with coöperating electrical contacts, of means for relatively adjusting said contacts, automatically and to a predetermined extent and at a predetermined time, said means comprising a time actuated tappet, a tappet engaged member, and a stop limiting the movements of said tappet engaged member and causing said tappet engaged member to intercept and limit the movements of said tappet.

4. In a thermostatic temperature regulator, the combination with coöperating electrical contacts, of means for relatively adjusting said contacts, automatically and to a predetermined extent and at a predetermined time, said means comprising a time actuated tappet, a tappet engaged member, and a stop limiting the movement of said tappet engaged member and causing said tappet engaged member to intercept and limit the movements of said tappet, the said stop being adjustable so as to vary the extent of relative adjustment given to said electrical contacts.

5. In a thermostatic temperature regulator, the combination with a thermally actuated contact, of a pivoted contact carrier provided with a contact for coöperation with said thermally actuated contact, a setting lever connected to said contact carrier, a clock having a time actuated tappet operative on said setting lever and a stop limiting the movements of said contact carrier and of said setting lever.

[Claim 6 not printed in the Gazette.]

1,131,734. LINE-SWITCH. JOHN N. REYNOLDS, Greenwich, Conn., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed May 10, 1913. Serial No. 766,879. (Cl. 179—27.5.)



1. In a switch, a group of terminals at said switch, a group of other circuit terminals for engagement with said first circuit terminals, groups of rotatable shafts corresponding to said groups of terminals, and means whereby the successive rotation of a shaft of each group will cause interengagement of a pair of terminals.

2. In combination telephone circuits, a switch associated therewith, terminals of said circuits at said switch, other circuit terminals for engagement with said first circuit terminals, groups of rotatable shafts corresponding to said circuits adjacent and at an angle to each other, and means whereby the successive rotation of a pair of intersecting shafts will cause interengagement of the corresponding terminals.

3. In a switch, a group of line terminals, other circuit terminals arranged for engagement with said line terminals respectively, groups of bars arranged adjacent to each other in intersecting planes, and means for rotating a bar of each group in a predetermined order, whereby engagement of a line terminal with one of said other circuit terminals will be effected.

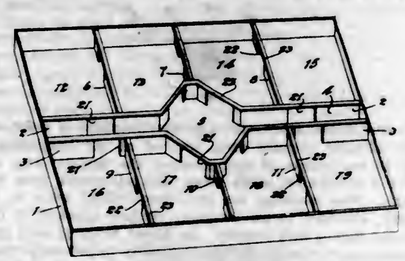
4. In a telephone system, subscribers' lines and trunk lines, an exchange, terminals of said lines and trunk lines respectively at said exchange, and means for connecting said line terminals to said trunk terminals, said means comprising rotatable bars individual to said subscribers' lines and said trunk lines respectively.

5. In a switch, a plurality of line bars and trunk bars pivotally mounted adjacent each other in intersecting planes, multipled terminals of said lines and of said trunks on said line bars and trunk bars respectively, and means for successively rotating said bars, whereby engagement between said line terminals and trunk tedminals may be effected.

[Claims 6 to 19 not printed in the Gazette.]

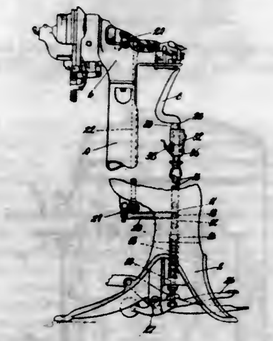
1,131,735. GAME APPARATUS. HARRY EDWARD RIDGEDALE, Winnipeg, Manitoba, Canada. Filed Dec. 4, 1913. Serial No. 804,658. (Cl. 46—41.)

A game apparatus comprising a substantially rectangular box or other container provided with a central passage or runway and a series of compartments on opposite sides of the runway, the walls of the runway being offset to provide a quadrangle in the runway, the compartments opening one to the other and to the runway and a number



of distinguishable sets of marbles or such like contained initially in one compartment, the number of the sets corresponding to the number of compartments, as and for the purpose specified.

1,131,736. WORK-SUPPORT. WILLIAM V. ROBERTSON, New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 2, 1912. Serial No. 694,722. (Cl. 1—41.)



1. In a machine of the class described, the combination with a work support comprising a horn shaft and horn, means for causing the work support to clamp the work, and means for intermittently releasing the clamping pressure of said support to permit the work to be fed thereover, of adjustable connections between said horn and said horn shaft to provide an initial vertical adjustment of the horn upon the horn shaft, said connections comprising a pawl movable with the horn and a ratchet upon said shaft extending along the path of movement of said pawl, the construction being such that the horn is automatically locked against movement away from its operative work supporting position but is permitted free movement toward its operative position.

2. In a machine of the class described, the combination with a work support comprising a horn shaft and horn, means for causing the work support to clamp the work and means for intermittently releasing the clamping pressure of said support to permit the work to be fed thereover, of adjustable connections between said horn and horn shaft to provide an initial vertical adjustment of the horn upon the horn shaft, said connections comprising a ratchet upon said shaft and a pawl spring-pressed normally into engagement with said ratchet to lock said horn automatically against downward movement, and a handle on the pawl to release said pawl from engagement with the ratchet when it is desired to lower the horn to accommodate a thickness of material which requires a clamping pressure outside the range provided by automatic adjustment of the horn.

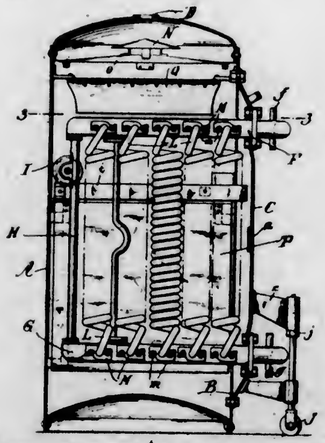
1,131,737. POST. BYRD C. ROCKWELL, Camden, Ark. Filed Sept. 23, 1913, Serial No. 791,362. Renewed July 23, 1914. Serial No. 852,759. (Cl. 20—1.)



1. The combination with a grooved member of a flexible longitudinally foldable strip secured at one longitudinal edge in the groove of said member, the flexible strip being of a substantial width when fully withdrawn from the groove, thus enabling its free longitudinal edge to be readily attached to an irregular surface opposed to the grooved face of said member, the groove being of such proportions as to receive the longitudinally folded strip when the grooved member is in contact with the projections of the irregular surface.

2. The combination of a flexible strip of a substantial width adapted to be attached along one longitudinal edge to an irregular surface, said strip being foldable longitudinally, and a longitudinally grooved member, the grooved face of said member being adapted to bear against said irregular surface and the said groove being of such proportions as to receive the longitudinally folded strip when said grooved member is in contact with said irregular surface.

1,131,738. EVAPORATOR. REUBEN R. ROW, Jersey City, N. J. Filed June 7, 1912. Serial No. 702,277. (Cl. 122—34.)



1. An evaporating apparatus comprising the combination of an upright casing having an outlet at its upper end and an opening in its side wall, a door detachably secured over said opening, partitions detachably mounted within the casing and forming a central ebullition compartment and separating compartments at the sides of the ebullition compartment and communicating with the latter at their upper and lower ends, heating elements mounted on the door and projecting within the ebullition compartment and removable from the ebullition compartment when the door is removed from the casing, a deflector mounted within the casing and above the heating elements for deflecting vapor rising within the ebullition compartment outwardly to the separating compartments and a baffle mounted within the casing between the deflector and said outlet; substantially as described.

2. An evaporating apparatus comprising the combination of an upright casing having an opening in its side wall, a door detachably secured over said opening, partitions mounted within the casing and forming a central ebullition compartment and separating compartments at the sides of the ebullition compartment and communicating with the ebullition compartment at the upper and lower ends thereof, manifolds mounted on the door and projecting therefrom within the ebullition compartment, a plurality of heating coils extending between the manifolds, said door with the manifolds and heating coils thereon being removable from the casing, and a deflector mounted within the casing over the ebullition compartment for deflecting vapor rising within the ebullition compartment outwardly to the separating compartments; substantially as described.

3. An evaporating apparatus comprising the combination of an upright casing having an outlet at its upper end and an opening in its side wall, a door detachably secured over said opening, partitions detachably mounted within the casing and forming a central ebullition compartment and separating compartments at the sides of the ebullition compartment and communicating therewith at its upper and lower ends, two manifolds mounted upon the door one above the other and projecting inwardly from the door into the ebullition compartment, a plurality of coils of heating pipes disposed vertically within the ebullition compartment and connected at their ends to said manifolds, the door with the manifolds and heating pipes mounted thereon being removable from the casing, a deflector mounted within the casing and above the manifolds for deflecting vapor rising within the ebullition compartment outwardly to the separating compartments and a baffle mounted within the casing between the deflector and said outlet; substantially as described.

4. The improvement in evaporating apparatus for obtaining purified liquid, which comprises a containing shell, having an ebullition compartment and a separating compartment communicating with the upper and lowermost portions of said ebullition compartment, a door closing an aperture in said shell leading to said ebullition compartment, manifolds mounted on said door and projecting within said ebullition compartment, heating coils attached to opposite sides of said manifolds by quickly-detachable joints, and a laterally deflecting baffle located within said shell above said ebullition compartment; substantially as described.

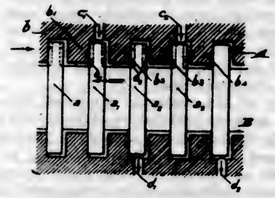
5. The improvement in evaporating apparatus for obtaining purified liquid, which comprises a containing shell having an ebullition compartment and a separating compartment communicating with the upper and lowermost portions of said ebullition compartment, a door closing an aperture in said shell leading to said ebullition compartment, manifolds and heating coils mounted on said door and projecting within said ebullition compartment, rails mounted within said ebullition compartment, rollers mounted upon the inner and upper end of the structure comprising the manifolds, heating coils and door and adapted to rest upon said rails, a roller mounted upon the lower end of said door and adapted to rest upon the floor, and a laterally deflecting baffle located within said shell above said ebullition compartment; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,131,739. THRUST-BEARING. EDUARD RUEGGER, Zurich, Switzerland, assignor to the Firm of Aktiengesellschaft der Maschinenfabriken Escher, Wyss & Cie., Zurich, Switzerland. Filed May 26, 1913. Serial No. 769,952. (Cl. 64—25.)

1. In a thrust bearing, the combination with a shaft having spaced thrust collars thereon, a stationary bearing shell having spaced thrust collars coöperating with those on the shaft, and oil distributing grooves in the faces of one set of collars, of means to supply oil to alternate pairs of coacting collar faces and means to withdraw said oil past the faces of an adjacent pair of collars alternating with the aforementioned pairs of faces.

2. In a thrust bearing, the combination with a shaft having collars thereon, and a stationary shell also having collars thereon coöperating with the collars on the shaft, of means to supply oil under pressure to a chamber bounded by pairs of coöperating bearing collar faces and from which oil may pass over either or both faces to a chamber bounded by adjacent pairs of coöperating bearing collar faces.



3. In a thrust bearing, the combination with a shaft having spaced thrust collars thereon and a stationary bearing shell having thrust collars alternating with the collars on the shaft, of means for forcing oil into the chamber formed between two stationary bearing collar faces constituting a high pressure chamber, and means for discharging oil from the next adjacent chamber formed between two stationary bearing collar surfaces and constituting a low pressure chamber whereby oil entering the high pressure chamber will leave the adjacent low pressure chamber without passing through any other chamber.

4. In a thrust bearing, the combination with a shaft having collars thereon, and a bearing shell having stationary collars coöperating with those on the shaft, of oil grooves in one of the coacting faces of a pair of collars and having a contracted throttled exit end.

5. In a thrust bearing, the combination with a shaft having collars thereon and a bearing shell having stationary collars coöperating with those on the shaft, of radial oil grooves in one of the coacting faces of a pair of collars and having a throttled exit and means to supply oil to a chamber included between two stationary bearing collar faces and constituting a high pressure chamber with which said grooves communicate, and means to discharge oil from an adjacent like chamber constituting a low pressure chamber into which said grooves discharge.

[Claim 6 not printed in the Gazette.]

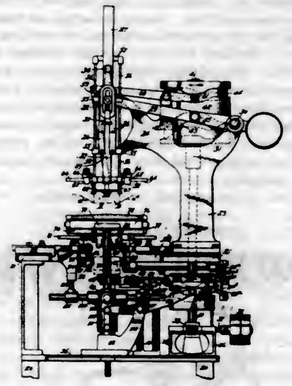
1,131,740. BUILDING-BLOCK. OTTO C. SCHWARZ, New Chicago, Ind. Filed Apr. 11, 1912. Serial No. 690,160. (Cl. 46—35.)



As a new article of manufacture an ornamental artificially-surfaced toy building block comprising a body of fibrous material provided with a surface coating made up of a thin foundation coating of an adhesive binding material cohering to said fibrous body, a body layer of finely divided sand-like granular material partially embedded in said adhesive coating, and an adhesive filling superposed on said foundation coating and filling the spaces between individual particles of the sand-like granular material and serving to bind the projecting portions of the same more firmly to each other and to the foundation coating, substantially as described.

1,131,741. MACHINE FOR FORMING SEALED WRAPPED PACKAGES. HENRY G. SCHWERDTLE, Philadelphia, Pa., assignor to Stokes & Smith Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 5, 1913. Serial No. 799,302. (Cl. 93—2.)

1. In a machine for forming a sealed wrapped package, the combination with wrapper folding and affixing instrumentalities for applying an adhesively coated wrapper to all the walls of the package save one, leaving the marginal edges of said wrapper projecting above the plane of said uncovered wall, said folding instrumentalities including devices for turning the projecting marginal edges of the wrapper over the uncovered wall of the package, of a movable package supporting platen, and a coöperating plunger between which said package and its wrapper are supported and carried through said folding instrumentalities, means for causing a temporary limited retreat of said plunger to permit said projecting edges of the wrapper being turned in, and then a further downward movement of said plunger, and means for holding said platen in fixed position during the temporary retreat of said plunger.



2. In a machine for forming a sealed wrapped package, the combination with wrapper folding and affixing instrumentalities for applying an adhesively coated wrapper to all the walls of a package save one, leaving the marginal edges of said wrapper projecting above the plane of said uncovered wall, of a movable package supporting platen, and a coöperating reciprocating plunger between which said package and its wrapper are supported and carried through said folding instrumentalities, means for causing a temporary limited retreat of said plunger and then a second forward movement thereof to bring the plunger against the package, means for folding the projecting edges of the wrapper over the uncovered walls of the package, and means for holding said platen in fixed position during the temporary retreat of said plunger and until said second forward movement of said plunger secures said wrapper edges to said package.

3. In a machine for forming a sealed wrapped package, the combination with wrapper folding and affixing instrumentalities for applying an adhesively coated wrapper to all the walls of a package save one, leaving the marginal edges of said wrapper projecting above the plane of said uncovered wall, of a movable package supporting platen, and a coöperating plunger between which said package and its wrapper are supported and carried through said folding instrumentalities, means tending constantly to hold said platen in elevated position, means for causing the temporary limited retreat of said plunger, means for folding the projecting edges of the wrapper over the uncovered wall of the package, and means for holding said platen stationary against the force of the elevating means during the temporary retreat and return of said plunger.

4. In a machine for forming a sealed wrapped package, the combination with wrapper folding and affixing instrumentalities for applying an adhesively coated wrapper to all the walls of a package save one, leaving the marginal edges of said wrapper projecting above the plane of said uncovered wall, of a movable package supporting platen, and a coöperating plunger between which said package and its wrapper are supported and carried through said folding instrumentalities, means tending constantly to hold said platen in elevated position, means for causing

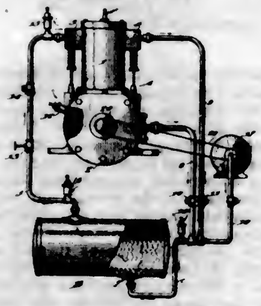
the temporary limited retreat of said plunger from its lowest position, means for folding the projecting edges of the wrapper over the uncovered walls of the platen, and means for positively gripping said platen and holding it stationary against the force of said elevating means during the temporary retreat and return of the plunger.

5. In a machine for forming a sealed wrapped package, the combination with wrapper folding and affixing instrumentalities for applying an adhesively coated wrapper to all the walls of a package save one, leaving the marginal edges of said wrapper projecting above the plane of said uncovered wall, of a movable package supporting platen, and a coöperating plunger between which said package and its wrapper are supported and carried through said folding instrumentalities, means tending constantly to hold said platen in elevated position, means for causing the temporary limited retreat of said plunger from its lowest position, means for folding the projecting edges of the wrapper over the uncovered walls of the platen, means for positively gripping said platen and holding it stationary against the force of said elevating means during the temporary retreat and return of the plunger, and means moving in timed relation with the plunger for operating the gripping means.

[Claims 6 to 8 not printed in the Gazette.]

1,131,742. WITHDRAWN

INTER-NAL-COMBUSTION ENGINE. ROBERT [illegible] MAKER, Beaver Falls, Pa. Filed Aug. 5, 1913. Serial No. 783,092. (Cl. 123—119.)



1. A device of the character described, comprising, in combination with an internal combustion engine, a mixing-tank made fluid-tight and adapted to contain a volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank, a gas supply pipe leading from said tank and connected to have an opening into the explosion chamber of the engine, a pipe connected with said air supply pipe and with the chamber of the cylinder at a suitable point to provide an exhaust opening, a pipe leading from the crank-case to said air supply pipe, and valves located in each of said pipes connecting with the air supply pipe and in the gas supply pipe to be opened and closed at the proper intervals by the suction and compression of the fluid carried by the pipes.

2. A device of the character described, comprising, in combination with an internal combustion engine, a mixing-tank made fluid-tight and adapted to contain the volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank, a gas supply pipe leading from said tank and connected with the inlet of the engine, a pipe connected with the exhaust of the engine and with the air supply pipe, and a pipe leading from the crank-case to said air supply pipe.

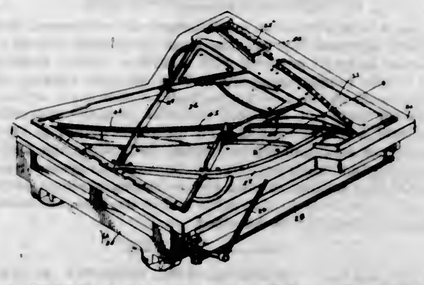
3. A device of the character described, comprising, in combination with an internal combustion engine, a mixing tank made fluid-tight and adapted to contain the volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank and having the opening therefrom submerged in the liquid, a gas supply pipe leading from said tank and connected with the inlet of the engine, a pipe connected with the exhaust of the engine and with the air supply pipe, an air inlet valve placed to admit air to the crank-case, a pipe leading from the crank-case to said air supply pipe to contain the air from said crank-case as it is compressed by the down-stroke of the piston, and valves located in said gas supply pipe and in the pipes from the exhaust and the crank-case.

4. A device of the character described, comprising, in combination with an internal combustion-engine, a mixing-tank made fluid-tight and adapted to contain the volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank preferably at the lowest point thereof, the liquid level in the tank maintained at such a level that a gas chamber is formed in the upper part of the tank, a gas supply pipe leading from the gas chamber and connected with the inlet of the engine, a pipe connected with the exhaust of the engine and with the air supply pipe, a pipe leading from the crank-case to said air supply pipe, and an auxiliary source of air supply arranged to be operated by the normal running of the engine for augmenting the supply of air forced into the mixing-tank.

5. A device of the character described, comprising, in combination with an internal combustion engine, a mixing-tank made fluid-tight and adapted to contain a volatile liquid used to enrich air for forming an explosive charge for the engine, an air supply pipe connected with the mixing-tank preferably at the lowest point thereof, said air supply pipe and tank so constructed that a straining and moistening liquid heavier than the volatile liquid can be placed in the bottom of the tank and in the air supply pipe for straining and moistening air before it passes through the volatile liquid, a gas supply pipe connected with the mixing-tank in the upper part thereof and leading to the inlet of the engine, a pipe from the exhaust of the engine and connected with the air supply pipe, an air inlet valve connected with the crank-case, an air outlet pipe from the crank-case to the air supply pipe, an auxiliary source of air supply adapted to derive its driving power from the engine for augmenting the supply of air fed through the air supply pipe.

[Claim 6 not printed in the Gazette.]

1,131,743. METHOD OF AND APPARATUS FOR MAKING MOLDS FOR CASTING PIANO-PLATES. HORACE R. SIMMS, Racine, Wis., assignor to American Skein & Foundry Company, Racine, Wis., a Corporation of Wisconsin. Filed Sept. 28, 1914. Serial No. 863,964. (Cl. 22—190.)



1. The method of preparing a mold for casting a piano plate and uniting thereto during the casting operation pins for the piano strings, which consists in arranging on a pattern, apertured to receive the extremities of said pins, a dry sand core in which the other extremities of the pins are embedded, ramming green sand around the pattern and said dry sand core, and then separating the pattern and mold.

2. The method of preparing a mold for casting a piano plate and uniting thereto during the casting operation pins for the piano strings, which consists in arranging on a pattern, formed with an elongated slot to receive the extremities of a plurality of said pins, a dry sand core in which the other extremities of the pins are embedded, ramming green sand around the pattern and said dry sand core, and then separating the pattern and mold.

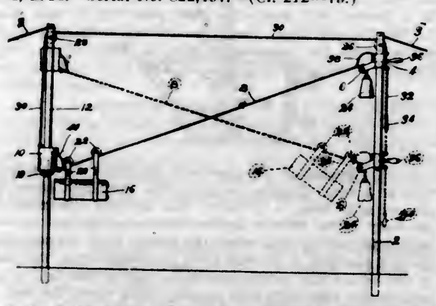
3. The method of preparing a mold for casting a piano plate and uniting thereto during the casting operation pins for the piano strings, which consists in arranging the pins in proper spaced relation in holes in a multiple part core box, the lines of separation between the parts of which pass through said holes, filling the core box with a material suitable for making a dry sand core, separating the core box from the core and baking the core, then placing said dry sand core on a pattern, apertured to receive the extremities of the pins, ramming green sand around the pattern and said dry sand core, and then separating the pattern and mold.

4. The method of preparing a mold for casting a piano plate and uniting thereto during the casting operation pins for the piano strings, which consists in arranging on a pattern, apertured to receive the extremities of said pins, a core in which the pins are firmly fixed, ramming green sand around the pattern and said core, and then separating the pattern and mold.

5. The method of preparing a mold for casting piano plates having apertures for the keys to which the piano strings are attached, which consists in forming a pattern for the plates with a recess of a depth as great as the thickness of the apertured portion of the plate, making a dry sand core formed with nubs having the configuration of said apertures and projecting from one side of the core a distance equal to the thickness of the plate, placing said core on the pattern over the recess with the nubs turned toward the pattern, ramming green sand around the pattern and the dry sand core so that the latter is embedded in the mold and then separating the pattern from the mold.

[Claims 6 to 9 not printed in the Gazette.]

1,131,744. TRAVELING RURAL MAIL-BOX. CLYDE WASHINGTON SISSOM, Wilson county, Kans. Filed Mar. 4, 1914. Serial No. 822,497. (Cl. 212—75.)



1. In an apparatus of the character described, the combination of an inclined cable, means for reversing the slope of said cable, a box movable along said cable from receiving position at one end of the cable to discharge position at the opposite end of the cable, and means for suspending said box from the cable, said means being constructed and arranged to support the box in horizontal receiving position and to tilt the box on moving into delivery position after reversal of the slope of said cable.

2. In a rural mail-box apparatus, the combination of an inclined cable, means for reversing the slope of said cable, and a mail-box provided with hanger arms secured rigidly to the box and suspending the latter for movement along the cable, said arms being of unequal length, whereby said box is supported in horisontal receiving position at one end of the cable and is tilted out of horisontal on moving into delivery position after reversal of the slope of the cable.

3. In a rural mail-box apparatus, the combination of an inclined cable forming a trackway, a mail-box movable along said cable, oppositely and vertically movable supporting members for the ends of said cable, one of said supporting members being provided with a sheave for accommodating the adjacent end of the cable, connections between said supporting members whereby one of them may be raised and the other lowered for reversing the angle of incline of the trackway and permitting the box to move by gravity along said cable, and a counterweight on the end of said cable passing over said sheave for maintaining said cable taut for all positions of said supporting members.

4. In a rural mail-box apparatus, the combination of an inclined cable, a mail-box provided with supporting sheaves movable along said cable, vertically movable supporting members for the ends of said cable, one of said supporting members being provided with a sheave for accommodating the adjacent end of the cable, connections between said supporting members whereby one of them may be raised and the other lowered for reversing the slope of the cable and permitting the box to move by gravity along the cable, a counterweight on the end of said cable passing over said last-mentioned sheave for maintaining said cable taut, and buffers carried by said supporting members, each comprising a curved spring secured at one end to one of the supporting members and its free end being forked and embracing opposite sides of the cable, one of said springs overlying said last-mentioned sheave and extending in front of the same in position to engage one of said supporting sheaves.

5. In a rural mail-box apparatus, the combination of a pair of spaced vertical posts, one of said posts having a forked lower portion, a pair of cable supporting members of unequal weight mounted slidingly on the upper ends of said posts, the lower portion of the forked post forming a shoulder limiting the downward movement of the heavier of said supporting members, a cable connecting said supporting members and forming a trackway, means for holding said supporting members normally at different elevations and maintaining said trackway in inclined position, a mail-box provided with hangers for suspending it from said trackway and normally in position opposite the space within the lower portion of said forked post, and means for shifting the position of said supporting members and thereby reversing the slope of the cable and allowing the box to move by gravity to the other end thereof.

[Claim 6 not printed in the Gazette.]

1,131,745. PUNCTURE-MENDING DEVICE. HUGH TAYLOR STEPHENS, Carmarthen, Wales. Filed Dec. 19, 1912. Serial No. 737,597. (Cl. 152—26.)



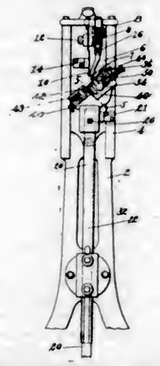
A tire repair stud comprising a stem, an inverted truncated cone shaped cup on one end of said stem, and a disk upon the other end of said stem, said cup being adapted to be pressed down to clamp the tire against said disk.

1,131,746. SHOE-MACHINE. EDWARD A. STIGGINS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 17, 1912. Serial No. 704,113. (Cl. 12—47.)

1. A machine for forming on flat lifts breast scarfs which will be straight when the lift is bent to the transverse curvature of a heel seat, having, in combination, a curved rest over which the edge portion to be cut is bent with the lift in a plane inclined to the plane of the cutting action, and a knife arranged to cut the lift while it is so bent.

2. A machine for forming on flat lifts breast scarfs which will be straight when the lift is bent to the transverse curvature of a heel seat, having, in combination, a

lift support, a curved cutting plate over which the edge portion to be cut is bent, a breasting knife, and means for relatively actuating the knife and the support in a plane inclined to the face of the lift on the support to bend the lift and then to cut it on an angle while it is in bent condition.



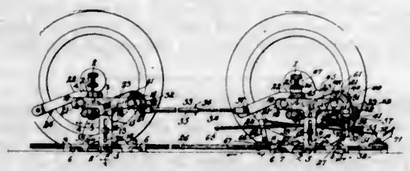
3. A machine for forming on flat lifts breast scarfs which will be straight when the lift is bent to the transverse curvature of a heel seat, having, in combination, a lift support, a curved cutting plate over which the edge portion to be cut is bent, a breasting knife having a cutting edge curved similarly to the cutting plate, and means for actuating the knife and the support and plate relatively to cause a flat lift to be first bent between the curved edge of the knife and the plate and then to be cut in that bent condition.

4. A machine for forming on flat lifts breast scarfs which will be straight when the lift is bent to the transverse curvature of a heel seat, having, in combination, a lift support, a fixed rear end abutment for the lift, a yielding breast abutment, side gages, a breasting knife having a curved edge, a coöperating cutting surface between which and the knife the lift is bent transversely, and means for actuating the knife and support relatively in a plane inclined to the face of the lift.

5. In a machine of the class described the combination of a convex cutting plate for sustaining the breast end portion of a heel lift, with a knife having a concave edge, said knife and plate coöperating to bevel the breast edge of the lift substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,131,747. AUTOMATIC POWER-JACK FOR AUTOMOBILES. JOHN M. STUCKER, Ottawa, Kans. Filed Oct. 18, 1913. Serial No. 795,962. (Cl. 254—89.)



1. A device of the class described including front and rear jacks arranged in pairs and comprising standards having base portions provided with transverse recesses and adapted to be arranged upon a floor or other supporting surface, and sliding jack bars having axle receiving means, front and rear transverse bars secured in the said recesses and adjustably connecting the said jacks to vary the width of the device, a longitudinal reach bar adjustably connecting said transverse bars to vary the length of the device, and means connected with the jack bars for simultaneously operating the same to elevate an automobile, said means being also adjustable to correspond with the adjustment of the reach bar.

2. A device of the class described including front and rear jacks arranged in pairs and comprising standards having base portions adapted to be arranged upon a floor or other supporting surface, and slidable jack bars provided with a plurality of spaced inclined edges and slidable longitudinally on the said edges, said jack bars being provided with axle receiving means located between the said inclined edges, and means connected with the jack bars for operating the same.

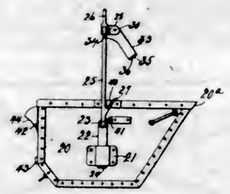
3. A device of the class described comprising front and rear jacks arranged in pairs, each including a jack bar having a plurality of lower inclined edges and slidable longitudinally on the said edges, means for connecting the jack bars for causing the same to move in unison, and means connected with the jack bars and arranged to be actuated by an automobile, whereby the latter is adapted to operate the device.

4. A device of the class described comprising front and rear jacks arranged in pairs, each including spaced standards having front and rear supporting rollers, and a jack bar slidable longitudinally and having lower inclined edges arranged upon the said rollers, and means for connecting the jack bars and for moving the same in unison.

5. A device of the class described comprising front and rear jacks arranged in pairs, each including spaced standards provided with adjustable bearing sections interlocked with the standards, transverse rollers connecting the bearing sections, and a slidable jack bar having inclined edges supported by the said rollers, means for connecting the jack bars, and means for moving the same in unison.

[Claims 6 to 22 not printed in the Gazette.]

1,131,748. DUMPING-BUCKET. GUSTAVUS L. STUEBNER, Flushing, N. Y. Filed Dec. 31, 1913. Serial No. 809,654. (Cl. 57—13.)



1. In a bucket of the character described the combination of a body therefor, locking pins extending from the side of said body, a swinging bail slidably connected to the body of the bucket, locking means on the bail to lock with said locking pins when the bucket is in its normally upright position, a bearing block extending from the body of the bucket and locking means carried on the bail to automatically lock with said bearing block when the bail is in its lowered position.

2. In a bucket of the character described the combination of a body therefor, a swinging bail for said body, a latch pivoted to the bail and having a hook at one end to lock with said bail and having a curved bearing surface at the other end, a bearing block carried on the body of the bucket with a curved bearing surface to engage the end of the said latch having the curved bearing surface.

3. In a bucket of the character described the combination of a body, a pair of clevises on the sides of the bucket, a slidable bar guided in each clevis, a bail with a locking hook on each of its legs pivoted to said bar and locking pins extending from the side of said body to lock with said hooks.

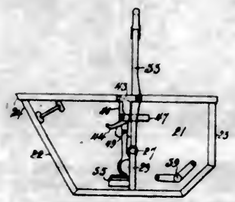
4. In a bucket the combination of a bail, a latch with a hook at one end and a curved bearing flange at the other end pivoted to the bail, guide pins on the side of the body of the bucket to engage the bail when being lowered and

a bearing block extending from the rear wall of the body of the bucket to engage the curved bearing flange of the said latch when the bail is positioned to enable the bucket to dump its charge.

5. In a bucket of the character described the combination of a body therefor, a slidable bar guided on each of a pair of opposite sides of the body of the bucket, a bail with its ends pivoted to said bars and having a locking hook formed therewith and means on said body to lock with said hook.

[Claims 6 to 8 not printed in the Gazette.]

1,131,749. AUXILIARY UNLOCKING DEVICE. GUSTAVUS L. STUEBNER, Flushing, N. Y. Filed Apr. 9, 1914. Serial No. 830,592. (Cl. 57—13.)



1. In an unlocking device the combination of a bail of a bucket, a latch pivoted to said bail, a locking tongue for the latch, an unlocking arm pivoted adjacent to said latch and a pin extending from the arm in the path of the latch and coacting therewith.

2. In an unlocking device the combination of a bail of a bucket, a latch having a depending arm pivoted to said bail, a locking tongue extending from the body of the bucket and in the path of said latch, a pivoted unlocking arm adjacent to said latch and a pin extending from the unlocking arm coacting with said depending arm.

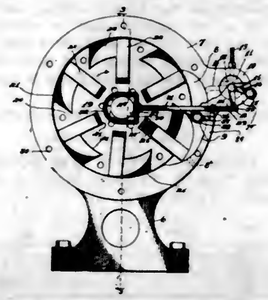
3. The combination with a bucket of a latch having a depending arm pivoted to the bail of the bucket, a locking tongue extending from one of the sides of the bucket coacting with said latch, a pivot bracket extending from the said side of the bucket, an unlocking arm having a pin extending therefrom pivoted to said pivot bracket, the said pin in the path of said depending arm and coacting therewith to raise the same and unlock the latch from said locking tongue.

4. The combination with a bucket of a latch pivoted to the bail of the bucket, a locking tongue extending from one of the sides of the bucket coacting with said latch, a pivoted unlocking arm adjacent to said latch, a pin extending from the unlocking arm coacting with said latch and a protecting shield for the unlocking arm.

1,131,750. ROTARY ENGINE. GEORGE T. THOMPSON, Philadelphia, Pa. Filed Feb. 28, 1913. Serial No. 751,349. (Cl. 121—74.)

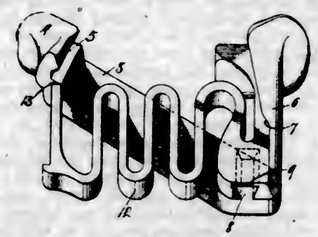
1. In an engine of the character described, a main shell, a rotor mounted within the main shell and carrying a plurality of spaced pistons, a shaft connected with the rotor to be turned thereby, a plurality of spaced tripping cams carried by the shaft and corresponding in number and arrangement to the pistons, a valve to intermittently supply steam into the main shell as each piston is successively brought into the proper position, a pitman connected with the valve to operate the same and carrying a member disposed in the path of travel of the tripping cams, and means to quickly return the valve to the closed position after the same is open and upon the tripping outer pitman.

2. In an engine of the character described, a main shell, a rotor mounted within the main shell and carrying a plurality of spaced pistons, a shaft connected with the rotor to be turned thereby, a plurality of spaced tripping cams carried by the shaft and corresponding in number and arrangement to the pistons, an oscillatory valve to intermittently supply steam into the main shell as each piston is successively brought into the proper position, a crank connected with the oscillatory valve to turn it, a weight connected with the oscillatory valve to automatically return the same to the closed position when moved to the



open position and released, a pitman having a loose connection with the crank and provided with a member disposed in the path of travel of the pitman cams, and a pivoted weight connected with the pitman to automatically return the same to the normal starting position when removed therefrom and tripped.

1,131,751. RAIL-STAY. JOSEPH M. VAIL, Bryan, Ohio. Filed Aug. 24, 1914. Serial No. 858,281. (Cl. 238—4.)



1. A rail stay of the class described comprising two members having opposed engagement with opposite sides of a rail base and one intended to have thrust contact with a tie, said members having limited sliding interengoging connection, and means for yieldingly resisting a relative movement of said members lengthwise of the rail and operable to automatically return the members to normal rail base gripping position when a force acting to relatively move the members is removed.

2. A rail stay having a pair of opposed rail base clamping members interengaged for relative sliding movements lengthwise of a rail, and means connecting the two members and operable to yieldingly retain the members in rail base clamping position, to resist a rail base releasing movement of the members and to return the members to normal rail base clamping position when a force tending to impart relative rail base releasing movement to the members is removed.

3. A rail base having a pair of opposed rail base gripping members, one extending under and the other lengthwise of an engaged rail, said members having parts interengaging for limited relative sliding movements lengthwise of a rail and having parts in yielding connection and tending to retain said first mentioned parts in interengaged thrust contact whereby a thrust of one member in one direction will be exerted on the other.

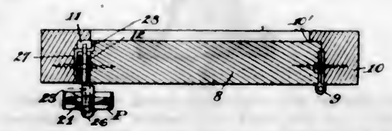
4. A rail stay having a pair of opposed rail base clamping members in sliding interengagement beneath a rail for relative sliding movement lengthwise of an engaged rail, said members having parts in yielding coaction for yieldingly resisting a relative movement of the interengaged

portions of said members in one direction and for returning them to normal position after being relatively moved.

5. A rail stay having a bar extending under a rail and having a rail-base edge-engaging part at one end, a tie thrust member for engagement with the opposite base edge of a rail, said bar and member having portions releasably interengaged for relative sliding movements longitudinally of a rail and adapted to coact to exert a thrust from one part to the other, said bar and member having parts in yielding engagement and coöperating to normally retain said interengaged parts in engaged thrust contact.

[Claims 6 and 7 not printed in the Gazette.]

1,131,752. LOCKING DEVICE FOR DOORS. ALBERT VOIGT, New York, N. Y. Filed Mar. 20, 1914. Serial No. 825,977. (Cl. 70—45.)



1. The combination of a casing; a spring influenced latch pivotally supported substantially centrally thereof within the casing, said latch formed with a hook at one end to coöperate with a keeper, and having an opening adjacent the other end adapted to register with an opening in the casing when in latched position, substantially as and for the purpose specified.

2. The combination of a casing having a laterally projecting portion with an opening therein; a flat latch pivotally supported substantially midway thereof in the casing, said latch formed with a hook at one end and the other end projecting out from the casing to lie contiguous to the case projection and having an opening to register with the opening in the casing projection when in latched position, substantially as and for the purpose specified.

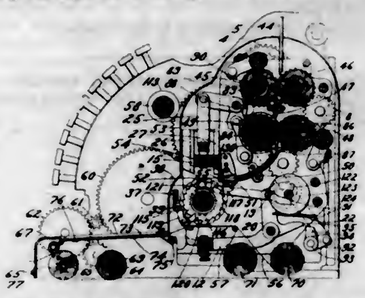
3. In a locking latch, the combination of a casing adapted to be mortised into a door consisting of a pair of flanged juxtaposed connected sections, one section having a portion to extend in a plane parallel with the sides of the casing and having an opening therein; and a latch pivotally supported substantially midway between its ends between said casing sections, one end of said latch projecting out from the casing and having an opening therein adapted to register with the opening in the casing projection when in latched position, substantially as and for the purpose specified.

4. In a locking latch, the combination of a casing consisting of a pair of juxtaposed flanged sections, one section having a projecting portion with an opening therein; a latch pivotally supported between said casing sections, said latch formed with a hook at one end to coöperate with a keeper and having an opening adjacent the other end adapted to register with the opening in the casing projection when in latching position; and a spring within the casing to maintain the latch in latching position.

5. In a locking latch, the combination of a casing having a projecting portion with an opening therein; a latch pivotally supported in said casing formed with a hook at one end to coöperate with a keeper and having an opening adjacent the other end adapted to register with the opening in the casing projection when in latching position, and said end of the latch also having a portion to lap over the top, end and side of the casing projection and said overlapping portion having an opening in line with the opening in the latch.

1,131,753. CASH AND AUTOGRAPHIC REGISTER. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Mar. 9, 1910. Serial No. 548,173. (Cl. 235—3.)

1. In a machine of the class described, the combination with printing mechanism comprising a plurality of type-carriers each provided with two sets of type, means for simultaneously taking impressions from the two sets of type-carriers, driving mechanism, a paper feeding device operated by the driving mechanism, a second paper feeding device, driving mechanism for operating the said second paper feeding device, and means for actuating both driving mechanisms, constructed to actuate one only of said driving mechanisms at a time and to lock the remaining driving mechanism against operation.



2. In a machine of the class described, the combination with type-carriers, and means for feeding a check strip and an autograph strip past the same, of a main driving mechanism for both said feeding means normally connected to one thereof, and manually movable to disable said connection and to establish a connection with the other feeding means.

3. In a machine of the class described, the combination with an autographic device, and a printing mechanism, of co-axially journaled gears connected respectively to actuate said autographic device and said printing mechanism, a pinion, means for moving the pinion in an axial direction to mesh it with either of the said gears, means for rotating the pinion, and members rotatable with said gears and said pinion, and constructed to co-act to prevent axial movement of the pinion except when both of said gears are in their normal position.

4. In a machine of the class described, the combination with type-carriers, and a separate and independent means for feeding a check strip and an autographic strip past said carriers, each feeding means including a gear, and a main driving mechanism, including a pinion mounted to be manually shifted to place said pinion in mesh with said feeding gears separately.

5. In a machine of the class described, the combination with type-carriers, and separate and independent means for feeding a check strip and an autographic strip past said carriers, each feeding means including a gear, a main driving mechanism including a pinion mounted to be manually shifted to plane said pinion in mesh with said feeding gears separately, and a notched disk movable with said pinion and serving to obstruct said manual shifting thereof.

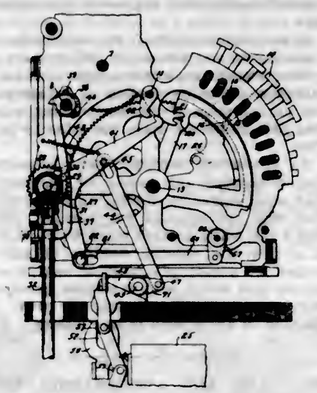
[Claims 6 to 15 not printed in the Gazette.]

1,131,754. CASH-REGISTER. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (incorporated in 1906.) Filed June 4, 1913. Serial No. 771,595. (Cl. 235—10.)

1. In a machine of the class described, the combination with an operating mechanism, of a series of cash receptacles, and a single locking device coöperating with said receptacles and arranged to lock the operating mechanism when any one of the receptacles is opened.

2. In a machine of the class described, the combination with an operating mechanism, of a series of cash receptacles, a single locking device controlled by said receptacles and arranged to lock the operating mechanism when any one of the receptacles is opened, and manipulative devices whereby said locking device may be rendered ineffective.

3. In a machine of the class described, the combination with an operating mechanism, of a series of cash receptacles, a single locking device controlled by said receptacles and arranged to lock the operating mechanism when any one of the receptacles is opened, and devices comprising a key operated lock for disabling said locking devices when it is desired to operate the operating mechanism with one or more of the receptacles open.

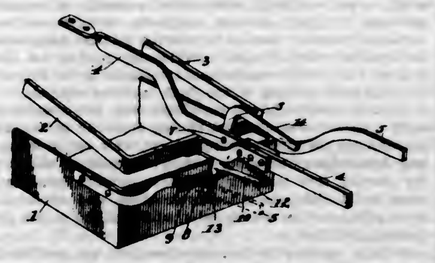


4. In a machine of the class described the combination with an operating mechanism therefor, of a plurality of normally inaccessible receptacles, manipulative devices for predetermining which receptacle is to be rendered accessible on an operation of the operating mechanism, and a single means locking the manipulative devices against manipulation while a receptacle remains accessible.

5. In a machine of the class described, the combination with an operating mechanism therefor; of a plurality of normally inaccessible cash drawers; devices under control of which said drawers may be selectively rendered accessible on operation of the operating mechanism; and a single means rendering said controlling devices inoperable while a drawer remains accessible.

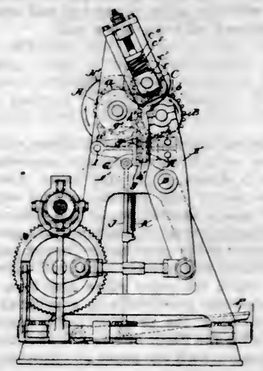
[Claims 6 to 30 not printed in the Gazette.]

1,131,755. SPRING-LATCH FOR WHEELED SCRAPERS. HARRISON B. WALTON and JEFF M. ESTES, Levee Camp, Miss.; said Estes assignor to said Walton. Filed Jan. 28, 1913. Serial No. 744,631. (Cl. 37—33.)



In a wheeled scraper having a pan, a Johnson bar adjusted thereon, an angle bar pivoted to said Johnson bar, a catch on the lower end of said angle bar, a handle on the upper end of said angle bar, a latch, a catch bar on said pan engaged by said latch, a member extending laterally from said catch bar and a recurved spring extending from the outer end of said member and engaging against the under side of the Johnson bar.

1,131,756. HIDE AND LEATHER WORKING MACHINE. FRANCIS WAYLAND, Salem, Mass. Filed Mar. 14, 1912. Serial No. 683,912. (Cl. 149—16.)



1. In a machine of the character described, a bed, a work roll provided with glazing projections made of a form and material adapted to glaze or burnish a skin, a pair of stretching jaws one at least of said jaws having two diverging sets of blades coöperating with the other jaw to engage and stretch the skin laterally before it passes to said roll, and means to vary the pressure between said jaws.

2. In a machine of the character described, a bed, a work roll provided with glazing projections made of a form and material adapted to glaze or burnish a skin, a pair of stretching jaws each having two diverging sets of blades, the blades of one jaw intermeshing with those of the other to engage and stretch the skin laterally before it passes to said roll, and means to vary the pressure between the sides of said blades.

3. In a machine of the character described, a bed, a work roll provided with glazing projections made of a form and material adapted to glaze or burnish a skin, and a pair of stretching jaws one at least of said jaws having two diverging sets of blades coöperating with the other jaw to engage and stretch the skin laterally before it passes to said roll, said blades being resilient.

4. In a machine of the character described, a bed, a work roll provided with glazing projections made of a form and material adapted to glaze or burnish a skin, and a pair of stretching jaws one at least of said jaws having two diverging sets of blades coöperating with the other jaw to engage and stretch the skin laterally before it passes to said roll, and one of said jaws having a longitudinally extending scraper bar adapted to press and scrape moisture from the skin.

5. In a machine of the character described, a bed, a work roll provided with glazing projections made of a form and material adapted to glaze or burnish a skin, and a pair of stretching jaws one at least of said jaws having two diverging sets of blades coöperating with the other jaw to engage and stretch the skin laterally before it passes to said roll, one of said jaws having a longitudinally extending scraper bar, and the other jaw a longitudinally extending pad, said scraper bar and pad coöperating to press and scrape moisture from the skin.

[Claims 6 to 14 not printed in the Gazette.]

1,131,757. WRAPPING-PAPER-PRINTING MACHINE. ROBERT LIONEL WELCH, Toronto, Ontario, Canada. Filed Mar. 24, 1914. Serial No. 826,850. (Cl. 211—30.)

1. A wrapping paper printing machine comprising upper and lower rolls from which paper is drawn, printing means common to both rolls, and means actuated by the withdrawal of the paper to cause the printing action to take place on the roll from which the paper is being drawn.

2. A wrapping paper printing machine comprising a main frame, a plurality of rotatable paper roll supports, and a printing mechanism provided with a printing roller and means for carrying the printing roller alternately into engagement with the paper of one roll and simultaneously out of engagement with the other roll.



3. A wrapping paper printing machine comprising upper and lower rolls of paper suitably supported and from which paper is drawn, a printing roller, means whereby said roller is moved into printing contact with either of the rolls and means whereby one of said rolls may be given movement simultaneously in relation to the printing roller.

4. A wrapping paper printing device comprising a main frame, a plurality of rotatable paper roll supports, platen rollers over which the paper strips pass from the rolls, a printing mechanism provided with a printing roller, and means for carrying the printing roller alternately into engagement with the paper of one roll and simultaneously out of engagement with the paper of the other roll, as and for the purpose specified.

5. A wrapping paper printing machine comprising a main casing, a pair of rotatable paper roll supports, an upper and lower platen roller over which the paper of each roll passes, a printing mechanism provided with a printing roller, means for lowering the printing roller into contact with the paper of the lower roll and simultaneously lowering the upper platen roller and the paper thereon out of contact with the printing roller and means for raising the printing roller from contact with the paper of the lower roll, and simultaneously lowering the upper roll into contact with the printing roller, as and for the purpose specified.

[Claims 6 to 12 not printed in the Gazette.]

1,131,758. CASH AND AUTOGRAPHIC REGISTER. JOHN A. WERNER, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Feb. 16, 1909. Serial No. 478,152. (Cl. 235—5.)



1. In an accounting machine, the combination with recording mechanism and means for differentially positioning the same, amount keys and special keys for controlling said means, means for feeding an autographic paper strip upon an operation of the machine, and a device for so controlling said feeding means that the same will be operative when the amount keys alone are depressed or be operative only when one of the special keys is depressed or be entirely inoperative.

2. In an accounting machine, the combination with recording mechanism and means for differentially positioning the same, amount keys and special keys for controlling said means, means for feeding an autographic paper strip upon an operation of the machine, and a device for so controlling said feeding means that the same will be inoperative only when amount keys alone are depressed.

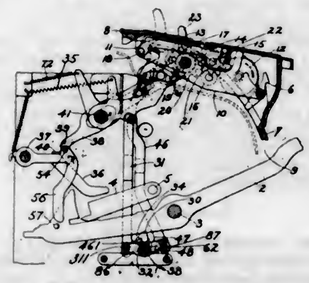
3. In an accounting machine, the combination with recording mechanism and means for differentially positioning the same, of amount keys and special keys for so controlling said means, means for feeding an autographic paper strip upon an operation of the machine, and a device for controlling said feeding means that the same will be operative only when any one of the special keys is depressed.

4. In an accounting machine, the combination with recording mechanism and means for differentially positioning the same, amount keys and special keys for controlling said means, means for feeding an autographic paper strip upon an operation of the machine and a device for controlling said means to cause the same to be entirely inoperative.

5. In an accounting machine, the combination with registering mechanism and means for differentially operating the same, means for feeding an autographic paper strip upon each operation of the machine, said means comprising a roll and a toothed wheel which is secured to the roll, a pawl for causing rotation of said toothed wheel, means for actuating said pawl and an overthrow preventer for said wheel, said overthrow preventer being actuated by the means for actuating the pawl.

[Claims 6 to 19 not printed in the Gazette.]

1,131,759. CASH AND AUTOGRAPHIC REGISTER. JOHN A. WERNER, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Mar. 3, 1910. Serial No. 546,980. (Cl. 235—5.)



1. In a machine of the class described, the combination with a cash receptacle, and means, normally in releasing position, for latching said receptacle, of keys, and connections operated thereby for moving said latching means to latching relation, and a device for feeding an autographic strip, with connections from said device for withdrawing said latching means from latching relation.

2. In a machine of the class described, the combination with a cash receptacle, and means, normally in releasing position for latching said receptacle, of a series of keys, and connections, including a lever operated by said keys, for moving said latching means to latching position, a lever for feeding an autographic strip, and connections from said lever for withdrawing said latching means from latching relation.

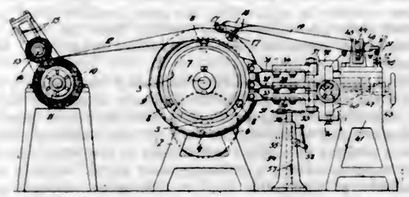
3. In a machine of the class described, the combination with a cash receptacle, and a latch, normally in releasing position for latching said receptacle, of a series of keys, a lever for feeding an autographic strip and devices normally locking said lever, connections from said keys for moving said latch to latching position and for releasing said lever locking devices, and connections from said lever for moving said latch to releasing position.

4. In a machine of the class described, the combination with a cash receptacle, and a main latching device for the same normally in latching position, of a series of keys, a lever and connections for feeding an autographic strip, means controlled by the keys for releasing said main latching device, an auxiliary receptacle latching device normally in releasing position, devices operated from said keys for moving said auxiliary latching device to latching position, and connections from said lever for restoring said auxiliary latching device to releasing position.

5. In a machine of the class described, the combination with a cash receptacle and a latching means therefor normally in releasing position, of a series of keys and connections therefrom for moving said latching means to latching relation, a manipulative device having connections to withdraw said latching means from latching relation, and devices controlled by said keys normally preventing movement of said manipulative device.

[Claims 6 to 28 not printed in the Gazette.]

1,131,760. TIRE-MAKING MACHINE. THOMAS J. WHALEN, New Brunswick, N. J., assignor, by mesne assignments, to Harry M. Marble, Newark, N. J. Filed Sept. 15, 1910. Serial No. 582,186. (Cl. 154—10.)



1. A tire forming machine comprising in combination a rotatable ring-shaped core, upon which the tire may be formed, a pedestal in front of and at a distance from said core, pressure-rollers arranged to bear upon the surface of the forming tire, said rollers mounted to operate on the main tread portion of the tire being formed, and means pivotally mounted on said pedestal and movable from and toward said core and supporting said rollers.

2. A tire forming machine comprising in combination a rotatable ring-shaped core upon which the tire may be formed, a pedestal in front of and at a distance from said core, presser-rollers arranged to bear upon the surface of the forming tire, said rollers mounted to operate on the main tread portion of the tire being formed, and supporting means pivotally mounted on said pedestal and movable toward and from the said core and supporting said rollers, said supporting means extending rearwardly beyond its point of the pivotal connection to said pedestal, and a compression spring carried by the pedestal and acting on such rearwardly extending portion of said supporting means and adapted to press the same toward the core.

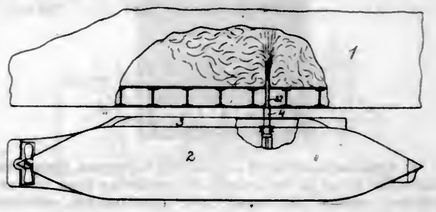
3. A tire forming machine comprising in combination a rotatable ring-shaped core, upon which the tire may be formed, presser-rollers arranged to bear upon the surface of the forming tire, and a lever supporting said rollers and movable toward and from said core, said two rollers located in the main on opposite sides of the core, one of said rollers being somewhat in rear of the other and overlapping the track of such other roll.

4. A tire forming machine comprising in combination a rotatable ring-shaped core, upon which the tire may be formed, presser-rollers arranged to bear upon the surface of the forming tire, and a bifurcated lever for supporting said rollers, the branches thereof extending toward the sides of the core, said rolls being mounted at the ends of said branches, one roll being somewhat in rear of the other roll, and overlapping the track of such other roll.

5. A tire forming machine comprising in combination a ring core, and tool-supporting means comprising a standard, a carriage mounted thereon and movable toward and from said core, and a saddle mounted to slide transversely on said carriage, and tool carrying arms pivoted to said saddle, the axes of the pivots of said arms being approximately perpendicular to the plane of the movement of said carriage.

[Claims 6 to 12 not printed in the Gazette.]

1,131,761. MEANS FOR CONDUCTING SUBMARINE WARFARE. CARL M. WHEATON, Newton, Mass.; Grace H. Wheaton, administratrix of said Carl M. Wheaton, deceased, assignor to J. Colby Bassett, Boston, Mass. Filed May 20, 1907. Serial No. 374,568. (Cl. 114—17.)



1. The combination with a submarine vessel, of a gun carried by said vessel, and a projectile having a pointed piercing end and an enlarged head adapted to be fired from the gun up to the head into the hull of another vessel, and to remain with its head within said gun as long as the muzzle of the gun remains sufficiently close to the hull of such other vessel, whereby the vessels may be pinned together.

2. The combination with a submarine vessel, of a gun carried by said vessel, and a projectile adapted to be fired from the gun into the hull of another vessel, and to remain partially within said gun, said projectile having a longitudinal bore, and provisions for forcing anesthetic into the gun whereby the same is caused to flow through the bore of said projectile into the other vessel.

3. A tubular projectile having a pointed separable head at one end and an enlargement between its ends, adapted to be fired from a submarine gun through the skin of a ship, until arrested by said enlargement, the head being arranged to be dislodged by the shock of the arrest.

4. A tubular projectile having a pointed separable head at one end and an enlargement between its ends, adapted to be fired from a submarine gun through the skin of a ship, and to be suddenly arrested by said enlargement, said head having a tapered shank entering the bore of the projectile, whereby the head is caused to be dislodged by the shock of the sudden arrest of the projectile.

5. The combination of a submarine vessel having an opening in its hull, a cover mounted on the outside of the hull with capability of swinging over and aside from such opening, and having a plug movable into the opening, and mechanism within the vessel for moving said cover outward to expel the plug, and aside to uncover the opening.

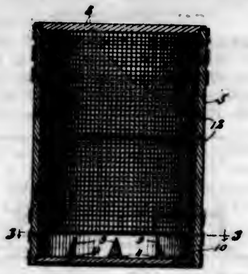
[Claim 6 not printed in the Gazette.]

1,131,762. AIR-PROPELLER. WILLIAM N. WHIPPLE, Syracuse, N. Y., assignor to George H. Sears, Syracuse, N. Y. Filed June 15, 1911. Serial No. 633,291. (Cl. 170—166.)



The combination with a relatively long air conducting tube, and a shaft extending axially therethrough, of a propeller secured on the shaft and including a peripheral ring and a plurality of blades extending inwardly from the rim, said rim bearing upon the inner surface of the tube adjacent the center of the tube to hold the propeller and shaft against vibration.

1,131,763. HARNESS-OILING APPARATUS. BYRON H. WILLIAMS, Spokane, Wash. Filed Jan. 20, 1914. Serial No. 813,172. (Cl. 91—52.)

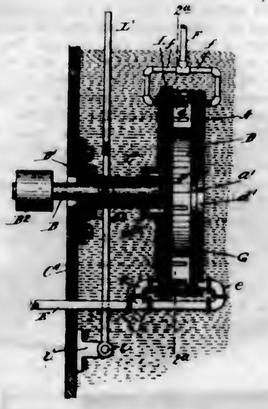


1. The combination of a revoluble receptacle, transverse spreader strips in the receptacle projecting from one end thereof toward the center, and a perforated container in the receptacle above the spreader strips for spacing the contents of the receptacle from said strips.

2. The combination of a revoluble receptacle, transverse spreader strips in the receptacle projecting from one end thereof toward the center, and having transverse ducts, and a perforated container in the receptacle above the spreader strips for spacing the contents of the receptacle from said strips.

3. The combination of a revoluble receptacle having a removable closure at one end, a band in the receptacle seating against the other end thereof, and superposed containers in the receptacle removably held between the band and the closure.

1,131,764. SOUNDER FOR SUBMARINE SIGNALING. ROBERT L. WILLIAMS, Newton, Mass., assignor to Sub-Marine Signal Company, Waterville, Me., a Corporation of Maine. Filed Dec. 9, 1909. Serial No. 532,197. (Cl. 116—13.)



1. A sounder for submarine signaling comprising a liquid-filled tank, two concentric members submerged therein, one member being within the other, the inner member being chambered, each member having ports, the ports of one member being located to register with the ports of the other member, one of said members being adapted to be rotated with relation to the other member, said ports being located on opposite sides of said members whereby when said ports register the pressure within said members will be released in opposite directions.

2. A sounder for submarine signaling comprising a liquid-filled tank, two concentric members submerged therein, one member being within the other, the inner member being chambered, each member having ports, the ports of one member being located to register with the ports of the other member, one of said members being adapted to be rotated with relation to the other member, said ports being located on opposite sides of said members whereby when said ports register the pressure within said members will be released radially.

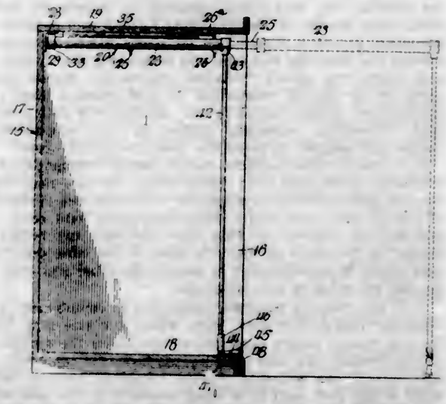
3. A sounder for submarine signaling comprising a liquid-filled tank, two concentric members submerged in said tank, one member being within the other, the inner of said members having a chamber therein, and means for rotating one of said members with relation to the other, said members having ports adapted to register with each other, said chamber having an inlet to receive liquid from said tank, and means for causing the contents of said tank to circulate through said chamber and out said ports.

4. A sounder for submarine signaling comprising a liquid-filled tank, two concentric members submerged therein, one member being within the other, the inner member being adapted to be rotated, each of said members having ports adapted to register with those of the other, the inner member having a chamber, and means whereby the contents of said tank may be circulated through said chamber and said ports, said members being located in close relation to each other, the outer member being provided with pipe connections leading from the space between said members adapted to release pressure in said space.

5. A sounder for submarine signaling comprising a liquid-filled tank, two concentric members submerged therein, one member being within the other, the inner member being adapted to be rotated, each of said members having ports adapted to register with those of the other, the inner member having a chamber, and means whereby the contents of said tank may be circulated through said chamber and said ports, said members being located in close relation to each other, the outer member being provided with means whereby increase of pressure in the space between said members may be prevented, said means comprising a connection leading from the space between said members to a point outside the tank.

[Claims 6 to 10 not printed in the Gazette.]

1,131,765. EXTENSIBLE CLOTHING-SUPPORT. COLIN D. WILT, Chicago, Ill. Filed Aug. 14, 1912. Serial No. 714,947. (Cl. 211—16.)

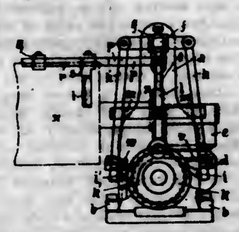


1. In combination with means providing a compartment having a top wall, a rear wall, and being open in front, a support comprising an inner rod or tube, a plate secured to the rear wall of said compartment in line with said support and provided with a projection adapted for supporting engagement with said rod or tube, an intermediate sleeve having sliding bearing upon said rod or tube, an outer sleeve surrounding said intermediate sleeve, a cap fitted to the inner end of said outer sleeve having a radial, inwardly extending, annular shoulder having bearing on said intermediate sleeve, a short tube secured to the outer end of said intermediate sleeve on which said outer sleeve has sliding bearing, said several sleeves and said short tube having longitudinally extending slots in their lower sides, the slot in said intermediate sleeve being interrupted intermediate its length by oppositely facing, longitudinally spaced transverse shoulders, and supporting hangers, one located at the outer end of said support and the other intermediate the ends of said support, said hangers each having a depending body and an upright end part laterally spaced from said depending body and projecting through the slots of said sleeves, said upright part being rigidly connected to the inner member of said support.

2. In combination with means providing a compartment open in front and having a top wall, an extensible support carried by said wall, a standard secured to the end of said support which is adapted to be extended, said standard consisting of an upright member rigidly attached to said end of substantially the height of said compartment, of a shorter member hinged to said first named member, and of a gravity controlled device adapted to hold said second named member in rigid alinement with the first named member.

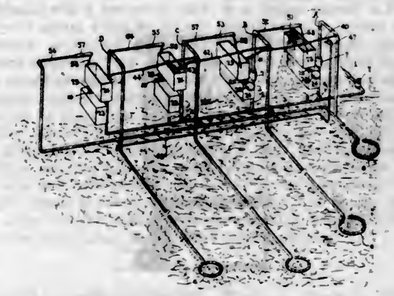
3. In combination with means providing a compartment open in front and having a top wall, an extensible support carried by said wall, a standard secured to the end of said support which is adapted to be extended, said standard consisting of an upright member rigidly attached to said end of the support, said upright member being of a length to clear the bottom of the compartment when the extensible support is pushed home into said compartment, of a short extension member hinged to said upright member, of a sleeve adapted to slide on both of said members at the hinged connection and of stops on the hinged connection adapted to engage the lower end of said sleeve.

1,131,766. ENDLESS CONVEYING MEANS FOR PAPER-MACHINES. JOHANN WOLF, Burg-on-the-Wupper, Germany. Filed Mar. 13, 1914. Serial No. 824,572. (Cl. 193—28.)



An automatic device for regulating the proper working of roller-guided conveying means for paper machines, comprising, in combination, a rod transversely and movably arranged above the conveying means, an abutment on each end of the rod to face the two longitudinal edges of the conveying means consisting of a support and anti-friction rollers therein, a vertical pivotal arm connected with said rod, a horizontal pivotal arm having a downward extension and normally bearing with its free end upon said vertical arm, a guiding-roller for said conveying means, a cam-disk on the axle of said guiding-roller adapted to move freely beneath the downward extension of said horizontal arm but to come in contact therewith upon the vertical arm being turned by the conveying means striking against said abutments, two depending links on the free end of said horizontal arm, a forked arm on said vertical lever to embrace the two depending links, a pawl on the lower end of each link, ratchet-wheels with oppositely directed teeth adapted to alternately gear with one of said pawls upon the cam-disk being in contact with the downward extension of said horizontal arm, a screw-spindle to carry said ratchet-wheels on its free end, a guiding-member on said screw-spindle, a bearing for the axle of the guiding-roller turnably mounted on said guiding member, and means to automatically disengage said pawls from the ratchet-wheels upon the guiding-member attaining its two end positions on the screw-spindle, substantially as and for the purpose set forth.

1,131,767. AUTOMATIC SPRINKLER. GEORGE ZINT, Wapakoneta, Ohio. Filed Aug. 21, 1913. Serial No. 785,907. (Cl. 137—66.)



1. The combination with a cross head having a bearing at its mid-length, arms at its outer ends standing in planes parallel with each other, said arms being offset one with respect to the other, but having the edge of one arm overlying the correspondingly opposite edge of the other arm, and a cross arm connecting said overlying edges; of two substantially rectangular buckets whose bottoms are secured on said parallel arms so that their bodies are offset with respect to each other and whose mouths face away from each other, for the purpose set forth.

2. The combination with a cross head having a bearing at its mid-length, arms at its outer ends standing in planes parallel with each other, said arms being offset one with respect to the other, but having the edge of one arm overlying the correspondingly opposite edge of the other arm, and a nut on said cross head whose bore stands parallel with said arms; of two substantially rectangular buckets whose bottoms are secured on said parallel arms so that their bodies are offset with respect to each other and whose mouths face away from each other, and a weight having a threaded stem adjustably mounted in said nut, for the purpose set forth.

3. The combination with a cross head having a bearing at its mid-length, arms at its outer ends standing in planes parallel with each other, and a nut on said cross head whose bore stands parallel with said arms; of two substantially rectangular buckets whose bottoms are secured on said parallel arms and whose mouths face away from each other, and a weight having a threaded stem adjustably mounted in said nut, for the purpose set forth.

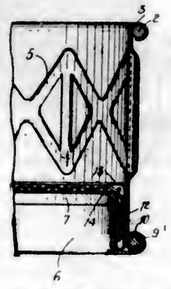
4. The combination with an upright pipe, a valve therein whose head swings through one-quarter of a circle from open to closed position during the oscillations of its shaft, and a cam on said shaft; of a pair of buckets whose bottoms stand parallel and whose mouths open in opposite directions, and a cross head rigidly connecting said bottoms and having a bearing loosely mounted on said shaft and arms disposed on opposite sides of said cam, but spaced farther apart than the width of said cam, and adapted to alternately engage said cam to open and close said valve.

5. The combination with an upright pipe, a valve therein whose head swings through one-quarter of a circle from open to closed position during the oscillations of its shaft, and a cam on said shaft; of a pair of buckets whose bottoms stand parallel and whose mouths open in opposite directions, a cross head rigidly connecting said bottoms and having a bearing loosely mounted on said shaft and arms disposed on opposite sides of said cam and adapted

to alternately engage therewith to open and close said valve, said arms being spaced farther apart than the width of said cam so that the latter has some lost motion between them, each arm being secured to its bucket at a point off the center of gravity of the latter, a cross arm connecting said parallel arms, and a weight carried by said cross arm.

[Claims 6 to 10 not printed in the Gazette.]

1,131,768. FOUNDRY-RIDDLE. EDWARD WELLS BEACH, Waterbury, Conn. Filed Apr. 16, 1914. Serial No. 832,143. (Cl. 83—60.)



1. In a foundry riddle, the combination of a cylindrical sheet metal body having a broad lower edge forming a comfortable hand-hold, a resilient ring spaced therefrom to form an annular socket, a wire screen for said riddle bent downward around its edge, and a double hoop integral throughout and formed of a single metal sheet folded on itself, said hoop gripping the edge of said screen and fitting snugly but removably in said socket, said hoop having a pair of inwardly projecting flanges overlapping the bend in said screen and serviceable as shoulders for driving the hoop into and out of its socket when the screen is to be renewed.

2. In a foundry riddle, the combination of a sheet metal body, a resilient ring spaced therefrom to form an annular socket of uniform width from top to bottom, a hoop fitting snugly in said socket and consisting of a metal sheet folded on itself, and a wire screen bent down at its edge and gripped between the folds of said hoop, said hoop having an inwardly projecting annular flange overlapping the bend in the wire screen and serviceable as a shoulder whereby said hoop may be moved in its socket.

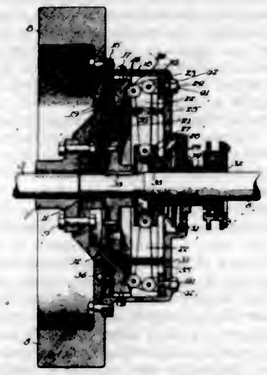
3. In a foundry riddle, the combination of a cylindrical reinforced sheet metal body, a resilient ring within said body and secured thereto, said ring forming a broad comfortable hand-hold and being spaced from the body to form an annular socket, and a sieve disk comprising a wire screen having its edge bent down and gripped between the sides of a folded sheet of metal forming a hoop, said hoop fitting tightly in said socket and having a pair of inturned annular flanges overlapping the bend in the wire screen, and serving as exposed shoulders whereby said hoop may be driven into or out of its socket when the sieve disk is being renewed.

4. In a foundry riddle, the combination of a cylindrical sheet metal body, reinforcements for said body, a resilient sheet metal ring within said body and spaced therefrom to form an annular socket of uniform width from top to bottom, said ring having its lower edge bent outward to form a wide hand-hold, and a sieve disk comprising a wire screen bordered by a metal ring, said ring fitting tightly in said socket but being removable therefrom, and having an inturned flange underlying a portion of said screen whereby the removal of the ring from its socket may be facilitated.

5. In a foundry riddle, the combination of a sheet metal body having reinforcements, a sheet metal ring within said body and spaced therefrom to form an annular socket, and having its lower edge shaped to form a broad hand-hold at which the riddle may be gripped by the foundryman, and a sieve disk comprising a wire screen bent down around its edge and gripped between the folds of a double sheet metal ring, said last named ring being removably held between the resilient ring and the body of the riddle, and having inturned annular flanges overlapping the bend in the wire screen and serviceable for driving the sieve disk into or out of its position in said socket.

[Claims 6 to 9 not printed in the Gazette.]

1,131,769. FRICTION-CLUTCH. GEORGE W. BORG, Rock Island, Ill., assignor to The Borg & Beck Company, Moline, Ill., a Corporation of Illinois. Filed Mar. 24, 1913. Serial No. 756,496. (Cl. 192—7.)



1. In a friction clutch, the combination of a driving element, a driven element, a casing fixed to one element and embracing the other element, a thrust member mounted within and rotatable with said casing, means positioned between said thrust member and the rear wall of the casing for moving said thrust member longitudinally of the casing to establish frictional engagement between said elements, means slidably engaging the rear wall of the casing to move said moving means longitudinally of said elements to adjust for wear of the parts of the clutch, and means for adjusting said slidably engaging means.

2. In a friction clutch, the combination of a driving element, a driven element, a casing fixed to one element and embracing the other element, a thrust member mounted within and rotatable with said casing, means for moving said thrust member longitudinally of the casing to establish frictional engagement between said elements interposed between said thrust member and the rear wall of the casing, means interposed between said moving means and said rear wall to cause said moving means to move longitudinally of said elements upon angular movement of said moving means relatively to said casing, and means for moving said moving means angularly with respect to the casing to adjust for wear of the parts of the clutch.

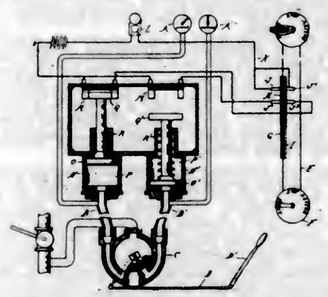
3. In a friction clutch, the combination of a driving element, a driven element, a casing fixed to one element and embracing the other element, a thrust member mounted within and rotatable with said casing and having its face adjacent the said casing disposed in a continuous plane, means interposed between said rear wall and the said thrust member for engaging the said face to move the thrust member longitudinally of the casing to establish frictional engagement between the elements, and means movable angularly of the casing for shifting said moving means longitudinally of the casing and angularly with respect to the said thrust member to adjust the parts of the clutch to compensate for wear.

4. In a friction clutch the combination of a driving element, a driven element, a casing fixed to one element and embracing the other element, a thrust ring mounted within and rotatable with said casing, a member mounted within said casing adjacent the rear wall thereof, a bell crank carried by the said member and adapted to move the said thrust ring to establish frictional engagement between the elements, the adjacent faces of said member and said rear wall being correspondingly inclined to move the said ring and bell crank longitudinally of the casing upon relative angular movement of said member and casing to adjust the parts of the clutch to compensate for wear, and means for moving said member angularly relatively to the said casing.

5. In a friction clutch, the combination of a driving element, a driven element, a casing fixed to one element and embracing the other element and having a recess in its rear wall provided with an inclined base, a thrust ring mounted within said casing, a member provided with a stud adapted to seat in and engage the inclined base of said recess, a bell crank carried by the said member adapted to move the said thrust ring longitudinally of the casing to establish frictional engagement between the elements, and means for moving said member angularly of the casing to slide the said stud over the inclined base of the recess to move the bell crank longitudinally of the casing to adjust the parts of the clutch to compensate for wear.

[Claim 6 not printed in the Gazette.]

1,131,770. SIGNAL SYSTEM. GEORGE BROWN, Sarnia, Ontario, Canada, assignor to Brown Automatic Indicator Company, Port Huron, Mich., a Corporation of Michigan. Filed Mar. 29, 1911. Serial No. 617,582. (Cl. 177—339.)



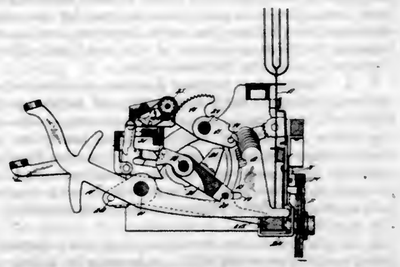
1. The combination with mechanical signal order sending means and a reversing gear, of a danger signal, and danger signal actuating and regulating means whereby the danger signal is operated only when the reversing gear is operated inconsistently with the signal order sending means, said danger signal actuating and governing means comprising a device operatively connected with the mechanical signal order sending means, and fluid pressure mechanism including a fluid pressure supply, a pair of fluid pressure conduits, and a valve operatively connected with the reversing gear and controlling the supply of fluid pressure from said fluid pressure supply to said conduits.

2. The combination with mechanical signal order sending means, and controlling mechanism to execute the orders indicated by the signal order sending means, of a danger signal, means for actuating the same, a return signal, means for actuating the return signal, a device operatively connected with the mechanical signal order sending means, and a second device operatively connected with the controlling mechanism of the apparatus, said devices acting to govern the signal actuating means to actuate the danger signal only when the controlling mechanism for the apparatus is operated inconsistently with the signal order sending means, said second device also acting to control the means for operating the return signal.

3. The combination with mechanical signal order sending means and a reversing gear, of a danger signal, a fluid pressure actuated return signal, means for actuating the danger signal, a device operatively connected with the mechanical signal order sending means, a fluid pressure actuated device, a fluid pressure supply, a valve connected with the reversing gear and controlling the supply of fluid pressure from said supply to the said fluid pressure actuated device and to the fluid pressure actuated return signal, the first mentioned device and the fluid pressure actuated device governing the operation of the danger signal actuating means to actuate the danger signal when the reversing gear is operated inconsistently with the mechanical signal order sending means.

4. The combination with mechanical signal order sending means and a reversing gear, of a danger signal, a plurality of steam pressure return signal gages, a device operatively connected with the mechanical signal order sending means, a fluid pressure actuated device, fluid pressure conduits leading to the fluid pressure actuated device, a branch conduit leading from each of said first mentioned conduits to one of the steam pressure return signal gages, a valve connected with the reversing gear and controlling the admission of engine pressure to said first mentioned conduits and the branch conduits, the first mentioned device and the fluid pressure actuated device governing the danger signal actuating means to actuate the danger signal when the reversing lever is operated inconsistently with the mechanical signal order sending means.

1,131,771. CASH-REGISTER. THOMAS CARROLL, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Aug. 13, 1906. Serial No. 330,454. (Cl. 235—2.)



1. In a cash register, the combination with register wheels, of oscillating racks for operating same, means for moving the racks to bring said wheels and racks together for operating the register wheels, and means for moving said register wheels when no operation of the register wheels is desired.

2. In a cash register, the combination with a register, of operating racks for same, means for moving said racks to bring them into gear with the register, and means for moving said register with the racks when no operation of said register is desired.

3. In a cash register, the combination with a register and a pivoted frame supporting same, of racks for operating same, means for bringing said racks and register together, and means for rocking the register frame to prevent an operation of said register.

4. In a cash register, the combination with a register and devices for operating same, of means for moving said register away from said devices, to prevent an operation of the register.

5. In a cash register, the combination with a register and a frame for carrying the same, of racks for operating said register and a frame for carrying said racks, means for rocking said latter frame to cause an engagement of said register and racks when said register is to be operated, and means for rocking both of said frames when said register is not to be operated.

[Claims 6 to 25 not printed in the Gazette.]

1,131,772. VEHICLE-TIRE. GEORGE H. CHINNOCK, New York, N. Y. Filed Sept. 3, 1912. Serial No. 718,380. (Cl. 152—10.)



1. A pneumatic tire such as described comprising a pneumatic tire body having a thick and relatively wide tread portion, and a plurality of hollow elastic tubes embedded in said tread portion to beyond the centers of said tubes and integrally united with said tread and projecting therefrom to form circumferential ribs on the exterior of such tread, said ribs being elastic and compressible independently of the elasticity and compressibility of the tire as a whole.

2. A pneumatic tire such as described comprising a pneumatic tire body having a thick and relatively wide tread portion of rubber, and a plurality of hollow cushion tubes of curvilinear section and of elastic material embedded in said tread portion to beyond their centers and integrally united with said tread portion and projecting therefrom to form circumferential ribs on the exterior of such tread, the rubber of such tread extending around both sides of each of said tubes and beyond the centers of the tubes and locking the same in place, and said tubes forming the bearing surface of the tread with the weight distributed over the different tubes.

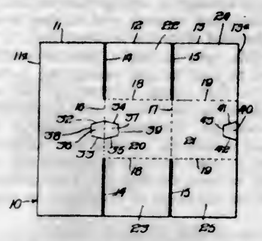
3. A vehicle tire having a tread portion of elastic material provided with a plurality of hollow peripheral ribs of elastic material projecting from the outside thereof, the hollow portions of said ribs being below the surface of the tread and being laterally supported thereby, and said ribs and tread being united by vulcanization into an integral structure, said ribs being elastic and compressible independently of the elasticity and compressibility of the tire as a whole.

4. A pneumatic tire having a thick and relatively wide tread portion provided with a plurality of hollow peripheral ribs of elastic material projecting from the outside thereof, the hollow portions of said ribs being below the surface of the tread and being laterally supported thereby, and said ribs and tread being united by vulcanization into an integral structure, said ribs being elastic and compressible independently of the elasticity and compressibility of the tire as a whole.

1,131,773. PARTITION MEMBER FOR MERCHANDISE-RECEPTACLES. FRANK B. DAVIDSON, Marseilles, Ill., assignor to Howe and Davidson Company, East Orange, N. J., a Corporation of New Jersey. Filed Mar. 16, 1914. Serial No. 824,862. (Cl. 220—42.)

1. In combination with a merchandise receptacle, embracing a bottom and upright side and end walls, a partition member adapted to be inserted in said receptacle for dividing the space formed between said upright walls into a plurality of compartments or cells, said partition member comprising a plurality of connected sections which are folded one upon the other in overlapping relation, one of said sections being adapted to extend between the end walls, and the other of said sections being provided with a flap, which is bent into a position transverse to the folded sections, said flaps being located intermediate the ends of the partition member and being adapted to extend between the section to which it is connected and the adjacent upright wall of the receptacle.

2. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation, one of said sections being provided with an integral flap which is bent into a position transverse to the folded sections, and located intermediate the ends of the partition member, and locking means for holding together the overlapped portions of said sections, embracing a locking tongue on one of said sections, adapted to enter a locking notch in the other of said sections.



3. A partition member for merchandise receptacles, comprising at least two connected sections which are folded one upon the other in overlapping relation, one of said overlapping sections being separated from the other along a part of the length of the sections and being provided with a folding line transverse to the line of fold between the sections, to form a flap which is bent into a position transverse to the folded overlapping sections, and locking means for holding together the overlapped portions of said overlapping sections.

4. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation with one of said sections located between and overlapped by the other of said sections, and each of the exterior sections being provided with a flap which is bent into a position transverse to the folded sections.

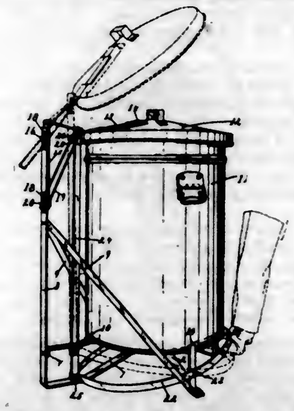
5. A partition member for merchandise receptacles, comprising a plurality of connected sections which are folded one upon the other in overlapping relation with one of said sections located between and overlapped by the other sections, said sections being separated from each other along a part of the length of the sections, and each of the exterior sections being provided with at least one folding line transverse to the line of fold between the sections, to form flaps which are bent into a position transverse to the folded portions of said sections.

[Claims 6 to 8 not printed in the Gazette.]

1,131,774. RECEPTACLE SUPPORT AND COVER OPERATING AND LOCKING MEANS. LINFORD J. DAVIS, Battle Creek, Mich. Filed Jan. 28, 1914. Serial No. 814,984. (Cl. 220—115.)

1. In a structure of the class described the combination of a receptacle support, an upright on said support, a receptacle arranged on said support, a cover for said receptacle, a hinge comprising a slotted member secured to the cover and a member secured to said upright for vertical adjustment thereon, a latch pivoted on said cover hinge member and embracing said upright, a keeper on said upright with which said latch engages when the cover is closed, a foot lever pivoted on the receptacle support, a longitudinally slotted link pivotally mounted on said lever and arranged through said cover hinge member, a pin on said cover hinge member engaging said slot in said link and constituting the pivot for said latch, and a trip on said link adapted to engage said latch during the initial movement of said lever.

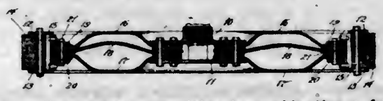
2. In a structure of the class described the combination of a receptacle support, an upright on said support, a receptacle arranged on said support, a cover for said receptacle, a hinge comprising a member secured to the cover and a member secured to said upright, a latch pivoted on said cover hinge member, a keeper on said upright with which said latch engages when the cover is closed, a foot lever pivoted on the receptacle support, a longitudinally slotted link pivotally mounted on said lever, a pin on said cover hinge member engaging said slot in said link, and a trip on said link adapted to engage said latch during the initial movement of said lever.



3. In a structure of the class described the combination of a receptacle support, an upright on said support, a receptacle arranged on said support, a cover for said receptacle hinged to said upright, a latch pivoted on said cover hinge member, a keeper on said upright with which said latch engages when the cover is closed, a foot lever pivoted on the receptacle support, a link pivotally mounted on said lever and having a lost motion connection with said cover, and a latch releasing trip on said link adapted to engage said latch during the initial movement of said lever.

4. In a structure of the class described the combination with a frame adapted as a receptacle support, a receptacle cover hinged to said frame, a cover latch engaging when the cover is in its closed position, whereby the cover is locked in its closed position and the receptacle retained upon the support, and a cover lifting lever having a lost motion connection to said cover and operating connections with said latch, whereby the latch is disengaged during the initial movement of the lever and the cover raised on the further movement of the lever.

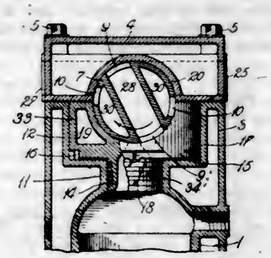
1,131,775. ELASTIC WHEEL. ANSON W. DELANE, New York, N. Y., assignor of one-half to Nicholas W. Ryan, New York, N. Y. Filed May 12, 1913. Serial No. 767,233. (Cl. 152—28.)



1. A resilient wheel comprising in combination a felly, composed of two annular channel bars having compression plates attached within them, a body portion composed of two annular flexible sheets having their outer circular edges united and fastened between said compression plates, and a hub composed of two compression plates bolted together so as to squeeze the internal circular edges of said annular sheets, substantially as described.

2. A resilient wheel comprising in combination a felly, an annular pneumatic body portion composed of two exterior flexible sheets having their outer edges fixed to said felly, a hub to which the inner edges of said sheets are fixed, and an internal dished annular flexible sheet fixed to said hub and felly and dividing the interior of said body portion into two independent compartments, substantially as described.

1,131,776. ROTARY VALVE. ROBERT B. EWART, Detroit, Mich. Filed Jan. 30, 1913. Serial No. 745,226. (Cl. 123—59.)



1. In an engine, the combination of a plurality of cylinders each having a bore extending through the end thereof, a cylindrical valve having ports opening through the sides thereof, a cap for all of the cylinders rigidly secured thereto and formed with a seat for half of the valve and with inlet and exhaust passages adapted to register with the ports in the valve, a block extending across and seated upon all of the cylinders beneath the cap and formed with a seat for the other half of the valve and provided with extensions each engaging a bore in the end of a cylinder, said block and extensions being formed with passages opening into the cylinders and adapted to register with the ports in the valve, and means for yieldingly holding said block in contact with said valve.

2. In an engine the combination with a cylinder and a cylinder portion having a passage opening into said cylinder, and formed with a valve seat, of a valve engaging the valve seat to control said passage, a member preventing leakage between said valve and its seat, yielding means for holding said member in operative position comprising a plurality of spring members formed by partially severing the portions of said member therefrom.

3. In an engine, the combination with a cylinder, a cylinder portion formed with a valve seat, and a passage leading therefrom to the cylinder, a rotatable valve controlling said passage, of a member adapted to engage said valve and prevent leakage around the same, and a plurality of spring fingers formed integral with said member to hold the member in yielding contact with the valve.

4. In an engine, the combination with a cylinder, a cylinder portion having a passage communicating with the interior of the cylinder, and a cylindrical valve controlling said passage, of a seat member forming a seat for the valve, and means for holding said member in yielding contact with the valve comprising a plurality of spring fingers formed integral with said member by partially severing edge portions of the member therefrom.

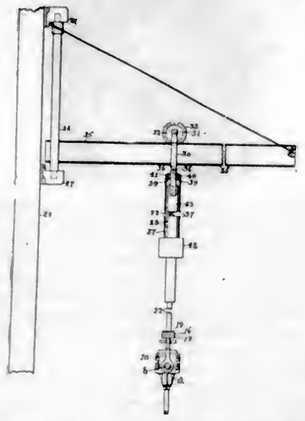
5. In an engine the combination with a cylinder having a passage leading thereto and a rotatable cylindrical valve controlling the said passage, of a member engaging the valve, and means for holding said member in yielding contact with the valve comprising a plurality of spring fingers formed by slotting the metal at a distance from the edge thereof parallel with said edge at intervalvs and cutting through said edge at right angles to said slots intermediate the ends thereof to form spring members extending laterally from the portion which is integral with the body of the member between the adjacent ends of the slots.

[Claims 6 and 7 not printed in the Gazette.]

1,131,777. TOOL-HOLDER FOR ROTARY DRILLING AND LIKE MACHINES. BURT O. GAGE, Warren, Mass., assignor to Warren Steam Pump Company, Warren, Mass., a Corporation of Massachusetts. Filed Jan. 19, 1914. Serial No. 812,921. (Cl. 77—7.)

1. In a holder of the character described, in combination, a lower member to support a machine or tool, an upper member, a coupling for connecting said members in fixed relation and also in swiveling relation, a hollow guid-

ing member in which the said upper member in movable, a counterweight movable on the outside of said guiding member and connected with the upper member of the holder within said guiding member, and a supporting member for said guiding member on which the latter is capable of being moved, substantially as described.



2. In a holder of the character described, in combination, a lower member having arms in which a machine or tool is mounted to turn, a coupling member to which said arms are secured, an upper member angular in cross section, a coupling member to which said upper member is attached, means for securing said coupling members in fixed relation and to permit said coupling members to be connected together and allow one to turn or swivel with relation to the other, a tubular guiding member provided with an angular opening in which the upper member of the holder is movable, a counter weight movable on the tubular guiding member, and means for connecting the said counter weight with the said upper member within the guiding member.

3. In a holder of the character described, in combination, a lower member to support a machine or tool, an upper member capable of moving in the direction of its length, means for guiding said upper member in its longitudinal movement, a coupling capable of connecting said members in fixed relation and also in swiveling relation, and a counter-balance connected with said upper member to facilitate the longitudinal movement of the latter.

4. In a holder of the character described, in combination, an upper member, a guiding member for said upper member, a counter weight movable on said guiding member, and means for connecting said counter weight with said upper member, substantially as described.

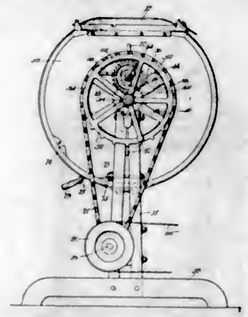
5. In a holder of the character described, in combination, a substantially horizontal support, a roller movable on the upper surface thereof, a shaft on which said roller is mounted, arms straddling said support and in which said shaft is supported, a tube attached to said arms, a rod movable within said tube, a counter weight movable on said tube, and flexible connections joining the rod within the tube with the counter weight on the outside of said tube, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,778. BUTTER-MAKING MACHINE. PAUL HANSON, Wild Horse, Colo. Filed May 15, 1912. Serial No. 697,399. (Cl. 31—25.)

1. In a butter working machine, the combination with a rotatable drum, of operating mechanism therefor, a driving pulley, means to connect the operating mechanism to the driving pulley, comprising a sprocket having means for driving engagement with the pulley, and means to place the sprocket in such driving engagement.

2. In a butter working machine, the combination with a rotatable drum, of operating mechanism therefor, comprising a countershaft, a pulley freely mounted upon the countershaft, a driving sprocket having means for clutching engagement with the driving pulley, and means to place both the driving pulley and the sprocket in clutching engagement with each other.



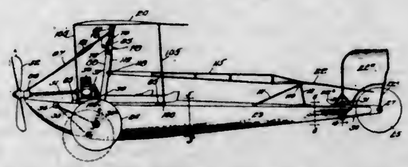
3. In a butter working machine, the combination with a rotatable drum, of operating mechanism therefor, comprising a countershaft, a pulley freely rotatable thereon, a driving sprocket also freely rotatable on the countershaft, and means in connection with the countershaft for pressing the sprocket and the pulley together to lock them in driving engagement with each other.

4. In a butter working machine, the combination with a rotatable drum, of operating mechanism therefor, comprising a countershaft, a bearing for said countershaft having a slot therein communicating with the chamber for the countershaft, the said slot being disposed at an angle to the axis of the shaft, a driving pulley freely mounted upon the shaft, a sprocket freely mounted upon the shaft between the pulley and the bearing, and means in connection with the shaft whereby it may be independently rotated to press the pulley and the sprocket into driving engagement with each other.

5. In a butter making machine, the combination with a rotatable drum of driving mechanism therefor, comprising a countershaft, a bearing therefor, having an extending hub portion with a slot therein communicating with the interior of the bearing, the countershaft being freely rotatable therein, a bar secured to the countershaft and extending through the said slot, whereby the shaft may be rotated, a driving pulley freely mounted upon the shaft, a driving sprocket also freely mounted on the shaft and disposed between the driving pulley and the extending portion of the bearing member, a member secured to the outer end of the countershaft bearing against the outer surface of the pulley, and interengaging means on the adjacent faces of the sprocket and pulley whereby they may be pressed into engagement when the bar is rotated in the slot of the bearing member.

[Claims 6 to 27 not printed in the Gazette.]

1,131,779. AEROHYDROPLANE FLYING-MACHINE. DE BERT HARTLEY, Chicago, Ill. Filed June 13, 1913. Serial No. 773,446. (Cl. 244—29.)



1. In an aeroplane flying machine, a frame, a warpable plane member hinged thereto and capable of both a manual and an automatic swinging movement, and controlling means for said plane, constructed to automatically warp said plane upon either its manual or automatic swinging movement.

2. An aero-plane flying machine comprising a frame, oppositely extending warpable planes hinged or pivoted thereto to swing vertically, and means coöperating with said frame and planes to swing the planes and to simultaneously warp said planes with their entering edges elevated above their trailing edges when the planes are swung upwardly.

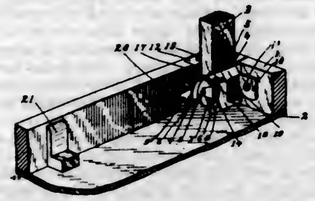
3. In an aeroplane flying machine, a frame, oppositely extending planes hinged to the frame to swing vertically and constituting the principal supporting surfaces of the machine, yielding balancing elements carried by said frame and connected to the planes to control the swinging movements of said planes, and means coöperating with the balancing elements to simultaneously and automatically effect warping of each plane as it is swung on its hinges.

4. In an aero-plane flying machine, a frame, oppositely extending planes or wings hinged to said frame to swing vertically to vary the dihedral angle of the planes relatively to each other and inclined guiding means carried by the frame and operatively connected to said planes in a manner to automatically warp each plane during the swinging movement thereof.

5. In an aeroplane flying machine, a frame, oppositely extending planes or wings hinged to said frame to swing vertically to vary the dihedral angle of the planes, guiding means carried by the frame and connected to said planes to warp them during the swinging movements of the planes, and adjusting means to vary the warping movements of the planes relatively to the dihedral angles thereof.

[Claims 6 to 28 not printed in the Gazette.]

1,131,780. FOLDING TABLE. HENRY L. HASKELL, Ludington, Mich. Filed Nov. 4, 1912. Serial No. 729,196. (Cl. 45—11.)



1. In a structure of the class described, the combination with a rectangular frame, of a leg; a hinge therefor comprising a U-shaped frame member having forwardly projecting pivot ears adjacent to the upper edges of its arms and an upwardly facing forwardly projecting keeper on its inner arm, said member being arranged in a corner of said frame with its outer arm secured to one side thereof and its outer end secured to the adjacent side, whereby said hinge member constitutes a frame member; a U-shaped leg member arranged on said leg and disposed in said frame member and having a pair of forwardly projecting pivot ears adjacent to the upper edges of its arms; and a forwardly projecting slotted catch support on its inner arm; pivots; and a spring catch mounted on the pivot of the outer arms of said members and arranged through said slot in said catch support to coact with said keeper, said catch being laterally supported and its swinging movement limited by its said support.

2. In a structure of the class described, the combination with a rectangular frame, of a leg; a hinge therefor comprising a U-shaped outer member having an upwardly facing forwardly projecting keeper on its inner arm, said member being arranged in a corner of said frame with its outer arm secured to one side thereof and its outer end secured to the adjacent side whereby said hinge member constitutes a frame member; a U-shaped leg member arranged on said leg and disposed in said outer member with its arm pivoted to the arms thereof; and having a stop on its outer arm coacting with the edge of the outer arm of the frame member and a forwardly projecting slotted catch support on its inner arm; and a spring catch mounted on the pivot of the outer arms of said members and arranged through said slot in said catch support to coact with said keeper.

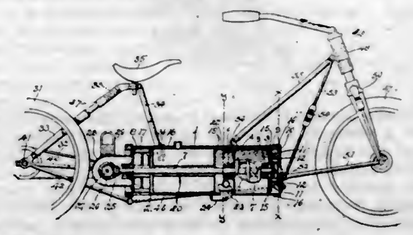
3. In a structure of the class described, the combination with a rectangular frame, of a leg; a hinge therefor comprising a U-shaped outer member having an upwardly facing forwardly projecting keeper on its inner arm, said member being arranged in a corner of said frame with its outer arm secured to one side thereof and its outer end secured to the adjacent side whereby said hinge member constitutes a frame member; a U-shaped leg member arranged on said leg and disposed in said outer member with its arms pivoted to the arms thereof.

4. A structure of the class described, comprising a U-shaped outer member having a keeper on one of its arms; a U-shaped inner member arranged in the outer member, with its arms pivotally connected to the arms thereof, and having a stop on one of its arms coacting with the corresponding arm of the outer member and slotted catch support on its other arm; and a spring catch arranged through said slot in said catch support to coact with said keeper.

5. A structure of the class described, comprising a U-shaped outer member having a keeper on its inner arm; a U-shaped inner member arranged in the outer member, with its arms pivotally connected to the arms thereof and having a slotted catch support on one of its arms; and a spring catch arranged through said slot in said catch support to coact with said keeper.

[Claims 6 to 18 not printed in the Gazette.]

1,131,781. MOTOR-VEHICLE. JOSHUA A. HILL, Essex, Ontario, Canada. Filed Mar. 13, 1914. Serial No. 824,349. (Cl. 21—90.)



1. In a machine of the character described, the combination of a tubular member, an engine cylinder secured to said member, an engine crank shaft in said member extending longitudinally thereof, closures for the ends of said member, walls having bearings for said shaft extending across within said member and separating the same into chambers one of which forms a crank case for the engine, and a fuel tank for said engine cylinder in another chamber of said member and surrounding said crank shaft.

2. In a machine of the character described, the combination of a frame comprising frame members and a tubular member to which the frame members are attached, an engine cylinder secured to said member, an engine crank shaft in said member extending longitudinally thereof, walls extending across the member and dividing the same into a plurality of chambers one of which forms an engine crank case, and air cooled means within one of said chambers for maintaining a fuel supply for said engine cylinder.

3. In a machine of the character described, the combination of a tubular member, an engine cylinder secured to said member, an engine crank shaft in said member extending longitudinally thereof, walls having bearings for said shaft and extending across within said member

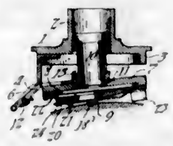
and dividing the same into a plurality of chambers one of which forms a crank case for the engine, means for detachably securing one of the walls within said member, whereby it may be removed longitudinally therefrom to give access to the crank chamber, and air cooled means in one of said chambers for maintaining a fuel supply for said engine cylinder.

4. In a machine of the character described, the combination of a frame comprising frame members and a tubular member to which the frame members are attached, an engine cylinder secured to the tubular member, a crank shaft within the tubular member and having the cranked portion thereof at one end of said member, bearings within the tubular member for the crank shaft, a fly wheel on the crank shaft at the opposite end of the tubular member from the cranked portion of said shaft, and means supported by the tubular member for transmitting motion from the crank shaft.

5. In a machine of the character described, the combination of a tubular member, an engine cylinder secured to the tubular member and extending laterally therefrom, a plurality of walls dividing the interior of the tubular member into a series of chambers, a crank shaft extending longitudinally of the member and supported by said walls with its cranks within one of the chambers, a fly wheel on the crank shaft within said member and a fuel tank within the member between the fly wheel and a wall of the chamber in which the cranks are located.

[Claims 6 to 17 not printed in the Gazette.]

1,131,782. PHONOGRAPH-RECORDER. NEWMAN H. HOLLAND, West Orange, N. J., assignor to New Jersey Patent Company, West Orange N. J., a Corporation of New Jersey. Filed Dec. 19, 1910. Serial No. 598,069. (Cl. 181—10.)



1. In a device of the class described, the combination with a vibratory stylus, and pressure means tending to force said stylus to cut into a record blank when said stylus engages the blank, of counterbalancing means for said pressure means comprising pivoted tracking means adapted to engage the blank, and means automatically exerting a force tending to move said pressure means away from said tracking means, substantially as described.

2. In a device of the class described, the combination with a vibratory stylus, and pivoted pressure means tending to force said stylus to cut into a record blank when said stylus engages the blank, of counterbalancing means for said pressure means comprising tracking means adapted to engage the blank, and means automatically exerting a force tending to move said pressure means away from said tracking means, substantially as described.

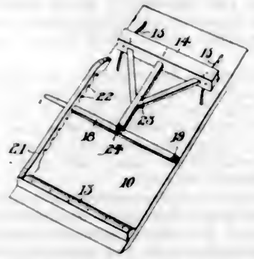
3. In a device of the class described, the combination with a vibratory stylus, and gravity means tending to force said stylus to cut into a record blank when said stylus engages the blank, of counterbalancing means for said gravity means comprising pivoted tracking means adapted to engage the blank, and means automatically exerting a force tending to move said gravity means away from said tracking means, substantially as described.

4. In a device of the class described, the combination with a vibratory member, a stylus connected thereto, and gravity means supporting said vibratory member and tending to force said stylus to cut into a record blank when said stylus engages the blank, of counterbalancing means for said gravity means comprising pivoted tracking means adapted to engage the blank, and means automatically exerting a force tending to move said gravity means away from said tracking means, substantially as described.

5. In a device of the class described, the combination with a vibratory stylus, and pressure means tending to force said stylus to cut into a record blank when said stylus engages the blank, of counterbalancing means for said pressure means comprising tracking means adapted to engage the blank, and gravity means automatically exerting a force tending to move said pressure means away from said tracking means, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,131,783. PLATFORM-BRIDGE. JOHN E. HOWARD, Erin, N. Y. Filed Aug. 7, 1914. Serial No. 855,614. (Cl. 57—18.)



1. A platform bridge comprising a board having longitudinally positioned arcuate slots positioned therethrough and adjacent one end thereof, a fixed cleat secured beneath the board and adjacent one end thereof, a movable cleat transversely positioned adjacent the opposite end of said board, posts carried by said movable cleat and extending through said slots, an adjustable operating lever for said movable cleat.

2. A platform bridge comprising a spanning board having arcuate slots therethrough adjacent one end thereof, a movable cleat beneath said board, posts carried by said cleat and extending through said slots, and provided with heads countersunk in the upper sides of said slots and movable therein, a transversely positioned operating lever pivoted at one end to said board, connecting means rigidly secured at one end to said cleat and pivoted at its other end to said lever, and automatic locking means for retaining said lever in adjusted position.

3. A platform bridge comprising a spanning board, a spaced cleat secured beneath one end of said board, a rack engaging said cleat and secured beneath the adjacent edge of said board, the said board being provided with arcuate slots at the opposite end thereof, and having countersunk encircling shoulders, posts slidably mounted within said slots, and having heads positioned upon said shoulders, a removable cleat attached to said posts beneath said board, a resilient operating lever pivoted beneath said board, and extending beneath said rack and adapted for automatically engaging the teeth thereof in its adjusted positions, connecting means pivoted to said lever and rigidly secured to said movable cleat.

1,131,784. HUMIDIFIER. HERBERT B. MCCLURE, Dubuque, Iowa. Filed Feb. 18, 1914. Serial No. 819,428. (Cl. 98—44.)

1. In a device of the class described, the combination of a casing through which heated air is adapted to pass, an air moistener in the casing and spaced from one of the walls thereof to provide an upward passageway for the air at one side of the moistener, and a deflector in the casing adjacent the other side of the moistener to deflect downwardly the air rising through the upward passageway.

2. In a device of the class described, the combination of a casing through which heated air is adapted to pass, rows of air moisteners in the casing, each row being disposed in spaced relation to one of the walls of the casing to provide upward passageways for the heated air at the outer side of each row of moisteners, and spaced deflectors in the casing for directing downwardly at the inner sides of the moisteners the air passing through the upward passageways, said deflectors being so arranged as to form with each other an upward passageway for the air.



3. A device of the character described comprising a casing open at the bottom to envelop a radiator and having an outlet in the top for the escape of heated air, a water receptacle within said casing supported above the radiator, air moistening devices in said receptacle and projecting above the same in spaced relation to the walls of the casing to permit the upward flow of air between the walls and the outer sides of said air moistening devices, and spaced deflector plates depending from the top of the casing on opposite sides of the outlet to deflect the air downwardly over the opposite sides of the moistening devices before escaping.

4. A device of the character described comprising a casing having outlet openings in its upper wall to permit a current of air to pass therethrough, means to support said casing over a heating element, a water receptacle within the casing and supported above the heating element, a plurality of air moistening devices within the water receptacle and projecting above the same in spaced relation to each other and to the walls of the casing to permit upward flow of air between said walls and the outer sides of said moisteners, and deflector plates depending from the upper wall on each side of the outlet openings nearly to the water receptacle and spaced from each other and from the moistening devices to direct the flow of air at first downwardly against the inner sides of the said moistening devices and then upwardly to the outlets.

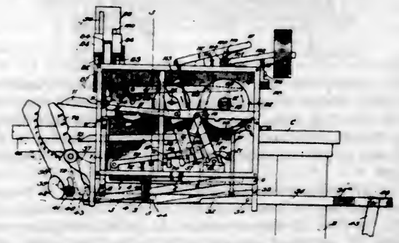
5. A device of the character described comprising a casing having outlet openings in its upper wall, a horizontally disposed deflector plate within the casing inclined upwardly from the center to the side walls and provided with inlet openings adjacent said walls, a water receptacle above the deflector plate and supported thereon, air moistening devices arranged in two rows projecting from said water receptacle nearly to the top of the casing and spaced from the side walls of the same for the flow of the air entering the inlets, and deflectors fixed to the upper wall on opposite sides of the outlet openings and depending downwardly between the rows of moistening devices and spaced therefrom to direct the air downwardly along the inner sides of the rows of moisteners, said deflectors being spaced from each other to provide an upward passageway to the out-let openings in the upper wall of the casing.

[Claims 6 and 7 not printed in the Gazette.]

1,131,785. SCALE INDICATING AND TOTALING MECHANISM. RUFUS H. MCCORMICK, Marlbrook, Va. Filed Aug. 25, 1914. Serial No. 858,457. (Cl. 235—91.)

1. A weighing scale of the class described comprising in combination a totalizing mechanism, means connecting the said mechanism to the indicating means of the said scale and means including a plurality of levers for operating the totalizing mechanism, the said levers being pivotally mounted upon the totalizing mechanism and interconnected therewith so as to be relatively moved by a predetermined manipulation of the weighing mechanism of the scale.

2. A weighing scale of the class described comprising in combination a totalizing mechanism, means connecting the said mechanism to the indicating mechanism of the said scale, and means comprising a plurality of levers mounted upon the platform and upright of said scale for operating the totalizing mechanism, the said levers being pivotally connected to the totalizing mechanism whereby the article to be weighed when placed upon the platform moves the said levers in one direction, and when removed from the said platform after having been weighed operates the said levers in the opposite direction thereby effecting the operation of the totalizing mechanism.



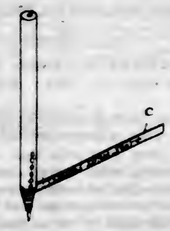
3. A weighing scale of the class described comprising in combination a platform and beam indicator, a totalizing mechanism, means connecting the said totalizing mechanism to the said beam indicator of the scale and means cooperatively related to said platform for operating the totalizing mechanism.

4. A weighing scale of the class described comprising in combination a totalizing mechanism, means connecting the said totalizing mechanism to the indicator of the scale and means mounted on said scale for operating the totalizing mechanism including a spring-actuated lever interconnected with the totalizing mechanism and operated by the article to be weighed.

5. A weighing scale including in combination a weighing mechanism comprising a platform and beam, a totalizing mechanism connected to the said beam, said totalizing mechanism comprising a plurality of interconnected registering devices and means connecting the said totalizing mechanism with the platform of the scale whereby the weight of an article will be registered when the article is removed from the platform.

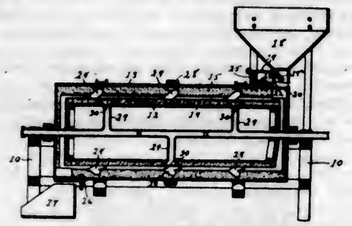
[Claims 6 to 15 not printed in the Gazette.]

1,131,786. PENCIL. ARTHUR M. MORRISON, Detroit, Mich. Filed June 16, 1913. Serial No. 774,019. (Cl. 120—83.)



A combined pencil and printed matter advertising device, comprising a lead core and a paper blank having weakened lines therein, and printed matter extending longitudinally between said weakened lines, said blank being coiled spirally about said core to permit of successive portions of said core and printed matter being exposed upon the simultaneous unwinding and severing of the successive portions of said blank intermediate said weakened lines, the printed matter on said blank being so arranged that the portion in each detached strip will convey a complete meaning in itself.

1,131,787. GRAIN-DECORTICATING MACHINE. AUSTIN B. PAIGE, Des Moines, Iowa. Filed Apr. 27, 1914. Serial No. 834,592. (Cl. 83—30.)



1. A grain decorticating machine, comprising a stationary drum, and a revolving drum concentric with and outside of the first drum, the opposing surface of said drums being coated with an abrading mixture, the coating of the revolving drum being formed with a spiral pocket-shaped groove.

2. A grain-decorticating machine, comprising a frame, an air pipe mounted horizontally thereon, a drum mounted rigidly on said air pipe, an outer drum rotatably mounted on said air pipe and concentric with the first drum, and branches leading from said air pipe to the periphery of the first drum.

3. A grain-decorticating machine, comprising a frame, an air pipe mounted thereon, a drum mounted on said air pipe, an outer drum journaled for rotation on said air pipe and concentric with the first drum, branches leading from said air pipe to the periphery of the first drum, and screens in said branches.

4. A grain-decorticating machine, comprising a stationary drum, a revolving drum concentric with and outside of the first drum, said revolving drum being formed with an inlet opening near one end, a hopper mounted over said revolving drum and adapted to register with said inlet opening at times, means for automatically closing the mouth of said hopper, and means on said revolving drum for opening said closing means when the inlet opening thereof is in register with said hopper.

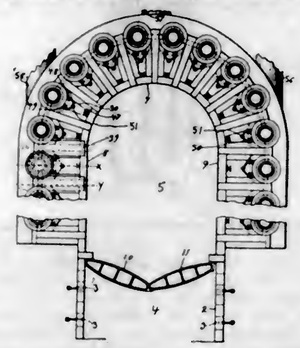
5. A grain-decorticating machine, comprising a frame, a stationary drum thereon, a revolving drum concentric with and outside of the first drum, said revolving drum being formed with an inlet opening near one end and an outlet opening near the opposite end, a hopper carried by said frame over the revolving drum and adapted to register with the inlet opening thereof at times, means for normally closing said inlet opening and for automatically opening the same when in register with said hopper, and means for automatically opening said hopper when in register with said inlet opening.

[Claims 6 and 7 not printed in the Gazette.]

1,131,788. GLASS-FURNACE. PIERRE J. PAQUET, Jeannette, Pa. Filed Dec. 11, 1912. Serial No. 736,226. (Cl. 49—56.)

1. The combination with a gathering chamber having a side wall provided with spaced openings; of a pot floor extending outward from said side wall below said openings and being provided with spaced substantially cylindrical base blocks arranged between said openings, pairs of spaced segmental blocks mounted on said base blocks with the spaces between the ends of the segments forming glass passages, pot rings superposed one above the other on said segmental blocks, wall members extending from the gathering chamber wall to said pot rings and inner segmental blocks, said wall members being arranged on opposite sides of respective openings in the gathering chamber wall to form passages leading from the gathering chamber wall openings to the passages between the said segmental blocks, and closures for the outer ends of the passages last mentioned.

2. The combination with a gathering chamber having a side wall provided with spaced openings; of a pot floor extending outward from said side wall below said openings and being provided with spaced substantially cylindrical base blocks arranged between said openings, pairs of spaced segmental blocks mounted on said base blocks with the spaces between the ends of the segments forming glass passages, pot rings superposed one above the other on said segmental blocks, wall members extending from the gathering chamber wall to said pot rings and inner segmental



blocks, said wall members being arranged on opposite sides of respective openings in the gathering chamber wall to form passages leading from the gathering chamber wall openings to the passages between the said segmental blocks, covers for said last mentioned passages, closures for the outer ends of the last mentioned passages terminating in spaced relation to said covers, a flue, and means affording communication from said flue to the openings at the tops of the closures for the outer ends of the passages.

1,131,789. VALVE-GRINDING TOOL. WALTER HENRY PEARCE, Summit, N. J. Filed Oct. 3, 1913. Serial No. 793,132. (Cl. 51—4.)



1. A valve grinding tool comprising a spirally-grooved shank, a valve-engaging end and reciprocating means cooperating with the grooved shank and adapted to impart to the valve-engaging end regularized differential opposite rotary movements.

2. A valve grinding tool comprising a spirally-grooved shank, a valve-engaging end and reciprocating lost motion means coöperatively associated with said grooved shank and adapted to impart to said end partial pre-determined rotary movement, when reciprocated in one direction, and a greater pre-determined rotary movement when reciprocated in an opposite direction.

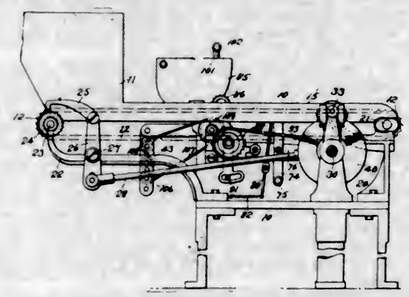
3. A valve grinding tool, comprising a spirally grooved shank, handle and tool ends, a member adapted to impart rotary movement to the shank and tool end, said member including lost motion mechanism, said lost motion mechanism operating to cause a partial ineffectual movement of the member along the shank in one direction.

4. A valve grinding tool, comprising a grooved shank provided at one end with a handle, and at its opposite end with a tool, adapted to coöperate with a valve to be ground, reciprocating means coöperating with the grooved shank for operating the tool, said reciprocating means, being provided with a lost motion mechanism, whereby the reciprocating member may be moved along the grooved shank a predetermined distance in one direction before being brought into effective working position, so as to impart thereto partial rotary movement, said member adapted when moved rectilinearly in the opposite direction to impart a greater rotary movement to the tool in reversed direction.

5. In a tool of the character described, a grooved shank, having at one end a tool and at its opposite end a handle, a reciprocating member including lost motion mechanism operably associated with the shank and adapted to cooperate with the groove thereof, to impart relatively different degrees of rotary movement to the tool upon the reciprocal movement of said member from one end of the shank to the other.

[Claims 6 to 10 not printed in the Gazette.]

1,131,790. CIGARETTE CORK-TIPPING MACHINE. VINCENT RAGONA and JOHN RAGONA, New York, N. Y. Filed Feb. 11, 1908. Serial No. 415,400. (Cl. 131—39.)



1. In a cigarette tipping machine, the combination with a traveling belt, of means for supplying cigarettes thereto, means for giving a step-by-step movement to said belt, a rotary holder, means for forcing the cigarettes successively from the belt to the holder, means for rotating the holder, means for supporting the tipping material, means for applying an adhesive substance to one side of said material, means for cleaning the material, a reciprocatory feeding device adapted to grip the material and feed it forward adjacent to the cigarette holder, means for forcing the material into engagement with the end of the cigarette, a device for registering the cigarette and movable with the last-mentioned means, and an arm adapted to engage the upper surface of the cigarette immediately the tipping material is applied thereto and after said material has been rolled on the end of the cigarette to cause said material to adhere thereto.

2. In a cigarette tipping machine, the combination with a drive shaft, of a traveling belt, means for supplying cigarettes thereto, means for giving a step-by-step movement to said belt, a rotary holder, means for forcing the cigarettes successively from the belt to the holder, means for rotating the holder, means for supporting the tipping material, means for applying an adhesive substance to one side of said material, means for cleaning the material, a feeding device adapted to grip the material and feed it forward adjacent to the cigarette holder, means for forcing the material into engagement with the end of the cigarette, means for registering the cigarette, and means adapted to engage the upper surface of the cigarette immediately the tipping material is applied thereto, all operated direct from said drive-shaft.

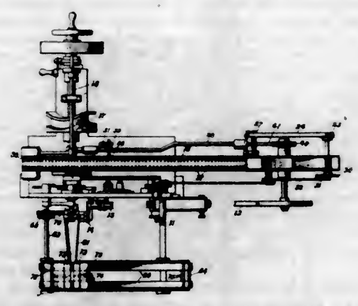
3. In a cigarette tipping machine, the combination with means for supplying cigarettes, of a rotary holder, means for rotating the holder, means for supporting the tipping material, means for applying an adhesive substance to one side of said material, feeding means adapted to grip the material and feed it forward adjacent to the cigarette holder, means for forcing the material into engagement with the end of the cigarette, a device for registering the cigarette, and an arm adapted to engage the upper surface of the cigarette immediately the tipping material is applied thereto and after said material has been rolled on the end of the cigarette to cause said material to adhere thereto, all operated from a common drive-shaft.

4. In a cigarette tipping machine, the combination with a rotary holder, of means for rotating the holder, means for supporting the tipping material, means for applying an adhesive substance to one side of said material, means for cleaning the material, feeding means adapted to grip the material and feed it forward adjacent to the cigarette holder, means for forcing the material into engagement with the end of the cigarette, a device for registering the cigarette and movable with the last-mentioned means, and an arm adapted to engage the upper surface of the cigarette immediately the tipping material is applied thereto.

5. In a cigarette tipping machine, the combination with a rotary holder, of means for rotating the holder, means for supporting the tipping material, means for applying an adhesive substance to said material, a reciprocatory feeding device adapted to grip the material and feed it forward adjacent to the cigarette holder, means for forcing the material into engagement with the end of the cigarette, and a registering device arranged to impart a longitudinal movement to a cigarette, and a single reciprocating support for said forcing means and said registering device.

[Claims 6 to 38 not printed in the Gazette.]

1,131,791. CIGARETTE CORK-TIPPING MACHINE. VINCENT RAGONA and JOHN RAGONA, New York, N. Y. Filed Aug. 14, 1908. Serial No. 448,531. (Cl. 131—39.)



1. In a cigarette cork-tipping machine, the combination with a hopper adapted to hold cigarettes, of a carrier arranged within the hopper, a grooved carrier having one end movable adjacent to the first-mentioned carrier and under the same, together with means for moving the carriers alternately and intermittently whereby the cigarettes are successively deposited in the grooves of the main carrier.

2. In a cigarette cork-tipping machine, the combination with a frame, of a hopper mounted on said frame, a carrier located at the bottom of said hopper, means for agitating the cigarettes, a second carrier having transversely arranged pockets for the cigarettes and located beneath the first-mentioned carrier, ratchet mechanism for moving the first-mentioned carrier, ratchet mechanism for moving the

second carrier, and means for operating the ratchet mechanisms.

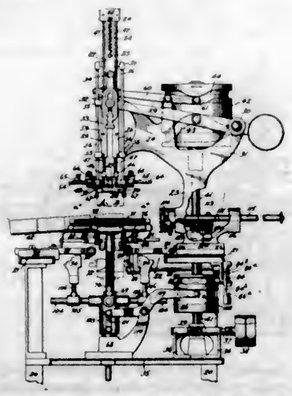
3. In a cigarette cork-tipping machine, the combination with a frame, of a hopper mounted on said frame, a carrier located at the bottom of said hopper, means for agitating the cigarettes, a second carrier or belt having transversely arranged pockets for the cigarettes and located beneath the first-mentioned carrier, and means for moving said carriers including a pawl and ratchet mechanism for each carrier, and means for operating the pawls alternately to impart a step-by-step movement to each ratchet wheel.

4. In a cigarette cork-tipping machine, the combination with a frame, of a hopper mounted on said frame, a carrier located at the bottom of said hopper, means for agitating the cigarettes, a second carrier having transversely arranged pockets for the cigarettes and located beneath the first-mentioned carrier, a ratchet wheel, a pawl engaging said ratchet wheel for moving the first-mentioned carrier, a ratchet wheel and pawl for moving the second carrier, a pivotally held lever to the opposite ends of which the pawls are pivoted, and means for operating the lever to impart a step-by-step movement alternately to the carriers.

5. In a cigarette cork-tipping machine, the combination with a frame, of a hopper mounted on said frame, a traveling carrier supported at the lower part of the hopper, a traveling carrier having a part thereof located under said carrier, a partition having one end located above the first-mentioned carrier and pivotally held within the hopper, means for vibrating the partition, a rotary agitator located adjacent to the vibratory partition and adapted to cause the cigarettes of the first-mentioned carrier to lie side by side, together with means for alternately and intermittently moving the carriers.

[Claims 6 to 17 not printed in the Gazette.]

1,131,792. MACHINE FOR FORMING SEALED WRAPPED PACKAGES. JAMES D. REIFSNYDER and GEORGE H. FATH, Philadelphia, Pa., assignors to Stokes & Smith Company, Summerdale, Pa., a Corporation of Pennsylvania. Filed July 31, 1913. Serial No. 782,328. (Cl. 93—2.)



1. In a machine for forming a sealed wrapped package, the combination with wrapper applying instrumentalities for affixing an adhesively coated wrapper to all the walls of the package save one, leaving the marginal edges of said wrapper projecting above the plane of the uncovered wall, of means for carrying the package and its wrapper through said wrapper applying instrumentalities including two plungers, means for holding one of said plungers withdrawn, means for holding the other plunger against the package, means for tucking in said projecting marginal edges and means for advancing the withdrawn plunger to press and seal said marginal edges against the package.

2. In a machine for forming a sealed wrapped package, the combination with wrapper folding and affixing instrumentalities for applying an adhesively coated wrapper to all the walls of a package save one, leaving the marginal edges of said wrapper projecting above the plane of the said uncovered wall, said folding instrumentalities including tuck-in devices for turning the said projecting marginal edges of the wrapper over the uncovered wall of the package, of a package supporting platen and two coöperating plungers between which opposite walls of the package and its wrapper are supported and carried through the folding instrumentalities, means for withdrawing one of the said plungers when said tuck-in devices are operating, and means for advancing the withdrawn plunger after said tuck-in devices have operated to press and seal the package.

3. In a machine for forming a sealed wrapped package, the combination with wrapper folding and affixing instrumentalities for applying an adhesively coated wrapper to all the walls of the packages save one, leaving the marginal edges of said wrapper upstanding above the plane of said uncovered wall, said folding instrumentalities including devices for turning the said upstanding marginal edges of the wrapper over the surrounding edges of the uncovered wall of the package, of a package supporting platen and a coöperating two-part plunger between which platen and plunger opposed walls of the package and its applied wrapper are supported and carried through the said folding instrumentalities, the lower surface of one of said plunger parts having substantially the same dimensions as, and the like surface of the other plunger part being smaller than, the upper surface of the package, and means for causing the plunger part of greater dimensions to press upon and affix the inturned marginal edges of the wrapper to the uncovered wall of the package while the latter is being held between the platen and other plunger part.

4. In a machine for forming sealed wrapped packages, the combination with wrapper applying instrumentalities, and a spring-pressed package supporting platen, of a two-part plunger movable as a unit toward said platen to grasp the top and bottom of a package and an adhesively coated wrapper therebetween and carry them through the wrapper applying instrumentalities, the lower surface of one of said plunger parts having substantially the same dimensions as, and the like surface of the other plunger part being smaller than, the upper surface of the package, said platen yieldingly supporting the package and coöperating with one of said plunger parts to press and seal the folded package.

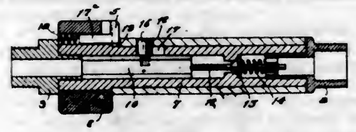
5. In a machine for forming sealed wrapped packages, the combination with wrapper applying instrumentalities, and a package supporting platen maintained in elevated position by a yielding pressure, of a two-part plunger movable as a unit toward said platen to grasp the top and bottom of a package and an adhesively coated wrapper therebetween and carry them through the wrapper applying instrumentalities, the lower surface of one of said plunger parts having substantially the same dimensions as, and the like surface of the other plunger part being smaller than, the upper surface of the package and lying wholly within the margin of the larger plunger, said platen yieldingly supporting the package and coöperating with one of said plunger parts to press and seal the folded package.

[Claims 6 to 15 not printed in the Gazette.]

1,131,793. COMPOUND FOR TREATING ROAD-SURFACES. WALTER J. REYNOLDS, Providence, R. I. Filed Sept. 22, 1910. Serial No. 583,307. (Cl. 134—1.)

A normally liquid compound for treating road surfaces, consisting solely of crude petroleum and rosin dissolved therein, the petroleum largely predominating and the amount of rosin being sufficient to make the compound sticky and resistant to weather conditions, whereby the compound is adhesive to dust and resistant to the washing effects of water, and maintains such characteristics for long periods of time.

1,131,794. LOCK FOR HANDLE-SLEEVES OF FLUID-OPERATED MACHINES. ROBERT W. RHODES, Greensburg, Pa. Filed July 8, 1914. Serial No. 849,740. (Cl 136—11.)



1. In combination in a fluid operated machine, a handle provided with a fluid supply passage therethrough, a rotary sleeve for controlling the supply of fluid through the handle provided with a locking recess at its front end, and a spring held lock carried by the handle and engaging the said recess in the sleeve when the sleeve is in position to cut off the supply of fluid to the machine, the said lock being retracted and housed when the sleeve is in position to admit a supply of fluid to the machine.

2. In combination in a fluid operated machine, a handle provided with a fluid supply passage therethrough, a rotary sleeve for controlling the supply of fluid through the handle provided with a locking recess at its front end, a collar at the front end of the sleeve, and a spring held lock carried by the collar and engaging the said recess in the sleeve when the sleeve is in position to cut off the supply of fluid to the machine, the said lock being housed in the collar when the sleeve is in position to admit a supply of fluid to the machine.

3. In combination in a fluid operated machine, a handle provided with a fluid supply passage therethrough, a rotary sleeve for controlling the supply of fluid through the handle provided with a locking recess at its front end, a housing member carried by the handle and opposing the front end of the sleeve, and a reciprocatory lock carried by said housing member and engaging the said recess in the sleeve when the sleeve is in position to cut off the supply of fluid to the machine.

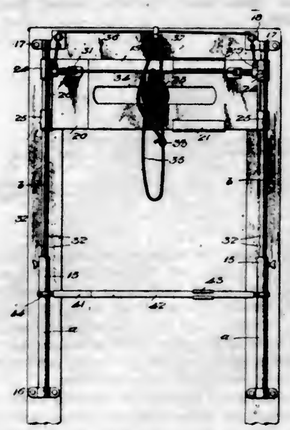
4. In combination in a fluid operated machine, a handle provided with a fluid supply passage therethrough, a rotary sleeve for controlling the supply of fluid through the handle provided with a locking notch in its forward edge, a housing member carried by the handle and opposing the said forward end of the sleeve, a reciprocatory catch carried by the housing member and spring pressed into engagement with the said notch when the sleeve is in position to cut off the supply of fluid to the machine, the said catch being retracted into the housing member when the sleeve is in position to admit fluid pressure to the machine.

5. In combination in a fluid operated machine, a handle provided with a fluid supply passage therethrough, a rotary sleeve for controlling the supply of fluid through the handle provided with a locking recess at its front end, and a yieldingly held lock carried by the collar and engaging the said recess in the sleeve when the sleeve is in position to cut off the supply of fluid to the machine, the said lock projecting above the surface of the sleeve and in position to be engaged by the thumb of the operator.

[Claim 6 not printed in the Gazette.]

1,131,795. ADJUSTABLE SUPPORT FOR WINDOW-SHADES. FREDERICK RICHARDSON, Springfield, Mo. Filed Dec. 23, 1913. Serial No. 808,390. (Cl. 156—27.)

1. In a device of the class described, a plurality of side members adapted to be secured to a frame, a curtain supporting member adapted to be adjusted to various widths of frames and slidably mounted on said side members, locking means on said supporting member to engage the side members, a single flexible controlling element having one part adapted to control the operation of the elevation of the curtain supporting member and the other portion of said element to control the locking means, a spring actuated curtain roller carried by said curtain supporting member and provided with a curtain, and an adjustable curtain member concealed within the free end of the curtain and adapted to engage the side members for retaining the curtain in proper alinement with relation to its roller and the window frame.



2. In a device of the class described, a plurality of telescopic side members adapted to be secured to a frame, a curtain supporting member having means for slidably engaging the side members, said supporting member comprising two flat plates adjustable transversely with relation to the frame, means to lock the plates in their adjusted positions, spring actuated devices to retain the supporting member in a predetermined position with relation to the side members, means to control said spring actuated devices, and means to elevate the supporting member.

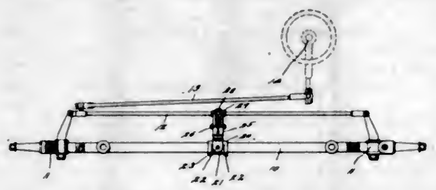
3. In a device of the class described, two tubular telescopic side members adapted to be secured to a frame, a curtain supporting member comprising two plates slidably connected, each of said plates being provided with a plurality of sleeves adapted to slide upon one of the vertical side members, means to lock said plate against movement with relation to each other, a plurality of spring actuated bolts carried by said plates of the curtain supporting member and adapted to engage the tubular members, and flexible connecting means having one end controlling the action of the spring bolts and the other end to control the vertical sliding movement of the curtain supporting member.

4. In a device of the class described, two tubular telescopic side members adapted to be secured to a frame, a curtain supporting member comprising two plates slidably connected, each of said plates being provided with a plurality of sleeve-like members adapted to slide upon one of vertical side members, a weight supporting block carried by the upper sleeve of each member, a spring actuated bolt connected with each block and adapted to engage one of the telescopic side members, a supporting pulley, and flexible means connected to each of said spring bolts and said weight supporting blocks.

5. In a device of the class described, two tubular telescopic side members adapted to be secured to a frame, a curtain supporting member comprising two plates slidably connected, each of said plates being provided with a plurality of sleeve-like members adapted to slide upon one of the vertical side members, a weight supporting block carried by the upper sleeve of each member, a spring actuated bolt connected with each block and adapted to engage one of the telescopic side members, a central supporting pulley, anti-friction devices positioned at the upper end of each side member, and flexible means having one part connected to the spring bolts and the other part to the weight supporting blocks, whereby the raising and lowering of the curtain supporting member can be effected while the movement of the spring actuated bolts may be independently controlled.

[Claims 6 and 7 not printed in the Gazette.]

1,131,796. STEERING-GEAR ATTACHMENT. ALBERT C. SAVIDGE, Indianapolis, Ind., assignor to Savidge Steering Device Company, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 19, 1914. Serial No. 872,883. (Cl. 21—200.)



1. An attachment for automobile steering gears comprising a pair of yokes, one formed for attachment to a front axle and the other formed for attachment to a tie rod, a member pivotally connecting said yokes, a pair of cams carried between said yokes, a member engaging said cams and movable longitudinally of the connection between the yokes, and a spring normally urging said cam-engaging member into the valley between them.

2. An attachment for automobile steering gears comprising a yoke formed for attachment to a front axle and provided with a pair of separated cams on its rear face, a second yoke formed for attachment to the steering gear tie rod, a member pivotally attached to said two yokes upon substantially parallel axes, a roller formed to normally seat in the valley between the cams, a saddle engaging said roller, and a spring acting upon said saddle and the connecting member to normally urge the roller into the valley between the cams and hold the connecting member yieldingly in a normal position relative to the first-mentioned yoke.

3. An attachment for automobile steering gears, comprising a pair of attaching members for attachment to a front axle and to a tie rod respectively, a member pivotally connecting said two attaching members, a cam, a member which travels on said cam as said connecting member swings on its pivot, the cam surfaces of said cam having a varying inclination to that component of the movement of said traveling member which is produced directly by the movement of said connecting member, and a spring which opposes that component of the relative movement between said cam and said traveling member which is caused by the action of the cam.

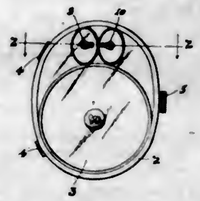
4. An attachment for automobile steering gears, comprising a pair of attaching members for attachment to a front axle and to a tie rod respectively, a member pivotally connecting said two attaching members, a cam, a member which travels on said cam as said connecting member swings on its pivot, and a spring which opposes that component of the relative movement between said cam and said traveling member which is caused by the action of the cam.

5. An attachment for automobile steering gears, comprising a pair of attaching members for atatchment to a front axle and to a tie rod respectively, a member connecting said two attaching members, a cam, a member which travels on said cam as said connecting member moves away from a given position, the cam surfaces of said cam having a varying inclination to that component of the movement of said traveling member which is produced directly by the movement of said connecting member, and a spring which opposes that component of the relative movement between said cam and said traveling member which is caused by the action of the cam.

[Claim 6 not printed in the Gazette.]

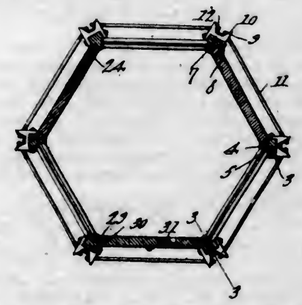
1,131,797. HEADLIGHT. HARRY O. SEBRING, Sebring, Ohio. Filed July 29, 1914. Serial No. 853,869. (Cl. 240—46.)

In a headlight, the combination of a casing, a door hingedly connected to said casing, a transparent panel provided upon said door, a central lamp located within said casing, a conical reflector located around said central lamp, side lamps contained within said casing, each of said side lamps provided with an individual conical reflector, the reflector for the central lamp directing the rays of light straight ahead and the reflectors for the side lamps



directing the rays of light at an angle to the light from the central lamp, said central lamp adapted to remain continuously lighted, independent circuits for each of said lights and selective means for closing or breaking either or both of said circuits, said selective means being independent of the movement of the machine.

1,131,798. SILO. JOSEPH RICHARD SHOUPE, Longview, Tex. Filed Dec. 3, 1913. Serial No. 804,537. (Cl. 217—4.)



1. A silo embodying posts each comprising superposed sections; and means for uniting the adjacent ends of the sections of one post with each other and with the adjacent ends of the sections of an adjoining post, all of the sections being of equal length to permit the location of any section at any point between the top and bottom of any post, each section being provided with concaved recesses in its sides, the recesses being symmetrical to permit either end of a section to be disposed uppermost; and a plurality of superposed wall-forming panels having rounded ends mounted to rock adjustably in the recesses to provide for an increase in the circumference of the silo, the rounded ends being symmetrical to afford an end for end reversal of the panels and to permit either face of each panel to be outwardly disposed.

2. A silo embodying posts each comprising superposed sections; and means for uniting the adjacent ends of the sections of one post with each other and with the adjacent ends of the sections of an adjoining post, all of the sections being of equal length to permit the location of any section at any point between the top and the bottom of any post, each section being provided with concaved recesses in its sides, the recesses being symmetrical to permit either end of a section to be disposed uppermost; a plurality of superposed wall-forming panels having rounded ends mounted to rock for adjustment in the recesses, thereby to provide for an increase in the circumference of the silo, the panels having recesses in their upper and lower edges; and stop strips seated in the recesses, the recesses being symmetrically disposed with respect to the inner and outer faces of the panels to permit both a transverse and an end for end reversal of any panel.

3. A silo comprising spaced sets of superposed posts; H-shaped supports extended across the meeting ends of the posts of each set, each support comprising rearwardly extended wings engaging the side portions of the posts, and spaced, forwardly extended wings having openings; and binding means lodged in the openings.

4. A silo comprising spaced sets of superposed posts; H-shaped supports extended across the meeting ends of the posts of each set, each support comprising rearwardly extended wings engaging the side portions of the posts, and spaced forwardly extended wings; and independent connecting means uniting the respective forwardly extending wings of the supports of one set with the corresponding wings of the supports of an adjoining set.

5. A silo comprising spaced sets of superposed posts; H-shaped supports extended across the meeting ends of the posts of each set, each support comprising rearwardly extended wings engaging the side portions of the posts, and spaced forwardly extended wings; independent connecting means uniting the respective forwardly extended wings of the supports of one set with the corresponding wings of the supports of an adjoining set; and securing devices passing through the supports, between the forwardly extended wings and entering the forward faces of superposed adjacent posts.

[Claim 6 not printed in the Gazette.]

1,131,799. METHOD OF MAKING ALLOYS. ARCHIE SMITH, Leetonia, Ohio, assignor to The Youngstown Iron & Steel Company, Youngstown, Ohio, a Corporation of Ohio. Filed Sept. 18, 1914. Serial No. 862,384. (Cl. 75—1.)

1. The herein described method of producing high-silicon steel which consists in completely refining in a single furnace a charge of steel exceeding twenty five tons, drawing the entire charge into a single receptacle, removing a fraction of such charge from said receptacle into a second and alloying receptacle, and combining a silicon ingredient with such fractional charge while in said second receptacle.

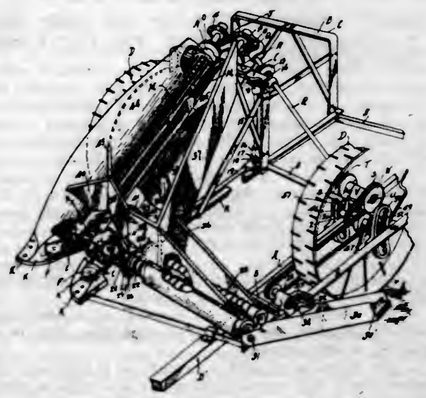
2. The herein described process for the economic production of high-silicon steel which consists in refining in a suitable furnace a charge of steel exceeding twenty-five tons, of drawing the entire furnace charge when refined into a single all-containing ladle, and of drawing from that ladle into a second alloy-forming ladle a ladle charge not exceeding twenty-five tons and there combining the molten steel with silicon.

3. The herein described process of production of high-silicon steel which consists in completely refining in an open-hearth furnace a charge of steel exceeding twenty-five tons, drawing the entire charge when completely refined into a single ladle, drawing from said ladle into another receptacle a fraction of such ladle charge and there combining it with a silicon ingredient.

1,131,800. CORN PICKING AND HUSKING MACHINE. PETER J. STAAB, Peoria, Ill. Filed Aug. 21, 1911. Serial No. 645,183. (Cl. 56—113.)

1. In a corn harvesting machine, the combination of the main frame, a pair of rolls journaled thereon and inclined upwardly and rearwardly, means to rotate them, a guard extending longitudinally of each roll and inclined at an angle upwardly therefrom to form a trough, the edge of one of them being spaced above its respective roll, a deck beneath the last mentioned guard and lying adjacent the said roll, a member extending between the said guard and the deck and forming an inclosure and receptacle at one side of the roll, and means overlying the rolls at their lower ends to retain the ears including a valve overlying one of the rolls.

2. In a corn harvesting machine, the combination of the main frame, a pair of rolls journaled thereon and inclined upwardly and rearwardly, means to rotate them, a guard extending longitudinally of each roll and inclined at an angle upward therefrom to form a trough, the edge of one of them being spaced above its respective roll, a deck beneath the last mentioned guard and lying adjacent the said roll, a member extending between the said guard and the deck and forming an inclosure and receptacle at one side of the roll, there being an opening below the lowermost part of the deck, means below said opening to receive and convey away the ears of corn, and means overlying the rolls at their lower ends to retain the ears including a valve overlying one of said rolls.



3. In a corn harvesting machine, the combination of the main frame, a pair of rolls journaled thereon and inclined upwardly and rearwardly at an angle parallel to the direction of advance, a guard adjacent each roll and inclined at an angle upwardly from each substantially in the form of a hopper, one of said guards being spaced above the roll to which it lies adjacent, a deck beneath the last named guard adjacent the roll, and lying below the level of the space between the roll and said guard, the deck and said guard constituting a receptacle, means overlying the rolls near their lower ends for directing the ears of corn toward the receptacle comprising a stationary part overlying the roll lying farthest from the receptacle and inclined at an angle toward the upper end of the roll and terminating at its other end at a position above the rolls where they adjoin, and a valve pivotally supported at one end in a substantially upright position, its other end lying adjacent the terminus of said stationary part and inclined at that end toward the upper ends of the rolls, and means to hold the valve elastically in its closed position.

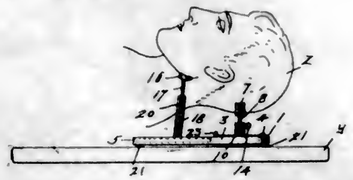
4. In a corn harvesting machine the combination with a drive wheel, the main frame, a pair of inclined snapping rolls mounted on the frame, and feeding devices at the lower ends of the rolls to introduce the corn stalks to said rolls, of a shaft operated by said drive wheel, a gear thereon, a gear on one of the rolls with which the gear of said shaft engages, a gear on each roll in mesh with each other, a second gear on the described shaft, means engaging and driving one of the feeding devices and in engagement with the said second gear, means engaging and driving the other of the said feeding devices and a gear carried by the roll at that side with which the last said means engages and by which it is driven.

5. In a corn harvesting machine the combination with a drive wheel, the main frame, a pair of inclined snapping rolls mounted on the frame, feeding devices at the lower ends of the rolls to introduce the corn stalks to said rolls, and means at the lower ends of the rolls to carry away the snapped ears, of a shaft operated by said drive wheel, a gear thereon, a gear on one of the rolls with which the gear of said shaft engages, a gear on each roll in mesh with each other, a second gear on the described shaft, means engaging and driving one of the feeding devices and in engagement with the said second gear, means engaging and driving the other of the said feeding devices, and a gear carried by the roll at that side with which the last said means engages and by which it is driven, and means driven from one of the feeding devices and operatively engaging the means that carries away the snapped ears.

1,131,801. CARBURIZING MATERIAL. CHARLES STAFF, Royal Oak, Mich. Filed Feb. 11, 1913. Serial No. 747,687. (Cl. 148—25.)

A carburizing material for metals comprising a carbonized substance known in its natural state as vegetable ivory.

1,131,802. COMBINED HEAD AND JAW REST. NELS P. STENSHOEL, Crookston, Minn. Filed Aug. 14, 1914. Serial No. 856,747. (Cl. 27—13.)



1. The combination with a support, of a pair of adjustable jaw rests, mounted on said support.

2. The combination with a support, of a head rest mounted thereon, and a pair of adjustable jaw rests mounted on said support.

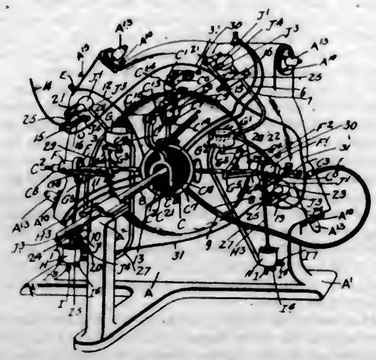
3. The combination with a support, of a vertically adjustable head rest mounted thereon, and a pair of vertically adjustable jaw rests mounted on said support.

4. The combination with a support, of a vertically adjustable head rest mounted thereon, and a pair of vertically adjustable jaw rests mounted on said support, with freedom for movement toward and from the head rest.

5. The combination with a support, of a horizontally and vertically adjustable head rest mounted on said support, and a pair of vertically adjustable jaw rests mounted on said support, with freedom for movements toward and from said head rest.

[Claims 6 to 11 not printed in the Gazette.]

1,131,803. HYDROCARBON ROTARY ENGINE. ADAM NEIL STEWART, North Bay, Ontario, Canada. Filed June 30, 1914. Serial No. 848,203. (Cl. 123—9.)



1. In a hydrocarbon engine, the combination with the main casing having a circular rotor chamber and a firing chamber located in proximity to the rotor chamber, a port designed to carry the fired charge from the firing chamber to the rotor chamber and a spring pressed valve balancing the normal pressure of the charge in the firing chamber, a pumping mechanism for feeding the gas into the firing chamber, means for automatically throwing the pumping mechanism out of gear after the delivery of each charge to the firing chamber, and a rotor member mounted on a suitable shaft and fitting within the rotor chamber and a circumferential series of buckets carried thereby, as and for the purpose specified.

2. In a hydrocarbon engine, the combination with the main casing having a circular rotor chamber and a firing chamber located in proximity to the rotor chamber, a port designed to carry the fired charge from the firing chamber to the rotor chamber and a spring pressed valve balancing the normal pressure of the charge in the firing chamber, a pumping mechanism for feeding the gas into the firing chamber, a charge receiving cylinder and piston, a pipe leading from the pumping mechanism into the cylinder beneath the piston, pump operating mechanism and throwing out gear operated by the rising of the piston in the cylinder for throwing the pump operating mechanism out of gear, as and for the purpose specified.

3. In a hydrocarbon rotary engine, the combination with the main casing having a circular rotor chamber therein, a firing chamber and a port designed to carry the fired charge from the firing chamber tangentially to the rotor chamber, a valve normally closing such port against the pressure of the charge in the firing chamber and designed to be opened by the fired charge, a force pump designed to force the hydrocarbon mixture into the firing chamber, an operating shaft for the pump, a drum carried on the shaft being eccentric to the shaft at one end and concentric to the shaft at the other end, a strap slidably mounted thereon, a link connection between the strap and piston rod of the pump, and means for drawing the strap to the concentric end of the drum after each charge has been pumped, as and for the purpose specified.

4. In a hydrocarbon rotary engine, the combination with the main casing having a circular rotor chamber therein, a firing chamber and a port designed to carry the fired charge from the firing chamber tangentially to the rotor chamber, a valve normally closing such port against the pressure of the charge in the firing chamber and designed to be opened by the fired charge, a force pump designed to force the hydrocarbon mixture into the firing chamber, an operating shaft for the pump, a drum carried on the shaft being eccentric to the shaft at one end and concentric to the shaft at the other end, a strap slidably mounted thereon, a link connection between the strap and piston rod of the pump, a cylinder interposed in the duct leading from the pump cylinder to the firing chamber, a piston therein designed to be raised by the gas fed from the aforesaid bucket into the bottom of the cylinder, a bell crank connected to the piston and a link connection between the opposite end of the bell crank and the drum strap, as and for the purpose specified.

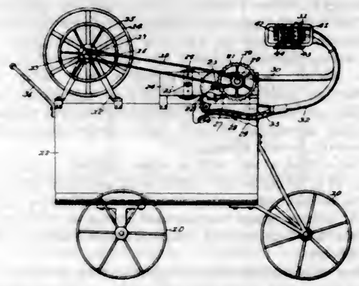
5. In a hydrocarbon engine, the combination with the main casing having a circular rotor chamber therein, and a series of firing chambers arranged circumferentially around the rotor chamber and ports designed to carry a charge from the firing chamber in a tangential direction into the rotor chamber, of a rotor provided with a circumferential series of buckets into which the charge is delivered from said ports, an ignition plug for each firing chamber, means for feeding a charge of gas into each of the firing chambers, a valve for closing the port leading from the firing chamber to the rotor chamber and for holding said port closed normally against the pressure of the charge in the firing chamber, and automatic means operated by the varying speed of the engine for cutting out one or more of the sparking plugs, as and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,131,804. COTTON-PICKER. LOUIS C. STUKENBORG, Covington, Ky. Filed May 1, 1914. Serial No. 835,707. (Cl. 56—6.)

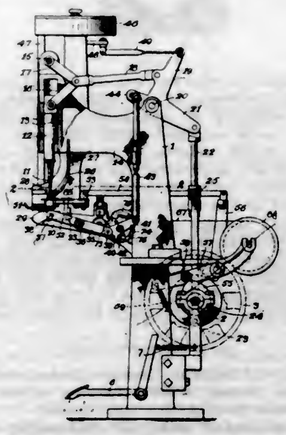
1. In a cotton picker, a picker head having brushes rotatably mounted therein, means for rotating the brushes, a conveyer having spurs for removing cotton from the brushes and conveying it, means for causing the conveyer to travel between the brushes of the head, and carry the spurs into engagement with the brushes, spouts in which the conveyer travels, means for operating the conveyer, a brush for removing cotton from the spurs of the conveyer, and means for operating the brush.

2. In a cotton picker, a picker head including oppositely rotatable brushes, a conveyer chain, a sprocket wheel mounted in the head for the engagement of the conveyer chain, said conveyer chain having spurs thereon for engaging the brushes and dislodging cotton therefrom, means for transmitting the motion of the conveyer chain to the brushes, spouts in which the conveyer chain travels, a brush mounted to rotate in engagement with the conveyer chain for removing deposits of cotton therefrom, and means for operating the conveyer chain and brush in unison.



3. In a cotton picker, a picker head, brushes on parallel shafts in the head, a wheel in the head, a shaft for the said wheel extending at right angles to the axes of the brushes and at a point between the said brushes, a conveyer chain traveling over the wheel and in operative relation to the brushes, cotton engaging spurs for contacting the brushes carried by the chain, means by which the motion of the conveyer chain is communicated to the brushes, flexible spouts in which the conveyer chain travels, means for guiding the conveyer chain to one of the spouts, a brush adapted for the removal of cotton from the conveyer, and means for operating the conveyer and brush.

1,131,805. MACHINE FOR ATTACHING FLAP-SECURING MEANS TO ENVELOPS. WILLARD E. SWIFT, Worcester, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Original application filed July 9, 1913, Serial No. 777,998. Divided and this application filed Apr. 6, 1914. Serial No. 829,775. (Cl. 93—61.)



1. In a fastener setting machine, a set, an anvil, a support for the anvil, and a guard surrounding the anvil and its support, the guard being movable toward and from the anvil and being divergent from its forward end to enter the opening of an envelop and guide the envelop toward a position around the anvil and its support to receive a fastener.

2. In a fastener setting machine, means for feeding a button to the fastener setting mechanism, the feeding means including a button tube rotatable in an opening in a support, and a flange on the button tube for engagement with a recess to retain the tube in operative position, the flange being reduced at one side to allow it to be disengaged from the recess by rotating the tube.

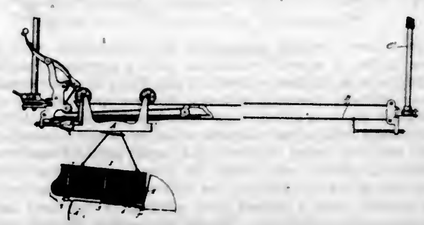
3. In a fastener setting machine, fastener setting mechanism, a button tube, button feeding means movable past the lower end of the tube, a shelf below the feeding means, the shelf having an opening under the tube to permit access to buttons within the tube, a removable closure for the opening, and a protector actuated by the closure to prevent operation of the button feeding means while the closure is removed from the opening.

4. In a fastener setting machine, fastener setting mechanism, a button tube, button feeding means movable past the lower end of the tube, a shelf below the feeding means, the shelf having an opening under the tube to permit access to buttons within the tube, and a pivoted closure for the opening, the closure carrying an extension movable into the path of the feeding means as the closure is removed from the opening.

5. In a fastener setting machine, fastener setting mechanism, a button tube, button feeding means movable past the lower end of the tube, a shelf below the feeding means, the shelf having an opening under the tube to permit access to buttons within the tube, and means including a closure for said opening for preventing operation of the button feeding means while the closure is removed from the opening.

[Claim 6 not printed in the Gazette.]

1,131,806. STORE-SERVICE APPARATUS. CLEMENT E. THOMPSON, Boston, Mass., assignor to The Lamson Company, (formerly Lamson Consolidated Store Service Company,) Boston, Mass., a Corporation of New Jersey. Filed May 13, 1912. Serial No. 696,823. (Cl. 186—8.)



1. In a store service apparatus, a way, a carrier adapted to travel on said way, a basket carried by said carrier and provided with a door, mechanism for normally holding said door closed and means in the path of the traveling carrier for tilting said basket upon its arrival at a station and for operating said mechanism to automatically open said door.

2. In a store service apparatus, a way, a carrier adapted to travel on said way, a basket carried by said carrier and provided with a door, mechanism for normally holding said door closed and means in the path of the traveling carrier for tilting said basket and for simultaneously operating said mechanism to automatically open said door.

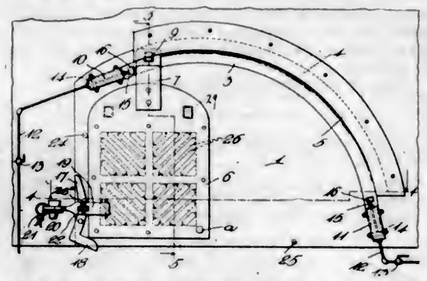
3. In a store service apparatus, a way, a carrier adapted to travel on said way, a receptacle carried by said carrier, said receptacle provided with a door at the end thereof beneath one of the ends of said carrier, means for holding said door in its closed position during transit of the carrier, and means, at a point where said receptacle is to be unloaded, for releasing said door, the material in said receptacle being discharged therefrom in a line substantially parallel with the line of travel of said carrier at said point.

4. In a store service apparatus, a way, a carrier adapted to travel on said way, a receptacle carried by said carrier, said receptacle provided with a door at the end thereof beneath one of the ends of said carrier, means for holding said door in its closed position during transit of the carrier, and yielding means, at a point where said receptacle is to be unloaded, for releasing said door, the material in said receptacle being discharged therefrom in a line substantially parallel with the line of travel of said carrier at said point.

5. In a store service apparatus, a way, a carrier adapted to travel on said way, a receptacle carried by said carrier, said receptacle provided with a door at the end thereof beneath one of the ends of said carrier, means for holding said door in its closed position during transit of the carrier, and means at a point where said receptacle is to be unloaded for releasing said door, said door being adapted to open by the momentum thereof whereby light articles carried in said receptacle may be freely discharged by their own momentum in substantially the direction of their previous movement while in said receptacle.

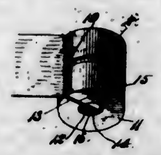
[Claims 6 to 13 not printed in the Gazette.]

1,131,807. FREIGHT-CAR DOOR. JOSEPH TONEY, Salt Lake City, Utah, assignor of one-half to Maggie Bennett and Adella Murie, Salt Lake City, Utah. Filed Dec. 5, 1912. Serial No. 735,155. (Cl. 39—92.)



In a door opening mechanism the combination with a door having a pivotal connection with a horizontal pivot contiguous to the lower corner of the door; of a bell crank lever pivotally mounted adjacent the free lower corner of the door, one arm of said lever being adapted to engage the lower edge of the door whereby when the lever is operated, said arm will swing the door to an open position until its center of gravity has passed its pivotal connection with the side of the car whereby the door will continue to open by gravity, and a hinged hasp secured to the door approximately opposite the pivotal connection thereof and adapted to be interlocked with the bell crank lever when the door is in a closed position whereby said lever and door are locked against movement.

1,131,808. RECORDING-MACHINE. BESTER R. WEBSTER, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 6, 1913. Serial No. 783,290. (Cl. 242—70.)



1. In a recording machine, the combination with a spool and a shaft for actuating said spool, of a device supported by said spool and engaging said shaft for preventing the spool from turning with respect to the shaft and adapted to be engaged with a ribbon, and means for preventing said device and spool from moving with respect to each other whether said spool be on or detached from said shaft.

2. The combination with a spool having a longitudinal slot therein, of a clamp device mounted in said slot and adapted to be engaged with a ribbon, means for preventing said clamp device from moving radially with respect to said spool, and means intermediate of the ends of said spool for preventing said clamp device from moving longitudinally in either direction with respect to said spool.

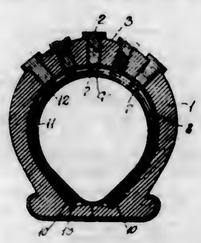
3. The combination with a spool having a longitudinal slot therein and having a recess in its periphery, of a clamp device mounted in said slot and adapted to engage with a ribbon, means for preventing said clamp device from moving laterally with respect to said spool, and a projection on said clamp device engaged in said recess and preventing movement of said clamp device longitudinally with respect to said spool.

4. The combination with a spool having a radial slot therein, of a clamp device mounted in said slot and having a double portion preventing movement outwardly through said slot, and a projection on said clamp device engaging with said spool to prevent longitudinal movement of said clamp device.

5. The combination with a spool having a central bore adapted to receive a spindle and having a radial slot leading from said bore to the periphery of the spool, of a metallic clamp device having a doubled portion mounted in said bore and having a portion of single thickness mounted in said slot, and means preventing said clamp device from moving longitudinally with respect to said spool, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,809. TIRE. BENJAMIN J. ZOBEL, Detroit, Mich. Filed June 12, 1914. Serial No. 844,637. (Cl. 152—16.)

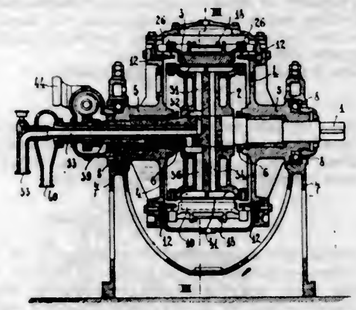


The combination with an outer casing, and a pneumatic tube within the casing, of anti-skidding devices disposed upon the periphery of said outer casing and having roughened shanks embedded within said outer casing, an interwoven flexible metallic shield arranged against the inner side of said outer casing and composed of strips connected at their intersections and providing interstices, stems carried by the shanks of said anti-skidding devices and extending through some of the interstices of said shield for retaining said shield in engagement with said outer casing, said strips having the ends thereof slotted, links connecting the ends of said strips, and a strip of material between said inner tube and the said shield with the edges thereof wrapped around the linked edges of the shield.

1,131,810. BRAKE. JOHANN ZOLLER and ROBERT SCHUSTER, Vienna, Austria-Hungary. Filed June 4, 1914. Serial No. 842,880. (Cl. 74—13.)

1. In a mechanical brake, the combination of a frictional braking member, means for applying a cooling medium interiorly thereof, and means for applying a lubricant exteriorly of said braking member.

2. In a mechanical brake, the combination of a frictional braking member, means for applying a cooling medium interiorly thereof, and a casing adapted to contain lubricant and in which said braking member is arranged.



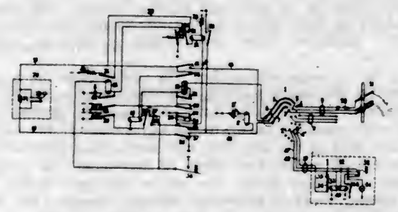
3. In a mechanical brake, the combination of a brake drum with means for circulating a liquid cooling medium in the interior thereof, braking members adapted to co-act with said drum, and a casing adapted to contain lubricant and in which said drum and braking members are arranged.

4. In a mechanical brake, the combination of a brake drum with means for applying a cooling medium interiorly thereof, braking members adapted to co-act with said drum, guides for said braking members, and a casing adapted to contain lubricant and in which said drum and braking members are arranged.

5. In a mechanical brake, the combination of a brake drum with means for applying a cooling medium interiorly thereof, braking members adapted to co-act with said drum, a casing adapted to contain lubricant and in which said drum and braking members are arranged, and guides for the braking members carried by said casing.

[Claims 6 to 12 not printed in the Gazette.]

1,131,811. SELECTOR FOR MACHINE-SWITCHING TELEPHONE SYSTEMS. FRITZ ALDENDORFF, Vieux Dieu, near Antwerp, Belgium, assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Dec. 28, 1912. Serial No. 739,054. (Cl. 179—18.)



1. A trunk hunting selector for telephone systems comprising movable contacts, groups of fixed contacts arranged in a single row, each of the said groups of contacts being connected to a different group of trunks, driving mechanism for driving said movable contacts over said row of contacts, means for causing said mechanism to stop the movable contacts at an idle trunk in a group and a switching relay under the control of the subscriber which will cause the advance of said movable contacts over said fixed contacts in the group whether busy or idle.

2. A trunk hunting selector for telephone systems, comprising movable contacts, groups of fixed contacts each connected to a different group of trunk lines, said groups of contacts being arranged in a single row, mechanism for driving said movable contacts over said row of fixed contacts, means for causing said mechanism to stop the movable contacts at an idle trunk in a group, means for causing the movable contacts to recommence traveling over any contacts in the said group whether busy or idle and means for causing the said movable contacts to stop at a free line in the next group of contacts.

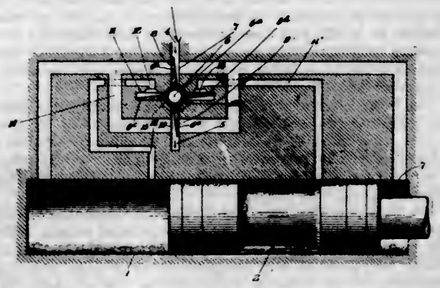
3. A trunk hunting selector for telephone systems comprising movable contacts, groups of fixed contacts each connected to a different group of trunk lines, said groups of contacts being arranged in a single row, mechanism for driving said movable contacts over said row of fixed contacts, a test electro-magnet controlling said driving mechanism so as to cause it to stop acting when the selector reaches a free trunk in a group, a line leading from the said trunk hunting selector to a controlling station, an electro-magnet under the control of the said station for changing the circuit of the said test electro-magnet so as to render the driving mechanism uncontrollable by the said test electro-magnet until the said movable contacts reach the next trunk group.

4. A trunk hunting selector for telephone systems comprising movable contacts, groups of fixed contacts arranged in a single row, each of the said groups of contacts being connected to a different group of trunks, a single metallic controlling circuit extending from said trunk hunting selector to a controlling station, driving mechanism for driving said movable contacts over said row of contacts, means for causing said mechanism to stop the movable contacts at an idle trunk in a group, and means to cause the advance of said movable contacts over said fixed contacts in the group whether busy or idle.

5. A trunk hunting selector for telephone systems comprising movable contacts, groups of fixed contacts arranged in a single row, each of the said groups of contacts being connected to different groups of trunks, driving mechanism for driving said movable contacts over said row of contacts, a controlling circuit leading from said trunk hunting selector to a controlling station, a test electro-magnet for causing said mechanism to stop the movable contacts at a free trunk, a second electro-magnet connected to said controlling circuit after the stopping of the movable contacts, means in the controlling circuit for causing said second electro-magnet to restart the traveling of the said movable contacts.

[Claims 6 to 14 not printed in the Gazette.]

1,131,812. VALVE-MOTION FOR PNEUMATIC TOOLS. ROBERT LUNNAN AMBROSE, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed May 22, 1912. Serial No. 698,909. (Cl. 121—11.)



1. In a valve motion, the combination of a cylinder and piston, supply and exhaust ports, a valve having opposite wings adapted to control said ports by a movement toward and away from the same in a direction longitudinal of the ports, other opposite wing surfaces adapted to be used in shifting said valves, and ports adapted to admit air to said surfaces.

2. In a valve motion, the combination of a cylinder and piston, supply and exhaust ports, a pivoted valve having opposite wings adapted to control said ports by a move-

ment toward and away from the same in a direction longitudinal of the ports, separate wings for shifting the valve, and ports for admitting air to said latter wings.

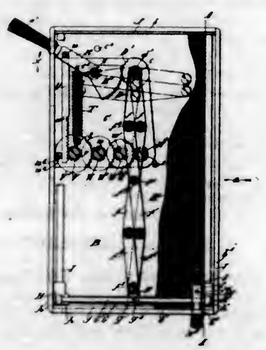
3. In a valve motion, the combination of a cylinder and piston, supply and exhaust ports, a rotatable valve having wings adapted to control said ports by a movement toward and away from the same in a direction longitudinal of the ports, the ports for each end of the cylinder entering the latter at the same point relative to its length, and means for shifting said valve.

4. In a valve motion, the combination of a cylinder and piston, supply and exhaust ports, a rotatable valve having wings adapted to control said ports by a movement toward and away from the same in a direction longitudinal of the ports, the ports for each end of the cylinder entering the latter at the same point relative to its length, and means for shifting said valve, said means comprising valve shifting wings and ports adapted to admit air to said wings.

5. In a valve motion, the combination of a cylinder and piston, a rotatable valve having supply and exhaust controlling wings on opposite sides of its center, and a port from each end of the cylinder to opposite sides of said valve, said ports branching to said supply and exhaust controlling wings.

[Claims 6 to 11 not printed in the Gazette.]

1,131,813. ELECTRIC ANNUNCIATOR OR CODE-SIGNALING DEVICE. NOEL L. ANTHONY, Cranston, R. I. Filed Feb. 2, 1914. Serial No. 815,967. (Cl. 177—380.)



1. In an electric signaling-device, the combination with a plurality of series of fixed-contacts arranged in code order, of a movable contact-member, and manually-controlled mechanically-actuated means for operating the movable contact-member to draw it across any one of the series of fixed contacts.

2. In an electric signaling-device, the combination with a plurality of fixed-contacts arranged in rows in code order, of a movable contact-member adapted to be drawn across the different rows of fixed-contacts, a lazy-tongs for moving said contact-member, and a hand-lever for operating the lazy-tongs.

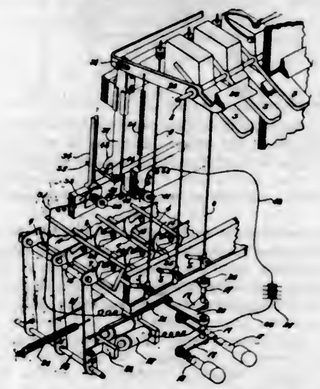
3. In an electric signaling-device, the combination with a plurality of rows of fixed-contacts arranged in code order in a common plane, of a movable contact-member, a hand-lever for operating said contact-member to draw it across any one of the rows of fixed-contacts, and a spring for controlling the operation of the hand-lever.

4. In an automatic code-signaling device, the combination with a plurality of rows of fixed-contacts spaced at intervals in code order, of a movable contact-member, means for adjusting said contact-member in relation to the different rows of fixed-contacts, and a hand-lever for operating the contact-member to cause it to be drawn across the fixed-contacts.

5. In an electric code-signaling device, the combination with a plurality of rows of fixed-contacts arranged in code order, of a movable contact-member, means whereby said contact-member may be moved across any one row of the fixed-contacts, a hand-lever for operating the contact-member to move it across the fixed-contacts in one direction, and a spring for operating the hand-lever to move the contact-member across the fixed-contacts in the opposite direction.

[Claims 6 to 20 not printed in the Gazette.]

1,131,814. ORGAN STOP-ACTION. JOHN T. AUSTIN, Hartford, Conn., assignor to Austin Organ Company, Hartford, Conn., a Corporation of Maine. Filed Oct. 30, 1913. Serial No. 798,322. (Cl. 84—54.)



1. In an organ stop action, the combination of a plurality of stop operating members movable from "off" to "on," a device independent of the organ case and located to be conveniently and directly operated by the hand of the organist during the playing of the organ, and means actuated by said device for simultaneously returning to "off" those stop members which are "on."

2. In an organ-stop action, the combination of a plurality of stop-operating members directly movable by the organist from "off" to "on," a device adjacent to said stop-operating members, said device being independent of the organ case and located to be conveniently and directly operable by the hand of the organist, and means operable by said device, for simultaneously returning to "off" positions, those stop operating members which are "on."

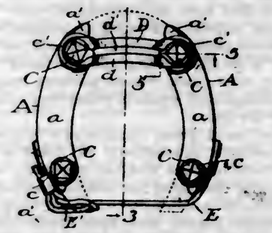
3. In an organ-stop-action, the combination of a plurality of stop-operating members directly operable by the organist from off to on, a device common to the several stop-operating members and advancable in two stages at the will of the organist, and mechanism governed by said device, on its first stage of movement, for moving those stop keys which are on to off, said device on its second stage of movement directly engaging the stop operating members to move them all from off to on.

4. In an organ-stop action, the combination of a plurality of stop-operating members movable from "off" to "on," a device operable at the will of the organist, an electric circuit having means, when closed, for simultaneously returning to "off" those stop-operating members which are "on," and means operable by said device on the movement thereof, for closing said circuit.

5. In an organ stop action, the combination of a plurality of pivotally mounted stop keys, a movably mounted bar located above and extending across said stop keys, said bar being spaced from the keys in the normal position of the parts and being advancable independently of the organ case toward said keys directly by the organist, and means governed by said bar on said advancing movement for simultaneously returning to off those stop keys which are on.

[Claims 6 to 16 not printed in the Gazette.]

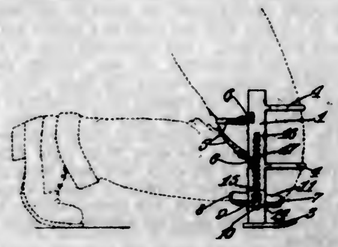
1,131,815. EMERGENCY-HORSESHOE. JAMES A. BARRY, New York, N. Y. Filed Oct. 22, 1912. Serial No. 727,187. (Cl. 168—19.)



1. In an emergency horse shoe, the combination of two side members spaced apart and having upwardly and inwardly extending flanges along their outer edges, said flanges extending substantially the entire length of the shoe, calks on the road-engaging surface of said side members, a curved forward member pivotally secured to the forward end of each of the side members and adapted to be shifted end for end, when desired, for permitting the shoe to be fitted to a hoof shod with an ordinary shoe having a front calk when the spacing member is positioned in one position and said spacing member being positionable in its other position when no front calk is prevalent, and straps secured to the flanges of the side members and near the rear thereof, which straps are adapted to encircle the back of the hoof for the purpose of forcing the hoof forwardly into gripping engagement with the flanges at the front of the shoe and drawing the portion of the flange at the rear of the shoe into tight engagement with the hoof.

2. In an emergency horse shoe, the combination of two side members spaced apart and having upwardly and inwardly extending flanges along their outer edges said flanges extending substantially the entire length of the shoe, calks on the road-engaging surface of said side members, means for retaining said calks in position on said side members, a curved spacing member pivotally secured at its opposite ends to the forward ends of the side members by the means which retains the calks in position on the side members, and straps secured to the flanges of the side members and near the rear thereof, which straps are adapted to encircle the back of the hoof for the purpose of forcing the hoof forwardly into wedging engagement with the flanges at the front of the shoe and drawing the portion of the flange at the rear of the shoe into tight engagement with the hoof.

1,131,816. KNEE-PROTECTOR. RUFUS C. BASSETT, Comanche, Tex. Filed June 9, 1914. Serial No. 844,048. (Cl. 2—130.)



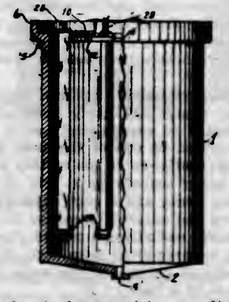
1. A knee protector including side bars having slots therein, members working within the slots, springs disposed upon the outer sides of the said bars and yieldably supporting the said members, and a knee pad carried by the said members between the said bars.

2. A knee protector including side bars having slots, pivot members working within the said slots, springs disposed upon the outer sides of the bars and connected to the said pivot members to yieldably support the same, and a knee pad disposed between the said bars and including side members pivotally engaged with the said pivot members and a yieldable element connecting the said side members.

3. A knee protector embodying side bars having forwardly projecting yokes connecting them, a forwardly projecting arcuate foot piece attached to the lower ends of the side bars and arranged to let the leg be straightened out, a yieldable knee pad mounted between the said bars, and straps for connecting the side bars adapted to cooperate with the said yokes to girdle a limb above the knee joint.

4. A knee protector embodying side bars having forwardly projecting yokes connecting them, a forwardly projecting arcuate foot piece attached to the lower ends of the side bars and arranged to let the leg be straightened out, a knee pad pivotally and yieldably mounted between the side bars, and straps for connecting the side bars adapted to coöperate with the said yokes to girdle a limb above the knee joint.

1,131,817. DEVELOPING-TANK. GEORGE W. BOTZ, Milwaukee, Wis. Filed Apr. 13, 1914. Serial No. 831,449. (Cl. 95—98.)



1. A developing tank, comprising a cylindrical chamber having opaque walls, and a film supporting frame removably anchored to the upper portions of the walls of said tank, and provided with a set of spaced film supporting frame bars.

2. A developing tank, comprising a cylindrical chamber having a bottom provided with a drain outlet, the sides of said chamber being formed of pure clay, baked and glazed on its inner and outer surfaces, in combination with a film supporting frame, and means for anchoring the frame from the top of said tank, said frame comprising a set of supporting arms and a multiple series of spaced parallel bars located between the supporting frame bars.

3. A developing tank composed of baked or vitrified clay, having a glazed surface, in combination with a set of supporting frame bars removably anchored to the upper margins of said tank, and a set of parallel spaced film supporting bars mounted between said frame bars.

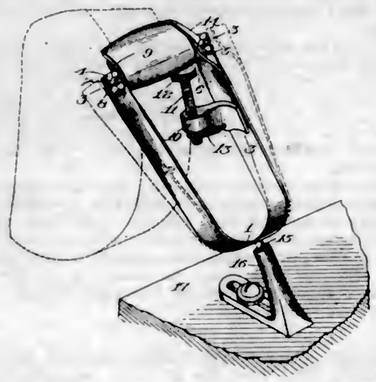
4. A developing tank composed of baked or vitrified clay, having a glazed surface, in combination with a circular film supporting frame provided with peripheral supporting bearing projections adapted to engage the walls of said tank.

5. A developing tank, consisting of the combination of a liquid containing chamber having walls of glazed, vitrified clay, a frame supported by the top of said tank, a film clamping member adapted to bind films to said frame, and a stirrup shaped weight adapted to engage the middle portion of a film and hold the sides of said film in a parallel position within the tank.

1,131,818. CUTTER-HOLDER. ROBERT G. BRACKETT, Rochester, N. Y. Filed Dec. 4, 1913. Serial No. 804,649. (Cl. 51—7.)

1. A tool holder embodying an integral strip of metal bent upon itself and forming a pair of oppositely arranged

gripping arms normally tending to move away from each other.



2. A tool holder embodying an integral strip of metal bent laterally upon itself and forming a pair of oppositely arranged gripping arms, the strip being bent longitudinally upon itself at the ends and forming jaw engaging portions, and removable jaws held in said jaw engaging portions.

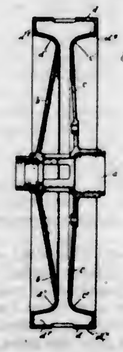
3. A tool holder embodying a pair of oppositely arranged gripping arms, a gage adjustably mounted on one of the arms and adapted to engage the base of a tool, and a second gage carried by one of the arms and adapted to extend to a point adjacent to the cutting edge of the tool.

4. A tool holder embodying a pair of oppositely arranged gripping arms, and a gage adjustably mounted on one of the arms and adapted to engage the base of a tool.

5. A tool holder embodying a pair of gripping arms normally tending to move away from each other, and a gage adjustably mounted on one of the arms and adapted to engage the base of a tool.

[Claims 6 to 9 not printed in the Gazette.]

1,131,819. WHEEL. ROBERT J. BURROWS and EDWIN B. ROSS, Buchanan, Mich., assignors of one-half to Celfor Tool Company and one-half to Buchanan Electric Steel Company, Chicago, Ill., Corporations of Illinois. Filed June 13, 1913. Serial No. 773,408. (Cl. 21—69.)



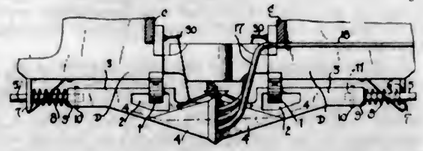
1. A metal wheel, comprising a hub, a tire-supporting rim having a substantially flat tread portion and inwardly-directed flanges near the margins of such tread portion and integral therewith, forming an integral annular channeled rim-structure, oppositely-disposed curved members connected with said flanges and extending therefrom toward each other, their convex surfaces being toward the tread, and means connecting said curved members with the hub.

2. A metal wheel, comprising a hub, a tire-supporting rim having a substantially flat tread portion and inwardly-directed flanges near the margins of such tread portion and integral therewith, forming an integral annular channeled rim-structure, oppositely-disposed curved members connected with said flanges and extending therefrom toward each other, their convex surfaces being toward the tread, and separated members connecting said curved members with the hub.

3. A cast metal wheel, comprising a hub, a tire-supporting rim having a substantially flat tread portion and inwardly-directed flanges integral therewith, forming an integral annular channeled rim-structure, oppositely-disposed curved members cast integral with said flanges and extending therefrom toward each other, their convex surfaces being toward the tread, and means connecting said curved members with the hub.

4. A cast metal wheel, comprising a hub, a tire-supporting rim having a substantially flat tread portion and inwardly-directed flanges integral therewith, forming an integral annular channeled rim-structure, oppositely-disposed curved members cast integral with said flanges and extending therefrom toward each other, their convex surfaces being toward the tread, and separated members connecting said curved members with the hub.

1,131,820. COUPLING. FILLMORE BUSHEY, St. Albans, Vt. Filed Aug. 24, 1914. Serial No. 858,357. (Cl. 188—18.)



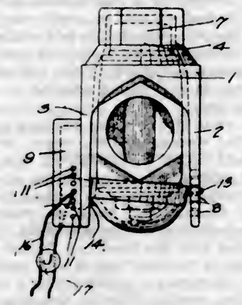
1. A coupler of the character described comprising coacting complemental heads, each of said heads having ports disposed therethrough, the ports of one head being adapted to register with the ports of a second head when said heads are coupled, a line connection with each of the ports, valves for controlling the flow through the ports and normally projecting beyond the inner faces of the heads and adapted to be engaged by the coacting head, a shaft rotatably supported by each of the heads, a cam carried by the shaft and adapted to coact with one of the valves for maintaining the same in an open adjustment upon axial rotation of the shaft, and means for holding the shaft against axial rotation.

2. A coupler of the character described comprising coacting complemental heads, each of said heads having ports disposed therethrough, the ports of one head being adapted to register with the ports of a second head when said heads are coupled, a line connection with each of the ports, valves for controlling the flow through the ports and normally projecting beyond the inner faces of the heads and adapted to be engaged by the coacting head, a shaft rotatably supported by each of the heads, a cam carried by the shaft and adapted to coact with one of the valves for maintaining the same in an open adjustment upon axial rotation of the shaft, said shaft being provided with an angular portion to afford a means whereby the shaft may be axially rotated, and means coacting with the angular portion of the shaft for holding the same against axial rotation.

3. A coupler of the character described comprising coacting complemental heads, each of said heads having ports disposed therethrough, the ports of one head being adapted to register with the ports of a second head when said heads are coupled, a line connection with each of the ports, valves for controlling the flow through the ports and normally projecting beyond the inner faces of the heads and adapted to be engaged by the coacting head, a shaft rotatably supported by each of the heads, a cam carried by the shaft and adapted to coact with one of the valves for maintaining the same in an open adjustment upon axial rotation of the shaft, said shaft being provided with an angular portion to afford a means whereby the shaft may be axially rotated, and means carried by one head coacting with the angular extremity of the shaft of the second head for holding said shaft against axial rotation.

4. A coupler of the character described comprising coacting complemental heads, each of said heads having ports disposed therethrough, the ports of one head being adapted to register with the ports of a second head when said heads are coupled, a line connection with each of the ports, valves for controlling the flow through the ports and normally projecting beyond the inner faces of the heads and adapted to be engaged by the coacting head, a shaft rotatably supported by each of the heads, a cam carried by the shaft and adapted to coact with one of the valves for maintaining the same in an open adjustment upon axial rotation of the shaft, said shaft being provided with an angular portion to afford a means whereby the shaft may be axially rotated, and a latch member carried by each of the heads coacting with the angular portion of the shaft of the adjacent head for holding said shaft against axial rotation.

1,131,821. STOP-COCK SEAL. BIRUM G. CAMPBELL, Jackson, Mich. Filed Aug. 4, 1913. Serial No. 782,792. (Cl. 137—7.)

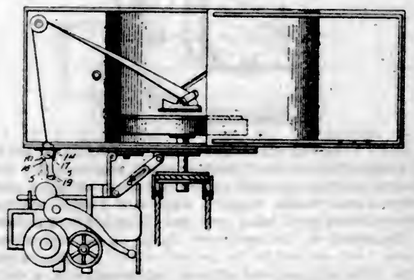


1. A seal for stop-cocks comprising a hollow head adapted to receive the upper portion and the operating head of a stop-cock and inclose them, members integral with said hollow head extending therefrom and spaced apart adapted to lie along side the sides of the cock, and a member adjustably connected to and between the said members, said member including a cup portion to receive and completely inclose the lower end portion of the stop cock, and oppositely disposed projections for engagement with the said side members of the seal, one of said projections being received in openings in one of said side members, and the other of said projections being adapted to be connected at a plurality of positions to the other side member.

2. A seal for stop-cocks comprising a hollow portion for receiving and inclosing the upper part of the cock and the operating head thereof and spaced apart members connected therewith for embracing the sides of the cock, each of said members being provided with a series of openings in alinement, and means for engaging the lower portion of the cock, said means including a cup for receiving and completely inclosing the lower part of the cock with diametrically opposed projections extending therefrom, one of said projections being adapted to pass through the openings in one of said members, and the other of said projections being adapted to be securely attached to the other of said members by fastening means passing through the openings therein and through the said projection.

3. A seal for stop-cocks comprising a portion for engaging with the operating head of the cock to prevent operation thereof and side members connected therewith for embracing the sides of the cock, one of said members being provided with a series of openings in vertical alinement, a housing having spaced apart sides connected to the other side member said housing being provided with a series of openings in each side in vertical alinement, a member adapted to be positioned between said side members having diametrically opposed lugs one of which is adapted to enter the openings in the first side member and the other to pass between the sides of the housing, said second lug having an opening therein whereby it may be secured to the housing by insertion of a retaining device through the openings in the housing sides and the lug.

1,131,822. FILM-GUARD FOR THE FILM-WINDING MECHANISM FOR MOVING-PICTURE MACHNES. GEORGE J. CARROLL and JACOB MERKEL, Tamaqua, Pa. Filed Oct. 23, 1912, Serial No. 727,450. Renewed Jan. 5, 1915. Serial No. 668. (Cl. 88—17.)



1. In a device of the class described, the combination with a supporting member provided with an opening, of a casing adjustably supported on the supporting member and having the upper end thereof passing through the said opening and extending upwardly beyond the supporting member, with a portion of the said casing bulged so that the said casing at all times closes the opening in the supporting member, and rollers carried in the lower end of the casing and adapted to have a film, extending through the casing, passed therebetween.

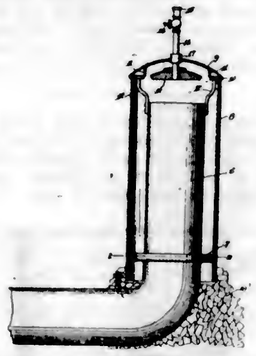
2. In combination with the upper magazine of a motion picture apparatus, a supporting member on the magazine and provided with an opening registering with an opening in the magazine, a casing mounted to swing on the supporting member and having a film in the magazine passing therethrough, a plurality of ears carried by the supporting member and between which the casing is adapted to lie, screws passing through the said ears and engaging the casing for securing the same in an adjusted position on the said supporting member, and means supported in the said casing for holding a film passed through the casing from contact with the side walls of the casing.

1,131,823. IRRIGATING-SIPHON. FRANK A. CLEVENGER, Ekalka, Mont. Filed Sept. 9, 1913. Serial No. 788,828. (Cl. 137—20.)

1. An irrigating siphon including a conduit, the one end of said conduit being turned at right angles to the body thereof, a filter carried by said vertical portion adjacent the angled point thereof, a sleeve telescoping said vertical portion, a closure arranged over the one end of said sleeve, a pipe slidably mounted in said closure, a cap carried by the one end of said pipe for engagement with the free end of said vertical portion, and a valve mounted in said pipe for decreasing the suction in said conduit.

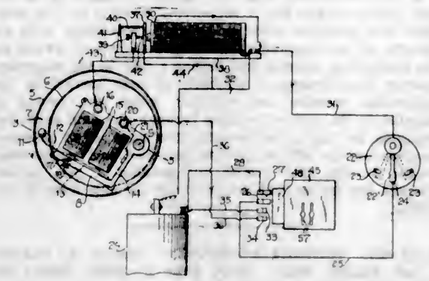
2. An irrigating siphon including a conduit, the one end of which is turned at right angles to the body thereof, a

filter arranged on the outer periphery of said vertical portion adjacent its angled point, a sleeve fixedly carried by said vertical portion, one end thereof being open and normally lying beyond said filter, the opposite end thereof being closed, a pipe mounted for movement in said closed end, a cap carried by the one end of said pipe for engagement with the open end of said vertical portion, a cork slidably mounted on said pipe for engagement with the closed end of said sleeve, and a valve associated with said pipe for the purpose specified.



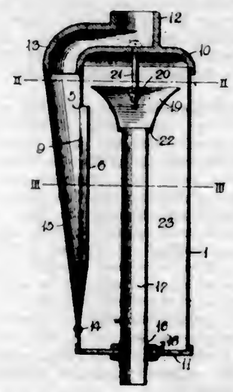
3. An irrigating siphon including a conduit, the one end of said conduit being turned at right angles to the body thereof, a filter arranged on said vertical portion, a cylindrical sleeve fixedly engaged with said vertical portion, the one end thereof being open and the opposite end closed, a pipe mounted for movement in the closed end of said sleeve, a cap carried by the one end of said pipe for engagement with the open end of said vertical portion, a perforated cap carried by the opposite end of said pipe, a valve arranged in said pipe approximately midway the ends thereof, and a cork slidably mounted on said pipe between said first mentioned cap and said valve for the purpose specified.

1,131,824. ALARM DEVICE FOR MOTOR-VEHICLES. FRED E. CLINE and WILLIAM L. BASKERVILLE, San Diego, Cal. Filed Nov. 17, 1913. Serial No. 801,480. (Cl. 177—314.)



The combination with the magneto switch of a motor vehicle, of an electrical alarm device, a circuit therefor adapted to be closed when the movable element of the magneto switch is moved to close the magneto circuit, spaced contact members arranged in the alarm circuit and interrupting the same, and a rectilinearly movable circuit closing element to engage said contacts whereby the alarm is sounded when the movable element of the magneto switch is moved from its neutral position, or said alarm circuit broken to permit of the closure of the magneto circuit independently of the alarm device.

1,131,825. MUFFLER. STEPHEN A. COCHELL, Detroit, Mich. Filed Nov. 9, 1914. Serial No. 871,132. (Cl. 121—116.)



1. A muffler comprising a casing having a passage at the periphery thereof adapted to admit exhaust gases to said casing, and a resilient deflector in said casing at an edge of the passage thereof adapted to increase and decrease the area of said passage according to the volume of exhaust gases.

2. A muffler comprising a casing having a passage in the periphery thereof adapted to admit exhaust gases to said casing, a resilient deflector in said casing at an edge of the passage thereof adapted to increase and decrease the area of said passage according to the volume of exhaust gases, and means in said casing adapted to retard gases passing therethrough.

3. A muffler comprising a casing having a longitudinally disposed tapering opening therein, means carried by the inner end of said casing for conducting exhaust gases to the opening of said casing, means at the opening of said casing for deflecting exhaust gases against the inner wall of said casing whereby said gases are caused to travel in a circuitous path, and means concentric of said casing in communication with the inner end thereof and adapted to exhaust gases at the outer end of said casing.

4. A muffler comprising a casing having a longitudinally disposed tapering opening therein, means on the periphery of said casing for conducting exhaust gases from the inner end of said casing to the outer end thereof, a deflector in said casing, and means within said casing adapted to convey exhaust gases from the inner end thereof to the outer end of the casing.

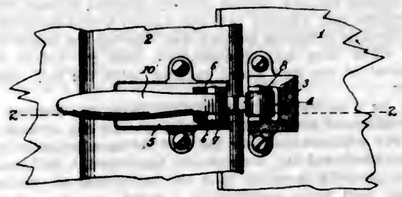
5. A muffler comprising a casing having a longitudinal opening in a wall thereof, a head at the inner end of said casing provided with a connection, a tapering conduit establishing communication between the connection of said head and the opening of said casing, a head at the outer end of said casing, and an outlet pipe supported by said head and adapted to conduct exhaust gases from the first mentioned head through the last mentioned head.

[Claims 6 to 9 not printed in the Gazette.]

1,131,826. LATCH. DWIGHT S. COLE, Grand Rapids, Mich. Filed Apr. 29, 1914. Serial No. 835,198. (Cl. 70—42.)

1. A latch, comprising a keeper, a manually operated pivoted lever, a bolt carried by said lever, a spring to yieldably force the bolt into engagement with the keeper, an inclined surface on the end of the bolt to engage the keeper and force the bolt inward against the spring and means for movably supporting the inner end of the bolt.

2. A latch, comprising a keeper, a longitudinally movable bolt engaging the keeper at the outer end, a housing in which the bolt is slidably supported near the inner end, a manually operable lever pivoted in the housing and carrying the outer end of the bolt and a spring to engage the bolt with the keeper.

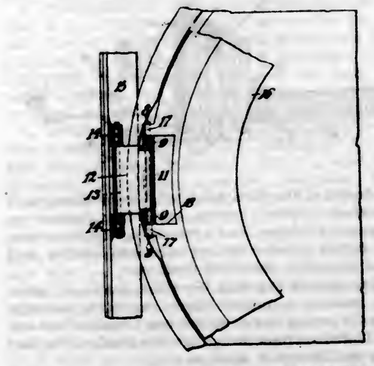


3. A latch, comprising a keeper having a roller therein, a normally operated pivoted lever, a longitudinally movable bolt carried by said lever, a spring to yieldably force the bolt outward into engagement with the keeper, an inclined surface on the end of the bolt to engage the roller and force the bolt inward against the spring, and an oppositely inclined surface on the end of the bolt engaged by the roller to force the door to a closed position.

4. A latch, comprising a keeper adapted to be attached to a door casing and having a roller at its outer end, a housing adapted to be secured to a door, a bolt longitudinally movable in the housing, a bell crank lever pivoted in the housing and supporting the outer end of the bolt, oppositely inclined surfaces on the end of the bolt to successively engage the roller, and a spring on the bolt to yieldably force the same into contact with the roller.

5. A latch, comprising a keeper adapted to be attached to a casing and having a roller at its outer end, a housing adapted to be secured to a door and having outwardly projecting lugs at its outer end, a bolt longitudinally movable in the housing, a bell crank lever pivoted between the lugs and having its outer end extended to form a handle and its inner end pivotally supporting the bolt, a spring on the bolt to yieldably force the same outward, and oppositely inclined surfaces on the end of the bolt to successively engage the roller.

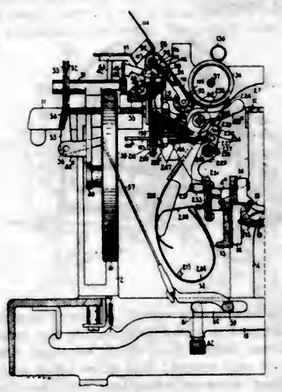
1,131,827. WATCHCASE. CHARLES L. DEPOLLIER, Brooklyn, N. Y., assignor to Dubois Watch Case Co., Brooklyn, N. Y., a Corporation of New York. Filed Jan. 14, 1911. Serial No. 602,693. (Cl. 58—103.)



1. A watch case, comprising a movement-ring and watch backs, said movement-ring being pivoted to one of said backs by means of a pintle, and the second back being pivoted to the first back by means of an intermediate link revolving on said pintle, said link and pintle being entirely within the said backs, and invisible from the outside of the said backs, when said backs are closed.

2. A watch-case comprising watch-backs, a movement-ring pivoted thereto, and a link-joint connecting said backs, entirely within said backs and invisible from the outside of the same and permitting the opening of said backs in excess of ninety degrees.

1,131,828. TYPE-WRITING MACHINE. STEPHEN H. FARNHAM and ARTHUR W. SMITH, New York, N. Y., and JOSEPH PHELPS, Belleville, N. J., assignors to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Original application filed Jan. 18, 1913, Serial No. 742,786. Divided and this application filed May 14, 1913. Serial No. 767,529. (Cl. 197—127.)



1. In a typewriting machine, the combination of a platen carrier, a platen, a coöperating pressure roller, a rock shaft on said platen carrier, arms fixed to said rock shaft, hangers for said pressure roller loosely mounted on said rock shaft, and screw and nut connections between said hangers and said arms, said arms being provided with set screws which engage with a groove or depression in said rock shaft.

2. In a typewriting machine, the combination of a platen carrier, a platen, a coöperating pressure roller, a rock shaft on said platen carrier, arms fixed to said rock shaft, hangers for said pressure roller loosely mounted on said rock shaft, means for adjustably securing said hangers to said arms, a paper apron and deflector pivoted loosely on said rock shaft, and leaf springs secured to certain of said arms for maintaining said paper deflector in coöperation with the platen.

3. In a typewriting machine, the combination of a platen carrier, a platen, a coöperating pressure roller, a rock shaft on said platen carrier, arms fixed to said rock shaft, hangers for said pressure roller loosely mounted on said rock shaft, means for adjustably securing said hangers to said arms, springs adjustably connected to said rock shaft, and a release key also connected to said rock shaft.

4. In a front-strike typewriting machine, the combination of a traveling platen, a paper receiving basket arranged at the front side of and below said platen, paper feeding devices for feeding the paper from said basket over the printing face of said platen, a paper guide above said basket, and means for moving said guide away from said platen to facilitate the introduction of the paper at the front side thereof.

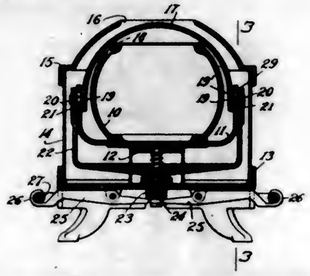
5. In a front-strike typewriting machine, the combination of a traveling platen, a paper receiving basket arranged at the front side of and below said platen, a paper guide plate above said basket, paper feeding devices for feeding the paper from said basket over said plate and across the front face of said platen, and means for moving said guide plate away from said platen to facilitate the introduction of the paper at the front side thereof, said paper feeding devices being also separable for this purpose.

[Claims 6 to 14 not printed in the Gazette.]

1,131,829. CUSPIDOR. SPYROS FRAGOULIS, Boston, Mass. Filed Apr. 3, 1914. Serial No. 829,316. (Cl. 4—39.)

1. The combination of a vessel; a cover therefor, having arms which support it and depend beside the vessel; axles

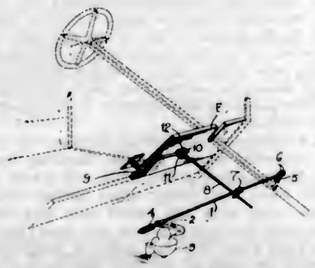
fast on the arms, beside the vessel; bearings therefor, in which the axles may rotate; said axles being non-circular, and there being recesses extending said bearings vertically downward as slots into which the axles can descend non-rotatably; and actuating means engaging said axles eccentrically whereby a continuous movement of the actuating means lifts them from their slots and then rotates them in their bearings.



2. The combination of a vessel; a cover therefor, having arms which support it and depend beside the vessel; axles fast on the arms, beside the vessel; bearings therefor, in which the axles may rotate; said axles being non-circular, and there being recesses extending said bearings vertically downward as slots into which the axles can descend non-rotatably; pinions fast on the axles; racks engaging them, and movable vertically; and actuating means adapted to raise the racks, whereby the pinions are first elevated, without rotation, and then are rotated without elevation.

3. A cuspidor comprising a standard adapted to hold a vessel; said vessel, adapted to receive sputum; a cover therefor, having arms which support it and depend beside the vessel; axles fast on the arms beside the vessel; pinions fast on the axles; yokes passing under said vessel, adapted to slide up and down on said standard, and having grooves in which said pinions fit, and racks within the grooves engaging the pinions; means guiding the rotation and elevation of said axles, whereby their rotation is prevented during the initial elevation of the rack, permitted after a predetermined elevation of the axles, and stopped after continuing to a predetermined degree.

1,131,830. FOOT THROTTLE OR ACCELERATOR FOR AUTOMOBILES. EARLE M. GIBSON and CHARLES W. STAPLES, Washburn, Me. Filed May 27, 1914. Serial No. 841,300. (Cl. 21—90.)



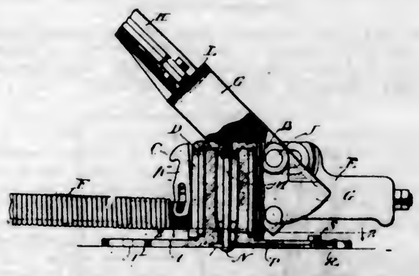
1. In a motor vehicle, the combination with a throttle actuating member, of a removable foot board, and an operating member mounted upon the foot board having engagement with the throttle actuating member, said members being detached from engagement with each other upon the removal of the foot board and operating member.

2. In a motor vehicle, a throttle actuating member, a rod connected with one end of the member, a clip secured to the rod adjacent its other end, said clip having a laterally disposed lug, a foot board, a bell crank lever pivotally connected to the under side of the foot board, said lever having one arm thereof slidably disposed through said apertured lug, whereby said lug will be moved to operate the throttle actuating member, and whereby the arm of the bell crank lever may be disengaged from the rod by the removal of the foot board together with the bell crank lever.

3. In a motor vehicle, a throttle actuating member, a rod connected at one end to said member, a clip secured to the rod adjacent its other end and having a laterally disposed apertured lug, a removable foot board, a bell crank lever pivotally mounted upon the under side of the foot board, said lever constituting a pedal, one arm of the lever being of uniform diameter toward its extremity, said extremity passing through and being slidably disposed in the aperture of the lug whereby the rod may be shifted on actuation of the bell crank lever and said lever may be disengaged from the rod upon the removal of the foot board with the bell crank lever.

4. In a motor vehicle, the combination with a throttle valve operating element comprising a longitudinally shiftable rod, of a clip loosely embracing the rod at one end and adapted to be connected to hand operated means for longitudinally shifting the rod, a stop upon the extremity of the rod and adjacent to the clip, and with which said clip is adapted to engage to shift the rod, a clip mounted upon the intermediate portion of the rod and through which the rod is freely shiftable, a lever movable in a plane parallel to the length of the rod and passing loosely through said clip, and a spring acting to retract the rod.

1,131,831. TROLLEY-BASE. CHARLES E. GIERDING, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a Corporation of New Jersey. Original application filed Mar. 5, 1913, Serial No. 752,043. Divided and this application filed Mar. 19, 1914. Serial No. 825,745. (Cl. 191—66.)



1. In a device of the class described, the combination of a base member, a rotary trolley supporting member removably mounted thereon, and a locking device comprising a slidable forked member for engaging and holding said members in separable assembled position.

2. In apparatus of the class described, the combination of a base member, a rotary turret removably mounted thereon, and a locking device comprising a headed bolt and a slidable forked retainer to engage the head of the bolt for holding said turret in position.

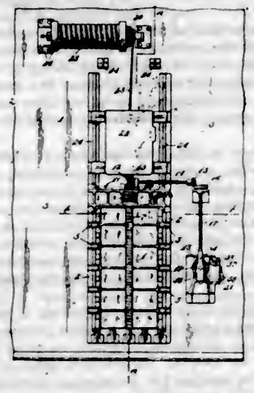
3. In apparatus of the class described, the combination of a base member having a turret post rising therefrom, a rotary turret removably mounted on said post, a headed bolt secured to the turret and a slidable retainer engaging the head of the bolt secured to said turret for preventing its displacement with respect to said post.

4. In apparatus of the class described, the combination of a base member having an upstanding turret post, a turret embracing said post and rotatable thereon, a slidable retainer device mounted on said base, and means on said turret adapted to be engaged by said retainer for holding said turret in position.

5. In apparatus of the class described, the combination of a base member adapted to be fastened to the car and having a hollow turret post upstanding therefrom, a turret rotatably fitted thereon, a central shaft in said turret extending into said hollow post, and a locking device shiftable into engagement with said shaft for retaining the turret in position.

[Claims 6 to 8 not printed in the Gazette.]

1,131,832. APPARATUS FOR OPERATING BULKHEAD-DOORS. HENRY M. GLEASON, Philadelphia, Pa. Filed Aug. 21, 1906, Serial No. 331,449. Renewed July 21, 1914. Serial No. 852,312. (Cl. 172—152.)



1. The combination of a vertically movable bulkhead door for ships, a counterbalance therefor, manually operated mechanism and motor actuated mechanism, each adapted to operate independently of the other, for moving said door.

2. The combination of a vertically movable bulkhead door for ships, spring means for exerting a counterbalancing effect thereon, manually operative mechanism and motor actuated mechanism, each adapted to operate independently of the other, for moving said door.

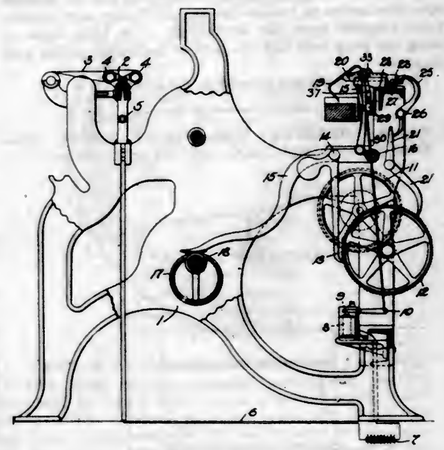
3. In combination with a vertically movable bulkhead door, a counterbalance therefor, mechanism for operating said door, an electric circuit, a motor in said circuit for actuating the said door operating mechanism, means for arbitrarily controlling the circuit of the motor at a distance therefrom, and means at the door for retarding the arbitrary control of the motor from a distance.

4. In combination with a vertically movable bulkhead door, a counterbalance therefor, mechanism for operating said door, an electric circuit, a motor in said circuit for actuating the said door operating mechanism, hand operated means for actuating said door operating mechanism and at the same time cutting out of circuit the motor.

5. In combination with a vertically movable bulkhead door, a counterbalance therefor, mechanism for operating said door, an electric circuit, a motor in said circuit for actuating the said door operating mechanism, hand operated means for actuating said door operating mechanism and at the same time cutting out of circuit the motor, and means for automatically returning the motor into circuit when force is withdrawn from the hand operated mechanism.

1,131,833. STOP-MOTION FOR LOOMS. THOMAS GOODWIN, Fall River, Mass., and GEORGE CHEETHAM, Tiverton, R. I., assignors to James K. Lanning, Boston, Mass. Filed Nov. 20, 1907. Serial No. 403,027. (Cl. 139—52.)

1. A loom comprising a lay, a reciprocatory member mounted independently of the lay, a shipper device, means to retain the same in loom operating position, a knock-off device adapted to release the shipper device from said retaining means, operative connections between said reciprocatory member and said knock-off device, whereby the loom may be stopped upon the occurrence of weft failure, a warp fork 33 pivoted at one end, operating lever means 29 therefor connected to said warp fork between its ends, and a slide for said fork constituting a connection between said reciprocatory member and the knock-off device, distinct from said previously mentioned operative connections, whereby the loom may be stopped upon the occurrence of a warp fault, a warp stop motion proper and an operative connection between the same and said lever means 29.



2. A loom comprising a lay, a weft hammer, a shipper device, means to retain the same in loom operating position, a knock-off device adapted to release the shipper device from said retaining means, a weft fork, a weft fork carrier therefor, whereby upon the occurrence of weft failure the loom may be stopped, a member carried by said weft hammer and its motion clearing the weft fork, a normally elevated hooked warp fork, a carrier therefor, and a knock-off device, whereby the loom may be stopped upon the occurrence of a warp fault.

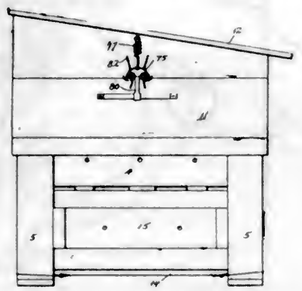
3. A loom comprising a lay, a weft hammer, a shipper device, means to retain the same in loom operating position, a knock-off device adapted to release the shipper device from said retaining means, a weft fork, a weft carrier therefor, whereby upon the occurrence of weft failure the loom may be stopped, a member carried by said weft hammer and in its motion not impinging upon the weft fork, a warp fork and sliding carrier connection between said member and the knock-off device, whereby the loom may be stopped upon the occurrence of a warp fault, take-up mechanism, and means to operate the same upon the occurrence of weft failure, the connections being such that the take-up mechanism is not interrupted upon the occurrence of warp fault and operating means for said warp fork 33 including lever 29, member 31 pivoted thereto, wire 30, and an armature connected to said wire.

4. In a loom comprising a lay, a shipper handle, means to retain said shipper handle in loom operating position, means adapted upon the release of said shipper handle to throw said shipper handle to a loom stopping position, and a shipper handle releasing device; the combination of weft thread fault detecting and loom stopping devices, a weft hammer, a weft fork and a weft fork carrier adapted upon occurrence of a weft thread fault to actuate said shipper handle releasing device and thereby to stop the loom, a warp fork 33 and a warp fork carrier therefor operatively independent of said weft fork and carrier therefor and adapted upon the occurrence of a warp thread fault to actuate said shipper releasing device and thereby to stop the loom.

5. In a loom having a lay, a shipper handle, means to retain said shipper handle in loom operating position, means adapted upon the release of said shipper handle to throw said shipper handle to a loom stopping position, and a shipper handle releasing device; the combination of weft thread fault detecting and loom stopping devices, a weft hammer, a weft fork, a weft fork carrier adapted upon occurrence of a weft thread fault to actuate said shipper handle releasing device and thereby to stop the loom, a warp fork 33, a warp fork carrier therefor operatively independent of the weft fork and carrier therefor, the warp fork carrier in its movement being adapted to impinge upon the means to release the shipper handle and connections adapted upon the occurrence of a warp fault to bring the warp fork into the path of movement of the weft hammer.

[Claims 6 to 13 not printed in the Gazette.]

1,131,834. BEEHIVE. EDSON HAINS, Bedford, Ohio. Filed Apr. 19, 1913. Serial No. 762,161. (Cl. 6—1.)



1. In a beehive, an inclosing structure having passages in its walls and removable partitions adapted to be located within said structure whereby the interior space may be subdivided, there being passageways through said walls and communicating with each subdivision.

2. In a beehive, an inclosing structure having parallel walls and guideways formed in said walls, and slidable partitions located in said guideways, there being passageways formed in said walls and opening into the compartments defined by said partitions.

3. A beehive comprising, in combination, a living chamber and an upper chamber, and alined, removable partitions located in said chambers and serving to divide the hive-interior into a plurality of independent compartments adapted to house separate colonies.

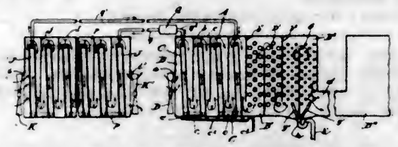
4. In a beehive, the combination, with a living chamber having entrances and an inner chamber adapted to receive comb sections, of a hollow cell adapted to be inserted into said living chamber near said entrances and arranged for the feeding of the bees, said cell communicating both with said entrances and with said inner chamber.

5. In a beehive, the combination, with a living chamber having entrances in its outer wall and an upper chamber communicating with said living chamber and adapted to receive a super, of a movable hollow cell adapted to be inserted in said living chamber adjacent to said outer wall, and a slatted floor for said cell spaced above said entrances and arranged to receive sweets with which the bees are fed.

[Claims 6 to 10 not printed in the Gazette.]

1,131,885. APPARATUS FOR DEHYDRATING AND WARMING AIR. GORDON DON HARRIS, Bay Shore, N. Y., and JAMES S. POLLARD, Bayonne, N. J., assignors to General Dehydrator Company, New York, N. Y., a Corporation of New York. Filed Jan. 4, 1912. Serial No. 669,860. (Cl. 62—156.)

1. In an apparatus of the class described, a water cooler embodying a casing, a series of communicating tanks positioned therein, each of said tanks being provided with means for keeping the surfaces thereof in a moistened condition, means for blowing air through said casing and bringing said air into contact with the moistened surfaces of said tanks, and means for circulating water through said tanks.



2. In an apparatus of the class described, a water cooler embodying a casing, a series of communicating tanks positioned therein, each of said tanks being provided with means for keeping the surfaces thereof in a moistened condition, means for exhausting moisture-laden air from said casing, and means for circulating water through said tanks.

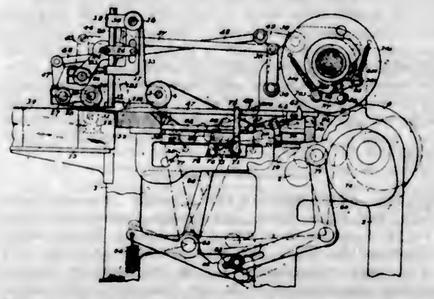
3. In a system of the class described, a water cooler embodying a casing, a series of communicating tanks positioned therein, each of said tanks being provided with means for keeping the surfaces thereof in a moistened condition, means for blowing air through said casing and bringing said air into contact with the moistened surfaces of said tanks, means for exhausting moisture-laden air from the casing, and means for circulating water through said tanks.

4. In a system of the class described, a water cooler embodying a chambered casing, a series of communicating tanks positioned within said casing, each of said tanks having means for keeping the surfaces thereof in a moistened condition, means for circulating air through said casing, means for directing the air in a tortuous path and into intimate contact with the moistened surfaces of the tanks, and means for circulating water through said tanks.

5. In a system of the class described, a water cooler embodying a chambered casing, a series of chambered tanks positioned within said casing, each of said tanks having means for keeping the surfaces thereof in a moistened condition, means for circulating air in one direction through the casing and into contact with the moistened surfaces of the tanks, and means for circulating water through said tanks in an opposite direction to that in which air circulates through the casing.

[Claims 6 and 7 not printed in the Gazette.]

1,131,836. FEEDING MECHANISM FOR PAPER OR CARDBOARD. CHARLES H. HAYWOOD and DENISON E. TRAVIS, Waukegan, Ill., assignors to United States Envelope Co., Springfield, Mass., a Corporation of Maine. Original application filed Mar. 26, 1908, Serial No. 423,312. Divided and this application filed May 18, 1909. Serial No. 495,724. (Cl. 101—38.)



1. In a feeding mechanism of the kind specified, the combination with means for supporting the sheet to be fed, of means movable into positive engagement with the rear edge of said sheet to push the sheet forward on said supporting means, gage stops adapted to register the sheet as its front edge is advanced against them by said pushing means, and means for advancing said gage stops synchronously with the advance of the sheet during the period of registration.

2. In a feeding mechanism of the kind specified, the combination with a stationary bed for supporting the sheet during its feeding movement, of gage stops for registering the sheet, means adapted by engagement with the rear edge of the sheet to push it forward against said gage stops, and means for simultaneously moving the gage stops and the pushing means in the same direction and at the same speed after the front edge of the sheet is brought into register against said stops.

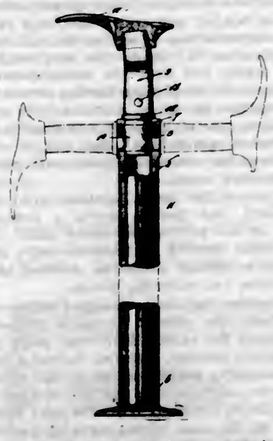
3. In a feeding mechanism of the kind specified, the combination of reciprocating mechanism for moving the sheet forward, comprising gage stops for registering the sheet and joggers for pushing the sheet against said gage stops, and means operative during the advance of said reciprocating mechanism for moving said joggers toward said gage stops.

4. In a feeding mechanism of the kind specified, the combination with a reciprocating carriage, of gage stops for registering the sheet, and means for pushing the sheet edgewise, said stops and said pushing means being carried by said carriage, and means for decreasing the distance between said stops and said pushing means during the movement of said carriage.

5. In a feeding mechanism of the kind specified, the combination of a reciprocating carriage, means mounted on said carriage for engaging the advancing and rear edges of the sheet to register its position, and means for operating said registering means during the advance movement of said carriage.

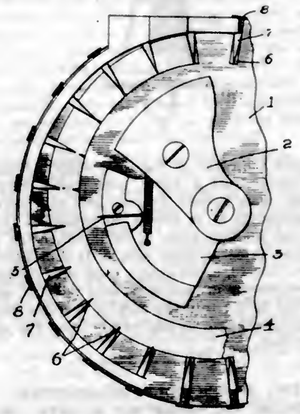
[Claims 6 to 29 not printed in the Gazette.]

1,131,837. SHOEMAKER'S JACK. ISAAC HOLZMARK, St. Louis, Mo. Filed Apr. 24, 1913. Serial No. 763,439. (Cl. 12—126.)



The improved shoemaker's jack, comprising a long floor-standard having at its upper end three (3) separate sockets each of like diameter throughout its length; two of said sockets extending horizontally and opening on opposite sides of said standard, and the third socket extending vertically and opening on the top of said standard and extending at a right-angle to the horizontal sockets; and a last-shank having a journal which is cylindrical throughout its length and arranged to interchangeably fit within each of said three sockets; whereby said last-shank may project from opposite sides and top of said standard during use.

1,131,838. KNIFE FOR CUTTING-MACHINES. ARCHIBALD E. HOPKINS and OLIN S. FELLOWS, Middletown, N. Y., assignors to Ideal Wrapping Machine Company, Middletown, N. Y., a Corporation of New York. Original application filed Feb. 14, 1908, Serial No. 415,873. Divided and this application filed Jan. 2, 1913. Serial No. 739,676. (Cl. 107—21.)



1. A knife of the class described embracing a relatively thin stub blade, having a straight cutting edge parallel throughout its entire length with both rear edges, a rectangular shank integral with the blade and having the inner face in alinement with the cutting edge of the blade, said shank being narrower than the widest part of the blade.

2. A knife of the class described embracing a shank at one end shaped to fit a complemental socket on three sides, a pointless blade integral with the shank and having its cutting edge in alinement with one of the faces of the shank, said blade being of a depth to extend rearwardly beyond the shank.

3. A knife for the purpose specified embracing a shank at one end, having a straight front face, a pointless cutting blade integral therewith and having its cutting edge in alinement with the front face of the shank, said blade being of a depth to extend rearwardly beyond the shank, and of a tapering thickness toward cutting edge such that a plurality of said knives arranged to face radially inward at a given circumference afford a distance therebetween at the rear edges greater than the distance between the same at the cutting edges.

4. A knife comprising a rectangular shank at one end, a pointless blade wider at the top than the shank having a cutting edge in alinement with one edge of the shank and said blade providing a clearance on each side between the cutting edge and back edges.

5. A knife comprising a shank at one end having parallel side faces and parallel front and rear faces, a stub blade of greater width at its widest part than the shank having a cutting edge in alinement with the front face of the shank.

[Claim 6 not printed in the Gazette.]

1,131,839. POISON-INDICATOR. MAHALAH T. HUDSON, Kirksville, Mo. Filed June 22, 1914. Serial No. 846,638. (Cl. 116—58.)

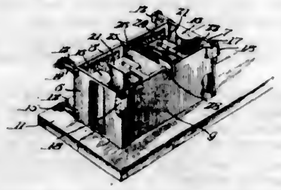
1. A poison indicator of the class described comprising a frame, said frame being formed from a blank and provided with a central body, integral arms formed upon said body and bent upwardly so as to meet at their end portions, a bell carried by the ends of said arms, integral plates formed upon said body and extending at right angles thereto, said plates being adapted to rest upon the upper portions of a cork of a bottle for retaining the

frame in its correct vertical position, and means extending from the lower portion of said body for digging into the cork whereby the poison indicator will be positively held in engagement with the cork.



2. A poison indicator of the class described comprising a frame formed from a blank, said frame comprising a central body, arms formed integral upon said central body and bent upwardly to be fixedly connected at their ends, a bell carried by said arms at their connected portions, plates formed integral upon said body and extending at right angles thereto, spurs struck from said plates and extending downwardly in parallel spaced relation, said spurs being adapted to dig into the cork of a bottle, said plates and body being adapted to rest evenly upon the upper portion of the cork.

1,131,840. BLOCK-MOLDING MACHINE. JOHN B. HUNT, Beloit, Wis. Filed Nov. 9, 1914. Serial No. 871,044. (Cl. 25—121.)



1. A machine for molding blocks, comprising a rectangular mold one side wall of which is flexibly connected at its ends to the end walls, a core disposed within the casing and being fixedly connected to the other side wall, and means for slidably mounting the last named side wall in connection with the end walls, whereby the said side wall may be drawn from the mold together with said core and the end walls may be swung outwardly away from the block which is formed by the mold.

2. A machine for molding blocks, comprising a rectangular mold one side wall of which is flexibly connected at its ends to end walls, the other side wall being slidably mounted in connection with the end walls on ways parallel with the plane of the side wall so that the slidable side wall may be drawn from the mold, a division-board connected to the slidable side wall and being arranged to divide the inclosure of the mold into two compartments, and a core located in each compartment and being connected to said slidable side wall, whereby the side wall may be drawn from the mold together with the division-board and cores.

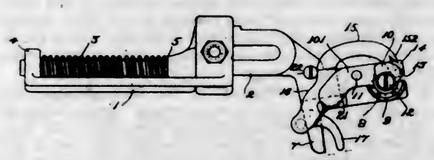
3. A machine for molding building blocks and the like, comprising a mold having one wall thereof slidably mounted to draw from the mold in the plane of said wall, and a core located within the mold and being connected to said wall whereby to be drawn with the drawing of said wall.

4. A machine for molding building blocks and the like, comprising a mold having one wall thereof slidably mounted to draw from the mold in the plane of said wall, a division-board located within the mold and dividing the inclosure thereof into two distinct compartments, and means connecting the division-board to said wall comprising a member extending from the division-board outwardly over the top of the wall and means fixed on the outer side of the wall and shaped to engage said member for holding the same from lateral displacement and serving as means by which to draw the wall and division-board from the mold simultaneously.

5. A machine for molding building blocks and the like, comprising a mold formed of side and end walls, one of the side walls being flexibly connected at its ends to the end walls to permit the said end walls to swing outwardly, the other side wall being slidably mounted at its ends in ways on the end walls parallel with the plane of the side wall so that the said side wall may be drawn from the mold, and a core located in the mold and being fixedly connected to said slidable side wall whereby to be drawn from the mold by drawing of said side wall.

[Claims 6 to 13 not printed in the Gazette.]

1,131,841. WEFT-PARTER FOR LOOMS. SIMMON S. JACKSON, Boston, Mass., assignor to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Filed Aug. 23, 1912. Serial No. 716,703. (Cl. 139—85.)



1. In a weft-parter for looms, in combination, a loom-temple, a parting-member thereon, a lever pivoted upon said temple, having one or more coöperating parting members attached to its upper arm, extending rearward and downward therefrom, and furnished with rearwardly and upwardly facing hooks, said lever provided with a depending heel to receive the stroke of the advancing lay of a loom and also having a lateral stop-projection to engage with the temple, said stroke operating the lever to open the parting-members to receive the said thread, and a spring operating to return the said stop-projection against the temple and move the hooks upward to part the thread against the opposing parting member.

2. A weft-parter for looms provided with coöperating parting-members, one of which in the parting movement parts the thread against the other and in the reverse movement closes the entrance between such parting-members, and operating means.

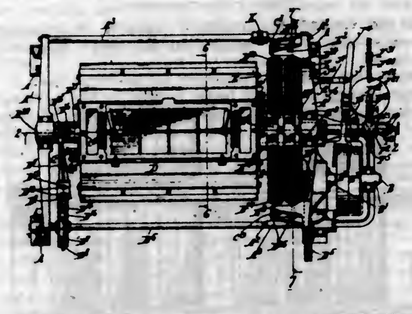
3. A weft-parter for looms provided with coöperating parting-members, one thereof having a thread-engaging hook which in the parting movement parts the thread against the other member, and also having a gate which in the reverse movement closes the entrance between the parting members, and operating means.

4. A weft-parter for looms provided with coöperating parting-members, one thereof having a thread-engaging portion which in the parting movement parts the thread against the other member, and also having a gate facing said thread-engaging portion which in the reverse movement closes the entrance between the members and also acts upon a thread therein to draw the same into the path to be taken by the said thread-engaging portion in the next parting movement, and operating means.

5. In a weft-parter for looms, in combination, a loom-temple, coöperating parting-members, one thereof having a thread-engaging hook which in the parting movement parts the thread against the other member, and also having a gate opposite said hook, which in the reverse movement closes the entrance between the members, said hooked member adapted to be engaged by the advancing lay of a loom to occasion said reverse movement, and a spring acting in the retreat of the lay to occasion the parting movement.

[Claims 6 to 15 not printed in the Gazette.]

1,131,842. LAUNDRY-MACHINE. HENRY S. JUDD and HENRY PLETSCH, Chicago, Ill., assignors to Judd Laundry Machine Company, Chicago, Ill., a Corporation of Delaware. Filed Mar. 30, 1910. Serial No. 552,347. (Cl. 68—21.)



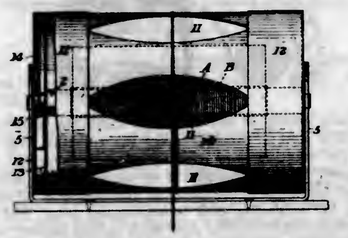
1. A washing machine comprising the combination of an elongated, oscillatory tub having an opening at its end substantially in line with its bottom, a hollow trunnion communicating with said end opening in the tub, a trunnion at the opposite end of said tub, a driving lever mounted upon one of said trunnions and flexibly attached to the tub near its top, retractile springs radially extended between the tub and the sustaining frame respectively, and an inlet pipe united with the hollow trunnion whereby liquid may be fed into and withdrawn from the extreme bottom portion of the tub.

2. An elongated tub having a flat top and sides comprising two panels at an angle one with the other and with the top and a bottom comprising two panels making an obtuse angle one with the other, a perforated false lining for said sides and part of the top, said lining corresponding in shape with and slightly removed from the sides and the top, a perforated false flat bottom for the tub resting upon the actual bottom at the sides and removed from it at the center and projections upon the bottom of the tub between it and the false botom, said projections angularly located and terminating at a short distance from the center line of the bottom.

3. A tub having a flat false bottom and an inclined bottom below said false bottom, a plurality of slanting vanes between said bottom and said false bottom, said vanes adapted to turn the liquid toward the center of the tub and an outlet from the tub at the lowest point of said inclined bottom

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1,131,843. TWINE-HOLDER. ALEXANDER M. KELLY, Knoxville, and BENTON L. SHANER, Pittsburgh, Pa. Filed Jan. 23, 1914. Serial No. 813,901. (Cl. 242—145.)



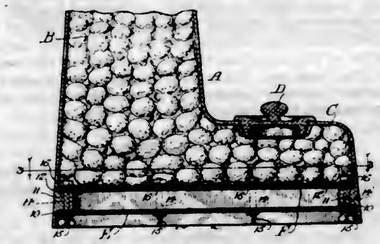
1. A twine holder comprising a spool carrying shaft, a support in which the shaft is removably seated and having means for holding the shaft against rotation, and a drum mounted to rotate on said shaft and to inclose a spool of twine or cord, said drum having cylindrical end portions of sufficient length to extend over the end portions of the spool, and the drum intermediate of said end portions having openings shorter than the length of said spool and having curved walls arranged to direct the cord toward the central portion of the spool, one of said heads being removable; substantially as described.

2. A twine holder comprising a spool carrying shaft held against rotation, a winding drum mounted to rotate about the axis of said shaft, and spring means for actuating said drum, said means comprising a piece of spring wire secured to the drum at its intermediate portion with one of its free end portions bearing against the inner surface of the drum and its other free end portion extending in the opposite direction within the drum, and a flexible member connecting the last named free end portion with said shaft and adapted to be wound upon the shaft as the drum is rotated; substantially as described.

3. A twine holder having a rotary winding drum, a spool-carrying shaft on which the drum is mounted to rotate, a piece of spring wire secured to the drum at one end, said wire being of a length less than the diameter of the drum, a flexible member connecting the free end of said wire with the shaft and adapted to be wound upon the shaft, and a stop arm for limiting the rotation of the drum, substantially as described.

4. A twine holder comprising a spool-carrying shaft, a support in which the shaft is removably seated and having means for holding the shaft against rotation, a drum mounted to rotate on said shaft and to inclose a spool of twine or cord, said shaft having means for frictionally engaging the interior of the spool for the purpose of increasing its resistance to rotation on said shaft, said drum having end heads, one of which is removable, and the drum having openings intermediate of said heads, and a winding spring arranged within one of said heads, and operatively connected with the drum, substantially as described.

1,131,844. JAR. OTTO KIEFER, Chicago, Ill. Filed Feb. 20, 1914. Serial No. 819,880. (Cl. 215—99.)



1. A jar for candy and the like comprising a vessel having an upright portion permanently closed at its upper end and a horizontal portion extending forward from the base of said upright portion and having an opening in its upper wall, a closure for said opening, a removable bottom for said vessel extending beneath both said upright and horizontal portions, and a screen of substantially the same extent as said bottom and spaced above the same to allow the crumbs and finer particles of candy to fall upon said bottom.

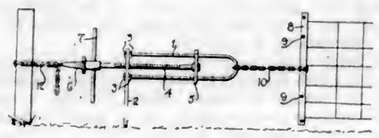
2. A substantially air tight jar for candy and the like comprising a vessel of transparent material having an upright portion permanently closed at its upper end and a horizontal portion extending forward from the base of said upright portion and having an opening in its upper wall, means for providing a substantially air tight closure for said opening, a removable bottom for said vessel extending beneath both said upright and horizontal portions, means for securing said bottom to said vessel with substantially an air tight joint, and a screen of substantially the same extent as said bottom and spaced above the same to allow the crumbs and finer particles of candy to fall upon said bottom.

1,131,845. SEPARATOR FOR COTTON-SEED-OIL MILLS. FERDINAND KREBS, Pine Bluff, Ark. Filed Oct. 23, 1912. Serial No. 727,462. (Cl. 83—34.)



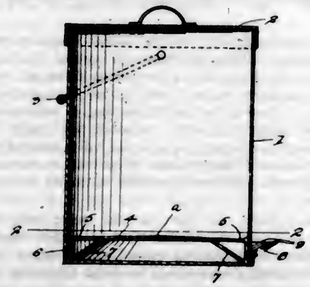
In a machine of this character, a perforated separator sheet, a shaft, a spiral conveyer carried by the shaft and provided at its outer edges with a plurality of alined L-shaped slots open through the outer edge, an angle iron fitted in said slots and carried by the spiral, and a flexible scraper strip attached to and carried by the angle iron.

1,131,846. WIRE-STRETCHER. ELIJAH J. LOWE, Joaquin, Tex. Filed Nov. 14, 1914. Serial No. 872,189. (Cl. 254—67.)



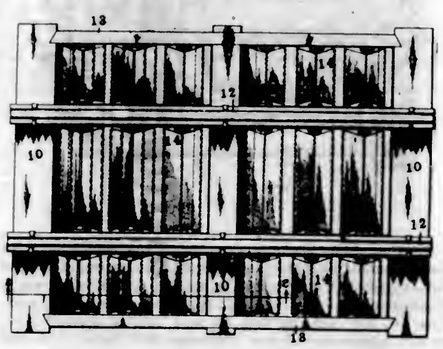
A wire stretcher including a U-shaped body member, an arm having its inner end mounted upon the ends of the U-shaped member and provided with a centrally arranged threaded opening, a threaded screw movable within said opening, a guide plate having its ends loosely mounted upon the sides of the U-shaped member, and provided with a central opening to receive the inner end of the screw, a U-shaped connecting member loosely mounted upon the outer end of the screw, means connecting one end of the U-shaped body member with a wire clamp, a chain having one end permanently connected to the U-shaped connecting member and the other end passed around an anchor and loosely engaged with the opposite end of the U-shaped connecting member, and a bar extending through the screw at the outer end thereof, whereby to rotate said screw, the outer end of the arm engaging the surface of the earth to prevent rotation of the U-shaped body member, as and for the purpose set forth.

1,131,847. GARBAGE-CAN. HENRY J. LUCAS, Whitestone, N. Y. Filed Dec. 23, 1913. Serial No. 808,492. (Cl. 220—115.)



A garbage can comprising a tubular body being open at both ends, the body also having apertures formed near one end, a spout secured to the body, the upper end being positioned above the uppermost aperture, and a bottom secured within the body, said bottom inclining from its center toward its periphery, said bottom provided with a series of circular apertures near its edges, a vertical cylindrical wall secured to the underside of the bottom at its edge, said wall being provided with apertures arranged to aline with the apertures in the body, and inwardly and upwardly inclined walls connecting the lower terminal of the vertical wall with the bottom to form a gutter which communicates with the interior of the can and spout.

1,131,848. CATTLE-GUARD. CYRUS T. MCCORMICK, Fredericktown, Mo. Filed June 25, 1913. Serial No. 775,683. (Cl. 256—16.)



1. A rotary member for cattle guards, comprising a plurality of sheets of metal secured together to form blades, the ends of said sheets having overturned portions forming substantially continuous, cylindrical trunnions.

2. A rotary member for cattle guards, comprising a flat sheet of metal, and a pair of V-shaped pieces of metal with their apices secured to the center of said flat sheet of metal at opposite sides thereof, the ends of said sheets of metal having over-turned portions forming substantially continuous, cylindrical trunnions.

1,131,849. ADDING AND RECORDING MACHINE. JOHN MAGNUS, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 1, 1912. Serial No. 674,754. (Cl. 242—55.)



1. In a device of the character described, the combination of a roll, a ratchet wheel for rotating said roll, a pawl for rotating said ratchet wheel, a lever for moving said pawl in one direction, a spring actuating said lever, a lever for moving the pawl in the opposite direction, a spring for actuating said second-named lever, and means for causing said spring and said second-named lever to actuate said pawl, substantially as described.

2. In a device of the character described, the combination of a roll, a ratchet wheel for rotating said roll, a pawl for rotating said ratchet wheel, a lever for moving said pawl in one direction, means for actuating said lever to move said pawl, means for moving said lever in the opposite direction, a second lever for actuating said pawl to rotate said ratchet wheel, a device holding said second lever in proper position with respect to said first lever, and means for operating said second lever to actuate said pawl to rotate said ratchet wheel.

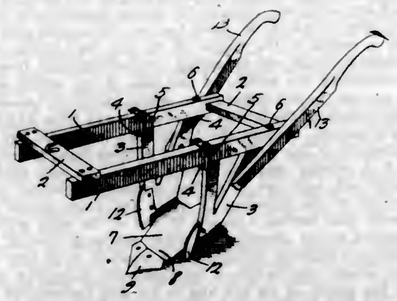
3. In a device of the character described, the combination of a roll, a ratchet wheel for rotating said roll, a pawl for rotating said ratchet wheel, two levers for moving said pawl in opposite directions, and springs for actuating said levers to move said pawl, substantially as described.

4. In a device of the character described, the combination of a roll, a ratchet wheel for rotating said roll, a pawl for rotating said ratchet wheel, a lever for moving said pawl in one direction, another lever for moving said pawl in the opposite direction, springs for actuating said levers, and means for placing said springs under tension so that they will actuate said levers.

5. In a device of the character described, the combination of a revoluble roll, a ratchet wheel for rotating said roll, a pivoted support adjacent to said ratchet wheel, a pawl on said support, a lever for moving said support in one direction, a spring for actuating said lever to move said support as aforesaid, means for actuating said lever in the opposite direction away from said support, a second lever for moving said support and said pawl in a direction opposite from that in which they are moved by said first-named lever, and a device holding said two levers in proper relative position.

[Claims 6 to 14 not printed in the Gazette.]

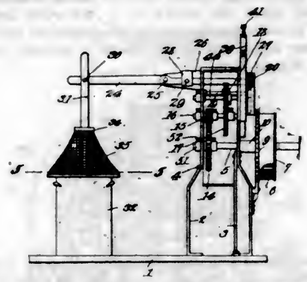
1,131,850. PEANUT AND POTATO DIGGER. TIMOTHY D. MAYHALL, Gloster, Miss. Filed July 14, 1914. Serial No. 850,999. (Cl. 55—9.)



A digger of the class described, including a scoop-like base, a digging point secured to and extending forwardly from the base, standards at the sides of the base, cutting blades extending forwardly from the standards, and a shoe upon the bottom of the base and extending rearwardly therefrom, said shoe being pointed at its front end.

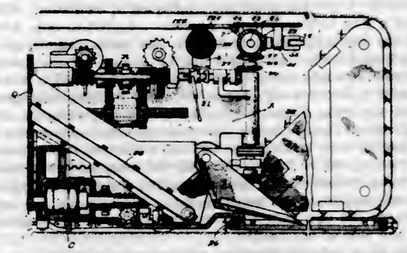
1,131,851. MECHANICAL MOVEMENT. ANDREW E. MILLER, Louisville, Miss. Filed Jan. 20, 1913. Serial No. 748,176. (Cl. 74—14.)

In a device of the class described, a frame; a wheel journaled on the frame and provided with a cam groove in its side face; means for driving the wheel; a lever disposed substantially at right angles to the groove-carrying side face of the wheel, one end of the lever being received in the groove; a pivot element connecting the lever intermediate its ends with the frame; a driven element carried by the outer end of the lever and supported solely by the lever; a weight mounted for sliding adjustment on the lever between the pivot element and the wheel; and means for securing the weight in adjusted positions on the lever; the weight being adjustable to counteract the weight of the driven element and to hold the lever in equilibrium, thereby to lessen the friction between the groove-received end of the lever and the wheel, the disposition of the lever at right angles to the wheel permitting the weight to be



held close to the wheel, thereby giving the weight a maximum moment.

1,131,852. PNEUMATIC SYSTEM OF MINING COAL AND REMOVING FOUL GASES FROM MINE-CHAMBERS. EDMUND C. MORGAN, Chicago, Ill., assignor to American Morgan Company, Pierre, S. D., a Corporation of South Dakota. Original application filed Nov. 10, 1896, Serial No. 611,603. Divided and this application filed July 6, 1914. Serial No. 849,072. (Cl. 37—51.)



1. The combination with a mining machine, of a pneumatic flue extending from said mining machine, and means for automatically lengthening said flue continuously as the said mining machine moves forward and in accordance with such forward movement.

2. The combination with a mining machine of flexible material, means for supporting the same in a roll, and devices for supporting the flexible material to form a partition in a mine chamber to constitute a flue for directing currents of air over a predetermined path of travel.

3. The combination with a mine chamber, of a mining machine in said mine chamber, and means connected to said mining machine comprising flexible material extending across said mine chamber to form a flue extending rearwardly from said mining machine.

4. The combination with a mining machine, of a reel of flexible material carried by said mining machine, and means for supporting said flexible material to form a flue extending from said mining machine.

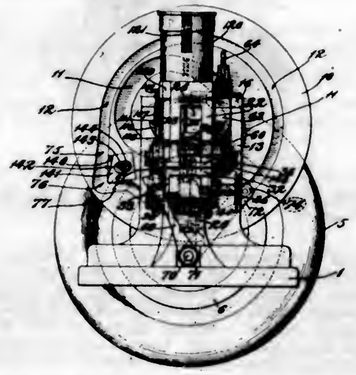
5. The combination with a mine, of a mining machine, a reel of flexible material mounted on said mining machine, means for supporting said flexible material to form a flue in said mine, and a flap for extending the flue toward the front end of said mining machine.

[Claims 6 to 20 not printed in the Gazette.]

1,131,853. SEWING-MACHINE. CHARLES E. MYRES, Lebanon, Ill., assignor, by mesne assignments, to Simplex Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 7, 1912. Serial No. 724,361. (Cl. 112—20.)

1. In a sewing machine employing a stitching thread and a loop locking thread, a needle adapted to take a loop

of the stitching thread through the work and to spread open said loop, a carrier for said needle, means for laying a loop of the locking thread through the loop of the stitching thread while the needle is in the work, and means actuated by said needle carrier for engaging said locking thread loop while the laying means is moving out of the stitching thread loop.



2. In a sewing machine employing a stitching thread and a loop locking thread, a needle adapted to take a loop of the stitching thread through the work and to spread open said loop, means for laying a loop of the locking thread through the loop of the stitching thread while the needle is in the work, a loop holder for holding said spread open stitching thread loop in its own plane while the locking thread loop is being laid therethrough, and means for engaging said locking thread loop while the laying means is moving out of the stitching thread loop, said loop holder being provided with a slot to receive the stitching thread needle and loop, the needle passing through the slot adjacent to the end wall thereof, whereby the loop is formed at one side of the needle.

3. In a sewing machine employing a stitching thread and a loop locking thread, a table for supporting the work, said table having an opening therein, means for holding the work on the table, means for feeding the work, a needle adapted to take a loop of the stitching thread through the work and into the opening in said table, and means for laying a loop of the locking thread through the stitching thread loop comprising a reciprocatory loop carrier, and a reciprocatory member mounted on said table and adapted to move transversely and tangentially across said locking thread loop carrier to hold the loop during the back stroke of said carrier.

4. In a sewing machine employing a stitching thread and a loop locking thread, a table for supporting the work, said table having an opening therein, means for holding the work on the table, means for feeding the work, a needle adapted to take a loop of the stitching thread through the work and into the opening in said table, and means for laying a loop of the locking thread through the stitching thread loop comprising a reciprocatory loop carrier working through said table, means for supporting the stitching thread loop during the forward stroke of the carrier, and a reciprocatory member adapted to move transversely and tangentially across said locking thread loop carrier to hold the loop during the back stroke of said carrier.

5. In a sewing machine employing a stitching thread and a loop locking thread, a rocking carrier having an arcuate needle and an arcuate awl thereon, said needle and awl having their points facing each other, said needle being adapted to take a loop of the stitching thread through the puncture, a reciprocatory carrier adapted to lay a loop of the locking thread through said stitching thread loop, and a reciprocatory loop catcher adapted to move transversely of said locking thread loop carrier so as to engage and hold the loop during the back stroke of the carrier, said loop catcher being operated by a cam slot provided on said rocking needle and awl carrier.

[Claims 6 to 13 not printed in the Gazette.]

1,131,854. SEWING-MACHINE NEEDLE. CHARLES E. MYERS, Lebanon, Ill., assignor, by mesne assignments, to Simplex Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 7, 1912. Serial No. 724,362. (Cl. 112—11.)



1. A sewing machine needle having an eye near its end, said eye extending through the needle transversely to the direction in which the work travels; the needle also having a recess extending lengthwise of the needle in the region of its eye, a rib alongside the eye forming the front wall of said recess, and the inner wall of said recess being substantially on the diameter of the needle parallel to the direction in which the work travels, said recess extending sidewise from the eye toward the side of the needle away from which the work travels, whereby said needle is adapted to sew a straight line of stitches.

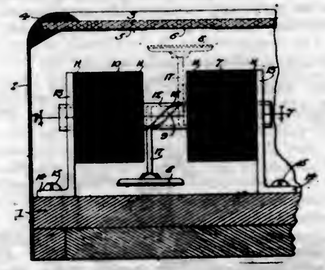
2. A sewing machine needle having an eye near its end, said eye extending through the needle transversely to the direction in which the work travels; the needle also having a recess in the region of its eye, said recess being quadrant shape and extending circumferentially from approximately the middle of one side of the needle which is parallel to the direction in which the work travels, to approximately the middle of the side away from which the work travels, whereby the thread can leave said eye substantially in line with the line of stitches being sewed.

3. A sewing machine needle having an eye near its lower end, said eye extending through the needle transversely to the direction in which the work travels; the needle also having a groove in one of its sides which is parallel to the direction in which the work travels, said grooves extending longitudinally upward from said eye; the needle also having a longitudinally elongated recess in the region of its eye and in its side opposite to that in which is said longitudinal groove, said recess extending laterally from the eye to the side of the needle away from which the work travels whereby a longitudinal rib is left alongside said eye opposite said recess.

4. A sewing machine needle having an eye near its lower end, said eye extending through the needle transversely to the direction in which the work travels; the needle also having an angular recess extending longitudinally upward from its eye in one of its sides which is parallel to the direction in which the work travels, said recess extending circumferentially from approximately the middle of the above mentioned side to approximately the middle of the side of the needle away from which the work travels leaving a transverse rib alongside said eye and extending upwardly therefrom forming one side wall of said recess, and the edge of the other side wall of said recess being rounded off, whereby said needle is adapted to sew a straight line of stitches.

5. An arcuate sewing machine needle having an eye near its end, said eye extending through the needle in the plane of its axis; said needle having a groove in its outer curved side intersecting said eye and a recess in its inner curved side in the region of said eye, said recess being approximately quadrant shape and extending circumferentially from approximately the middle of said inner curved side of the needle to approximately the middle of one of the straight sides thereof, the edge of the straight side bounding said recess being rounded off, whereby said needle is adapted to sew a straight line of stitches.

1,131,855. INDICATING DEVICE FOR ANNUNCIATORS AND THE LIKE. MAX NORDOFF, Chicago, Ill., assignor to Elevator Supply & Repair Company, Chicago, Ill., a Corporation of Illinois. Filed May 12, 1911. Serial No. 626,853. (Cl. 177—329.)



1. An electric indicator comprising a solenoid magnet, a longitudinally movable, oscillating core therefor, an indicating target fixed to said core on one side thereof, and a cam for oscillating said core, said target being gravity held in its normal and set positions and said core and magnet coöperating to swing said target from normal position over a high point or dead center to set position.

2. An electric indicator comprising a solenoid magnet, a longitudinally movable, oscillating core therefor, an indicating target mounted on said core on one side thereof, a fixed cam member for oscillating said core and target, and restoring means for said target, said magnet, said restoring means and said cam member coöperating to shift said target over a high point or dead center between its normal and set positions.

3. An electric indicator comprising a solenoid magnet, a longitudinally shiftable, oscillating core for said magnet, a sleeve through which said core extends, said sleeve having an inclined cam slot, a pin fixed to said core and projecting laterally therefrom through said slot for effecting a partial rotation of said core, as the latter is shifted longitudinally, and a target fixed to said pin on one side of said core.

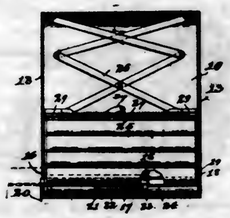
4. In an electric indicator, a solenoid magnet comprising a sleeve and a coil mounted thereon, said sleeve projecting from one end of said coil and having an inclined cam slot in its projecting end, a pin fixed to said core and extending through said slot and a target fixed to said pin.

5. An electric indicator comprising a suitable support, a longitudinally movable, oscillating rod mounted in said support, a target mounted on said rod and arranged on one side thereof, a magnet for shifting said rod longitudinally, and a cam device for oscillating said rod and target, said target being gravity held in its normal and set positions and said cam device and magnet coöperating to swing said target from its normal to its set position over a high point or dead center.

[Claims 6 to 14 not printed in the Gazette.]

1,131,856. CIGARETTE-CASE. PATRICK S. O'DONNELL, Chicago, Ill., assignor, by mesne assignments, to Automatic Magazine Cigarette Box Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 12, 1914. Serial No. 824,258. (Cl. 206—41.)

1. In a cigarette case, the combination of a box having a delivery opening in one side edge and a hinged cover forming in part one side wall thereof, a spring-actuated follower in said box operating to exert sidewise pressure on a row of cigarettes in said box and maintain the foremost cigarette opposite said opening, an ejector operative to force said foremost cigarette through said opening, and a lock-bar serving at one limit of its movement to unlock said cover and lock said follower in retracted position and at the other limit of its movement to lock said cover and release said follower.



2. In a cigarette case, the combination of a box adapted to hold a row of cigarettes arranged side-by-side and having a delivery opening in one side edge, a spring-actuated follower in said box operating to press the cigarettes laterally and maintain the foremost cigarette of the row opposite said opening, a stop-plate extending partially across said box just beyond said opening and formed with a rearwardly extending lug, an ejector slidably mounted transversely of the box directly behind said stop-plate and slotted lengthwise to accommodate said lug of the stop-plate, an inwardly projecting foot on said ejector extending transversely of and limited as to its outward movement by the inner end of said stop-plate, a lug on the back of said ejector, and a tensile spring connecting said lugs.

3. In a cigarette case, the combination of a box adapted to hold a row of cigarettes arranged side-by-side and having a delivery opening in one side edge and hinged cover, a spring-actuated follower in said box operating to press the cigarettes laterally and maintain the foremost cigarette of the row opposite said opening, and formed with a catch member, an ejector operative to force said foremost cigarette through said opening, and a slidably mounted lock-bar having a catch member that, in the retracted position of said lock-bar, is automatically engaged by said follower catch member when said follower is moved to fully retracted position.

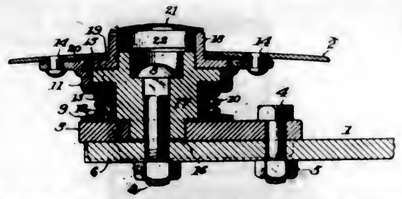
4. In a cigarette case, the combination of a box adapted to hold a row of cigarettes arranged side-by-side and having a delivery opening adjacent to one end of the box and a hinged cover formed with a locking lug adapted, when the cover is closed, to extend through the front wall of the box, a spring-actuated follower-head formed with a catch, and a lock-bar slidably mounted on the inner side of the front wall of the box and having a forked inner end adapted in its innermost position to engage said lug and lock the cover, and also having a tooth adapted in the outermost position of said lock-bar to engage said catch and hold said follower-head in retracted position.

5. In a cigarette case, the combination of a box adapted to hold a row of cigarettes arranged side-by-side and having a delivery opening adjacent to one end of the box, a follower comprising a follower-head adapted to laterally engage the rearmost cigarette of the row and formed with slotted side walls, a laxy tongs stem the arms of which are provided with cross-pins slidably engaging the slots of said side walls, and a tensile spring connecting the follower-head-engaging ends of said arms, and an ejector operative to force the foremost cigarette of the row through said opening.

1,131,857. DUST-PROOF JOURNAL-BEARING. JOSEPH P. OFFERMAN, Beaver Dam, Wis. Filed Mar. 11, 1914. Serial No. 823,851. (Cl. 64—10.)

1. In a device of the described class, the combination of a revoluble disk provided with a central aperture, an annular sleeve located in said aperture, a revoluble hub rigidly affixed to said disk, a stationary hub centrally located in said revoluble hub, said central hub being provided with a central bolt receiving aperture, and an angular projection, a bolt located in the central aperture of

said fixed hub and a fastening plate provided with an angular aperture for the reception of the angular projection on said fixed central hub.

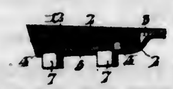


2. In a device of the described class, the combination of a revoluble disk provided with a central aperture, an annular sleeve located in said aperture, a revoluble hub rigidly affixed to said disk, a stationary hub centrally located in said revoluble hub, said central hub being provided with a central bolt receiving aperture and an angular projection, a bolt located in the central aperture of said fixed hub a fastening plate provided with an angular aperture for the reception of the angular projection on said fixed central hub, and a removable cap located in and adapted to close the aperture in said sleeve above said bolt.

3. In a device of the described class, the combination of a revoluble disk provided with a central aperture, an annular sleeve located in said aperture, a revoluble hub rigidly affixed to said disk, a stationary hub centrally located in said revoluble hub, said central hub being provided with a central bolt receiving aperture and an angular projection, a bolt located in the central aperture of said fixed hub, a fastening plate provided with an angular aperture for the reception of the angular projection on said fixed central hub, a removable cap located in and adapted to close the aperture in said sleeve above said bolt, and a concavo-convex dust excluding collar inclosing the inner end of said revoluble hub, a spiral spring interposed between said revoluble hub and said collar, said spring being adapted by its recoil to retain said collar in close contact with the opposing plate.

4. In a device of the described class, the combination of a revoluble disk provided with a central aperture, an annular sleeve located in said aperture, a revoluble hub rigidly affixed to said disk, a stationary hub centrally located in said revoluble hub, said central hub being provided with a central bolt receiving aperture and an angular projection, a bolt located in the central aperture of said fixed hub, a fastening plate provided with an angular aperture for the reception of the angular projection on said fixed central hub, a removable cap located in and adapted to close the aperture in said sleeve above said bolt, a concavo-convex dust excluding collar inclosing the inner end of said revoluble hub, a spiral spring interposed between said revoluble hub and said collar, said spring being adapted by its recoil to retain said collar in close contact with the opposing plate, and means for revolubly connecting said collar with said revoluble hub.

1,131,858. HORSESHOE. WESLEY O'NEILL, Russellville, Pa. Filed Apr. 18, 1913. Serial No. 761,873. (Cl. 168—15.)

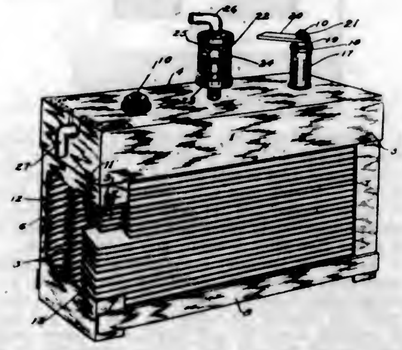


1. A horse shoe having its heel pieces hollowed to form sockets open at the end of the heel piece; a calk plate within the socket; one or more calks secured to said calk plate and projecting below the shoe through apertures appropriately formed in the under side of the socket; and a cushioning block inserted within the socket through the open end therein, holding the calk plate in place and cushioning it.

2. A horse shoe having a hollow heel piece with a socket therein, opening at the end of the shoe; a calk plate within the socket, provided with two or more calks, projecting through apertures in the heel, and having an upper surface of irregular configuration; and a rubber cushioning piece with an opposed surface of similar irregular configuration capable of being inserted into the socket so as to hold the calk plate in place and cushion the calks.

3. A horse shoe having a hollow heel piece with a socket therein; a calk plate within the socket; two or more calks attached to the calk plate, and projecting through apertures in the heel; and a cushioning piece inserted in the socket between the calk plate and the upper wall of the socket.

1,131,859. ELECTROLYTIC APPARATUS. CLIFTON A. PARKS, Chicago, Ill. Filed Sept. 14, 1914. Serial No. 861,683. (Cl. 204—1.)



1. An electrode, comprising a support, a plurality of conductor plates attached to said support one above another and inclined upwardly, and baffle plates of insulating material attached to said conductor plates and extending beyond the edges thereof.

2. An electrode comprising a support, a plurality of conductor plates attached to said support one above another and inclined upwardly, and baffle plates of insulating material attached to said conductor plates so as to overlap the same and extend beyond the edges thereof.

3. An electrode, comprising a support, a plurality of conductor plates attached to said support one above another and inclined upwardly, and baffle plates of insulating material attached to said conductor plates and extending beyond the edges thereof, said baffle plates overlapping said conductor plates and being spaced away therefrom.

4. An electrode comprising a support, a plurality of plates attached to said support one above another and inclined upwardly, channel members embracing the ends of said plates, and a gas collecting bell located over the top of said plates and resting on said channel members.

5. An electrode comprising a support, a plurality of conductor plates attached to said support one above another and inclined upwardly, baffle plates of insulating material attached to said conductor plates and extending beyond the edges thereof, channel members embracing the ends of said conductor plates and being spaced away from the ends and sides thereof by said baffle plates, and a gas collecting bell located over the top of said plates and resting on said channel members.

[Claims 6 to 8 not printed in the Gazette.]

1,131,860. METHOD OF MAKING ARTIFICIAL-CORK ARTICLES. HERBERT PASCHEN, Ben Avon Heights, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 25, 1913. Serial No. 744,188. (Cl. 18—55.)

1. The herein described method of manufacturing artificial cork articles, which consists in mixing pulverised or granulated cork with liquid unoxidized tung oil, and subjecting the material to the action of heat to solidify the oil while in contact with the cork particles; substantially as described.

2. The herein described method of manufacturing artificial cork articles, which consists in mixing pulverized or granulated cork with liquid unoxidized tung oil, then shaping the mixture, and then subjecting the shaped masses to the action of heat to solidify the oil while in contact with the cork particles; substantially as described.

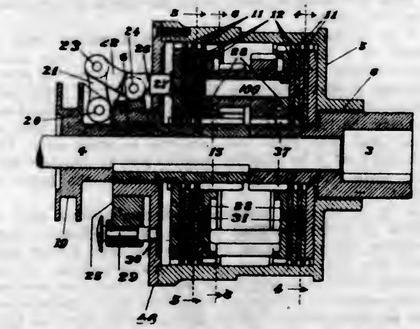
3. The herein described method of manufacturing artificial cork articles, which consists in mixing granulated or pulverized cork with liquid unoxidized tung oil, and then subjecting the mixture to the action of heat at a temperature below that at which the cork will be injured and for a relatively prolonged period to thereby solidify the oil; substantially as described.

4. The herein described method of manufacturing artificial cork articles, which consists in mixing granulated or pulverized cork with liquid unoxidized tung oil, compressing the mixture into molds, and subjecting the material while in the molds to the action of heat of such temperature and for such period as to effect the solidification of the tung oil without injuring the cork; substantially as described.

5. The herein described method of manufacturing artificial cork, which consists in mixing granulated or pulverized cork with liquid unoxidized tung oil and a suitable solvent, and subjecting the mixture to the action of heat of a relatively low temperature and during a relatively prolonged period to solidify the tung oil without injuring the cork; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,131,861. REVERSIBLE ROTARY DRIVING DEVICE. HARRY J. PERKINS, Grand Rapids, Mich. Filed Apr. 4, 1913. Serial No. 758,781. (Cl. 74—34.)



1. In a device of the character described, alined driving and driven shafts, a hollow drum having a concentric rotary movement relatively to the shafts, a cage within the drum and rotatable therewith, reversing gears carried by the cage, a clutch to clutch the cage with both the shafts, gears on the shafts meshing with the reversing gears carried by the cage, and means for holding the drum against rotation.

2. In a device of the character described, alined driving and driven shafts, a hollow drum having a concentric rotary movement relatively to the shafts, a cage within the drum and in longitudinally-removable keyed relation thereto, reversing gears carried by the cage, clutch members to clutch the cage with the shafts, gears on the shafts meshing with the reversing gears carried by the cage, and means for holding the drum against rotation.

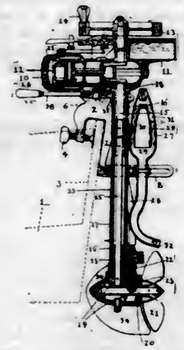
3. In a device of the character described, alined driving and driven shafts, a hollow drum having a concentric rotary movement relatively to the shafts, a cage within the drum and in longitudinally-removable keyed relation thereto, reversing gears carried by the cage, a clutch member to clutch the cage, and one shaft and in longitudinally-removable keyed relation to such shaft, a clutch member to clutch the cage and the other shaft and in longitudinally-removable keyed relation to such other shaft, gears on the shafts meshing with the reversing gears carried by the cage, and means for holding the drum against rotation.

4. In a device of the character described, alined driving and driven shafts, a hollow drum having a concentric rotary movement relatively to the shafts, a cage within the drum rotatable therewith and having a longitudinal movement relatively to the shafts, reversing gears carried by the cage, clutch members carried by the shafts respectively and adapted to couple the shafts together by means of the cage, and means for moving one clutch member and the cage into clutching position with the other clutch member, gears on the shafts meshing with the reversing gears carried by the cage, and means for holding the drum against rotation.

5. In a device of the character described, alined driving and driven shafts, a hollow drum having a concentric rotary movement relatively to the shafts, a cage within the drum rotatable therewith, reversing gears carried by the cage, clutch members in keyed relation alternately to the drum and to one shaft, to clutch the cage to such shaft, clutch members in keyed relation alternately to the drum and to the other shaft to clutch the cage to such other shaft, gears on the shafts meshing with the reversing gears carried by the cage, and means for holding the drum against rotation.

[Claim 6 not printed in the Gazette.]

1,131,862. MARINE PROPULSION MECHANISM. HARRY J. PERKINS, Grand Rapids, Mich. Filed Jan. 31, 1914. Serial No. 815,620. (Cl. 115—17.)



1. In mechanism of the character described, a supporting frame having a plurality of orifices arranged one above another, means for securing said frame to a boat, an engine frame carrying an engine and propeller and also a rudder, and a bolt adapted to support the engine frame and to pass through any of said orifices to hold the engine frame in a desired position vertically relatively to the supporting frame, the rudder having a swinging horizontal movement relatively to the engine frame.

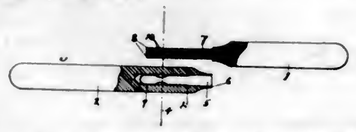
2. In mechanism of the character described, an engine frame carrying an engine and propeller, a vertical rotatable shaft for driving the propeller by the engine, and a rudder stock carrying a rudder blade and rotatable for steering on bearings surrounding said shaft.

3. In mechanism of the character described, an engine frame carrying an engine and propeller, a vertical rotatable shaft for driving the propeller, a rudder stock rotatable for steering on bearings surrounding said shaft and having a rudder blade extending below the propeller's axis.

4. In mechanism of the character described, an engine frame carrying an engine and propeller, a vertical rotatable shaft for driving the propeller, a rudder stock carry-

ing a rudder blade and rotatable for steering on bearings surrounding said shaft and having a segmental gear, and a pivoted tiller having a segmental gear, meshing with the rudder stock's said gear to rotate the same.

1,131,863. TOOTH-BRUSH. HELENE H. PHILLIPS, Westchester county, N. Y. Filed Nov. 1, 1913. Serial No. 798,623. (Cl. 15—39.)

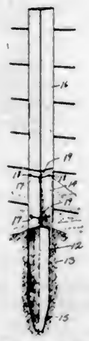


1. In an article of the class described, the combination of a handle having a longitudinally disposed bore, a friction clamp comprising paired and oppositely disposed spring arms anchored within the bore, a brush head, and a shank extending from said brush-head having longitudinal grooves formed therein adapted to engage said spring arms.

2. In an article of the class described, the combination of a handle having a longitudinally disposed bore, a friction clamp comprising an elastic strip anchored in the bore and having an inwardly extending resilient detent, a brush head, a shank extending from said brush head having a longitudinally extending groove formed therein adapted to engage said strip and a recess in said groove adapted to receive said detent.

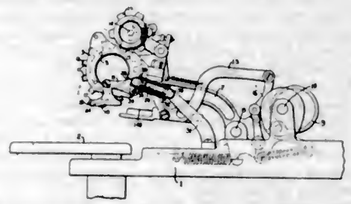
3. In an article of the class described, the combination of a handle having a longitudinally disposed bore, a friction clamp comprising oppositely disposed and connected spring members having inwardly extending detents between their ends and anchoring projections at their ends, said projections engaging said bore, a brush head, a shank extending from said brush head having longitudinal grooves therein and a recess in each of said grooves, the said grooves and recesses being adapted respectively to engage the spring members and detents.

1,131,864. DETACHABLE POST-BASE. ALVIN Z. PIERCE, Woodhull, N. Y. Filed Mar. 12, 1913. Serial No. 753,839. (Cl. 72—84.)



A post base formed of a pair of elongated angular members secured together at the angular edges thereof to provide a plurality of ribs arranged successively at substantially right angles to one another, the one angular member being of greater length than the other and projecting some distance above the latter and above the surface of the ground when the device is applied to use, the projecting portion of the last mentioned member being provided with perforations in the faces thereof and having notches in the angular end of the same, and means in connection with the perforations and notches in the projecting portions of the last mentioned angular member for securing a post thereto.

1,131,865. MARKING-MACHINE. FRED A. PUTNAM, Melrose, and CHARLES F. ROBBINS, Abington, Mass., assignors to Markem Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed July 2, 1914. Serial No. 848,679. (Cl. 101—83.)



1. In a marking machine, the combination with a platen, of a printing head having adjustable type members, a type plate, means to move the platen and printing head relative to each other to make a printed impression, and means to move the type plate toward and from the printing head during such relative movement of the printing head and platen.

2. In a marking machine, the combination with a platen, of a printing head having adjustable type members, a type plate, means to move the platen and printing head relative to each other to make a printed impression, and means operated by such relative movement of the platen and printing head to move the type plate toward and from the printing head.

3. In a marking machine, the combination with a platen, of a printing head having adjustable type members rotatably mounted thereon, means to move the printing head toward and from the platen, a type plate, and means to move the type plate relative to the printing head to bring said type plate into position to print when the printing head is in printing position and to separate it from the printing head when the latter is separated from the platen.

4. In a marking machine, the combination with a platen, of a printing head having adjustable type members rotatably mounted thereon, means to move the printing head toward and from the platen, a type plate, and means to move the type plate relative to said printing head to bring said type plate into position to print when the printing head is in printing position and to separate said type plate from the printing head when the latter is raised.

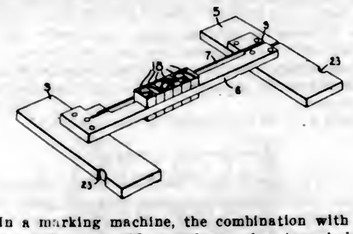
5. In a marking machine, the combination with a platen, of a printing head having rotary adjustable type members, means to move the printing head toward and from the platen, a type plate movable relative to the printing head, said type plate when in operative position having means to engage the adjustable type members and lock the latter from rotating, and means to move the type plate away from the type members when the printing head is raised whereby said type members may be adjusted.

[Claims 6 to 14 not printed in the Gazette.]

1,131,866. TYPE-CARRIER AND MARKING-MACHINE. FRED A. PUTNAM, Melrose, and CHARLES F. ROBBINS, Abington, Mass., assignors to Markem Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed July 2, 1914. Serial No. 848,680. (Cl. 101—169.)

1. In a marking machine, the combination with a carrier presenting two side members, of a type holder removably sustained by said carrier and presenting a type-holding bar, and type members embracing and sustained entirely by said bar and removable laterally therefrom, said holder and the type sustained thereby being removable from the carrier as a unit.

2. In a marking machine, the combination with a printing head comprising type disks and means to support the same, of a carrier associated with said printing head and presenting two side members, a type holder removably sustained by the carrier, and type members detachably supported on the holder.



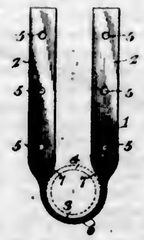
3. In a marking machine, the combination with a carrier presenting two side members, of a type holder removably sustained by said carrier and provided with a type-holding bar, type members embracing said bar and removable laterally therefrom, and a retaining member extending longitudinally of the bar to hold the type members on the holder.

4. In a marking machine, the combination with a carrier provided with two grooved side members, of a type holder slidably sustained in said grooves and provided with a type holding bar, a plurality of interchangeable type members removably mounted on said bar, and a retaining member carried by the holder and extending longitudinally of said bar for retaining the type members in position.

5. In a marking machine, the combination with a carrier provided with two grooved side members, of a type holder slidably sustained in said grooves and removable therefrom, a plurality of interchangeable type members removably sustained by said type holder, and a retaining member carried by the holder for retaining the type members in position, a portion of the retaining member being received in one of the grooves in the carrier when the holder is in place whereby the retaining member is locked in position.

[Claims 6 to 9 not printed in the Gazette.]

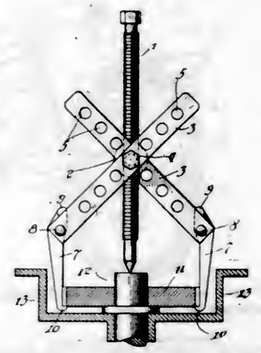
1,131,867. PIPE-HANGER. GEORGE C. PYLE, Beatrice, Nebr. Filed Jan. 12, 1914. Serial No. 811,644. (Cl. 248—31.)



A pipe hanger consisting of a strip of sheet metal folded longitudinally along its intermediate portion to form two plies or thicknesses with their side faces in planes at right angles to the planes of the side faces of the end portions of the strip, the terminals of the plies or thicknesses diverging outwardly and merging into the said end portions, the latter being flat and consisting of single plies or thicknesses and the intermediate seat portion being curved to conform to the configuration of a pipe.

1,131,868. MEANS FOR DRAWING GEARS, PULLEYS, &c., FROM SHAFTS. JOHN R. RIDLON, Chicago, Ill. Filed Dec. 2, 1912. Serial No. 734,638. (Cl. 29—85.)

1. In a device of the class described, substantially parallel fingers having inwardly facing catches, a supporting element, and diagonally arranged means supported on said element and to which said fingers are secured, said means being adjustable with respect to said support to permit movement of said fingers toward and away from each other without disturbing the parallel arrangement thereof.



2. In a gear remover, substantially parallel fingers having inwardly facing shoulders, a supporting element, and diagonally arranged arms pivotally supported thereon, said fingers being carried by said arms, each of said arms having a plurality of holes permitting adjustment of the pivotal support thereof to move said fingers toward and away from each other.

3. In a gear remover, a screw-threaded spindle, a screw-threaded block thereon, two pairs of arms pivotally supported on said block, with the arms of each pair arranged on opposite sides of said block in parallel relation, the pivotal axes of said arms being radial with respect to said spindle, the arms of one pair being parallel to the arms of the other pair, and extensions on said arms normally parallel to each other.

4. In combination, a screw-threaded spindle, a pair of fingers, supporting means on said spindle having a bodily transverse adjustment with respect to said spindle and to which said fingers are pivoted, and means for limiting the swinging movement of said fingers away from each other, whereby said fingers may be adjusted toward and away from each other while remaining parallel to each other.

5. In combination, a spindle, a pair of fingers having catches thereon, and supporting means adjustable on said spindle and to which said fingers are connected whereby the points of connection are adjustable toward and away from said spindle, said connection permitting a limited movement of said fingers with respect to said means.

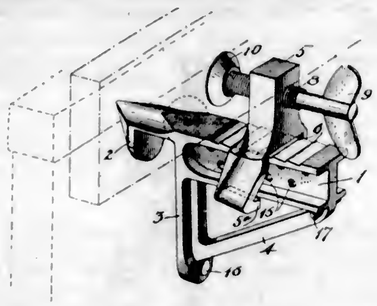
[Claims 6 and 7 not printed in the Gazette.]

1,131,869. BENCH BRACKET AND VISE. EDMUND A. SCHADE, New Britain, Conn., assignor to Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 2, 1914. Serial No. 869,768. (Cl. 144—290.)

1. In a device of the character described, a bar, a hook at the forward end thereof, a depending brace at the lower side of said bar and spaced from said hook, a block adjustably mounted to slide to and fro on said bar, with means for holding said block at fixed position thereon, and a clamping member carried by said block above said bar.

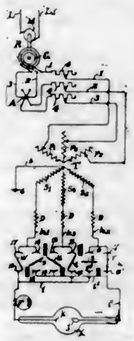
2. In a device of the character described, a bar, a hook at the forward end thereof, a depending brace at the lower side of said bar and spaced from said hook, a block adjustably mounted to slide to and fro on said bar, with means for holding said block at fixed position thereon, a clamping member carried by said block above said bar, said clamping member being rotatably mounted on the block.

3. In a device of the character described, a bar, a hook at the forward end thereof, a depending brace at the



lower side of said bar spaced from said hook, and clamping means mounted on said bar.

1,131,870. POLYPHASE X-RAY SYSTEM. HOMER CLYDE SNOOK, Philadelphia, Pa. Filed Dec. 26, 1908. Serial No. 469,355. (Cl. 171—253.)



1. In an X-ray system, the combination with a source of polyphase alternating current, of a step-up transformer supplied by said source, a high potential polyphase rectifying switch driven in synchronism with said current deriving energy from said transformer, and an X-ray tube continuously traversed by the uninterrupted unidirectional current derived from said switch.

2. In an X-ray system, the combination with a source of polyphase current, of a step up transformer, an X-ray tube, and a high potential polyphase rectifying switch intervening between said transformer and said tube, said switch causing overlapping unidirectional current waves to be impressed upon said tube, whereby said tube is continuously subjected to a potential higher than the potential of any phase supplied to said rectifying switch.

3. A system for producing X-rays of high intensity and greater uniformity in characteristics comprising the combination with an X-ray tube, of means for producing high potential uni-directional overlapping current impulses, and a circuit including said means and said X-ray tube.

4. In an X-ray system, the combination with a source of polyphase current, of a polyphase transformer, an X-ray tube, and a high potential polyphase rectifying switch intervening between said transformer and said tube, said switch comprising conducting arcs and cross connectors, the period of coöperation between a cross connector and an arc being substantially equal to the time of non-overlapping of a wave of one phase with respect to a wave derived from another phase.

5. In an X-ray system, the combination with a generator of polyphase current, of a polyphase transformer, an X-ray tube, and a high potential polyphase rectifying switch intervening between said transformer and said tube, said switch comprising relatively rotatable arcs and cross connectors, the movable element of said switch being mechanically connected to the movable element of said generator.

[Claims 6 to 30 not printed in the Gazette.]

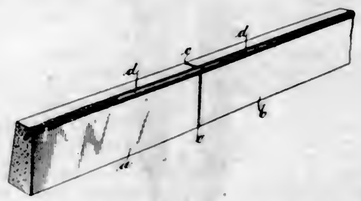
1,131,871. BORING AND FACING BAR. WILLIAM F. SPOEHR, Milwaukee, Wis. Filed Sept. 29, 1913. Serial No. 792,311. (Cl. 77—58.)



1. A boring bar having its outer end provided with a screw threaded socket and an open ended transverse slot extending through the socketed end portion, a removable centering member having a screw threaded inner end portion and provided with a transverse open ended slot adapted for registry with the slot in said bar, a cutter blade adapted to fit said slots, and means for binding said cutter blade therein.

2. A boring bar having its outer end provided with a screw threaded socket and an open ended transverse slot extending through the socketed end portion, a removable centering member having a screw threaded inner end portion and provided with a transverse open ended slot adapted for registry with the slot in said bar, a cutter blade adapted to fit said slots, and means for binding said cutter blade therein, comprising a set screw extending longitudinally inwardly from the outer end of said removable member and adapted to bear upon the outer margin of said cutter blade.

1,131,872. PERISHABLE DIVIDING-PLATE. FLORIAN WILLIAM STOCKER, Hoboken, N. J. Filed Oct. 12, 1914. Serial No. 866,207. (Cl. 94—1.)



1. A perishable dividing plate for an expansion joint for concrete construction and the like composed of a deteriorating substance, a finely divided mineral substance, and a deteriorating binding material.

2. A perishable dividing plate for an expansion joint for concrete construction and the like composed of a deteriorating organic substance, a finely divided mineral substance, and a glutinous organic binding material.

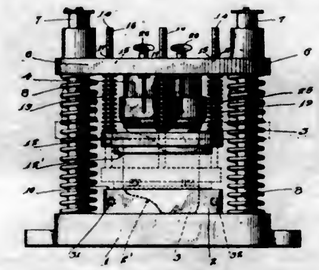
3. A perishable dividing plate for an expansion joint for concrete structures and the like composed of particles of a deteriorating organic material, a finely divided mineral substance, and a glutinous organic binding material.

4. A perishable dividing plate for an expansion joint for concrete curbing and the like composed of particles of a deteriorating organic material, a finely divided mineral substance, and a water soluble glutinous binding material.

5. In concrete curbing, sidewalks, roads and the like laid in sections, a perishable dividing plate composed of a deteriorating organic substance, a finely divided mineral substance and a glutinous organic binding material, said perishable plate being interposed between two adjoining concrete sections and remaining therein.

[Claim 6 not printed in the Gazette.]

1,131,873. SHOEMAKING-MACHINE. SAMUEL STRAUSS, Los Angeles, Cal. Filed May 19, 1913. Serial No. 768,669. (Cl. 12—97.)



1. A shoe forming machine comprising a female die member, a last, a supporting means for said last mounted to reciprocate the last into and out of the die, and a clamp member mounted to reciprocate with said supporting means and elastically supported thereon to enable said clamp member to move toward the die to clamp a leather blank between the die and clamp member and to permit further movement of the last after the clamp member has been moved to clamping position.

2. In a shoe-making machine, a female die and die coacting means for pressing the shoe upper into shape and for forming a flange on said upper, fastener supporting means on said die and a clamp for clamping said flange and the sole against said fastener supporting means to drive the fasteners through said flange and sole to baste the same together while the upper is in the die.

3. In a shoe making machine, the combination of a female die having a flat face and provided with a die recess in said face adapted to receive the upper of a shoe, and to permit a laterally extended welt portion of said upper to rest on the said flat face of said die, a follower member mounted to reciprocate adjacent said die and a knife carried by said follower member to cut the sole and the welt portion of the upper while in position on said die.

4. In a shoe making machine, the combination of a female die having a flat face and provided with a die recess in said face adapted to receive the upper of a shoe, and to permit a laterally extended welt portion of said upper to rest on the said flat face of said die, a follower member mounted to reciprocate adjacent said die and a knife carried by said follower member to cut the sole and the welt portion of the upper while in position on said die, said knife being adjustably mounted on said follower member.

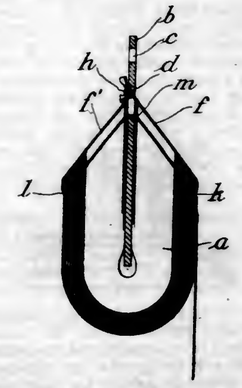
5. In a shoe forming machine the combination of the female die, a removable lining therefor, and a last movably mounted to enter said die and form the leather between the last and lining.

[Claims 6 and 7 not printed in the Gazette.]

1,131,874. PACKAGE. OLIVER E. TEALL, Holyoke, Mass., assignor to Mt. Holyoke Tissue Mills, Holyoke, Mass., a Corporation of Massachusetts. Filed June 21, 1913. Serial No. 775,140. (Cl. 206—57.)

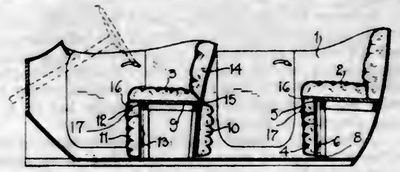
1. A paper package, comprising a pack of sheets of paper folded on itself, a flexible securing means comprising a closed loop threaded through the end of the pack and pasted to the ends of the pack.

2. A paper package, comprising a support having an aperture therein, a pack of sheets of paper folded about the support, a flexible securing means comprising a closed loop threaded through the end of the pack, pasted to the



ends of the pack and passing through the aperture in the support.

1,131,875. CONVERTIBLE BODY FOR MOTOR-VEHICLES. EDWARD L. THOMPSON, Glenns Ferry, Idaho. Filed May 16, 1914. Serial No. 839,098. (Cl. 21—43.)



1. A vehicle body including front and rear seat members, movable members hingedly connected to the front edges of said seat members, supports for retaining said members in a horizontal position, one of said supports being provided with an outwardly projecting portion, and a third movable member hingedly connected to the front seat member and adapted to be supported by the outwardly projecting portion, as and for the purpose set forth.

2. A vehicle body including front and rear seat members, a plate member hingedly connected to the front edges of each of said seat members, a third plate member hingedly connected to the rear of the front seat member, said plate members being adapted to be disposed in a horizontal position, and pivoted bars carried by the first plate members for supporting all of said plate members in a horizontal position.

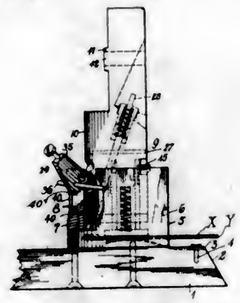
1,131,876. TAMPING DEVICE. CHESTER TIETIG, Cincinnati, Ohio. Filed Oct. 23, 1913. Serial No. 796,919. (Cl. 102—11.)



1. In a tamping device a tube, filling material in said tube, a plug in the lower end of said tube, a perforated cap on the upper end of said tube, and a cord secured to said plug and extending through said plug, said tube and said cap.

2. In a tamping device an easily torn tube, non-combustible filling in said tube, a longitudinally perforated plug closing the lower end of said tube, a centrally perforated cap on the upper end of said tube, and a cord secured to said plug and passing through said plug said tube and said cap.

1,131,877. BOOKBINDING APPARATUS. JULIUS TRUMPER, Tempelhof, Germany. Filed Mar. 3, 1913. Serial No. 751,937. (Cl. 11—2.)



1. A device for making book covers comprising in combination, vertically movable means for pressing a strip against the board to be covered with the strip, means for pulling the strip over the board at the corner of the board, and releasable means for holding the pulling means.

2. A device for making book covers comprising in combination, a support for the work, movable means for pressing a strip against the cover board at one corner, means engaging the strip and pulling it while the pressing means acts on it, and means whereby the engagement of said pulling means is controlled by the movement of said pressing means.

3. A device for making book covers comprising in combination, an angular stop for defining the position of the board the corner of which is to be covered by a strip, a presser guided in said angular stop, a pulling rod diagonally disposed within said presser, and means within said presser for resiliently forcing said pulling rod in a diagonal direction downwardly.

4. A device for making book covers comprising in combination a base-plate supporting the board to be covered by a corner strip, a presser, a foot plate mounted in said presser and adapted to engage marginal portions of said corner strip and a pulling rod adapted to engage other portions of the corner strip, said pulling rod being movably mounted in an oblique direction within said presser, whereby the rod is shifted parallel to itself in the vertical movement of said presser.

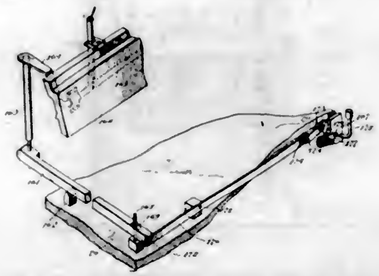
5. A device for making book covers comprising in combination a base-plate supporting a board to be covered by a corner strip, a presser, a foot-plate resiliently mounted within said presser for engaging the board and marginal portions of the corner strip, a pulling rod obliquely disposed within said presser whereby the rod is shifted parallel to itself in the vertical movement of said presser, said pulling rod being in engagement with other portions of the corner strip.

[Claims 6 to 11 not printed in the Gazette.]

1,131,878. PLAYING ATTACHMENT FOR MUSICAL INSTRUMENTS. EUGENE T. TURNEY, Rock Island, Ill., assignor to Artista Piano Player Company, Milan, Ill., a Corporation of Illinois. Filed Apr. 23, 1908. Serial No. 428,782. (Cl. 84—160.)

1. In a playing attachment for musical instruments, the combination of a casing, fortissimo mechanism, a record, means for feeding the record, piano actions for playing the instrument, means whereby the movement of said actions may be controlled by the record, actuating mechanism entirely within the casing for operating the fortissimo mechanism, said actuating mechanism comprising two pivotal levers connected together, means connecting one end of one of said members to said fortissimo mechanism, a rocker arm connected to the end of said other lever, and a detachable key adapted to be inserted through the casing of the instrument into engagement with said rocker arm.

2. In a playing attachment for musical instruments, the combination of a casing, a flange rail, fortissimo mechanism supported entirely thereby, said mechanism including a damper rod having a projecting portion, a pivotally supported member below the rod and above the key bed, an upright on the member adapted to engage the projecting portion, and means under the control of the hand of the operator for rocking the said rod at will, said means including a pivoted lever connected at one end to said pivotal member and at the other end to a rocker arm, and a key detachably connected to said rocker arm from the outside of the piano casing and through the front thereof.



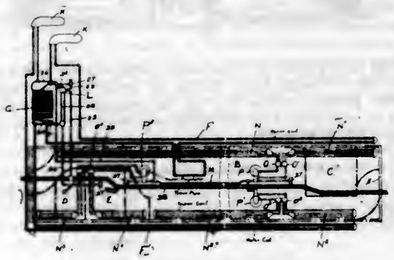
3. In a playing attachment for musical instruments, the combination of a casing, a flange rail, fortissimo mechanism supported entirely thereby, said mechanism including a damper rod having a projecting portion, a pivotally supported member below the rod and above the key bed, an upright on the member adapted to strike said projecting portion and actuate said rod, a guide for one end of the pivoted member, a pivotal lever connected to said pivoted member, a rocker arm for actuating said lever, and a removable key adapted to be connected to said rocker arm from the front of the casing in position to be under the control of the operator and adjacent the keys.

4. In a playing attachment for musical instruments, a flange rail, fortissimo mechanism supported entirely thereby, said mechanism including a damper rod having a projecting portion, a pivotally supported member below the rod and above the key bed, an upright on the member adapted to engage the projecting portion, a guide for one end of the pivoted member, a second member pivoted intermediate its ends adjacent the key board and also adjacent the front of the instrument, said second member being pivotally connected by one end to the first said pivoted member, and means under the control of the hand of the operator for rocking the said second member at will, the last said means being separate from the second recited member and detachably engaging the same through the front of the instrument adjacent the key board.

5. In a playing attachment for musical instruments, a flange rail, fortissimo mechanism supported entirely thereby, said mechanism including a damper rod having a projecting portion, a pivotally supported member below the rod and above the key bed, an upright on the member adapted to engage the projecting portion, a guide for one end of the pivoted member, a second member pivoted intermediate its ends adjacent the key board and also adjacent the front of the instrument, said second member being pivotally connected by one end to the first said pivoted member, and means separate from the second said member and under the control of the hand of the operator for rocking the said second member at will, the last said means comprising a detachable key adapted to be projected through the front of the casing adjacent the key board.

1,131,879. HEATING SYSTEM FOR RAILWAY-CARS. HENRY H. VAUGHAN, Montreal, Quebec, Canada. Filed Sept. 26, 1914. Serial No. 863,709. (Cl. 237—9.)

1. In a car heating system, in combination, a hot water circulating coil, and a steam heating coil, both located in the car, steam heated means for heating the water in the water coil, a source of supply of high pressure steam, controlling means whereby steam is supplied to said steam coil only when said water heating means is receiving high pressure steam from said source of supply, and controlling means whereby the steam in said steam heating coil when so supplied is maintained at low pressure.

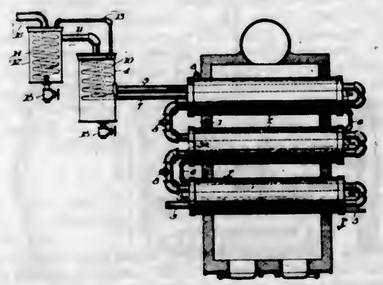


2. A car heating system comprising a hot water circulating coil and a steam heating coil in the car, steam supplied means for heating the water in the water circulating coil, a train pipe and an auxiliary supply pipe outside of the interior of the car, and controlling means, all so arranged that the water heating means shall receive steam at high pressure from the train pipe, the auxiliary supply pipe shall receive steam at high pressure only when the water heating means is so supplied and the steam received by the steam heating coil from the auxiliary supply pipe will be maintained at low pressure in said coil.

3. A car heating system comprising in combination a source of supply of high pressure steam, a hot water circulating coil in the car, means supplied with high pressure steam from said source of supply for heating the water in said coil, an auxiliary supply pipe, controlling means for supplying high pressure steam to said auxiliary supply pipe only when said water heating means is so supplied, a steam heating coil in the car supplied with steam from the auxiliary supply pipe and means for automatically controlling the flow of steam to said steam coil so as to maintain steam therein at a low pressure.

4. In a car heating system, in combination a hot water circulating coil and a steam heating coil both located in the car, steam heated means for heating the water in the water coil, a source of supply of high pressure steam, means for conducting steam therefrom to the water heating means, means for conducting steam from the water heating means to the steam heating coil, and controlling means whereby the steam in said steam heating coil when so supplied is maintained at low pressure.

1,131,880. PROCESS OF MAKING LIQUID FUEL. CHARLES H. WARTH, East St. Louis, Ill. Filed Dec. 29, 1913. Serial No. 809,377. (Cl. 44—8.)

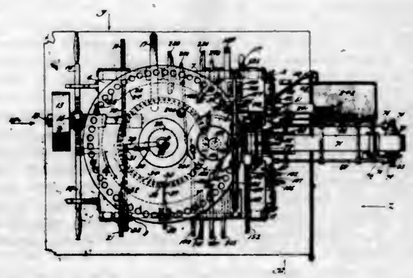


1. The process of producing a liquid fuel comprising the treatment of kerosene and benzol with heat sufficient to vaporize them, subjecting the vapor to a lower degree of heat sufficient to condense the heavier properties and then condensing the remaining vapors.

2. The process of producing a liquid fuel comprising the passing of kerosene and benzol through a pipe leading back and forth through a retort containing superheated steam subjected to the heat of the furnace, leading the vapor so formed into a separating tank containing a steam coil and having a sufficient lesser degree of heat than the retort, whereby certain of the heavier properties of the vaporized oil are condensed, leading the vapor therefrom into a second separating tank having a lesser degree of heat than the first, whereby the remaining heavier properties and foreign matter are condensed, and condensing the remaining vapor.

3. The process of producing a liquid fuel comprising the combining of a petroleum distillate with a coal tar distillate, initially vaporizing the combined liquids in small quantities, subjecting the vapor so formed to successive lower degrees of heat, and then condensing the remaining vapor.

1,131,881. WRAPPING-MACHINE. LAWRENCE E. WILBUR, Philadelphia, Pa., assignor to H. O. Wilbur & Sons, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 24, 1914. Serial No. 868,387. (Cl. 93—5.)



1. A wrapping machine comprising a pocket-provided article carrier, means for placing a label within a pocket of said carrier within which pocket an article to be wrapped is placed, mechanism for encompassing the labeled article with wrapping material, and mechanism for compressing the wrapping material upon the labeled article.

2. A wrapping machine comprising a pocket-provided article carrier, means for placing a label within a pocket of said carrier within which pocket an article to be wrapped is placed, mechanism for encompassing the labeled article with wrapping material, mechanism for compressing the wrapping material upon the labeled article, and mechanism for ejecting the wrapped article from the machine.

3. A wrapping machine comprising a pocket-provided article carrier, means for placing a label within a pocket of said carrier within which pocket an article to be wrapped is placed, and mechanism for encompassing the labeled article with wrapping material, which first folds it then twists it and then compresses it upon the labeled article.

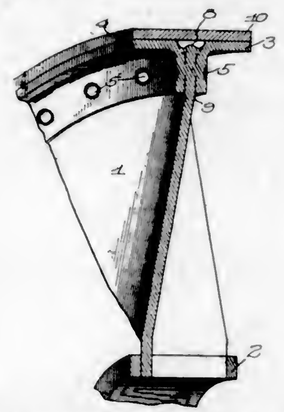
4. A wrapping machine comprising a pocket-provided article carrier, means for placing a label within a pocket of said carrier within which pocket an article to be wrapped is placed, mechanism for encompassing the labeled article with wrapping material, which first folds it then twists it and then compresses it upon the labeled article, and mechanism for ejecting the wrapped article from the machine.

5. A wrapping machine comprising a pocket-provided article carrier, a suction mechanism for drawing a label within a pocket of said carrier within which pocket an article to be wrapped is placed, means for operating the suction mechanism, mechanism for encompassing the la-

beled article with wrapping material, and mechanism for compressing the wrapping material upon the labeled article.

[Claims 6 to 34 not printed in the Gazette.]

1,131,882. STEEL WHEEL. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed May 22, 1912. Serial No. 698,980. (Cl. 21—69.)



1. In a wheel of the class described, the combination with a metal wheel web having on each side of its marginal portion an annular laterally projecting mass of two equal annular felly members located on opposite sides of said portion and each peripherally grooved on the side next said web to receive the corresponding projecting mass, said portions lying wholly within the general peripheral surface of the two felly members and being rigidly secured to the latter.

2. In a metal wheel, the combination with a sheet steel web, of two equal and registering felly rings fitting against opposite sides of the peripheral portion of said web and each cut away to form a groove adjacent to the latter, and a metal tire encircling and covering said rings; said web being provided with an annular projecting portion extending into the corresponding groove, on each side, and integrally united, in the groove, to the metal of the rings.

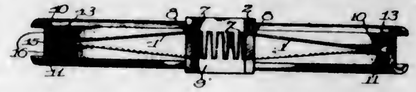
3. In a wheel of the class described, the combination with a sheet steel center or web, of two registering felly rings located upon opposite sides of the marginal portion of said web and each provided with an annular groove adjacent to the latter, the marginal portion of the web extending into both grooves, within the general peripheral surface of the rings, and rigidly connected to both rings throughout the entire circle of the grooves.

4. A metal wheel comprising a central web, and two equal, annular registering felly rings lying on opposite faces of the web and each cut away to form adjacent to the web a peripheral groove, the entire marginal portion of the web being T-like in radial section, wholly within the general peripheral surface of the rings and having its body and laterally projecting masses integrally united with said rings around the entire circumference.

1,131,883. STEEL WHEEL. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed May 22, 1911, Serial No. 628,718. Renewed July 23, 1914. Serial No. 852,762. (Cl. 21—69.)

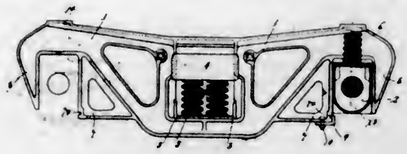
1. In a metal wheel, the combination with a centrally open sheet metal wheel body, of two annular, registering wheel members upon opposite faces, respectively, of the marginal portion of said body, the marginal portion of said body being welded to the adjacent members and said members laterally supporting without attachment thereto an annular portion of the body alongside the welding line.

2. In a metal wheel, the combination with two annular, registering wheel members, of a sheet metal wheel body



having its marginal portion closely held between said members and its edge, only, welded to both; whereby slight lateral yielding of the body at the margins of said members is permitted and the injurious effect of strains and vibrations is avoided.

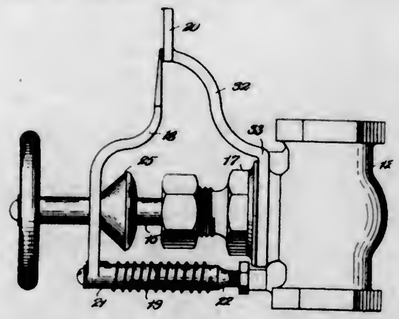
1,131,884. CAR-TRUCK. WILLIAM H. WILSON, St. Paul, Minn. Filed May 3, 1913. Serial No. 765,246. (Cl. 105—243.)



1. In a car truck, the combination with a cast side frame having integrally formed inner and outer journal box guiding pedestals opened at their lower ends for the application and removal of the journal boxes, and approximately L-shaped gibs detachably bolted to the lower extremities of the inner bolster columns and having interlocking engagement therewith and permitting accidental removal of the journal boxes from between the said columns.

2. In a car truck, the combination with a truck side frame having inner and outer journal box guiding pedestals, the said columns being open at their lower ends for the application and removal of the journal boxes, springs interposed between said journal boxes and truck frame, angular gibs or stops detachably applied to the lower ends of said inner columns, having laterally spaced bolt holes adapting them to be used on either end of the truck side frame, and nut-equipped bolts adapted to be passed through flanges of said side frames and through one or the other of the bolt holes of said gibs.

1,131,885. AUTOMATICALLY-REGISTERING VALVE. JOHN N. WINGETT, Denver, Colo. Filed Apr. 9, 1913. Serial No. 759,934. (Cl. 137—4.)



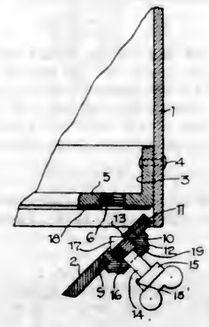
1. A registering valve having a rotary stem, a movable indicator, a spring adapted to move the indicator in one direction, and a tapered operating member movable by the rotation of the stem and adapted to move the indicator in the opposite direction.

2. A registering valve having a rotary stem, a graduated scale, a movable indicator coöperating therewith, a spring adapted to move the indicator in one direction, and a tapered operating member movable by the rotation of the valve stem and adapted to move the indicator in the opposite direction.

3. A registering valve having an indicator-supporting stud attached to its casing, a movable indicator having a hub journaled on said stud, a spring adapted to yieldingly press the indicator toward the valve stem, and an operating member on said stem adapted to exert a displacing pressure on the indicator.

4. A registering valve having a scale-supporting arm and an indicator-supporting stud attached to its casing, a scale on said arm, a movable indicator having a hub journaled on said stud, a spring adapted to yieldingly press the indicator toward the valve stem, and an operating member on said stem adapted to exert a displacing pressure on the indicator.

1,131,886. GRAVE-VAULT. FRANK S. WISTERMAN, Galion, Ohio. Filed Mar. 12, 1913. Serial No. 753,863. (Cl. 27—12.)



The combination with an open end grave vault provided in its open end with a marginal flange, said flange being formed with a plurality of screw-threaded openings, of a closure adapted to fit within the end of the vault against said flange and formed with openings registering with the openings in the flange, thimbles rigidly secured in the openings of the closure and each formed with a socket and with an opening extending therethrough concentrically of the socket and of smaller diameter than the same, and bolts mounted in said thimbles, each of said bolts being provided with a smooth shank movable longitudinally and rotatably in the opening in the thimble with a grip portion at one end of said shank and at the other end of the shank with a threaded head adapted to fit in said socket and engageable in one of the screw-threaded openings of the flange upon the bodily movement of the bolt forwardly and a subsequent rotation thereof, the extremity of the head being conical and protruding from the inner face of the closure in the retracted position of the head in the socket, whereby when the closure is applied to the end of the vault, said extremities will assist in properly guiding the bolts initially to place.

1,131,887. RAKE. JOSEPH F. WIXOM, Hammondsport, N. Y. Filed Feb. 25, 1914. Serial No. 820,996. (Cl. 55—146.)

1. A rake comprising a handle, a rake head carried by said handle, a cleaner slidably mounted upon the teeth of said rake head, a tongue forming part of said cleaner and provided with a slot through which the shank of said rake head passes, strips having their upper end secured to the upper end portion of said tongue and having their free end portion passed through the body portion of said cleaner and bent to form hooked-shaped abutments positioned upon the outer side of said rake head, and a leaf spring carried by said handle and having its free end engaging said cleaner to yieldably hold the same in its normal position.



2. A rake comprising a handle, a rake head having its shank connected with said handle, a cleaner slidably mounted upon the teeth and shank of said rake head and having vertical and horizontal portions, strips having their upper ends secured to the vertical portion of said cleaner and passing through the horizontal portion of said cleaner and having their free end portions bent to form outwardly extending abutments, said rake head extending between said strips and the vertical portion, and means yieldably holding said cleaner in its normal position.

3. A rake comprising a handle, a rake head having its shank connected with said handle, a cleaner slidably connected with said rake head, said cleaner comprising a body portion bent longitudinally to form a horizontal and a vertical flange, a tongue extending upwardly from said vertical flange and provided with a slot through which the shank of said rake head passes, said cleaner being provided with an opening at the junction of said flanges to permit the passage of the teeth of said rake head, strips secured to the upper portion of said tongue and passing outside of said rake head and through certain of the openings formed in said cleaner and having their free end portions bent to form outwardly-extending abutments, and a leaf spring carried by said handle, the lower end portion of the slot in said tongue being enlarged transversely to permit the free end portion of said leaf spring to pass through the same to engage the horizontal flange of said cleaner.

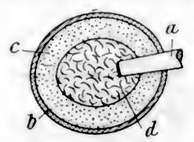
4. A rake comprising a handle, a rake head carried by said handle, a cleaner slidably mounted upon said rake head and provided with an opening through which the teeth of said rake pass and with a vertically-extending slot through which the shank of said rake head passes, tongues extending from certain of the openings through which the teeth of said rake head pass to assist in cleaning the teeth, abutments carried by said cleaner whereby said cleaner will be moved to an inoperative position upon said rake being brought into engagement with the ground, resilient means for yieldably holding said cleaner in a normal position, and a latch carried by said cleaner for engaging the shank of said rake head for releasably holding said cleaner in an inoperative position.

5. A rake comprising a handle, a rake head connected with said handle, a cleaner strip slidably mounted upon the teeth of said rake head and provided with a tongue extending above the strip and slidably mounted upon the shank of said rake head, and strips connected with the upper portion of the tongue of said cleaning strip and extending downwardly upon the opposite side of the rake head from said tongue beyond said cleaner strip and having their free end portions formed in the abutments engaging the ground to move the cleaner strip toward the upper ends of said teeth, and yieldable means normally holding said cleaner strip adjacent the free ends of said teeth.

1,131,888. STEERING-WHEEL FOR MOTOR-CARS AND FLYING-MACHINES. WILLY WOLFF, Nuremberg, Germany. Filed Mar. 6, 1913. Serial No. 752,274. (Cl. 74—33.)

1. A steering wheel comprising a hollow circular celluloid rim, a filler therein composed of a hardening material, a spider, and spokes on the spider projecting with their ends into the body formed by the rim and the filler.

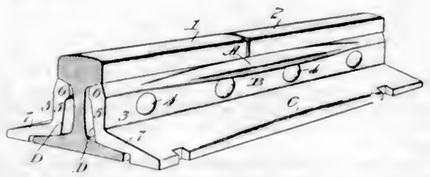
2. A steering wheel comprising a hollow annular celluloid rim, a filler therein composed of a hardening material, an inner ring in the rim formed of reed, a spider, and spokes thereon projecting with their ends into the body formed by the rim, the ring and the filler.



3. A steering wheel comprising a hollow annular celluloid rim having recesses in its circumference, a filler in said rim, a spider, spokes on the spider having ends projecting into said recesses, and means for securing said spoke ends in the recesses of the arm.

4. A steering wheel comprising a hollow annular celluloid rim having recesses in its circumference, a filler in said rim, a spider, spokes on the spider having curved ends projecting into the said recesses and flush with the outer surface of the rim when applied, and means for securing the curved spoke ends in the recesses of the rim and separating them therefrom.

1,131,889. REINFORCED RAIL-JOINT BAR. BENJAMIN WOLHAUPTER, New Rochelle, and EDWARDS F. SCHERMERHORN, Brooklyn, N. Y., assignors to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed June 10, 1911. Serial No. 632,492. (Cl. 239—9.)



1. A splice bar provided with a central portion having therein an I-beam distribution of metal, and end portions having therein an L-beam distribution of metal.

2. A splice bar provided with a central portion having a horizontally enlarged head and a substantially vertical web connecting with said head, and end portions having downwardly and outwardly inclining webs.

3. A splice bar provided at its central part with an I-beam distribution of metal including a horizontally enlarged head having an outwardly projecting rib which decreases in depth and width toward the relatively thinner ends of the bar.

4. A rail joint bar provided at its central part with a substantially vertical inner face, and at its end portions with inclined inner faces.

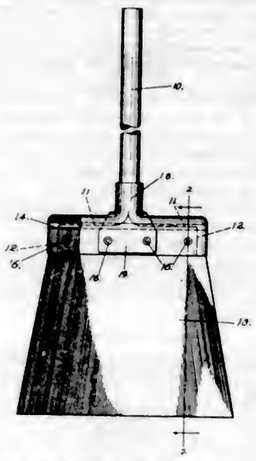
5. A rail joint bar having its central part thickened and its end portions relatively thinner than, and of a different cross section from, the thickened part, the thickness of the bar body being gradually increased from the end portions toward the center by changing the angle of the inner face of the web part of the bar.

[Claim 6 not printed in the Gazette.]

1,131,890. BROOM OR BRUSH. NOAH S. AIRHART, Denison, Tex., and EGBERT H. GOLD, Chicago, Ill. Filed Feb. 19, 1914. Serial No. 819,808. (Cl. 15—21.)

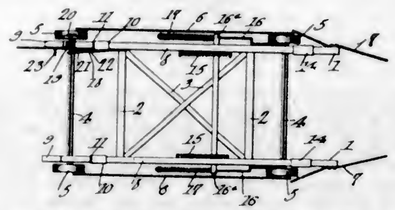
1. In a brush, the combination with a handle comprising a metal pipe split at one end and bent to form a channel-shaped cap, of a brush element, and means for securing the same in said cap.

2. In a brush, the combination with a handle comprising a metal pipe split at one end and bent so as to form a channel-shaped cap having angularly disposed extensions at opposite ends, of a brush element, and means for securing the same in said cap.



3. In a brush, the combination with a handle comprising a metal pipe split at one end and bent to form a channel-shaped cap, of a brush element, plates for securing the same to said cap, and a collar surrounding the lower end of said handle having flanges overlapping said plates, said flanges, plates and brush element being riveted together.

1,131,891. AUTOMOBILE-JACK. ARBANNES S. ALBRIGHT, Gainesville, Fla. Filed Aug. 7, 1914. Serial No. 855,678. (Cl. 254—89.)



1. A jack comprising a truck including a frame and supporting wheels connected eccentrically thereto, and a locking device carried by the frame and coöperable with one of the said wheels for holding the truck in raised position.

2. A jack comprising a truck including a frame and supporting wheels connected eccentrically thereto, a locking device carried by the frame and coöperable with one of the said wheels for holding the truck in raised position, and means connecting the frame and one of the said wheels for returning the truck to lowered position.

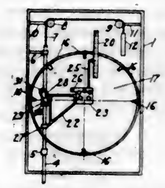
3. In a jack, a truck embodying a frame and supporting wheels connected eccentrically thereto, locking means carried by the frame and coöperable with one of the said wheels for holding the truck in raised position, a pitman pivotally connected to one of the said wheels, the frame having a portion through which the pitman is slidable, and a spring connecting the said portion and pitman and adapted to be brought under tension when the truck is raised.

4. In a jack, a truck embodying a frame having side beams, front and rear axles journaled to the beams, and supporting wheels secured eccentrically to the terminals of the axles, links connecting the supporting wheels at the opposite sides, a locking device carried by one of the said beams, and coöperating with one of the rear wheels for holding the truck in raised position, pitmen pivotally connected to the front supporting wheels, the said beams having outstanding portions through which the pitmen are slidable, and springs connecting the said portions and pitmen and adapted to be brought under tension when the truck is raised.

5. In a jack, a truck embodying a frame and supporting wheels connected eccentrically thereto, means carried by the frame and coöperating with one of the said wheels for locking the truck in raised condition, bars slidable upon the frame and having portions at one end to be engaged by the axle of an automobile, the said frame and bars having coöperating means for raising the bars when they are slid and for limiting the movement of the bars, and springs connecting the said bars and frame for returning the bars to normal position.

[Claim 6 not printed in the Gazette.]

1,131,892. RECORDER. HARLEY C. ALGER, Chicago Heights, Ill. Filed Mar. 2, 1914. Serial No. 821,982. (Cl. 234—10.)



1. In a device of the character described, an indicating member having uniform graduations thereon, means for indicating upon the indicating member and means for producing relative movement between the indicating member and the indicating means, said indicating member being projected away from the line of motion of the indicating means whereby a function of said movement is indicated.

2. In a device of the character described, a recording chart, means for recording thereon and means for producing relative movement between the recording means and the recording chart, said recording chart being projected away from the line of motion of the recording means whereby a function of said movement is recorded.

3. In a device of the character described, a register, a revoluble member, means for receiving motion from the member to operate the register and means for producing relative movement between the member and said motion receiving means, said member being projected away from the line of motion of said motion receiving means whereby a function of said movement is registered.

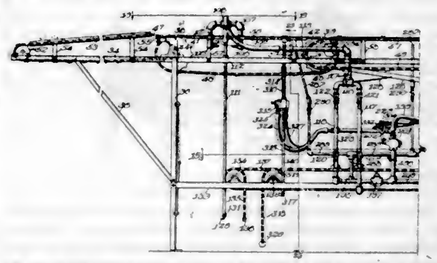
4. In a device of the character described, an indicating member having uniform graduations thereon, means for indicating upon the indicating member and means for producing relative movement between the indicating member and indicating means, said indicating member being curved away from the line of motion of the indicating means whereby a function of said movement is indicated.

5. In a device of the character described, a recording chart, means for recording thereon and means for producing relative movement between the recording means and the recording chart, said recording chart being curved away from the line of motion of the recording means whereby a function of said movement is recorded.

[Claims 6 to 10 not printed in the Gazette.]

1,131,893. MACHINE FOR MAKING LIGHT-MANTLES. ALFRED D. ANTOINE, Chicago, Ill., assignor to Clarence C. Travis, Chicago, Ill. Filed June 5, 1911, Serial No. 631,422. Renewed Feb. 6, 1915. Serial No. 6,636. (Cl. 67—100.)

1. In a machine of the class described, the combination of a series of mantle conveyers arranged end to end and adapted to transfer the mantles from one to the other in succession, a bodily shiftable burner arranged adjacent the line of movement of the mantle by the conveyers for burning off the mantle, an interior calcining burner spaced from the first said burner, an intermediate shaping burner for preliminarily shaping the mantles as they leave the calcining burner, means for intermittently operating said conveyers relative to said burners at relatively different speeds, mechanism for imparting a vertical reciprocating movement to the burners, and means individual to the burners for counterbalancing the burners.



2. In a machine of the class described, the combination of a series of end to end conveyers adapted to transfer progressively from one to the other, means for intermittently advancing the conveyers at different speeds, a bodily shiftable burner arranged adjacent the line of movement of the mantle by the conveyers for burning off the mantle, an interior calcining burner spaced from the first said burner, mechanism individual to the burners for imparting vertical reciprocating movement to the burners, and means controlled by the conveyer advancing means and common to the burner reciprocating mechanism for actuating the latter.

3. In a machine of the class described, the combination of a series of end to end conveyers adapted to transfer the mantles progressively from one to the other, means for intermittently advancing the same at different speeds, a bodily shiftable burner arranged adjacent the line of movement of the mantle by the conveyers, an interior calcining burner also arranged adjacent the line of movement of the mantle, and spaced from the first said burner longitudinally of the line of movement of the mantle, means for imparting vertical reciprocating movement to the burners, means for supplying fuel to the burners, and means for automatically controlling such fuel supply.

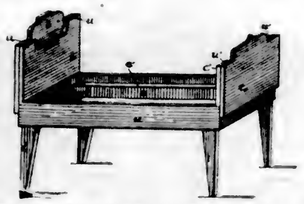
4. In a machine of the class described, the combination of a plurality of variable speed conveyers adapted to transfer mantles from one to the other, means for intermittently advancing the same, a preliminary burner arranged adjacent the line of movement of the mantle by the conveyer for burning off the mantle, an interior calcining burner also arranged adjacent the line of movement of the mantle, and spaced from the first said burner longitudinally of the line of movement of the mantle, a shaping burner positioned between said burning off and calcining burners, means for imparting vertical reciprocating movement to the burners, means for supplying fuel to the burners, means for automatically controlling such fuel supply, and counterbalancing means for the burners.

5. In a machine of the class described, the combination of a plurality of mantle conveyers arranged end to end in alinement and adapted to pass the mantles from one to the next in order, means for intermittently advancing the same at different speeds, a preliminary burner arranged adjacent the line of movement of the mantle by the conveyers for burning off the mantle, an interior calcining burner also arranged adjacent the line of movement of the mantle, and spaced from the first said burner longitudinally of the line of movement of the mantle, a shaping burner positioned between said burning off and calcining burners for shaping the mantles as they leave the burning off means, means for imparting vertical reciprocating movement to the burners, means for supplying

fuel to the burners, mechanism individual to the burners for automatically controlling the supply of fuel to the respective burners, and means common to all of the said fuel supply controlling mechanisms for actuating the latter.

[Claims 6 to 37 not printed in the Gazette.]

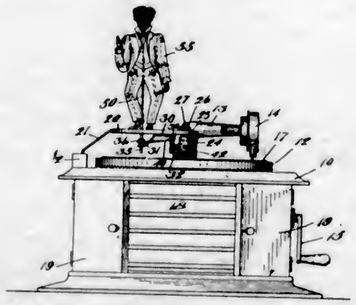
1,131,894. CONVERTIBLE TOY BOX. JOHN S. BAKER, Peekskill, N. Y. Filed Oct. 26, 1914. Serial No. 868,626. (Cl. 46—37.)



1. In a child's toy-box the combination of a box, a two-part cover hinged upon the box, each part of the cover comprising two sections hinged together, the sections joined by irregular lines, and each part foldable upon itself to vertical positions, the box provided with recesses on its under side edges, movable legs pivoted within and foldable within the recesses, the boxing forming the recesses affording support for a mattress.

2. In a box convertible into a bed, a cover for the box to form the head board and foot board of the bed comprising a two-part cover hinged to the ends of the box, each part of the cover comprising two sections hinged together, one of the sections of each part projecting over the ends of the box where hinged as stops when the sections are raised to vertical positions, the inner section of each part folding against its respective section, with its ends resting on the top edge of the box.

1,131,895. DANCING TOY FIGURE. WALTER H. BALCKE, Winchester, Mass. Filed Nov. 2, 1914. Serial No. 869,765. (Cl. 46—40.)



1. In an amusement apparatus, a phonograph, a driven record-disk carrier provided with a disk centering-pin, a dancing toy figure disposed above the record-carrier and inwardly of the periphery thereof, and means connected with said centering-pin for imparting movement to said toy figure, substantially as described.

2. In an amusement apparatus, a phonograph, a driven record-disk carrier provided with a disk centering-pin, a dancing toy figure and toy figure actuating-mechanism including means for attachment to said centering-pin for transmitting motion from said pin to said figure, substantially as described.

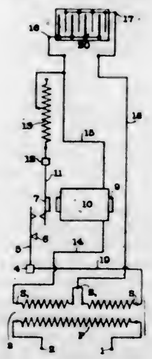
3. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier rotatable abreast of the top of said casing and provided with a disk centering-pin, a dancing toy figure, means attachable to said pin for transmitting motion to said toy figure, and a dancing platform in range for engagement by said figure, and provided with weight means engaging said casing to support said platform, said platform engaging the said means attachable to the centering-pin to hold said platform in position, substantially as described.

4. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier provided with a disk centering-pin, dancing toy mechanism including a toy figure, means for transmitting motion from said centering-pin to said figure, and a platform supported from one end on said casing and radially overhanging said record-disk carrier in striking range with respect to said toy figure and having its remaining end centered coincident with the axis of said centering-pin, substantially as described.

5. In an amusement apparatus, a phonograph, a casing, a driven record-disk carrier provided with a disk centering-pin, a support mounted on said casing, a dancing toy figure, mechanism carried by said support for imparting motion to said toy figure, and means clutched to said centering-pin for actuating said mechanism, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,896. ALTERNATING-CURRENT RECTIFIER. EDWIN C. BALLMAN, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 3, 1911. Serial No. 600,429. (Cl. 171—253.)



1. In an alternating current rectifier, the combination with a source of alternating current, of a transformer, an electro-magnet connected to said source through said transformer, a circuit closer operated by said magnet and having a natural frequency of vibration approximating the frequency of the alternating current but sufficiently different therefrom that the phase of the actual vibration of the armature resulting from the influence of the exciting flux of the magnet and the armature's natural frequency shall be substantially in opposition to the phase of the alternating E. M. F., said circuit closer, when at rest, being in its open position, and a source of direct current connected to supply an uninterrupted current to the electro-magnet when no alternating current is flowing.

2. In an alternating current rectifier, the combination with a source of alternating current, of a transformer connected thereto, an electro-magnet connected to said transformer, a circuit closer operated by said magnet and having a natural frequency of vibration approximating the frequency of the alternating current but sufficiently different therefrom that the phase of the actual vibration of the armature resulting from the influence of the exciting flux of the magnet and the armature's natural frequency shall be substantially in opposition to the phase of the alternating E. M. F., said circuit closer, when at rest, being in its open position, an accumulator to be charged, said accumulator being in circuit with a coil of the electro-magnet and supplying an uninterrupted direct current to said coil when no alternating current is flowing.

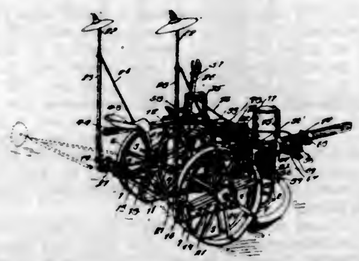
3. In a current rectifying apparatus, the combination with an alternating current source, of a transformer, an electro-magnet, an accumulator to be charged, a charging circuit including said transformer and said accumulator, an armature operated by said electro-magnet for closing said charging circuit and having a natural frequency of vibration approximating the frequency of the alternating current but sufficiently different therefrom that the phase of the actual vibration of the armature resulting from the influence of the exciting flux of the magnet and the armature's natural frequency shall be substantially in opposition to the phase of the alternating E. M. F., and a permanently closed exciting circuit including the accumulator and a winding of the electro-magnet.

4. A current rectifying apparatus comprising the combination with a source of alternating current of a transformer, an electro-magnet connected thereto, a spring-mounted armature operated by said magnet, a second spring in electrical connection with the transformer and out of contact with said armature when the armature is at rest but positioned to make electrical contact therewith at intervals when the armature is vibrating.

5. A current rectifying apparatus comprising the combination with a source of alternating current, of a transformer, an electro-magnet connected thereto, a spring-mounted armature for said magnet having a natural frequency of vibration less than the frequency of the alternating current, a second spring connected to the source of alternating current and out of contact with said armature when the armature is at rest but positioned to make electrical contact therewith at intervals when the armature is vibrating.

[Claims 6 to 13 not printed in the Gazette.]

1,131,897. AGRICULTURAL IMPLEMENT. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor, by mesne assignments, to Avery Company, a Corporation of Illinois. Filed Mar. 6, 1908. Serial No. 419,434. (Cl. 111—5.)



1. The combination of a main frame, two transversely opposite ground wheels about the axis of which the frame is free to swing, a front frame vertically movable with respect to the main frame, soil engaging devices carried by the front frame, guiding devices for holding the front frame in parallelism during vertical movement with respect to the main frame, and a forward extending tongue rigidly connected with the front frame and serving to control the swinging of the two frames about the axis of the ground wheels.

2. The combination of a main frame, two transversely opposite ground wheels about the axis of which the frame is free to swing, a front frame vertically movable with respect to the main frame, soil engaging devices carried by the front frame, parallel-motion links connecting the main frame with the front frame, and a forward extending tongue rigidly connected with the front frame and serving to control the swinging of the two frames about the axis of the ground wheels.

3. The combination of a main frame, two transversely opposite ground wheels about the axis of which the frame can swing, a front frame vertically movable with respect to the main frame, soil engaging devices carried by the front frame, two transversely separated sets of parallel sets of parallel-motion links connecting the main frame with the front frame, means for holding one link of one set in parallelism with the corresponding link of the other set, whereby the front frame is locked against transverse tilting, and a forward extending tongue rigidly connected with the front frame and serving to control the swinging of the two frames about the axis of the ground wheels.

4. The combination of a main frame, two transversely opposite ground wheels about the axis of which the frame is free to swing, a front frame vertically movable with respect to the main frame, soil engaging devices carried by the front frame, parallel-motion links connecting the main frame with the front frame, the rear pivots of all of the links being in one transverse vertical plane and the forward pivots of all of the links being in another transverse vertical plane, and a forward extending tongue rigidly connected with the front frame and serving to control the swinging of the two frames about the axis of the ground wheels.

5. The combination of a main frame, two transversely opposite ground wheels, a transverse axle about which the frame is free to swing, a front frame vertically movable with respect to the main frame, soil engaging devices carried by the front frame, two transversely separated sets of parallel-motion links connecting the main frame with the front frame, one link of each set being pivoted at its rear on the axle, and a forward extending tongue rigidly connected with the front frame and serving to control the swinging of the two frames abont the axle.

[Claims 6 to 25 not printed in the Gazette.]

1,131,898. CLUTCH MECHANISM FOR PLANTERS. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Original application filed Mar. 6, 1908, Serial No. 419,434. Divided and this application filed June 21, 1911. Serial No. 634,510. (Cl. 192—6.)



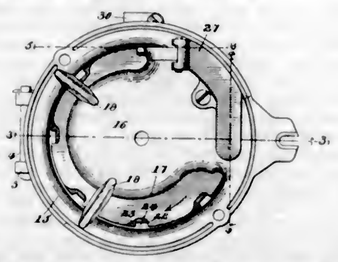
1. In a clutch for a planter or other mechanism, the combination of a rotatable disk-like driver provided with a series of notches in its outer periphery, a power transmitting disk mounted adjacent the driver for rotation about an axis coincident with the axis thereof, a lever pivoted between its ends to the disk for movement about an axis parallel to the axis of rotation and provided at one end with means for engaging one of the notches of the driver, the location of the said pivotal axis being such that the said engaging means when engaged with a notch in the rotating driver is drawn into the notch by the tension in the lever, a spring between the lever and the disk for moving the lever into engagement with the driver, a lug for engagement with the free end of the lever to normally maintain the means at the other end out of engagement with the driver, means for moving the lug out of operative position to permit the lever to engage the driver under the action of the spring, and means for returning the lug to operative position to cause the lever to be disengaged from the driver as the disk is rotated.

2. In a clutch for a planter or other mechanism, the combination of a rotatable disk-like driver provided with a series of notches in its outer periphery, a power transmitting disk mounted adjacent the driver for rotation about an axis coincident with the axis thereof, the disk having a notch in its periphery, a lever pivoted between its ends to the disk for movement about an axis parallel to the axis of rotation and provided at one end with means for engaging one of the notches of the driver, the location

of the said pivotal axis being such that he said engaging means when engaged with a notch in the rotating driver is drawn into the notch by the tension in the lever, a spring between the lever and the disk for moving the lever into engagement with the driver, a lug for engagement with the free end of the lever to normally maintain the means at the other end out of engagement with the driver and for engagement with the notch in the disk to lock the said disk against rotation, means for moving the lug out of operative position to release the disk and to permit the lever to engage the driver under the action of the spring, and means for returning the lug to operative position to cause the lever to be disengaged from the driver as the disk is rotated and to cause the disk to be locked against rotation.

3. In a clutch for a planter or other mechanism, the combination of a rotatable disk-like driver provided with a series of notches in its outer periphery, a power transmitting disk mounted adjacent the driver for rotation about an axis coincident with the axis thereof, the disk having a notch in its periphery, a lever pivoted between its ends to the disk for movement about an axis parallel to the axis of rotation and provided at one end with means for engaging one of the notches of the driver, the location of the said pivotal axis being such that the said engaging means when engaged with a notch in the rotating driver is drawn into the notch by the tension in the lever, a spring between the lever and the disk for moving the lever into engagement with the driver, a lug for engagement with the free end of the lever to normally maintain the means at the other end out of engagement with the driver and for engagement with the notch in the disk to lock the said disk against rotation, means for moving the lug out of operative position to release the disk and to permit the lever to engage the driver under the action of the spring, and means for returning the lug first into engagement with the periphery of the disk in position to engage the lever to cause it to be disengaged from the driver as the disk is rotated and for subsequently moving the lug into the notch of the disk, thereby locking the disk against rotation and moving the lever farther out of engagement with the driver.

1,131,899. SEED-SEPARATING MECHANISM FOR PLANTERS. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Original application filed Mar. 6, 1908, Serial No. 419,434. Divided and this application filed June 21, 1911. Serial No. 634,511. (Cl. 111—6.)



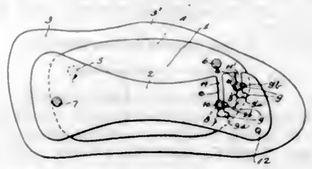
1. In a seed separating mechanism for a corn planter, the combination of a seed hopper, a horizontal rotary seed plate having a series of cells in its periphery each adapted to hold a single kernel of corn in vertical edgewise position, a cut-off device arranged to coöperate with the seed plate at the upper surface thereof, an annular wall surrounding the plate and serving to hold the seeds in vertical edgewise positions in the cells, the wall having an opening adjacent the cut-off device, and a resiliently held closure for the opening in the wall adapted to be moved when an unusually large seed is forced into a cell by the cut-off device.

2. In a seed separating mechanism for a corn planter, the combination of a seed hopper, a horizontal rotary seed plate having a series of cells in its periphery each adapted to hold a single kernel of corn in vertical edgewise position, a cut-off device arranged to coöperate with the seed plate at the upper surface thereof, an annular wall surrounding the plate and serving to hold the seeds in vertical edgewise positions in the cells, the wall having an opening adjacent the cut-off device and a section beyond the opening separated from the plate by a greater distance than is the section in advance of the opening, and a resiliently held closure for the opening in the wall adapted to be moved when an unusually large seed is forced into a cell by the cut-off device.

3. In a planter, the combination with the seed hopper, of the seed plate having seed cells formed around its edge, a protecting hood between the seed cells and upper receptacle part of the seed hopper for a part of the circumference of the seed plate, a cut-off mechanism where the seed plate centers under the hood yieldable vertically and horizontally.

4. In a seed separating mechanism for a planter, the combination of a hopper, a hopper base, a rotary seed plate, seed cells formed in the plate, one wall of each cell being formed by a non-rotating part of the hopper base, one section of which is yieldable outward from the centers of the cells, and cut-off and knock-out devices arranged at points adjacent the yieldable section.

1,131,900. ARCH-SUPPORT. ROBERT E. BELCHER, Chicago, Ill., assignor to B. & B. Manufacturing Company, a Corporation. Filed Feb. 11, 1914. Serial No. 817,989. (Cl. 36—71.)



1. An arch support comprising a bowed arch plate, a supplemental plate below the arch plate and both plates being of spring metal and pivoted together at their toe ends, the supplemental plate being longer than the arch plate to form ample bearing surface for the ends of the arch plate and said supplemental plate being also bowed but to less extent than said arch plate, and a pin extending from one of said plates at the heel end thereof and having a longitudinal slot in the other plate for receiving said pin, said slot and pin interlocking the heel ends of the plates but allowing relative longitudinal movement of the plates.

2. An arch support comprising a bowed arch plate and a bowed supplemental plate below said arch plate, said plates being pivoted at one end to enable such plates to be swung to an angle with each other, both plates being of spring material and the supplemental plate being bowed to less extent than the arch plate, and means affording detachable connection with the other ends of the plates and arranged to allow relative longitudinal movement of the plates at such connection during walking.

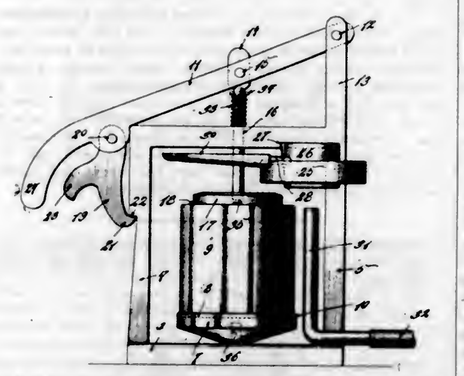
3. An arch support comprising a bowed arch plate and a supplemental plate, both plates being of spring metal and the supplemental plate being also bowed but to less degree than the arch plate, the toe ends of said plates being pivoted together to allow swing of said plates to an angle with each other in order that the plates may be individually readily bent to adjust their curvature, and latch mechanism for detachably securing the heel ends of the plates together and arranged to allow limited relative longitudinal movement of said plates at such latch connection during walking.

4. An arch support comprising a bowed arch plate bowed longitudinally and curved transversely to fit the arch of the foot, a supplemental plate below the arch plate longer than the arch plate to extend beyond the ends of the arch plate and to form a continuation thereof, both plates being of spring metal and the supplemental plate being also bowed but to less degree than the arch plate, the plates being pivoted at one end to allow swing thereof to an angle with each other in order that each plate may be readily bent to adjust the longitudinal curvature thereof, and latching means for detachably securing the other ends of the plates together in parallel position, said latching means being arranged to allow limited relative longitudinal movement.

5. An arch support comprising an arch plate arched longitudinally and curved transversely to fit the instep of the foot, a supplemental plate below the arch plate longer than the arch plate and also arched upwardly but to less degree than the arch plate, both plates being of spring metal and connected at one end by a pivot pin tending to hold the plates vertically together, said pivot pin allowing the plates to be swung away from each other in order that either plate may be readily bent to adjust its arch curvature, and a pin extending from the other end of one of the plates, and the corresponding end of the other plate having an opening for receiving the pin to lock the plates together.

[Claims 6 to 13 not printed in the Gazette.]

1,131,901. HOUSEHOLD CAN-SEALER. ADOLPH BEPLER, St. Louis, Mo. Filed July 20, 1914. Serial No. 852,130. (Cl. 113—102.)

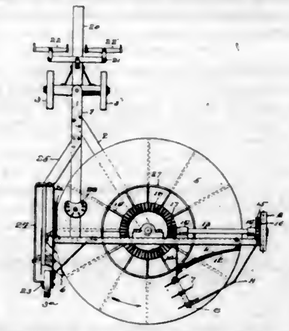


1. The improved household can sealer, comprising a base, vertical frame bars mounted on said base, a can holder rotatably mounted upon said base, a handle lever pivoted at one end to one of said frame bars, a plunger having its upper end pivotally connected to said hand lever, a suitable guide for said plunger, a spring for elevating said plunger, a sealing disk rotatably connected to the lower end of said plunger, and a pawl pivotally connected to said hand lever and provided with a hook for automatically engaging a projection on one of said frame bars when said lever is depressed.

2. In a household can-sealing machine, the combination with the machine-frame, of a support for the cans while being sealed, and a ladle-holding frame projecting horizontally from the said machine-frame at a point in a plane above that occupied by the can while mounted on the said can-support, said ladle-holding frame having alined bearings to receive and hold the trunnions of a ladle while sealing-wax is being poured from said ladle onto the can during the sealing thereof.

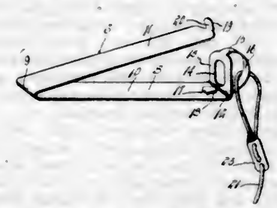
1,131,902. ROTARY ROAD-GRADER. CRENO P. BETTENGA, Wadena, Minn. Filed Nov. 7, 1913. Serial No. 799,723. (Cl. 37—17.)

In a rotary road grader, an L-shaped frame supported on carrying wheels and a traction wheel, a rotary table mounted to revolve on the frame, means positively operated by the traction wheel to rotate the rotary table, a plow arranged to deposit earth upon the rotary table, a scraper arranged to contact with the upper surface of the rotary table to discharge earth, and rotary disintegrating



cutters independently mounted on the frame in contact with the upper surface of the rotary table between the plow and the scraper.

1,131,903. MANE-HOLDER. DAVID BOTH, St. Johns, Mich. Filed May 11, 1914. Serial No. 837,850. (Cl. 54—1.)



In a mane holder, a clamp comprising a single strip of material bent upon itself to form spaced, substantially parallel arms, an angularly extending tongue formed on the free end of one of said arms, an angular extension formed on the other of said arms and provided with an opening for the passage of said tongue, said last named arm being also provided with a slot adjacent such angular extension, and a reduced portion extending from said angular extension, reflexly bent and having its end passing through the slot in said second named arm adjacent said angular extension.

1,131,904. NOISELESS STAMPING-PAD. JOHN F. BUCKIE, Chicago, Ill. Filed Feb. 21, 1910. Serial No. 545,175. (Cl. 101—75.)

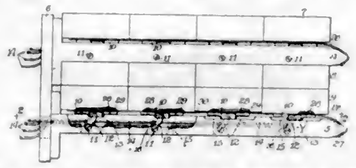


1. A stamping pad adapted to be placed upon the surface of a desk, table or the like and comprising a flat, flexible, molded body of glutinous material, a flexible protective covering impervious to the sticky ingredients of the pad extending over and cemented to the side faces and edges thereof, and an inclosing frame formed of a thin metal strip extending around the edges of the pad, the soft, glutinous body of the pad being thicker than the width of said frame to prevent contact of said frame with the desk, table or the like whereon the pad is placed, substantially as described.

2. A stamping pad adapted to be placed upon the surface of a desk, table or the like and comprising a flat, flexible, molded body of glutinous material, a flexible cov-

ering cemented to the surface of said pad, an inclosing frame extending around the edge of said pad, the body of the pad extending below said frame, said pad having a recess in a portion of its upper face adjacent one edge, and an inking pad removably fitted in said recess, substantially as described.

1,131,905. BRICK-SETTING MACHINE. MARTIN F. BULTGE, Lansing, Ill., assignor to National Brick Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 4, 1914. Serial No. 860,147. (Cl. 57—9.)



1. In a brick setting machine, a finger, grip plates on said finger, means for independently actuating said grip plates, common means for alining the edges of said grip plates, said means being flexible to allow of independent individual gripping action by each of said grip plates.

2. In a brick setting machine, a finger, grip plates on said finger, means for independently moving said plates to exert a gripping action, said finger and grip plates being adapted to be thrust between two rows of bricks, and common means for guiding the edges of the grip plates.

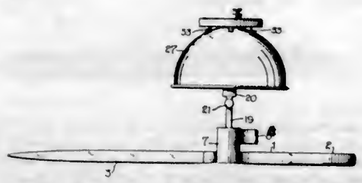
3. In a brick setting machine, a finger having a rounded front edge, a grip plate thereon, a strap secured to said finger adjacent said rounded front edge, and passing over the outside face of said grip plate, said strap having sliding engagement with said grip plate, and means for moving said grip plate to gripping position.

4. In a brick setting machine, a finger, grip plates on said finger, means for independently actuating said grip plates, said finger having a rounded front edge, a strap secured adjacent said front edge, and having sliding engagement with said grip plates, said strap being flexible to allow of independent movement of said grip plates.

5. In a brick setting machine, a finger, grip plates mounted on said finger, said plates being adjustable laterally of the surface of said finger to cause a gripping action, means for independently adjusting said grip plates, a spring metal strap attached to the front end of said finger, slots in said strap adjacent the gripping plates, and rivets secured to said plates, said rivets passing through said slots.

[Claims 6 and 7 not printed in the Gazette.]

1,131,906. SUPPORT. MICHAEL A. BURKE, Kingman, Ariz. Filed Oct. 27, 1913. Serial No. 797,670. (Cl. 67—26.)



1. A device of the class described including a body member having an opening, a standard having its lower end arranged therein, a hook member formed at the upper end of said standard, a lug formed upon one side of the standard and provided with an opening, a second standard having its lower end removably mounted within said opening, and a cover removably mounted upon the second standard, as and for the purpose set forth.

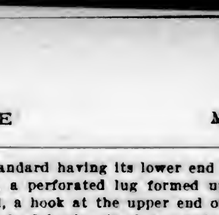
2. A device of the class described including an elongated body having a handle, said body being provided with an opening, a standard having its lower end mounted within said opening, a perforated lug formed upon one side of said standard, a hook at the upper end of said standard, a second standard having its lower end arranged within the perforated lug, a frame carried by the second standard and adapted to receive the first standard, a cover having a socket formed at one side and removably mounted upon the second standard, as and for the purpose set forth.

3. A device of the class described including an elongated body having a handle at one end, a shank at the other end, a ring having a sleeve removably mounted upon the shank portion, a resilient bar formed integral with the sleeve and having an opening in its outer end, and means carried by the body and adapted for engagement within said opening to retain the sleeve in position upon said shank.

4. A device of the class described including a body having a handle at one end, a tapering shank at the other end, said body being provided at one side with an opening, a standard having its lower end arranged within said opening, a perforated lug arranged upon one side of the standard, a hook member at the upper end of the standard, a second standard having its lower end arranged within the perforated lug, a frame carried by the second standard and inclosing the first standard, a set screw carried by the second standard and engaging the first standard, a cover provided with a socket mounted upon the second standard and a set screw carried by said socket and adapted to engage the standard, as and for the purpose set forth.

5. A device of the class described including an elongated body, an enlarged portion formed at one side thereof, the outer end of which is bifurcated to form spaced arms, said enlarged portion having a socket formed therein, a split retaining thimble having an extension from one side of the slit, said extendsion being bent upon itself to form a sleeve adapted for insertion in the socket, thence extending rearwardly to provide an arm adapted to be inserted between the above mentioned spaced arms, and pins inserted through the arms and into the sleeve and socket extension to retain said thimble in position.

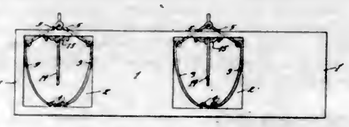
1,131,907. STALK-CUTTER. DUDLEY DON CARNES, Lott, Tex. Filed Mar. 21, 1914. Serial No. 826,287. (Cl. 55—61.)



The herein described stalk cutter including spaced hanger bars adapted to be secured at one of their ends upon opposite sides of a beam, the other ends of said bars depending in parallel relation to each other and being each provided upon its outer face with spaced rectangular sleeves, supporting bars loosely engaged in said sleeves for vertical movement and capable of being drawn upwardly out of the sleeves to remove said bars from connection with the hanger bars, a set screw carried by one of the sleeves of each hanger bar to clamp the supporting bar associated therewith in its adjusted position against the outer face of the hanger bar, and a rotatable stalk-cutter mounted in the lower ends of said supporting bars.

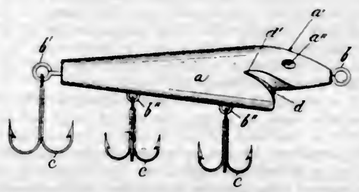
1,131,908. ANIMAL-TRAP. GUNNAR CLAESON, Superior, Wis. Filed June 24, 1914. Serial No. 846,978. (Cl. 43—27.)

1. In an animal trap, a cage having openings in its lateral faces, curved wires disposed against the sides of said openings, keepers connecting the lower extremities of said wires, links connecting the upper ends of said wires and projecting through the roof of said cage, an angular rod pivoted to the roof of said cage, carrying said links, a trigger terminally secured to the roof of said cage beneath said rod and bait-carrying means releasably engaging said trigger and depending into the interior of said cage.



2. In an animal trap, a cage provided with openings in its lateral faces, curved wires arranged within said openings, keepers disposed within said openings connecting the adjacent ends of said wires, a trigger, flexible means connecting said trigger and the said wires whereby the latter members may be moved toward each other with great force and bait-carrying means within said cage for normally retaining said trigger in set position.

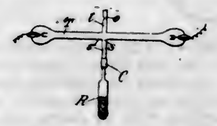
1,131,909. FISH-LURE. FLORIAN L. CLARKSON and OSCAR P. HUMMON, Leipsic, Ohio, assignors to The Enterprise Manufacturing Company, Akron, Ohio, a Corporation of Ohio. Filed Aug. 1, 1913. Serial No. 782,435. (Cl. 43—30.)



1. An artificial bait or lure comprising a one-piece body portion of buoyant material having the lower front end thereof transversely rabbeted with the front end of the lower portion terminating a considerable distance rearwardly of the front end of the upper portion to form a shoulder, said front upper and lower portion simulating the upper and lower jaws of a natural fish, said body portion at the sides thereof further provided with rearwardly and upwardly-inclined grooves extending from the corners of said shoulder and with their opposite termini widely separated, the side walls of said grooves inclined toward each other to constitute planes for assisting in the diving operation of the bait.

2. An artificial bait or lure comprising a one-piece body of buoyant material provided near one end with an open-ended recess of proper formation and of sufficient depth to imprison or pocket a quantity of air therein during the diving operation, the walls of said cavity being so disposed with respect to the outer face of the body portion of the bait as to permit the escape of air when said bait is below the surface of the water and in an approximately horizontal position.

1,131,910. VACUUM DISCHARGE-TUBE FOR LIGHTING PURPOSES. GEORGES CLAUDE, Paris, France. Filed Feb. 27, 1911. Serial No. 611,216. (Cl. 176—122.)



1. In a manufacture of neon vacuum discharge tubes for lighting purposes in which approximately pure neon is

introduced to the tube under reduced pressure, the improvement which consists in connecting the tube to a device into which the molecules of the atmosphere of the tube can pass in succession by diffusion and which contains material capable of absorbing the impurities contained in the neon, and then passing an intermittent current through the tube.

2. In the manufacture of neon vacuum discharge tubes for lighting purposes in which the gases contained in the tube are exhausted by a vacuum pump and in which approximately pure neon is introduced to the tube under reduced pressure, the improvement which consists in connecting the tube to a device into which the molecules of the atmosphere of the tube can pass in succession by diffusion and which contains material capable of absorbing the impurities contained in the neon, then passing an intermittent current through the tube, whereby the neon is purified by the slow action of diffusion and by the forcing of the gases into the absorption device due to the expansion of the gases by the electric current.

3. In the manufacture of neon vacuum discharge tubes for lighting purposes in which the gases contained in the tube are exhausted by a vacuum pump and in which approximately pure neon is introduced to the tube under reduced pressure, the improvement which consists in connecting the tube to a cooled carbon-containing receptacle maintained at a very low temperature for absorbing by diffusion the impurities contained in the neon, then passing an intermittent current through the tube whereby the impurities in the neon and those liberated from the electrodes and the walls of the tube are absorbed by the slow action of diffusion and by the forcing of the gases into the absorption device due to the expansion of the gases by the electric current.

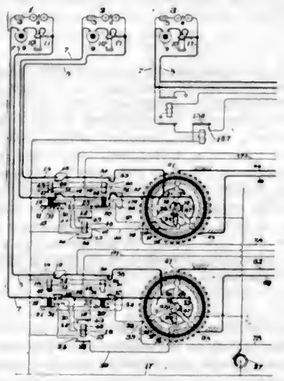
4. In the manufacture of neon vacuum discharge tubes for lighting purposes in which the gases contained in the tube are exhausted by a vacuum pump and in which approximately pure neon is introduced to the tube under reduced pressure, the improvement which consists in connecting the tube to a device into which the molecules of the atmosphere of the tube can pass in succession by diffusion and which contains material capable of absorbing the impurities contained in the neon, then passing an intermittent current through the tube, whereby the neon is purified by the slow action of diffusion and by the forcing of the gases into the absorption device due to the expansion of the gases by the electric current, and finally separating the tube from the absorption device without destroying the vacuum.

5. In the manufacture of neon vacuum discharge tubes for lighting purposes in which the gases contained in the tube are exhausted by a vacuum pump and in which approximately pure neon is introduced to the tube under reduced pressure, the improvement which consists in connecting the tube to a cooled carbon-containing receptacle maintained at a very low temperature for absorbing by diffusion the impurities contained in the neon, then passing an intermittent current through the tube whereby the impurities in the neon and those liberated from the electrodes and the walls of the tube are absorbed by the slow action of diffusion and by the forcing of the gases into the absorption device due to the expansion of the gases by the electric current, and finally separating the tube from the absorption device without destroying the vacuum.

1,131,911. CALL-DISTRIBUTING TELEPHONE SYSTEM. HENRY P. CLAUSEN, Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 26, 1911. Serial No. 635,296. (Cl. 179—27.)

1. In a telephone system, the combination with an operator's connective means controlled by a connecting operator, of a telephone line extending from a sub-station to the central office and permanently terminating in a connective means at said connecting operator's position, a second telephone line extending from a sub-station to the central office and automatic distributing means for extending it to any one of a plurality of operators' positions,

and means to prevent said line from being extended to said operator's position when an unanswered call exists upon the other line.



2. In a telephone system, the combination with an operator's connective means controlled by a connecting operator, of a telephone line extending from a sub-station to the central office and permanently terminating in contacts at said connecting operator's position, a second telephone line extending from a sub-station to the central office and means for automatically extending it to any one of a plurality of operators' positions, said means acting to extend said line to another operator's position when an unanswered call exists on the first telephone line.

3. In a telephone system, the combination with telephone lines extending from subscribers' stations to operators' positions at a central office, other telephone lines extending from subscribers' stations to the central office and trunks extending to said operators' positions, and automatic means for associating any of said trunks with any of said telephone lines, and further means to prevent the association of a line and a trunk extending to an operator's position at which an unanswered call exists upon one of the first lines or one of the trunks.

4. In a telephone system, the combination with undistributed telephone lines and trunks leading to the same operator's group, other telephone lines and means for variously connecting them with said trunks, and means for preventing the use of said trunks when an unanswered call exists upon an undistributed telephone line extending to said group.

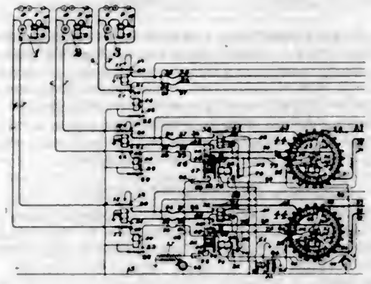
5. In a telephone system, the combination with undistributed telephone lines and trunks leading to the same operator's group, other telephone lines and means to connect them with said trunks, and means for preventing the use of said trunks when an unanswered call exists upon an undistributed telephone line or upon a trunk extending to said group.

[Claims 6 to 21 not printed in the Gazette.]

1,131,912. TELEPHONE SYSTEM. HENRY P. CLAUSEN, Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 11, 1912. Serial No. 682,891. (Cl. 179—27.)

1. In a telephone exchange system, the combination with a plurality of telephone lines, of a line and cut-off relay for each of said lines, an intermediate distributing frame, terminals on said intermediate distributing frame connected to the contacts of the line and cut-off relays, contacts of said intermediate frame permanently connected to fixed answering jacks and lamps, distributer switches, contacts connected thereto, and jumper wires for associating any line either with a distributer switch or with a fixed answering jack and lamp.

2. In a telephone system, the combination with telephone lines, of a line relay and a cut-off relay for each line, answering and multiple jacks for each line, an intermediate distributing frame through the contacts of which said lines are associated with said answering jacks, said multiple jacks being connected with the lines through conductors independent of said intermediate frame contacts, a distributer switch for extending its associated line to idle operators' positions, said distributer switch being connected with its associated line through contacts of said intermediate frame, whereby the connection of the distributer switch may be changed from one line to another without changing the connection between the line and its multiple jacks.



3. In a telephone system, the combination with fixed and automatically distributed telephone lines, of a connecting rack through which the conductors of all of said lines pass, line and cut-off relays situated upon the line side of said connecting rack and being the same for both fixed and distributed telephone lines.

4. In a telephone system, the combination with a pair of telephone lines, of a line and cut-off relay for each of said lines, a line lamp for one of said lines included in the circuit completed by the actuation of the line relay for that line, a distributer switch for the other line, and a motor control relay for the distributer switch included in the circuit completed by the actuation of the line relay of the second line, and means for readily connecting the motor control relay with the first line relay, or the line lamp with the second line relay.

5. In a telephone system, the combination with a plurality of telephone lines, of a line and a cut-off relay for each line, an intermediate distributing frame, conductors extending from said line and cut-off relays to the contacts of said intermediate distributing frame, distributer switches, controlling relays associated therewith adapted to be connected with any of said telephone lines by means of jumpers extending to the contacts of said lines upon said intermediate distributing frame.

[Claims 6 to 16 not printed in the Gazette.]

1,131,913. COMPRESSED-AIR MOTOR-MACHINE. CHARLES COOPER, Kansas City, Mo., assignor of one-third to Charles A. Gross, Kansas City, Mo. Filed Jan. 2, 1913. Serial No. 739,909. (Cl. 230—35.)



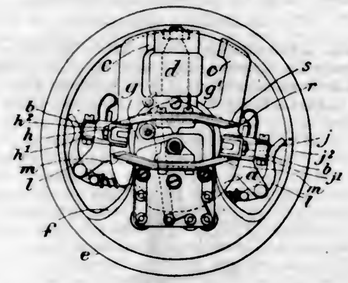
1. The combination with a crank shaft, of a power cylinder having intake and exhaust ports and comprising a piston and its rod, means for supplying motive fluid to the cylinder, a lever having pivotal mounting at one end and operative connection with the piston rod at its opposite end, a crank shaft, a rod connecting the shaft with an intermediate point on said lever, a valve for controlling intake to the cylinder and operatively connected with the piston rod, and a valve, for controlling exhaust from the cylinder, operatively connected with said lever.

2. The combination with a crank shaft, of a power cylinder having intake and exhaust ports, and comprising a piston and its rod, apertured slides adapted to operate in unison for opening and closing opposite ports in the reverse order, means for supplying motive fluid to the cylinder, a lever having pivotal mounting at one end and operatively connected with the piston rod at its opposite end, a rod connecting the crank shaft with an intermediate point on said lever, pivotally mounted bars connected with said slides, and links operatively connected with said bars and with the lever for actuating said slides.

3. In a device of the character described, a storage cylinder for containing a motive fluid, a power cylinder, a pipe leading from said storage cylinder to one end of said power cylinder, a branch on said pipe communicating with the other end of said power cylinder, a piston in said cylinder, a piston rod on said piston, a lever pivotally mounted at one end and to the piston rod at the other, and valve mechanism operable from said lever for controlling the flow of motive fluid through said pipe and branch.

4. In a device of the character described, a storage cylinder for containing a motive fluid, a plurality of power cylinders, pipes leading from the storage cylinder to one end of each of the power cylinders, a branch on each of said pipes communicating with the opposite ends of each of said power cylinders, valves for simultaneously controlling the flow of motive fluid through said pipes, a foot pedal for simultaneously actuating said valves, a piston in each of said power cylinders, piston rods on said pistons, levers pivotally mounted at one end and to said rods at the other, a second set of valves slidably mounted adjacent said power cylinders and adapted to alternately open and close said pipes and branches, and means for connecting said second valves with said lever.

1,131,914. ELECTRICAL INSTALLATION FOR LIGHTING, HEATING, AND VENTILATNG RAILWAY-CARRIAGES AND SIMILAR PURPOSES. ALFRED HENRY DARKER, Blackheath, England, assignor to J. Stone & Company Limited, Deptford, England. Filed Nov. 5, 1912. Serial No. 729,581. (Cl. 171—313.)



1. In a reversible dynamo, an automatic switch gear comprising, a rocking support, switch parts thereon, contacts supported in the paths of said switch parts, a part revolving with the dynamo armature and adapted to move said switch parts against certain of said contacts, friction engaging means between said support and revolving part, and electromagnetic means operative upon said rocking support in unison with said frictional engaging means and adapted to give said support an additional movement for effecting the closing of a circuit.

2. In a reversible dynamo, an automatic switch gear comprising, a rocking support, commutator brush holders on said support, brushes in said holders, switch parts on said support, contacts mounted in the paths of respective switch parts, and electromagnetic means operative upon said support in the same direction as said support is operated by the engagement of the brushes with the commutator.

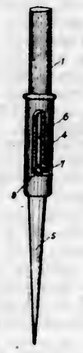
3. In a reversible dynamo, an automatic switch gear comprising, a brush rocker, switch parts thereon connected with respective brushes, coöperative switch contacts in the paths of said switch parts in different relative positions so that certain of said parts and contacts come into engagement upon the initial rocking of said brush rocker in either direction, and electromagnetic means operative upon said rocker to bring about the complete engagement of switch parts and contacts.

4. In a reversible dynamo, a rocking brush holder, reversing switch parts carried thereon and connected with respective brushes, switch brushes variably arranged in the paths of said switch parts and electromagnetic means operative upon said holder in the same direction as said holder is turned by the engagement of its brushes with the commutator in either direction of running, and circuits successively closed by said switch parts and brushes.

5. In a reversible dynamo, a rocking reversing switch arranged to rock in one direction or the other according to the direction of running, flexible switch brushes variably arranged so that certain of them contact as soon as the switch is rocked by the revolution of the armature, and electromagnetic means operative upon said rocking switch in either direction of running, a circuit closed by the brushes making the first contact, the windings of said electromagnetic means being in said circuit.

[Claims 6 to 12 not printed in the Gazette.]

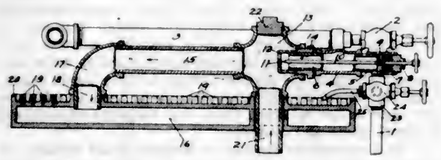
1,131,915. SURVEYOR'S FLAGPOLE. WILLIAM ALBERT DAVIDSON, Vancouver, British Columbia, Canada. Filed Feb. 13, 1914. Serial No. 818,535. (Cl. 189—28.)



1. In a surveyor's flagpole, the combination with a staff member, of a socket member the lower end of which is substantially spike shape in formation, said socket member being provided with one or more vertical bayonet slots, and means engaging said slots and said staff whereby the staff may be slidably retained in the said socket and its disengagement therefrom prevented, said means being adapted to permit vertical reciprocatory movement of the staff within the socket so that the spike shaped lower end of the socket may be driven into the earth at each downward movement of the staff, and means provided at the lower end of said slots whereby the staff may be held in fixed position.

2. In a surveyor's flagpole, the combination with a staff member, of a socket member the lower end of which is substantially spike shape in formation, said socket member being provided with a pair of bayonet slots and adapted to be slidably engaged on the said staff member, means engaging said slots and said staff whereby the staff may be moved upwardly and downwardly within the socket without disengagement therefrom, and means for locking the staff in said socket at its lowermost position, as and for the purpose specified.

1,131,916. OIL-BURNER. OMAR L. DAY, Portland, Oreg. Filed Oct. 4, 1913. Serial No. 793,386. (Cl. 158—65.)



1. In a burner of the character referred to, in combination, a pipe section constituting a gasifying chamber into which oil is discharged, a hollow burner body beneath said pipe section and having a top adapted to receive oil thereupon for generating purposes, with combustion teat projecting upwardly therefrom through any oil thereupon and communicating with the interior of said burner body, and means connecting said pipe section and the gasifying chamber therein with the interior of said hollow burner body, whereby the gas from said gasifying chamber is discharged into said burner body and through said teats for combustion.

2. In a burner of the character referred to, in combination, a pipe section constituting a gasifying chamber with means for supplying oil thereto, a second pipe section constituting a superheating chamber with means for admitting air thereto and into which said gasifying chamber discharges, a hollow burner body beneath said pipe sections and having a top adapted to receive oil thereupon for generating purposes, and provided with a series of combustion teats projecting upwardly therefrom through any oil thereupon and forming combustion outlets from said burner body, and means connecting said superheating chamber with said burner body, whereby the gas from said chamber is discharged into said burner body and through said combustion teats, for the purpose referred to.

3. An oil burner of the character referred to, comprising in combination a pipe section constituting a gasifying chamber, a cross open at one side to admit air and constituting a mixing chamber, a needle valve mechanism connecting said gasifying chamber with said mixing chamber, a pipe section connected with said cross and constituting a superheating chamber, and into which the mixture from said mixing chamber is discharged, a hollow burner body underlying said gasifying, mixing and superheating chambers and into which said superheating chamber discharges, said burner body having a flange around its upper edge and a series of teats opening therefrom and constituting combustion outlets, and means for supplying a quantity of oil for generating purposes on to the top of said burner body and around said teats, substantially as referred to.

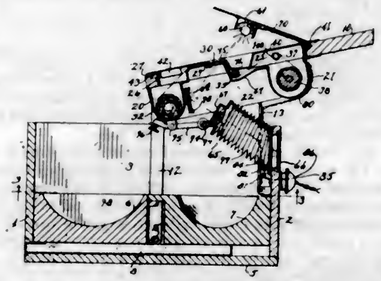
4. In a vapor or gas burner, a burner body of hollow box-like construction provided with an open pan-like top having a series of upwardly projecting outlet members formed integrally therewith, said top being constructed to receive therein oil for generating purposes, means for supplying vapor or gas to the interior of said body, and means for supplying oil or the like to the pan-like top thereof.

5. In an oil burner of the character referred to, a burner body of hollow construction having a series of combustion teats projecting upwardly therefrom and communicating therewith, and a flange around its upper outer edge whereby to constitute the top of said burner body a generating pan, said burner body having an opening formed therethrough but not communicating with the interior thereof, substantially as and for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]

1,131,917. AUTOGRAPHIC REGISTER. WILLIAM L. DEMING, Salem, Ohio. Filed Mar. 28, 1913. Serial No. 757,305. (Cl. 235—5.)

1. The combination, with a transparent support for a record strip and means for holding one surface of the strip on the support with its opposite surface exposed for receiving writing, of an illuminator for throwing light through the strip support, and a screen adapted to display the image produced by such rays.



2. The combination, with a transparent support for a record strip and means for holding one surface of the strip on the support with its opposite surface exposed for receiving writing, of a lamp, a mirror, and a display screen coördinated to project on the screen the matter being written on the record strip.

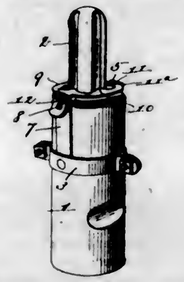
3. The combination of means for carrying and feeding a record strip with a portion of its upper surface exposed to receive writing, of a transparent support across which the strip is fed and exposed, means for illuminating the writing above the support, a display screen, and means for reflecting such writing onto the screen.

4. The combination, with means for supporting and feeding a record strip with a portion of its upper surface exposed to receive writing, of a transparent support over which the strip travels and is exposed, a lamp, a reflector adapted to direct light onto the strip at the support, a display screen, and a mirror adapted to reflect the light from the support to the screen.

5. The combination, with means for supporting a record strip with a portion of its upper surface exposed to receive writing, of a screen and means for projecting onto the screen the matter being written on the strip, said means including a lens for inverting the image.

[Claims 6 to 39 not printed in the Gazette.]

1,131,918. ATTACHMENT FOR DRILL-CHUCKS. JOHN E. ERICKSON, Tonopah, Nev., assignor of two-thirds to J. E. McNamara and J. H. Frisby, Tonopah, Nev. Filed May 1, 1914. Serial No. 835,748. (Cl. 255—36.)

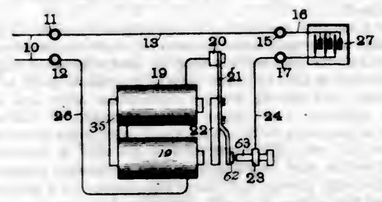


1. The combination with a drill chuck and drill, of a clutch adapted to normally rest flat across the end of the clutch and permit free rotation of the drill, means secured to the chuck, hinged connecting means between said clutch and the said means connected to the chuck, means for locking the chuck in normal position and means for automatically throwing it into an oblique position with reference to the drill upon release of said locking means.

2. The combination with a chuck and drill, of a ring secured to said chuck, a strap carried by said ring, a clutch plate hinged to said strap, means for throwing said clutch plate into an oblique position, said plate gripping the drill when in such position, and means for locking said clutch plate in a plane at right angles to the drill.

3. The combination with a chuck and drill, a ring secured to said chuck, a strap connected to the ring, a clutch plate centrally cut-out to permit free passage of the drill, and having biting teeth projecting inwardly, a spring secured to said strap adapted to throw said plate into gripping position relative to the drill, a perforated tongue carried by the plate, and a spring plate carried by the ring adapted to engage said tongue and to normally hold the clutch plate in an operative position.

1,131,919. ALTERNATING-CURRENT RECTIFIER. ERNST FÄSSLER, Frankfort-on-the-Main, Germany, assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 29, 1909. Serial No. 525,307. (Cl. 171—253.)



1. In an alternating current rectifier, the combination with a source of alternating E. M. F., of an electromagnet connected to said source, a non-polarized armature for said magnet, said armature having a natural frequency of vibration approximating the frequency of the alternating E. M. F., but sufficiently different therefrom that the phase of the actual vibration of the armature resulting from the influence of the exciting flux of the magnet and the armature's natural frequency, shall correspond to the phase of the exciting current, and a circuit interrupter operated by said armature.

2. In an alternating current rectifier, the combination with a source of alternating E. M. F., of an electromagnet having an exciting coil connected in series with said source, a non-polarized armature for said magnet, said armature having a natural frequency of vibration approximating to but appreciably different from the frequency of the alternating E. M. F., and means operated by said armature for breaking the circuit through said magnet.

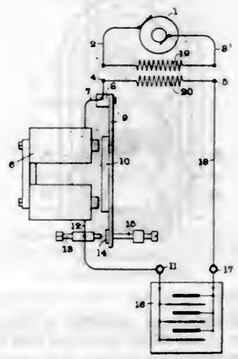
3. In an alternating current rectifier, the combination with a source of alternating E. M. F., of an electromagnet having an exciting coil connected in series to said source, means for supplying an auxiliary E. M. F. to said magnet, an armature for said magnet, said armature having a natural frequency of vibration approximating to but appreciably different from the frequency of the alternating E. M. F., and a circuit interrupter operated by said armature.

4. In an alternating current rectifier, the combination with a source of alternating E. M. F., of an electromagnet connected to said source, a source of unidirectional E. M. F. in series circuit with said magnet and with the source of alternating E. M. F., an armature for said magnet, said armature having a natural frequency of vibration approximating to but appreciably different from the frequency of the alternating E. M. F., and a circuit interrupter operated by said armature.

5. In an alternating current rectifier, the combination with a source of alternating E. M. F., of a source of unidirectional E. M. F., an electromagnet, said electromagnet and said sources being in series circuit, a non-polarized armature operated by said magnet, and means operated by said armature for breaking the alternating current circuit through the magnet.

[Claims 6 to 13 not printed in the Gazette.]

1,131,920. ALTERNATING-CURRENT RECTIFIER. ERNST FÄSSLER, Frankfort-on-the-Main, Germany, assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 5, 1910. Serial No. 590,853. (Cl. 171—253.)

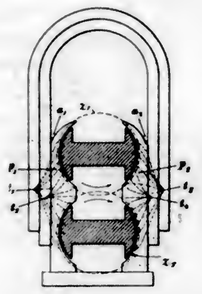


1. In an alternating current rectifier, the combination with a source of alternating E. M. F., of an electromagnet having an exciting coil in circuit with said source, an armature actuated by said electromagnet and adapted to establish a short circuit between the terminals of the exciting coil when said armature is in its attracted position, said armature having a natural frequency of vibration approximating the frequency of the alternating electromotive force impressed on the exciting coil of the electromagnet, but sufficiently different therefrom that the phase of the actual vibration of the armature resulting from the influence of the exciting flux of the magnet and the armature's natural frequency will be substantially in opposition to the phase of the resulting E. M. F. and a translating device connected in series with the exciting coil and the source of alternating E. M. F.

2. In an alternating current rectifier, the combination with a source of alternating E. M. F., of an electromagnet having an exciting coil in circuit with said source, an armature actuated by said electromagnet and adapted to establish a short circuit between the terminals of the exciting coil when said armature is in its attracted position, said armature having a natural frequency of vibration approximating the alternating electromotive force impressed on the exciting coil of the electromagnet, but sufficiently different therefrom that the phase of the actual vibration of the armature resulting from the influence of the exciting flux of the magnet and the armature's natural frequency will be substantially in opposition to the phase of the alternating E. M. F. and a source of unidirectional E. M. F. connected in series with the exciting coil and the source of alternating E. M. F.

3. In an alternating current rectifier, the combination with a source of alternating E. M. F., of an electromagnet having an exciting coil in circuit with said source, an armature actuated by said electromagnet and adapted to establish a short circuit between the terminals of the exciting coil when said armature is in its attracted position, said armature having a natural frequency of vibration approximating the alternating electromotive force impressed on said electromagnet, but sufficiently different therefrom that the phase of the actual vibration of the armature resulting from the influence of the exciting flux of the magnet and the armature's natural frequency will be substantially in opposition to the phase of the alternating E. M. F. and a storage battery connected in series with the exciting coil and the source of alternating E. M. F.

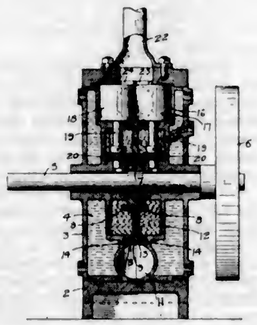
1,131,921. MAGNETO APPARATUS. RICHARD FISCHER, Frankfort-on-the-Main-Rödelheim, Germany, assignor to the Firm of Mafam Motor-Apparate G. M. B. H., Frankfort-on-the-Main, Germany. Filed Jan. 29, 1913. Serial No. 744,983. (Cl. 171—209.)



1. A magneto apparatus including a plurality of field magnets, a pair of oppositely arranged pole pieces, and a plurality of armatures operatively and permanently connected for rotation together in opposite directions and at the same speed between the said pole pieces.

2. A magneto apparatus including a plurality of field magnets, a pair of oppositely arranged pole pieces cut away at one end to form isolated pole tips, and a plurality of armatures opertaively and permanently connected for rotation together in opposite directions and at the same speed between the said pole pieces.

1,131,922. ROTARY GAS-ENGINE. ANDREW H. FOSS, Elbow Lake, Minn. Filed Mar. 21, 1912. Serial No. 685,281. (Cl. 123—13.)



1. A rotary gas engine comprising a circular cylinder having intake and exhaust ports, a shaft, a hub secured thereon, pistons mounted on said hub and arranged to revolve in said cylinder, rotary valves arranged in pairs in said cylinder and having driving connections with said hub, said valves having intake ports adapted to register at intervals with said inlet ports, said valves also having peripheral recesses communicating with said inlet ports and adapted to receive said pistons and allow their passage between the valves of a pair.

2. The combination, with a circular cylinder having intake and exhaust ports, of a shaft, a hub secured thereon, pistons mounted on said hub and arranged to revolve in said cylinder, valves arranged in pairs in said cylinder and having driving connections with said hub, said valves having intake ports adapted to register at intervals with said inlet ports, said valves also having peripheral recesses communicating with said inlet ports and adapted to receive said pistons and allow their passage between the valves of a pair, the space between said valves and the contiguous piston forming a combustion chamber, and a spark plug mounted in the walls of said chamber.

3. A rotary gas engine comprising a circular cylinder having inlet and exhaust ports, a shaft, pistons mounted on said shaft to revolve in said cylinder, valves arranged in pairs in said cylinder and having a driving connection with said shaft, said valves having intake ports arranged to register at intervals with said cylinder inlet ports, said valves also having recesses communicating with said inlet ports and adapted to receive said pistons and allow their passage between the valves of a pair, said cylinder having gas chambers communicating with the space between a piston and said valves and with the recesses in said valves after the passage of a piston between the valves, the space between said valves and piston forming a combustion chamber, and a spark plug mounted in the walls of said chamber.

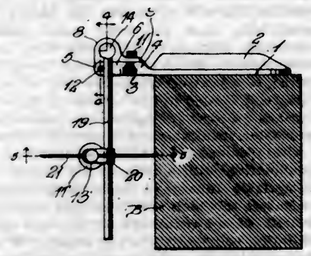
4. A rotary gas engine comprising a circular cylinder having intake and exhaust ports, a shaft concentric with said cylinder, pistons mounted on said shaft and adapted to revolve in said cylinder, valves mounted in pairs in said cylinder and having driving connections with said shaft and provided with intake ports arranged to communicate at intervals with the adjacent inlet ports of said cylinder and with the space in said cylinder in advance of said valves, said valves also having peripheral recesses to receive said pistons and allow the passage of a piston between the valves of a pair, the space between said valves and the adjacent piston after it passes a pair of valves forming a combustion chamber, a spark plug mounted in said chamber, said valves being located in advance of the cylinder exhaust ports, each piston as it revolves driving the burnt gases out through an exhaust port as it approaches the pair of valves adjacent to said port.

5. A rotary gas engine comprising a casing, a shaft journaled therein, a hub secured on said shaft, a wall inclosing said hub and spaced from said casing, the space between said wall and casing forming a water chamber, the space inclosed by said wall being adapted to contain a quantity of oil, a circular cylinder inclosing said oil chamber, pistons connected with said hub and arranged to revolve in said chamber, valves mounted in pairs in said cylinder and having their stems geared to said hub within said oil chamber, said cylinder having intake and exhaust ports, said valves having inlet ports arranged to register at intervals with said cylinder inlet ports and also provided with peripheral recesses to receive said pistons and allow the passage of said pistons between the valves of a pair, the walls of said valves contacting with one another and forming a gas-tight joint in the rear of a piston during its initial movement after passing a pair of valves, the space between said valves and the adjacent piston after passing the valves forming a combustion chamber communicating with the inlet ports of said valves, and a spark plug mounted in the walls of said chamber.

[Claims 6 and 7 not printed in the Gazette.]

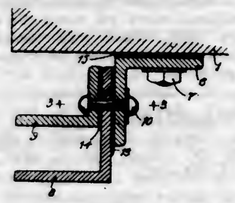
1,131,923. GAGE. EDWIN V. FRAILEY, Williamsport, Pa. Filed Sept. 17, 1914. Serial No. 862,217. (Cl. 33—42.)

A device of the character described comprising a bed plate having one end reduced in width and increased in thickness, said end being notched to provide a pair of parallel bearing ears, and being grooved longitudinally upon its upper face to provide a pair of parallel ribs, a head block between the ribs and having an ear located between the ears on the bed plate, a transverse pivot pin projecting through the ears on the bed plate and the intervening ear on the head block, a nose projecting inwardly from said head block and likewise lying between said ribs, a spring between said nose and the base plate, an adjusting screw passing loosely through said nose and threaded into said bed plate, a headed bolt passing transversely through



said head, a clamping nut on said bolt, and a scribing instrument carried by the head of said bolt.

1,131,924. FIREPROOF GUIDEWAY FOR DOORS AND SHUTTERS. WAINWRIGHT B. GERVAIS, Chicago, Ill., assignor to Variety Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 26, 1914. Serial No. 827,380. (Cl. 189—45.)



1. In a guideway for doors or shutters, the combination of a plurality of metal bars extending longitudinally of the guideway, layers of filling material between adjacent surfaces of said bars and adapted to be disintegrated by the application of a dangerous rise in temperature, and clamping devices for holding the bars together.

2. In a metallic guideway for doors or shutters, the combination of a plurality of metal bars, a coating of material of low melting temperature on adjacent surfaces of said bars, said coatings being of material thicknesses and spacing the bars, and fastening devices for holding the bars together.

3. In a fireproof guideway, the combination of a plurality of metallic bars, fastening devices for securing the bars together, said bars having clearance openings in them around the fastening devices to permit movement of the bars relatively to each other when the bars are released from each other, and layers of material between adjacent surfaces of said bars, said material being disintegrable by the application of a dangerous rise of temperature.

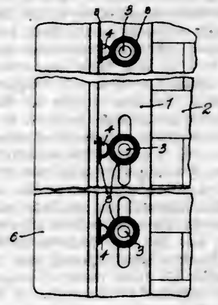
4. A bar for a metallic guideway having one of its faces provided with a coating of material readily disintegrable by a dangerous rise of temperature, said coating having a material thickness and extending throughout substantially the length of the face to which it is applied.

5. In a fireproof structure, a pair of metallic members, means rigidly fastening the members together, and a spacer interposed between the members, said spacer having a low melting point, substantially as and for the purpose described.

[Claim 6 not printed in the Gazette.]

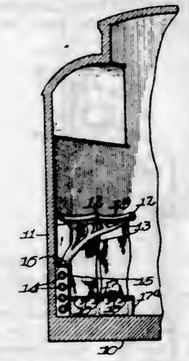
1,131,925. FUSIBLE WASHER FOR FIREPROOF STRUCTURES. WAINWRIGHT B. GERVAIS, Chicago, Ill., assignor to Variety Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 26, 1914. Serial No. 827,381. (Cl. 189—45.)

1. A built-up washer for use in fireproof structures consisting of a stable metallic core surrounded by a coating of compound disintegrable by a dangerous rise in temperature.



2. A built-up washer for fireproof structures comprising a steel core coated with a compound of pitch.

1,131,926. HEATING SYSTEM FOR POSTAL CARS. EGBERT H. GOLD, Chicago, Ill. Filed Apr. 15, 1912. Serial No. 690,751. (Cl. 237—45.)



1. In a heating system for railway cars fitted with mail bags extending along the inner side wall thereof, the combination with a heating coil adjacent said side wall of inclosing means for the coil provided in its upper part with one or more air outlets, and intake ducts arranged to conduct air from the center part of the car to the space within said inclosing means, said air outlets and intake ducts being arranged in staggered relation to each other for the purpose described.

2. In a heating system for railway cars fitted with mail bags extending along the side wall, the combination with a heating coil adjacent said side wall, of a sheathing between the mail bags and the coil which holds the bags from contact with the coil and provides a circulation space open at the top, and intake pipes which introduce air from the center part of the car into contact with the coil, said intake pipe being formed with openings in their ends and tops.

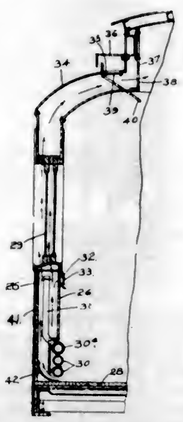
3. In a heating system for railway cars adapted to be fitted with mail bags extending along the side wall and down to the floor, the combination with a heating coil adjacent said side wall, of inclosing means for the coil, said means being provided on its upper part with one or more air outlets, air intake ducts which extend toward the center of the car and adjacent to the space to be occupied by mail bags, said ducts removably engaging said inclosing means, and clips attached to the floor of the car and with which said ducts are slidably engaged so as to prevent displacement of said ducts lengthwise of the car.

4. In a heating system for railways cars fitted with mail bags extending along the side wall and down to the

floor, the combination with a heating coil adjacent said side wall, of a sheathing between the mail bags and said heating coil, which sheathing is spaced away from the floor, air intake ducts arranged to extend transversely of the car and closely adjacent to the mail bags, said ducts arranged to conduct air from the center part of the car into the space back of said sheathing and consisting of bowed sheets of metal provided with longitudinal flanges, and clips secured to the floor of the car with which the flanges of said ducts are slidably engaged so as to prevent displacement of said ducts lengthwise of the car while permitting their removal in a direction transverse of the car.

5. In a heating system for railway cars fitted with mail bags extending along the side wall of the car and downwardly to the floor thereof, the combination of a heating coil extending along the side wall, a sheathing arranged between the coil and the mail bags to provide space for the circulation of air around the coil and upwardly into the car, detachable air inlet ducts arranged to conduct air from a point adjacent to the center of the car to the space behind said sheathing, and means whereby said ducts are removably secured to the floor adjacent to the mail bags so as to prevent displacement of the ducts by the movement of the mail bags lengthwise of the car.

1,131,927. HEATING SYSTEM FOR RAILWAY-CARS OF METAL CONSTRUCTION. EGBERT H. GOLD, Chicago, Ill. Filed Jan. 27, 1913. Serial No. 744,440. (Cl. 237—40.)



1. The combination with a railway car having a wall structure comprising inner and outer metal sheathings providing a circulation space, the inner sheathing stopping short of the floor and provided with discharge openings in the upper portion thereof, of a heating system for said car comprising a radiator located within the car adjacent the opening into the bottom of said circulation space, a portion of which radiator extends into said circulation space adapted to heat the air circulating therein so as to apply heat to the inner sheathing over substantially its entire area, said outer sheathing being insulated from the heat in said circulation space by a lining of non-conducting material arranged along the inner surface of said sheathing.

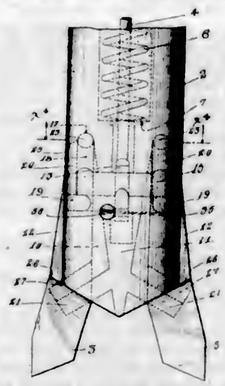
2. The combination with a railway car having a wall structure comprising inner and outer metal sheathings providing a circulation space, the inner sheathing stopping short of the floor and provided with discharge openings in the upper portion thereof, of a heating system for the same comprising a heating coil having one or more pipes in the interior of the car and one or more pipes arranged between said inner and outer sheathings adapted to heat the air circulating therein so as to apply heat to the inner sheathing over substantially its entire area, said outer sheathing being insulated from the heat in said circulation space by a lining of non-conducting material arranged along the inner surface of said sheathing.

3. The combination with a railway car having a wall structure comprising inner and outer metal sheathings, the inner sheathing stopping short of the floor, and upright frame members to which the inner and outer sheathings are secured, of a heating system for said car comprising a radiating coil located in the interior of the car provided with branch pipes extending into the spaces between the inner and outer sheathings, said upright members being formed with openings for the purpose specified.

4. The combination with a railway car having a wall structure comprising inner and outer metal sheathings and frame members to which said inner and outer sheathings are secured, of a heating system for said car comprising a radiating coil located in the interior of the car and provided with branch pipes extending into certain of the spaces between the inner and outer sheathings, said frame members being formed with openings, for the purpose described.

5. The combination with a railway car having a wall structure comprising inner and outer metal sheathings, formed with window openings, and pairs of frame members arranged between the inner and outer sheathings and between said window openings respectively, of a heating coil located in the interior of the car and provided with branch pipes extending into the spaces between the inner and outer sheathings which are under the windows, said frame members being formed with openings to admit heated air to the spaces between the frame members of each of said pairs.

1,131,928. UNDERREAMER. THOMAS J. GRIFFIN, Los Angeles, Cal., assignor of one-half to Edward Double, Los Angeles, Cal. Filed Apr. 1, 1912. Serial No. 687,883. (Cl. 255—75.)



1. The combination of a body or mandrel, a spring-actuated rod therein, the body having slotted sides, a key way in said rod, a key therein, bits tiltingly mounted on said key, the lower end of said mandrel being inclined downwardly and inwardly toward the center, said bits provided with shoulders adapted to bear thereon and provided with recesses opening inwardly near the bottom of said mandrel, abutments projecting outwardly from the slotted sides and near the bottom of the mandrel and extending into the recesses in said bits, the under surfaces of said abutments being downwardly and outwardly inclined and the lower surfaces or walls of said recesses being correspondingly inclined to abut thereagainst when the bits are in expanded position.

2. The combination of a body or mandrel having slotted sides, a spring actuated rod therein having a key way near its lower end, a key therein, bits tiltingly mounted on said key and provided with lateral shoulders, the end of the mandrel being inclined to coact with said shoulders and cause the bits to expand, the body of the mandrel provided with a way and the rod with a slot registering therewith and means insertible through said way and into said slot to lock said rod down against the tension of its spring.

3. The combination of a body or mandrel, a spring-actuated rod therein, the body having slotted sides, bits or cutters tiltingly mounted on said spring-actuated rod, the upper walls of the slotted sides being provided with abutments or surfaces, the lower end of the mandrel being downwardly and inwardly inclined, downwardly and outwardly inclined abutments at the lower end of the slotted portion of said body, said bits provided at their upper ends with inclined portions adapted to coact with said inclined abutments and with recesses fitting over the inclined abutments at the lower end of said slotted portion and having the lower walls of such recesses correspondingly inclined and provided with shoulders adapted to bear against the inclined ends of the mandrel.

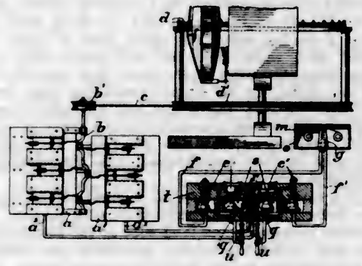
4. The combination of a body or mandrel, a spring-actuated rod therein, tilt cutters or bits thereon, the body or mandrel at its lower end being inclined downwardly and inwardly, said cutters or bits provided with shoulders adapted to bear thereagainst, downwardly and outwardly inclined abutments on said mandrel, the bits having recesses receiving and adapted to embrace said abutments and provided with surfaces adapted to bear against said abutments when in expanded position.

1,131,929. WATERPROOFING OF FABRICS, YARNS, AND OTHER MATERIALS. ALICE MARION HART, London, England, assignor to Viking Manufacturing Company Limited, London, England. Filed Aug. 4, 1911. Serial No. 642,368. (Cl. 134—79.)

1. A solution for treating fabrics, comprising nitrated cellulose or celluloid dissolved in ether and methylated spirit containing a small quantity of "lucrate" composed of a mixture of purified animal oil and non-animal oil, whereby the spirit can be mixed with the dissolved cellulose or celluloid, substantially as described.

2. A solution for treating fabrics, comprising nitrated cellulose or celluloid dissolved in ether and methylated spirit containing a small quantity of "lucrate" composed of a mixture of purified animal oil and non-animal oil, whereby the spirit can be mixed with the dissolved cellulose or celluloid, combined with tungstate of sodium, substantially as described.

1,131,930. AUTOMATIC VIOLIN-BOW. GUSTAV KARL HENNIG, Böhlitz-Ehrenberg, near Leipzig, Germany, assignor to the Firm of Ludwig Hupfeld Aktiengesellschaft, Böhlitz-Ehrenberg, near Leipzig, Germany. Filed Nov. 6, 1913. Serial No. 799,514. (Cl. 84—223.)



1. The combination with a bowing mechanism; of a driving shaft for the bowing mechanism, motors arranged to drive said shaft in opposite directions, and mechanism for causing the operation of either of said motors.

2. The combination with a bowing mechanism; of a driving shaft for the bowing mechanism, wind motors arranged to drive said shaft in opposite directions, and mechanism for causing the operation of either of said motors.

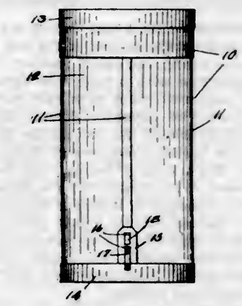
3. The combination with a bowing mechanism; of a driving shaft for the bowing mechanism, motors arranged to drive said shaft in opposite directions, and note sheet controlled mechanism for causing the operation of either of said motors.

4. The combination with a bowing mechanism; of a driving shaft for said mechanism, wind motors arranged to drive said shaft in opposite directions, and note sheet controlled pneumatic mechanism for causing the operation of either of said motors.

5. The combination with a bowing mechanism; of a driving shaft for the bowing mechanism, motors arranged to drive said shaft in opposite directions, and means for manually or pneumatically controlling the operation of either of said motors.

[Claims 6 and 7 not printed in the Gazette.]

1,131,931. MICA CHIMNEY. FREDERICK R. HUSE, Boston, Mass. Filed Dec. 28, 1914. Serial No. 879,340. (Cl. 240—96.)



1. A chimney composed of a metallic frame having spaced-apart ribs to hold transparent panels, and means for securing a holding-clip to a rib consisting of a reinforcing element having relatively wide portions arranged at the inner and outer sides of the rib with two spaced-apart holes therethrough, and a clip having an angularly-formed shank which extends through both of said holes and presents its operative portion in holding position.

2. A chimney composed of a metallic frame having spaced-apart ribs to hold transparent panels, and means for securing a holding-clip to a rib consisting of a reinforcing element having relatively wide portions arranged at the inner and outer sides of said rib with two spaced-apart holes through said portions and said rib, and a clip having a loop-like shank which is passed inward through one of said holes and outward through the other hole and presents its operative portion in holding position.

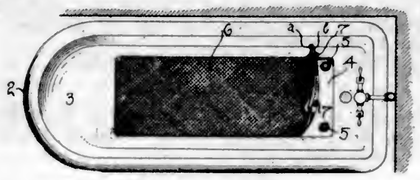
3. A chimney composed of a metallic frame having vertical ribs and a ring or band at its bottom to hold transparent panels in position, and means for securing a holding-clip consisting in a strip folded around a lower end of one of said ribs, assembled with said ring or band and extending thereabove, there being spaced-apart holes through said strip and said rib, and a clip having its shank extended through said holes in opposite directions and presenting its operative portions in holding position.

4. A chimney composed of a metallic frame having spaced-apart ribs and a bottom ring or band to hold transparent panels, said ring or band being folded upon itself, a relatively wide strip folded around the bottom of a rib and in turn held in the fold of said band, there being spaced-apart holes through said strip and said rib, and a holding-clip having its shank passed through said holes and presenting its operative portion extending downward.

5. A chimney composed of a metallic frame work having spaced-apart ribs and a bottom ring or band to hold transparent panels, relatively wide reinforcing strips

folded around the ends of a plurality of said ribs and assembled with said ring or band, there being vertically arranged spaced-apart holes through said strips and said ribs, and clips consisting of strips passed inward through an upper hole and then downward and outward through a lower hole, and having its upper and lower end-portions extended downward on the outside, the latter being to form a resilient engaging-portion.

1,131,932. BATH-TUB AND MAT THEREFOR. ERNEST N. HYDEMAN, Lawrence, Mass. Filed Oct. 19, 1914. Serial No. 867,547. (Cl. 4—27.)

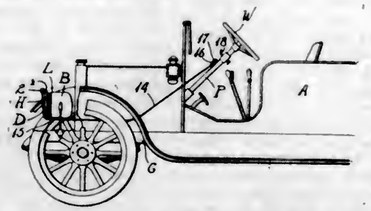


1. The combination with a bath tub, of a bath tub mat, and means formed on the bottom of the tub for engaging the mat and preventing movement thereof.

2. The combination with a bath tub having a portion of its bottom depressed, of a bath tub mat fitting said depressed portion, and fastening devices carried by the mat and tub for detachably connecting the mat to the tub.

3. A bath tub having a depression formed in its bottom extending longitudinally thereof, the depressed portion being formed at its corners with sockets, a bath tub mat formed of a plurality of layers of material, the upper layer having a matted or corrugated surface, the layers being attached to each other, and fastening studs having base flanges disposed between the layers, said studs projecting out through the lowermost layer and being adapted to engage with said sockets.

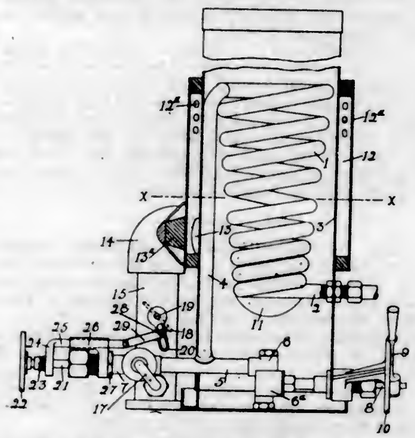
1,131,933. HEADLIGHT-DIMMER. HENRY JACOB KASTNER, Dayton, Ohio. Filed Dec. 10, 1914. Serial No. 876,511. (Cl. 240—45.)



1. The combination with a headlight having a transparent door hinged upon an upright axis, of a horizontal roller revolubly mounted on the upper edge of said door, a screen secured at its upper end to said roller, a spring for rotating the roller in a direction to wind the screen thereon, a guide adjacent the lower side of the light, a cable attached to the lower end of the screen, and extending downwardly therefrom in front of the door and then rearwardly through said guide, and means mounted independently of the door for holding the rearwardly extending portion of said cable against forward movement, whereby the tension of the spring acts not only to wind the screen upon the roller, but serves as means for retaining the door in closed position.

2. A device of the class described comprising a tube having a longitudinal slot in one side, a cap permanently closing one end of said tube and having a central opening, a hollow roller within the tube, a spring located within said hollow roller and secured at one end thereto, a stub shaft connected to the other end of said spring and projecting outwardly through the opening in said cap, the outer end of said shaft having an opening, a pair of ears secured to said cap on opposite sides of the opening therein, said ears having openings alining with the opening in the shaft, a cotter pin passing through the alined openings in said ears and shaft, a movable cap closing the other end of the tube and having a central opening, a screw passing through the opening in said removable cap and threaded into the adjacent end of the roller, and a screen wound upon said roller.

1,131,934. VAPORIZING-CARBURETER FOR OIL-ENGINES. JOHN GEORGE AULSEBROOK KITCHEN and ISAAC HENRY STOREY, Lancaster, England. Filed Apr. 24, 1914. Serial No. 834,181. (Cl. 48—107.)

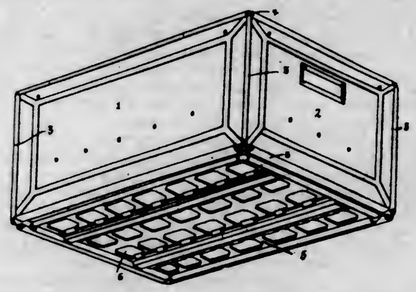


1. In a carbureter for internal combustion engines using heavy hydrocarbons the combination of a vertical coiled vaporizing tube having an inlet tube at the bottom and outlet tube at the top; a valved controlled burner underneath said coiled tube supplied from the vaporizer coil through said outlet tube, a funnel surrounding said coiled tube, outlet pipe and burner, a jacket having an open top disposed on the outside of said funnel, air inlets at the upper part of said jacket and an outlet pipe at its lower end communicating with the suction pipe of the engine, and a hand controlled valve supplied with vapor from the said coiled tube and delivering it into said outlet pipe.

2. In a carbureter for internal combustion engines using heavy hydrocarbons, the combination of a coiled vaporizing tube surrounded by a jacketed funnel, air inlets at the top of the jacket and an outlet pipe at its bottom, a burner under the coiled tube, a vapor valve supplied with vapor from the said coiled tube, a pipe passing from the outlet of the valve into the outlet pipe from the jacket, an air supply regulating valve in said outlet pipe between the jacket and the pipe from the vapor valve, and means operated by the vapor valve spindle and adapted to open and close said air regulating valve more or less simultaneous with the opening and closing of the vapor valve.

3. In a carbureter for internal combustion engines using heavy hydrocarbons, the combination of a vertical coiled vaporizing tube having an inlet tube at the bottom and an outlet tube at the top leading downward, one branch of said tube leading to the valve of a vapor burner underneath said coil and another branch to an outside valve which has a finely threaded screw spindle regulating the supply of vapor to a mixing tube, a funnel surrounding said coiled tube and burner, an air jacket surrounding the funnel and coiled tube, air inlets at the top of said jacket and an outlet at its bottom connected by a pipe to said mixing tube, an air supply regulating valve in said pipe, having a spindle passing to the outside of the pipe, a screw of coarse thread fixed on the threaded valve spindle, a nut on said screw having an extension guided on the casing of the vapor valve, a lever on the spindle of the regulating valve and a link connecting said lever to the extension of the nut.

1,131,935. METAL BOX. GOTTLIEB KLENK, Defiance, Ohio, assignor to The Defiance Pressed Steel Co., Defiance, Ohio, a Corporation of Ohio. Original application filed July 13, 1907, Serial No. 383,642. Divided and this application filed Jan. 24, 1913. Serial No. 743,971. (Cl. 220—111.)



1. In a sheet metal box, adjacent vertical sections seamed together at their meeting edges, a bottom section crimped to said vertical sections, and a reinforcing strip for said bottom section having edges entering into the crimps of both of two adjacent vertical sections.

2. In a sheet metal box, adjacent vertical sections seamed together at their meeting edges, a bottom section crimped to said vertical sections, and a reinforcing strip for said bottom section having edges entering into the crimps of both of two adjacent vertical sections, said strip being located below the normal plane of the bottom section and having a downward projecting stacking bead formed at its inner edge

3. In a sheet metal box, adjacent vertical sections seamed together at their meeting edges, a bottom section crimped to said vertical sections, and a reinforcing strip for said bottom section having edges entering into the crimps of both of two adjacent vertical sections, and a second reinforcing strip entering solely into the crimp of one of the last said vertical sections.

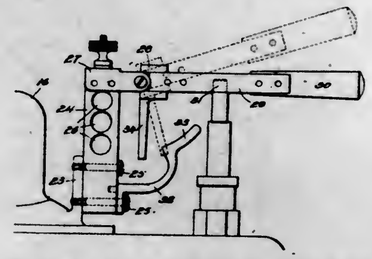
4. In a sheet metal box, adjacent vertical sections seamed together at their meeting edges, a bottom section crimped to said vertical sections, and a reinforcing strip for said bottom section having edges entering into the crimps of both of two adjacent vertical sections, the crimped portions of the strip being spaced apart with the spacing below the corner seam of the last said vertical sections.

5. In a sheet metal box, adjacent vertical sections seamed at their meeting edges, a bottom section crimped to both of two adjacent sections with the crimped portions spaced at the corner of the box below the seam, and a reinforcing strip beneath the bottom section with its edge parts crimped with the bottom section to both of the said vertical sections, the said crimped portions being spaced at the corner of the box below the seam similarly to the crimped portions of the bottom section.

[Claims 6 to 9 not printed in the Gazette.]

1,131,936. HYDROCARBON-MOTOR. ALFRED H. KNIGHT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 15, 1912. Serial No. 690,783. (Cl. 123—143.)

1. In a hydrocarbon motor provided with a spark plug and an ignition circuit connected with the spark plug, the combination of means for opening and closing said ignition circuit, and means whereby the circuit opening and closing means is adapted to short circuit the ignition current around said spark plug when the ignition circuit is open.



2. In a hydrocarbon motor provided with a spark plug and an ignition circuit connected with the spark plug, the combination of a switch for opening and closing said circuit, and means adapted to be engaged by said switch when in open position whereby the current is short circuited around the spark plug.

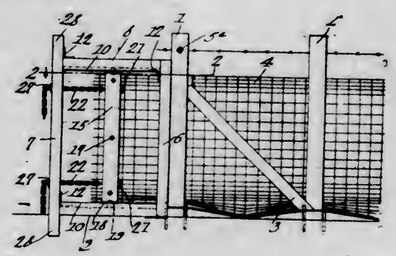
3. In a hydrocarbon motor provided with a spark plug and an ignition circuit, the combination of a switch in said circuit and adapted to engage one terminal of the spark plug, and a short circuiting device electrically connected with the other terminal of the spark plug and adapted to be engaged by said switch when the latter is moved out of engagement with the spark plug.

4. In a hydrocarbon motor provided with a spark plug, having one terminal thereof grounded on the motor cylinder, the combination of a switch, an ignition circuit having one side thereof grounded on said cylinder and the other side thereof connected with said switch, and a short circuiting device grounded on said cylinder, said switch being adapted to be moved into engagement with said spark plug and said short circuiting device.

5. In a multiple cylinder hydrocarbon engine having a spark plug for each cylinder and a separate ignition circuit for each spark plug, the combination of independent devices for opening and closing each of said circuits, and means whereby the circuit opening and closing devices are adapted to short circuit the ignition current around the spark plugs when their circuits are open.

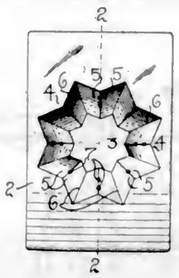
[Claims 6 to 8 not printed in the Gazette.]

1,131,937. WIRE-STRETCHER. JOHN E. LOCKETT, Brownsville, Tenn. Filed Oct. 23, 1914. Serial No. 868,293. (Cl. 254—83.)



A wire stretcher embodying a frame including an inner post; an outer post; a top bar; a bottom bar; hinges connecting the posts with the bars whereby the contour of the frame may be changed; the bars being provided with tracks; a clamp having its ends slidably received in the tracks; and means for moving the clamp, said means being operatively connected with one of the posts.

1,131,938. CORN-TIPPER. JOHN J. MATHEY, Robey, S. D. Filed Nov. 16, 1914. Serial No. 872,425. (Cl. 130—10.)



As an article of manufacture, a corn tipper comprising a block adapted to be held in the hand having a tapering socket formed therein to receive a cob, the socket being open at both ends, the inner face of the socket from end to end being formed with a plurality of reëntrantly conical faces, thereby to provide a plurality of tapered angular ribs, and teeth formed upon said ribs, said teeth having the form of pins projecting from the face of the ribs, the pins being arranged in relatively staggered relation.

1,131,939. PROCESS OF MANUFACTURING PURE RESIN-OIL. MEILICH MELAMID, Freiburg, Germany. Original application filed Nov. 18, 1912, Serial No. 732,141. Divided and this application filed June 10, 1913. Serial No. 772,838. (Cl. 203—4.)

1. The process for producing pure resin oils, consisting in mixing resin and phosporic acid, heating the mixture to a temperature at which said acid is converted into pyro-phosphoric acid and meta-phosphoric acid, and then letting these compounds act upon the resin, substantially as described.

2. The process for producing pure resin oils, consisting in adding phosphoric acid to resin, heating the composition to about 300° C. and more so as to cause said acid to be converted into pyro-phosphoric acid and meta-phosphoric acid, and letting these compounds act upon the resin, substantially as described.

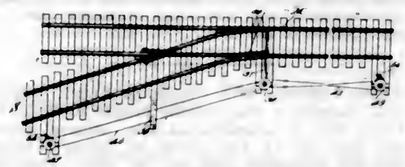
3. The process for producing pure resin oils, consisting in heating resin and phosphoric acid to a temperature at which said acid is converted into pyro-phosphoric acid, substantially as described.

4. The process for producing pure resin oils, consisting in mixing distillates of resin and phosphoric acid, heating the mixture to a temperature at which said acid is converted into pyro-phosphoric acid and meta-phosphoric acid, and then letting these compounds act upon the resin, substantially as described.

5. The process for producing pure resin oils consisting in adding phosphoric acid to distillates of resin, heating the composition to about 300° C. and more so as to cause said acid to be converted into pyro-phosphoric acid and meta-phosphoric acid, and then letting these compounds act upon the resin, substantially as described.

1,131,940. RAILROAD-SWITCH-OPERATING MECHANISM. JOHN LEE MILLER, Fort Collins, Colo., assignor of one-fourth to Hattie A. Boss, Fort Collins, Colo. Filed Sept. 18, 1914. Serial No. 862,359. (Cl. 104—23.)

1. The combination with a switch point operating mechanism, including a stand having a vertical shaft operably connected to the switch point, two stands disposed in spaced relation one upon each side of the first stand and each provided with a vertical shaft, disks carried by each of the three shafts and operably connected together for movement in unison, a lateral shaft operably connected to the vertical shaft of each of the last two stands, a train actuated means connected to the lateral shaft in the path of the train, and means carried by the train for engaging the latter means to operate the switch points.



2. The combination with a switch point operating mechanism, of a base, a casing above the base, a vertical shaft, means connected to the lower end thereof for engaging the switch point, a disk fixed to the shaft, operating mechanism connected to the disk for oscillating the shaft, coöperative locking means carried by the disk and the base for locking the disk in either extreme position, said coöperative means including a plate carried by the disk and disposed for slight vertical movement away therefrom, a pair of rollers carried by the plate and adapted to ride upon the base, said base being provided with a plurality of depressions for receiving the rollers, and a spring for holding the rollers in resilient engagement with the base.

3. The combination with a switch point operating mechanism, of means connected to the switch point, means operably connected to the latter means for oscillating the same including a base, a casing covering the same, a vertical shaft journaled in the base and the casing, a disk fixed thereto and operably connected to the switch operating means, a mutilated beveled gear fixed to the shaft within the casing, a shaft journaled within the casing and extending at right angles to the vertical shaft, the outer end being exterior of the casing and in the path of a moving train, a beveled gear fixed thereon and engaging the mutilated gear to operate the shaft, and a train operated means carried upon the outer end of the shaft.

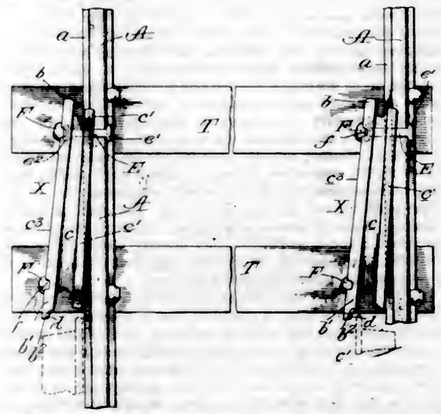
4. The combination with a switch point operating mechanism, of means connected to the switch point, means operably connected to the latter means for oscillating the same including a base, a casing covering the same, a vertical shaft journaled in the base and casing, a disk fixed thereto and operably connected to the switch operating means, a mutilated beveled gear fixed to the shaft within the casing, a shaft journaled within the casing and extending at right angles to the vertical shaft, the outer end being exterior of the casing and in the path of a moving train, a beveled gear fixed thereon and engaging the mutilated gear to operate the shaft, and a bell crank lever connected to the outer end of the last shaft for disposing one or the other of its arms in the path of the train.

1,131,941. CAR-REPLACER. JEREMIAH A. MOYNIHAN, Minneapolis, Minn., assignor of one-half to Thomas E. Sands, Minneapolis, Minn. Filed Nov. 17, 1914. Serial No. 872,595. (Cl. 104—163.)

1. A reversible tread car replacer, comprising a body portion having inner upper and lower flanges and outer upper and lower flanges with grooves between them, said outer flanges being arranged to project rearwardly from the body portion of the replacer to a greater extent than the inner flanges and each of said rearwardly projecting flanges being adapted to engage a car wheel when the latter enters the replacer and to force the wheel flange sidewise over across the inner flange of the replacer.

2. A reversible tread car replacer, comprising a body portion having upper and lower inner flanges and upper and lower outer flanges with grooves between them, said outer flanges extending both forwardly and rearwardly to a greater extent than the inner flanges for the purpose specified.

3. A reversible tread car replacer which is tapered from its front end rearwardly in both a vertical plane and a horizontal plane and which is formed with upper and lower inner flanges, one of which is adapted to overlap a railway rail and the other of which is adapted to rest at that time on the flange of the rail, and which replacer is formed also with upper and lower outer flanges which are separated from the inner flanges by grooves and which project forwardly and rearwardly to a greater extent than the inner flanges.



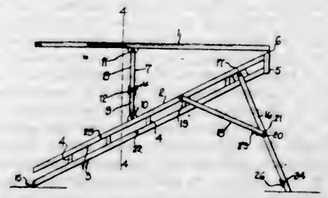
4. A reversible tread car replacer, comprising a body portion formed with upper and lower inner flanges and upper and lower outer flanges separated from the inner flanges by grooves, said outer flanges projecting rearwardly to a greater extent than the inner flanges and being provided with upper and lower lugs adapted to engage a cross-tie when applied to the track.

5. A reversible tread car replacer, having upper and lower inner flanges and upper and lower outer flanges separated from the inner flanges by grooves, and which replacer is formed near its front end with a clamp-receiving opening and a reversible clamp extending through said opening having a head adapted to engage a rail and laterally projecting lugs adapted to engage the replacer on opposite sides of said opening.

[Claims 6 to 8 not printed in the Gazette.]

1,131,942. [WITHDRAWN.]

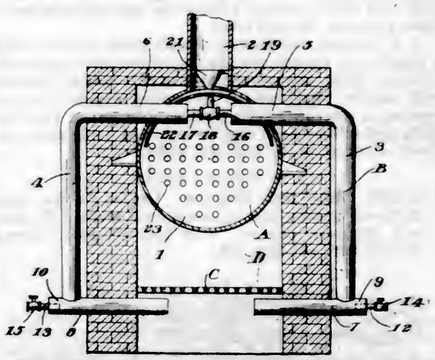
1,131,943. COMBINED IRONING-BOARD AND STEP-LADDER. WALDO C. NEILY, Canaan, N. H. Filed May 20, 1914. Serial No. 839,826. (Cl. 68—10.)



1. A device of the class described comprising a frame, a board pivoted to one end thereof, legs carried by the frame, braces carried by the frame, means carried by the braces to hold the same in folded and extended positions, supporting bars pivotally connected together and having their outer ends pivotally connected to the board and frame, sleeves slidably mounted upon the supporting bars and carrying a set screw adapted to engage the pivot joint to hold the bars against pivotal movement, and latches carried by the legs adapted for engagement with the frame whereby the legs are held in a folded position.

2. A device of the class described comprising a frame, a board pivoted to one end thereof, supporting legs carried by the frame, pins arranged intermediate of the ends of the legs, bracing members carried by the frame, hooks formed upon the free ends of the brace members adapted for engagement with the pins, slidable bolts carried by said ends whereby the hooks are held into engagement with the pins, means whereby to hold the brace members and legs in a folded position, supporting bars pivotally connected together and having their outer ends pivotally connected to the frame and board, a transverse member having sleeves formed on its ends slidably arranged on the supporting bars, and set screws carried by the sleeves adapted for engagement with the pivot joint to hold the bars against pivotal movement.

1,131,944. SMOKE-CONSUMER. GEORGE O'NEIL, Moncton, New Brunswick, Canada. Filed Oct. 19, 1914. Serial No. 867,441. (Cl. 110—49.)



A smoke consumer comprising in combination with a boiler, smoke stack, grate and smoke box, of brick work surrounding the same, U-shaped pipes the parallel arms of which are horizontally disposed, the upper parallel arms being designed to project through the brick work surrounding the boiler and extend into the upper part of the smoke box, the lower parallel arms of the pipes being designed to project through the brick work surrounding the boiler and beneath the grate thereof, branch connections for the lower arms open at the ends, air valves in the outer ends of the branch connections, steam jets extending through the center thereof and discharging into the branch connections, valves controlling the steam jets in the lower parallel arms, a T-piece connected to the upper steam jets and to a supply of steam, and a hood in the smoke box covering a portion of the tubes and the open ends of the upper arms.

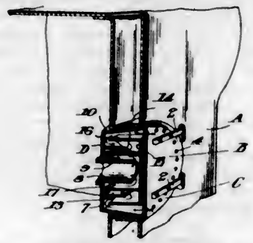
1,131,945. FURNACE-DOOR. GEORGE O'NEILL, Moncton, New Brunswick, Canada. Filed Oct. 22, 1914. Serial No. 868,061. (Cl. 110—175.)

1. A furnace door having a hollow lining member provided with a central opening, the said member being radially corrugated around the opening, concentric baffle plates in said lining, and auxiliary baffle plates frictionally retained in said lining and staggered relatively to the first.

2. A furnace door having a hollow lining member provided with a central opening, concentric baffle plates in said lining, lugs in said lining, and auxiliary concentric baffle plates frictionally supported in said lining by said lugs, and staggered relatively to the first.

3. A furnace door having a hollow lining member provided with a central opening, concentric baffle plates in said lining having recesses in the edges, lugs on said lining member, auxiliary baffle plates frictionally retained in

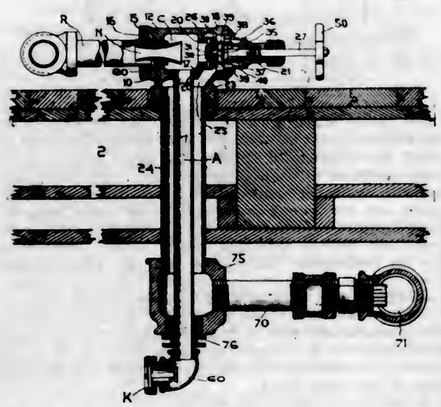
said lining and having recesses in the edges, such baffle plates being staggered relatively to the first.



4. A furnace door having a hollow lining member provided with a central opening, said member being radially corrugated around the said opening, a flange around the inner periphery of the said opening, a conduit engaging with said flange forming a discharge end, and concentric baffle plates in the said door.

5. A furnace door having a front plate provided with a plurality of air inlet orifices around the outer periphery, a hollow lining member provided with a central opening, said member being radially corrugated around the said opening, a concentric baffle plate on said lining, auxiliary baffle plates frictionally supported in said lining and staggered relatively to the first said baffle.

1,131,946. HEATING SYSTEM. LEWIS CRAVEN ORD, Montreal, Quebec, Canada, assignor to Richard W. Burnett, Montreal, Canada. Filed May 10, 1911. Serial No. 626,332. (Cl. 237—40.)



1. In a railway car heating system the combination with the train steam pipe, a radiator and a thermostatic trap at the discharge end of such radiator, of a casing having a partition dividing the interior thereof into air and steam compartments and having the intake end of said radiator connected to one side thereof; an injector tube carried by the said side of the casing within the connected end of the radiator; a valve seat carried by the partition in alinement with the said tube and effecting a communication between the said compartments; a main valve adapted to be seated on the seat and having a central port and a secondary valve chamber; a secondary valve within the secondary valve-chamber and controlling the said port; a valve stem having the main valve connected therewith with limited relative movement and said secondary valve rigidly connected thereto; a steam duct leading from the train steam-pipe to the steam compartment; an air pipe open to the atmosphere at one end and extending through the said steam duct and connected to the air compartment; and means for preventing the escape of steam at the open end of the air pipe.

2. In a railway car heating system the combination with the train steam pipe, a radiator and a thermostatic trap at the discharge end of such radiator, of a casing having a partition dividing the interior thereof into air and steam compartments and having the intake end of the said radiator connected to one side thereof; an injector tube carried by the said side of the casing within the connected end of the radiator; a valve seat carried by the partition in alinement with the said tube and effecting a communication between the said compartments; a main valve adapted to be seated on the seat and having a central port and a secondary valve chamber; a secondary valve within the secondary valve-chamber and controlling the said port; a valve stem having the main valve connected therewith with limited relative movement and said secondary valve rigidly connected thereto; a steam duct leading from the train steam-pipe to the steam compartment; an air pipe open to the atmosphere at one end and extending through the said steam duct and connected to the air compartment; and a normally open gravity check valve controlling the open end of the air pipe and adapted to be closed by pressure within the system.

3. In a railway car heating system the combination with the train steam pipe, a radiator and a thermostatic trap at the discharge end of such radiator, of a casing having a partition dividing the interior thereof into air and steam compartments and having the intake end of the said radiator connected to one side thereof; an injector tube carried by the said side of the casing within the connected end of the radiator; a valve seat carried by the partition in alinement with the said tube and effecting a communication between the said compartments; a main valve adapted to be seated on the seat and having a central port and a secondary valve chamber; a secondary valve within the secondary valve chamber and controlling the said port; a valve stem having the main valve connected therewith with limited relative movement and said secondary valve rigidly connected thereto; a steam duct leading from the train steam-pipe to the steam compartment; an air pipe open to the atmosphere at one end and extending through the said steam duct and connected to the air compartment; the wall of the casing having a drainage duct extending from the radiator pipe to the air pipe; and a gravity check valve controlling the open end of the air pipe.

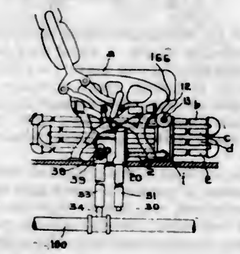
4. A railway car heating system comprising a steam supplying means constituting the initial steam supply to the system, means comprising an air duct for supplying air to said initial steam supplying means and mixing the said air with the steam so that it may flow therewith through the system; means for determinately varying the proportion of the said steam and air in mixture; means for closing said air duct in mixture; means for closing said air duct which normally stands open until a predetermined pressure is obtained in the radiator and which is closed automatically by an increase of pressure above the predetermined amount, and means whereby the air supply is heated before entering the steam supply means.

5. In a heating system, the combination with a source of supply of steam and a radiator communicating with said source of supply and provided with an air inlet arranged so that the flow of steam from the source of supply through the radiator will cause air to be introduced therein through said air inlet, of means automatically operated by the medium in said system for closing said air inlet, means for controlling the introduction of steam into said radiator comprising a main steam port, an auxiliary steam port of smaller capacity, and valves for controlling said ports.

[Claims 6 to 14 not printed in the Gazette.]

1,131,947. HEATING SYSTEM. LEWIS CRAVEN ORD, Montreal, Quebec, Canada, assignor to Richard W. Burnett, Montreal, Canada. Filed Apr. 12, 1912. Serial No. 690,433. (Cl. 237—6.)

1. The combination with a divided heat radiating coil, means for supplying a heat conducting medium thereto, and means controlling the supply, of an oblong hollow section of rectangular cross section extending across the coil uniting the divided portions thereof and containing distinct compartments effecting communication between the respective pipes of the coil, and a tubular valve chamber disposed longitudinally and having a rectilinear series of ports communicating with the respective compartments and a port in the end of the said hollow section communicating with one end of the valve chamber; a tubular valve within the valve chamber and having a spiral series of ports adapted to register with the respective ports of the said valve chamber; means for adjustably rotating the valve; and a fluid conductor leading from the port communicating with the end of the valve chamber to the controlling means.



2. The combination with a divided heat radiating coil, means for supplying a heat conducting medium thereto, and means controlling the supply, of an oblong hollow section of rectangular cross section extending across the coil uniting the divided portions thereof and containing distinct compartments effecting communication between the respective pipes of the coil, and a tubular valve chamber disposed longitudinally and having a rectilinear series of ports communicating with the respective compartments and a port in said hollow section communicating with the valve chamber at one end thereof; a tubular valve within the valve chamber and having a spiral series of ports adapted to register with the respective ports of the said valve chamber; manual means for adjustably rotating the valve; and a fluid conductor leading from the end port of the hollow section to the controlling means.

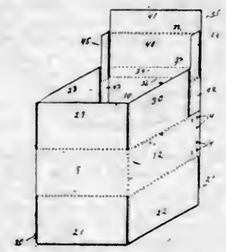
3. The combination with a divided heat radiating coil, means for supplying a heat conducting medium thereto, and means controlling the supply, of an oblong hollow section of rectangular cross section extending across the coil uniting the divided portions thereof and containing distinct compartments effecting communication between the respective pipes of the coil, and a tubular valve chamber disposed longitudinally and having a rectilinear series of ports communicating with the respective compartments and a port in said hollow section communicating with one end of the valve chamber; a tubular valve within the valve chamber and having a staggered series of ports adapted to register with the respective ports of the said valve chamber; means for adjustably rotating the valve consisting of an intermeshing pair of miter-gears and manually operative means for the gears, one of the gears being mounted rigidly upon the valve; and a fluid conductor leading from the port of the hollow section communicating with the end of the valve casing to the controlling means

4. The combination with a divided heat radiating coil, of an oblong hollow section of rectangular cross section containing distinct compartments with coupling apertures in opposite sides, couplings uniting the said coupling apertures to the separated parts of the coil; and a tubular valve chamber disposed longitudinally and having a rectilinear series of ports communicating with the respective compartments and a port in said hollow section communicating with one end of the valve chamber; a tubular valve within the valve chamber and having a staggered series of ports in the radial planes of the respective ports of the said valve chamber, and means for adjustably rotating the valve.

5. The combination with a divided heat radiating coil, of an oblong hollow section of rectangular cross section containing distinct compartments with coupling apertures in opposite sides, couplings uniting the said coupling apertures to the separated parts of the coil, and a tubular valve chamber disposed longitudinally and having a rectilinear series of ports communicating with the respective compartments and a port in said hollow section communicating with one end of the valve chamber; a tubular valve within the valve chamber and having a staggered series of ports adapted to register with the respective ports of the said valve chamber and means for adjustably rotating the valve consisting of an intermeshing pair of miter-gears, and manually operating means for the gears, one of the gears being mounted rigidly upon the valve.

[Claims 6 to 8 not printed in the Gazette.]

1,131,948. SHIPPING-PACKAGE. WILLIAM H. OSBORN, Louisville, Ky., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 30, 1914. Serial No. 869,367. (Cl. 229—16.)



1. A shipping package comprising a carton having an extension from the top at one side thereof, said carton having connected walls, flaps extended from the lower edges of said walls folded in to form the bottom of the carton, one of said walls continued above the others to form the back of said extension flaps extended from the upper edges of said walls folded to form the top of the main body of the carton and said extension, and a sleeve about said extension.

2. In a shipping package, a collapsible carton comprising a body, with an extension from the top at one side thereof, said carton having connected front, back, and side walls, the back wall being continued above the others of said walls, to form the back of said extension, flaps extended from the lower edges of said walls adapted to be folded in to form the bottom of the carton, flaps extended from the upper edges of said walls adapted to be folded to form the top of the body of the carton and of said extension.

3. In a shipping package, a collapsible carton comprising a body, with an extension from the top at one side thereof, said carton having connected front, back, and side walls, the back wall being continued above the others of said walls, to form the back of said extension, flaps extended from the lower edges of said walls adapted to be folded to form the bottom of the carton, flaps extended from the upper edges of said walls adapted to be folded to form the top of the body of the carton and of said extension and a sleeve adapted to fit about said extension.

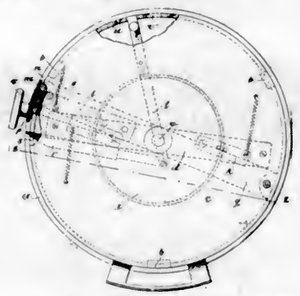
4. In a shipping package, a carton comprising a body portion with an extended portion rising from the top at the back thereof, said carton having connected front, back, and side walls the back wall being continued to the top of said extended portion, flaps extended from the lower edges of said walls and folded in to form the bottom of the carton, flaps extended from the upper edges of said walls to form the top, the flap extended from the back wall also forming the front wall of the extended portion.

5. In a shipping package, a carton comprising a body portion with an extended portion rising from the top at the back thereof, said carton having connected front, back

and side walls, the back wall being continued to the top of said extended portion, flaps extended from the lower edges of said walls and folded in to form the bottom of the carton, flaps extended from the upper edges of said walls to form the top, the flap extended from the back wall also forming the front wall of the extended portion, and a sleeve about said extended portion.

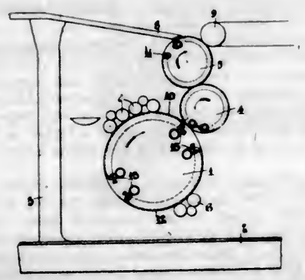
[Claims 6 to 14 not printed in the Gazette.]

1,131,949. COMPUTING CHEESE-CUTTER. JOHN H. OSBORNE, Anderson, Ind. Filed Apr. 22, 1912. Serial No. 692,254. (Cl. 31—68.)



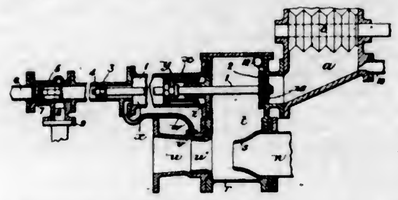
In a computing cheese cutter, the combination of a base, an oscillating wheel mounted on the base and provided with an upstanding clutch rim, means for oscillating said wheel variable distances, a cheese table rotatably mounted on the base, and means whereby said table will move with said wheel in one direction and will be held still when the wheel is oscillated in the opposite direction.

1,131,950. ROTARY OFFSET SHEET-PRINTING PRESS ADAPTING IT TO PERFECT. THOMAS ROBERT GILLETT PARKER, Broadheath, England, assignor to Linotype and Machinery Limited, London, England. Filed Nov. 12, 1913. Serial No. 800,436. (Cl. 101—100.)



In perfecting offset sheet presses, a perfecting mechanism consisting of a plate or form cylinder having two printing surfaces each a replica of the other and both angularly opposite to each other; an offset cylinder of half the diameter of the former and having its entire periphery coöperating with each printing surface in turn and each succeeding impression superposed exactly upon the preceding one, and an impression cylinder of the same diameter as the offset cylinder and coöperating therewith; the arrangement being such that during each revolution of the plate cylinder, a sheet is printed on one side by the impression cylinder with the impression offset on to the offset cylinder by one of the printing surfaces and perfected by the offset cylinder with the impression superposed by the other of the said surfaces, on the immediately preceding one.

1,131,951. APPARATUS FOR EJECTING ASHES. WILLIAM STEEL PARSONS, Ladywell, England, assignor to J. Stone & Company Limited, Deptford, England. Filed Aug. 4, 1911. Serial No. 642,373. (Cl. 114—186.)



1. Apparatus for discharging ashes and refuse comprising in combination, a hopper, a water duct having a subaqueous discharge end, forcing means for driving a stream of water through said duct, cones reversely arranged in operative relation to each other in said duct, and a discharge connection between said hopper and a point in said duct between said reversely arranged cones for the purpose set forth.

2. Apparatus for discharging ashes and refuse, comprising in combination, a hopper, a water duct having a subaqueous discharge end, the passage-way through which is constricted at one point, forcing means for driving a stream of water through said duct, and a discharge connection between said hopper and the constricted portion of said duct, for the purpose set forth.

3. Apparatus for discharging ashes and refuse comprising in combination, a hopper, a chamber, a connection between said hopper and said chamber, a contracted nozzle in said chamber and an expanding nozzle at the exit of said chamber, said nozzles being in operative relationship and having a sub-aqueous discharge, substantially as set forth.

4. Apparatus for discharging ashes and refuse, comprising in combination, a hopper, a chamber, a connection between said hopper and said chamber, a valve in said connection, a contracted nozzle entering said chamber, an expanding nozzle on the exit from said chamber, said expanding nozzle having a recess in its wall, a pressure responsive means operatively connected with said valve and a connection between said pressure responsive means and said recess, substantially as set forth.

5. Apparatus for discharging ashes and refuse, comprising in combination, a hopper, a chamber, a connection between said hopper and said chamber, a valve in said connection, a contracted nozzle entering said chamber, an expanding nozzle on the exit from said chamber, said expanding nozzle having a recess in its wall, a cylinder, a piston therein, a rod connecting said piston with said valve, and a pipe connecting said cylinder on one side of said piston with said recess, said cylinder having a pressure port on the opposite side of said piston, substantially as set forth.

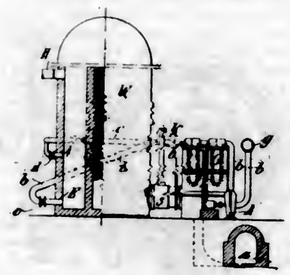
[Claims 6 to 25 not printed in the Gazette.]

1,131,952. PROCESS OF CONVEYING AIR FOR COMBUSTION OR GAS. ADOLF PFOSER, Achern, Germany. Filed Aug. 21, 1912. Serial No. 716,207. (Cl. 75—52.)

1. The method of controlling hot blast systems using air and gas as combustion media, which comprises preliminarily heating one of the combustion media by waste heat utilizers for the waste gases from hot blast stoves, forcing said medium by means of blowers through the waste heat utilizers and stoves and thereby controlling and boosting the stack draft by the speed of the blowers.

2. The method of controlling hot blast systems using air and gas as combustion media, which comprises preliminarily heating said media in separate waste heat utilizers for the waste gases from the stoves, and forcing said media by separate blowers through the waste heat utilizers and stoves, thereby controlling the volume of media by the speed of the blowers and controlling and boosting the stack draft.

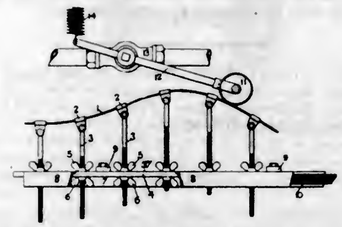
3. In a hot blast system, the combination with a hot blast stove, of a heat exchange through which the products of combustion of said stove pass, and a blower for causing one of the combustion media to pass through both the utilizer and stove.



4. In a hot blast system, the combination with a hot blast stove, of two heat exchangers through which the products of combustion pass to heat the same, two blowers, one for causing air to pass through one of the utilizers and the stove, and the other for causing gas to pass through the other to the stove, whereby the volume and proportion of gas mixture is controlled by the speed of the blowers, and the stack draft simultaneously controlled.

5. The method of controlling hot blast systems using air or gas as combustion media, which comprises storing the heat of the waste gases from the hot blast stoves, drawing said media through the supply of said heat and forcing it into the stoves for combustion and controlling the rate and volume of pre-heated media supplied to said stoves.

1,131,953. APPARATUS FOR DRAWING GLASS. WILLIAM WINDLE PILKINGTON, Prescot, England; Sarah Louisa Pilkington, Richard Austin Pilkington, and Alfred Cecil Pilkington, executors of said William Windle Pilkington, deceased, assignors to Pilkington Brothers, Limited, St. Helens, England. Filed Aug. 25, 1911. Serial No. 646,049. (Cl. 49—17.1.)

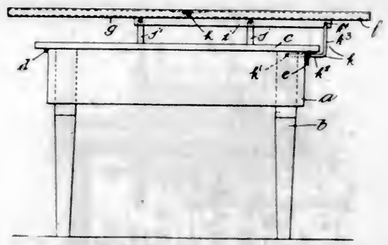


1. In apparatus for drawing glass, a variable cam pair of which one member is operatively connected with the drawing gear and the other member is operatively connected with a valve in the air supply system.

2. In apparatus for drawing glass, the combination with a flexible strip cam of a bar supporting the said strip cam, adjustable means connecting the strip cam to the bar for adjusting the distance between relatively opposite points in the said strip cam and bar, means operative to move the bar longitudinally and means coöperating with the flexible strip cam to operate a valve in the air supply system.

1,131,954. COMBINED TABLE AND IRONING-BOARD. ERNEST C. PRESCOTT, Haverhill, Mass., assignor to Prescott-Adams Table Co., Haverhill, Mass., a Corporation of Massachusetts. Filed Nov. 7, 1914. Serial No. 870,747. (Cl. 68—10.)

1. The combination of a table, an ironing-board pivoted thereon to swing about a transverse axis, and means to support the board in a position of use directly over the table top, said board being transversely movable on its pivot, to permit lateral adjustment thereof over the top to different sides thereof, substantially as described.



2. The combination of a table, an ironing-board pivoted thereon at one end to be swung about a transverse axis to a position above the table top, means between the board and top to hold the board in parallel relation to the top, while supported by its pivot, and means to permit transverse adjustment of the board over the top to permit the same to be held in a position of use adjacent either side of the table, substantially as described.

3. In combination with a table, an ironing-board, a pair of arms, pivotally connected at one end to the table to swing in axial alinement, and having a transversely extending pivot rod connecting the free ends thereof, and an ironing-board pivotally mounted on said rod in transverse relation, to be supported thereby and to be adjusted transversely thereon to different positions of use over the table top, substantially as described.

4. In combination with a table, an ironing-board, a pair of arms, pivotally connected at one end to the table, to swing in axial alinement, and having a transversely extending pivot rod connecting the free ends thereof, said pivot rod extending transversely of the table in parallel relation to its top, and to its pivotal axis, and arranged to be swung thereon to a position above the top, an ironing-board pivotally mounted at one end of said pivot rod in transverse relation and laterally slidable thereon to different positions, and means between the opposite end of the board and said rod to support the board in parallel relation to the top in the different positions of transverse adjustment thereof, substantially as described.

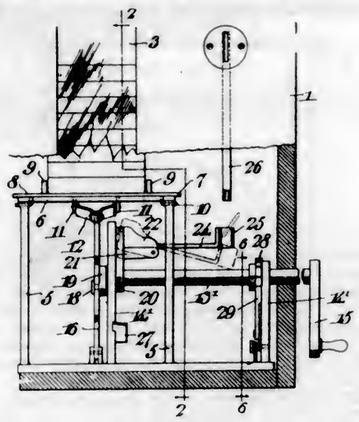
5. In combination with a table, an ironing-board transversely divided to form abutting and main and end sections, a hinge connecting said sections to permit the end section to be folded upon the upper side of the main section, a pivotal connection between the opposite end portion of the main section and the table, to permit the board to be moved to a position above the table top, an arm rigidly connected to the under side of the main section and extending longitudinally thereof beyond its abutting end, to provide a support for said end section when in position of use, and a support connected to the end portion of said arm and arranged to engage the table beneath the end section to support said sections in parallel relation to the table top, substantially as described.

1,131,955. VENDING-MACHINE. MICHAEL C. QUIGLEY and LIBERTY TREES, Greenfield, Ind. Filed June 1, 1914. Serial No. 842,054. (Cl. 194—27.)

1. In a device of the class described, a shaft, a latch carried by said shaft and normally holding the shaft against rotation, a receptacle in connection with said latch whereby upon introduction of a coin or check to said receptacle the latch will be operated to release the shaft, a guide for resetting said latch upon a complete revolution of said shaft, and means for rotating said shaft, substantially as described.

2. In a device of the class described, a support, a shaft mounted for rotation in said support, a stop on said support, a bracket fixedly secured to said shaft adjacent said support, a normally balanced latch pivoted in said bracket

provided at one end with a coin receptacle and adapted at its opposite end to normally engage said stop, a coin chute communicating with said coin receptacle, and means for rotating said shaft, substantially as described.



3. In a device of the class described, a casing provided with a coin chute, a support, a shaft rotatably mounted in said support, a lever pivoted upon said shaft and adapted at one end to coöperate with said support to hold said shaft against rotation and provided at its opposite end with a coin receptacle adapted to communicate with said coin chute when the shaft is in locked position, whereby upon introduction of a coin to the receptacle the lever will be operated to release said shaft, and means for rotating said shaft, substantially as described.

4. In a device of the class described, a casing provided with a coin chute, a support, a shaft rotatably mounted in said support, a latch pivoted upon said shaft adapted at one end to coöperate with said support to hold said shaft against rotation and provided at its opposite end with a coin receptacle, adapted to communicate with said coin chute when said shaft is in locked position whereby upon introduction of a coin to the receptacle the latch will be operated to release said shaft, a guide for resetting said latch upon complete rotation of the shaft, and means for rotating said shaft, substantially as described.

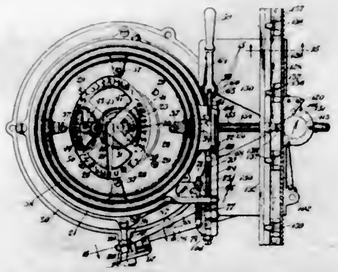
5. In a device of the class described, a coin chute, a rotary shaft, a support, a stop on said support adjacent said shaft, a balanced latch pivoted upon said shaft and adapted normally to coöperate with said stop to hold said shaft against rotation, said latch being provided with an arm extending into communication with said coin chute, and an arcuate guide secured to said support and adapted to be contacted by said latch in its rotary movement for resetting the same to contact said stop, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,131,956. STENCIL-CUTTING MACHINE. GEORGE REMENSNIDER, Belleville, Ill., assignor to Ideal Stencil Machine Company, Belleville, Ill., a Corporation of Illinois. Filed Feb. 1, 1913. Serial No. 745,544. (Cl. 101—57.)

1. In a stencil cutting machine, the combination with a rotary punch and die carrying member, of a table movable toward and away from the said member, a laterally movable carriage carried by said table and adapted to present a stencil sheet to the punch and die mechanism, and swiveled operating connections for said carriage, said connections being arranged below the feed plane of the stencil sheet.

2. In a stencil cutting machine, the combination with a rotary punch and the die carrying member, of a table movable toward and away from said member, a laterally movable carriage carried by said table and adapted to present a stencil sheet to the punch and die mechanism, feeding mechanism for the carriage carried by said table, and swiveled operating connections for said feeding mechanism.



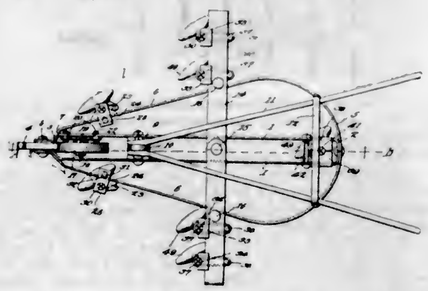
3. In a stencil cutting machine, the combination with a rotary punch and die carrying member, of a table movable toward and away from said member, a laterally movable carriage carried by said table and adapted to present a stencil sheet to the punch and die member, feeding mechanism for the carriage carried by said table, and swiveled operating connections for said feeding mechanism, said operating connections making sliding connection with said feeding mechanism.

4. In a stencil cutting machine, the combination with a rotary punch and die carrying member, of punches and dies carried by said member, a handle for operating said punches, a laterally movable carriage, bevel gearing, a link operated by said handle for actuating said bevel gearing, and swiveled connections operated from said beveled gearing for advancing said carriage.

5. In a stencil cutting machine, the combination with a rotary punch and die carrying member, of punches and dies carried by said member, a laterally movable carriage, a handle for operating the punches, bevel gearing operated from said handle, a rock shaft operated by said bevel gearing and adapted to telescope therewith, and driving mechanism for said carriage operated from said rock shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,131,957. CULTIVATOR. WALTER M. REYNOLDS, Hattiesburg, Miss., assignor of one-half to Marcus C. Vanderford, Hattiesburg, Miss. Filed Apr. 25, 1914. Serial No. 834,444. (Cl. 97—10.)



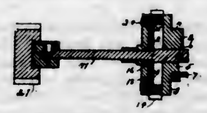
1. A cultivator including parallel central beams, rearwardly diverging side members merging at their rear ends into an arcuate portion, said arcuate portion being connected to the rear ends of the central beams and said side portions being connected at their front ends to the front ends of the central beams, oppositely extending pairs of arms, the beams and side portions being extended between the arms of the pairs, said pairs being pivotally connected, means for binding the arms upon the beams and side portions of the frame, and soil engaging devices carried by said side portions, arms and beams.

2. A cultivator including a frame made up of central beams, an arcuate portion secured to the rear ends of the beams and merging into forwardly converging side portions, the front ends of the side portions and of the beams being secured together, arms pivotally connected and arranged above and below the frame, said arms being disposed in pairs and adjustable angularly relative to each other and adjustable bodily relative to the frame, means for binding the arms upon the frame to hold them against movement relative to each other and to the frame, shanks, separate means for frictionally engaging the shanks and for holding them frictionally upon the side portions, arms and central beams respectively.

3. A cultivator including a frame made up of central beams, an arcuate portion secured to the rear ends of the beams and merging into forwardly converging side portions, said side portions and beams being secured together at their front ends, a grooved block engaging a portion of the frame, a shank engaging the block, means engaging the shank for holding it upon the block, and means engaging the frame and said holding means for binding the shank upon the block and to bind the block upon the frame.

4. A cultivator including a frame, said frame including central beams, a rear arcuate portion secured to the rear ends thereof and merging into forwardly converging side portions, and adjustable arms carried by the beams and side portions, and blocks frictionally engaging the frame, shanks engaging the respective blocks, and means engaging the frame for binding the shanks upon said blocks to hold the shanks against movement relative to the blocks and to hold the blocks against movement relative to the frame.

1,131,958. VARIABLE LINE-SPACER FOR TYPE-WRITING MACHINES. WILLIAM KING RICHARDSON, Leavenworth, Kans. Filed Oct. 6, 1914. Serial No. 865,316. (Cl. 197—123.)



1. In a typewriting machine, the combination of a platen, a loosely mounted ratchet wheel, a lever clutch fulcrumed upon said ratchet wheel, and mechanism for moving said lever clutch including a rotary operating element.

2. In a typewriting machine, the combination of a platen, a loosely mounted ratchet wheel, a lever clutch engaging one side of said ratchet wheel, and means for moving said lever clutch including a rotatable slide pin.

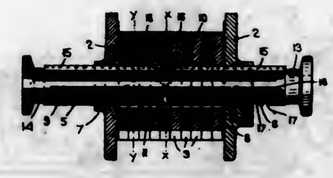
3. In a typewriting machine, the combination of a platen, a loosely mounted ratchet wheel, a lever clutch that engages said ratchet wheel, a slide pin engaging said lever clutch, and means for moving said lever clutch by turning the slide pin, whereby the platen and the ratchet wheel are locked against independent rotation.

4. In a typewriting machine, the combiantion of a platen, a line-space ratchet wheel adapted to be held by a detent, a platen head, a clutch carried thereby, a slide-pin a lever pin carried by said slide pin, and means for moving said clutch by turning said slide-pin, whereby said platen is locked or unlocked to said ratchet wheel.

5. In a typewriting machine, the combination of a platen, a loosely mounted ratchet wheel adapted to be held by a detent, a clutch, a slide-pin, a lever pin carried by said slide-pin, a cam adapted to engage said lever pin to effect locking or unlocking of the platen to said ratchet wheel by turning the slide pin.

[Claims 6 to 9 not printed in the Gazette.]

1,131,959. TYPE-ADJUSTING DEVICE FOR PRINTING-MACHINES. CHARLES F. ROBBINS, Abington, Mass., assignor to Markem Machine Company, Boston, Mass., a Corporation of Massachusetts. Filed June 6, 1914. Serial No. 843,561. (Cl. 101—183.)



1. In a numbering head for printing machines, the combination with a holder, of a type-disk-supporting member sustained thereby, a plurality of type disks supported on said member, means associated with said member for locking all of the type disks from rotary movement except one, a type-disk adjusting member extending axially through said supporting member and adapted to have interlocking engagement with said one type disk.

2. In a numbering head for printing machines, the combination with a holder, of a type-disk-supporting member sustained thereby, a plurality of type disks supported on said member, means associated with said member for locking all of the type disks from rotary movement except one, and a type-disk adjusting member extending axially through said supporting member and adapted to have interlocking engagement with said one type disk, said supporting member being adjustable axially of the type disks to bring the type-disk-adjusting member into operative engagement with any desired type disk.

3. In a numbering head for printing machines, the combination with a holder, of two non-rotary sleeves slidably mounted therein, a plurality of type disks sustained by said sleeves, each sleeve being provided with means to prevent from rotation all the type disks thereon except the one adjacent the meeting ends of the sleeves, and a type-disk-setting member having provision for engaging said type disk and rotating it.

4. In a device of the class described, the combination with a holder comprising two side pieces, of a plurality of type disks confined between said side pieces, a tubular supporting member slidably mounted in said side pieces and extending axially through the type disks, said member being made in two sections, a type-disk-adjusting member rotatably mounted in said supporting member and provided with a projection extending beyond the periphery of the supporting member between the sections thereof, said type disks having notches to be engaged by said pin, and splines carried by the supporting member sections and engaging the notches of all the type disks except the one engaged by the type-setting projection.

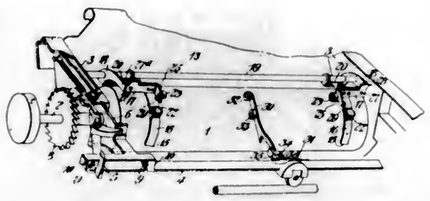
5. In a device of the class described, the combination with a holder, of two non-rotary sleeves slidably mounted therein, a plurality of type disks sustained by said sleeves, each sleeve being provided with means to prevent from rotation all the type disks thereon except the one adjacent the meeting ends of the sleeves, and a type-disk-setting member extending axially through said sleeves and having provision for engaging and rotating said latter type disk.

[Claim 6 not printed in the Gazette.]

1,131,960. TYPE-WRITING MACHINE. LYMAN R. ROBERTS, Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 19, 1914. Serial No. 812,976. (Cl. 197—139.)

1. In a typewriting machine, the combination with a platen and feed rolls bearing against the platen, of guide fingers for the marginal edges of the work sheet, pressure rolls carried by said guide fingers, auxiliary pressure rolls associated with said guide fingers, and located in advance

of said first-named pressure rolls, to engage the leading edge of a work sheet after said edge passes beyond the first-named rolls, a guide intermediate said guide fingers, and a pressure roll thereon substantially in alinement with said auxiliary rolls.



2. In a typewriting machine, the combination with a platen and feed rolls bearing against the platen, of guide fingers for the marginal edges of the work sheet, pressure rolls carried by said guide fingers, auxiliary pressure rolls associated with said guide fingers, and located in advance of said first-named pressure rolls, to engage the leading edge of a work sheet after said edge passes beyond the first-named rolls, a guide intermediate said guide fingers, and pressure rolls on said guide, one in advance of the other.

3. In a typewriting machine, the combination with a rotary platen, of a front guide bearing against the platen at a point in advance of the printing line, marginal guide fingers in position to overlie the margins of the work sheet in advance of the printing line, said front guide and said guide fingers each provided with a pressure roll to bear against the work sheet, an auxiliary pressure roll connected with each of said guide fingers, and an auxiliary pressure roll on said front guide, said auxiliary rolls being in advance of the first-named rolls and increasing the area of contact of the work sheet with the platen and assisting in preventing spaces between the work sheet and the platen.

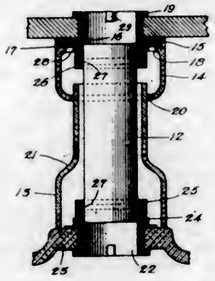
4. In a typewriting machine, the combination with a platen, of a guide finger to overlie the margin of a work sheet, a carrier for said guide finger mounted for adjustment longitudinally of the platen to adjust the guide finger to different positions along the platen, a pressure roll carried by said guide finger to bear against the work sheet, an auxiliary pressure roll mounted on said carrier and movable toward and from the platen independently of the movement of the guide finger, and means to hold said rolls with a yielding pressure against the platen, said auxiliary roll being located in advance of the first-mentioned roll and coöperating with the latter to prevent the formation of spaces between the work sheet and platen.

5. In a typewriting machine, the combination with a roller platen and a platen frame, of marginal guides positioned to engage the margins of a work sheet and hold against the platen a portion thereof that has passed beyond the printing line, a guide arm mounted on the platen frame at a point intermediate the said margin guides, and pressure rolls on said arm arranged to bear against the platen or a work sheet thereon, at points in advance of the printing line and adjacent the center of the platen surface as measured longitudinally of the platen, one of said rolls being a substantial distance in advance of the other.

[Claims 6 to 11 not printed in the Gazette.]

1,131,961. PIPE-CASING. ALFRED ROGERS, Milton, Mass., assignor to The Dececo Company, Boston, Mass., a Corporation of Rhode Island. Filed Sept. 3, 1913. Serial No. 788,022. (Cl. 137—95.)

1. The combination with a closet bowl and flushing tank, a pipe connecting said bowl and tank, means upon the exterior of said tank for coupling said pipe to said tank, and means upon the exterior of said bowl for coupling said pipe to said bowl; of a pipe casing comprising telescoping members inclosing both of said coupling means and said pipe and abutting respectively against said bowl and tank.



2. The combination with a closet bowl and flushing tank, a pipe connecting said bowl and tank, and means upon the exterior of said bowl for coupling said pipe to said bowl; of a pipe casing comprising telescoping members one of which is arranged to inclose said coupling means and abut against said bowl, and means arranged to hold the other of said telescoping members in abutting relation to said tank, said means being inclosed by said other member.

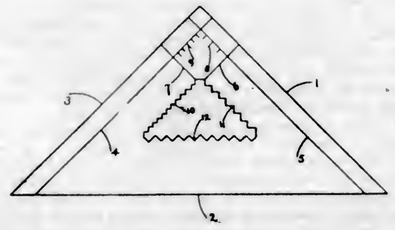
3. The combination with a closet bowl and flushing tank, a pipe connecting said bowl and tank, and means upon the exterior of said tank for coupling said pipe to said tank; of a pipe casing comprising telescoping members one of which is adapted to inclose said coupling means, and means carried by said coupling means and arranged to coact with the interior of said one of said telescoping members to support said one in abutting relation to said tank.

4. The combination with a closet bowl and flushing tank and a pipe connecting said bowl and tank; of a pipe casing comprising telescoping members of porcelain arranged to inclose said pipe and abut respectively against said bowl and tank.

5. The combination with a closet bowl and flushing tank, a pipe connecting said bowl and tank, and coupling means for making a tight joint between said pipe and tank; of a pipe casing comprising telescoping members one of which is adapted to inclose said coupling means and abut against said tank, said coupling means and the interior of said inclosing member having coactive means for detachably holding said member.

[Claim 6 not printed in the Gazette.]

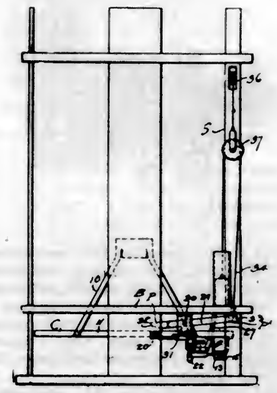
1,131,962. DRAFTSMAN'S TRIANGLE. EDWARD ROGERS, San Francisco, Cal. Filed June 8, 1914. Serial No. 843,697. (Cl. 33—104.)



1. In a ruling device, a member having a straight-edge and an edge at an angle to said straight-edge and provided with a series of equal-sized notches equidistantly spaced along said edge, said member also having a line spaced from said series at a distance equal to an integral number of said notches.

2. A ruling device comprising a draftsman's triangle having three differently notched inner edges, the notches along each edge being equal-sized and equidistantly spaced along said edges, said ruling device also having two lines thereon, one line spaced from one series of notches at a distance equal to an integral number of said notches and the other line spaced from another of the series of notches at a distance equal to an integral number of the latter notches.

1,131,963. SAFETY-GATE FOR ELEVATORS. FREDERICK C. ROJAHN, Altoona, Pa. Filed Jan. 21, 1914. Serial No. 813,513. (Cl. 187—58.)



1. A device of the character described including in combination with an elevator shaft and a car operable therein, gates slidable in the shaft and arranged at floor landings, a gate lifting lever fulcrumed at each floor landing and operably connected with its respective gate, brackets respectively arranged at and below the floor of the car, adjustably mounted and reversely arranged spring latches mounted in said brackets, and manually controlled lever means including a latch retracting bar for each latch for withdrawing said latches out of the path of said lifting levers or releasing them for engagement with either end of said levers according to the ascent or descent of the car.

2. A device of the character described including in combination with an elevator shaft and a car operable therein, gates slidably arranged in the shaft at floor landings, a gate lifting lever operatively connected to each gate, reversely arranged retractable latches disposed at different levels for engaging either end of a selected lifting lever to raise a particular gate, latch retracting means including horizontally movable retracting bars and an operating lever pivotally connected at its ends with said bars, and a single manually controlled lever having a link connection with the operating lever of the latch retracting means.

3. A device of the character described including in combination with an elevator shaft and an elevator car operable therein, gates vertically slidable in said shaft and arranged at floor landings, a gate lifting lever fulcrumed to the shaft at each floor landing and having a flexible connection with said gate, a bracket secured to the underside of the car floor and projecting below the same, a spring pressed latch mounted in said bracket, and a second bracket set in the floor of the car, a spring pressed latch mounted in said latter bracket, latch operating bars for retracting the latches, an operating lever pivotally connected at its ends with the latch operating bars and also fulcrumed to the car, and a manually controlled lever for actuating the said operating lever to cause the engagement of one of the latches with one end of the gate lifting lever.

1,131,964. MAIL-BAG. EDWARD JOHN SHUR, New Orleans, La. Filed June 18, 1910. Serial No. 567,622. (Cl. 150—13.)

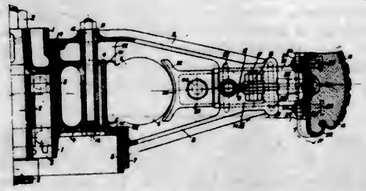


1. A receptacle to serve as a simple mail sack or as a locked mail pouch adapted to be caught by the usual mail car crane, comprising a mail pouch body of heavy material provided at its bottom with an external central ring and at its opposite end with a strap detachable at one end and normally when in use joining diametrically opposite points on the margin of said body and provided near its middle with a ring corresponding to the ring at the bottom, said body having an extension of its lateral wall composed of light flexible material carrying terminal closing devices and adapted to be pushed into said body and there held by said strap.

2. In a combined letter pouch and mail sack, the combination with a pouch of heavy material having at its bottom an external central ring and at its opposite end a strap normally in a diametrical plane, provided with a ring near its middle and detachably connected to the pouch's margin at one end, of a lighter flexible extension of the pouch provided with a suitable closure and adapted to be pushed toward the bottom of the pouch and held beneath said strap.

3. The combination with a heavy pouch body, of an external ring attached to the bottom of the pouch in its longitudinal axis, a strap having one end secured to a marginal portion of the other end of the body and its other end adapted to be detachably connected to said portion at a diametrically opposite point, a ring secured to the strap in said axis, a light, tubular flexible extension of said body provided with a suitable closure and adapted to lie within and be held by said strap and to be extended forming a portion of a materially longer bag when the end of the strap is detached; whereby a mail pouch adapted to be caught by a mail-car crane may be readily usable as a much larger sack for lower grade mail.

1,131,965. VEHICLE-WHEEL. ALGERNON THORNTON SMITH, Birkdale, England. Filed Feb. 19, 1914. Serial No. 819,794. (Cl. 152—30.)

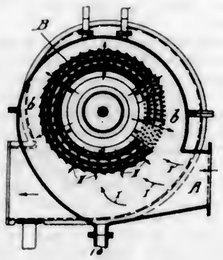


1. In a wheel, the combination of a hub formed in one piece and provided with transverse openings and an annular threaded flange on one end, a ring having radial arms, said ring having openings in its inner portion, bolts extending through the latter openings and the transverse

openings in the hub, the outer ends of the arms having depressed portions, a second ring internally threaded and engaging the threaded flange of the hub, said second mentioned ring having radial arms corresponding to the arms of the aforesaid ring and formed at their outer ends with depressions to form with the corresponding depressions on the first mentioned arms spoke guides, the arms of both rings adjacent the depressions having perforated lugs, bolts passing through said lugs to fasten the arms together, spokes extending through the guides, each spoke having at its opposite ends saddles, a pneumatic tire interposed between the hub and the saddles on the inner ends of the spokes, a resilient tire engaging the saddles at the outer ends of the spokes, and links pivotally connecting the saddles at the outer ends of the spokes.

2. In a wheel, the combination of a hub formed in one piece and provided with an end annular flange of greater diameter than the central portion of the hub, said annular flange being externally threaded, the hub being provided with transverse openings inside the plane of the threaded flange, a ring formed at its inner portion with openings which correspond with the openings in the hub, bolts extending through the openings to fasten the ring and the hub together, the ring having radial arms provided with depressions at their outer ends, lugs on the inner surface of the ring, said lugs being in substantial alinement with the threaded flange, a second ring having a threaded portion which engages the threaded flange, said second ring having arms formed at the outer ends with depressions which, with the depressions on the first mentioned arms form spoke guides, a pneumatic tire surrounding the central portion of the hub and confined between the threaded flange and the lugs on the first mentioned ring, spokes operating in the guides, said spokes engaging the pneumatic tire, and a resilient tire engaging the outer ends of the said spokes.

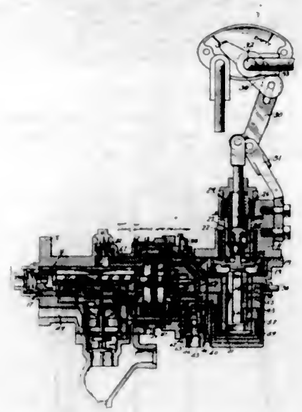
1,131,966. APPARATUS FOR COOLING, WASHING, AND MIXING GASES. HANS E. THEISEN, Munich, Germany. Filed June 16, 1914. Serial No. 845,379. (Cl. 48—141.)



In apparatus for the purpose set forth, the combination of a shaft, annular beaters carried thereby and adapted to project liquid centrifugally, a casing inclosing said beaters and forming a chamber about the same; the upper portion of said casing being concentric with said beaters and the lower portion of said casing having its opposite walls gradually divergent whereby the lower part of said chamber is of greater area than the upper part thereof, means for initially admitting gas to said apparatus through the lower enlarged part of said chamber, and means for supplying liquid to said beaters.

1,131,967. LOAD BRAKE APPARATUS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 5, 1910. Serial No. 590,927. (Cl. 188—11.)

1. In a load brake apparatus, the combination with a train pipe, triple valve, brake cylinder, and auxiliary reservoir, of a second brake cylinder, an additional source of fluid pressure adapted to equalize into the first brake cylinder upon a reduction in train pipe pressure, and means operating at a predetermined degree of pressure in the first brake cylinder for supplying fluid to the second brake cylinder.



2. In a load brake apparatus, the combination with a train pipe, triple valve, brake cylinder, and auxiliary reservoir, of an additional source of fluid pressure adapted to equalize into the brake cylinder in making a service application of the brakes, a second brake cylinder, and means for connecting the second brake cylinder to the first brake cylinder at a predetermined degree of pressure in the first brake cylinder.

3. In a load brake apparatus, the combination with a train pipe, triple valve, brake cylinder, and auxiliary reservoir, of a device for adjusting the apparatus for empty or for load braking, a reservoir containing fluid under pressure and adapted to load position to equalize into the brake cylinder in making a service application of the brakes, a second brake cylinder, means for opening communication from the first brake cylinder to the second brake cylinder at a predetermined degree of pressure in the first brake cylinder, and means for connecting up the second brake cylinder to exert power to apply the brakes with increased force upon supplying fluid under pressure to said second brake cylinder.

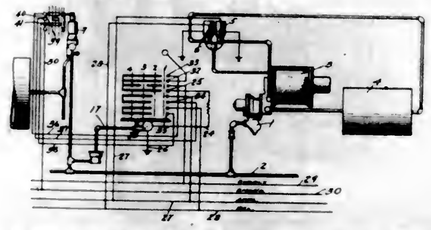
4. In a load brake apparatus, the combination with a train pipe, triple valve, brake cylinder, and auxiliary reservoir, of a reservoir containing fluid under pressure adapted to equalize into said brake cylinder upon the first movement of the triple valve to effect an application of the brakes, while fluid is supplied from the auxiliary reservoir to the brake cylinder in the usual manner.

5. In a load brake apparatus, the combination with a train pipe, triple valve, brake cylinder, and auxiliary reservoir, of a reservoir containing fluid under pressure adapted to equalize into said brake cylinder upon the first movement of the triple valve to effect an application of the brakes, while fluid is supplied from the auxiliary reservoir to the brake cylinder in the usual manner, a second brake cylinder, and means for opening communication from the first brake cylinder to the second brake cylinder at a predetermined degree of pressure in the first brake cylinder.

[Claims 6 to 22 not printed in the Gazette.]

1,131,968. ELECTROPNEUMATIC BRAKE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 10, 1910. Serial No. 591,724. (Cl. 188—4.)

1. The combination with an electro-pneumatic brake apparatus, of a switch device for controlling the electric brake circuits, pneumatically operated means for effecting an application of the brakes, and means controlled by said switch device for cutting said pneumatically operated means out of action in the off position of said switch.



2. The combination with an electro-pneumatic brake apparatus, of a switch device for controlling the electric brake circuits, a valve device adapted to effect a pneumatic application of the brakes, and means adapted upon movement of said switch device to off position for preventing the operation of said valve device.

3. The combination with an electro-pneumatic brake apparatus, having electric circuits for controlling the brakes and a train pipe, a reduction in pressure in which is adapted to effect an application of the brakes, of a switch device for controlling the electric brake circuits, an automatic vent valve device adapted to vent air from the train pipe and means operated by the movement of said switch device for cutting said vent valve device out of action.

4. The combination with an electro-pneumatic brake apparatus having a valve device operated by a reduction in train pipe pressure for effecting an application of the brakes and electric circuits for controlling the brakes, of means for venting air from the train pipe, an electrically operated device normally energized and adapted upon de-energization to effect the operation of said means, and a switch device for controlling the electric brake circuits and adapted in one position to prevent the operation of said means.

5. The combination with an electro-pneumatic brake apparatus having a valve device operated by a reduction in train pipe pressure for effecting an application of the brakes, and electric circuits for controlling the brakes, of means for venting air from the train pipe, an electrically operated device normally energized and adapted upon de-energization to effect the operation of said means, and a switch device for controlling the electric brake circuits and adapted upon movement to off position to cut said means out of action.

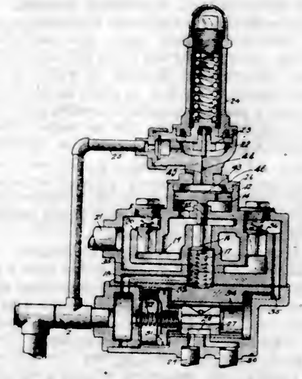
[Claims 6 to 11 not printed in the Gazette.]

1,131,969. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 16, 1910. Serial No. 592,699. (Cl. 188—1.)

1. In a fluid pressure brake, the combination with a main reservoir, of a parasite reservoir adapted to furnish fluid for purposes other than operating the brakes, and a valve device comprising a valve and an abutment subject to atmospheric pressure when fluid supply is cut off and means operating at a predetermined degree of pressure in the main reservoir for supplying fluid to said valve device for operating same to supply fluid from the main reservoir to the parasite reservoir.

2. In a fluid pressure brake, the combination with a main reservoir, of a parasite reservoir adapted to furnish fluid for purposes other than operating the brakes, a movable abutment, a valve operated thereby for controlling the supply of fluid from the main reservoir to the parasite reservoir, and means operating at a predetermined main reservoir pressure for supplying fluid to operate said abutment and valve.

3. In a fluid pressure brake, the combination with a main reservoir, of a parasite reservoir adapted to furnish fluid under pressure for purposes other than braking, and means operating upon a sudden reduction in main reservoir pressure for supplying air from the parasite reservoir to effect an application of the brakes.

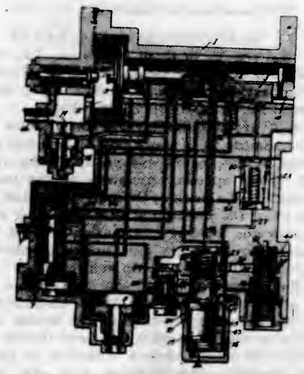


4. In a fluid pressure brake, the combination with a main reservoir and brake cylinder, of an additional reservoir normally charged with fluid under pressure, a valve mechanism operated by variations in fluid pressure for supplying air from the main reservoir to the brake cylinder, and means operating upon failure of the main reservoir supply to said valve mechanism for supplying fluid from the additional reservoir to effect an application of the brakes.

5. In a fluid pressure brake, the combination with a main reservoir and brake cylinder, of an additional reservoir normally charged with fluid under pressure, a valve mechanism operated by variations in fluid pressure for supplying air from the main reservoir to the brake cylinder, and a valve device subject to the opposing pressures of the main reservoir and said additional reservoir for controlling the supply of fluid from said additional reservoir to the brake cylinder.

[Claims 6 and 7 not printed in the Gazette.]

1,131,970. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 27, 1910. Serial No. 599,568. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a train pipe, pressure chamber, and a valve device subject to the opposing pressures of the train pipe and said pres-

sure chamber and having one position for supplying air from said chamber to effect an application of the brakes and another position for venting air from said chamber, of means for effecting an application of the brakes with fluid vented from said chamber upon a premature movement of said valve device to the venting position.

2. In a fluid pressure brake, the combination with a train pipe, a pressure chamber, and a valve device subject to the opposing pressures of the train pipe and said pressure chamber and having a position in which air is supplied from the pressure chamber to effect an application of the brakes upon a gradual reduction in train pipe pressure and another position in which air is vented from said pressure chamber upon a gradual reduction in train pipe pressure below the equalizing point, to prevent movement of said valve device to emergency position, of means for diverting the vented fluid to the brake cylinder upon premature movement of said valve device to the second position before equalization of pressures.

3. In a fluid pressure brake, the combination with a train pipe and triple valve device operating upon a gradual reduction in train pipe pressure for supplying air from the auxiliary reservoir to the brake cylinder and having a position for venting air from the auxiliary reservoir upon a gradual reduction in train pipe pressure below the equilizing point, of means for diverting the vented air to the brake cylinder upon movement to said position before equalization.

4. In a fluid pressure brake, the combination with a train pipe and a triple valve device operating upon a gradual reduction in train pipe pressure for supplying air from the auxiliary reservoir to the brake cylinder and having a position for venting air from the auxiliary reservoir upon a gradual reduction in train pipe pressure below the equalizing point, of a valve mechanism subject to train pipe pressure normally closing the communication for venting air from the auxiliary reservoir and operated by the flow of air from the auxiliary reservoir in said position for opening said communication.

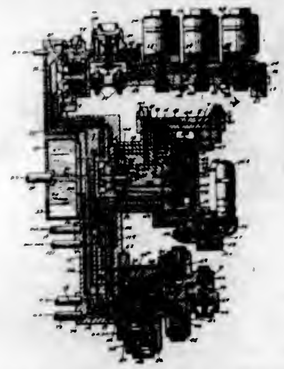
5. In a fluid pressure brake, the combination with a train pipe and a triple valve device operating upon a gradual reduction in train pipe pressure for supplying air from the auxiliary reservoir to the brake cylinder and having a position for venting air from the auxiliary reservoir upon a gradual reduction in train pipe pressure below the equalizing point, of means subject on one side to brake cylinder pressure and on the opposite side to the flow of air from the auxiliary reservoir in said position for controlling the supply of air to the brake cylinder and a valve mechanism subject to the opposing pressures of the train pipe and the flow of air from the auxiliary reservoir in said position for controlling the communication for venting air from the auxiliary reservoir.

[Claims 6 to 12 not printed in the Gazette.]

1,131,971. ELECTROPNEUMATIC BRAKE MECHANISM. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Sept. 10, 1912. Serial No. 719,607. (Cl. 188—4.)

1. In a fluid pressure brake, the combination with a train pipe, a chamber from which fluid is supplied to effect an application of the brakes, and an equalizing valve device subject to the opposing pressures of the train pipe and said chamber, of a passage through which fluid may be vented from the train pipe side of said equalizing valve device and means for limiting the venting of fluid through said passage when the train pipe pressure reduces at a greater rate than the pressures in said chamber.

2. In a fluid pressure brake, the combination with a train pipe, of an automatic valve device comprising valve means for effecting an application of the brakes, a piston chamber open to the train pipe, a piston therein for operating said valve means upon a reduction in train pipe pressure, a passage communicating with said chamber, electrically controlled means for venting fluid from said chamber through said passage, and a valve operated by said piston for closing communication from said chamber through said passage upon a reduction in pressure in said chamber.



3. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of an automatic valve device comprising valve means for supplying fluid from the auxiliary reservoir to the brake cylinder, a piston subject to the opposing pressures of the train pipe and auxiliary reservoir for operating said valve means, means for venting fluid from the train pipe through a passage communicating with the train pipe side of said piston, and a valve operated by said piston for closing communication from the train pipe through said passage upon a reduction in train pipe pressure.

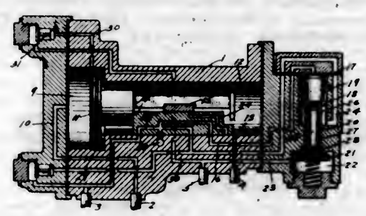
4. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of an automatic valve device comprising valve means for supplying fluid from the auxiliary reservoir to the brake cylinder, a piston subject to the opposing pressures of the train pipe and auxiliary reservoir for operating said valve means for venting fluid from said chamber and the train pipe side of said piston, electrically controlled means for venting fluid frpm said chamber and the train pipe through said passage, and a valve operated by said piston for closing communication through said passage upon a reduction in train pipe pressure.

5. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and brake cylinder, of an automatic valve device comprising valve means for supplying fluid from the auxiliary reservoir to the brake cylinder, a piston subject to the opposing pressures of the train pipe and auxiliary reservoir for operating said valve means, a passage communicating with the chamber at the train pipe side of said piston, electrically controlled means for venting fluid from said chamber and the train pipe through said passage, and a valve operated by said piston for closing communication through said passage upon a reduction in train pipe pressure, said valve device being adapted to open said passage by movement of the piston upon a reduction in auxiliary reservoir pressure by flow to the brake cylinder to a degree slightly less than the train pipe pressure.

[Claims 6 to 15 not printed in the Gazette.]

1,131,972. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Sept. 25, 1913. Serial No. 791,745. (Cl. 188—15.)

1. In a fluid pressure brake, the combination with a train pipe, brake cylinder, auxiliary reservoir, a service reservoir, and a valve device operated by a gradual reduction in train pipe pressure for supplying fluid from the auxiliary reservoir to the brake cylinder to effect a service application of the brakes, of means operated by the flow of fluid from said valve device to the brake cylinder in a service application for opening an additional communication for supplying fluid from the service reservoir to the brake cylinder.



2. In a fluid pressure brake, the combination with a brake cylinder, auxiliary reservoir, and a valve device for supplying fluid from the auxiliary reservoir to the brake cylinder to effect a service application of the brakes, of a service reservoir and means operated by the flow of fluid from the auxiliary reservoir to the brake cylinder in a service application for supplying fluid from the service reservoir to the brake cylinder.

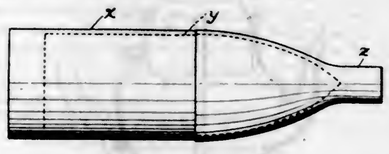
3. In a fluid pressure brake, the combination with a brake cylinder, auxiliary reservoir, and a valve device for supplying fluid from the auxiliary reservoir to the brake cylinder, of a service reservoir, a piston operated by fluid from the auxiliary reservoir for opening communication from the auxiliary reservoir to the brake cylinder, and a valve operated by said piston for opening communication from the service reservoir to the brake cylinder.

4. In a fluid pressure brake, the combination with a brake cylinder, a source of fluid pressure, and a valve device operating upon a gradual reduction in train pipe pressure for supplying fluid from said source to the brake cylinder to effect a service application of the brakes, of a piston subject to the opposing pressures of the brake cylinder and the flow of fluid from said source to the brake cylinder in a service application for controlling an additional communication for supplying fluid to the brake cylinder.

5. In a fluid pressure brake, the combination with a brake cylinder, an auxiliary reservoir, and a valve device for supplying fluid from the auxiliary reservoir to the brake cylinder to effect a service application of the brakes, of a service reservoir, a valve for controlling communication from the service reservoir to the brake cylinder, and a piston subject to the opposing pressures of the brake cylinder and the flow of fluid from the auxiliary reservoir to the brake cylinder in a service application for opening said valve.

[Claim 6 not printed in the Gazette.]

1,131,973. PROCESS OF FORGING PROJECTILES. FRANCIS S. WHITE, Philadelphia, Pa. Filed Nov. 14, 1913. Serial No. 800,922. (Cl. 86—9.)

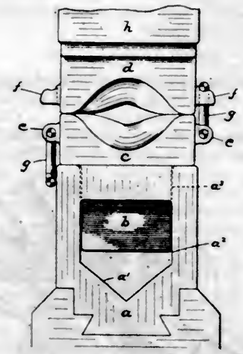


1. The process of making projectiles which consists in casting the ingot with a front portion gradually decreasing in diameter, and, while holding the ingot from substantial longitudinal movement, applying a forging pressure to substantially the entire front portion while causing the metal thereof to flow longitudinally in a forward direction toward and beyond its ultimate pointed extremity.

2. The process of making projectiles which consists in casting the ingot, forging the rear portion of the same into approximately cylindrical form, and, while holding the ingot from substantial longitudinal movement, applying a forging pressure to substantially the entire front portion while causing the metal thereof to flow longitudinally in a forward direction toward and beyond its ultimate pointed extremity.

3. The process of making projectiles which consists in casting the ingot with a front portion gradually decreasing in diameter, applying a forging pressure to its rear portion along lines extending longitudinally thereof, and while holding the ingot from substantial longitudinal movement, applying a forging pressure to substantially the entire front portion while causing the metal thereof to flow longitudinally in a forward direction toward and beyond its ultimate pointed extremity to form a reduced approximately cylindrical shaped head, and then turning the article to its finished shape and removing said head.

1,131,974. COMPOUND DIE FOR FORGING PROJECTILES. FRANCIS S. WHITE, Philadelphia, Pa. Filed May 15, 1914. Serial No. 838,658. (Cl. 78—60.)



A compound die comprising a fixed lower part constituting one die member, an intermediate part composed of two die members, the lower part being provided with a lateral aperture to receive the article to be forged and with side walls forming a vertical aperture to receive and guide the lower die member of the intermediate part, and a reciprocable upper part constituting another die member, the intermediate part being adapted to rest upon the side walls of the lower part during the reciprocation of said upper part, and means to connect the upper and intermediate parts to cause them to move in unison.

1,131,975. SASH-FASTENER. JOEL S. WHITEHURST, San Jose, Cal. Filed Apr. 14, 1913. Serial No. 760,994. (Cl. 16—18.)

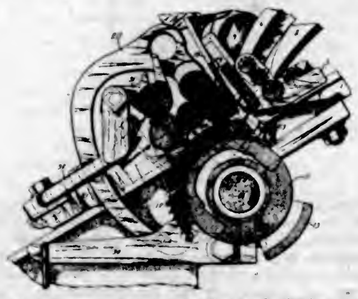


1. In a sash fastener, the combination of a casing, a sash, a perforated strip secured in the edge of said sash, a semi-circular tumbler located in a channel in said casing,

a bolt lever, equal in length, parallel with said sash, one end thereof bearing against the flat side of said tumbler and having bearings at its opposite end, a spring looped over and bearing against said lever at the bearing end thereof, a bolt loosely secured in a slot in said lever adjacent to said tumbler, passing inwardly and adapted to engage the perforations in said strip, and a key for turning said tumbler.

2. In a sash fastener, the combination of a casing, an upper and a lower sash, a perforated strip secured in the edge of each sash, a semi-circular tumbler, located in a channel in said casing at the point of meeting of said sashes, extending in part upward and downward from said point of meeting, bolt levers, parallel with said sashes, extending in opposite direction the full length of said sashes, one end of each lever extending over and bearing against the flat side of said tumbler a distance, bearings in the opposite end of each lever, a spring looped over and bearing against the outer side of each lever at the bearing end thereof, a bolt loosely secured in a slot in each lever adjacent to said tumbler, and a key passing through said tumbler for operating the same.

1,131,976. HEILMAN-TYPE COTTON-COMBER. GEORGE M. WHITIN, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed June 18, 1913, Serial No. 774,285. Renewed Aug. 8, 1914. Serial No. 855,906. (Cl. 19—6.)



1. In a cotton comber, lap feeding and nipping means, a comb cylinder, a detaching roll and a pair of piecing rolls, in combination with a presser roll applied jointly to said detaching roll and one of the piecing rolls and serving to press both against detached tufts passing beneath them.

2. In a cotton comber, the combination of a comb cylinder having a detaching segment, a detaching roll adapted to engage the segment, a second roll in front of the detaching roll, and a presser roller applied jointly to said rolls, serving to press them both upon the tufts passing beneath them.

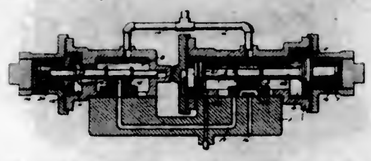
3. In a cotton comber, the combination of a comb cylinder having a detaching segment, of a segment-engaging detaching roll, a second roll in front of this detaching roll and out of contact therewith, a third roll in front of the second and in contact therewith and a presser roller applied jointly to said detaching and second rolls adapted to press the latter toward the segment and the other toward the third, said second and third rolls being piecing rolls adapted to piece the detached tufts.

4. In a Heilman type comber, a comb cylinder, a detaching roll guided in end bearings and a pair of piecing rolls, in combination with a presser roll applied jointly to said detaching roll and one of the piecing rolls, and means for applying pressure to the ends of the presser roll.

5. In a Heilman type comber, a comb cylinder having a detaching segment, a detaching roll, a pair of piecing rolls in front of the detaching roll, and a presser roller applied jointly to said detaching roll and to one of the piecing rolls and serving to press the one toward the segment and the other toward the third piecing roll, in combination with stirrups applied to the ends of the presser roll and means for preventing longitudinal displacement thereof.

[Claims 6 to 16 not printed in the Gazette.]

1,131,977. FLUID-PRESSURE BRAKE APPARATUS. FRANK H. WHITNEY, Mount Vernon, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 23, 1909. Serial No. 524,238. (Cl. 188—14.)



1. The combination with a fluid pressure brake, of an apparatus operating upon a reduction in train pipe pressure to a predetermined degree for venting air from the train pipe and means operating at a train pipe pressure less than said predetermined degree of pressure for holding the vent outlet closed.

2. The combination with a fluid pressure brake, of a mechanism operating upon reduction in brake pipe pressure by leakage for venting air from the brake pipe and means for preventing the further venting of air from the brake pipe upon the reduction in brake pipe pressure to a predetermined degree.

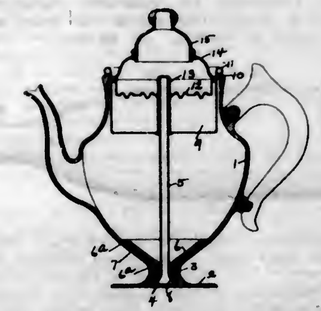
3. The combination with a fluid pressure brake, of a mechanism operating upon reduction in brake pipe pressure by leakage for venting air from the brake pipe and means for limiting the reduction in pressure due to the venting of air from the brake pipe to a predetermined degree.

4. The combination with a fluid pressure brake, of a valve device operating upon reduction in brake pipe pressure by leakage to a predetermined degree for opening communication for venting air from the brake pipe and a second valve device operating upon reduction in brake pipe pressure by said venting to a predetermined degree for closing said communication.

5. The combination with a fluid pressure brake, of a valve device subject to brake pipe pressure and adapted to open a communication for venting air from the brake pipe upon reduction in brake pipe pressure to a predetermined degree and means for preventing the venting of air from the brake pipe upon increasing the brake pipe pressure from a pressure less than said predetermined pressure.

[Claims 6 to 12 not printed in the Gazette.]

1,131,978. PERCOLATOR. SPENCER A. WILTSIE, Erie, Pa., assignor to The Griswold Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1912. Serial No. 672,534. (Cl. 53—3.)



1. In a percolator, the combination of a receptacle having a storage chamber for the body of the liquid; a heating chamber below the storage chamber and walls forming an extended capillary passage leading from the storage chamber to the heating chamber, said passage offering resistance and the capillary action in said passage being the dominant factor in said resistance to the backflow of liquid from the heating chamber to the storage chamber as steam is formed in the heating chamber; and a tube leading from the heating chamber to a point in the upper part of the storage chamber, the storage chamber, capillary passage, heating chamber and tube being in series.

2. In a percolator the combination of a receptacle having a storage chamber for the body of the liquid; a heating chamber below the storage chamber and having walls forming an extended capillary passage connecting the storage chamber with the heating chamber, the walls of the receptacle forming a part of the walls of said passage, said passage offering resistance and the capillary action in said passage being the dominant factor in said resistance to the backflow of liquid from the heating chamber to the storage chamber as steam is formed in the heating chamber; and a tube leading from the heating chamber to a point in the upper part of the storage chamber, the storage chamber, capillary passage, heating chamber and tube being in series.

3. In a percolator, the combination of a receptacle having a storage chamber for the body of the liquid; a heating chamber below the storage chamber; a part arranged in the bottom of the receptacle and distanced from the walls of the receptacle forming in conjunction with said walls of the receptacle an extended capillary passage converging downwardly from the storage chamber to the heating chamber connecting the storage chamber and the heating chamber, said passage offering resistance and the capillary action in said passage being the dominant factor in said resistance to the backflow of liquid from the heating chamber to the storage chamber as steam is formed in the heating chamber; and a tube extending from the heating chamber through the part to a point in the upper part of the storage chamber, the storage chamber, capillary passage, heating chamber and tube being in series.

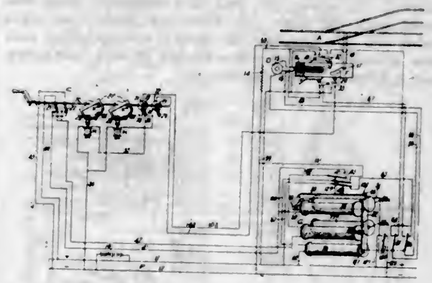
4. In a percolator, the combination of a receptacle having a storage chamber for the body of the liquid; a heating chamber below the storage chamber; a part arranged in the storage chamber and forming a cover for the heating chamber, said part having an opening flared toward the bottom of the heating chamber, said part extending along the walls of the receptacle and spaced from said walls forming between the part and the walls of the receptacle an extended capillary passage connecting the storage chamber and the heating chamber, said passage offering resistance and the capillary action in said passage being the dominant factor in said resistance to the backflow of liquid from the heating chamber to the storage chamber as steam is formed in the heating chamber; and a tube extending from the opening in said part to the upper part of the storage chamber, the storage chamber, capillary passage, heating chamber and tube being in series.

5. In a percolator, the combination of a receptacle having a storage chamber and a heating chamber; a removable part distanced from the walls of the receptacle forming with the walls of the receptacle an extended capillary passage, said passage offering resistance and the capillary action in said passage being the dominant factor in said resistance to the backflow of liquid from the heating chamber to the storage chamber as steam is formed in the heating chamber, connecting the storage chamber with the heating chamber; and a tube extending from the heating chamber to a point in the upper part of the storage chamber, the storage chamber, capillary passage, heating chamber and tube being in series.

[Claims 6 to 13 not printed in the Gazette.]

1,131,979. RAILWAY-TRAFFIC-CONTROLLING APPARATUS. FRANK J. ACKERMAN, Pittsburgh, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Nov. 11, 1912. Serial No. 730,543. (Cl. 246—53.)

1. In combination, a railway traffic controlling device, a reversely operable motor for operating said device, an electromagnetic device for controlling the reverse operations of the motor, a source of current, a pair of conductors connected wth said device, a pole-changer for reversibly connecting said conductors with the source, a contact included in one of said conductors, a second electromagnetic device controlling said contact, one of the terminals of said second electromagnetic device being connected with one of said conductors, means governed by the first mentioned electromagnetic device for connecting the other terminal of the second electromagnetic device with one pole or the other of the source, the two said terminals being connected with the same pole when the first electromagnetic device and the pole-changer occupy corresponding positions whereby at such times neither of said electromagnetic devices is consuming current.



2. In combination, a railway traffic controlling device, a reversely operable motor for operating the device, an electromagnetic device for controlling the reverse operations of the motor, a source of current, a pair of conductors connected with said electromagnetic device, a pole-changer for reversibly connecting said conductors with the source, a contact included in one of said conductors, and electromagnetic means connected with one of said conductors for controlling said contact.

3. In combination, a railway traffic controlling device, a reversely operable motor for operating the device, means for controlling the reverse operations of said motor, a source of current, a pair of conductors connected with said means, means for reversibly connecting said conductors with the said source, a contact included in one of said conductors, and electromagnetic means connected with one of said conductors for controlling said contact.

4. In combination, a railway traffic controlling device, a reversely operable motor for operating the device, an electromagnetic device responsive to reversals of current in its winding for controlling the reverse operations of the motor, a source of current, a pair of conductors connected with said electromagnetic device, a pole changer for reversibly connecting said conductors with the source, a contact included in one of said conductors, and electromagnetic means connected with one of said conductors for controlling said contact.

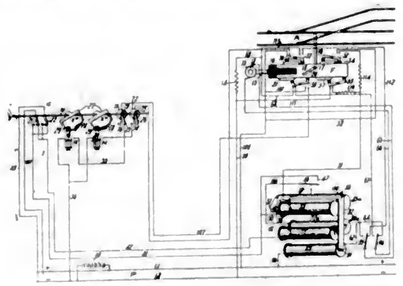
5. In combination, a railway traffic controlling device, a reversely operable motor for operating the device, an electromagnetic device responsive to reversals of current in its winding for controlling the reverse operations of said motor, a source of current, a pair of conductors connected with said electromagnetic device, a pole-changer for reversibly connecting said conductors with the said source, a contact included in one of said conductors, and means controlled by the pole-changer and by the electromagnetic device for opening said contact when the pole-changer and the electromagnetic device occupy corresponding positions whereby at such times no current is consumed.

[Claims 6 to 40 not printed in the Gazette.]

1,131,980. RAILWAY-TRAFFIC-CONTROLLING APPARATUS. FRANK J. ACKERMAN, Pittsburgh, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Original application filed Nov. 11, 1912. Serial No. 730,543. Divided and this application filed Dec. 1, 1913. Serial No. 803,925. (Cl. 246—53.)

1. In combination, a railway traffic controlling device, an electromagnetic device responsive to reversals of cur-

rent for controlling the said traffic controlling device, a source of current, a pair of conductors connected with said electromagnetic device, a pole-changer for reversibly connecting said conductors with the source, a contact included in one of said conductors, a second electromagnetic device controlling said contact, one of the terminals of said second electromagnetic device being connected with one of said conductors, and means controlled by the traffic controlling device for connecting the other terminal of the second electromagnetic device with one pole or the other of the source, the two said terminals being connected with the same pole when the traffic controlling device and the pole-changer occupy corresponding positions whereby at such times neither of said electromagnetic devices is consuming current.



2. In combination, a railway traffic controlling device, an electromagnetic device responsive to reversals of current for controlling the said traffic controlling device, a source of current, conductors connected with said electromagnetic device, a pole-changer for reversibly connecting said conductors with the source, a contact included in one of said conductors, and electromagnetic means connected with one of said conductors and governed by the traffic controlling device for controlling said contact.

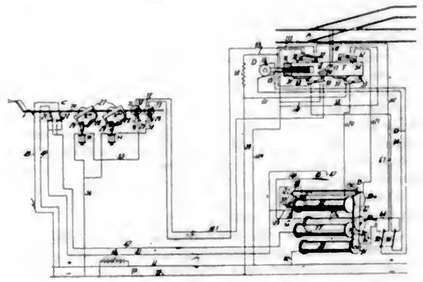
3. In combination, a railway traffic controlling device, an electromagnetic device responsive to reversals of current in its windings for controlling said traffic controlling device, a source of current, a pair of conductors connected with said electromagnetic device, a pole-changer for reversibly connecting said conductors with the source, a contact included in one of said conductors, and means controlled by the traffic controlling device for opening said contact when the traffic controlling device and the pole-changer occupy corresponding positions whereby at such times no current is consumed.

4. In combination, a railway traffic controlling device, a source of current, a polarized relay comprising an armature, contacts and connections controlled by said armature for controlling the traffic controlling device; a pair of conductors connected with the winding of the said relay, a pole-changer for reversibly connecting said conductors with the source, a neutral relay a contact of which is included in one of the said conductors, one of the terminals of said neutral relay being connected with one of said conductors, contacts and connections operated by the traffic controlling device for connecting the other neutral relay terminal with one pole or the other of the said source, the said terminals being connected with the same pole when the traffic controlling device and the pole-changer occupy corresponding positions.

5. In combination, a railway traffic controlling device, a motor for actuating it in reverse directions, a source of current, a polarized relay comprising an armature, contacts and connections controlled by said armature for supplying current from said source to the motor to cause the latter to operate in one direction or the other according to the position of the armature; a pair of conductors connected with the winding of said relay, a pole-changer for reversibly connecting said conductors with the source, a magnet, an armature controlled thereby and adapted to lock the polarized relay armature in either of its control positions, one terminal of the magnet being connected with one of said conductors, contacts and connections operated by the traffic controlling device for connecting the other terminal of the magnet with one pole or the other of the source, the said magnet terminals being connected with the same pole when the traffic controlling device and the pole-changer occupy corresponding positions.

[Claims 6 to 21 not printed in the Gazette.]

1,131,981. RAILWAY-TRAFFIC-CONTROLLING APPARATUS. FRANK J. ACKERMAN, Pittsburgh, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Original application filed Nov. 11, 1912, Serial No. 730,543. Divided and this application filed Dec. 1, 1913, Serial No. 803,926. Renewed Nov. 19, 1914. Serial No. 873,050. (Cl. 246—53.)



1. In combination, a railway traffic controlling device, electromagnetic means for controlling said device, a source of current, a circuit for said means including said source, a relay having a contact for controlling said circuit, said relay comprising two windings, means controlled by the traffic controlling device for connecting one terminal of one winding with one pole of the source or one terminal of the other winding with the other pole of the source according to the position of the traffic controlling device, and means for connecting the remaining terminal of each winding with one pole or the other of said source.

2. In combination, a railway traffic controlling device, electromagnetic means comprising a member for controlling said device, a source of current, a circuit for controlling said means, a relay comprising a contact for the control of said circuit, means controlled by the armature of said relay for locking said member, said relay comprising two windings, means controlled by the traffic controlling device for connecting one terminal of one winding with one pole of the source or one terminal of the other winding with the other pole of the source according to the position of the traffic controlling device, and means for connecting the remaining terminal of each winding with one pole or the other of said source.

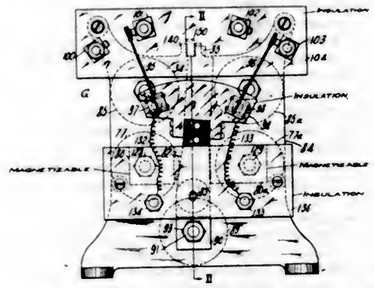
3. In combination, a railway traffic controlling device, electromagnetic means comprising a member for controlling said device, a source of current, an electromagnet having an armature adapted to lock said member, said electromagnet comprising two windings, means controlled by the traffic controlling device for connecting one terminal of one winding with one pole of the source or one terminal of the other winding with the other pole of the source according to the position of the traffic controlling device, and means for connecting the remaining terminal of each winding with one pole or the other of said source.

4. In combination, a railway traffic controlling device, electromagnetic means for the control thereof, a magnet for controlling said means and comprising two windings, a source of current, means controlled by the traffic controlling device for connecting one terminal of one winding with one pole of the source or one terminal of the other winding with the other pole of the source according to the position of the traffic controlling device, and means for connecting the remaining terminal of each winding with one pole or the other of said source.

5. In combination, a railway traffic controlling device, electromagnetic means responsive to reversals of current for controlling said device, a source of current, a circuit for said means including said source and a pole-changer, a magnet for controlling said electromagnetic means and comprising two windings one terminal of each winding being connected with said circuit between the pole-changer and said means, means controlled by the traffic controlling device for connecting the other terminal of one winding with one pole of the source or the other terminal of the other winding with the other pole of the source, the said connections being so arranged that when the pole-changer and the traffic controlling device occupy corresponding positions the two terminals of one winding are connected with one pole of the source or the two terminals of the other winding are connected with the other pole of the source.

[Claims 6 to 10 not printed in the Gazette.]

1,131,982. CIRCUIT-CONTROLLING DEVICE. FRANK J. ACKERMAN, Pittsburgh, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Original application filed Nov. 11, 1912, Serial No. 730,543. Divided and this application filed Dec. 9, 1913. Serial No. 805,543. (Cl. 175—339.)



1. In combination, a polarized relay comprising a polarized armature, an electromagnet and a neutral armature controlled thereby, and means controlled by said neutral armature for mechanically locking the polarized armature when the electromagnet is deënergized and for unlocking the polarized armature when the electromagnet is energized.

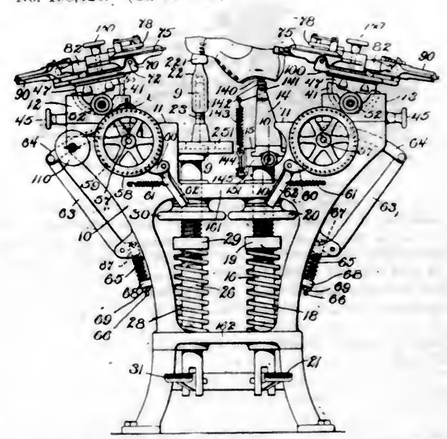
2. In combination, a polarized relay comprising a polarized armature, an electromagnet and a neutral armature controlled thereby, and means controlled by said neutral armature for mechanically locking the polarized armature.

3. In combination, a polarized relay comprising a polarized armature, a locking segment having a locking dog carried by said armature, an electromagnet and a neutral armature controlled thereby, and a member secured to said neutral armature and adapted to co-act with the dog to lock the polarized armature.

4. In combination, a polarized relay comprising a polarized armature adapted to occupy one position or another according to the direction of current through the relay winding, an electromagnet, and an armature controlled thereby and adapted to lock the polarized armature in either of its two said positions.

5. In combination, a relay comprising a winding and a polarized armature, an electromagnet and a neutral armature controlled thereby, means controlled by said neutral armature for mechanically locking the polarized armature, and a contact controlled by said neutral armature for controlling the supply of current to said winding.

1,131,983. LASTING-MACHINE. HARRIE A. BALLARD, Ashland, Mass., assignor, by mesne assignments, to The Boylston Manufacturing Company, Boston, Mass., a Corporation of New Jersey. Filed Mar. 16, 1914. Serial No. 198,420. (Cl. 12—14.)



1. A lasting machine comprising end wiper mechanism, a vertically movable reciprocatory post or column having a flat head, means for raising and means for depressing said post or column, and a jack dovetailed on said head and bodily adjustable transversely thereon whereby said jack may be adjusted laterally with relation to the end wiper mechanism without varying its angularity thereto.

2. In a lasting machine, a frame, end wiping mechanisms, a main jack, a toe jack, a movable column for each jack, means on each column for adjustably holding the respective jacks, fixed bearings in said frame for said columns, adjustable members for limiting the movement of the columns toward the wiping mechanisms, and a pair of treadles each pivotally connected directly with one of the columns.

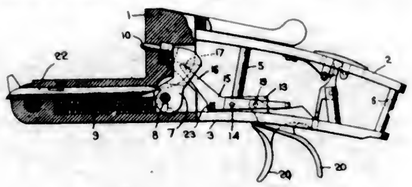
3. A lasting machine comprising a carrier, a wiper-carrying head, two members interposed between said carrier and said head and respectively movable about axes extending at right angles to each other, each of said members having segmental gear teeth, and transversely arranged worms for adjusting said members and engaged with the teeth thereof.

4. A lasting machine comprising a support, and three tilting members superimposed one upon another, all being mounted upon said support, the axes of the first and third tilting members being transverse to the axis of the intermediate tilting member, a manually operative member mounted on said intermediate member, wiping means mounted upon the third tilting member, and means connecting said manually operative member and said wiping means for moving the latter relatively to the third tilting member, said means engaging the third tilting member and adapted to move the same relatively to said intermediate member.

5. A jack, a base member movable toward and from the jack, conciting wipers, a support for said wipers, means for pivoting said support to said base member to permit said support to tilt about an axis transverse to said lines of movement of the base member and closely adjacent the under sides of the wipers, an operating member mounted on said base member, and means connecting said operating member to the wipers and to said support, so constructed and arranged that said operating member may tilt the support and operate said wipers whereby the wipers may be caused to draw the upper across the end of the last and then wipe the upper across the bottom of the last.

[Claims 6 to 37 not printed in the Gazette.]

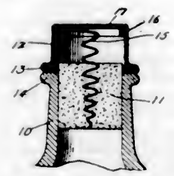
1,131,984. BREECH-LOADING FIREARM. WILLIAM O. BARNES, Leominster, Mass., assignor to Mary E. Johnson, trustee, Fitchburg, Mass. Filed Aug. 24, 1914. Serial No. 858,209. (Cl. 42—41.)



1. In a double barrel breech loading firearm, the combination of a breech block, a trigger plate removably connected to the breech block, and provided with an upwardly projecting bearing block, the said bearing block having a pair of vertical slots in the rear thereof, a bearing pin in the forward end of said bearing block, a pair of sears mounted on said bearing pin, one at each side of said block, a second bearing pin in the rear of said block, a pair of triggers mounted on said bearing pin, one in each of said slots.

2. In a double barrel breech loading firearm, the combination of a breech block, a trigger plate removably connected to the breech block, a pair of spring-pressed hammers pivoted on the breech block and each provided with projections near the top extending inwardly therefrom to form adjacent shoulders, a bearing block projecting upwardly from the trigger plate provided with a pair of vertical slots in its rear, a pair of sears pivoted, one at each side on said bearing block and having their forward arms extending between the hammers and respectively beneath the corresponding shoulders on said hammers, each sear being provided with a hook to engage the corresponding shoulder, a pair of triggers, one pivoted in each of said slots and each trigger engaging with the rear arm of its corresponding sear.

1,131,985. BOTTLE-CLOSURE. FREDERICK W. BELLOIS, New York, N. Y. Filed Jan. 10, 1914. Serial No. 811,336. (Cl. 215—53.)

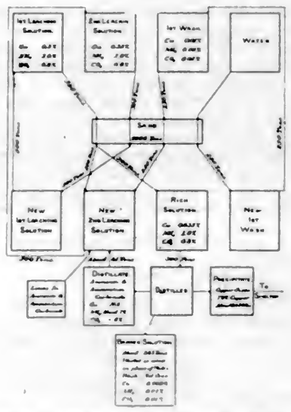


The combination with a bottle stopper of easily penetrable material, of a permanent imperforate cap thereon entirely inclosing the stopper and engaging the mouth of the bottle, and a helical projection non-rotatably attached to the interior of the cap and extending therefrom to engage the stopper whereby rotation of the cap serves to lift the stopper in the neck of the bottle.

1,131,986. PROCESS OF EXTRACTING COPPER. CENTENNIAL HARRY BENEDICT, Lake Linden, Mich. Filed Apr. 18, 1914. Serial No. 832,767. (Cl. 75—18.)

1. A cyclical process of extracting copper from copper-bearing sands or the like, which consists in subjecting a body of the sand to the successive action of a plurality of solutions, the initial solution containing a cupric-ammonium compound, removing substantially all of the copper from a portion of the stronger effluent, and re-applying the remaining solutions, as solvents, to the treatment of copper-bearing sands.

2. A cyclical process of extracting copper from copper-bearing sands or the like, which consists in subjecting a body of the sand to the successive action of a plurality of solutions, the initial solution containing a cupric-ammonium compound, removing substantially all of the copper from a portion of the effluent, the amount of copper thus removed being practically equal to the total copper extracted from the sand, and re-applying the remaining solutions, as solvents, to the treatment of copper-bearing sands.



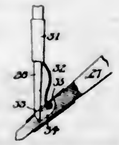
3. A cyclical process of extracting copper from copper-bearing sands or the like, which consists in subjecting a body of the sand to the action of a plurality of dilute ammoniacal solutions containing a cupric compound, the initial solution being relatively rich in copper, removing substantially all of the copper from a portion of the stronger effluent, and re-applying the remaining solutions, as solvents, to the treatment of copper-bearing sands.

4. A cyclical process of extracting copper from copper-bearing sands or the like, which consists in subjecting a body of the sand to the action of a plurality of dilute ammoniacal solutions containing a cupric compound, the initial solution being relatively rich in copper, removing substantially all of the copper from a portion of the effluent, the amount of copper thus removed being practically equal to the total copper extracted from the sand, and re-applying the remaining solutions, as solvents, to the treatment of copper-bearing sands.

5. In a cyclical process of extracting copper, the steps which consist in subjecting the copper-bearing material to the solvent action of a plurality of dilute ammoniacal solutions each containing a cupric compound, said solutions of progressively decreasing copper-content.

[Claims 6 and 7 not printed in the Gazette.]

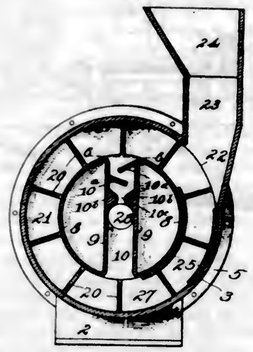
1,131,987. COMBINED STRETCHER AND BODY-CARRIER. JOHN BIZON, Bretz, W. Va. Filed June 22, 1914. Serial No. 846,523. (Cl. 155—6.)



In a device of the class described, a frame embodying folding side bars and rear supporting legs and brace rods, each supporting leg having a recess therein adjacent the lower end, a sleeve mounted on the lower end of each leg with an opening therein adapted to register with the leg recess, a collar mounted on each brace rod, and a resilient hooked arm projecting downwardly and outwardly from

said collar and rod, said rod end and hooked arm adapted to be received in said leg recess with the hooked arm engaging said sleeve to hold the rod and leg in locked condition and prevent accidental displacement.

1,131,988. FUEL-FEEDER. FRANK E. BOCORSELSKI, Richmond, Va. Filed Mar. 14, 1914. Serial No. 824,759. (Cl. 110—105.)



1. A fuel feeder comprising a stationary casing provided with a diametrically-disposed fuel passage, and a fuel inlet, a series of radially-arranged revoluble buckets adapted to successively receive fuel through said inlet, means for directing a fluid blast against the stream of fuel in its travel through said passage, and means for retarding the movement of the fuel through the passage.

2. A fuel feeder comprising a stationary casing provided with a diametrically-disposed fuel passage, and a fuel inlet, a series of radially-arranged revoluble buckets adapted to successively receive fuel through said inlet, means for directing a fluid blast against the stream of fuel in its travel through said passage, and means for retarding the movement of the fuel through the passage consisting of obstructions arranged therein.

3. A fuel feeder comprising a stationary casing provided with a diametrically-disposed fuel passage, and a fuel inlet, a series of radially-arranged revoluble buckets adapted to successively receive fuel through said inlet, means for directing a fluid blast against the stream of fuel in its travel through said passage, and means for retarding the movement of the fuel through the passage consisting of baffles projecting from the walls of the passage.

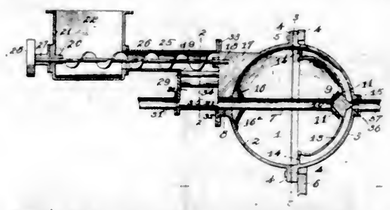
4. A fuel feeder comprising a stationary casing provided with a diametrically-disposed fuel passage, and a fuel inlet, a series of radially-arranged revoluble buckets adapted to successively receive fuel through said inlet, means for directing a fluid blast against the stream of fuel in its travel through said passage, and means for retarding the movement of the fuel through the passage consisting of baffle plates projecting from the opposite walls of the passage, and inclined toward each other.

5. A fuel feeder comprising a stationary casing provided with a diametrically-disposed fuel passage, and a fuel inlet, a series of radially-arranged revoluble buckets adapted to successively receive fuel through said inlet, means for directing a fluid blast against the stream of fuel in its travel through said passage, and means for retarding the movement of the fuel through the passage consisting of inclined baffle plates projecting from the opposite walls of the passage, and extending throughout the length of the passage.

[Claims 6 to 9 not printed in the Gazette.]

1,131,989. FUEL-FEEDER. FRANK E. BOCORSELSKI, Richmond, Va. Filed Mar. 14, 1914. Serial No. 824,760. (Cl. 110—105.)

1. A feeder for pulverized fuel, comprising a receptacle, an air tube diametrically-disposed therein, an air blast pipe communicating with one end of said tube, means within the receptacle for obstructing the fuel, and means for revolving said receptacle to disintegrate the fuel by centrifugal motion while it is being carried by the air blast for discharge by said blast centrally of said receptacle.



2. A fuel feeder comprising a circular receptacle, provided with internal oppositely disposed confronting deflectors, an air tube extending through the receptacle and flared at its discharge end, and means for feeding pulverized fuel to said receptacle.

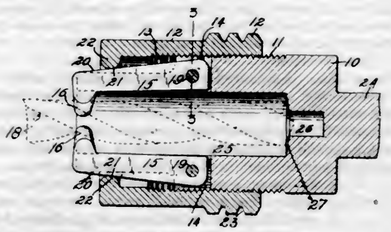
3. A feeder for pulverized fuel, comprising a receptacle provided interiorly with diametrically-opposite deflectors, an air-tube disposed within said receptacle in alinement with said deflectors, an air blast pipe communicating with one end of said tube, and means for supplying fuel to a point between the air blast pipe and the air tube.

4. A fuel feeder comprising a mixing receptacle, means for directing an air blast therein, and means within the receptacle to cause pulverized fuel to be agitated and follow a circuitous path in its travel toward the discharge opening of the receptacle, said means consisting of a concavo-convex plate and a deflector opposite the discharge end of said air blast means.

5. A fuel feeder comprising a mixing receptacle, an air tube disposed diametrically within the receptacle, and adapted to receive an air blast, and means within the receptacle for agitating and mixing the fuel under the action of the blast, comprising a concavo-convex plate, at one side of the receptacle and oppositely disposed deflectors at diametrically opposite sides of the receptacle.

[Claims 6 and 7 not printed in the Gazette.]

1,131,990. DRILL-CHUCK. FRANK E. BOCORSELSKI, Richmond, Va. Filed May 16, 1914. Serial No. 839,061. (Cl. 29—119.)

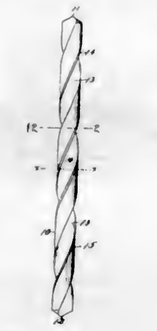


A drill chuck embodying an externally threaded head provided at its outer end with two pairs of transversely alined spaced shoulders, a pair of jaws having their inner ends pivoted between the shoulders, and their outer ends terminating in inward projecting oppositely alined terminally rounded fingers, and a sleeve threaded on the head and furnished at its outer end with an inward projecting transversely rounded annular flange to engage the jaws.

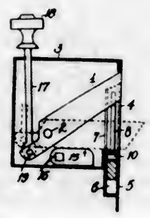
1,131,991. ROTARY DRILL. FRANK E. BOCORSELSKI, Richmond, Va. Filed May 16, 1914. Serial No. 839,062. (Cl. 77—70.)

A spirally grooved reversible drill-bit having a spiral cutting edge extending for approximately half the length

of the bit, and another cutting edge reversely-disposed with relation to the first-named spiral cutting edge extending throughout the remainder of the length of the bit, thus adapting the bit for right-hand drilling at either end.



1,131,992. LOCK FOR DOORS. WILLIAM ROWLEY BRENNAN, Hawthorn, near Melbourne, Victoria, Australia. Filed July 14, 1914. Serial No. 850,927. (Cl. 70—64.)



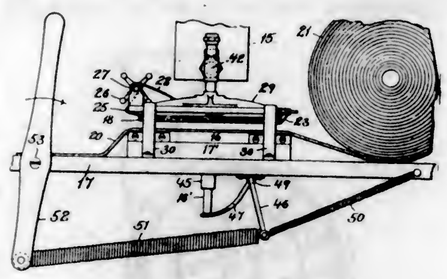
1. In a door lock, a strike plate, a pivoted gravity latch adapted to fall into locking position to engage the strike plate, means to raise the latch into unlocking position, a pivoted overbalanced catch operated by gravity to engage the latter when raised, and means to swing the catch out of engagement with the latch to permit the latter to fall into locking position.

2. In a door lock, a gravity operated latch, means to raise the latter, a pivoted overbalanced catch arranged at right angles to the latch and adapted to hold the latter raised, a strike plate adapted to receive the latch, and a projection on the strike plate arranged to engage the catch and swing the latter out of engagement with the latch.

3. In locks for doors, a casing having a slot in the face, a gravity latch pivoted within said casing, means to raise said latch, a pivoted overbalanced catch stop disposed at right angles to said latch and adapted to support the latter within the casing and a strike plate formed with a slot and provided with a projection against which the lower end of said stop catch is adapted to contact to permit said latch to drop and project into the slot in said strike plate.

4. In locks for doors, a casing having a slot in the face, a gravity latch pivoted within said casing, means to raise said latch, a compartment at the front of said casing formed with a slot, a pivoted overbalanced catch stop in said compartment and disposed at right angles to said latch and adapted to support the latter within the casing, a recess in the side of said casing, a strike plate formed with a slot and provided with a projecting stud against which the lower end of said stop catch is adapted to contact to permit said latch to drop and project into the slot in said strike plate.

1,131,993. APPARATUS FOR TREATING COATED FABRICS. BENJAMIN F. CHAMBERLIN, Jr., Boston, and JAMES N. MOULTON, Haverhill, Mass., assignors to Massachusetts Chemical Company, Boston, Mass., a Corporation of Maine. Filed Mar. 9, 1910. Serial No. 548,242. (Cl. 91—47.)



1. In an apparatus of the character specified, a work support, a reservoir, a conduit arranged to conduct liquid from said reservoir the discharge end of said conduit being arranged over said work support, a valve arranged in said conduit, an absorbent pad arranged between said discharge end and work support and movable toward and from said discharge end, means arranged to communicate movement of said pad to said valve to open the latter, and means arranged to cause relative movement of said work support and discharge end, one toward the other, whereby said pad may be moved relatively to said discharge end to open said valve.

2. In an apparatus of the character specified, a work support, a reservoir, a conduit arranged to conduct liquid from said reservoir the discharge end of said conduit being arranged over said work support, said work support and discharge end being relatively movable one toward and from the other, an absorbent pad arranged between said work support and discharge end, said pad and discharge end being relatively movable, one toward and from the other, a valve in said conduit, and means operable by such relative movement of said pad and discharge end for opening said valve.

1,131,994. EXPLOSIVE CONTAINING LIQUID AIR OR OXYGEN AND LAMPBLACK. GEORGES CLAUDE, Paris, France, assignor to Societe L'Air Liquide (Societe Anonyme Pour L'Etude Et L'Exploitation Des. Procedes Georges Claude), Paris, France. Filed Dec. 20, 1913. Serial No. 808,014. (Cl. 52—1.)

1. An explosive cartridge comprising liquid air or oxygen, and lamp black having a density of about 0.23 to 0.26 permeated by said liquid.

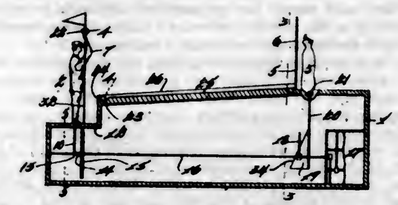
2. An explosive cartridge comprising a mixture of lamp black having a density of about 0.23 to 0.26 and naphthalene, and liquid air or oxygen permeating said mixture.

3. An explosive cartridge comprising a mixture of lamp black having a density of 0.23 to 0.26 and naphthalene constituting from 5% to 25% of the mixture, and liquid air or oxygen permeating said mixture.

1,131,995. TOY GAME. JOSEPH M. CONNOR, New York, and ELMER R. CONNOR and CHARLES W. VOELPEL, Port Richmond, N. Y. Filed June 19, 1914. Serial No. 845,997. (Cl. 46—59.)

1. A game consisting of a plurality of figures in alinement, one of said figures being provided with a movable arm, means to actuate said arm, means carried by said arm adapted to clutch a ball, and means to contact with said ball and release the same from said clutch, at a predetermined point during the movement of the arm.

2. A game consisting of a plurality of figures in alinement, one of said figures being provided with a movable arm, means to actuate said arm, means carried by said arm adapted to clutch a ball, and an ejecting device adapted to release said ball at a predetermined point during the movement of the arm.

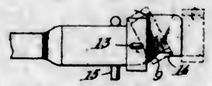


3. A game consisting of a plurality of figures, one of said figures being provided with a movable arm, the other of said figures being pivoted and adapted for movement toward the figure first named, means to move said arm, means to move the second figure toward the first figure while the arm thereof is rising, a clutch to grasp a ball, carried by said arm, and means to release the ball from said clutch when said arm moves forward.

4. In combination with a figure having a movable arm, means to actuate said arm, a clutch carried by said arm adapted to grip a ball, and an ejecting device adapted to force said ball out of said clutch at a predetermined point during the movement of said arm.

5. A game consisting of a plurality of figures, and a screen provided with an opening located between said figures, a movable arm carried by the figure first named, the figure last named being adapted for movement toward the opening in said screen and in alinement therewith, a clutch carried by said movable arm adapted to grip a ball, an ejector carried by said clutch adapted to force said ball out of said clutch at a predetermined point during the movement of said arm, and means to actuate said arm and the figure last named.

1,131,996. RELEASE-RIGGING FOR CAR-COUPLINGS. SAMUEL H. CONWELL, Tarentum, Pa., assignor to Walter P. Murphy, Chicago, Ill. Original application filed Feb. 20, 1914, Serial No. 819,982. Divided and this application filed Dec. 29, 1914. Serial No. 879,560. (Cl. 213—59.)



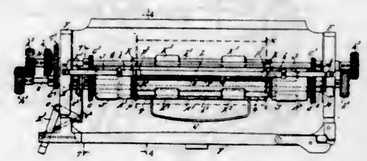
1. In a release rigging for car couplers, an operating shaft terminating in a lock pin lifting crank, having a forked end, a link loosely mounted in said fork and flexibly connected with the locking pin, a keeper spanning said forked end, the members of the forked end terminating in an offset to prevent the keeper from accidentally sliding off of said forked end, and an operating handle.

2. In a release rigging for car couplers, an operating shaft and an operating handle therefor, a lock pin lifting lever at the inner end of said shaft terminating in a forked end, the arms of which terminate in an offset, a keeper keyed to said forked ends back of the offset, and a lock pin lifting link loosely mounted in said forked end back of the keeper; said offset serving to prevent the keeper from accidentally sliding off of the pin lifting lever in the event of its keyed connection with the forked ends becoming broken.

3. In a release rigging for car couplers, a rock shaft, and an operating handle therefor, said rock shaft terminating at its inner end in a fork, each arm of the fork having two offsets on its outer end portion, a keeper mounted on said arms back of said offsets, a key securing said keeper to said arms; said offsets serving to prevent the keeper from accidentally sliding off of the arms in the event of said key being removed.

4. In a release rigging for car couplers, a rock shaft and an operating handle therefor, said rock shaft terminating at its inner end in a fork, each arm of the fork having two oppositely disposed shoulders, a keeper mounted on said fork, a key securing said keeper on said fork; said offsets and shoulders serving to prevent the keeper from accidentally sliding off the fork in the event of the key being removed.

1,131,997. TYPE-WRITING MACHINE. JOHN JOSEPH COOPER, London, England, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 4, 1911. Serial No. 612,345. (Cl. 197—127.)



1. A typewriting machine provided with a platen having separately and dependently rotatable sections, and means coöperating with said sections for automatically and simultaneously feeding forwardly at different velocities superposed sheets or strips of paper for the reception of the original writing and its "carbon" duplicate, so as to obtain a different width of spacing between the lines in the original and duplicate respectively.

2. The combination with a plurality of adjacent platen sections, of driving means operating directly upon a platen section, and means connecting said driven section with another section to transmit motion thereto, whereby said platen sections are advanced simultaneously at different angular speeds.

3. The combination with a series of adjacent revoluble platen sections concentrically mounted, of a single shaft for said sections, means to revolve one of said platen sections, and intermediate connecting means for said sections whereby the sections are revolved simultaneously at different angular speeds.

4. The combination with a series of adjacent revoluble platen sections concentrically mounted, of means to revolve one of said platen sections, an intermediate connecting train between said sections to transmit driving power from one section through said train to the other section, whereby the sections are revolved simultaneously at different angular speeds, and paper-feeding means coöperating with each of said platen sections independently of the other platen sections.

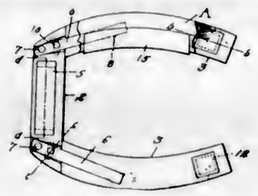
5. The combination with a series of adjacent revoluble platen sections concentrically mounted, of means to revolve one of said platen sections, an intermediate connecting train between said sections to transmit driving power from one section through said train to the other section, whereby the sections are revolved simultaneously at different angular velocities, separate paper-feeding rolls coöperating with each of said sections independently of the other sections, and means to release the rolls from one platen section independently of the rolls on another platen section.

[Claims 6 to 63 not printed in the Gazette.]

1,131,998. CALK ATTACHMENT FOR HORSESHOES. ANDREW J. DAVIS, Jr., Baltimore, Md. Filed Nov. 20, 1912. Serial No. 732,475. (Cl. 168—30.)

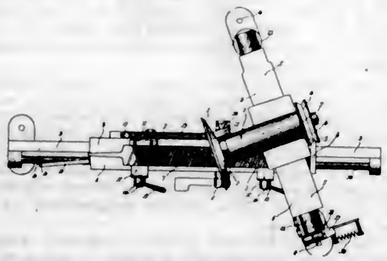
1. In combination with a horseshoe having toe and heel calks, a horseshoe calk attacher on the under side of the shoe, comprising a toe piece bearing against the rear side of the toe calk and side pieces bearing under the sides of the shoe, and also bearing, at their rear ends, against the front sides of the heel calks, and means to secure the side pieces of the calk attacher to the sides of the shoe.

2. A horse shoe calk attacher of approximately horse shoe shape and comprising a toe piece, connecting bars pivotally connected to the toe piece for movement toward and from each other, and side pieces connected to said connecting bars for longitudinal adjustment thereon to vary the length of the attacher, said toe piece having recesses in its upper side in which the front ends of the connecting bars are arranged and also having vertical slots, and set screws extending through and movable in said slots, threaded to the connecting bars and having heads to bear against the lower side of the toe piece and adjustably clamp the connecting bars thereto.



3. A horse shoe calk attacher of approximately horse shoe shape and comprising a toe piece, connecting bars pivotally connected to the toe piece for movement toward and from each other, and side pieces connected to said connecting bars for longitudinal adjustment thereon to vary the length of the attacher, the side pieces of the attacher having longitudinal grooves in their upper sides to receive the connecting bars and being also provided with set screws to secure the connecting bars in adjusted position.

1,131,999. MACHINE FOR GRINDING FILES. WILLIAM HENRY DENLEY, Birmingham, and BENJAMIN MAKIN, Sheffield, England. Filed Sept. 26, 1913. Serial No. 791,961. (Cl. 51—12.)



1. In a machine for grinding files, the combination of a bed; a file carrier slidably supported upon the bed; a table mounted upon the bed; a slide movable along said table; a grinding wheel rotatably supported upon said slide; means for traversing said grinding wheel across said carrier; means for adjusting the angle of said table to correspond with the angle of the teeth across the file to be ground; means for progressively advancing the file relatively to the grinding wheel; and means for regulating the amount of such advance movement to correspond with the pitch of the file and teeth.

2. In a machine for grinding files, the combination of a bed; a file carrier slidably supported upon the bed; a table mounted upon the bed and adapted to be adjusted angularly relatively thereto to correspond with the angle of the teeth of the file to be ground; a slide movable along said table; a grinding wheel rotatably supported upon said slide; a "master rack" having inclined teeth corresponding with the teeth upon the files to be ground; means for initially positioning the file relatively to the "master rack"; a transversely disposed shaft carried by said bed; an arm on said shaft; a pawl on said arm engaging said "master rack"; a spring for retracting the arm and pawl; a lever carried by the said transversely disposed shaft and adapted when actuated to advance the file relatively to the grinding wheel; means for regulating the amount of such advance movement to correspond with the pitch of the file; and means for progressively advancing the file relatively to the grinding wheel for a distance corresponding with the pitch of the file and "master rack".

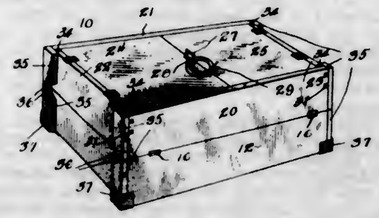
3. In a machine for grinding files, the combination of a bed; guides carried by said bed; a carrier slidably supported upon said bed and guides; screw controlled means for clamping the file in position upon the carrier; a table mounted upon the bed and adapted to be adjusted angularly relatively thereto to correspond with the angle of the teeth of the file to be ground; a slide movable along said table; a rotatable spindle carried by said slide; a driving pulley in said spindle; a grinding disk also carried by said spindle and rotatable therewith; means for enabling the grinding wheel to be raised and lowered relatively to the file; a "master rack" having inclined teeth corresponding with the teeth upon the files to be ground; means for initially positioning the file relatively to the "master rack"; a transversely disposed shaft carried by said bed; an arm on said shaft; a pawl on said arm engaging said "master rack"; a spring for retracting the arm and pawl; a lever carried by the said transversely disposed shaft and adapted when actuated to advance the file relatively to the grinding wheel, and means for regulating the amount of such advance movement to correspond with the pitch of the file.

4. In a machine for grinding files, the combination of a bed; a file carrier slidably supported upon the bed; a table mounted upon the bed and adapted to be adjusted angularly relatively thereto to correspond with the angle of the teeth of the file to be ground; a slide movable along said table; a grinding wheel rotatably supported upon said slide; a "master rack" having inclined teeth corresponding with the teeth upon the files to be ground; means for initially positioning the file relatively to the "master rack"; means engaging said master rack; means adapted when actuated to advance the file relatively to the grinding wheel through the means engaging the master rack; means for regulating the amount of such advance movement to correspond with the pitch of the file; and means for progressively advancing the file relatively to the grinding wheel for a distance corresponding with the pitch of the file and "master rack".

5. In a machine for grinding files, the combination of a bed; guides carried by said bed; a carrier slidably supported upon said bed and guides; screw controlled means for clamping the file in position upon the carrier; a table mounted upon the bed and adapted to be adjusted angularly relatively thereto to correspond with the angle of the teeth of the file to be ground; a slide movable along said table; a rotatable spindle carried by said slide; a driving pulley in said spindle; a grinding disk also carried by said spindle and rotatable therewith and means for enabling the grinding wheel to be raised and lowered relatively to the file.

[Claim 6 not printed in the Gazette.]

1,132,000. FOLDING SHIPPING-CRATE. WILLIAM MILLER DIGHT, Grove City, Pa. Filed Apr. 28, 1913. Serial No. 764,099. (Cl. 217—15.)

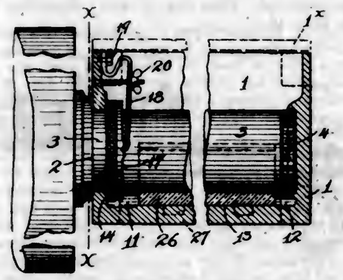


In a crate such as described, a plurality of folding side and end members, grooves provided in the said side members, straps passing over the said grooves, said side members having openings provided therein adjacent the grooves, the ends of the said straps passing through the openings and bent against the opposite sides of the side members, and spring latches carried by the end members and adapted to extend into the grooves for engagement with the straps, said end members having notches formed therein adjacent the straps, as and for the purposes set forth.

1,132,001. PROCESS OF SATINIZING COTTON FABRICS. HERMANN DUTSCHKE, Elberfeld, Germany. Filed Feb. 10, 1914. Serial No. 817,943. (Cl. 8—13.)

A process for imparting a silk-like gloss to fabrics and other vegetal fibers, which consists in impregnating the fabric with a salt-solution of a crystallizable salt which will not act injuriously on the fibers and then repeatedly passing the fabric through a calender heated from about 100 to 200 degrees centigrade.

1,132,002. SHAFT-BEARING. WILLIAM PARSONAGE EVANS, Manchester, England, assignor to David Livingstone Schultz, Manchester, England. Filed Dec. 3, 1912. Serial No. 734,696. (Cl. 64—22.)



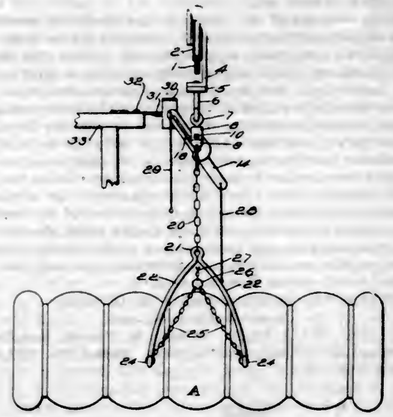
1. A bearing box provided with a well adjacent to one wall thereof and with a bearing opening in said wall adapted to receive a shaft, another wall of the box having an access opening therein communicating directly with the well, a split packing member mounted within the box in engagement with the first-named wall of the box at the bearing opening and being adapted to be withdrawn freely through the access opening without disturbing the shaft, and resilient means bearing against the packing member for pressing the same against the said wall.

2. A bearing box provided with a well adjacent to one wall thereof and with a bearing opening in said wall adapted to receive a shaft, another wall of the box having an access opening therein communicating directly with the well, a split packing member mounted within the box in engagement with the first-named wall of the box at the bearing opening and being adapted to be withdrawn freely through the access opening without disturbing the shaft, a washer ring mounted within the box in engagement with the innermost face of the packing member and in registration with the bearing opening, and a spring tongue fixed at one end to the box and having its free end engaging the inner side of the ring.

3. A bearing box provided with a well adjacent to one wall thereof and with a bearing opening in said wall adapted to receive a shaft, another wall of the box having an access opening therein communicating directly with the well, a split packing member mounted within the box in engagement with the first-named wall of the box at the bearing opening and being adapted to be withdrawn freely through the access opening without disturbing the shaft, a washer ring mounted within the box in engagement with the innermost face of the packing member and in registration with the bearing opening, and a spring tongue fixed at one end to the box and having its free end engaging the inner side of the ring, and a tensioning screw adjustably mounted within the box and extending through the spring tongue with its head engaging the same.

4. A bearing box provided with a well adjacent to one wall thereof and with a bearing opening in said wall adapted to receive a shaft, another wall of the box having an access opening therein communicating directly with the well, a split packing member mounted within the box in engagement with the first-named wall of the box at the bearing opening and being adapted to be withdrawn freely through the access opening without disturbing the shaft, a washer ring mounted within the box in engagement with the innermost face of the packing member and in registration with the bearing opening, and a spring tongue fixed at one end to the box and having its free end engaging the inner side of the ring, the free end of the said tongue being inbent toward the washer ring, and parallel lugs provided upon the adjacent face of the ring to embrace the said inbent end of the tongue.

1,132,003. COTTON-BALE CARRIER. JOHN R. FORDYCE, Little Rock, Ark. Filed Nov. 14, 1913. Serial No. 800,906. (Cl. 57—9.)



1. In a device of the character described, the combination of a track, a trolley movable thereon, angular arms suspended from said trolley and having shouldered portions, a drop lever pivoted to said angular arms beyond the shouldered portions and provided with a longitudinal slot, bale engaging hooks, means movable in the longitudinal slot of the drop lever for supporting said hooks, and means for tilting said drop lever to cause said first-named means to be moved into and out of the shouldered portion of the angular arms.

2. In a device of the character described, the combination of a trolley, angular arms pivotally suspended from the trolley and having shouldered portions, a drop lever pivoted to the free angular end portions of the angular arms and having a longitudinal slot, bale engaging hooks, flexible connections between the bale engaging hooks and the slotted portion of said lever, means for tilting said lever on the angular arms to carry the suspending portion of the hook connections into the shouldered portion of said angular arms and thus suspend the hooks and the load in stable equilibrium, and means for tilting the said lever in the opposite direction to carry said suspending portion beyond the shouldered portion of the angular arms to slacken the said suspending hook connections.

3. In a device of the character described, the combination of a trolley, angular arms pivotally suspended from the trolley and having shouldered portions, a drop lever pivoted to the free angular end portions of the angular arms and having a longitudinal slot, bale engaging hooks, flexible connections between the bale engaging hooks and the slotted portion of said lever, means for tilting said lever on the angular arms to carry the suspending portion

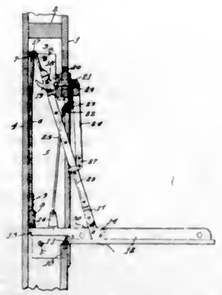
of the hook connections into the shouldered portion of said angular arms and thus suspend the hooks and the load in stable equilibrium, means for tilting the said lever in the opposite direction to carry said suspending portion beyond the shouldered portion of the angular arms to slacken the said suspending hook connections, and means connected to the end portions of the bale engaging hooks to withdrnw said hooks from the bale as said connections are slackened.

4. In a device of the character described, the combination of transporting means, bale engaging hooks, dropping mechanism comprising a longitudinally slotted arm pivotally connected to the transporting means at a point below the longitudinal slot in said arm, flexible connections between the slotted portion of said arm and bale engaging hooks, means for turning the slotted arm in one direction about its fulcrum below said slot to carry the suspending portion of said flexible connection to one side of the pivot of said arm, means to limit the movement of the arm in said direction, and means to tilt the said arm in the opposite direction to permit the suspending portion of the flexible connection to travel in said slot to the other side of the pivot of said arm.

5. In a device of the character described, the combination of transporting means, bale engaging hooks, dropping mechanism comprising a longitudinally slotted arm pivotally connected to the transporting means at a point below the longitudinal slot in said arm, flexible connections between the slotted portion of said arm and bale engaging hooks, means for turning the slotted arm in one direction about its fulcrum below said slot to carry the suspending portion of said flexible connection to one side of the pivot of said arm, means to limit the movement of the arm in said direction, means to tilt the said arm in the opposite direction to permit the suspending portion of the flexible connection to travel in said slot to the other side of the pivot of said arm, and means acting as the flexible connection travels in the last-named direction in said slot to withdraw the hooks from the bale.

[Claims 6 to 10 not printed in the Gazette.]

1,132,004. WALL-SEAT. ALBERT M. FREISE, San Francisco, Cal. Filed Apr. 1, 1913. Serial No. 758,259. (Cl. 155—22.)



1. In a wall seat, a frame, a folding seat hinged thereto, brackets carried by the seat, links pivoted to the seat brackets, means at the upper ends of said links to detachably engage said frame for the support of said seat when in use, and an operating lever to cause said links to rise to throw the seat forwardly to the horizontal from its folded position.

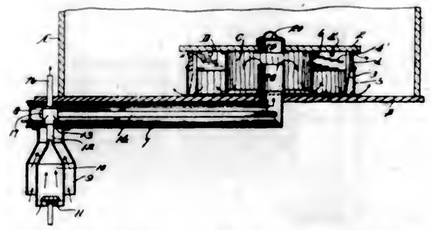
2. In a wall seat, a frame, a folding seat, hinges connecting the seat and frame and adapted to cause the seat to lie flush with the frame when folded up, brackets carried by the seat, links pivoted to the seat brackets, means at the upper ends of said links to detachably engage said frame for the support of said seat when in use, a cross bar at the lower end of the frame and under which one portion of the seat extends when in a substantially horizontal position, and an operating lever to cause said links to rise to throw the seat forwardly to the horizontal from its folded position.

3. In a wall seat, a frame, a folding seat hinged thereto, links connected with said seat to support the same, a back slidable along said seat supporting links, and means connected with the seat and back to cause said back to slide downwardly on said links receding into the frame when the seat is folded thereinto.

4. In a wall seat, a frame, a seat hinged thereto, a seat support pivoted to the seat and having means at its upper end to detachably engage the frame, a back slidable along the seat support, means connecting said back and seat support to cause the back to slide upwardly and forwardly when the seat is opened, and an operating link connecting said seat and back for moving the same.

5. In a wall seat, a frame, a seat hinged thereto, brackets carried by the seat, a seat support hinged to said brackets and having stops to detachably engage the frame at its upper end, a cross bar under which the rear portion of said seat extends when in an operative position, an operating lever pivoted to the front portion of the frame for raising the seat support to cause said seat to move from its folded position into its operating position, and a push button extending through the wall for the operation of said lever.

1,132,005. BROODER-HEATER. HARMON A. GEORGE, Petaluma, Cal. Filed Aug. 6, 1913. Serial No. 783,325. (Cl. 237—14.)

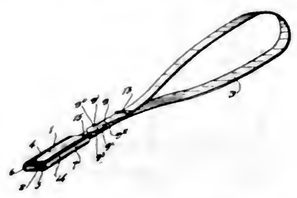


1. A heating system for brooders, comprising in combination with the brooder-box, a horizontal air conduit beneath and adjacent to the bottom of the brooder and projecting beyond on one side, said conduit having an upright discharge portion within the brooder-box, the latter comprising a central covered hover with concentric chambers, into the inner of which said upright portion of the conduit discharges and above the floor of the brooder, a downwardly extending, open-end air inlet drum for and on the opposite end of said conduit and external to the brooder, a valve plate on the conduit adjacent to said drum, and a heater below and within the drum and having a stack extending vertically through the drum with a horizontal return branch running the length of the conduit for heating the air traversing the same and having a discharge external to the conduit and to the brooder, the air for the brooder normally entering through the space between the drum and stack, and said valve plate constituting a supplemental air control.

2. A heating system for brooders comprising in combination with a brooder box, a horizontal air conduit beneath and adjacent to the floor of the brooder and projecting to one side, said conduit having an upright portion within the brooder box, the latter comprising a cover hover with concentric brooder chambers, into the inner of which said upright portion of the conduit discharges at a point above the floor and below the cover of the hover, said conduit having at its outer end and external to the brooder a downwardly extended open end air inlet drum through which fresh air from the outside end of the conduit is admitted, a vertical drum within and spaced from the air inlet drum, and a horizontal U-shaped heating coil within said conduit and having connection with said vertical drum, said heating coil having a vertical stack extending through the conduit and discharging at a point external to the conduit and brooder adjacent the vertical drum.

3. A heating system for brooders comprising a brooder box, an external cylindrical conduit adjacent the bottom of said box, and extending to one side thereof, said conduit opening at its inner end to the brooder box, a vertical intake drum communicating with the other end of said conduit, a heating drum concentrically arranged within said intake drum and extending within the conduit, a U-shaped heating coil connected with the heating drum and located within and extending the entire length of the conduit, and a vertical discharge pipe for said heating coil located adjacent the heating drum and discharging outside the air conduit.

1,132,006. CAR-SEAL. LEE SAMUEL GIBSON, Winnipeg, Manitoba, Canada. Filed May 25, 1914. Serial No. 840,895. (Cl. 70—99.)



1. A car seal comprising in combination, a casing and a locking member in the nature of an exteuding strap having one end bent backwardly on itself to form a spring loop, said loop being received within the casing and secured to the same and presenting opposing upturned and downturned locking wings and the other end formed into a catch designed to pass within the loop, engage with and lock against the wings, as and for the purpose specified.

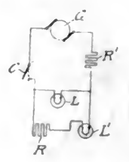
2. A car seal comprising in combination, a casing and a locking member in the nature of an extending strap having one end bent backwardly on itself to form a spring loop, said loop being received within the casing and secured to the same and presenting opposing upturned and downturned wings and the other end formed into a catch having wedge shaped side notches therein, said catch being designed to enter the loop and engage with and lock against the wings, the wings in the locking position passing within the notches of the catch, as and for the purpose specified.

1,132,007. FLY-PAPER HOLDER. ROSENETTA HART. Port Jefferson, N. Y. Filed Apr. 29, 1914. Serial No. 835,263. (Cl. 43—22.)



A fly paper holder comprising a trough member, uprights extending vertically from within the trough, a transverse member connecting the upper ends of the uprights and formed with longitudinal parallel slots for the reception of marginal ends of fly paper, flexible elements connected at their opposite ends to the bottom of the trough and to the transverse member between the slots, and a removable base member carried by the trough to permit the device to extend in a vertical position.

1,132,008. ELECTRIC LAMP. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Nov. 29, 1907, Serial No. 404,211. Divided and this application filed May 1, 1914. Serial No. 835,722. (Cl. 176—10.)



1. In combination, two electric lamps and a source of current, a circuit including said lamps in parallel and said source, a resistance in series with one of said lamps, and a second resistance in series with both lamps of such value that the voltage at the terminals of the parallel branches is normally the voltage at which the lamps are designed to operate, the value of the first-mentioned resistance being such that if the lamp in the other branch burns out the voltage at the remaining lamp will become the voltage at which the lamp is designed to operate.

2. In combination, two electric lamps and a source of current, the normal voltage of each lamp being approximately one-fifth the voltage of said source, a circuit including said lamps in parallel and said source, a resistance in series with one lamp and having a value approximately equal to the resistance of the lamp, and a resistance in series with both lamps and of a value approximately equal to four times the resistance of the parallel branches.

3. In combination, three electric lamps and a source of current, a circuit including one of said lamps in parallel with the other two in series and said source, and a resistance in series with the lamps and having a value approximately equal to four times the resistance of the parallel branches.

4. In combination, two electric lamps and a source of current, a circuit including said lamps in parallel and said source, and resistances proportioned and arranged to give the normal lamp voltage at the terminals of only one lamp as long as both lamps are burning and to give the normal voltage at the terminals of the other lamp if the first burns out.

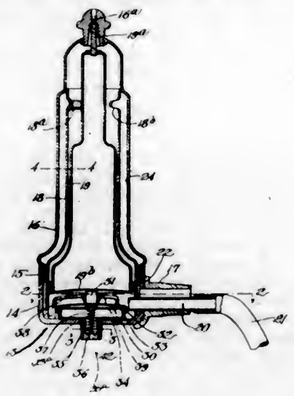
1,132,009. AUTOMATIC AIR-VALVE FOR STEAM-RADIATORS. GEORGE D. HOFFMAN, Pasadena, Cal., assignor to Hoffman Specialty Company, Boston, Mass., a Corporation of Massachusetts. Filed June 5, 1914. Serial No. 843,159. (Cl. 236—20.)

1. An air valve for steam radiators comprising a casing having an air outlet at its upper portion and an opening in its bottom, a float movable by heat and by an accumulation of water in the casing and having an outlet-closing member, a diaphragm holder bearing on the bottom of the casing, and a float-supporting diaphragm mounted on said holder and coöperating therewith to prevent the escape of water through said bottom opening, the said holder and opening forming an air inlet communicating with the diaphragm.

2. An air valve for steam radiators comprising a casing having an air outlet at its upper portion and an opening in its bottom, a float movable by heat and by an accumulation of water in the casing and having an outlet-closing member, a diaphragm holder bearing on the bottom of the casing, a float-supporting diaphragm mounted on said holder and coöperating therewith to prevent the escape of water through said bottom opening, the said holder and opening forming an air inlet communicating with the diaphragm, and a diaphragm-reinforcing spring carried by the diaphragm holder.

3. An air valve for steam radiators comprising a casing having an air outlet at its upper portion and an opening in its bottom, a float movable by heat and by an accumulation of water in the casing and having an outlet-closing

member, a diaphragm holder bearing on the bottom of the casing, a float-supporting diaphragm mounted on said holder and coöperating therewith to prevent the escape of water through said bottom opening, the said holder and opening forming an air inlet communicating with the diaphragm, a diaphragm-reinforcing spring carried by the diaphragm holder, and an adjustable abutment for said spring also carried by the diaphragm holder.



4. An air valve for steam radiators comprising a casing having an air outlet at its upper portion and an opening in its bottom, a float movable by heat and by an accumulation of water in the casing and having an outlet-closing member, a diaphragm holder bearing on the bottom of the casing, and a float-supporting diaphragm mounted on said holder and coöperating therewith to prevent the escape of water through said bottom opening, the said holder and opening forming an air inlet communicating with the diaphragm, the said holder being provided with means for limiting the downward movement of the diaphragm.

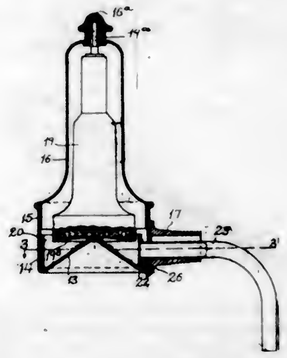
5. An air valve for steam radiators comprising a casing having an air outlet at its upper portion and an opening in its bottom, a float movable by heat and by an accumulation of water in the casing and having an outlet-closing member, a diaphragm holder bearing on the bottom of the casing, a diaphragm mounted on said holder and coöperating therewith to prevent the escape of water through said bottom opening, the said holder and bottom opening forming an air inlet communicating with the diaphragm, a pin interposed between the diaphragm and the bottom of the float, and a pin-guiding spider having legs bearing on the bottom of the casing between the base wall thereof and the diaphragm holder.

[Claims 6 and 7 not printed in the Gazette.]

1,132,010. RADIATOR AIR-VALVE. GEORGE D. HOFFMAN, Pasadena, Cal., assignor to Hoffman Specialty Company, Boston, Mass., a Corporation of Massachusetts. Filed May 25, 1914. Serial No. 840,765. (Cl. 236—20.)

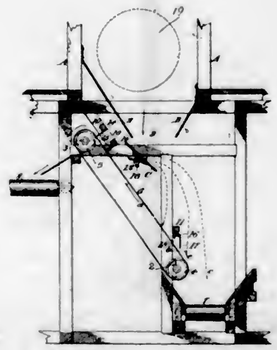
1. An air valve comprising a casing composed of separable upper and lower members, a radiator-engaging nipple attached to the lower member, a seat member having end portions bearing on the wall of the lower casing member and an intermediate portion provided with an orifice and separated from said wall by an air space which communicates with the nipple, and a curved draining stem engaged with said seat member and extending therefrom through the air space and nipple, the said seat member and stem being insertible together in the lower casing member.

2. An air valve comprising a casing composed of separable upper and lower members, a radiator-engaging nipple attached to the lower member, an expansible curb bearing on the bottom of the lower member and having resilient curved portions bearing yieldingly on the wall of said member, and an intermediate seat portion provided with an orifice and separated from said wall by an air space which communicates with the nipple, and a curved draining stem engaged with the curb and extending therefrom through the air space and nipple.



3. An air valve comprising a casing composed of separable upper and lower members, a radiator-engaging nipple attached to the lower member, an expansible curb bearing on the bottom of the lower member and having resilient curved portions bearing yieldingly on the wall of said member, and an intermediate portion provided with an orifice and separated from said wall by an air space which communicates with the nipple, a seat member bearing on a portion of the curb and forming one side of said air space and provided with an annular seat surrounding an orifice which coincides with the orifice in the curb, and a curved draining stem having a flange pressed by the curb against said seat.

1,132,011. HOP-SEPARATOR. EMIL CLEMENS HORST, San Francisco, Cal., assignor to E. Clemens Horst Co., San Francisco, Cal., a Corporation of New Jersey. Filed May 2, 1914. Serial No. 835,838. (Cl. 130—30.)



1. In a hop separator, the combination with an inclined, upwardly traveling, endless belt, of a delivering hopper, and a deflecting plate interposed between the upper end of the belt and the hopper, and adjustable to cause the hops to clear the belt, allowing the leaves and trash to fall upon the belt.

2. In a hop separator, an inclined, endless, upwardly traveling belt, a hopper through which the hops are delivered on the inclined belt, a deflecting plate interposed between the hopper and the inclined belt, and means for adjusting the angle of the deflecting plate.

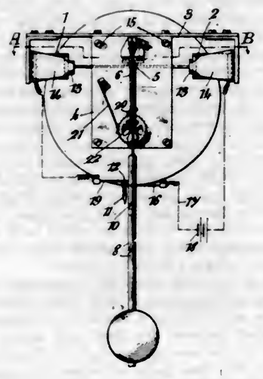
3. In a hop separator, an inclined, endless, upwardly traveling belt, a hopper through which the hops are delivered on the inclined belt, a deflecting plate interposed between the hopper and the inclined belt, and a plurality of ticklers mounted above the belt substantially as described.

4. In a hop separator, an inclined, endless, upwardly traveling belt, a hopper through which the hops are delivered on the inclined belt, a deflecting plate interposed between the hopper and the inclined belt, means for adjusting the angle of the deflecting plate, and a plurality of ticklers mounted above in juxtaposition to the belt substantially as described.

5. In a hop separator, an inclined, endless, upwardly traveling belt, means for delivering hops to the surface of the belt, a bar mounted above the belt, spring fingers pivotally hung from the bar, and means for restraining the movement of the fingers in one direction.

[Claims 6 to 8 not printed in the Gazette.]

1,132,012. ELECTRIC PENDULUM CLOCK. ASMUS JARS, Zurich, Switzerland. Filed Oct. 16, 1912. Serial No. 726,154. (Cl. 58—30.)



1. In electric pendulum clocks, two electromagnets in axial alinement, an armature arranged to swing between said magnets with its longitudinal axis substantially in a plane passing through the longitudinal axes of the magnets.

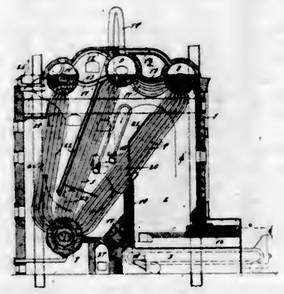
2. In electric pendulum clocks, two electromagnets in substantially axial alinement, an armature arranged to swing between said magnets with its longitudinal axis in a plane substantially through the longitudinal axes of the magnets, and a fixed pendulum crutch rigidly connected to the armature.

3. In electric pendulum clocks, two electromagnets in axial alinement, an armature arranged to swing between them with its longitudinal axis in a plane passing through the axes of the magnets, a pendulum in operative relation to said armature, and means to energize the magnets when the pendulum deflection becomes small.

4. In electric pendulum clocks, two axially alined horizontal magnets, an armature to swing between them whose longitudinal axis moves in a plane substantially through the longitudinal axes of the magnets, an axle rigidly secured to the armature, and a forked pendulum crutch rigidly secured to said axle, substantially as described.

1,132,013. BAFFLE SYSTEM FOR STIRLING BOILERS. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed July 5, 1913. Serial No. 777,503. (Cl. 122—302.)

1. A boiler of the class described having a plurality of banks of tubes, a furnace, a secondary combustion chamber between the first and second banks of tubes, a wall at the rear of the furnace chamber extending upward in front of the first bank, and a baffle extending parallel with the tubes to a point above the midlength of the tubes and supported upon the tubes of the first bank, whereby the gases



are caused to first enter said bank at the upper part thereof and to cross into said secondary combustion chamber, substantially as described.

2. A boiler of the class described having a plurality of banks of tubes, a furnace, a secondary combustion chamber between the first and second banks of tubes, a wall at the rear of the furnace chamber extending upward in front of the first bank, a baffle extending parallel with the tubes to a point above the midlength of the tubes and supported upon the tubes of the first bank, whereby the gases are caused to first enter said bank at the upper part thereof and to cross into said secondary combustion chamber, and a downward extending baffle at the rear of the second bank.

3. A boiler of the class described having a plurality of banks of tubes, a furnace, a secondary combustion chamber between the first and second banks of tubes, a substantially vertical wall at the back of the furnace chamber and extending upward in front of the first bank, a baffle extending parallel with the tubes and supported upon tubes of the first bank near the front of said bank, whereby the gases are caused to first cross the first bank at the upper part thereof and enter said secondary combustion chamber, and a cross baffle at the lower part of the first bank to cause the gases to enter the lower part of said bank from the secondary combustion chamber, substantially as described.

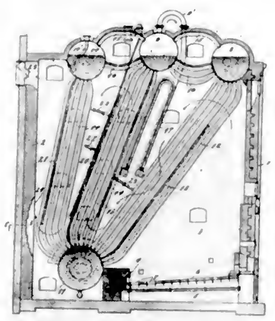
4. A boiler of the class described having a plurality of banks of tubes, a furnace, a secondary combustion chamber between the first and second banks of tubes, a substantially vertical wall at the back of the furnace chamber and extending upward in front of the first bank, a baffle extending parallel with the tubes and supported upon tubes of the first bank near the front thereof, whereby the gases are caused to first cross the first bank at the upper part thereof and enter said secondary combustion chamber, and a superheater in said secondary combustion chamber, substantially as described.

5. A boiler of the serial multiple bank class described having a substantially vertical wall at the back of the furnace chamber and extending upward in front of the fir-

bank, a secondary combustion chamber between the first and second banks of tubes, and a baffle forming an extension of the wall to cause the gases to flow across the upper part of the first bank directly into said secondary combustion chamber, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,132,014. BAFFLE SYSTEM FOR STIRLING BOILERS. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Aug. 12, 1913. Serial No. 784,313. (Cl. 122—302.)



1. A boiler of the class described, comprising a plurality of banks of tubes, steam and water drums and a mud drum into which the tubes are expanded, a front baffle to cause the gases to cross the first bank at the upper part thereof, baffles to direct the gases upward longitudinally of the second bank, and a rear baffle arranged to direct the gases longitudinally downward among the tubes of the rear bank.

2. A boiler of the class described comprising a plurality of banks of tubes, steam and water drums and a mud drum into which the tubes are expanded, baffles to cause the gases to cross the first bank at the upper part thereof and to define the path followed by the gases in passing from one bank to the next and to cause the gases to enter the last bank at the upper part thereof, the only baffle on the last bank consisting of a single baffle at the rear thereof to cause the gases to flow downward among the tubes of the last bank.

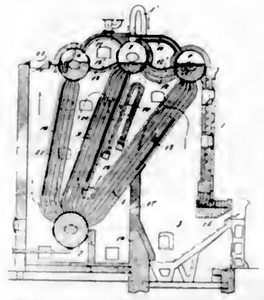
3. A boiler of the class described comprising a plurality of banks of tubes, steam and water drums and a mud drum into which the tubes are expanded, a baffle to cause the gases to flow downward over the rear portion of the first bank, baffles in the second bank, one extending downward from the second steam and water drum and the other extending upward from the mud drum, and a baffle in the rear bank to cause the gases to flow downward among the tubes of said rear bank, and then upward at the back thereof.

4. A boiler of the class described having a combustion chamber at the front thereof, a plurality of banks of tubes, steam and water drums and a mud drum into which the tubes are expanded, the first bank of tubes being located at the rear of the combustion chamber, a baffle extending upward from the mud drum and supported on a row of tubes of the first bank, baffles in the second bank one extending downward from the second steam and water drum and the other extending upward from the mud drum, and a baffle to cause the gases to flow downward among the tubes of the rear bank.

5. A boiler of the class described having a combustion chamber at the front thereof, a plurality of banks of tubes, steam and water drums and a mud drum into which the tubes are expanded, the first bank of tubes being located at the rear of the combustion chamber, a baffle extending upward from the mud drum and supported on a row of tubes of the first bank, baffles in the second bank one extending downward from the second steam and water drum and the other extending upward from the mud drum, and a baffle to cause the gases to flow downward among the tubes of the rear bank, and then upward at the back thereof to the flue outlet.

[Claims 6 to 26 not printed in the Gazette.]

1,132,015. BAFFLE SYSTEM FOR STIRLING BOILERS. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Aug. 12, 1913. Serial No. 784,314. (Cl. 122—302.)

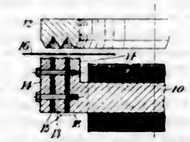


1. A boiler of the class described comprising transverse steam and water drums and a mud drum, banks of tubes expanded into said drums, a wall at the rear of the furnace chamber reaching upwardly to the front bank of tubes, a baffle extending from said wall to cause the gases to enter the front bank of tubes at the upper portion thereof and then to flow downwardly over said bank at the rear of the baffle and wall, baffles in the middle bank one of which extends downwardly from the middle steam and water drum and the other upwardly from the mud drum to cause the gases to flow upwardly over the tubes of the middle bank, a baffle in the rear bank extending downwardly from the rear steam and water drum to cause the gases to flow downwardly over the tubes of the rear bank and then upwardly to the flue outlet back of the rear bank of tubes, and water circulating tubes between the middle and rear steam and water drums.

2. A boiler of the class described comprising transverse steam and water drums and a mud drum, banks of tubes expanded into said drums, a furnace, a secondary combustion chamber between the first and second banks of tubes, a wall at the rear of the furnace chamber extending upward to the first bank to cause the gases to first enter said bank at the upper part thereof and to cross into said secondary combustion chamber, baffles to define the path followed by the gases passing from one bank to the next and to cause the gases to enter the last bank at the upper part thereof and to flow downward among the tubes of said bank to the lower part thereof and upward at the rear of said bank, and water circulating tubes between the middle and rear steam and water drums.

3. A boiler of the class described comprising transverse steam and water drums and a mud drum, banks of tubes expanded into said drums, a furnace, a secondary combustion chamber between the first and second banks of tubes, a wall at the rear of the furnace chamber extending upward to the first bank to cause the gases to first enter said bank at the upper part thereof and to cross into said secondary combustion chamber, a superheater located in said secondary combustion chamber, baffles to define the path followed by the gases passing from one bank to the next and to cause the gases to enter the last bank at the upper part thereof and to flow downward among the tubes of said bank to the lower part thereof and upward at the rear of said bank, and water circulating tubes between the middle and rear steam and water drums.

1,132,016. MEANS FOR FORMING ZONES OF VARYING AND VARIABLE STRENGTHS IN MAGNETIC FIELDS. AUGUST F. JOBKE, Wilkinsburg, Pa., assignor of one-half to John G. Burns, Daniel Bingham, Katherine Crumay, Thomas Higgins, and H. P. Gazzam, Pittsburgh, Pa. Filed Jan. 24, 1912. Serial No. 673,131. (Cl. 175—21.)



1. In a magnetic field, means for establishing a magnetic circuit with a plurality of zonal gaps of substantially equal length, and means for varying the strength of the zones relative to each other by altering the reluctance between zones.

2. Means for forming zones of varying strengths in magnetic fields with substantially constant length of the zonal gap and including a field pole element having one or more members spaced apart to increase the reluctance of the magnetic circuit.

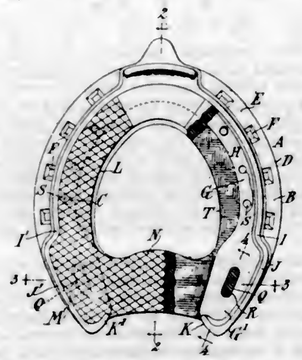
3. Means for forming zones of varying strengths in magnetic fields with substantially constant length of the zonal gap and including a field pole element having a member coöperating to provide a maximum zone strength and a magnetic member spaced therefrom to increase the reluctance of the circuit through the second member.

4. Means for forming zones of varying strengths in magnetic fields with substantially constant length of the zonal gap and including a field pole element having a plurality of members, the faces of which are positioned to cooperate in providing separate gaps of equal length, the members being spaced apart to provide increasing reluctance to the magnetic circuit passing through the members.

5. Means for forming zones of varying strengths in magnetic fields with substantially constant length of the zonal gap and including a field pole element having a plurality of members, the faces of which are positioned to cooperate in providing separate gaps of equal length, the members being spaced apart to provide increasing reluctance to the magnetic circuit passing through the members, said members being normally out of magnetic contact.

[Claims 6 to 10 not printed in the Gazette.]

1,132,017. HORSESHOE. WILLIAM J. KENT, New York, N. Y. Filed Jan. 22, 1914. Serial No. 813,643. (Cl. 168—14.)



1. A cushion horse shoe comprising a metal plate having nail holes and a depending marginal flange around the contour of the shoe within such holes, a yielding pad beneath the plate and within such flange, having an inner marginal portion projecting inwardly beyond the plate and flush with the top of the plate so as to contact with the hoof, and an attaching fabric overlying the plate and the marginal portion of the plate and vulcanized thereto.

2. A cushion horse shoe comprising a metal plate having nail holes and a depending marginal flange around the contour of the shoe within such holes, a yielding pad beneath the plate and within such flange, having an inner marginal portion projecting inwardly beyond the plate and flush with the top of the plate so as to contact with the hoof, and the pad comprising a bar extending across between the heel portions of the pad and adapted to hold such heel portions apart and in contact with said flange, and an attaching fabric overlying the plate and such marginal portion and vulcanized thereto.

3. A cushion horse shoe comprising a metal plate of horse shoe shape with separated heel portions, and having nail holes and a depending marginal flange extending from the rear of one heel around the contour of the shoe within such holes to the rear of the other heel, a yielding pad beneath the plate and within such flange having an inner marginal portion projecting inwardly beyond the plate and flush with the top of the plate so as to contact with the hoof, and the pad comprising a bar extending across between the heel portions of the pad as a bridge crossing the gap between the heel portions of the plate, and adapted to hold the heel portions of the pad apart and in contact with said flange.

4. A cushion horse shoe comprising a metal plate of horse shoe shape with separated heel portions, and having nail holes and a depending marginal flange extending from the rear of one heel around the contour of the shoe within such holes to the rear of the other heel, a yielding pad beneath the plate and within such flange having an inner marginal portion projecting inwardly beyond the plate and flush with the top of the plate so as to contact with the hoof, and the pad comprising a bar extending across between the heel portions of the pad as a bridge crossing the gap between the heel portions of the plate and adapted to hold the heel portions of the pad apart and in contact with said flange, and an attaching fabric overlying the plate and the marginal portion of the pad, and overlying also such bar, and vulcanized to said parts.

5. A cushion horse shoe comprising a metal plate having nail holes and a depending marginal flange around the contour of the shoe within such holes, a yielding pad beneath the plate and within such flange, having an inner marginal portion projecting inwardly beyond the plate and flush with the top of the plate so as to contact with the hoof, and an attaching fabric overlying the plate and such marginal portion and vulcanized thereto, said plate having holes through it, and the pad and attaching fabric united at such holes by portions of the pad filling said holes and vulcanized to the fabric.

1,132,018. DRAWING-PRESS. WILLIAM KLOCKE, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Sept. 2, 1914. Serial No. 859,788. (Cl. 113—38.)

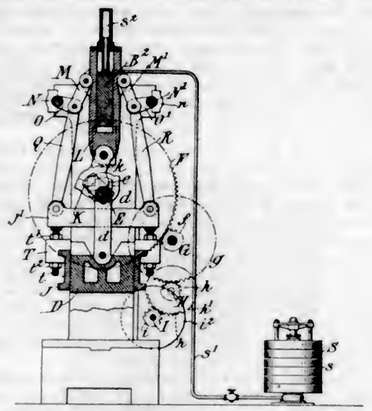
1. In a press, a main shaft, a blank holder and operative connections therefrom to said main shaft, including a crank located substantially midway of said main shaft, a plunger, and operative connections between said main shaft and said plunger, connected to the main shaft each side of said blank holder crank.

2. In a press, a main shaft, a blank holder, toggles for operating the blank holder, and a crank located substantially midway of said main shaft and having an operative connection with said toggles, a plunger and cranks on said main shaft on each side of said blank holder crank for operating said plunger.

3. In a press, a main shaft, a blank holder, toggles for operating the blank holder, a link for operating each toggle and a crank located substantially midway of the main shaft operatively connected to said link, a plunger and cranks on said main shaft on each side of said blank holder crank for operating said plunger.

4. In a press, a plunger, a main shaft and operative connections between said parts, a blank holder and oper-

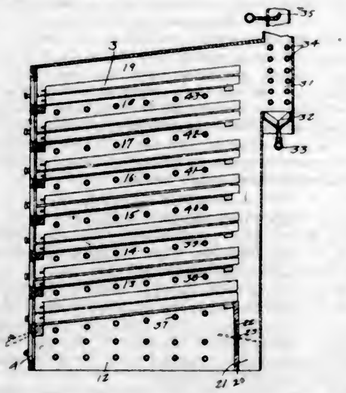
ative connections therefrom to said main shaft including a crank located substantially midway of said main shaft, a slide connected to said crank, alined toggles connected to said blank holder and to an abutment and located substantially equidistant from said slide and an operative connection between said slide and said toggles.



5. In a press, a main shaft, a blank holder and operative connections therefrom to said main shaft, including a crank located substantially midway of said main shaft, a slide connected to said crank, oppositely disposed toggles connected to said blank holder and to abutments and a link on said slide connected to said toggles, a plunger and cranks on said main shaft on each side of said blank holder crank for operating said plunger.

[Claims 6 to 13 not printed in the Gazette.]

1,132,019. FRUIT-EVAPORATOR. WILLIAM M. LUTHER, Spokane, Wash. Filed Jan. 25, 1913. Serial No. 744,084. (Cl. 34—39.)



1. A fruit evaporator comprising in combination, a casing provided with a bypass flue extending in substantially a vertical direction and having an outlet connected with said flue, a plurality of superposed spaced trays arranged in said casing so as to form with the sides of the casing a plurality of separate pockets communicating with said flue, and heating coils disposed between said trays.

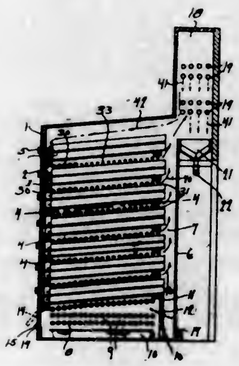
2. A fruit evaporator comprising in combination, a casing having an air inlet and an air outlet, the latter provided with a condensing chamber, a plurality of trays in said casing, means for supplying heat to said casing between said trays, and means in said chamber for condensing the steam at said outlet, substantially as described and means for producing a forced draft at the outlet.

3. A fruit evaporator comprising in combination, a casing having a downwardly and forwardly disposed air inlet and a rearwardly and upwardly disposed outlet, a plurality of trays disposed between said inlet and outlet and extending rearwardly in said casing toward but not to the rear wall of the casing to form a bypass extending upwardly past said trays to the outlet, said trays being disposed in spaced relation with respect to each other to form chambers therebetween, a partition dividing off the lowermost chamber from said bypass, and a valve in said partition, substantially as described.

4. A fruit evaporator comprising in combination, a casing having an air inlet and an air outlet, said outlet being provided with a condensing chamber, a plurality of trays in said casing, means for supplying heat to said casing between said trays, means in said chamber for condensing the steam at said outlet, means for restricting the flow of air at said inlet, and means for producing a forced draft through said outlet.

5. A fruit evaporator comprising in combination, a casing provided wth a bypass flue extending substantially in a vertical direction and having an outlet connected with said flue, a plurality of superposed spaced trays arranged in said casing so as to form separate chambers therein, said chambers communicating with said flue, heating coils disposed between said trays, and a damper for regulating the amount of gas passing through said bypass flue.

1,132,020. FRUIT-EVAPORATOR. WILLIAM M. LUTHER, Spokane, Wash. Filed Nov. 26, 1913. Serial No. 803,158. (Cl. 34—39.)



1. A fruit evaporator comprising in combination a casing having a front and rear wall, a plurality of trays in superposed relation supported within the casing between said walls so as to leave an interspace between said walls and the trays, a condensing chamber in communication with the casing, means for supplying a heating medium to said trays, the rear walls of the casing being adapted to direct the heated air toward the condensing chamber, there being formed between said uppermost tray and the top of said casing an air channel whereby the air after having been cooled is returned to the front end of the trays.

2. A fruit evaporator comprising in combination a casing provided with front and rear walls, a plurality of trays supported within the casing between said walls and so arranged as to provide an interspace between themselves and the front wall, means for heating the air within the casing, a condensing chamber above said trays and communicating with the casing, said rear wall being adapted to direct the heated air into the condensing chamber and the casing being so arranged that the air after having been cooled and dried in the condensing chamber is returned to the interspace between the front end of the trays and the front wall of the casing.

3. A fruit evaporator comprising in combination a casing provided with a front and rear wall, a plurality of horizontally disposed steam coils contained within said casing, superimposed trays supported within said casing intermediate said coils, the rear of said coils and trays spaced from said rear wall, the intermediate space extending the entire height of said casing and adapted to receive heated air, a condenser secured adjacent the top of said space and adapted to receive said heated air, means for cooling said heated air, and means for returning said cooled, dried air to the front of said casing, said means consisting of a space formed intermediate the uppermost tray and the top of the casing and extending to the front wall, substantially as described.

4. A fruit evaporator comprising in combination a casing including its complemental front, rear and side walls, a cooling chamber formed adjacent said rear wall and extending beyond the top of said casing, an intermediate wall contained within said casing adjacent said rear wall, a condenser positioned between said rear and intermediate wall below said cooling chamber, a series of horizontally disposed steam coils provided in said casing, at least one tray positioned intermediate each coil, the rear of said coils and trays serving to form with said intermediate wall, an air chamber adapted to guide the heated air into said cooling chamber, and means for forcing said cooled and dried air toward said front wall, said means consisting of a space formed intermediate the uppermost tray and the top of the casing and extending to the front wall, substantially as described.

5. A fruit evaporator comprising in combination, a casing including its complemental front, rear and side walls, a series of horizontally disposed coils contained within said casing, at least one tray positioned intermediate each coil, an intermediate wall extending to the uppermost tray and spaced from said rear wall and the rear of said trays and coils adapted to form a hot air channel, and a condenser positioned between said walls, a cooling chamber positioned above said casing and condenser and a return air channel formed between said uppermost tray and the top of said casing, said heated air being received in said cooling chamber and the dried cool air guided through said air channel toward and down the front of said casing, an auxiliary heating chamber positioned adjacent the base of said casing, and means adapted to regulate the amount of air received and heated by said auxiliary heating chamber.

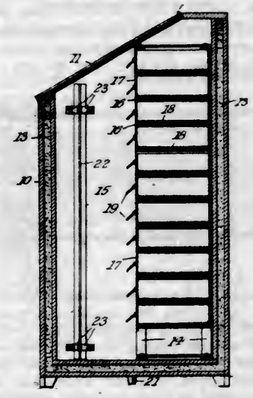
1,132,021. GRATING. JACOB MARK, Brooklyn, and EMANUEL N. MOHL, New York, N. Y., assignors to Mark & Mohl, Inc., Brooklyn, N. Y. Filed July 1, 1914. Serial No. 848,403. (Cl. 189—82.)



A grating comprising bearer bars and spacing bars passing through the bearer bars, said bearer bars having slots in them at an angle to the normal position of the spacing bars, said spacing bars having necks passing through the slots, said slots having cam-shaped enlargements in them whereby the necks of the spacing bars are tightened in the enlargements upon rotation of the spacing bars into normal position.

1,132,022. CABINET FOR MEAT AND OTHER FOOD PRODUCTS. WILLIAM P. MICHEL, New York, N. Y. Filed Dec. 17, 1913. Serial No. 807,178. (Cl. 45—71.)

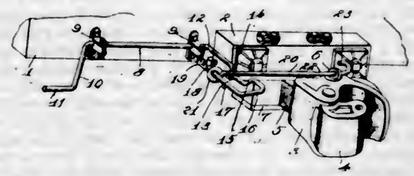
1. A cabinet of the character described comprising a refrigerating box, an upright insert removably fitted within the rear portion of the box and of a depth to leave a display compartment in front of said insert, the box being provided with an opening at the top of the display compartment, a lid for closing said opening, a series of rails extending inwardly from the sides of the insert, a series of meat and ice receiving drawers having cribrate bottoms and engaging said rails, said drawers being adapted to be partly projected into the display compartment, and a drain at the bottom of the box.



2. A cabinet of the character described, comprising a box, a frame mounted therein, and of less depth than the box, so as to form a clearance between the frame and the box-front, drawers slidably mounted in the frame, keepers secured to the sides of the box in advance of the frame, and T bars removably engaging said keepers.

1,132,023. [WITHDRAWN.]

1,132,024. RELEASE-RIGGING. WALTER P. MURPHY, Chicago, Ill. Filed Sept. 28, 1912. Serial No. 722,853. (Cl. 213—59.)



1. In a release rigging, a horizontally rotatable rod, a lever, a lever arm connected thereto, said lever arm comprising two connected parts, a second rod pivotally connected to one of said portions and slidable longitudinally thereof and having a sliding engagement with the other portion of said lever arm.

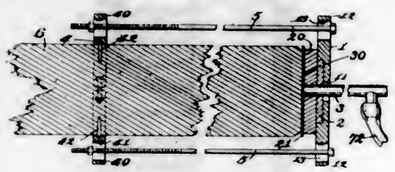
2. In a release rigging, a horizontally rotatable rod, a lever and an arm connected to said rod, a beveled abutment on said lever, and a pin lifting lever loosely mounted on said arm and having sliding engagement therewith and also having sliding engagement with the first named lever, whereby said pin lifting lever may be slid along said arm and said lever into engagement with said inclined abutment and be elevated thereby at one end.

3. In an uncoupling rigging, a horizontally rotatable rod terminating at its inner end in a lever at right angles thereto which is deflected downwardly for a portion of its length to form a slideway terminating at one end in a right angle abutment and at its other end in an inclined abutment, an arm integral with and parallel to said lever, and a pin lifting lever pivoted to and slidable on said arm and having a sliding engagement with said first named lever.

4. In an uncoupling rigging, a horizontally rotatable rod terminating at its inner end in a forwardly extending lever provided with a downwardly extended offset, having a forwardly inclined front wall, an arm integral with and extending parallel to said lever and toward said rod, a stop on the end of said arm, and a pin lifting lever piv-

otally and slidably mounted on said arm and also slidably mounted on the first named lever and normally lying in the said offset.

1,132,025. APPARATUS FOR IMPREGNATING TIMBERS. JOHN L. W. NEBLE, Everett, Wash. Filed Feb. 9, 1914. Serial No. 817,447. (Cl. 99—12.)



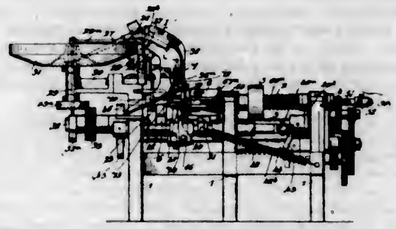
1. An apparatus for impregnating timbers consisting of a plate or cap having two opposite ears each provided with a radially extending slot, said plate having a central pipe-receiving opening and a recessed chamber surrounding said opening on the inner face of the plate, a wood disk filling said recess, a second wood disk covering substantially the inner face of the plate, both said disks being centrally bored for the passage of the supply pipe, a ring of packing material extending closely about the edge of the end of the log to form a sealing contact and provide a shallow chamber to hold impregnating liquid; semicircular yokes provided with inwardly projecting spurs integral therewith for anchoring engagement with the log, clamping bolts connecting the ends of said yokes so as to draw them together and to fixedly secure the yokes about the timber back from its end, said yokes also having slotted outwardly projecting ears corresponding to those upon the cap or plate, and tension bolts fitting said slotted ears of yokes and cap whereby the cap may be firmly held against the end of the log while latter is being impregnated.

2. An apparatus for impregnating timbers consisting of a plate or cap having two opposite ears each provided with a radially extending slot, said plate having a central pipe-receiving opening and a recessed chamber surrounding said opening on the inner face of the plate, a wood disk filling said recess, a second wood disk covering substantially the inner face of the plate with its grain at right angles to grain of other disk, both said disks being centrally bored for the passage of the supply pipe, a ring of packing material extending closely about the edge of the end of the log to form a sealing contact and provide a shallow chamber to hold impregnating fluid; semicircular yokes provided with inwardly projecting spurs integral therewith for anchoring engagement with the log, clamping bolts connecting the ends of said yokes so as to draw them together and fixedly secure the yokes about the timber back from its end, said yokes also having slotted outwardly projecting ears corresponding to those on the cap or plate, tension bolts fitting said slotted ears of yokes and cap whereby the cap may be firmly held against the end of the log while latter is being impregnated, and a supply pipe passing through the holes in the wood disks to discharge the impregnating fluid under pressure into the chamber between the cap and the end of the log.

1,132,026. SCREW-CUTTING MACHINE. AUGUST NIGGLI, Rheineck, Switzerland, assignor to the Firm of Henri Levy, Rorschach, Switzerland. Filed Aug. 15, 1913. Serial No. 784,920. (Cl. 10—101.)

1. In a screw-cutting machine, a gripping head for the work blanks, a carrying member, a feed channel for conveying said blanks to said carrying member, means to move the carrying member to the head, means on the carrier to grip a blank in the head, a stripper for the carrier, and means to move the stripper into the path of the carrier during the movement of the latter toward the channel.

2. In a screw-cutting machine, a feed channel for the work blanks, a carrying member movable into the channel, means to move the latter away from the carrier, a gripping head, means to move the carrier to the head, means to remove the blank from the carrier to the head, and means on the carrier to remove a bolt from the head.



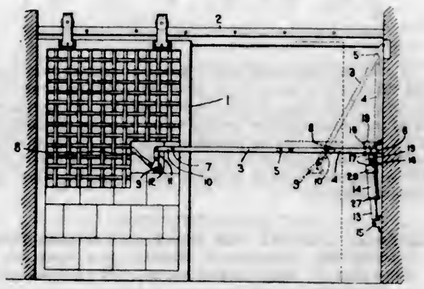
3. In a screw cutting machine, a feed channel for the work blanks, a carrying member movable into the channel, means to move the latter away from the carrier, a gripping head, means to move the carrier to the head, means to remove the blank from the carrier to the head, means on the carrier to remove a bolt from the head, and a stripper mounted in the path of a bolt on the carrier.

4. In a screw-cutting machine, a feed channel for the work blanks, a carrying member movable into the channel, means to move the latter away from the carrier, a gripping head, means to move the carrier to the head, means to remove the blank from the carrier to the head, means on the carrier to remove a bolt from the head, a stripper carried by the feed channel arranged to engage a bolt on the carrier, and a collecting trough carried by the feed channel below the stripper.

5. In a screw-cutting machine, a feed channel for the work blanks, a gripping head for the latter, a blank carrier, a cam provided with three projections successively increasing in height in the direction of rotation of said cam, the latter depressing the carrier into the axis of the head, means to move the carrier horizontally to and from the head, stationary abutments arranged adjacent the heads to position the work-blanks, means on the carrier to grip a blank in the channel, and means on the carrier to grip a bolt in the head.

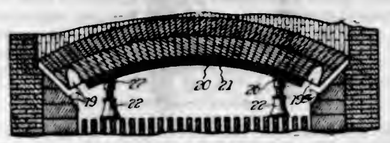
[Claims 6 to 10 not printed in the Gazette.]

1,132,027. DEVICE FOR OPERATING DOORS. LEWIS C. NORTON, Chicago, Ill., assignor to Norton Door Check Company, Chicago, Ill., a Corporation of West Virginia. Filed Dec. 27, 1913. Serial No. 809,099. (Cl. 70—102.)



In a device of the class described, the combination with a sliding door, of a door-operating device comprising two members pivotally connected together, one of which is pivoted to a fixed support and the other of which is pivotally connected to the door, said latter member having a portion extending beyond its pivotal point of connection with the door, a handle pivoted to the door and provided with an arm, and a link connecting said arm with the end of said extension, said two members being in alinement and said link and arm also being in alinement when the door is closed.

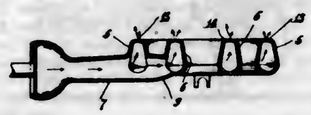
1,132,028. METHOD OF REPAIRING BRICK FURNACE-ARCHES. PATRICK J. O'DONNELL, Chicago, Ill. Filed Aug. 31, 1914. Serial No. 859,451. (Cl. 72—55.)



1. The art of repairing brick furnace arches, which, consists in bodily elevating and wholly supporting said arch free from its footings so that said arch may elongate slightly between its ends, and thus remove the endwise pressure upon said arch, and then cutting out and removing the burnt bricks and defective portions of said arch, replacing the same with new brick set in fire clay, and finally lowering said arch to again rest upon its footings and thus again apply endwise pressure upon said arch.

2. The art of repairing brick furnace arches, which consists in wholly supporting said arch from underneath, by a temporarily arranged support, the top surface of which extends nearly the entire length of said arch and is curved to correspond to the curve of the bottom of the arch, elevating the said support and said arch and lifting the ends of said arch free from its footings or end supporting abutments, then cutting out and removing the burnt and defective bricks, fitting new bricks in place thereof properly set in fire clay and finally lowering said support to restore the ends of said arch to their supporting position upon the footings or end abutments, and again apply endwise pressure to said arch.

1,132,029. GAS-BURNER. HENRY W. O'DOWD, Jersey City, N. J., assignor to William M. Crane Company, a Corporation of New York. Filed June 20, 1913. Serial No. 774,791. (Cl. 158—99.)



1. A burner for natural gas, including in combination, a plurality of separate and distinct concentric gas conduits, each of said conduits having a slit formed in its upper portion, and a supply pipe leading to said conduits.

2. A burner for natural gas, including in combination, a plurality of separate and distinct concentric gas conduits, each of said conduits having a slit formed in its upper portion, and a plurality of communicating passages between said conduits.

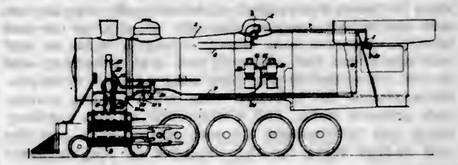
3. A burner for natural gas, including in combination, a plurality of separate and distinct concentric gas conduits, each of said conduits having a slit formed in its upper portion and a plurality of communicating passages between said conduits, and a supply pipe.

4. A burner for natural gas, including in combination, a plurality of separate and distinct concentric gas conduits, each of said conduits having a slit formed in its upper portion and extending substantially throughout its entire circumference, and a supply pipe leading to said conduits.

5. A burner for natural gas, including in combination, a plurality of separate and distinct concentric gas conduits, each of said conduits having a slit formed in its upper portion and extending substantially throughout its entire circumference, a plurality of communicating passages between said conduits, and a supply pipe.

[Claims 6 to 11 not printed in the Gazette.]

1,132,030. DRIFTING ATTACHMENT FOR LOCOMOTIVES. JOHN A. PILCHER, Roanoke, Va. Filed June 6, 1914. Serial No. 843,478. (Cl. 121—14.)



1. In a drifting attachment for locomotives the combination with the boiler cylinders, steam pipes, throttle valve and throttle operating lever of an auxiliary steam line adapted to convey steam to said cylinders around said throttle valve, a control valve in said auxiliary steam line, operative means from said throttle operating lever whereby the said control valve is closed when the said throttle valve is opened and opened when the said throttle valve is closed and independent operative means whereby the said control valve may be manually closed after the said throttle valve has been closed, said control valve being so constructed that after being manually closed the next opening of the throttle valve by the said throttle operating lever will move the parts of the said control valve to their normal positions for the opening position of the throttle operating lever.

2. In a drifting attachment for locomotives, the combination with the boiler, cylinders, steam pipes, throttle valve and throttle operating lever of an auxiliary steam pipe adapted to convey steam to said cylinders around said throttle valve, a control valve in said auxiliary steam pipe, operative means from said throttle operating lever whereby the said control valve is opened when the said throttle valve is closed, and a by-pass valve in said auxiliary steam pipe adapted to admit steam to the cylinders when the said cylinders are not under pressure and adapted to shut off steam from the cylinders when the said cylinders are under pressure.

3. In a drifting attachment for locomotives the combination with the boiler, cylinders, steam pipes, throttle valve and throttle operating lever of an auxiliary steam line adapted to convey steam to the cylinders around said throttle valve, a control valve in said auxiliary steam line, operative means from said throttle operating lever whereby the said control valve is closed when the said throttle valve is opened and opened when the said throttle valve is closed, independent operative means whereby the said control valve may be manually closed after the said throttle valve has been closed, and a by-pass valve in said auxiliary steam line adapted to admit steam to the cylinders when the said cylinders are not under pressure and adapted to shut off steam from the cylinders when said cylinders are under pressure.

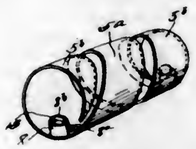
4. In a drifting attachment for locomotives the combination with the boiler, cylinders, steam pipes, throttle valve and throttle operating lever of an auxiliary steam line adapted to convey steam to the cylinders around said throttle valve, a control valve in said auxiliary steam line, operative means from said throttle operating lever whereby the said control valve is closed when the said throttle valve is opened and opened when the said throttle valve is closed, independent operative means whereby the said control valve may be manually closed after the said throttle valve has been closed, and a by-pass valve in said auxiliary steam line, and a by-pass pipe from said by-pass valve to the atmosphere, said by-pass valve being adapted to admit steam from said aux-

iliary steam line to the cylinders when the said cylinders are not under pressure and being further adapted to by-pass the same to the atmosphere when the said cylinders are under pressure.

5. In a drifting attachment for locomotives the combination with the boiler, cylinders, steam pipes, throttle valve, throttle operating lever and air pumps of an auxiliary steam line adapted to convey steam to the cylinders around said throttle valve, a control valve in said auxiliary steam line, operative means from said throttle lever whereby the said control valve is closed when the said throttle valve is opened and opened when the said throttle valve is closed, independent operative means whereby the said control valve may be manually closed after the said throttle valve has been closed, a by-pass valve in said auxiliary steam line, and a by-pass pipe therefrom, said by-pass valve and by-pass pipe being adapted to by-pass steam around the cylinders when said cylinders contain high pressure steam, and a connection to said auxiliary steam line intermediate the said control valve and the said by-pass valve for the admission of the air pump exhaust.

[Claims 6 to 8 not printed in the Gazette.]

1,132,031. RESILIENT TIRE. EMIL RADKE, Blue Earth, Minn. Filed Apr. 24, 1914. Serial No. 834,182. (Cl. 152—8.)

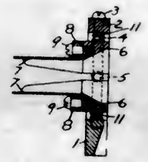


1. In combination, a wheel clench rim, a tire casing therefor, a series of circumferentially extending coil spring sections constructed of spring sheet metal, means for connecting the sections in sequence, said series of spring coil sections being incased in the tire casing and acting to hold the tire casing in engagement with the clench flanges of the rim, each spring section comprising a central broad convolution and two end convolutions, which are spaced apart from the central convolution, said end convolutions being gradually tapered off toward their extremities and being free, said tapered off free end convolutions lying transversely of the tread of the tire and terminating adjacent where the sections are connected.

2. A resilient filler for a tire casing comprising a series of circumferentially extended spring coil sections constructed of spring sheet metal, each section comprising a central convolution, and two end convolutions, means for connecting the sections in sequence, said means comprising lugs secured to the adjacent portions of the central convolutions of the sections, said lugs having transversely disposed elongated slots, means passing through the slots to connect the lugs, said end convolutions being gradually tapered off toward their extremities and being free, and lying and extending transversely of the tread of the tire and terminating adjacent where the sections are connected.

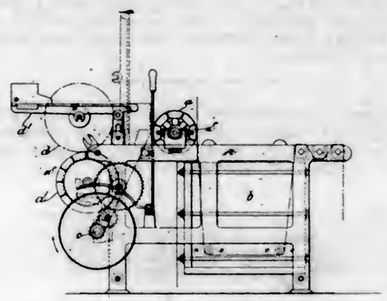
1,132,032. SPOUT FOR INSERTING PACKAGES IN RECEPTACLES. RUDOLPH REJSEK, New York, N. Y., assignor to American Machine & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 26, 1914. Serial No. 879,113. (Cl. 93—6.)

1. In a spout for inserting packages in receptacles, the combination with a frame having a rectangular aperture formed therein, of a pair of guide rods supported by said frame and crossing said aperture, a pair of stop studs supported by said frame and projecting into said aperture at points midway between opposite walls of said aperture, a pair of blocks slidably mounted on said guide rods one on either side of said stop studs, a pair of parallel rigid longitudinally flanged members supported by and movable with said blocks and adapted to enter a receptacle and between which a package may be pushed into said receptacle, a pair of keepers for rigidly holding said members to said blocks, and springs coiled around said guide rods and bearing against said frame and said blocks to normally hold said blocks in contact with said stop studs.



2. In a spout for inserting packages in receptacles, the combination with a frame having an aperture formed therein, of a pair of guide rods supported by said frame and crossing said aperture, a pair of blocks slidably mounted on said guide rods, a pair of parallel rigid longitudinally flanged members supported by and movable with said blocks and adapted to enter a receptacle and between which a package may be pushed into said receptacle, means for rigidly holding said members to said blocks, springs coiled around said guide rods and bearing against said frame and said blocks to normally cause an approaching movement of said blocks and said members, and means for limiting said approaching movement.

1,132,033. CLOTH STRETCHING AND ROLLING MACHINE. CHARLES G. RICHARDSON, Springfield, Vt. Filed Jan. 20, 1909. Serial No. 473,345. (Cl. 26—8.)



1. In a cloth stitching machine the combination of the cylinder embracing peripheral stitching sections movable longitudinally to stretch the cloth, and a winding roll mounted in position to rest upon the stretching cylinder and be rotated thereby to receive and begin winding the cloth at the point where the sections successively have reached the limit of their maximum distention, substantially as described.

2. In a cloth stretching machine the combination of a rotary stretching cylinder embracing extensible peripheral sections for engaging and stretching the cloth, and a rotatable winding device arranged to press against the stretching cylinder at a point where its sections are extended in order to wind the cloth while distended into a roll, the winding device being rotatably driven by means of the stretching cylinder, substantially as described.

3. In a cloth stretching machine the combination of a stretching roll embracing extensible stretching sections, a receiving roll mounted to engage said stretching roll at a point where the extension movement of the sections cease and to receive the cloth directly therefrom, said receiving roll being rotated by the stretching roll and a weighted

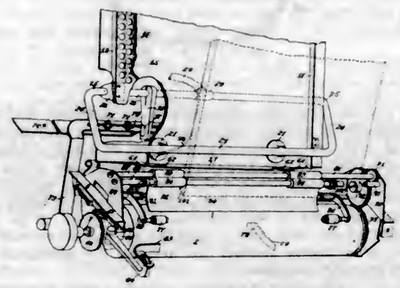
pivoted arm for keeping said receiving roll in direct engagement with said stretching roll, substantially as described.

4. In a cloth stretching machine the combination of a preliminary stretching roll to receive and stretch the cloth issuing from the vat, a second stretching roll arranged to receive the cloth and complete the stretching operation, and a receiving roll mounted to rest against said second stretching roll so as to take the cloth while distended directly from said second roll and wind it while in distended condition, substantially as described.

5. A cloth stretching cylinder embracing a rotary shaft, and peripheral sections mounted upon oscillatory supports carried by said shaft to stretch or distend the cloth in engagement therewith, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,132,034. SHEET FEEDING AND DELIVERING DEVICE FOR AUTOMATICALLY-OPERATED TYPEWRITING MACHINES. LYMAN R. ROBERTS and CHARLES L. DAVIS, Detroit, Mich., assignors to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 22, 1908. Serial No. 454,138. (Cl. 197—130.)



1. In a machine of the character described, a sheet-feeding apparatus comprising means for supporting a pile of sheets on edge above the introductory side of the machine to which the sheets are to be fed, said supporting means comprising a back rest and a foot rest which is inclined upwardly and forwardly at an acute angle to the back rest to form a retarding surface acting against the removal of the sheets, and a suction cup mechanism to pick the sheets off from the pile and drop them into said machine; the suction cup being mounted to move upwardly and forwardly in a direction at an acute angle to said back rest.

2. In a machine of the character described, a sheet-feeding apparatus comprising means for supporting a pile of sheets on edge above the introductory side of the machine to which the sheets are to be fed, and a suction cup mechanism to pick the sheets off from the pile and drop them into said machine, said supporting means comprising a rearwardly tilted back rest and a foot rest inclined upwardly and forwardly at an acute angle to the back rest acting to hold the sheets in the supporting means against accidental removal, said foot rest provided with an upwardly projecting hook or riffle to catch and hold back any under sheet which may adhere to the sheet being picked off by the cup mechanism; said suction-cup mechanism constructed to drag the bottom edge of the sheet upon said hook or riffle.

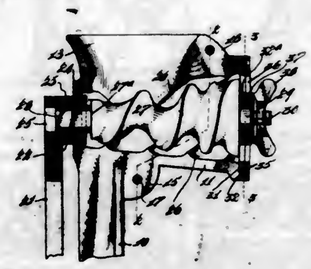
3. In a machine of the character described, a sheet-feeding apparatus comprising means for supporting a pile of sheets on edge above the introductory side of the machine to which the sheets are to be fed, and a hinged bail provided with vibrating means, said bail hinged in rear of said supporting means and embracing the same and inclined downwardly and forwardly from its hinge and carrying suction cups to lift the sheets from the supporting means and drop them into said machine.

4. The combination with a letter-spacing platen carriage of a typewriting machine, of means for supporting upon said carriage a pile of sheets on edge above the platen, a suction cup to rest upon the pile, and means dependent upon the movement of the carriage to lift said suction cup from the pile.

5. The combination with a letter-spacing platen carriage of a typewriting machine, of means for supporting upon said carriage a pile of sheets on edge above the platen, a suction cup to rest upon the pile, means dependent upon the movement of the carriage to lift said suction cup from the pile, and means to exhaust the suction cup at such movement, and then to admit air into the cup to cause it to drop the sheet to the platen.

[Claims 6 to 61 not printed in the Gazette.]

1,132,035. FOOD-CHOPPER. MICHAEL A. ROLLMAN, Mount Joy, Pa. Filed Jan. 24, 1914. Serial No. 814,128. (Cl. 17—20.)



1. In a food chopper, the combination with a casing provided with a bearing, said casing and bearing comprising two riveted sections, a worm-operating crank, a lateral journal on said crank, and means for fixing said journal in said bearing against outward removal from said casing, said journal and fixing means being incorporated with said casing and bearing before said sections are riveted together.

2. In a food-chopper, the combination of a casing, a worm-operating crank, a lateral journal on said crank and an annular tongue and groove connection between said journal and the bearing of said casing for precluding the outward displacement of said journal from said casing, said journal and casing being permanently assembled.

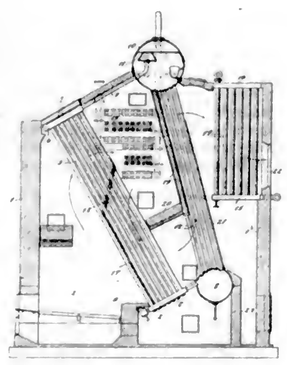
3. In a food-chopper, the combination of a casing, a worm-operating crank, a lateral journal on said crank, and annular shoulders on said journal between which a bearing portion of said casing is received, said casing and bearing portion comprising two riveted sections, whereby said casing and bearing portion and the said journal are held permanently assembled.

4. In a food-chopper, the combination of a casing, a feed-worm, cutters fixed at one end of said casing, one of the same being stationary, and furnishing a bearing for one end of said worm, a crank, a lateral journal projection on said crank, means for fixing said journal in a bearing at the other end of said casing, against outward displacement from said casing, and means to secure said worm to said journal, said journal being permanently assembled with said bearing.

5. In a food-chopper, the combination of a casing, a feed-worm, cutters fixed at one end of said casing, one of the same being stationary, and furnishing a bearing for one end of said work, a crank, a lateral journal projection on said crank, means for fixing said journal in a bearing at the other end of said casing, against outward displacement from said casing, and an irregular stud on said worm entering and complementary to the irregular recess in said journal and extending through said bearing.

[Claims 6 to 8 not printed in the Gazette.]

1,132,036. STEAM-GENERATOR. JAMES H. ROSENTHAL, Chiselhurst, England, assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Apr. 10, 1913, Serial No. 760,129. Renewed Dec. 26, 1914. Serial No. 879,230. (Cl. 122—265.)



1. A water tube boiler comprising a furnace having a bridge wall, a bank of generating tubes inclined forwardly and extending from the bridge wall to the roof of the setting, headers into which said tubes are expanded, a steam and water drum connected to the upper headers, a water drum connected to the lower headers, a second bank of tubes connecting said drums, and baffles to direct the gases across and among the tubes.

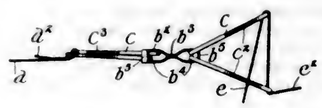
2. A water tube boiler comprising a furnace having a bridge wall, a bank of generating tubes inclined forwardly and extending from the bridge wall to the roof of the setting, headers into which said tubes are expanded, a steam and water drum connected to the upper headers, a water drum connected to the lower headers, a second bank of tubes connecting said drums, and baffles to direct the gases across and among the tubes, said second bank being at a greater angle to the horizontal than the tubes of the first named bank.

3. A water tube boiler comprising a furnace having a bridge wall, a bank of generating tubes inclined forwardly and extending from the bridge wall to the roof of the setting, headers into which said tubes are expanded, a steam and water drum connected to the upper headers, a water drum connected to the lower headers, a second bank of tubes connecting said drums, baffles to direct the gases across and among the tubes, an economizer in the upper part of the space at the rear of the second bank of tubes, and an outlet for the gases in the rear wall of the setting whereby the gases are directed across the economizer on their way to the stack.

4. A water tube boiler comprising a bank of main generating tubes inclined upwardly toward the front of the setting, headers into which said tubes are expanded, a steam and water drum connected to the upper headers, a water drum connected to the lower headers, a second bank of tubes connecting said drums, baffles to direct the gases upwardly and then across the uptake ends of the main bank of tubes, a baffle on the front row of the rear bank of tubes extending downwardly from the steam and water drum, and a baffle on the rear bank of tubes extending upwardly from said water drum.

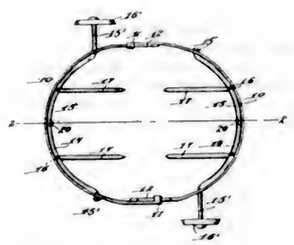
1,132,037. FASTENING DEVICE. CARRIE A. RUGG, Grandview-on-Hudson, N. Y. Filed Mar. 28, 1914. Serial No. 827,792. (Cl. 24—74.)

A fastening device of the class described, said device comprising a link member the sides of which are compressed to divide it into separate end portions and two rigid loops mounted in each end portion, said loops being



of the same form and dimensions and being freely movable in all directions.

1,132,038. HAT-FASTENER. CHARLES H. RUTHERFORD, Jerome, Ariz. Filed Feb. 28, 1912. Serial No. 680,522. (Cl. 132—25.)



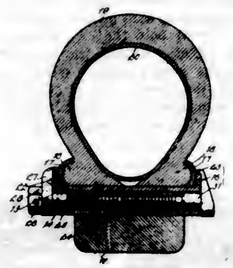
1. A hat fastener, comprising a hat-engaging member, a plurality of arcuate gripping members rotatably mounted in said hat-engaging member, each of which conforms to the configuration thereof and is actuatable above or below the marginal edges of the same but not beyond its outer periphery, each of said gripping members being operable inwardly in said hat-engaging member to be embedded in the hair, and a plurality of tongues formed on said hat-engaging member for limiting the movement of said gripping members.

2. A hat fastener comprising a band, a pair of gripping members revolubly mounted in said band, each of which comprises a strand of wire conforming to the configuration of said band and provided with a plurality of screw threaded apertures, a plurality of arcuate prongs one end of each of which is reduced and screw threaded for detachable engagement in one of said threaded apertures, one end of each of said gripping members being extended beyond said band whereby to turn the members down into engagement with the hair, and a plurality of stops formed on said band for limiting the downward movement of said gripping members.

3. A hat fastener comprising a band, a pair of gripping members, revolubly mounted in said band, each of which comprises a strand of wire conforming to the configuration of said band, one end of each of which is offset and extended beyond said band whereby to turn said members into engagement with the hair, said wire provided with a plurality of uniformly spaced apart screw threaded apertures, a plurality of arcuate prongs one end of each of which is reduced and screw threaded for detachable engagement in said threaded apertures, and tongues arranged at diametrically opposite points on said band for limiting the downward movement of said members.

1,132,039. VEHICLE-WHEEL. JOSEPH M. SCHEURICH, Chicago, Ill., assignor of one-half to John E. Scheurich, Hot Springs, Ark. Filed Feb. 14, 1913. Serial No. 748,271. (Cl. 152—21.)

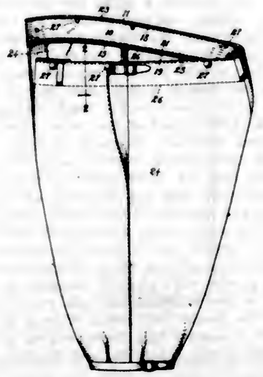
1. A vehicle wheel comprising a felly, a rim thereon, said rim being provided with lugs disposed in slots in the periphery of the felly, a flange at one side of the periphery of said rim, holes through said lugs, a pair of tire-engaging rings disposed around said rim, a locking ring disposed on the side of the rim opposite said flange and a pair of coacting male and female bolts disposed in the hole through each of said lugs arranged to draw said locking ring toward said rim, one bolt of each pair engaging the locking ring and the other bolt engaging the rim.



2. A vehicle wheel comprising a felly, a flange located at one side of the periphery of the wheel, transverse holes through said felly, a locking ring located at the side of the wheel opposite said flange, a pair of coacting male and female bolts located in each of said holes, and a plate loosely carried by one of the bolts of each pair arranged to engage said locking ring, the other bolt of each pair engaging the opposite side of the wheel.

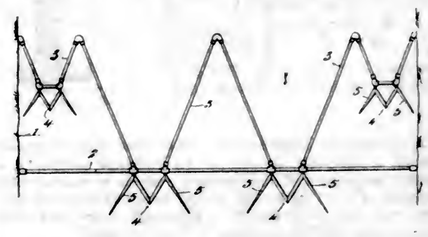
3. A vehicle wheel comprising a felly, a rim shrunk thereon, said rim being provided with a peripheral flange and a plurality of transverse lugs disposed in slots in said felly, a locking ring, a uniform bore through each of said lugs, and a pair of coacting male and female bolts disposed in each bore and arranged to draw said ring toward said flange, the male bolt of each pair being provided with an annular shoulder in said bore to prevent vibration of said male bolt, the female bolt fitting snugly within the bore.

1,132,040. CURTAIN FOR KNEE-TROUSERS. JULIUS SCHWARZ, New York, N. Y. Filed Dec. 30, 1911. Serial No. 668,652. (Cl. 2—142.)



A curtain for knee trousers comprising a main or curtain section consisting of a fabric portion folded upon itself along both top and bottom edges to form a rectangular imperforate panel, a top garment attaching fabric portion united to said main section by a seam extending from end to end of the main portion in a straight line, the stitches passing through the fold of the main section near the bend therein and at uniform distance throughout from the line defined by said bend, the said seam acting as a definite line upon which the top attaching portion is folded irrespective of irregularities in the stitching by which the said top portion is fastened to the garment, a bottom garment attaching fabric portion permanently folded upon itself, the fold being the bottom line of the curtain and parallel with the top seam, a bottom seam passing through the said bottom garment attaching portion and through the bottom edge fold of the panel in a straight line extending from end to end of the main section and at a uniform distance from the line of said bend whereby a bead is formed to act as a guide for stitches parallel with said bend to unite the lower part of the curtain with the garment.

1,132,041. FISH-SCREEN. JAMES SEPPO, Nashwauk, Minn. Filed Jan. 3, 1914. Serial No. 810,216. (Cl. 43—20.)



1. A device for water ways including a fish way composed of a pair of movable sections, and means against which water impinges to normally maintain the sections in coacting relation.

2. A device for water ways including a fish way composed of a pair of relatively movable sections, and means on each section against which water impinges to normally maintain the sections in contiguous relation.

3. A device for water ways including a fish way composed of a pair of substantially V-shaped fish way sections, and means normally maintaining the sections in coacting relation, as and for the purpose set forth.

4. A device for water ways including a plurality of fish ways composed of a pair of duplicate substantially V-shaped fish way sections, supports to which the said sections are pivotally connected, and means on said sections against which water impinges to normally maintain the sections in coacting relation, as and for the purpose set forth.

5. In a device for water ways, a fish way composed of a pair of relatively movable sections, the respective sections being complemental, means on each section against which water impinges to normally maintain the sections in contiguous relation, and guide means associated with each fish way to direct the fish thereto, as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,132,042. RING-ROLL CRUSHER AND PULVERIZER. HENRY J. SHELTON, St. Louis, Mo. Filed Apr. 28, 1914. Serial No. 834,958. (Cl. 83—9.)

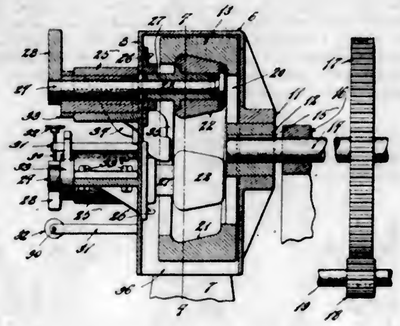
1. A ring roll grinding mill, constructed with a suitable casing, a ring-roll having on its internal periphery a wabbling grinding surface, and a roll adapted to coact with said wabbling grinding surface.

2. A ring roll grinding mill, constructed with a suitable casing, a ring-roll having on its internal periphery a conical wabbling grinding surface, and a conical roll adapted to coact with said conical wabbling grinding surface.

3. A ring roll grinding mill, constructed with a suitable casing, a ring-roll having on its internal periphery a conical wabbling grinding surface, and a series of yieldingly-mounted conical rolls adapted to coact with said conical wabbling grinding surface.

4. A ring roll grinding mill, constructed with a suitable

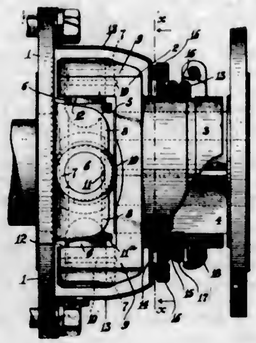
casing, a ring-roll having on its internal periphery a wabbling grinding surface, a roll adapted to coact with said wabbling grinding surface, and means arranged to yieldingly-press said roll toward said wabbling grinding-surface.



5. A ring roll grinding mill, constructed with a suitable casing, a ring-roll having on its internal periphery a conical wabbling grinding surface, a series of conical rolls adapted to coact with said conical wabbling grinding surface, and means arranged to yieldingly press said rolls toward said conical wabbling grinding-surface.

[Claims 6 and 7 not printed in the Gazette.]

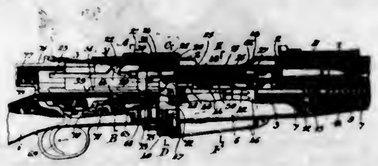
1,132,043. UNIVERSAL JOINT. CLARENCE W. SPICER, Plainfield, N. J. Filed May 6, 1913. Serial No. 765,826. (Cl. 74—19.)



An incased universal joint comprising a universal joint proper, a casing member inclosing said universal joint and secured to one of the members thereof, and having a portion turned toward the axis of rotation, the face of such portion being parallel to the plane of rotation of such casing member, and having in it an opening through which another member of such universal joint projects, and closing means for such opening carried by such other member of the universal joint and comprising packing bearing against the said face of said casing member, and means tending to force said packing against the said face of said casing member.

1,132,044. SELF-LOADING FIREARM. HANS STAMM, St. Gallen, Switzerland. Filed Apr. 14, 1914. Serial No. 831,776. (Cl. 42—4.)

1. In a self-loading firearm, a sliding barrel, a breech action consisting of a breech frame, a breech bolt capable of being locked to the rear of the breech frame, a fixed outer breech case forming a guide for the barrel and the breech frame, separate springs stressed by the recoil for moving the barrel and the breech action, means on the fixed breech case for limiting the recoil of the barrel, the recoil stroke of the barrel being less than the whole movement of the breech action, a lug on said breech-bolt projecting into a guide groove on the inside of the fixed breech case, said groove being so formed with respect to the breech bolt that a reciprocatory rotation of the latter is effected during the to-and-fro motion of the barrel and the breech action, whereby an unlocking and relocking of the breech bolt is effected by the guide groove in such a manner that the unlocking of the breech bolt is effected shortly before the end of the recoil of the barrel.



2. In a self-loading firearm, a sliding barrel, a breech action consisting of a breech frame, a breech bolt capable of being locked to the rear of the breech frame, a fixed outer breech case forming a guide for the barrel and the breech frame, separate springs stressed by the recoil for moving the barrel and the breech action, a stop on the fixed breech case for limiting the recoil of the barrel, the recoil stroke of the barrel being less than the whole movement of the breech action, a lug on said breech bolt projecting into a guide groove on the inside of the breech case, said groove consisting of a portion parallel to the middle axis of the outer breech case for guiding the breech bolt in a straight dicertion and of two groove portions arranged obliquely to said axis for opening and closing the breech bolt during the to-and-fro motion of the barrel and the breech action, whereby the unlocking of the breech bolt is effected shortly before the end of the recoil of the barrel.

3. In a self-loading firearm, a sliding barrel, a breech action consisting of a breech frame, a breech bolt capable of being locked to the rear of the breech frame, a fixed outer breech case forming a guide for the barrel and the breech frame, separate springs stressed by the recoil for moving the barrel and the breech action, means on the fixed breech case for limiting the recoil of the barrel, the recoil stroke of the barrel being less than the whole movement of the breech action, said breech frame provided with a guide groove on the inside having a portion parallel to the middle axis of the outer breech case and of two portions arranged obliquely to said axis, a lug on the breech bolt formed in one piece with the latter and projecting into the guide groove and serving to rotate the breech bolt, said lug assuming an upright position in the locked position of the breech bolt and passing first through the rear oblique groove part with downward rotation of the breech bolt in order to unlock the latter while it passes through the front oblique groove portion of the guide groove with upward rotation of the breech bolt in order to relock the breech bolt, the unlocking and relocking of the breech bolt being effected by the guide groove in such a manner that the unlocking of the breech bolt is effected shortly before the end of the recoil of the barrel.

4. In a self-loading firearm, a sliding barrel, a breech action consisting of a breech frame having locking niches in its rear end, a breech bolt having the locking nibs on its rear end rotatable in said locking niches and being in a horizontal plane when they are in the locked position, a fixed outer breech case forming a guide for the barrel and the breech action, separate springs stressed by the recoil for moving the barrel and the breech action, means on the fixed breech case for limiting the recoil of the barrel, the recoil stroke of the barrel being less than the whole movement of the breech action, a lug on said breech bolt projecting into a guide groove in the breech case, said groove having rhomboidal form and being so arranged with respect to the breech bolt that a rotation of the breech bolt in one or the other direction is effected during the to-and-fro-motion of the barrel and the breech action, whereby an unlocking and relocking of the breech bolt is effected by the guide groove in such manner that the unlocking of the breech bolt is effected shortly before the end of the recoil of the barrel.

5. In a self-loading firearm, a sliding barrel, a breech action consisting of a breech frame, a breech bolt adapted to be bolted to the rear of the breech frame, a fixed outer breech case forming a guide for the barrel and the breech frame, a spring stressed by the recoil of the barrel and acting upon the latter, a second spring stressed by the recoil and serving to close the breech action, a nut on the breech bolt having a lateral arm projecting through a guide groove in the outer breech case, said nut being prevented from rotating by said arm while the breech bolt can rotate with regard to the nut in an unobstructed manner, a handle movable on said lateral arm, a rod adapted to be coupled with said handle, the closing spring acting upon said handle by means of the rod, means on the fixed breech case for limiting the recoil of the barrel, the recoil stroke of the barrel being less than the whole movement of the breech action, said breech bolt having a lug projecting into a guide groove in the fixed breech case, said groove being so formed and arranged that a reciprocatory rotation of the breech bolt is effected during the to-and-fro motion of the barrel and the breech action, whereby an unlocking and relocking of the breech bolt is effected in such a manner that the unlocking of the breech bolt is effected before the end of the recoil of the barrel.

[Claims 6 to 9 not printed in the Gazette.]

1,132,045. STANCHION. CHARLES M. STEVENSON, Rockford, Ill., assignor to Drew Carrier Company, Waterloo, Wis., a Corporation of Wisconsin. Filed Oct. 10, 1913. Serial No. 794,371. (Cl. 119—149.)



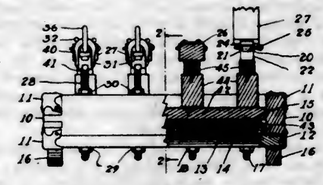
1. An adjustable stanchion composed of an upright provided with upper and lower horizontal portions, the upper one being provided with a slot, adjustable collars on said upper and lower horizontal portions, a second upright pivoted to the lower collar, and a latch extending into said slot in the upper horizontal portion of the first mentioned upright and adapted to engage with the upper collar.

2. An adjustable stanchion composed of an upright provided with upper and lower horizontal portions the upper of which is tubular and provided with a slot in its under side, adjustable collars on said upper and lower horizontal portions, an upright pivoted to the lower collar, and a latch pivoted to the last mentioned upright extending into said slot and adapted to engage the upper collar.

3. An adjustable stanchion composed of an upright provided with upper and lower horizontal portions the upper of which is tubular and provided with a slot in its under side, adjustable collars on said upper and lower horizontal portions, an upright pivoted to the lower collar, a latch pivoted to the last mentioned upright extending into said slot and adapted to engage the upper collar, a stop provided with a slot in the end of the upper horizontal portion of the first mentioned upright, and a stop-pin carried by said latch.

4. In an adjustable stanchion, the combination with a tubular upright, provided with a slot, of a second upright provided with a latch entering said slot, an adjustable collar provided with a rib projecting into said slot and means for securing said collar upon said first mentioned upright.

1,132,046. PRINTING-FRAME. EMANUEL W. SWEIGARD, Chicago, Ill. Filed Jan. 19, 1914. Serial No. 812,878. (Cl. 95—77.)



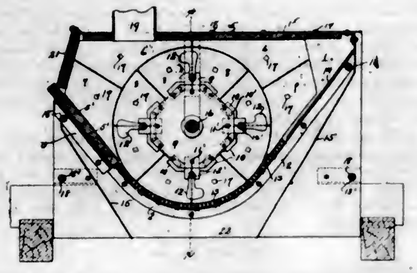
1. The combination with a frame, of a pressure-board located therein for vertical movement and having on its upper surface a horizontally extended standard, a vertically adjustable bolt located on the frame at each end of said standard and in alinement therewith, a pressure bar pivotally secured at one of its ends to one of said bolts and adapted to lie directly over said standard, means on the other of said bolts and at the free end of said bar to draw the latter toward the frame and to lock it in place, and cushions interposed between said bar and standard.

2. The combination with a frame, of a pressure-board located therein for vertical movement and having on its upper surface a horizontally extended standard, a vertically adjustable bolt located on the frame at each end of said standard and in alinement therewith, a pressure bar pivotally secured at one of its ends to one of said bolts and adapted to lie directly over said standard, means on the other of said bolts and at the free end of said bar to draw the latter toward the frame and to lock it in place, and cushions mounted on the upper surface of said standard.

3. The combination with a frame, of a pressure-board located therein for vertical movement and having on its upper surface a plurality of standards extended in parallelism across the board, a vertically adjustable bolt located on the frame at each end of each of said standards and in alinement therewith, a pressure bar pivotally secured at one of its ends to each of said bolts at one end of the frame and adapted to lie over said standards, means on each of the other of said bolts and at the free end of each of said bars to draw the latter toward the frame and to lock them in place, and cushions interposed between said bars and standards.

4. In a printing-frame, the combination with a vertically adjustable bolt, of a guard mounted on the upper end thereof and having upwardly extended prongs and a downwardly extended bearing-projection on each side of the bolt, and a link having at its lower part bearings engaged by the said bearing-projections and between the same an extension adapted to contact with the bolt and restrict the outward movement of the link, said link having its upper portion extended transversely of the upper portion of the guard prongs.

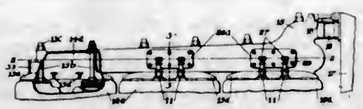
1,132,047. APPARATUS FOR CRUSHING OR RECRUSHING ROCKS, ORES, &c. MILTON T. THOMPSON, Mexico, Mexico. Filed Dec. 5, 1907. Serial No. 405,296. (Cl. 83—11.)



1. In a rock crusher, a casing having hardened interior walls, an inlet opening and an outlet grating; a shaft passing diametrically through said casing; a series of pairs of spaced plates mounted to rotate with said shaft; a series of blocks located between each pair of plates and radiating therefrom and removably attached to said plates; and hammers located between each two of said blocks, all of the adjacent hammers being pivoted to said blocks by a common pin or shaft passing through all of said blocks and hammers and being movable independently of each other on said shaft.

2. In a rock crusher, a casing having hardened interior walls, an inlet opening and an outlet grating; a shaft passing diametrically through said casing; a series of pairs of polyhedral plates mounted to rotate with said shaft; a series of blocks located between each pair of plates and radiating therefrom and removably attached to said plates; relatively hardened buffing corner pieces attached between each pair of plates and projecting beyond and protecting the corners thereof, said pieces being located one on each side of each of the projecting blocks; and hammers located between each two of said blocks, all of the adjacent hammers being pivoted to said blocks by a common pin or shaft passing through each row of said blocks and hammers.

1,132,048. HYDROCARBON-MOTOR. FRANK H. TREGO, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Original application filed Dec. 14, 1912. Serial No. 736,751. Divided and this application filed Apr. 14, 1913. Serial No. 761,030. (Cl. 123—143.)



1. In a hydrocarbon motor, the combination with the cylinders thereof, of a water conduit secured to the cylinders, said conduit being formed along one of its sides with a housing for the motor ignition wires.

2. In a hydrocarbon motor, the combination with the cylinders thereof, of a cover for the water chambers of said cylinders forming a water conduit, and means formed integral with said cover for housing the ignition wires at one side of the water conduit.

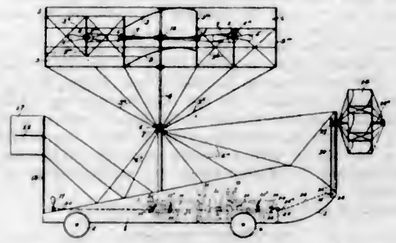
3. In a hydrocarbon motor, the combination with the cylinders thereof, of a cover for the water chambers of said cylinders forming a water conduit, a housing formed integral with said cover and arranged at one side of the water conduit, and ignition wires for the motor within said housing.

4. In a hydrocarbon motor, the combination with the cylinders thereof, of a housing for the ignition wires mounted on said cylinders, said housing having an opening in one of its sides, an insulating block secured directly to an integral part of said housing and covering said opening, and ignition wires in said housing terminating at said blocks.

5. In a hydrocarbon motor, the combination with the cylinders thereof, of a housing for the ignition wires mounted on said cylinders, said housing having an opening in one of its sides, an insulating block secured directly to an integral part of said housing and covering said opening, ignition wires in said housing, a switch on the outside of said housing, and means on said block for supporting said switch thereon and for connecting the switch with one of said ignition wires.

[Claims 6 and 7 not printed in the Gazette.]

1,132,049. FLYING-MACHINE. CHARLES W. WALLER, Chicago, Ill. Filed Mar. 5, 1914. Serial No. 822,543. (Cl. 244—19.)



1. A flying machine, comprising an elongated frame, horizontal revoluble elevating and sustaining planes, propellers carried by said planes, a common driving shaft for supporting said planes and operating said propellers, propellers at the front of said frame for propelling said planes in a horizontal direction, a power plant for operating said elevating and propelling planes independently or simultaneously with each other, and steering and propelling mechanism at the rear of said frame.

2. A flying machine, comprising a frame, a plurality of superposed trussed horizontally revoluble aeroplanes extending above said frame, a combined driving and supporting shaft extending between said planes and frame, propellers carried by said aeroplanes for revolving the same about said driving and supporting shaft, means for operating said propellers from said driving shaft, and means for propelling and steering in horizontal flight independently of the operation of said horizontally revoluble aeroplanes.

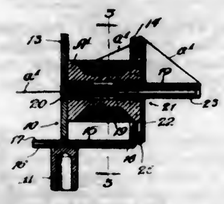
3. In a flying machine, a plurality of trussed biplanes, a common axle and supporting shaft therefor, a frame provided with a propelling and steering mechanism carried by said shaft below said biplanes, propellers carried by said biplanes, operating means extending between the latter and said axle and supporting shaft whereby said propellers on said planes are actuated, and the planes are revolved about said common axle and supporting shaft, and means for driving said axle and supporting shaft.

4. In a flying machine, a plurality of superposed trussed aeroplanes, propellers carried by said aeroplanes, a common axle driving shaft for supporting said planes and operating said propellers, a propeller at the front of said frame for propelling said aeroplanes and frame in a horizontal direction independently of the rotation of said planes on said common axle driving shaft, means for operating said driving shaft and propeller independently of each other, and steering mechanism at the rear of said frame.

5. A flying machine, comprising a frame, a plurality of horizontal revoluble elevating and sustaining planes connected to and mounted above said frame, a common driving shaft carried by said frame and supporting said elevating and sustaining planes, propellers carried by said planes and operatively connected to said common driving shaft, propellers for propelling said planes and frame in a horizontal direction, a common power plant for said elevating and propelling planes, and a screw propeller and steering mechanism at the rear of said frame.

[Claims 6 and 7 not printed in the Gazette.]

1,132,050. UNWINDING DEVICE FOR SPOOLS. JOHN L. WALSH, Chicago, Ill., assignor, by direct and mesne assignments, to Ideal Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed May 13, 1913. Serial No. 767,420. (Cl. 242—128.)



1. A spool unwinding device, comprising in combination a spool holder having a tubular spindle having a continuous straight passage therethrough from end to end, and adapted to extend through the hole of a spool from end to end, and a thread guiding device located at the free end of the spindle and having a smooth edged circular disk, around which the thread may pass from the outside of the spool, and a tubular centrally disposed thread guiding member, through which the thread may pass from the disk, said thread guiding member projecting from at least one side of said disk, and its outer end being in fixed relation to the edge of the disk, said edge and the end of said tubular member forming narrow, annular trackways for guiding the thread from the outside of the spool to and through its central hole, and frictional connecting means between the tubular spindle and thread guiding devices, whereby the latter may be forced down against the end of the spool to hold it stationary, or may be held away from the spool to permit turning thereof.

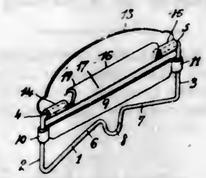
2. A spool unwinding device, comprising in combination a spool holder having a supporting disk and a tubular thread guiding spindle having a continuous straight passage therethrough from end to end, and adapted to extend through the hole of a spool from end to end, and a thread guiding device having a smooth edged circular disk around which the thread may pass from the outside of the spool, said disk being provided with a tubular, centrally disposed thread guiding stem, projecting from both sides of the disk and through which the thread may pass from the edge of the disk, said edge of the disk and outer end of the tubular stem forming narrow trackways over which the thread may pass from the outside of the spool to the central hole thereof, said stem being arranged to surround said tubular spindle and having slitted portions arranged to frictionally engage the spindles, whereby the disk may be moved toward or away from the spool; substantially as and for the purpose set forth.

3. A spool unwinding device, comprising a spool-holder provided with a tubular spindle having a continuous straight passage therethrough from end to end, and adapted to extend through the hole of a spool, and a thread guiding device located at and movably secured to move lengthwise on one end of the spindle, and having a smooth edged circular disk around which the thread may pass from the outside of the spool and having a tubular, centrally disposed, thread-guiding member, through which the thread may pass from the disk, said thread guiding member of the thread-guiding device, projecting outward from one side of the disk, said edge of the disk and the outer end of the tubular thread-guiding member forming narrow, annular trackways for guiding the thread from the outside of the spool, to and through its central holes.

4. In a spool unwinding device, a circular spool supporting disk and a check ring adjustably secured together, a centrally disposed tubular spindle secured to and projecting from said circular spool supporting disk toward said check ring, and a circular thread guiding device beyond said check ring, and having a centrally disposed tubular member surrounding and secured upon said tubular spindle.

5. In a spool unwinding device, a circular spool supporting disk and a check ring adjustably connected together, a centrally disposed, tubular spindle projecting from said spool supporting disk toward said check ring, and a thread guiding device having a circular smooth edged disk, and a centrally disposed tubular member projecting from both sides of said disk, said tubular member being arranged to surround and frictionally engage said tubular spindle and forming together, with said tubular spindle, a smooth, continuous passage for the thread of a spool, supported upon said spool supporting member.

1,132,051. BUCKLE. DE VER H. WARNER, Bridgeport, Conn., assignor to The Warner Brothers Company, Bridgeport, Conn., a Corporation of Connecticut. Filed May 8, 1914. Serial No. 837,315. (Cl. 24—194.)



1. In a buckle, the combination of a frame member comprising side bars and a lower transverse bar, said lower transverse bar being centrally bent upwardly, pivots provided by inwardly turned portions of said side bars, a sliding clamp carried by said side bars and a member pivoted to said pivots, provided with a cam controlled by said member adapted to engage said sliding clamp to cause the latter to closely approach the upwardly bent portion of the lower transverse bar.

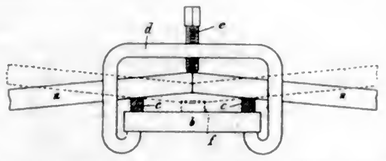
2. In a buckle, the combination of a frame member comprising side bars and a lower transverse bar, said lower transverse bar being bent upwardly and inwardly from each end and provided with a downwardly curved portion intermediate said upwardly and inwardly bent portions, said lower transverse bar thus constituting a resilient member, pivots provided by inwardly turned portions of said side bars, a sliding clamp carried by said side bars and a member pivoted to said pivots, provided with a cam controlled by said member adapted to engage said sliding clamp to cause the latter to closely approach the upwardly extending portions of said lower transverse bar.

1,132,052. METHOD OF MAKING WELDED RAIL JOINTS. JOHN WATTMANN, Treptow, near Berlin, Germany. Filed Aug. 23, 1913. Serial No. 786,338. (Cl. 29—169.)

1. The method of welding rail joints, which comprises placing a joint-bridging member adjacent to the rail ends, then applying mechanical means to produce a relative elastic bending between rails and said member, to produce an internal compression strain in the rail heads, and then welding said member to the rails.

2. The method of welding rail joints, which comprises placing a joint-bridging member adjacent to the rail ends, welding the central portion of the said member to the rail bases and at the same time welding the ends of the rail bases to each other, then driving the ends of the

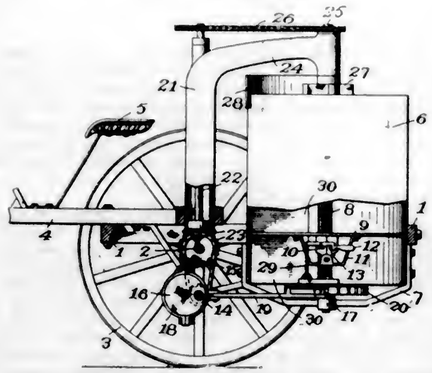
joint-bridging member away from adjacent portions of the rails, by mechanical means, and finally securing the ends of the joint-bridging member to the rails in this strained position.



3. The method of welding rail joints which comprises placing a joint-bridging member adjacent to the rail ends, welding said member to each of said rails, then mechanically bending said member and the rails relatively to one another so as to produce an internal compression strain in the rail heads, and then securing said member to each of the rails at points separated from the first named welding points.

4. The method of welding rail joints which comprises placing a joint-bridging member adjacent to the rail ends and welding said member to each rail at the rail ends and to at least two other separated points, said member and the rails being elastically bent with reference to one another, so as to have an internal compression strain in the rail heads, when the last of said welds is made.

1,132,053. FERTILIZER-SPREADER. ROWLAND H. WATTS, Concord, Mass., assignor of one-half to Richardson Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed Oct. 25, 1912. Serial No. 727,693. (Cl. 111—34.)



1. A fertilizer spreader including a fertilizer receptacle with an opening at its top, fertilizer distributing means at the opening, said distributing means being revoluble about a substantially vertical axis for distributing fertilizer in a plurality of angularly different directions, and means for raising fertilizer contained in the receptacle into the path of the distributing means to be distributed thereby.

2. A fertilizer spreader including a fertilizer receptacle having an open top, means for raising fertilizer within the receptacle, means for spreading fertilizer in a plurality of angularly different directions from the edge of the receptacle surrounding the opening in its top, and a guard to prevent spreading of the fertilizer in predetermined directions.

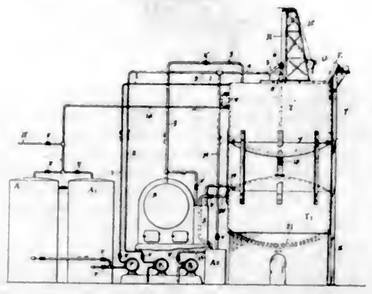
3. A fertilizer spreader including a fertilizer receptacle having an open top, means for raising fertilizer within the receptacle, means for spreading fertilizer from the edge of the receptacle surrounding the opening in its top, a guard at one side of the receptacle to prevent the spreading of fertilizer in predetermined directions, and a filler to prevent fertilizer being raised at the side of the receptacle provided with the guard.

4. A fertilizer spreader including a fertilizer receptacle with an opening at its top, a horizontal arm at the opening, said arm being revoluble about a substantially vertical axis for distributing fertilizer in a plurality of angularly different directions, and means for raising fertilizer contained in the receptacle into the path of the revoluble arm to be distributed thereby.

5. A fertilizer spreader including a fertilizer receptacle having an open top, a substantially horizontal fertilizer spreading arm at the opening, said arm being revoluble about a substantially vertical axis, and means for raising fertilizer within the receptacle into the path of the arm.

[Claims 6 and 7 not printed in the Gazette.]

1,132,054. EARTH-TREATING PROCESS AND PRODUCT. MICHAEL J. WELSH, Philadelphia, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 7, 1913. Serial No. 772,415. (Cl. 252.)



1. The method of maintaining or improving the efficiency of fullers' earth or earthy material of similar characteristics rendered more or less inefficient by percolation of liquid therethrough, which consists in treating the fullers' earth or earthy material with acid which dissolves or extracts ingredients of said earth or earthy material tending to produce fusion.

2. The method of maintaining or improving the efficiency of fullers' earth or earthy material of similar characteristics rendered more or less inefficient by its action on organic liquid, which consists in treating the fullers' earth or earthy material with acid which dissolves or extracts ingredients of said earth or earthy material tending to produce fusion.

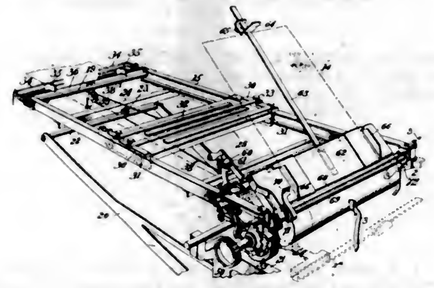
3. The method of maintaining or improving the efficiency of fullers' earth or earthy material of similar characteristics rendered more or less inefficient by its action on oily liquid, which consists in treating the fullers' earth or earthy material with acid which dissolves or extracts ingredients of said earth or earthy material tending to produce fusion.

4. The method of maintaining or improving the efficiency of fullers' earth or earthy material of similar characteristics rendered more or less inefficient by its action on oily liquid, which consists in treating the fullers' earth or earthy material with a solvent for material extracted thereby from oily liquid, and thereafter treating said fullers' earth or earthy material with acid which dissolves or extracts ingredients of said earth or earthy material tending to produce fusion.

5. The method of maintaining or improving the efficiency of fullers' earth or earthy material of similar characteristics rendered more or less inefficient by its action on oily liquid, which consists in calcining said fullers' earth or earthy material, and thereafter treating the same with acid which dissolves or extracts ingredients of said earth or earthy material tending to produce fusion.

[Claims 6 to 26 not printed in the Gazette.]

1,132,055. TYPE-WRITING MACHINE. LESTER A. WERNERY and JESSE A. B. SMITH, New York, N. Y., assignors to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 25, 1914. Serial No. 840,672. (Cl. 197—126.)



1. In a typewriting machine, the combination with a roller platen and feed rolls relatively movable into and out of position to clamp superposed plies of a longitudinally folded web for feeding said plies over the platen, of a holder for manifolding material, said holder supported at one end and having its other end inserted between said plies, said holder movable longitudinally of the plies to change the position of the manifolding material when the platen and feed rolls are separated.

2. In a typewriting machine, the combination with a roller platen and feed rolls relatively movable into and out of position to clamp longitudinal folds of a fan-folded web for feeding them over the platen, of a holder to which is directly attached manifolding material interleaved between the folds of said web, said holder being mounted to be drawn along by the manifolding material as the latter feeds around the platen, and means to automatically move the said holder longitudinally of the web when the platen and feed rolls are separated.

3. In a typewriting machine, the combination with a platen and feed rolls for feeding superposed plies of a longitudinally fan-folded web over the platen, means for holding separate carbon sheets interleaved between the said plies, said holding means movable to permit the carbon sheets to be fed forward with the plies of web, and means to automatically return the holding means when the platen and feed rolls are separated.

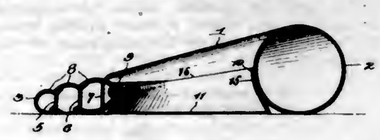
4. In a typewriting machine, the combination with a roller platen, of means for feeding superposed plies of a longitudinally fan-folded web over the platen, a holder to which are directly attached carbon sheets interposed between the several plies, one carbon in each fold, and a traveling or moving support on which said holder is mounted for movement longitudinally of the plies of web, to shift the carbon sheets relatively to the plies.

5. In a typewriting machine, the combination with a traveling carriage and a roller platen mounted thereon, of means coöperating with the platen to feed webs over the platen, an auxiliary carriage traveling with said first-named carriage, and a carbon sheet holder to support carbon sheets between the said webs, said holder mounted on the auxiliary carriage to travel thereon in a direction perpendicular to the axis of the platen.

[Claims 6 to 68 not printed in the Gazette.]

1,132,056. COLLAPSIBLE BED-PAN. PERLEY RAYMOND WESLEY and ALEXANDER D. LAMONT, Providence, R. I., assignors to Davol Rubber Company, Providence, R. I. Filed July 17, 1914. Serial No. 851,637. (Cl. 4—19.)

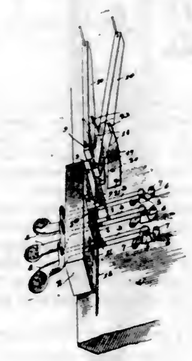
1. In a bed pan, an inflatable annular body having a bottom, a series of spaced independent vertical stays connected to the top and bottom parts of the body at the rear end thereof so that upon inflation of the body the top face of said rear end will be undulating, and a substantially semi-circular bridge connected to the top and bottom at the rear portion of the opening of the body.



2. In a bed pan, an inflatable annular body having a bottom, and having an inclined upper face and a bridge at the rear portion of the opening of the body for spacing the top and bottom parts of the body apart.

3. In a bed pan, an inflatable body having an opening with a bottom closing the opening, stays connected to the top and bottom parts of the body at the rear end thereof, and means to prevent collapse of the body at the rear portion of the opening.

1,132,057. PEDAL ATTACHMENT. STANLEY W. WILNEY, Chicago, Ill. Filed June 22, 1912. Serial No. 705,226. (Cl. 84—24.)



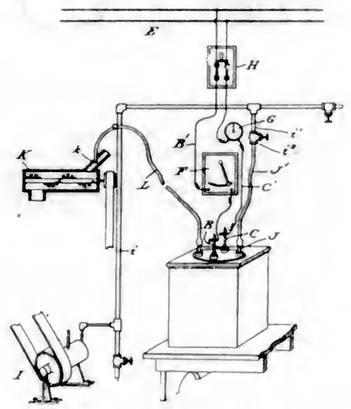
In a piano pedal attachment, the combination with a base member, a toe rail therefor having a pedal opening, a pedal having a shank extending through said opening, said shank being of inverted channel shape in cross section, a pivotal support for the inner end of said shank, a mouse guard at the inner end of said opening comprising a flat plate of comparatively thin sheet metal provided at its upper end with an angularly bent tongue secured to the under side of said shank and fitting into the channel thereof, and a bolt extending through said shank and tongue securing said parts together, the main body of said guard being inclined inwardly toward said support, and said base having a similarly inclined slot to receive said guard when the pedal is depressed.

1,132,058. APPARATUS FOR BLEACHING AND AGING CEREALS. JOHN MORRIS WILLIAMS, Guthrie, Okla. Filed May 18, 1906, Serial No. 317,635. Renewed Aug. 12, 1914. Serial No. 856,494. (Cl. 83—42.)

1. In an apparatus of the class described, means for electrolytically decomposing a liquid, thereby producing a gaseous bleaching agent, a cereal treating chamber, and means for conducting such bleaching agent to the cereal treating chamber.

2. In an apparatus for bleaching and aging cereals, means for decomposing a liquid electrolytically in a closed chamber, thereby producing a gaseous bleaching agent, means for establishing pressure in said chamber for facilitating the escape of gases therefrom, a cereal treating chamber and means for conducting a bleaching agent to the cereal treating chamber.

3. In an apparatus for bleaching and aging cereals, means for decomposing a liquid by electrolysis, whereby a bleaching agent is produced, means for supplying a gaseous agent to said means, a cereal treating chamber, and means for conducting the bleaching agent to the cereal treating chamber.

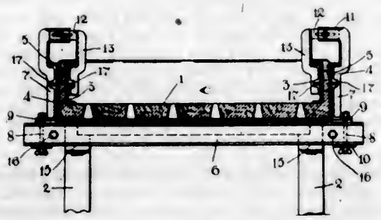


4. In an apparatus for bleaching and aging cereals, a cereal treating chamber, means for electrolytically decomposing a liquid in a closed chamber, means for supplying air under pressure to said chamber, thereby producing a bleaching agent, and means for conducting said bleaching agent to the cereal treating chamber.

5. In an apparatus for bleaching and aging cereals, a cereal treating chamber, means for electrolytically decomposing a liquid, means for introducing a gaseous agent under pressure into the body of said liquid, whereby said gaseous agent is adapted to agitate the liquid, and means for conducting the resulting bleaching agent to the cereal treating chamber.

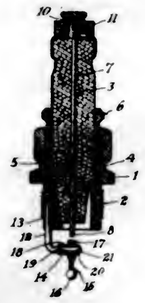
[Claims 6 to 11 not printed in the Gazette.]

1,132,059. BRACKET FOR CONSTRUCTING CONCRETE WALLS. ROBERT G. WILSON, Brooklyn, N. Y., assignor to Mead-Suydam Company, East Orange, N. J., a Corporation. Filed Apr. 1, 1910, Serial No. 552,757. Renewed May 15, 1913. Serial No. 767,901. (Cl. 25—131.)



In a device of the character described, the combination of a post provided with a flange at its base forming an adjustable support and adapted to form a stop for a side member of a mold, an arm projecting laterally from the upper part of said post and provided with longitudinal guides and a depending arm forming a stop for the opposite side member of the mold and provided with a lateral arm having a slot whereby said arm is adjustably secured to said post in said guides, the upper part of the post and the depending arm being offset to provide an increased space between them above the parts forming the stops for the mold.

1,132,060. SPARK-PLUG. DONALD H. YOST, York, Pa. Filed Sept. 19, 1912. Serial No. 721,167. (Cl. 123—169.)

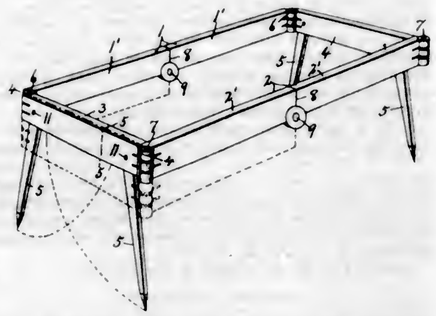


1. A spark plug having means projecting forwardly from the body portion thereof and also having electrodes one of which is stationary with respect to the body structure of the said plug and the other one of which consists of a disk-like movable member loosely pivoted to said projecting means and having a depending weight connected thereto, the said disk-like member occupying a position in operative relation to the said stationary electrode.

2. A spark plug having a projection and electrodes, one of which electrodes consists of a disk-like, oscillatable member loosely pivoted on said projection and having a depending weight integrally connected therewith, the said movable disk-like member occupying a position in operative relation to the other electrode.

3. A spark plug comprising a stationary body portion, a stationary electrode axially situated with respect to said stationary member, an elongated oscillatory electrode pivotally supported at one end in axial alinement with the said stationary member, the other end of the said elongated oscillatory electrode normally occupying a depending position and the said depending end being arrested by said stationary member at opposite ends of the path of oscillation to prevent complete revolution of the said oscillatory pivoted electrode.

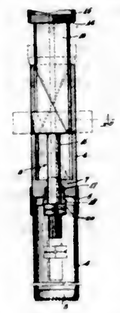
1,132,061. FOLDING TABLE. ARTHUR J. BACKER, Syracuse, N. Y. Filed May 9, 1912. Serial No. 696,188. (Cl. 45—116.)



1. A folding rectangular table-frame having horizontally swinging hinge joints at its four corners and vertically swinging hinge joints midwey between its ends, the pivots of the corner joints at one side being located at the intersections of the inner faces of the adjacent portions of the sides and ends of the frame while the joints at the opposite corners are provided with abutting shoulders inside their pivots.

2. A folding rectangular table-frame having horizontally swinging hinge joints at its four corners and vertically swinging hinge joints midway between its ends, said vertically swinging joints having abutting shoulders above their pivots, the pivots of the corner joints at one side being within the frame bars while the pivots of the opposite corner joints are outside of the frame bars.

1,132,062. WELL-TOOL. HUGH A. BARBEEN, Hollywood, Cal., assignor of one-fourth to Harlan G. Palmer and one-half to Jay E. Randall, Los Angeles, Cal. Filed Jan. 6, 1913. Serial No. 740,555. (Cl. 255—74.)



1. A well tool comprising a body member, a head slidably mounted in said body member, said body member having a lateral opening in each side thereof, a cutter in each opening, slidable engaging means between said cutters and said head adapted to expand and retract said cutters, a cap on said head adapted to engage the upper end of said body member, a rod on said head extending downwardly through the bottom of said body member, and means on the lower end of said rod for limiting the upward movement of said head relative to the body member.

2. A well tool comprising a body member, having a lateral opening in the opposite sides thereof, a head slidably extending into the upper end of said body member, a diagonally arranged wall on the opposite sides of said head, each having a dove-tail groove therein, said walls being reversely inclined with relation to each other, a cutter in each lateral opening in said body member, a dove-tail on the inner end of each cutter, and a means whereby said head may be raised and lowered in said body member.

3. A well tool comprising a body member having a lateral opening in the opposite sides thereof, a head slidably extending into the upper end of said body member, a diagonally arranged wall on the opposite sides of said head, each having a dove-tail groove therein, said walls being reversely inclined with relation to each other, a cutter in each lateral opening in said body member, a dove-tail on the inner end of each cutter, a cap on the upper end of said head adapted to engage the upper end of said body member, a rod on the lower end of said head extending through the bottom of said body member, and means on said rod for limiting the upward movement of said head in said body member.

4. In combination with a drill pipe, a tool comprising a body member having a lateral opening in the opposite sides thereof, a cutter in each opening, a head slidably mounted in said body member, a cap on the upper end of said head secured to the lower end of said drill pipe, said cap being adapted to engage the upper end of said body member, a rod on the lower end of said head extending through the bottom of said body member, means on said rod for limiting the upward movement of said head, means on the lower end of said body member for supporting the same, and means for slidably engaging said cutters with said head for expanding and retracting said cutters.

5. In combination with a drill pipe, a tool comprising a body member having a lateral opening in the opposite sides thereof, a cutter slidably mounted in each opening, a head slidably mounted in said body member, means for preventing relative turning movement between said head and said body member, a cap on the upper end of said head secured to the lower end of said drill pipe, said cap being adapted to engage the upper end of said body member, means on said head for engaging said body member for limiting the upward movement of said head in said body member, a section of pipe secured to the lower end of said body member, a cutting shoe on the lower end of said section of pipe, and means for slidably engaging said cutters with said head for expanding and retracting said cutters.

[Claims 6 to 10 not printed in the Gazette.]

1,132,063. IMPACT-TOOL. HUGH A. BARBEEN, Hollywood, Cal., assignor of one-fourth to Harlan G. Palmer and one-half to Jay E. Randall, Los Angeles, Cal. Filed Oct. 12, 1912. Serial No. 725,531. (Cl. 255—4.)



1. An impact tool comprising a casing, inlet means for admitting water pressure to said casing, a head for said casing having outlet ports therein, a piston extending into said casing and adapted to be displaced by the water, and valve means for closing and opening the ports in said casing head.

2. An impact tool comprising a casing, inlet means for admitting water pressure to said casing, a head for said casing having an outlet port therein, a valve member for opening and closing said port, a piston extending into said casing and adapted to be displaced by the water, and means on said piston for operating said valve member.

3. An impact tool comprising a casing, inlet means for admitting water pressure to said casing, a head for said casing having an outlet port therein, a valve member in said head, a piston extending into said casing and adapted to be displaced by the water pressure, a spring in said casing acting upon the piston in opposition to the water pressure and means actuated by said piston for causing said valve member to open and close said port.

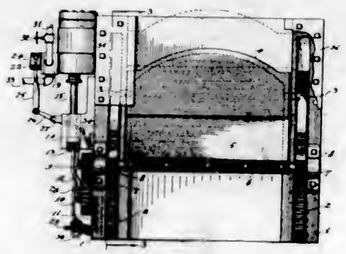
4. An impact tool comprising a cylinder having an inlet, a head in said cylinder having an exhaust port therein, a valve member rotatably mounted in said head, a piston in said cylinder extending through said head, and means on said piston adapted to rotatably reciprocate said valve member to open and close said exhaust port.

5. An impact tool comprising a cylinder having an inlet, a head in said cylinder having an exhaust port therein, a valve member rotatably mounted in said head, a piston in said cylinder extending through said head, means on said piston adapted to rotatably reciprocate said valve member

to open and close said exhaust port, and elastic means in said head adapted to move said piston inwardly in said cylinder when said exhaust port is open.

[Claims 6 to 10 not printed in the Gazette.]

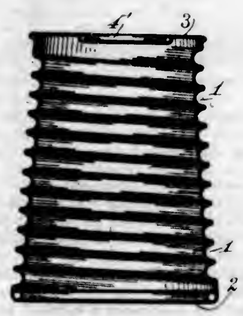
1,132,064. FIRE-DOOR FOR FURNACES AND THE LIKE. JACQUES M. VAN DEN BERGHE, Montreal, Quebec, Canada. Filed June 15, 1914. Serial No. 845,044. (Cl. 110—177.)



1. In a door of the character described, grooved side beams, racks slidably mounted in the grooves thereof, a slidable door leaf carried thereby, a transverse bar rotatably mounted on the side beams, a door leaf secured thereto along its lower edge, segmental gears keyed on the said bar in mesh with the said racks, a gear keyed on one end of the said bar, a rotatable segmental gear in mesh therewith, a piston rod, means for raising the said piston rod, and connections between the said segmental gear and piston rod whereby the gear is rotated when the piston rod is raised.

2. In a door of the character described, grooved side beams, racks slidably mounted in the grooves thereof, a slidable door leaf carried thereby, a transverse bar rotatably mounted on the said side beams, segmental gears keyed thereon and in mesh with the said racks, a gear keyed on one end of the said bar, a rotatably mounted segmental gear in mesh therewith, a cylinder, a piston mounted therein, means for admitting fluid under pressure into the cylinder under the piston, a piston rod carried by the said piston, connections between the said segmental gear and piston rod whereby the gear is rotated when the piston rod is raised, means for permitting the escape of the fluid from the cylinder, and means for returning the said segmental rack to its initial position, when the said escape means is opened.

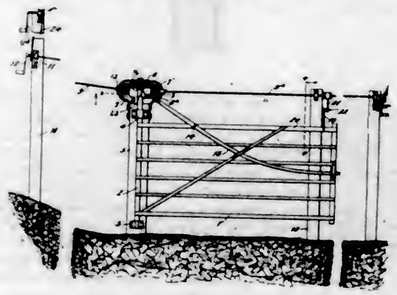
1,132,065. GARDEN-HOSE SUPPORT. GEORGE BERNHARD, Dayton, Ohio. Filed Oct. 5, 1914. Serial No. 865,035. (Cl. 248—28.)



1. A garden hose support comprising a tapered body formed of sheet metal having a continuous spiral corrugation which provides a continuous channel throughout the surface thereof for the reception of the hose, the cross-sectional area of said channel being substantially larger than the cross-section of the hose to provide an air space around the hose when in position thereon, the lower end of said tapered body having a strengthening bead formed thereon and the upper end thereof being closed by a plate united thereto and having a hand hole provided therein, and means for maintaining the hose in position on said body, substantially as specified.

2. The herein described garden hose support comprising a sheet metal body of upright tapered form said body having a spiral channel extending from top to bottom thereof for the reception of the hose, the transverse area of said spiral channel being larger than that of the hose for the purpose specified, said body having its lower end strengthened by the formation of an annular enlargement and its upper end inclosed by a plate which is crimped to the surrounding edge of the said body, said plate being provided with means for enabling the hand to grasp the same in transporting the device from one position to another, substantially as specified.

1,132,066. GATE-OPERATING MECHANISM. MARTIN M. BORDSON, Black Earth, Wis.; A. B. Thorsrud, administrator of said Bordson, deceased, assignor to John Bordson and Melver Bordson, Black Earth, Wis. Filed Feb. 4, 1914. Serial No. 816,593. (Cl. 39—14.)



1. In a device of the class described, the combination with a gate, of a rotatable member connected to said gate, means for operating said member for swinging the gate, a cam on said rotatable member, a locking bar for locking said gate against movement, an adjustable contact terminal carried by said bar and adapted to coöperte with the cam aforesaid, and means intermediate the adjustable terminal and the bar for regulating the extent of movement imparted to said bar by said cam.

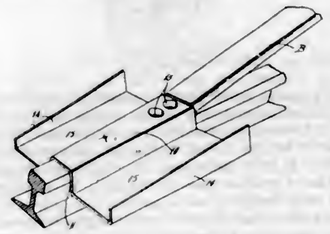
2. In a device of the class described, the combination with a gate, of a rotatable member connected to said gate, means for operating said member to swing the gate, a locking bar for said gate, an adjustable forked terminal on said bar arranged contiguous to the rotatable member, and a cam projecting from said rotatable member adjacent to each fork extremity for coöperation with the terminal to disengage the locking bar upon rotation of the rotatable member in either direction.

3. A gate operating mechanism of the class described comprising in combination with a pivoted gate, a rotatable member connected therewith for swinging the gate on its pivot, an operating rod operatively connected with the rotatable member, supporting means for said rod, a shiftable bearing connected with said supporting means in which said rod is journaled whereby to dispose the rod at different inclinations, and a gear member carried by said rod engageable with the rotatable member irrespective of the inclination of the rod.

4. A gate operating mechanism of the class described comprising in combination with a pivoted gate, a rotatable member connected therewith, an operating rod, a gear member thereon operatively connecting the rod with the rotatable member, a curved bracket for supporting said rod, and a shiftable bearing connected with said bracket in which said rod is journaled adapted to maintain connection of the gear member with the rotatable member when the rod is disposed at different inclinations.

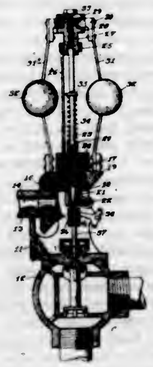
5. In mechanism of the class described, the combination with a pivoted gate, a gear member connected to said gate for swinging the same on its pivot, an operating rod for actuating the rotatable member to swing the gate into open position, a stop post against which said gate abuts to limit its swinging movement, an arm carried by the operating rod aforesaid adjacent the post, and a latch member on said post adapted to automatically engage the gate when swung against said post, said latch member being operable by the arm on the operating rod upon operation of said rod to disengage the latch and permit the gate to be swung into closed position.

1,132,067. SHOVEL. GEORGE E. BROWN, Summit, N. J. Filed Apr. 29, 1914. Serial No. 835,291. (Cl. 53—14.)



A shovel blade comprising a single blank having a longitudinal corrugation formed centrally thereof, said corrugation resulting in a channel adapted to receive the ball of a rail, and flanges formed on the side edges of the blank and directed similarly to the corrugation.

1,132,068. STEAM-ENGINE GOVERNOR. FREDERICK R. BRUGGER, Lake City, Iowa. Filed May 14, 1913. Serial No. 767,557. (Cl. 121—112.)



1. In a centrifugal speed governor, the combination with a valve stem and the valve carried thereby, of a centrifugal governor for closing the valve, means for normally holding the valve open, a worm gear carried by the valve stem, and means associated with the worm gear whereby the valve may be opened or closed independent of the centrifugal governor or means for normally holding the same open.

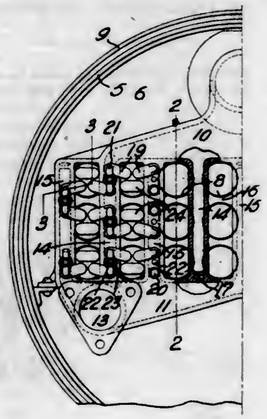
2. In a device of the character described, comprising a valve and a valve stem therefor in combination, with a centrifugal governor adapted to close said valve, means for normally holding the valve open, and means for rotating the valve stem whereby the valve may be opened and closed for the purpose specified.

3. In combination with a valve and a valve stem therefor, of a tubular member slidably connected to the valve stem, a sleeve carried by the tubular member for adjusting the stem, rotatable driving means mounted upon the sleeve, a centrifugal governor carried by the rotatable driving means for operating the valve stem, and a coil spring for holding the valve stem in a predetermined position.

4. In a device of the character described, a combination with a valve and a valve stem therefor, of a tubular member slidably connected to the valve stem, a sleeve carried by said tubular member, a flange carried by the valve stem, a coil spring encircling the said valve stem and interposed between the tubular member and said flange, means for adjusting said tubular member, rotatable driving means encircling said sleeve, and a centrifugal governor carried by the rotatable driving means for operating the valve stem against the tension of the coil spring for the purpose specified.

5. In a device of the character described, a combination with a valve and a valve stem therefor, a sleeve encircling the valve stem, rotatable driving means carried by the said sleeve, a governor head carried by the upper end of the valve stem, a vertical rod extending from said sleeve and having a bearing for the governor head, centrifugal governors for connecting the governor head with the rotatable driving means, and a coil spring encircling the valve stem for holding the valve in a predetermined position.

1,132,069. STEAM-SUPERHEATER. WILLIAM F. J. CASEY, Kingston, Ontario, Canada, assignor to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 21, 1913. Serial No. 755,942. (Cl. 122—462.)



1. In combination with a locomotive boiler provided with a plurality of flue tubes arranged in spaced vertical rows, saturated and superheated header branches alternately and vertically disposed in front of the tube sheet in the spaces between said rows of flue tubes, openings in the front of said branches, and superheated elements in the smoke tubes said elements having ends formed as reverse bends and adapted to be detachably engaged with openings in adjacent header branches.

2. In combination with a locomotive boiler provided with a plurality of flue tubes arranged in spaced vertical rows, saturated and suprheated header branches alter-

nately and vertically disposed in front of the tube sheet in the spaces between said rows of flue tubes, openings in the front of said branches, and superheater elements comprising straight tubes united by reverse bends in the smoke tubes said elements being adapted to be detachably engaged with openings in adjacent header branches.

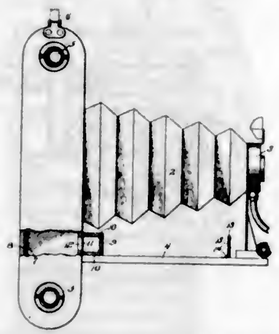
3. In combination with a locomotive boiler provided with a plurality of flue tubes arranged in spaced vertical rows, saturated and superheated header branches alternately and vertically disposed in front of the tube sheet in the spaces between said rows of flue tubes, openings in the front of said branches, superheater elements in the smoke tubes said elements having ends formed as reverse bends and adapted to be detachably engaged with openings in adjacent header branches and clamps for holding said reverse bends in position.

4. In combination with a locomotive boiler provided with a plurality of flue tubes arranged in spaced vertical rows, an integral cast steam chamber comprising saturated and superheated headers respectively above and below said rows and parallel to the tube sheet and having straight hollow branches between the headers and lying in the spaces between said rows of flue tubes, said branches opening alternately into the respective headers, said branches also having openings in their front walls, superheater elements in the smoke tubes said elements comprising straight tubes connected in series and having ends formed as reverse bends so as to detachably ngage openings in adjacent branches, and clamps for holding said reverse bends in position.

5. In combination with a locomotive boiler provided with a plurality of flue tubes arranged in spaced vertical rows, saturated and superheated header branches alternately and vertically disposed in front of the tube sheet in the spaces between said rows of flue tubes, superheated elements in the flue tubes said tubes comprising a pair of straight tubes projecting between the branches to substantially the front walls thereof, a reverse bend on each straight end the open end of said bend being spherically ground to fit a correspondingly ground opening in the adjacent branch, and a clamp for holding said ground end and ground opening firmly together.

[Claims 6 and 7 not printed in the Gazette.]

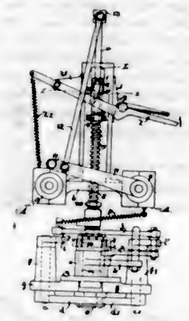
1,132,070. CAMERA. LEWIS L. CLARKE, New York, N. Y. Filed Aug. 19, 1914. Serial No. 857,435. (Cl. 95—1.1.)



1. A folding camera having in addition to the lens which registers with the field of the camera, a supplemental lens which registers with a part of the sensitive surface, a separate dark slide for the supplemental lens and means upon the folding part of the camera to support the subject to be photographed by the supplemental lens.

2. A folding camera having in addition to the lens which registers with the field of the camera, a supplemental lens which registers with a part of the sensitive surface, a hinged frame on the folding part of the camera for the support of the matter to be photographed by the supplemental lens and a separate dark slide for the supplemental lens.

1,132,071. GLASS-BOTTLE-MAKING MACHINE. ALBERT EDWARD CLEGG, Leeds, England. Filed Oct. 18, 1912. Serial No. 726,468. (Cl. 49—13.)



1. In a glass bottle blowing machine having sectional parison finishing and ring molds, a ring-mold in two sections, for forming the exterior of a bottle neck, and means for supporting the latter mold and opening and closing it at will, the said sections of the ring-mold being divided in a plane at right angles to the plane of division of the parison, and finishing mold sections and each section of the ring-mold being provided with an integral interior projection, these two projections being opposite each other and adapted to form indents, on a line transverse to the plane of division of said ring mold in the outside of the bottle neck, for receiving and engaging the stopper-wire.

2. In glass-bottle blowing machines of the type herein referred to, the combination of two semi-annular sections adapted to be closed together, forming a ring-mold, each section being provided with an integral projection from its inner face on a line transverse to the opening plane of said ring mold to form an indent in the bottle neck for holding a stopper wire, an operating lever for opening and closing said mold sections, spindles arranged one on each side of the center of said mold, arms from said spindles to said mold-sections respectively and links connecting said lever to said spindles in order that both sections may be operated by one movement.

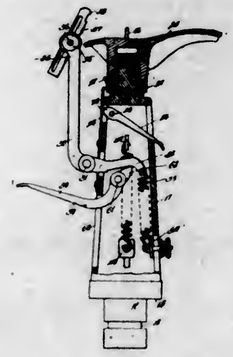
3. In glass bottle blowing machines of the type herein referred to, the combination of two semi-annular sections provided on their inner faces with integral indent-forming projections on a line transverse to the plane of the opening of said ring mold and adapted to be closed together, forming a ring mold, and opened at will, an operating lever pivoted in line with the center of said mold, a pair of spindles arranged respectively on each side of said central line, links from said lever to said spindles and arms of unequal length from said spindles to said sections for the purpose set forth.

4. In combination with a ring-mold in two sections, a lever and connections by which said sections are opened and closed, a cam turning with said lever, a vertically movable sleeve carrying a nipple which is normally presented within said mold from above and an intermediate device actuated by said cam and engaging said sleeve to raise the latter and said nozzle substantially as set forth.

5. In combination with a ring-mold in two sections, a lever and connections by which said sections are opened and closed, a cam turning with said lever, a pair of sleeves vertically movable together but having screw-threaded connection for adjustment of their collective length, a nozzle carried by the inner of said sleeves and entering said ring-mold from above and an intermediate device actuated by said cam and engaging the outer sleeve of said pair to lift said nozzle out of said mold as the latter is opened.

[Claims 6 to 10 not printed in the Gazette.]

1,132,072. SHOE-REPAIRING JACK. JAMES HARROLD CLEMMER, Bluecreek, W. Va. Filed Sept. 27, 1912. Serial No. 722,642. (Cl. 12—123.)



1. In a shoe jack, a shoe last section, an adjustable member movable with said shoe last section having a segmental portion provided with notches extending inwardly from its inner edge, a hollow supporting section, a latch adapted to fall into said notches by gravity extending through and beyond said section, said latch at one end being pivoted to said supporting section and at its other end adapted to directly engage said notches, a guide member for said latch fastened to the exterior of the supporting section adjacent the segmental portion, a foot lever, said foot lever being pivoted to the supporting section, and means within the supporting section connecting said latch and foot lever whereby the latch will be operated by the foot lever, substantially as described.

2. In a shoe jack, a plurality of levers having means to engage a shoe, said levers being movable in different planes, one of said levers having an arm extending under the other lever, and means to actuate said lever so that its arm during movement will engage and actuate the other lever, substantially as described.

3. In a shoe jack, a last, means to clamp a shoe to the last, a gage member movable against the shoe heel to position it in addition to functioning as a gage, means to normally maintain the gage in engagement with the heel, and means operable to maintain the first means out of operative relation with the heel.

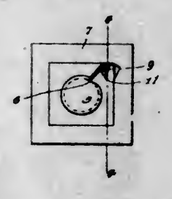
4. In a shoe jack, a first and a second lever, said levers being movable in planes at an angle to each other, each lever having shoe-engaging means thereon, said first lever during its movement adapted to engage the second lever whereby one lever will be actuated through movement of the other lever, and means operable against the first lever to cause operation of both levers.

5. In a shoe jack, a first lever, a second lever, a manually adjustable gage on said first lever, said second lever having means to engage a shoe, an arm on said first lever located below and adjacent the second lever, springs attached to said levers, and means engaging the arm of said first lever to move said levers to a position disengaging the shoe, comprising a lever automatically locking itself against movement when moved to a position disengaging the levers from the shoe, and a projection on said locking lever to engage the arm of the first lever, substantially as described.

[Claim 6 not printed in the Gazette.]

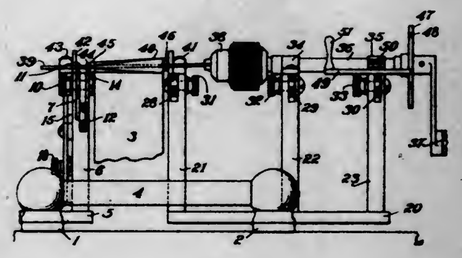
1,132,073. NUT-LOCK. EZRA M. CONRAD, Seville, Ohio. Filed June 13, 1913. Serial No. 773,544. (Cl. 151—11.)

In combination with a bolt, a nut threaded on the bolt having a portion of one of its faces cut out to provide a rectangular recess, a locking member in the recess provided with a central bore, having its outer marginal edges snugly engaged with the walls of the recess, said locking member being slit to provide a tooth which normally protrudes into its bore for engagement with the bolt, and provided with an opening adapted to aline, with an opening in the nut when the tooth is disengaged from the



bolt, said opening adapted to receive a pin for holding the tooth disengaged from the bolt to permit removal of the nut from the bolt.

1,132,074. FORMING DEVICE. JOHN B. COUTURE, Fall River, Mass. Filed Aug. 27, 1914. Serial No. 858,982. (Cl. 51—3.)



1. In a machine for shaping articles of irregular contour a rotatable shaping device, a rotatable work support effectively disposed relative to said shaping device, and means for imparting elliptical motion to said work support to vary its effective successive positionings relative to said shaping device.

2. In a machine for shaping articles of irregular contour, a rotatable shaping device, a rotatable work support effectively disposed relative to said shaping device, and means for imparting eccentric motion to said work support to vary its effective successive positionings relative to said shaping device.

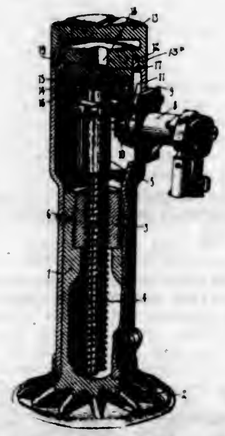
3. In a machine for shaping articles of irregular contour, a rotatable shaping device, a rotatable work support effectively disposed relative to said shaping device, and irregularly shaped bearing devices associated with said work support for causing said work support to describe an orbital path of travel when rotated, whereby its effective successive positionings relative to said shaping device are varied.

4. In a machine for shaping articles of irregular contour, a rotatable shaping device, a work support movable relative to said shaping device, an adjustable mount for said work support, and means coöperating with said mount for varying the orbit through which said work support rotates relative to said shaping device to control the effective longitudinal bearing of the work upon said shaping device.

5. In a machine for shaping articles of irregular contour, a rotatable shaping device, a rotatable work support effectively disposed relative to said shaping device, an adjustable mount for said work support including an irregular shaped contact device adapted to find bearing on said mount for varying the effective position of said work support relative to said shaping device to control the effective longitudinal bearing of the work upon said shaping device.

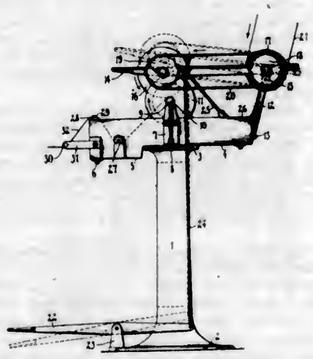
[Claims 6 to 38 not printed in the Gazette.]

1,132,075. LIFTING-JACK. CHARLES L. CRABB, Millington, N. J., assignor to Topping Brothers, New York, N. Y., a Corporation of New York. Filed Jan. 30, 1912. Serial No. 674,301. (Cl. 254—100.)



A lifting jack comprising an upper member provided with a reduced exteriorly screw-threaded flange, a lower member, a screw carried by the lower member, means for turning said screw carried by said upper member, a removable head provided with an interiorly screw-threaded flange and a downwardly extended portion arranged to engage the outside and inside respectively of the reduced flange of the upper member, said downwardly extended portion forming a lateral support for the upper end of the screw.

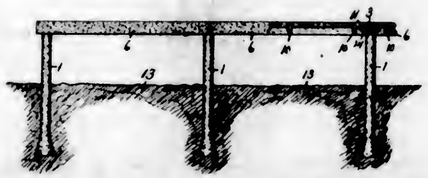
1,132,076. APPARATUS FOR WINDING BOBBINS. ALBERT DE LASKI, Weehawken, N. J., assignor to The De Laski & Thropp Circular Woven Tire Company, Trenton, N. J., a Corporation of New Jersey. Filed Jan. 5, 1911. Serial No. 600,938. (Cl. 242—55.)



1. An apparatus of the character described comprising a liquid containing vessel, means for rotatably supporting a bobbin thereon, means for guiding the tape to the bobbin, a frame pivoted at one end of the vessel to swing in a vertical plane, a driven roller mounted in said frame and adapted to engage the tape on the bobbin for winding it, means connected to said frame for swinging it vertically so that the roller is out of engagement with the bobbin, and a strut carried by the frame for maintaining it in such raised position.

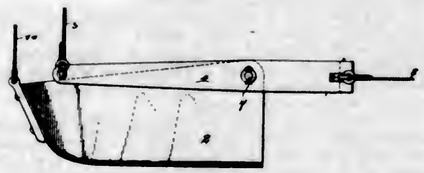
2. Apparatus of the character described comprising a liquid containing vessel, means for rotatably supporting a bobbin thereon, means for guiding the tape through the liquid to the bobbin, a frame pivoted at one end of the vessel to swing in a vertical plane, a driven roller mounted in said frame and adapted to engage the tape on the bobbin for winding it, a rod and treadle connected to said frame for manually swinging it vertically so that the roller is out of engagement with the bobbin, and a strut carried by the frame for automatically maintaining it in such raised position.

1,132,077. GUARD-RAIL. HARRY E. DILLON, Olean, N. Y. Filed Mar. 9, 1914. Serial No. 823,437. (Cl. 256—19.)



In a structure of the class described, a post formed of composition material and having a substantially flat top and side-walls diverging therefrom a member partially embedded in said post, a plate resting upon the flat top of said post, and secured thereto by said member, a rail formed of composition material and having a horizontally disposed portion and side-walls diverging therefrom and adapted to fit over the top of the post, a member partially embedded in said rail and adapted to be removably engaged with said plate for removably securing the rail and posts together.

1,132,078. DRAG-LINE BUCKET. HARRIS T. DUNBAR, Buffalo, N. Y. Filed Oct. 22, 1913. Serial No. 796,722. (Cl. 37—54.)



1. A drag line bucket comprising a scoop, and a vertically swinging loading yoke pivoted on the front end of the scoop and provided with a push member which is adapted to swing across the mouth of the scoop and underneath the latter.

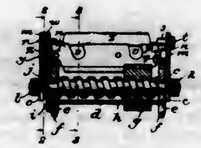
2. A drag line bucket comprising a scoop, and a loading yoke pivoted between its upper and lower ends on the front part of the scoop to swing vertically and provided below its pivot with a push member which is adapted to swing from a point above the mouth of the scoop downwardly across said mouth and underneath the scoop.

3. A drag line bucket comprising a scoop, a loading yoke pivoted between its upper and lower ends on the front part of the scoop to swing vertically and provided below its pivot with a push member which is adapted to swing from a point above the mouth of the scoop downwardly across said mouth and underneath the scoop, a drag line connected with the lower part of said yoke, a lifting line connected with the upper part of said yoke, and a dumping line connected with the rear part of the scoop.

4. A drag line bucket comprising a scoop having a mouth at its front end, and a yoke having two vertically swinging levers each of which is pivoted between its ends on the outer side of the longitudinal walls of the scoop and a horizontal transverse push bar connecting the lower ends of said levers and adapted to swing across said mouth and toward and from a position below the front part of the scoop.

5. A drag line bucket comprising a scoop having a mouth at its front end, a yoke having two vertically swinging levers each of which is pivoted between its ends on the outer side of the longitudinal walls of the scoop and a horizontal transverse push bar connecting the lower ends of said levers and adapted to swing across said mouth and toward and from a position below the front part of the scoop, a drag line connected with the lower part of said yoke, a lifting line connected with the upper part of said yoke, and a dumping line connected with the rear part of the scoop.

1,132,079. SAFETY-RAZOR-BLADE SHARPENER. WILLIAM O. FAIST, Milwaukee, Wis., assignor, by direct and mesne assignments, to The Machinery & Specialty Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed June 12, 1911. Serial No. 632,563. (Cl. 51—16.)



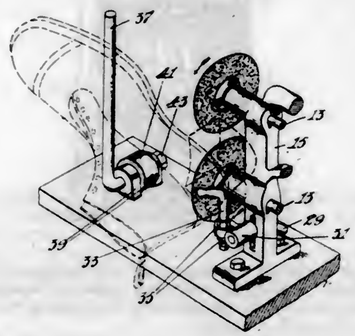
1. In a safety-razor blade sharpener the combination of a frame provided with a non-rotative transverse screw shaft, a traction drive wheel coaxial with said shaft, a sharpening wheel threaded and axially movable on said shaft and having a rotating connection with said drive wheel, the axial movement of the sharpening wheel in opposite directions being limited at predetermined points, and a holder for supporting a blade in contact with the sharpening wheel.

2. In a safety-razor blade sharpener the combination of a portable frame provided with a handle and with a non-rotative transverse screw shaft, a sharpening wheel threaded on said shaft and movable axially back and forth thereon as it is rotated first in one direction and then in the other, a rod rotatable around and parallel with said screw shaft and passing loosely through the sharpening wheel, the axial movement of the sharpening wheel in opposite directions being limited at predetermined points, a traction drive wheel mounted in said frame and having a rotating connection with said rod, and a holder adapted to support a blade in contact with said sharpening wheel.

3. In a safety-razor blade sharpener the combination of a frame provided with a non-rotative transverse screw shaft, traction drive wheels rotatably mounted in said frame at the ends of said shaft and coaxial therewith, a sharpening wheel threaded and axially movable on said shaft and having a rotating connection with the drive wheels which serve as stops to limit the axial movement of the sharpening wheel in opposite directions at predetermined points, and a holder mounted in said frame and adapted to support a blade in contact with the sharpening wheel.

4. In a safety-razor blade sharpener the combination of a frame provided with a non-rotative transverse screw shaft, traction drive wheels rotatably mounted in said frame at the ends of and coaxial with said shaft, a sharpening wheel threaded on said shaft, a rod passing loosely through said sharpening wheel parallel with said shaft and connected at the ends with said drive wheels which serve as stops to limit the axial movement of the sharpening wheel in opposite directions at predetermined points, and a holder mounted in said frame and adapted to support a blade in contact with the sharpening wheel.

1,132,080. MACHINE FOR OPERATING UPON HEELS. IRA E. FLETCHER, Manchester, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 9, 1911. Serial No. 648,507. (Cl. 51—17.)



1. A machine of the class described having, in combination, a plurality of rotary tools and a work-rest arranged to support a shoe with the corners of its heel simultaneously in contact with localities on said tools which lie in a common plane.

2. A machine of the class described having, in combination, a plurality of rotary tools and a work-rest arranged to support a shoe with the corners of its heel simultaneously in contact with localities on said tools which lie in a common plane, there being provision for varying the inclination of the axes of said tools.

3. A machine of the class described having, in combination, a plurality of tools the operative faces of which lie in a common plane, there being a free and unobstructed space adjacent said faces to permit a shoe to be presented with the corners of its heel simultaneously in contact with said tools, and means for rotating said tools.

4. A machine of the class described having, in combination, a plurality of tools having flat faces, means for actuating said tools, and a work rest arranged to support a shoe with the corners of its heel in contact with said tools, there being provision for holding said tools in inclined position to accommodate undercut heels.

5. A machine of the class described having, in combination, a plurality of tools having flat faces and a work-rest for supporting a shoe with the corners of its heel in contact with said faces.

[Claims 6 to 10 not printed in the Gazette.]

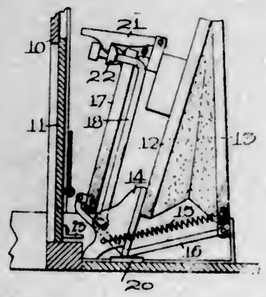
1,132,081. PEDAL CONNECTION. HORACE EDGAR FRENCH, Newcastle, Ind. Filed Apr. 17, 1911. Serial No. 621,480. (Cl. 84—169.)

1. In a musical instrument, the combination with the bellows having a movable leaf, of a link connected with the movable leaf and extending forward and having a fixed upwardly extending arm on the front end, a pedal pivotally connected with the upper end of said arm, and a means for engaging the forwardly extending portion of said link when the link is forced down by the raising of the lower end of the pedal to limit its swinging motion.

2. In a musical instrument, the combination with the bellows having a movable leaf, of a link connected with the movable leaf and extending forward for a distance substantially horizontally and then upward forming an elbow, a swinging pedal pivotally connected with the upper end of said link, an arm having a stationary pivotal point of support within the casing and connected with the opposite end of said pedal, and a raised surface in the casing for engaging the elbow of said link when the link is forced down by the raising of the lower end of the pedal.

3. In a musical instrument, the combination of a casing,

a pivoted pedal, means for normally and yieldingly forcing the pedal outwardly, and yielding means for holding the pedal when swung backwardly into the casing.



4. In a musical instrument, the combination of a pivoted pedal, a latch for holding it inside the instrument, a panel, and means on the panel for opening the latch when the panel is opened.

1,132,082. DEVICE FOR PULLING, STRETCHING, HOISTING, &c. JAMES EDWARD FROST, Ladysmith, Wis. Filed Dec. 31, 1913. Serial No. 809,666. (Cl. 254—76.)



1. A device of the class described including a casing, opposite transversely slidable jaws housed within the casing, means for guiding the jaws in their transverse movement within the casing and for holding the jaws against movement longitudinally of the casing, cam levers arranged to engage the jaws for moving the same inwardly, and operating mechanism provided with means for oscillating the cam levers and for reciprocating the casing.

2. A device of the class described comprising a casing, transversely slidable jaws arranged within the casing, cam levers fulcrumed at the outer sides of the jaws and engaging the same centrally thereof for moving the jaws inwardly, means located at opposite sides of the cam levers for guiding the jaws in their transverse movement within the casing and for holding the jaws against movement longitudinally of the casing, and operating mechanism provided with means for oscillating the cam levers and reciprocating the casing.

3. A device of the class described including a casing, jaws arranged in the casing and provided with spaced transversely disposed arms, means carried by the casing and coöperating with the arms for guiding the jaws in their transverse movement and for holding the said jaws against relative longitudinal movement, cam levers fulcrumed in the casing between the said arms and arranged to engage the jaws for forcing the same inwardly, and operating mechanism connected with the cam levers and adapted to oscillate the latter and reciprocate the casing.

4. A device of the class described including a casing, transversely movable opposite jaws provided with inner gripping faces and having outwardly extending spaced transversely disposed arms, said jaws being also provided between the arms with straight flat longitudinal faces, means carried by the casing and engaging the arms for holding the jaws against relative longitudinal movement, levers fulcrumed in the casing and having cam edges arranged to engage the said faces for forcing the jaws inwardly, and operating mechanism provided with links connected with the cam levers and adapted to oscillate the same and reciprocate the casing.

5. A device of the class described comprising inner and outer gripping devices arranged vertically and horizontally, each provided with a pair of gripping jaws, cam levers arranged to engage and actuate the jaws in their transverse movement, an operating lever fulcrumed at an intermediate point, links arranged in pairs and pivoted at one end to the cam levers and connected at the other end to the operating lever at opposite sides of the pivotal point thereof, the links of one pair being spaced apart to receive between them the gripping device to which the other links are connected.

[Claims 6 to 8 not printed in the Gazette.]

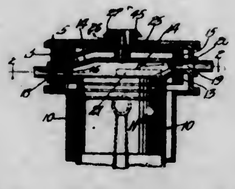
1,132,083. HAY-BALER. MARY A. GIBBONS, Des Moines, Iowa. Filed Jan. 13, 1914. Serial No. 811,876. (Cl. 100—9.)



1. In a baler, a frame, a bale receiving means, a hay receptacle adjacent thereto and communicating therewith, a plunger adapted for reciprocation through said receptacle, a transverse shaft vertically slidable in said receptacle, adjacent to the upper part of the opening into said hay receiving means, a roller mounted off center on said shaft, said roller being adapted to be engaged by said plunger and to be rotated and raised from its lower to its upper position when the plunger moves rearwardly.

2. In a baler, a frame, a bale receiving means, a hay receptacle adjacent thereto and communicating therewith, a plunger adapted for reciprocation through said receptacle, a transverse shaft vertically slidable in said receptacle, adjacent to the upper part of the opening into said hay receiving means, a roller mounted off center on said shaft, said roller being adapted to be engaged by said plunger and rotated and raised from its lower to its upper position, and yielding means for holding the shaft at the lower position of its movement with the roller having its greatest radius from shaft center below the shaft.

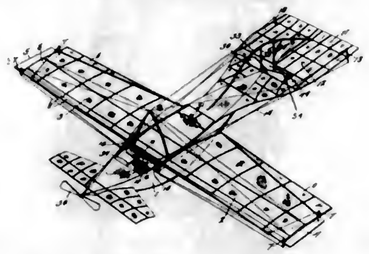
1,132,084. INTERNAL-COMBUSTION-ENGINE VALVE. GEORGE F. GILLETTE, Detroit, Mich. Filed Mar. 23, 1914. Serial No. 826,652. (Cl. 123—190.)



1. In an engine, a cylinder and piston traveling therein, a cup-shaped valve seated in the end of the cylinder beyond the piston travel therein, said valve having a head forming the end of the cylinder and a flange engaging the side walls of the cylinder, the cylinder and flange having registering ports.

2. In an engine, a cylinder and a piston traveling therein, a cup-shaped valve seated in the end of the cylinder beyond the piston travel therein, said valve having a head forming the end of the cylinder and a flange engaging the side walls of the cylinder, the whole interior of the cup-shaped valve being directly exposed to pressure within the cylinder, the cylinder and valve flange having ports adapted to register during rotation of the valve.

1,132,085. AIRSHIP. CHARLES GIROLAMI, Chicago, Ill. Filed Aug. 1, 1910. Serial No. 574,764. (Cl. 244—29.)



1. In an airship, the combination of an engine separately oscillatable about an axis, a propeller rotatable about an axis intersecting the first said axis, a rotary element disposed adjacent the point of intersection of said axes, said rotary element being mounted to swing with and operatively connected to said engine, and a universal connection operatively connecting the propeller to said rotary element, said universal connection being adapted to permit an oscillatory movement of the propeller about the said engine axis.

2. In an airship, the combination of an engine with a propeller, rotatable upon an axis fixed with respect to the ship, said engine being free to oscillate about an axis intersecting the first said axis, a universal connection disposed at the intersection of said axes, and a movable aileron for maintaining the equilibrium of the ship, said aileron being connected to said engine to partake of its relative oscillating movement.

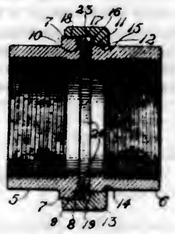
3. In an airship, the combination with a propeller rotatable about an axis fixed with respect to the ship, an engine swingingly mounted upon said ship about an axis distant from the engine, a rotary element driven by said engine about an axis intersecting the axis about which said engine swings, a universal connection between said propeller and said rotary element, said universal connection being disposed at the intersection of said axes, and movable ailerons mounted on the ship and connected to said engine to partake of its swinging movements to automatically maintain the ship in equilibrium.

4. In an airship, the combination with a rigid frame, of a member oscillatable about an axis on said frame, a second member oscillatable on the first member about an axis intersecting the first axis, an engine suspended from the second member, a rotary element driven by said engine, a propeller driving shaft, a universal coupling connecting the propeller shaft to said rotary element, said coupling being disposed at the intersection of said axes, and a movable aileron operatively connected to each of said oscillating members, one of said ailrons being thereby adapted to automatically correct the lateral tilt of the ship and the other plane being thereby adapted to automatically correct the end wise plunging of the ship.

5. In an airship, the combination with a rigid frame, of a member oscillatable about an axis on said frame, said member being provided with a hollow journal, a hollow bearing member journaled on the said journal, an engine suspended from the second member, a rotatable element carried by said first member and driven by said engine, a propeller driving shaft, and a universal driving connection between said shaft and rotatable element, said connection being disposed within said hollow journal.

[Claims 6 to 14 not printed in the Gazette.]

1,132,086. PIPE-COUPLING. JOHN N. GOODALL, Melrose, Mass. Filed Jan. 27, 1913. Serial No. 744,291. (Cl. 137—28.)

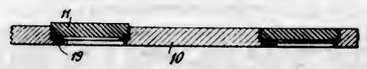


1. A coupling comprising a pair of collars one of which has a screw thread and a conical surface, the other of which has an enlarged end, a nut having a screw thread engaging with said screw thread of said first collar and a flange engaging the enlargement of said second collar, said nut having a flaring wall, and a bridge member located between the flaring wall of said nut and said conical surface.

2. A coupling comprising a nut having a chamber, a screw thread at one side of said chamber, a flange at the other side of said chamber, a straight wall extending inward from said flange, a flaring wall extending from said straight wall, and a bridging member having a projection extending into the chamber of said nut, in combination with a pair of collars having end portions adapted to be drawn into engagement with said bridging member, one of said collars having a screw thread engaged by said collar.

3. A coupling comprising a pair of collars one of which has an exterior screw thread and a V shaped groove in its end, the other of which has an enlarged end, a nut having a bore slidable on said enlargement, a wall flaring from said bore and an internal screw thread engageable with the thread of said first collar, and a bridging member having comparatively thin edges one of which is adapted to be seated in the V shaped groove of the first collar and the other of which edges extends into the groove formed between the enlargement of said second collar and the flaring wall of said nut, substantially as described.

1,132,087. OUTLET-BOX. WILLIAM A. HALL, New York, N. Y., assignor to Thomas & Betts Company, New York, N. Y., a Corporation of New York. Filed Apr. 27, 1912. Serial No. 693,630. (Cl. 247—7.)



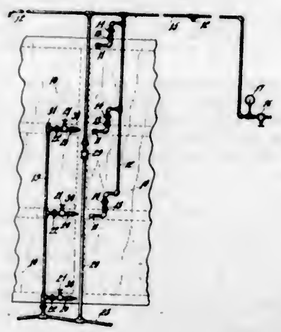
1. A metallic outlet-box having one side thereof provided with an opening therethrough, and a ledge in the wall of said opening, a filling of compressible, non-absorbent material resting upon said ledge and extending around the walls of said opening as a lining therefor, between said ledge and a face of the side of the box, and a knockout disk having a tapered periphery seated in said opening upon said filling with its periphery wedged into close water-tight contact with the edge portions of said filling, the outer face of said disk being flush with the said face of the side of the box, substantially as set forth.

2. A metallic outlet-box having one side thereof provided with an opening therethrough, and a ledge in the wall of said opening, a filling of compressible, non-absorbent material comprising a disk-like base portion resting upon said ledge and an edge portion extending from the periphery of said base portion around the walls of said opening as a lining therefor, between said ledge and a face of the side of the box, and a tapered knockout disk

seated in said opening upon the base portion of the filling and with its edges wedged into close water-tight contact with the edge-portion of the filling, substantially as set forth.

3. A metallic outlet-box having one side thereof provided with an opening therethrough, a filling of compressible, non-absorbent material comprising a base portion of slight thickness extending across the opening, between the two faces of the said side of the box, and an edge portion extending from the periphery of said base portion around the walls of said opening as a lining therefor, between the base portion and one face of the side of the box, and a tapered knockout disk seated in said opening upon the base portion of the filling and with its edges wedged into close water-tight contact with the edge portions of the filling, substantially as set forth.

1,132,088. MAUSOLEUM. WILLIAM S. HALLADAY and JACOB SCHAEFER, Milwaukee, Wis. Filed Mar. 21, 1913. Serial No. 755,936. (Cl. 72—7.)



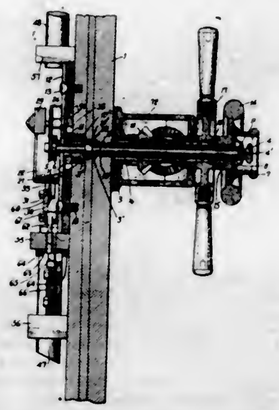
A mausoleum, comprising a tier of crypts with an aisle in the rear thereof, vent pipes and drain pipes passing through the walls of the crypts into the aisle, an exposed gas pipe within the aisle with which the vent pipes connect, check valves in the exposed connections between the vent pipes and the gas pipe, an exposed slush pipe within the aisle connected with the drain pipes, hand valves in the exposed connections between the drain pipes and the slush pipe, a slush decomposer into which the slush pipe discharges, and an exposed valved pipe connecting the slush pipe with the gas pipe.

1,132,089. SAFE-LOCKING DEVICE. ALFRED P. HAUSTETTER, Norwood, Ohio, assignor to The Victor Safe & Lock Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 25, 1914. Serial No. 852,980. (Cl. 109—3.)

1. In a safe door locking device, the combination of a door, a plurality of revoluble members concentrically mounted extending through the same, means on the outer ends of said members for independently rotating the same, bolts mounted on the inner side of said door, locking devices for preventing or permitting operation of said bolts, pressure means for seating and unseating said door, and connections between said bolts, locking devices and pressure means respectively and different ones of said members for operating the same by the rotation of said members respectively, substantially as set forth.

2. In a safe door locking device, the combination of a door, bolt plates carrying outwardly extending bolts slidably mounted on the door, a bolt arbor extending centrally through the door, a gear carried thereby, racks meshing with said gear and secured to two of said bolt plates, and operative connections from said bolt plates to the remaining bolt plates, substantially as set forth.

3. In a safe door locking device, the combination of a door, a plurality of concentrically mounted revoluble elements extending centrally through the same, means on the outer ends of said elements for independently rotating the same, locking means mounted on said door, pressure means for controlling the seating of said door and connections between said locking means and pressure means respectively and different ones of said elements for operating the same by the rotation of said elements respectively and sequentially, substantially as set forth.



4. In a safe door locking device, the combination of a door, a plurality of concentrically mounted revoluble elements extending centrally through the same, means on the outer ends of said elements for independently rotating the same, bolts mounted on said door, locking devices for preventing or permitting operation of said bolts, pressure means for seating said door or forcing the same away from the door opening, and connections between said bolts, locking devices and pressure means respectively and different ones of said elements for operating the same by the rotation of said elements respectively and sequentially, substantially as set forth.

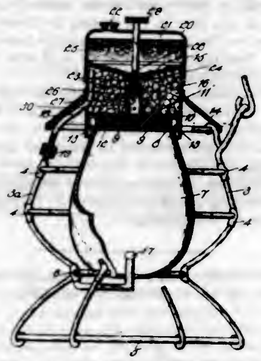
5. In a safe door locking device, the combination of a door, bolt plates carrying outwardly extending bolts slidably mounted on the same, a bolt arbor extending centrally through the door, a lock spindle mounted concentrically therewith, a gear carried by said bolt arbor, racks meshing with said gear and secured to two of said bolt plates, operative connections from said bolt plates to the remaining bolt plates, locking devices arranged to prevent or permit movement of one of said bolt plates, and operative connections between said lock spindle and locking devices, substantially as set forth.

1,132,090. LANTERN. GROVER W. HELLSTRAND, Chicago, Ill. Filed June 2, 1913. Serial No. 771,167. (Cl. 240—11.)

1. In a lantern, a globe, a disk having openings therein disposed on the top of said globe, a gas producing chamber disposed over said disk, a spring interposed between said gas producing chamber and said disk, and means for securing the gas producing chamber to said globe to clamp the parts in place.

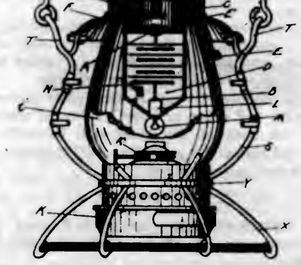
2. In a lantern, a globe, a protecting cage, a gas producer on top of said globe, and a pipe running from said gas producer to a burner in said globe, said pipe forming a part of said protecting cage.

3. In a lantern, a globe, a protecting cage, a gas producer on top of said globe, said producer having a chamber for calcium carbid and a pipe running from said gas



producer to a burner in said globe, said pipe forming a part of said protecting cage.

1,132,091. LANTERN. GROVER W. HELLSTRAND and ERICK A. HELLSTRAND, Chicago, Ill. Filed May 16, 1913. Serial No. 767,956. (Cl. 240—8.5.)



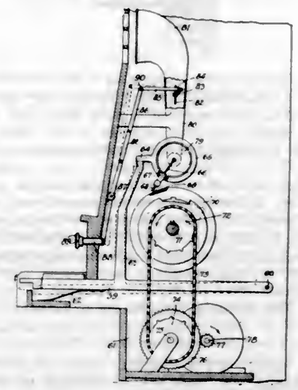
1. In combination, a transparent globe, a casing fitted within and closing the top of said globe, an incandescent lamp carried on the under side of said casing, an electric battery in said casing, and a switch carried by said casing and controlling the circuit through said lamp and battery.

2. In combination, a transparent globe, a casing depending into said globe, an incandescent lamp carried on the under side of said casing, an electric battery in said casing, a fiber supporting member on said casing, and a switch carried by said member and controlling the circuit through said lamp and battery.

3. In combination, a transparent globe, a casing depending into said globe, an incandescent lamp carried on the under side of said casing, an electric battery in said casing, a fiber supporting member on said casing, a switch carried by said member and controlling the circuit through said lamp and battery, a hood over said globe, a spring in said hood and bearing down on said casing, and a cage surrounding said globe and connecting the bottom of said globe and said hood.

4. In combination, a transparent globe, a casing depending into said globe, an incandescent lamp carried on the under side of said casing, an electric battery in said casing, a fiber supporting member on said casing, a switch carried by said member and controlling the circuit through said lamp and battery, a hood over said globe, a spring in said hood and bearing down on said casing, a cage surrounding said globe and connecting the bottom of said globe and said hood, and a bail carried by said cage.

1,132,092. MANUALLY-CONTROLLED PHONOGRAPHIC MECHANISM. PETER HESSELIUS, Chicago, Ill., assignor of one-half to Anders G. Dahlquist, Chicago, Ill. Filed Feb. 21, 1914. Serial No. 820,158. (Cl. 181—4.)



1. In a phonographic instrument, the combination of a casing, a record engaging device, a key lever pivoted to the casing, and an arm carried by said lever disposed between the pivot and finger piece arranged to engage the under side of the said record engaging device to normally prevent the engagement of the same with the record, the record engaging device being caused by gravity to engage the record when the arm is moved to release the under side of the same.

2. In a phonographic instrument, the combination of a casing, a key lever pivoted to the casing, a record engaging device swivelly mounted at substantially its central portion and adapted to swing in a vertical plane, an extension on said device, and an arm carried by said lever arranged to engage the under side of the said extension to normally prevent the engagement of said device with the record, the record engaging device being caused to engage the record when the arm is moved to release the under side of the extension.

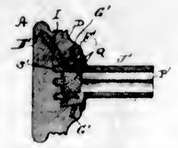
3. In a phonographic instrument, the combination of a casing, a key lever pivoted to the casing, a record engaging device swivelly mounted at substantially its central portion and adapted to swing in a vertical plane, an extension on said device, and an arm carried by said lever disposed between the pivot and finger piece arranged to engage the under side of said extension to normally prevent the engagement of said device with the record, the record engaging device being caused to engage the record when the arm is moved to release the under side of the extension.

1,132,093. REINFORCED HANDLE. EDWIN C. HOLTON, Somerville, Mass., assignor to Holton-Abbott Manufacturing Company, Somerville, Mass., a Corporation of Massachusetts. Filed July 22, 1907. Serial No. 385,068. (Cl. 137—4.)

1. A reinforced handle consisting of a body provided with a central aperture and passages extending into close approach to the outer periphery thereof, and a reinforcing metal insert filling said central aperture and passages and serving to bind the parts of the body together.

2. A reinforced handle consisting of a non-metallic body and a metallic binder having divergent connected binding arms embedded in the body to resist splitting thereof and to hold the parts together in case of splitting.

3. A reinforced handle comprising a non-metallic frangible body and a metallic binder having divergent arms and a connecting web embedded in said body, to resist fracture and prevent disintegration thereof.

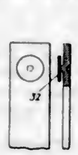


4. A reinforced handle comprising a non-metallic frangible body and a metallic binder having divergent arms and connecting web embedded in said body, said arms approaching closely the outer surface of the body for the purpose of resisting fracture and separation of parts thereof.

5. A reinforced handle comprising a wooden body having a central aperture and radiating inclined holes approaching closely the outer limits of said body, and a metallic spider having a central portion lining said aperture and arms extending into said holes, thereby serving to bind the parts of the body together and prevent splitting and separation thereof.

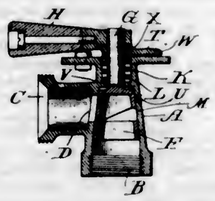
[Claims 6 to 14 not printed in the Gazette.]

1,132,094. CONTACT MEMBER. WILLIAM F. HOSFORD, West Chicago, Ill., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Sept. 8, 1911. Serial No. 648,347. (Cl. 173—13.)



An electrical contact member comprising a strip of spring metal having a projecting contact piece of highly refractory metal such as platinum, of smaller dimension of attaching area than the width of said strip and electrically welded to the latter.

1,132,095. VALVE. MAURICE FRANK HUTCHISON, Herndon, Va. Filed Apr. 21, 1914. Serial No. 833,552. (Cl. 137—7.)

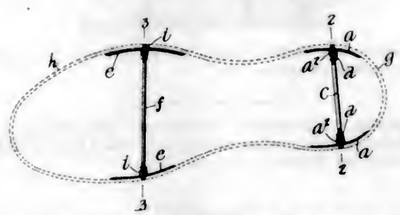


1. The combination with a casing having branch passages and a rectangular slot through which they communicate, of a valve provided with a tapering slot movable across the slot in the casing for varying the uncovered portion of said latter slot one edge of said tapering slot being level with one edge of said rectangular slot.

2. The combination with a casing having branch passages and a rectangular slot through which they communicate, of a valve having a tapering slot movable across the slot in the casing for varying the uncovered portion of the latter slot, a scale on the casing, a pointer attached to the valve and coöperating with the scale for indicating the position of the slot in the valve with respect to the slot in the casing, a fixed stop on the scale for engaging the pointer when the slot in the casing is closed, and an adjustable stop on the scale also adapted to be engaged by the pointer for limiting the opening of said slot in the casing beyond a predetermined extent.

3. The combination with a casing having branch passages, of a valve fitted in one passage and having a uniformly gradual substantially unbroken spiral edge arranged obliquely with respect to the other passage and extending from the lowest to the highest level thereof, and means for turning the valve to move its spiral edge across the latter passage, thereby uniformly varying the uncovered portion of said passage.

1,132,096. SHOE. HENRY JAEDIKE, Evergreen, N. Y. Filed Dec. 9, 1914. Serial No. 876,280. (Cl. 36—71.)

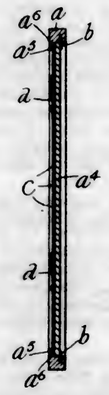


1. A shoe provided in the opposite sides of the front portion thereof and inside of the body of the shoe with laterally movable members which are adapted to grasp and hold the foot.

2. A shoe provided in the opposite sides of the heel portion thereof and inside of the body of the shoe with laterally movable side members, and means whereby said members may be moved outwardly and inwardly.
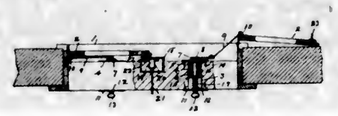
3. A shoe provided in the opposite sides thereof and in both the heel and front or body portion of the shoe and inside of the body of the shoe with laterally movable members, and means for operating said members, substantially as shown and described.

1,132,097. SIGN-BOARD. WILLIAM KARPEN, Brooklyn, N. Y. Filed June 3, 1914. Serial No. 842,546. (Cl. 40—140.)



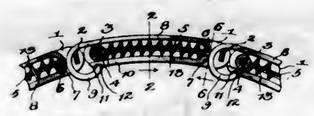
A sign board provided with transverse flexible strips, the bottom edge of each of said strips being overlapped by the top edge of the strip therebelow, and letter tabs provided at the top thereof with backwardly and downwardly directed hook members adapted to engage the top edge of one of said strips, the lower ends of said letter tabs being adapted to be passed beneath the top edge of another of said strips below that which is engaged by the top thereof.

1,132,098. SHUTTER-OPERATOR. FRANK J. KILLIAN, Colgate, Md. Filed Nov. 27, 1914. Serial No. 874,130. (Cl. 16—136.)



A shutter operator comprising a cylindrical sleeve secured in the window frame and having teeth on its inner end, a lever having one end mounted in said sleeve and provided with a square aperture therein, means connecting the outer end of the said lever with the shutter, a rod having a square head on one end adapted to fit into the square aperture in the lever and a knob on its inner end, a disk secured to said rod and having teeth on one side adapted to mesh with the teeth on the said sleeve and means to hold the teeth of the said sleeve and disk normally in mesh.

1,132,099. BRACELET OR ENDLESS CHAIN. RUFUS KING, Plainville, Mass., assignor to Bugbee & Niles Co., Providence, R. I., a Corporation of Rhode Island. Filed Dec. 28, 1914. Serial No. 879,295. (Cl. 59—79.)



1. In a bracelet or the like, a series of outer links having sides and connecting end elements for the sides, coupling links for the outer links having sides, a closed end, and a hook, one of the sides being depressible to form a catch for interengagement with the free end of the hook, the closed end having notches at its sides and the sides of the outer link having longitudinal ribs which project into the notches, and springs within the coupling links to hold the closed ends thereof against adjacent hooks, and to also normally cause the adjacent connecting elements of the outer links to lie opposite the catches so as to prevent opening movement of the latter.

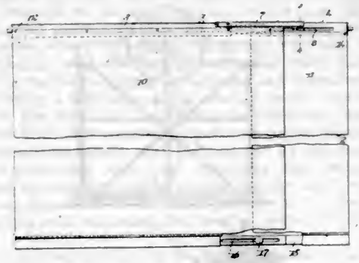
2. In a bracelet, or the like, a series of outer links having sides and end connecting elements for the sides, coupling for the outer links having closed ends and hooks at their opposite ends and also having catches which coöperate with the hooks, and springs in the coupling links to cause the closed ends thereof to press against adjacent hooks, and to cause the adjacent connecting elements to lie opposite the catches to prevent opening movement of the latter.

3. In a bracelet or the like, outer links having end connecting elements for the sides thereof, coupling links having hooks and catches, and springs in the coupling links to cause one of the connecting elements to lie opposite the catches to prevent opening movement of the latter.

4. In a bracelet or the like, outer links, spring pressed inner links within the outer links, and means on the inner links coöperating with the adjacent outer links for removably connecting the outer links.

5. In a bracelet or the like, outer links, inner sliding links therein, and a hook on each inner link engageable with the adjacent end of an outer link.

1,132,100. EXTENSIBLE CURTAIN-ROLLER. HENRY KLEIN, Portland, Oreg. Filed Mar. 10, 1914. Serial No. 823,817. (Cl. 156—29.)



1. The combination with an extensible shade roller comprising a pair of relatively movable roller sections, of a shade comprising a pair of relatively movable shade sections, and means limiting movement of said roller and said shade sections, as and for the purpose set forth.

2. The combination with an extensible shade roller comprising a pair of relatively movable roller sections, and means carried by one of said roller sections and engaging the other of the said sections to maintain the said two sections upon the same horizontal plane and against circumferential movement one independent of the other, of a shade comprising a pair of relatively movable shade sections, one of the said shade sections being attached to each of the respective roller sections, and means carried by said shade sections limiting movement of the said sections relatively to each other, as and for the purpose set forth.

3. The combination with an extensible shade roller comprising a pair of relatively movable roller sections, of a shade comprising a pair of relatively movable shade sections, said shade sections, being attached one to each of the respective roller sections, the said shade sections being disposed to overlap one another and to extend beyond the respective inner ends of the said roller sections to which they are attached, means supporting the extended portions of the respective shade sections, and means including a sectional weight strip carried, one section by each of the respective shade sections, said strip sections being adjustable relatively to each other to limit movement of the shade sections, as and for the purpose set forth.

4. An extensible shade roller including a pair of relatively movable roller sections, an extension formed upon the end of one of said sections, the other of the said sections being hollow to receive the said extension, said hollow section having a slot formed therein, a block rigid with said extension and fitting said slot, the terminals of the said slot limiting longitudinal movement of the section in an adjusting operation, a longitudinally slit sleeve rigid with said first mentioned section and embracing said last mentioned section, and a longitudinally divided shade, the sections of the said shade being attached, one to each of the respective roller sections, as and for the purpose set forth.

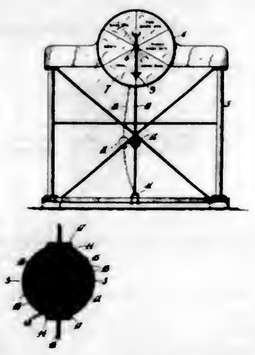
5. In combination, an extensible shade roller comprising a pair of relatively movable roller sections, a shade comprising a pair of relatively movable shade sections, one shade section being attached to each of the respective roller sections, and means limiting movement of said roller sections.

[Claims 6 to 9 not printed in the Gazette.]

1,132,101. EXERCISING OR GAMING APPARATUS. DANIEL HERMAN KLEINSCHMIDT, Buffalo, N. Y. Original application filed Jan. 17, 1914, Serial No. 812,711. Divided and this application filed May 14, 1914. Serial No. 838,550. (Cl. 46—69.)

1. In an apparatus of the kind described, a cable, and a ball secured to said cable, said ball comprising a central

member, a series of disks surrounding said central member and jointly shaped to represent a ball.



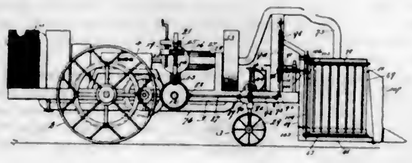
2. The combination of a cable and a ball secured to said cable, said ball comprising a series of disks jointly shaped to spherical formation, and means for retaining said disks upon said cable.

3. In an apparatus of the kind described, a cable, and a ball secured to said cable, said cable having an enlargement and said ball comprising a two-part core adapted to fit over said cable, said core having an axial bore with an enlarged portion to receive the enlargement of said cable, and a series of disks surrounding said core and being gradually diminished in size in opposite directions from the horizontal center.

4. In an apparatus of the kind described, a cable having an enlargement formed thereon, and a ball secured to said cable and comprising a two-part core having an axial bore enlarged midlength to receive the enlargement of said cable, said core being externally threaded at opposite ends and having nuts threaded onto said ends, and disks surrounding said core between said nuts and being gradually diminished in diameter in opposite directions from the horizontal center of the ball, said bore having molten metal cast thereinto to secure the cable within the core.

5. In an apparatus of the kind described, a cable, and a ball secured to said cable and comprising a core having an axial bore through which said cable is passed, nuts applied to the ends of said core, and disks surrounding said core between said nuts and jointly shaped to represent a ball.

1,132,102. COTTON-HARVESTER. WALDO JONATHAN LEE, Munson, Alberta, Canada. Filed Nov. 30, 1912. Serial No. 734,352. (Cl. 56—117.)



1. In a cotton harvester, a drum having parallel longitudinal slots, means for creating a suction of air through the slots, means for moving said drum along a row of plants, picking fingers arranged within said drum and adjacent said slots, means for operating said fingers, and shearing means rotatable about the exterior of the drum passing transversely across said slots, as and for the purpose set forth.

2. In a cotton harvester, a drum having longitudinal slots, means for presenting the slotted portion of said drum to a cotton plant, means for creating a suction of air through said slots, means operatively mounted within the drum for drawing said cotton inwardly, a series of projecting pins adapted to work outwardly and inwardly between said sots, shearing devices adapted to rotate about said drum, and means for retracting said pins and permitting passage of said shearing devices.

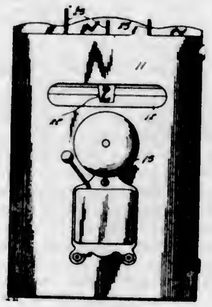
3. A cotton receiving receptacle provided with suitable slots through which the cotton may be drawn in the said receptacle, and series of openings being formed between said slots, a bar carrying a plurality of pins adapted to work through a portion of said openings, beveled blocks carried by the bar and adapted to work through the other openings, and a series of shearing devices adapted to travel across the exterior face of said receptacle, and across the slots, the said beveled blocks being pressed inwardly by said shearing devices thereby retracting the pins.

4. In a cotton harvester, a drum support, said support being vertically adjustable, a drum mounted upon said support, said drum being provided with cotton receiving slots, means for effecting a partial rotation of said drum, gear rings arranged respectively adjacent the upper and lower portions of the drum, and having independent rotation with respect to said drum, a series of shearing bars carried by said gear rings and adapted to revolve about said drum, and means for rotating said gear rings.

5. In a cotton harvester a vertically adjustable rectangular frame, drum supports slidably mounted upon the horizontal members of said frame, cotton collecting drums carried respectively by said supports, said drums being slotted upon their opposing faces, means for causing cotton to enter said slots, a series of shearing bars adapted to revolve about said drums and across said slots, means for revolving said bars, and means for effecting a partial rotation of said drum.

[Claim 6 not printed in the Gazette.]

1,132,103. FIRE-ALARM. DAVID MCCLANAHAN, Stacy, Va. Filed Mar. 20, 1914. Serial No. 826,075. (Cl. 177—303.)

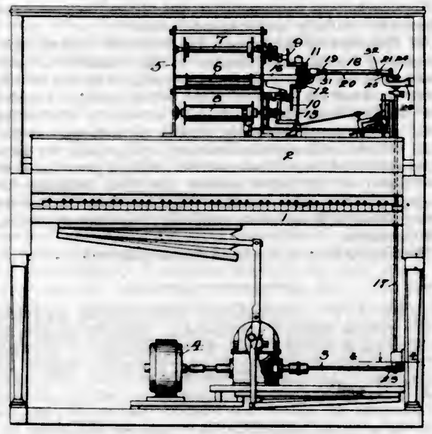


1. In a fire alarm of the class described, a casing provided with a sight opening, a series of springs mounted within said casing and having downwardly bent ends normally invisible through said sight opening, said springs when relaxed moving said ends to visible position, and strands severable under the influence of heat, each of said strands having one end attached to a respective spring to hold the same under tension and the other attached to a fixed object within a room to be protected.

2. In a fire alarm of the class described, a casing provided with a sight opening, a series of springs mounted within said casing and having downwardly bent ends normally invisible through said sight opening, said springs when relaxed moving said ends to visible position, strands severable under the influence of heat, each of said strands having one end attached to a respective spring to hold the same under tension and the other attached to a fixed object within the room to be protected; in combination with a circuit closer adapted to be closed by movement of said spring to relaxed position, said circuit closer being included in an alarm circuit.

3. In a device of the kind described, a casing, a shelf arranged within said casing, an alarm carried by said casing, a series of spring contacts fixed on said shelf and connected in multiple to said alarm, a battery, a second series of spring contacts fixed on said shelf and connected in multiple to said battery, a connection between said battery and alarm, said contact being normally open, a second shelf supported above the first shelf, a series of buttons movable through the second shelf to close respective pairs of contacts, springs fixed to the second shelf and adapted to urge said buttons down and close the contact, and severable means for restraining said springs from action on said buttons, said means being severable under the influence of heat.

1,132,104. DRIVING MECHANISM FOR AUTOMATIC MUSICAL INSTRUMENTS. FRANK L. MCCORMICK, North Tonawanda, N. Y., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed Aug. 25, 1913. Serial No. 786,394. (Cl. 84—166.)



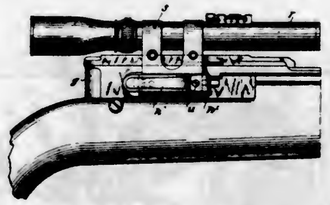
1. In an instrument of the character described, the combination of music and take-up rolls, actuating mechanism for said rolls including driving and rewind wheels respectively connected with said rolls, an upright oscillating shaft carrying wheels arranged to engage said driving and rewind wheels, respectively, a substantially horizontal shaft geared with said oscillating shaft, said horizontal shaft comprising an oscillatory section movable with said oscillating shaft and a relatively stationary section jointedly connected with said oscillatory section, and means for driving said relatively stationary shaft section.

2. In an instrument of the character described, the combination of the case, a driving shaft arranged horizontally in the lower portion thereof, music and take up rolls arranged in the upper portion of the case, driving and rewind mechanism for said rolls, including driving and rewind wheels respectively connected with said music and take up rolls, and an upright oscillating shaft carrying wheels arranged to engage said driving and rewind wheels, respectively, a horizontal shaft arranged in the upper portion of the case and geared with said oscillating shaft, said horizontal shaft comprising an oscillatory section movable with said oscillating shaft, and a relatively stationary section jointedly connected with said oscillatory section, and an upright shaft connecting said horizontal shaft with said driving shaft.

3. In an instrument of the character described, the combination of the case, a driving shaft arranged horizontally in the lower portion thereof, music and take up rolls arranged in the upper portion of the case, driving and rewind mechanism for said rolls, including driving and rewind wheels respectively connected with said music and take up rolls, an upright oscillating shaft carrying wheels arranged to engage said driving and rewind wheels respectively, a horizontal shaft arranged in the upper portion of the case and comprising an oscillatory section movable with said oscillating shaft and geared therewith, a relatively stationary shaft section and an intermediate section connected with said oscillatory and stationary sections by swiveling joints, and an upright shaft extending from the lower to the upper portion of the case and connecting said stationary shaft-section with said driving shaft.

4. In an instrument of the character described, the combination of the case, a driving shaft arranged horizontally in the lower portion thereof, music and take up rolls arranged in the upper portion of the case, driving and rewind mechanism for said rolls, including driving and rewind wheels respectively connected with said music and take up rolls, an oscillating frame, an upright shaft journaled in said frame and carrying wheels arranged to engage said driving and rewind wheels respectively, a horizontal shaft comprising an oscillatory section geared with said upright shaft and carried by said oscillating frame, a relatively stationary section and an intermediate section, said intermediate section being provided in its ends with slots and the other two sections of said horizontal shaft having transverse pins engaging said slots, and a second upright shaft connecting said horizontal shaft with said main shaft.

1,132,105. DEVICE FOR SECURING TELESCOPE-SIGHTS TO FIREARMS. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Nov. 24, 1913. Serial No. 802,762. (Cl. 33—50.)



1. A device for attaching a sighting telescope to a firearm comprising in combination with the breech case and a support for the telescope; a wedge ledge on the side of the said breech case which is divergent in the direction of firing and convergent in the direction of recoil; a contact face on the said telescope support correspondingly shaped to said wedge face and capable of being slid over the latter, and means for retaining said contact face against the said wedge ledge.

2. A device for attaching a sighting telescope to a firearm comprising in combination with the breech case and a support for the telescope; an undercut wedge ledge on the side of the said breech case which is divergent in the direction of firing and convergent in the direction of recoil; a recessed wedge-shaped contact face having undercut sides formed on the said telescope support and fitting over the wedge ledge on the lock case, and a latch rotatably mounted on the lower part of the telescope support for retaining the contact face on the telescope support against the wedge ledge on the breech case.

3. A device for attaching a sighting telescope to a firearm comprising in combination with the breech case and a support for the telescope; a wedge ledge on the side of the said breech case which is divergent in the direction of firing and convergent in the direction of recoil; a con-

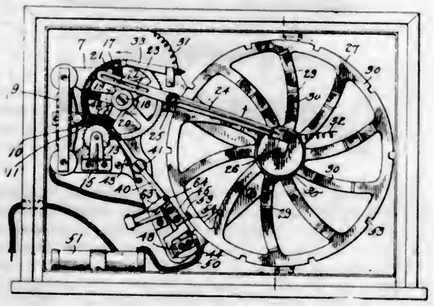
tact face on the said telescope support correspondingly shaped to said wedge face and capable of being slid over the latter; means for retaining said contact face against the said wedge ledge, and means on said retaining means for releasing said contact face from said wedge ledge when said retaining means is released.

4. A device for attaching a sighting telescope to a firearm comprising in combination with the breech case and a support for the telescope; an undercut wedge ledge on the side of the said breech case which is divergent in the direction of firing and convergent in the direction of recoil; a recessed wedge-shaped contact face having undercut sides formed on the said telescope support and fitting over the wedge ledge on the breech case; a latch rotatably mounted on the lower part of the telescope support for retaining the contact face on the telescope support against the wedge ledge on the breech case, and a pressure nose on the rear end of said latch adapted to press against the rear edge of the said wedge ledge.

5. A device for attaching a sighting telescope to a firearm comprising in combination with the breech case and a support for the telescope; an undercut wedge ledge on the side of the said breech case which is divergent in the direction of firing and convergent in the direction of recoil; a recessed wedge-shaped contact face having undercut sides formed on the said telescope support and fitting over the wedge ledge on the breech case; a latch rotatably mounted on the lower part of the telescope support for retaining the contact face on the telescope support against the wedge ledge on the breech case; a pressure nose on the rear end of said latch adapted to press against the rear edge of the said wedge ledge, and a pressure nose on the front end of said latch adapted to press against the front edge of the said wedge ledge.

[Claims 6 to 8 not printed in the Gazette.]

1,132,106. SIGNALING SYSTEM. HENRY B. MEAD and HERMAN F. GUENTZLER, Cleveland, Ohio, assignors to Carl F. Mead, Cleveland, Ohio. Filed Oct. 24, 1910. Serial No. 588,693. (Cl. 177—380.)



1. Calling apparatus for shops and the like, a contact member having a plurality of contact portions, one for each call, brush mechanism for engaging said contact device, means for producing a relative movement between the contact member and the brush mechanism, and controlling means for permitting said apparatus to operate and produce a single operation of any call and to further cause the operating mechanism to automatically repeat the call.

2. Commutator mechanism for electrical signals comprising a commutator member having a plurality of commutator portions each corresponding to a call or signal, a brush member provided with a brush adapted to engage any one of said commutator portions when the latter is in the proper position, means for shifting said brush back and forth across the commutator portion, and mechanism for controlling the operation of said brush member including a device which when in one position causes the signal to be given once only, and when in another position holds the mechanism in position to repeat the signal until released.

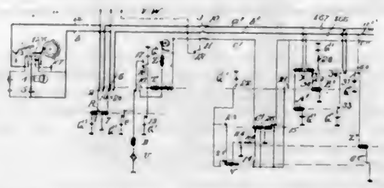
3. Commutator mechanism for electrical signals comprising a commutator member having commutator portions, a brush member coöperating with said portions and supported to engage any one of said portions when the latter is in the proper position, a motor for producing a relative movement of the commutator and the brush member, a circuit controller for said motor, means for breaking the circuit after a single operation of the device in the production of a call, and manually operated means for starting the motor and including instrumentalities for permitting the automatic stopping of the motor after a single operation and for holding the controlling mechanism in operative position to cause the device to repeat the operation in repeating a signal.

4. Commutator mechanism for electrical signals comprising a commutator member having commutator portions, a brush member supported to engage any one of said commutator portions when the latter is in the proper position, a motor for shifting said brush member, a switch for controlling said motor, means normally tending to shift said switch into the off position, means operated by the motor for holding said switch in closed position during a predetermined movement of the brush member, and means for initially operating said switch.

5. Commutator mechanism for electrical signals comprising a commutator member having commutator portions, a brush member mounted to engage any one of said portions when the latter is in the proper position, a motor for shifting said brush member, a switch for controlling said motor, means normally tending to shift said switch into the off position, means operated by the motor for holding said switch in a closed position during a predetermined movement of the brush member and then releasing the switch to its normal tendency, and an operating device for shifting said switch to bring about the initial starting of the device.

[Claims 6 to 11 not printed in the Gazette.]

1,132,107. AUTOMATIC TELEPHONE SYSTEM. FRIEDRICH MERK, Charlottenburg, Germany, assignor to Siemens & Halske, A. G., Berlin, Germany, a Corporation of Germany. Filed Aug. 25, 1911. Serial No. 645,977. (Cl. 179—18.)



1. In an automatic telephone exchange system, the combination of subscribers' lines, selector and connector switches adapted to be set by current impulses for establishing a connection between the said lines, devices for connecting a calling line with a free first selector, a repeater located between the said devices and the first selector, devices at the said repeater for holding and breaking the connection, test lines between the said switches, a relay located at the incoming end of the test line of each switch and energized during the connection by a current over the test line, and means for interrupting the said current at the outgoing end of each test line.

2. In an automatic telephone exchange system, the combination of subscribers' lines, selector and connector switches adapted to be set by current impulses for establishing a connection between the said lines, devices for connecting a calling line with a free first selector, a repeater located between the said devices and the first selector, devices at the said repeater for holding and breaking the connection, test lines between each two successive switches, a relay at each end of each test line, a holding circuit for the relays closed over the test line during the connection, and means for breaking the said holding circuit at the selector switch at the outgoing end of the test line.

4. In an automatic telephone exchange system, the combination of subscribers' lines, selector and connector switches adapted to be set by current impulses for establishing a connection between the said lines, devices for connecting a calling line with a free first selector, a repeater located between the said devices and the first selector and having line relays permanently bridged over the talking line, devices at the said repeater for holding and breaking the connection, test lines between each two successive switches, a relay at each end of each test line, a holding circuit for the relays of said test line, closed over the test line during the connection, and means for breaking the said holding circuit at the selector switch at the outgoing end of the test line; means for keeping energized one of the said line relays during the impulses and during the connection, and means for keeping closed over the attracted armature of the energized line relay the holding circuit for the outgoing test line.

5. In an automatic telephone exchange system, the combination of subscribers' lines, pre-selector, selector and connector switches adapted to be set by current impulses for establishing a connection between the said lines, a preselector for connecting a calling line with a free first selector, a repeater located between the said preselector and the first selector, and having line relays permanently bridged over the talking line, devices at the said repeater for holding and breaking the connection, test lines between each two successive switches, a relay at each end of each test line, a holding circuit for said relays of the test line, closed over the test line during the connection, and means for breaking the said holding circuit at the selector switch at the outgoing end of the test line; means for keeping energized one of the said line relays during the impulses and during the connection, and means for keeping closed over the attracted armature of the energized line relay the holding circuits of the test line going out from the repeater and of the test line coming in from the pre-selector.

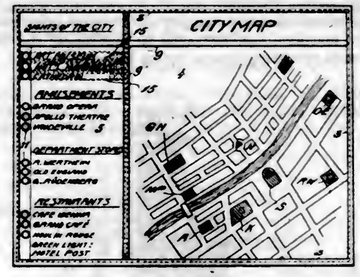
[Claims 6 to 12 not printed in the Gazette.]

1,132,108. DIRECTORY-BOARD. AUGUST MERK-WIRZ, Zurich, Switzerland. Filed June 18, 1913. Serial No. 774,438. (Cl. 177—327.)

1. In a directory board, the combination of a chart or map, a table showing a list of certain points on the map, and means actuatable by a single operation in coaction with a table for visibly differentiating a plurality of points on the map with respect to other points thereon.

2. In a directory board, the combination of a chart or map with a table containing a list of points shown on the map, said list being subdivided into groups, and electrical means actuatable by a single operation coacting with said table for visibly differentiating a plurality of points on the map with respect to other points thereon.

3. In a directory board, the combination of a chart or map with means for selectively differentiating certain points on the map with respect to other points thereon in a predetermined way and for differentiating another point of the map from the selected point in another predetermined way, said other point on the map corresponding to the locality at which the selection is made.

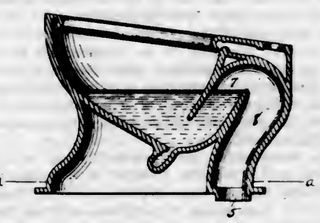


4. A directory board, comprising in combination a chart or map, means for selectively differentiating certain points on a map or chart from other points thereon, and for differentiating another point from the selective points, said other point indicating the location of the directory board.

5. A directory board comprising in combination a chart or map, means for selectively differentiating certain points on the map by illuminating said points and for illuminating at the same time the point corresponding to the locality at which the selection is made on the map.

[Claims 6 to 9 not printed in the Gazette.]

1,132,109. WATER-CLOSET BOWL. CHARLES H. MUCKENHIRN, Detroit, Mich., assignor, by mesne assignments, to The Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed July 11, 1910. Serial No. 571,309. (Cl. 4—22.)

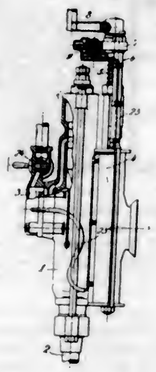


A closet bowl of the character described, of integral formation having a rearwardly curved up leg, a down leg enlarged throughout its length and having a reversed curve, said down leg terminating immediately under the spiller of the bowl and at its terminal having a restricted outlet located at its rear wall, there being an offset located adjacent said outlet at the front wall with which the water in its downward progress contacts and is deflected transversely of the leg whereby to ball up the water at the outlet and form a water plug.

1,132,110. AUTOMATIC WORK-REGISTER. GEORGE R. MURRAY, Cleveland, Ohio. Filed Mar. 6, 1911. Serial No. 612,621. (Cl. 235—91.)

1. A register of the class described, comprising counting means, and operating means therefor arranged to be operated by a movable member of a fluid-pressure-actuated machine to which the register is applied, such operating means comprising fluid-pressure-controlled power-transmitting means, adapted to be connected to the source of supply of fluid pressure for such tool or machine, and arranged to disconnect the counter from such operating means during idle periods.

2. The combination with a fluid-pressure-actuated machine tool comprising a movable member, of a register comprising counting means, and operating means therefor arranged to be operated mechanically by the movable member of said machine tool, such operating means comprising fluid-pressure-controlled power-transmitting means, connected to the source of supply of fluid pressure for such tool or machine, and arranged to disconnect the counter from such operating means during idle periods.



3. The combination with a fluid-pressure-actuated machine tool comprising a movable member and a valve chest, of a register comprising a counter, and operating means therefor arranged to be operated by said movable member of the machine tool, and comprising fluid-pressure-operated controlling means connected to said valve chest, and arranged to disconnect the counter from such operating means during idle periods.

4. The combination with a fluid-pressure-actuated machine tool comprising a movable member and a valve chest, of a register comprising counting means, and operating means therefor arranged to be operated by the movable member of said machine tool, such operating means comprising fluid-pressure-controlled power-transmitting means, connected to the valve chest of the machine tool, and arranged to disconnect the counter from its operating means during idle periods.

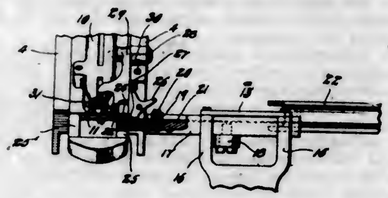
5. The combination with a machine tool comprising a valve chest and a movable member, of a register comprising counting means, and operating means therefor arranged to be operated by the said movable member of the machine tool, such operating means comprising a diaphragm chamber and diaphragm therein, said diaphragm chamber connected to said valve chest, and means operated by the diaphragm arranged to permit operation of the counter when said valve chest is under working pressure, and to prevent operation of the counter when said chest is under less than working pressure.

[Claims 6 to 16 not printed in the Gazette.]

1,132,111. WIRE-FEEDING MECHANISM FOR STAPLING-MACHINES. ORION W. NUNN, Denver, Colo., assignor to Landis Machine Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Jan. 21, 1914, Serial No. 813,433. Divided and this application filed May 16, 1914. Serial No. 838,975. (Cl. 140—130.)

1. In a button stapling machine, a wire feeding mechanism comprising a holder for wire, a shuttle bar, a tension device carried by said shuttle bar and having constant frictional engagement with the wire, and a detent operating adjacent the forward end of the wire adapted to permit the movement of wire in one direction and hold it against movement in the opposite direction by engagement superior to the engagement of the tension device.

2. In a button stapling machine, a wire feeding mechanism comprising a support for wire, a reciprocating tension device having constant frictional engagement with the wire to feed it, and a detent operating adjacent the for-



ward end of the wire and operable by movement of wire in engagement therewith to permit movement of said wire in one direction by said tension device but prevent its movement in the opposite direction.

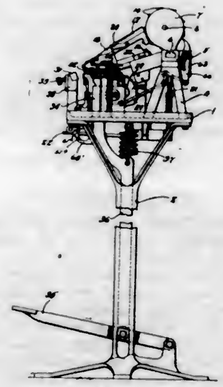
3. In a button stapling machine, a wire feeding mechanism comprising a support for wire, a reciprocating tension member constantly in frictional engagement with the wire, and a detent operating adjacent the forward end of the wire and operable thereby and adapted to engage the wire to overcome the frictional engagement of the tension member.

4. In a button stapling machine, a wire feeding mechanism comprising a reciprocating tension device adapted to remain constantly in frictional engagement with the wire, a detent operating adjacent the forward end of the wire and operable thereby to prevent backward movement of the wire, and a stop device adapted to coöperate with the forward end of the wire to prevent forward movement thereof.

5. In a button stapling machine, in combination, a reciprocating wire feeding tension device, a stop device, and means for interposing said stop device in the path of a wire engaged by said tension device.

[Claims 6 to 9 not printed in the Gazette.]

1,132,112. BUTTON-STAPLING MACHINE. ORION W. NUNN, Denver, Colo., assignor to Landis Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 21, 1914. Serial No. 813,443. (Cl. 218—8.)



1. In a button stapling machine including a button feeding mechanism, wire feeding mechanism, and staple forming and driving mechanism, a wire feed controlling device, certain operations of which are controllable by a button fed to the forming mechanism, said device including means adapted to engage the wire from preventing wire being fed by the wire feeding mechanism when no button has been fed.

2. In a button stapling machine, the combination of button feeding mechanism, wire feeding mechanism, and a device adapted to be interposed in the path of the wire for controlling the wire feed, the operation of said device being dependent upon the presence of a button in position to be stapled.

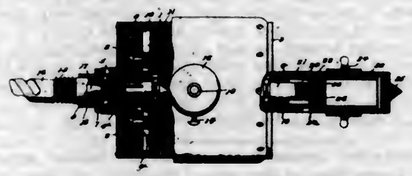
3. In a button stapling machine, the combination of button feeding mechanism, wire feeding mechanism, forming and driving mechanism, and a stop device rendered inoperable by the button in driving position and adapted to engage the wire to prevent the wire feeding operation when no button is in driving position.

4. In a button stapling machine, the combination of button feeding mechanism, wire feeding mechanism, and a stop device adapted to engage a button fed by the former and with wire handled by the latter.

5. In a button stapling machine, the combination of button feeding mechanism, wire feeding mechanism, and a stop device adapted to engage a button fed by the former or wire handled by the latter, the engagement of said device with a button precluding its engagement with the wire.

[Claims 6 to 9 not printed in the Gazette.]

1,132,113. BORING AND DRILLING MACHINE. CHARLES J. OLSON, Muskegon, Mich. Original application filed Jan. 7, 1913, Serial No. 740,695. Divided and this application filed June 7, 1913. Serial No. 772,342. (Cl. 77—6.)



1. In a device of the class described, a motor including a casing, a gear casing connected with the motor casing and lying beside the same, the motor shaft projecting at one end into the gear casing and having a gear portion, a series of double gears each having one portion meshing with the said gear portion of the motor shaft and located within the gear casing, a chuck rotatably mounted in one wall of the gear casing, and an internal gear carried by the chuck and meshing with the other portion of the first-mentioned series of gears.

2. In a device of the class described, a motor including a casing, a gear casing disposed beside the motor casing, the motor shaft projecting into the gear casing and having a gear portion, a series of gears mounted for rotation in the motor casing and each having a portion meshing with the gear portion of the motor shaft and a gear portion of less diameter than the first mentioned gear portion, a chuck carried for rotation in one wall of the gear casing, and an internal gear carried by the chuck and meshing with the second mentioned gear portions of the said series of gears.

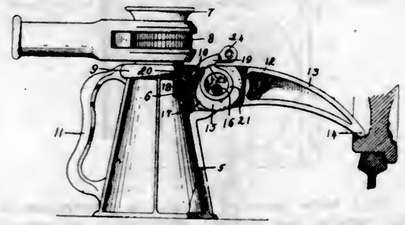
3. In a device of the class described, a motor including a casing, the motor shaft extending through the casing and provided at one end with a gear portion, a chuck journaled exteriorly of the casing, gears meshing with the gear portion of the shaft, an internal gear carried by the chuck and meshing with the first mentioned gears, and means at the other end of the shaft for the attachment of a chuck, or the like.

4. In a device of the class described, a shaft, a motor mounted upon the shaft and arranged to rotate the same, a chuck arranged at one end of the shaft, an extensible support at the other end of the shaft, and a thrust bearing adjustably carried by the extensible support and bearing at the corresponding end of the said shaft.

5. In a device of the class described, a shaft, a motor mounted upon the shaft and arranged to rotate the same, a chuck arranged at one end of the shaft, an extensible support at the other end of the shaft, and a thrust bearing adjustably carried by the extensible support and bearing at the corresponding end of the said shaft, the said support including relatively adjustable telescopic members.

[Claim 6 not printed in the Gazette.]

1,132,114. JOURNAL-JACK. WILLIAM O. PARSONS, Indianapolis, Ind. Filed June 17, 1914. Serial No. 845,611. (Cl. 254—33.)



1. A device of the class described, comprising a jack having a beveled portion on its base, spaced ears provided on the jack, a pawl having spaced ears on its rear end, the pawl ears being disposed between the jack ears, a pivot pin extending through the ears for pivoting the pawl relatively to the jack, said pawl ears being rounded and provided with transversely disposed teeth, a wedge having a ring depending centrally from its under face and loosely surrounding the pivot pin, said wedge being of a longitudinal curvature substantially equal to the curvature of the pawl ears, said wedge having transversely disposed teeth provided on its under face and adapted to coact with the teeth on the pawl ears in maintaining said wedge in adjusted position relatively to the pawl, said wedge adapted to be brought into engagement with the beveled jack portion for maintaining the pawl in adjusted position relatively to the jack.

2. A device of the class described, comprising a jack having a beveled portion, a pin carried by the jack, a pawl pivoted on said pin and provided with a toothed portion, a wedge loosely connected with the pin and adapted to be brought into engagement with and between the toothed portion of the pawl and the beveled portion of the jack, said wedge provided with teeth adapted to coact with the toothed portion of the pawl whereby to maintain the pawl in adjusted position relatively to the jack.

3. A device of the class described, comprising a jack having a pawl adjustably connected therewith, a wedge adjustably connected with the pawl and adapted to be positioned between the pawl and jack, and coacting interlocking means between the wedge and pawl for maintaining the former in adjusted position relative to the latter.

4. The combination with a jack having an adjustable pawl, of a wedge, means for irremovably and adjustably connecting the wedge and pawl, and coacting interlocking means for maintaining the former in adjusted position relatively to the latter.

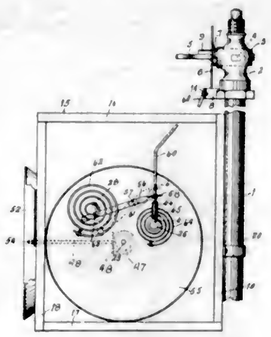
5. A device of the class described including a wedge, said wedge being provided with a retaining ring extending from one side thereof, and being further provided with teeth on one side thereof, and a finger hold carried by the wedge.

[Claim 6 not printed in the Gazette.]

1,132,115. AUTOMATIC GAS SHUT-OFF. FREDERICK A. PICKETT, Baltimore, Md. Filed Feb. 20, 1914. Serial No. 820,038. (Cl. 161—9.)

1. In a valve operating device, the combination of a lock member, a lock releasing lever, a connecting rod, said lock releasing lever being connected with the connecting

rod, said connecting rod being connected with the lock member, to move the latter to inoperative position upon the operation of the releasing lever, and means for locking the connecting rod against movement in one direction.



2. In a valve operating device, the combination of a valve engaging lock member, a depending rod connected with said lock member, a lever connected with said rod for drawing the latter in one direction to move the lock member to inoperative position, and means for locking said rod against movement in the reverse direction.

3. In a valve operating device, the combination of a lock member, means for resiliently retaining said lock member in operative position, a rod connected with said lock member for moving the latter to inoperative position, means for moving the rod in one direction, a time train including a main spring, and means controlled thereby for preventing the return of the rod and lock member toward normal position when the main spring is substantially run down.

4. In a time controlled valve operating device, a time train including a main spring and arbor, a cam thereon, an alarm train including an alarm arbor, means controlled by the time train for releasing the alarm train, a cam on the alarm arbor, a valve controlling rod, a lever connected with said valve controlling rod and operated normally by the cam on the alarm arbor, the rod being controlled by the cam on the main spring arbor for preventing movement toward setting position of the valve controlling rod when the main spring is substantially unwound.

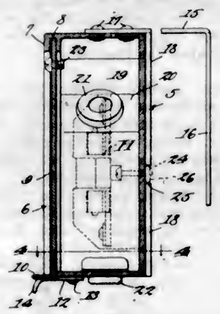
5. In a time controlled valve operating device, a time train including a main spring and arbor, an alarm train including an alarm arbor, means controlled by the time train for releasing the alarm train, a valve controlling rod operated normally by the alarm arbor, and means controlled by the main spring arbor for preventing movement toward setting position of the valve controlling rod when the main spring is substantially unwound.

1,132,116. CUT-OUT BOX. ALFRED L. PIERCE, Wallingford, Conn. Filed May 27, 1914. Serial No. 841,301. (Cl. 247—12.)

1. In a cut-out box, a receptacle provided upon its rear face with spaced, longitudinal, support-engaging ribs defining an air passage; and an angular, support-engaging bracket secured to the receptacle, the bracket comprising a depending arm extended longitudinally with respect to the ribs, the arm lying to the rear of the ribs and between the planes, defined by the ribs.

2. In a cut-out box, a receptacle having an open front; a sliding, drop door assembled with the receptacle and constituting a closure for the open front, the door being provided at its lower end with spaced fingers; and a latch pivoted to the lower end of the receptacle and adapted to be swung across the lower end of the door to assume a position between the fingers.

3. In a cut-out box, a receptacle provided upon its rear face with spaced, support engaging ribs, one of the ribs being cut away to define a recess; and a bolt and nut



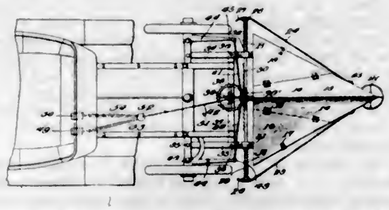
structure projecting into the receptacle, one element of the bolt and nut structure being lodged in the recess and being held against rotation therein.

4. A device of the class described, comprising a receptacle, two longitudinally extending ribs carried at the back of said receptacle, said ribs symmetrically spaced along the longitudinal median line of said receptacle, and means secured to the receptacle projecting to the rear of said ribs and defining therewith a three line support for said receptacle.

5. A device of the class described, comprising a receptacle, two longitudinally extending ribs carried at the back of said receptacle, said ribs symmetrically spaced along the longitudinal median line of said receptacle, and a bracket secured to said receptacle, projecting to the rear of and extending substantially parallel to said ribs, adapted to embrace a cross arm between said ribs and bracket, providing for three line contact therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,132,117. AUTOMOBILE-FENDER. EDWARD E. POKORNY, Silver Lake, Minn. Filed May 19, 1914. Serial No. 839,597. (Cl. 21—90.)



1. The combination of a motor vehicle, of a fender rigidly secured to the forward portion thereof and having movable wing members, means operatively connecting the wing members to the front wheels of the vehicle, whereby the engagement of either wing with a foreign obstacle will automatically deflect the front wheels to steer the automobile in a direction away from the side of the fender receiving the impact, means freely connected to the clutch and brake pedals of the vehicle for throwing out the clutch and applying the brake simultaneously with the impact against either wing member, and means operable by the wing members for releasing said last mentioned means.

2. The combination with a motor vehicle, of a fender including a body adapted to be rigidly secured to the forward portion of the vehicle, movable wing members carried by the body of the fender, a deflecting wheel journaled in the forward end of the fender, a rack bar freely connecting the wings at their rearward terminals, pinions meshing with the rack bar, and link rods freely connecting the pinions to the steering knuckles of the front wheels of the vehicle, whereby the swinging movement of either wing caused by the engagement of the wings with a foreign obstacle will automatically and simultaneously deflect the front wheels to steer the vehicle away from the object which has been struck.

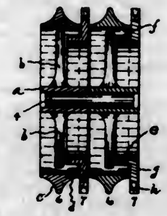
3. The combination with a motor vehicle, of a fender including a body adapted to be rigidly secured to the forward portion of the vehicle, movable wing members hinged at their forward portions to the forward portion of the body members, a transversely extending rack bar pivotally connected at its terminals to the rear terminals of the wings, yieldable means normally holding the rear terminals of the wings in spaced relation to the body, and means engageable by the rack bar and operatively connected to the steering knuckles of the front wheels of the vehicle whereby the flexing of each wing caused by the engagement of a wing with a foreign obstacle will automatically deflect the front wheels of the vehicle in a direction opposed to the wing which has been struck, a retractive spring operably connected to the clutch and brake pedals of the vehicle, vertically slidable means normally engaging the springs for rendering the same ineffective, whereby the clutch and brake pedals are free with respect to the springs, and means carried by the rack bar and engageable with said vertically slidable means for disengaging said slidable means from said spring upon the movement of either wing.

4. The combination with a motor vehicle, of a fender including a body member, movable wings carried thereby, a transversely extending rack bar operatively connecting the free rear terminals of the wings, a pinion adapted to be engaged by the rack bar upon the transverse movement of this member but normally free to rotate without engaging the rack bar, linkage operatively connecting the pinion to the steering knuckles of the front wheels of the vehicle, and flexible means yieldably connected to the clutch and brake pedals of the vehicle, said means normally tending to release the clutch and apply the brake, a locking device carried by the fender body and engageable with the first-mentioned means for holding said means in inoperative position, and means carried by the said rack bar and engageable with the locking device for releasing the locking device when the rack bar is moved transversely in response to the engagement of either wing with a foreign obstacle.

5. The combination with a motor vehicle, of a fender including a body member, movable wings carried thereby, a transversely extending rack bar operably connecting the free rear terminals of the wings, a pair of springs wound about the rack bar terminals thereof and bearing against the wing members, whereby said wing members are normally spaced equidistantly from opposite sides of the body member, and means operably connecting the rack bar to the front wheels of the vehicle, whereby the movement of either wing will cause the deflection of the front wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,132,118. PACKING AND MULCHING IMPLEMENT. LAURITS T. RASMUSSEN, Council Bluffs, Iowa. Filed Dec. 8, 1913. Serial No. 805,448. (Cl. 55—77.)



An implement for the purpose described, comprising in combination with a frame and a shaft, a plurality of primary disks on the shaft, each having a transverse rim with an outwardly convergent part, secondary disks, each consisting of a peripherally toothed rim disposed between two adjacent primary disks and having a circular flange projecting transversely from one of its sides for engagement with the inner side of the rim of a primary disk, the diameter of said flange being less than that of said rim to permit its axis to be disposed in non-alinement with the axes of said adjacent primary disks.

1,132,119. CRUTCH ATTACHMENT. WILLIAM G. RESTORFF and MILTON M. LILE, Washington, D. C., assignors, by direct and mesne assignments, of one-half to said Restorff and one-half to Joseph C. Cardwell, Washington, D. C. Filed Jan. 23, 1914. Serial No. 813,957. (Cl. 3—4.)



1. A crutch tip having an open lower end and adapted at its upper end to receive the end of a crutch staff, and having an opening in its wall between its said ends.

2. A crutch tip having an open tread end and provided in its wall with oppositely located openings, and means arranged within the tip for dividing accumulations forced upwardly within the tip and for directing such accumulations through said openings.

3. A crutch staff having a beveled lower end and a tip fitted upon the said end of the staff and having an open tread end, and an opening in its wall located opposite the bevel of the said staff end.

4. A crutch tip having an open end, a plug removably fitted therein, and a tread tip removably fitted up to the ferrule and retaining said plug.

5. A crutch tip having an open end, a plug removably fitted in the said end, the tip being interiorly beveled at its said end and the plug being provided with a beveled shoulder abutting against the bevel of the tip end, and a tread tip fitted on to the first-mentioned tip and having its tread portion resting against the lower end of the said plug.

[Claims 6 and 7 not printed in the Gazette.]

1,132,120. LUBRICATING GREASE-CUP. CLARENCE S. RICE, Indianapolis, Ind. Filed Jan. 15, 1914. Serial No. 812,329. (Cl. 184—45.)



1. A lubricating grease cup including a cup part, a bored cover part, means for permanently connecting the cover part directly to the cup part and enabling the cover

part to slide across the top of the cup part in contact therewith, a piston movable in the cup part, and a rod movably guided in the cover part and also in the piston and having a lug collar on its inner end for engaging the piston to draw the latter into the cover part.

2. A lubricating grease cup including a cup part, a recessed cover part slidingly connected to the cup part to uncover the latter, a piston movable into either the cup part or the cover part, a rod guided in the cover part for drawing the piston into the cover part, a spring seated in the cover part and upon the piston, and a device on the cup part for holding the piston in the cover part when the latter uncovers the cup part.

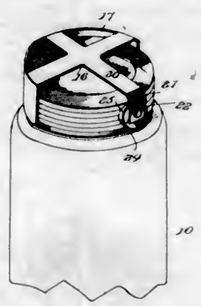
3. A lubricating grease cup including a cup part provided with an external ledge on one side of its upper portion, a recessed cover part pivotally connected to the cup part adjacent to the ledge, the cover part normally covering the cup part and being movable over laterally therefrom, a rod movably guided in the cover part, and a piston on the rod and movable into the cover part, the piston being prevented by the ledge from return from the cover part when the latter is moved over from the cup part.

4. In a lubricating grease cup, the combination of a cup part comprising a cylindrical wall having an outward extending flange, one portion of the flange having a stop shoulder, a cover part pivotally connected at one side to the opposite portion of the flange to be slidingly guided upon the top of the flange, the opposite side of the cover part having an arm thereon normally in contact with the stop shoulder, the arm having a finger thereon engaging the under side of the flange, a rod movably guided in the cover part, and a piston on the rod.

5. In a lubricating grease cup, the combination of a cup part having an annular external flange thereon, the flange being provided with a pivot on one portion and a stop shoulder approximately on the opposite portion thereof, and a cover part having a flange thereon normally resting upon the flange of the cup part, one portion of the flange of the cover part being connected to the pivot to guide the flange slidingly on the flange of the cup part, the opposite portion of the flange of the cover part having an arm thereon normally in contact with the stop shoulder, a rod movably guided in the cover part, and a piston on the rod.

[Claim 6 not printed in the Gazette.]

1,132,121. SEALING DEVICE FOR JAR-CAPS. HARRISON S. RIDER, Deodate, Pa. Filed June 16, 1914. Serial No. 845,479. (Cl. 81—15.)



1. A device of the character described including a body portion adapted to engage a jar cap to be rotated thereon, said body portion being integrally formed and including a substantially semi-circular bearing flange, an arm extending from one edge of said flange to project laterally upon one side of the concave face thereof, said arm being obliquely directed longitudinally adjacent its outer extremity and the terminal thereof thence obliquely directed longitudinally in reverse relation to said first mentioned obliquely directed portion to extend inwardly toward the said flange, and a disk mounted for rotation upon the said terminal of the arm, said disk being beveled upon its periphery inwardly toward said flange and arranged to contact with the peripheral margin of the terminal flange of the jar cap.

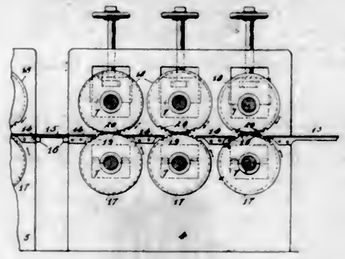
2. A device of the character described adapted to engage a jar cap to be rotated thereon and provided with coacting members, one including a body portion being disposed to engage the terminal peripheral flange of said cap at substantially right angles thereto, and the other to engage the said flange at a substantially obtuse angle thereto.

3. A device of the character described adapted to embrace a jar cap to be rotated thereon and including a semi-circular flange disposed to confront the side wall of the cap, the said flange having a transversely extending arm formed on one edge thereof connecting the extremities of the flange and being provided with a second arm intersecting said first mentioned arm and connected with the said flange between the ends thereof, and a member carried by the free extremity of said second mentioned arm and disposed to engage the terminal peripheral flange of said cap.

4. As a new article of manufacture, a jar cap sealing device integrally formed from suitable sheet metal and including a flange disposed to engage the side wall of a jar cap, the extremities of said flange being joined by a transversely extending arm and connected with the flange upon one edge thereof, the said arm being intersected by a second arm connected with the flange substantially midway of its ends, and a member rotatably mounted upon the free extremity of said second mentioned arm and disposed to engage the terminal peripheral flange of the jar cap to be rotated around the cap upon the said flange thereof.

5. A device of the character described including a substantially semi-circular flange disposed to confront the side wall of a jar cap, an arm formed on said flange and arranged to extend over the top of the cap and over the side thereof, opposite said flange, and a member carried by the free extremity of said arm and disposed to engage the terminal peripheral flange of said cap, to be moved circumferentially around the cap upon the said flange thereof.

1,132,122. MACHINE FOR TREATING FIBROUS PLANTS. ROBERT R. ROBERTS, Washington, D. C., assignor to The Intercontinental Fiber & Paper Company, Washington, D. C. Filed May 24, 1913. Serial No. 769,617. (Cl. 13—21.)



1. In a machine of the class described, a pair of rolls, one of which is provided with peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll provided with peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves.

2. In a machine of the class described, a pair of rolls, one of which is provided with peripheral longitudinal rectangular or equilateral grooves having angular breaking surfaces at the outer ends of their side walls, and the opposite roll provided with peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves and having breaking surfaces on the outer edges of the bars.

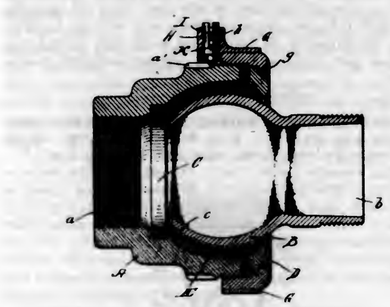
3. In a machine of the class described, a plurality of pairs of rolls, one roll of each pair provided with peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll of each pair provided with peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves, and means for conducting material from one bank of rolls to the next adjacent bank.

4. In a machine of the class described, two or more banks of rolls, each bank comprising a plurality of pairs of rolls, one roll in each pair having peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll in each pair having peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves, and means for propelling each bank of rolls separately.

5. In a machine of the class described, two or more banks of rolls, each bank comprising a plurality of pairs of rolls, one roll of each pair having peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll of each pair having peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves, said grooves and said bars being graduated from the first bank of rolls to the last bank of rolls.

[Claims 6 and 7 not printed in the Gazette.]

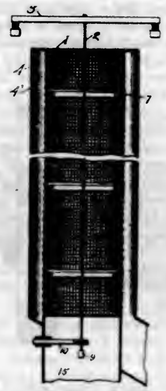
1,132,123. UNIVERSAL JOINT. GEORGE F. ROYER and LEWIS F. ZWEIBEL, Wilkes-Barre, Pa. Filed Dec. 22, 1913. Serial No. 808,241. (Cl. 137—88.)



1. The herein described pipe joint comprising a casing or socket member, a ball member positioned within the socket member, a soft metal ring fitted to a seat in the socket member and constituting a yielding abutment for the ball therein, a compressible packing filling the space between the ball and socket that is closed at its inner end by said ring, a gland closing the outer end of said space and adjustable therein to compress the packing and hold the ball in contact with the soft metal ring, a ring nut on the casing engaging said gland, and means for locking the nut in any adjusted position.

2. The herein described pipe joint comprising a casing or socket member having an annular series of recesses in its outer surface, a ball member positioned within the socket member, a soft metal ring fitted to a seat in the socket member and constituting a yielding abutment for the ball therein, a compressible packing filling the space between the ball and socket that is closed at its inner end by said ring, a gland closing the outer end of said space and adjustable therein to compress the packing and hold the ball in contact with the soft metal ring, a ring nut on the casing engaging the gland, and a lock pin mounted in said nut and movable radially thereof into and from engagement with any one of said recesses in the socket member.

1,132,124. APPARATUS FOR SEPARATING SUSPENDED PARTICLES FROM GASES. WALTER AUGUST SCHMIDT and GEORGE CLIFFORD ROBERTS, Los Angeles, Cal., assignors to International Precipitation Company, Los Angeles, Cal., a Corporation of California. Filed Apr. 6, 1914. Serial No. 829,789. (Cl. 75—30.)



1. In an apparatus for separating suspended particles from gases, the combination of a screen electrode, a discharge electrode at one side of said screen electrode, a collecting chamber at the other side of said screen electrode, means for conducting a current of gas to be treated between said discharge electrode and said screen electrode, and means for applying high tension current to said electrodes to cause the particles suspended in the gas to be forced through the screen into the collecting chamber, said collecting chamber having an inclosing wall preventing the current of gas from passing through the screen electrode.

2. In an apparatus for separating suspended particles from gases, the combination of a screen electrode, a discharge electrode at one side of said screen electrode, an inclosing wall forming a dead-air chamber at the other side of said screen electrode, inlet and outlet means communicating with the space between the discharge and screen electrodes, to conduct a current of gas through such space without passage of the gas through the screen electrode, and means for applying high tension current to said electrodes to force the particles in the gas through the screen electrode and into said chamber.

3. In an apparatus for separating suspended particles from gases, the combination of a cylindrical screen electrode provided with inlet means at one end for supply of the gas to be treated, and with outlet means at the other end for discharge of the treated gas, a collecting chamber extending around said cylindrical screen electrode and outside of the current of gas passing within said screen electrode, a discharge electrode extending longitudinally within said screen electrode, and means for applying high tension current to said electrodes to cause the particles in the gas to be forced through the screen electrode into said collecting chamber.

4. In an apparatus for separating suspended particles from gases, the combination of a cylindrical screen electrode, open at both ends for passage of a current of gas longitudinally within the same, a discharge electrode extending axially within said cylindrical screen electrode, and a collecting chamber extending around said cylindrical screen electrode, and having an inclosing wall preventing the current of gas from flowing through the perforations of said screen electrode.

5. An apparatus for separating suspended particles from gases, comprising a cylindrical screen electrode open at both ends for passage of a current of gas longitudinally therethrough, a discharge electrode extending within said screen electrode, a collecting chamber extending around

part to slide across the top of the cup part in contact therewith, a piston movable in the cup part, and a rod movably guided in the cover part and also in the piston and having a lug collar on its inner end for engaging the piston to draw the latter into the cover part.

2. A lubricating grease cup including a cup part, a recessed cover part slidingly connected to the cup part to uncover the latter, a piston movable into either the cup part or the cover part, a rod guided in the cover part for drawing the piston into the cover part, a spring seated in the cover part and upon the piston, and a device on the cup part for holding the piston in the cover part when the latter uncovers the cup part.

3. A lubricating grease cup including a cup part provided with an external ledge on one side of its upper portion, a recessed cover part pivotally connected to the cup part adjacent to the ledge, the cover part normally covering the cup part and being movable over laterally therefrom, a rod movably guided in the cover part, and a piston on the rod and movable into the cover part, the piston being prevented by the ledge from return from the cover part when the latter is moved over from the cup part.

4. In a lubricating grease cup, the combination of a cup part comprising a cylindrical wall having an outward extending flange, one portion of the flange having a stop shoulder, a cover part pivotally connected at one side to the opposite portion of the flange to be slidingly guided upon the top of the flange, the opposite side of the cover part having an arm thereon normally in contact with the stop shoulder, the arm having a finger thereon engaging the under side of the flange, a rod movably guided in the cover part, and a piston on the rod.

5. In a lubricating grease cup, the combination of a cup part having an annular external flange thereon, the flange being provided with a pivot on one portion and a stop shoulder approximately on the opposite portion thereof, and a cover part having a flange thereon normally resting upon the flange of the cup part, one portion of the flange of the cover part being connected to the pivot to guide the flange slidingly on the flange of the cup part, the opposite portion of the flange of the cover part having an arm thereon normally in contact with the stop shoulder, a rod movably guided in the cover part, and a piston on the rod.

[Claim 6 not printed in the Gazette.]

1,132,121. SEALING DEVICE FOR JAR-CAPS. HARRISON S. RIDER, Deodate, Pa. Filed June 16, 1914. Serial No. 845,479. (Cl. 81—15.)



1. A device of the character described including a body portion adapted to engage a jar cap to be rotated thereon, said body portion being integrally formed and including a substantially semi-circular bearing flange, an arm extending from one edge of said flange to project laterally upon one side of the concave face thereof, said arm being obliquely directed longitudinally adjacent its outer extremity and the terminal thereof thence obliquely directed longitudinally in reverse relation to said first mentioned obliquely directed portion to extend inwardly toward the said flange, and a disk mounted for rotation upon the said terminal of the arm, said disk being beveled upon its periphery inwardly toward said flange and arranged to contact with the peripheral margin of the terminal flange of the jar cap.

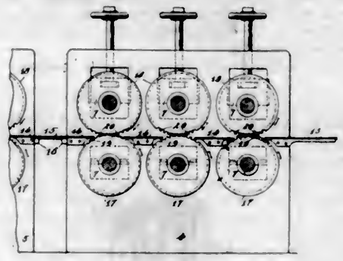
2. A device of the character described adapted to engage a jar cap to be rotated thereon and provided with coacting members, one including a body portion being disposed to engage the terminal peripheral flange of said cap at substantially right angles thereto, and the other to engage the said flange at a substantially obtuse angle thereto.

3. A device of the character described adapted to embrace a jar cap to be rotated thereon and including a semi-circular flange disposed to confront the side wall of the cap, the said flange having a transversely extending arm formed on one edge thereof connecting the extremities of the flange and being provided with a second arm intersecting said first mentioned arm and connected with the said flange between the ends thereof, and a member carried by the free extremity of said second mentioned arm and disposed to engage the terminal peripheral flange of said cap.

4. As a new article of manufacture, a jar cap sealing device integrally formed from suitable sheet metal and including a flange disposed to engage the side wall of a jar cap, the extremities of said flange being joined by a transversely extending arm and connected with the flange upon one edge thereof, the said arm being intersected by a second arm connected with the flange substantially midway of its ends, and a member rotatably mounted upon the free extremity of said second mentioned arm and disposed to engage the terminal peripheral flange of the jar cap to be rotated around the cap upon the said flange thereof.

5. A device of the character described including a substantially semi-circular flange disposed to confront the side wall of a jar cap, an arm formed on said flange and arranged to extend over the top of the cap and over the side thereof, opposite said flange, and a member carried by the free extremity of said arm and disposed to engage the terminal peripheral flange of said cap, to be moved circumferentially around the cap upon the said flange thereof.

1,132,122. MACHINE FOR TREATING FIBROUS PLANTS. ROBERT R. ROBERTS, Washington, D. C., assignor to The Intercontinental Fiber & Paper Company, Washington, D. C. Filed May 24, 1913. Serial No. 769,617. (Cl. 13—21.)



1. In a machine of the class described, a pair of rolls, one of which is provided with peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll provided with peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves.

2. In a machine of the class described, a pair of rolls, one of which is provided with peripheral longitudinal rectangular or equilateral grooves having angular breaking surfaces at the outer ends of their side walls, and the opposite roll provided with peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves and having breaking surfaces on the outer edges of the bars.

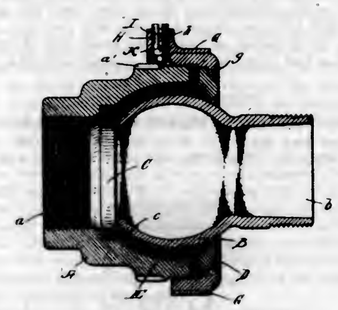
3. In a machine of the class described, a plurality of pairs of rolls, one roll of each pair provided with peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll of each pair provided with peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves, and means for conducting material from one bank of rolls to the next adjacent bank.

4. In a machine of the class described, two or more banks of rolls, each bank comprising a plurality of pairs of rolls, one roll in each pair having peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll in each pair having peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves, and means for propelling each bank of rolls separately.

5. In a machine of the class described, two or more banks of rolls, each bank comprising a plurality of pairs of rolls, one roll of each pair having peripheral longitudinal approximately rectangular or equilateral grooves, and the opposite roll of each pair having peripheral longitudinal approximately rectangular or equilateral bars of less width and depth than the aforesaid grooves, said grooves and said bars being graduated from the first bank of rolls to the last bank of rolls.

[Claims 6 and 7 not printed in the Gazette.]

1,132,123. UNIVERSAL JOINT. GEORGE F. ROYER and LEWIS F. ZWEIBEL, Wilkes-Barre, Pa. Filed Dec. 22, 1913. Serial No. 808,241. (Cl. 137—88.)



1. The herein described pipe joint comprising a casing or socket member, a ball member positioned within the socket member, a soft metal ring fitted to a seat in the socket member and constituting a yielding abutment for the ball therein, a compressible packing filling the space between the ball and socket that is closed at its inner end by said ring, a gland closing the outer end of said space and adjustable therein to compress the packing and hold the ball in contact with the soft metal ring, a ring nut on the casing engaging said gland, and means for locking the nut in any adjusted position.

2. The herein described pipe joint comprising a casing or socket member having an annular series of recesses in its outer surface, a ball member positioned within the socket member, a soft metal ring fitted to a seat in the socket member and constituting a yielding abutment for the ball therein, a compressible packing filling the space between the ball and socket that is closed at its inner end by said ring, a gland closing the outer end of said space and adjustable therein to compress the packing and hold the ball in contact with the soft metal ring, a ring nut on the casing engaging the gland, and a lock pin mounted in said nut and movable radially thereof into and from engagement with any one of said recesses in the socket member.

1,132,124. APPARATUS FOR SEPARATING SUSPENDED PARTICLES FROM GASES. WALTER AUGUST SCHMIDT and GEORGE CLIFFORD ROBERTS, Los Angeles, Cal., assignors to International Precipitation Company, Los Angeles, Cal., a Corporation of California. Filed Apr. 6, 1914. Serial No. 829,789. (Cl. 75—30.)



1. In an apparatus for separating suspended particles from gases, the combination of a screen electrode, a discharge electrode at one side of said screen electrode, a collecting chamber at the other side of said screen electrode, means for conducting a current of gas to be treated between said discharge electrode and said screen electrode, and means for applying high tension current to said electrodes to cause the particles suspended in the gas to be forced through the screen into the collecting chamber, said collecting chamber having an inclosing wall preventing the current of gas from passing through the screen electrode.

2. In an apparatus for separating suspended particles from gases, the combination of a screen electrode, a discharge electrode at one side of said screen electrode, an inclosing wall forming a dead-air chamber at the other side of said screen electrode, inlet and outlet means communicating with the space between the discharge and screen electrodes, to conduct a current of gas through such space without passage of the gas through the screen electrode, and means for applying high tension current to said electrodes to force the particles in the gas through the screen electrode and into said chamber.

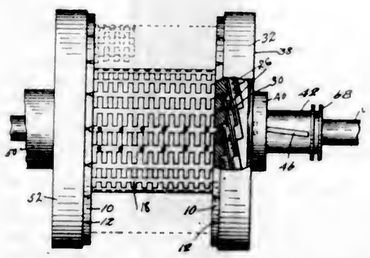
3. In an apparatus for separating suspended particles from gases, the combination of a cylindrical screen electrode provided with inlet means at one end for supply of the gas to be treated, and with outlet means at the other end for discharge of the treated gas, a collecting chamber extending around said cylindrical screen electrode and outside of the current of gas passing within said screen electrode, a discharge electrode extending longitudinally within said screen electrode, and means for applying high tension current to said electrodes to cause the particles in the gas to be forced through the screen electrode into said collecting chamber.

4. In an apparatus for separating suspended particles from gases, the combination of a cylindrical screen electrode, open at both ends for passage of a current of gas longitudinally within the same, a discharge electrode extending axially within said cylindrical screen electrode, and a collecting chamber extending around said cylindrical screen electrode, and having an inclosing wall preventing the current of gas from flowing through the perforations of said screen electrode.

5. An apparatus for separating suspended particles from gases, comprising a cylindrical screen electrode open at both ends for passage of a current of gas longitudinally therethrough, a discharge electrode extending within said screen electrode, a collecting chamber extending around

said cylindrical screen electrode and having an inclosing wall preventing the current of gas from passing through the perforations of said screen electrode, and baffle rings projecting inwardly from said screen electrode.

1,132,125. EXPANSIBLE PULLEY. MELVIN L. SEVERY, Arlington Heights, Mass., assignor to Severy Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed July 8, 1913. Serial No. 777,872. (Cl. 64—8.)



1. An expansible pulley, comprising a pair of disks having slots, a plurality of ball-carriers mounted on said disks and each provided with an endless series of balls, a plurality of movable sections guided in said slots and engaging said balls, and a member rotatable relatively to said plate and having means for engaging said balls, whereby upon the relative rotation of said members said sections are moved.

2. In an expansible pulley the combination of a shaft; a pulley frame mounted thereon; a plurality of rim sections mounted in said frame and movable therein to vary their radial distance from said shaft; a plurality of endless ball races corresponding to said rim sections and mounted in said frame; a plurality of endless series of balls confined in said races and operatively engaging corresponding rim sections to move the latter when said ball series are moved; and means for simultaneously moving the series of balls in said races to move said rim sections simultaneously.

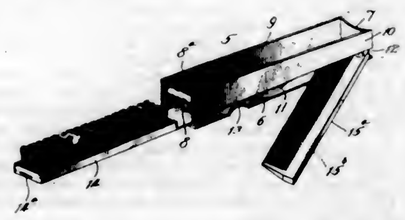
3. In an expansible pulley, the combination of a shaft; a pulley frame mounted thereon; a plurality of rim sections mounted in said frame and movable therein to vary their radial distance from said shaft; a plurality of endless ball races corresponding to said rim sections, mounted in said frame; a plurality of endless series of balls movable in said races and in operative engagement with said rim sections to move the same when said series of balls are moved; an actuator rotatably mounted with reference to said frame and shaft, and operatively engaging said series of balls to move the same simultaneously when said actuator is so rotated; and means for rotating said actuator relatively to said frame and shaft.

4. In an expansible pulley, the combination of a shaft; a pulley frame mounted thereon; a plurality of rim sections mounted in said frame and movable therein to vary their radial distance from the shaft; a plurality of endless ball races corresponding to said rim sections mounted in said frame; a plurality of endless series of balls movable in said races in operative engagement with said rim sections to move the same when said series of balls are moved; an actuator rotatably mounted with reference to said frame and shaft and operatively engaging said series of balls to move the same simultaneously when the said actuator is so rotated; and a sleeve axially movable on said shaft and operatively connected with said actuator to rotate the same relatively to said frame and shaft when said sleeve is so moved.

5. In an expansible pulley the combination of a shaft; a pulley frame mounted thereon and provided with substantially radial slots; a plurality of movable rim sections mounted in said frame and having portions extending into and guided by said slots; a plurality of endless ball races one for each of said slots and each having a radial portion parallel to its corresponding slot; a plurality of endless series of balls guided by said races and operatively engaging the portions of the rim sections extending into the aforesaid slots to move said rim sections when said ball series are moved; and an actuator for moving all said ball series in unison.

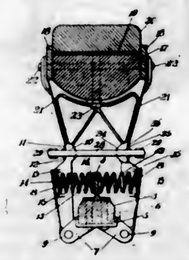
[Claims 6 and 7 not printed in the Gazette.]

1,132,126. TOILET ARTICLE. WILLIAM N. SHARP, Chicago, Ill. Filed Sept. 3, 1914. Serial No. 860,084. (Cl. 132—11.)



A toilet-article comprising an oblong rectangular case open along one face, closed at one end and having a longitudinal slot in one side near the opposite face and extending through said closed end, a brush hinged in the opposite open end of the case to fold and fit lengthwise into it clear of the bottom to leave a space, and a comb pivoted at one end to the bottom face of the case near its opposite end to fold into the latter through said slot at a right-angle to the direction of folding the brush and extend into said space and along and out of contact with the brush-bristles.

1,132,127. RESILIENT WHEEL FOR VEHICLES. JOHN F. SIPE and HARRY E. SIPE, New York, N. Y. Filed June 30, 1911. Serial No. 636,181. (Cl. 152—32.)



1. In a resilient wheel the combination of a main wheel member containing a hub, a main wheel member containing a tread, suitable cushioning devices, a plurality of connecting members set approximately parallel to the axis of the wheel, universal connections joining the connecting members to the main wheel members, each universal connection comprising a ball and socket, the ball supported from the side opposite to its bearing surface, one part of each universal connection being supported by the end of the connecting member and being adapted to bear inwardly against the other part of the universal connection, whereby the parts of the universal connections carried by the connecting member are pulled against the other parts of the universal connections in the operation of the wheel.

2. In a resilient wheel the combination of a main wheel member containing a hub, a main wheel member containing a tread, a plurality of connecting members set approximately parallel to the axis of the wheel, universal connec-

tions joining the connecting members to the main wheel members, each universal connection comprising a ball and socket, the ball supported from the side opposite to its bearing surface, and a removable face plate for the socket, one part of each universal connection being supported by the end of the connecting member and being adapted to bear inwardly against the other part of the universal connection, whereby the parts of the universal connection carried by the connecting member are pulled against the other parts of the universal connections in the operation of the wheel.

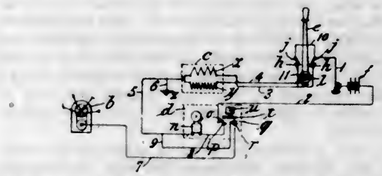
3. In a resilient wheel the combination of a main wheel member containing a hub, a main wheel member containing a tread, suitable cushioning devices, a plurality of connecting members set approximately parallel to the axis of the wheel, universal connections joining the connecting members to the main wheel members, each universal connection comprising a ball and socket, the ball supported from the side opposite to its bearing surface, and being removably attached to its support, one part of each universal connection being supported by the end of the connecting member and being adapted to bear inwardly against the other part of the universal connection, whereby the parts of the universal connections carried by the connecting member are pulled against the other parts of the universal connections in the operation of the wheel.

4. In a resilient wheel the combination of a main wheel member containing a hub, a main wheel member containing a tread, suitable cushioning devices, a plurality of connecting members set approximately parallel to the axis of the wheel, universal connections joining the connecting members to the main wheel members, each universal connection comprising a ball and socket, the ball supported from the side opposite to its bearing surface, one part of each universal connection being supported by the end of the connecting member and being adapted to bear inwardly against the other part of the universal connection, whereby the parts of the universal connections carried by the connecting member are pulled against the other parts of the universal connections in the operation of the wheel, all of the parts named being held together by the tension of the cushioning devices alone whereby the parts can be assembled or separated simply by overcoming the pressure of the cushioning devices.

5. In a resilient wheel the combination of a main wheel member containing a hub, a main wheel member containing a tread, and a plurality of connecting link members extending approximately parallel to the axis of the wheel, cushioning devices operated by levers, each connecting member joined by universal joints to one of the levers and to the other main wheel member whereby all of the levers are operated simultaneously and equally at all times during the operation of the wheel.

[Claims 6 to 30 not printed in the Gazette.]

1,132,128. APPARATUS FOR SAFEGUARDING AUTOMOBILES FROM THEFT. OLIVER A. SMITH, Springfield, Mass., assignor of one-half to George A. Russell, Springfield, Mass. Filed May 12, 1913. Serial No. 767,089. (Cl. 177—314.)

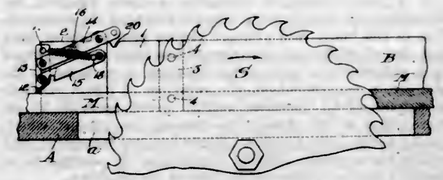


1. In an apparatus of the character described, a primary circuit having openings in two portions thereof and including a generator and primary and secondary coils, key actuated means closing the circuit in one of the normally open portions thereof, and an action controlling member which when moved for establishing driving conditions of the vehicle is operative to close the said circuit in the other open portion thereof, and which action controlling member has connection with the secondary coil so that when the primary circuit is closed the current from the secondary coil, connected with said action controlling member will pass through and impart a shock to a person attempting through said action controlling member to establish propulsive conditions for the vehicle.

2. In an apparatus of the character described, an action controlling lever for establishing driving conditions for the vehicle, contacts adjacent and at opposite positions relatively thereto and switch members coöperative with the lever and with said contacts, a circuit comprising a generator and having connection with both said switch members, portions thereof having connections with said contacts, and said circuit also having an opening therein at another portion thereof, and key controlled means for closing such opening in the circuit,—said circuit also comprising a primary and a secondary coil which latter is electrically connected with the said action controlling lever and with both of the said contacts adjacent such lever.

3. In an apparatus of the character described, an action controlling lever for establishing driving conditions for the vehicle, contacts adjacent and at opposite positions relatively thereto and switch members coöperative with the lever and with said contacts, a circuit comprising a generator and having connection with both said switch members, portions thereof having connections with said contacts, and said circuit also having an opening therein at another portion thereof, and key controlled means for closing such opening in the circuit,—said circuit also comprising a primary and a secondary coil, which latter is electrically connected with the said action controlling lever.

1,132,129. SAFETY-GRIP FOR CIRCULAR SAWS. FRED M. STEVENS, Cambridge, Mass. Filed June 15, 1914. Serial No. 845,090. (Cl. 143—159.)



1. In combination with a circular saw, a gage at the side of the saw, a gripping dog mounted at the end of the gage normally in the path of the material to be sawed, and pivotal connection between the dog and the gage adapted to permit the dog to be swung on the gage into inoperative position out of the path of the material.

2. In combination with a circular saw, a gage at the side of the saw, a gripping dog, a support for said dog on which said dog is movably mounted, and hinged connection between said support and the gage adapted to permit the support and dog to be swung on the gage into inoperative position out of the path of the material.

3. In combination with a circular saw, a gage at the side of the saw, a gripping dog, a support for said dog on which said dog is movably mounted, and hinged connection between said support and the gage adapted to permit the support and dog to be swung on the gage into inoperative position out of the path of the material, the axis of said hinged connection being inclined to cause the said support to rise from the saw table when swung into inoperative position.

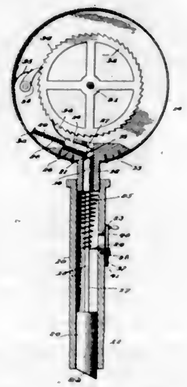
4. In combination with a circular saw, and a gage at one end thereof, of a support hinged to said gage for horizontal movement, means for engaging the support for urging the same in line with the material to be sawed, a gripping dog movable on the support and means engaging

the dog to urge the same against the material when said support is in line therewith.

5. In combination with a circular saw, and a gage at one end thereof, of a support hinged to the gage, a dog on the support, a spring connected to the support for urging the same into line with the material to be sawed whereby to engage the dog with said material, the support being adapted to be swung out of line with the material and means for retaining the support in such latter position.

[Claims 6 and 7 not printed in the Gazette.]

1,132,130. SPEED-INDICATOR. JOHN STROBLE, Seward, Kans. Filed Apr. 28, 1914. Serial No. 835,049. (Cl. 235—91.)



1. A speed indicator including a body adapted for attachment to a machine, a plunger mounted for reciprocation in the body, said plunger having cam heads at each end, one of which projects beyond the body to be engaged by a reciprocating part of the machine to reciprocate the plunger, a ratchet wheel, the rotation of which controls movement of an indicator needle, means operable by reciprocation of the plunger for turning the ratchet wheel, means holding the plunger against turning movement, and means for normally holding the plunger in position to be engaged by the reciprocating part of the machine.

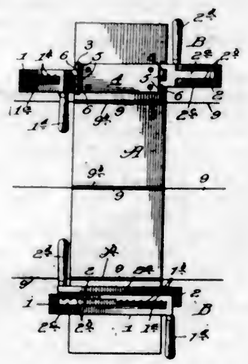
2. A speed indicator including a tubular body adapted for application in the path of a moving machine part, a bearing head detachably connected to one end of the body, a casing supported by and partially inclosing the head, an indicator mechanism supported in the casing, and co-acting plungers reciprocally supported in guideways formed in the head for operative engagement with each other, one of the plungers extending from the opposite end of the body member and the other operatively engaging the indicator mechanism.

1,132,131. BALING-PRESS. GEORGE A. THOMAS and JONAS A. YODER, Dubuque, Iowa. Filed Jan. 14, 1914. Serial No. 812,091. (Cl. 100—31.)

1. A baling-press comprising a pair of pivoted levers equipped at their free extremities with laterally-projecting oppositely disposed handles whereby to prevent the interference of said handles when the levers are overlapped, each lever having a series of locking-shoulders adapted to interlock.

2. A baling-press comprising a pair of pivoted levers equipped at their free extremities with handles and provided with longitudinal slots, one of said slots being open at the free end of the lever, thus affording a tongue adapted to move through the other slot, a series of notches adjacent one of said slots, and means adjacent the other slot adapted to interlock with said notches.

3. A baling-press comprising a pair of pivoted curved levers provided with slots and serrations adjacent said slots adapted to be brought into positive interlocking relation when the levers are overlapped, and handles carried by said levers, said handles disposed to move past each other without interference.

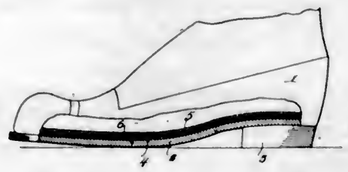


4. A baling-press comprising a pair of curved pivoted levers, each provided with a series of reversely inclined serrations, said series being adapted to interlock with each other, and handles on said levers extending in opposite directions, whereby the free ends of the levers may be moved past each other in the pressing operation.

5. A baling-press comprising a base, a pair of levers pivotally connected with said base and partially out of alinement with each other, said levers provided with longitudinal slots having serrations, one on one side of the slot and the other on the other side of the slot adapted to be brought into positive interlocking relation when the levers are overlapped, and handles projecting laterally in opposite directions from the extremities of said levers.

[Claims 6 and 7 not printed in the Gazette.]

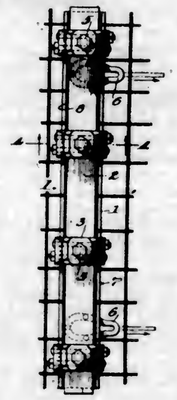
1,132,132. CUSHION-INNERSOLE. HANS CHRISTIAN TYSSE, Manistee, Mich., assignor of one-half to Alfred C. Christenson, Manistee, Mich. Filed Apr. 11, 1913. Serial No. 760,405. (Cl. 36—28.)



1. In a shoe, the combination of an outer sole, an intermediate sole arranged thereupon, the said intermediate sole comprising a plurality of independent resilient wire strands extending transversely of the sole, each strand being coiled to form a yieldable springy support, and an inner sole supported by the said intermediate sole in spaced relation to the said outer sole, as and for the purpose set forth.

2. In a shoe, the combination of an outer sole, an intermediate sole arranged thereupon, the said intermediate sole comprising a plurality of independent resilient wire strands extending transversely of the sole, each strand being coiled to form a yieldable springy support, a securing strand, the said securing strand being coiled throughout its entire length and engaging the ends of said transverse strands to secure the latter against displacement, and an inner sole supported by the said intermediate sole in spaced relation to the said outer sole, as and for the purpose set forth.

1,132,133. CLAMP FOR WIRE-STRETCHERS. JAMES W. URIE, Carson City, Mich., assignor of one-half to Herbert Brail, Carson City, Mich. Filed June 18, 1914. Serial No. 845,885. (Cl. 254—83.)

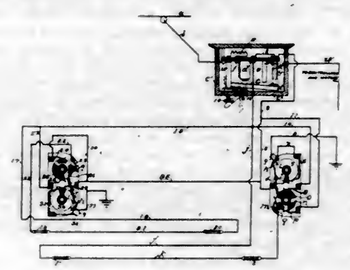


1. In a wire clamp, two wire clamping bars, one of said bars having a channel in its upper surface and the other of said bars having a rounded lower face complementary to said channel, one piece brackets removably secured to said channeled bar by shoulders on their inner sides and transverse bolts on the underside of said channeled bar, and having smooth bored apertures in their upper portion, threaded burs in said apertures and bolts mounted in said burs in said apertures for adjusting the movable bar and maintaining it in a clamping position.

2. A device of the class described comprising a pair of complementary clamping bars consisting of a fixed bar and a movable bar, said fixed bar having a channel with beveled sides running its entire length, the other bar being adapted to fit into said channel for crimping or clamping the wire, one piece clamping brackets removably attached to said fixed bar by transverse bolts, said bolts passing through said brackets and under said fixed bar, an operating screw projecting through said clamping brackets and operatively engaging the upper surface of the other bar, a removable bur mounted in each of said clamping brackets, said bur having threads for engaging the operating screws, and eye loops rigidly attached to the opposite ends of the flat side of the fixed clamping bar for the attachment of a separate suitable source of power to each.

3. A clamp for stretching wire comprising a relatively fixed bar, a movable bar, movable brackets, transverse bolts securing the brackets to the fixed bar, operating bolts for adjusting said movable bar and maintaining said bars in operative relation, and lugs rigidly secured to said fixed bar; said fixed bar having upturned flanges forming a longitudinal channel, said movable bar being of lesser width than the said channel and mounted within said brackets above said fixed bar, said brackets being U-shape and having an aperture in their central portions, shoulders adjacent their free ends to engage the flanges on said fixed bar and secured to said fixed bar by bolts secured in their free ends beneath and transverse of said fixed bar, said bolts being disposed with their heads in opposite directions and secured to the brackets by nuts locked against displacement by such reverse disposition of the bolts, said openings having smooth interiors and enlarged in their lower portion, a bur having a screw-threaded opening mounted in said enlarged portion of said first named opening, bolts threaded to engage the threads in said burs extending through said openings and adapted on their inner ends to contact with the upper surface of the movable bar.

1,132,134. STEP-OPERATING MEANS CONTROLLING STARTING OF ELECTRIC CARS. JOHN A. VAN GROOS and OWEN G. GILSTRAP, Portland, Oreg. Substitute for application Serial No. 562,758, filed May 21, 1910. This application filed Apr. 22, 1911. Serial No. 622,829. (Cl. 246—61.)



1. The combination in an electric car, a motor circuit, a controller, and a reversing switch; of a governing switch included in the motor circuit, a magnet circuit and a magnet, of which the movable member of said governing switch constitutes the armature, said governing switch adapted to be operated by the energizing of the magnet; a depressible step, and a step-switch opened by the depression of such step, said step-switch being in series with the magnet circuit; a lockable case in which said governing switch is contained; a member arranged to be operated to mechanically move the movable member of the governing switch into closed position; and locking means contained in said lockable case and adapted to lock the member last referred to when operated to mechanically close said governing switch.

2. The combination in an electric car, a motor circuit, a controller, and a reversing switch; of a governing switch included in the motor circuit, a magnet circuit and a magnet, of which the movable member of said governing switch constitutes the armature, said governing switch adapted to be operated by the energizing of the magnet; a depressible step, and a step-switch opened by the depression of such step, said step-switch being in series with the magnet circuit; a switch in series with the magnet circuit and operated by the rotation of the shaft of the reversing switch adapted to cause the transmission of the current through the magnet when the reversing switch is turned to reverse position, notwithstanding the opening of the step-switch.

3. The combination in an electric car, a motor circuit, a controller, and a reversing switch; of a governing switch included in the motor circuit, a magnet circuit and a magnet, of which the movable member of said governing switch constitutes the armature, said governing switch adapted to be operated by the energizing of the magnet; a depressible step, and a step-switch opened by the depression of such step, said step-switch being in series with the magnet circuit; a switch in series with the magnet circuit and operated by the rotation of the shaft of the controller adapted to cause the transmission of the current through the magnet while the controller is turned on, notwithstanding the subsequent opening of the step-switch.

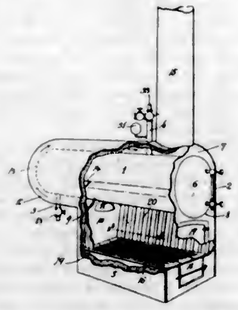
4. The combination in an electric car, a motor circuit, a controller, and a reversing switch; of a governing switch included in the motor circuit, a magnet circuit and a magnet, of which the movable member of said governing switch constitutes the armature, said governing switch adapted to be operated by the energizing of the magnet; a depressible step, and a step-switch opened by the depression of such step, said step-switch being in series with the magnet

circuit and operated by the rotation of the shaft of the controller; a switch in series with the magnet circuit and operated by the rotation of the shaft of the reversing switch adapted to cause the transmission of the current through the magnet while the controller is turned on, notwithstanding the subsequent opening of the step-switch; and also to cause the transmission of the current through the magnet when the reversing switch is turned to reverse position, notwithstanding the opening of the step-switch.

5. The combination in an electric car, a motor circuit, a controller, and a reversing switch; of a governing switch included in the motor circuit, a magnet circuit and a magnet, of which the movable member of said governing switch constitutes the armature, said governing switch adapted to be operated by the energizing of the magnet; a depressible step, and a step-switch opened by the depression of such step, said step-switch being in series with the magnet circuit; and a disk on the shaft of the reversing switch, such disk provided with transmitting and insulating segments on its rim and contact arms in series with the magnet circuit and adapted to cause the transmission of the current energizing the magnet, through the medium of the disk last referred to, when the reversing switch is turned to reverse position, notwithstanding the opening of the step-switch.

[Claims 6 to 14 not printed in the Gazette.]

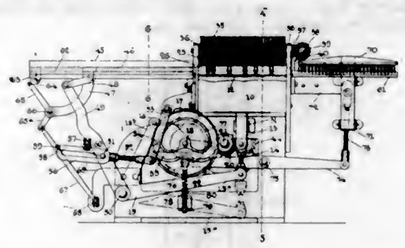
1,132,135. STEAMING APPARATUS. HUGH D. WALKER, Grimsby, Ontario, Canada, assignor to Sowers Manufacturing Company, Buffalo, N. Y., a Corporation of New York. Filed Jan. 27, 1909. Serial No. 474,394. (Cl. 122—233.)



Apparatus of the class described; comprising an elongated, horizontal boiler of the household class; a casing of sheet metal inclosing said boiler from end to end, and having a fire box beneath, and a stack above, the front portion thereof; a fire grate in said box; fire-bars extending upward on each side of said fire-grate; sheet metal baffle-plates extending horizontally inward from the side walls of said fire-box toward said boiler, and from said fire-bars toward the rear of said casing to direct the products of combustion beneath the rear portion of said boiler and around the end thereof and thereafter forward along the upper half of said boiler to said stack; said fire-box having a rear wall comprising a sheet metal member with integral upward extensions to receive and support said boiler; substantially as described.

1,132,136. ASSEMBLING-MACHINE. WILLIAM WATTIE, Worcester, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed June 17, 1914. Serial No. 845,664. (Cl. 29—84.)

1. In an assembling machine having, in combination, a hopper adapted to contain a plurality of cylindrical articles, a lifting plunger vertically movable in said hopper to elevate and aline certain of the articles contained therein, means for removing transversely from said plunger articles improperly positioned thereon, and means for thereafter removing longitudinally from said plunger the articles properly alined thereon.



2. An assembling machine having, in combination, a hopper adapted to contain a plurality of cylindrical articles, a lifting plunger having a recess in its upper face and vertically movable in said hopper to elevate and aline certain of the articles contained therein, a brush movable transversely of said recess to remove articles improperly positioned therein, and a second plunger for forcing the properly alined articles longitudinally out of said recess.

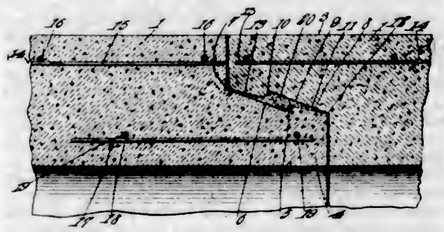
3. An assembling machine having, in combination, a hopper adapted to contain a plurality of cylindrical articles, a lifting plunger vertically movable in said hopper to elevate and aline certain of the articles contained therein, a rotatable device movable transversely of said plunger to remove therefrom articles improperly positioned thereon, means partially to rotate said device, and means to remove the properly alined articles longitudinally from said plunger.

4. An assembling machine having, in combination, a hopper adapted to contain a plurality of articles, a lifting plunger movable in said hopper to elevate and position certain of said articles, a device mounted to rotate transversely of said plunger to remove improperly positioned articles therefrom, and means to give said rotatable device partial rotary movements in alternate directions.

5. An assembling machine having, in combination, a hopper adapted to contain a plurality of cylindrical articles, a lifting plunger vertically movable in said hopper to elevate and aline certain of said articles contained therein, a plurality of separators positioned above said plunger and vertically movable therewith, and means to give said separators an additional upward movement beyond the upper limit of travel of said plunger.

[Claims 6 to 15 not printed in the Gazette.]

1,132,137. PIPE-JOINT. THOMAS I. WERTON, Columbia, S. C. Filed Sept. 28, 1914. Serial No. 863,934. (Cl. 137—29.)

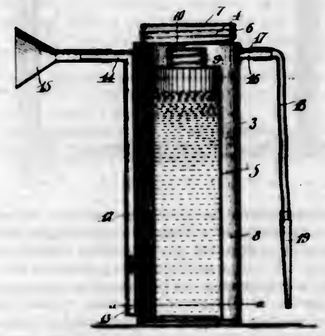


1. A joint of the type described comprising two members one having a tapered socket and the other having a tapered spigot, the socket and spigot being so shaped that when the spigot is inserted in the socket its outer surface will make contact therewith at its free end portion and at its basal portion, an intermediate portion of the socket and spigot between the ends thereof being separated from each other by depressions so shaped as to leave a shoulder in the socket on the side of the depression next to the tapered end and to leave a shoulder on the spigot on the side of the depression next to the free end, and a filling material in said depressions forming with said shoulders a key to hold the parts together.

2. A joint of the type described comprising two members one having a tapered socket and the other having a tapered spigot, the socket and spigot being so shaped that when the spigot is inserted in the socket its outer surface will make contact therewith at its free end portion and at its basal portion, an intermediate portion of the socket and spigot between the ends thereof being separated from each other by depressions so shaped that the surfaces of the socket and spigot gradually approach each other at their ends and to leave a shoulder in the socket on the side of the depression next to the tapered end and to leave a shoulder on the spigot on the side of the depression next to the free end, and a filling material in said depression forming with said shoulders a key to hold the parts together.

3. A joint of the type described comprising a pair of tubular members, one having a tapered socket and the other having a tapered spigot, the socket and spigot being so shaped that when the spigot is inserted in the socket its outer surface will make contact therewith at its free end portion to center the parts, an intermediate portion of the socket and spigot between the ends thereof being separated from each other by depressions so shaped that to leave a shoulder in the socket on the side of the depression next to the tapered end and to leave a shoulder on the spigot on the side of the depression next to the free end, and a filling material in said depressions forming with said shoulders a key to hold the parts together.

1,132,138. INHALING APPARATUS. DENNIS A. WHITNEY, Holland, N. Y. Filed Oct. 20, 1913. Serial No. 796,240. (Cl. 128—13.)



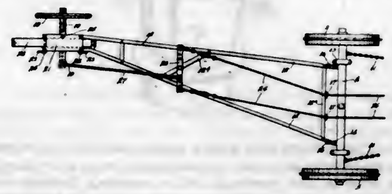
1. An inhaler comprising a casing having an air inlet at a low point, means for conducting air to said inlet from a high point and an air outlet at a high point, a treating element connected to said air outlet, and means for condensing the moisture from the air in passing through said casing.

2. An inhaling apparatus comprising a casing, a tube extending upwardly from a point near the bottom of said casing and having communication with the interior of said casing near its lower end, said casing having an outlet near its upper end, and a second casing within said first-mentioned casing containing a cooling medium.

3. In an inhaling apparatus, the combination with a casing having a vertically-disposed tube extending from a point near its bottom to a point near its upper end, said tube having its upper end directed outwardly, a funnel attached to said outwardly directed upper end, said tube being in communication at the lower end with the lower end of said casing and said casing having an outlet at its upper end, and a second casing within said outer casing spaced from the wall of the latter.

4. An inhaling apparatus comprising a casing having a large opening at its upper end, an air inlet at its lower end and an air outlet near its upper end, a closure for said opening, and an inner casing inserted into said outer casing through said opening and containing a cooling medium, said inner casing being spaced from the wall of said outer casing by an annular intervening space.

1,132,139. TRACTION-ENGINE GUIDE. CHARLES S. WHITWORTH, Cedar Falls, Iowa, assignor to M. Rumely Company, Laporte, Ind., a Corporation of Indiana. Filed June 4, 1912. Serial No. 701,500. (Cl. 97—81.)



1. The combination with a traction engine having a pivoted front axle, of a guide arm extending forward from said front axle and pivotally connected thereto for vertical movements, but partaking of the horizontal oscillatory movements of said axle, a guide wheel connected to and supporting the front end of said guide arm, and a shoe attached to the front end of said guide arm, constituting a forward extension thereof, and projecting forward of the front portion of said guide wheel on a line above the bottom thereof, the said guide wheel being laterally offset at one side of said arm and shoe.

2. The combination with a traction engine having a pivoted front axle, of a guide arm extended forward from said front axle and pivotally connected thereto, for vertical movements, but subject to the horizontal oscillatory movements of said axle, a guide wheel connected to and supporting the front end of said guide arm, and a shoe at the front end of said guide arm projecting in front of said guide wheel, on a line above the bottom of said wheel, and engageable with the ground when said guide wheel drops into a depression, the said shoe being formed from a flat metal bar bent approximately U-shaped with its rear ends rigidly secured to the front end of said guide arm.

3. The combination with a traction engine having a pivoted front axle, of a guide arm projecting forwardly from said guide axle, pivotally connected thereto for vertical movements but subject to the horizontal oscillatory movements of said axle, a guide axle pivoted to the front end of said guide arm, a guide wheel journaled to said guide axle, and an adjustable stop limiting the oscillatory movements of said guide axle.

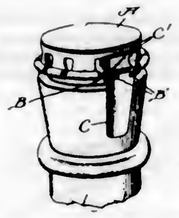
4. The combination with a traction engine having a pivoted front axle, of a guide arm projecting forwardly from said axle and pivotally connected thereto for vertical movements but subject to the oscillatory movements of said front axle, a guide axle intermediately pivoted to the front end of said guide arm, a guide wheel journaled to one end of said guide axle, a steering connection attached to the other end of said guide axle, and adjustable front and rear stops on the front end of said guide arm for limiting the oscillatory movements of said guide axle.

5. The combination with a traction engine having a pivoted front axle, of a guide arm projecting forwardly from said steering axle and pivotally connected thereto for vertical movements but subject to the horizontal oscillatory movement of said axle, a straight guide axle intermediately pivoted to the front end of said guide arm, a guide

wheel journaled to one end of said guide axle and a steering attachment connected to the other end of said guide axle, the front end of said guide arm being axially twisted, and thereby set obliquely so that the said guide wheel will stand in an oblique position.

[Claims 6 and 7 not printed in the Gazette.]

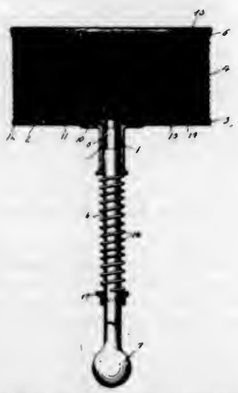
1,132,140. BOTTLE AND CAP-FASTENER. GEORGE A. WILLIAMS, Waterbury, Conn., assignor to The Williams Sealing Corporation, Waterbury, Conn., a Corporation of Connecticut. Filed June 1, 1912. Serial No. 701,011. (Cl. 215—88.)



1. The combination with a bottle having a cap comprising an elastic skirt and a contractile ring, said ring having hooked end portions, of a tapering locking device adapted to engage said hooked ring ends, said locking device being movable bodily in a plane parallel at all times to the bottle neck, said movement in one direction contracting the ring and in the opposite direction expanding the ring.

2. A cap having an expansible and contractible skirt and carrying a ring provided with hooked ends, a wedge shaped fastening device arranged for engagement with said hooked ends and adapted to move at right angles to the plane of said ring for the purpose of contracting the same, said fastening device being provided with seats for receiving the hooked ends of the ring when the fastening device is in its locked position, as set forth.

1,132,141. FLY-TRAP. MAURICE E. WILSON, Perry, Ohio. Filed Oct. 31, 1914. Serial No. 869,630. (Cl. 43—1.)



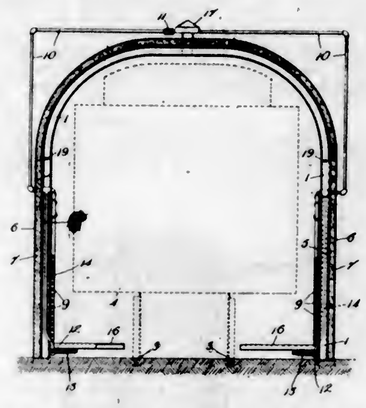
1. An insect destroying device comprising a cage portion, a plate movable therein and carrying a sheet of material coated with an adhesive, and a rod secured to said plate whereby said plate may be moved within said cage portion into proximity to the open end thereof.

2. An insect destroying device comprising a cage portion having one end open, a plate slidable in said cage portion and carrying a sheet of sticky fly paper, a handle secured to said plate whereby said plate may be moved within said cage portion into proximity to the open end thereof, and means for limiting the movement of said plate and handle.

3. An insect destroying device comprising a cage portion, an apertured closure secured to one end thereof, a plate slidable within said cage portion and carrying a removable sheet of sticky fly paper, a rod extending through said apertured closure and secured to said plate whereby said plate may be moved, and means for limiting the movement of said plate, said means comprising a stop collar secured on said rod and a coil spring disposed around said rod and abutting against said closure and said collar, the maximum compression of said spring occurring before said plate reaches the open end of said cage portion.

4. An insect destroying device comprising a tubular shank, a flanged plate secured thereto, a shell of foraminous material secured to said flanged plate, said plate forming a closure for one end of said shell, a rod slidable through said tubular shank, a plate connected with said rod and provided with an annular retaining flange, said second named flanged plate carrying a sheet of sticky fly paper, movement of said rod moving said second named plate within said shell, and means for preventing the fly paper from contacting with a surface against which the open end of said shell is placed.

1,132,142. DRYING APPARATUS FOR RAILWAY-VEHICLES. CHARLES D. YOUNG, Altoona, Pa. Filed Apr. 30, 1913. Serial No. 764,622. (Cl. 34—46.)

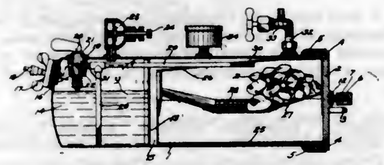


1. In an apparatus for drying or baking a railway vehicle, the combination of a chamber comprising a heat insulated covering; a door for said chamber; a track on which said vehicle may enter said chamber; openings for the admission of fresh air near the bottom of said chamber; ventilators for the exit of gases at the top of said chamber; and steam heating means at the sides and bottom of said chamber for producing any desired uniform temperature in said chamber, substantially as described.

2. In an apparatus for drying or baking a railway vehicle, the combination of a chamber comprising a heat insulated covering consisting of a frame work and an inner and an outer shell having insulation between them; a door for said chamber comprising two plate members with insulation between them; a track on which said vehicle may enter said chamber; openings for the admission of fresh air near the bottom of said chamber; ventilators for the exit of gases at the top of said chamber; and steam heating means at the sides and bottom of said chamber comprising a plurality of pipe, manifolds and short lengths of pipe projecting from said manifolds for producing any desired uniform temperature in said chamber, substantially as described.

3. In an apparatus for uniformly drying and baking railway vehicles throughout their length, the combination of a framework; a heat insulated shell supported by said frame work; heat insulated doors closing said shell; a track for vehicles entering said shell; means for the admission of air along the bottom of said shell above said rails; ventilators at the top of said oven; and heat radiating means along the sides of said oven; whereby a circulation of air along the said sides is secured, to insure an equal distribution of temperature throughout and to carry away gases and depleted air, substantially as described.

1,132,143. ACETYLENE-GAS GENERATOR. CHARLES W. ADSIT, Owatonna, Minn. Filed June 17, 1914. Serial No. 845,514. (Cl. 48—4.)



1. In a gas generator, the combination with a water chamber and a generating chamber, of a water supply pipe, leading from a point below the water line in said water chamber, and arranged to deliver into said generating chamber, and a valve-equipped vent at the intermediate portion of said pipe, opening into said water chamber above the water line.

2. In a gas generator, the combination with a water chamber and a generating chamber, of a water supply pipe, leading from a point below the water line in said water chamber and arranged to deliver into said generating chamber, a valve-equipped vent at the intermediate portion of said pipe, opening into said water chamber above the water line, and a normally closed air valve, through which air may be forced into said water chamber.

3. In a gas generator, the combination with a water chamber and a generating chamber, of a water supply pipe, leading from a point below the water line in said water chamber and arranged to deliver into said generating chamber, a valve-equipped vent at the intermediate portion of said pipe, opening into said water chamber above the water line, and means for placing the water in said water chamber under pressure.

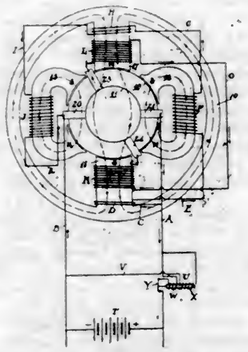
4. In a gas generator, the combination with a water chamber and a generating chamber, of a water supply pipe, leading from a point below the water line in said water chamber and arranged to deliver into said generating chamber, a valve-equipped vent at the intermediate portion of said pipe, opening into said water chamber above the water line, a normally closed air valve, through which air may be forced into said water chamber, and a relief valve for said water chamber.

5. In a gas generator, the combination with a water chamber and a generating chamber, of a carbid holder within said generating chamber, a water supply pipe leading from a point below the water line in said water chamber and arranged to deliver into said carbid holder, and a valve-equipped vent at the intermediate portion of said pipe, opening into said water chamber above the water line.

[Claims 6 and 7 not printed in the Gazette.]

1,132,144. DYNAMO-ELECTRIC MACHINE. CHARLES E. F. AHLM, Cleveland, Ohio, assignor to Morris S. Towson, Cleveland, Ohio. Filed Feb. 14, 1910. Serial No. 543,736. (Cl. 171—223.)

1. In a dynamo electric machine, the combination with a single armature, of means for producing a plurality of interposed magnetic fields acting thereon, one having a constant excitation and the other a variable excitation and the two having poles of opposite sign arranged alternately, whereby a constant potential current results from the difference between the voltages given by different fields.



2. The combination, with a single armature having a single winding, of means including windings energized by current resulting from the rotation of said armature for producing two independent magnetic fields acting on said armature, one having a constant excitation independent of the speed of armature rotation and the other a variable excitation dependent on the speed of armature rotation.

3. In a dynamo electric machine, the combination of a single armature with a single winding, and means supplied from said armature for producing two magnetic fields therefor, one having a constant excitation in either direction dependent upon the direction of the rotation of said armature and the other an excitation dependent upon such armature rotation and increasing in strength with the speed.

4. The combination in a dynamo electric machine of a single armature and two electro-magnetic field systems independent of each other but combining to act upon the same armature, one of said systems having twice as many polar projections as the other, the field system with the greater number of polar projections having a constant excitation and the other field being in a local circuit and having an excitation increasing with the speed.

5. The combination in a dynamo electric machine of a single armature, and means for producing two electro-magnetic fields having windings independently connected with said armature and combining to present poles at all times of successively alternate signs to the same armature.

[Claims 6 to 49 not printed in the Gazette.]

1,132,145. DYNAMO-ELECTRIC MACHINE. CHARLES E. F. AHLM, Cleveland, Ohio, assignor to Morris S. Towson, Cleveland, Ohio. Filed May 16, 1910. Serial No. 561,609. (Cl. 171—225.)

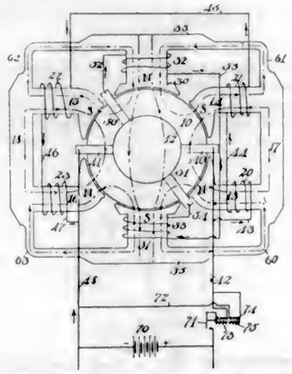
1. In a dynamo electric machine, the combination, with the armature, of means for producing a main field and a counteractive field, means for causing the counteractive field to have the direction of its magnetic flux initially determined by magnetic leakage from the main field.

2. In a dynamo electric machine, the combination, with an armature, of means for producing a main field and a counteractive field acting thereon, such fields presenting alternately magnetic poles of opposite sign to the armature, and means for initially exciting the counteractive field by magnetic leakage from the main field.

3. In a dynamo electric machine, the combination, with a single armature, of means for producing a main field and a counteractive field both acting thereon, and means for causing magnetic lines of force to pass from the main field to the counteractive field determining the polarity of the counteractive field.

4. In a dynamo electric machine, the combination, with an armature, of a main magnet field and counteractive field magnet both acting thereon, a local winding for the coun-

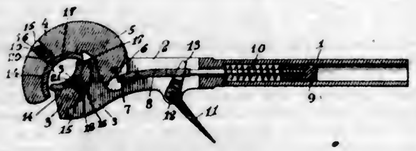
teractive field magnet, and means for establishing a magnetic circuit from the main field through the counteractive field to determine the polarity of the latter.



5. In a dynamo electric machine, the combination, with an armature, of cores and windings producing a counteractive field and a main field both acting on the armature, the main field producer having a pair of pole pieces for each pole piece of the counteractive field producer, the pole pieces for the two fields being arranged to be of successively opposite polarity, and means for establishing a magnetic circuit from one main field pole piece through the adjacent counteractive field pole piece.

[Claims 6 to 13 not printed in the Gazette.]

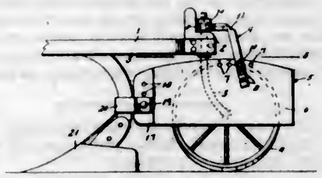
1,132,146. WRENCH. HARRY ALLEN, Savannah, Ga. Filed Apr. 6, 1912. Serial No. 688,948. (Cl. 81—99.)



In a wrench for use on polished pipes, the combination with a stock having a fixed jaw provided with an incurved face, a pivoted jaw also provided with an incurved face arranged opposite the incurved face of the fixed jaw, the said face of the pivoted jaw being of a greater length than that of the fixed jaw, said jaws each having an opening arranged at a right angle to the axial longitudinal plane of the curved faces and central of each of the jaws, and being further provided with a wedge-shaped opening arranged transversely of the first mentioned opening, of a segmental liner for each of the incurved faces of the jaws, each of said liners having a central outturned lug which is adapted to be received each within one of the openings of the jaws, each of said lugs having an elongated slot, and a wedge-shaped key passing through each of the transverse openings in the jaws and through the openings in the lugs for sustaining the liners upon the jaws.

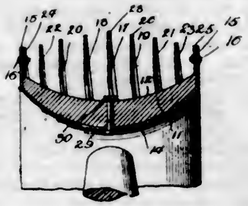
1,132,147. GUARD. TRAUGATT ARBEITER, Dolton, S. D., assignor to John S. Ewert, Dolton, S. D. Filed June 26, 1912. Serial No. 706,097. (Cl. 21—23.)

A wheel guard consisting of a plate adapted to be supported adjacent the wheel, perforations formed in the upper edge of the plate, a supporting member having its lower end provided with a plurality of perforations adapted to register with any one of the perforations formed in the plate, the upper end of said supporting member being provided with a clamping member, said plate terminating in a right angle plate at its forward end which terminates



in a plate arranged at right angles thereto and in parallel alinement with the first named plate, said plate being provided with a plurality of vertically alined perforations, a clip adjustably connected to the perforated plate.

1,132,148. VEHICLE-WHEEL. BALERA J. AURAND, Mount Gilead, Ohio, assignor of one-half to Horatio G. Peters, Mount Gilead, Ohio. Filed Apr. 24, 1914. Serial No. 834,263. (Cl. 152—8.)

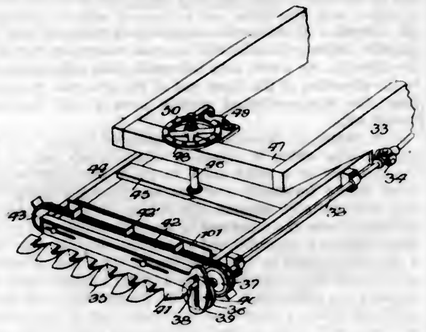


A vehicle wheel including a felly having a concave outer face, a tire holding member projecting radially of the felly at opposite sides thereof, and a tire operatively secured to the member, said tire consisting of a continuous strip of metal gradually decreasing in width toward its ends from a point medially thereof, the said strip being wound helically about the felly and confined by said member with the concave face of the felly gradually approaching the inner edges of the convolutions of the tire from a point medially thereof.

1,132,149. BEET-HARVESTER. OHMER H. BARTHOLOMEW, Beardstown, Ill. Original application filed Feb. 3, 1914, Serial No. 816,218. Divided and this application filed Sept. 22, 1914. Serial No. 862,989. (Cl. 55—107.)

1. The combination of a main frame, a supplemental frame pivoted at its rear ends to the sides of the main frame and projecting forwardly beyond the same, a cutter carried by the front end of the supplemental frame, a conveyer carried by said frame in rear of the cutter, means connected to the supplemental frame and engaging the main frame whereby the supplemental frame may be moved in the vertical plane about its pivotal connection to the main frame, actuating mechanism on the main frame, and a shaft mounted on the main and the supplemental frames and provided with a universal joint in axial alinement with the pivotal connection between the frames, the rear end of said shaft being operatively connected with the actuating mechanism and the front end thereof being operatively connected with the cutter and the conveyer.

2. The combination of a frame, a cutter mounted on the front end thereof, a horizontally disposed conveyer arranged in rear of the cutter, means for operating the cutter and the conveyer, and a guard consisting of a horizontal plate secured to the frame and extending across



the same adjacent the conveyer, and a vertical plate rising from the horizontal plate in rear of the conveyer.

1,132,150. WAX-THREAD AND METHOD OF MAKING THE SAME. HENRY ANSON BATES, Middletown, Conn. Filed Jan. 7, 1914. Serial No. 810,875. (Cl. 91—68.)

1. Waxed thread having its body filled with wax uniformly absorbed and distributed therethrough, and having an unglazed surface slightly adhesive at relatively low temperatures and without free or removable wax therein or thereon.

2. The method of waxing thread which consists in immersing it in a solution of wax, until the thread is entirely saturated, and then centrifugally expelling the surplus solution from the thread.

3. The method of waxing thread which consists in immersing it in a solution of wax, until the thread is entirely saturated, centrifugally expelling the surplus solution uniformly from all parts of the thread, and then partially drying the thread.

1,132,151. CURTAIN-FIXTURE. JOSEPH BECKER, Montclair, N. J. Filed Apr. 9, 1914. Serial No. 830,749. (Cl. 156—27.)



1. Shade roller supporting means including housings adapted to be secured to opposite sides of a window casing and having their opposed faces provided with vertically extending slots, shade roller holders slidably mounted in the slots, each holder within the housing having a latch engaging shoulder and a latch releasing cam portion spaced below the shoulder, latch members movably mounted in the housings, and means for raising and lowering the holders.

2. Shade roller supporting means including housings adapted to be secured to opposite sides of a window casing and having their opposed faces provided with vertically extending slots, and shade roller holders slidably mounted in the slots, each holder within the housing having a latch rod engaging shoulder and a latch releasing cam portion spaced below the shoulder, latch rods extending transversely of the housings and movable in diagonally extending slots formed in the walls of the housings, the slots being so proportioned that with the holders in elevated position, the latch rods will be passed beneath the shoulders.

3. Shade roller supporting means including housings adapted to be mounted at opposite sides of a window casing and including opposed vertically slotted faces and spaced side faces, the side faces adjacent their upper ends being provided with alined inwardly and downwardly inclined slots, latch rods extending transversely of the housings and extending at their ends through the inclined slots, being thereby movable by gravity toward the opposed faces of the housings, shade roller holders slidably mounted in the slots of the opposed faces of the housings, said holders having locking shoulders adapted for automatic engagement with the latch rods and cam portions adapted to disengage the latch rods from the shoulders, and means for raising and lowering the holders.

4. Shade roller supporting means including housings adapted to be mounted at opposite sides of a window casing and including opposed vertically slotted faces and spaced side faces, the side faces adjacent their upper ends being provided with alined inwardly and downwardly inclined slots, latch rods extending transversely of the housings and extending at their ends through the inclined slots, being thereby movable by gravity toward the opposed faces of the housings, shade roller holders slidably mounted in the slots of the opposed faces of the housings, said holders having locking shoulders adapted for automatic engagement with the latch rods and cam portions adapted to disengage the latch rods from the shoulders, and means for raising and lowering the holders, said means including stretches of cord secured at their ends to the holders, passed through a guide in the upper end of one of the housings and extending through the lower end of such housing.

5. Shade roller supporting means including housings adapted for attachment to opposite sides of a window casing and having their opposed faces provided with vertically extending slots, guides mounted in the upper portions of the housings, shade roller holders slidably mounted in the slots, a stretch of cord secured by one end to one of the holders and passed upwardly through the guide of said holder housing, from said holder housing to the other holder housing, through the guide of said latter housing and downwardly through the bottom of the said housing, the other stretch of cord being secured to the holder in the last mentioned housing, passed through the guide in such housing and extended downwardly adjacent the first stretch of cord.

[Claim 6 not printed in the Gazette.]

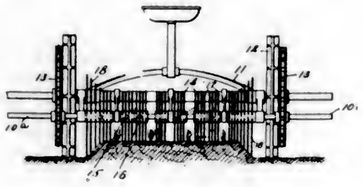
1,132,152. EARTHWORKING IMPLEMENT. HARRY L. BELL, Norfolk, Va. Original application filed Feb. 12, 1914, Serial No. 818,342. Divided and this application filed Apr. 27, 1914. Serial No. 834,657. (Cl. 97—62.)

1. An earth working implement comprising a brush adapted to straddle a truck bed or the like and having flaring peripheries at its opposite ends to accommodate the sloping sides of the truck bed.

2. In a cultivator, a shaft, a plurality of cultivator members mounted on the shaft adapted for operation on truck beds, the end cultivator members having peripheries conforming to the top edges and sides of the truck beds.

3. In a cultivator, a frame, a rotating shaft on the frame and a plurality of brushes mounted for adjustment

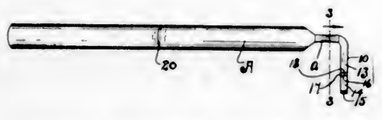
toward and from each other on the shaft adapted to operate on truck beds, the outer end brushes having outwardly flaring peripheries whereby to conform to the sides of the truck beds.



4. In a cultivator, a rotating shaft and a plurality of spring wire brushes mounted on the shaft for adjustment longitudinally thereon, the hubs of said brushes being divided into a number of sections adapted to be spaced apart whereby to divide the brushes up into a number of relatively small brush sections.

5. In a cultivator, a rotating shaft, and a plurality of brushes fixed to the shaft, the intermediate brushes having sectional hubs adapted to be spaced apart to accommodate a number of relatively close rows or drills, the outer brushes having outwardly flaring peripheries whereby to conform to the top of the edges and sides of the truck beds.

1,132,153. TIRE-TOOL. WILLIAM S. BIDLE, Cleveland, Ohio, assignor to The W. S. Bidle Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 13, 1914. Serial No. 838,268. (Cl. 157—6.)



1. A device of the character indicated having a shank and an arm which is arranged adjacent one end of and at an angle to the shank and has two sides facing forwardly and rearwardly respectively, said arm being provided at one side edge thereof and a suitable distance from the inner end of the arm with a shoulder facing in the direction of and spaced from the outer extremity of the arm.

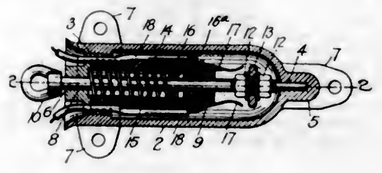
2. A device of the character indicated having a shank and an arm which is arranged adjacent one end of and at an angle to the shank and has two sides facing forwardly and rearwardly respectively and two side edges of unequal length extending from the inner end of the arm, which arm is provided with a shoulder facing in the direction of the outer extremity of the arm, which shoulder extends from a point between the aforesaid edges in the direction in which the shorter edge faces, said arm being reduced in width from said shoulder toward the outer extremity of the arm.

3. A device of the character indicated having a shank and an arm which is arranged adjacent one end of and at an angle to the shank and has two sides facing forwardly and rearwardly respectively, which arm is provided with a lug arranged between the inner and outer ends of the arm and projecting in the direction in which one side edge of the arm faces, one surface of said lug facing in the direction of the outer extremity of the arm and the opposite surface of said lug being inclined and facing in the direction in which the aforesaid edge faces and in the direction of the inner end of the arm and extending from the first-mentioned surface toward said edge.

4. A device of the character indicated having a shank and an arm which is arranged adjacent one end of and at an angle to the shank and has two sides facing forwardly and rearwardly respectively and two side edges of unequal length extending from the inner end of the arm, which arm is provided with a lug arranged at the outer end of the shorter side edge and projecting in the direction in which said edge faces, one surface of said lug facing in the direction of the outer extremity of the arm and the opposite surface of said lug being inclined and facing in the direction in which said last-mentioned edge faces and in the direction of the inner end of the arm and extending from the first-mentioned surface toward said last-mentioned edge.

5. A device of the character indicated having a shank and an arm which is arranged adjacent one end of and substantially at a right angle to the shank and has two sides facing forwardly and rearwardly respectively and two substantially parallel side edges of unequal length extending from the inner end of the arm, which arm is provided adjacent the outer end of the shorter side edge with a shoulder facing in the direction of the outer extremity of the arm and extending from a point between said side edges in the direction in which the shorter side edge faces, said arm being provided at the inner end of the shorter side edge with a lug projecting from said edge in the direction in which said edge faces, the aforesaid shoulder forming one surface of said lug and the opposite surface of said lug being inclined and facing in the last-mentioned direction and in the direction of the inner end of the arm and extending from the shoulder toward the last-mentioned edge.

1,132,154. ELECTRIC PULL-SWITCH. CHARLES A. BLILEY, Cripple Creek, Colo., assignor of one-half to Ernest A. Colburn, Jr., Victor, Colo. Filed Jan. 28, 1914. Serial No. 814,914. (Cl. 177—10.)

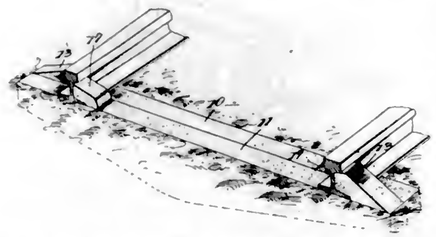


1. An electric pull-switch comprising a protective casing which is closed at oue of its ends and which at its opposite, open end has an internal screw-thread, a bored plug having a screw-thread coöperative with that in the casing, a circuit-controlling mechanism mounted in its entirety on the said plug and including a pull rod which is slidably fitted in a bore of the plug, to extend exteriorly of the casing, and conductors of electricity which are fitted in other bores of the plug to connect with the aforesaid mechanism.

2. An electric pull-switch comprising a protective casing which is closed at one of its ends and has at the said end an interior axial socket and which at its opposite, open end has an internal screw thread, a bore plug having a screw-thread coöperative with that in the casing, a circuit-controlling mechanism mounted in its entirety on the said plug and including a pull rod which is slidably fitted in the said socket and in a bore of the plug to extend exteriorly of the casing, and conductors of electricity which project through other bores of the plug, into the casing for connection with the said mechanism.

3. An electric pull-switch comprising a protective casing which is closed at one of its ends and which at its opposite open end has an internal screw-thread, a bored plug having a screw-thread coöperative with that in the casing, a bored block of non-conductive material fastened on said plug within the casing, electric contacts fastened on said block, a spring-held pull rod slidingly fitted in alined bores in said block and said plug to extend outside the casing, an insulated contact-member fastened on said rod to be brought into conductive engagement with said contacts by a sliding movement of the rod, and conductors of electricity fitted in other bores of said plug to connect with the said contacts.

1,132,155. RAILWAY-TIE AND BRACE. HENRY M. BODINE, Wichita, Kans. Filed Oct. 14, 1913. Serial No. 795,079. (Cl. 238—3.)

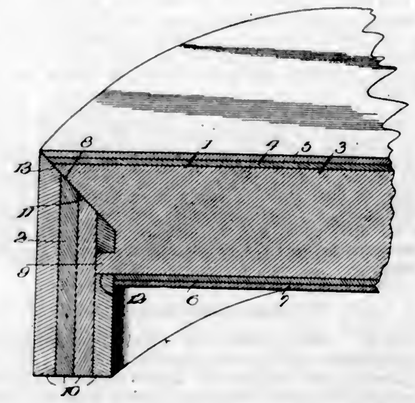


1. A rail tie including a body member bellied downwardly centrally and provided with a longitudinally extending brace member having its end portions bowed downwardly and directed laterally to provide anchoring terminals, and an additional longitudinally extending brace, the central portion of which is bowed downwardly.

2. A rail tie including a body member provided with spaced rail engaging shoulders, an upwardly bowed reinforcing element embedded in the body member, and a downwardly bowed reinforcing element embedded in the body member and having its end portions bent upwardly into the rail engaigng shoulders.

3. A tie including symmetrically formed, co-acting tie members, each member being bellied downwardly centrally and provided with a longitudinally extending brace member having its end portions bowed downwardly and directed laterally to provide anchoring terminals, rail engaging shoulders formed on each tie member, and means for securing the tie members together.

1,132,156. ROUNDTOP-WORK CONSTRUCTION. WILLIAM H. BOHNER, Knoxville, Tenn., assignor to Clay B. Atkin, Knoxville, Tenn. Filed Dec. 17, 1914. Serial No. 877,778. (Cl. 20—89.)

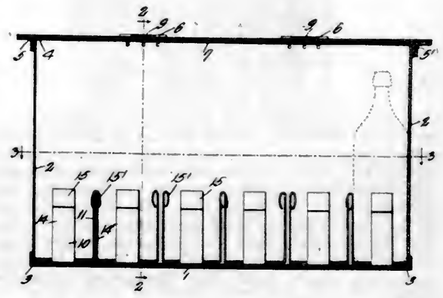


1. In wood work construction of the class described, a top including a core and a veneer ply, the edge of the core and ply being cut on a bevel, and a rim having an edge cut on a bevel and secured against the bevel of the core and veneer ply of the top, the rim at the upper edge of its bevel being flush with the upper surface of the veneer ply.

2. In wood work construction of the class described, a top including a core and a veneer ply, the edge of the core and ply being cut on a bevel, and a rim having an edge cut on a bevel and disposed with its bevel matching the bevel of the core and veneer ply and secured thereto.

3. In wood work construction of the class described, a top including a core and a veneer ply, the edge of the core and ply being cut on a bevel, and a rim having an edge cut on a bevel and disposed with its bevel matching the bevel of the core and veneer ply and secured thereto, the rim comprising assembled plies and the outer one of the said plies being of a thickness greater than the thickness of the veneer ply of the top, whereby to afford a support for the edge of the veneer ply of the top and the adjacent portion of the core of the top.

1,132,157. BOTTLE CRATE OR CASE. HENRY D. BOKOP, Defiance, Ohio. Filed Oct. 21, 1912. Serial No. 727,026. (Cl. 217—24.)



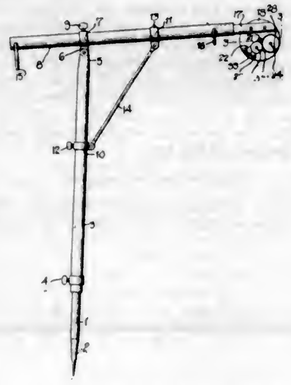
A bottle crate having mounted upon the bottom thereof within the crate, a plurality of bottle retainers, each retainer consisting of two U-shaped members, the terminals of which are curved to form resilient bottle engaging portions, the connecting portions of the members being disposed in cruciform shape and connected together and to the bottom of the crate, said retainers being arranged in a plurality of rows and spaced from each other, the retainers in one row alternating relatively to those in the adjacent rows to provide bottle receiving spaces between certain of the retainers and also certain of the retainers and the walls of the crate, the resilient terminals coacting with the bottles to maintain the bottles against movement, the curved portions of the terminals of each U-shaped member being bent so that one curved portion is inwardly while the other is outwardly thus providing bottle engaging means internally and externally of the holder.

1,132,158. COMBINED FISHING-ROD SUPPORT AND ALARM. HARVEY BREWER and JOHN K. SHANAMAN, Annville, Pa.; said Brewer assignor to George P. Speicher, Lebanon, Pa. Filed July 11, 1914. Serial No. 850,430. (Cl. 43—31.)

1. The combination with a supporting member adapted to support a fishing pole, of a line alarm mounted thereon comprising a plate attached to said support, a gong mounted on the plate, opposed rollers resiliently forced into frictional engagement with each other and adapted to receive the fishing line between them, a shaft operatively connected to one of said rollers, a toothed wheel mounted on the shaft, a striker oscillated by the toothed wheel, and means for guiding the line between said rollers.

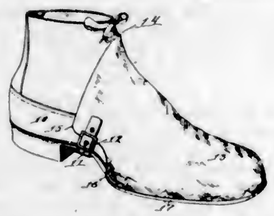
2. The combination with a supporting member adapted to support a fish pole, of a line alarm comprising a plate attached to said support, a gong mounted upon the plate,

stub shafts projecting from the plate, one of said shafts being loosely mounted, opposed contacting rollers mounted upon said shafts and between which the fishing line is adapted to pass, and a spring urging said loose shaft in a direction to force its roller against the opposed roller, and striking means operatively connected to the inner end of one of said shafts.



3. The combination with a fishing rod support, of a line alarm comprising a plate attached to said support, a hollow gong mounted upon said plate, a shaft extending through said plate, a toothed wheel mounted upon the inner end of the shaft, a spring striker engaged with said toothed wheel, a corrugated roller mounted upon the end of the shaft, a smooth faced roller supported in contact with the corrugated roller, the fishing line being adapted to pass between the two rollers, and means yieldingly urging the smooth faced roller against the corrugated roller.

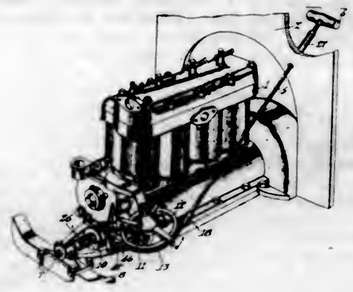
1,132,159. SHOE-PROTECTOR. JOSEPH B. CARR, Metamora, Ohio. Filed Jan. 27, 1914. Serial No. 814,736. (Cl. 36—72.)



1. A protector comprising an outer sole, an inner sole resting upon said outer sole, a second inner sole resting upon the first-mentioned inner sole, an upper having its edge portion at one side secured to said outer sole and being then extended between said inner soles and secured between the same, the remainder of the edge portion of the sole engaging portion of the upper extending between said outer sole and first-mentioned inner sole, and means carried by said upper for passing beneath the instep of a shoe to hold said protector upon a shoe.

2. A protector comprising an outer sole, inner soles carried by said outer sole, an upper having its edge portion at one side extending between said outer sole and one of said inner soles and secured in place, the edge portion at the opposite side of said upper being secured to said outer sole and being then extended between said inner soles and secured in place, and means carried by said upper for releasably holding said protector upon a shoe.

1,132,160. STARTING DEVICE FOR INTERNAL-COMBUSTION MOTORS. LOUIS A. CASGRAIN, Beverly, Mass. Filed June 26, 1912. Serial No. 705,923. (Cl. 123—185.)



1. A starting device for internal combustion motors having, in combination, a manually operated control, a one direction clutch adapted to be connected to the crank shaft of the motor, an idler pulley, connections between the rim of the pulley and the control, a cam, and connections between the cam and clutch whereby the constant force applied to the control is multiplied and an increasing torque is exerted upon the crank shaft.

2. A starting device for internal combustion motors having, in combination, a starting handle, a one direction clutch adapted to be connected to the crank shaft of the motor, a cam, a flexible connection between the cam and clutch, and connections between the cam and starting handle to rotate the cam as the starting handle is actuated and wind the flexible connection about the periphery of the cam.

3. A starting device for internal combustion motors comprising a driving ratchet, a plurality of pawls cooperating therewith, a cam engaging with the pawls and freely movable in the normal direction of rotation of the ratchet, and means for securing a relative rotation of the cam and driving ratchet when the ratchet is turned reversely to its normal direction of rotation to cause the cam to remove the pawls from engagement with the ratchet.

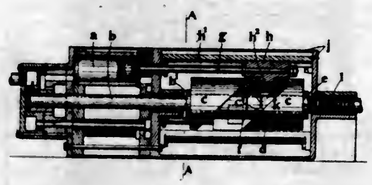
4. A starting device for internal combustion motors comprising a driving ratchet, a pawl engaging therewith, a cam plate engaging with the pawl and arranged to disengage the pawl from the ratchet when moved relative to the ratchet, means for yieldingly connecting the cam plate to the ratchet, and means for locking the cam plate against movement when the ratchet is rotated in one direction.

5. A starting device for internal combustion motors comprising a handle which is conveniently accessible to the operator, a starting shaft, a one direction clutch adapted to connect the starting shaft and crank shaft of the motor, a drive pulley mounted upon the starting shaft, an idler pulley, a cam secured to the hub of the idler pulley, a flexible connection between the periphery of the drive pulley and the periphery of the cam and a connection between the handle and the rim of the idler pulley.

[Claim 6 not printed in the Gazette.]

1,132,161. MECHANISM FOR THE CONVERSION OF RECIPROCATING INTO ROTARY MOTION. GEORGE CASSADY, New Westminster, British Columbia, Canada, and CONRAD FIELD MENDHAM, London, England. Filed Oct. 28, 1912. Serial No. 728,141. (Cl. 74—1.)

1. Mechanism for the transmission of motion, or for the conversion of reciprocating into rotary motion, consisting of a rotating body or driven member having an open groove or slot therein, said groove or slot having its faces flat and disposed in parallel planes, and a rectilineally reciprocating member or slide carrying a central boss or lug upon which are mounted the contact blocks which rotate on their axes and run within the open groove or slot in the rotating body or driven member, for operation in the manner for the purposes and substantially as described.



2. Mechanism for the transmission of motion comprising a rectilineally reciprocating member, a head member fixedly mounted on said reciprocating member, said head member being provided with a projecting lug, a spindle mounted in said lug, contact blocks rotatably mounted on said spindle, and a rotary member having an obliquely-disposed open slot or groove, said groove or slot having its faces flat and disposed in parallel planes, said contact blocks engaging in said slot or groove.

3. Mechanism for the transmission of motion or for the conversion of reciprocating into rotary motion comprising a driving and rectilineally reciprocating member, a head member fixedly mounted on said driving reciprocating member, said head member being provided with a projecting lug, a spindle mounted in said lug, contact blocks rotatably mounted on said spindle, and a rotary driven member having an obliquely disposed open slot or groove, said groove or slot having its faces flat and disposed in parallel planes, said contact blocks engaging in said slot or groove, so as to effect the rotation of the driven member.

4. Mechanism for the transmission of motion comprising a rectilineally reciprocating member, a head member fixedly mounted on said reciprocating member, said head member being provided with a projecting lug, a spindle mounted in said lug, contact blocks rotatably mounted on said spindle, and a rotary member having an obliquely-disposed open slot or groove, said groove or slot having its faces flat and disposed in parallel planes, said contact blocks engaging in said slot or groove, and means for taking up wear on the faces of the open slot or groove of the rotary member.

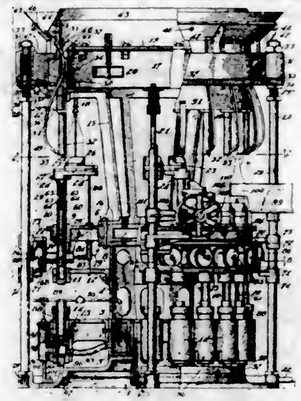
5. Mechanism for the transmission of motion or for the conversion of reciprocating into rotary motion comprising a driving and rectilineally reciprocating member, a head member fixedly mounted on said driving reciprocating member, said head member being provided with a projecting lug, a spindle mounted in said lug, contact blocks rotatably mounted on said spindle, and a rotary driven member having an obliquely disposed open slot or groove, said slot or groove having its faces flat and disposed in parallel planes, said contact blocks engaging in said slot or groove, so as to effect the rotation of the driven member, and means for taking up wear on the faces of the open slot or groove of the rotary member.

[Claims 6 to 9 not printed in the Gazette.]

1,132,162. BOTTLE-HANDLING MACHINE. HENRY J. CHILTON, Chicago, Ill. Filed Jan. 3, 1910. Serial No. 536,012. (Cl. 113—2.)

1. In a bottle handling apparatus, the combination with a rotary main frame, of a set of sealing devices rotating in said main frame, a set of bottle holding devices carried by said main frame and normally out of alinement with said set of sealing devices, means for shifting a portion of one set of said devices in alinement with the others, and means for yieldingly supporting the bottle holding devices during the operation of capping.

2. In a bottle handling apparatus, the combination with a rotary main frame, of a set of sealing devices rotating therewith, bottle holding devices carried by said main frame and normally out of alinement with said sealing devices, means for shifting members of one set of devices into alinement with the corresponding members of the other set, and an air cushion for yieldably supporting the bottle holders during the operation of capping.



3. In a bottle handling apparatus, the combination with a rotary main frame, of a set of sealing devices rotating therewith, bottle holding devices carried by said main frame and normally out of alinement with said sealing devices, and means for shifting the members of one set of devices into alinement with the corresponding members of the other set of devices.

4. In a bottle handling apparatus, the combination with a plurality of sealing devices, bottle holding devices associated therewith, means for bringing said devices into operative engagement, an air cushion for each of said bottle holding devices for yieldably supporting the latter during the operation of sealing, and a common air chamber having uninterrupted communications with said air cushions.

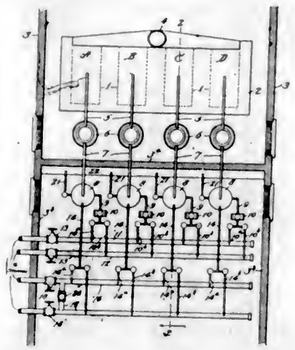
5. In a bottle capping machine the combination with a plurality of sealing devices, of a plurality of bottle holding devices associated therewith, a plunger for each bottle holding device, an air cushion chamber for each plunger in which the latter is yieldably supported during the operation of sealing, a common air chamber connected to each air cushion chamber and means for bringing the sealing devices and the bottle holders into operative relation.

[Claims 6 to 12 not printed in the Gazette.]

1,132,163. ART OF PETROLEUM DISTILLATION. EDGAR M. CLARK, Alton, Ill., assignor to Standard Oil Company, Whiting, Ind., a Corporation of Indiana. Original application filed Apr. 20, 1914, Serial No. 833,244. Divided and this application filed Oct. 24, 1914. Serial No. 868,362. (Cl. 196—21.)

1. In the art of treating liquid portions of the paraffin series of petroleum distillation having a boiling point of upward of 500° F. to obtain therefrom low boiling point products of the same series, the process which consists in heating the body of liquid material to drive off any contained water, then raising the temperature to a point at which cracking takes place, exerting and maintaining on the liquid body during such rise in temperature a pressure of the distillate of the same material in an advanced stage of distillation, whereby fractional distillation is prevented, and then proceeding with the cracking and distillation of the liquid body at such elevated temperature and under the pressure of the distilled material.

2. In the art of treating liquid portions of the paraffin series of petroleum distillation having a boiling point of upward of 500° F. to obtain therefrom low boiling point products of the same series, the process which consists in heating the body of liquid material to the desired cracking temperature, then proceeding with cracking and distillation at such temperature, exerting and maintaining on the liquid body during its rise in temperature from the boiling point of its lightest oil constituents a pressure of incondensable gases produced by advanced distillation of the same material.



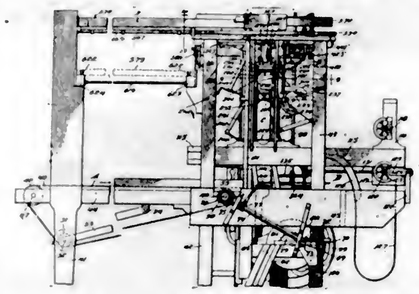
3. In the art of treating liquid portions of the paraffin series of petroleum distillation having a boiling point of upward of 500° F. to obtain therefrom low boiling point products of the same series, the process which consists in heating the body of liquid material to the desired cracking temperature, then proceeding with cracking and distillation at such temperature, exerting and maintaining on the liquid body during its rise in temperature from the boiling point of its lightest oil constituents, and during the subsequent cracking and distillation, a pressure of incondensable gases produced by advanced distillation of the material.

4. In the art of treating liquid portions of the paraffin series of petroleum distillation having a boiling point of upward of 500° F., to obtain therefrom low boiling point products of the same series, the method of simultaneously operating a plurality of stills, which consists in raising the temperature of one still to the desired cracking and distillation point, then proceeding with cracking and distillation at such temperature, exerting and maintaining on the liquid body in this still, during such rise in temperature and during the subsequent cracking and distillation, a pressure of incondensable gases produced by advanced distillation and cracking in another still.

1,132,164. MACHINE FOR AUTOMATICALLY WRAPPING, BINDING, AND TYING PACKAGES. ARTHUR J. COON, Washington, D. C., assignor of one-half to Francis M. Willis, Ithaca, N. Y. Filed Feb. 9, 1912. Serial No. 676,551. (Cl. 93—2.)

1. In a machine of the class described, the combination of means for moving the articles along a substantially straight path, means for holding a wrapper across said path to be engaged by the articles moving therealong, independent yieldably mounted plates having a central raised portion, and arranged to normally project into the path for drawing the wrapper around three faces of the article, and additional means for folding the wrapper against the remaining faces of the article.

2. In a machine of the class described, the combination of means for moving the articles along a substantially straight path, means for holding a wrapper across said path to be engaged by the articles moving therealong, independent pivotally mounted laterally yieldable plates having central raised portions and arranged on opposite sides of said path and normally projecting into the path, for drawing the wrapper around the faces of the article, and additional means for folding the wrapper against the remaining faces of the article.



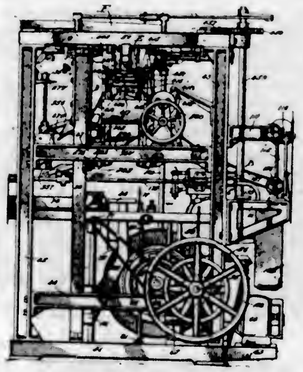
3. In a wrapping machine, an article supporting and moving platen, a plurality of cam actuated reciprocating rods having an operative connection with said platen, and a folding and article supporting and moving mechanism pivotally supported by said rods.

4. In a wrapping machine, a pivotally supported frame adapted to impart upward movement to the article to be wrapped, means for moving said frame vertically, means for rocking said frame on its supporting pivots at the end of its upward movement and means for supporting the article after said frame has been withdrawn therefrom.

5. In a wrapping machine, the combination of means for moving the article to be wrapped, and a plurality of spring pressed pivotally supported wipers arranged in the path of travel of the article, said wipers consisting of rectangular plates formed with a central raised portion.

[Claims 6 to 18 not printed in the Gazette.]

1,132,165. MACHINE FOR AUTOMATICALLY WRAPPING, BINDING, AND TYING PACKAGES. ARTHUR J. COON, Providence, R. I., assignor of one-half to Francis M. Willis, Ithaca, N. Y. Filed Oct. 25, 1913. Serial No. 797,235. (Cl. 92—2.)



1. The combination of means for applying a wrapper to an article, means for passing a plurality of binders around the article in right-angularly disposed planes to secure the wrapper thereon, and means for securing the ends of the binders.

2. The combination of means for applying a wrapper to an article, means for passing a plurality of binders around the article in right-angularly disposed planes to secure the wrapper thereon, and means for tying the ends of the binders.

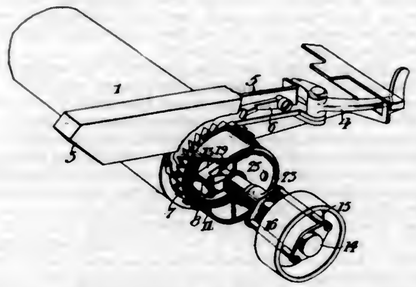
3. The combination of means for applying a wrapper to an article, means for passing a plurality of binders around the article to secure the wrapper thereon, and means for grouping and securing all of the ends of the binders together.

4. The combination of means for applying a wrapper to an article, means for passing a plurality of binders around the article to secure the wrapper thereon, and means for grouping and tying all of the ends of said binders together.

5. The combination of means for applying a wrapper to an article, means for passing binders around all of the faces of the article, and means for securing the ends of the binders.

[Claims 6 to 106 not printed in the Gazette.]

1,132,166. TYPE-WRITING MACHINE. CORNELIUS B. CORCORAN, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 14, 1913. Serial No. 800,937. (Cl. 197—123.)



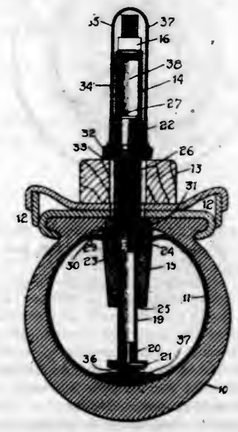
1. In a typewriting machine in combination an axle, a platen fixed thereon and provided with a finger wheel, a line-space wheel adapted to turn on said axle, a series of teeth cut on the outside face of the line-space wheel, a yoke fixed upon the axle, a spring-pressed tailed dog pivoted in said yoke, adapted to engage said teeth, a sliding sleeve on the axle adapted to engage the tail of said dog to release the dog from engagement with the said teeth, a loose collar on said sleeve, a stem connected to said collar and passing through the finger wheel at one side of the axle, and a push button mounted on said stem outside the finger wheel.

2. In a typewriting machine in combination an axle, a platen fixed thereon and provided with a finger wheel, a line-space wheel adapted to turn on said axle, a series of teeth cut on the outside face of the line-space wheel, a yoke fixed upon the axle, multi-toothed spring-pressed tailed dogs pivoted in said yoke, adapted to engage said teeth, a sliding sleeve on the axle adapted to engage the tails of said dogs to release the dogs from engagement with the said teeth, a loose collar on said sleeve, stems connected to said collar and passing through the finger wheel, and a push button connecting said stems and adapted to move into the recess of said finger-wheel when pressure is applied to said button.

3. In a typewriting machine in combination an axle, a platen fixed thereon and provided with a finger wheel, a line-space wheel adapted to turn on said axle, a series of teeth cut on the outside face of the line-space wheel, a yoke fixed upon the axle, spring-pressed multi-toothed dogs pivoted in said yoke, each provided with teeth adapted to fit the said series of teeth and spaced so that said engagement of one dog is half a tooth in advance of the engagement of the other dog, a sliding sleeve on the axle adapted to engage the tails of said dogs to release the dogs from engagement with the said teeth, a loose collar on said sleeve, stems connected to said collar and passing through the finger wheel, and a push button connecting said stems and adapted to move into the recess of said finger wheel when pressure is applied to said button.

4. In combination with a platen fixed upon an axle, a line-space wheel loose on said axle, a series of fine teeth on the side of said line-space wheel, a grooved casing formed on said line-space wheel, dogs pivoted in a yoke fixed on the axle within said casing, an adjustable collar on said axle engaging said line-space wheel to keep said line-space wheel within the range of said dogs, to permit the latter to engage the fine teeth on the line-space wheel to hold it to the axle under the protection of the casing, and a removable cover provided with ears for engaging the groove in the casing.

1,132,167. AUTOMATIC TIRE-PUMP. FRANK C. CRAW, South Norwalk, Conn. Filed Aug. 13, 1913. Serial No. 784,584. (Cl. 152—11.)



1. A pump of the character described comprising a body having at one end a head adapted for attachment to a tire and to lie within the tire, and at its other end an inwardly operating valve, a tubular piston having at one end a head adapted to engage the wall of a tire and at its other end an inwardly operating valve, a stationary plug within the piston and secured to the body and a spring within the piston and connected to the stationary plug and to the piston, said spring acting to retain the head of the piston in engagement with the wall of the tire until the pressure within the tire overcomes the strength of the spring when the piston will be raised out of engagement with the tire.

2. A pump of the character described comprising a body having at one end a head adapted to lie within a tire and at its other end an inwardly operating valve, a tubular piston having slots and at one end a head adapted to engage the wall of a tire and at its other end an inwardly operating valve, a stationary plug within the piston, a pin passing through the slots and attaching the plug to the body and a spring connected to the plug and to the piston.

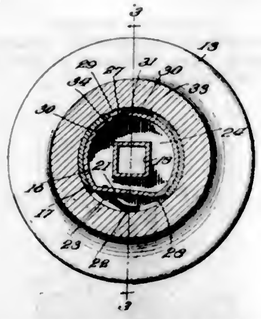
3. A pump of the character described comprising a body adapted for attachment to a tire and having at its outer end a plug with a longitudinal hole and an inwardly operating valve, a tubular piston having at its outer end a hollow plug with an inwardly operating valve, a stationary plug within the piston and secured to the body and a spring connected to the stationary plug and to the plug in the end of the piston.

4. The combination with a tire, a pump body having a head within the tire and an inwardly operating valve at the outer end of the body, of a tubular piston having an inwardly operating valve, a stationary plug within the piston and secured to the body and a spring connected to the stationary plug and to the piston.

5. The combination with a tire and a pump body having a head within the tire and an inwardly operating valve at

its outer end, of a tubular piston having an inwardly operating valve and a head adapted to engage the tire, a stationary plug within the piston, means for securing the plug to the body leaving the piston free to reciprocate and a spring connected to the plug and to the piston.

1,132,168. TROLLEY-WHEEL. HARRY R. DAVIDSON, Lackawanna, N. Y. Filed Dec. 1, 1913. Serial No. 804,017. (Cl. 64—26.)



1. A trolley wheel including a hollow annular hub, a separable sleeve fixed about the hub, the hub and sleeve having registering openings and a wheel body proper mounted on and for rotation about the sleeve.

2. A trolley wheel including a hollow annular hub apertured to receive a squared axle and provided with an annular oil chamber, a separable sleeve surrounding the hub and fixed thereto, a wheel proper mounted upon and to revolve about the sleeve, and means for supplying oil from the chamber and through the sleeve to the bearing surfaces of the wheel proper and sleeve.

3. A trolley wheel including a hollow annular hub apertured to receive a squared axle and provided with an annular oil chamber, a separable sleeve surrounding the hub and fixed thereto, a wheel proper mounted upon and to revolve about the sleeve, and means for supplying oil from the chamber to the bearing surfaces of the wheel proper and sleeve, said means including a wick extending through slots formed in the hub and sleeve and bearing against the inner face of the wheel.

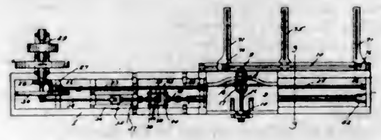
4. A trolley wheel including a cylindrical hub apertured to receive a squared axle and provided with an annular oil chamber, a separable sleeve surrounding the hub and fixed thereto, a wheel proper mounted to revolve about the sleeve, and means for supplying oil from the chamber to the bearing surfaces of the wheel proper and sleeve, said means including a wick extending through slots formed in the hub and sleeve and bearing against the inner face of the wheel, and a holder for the wick.

5. A trolley wheel including a hub adapted to receive a squared axle and provided with an annular oil chamber and a slot in its peripheral face communicating with the chamber, a sleeve surrounding the hub and fixed thereto, the sleeve being provided with a slot in alinement with the slot of the hub, a wheel proper rotatably mounted about the sleeve, a wick extending by one end into the oil chamber and seating by its other end in the slot of the sleeve, and a wick holder including a body member seating in the slot of the sleeve and having wick engaging teeth, and an extension projecting through the slot of the hub into the oil chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,132,169. SPACING-MACHINE. NORRIS KING DAVIS, Hillsboro, Cal. Filed Dec. 11, 1913. Serial No. 805,905. (Cl. 164—117.)

1. In a machine of the class described, the combination with a fixed track, a carriage slidable along said track, means adjustable at will for intermittently feeding the carriage along the track, a tool carried by the carriage, means for supporting the material to be operated on by said tool, and independent means for positioning the tool into operative engagement with the material during the non-movement of said carriage on said track.



2. In a machine of the class described, the combination with a fixed track, a carriage slidable along said track, a tool carried by the carriage, means adjustable at will for intermittently feeding the carriage along the track in either direction, means for supporting the material to be operated on by said tool, independent means for positioning the tool into operative engagement with the material during the idle period of said carriage on said track, and means for locking the carriage from movement during the operation of the tool in the material.

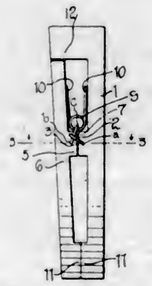
3. In a machine of the class described, the combination with a fixed track, a carriage slidable along said track, a tool carried by the carriage, means adjustable at will for intermittently feeding the carriage along said track in either direction, means for adjusting the movement of said feeding means, means for supporting the material to be operated on by said tool, and means for positioning the tool into operative engagement with the material during the idle period of said carriage on said track.

4. In a machine of the class described, the combination with a supporting track, a carriage slidable along said track, a tool carried by said carriage, reciprocating means for intermittently feeding said carriage along said track, locking means carried by said carriage for engaging said reciprocating means on the movement thereof in one direction, and means for positioning the tool in operative engagement with the material to be worked during the idle period of said carriage on said track.

5. In a machine of the class described, the combination with a supporting track, a carriage slidable along said track, a tool carried by said carriage, means for operating said tool, reciprocating means for feeding said carriage along said track, means carried by said carriage for engaging said reciprocating means on the movement thereof in one direction, means for intermittently reciprocating said reciprocating means, and means for adjusting the movement of said reciprocating means.

[Claims 6 to 10 not printed in the Gazette.]

1,132,170. CLOTHES-PIN. AARON DEWINSKY, Bethlehem, Pa. Filed June 15, 1914. Serial No. 845,204. (Cl. 24—253.)



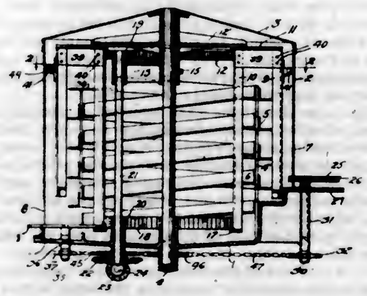
A device of the character described comprising two relatively movable members, each of such members being provided with a transverse lug adapted to be disposed in superimposed relation, a pivot member for such jaws formed from a single piece of material and bent to provide substantially parallel strands, each of which being directed through a lug of a jaw, the free extremity of one of such strands being formed into a hook through which the second strand is directed, said second strand having its extremity formed into a hook to engage the connecting portion of the strands, and a coil spring interposed between the members and having its opposite extremities extended and in engagement with such members to maintain the same normally in contact, second strand of the pivot member being disposed through the convolutions of the coil spring to maintain such coil spring in operative position.

1,132,171. MANUFACTURE OF PHOSPHATE COMPOUNDS FOR MANURES AND FERTILIZERS. ALEXANDER DICKSON, Dublin, Ireland. Filed Sept. 12, 1914. Serial No. 861,450. (Cl. 71—9.)

1. In a manure or fertilizer the method of producing available phosphates from insoluble phosphates according to which the insoluble phosphates are added to the recovered solids from sewage waste and the like and the mass is then subjected to desiccation effected at such a temperature as will not destroy the organic constituents of the sludge whereby to concentrate the acids to such degree as to re-act upon the phosphates and render such phosphates available for the purpose described.

2. In a manure or fertilizer the method of producing available phosphates from insoluble phosphates according to which the insoluble phosphates are added to the recovered solids from sewage waste and the like and the mass is then subjected to desiccation effected in a temperature between 400° and 600° Fr. substantially as and for the purpose described.

1,132,172. EXHAUSTER. ARTHUR L. DUNCAN, Fruitvale, Cal., assignor of one-third to Charles E. Forry and one-third to E. H. Duncan, Fruitvale, Cal. Filed Apr. 9, 1914. Serial No. 830,826. (Cl. 193—1.)



1. In a device of the class described, a housing, a can-way therein comprising a single substantially L-shaped trackway, a series of vertically disposed substantially L-shaped pusher-bars disposed adjacent the outer edge of the horizontal portion of said single track-way, and means for operating said pusher-bars laterally to propel cans on said can-way.

2. In a device of the class described, the combination with a housing, two concentric spirally arranged can-ways therein, the two being inclined in a direction opposite to each other and each formed of a single substantially L-shaped track-way, said track-ways communicating at one end, and means for propelling cans along said track-ways.

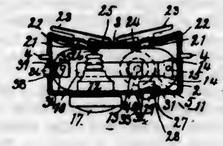
3. In a device of the class described, the combination with a housing, two concentric spirally arranged can-ways therein, the two being inclined in a direction opposite to each other and each formed of a single substantially L-shaped track-way, said track-ways communicating at one end, means for propelling cans along said track-ways, and means for shifting the cans from one track-way to another at the joining point thereof while being propelled along said track-ways.

4. In a device of the class described, the combination with a housing, two substantially L-shaped oppositely disposed concentric spirally arranged single track-ways therein for the conveying of cans, the two being inclined in a direction opposite to each other, and means for propelling the cans along said single track-ways.

5. In a device of the class described, the combination with a housing, two substantially L-shaped oppositely disposed concentric spirally arranged single track-ways therein each adapted for the conveying of cans, the two being inclined in a direction opposite to each other, means connecting said single track-ways at one end, means for conveying cans along said track-ways, and means for shifting the cans from one track-way to the other at the joining point thereof while being propelled along the same.

[Claims 6 to 9 not printed in the Gazette.]

1,132,173. FLASH-LIGHT. ARTHUR J. DUPONT, Adams, Mass. Filed Mar. 19, 1914. Serial No. 825,812. (Cl. 240—8.5.)



1. As an improved article of manufacture, a flash-light attachable to the back of the hand, and comprising a case having a concave front and a flat back, and provided with illuminting means, switch members in said case, and a parallel-sided battery in said case.

2. As an improved article of manufacture, a flash-light attachable to the back of the hand, and comprising a case provided with a lamp, and further provided with a switch member for such lamp, such switch member extending out of the case and having a substantially flat finger-engaging part at its free end, and being, furthermore, offset forwardly to bring said part into operative position behind the fingers of such hand when the device is in place.

3. As an improved article of manufacture, a flash-light attachable to the back of the hand, and comprising a case provided with a lamp, and further provided with a switch member for such lamp, such switch member being in the form of a T at its outer end, whereby such end may be engaged by two or more fingers.

4. As an improved article of manufacture, a flash-light attachable to the back of the hand, and comprising a case provided with a plurality of lamps, and further provided with switch members, such switch members being forwardly offset and substantially flat T-shaped at their outer terminals, whereby each of such terminals is capable of being engaged by two or more fingers.

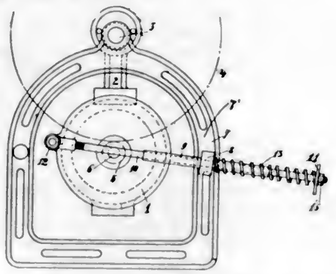
5. The combination, in a flash-light, with a case provided with a plurality of lamps, of a battery having three terminal pieces, two of which form one pole contacting with said lamps, switch levers for said lamps, and a switch arranged to make and break contact with the battery terminal piece from the other pole.

[Claims 6 to 10 not printed in the Gazette.]

1,132,174. DRIVING MECHANISM. JUSTUS FEYER, Barmen, Germany. Filed Sept. 14, 1911. Serial No. 649,282. (Cl. 74—7.)

1. A driving mechanism for looms comprising a frame, a shaft journaled in the frame, a rod depending from the shaft, a motor carried by the rod, a second shaft having one end thereof pivotally secured to the motor, a sleeve

rotatably mounted on the second mentioned shaft, a collar on the sleeve, and means between the collar and opposite end of the second mentioned shaft for receiving the initial movement of the motor.

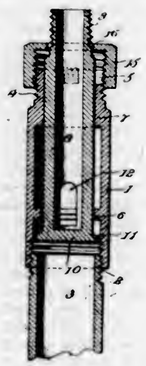


2. In a driving mechanism, a frame, a shaft supported by the frame, a motor supported by the shaft, a groove in the frame, a rod pivotally secured to the motor, means on the rod for receiving the initial movement of the motor, and means carried by the rod for engaging the walls of the groove for guiding the rod.

3. A driving mechanism for looms comprising a frame, a motor supported by the frame, a rod associated with the motor, means on the rod for receiving the initial movement of the motor, and means on the frame for restricting the movement of the rod.

4. A driving mechanism comprising a frame having a groove, a motor supported by the frame, a rod having one extremity pivotally connected to the motor, a collar on the rod, the collar adapted to move in the groove, and resilient means between the opposite end of the rod and collar for receiving the initial movement of the motor.

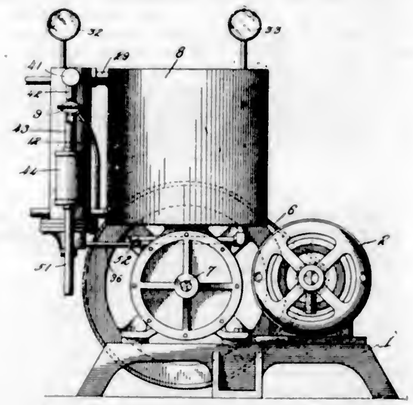
1,132,175. DEVICE FOR REGULATING FLOW OF A FLUID. FRANK FILCZER, Lorain, Ohio. Filed May 13, 1914. Serial No. 838,345. (Cl. 137—69.)



1. The combination of inner and outer tubes constructed to permit flow through the tubes or cut off the same, a grooved projection on the inner tube, and a nut threaded upon the end of the outer tube and said projection on the inner tube to secure the tubes in set relative position.

2. A device for the purpose set forth comprising inner and outer tubes constructed to permit or cut off flow through the tubes, the outer tube being provided with a recess in its front extremity, a projection on the inner tube adapted to engage said recess, and a nut threaded on the outer tube and said projections for locking the tubes in their relative axial positions.

1,132,176. REFRIGERATING AND ICE-MANUFACTURING MEANS. ALFRED O. GIRARD, Milwaukee, Wis. Filed Feb. 4, 1913. Serial No. 746,252. (Cl. 62—115.)



1. In a machine of the class described, the combination of a pump having a cylinder and a crank case, tortuous conduits connected with the induction orifice and eduction orifice, respectively, of the pump, means for cooling the pump and the said tortuous conduits, and a by-pass conduit intermediate the crank case of the pump and one of the said tortuous conduits.

2. In a machine of the class described, a receptacle having an outlet, means for supplying the same with a cooling agent, a pump having a cylinder disposed in the receptacle, a tortuous conduit disposed in the receptacle and connected at one end with the induction orifice of the pump, a second tortuous conduit disposed in the receptacle and connected with the eduction orifice of the pump; the said conduits being designed to be connected with a refrigerating conduit, means for utilizing the pressure in the second-named conduit to control the supply of cooling agent to the receptacle, and a by-pass conduit 56 adapted to be connected with the refrigerating conduit and connected with the induction orifice of the pump.

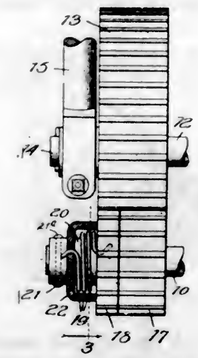
3. In a machine of the class described, a pump cylinder having induction and eduction orifices and valve chambers and also having an outwardly-seating valve in one chamber and an inwardly-seating valve in the other chamber and removable plugs normally closing said valve chambers, conduits connected with the induction and eduction orifices, and valves in said conduits and arranged to be seated toward the said orifices of the pump to close the conduits to the valve chambers when the plugs are removed.

4. In a machine of the class described, a receptacle having an outlet, means for supplying the same with a cooling agent, a pump having a cylinder disposed in the receptacle and also having a crank case, a worm of pipe disposed in the receptacle and about the cylinder and connected with the induction orifice of the pump, a by-pass conduit intermediate the crank case and said worm of pipe, a second worm of pipe disposed in the receptacle and about the cylinder and connected with the eduction orifice of the pump, an oil separator connected with the second-named worm of pipe, a conduit for carrying oil from said separator to the crank case of the pump, and expansion means connected with and adapted to receive ammonia from the said separator; the first-named worm of pipe and the expansion means being designed to be connected with a refrigerating conduit, and means for utilizing the pressure in the circulating system to control the supply of cooling agent to the receptacle.

5. In a machine of the class described, a receptacle having an outlet, means for supplying the same with a cooling agent, a pump having a cylinder disposed in the receptacle and also having a crank case, a worm of pipe disposed in the receptacle and about the cylinder and connected with the induction orifice of the pump, a conduit connected with said worm of pipe at a point remote from the induction orifice of the pump and designed to be connected with a refrigerating conduit, a by-pass conduit intermediate the crank case and said conduit, a by-pass conduit intermediate the first-named conduit and the induction orifice of the pump, a second worm of pipe disposed in the receptacle and about the cylinder and connected with the eduction orifice of the pump, an oil separator connected with the second-named worm of pipe, a conduit for carrying oil from said separator to the crank case of the pump, expansion means connected with and adapted to receive ammonia from said separator, a conduit connected to said expansion means and designed to be connected with the refrigerating conduit, and means for utilizing the pressure in the circulating system to control the supply of cooling agent to the receptacle.

[Claims 6 to 10 not printed in the Gazette.]

1,132,177. TRANSMISSION MECHANISM. FRANK M. GOODHUE, Van Nuys, Cal. Filed Mar. 25, 1914. Serial No. 827,057. (Cl. 74—28.)

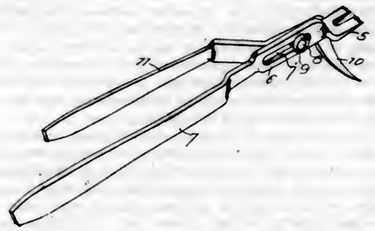


1. The combination of a gear, means connected therewith and operating in the rotation of said gear to exert on the latter force tending to rotate it in one direction throughout a part of its revolution, and to resist the movement of said gear during the remainder of its revolution, a driving-gear meshing with said first-named gear, a third gear meshing with said first-named gear, a cap-member fixed on the shaft of said driving-gear, a spring connected at one end with said cap-member and at its opposite end with said third gear and operating to yieldingly force said third gear in a direction contrary to the direction of rotation of said driving-gear.

2. The combination of a gear, means connected therewith and operating in the rotation of said gear to exert on the latter force tending to rotate it in one direction throughout a part of its revolution, and to resist the movement of said gear during the remainder of its revolution, a driving-gear meshing with said first-named gear, a third gear meshing with said first-named gear, a sleeve rigid with said third gear, a cap-member fixed on the shaft of said driving-gear, a spring encircling said sleeve and engaging said third gear and said cap-member at its opposite ends and operative to yieldingly force said third gear in a direction contrary to the direction of rotation of said driving-gear.

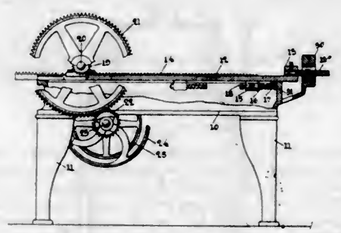
1,132,178. NAIL-PULLER. GEORGE W. GRANT, Bangor, Me. Filed Aug. 24, 1914. Serial No. 858,291. (Cl. 254—27.)

1. A nail puller, comprising handles pivotally connected together, one of the handles terminating in a spur and the other handle terminating in a claw, each handle having a shank portion, one of the shank portions having a slot, a pivot pin secured to the opposite shank, said pin adapted to move in said slot whereby the pivot point between the handles is changed during the manipulation of the handles.



2. In a nail puller, a nail pulling element comprising a claw, a shank and offset handle, an anchoring member comprising a spur shank and offset handle, one of the shanks having an elongated slot, a pivot pin carried by the anchoring member and adapted to operate in the elongated slot to allow an adjustment of the pivot pin of the anchoring member and the nail pulling element whereby the initial position of the spur will be adjacent the claw.

1,132,179. KEY-SEATING MACHINE. CHESTER HACKING, Pawtucket, R. I., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 13, 1914. Serial No. 856,538. (Cl. 90—41.)



1. In a machine of the class described, in combination, a frame, a pinion rotatably mounted in said frame, means to drive said pinion in two directions, a longitudinally movable tool, a rack bar supporting said tool, normally meshing with said pinion and movable thereby, said rack bar being slidable in said frame into a position out of engagement with said pinion, and a spring-pressed plunger mounted on said rack bar and engaging a fixed stop on the frame as the rack bar approaches the end of its working stroke, said plunger being effective to insure engagement of the rack teeth with the pinion when the direction of rotation of the pinion is reversed.

2. In a machine of the class described, in combination, a frame, a pinion rotatably mounted in said frame, means to drive said pinion in two directions, a longitudinally movable tool, a rack bar supporting said tool, normally meshing with said pinion and movable thereby, said rack bar being slidable in said frame into a position out of engagement with said pinion, a yielding member and a fixed member, one of said members being mounted on said rack bar and said members coöperating to yieldingly force the teeth on said rack bar into engagement with said pinion when the rotation thereof is reversed.

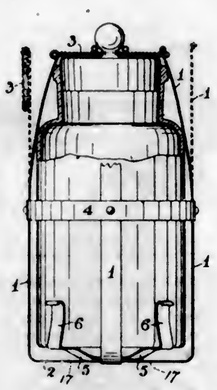
3. In a machine of the class described, in combination, a frame, a pinion rotatably mounted in said frame, means to drive said pinion in two directions, a longitudinally movable tool, a rack bar supporting said tool, normally meshing with said pinion and movable thereby, said rack

bar being slidable in said frame into a position out of engagement with said pinion, and means to yieldingly force said rack bar rearwardly toward said pinion, thereby causing the teeth in the rack bar to engage said pinion as the pinion is reversed.

4. In a machine of the class described, in combination, a frame, a pinion rotatably mounted in said frame, means to drive said pinion in two directions, a longitudinally movable tool, a rack bar supporting said tool, normally meshing with said pinion and movable thereby, said rack bar being slidable in said frame into a position out of engagement with said pinion, and means to automatically restore the operative relations between said bar and said pinion at the reversal of the pinion.

5. In a machine of the class described, in combination, a frame, a pinion rotatably mounted in said frame, means to drive said pinion in two directions, a longitudinally movable tool, a rack bar supporting said tool, normally meshing with said pinion and movable thereby, said rack bar being slidable in said frame into a position out of engagement with said pinion, a depending projection on said rack bar, a rod slidable therein, and a spring normally forcing said rod away from said pinion, whereby when said rod engages a fixed portion of the machine the reaction of said spring forces the rack bar yieldingly rearward and is effective to insure coöperative engagement of the teeth of said rack bar with said pinion when the rotation of the pinion is reversed.

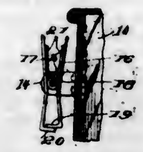
1,132,180. HOLDER FOR BOTTLES, JARS, AND OTHER LIKE VESSELS. EDWARD HALES, West Bromwich, England. Filed Oct. 16, 1913. Serial No. 795,529. (Cl. 215—3.)



1. In a packing for jars, bottles and other like vessels, the combination of a pair of bent resilient strips placed crosswise one over the other and secured together, the ends of which are bent upward to form a shell or cradle for the vessel, a strap embracing these upstanding strips at approximately their mid-length, and elastic bands or loops stretched over the top of the jar or vessel and engaged by the upstanding strips at opposite sides, in such manner as to bend the strips inward above the strap against the upper portion of the vessel.

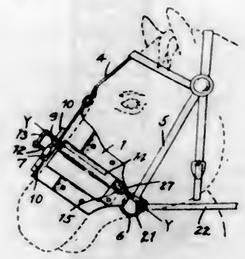
2. A packing for jars or the like, comprising in combination, a resilient holder adapted to embrace the lower end of a jar, said holder being capable of yielding, with said jar, to cushion a shock or impact which may be imparted to the jar; a plurality of spring arms extending upwardly from said holder and spaced away therefrom and from the lower portion of the jar; and means for drawing the upper ends of said arms inwardly into contact with the upper end of the jar and yieldingly holding the same in such position.

1,132,181. BAG-HOLDER. THOMAS F. HAWKE, Lewistown, Pa. Filed Apr. 30, 1914. Serial No. 835,557. (Cl. 83—26.)



In a device of the class described a tubular support, a plurality of ears arranged in pairs and extending radially from said support, each of said ears having an upwardly directed open socket and inclined toward the support, and a bag holding device for each of said pairs of ears having coacting jaws and a transverse pivot, said pivot being extended at its terminals to detachably engage in the sockets of the ears.

1,132,182. BRIDLE. ANDREW J. HENTSCHEL, Schulenburg, Tex. Filed Apr. 20, 1914. Serial No. 833,261. (Cl. 54—15.)



1. A device of the class described comprising, a frame, levers pivoted to said frame, presser members on one end of each of said levers, links connected to the other ends of said levers, operating rods connected to said links, spring means for holding said levers in inoperative position, tubular casings mounted on said frame and inclosing said rods and said spring means, and means operatively connected to said casings for varying the tension of said spring means.

2. In a bridle, a frame constructed and arranged to bridge the nostrils of a horse, levers pivoted thereto and arranged to engage the nostrils of the horse, means for operating said levers, spring means for returning said levers to inoperative positions, and means to vary the tension of said spring means.

1,132,183. BATTERY-SEPARATOR. CHARLES P. HIDDEN, New York, N. Y. Filed Aug. 5, 1910. Serial No. 575,814. (Cl. 204—29.)



1. A storage battery separator comprising a layer of particles of insulating material contiguously arranged to form a thin sheet, said particles being united to each other at spaced points to provide minute interstices therebetween.

2. A storage battery separator comprising a single layer of particles of insulating material contiguously arranged to form a sheet, said particles being united to each other at spaced points to provide minute interstices therebetween.

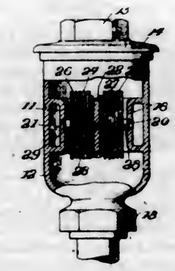
3. A unitary separator comprising a plurality of thin flexible spaced porous walls united by connecting masses, the extent of which in either and both directions, measured lengthwise or crosswise of said separator, is less than the total thickness of said separator.

4. In a battery separator, integrally united particles disposed side by side to form a wall, portions of the peripheral surfaces of said particles being spaced from corresponding portions of adjoining particles to form pores extending through said walls, the axis of each of said pores being substantially a right line.

5. In a separator, a relatively large number of distinct elements of small breadth and thickness united together to form a porous wall, said elements having interstices therebetween constituting the pores of said wall, said wall being thin and resilient, a second thin porous wall, and means for spacing said walls apart to form a conduit therebetween.

[Claims 6 to 24 not printed in the Gazette.]

1,132,184. STEAM-TRAP. CHARLES B. HOWARD, Brockton, Mass. Filed Feb. 3, 1914. Serial No. 816,248. (Cl. 236—10.)



1. A steam trap including a body casing, and a multiple thermostatic valve removably mounted therein, the valve including a plurality of thermally expansible body members, and a valve head carried by each of said body members, the separate elements of said valve being connected to form a unitary structure whereby they may be applied to or removed from the casing as a unit.

2. A steam trap including a body casing, a centrally arranged, substantially U-shaped partition dividing said body casing into independent chambers, one of which constitutes the inlet and the other constitutes the outlet for the steam, there being ports effecting communicaion between the chambers, and a thermostatic valve arranged in one of the chambers and adapted to seal the communicating ports between the two chambers in accordance with pre-determined variations in temperature in the chamber within which the valve is arranged.

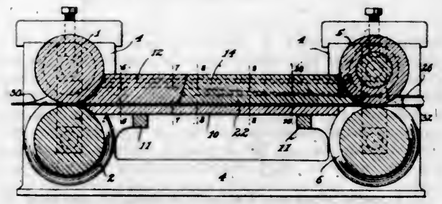
3. A steam trap including a body casing, a partition dividing said body casing into independent chambers, one of said chambers constituting an inlet and the other of said chambers constituting an outlet for the steam, there being a plurality of ports effecting communication between the chambers, and a multiple thermostatic valve arranged in one of the chambers, said valve including a plurality of thermally expansible body members connected to form a unitary structure and adapted to expand and contract independently of each other in response to different temperatures, and a valve head carried by each of said body members, each of said valve heads being seatable in one of said ports.

4. A steam trap including a body casing, partitions dividing said casing into independent chambers, there being ports effecting communication between the chambers, a thermostatic valve arranged in one of the chambers and adapted to seal the ports between the chambers in response to pre-determined variations in temperature in the casing, said valve including a plurality of independent thermally expansible elements, each containing a substance having a relatively high ebullitional co-efficient, the substances contained within the different elements being of different ebullitional co-efficients whereby the elements will expand or contract independently of each other to successively seal the ports between the chambers.

5. A steam trap including a body casing, and a multiple thermostatic valve removably mounted therein, said valve including a removable supporting plate, a plurality of expansible body members secured thereto, said body members having different ebullitional co-efficients whereby they may respond independently of each other to different temperatures, and valve heads carried by said body members.

[Claims 6 to 11 not printed in the Gazette.]

1,132,185. APPARATUS FOR MAKING C-BARS. ROBERT M. HUBLER and DANIEL E. JONES, Elyria, Ohio, assignors to The Elyria Iron & Steel Company, Elyria, Ohio, a Corporation of Ohio. Filed Dec. 6, 1913. Serial No. 805,033. (Cl. 153—3.)



1. In a device for bending strips into C-bars comprising an arcuate portion and plane wings extending from the sides thereof and lying substantially in the same plane and having their inner edges separated, the combination of a forming guide adapted to progressively bend the wings until they lie substantially in the same plane, a pair of finishing rolls, and a tongue carried by one of the rolls and extending between the wings and engaging the arcuate portion of the bar to draw it from the forming guides.

2. In a device for bending strips into C-bars comprising an arcuate portion and plane wings extending from the sides thereof and lying substantially in the same plane, the combination of a forming guide adapted to engage the inside and outside of the strip and progressively bend the wings until they lie substantially in the same plane, a pair of finishing rolls, a mandrel within the bar between the two finishing rolls, and a tongue carried by one of the rolls and extending between the wings and engaging the arcuate portion of the bar whereby it may be drawn from the forming guides.

3. In a device for bending strips into C-bars comprising an arcuate portion and plane wings extending from the sides thereof and lying substantially in the same plane, of a forming guide adapted to engage the inside and outside of the strip and progressively bend the wings until they lie substantially in the same plane, a pair of finishing rolls, a mandrel within the bar between the two rolls having an intermediate slot, and a tongue carried by one of the rolls and extending between the wings into said slot and engaging the arcuate portion of the bar to draw it from the forming guides.

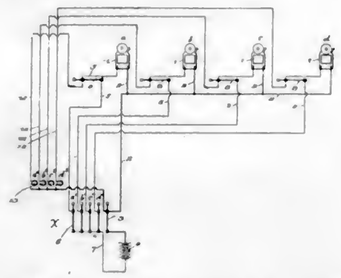
4. In a device for bending strips into C-bars having an arcuate portion and plane wings extending inwardly from the sides of said arcuate portion, the combination of a

forming guide adapted to progressively bend the wings to substantially the same plane, a pair of finishing rolls and a mandrel within the bar extending between the rolls and being integral with the former and having a slot, and a tongue on one of the finishing rolls extending through said slot and engaging the arcuate portion of the strip.

5. In a device for bending strips into C-bars having an arcuate portion and plane wings extending inwardly from the sides of the arcuate portion, the combination of a forming guide adapted to progressively bend the wings to substantially the same plane and leave a space between them, said former comprising inside and outside guides, the inside guide having a rib adapted to engage the arcuate portion, said rib being extended in the form of a mandrel between the finishing rolls and having a longitudinal slot, a tongue on one of the finishing rolls extending into said slot and engaging the arcuate portion to draw the strip from the forming guides.

[Claims 6 to 8 not printed in the Gazette.]

1,132,186. TRAFFIC-SIGNALING SYSTEM. ELMER W. KELLEY, Rochester, N. Y. Filed Dec. 29, 1913. Serial No. 809,245. (Cl. 177—340.)



1. A traffic signaling system comprising a plurality of signals distributed in the streets of a city, the distance between the signals being such that one of them will be effective as a signal at any point between any two proximate signals, and means for operating the signals to point out a path for fire apparatus, or the like.

2. A traffic signaling system comprising a plurality of audible signals distributed in the streets of a city, the distance between any two proximate signals being such that one of them will be audible at any point between them, and means for selecting and operating any number of the signals to point out a path for fire apparatus or the like.

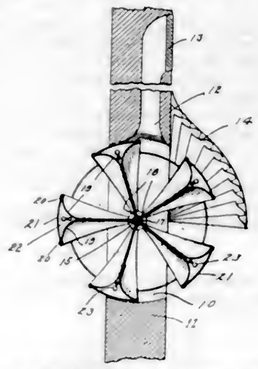
3. A traffic signaling system comprising a plurality of audible signals distributed in the streets of the city to point out a path for fire apparatus or the like, the distance between any two proximate signals being such that one of them will be audible at any point between them, separate circuits leading to each signal from a common point, and a plurality of switches arranged at such common point and each adapted to open and close one of the circuits.

4. A traffic signaling system comprising a plurality of audible signals distributed in the streets of the city to point out a path for fire apparatus or the like, the distance between any two proximate signals being such that one of them will be audible at any point between them, separate circuits leading from a common point to each signal, switches at such common point, each adapted to control one of the circuits, and a switch at each signal for controlling the circuit of such signal at that point.

5. A traffic signaling system comprising a plurality of audible signals distributed in the streets of the city to point out a path for fire apparatus or the like, the distance between any two proximate signals being such that one of them will be audible at any point between them, separate circuits leading from a common point to each signal, switches at such common point, each adapted to control one of the circuits, and a switch at each signal for controlling the circuit of such signal at that point, and indicating circuits having indicators at the central point, each of said indicating circuits being controlled by the switch at one of the signals and the switch of the corresponding signal circuit at a common point.

[Claims 6 to 9 not printed in the Gazette.]

1,132,187. VENTILATING-FAN. SARAH M. KEYTE, Oakland, Cal. Filed Oct. 8, 1912, Serial No. 724,618. Renewed July 25, 1914. Serial No. 853,234. (Cl. 230—11.)



1. A fan of the character described comprising a shaft, a sleeve rigidly mounted upon said shaft, ribs extending longitudinally along said sleeve, fan blades secured to said ribs, said blades being provided with outer end portions that flare in opposite directions, transparent outer plates secured to the flared end portions of each pair of blades ot provide end housings, and means for illuminating the housings.

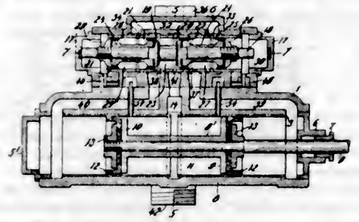
2. A fan comprising a shaft, a sleeve rigidly secured to said shaft, fan blades secured to said sleeve each comprising a pair of sections having their major portions connected and their outer end portions flaring in diverging relation, transparent plates connecting the outer ends of each pair of sections to provide housings, illuminating means positioned in the housings beneath each of said transparent plates, and means for rotating said shaft to rotate said fan.

3. A wall having an opening formed therein and provided with a flue leading from said opening, a shaft extending longitudinally through the opening in said wall, fan blades extending from said shaft and provided with pockets in their outer end portions, transparent outer walls for the pockets, electric lamps positioned in said pockets, means for supplying electricity to said shaft, and means for rotating said shaft.

4. A fan comprising a shaft, fan blades extending from said shaft and provided with pockets in their outer end portions, said pockets having transparent outer walls, electric lamps mounted in said pockets, a slip ring mounted upon said shaft, brushes contacting with said ring, a second shaft, an electric lamp carried by said second shaft, a slip ring mounted upon said second shaft, brushes contacting with said second slip ring, means for rotating said first mentioned shaft, and means for conveying rotary motion from said first mentioned shaft to said second mentioned shaft.

5. A combined ventilating and display fan comprising a shaft, blades projecting radially therefrom and arranged in pairs, the pair of blades being connected throughout the major portions of their lengths and having their ends flared outwardly in opposite directions and provided with cover holders, a transparent cover for each pair of outwardly flared ends, said covers and ends forming housings, means for illuminating the housings, and means for rotating the shaft.

1,132,188. FLUID-MOTOR. HUGH W. KIMES, Dayton, Ohio, assignor to Vaile & Kimes, a Firm composed of J. H. Vaile and Hugh W. Kimes, Dayton, Ohio. Filed July 14, 1913. Serial No. 778,875. (Cl. 138—2.)



1. The combination of two chambered members with a bendable conduit unit having terminal plugs apertured for passage continuity, each of said plugs adapted to be driven into an aperture to join said members.

2. A coupling unit comprising a bendable tubing element with plug terminals, each terminal apertured for passage continuity through said terminals.

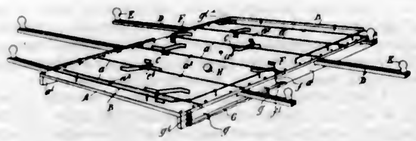
3. A coupling unit comprising a bendable tubing element with plug terminals, apertured transversely for passage continuity through said terminals.

4. A coupling unit comprising a bendable tubular element having transversely apertured plug terminals, the said apertures entering relative opposing ends of the respective terminals to establish opposing right angular leads for passage continuity through said terminals.

5. A fluid motor of the nature disclosed combining a power cylinder, a valve cylinder separably connected with said power cylinder having its parting surface recessed and apertured, and insert conduit units to provide passages for connecting said cylinders, each unit comprising a bendable tubing element having terminals apertured for passage continuity, and each terminal inserted within said valve cylinder apertures with the tubing element embedded within the recess of said cylinder when the cylinders are united to completely house the same.

[Claims 6 to 15 not printed in the Gazette.]

1,132,189. GAME APPARATUS. REGINALD ARTHUR KING, London, England. Filed Oct. 3, 1914. Serial No. 864,763. (Cl. 46—61.)



1. Game apparatus, comprising a game board, ball drivers of Y-shape in formation adapted to be moved over and partially rotated on said board, goal keepers of V-shape in formation adapted to be partially rotated on the board, and means for actuating said drivers and goal keepers.

2. Game apparatus comprising a game board provided with parallel guides, ball drivers movable a'ong said guides, and an operating device connected to each driver for imparting both rotary and reciprocatory movements thereto.

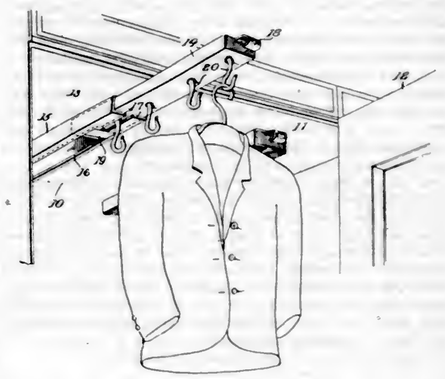
3. Game apparatus comprising a game board, ball drivers movable thereover, and an operating device connected to each driver for alternately rotating it or shifting it forward or backward.

4. Game apparatus comprising a game board, Y-shaped ball drivers movable thereover, and means for operating said drivers.

5. Game apparatus comprising a game board, Y-shaped drivers movable thereover, and means for imparting both reciprocatory and rotary movements to said drivers.

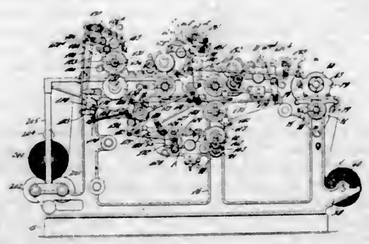
[Claims 6 to 10 not printed in the Gazette.]

1,132,190. GARMENT-HANGER. EMANUEL G. KOHOUT, New York, N. Y. Filed Feb. 3, 1914. Serial No. 816,210. (Cl. 211—16.)



A garment hanger including a tubular runway interiorly non-circular in cross section and adapted for attachment to an overhead support, said runway being provided in its lower face with a longitudinal slot reduced adjacent its forward end to provide a stop shoulder, a rack body slidable in the runway and shaped and proportioned to prevent turning in the runway, garment supporting hooks projecting downwardly through the slot from the body, and a stop shoulder at the rear end of the rack body slidable in the slot and adapted for engagement against the stop shoulder of the runway.

1,132,191. PRINTING-PRESS. ALBERT KRAUTH, Hamilton, Ohio, assignor to Krauth & Benninghofen, a Copartnership composed of Albert Krauth and Christian Benninghofen, Hamilton, Ohio. Filed July 1, 1912. Serial No. 706,975. (Cl. 101—117.)



1. In a printing machine, coacting printing cylinders, each provided with angularly disposed peripheries at the ends of the cylinders projecting beyond the major peripheral plane of each cylinder to define variable degrees of cylinder peripheral approach, means for axially longitudinally adjusting one of said cylinders, and means for laterally adjusting one of said cylinders for changing the degree of relative cylinder approach.

2. In a printing machine, coacting printing cylinders, each provided with circumferential angular bearing plates upon the ends of each cylinder, the bearing plates of one

cylinder adapted to engage with respective opposite plates of the second cylinder to define the degree of approach of the printing areas of both of said cylinders, and means for laterally adjusting one set of bearing plates relative to the second, and the second axially longitudinally to the first for regulating the degree of approach of said cylinders.

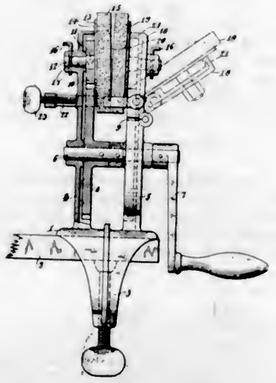
3. In a printing machine, a pair of printing cylinders of a definite diameter throughout their printing areas, the ends of each cylinder provided with conical circumferential bearing faces with the relative opposing bearing faces arranged conversely to each other, and means for axially adjusting said cylinders relatively longitudinally and diametrically for varying the degree of cylinder approach.

4. In a printing machine, a pair of coacting printing cylinders, each having a plane peripheral area with conversely tapering surfaces at each end engaged with each other, and means for relatively axially adjusting said cylinders, longitudinally and diametrically for varying the degree of approach of said cylinders.

5. In a machine of the nature described, a frame provided with bearings, a pair of coating cylinders and shafts therefor, the shaft ends of one cylinder journaled in confined bearings in said frame and longitudinally translatable therein, the shaft ends of the second cylinder eccentrically journaled in rotatable bearings to radially move the same toward and from the other shaft and annular devices coaxially respectively with said cylinders and rigid with their shafts to provide variable restraining limits of cylinder approach.

[Claims 6 to 20 not printed in the Gazette.]

1,132,192. ABRADING-MACHINE. JOHN KRESS, New Rochelle, N. Y. Filed June 20, 1914. Serial No. 846,265. (Cl. 51—7.)



1. In a device of the class described, a support having an abrading tool removably journaled therein, a hinged plate movable relative to said support, a second abrading tool journaled in said plate and movable therewith into an angular portion relative to said first named abrading tool, a yoke pivoted to said hinged plate and inclosing said support, a thumb screw carried by said yoke and bearing on said support to maintain said tools in their operative position and means for driving said tools.

2. In a device of the class described a gear inclosing casing having a journal in the form of a hub projecting therefrom, a replaceable abrading member having a shaft fixed thereto and removably mounted in said journal and means passing through said hub for locking said shaft in position, said shaft having a non-circular portion within the casing, a gear wheel removably mounted on said portion to rotate the shaft and a driving gear wheel mounted in said casing, positioned below and adapted to mesh with said removable gear wheel.

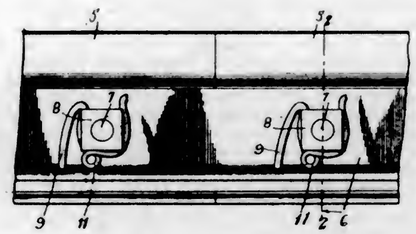
3. In a device of the class described, a support, a driving shaft journaled in said support, a pair of gear wheels fixed to said shaft, a pair of coacting abrading members removably mounted for rotary movement and normally in mesh respectively with said gear wheels one of said members movable relative to the other member to permit the substitution of other abrading members and means for maintaining said members in operative position relative to each other.

4. In a device of the class described, a support, a driving mechanism mounted in said support, a journal plate hinged to said support, an abrading member removably mounted on said journal plate, means engaging said plate for maintaining said member in an operative position and a driving connection between said mechanism and said abrading member when held in operative position.

5. In a device of the class described, a pair of oppositely disposed abrading members rotatably mounted with their adjacent faces disposed at a slight angle to each other to permit the insertion of a blade therebetween to be sharpened simultaneously on opposite sides and manually actuated means for simultaneously rotating said members.

[Claim 6 not printed in the Gazette.]

1,132,193. NUT-LOCK. JERIMIAH U. LANIER and JAMES W. NEWSOM, Newsom, N. C. Filed Feb. 9, 1914. Serial No. 817,597. (Cl. 151—51.)



1. In combination with a bolt and nut, a nut lock comprising a substantially U-shaped resilient member engaging the nut, a plurality of coils formed at the bight portion of said member and an extension formed at the free end of one of the arms of said member, said extension bearing against the surface against which the nut contacts.

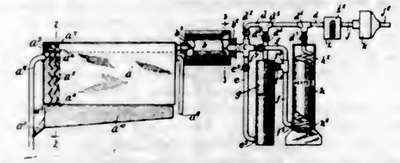
2. A nut lock comprising the combination with a nut having its inner portion cut away to provide a circular surface, of a substantially U-shaped resilient member adapted to embrace said inner portion and a plurality of alined coils formed at the bight of said member.

3. A nut lock comprising the combination with a bolt and nut, of a substantially U-shaped resilient member engaging the inner face of the nut and a plurality of coils formed at the bight of said member and engaging a side of the nut.

4. A nut lock comprising the combination with a bolt and nut having a circular portion formed thereon, of a substantially U-shaped resilient member embracing said circular portion, a plurality of coils formed at the bight of said member and an extension formed on said U-shaped member and engaging the surface against which the nut is to be screwed.

1,132,194. APPARATUS FOR DEHYDRATING OR DESICCATING AIR FOR INDUSTRIAL PURPOSES. FRANCISCO GARCIA P. LEAÓ, New York, N. Y. Filed Feb. 10, 1913. Serial No. 747,318. (Cl. 34—1.)

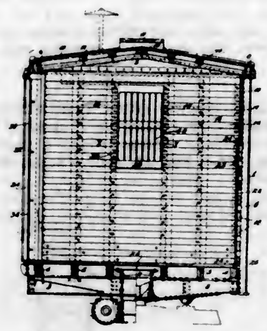
1. In an air dehydrating apparatus, a condenser, a moisture absorbing device connected with said condenser, a temperature indicator connected with said moisture absorbing device, a heater also connected with said moisture absorbing device and said temperature indicator, and means for controlling the flow of air from the moisture absorbing device directly to the temperature indicator and through the heater to said indicator.



2. In an apparatus for dehydrating air, a condenser, a moisture absorbing device connected with said condenser, a temperature indicator connected with said condenser, a heater connected with said temperature indicator and said moisture absorbing device, and a compressor connected with the moisture absorbing device, the temperature indicator and the heater substantially as shown and described.

3. In an air dehydrating apparatus, a condenser, a moisture absorber, and a temperature regulator consisting of a compressor and a heater in operative connection with each other and with said moisture absorber.

1,132,195. COMPOSITE FREIGHT-CAR. EDWARD D. LEVY, Springfield, Mo. Filed July 24, 1913. Serial No. 781,027. (Cl. 119—8.)



1. In a composite freight car, in combination: side walls comprising upper portions having a continuous rain-tight permanent covering, and lower portions having a fixed frame work and slats fixed thereon; a thin rain-tight closure of flexible material impervious to water, which is applied directly in contact with the vertical inner surfaces of the slats of the said lower slatted portions of the side walls and outwardly exposed only between the slats, and is attachable to and removable from the same to convert the car to a box-car form or to stock-car form; and attachable means for removably securing the said closure in place with pressure contact against the said slatted portion, said closure conforming with the flexures and movements of the said slatted portions under service conditions; substantially as specified

2. In a composite freight car, in combination: side walls having openings therethrough, and a floor arranged to leave a cleaning space between it and the side walls and terminating at a distance from and within the side walls, whereby a removable and flexible and thin rain-tight closure for the openings in the side walls may be extended down on the inner surface of the side walls to points below the top of the floor, substantially as set forth.

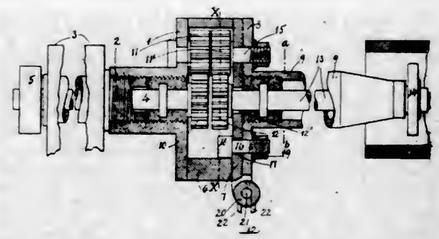
3. In a composite freight car, in combination: side walls having openings therethrough, and a floor arranged to leave cleaning spaces between it and the side walls and terminating at a distance from and within the side walls, and a removable rain-tight closure for the openings in the side walls extended down on the inner surface of the side walls to points below the top of the floor, substantially as set forth.

4. In a composite freight car, in combination: side walls having openings therethrough, and a floor arranged to leave cleaning spaces between it and the side walls and terminating at a distance from and within the side walls, and a removable rain-tight closure for the openings in the side walls extended down on the inner surface of the side walls to points below the top of the floor, side sills extending under the edge of the floor and under the said cleaning spaces, and metal plates at the under side of the said cleaning spaces between the sills and the lower edges of the said rain-tight closure, substantially as set forth.

5. In a composite freight car, in combination: side walls the upper portions of which are continuous and permanently rain-tight, and the lower portions of which are partly open, a floor the outer edges of which are within and at a distance from the inner faces of the side walls and the top of which floor is above the lower edges of the side walls, a removable rain-tight closure within the car over the openings of the said lower portions of the side walls, and extending down outside of and below the floor, and means for securing the said closure in place, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,132,196. GRINDER. FRANK H. LINDNER, Bloomfield, N. J. Filed Apr. 25, 1914. Serial No. 834,392. (Cl. 51—4.)



1. In grinding apparatus: a driving shaft, and means to rotate the same; a driven shaft, and a grinding wheel secured thereon; means to revolve the driven shaft about an axis fixed relatively to the driving shaft; and planetary means for adjusting the length of the radius between the said shafts.

2. In grinding apparatus: a driving shaft, and means to rotate the same; a rotatable housing mounted thereon; a driven shaft mounted in said housing, and a grinding wheel secured thereon; means retained and supported by said housing to transmit rotation from the said driving shaft to the said driven shaft; and means for varying the axial relation between said shafts.

3. In grinding apparatus: a driving shaft in fixed position, and means to rotate the same; an intermediate shaft relatively fixed with respect to said driving shaft; a driven shaft, and a grinding wheel secured thereon; and transmission mechanism intermediate of said driving and driven shafts and affording a planetary movement of the latter about the said intermediate shaft.

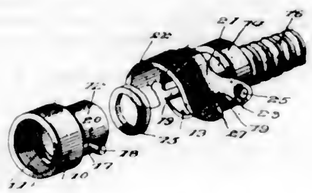
4. In grinding apparatus: a rotatable spindle, a housing secured thereto, a driving shaft passing through the spindle and into the housing, a gear wheel secured to the inner end of said driving shaft, a driven shaft extending from said housing, a gear wheel secured to the inner end of driven shaft and a grinding wheel secured to its outer end, an intermediate shaft mounted in said housing, gear wheels rotatable with one another and rota-

tably mounted on said intermediate shaft, one of said gear wheels being in mesh with the said gear wheel on the driving shaft and the other in mesh with the said gear wheel on the driven shaft, a connecting member from and about the intermediate shaft to and about the driven shaft affording a planetary movement of the said driving shaft gear wheel and its driven shaft on and about the said gear wheel on the intermediate shaft.

5. In grinding apparatus: a rotatable spindle, a face plate secured thereto, a casing secured to said face plate, a driving shaft, an intermediate shaft mounted in said casing, a carrier pivoted thereon, a quill integral with said carrier, a driven shaft concentric with said quill, a grinding wheel secured to said driven shaft, transmission means intermediate of said driving and driven shafts, and means to secure said carrier in a selected position to said casing.

[Claims 6 to 8 not printed in the Gazette.]

1,132,197. HOSE-COUPLING. GEORGE L. MCCLELLAN, Gold Hill, Oreg. Filed June 5, 1914. Serial No. 843,297. (Cl. 137—28.)

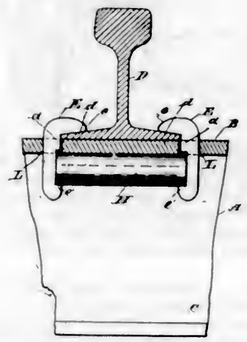


A coupling including a male section consisting of an annular body portion, a cylindrical sleeve of less diameter than the body portion, diametrically opposed substantially rectangular ribs formed on the outer face of said sleeve, said ribs extending from the adjacent end edge of the body portion to a point intermediate the length of the sleeve and having their outer faces flush with the outer face of the body portion, and laterally extending substantially cylindrical lugs projecting from the outer terminals of the ribs, a female section including an annular body portion, and a sleeve of less diameter than the body portion, said sleeve having an internal diameter equal to the external diameter of the first mentioned sleeve and being provided at its free terminal with longitudinally extending diametrically opposed slots adapted to snugly receive the said ribs and lugs with the lugs projecting laterally through the slots and spaced from the inner ends thereof when the sections are assembled, and a pivoted substantially U-shaped locking yoke carried by the body portion of the female section, said locking yoke being adapted to embrace the body portion of the male section to seat thereon in engagement with the lugs.

1,132,198. TIE AND RAIL-CLAMP. HUGH MCCONAUGHY, Cleveland, Ohio, assignor of one-half to George M. Buzzard, Cleveland, Ohio. Filed Dec. 2, 1914. Serial No. 875,066. (Cl. 238—4.)

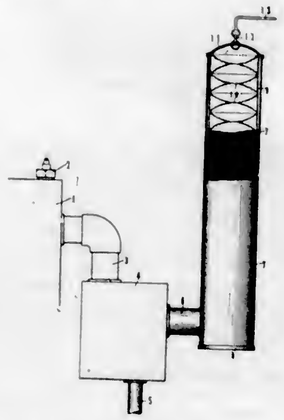
1. In combination with a metal tie having an overhanging flange, of a rail transversely seated thereon, and a resilient securing means for said rail comprising a clamping dog upon each side of said rail, each dog passing through an opening in said flange, and each dog having a shoulder adjacent to its inner extremity, each dog having a head engaging said rail, and a wedge shaped spring intermediate between said shoulders on said dog and the lower surface of said flange upon said metal tie.

2. In combination, a metal tie having a horizontal member and a vertical member, a flanged rail mounted upon said horizontal member, said horizontal member having an opening on each side of said rail, a clamping dog passing through each opening and having a head engaging said flanged rail, said dogs also provided with reversely extending shoulders in their inner ends, and a wedge shaped spring seated on said shoulders, and engaging said horizontal flanged member, and means for holding said wedge shaped spring.



3. In combination, a metal tie having a vertical member and an overhanging horizontal member, a rail seated thereon, a pair of clamping dogs engaging the opposite sides of said rail and passing loosely through said horizontal member, the lower edges of said clamping dogs provided with shoulders, and a two leafed spring, one leaf engaging said horizontal flange and the other said shoulders in said dogs, said spring passing through said vertical member, and means for securing said spring in place.

1,132,199. AIR-HEATER FOR CARBURETERS. WILLIAM R. MCKEEN, Jr., Omaha, Nebr., assignor to McKeen Motor Car Company, Omaha, Nebr., a Corporation of New Jersey. Filed Feb. 25, 1908. Serial No. 417,764. (Cl. 48—149.)



1. In combination with a carbureter having an air inlet pipe or passage, a heat-retaining body adapted to be readily inserted into and removed from said pipe or passage, and to be retained therein during operation of the carbureter; whereby it is adapted to be heated by means external to the carbureter, and thereafter placed in said passage and caused to heat air flowing through said passage.

2. In combination with a carbureter having an air inlet passage, a foraminous body mounted in and freely removable from said passage, whereby it is adapted to be removed from and heated while outside the same, and thereafter to be replaced and caused to divide the inflowing air into small streams, and to heat the same.

3. In combination with a carbureter having an air inlet pipe or passage, a freely removable heat-retaining device adapted to be charged with liquid fuel and heated while removed from the air pipe or passage, and to be replaced therein while still in heated condition.

4. In combination with a carbureter having an air inlet pipe or passage, a foraminous body adapted to be freely introduced into and removed from said air inlet pipe, said body consisting of a plurality of pairs of concavo-convex screens placed base to base, one pair above another, and an encompassing screen serving to contain the series of screens and to maintain them in proper relative position.

5. In combination with a carbureter having an air inlet pipe or passage, a heater for use in starting in cold weather, comprising a foraminous body adapted to be freely introduced into and removed from the air inlet passage, and provided with a handle by which it may be inserted and removed, and by which it may be held during the heating of the body.

[Claims 6 and 7 not printed in the Gazette.]

1,132,200. LOCOMOTIVE-BOILER. THOMAS J. MCKERIHAN, Altoona, Pa. Filed June 24, 1913. Serial No. 775,561. (Cl. 122—55.)



In combination with a locomotive boiler fire box sheet, a single plate of metal rolled to form a barrel sheet having at one end an integral surplus portion pressed into a flange which constitutes the neck sheet secured to the fire box sheet.

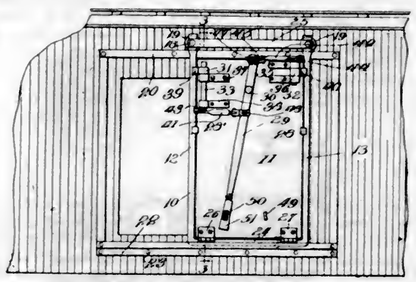
1,132,201. HOLDER FOR LIGHTED CIGARS. WILLIAM F. MCMANUS, Shawnee, Okla. Filed Nov. 25, 1912. Serial No. 733,450. (Cl. 206—41.)



In a holder for cigars and the like, a closed receptacle open at one end to receive a cap, a closed cap fitting within the receptacle and open at one end to receive a holding element, and a reversible holding element removably fitting within the cap, said holding element being of a length less than that of the cap to provide an ash receiving recess between the adjacent end thereof and the open end of the cap and having longitudinally extending sockets formed in its ends, the said sockets being closed at their inner ends and terminating at their inner extremities in spaced relation to each other, the said cap forming a closure for the socket disposed adjacent the closed end thereof.

1,132,202. FREIGHT-CAR DOOR. JOHN MAPES, Aledo, Ill., assignor of one-half to Zales S. McGinnis, Aledo, Ill. Filed Feb. 17, 1914. Serial No. 819,283. (Cl. 20—23.)

1. A device of the character described including a frame slidable longitudinally over the car side, a door hinged at its lower terminal in the frame, means carried by the door and co-acting with means carried by the frame for swinging the upper terminal of the door toward or away from the car side.



2. A device of the character described including a frame slidable longitudinally over the car side, a door hinged at its lower terminal in the frame, means carried by the door and co-acting with means carried by the frame for swinging the upper terminal of the door toward or away from the car side, said door carried means being further adapted for locking the door spaced from the car side or in sealing engagement therewith.

3. A device of the character described including a frame having wheels at its upper terminal, a track receiving the wheels, whereby the frame may be moved longitudinally over the side of the car, a door mounted in the frame and having its lower terminal hinged to the lower transverse member thereof, and exteriorly operable means for swinging the upper terminal of the door into sealing engagement with the side of the car, or for swinging the upper terminal of the door away from the side of the car, said means including a crank shaft mounted on the door, a segmental gear keyed on the crank shaft, a rack bar formed on the inner side of one of the side members of the frame, said segmental gear and rack bar being arranged to mesh, and a lever pivoted on the door and freely connected to the crank shaft, said lever being movable in one direction for swinging the upper terminal of the door toward the car side and into engagement therewith, and movable in the opposite direction for swinging the upper terminal of the door away from the side of the car and in spaced relation thereto.

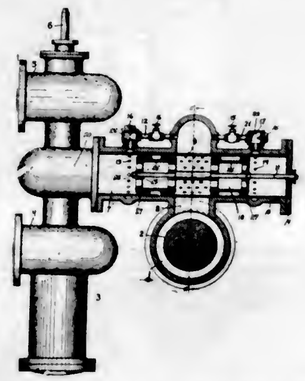
4. A device of the character described including a frame slidable longitudinally against the side of the car, a door having its lower terminal hinged to the lower transverse member of the frame, and means for swinging the door inwardly toward the side of the car or swinging it outwardly therefrom, said means including a lever pivotally mounted on the outer face of the door, rack bars formed on the inner sides of the side members of the frame, brackets carried by the outer face of the door, crank shafts journaled therein, segmental gears keyed on the crank shafts and meshing with the rack bars, and link members pivotally connecting the crank shafts to the lever, whereby the movement of the lever in one direction will swing the upper terminal of the door inwardly for engaging the inner face of the door against the side of the car, and whereby the movement of the lever in the opposite direction will swing the upper terminal of the door outwardly for swinging the inner face of the door away from the side of the car.

5. A device of the character described including a frame slidable over a car side, a door having its lower terminal hinged to the lower transverse member of the frame, rack bars carried by the frame, pinions mounted on the door, and a lever operatively connected to the pinions, said lever being movable in one direction for swinging the free end of the door toward the car and being

movable in the other direction for swinging the free end of the door away from the car.

[Claim 6 not printed in the Gazette.]

1,132,203. AUTOMATIC STOP-VALVE MECHANISM. EDWIN S. MATTHEWS, New York, N. Y., assignor to John S. Hoyt and William H. Woodin, New York, N. Y. Filed Nov. 3, 1905, Serial No. 285,702. Renewed Jan. 18, 1915. Serial No. 2,976. (Cl. 138—14.)



1. The combination with a hydraulic motor cylinder, and a controlling valve connected therewitb by a to-and-from passage, of a stop valve in said passage adapted to be moved to stop the motor, and connections from said motor cylinder to said controlling valve, said stop valve acting to close one of said connections and thereby permitting the motor to be started in the opposite direction through the other, substantially as described.

2. The combination with a hydraulic motor cylinder, and a controlling valve connected therewith by a to-and-from passage, of a stop valve in said passage adapted to be moved to shut off the flow, passages from said motor cylinder to said controlling valve independent of said stop valve, and means for controlling said passages so that only the one acting to start the car in the opposite direction will be effective when the stop valve is closed, substantially as described.

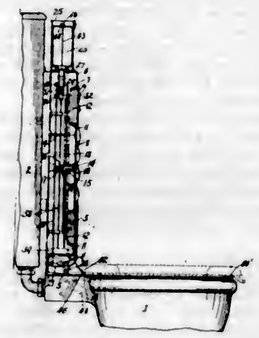
3. In an automatic stop valve, the combination, substantially as set forth, of a chamber having an inlet and an outlet, passages placing the inlet in communication with the outlet, a check valve in one of said passages opening toward the outlet, a check valve in the other of said passages opening toward the inlet, and an automatic stop valve adapted to shift and close the outlet and one or the other of said passages.

4. In an automatic stop valve, the combination, substantially as set forth, of a chamber having an inlet and an outlet, a plurality of auxillary passages between said inlet and outlet, a check valve in one of said pasasges opening toward the outlet, a check valve in the other of said passages opening toward the inlet, an automatic stop valve adapted to shift and close the outlet and one or the other of said passages, and means for regulating the rate of flow through said passages.

5. In an automatic stop valve, the combination, substantially as set forth, of a cylindrical valve chamber having an inlet and an outlet, a passage leading from the outlet to the inlet, a second passage leading from the outlet to the inlet, a check valve in each of said passages, one opening toward and the other from the outlet, and a piston valve in said chamber arranged to shift and close said outlet and one or the other of said passages.

[Claims 6 to 11 not printed in the Gazette.]

1,132,204. TOILET-SEAT-DISINFECTING MEANS. ROBERT DAVID MAYO, Cleveland, Ohio. Filed May 21, 1914. Serial No. 839,988. (Cl. 4—18.)



1. The combination with a toilet seat, of a disinfecting case having an opening for receiving the usable face of said seat when moved from lowered position, means operable to open and close said case opening, and means operable to control the movements of said first means and to permit the discharge of a quantity of disinfecting material into said case.

2. The combination with a movable toilet seat, of a case having an opening for receiving the usable face of the seat when moved from usable position, means operable to open and close said opening, and means operable by movements of the seat to control the movements of said first means to permit a quantity of disinfecting material to enter the case.

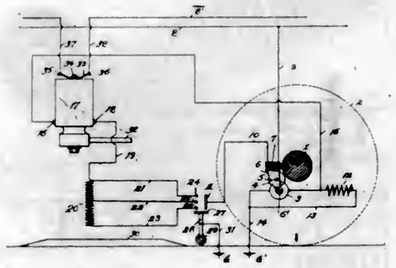
3. The combination with a movable toilet seat, of a case having an opening for receiving the usable face of the seat when moved from usable position, means operable to open and close said opening to the interior of the case, and means automatically operable by movements of the seat to control the movements of said first means and to permit the discharge of a quantity of disinfecting material into said case, the fumes of which are intended to disinfect the seat face.

4. The combination with a toilet seat which is automatically movable from lowered to raised position when pressure is removed therefrom, of a disinfecting case having an opening for receiving the seat when raised, and mechanism automatically operable by movements of the seat to open and close said opening to the interior of the receptacle and to discharge a quantity of disinfecting material into the case.

5. The combination with a movable toilet seat, of a container for a disinfecting material, a tube extending downward from said container and having an enlargement forming a chamber, a valve tube mounted for longitudinal movements in said tube and having an upper measuring compartment, said valve-tube having inlet and outlet openings for said measuring compartment and having openings below said measuring compartment, the outlet openings from said measuring compartment and the openings below said compartment being in register with said tube chamber when the valve-tube is in normal position, and said inlet openings being open to the interior of the container and said outlet openings being closed to said tube chamber when the valve-tube is moved from normal position, and means operable by movements of the toilet seat to control the movements of said valve-tube, said valve-tube having its lower end portion in communication with the interior of the case to permit the discharge of a quantity of disinfecting material therein.

[Claims 6 to 9 not printed in the Gazette.]

1,132,205. SPEED-CONTROL DEVICE. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed Sept. 8, 1913. Serial No. 788,746. (Cl. 246—59.)



1. In a vehicle, a speed controlling instrumentality under normal tendency to maintain an inoperative position provided with means operated during predetermined zones of travel for rendering it more or less susceptible to be held in operation, a source of power which varies with the speed of the vehicle, and means for connecting said means with said source of power during predetermined zones of travel of said vehicle.

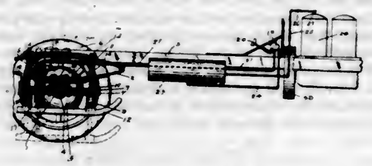
2. In a vehicle, an instrumentality controlling the operation of said vehicle, an electromagnetic device provided with an armature for operating said instrumentality, means for adjusting the size of the air gap between said magnetic device and armature, a source of power which varies to correspond to the speed of the vehicle, a resistance, an electric circuit including said magnetic device, source of power and more or less of said resistance, and means for predetermining the amount of fixed resistance in circuit for a certain zone of travel.

3. In a vehicle, an instrumentality for controlling the operation of said vehicle, an electromagnetic device provided with an armature for operating said instrumentality, means for maintaining an air gap between said magnetic device and armature, a source of power which varies to correspond to the speed of the vehicle, graded resistance, an electric circuit including said magnetic device, source of power, and more or less of said resistance, said circuit being provided with spaced contacts, and means adapted to be operated at predetermined points along the route of said vehicle for closing the space between said contacts.

4. The combination with a vehicle, of a conductor provided with a circuit breaker, an electromagnet, an armature for said magnet connected to said circuit breaker, means for maintaining an air gap between said magnet and armature to prevent the operation of said armature by said magnet under an insufficient supply of current, resistance, a source of energy which varies with the speed of said vehicle, an electric circuit including the above mentioned parts, and means rendered operative during predetermined zones of travel for closing said circuit and determining the amount of such resistance included in circuit.

5. The combination wtih a vehicle, of a speed controlling instrumentality therefor, an electromagnet, an armature for said magnet connected to said instrumentality, means for maintaining an air gap between said magnet and armature to render the magnet inoperative on said armature under an insufficient supply of current thereto, and an electric circuit for said magnet including a source of energy which varies to correspond with the speed of said vehicle, said circuit being provided with a plurality of stepped resistances adapted to vary the predetermined maximum speed limit of said vehicle with respect to the minimum speed limit therefor.

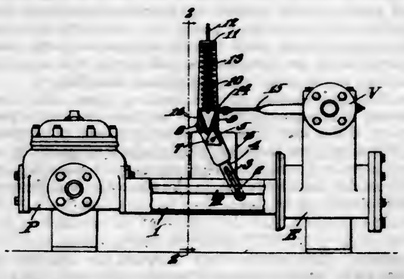
1,132,206. ANTISKIDDING DEVICE FOR AUTOMOBILES AND THE LIKE. HARRY MILLER, St. Louis, Mo., assignor of fifty-five one-hundredths to Charles E. St. Clair and ten one-hundredths to Joseph M. Graham, St. Louis, Mo. Filed Sept. 14, 1914. Serial No. 861,690. (Cl. 188—3.)



1. The combination with an automobile or the like, including its rear axle, of an elongated support fixed on said axle and horizontally disposed relatively to the frame of the automobile, rod-guiding members fixed on said support and disposed on opposite sides of said axle, headed-rods projecting through said members and slidably movable relatively thereto, a ground-engaging member fastened to said rods, coiled springs on said rods interposed between the heads thereof and said rod-guiding members, said springs being adapted to yieldingly maintain said rods and their carried ground-engaging member in normal inoperative position with said ground-engaging member out of engagement with the ground, and means for pneumatically actuating said ground-engaging member to engage the ground; substantially as described.

2. The combination with an automobile or the like, including its rear axle, of an elongated support fixed on said axle and horizontally disposed relatively to the frame of the automobile, rod-guiding members fixed on said support and disposed on opposite sides of said axle, headed-rods projecting through said members and slidably movable thereto, a ground-engaging member fastened to said rods, coiled springs on said rods for yieldingly maintaining said rods and their carried ground-engaging member in normal inoperative position with said ground-engaging member out of engagement with the ground, a compressed-air cylinder fixed on said support intermediate said rods, a piston-rod working in said cylinder, said piston-rod having engagement at one end with said ground-engaging member, and means for supplying compressed air to said cylinder to actuate said piston-rod to project said ground-engaging member into engagement with the ground; substantially as described.

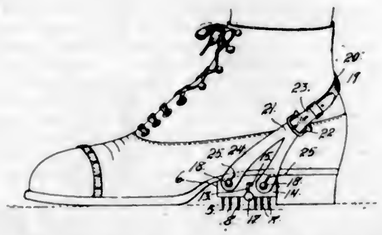
1,132,207. VALVE-GEAR. JACOB J. MOOCK, Orrville, Ohio. Filed June 8, 1914. Serial No. 843,798. (Cl. 121—9.)



The combination with a cylinder, a valve shaft and a piston rod, of a valve actuating mechanism, including an oscillatory lever having a slot in one end, a pin connected to the piston rod and fitting in said slot, whereby

the reciprocation of the piston rod oscillates the lever, a V-shaped block carried by the lever and inverted, a supporting plate, a pivoting pin connecting the lever to the supporting plate, an arm attached to the supporting plate and projecting thereabove, a valve stem having an open V-shaped frame in one end with the apex thereof normally in contact with the V-shaped member of the lever, a spring connected to the free end of the valve stem and bearing against the upper end of the arm carried by the plate for holding the V-shaped end thereof in contact with the V-shaped member of the lever, and two divergent arms having extensions carried by the lever adjacent the pivotal end thereof, said terminals thereof being disposed to fit astride of the V-shaped end of the valve stem for engaging the same as the lever is oscillated.

1,132,208. ANTISLIPPING ATTACHMENT FOR SHOES, RUBBERS, OR OVERSHOES. RIKIJIRO OSAKA, Denver, Colo. Filed June 1, 1914. Serial No. 842,100. (Cl. 36—61.)



1. The combination of a hollow body member closed except at the bottom, a plate located therein and provided with projections, a spring above the plate, means connected with the body member for limiting the outward movement of the plate under the influence of the spring, and a rod engaging the plate from below, the said body member having slots formed in two opposite sides thereof and through which the rod passes, the lower extremities of the slots being closed to limit the outward movement of the rod, the upper extremities of the slots being curved to retain the rod at its upward limit of movement.

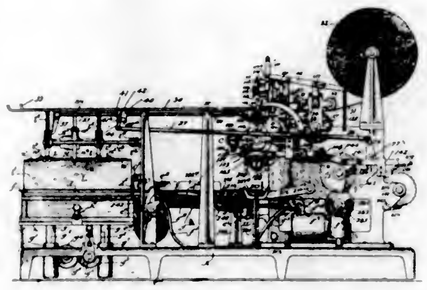
2. The combination with a boot or shoe, of a hollow block adapted to engage the shank of the shoe, a spring actuated plate located therein, and provided with antislipping projections, means for changing the position of the plate to cause the outer extremities of the projections to occupy a plane below that of the bottom of the shoe heel, or above the same, as may be desired, and means for attaching the block to the boot or shoe.

3. The combination with a shoe, of a hollow block adapted to engage the shank of the shoe, a spring actuated plate located within the block and provided with antislipping projections, means for vertically changing the position of the plate to vary the plane of the lower extremities of the projections, and means for attaching the block to the shoe, substantially as described.

4. The combination with a boot or shoe, of a block adapted to engage the shank of the boot or shoe, a plate located within said block and movable up and down therein, the said plate provided with projections normally extending below the heel of the shoe, means for securing the plate in the raised position, and means for attaching the block to the boot or shoe.

1,132,209. MACHINE FOR APPLYING BANDS TO CIGARS. PAUL PIERSON, Chicago, Ill. Filed May 20, 1912. Serial No. 698,597. (Cl. 131—61.)

1. In a cigar-banding machine, the combination of a pair of band-applying elements disposed laterally of each other so they may simultaneously engage and hold wide and narrow portions of a band which has one of its ends wider than the other, around a cigar, and mechanism for operating one of said elements to first apply and hold the wide end of a band around the cigar and for operating the other element to lap the narrow end over and hold it around the wide end, while the wide end is being held around the cigar by the element which has applied it.



2. In a cigar-banding machine, the combination of a pair of band-applying elements disposed laterally of each other so they may simultaneously engage and hold wide and narrow portions of a band which has one of its ends wider than the other, around a cigar, and mechanism for operating one of said elements to first apply and hold the wide end of a band around the cigar and for operating the other element to lap the narrow end over and hold it around the wide end while the wide end is being held around the cigar by the element which has applied it, one of said elements being flexible.

3. In a cigar banding machine, the combination of a pair of flexible band-applying elements disposed laterally of each other so they may simultaneously engage and hold wide and narrow portions of a band which has one of its ends wider than the other around a cigar, and mechanism for operating one of said elements to first apply and hold the wide end of a band around the cigar and for operating the other element to lap the narrow end over and hold it around the wide end while the wide end is being held around the cigar by the element which has applied it.

4. In a cigar-banding machine, the combination of a pair of band-applying elements disposed to engage the side portions of one end of a band which has one end wider than the other, a band-applying element disposed to operate between the elements of said pair and disposed to engage the other end of the band, and mechanism for operating said elements to cause them to simultaneously engage and overlap the ends of the band.

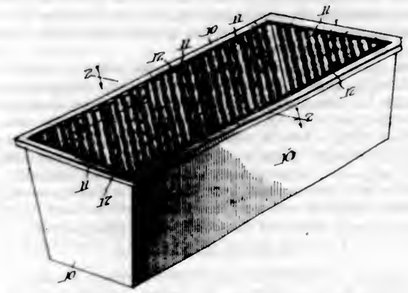
5. In a cigar-banding machine, the combination of a pair of band-applying elements for engaging the side portions of one end of a band which has one end wider than the other, a band-applying element disposed to operate between the elements of said pair and for engaging the other end of the band, and mechanism for operating said elements to cause said pair of elements to hold the wide end of the band while the other element folds the narrow end to overlie the wide end, and to thereafter cause said elements to hold both ends.

[Claims 6 to 105 not printed in the Gazette.]

1,132,210. FLOWER-BOX AND THE LIKE. ARTHUR L. POESSEL, Chicago, Ill. Filed Oct. 30, 1913. Serial No. 798,182. (Cl. 47—19.)

1. The combination with a receptacle for soil and growing plants, of a removable lining for the sides and bottom consisting of separately removable corrugated plates, with the corrugations forming air space between the receptacle and all of the plates.

2. The combination of a receptacle for soil and growing plants, of a number of flat corrugated plates forming a lining for the sides and for the bottom of the receptacle, the sides being separately removable and the bottom being independently removable from any of the sides, the corrugations forming an air space between each of the plates and the sides and bottom of the receptacle.



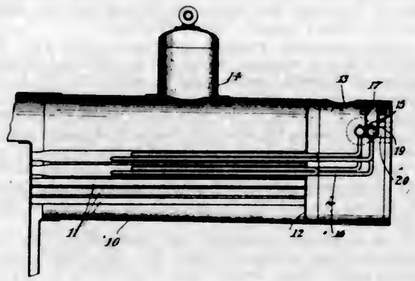
3. A lining for flower boxes comprising a plurality of removable channeled plates adapted to be placed about the sides and upon the bottom of the interior of the flower boxes and with the channels between the plates and the flower box forming spaces between the plates and the bottom and sides of the flower boxes.

4. The combination with a receptacle for soil and growing plants, of a series of corrugated plates forming a lining for said receptacle, each of said plates terminating at the apex of one of said corrugations, and said lining forming with the receptacle a plurality of air passages about the sides and bottom of the interior of the receptacle.

5. The combination with a receptacle for soil and growing plants, of a lining therefor comprising corrugated plates each terminating at the apices of corrugations lying in the same plane, the end edges of said plates being slightly rounded and the plates forming, together with the receptacle, a plurality of passage-ways for air about the sides and bottom of the interior of the receptacle.

[Claim 6 not printed in the Gazette.]

1,132,211. STEAM-SUPERHEATER. JOHN PRIMROSE, Dongan Hills, N. Y., assignor to Power Specialty Company, New York, N. Y., a Corporation of New York. Filed May 16, 1914. Serial No. 838,970. (Cl. 122—462.)

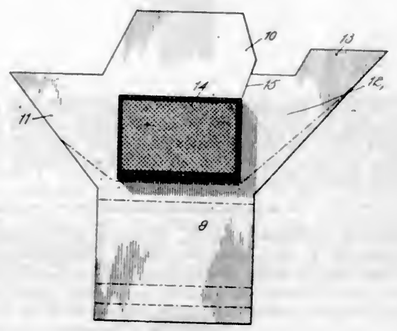


1. A boiler provided with fire tubes, in combination with a superheater, comprising transversely arranged inlet and outlet headers and superheating units, the latter projecting rearwardly into said fire tubes, the smoke box of said boiler provided with longitudinal slots extending to the front end of the shell for receiving the ends of the headers, and means for securing said headers in the said slots.

2. A boiler provided with fire tubes and the shell of which is provided with longitudinal slots extending to the front end of the smoke box, in combination with a superheater comprising transversely arranged inlet and outlet headers supported in said slots and superheater elements projecting rearwardly into said fire tubes, and means for removably securing said headers in said slots, whereby the entire superheater may be removed as a unit.

3. A boiler provided with fire tubes and the shell of which is provided with longitudinal slots extending to the front end of the smoke box, in combination with a superheater comprising transversely arranged inlet and outlet headers supported in said slots, means for connecting the saturated steam header with the steam dome of the boiler, means for connecting the superheated steam header with the steam chest, superheating elements connected to said headers, the coils of which project rearwardly into said fire tubes and the inlet and outlet ends of which are expanded into the inlet and outlet headers, and means for removably securing said headers in said slots, whereby said headers and said elements may be removed as a unit.

1,132,212. WRAPPER. GEORGE H. RALPH, Oak Park, Ill., assignor to M. A. Donohue & Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1913. Serial No. 797,449. (Cl. 229—87.)



1. A wrapper of the class described comprising a body portion capable of wrapping snugly articles of various dimensions, lateral wings, and an end flap, a single slit in said body portion leading from the point where an edge of one of said wings joins the body portion toward the adjacent corner of the articles to be wrapped, and a locking flap on the wing adjacent said slit, said flap removably securing said wing when the parts are folded in position.

2. A wrapper of the class described comprising a body portion adapted to be wrapped around an article to be incased, lateral wings arranged to be folded in over the ends of said article, said body portion and wings formed of a homogeneous sheet, and foldable about various outlines, a locking flap on one of said wings, said locking flap adapted to lie on the face of the inclosed article opposite the face of the article on which lies the major portion of the wing to which said flap is attached, and under a part of the body portion of the wrapper, together with means for securing the other wing and body portion together.

3. A wrapper comprising a body portion adapted to be wrapped around the inclosed article, a pair of lateral wings adapted to be folded in over the ends of the inclosed article, a portion of one of said wings lying over the other wing, and means for fastening the body portion and last-mentioned wing together to retain the wrapper in position upon the inclosed article, the unfastened wing being normally held in position by friction but adapted to be withdrawn to expose the inclosed article.

4. A wrapper comprising a body portion adapted to be wrapped around an inclosed article, a pair of lateral wings adapted to be folded in over the ends of the inclosed article, one of said wings lying on three sides of the inclosed article and under a part of the body portion of

the wrapper, and means for securing the other wing and body portion together, whereby the face of the wing is retained in position by friction.

5. A wrapper comprising a body portion adapted to be wrapped around an inclosed article, and a lateral wing folded in over the end of the inclosed article, said wing lying on a plurality of sides of the inclosed article and under a part of the body portion and being held in position by friction.

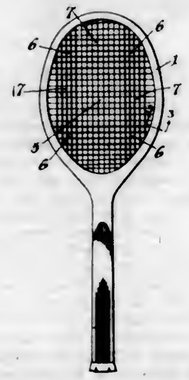
[Claims 6 to 13 not printed in the Gazette.]

1,132,213. METHOD OF FORGING STEEL CAR-WHEELS. EDWARD RAMSDEN, Perth, Ontario, Canada. Original application filed Apr. 18, 1914, Serial No. 832,995. Divided and this application filed Sept. 26, 1914. Serial No. 863,745. (Cl. 29—168.)



The herein described process of making a car wheel consisting in first shaping the bloom to present a tread part flaring from the flange and subsequently treating such bloom to cause contraction of the metal, whereby said flaring tread will become cylindrical.

1,132,214. TENNIS-RACKET. HARRY W. RIES, Collingswood, N. J., and LANDY B. BROWN, Philadelphia, Pa. Filed Oct. 16, 1914. Serial No. 866,898. (Cl. 46—24.)



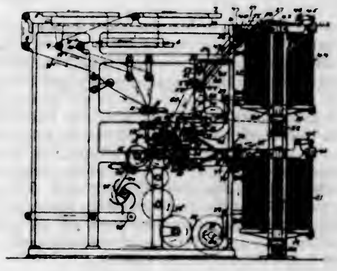
1. In a tennis racket, the combination of an annular frame having its opening strung with crossing strings providing a central playing area formed of strings of high resiliency and the extension of said strings with strings of lower resiliency bounding said central playing area, to form areas having less resiliency than the central area.

2. In a tennis racket, the combination of a suitable frame, a net strung in said frame, the strings thereof arranged transversely and longitudinally to form mesh of substantially equal size and in which the central area of the strung surface has greater resiliency than the bounding area between it and the frame.

3. In a tennis racket, the combination of an annular frame having its opening strung with crossing strings of substantially uniform mesh arranged to form a central rectangular area 5 of high resiliency, having its sides bounded by four areas 7 of medium and lower resiliency, and four additional areas 6 of lowest resiliency connecting the areas 7 and also acting as a support to the central area of high resiliency, the construction providing means of graduating the strain of impact upon the strung areas and forming a natural central pocket when said central area is struck by the ball.

4. In a tennis racket, an annular frame, strands of relatively fine gut strung laterally and longitudinally across the middle of the opening of said frame a plurality of times to form an interwoven central playing area of substantially uniform mesh and relatively high resiliency, and additional strands of relatively coarser gut strung laterally and longitudinally of said frame a plurality of times and meshing with the finer gut strings around the central playing area to form in interwoven area of relatively lower resiliency bounding said playing area.

1,132,215. PRINTING-MACHINE. OSCAR ROESEN, New York, N. Y., assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Mar. 21, 1906, Serial No. 307,186. Renewed July 7, 1910. Serial No. 570,906. (Cl. 101—124.)



1. In a printing machine, the combination with web forwarding and severing devices, of a collecting cylinder having sheet taking devices to which the sheets cut from the web are delivered, means for supporting a pile of sheets, sheet feeding and forwarding means for the pile sheets, said means operating to deliver the pile sheets to the taking devices of the collecting cylinder simultaneously with its last connection of the web sheets and outside the same, and means for folding the web sheets and pile sheets together after collection.

2. In a printing machine, the combination with web forwarding and severing devices, of a collecting cylinder having sheet taking devices and to which the sheets cut from the web are delivered, means for supporting a pile of sheets of the size of the web sheets, sheet feeding and forwarding means for said pile sheets, said means operating to deliver the pile sheets to the taking devices of the collecting cylinder simultaneously with its last collection of the web sheets and outside the same, and means for folding the web sheets and pile sheets together after collection.

3. In a printing machine, the combination with web forwarding and severing devices, of a collecting cylinder having sheet taking devices and to which the sheets cut from the web are delivered, means for supporting a pile of sheets, sheet feeding and forwarding means for said pile sheets operating to feed the sheets from the pile at a less speed than the speed of the web, means for speeding up the sheets and delivering them to the collecting cylinder simultaneously with its last collection of the web sheets and outside the same, and means for folding the web sheets and pile sheets together after collection.

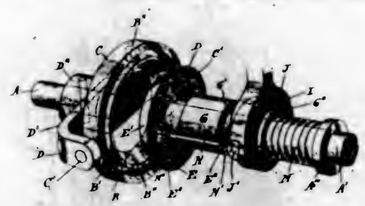
4. In a printing machine, the combination with web forwarding and severing devices, of a collecting cylinder having sheet taking devices and to which the sheets cut from the web are delivered, means for supporting a pile

of sheets of the size of the web sheets, sheet feeding and forwarding means for said pile sheets operating to feed the sheets from the pile at a less speed than the speed of the web, means for speeding up the sheets and delivering them to the collecting cylinder simultaneously with its last collection of web sheets and outside the same, and means for folding the web sheets and pile sheets together after collection.

5. In a printing machine, the combination with web forwarding and manipulating means including a collecting cylinder, of means for supporting a pile of inner sheets, means for supporting a pile of cover sheets, means for feeding sheets from each of said piles at a less speed than the speed of the web, means for speeding up the sheets from the piles and delivering them to the collecting cylinder, web severing means, and means for folding together the sheets cut from the web, the inner pile sheets and the cover sheets.

[Claims 6 and 7 not printed in the Gazette.]

1,132,216. CLUTCH. JOHN R. ROGERS, New York, N. Y. Filed Sept. 18, 1913, Serial No. 790,444. Renewed Aug. 18, 1914. Serial No. 857,428. (Cl. 192—8.)



1. In a clutch, the combination of a driving shaft, a driven shaft, friction surfaces mounted on each of said shafts and means permitting said friction surfaces to assume an angle inclined relative to the axis of said shafts.

2. In a clutch, the combination of a driving shaft, a driven shaft, friction surfaces mounted on each of said shafts and means permitting said friction surfaces while rotating to assume an angle inclined relative to the axis of said shafts.

3. In a clutch, the combination of a driving shaft, a driven shaft, friction surfaces mounted on each of said shafts and means permitting said friction surfaces to rotate at an angle inclined relative to the axis of said shafts.

4. In a clutch, the combination of a driving shaft, a driven shaft, friction surfaces mounted on each of said shafts, means permitting said friction surfaces to assume an angle inclined relative to the axis of said shafts and means for bringing said friction surfaces into contact with each other first at right angles to the axis of the shafts and afterward at an inclined angle thereto.

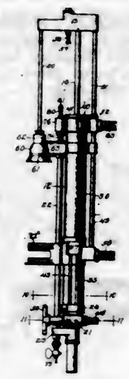
5. In a clutch, the combination of a driving shaft, a driven shaft, a friction surface mounted on each of said shafts, means for engaging said surfaces, means for positively inclining one of said surfaces relatively to the axis of the shafts and means permitting the other of said surfaces to assume the angle of said positively inclined surface.

[Claims 6 to 13 not printed in the Gazette.]

1,132,217. COMPOSITION FOR MAKING RESILIENT MOLDS. ALVIN A. SCHMIDT, Chicago, Ill. Filed Sept. 2, 1909. Serial No. 515,899. (Cl. 106—39.)

A mold composition consisting of the following ingredients mixed together in substantially the following proportions: 20 pounds of glycerin; 10 pounds of Venice turpentine; 100 pounds of gelatinous matter, and 10 pounds of water.

1,132,218. BOTTLE-FILLING MACHINE. ADOLPH SCHNEIDER, Chicago, Ill., assignor to Banning & Banning, Chicago, Ill., a Firm composed of Thomas A. Banning, Samuel W. Banning, and Walker Banning. Filed June 29, 1911, Serial No. 636,025. Renewed Jan. 19, 1914. Serial No. 813,111. (Cl. 226—15.)



1. In a machine for packing liquids, the combination of a double chambered cylinder, a piston within each chamber, said chambers and pistons being arranged in vertical alinement, means for raising and lowering said pistons, a sealing head arranged out of vertical alinement with said pistons and exteriorly of said cylinder, a connection between one of said pistons and said sealing head, a filling tube extending through said sealing head, a connection between the said filling tube and the other of said pistons, a source of liquid supply, a valved connection between the said source of liquid supply and the filling tube, and means effecting the escape of air from the to be filled package during the filling operation, substantially as described.

2. In a machine for packing liquids, the combination of two vertically alined cylinders, a piston within each cylinder, means for raising and lowering said pistons, a sealing head located exteriorly of said cylinders and out of vertical alinement with said pistons, a connection between one of said pistons and said sealing head, a filling tube extending through said sealing head, and a connection between the other of said pistons and said filling tube, substantially as described.

3. In a machine for packaging liquids, the combination of two vertically alined cylinders, a piston within each cylinder, means for raising and lowering said piston, a sealing head located exteriorly of said cylinders and out of vertical alinement with said pistons, a connection between one of said pistons and said sealing head, a filling tube extending through said sealing head, and a connection between the other of said pistons and said filling tube, substantially as described.

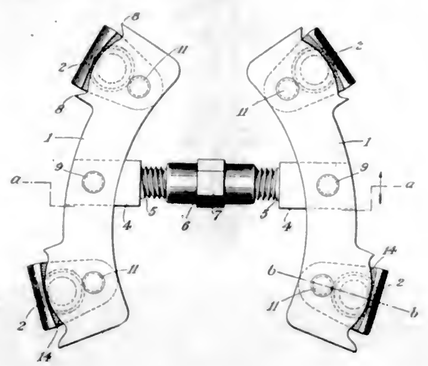
4. In a machine for packaging liquids, the combination of a cylinder, a partition within said cylinder dividing the interior thereof into two vertical alined chambers, a piston within each chamber, means for raising and lowering said pistons, a sealing head located exteriorly of said head and out of vertical alinement with said pistons, a connection between one of said pistons and said sealing head, a filling tube extending through said sealing head, and a connection between the other of said pistons and said filling tube, substantially as described.

5. In a machine for packaging liquids, the combination of a cross plate, two cylinders having their adjacent ends entered into said cross plate whereby two independent vertically alined cylinder chambers are produced, a piston within each cylinder chamber, means for raising and lowering said pistons, a sealing head located exteriorly of said cylinders and out of vertical alinement with

said piston, a connection between one of said pistons and said sealing head, a filling tube extending through said sealing head, and a connection between the other of said pistons and said filling tube, substantially as described.

[Claims 6 to 33 not printed in the Gazette.]

1,132,219. EMERGENCY-HORSESHOE. ALFRED SCHWARZ, New York, N. Y., assignor, by mesne assignments, to Hedden Sales Company, Inc., New York, N. Y., a Corporation of New York. Filed June 17, 1913. Serial No. 774,105. (Cl. 168—30.)



1. In an emergency horse shoe, comprising a plurality of separable members adapted to be placed over a permanent shoe at the sides of the hoof of an animal and substantially conforming in contour to the sides of the permanent shoe, in combination with a plurality of clamps swiveled at fixed distances from each other to each of said members, and means connecting one member intermediate the clamps thereon with the other member intermediate clamps for adjusting the former toward and away from the latter in placing the shoe on and removing the same from the hoof of the animal.

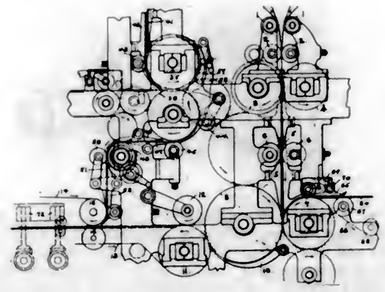
2. An emergency horse shoe comprising two members adapted to be placed over a permanent shoe at the sides of and substantially conforming in contour to the sides of the permanent shoe, each of said members having a plurality of swiveled clamps thereon, in combination with means connecting said members rigidly at a point on each member intermediate the clamps thereon for moving the same laterally and relatively to each other.

3. An emergency device, comprising, in combination, separable body members substantially conforming in contour to the sides of the hoof of the animal and adapted to be located immediately under the permanent shoe, clamps on each of said members at fixed distances from each other, swiveled to said members, and adapted to engage with and secure said members to the permanent shoe, said clamps provided with calks adjacent said swivels which project downwardly from the lower surface thereof, and means connecting one member intermediate the clamps thereon with the other member intermediate its clamps for adjusting said members laterally toward and from each other in placing the device on and removing the same from the hoof of an animal.

4. In a horse shoe, comprising, in combination, separable body members adapted to be placed over the permanent shoe at opposite sides and substantially conforming in contour to the hoof of an animal at the sides thereof, clamps swiveled at fixed distances from each other to each of said body members, calks secured to the under side of the clamps, means rigidly connected to each of the body members and provided with screw-threaded extensions, and a turnbuckle having longitudinal screw-threaded bores in either end adapted to receive the threads on the extension of the last mentioned means to secure the parts upon and remove the same from the hoof of an animal.

5. In an emergency horse shoe, comprising, in combination, separable body members of substantially the contour of the sides of the hoof of an animal, clamp members swiveled to and contacting against the under side of the body members and having an upwardly and inwardly extending part adapted to engage with the sides of a permanent shoe to hold the device in place, calks made integrally with and extending downwardly from the said clamp members, shoulders on the body members to limit the movement of the clamps, yoke members rigidly connected with and extending laterally and inwardly from the body members, screw-threaded extensions on the said yokes, and a turnbuckle having the ends of its longitudinal bore oppositely screw threaded to engage with the screw threads upon the said lugs, to adjust the parts toward and away from each other in adapting the same to and removing the same from the hoof of an animal.

1,132,220. PRINTING-MACHINE. EDWARD P. SHELDON, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 17, 1912. Serial No. 709,858. (Cl. 101—120.)



1. The combination with means for advancing web sheets flat, of a collecting mechanism for collecting said sheets flat, means for forwarding the web sheet product flat after collection, a sheet pathway running at an angle to the path of the web sheets before collection, a timing device acting in conjunction therewith and means located over the means for forwarding the collected web sheet product flat for changing the direction of and superposing sheets from the pathway upon the collected flat web product.

2. The combination with means for advancing web sheets flat, of a collecting mechanism for collecting said sheets flat, means for forwarding the web sheet product flat after collection, a sheet pathway running at an angle to the path of the web sheets before collection, a timing device operating in conjunction with said sheet pathway, a pair of rolls which receive sheets from the sheet pathway and around one of which the sheets run whereby their direction of movement is changed, and means including a roll and suitable guides for again changing the direction of the sheets so that they may move parallel with and be superposed upon the flat collected web sheet product.

3. The combination with a vertically disposed web sheet pathway for advancing web sheets flat, of a collecting mechanism for collecting said sheets flat, means for forwarding the web sheet product flat after collection and at an angle to the path of movement of the web sheets before collection, a generally horizontally disposed sheet pathway, a timing device acting in conjunction therewith, a pair of rolls for receiving sheets from the pathway around one of which the sheets run, said rolls being located over the means for forwarding the collected web sheet flat, and means including a roll and suitable guides also located over the means for forwarding the web sheet product for superposing the sheets upon the web product.

4. The combination with means for advancing web sheets, of a collecting mechanism, means for forwarding the web sheet product flat after collection, a plurality of sheet pathways, timing devices in the pathways, a pair of rolls to which the pathways deliver and around one of which the sheets pass, and means for superposing the sheets on the flat web product.

5. The combination with means for advancing web sheets, of a collecting mechanism, means for forwarding the web sheet product flat after collection, a plurality of sheet pathways, timing devices in the pathways, a pair of folding rolls to which the pathways deliver, and means for superposing the sheets on the flat web product.

[Claims 6 to 13 not printed in the Gazette.]

1,132,221. MACHINE FOR FITTING CLOSURE-CAPS TO CANS. WILLIAM SIM, Underwood, Invercargill, New Zealand, assignor to Torris Wold & Co., Chicago, Ill., a Corporation of Illinois. Filed June 3, 1912. Serial No. 701,412. (Cl. 113—25.)

1. In a can capping machine, a revoluble depression shaft, a head in fixed relation to said shaft and having a centrally disposed recess, a bearing for said shaft, a movable depression plate supported by said bearing, and having a stem reciprocable in said recess, spring means arranged to yieldably hold said plate away from said bearing, and a guide plate mounted on said depression plate and provided with a frusto-conical recess in its lower face adapted to receive the end of a can and center the same.

2. In a can capping machine, a revoluble depression shaft, a head in fixed relation to said shaft and having a centrally disposed recess, a bearing for said shaft, a movable depression plate supported by said bearing, and having a stem reciprocable in said recess, spring means arranged to yieldably hold said plate away from said bearing, a guide plate mounted on said depression plate and provided with a frusto-conical recess in its lower face adapted to receive the end of a can and center the same, and beading means carried by said shaft and head.

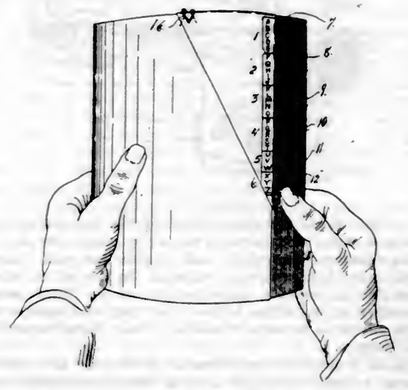
3. In a can capping machine, the combination of a support, vertically reciprocating means resiliently mounted in said support for forcing a cap into an opening in the can, and rotatable means for laterally expanding the cap within said opening.

4. In a can capping machine, the combination of a support, vertically reciprocating means resiliently mounted in said support and having means for centering the can to be capped and forcing the cap into the opening therefor, and rotatable means for laterally expanding the cap within said opening.

5. In a can capping machine, the combination of a frame, means mounted thereon for automatically conveying cans to capping position, vertically reciprocating means resiliently mounted on the frame for centering the cans to be capped and laterally movable expanding means rotatably mounted within said reciprocating means.

[Claims 6 to 10 not printed in the Gazette.]

1,132,222. BOOK-INDEX. LOUIS R. SMITH, Colorado Springs, Colo., assignor to The Universal Indexing Company, Denver, Colo., a Corporation of Colorado. Filed Nov. 16, 1911. Serial No. 660,622. (Cl. 11—7.)



1. The combination with a book, of a pocket detachably applied to one corner of one of the covers of the book, the pocket having characters formed thereon adjacent the front edge of the said cover, the front edges of the leaves of the book opposite the said characters being marked, the marks opposite the various characters beginning with the leaves where the matter commences to which the respective characters relate.

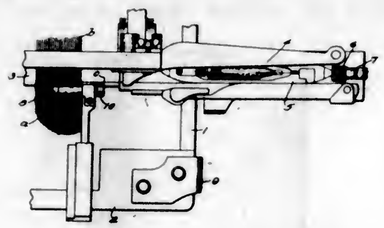
2. The combination with a book, of a corner pocket detachably applied to one corner of the front cover of the book, the corner piece having characters arranged in groups adjacent the front edge of the cover of the book, the edges of the leaves of the book opposite the various characters being marked, the marks opposite the said characters beginning with the leaves where the matter commences to which the respective characters relate, the characters formed on the said pocket being colored, adjacent groups being of different colors and the marks on the edges of the leaves corresponding in color with the respective characters opposite which they are located.

3. The combination with a book, of a corner pocket applied to the upper righthand corner of the front cover of the book, the said pocket having characters arranged adjacent the front edge of the book, the edges of the leaves having marks opposite the various characters, the marks opposite each character commencing with the leaf where the matter begins to which the particular character relates, the said mark being continued for a short distance on the front face of the first leaf containing the matter to which the particular character relates.

1,132,223. LOOM. ISAAC SNOW, Lawrence, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 4, 1914. Serial No. 829,675. (Cl. 139—28.)

1. In a loom, the combiation of the lay and shuttle boxes, and means to engage the filling between the cloth and shuttle box and bold the loop formed in the filling as the shuttle is picked until the slack filling between the shuttle and cloth is taken up and then to give up said loop as the shuttle traverses the lay and pulls upon the filling to prevent snarling or kinking of the filling at the cloth selvage.

2. In a loom, the combination of the lay and shuttle boxes, and a snarl preventer mounted on the lay and extending in front of the race between the cloth and shuttle box to engage the filling within the loop formed in the filling as the shuttle is picked and then give up said loop as the shuttle traverses the lay and pulls upon the filling to prevent snarling or kinking of the filling at the cloth selvage.



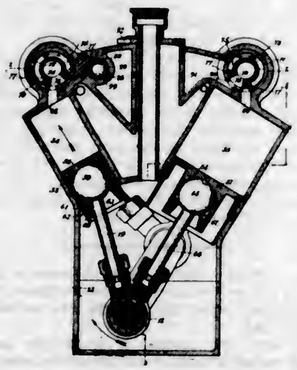
3. In a loom, the combination of the lay and shuttle boxes, a device movable with the lay to engage the service filling between the cloth and shuttle box and extend within and hold the loop formed as the shuttle is picked and give up the loop under the pull of the shuttle when the slack in the filling between the cloth and shuttle has been taken up to prevent snarls or kinks being formed in said loop.

4. In a loom, the combination of the lay and shuttle boxes, a hook having its opening facing rearwardly and extending in front of the lay to engage the filling between the cloth and shuttle box as the lay moves back and prevent snarling of the filling at the cloth selvage.

5. In a loom, the combination of the lay and shuttle boxes, a hook mounted on the lay and extending in front of the race-way between the cloth and a shuttle box to engage the loop of filling formed as the shuttle is picked and give up that loop as the shuttle pulls upon the filling.

[Claims 6 to 9 not printed in the Gazette.]

1,132,224. STARTER FOR INTERNAL-COMBUSTION ENGINES. GREGORY JOHN SPOHRER, East Orange, N. J., assignor, by direct and mesne assignments, to Motor Compressor Company, Wilmington, Del., a Corporation of Delaware. Filed Jan. 12, 1914. Serial No. 811,579. (Cl. 230—37.)



1. In a starter for internal combustion engines, the combination of a cylinder, a second cylinder, means for conveying a fluid under pressure to the first cylinder, a passage for conveying the exhaust of the first cylinder to an inlet of the second cylinder, and pneumatic means for closing the passage between the cylinders and supplying the inlet of the second cylinder direct with the fluid under pressure.

2. In a starter for internal combustion engines, the combination of a cylinder, a piston in the cylinder, a second cylinder, a piston, means for conveying a fluid under pressure to the first cylinder, there being a passage for conveying the exhaust from the first cylinder to an inlet in the second cylinder, a valve member for closing the passage and for opening communication to the second cylinder and means for conveying a fluid under pressure to the valve member for operating the latter, and for supplying the passage therewith.

3. In a starter for internal combustion engines, the combination of a cylinder, a piston for acting therein, a second cylinder, a piston for acting therein, a shaft, means for connecting the pistons to the shaft, means for conveying a fluid under pressure to the first cylinder, a casing having a port leading from the exhaust to the first cylinder to a second port leading to the atmosphere, a third port leading to an inlet in the second cylinder, a fourth port leading to the inlet of the second cylinder, a valve for normally closing the second and fourth ports with the first and third ports open, and means for conveying a fluid under pressure to the valve to close the third mentioned port and open the second and fourth mentioned ports.

4. In a starter for internal combustion engines, the combination of a cylinder, a piston in the cylinder, a second cylinder, a piston, means for conveying a fluid under pressure to the first cylinder, a casing having a port leading from the exhaust of the first cylinder, there being in the casing a port leading to the atmosphere, a third port leading from the first port to an inlet in the second cylinder, and a fourth port leading to an inlet in the second cylinder, means for conveying a fluid under pressure to the fourth mentioned port, a valve normally closing the second and fourth mentioned ports and operable under pressure of the fluid for closing the third port and opening the second and fourth ports.

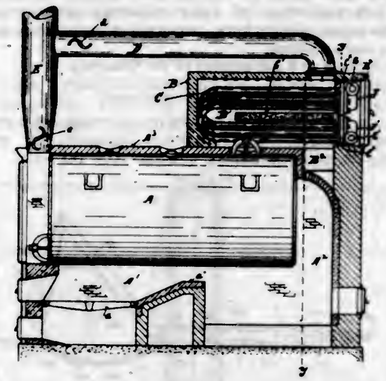
5. In a starter for internal combustion engines, the combination of a cylinder, a piston therein, a second cylinder, a piston in the second cylinder, a shaft, means for connecting the pistons to the shaft, a casing having a guideway with a port leading thereto from the first cylinder, a second port leading to the atmosphere, a third port leading to an inlet in the second mentioned cylinder, and a fourth port leading to the said inlet in the second mentioned cylinder, a valve in the guideway for normally closing the second and fourth mentioned ports for opening communication between the first and third mentioned ports, a spring for holding the valve in a normal position, and communicating means to operate the latter and to close the third port and open the second and fourth mentioned ports to open communication between the first and second ports and from the communicating means to the fourth mentioned port.

[Claims 6 to 29 not printed in the Gazette.]

1,132,225. STEAM-SUPERHEATER. ROBERT C. STEVENS, Erie, Pa., assignor to Skinner Engine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Feb. 10, 1913. Serial No. 747,369. (Cl. 122—461.)

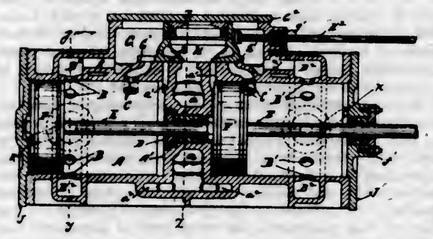
1. The combination of a horizontal tubular boiler, a combustion chamber at the rear end thereof, a super-heater chamber above said boiler and combustion chamber, a bypass from said combustion chamber into said super-heater chamber, a header-box closing the rear end of said super-heater chamber, tubes extending therefrom into said super-heater chamber, an opening in the upper wall of said super-heater chamber, a flue leading therefrom, a horizontal baffle wall in said super-heater chamber between said bypass and said opening in the upper wall of said super-heater chamber, and a damper adapted to control the flow of heated gas through said super-heater chamber, substantially as set forth.

2. The combination in an apparatus of the character described, of a plurality of header plates having tube receiving openings therethrough, return-bend tubes secured in said openings, hollow headers secured on said plates covering said openings, pipe connections on said headers for conveying steam to and from said headers and division



walls within said headers having one edge thereof contacting with said header plates adapted to cause steam to flow successively through some of said tubes, substantially as set forth.

1,132,226. STEAM-ENGINE. ROBERT C. STEVENS, Erie, Pa., assignor to Skinner Engine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Sept. 26, 1913. Serial No. 791,993. (Cl. 121—28.)



1. In a steam engine the combination of a cylinder having a steam inlet port at one end and steam exhaust ports at the opposite end thereof, a piston in said cylinder adapted to control the exhaust from said cylinder, a valve mechanism communicating with said inlet port, a hollow head closing said cylinder at the steam intake end thereof having a steam inlet opening thereinto, and a steam passage therefrom to said valve mechanism, a radial division wall in said hollow head extending from the central portion to the periphery thereof between said inlet opening and the passage to said valve mechanism, and means to operate said valve mechanism, substantially as set forth.

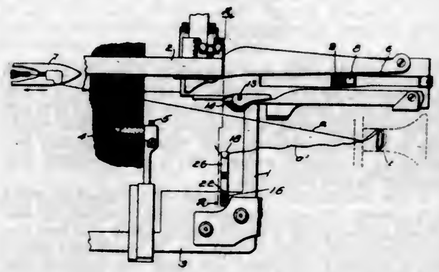
2. In a steam engine, the combination of a pair of cylinders in tandem each having exhaust ports adjacent to their outer ends, and each having steam inlet ports at their inner ends, valve mechanism communicating with said inlet ports, a hollow division wall between said inlet ports having a steam inlet opening thereinto and a steam passage therefrom into said valve mechanism, a radial division wall in said hollow wall extending from the central portion to the periphery thereof between said inlet opening and said steam passage to said valve mechanism, connected pistons in said cylinders adapted to control the exhaust from said cylinders, and means to operate said valve mechanism, substantially as set forth.

3. In a steam engine, the combination of a cylinder having steam inlet ports in the intermediate portion thereof, main exhaust ports adjacent to the ends thereof, and auxiliary exhaust ports in the wall thereof between said steam iptake ports and the main exhaust ports, a division wall between said steam intake ports, a piston-rod therethrough, pistons secured on said piston-rod at each side of said division wall, a valve-chest with which said steam inlet ports and said main exhaust and auxiliary ports communicate, and a valve therein adapted to cover and uncover said steam inlet ports and said auxiliary exhaust ports, substantially as set forth.

4. In a steam engine, the combination of a cylinder having steam inlet ports in its intermediate portion thereof, main exhaust ports adjacent to the ends thereof, and auxiliary exhaust ports in the wall thereof between said steam intake ports and said main exhaust ports, a division wall between said intake ports having a steam chamber, a piston-rod therethrough, a piston secured thereon at each side of said division wall adapted to cover and uncover said main exhaust ports, and valve mechanism adapted to open and close said intake and auxiliary exhaust ports, substantially as set forth.

5. In a steam engine, the combination of a cylinder having steam inlet ports in the intermediate portion, main exhaust ports adjacent to each end thereof, and auxiliary exhaust ports in the walls of said cylinder between said steam inlet ports and main exhaust ports, a division wall between said steam inlet ports, a piston-rod extending through said division wall pistons secured on said piston rod and adapted to cover said main exhaust ports and said auxiliary exhaust ports during the interval of passing the same on its reciprocations, and valve mechanism adapted to alternately open said intake ports, and alternately open said auxiliary exhaust ports, substantially as set forth.

1,132,227. FILLING-END CONTROLLER FOR LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Mar. 26, 1914. Serial No. 827,313. (Cl. 139—85.)



1. In a filling replenishing loom having a filling end holder, the combination of a filling end parter for parting the fresh filling adjacent the edge of the cloth, means carried by the lay for engaging the filling between the shed and filling end holder and moving it forward, a guide for directing the filling to said means as the lay beats up, and a filling retainer for taking the filling from said means and retaining it in forward position.

2. In a filling replenishing loom, a lay, a filling end parter adjacent the edge of the cloth, a filling end retainer comprising an upwardly turned hook for engaging the filling end and retaining it in the range of action of the thread parter as the lay moves back and provided with a bent portion between the hook and front of the loom to receive the filling end after it has been parted and retain it in front position.

3. In a filling replenishing loom having means for holding the free end of the fresh filling, the lay, a thread parter, means carried by the lay for engaging the fresh filling between the shed and said filling end holding means,

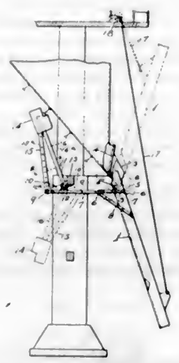
a guide leading to said means and directing the filling thereto as the lay beats up, and a filling end retainer for engaging the filling as it is moved forward and retaining it in forward position as the lay moves back.

4. In a filling replenishing loom, means for holding the free end of the fresh filling, a thread parter, and a filling end retainer having a hooked end portion and a filling end collector forward of the hooked end portion.

5. In a filling replenishing loom, means for holding the free end of the fresh filling, a thread parter, a projection on the lay for engaging the fresh filling on the beat up following filling replenishment and moving it forward, a guide for directing the filling into engagement with said projection as the lay moves forward, a filling end retainer comprising a hook device for taking the filling from said projection and retaining it in forward position, and a filling end gatherer forward of the hook.

[Claims 6 to 9 not printed in the Gazette.]

1,132,228. CHUTE. JOSEPH B. STRAUSS, Chicago, Ill. Filed May 19, 1913. Serial No. 768,438. (Cl. 193—36.)



1. The combination with a chute of a support to which it is pivoted, an arm connected to said chute at one side of said pivotal point, a second arm to which said first arm is pivotally connected, a third arm to which said second arm is pivotally connected, said third arm pivotally connected to a suitable support and a counterweight connected with said third arm.

2. The combination with a chute of a support to which it is pivoted, an arm connected to said chute at one side of said pivotal point, a second arm to which said first arm is pivotally connected, a third arm to which said second arm is pivotally connected, said third arm pivotally connected to a suitable support and a counterweight connected with said third arm, said second arm being substantially parallel with a line passing through the pivotal point of the chute and the pivotal point where the third arm is connected to the support, said third arm being substantially parallel with a line drawn through the pivotal point of the chute and the pivotal connection between the first and second arm.

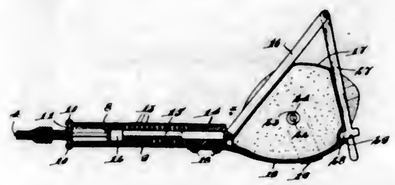
3. The combination with a chute of a support with which it is pivotally connected, an arm connected with said chute, a counterweight, an arm connected therewith and an arm pivotally connecting said latter arm and the arm attached to the chute.

4. The combination with a chute of a support with which it is pivotally connected, an arm connected with said chute, a counterweight, an arm connected therewith and an arm pivotally connecting said latter arm and the arm attached to the chute, said latter arms being in substantial alinement when the chute is in its maximum lowered position.

5. A counterbalancing device for chutes comprising a counterweight frame mounted behind the chute, a pivot upon which it is mounted, a counterweight associated with said frame and a strut connecting the counterweight frame to the chute so as to permit it to balance the weight of the chute in all its various positions the end of said strut farthest from the chute projecting past the pivot of the counterweight frame when the chute is in its maximum down position.

[Claims 6 to 9 not printed in the Gazette.]

1,132,229. PHOTOGRAPHIC-SHUTTER-TRIPPING MECHANISM. WILLIAM SYKES, Rockford, Ill. Filed May 20, 1912. Serial No. 698,505. (Cl. 161—26.)



1. A photographic shutter trip comprising in combination a member adapted to trip the shutter; a slidable plunger adapted when released to operate said member; a pivoted detent connected with said plunger and adapted when in inclined position to hold the latter against motion; and pneumatic means for releasably holding said detent in inclined position, substantially as described.

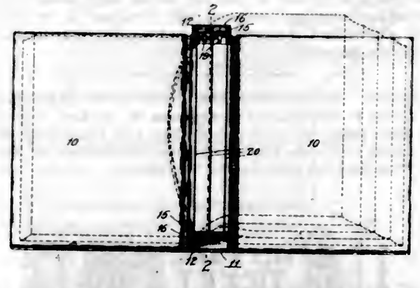
2. A photographic shutter trip comprising in combination with a depressible member adapted when depressed to trip the shutter, a tube; a plunger slidably mounted in said tube adapted when released from operative position to operate said depressible member; a pivoted detent connected with said plunger and adapted when in inclined position to hold the latter in operative position; and pneumatic means for releasably holding said detent in inclined position, substantially as described.

3. A photographic shutter trip comprising in combination with a depressible member adapted when depressed to trip the shutter, a tube; a plunger slidably mounted in said tube adapted when released from operative position to operate said depressible member; a pivoted detent connected with said plunger and adapted when in inclined position to hold the latter in operative position; a collapsible bag adapted when distended to releasably hold said detent in inclined position, collapse of said bag permitting of rocking of said detent to releasing position; and means for controlling the exhaust of fluid from said bag, substantially as described.

4. A photographic shutter trip comprising in combination with a depressible member adapted when released to trip the shutter, a tube; a plunger slidably mounted in said tube adapted when released from operative position to operate said depressible member; a lever pivotally connected with said plunger and adapted when in inclined position to hold the latter in operative position; a collapsible fluid bag mounted at one end of said tube and adapted when distended to releasably hold said lever in inclined position; collapse of said bag permitting of rocking of said lever to releasing position; and means for controlling the exhaust of fluid from said bag, substantially as described.

5. A photographic shutter trip comprising in combination with a depressible member adapted when depressed to trip the shutter, and an elongated member adapted when moved longitudinally to operate said depressible member, said elongated member having a head adapted to be engaged for moving said member, a tube into one end of which said head is adapted to be inserted, a spring pressed plunger slidably mounted in said tube adapted when released from operative position to engage said head and move said elongated member longitudinally; a pivoted detent connected with said plunger and adapted when in inclined position to hold the latter in operative position; collapsible pneumatic means for releasably holding said detent in inclined position, collapse of said pneumatic means permitting of rocking of said detent to releasing position; and adjustable means for controlling the collapse of said pneumatic means, substantially as described.

1,132,230. TEMPORARY BINDER. JAMES R. TURNER, Chicago, Ill. Filed Aug. 1, 1914. Serial No. 854,437. (Cl. 129—38.)



1. A binder comprising a back, a strip-holding device at each end of the back, one of which has a hole therein and a flat resilient holding strip formed so it may be bowed to bring one of its ends inwardly of its holding-device and to spring outwardly into said hole, and being removable from said device by bowing it to withdraw one end inwardly and out of said hole, said hole being larger than the flat strip to permit the strip to be turned to facilitate its withdrawal and insertion.

2. A binder comprising a back, a strip-holding device at each end of the back having a hole therein and a flat resilient holding strip formed so it may be bowed to bring its ends inwardly of said devices, and to spring outwardly into said holes and being removable by bowing it to withdraw its ends inwardly and out of said devices, said holes being larger than the flat strip to permit the strip to be turned to facilitate its withdrawal and insertion.

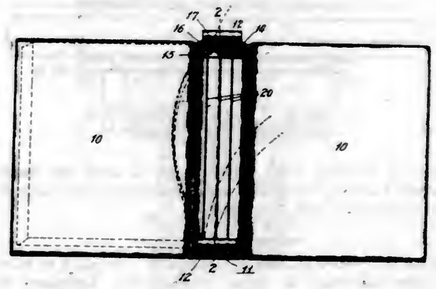
3. A binder comprising a back, a one-piece bracket at each end of the back, having an inner wall with a hole therein, an outer stop-wall and a connecting bottom wall, secured to said back, and a resilient holding strip having its ends formed to pass outwardly through said holes and being removable therefrom by inward withdrawal from the holes and bending of the strip.

4. A binder comprising a back, a bracket at one end of the back having an inner wall with a hole therein, side walls, and a bottom-wall secured to said back, and a resilient holding-strip formed so it may be bowed to bring one of its ends inwardly of said hole and having one of its ends formed to pass outwardly through said hole and being removable therefrom by inward withdrawal of said end through the hole and bending of said strip, and means for holding the other end of the strip.

5. A binder comprising a back, a one-piece bracket at each end of the back, each bracket having an inner wall with a hole therein, an outer wall, a bottom wall secured to said back and side-walls, and a resilient holding strip formed so that it may be bowed to bring its ends inwardly of said holes and having its ends formed to pass outwardly through said holes and being removable by bowing it to withdraw its ends inwardly from said holes.

1,132,231. TEMPORARY BINDER. JAMES R. TURNER, Chicago, Ill. Filed Aug. 1, 1914. Serial No. 854,438. (Cl. 129—38.)

1. A binder comprising a back, a strip-holding device at each end of the back having a hole therein, and a flat resilient holding strip having its ends formed to pass outwardly through said holes and being removable therefrom by inward withdrawal and bending of the blade, said blade being reversibly held to bring either of its edges into operative relation to the back, and formed with terminals adapted to be held in the holes and whereby the edges of the strip will be disposed in different positions relatively to the back.



2. A binder comprising a back, a plate at each end of the back having a hole therein, and a flat resilient holding strip having its ends formed to pass outwardly through said holes and being removable therefrom by inward withdrawal and bending of the blade, said blade being reversible to bring either of its edges into operative position adjacent the back and formed with terminals adapted to be held in the holes and whereby the edges of the strip will be disposed in different positions relatively to the back.

3. A binder comprising a back, a device at each end of the back having a hole therein and a flat resilient holding strip formed so it may be bowed to bring its ends inwardly of said devices and having its ends formed to spring outwardly into said holes and being removable by inward withdrawal of its ends from the holes by bending of said strip, and having means thereon disposed to engage the inner faces of said devices respectively to limit the endwise movement of the blade.

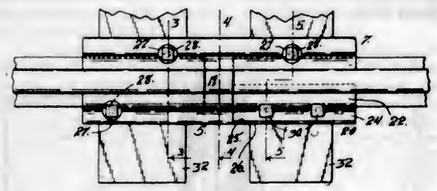
4. A binder comprising a back, a plate at each end of the back having a hole therein and a flat resilient holding strip, formed so it may be bowed to bring its ends inwardly of said plates and having its ends formed to spring outwardly through said holes and being removable by inward withdrawal of its ends from the holes and bending of said strip and having shoulders disposed to engage the inner faces of said plates respectively to limit the endwise movement of the blade.

5. A binder comprising a back, a plate at each end of the back having a hole therein and a flat resilient holding strip formed so it may be bowed to bring its ends inwardly of said plates and having its ends formed to spring outwardly through said holes and being removable therefrom by inward withdrawal from the holes and bending of said strip, and having stop-shoulders on the strip, each of said plates comprising an inner wall in which said hole is formed, an outwardly extending wall and a wall outside of the end of the strip.

1,132,232. RAILWAY-RAIL JOINT. JAMES C. WALLACE, Denver, Colo. Filed Feb. 25, 1914. Serial No. 820,800. (Cl. 239—6.)

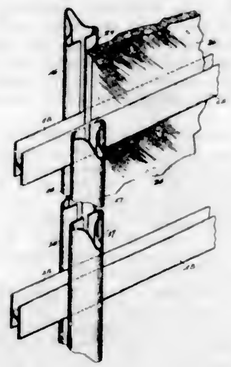
A railway rail joint, comprising a device shaped to conform to the shape of the base and web of the rail ends to be joined, and open at both ends to receive the rails, the said device being composed of two members, namely, a body member and a removable angle member, the latter being of a length equal to that of one of the inclosed rail ends, the bed plate of the body of the device extending underneath the angle member and having a rib at its outer edge which the outer edge of the removable angle member

engages, the body of the device having a centrally located, fixed abutment conforming to the general shape of the abutting rail ends, the said device having top and bottom openings to receive headed fastening devices, certain of



the top openings being large enough to allow the heads of the fastening devices to pass therethrough into engagement with the base of the rail.

1,132,233. METAL-FRAME WINDOW. WILLIAM D. WATSON and ORLA H. IMAN, Chicago, Ill., assignors, by mesne assignments, to Watson Solar Window Company, Carmel, N. Y., a Corporation of New York. Filed May 11, 1911. Serial No. 626,410. (Cl. 189—78.)



1. In a sheet metal window construction, the combination of a jamb-frame, a continuous two-part muntin member, and a continuous transom bar uniform in cross section throughout its length, passing between, without intersecting, the parts of said vertical muntin member, one of the parts of said muntin member being removable.

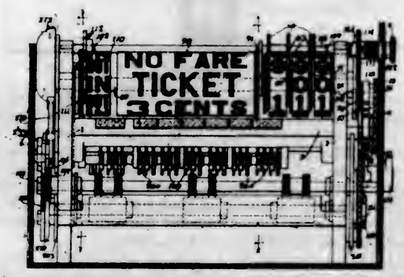
2. In a sheet metal window construction, the combination of a jamb-frame, a continuous muntin member comprising two parts having uniform cross-section throughout their length, said parts having opposed spaced flat surfaces for admitting the glazing, and a continuous transom bar uniform in cross-section throughout its length, passing between but not intersecting the parts of said vertical muntin member, one of the parts of said muntin member being removable.

3. In a sheet metal window construction, the combination with a jamb-frame, of a continuous two-part vertical muntin member, and a continuous H-shaped transom-bar passing between, without intersecting the parts of said vertical muntin member, one of the parts of said muntin member being removable.

4. In a sheet metal window construction, the combination with a jamb-frame, of a sheet metal transom of H-form in cross-section, a two-part muntin comprising a muntin bar permanently secured at its ends in the upper and lower cross-bars of the jamb-frame and crossing one side of said transom, and a companion muntin bar removably secured at its ends in the upper and lower cross-bars of the jamb-frame and crossing the opposite side of said transom, and a detachable connector between said muntin bars, substantially as described.

5. In a sheet metal window construction, the combination with a jamb-frame, of a sheet metal transom of H-form in cross-section, a two-part muntin comprising a hollow sheet metal muntin bar permanently secured at its ends in the upper and lower cross-bars of the jamb-frame and crossing one side of said transom, and a companion hollow sheet metal muntin bar removably secured at its ends in the upper and lower cross-bars of the jamb-frame and crossing the opposite side of said transom, and a connecting link pivoted at one end within said permanently secured muntin bar and separably attached at its other end within said removably secured muntin bar, substantially as described.

1,132,234. RECORDING AND COMPUTING MACHINE. DAVID B. WHISTLER and CHARLES W. RIPSCH, Dayton, Ohio, assignors to The Recording and Computing Machines Company, Dayton, Ohio, a Corporation of Ohio. Filed June 29, 1912. Serial No. 706,576. (Cl. 235—29.)



1. In a machine of th character described, the combination, with a counting device, of a plurality of accumulating devices, means for actuating said devices by one operation to cause each to record the same item, and means to separately transfer the records from the respective accumulating devices to said counting device.

2. In a machine of the character described, the combination, with a counting device comprising printing counters, of a plurality of accumulators each comprising non-printing counters, means for actuating said counting device and said accumulators by one operation to cause each to record the same item, and means to cause records to be taken from said printing device and said accumulators in a predetermined order.

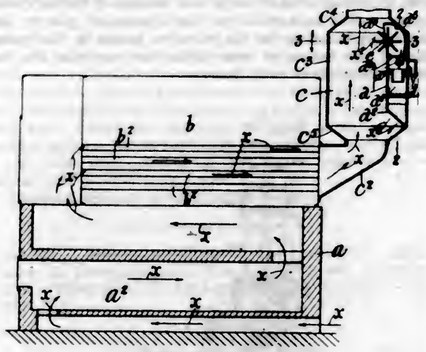
3. In a machine of the character described, the combination, with a counting device comprising printing counters, of a plurality of accumulators each comprising non-printing counters, means for actuating said counting device and said accumulators by one operation to cause each to record the same item, and independently operable means to transfer the records from the accumulators to said counting device.

4. In a machine of the character described, the combination, with a counting device, of a plurality of accumulators, means for actuating said counting device and said accumulators to cause each to record the same item, and independently operable means to transfer the records from said accumulators to said counting device.

5. In a machine of the character described, the combination, with a counting device, of a plurality of accumulators normally disconnected from said counting device, means for actuating said counting device and said accumulators, while disconnected, to cause each to record the same item, and means for separately connecting said accumulators with said counting device and for separately transferring the records from said accumulators to said counting device.

[Claims 6 to 145 not printed in the Gazette.]

1,132,235. FUEL-SAVING CONSTRUCTION FOR FURNACES. LOUIS C. ZWERDLING, Brooklyn, N. Y., assignor of one-third to Harry Zwerdling and one-third to Joseph Josephson, New York, N. Y. Filed Nov. 10, 1914. Serial No. 871,241. (Cl. 110—58.)



1. The combination with the escape flue of a boiler furnace, of a casing connected with one side portion of said flue adjacent to said furnace and forming an air chamber or passage, the walls of said chamber or passage being provided at the end portion thereof adjacent to the furnace with means for discharging air into the escape flue and adjacent to the opposite end thereof with an air inlet, and said casing being also provided in the end portion thereof opposite the furnace connection with an opening communicating with the escape flue and a fan wheel mounted therein and adapted to be rotated by the products of combustion passing through the flue.

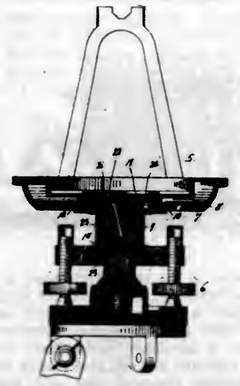
2. The combination with the escape flue of a boiler furnace, of a casing connected with one side portion of said flue adjacent to said furnace and forming an air chamber or passage, the walls of said chamber or passage being provided at the end portion thereof adjacent to the furnace with means for discharging air into the escape flue and adjacent to the opposite end thereof with an air inlet, and said casing being also provided in the end portion thereof opposite the furnace connection with an opening communicating with the escape flue, and a fan wheel mounted therein and adapted to be rotated by the products of combustion passing through the flue, and means for retarding the passage of air through said casing.

3. The combination with the escape flue of a furnace with means for supplying air thereto, comprising a casing connected with one side thereof and into which air is fed at one end and from which air is discharged into the flue at the opposite end, means operated by the products of combustion passing through said flue for forcing air through said casing, and means within said casing for retarding the passage of air therethrough.

1,132,236. SURVEYOR'S TRANSIT. ROBERT G. AINSWORTH, Denver, Colo. Filed Feb. 12, 1914. Serial No. 818,434. (Cl. 33—46.)

1. In a surveyor's transit, the combination of an upper member provided with a spindle and a limb member provided with a sleeve, the latter being journaled upon the spindle of the upper member intermediate the extremities of the said spindle, substantially as described.

2. In an instrument of the class described, the combination of an upper member, a limb member, and a lower member, the upper member provided with a spindle and the limb member provided with a sleeve journaled upon the upper portion of the said spindle, the lower extremity of the sleeve engaging the framework of the lower member, the spindle of the upper member having a right angled offset intermediate its extremities forming a shoulder which engages the framework of the lower member in the same plane as the lower extremity of the sleeve of the limb.



3. A surveyor's transit including an upper member, a limb member and a lower member, the upper member provided with a spindle, an annular flange on the top of the said spindle, the limb member having a sleeve journaled upon the upper portion of the spindle and occupying a position below the said flange, the spindle also having an offset intermediate its extremities which engages the frame-work of the lower member of the instrument, the lower extremity of the sleeve of the limb also engaging the frame work of the lower member, while its upper extremity is free from engagement with the flange of the spindle, substantially as described.

4. A surveyor's transit including an upper member, a limb member and a lower member, the upper member provided with a spindle and the limb member having a sleeve journaled upon the said spindle and having its lower extremity bearing upon the frame work of the lower member, the lower portion of the spindle engaging a socket formed in the framework of the lower member, the spindle having a lubricant containing receptacle and ducts leading therefrom to the upper and lower bearing portions of the spindle, substantially as described.

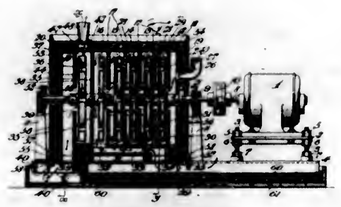
5. A surveyor's transit including an upper member, a limb member and a lower member, the upper member provided with a spindle and the limb member having a sleeve journaled upon said spindle intermediate the extremities of the latter, the lower extremity of the sleeve bearing upon the frame work of the lower member, the spindle of the upper member having an offset intermediate its extremities, and in the plane of the lower extremity of the said sleeve, the offset of the spindle also bearing upon the frame work of the lower member, the spindle having a lubricant containing receptacle and also provided with ducts leading therefrom to the bearing portions of the spindle above and below its offset, substantially as described.

1,132,237. COMBINATION-BLOWER. HAROLD A. BIERCK, Philadelphia, Pa. Filed Jan. 22, 1914. Serial No. 813,663. (Cl. 230—30.)

1. In a device of the character stated, a suction creating fan, a pressure creating fan, a shaft common to said fans, a casing common to and inclosing said fans, and a partition within said casing intermediate of said fans and their fan chambers, said fans having their inlets oppositely disposed with respect to each other, and said partition being located intermediately of the suction fan chamber and the pressure fan chamber and said casing having an inlet and outlet for the pressure fan chamber and a separate inlet and outlet for said suction fan chamber.

2. In a device of the character stated, a motor, a shaft rotated thereby, a plurality of suction fans on said shaft,

a pressure fan also on said shaft, the latter being common to said fans and said fans having their inlets oppositely disposed with respect to each other, a casing common to and inclosing said fans, a suction inlet pipe for said suction fans, and a pressure outlet pipe for said pressure fan.



3. In a device of the character stated, a motor, a main shaft actuated thereby, a plurality of suction fans upon said main shaft, a pressure fan on said main shaft said fans having their inlets oppositely disposed with respect to each other, a partition intermediate of said pressure fan and the adjacent suction fan, means for holding said fans in assembled position upon said shaft, the latter being common to said fans, a suction inlet pipe communicating with said suction fans, the latter having passages leading to the exterior of the casing, a pressure outlet pipe leading from said pressure fan, and a casing common to and surrounding said fans.

4. In a device of the character stated, a plurality of suction fans, a pressure fan, a shaft on which said fans are mounted, said shaft being common to said fans, a casing common to and inclosing said fans, a plurality of partitions intermediate said suction fans, whereby suction fan chambers are formed, and partitions intermediate said pressure fan and the adjacent suction fan, whereby a pressure fan chamber is formed, the inlet to said pressure fan being oppositely disposed to the inlets of said suction fans, in combination with an outlet pipe leading from said pressure fan chamber to a point where the pressure is utilized, and a suction pipe leading from the point where the suction is desired through said casing to said suction fan chambers.

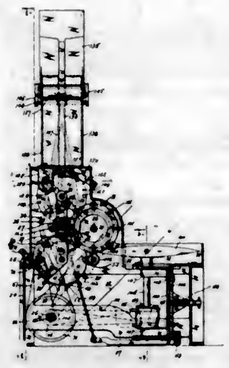
5. In a device of the character stated, a bottom frame, a box supported thereon, angle irons common to said box and frame, additional fastening devices common to said box and frame, bearings supported on said frame, an outer base member, and a layer of non-conducting material therein, upon which said frame is supported.

[Claims 6 to 12 not printed in the Gazette.]

1,132,238. MACHINE FOR MANUFACTURING WOOD-TOP CORKS. ALEXANDER BOGDÁNFFY, New York, N. Y. Filed Dec. 3, 1914. Serial No. 875,293. (Cl. 144—2.)

1. In a machine for the manufacture of wood-top corks, the combination with an intermittently moving carrier having a plurality of equidistantly disposed conical bores, each of which is adapted to receive a tapered cork provided with a cylindrical recess in one of its ends, of a chute for receiving the wood-tops and having an aperture in that side thereof which faces said carrier, said aperture being in alinement with one of said bores when said carrier is at rest and the dowel pin of the lowermost of the wood-tops in said chute being in registering position with the recess of the cork in alinement with said aperture, and means for removing when the carrier is at rest a cork from one of said bores and forcing it through said aperture into said chute so that the dowel pin of the lowermost wood-top in the chute is seated in the recess thereof.

2. In a machine for the manufacture of wood-top corks, the combination with an intermittently moving carrier having a plurality of equidistantly disposed conical bores, each of which is adapted to receive a tapered cork provided with a cylindrical recess in one of its ends, of a chute for receiving the wood-tops and having an aperture in that side thereof which faces said carrier, said aperture being in alinement with one of said bores when said carrier is at rest and the dowel pin of the lowermost of the wood-tops in said chute being in registering position with the recess of the cork in alinement with said aperture, means for removing when the carrier is at rest a cork from one of said bores and forcing it through said aperture into said chute so that the dowel pin of the lowermost wood-top in the chute is seated in the recess thereof, and means on said carrier for removing the finished product from said chute.



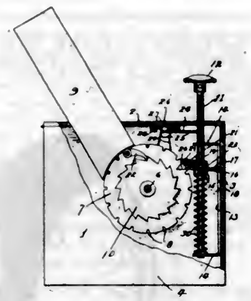
3. In a machine for the manufacture of wood-top corks, the combination with an intermittently rotating carrier having a plurality of bores equidistantly disposed on a circle, each of which is adapted to receive a tapered cork provided with a cylindrical recess in one of its ends, of a chute for receiving the wood-tops and having an aperture in that side thereof which faces said carrier, said aperture being in alinement with one of said bores when said carrier is at rest and the dowel pin of the lowermost of the wood-tops in said chute being in registering position with the recess of the cork in alinement with said aperture, and means for removing when the carrier is at rest a cork from one of said bores and forcing it through said aperture into said chute so that the dowel pin of the lowermost wood-top in the chute is seated in the recess thereof.

4. In a machine for the manufacture of wood-top corks, the combination with an intermittently moving carrier having a plurality of equidistantly disposed conical bores, each of which is adapted to receive a tapered cork provided with a cylindrical recess in one of its ends, of means for applying an adhesive material to the recesses in the corks while on said carrier, a chute for receiving the wood-tops and having an aperture in that side thereof which faces said carrier, said aperture being in alinement with one of said bores when said carrier is at rest and tne dowel pin of the lowermost of the wood-tops in said chute being in registering position with the recess of the cork in alinement with said aperture, and means for removing when the carrier is at rest a cork from one of said bores and forcing it through said aperture into said chute so that the dowel pin of the lowermost wood-top in the chute is seated in the recess thereof.

5. In a machine for the manufacture of wood-top corks, the combination with three interconnected intermittently moving carriers, the first of said carriers being provided with a plurality of equidistantly disposed cylindrical bores, the second of said carriers having a plurality of equidistantly disposed rotatable spindles thereon, and the third of said carriers having a plurality of equidistantly disposed conical bores, of a chute for feeding cylindrical corks to said first carrier, said chute being provided with apertures in alinement with one of the bores in said first carrier when the latter is at rest, one of the spindles on said second carrier being in alinement with a bore in said first carrier and another of said spindles on said second carrier being in alinement with a bore in said third carrier when all of said carriers stop, two reciprocating frames moving toward said carriers when the latter are at rest and away from said carriers while the same are moving, means on one of said frames for forcing the lowermost of the corks in said chute into a bore in said first carrier, means on the same frame for forming a cylindrical recess at each stop of the first carrier in the end of a cork in one of said bores, means on said second frame for removing at each stop of said carriers a cork from said first carrier and placing it on said second carrier in a manner that a spindle thereon is seated in the recess of said cork, means for tapering the cork while on said spindle, and means on said first named frame for placing a cork from said spindles on said second carrier into a conical bore on said third carrier.

[Claims 6 to 8 not printed in the Gazette.]

1,132,239. TOOTHPICK-VENDING MACHINE. WILLIAM T. BRADSHAW and WILLIAM E. JOOST, Oakland, Cal. Filed Mar. 27, 1914. Serial No. 827,745. (Cl. 211—8.)

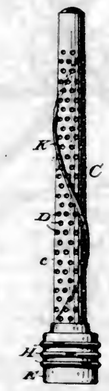


1. In a dispensing receptacle comprising a casing, a drum revolubly mounted therein, an inclined chute having its lower end conforming to the curvature of said drum, one side of said chute overhanging said drum, a plurality of grooves in the surface of said drum adapted to receive the articles to be dispensed, with one end overhanging said groove, a pawl and ratchet mechanism for advancing said drum, an arm operatively connected to the rod actuating said ratchet mechanism, the end of said arm extending to the side of said drum and contacting with the end of the article extending from said slot for the purpose of ejecting the opposite end through an opening in the casing.

2. In a dispensing receptacle comprising a casing, a drum revolubly mounted therein, a pawl and ratchet mechanism for imparting an intermittent forward movement to said drum, a plurality of longitudinal slots in the surface of said drum, a feed chute for supplying the article to be dispensed to said slots, one side of said feed chute overhanging said drum so that the article overhangs said drum, a slot in said casing through which said articles are ejected, an arm adapted to contact with the projecting end of said article and rotate the opposite end to extend through said slot and spring means for holding the article in said slot.

3. In a dispensing receptacle comprising a casing, a drum revolubly mounted therein, a pawl and ratchet mechanism for imparting an intermittent forward movement to said drum, a plurality of slots in the surface of said drum, each adapted to contain one of the articles to be dispensed, a feed chute for supplying the articles to said slots, one edge of said chute overhanging said drum so that the articles as fed extend from one end of said slots, an arm attached to the plunger operating the pawl and ratchet mechanism, the end of said arm extending adjacent the side of said drum and adapted to contact with the projecting end of article as the plunger is depressed, an opening in the casing, guide means for directing the articles to said opening, and springs on each side of said opening to hold said articles.

1,132,240. PERFORATED BOBBIN, TUBE, OR THE LIKE FOR USE IN TEXTILE INDUSTRIES. JOHN BRANDWOOD, THOMAS BRANDWOOD, and EDWARD BRANDWOOD, Bury, England. Filed July 25, 1913. Serial No. 781,063. (Cl. 8—17.)



1. A perforated spindle for use in spinning or winding dyeing and weaving operations, comprising a slightly conical or tapered shell of sheet metal closely perforated over the surface upon which yarn is wound but closed at its outer end which projects beyond such winding, and a substantial metallic base member attached to such conical shell, such base member being interiorly formed to engage with a spindle and with the nozzle of a dyeing machine and exteriorly formed with circular beads, substantially as set forth.

2. A perforated spindle for use in spinning or winding dyeing and weaving operations, comprising a corrugated and slightly conical or tapered shell of sheet metal closely perforated over the surface upon which yarn is wound but closed at its outer end which projects beyond such winding, and a substantial base member attached to such conical shell, such base member being interiorly formed to engage with a spindle and with the nozzle of a dyeing machine and exteriorly formed with circular beads, substantially as set forth.

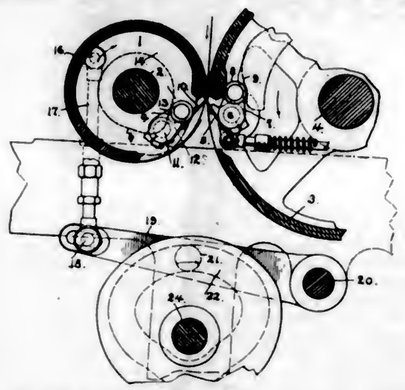
1,132,241. GRIPPER MECHANISM. ELLIS W. COOPER, Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 1, 1912. Serial No. 706,936. (Cl. 101—115.)

1. In combination, a rotating sheet carrier provided with grippers, a rotating sheet receiver provided with grippers to which the carrier delivers the sheets, and means for opening the grippers of the carrier at one position in space in advance of the sheet taking line of the receiver on one revolution and at a different position in space beyond said sheet taking line on the succeeding revolution.

2. In combination, a rotating sheet carrier provided with grippers, a rotating sheet receiver provided with grippers to which the carrier delivers the sheets, and a single actuator for operating the grippers of the carrier, said actuator operating to open the grippers at one position in space in advance of the sheet taking line of the receiver on one revolution and at a different position in space beyond said sheet taking line on the succeeding revolution.

3. In combination, a rotating sheet carrier provided

with grippers, a rotating sheet receiver provided with grippers to which the carrier delivers the sheets, and means for oscillating the grippers on the carrier to release the sheet as the grippers of the receiver close thereon, said means so oscillating said grippers as to cause their sheet-holding portions to substantially follow the path of movement of the surface of the receiver during and after the sheet releasing operation.

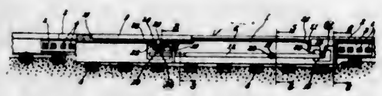


4. In combination, a rotating sheet carrier provided with grippers, a rotating sheet receiver provided with grippers to which the carrier delivers the sheets, a single actuator for opening the grippers of the carrier to release the sheet as the grippers of the receiver close thereon, said actuator causing the sheet holding portions of its grippers to substantially follow the path of movement of the surface of the receiver during and after the sheet releasing operation.

5. In combination, a rotating sheet carrier provided with grippers, a rotating sheet receiver provided with grippers to which the carrier delivers the sheets, an actuator for the grippers of the carrier, and means for shifting the position of the actuator to cause the grippers to open at one position in space in advance of the sheet taking line of the receiver on one revolution and at another position in space beyond the sheet taking line on a succeeding revolution.

[Claims 6 to 9 not printed in the Gazette.]

1,132,242. RAILWAY-SWITCH. FRANK N. CORDELL, Webster Groves, Mo. Filed June 8, 1914. Serial No. 843,627. (Cl. 104—24.)



1. In a switch of the character described, the combination with a movable tongue, of a rocking lever, means for depressing one end of said lever, a revoluble cam adapted to actuate the tongue, means for oscillating said cam by the rise of the other end of said lever, and means borne by said cam adapted to interlock with its support.

2. In a switch of the character described, the combination with a movable tongue, of a pivoted lever, means for actuating the same, a cam connected with the tongue and adapted to be oscillated by the movements of said lever, said cam having an opening therein with a pair of notches in its edge, and a pin passing loosely through said opening and having an upstanding ridge which is adapted to interlock with either notch in said opening thereby to hold the tongue in its set positions.

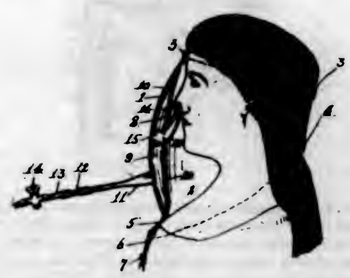
3. In a switch of the character described, the combination with a movable tongue, of a lever pivotally supported and sharp on the upper edge of its free end, means for raising this end, and a cam adapted to actuate the tongue and having in its lower edge a pair of notches, the free end of said lever being adapted to operate said cam by striking in either of said notches.

4. In a switch of the character described, the combination with a movable tongue, of a lever pivotally supported intermediate its ends so as to be capable of moving laterally, means connected with the lighter end of said lever for actuating same, a revoluble cam adapted to actuate the tongue and having a pair of notches in its periphery, the heavier end of said lever being adapted to actuate said cam by striking in either of said notches, and a cross web having a V-shaped notch under the pivot of said cam adapted to center the heavier end of said lever when the latter descends.

5. In a switch of the character described, the combination with a movable tongue, of a pivoted member rocking vertically and vibrating laterally, means for actuating same, a cam operative by said pivoted member adapted to actuate the tongue, and a support having a V-shaped notch adapted to center said pivoted member normally for operative engagement with said cam.

[Claims 6 to 12 not printed in the Gazette.]

1,132,243. FACE-STEAMER. DORA S. DAILY, San Francisco, Cal., assignor of one-half to Thomas J. Purcell, San Francisco, Cal. Filed Apr. 28, 1914. Serial No. 834,948. (Cl. 4—13.)



1. A face steamer comprising an outer sheet of material of a length to extend over the face and neck of the patient, the sides of the sheet being adapted to overlie and be secured to one another at the back of the head of the patient, a yieldable band carried by the upper end of said sheet to engage the head of the patient, an inner wall extending substantially from top to bottom of the outer sheet and having a sealed contact therewith to form an intermediate chamber, a steam inlet tube connected with the outer sheet adjacent the lower edge and connecting with said chamber, nasal receiving tubes projecting inwardly from the outer sheet at a point above said steam tube, and communicating with the outside, and said inner sheet having therein a series of steam inlet passages.

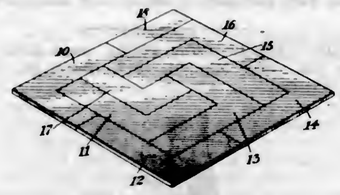
2. A face steamer comprising an outer sheet of material of a length to extend over the face and neck of the patient, the sides of the sheet being adapted to project to the back of the head of the patient and be secured to one another, a band carried by the upper end of said sheet to engage the head of the patient, an inner wall extending substantially from top to bottom of the outer sheet and having a sealed contact therewith to form an intermediate chamber, a steam inlet pipe connected with the outer sheet adjacent the lower edge thereof and connecting with said chamber, an inhaling tube projecting inwardly from the outer sheet intermediate the ends of the sheet and communicating with the outside, and said inner sheet having therein a series of steam inlet passages.

3. A face steamer comprising an outer sheet of material of a length to extend over the face and neck of the patient, means carried by the sheet and adapted to engage over the head of the patient, and a supporting member projecting downwardly from the lower edge of the sheet to engage the garment of the patient, an inner sheet secured at its edges to the outer sheet to form between the sheets a steam chamber, the inner sheet having a series of closely associated steam passages, air inlet tubes projecting inwardly from the outer sheet through the inner sheet, and in communication with the outside, and a steam inlet pipe connecting with the outer sheet, the said outer sheet being otherwise free from openings throughout, and said air inlet tubes being curved so as to engage within the nasal passages of the patient.

4. A portable face steamer comprising an outer sheet to inclose the surfaces to be treated, means for supporting the sheet from the head of the patient, an inner sheet extending substantially from top to bottom of the outer sheet and perforate throughout, a steam inlet pipe communicating through the outer sheet with the chamber formed between the inner and outer sheets, said outer sheet being otherwise free from openings leading into said chamber, and integral tubular parts projecting inwardly from the outer sheet through the inner sheet terminating in upwardly curved ends of a size to be engaged by the nasal passages of the patient, said tubular parts communicating with the outside.

5. A face steamer comprising an outer sheet of material of a size to engage over the face and neck of the patient, means carried by the sheet to engage the head of the patient, whereby the sheet is supported, an inner sheet extending from top to bottom of the outer sheet and secured at its edges to the outer sheet, said inner sheet having a series of closely associated openings therethrough, integral tubes projecting inwardly from the outer sheet through the inner sheet and having relatively small terminals projecting upwardly to be engaged by the nasal passages of the patient, said tubes communicating with the outside, a controllable steam pipe having a plurality of branches communicating through the outer sheet with the chamber between the inner and outer sheets at a point below the nasal tubes.

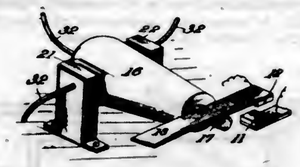
1,132,244. PUZZLE. FRANK O. DEGENHARDT, New York, N. Y. Filed June 25, 1914. Serial No. 847,357. (Cl. 46—41.)



A puzzle comprising six right-hand L-shaped members of the same size, one left-hand L-shaped member also of the same size, one smaller right-hand L-shaped member, and one straight member, all of which when properly placed together, form a square.

1,132,245. FIRE-ALARM SYSTEM. JOHN B. AMMONS, Houston, Tex., assignor of one-tenth to Evander Ammons and one-fifteenth to Otis McGaffey, Houston, Tex. Original application filed Dec. 8, 1914, Serial No. 876,086. Divided and this application filed Jan. 21, 1915. Serial No. 3,649. (Cl. 177—308.)

1. In an automatic fire alarm system, an alarm circuit including contacts, an explosive container or cannon, a fusible projectile carried by said cannon and normally holding said contacts in an open circuit position with respect to each other, and fusible means connected with the contents of said cannon for exploding the former and projecting the projectile to release the contacts, substantially as described.



2. In an automatic fire alarm system, an alarm circuit including a fixed and a movable spring contact for engagement with said fixed contact for closing said circuit, an explosive container or cannon, a fusible projectile carried by said cannon and normally engaging said spring contact to hold the same in open circuit position with respect to said fixed contact, and fusible means connected with the contents of said cannon for exploding the former and projecting said projectile to release said spring contact and close said circuit, substantially as described.

3. In an automatic fire alarm system, an alarm circuit including contents, an explosive container or cannon, a fusible projectile carried by said cannon, the said projectile normally holding said contents in an open circuit position with respect to each other, the said fusible projectile providing means for closing the circuit closer, means for firing the cannon whereby the projectile will be removed and the circuit closer closed.

4. In an automatic fire alarm system, an alarm circuit including contacts, a cannon providing means for normally holding the contacts in open circuit relation to each other, means for firing the said cannon, and thereby allow the contacts to close the circuit, said firing means comprising a plurality of radial passages in the cannon breech, the said passages having communication with the explosive charge within the cannon and with the outer periphery of the said cannon, fusible material within the said passages, and a plurality of fuses fitting within the outer ends of the said passages, substantially as described.

5. In an automatic fire alarm system including contacts, explosion means adjacent the said contacts, fusible means carried by the explosion means and normally holding the contacts apart, the said fusible means adapted to be operated by a fire adjacent the contacts, elongated fuses connecting the explosion charge to any plurality of points whereby the said explosion means is operated by a fire situated at any one of a plurality of points.

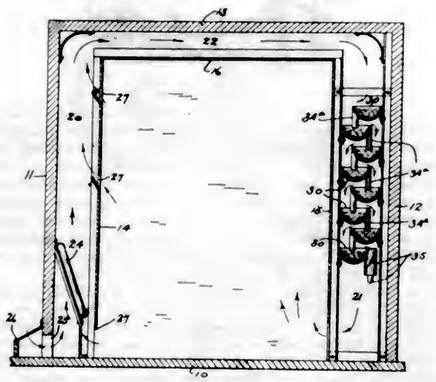
[Claim 6 not printed in the Gazette.]

1,132,246. AIR-CONDITIONING SYSTEM. LOUIS M. DU COMMUN, Cleveland, Ohio. Filed Mar. 3, 1913. Serial No. 751,704. (Cl. 98—36.)

1. In an air-conditioning system, the combination with a room or other inclosed space of a vertically arranged flue, said flue communicating at its lower end with the interior of the room, a purifying chamber, a passageway connecting the upper end of said flue with the upper end of the purifying chamber, a series of vertically spaced water troughs arranged in said purifying chamber, the lower end of said purifying chamber being arranged in communication with the interior of said room and means arranged in said flue for heating the air in said flue to produce an upward movement of air through said flue.

2. In an air-conditioning system, the combination with a room or other inclosed space of a vertically arranged flue communicating at its lower end with the interior of said room, a purifying chamber arranged to communicate at its lower end with the interior of said room, a passageway connecting the upper end of said flue with the upper end of the purifying chamber, a series of superimposed and vertically spaced water troughs arranged in said purifying chamber, the alternate troughs beginning at the upper end of the purifying chamber being arranged in close

proximity to one wall of the purifying chamber and the other troughs being arranged in close proximity to the opposite wall of the purifying chamber, said troughs overlapping at the center of said chamber and means for producing a circulation of warm air upwardly through said flue through the connecting passageway and down through the purifying chamber and into the room.

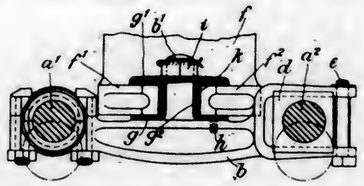


3. In an air-conditioning system, the combination with a room or other inclosed space, of a flue communicating at its lower end with the outer air, a purifying chamber arranged to communicate with the interior of the room at its lower end, a passageway connecting the upper end of said flue with the upper end of the purifying chamber, a series of superimposed and vertically spaced water-troughs arranged in said purifying chamber, the alternate troughs beginning at the upper end of the purifying chamber being arranged in proximity to one wall of the purifying chamber and the other troughs being arranged in close proximity to the opposite wall of the said purifying chamber, said troughs overlapping at the center of said chamber, means for supplying water to the uppermost trough, overflow pipes connecting each trough with the next lower trough, means for separately draining each trough and means arranged at the lower end of said flue for heating the air and producing a circulation of air upwardly through said flue, through the connecting passageway, down through the purifying chamber and into the room.

4. In an air-conditioning system, the combination with a room or other inclosed space, of a vertically arranged flue located at one side of said room, said flue communicating both with the outer air and the interior of said room, a purifying chamber arranged at the opposite side of said room, a passageway connecting the upper end of said flue with the upper end of the purifying chamber and the lower end of said purifying chamber communicating directly with the interior of the room, a series of superimposed and vertically spaced water-troughs arranged in said purifying chamber, the alternate troughs beginning at the upper end of the purifying chamber being arranged in proximity to one wall of the purifying chamber and the other trough being arranged in close proximity to the other wall of the purifying chamber, means for supplying water to the uppermost trough, overflow pipes connecting each trough with the next lower trough, means for separately draining each trough and means for producing a circulation of air upwardly through said flue through the connecting passageway down through the purifying chamber and into the room.

5. In an air-conditioning system, the combination with a room or other inclosed space, of a purifying chamber communicating at both ends with the interior of said room, a series of superimposed vertically spaced water troughs arranged in said purifying chamber, the alternate troughs beginning at one end of the purifying chamber being arranged in close proximity to one wall of the purifying chamber and the other troughs being arranged in close proximity to the opposite wall of the purifying chamber, said troughs overlapping at the center of the said chamber and means for producing a circulation of air from the room through the purifying chamber and back into the room again.

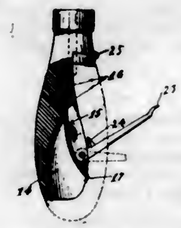
1,132,247. VALVE-GEAR OF EXPLOSION-ENGINES. LÉON DUFOUR, Geneva, Switzerland. Filed Oct. 29, 1913. Serial No. 797,943. (Cl. 123—81.)



1. In combination with a valve gear for internal combustion engines comprising a sleeve sliding within the cylinder and receiving a reciprocatng movement in an axal direction and an oscillating movement around its axis from a cross beam moved parallel to itself by the cranks of two crank shafts driven at the same speed from a motor, a protruding part moving with the cross beam and engaging between two protruding parts of the sleeve to cause partial rotations of the same in opposite directions and the cross beam itself acting upon the said protruding parts of the sleeve to cause axial movement of the sleeve in one direction.

2. In combination with a valve gear for internal combustion engines comprising a sleeve sliding within the cylinder and receiving a reciprocating movement in an axial direction and an oscillating movement around its axis from a cross-beam moved parallel to itself by the cranks of two crank shafts driven at the same speed from a motor, a pin carried by the cross-beam and having its axis placed parallel to the axis of the cylinder, which pin engages between two protruding parts of the sleeve to cause partial rotations of the same in opposite directions, the protruding parts of the sleeve having faces which are resting upon corresponding faces carried by the cross beam to cause axial movement of the sleeve in one direction.

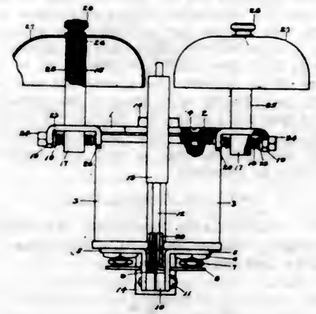
1,132,248. COMBINATION-TOOL. ARCH EUDY, Riverside, Cal. Filed Mar. 31, 1913. Serial No. 757,747. (Cl. 83—62.)



1. In a combined ice-pick and shaver, a handle formed with a recessed opening on one side thereof, an outwardly curved ice shaver rigidly mounted on said handle within the recess with its cutting edge normally projecting beyond the outer edges of the recess, and a hinged member having a recessed underside hinged on said handle and adapted to close the recess in the latter to conceal the ice shaver.

2. In a combined ice pick and shaver, a handle on which the pick is mounted formed with a recess opening at the end of the handle portion and on one side thereof, an outwardly curved ice shaver secured in said handle with its cutting edge adapted to extend beyond the sides of the recess, a hinged member on said handle portion adapted to close the open side and end of the recess in the handle portion to conceal the ice shaver and coöperate with the handle portion to complete the handle.

1,132,249. SIGNALING DEVICE FOR PARTY TELEPHONE-LINES. LAWRENCE ERICSON, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 15, 1906. Serial No. 343,539. (Cl. 177—7.)



1. In a ringer, the combination with operating magnet-coils, of a support to which the cores of the coils are secured, integral lugs upon said support, a bell-post carried by said support and having a portion movable between said lugs, a screw threaded in said portion of the bell-post and guided by said lugs for adjusting the position of the bell-post, a clamping sleeve over said bell post and a nut threaded on said bell-post for frictionally clamping said bell-post against said support.

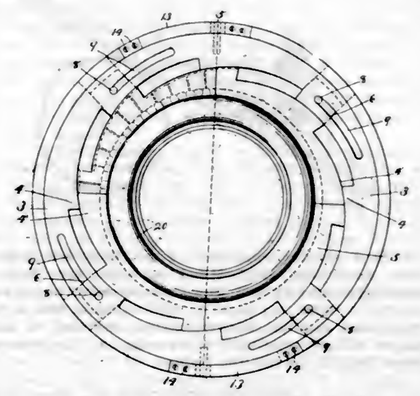
2. In a ringer, the combination with a slotted-plate, of a bell-post movably secured in said slot, and formed of a bolt-portion having an integral head abutting one side of the plate, a cylindrical sleeve incasing the bolt-portion and abutting the other side of the plate, a threaded member passing through an aperture in the head of said bolt for adjusting the position of the bolt, and a nut threaded on said bell-post for rigidly securing said post to said slotted plate.

3. In a ringer, the combination with a slotted plate, of a bell-post movably secured in said slot and having a head portion extending beneath the plate, of a screw threaded through said head portion perpendicular to the bolt, extensions on the plate engaging said screw to prevent the lateral movement of said screw, whereby the rotation of the screw moves the bolt along the slot in said plate, and a lock nut threaded on said bell post for frictionally and rigidly clamping said head against said slotted plate whereby it may still be adjusted by said screw.

4. In a ringer, the combination with a supporting plate, of a bell support extending through an opening in said plate, a screw threaded through the lower end of said bell support and adapted to be turned to adjust the bell support in said opening, a lock nut threaded on said support, and a sleeve between said nut and plate, said nut being adapted by one operation for frictionally and rigidly clamping the said support against said plate whereby said screw may still be turned to adjust said support.

1,132,250. MOLD FOR PNEUMATIC-TIRE CASINGS. ALEXANDER W. FINLAYSON, Detroit, Mich., assignor to F. S. Stoepel and Claud D. Doyle, trustees. Filed July 21, 1913. Serial No. 780,123. (Cl. 18—17.)

1. An expanding and contracting mold comprising a base plate, a rotatable ring mounted on said base plate, and having internal eccentric shoulders, a segmental ring concentric within said rotatable ring and having peripheral contact with said eccentric shoulders, a core ring concentrically within said segmental ring, a top plate for inclosing said parts, means for holding said rotatable and said segmental rings in contact and means for actuating said rotatable ring to contract said segmental ring toward said core.



2. An expanding and contracting mold comprising a circular flanged base plate, a rotatable ring concentric within the flange of said base plate, and having internal eccentric shoulders, a segmental ring also concentric with said base plate and having sliding engagement with the eccentric shoulders of said rotatable ring, a core ring concentrically within said segmental ring, a top plate for inclosing said parts, means for guiding the segments of said segmental ring in the direction of the dameter of said mold, means for retaining said segmental ring and said rotatable ring in sliding engagement and means for actuating said rotatable ring.

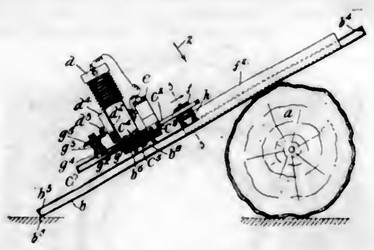
3. An expanding and contracting mold comprising a circular flanged base plate having diametric ways formed in the face thereof, a rotatable ring concentric with said base plate and having a series of internally projecting eccentric shoulders, a segmental ring concentric with said rotatable ring and having a series of curved eccentric shoulders formed on the periphery thereof adapted to mesh with the shoulders of said rotatable ring and having projecting tongues adapted to seat in the ways of said base plate, a core ring within said segmental ring, a top plate for inclosing said parts, and means extending through the flange of said base plate for actuating said rotatable ring.

4. An expanding and contracting mold comprising a circular flanged base plate, having diametric ways formed in the face thereof and having apertures formed through the flange thereof, a rotatable ring having a series of curved eccentric shoulders formed in the inner arc thereof and having apertured stems on the periphery thereof lying within the apertures of said flange, curved slots formed through the body of said rotatable ring parallel with the eccentric shoulders thereon, a contracting ring comprising sections having curved eccentric shoulders coinciding with the shoulders of said rotatable ring, tongues projecting from each of said sections into said diametric ways and extending under said rotatable ring, pins projecting from said tongues and passing freely through the curved slots in said rotatable ring, a core ring within the mold, plates bridging the apertures in said flange and a top plate for inclosing said parts.

1,132,251. TREE-TRUNK SAW. ETSON L. FREESE, New York, N. Y. Filed Sept. 13, 1913. Serial No. 789,581. (Cl. 143—68.)

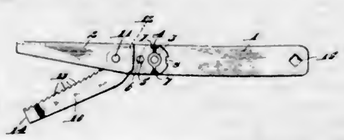
1. In a portable apparatus of the class described, a frame comprising parallel and connected side bars, a support detachably mounted in said frame transversely

thereof and adapted to rotate in a plane at right angles to that of the frame, and a motor sawing machine mounted on a base rotatably and adjustably mounted on said support.



2. In a portable apparatus of the class described, a frame comprising parallel and connected side bars, a support mounted in said frame transversely thereof and adapted to rotate in a plane at right angles to that of the frame, and a motor sawing machine mounted on said support and provided with a saw adapted to operate between the side bars of the frame.

1,132,252. COMBINATION-TOOL. CHARLES G. FREUDINGER, Chicago, Ill. Filed Mar. 16, 1914. Serial No. 825,062. (Cl. 81—111.)



1. A tool of the class described comprising a handle; a channel shaped jaw on said handle; a jaw pivoted at one end to said channel shaped jaw for coöperation therewith; and an extension on said last mentioned jaw engaging the bottom of the channel of said channel shaped jaw for locking said jaws in operative condition, substantially as described.

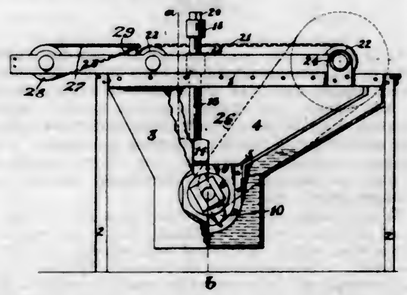
2. A tool of the class described comprising a handle; a channel shaped jaw adjustably secured to said handle; a jaw pivoted at one end in said channel shaped jaw and coöperating therewith, there being teeth on the inner side of said last mentioned jaw; and an extension on said last mentioned jaw engaging the bottom of the channel of said channel shaped jaw locking said jaws in operative condition, substantially as described.

3. A tool of the class described comprising a channel shaped jaw; a handle having one end pivotally connected with one end of said jaw; means for locking said handle in positions of pivotal adjustment relative to said jaw; an elongated jaw having one end pivotally connected with said channel shaped jaw adjacent said before mentioned end thereof so as to permit of rocking of the opposite end of said jaw outwardly or inwardly to position in the channel of said channel shaped jaw; means for limiting the outward rocking of said elongated jaw; and teeth provided upon the inner longitudinal edge of said last mentioned jaw, substantially as described.

4. A tool of the class described comprising a channel shaped jaw; a handle having one end pivotally connected with one end of said jaw; means for locking said handle in positions of pivotal adjustment relative to said jaw, said means comprising a finger at the pivoted end of said handle adapted to engage anyone of a plurality of recesses provided in the adjacent end of said jaw; means for releasably locking said finger in engagement with said notches; an elongated jaw having one end pivotally connected with said channel shaped jaw adjacent said first mentioned end thereof so as to permit of rocking of the opposite end of said last mentioned jaw outwardly or inwardly to position in the channel of said channel shaped jaw; means for limiting the outward rocking of said last mentioned jaw; and teeth provided upon the inner longitudinal edge of said last mentioned jaw, substantially as described.

5. A tool of the class described, comprising a channel shaped jaw; a handle having one end pivotally connected with one end of said jaw; means for locking said handle in positions of pivotal adjustment relative to said jaw, said means comprising a finger at the pivoted end of said handle adapted to engage anyone of a plurality of recesses provided in the adjacent end of said jaw; a thumb nut for releasably locking said finger in engagement with said notches; an elongated jaw having one end pivotally connected with said channel shaped jaw adjacent said first mentioned jaw thereof so as to permit of rocking of the opposite end of said last mentioned jaw outwardly or inwardly to position in the channel of said channel shaped jaw; means for limiting the outward rocking of said last mentioned jaw; and teeth provided upon the inner longitudinal edge of said last mentioned jaw, substantially as described.

1,132,253. CHOCOLATE-ENROBING MACHINE. WILLIAM FRITZ, Philadelphia, Pa. Filed June 1, 1910. Serial No. 564,536. (Cl. 91—3.)



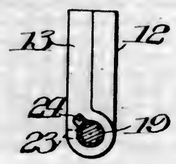
In a chocolate coating machine, a container for the chocolate, means to maintain the chocolate in the container at the desired temperature, a main discharge conduit communicating with said container and having a shoulder rotatably mounted thereon, a nut engaging said shoulder and container to retain said conduit in assembled position, an upper and a lower branch conduit extending laterally from said main conduit and having their outer ends closed, said upper conduit having a longitudinally extending slot in its lower face, said lower conduit having a longitudinally extending slot in its upper face and in alinement with the slot in said upper conduit, means to pass the articles to be coated between the slots of said branch conduits, and means to pump the chocolate from said container through said discharge conduit and said branch conduits.

1,132,254. COLLAR. JOHN W. GARDNER, Troy, N. Y., assignor to C. W. Ferguson Collar Company, Troy, N. Y., a Corporation. Filed Nov. 28, 1910. Serial No. 594,427. (Cl. 2—67.)



An attachment for a collar comprising a button hole cover made up of a two ply blank having its edges convex and each end flaring, with a finishing strip covering the convex edges, said attachment secured by an overcast stitch at each end to the outer band of a collar, covering the rear button hole therein.

1,132,255. HINGE. HARRY S. GETTY and JOHN EICHEL, Philadelphia, Pa., assignors to The Adams & Westlake Company, a Corporation of Illinois. Filed Jan. 16, 1914. Serial No. 812,391. (Cl. 16—107.)

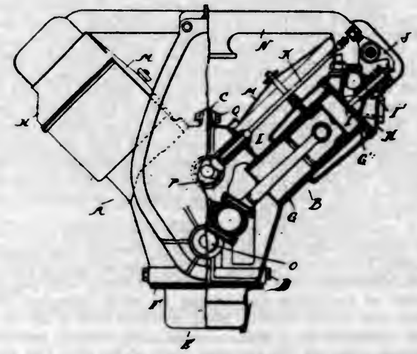


1. In a hinge, in combination, a pair of leaves having alined knuckles, a pintle fitting within the knuckles and having a circumferential channel and a passage leading from the circumferential channel to an end of the pintle, a stud fixed in a knuckle of one of the leaves for entering such channel and passage, and means for preventing the rotation of the pintle with reference to the other hinge leaf.

2. In a hinge, in combination, a pair of leaves having alined knuckles, a pintle fitting within the knuckles and having a circumferential channel and a passage leading from the circumferential channel to an end of the pintle, a stud fixed in a knuckle of one of the leaves for entering such channels, and a stud fixed in the pintle and engaging a longitudinal channel in a knuckle of the other hinge leaf.

3. In a pin hinge, in combination, a leaf having a knuckle, a pintle fitting within the knuckle, one of such elements having a stud and the other having a longitudinally disposed passage and a circumferentially disposed channel for receiving the stud and means for preventing the pintle from being turned with reference to one leaf of the hinge.

1,132,256. MULTICYLINDER ENGINE. EARL G. GUNN, Detroit, Mich., assignor to General Motors Company, Detroit, Mich., a Corporation of New Jersey. Filed Dec. 9, 1914. Serial No. 876,230. (Cl. 123—55.)



1. A multi-cylinder engine formed of complementary sections, each section comprising a plurality of cylinders and a part of the crank case integrally cast, the crank case sections meeting in the central vertical plane and being arranged at an angle to the axes of the cylinders to form a V-type motor.

2. A multi-cylinder engine formed of complementary sections, each section comprising a plurality of cylinders with parallel axes and a part of the crank case integral therewith, the crank case sections meeting in the central vertical plane of the engine, extending above and below the crank shaft and being at an angle to the axes of the cylinders to form a V-type motor.

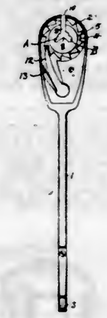
3. A multi-cylinder engine comprising complementary sections each having a plurality of parallel cylinders and a part of the crank case integral therewith, said crank case sections meeting in the central vertical plane of the engine, extending above and below the crank shaft, having abutting bearings at the top and the ends and an open well at the bottom, the angle of the meeting faces to the planes of the cylinders being such as to form a V-type motor, clamping means for said sections above and below the crank shaft, and a sheet metal pan depending from the crank case in registration with the well in the bottom thereof.

4. A multi-cylinder engine comprising complementary sections, each consisting of a plurality of cylinders and a part of the crank case integral therewith and formed of a relatively light material such as aluminum, said sections abutting in the central vertical plane of the engine and being at an angle to each other to form a V-type motor, bushings formed of harder metal for the several cylinders, ported heads for the cylinders of each section formed of harder material, and valves mounted and seated upon said heads.

5. A multi-cylinder engine of the V-type, comprising a crank shaft and a cam shaft arranged parallel to each other in the central vertical plane of the engine, complementary engine casing sections abutting in the plane of said crank and cam shafts, each section consisting of a crank case portion and a plurality of cylinders cast *en bloc*, the crank case portions extending above and below the crank and cam shafts, with abutting faces at the top and ends and an open well in the bottom, and a sheet metal pan registering with said open well having flat flanges abutting against the lower face of said crank case.

[Claims 6 to 9 not printed in the Gazette.]

1,132,257. RATCHET SLEEVE-WRENCH. CHARLES GUSHWA and CLYDE F. WILSEY, Corunna, Ind. Filed Sept. 11, 1912. Serial No. 719,756. (Cl. 140—122.)

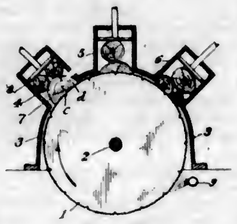


A tool for forming wire splices, comprising a revoluble ratchet wheel having an opening extending from its periphery to its axis, the opening being bifurcated at its axial end, the forked ends thereof being shaped to receive sleeves of different sizes, a slotted head in which the ratchet wheel is mounted, and a ratchet in connection with the head to engage the ratchet wheel.

1,132,258. PROCESS AND APPARATUS FOR REDUCING WOOD TO PULP. EDWARD M. HALL, Deferiet, N. Y., assignor to Hall Process Corporation, a Corporation of New York. Filed Nov. 27, 1914. Serial No. 874,207. (Cl. 83—75.)

1. The process of reducing wood to pulp, which consists in subjecting the wood to successive abrasive actions in direction substantially perpendicular to the length of

the fiber, whereby the fibers are separated out from the wood, and protecting said fibers that have been separated by preceding abrasive actions from being broken and injured during succeeding abrasive actions and then removing the said separated fibers.



2. Apparatus for reducing wood to pulp, comprising, in combination, a movable implement, the surface of which consists of a series of abrasive portions adapted to rub the fibers in a direction substantially perpendicular to the length of the fibers, said abrasive portions being separated by depressions for the collection and protection of the separated fiber, said depressions extending across the surface of said implement, and means for pressing the wood against the surface of the implement.

3. Apparatus for reducing wood to fiber, comprising, in combination a movable element having an abrasive surface adapted to rub the fibers in a direction substantially perpendicular to their length, in which surface are located a series of depressions for the reception and protection of the separated fibers, and means for subjecting the wood to the action of said abrasive surface.

4. Apparatus for reducing logs to pulp, comprising, in combination, an implement mounted in a vertical position and adapted to revolve on a shaft, a number of detached magazines located around the surface of said implement for the reception of the logs to be reduced to fiber, means in each of said magazines for pressing the logs against the surface of said implement, depressions located in the surface of said implement, the surface of the implement between each of said depressions being roughened, said depressions being formed for the purpose of collecting substantially all of the separated fibers and protecting them from grinding action when passing under the wood to be ground, and means for removing the fibers from said depressions after they have passed from under the last of the logs to be reduced.

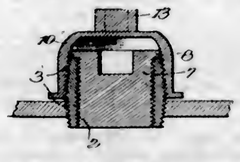
1,132,259. INCLOSED-ARC LAMP. CROMWELL A. B. HALVORSON, Jr., Saugus, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 30, 1913. Serial No. 776,468. (Cl. 176—52.)



1. In an arc lamp, a substantially air-tight arc inclosure comprising a transparent or translucent globe surrounding the arc surmounted by a fume receiving and condensing drum freely communicating with the top of the globe, and two metallic tubes communicating with the top of the drum and with each other at their upper ends, and a partition mounted within said drum between the two tubes.

2. In an arc lamp, upper and lower electrode, a substantially air tight arc inclosure comprising a transparent or translucent globe surrounding the arc surmounted by a drum and two metallic tubes communicating with the top of said drum and a closed hood for the lamp forming a depositing chamber mounted upon the tops of said tubes and communicating therewith, and a cylinder of less diameter than the drum mounted eccentrically within the drum so as to partition the space within the same, one of the tubes communicating with the globe through the cylinder and the other through the space between the drum and the cylinder, and the upper electrode extending within said cylinder.

1,132,260. METHOD OF MANUFACTURING AND APPLYING WASHOUT-PLUGS TO ALL STEAM-BOILERS. THOMAS FESTUS HAYES, Jackson, Tenn., assignor of twenty-four one-hundredths to Hal Howard and twenty-four one-hundredths to Frank Bond Wilkinson, Jackson, Tenn. Filed Sept. 3, 1913. Serial No. 788,023. (Cl. 137—76.)



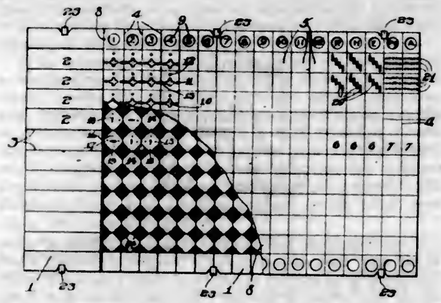
1. A wash-out plug for steam boilers comprising a bushing having a threaded bore and exterior threads, the outer end of the bushing being flat and constituting a seat, a removable plug having exterior threads engaging the threads of the bore and provided with a terminal flange bearing against the seat of the bushing, and a cap engaging the exterior threads of the bushing and bearing against the flange for binding the flange in engagement with the seat.

2. A wash-out plug for steam boilers comprising a bushing having a threaded bore, the exterior of the bushing being tapered and threaded, and one end of said bushing being flat and constituing a seat, a removable plug having its exterior threaded and engaging the threads of the bore, one end of the plug being provided with a wrench receiving socket and having a laterally extending flange provided with a flat lower face adapted to bear against the seat of the bushing, and a cap forming a closure for the outer end of the plug and provided with a circumferential flange having interior threads for engagement with the exterior threads of the bushing, said cap being adapted to bear against the flange on the plug for holding said flange on the seat, the flange of the cap spanning the junction of the plug, flange and seat.

3. The combination with a boiler sheet having a threaded opening therein, of an exteriorly threaded bushing engaging the threaded walls of the opening and provided with cylindrical bore communicating directly with the interior of the boiler and having its walls threaded, the outer end of the bushing being provided with a flat face and constituting a seat, a solid plug having exterior threads engaging the threaded walls of the bore and provided with a terminal flange adapted to bear against the seat of the bushing, and a cap forming a closure for the plug and provided with an internally threaded flange engaging the exterior threads of the bushing.

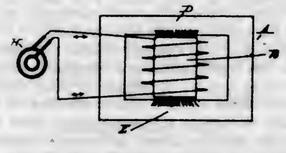
1,132,261. SCORE-CARD. FRANK H. HEINECK, Philadelphia, Pa. Filed Oct. 8, 1914. Serial No. 865,642. (Cl. 235—126.)

A stencil for marking a score card furnished with sets of perforations for marking the score of each player in each inning, each of said sets consisting of a cruciform and three circular perforations, and with perforations through



which dashes and dots may be made on the card to indicate other records of the play.

1,132,262. METHOD OF TREATING METAL STRUCTURES TO PREVENT SUBSEQUENT CHANGE IN FORM. JOHN O. HEINZE, Jr., Detroit, Mich., assignor to General Motors Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 9, 1912. Serial No. 689,603. (Cl. 148—10.)



1. The process of treating metal to equalize molecular stresses therein which consists in subjecting the same at normal temperature to magnetic fluctuations.

2. The process of treating metal at normal temperature to equalize molecular stresses therein which consists in including the metal to be treated within a magnetic circuit and producing magnetic fluctuations in said circuit.

3. The process of treating metal at normal temperature to equalize molecular stresses therein which consists in placing the metal to be treated in a magnetic circuit and in producing magnetic fluctuations in said circuit by an alternating electric current.

4. The process of treating metal at normal temperature to equalize molecular stresses therein which consists in surrounding the metal to be treated by a helix or solenoid, in completing the magnetic circuit between the opposite ends of the metal within said helix, and in passing a fluctuating electric current through the helix to produce corresponding magnetic fluctuations in the metal treated.

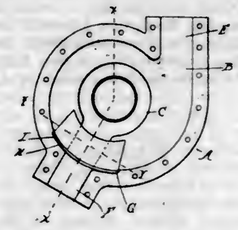
5. The method of treating solid metal to alter its molecular structure, consisting in temporarily subjecting it to the action of the magnetic field of an alternating current.

[Claims 6 and 7 not printed in the Gazette.]

1,132,263. ROTARY PUMP. JOHN O. HEINZE, Jr., Detroit, Mich., assignor to General Motors Company, Detroit, Mich., a Corporation of New Jersey. Filed Jan. 14, 1914. Serial No. 811,992. (Cl. 103—43.)

1. In a rotary pump, the combination with a casing formed of a sheet metal stamping having a chamber therein for the impeller and inlet and outlet passages communicating with said chamber, of a shield or deflector for completing the peripheral wall of said chamber opposite the inlet passage and deflecting the ingress to the center of said chamber.

2. In a rotary pump, the combination with a casing formed of a sheet metal stamping having a circular embossed portion forming a chamber for the rotary impeller, a tangential outlet passage connecting with said chamber and a radial inlet passage, of a deflector for completing the peripheral wall of said chamber opposite said radial inlet passage and deflecting the latter to the side thereof.



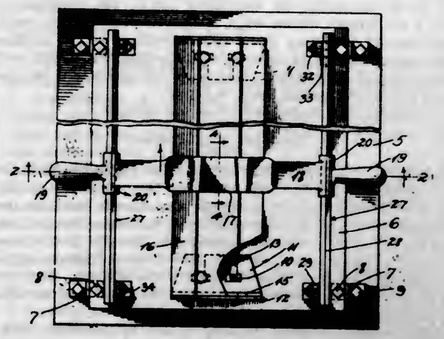
3. In a rotary pump, a casing formed of a sheet metal stamping having a circular embossed portion forming a chamber for the impeller, a tangential outlet passage communicating with said chamber and a radial inlet passage, and an auxiliary sheet metal stamping secured to the main stamping forming a continuation of the peripheral wall of said central chamber opposite the radial inlet and deflecting the liquid passing through the latter to one side thereof.

4. In a rotary pump, a casing formed of a sheet metal stamping having a circular embossed portion forming a chamber for the impeller and a radial inlet passage, and an auxiliary stamping engaging a recess in said main stamping to form a continuation of the peripheral wall of said chamber flush with the inner face thereof and extending up the side to deflect the liquid in said inlet toward the center of said chamber.

5. In a rotary pump, a casing formed of a sheet metal stamping having a central chamber, a tangential outlet and a radial inlet, with a projecting marginal flange for connection of said stamping with a complementary stamping, and an auxiliary stamping fitting in a recess in the wall of said main stamping and forming a shield or deflector, and continuing the peripheral wall of said chamber across said inlet and directing the liquid in the latter toward the center of said chamber.

[Claim 6 not printed in the Gazette.]

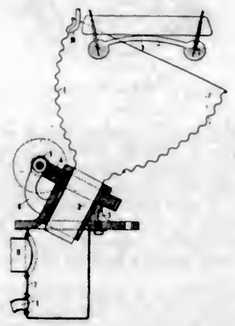
1,132,264. TILE-FORMING MACHINE. HARRY W. HELLYAR, EDWARD H. COCHRAN, and HENRY E. WAGGONER, Los Angeles, Cal., assignors to Spanish Mission Tile Company, Los Angeles, Cal., a Corporation of California. Filed Sept. 30, 1912. Serial No. 723,058. (Cl. 25—42.)



In a tile molding machine having a bed plate with a pair of guide-bars thereon and a trowel slidably mounted on said bars, a pair of angle plates supported on the bed

plate having their inner vertical walls recessed to form mold supporting shelves, the lower webs of said plates being formed with T-slots, and bolts in the bed plate extending through said T-slots adapted to engage the marginal edges thereof to hold said plates in various adjusted positions.

1,132,265. LIQUID-STERILIZER. VICTOR HENRI, ANDRÉ HELBRONNER, and MAX VON RECKLINGHAUSEN, Paris, France, assignors, by mesne assignments to The R. U. V. Company, Inc., a Corporation of New York. Filed Feb. 26, 1910. Serial No. 546,252. (Cl. 210—1.)



1. Apparatus for sterilizing liquids by means of ultra-violet rays comprising a rotatable funnel having a corrugated surface along the inner surface of which the liquid is caused to flow in a thin film and a source of ultra violet rays suitably located with reference to said funnel so that every particle of the liquid is exposed to the action of the rays substantially as described.

2. In apparatus for sterilizing liquid, the combination of a corrugated moving surface, means for supplying liquid to said surface, and a source of ultra-violet rays to which said surface is exposed.

3. In apparatus for sterilizing liquid, the combination of a moving surface, means for supplying liquid to said surface in the form of a thin film, means for causing the film to assume different thicknesses at different parts of the surface, and a source of ultra-violet rays to which said surface is exposed.

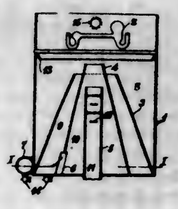
4. In apparatus for sterilizing liquid, the combination of a moving surface, means for supplying liquid to said surface in the form of thin film of varying thickness, and a mercury vapor lamp to the radiations from which said film is exposed.

5. In apparatus for sterilizing liquid, the combination of a corrugated hollow body, means for rotating the same, a pipe for supplying liquid to be sterilized to the surface of said hollow body, means for collecting the liquid, and a source of ultra-violet rays to which the liquid on the surface of the hollow body is exposed.

[Claims 6 to 10 not printed in the Gazette.]

1,132,266. APPARATUS FOR THE TREATMENT OF WATER AND OTHER LIQUIDS BY ULTRA-VIOLET RAYS. VICTOR HENRI, Paris, and ANDRÉ HELBRONNER and MAX VON RECKLINGHAUSEN, Suresnes, France, assignors, by mesne assignments, to The R. U. V. Company, Inc., a Corporation of New York. Original application filed Oct. 31, 1910, Serial No. 589,995. Divided and this application filed Nov. 10, 1913. Serial No. 800,047. (Cl. 210—1.)

1. In apparatus for treating liquids by means of ultra-violet rays, the combination of a receptacle through which the liquid to be treated is caused to pass, a source of ultra-violet rays located above said receptacle, and baffle plates arranged so that their surfaces are at an angle with each other and parallel with the direction of the ultra-violet rays.



2. In apparatus for treating liquids by means of ultra-violet rays, the combination of a receptacle through which the liquid to be treated is caused to pass, a source of ultra-violet rays which is smaller than the base of said receptable located above the same and radial baffle plates in said receptacle radiating from the source of ultra-violet rays and adapted not to shade any part of the interior thereof from the ultra-violet rays.

3. In apparatus for treating liquids by means of ultra-violet rays, the combination of a receptacle through which the liquid to be treated is caused to pass, a source of ultra-violet rays located above said receptacle, and cone-shaped baffles for directing the liquid to be treated in its passage through the receptacle.

4. In apparatus for treating liquids by means of ultra-violet rays, the combination of a receptacle having a circular base through which the liquid to be treated is caused to pass, a source of ultra-violet rays located above said receptacle and an inlet pipe for the liquid to be treated arranged tangentially to the circular base.

5. In apparatus for treating liquids by means of ultra-violet rays, the combination of a receptacle through which the liquid to be treated is caused to pass, baffles adapted to direct the liquid upward and downward in its passage through said receptacle and a horizontal inlet pipe adapted to give the liquid a lateral movement additional to its vertical movement while undergoing treatment.

[Claims 6 to 10 not printed in the Gazette.]

1,132,267. ELECTRIC SIGNALING APPARATUS AND CIRCUITS. FELIX BENEDICT HERZOG, New York, N. Y.; Henrietta Herzog executrix of said Felix Benedict Herzog, deceased. Original application filed Aug. 15, 1890, Serial No. 361,048. Divided and this application filed Feb. 10, 1902. Serial No. 93,285½. (Cl. 177—381.)



1. An electrical signaling apparatus comprising a signal device having a plurality of movable members for setting latent signals and operating means for receiving the signal indicated, and for restoring each movable member only after its respective signal has been taken.

2. In apparatus of the class described, in combination, a transmitting instrument, a plurality of receiving instruments, means for setting up different latent signals on said transmitting instrument, means for forming circuits to transmit said latent signals to said receiving instruments respectively in succession, and means for automatically arresting the transmitting operation after the transmission of each latent signal.

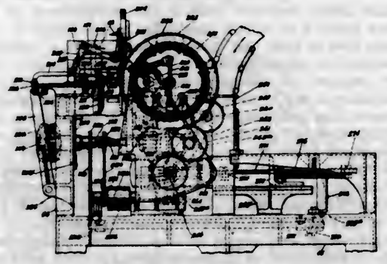
3. In apparatus of the class described, in combination, a transmitting instrument, a plurality of receiving instruments, means for setting up different latent signals on said transmitting instrument, means for forming circuits to transmit said latent signals to said receiving instruments respectively in succession, said transmitting instrument comprising an impulse creating device for breaking the current up into impulses, and means for automatically short-circuiting said impulse-creating device after each signal has been transmitted.

4. In apparatus of the class described, in combination, a transmitting instrument, a plurality of receiving instruments, means for setting up different latent signals on said transmitting instrument, means for forming circuits to transmit said latent signals to said receiving instruments respectively in succession, said transmitting instrument comprising an impulse creating device for breaking the current up into impulses, means for automatically short-circuiting said impulse-creating device after each signal has been transmitted, and electrical means for controlling the movement of said impulse-creating device.

5. In apparatus of the class described, in combination, a transmitting instrument, a plurality of receiving instruments, means for setting up different latent signals on said transmitting instrument, means for forming circuits to transmit said latent signals to said receiving instruments respectively in succession, said transmitting instrument comprising an impulse creating device for breaking the current up into impulses, means for automatically short-circuiting said impulse-creating device after each signal has been transmitted, mechanical means for driving said impulse-creating device and electric means for controlling the operation of said last means.

[Claims 6 to 10 not printed in the Gazette.]

1,132,268. MACHINE FOR PACKING MATCH-BOOKS AND THE LIKE. JAMES F. HOBART, Detroit, Mich., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1914. Serial No. 830,712. (Cl. 100—59.)



1. In a machine for packing match books and the like, the combination of a book-positioning member, means for intermittently feeding articles thereto, and means for oscillating said member, whereby in one stroke of the member the articles therein are positioned vertically with their heads pointing in one direction and in the next stroke the succeeding articles in said member are similarly positioned but with their larger or headed ends pointing in a reverse direction to those of the others.

2. In a machine for packing match books and the like, the combination of a book-positioning member, means for intermittently feeding articles thereto, and means for oscillating said member, whereby in one stroke of the member the articles therein are positioned vertically with their heads pointing in one direction and in the next stroke the succeeding articles in said member are similarly positioned but with their larger or headed ends pointing in a reverse direction to those of the others, together with means for ejecting the vertically-disposed articles from said member.

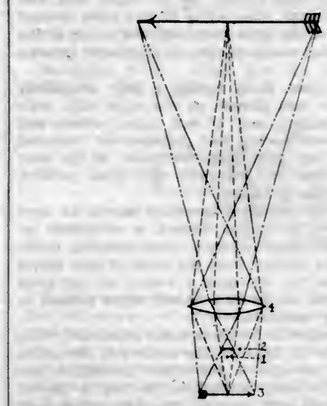
3. In a machine for packing match books and the like, the combination of a rotary positioning member having two diametrical intersecting chambers at right angles to each other, means for oscillating said head, and means for introducing an article to a chamber positioned to receive the same at the end of each oscillation of the head, whereby the successive articles are positioned with their larger or headed ends in opposite relation to each other.

4. In a machine for packing match books and the like, the combination of a rotary positioning member having two diametrical intersecting chambers at right angles to each other, means for oscillating said head, means for introducing an article to a chamber positioned to receive the same at the end of each oscillation of the head, whereby the successive articles are positioned with their larger or headed ends in opposite relation to each other, and means for ejecting from the said member the articles positioned thereby.

5. In a machine for packing match books and the like, the combination of a reverse wheel, means including a reciprocating frame for successively feeding articles to said wheel, and connections between said frame and the wheel whereby the wheel is oscillated by the action of the frame.

[Claims 6 to 41 not printed in the Gazette.]

1,132,269. ART OF PROJECTING IMAGES ON SCREENS. ROBERT H. HOUGH and LEWIS J. STERN, Philadelphia, Pa. Filed Feb. 25, 1914. Serial No. 821,042. (Cl. 88—24.)



1. In an apparatus for the projection of images of opaque objects upon a screen, the combination of a source of illumination, a reflector or shield, and lens, so arranged that the source of illumination and reflector or shield are in the path of the light from the object to the lens, substantially as set forth.

2. In an apparatus for the projection of images of opaque objects upon a screen, the combination of a lens, a reflector arranged in the path of the light from the object to the lens, and a source of illumination arranged to project reflected light from the reflector to the object, substantially as described.

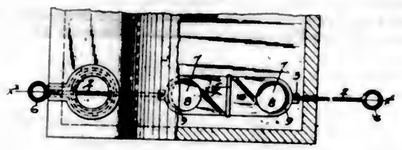
3. In an apparatus for the projection of images of opaque objects upon a screen, the combination of a source of illumination, a reflector or shield and lens, so arranged that the reflector or shield and the source of illumination coöperate to project the light of illumination from a position in the path of light from the object to the lens.

4. In an apparatus for the projection of images of

opaque objects upon a screen, the combination of a lens and means, including a reflector or shield, for illuminating the object, said means being so arranged that the reflector or shield and the position from which the illuminating light rays directly proceed toward the object are in the path of the light from the object to the lens, substantially as described.

5. In an apparatus for the projection of images of opaque objects upon a screen, the combination of a lens, a reflector arranged in the path of the light from the object to the lens, and a source of illumination arranged to project light directly toward the object from a point substantially in the major axis of the lens, substantially as described.

1,132,270. DEVICE FOR FORMING GLASS CYLINDERS. ULGISSE HOUZE, Pomona, Cal., assignor of four-fifths to Ferdinand T. Houze and John H. Houze, Pomona, Cal., Noel J. Houze, Oshkosh, Wis., and Austin McFadden, Grand Rapids, Mich. Original application filed Dec. 24, 1912, Serial No. 739,569. Divided and this application filed Feb. 9, 1914. Serial No. 819,096. (Cl. 49—61.)



1. A float for glass tanks having a pair of pockets formed in opposite ends thereof, on the upper side, and provided with passages terminating in the sides thereof whereby a supply of hot glass from near the center of the tank may be directed to said pockets in a cylinder forming operation.

2. A float for glass tanks having a pair of pockets formed in opposite ends thereof, on the upper side, shallow sub-pockets beneath each of said upper pockets and in communication therewith, and passages for directing a supply of hot glass from near the center of the tank to said lower pockets and thence to said upper pockets, in a cylinder forming operation.

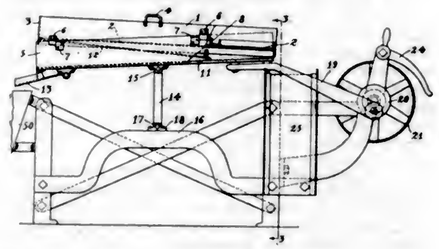
3. A device of the character described having an open pocket in each end of the top thereof, a sub-pocket beneath each of said upper pockets communicating therewith, and passages leading from the sides of said device to said sub-pockets for directing a supply of hot glass from near the center of the tank to said upper pockets in a cylinder forming operation.

4. A floating receptacle for glass tanks capable of being moved laterally in the tank on the surface of the glass, alternately from one side to the other thereof, in successive cylinder forming operations, having a pocket formed in each end and open at the top, sub-pockets formed beneath said upper pockets and communicating therewith, and passages leading from the sides of said receptacle to said sub-pockets for directing a supply of melted glass from near the center of the tank thereto, said passages terminating at a point beneath the surface of the glass in said tank.

5. A floating receptacle for glass tanks capable of being moved laterally in a tank on the surface of the glass, alternately from one side to the other of said tank, in successive cylinder forming operations, having a pocket formed in each end thereof, a sub-pocket beneath each of said pockets and separated therefrom by means of a partition having a crescent shaped opening for affording communication therebetween, and passages leading from a point in each side of said receptacle substantially beneath the surface of the glass in the tank to said sub-pockets, for directing a supply of heated glass from near the center of said tank thereto, in a cylinder forming operation.

[Claims 6 to 9 not printed in the Gazette.]

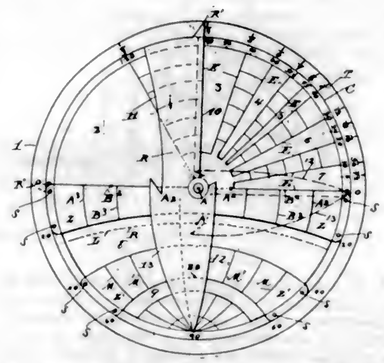
1,132,271. SAND-RIDDLING MACHINE. FOSTER J. HULL, New York, N. Y., assignor, by mesne assignments, to New York Central Iron Works Company, Geneva, N. Y., a Corporation of New York. Filed July 12, 1910. Serial No. 571,611. (Cl. 83—56.)



1. A riddling machine comprising in combination two screen-bottom containers, one above the other, supporting means therefor permitting both vibration of said containers and tilting thereof about a transverse axis, means for so vibrating and tilting said containers arranged to limit the range of both movements of said containers, and a baffle between the screen-bottoms of said two containers, inclined to both such screen-bottoms at angles such that it is inclined with respect to the horizontal in all of the positions of said containers, the said containers and said baffle constituting, as to such motions, a single structure which moves as a whole.

2. A machine of the class described comprising in combination a screen-bottom sifter, a removable riddle, likewise having a screen-bottom, the bottoms of the sifter and riddle inclined to one another, means for both vibrating and tilting the sifter, and therefore the riddle, said sifter and riddle provided with engaging lugs, whereby longitudinal motion of the riddle with respect to the sifter during the operation of the machine is prevented.

1,132,272. SCHOOL APPLIANCE. EDWIN C. JACOBS, Norwalk, Ohio. Filed July 20, 1912. Serial No. 710,627. (Cl. 33—1.)



1. In a drawing instrument for school use, a chart having a great circle thereon, and having its edge graduated in degrees and fractions thereof, and provided with openings having radial edges and also with openings the edges of which represent parallels of latitude.

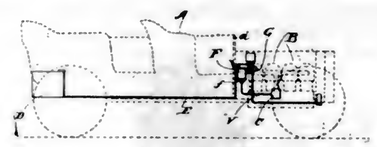
2. In a drawing instrument, a disk shaped chart, having a great circle inscribed thereon, and having its edge graduated in divisions of a great circle, and a ruler pivoted in the center of the said great circle, the said ruler having a straight radial edge, and a curved edge corresponding to the lines of the tropics, and meridianal lines respectively.

3. In an instrument for school use, a chart having an arc of a great circle inscribed thereon and provided with openings, representing fractional parts of the circle, and a base line inscribed thereon.

4. In a disk shaped chart, segmental portions secured to each other, one portion provided with openings representing fractional parts of the chart and another with openings the edges of which represent parallels of latitude.

5. A ruler designed to be applied to a chart representing the world's surface, said ruler comprising a body having a straight edge and curved edges by means of which the tropics and meridian lines can be drawn and having perforations for the different centers about which the ruler can be rotated for drawing other meridian lines.

1,132,273. LIQUID-SUPPLY SYSTEM FOR EXPLOSIVE-ENGINES. WEBB JAY, Chicago, Ill. Filed Feb. 24, 1914. Serial No. 820,742. (Cl. 158—36.)



1. In combination with a main low-level liquid supply tank; a liquid supply receptacle located in a plane above said tank; a conduit leading from said tank to said receptacle; a conduit leading from said receptacle for discharge by gravity therefrom; exhaust means for reducing the pressure in said receptacle below that of the atmosphere; valve mechanisms for alternately connecting said receptacle with said exhaust means and with the atmosphere; means for automatically actuating said valve mechanism to connect the receptacle with the exhaust means and disconnect the receptacle from the atmosphere when the liquid in said receptacle reaches a predetermined low level, and for simultaneously discontinuing the connection of the receptacle with the exhaust means and connecting the receptacle with the atmosphere when the fuel in the receptacle reaches a pre-determined high level.

2. In combination with a main low-level liquid supply tank; a liquid supply receptacle located in a plane above said tank; a conduit leading from said tank to said receptacle; a conduit leading from said receptacle for discharge by gravity therefrom; exhaust means for reducing the pressure in said receptacle below that of the atmosphere; valve mechanisms for alternately connecting said receptacle with said exhaust means and with the atmosphere; means for automatically actuating said valve mechanism to connect said receptacle with the exhaust means and disconnect the receptacle from the atmosphere when the liquid in said receptacle reaches a predetermined low level, and for simultaneously discontinuing the connection of the receptacle with the exhaust means and connecting the receptacle with the atmosphere when the liquid in said receptacle reaches a pre-determined high level, and means for retaining said valve mechanism in position to connect the receptacle with the exhaust means and to disconnect the receptacle from the atmosphere regardless of the liquid level in said receptacle.

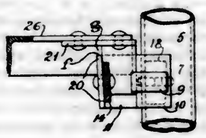
3. In combination with a main low-level liquid supply tank; a liquid supply receptacle located in a plane above said tank; a conduit leading from said tank to said receptacle; a conduit leading from said receptacle for discharge by gravity therefrom; exhaust means for reducing the pressure in said receptacle below that of the atmosphere; a valve controlling the communication between said receptacle and said exhaust means; a valve controlling the communication of said receptacle with the atmosphere, and means for automatically unseating said first valve and seating said second valve simultaneously when the liquid in said receptacle reaches a pre-determined low level, and for simultaneously seating said first valve and unseating said second valve when the liquid in said receptacle reaches a pre-determined high level.

4. The combination with a main low-level liquid supply tank; a liquid supply receptacle located in a plane above said tank; a conduit leading from said tank to said receptacle; a conduit leading from said receptacle for discharge by gravity therefrom; exhaust means for reducing the pressure in said receptacle below that of the atmosphere; a valve controlling the communication between said receptacle and said exhaust means; a valve controlling the communication of said receptacle with the atmosphere; means for automatically opening said first valve and closing said second valve when the liquid in said receptacle reaches a pre-determined low level, and for closing said first valve and opening said second valve when the liquid in said receptacle reaches a pre-determined high level, and means for retaining said first valve open and said second valve closed regardless of the liquid level in said receptacle.

5. In combination with a main low-level liquid supply tank; a liquid fuel receptacle located in a plane above said tank; a conduit leading from said tank to said receptacle; exhaust means for reducing the pressure in said receptacle below that of the atmosphere; means for automatically controlling the connection between said receptacle and said exhaust means according to the amount of liquid in said receptacle; an auxiliary receptacle into which liquid flows from said first receptacle; a conduit leading from said auxiliary receptacle for discharge by gravity therefrom, and means controlling communication between said liquid supply receptacle and said auxiliary receptacle, adapted to be opened by gravity flow from said supply to said auxiliary receptacle.

[Claims 6 to 14 not printed in the Gazette.]

1,132,274. CORNER-LOCK FOR BEDS. FELIX G. KAPELMAN, New York, N. Y., assignor to Samuel Weisglass, Brooklyn, N. Y. Filed Mar. 25, 1914. Serial No. 827,014. (Cl. 5—55.)



1. In a corner lock for takedown frames, the combination with a post, of a channel-shaped supporting bracket, one wing of said channel being conformed to the surface of said post, the other wing adapted to support a cross rail, a web between said wings, and a tapered seat formed by the junction of said wings with said web.

2. In a corner lock for takedown frames, the combination with a tubular post, of a channel-shaped supporting bracket, one wing of said channel being curved to conform to the surface of said post, the other wing adapted to be attached to a cross rail, a web between said wings, one of said wings being bent at its junction with said web thereby forming a tapered seat between said wings.

3. In a corner lock for takedown frames, the combination of a slotted post, a slotted channel shaped supporting bracket, one wing of said channel being conformed to the surface of said post the other wing adapted to support a cross rail, a web between said wings, a tapered seat formed by the junction of said wings with said web, a tapered locking plate adapted to removably engage in said seat, a hasp lug arranged to pass through the slots in the bracket and post, and to be positioned in the slotted post, and a taper pin driven into said hasp when positioned in said slotted post whereby to rigidly maintain said corner lock on said post.

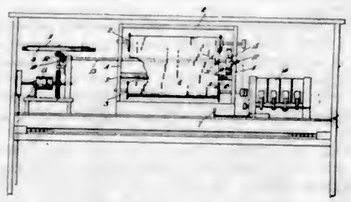
4. A supporting bracket for takedown frame corner

locks made of a single piece of sheet metal and comprising two wings connected to a web member and angularly disposed relatively to one another to form a tapered seat.

5. A supporting bracket for takedown frame corner locks made of a single piece of sheet metal and comprising two wings connected to a web member, one of said wings being bent substantially at a right angle to said web and inclining toward the other of said wings to form a tapered seat.

[Claims 6 to 8 not printed in the Gazette.]

1,132,275. COMBINED PIANO-PLAYER AND TALKING-MACHINE. GEORGE B. KELLY, Jamaica Plain, Mass., assignor to Aeolian Company, New York, N. Y., a Corporation of Connecticut. Filed Dec. 6, 1912, Serial No. 735,195. Renewed Feb. 8, 1915. Serial No. 6,822. (Cl. 84—193.)



1. The combination with a player piano comprising a motor for moving a perforated music sheet, a manual means for controlling the speed of said motor and a talking machine comprising a movable support, a motor therefor independent of the sheet moving motor, of a movable element driven by the record moving motor at a speed proportionate to the speed of the record support and provided with permanent visible indicia, a pointer adjecent to said movable element, a perforated music sheet driven by said sheet moving motor and provided with indicia, separated a distance to be traversed by the music sheet during one rotation of the record disk support and a fixed pointer adjacent to said sheet, the indicia on the movable element being so positioned and so driven that a mark comes opposite the adjacent pointer for each rotation of the record support, whereby an observation of the two pointers and of the arrival of the indicia on the element driven from the talking machine motor and on the music sheet, at said pointers, indicates any existing variation in relation to the speed of the driven elements and permits of rectifying such variation by means of the manual speed control for the music sheet motor, substantially as set forth.

2. The combination with a player piano comprising a chest, a perforated music sheet on one of said rolls, music rolls in said chest and a motor for moving the perforated music sheet connected with said rolls and a talking machine comprising a motor for rotating a record independent of the sheet moving motor, a disk mounted within said chest and driven from the talking machine record motor at a speed proportionate to the speed of the record, indicia on the rim of said disk, said music sheet having indicia permanently produced thereon, said indicia being spaced at a length of the music sheet, which is to be traversed by the sheet during one rotation of the record support, in order to obtain synchronism, and fixed pointers extending to the said disk and to the said music sheet, the indicia on the movable elements being so positioned and driven that a mark comes opposite the adjacent pointer for each rotation of the support, when the disk and sheet are moving synchronously, substantially as set forth.

3. The combination with a player piano comprising a chest, music rolls in said chest, a perforated music sheet on one of said rolls, a motor for moving said perforated music sheet, connected with said rolls and a talking machine comprising a motor for rotating a talking machine record support independent of the perforated sheet moving motor, a movable element driven from the talking machine record motor at a speed proportionate to the speed of the record support, said element being located within said chest, equally spaced indicia on said element driven from the talking machine record motor, indicia permanently produced on the perforated music sheet, said indicia on the perforated music sheet being spaced at a length of the music sheet which is to be traveled by said sheet during a predetermined part of a rotation of the record support, the moving element driven from the talking machine motor and provided with indicia as aforesaid, being adjacent to that part of the perforated music sheet which carries the indicia on said sheet, whereby the indicia on the perforated music sheet and the indicia on the element driven from the motor of the talking machine record are simultaneously visible, and means for controlling the speed of the motor for moving the perforated music sheet, substantially as set forth.

1,132,276. ROCK-DRILL. VILHELM P. KESSEL, San Francisco, Cal. Filed Dec. 29, 1913. Serial No. 809,144. (Cl. 121—10.)



1. A pneumatic drill comprising a hollow casing, a hammer movable therein, a tappet adapted to be struck thereby, a tubular drill held by said tappet, an ejector mounted on the side of said casing, a passage from said ejector to said tubular drill rod, and means for supplying air under pressure to said ejector for the purpose of creating a suction through said tubular drill rod.

2. A pneumatic drill of the character described comprising a hollow casing, a hammer movable therein, a tappet positioned adjacent the lower end of said hammer and adapted to be struck thereby, a tubular drill rod held by said hammer tappet, a passageway through said casing and said tappet forming a continuation of the central passage in said drill rod, and means for creating a suction through said drill rod and said passageway for the purpose of removing the dust from the point of said drill.

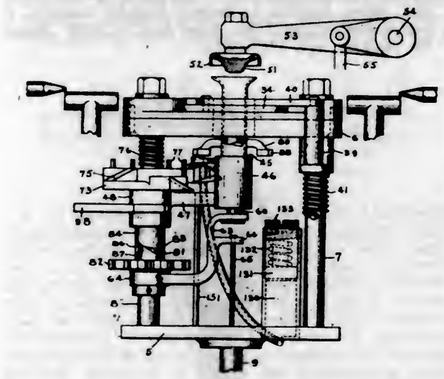
3. A pneumatic drill of the character described comprising a hollow casing, a hammer movable therein, a tappet positioned in said casing adjacent the lower end of said hammer and adapted to be struck thereby, a tubular drill rod held by said tappet, a passage through said drill rod and said tappet communicating with a passage in the side of said casing, an ejector nozzle connected with the last mentioned passage and means for supplying a jet of air around said nozzle for the purpose of creating a suction through said passages.

4. A pneumatic drill of the character described comprising a hollow casing, a hammer movable therein, a tappet positioned in said casing adjacent the lower end thereof, a tubular drill rod held by said tappet and extending through said casing, a passage in the side of said casing, an angular passage through said tappet connecting the passage of said drill and the passage in the side of said casing, a nozzle on the end of said passage in the side of the casing, a pressure chamber surrounding said nozzle, and opening from said chamber to the hammer exhaust chamber and means for closing said opening.

5. A pneumatic drill of the character described comprising a hollow casing, a hammer movable therein, a tappet adapted to hold the drill rod, a passage supplying air under pressure to said hammer, and means for regulating said air supply, an ejector mounted on the side of said casing, the pressure chamber of said ejector communicating through a passage in the side of said casing with the said passage supplying air pressure to the hammer, the suction nozzle of said ejector communicating with a passage extending through the casing tappet and drill to the point thereof.

[Claim 6 not printed in the Gazette.]

1,132,277. LAMP-MAKING MACHINE. NORMAN MARSHALL, Newton, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 28, 1908. Serial No. 469,650. (Cl. 49—2.)



1. In a stem forming machine, the combination with means for holding a stem tube and means for heating one end of said tube, of a shaping tool for flaring out said tube provided with a surface diverging from the axis of rotation of the heated tube to a point outside the walls of said tube and a member mounted at the outer end of said surface to engage and smooth the edge of the flare produced on said tube by said surface, means for moving said tool into engagement with the heated end of said tube, and means for simultaneously producing relative rotation of said tube and tool while said tool is in engagement with the heated end of said tube.

2. In a stem forming machine, the combination with a stem support for holding a stem tube with one end projecting from said support, and means for heating the projecting end of the tube, of a conical shaping tool for flaring out the end of the tube, said conical shaping tool having at the base a diameter substantially greater than that of the tube and provided at the outer edge of the base with a flange for engaging and smoothing the flared edge of the stem tube, means for moving said tool longitudinally of said tube and into and out of engagement with the end thereof, and means for simultaneously producing relative rotation of said tube and tool while said tool is in engagement with the heated end of said tube.

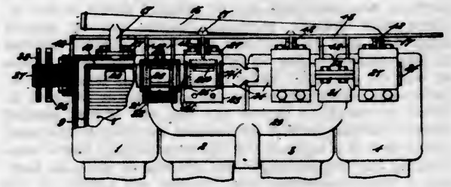
3. In a stem forming machine, the combination with a movable carrier and a stem holder mounted to rotate on said carrier and arranged to hold the stem tube in alinement with its axis of rotation, of means for heating the end of the stem tube, a non-rotatable flaring and shaping tool mounted to move in alinement with the axis of rotation of the stem tube, said tool having a surface inclined to said axis to flare out the tube and extending beyond the walls of said tube, a shaping member with a surface parallel to said axis and beyond the walls of the tube to engage and smooth the edge of the tube when flared, and means for bringing said non-rotatable tool into engagement with the heated end of the rotating stem tube during the rotation of said support.

4. In a stem forming machine, the combination of a device for preventing displacement of the stem wires during the fusing of the tube and the sealing in of said wires, and means for causing said device to follow and press upon the end of the tube as said tube fuses and the end thereof retreats.

5. In a stem forming machine, the combination with means for holding the stem tube and fusing the end of the tube, of a pressing member mounted to move longitudinally of the stem tube and into engagement with the fused end thereof, and means for moving said pressing member longitudinally of the tube to press the fused end of the tube during the fusing of the tube around the stem wires.

[Claims 6 to 15 not printed in the Gazette.]

1,132,278. INTERNAL-COMBUSTION MOTOR. ONESIME E. MICHAUD, St. Louis, Mo. Filed June 28, 1912. Serial No. 706,398. (Cl. 123—59.)

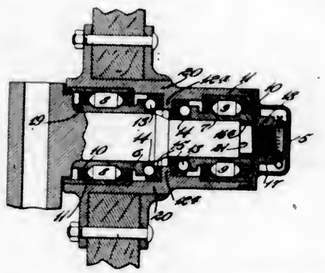


1. In an internal combustion motor, the combination with a plurality of working cylinders arranged in a row and having inlet and exhaust ports on opposite sides, said cylinders having lateral projections provided with horizontal semi-cylindrical valve seats into which the said ports respectively open, rotary tubular valve members each arranged to coöperate with two adjoining cylinders and fitted in said seats and having ports corresponding to the ports in the cylinders, said valve members having annular circumferential ribs on opposite sides of the ports therein, separate cap pieces fitted over said tubular valve members and coöperating with the respective lateral projections of the cylinder to provide continuous bearings for said valve members, said lateral projections and cap pieces having coöperating semi-circular grooves providing continuous bearings for said annular ribs on the valve members, said tubular valve members being closed at both ends and having ports at the middle, and a manifold pipe having branches provided at their ends with sleeves which are fitted on said valve members in the region of said middle ports.

2. In an internal combustion motor, the combination with a battery of working cylinders arranged in a row, said cylinders having alined intake ports on one side and exhaust ports on the opposite side, said cylinders also having semi-cylindrical valve seats in the region of the respective ports, detachable cap pieces having counterpart valve seats coöperating with said semi-cylindrical valve seats, cylindrical tubular valve members fitted rotatably in said valve seats, said tubular valve members having closed ends and each being of sufficient length and having ports arranged to coöperate with the respective ports of two adjoining working cylinders, said valve members having ports intermediate their ends, and supply and exhaust manifolds having extensions provided with ter-

minal sleeves fitted rotatably on the respective valve members in the region of the intermediate ports therein and arranged and adapted to establish communication between the valve members and the respective manifolds.

1,132,279. JOURNAL-BEARING. ONESIME E. MICHAUD, St. Louis, Mo. Original application filed Oct. 28, 1912, Serial No. 728,064. Divided and this application filed Feb. 27, 1913. Serial No. 751,082. (Cl. 64—62.)



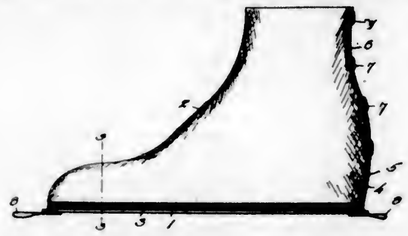
1. The combination with an axle member having an annular shoulder at its inner end, the outer end of said axle member being reduced to provide a second annular shoulder, said reduced end portion of the axle member being screw-threaded, of a hub box having journal bearing portions near each end and an internal thrust collar between said bearing portions, journal bearing sleeves slipped on said axle member and being slidable endwise in coöperative relation to the respective bearing portions of said hub box, antifriction thrust bearings interposed between said bearing sleeves on the axle member and said internal thrust collar on the hub box, one of said bearing sleeves abutting against the annular shoulder at the inner end of said axle member and the other bearing sleeve overhanging the reduced outer end portion of the axle member, a collar sleeved on said reduced end portion of the axle member inside of the bearing sleeve and abutting against said second annular shoulder, and a nut on the screw-threaded portion of the axle member adapted for holding the adjacent bearing sleeve on the axle member, said nut being also adapted to clamp said collar against the adjacent annular shoulder on the axle member, whereby the width of said collar controls the play between said end thrust bearings.

2. The combination with an axle member, of a hub box having an internal annular abutment intermediate its ends, antifriction journal bearings interposed between said axle member and said hub box on opposite sides of said annular abutment, said journal bearings including sleeves slipped on said axle member, said sleeves having circumferential annular flanges at their adjacent ends, antifriction end thrust bearings interposed between said internal annular abutment of said hub box and rolling directly against the adjacent flanged ends of said bearing sleeves on the axle member, and means on said axle member for holding said bearing sleeves thereon from endwise movement outwardly and for positively limiting the adjustment of said end thrust bearings one toward the other.

1,132,280. SHOE RECEIPTACLE AND PROTECTOR. JOSHUA B. MITCHELL, Richmond, Va. Filed Apr. 18, 1914. Serial No. 832,772. (Cl. 150—52.)

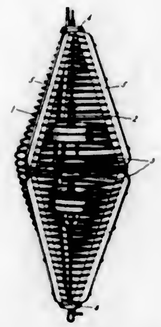
1. In a device of the kind described, a sole portion adapted to conform to the upper of a shoe, an upper portion and connected to the sole portion by accordion plaits, said upper portion being open at the back from the top down through a portion of its height, and means to hold said open portion releasably closed, the opening at the back affording means for introduction of the shoe without folding.

2. In a device of the kind described, a sole portion, an upper portion adapted to conform to the upper of a shoe, said upper portion being open at the back from the top down through a portion of its height, means to hold said open portion releasably closed, said means comprising a flap extending from one side of the upper portion and



adapted to lap over the other side of the upper portion, a second flap extending upward from the first side of the upper portion, and adapted to lap over the first flap, and means to hold the said flap and upper portion together, the opening at the back affording means for introduction of the shoe without folding.

1,132,281. REACTIVE COIL. WALTER S. MOODY, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed July 11, 1912. Serial No. 708,842. (Cl. 171—242.)



1. The combination with a system of distribution, of a reactive coil in one lead thereof, the radius of curvature of a turn of the reactive coil near one end being less than the radius of curvature of a turn situated farther from that end, said mentioned end of the coil being connected to that part of the system on which the disturbances to be protected against by the coil may be expected to occur.

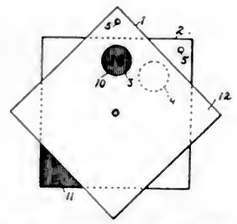
2. The combination with a system of distribution, of electrical apparatus connected thereto and a reactive coil connected between the apparatus and a part of the system on which disturbances may be expected to occur, the radii of curvature of the turns of the reactive coil increasing from the end connected to that part of the system.

3. A reactive coil having a plurality of turns, the turns near the center of said coil having greater radii of curvature than the turns nearer the ends of said coil.

4. A reactive coil having a plurality of turns the radii of curvature of which increase from the ends toward the center.

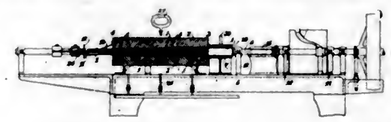
5. The combination with a reactive coil in the shape of a double cone with bases adjoining, of means for maintaining the spacing of turns of said coil comprising a plurality of bars secured to the several turns and insulating means within the coil connecting its two ends securely together.

1,132,282. INDICATOR. CHARLES C. F. NIESCHANG, Fort Wayne, Ind. Filed July 3, 1912. Serial No. 707,620. (Cl. 40—70.)



A device of the class described, comprising two rectangular plates of similar dimensions pivotally secured together, each plate having an aperture between its pivotal point and one of its corners, and having an annular series of indicating faces concentric with its pivotal point, any one of which may be made to appear through the aperture of the other plate, and also another indicating face that may be made to appear beyond the edge of the other plate.

1,132,283. APPARATUS FOR SHAPING CARDBOARD TUBES. JAMES WALLACE PATON, Liverpool, England. Filed Nov. 29, 1913. Serial No. 803,699. (Cl. 93—77.)



1. An apparatus for shaping circular tubes of cardboard or like material into rectangular or other suitable shape in cross section, comprising in combination a central mandrel or male die and an outer tubular former or female die between which the tubes are longitudinally propelled, both the said dies having at the entrant end a circular cross sectional outline with an annular space between corresponding to the size of the tube, and gradually changing until at the exit end they correspond to the cross sectional outline it is desired the finished tube shall present.

2. In apparatus for shaping circular tubes of cardboard or like material into rectangular or other suitable shape in cross section, the combination of a female die, a male die supported centrally within it by tubular blanks, means for heating the dies, a reciprocating plunger adapted to push the tubular blanks longitudinally into the space between the male and female dies, while at the same time pushing the tubular blanks which have been already pressed in, a further length onward, and a reciprocating finger located in line with the dies at the delivery end for preventing endwise movement of the male die within the female one.

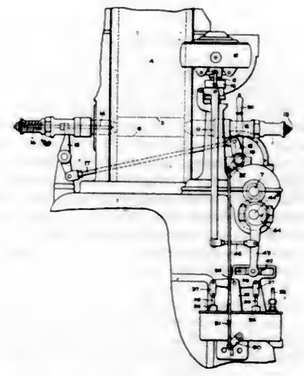
3. In apparatus for shaping circular tubes of cardboard or like material into rectangular or other suitable shape in cross section, the combination with a male die of a female shaping die, a pair of half dies located at one end of the female die means for feeding the tubular blanks automatically into said half dies, so that they come to rest one by one in front of the female shaping die.

4. In apparatus for shaping circular tubes of cardboard or like material into rectangular or other suitable shape, the combination of shaping dies one within the other, the inner one being supported centrally within the other by the tubular blanks, a pair of half dies at the entrant end to the shaping dies, one of which half dies is hinged to the other, a feeding chute for the tubular blanks, a cam for opening the hinged half dies to allow a blank to escape from the chute into the space between the half dies and close the same, and a bevel or chamfer at the edge of the hinged die for the purpose of pressing back the succeeding blanks in the chute from following the one that has escaped.

5. In apparatus for shaping circular tubes of cardboard or like material into rectangular or other suitable shape, the combination with a female die and a male die supported centrally within it by the tubular blanks, of a reciprocating plunger adapted to push the tubular blanks between the dies, a reciprocating finger located in line with the dies at the delivery end and adapted to prevent the male die being driven out of the female die when the plunger at the other end is pushing the tubular blanks in between the dies.

[Claim 6 not printed in the Gazette.]

1,132,284. VARIABLE-STROKE FUEL-PUMP. OTTO F. PERSSON, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Dec. 30, 1912. Serial No. 739,217. (Cl. 123—140.)

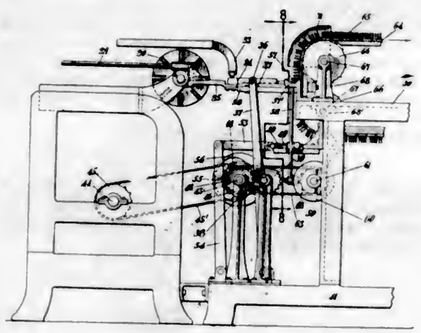


1. The combination of an internal combustion engine, a starting means, a fuel injector, a pump having alternately acting plungers, an actuator common to both, a conduit receiving high pressure fuel from all of the pump plungers and conveying it to the injector, a by-pass valve in the conduit, means for varying the stroke of the pump, and a lever for moving the starting means to operative position and simultaneously therewith moving the by-pass valve to a position where it by-passes fuel from the injector.

2. The combination with an internal combustion engine having an air starting means, and a fuel injector, of a fuel pump comprising a pair of cylinders, alternately acting plungers mounted therein, a fuel supply chamber, a pivotally supported actuator for the plungers, a shaft operated by the engine for driving the actuator, a common discharge pipe for the cylinders connected to the fuel injector, a by-pass connecting the discharge conduit to said fuel supply chamber, a valve therein, and a single lever for moving the air starting means to operative position and opening the valve in said by-pass.

3. The combination with an internal combustion engine having fuel admission means, of a pump for supplying fuel thereto comprising a casing containing a fuel chamber, a single casting therein carrying a pair of cylinders, plungers in the cylinders, separate auction and discharge valves for each cylinder, a common delivery pipe therefor connected to the fuel admission means, a walking beam having an elongated slot located on one side of its pivot, links connecting said beam to the plungers, a member adapted to slide in said slot, a speed reduction shaft, an eccentric thereon, means connecting the member to the eccentric for operating the pump plungers, and means for sliding said member in said slot to vary the effective stroke of the pump.

1,132,285. MACHINE FOR ASSEMBLING MATCH-BOOKS, &c. FRANK SCHAFER, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 16, 1913. Serial No. 767,985. (Cl. 100—59.)



1. In a machine for assembling match-books, and the like, the combination of a support providing a pathway for the articles, said support having a longitudinal slot in the bottom thereof, a reciprocating member movable longitudinally of said trackway, a guide for said member below said support, spring friction means for said member and its guide, a vibratory dog on said member having an upwardly projecting head movable through said slot, a lever for reciprocating said head, and an upwardly projecting crank-connection between the lever and the dog.

2. In a machine for assembling match-books, and the like, the combination of two horizontally-disposed positioning heads in spaced relation to each other, means for inserting articles in said heads, receiving means between said heads, means whereby the heads are shifted to direct the articles toward said receiving means, and means whereby the articles are transferred to the said receiving means.

3. In a machine for assembling match-books, and the like, the combination of two horizontally-disposed positioning heads in spaced relation to each other, means for inserting articles in said heads, a carrier arranged to travel between said heads having adjacent article-receiving portions, means whereby the heads are shifted to direct the articles toward the carrier, and means whereby the said articles are transferred to the said carrier.

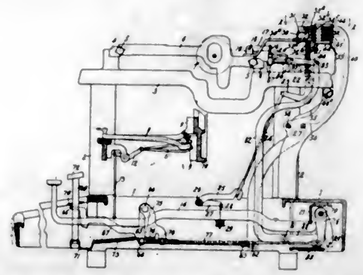
4. In a machine for assembling match-books, and the like, the combination of two horizontally-disposed positioning heads in spaced relation to each other, rock-shafts for said heads, means for inserting the articles in said heads, receiving means between said heads, means whereby the shafts are actuated to turn the heads to position with their contained articles directed toward the receiving means, and means whereby the said articles are transferred to the said receiving means.

5. In a machine for assembling match-books and the like, the combination of two horizontally-disposed positioning heads in spaced relation to each other, rock-shafts for said heads, means for inserting the articles in said heads, receiving means between said heads, gear mechanism for simultaneously actuating the shafts to turn the heads to positions with their contained articles directed toward the said receiving means, and means whereby the said articles are transferred to the said receiving means.

[Claims 6 to 8 not printed in the Gazette.]

1,132,286. TYPE-WRITING MACHINE. GEORGE A. SEIB, Ilion, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 21, 1913. Serial No. 785,881. (Cl. 197—177.)

1. In a typewriting machine and in tabulating mechanism, the combination of a plurality of column stops, a plurality of notched coöperating stops, a traveling carriage, and means for moving said plurality of notched coöperating stops in planes parallel with the path of movement of said carriage, the column stops engaging in the notches in the coöperating stops.



2. In a typewriting machine and in tabulating mechanism, the combination of a plurality of column stops, a plurality of notched coöperating stops, a traveling carriage, and means for moving said plurality of notched cooperating stops in separate horizontal planes, one above the other, the notches therein being engaged by the column stops.

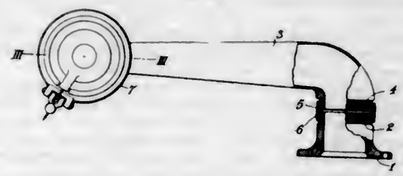
3. In a typewriting machine and in tabulating mechanism, the combination of a plurality of column stops, a plurality of notched coöperating column selecting stops, one for each of said column stops, a traveling carriage, and means for moving said column selecting stops in planes parallel with the path of movement of said carriage, the column stops engaging in the notches in the column selecting stops.

4. In a typewriting machine and in tabulating mechanism, the combination of a plurality of column stops, a plurality of notched coöperating stops, a traveling carriage, and means for affording engagement of the notch of each of said coöperating stops with a predetermined column stop, said coöperating stops being movable for such purpose in planes parallel with the path of movement of said carriage.

5. In a typewriting machine and in tabulating mechanism, the combination of a carriage, a plurality of tabular stops thereon, a plurality of coöperating stops mounted on the frame of the machine, each coöperating stop being provided with a notch for engaging with one of said tabulator stops, the tabulator stop coöperating with the notched stop at each side of the notch to exert a camming effect on said coöperating stop, and means for moving said plurality of coöperating stops into the path of movement of said tabulator stops.

[Claims 6 to 24 not printed in the Gazette.]

1,132,287. MOUNTING FOR SOUND-BOXES. HORACE SHEBLE, Philadelphia, Pa., and FRANK L. CAPPS, Bridgeport, Conn., assignors to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Oct. 17, 1912. Serial No. 726,253. (Cl. 181—3.)

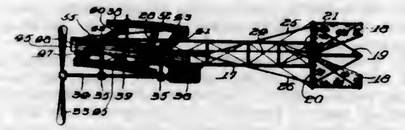


1. As an article of manufacture, the herein described sound-conveyer, consisting of an exteriorly-threaded ring or thimble, a tone-arm having exterior screw-threads running in the opposite direction, a ring having two sets of interior screw-threads for engaging the two screw-threads aforesaid, a sound-box and its stylus supported by the other end of said tone-arm, and means for holding said stylus yieldingly in proper relation to the record-disk.

2. In a talking-machine, the combination with a tone-arm mounted to swing in a horizontal plane only, of a spider secured in the end of said tone-arm, a cup fast upon a rod journaled in said spider, a spring to force said cup axially in one direction, means to limit the amount of such rotation, and a sound-box detachably secured to said cup.

3. In a talking-machine, the combination with a screw-threaded ring secured adjacent the sound-conveyer or horn, a hollow arm for carrying the sound-box and having its opposite end screw-threaded, and a coupling-ring uniting the two members aforesaid by means of screw-threads engaging the two screw-threads aforesaid.

1,132,288. FLYING-MACHINE. EDWARD WANTON SMITH, Philadelphia, Pa., assignor to Frederick A. Blount, Philadelphia, Pa., and Clifton C. Hallowell, Penfield, Pa. Filed Feb. 18, 1910. Serial No. 544,573. (Cl. 244—29.)



1. An aeroplane having means for increasing the supporting surface at one side and contemporaneously decreasing the supporting surface at the other side, each by means of local parallel planes, said planes being at all times parallel to the aeroplane and arranged to be variably spaced from its surface.

2. An aeroplane having a plurality of relatively movable auxiliary parallel planes adjacent to its lateral extremities, means directing the movement of said auxiliary planes into position spaced from the surface of said aeroplane to increase the supporting surface and to be shifted adjacent to the surface of said aeroplane and shielded thereby, and means connected to contemporaneously actuate said auxiliary planes relative to said aeroplane and contemporaneously extending one thereover and withdrawing another into position to be shielded thereby.

3. In a flying machine, the combination with an aeroplane having laterally extending rigid wings, of auxiliary planes vertically movable relative thereto, in the direction of flight on parallel pivoted supports.

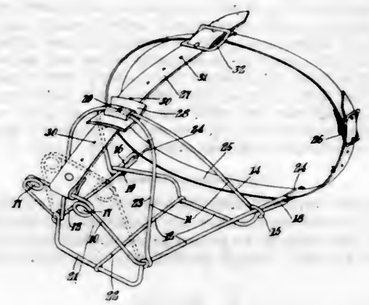
4. In a flying machine, the combination with an aeroplane, of parallel supports pivoted to said aeroplane, and auxiliary planes pivotally carried by said supports and cooperative with said aeroplane at the ends thereof to relatively increase and decrease its weight supporting surface at predetermined localities.

5. In a flying machine, the combination with rigid aeroplanes, of auxiliary planes movable with respect thereto and disposed above and below said respective aeroplanes, pivoted supports for said auxiliary planes, arranged to be shifted to move said auxiliary planes oppositely relative to said aeroplanes and to maintain said planes in substantially parallel relation irrespective of their relative positions.

[Claims 6 to 12 not printed in the Gazette.]

1,132,289. DOG-MUZZLE. WALTER B. STEVENS, Jr., New York, N. Y. Filed Aug. 3, 1914. Serial No. 854,763. (Cl. 119—133.)

1. In a wire muzzle for dogs: a front normally fixed wire nose member and a rear wire nose member; an adjustable flexible member connecting said two nose members to effect an angular displacement of the plane of said front nose member relatively to said rear nose member; and means to lock said flexible member to said rear wire nose member.

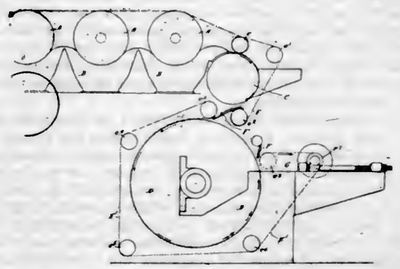


2. In a wire muzzle for dogs: a front normally fixed wire nose member and a rear wire nose member; a neck strap; a strap connecting said front nose member with said rear nose member and with said neck strap to effect an angular displacement of the plane of said front nose member relatively to said rear nose member; and means coöperating with the top of said rear wire nose member to lock said strap in position to maintain the adjustment.

3. In a wire muzzle for dogs: a front wire nose member and a rear wire nose member; a strap secured to said front nose member to effect an angular displacement of the plane of said front nose member relatively to said rear nose member; and a chape coöperating with the top of said rear nose member and through which said strap is adapted to pass.

4. In a wire muzzle for dogs: a front wire nose member and a rear wire nose member; a strap secured to said front nose member to effect an angular displacement of the plane of said front nose member relatively to said rear nose member; a chape coöperating with the top of said rear nose member and through which said strap is adapted to pass; and a neck strap provided with a buckle to receive the end of said strap.

1,132,290. IRONING-MACHINE. DAVID KEIL TULLIS, Glasgow, Scotland. Filed Feb. 16, 1914. Serial No. 818,994. (Cl. 68—9.)



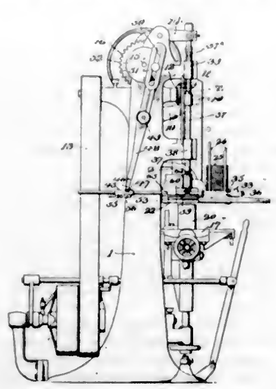
1. In an ironing machine, the combination with a pair of ironing members, of a series of bands for conveying the goods to be treated from one of said members to the other, and a series of fingers or doffer plates between said bands for delivering said goods from said bands to said other member.

2. In an ironing machine, in combination, one or more rollers, one or more heated beds between which and said roller or rollers the goods to be treated pass, a heated member at the end of the machine to which said goods

are delivered from said rollers and beds, a final roller, a series of bands passing over said heated member and between which and said member the goods pass, and a series of fingers or doffer plates between said bands for delivering said goods to said final roller.

3. In an ironing machine, in combination, one or more rollers, one or more heated beds between which and said roller or rollers the goods to be treated pass, a heated roller at the end of the machine to which said goods are delivered from said rollers and beds, a final roller, a series of bands passing over said heated roller and between which and said roller the goods pass, and a series of fingers or doffer plates between said bands for delivering said goods to said final roller.

1,132,291. CAN-CLOSING MACHINE. IVAR F. WARME, Syracuse, N. Y., assignor to Continental Can Company, Inc., Syracuse, N. Y., a Corporation of New York. Filed July 11, 1913. Serial No. 778,621. (Cl. 113—14.)



1. A can closing machine including in combination a can body support, a seaming head, means for giving the can body support and seaming head a relative movement for causing the seaming head to engage the can, a support for the can ends extending underneath the seaming head and held in fixed position relative thereto, said support for the can end having an opening therethrough, the center of which is in line with the seaming head, said support having means for centering the can end relative to said opening, a pusher for engaging the can end on the support and moving the same underneath the seaming head, and means for reciprocating said pusher, said reciprocating means for the pusher including devices which may be disconnected for rendering the feeding action of the pusher ineffective.

2. A can closing machine including in combination a can body support, a seaming head, means for giving the can body support and seaming head a relative movement for causing the seaming head to engage the can, a support for the can ends extending underneath the seaming head and held in fixed position relative thereto, said support for the can end having an opening therethrough, the center of which is in line with the seaming head, said support having means for centering the can end relative to said opening, a pusher for engaging the can end on the support and moving the same underneath the seaming head, means for reciprocating said pusher, said reciprocating means for the pusher including devices which may be disconnected for rendering the feeding action of the pusher ineffective, and devices controlled by the can bodies fed to the closing machine for connecting said pusher to its reciprocating means.

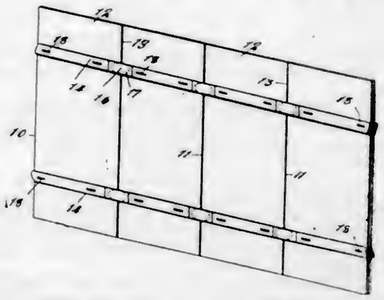
3. A can closing machine including in combination a can body support, a seaming head, means for giving the can body support and seaming head a relative movement for causing the seaming head to engage the can, a support for the can ends extending underneath the seaming head and held in fixed position relative thereto, said support for the can end having an opening therethrough, the center of which is in line with the seaming head, said support having means for centering the can end relative to said opening, a pusher for engaging the can end on the support and moving the same underneath the seaming head, means for reciprocating said pusher, said reciprocating means for the pusher including devices which may be disconnected for rendering the feeding action of the pusher ineffective, and automatic means for disconnecting the pusher from its reciprocating means, said automatic means being controlled by the cans as they are fed to the closing machine for connecting said pusher to its reciprocating means.

4. A can closing machine including in combination a can body support, a seaming head, means for giving the seaming head and the can body support a movement relative to each other, a support for can ends held in fixed relation to the seaming head, a stack holder carried by the support for the can ends, a pusher for engaging a can end in the stack holder and moving the same underneath the seaming head, means operating in unison with the relative movements of the seaming head and the support for reciprocating the pusher, means for feeding can bodies underneath the seaming head, and means controlled by the can bodies as they are fed to the seaming head for connecting and disconnecting said pusher to and from its operating means.

5. A can closing machine including in combination a can body support, a seaming head, a support for the can ends, whereby said can ends may be held underneath the seaming head, a pusher for engaging the can end and moving the same underneath the seaming head on said support, means for reciprocating said pusher, and means controlled by the filled cans for connecting and disconnecting said pusher to and from its operating means.

[Claims 6 to 14 not printed in the Gazette.]

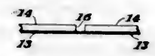
1,132,292. COLLAPSIBLE BOX. JOSEPH W. WEISS, Baltimore, Md. Continuation of application Serial No. 770,923, filed May 31, 1913. This application filed Sept. 20, 1913. Serial No. 790,820. (Cl. 229—37.)



1. A collapsible box formed of an integral sheet of fibrous board, comprising rectangular sides, end flaps, and a continuous fold between the sides and end flaps, the stiffness of the material at a zone about the apices of the box being broken down to permit the fold to readily bend about the corners of the body when set up, said fold forming a continuous two ply strengthening ridge extending entirely around the sides of the box adjacent to the edges and forming a continuous strengthening ridge for the sides and the corners of the box.

2. A collapsible box formed of an integral sheet of corrugated board comprising rectangular sides, end flaps, and a continuous fold between the sides and end flaps extending outwardly from the body of the box and spacing the same from the supporting surface upon which the box rests, the corrugations at a zone about the apices of the box being collapsed to permit the fold to readily bend about the corners, said fold forming a continuous two ply strengthening ridge extending entirely around the sides of the box adjacent to the edges and forming a continuous strengthening ridge for the sides and the corners of the box.

1,132,293. COLLAPSIBLE BOX. JOSEPH W. WEISS, Baltimore, Md. Filed Mar. 3, 1914. Serial No. 822,192. (Cl. 229—37.)

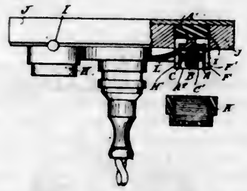


1. A collapsible box having quadrangular sides and end flaps forming the closures for the ends of the box and a substantially S shaped fold formed at the junction of the sides and flaps and disposed at the interior of the box for strengthening and bracing the same, the exterior surface of the sides being entirely free from projections.

2. A collapsible box having quadrangular sides and end flaps forming the closures for the ends of the box and a substantially S shaped fold formed about the edges of the sides and projecting inwardly of the box for strengthening and bracing the same, said flaps extending from the folds and concealing the upper edges thereof, said folds being formed with a broken down portion at their meeting ends to facilitate the bending thereof.

3. A collapsible box having quadrangular sides, end flaps extending therefrom for forming closures for the ends of the box, a fold formed at the junction of the sides and flaps and disposed at the interior of the box, the flaps extending from the folds interiorly of the end edges of the sides, said end edges forming a projecting cushion for the ends of the box and the folds forming strengthening and bracing means for the ends of the box.

1,132,294. ELECTRIC COUPLING OR CONNECTOR. JOHN WILKIE, Crosshill, Glasgow, Scotland. Filed May 21, 1913. Serial No. 769,103. (Cl. 173—259.)



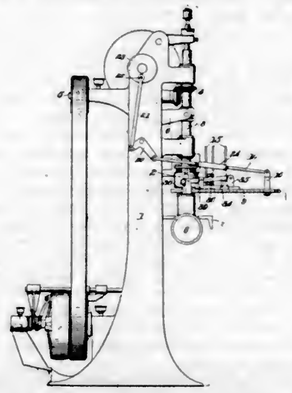
1. An electric connector comprising a metal cylinder having a base, an open end, and side walls provided with slots, a centrally arranged threaded post projecting from said base toward said open end, a binding nut on said post, a container of insulating material inclosing said cylinder, said cylinder having slots registering with the slots in said cylinder and having an open end adjacent the open end of said cylinder, and a cap also of insulating material for closing the open end of said container.

2. An electric connector comprising a metal cylinder having a base, an open end, and slotted side walls, a centrally arranged threaded post projecting from said base toward said open end, a binding nut on said post having a projecting head within said cylinder formed for engagement by a key, a slotted container of insulating material inclosing said cylinder and having an open end adjacent the open end of said cylinder, and a cap for closing the open end of said container.

3. An electric connector comprising a bracket having a threaded opening, a container of insulating material having a threaded exterior, slotted side walls, and an open outer end, the threaded inner end of said container being received within said threaded opening, a binding post and nut within said container, and a threaded cap coöperating with the threaded outer end of said container for closing the same.

4. An electric connector comprising a bracket having a threaded opening, a metal cylinder having a base, an open end, and side walls provided with slots, a centrally arranged threaded post projecting from said base toward said open end, a binding nut on said post, a container of insulating material inclosing said cylinder, said container having a threaded exterior, an open outer end, and side walls provided with slots registering with the slots in said cylinder, the threaded inner end of said container being received within the threaded opening in said bracket, and a threaded cap coöperating with the threaded outer end of said container for closing the same.

1,132,295. CAN-CLOSING MACHINE. JOHN F. WING, Chicago, Ill., assignor, by mesne assignments, to Continental Can Company, Inc., a Corporation of New York. Filed Apr. 7, 1911. Serial No. 619,587. (Cl. 113—14.)



1. A can closing machine including in combination a can body support, a seaming head, a support for can ends extending between the seaming head and the can body support and held in fixed relation to said seaming head, means for giving a seaming head and can body support a relative movement for causing the can body and can end to engage said seaming head, a stack holder, a pusher mounted on said can end support for engaging a can end in the stack holder and moving the same underneath the seaming head, means for reciprocating said pusher in unison with the relative movements of the seaming head and the can body support whereby a can end may be moved underneath said seaming head when the same is out of contact with the can body, and means controlled by the can bodies for rendering the feeding action of the pusher ineffective to feed the can ends, except when a can body is fed underneath said seaming head.

2. A can closing machine including in combination a can body support, a rotating seaming head having seaming rolls, a support for the can ends extending between the seaming head and the can body support and held in fixed relation to said seaming head, means for giving said can body support and said seaming head a relative movement for causing the can body to engage the can end on the can end support and for causing the can end and can body to engage said seaming head, said can end support having an opening therethrough, the center of which is in line with the axis of the rotating head, a seat adjacent said opening for centering the can ends relative thereto, means for feeding the can ends on to said can end support at a point outside of the seaming head, a pusher for engaging the can ends and feeding the same along the can end support on to said seat, and means for reciprocating said pusher in time with the relative movements of the seaming head and can end support whereby a can end may be

moved underneath the seaming head when the same is out of contact with the can body.

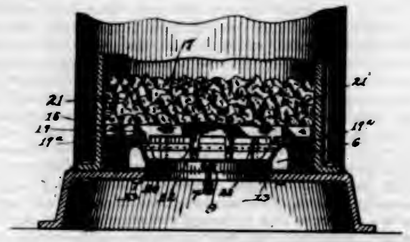
3. A can closing machine including in combination a can body support, a rotating seaming head having seaming rolls, a support for the can ends extending between the seaming head and the can body support and held in fixed relation to said seaming head, means for giving said can body support and said seaming head a relative movement for causing the can body to engage the can end on the can end support and for causing the can end and can body to engage said seaming head, said can end support having an opening therethrough, the center of which is in line with the axis of the rotating head, a seat adjacent said opening for centering the can end relative thereto, means for feeding the can ends on to said can end support at a point outside of the seaming head, a pusher for engaging the can ends and feeding the same along the can end support on to said seat, means for reciprocating said pusher in time with the relative movements of the seaming head and can end support whereby a can end may be moved underneath the seaming head when the same is out of contact with the can body, and means controlled by the can bodies fed to the closing machine for rendering the pusher ineffective in its feeding action except when a can body is fed underneath the seaming head for said can end.

4. A can closing machine including in combination, a can body support, a rotating seaming head having seaming rolls located above said can body support, a support for can ends extending between the seaming head and the can body support and held in fixed relation to the seaming head, said can end support having an opening therethrough the center of which is in line with the axis of the rotating head, said can end support having a seat for the can ends for centering the same relative to said opening, means for feeding can ends on to said can end support at a point outside of the seaming head, a pusher for engaging the can ends and feeding the same along said can end support on to said seat, means for reciprocating the pusher and means controlled by the can bodies fed to the closing machine for rendering the pusher ineffective in its feeding action except when a can body is fed underneath the seaming head for said can end.

5. A can closing machine including in combination, a can body support, a continuously rotating seaming head, seaming rolls carried thereby, a support for can ends extending between the seaming head and the can body support, said support being held from rotation and in fixed vertical relation to the seaming head, said can end support having an opening therethrough, the center of which is in line with the axis of the rotating head and a seat for the can ends for centering the same relative to said opening, means for feeding can ends on to said seat, and means controlled by the can bodies fed to the closing machine for rendering the feeding means ineffective in its feeding action except when a can body is fed underneath the seaming head for said can end.

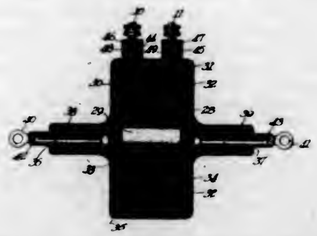
[Claims 6 to 10 not printed in the Gazette.]

1,132,296. GAS-FURNACE. JACOB H. ANSPACH, Cleveland, Ohio. Filed Feb. 26, 1914. Serial No. 821,341. (Cl. 126—92.)



The combination of a burner comprising a plurality of hollow segments having closed ends and a separate supply pipe to each segment, said segments being fitted together end to end and having inwardly projecting ears at said ends, fastenings between said ears, a plate resting on said ears and spaced at its edge from the segments, to form a narrow air space between the plate and the burner, and a grate supported above the burner and adapted to support a mass of refractory pieces which will be heated by the flame of the burner, said grate having legs resting on the top of the burner and also having legs depending beside the burner, and resting on said plate, to hold the grate in elevated position above the burner.

1,132,297. ELECTRICAL EQUIPMENT FOR INTERNAL-COMBUSTION ENGINES. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Original application filed Sept. 9, 1912, Serial No. 719,360. Divided and this application filed Nov. 17, 1913. Serial No. 801,349. (Cl. 111—122.)

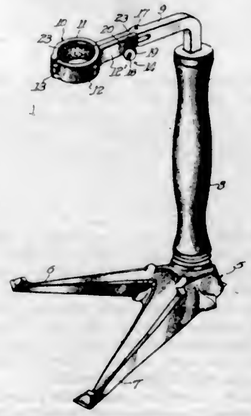


1. A spark coil having a primary and a secondary winding and terminals for the secondary winding adjustable to varying distances of separation and adapted to support the coil structure.

2. A spark coil having primary and secondary windings, a homogeneous insulating body inclosing said windings, and provided with hub-like projections therefrom, and telescoping laterally adjustable coil supporting terminals for the secondary winding within said projections.

1,132,298. CLAMP. [illegible] Chatsworth, Ill., assignor to Charles A. [illegible], Chicago, Ill. Filed Mar. 23, 1914. Serial No. 826,461. (Cl. 248—11.)

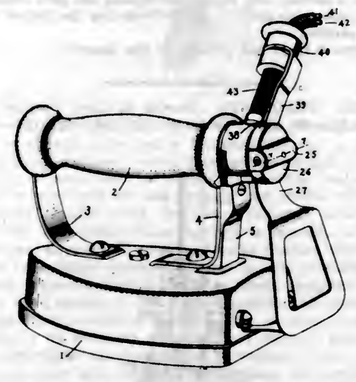
WITHDRAWN



1. In a clamp, two semi-circular members hinged together and each provided with an arm in combination with a yielding latch resiliently holding the arms together

2. In a clamp, two semi-circular members hinged together and each provided with an arm in combination with a yielding latch resiliently holding the arms together, comprising a stem pivoted in one arm; a spring carried by said stem, to overlie the end of the other arm when said stem is moved on its pivot and when said arms are in closed position.

1,132,299. ELECTRIC FLAT-IRON. HENRY PRICE BALL, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 23, 1913. Serial No. 775,214. (Cl. 219—25.)



1. The combination with an electric flat-iron having contact terminals thereon, of a member carrying contact terminals having frictional engagement with a part of the said flat-iron so that the member is freely detachable therefrom, said member being movable on said flat-iron to bring the respective terminals into and out of engagement, and means whereby said movement into and out of engagement is made with a snap action.

2. The combination with an electric flat-iron having contact terminals thereon and a supporting pivot associated therewith, of a member carrying contact terminals and adapted to removably engage said pivot and oscillate thereon to bring the respective terminals into and out of engagement, and means whereby said oscillation into and out of engagement is made with a snap action.

3. The combination with an electric flat-iron having contact terminals thereon, of a member having frictional engagement with a part of the said flat-iron so that the member is freely detachable therefrom, terminals carried by said member, said member being movable on the iron in more than one direction to bring the respective terminals into and out of engagement.

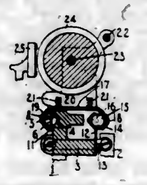
4. The combination with an electric flat-iron having contact terminals thereon and a supporting pivot associated therewith, of a member carrying contact terminals and frictionally held in engagement with said pivot and adapted to oscillate in either of two directions thereon to bring the terminals into and out of engagement.

5. The combination with an electric flat-iron having contact terminals thereon, of a member detachably engaging said flat-iron, terminals carried by said member, said member being movable in either of two directions on said flat-iron to bring the respective terminals into and out of engagement, and means whereby said movement into and out of engagement is produced with a snap action.

[Claims 6 to 13 not printed in the Gazette.]

1,132,300. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 4, 1913. Serial No. 782,859. (Cl. 197—69.)

1. Means for supporting the carriage of a typewriting machine, said means comprising guide rails one of which is carried by a resilient plate, and anti-friction rollers interposed between one of said rails and the rail which is carried by said resilient plate.



2. Means for supporting the carriage of a typewriting machine, said means comprising oppositely grooved guide rails one of which is a part of a resilient plate, and anti-friction rollers interposed between one of said rails and the guide rail which is part of said resilient plate.

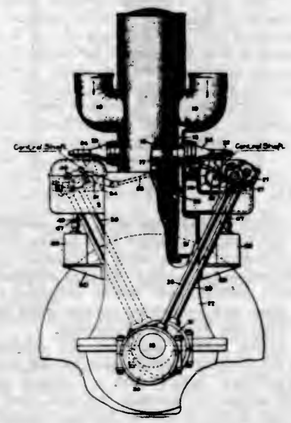
3. Means for supporting the carriage of a typewriting machine, said means comprising four guide rails one of which forms part of a resilient plate, and anti-friction rollers co-acting with said rails.

4. Means for supporting the carriage of a typewriting machine, said means comprising four guide rails one of which is received between two of the other rails and is formed from a resilient plate, and anti-friction rollers co-acting with said guide rails.

5. In a typewriting machine, the combination of a platen; and supporting means therefor comprising a member which is substantially C-shaped in cross section, said member forming opposite guide rails, opposite guide rails received in said C-shaped member, one of the latter rails being kept in its working position by spring pressure, and anti-friction rollers interposed between the rails of said C-shaped member and the rails which are received in said member.

[Claims 6 to 18 not printed in the Gazette.]

1,132,301. CONTROLLING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. WALTER W. BROWN, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Dec. 9, 1912. Serial No. 735,659. (Cl. 123—179.)



1. The combination of an internal combustion engine with a starting means, fuel supply means, and a means organized to actuate the starting means and also to vary the amount of fuel delivered by the supply means to the engine so as to regulate it in accordance with the load.

2. The combination of an internal combustion engine

with a starting means therefor, fuel supply means, an actuator, and means responsive to the actuator for putting the starting means into and out of service and for regulating the admission of fuel to the engine so as to vary it in accordance with the load.

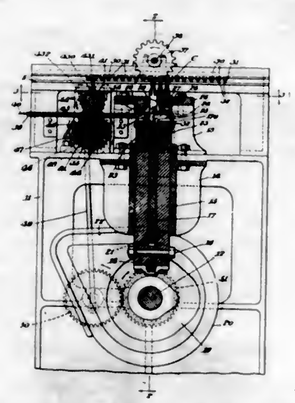
3. The combination of an internal combustion engine with a starting means, fuel supply means, a manually controlled actuator, and a means moved by the actuator for regulating the starting means when it is adjusted to one position and for regulating the admission of fuel to the engine in accordance with the load after it has been adjusted to a new position and cutting the starting means out of service.

4. The combination of an internal combustion engine with a starting means, a fuel pump, a regulator for the pump, and a means organized to put the starting means into operation and render the fuel pump inactive through its regulator and also to render said starting means inactive and the fuel pump active.

5. The combination of an internal combustion engine with a starting means, a fuel supply means, an actuator, a means moved by the actuator to control the starting means, a means moved by the actuator to prevent the admission of fuel to the engine when the starting means is in service which includes a lost-motion device, and means moved by the actuator for regulating the amount of fuel supplied to the engine.

[Claims 6 to 18 not printed in the Gazette.]

1,132,302. MACHINE FOR MAKING CARD-MATCHES. CARL A. CARLSON, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 22, 1913. Serial No. 802,375. (Cl. 144—51.)



1. In a match making machine, the combination of mechanism for forming a match card having two rows of oppositely-extending splints with a common connecting portion, and means for folding the card longitudinally of the connecting portion, said means including a member which acts upon such connecting portion while the card is associated with the forming mechanism.

2. In a match making machine, the combination of mechanism for forming a match card having two rows of oppositely-extending splints with a common connecting portion, and means for ejecting the card from the said mechanism and at the same time folding the card longitudinally of the connecting portion.

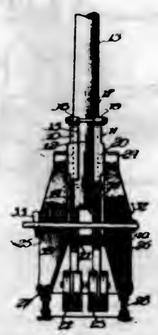
3. In a match making machine, the combination of mechanism for forming a match card having two rows of oppositely-extending splints with a common connecting portion, a carrier, and means for folding the card longitudinally of the connecting portion and introducing the folded edge to the carrier.

4. In a match making machine, the combination of mechanism for scoring match stock, means for forming from said stock a match card having two rows of oppositely-extending splints with a medially-scored common connecting portion, a carrier, and means for folding the card along the score line and introducing the folded edge to the carrier.

5. In a match making machine, the combination of mechanism for feeding match stock, means for cutting the stock into match card blanks, means for cutting the successive blanks to form match cards each having two rows of oppositely-extending splints with a common connecting portion, a carrier, and means for folding the card medially of the connecting portion and introducing the folded edge to the carrier.

[Claims 6 to 17 not printed in the Gazette.]

1,132,303. FLAGSTAFF. ELMER E. CARR, Chicago, Ill. Filed Mar. 28, 1914. Serial No. 827,856. (Cl. 116—12.)



1. In combination, a pair of inwardly yielding standards, a flag staff pivotally mounted upon the standards to swing between them, and means for compressing the standards upon the staff.

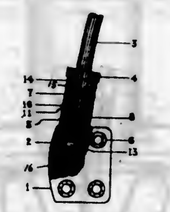
2. In combination, a pair of inwardly yielding standards, a flag staff pivotally mounted upon the standards to swing between them, a pin removably passed through both of the standards and the staff at a point which is spaced apart from the axis of pivotal movement of the staff and means applied to the pin for drawing the standards together to compress them upon the staff.

3. In combination, a standard, a flag staff pivotally mounted thereon to swing by the standard, a pin removably passed through the standard and staff at a point which is spaced apart from the axis of pivotal movement of the staff when the staff and the standard are in alinement and means applied to the pin for pressing the staff and standard together.

4. In combination, a flag staff of cross-shape in section, and a socket therefor comprising a pair of plates each having flat surfaces for engaging the adjacent faces of two opposing arms of the cross and a longitudinal groove for receiving the intermediate arm and means for binding the plates together.

5. A tilting flag staff comprising, in combination, a pair of inwardly facing longitudinally grooved plates spaced apart throughout substantially the whole of their length and forming a socket to receive the butt of the flag staff, the inner face of each plate having an upwardly facing transverse shoulder providing a seat for the corresponding part of the lower end of the flag staff, a pair of mating instanding spacing lugs, below the said shoulders, one projecting from the inner face of each plate and the two lugs, by their engagement, determining the alined position of the plates, means for binding the plates together, a trunnion formed on each of the plates and a standard in which the said trunnions are journaled.

1,132,304. BRUSH-HOLDER AND TERMINAL FOR CONNECTING ELECTRIC CABLE. RICHARD H. CUNNINGHAM, New York, N. Y., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Dec. 21, 1912. Serial No. 738,004. (Cl. 171—210.)



1. In a device of the class described, the combination of an electric cable and a terminal therefor, a block of insulating material having two borings disposed at right angles to each other, of metallic connecting pieces fitting tightly into each of said borings and means within the interior of said block for connecting and locking said metallic connecting pieces securely in position, said cable terminal adapted to enter and make contact with one of said connecting pieces, the other of said metallic pieces being adapted to take a brush, as herein described.

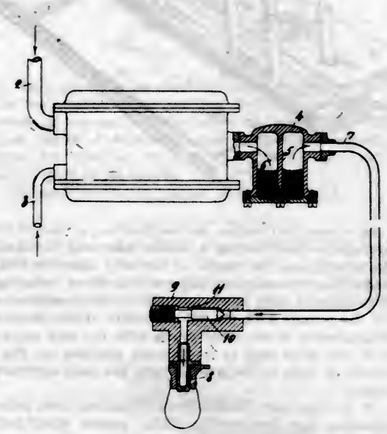
2. In a device of the class described, the combination of an electric cable, a terminal plug, a (plug and brush) holder, said terminal plug having a metallic center with a longitudinal opening, means including a cross opening leading into said longitudinal opening for securing the electrical cable in position, whereby the longitudinal opening is closed; said plug and brush holder having two projections, each carrying a metal insert one insert being adapted to take a brush, the other the said terminal plug, said inserts being electrically connected and mechanically locked on the interior of the brush holder, substantially as described.

3. In a device of the class described, the combination of an electric cable, a terminal plug, a plug and brush holder, said plug having a metallic center, said electric cable adapted to be attached to the metal center of said plug, a homogeneous mass of insulating material surrounding the metallic center of said plug and forming an annular chamber around one end thereof; said (plug and brush) holder being of a homogeneous material and having a metallic piece consisting of two thimbles joined substantially at right angles and having a reduced section at said union for locking the thimbles in place within said homogeneous insulating material, one of said thimbles adapted to receive a current collecting brush, the other having the insulating material shouldered and adapted to receive the annular chamber around said terminal, substantially as described.

4. In a device of the character described, the combination of an insulated electrical conductor and a terminal therefor, said terminal having a metallic center to which said cable is attached and an exterior insulating wall having a cupped hole at one end to receive said cable and an annular opening at the other end surrounding the metallic center and a block of homogeneous insulating material having metallic connecting pieces set in the block, substantially at right angles to each other, said metallic connecting pieces being joined in the interior of said block so as to interlock with the material of said block whereby said metallic connecting pieces are prevented from being moved, one of said metallic pieces being adapted to receive said metallic terminal center and the other adapted to receive a collecting brush, substantially as and for the purpose described.

5. In a device of the class described, the combination of an electrical cable and a terminal therefor having a metallic center and an annular insulating wall at both ends thereof thereby forming hollow recesses at both ends, the bottom of the recess at the cable end being formed by said metallic center, an opening in said metallic center adapted to receive the conductor of said electrical cable and means for securely fastening said electrical cable to said metallic terminal whereby said opening is closed, a block of insulating material having projections, at right angles to each other, said projections carrying metal inserts joined on the interior of said block in such a manner as to form a lock whereby said inserts are prevented from turning, one of said projections being shouldered and adapted to receive the said annular plug recess and metallic terminal, the other projection adapted to receive a collecting brush, substantially as and for the purpose described.

1,132,305. SAFETY DEVICE FOR INCANDESCENT-GAS-LIGHT BURNERS. GUSTAF DALÉN, Stockholm, Sweden. Filed Oct. 26, 1911. Serial No. 656,894. (Cl. 137—92.)



1. A device of the character described comprising a trap structure having an inlet and an outlet, and a mass of fusible metal particles located in said trap in the path of the gas flowing therethrough, said mass permitting the free flow of gas through the trap, and adapted to fuse and form a seal under the influence of heat or flame.

2. A device of the character described comprising a trap structure having an inlet and an outlet, and a mass of fusible particles located in said trap in the path of the gas flowing therethrough, said mass permitting free flow of gas through the trap, and adapted to fuse and form a seal under the influence of heat or flame.

3. A device of the character described comprising a trap structure having an inlet and an outlet, and a mass of fusible particles located in said trap in the path of the gas flowing therethrough, said mass permitting free flow of gas through the trap, and adapted to fuse and form a seal under the influence of heat or flame, said trap being provided with removable bottom whereby the fused mass may be removed.

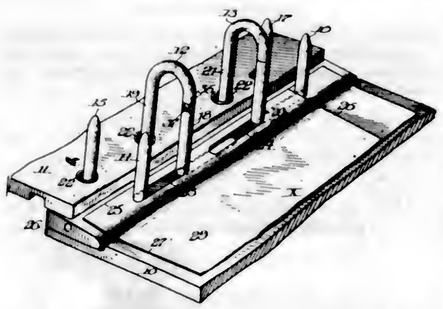
4. A device of the character described comprising a casing having an inlet and an outlet, a partition within said casing between said inlet and outlet and extending downwardly from the top thereof, the lower edge of said partition being spaced from the bottom of the casing to form a passage, and a mass of fusible particles positioned within said casing and filling said passage whereby the gas must pass through said mass.

5. A device of the character described comprising a casing having an inlet and an outlet, a partition within said casing between said inlet and outlet and extending downwardly from the top thereof, the lower edge of said partition being spaced from the bottom of the casing to form a passage, and a mass of fusible particles positioned within

said casing and filling said passage whereby the gas must pass through said mass, said casing being provided with a removable bottom whereby the fused mass may be removed.

[Claims 6 to 8 not printed in the Gazette.]

1,132,306. SHIFTABLE-SHEET BINDER. JAMES C. DAWSON, Kirkwood, Mo. Filed Jan. 26, 1914. Serial No. 814,447. (Cl. 129—11.)



1. In a loose leaf binder, in combination, a pair of filing prongs and a sheet having a slotted aperture, the spacing of the prongs and the length of the said aperture and its distance from a marginal edge of the sheet being such that the sheet is held in one position by the engagement of one of the prongs with the said aperture of the sheet and the engagement of the other prong with the said marginal edge of the sheet and in a different position by the engagement of both of the prongs with the said aperture of the sheet.

2. In a loose leaf binder, in combination, two pairs of coöperating but non-mating filing prongs arranged in parallel planes and a pair of mating filing prongs located in a plane which is parallel with and between the planes of the first mentioned pairs of prongs.

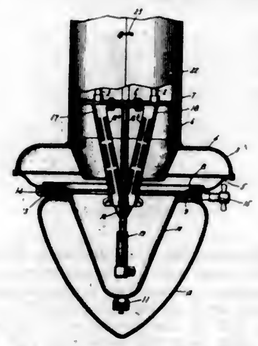
3. In a loose leaf binder, in combination, two pairs of coöperating filing prongs arranged in parallel planes and a sheet having a slotted aperture, the distance between the two pairs of prongs and the length of the said aperture and its distance from a marginal edge of the sheet being such that the sheet is held in one position by the filing of the sheet on the prongs of one pair and the engagement of the said marginal edge of the sheet with one of the prongs of the other pair and in a different position by the filing of the sheet on both pairs of prongs.

4. In a loose leaf binder, in combination, two pairs of coöperating filing prongs arranged in parallel planes and a sheet having a slotted aperture, the distance between the two pairs of prongs and the length of the said aperture and its distance from a marginal edge of the sheet being such that the sheet is held in one position by the filing of the sheet on the prongs of one pair and the engagement of the said marginal edge of the sheet with one of the prongs of the other pair and in a different position by the filing of the sheet on both pairs of prongs, the prongs of the said pair on which the sheet is filed in both of its said positions being constructed to form a closed filing arch.

5. In a loose leaf binder, in combination, a pair of filing prongs and a sheet having a slotted aperture, the aperture of the sheet being of sufficient length to receive both of the said filing prongs at the same time and the distance between the filing prongs being equal to the distance from an end of the aperture to the adjacent marginal edge of the sheet which is beyond and transverse to the length of the aperture.

[Claim 6 not printed in the Gazette.]

1,132,307. ARC-LAMP. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 17, 1912. Serial No. 697,903. (Cl. 176—52.)



1. In an arc lamp, a pair of coöperating electrodes between which an arc may be formed, in combination with a fusible rod containing or composed of light giving materials, abutting against one of the electrodes in such vicinity of the arc as to feed the fusing rod-material into the arc.

2. In an arc lamp, the combination of an upper and lower electrode between which an arc may be formed, and means for imparting luminosity to the arc, consisting of a fusible rod containing or composed of light giving materials and adapted to be held in abutting engagement with the upper electrode above the arc.

3. In an arc lamp, a pair of electrodes between which an arc may be formed and supported, one of said electrodes having its arcing face maintained substantially stationary with reference to the lamp, in combination with a rod of fusible light giving material held in abutting engagement with said electrode in such vicinity of the arc as to feed the rod-material into the arc.

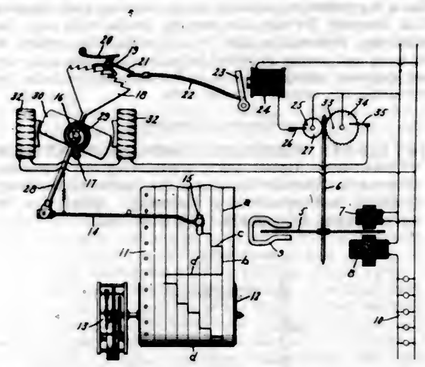
4. In an arc lamp, an upper and a lower electrode between which an arc may be formed and supported, the upper electrode comprising a pair of abutting members, and a bar of fusible light giving material held in abutting engagement with said abutting members in the vicinity of the arc.

1,132,308. GRAPHIC RECORDING APPARATUS. JOHN T. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 20, 1913. Serial No. 796,107. (Cl. 234—5.5.)

1. A graphic recording apparatus comprising a movable record sheet, a marking device operatively related to said record sheet, motive means operatively connected to said marking device and adapted to move the marking device to impart a mark on said record sheet, means whereby said motive means is adapted to impart a periodic movement to said marking device, and means for periodically energizing said motive means whereby said marking device is returned to an initial position.

2. A graphic recording apparatus comprising a movable record sheet, a marking device operatively related to said record sheet, a spring motive means operatively connected to said marking device and adapted to move the marking device substantially transversely of the direction of movement of the record sheet, means whereby said spring motive means is adapted to impart a periodic movement to said marking device thereby producing a step by step record on the record sheet, and means for periodically energizing said spring motive means whereby said marking device is returned to an initial position.

3. A graphic recording apparatus comprising a movable record sheet, a marking device operatively related to said record sheet, a spring motive means operatively connected to said marking device, an escapement operatively related to said spring motive means and adapted when released to permit a certain movement of the marking device in response to the action of the spring motive means, means whereby said escapement is periodically released, and means for periodically energizing said spring motive means whereby said marking device is returned to an initial position.



4. A graphic recording apparatus comprising a movable record sheet, a marking device operatively related to said record sheet, a spring motive means operatively connected to said marking device, a ratchet operatively related to said spring motive means, an escapement pawl adapted when released to permit the ratchet to move in response to the spring motive means a distance corresponding to the tooth pitch of the ratchet, means whereby said escapement is periodically released, and means for periodically energizing said spring motive means whereby said marking device is returned to an initial position.

5. The combination with an electric meter of a time actuated record sheet, a marking device operatively related to said record sheet, motive means operatively connected to said marking device, means whereby said motive means impart a periodic movement to said marking device, and means for periodically energizing said motive means whereby said marking device is returned to an initial position.

[Claims 6 to 15 not printed in the Gazette.]

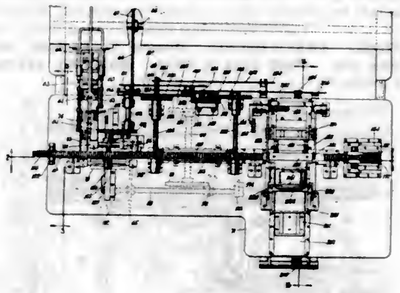
1,132,309. MACHINE FOR PACKING MATCH-BOOKS, &c. JOSEPH C. DONNELLY, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 22, 1913. Serial No. 762,872. (Cl. 100—59.)

1. In a machine for packing flat match books and the like, the combination with means for feeding the books with the heads of their respective groups of matches pointed in the same direction, of positioning means for receiving the said books and reversing the endwise position of alternate books as to the match heads.

2. In a machine for packing match-books and the like, the combination with means for feeding books, of means for reversing the endwise position of alternate books, a book-supporting element, and means for assembling the books side by side thereon with the match heads of adjacent books oppositely-disposed.

3. In a machine for packing flat match books and the like, the combination with means for feeding the books, of positioning means for reversing the endwise position of alternate books as to the match heads, a traveling carrier, and means for assembling on said carrier the books thus positioned.

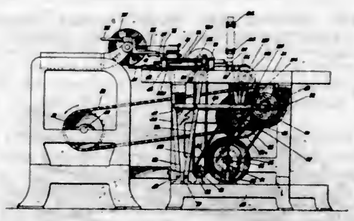
4. In a machine for packing flat match books and the like, the combination with means for feeding the books in pairs with the heads of their respective groups of matches pointed in the same direction, of positioning means for reversing the books of each pair as to their match heads, a traveling carrier, and means for assembling on said carrier the books thus positioned.



5. In a machine for packing match-books and the like, a carrier, means for depositing match-books side by side thereon at one part of the travel of the carrier, with the match heads of adjacent books oppositely disposed, and means for ejecting rows of books from the carrier at another part of its travel.

[Claims 6 to 40 not printed in the Gazette.]

1,132,310. MACHINE FOR ASSEMBLING MATCH-BOOKS, &c. JOSEPH C. DONNELLY, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 16, 1913. Serial No. 767,982. (Cl. 100—59.)



1. In a machine for assembling match books, and the like, the combination of a support for the articles, and mechanism for successively impelling said articles in a vertical position along said support, said mechanism including means whereby predetermined articles are endwise reversed during their travel.

2. In a machine for assembling match books, and the like, the combination of a support for the articles, and mechanism for impelling said articles in adjacent rows along said support, said mechanism including means for endwise reversing the articles of one of the rows during their travel.

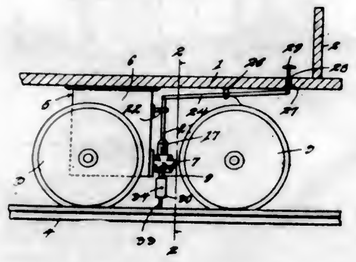
3. In a machine for assembling match books, and the like, the combination of means whereby the articles are supported in flat position, means whereby said articles are deflected to a vertical position side by side, and mechanism whereby said articles are impelled side by side, said mechanism including means whereby the articles are endwise reversed relatively to each other during their travel.

4. In a machine for assembling match books, and the like, the combination of means whereby the articles are supported in flat position, means whereby said articles are deflected to a vertical position side by side, mechanism whereby said articles are impelled side by side, said mechanism including means whereby they are endwise reversed relatively to each other during their travel, and means to receive and support the said articles in successive order.

5. In a machine for assembling match books, and the like, the combination of a support for the articles, mechanism for impelling two rows of the articles in a vertical position along said support, said mechanism including rotary means to intercept and endwise reverse the articles of one row.

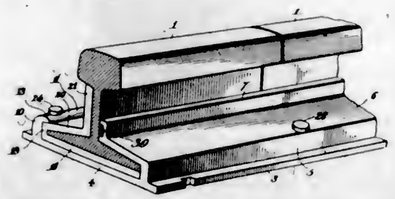
[Claims 6 to 24 not printed in the Gazette.]

1,132,311. TRACK-OILER. JOSEPH C. DUBOIS, East Lake, Ala. Filed June 6, 1914. Serial No. 843,548. (Cl. 184—3.)



In a device of the character described, a tank adapted to be secured to the body of a railroad car, means to conduct the contents of the tank to the tracks, means to control the flow of the contents of the tank through the conducting means and distributers comprising cylindrical body portions having tapered apertures extending longitudinally therethrough, and wipers pivotally mounted in said tapered apertures to spread the oil flowing therethrough over the rails of the railroad tracks.

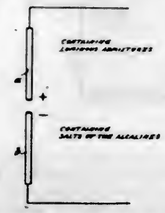
1,132,312. SPLICE-BAR. NATHAN DURBIN, Taylorville, Ill. Filed July 10, 1914. Serial No. 850,191. (Cl. 239—6.)



1. In a rail joint, two abutting rails each having its base flange at one of its edges notched at its end, an angular supporting plate upon which the rails rest, a joint chair for the plate, and a pin passing through the support and through the base of the chair disposed between the notches at the rail ends.

2. In a rail joint, a support upon which the meeting ends of two rails rest, said support including a vertical member which engages with one of the longitudinal edges of the rails, an angular plate overlying the base flanges of the rails and a vertical extension contacting with the webs and underlying the heads of the rails, the said vertical member having its outer edge inclined from one end to the other, and provided with vertical depressions at its narrower end, a chair including a base upon which the base of the support rests and having a vertical member adjacent one of its longitudinal edges provided with an angular flange and a vertically extending plate, said members adapted to engage with the sides of the rails opposite that contacted by the members of the support, the base of said chair being provided adjacent its other longitudinal edge with a vertical side having a rounded upper portion which terminates in a lip having an inclined wall which contacts with the inturned flange of the support, the inner wall of the said side plate being inclined from one end to the other end thereof, the inner face of said side having a plurality of spaced depressions, the base having pockets registering with the depressions and the rounded head of said side having a plurality of spaced openings also registering with the depressions, the supporting member adapted to be moved longitudinally of the base to bring one of its depressions into register with one of the depressions in the said side, a key including a shank and an angular head adapted to be inserted through the opening in the side into the registering depressions and to rest within the pocket in the base, and means provided between the chair and support disposed within a notch at the ends of the rails for preventing the creeping of the rails.

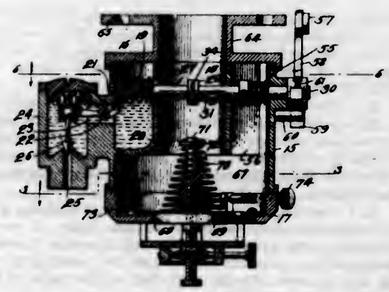
1,132,313. FLAME-ARC LAMP AND ELECTRODE THEREFOR. GEORG EGLY, Berlin-Treptow, Germany, assignor to Gebrüder Siemens & Co., Berlin-Lichtenberg, Germany, a Corporation of Germany. Filed Sept. 9, 1914. Serial No. 860,874. (Cl. 176—136.)



1. A flame arc lamp comprising in combination a negative electrode comprising as an essential ingredient a slag removing admixture in the form of alkaline salts such as carbonates, borates or the like, evenly distributed throughout the mass of said electrode, and a positive electrode containing luminous admixtures.

2. A flame arc lamp comprising in combination a negative electrode containing as an essential ingredient a slag removing admixture in the form of borates evenly distributed throughout the mass of said electrode and a positive electrode comprising luminous admixtures.

1,132,314. CARBURETER. THADDEUS B. EIKER, Asbury Park, N. J. Filed Feb. 1, 1912. Serial No. 674,674. (Cl. 48—155.1.)



1. A carbureter comprising a casing, a mixing-chamber for the air and gasolene or the like, a rotary butterfly valve within and controlling the passage through said chamber and having an opening through it, and a valve mechanism within said chamber for controlling the escape of the gasolene, said valve mechanism comprising coöperative engaging members having a variable discharge outlet for

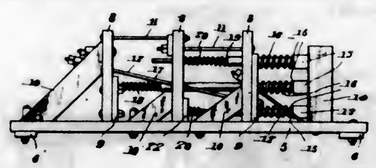
gasolene and one being connected with said controlling valve and movable therewith to vary its relation to the other member and the size of said outlet in accordance with the position of said valve.

2. A carbureter comprising a casing, a mixing-chamber for the air and gasolene or the like, a rotary butterfly valve within and controlling the passage through said chamber and having an opening and an adjustable damper for said opening, and a valve mechanism within said chamber for controlling the escape of the gasolene, said valve mechanism comprising coöperative engaging members having a variable discharge outlet for gasolene and one being connected with said controlling valve and movable therewith to vary its relation to the other member and the size of said outlet in accordance with the position of said valve.

3. A carbureter comprising a casing, a mixing-chamber for the air and gasolene or the like, a rotary butterfly valve within and controlling the passage through said chamber, and a valve mechanism within said chamber for controlling the escape of the gasolene, said valve mechanism comprising coöperative engaging members having a variable discharge outlet for gasolene and one being connected with said controlling valve and movable therewith to vary its relation to the other member and the size of said outlet in accordance with the position of said valve.

4. A carbureter comprising a casing, a mixing-chamber for the air and gasolene or the like, a rotary butterfly valve within and controlling the passage through said chamber, a receptacle for gasolene or the like exterior to said chamber, a pipe extending transversely into said chamber from said receptacle and having an outlet opening therein for gasolene closely adjacent to said butterfly valve, and an operating shaft carrying said valve and extending transversely into said chamber, said operating shaft having within said chamber an outlet opening in coöperative relation with and to be moved more or less into register with the outlet opening in said pipe to vary the gasolene discharge in accordance with the position of said valve.

1,132,315. BUMPING-POST. WILLIAM M. EVANS, Kearney, Nebr. Filed July 8, 1914. Serial No. 849,763. (Cl. (104—224.)

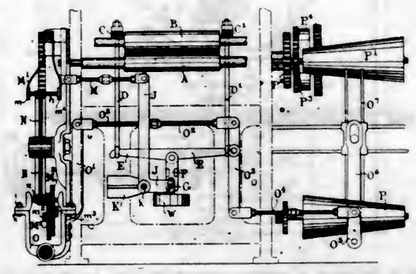


A bumping post comprising a frame, slidable plungers mounted in the said frame, a buffer head carried by the plungers, and a plurality of resistance springs arranged in series about the plungers and working against the same for absorbing shocks incident to the displacement of the buffer head, one series of resistance springs being of greater resistance quality than the other series of springs.

1,132,316. MACHINE FOR DRAWING FLAX AND OTHER LONG-STAPLE FIBERS TO FORM SLIVERS OR YARN. JOSHUA VALENTINE EVES, Belfast, Ireland. Filed Nov. 23, 1912. Serial No. 733,146. (Cl. 118—7.)

1. In an apparatus for drawing long staple fibers, the combination with relatively displaceable retaining rollers and with drawing rollers to which the material is passed from the retaining rollers, of means for varying the speed of the drawing rollers in accordance with variations in the thickness of the material passing through the retaining rollers, and means for delaying the speed variation of the drawing rollers until the particular thickness of material which has initiated such variation has moved forward to, or nearly to, the nip of the drawing rollers.

2. In an apparatus for drawing long staple fibers, the combination with retaining rollers and drawing rollers to which the material is passed from the retaining rollers, of means for varying the speed of the drawing rollers in accordance with variations in the thickness of the material passed by the retaining rollers, and means whereby the speed variations of the drawing rollers are synchronized with the passage thereto of the lengths of the material which have initiated such variations.



3. In an apparatus for drawing long staple fibers, the combination with a top retaining roller which is raised and lowered in accordance with variations in the thickness of the material passed thereby, drawing rollers, gearing for operating the drawing rollers, levers which are raised and lowered by the rise and fall of the retaining roller, and a delay motion interposed between said levers and said gearing and operable through said gearing to vary the speed of rotation of the drawing rollers in accordance with variations in the thickness of the material passed by the retaining roller.

4. In apparatus for drawing flax, wool and other long staple fibers the combination with the top retaining roller of levers which are raised and lowered by the rise and fall of the roller, drawing rollers, driving mechanism for said drawing rollers and including a speed change device, a delaying motion operatively connected to said levers and by which the movement of the roller is transmitted after a lapse of time and operative connections between said delaying motion and said change speed device.

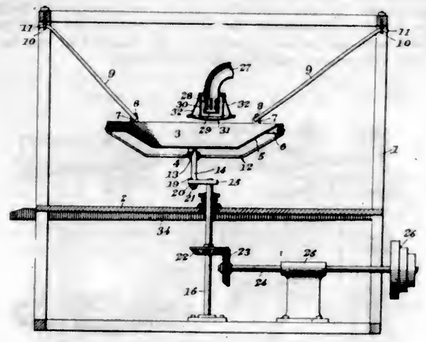
5. In an apparatus for drawing flax, wool and other long staple fibers including a top retaining roller and drawing rollers to which material is passed from the top retaining roller, the combination of levers which are raised and lowered by the rise and fall of the top retaining roller, a link and lever system connected thereto for transmitting such movement, a rocking shoe to which the movement is transmitted by said system, a wheel rotating within the shoe and provided adjacent its rim with loose, transversely movable pegs operable by the rocking of the shoe, a second rocking shoe operable by said pegs, gearing for operating said drawing rollers, a change speed device for said gearing, and a second system of levers and links connecting the second shoe with said change speed device.

[Claims 6 and 7 not printed in the Gazette.]

1,132,317. AMALGAMATOR. CHARLES H. FARMER, Ashland, Oreg. Filed Sept. 17, 1912. Serial No. 720,872. (Cl. 83—68.)

1. An apparatus of the character described comprising a suitable frame structure, a carrier ring, a pan formed of a flat bottom, a rim of greater diameter than the bottom, said rim including a down-turned marginal flange fastened to said ring, and a side wall sloping at an acute angle from the flat bottom to the rim, a spider disposed beneath the ringe and pan, and of a contour corresponding substantially to that of the pan, said spider having its oblique arms fastened to the ring, means for suspending the pan for universal motion from the frame structure, and means connected with the spider for communicating such motion thereto.

2. In combination, a pan, means for universally swinging the same, a supply pipe disposed above the pan, and provided with a nozzle having lateral discharge openings



and a deflector, a casing surrounding the apertured portion of the nozzle, and a concavo-convex spreader of greater diameter than the nozzle and casing.

1,132,318. SPIRIT-LEVEL. FRANK A. FEDER, Lincoln, Nebr. Filed May 14, 1912. Serial No. 697,235. (Cl. 33—75.)

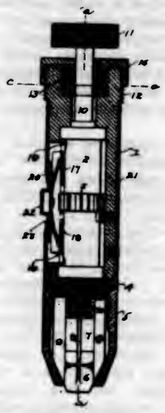


A plumb rule comprising a plurality of elongated rectangular sections, one of said sections having an inwardly extending tapered socket in one of its ends, centrally arranged ribs projecting inwardly from the opposite walls of the sockets, the other of said sections having a longitudinally extending tapered projection adapted to fit within the socket of the first section and being provided with grooves for the reception of the said ribs, one of the said sections being provided in one of its longitudinal faces with a recess adjacent to one end thereof, the said recess being arranged in laterally spaced relation to the longitudinal center line of the said face and parallel thereto, the said section being provided further with a longitudinal groove communicating with the said recess and leading outwardly therefrom through the adjacent end of the section, and a spring finger carried by the other section for sliding engagement within the said groove when the sections are in alinement and for locking engagement within the recess.

1,132,319. TAP-WRENCH. THOMAS J. FEGLEY, Philadelphia, Pa., assignor to North Bro's M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 6, 1913. Serial No. 804,995. (Cl. 81—62.)

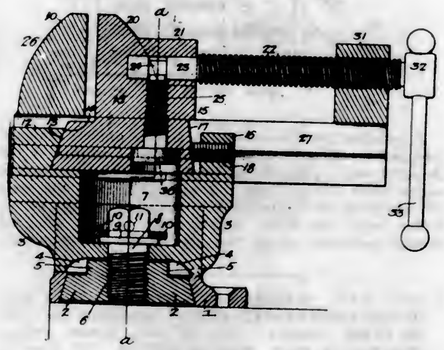
1. The combination in a tap wrench, of a body portion; an elongated spindle having ratchet teeth at or about the center thereof and having a screw threaded head; integral guides projecting beyond the head; jaws in the space between the guides; a threaded tapered shell secured to the threaded head of the body portion and bearing upon the jaws, the spindle having an opening throughout its length; a screw thread cut in the walls of the opening; and a threaded stem extending through the body portion and the spindle and adapted to the threads in the walls of the opening in said spindle and acting to project the jaws.

2. The combination of a body portion having a slotted end; a thread on the slotted end; a slotted handle mounted in the slot of the body portion; a screw cap for confining the handle in the position to which it is adjusted; a hollow threaded spindle mounted in the body portion; a threaded stem adapted to the threads of the spindle extending through the slot in the handle and having a hand-wheel thereon; a chuck shell secured to the lower



portion of the spindle; jaws mounted in the shell and actuated by the stem, said spindle having ratchet teeth on its periphery; pivoted pawls carried by the body; means for shifting the pawls; and a casing inclosing the body portion and slotted to allow for the projection of the shifting mechanism.

1,132,320. VISE. THOMAS J. FEGLEY and GEORGE O. LEOPOLD, Philadelphia, Pa., assignors to North Bro's M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 10, 1914. Serial No. 844,253. (Cl. 81—41.)



1. The combination in a combined swivel and machine vise, of two jaws, one arranged to slide with respect to the other, one jaw having an extension flat on the under side, the other jaw having a body portion located in the extension but less in depth than said extension; a swivel section to which the body portion of one jaw is detachably secured so that one jaw is the fixed jaw when the vise is arranged as a swivel vise the other jaw is a fixed jaw when the vise is detached from the swivel and is acting as a machine vise.

2. The combination in a vise, of a swivel member having two vertical extensions, one extension being under cut and the other having a horizontal threaded opening therethrough; a fixed jaw having a body portion located between the two extensions of the swivel section, one end fitting the under cut portion of one extension, the other end being beveled; and a set screw in the opening in the other extension bearing against the beveled portion of the jaw.

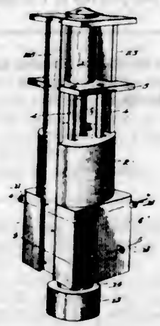
3. The combination in a vise, of two jaws, one of said jaws having an extended base portion formed by two integral members spaced apart, said members being under cut longitudinally, the other jaw having a body portion extending into the space between the two members, the body portion being slotted longitudinally at each side to aline with the under cut portion; a bar located in each slot and extending into the under cut portion of the two members; and means for holding the bars against longitudinal movement, and bars retaining the jaws in alinement.

4. The combination in a vise, of a fixed base having a circular under cut opening therein; a disk mounted in the opening; a swiveled section mounted on the fixed base and arranged to turn with the disk, said disk having a screw threaded opening therein; a bolt extending through the opening in the swiveled section and into the threaded opening in the base, the swiveled section being slotted at one side; a handle extending through the slot and engaging the head of the bolt; and a pin extending over the handle at one side of the bolt so as to prevent accidental removal of the handle without backing off the pin.

5. The combination in a vise, of two jaws, one movable in respect to the other, one jaw having a groove at each side; a notched bar located in each groove; and a screw in the grooved jaw entering the notches in the bars, the other jaw having a shoulder base portion extending over the bars and under portions of the other jaw.

[Claim 6 not printed in the Gazette.]

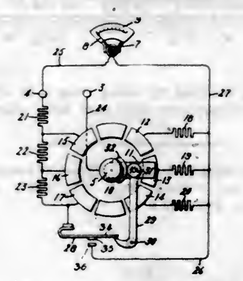
1,132,321. PILE-DRIVER. HENRY M. FERGUSON, New Orleans, La. Filed Dec. 13, 1913. Serial No. 806,560. (Cl. 61—39.)



1. A base for pile drivers including a section formed with a longitudinally extending opening to receive the driving element, a head freely rotatable in said opening and having a portion of less diameter than the opening, locking pins passed through the base and seated in the opening adjacent the reduced space of the head, and a driving disk freely movable in the opening and arranged above the head.

2. A base for pile drivers including a section formed with a longitudinally extending opening to receive the driving element, a head freely rotatable in said opening and having a portion of less diameter than the opening, locking pins passed through the base and seated in the opening adjacent the reduced space of the head, and a driving disk freely movable in the opening and arranged above the head, the upper end of the head being of conical formation to present a central impact point beneath the disk.

1,132,322. ELECTRICAL MEASURING INSTRUMENT. ALEXANDER J. R. FIEGO, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed July 9, 1913. Serial No. 778,061. (Cl. 171—95.)



1. A measuring instrument comprising an element responsive to current flow, a pair of circuit terminals, a switch, a plurality of resistances, means controlled by said switch for connecting any one of said resistances to said terminals in series with said element, a second plurality of resistances, and means controlled by said switch for connecting one or more of said second resistances to said terminals in shunt to said element.

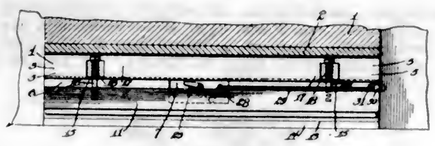
2. A measuring instrument comprising an element responsive to current flow, a pair of circuit terminals, a plurality of resistances, a second plurality of resistances, means including a switch adapted to connect any one of said first named resistances to said circuit terminals in series with said current responsive element, means including said switch for connecting one or more of said second named resistances to said circuit terminals and in shunt to said current responsive element and a switch in said shunt connection controlled by said first named switch.

3. A measuring instrument comprising an element responsive to current flow, a pair of circuit terminals, two sets of contacts, a switch arm adapted to engage with the contacts of each set, a resistance associated with each contact of one of said sets, circuit connections for connecting the respective resistances to said circuit terminals in series with said current responsive element when said switch arm engages with the contacts of said one set; a resistance associated with each contact of the other of said sets, circuit connections for connecting the respective resistances last mentioned to said circuit terminals when the switch arm engages with the contacts of said other set, and means for connecting said current responsive element to said circuit terminals when the switch engages with said other set of terminals said means including a switch which is closed and opened by the movement of said switch arm into and out of engagement with the last mentioned set of contacts.

1,132,323. WEATHER-STRIP. CHARLES C. FISHER, Ironton, Ohio. Filed Dec. 6, 1912. Serial No. 735,325. (Cl. 20—68.)

A door having a weather strip arranged in a slot in the bottom edge thereof for vertical sliding movement, yieldable means for normally retaining said strip elevated, an actuating crank bridging said slot and strip and having its cross piece bearing against the upper edge of the latter at the transverse center thereof, depending parallel arms of the crank terminating in laterally offset portions journaled in the opposite side walls of said slot, an upwardly inclined arm rising from one of said offset portions and terminally inbent in spaced parallelism with and above said

cross piece of the crank, an operating rod movable longitudinally in said slot and connected with said inbent portion of said arm to operate the crank when the door is closed,



and a normally inclined lip rising from said cross piece of the crank for engagement with said strip when in operative position.

1,132,324. MINER'S LAMP. OLAN VICTOR FORTNEY, Kitzmiller, Md. Filed Sept. 11, 1914. Serial No. 861,287. (Cl. 240—60.)

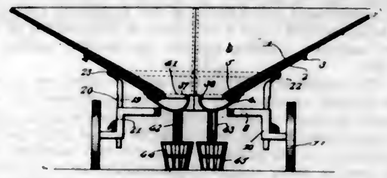


The combination with a cap provided with guide openings at one side thereof, of a supporting bracket upon the front of the cap, a lamp detachably engaging said bracket, a gas supplying device provided with means for supporting it from a garment about the waist of the wearer, a flexible tube leading from said device and connected with the lamp, said tube being threaded through said guide openings, and a fastening member provided with an eye slidably engaging the tube and forming a guide for the passage of the same, said fastening member being adapted for attachment at any point between the cap and waist garment to the shirt, coat or like garment of the wearer, whereby the tube is slidably mounted and held in position against displacement.

1,132,325. FRUIT-GATHERER. ROBERT FOUNTAIN, JOHN K. WATERS, and WINFRED C. WINCHESTER, Banning, Cal. Filed Apr. 9, 1913. Serial No. 760,086. (Cl. 56—99.)

1. In combination with a wheeled truck or frame, a series of telescopic ribs pivotally and slidably arranged upon the frame, a textile body having overlapping ends connected with the ribs, a bowl-shaped textile bottom also connected to the ribs, said bottom comprising a slitted member, a flexible element connected with the edges provided by the slit, clamps engaging with the said edges, and an adjustable support for the ribs.

2. In combination with a wheeled truck or frame, of a split ring pivotally connected with the frame, a catch member for securing the ends of the ring, a series of ribs having their ends provided with eyes arranged upon the rim, a textile body supported by the ribs, and an adjustable support carried by the frame and engaging the ribs.



3. In combination with a wheeled supporting truck or frame, of a split ring member having two of its ends pivotally connected with the truck or frame, a spring member for normally locking the sections of the ring, telescopic members arranged upon the rib, means for securing the members of the ribs in adjusted position, a textile body secured to the ribs, and an adjustable support arranged upon the truck or frame for the ribs.

4. In combination with a wheeled truck or frame, a ring comprising two semi-circular sections having one of their ends pivotally connected with the truck or frame, a latch for connecting the free ends of the sections, rib members, each of said rib members having its inner end provided with an eye which is arranged upon the sectional ring, a textile body connected with the ribs, said body having overlapping edges, an adjustable support for the ribs carried by the truck, and pivoted gates connected with said support.

5. In combination with a wheeled truck or frame, a split ring, the sections of the ring each having one of its ends pivoted to the truck or frame, a spring catch for connecting the opposite ends of the ring, rib members having eyes which are arranged upon the ring, a textile body for the ribs, an adjustable support upon the truck or frame, said support including a ring section having pivoted curved gate members which when swung together, complete the ring, and means for locking the gate members.

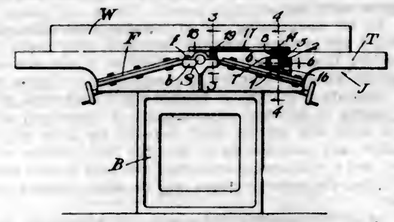
[Claims 6 and 7 not printed in the Gazette.]

1,132,326. TOOTH-BRUSH. JOSEPH FERDINAND FOUYER, Marseille, France. Filed Oct. 14, 1913. Serial No. 795,052. (Cl. 15—39.)



In a tooth brush having a suitable handle, bristles arranged in spaced, compact clusters, said clusters being arranged to form two spaced, crescent shaped groups whose concave sides face but do not touch each other and a double convex pointed group, there being one crescent shaped group on each side of, and facing said double convex pointed group, said grouping being repeated as desired.

1,132,327. SAFETY ATTACHMENT FOR JOINTERS. CHARLES A. FRUSH, Youngstown, Ohio. Filed Nov. 24, 1914. Serial No. 873,734. (Cl. 144—251.)



1. A device of the character described comprising an attaching bracket, a spindle revolubly supported thereby, a clutch member carried by said spindle, a shield, a second clutch member thereon and detachably engaging the first mentioned clutch member, and a spring for rotating said spindle in one direction.

2. A device of the character described comprising an attaching bracket, a spindle revolubly supported thereby, a plate on one end of said spindle and having a plurality of clutch elements, a shield, a plurality of clutch elements carried thereby and engaging those on the plate, and a spring for rotating said spindle in one direction.

3. A device of the character described comprising an attaching bracket, a hollow spindle revolubly supported thereby, a clutch member on one end of said spindle, a shield, a clutch member thereon, a pin projecting centrally from said last named clutch member and designed to enter the hollow spindle, and a spring for rotating the latter in one direction.

4. A device of the character described comprising an attaching bracket, a spindle revolubly supported thereby and having a plate on one of its ends, said plate having a plurality of spaced openings, a second plate contacting with the first mentioned plate and having L-shaped lugs projecting into said openings, a shield projecting laterally from the second plate, and a spring for rotating said spindle in one direction.

5. A device of the character described comprising an attaching bracket, a spindle revolubly supported thereby and having a plate on one of its ends, said plate having a plurality of spaced openings, a second plate contacting with the first named plate and having L-shaped lugs projecting through said openings, the horizontal arms of said L-shaped lugs being beveled, a shield projecting laterally from the second plate, and a spring for rotating said spindle in one direction.

[Claim 6 not printed in the Gazette.]

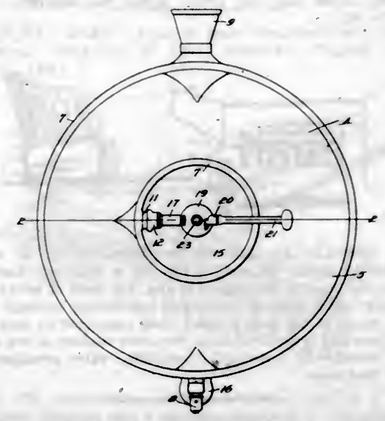
1,132,328. COMBINATION COMMODITY. EDWARD H. GALLIGAN, Providence, R. I. Filed May 26, 1914. Serial No. 841,105. (Cl. 128—47.)

1. A device of the class described comprising an annular bag forming a fluid container having openings in its inner and outer peripheries, and detachable plugs closing said openings.

2. A device of the class described comprising an annular bag forming a fluid container having openings in its inner and outer peripheries, detachable pluga closing said openings, and a nipple inserted in the opening in the inner periphery of the bag and projected therefrom and adapted for connection with a nozzle whereby the latter will be located wholly within the wall of the inner periphery and centrally with respect to the bag.

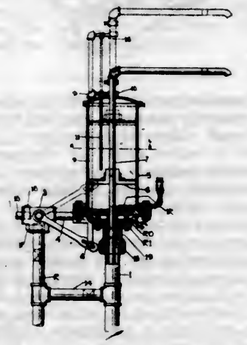
3. A device of the class described comprising a circular bag forming a fluid container having an open center, a nipple mounted in the inner periphery of the bag and projected into the open center for the connection of a nozzle, and means for closing the nipple on the detachment of the nozzle therefrom.

4. A device of the class described comprising a circular bag forming a fluid container having an open center, a nipple mounted in the inner periphery of the bag and projected into the open center for the connection of a nozzle, means for closing the nipple on the detachment of the nozzle therefrom, and a plugged filling mouth on the container at the outer periphery thereof.



5. A device of the class described comprising a circular bag forming a fluid container having an open center, a nipple mounted in the inner periphery of the bag and projected into the open center for the connection of a nozzle, means for closing the nipple on the detachment of the nozzle therefrom, a plugged filling mouth on the container at the outer periphery thereof, and means connected with the inner periphery of the bag and adapted for engagement with the nozzle for sustaining the same rigid when connected with the nipple.

1,132,329. PUMP FOR OIL AND GAS WELLS AND THE LIKE. GEORGE R. GAMBLE, Port Dover, and HARRISON A. STRINGER, Simcoe, Ontario, Canada. Filed Dec. 15, 1913. Serial No. 806,843. (Cl. 103—67.)

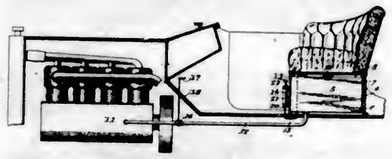


1. The combination of a well casing; a motor cylinder provided with a cylinder head to which the well casing is secured; a pump rod passing up through the casing and cylinder head; a stuffing box for said pump rod opening at the cylinder side of said head; adjusting bolts for the gland of said stuffing box extending through said head; and nuts on the outer ends of said bolts.

2. The combination of a well casing; a motor cylinder provided with a cylinder head to which the well casing is secured; a pump rod passing up through the casing and

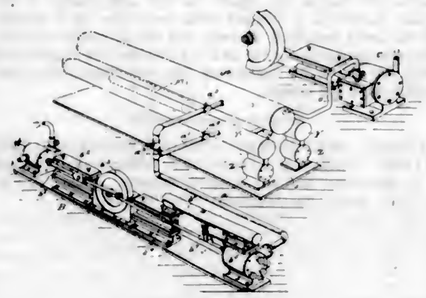
cylinder head; a stuffing box for said pump rod opening at the cylinder side of said head; and means for adjusting the packing of the stuffing box from outside the cylinder head.

1,132,330. LUBRICATOR. JESSE S. GASKINS, Nashville, Ga. Filed Mar. 10, 1914. Serial No. 823,787. (Cl. 21—90.)



A lubricator for automobiles comprising an oil tank supported under the seat of the car, a feed pipe leading from the tank to the engine casing, one wall of said tank having right angular extensions projecting through the heel board of the seat, a sight glass supported by said extensions and lying flush with the outer surface of the said heel board, and a manually controlled valve arranged in said feed pipe.

1,132,331. AIR-COMPRESSING APPARATUS. WILLIAM CHARLES GEBHARDT, San Antonio, Tex. Filed Mar. 8, 1911, Serial No. 613,094. Renewed Aug. 19, 1914. Serial No. 857,609. (Cl. 230—32.)



1. An air compressing and air storing apparatus, comprising a low pressure container provided with means for connecting it with apparatus to be driven, a high pressure container, an engine driven by compressed air from the high pressure container, a compressor drawing air from the atmosphere operated by said engine and compressing air into the low pressure container, and a compounder operated by said engine for forcing air under increased pressure into the high pressure container.

2. An air compressing and air storing apparatus, comprising a low pressure container provided with means for connecting it with apparatus to be driven, a high pressure container, an engine driven by compressed air from the high pressure container, a compressor drawing air from the atmosphere operated by said engine and compressing air into the low pressure container, and a compounder operated by said engine which draws air from the low pressure container and forces it under increased pressure into the high pressure container.

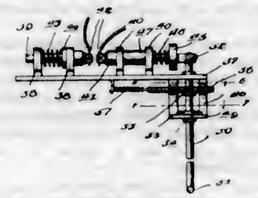
3. An air compressing and air storing apparatus, comprising a low pressure container from which air may be drawn to operate an engine, a motor or other pneumatic device, a high pressure container, a charging engine connected with the low pressure and high pressure containers, an engine driven by compressed air from the high pressure container, a compressor operated by said engine drawing air from the atmosphere and compressing it into the low pressure container, and a compounder operated by said engine for forcing air under pressure into the high pressure container.

4. An air compressing and air storing apparatus, comprising a low pressure container provided with means for connecting it with apparatus to be driven, a high pressure container, an engine driven by compressed air from the high pressure container, a fly-wheel on said shaft, a compressor connected with said driving shaft drawing air from the atmosphere and compressing it into the low pressure container, and a compounder connected with said driving shaft for forcing air under pressure into the high pressure container.

5. An air compressing and air storing apparatus, comprising a low pressure container, a high pressure container, an engine connected with the high pressure container, means for regulating the flow of air from the high pressure container to the engine, a compressor operated by said engine and connected with the low pressure container, means for controlling the passage of air from the compressor to the low pressure container, and a compounder operated by said engine for forcing air under increased pressure into the high pressure container.

[Claims 6 to 9 not printed in the Gazette.]

1,132,332. STOPPING APPARATUS FOR MOTOR-CARS. PETER GHINELLI and ANGELO BUCHIGNANI, Swatara Station, Pa. Filed June 10, 1914. Serial No. 844,281. (Cl. 246—59.)



1. In stopping apparatus for motor cars, means for cutting off the propelling power of the car, a shaft capable of rotation, a sector carried by said shaft and holding said means normally inactive, a motor for rotating said shaft to relieve said means of the influence of said sector, and means for actuating said cutting off means upon the release thereof.

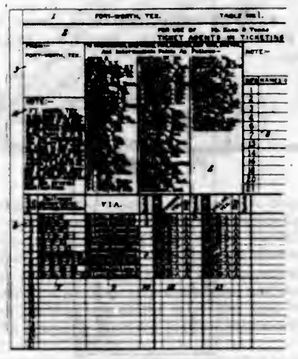
2. In stopping apparatus for motor cars, means for cutting off the propelling power of the car, a shaft capable of rotation, a sector carried by said shaft and holding said means normally inactive, a motor for rotating said shaft to relieve said means of the influence of said sector, and a spring for actuating said cutting off means upon the release thereof.

3. In stopping apparatus for motor cars, means for cutting off the propelling power of the car, a shaft capable of rotation, a sector carried by said shaft and holding said means normally inactive, a motor for rotating said shaft to relieve said means of the influence of said sector, an electric circuit for said motor, and a circuit closer for closing said circuit.

4. In stopping apparatus for motor cars, means for cutting off the propelling power of the car, a shaft capable of rotation, a sector carried by said shaft and holding said means normally inactive, a motor for rotating said shaft to relieve said means of the influence of said sector, an electric circuit for said motor, a circuit closer for closing said circuit, and means for breaking said circuit immediately succeeding the operation of the motor.

5. In stopping apparatus for motor cars, means for cutting off the propelling power of the car, a shaft capable of rotation, a sector carried by said shaft and holding said means normally inactive, a motor for rotating said shaft to relieve said means of the influence of said sector, an electric circuit for said motor, a circuit closer for closing said circuit, and means operable from said motor for breaking the circuit thereof immediately succeeding the operation of the same.

1,132,333. MEANS FOR FACILITATING THE USE OF RAILWAY-SCHEDULES. AMOS A. GLISSON, Fort Worth, Tex. Filed Apr. 24, 1914. Serial No. 834,192. (Cl. 11—7.)



1. A table displaying in close association and numerical order a plurality of different time schedules of trains operating over groups or sets of connected railways with the railways of each group or set connecting progressively from a basic point to distant points or destinations, and each schedule including a different group or set of connected railways, whereby a prospective traveler has presented to him in comprehensive form a variety of routes from the basic point to the distant point or points for ready choice of a route over which to travel.

2. A means for the purpose described, comprising a table for displaying in numerical order a plurality of different time schedules of trains operating over either single railways or groups or sets of connecting railways from a basic point to a plurality of distant points or destinations, each schedule being of a different railway or group or set of connecting railways, and each schedule having associated therewith means for indicating the respective ticket forms to be employed in routing passengers to points or destinations recorded as being within its embrace.

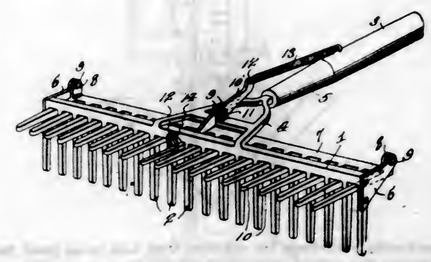
3. A means for the purpose described, comprising a table displaying in close association a plurality of different time-schedules of trains operating over competing routes or railways from a basic point to distant points or destinations, each schedule being comprised of a group of railways different from the others and also showing prominent intermediate points embraced by each *en route* to their designated or ultimate ends.

4. A means for the purpose described, comprising a table displaying in numerical order a plurality of different time schedules of trains operating over competing routes or railways from a basic point to distant points or destinations, each schedule being comprised of a group of railways different from the others and including an indication of the leaving time from the basic point and the scheduled time of arrival with elapsed time at the distant points.

5. A means for the purpose described, comprising a table displaying in numerical order a plurality of different time schedules of trains operating over competing routes or railways from a basic point to distant points or destinations, each schedule being comprised of a group of railways different from the others and indicating principal points or destinations included within it, the time of leaving its basic point, its scheduled time of arrival at the distant points, means for indicating the elapsed time, and means for indicating the proper forms and character of tickets to be used in forwarding travelers to the respective destinations within its embrace.

[Claims 6 to 19 not printed in the Gazette.]

1,132,334. RAKE. HORACE BERT GRANGER, St. Louis, Mich. Filed July 25, 1914. Serial No. 853,043. (Cl. 55—146.)



1. The combination with a rake head having a yoke member thereon and a handle connected to the yoke, of a rock shaft carried by the rake head and underlying the yoke and having a series of cleaning fingers projecting through the spaces between the rake teeth, a lever carried on the yoke and having one end extending downwardly between the arms of the yoke and having a slidable connection with one of the cleaning fingers, and means connecting the opposite end of the lever to the handle of the rake for returning the rock shaft and teeth to their initial position after the cleaning operation.

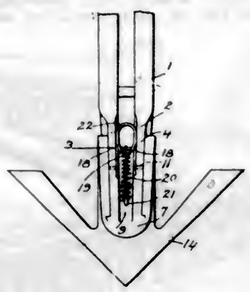
2. The combination with a rake head and a handle carried thereby, bracket members mounted on the rake head, a rock shaft mounted on the bracket members and having a series of cleaning fingers projecting through the spaces between the rake teeth, a lever mounted on the head and having one end extending through the space between certain adjacent rake teeth and terminally extended upward, a ring member carried by the upwardly extending end and receiving one of the cleaning fingers, and means connected to the opposite end of the lever and to the rake handle for returning the rock shaft and fingers to their initial position after the cleaning operation.

1,132,335. CULTIVATOR-FOOT. JOSEPH C. GRAVES, Kosse, Tex., assignor of one-half to Henry A. Moncrief, Kosse, Tex. Filed May 13, 1914. Serial No. 838,373. (Cl. 97—11.)

1. In a cultivator, the combination with the shovel supporting legs thereof, of a foot having its lower terminal end bifurcated, transversely extending flanges formed on the sidea of said foot, a shoe adapted for sliding engagement with said foot and being provided with a facial recess therein and having longitudinally extending laterally projecting grooves formed therein and communicating with said recess, said grooves being provided for the reception of said transversely extending flanges so as to permit of sliding engagement between said shoe and said foot, a cross piece extending across said bifurcated portion, a lug formed upon said foot and spaced outwardly therefrom for coaction with said cross piece for limiting the sliding movement of said shoe upon said foot, and means for detachably holding said shoe firmly mounted upon said foot.

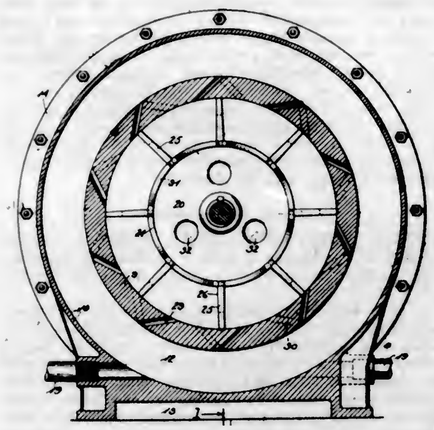
2. In a cultivator, the combination with the shovel supporting legs thereof of a foot having its lower terminal end bifurcated, transversely extending flanges formed on the sides of said foot, a shoe adapted for sliding engagement with said foot and being provided with

a facial recess therein and having longitudinally extending laterally projecting grooves formed therein and communicating with said recess, said grooves being provided for the reception of said transversely extending flanges so as to permit of sliding engagement between said shoe and said foot, a cross piece extending across said bifurcated portion, a lug formed upon said foot and spaced



outwardly therefrom for coaction with said cross piece for limiting the sliding movement of said shoe upon said foot, a lever pivotally connected to said shoe and having a coil spring connected thereto intermediate its rigid and pivoted ends, and a hook formed upon said lugs and provided for receiving one end of said spring for detachably connecting said shoe and said foot.

1,132,336. TURBINE. LUTHER W. GRAYSON, Youngstown, Ohio, assignor of one-half to Charles G. Runyeon, Youngstown, Ohio. Filed Oct. 30, 1914. Serial No. 869,386. (Cl. 121—56.)



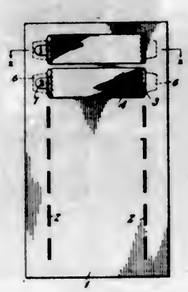
1. In a turbine, a rotor comprising a disk, a lateral cylindrical section concentric with said disk and forming a concentric chamber, radial blades above the central chamber extending to the periphery of the disk, said cylindrical section having notches at the edge thereof between the blades.

2. In a turbine, a rotor formed of a central disk, tubular sections projecting laterally from each side of said disk, radial blades to each side of said disk above said sections, and openings in said disk establishing communication between the tubular sections at each side of said disk.

3. In a reversible turbine, a rotor comprising a disk, radial blades extending to each side of the disk and removable therefrom, each of said blades having a shoulder portion on the opposite sides thereof adapted to engage the sides of the disk substantially as and for the purpose set forth.

4. In a reversible turbine, a rotor comprising a disk, tubular sections projecting laterally from each side of the disk, and radial blades removably associated with said disk and positioned above said tubular sections, each of said blades having a shoulder portion on the opposite side thereof adapted to engage the side of the disk, each of the blades having means adapted to engage the tubular sections substantially as and for the purpose set forth.

1,132,337. SAMPLE-CARD. CHARLES GREEN, New York, N. Y. Filed Apr. 18, 1914. Serial No. 832,773. (Cl. 211—34.)



1. In a display card, a body, a foundation provided with a plurality of slits arranged in parallel rows, a display slip formed with extensions fitting into each pair of parallel slits, and a pressed-out tab formed from one of said extensions, said pressed-out tab being arranged on the exterior of said body when the extension associated therewith is positioned beneath said body.

2. In a display card of the character described, a body provided with a pair of slits, a display slip provided with a projection at each end co-acting with said slits and adapted to be inserted therethrough, one of said extensions being provided with a pressed-out portion presenting a tab for receiving a number, said tabs being adapted to be positioned on the outer face of said card when the extension associated therewith is extended from one of said apertures and positioned beneath said body.

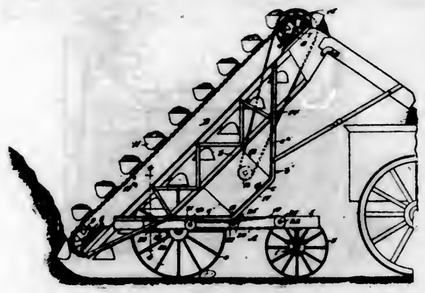
3. In a display card of the character described, a card provided with a pair of slits, a display slip provided with extensions adapted to extend through said slits and occupy a position in back of the card, each of said extensions being provided with a pressed-out portion adapted to occupy a position in front of said card when the extensions are occupying a position in back of the card.

4. In a display card of the character described, a plurality of display slips, each of said display slips being provided with a body for receiving matter to be displayed, an extension projecting from each end of said body, said extensions being smaller than the body, whereby shoulders are provided, and a number receiving tab pressed out of one of said extensions.

1,132,338. WAGON-LOADING APPARATUS. GEORGE HAISS, New York, N. Y. Filed June 10, 1914. Serial No. 844,200. (Cl. 193—6.)

1. A wagon loading machine of the class described, comprising a vehicle section including track rails, a conveyer-carrying section including runners slidably and tiltably mounted directly on the rails, and means for moving the conveyer-carrying section on the vehicle section.

2. A wagon-loading machine of the class described, comprising a vehicle section including a body, a conveyer-carrying section slidably mounted on the body and having two angularly-disposed portions arranged to engage the body respectively for supporting the conveyer-carrying section in operative and inoperative positions, and means for feeding the conveyer-carrying section with respect to the vehicle section.



3. A wagon-loading machine of the class described comprising a vehicle section including longitudinally-extending track rails, a conveyer-carrying section having a pair of runners formed with angularly-disposed portions for engaging the rails and supporting the conveyer-carrying section in operative or inoperative position, and means on the vehicle section and connected with the said runners for moving the conveyer-carrying section backwardly and forwardly.

4. A wagon-loading machine comprising a vehicle section having rails, a conveyer section including a frame, runners connected with the frame and having angularly-disposed rail-engaging portions, whereby the conveyer-carrying section can be supported in operative or inoperative position, means on the conveyer-carrying section for engaging a track rail to hold the said section in operative position, and a releasable stop-carrying device on the vehicle section to normally engage the said means and limit the feeding movement of the conveyer section on the vehicle section.

5. A machine of the class described, comprising a vehicle section having track rails, a conveyer section including runners formed of angle-irons arranged with horisontal flanges engaging the tops of the track rails, and vertical flanges engaging the inner sides of the track rails, whereby the conveyer-carrying section is held against lateral displacement on the rails, and means for moving the conveyer-carrying section back and forth on the rails, said conveyer section being tiltable on the runners to different positions.

[Claim 6 not printed in the Gazette.]

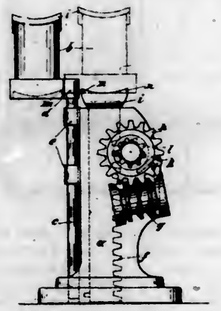
1,132,339. JACK. FRIEDRICH HAIZMANN, Stuttgart, Germany. Filed July 17, 1913. Serial No. 779,529. (Cl. 254—133.)

1. In a jack, the combination of a lifting part; an extension adapted to rest thereon; and vertically movable means holding said extension in vertical position and constraining it when in use to move vertically.

2. In a jack, the combination of a lifting part; a vertically movable, vertically disposed rotatable rod disposed a distance from the lifting part; and an extension off-set from the rod and adapted to rest upon or to be moved away from the lifting part.

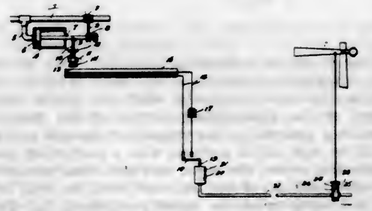
3. In a jack, the combination of a frame; a vertically disposed bar therein; means for raising the bar; a vertical movable rod spaced from said bar and rotatable on its vertical axis; and an extension piece mounted on the upper end of said rod, off-set therefrom and adapted to be moved over and to rest upon the upper end of the bar, and to be revolved upon the vertical axis of said rod to a position entirely away from the bar.

4. In a jack, the combination of a frame; a vertically movable, vertically disposed bar in said frame; means for raising said bar; a pair of perforated lugs on said frame in vertical alinement a distance from said bar; a rod revoluble and vertically movable in said lugs; a vertically disposed extension piece mounted on the upper end of said rod, off-set therefrom, and adapted to be moved over and to rest upon the top of said bar, and to be revolved upon the axis of said rod to a position entirely away from the bar.



5. In a jack, the combination of a lifting part; an extension; and a rotatable and vertically slidable means holding said extension in vertical position and constraining it when in use to move vertically.

1,132,340. AUTOMATIC TRAIN-STOPPING APPARATUS. MARVIN W. HAMPTON, Malo, Wash. Filed Dec. 8, 1913. Serial No. 804,469. (Cl. 246—58.)

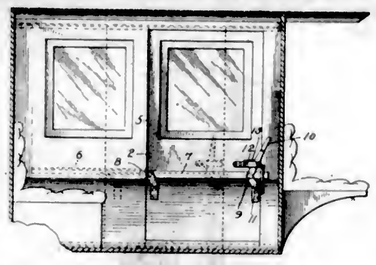


In train stopping apparatus, the combination with the brake pipe, of a valve in said pipe provided with a depending handle having the lower end thereof formed with an elongated slot, a cylinder in open communication with said pipe, a piston within said cylinder and equipped with a piston rod projecting outwardly of one end of the cylinder, a pin secured to said rod adjacent to the outer end thereof and disposed within the slot in said handle whereby in the movement of the piston in the cylinder under the action of the air the valve will be opened, said piston rod having the lower portion thereof formed with a notch, a vertically disposed latching rod having the upper end thereof within said notch, a spring encircling said rod and acting upon the latter to hold the same normally in engagement with the notch, and means for actuating said rod against the action of the spring to release said piston rod.

1,132,341. VEHICLE DOOR-FASTENER. WILLIAM HARTER and ALVA A. STEPHENS, Greenville, Ohio. Filed Apr. 13, 1914. Serial No. 831,462. (Cl. 70—102.)

The combination of a vehicle body having a door opening, exterior guide rails on the body, a door slidable in said guide rails, a rail, of L-shape in cross-section, fixed

to and arranged at the outer side of the body and disposed in rear of the door opening, a vertically-movable clutch bar carried at the inner side of the door and connected through a link thereto and arranged to bear upwardly against the underside of the L-shaped rail, a hand lever fulcrumed on the door and connected at an



intermediate point of its length to said clutch bar; said hand lever being resilient, a rack fixed to the inner side of the door and constructed and arranged to be engaged by the hand lever, and a guard strap carried by the door and arranged at the opposite side of the hand lever, with reference to the rack.

1,132,342. MATCH-LIGHTER. WALTER I. HEY and ZELL L. COFFIN, Ardmore, S. D. Filed Aug. 8, 1913. Serial No. 783,816. (Cl. 206—36.)

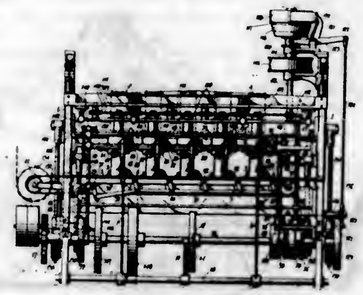


A match lighter comprising a metallic plate of rectangular configuration having at its edges inwardly curled portions, the inner surfaces of which are spaced from the surface of the intermediate portion of the plate, said plate being provided in the vicinity of one end and under one of the said curled portions with a slot which extends transversely across the plate, said slot being spaced from the outer portion of the adjacent curl, the ends of the said slot being under the curled portions at the opposite sides of the plate, and a strip of material having a roughened surface located between the intermediate portion of the plate and the said curled portion, the said strip being of a greater area than the space between the edges of the curled portion and the material being less in transverse breadth than the length of the slot.

1,132,343. MACHINE FOR HEADING RECEPTACLES. FREDERICK J. HEYBACH, Baltimore, Md., assignor to The Unit Weighing and Packing System, (Incorporated,) Baltimore, Md., a Corporation of Delaware. Filed Jan. 9, 1913. Serial No. 741,073. (Cl. 113—14.)

1. In a machine of the character described, the combination of a member movable vertically to apply a head or cap to a receptacle and revoluble to impart rotation to the receptacle, a die embodying relatively separable sections to clamp the end of a receptacle, a mouth also movable vertically for guiding a head or cap to the receptacle, and a device operative during rotation of the receptacle to bead the head thereon.

2. In a machine of the character described, the combination of means for rotatably supporting a receptacle in upright position, a vertically movable member for applying a head or cap thereto and for rotating the receptacle and head, a vertically movable mouth for guiding a head or cap to the receptacle, a split die having means for opening and closing it relatively to one end of a receptacle, a beading device, and means for automatically moving the same to and from operative position relatively to the head on the receptacle.



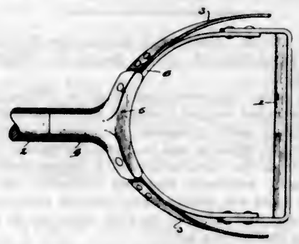
3. In a machine of the character described, the combination of means for conveying a head to a receptacle, a die embodying relatively separable members adapted to cooperate with and center the receptacle relatively to the head, a chuck for applying the head and for rotating the receptacle with the head applied thereto, and a beader operative on the head during rotation of the receptacle and while the die members are separated.

4. The combination of means for supporting a receptacle, means for applying a head or cap thereto embodying a mouth to receive the head or cap, and a revoluble chuck to engage the head or cap and rotate the same and the receptacle, a die embodying segmental relatively separable members movable toward and adapted to embrace the body of the receptacle and to convey a head thereto, means for automatically separating the die members, and a beader operative upon the head when the dies are separated.

5. The combination of a receptacle support, a carrier movable in a direction toward and from the same and provided with a mouth to receive a head or cap and having relatively separable dies adapted to surround the body of the receptacle, means arranged in said mouth to support a head or cap therein and to deliver the same to the receptacle, and a beader operative on the head when the dies are separated.

[Claims 6 to 20 not printed in the Gazette.]

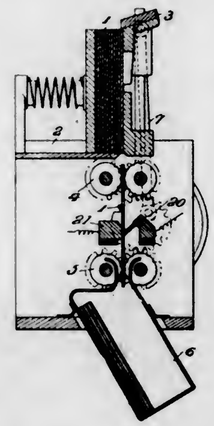
1,132,344. COMBINED HOE, WEEDER, AND PLANT-PROTECTOR. IRVING HILLS, Deerfield, N. Y. Filed July 3, 1914. Serial No. 848,860. (Cl. 55—41.)



1. A device of the character set forth, comprising a handle, a bail connected to the handle, a blade attached to the bail and protectors secured at one of their ends to the bail and having their opposite ends extending along the ends of the blade and spaced therefrom.

2. An implement of the character described comprising a handle, a bail connected with the handle, a blade having bent ends, the latter having corresponding edges inclined, said blade being secured by means of its bent edges to the bail, and protectors attached at their inner ends to the bail and having their outer ends extending along the ends of the blade and spaced therefrom.

1,132,345. CARD-TESTING DEVICE. HERMAN HOLLERITH, Washington, D. C. Filed Jan. 19, 1914. Serial No. 813,072. (Cl. 73—51.)



1. In an apparatus of the character described, the combination with card feeding means, of an electric circuit, contacts therein controlled by the cards, and means for automatically stopping the feeding means in the event of the circuit being closed through a card.

2. In an apparatus of the character described, the combination with card feeding means, of an electric circuit, contacts therein controlled by the cards and designed to engage during its movement substantially the entire surface of each card, and means for automatically stopping the feeding means in the event of the circuit being closed through a card.

3. In an apparatus of the character described, the combination with card feeding means, of an electric circuit, contacts therein controlled by the cards, means for automatically stopping the feeding means in the event of the circuit being closed through a card, and means for breaking the circuit after each card has passed the contact.

4. In an apparatus of the character described, the combination with card feeding means, of an electric circuit, contacts therein controlled by the cards, means for automatically stopping the feeding means in the event of the circuit being closed through a card, and means actuated in synchronism with the feeding means for breaking the circuit after each card has passed the contact.

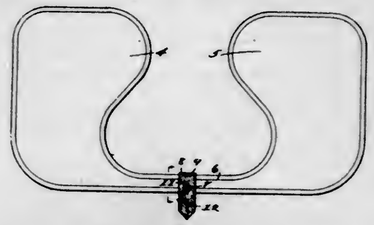
5. In an apparatus of the character described, the combination with card-feeding means and an operating motor, of an electric circuit, contacts therein controlled by the cards, and means for automatically stopping the motor in the event of the circuit being closed through a card.

[Claims 6 to 10 not printed in the Gazette.]

1,132,346. WATER-WINGS. CHARLES HOLROYD, Pittsburgh, Pa. Filed Sept. 11, 1914. Serial No. 861,199. (Cl. 9—17.)

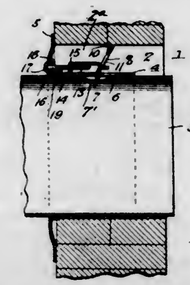
1. The combination with water wings, having a nozzle for inflation of said wings, of a device for attaching said wings to a garment, and protecting said wings around said nozzle.

2. The combination with water wings, of a device, independent of said wings, for attaching said wings to a garment, comprising a strip of suitable material passed around said wings in the position of the nozzle, said strip



being provided with a button hole adjacent each end and a hole for the passage of said nozzle.

1,132,347. STOVEPIPE-ANCHOR. ASA FRANK HOUCK, Easton, Pa. Filed Oct. 3, 1914. Serial No. 864,890. (Cl. 126—318.)



1. In a stove pipe anchor, the combination of a stove pipe, a thimble body, having a flange at one end thereof, a clamping plate pivotally mounted upon the body for swinging movements and having clamping portions to respectively engage the stove pipe and the wall of a flue opening, and means for externally adjusting said clamping device to swing the same to clamping and non-clamping position.

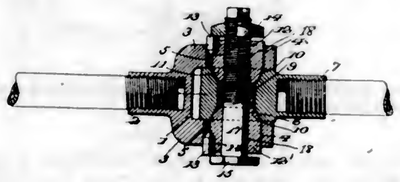
2. In a stove pipe anchor, the combination of a stove pipe, a thimble comprising a body having a flange at one end thereof, a clamping member pivotally mounted upon the thimble body for movement into and out of clamping engagement with the wall of a flue opening and the stove pipe, a coupling member connected with said clamping member, and an adjusting device extending through the flange of the thimble and connected with said coupling member.

3. In a stove pipe anchor, the combination of a stove-pipe, a thimble having a T-slot and a flange, a clamping plate having an offset T-shaped clamping member at one end pivotally engaging said thimble, said member being adapted for engagement with the stove pipe and the opposite end of said clamping plate being provided with spurs for engagement with the wall of a flue opening, a coupling member detachably connected with the clamping plate, and an adjusting screw engaging said coupling member and extending outward through the flange, whereby said clamping plate may be adjusted.

1,132,348. KNUCKLE. ROBERT FRANKLIN HUNTER, Bellefonte, Pa. Filed Apr. 11, 1911. Serial No. 620,444. (Cl. 74—17.)

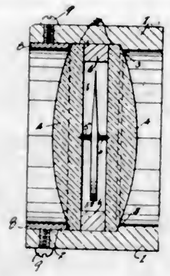
A knuckle comprising a clevis having a pair of arms provided with alined openings and transverse semi-circular grooves offset from said openings, a center member ex-

tending between said arms and provided with a cylindrical bore in registry with the openings of said arms, said bore terminating in flared extremities, a pair of oppositely directed cylindrical members having cone-shaped ends cooperating with the flared openings in said center member and located in the alined openings in said arms, each of said cylindrical members being provided with a semicircular cone-shaped groove extending to substantially the center of the cylindrical member and upon the periphery thereof and adapted for registry with one of the transverse grooves in the arms, tapered pins mounted in said



grooves, and extending beyond the outer surfaces of said cylindrical members, a bolt of less diameter than the bore of said center member passing through said cylindrical members and said center member and providing a free space for the reception of a lubricant, a head on one end of said bolt, the other end of said bolt being threaded, and a locking nut mounted on said threaded end of the bolt, the head on said bolt and said locking nut adapted to engage the tapered pins to move them toward one another when the locking nut is screwed on to the bolt to increase the diameter of the bearing surfaces of said cylindrical members and said pins.

1,132,340. LEVELING DEVICE. WILLIAM B. HURD, Langley, Wash. Filed July 9, 1913. Serial No. 778,012. (Cl. 33—215.)



1. In an article of the class described, the combination of a main body having an aperture transversely therethrough and an annular shoulder within the aperture, plates adapted to be fitted into the aperture, a ring for holding the said plates in spaced relation to each other and an indicator pivoted between the said plates, the said indicator having its weight so distributed as to maintain it with its longitudinal axis vertical and the said ring having a scale arranged around the pivot point of the said indicator, and means for securing the said plates in position against the said annular shoulder.

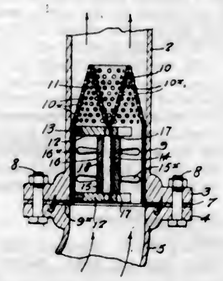
2. In the article of the class described, the combination of a main body having an aperture transversely therethrough and an annular shoulder within the aperture, transparent plates adapted to be fitted flat-wise into the aperture, a ring for holding the said plates in spaced relation to each other and provided with a scale, an indicator having its weight so distributed as to maintain its longitudinal axis vertical, arms upon the indicator having conical ends adapted to revolve in corresponding apertures within the said plates, a second ring removably mounted within the aperture in the said body and which is adapted to hold the parts in position against the said annular shoulder.

1,132,350. RESERVE-SUPPLY VALVE. THOMAS B. HYATT, Connellsville, Pa. Filed June 5, 1914. Serial No. 843,319. (Cl. 158—46.5.)



In a reserve supply valve, the combination with a tank having an outlet opening in the bottom wall thereof and a filling opening in the top wall thereof alining axially with said outlet opening, of a plug closing said filling opening and formed with a chamber having the lower wall thereof within the tank formed with a threaded opening alining axially with the outlet opening in the tank and the side wall thereof formed at diametrically opposite points with openings, filtering screens within said openings, a cap threaded into the upper end of said chamber and removable therefrom whereby the liquid may be poured into the tank, a tube having the lower end thereof disposed within said outlet opening and formed with an opening adjacent to the lower extremity thereof above said outlet opening and having the upper end thereof passed through the opening in the bottom wall of said chamber and threadedly engaging the wall of such opening.

1,132,351. FUEL-MIXING DEVICE FOR INTERNAL-COMBUSTION ENGINES. WILTON F. JENKINS and ROBERT L. JENKINS, Richmond, Va. Filed Sept. 25, 1913. Serial No. 791,801. (Cl. 48—180.)

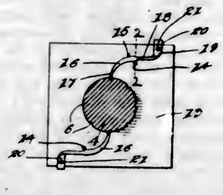


1. In a fuel mixing device for internal combustion engines, a casing open at one end and being provided with a closure at the other end having a series of perforations, the axes of the perforations being at right angles to the axis of the casing, a pair of propellers rotatably mounted within said casing between said closure and the open

end of the casing, the blades of said propellers being inclined in opposite directions, and the axes of the propellers being coincident with the longitudinal axis of the casing.

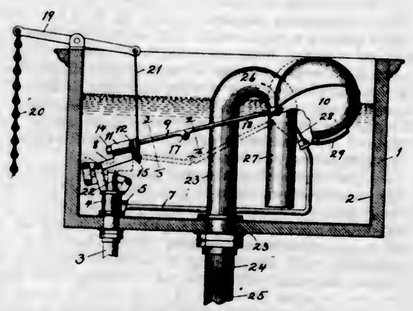
2. The combination with a carbureter outlet pipe having an end flange, of an intake pipe having an end flange arranged to register with the first named flange, means for securing said end flanges together, a cylindrical casing arranged to enter the end of said intake pipe, said casing having an end flange arranged to extend between said flanges, means for clamping said flanges together, an integral closure at one end of said perforated casing, said closure being provided with a series of perforations, the axes of said last named perforations being at right angles to the axis of the casing, bearing members carried by said cylindrical casing on the interior thereof, a central shaft carried by said bearing members, and a pair of propellers rotatably mounted on said central shaft, the blades of one of said propellers being inclined in an opposite direction from the blades of the other propeller.

1,132,352. NUT-LOCK. SANFORD L. JOHNSON, Scotland, Ga. Filed Apr. 9, 1914. Serial No. 830,764. (Cl. 151—11.)



A nut lock including the combination with a bolt having a grooved shank, of a nut having a centrally located internally screw threaded aperture, a pawl secured to the outer face of the nut, said pawl being arranged to engage in the groove in the shank of the bolt, and an angular extension at the end of the pawl opposite the one which engages the groove, said angular extension lying adjacently to one of the sides of the nut to hold the pawl against movement and positioned to engage the shank of the bolt.

1,132,353. FLUSHING-TANK. WILLIAM A. KEEN, Baltimore, Md. Filed Nov. 25, 1913. Serial No. 802,857. (Cl. 4—5.)



1. In a flushing apparatus the combination with a tank having a supply pipe, of a valve in said pipe said valve provided with an operating arm; a rod connected to the arm; a float carried by the rod said float being heavier at one side to keep said side down when the float is in the water and hold the arm in the cut-off position; means for rotating the float to turn the heavier side up and means for relieving the operating arm of the float pressure when the heavier side of the float is turned up and allow the valve to open.

2. In a flushing apparatus the combination with a tank having a supply pipe, of a valve in said pipe said valve being provided with an operating arm; a rod connected to the arm and having a hinge joint; a float on the rod beyond the hinge joint said float being heavier at one side to normally maintain the joint in a rigid condition, and means for turning the rod to cause the joint to break.

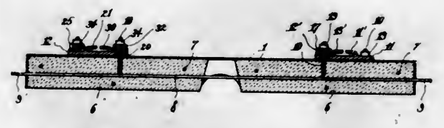
3. In a flushing apparatus the combination with a tank having a siphon outlet and a water supply pipe, of a valve in the supply pipe; a rotatable float rod operatively connected with the valve said float rod having a hinge joint therein; a float carried by said rod and holding said valve closed when the rod is in the normal position; means for normally holding the float-rod against rotation while the tank is filled and means for rotating the float-rod to break the hinge joint therein, whereby to admit water to and discharge water from the tank.

4. In a flushing apparatus the combination with a tank having a water supply pipe and also having a siphon-outlet, of a valve in the supply pipe said valve having an actuating plunger projecting therefrom; an arm operatively connected with the valve plunger; a rotatable rod having a hinge joint therein and at one side of the hinge joint said rod being connected to said arm; a float carried by the rod at the other side of the said hinge joint and holding said valve closed when the rod is in its normal position and means for rotating the rod to break the joint whereby to relieve the arm of the float pressure and admit water to the tank.

5. In a flushing apparatus the combination with a tank having a water supply pipe, of a valve in said pipe; an operating arm for the valve said arm having a tubular sleeve; a rod having one end rotatably connected to the sleeve of said arm and provided with a hinge joint between its ends; a float at the other end of the rod and means for turning the rod in the sleeve to cause the joint to break.

[Claim 6 not printed in the Gazette.]

1,132,354. TIE FOR RAILWAY-RAILS. FREDRICK KIRCH, Billings, Mont.. Filed Sept. 18, 1914. Serial No. 862,398. (Cl. 238—5.)



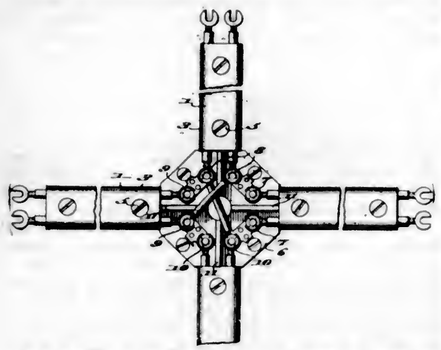
1. A composite tie including a rectangular metal casing comprising a top and sides, the said top and sides having their ends inturned, the sides having their edges inturned, the said sides centrally cut-away, cushion members arranged within the metal shell opposite the central cut-away portion thereof, and means for securing the cushion members within the metal casing of the tie.

2. A tie comprising a shell formed from a sheet of metal including a top and sides, said sides being centrally cut-away, cushion blocks within the metal casing to the opposite sides of the cut-away portions thereof, means for securing said blocks within the casing, said means including a longitudinally arranged rod extending through the blocks adjacent the lower faces thereof and projecting beyond the casing, and the said projecting ends being formed with eyes.

3. A tie including an outer casing formed from a sheet of metal bent to provide a top and right angular sides, the edges of the sides and top being inturned, cushion members comprising plastic elements arranged within the outer casing of the tie opposite the central portion thereof, transverse members for securing the cushion members

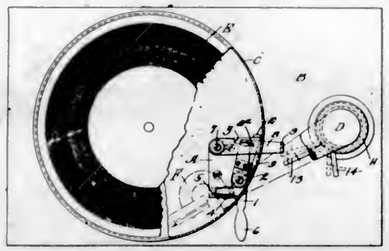
to the outer casing of the tie, a longitudinal member passing through the cushion members having its ends formed with eyes for securing casing upon the cushion members.

1,132,355. SYSTEM OF ELECTRICAL WIRING. WILLIAM J. KISTLER, Coopersburg, Pa. Filed Oct. 3, 1913. Serial No. 793,220. (Cl. 247—4.)



In a system of molding, a pair of tubes of insulating material designed to envelop the respective circuit wires, a metal jacket elongated in cross section incasing said tubes and having one wall thereof formed with a longitudinal groove holding the tubes spaced apart in parallelism and the opposite walls thereof formed with alining openings between the tubes to receive securing screws, a base between the ends of adjacent jackets and tubes, and a division plate formed on said base and projecting outwardly therefrom and disposed centrally of the spaces between the tubes in the respective jackets.

1,132,356. AUTOMATIC STOP DEVICE FOR SOUND-REPRODUCING MACHINES. EDWIN O. KLEMM, Saginaw, Mich. Filed Apr. 21, 1914. Serial No. 833,496. (Cl. 74—46.)



1. In a combination, a turn table, a swinging arm, stop mechanism comprising a starting lever, brake means intermediate said lever and the turn table, a release lever arranged to be moved by the starting lever into a position for holding the starting lever in a position rendering said brake means inoperative, and trip means on the swinging arm adjustable in relation to and adapted to impinge the release lever, whereby to release the starting lever and permit application of the brake means to the turn table.

2. In combination, a turn table, a movable arm, stop mechanism comprising a starting lever, brake means intermediate said lever and the turn table, a release lever for holding the starting lever in a position rendering said brake means inoperative and adapted to be actuated by movement of the starting lever in one direction, and trip means on the swinging arm adjustable in relation to and adapted to impinge the release lever, whereby to release the starting lever and permit application of the brake means to the turn table, said trip means comprising a member rotatable in a horizontal plane on the movable arm.

3. In combination, a turn table, a swinging arm, stop mechanism comprising a starting lever, brake means intermediate said lever and the turn table, a release lever for holding the starting lever in a position rendering said brake means inoperative, and trip means on the swinging arm adjustable in relation to and adapted to impinge the release lever, whereby to release the starting lever and permit application of the brake means to the turn table, the release lever having a slot, a wall of which is inclined, and the starting lever being formed with a lug operating in said slot to impinge said inclined wall and thus move the release lever into a position locking the starting lever in a position permitting the operation of the turn table.

4. In combination, a turn table, a movable arm, stop mechanism comprising a starting lever, brake means intermediate said lever and the turn table, a release lever for holding the starting lever in a position rendering said brake means inoperative, and trip means on the arm adjustable in relation to and adapted to impinge the release lever, whereby to release the starting lever and permit application of the brake means to the turn table, the release lever having a slot, a wall of which is inclined, and the starting lever being formed with a lug operating in said slot to impinge said inclined wall and thus move the release lever into a position locking the starting lever in a position permitting the operation of the turn table, the trip means aforesaid comprising a part removably applied to the movable arm and a trip member adjustable on said part, the release lever having a lug in the path of movement of said trip member.

5. In combination, a turn table, a swinging arm, stop mechanism consisting of a starting lever, brake means intermediate said lever and the table to prevent operation of the latter, means tending normally to cause coöperation of the brake means with the table, a release lever having means to hold the starting lever in a position acting against the last mentioned means whereby to permit operation of the table and operable by the starting lever to predeterminately set the release lever in operative position, and adjustable means intermediate said release lever and the swinging arm to effect movement of the release lever at a predetermined point in the movement of the swinging arm and thereby restore the coöperation of the brake means with the turn table.

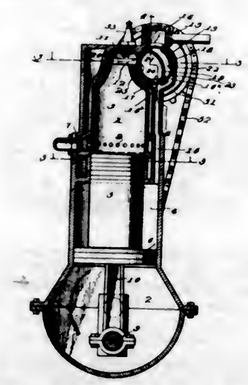
[Claims 6 to 8 not printed in the Gazette.]

1,132,357. INTERNAL-COMBUSTION ENGINE. WILLIAM KOELZER, Auburn, Nebr. Filed Feb. 4, 1913. Serial No. 746,161. (Cl. 123—59.)

1. In an internal combustion engine, the combination with a combustion chamber having an inlet port at its closed end, of a valve casing into which said port opens, said valve casing being connected to a source of fuel and a pre-compression chamber, a fixed member disposed within the valve casing and divided into two passages by a septum, each passage ending in a port registering with the ports of the exterior wall of the valve casing, and a rotatable valve disposed between the fixed member and the valve casing and controlling said ports.

2. In an internal combustion engine, the combination with a combustion chamber having an inlet port at its closed end, of a valve casing into which said port opens, said valve casing being connected to a source of fuel, and a pre-compression chamber having two ports communicating with the interior of the valve casing, a fixed member disposed within the valve casing and divided into two passages by a septum, each passage ending in a port registering with the ports of the exterior wall of the valve casing, leading respectively into the gas chamber and the pre-compression chamber, and a rotatable valve disposed between the fixed member and the valve casing and controlling said ports.

3. In an internal combustion engine, a two-diametered cylinder having an inlet port at one end, a piston operating in the cylinder and having an enlarged head operating in the portion of the cylinder having the largest diameter, this portion of the cylinder constituting a pre-compression chamber, a cylindrical valve casing disposed at the opposite end of the cylinder, a gas chamber, a fixed interior member disposed within the valve casing and divided by a septum into two passages, the valve casing having an



inlet port to the cylinder opening into one of said passages and the port in the same passage opening to the pre-compression chamber, the opposite passage having a port opening into the pre-compression chamber and into the gas-chamber, and a rotatable valve disposed between the fixed chamber and the valve casing and having ports controlling said passage.

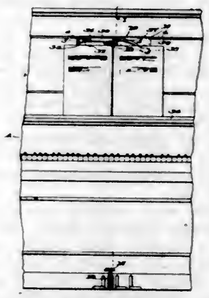
4. In an internal combustion chamber, the combination with a plurality of combustion chambers, and a plurality of compression chambers, one for each chamber, each combustion chamber having an inlet port, of a hollow tubular valve co-acting with all of the chambers, a gas chamber, said valve having ports co-acting with the inlet port of each combustion chamber, and ports adapted to permit the entrance of fuel from the gas chamber into the interior of the valve and thence intermittently into the pre-compression chamber, and means for permitting part of the charge in the valve to escape back into the gas chamber.

5. In an internal combustion engine, the combination with a plurality of combustion chambers, each having an inlet port at its closed end and a plurality of pre-compression chambers coacting therewith, of a tubular valve casing coacting with all of the cylinders with the interior of which the inlet ports of the several combustion chambers communicate, said valve chamber having ports opening into the several combustion chambers, into the several pre-compression chambers, and into the gas chamber, an interior fixed member disposed within and concentric to the valve casing and having like ports, said member being divided into two passages by a transverse septum, one of said passages being adapted to establish communication between the gas chamber and the pre-compression chambers and the other being adapted to establish communication between the combustion chambers and the several pre-compression chambers, and a hollow cylindrical and rotatable valve disposed in the valve chamber and extending along its entire length, said valve having ports adapted to register with the ports of the valve chamber, and means for rotating the valve continuously in one direction.

[Claims 6 to 10 not printed in the Gazette.]

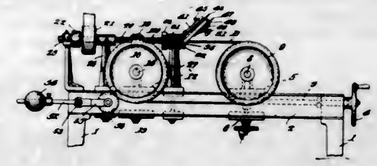
1,132,358. MUSIC-LEAF TURNER. EDWARD H. KRAUS, Rahway, N. J. Filed July 15, 1914. Serial No. 851,127. (Cl. 84—17.)

1. A music leaf turner comprising a plurality of supporting brackets adapted to be fixed to the inner side of the front of a piano, a rotatable shaft journaled in a pair of said brackets, a foot pedal, a bearing fixed within the piano and pivotally supporting the pedal, a gear mounted for rotation on another of the brackets, a gear fixed to the shaft and meshing with the first-named gear, a connection between the pedal and the said first-named gear for rotating the latter, an extensible suction nozzle pivoted to the shaft, suction means connected with the said nozzle and also connected with the pedal, a mouth piece on said nozzle, and a cam for lifting the nozzle after the turning of each sheet of music.



2. A music leaf turner comprising a plurality of supporting brackets adapted to be fixed to the inner side of the front of a piano, a rotatable shaft journaled in a pair of said brackets, a foot pedal, a bearing fixed within the piano and pivotally supporting the pedal, a gear mounted for rotation on another of the brackets, a gear fixed to the shaft and meshing with the first-named gear, a connection between the pedal and the said first-named gear for rotating the latter, an extensible suction nozzle pivoted to the shaft, suction means connected with the said nozzle and also connected with the pedal, a mouth piece on said nozzle, a cam for lifting the nozzle after the turning of each sheet of music, means carried by the nozzle for adjustably locking the extensible section, and means tensioned on depressing the foot treadle for automatically rotating the shaft to move the same to normal position when the foot treadle has been released.

1,132,359. AUTO TIRE-BEAD-WRAPPING MACHINE. FRANKLIN W. KREMER, Carlstadt, N. J. Filed May 22, 1913. Serial No. 769,282. (Cl. 154—9.)



1. An auto tire bead forming and wrapping machine, including a frame, two spacedly mounted wheels, the periphery of each of which is provided with a shaping bead receiving groove, said wheels being designed to receive therearound a bead composed of a single strand formed into a plurality of convolutions, said bead constituting a power transmitting means between the wheels, means for adjusting one of the wheels relatively to the other to accommodate the bead and to forcibly place the convolutions of such bead under an equal strain or tension, and a tape applying device interposed between the wheels for applying the tape about the convolutions of the bead while the bead is under tension.

2. An auto tire bead forming and wrapping machine, including a frame, two spacedly mounted wheels, the periphery of each of which is provided with a shaping bead

receiving groove, said wheels being designed to receive therearound a bead composed of a single strand formed into a plurality of convolutions, said bead constituting a power transmitting means between the wheels, means for adjusting one of the wheels relatively to the other to accommodate the bead and to forcibly place the convolutions of such bead under an equal strain or tension, a tape applying device interposed between the wheels for applying the tape about the convolutions of the bead while the bead is under tension, and an auxiliary bead forming means disposed in proper relation with one of the shaping grooves for shaping the wrapped bead.

3. An auto tire bead wrapping machine, including a frame, two spacedly mounted wheels, the periphery of each of which is provided with a bead shaping and receiving groove, a rotary tape carrying device mounted between the wheels for operating upon a bead while it is upon the wheels, means disposed in coöperable relation with such device for guiding a bead from one wheel to the other when receiving the tape, means for synchronously operating one of the wheels and the tape carrying device, and an auxiliary forming means disposed in coöperable relation with one of the bead receiving grooves for shaping the wrapped bead.

4. An auto tire bead wrapping machine, including a frame, two spacedly mounted wheels, the periphery of each of which is provided with a bead shaping and receiving groove to receive an endless bead which acts as a driving means between the wheels, one of said wheels being adjustable relatively to the other, a rotary tape carrying device mounted between the wheels in the path of the bead when it is upon the wheels, means disposed in coöperable relation with such device for guiding the bead from one wheel to the other when receiving the tape thereupon, means for synchronously operating the wheels and tape carrying device, and an auxiliary forming means disposed in coöperable relation with one of the bead receiving grooves for shaping the wrapped bead.

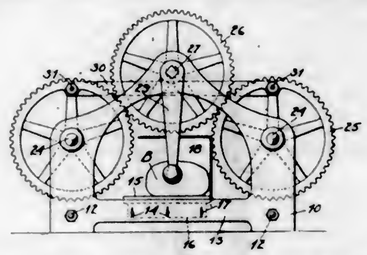
5. An auto tire bead forming and wrapping machine, including a frame, two spacedly mounted wheels, the periphery of each of which is provided with a bead shaping and receiving groove, said wheels being designed to receive therearound a bead composed of a single strand formed into a plurality of convolutions, said bead constituting a power transmitting means between said wheels, means for adjusting one of the wheels relatively to the other to accommodate the bead and to forcibly place the convolutions of such bead under an equal strain or tension, a tape applying device interposed between the wheels for applying the tape about the convolutions of the bead while the bead is under tension, an auxiliary bead forming means disposed in proper relation to one of the shaping grooves for shaping the wrapped bead, and an adjusting means for regulating the pressure of the auxiliary forming means.

[Claim 6 not printed in the Gazette.]

1,132,360. BREAD-SLICING MACHINE. MAXIM KRONFELD, New York, N. Y. Filed Aug. 8, 1914. Serial No. 855,844. (Cl. 146—12.)

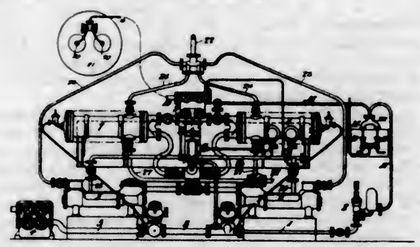
1. In a bread slicing machine, the combination of a frame comprising a pair of parallel end brackets, a bread supporting base secured between the brackets, a guard, a series of similar gear members journaled each on its own axis at the upper corners of the brackets, a pair of parallel rods connected to the gear members at the front and the rear of the machine, a series of knives upon said rods and extending between them in planes transverse to the longitudinal axis of the machine, and means serving to cause all of the gear members to rotate in unison in the same direction causing similar points of all of the knives to describe similar circles while the knives approach and sweep across the bread supporting base adjacent said guard, substantially as shown and described.

2. In a bread slicing machine, the combination of parallel end brackets, means maintaining the brackets in definite relation to each other, a bread support secured between the lower portions of the brackets, a guard cooperating with the bread support to hold a loaf thereon in substantially definite position, pairs of similar gear members journaled upon short axes upon the respective brackets, means conecting all of the gear members causing them to rotate simultaneously in the same direction, a series of knives connected to the gear members eccentric



to the supporting axes thereof and in a plane parallel to the upper surface of the bread support, and counterbalancing means serving to hold the knives in spaced relation to the bread support, substantially as shown and described.

1,132,361. LIQUID-FUEL-FIRED FURNACE. ANDREW LAING, Newcastle-upon-Tyne, England. Filed Mar. 18, 1912. Serial No. 684,479. (Cl. 158—36.)



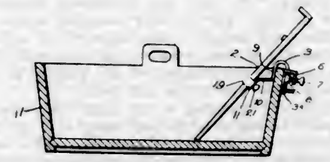
1. In a liquid fuel-fired steam generator furnace in which the fuel is heated before delivery to the furnace burners, the combination of a main fuel heating system comprising a heater adapted to be heated by steam from the generator, and an auxiliary fuel heating system comprising a burner-heater heating device, and means for rendering the two heating systems alternatively operative.

2. In liquid fuel-fired furnaces in which the fuel is heated before delivery to the furnace burners, a main fuel heater communicating with the furnace burners, means adapted to convey a heating agent to the heater, a main feed pump adapted to supply liquid fuel to the heater, an auxiliary fuel heating device comprising in combination a heating coil communicating with the furnace burners, a burner adapted to heat the coil and an auxiliary feed pump arranged to force liquid fuel through the heating coil, and means for rendering the main heater and auxiliary heater alternatively operative.

3. In a fuel heating system for a liquid fuel fired furnace, the combination with a steam generator heated by the furnace, of a main fuel feed pump, a main fuel heater, means for supplying said main fuel heater with steam from the steam generator, an auxiliary fuel feed pump and an auxiliary fuel heater, a burner consuming naphtha or the like adapted to heat the auxiliary heater, and means for rendering the main feed pump and heater and the auxiliary feed pump and heater alternatively operative; substantially as described.

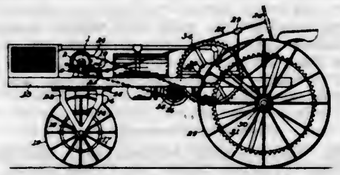
4. A liquid fuel heating system, comprising a steam heater, a fuel supply pipe communicating with the heater, a pump connected to said pipe between the supply and the heater, an outlet pipe leading from the heater, an auxiliary heater comprising a coil of pipe, a liquid fuel supply pipe for said coil, a hand pump connected to said last mentioned fuel supply pipe, a connection from the auxiliary heater to the outlet pipe, and a burner for heating the coil in the auxiliary heater; substantially as described.

1,132,362. WASHBOARD-CLAMP. WILLIAM LAWLESS, Quenemo, Kans. Filed Feb. 25, 1914. Serial No. 820,914. (Cl. 68—29.)



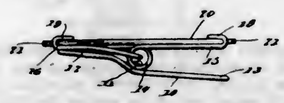
A wash board clamp comprising a curved U-shaped member adapted to fit over the upper edge of a tub, a guide mounted on one arm of said member and adapted to bear against the outer side of a wash tub, a screw extending through said guide, an arm extending downward from the curved member, a bar consisting of two sections, one adjustable upon the other, said bar being connected to the arm and an L-shaped member at the outer end of said sections for clamping a wash board.

1,132,363. TRACTOR. HARRY W. LEAVITT, Waterloo, Iowa. Filed Dec. 31, 1913. Serial No. 809,647. (Cl. 21—114.)



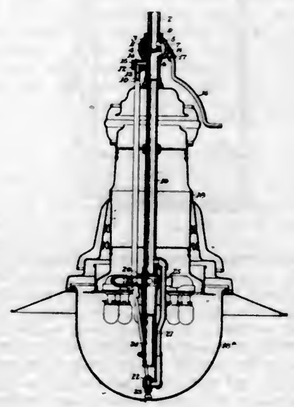
In a tractor, a frame, a vertical sleeve-bearing fixedly mounted therein, another vertical sleeve-bearing mounted in the first said sleeve-bearing to rock therein, the first-mentioned sleeve-bearing having a disk-shaped flange coaxial therewith, the second-mentioned having a like flange seated movably and coaxially on the other said flange, hangers depending fixedly from the second-mentioned flange and provided with alined bearings, a rotary axle seated in the alined bearings, a carrying-wheel mounted on said axle, a gear-wheel secured on said axle, a rotary shaft in said second-mentioned sleeve-bearing, a pinion on said shaft in mesh with said gear-wheel, means for rotating said last-mentioned shaft, and means for rocking said second-mentioned sleeve-bearing.

1,132,364. CLAMP. ELIZABETH LINTON and ANNE LINTON, Philadelphia, Pa. Filed June 27, 1914. Serial No. 847,656. (Cl. 24—255.)



As a new article of manufacture, a clamp comprising a single piece of wire bent to provide a plurality of gripping arms and a plurality of handles opposed to the gripping arms, with a spring formed by the wire and lying between the handles and the gripping arms, a plate constituting an identification or ornamental card, and loops formed by one of the gripping arms and one of the handles and engaging the plate or card for holding the same in superposed relation to the said gripping arms and handles.

1,132,365. CLUSTER INCANDESCENT LAMP. THOMAS JAMES LITLE, Jr., Woodbury, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed May 6, 1914. Serial No. 836,663. (Cl. 67—94.)



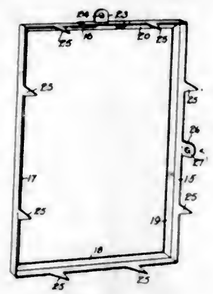
1. In a cluster lamp, a main gas supply pipe forming the support for the lamp, a valve in said pipe for controlling the flow of gas therethrough, a manifold supported on the lower end of said pipe, a plurality of radially extending burner arms connected to said manifold and communicating therewith, a mixing tube extending downwardly from said manifold and communicating therewith, a valve casing below said mixing tube having a jet orifice directed toward the opening of the mixing tube, a needle valve within said casing for controlling the flow of gas through the jet orifice, and a pipe on the exterior of the manifold and mixing tube connecting the main gas supply with the valve casing; substantially as described.

2. In a cluster lamp, a main supply pipe, a lamp casing connected thereto, a valve for controlling the flow of gas through said pipe, a manifold connected to the lower end of said pipe, a plurality of radial burner arms connected to the manifold and communicating therewith, a mixing tube concentric with the main supply pipe connected to the lower end of the manifold and communicating therewith, an eccentrically disposed gas pipe connected to the main gas pipe above the manifold on the exterior thereof, a fitting connected to the lower end of the eccentrically disposed gas pipe and supported thereby, there being a jet orifice in said fitting in line with the lower end of the mixing tube, a needle valve within said fitting for controlling the supply of gas passing through the jet orifice, and an adjustable tube telescopically engaging the mixing tube and supported from the eccentrically disposed gas pipe; substantially as described.

3. A cluster lamp having a main supply pipe concentric therewith, a lamp casing connected thereto, a manifold connected to the lower end of the supply pipe but not communicating therewith, a plurality of radially disposed burner arms connected to the manifold, a mixing tube connected to the lower end of the manifold and communicating therewith, said mixing tube being concentric with the supply pipe, a jet orifice below the lower end of the mixing tube for supplying gas to the mixing tube, and a gas supply pipe communicating with the jet orifice and con-

nected to the main supply pipe above the manifold, said supply pipe being eccentric to the main supply pipe and the mixing-tube, substantially as described.

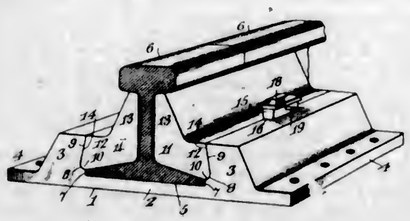
1,132,366. PICTURE-FRAME. MARCUS LOEWENTHAL, New York, N. Y. Filed Mar. 11, 1913, Serial No. 753,589. Renewed Sept. 18, 1914. Serial No. 862,402. (Cl. 40—155.)



1. A picture frame, comprising an elongated strip bent transversely to form flanges perpendicularly disposed to each other, one of said flanges being severed at intervals to permit folding the strip on the other flange in line with the severed portions; means mounted on the unsevered flange bendable to a position substantially parallel with the sections of the severed flange; means for uniting the free ends of the end sections of said strip, one of said end sections having at the center thereof an elongated slot; and a perforated tab extending from the other end section for insertion through said slot, said tab having a perforation to receive a hanging device.

2. As an article of manufacture, a frame-forming strip bent lengthwise to form a plurality of separated frame-face flanges and a continuous frame-edge flange, said frame-edge flange being provided at suitable intervals with spurs extending in the same plane and adapted for bending into parallel relation with said frame-face flanges, said frame-edge flange being further provided adjacent one end of said strip with a slot extending lengthwise of said strip, said frame-face flanges having ends inclined to form miter joints when drawn together; and a farme-hanging tab integrally formed with the frame-face flange adjacent the other end of said strip, said tab being adapted to extend through said slot to unite the ends of said strip when forming a frame.

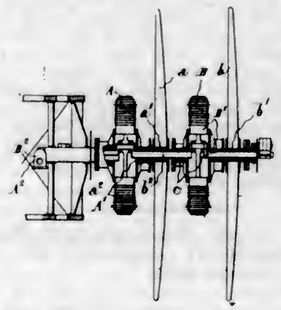
1,132,367. RAIL-JOINT. GEORGE A. LONG, Scranton, Pa. Filed Dec. 24, 1914. Serial No. 878,897. (Cl. 239—6.)



1. A rail joint including a rail chair consisting of a bottom plate having a horizontal upper face to form a rail receiving seat, and spaced upwardly extending side flanges provided with inner faces consisting of lower vertical portions to fit against the side edges of the bottom flanges of the rails, curved shoulders extending upwardly and outwardly from the said lower vertical portions, and upper inclined portions extending upwardly and inwardly from the said shoulders, angle rail bracing and clamping members arranged upon the bottom flanges and engaging under the heads of the rails and having lower rounded outer edges, fitting the said shoulders of the side flanges of the chair, said members being provided with upwardly and inwardly inclined outer faces conforming to the inclined upper portions of the inner faces of the said flanges to form an interlocking connection between the members and the chair, and approximately vertical wedges extending through the chair and interposed between the flanges of the same and the said members, whereby the said members are wedged tightly against the rails, said members being of uniform cross-sectional area and adapted, when released by the removal of the wedges, to be removed from either end of the rail chair.

2. A rail joint including a rail chair consisting of a bottom plate having a horizontal upper face to form a rail receiving seat, and spaced upwardly extending side flanges provided with inner faces consisting of lower substantially vertical portions to fit against the side edges of the bottom flanges of the rails, shoulders extending upwardly and outwardly from the said lower vertical portions, and upper inclined portions extending upwardly and inwardly from the said shoulders, angle rail bracing and clamping members arranged upon the bottom flanges and engaging under the heads of the rails and having lower edges fitting the said shoulders of the side flanges of the chair, said members being provided with upwardly and inwardly inclined outer faces conforming to the inclined upper portions of the inner faces of the said flanges to form an interlocking connection between the members and the chair, said members and flanges being provided with registering recesses forming vertical openings which extend through the bottom of the rail chair, and substantially vertical wedges arranged in the said recesses and adapted to be driven through the chair to wedge the members tightly against the rails, said wedges interlocking the members against longitudinal movement and the members being of uniform cross-sectional area to enable them to be removed from either end of the chair when released by the wedges.

1,132,368. DEVICE FOR PROPELLING AERIAL MACHINES. VLADIMIR LORENC and VICTOR LORENC, Paris, France. Filed June 19, 1912. Serial No. 704,609. (Cl. 244—25.)



1. Propulsion mechanism for aerial machines comprising a pair of co-axially mounted propellers, independent motors for driving the respective propellers and having crank shaft means, one of the motors directly driving the external propeller, the second propeller being loosely mounted on the crank shaft means appurtenant to the motor which directly drives the external propeller and being driven by the other motor, the latter being mounted between the external propeller and its driving motor on the one hand, and the body of the machine on the other hand.

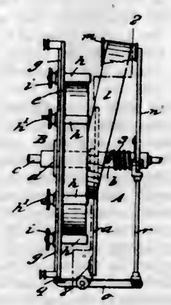
2. Propulsion mechanism for aerial machines comprising a pair of co-axially mounted propellers, independent motors for driving the respective propellers and having crank shaft means, one of the motors directly driving the external propeller, the second propeller being loosely mounted on the crank shaft means appurtenant to the motor which directly drives the external propeller and being driven by the other motor, the latter being mounted between the external propeller and its driving motor on the one hand, and the body of the machine on the other hand, the operative connections between the second propeller and its corresponding motor including a rotatable element driven by said motor and having the same longitudinal direction as the axes of the propellers.

3. Propulsion mechanism for aerial machines comprising a pair of co-axially mounted propellers, independent rotary engines for driving the respective propellers and having a common fixed crank shaft which overhangs the body of the aeroplane, the propellers being mounted on the overhanging portion of said crank shaft in concentric relation thereto, and operative driving connections between the engines and the respective propellers, the said crank shaft having a passage throughout its length for conducting fuel gas to the engine which drives the external propeller.

4. Propulsion mechanism for aerial machines comprising a pair of co-axially mounted propellers, independent rotary engines for driving the respective propellers and having a common fixed crank shaft which overhangs the body of the aeroplane, the propellers being mounted on the overhanging portion of said crank shaft in concentric relation thereto, the engine for the external propeller being mounted between the propellers and the other engine being mounted between the internal propeller and the body of the aeroplane.

5. Propulsion mechanism for aerial machines comprising a pair of co-axially mounted propellers, independent rotary engines for driving the respective propellers and having a common fixed crank shaft which overhangs the body of the aeroplane, the propellers being mounted on the overhanging portion of said crank shaft in concentric relation thereto, the engine for the external propeller being mounted between the propellers and the other engine being mounted between the internal propeller and the body of the aeroplane, said engines having their rotating elements directly connected to the respective propellers to drive the latter.

1,132,369. FILM AND LIKE REEL MECHANISM. EDWARD LYTTON, London, England. Filed Oct. 11. 1913. Serial No. 794,652. (Cl. 88—18.7.)



1. In a film or strip winding mechanism of the type described, a spool comprising in combination a rotatable carrier, an outer and an inner series of movable arms mounted on the carrier, said arms adapted to hold the roll of film or strip material upon the spool and maintain its convolutions in engagement until it is completely unwound.

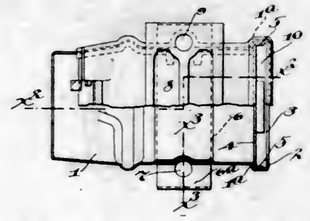
2. In a film or strip winding mechanism of the type described, a spool comprising in combination a rotatable carrier, a series of adjustable arms mounted on the carrier, said arms adapted to engage the outer circumference of the roll of film or strip material to hold it in position in the spool, and of a second series of arms or pins continuously urged against the inner circumference of said roll of material to retain the convolutions of the roll in engagement until the material is completely unwound.

3. In a film or strip winding mechanism of the type described, a spool comprising in combination a rotating carrier, a series of adjustable arms mounted thereon and adapted to engage one circumference of the roll of film or strip material on the spool, a second series of continuously urged stops adapted to engage the other circumference of said roll, means permitting the material as unwound to take a course inclined to the plane of the spool and adapted to guide said inclined portion into the machine.

4. In a film or strip winding mechanism of the type described, a spool comprising in combination a rotatable part having an outer and an inner series of movable arms thereon to hold the roll of material and a fixed part upon which the rotatable part may be removably mounted to rotate, substantially as hereinbefore described.

5. In a film or strip winding mechanism of the type described, a spool comprising in combination a rotatable part having two series of movable arms thereon to hold the roll of material, a fixed part upon which the rotatable part may be removably mounted to rotate and means carried by said fixed part automatically operating on the rupture of the unwound portion of the roll or on the stopping of the machine to brake the rotatable part and arrest its motion, substantially as hereinbefore described.

1,132,370. JOURNAL-BOX. ALVIN C. MCCORD and IVAR A. RANDEL, Chicago, Ill., assignors to McCord and Company, Chicago, Ill., a Corporation of New Jersey. Filed Dec. 20, 1913. Serial No. 807,895. (Cl. 64—10.)



1. A journal box comprising an independently formed metallic cellar, an independently formed metallic stirrup embracing said cellar, and a top made fast to said cellar and stirrup by the metal of said top in the forming thereof.

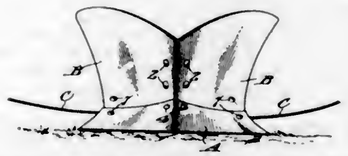
2. A journal box comprising an independently formed pressed steel cellar, an independently formed pressed steel stirrup having upturned prongs embracing the sides of said cellar, and a top cast fast to the upper edges of said cellar and to the upper ends of the prongs of said stirrup.

3. A journal box comprising an independently formed press steel cellar, an independently formed pressed steel stirrup having upturned prongs embracing the sides of said cellar, a top cast fast to the upper edges of said cellar and the upper ends of the prongs of said stirrup, and having projecting portions with bolt holes therein, the lower horizontal portion of said stirrup being bent upon itself and extending below the bottom of said cellar

and having projecting portions with bolt holes vertically alined with the bolt holes in said top.

4. A journal box comprising a sheet metal cellar, an independently formed pressed steel stirrup having its upwardly projecting prongs set into channels formed in the sides of said cellar and bent upon itself to form bottom projections, which latter are provided with bolt holes, and a top cast fast to the upper edge of said cellar and to the upper ends of the prongs of said stirrup, and having bolts vertically alined with the bolt holes in the projecting portions of the stirrup.

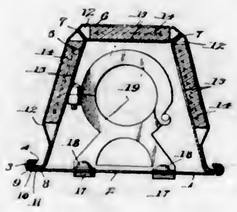
1,132,371. ATTACHMENT FOR LISTER-PLOWS. FLOYD S. MCCUNE and NOLEY JONES, Tulia, Tex. Filed June 19, 1914. Serial No. 846,179. (Cl. 97—9.)



1. In a lister plow, the combination with a plow share having a mold board, connected thereto, of knives connected to the share above the cutting edge thereof and extending therefrom in the arc of a circle, said knives lying in a horizontal plane.

2. In a lister plow, the combination with a share and mold board, means for connecting the mold board and share together, of knives having one terminal thereof lying parallel to the share and provided with slots whereby the said knives are connected to the share by said connecting means, said knives having the cutting edges thereof bent so that they lie in a horizontal plane in transverse section and are formed in the arc of a circle.

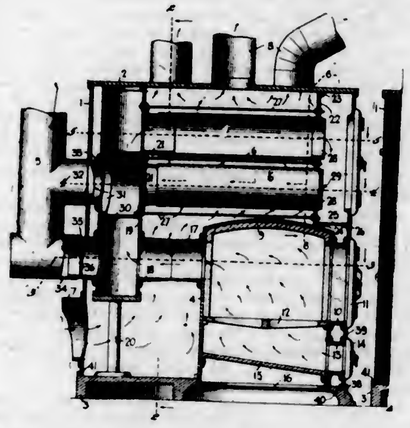
1,132,372. WATER-GLASS GUARD. ROBERT S. MEARS, Arkansas City, Kans. Filed June 5, 1914. Serial No. 843,242. (Cl. 73—54.)



A guard of the class described comprising a back wall, parallel plates bent to form front and side walls detachably connected with the back wall and forming pockets, the front and rear walls of said pockets being formed with slots, and transparent plates within said pockets and removable therefrom.

1,132,373. FURNACE. FRANK OTTO MOLL, Portland, Oreg. Filed Mar. 14, 1913. Serial No. 754,210. (Cl. 126—104.)

1. In a hot air furnace, a casing having an air inlet at its rear lower portion, a fire box in the lower front portion of the casing, a radiator in the rear portion of the casing above the air inlet and extending to the top of the casing, said radiator being spaced from and having a flue connection with the fire box, a chamber at the front of the casing above the fire box, a plurality of heating tubes arranged in tiers in the upper part of the casing, the upper tier of tubes having their ends opening into the chamber and radiator and the lower tier having one end opening into the said chamber, and a flue leading to an outlet flue and with which the other ends of the lower tier of tubes are connected.



2. In a device of the kind described, the combination of a casing, a fire-box located in the front end of said casing, a radiator located at the rear of the casing, means establishing communication between the fire-box and the radiator, a plurality of heating tubes communicating with the front wall of the radiator near the top thereof and extending toward the front of the casing, a chamber at the front of the casing and communicating with the front ends of said tubes, additional tubes communicating at their front ends with said chamber, and a flue extending through the radiator and connecting the rear ends of the last named tubes with an outlet flue.

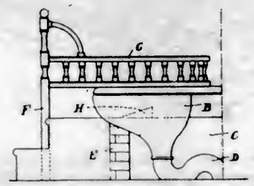
3. In a device of the kind described, the combination of a casing, a fire-box located in the front end of said casing, a radiator segmental in shape and located at the rear of the casing, said radiator extending from a short distance from the bottom of the casing to the top thereof, a flue connection between the fire-box and the lower portion of the radiator, a plurality of heating tubes communicating with the front wall of the radiator near the top thereof and extending toward the front of the casing, a chamber at the front of the casing and communicating with the front ends of said tubes, additional tubes below the first tubes and communicating at their front ends with said chamber, and a flue connecting the rear ends of the last named tubes with an outlet flue, said flue passing through the radiator from the front to the rear of the same.

4. In a furnace, the combination of a casing, a fire box in the lower front portion of the casing, a radiator in the rear portion of the casing and communicating at its lower end with the fire box, an outlet flue having a damper controlled connection with the radiator, heating tubes arranged in tiers in the upper part of the casing, the upper tier being connected with the upper end of the radiator, a chamber at the front end of the casing and with which the front ends of the tiers of tubes communicate, and a flue extending through the radiator and connected with the lower tier of tubes and with the outlet flue above the connection of the radiator with said flue.

5. In a furnace, a casing having an air inlet at its lower rear portion, a fire box in the lower front portion of the casing, a segmental-shaped radiator in the rear portion of the casing and extending to the top thereof, a flue connecting the radiator with the fire box, an outlet flue with which the radiator is connected, a chamber at the front of the casing above the fire box, a flue extending through the radiator and connected with the outlet flue above the connection of the radiator with the outlet flue, and heating tubes arranged in tiers in the upper part of the casing, the tubes of the upper tier having their ends opening into the radiator and chamber and the tubes of the lower tier being less in number and having their ends opening into the said chamber, and the flue extending through the radiator.

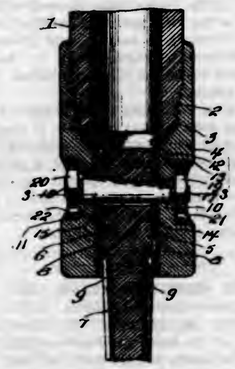
[Claims 6 to 8 not printed in the Gazette.]

1,132,374. WATER-CLOSET OF THE SQUAT OR NON-CONTACT TYPE. JOHN HENRY MOORE, Oxford, England. Filed Aug. 18, 1913. Serial No. 785,380. (Cl. 4—18.)



In a water closet of the squat or non-contact type, the combination of an elongated pan, a pair of forwardly inclined blocks for supporting the heels of the user, the said blocks being located exterior to and at the sides of the pan and below the upper rim thereof a clothes guard which extends round the sides and back of the pan, and gripping posts arranged at the front ends of the clothes guard, all for the purpose set forth.

1,132,375. DRILL-COLLAR. GEORGE S. MYERS, Electra, Tex. Filed Apr. 8, 1914. Serial No. 830,474. (Cl. 255—61.)



1. The combination with a drill pipe of the class described, of a drill collar adapted to be secured to the lower end of the said pipe, the said collar being provided with a longitudinally tapering socket in communication with the bore of the pipe, a drill bit having a tapered shank adapted for engagement within the hollow socket, the said shank and collar being provided with transverse key slots communicating with the socket, and a securing key adapted to be mounted within the said key slots.

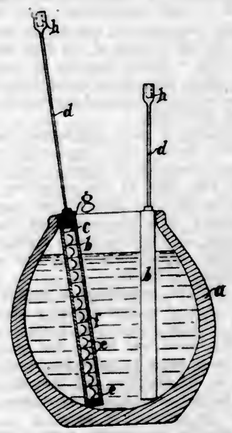
2. The combination with a drill pipe of the class described, of a drill collar adapted to be secured to the lower end of the said pipe, the said collar being provided with a longitudinally tapering socket in communication with the bore of the pipe, a drill bit having a tapered shank adapted for engagement within the hollow socket, the said shank and collar being provided with transverse key slots communicating with the socket, a wedge-shaped securing key adapted to be mounted adjustably within the said key slots, and means by which the key may be adjusted.

3. The combination with a drill pipe of the class described, of a drill collar adapted to be secured to the lower end of the said pipe, the said collar being provided with a longitudinally tapering socket in communication with the bore of the pipe, a drill bit having a tapered shank adapted for engagement within the hollow socket, the said shank and collar being provided with transverse key slots communicating with the socket, a wedge-shaped securing key adapted to be mounted adjustably within the said key slots, the upper wall of the key slot in the shank and the adjacent edge of the key being longitudinally inclined, the opposite edge of the key and the lower wall of the key slot in the bit shank being straight.

4. The combination with a drill pipe of the class described, of a drill collar adapted to be secured to the lower end of the said pipe, the said collar being provided with a longitudinally tapering socket in communication with the bore of the pipe, a drill bit having a tapered shank adapted for engagement within the hollow socket, the said shank and collar being provided with transverse key slots communicating with the socket, a wedge-shaped securing key adapted to be mounted adjustably within the said key slots, the smaller end of the said key being screw-threaded, the collar being provided in its outer face in communication with the key slot therein with an enlarged recess, and an adjusting nut engaged with the threaded end of the key and seated in the recess in the collar.

[Claim 6 not printed in the Gazette.]

1,132,376. APPARATUS FOR THE MANUFACTURE OF METALLIC ALLOYS. WALTER NORTHCOTE NAYLOR, Forest Hill, and STANLEY PAGE HUTTON, Beckenham, England. Original application filed Nov. 22, 1912, Serial No. 732,972. Divided and this application filed Mar. 7, 1913. Serial No. 753,138. (Cl. 75—57.)

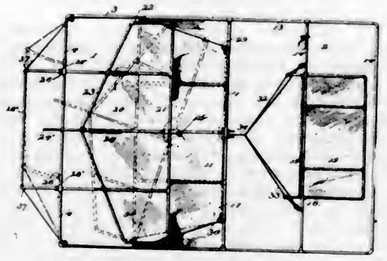


1. In combination, a tubular chamber; a piston therein; and soft wadding disposed within one end of the chamber, engaging the sides thereof at points within the chamber

remote from said end, for holding material in the chamber, said chamber being free from obstructions in its middle part, whereby cylindrical pieces of material may be held therein.

2. An apparatus for adding magnesium and phosphor tin to molten aluminium, said apparatus comprising, in combination, a tubular chamber open at its lower end, having a perforated closure at its upper end and having its intermediate part adapted to be filled with solid material having a diameter approximating the inner diameter of the chamber; a plunger movable within the chamber; an indicating rod attached to and movable with the plunger and passing through the perforation of the closure; and means disposed within the lower end of the chamber engaging the sides thereof away from said end, and free from projections into the intermediate part of the chamber, and adapted to hold said material in the chamber when the material is solid.

1,132,377. FLYING-MACHINE. CHARLES HERBERT OCUMPAUGH, Rochester, N. Y. Filed May 7, 1909. Serial No. 494,682. (Cl. 244—12.)



1. In an aeroplane, a main supporting plane, a secondary plane linked thereto and extending across the medial line of the aeroplane, said secondary plane being substantially as wide as the supporting plane, and means to vary the angle of the secondary plane whereby to increase the projection of the secondary plane over one lateral portion of the rear edge of the supporting plane, said means being further arranged to cause the opposite lateral forward portion of the secondary plane to swing forwardly.

2. In an aeroplane, a supporting plane, a secondary plane attached to said supporting plane and extending across the medial line thereof, and means to vary the projection of one lateral portion of the rear edge of the secondary plane over a lateral portion of the rear edge of the supporting plane, said means being further arranged to cause the opposite lateral forward portion of the secondary plane to swing forwardly.

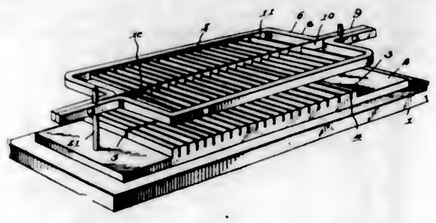
3. In an aeroplane, a main supporting plane, a secondary plane linked thereto and controlling means for the secondary plane arranged to further project one lateral portion of the rear edge of the secondary plane over a lateral portion of the rear edge of the supporting plane and simultaneously shift the secondary plane about its linked connection, said means being further arranged to cause the opposite lateral forward portion of the secondary plane to swing forwardly.

4. A flying machine comprising a supporting plane, a plane centrally pivoted to and swinging over the supporting plane, said pivoted plane lying across the medial line of the supporting plane, and means for operating the pivoted plane to cause same to move angularly in line with the movement of the machine and thereby vary the projection of one lateral edge of said secondary plane over a lateral edge of the supporting plane.

5. A flying machine comprising a supporting plane and a swinging plane, the planes being located one over the other and each lying across the medial line of the machine, means for centrally pivoting the swinging plane, and means for operating the swinging plane horizontally to vary the supporting area of the machine simultaneously to the rear and in front of the supporting plane.

[Claims 6 to 19 not printed in the Gazette.]

1,132,378. BUTTER-CUTTER. CHARLES A. PATTERSON, Portland, Oreg. Filed Oct. 27, 1914. Serial No. 868,803. (Cl. 31—65.)



1. A butter cutter including a bed, a cutter frame, opposing portions of the frame being formed with longitudinal grooves, and a series of transverse blades having laterally projected terminals to seat in said grooves.

2. A butter cutter including a bed, a cutter frame, opposing portions of the frame being formed with longitudinal grooves, and a series of transverse blades having laterally projected terminals to seat in said grooves, the ends of each terminal bearing against the adjacent blade to space the blades.

3. A butter cutter including a bed, a cutter frame, opposing portions of the frame being formed with longitudinal grooves, and a series of transverse blades having laterally projected terminals to seat in said grooves, and a longitudinal blade formed to engage each of the transverse blades.

4. A butter cutter including a bed, a cutter frame, opposing portions of the frame being formed with longitudinal grooves, a series of transverse blades having laterally projected terminals to seat in said grooves, a longitudinal blade formed to engage each of the transverse blades, and means to secure the longitudinal blade under tension in the frame.

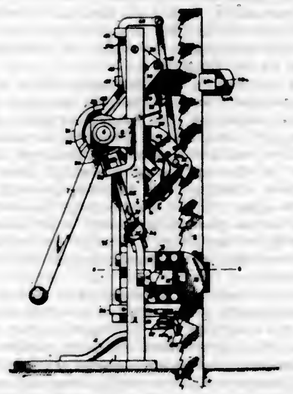
5. A butter cutter including a bed, formed with a series of transverse and longitudinal channels to receive the cutting blades, a cutter frame, opposing portions of the frame being formed with longitudinal grooves, a series of transverse blades having laterally projected terminals to seat in said grooves, a longitudinal blade formed to engage each of the transverse blades, and means to secure the longitudinal blade under tension in the frame.

1,132,379. SAW SETTING, FILING, AND SWAGING MACHINE. SWEN PAULSON, Heber, Utah. Filed June 17, 1913. Serial No. 774,119. (Cl. 76—40.)

1. A machine of the class described comprising a rotary saw file shaped to work on two teeth at once, saw-clamping jaws shaped to grip two teeth on which the file operates, means for mounting the saw and jaws for relative movement, means for relatively moving the file and jaws for engaging the file with the saw clamped in the jaws, means for opening the jaws after the file has acted on the saw, and means for feeding the saw while the file is disengaged therefrom.

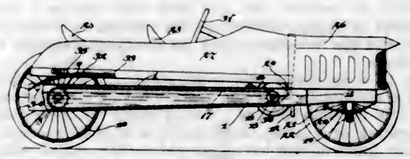
2. A machine of the class described comprising a rotary file, a driving shaft therefor, a hanger swinging on the shaft and supporting the file, saw holding jaws, an element operated by the shaft for opening the jaws, and a connection between the element and hanger to move the file away from the saw as the jaws open and toward the saw as the jaws close.

3. A machine of the class described comprising a rotary file, a driving shaft therefor, a hanger swinging on the shaft and supporting the file, saw holding jaws, a cam on the shaft, an element actuated by the cam, and separate connections between the element and hanger and the hanger and jaws for opening and closing the latter as the file moves away and toward the saw.



4. In a machine of the class described, the combination of a continuously rotating file for filing the front and back faces of two adjacent teeth at a time; saw clamping jaws mounted in fixed position and relatively movable and shaped to grip the two teeth on which the file operates, means for moving the file toward and from the jaws while the latter are closed, and means for opening the jaws while the file is moved away from the latter for permitting the saw to be fed with respect to the file.

1,132,380. AUTOCYCLE. JOHN E. PFEFFER, Minneapolis, Minn., assignor to Continental Engineering Co., Chicago, Ill., a Corporation of Maine. Filed Oct. 17, 1913. Serial No. 795,711. (Cl. 21—90.)



1. In an automobile running gear, the combination with front and rear wheels, of hollow side bars pivotally supported at the axis of the rear wheels and spring-supported at their front ends, of a transmission mechanism including driving and driven wheels and coöperating belts located within said side frames.

2. In an automobile running gear, the combination with front and rear axles and front and rear wheels, of hollow side bars pivotally supported on said rear axle and spring-supported at their front ends, an engine driven counter shaft extended into the front ends of said hollow side bars, and a transmission mechanism including driving and driven wheels, respectively, on said counter shaft and rear axle, located within said hollow side bars and secured, respectively, on said counter shaft and rear axle, and belts also located within said hollow side bars and running over coöperating driving and driven wheels running over the alined driving and driven wheels.

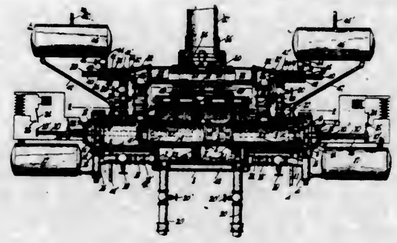
3. In an automobile running gear, the combination with front and rear wheels and front and rear axles, the latter being a divided axle, of hollow dust-tight side bars pivoted on said rear axle and spring-supported at their front ends, an engine driven counter shaft extended into the front portions of said hollow side bar, driving and driven sprockets located within said side bars and secured, respectively, on said counter shaft and rear axle, and sprocket chains also located within said side bars and arranged to run over alined driving and driven sprockets.

4. In an automobile running gear, the combination with the front and rear wheels, of hollow side bars pivotally supported at the axes of the rear wheels, and spring-supported from the front wheels, of a transmission mechanism including driving and driven wheels and coöperating belts located within said side frames.

5. In an automobile running gear, the combination with front wheels, rear wheels, front axle and rear axle, the latter being a divided axle, of dust-tight tubular side bars pivotally mounted on said rear axle and springs supported on said front axle, an engine carried on the front portions of said side bars, a transverse divided jack shaft extended into said side frames provided with driving sprockets within said side frames, driven sprockets secured to said divided rear axle within said side frames, sprocket chains running over said driving and driven sprockets within said side frames, and an engine-driven differential gear connecting the sections of said jack shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,132,381. PRESSURE-GENERATOR. ELBERT BALL PORTER, Penn Yan, N. Y. Filed Apr. 12, 1912. Serial No. 690,322. (Cl. 60—37.)



1. A generator comprising a cylinder having a piston therein, a compression chamber at one end of said cylinder, means for closing communication between the said compression chamber and said cylinder, means operated by the piston to open the chamber to the cylinder at the inner end of the piston stroke, and an igniter in said chamber.

2. A generator comprising a cylinder, a piston therein, a compression chamber in one end of said cylinder, means for forcing combustible mixture into said compression chamber means closing communication between the chamber and the cylinder, and means operated by the piston at the inner end of the stroke to allow the mixture when ignited to pass into the cylinder to force the piston outward, and an igniter in said chamber.

3. In a generator, the combination of a cylinder having a piston therein, a compression chamber at one end of said cylinder, means for forcing combustible mixture into said chamber, a valve for closing communication between the chamber and the cylinder, means operated by the piston to engage the valve and lift the same off its seat at the inner end of the piston stroke, and means operated by the piston to ignite said mixture, whereby, when the mixture is ignited and the valve opened, the burning gases will pass into the cylinder behind the piston to force the same outward.

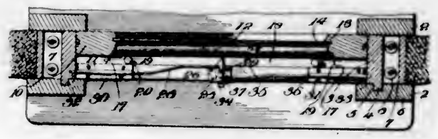
4. In a generator, the combination of a cylinder, a piston therein, and a chamber at one end of said cylinder communicating therewith, means for forcing a combustible mixture into said chamber under pressure, said means being connected to said piston and operated thereby, and an igniter in said chamber.

5. In a generator, the combination of a cylinder having a piston therein, said cylinder having an open inner end,

a pump casing adjacent the open inner end of the cylinder, a piston in said pump casing, a pressure chamber in the opposite end of the cylinder, and a conduit affording communication between said pump casing and said pressure chamber, said pump piston being connected to the cylinder piston and operated thereby to force the combustible mixture into the pressure chamber.

[Claims 6 to 17 not printed in the Gazette.]

1,132,382. WINDOW SASH AND FRAME. DOMENICK PRESTERA, Bradford, Pa. Filed Apr. 3, 1913. Serial No. 758,623. (Cl. 20—56.2.)

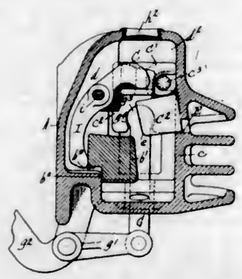


1. A sash having a groove in three sides to receive a window-pane, a vertically sliding strip adapted to close the fourth side of the sash, a horizontally pivoted member secured to the sash and adapted to operate a lock for locking the sash and at all times extending over the strip during the operation of the lock.

2. A sash having a groove in three sides to receive a window-pane, a sliding strip adapted to close the fourth side of the sash, a horizontally pivoted member secured to the sash and extending over the sliding strip, a lock operated by the pivoted member, and said pivoted member constructed and arranged to at all times extend over the sliding strip during the ordinary operation of the lock.

3. A sash having a groove in three sides to receive a window-pane, a vertically sliding strip closing the fourth side, a horizontally pivoted member secured to the upper edge of the sash, a sliding bolt secured to the said pivoted member on each side of the pivot, and adapted to lock the sash, and said pivoted member constructed and arranged to at all times extend over the sliding strip during the normal operation of sliding the bolts.

1,132,383. CAR-COUPLING. WILLARD F. RICHARDS, Depew, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed Oct. 14, 1912. Serial No. 725,575. (Cl. 213—10.)



1. In a car coupler, the combination with a drawhead, and a horizontally-swinging knuckle having a tail extending into the drawhead, of a locking device for the knuckle consisting of a guide block which is movable vertically within the drawhead below the top thereof and is held from tilting, and a locking block which is pivotally suspended from said guide block to swing toward and from the side wall of the drawhead toward which the tail of the knuckle swings when opening the knuckle, a lifting device coöperating with said guide block for operating said locking device, said side wall of the draw head being provided with a ledge on which said locking block is adapted to rest for supporting the knuckle in raised position, said locking block when in its set position being raised by engagement with the knuckle tail during the opening movement thereof to disengage the block from said ledge and being frictionally drawn away from said ledge during the closing movement of said knuckle, substantially as set forth.

2. In a car coupler, the combination with a drawhead, and a horizontally swinging knuckle having a tail extending into the drawhead, of a locking device for the knuckle consisting of a guide block which is movable vertically in the drawhead and has an upright rear portion and an upper portion extending forwardly from said rear portion, and a locking block which is pivotally suspended from said upper portion of the guide block in front of said rear portion thereof, and a seat in the drawhead onto which said locking block is adapted to swing for supporting the locking device in raised position, substantially as set forth.

3. In a car coupler, the combination with a drawhead, and a horizontally swinging knuckle having a tail extending into the drawhead, of a locking device for the knuckle consisting of a guide block which is movable vertically in the drawhead and has an upright rear portion and an upper portion extending forwardly from said rear portion, and a locking block which is pivotally suspended from said upper portion of the guide block in front of said rear portion thereof, a seat in the drawhead onto which said locking block is adapted to swing for supporting the locking device in raised position, and an operating device for the locking device which is located at the lower portion of the coupler and is connected with said upright rear portion of the guide block, substantially as set forth.

4. In a car coupler, the combination with a drawhead, and a horizontally swinging knuckle having a tail extending into the drawhead, of a locking device for the knuckle consisting of a guide block which is movable vertically in the drawhead and a combined locking and lock set block which is pivoted to said guide block, and a seat onto which said locking and lock set block is adapted to swing for supporting the locking device in raised position, said locking and lock set block being adapted to wedge in between the knuckle tail and part of the drawhead for locking the knuckle, and said guide block having a part adapted to engage the knuckle for limiting said wedging action of the locking and lock set block, substantially as set forth.

5. In a car coupler, the combination with a drawhead, and a horizontally swinging knuckle having a tail extending into the drawhead, of a locking device for the knuckle consisting of a guide block which is movable vertically in the drawhead and has an upright portion and an upper portion extending laterally from said upright portion, and a locking block which is pivotally suspended from said upper portion of the guide block, and an operating device for the locking device which is located at the lower portion of the coupler and extends upwardly at one side of the locking block and engages the upwardly extending portion of said guide block, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,132,384. METHOD OF MANUFACTURING STAMPING OR PRINTING DIES OR PLATES OR BLOCKS. JOSEF RICHTER, Geneva, Switzerland. Filed May 29, 1911. Serial No. 630,114. (Cl. 101—178.)

1. A method of making a printing plate consisting in forming from acetyl cellulose soluble in acetone and camphor substitutes a hard solid body or mass having very slight plasticity, said acetone and camphor substitutes being used in quantities not sufficient for dissolving the acetyl cellulose, the materials and proportions being specially selected so as to give a body having a softening point of over 60° and below 100° C., then heating the said hard solid body to a point above the point at which it becomes plastic and nearly to the point at which it is made pasty by said heating, and while so heated forming it into a printing plate.

2. A method of making a printing plate consisting in forming from acetyl cellulose soluble in acetone and camphor substitutes a hard solid body or mass having very slight plasticity, said acetone and camphor substitutes being used in quantities not sufficient for dissolving the acetyl cellulose, the materials and proportions being specially selected, together with the addition of more than 50 per cent. of filling materials, so as to give a body having a softening point of over 60° and below 100° C., then heating the said hard solid body to a point above the point at which it becomes plastic and nearly to the point at which it is made pasty by said heating, and while so heated forming it into a printing plate.

3. A method of making a printing plate consisting in forming from acetyl cellulose soluble in acetone and camphor substitutes a hard solid body or mass having very slight plasticity, said acetone and camphor substitutes being used in quantities not sufficient for dissolving the acetyl cellulose, the materials and proportions being specially selected so as to give a body having a softening point of over 60° and below 100° C., then heating said hard solid body or mass to a point above the point at which it becomes plastic and nearly to the point at which it is made pasty by said heating and while so heated subjecting it to pressure against an object adapted to mold it into the desired form.

4. A method of making a printing plate consisting in forming from acetyl cellulose soluble in acetone and camphor substitutes a hard solid body or mass having very slight plasticity, said acetone and camphor substitutes being used in quantities not sufficient for dissolving the acetyl cellulose, the materials and proportions being specially selected, together with the addition of more than 50 per cent. of filling materials, so as to give a body having a softening point of over 60° or below 100° C., then heating said hard solid body or mass to a point above the point at which it becomes plastic and nearly to the point at which it is made pasty by said heating and while so heated subjecting it to pressure against an object to mold it into the desired form.

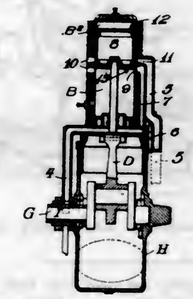
1,132,385. SPARK-PLUG. OTTO RICKMEYER, Milwaukee, Wis. Filed Feb. 18, 1914. Serial No. 819,537. (Cl. 123—169.)



1. In a spark plug and in combination with an electrode thereof, a cleaning device mounted on such electrode and comprising a body having intersecting longitudinal and transverse openings forming a plurality of scraping edges, the transverse opening extending through and intersecting the side face of the body.

2. In a spark plug and in combination with an electrode thereof, a cleaning device mounted on such electrode and free to turn and move longitudinally thereon, such cleaning device consisting of a body having intersecting longitudinal and transverse openings forming a plurality of scraping edges, the transverse opening extending through and intersecting the side face of the body.

1,132,386. DOUBLE-ACTING INTERNAL-COMBUSTION ENGINE. ALBERT RIGAUD, Lille, France. Filed Oct. 6, 1911. Serial No. 653,173. (Cl. 123—61.)



1. A double acting two-stroke internal combustion engine comprising a plurality of working cylinders, a pump cylinder for each working cylinder, a piston for each working cylinder, a piston for each pump cylinder connected to be actuated by the respective working cylinder piston, a crank shaft with which the pump cylinder pistons are connected, said crank shaft being tubular and adapted to supply the explosive charge for the working cylinders, connections from the crank shaft to the pump cylinders for supplying explosive charge to the pump cylinders during the intake stroke of the pump pistons, means for cutting off the supply during the compression stroke of the pump pistons and connections for supplying the explosive charge from the pump cylinders to respective adjacent working cylinders and then to the coöperating working cylinders of the respective pump cylinders.

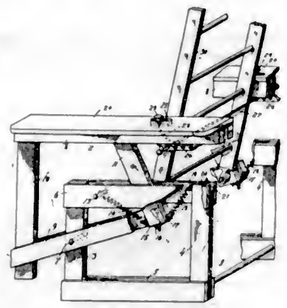
2. A double acting two stroke internal combustion engine comprising a plurality of working cylinders, a pump cylinder arranged in line with each of said working cylinders, means for connecting the piston in each of said working cylinders with the piston in the corresponding pump cylinder, means for coupling said connected pistons with the crank shaft, means for conducting compressed gas from each pump cylinder to the upper end of an adjacent working cylinder, means for conducting compressed gas from each pump cylinder to the lower end of its own working cylinder, and means for distributing the compressed charge from each pump cylinder to the two conducting means alternately.

3. A double acting two stroke internal combustion engine comprising a plurality of double acting working cylinders, a hollow crank shaft, a pump cylinder arranged in line with each of said working cylinders, means for feeding each end of each of said working cylinders with compressed gas from the pump cylinders, means for distributing gas to each of said pump cylinders, said means consisting of a port communicating with the interior of the hollow crank shaft of the engine, a valve member surrounding the crank shaft adjacent to said port, and distributing pipes connecting said valve member with said pump cylinders.

1,132,387. ROCKING-CHAIR. ELMER ROBBINS, Portland, Oreg. Filed Feb. 24, 1913. Serial No. 750,438. (Cl. 155—31.)

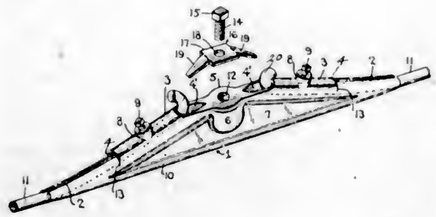
In a rocking chair in combination, a stationary support, a chair mounted to oscillate in said support around a point near the front thereof, a seat carried by said chair, said chair at the rear thereof adapted to form a brace, and a spring mechanism for cushioning the movements of said chair comprising a spring engaging said chair at the

rear of said brace, a spring attached to said chair in front of said brace and a buckle connecting said springs,



said buckle being arranged substantially beneath said brace.

1,132,388. COUPLING OR SPLICE FOR TROLLEY-WIRES. GEORGE W. ROBINSON, Baltimore, and MILTON E. HARDING, Odenton, Md. Filed May 12, 1914. Serial No. 838,134. (Cl. 191—44.)



1. A wire coupling comprising a member formed with a substantially straight under side, and a trough at each end normally open at the top, and inclined sleeves adjacent to said troughs and forming substantially a continuation thereof, said sleeves being open at their upper ends and provided with clamping screws to assist in holding the ends of the wire, the upper edges of the troughs being adapted to be bent or folded over the wire.

2. A wire coupling comprising a body having a substantially straight under side, and provided at its top with inclined sleeves, open at both ends and troughs at the ends with open upper sides to receive the wire, there being slits in the sides of the trough adjacent to the lower ends of the sleeves, whereby the bending of the upper edges of the trough over the end of the wire is facilitated, and means for holding the ends of the wire in the sleeve.

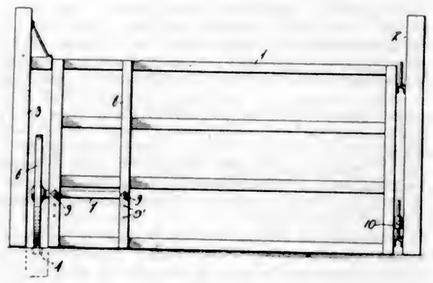
3. A wire coupling comprising a member having a straight under side, and a straight upper central portion, and inclined sleeves open at both ends, the upper ends opening into the straight central portion of the member, a boss in the straight portion of said member and below the open upper ends of said sleeves, a trough at each end of the member with open upper sides to receive the wire, the upper edges of said troughs being adapted to be bent or folded over the wire, and clamp screws carried by the sleeves for holding the ends of the wire therein.

4. A coupling of the kind described, comprising a member having a substantially straight under surface, a flat central portion, a sleeve on each side of said flat portion, and opening into said portion, a boss in the central portion of the member, terminating at its upper end below the openings in the upper ends of the sleeves, a trough at each end of the member having slits in its sides adjacent to the lower open ends of the sleeves, the upper edges of the trough being adapted to bend or fold over the wire, and clamp screws carried by the sleeves for holding the ends of the wire in said sleeves.

5. In combination with a coupling of the kind described, having sleeves for the passage of the ends of the wire, of a clamping device having portions adapted to be simultaneously projected between the ends of the wire and the sleeves, to clamp said wire against the sleeves.

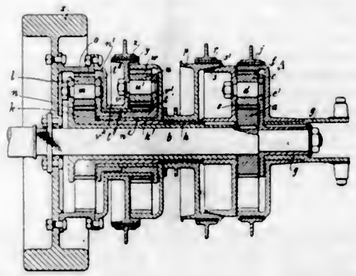
[Claims 6 to 9 not printed in the Gazette.]

1,132,389. GATE. ABRAHAM J. ROSS, Springfield, Ohio. Filed Jan. 17, 1914. Serial No. 812,776. (Cl. 39—8.)



A device of the class described including a gate having inner and outer vertically disposed members, each provided with a series of vertically alined apertures, an axle arranged between and transversely of said members and having one of its ends projecting beyond the longitudinal edge of the said outer member, a rolling support mounted on the extended portion of the axle, a member having a depression disposed beneath the tread of the rolling support for receiving said support, and means passing through the apertures of the inner and outer members and through said axle for permitting a vertical adjustment of the rolling support in a direction toward or away from the last named member thereby controlling the locking of said gate.

1,132,390. CHANGE-SPEED AND REVERSING GEARING. FREDERICK HENRY ROYCE, Derby, England. Filed Nov. 25, 1913. Serial No. 802,938. (Cl. 74—34.)



1. In change speed gearing of the epicyclic type, the combination with a driving and a driven member, of a primary train comprising a sun wheel in driving connection with the driving member, disks in driving connection with the driven member, planet wheels carried by said disks, an internally toothed annulus revolubly mounted on the driven member, and means for holding said annulus stationary, of a second train comprising an internally toothed annulus in driving connection with the driving member, disks in driving connection with the disks of the

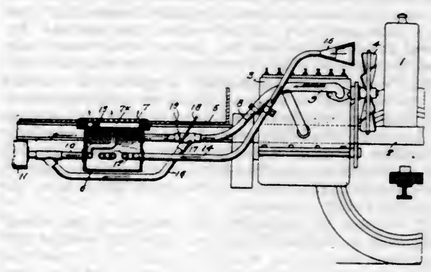
primary train, planet wheels carried by said disks, a sun wheel revolubly mounted in relation to the driving member, and means for holding said sun wheel against rotation, of a third train comprising a sun wheel mounted in driving connection with the annulus of the second train, disks revolubly mounted in relation to the driving member, planet pinions carried by said disks, means for holding said disks against rotation, and an internally toothed annulus in driving connection with the disks of the primary train, and of a clutch for coupling together the sun wheel and the disks of the secondary train.

2. In change speed gearing of the epicyclic type the combination with a driving and a driven member, of a primary train comprising a sun wheel in driving connection with the driving member, disks in driving connection with the driven member, planet wheels carried thereby, an internally toothed annulus revolubly mounted on the driven member, and means for holding said annulus stationary, of a second train comprising an internally toothed annulus in driving connection with the driving member, disks in driving connection with the disks of the primary train, planet wheels carried thereby, a sun wheel revolubly mounted in relation to the driving member, a clutch for coupling said sun wheel to the disks, and means for holding said sun wheel against rotation, and of a third train comprising a sun wheel mounted in driving connection with the annulus of the second train, disks revolubly mounted in relation to the driving member, planet pinions carried thereby, means for holding said disks against rotation, and an internally toothed annulus in driving connection with the disks of the primary train through the disks of the secondary train.

3. In change speed gearing of the epicyclic type, the combination with the driving and driven members, of an epicyclic train comprising a sun wheel mounted on and in driving connection with the driving member, disks in driving connection with the member to be driven, planet pinions carried thereby, an internally toothed annulus revolubly mounted in relation to the driven member, and means for holding said annulus against rotation, of a second epicyclic train comprising an internally toothed annulus in driving connection with the driving member, disks in driving connection with the disks of the primary train, planet pinions carried thereby, a sun wheel revolubly mounted in relation to the driving member, and means for holding said sun wheel against rotation, of a third epicyclic train mounted between the two aforesaid trains and comprising a sun wheel mounted in driving connection with the annulus of the second train, disks revolubly mounted in relation to the driving member, planet pinions carried thereby, and means for holding said disks against rotation, and of a clutch located between the first and second epicyclic trains and adapted to couple the sun wheel of the secondary epicyclic train with the disks of the same train.

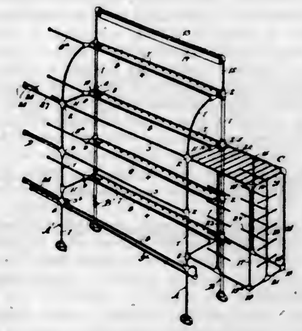
4. In change speed gearing of the epicyclic type the combination with a driving shaft and a driven shaft, of a primary train comprising a sun wheel mounted on and in driving connection with the driving shaft, disks revolubly mounted on the driving shaft but in driving connection with the driven shaft, planet pinions carried thereby, an internally toothed annulus revolubly mounted on the driven shaft, and a friction brake for holding said annulus stationary, of a second train comprising an internally toothed annulus mounted in driving connection with the driving shaft, disks one of which is revolubly mounted on the driving shaft and is in driving connection with one of the disks of the primary train, planet pinions carried thereby, a sun wheel revolubly mounted in relation to the driving shaft, a drum in driving connection with said sun wheel, and a friction brake for holding said drum stationary, of a third train comprising a sun wheel mounted in driving connection with the annulus of the second train, disks revolubly mounted in relation to the driving shaft, planet pinions carried thereby, a drum carried by one of said disks, a friction brake for holding said drum stationary, and an internally toothed annulus mounted in driving connection with one of the disks of the second train, and of a sliding clutch for coupling the sun wheel of the secondary train to one of the disks carrying the planet pinions of same train.

1,132,391. AUTOMOBILE HEATING DEVICE. EDGAR RUTTLE, Covington, Ky. Filed Oct. 12, 1914. Serial No. 866,329. (Cl. 237—21.)



The combination with an automobile having an engine and a fan, of a casing disposed beneath the floor of the automobile, a register, a coil within said casing having its upper end terminating just beneath said register and being in communication with said register, a pipe for supplying the coil with fresh air, said pipe having a funnel disposed in close proximity to the fan into which the air from the fan is driven, an exhaust pipe communicating at one end with the exhaust manifold of the engine and at the other end with the interior of the casing on one side thereof, a discharge pipe leading from the other side of the casing, a by-pass around the casing communicating at one end with the exhaust pipe and at the other end with the discharge pipe, a valve disposed at the junction of the by-pass with the exhaust pipe, a handle for operating said valve, and means for locking the handle in its shifted position, the movement of the valve serving to direct the products of combustion either through the casing or through the by-pass.

1,132,392. AX-DISPLAY STAND. CLARENCE LEMUEL SAMUEL, Pryor, Okla. Filed Nov. 28, 1913. Serial No. 803,497. (Cl. 211—14.)



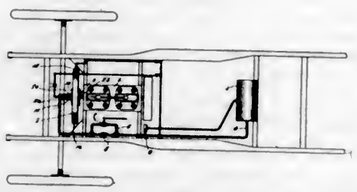
1. A display stand comprising front and rear standards at each end of the stand, and each standard consisting of pipe sections united by couplings, transverse members connected with the couplings of front and rear standards, longitudinal members connected with the couplings of the front standard, horizontal longitudinal members connected with the transverse members and disposed

respectively above the corresponding front longitudinal members, and notched horizontal bars disposed adjacent the last-mentionel members and fastened to the couplings of the rear standard.

2. A display stand comprising front and rear standards at each end of the stand, and each standard consisting of pipe sections united by couplings, transverse members connected with the couplings of front and rear standards, longitudinal members connected with the couplings of the front standard, horizontal longitudinal members connected with the transverse members and disposed respectively above the corresponding front longitudinal members, notched horizontal bars disposed adjacent the horizontal longitudinal members and fastened to the couplings of the rear standard, outwardly-extending article-holding members connected with the couplings of the front standards, notched bars on such outwardly-extending members, and additional outwardly-extending members disposed parallel with the last-mentioned notched bars and connected with the transverse members of the adjacent end of the stand.

3. A stand for displaying axes, comprising rear standards made of sections of pipe and couplings, notched bars extending between the standards, clips on the bars and engaged with the couplings for supporting the bars, bars attached to the standards and disposed in front of the notched bars for suporting the heads of axes with the blades of the axes disposed in the notches of the bars, front standards, and bars extending between and connected with the front standards for supporting the handles of the axes.

1,132,393. CONVERTIBLE MOTOR AND PUMP. EARL T. SCHMUCKER, Hawarden, Iowa. Filed Sept. 9, 1913. Serial No. 788,856. (Cl. 230—37.)

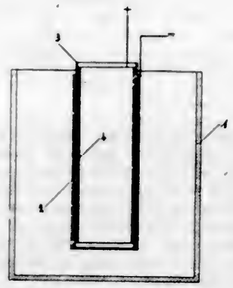


1. A combined motor and compressor, the same comprising a plurality of cylinders connected and mounted to rotate, means for holding the cylinders stationary when the device is working, piston arranged to reciprocate within the cylinders, a shaft in line with the axis, about which the cylinders rotate and having a crank portion with which the said pistons are connected, a casing rotatable with the cylinders and having connection with the outer ends thereof, a plug valve mounted within the said casing and having connection with the before mentioned shaft to rotate therewith, and a second valve movable within the plug valve and adapted to direct the motive medium to the cylinders or the compressed air from such cylinders.

2. A combined motor and compressor comprising a plurality of cylinders connected to move in unison and mounted to rotate, means for holding the cylinders stationary when the device is working, pistons arranged to reciprocate within the cylinders, a shaft in line with the axis of the cylinders and having a crank portion with which the said pistons are connected, a casing rotatable with the cylinders and having connection with the outer ends thereof, a plug valve mounted within the casing and rotatable with the before mentioned shaft and having openings, and a second valve movable with reference to the plug valve to control the openings thereof to admit of the device being utilized either as a motor or compressor.

3. A combined motor and compressor, the same comprising a plurality of connected cylinders mounted to rotate, means for holding the cylinders stationary when the device is working, a shaft in line with the axis of the cylinders and having a crank, pistons arranged to operate in the cylinders and having connection with the said crank, a valve casing rotatable with the cylinders and having connection with the outer ends thereof, branch tubes having check valves in their length and forming connecting means between the valve casing and the connecting means between such valve casing and the outer ends of the cylinders, a plug valve mounted in the valve casing and connected with the before mentioned shaft and provided with openings to register with the branch tubes and the main connections between the valve casing and cylinders and a second valve movable in the plug valve for controlling the openings thereof.

1,132,394. MANUFACTURE OF CHEMICALLY-PURE SOLUBLE SILICIC ACID. BOTHO SCHWERIN, Frankfort-on-the-Main, Germany, assignor to Elektro-Osmose A. G. (Graf Schwerin Gesellschaft), Frankfort-on-the-Main, Germany, a Corporation. Filed Apr. 18, 1914. Serial No. 832,942. (Cl. 204—9.)

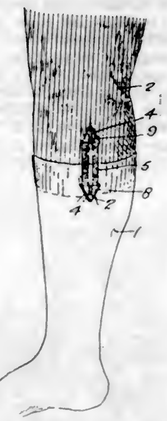


The method of manufacturing chemically pure soluble silicic acid consisting in subjecting to the action of the electric current an alkaline silicate solution in the anode compartment of a cell provided with a diaphragm of such potential as will allow the migration therethrough of alkali but prevent the migration of silicic acid, and in subsequently subjecting the silicic acid so obtained to the action of the electric current in a cathode compartment of a cell provided with a diaphragm of such potential as will admit of the migration therethrough of acid residues, but prevent migration of the soluble silicic acid.

1,132,395. HOSE-SUPPORTER. EPHRAIM SCUDDER and CLARENCE M. COBLEW, Sioux Falls, S. D., assignors of one-third to Jerry Carleton, Sioux Falls, S. D. Filed Oct. 3, 1914. Serial No. 864,769. (Cl. 24—81.)

1. A hose supporter, comprising a pair of clasps, each clasp consisting of a piece of resilient wire bent to form a substantially triangular frame, and a clasp proper within the frame, said clasp being formed by a reëntrant portion of one of the sides of the frame, said reëntrant portion consisting of gripping jaws lying alongside each other and approximately perpendicular to the side of the frame with which they are connected, the wire at the connected ends of the said jaws being bent to form an open loop or eye, said clasps being arranged with the sides having the reëntrant portions adjacent, and strips of elastic fabric material connecting the said sides one on each side of the reëntrant portion.

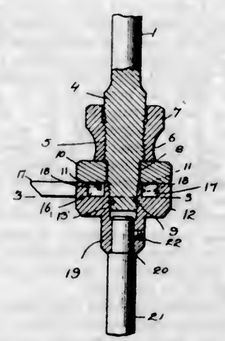
2. A hose supporter, comprising a pair of clasps and a plurality of elastic strips connecting the clasps, each clasp consisting of an open frame of resilient wire, the adjacent sides of the frames having reëntrant portions lying within the frames, and each reëntrant portion comprising two members or gripping jaws lying alongside each other and connected at the ends remote from the side to which they are connected, said connection being a loop or eye and the elastic strips being arranged at each side of the gripping jaws.



3. A hose supporter, comprising a pair of clasps, and a flexible connection between the clasps, each clasp consisting of an open frame of resilient wire, the adjacent sides of the frames having reëntrant portions lying within the frame, and each reëntrant portion comprising two members or gripping jaws lying alongside each other and connected at the ends remote from the sides to which they are connected.

4. A hose supporter, comprising a pair of clasps, and a flexible connection between the claps, each clasp consisting of an open frame of resilient wire, the adjacent sides of the frames having reëntrant portions lying within the frame, and each reëntrant portion comprising two members or gripping jaws lying alongside each other and connected at the ends remote from the sides to which they are connected, the said flexible connection comprising flexible strips of equal length arranged alongside each other and spaced apart.

1,132,396. ADJUSTABLE VALVE RESEATING OR MILLING TOOL. CHARLES I. SEDLMAYER and JOHN W. BROOKS, Stamford, Conn. Filed Oct. 29, 1913. Serial No. 797,954. (Cl. 83—64.)



1. An adjustable valve reseating or milling tool comprising a rotatable bar, an annular cutter knife receiving plate detachably secured to the lower terminal of said bar, said plate provided with a plurality of cutter knife receiving grooves formed therein at right angles to each other, a plurality of cutting knives mounted within the grooves and extending outwardly from the plate, said cutter knives having transverse grooves formed therein at their inner terminals, means for clamping the knives in operative position, removably mounted upon said rotatable bar and adapted for engagement within the transverse grooves in the cutter knives and means for locking said clamping means in engagement with the cutter knives.

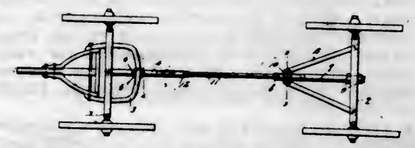
2. An adjustable valve reseating or milling tool comprising a rotatable bar, an annular knife receiving plate detachably secured to the lower terminal of said bar and having a plurality of knife receiving grooves formed therein and disposed at right angles to each other, said grooves communicating with each other at their inner terminals, cutter knives mounted within the grooves and disposed flush with the upper face of the plate, a washer adjusting plate mounted upon said bar, means carried by said washer adjusting plate for simultaneously locking said knives within the grooves, and a locking sleeve threaded upon said bar and adapted for engagement with the washer adjusting plate, a handle carried at the upper terminal of said bar.

1,132,397. BUTTONHOLE-STRIP. ROY W. SEXTON, Wytheville, Va. Filed Aug. 7, 1912. Serial No. 713,725. (Cl. 2—57.)



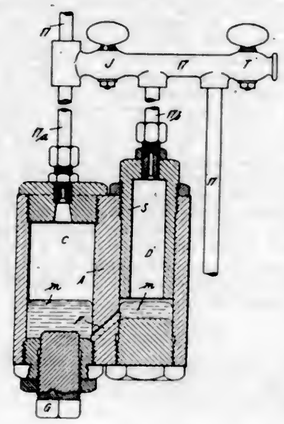
A button hole strip comprising a single piece of fabric folded to form three strips integrally connected edge to edge and all having the same proximate width, one of said strips forming an outer ply, another of said strips being bent upon said outer ply and forming an inner ply, and another of said strips overlapping said inner ply and forming a second outer ply, said last mentioned strip being further provided with an edge portion bent back upon it and engaging said inner ply so as to form an outer terminal edge, said piece of fabric being provided with stitched button holes, the stitching of each button hole extending through all three of said strips only and holding the same together as a three-ply structure thereby omitting engagement with said folded terminal edge.

1,132,398. METAL WAGON-REACH. RALPH C. SHARP, Independence, Kans. Filed July 1, 1913. Serial No. 776,817. (Cl. 21—39.)



A reach comprising a pole section, a sleeve adjustably receiving the pole section, means for fixing the sleeve with relation to the pole section, spaced collars mounted upon the exterior of the sleeve, an axle turnably mounted on the sleeve between the collars, a loop turnably mounted on the forward portion of the sleeve, and hounds connected with the loop and the axle at the opposite sides of the sleeve.

1,132,399. APPARATUS FOR MEASURING THE FLOW OF LIQUIDS IN CLOSED CONDUITS. FRED SIMPSON, Blundellsands, near Liverpool, and ARTHUR R. T. WOODS, Harrow, near London, England. Filed Mar. 18, 1911. Serial No. 615,334. (Cl. 73—31.)



1. In combination; a liquid pressure measuring gage of the type referred to, a U tube containing mercury, a pair of tubes connecting the respective legs of the U tube to one leg of the gage, and a by-pass cock, located in the latter leg between its junctions with the said pair of tubes; substantially as described.

2. In combination; a liquid pressure measuring gage of the type referred to, a U tube containing mercury arranged in series with one leg of the gage, and a detachable liner fitted fluid-tightly in one or both legs of the U tube, so that the proportions or forms of the legs thereof can be readily altered; substantially as described.

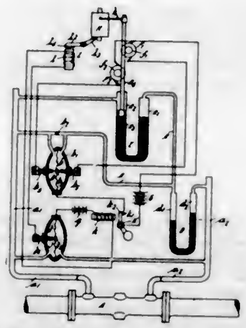
3. In combination; a liquid pressure measuring gage of the type referred to, and a U tube containing mercury arranged in series with one leg of the said gage, one or both legs of the said U tube being of varying cross sectional area so that the length of the gage readings may be made proportional to any desired function of the pressure; substantially as described.

4. In combination; a liquid pressure measuring gage of the type referred to, a U tube containing mercury with one or both legs of varying cross sectional area, a pair of tubes connecting the respective legs of the U tube to one leg of the gage, and a by-pass cock located in the latter leg between its junctions with the said pair of tubes; substantially as described.

1,132,400. APPARATUS FOR INDICATING AND RECORDING SMALL DIFFERENCES OF FLUID-PRESSURE AND FOR OPERATING INTEGRATING OR CONTROL DEVICES WHICH HAVE TO BE REGULATED BY THE SAID DIFFERENCES OF PRESSURE. FRED SIMPSON, Blundellsands, near Liverpool, England. Filed May 17, 1913. Serial No. 768,388. (Cl. 234—20.)

1. Apparatus actuated by small differences of pressure, consisting of a displacement gage one side of which is connected to one of the fluids the pressure of which is to be measured; a second displacement gage one side of which is connected to the other fluid the pressure of which is to be measured; an inclosed space connecting the remaining two sides of the displacement gages together and containing a fluid which is isolated from the pressures to be measured; a device for varying the pressure of the said isolated fluid; and means controlled by the movement of one of the said gages for operating the said device; substantially as described.

2. Apparatus actuated by small differences of pressure, consisting of a displacement gage one side of which is connected to one of the fluids the pressure of which is to be measured; a second displacement gage one side of which is connected to the other fluid the pressure of which is to be measured; an inclosed space connecting the remaining two sides of the displacement gages together and containing a fluid which is isolated from the pressures to be measured; a device for varying the pressure of the said isolated fluid; means controlled by the movement of one of the said gages for operating the said device; and a third displacement gage the opposite sides of which are connected to the fluid pressures to be measured, the movement of said gage being adapted to cut out of action the means for operating the controlling device, substantially as described.



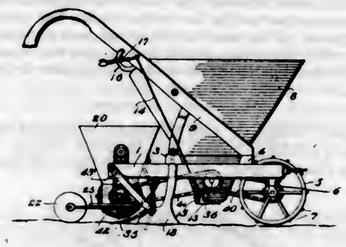
3. Apparatus for indicating, recording and utilising for control purposes small differences of pressure, consisting of a displacement gage one side of which is connected to one of the fluids the pressure of which is to be measured; a second displacement gage one side of which is connected to the other fluid the pressure of which is to be measured; an inclosed space connecting the remaining two sides of the displacement gages together and containing a fluid which is isolated from the pressures to be measured; a device for varying the pressure of the said isolated fluid; means controlled by the movement of one of the said gages for imparting movement to the operative part of the controlling device, and indicating, recording and controlling means operated by the said moving part, substantially as described.

4. Apparatus for indicating, recording and utilising for control purposes small differences of pressure, consisting of a displacement gage one side of which is connected to one of the fluids the pressure of which is to be measured; a second displacement gage one side of which is connected to the other fluid the pressure of which is to be measured, an inclosed space connecting the remaining two sides of the displacement gages together and containing a fluid which is isolated from the pressures to be measured; a device for varying the pressure of the said isolated fluid; means controlled by the movement of one of the said gages for imparting movement to the operative part of the controlling device; indicating, recording and controlling means operated by the said moving part; and a third displacement gage the opposite sides of which are respectively connected to the fluid the pressure of which has to be measured, and the movement of which is adapted to cut out of action the means for operating the controlling device and the indicating, recording and controlling devices; substantially as described.

5. Apparatus actuated by small differences of pressure, consisting of a displacement gage one side of which is connected to one of the fluids the pressure of which is to be measured; a second displacement gage one side of which is connected to the other fluid the pressure of which is to be measured; an inclosed space connecting the remaining two sides of the displacement gages together and containing a fluid which is isolated from the pressures to be measured; a device for varying the pressure of the said isolated fluid; an electrically controlled organisation for actuating the said device; and means controlled by the moving part of one of the said gages for controlling the supply of current to the said organization, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

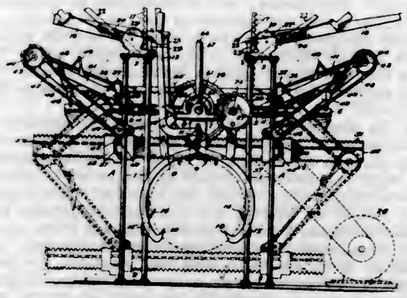
1,132,401. COMBINED PLANTER AND FERTILIZER-DISTRIBUTER. HUGH C. STANTON, Dillon, S. C. Filed June [illegible], 1911. Serial No. 634,995. (Cl. 111—7.)



1. In a seed planter, the combination with a seed hopper having a discharge outlet at the bottom, of a furrow opener mounted in advance of said hopper, vertically adjustable leveling wings extending laterally from said furrow opener above its bottom to level the earth at the sides and to secure a uniform furrow, and covering arme projecting from said furrow opener around said discharge outlet and adapted to enter the ground at the rear of said outlet and to turn the earth to cover the seed deposited in the furrow.

2. In a device of the class described, the combination with a frame, of rearwardly extending arms hinged thereto so as to permit vertical motion, a roller connecting said arms at their rear ends, a seed hopper carried by said arms in advance of said roller, and a furrow opener adjustably secured to the front side of said hopper.

1,132,402. MOTOR SAWING-MACHINE. GEORGE M. STARNES, Little Rock, Ark. Filed May 11, 1911. Serial No. 626,569. (Cl. 143—68.)



1. In a sawing machine, a frame work including supporting standards, slides mounted upon the standards and having clamping means, a main frame adjustably supported on said slides, other saw carrying slides mounted upon the standards, a saw carried by said slides, jointed levers connecting the first mentioned slides to said other slides, and saw driving mechanism carried by the main frame and operatively connected with the saw.

2. In a sawing machine, a framework including spaced standards, slides mounted upon the standards and having clamping means, a main frame adjustably supported upon said slides, other slides mounted upon the standards and having saw guides, a saw carried by said guides, jointed levers connecting the first mentioned slides to said other slides, and saw driving mechanism carried by the main frame.

3. In a device of the character described, the combination of spaced standards, slides mounted upon the standards and formed with guides, a reciprocating bar extending between the slides and operating through the guides, a main frame supported by the said slides, means upon the main frame for imparting a reciprocating movement to the bar, a saw, and an operative connection between the saw and the reciprocating bar.

4. In a device of the character described, the combination of a pair of standards adapted to fit upon opposite sides of a member to be sawed, a main frame arranged between the standards, guide brackets carried by the standards, pinions journaled upon the guide brackets, a reciprocating rack bar operating through the guide brackets and engaging the pinions, means upon the main frame for driving the reciprocating rack bar, slides mounted upon the standards and formed with saw guides, a saw mounted within the saw guides, jointed levers connecting the guide brackets to the said slides, and gearing carried by the jointed levers for transmitting power from the before mentioned pinions to the saw.

5. In a device of the character described, the combination of a pair of standards adapted to fit upon opposite sides of a member to be sawed, slides mounted upon the standards and formed with guide brackets, pinions journaled upon the guide brackets, a reciprocating rack bar operating through the guide brackets and engaging the pinions, a rod connecting the slides, a main frame mounted upon the rod, means upon the main frame for driving the reciprocating rack bar, a second set of slides mounted upon the standards and formed with saw guides, a saw blade mounted within the said saw guides, jointed levers connecting the first mentioned slides to the second mentioned slides, and gearing carried by the jointed levers for transmitting power from the pinions to the saw blade.

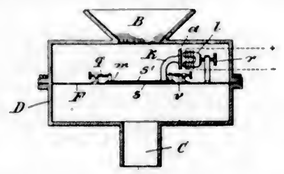
[Claims 6 to 11 not printed in the Gazette.]

1,132,403. GAME APPARATUS. ISAAC FRANKLIN STILL, Ossining, N. Y. Filed Oct. 29, 1914. Serial No. 869,230. (Cl. 46—21.)



In a game apparatus, a map having marks thereon indicating localities, a pack of cards, each card having marks thereon indicating the name of a locality shown on the map at which it is normally disposed, the name of a product of that locality together with marks indicating the best method and the cost of shipping the commodity, and a second pack of cards, each card of the second pack having indicated thereon an order for a product referred to on one of the cards of the first pack with the name of the locality where it may be obtained and the best method and cost of shipment.

1,132,404. ELECTROPNEUMATIC SOUND-BOX. CURT STILLE, Zehlendorf-West, near Berlin, Germany. Filed Apr. 24, 1913. Serial No. 763,377. (Cl. 179—113.)



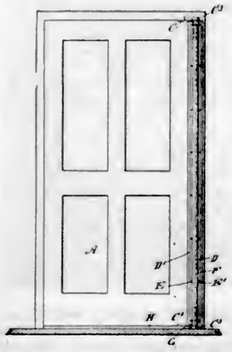
1. In a sound transmitting apparatus the combination of a casing providing an air blast passage, a stationary grate mounted in said casing, a movable grate associated with said stationary grate, and a sound transmitting electro-magnet associated with said movable grate and controlling the operation thereof.

2. In a sound transmitting apparatus the combination of a casing providing an air blast passage, a diaphragm mounted in said casing and having a grate section, a movable grate mounted on said diaphragm, and a sound transmitting electro-magnet associated with said movable grate and controlling the operation thereof.

3. In a sound transmitting apparatus the combination of a casing providing an air blast passage, a diaphragm mounted in said casing and having a grate section, a movable grate having flexible suspension on said diaphragm and disposed immediately adjacent the grate section thereof, and a sound transmitting electro-magnet for imparting rectilinear vibratory motion to said movable grate.

4. In a sound transmitting apparatus the combination of a casing providing an air blast passage, a diaphragm mounted in said casing and having a grate section, a movable grate having flexible suspension on said diaphragm and disposed immediately adjacent the grate section thereof, and a sound transmitting electro-magnet mounted on the diaphragm and having its armature mounted on the movable grate for imparting rectilinear vibratory motion to said movable grate.

1,132,405. CLOSING DEVICE FOR DOORS. CHARLES W. STITES, New York, N. Y. Filed Mar. 30, 1914. Serial No. 828,238. (Cl. 20—16.)

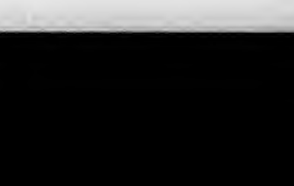


1. A closing device for doors, comprising a vertically-disposed cylindrical covering member provided at one side with an attaching flange adapted to be secured to the face of the door adjacent the hinge side thereof, the said covering member having its vertical center line coinciding with the axis of the door hinges, and a trimming strip on the door jamb and fitting against the peripheral face of the said vertical member throughout the length thereof, the trimming strip corresponding in shape to the said attaching flange.

2. A closing device for doors, comprising a vertically-disposed cylindrical covering member provided at one side with an attaching flange adapted to be secured to the face of the door adjacent the hinge side thereof, the said covering member having its vertical center line coinciding with the axis of the door hinges, the upper and lower ends of the said cylindrical member being cut along the inner portions to straddle the shanks of the hinge leaves attached to the door.

3. A closing device for doors, comprising a vertically-disposed cylindrical covering member provided at one side with an attaching flange adapted to be secured to the face of the door adjacent the hinge side thereof, the said covering member having its vertical center line coinciding with the axis of the door hinges, the upper and lower ends of the said cylindrical member fitting over the hinge ears and having cut-out portions fitting the shanks of the said ears.

1,132,406. DISPLAY AND VENDING APPARATUS FOR SPECTACLES. DANIEL D. SULLIVAN, Fargo, N. D. Filed June 20, 1914. Serial No. 846,328. (Cl. 88—22.)



1. An apparatus of the class described, comprising a revoluble wheel consisting of a pair of spaced arms, a test card holder adjustably located intermediate the peripheral face and the axis of the wheel, and a stationary eye-piece extending across the peripheral face of the wheel, the test card and the eye-piece being in the same line of vision.

2. An apparatus of the class described, comprising a revoluble wheel having a pair of spaced rims, an adjustable holder for a test card mounted on the axis thereof and arranged intermediate the axis of the wheel and the spaced rims thereof, and a fixed eye-piece extending across the said rims and having openings intermediate the rims, the said openings and the said test card being in the same line of vision.

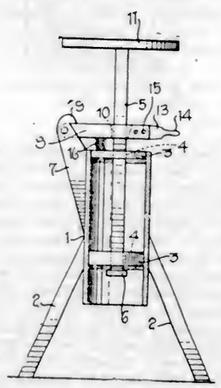
3. An apparatus of the class described, comprising a revoluble wheel consisting of a pair of spaced rims, said rims provided with means for singly holding instruments of vision and arranged to hold the lenses of the instruments approximately tangentially and clear of the peripheral face of the wheel, a test card holder adjustably disposed intermediate the periphery and the axis of the wheel, and a fixed eye-piece with which the instruments are adapted to register on turning the wheel, the eye-piece extending across the periphery of the wheel and parallel to the test card and the instrument in register at the time with the eye-piece.

4. An apparatus of the class described, comprising a stand having a fixed axle, a wheel having a pair of spaced rims mounted to turn on the said axle, a test card holder adjustably mounted on the said axle and adapted to hold a test card approximately parallel to the axle, means for holding instruments of vision on the said rims and with the lenses of the instruments intermediate the said rims and tangential thereto, and an eye-piece extending across the peripheral face of the rims and approximately parallel to the said test card, the said eye-piece having a supporting arm fixed on the said axle and the said eye-piece having openings intermediate the said wheel rims and adapted to register with the lenses of any one of the said instruments of vision on rotating the wheels.

5. An apparatus of the class described, comprising a stand having a fixed axle, a wheel having a pair of spaced rims mounted to turn on the said axle, said rims having notches in their edges, a test card holder adjustably mounted on the said axle and adapted to hold a test card approximately parallel to the axle and intermediate the axle and periphery of the wheel, means for holding instruments of vision in the notches on the said rims and with the lenses of the instruments intermediate the said rims and tangential thereto, and an eye-piece extending across the peripheral faces of the rims and approximately parallel to the said test card, the said eye-piece having a supporting arm fixed on the said axle and the said eye-piece having spaced rotatable graduated collars, the openings of which are intermediate the said wheel rims and are adapted to register with the lenses of any one of the instruments of vision on rotating the wheel, and the said collars having holders for the reception of testing lenses.

[Claim 6 not printed in the Gazette.]

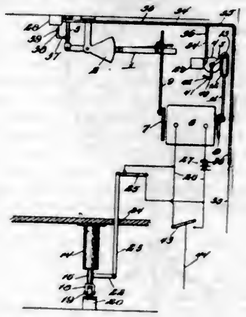
1,132,407. STOOL. BURCH A. TAYLOR, Springville, Ala. Filed Aug. 25, 1913. Serial No. 786,548. (Cl. 155—40.)



1. A stool including a base, a standard mounted within said base and capable of endwise adjustment, supporting members projecting upwardly from said base, a lever pivotally connected between such supporting members and having its outer end bifurcated, a plug removably supported between the forks of the bifurcation to produce an opening intermediate the length of the lever and through which the standard projects, one of such supporting members having its upper extremity formed to afford an abutment overlying the lever and serving to prevent upward movement thereof above the horizontal.

2. A stool including a base, a standard mounted within said base and capable of endwise adjustment, supporting members projecting upwardly from said base, a lever pivotally connected between such supporting members and having its outer end bifurcated, a plug removably supported between the forks of the bifurcation to produce an opening intermediate the length of the lever and through which the standard projects, one of such supporting members having its upper extremity formed to afford an abutment overlying the lever and serving to prevent upward movement thereof above the horizontal, and a retractible spring interposed between the top of the base and the lever and secured thereto and positioned at a point intermediate the pivotal connection of the lever and the standard.

1,132,408. TRAIN-STOPPING APPARATUS. JESSE H. UPTON, Bryson City, N. C., assignor of one-half to Joseph Tabor, Bryson City, N. C. Filed June 3, 1914. Serial No. 842,710. (Cl. 246—59.)



1. In a train stopping apparatus, the combination with a controlling element of the motor car, of a motor, a connection between said motor and controlling element whereby the latter will be operated to closed position in the operation of said motor, means for operating said motor, a latch for latching said element in actuated position, and means extending throughout the length of the train whereby the latch may be released.

2. In train stopping apparatus, the combination with a controlling element of the motor car, of a motor, a connection between said motor and controlling element whereby the latter will be operated to closed position in the operation of said motor, means for operating said motor, a latch for latching said element in actuated position, means extending throughout the length of the train whereby the latch may be released, and means concealing that portion of the releasing means within the engine cab.

3. In a train stopping apparatus, the combination with a controlling element of the motor car, of an electroresponsive device, means under the control of said device for operating said controlling element to cut off the propelling power of the car, a source of energy for said electroresponsive device, a latch for latching said element in actuated position, and means extending throughout the length of the train whereby the latch may be released.

4. In train stopping apparatus, the combination with a controlling element of the motor car, of an electroresponsive device, means under the control of said device for operating said controlling element to cut off the propelling power of the car, a source of energy for said electroresponsive device, a latch for latching said element in actuated position, means extending throughout the length of the train whereby the latch may be released, and means concealing that portion of the releasing means within the motor car.

5. In train stopping apparatus, the combination with a controlling element of the motor car, of an electroresponsive device, means under the control of said device for operating said controlling element to cut off the propelling power of the car, a source of energy for said electroresponsive device, a latch for latching said element in actuated position, means extending throughout the length of the train whereby the latch may be released, means concealing that portion of the releasing means within the motor car, a switch controlling communication between said motor and source of energy, and means for operating said switch.

[Claims 6 to 8 not printed in the Gazette.]

1,132,409. EDUCATIONAL DEVICE. SHIKANOSUKE UTSUNOMIYA, Vancouver, British Columbia, Canada. Filed Dec. 3, 1913. Serial No. 804,518. (Cl. 35—5.)

1. In an educational device, a collapsible pneumatic globe, a support therefor, and members detachably and

rotatably connecting the globe with said support, part of said members serving as filling and discharge devices.



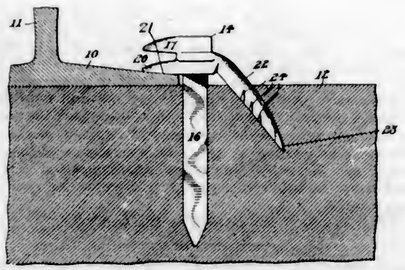
2. In an educational device, a stand, a bracket pivotally mounted upon the stand, a collapsible globe provided with inlet and discharge nipples, means connected with the nipples for detachably and rotatably mounting the globe upon the bracket, means for controlling the tilting motion of the bracket upon the stand, and means for locking the globe at any point against rotation.

3. In an educational device, a collapsible, vertically adjustable stand, a foldable bracket pivotally mounted upon the stand, a collapsible globe provided with inlet and discharge nipples, means connected with the nipples for detachably and rotatably mounting the globe upon the bracket, means for controlling the tilting motion of the bracket upon the stand, and means for locking the globe at any point against rotation.

4. In an educational device, a stand, a bracket pivotally mounted upon the stand, a collapsible globe provided with inlet and discharge nipples, means connected with the nipples for detachably and rotatably mounting the globe upon the bracket, and means for controlling the tilting motion of the bracket upon the stand.

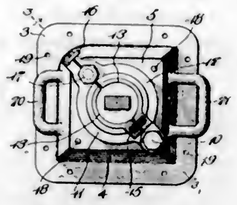
5. In an educational device, a collapsible globe, a supporting bracket therefor composed of foldable sections, a foldable stand to which the bracket is pivotally connected for the control adjustment, and means detachably and rotatably mounting the collapsible globe upon the bracket, said means serving as air inlet and discharge devices.

1,132,410. RAIL-FASTENER. JOE VIROVATZ and JOHN KIRALY, Oneida, Wis. Filed Sept. 23, 1914. Serial No. 863,150. (Cl. 85—23.)



A device of the class described comprising in combination with a railway spike having a shank rectangular in cross section and a head at one end thereof, an auxiliary head comprising a body portion having a rectangular central bore adapted for the reception of the spike shank slidably therethrough and prevented from relative rotary movement, a laterally projecting finger integrally carried at one side of said body-portion and having a rail-engaging oblique lower face, an obliquely positioned sharpened arm carried by said body-portion at the side thereof opposite to the said finger and adapted for entering engagement with the supporting tie and provided with serrations in its opposite lower edges, the said arm extending below the plane of said body-portion and finger and extending at an angle to the spike shank in assembled position to prevent a direct vertical movement of said auxiliary head and a further outward movement thereof in alinement with the longitudinal axis of the oblique arm.

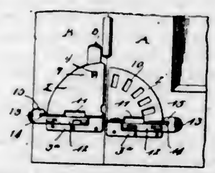
1,132,411. BEARING FOR ROOF-HOOKS. WILLIAM E. WATTS, Los Angeles, Cal., assignor of one-third to Florence W. Merrill, Long Beach, Cal., and one-third to Irving Foulks, Los Angeles, Cal. Filed July 22, 1913. Serial No. 780,497. (Cl. 64—25.)



1. A safety device for roof hooks comprising a base having a raised boss with a socket therein, means to secure the base to a support, a pair of swinging retaining members for holding a hook ball in the socket, means for clamping the free ends of the members against the boss, means to normally spread the clamping members and means carried by one of the members for holding both members in operative position about the ball.

2. A safety device for roof hooks comprising a base having a raised boss with a socket therein, means to secure the base to a support, a pair of swinging retaining members for holding a hook ball in the socket, the retaining members being recessed adjacent their pivoted ends, a spring disposed in said recess to normally spread the retaining members, means placed on one of the retaining members, adjacent its free end for holding the members in operative position about the ball, and a clamping bolt to detachably clamp the retaining members against the boss.

1,132,412. DOOR STOP AND HOLDER. HERMANN WEDER, Sr., and CHARLES HOWARD WOLFF, Philadelphia, Pa. Filed Mar. 3, 1911. Serial No. 612,160. (Cl. 16—6.)



1. A door stop and holder comprising a pair of companion plates adapted for attachment to the door and door frame respectively, the one above the other, a leaf spring pivoted on one of the plates and tending to move toward the same, the leaf spring being provided with a lug and

the plate carrying the leaf spring being provided with an opening through which the lug may pass, the other plate having openings arranged in a curved row and the lug being adapted for engagement in any one of said last named openings.

2. A door stop and holder comprising a pair of companion plates adapted for attachment to the door and door frame respectively, the one above the other, and a leaf spring pivoted on one of the plates and tending to move toward the same, the leaf spring being provided with a lug, the plate carrying the leaf spring being provided with an opening through which the lug may pass, with an indentation in which the lug may engage and with a projection to limit the pivotal movement of the leaf spring as the latter is manipulated to bring its lug from the indentation to the opening, the other plate having openings arranged in a curved row and the lug being adapted for engagement in any one of said last named openings.

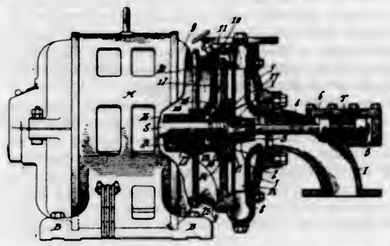
3. A door stop and holder comprising a pair of companion plates adapted for attachment to the door and door frame respectively, the one above the other, a spring pressed lug provided on one of the plates, the other plate having openings arranged in a curved row and the lug being adapted for engagement in any one of said openings, a hinged attachment plate carried by each of said companion plates, and means for holding each companion plate in either of two planes with relation to its attachment plate.

4. A door stop and holder comprising a pair of companion plates adapted for attachment to the door and door frame respectively, the one above the other, a spring pressed lug provided on one of the plates, the other plate having openings arranged in a curved row and the lug being adapted for engagement in any one of said openings, a hinged attachment plate carried by each of said companion plates, and means for holding each companion plate in either of two planes with relation to its attachment plate, the means comprising a slide associated with each attachment plate and having a projecting finger piece provided along its inner edge with a recess, and with a lip overhanging the recess, and the lip being designed to lie over or to engage over the corresponding companion plate in accordance with the position of the latter with respect to its attachment plate.

5. A door stop and holder comprising two companion elements, one of which is provided with means for locking engagement with the other, the elements being adapted for attachment to the door and door frame respectively, a hinged attachment plate carrying each element and means for holding each element in either of two planes with relation to its attachment plate.

[Claim 6 not printed in the Gazette.]

1,132,413. PUMP. FRANK H. WHIPPLE, Visalia, Cal. Filed Nov. 3, 1913. Serial No. 798,992. (Cl. 103—43.)



1. The combination with a rotary motor having an extended shaft; of a centrifugal pump whose runner is mounted on said shaft and whose casing has a two-part bearing for the shaft, an annular channel formed around the latter intermediate the parts of the bearing, and a passage-way leading from its rim to said channel, the walls of said passage-way being formed integrally with said casing.

2. The combination with a rotary motor having an extended shaft; of a centrifugal pump whose runner is mounted on said shaft and whose casing includes a two-part bearing for the shaft, an annular channel formed around the latter intermediate the parts of the bearing, and a passage-way leading from its rim to said channel, the walls of said passage-way being formed integrally with said casing and a valve controlling said passage.

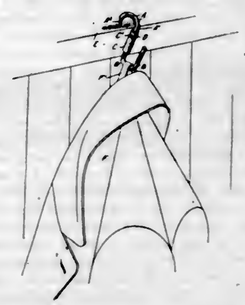
3. The combination with a rotary motor having an extended shaft; of a centrifugal pump whose runner is mounted on said shaft and whose casing includes a two-part bearing for the shaft, an annular channel formed around the latter intermediate the parts of the bearing, a passage-way extending upwardly from said annular channel to a point contiguous to the rim of said casing, one end of said passage communicating with said annular channel, the other with the pump chamber, the walls of said passage being formed integrally with said casing, and a valve controlling said passage.

4. The combination with a rotary motor having an extended shaft, a field ring, and one face plate for the latter; of a centrifugal pump having its runner mounted on said shaft and one side of its casing connected to the open side of said field ring and constituting the other face plate for the latter, said casing including an integrally formed two-part bearing for the shaft of said motor, an annular channel formed around said shaft intermediate the parts of said bearing, a passage-way extending through the casing and having one end communicating with said annular channel and the other end with the runner space of the casing contiguous to the rim of the latter, the walls of said passage-way being integrally formed with said casing, and a valve for controlling said passage.

5. The combination with a rotary motor having an extended shaft, a field ring for the motor and one face plate for said field ring; of a centrifugal pump having its runner mounted upon said shaft and one side of its casing outwardly flared and connected to said field ring and constituting the other face plate thereof, said casing including an integrally formed two-part bearing, the latter having an annular channel formed intermediate the parts thereof and communicating with the inner end of a spiral groove formed in the inner surface of one part of said bearing, a passage-way extending from said annular channel to a point contiguous to the rim of said casing, the walls of said passage-way being formed integrally with said casing, and a valve controlling said passage-way.

[Claims 6 and 7 not printed in the Gazette.]

1,132,414. COAT-HOOK. JOHN TOMAS WHITE, New York, N. Y. Filed Mar. 28, 1914. Serial No. 827,850. (Cl. 248—24.)

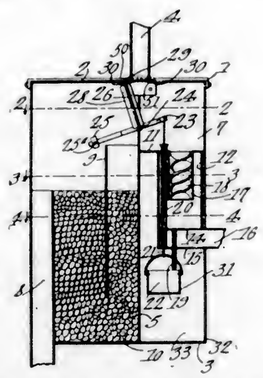


1. A coat hook comprising an upper and a lower hook section, the shank of the lower section provided with an enlarged tubular rigid socket at its upper end and a horizontal slot extending through one side of the socket adjacent the upper end thereof, the shank of the upper section axially fitted within said socket and having a lug or pin

projecting outwardly and engaging said slot, the upper hook section having a bevel pointed end and the lower hook section having a flat hook end.

2. A coat hook comprising an upper and a lower hook section the shank of the lower provided with an enlarged tubular rigid socket at its upper end and having a horizontal slot extending through one side thereof and slightly beyond its center said slot being positioned adjacent the upper end of the socket, the shank of the upper section extending into said socket and beyond the slot therein and having a lug projecting radially into said slot the outer face of the lug being flush with the outer surface of the socket, the upper hook section having a bevel pointed end and the lower hook section having a flat top hook end.

1,132,415. AUTOMATIC CUT-OFF. JAMES E. WILLIAMS, Strong City, Okla. Filed Apr. 30, 1913, Serial No. 764,724. Renewed Aug. 11, 1914. Serial No. 856,287. (Cl. 137—9.)



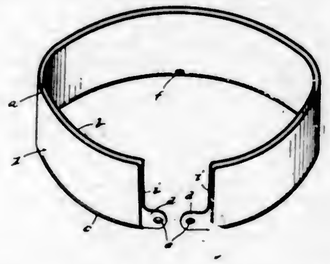
1. In a device of the class described, a casing having an inlet and comprising a platform provided with openings; a fixed deflector located above the platform and above the openings, the deflector comprising means for spreading material over all of the openings at once; a receptacle into which one of the openings discharges; a valve supported by the casing and constituting means for directing material from the inlet toward and away from the deflector; and means for operatively connecting the valve with the receptacle.

2. In a device of the class described, a casing having an inlet and provided with a platform having openings; a spiral deflector held above the platform; a valve carried by the casing and adapted to direct material from the inlet toward and away from the deflector; a receptacle located below the platform and operatively connected with the valve; means for conducting the material from one of the openings in the platform, into the receptacle; and means for conducting the material from the other opening away from the receptacle.

3. In a device of the class described, a casing provided with an inlet and with an outlet; a perforated platform located in the casing above the outlet; a nozzle communicating with one of the perforations of the platform; a receptacle into which the nozzle discharges; a jacket supported in the casing above the platform; a spiral deflector located in the jacket; a valve controlling the inlet and movably mounted in the casing; means for operatively connecting the valve with the receptacle; the valve constituting means for discharging material within and outside of the jacket.

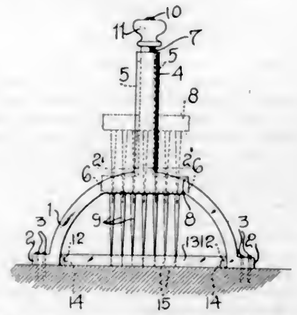
1,132,416. NECKTIE-RETAINER. MARGARET SANDERS YEAGER, Honey Grove, Tex. Filed June 11, 1914. Serial No. 844,496. (Cl. 2—11.)

The herein described retainer for neckwear composed of a single piece of celluloid having smooth surfaces upon both sides to permit a scarf or tie to slip readily through the same in tying the knot in the scarf or tie, said retainer being bent upon itself to provide two members spaced apart sufficiently to permit a tie between them and said retainer adapted to be inserted in a turndown collar



with the free edges of the retainer upward, and said retainer being provided with button hole tabs at the bottom and in front, and the inner member being provided with a button hole at the back to receive the back collar button.

1,132,417. FISH-HOLDING FRAME. ALBERT O. ALEXANDER, Franklin, N. H. Filed Oct. 5, 1914. Serial No. 865,104. (Cl. 17—14.)

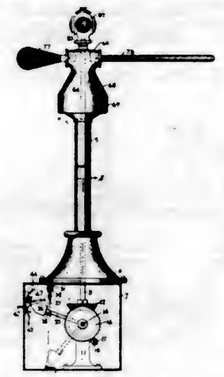


1. A fish holder including an arched support, a base member formed with perforations disposed beneath said support, said support at its apex being transversely slotted and having a tubular upward extension likewise transversely slotted, a transversely extending head disposed in the slot of the extension and movable into the slot in the supporting member, and a plunger connected with the head and extending out of said extension, said head being formed with a plurality of downwardly extending sharp pointed tines insertible in the perforations of the base member when the head is depressed.

2. A device of the character described, including an arched support, inwardly extending lugs formed upon the support at its ends, a base member disposed between the ends of the support and having notches engaging the lugs whereby the plate is detachably held in position, a head slidably mounted on the arched support above the base member, and projecting downward from the head and engageable in the perforations of the base member.

1,132,418. TRAIN-SIGNAL APPARATUS. JUDGE SHIRLOCK ALLEN, New York, N. Y. Filed Feb. 12, 1913. Serial No. 747,864. (Cl. 246—59.)

1. In a train signal apparatus, a signal means, a weight for moving the signal means in one direction, a motor for moving the signal means in the opposite direction, a pivoted hook depending from its pivot and positioned for engaging and supporting the weight under normal conditions, an armature carried by the hook, a magnet for attracting the armature, a circuit connecting the magnet and the motor, and a switch in the circuit operable by the weight.



2. In a train signal apparatus, a signal, a shaft, means connecting the shaft with the signal for operating the latter, a weighted arm secured to the shaft, electrically operated means for raising the weighted arm, a pivoted hook depending from its pivot in position for engaging the weighted arm, an armature pivoted to the hook, stops for limiting the movement of the armature relatively to the weighted arm, and a magnet for attracting the armature.

3. In a train signal apparatus, a signal, a shaft, means connecting the shaft with the signal for operating the latter, a weighted arm secured to the shaft, electrically operated means for raising the weighted arm, a hook normally engaging the weighted arm, or armature on the hook, a magnet for attracting the armature, a circuit connected with the motor, and a pivoted switch in the circuit and disposed in the path of the weighted arm to open the circuit by the upward movement of the weighted arm.

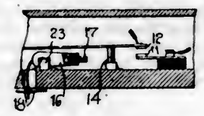
4. In a train signal apparatus, a signal, a shaft, means by which the shaft is adapted for operating the signal, a weighted arm secured for rotating the shaft, a hook for engaging and holding the arm in raised position, an armature pivoted to the hook and having a limited movement relatively thereto, and a magnet for holding the armature with the hook in operative position.

5. In a train signal apparatus, a signal, means for operating the signal, a weighted arm connected for moving with the means, a motor for operating the means, a pivoted hook engaging the arm, an armature pivoted to the arm and having a limited movement relatively thereto, a magnet for coöperating with the armature for holding the hook in operative position, wires connecting the motor and the magnet for operating the motor and energizing the magnet, and means for cutting off the current to the motor when the arm is in raised position.

1,132,419. AUTOMATIC FIRE-ALARM SYSTEM. JOHN BURCK AMMONS, Houston, Tex., assignor of one-tenth to Evander Ammons and one-fifteenth to Otis McGaffey, both of Houston, Tex. Filed Dec. 8, 1914. Serial No. 876,086. (Cl. 177—303.)

1. In an automatic fire alarm system, an alarm circuit including contacts, fusible means under one of the contacts for holding said contacts in an open circuit position with respect to each, said fusible means adapted to be fused by heat or to be bodily removed to close the contacts, and explosive means for bodily removing said fusible means if the latter fails to fuse to permit the contacts to close, substantially as described.

2. In an automatic fire alarm system, an alarm circuit including contact means located under one of said contacts for holding same in open circuit position with respect to each, and explosive means for bodily removing said first mentioned means from engagement with the contact to permit of closing said contacts.



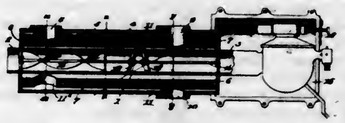
3. In an automatic fire alarm system, an alarm circuit including a spring contact and a fixed contact, fusible means engaging under said spring contact for holding the same in an open circuit position with respect to said fixed contact, said means adapted to be fused by heat or to be bodily removed to close said contacts, an explosive container or cannon, a projectile carried by said cannon for bodily removing said fusible means from engagement with the spring contact to release the latter and close said circuit, substantially as described.

4. In an automatic fire alarm system, an alarm circuit including a spring contact and a fixed contact, a hinged support arranged beneath the spring contact, fusible means in the hinged support and engaging said spring contact for holding the same in an open circuit position, said fusible means adapted to be fused by heat or to be bodily removed from the spring contact to close said contacts, an explosive container or cannon, a projectile carried by said cannon for bodily removing said fusible means from engagement with the spring contact to release said spring contact and close said circuit, substantially as described.

5. In an automatic fire alarm system, an alarm circuit including contacts, a fusible means under one of said contacts for holding the latter in open circuit position, and which is adapted to be fused by heat or to be bodily removed to close said contacts, a cannon adjacent the fusible means and containing an explosive, and a fusible projectile in the cannon, whereby the projectile may fuse and the explosive be ignited and the resultant explosion will bodily remove the fusible means from engagement with the contact or the projectile when ejected by an explosion in the cannon will bodily remove said fusible element from engagement with the contact to permit said contacts to close the circuit.

[Claim 6 not printed in the Gazette.]

1,132,420. HEATER FOR GASEOUS FLUIDS. JOSEPH ENGELBERT ANDERAU, Terlingua, Tex. Filed Dec. 2, 1913. Serial No. 804,307. (Cl. 48—148.)

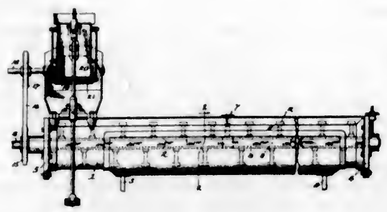


1. A fuel heater for internal combustion engines having a tube extending therethrough to be coupled at one end to the carbureter and to be connected at its opposite end to an internal combustion engine; said body having a passage surrounding the tube for heating medium, such as the exhaust from the engine, to travel through, and said body being further provided with an air passage exterior to the passage through which the heating medium is adapted to travel, said air passage being tortuous and having its walls fluted or corrugated; the air in its travel through such passage being highly heated preliminary to its supply to the carbureter.

2. A device of the character specified, the same comprising a casing provided with regulable air inlets, a tube

having connection at one end with said casing and adapted to have its opposite end connected with an engine of the internal combustion type, means arranged within the tube for agitating and imparting a whirling movement to the gaseous mixture passing therethrough, a hollow body mounted upon the tube and spaced therefrom and formed with an outer space which is in communication with the inner space, said spaces adapted to have the exhaust from the engine pass therethrough and said hollow body being further provided intermediate of the inner and outer spaces with a tortuous passage which opens into the before mentioned casing at one end and has communication with the atmosphere at its opposite end.

1,132,421. DRIER, TEMPERING-HEATER, AND COOKER. FRANK B. ANDERSON, Cleveland, Ohio. Filed July 8, 1914. Serial No. 849,822. (Cl. 34—44.)



1. In an apparatus of the character described, the combination of a trough-shaped member having a discharge opening located in the upper portion of one end thereof; means for continuously feeding material into the opposite end of the trough; means for heating said trough; and a series of agitators mounted in said trough and adapted to agitate the material fed thereto and to cause the same to assume a substantialy even level throughout the trough, whereby the material will be gradually fed from the feed end to and through the discharge opening.

2. In an apparatus of the character described, the combination of a trough-shaped member; means for constantly feeding material to one end thereof; an oil-take located at the opposite end of the trough-shaped member and adapted to maintain a load of material therein; and a series of agitators mounted in said trough-shaped member and adapted to act upon the material, whereby the material will maintain a given level therein and gradually feed from the feed end to the offtake.

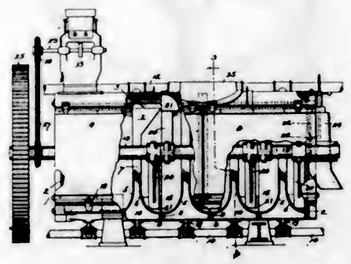
3. In an apparatus of the character described, the combination of a trough-shaped member provided with a discharge opening at one end; means for feeding material to said trough-shaped member at the opposite end thereof; a series of agitators mounted in said trough-shaped member and adapted to act on the material as it passes therethrough; and a discharge paddle located adjacent the discharge opening, said paddle being adjustable, whereby the rate of discharge may be increased or diminished according to the adjustment of said paddle.

4. In an apparatus of the character described, the combination of a trough-shaped member provided with a discharge opening at one end thereof, said opening being elevated above the bottom or lower portion of the trough; means for feeding material to be treated into the opposite end of the trough at a substantially constant rate; and means for agitating the material throughout the length of the trough, whereby the material will be caused to seek a level, or common plane of rest, and will gradually pass from the feel to the discharge end of the trough and finally out through the discharge opening.

5. In an apparatus of the character described, the combination of a horisontally-disposed trough-shaped member; means for feeding material thereto at one end; means for stirring said material throughout the length of the trough and thereby causing an intermingling of the material and likewise causing it to assume a level throughout the trough; and a regulable discharge opening at that end of the trough opposite the feed end.

[Claims 6 to 13 not printed in the Gazette.]

1,132,422. DRIER, TEMPERING-HEATER, AND COOKER. CHARLES O. ANDERSON, Cleveland, Ohio. Filed July 8, 1914. Serial No. 849,821. (Cl. 34—44.)



1. In an apparatus of the character described, the combination of a plurality of hollow members; means for securing the same together; a head arranged at each end of the series and thereby forming a trough-shaped structure; a plurality of agitators working therein; means for introducing a heating medium into said hollow members; means for feeding material into said trough-shaped structure at one end; and a regulable discharge opening at the opposite end.

2. In an apparatus of the character described, a trough-shaped structure composed of a series of hollow sections secured together; a closure for the upper portion thereof; a series of agitators working in the trough; and means for feeding material to be treated into one end of the trough, said trough having a discharge opening at the opposite end thereof.

3. In an apparatus of the character described, the combination of a trough-shaped member having a series of pockets formed in the lower portion thereof; means for heating the same; a plurality of agitators working in said pockets; and means for feeding the material to be treated into one end of the trough, said trough having an elevated discharge opening at its opposite end.

4. In an apparatus of the character described, the combination of a trough-shaped member having a series of pockets formed in the lower portion thereof; means for heating the same; a plurality of agitators working in said trough-shaped member; and means for feeding the material to be treated into one end of the trough, said trough having an elevated discharge opening at the opposite end thereof.

5. In an apparatus of the character described, the combination of a plurality of hollow crescent-shaped members; a pair of heads; means for securing said heads and members together to form a trough; a closure for the upper portion of the structure; means for heating said hollow members; a plurality of agitators working over said members; and means for feeding material to be treated to said trough at one end, said trough having a discharge opening at its opposite end.

[Claims 6 to 11 not printed in the Gazette.]

1,132,423. LANTERN-SLIDE. FREDERICK A. APPELBAUM, New York, N. Y. Filed Aug. 26, 1914. Serial No. 858,660. (Cl. 88—26.)

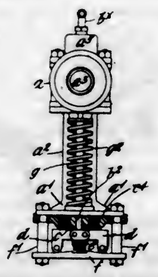
1. A slide comprising a color plate having a time dial imprinted on one surface thereof; a transparent cover plate mounted in fixed relation to said color plate; and a plurality of clock hands pivotally mounted on said cover plate, the pivot of said hands being coincident with the center of said dial.

2. A slide comprising a color plate having a time dial imprinted on one surface thereof; a transparent cover plate mounted in fixed relation to said color plate; and a plurality of clock hands pivotally mounted on said cover plate, the pivotal axes of said hands being coincident with the center of said dial, said hands extending from the exposed side of said cover plate, for manually shifting said hands.



3. A slide comprising a color plate having a time dial on one surface thereof; a transparent, protective cover plate mounted in fixed relation to said color plate; and movable indicating members pivotally mounted on said cover plate, said members being manually manipulated for indicating time periods in conjunction with said dial.

1,132,424. PRESSURE REGULATING OR REDUCING VALVE. CHARLES ROBERT ARCUS, Poplar, London, England, assignor of one-half to Oliver Prescott Macfarlane, London, England. Filed Dec. 13, 1913. Serial No. 806,527. (Cl. 50—10.)

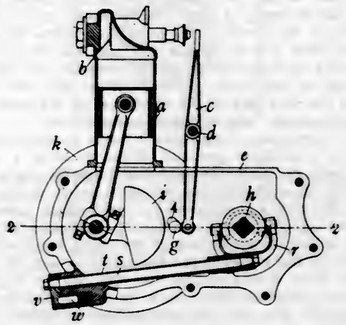


1. In a reducing valve, the combination of recessed rings fitting telescopically inside one another; lever supporting said rings; shoulders on said rings engaging the recesses in the adjacent rings, to lock said rings together when in the extreme downward position and prevent them from blowing out in case the supporting levers should break; and a valve spindle to which said levers are coupled, substantially as described.

2. In a reducing valve, the combination of concentric rings fitting telescopically and practically steam-tight inside one another; levers supporting said rings; a valve spindle to which said rings are connected; balancing spring for counteracting the pressure on said rings; and shoulders on said rings to prevent them blowing out in the event of said supporting levers breaking, substantially as described.

3. In a reducing valve, the combination, with the balancing springs, of a diaphragm, compensating crank levers for supporting said diaphragm connected at their upper ends to the valve spindle and to said springs, a cross-bar on which the lower ends of said levers rest, and inclines on said cross-bar for raising the ends of the levers as they move inward toward each other.

1,132,425. INTERNAL-COMBUSTION ENGINE. FRANK EDWARD BAKER, Birmingham, England. Filed Jan. 6, 1914. Serial No. 810,640. (Cl. 123—197.)



In internal combustion engines, the combination comprising a crank case, a crank shaft, a cam shaft, and a driven shaft, all mounted parallel with each other within the crank case, a pair of wheels loosely mounted on the driven shaft, a pair of wheels secured to the cam shaft and meshing with the wheels on the driven shaft, a wheel on the crank shaft meshing with one of the wheels on the cam shaft, valve operating cams on the said cam shaft, a sliding clutch on the driven shaft adapted to secure to the said shaft either of the wheels mounted thereon, a clutch fork, a clutch shaft carrying the said fork and journaled within the crank case, and a pedal lever secured to the outer end of the clutch shaft, substantially as described.

1,132,426. THERMOMETER. HARRY L. BEACH, Coshocton, Ohio. Filed June 30, 1914. Serial No. 848,273. (Cl. 73—52.)



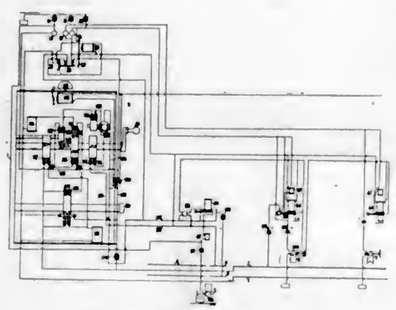
1. A thermometer comprising a frame provided with an inwardly extending marginal flange forming a hollow casing with the rear side open, and having a central longitudinally disposed slot and an offset cover at the lower end of the slot, a separate block having a longitudinal recess of a depth to receive the thermometer tube, leaving the bulb projecting from the lower end, means for securing the tube within the recess of the block, and means for securing the block to and against the rear face of the

frame within the marginal flange, so as to present the thermometer tube in line with the longitudinal slot and the thermometer bulb within the offset cover.

2. A thermometer comprising a frame provided with an inwardly extending marginal flange forming a hollow casing with the rear side open, said frame having a longitudinally disposed slot and an offset cover at the lower end of the slot, a block having a longitudinal recess of a depth to receive a thermometer tube with the bulb projecting below the lower end of the block, said thermometer tube having an inwardly projecting point at its upper end to engage a cavity in the block, straps to hold the tube in the recess of the block, and screws for securing the block to and against the rear face of the frame within the marginal flange so as to present the thermometer tube in line with the longitudinal slot but wholly back of the rear face of the front part of the casing and the thermometer bulb within the offset cover.

3. A thermometer comprising a frame provided with an inwardly extending marginal flange forming a hollow casing with the rear side open, said frame having a longitudinally disposed slot and an offset cover at the lower end of the slot, a block having a longitudinal recess of a depth to receive a thermometer tube with the bulb projecting below the lower end of the block, means to hold the tube in the recess of the block, and screws for securing the block to and against the rear face of the frame within the marginal flange, so as to present the thermometer tube in line with the longitudinal slot but wholly back of the rear face of the front part of the casing and the thermometer tube within the offset cover.

1,132,427. ELECTROMECHANICAL SYSTEM TO AVOID RAILWAY COLLISIONS. ATTILIO BEER, Venice, Italy; Cesira Beer, widow of Conte Decio Bonamini, heir at law of said Attilio Beer, deceased. Filed June 21, 1909. Serial No. 503,488. (Cl. 246—33.)



1. In a railway block signaling system, the combination with a block section of a track, a signal and a signal station at each end equipped with a block instrument and a source of current, of a slot magnet controlling each signal, an operating member in each instrument controlling the corresponding slot magnet, electrical connections through each instrument to the track rails, means in each instrument for controlling the operating member of the other instrument through the track connections, and means in each instrument controlled by the trains for controlling both the corresponding slot magnet and the corresponding operating member.

2. In a railway block signaling system, the combination with a block section of track, a signal station and a source of current, of an electrically operated signal for the said section, a relay electro-magnet controlling the operating circuit of the signal, a "slot" electro-magnet controlling the circuit of the relay, manually operated means at one end of the section for making and breaking the circuit of the "slot" electro-magnet and manually operated means at the other end of the section controlling the manually operated means at the first mentioned end of the same.

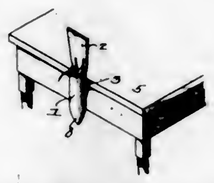
3. In combination in a railway block signaling system, a block instrument, a shaft in the instrument for controlling the operation of a signal, a device for preventing the rotation of the shaft in one direction, a lock operated by the rotation of the shaft when setting the signal to lock the shaft in its operative position, a gravity catch for retaining this lock in locking position, an electro-magnet controlling the catch, contacts controlled by the rotation of the shaft for connecting the electro-magnet across the track rails, and means controlled by passing trains for energizing the track circuit and thus automatically unlocking the instrument.

4. In a railway block signaling system, the combination with a block section of track, a block instrument at each end, an operating member in each, a mechanical lock in each instrument for retaining the operating member in operative position, and an electro-magnet in each instrument for unlocking the corresponding operating member, of a circuit including the track rails of the section, the unlocking magnets of both instruments and a source of current, and means controlled by the trains for closing the said circuit to simultaneously unlock both instruments.

5. In combination in a railway block signaling system, a block section of track, a block instrument at each end, an operating member in each, a mechanical lock in each instrument for retaining its operating member in an operative position and an electro-magnet in each instrument for unlocking the operating member, a circuit including the track rails of the section the unlocking magnets of both instruments and a source of current, a switch controlling the said circuit, a signal, mechanism simultaneously controlling the movement of the signal to danger position and the closing of the switch, and means controlled by the trains for operating the said mechanism.

[Claims 6 to 9 not printed in the Gazette.]

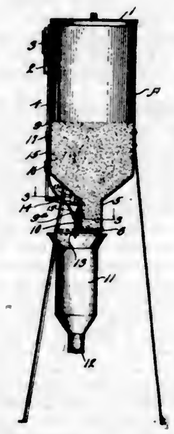
1,132,428. ANIMAL-TRAP. ARTHUR BOSWELL, Philadelphia, Pa. Filed Nov. 4, 1912. Serial No. 729,445. (Cl. 43—19.)



An animal trap comprising a receiver, a pivotal support therefor, said receiver having one end closed and tapering and having, also, an unincloesed platform extension of the other end serving as a counterweight for the receiver, said tapering end of the receiver being provided with air inlets.

1,132,429. DISPENSING APPARATUS. ANTHONY B. BRANCH and THOMAS G. BALL, Pittsburgh, Pa. Filed Sept. 25, 1914. Serial No. 863,589. (Cl. 73—181.)

1. In dispensing apparatus, the combination of a dispensing container having a discharge, a cut-off for said discharge, means to close said cut-off, scales mounted on the container, a supporting rod adapted to support weight, comprising material dispensed from the container, and operatively connected with the scales for actuation of the same, means to lock said cut-off in an open position, said lock means comprising a lock member adapted to engage the cut-off, and trip means intermediate said rod and the lock member and independent of the lock member for tripping the latter at a predetermined point in the movement of the rod whereby to release and permit closing of the cut-off.



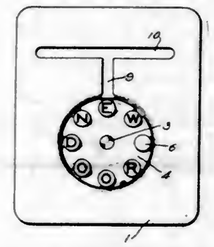
2. In dispensing apparatus, the combination of a dispensing container having a discharge, a cut-off for said discharge, means to close said cut-off, scales mounted on the container, a supporting rod adapted to support weight, comprising material dispensed from the container, and operatively connected with the scales for actuation of the same, means to lock said cut-off in an open position, said lock means comprising a lock member coöperative with the cut-off to hold the latter in an open position, a trip member adjustably mounted on said rod, and a trip means consisting of a bar operable by said trip member, and a lever connecting the bar with the lock member, for actuation of the latter whereby to release and permit closing of the cut-off.

3. In dispensing apparatus, the combination of a container having a discharge, a cut-off for said discharge, means normally tending to close said cut-off, scales associated with the container, a movable weight supporting rod connected with said scales and having weight graduations thereon, a trip member adjustable on said rod according to such graduations, means to lock the cut-off temporarily in open position, and trip means intermediate said trip member and the lock means for operation of the latter upon registry of a predetermined weight indicated by the container scales whereby to release the cut-off at a predetermined time.

4. In dispensing apparatus, the combination of a container, scales associated therewith, a weight suspending rod coacting with the scales, a cut-off for the container, a lock member to hold said cut-off in an open position, a spring normally tending to close the cut-off, a bar mounted adjacent to said rod, a keeper in which the rod and the bar are slidable, a lever connecting the bar and said lock member, and a trip member adjustable on the rod and engageable with said bar at a predetermined point in the movement of the rod.

5. In dispensing apparatus, the combination of a container, scales associated therewith, a weight suspending rod coacting with the scales, a cut off for the container, a lock member to hold said cut off in open position, a trip member adjustable on said rod and movable therewith, said trip member having a projection extending therefrom, and a bar mounted adjacent to the rod and lying in the path of movement of the projection on the trip member aforesaid and operatively connected to the lock member, said projection being adapted to impinge the end of the bar at a predetermined point in the movement of the suspending rod, to disengage the lock member from the cut off.

1,132,430. PUZZLE. JAMES A. BROGAN, Lawrence, and MEYLERT BRUNER, Newton, Mass. Filed Oct. 2, 1914. Serial No. 864,645. (Cl. 46—41.)



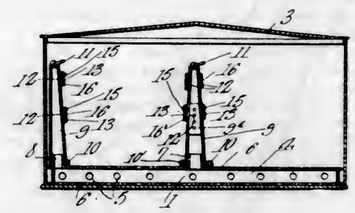
1. A puzzle having a body portion provided with movable elements bearing characters normally arranged to indicate the term "New door," said movable elements adapted to be shifted to form the term "One word."

2. A puzzle having a body portion provided with movable elements bearing the characters N, E, W, D, O, O, R.

3. A puzzle having in combination, a plate, a disk having a slotted periphery rotatably mounted thereon, a plurality of rolls bearing the characters N, E, W, D, O, O, R, normally arranged in the slots of the disk in a predetermined order, and means permitting the rolls to be removed from the disk and arranged on the plate, said rolls being capable of arrangement to indicate the term "One word."

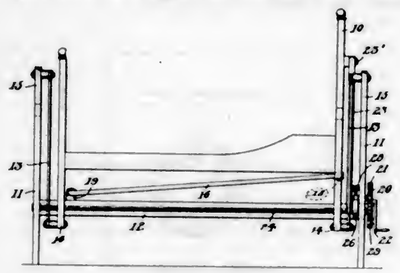
4. A puzzle, having in combination, a plate, a disk having a slotted periphery rotatably mounted thereon, and a plurality of rolls having characters thereon, said rolls bearing characters normally arranged to indicate the term "New door," and means permitting the rolls to be shifted to form the term "One word."

1,132,431. WASHBOILER. HERMAN E. BROWN, San Francisco, Cal. Filed Oct. 10, 1911. Serial No. 653,845. (Cl. 68—30.)



An attachment for wash boilers including a water receptacle adapted to be placed upon and to completely cover the bottom of a boiler, said receptacle having a central upstanding neck extending transversely thereof to points close to the sides of the receptacle, a tubular conductor having its lower end normally surrounding the neck, said conductor being extended transversely above the receptacle, a hinged connection between each side of the conductor and the top of the receptacle, the neck being extended between said connections, one of the connections including a removable pintle, said conductor being adapted, when the pintle is removed, to swing downwardly onto the top of the receptacle and between the ends thereof, the removable pintle, when in position, constituting means for holding the conductor against downward swinging movement, said conductor having water outlets for directing water toward both ends of the receptacle.

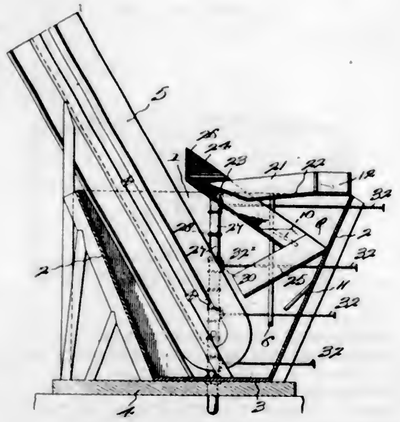
1,132,432. CRIB. BOLESLAW BRZOZOWSKI, Erie, Pa. Filed June 8, 1914. Serial No. 843,786. (Cl. 5—57.)



1. A device of the class described, comprising a frame having end uprights, a crib, suspending rods between said crib and uprights, a transverse bar upon said frame beneath said crib, steadying rods pivoted between the ends of said bar and one end of said crib, and eccentric operating rods carried by said frame and connected to said crib.

2. A device of the class described, comprising a frame having end uprights, a crib, suspending rods between said crib and uprights, a transverse bar upon said frame beneath said crib, steadying rods pivoted between the ends of said bar and one end of said crib, a stub-shaft journaled in said frame, an upright bar pivoted at one end to said stub-shaft and pivoted at its other end to the crib, a gear and operating crank secured to said stub-shaft, a longitudinal shaft journaled in said uprights, an eccentric secured to said shaft, an eccentric strap upon said eccentric, and a rod secured to said strap and having its free end pivoted to said upright bar.

1,132,433. COAL-WASHING APPARATUS. EUGENE G. BURKS and NEENIAN HAYES, Birmingham, Ala. Filed July 3, 1914. Serial No. 848,985. (Cl. 83—82.)



1. In an apparatus for recovering values from wash water, the combination of a settling tank, a partition mounted in said tank and providing an inlet chamber therein, a tortuous trough arranged in said settling tank to one side of said partition, a sluice-way for conveying wash water extending above said tank, and a plurality of discharges leading from said sluice-way and arranged to deliver the wash water one to said inlet chamber and another to said tortuous trough, substantially as described.

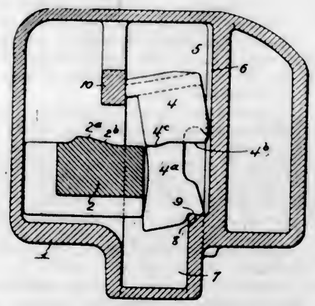
2. In an apparatus for recovering values from wash water, the combination of a settling tank, a partition mounted in said settling tank and providing an inlet compartment therein, a plurality of baffle plates arranged in staggered relation in said inlet chamber, a tortuous trough arranged in said tank to one side of said inlet compartment, a sluice-way for conveying wash water, and a plurality of discharges leading from said sluice-way and arranged to deliver the wash water one to said inlet compartment and one to the tortuous trough, substantially as described.

3. In an apparatus for recovering values from wash water, the combination of a settling tank, a pair of partitions mounted in said tank and providing a pair of adjoining inlet compartments, a tortuous trough arranged in said tank between said inlet chambers, a sluice-way for conveying wash water extending across said tank and arranged above said inlet chambers, and a plurality of discharges leading from said sluice-way and arranged to deliver wash water one for each of said inlet chambers and one for said tortuous trough, substantially as described.

4. In an apparatus for recovering values from wash water, the combination of a settling tank, a partition mounted in said settling tank and providing an inlet compartment therein, a tortuous trough mounted in said settling tank to one side of said partition, a sluice-way for conveying wash water, a plurality of discharges leading from said sluice-way and arranged to deliver the wash water to said inlet compartments and said tortuous trough, a stand-pipe erected in said tank and provided with a series of outlets, and valves for controlling the passage of wash water to said outlets, substantially as described.

5. In an apparatus for recovering values from wash water, the combination of a settling tank, a stand-pipe erected in said settling tank and provided with a plurality of outlets arranged at different elevations, valves for controlling the passage of wash water to said outlets, a pair of partitions mounted in said settling tank and providing a pair of adjoining inlet compartments therein, a tortuous trough mounted between said compartments, a sluice-way for conveying wash water, and a plurality of discharges leading from said sluice-way and arranged to deliver wash water one to each of said inlet compartments and one to said tortuous trough, substantially as described.

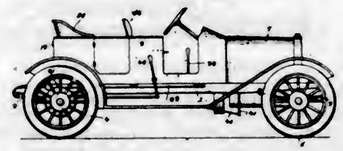
1,132,434. CAR-COUPLING. SAMUEL P. BUSH, Columbus, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio. Filed Jan. 17, 1914. Serial No. 812,783. (Cl. 213—14.)



1. In a car coupling, the combination of a coupling head the side wall of which is provided with a seat for supporting the locking block in its lock set position, a locking block having a shoulder to engage said seat and a shoulder the under face of which is adapted to be engaged by the knuckle tail, the said latter shoulder being at one side of the center of gravity of the locking block, and a knuckle the tail of which is provided with a surface for lifting the locking block from its lock set seat and for supporting it while it turns by gravity to a vertical position away from said lock set seat during the opening movement of the knuckle, the said locking block being retained on the tail of the knuckle during the closing movement of the knuckle by the drag or friction between the parts and by gravity.

2. In a car coupling, the combination of a coupling head the side wall of which is provided with a seat for supporting the locking block in its lock set position, a locking block having a shoulder to engage said seat and a shoulder the under face of which is adapted to be engaged by the knuckle tail, the said latter shoulder being at one side of the center of gravity of the locking block, and a knuckle the tail of which has an inclined surface whereby when the said inclined surface moves under its shoulder on the locking block during the opening movement of the knuckle, the said block will be lifted from its lock set seat and tilt by gravity away from said lock set seat, and will be retained on the tail of the knuckle during the closing movement of the latter by the drag or friction between the parts and by gravity.

1,132,435. CONVERTIBLE MOTOR-VEHICLE. JOSEPH BUTTERWORTH, Indianapolis, Ind. Filed July 10, 1914. Serial No. 850,231. (Cl. 21—7.)



1. In a convertible motor vehicle, the combination of a wheeled frame, a body comprising a non-shiftable section and a shiftable section adapted to form an extension thereof, motor actuated means for shifting said extension section, and means for elevating the forward edge of the floor of the extensible section out of the horizontal plane of the floor of the non-shiftable section.

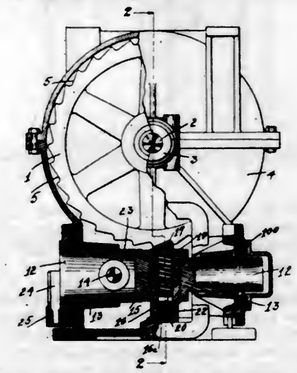
2. In a convertible motor vehicle, the combination of a wheeled frame, a body comprising a non-shiftable section and a shiftable section adapted to form an extension thereof, motor actuated means for shifting said extension section, and means for elevating the forward edge of the floor of the extensible section out of the horizontal plane of the floor of the non-shiftable section, said elevating means including a jack shaft working against the bottom of the floor of the extensible section, and a manually controlled lever for operating said jack shaft.

3. In a convertible motor vehicle, the combination of a wheeled truck frame, a body comprising a stationary section and a movable extension section, motor-actuated means for shifting said extension section, a front seat, telescopic legs permitting said seat to be lowered, and a rear jump seat adapted to cover the lowered front seat and rest thereon.

1,132,436. INTERMITTENT TRANSMISSION MECHANISM. CESARE CAMPUS, New York, N. Y. Filed Apr. 18, 1913. Serial No. 761,904. (Cl. 74—54.)

1. A mechanism as characterized, comprising a rotary member having a plurality of engagement recesses; a power transmission reciprocating member disposed tangential to said rotary member; a reciprocating engaging device mounted in said transmission member and movable in a path perpendicular to the line of movement of said transmission member, said device being shaped to conform to said recesses and to operatively engage the same; and a seating member disposed at the end of the path of said engaging device and in the plane of the radius of said rotary member perpendicular to said transmission member, said seat being insertible below said engaging device to hold the same against movement by said rotary member.

2. A mechanism as characterized, comprising a rotary member having a plurality of engagement recesses; a power transmission reciprocating member disposed tangential to said rotary member; a reciprocating engaging device mounted in said transmission member and movable in a path perpendicular to the line of movement of said transmission member, said device being shaped to conform to said recesses and to operatively engage the same; an elevating spring in said engaging device for elevating the same into engagement with said recesses; and a seating member disposed at the end of the path of said engaging device and in the plane of the radius of said rotary member perpendicular to said transmission member, said seat being insertible below said engaging device to hold the same against movement by said rotary member.



3. A mechanism as characterized, comprising a rotary member having a plurality of engagement recesses; a power transmission reciprocating member disposed tangential to said rotary member; a reciprocating engaging device mounted in said transmission member and movable in a path perpendicular to the line of movement of said transmission member, said device being shaped to conform to said recesses and to operatively engage the same; an elevating spring in said engaging device for elevating the same into engagement with said recesses; a seating member disposed at the end of the path of said engaging device and in the plane of the radius of said rotary member perpendicular to said transmission member, said seat being insertible below said engaging device to hold the same against movement by said rotary member; and means for holding said rotary member from retracting.

4. A mechanism as characterized having a rotary member provided with a plurality of ratchet-like engagement recesses; a power transmission reciprocating member disposed tangential to said rotary member; a pawl device reciprocatively mounted in said transmission member to engage said recesses; a spring for normally elevating said device to engage said recesses; and a seat insertible below said pawl at the end of the forward movement thereof, said seat having a rearwardly inclined surface to permit said pawl receding from said recesses when drawn backwardly by said transmission member.

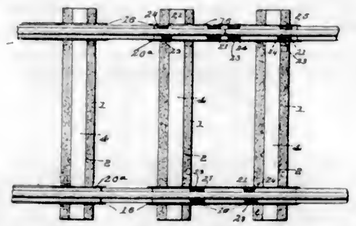
5. A mechanism as characterized having a rotary member provided with a plurality of ratchet-like engagement recesses; a power transmission reciprocating member disposed tangential to said rotary member; a pawl device reciprocatively mounted in said transmission member to engage said recesses; a spring for normally elevating said device to engage said recesses; and a seat insertible below said pawl at the end of the forward movement thereof, said seat having a riding surface corresponding with the long incline of said recesses.

[Claims 6 to 9 not printed in the Gazette.]

1,132,437. RAIL TIE AND FASTENING. IDA CAREY, Tuscarora, Nev. Filed Aug. 20, 1914. Serial No. 857,731. (Cl. 238—3.)

1. A rail tie consisting of a concrete body having longitudinal channels on its upper and lower faces, metal plates

mounted within the channels and terminating flush with the ends of the tie at their ends, said body being provided upon opposite sides and adjacent to each end with vertical channels, a U-shaped binding member having its side portions disposed within the vertical channels at each end of the tie, bolts inserted through the body portions of the U-shaped members, plates and body portion of the tie adjacent to the ends thereof, and rail clamping means carried upon the upper face of the body.



2. A rail tie consisting of a concrete body having longitudinal channels on its upper and lower faces, metal plates mounted within the channels and terminating flush with the ends of the tie at their ends, said body being provided upon opposite sides and adjacent to each end with vertical channels, a U-shaped binding member having its side portions disposed within the vertical channels at each end of the tie, bolts inserted through the body portions of the U-shaped members, plates and body portion of the tie adjacent to the ends thereof, rail clamping means carried upon the upper face of the body, on the upper ends of the U-shaped members to support the rail clamping means.

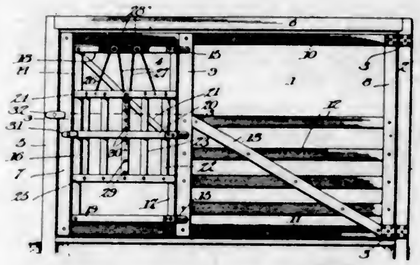
3. A rail tie consisting of a concrete body, rectangular plates of less width than the tie mounted within the bottom and top thereof and being flush at their ends and outer faces with the tie, U-shaped members mounted upon the tie engaging the bottom and sides thereof, lateral flanges on the free ends of the U-shaped members, bolts inserted through the U-shaped members, tie and plates, rail supporting means mounted on the tie at each end and engaging the lateral flanges, and means to secure the rail supporting means to the lateral flanges.

4. A rail tie consisting of a body portion, U-shaped members mounted on the body portion at the ends thereof and engaging the bottom and sides thereof, lateral flanges on the free ends of the U-shaped portions and being flush with the upper face of the body portion, rail holding plates mounted upon the body portion and engaging upon the flanges adjacent to their ends, means to secure the rail holding plates to the flanges, said rail holding plates being bent over and underneath the ends of the flanges at their ends, longitudinal upstanding flanges on the sides of the rail holding plates to engage the sides of the bases of the rails and means to secure the rails to the rail supporting plates.

5. A rail tie consisting of a plastic body, plates mounted upon the top and bottom of the body and being embedded therein with their outer surfaces flushed with the outer surface of the body, U-shaped members mounted upon the body and engaging the bottom and sides thereof, lateral flanges on the free ends of the U-shaped members, bolts inserted through the U-shaped members, tie and plates, and rail supporting means consisting of plates having hook ends mounted upon said body with the hook ends engaging the lateral flanges.

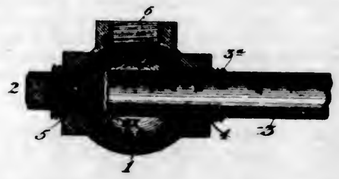
1,132,438. GATE. JOSEPH R. CARR, Cleveland, Okla. Filed June 13, 1914. Serial No. 844,978. (Cl. 39—15.)

1. The combination of a main swinging gate including front and rear vertical bars, an intermediate vertical bar spaced from the front vertical bar to form a passage way, top and bottom bars connecting the said vertical bars, means located at the rear vertical bar for hinging the main swinging gate, a supplemental swinging gate hinged to the intermediate vertical bar of the main gate and closing the passage way thereof, said supplemental gate having spaced vertical bars, fastening means for securing the supplemental gate to the front vertical bar of the main gate to hold the supplemental gate in its closed position, a vertically sliding gate carried by the supplemental swinging gate and guided by the vertical bars thereof and constituting the lower portion of the said supplemental gate, and means for raising and lowering the sliding gate.



2. The combination of a main swinging gate provided with spaced vertical bars and having an intervening gate way or passage between the same, a supplemental swinging gate having a frame including spaced vertical bars and a pair of spaced horizontal connecting bars located at a point intermediate of the top and bottom of the supplemental gate, a vertically movable gate composed of vertical bars and top and bottom connecting bars, the vertical bars extending through the said horizontal bars of the supplemental gate, and the bottom bars of the vertically movable gate slidably embracing the vertical bars of the supplemental gate, and means carried by the slidable gate for engaging the horizontal bars of the supplemental gate for securing the said sliding gate in its closed position and also in its adjustment.

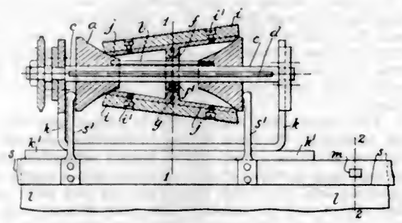
1,132,439. DEVICE FOR CONTROLLING THE FLOW OF WATER UNDER PRESSURE. ROBERT E. CASE and FRANCIS M. WAIT, St. Edward, Nebr. Filed Apr. 13, 1914. Serial No. 831,683. (Cl. 137—75.)



1. A flow regulator, comprising a fitting having alined openings and a third opening at an angle to the alined openings; a pipe adjustable in one of the alined openings with its free end facing the other alined opening; and a plug in the last named opening adjustable toward and from the said free end of the pipe.

2. A flow regulator comprising a fitting having an inlet opening and an outlet opening at an angle to the inlet opening with the wall of the fitting opposite said outlet opening closed; and an outlet pipe in the outlet opening extending into the fitting past the inlet opening with its free end facing said closed wall of the fitting, said pipe being adjustable toward and from said closed wall to bring its free end into different degrees of proximity to said wall.

1,132,440. APPARATUS FOR WEAVING RIBBONS AND FABRICS. LOUIS CHOMIER and BARTHELEMY FRESSINET, St. Etienne, France. Filed Jan. 27, 1914. Serial No. 814,737. (Cl. 139—60.)



1. In an apparatus for weaving ribbons and fabrics either straight or curved, the combination of a device, arranged about a central axis, having a one part flat fabric holding surface for taking up the fabric, with means whereby such surface may be automatically caused to assume the form of a cylinder or of a single cone, the large base of which may be alternately at either end of the apparatus.

2. In an apparatus for weaving ribbons and fabrics, either straight or curved, the combination of a plurality of devices arranged about a central axis each having a one part fabric holding surface for taking up the fabric and means whereby the relative positions of such devices may be varied automatically so that they may assume the form of a cylinder or of a single cone, the large base of which may be alternately at either end of the apparatus.

3. In an apparatus for weaving ribbons and fabrics, either straight or curved, the combination of a plurality of bars arranged about a central axis, pins carried thereby for taking up the fabric, and means whereby the relative position of such bars may be varied automatically so that they may assume the form of a cylinder or of a single cone, the large base of which may be alternately at either end of the apparatus.

4. In an apparatus for weaving ribbons and fabrics, either straight or curved, the combination of a plurality of bars arranged about a central axis, pins carried thereby for taking up the fabric, each bar being pivoted about a central axis, and means for automatically displacing such bars whereby they are caused to assume a position parallel to the axis of rotation or inclined thereto, thereby enabling the fabric to be woven in variable form.

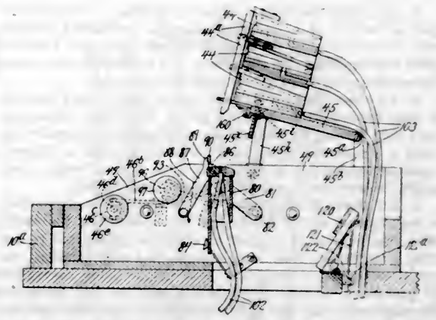
5. In an apparatus for weaving ribbons and fabrics, either straight or curved, the combination of a plurality of devices arranged about a central axis for taking up the fabric, and means slidably mounted on the driven shaft for automatically displacing said devices whereby they are caused to assume the form of a cylinder or of a single cone, the large base of which may be alternately at either end of the apparatus.

[Claims 6 to 13 not printed in the Gazette.]

1,132,441. COMBINED RECORDING AND PLAYING MECHANISM FOR AUTOMATIC MUSICAL INSTRUMENTS. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 5, 1912. Serial No. 735,019. (Cl. 84—68.)

1. In combination, two pneumatic organisms, each organism comprising a set of motor pneumatics and a set of vent devices; connections by which the vent devices of each organism control the motor pneumatics of the other organisms, said connections comprising a single set of tubes extending between the two organisms for both controls and means for shifting the communication of said tubes from that suitable for one control to that suitable for the other.

2. In combination, two pneumatic organisms, each organism comprising a set of motor pneumatics and a set of vent devices; connections by which the vent devices of each organism control the motor pneumatics of the other organism, said connections comprising a set of primary pneumatics, and a set of tubes extending between the two organisms for both controls, said tubes having communication with both sets of vent devices, and means for shifting the communication of the tubes from that suitable to one control to that suitable for the other.



3. In combination, two pneumatic organisms, one comprising a set of primary pneumatics, and each comprising a set of motor pneumatics and a set of vent devices; connections by which the vent devices of each organism control the motor pneumatics of the other organisms, comprising means of communication of both said vent devices with the said set of primary pneumatics, and means for shifting the communication of the primary pneumatics and the vent devices from that suitable for one control to that suitable for the other.

4. In combination with a set of tubes and two organisms which they connect, the organism at one end of the tubes comprising a set of primary pneumatics and their valve chambers; a set of motor pneumatics connected with the valve chambers and a set of venting devices for the primary pneumatics, the tubes having at that end two connections, and means for opening and closing them, one with the primary pneumatics and the other with their valve chambers, the other organism comprising a set of motor pneumatics and a set of venting devices, and connections of the tubes with said motor pneumatics and with said venting devices, and means for opening and closing said connections.

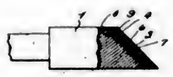
5. In combination with a set of tubes, two pneumatic organisms which they connect, one of said organisms comprising a set of motor pneumatics, a set of primary pneumatics which control them and venting means for said primary pneumatics, the other organisms comprising a set of motor pneumatics and a second means of venting the primaries of the first organism, said tubes having connection at one end both with the primary pneumatics and with the passages which their valves control in the first organism, and at the other end with the motor pneumatics and with the venting means of said organism; devices in one organism adjustable to two positions, at one of which positions they cut off the primaries from the venting means of that organism and said tubes from the valve-controlled passages, and open the tube communications with the primaries, and at the other, reverse said communications; and means in the other organism for simultaneously cutting off either of said tube communications and opening the other.

[Claims 6 to 23 not printed in the Gazette.]

1,132,442. X-RAY TUBE. MONROE S. CLAWSON, Weehawken, N. J. Filed Sept. 9, 1913. Serial No. 788,946. (Cl. 250—35.)

1. An anode for X-ray tubes comprising a body portion and a button of a different metal contacting therewith, said button having its periphery beveled and provided

with corrugations to increase the area of the contacting surfaces.



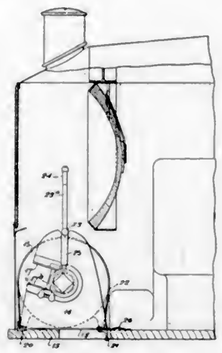
2. An anode for X-ray tubes comprising a body portion and a button of a different material embedded therein, said button having its periphery and rear face provided with corrugations for presenting the maximum area along the surfaces contacting with the body portion.

3. An anode for X-ray tubes comprising a body portion, a ring formed of a different metal contacting therewith, said ring having its contacting surfaces corrugated to provide a maximum area, and a button of still a different material embedded in said ring, said button being corrugated to provide a maximum contacting surface.

4. An anode for X-ray tubes comprising a body portion, a ring formed of a different material contacting therewith, said ring having its contacting surfaces corrugated to provide a maximum area and a button of a still different material embedded in said ring, said button being corrugated to provide a maximum contacting surface and extending through said ring and contacting with said body portion.

5. An anode for X-ray tubes comprising a body portion having a button of a different metal embedded therein, said button being corrugated to provide a maximum contacting surface.

1,132,443. HEADLIGHT FOR AUTOMOBILES. THOMAS HENRY COLE, Southsea, England. Filed Apr. 18, 1914. Serial No. 832,953. (Cl. 240—7.)



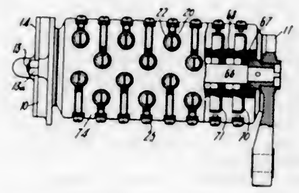
1. The combination with a vehicle bonnet providing a lamp housing at the front thereof, a reflector arranged in said housing, a fuel tank mounted on the vehicle frame within the said housing, a burner communicating with said tank and projecting in front of said reflector, means for holding said tank against displacement, and means for moving said tank when the bonnet is raised, substantially as described.

2. The combination with a vehicle bonnet providing a lamp housing at the front thereof, a reflector mounted in said housing, a fuel tank supported on the vehicle frame within the said housing, a burner communicating with said tank and arranged in front of said reflector, brackets projecting from said tank and arranged to be engaged by said bonnet whereby to hold the tank against displacement, and a spring for normally tending to tilt the tank to move the burner and clear the reflector when said bonnet is raised, substantially as described.

3. The combination with a vehicle bonnet providing a lamp housing at the front thereof, of a ventilator formed on said bonnet at the top of the lamp housing, a frame depending from the roof of said bonnet, a pair of reflectors removably mounted in said frame, a fuel tank supported on the vehicle frame in said housing, a pair of burners projecting from said fuel tank in front of the reflectors, means for maintaining said tank in position to hold the burners in close proximity to the reflectors, and means for tilting said tank when the bonnet is raised to move the burners and clear the reflectors, substantially as described.

4. The combination with a vehicle bonnet providing a lamp housing at the front thereof, a reflector mounted in said lamp housing, a fuel tank, a burner projecting from said fuel tank in front of said reflector, and a cradle for supporting said fuel tank comprising an end plate provided with a slot for receiving the neck of said tank, a strap for engaging one end of said tank, angle strips connecting said plate and strap, projecting ends on one of said angle strips arranged to be engaged by the sides of the bonnet and hold the cradle against displacement, and springs for tilting the cradle when the bonnet is raised, substantially as described.

1,132,444. CIRCUIT-CONTROLLER. JOHN P. COLEMAN, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Original application filed Aug. 5, 1912, Serial No. 713,239. Divided and this application filed June 26, 1913. Serial No. 775,840. (Cl. 175—289.)



1. A circuit controller comprising a shaft, a sleeve mounted thereon, the periphery of the sleeve being tapered, teeth on the said tapered periphery, and a contact member having a tapered bore provided with teeth adapted to match the said teeth on the sleeve.

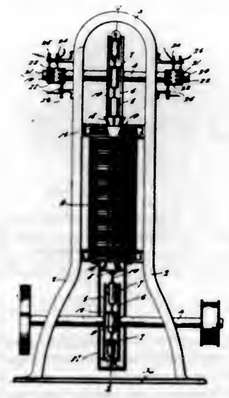
2. A circuit controller comprising an insulation sleeve having a tapered periphery, teeth on the said tapered periphery, and a contact member having a tapered bore provided with teeth which match the teeth on the said sleeve.

3. A circuit controller comprising a shaft, a plurality of sleeves mounted thereon in close proximity, the periphery of each sleeve being tapered, a contact member for each sleeve and having a tapered bore fitting the tapered periphery of the sleeve, each member being held in proper longitudinal position on its sleeve by the engagement of the small portion of its hub with the face of the next adjacent sleeve.

4. A circuit controller comprising a shaft, a sleeve mounted thereon, the periphery of the sleeve being tapered, and a contact member mounted on the sleeve and having a bore tapered to match the periphery of the sleeve.

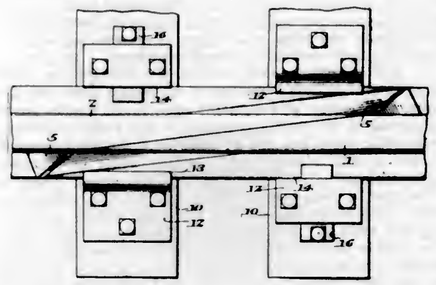
1,132,445. ELECTRIC MOTOR. JOHN B. CONRAD, Nicolaus, Cal. Filed July 2, 1913. Serial No. 777,031. (Cl. 172—36.)

A solenoid engine comprising a plurality of cores connected in belt formation, a set of solenoid magnets surrounding each run of the belt and divided into two groups composed of alternate magnets of the set, a commutator for each set of magnets, connections between the groups of magnets of each set and the particular commutator whereby when one group is energized the other group is de-



energized, corresponding groups of both sets being energized simultaneously.

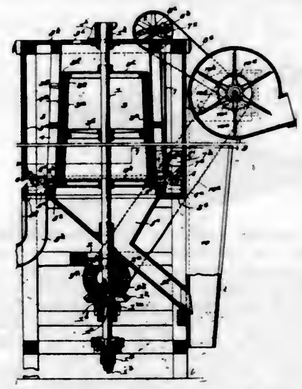
1,132,446. RAIL-JOINT. JOHN W. COOK, Meyersdale, Pa. Filed Aug. 22, 1914. Serial No. 858,084. (Cl. 239—8.)



1. In a rail joint, the combination with rails provided with overlapping ends cut obliquely to the plane of the rails to form a scarf joint, one of the said oblique faces adjacent its outer and lower corner being provided with an upturned hooked lug, the said face at its inner and upper corner being provided with a pocket, the side walls of which extending downwardly and outwardly and converging toward each other, the oblique face of the second rail end having a hooked lug arranged adjacent its upper and outer corner, the said second rail having its oblique face further provided adjacent its inner and lower corner with a pocket, the walls of which converging upwardly, and the hook of one of the rails adapted to be received within the pocket of the second rail.

2. The combination with two rails and ties upon which the rails rest, each of said rails having a thickened web upon one of its sides and being cut obliquely from the said thickened portion of the web to the other side, to form a scarf joint, the oblique faces of the rails having hooked lugs and pockets to receive the lugs, a tie plate arranged upon each of the ties below the rails, each of said plates having a rail engaging lip and a thickened portion opposite the lip and providing a rail engaging shoulder, the said thickened portion having a longitudinal opening, a wedge key passing through the opening and overlying the base of the rail, and securing means passing through the plate and key for retaining the same in rail engaging position upon the tie.

1,132,447. MACHINE FOR FINISHING, CLEANING, AND POLISHING RICE. JOHN B. CORNWALL, Moline, Ill., assignor to Barnard and Leas Manufacturing Company, Moline, Ill., a Corporation of Illinois. Filed Aug. 26, 1914. Serial No. 858,756. (Cl. 83—31.)



1. In a machine for cleaning and scouring rice, a scouring cylinder having its exterior surface covered with scouring cloth, and a reticulated metallic lining interposed between the scouring cloth and the surface of the cylinder to protect the latter, substantially as described.

2. In a machine for cleaning and scouring rice, a scouring cylinder having wooden walls and having the exterior surface thereof covered with scouring cloth, and a metallic lining interposed between the scouring cloth and the wooden walls of the cylinder to protect the latter.

3. In a machine for cleaning and scouring rice, a scouring cylinder having its exterior surface covered with scouring cloth, and a reticulated metallic lining interposed between the scouring cloth and the surface of the cylinder to protect the latter; with a scouring case having its inner surface covered with perforated metal to retard the descent of the grain.

4. In a machine for cleaning rice and the like, a scouring casing having its inner wall formed of perforated metal, and a scouring cylinder within the case having a metallic covering and exterior scouring fingers.

5. In a machine for cleaning rice and the like, the combination of a conical scouring casing having an inner surface formed of perforated metal, and a conical scouring cylinder within the case having its surface provided with a metallic covering and exterior bent scouring fingers.

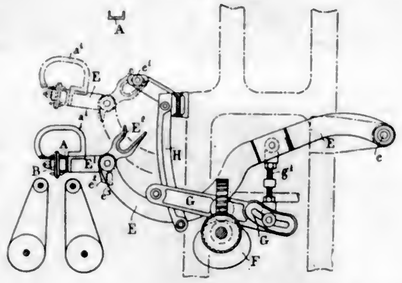
[Claims 6 to 8 not printed in the Gazette.]

1,132,448. HACKLING-MACHINE FOR FLAX AND OTHER LONG-STAPLE FIBERS. CHARLES CLARK COTTON, HENRY COTTON KENNEDY, and ROBERT KING, Belfast, Ireland, assignors to J. & T. M. Greeves Limited, Belfast, Ireland, and York Street Flax Spinning Company Limited, Belfast, Ireland. Filed Apr. 18, 1914. Serial No. 832,913. (Cl. 13—2.)

1. In hackling apparatus with intermediate dressing mechanism, the combination of a track connecting two machines; and means for lowering the holders with the fiber therein to said dressing mechanism, and again raising the holders and the fiber after the latter has been dressed.

2. In hackling apparatus with intermediate dressing mechanism, the combination of a track connecting two machines; means for transferring the holders from one

machine to said track; means for changing the flax in the holders; and means for lowering the holders with the fiber therein to said dressing mechanism and raising them again to the said track after the flax has been dressed.



3. In hackling apparatus with intermediate dressing mechanism, the combination of a track connecting two machines and provided with a movable piece to receive the flax holders therein; and means for lowering the holders to said dressing means, and raising them again to the said track after the flax has been dressed comprising a rocking arm upon the end of which the movable track piece is mounted, and a cam to rock said arm.

4. Raising and lowering mechanism for hackling apparatus provided with intermediate dressing mechanism and with a track connecting two machines, comprising a movable piece provided in said track to receive the flax holders therein, a rocking arm upon the end of which the movable track piece is mounted, a rocking lever to which said arm is pivoted, cam mechanism for operating said lever, a crank connected to said arm, and a fixed stud coöperative with said crank to cause said arm to swing as it is lowered and raised.

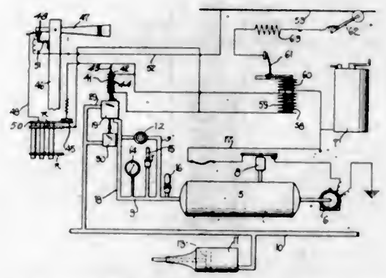
5. Raising and lowering mechanism for hackling apparatus provided with intermediate dressing mechanism and with a transverse track connecting two machines and having a gap therein, comprising a movable length of track to fit the gap and adapted to receive the flax holders, a rocking lever, a short, swinging arm pivoted to the end of the lever and to which the movable length of track is attached, a forked lever on the end of said arm, a fixed stud engaging the forked lever to cause the said arm to assume a vertical and a horizontal position, and means for rocking and adjusting the throw of the first-named lever.

1,132,449. WASHING APPARATUS. ALVIN L. COX, Elizabethtown, Ky. Filed Mar. 28, 1914. Serial No. 827,931. (Cl. 15—53.)



In washing apparatus of the character described, a tubular handle, an approximately bulbous-shaped shell connected with one end thereof and provided with an axially extending shank and angularly arranged apertures disposed near the shank for the passage of the water, a brushing element, a head having the brushing element secured thereto and provided with a shank, and a flexible tube receiving the shanks in the opposite ends thereof.

1,132,450. AUTOMATIC TRAIN-CONTROL SYSTEM. LE ROY C. CRIM, Altmar, N. Y. Filed Apr. 20, 1914. Serial No. 833,214. (Cl. 246—58.)



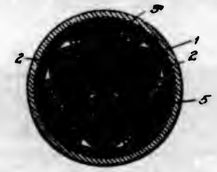
1. In a system of railway control, the combination with an air brake system including an air supply pipe and motorman's valve, of a normally open valve, branch pipes connected to the supply pipe and to the brake cylinders, said open valve and the motorman's valve being located in one of said branch pipes, a normally closed valve in the other of said branch pipes and controlling air communication through the same, means for adjustably connecting said latter valve to the normally open valve, electrically controlled means for simultaneously operating said valves when the motorman's valve is in exhaust position whereby the first named valve is closed and the second valve opened to establish communication through the second named pipes between the supply pipe and the brake cylinders, a latch device for holding the valves in the latter positions, and manually operable means to actuate said latch device to release said valves to permit the same to return to their respective normal positions.

2. In a railway control system, the combination with an air brake system including an air supply pipe and the motorman's valve, of a normally open valve, branch pipes connected to the supply pipe and to the brake cylinders, said latter valve and the motorman's valve being located in one of said branch pipes, a valve casing having two compartments to which the other of the branch pipes is connected, a valve normally closing communication between said compartments, means for adjustably connecting said valve to the normally open valve, a vertical wall arranged in one of said compartments between one of the branch pipe connections and said valve, a valve mounted in said wall, means for operating said valves to close the valve in the supply pipe and open said normally closed valve to establish communication between the compartments of the valve casing, means for varying the air pressure necessary to move the valve in said vertical wall to its open position and establish communication through said branch pipe, a latch device for holding the connected valves in their latter positions, and means for manually operating said device to release the valves and permit the same to return to their respective normal positions.

1,132,451. MULTIPLE-CONDUCTOR ELECTRICAL CABLE. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 14, 1914. Serial No. 811,979. (Cl. 173—264.)

1. In a multiple-conductor cable, the combination of a plurality of conductors and a plurality of individually separate filler bodies of which one forms a central and the other lateral fillers, bunched within a protecting cover, the said central filler capable of enduring dielectric stress equally in all directions.

2. In a multiple-conductor cable, the combination of a plurality of conductors inclosed each in insulation and a plurality of individually separate filler bodies of which one forms a central and the other lateral fillers, all bunched within a protecting cover, the said central filler having a specific impedance not greater than that of the insulation around the individual conductors.



3. In a multiple-conductor cable, the combination of a plurality of individually insulated conductors grouped about a central body whose specific inductive capacity is greater than that of the insulation of the individual conductors.

4. In a multiple-conductor cable, the combination of a plurality of conductors grouped about a central body formed of wrapped paper.

5. In a multiple-conductor cable the combination of a plurality of three or more conductors each surrounded individually in an envelop of insulation and all grouped about a central body of insulating material, bodies of insulating material filling the lateral interstices between adjacent insulated conductors, the material composing such lateral fillers being of a specific inductive capacity greater than that of the material employed in insulating the several conductors individually.

[Claims 6 to 10 not printed in the Gazette.]

1,132,452. MULTIPLE-CONDUCTOR CABLE. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 14, 1914. Serial No. 811,980. (Cl. 173—264.)



1. In a multiple conductor high-tension cable, a body of conducting material covering the inner face of the individual insulated conductor, and extending part way around such individual conductor.

2. In a high-tension cable including three or more separately insulated conductors, an incomplete integument of conducting material covering the opposing faces of each of the assembled insulated conductors and extending outwardly beyond the point where each pair of adjacent conductors approach one another most closely.

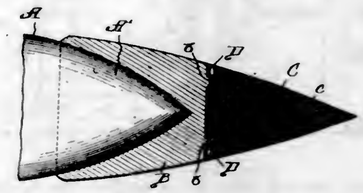
3. In a multiple-conductor high-tension cable, the combination of a plurality of individually insulated conductors symmetrically assembled around a central filling body, said central filling body being covered with an integument of conducting material, such integument incompletely surrounding said individually insulated conductors.

4. In a multiple-conductor high-tension cable, a central body filling the space formed by and between the assembled insulated conductors, said filling body being covered with an integument of conducting material, and a facing of conducting material incompletely surrounding each insulated conductor and applied to the opposing surfaces of each pair of adjacent insulated conductors beyond the point of their closest approach, one to the other.

5. In a multiple-conductor high-tension cable, a central body filling the space formed by and between the assembled insulated conductors, said filling body being covered with an integument of conducting material, and lateral filling bodies formed of material capable of enduring electrical stress equally in all directions.

[Claims 6 to 8 not printed in the Gazette.]

1,132,453. CONTOUR-CAP FOR ARMOR-PIERCING PROJECTILES. CLELAND DAVIS, U. S. Navy, assignor to Ordnance Development Company of America, Wilmington, Del., a Corporation of Delaware. Filed Nov. 11, 1914. Serial No. 871,515. (Cl. 102—28.)



1. The combination with a pointed armor piercing projectile, of a soft metal cap secured to the nose of the projectile and surrounding and supporting the point thereof, and a solid contour cap secured to the soft metal cap and tapered to reduce the resistance of the atmosphere to the flight of the projectile, the said contour cap having a core of soft yielding non-metallic material, and the said contour cap with its core being adapted to yield when the projectile strikes the target without interfering with the proper operation of the projectile at the moment of impact, substantially as described.

2. The combination with a pointed armor piercing projectile, of a soft metal cap secured to the nose of the projectile and surrounding and supporting the point thereof, and a solid contour cap secured to the soft metal cap and tapered to reduce the resistance of the atmosphere to the flight of the projectile, the said contour cap having a core of soft rubber, and the said contour cap with its core being adapted to yield when the projectile strikes the target without interfering with the proper operation of the projectile at the moment of impact, substantially as described.

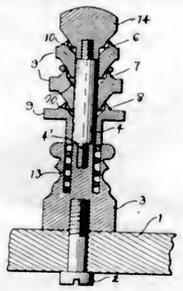
3. The combination with a pointed armor piercing projectile, of a soft metal cap secured to the nose of the projectile and surrounding and supporting the point thereof, and a solid contour cap secured to the soft metal cap and tapered to reduce the resistance of the atmosphere to the flight of the projectile, the said contour cap having an outer inclosing shell of sufficient rigidity to retain its shape during the travel of the projectile, and a core of soft yielding non-metallic material, and the said contour cap with its core being adapted to yield when the projectile strikes the target without interfering with the proper operation of the projectile at the moment of impact, substantially as described.

4. The combination with a pointed armor piercing projectile, of a soft metal cap secured to the nose of the projectile and surrounding and supporting the point thereof, and a solid contour cap secured to the soft metal cap and tapered to reduce the resistance of the atmosphere to the flight of the projectile, the said contour cap having an outer inclosing shell of sufficient rigidity to retain its shape during the travel of the projectile, and a core of soft rubber, and the said contour cap with its core being adapted to yield when the projectile strikes the target without interfering with the proper operation of the projectile at the moment of impact, substantially as described.

5. The combination with a pointed armor piercing projectile, of a soft metal cap secured to the nose of the projectile and surrounding and supporting the point thereof, and a solid contour cap secured to the soft metal cap and tapered to reduce the resistance of the atmosphere to the flight of the projectile, the said contour cap comprising

a mass of soft rubber adapted to yield when the projectile strikes the target without interfering with the proper operation of the projectile at the moment of impact, substantially as described.

1,132,454. BINDING-POST. FREDERICK HENRY DAY, Dawson, Yukon Territory, Canada. Filed Sept. 3, 1913. Serial No. 787,869. (Cl. 173—259.)



1. A binding post comprising a stem, a plurality of clamping members slidably mounted thereupon, and means for placing said members under compression, said members being freely movable along the stem against the compression means and of varying diameters to facilitate manipulation in separating the same to insert a wire or the like.

2. A binding post comprising a base, a stem extending therefrom, a plurality of clamping members arranged in superposed relation and freely movable on said stem, and pressure means interposed between the base and the lowermost clamping member pressing all of said members in a direction away from the base, whereby upon movement of said lowermost clamping member toward the base pressure on the superposed clamping members is relieved to permit insertion of a wire therebetween.

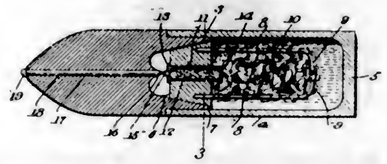
3. A binding post comprising a base formed with an annular seat, a stem connected to said base, a plurality of wire clamping members mounted upon the stem one above the other in contacting relation, and a spring member disposed in the seat, the lowermost of said clamping members being received in the seat of the base aforesaid into cooperation with the spring and constituting an operating member for relieving pressure from the clamping members to permit of insertion of a wire between any of said clamping members.

4. A binding post comprising a base formed with an annular recess, a stem connected to said base, a plurality of wire clamping members mounted upon the stem one above the other in contacting relation, and a spring member disposed in the recess, the lowermost of said clamping members having a gland adapted to be received in said recess into coöperation with the spring and constituting an operating member whereby upon movement of said gland into the recess to relieve pressure from the clamping members.

5. A binding post comprising a base, a stem detachably connected therewith, a cap on said stem, a plurality of clamping members slidably mounted upon the stem in superposed contiguous relation, each member being formed with an annular flange, each succeeding member at its flanged portion being of greater diameter to facilitate separation of the members, and means tending to slide the members along the stem away from the base placing said members under compression.

1,132,455. PROJECTILE. HENRY DEAN, Onaway, Mich. Filed Aug. 5, 1914. Serial No. 855,202. (Cl. 102—29.)

1. A projectile of the class described comprising an elongated body, a hollow casing adapted to contain inflammable fluids and having one end open, said end of the casing being adapted to fit detachably onto the rear end of the body, a torch connected with the rear end of the body and being disposed within the casing, said torch including



a base having a chamber therein adapted to contain explosive material, a percussion cap mounted within the forward end of the chamber, and means for detonating the percussion cap when the projectile strikes.

2. A projectile of the class described comprising an elongated body, a hollow casing adapted to contain inflammable fluids and having one end open, said end of the casing being adapted to fit detachably onto the rear end of the body, a torch connected with the rear end of the body and being disposed within the casing, said torch including a base having a chamber therein adapted to contain explosive material, a percussion cap mounted within the forward end of the chamber, and a firing pin mounted within the body for longitudinal movement therein and being adapted to engage the said percussion cap, the forward end of the firing pin being adapted normally to project outwardly from the adjacent end of the body.

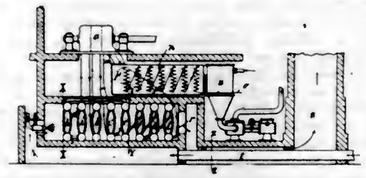
3. A projectile of the class described comprising an elongated body, a hollow casing adapted to contain inflammable fluids and having one end open, said end of the casing being adapted to fit detachably onto the rear end of the body, a torch connected with the rear end of the body and being disposed within the casing, said torch including a base having a chamber therein adapted to contain explosive material, a percussion cap mounted within the forward end of the chamber, means for detonating the percussion cap when the projectile strikes, a mass of combustible solid material adapted to be mounted upon the base of the torch within the casing, and means for securing the said mass of material detachably of the torch base.

4. A projectile of the class described comprising an elongated body, a hollow casing adapted to contain inflammable fluids and having one end open, said end of the casing being adapted to fit detachably onto the rear end of the body, a torch connected with the rear end of the body and being disposed within the casing, said torch including a base having a chamber therein adapted to contain explosive material, a percussion cap mounted within the forward end of the chamber, means for detonating the percussion cap when the projectile strikes, a mass of combustible solid material adapted to be mounted upon the base of the torch within the casing, and coextensive holding arms of resilient material projecting rearwardly from the torch base within the casing and having their rear ends adapted to embrace the said mass of solid material.

5. A projectile of the class described comprising an elongated body, a hollow casing adapted to contain inflammable fluids and having one end open, said end of the casing being adapted to fit detachably onto the rear end of the body, a torch connected with the rear end of the body and being disposed within the casing, said torch including a base having a chamber therein adapted to contain explosive material, a percussion cap mounted within the forward end of the chamber, means for detonating the percussion cap when the projectile strikes, a mass of combustible solid material adapted to be mounted upon the base of the torch within the casing, and coextensive holding arms of resilient material projecting rearwardly from the torch base within the casing and having their rear ends adapted to embrace the said mass of solid material, the said ends of the holding arms being bent inwardly and arranged substantially parallel to each other.

[Claims 6 to 9 not printed in the Gazette.]

1,132,456. ELASTIC-FLUID ENGINE. SEBASTIAN ZIANI DE FERRANTI, Hampstead, London, England. Original application filed Oct. 31, 1903, Serial No. 179,407. Divided and this application filed Mar. 9, 1905. Serial No. 249,253. (Cl. 121—95.)



1. In combination a plurality of turbine chambers through which working fluid passes in series, means for generating hot gases of combustion, flue means for said hot gases, reheater elements for said working fluid operatively disposed in said flue means, together with superheating elements situated in said flue means in advance, and water heating elements situated in the rear of said reheating elements in relation to the flow of said gases, substantially as described.

2. In combination a plurality of turbine chambers through which working fluid passes in series, means for generating hot gases of combustion, flue means for said hot gases, reheater elements for said working fluid operatively disposed in said flue means, and abstracting a certain proportion of the heat in the flue gases, together with air heating means for abstracting a residuum of heat from said gases, substantially as described.

3. In combination a plurality of turbine chambers through which working fluid passes in series, means for generating hot gases of combustion, flue means for said hot gases, together with means for fractionally imparting heat to the feed water by abstracting heat from the exhaust from said turbine chambers, and also from the hot gases in said flue means, substantially as described.

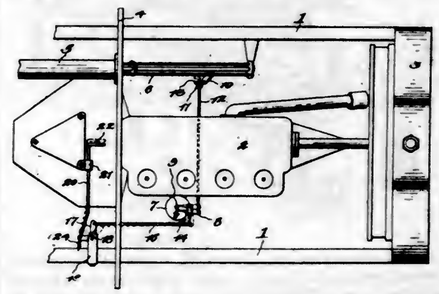
4. In combination a plurality of turbine chambers through which working fluid passes in series, means for generating hot gases of combustion, flue means for said hot gases, reheater elements for said working fluid operatively disposed in said flue means, superheating elements situated in said flue means in advance, and boiler elements, feed water heating elements and air heating elements situated in the rear of said reheating elements in relation to the flow of the hot gases in said flue means, substantially as described.

5. In combination a plurality of turbine chambers through which working fluid passes in series, a furnace flue, reheater elements for said working fluid operatively disposed within said flue, a chimney flue together with duct means in said chimney flue through which air to said furnace is led, substantially as described.

1,132,457. ACCELERATING DEVICE FOR AUTOMOBILES. WALTER G. DEIDLE, Barberton, Ohio. Filed May 21, 1914. Serial No. 840,115. (Cl. 74—81.)

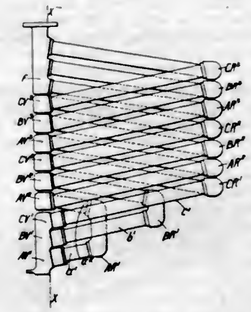
1. The combination with the throttle lever mechanism of an automobile, of an accelerating mechanism movable independently of the same and including a lever, a spring for maintaining the lever in normal position, a tubular guide and bearing member arranged beneath the floor of the automobile and extending horizontally and crosswise of the automobile, an operating rod extending horizontally and crosswise of the automobile and arranged for sliding movement in said tubular guide and bearing member, one end of said rod being pivotally connected to said lever, a foot piece extending upwardly from the other end of said rod and passing above the floor of the machine and disposed in position to be moved horizontally and transversely of the automobile by the lateral movement of the foot of the operator, substantially as described and for the purpose set forth.

2. The combination with an automobile throttle lever shaft having an arm carrying an eye, a carbureter having an operating lever, a link pivoted to said lever and passed loosely through said eye to slide therein, the free extremity of said link having a laterally projecting stop to coact with said eye, of means movable independently of the throttle lever shaft for actuating the lever of the carbureter com-



prising an arm clamped on the carbureter lever between its pivot and said link, a foot piece slidable horizontally and transversely of the longitudinal axis of the automobile, and operative connections between said foot piece and the last-mentioned arm.

1,132,458. CONSTRUCTION OF WATER-TUBE BOILERS. ROBERT DELAUNAY-BELLEVILLE, St.-Denis, France, assignor to Societe Anonyme Des Etablissements Delaunay-Belleville, St.-Denis, France, a Corporation of France. Filed July 20, 1914. Serial No. 852,077. (Cl. 122—235.)



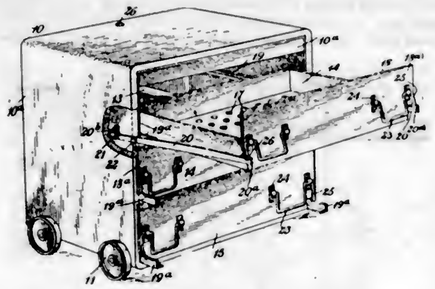
1. A boiler element composed of a plurality of coils having co-axial convolutions, each convolution of each coil being vertically adjacent to a convolution of another coil and the lower convolution of certain coils being shorter than the lower convolution of the adjacent coil, for the purpose described.

2. A boiler element composed of three coils each having a plurality of convolutions arranged in co-axial relation, each convolution of each coil being vertically adjacent to a convolution of another coil and the lower convolution of the second coil being shorter than the lower convolution of the third coil, and the lower convolution of the first coil being shorter than the lower convolution of the second coil, for the purpose described.

1,132,459. FIRELESS LEER. JAMES JOHN DENNING, Gas City, Ind. Filed Jan. 21, 1914. Serial No. 813,450. (Cl. 49—46.)

1. A leer comprising a receptacle, and a slidable annealing pan, said receptacle having a supporting member projecting forwardly at the front, and the pan having a mem-

ber rockable relatively to the pan into engagement with the projecting member when the pan is in the inner position.



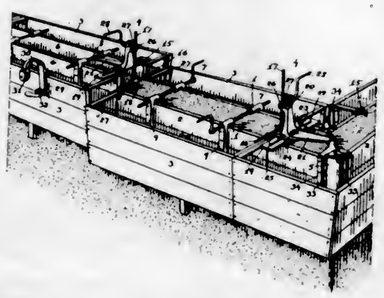
2. A leer comprising a receptacle, a pan rest projecting forward beyond the front of the receptacle at the sides, an annealing pan in the receptacle, and a device rockable on the pan into engagement with one of the said projecting pan rests.

3. In a leer, a casing, a slidable annealing pan, fixed rests on the casing at the front, auxiliary supporting bars of a length to project forwardly beyond the fixed rests, means to removably secure said bars, and means on the pan and rockable thereon to engage the said bars.

4. In a leer, a receptacle, an annealing pan therefor, rockable handles on the pan, said handles having crank arms, and members on the receptacle at the front, engageable by the said crank arms.

5. In a leer, a receptacle having racks therein, annealing pans on the racks, angle bars associated with the racks at the sides and projecting at the front of the receptacle, and auxiliary supports for the pans, said supports being disposed at the sides of the receptacle adjacent to the angle bars and projecting beyond the latter.

1,132,460. BUILDING APPARATUS. JOHN J. DEWEY, Fairmount, Tenn. Filed Aug. 13, 1913. Serial No. 784,548. (Cl. 25—131.)



1. In wall-molding apparatus, a horizontal series of mold sections, means for securing each section of the series in position upon the completed portion of a wall being molded, and means carried by alternate secured sections in said series for engaging and lifting an unsecured middle section.

2. In wall-molding apparatus, a horizontal series of mold sections, means for securing each section of the series in position upon the completed portion of the wall being molded, and coöperating means carried by alternate secured sections and a middle unsecured section for lifting the middle section.

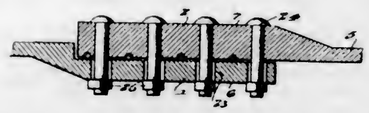
3. In wall-molding apparatus, a horizontal series of mold sections, means for securing each section of the series in position upon the completed portion of the wall being molded, and coöperating screw means carried by alternate secured sections and a middle unsecured section for lifting the middle section.

4. In wall molding apparatus, a plurality of opposed side mold sections having transverse adjustable members connecting said sides, means for clamping each section upon the completed portion of the wall being molded, and means of vertical adjustment engaging the transverse members of adjacent sections.

5. In wall molding apparatus, a plurality of opposed-side mold sections having transverse adjustable members connecting said sides, means for clamping each section upon the completed portion of the wall being molded, standards upon the transverse members of certain sections, and vertical adjusting screws engaging said standards, and the transverse members of adjacent sections.

[Claims 6 to 9 not printed in the Gazette.]

1,132,461. RAIL-SPLICE. ISAAC N. DIMM, Port Royal, Pa. Filed July 25, 1914. Serial No. 853,081. (Cl. 239—8.)



1. In a rail joint, two rails cut longitudinally from their ends, one of the said cut ends being formed with a longitudinally arranged tongue, the second rail end having a longitudinal groove to receive the tongue, anti-friction members arranged between the tongue and groove and engaging with the faces thereof, and securing means arranged at the opposite sides of the anti-friction members.

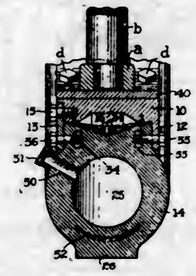
2. In a device of the class described, two rails each having a thickened end, and each of the said ends cut longitudinally upon one of its sides, one of the said ends having a longitudinal groove, the upper and lower walls of which being beveled, the second cut end having a tongue to be received within the groove and the said tongue having its upper and lower walls beveled, the groove being of a greater depth than the thickness of the tongue, anti-friction rollers carried by the tongue and contacting with the inner wall of the groove, and transverse securing members for the rail ends.

3. In a device of the class described, two rails having thickened ends, each of the said ends being cut longitudinally upon one of the faces of the rails, one of the said faces being formed with a longitudinally extending groove arranged between its head and base flange and having its upper and lower walls beveled, the said lower wall communicating with a horizontally straight wall formed with the base of the rail, the second rail end having its inner face formed with a longitudinal tongue which extends form its head and base, the upper and lower walls of the said tongue being beveled to co-act with the beveled walls of the groove, the lower beveled wall communicating with the horizontally straight wall arranged at the edge of the cut portion of the base to receive the horizontally straight wall of the base extension of the first mentioned rail, anti-friction rollers arranged in vertical recesses in the face of the tongue and contacting with the inner wall of the groove, one of the said rail ends having round openings, the second rail end having elongated registering openings, bolts passing through the openings, and nuts for the bolts.

1,132,462. VEHICLE-WHEEL. BARTHOLOMEW F. EARLY, Lowell, Mass. Filed Sept. 13, 1911. Serial No. 649,019. (Cl. 152—8.)

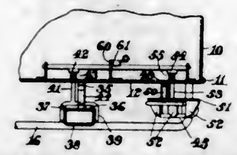
In a wheel of the character described, in combination, a metal rim having side flanges, one of which is detachable, said rim being provided between said flanges with a circumferentially extended groove having bearing surfaces

on its opposite sides, mechanical spring members extended across said groove and having their opposite ends resting upon the upper surfaces of said bearing surfaces and free to move thereon, means for limiting the movement of said springs on said bearing surfaces, an annular ring connecting said spring members, supplementary spring members



secured to said ring and extended transversely of said groove with their opposite ends free and resting on the main spring members, and a rubber tire secured in said groove and yieldingly backed up by said spring members, substantially as described.

1,132,463. SAFE FOR TOILET ARTICLES. SAMUEL ELBION, New York, N. Y. Filed May 15, 1914. Serial No. 839,176. (Cl. 211—7.)



1. In a safe for toilet articles, the combination of a casing; a comb support secured to a wall thereof, and a movable forked member adapted to straddle the back of said comb with a prong thereof interposed between the teeth thereof.

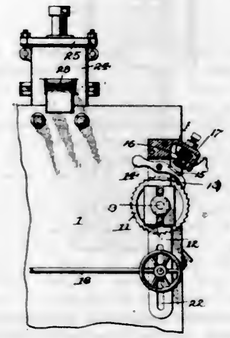
2. In a safe for toilet articles, the combination of a casing; a comb support secured to a wall thereof, a movable forked member adapted to straddle the back of said comb with a prong thereof interposed between the teeth thereof, and means for locking said forked member in adjusted position.

3. In a safe for toilet articles, the combination of a casing; a support for a toilet article secured thereto; a movable locking device coöperating therewith to prevent the removal of said toilet article from said support; a spring for normally retaining said locking device in inoperative position; a hinged member within said casing for moving said locking device into operative position, said member being provided with a lateral arm; and means coacting therewith for locking said member in adjusted position.

4. In a safe for toilet articles, the combination of a casing; a support for a toilet article secured thereto; a movable spring pressed locking device coöperating therewith to prevent the removal of said toilet article from said support and extending through said casing; a member hinged to the inner face of said casing and adapted to be moved against the inner end of said movable member to force said member into operative position; and means for locking said hinged member in operative position.

5. In a safe for toilet articles, the combination of a casing; a support for a toilet article secured thereto; a movable spring pressed locking device coöperating therewith to prevent the removal of said toilet article from said support and extending through said casing; a member hinged to the inner face of said casing and adapted to be moved against the inner end of said movable member to force said member into operative position; a clip secured to the inner face of said casing; and an arm pivoted to said hinged member and adapted to coact with said clip to lock said hinged member in adjusted position.

1,132,464. JIG. GUY H. ELMORE, Swarthmore, Pa. Filed July 2, 1913. Serial No. 776,986. (Cl. 83—58.)



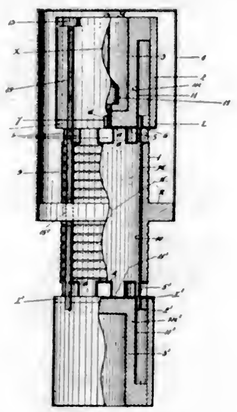
1. The combination with a jig having a screen and a discharge valve located adjacent said screen, of a ratchet wheel adapted to drive said valve; a lever; means for oscillating said lever; a pawl carried by said lever and adapted to engage the teeth on said ratchet wheel to drive the same; an electro-magnet adapted when energized to hold said pawl away from said ratchet wheel; a float adapted to rest in material on said screen; and a circuit closing device connected with the float and adapted to be actuated by the rise and fall thereof and interposed in the circuit through said magnet to control the same.

2. The combination with a jig having a screen and a discharge valve located adjacent said screen, of a ratchet wheel adapted to drive said valve; a lever; means for oscillating said lever; a plurality of pawls carried by said lever and adapted individually to engage the teeth on said ratchet to drive the same; electro-magnets adapted when energized to hold said pawls away from said ratchet wheel; a float adapted to rest in material on said screen; and a circuit closing device connected with the float and adapted to be actuated by the rise and fall thereof and interposed in the circuit through said electro-magnets to control the same.

3. An electro-magnetic throw-out device for jigs provided with a rotary discharge valve and a float controlled circuit closer, comprising in combination, a ratchet wheel in driving relation with said discharge valve, a rocker arm mounted coaxially with said ratchet wheel, a pawl carried by said rocker arm and adapted to engage said ratchet wheel, an electro-magnet carried by said rocker arm and adapted to hold said pawl out of engaging relation with said ratchet wheel, driving connections for rocking said rocker arm, and suitable electric connections from said electro-magnet to the float controlled circuit closer.

4. The combination with discharge valve drive mechanism for jigs, including a ratchet, a rocker arm and a pawl carried by said rocker arm to engage said ratchet; of an electro-magnet carried by said rocker arm and adapted to withhold said pawl from engaging relation with said ratchet; and suitable electrical connections for said magnet to permit it to be energized and deënergized to retract and release said pawl.

1,132,465. APPARATUS FOR CONVERTING HEAT INTO WORK. REGINALD A. FESSENDEN, Brookline, Mass. Filed Apr. 8, 1912. Serial No. 689,179. (Cl. 123—62.)



1. A thermic motor comprising in combination a cylinder, a piston-body having its external diameter smaller than the internal diameter of said cylinder, and a sleeve secured to said piston-body and having its internal diameter equal to the external diameter of said cylinder, said sleeve having its bearing surface on the outside of said cylinder.

2. A thermic motor comprising in combination a cylinder and a piston, said piston being in non-contact-fit with the interior of said cylinder and in contact-fit with the exterior thereof, said piston having its bearing surface on the outside of said cylinder.

3. A thermic motor comprising in combination a cylinder, a cup-shaped piston having its external diameter smaller than the internal diameter of said cylinder, and a sleeve secured to said piston and having its internal diameter equal to the external diameter of said cylinder, said sleeve being coextensive with said piston, and having its bearing surface on the outside of said cylinder.

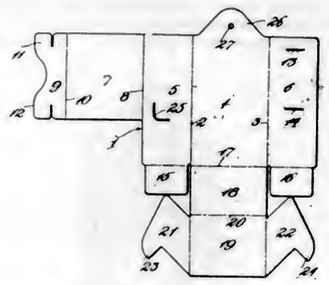
4. A thermic motor comprising in combination a cylinder and a piston, said piston being in non-contact fit with the interior of said cylinder and in contact fit with the exterior thereof, said piston having its bearing surface on the outside of said cylinder, and a lining of heat-insulating material for said cylinder.

5. A thermic motor comprising in combination a cylinder and a piston, said piston being in non-contact fit with the interior of said cylinder and in contact fit with the exterior thereof, said piston having its bearing surface on the outside of said cylinder, and a lining of heat-insulating material for said piston.

[Claims 6 to 11 not printed in the Gazette.]

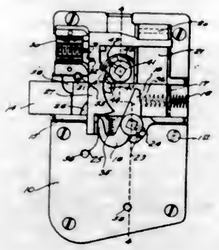
1,132,466. RECEPTACLE. WALTER H. GAMBLE, Los Angeles, Cal. Filed Dec. 1, 1913. Serial No. 804,122. (Cl. 206—31.)

A receptacle consisting of a single piece of material foldable upon itself to form side walls and a back, one of said walls having a strip arranged to overlap and be fastened by means carried thereby to the other of said side walls, said strip being shorter than said walls and back, a portion continuous with and foldable at right angles to said back to form a bottom, said portion having continuous therewith a lip provided with side wings having locking means for engagement with the strip to hold said lip projected from said strip, and at an angle to said bottom,



whereby to leave an opening in the front of said receptacle.

1,132,467. COIN-CONTROLLED LOCK. BENJAMIN GARVIN, Indianapolis, Ind., assignor to American Sanitary Lock Company, Indianapolis, Ind., a Corporation. Filed Sept. 9, 1912. Serial No. 719,332. (Cl. 194—74.)



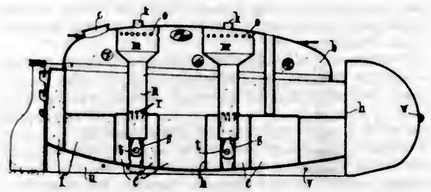
1. The combination, in a coin-controlled lock, of a casing, a bolt slidably mounted therein and provided with a shoulder and a notch, an operating lever which may act to withdraw such bolt when a coin of the required denomination is deposited between the lever and said shoulder, and a projection on said operating lever which swings into the notch in the bolt when the bolt is withdrawn but which bears against a side of the bolt and prevents the turning of the operating lever unless the required coin is deposited.

2. The combination, in a coin-controlled lock, of a casing, a bolt slidably mounted therein, and provided with a notch, an operating lever which when a coin of the required denomination is deposited may act through said coin to withdraw the bolt, and a projection on said operating lever which swings into the notch in the bolt when the bolt is withdrawn but which bears against a side of the bolt and prevents the turning of the operating lever unless the required coin is deposited.

1,132,468. APPLIANCE SUITABLE FOR LIFE-SAVING AT SEA. WILLIAM GATES, Shanghai, China. Filed Apr. 2, 1914. Serial No. 829,159. (Cl. 9—4.)

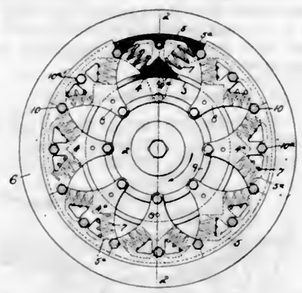
1. A life-saving appliance comprising in combination an inclosed shell or hull having an air-inlet in its upper part; and a duct extending downwardly through the lower part of said shell, the upper part of said duct having a deep cup-shaped enlargement large in relation to said air-inlet and with its perforated rim portion in juxtaposition to the upper part of said shell around said air-inlet.

2. A life-saving appliance comprising in combination a shell or hull; a removable cover therefor having an air-inlet; and a duct extending downwardly through the lower part of said shell, the upper part of said duct having a deep cup-shaped enlargement large in relation to said air-inlet and with its perforated rim portion in juxtaposition to said cover around said air-inlet.



3. A life-saving appliance comprising in combination an inclosed shell or hull having an air-inlet in its upper part; a floor dividing said shell into upper and lower compartments, said floor being above the level of the medium in which the appliance floats; and a duct extending through said floor and through the lower part of said shell, the upper part of said duct having a deep cup-shaped enlargement large in relation to said air-inlet and disposed in juxtaposition to the upper part of said shell, said duct being provided with two sets of perforations, one of said sets being in the immediate neighborhood of the upper part of said shell and the other of said sets being immediately above said floor.

1,132,469. SPRING-WHEEL. GILBERT E. GAY, Damariscotta, Me. Filed Sept. 16, 1913. Serial No. 790,083. (Cl. 152—32.)



A spring wheel comprising an inner portion of disk shape having a peripheral rim, a concentric outer portion having a suitable tread, abutments on said peripheral rim and the inner face of said outer portion staggered in relation to each other, alternately inclined springs located between said abutments, and a plurality of pairs of segmental plates secured to said outer portion each pair of plates inclosing two of the springs between them, and having portions extending inwardly over said peripheral ring, and independent ring-shaped bearing members secured to said inwardly extending portions and bearing against opposite sides of the disk-shaped inner portion, substantially as described.

1,132,470. SWITCH. DAVID D. GORDON, Chicago, Ill., assignor to Gordon Electric and Manufacturing Co., Chicago, Ill. Filed Apr. 30, 1912. Serial No. 694,104. (Cl. 175—293.)

1. A device of the character described having a switch element, a movable switch element, a rocking bar to control said movable switch element along which said movable switch element is movable, means to define the limit of movement of said movable switch element, resilient means to hold said movable switch element in association with said rocking bar, and a rocking link having its free end associated with said movable switch element.

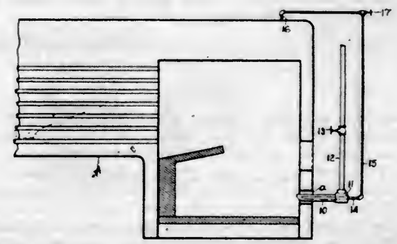


2. A device of the character described having a switch element, a cylindrical movable switch element, a rocking bar to control said movable switch element along which said movable switch element rolls, means to define the limit of movement of said movable switch element, resilient means to hold said movable switch element in association with said rocking bar, and a rocking link having its free end associated with said movable switch element.

3. A device of the character described having a switch element, a movable switch element, a rocking bar to control said movable switch element along which said movable switch element is movable, means on said rocking bar to define the limit of movement of said movable switch element, resilient means to hold said movable switch element in association with said rocking bar, and a rocking link having its free end associated with said movable switch element, said resilient means also serving to maintain said rocking bar in one or the other of its alternative positions.

4. A device of the character described having a switch element, a cylindrical movable switch element, a rocking bar to control said movable switch element along which said movable switch element rolls, means on the rocking bar to define the limit of movement of said movable switch element, resilient means to hold said movable switch element in association with said rocking bar, and a rocking link having its free end associated with said movable switch element, said resilient means also serving to maintain said rocking bar in one or the other of its alternative positions.

1,132,471. OIL-BURNER. WILLIAM HENRY HACKMANN, Dixon, Cal. Filed Dec. 2, 1914. Serial No. 875,113. (Cl. 158—75.)

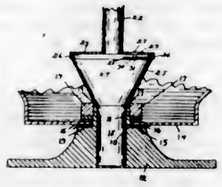


1. A crude oil burner of the gravity feed type, comprising an outer elongated shell having means at its rear end for connection with a gravity fuel supply, and an elongated inner steam tube within said shell below the top of the latter and having a connection at its rear end for receiving a steam supply, the said steam tube gradually inclining upward from its rear to its front end, said shell being formed at the front end with a flattened discharge nozzle presenting an oblong discharge slot transversely disposed directly adjacent to the top of the shell, the said nozzle, below the slot, presenting a front wall inclining

upwardly and forwardly from the bottom of the shell and in front of the steam tube and the said steam tube having a correspondingly formed flattened nozzle with an oblong discharge slot below and rearward of the slot of the fuel nozzle, the steam nozzle having an upwardly inclined front wall spaced from and substantially parallel with the inclined front of the fuel nozzle.

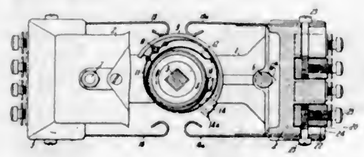
2. A fuel burner of the character described, comprising an elongated outer fuel shell having a flattened discharge nozzle at the front end presenting a transverse oblong discharge slot directly adjacent to the flattened top of the shell, a head having threaded connection with the rear end of the shell and with a vertical oil supply pipe, and an elongated tube disposed longitudinally within the shell and extending at its rear end through the said head, said tube being provided with means at its rear end to connect with a fluid supply to be mixed with the fuel and having at its front end a nozzle presenting an oblong, transverse discharge slot in the rear of and below the discharge slot of the shell and adjacent to the top of the said tube.

1,132,472. PERCOLATOR. JOHN W. HAGEARTY, New Britain, Conn. Filed Mar. 12, 1914. Serial No. 824,196. (Cl. 53—3.)



In a percolator, a liquid receiving chamber having a flat top wall and a delivery tube extending upwardly therefrom, a valve supported from the said top wall, suitable for closing a port in the said top wall, the said valve being in the form of a flat plate having holes in the ends, and the supporting means for the said valve comprising a plurality of headed pins passing through the said holes, extending downwardly from the said top wall, and having the heads at the lower side of the said plate.

1,132,473. CIRCUIT-CONTROLLER. CLINTON O. HARRINGTON, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Sept. 5, 1913. Serial No. 788,300. (Cl. 175—288.)



1. A circuit controller comprising a contact member, a brush member adapted to make contact therewith, means for mounting one of said members for movement with relation to the other, a contact block carried by said contact member and located adjacent one end thereof and capable of movement toward and away from said end, means for biasing said block toward the said end of the contact member, and a lip on the surface of the block adapted for engagement with the brush member whereby the block is drawn away from the contact member by the brush member during movement of the movable member in one direction.

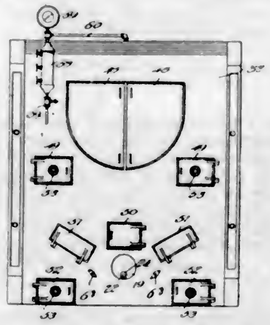
2. A circuit controller comprising a contact segment, means for mounting said segment so that it may be oscillated, a fixed brush adapted to make contact with said segment, a contact block carried by said segment and located adjacent one end of the segment and movable toward and away from the segment, means for biasing the block toward said end of the segment, and a lip on the block adapted for engagement with the brush whereby the segment draws away from the block during oscillation in one direction.

3. A circuit controller comprising a contact segment, means for mounting said segment so that it may be oscillated, a brush mounted to make contact with said segment, a contact block carried by the segment and movable toward and away from one end of the segment, and means for biasing the block toward the segment, the contacting surface of the block projecting slightly beyond the contacting surface of the segment whereby the block is engaged by the brush and the segment therefore draws away from the block during movement of the segment in one direction.

4. A circuit controller comprising a contact segment having a web and a flange, means for mounting said segment so that it may be oscillated, a supporting member pivotally attached to said web, a contact block carried by said supporting member and forming a continuation of one end of the segment, a spring acting on said segment and on said supporting member for biasing the contact block toward the said end of the segment, and a brush mounted to bear on the segment and on the block whereby when the segment oscillates in one direction the contact block is retained by the brush and the segment draws away from the block.

5. A circuit controller comprising a contact segment, means for mounting said segment so that it may be oscillated, a contact block movably attached to said segment and located adjacent one end of the segment, a spring acting on the segment and on the block for biasing the block toward the said end of the segment, and a brush mounted to engage with the segment and block, whereby the block is retained by the brush so that the segment draws away from the block during oscillation of the segment in one direction.

1,132,474. DOWNDRAFT SIDE-FEED SMOKELESS FURNACE. MICHAEL E. HERBERT, Chicago, Ill. Filed Nov. 6, 1912. Serial No. 729,833. (Cl. 122—173.)



1. In a device of the character specified, a boiler, water legs below the boiler and at the front thereof and spaced apart laterally from each other, pipes connecting the water legs at spaced intervals and arranged at the tops of the legs, a drum arranged between and below the legs, a connection between each of the water legs and the drum at the rear end thereof, pipes arranged approximately parallel with the drum at each side and above the same, and a series of pipes connecting each of the lateral pipes with the drum, the lateral pipes communicating with the boiler near the top thereof, and a pipe leading from each water leg to the adjacent pipe of the last-named pipes and communicating therewith intermediate the ends of the said pipe.

2. In a device of the character specified, a boiler, water legs arranged below the boiler and spaced apart laterally from each other, a series of communications between the water legs at the tops thereof, a drum arranged below and between the water legs, a lateral pipe at each side of the drum and above the level of the drum, a series of pipes connecting each lateral pipe with the drum, a communication between each lateral pipe and the boiler, and a communication between each water leg and the said last-named communication.

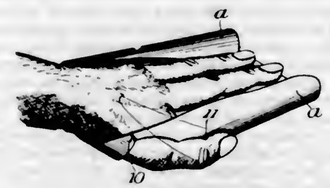
3. A water grate comprising a central drum, a series of water tubes extending radially from the drum at each side thereof, the series inclining upwardly and outwardly from the drum, a pipe at the outer end of each series of tubes with which the tubes communicate, and means for feeding the fuel toward the center of the grate.

4. In a device of the character specified, a water grate composed of a central drum and series of parallel pipes leading upwardly and outwardly from the drum at each side thereof, the pipes of each series being in the same plane, a pipe arranged approximately parallel with the drum at the outer end of each series and with which all of the pipes of the series communicate, said grate being adapted to support burning fuel, means below the grate for receiving the fuel passing between the pipes, and means in connection with the said means for stirring the fuel on the water grate.

5. In a device of the character specified, a water grate composed of a central drum and series of parallel pipes leading upwardly and outwardly from the drum at each side thereof, the pipes of each series being in the same plane, a pipe arranged approximately parallel with the drum at the outer end of each series and with which all of the pipes of the series communicate, said grate being adapted to support burning fuel, and means below the water grate for stirring the fuel on the grate.

[Claim 6 not printed in the Gazette.]

1,132,475. WASHMITT. LAURA M. HICKS, Bloomington, Ind. Filed Oct. 23, 1914. Serial No. 868,194. (Cl. 68—8.)



1. A wash mitt of the character described formed of a sheet of metal having a transversely corrugated surface with its edges rolled back to form finger receiving sockets, and with an aperture adapted to receive the thumb, substantially as set forth.

2. A wash mitt of the character described consisting of a single metal plate having a corrugated surface and formed with integral finger receiving sockets on its edges and with a thumb receiving aperture through which the thumb may be inserted, and with a thumb hold consisting of a projecting lip adjacent to said thumb receiving aperture adapted to form a bearing for the ball of the thumb to enable the wearer to hold said mitt in place during use, substantially as set forth.

3. A wash mitt of the character described comprising a metal plate having a corrugated rubbing surface and finger receiving sockets, formed by rolling back its side edges at its outer end and formed with a thumb receiving aperture with a slit in one side extending to the outside of the device, whereby said aperture may be adjusted to the hand of the wearer and secured to the base of the thumb, substantially as set forth.

1,132,476. PROCESS FOR MAKING AND PRESERVING SULFUR AND ALKALI COMPOUNDS. CHARLES E. HITE, Burlington, N. J., assignor of one-half to Walter Pincus, Philadelphia, Pa. Filed Sept. 19, 1914. Serial No. 862,478. (Cl. 23—13.)

1. The process which consists in effecting a reaction between a mixture, in suitable combining proportions, of sulfur and an alkali, under the influence of heat, arresting the reaction when a compound is formed substantially completely soluble in water and maintaining the compound in such completely soluble condition by excluding from access to it, water and oxygen.

2. The process which consists in subjecting a mixture of sulfur and soda in substantially equal proportions to the effect of heat above the normal atmospheric temperature until a compound of soda and sulfur is formed, which is practically completely soluble in water, arresting the operation at this point and maintaining the compound so formed under such condition that access of moisture and air thereto is precluded.

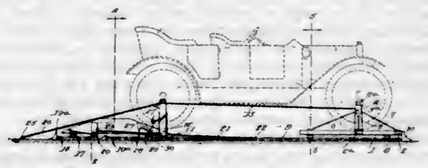
3. The process which consists in subjecting a mixture of alkali and sulfur in suitable proportions to heat until a compound is formed soluble in water, removing it from the influence of heat at this point and sealing it whereby the continuance of reaction is arrested and whereby the chemical stability and soluble condition are maintained indefinitely.

4. The process which consists in mixing sulfur and a fixed alkali in suitable proportions, heating to produce reaction, continuing the heating until substantially the whole compound is soluble, then checking the reaction and keeping the compound from access of agents which will produce a second chemical reaction and thereby produce a difficultly soluble compound.

5. The process which consists in heating a suitable mixture of sulfur and alkali until a compound soluble in water is produced by reaction between the sulfur and alkali and, at this point, stopping the reaction and sealing to prevent further reaction by the effect of air and moisture.

[Claims 6 to 8 not printed in the Gazette.]

1,132,477. TIRE-REST. WILKIE HORATIO HOLTBY, Hobart, Okla., assignor of one-half to R. M. Simmons, Hobart, Okla. Filed Mar. 7, 1914. Serial No. 823,180. (Cl. 254—88.)



1. In combination, a trackway, a carriage or truck movable on the trackway, said carriage having extensible and contractible standards for engaging the front axle of a vehicle for supporting the wheels out of contact with the supporting surface for the trackway, a support for the rear axle comprising a cross plate hinged to the supporting surface of the trackway and having extensible and contractible standards for engaging the rear axle and mounted to swing away from the front truck or carriage into horizontal position or into vertical position, a flexible connection between each front standard and the adjacent rear standard for holding the rear standards in vertical position beneath the rear axle when the front standards are in engagement with the front axle, each of the front standards having an upstanding lug for engagement by the front edge of the front axle, an approach comprising spaced rails for engagement by the wheels of the vehicle, each rail being beveled at its ends, a connection between the rails, a trackway, wheels on the rails for engaging the trackway,

resilient means normally drawing the approach toward the front truck, a latch adjacent to the rear rest for engaging the approach, to hold the approach with the highest portions of the rails in register with the standards of the rear rest, a connection between the rear rest and the latch for releasing the latch when the rear rest is in vertical position, and resilient means normally acting to draw the rear rest into inoperative position.

2. In combination, a front carriage provided with extensible and contractible rests for engaging the front axle of a vehicle to support the wheels out of contact with the supporting surface for the vehicle, a trackway for the carriage, stops at the ends of the trackway for limiting the movement of the carriage in either direction, a support for the rear axle hinged to swing toward and from the front carriage into and out of operative position, said rear support being extensible and contractible, a connection between the front carriage and the rear support for moving the rear support into operative position when the carriage engages the stops at the forward end of the trackway, an approach comprising spaced parallel rails having beveled ends upon which the wheels are adapted to run to lift the axles on to the supports, a trackway for the approach, stops at the forward end of the trackway for limiting the movement of the approach forwardly to a position with the highest portion of the rails in register with the rear support, a spring normally acting to move the approach forward, latch mechanism for locking the approach in said position, a connection between the rear support and the latch mechanism for releasing the same when the said support is in operative position, and normally active means for swinging the rear support into inoperative position.

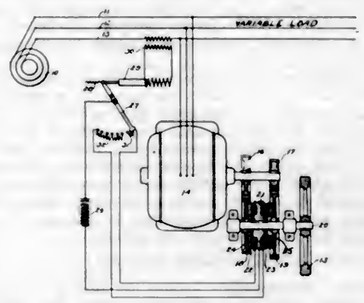
3. In combination, a front carriage provided with rests for engaging the front axle of a vehicle to support the wheels out of contact with the supporting surface for the vehicle, a trackway for the carriage, stops at the ends of the trackway for limiting the movement of the carriage in either direction, a support for the rear axle hinged to swing toward and from the front carriage into and out of operative position, a connection between the front carriage and the rear support for moving the rear support into operative position when the carriage engages the stops at the forward end of the trackway, an approach comprising spaced parallel rails having beveled ends upon which the wheels are adapted to run to lift the axles on to the supports, a trackway for the approach, stops at the forward end of the trackway for limiting the movement of the approach forwardly to a position with the highest portion of the rails in register with the rear support, a spring normally acting to move the approach forwardly, latch mechanism for locking the approach in said position, a connection between the rear support and the latch mechanism for releasing the same when the said support is in operative position, and normally active means for swinging the rear support into inoperative position.

4. In combination, a carriage having supports for the front axle of the vehicle for supporting the wheels thereof out of contact with the supporting surface for the vehicle, a support for the rear axle mounted to swing into and out of operative position, a stop for limiting the forward movement of the carriage, a connection between the carriage and the rear support for swinging the support into operative position when the carriage engages the stop, a movable inclined approach for engagement by the wheels of the vehicle to lift the axles into engagement with the supports, a stop for limiting the forward movement of the approach to a position with the highest portion thereof in register with the rear support, a spring normally acting to move the approach toward the stop, and releasable latch mechanism for holding the approach in said position, a connection between the latch mechanism and the rear support for operating the said mechanism to release the approach when the support moves into operative position, and normally active means for moving the rear support into inoperative position, the supports for the axle being extensible and contractible.

5. In combination, a carriage having supports for the front axle of the vehicle for supporting the wheels thereof out of contact with the supporting surface for the vehicle, a support for the rear axle mounted to swing into and out of operative position, a stop for limiting the forward movement of the carriage, a connection between the carriage and the rear support for operating the said mechanism to release the approach when the carriage engages the stop, a movable inclined approach for engagement by the wheels of the vehicle to lift the axles into engagement with the supports, a stop for limiting the forward movement of the approach to a position with the highest portion thereof in register with the rear support, a spring normally acting to move the approach toward the stop, and releasable latch mechanism for holding the approach in said position, a connection between the latch mechanism and the rear support for operating the said mechanism to release the approach when the support moves into operative position, and normally active means for moving the rear support into inoperative position.

[Claims 6 and 7 not printed in the Gazette.]

1,132,478. SYSTEM OF ELECTRICAL DISTRIBUTION. JOHN L. JOHNSON, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Sept. 16, 1910. Serial No. 582,302. (Cl. 171—312.)



1. In combination, a generator, a variable load circuit supplied thereby, a dynamo-electric machine connected across said circuit, a fly-wheel, and a device for connecting said fly-wheel to said dynamo-electric machine and for changing the speed ratio of said fly-wheel to said dynamo-electric machine when the load on said circuit varies.

2. In combination, a generator, a variable load circuit supplied thereby, a dynamo-electric machine connected across said circuit, a fly-wheel, and a device for connecting said fly-wheel to said dynamo-electric machine and for changing the speed ratio of said fly-wheel to said dynamo-electric machine when the load on said circuit falls below a predetermined value.

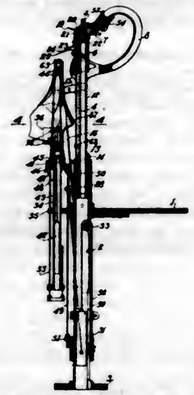
3. In combination, a generator, an electric circuit supplied thereby and carrying a variable load, a dynamo-electric machine connected across said circuit, a fly-wheel, and a device for connecting said fly-wheel to said dynamo-electric machine, and for lowering the speed ratio of said fly-wheel to said dynamo-electric machine when the load on said circuit is above a predetermined value.

4. In combination, a generator, a variable load circuit supplied thereby, a dynamo-electric machine connected across said circuit, a fly-wheel, and a device for connecting said fly-wheel to said dynamo-electric machine, and for increasing the speed ratio of said fly-wheel to said dynamo-electric machine when the load on said circuit falls below a predetermined value.

5. In combination, a generator, a circuit supplied thereby, a dynamo-electric machine connected across said circuit, a fly-wheel, and a device for connecting said fly-wheel to said dynamo-electric machine and for varying the speed ratio of said fly-wheel to said dynamo-electric machine, and means responsive to the load on said circuit for controlling said device.

[Claims 6 to 13 not printed in the Gazette.]

1,132,479. MACHINE FOR TURNING AND RELASTING SHOES. EUCLID I. LA CHAPELLE, Beverly, Mass. Filed Apr. 5, 1912. Serial No. 688,598. (Cl. 12—57.)



1. A turning and relasting machine comprising coöperating clamping members, one of which is mounted upon the other and arranged to move in the arc of a circle; a lever pivoted to one of said coöperating members and arranged to partially rotate thereon; two levers pivoted on the sides of one of said coöperating members and arranged to move laterally on the pivot as well as to partially rotate thereon; and means for operating said coöperating clamping members to clamp the sole of a shoe.

2. A turning and relasting machine comprising the combination of a fixed member for bending the sole of a shoe; coöperating clamping members sliding on the fixed member; means for locking the clamping members to the fixed member, and means to unlock the clamping members from the fixed member.

3. A turning and relasting machine comprising a bearing-rod; a clamping member movably mounted on said bearing-rod; a coöperating clamping member mounted on said first mentioned clamping member and arranged to move in the arc of a circle thereon; a spring-operated locking-bolt for locking the movable clamping member to the bearing-rod mounted on said first mentioned clamping member; projecting parts secured to said coöperating clamping member arranged to withdraw said locking bolt; and means for operating said clamping members.

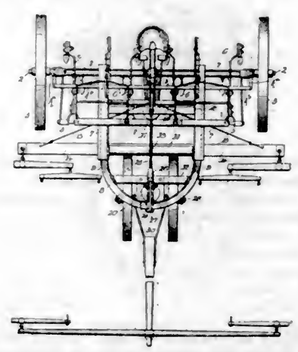
4. A turning and relasting machine comprising a bearing-rod; a clamping member movably supported thereon; a spring-operated locking bolt on said clamping member for locking it to the bearing-rod; a spring for holding said clamping member in its normal upward position; a coöperating clamping member mounted on said first mentioned clamping member and arranged to move in the arc of a circle; a treadle for operating both said clamping members; means connecting the treadle with said clamping members; means operated by the treadle for unlocking said locking bolt; and a stop on the treadle for limiting the downward movement of said clamping members, so arranged that the stop can be thrown out of operative position and the clamping members permitted to be moved to their full movement.

5. A turning and relasting machine comprising longitudinally movable coöperative clamping members; means for slightly bending the sole of a shoe during the operation of clamping the sole; and a plurality of levers for bending the heel part of the shoe and turning it on the sole thereof.

[Claims 6 to 12 not printed in the Gazette.]

1,132,480. DOUBLE-ROW CULTIVATOR. DON E. LONG, Peabody, Kans. Filed Dec. 30, 1908. Serial No. 469,962. (Cl. 97—35.)

1. In a cultivator, the combination of a supporting-frame mounted upon ground-wheels widely spaced relatively, a manually-operated steering-mechanism therefor, a truck pivotally secured to said frame and mounted on wheels narrowly spaced with relation to the frame supporting wheels, and a hitch-device, mounted distinct from said truck, on said frame in proximity to the frame-supporting wheels and to the rear of the truck-wheels and in advance of the manually-operated steering-mechanism whereby the force which is applied to move the truck is of a pushing character that is transmitted from the frame to the truck.



2. In a cultivator, the combination of a supporting-frame mounted upon ground-wheels widely spaced relatively, a manually-operated steering-mechanism therefor, a tongue-steered truck pivotally secured to said frame and mounted on wheels narrowly spaced with relation to the frame-supporting wheels, and a hitch-device mounted, distinct from said truck, on said frame in proximity to the frame-supporting wheels and to the rear of the truck wheels and in advance of the manually-operated steering-mechanism whereby the force which is applied to move the truck is of a pushing character that is transmitted from the frame to the truck.

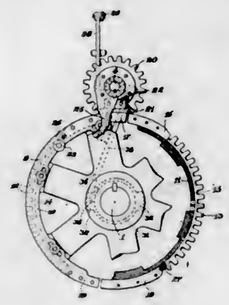
3. In a cultivator, the combination of a supporting-frame mounted upon a pair of ground-wheels widely spaced relatively, a manually-operated steering-mechanism therefor, a tongue-steering truck pivotally secured to said frame and mounted on wheels narrowly spaced with relation to the frame-supporting wheels, and a hitch-device mounted, distinct from said truck, on said frame in proximity to the frame-supporting wheels and to the rear of the truck-wheels and in advance of the manually-operated steering-mechanism, whereby the force which is applied to move the truck is of a pushing character that is transmitted from the frame to the truck.

4. A cultivator including in combination, a supporting-frame mounted upon a pair of ground-wheels, a pivoted truck provided with a pair of wheels narrowly spaced relatively to said frame-supporting wheels, a pivotal connection between the frame and the truck, and a hitch-device mounted on said frame in close proximity to the frame-supporting wheels and to the rear of the truck-wheels, whereby the supporting-frame is drawn and the truck is pushed when the structure is moving, the force applied to the frame being transmitted through said pivotal connection to the truck.

5. A cultivator including in combination, a supporting-frame mounted upon a pair of ground-wheels, a manually-operated steering-mechanism therefor, a pivoted truck provided with a pair of wheels narrowly spaced relatively to said frame-supporting wheels, a pivotal connection between the frame and the truck, a hitch-device mounted on said frame in close proximity to the frame-supporting wheels and to the rear of the truck-wheels, whereby the supporting-frame is drawn and the truck is pushed when the structure is moving, the pushing force applied to the frame being transmitted through said pivotal connection to the truck, and means for independently steering the truck.

[Claims 6 to 26 not printed in the Gazette.]

1,132,481. PRINTING-MACHINE. FRANK C. MARQUARDT, New York, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed July 5, 1913. Serial No. 777,395. (Cl. 101—104.)



1. A printing machine embodying therein a rotary plate cylinder, a rotary impression cylinder or D-roll and means whereby said impression cylinder or D-roll is alternately rotated and held stationary comprising a segmental gear movable with said plate cylinder, a guide terminating adjacent each end thereof, a segmental gear movable with said impression cylinder or D-roll, an elongated surface adjacent the ends of said gear and adapted to coöperate with said guide and coöperating means movable with said plate cylinder and with said impression cylinder or D-roll respectively whereby an initial or starting impulse is given to said impression cylinder or D-roll to bring said gears into mesh.

2. A printing machine embodying therein a movable support for a plate, an impression cylinder or D-roll rotatable about a fixed axis, means carried by said support for imparting a starting impulse to said impression cylinder or D-roll and throwing it into frictional engagement with the plate on said support, coöperating members carried by said support and said impression cylinder or D-roll, respectively, one of said members being capable of movement by the other to permit fluctuation in the peripheral speed of said impression cylinder or D-roll, a guide adjacent the end of the member carried by said support and a coöperating member carried by said impression cylinder or D-roll adapted to operatively engage said guide whereby rotation of said impression cylinder or D-roll is checked after each rotation thereof and is held in a fixed position until the succeeding actuation of said means for imparting starting impulse thereto.

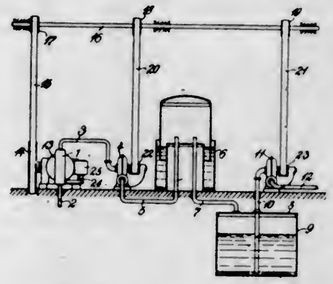
3. A printing machine embodying therein a movable support for a plate, a rotary impression cylinder or D-roll, means carried by said support for imparting a starting impulse to said impression cylinder or D-roll and throwing it into frictional engagement with the plate on said support, a rack movably supported by said support, a guide adjacent to the end of said rack, a segmental rack carried by said impression cylinder or D-roll adapted to mesh with said first named rack, whereby said D-roll is adapted to move at a peripheral speed at variance with the speed of said rack carried by said support, and a shoe carried by said segmental gear adapted through engagement with said guide to arrest rotary movement of said impression cylinder or D-roll and position it preparatory to a succeeding rotation thereof.

4. A printing machine embodying therein a movable support for a plate, a rotary impression cylinder or D-roll, means carried by said support for imparting a starting impulse to said impression cylinder or D-roll and throwing it into frictional engagement with the plate on said support, coöperating members carried by said support and said impression cylinder or D-roll, respectively, one of said members being capable of movement by the other to permit fluctuation in the peripheral speed of said impression cylinder or D-roll, means adjacent the end of the member carried by said support whereby rotation of said impression cylinder or D-roll is checked after each rotation thereof, and controlling means whereby said first named means and said coöperating members may be made inoperative to prevent the actuation of said impression cylinder or D-roll.

5. A printing machine embodying therein a movable support for a plate, a rotary impression cylinder or D-roll, means carried by said support for imparting a starting impulse to said impression cylinder or D-roll and throwing it into frictional engagement with the plate on said support, coöperating members carried by said support and said impression cylinder or D-roll, respectively, one of said members being capable of movement by the other to permit fluctuation in the peripheral speed of said impression cylinder or D-roll, means adjacent the end of the member carried by said support whereby rotation of said impression cylinder or D-roll is checked after each rotation thereof, controlling means whereby said first named means and said coöperating members may be made inoperative to prevent the actuation of said impression cylinder or D-roll, and means preventing the actuation of said last named means while said impression cylinder or D-roll is in frictional engagement with a plate on said support.

[Claims 6 to 21 not printed in the Gazette.]

1,132,482. APPARATUS FOR CONVEYING LIQUID FUEL. CARL MARTINI, Berlin, Germany; Marie Martini, executrix of said Carl Martini, deceased, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany, a Corporation of Germany. Filed Sept. 9, 1909. Serial No. 516,974. (Cl. 123—1.)



1. The combination of a gas producer, means for leading an explosive mixture thereto, a device for feeding the burned gas from the producer, an internal combustion motor for actuating said device, and means for leading to said motor, as its working medium, a portion of the said explosive mixture.

2. The combination of a gas producer, means for leading an explosive mixture thereto, a device for feeding the burned gas from the producer, an internal combustion motor, the ignition of which is controlled by the operation of the producer, for actuating said device, and means for leading to said motor, as its working medium, a portion of said explosive mixture.

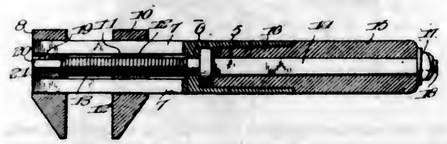
3. The combination of a gas producer, a device for feeding the gas produced therein, means for actuating said device, and a controller, influenced by the producer's action, for governing the operation of said means.

4. The combination of a gas producer, a suction device, connected with the outlet of the producer, for withdrawing gas therefrom and feeding it forward, means for actuating said device, and a device controlling said actuating means, said controlling device being exposed to, and operated by, the heat of the producer.

5. The combination of a gas producer, a suction device, connected with the outlet of the producer, for withdrawing gas therefrom and feeding it forward, means for leading an explosive mixture to said producer, an internal combustion motor for actuating said suction device, and means for leading to said motor, as its working medium, a portion of the said explosive mixture.

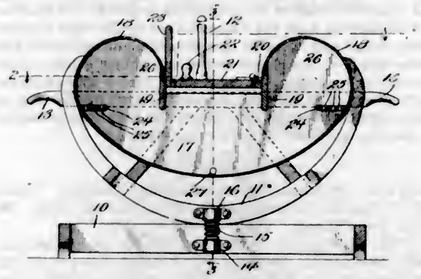
[Claims 6 to 9 not printed in the Gazette.]

1,132,483. WRENCH. JOSEPH MORHEUSER, St. Louis, Mo. Filed June 8, 1912. Serial No. 702,550. (Cl. 81—170.)



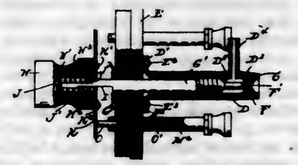
A wrench comprising a hollowed out handle having a shoulder, two rectangular shanks extending forwardly flush with said handle, a rotatable handle of equal diameter with the first mentioned handle, a reduced rotatable sleeve formed upon said second mentioned handle and adapted to fit said hollowed out handle, a longitudinally extending rod having a polygonal part fitting snugly throughout the length of said second mentioned handle at its sleeve, a flange formed upon said rod fitting said hollowed out handle against which said sleeve engages, said rod extending substantially to the end of said shanks and having a threaded stem, a slidable jaw through which said shank passes, said jaw having a threaded bore through which threaded part of said rod passes, a second jaw through which said shanks are passed, said second mentioned jaw having a socket in which the free end of said threaded part bears, a reduced stem formed upon said rod and passing through said second mentioned jaw, the last named jaw having a second socket, a pin projecting through opposite points of said stem and engaged in said second socket, said rod projecting beyond the opposite end of said rotatable handle, and a head formed upon said rod and bearing against said rotatable handle.

1,132,484. WASHING-MACHINE. CHARLES W. NEY, Schuylkill Haven, Pa.; Samuel B. Ney administrator of said Charles W. Ney, deceased. Filed Nov. 2, 1911. Serial No. 658,129. (Cl. 68—21.)



In a washing machine, in combination a skeleton base provided with hollow bearings at the center of the inner side of said base, a rocking frame having its upper ends inwardly curved mounted upon the base and provided with hollow bearings in alinement with the first mentioned bearings, springs mounted in said bearings connecting the rocking frame to the base portion, a closure or casing mounted in the upper inwardly curved ends of the rocking frame and handles at each end of the frame.

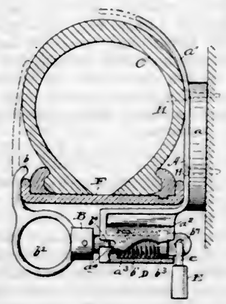
1,132,485. GAS-LAMP CONTROL AND IGNITER. WILLIAM F. OEFTGER, Detroit, Mich. Filed Mar. 8, 1914. Serial No. 823,518. (Cl. 175—115.)



1. A combined gas and ignition controller, comprising a gas-control valve, an operating member adapted on rotative adjustment to operate said gas-control valve, a contact maker carried by said operating member, a depressible contact member having a lead from a source of current and being in contact with said contact maker in all positions of adjustment of the latter, means for resiliently pressing said contact maker outward, a second contact member having a lead to a main ignition device and engaging said contact maker in the outward position of the latter, and a plurality of other contact members having leads to auxiliary ignition devices and positioned in the path of the contact maker so as to be successively engaged by said contact maker upon the longitudinal adjustment of the latter.

2. A combined gas and ignition controller, comprising a gas-control valve, a longitudinally and rotatively adjustable operating member adapted on rotative adjustment to operate said gas-control valve, a contact maker carried by said operating member and normally spring-pressed outward, a depressible contact member having a lead from a source of current and engaging said contact maker in all positions of rotative and longitudinal adjustment of said contact maker, a second contact member having a lead to a main ignition device and being positioned to engage said contact maker only in the outward position of the latter, a third contact member having a lead to an auxiliary ignition device and being engaged by said contact maker only on the inward position of the latter, and a fourth contact member having a lead to an auxiliary ignition device, said fourth contact member having a depressible ball-contact engaged by said contact maker when the latter is out of contact with the second and third contact members.

1,132,486. TIRE HOLDER AND LOCK. HERMAN W. OSTER, Cleveland, Ohio, assignor of one-half to Russell B. Tewkabury, Cleveland, Ohio. Filed Nov. 15, 1913. Serial No. 801,116. (Cl. 224—29.)



1. In a tire holding device, the combination of a clamping member having a portion adapted to be connected with an automobile and having also a clamping jaw and a sleeve which extends out from the clamping jaw and is adapted to go partially through the open center of a

tire, with an outer movable clamping member having an outer clamping jaw and a cylindrical shank which may pass through the open center of the tire and goes into said sleeve, a spring in said sleeve acting on the shank to draw the movable clamping jaw toward the fixed clamping jaw, and means for locking said shank against longitudinal movement in the reverse direction.

2. In a tire holding device, the combination of a clamping member having a portion adapted to be connected with an automobile and having also a clamping jaw and a sleeve which extends out from the clamping jaw and is adapted to go partially through the open center of a tire, with an outer movable clamping member having an outer clamping jaw, and a cylindrical shank which may pass through the open center of the tire and goes into said sleeve, a spring in said sleeve acting on the shank to draw the movable clamping jaw toward the fixed clamping jaw, and means preventing the turning of the shank in the sleeve without first moving the shank outward with respect to said sleeve, and means limiting the outward movement of said shank.

3. In a tire holding device, the combination of a clamping member having a portion adapted to be connected with an automobile and having also a clamping jaw and a sleeve which extends out from the clamping jaw and is adapted to go partially through the open center of a tire, with an outer movable clamping member having an outer clamping jaw and a cylindrical shank which may pass through the open center of the tire and goes into said sleeve, a spring in said sleeve acting on the shank to draw it inward and thereby draw the movable clamping jaw toward the fixed clamping jaw, said shank being made of such length that it will project from the rear end of the sleeve, and being provided in said projecting rear end with a hole for the reception of a lock bail.

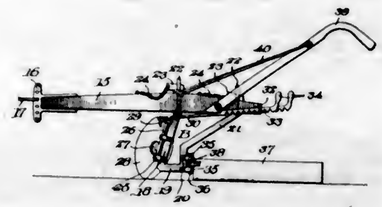
4. In a tire holding device, the combination of a clamping member having a portion adapted to be connected with an automobile and having also a clamping jaw and a sleeve which extends out from the clamping jaw and is adapted to go partially through the open center of a tire, with an outer movable clamping member having an outer clamping jaw and a cylindrical shank which may pass through the open center of the tire and goes into said sleeve, a spring in said sleeve acting on the shank to draw it inward and thereby draw the movable clamping jaw toward the fixed clamping jaw, the sleeve having a notch in its front end, and the shank having a laterally projecting pin adapted to enter said notch, and locking means limiting the endwise forward movement of the shank in said sleeve.

5. In a tire holding device, the combination of a clamping member having a portion adapted to be connected with an automobile and having also a clamping jaw and a sleeve which extends out from the clamping jaw and is adapted to go partially through the open center of a tire, with an outer movable clamping member having an outer clamping jaw, a finger hole below said jaw, and a cylindrical shank which may pass through the open center of the tire and goes into and through said sleeve, and is provided in said sleeve with an external flange, a spring in the sleeve thrusting against said flange, and means for locking the shank against outward movement in opposition to the spring.

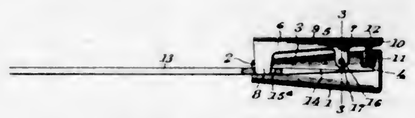
1,132,487. TRAIL-GRADER. ARTHUR W. PHILLIPS, Portersville, Cal. Filed Feb. 18, 1914. Serial No. 819,510. (Cl. 97—40.)

1. In a device of the class described, a beam, a frame including a standard, a substantially vertical offset in rear of said standard, and a brace extending rearwardly from the offset, said standard and brace being directly connected with the beam, a shaft supported for rocking movement on the standard and having a spindle, a furlow opening disk journaled on the spindle, means for rocking the shaft and for retaining it to present the disk in various positions and at various angles with respect to the beam, and a V-shaped scraper connected pivotally with the offset portion of the frame.

2. In a device of the class described, the combination with a beam, of a frame including a slightly inclined standard, a foot portion, an offset extending upwardly from the foot portion, and an inclined brace extending rearwardly from the offset, said standard and brace having bolt members engaging the beam, in combination with a disk carrying shaft supported for rocking movement on the standard, and a V-shaped scraper connected pivotally with the offset of the frame.



1,132,488. HAT-PIN-POINT PROTECTOR. JOSEPH F. PRYOR, Eugene, Oreg. Filed June 13, 1913. Serial No. 773,515. (Cl. 24—155.)



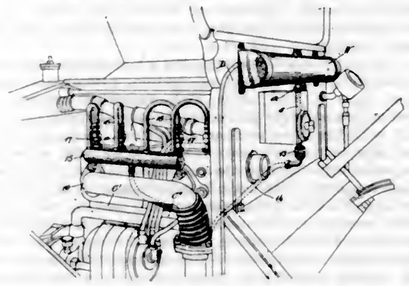
A device of the class described, comprising a hollow member opening at one end and closed at its opposite end, and provided with a kerf disposed longitudinally with respect to the member and a depressed pocket formed adjacent its closed end and alined longitudinally with said kerf, a locking device pivotally connected to the said conical member at the innermost end of the kerf and in adjacent relation to the closed end of said member, said locking device being formed with a vertically disposed body portion and manipulating flange, said flange being formed integral with said body portion and disposed at right angles thereto, the said body portion and angular flange being of a length equaling the length of said conical member, a lug formed on the bottom edge of the body portion of said locking device at the forward end thereof, and a spring fitted in the depressed pocket of the member and contacting with the undersurface of the said manipulating flange and operable to nominally hold said device in active position, the closed end of the hollow conical member serving as a stop for the locking device when a downward pressure is exerted thereupon, causing the lug of the locking device to be retained in the kerf upon an active or inactive position of the locking device.

1,132,489. INTERNAL-COMBUSTION ENGINE. EDGAR U. G. REAGAN. Detroit, Mich. Filed July 28, 1913. Serial No. 781,462. (Cl. 123—25.)

1. The combination with the cylinder of an internal combustion engine having a cylinder port and an exhaust valve adjacent to said port, of a steam generating apparatus, and means for conducting steam from said apparatus to the said port and above said exhaust valve.

2. The combination with the cylinder of an internal combustion engine having a cylinder port and an exhaust valve adjacent to said port, of a steam generating apparatus supported from said cylinder, means for conducting steam from said apparatus to the said cylinder port and above said exhaust valve, and means for admitting steam into the cylinder simultaneously with the admission of hydro-carbon fluid.

3. The combination with the cylinder of an internal combustion engine having a cylinder port and an exhaust valve adjacent to said port, of a steam generating apparatus, a conduit for conducting steam from said apparatus to said port above said exhaust valve, and a gravitative check valve in said conduit adjacent to said port for preventing the return of steam back through said conduit.

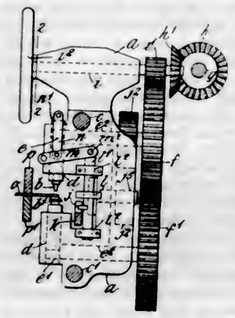


4. The combination with the cylinders of an internal combustion engine having exhaust ports and an exhaust pipe, of a jacket supported by said cylinders and supporting said exhaust pipe concentrically thereof, conduits establishing communication between the top of said jacket and the ports of said cylinders, check valves in said conduits adjacent to said ports, a reservoir in communication with an end of said jacket, and means at the same end of said jacket adapted to maintain a supply of water within said jacket and against the lower part of said exhaust pipe.

5. The combination with the cylinder of an internal combustion engine having a port, an exhaust valve, and an exhaust pipe, of a water supply, means for bringing a part of said water supply into contact with the lower side of said exhaust pipe, a conduit for conducting the steam generated by the heat of the exhaust pipe to said port above said exhaust valve, and a float valve for automatically regulating the supply of water to be subjected to the heat of the exhaust pipe.

[Claims 6 and 7 not printed in the Gazette.]

1,132,490. METAL-PUNCHING MACHINE. CECIL HOWARD SEDGWICK, Millwall, London, England. Filed Jan. 30, 1914. Serial No. 815,503. (Cl. 164—102.)



1. In a punching apparatus, the combination of a working head, a feed device carried by said head for imparting step-by-step movements thereto, a rack-bar with notches in which said feed device engages, and means for operating said feed-device continuously, substantially as described.

2. In a punching apparatus the combination of a working head, tool slides mounted in said working head and moving toward and from each other, a punch and die carried by said slides, a feed device carried by said working head for imparting an intermittent movement thereto, a rack bar which said feed device engages, and means for operating the tools and feed device continuously, substantially as described.

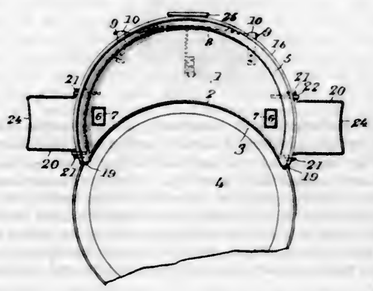
3. In a punching apparatus, the combination of a working head, tool carriers mounted therein, and arranged to move simultaneously toward and from each other, a feed device having a continuous movement, a rack-bar with which said feed-device engages intermittently to give the step by step movements, and a locking device carried by one of the tool slides and adapted to engage the rack-bar as the feed device disengages the same, substantially as described.

4. In an automatic punching apparatus the combination of a working head stock, a punch mounted therein, feed mechanism for moving the said headstock forward step by step, means for adjusting said feed mechanism according to the spacing of the holes, locking mechanism actuated simultaneously with the punch, and driving gear in constant connection with the punch and the feed mechanism and driven with a continuous motion, notwithstanding the intermittent step-by-step motion of the working head, substantially as described.

5. In an automatic punching apparatus the combination of a working head, a reciprocating punch mounted therein, a crank-pin mounted on said working head, means for adjusting the throw of said crank-pin, gearing for reciprocating the punch and simultaneously rotating the crank pin, and a rack-bar with which said pin engages during part of each revolution, for feeding the working head forward by the distance required for the next punching operation, substantially as described.

[Claim 6 not printed in the Gazette.]

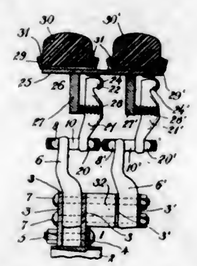
1,132,491. TUB ATTACHMENT. ENOS W. SIMONS, Jr., Payson, Utah. Filed Sept. 12, 1913. Serial No. 789,492. (Cl. 4—2.)



1. The combination with a wash tub, of a seat attachment therefor comprising a dished body having its concave surface disposed uppermost, one edge of the body being adapted to be connected with the upper edge of the tub, a substantially U-shaped supporting member formed from a single strip of material and having the ends of its side portions pivotally connected to the upper edge of the body outwardly with respect to the tub-engaging edge, the said supporting member being adapted to depend in operative supporting position and to be folded in inoperative position within the body, and a bracing member pivotally connected at one end with the outer cross portion of the supporting member and being adapted to have its opposite end connected detachably with the under face of the body in operative bracing position wherein it is disposed at an angle to the plane of the supporting member, the said bracing member being adapted to be moved into the plane of the supporting member when inoperative.

2. The combination with a wash tub, of a seat attachment therefor comprising a dished body having its concave surface disposed uppermost, one edge of the body being adapted to be connected with the upper edge of the tub, a substantially U-shaped supporting member formed from a single strip of material and having the ends of its side portions pivotally connected to the upper edge of the body outwardly with respect to the tub-engaging edge, the said supporting member being adapted to depend in operative supporting position and to be folded in inoperative position within the body, a bracing member pivotally connected at one end with the outer cross portion of the supporting member and being adapted to have its opposite end connected detachably with the under face of the body in operative bracing position wherein it is disposed at an angle to the plane of the supporting member, the said bracing member being adapted to be moved into the plane of the supporting member when inoperative, the cross portion of the supporting member being offset inwardly at its point of connection with the bracing member to provide a semi-annular loop arranged in the plane of the supporting member, a pivoting eye provided upon the bracing member in sliding and rotary engagement with the loop, a lateral extension provided upon the free end of the bracing member, and a tubiform bracket mounted upon the end face of the seat with its opening extending laterally and adapted to receive the lateral extension of the bracing member.

1,132,492. RESILIENT WHEEL. JOHN F. SIPE and HARRY E. SIPE, New York, N. Y. Filed Mar. 19, 1913. Serial No. 755,282. (Cl. 152—28.)



1. A resilient wheel comprising a hub section and a tread section, cushioning means carried by one of the sections for cushioning said sections with respect to one another, and supporting connecting members connecting the sections together through the cushioning means by ball and socket joints, the connections supporting the balls being attached to the balls on the opposite sides of the balls from the sockets, the sockets being carried by said connecting members and the balls by the hub and tread sections.

2. A resilient wheel comprising a hub section and tread section, levers fulcrumed on the tread section, supporting connecting members extending substantially parallel with the axis of the wheel, each for connecting the hub section with one end of said levers, and cushioning devices adapted to be compressed by said levers due to a relative movement of said two sections.

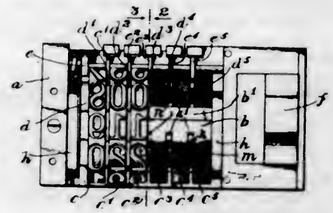
3. A resilient wheel comprising a hub section and tread section relatively movable with respect thereto, levers fulcrumed on one of said sections, supporting connecting members extending substantially parallel with the axis of the wheel for connecting the other section with said levers by ball and socket joints to operate the levers upon a relative movement of the two sections, the connections supporting the balls being attached to the balls on the opposite side of the balls from the sockets, and the sockets being carried by the connecting members and the balls by the levers and opposite wheel section, and springs adapted to be compressed by said levers.

4. A resilient wheel comprising a hub section and a tread section relatively movable with respect to one another, levers pivoted on the tread section, cushioning devices adapted to be operated by said levers and supporting connecting members extending substantially parallel with the axis of the wheel for connecting said levers with the other section, whereby a relative movement of the two sections causes the two to be cushioned by the cushioning devices.

5. A resilient wheel comprising a hub section and tread section, levers carried by one section, cushioning devices acted upon by said levers, and connecting members extending transversely of the wheel and connecting the levers with the other section by ball and socket joints, so that a relative movement of one section with respect to the other will compress the cushioning means, the connections supporting the balls being attached to the balls on the opposite side of the balls from the sockets, the sockets being carried by the connecting members and the balls by the hub and tread sections, whereby the line of pull at all times passes substantially through the center of the sockets, and the cushioning devices being at a less distance from the fulcrum of the levers than the connecting members, whereby a relatively large movement of the sections with respect to one another may take place as compared with the amount of compression of the cushioning means.

[Claims 6 to 19 not printed in the Gazette.]

1,132,493. NUMBERING-HEAD. AMOS H. SMITH, New York, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed June 25, 1912. Serial No. 705,786. (Cl. 101—183.)



1. A numbering head embodying therein a main shaft, a sequence of independent digit wheels rotatably mounted thereon, independently operative locking means normally holding each of said wheels of a denomination above the units wheel against rotation, means carried by each wheel of a lower denomination operative upon the locking means of the wheel of next higher denomination whereby said locking means is released when said wheel of higher denomination is to be actuated in its order during the operation of transferring, and all other wheels of higher denomination will remain locked, a main actuating mechanism, means actuated thereby and adapted to act directly upon each digit wheel, and means carried by each digit wheel coöperating with said last named means.

2. A numbering head embodying therein a fixed shaft having a plurality of recesses therein, a sequence of independent digit wheels loosely mounted upon said shaft, each of said wheels having a bolt socket for each digit thereon, presented toward said shaft, independently operative depressible locking means mounted in each of the recesses in said shaft and adapted respectively to normally enter the sockets in a digit wheel, means carried by each digit wheel of lower denomination adapted to depress said locking means of the wheel of next higher denomination when transferring from said wheel, of lower denomination to said wheel of next higher denomination, whereby all other wheels of higher denomination remain locked, a main actuating mechanism, means actuated thereby and adapted to act directly upon each digit wheel and means carried by each digit wheel coöperating with said last named means.

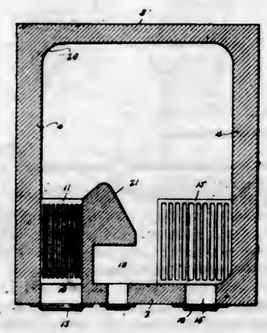
3. A numbering head embodying therein a fixed shaft, a sequence of independent digit wheels loosely mounted upon said shaft, automatically acting coöperating locking means carried by said shaft and said digit wheels respectively, means carried by each wheel of one denomination operative upon the locking means of the wheel of the next denomination whereby in transferring from one wheel to another only the wheels to be moved in transferring will be free to rotate, a main actuating mechanism, means actuated thereby and adapted to act directly upon each digit wheel and means carried by each digit wheel coöperating with said last named means.

4. A numbering head embodying therein a fixed shaft having a series of recesses therein, a plurality of independent digit type wheels loosely mounted upon said shaft, adjoining wheels projecting over said recesses, a transfer mechanism whereby said wheels are successively rotated in carrying from one denomination to another, the adjoining faces of any two wheels having therein respectively a series of recesses or sockets, one for each figure upon said wheel, and the other said wheel having a channel extending about said shaft with a cam surface projecting into engagement with said shaft at one point thereof determined by the printing position of the figure 9 on said wheel, a bolt seated in each said recess and adapted to enter said socket and said channel, whereby it is adapted to be engaged by said cam, and a spring normally projecting said bolt outwardly.

5. A numbering head embodying therein a fixed shaft having a series of recesses therein, a plurality of independent digit type wheels loosely mounted upon said shaft, adjoining wheels projecting over said recesses, a transfer mechanism whereby said wheels are successively rotated in carrying from one denomination to another, the adjoining faces of any two wheels having therein respectively a series of recesses or sockets, one for each figure upon said wheel, and the other said wheel having a channel extending about said shaft with a cam surface projecting into engagement with said shaft at one point thereof determined by the printing position of the figure 9 on said wheel, a bolt seated in each said recess and adapted to enter said socket and said channel, whereby it is adapted to be engaged by said cam, and a spring normally projecting said bolt outwardly, said bolt and said spring being formed of an integral leaf spring connected to said shaft and having its free end turned at an angle to form said bolt.

[Claims 6 and 7 not printed in the Gazette.]

1,132,494. GARBAGE-BURNING FURNACE. LEWIS E. SPARKS, Memphis, Tenn. Filed May 8, 1914. Serial No. 837,216. (Cl. 110—8.)



1. A garbage burning furnace comprising a base, side and end walls uprising from the base, a top wall coöperating with said side and end walls and said base and formed with an inlet opening whereby the garbage may be introduced into the furnace, a fire box within said furnace adjacent to one side wall and opening onto the front end wall thereof, a stack uprising from said base adjacent to said front wall in proximity to one side of said fire box and having the wall thereof adjacent to the fire box within the zone of the heat from the burning fuel in said box, said stack projecting through the top wall and having the side wall thereof remote from the fire box opening into the furnace structure whereby the heat units issuing from the fire box will circle around the interior of the furnace structure to consume the waste matter and gases issuing from such matter, the gases passing through said opening and impinging against the heated wall of said stack.

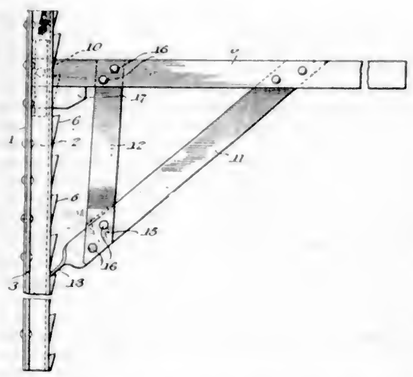
2. A garbage burning furnace comprising a base, side and end walls uprising from the base, a top wall coöperating with said side and end walls and said base and formed with an inlet opening whereby the garbage may be introduced into the furnace, a fire box within said furnace adjacent to one side wall and opening onto the front end wall thereof, a stack uprising from said base adjacent to said front wall in proximity to one side of said fire box and having the wall thereof adjacent to the fire box within the zone of the heat from the burning fuel in said box, said stack projecting through the top wall and having the side wall thereof remote from the fire box opening into the furnace structure whereby the heat units issuing from the fire box will circle around the interior of the furnace structure to consume the waste matter and gases issuing from such matter, the gases passing through said opening and impinging against the heated wall of said stack, and a grate on said base adjacent to the opening in said stack adapted to receive the ashes from the garbage being consumed, one of the walls of said furnace being provided with a door controlled opening below said grate whereby oxygen may pass through the grate and into said stack through the opening therein and so cause the burning of any unconsumed garbage on said grate.

3. A garbage burning furnace comprising a base, side and end walls uprising from the base, a top wall coöperating with said side and end walls and said base and formed with an inlet opening whereby the garbage may be introduced into the furnace, a fire box within said furnace adjacent to one side wall and opening onto the front end wall thereof, a stack uprising from said base adjacent to said front wall in proximity to one side of said fire box and having the wall thereof adjacent to the fire box within the zone of the heat from the burning fuel in said box, said stack projecting through the top wall and having the side wall thereof remote from the fire box formed with an opening establishing communication between the stack and the furnace structure whereby the heat units issuing from the fire box will circle around the interior of the furnace structure to consume the waste matter and gases issuing from such matter, the gases passing through said opening and impinging against the heated wall of said stack, said opening extending from the base of the furnace structure to a point approximately centrally of the distance between the base and top wall, the remaining portion of the wall formed with the opening extending into the path of the gases and acting as a deflector to break the gases and direct the latter downwardly into said opening.

4. A garbage burning furnace comprising a base, side and end walls uprising from the base, a top wall coöperating with said side and end walls and said base and formed with an inlet opening whereby the garbage may be introduced into the furnace, a fire box within said furnace adjacent to one side wall and opening onto the front end wall thereof, a stack uprising from said base adjacent to said front wall in proximity to one side of said fire box and projecting through the top wall and having the side wall thereof remote from the fire box opening into the furnace structure whereby the heat units issuing from the fire box will circle around the interior of the furnace structure to consume the waste matter and gases issuing from such matter, and a grate on said base adjacent to the open side wall of said stack adapted to receive the ashes from the garbage being consumed, one of the walls of said furnace being provided with a door controlled

opening below said grate whereby oxygen may pass through the grate and into the stack through the opening therein and so cause the burning of any unconsumed garbage on said grate.

1,132,495. SLIDABLE BRACKET. PETER STAUBER, Milwaukee, Wis. Filed July 17, 1914. Serial No. 851,575. (Cl. 248—19.)



1. In combination a guide, a bracket arm, a slide mounted in said guide, said guide having a slot through which said arm projects, a pivot carried by said slide upon which said arm is fulcrumed, and means carried by said arm adapted to engage with said guide to hold said bracket arm against movement.

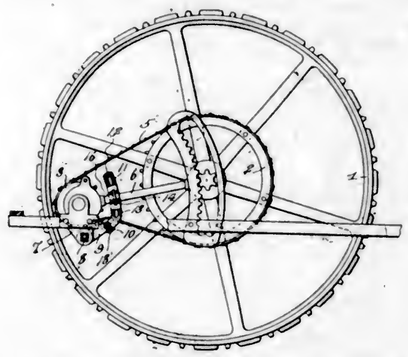
2. In combination a guide, said guide having a longitudinal slot, a bracket arm projecting through said slot into said guide, a slide connected to the projecting end of said arm, a pivot carried by said slide upon which said arm is fulcrumed, a ratchet bar carried by said guide, a pawl carried by said arm engaging with said ratchet bar to lock said ratchet bar against movement, said pawl being retractable from said ratchet bar.

3. In combination a guide, said guide having a longitudinal slot, a bracket arm projecting through said slot into said guide, oppositely disposed channel irons mounted in said guide, a pivot connecting said channel irons and said bracket arms, a stop moving in unison with said slide externally of said guide, said bracket arm adapted to rest upon said stop, and a strut connected at one end to said bracket arm, and a pawl carried by said strut at its free end, and a ratchet bar carried by said guide with which said pawl is adapted to make engagement.

4. A device of the kind described comprising a guide, said guide having a longitudinal slot, a bracket arm projecting through said slot into said guide, a slide in said guide, a pivot carried by said slide upon which said arm is fulcrumed, a ratchet bar connected to one side of said guide, a strut connected obliquely at one end upon said arm and an integral tooth formed upon said strut adapted to engage with said ratchet bar.

5. A device of the kind described comprising a guide, oppositely disposed channel irons slidably mounted in said guide, a bracket arm, said guide having a slot through which said bracket arm projects, a pivot connecting said channel irons and said arm, a ratchet bar mounted laterally upon said guide, said ratchet bar having teeth projecting forwardly of said guide, a strut connected at one end to said arm, an integral tooth formed upon said strut arranged to engage with said ratchet bar, a stop moving in unison with said slide and adapted to steady said arm in horizontal position.

1,132,496. ATTACHMENT FOR CHAIN-TIGHTENERS. ANDREW J. STEFFENSEN, Woodstock, Ill. Filed June 6, 1914. Serial No. 843,512. (Cl. 64—5.)

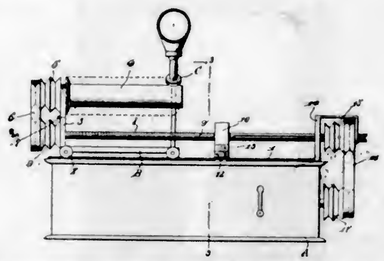


1. An attachment of the class described comprising an arcuate shaped plate having a slot formed therein and having one face thereof serrated, a substantially U-shaped clamping block having feet formed on the outer ends of the limbs thereof and serrated to engage the serrated face of said plate, and a clamping bolt embracing said block and passed through said feet and slot.

2. An attachment of the class described comprising an arcuate shaped plate having a slot formed therein, a substantially U-shaped clamping block having feet formed on the outer ends of the limbs thereof and engaging one face of said plate, and a clamping bolt embracing said block and passed through said feet and slot.

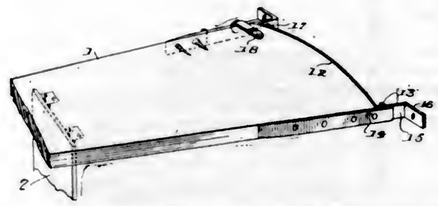
3. The combination with a chain tightener of a corn binding machine, of means coöperating with said tightener to hold the latter in adjusted position and comprising a plate disposed at one side of the brace bar of the machine and having a slot formed therein, a substantially U-shaped clamping block embracing the brace bar and having feet formed on the outer ends of the limbs thereof in engagement with the adjacent face of said plate, a clamping bolt embracing said block and passed through said feet and the slot in said plate, and a connection between the lower end of said plate and the chain tightener.

1,132,497. PHONOGRAPH. JOHN LYMAN STEVENS, South Bend, Wash. Filed Oct. 5, 1910. Serial No. 585,467. (Cl. 181—6.)



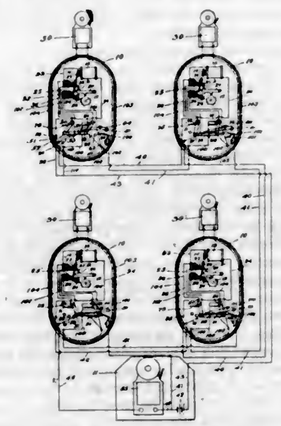
In combination with a phonograph casing, a feed screw and a half nut for said screw, of a support for said half nut comprising an L-shaped member having a long arm, a short arm and a finger piece, a hinge secured to the short arm and casing for pivotally mounting said member on said casing, said member being rigidly supported in a predetermined position by the end of the short arm adjacent said hinge coming into flat contact with said casing, and a spring interposed between the long arm and casing for yieldingly supporting the said member beyond its predetermined position and in operative engagement with said screw.

1,132,498. IRONING-BOARD. WILLIAM W. STEWART, Muscatine, Iowa. Filed Feb. 20, 1914. Serial No. 820,011. (Cl. 68—10.)



In combination, a board having a single supporting leg hinged thereto, a substantially U-shaped resilient wall bracket, said board having a curved end, a permanent hook connected to one side of the board and arranged to engage one of the apertures in the bracket and a hinged hook carried by the opposite side of the board arranged to engage the other aperture, said board being adapted to flex the bracket when in position so that strain is placed upon the hooks to prevent their disengagement.

1,132,499. FIRE-ALARM SYSTEM. NATHAN H. SUREN, Needham, Mass., assignor to Gamewell Fire-Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 7, 1912. Serial No. 682,214. (Cl. 177—364.)



1. In a signaling-system, the combination of a general alarm circuit including general alarm mechanism, a local alarm circuit including one or more local alarm mechanisms, a plurality of stations, circuit-controllers at each station in the general and local alarm circuits, respectively, signal formulating mechanism at each station for operating both circuit-controllers, and an alarm-controller at each station having means to variably control the responsive action of the alarm-mechanism, substantially as described.

2. In a signaling-system, the combination of a general alarm circuit including general alarm mechanism, a local alarm circuit including local alarm mechanisms, a plurality of stations, circuit-controllers at each station in the general and local alarm circuits, respectively, a signal formulating-mechanism at each station for operating both circuit-controllers, an alarm-controller at each station having means adapted to be set to cause response of all the local alarm mechanisms and the general alarm mechanism, the setting of said alarm-controller to another position causing response of only the local alarm mechanisms, substantially as described.

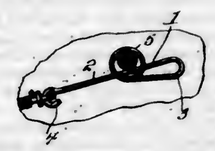
3. In a signaling system, the combination of a general alarm circuit including general alarm mechanism, a local alarm circuit including local alarm mechanisms, a plurality of stations, circuit-controllers at each station in the general and local alarm circuits, respectively, signal formulating mechanism at each station for operating both circuit-controllers, an alarm-controller at each station having means adapted to be set to cause response of all the local alarm mechanisms and the general alarm mechanism, setting of said alarm-controller to another position at one station causing response of all the local alarm mechanisms upon actuation of the signal formulating mechanism at said station, and setting of the alarm-controller at one of said stations to another position causing response of only the local alarm mechanism associated with the signal formulating mechanism which is being actuated, substantially as described.

4. In a signaling-system, the combination of a general alarm circuit including general alarm mechanism, a local alarm circuit including local alarm mechanisms, a plurality of stations, circuit-controllers at each station in the general and local alarm circuits, respectively, signal formulating mechanism at each station for operating both circuit controllers, an alarm-controller at each station having means adapted to be set to cause response of all the local alarm mechanisms and the general alarm mechanism, setting of said alarm-controller to another position at one station causing response of all the local alarm mechanisms upon actuation of the signal formulating mechanism at said station, and setting of the alarm-controller at one of said stations to another position causing response of only the local alarm mechanism associated with the signal formulating mechanism which is being actuated, and setting of the alarm-controller to another position causing response of only the general alarm mechanism upon actuation of the signal formulating mechanism at said station, substantially as described.

5. In a signaling-system, the combination of a general alarm circuit including general alarm mechanism, and a local alarm circuit including local alarm mechanisms, a plurality of stations, circuit-controllers at each station in the general and local alarm circuits, respectively, signal formulating mechanism at each station for operating both circuit-controllers, an alarm-controller at each station having means adapted to be set to cause response of the general alarm mechanism upon actuation of the signal formulating mechanism, the setting of said alarm-controller to another position causing response of the local alarm mechanism which is associated with the station upon actuation of the signal formulating mechanism at said station, substantially as described.

[Claims 6 to 36 not printed in the Gazette.]

1,132,500. TERMINAL CLIP. LESLIE ALBERT THOMAS, Evansville, Ind. Filed June 5, 1914. Serial No. 843,263. (Cl. 173—269.)

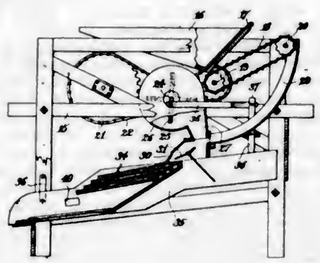


1. A connector of the class described comprising a single length of wire bent upon itself between its ends and having the outer end of one limb thereof adapted to be

connected with a conductor and the remaining limb bent upon itself to form superposed coils, said coils being disposed at the opposite sides of the straight portion of the first mentioned limb and being intersected by the latter at a point approximately centrally thereof.

2. A connector of the class described comprising a single length of wire bent upon itself approximately centrally of its ends and having the outer end of one limb thereof formed to provide a hook designed for connection with the terminal of a conductor and the remaining limb formed to provide a coil, said coil lying in contact with the straight portion of the first mentioned limb of the wire and being intersected by such limb at a point approximately centrally thereof.

1,132,501. FANNING-MILL. JOSEPH VOLZ, Elliott, N. D. Filed May 6, 1914. Serial No. 836,769. (Cl. 130—17.)



1. In a fanning mill, a hopper, an inclined duct, means for transferring grain from the hopper to the upper end of the duct, and a deflecting valve supported adjacent to and spaced from the discharge end of the duct to effect separation of the lighter from the heavier grades of grain, the heavier grades acquiring in transit over the duct sufficient momentum to jump over the space between the valve and the discharge end of the duct.

2. In a fanning mill, a hopper, an inclined duct, means for transferring grain from the hopper to the upper end of the duct, and a deflecting valve supported adjacent to and spaced from the discharge end of the duct to effect separation of the lighter from the heavier grades of grain, the heavier grades acquiring in transit over the duct sufficient momentum to jump over the space between the valve and the discharge end of the duct, and means for adjusting the valve to vary the space between the said valve and the discharge end of the duct.

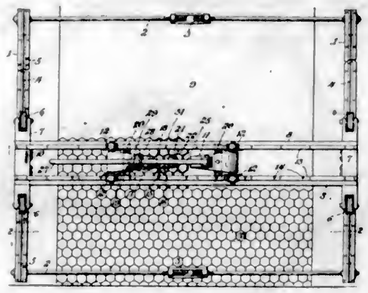
3. In a fanning mill, a hopper having a gate, an inclined duct, an elevator to convey grain from the hopper to the upper end of the duct, a valve spaced from the discharge end of the duct, and means for adjusting the valve to vary the intervening space.

4. In a fanning mill, a hopper having a gate, an inclined duct, an elevator to convey grain from the hopper to the upper end of the duct, a valve spaced from the discharge end of the duct, means for adjusting the valve to vary the intervening space, and means for discharging a blast of air downwardly through the intervening space between the valve and the discharge end of the duct.

5. In a fanning mill, a hopper having a gate, an inclined arcuate duct, an elevator to transfer grain from the hopper to the upper end of the duct, a shaking shoe supported beneath the discharge end of the duct, a valve supported in proximity to the discharge end of the duct to guide grain that jumps over the intervening space to the shaking shoe, and a housing in which said valve is mounted.

[Claim 6 not printed in the Gazette.]

1,132,502. METHOD OF MAKING IMITATION-TILE FLOORING. WILLIAM FRED WALLING, Los Angeles, Cal. Filed Oct. 25, 1911. Serial No. 656,788. (Cl. 18—61.)



1. The method of producing homogeneous or monolithic tile surfaces of extended area corresponding in appearance to surfaces of like extended area formed of many individually laid tiles, which consists in first producing a permanently located layer of suitable cement of the desired extended area, then impressing a form corresponding to a circumscribed group of associated tile outlines into the surface of the cement while the latter is green, and immediately removing the form therefrom and then rapidly repeating the impressions successively and progressively until the entire area has been treated before the cement has hardened sufficiently to prevent impressing the form into it, whereby there is produced a continuous web of connected grooves defining a multitude of associated tile outlines, then permitting the impressed layer of cement to harden, then filling the grooves so produced with contrasting material of like character to the cement layer, then permitting the filling material to harden, and finally smoothing the surface.

2. The method of producing homogeneous or monolithic tile surfaces of external area corresponding in appearance to surfaces of like extended area formed of many individually laid tiles, which consists in producing a permanently located layer of cement of the desired extended area, thickness and character to provide the ultimate tile surface, then while the cement layer is in a condition to receive and retain impressions, forming in said layer a continuous web of grooves substantially coextensive with the extended area and delineating a tile surface of like extended area by successive and progressive impressings of a suitable form into the green cement surface, the form being immediately removed from the surface after each individual impression and the grooves formed by each impression joining those of the preceding impression or impressions, then after the impressed cement has sufficiently hardened filling the web of grooves so produced with a wet mix of contrasting cement, permitting the last-named cement to harden, and finally smoothing the surface.

3. The method of producing homogeneous or monolithic tile surfaces which consists in first forming a permanent cement layer where the tile surface is to be produced with the layer of extended area and suitable thickness, then while the extended cement area is in a condition to receive and retain impressions, producing therein a web of grooves substantially coextensive with the extended area by impressing a pattern simulating the division lines between a circumscribed group of small, set, individual tiles, to form a corresponding set of grooves in the cement layer, said pattern being immediately withdrawn from the cement layer after the impression, successively and progressively repeating the impressings into and immediate withdrawals of the pattern from the cement layer until the web of grooves so produced is continuous and coextensive with the permanent cement layer, the entire web of grooves being formed while the cement layer is still in the impressionable condition, then allowing the impressed surface to set or harden, and then filling the grooves with cement of suitable appearance to simulate that employed to connect the adjacent edges of individually laid tiles.

4. The method of producing homogeneous or monolithic tile surfaces, which consists in forming a permanent cement layer where the tile surface is to be produced, said layer being of an extended area and suitable thickness, then while the cement layer is in a condition to receive and retain the impressions, producing therein a web of V-shaped grooves extending into the cement layer for but a small fractional portion of its thickness, by impressing a suitably shaped pattern simulating the division lines between a circumscribed group of small, set, individual tiles with the impressing portions of the pattern V-shaped to form a corresponding set of grooves in the cement layer, said pattern being rapidly, successively and progressively impressed into and immediately withdrawn from the cement layer until the web of grooves so produced is coextensive with the permanent cement layer and the entire web of grooves is formed while the cement layer is still in the impressionable condition, then filling the grooves with a cement of suitable appearance to simulate that employed to connect the adjacent edges of individually laid tiles.

5. The method of producing homogeneous or monolithic tile surfaces, which consists in forming a permanent cement layer where the tile surface is to be produced, said layer being of an extended area and suitable thickness, then while the cement layer is in a condition to receive and retain the impressions, producing therein a web of V-shaped grooves extending into the cement layer for but a small fractional portion of its thickness, by impressing a suitably shaped pattern simulating the division lines between a circumscribed group of small, set, individual tiles with the impressing portions of the pattern V-shaped to form a corresponding set of grooves in the cement layer, said pattern being rapidly, successively and progressively impressed into and immediately withdrawn from the cement layer until the web of grooves so produced is coextensive with the permanent cement layer and the entire web of grooves is formed while the cement layer is still in the impressionable condition, then filling the grooves with a cement of suitable appearance to simulate that employed to connect the adjacent edges of individually laid tiles, the filling of the grooves with cement being accomplished by applying a layer of such cement in flowable condition over the entire impressed and hardened surface of the first-named cement layer, then scraping off the surplus of the second-named cement layer while still in the flowable condition, and finally after the permanent portion of the second-named cement layer has hardened treating the entire surface to smooth it and remove all of the second-named layer of cement except that remaining in and filling the grooves.

1,132,503. AUTOMATIC STABILIZING APPARATUS FOR FLYING-MACHINES. OTTO WITTKOWSKI, Duesseldorf, Germany. Filed Oct. 6, 1914. Serial No. 865,401. (Cl. 244—29.)



1. In a flying machine, the combination with the body, and a plane for steering the same vertically, of a pendulum on said body adapted to control said plane, and automatic means in movable relation with the pendulum for varying the air resistance of the pendulum according to the inclination of the body to the direction of the flight.

2. In a flying machine, the combination with the body, and a plane for steering the same vertically, of a pendulum on said body adapted to control said plane, a plane on said pendulum, and automatic means for setting said plane on the pendulum at different angles to the direction of the flight according to the inclination of the body to the direction of flight.

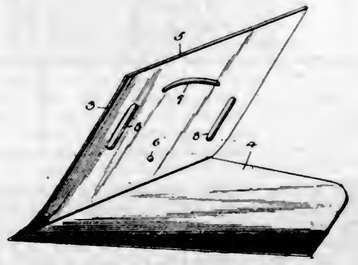
3. In a flying machine, the combination with the body, and a plane for steering the same vertically, of a pendulum on said body adapted to control said plane, a plane on said pendulum, automatic means for setting said plane on the pendulum at different angles to the direction of the flight according to the inclination of the body to the direction of flight, and hand operated means to set said plane on the pendulum.

4. In a flying machine, the combination with the body, and the wings mounted thereon, of a driving frame adapted to float and rockingly connected with the body, the vertical line passing through the point of connection of the body and frame being located in front of the center of gravitation of the frame when the flying machine is floating on the water.

5. In a flying machine, the combination with the body, wings mounted thereon, and a steering plane for steering the body vertically, of a driving frame adapted to float and rockingly connected with the body and adapted to control said steering plane, the vertical line passing through the point of connection of the body with the driving frame being located in front of the center of gravitation of the frame when the flying machine is floating on the water, a plane on said driving frame, automatic means for setting the plane on the driving frame at different angles to the direction of the flight according to the inclination of the body to the direction of flight, and hand operated means to set said plane on the driving plane.

[Claim 6 not printed in the Gazette.]

1,132,504. CULTIVATOR ATTACHMENT. AMMON WOOD, Covington, Tenn. Filed July 18, 1913. Serial No. 779,820. (Cl. 97—9.)

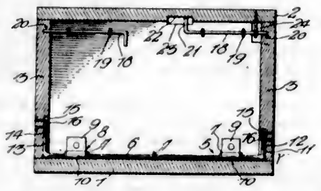


In combination with a standard, a plate having angularly disposed portions one of which lies against the standard and the other passing under the standard and spaced from the ends thereof, that portion of the plate which lies against the standard being pivoted to the standard for swinging movement transversely thereof and provided with an arcuate slot concentric with said pivot, a bolt passing through said slot and engaging the standard whereby the plate may be swung transversely of the standard and secured with relation thereto, said portion of the plate also having at the opposite sides of the bolt aperture and beyond the ends of the arcuate slot straight parallel slots, a blade located against said apertures and slotted portion of the plate and bolts passing through the blades and parallel slots and adjustably secured therein.

1,132,505. FOLDING BOX. WILLIAM H. WOODARD, East Palatka, Fla., assignor of one-third to Frank B. Baker, Washington, D. C. Filed June 8, 1914. Serial No. 843,823. (Cl. 217—15.)

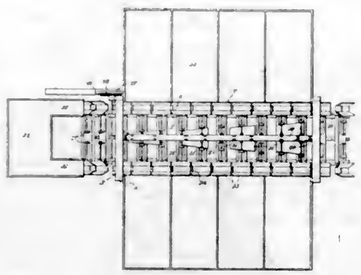
A collapsible box comprising a rectangular bottom, a pair of independent transverse rods overlying the opposite

ends thereof and having their two ends bent upward to provide upright standards, the extreme upper ends of the latter being formed into pivot eyes, a pair of upright end walls rising from the ends of the base and having knuckles on their lower edges embracing the rods, whereby said walls may swing inwardly, a pair of upright inwardly



foldable side walls rising from the side edges of the bottom and having recesses in their inner faces to receive the upright standards at the ends of the rods and the eyes thereon, whereby said rods are held against rotation when the sides are raised, and staples passing through said eyes into said side walls.

1,132,506. FRUIT-GRADING MACHINE. JAMES A. WOODS, Jr., Ogden, Utah, assignor to Woods Automatic Fruit Grading Machine Company, Ogden, Utah, a Corporation of Utah. Filed Jan. 21, 1914. Serial No. 813,524. (Cl. 130—32.)



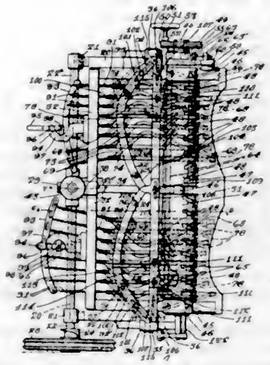
1. In a grading machine, the combination of a carrier, a cup pivotally connected with the carrier to move therewith and adapted to tilt for discharging the contents, a counterbalance for the cup to hold the same in a given position and a trip arranged in the path of the counterbalance and adjustable to move such counter-balance to a prearranged position.

2. In a grading machine, the combination of a plurality of cups mounted to tilt, means for moving such cups in a prescribed path, arms projecting laterally from the cups, weights slidingly mounted upon the arms and a plurality of trips arranged in the path of the weights and adjustable to move such weights by stages.

3. In a grading machine, the combination of an endless carrier, cups having pivotal connection with side portions of the carrier, arms extending inwardly from the cups, weights slidably mounted upon the arms, a support arranged between the opposed sets of cups and trips adjustably connected with such support to engage with the weights and move the same by stages so as to offer a greater or less resistance to the tilting of the cups.

1,132,507. BUTTON AND BUTTONHOLE MARKER FOR SHOE-UPPERS. JOSEPH W. BARNA, Chicago, Ill. Filed Jan. 10, 1914. Serial No. 811,334. (Cl. 164—93.)

1. In a machine of the class described, markers to punch in shoe uppers the location of buttons and corresponding button-holes each composed of a plunger having an end recess and a spring-arm to pass between the opposite quarters of the upper and having a punching pin to perforate the small upper and fly, and means to operate the plunger and pin.



2. In a machine of the class described, markers to punch in shoe uppers the location of buttons and corresponding button-holes each composed of a plunger having an end recess and a spring-arm to pass between the opposite quarters of the upper and having a punching pin to perforate the small upper and fly, a spring-actuated stock-stripper for the plunger, a spring-actuated stock-stripper for the pin, and means to actuate the plunger and pin.

3. In a machine of the class described, markers to punch in shoe uppers the location of buttons and corresponding button-holes each composed of a plunger having an end recess and a spring-arm to pass between the opposite quarters of the upper and having a punching pin to perforate the small upper and fly, a spring-actuated stripper-plate having a guide-foot at the end of the plunger, a spring-plate around and normally lying above the pin, and means to operate the plunger and pin.

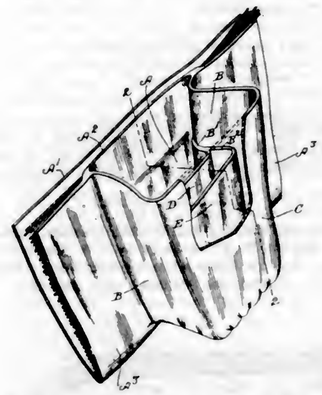
4. In a machine of the class described, markers composed of a series of dies arranged in coöperating pairs, one die of each pair having a recess and the other a punching pin normally below its embossing surface and adapted to pass above its embossing surface and enter the recess in the other die, and means to operate the dies.

5. In a machine of the class described, markers composed of a series of male and female dies arranged in coöperating pairs, the male die of each pair having a recess and the female die having a punching pin normally below its embossing surface and adapted to pass above its embossing surface and enter the recess in the male die, and means to operate the dies.

[Claims 6 to 41 not printed in the Gazette.]

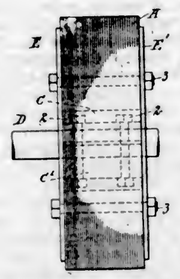
1,132,508. WOVEN FABRIC AND METHOD OF WEAVING THE SAME. CHARLES GORDON BATES, London, England, assignor to Mills Woven Cartridge Belt Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 20, 1914. Serial No. 846,234. (Cl. 139—72.)

1. A method of weaving in a single continuous process a pocket-fabric having one or more longitudinal partitions connected to an expanding bottom formed by one or more inwardly directed folds, consisting in arranging the warp-threads in groups according to the parts of the pocket in the formation of which they are to be employed, and successively throwing out and gathering up these groups of threads in the manner described, to produce the end-walls, partition or partitions, and front-wall, the individual threads in certain of these groups being also thrown out successively or in successive sets to produce the fold-members, picks of weft being in due course taken through these groups of warp-threads, whereby the several parts of the pocket are produced and the folds of the bottom are joined with the end-walls on oblique lines.



2. A woven fabric comprising a backing, front and end walls, one or more partitions and a plicated or bellows-bottom, with each partition springing from an inwardly directed bottom fold, and with each bottom fold formed by the successive throwing out of the warp-threads employed in its formation so that the fold-members are relatively inclined to each other and are connected with the end-walls on oblique lines and have approximately V-shaped web-portions of the end walls formed between them exteriorly of the bottom fold or folds.

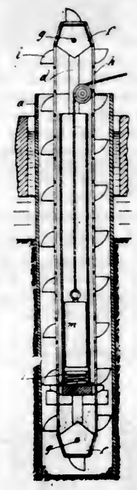
1,132,509. PAPER PULLEY. STANLEY J. BEEBE, Binghamton, N. Y. Filed Apr. 2, 1914. Serial No. 829,123. (Cl. 64—17.)



1. A pulley comprising a body portion formed of layers of paper compressed and cemented together and formed with a rectangular opening therein, clamping members adapted to engage the shaft and provided with flat sides for fitting snugly within the rectangular opening in the body portion, a pair of reinforcing disks at each end of the body portion, each disk having a central opening therein for snugly engaging the shaft and clamping bolts passing through the disks and the body portion.

2. A pulley comprising a body portion formed of layers of material suitably secured together and having a rectangular opening substantially at the center thereof, a pair of clamping members provided with flat sides for snugly fitting in the squared opening in the body portion, said clamping members being disposed on opposite sides of the shaft, bolts passing through the clamping members for tightly securing said members together on the shaft, a pair of disks disposed one on each side of the body portion and secured against the side faces thereof, said disks extending substantially from the axis of the body portion and terminating short of the periphery thereof for strengthening the body portion, there being an opening at the center of each disk sufficiently large to permit the passage of the shaft therethrough but smaller than the clamping members in the rectangular opening in the body portion whereby said clamping members are retained in the rectangular opening and relative movement between said clamping members and the body portion prevented.

1,132,510. COMBINED DREDGING AND RAMMING DEVICE. KARL BORSCHUTZKY, Herbesthal, Germany. Filed Mar. 19, 1914. Serial No. 825,906. (Cl. 61—13.)



1. In a combined dredging and ramming device, an anvil, a ram-block arranged above the anvil, this anvil being provided with means permitting the free passage of the dredger with its buckets, and means for guiding the frame of the dredging device through the anvil and transmitting the blows of the said ram-block to the shaft-mantle.

2. In a combined dredging and ramming device, an anvil, a ram-block arranged above the anvil, this anvil being provided at transversely opposite sides with recesses permitting the free passage of the dredger with its buckets, and means for loosely guiding the frame of the dredging device through the anvil and transmitting the blows of said ram-block by means of the anvil to the shaft-mantle.

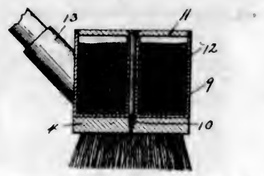
3. In a combined dredging and ramming device, an anvil, a ram-block arranged above the anvil, this anvil being provided at transversely opposite points with recesses for the free passage of the dredger, and having suitable bores loosely guiding the frame of the dredger, and means for transmitting the blows of said ram-block by the aid of the anvil to the shaft-mantle.

4. In a combined dredging and ramming device, an anvil, a ram-block arranged above the anvil, this anvil being provided at transversely opposite sides with recesses for the free passage of the dredger, and having suitable bores through which the frame of the dredger is loosely guided, and a shaft-mantle provided with inwardly projecting shoulders, these shoulders supporting the anvil and transmitting the blows imparted to them by the ram-block to the shaft-mantle.

1,132,511. HOLDER FOR SCRUB-BRUSHES. ANDREW B. BOUGHAN, Chicago, Ill. Filed June 7, 1907. Serial No. 377,760. (Cl. 15—13.)

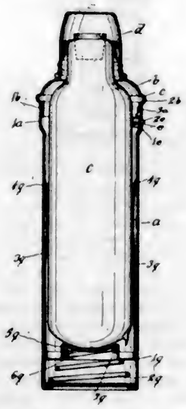
A brush holder comprising a thin metal box shaped to fit the top of a scrub brush, said box having a flat metal

cover and having at one side intermediate the two ends an upwardly extending socket for receiving a wooden handle and rigidly connecting said handle with said box whereby the scrub brush may be actuated, said box inclosing small removable weights and being provided with long screws passed through the cover and through the bottom of the



box for attachment to the scrub brush, and a scrub brush corresponding in shape with said box and having a wooden back wherein said screws are received, said screws thereby holding the cover in place and preventing loss of the weights and at the same time holding the scrub brush in place with respect to the holder while permitting ready removal and replacement of the brush when desired, substantially as described.

1,132,512. CASING FOR VACUUM-BOTTLES AND OTHER DEVICES. FREDERICK E. CARLSON, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 26, 1913. Serial No. 750,713. (Cl. 215—3.)



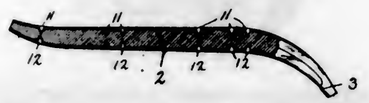
1. In a device of the character described, a casing, a cap telescoping therewith, bayonet slots in the edge of the inner member, inwardly projecting pins on the outer member coöperating with said slots, and a spring latch on the outer member adapted to interlock with the mouth of a bayonet slot when the parts are engaged.

2. In a device of the character described, a casing, an annular flange at the upper end thereof of larger diameter than the casing and connected therewith to form a longitudinal extension thereof, a cap provided with a rim at its lower edge adapted to fit within said annular flange, said rim being provided with bayonet slots, pins projecting inwardly from said flange and adapted to fit in the slots, and a locking device on said flange adapted to engage the mouth of one of said slots.

3. In a device of the character described, a casing, a cap provided with a rim at its lower edge adapted to fit within said casing, said rim being provided with a plurality of bayonet slots of enlarged width at the edge of the rim, pins projecting inwardly from the casing and adapted to fit in said slots, and a latch mounted on the inner wall of the casing and adapted to enter the enlarged portion of one of said slots.

4. In a device of the character described, a casing, an annular flange at the upper end thereof of larger diameter than the casing and connected therewith to form a longitudinal extension thereof, a cap provided with a rim at its lower edge adapted to fit within said annular flange, said rim being provided with a plurality of bayonet slots, an offset bridge spanning the walls between the vertical portions of said slots, the width of said slots being increased below said bridge, headed pins projecting inwardly from said flange and adapted to fit and move in said slots, and a yieldingly supported latch mounted on the inner wall of the flange and adapted to enter one of said slots below the bridge when the parts are in interengaged position.

1,132,513. METHOD OF MAKING HAMES. ROBERT P. CARR, Buffalo, N. Y., assignor to U. S. Hame Company, Buffalo, N. Y., a Corporation of New York. Filed Oct. 16, 1914. Serial No. 866,904. (Cl. 54—25.)



1. The method of making hames, consisting in forming a sheet metal blank of desired shape, punching a series of openings in opposite edges thereof, offsetting a portion of said blank, bending the blank into trough shaped form, inserting in the trough shaped blank a permanent core suitably kerfed, bending the opposite edges of the ends only of the blank around the core, then bending the intermediate portion of the blank around the core so that the edges abut in a joint extending longitudinally of the hame, then bending the blank and its core longitudinally, perforating the blank to receive attaching means for draft devices and trimmings, and securing the draft devices and trimmings in place.

2. The method of making hames, consisting in forming a suitable sheet metal blank, bending the blank into trough shaped form, inserting into the trough shaped blank a permanent core, bending the opposite edges of the ends only of the blank around the core, then bending the intermediate portion of the blank around the core so that the edges abut in a joint, then bending the blank and its core longitudinally, perforating the blank to receive attaching means for draft devices and trimmings, and securing the draft devices and trimmings in place.

3. The method of making hames consisting in forming a sheet metal blank of desired shape and having a lateral edge extension, punching a series of openings in the intermediate portion of the opposite edges of the blank, bending the blank into trough shaped form, inserting in the trough shaped blank a permanent core, bending the opposite edges of the ends only of the blank around the core so that the lateral edge extension overlaps the opposite edge of the blank, then bending the intermediate portion of the blank around the core so that the edges abut in a joint extending longitudinally of the hame, forming an opening extending through the shell at opposite sides of the joint and through the lateral edge extension for the reception of attaching means for a hame strap, then bending the blank and its core longitudinally, perforating the opposite sides of the blank to receive attaching means for draft devices and trimmings, and securing the draft devices and trimmings in place.

1,132,514. LINE-SUPPORT. WILFRED RICHARD CORNER, Winnipeg, Manitoba, Canada. Filed Jan. 29, 1914. Serial No. 815,200. (Cl. 68—3.)

1. A clothes line support comprising a supporting rod, stops secured to the ends of the rod, end pieces fitting on the rod and engaging with the stops, means for fastening the end pieces against rotation on the rod and lines passing between the end pieces and releasably connected to the same, as and for the purpose specified.



2. A clothes line support comprising a supporting rod, stops secured permanently to the ends of the rod, segmental end pieces disposed on the rod and engageable with the stops, releasable means tying the end pieces to the stops and lines connecting the end pieces and releasably secured to the same, as and for the purpose specified.

3. A clothes line support comprising a supporting rod, stops permanently secured to the ends of the rod, removable segmental end pieces fitting on the rod and engaging normally with the outer faces of the stops, pins carried by the end pieces and passing into the stops, a series of eyes located on the inner faces of the end pieces and lines passing between the end pieces and provided with hooks inserted within the eyes, as and for the purpose specified.

4. A clothes line support comprising a jointed sectional supporting rod, angle brackets secured to the ends of the rod, removable segmental end pieces fitted on the ends of the rod and engaging normally with the brackets, said end pieces being fitted each with a series of eyes, means for fastening the end pieces releasably to the brackets and lines passing between the end pieces and fitted with hooks designed to connect the lines with the eyes, as and for the purpose specified.

5. A clothes line support comprising a supporting rod formed from two sections, the inner end of one of the sections being slit, a sleeve permanently secured to the inner end of the other of the sections and receiving the slit end of the other section, a cross pin carried by the sleeve and entering the slit, angle brackets secured permanently to the outer ends of the rod sections, similar removable segmental end pieces carried by the rod sections and normally engaging with the outer faces of the brackets, said end pieces being fitted on the inner side each with a series of eyes, releasable means locking the end pieces against rotation on the rod, and lines passing between the end pieces and fitted with hooks engaging with the eyes thereof, as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

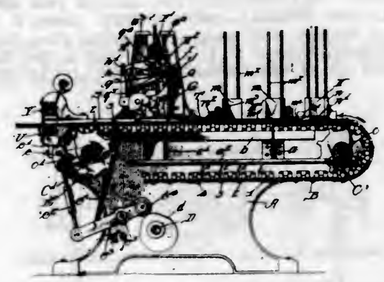
1,132,515. BOX-BLANK MACHINE. EDWARD CRAIG, St. Joseph, Mich., assignor, by mesne assignments, to Saranac Machine Co., St. Joseph, Mich., a Corporation of Michigan. Filed Feb. 23, 1906, Serial No. 302,631. Renewed Dec. 7, 1914. Serial No. 875,975. (Cl. 1—14.)

1. In a machine of the class specified, an endless traveling work-holder having means for spacing apart the three long slats of a crate-side, means for holding the three cross slats in place on top of said long slats, and means for causing the work-holder to travel in a direction at right angles to the long slats and parallel with the cross slats.

2. The improved endless traveling work-holder having a plurality of formers each composed of link-connected sections and each provided with means for sustaining a plurality of lower and upper slats in properly spaced and crossed relation with the lower slats extending at right angles to and the upper slats parallel with the direction of travel.

3. In a machine of the class specified, a traveling work-holder provided with means for spacing apart the side and intermediate long slats of a crate-side, means for holding cross slats on top of said long slats, and provisions for automatically and intermittently advancing said work-holder in a direction at right angles to the long slats and parallel with the cross slats.

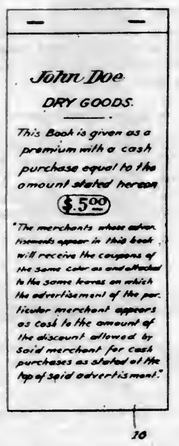
4. The improved endless traveling work-holder comprising parallel link-belts connected by parallel cross-bars to provide a flat bed or moving table for the crate-sides, the ends of said bars serving as connecting links in said link-belts.



5. In a machine of the class specified, the combination of a traveling work-holder, three hoppers for automatically feeding to the work-holder the three cross slats of a crate-side, means for spacing apart the long slats upon which the said cross slats are laid, and means for operating said work-holder.

[Claims 6 to 114 not printed in the Gazette.]

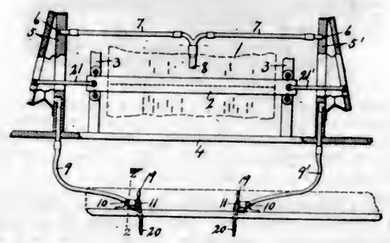
1,132,516. TRADE-BOOK. ROY L. CRANDALL, Minneapolis, Minn. Filed Dec. 19, 1912. Serial No. 737,647. (Cl. 11—19.)



A trading book comprising a cover and a series of distinctive sets of leaves, said cover having thereon advertising matter of a dealer in one specific line of business only, each leaf of each of the respective sets of leaves containing a series of removable coupons along both sides thereof and a central permanently attached portion on which appears an advertisement of a dealer other and in a different specific line of business than that advertised on the cover, each set of said distinctive sets of leaves advertising and containing coupons redeemable in a line of business distinct from and non-competing with all other lines advertised in the book, the central portions of the respective sets of leaves being successively cut away at the bot-

tom, the exposed portions of said sets of leaves bearing printed matter thereon indicative of the line of business advertised on that set of leaves.

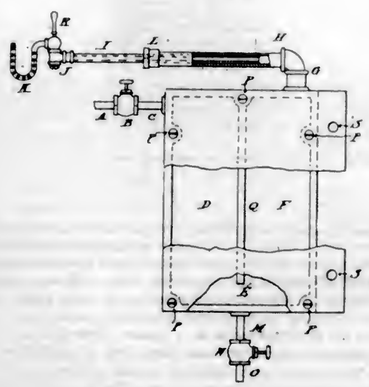
1,132,517. TRACKER-SHIFTING DEVICE FOR SELF-PLAYING MUSICAL INSTRUMENTS. LEWIS B. DOMAN, Elbridge, N. Y., assignor to Amphion Piano Player Company, Elbridge, N. Y., a Corporation of New York. Filed Apr. 19, 1909. Serial No. 490,796. (Cl. 84—161.)



1. In combination with a longitudinally movable tracker-bar of a self-playing musical instrument, separate pneumatics normally opposing the movement of the tracker-bar in either direction, a suction pipe connected to both pneumatics, separate atmosphere ports communicating with said pneumatics, and normally closed valves for said ports adapted to be opened separately by an operator.

2. In combination with a longitudinally movable tracker-bar of a self-playing musical instrument, separate pneumatics normally opposing the movement of the tracker-bar in either direction, a suction pipe connected to both pneumatics, tubes communicating through relatively small bleed holes with their respective pneumatics and provided with atmosphere ports, and normally closed valves controlling said ports.

1,132,518. STEAMING DEVICE FOR STEAMING THE TIPS OR BOXES AND VAMPS OF BOOTS AND SHOES. GEORGE M. FITZPATRICK, Milford, Mass., assignor of one-half to John J. Tully, Milford, Mass. Filed May 2, 1914. Serial No. 836,044. (Cl. 12—1.)



1. An apparatus of the kind described, comprising means to apply tempering and moistening steam to the toe portion of a boot or shoe, preparatory to lasting, including a steam separator, a U-shaped perforated tubular applying member and a swivel joint connection between said steam separator and said applying member.

2. An apparatus of the kind described, adapted to be mounted in combination with a lasting machine, comprising means to apply tempering and moistening steam to the toe portion of a boot or shoe, preparatory to lasting, including a steam separator, a U-shaped perforated tubular applying member and a swivel joint connection from said steam separator to said applying member, whereby said applying member may be swung into position to operate on the toe portion of a shoe in said lasting machine.

3. An apparatus of the kind described, adapted to be mounted in combination with a lasting machine, comprising adjustable means arranged to be mounted upon a lasting machine to supply steam to the toe portion of a shoe in said lasting machine, comprising a U-shaped member to fit about the toe portion, and a swivel and extensible joint connection between said U-shaped member and a source of steam supply.

4. In an apparatus of the kind described, means to supply tempering and moistening steam to the toe portion of a boot or shoe preparatory to lasting, consisting of a U-shaped perforated tubular applying member adapted to supply heated fluid to soften the edge portion of the shoe upper materials about the toe, and mechanism to permit said applying tool to be swung into or out of operative position with relation to the shoe.

5. An apparatus of the kind described, comprising a removable U-shaped applying member, shaped to fit the shoes being operated upon, and adapted to supply steam to the toe portion of a boot or shoe preparatory to lasting, a steam separator to dry steam to be supplied to said applying member, and a swivel and extensible joint connecting said steam separator and said applying member.

1,132,519. SELF-INKING HAND-STAMP. HARRY S. FOLGER and CASPER L. REDFIELD, Chicago, Ill.; said Redfield assignors to said Folger. Filed Apr. 4, 1914. Serial No. 829,442. (Cl. 101—161.)



1. A frame consisting of two sheet metal plates connected together by tie rods, a hand stamp located between the frame plates, projections on the stamp projecting through slots in the frame plates, and guide plates 17 secured to the outer faces of said projections and bearing against the outer faces of the frame plates to guide the stamp when reciprocated in the frame.

2. The combination with a hand stamp comprising type band, band wheels, a containing frame and a handle by which the stamp may be used as a hand inker, of an outer frame consisting of two sheet metal plates located on opposite sides of the stamp, tie rods connecting the two plates together, an ink pad pivoted to the outer frame, links pivoted to the stamp and connected to the pad, and a stamp elevated spring mounted upon the pivotal supports for the links.

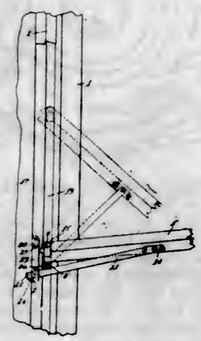
3. A frame consisting of two sheet metal side plates connected together by tie rods, a stamp located between the plates and guided by the outer faces of said plates, a pad pivoted to the side plates, and a pad-moving link connected to the stamp between the stamp body and the outer guides therefor.

4. The combination with the frame, the type bands and the band wheels of a dating stamp, of an outer frame consisting of two plates, tie rods connecting said plates, a wheel supporting shaft in the stamp frame and extending each side beyond the outer frame, a second shaft in the stamp frame and also extending beyond the outer frame, links connecting adjacent ends of the said shafts and guided in slots in the outer frame, and a spring located on the second shaft and serving to elevate the stamp frame in the outer frame.

5. The combination with the frame and type bands of a hand stamp, and an outer frame in which the stamp is vertically guided, of an ink pad pivoted to the outer frame, a shaft extending through both frames and the space inclosed by the type bands, an elevating spring on said shaft within said space, and links connecting the ink pad to the parts of the shaft between the inner and outer frames.

[Claims 6 to 10 not printed in the Gazette.]

1,132,520. REVERSIBLE-WINDOW SUPPORTER. EUGENE HOLSINGER, San Francisco, Cal. Filed Mar. 23, 1914. Serial No. 826,795. (Cl. 20—42.)



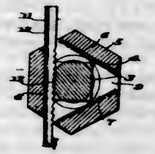
1. A reversible window comprising a frame, a sash therein, slides pivoted to the sash and movable in the frame, a pair of plates secured respectively to the sash and frame, and two pairs of links having one end pivoted together and their other end pivoted in the plates to permit the sash to be moved through an angle of substantially 180°.

2. In a reversible window, a window frame having guide ways therein, a sash supported in said window frame, slides pivotally connected with the window sash and slidable in the guide ways of the window frame, links connecting the sash and the window frame, one of said links having a curved flange to prevent the window sash from moving freely out and the other link having a lug to coöperate with the link having the curved flange.

3. In a reversible window, a window frame having guide ways therein, a sash supported in said window frame, slides at the upper end of the sash and slidable in the guide ways of the window frame, plates secured, respectively, to the window frame and the sash, a link pivoted to each plate, a pivot connecting the ends of said links, a stop lug therefor carried by the plate on the window frame to hold the sash in any desired adjustment, a projection carried by one of the links to coöperate with the plate on the window frame, said projection being so formed as to permit the release of the other link when the sash moves to a particular position.

4. A reversible window comprising a window frame, a sash supported therein, pivoted slides at the upper end of the sash movable along the window frame, a plate connected to the window sash, a second plate connected to the window frame and having a projecting lug, a link pivoted to the plate and secured on the window frame and having a lug to coöperate with the lug on the plate to which it is pivoted, a link pivoted to the plate on the window sash and having a projection to coöperate with the other link, and with the lug on the plate of the window frame.

1,132,521. LOCK-NUT. LUTHER A. JENNINGS, Burkesville, Ky. Filed May 21, 1914. Serial No. 840,095. (Cl. 151—26.)



In a lock nut, in combination with a bolt, said bolt having a squared end, of a nut formed with three angularly disposed intersecting passages that open into the bore of the nut, and a wedge key member inserted through one of the passages and contacting with the wall thereof and one of the squared faces at the end of the bolt.

1,132,522. MINER'S SAFETY-LAMP. ERNEST F. KOEHLER, Hudson, Mass., assignor, by mesne assignments, to E. H. Kingsbury, agent, Marlborough, Mass. Filed Oct. 28, 1912. Serial No. 728,154. (Cl. 240—19.)



1. A miner's safety lamp, having, in combination, a body portion and a detachable base portion having a horizontal parting, and a magnetic lock for locking the base portion to the body portion, one member of the lock consisting of a pair of sockets formed in the base portion of the lamp, and the other member of the lock consisting of a horizontal bar movably mounted in the body portion, a pair of vertical pins depending from the bar arranged to engage the sockets in the base portion, and a pair of vertical pins rigidly mounted in the body portion and having their median lines substantially coinciding respectively with the median lines of the pins in the bar, substantially as described.

2. A miner's safety lamp, having, in combination, a body portion and a detachable base portion having a horizontal parting, and a magnetic lock for locking the base portion to the body portion, one member of the lock consisting of a pair of sockets formed in the base portion of the lamp and the other member of the lock consisting of a horizontal bar movably mounted in the body portion, a pair of vertical pins depending from the bar arranged to engage

the sockets in the base portion, a spring for actuating the pins to engage the sockets, said pins being constructed and arranged to maintain their engagement with the sockets under the influence of gravity when the spring is broken, and a pair of vertical pins rigidly mounted in the body portion and having their median lines substantially coinciding respectively with the median lines of the pins in the bar, substantially as described.

1,132,523. MANUFACTURE OF INCANDESCENT FILAMENTS OF METALLIC TUNGSTEN OR MOLYBDENUM FOR ELECTRIC INCANDESCENT LAMPS. ANTON LEDERER, Atzgersdorf, near Vienna, Austria-Hungary. Filed Aug. 25, 1906. Serial No. 332,075. (Cl. 176—132.)

1. In the process of manufacturing incandescent filaments of pure refractory metals from the metals in a powdered state, a body belonging to the camphor group of aromatic substances which is volatile without decomposition, as agglutinant for the powdered metal for the purpose of obtaining the metal in filamentary form.

2. In the process of manufacturing incandescent filaments of pure refractory metals from the metals in a powdered state, camphor as agglutinant for the powdered metal for the purpose of obtaining the metal in a filamentary form.

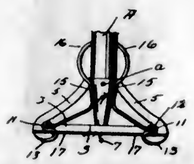
3. In the process of manufacturing incandescent filaments of pure tungsten from the metal in a powdered state, a body belonging to the camphor group of aromatic substances which is volatile without decomposition, as agglutinant for the powdered metal for the purpose of obtaining the metal in a filamentary form.

4. In the process of manufacturing incandescent filaments of pure tungsten from the metal in a powdered state, camphor as agglutinant for the powdered metal for the purpose of obtaining the metal in a filamentary form.

5. A mixture for producing incandescent electric lamp filaments, consisting of a refractory metal in a powdered state, and a body belonging to the camphor group of aromatic substances intimately mixed therewith.

[Claims 6 and 7 not printed in the Gazette.]

1,132,524. MOP-HOLDER. JOHN J. PHARE, Cleveland, Ohio, assignor to Zula C. Hodges, Cleveland, Ohio. Filed Apr. 22, 1912. Serial No. 692,346. (Cl. 15—56.)



1. A mop holder comprising a head, sharp pointed hooks pivoted thereto and provided with handles, the points of said hooks being adapted on movement of the handles in one direction, first to pierce the mop and then to draw the same against the mop head.

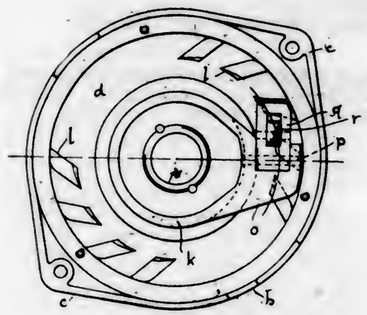
2. In a mop holder, a head, hooks pivotally secured to said head and projecting therefrom, said hooks being provided with sharp engaging points that are adapted to pierce the mop and moving in the direction away from the middle of the mop head and engaging the mop fabric to stretch said fabric thereon.

3. A mop holder comprising a cross bar and a socket adapted to engage the handle of the mop, said cross bar having slots therein, and hooks pivotally engaging said cross bar and operating in said slots to engage a mop.

4. A mop holder comprising a socket adapted to engage the end of a handle, a cross bar on said socket, said cross bar being provided with longitudinal slots, levers pivotally secured to said cross bar, and hooks formed integral with said levers and operating in said slots, said hooks having sharp engaging points that are adapted to engage a mop.

5. A mop holder comprising a socket to engage the end of a handle, a cross bar on said socket, said cross bar being provided with longitudinal slots, a cork screw-shaped pin secured intermediate of the ends of said cross bar, levers pivotally secured to said cross bar, and hooks formed integral with said levers and operating in said slots, said hooks and pin being adapted to engage a mop.

1,132,525. CONTROLLER-REGULATOR. JOSEPH Y. PORTER, Detroit, Mich., assignor of one-half to Charles V. Hetts, Detroit, Mich. Filed May 23, 1914. Serial No. 840,647. (Cl. 172—179.)



1. The combination with a controller casing provided with a rotatable controller shaft, of a controller regulator mounted upon the top of the controller casing and having in combination a housing comprising a base plate, a ring as a side inclosure and an annular flange as a top inclosure, stops depending from the annular flange and trips raised upon the base plate, an oscillating catch thrown into the stops by the trips, and means for connecting the oscillating catch with the controller shaft.

2. The cambination with a controller casing, provided with a controller shaft projecting through the top thereof, of a controller regulator mounted wholly on the top of the controller casing and having in combination a housing provided with depending stops, and upraised trips in substantially opposed rows, an oscillating catch thrown into the stops by the upraised trips, and means for connecting the catch with the controller shaft.

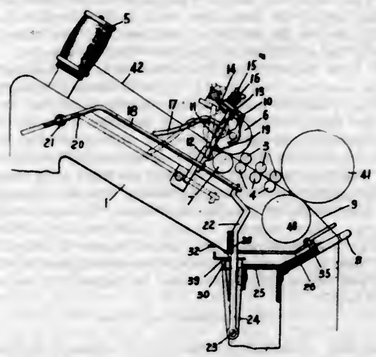
3. The combination with a controller provided with a casing and a controller shaft projecting out of said casing, of a controller regulator mounted wholly upon the top of a controller casing and having in combination a stationary housing comprising a base plate, a stationary ring as a side inclosure and a stationary annular flange as a top inclosure, stops depending from the annular flange and trips upraised from the base plate, a jaw-carrying plate journaled in the top of the housing, a catch-carrying arm connected to the jaw-carrying plate, a pair of jaws carried on said jaw-carrying plate, a catch pivoted to the catch-carrying arm and thrown by the trips into temporary engagement with the stops above, and a handle detachably connectible to the controller shaft and adapted to lie between the jaws to operatively connect the controller shaft with the catch-carrying arm.

4. The combination with a controller provided with a controller casing and a controller shaft projecting through the top thereof, of a controller regulator mounted wholly upon the top of the controller casing and having in combination a housing comprising a ring as a side inclosure, an annular flange as a top inclosure, and a base plate removably securable to the ring as a bottom inclosure, stops depending from said annular flange, trips raised from the base plate, a jaw-carrying plate journaled in the top of the housing, jaws carried thereon, a catch-carrying arm located within the housing, a tubular screw for connecting the jaw-carrying arm and the hub of the catch-carrying arm, a catch adapted to be thrown by the trips into temporary engagement with the stop and a handle detachably connectible with the controller shaft and adapted to rest between the jaws for operatively connecting the shaft and the catch-carrying arm.

5. A controller regulator, having in combination, downwardly pointing stops, upwardly pointing raised trips, the stops and trips being in substantially opposed rows, the trips below and the stops above, a catch comprising a pivoted pawl carrying an actuator, the actuator being located near the fulcrum point of the catch so as to make possible a large throw of the end of the pawl with a low trip, and means with which relative movement can be imparted between the catch on the one hand and the stops and trips on the other hand.

[Claims 6 to 8 not printed in the Gazette.]

1,132,526. STOP-MOTION FOR WORSTED-SPINNING MACHINES. LUTHER ROBINSON, Boston, Mass., assignor of one-half to Charles H. Jennings, Winthrop, Mass. Filed Feb. 17, 1913. Serial No. 748,831. (Cl. 118—12.)



1. In a stop motion for spinning machines, the combination with a feed roll, of a movable carrier, a presser roll carried by said carrier and adapted to engage the feed roll, a spring connection between the presser roll and carrier, means to hold the carrier in operative position with the presser roll in engagement with the feed roll, and means to release the carrier when the yarn breaks, said spring connection operating to hold the presser roll yieldingly against the feed roll when the carrier is in operative position and to swing the carrier into a position to remove the presser roll from the feed roll when the carrier is released.

2. In a stop motion for spinning machines, the combination with a feed roll and a movably-mounted presser roll co-acting therewith, of a carrier for supporting the presser roll, said carrier having a rearwardly-extending arm, a positioning member situated beneath said arm and adapted when in its operative position to engage said arm and hold the carrier in its operative position with the presser roll in engagement with the feed roll, means to release the positioning member when the yarn breaks to allow it to move into an inoperative position, and a spring connection between the presser roll and the carrier which yieldingly holds the presser roll against the feed roll when the carrier is in operative position and acts to move the carrier into inoperative position when the positioning member is released.

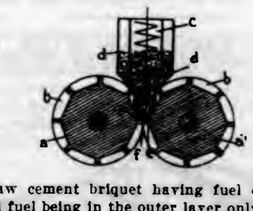
3. In a stop moton for spinning machines, the combination with a feed roll, of a presser roll, a carrier for the presser roll having an arm, a positioning member normally engaging said arm and holding the presser roll in its operative position, a lever connected to said positioning member, a catch to hold the lever and positioning member in their operative positions, and a releasing member mounted to swing about an inclined axis and normally held inoperative by the yarn but adapted when the yarn breaks to swing by gravity and cause the lever to be released from the catch.

4. In a stop motion for spinning machines, the combination with a feed roll, of a presser roll, a carrier for the presser roll having an arm, a positioning member normally engaging said arm and holding the presser roll in its operative position, a lever connected to said positioning member, a catch to hold the lever and positioning member in their operative positions, and a gravity-actuated releasing member mounted to turn about an inclined axis and normally held inoperative by the yarn but adapted when the yarn breaks to swing by gravity and cause the lever to be released from the catch.

5. In a stop motion for spinning machines, the combination with a feed roll, of a presser roll, a carrier for the presser roll having an arm, a positioning member normally engaging said arm and holding the presser roll in its operative position, a lever connected to said positioning member, a catch to hold the lever and positioning member in their operative positions, and a laterally-swinging gravity-actuated releasing member mounted to turn about an inclined axis and normally held inoperative by the yarn but adapted when the yarn breaks to cause the lever to be released from the catch.

[Claims 6 to 10 not printed in the Gazette.]

1,132,527. BRIQUET. CARL SCHNEIDER, Plau, Germany. Filed July 9, 1914. Serial No. 849,953. (Cl. 106—25.)

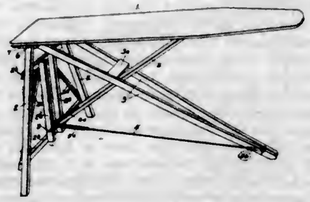


1. A raw cement briquet having fuel combined therewith, said fuel being in the outer layer only of the briquet.

2. A raw cement briquet having an interior core of raw cement mixture and an outer layer of raw cement mixture admixed with fuel.

3. A raw cement briquet having its body portion composed of raw cement mixture and having on one face thereof a surface layer of said mixture rich in fuel.

1,132,528. IRONING-TABLE. AABON M. SPRINGER, Portland, Oreg., assignor, by mesne assignments, to Oregon Woodenware Manufacturing Company, a Corporation of Oregon. Filed Oct. 13, 1913. Serial No. 794,778. (Cl. 68—10.)



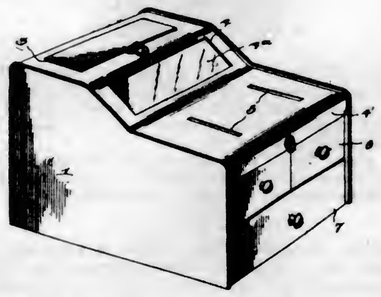
1. An ironing table of the character described, comprising in combination, a top or board, a substantially vertical leg structure pivoted thereto adjacent one end thereof, an inclined leg pivotally secured to said top adjacent said vertical leg structure, an inclined brace pivotally secured

to said vertical leg structure and passing through said inclined leg and adapted to be detachably secured to the underside of the board, and a brace rod secured to the lower end of said inclined leg and having a loop and pin connection at its opposite end with said vertical leg structure, whereby all strain from weight upon said board is transmitted lengthwise of the leg and brace members, substantially as described.

2. An ironing table of the character described, comprising in combination, a top or board, a substantially vertical leg structure pivoted thereto adjacent one end thereof, an inclined leg of double construction having its members pivotally secured to said top at a space apart and adjacent said vertical leg structure, and its members brought together at their lower ends, an inclined brace pivotally secured to said vertical leg structure at one end and passing between the members of said inclined leg and adapted to be detachably secured to the underside of said board, said brace member having a slot formed in its lower end, and a wire brace member pivotally secured at one end to the lower end of said inclined leg and provided at its opposite end with a slot-like loop which is connected through the slot in said inclined brace member to said vertical leg structure, substantially as and for the purpose described.

3. A folding ironing table comprising in combination a top, a vertical leg structure pivotally secured to said top adjacent one end thereof, an inclined leg structure pivotally secured to said top at the same end, an inclined brace structure pivotally connected to the vertical leg structure and detachably connected to said top, and a brace member connected at one end to the lower end of said inclined leg structure and at its other end by a loop and pin connection to said vertical leg structure, whereby the latter can move forwardly, in folding, through said loop.

1,132,529. CHECK-REGISTERING DEVICE. DAVID W. THORNTON, Conrad, Mont. Filed Mar. 30, 1914. Serial No. 828,321. (Cl. 235—17.)



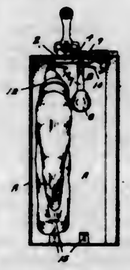
1. In a registering device of the class described, a casing provided with slots arranged at predetermined points therein, a frame mounted within the casing, shafts rotatably mounted within the frame, indicating wheels carried on said shafts, means for causing certain of the shafts to be rotated upon the rotation of certain other of the shafts, clutch mechanisms in connection with certain of said shafts, sliding rack bars arranged within the casing for coöperation with certain of said shafts to rotate the latter upon the movement of said rack bars, spring means in connection with said rack bars to normally retain the latter in position for coöperation with the slots in said casing, and means adapted for introduction through said slots to actuate said rack bars and parts connected therewith.

2. In a registering device of the class described, a casing provided with slots arranged at predetermined points therein, a frame mounted in the casing, shafts rotatably mounted in the frame, primary indicating wheels mounted on certain of said shafts, secondary indicating wheels mounted on certain other of said shafts, means in connection with said wheels and shafts to rotate certain of the same upon the rotation of certain other thereof, clutch mechanisms arranged in connection with the shafts carrying the primary indicating wheels, sliding rack bars mounted in the casing, means in connection with said rack bars and the last referred to shafts to rotate the latter upon the sliding movement of said rack bars in one direction, and spring means to normally retain said rack bars in position for coöperation with the slots in said casing, whereby to be actuated upon the introduction of members through said slots.

3. In a registering device of the class described, a casing, a frame mounted in the casing, a plurality of shafts rotatably mounted in said frame, primary indicating wheels carried on certain of the shafts to rotate therewith, secondary indicating wheels carried on certain other of the shafts to rotate with the latter, means for causing the last mentioned shafts to be rotated upon the rotation of the first mentioned shafts, clutch mechanisms in connection with the first mentioned shafts, pinions in connection with portions of said clutch mechanisms, spring means arranged in connection with the pinions to normally position the clutch mechanisms effectively, rack bars slidably arranged in said frame in connection with said pinions to rotate the latter and parts connected thereby when said rack bars are disposed in one direction, and spring means in connection with said rack bars to normally dispose the latter to predetermined positions in the casing for actuation at predetermined times.

4. In a device of the class described, a casing having a check receiving slot in the top wall thereof, a horizontal flooring mounted in the casing slightly below the top wall of the same, bearing members mounted on said flooring in longitudinally spaced relation to one another, a rack bar arranged for longitudinal movement between the bearing members, said rack bar being provided with longitudinally spaced apart slots and having one end thereof bent for disposition to a point immediately adjacent said slot, bearing rollers carried on said bearings and received in the slots of said rack bar, spring means to normally retain said rack bar in a predetermined position in the casing and operating mechanisms in connection with said rack bar.

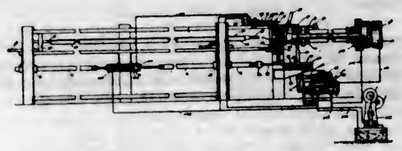
1,132,530. WARDROBE-SUITCASE. FRANK D. WARREN, Salt Lake City, Utah. Filed July 25, 1914. Serial No. 853,183. (Cl. 190—13.)



1. A wardrobe suit case consisting of a case; a suspension plate secured within said case; a portion of said plate bent to carry clothes hangers thereon; a hasp pivoted to said plate to lock said hanger carrying portion against depression; and a strap secured in said case opposite said suspension plate.

2. A wardrobe suit case consisting of a case; a suspension plate within said case and secured thereto on the handle side thereof; a tongue member integral with said plate; clothes hangers slidably suspended from said tongue member; resilient bulbs on the ends of said clothes hangers; and a strap fastened to said case opposite said suspension plate.

1,132,531. MACHINE FOR DRAWING METAL BLANKS. WILLIAM R. WEBSTER, Bridgeport, Conn. Filed Dec. 13, 1906. Serial No. 347,619. (Cl. 205—5.)



1. In a tube drawing machine, the combination with a die; of devices adapted to support a blank and a triblet rod in alinement with each other; means adapted to impart a relative movement between the rod and blank to assemble the blank on the said rod; and means adapted to bring said rod with the blank assembled thereon and the die into working position with respect to each other, substantially as described.

2. In a tube drawing machine, the combination with a die; of devices adapted to support a blank and a triblet rod in alinement with each other; means adapted to impart a relative movement between said rod and blank to assemble the blank on said rod; and means adapted to bring said rod and the die in and out of line with each other and said rod with the blank assembled thereon and the die into working position with respect to each other, substantially as described.

3. In a tube drawing machine, the combination with a die; of devices adapted to support a blank and a triblet rod in alinement with each other; means adapted to impart a relative movement between said rod and blank to assemble the blank on said rod; and means adapted to move said rod with the blank assembled thereon longitudinally into working position with respect to the die, substantially as described.

4. In a tube drawing machine, the combination with a die; of a trough adapted to receive a blank; means adapted to transfer the blank from its position in the trough to a position in alinement with the triblet rod and support said blank when in such position, so that it can be assembled on said rod by a relative motion between said rod and blank; means for supporting said rod; and means adapted to bring said rod with the blank assembled thereon and the die into working position with respect to each other, substantially as described.

5. In a tube drawing machine, comprising a draw bench and an extension in line therewith, the combination with a triblet rod mounted in said extension; of means for moving the triblet rod into and out of alinement with said draw bench, substantially as and for the purposes described.

[Claims 6 to 93 not printed in the Gazette.]

1,132,532. PORTABLE ELECTRIC-LAMP STAND. AUGUST BOUCHERY, New York, N. Y., assignor, by mesne assignments, to The Wallace Novelty Company, New York, N. Y., a Corporation of New York. Filed Aug. 22, 1914. Serial No. 858,009. (Cl. 240—81.)

1. In a portable electric lamp stand the combination of a hollow base having means interior thereof to secure it to a support, with a shade having means to support it upon a bulb, the bottom of the base and shade being provided with means to detachably engage each other to form a closed receptacle in which the base securing and shade supporting means are concealed.

2. In a portable lamp stand, the combination of a base having a lamp supporting stem, openings extending axially into and transversely through the stem, with a lamp socket having a pin to engage in the openings in the stem to releasably connect the socket to the stem.

3. In a portable electric lamp, the combination of a pair of shells, one of said shells being of a form to constitute the supporting base for the lamp and the other shell of a form to constitute the shade for the lamp, the said shells being provided with means to detachably engage each other to form a closed receptacle.

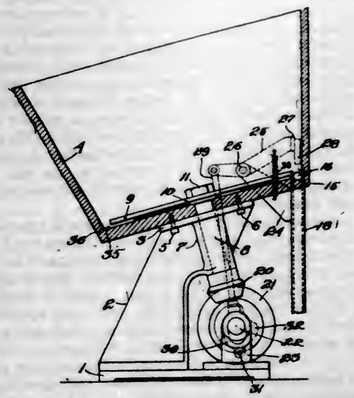


4. In a portable electric lamp, the combination of a pair of sections provided with means whereby they may be connected to form a closed receptacle, one section having means to support it upon an electric lamp bulb to constitute the shade, and the other section having means to connect an electric lamp thereto to constitute the lamp supporting base, substantially as and for the purpose specified.

5. In a portable electric lamp, the combination of a lamp supporting base and a lamp shade, the bottom of said shade being constituted to engage over the bottom of the base and provided with means to detachably engage with the base to form a closed receptacle, substantially as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,132,533. DOWEL-FEEDING MACHINE. EDMUND CURRAN, Boston, Mass., assignor to Jesse T. Fuller, Boston, Mass. Filed Feb. 8, 1913. Serial No. 747,032. (Cl. 144—245.)

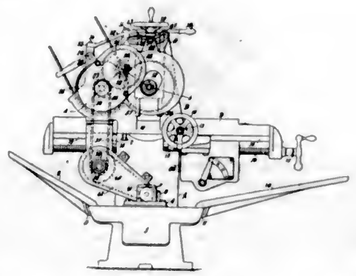


1. In an apparatus of the kind described, a hopper to contain dowels loosely, automatic means to assemble said dowels in the hopper in end to end formation, comprising a rotating plate of less diameter than that of the bottom

of the hopper and spaced therefrom to form a circular raceway within said hopper, and a plurality of yielding arms carried by the under side of said plate arranged to feed the dowels in said raceway from the hopper.

2. In an apparatus of the kind described, a hopper to contain dowels, a circular channel in said hopper of substantially equal width of said dowels extending entirely around the bottom of the hopper, and yielding means to feed the dowels lengthwise along said channel, and a guideway depressed below the level of said channel to permit said dowels to be fed out of the hopper.

1,132,534. HEAVY-DUTY STRUCTURE. ADOLPH L. DE LEEUW, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 21, 1913. Serial No. 775,118. (Cl. 90—16.)



1. A machine tool of the nature disclosed combining a bed, a head mounted thereon and providing a box-like portion forming an oil draining structure, a power driven shaft journaled in the walls of said structure, a wheel for propelling said shaft contained within said box-like structure, a tubular bracket depending from the bottom of said structure and having a bearing, an actuating shaft mounted in said bearing, and a transmission extending from said power driven shaft to said actuating shaft through said bracket.

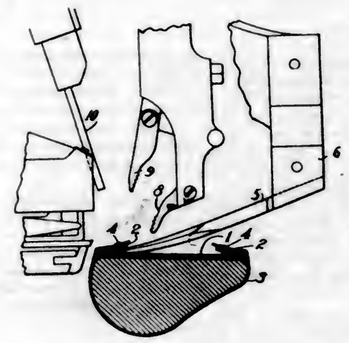
2. A machine tool of the nature disclosed combining a bed, a head mounted thereon and providing a box-like structure overhanging at one side of said bed, a power driven shaft journaled in the walls of said structure, a wheel for propelling said shaft mounted in said structure, a bracket depending from the bottom of said structure and extending at one side of said bed, an actuating shaft journaled in said bracket at one side of said bed, and a transmission extending from said actuating shaft through the bottom of said structure to said power driven shaft.

3. A machine tool of the nature disclosed combining a bed, a bifurcated head mounted thereon, a spindle carrier vertically slidable in the bifurcation of said head, a spindle journaled in said carrier longitudinally of said bed, a driving shaft journaled in said head at one side of its bifurcation, and a transmission extending from said driving shaft to said spindle.

4. A machine tool of the nature disclosed combining a bifurcated head, a spindle carrier slidable in the bifurcation of said head, clamping means for locking said carrier against movement, a spindle journaled in said carrier and projecting at one side of said head, a driving shaft journaled in said head in parallelism with said spindle, and an extensible gear train connecting said shaft and spindle.

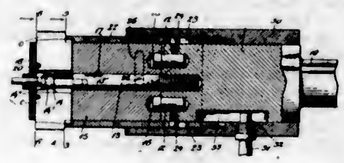
5. A machine tool of the nature disclosed combining a bed; a table mounted to reciprocate transversely of said bed; a head mounted on said bed at one side of said table; a spindle mounted to be vertically adjusted on said head; a power-driven shaft mounted to be supported by said head and located at one side thereof; gearing connecting said shaft with said spindle; links automatically controlling the engagement of the teeth of said gearing; a transmission geared to said power shaft and extending downwardly and terminating adjacent said bed; table feeding means; and a shaft extending longitudinally of said bed at one side thereof and operatively connecting said transmission with said table feeding means.

1,132,535. HAND-METHOD LASTING-MACHINE. FRANK F. ENO, Boston, Mass., assignor to Eno Welt Shoe Company, a Corporation of Massachusetts. Filed May 21, 1914. Serial No. 839,982. (Cl. 12—2.)



The combination, with a lasting machine of a positioning-rest and anvil having a thin rounded point formed and arranged to project under a welt or strip of a shoe sole to position the sole while the upper is being lasted thereto, and to serve as an anvil for clenching the fastening devices thereon.

1,132,536. SCREW-CUTTING TAP. ALBERT J. FRANCE, Detroit, Mich., assignor to Murchey Machine and Tool Co., Detroit, Mich., a Corporation of Michigan. Filed Nov. 19, 1913. Serial No. 801,781. (Cl. 10—145.)



1. A screw-cutting tap comprising a shank-head, a chaser head movable into and out of engagement therewith, chasers carried by the chaser head, a chaser-distending member carried by the shank head having a sliding-key connection with the chaser head for holding said chasers in their distended positions during the thread-cutting operation, and a device for retracting said chasers subsequently to the release of the chaser head from the shank head.

2. A screw-cutting tap comprising a shank head, a chaser head one being longitudinally movable relatively to the other, chasers carried by the chaser head, a chaser-distending member carried by the shank head and having a sliding-key connection with the chaser head for holding said chasers in their distended positions during the thread-cutting operation, an inner sleeve corotatively interlocked with the shank head and movable longitudinally with the chaser head, and means carried by said sleeve for positively retracting said chasers.

3. A screw-cutting tap comprising a shank head, a chaser head one being longitudinally movable relatively to the other, chasers carried by the chaser head, a chaser-distending member carried by the shank head and having a sliding key connected with the chaser head for holding said chasers in their distended positions during the thread-cutting operation, an inner sleeve corotatively interlocked with the shank head and movable longitudinally with the chaser head, and cams formed on the forward end of said sleeve for positively retracting said chaser.

4. A screw-cutting tap comprising a shank head, a chaser head, chasers carried thereby, means for locking said heads against rotation relatively to each other during the thread-cutting operation and adapted to release each other upon a predetermined longitudinal movement of the chaser head relatively to the shank head, an inner sleeve movable longitudinally with the chaser head and corotatively having a pin-and-slot connection with and for interlocking it with the shank head, and cams formed on the forward end of said sleeve adapted to engage the outer portions of said chasers for positively retracting the same subsequently to the release of the chaser head from the shank head.

5. A screw-cutting tap comprising a shank head, a chaser head movable relatively thereto, chasers carried thereby, a pin carried by one head and adapted to enter an aperture in the other head for holding said heads against rotation relatively to each other during the thread-cutting operation, and adapted to release the same upon a predetermined longitudinal movement of the chaser head relatively to the shank head, an inner sleeve, cams carried by said sleeve for positively retracting said chasers by the rotation of the chaser head relatively to the sleeve, said sleeve having a longitudinal pin-and-slot connection with the shank head, and having a peripheral pin-and-slot connection with the chaser-head to prevent longitudinal movement thereof relatively to said sleeve.

[Claims 6 to 15 not printed in the Gazette.]

1,132,537. PROCESS OF TREATING CLAY AND LIKE MATERIALS. FIRMAN THOMPSON, Newark, Del., assignor to The Crescent Clay Refining Company, Baltimore, Md., a Corporation of Maryland. Filed Aug. 23, 1913. Serial No. 786,290. (Cl. 252.)

1. The process of treating clay and like materials to remove iron therefrom without decreasing the plasticity of the clay or the like, which consists in subjecting the same to the action of dilute hydrochloric acid under heat and pressure and removing the resulting iron compound or compounds produced.

2. The process of treating clay and like materials to remove iron therefrom without detrimental action on such materials, which consists in subjecting the same to the action of dilute hydrochloric acid and steam under pressure and removing the resulting iron compound or compounds produced.

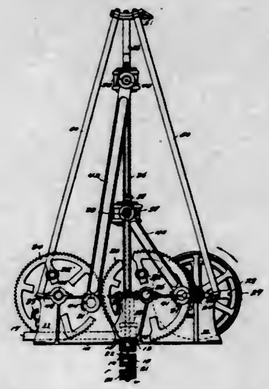
3. The process of treating clay and like materials to remove iron therefrom without decreasing the plasticity of the clay or the like, which consists in developing nascent hydrochloric acid in contact therewith and sufficient water to produce a dilute solution of the acid, subjecting the material under treatment to the action of the solution under heat and pressure and removing the resulting iron compound or compounds produced.

4. The process of treating clay and like materials to remove iron therefrom without detrimental action upon such materials, which consists in developing nascent hydrochloric acid in contact therewith and sufficient water to produce a dilute solution of the acid, subjecting the material under treatment to the action of the solution and steam under pressure and removing the resulting iron compound or compounds produced.

5. The process of treating clay and like materials to remove iron therefrom without decreasing the plasticity of the clay or the like, which consists in treating the same with an alkali metal chlorid, an acid and sufficient water to produce a dilute solution of acid and chlorid, subjecting the mixture to heat and pressure and removing the iron compound or compounds produced.

[Claims 6 to 11 not printed in the Gazette.]

1,132,538. DOUBLE-STROKE PUMPING-JACK. WILLIAM H. WINTERBORNE, San Antonio, Tex., assignor to San Antonio Machine & Supply Co., San Antonio, Tex., a Corporation of Texas. Filed July 1, 1912. Serial No. 707,132. (Cl. 103—62.)



1. In a pumping jack, the combination of three parallel shafts, a pair of meshing gears supported on two of said shafts, a pinion on the third shaft meshing with one of said pair of gears, driving means for said third shaft, guiding means extending above the shafts, two cross-heads substantially equal in size and located above the shafts and gears and movable along said guiding means, rods connecting with ends of the cross heads and the meshing gears, and a pump rod attached to each cross head and extending below the shafts and gears.

2. In a pumping jack, the combination of a base frame comprising spaced vertical side members and a bottom member connected with said side members, three parallel shafts supported at the upper edges of the side members, meshing gears supported in pairs at the outer ends of two of said shafts outside of said side members, a pinion mounted at each end of the third shaft and meshing with one of each of said pairs of gears, driving means for said third shaft extending between said side members, guiding means rising from said base frame, cross heads movable along said guiding means, connecting rods extending between the cross heads and the gears and disposed outside of said guiding means, and a pump rod attached to each cross head.

3. In a pumping jack, the combination of a base frame comprising spaced vertically arranged side members and a bottom member connected to said side members and having an opening extending therethrough, two shafts supported at the upper edges of the side members and extending beyond said side members, a gear mounted at the outer end of each of said shafts, the corresponding gears on the same side of the frame meshing with one another, a third shaft supported at the upper edge of the side members and parallel to the before mentioned shafts, a pinion mounted at each end of the third shaft and meshing with one of each of said pairs of meshing gears, driving means mounted on said third shaft and extending between said side members, guiding rods rising vertically from the frame, cross heads slidable along said guiding rod, a pair of pitmen connected to the opposite ends of each cross head and to the gears mounted at the opposite ends of the same shaft, and concentrically arranged pump rods connected to said cross heads and extending through the opening in the bottom member.

4. In a pumping jack, the combination of a base frame comprising spaced vertically arranged side members and a bottom member connected with said side members, shafts supported at the upper edges of said side members, a gear mounted at each end of one of said shafts, a pinion mounted at each end of the other of the shafts, said

pinions meshing with said gears, driving means connected to the pinion supporting shaft and extending between said side members, guiding means rising vertically in the base frame, a cross head movable along said guiding means, rods connecting said gears with the cross head to operate the same, a pump rod depending from said cross head, a piston carried by said pump rod, a cylinder for said piston disposed in line with the pump rod, means extending from the side members of the frame to the upper end of said guiding means to brace the latter, and a plate connecting said bracing means and guiding means at their upper ends and provided with an opening to permit the withdrawal of the pump rod, piston, and cylinder without dissembling the jack.

1,132,539. HYDROCARBON-NOZZLE OF SPRAY-CARBURETERS AND SPRAY-BURNERS. EDOARD CRÉMIEU-JAVAL, London, England. Filed May 14, 1913. Serial No. 767,629. (Cl. 137—80.)



1. An atomizing and spraying nozzle including a nozzle body having a single central longitudinal opening, a base plate provided with a central opening and a plurality of peripheral notches, said base plate removably held within the longitudinal opening of the nozzle body, and a plurality of flexible strands carried by said base plate and grouped within the mouth of the opening in the nozzle body so as to produce interstices therebetween.

2. An atomizing and spraying device including a hollow body having an open mouth, a removable base provided with openings secured within said body in the path of the liquid to be atomized and sprayed, a bundle of approximately parallel flexible stem elements fixed on the removable base and having enlarged heads grouped within the open mouth of the body and leaving interstices therebetween.

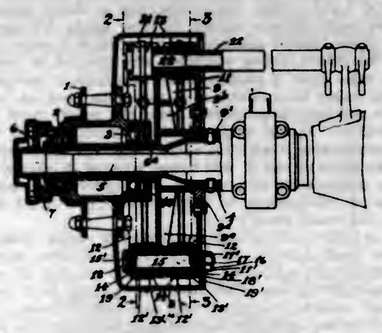
3. An atomizing and spraying device including a hollow cylindrical jet body having a thread and nut union at one end and an open mouth at the other, an interior shoulder in said cylindrical body, a detachable tube fitted into said open mouth, a removable base plate provided with openings clamped between the end of said tube and said shoulder and arranged in the path of the liquid to be sprayed, a plurality of flexible strands fixed on the removable base plate, enlarged heads on said strands grouped within the open mouth of the body and leaving interstices therebetween.

1,132,540. BRAKE MECHANISM. WALTER C. BAKER, Cleveland, Ohio, assignor to The American Ball Bearing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 13, 1913. Serial No. 794,786. (Cl. 21—8.)

1. In combination, a brake drum, a brake shoe, a pivot, a slide and guide connection between one end of said brake shoe and said pivot, said slide and its guide being mounted on said pivot to swing about the axis thereof, and an expanding cam disposed to engage the free end of said brake shoe.

2. In combination, a brake drum, a brake shoe, a pivot, a slide and guide connection between one end of said brake shoe and said pivot, said slide and its guide being mounted on said pivot to swing about the axis thereof, means for swinging said brake shoe around the axis of said pivot into and out of engagement with said drum, and means for sliding said brake shoe relative to said pivot and out of engagement with said drum.

3. In combination, a brake drum, a brake shoe, a support for the latter, a combined slide and guide and pivot connection between one end of said brake shoe and said support, an expander for the other end of said brake shoe, and means to engage said brake shoe as it is retracted and slide it relative to the axis of the pivot.

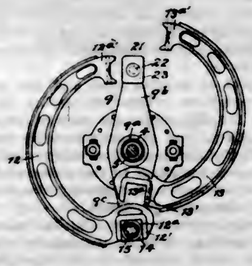


4. In combination, a brake drum, a support, a pair of opposed brake shoes arranged within said drum, means connecting adjacent ends of said brake shoes to said support including a pivot, a slide and a guide, and means interposed between the free ends of said brake shoes for expanding them about the axis of said pivot.

5. In combination, a brake drum, a support, a pair of opposed brake shoes arranged within said drum, means connecting adjacent ends of said brake shoes to said support including a pivot, a slide and a guide, means interposed between the free ends of said brake shoes for expanding them about the axis of said pivot, means for retracting the shoes, and means to engage said shoes as they are retracted and slide them relative to the axis of said pivot.

[Claims 6 and 7 not printed in the Gazette.]

1,132,541. BRAKE MECHANISM. WALTER C. BAKER, Cleveland, Ohio, assignor to The American Ball Bearing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 7, 1915. Serial No. 913. (Cl. 21—8.)

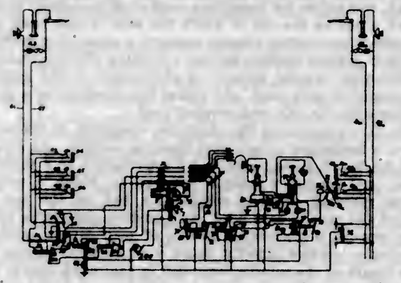


1. In combination, a brake drum, a pair of semicircular brake shoes each having a bearing recess at one end thereof, a support for said brake shoes, a pivotal connection between said support and the walls of said recesses in the brake shoes slidable into and out of said recesses, and means for expanding said brake shoes about the axis of said pivotal connection into engagement with said drum.

2. In combination, a brake shoe support having a laterally extending pivot, a brake drum movable to and fro longitudinally relative to said pivot, a pair of semi-circular brake shoes, each having a recess to receive said pivot and make connection therewith, and means for expanding said brake shoe into engagement with said drum, whereby when the brake drum is moved out of alinement with said brake shoes, either of them may be moved to and fro freely to connect it with or disconnect it from said pivot.

REISSUES.

13,891. TELEPHONE-EXCHANGE SYSTEM. SIDNEY HAND BROWNE, Short Hills, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 30, 1914. Serial No. 864,859. Original No. 1,073,589, dated Sept. 23, 1913, Serial No. 222,645. (Cl. 179—27.)



1. In a telephone system, a substation, a telephone line extending in two limbs from said substation to a central office, a plurality of trunks, contacts therefor, a trunk hunting selecting switch for the line, wipers for said switch which successively engage the contacts of said trunks, a relay having contacts for maintaining said wipers disconnected from said line limbs during trunk hunting and for connecting said line limbs to said wipers when an idle trunk is found.

2. In a telephone system, a line, a source of current normally connected therewith for use in initiating a call, a trunk hunting line switch having trunk contacts and progressively advancing wipers which normally occupy a position out of engagement with said trunk contacts, a cut-off relay for the line for maintaining the line disconnected from said wipers during trunk hunting, means for actuating said cut-off relay, when said line is either a calling or a called line, to interrupt the normal connection of said line with its source of current and to connect the line with its wipers.

3. In a call distributing system, a telephone line, a source of current normally connected therewith, a plurality of trunks, an automatic selecting switch for connecting said line with an idle one of said trunks when a call is initiated, contacts in said switch for said line, other contacts for said line, a terminal for each of said trunks for use in connecting with said other contacts when the line is to be called, and a cut-off relay for maintaining the line disconnected from its switch contacts during the selecting operation of the latter, for connecting said line with its switch contacts when an idle trunk is selected, and for disconnecting the line from said source when said line is connected with as a called line through one of its other contacts.

4. In a telephone system, a subscriber's telephone, a line leading thereto, a cut-off relay and a line relay for the line, a source of current connected in bridge of said line through normal contacts of said cut-off relay, a plurality of trunks, movable wipers associated with said line connected to normally open contacts of said cut-off relay, means at the subscriber's telephone for serially including both limbs of the telephone line in circuit with said source and said line relay to actuate the latter, means controlled by the initial actuation of the line relay for automatically advancing said wipers into successive engagement with said trunks, means to stop said wipers upon an idle trunk, and means to actuate said cut-off relay to disconnect said source from the line and to connect the line with said wipers after the latter have engaged the contacts of an idle trunk.

5. In a telephone system, a telephone line extending in two limbs to a central office, wipers associated therewith, a plurality of stationary contacts, trunk lines extending from said contacts, means for automatically progressively advancing said wipers over said contacts until an idle trunk is found, a source of current normally bridged between the limbs of said line but disconnected from said wipers, a current supply bridge between the limbs of each of said trunk lines, a cut-off relay operated upon the selection of an idle trunk to interrupt the normal connections of said source with the limbs of the line and connect the line through its wipers with the current supply bridge in the selected trunk.

6. In a telephone system, a telephone line, a line relay therefor, a test relay, a plurality of trunks, contacts therefor, wipers associated with said line, motor means for progressively advancing said wipers over said trunk contacts, a circuit controlled by said line relay to cause the operation of said motor means and by said test relay to stop the operation of said motor means when a wiper connects with an idle trunk, a cut-off relay operated upon connection with an idle trunk to open the normal connection of said line relay and complete circuit between said line and idle trunk, and means for thereafter interrupting the circuit of the test relay.

7. In a telephone system, a telephone line, a source of current normally bridged between the limbs of said line, a line relay, wipers associated with said line, a plurality of stationary contacts, trunk lines extending from said contacts, means for automatically progressively advancing said wipers until an idle trunk line is found, an operating circuit for said means controlled by said line relay to cause the advance of said wipers, a test relay controlling said operating circuit to stop the advance of said wipers when an idle trunk is found, and a cut-off relay operated upon the selection of an idle trunk to interrupt the normal connections of said source with the limbs of the line and connect the line through its wipers with the selected trunk.

8. In a telephone system, the combination with electrically actuated trunk selecting switches, multipled contacts for said switches, a plurality of trunk lines terminating on said contacts, subscribers' stations, subscribers' lines, each extending in two limbs to a central office, a set of progressively traveling wipers for each of said selecting switches each set individual to a single subscriber's line, a source of current, a line relay, a cut-off relay for each line having contacts normally serially included in circuit with its associated line relay and which maintains the limbs of the line disconnected from its associated wipers during trunk hunting, an operating circuit for each selecting switch completed by the actuation of its line relay when the limbs of its line are closed together at the substation, a test relay for each selecting switch responsive to the idle condition of a trunk line for opening the operating circuit of its selecting switch, a test circuit for each test relay including a wiper of its selecting switch and a test contact of a trunk, a relay associated with each trunk for removing the idle condition from its test contacts when said trunk is selected, a circuit for each cut-off relay including a wiper of its selecting switch and a contact of a trunk, closed upon selection of an idle trunk by a calling line to energize the cut-off relay thereof, thereby extending the limbs of that line through their associated wipers to said idle trunk line and opening the normal circuit of the line relay of said calling line, a branch from each cut-off relay circuit, multiple contacts of a subscriber's line included in said branch, and means for completing the circuit of a cut-off relay over its branch when a line is connected with as a called line at one of its multiple contacts thereby opening the normal circuit of its line relay to prevent it from starting its line selecting switch into operation when the limbs of the line are closed together in answering a call.

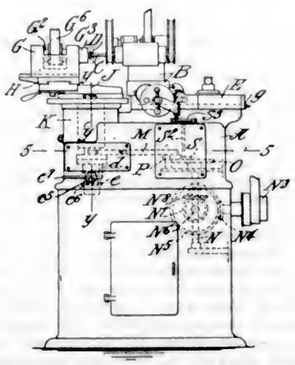
9. In a telephone system, a subscriber's line extending in two limbs to a central office, multiple jacks for said line.

a trunk hunting selecting switch for said line, waiting contacts for said selecting switch pertaining to a plurality of trunk lines leading from said switch, wipers for said switch, a cut-off relay for said line, which, when energized, connects the limbs of said line with wipers of said selecting switch, a circuit for the coil of said cut-off relay including a wiper and having a branch extending to the test contacts of said multiple jacks, means to place a test potential upon said multiple jacks during the selective movement of said wiper insufficient for the operation of said cut-off relay and to increase said test potential sufficient for the operation of said cut-off relay when said wiper arrives upon the contact of an idle trunk.

10. In a telephone system, a subscriber's line, multiple jacks for said line, a trunk hunting selecting switch for said line, waiting contacts for said selecting switch pertaining to a plurality of trunk lines leading from said switch, wipers for said switch, a cut-off relay for said line, a circuit for the coil of said cut-off relay including one of said wipers and having a branch extending to the test contacts of said multiple jacks, means to place a test potential upon said multiple jacks during the selective movement of said wiper insufficient for the operation of said cut-off relay and to increase said test potential sufficient for the operation of said cut-off relay when said wiper arrives upon the contact of an idle trunk, and a normal source of current disconnected from said line by the operation of said cut-off relay.

11. In a telephone system, a substation, a telephone line extending in two limbs from said substation to a central office, a source of current normally connected in bridge of said line, a line relay for said line, a plurality of connecting circuits, an automatic selecting switch for connecting said line with an idle one of said connecting circuits, means responsive to the energization of the line relay upon closing together the limbs of the line at the substation for initiating the progressive advance of said automatic selecting switch, and means for placing a busy potential upon the multiple jacks of said line during said advance movement and while said line is in circuit with a selected one of said trunks.

13,892. GRINDING-MACHINE. CHARLES E. VAN NORMAN, Springfield, Mass. Filed Dec. 14, 1914. Serial No. 877,241. Original No. 1,102,558, dated July 7, 1914, Serial No. 815,368. (Cl. 51—4.)



1. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatively driving it, a work carrying head mounted for oscillation on an axis angular to the axis of the tool spindle, means for imparting oscillatory movement to said head which is adapted to be connected with and disconnected from the latter, and means located on a fixed part of the machine and adapted to control the action of the connecting and disconnecting means.

2. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatably driving it, a work carrying head located for oscillation on an axis angular to the axis of the tool spindle, a member adapted to move in coöperative axial relation with said head, means for adjusting the field of oscillation of said member and head, means for imparting oscillatory movement to said member, means for disconnecting said member and oscillation imparting mechanism and for reconnecting at the proper location, and means located on a fixed part of the machine and adapted to control the action of the connecting and disconnecting means while the oscillation imparting mechanism is in motion.

3. In a machine of the character described, in combination, a spindle carrying a rotary tool and driving means therefor, a head mounted for oscillation, a vertical pivotal post connected with said head, a spindle journaled in said head, and means for imparting oscillatory movement to the head, a bed on the top of which the base of said head has a surface contacting bearing support, a supporting portion of such contact surface having a location directly under a substantial bearing portion of the length of the spindle journaled in said head, and means for constituting a journal bearing for the said vertical post.

4. In a machine of the character described, in combination, a horizontal rotary tool carrying spindle and means for driving it, a head arranged for oscillation on a vertical axis, and having a journal support, in which a rotary work carrying shaft is mounted, a bed on the top of which the base of said head has a surface contacting bearing support, a supporting portion of such contact surface having a location directly under a substantial portion of the length of the spindle journaled in said head, means for imparting oscillatory motion to said head, and means for disconnecting the head and the motion imparting means therefor, and for reconnecting them in proper relation which means are operable during the action of the oscillation motion imparting means.

5. In a machine of the character described, in combination, a bed, a feed-slide, having a horizontal tool carrying spindle movably mounted on the bed, a vertical post, to be oscillated, having bearing supports within the bed, a head having a horizontal work-carrying shaft, the base of which head is connected to an upper portion of said post, an annular member, surrounding, and revolubly movable relatively to, the post, a member affixed to the post adjacent the annular member, means for detachably locking said members together, while the means for oscillating the annular member are in motion.

6. In a machine of the character described, in combination, a bed, a feed-slide, having a horizontal tool carrying spindle movably mounted on the bed, a vertical post, to be oscillated, a head, the base of which is connected to an upper portion of said post, and having a horizontal work carrying shaft, an annular member, surrounding, and revolubly movable relatively to, the post, a member affixed to the post adjacent the annular member, and provided with a locking device vertically movable and adapted for a locking engagement with, and disconnection from, said annular member, a collar slidable on the post and having an actuation connection with the locking device and means for slidably operating the collar.

7. In a machine of the character described, in combination, a bed, a feed-slide, having a horizontal tool carrying spindle movably mounted on the bed, a vertical post, to be oscillated, a head, the base of which is connected to an upper portion of said post, and having a horizontal work carrying shaft, an annular member, surrounding, and revolubly movable relatively to, the post, and having in its under side a socket, a member affixed to the post adjacent the annular member and provided with a locking pin vertically movable and adapted for a locking engagement in, and disengagement from, said socket, a flanged collar slidable on the post and having a connection with the locking pin, and a rotative element having an eccentric projection in engagement in the flange of said collar.

8. In a machine of the character described, in combination, a bed, a feed-slide, having a horizontal tool carrying spindle movably mounted on the bed, a vertical post to be oscillated, a head, having a horizontal work carrying shaft,

and having the base thereof connected to the upper end of the post, an annular member, surrounding, and revolubly movable relatively to, the post, and composed of two sections, one of which is revolubly adjustable relatively to the other, with means for confining said sections in their adjusted relations, a member affixed to the post adjacent the sectionally composed annular member, means for detachably locking the post affixed member and one section of the annular members together, and means for oscillating the other section of the annular member.

9. In a machine of the character described, in combination, a spindle carrying a rotary tool and driving means therefor, a work carrying head mounted for oscillation on an axis angular to the axis of the tool spindle and mechanism for imparting oscillatory movement to the head, which mechanism comprises means operable for a retractile action coacting with the motion imparting means, and means for increasing and diminishing the range of oscillation.

10. In a machine of the character described, in combination, a spindle carrying a rotary tool and driving means therefor, a work carrying head mounted for oscillation on an axis at right angles to the axis of the tool spindle, a cam, and means with which the cam coacts for imparting oscillatory movement to the head, and means whereby the field of oscillation of the head may be changed.

11. In a machine of the character described, in combination, a spindle carrying a rotary tool and driving means therefor, a work carrying head mounted for oscillation on an axis angular to the axis of the tool spindle and a cam, and means with which the cam coacts for imparting oscillatory movement to the head, which mechanism comprises means for increasing and diminishing the range of oscillation, and means whereby the field of oscillation of the head may be changed.

12. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatably driving it, a work carrying head and a post with which it is connected mounted for oscillation on an axis angular to the axis of the tool-spindle, a member and means for connecting it to the post, a cam, a pivoted lever with which the cam coacts, and a link connected to the lever and to the said member appurtenant to the post.

13. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatively driving it, a work carrying head and a post with which it is connected mounted for oscillation on an axis angular to the axis of the tool-spindle, a member and means for connecting it to the post, a cam, a pivoted lever with which the cam coacts, and a link, composed of separate sections, which are longitudinally distensibly and contractibly adjustably connected, connected to the lever and to the said member appurtenant to the post.

14. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatively driving it, a work carrying head and a post with which it is connected mounted for oscillation on an axis angular to the axis of the tool-spindle, a member and means for connecting it to the post, a cam, a pivoted lever with which the cam coacts, a link connected to the lever and to the said member appurtenant to the post, and means operable for a retractile action on the connected link and lever.

15. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatively driving it, a work carrying head mounted for oscillation on an axis angular to the axis of the tool-spindle, a cam, a pivoted lever with which the cam coacts, and a link, connected to the lever and having an oscillation imparting connection with the work carrying head.

16. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatively driving it, a work carrying head mounted for oscillation on an axis angular to the axis of the tool-spindle, a cam, a pivoted lever with which the cam coacts, a link, and means for adjustably pivotally connecting the lever at different points along the length of the latter, said link also having an oscillation imparting connection with the work carrying head.

17. In a machine of the character described, in combination, a spindle carrying a rotary tool and means for rotatively driving it, a work carrying head mounted for oscillation on an axis angular to the axis of the tool-spindle, a cam, a pivoted lever with which the cam coacts, a link composed of suitably formed members which are distensibly and contractibly connected, and means for adjustably pivotally connecting the lever at different points along the length of the latter, said link also having an oscillation imparting connection with the work carrying head.

18. In a machine of the character described, in combination, a spindle for carrying a rotary tool, a support for said spindle, slidably movable, and driving means for the spindle, a work carrying head mounted for oscillation on an axis angular to the axis of the tool spindle and relatively to which the latter is coöperatively arranged, and respective automatically operated mechanism for alternately imparting oscillatory movement to the head, and a reciprocatory movement to said spindle support.

19. In a machine of the character described, a spindle, for carrying a rotary tool, a support for said spindle slidably movable in the direction of the line of the axis of the spindle carried thereby, and driving means for the spindle, a work-carrying head mounted for oscillation on an axis angular to the axis of the tool spindle and relatively to which the latter is coöperatively arranged, respective mechanism for alternately imparting oscillatory movement to the head, and a reciprocatory movement to said spindle support, said spindle support comprising a member by which the spindle is carried, and a member, slidable relative thereto, with which the mechanism for imparting the reciprocatory movement to such support is connected, and means combined with the members of said support for both connecting them as a unit and for causing a sliding movement of the one relatively to the other, for the withdrawal of the spindle carrying tool from the working position relatively to the oscillatory work holding head.

20. In a machine of the character described, a spindle carrying a rotary tool, a support for said spindle, slidably movable, and driving means for the spindle, a work carrying head mounted for oscillation on an axis angular to the line of movement of the tool spindle support and relatively to which the latter is coöperatively arranged, respective mechanism for alternately imparting oscillatory movement to the head, and a reciprocatory movement to said spindle support angular to the axis of oscillation of said head, said spindle support comprising a member on which the spindle is directly supported, and a member, slidable relative thereto, with which the mechanism for imparting the reciprocatory movement to such support is connected, means combined with the members of said support for causing a sliding movement of the one relatively to the other, for the withdrawal of the spindle carrying tool from the working position relatively to the oscillatory work holding head, and an adjustable stop, up to which the member which directly supports the tool spindle may be brought in its movement toward the work holder carrying head.

21. In a machine of the character described, a spindle carrying a rotary tool, a support for said spindle which is slidably movable, and driving means for the spindle, an oscillatory work carrying head relatively to which the tool spindle is coöperatively arranged, mechanism for imparting a reciprocatory movement to said tool spindle support angular to the axis of oscillation of the head, said spindle support comprising a member by which the spindle is carried, and a member, slidable relative thereto with which the mechanism for imparting the reciprocatory movement to such support is connected, and means combined with said members for causing a sliding movement of the one relatively to the other, for the withdrawal of the spindle carrying tool from its working position relatively to the work holding head.

22. In a machine of the character described, in combination, a support carrying a rotary tool spindle which is slidably mounted, a work carrying head mounted for oscillation on an axis angular to the line of movement of

the tool spindle support, a rotary shaft having two cams thereon, pivoted levers with which the cams coact, and links connected to said levers, one thereof having an oscillation imparting connection with the tool carrying head, and the other a reciprocation imparting connection with the said slidable tool spindle support.

23. In a machine of the character described, in combination, a rotary tool spindle and a support therefor which is slidably mounted and which is composed of two members, the first carrying the spindle and adapted for a slide movement relatively to the second member, rack teeth on the second member and a gear rotatively mounted on the first member and engaging the rack teeth, and a handle for normally rotating the gear, a work carrying head mounted for oscillation on an axis angular to the line of movement of the tool spindle support, a rotary shaft having two cams thereon, pivoted levers with which the cams coact, and links connected to said levers, one thereof having an oscillation imparting connection with the tool carrying head, and the other a reciprocation imparting connection with the aforenamed second member of said slidable tool spindle support.

24. In a machine of the character described, in combination, a work carrying head mounted for oscillation and means for imparting oscillatory movement thereto, a spindle for carrying a rotary tool arranged angular to the axis of oscillation of said head, a slide movable along a line parallel with the spindle axis, and a slide by which the spindle is directly carried movable on the first named slide transversely of the line of movement of such slide and having a feed screw, a ratchet wheel having driving connection with the feed screw, a swinging pawl carrier provided with a pawl coacting with the ratchet wheel, and means for automatically imparting a swinging movement to the pawl carrier.

25. In a machine of the character described, in combination, a work carrying head mounted for oscillation and means for imparting oscillatory movement thereto, a spindle for carrying a rotary tool arranged angular to the axis of oscillation of said head, a slide movable along a line parallel with the spindle axis, and a slide by which the spindle is directly carried movable on the first named slide transversely of the line of movement of such slide and having a feed screw, a ratchet wheel having driving connection with the feed screw, a swinging pawl carried provided with a pawl coacting with the ratchet wheel, and means for automatically imparting a swinging movement to the pawl carrier, which means has provision for a lost motion in its coaction with the pawl carrier, and which provision is adapted for variation of the degree of the lost motion.

26. In a machine of the character described, in combination, a work carrying head mounted for oscillation on a vertical axis and means for imparting oscillatory movement to said head, a spindle for carrying a rotary tool, arranged with its axis angular to the axis of oscillation of said head, a base slide movable along a line parallel with the spindle axis, and a slide, by which the spindle is directly carried, movable on the first named slide transversely of the line of movement of the first named slide, and having a feed screw, a ratchet wheel having driving connection with the feed screw, a swinging pawl-carrier and a pawl thereon coacting with the ratchet wheel, a member mounted for oscillation adjacent the pawl carrier and provided with an abutment member, a rotary cam, a thrust rod actuated thereby, and a pivotally mounted and tiltable plate adapted to be swung by the thrust rod and coacting with the said abutment member.

27. In a machine of the character described, in combination, a work carrying head mounted for oscillation on a vertical axis and means for imparting oscillatory movement to said head, a spindle carrying a rotary tool, arranged with its axis horizontal and at right angles to the axis of oscillation of said head, a base slide movable along a line parallel with the spindle axis, and a slide by which the spindle is carried, movable on the first named slide transversely of the first named slide, and having a feed screw, a ratchet wheel having driving connection with the feed screw, a pawl carrier and a pawl thereon coacting with the ratchet wheel, a member mounted for oscillation adjacent the pawl carrier and provided with an abutment member, a rotary cam, a thrust rod actuated thereby, and a pivotally mounted and tiltable plate adapted to be swung by the thrust rod and coacting with the said abutment member, said abutment member and plate being related for a lost motion engagement and means for varying the extent of the lost motion relatively between said parts.

28. In a machine of the character described, in combination, a work carrying head mounted for oscillation on a vertical axis, a spindle carrying a rotary tool arranged with its axis horizontal and angular to the axis of oscillation of said head and mounted for a movement substantially transverse of the axis of the tool carrying spindle, a mechanism for imparting both an oscillatory movement to the work carrying head and a transverse feed movement to the tool carrying spindle, and means for terminating the transverse movement of the mounting for the tool spindle after the feed movement has progressed to a predetermined point.

29. In a machine of the character described, in combination, a work carrying head mounted for oscillation and actuating means for imparting oscillatory movement thereto, a spindle carrying a rotary tool arranged with its axis angular to the axis of oscillation of said head, a base support manually movable along the line of the spindle axis, and a slide by which the tool spindle is directly carried slidable transversely of the base slide, feed mechanism coacting with said slide for imparting feed motion to the transversely movable slide while the base slide remains stationary, means connecting the feed mechanism and the oscillatory head actuating mechanism, and means for stopping the action of the feed mechanism at any predetermined point.

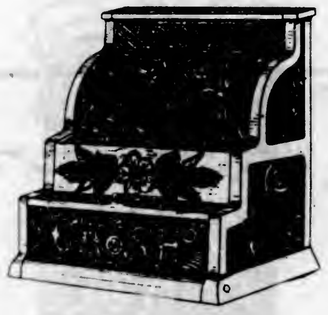
30. In a machine of the character described, in combination, a work carrying head mounted for oscillation on a vertical axis and means for imparting oscillatory movement to said head, a spindle carrying a rotary tool, arranged with its axis horizontal and at right angles to the axis of oscillation of said head, a base slide movable along the line of the spindle axis and a slide, by which the spindle is directly carried, movable on the first named slide transversely of the spindle axis and having a feed screw, a ratchet wheel having driving connection with the feed screw, an oscillatory pawl carrier and a pawl thereon coacting with the ratchet wheel, a member mounted for oscillation adjacent the pawl carrier and provided with an adjustable abutment member, a rotary cam, a thrust rod, actuated thereby, a pivotally mounted and tiltable plate adapted to be swung by the thrust rod and coacting with the said adjustable abutment member, a shield adapted to overlie a portion of the toothed edge of the ratchet wheel, revolubly adjustable relatively to the latter and having means for its adjustment and operative after a predetermined rotative movement of the ratchet wheel to force the pawl to a position of disengagement relatively to the ratchet wheel.

31. In a machine of the character described, a base member mounted for oscillation and a pair of slide members carried by the base, one of which is movable on a line radial to the axis of oscillation and the other movable on a line at right angles thereto, one of said members comprising a head having a rotary work holder spindle journaled therein, coöperative gage devices respectively on the base member and the member slidable therein, and on the radially slidable member and the member which is slidable right angularly thereto, all of which devices when respectively and simultaneously brought to coincidence determine an invariable relation of the work holder spindle to the said axis of oscillation, and which serve as datums of measurement for adjustably positioning the slidable members to insure that differently sized grooved pieces, to be operated upon, of known dimensions, carried by the spindle, and having known relation to the latter, shall be supported so that the center from which the arc of the groove in the piece is generated is exactly at the said axis of oscillation.

32. In a machine of the character described, a base member mounted for oscillation and a pair of slide members carried by the base, one of which is movable on a line radial to the axis of oscillation and the other movable on a line at right angles thereto, one of said members comprising a head having a rotary work holder spindle journaled therein, coöperative gage stops on the base member and the member slidable thereon, and coöperative gage stops on the radially slidable member and the member which is slidable right angularly thereto, which stops are so arranged that when the slide members are positioned to bring the stops of the pairs to abutment one with another, the work holder spindle is brought to an invariable relation to the said axis of oscillation.

DESIGNS.

47,095. TOY BANK. CHARLES A. BAILEY, Cromwell, Conn., assignor to The J. & E. Stevens Company, Cromwell, Conn., a Corporation of Connecticut. Filed Dec. 30, 1914. Serial No. 879,809. Term of patent 7 years.



The ornamental design for a toy bank, as shown.

47,096. COMBINED BOTTLE-OPENER AND BUTTON-HOOK. JOHN BAUMANN, Gleason, Wis. Filed Sept. 1, 1914. Serial No. 859,714. Term of patent 7 years.



The ornamental design for a combined bottle opener and button hook, as shown.

47,097. NECKTIE. ADOLPH BENNETT, New York, N. Y. Filed Dec. 11, 1914. Serial No. 876,737. Term of patent 3½ years.



The ornamental design for a necktie, as shown.

47,098. FOUNTAIN-BRUSH. PETER JOHN BERTELSEN and GEORGE KEENAN, Jr., San Francisco, Cal. Filed Oct. 3, 1914. Serial No. 864,955. Term of patent 7 years.



The ornamental design for a fountain brush, as shown.

47,099. CASING FOR LIQUID-PISTOLS. ALBERT BLANKENHAGEN, Akron, Ohio, assignor of one-half to Frank W. Blankenhagen, Akron, Ohio. Filed Nov. 3, 1914. Serial No. 870,159. Term of patent 14 years.



The ornamental design for a casing for a liquid pistol, as shown.

47,100. TOOTH-BRUSH. CHARLES BOCCIA, New York, N. Y. Filed Nov. 10, 1914. Serial No. 871,404. Term of patent 14 years.



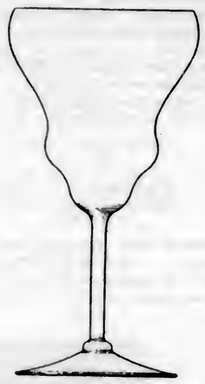
The original design for tooth brush, as shown.

47,101. BROOM. VIRGINIA B. BRIGHT, Fayetteville, Tenn. Filed July 7, 1913. Serial No. 777,779. Term of patent 7 years.



The ornamental design for a broom, as shown.

47,102. GLASS VESSEL. PHILLIP EBELING, Moundsville, W. Va., assignor to Fostoria Glass Company, Moundsville, W. Va., a Corporation of West Virginia. Filed Jan. 4, 1915. Serial No. 527. Term of patent 7 years.



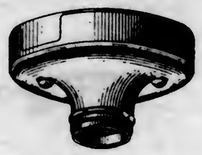
The ornamental design for a glass vessel, substantially as shown.

47,103. PARASOL. CHARLES J. FOLLMER, New York, N. Y. Filed Jan. 8, 1915. Serial No. 1,247. Term of patent 14 years.



The ornamental design for parasol as shown.

47,104. ELECTRICAL FIXTURE. HENRY R. GILSON, Baden, Pa. Filed Aug. 7, 1914. Serial No. 855,703. Term of patent 14 years.



The ornamental design for an electrical fixture, as shown.

47,105. ELECTRICAL FIXTURE. HENRY R. GILSON, Baden, Pa. Filed Aug. 7, 1914. Serial No. 855,704. Term of patent 14 years.



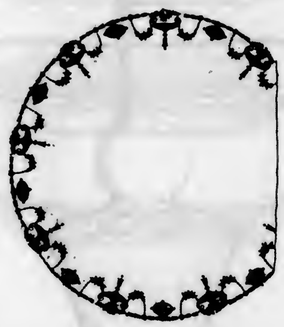
The ornamental design for an electrical fixture as shown.

47,106. SHOPPING-BAG. ARCHIBALD L. HETTRICH, San Rafael, Cal. Filed Dec. 7, 1914. Serial No. 875,991. Term of patent 3½ years.



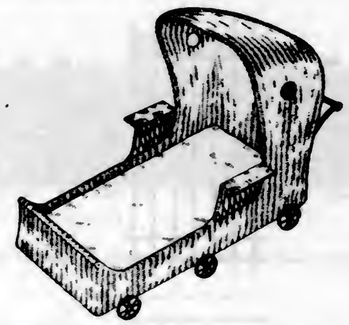
The ornamental design for a shopping bag, substantially as shown.

47,107. ARTICLE OF MANUFACTURE. MABEL WOODS HINRICHS, Chicago, Ill., assignor to Burley & Tyrrell Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 30, 1914. Serial No. 879,806. Term of patent 14 years.



The ornamental design for an article of manufacture as shown.

47,108. INVALID'S COUCH. GRACE LEA HUNT, Wilkes-Barre, Pa. Filed Nov. 12, 1914. Serial No. 871,802. Term of patent 14 years.



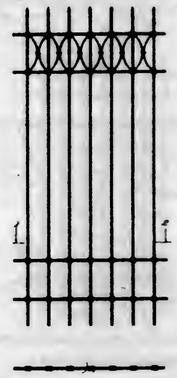
The ornamental design for an invalid's couch, as shown.

47,109. PADLOCK. ARTHUR C. JACKSON, Philadelphia, Pa., assignor to Miller Lock Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 7, 1915. Serial No. 1,053. Term of patent 14 years.



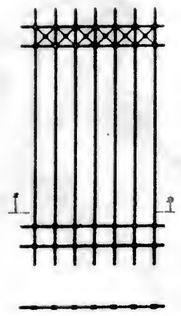
The ornamental design for a padlock substantially as shown in the accompanying drawing.

47,110. FENCE. MAURICE LACHMAN, New York, N. Y. Filed Dec. 17, 1914. Serial No. 877,821. Term of patent 7 years.



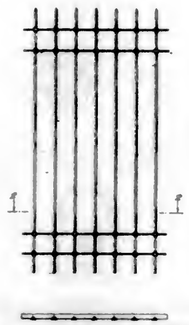
The ornamental design for a fence, as shown.

47,111. FENCE. MAURICE LACHMAN, New York, N. Y. Filed Dec. 17, 1914. Serial No. 877,822. Term of patent 7 years.



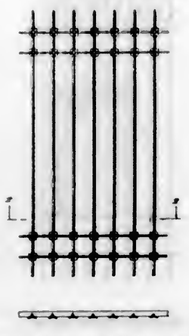
The ornamental design for a fence, as shown.

47,112. FENCE. MAURICE LACHMAN, New York, N. Y. Filed Dec. 17, 1914. Serial No. 877,823. Term of patent 7 years.



The ornamental design for a fence, as shown.

47,113. FENCE. MAURICE LACHMAN, New York, N. Y. Filed Dec. 17, 1914. Serial No. 877,824. Term of patent 7 years.



The ornamental design for a fence, as shown.

47,114. BOTTLE. EDWIN LEHMANN, Peoria, Ill. Filed Nov. 21, 1914. Serial No. 873,402. Term of patent 7 years.



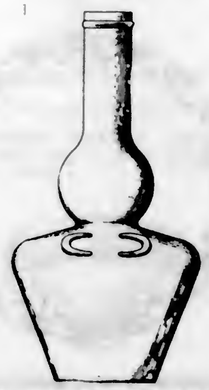
The ornamental design for a bottle, as shown.

47,115. BOTTLE. EDWIN LEHMANN, Peoria, Ill. Filed Nov. 21, 1914. Serial No. 873,403. Term of patent 7 years.



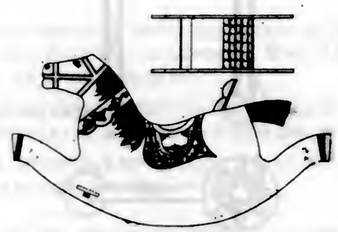
The ornamental design for a bottle, as shown.

47,116. BOTTLE. EDWIN LEHMANN, Peoria, Ill. Filed Nov. 21, 1914. Serial No. 873,404. Term of patent 7 years.



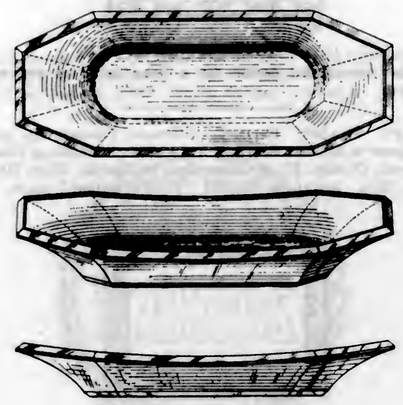
The ornamental design for a bottle, as shown.

47,117. ROCKING-HORSE. DAVID W. LYNCH, Lancaster, Pa. Filed Mar. 25, 1914. Serial No. 827,252. Term of patent 3½ years.



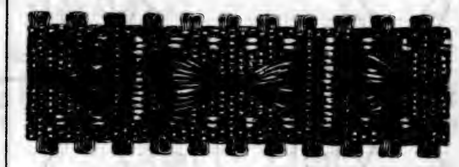
The ornamental design for a rocking-horse, as shown.

47,118. GLASS DISH. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Company, Newark, Ohio. Filed Dec. 14, 1914. Serial No. 877,246. Term of patent 14 years.



The ornamental design for a glass dish as shown.

47,119. RIBBON. CHARLES P. SCHLEGEL, Rochester, N. Y. Filed Nov. 17, 1914. Serial No. 872,671. Term of patent 14 years.



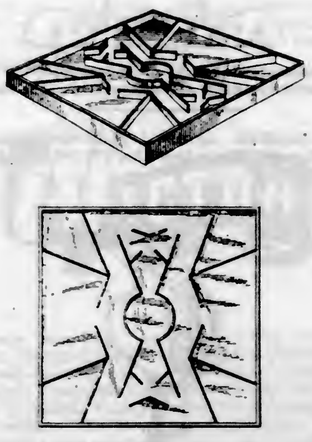
The ornamental design for a ribbon as herein shown.

47,120. RIBBON. CARL F. SCHLEGEL, Rochester, N. Y. Filed Nov. 27, 1914. Serial No. 874,340. Term of patent 14 years.



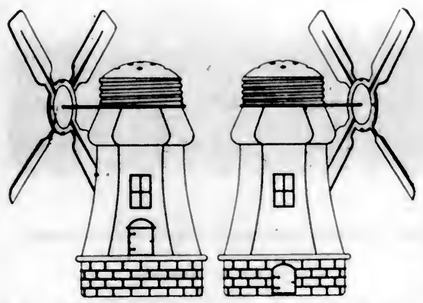
The ornamental design for a ribbon as herein shown.

47,121. PUZZLE-BOARD. THEODORE L. SMITH, Richmond, Va. Filed Jan. 16, 1915. Serial No. 2,770. Term of patent 7 years.



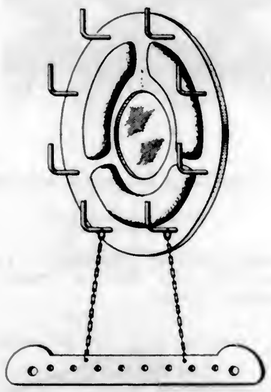
The ornamental design for a puzzle board as shown.

47,122. TOY CANDY-CONTAINER. TURNEY G. STOUGH, Jeannette, Pa. Filed Jan. 16, 1915. Serial No. 2,763. Term of patent 14 years.



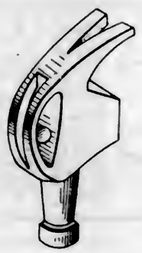
The ornamental design for a toy candy container, as shown.

47,123. RACK FOR SUPPORTING WATCHES, WATCH-CHAINS, KEY-RINGS, AND SIMILAR ARTICLES. WILLIAM P. STROKE, Buffalo, N. Y. Filed Jan. 8, 1915. Serial No. 1,250. Term of patent 7 years.



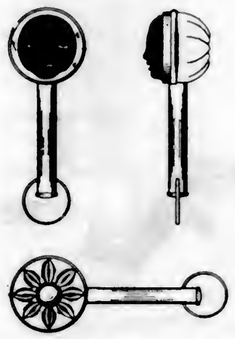
The ornamental design for a rack for supporting watches, watch chains, key rings, and similar articles, as shown.

47,124. HAMMER. ARTHUR J. THOMPSON, Fulton, N. Y. Filed Nov. 28, 1914. Serial No. 874,544. Term of patent 14 years.



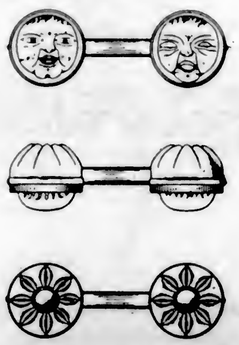
The ornamental design for a hammer, as shown.

47,125. BABY-RATTLE OR TOY. JOHN N. WHITEHOUSE, Newark, N. J. Filed Dec. 24, 1914. Serial No. 878,830. Term of patent 3½ years.



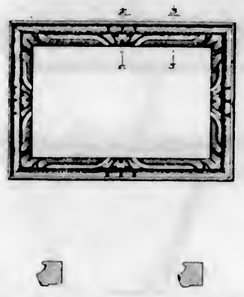
The ornamental design for a baby rattle or toy, as shown.

47,126. BABY-RATTLE OR TOY. JOHN N. WHITEHOUSE, Newark, N. J. Filed Dec. 24, 1914. Serial No. 878,831. Term of patent 3½ years.



The ornamental design for a baby rattle or toy, as shown.

47,127. FRAME. PETER E. WHITSON, Chicago, Ill., assignor to Mueller Brothers Art and Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 8, 1914. Serial No. 837,337. Term of patent 7 years.



The ornamental design for a frame, as shown.

TRADE-MARKS

PUBLISHED MARCH 16, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 15,156. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MARSHALL FIELD & COMPANY, Chicago, Ill. Filed Dec. 4, 1905.



Particular description of goods.—Linen, Cotton, and a Mixture of Linen and Cotton Piece Goods.
Claims use since about 1875.

Ser. No. 40,180. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS WOOD CO., Boston, Mass. Filed Jan. 28, 1909. Under ten-year proviso.



No claim being made to the words "Woods" and "Tea."
Particular description of goods.—Tea.
Claims use since 1891.

Ser. No. 61,577. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS GRAY, Hillsboro, N. H., Carrie L. Gray, executrix of said Thomas Gray, deceased, assignor to Frank J. Casey and John B. Tasker, Hillsboro, N. H., doing business as The Gray Helpuall Company, Hillsboro, N. H., a Copartnership. Filed Feb. 17, 1912.



Particular description of goods.—A Medicine for Sore Throat, Colds, Catarrh, Coughs, Canker, Cold-sores, Cuts, Burns, Sunburn, Croup, and Similar Forms of Inflammation.
Claims use since on or about the 7th day of February, 1912.

Ser. No. 65,395. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) VICTOR ELECTRIC COMPANY, Chicago, Ill. Filed Aug. 23, 1912. Under ten-year proviso.



Particular description of goods.—X-Ray Apparatus, Vibrators, Cautery-Transformers, Portable Massage Outfits, Cautery-Handles, Eye and Ear Masseur Pumps, Air-Compressors, Diagnostic Lamps, and Therapeutic Motors, Therapeutic Lamps, Finsen Lamps, Trephine-Engines for all Bone Surgery, Sterilizers, Transilluminators, (electric lights having a lens attachment to be used for diagnostic purposes,) and Massage Outfits or Vibrators.
Claims use since the month of December, 1894.

Ser. No. 70,930. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CO-OPERATIVE DRUG MANUFACTURING COMPANY, now, by change of name, American Drug Mfg. Co., Jackson, Tenn. Filed June 7, 1913.



The picture being fanciful.
Particular description of goods.—Flavoring Extracts for Foods, and Spices.
Claims use since Apr. 26, 1901.

Ser. No. 70,934. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CO-OPERATIVE DRUG MANUFACTURING COMPANY, now, by change of name, American Drug Mfg. Co., Jackson, Tenn. Filed June 7, 1913.



Particular description of goods.—Flavoring Extracts for Foods and Spices.
Claims use since Apr. 26, 1901.

Ser. No. 72,050. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JENNIE M. MCRAE, Bisbee, Ariz. Filed July 30, 1913.



The words "Trade Mark" not being claimed.
Particular description of goods.—Hair-Tonic.
Claims use since July 25, 1913.

Ser. No. 72,103. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Aug. 1, 1913.

VICTOR

Particular description of goods.—Four-Cycle Stationary Engines and Parts Thereof.
Claims use since Apr. 27, 1910.

Ser. No. 72,999. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VIRGINIA ALFALFA CORPORATION, Richmond, Va. Filed Sept. 22, 1913.



Particular description of goods.—Alfalfa for Feeding Purposes.
Claims use since Aug. 1, 1913.

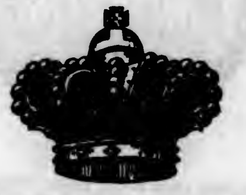
Ser. No. 74,963. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MERCHANTS CANDY COMPANY, Salt Lake City, Utah. Filed Jan. 3, 1914.

Maurice

Particular description of goods.—Candy.
Claims use since Nov. 1, 1913.

Ser. No. 75,051. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RAYMOND G. FIBOR, Cleveland, Ohio. Filed Jan. 9, 1914.

IMPERIAL



Particular description of goods.—Frosting for Cakes.
Claims use since Dec. 1, 1913.

Ser. No. 75,279. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) BOSTON AUTO GAGE CO., Boston, Mass. Filed Jan. 19, 1914.

Triumph Jr.

Particular description of goods.—Gasolene-Gages.
Claims use since May 5, 1909.

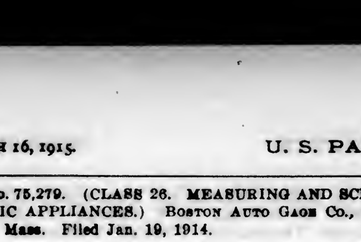
Ser. No. 76,006. (CLASS 38. PRINTS AND PUBLICATIONS.) MORNING JOURNAL ASSOCIATION, New York, N. Y. Filed Feb. 18, 1914.

Deutsches Journal

Particular description of goods.—A Newspaper.
Claims use since Jan. 30, 1914.

Ser. No. 76,254. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROGUE RIVER FRUIT & PRODUCE ASSOCIATION, Medford, Oreg. Filed Feb. 28, 1914.

TRIANGLE



The triangle being printed in blue.
Particular description of goods.—Fresh Apples, Pears, Peaches, Plums, Cherries, Apricots, Prunes, Loganberries, Strawberries, Gooseberries, and Currants.
Claims use since Aug. 15, 1913.

Ser. No. 78,224. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TOOTAL, BROADHURST LEE COMPANY, LTD., Manchester, England. Filed May 12, 1914.

TARANTULLE

Particular description of goods.—Cotton Piece Goods—viz., Nainsooks, Cambrics, and Madapolams.
Claims use since on or about 1885.

Ser. No. 78,311. (CLASS 33. GLASSWARE.) WILLIAM JOHN PETERSON, New York, N. Y. Filed May 15, 1914.

SNOWFLAKE

No claim being made for the representation of the dome.
Particular description of goods.—Lighting Apparatus of Glass, Comprising Domes, Reflectors, Diffusers, and Bowls.
Claims use since Apr. 10, 1914.

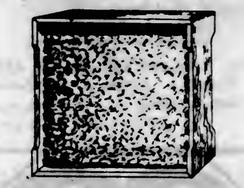
Ser. No. 79,051. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE CROWN CORK & SEAL CO. OF BALTIMORE CITY, Baltimore, Md. Filed June 13, 1914.

CANAX

Particular description of goods.—Artificial Cork, Disks Made Therefrom, and Bottle-Closures, of Which Said Disks are a Part.
Claims use since May 16, 1914.

Ser. No. 79,485. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HARRY H. FRITCH, Chicago, Ill. Filed July 1, 1914.

FRITCH'S HONEY-COMB SOAP



No claim being made to the surname "Fritchs" and the word "Soap."
Particular description of goods.—Soap.
Claims use since on or about April, 1914.

Ser. No. 79,663. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK H. FLEER CORPORATION, Philadelphia, Pa. Filed July 9, 1914.

BOBS

Particular description of goods.—Chewing-Gum and Candy.
Claims use since Dec. 18, 1913.

Ser. No. 79,761. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. J. MCGRATH COMPANY, Baltimore, Md. Filed July 13, 1914.

Champion

Particular description of goods.—Canned Fruits, Vegetables, and Oysters.
Claims use since the year 1871.

Ser. No. 80,158. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE NEW YORK MACKINTOSH CLOTHING CO., Mamaroneck, N. Y. Filed July 29, 1914.

Bestyette

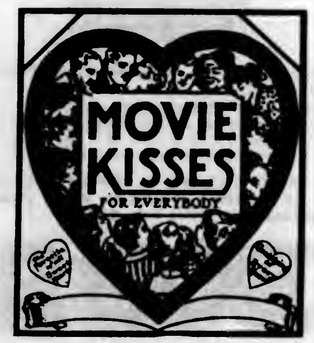
Consisting of the word "Bestyette."
Particular description of goods.—Rubber Surgical Blankets, Hot-Water Bottles, Syringes, and Fittings, and Rubber Tubing for Surgical Work.
Claims use since July 22, 1914.

Ser. No. 80,203. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CHARLES RUSSELL HURD, New York, N. Y. Filed July 31, 1914.

SEA SIDE

Comprising the words "Sea Side."
Particular description of goods.—Woolen Piece Goods.
Claims use since April, 1914.

Ser. No. 80,262. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER A. MANDABACH, Chicago, Ill. Filed Aug. 1, 1914.



Particular description of goods.—A Candy Confection.
Claims use since June 1, 1914.

Ser. No. 80,294. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) N. V. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands. Filed Aug. 4, 1914.



Particular description of goods.—Condensed Milk.
Claims use since the 1st of July, 1914.

Ser. No. 80,296. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) N. V. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands. Filed Aug. 4, 1914.

GOOD FRIENDS

Particular description of goods.—Condensed Milk.
Claims use since the 1st of January, 1907.

Ser. No. 80,527. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COMMERCIAL MILLING CO., Detroit, Mich. Filed Aug. 13, 1914.

Henkel's
PASTRY

The right to the exclusive use of the word "Pastry" is hereby disclaimed.
Particular description of goods.—Wheat-Flour.
Claims use since about Jan. 15, 1914.

Ser. No. 80,686. (CLASS 39. CLOTHING.) GEO. H. SNOW CO., Brockton, Mass. Filed Aug. 19, 1914.

WEARMORE

Particular description of goods.—The Soles or Bottoms of Boots and Shoes Made of Textile Fiber.
Claims use since January, 1914.

Ser. No. 80,710. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROHRER CANDY COMPANY, Bellevue, Ky. Filed Aug. 20, 1914.



Particular description of goods.—Confections—Namely, Candies, Including Creams, Chocolates, Caramels, Butter-Scotch, Taffies, Nougat, Marshmallows, Hard Candies, Molasses Candies, Cocoanut-Candies, and Peanut-Candies; and Fruit and Nut Confections—Nuts, Peanuts, and Potato Chips.
Claims use since Jan. 24, 1914.

Ser. No. 80,753. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. G. CUTLER COMPANY, Duluth, Minn. Filed Aug. 24, 1914.

BULL

Particular description of goods.—Common Stock-Salt.
Claims use since Aug. 1, 1902.

Ser. No. 80,754. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. G. CUTLER COMPANY, Duluth, Minn. Filed Aug. 24, 1914.

DAIRY MAID

Particular description of goods.—Table-Salt and Salt for Dairy Purposes.
Claims use since June 1, 1906.

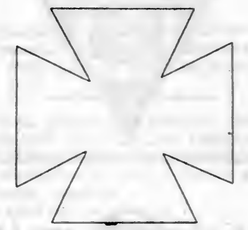
Ser. No. 80,755. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. G. CUTLER COMPANY, Duluth, Minn. Filed Aug. 24, 1914.

SUNSHINE

Particular description of goods.—Table-Salt, Medium Common Salt, and Granulated Fine Salt.
Claims use since July 1, 1909.

Ser. No. 80,756. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. G. CUTLER COMPANY, Duluth, Minn. Filed Aug. 24, 1914.

WHITE



CROSS

Particular description of goods.—Granulated Salt.
Claims use since Aug. 1, 1902.

Ser. No. 80,757. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROCCO PERRETTA & CO., Utica, N. Y. Filed Aug. 24, 1914.



Particular description of goods.—Cans of Olive-Oil.
Claims use since Feb. 1, 1913.

Ser. No. 81,551. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LORENZO TRUJILLO-MARIN, New York, N. Y. Filed Sept. 29, 1914.

Flamel

Particular description of goods.—Pills used in the Treatment of Sexual Neurasthenia, Impotency, and Physical Waste; Candles Used in the Treatment of Strictures, Gonorrhea, and as a Preventive; Suppositories Used in the Treatment of Hemorrhoids, and Salves Used in the Treatment of Pimples, Boils, and Sores.
Claims use since Sept. 22, 1914.

Ser. No. 81,720. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NAAML. VENN. "EXCELSIOR" FABRIEK VAN MELKPRODUCTEN, Woerden, Netherlands. Filed Oct. 7, 1914.

Trumpeter-Brand

The word "Brand" being hereby disclaimed.
Particular description of goods.—Condensed Milk.
Claims use since the 1st of January, 1907.

Ser. No. 81,721. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NAAML. VENN. "EXCELSIOR" FABRIEK VAN MELKPRODUCTEN, Woerden, Netherlands. Filed Oct. 7, 1914.



The word "Brand" being hereby disclaimed.
Particular description of goods.—Condensed Milk.
Claims use since the 15th of August, 1914.

Ser. No. No. 81,722. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NAAML. VENN. FABRIEK VAN MELKPRODUCTEN "EXCELSIOR," Woerden, Netherlands. Filed Oct. 7, 1914.

Bugle Brand

The word "Brand" being disclaimed.
Particular description of goods.—Condensed Milk.
Claims use since the 1st of January, 1907.

Ser. No. 81,787. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KLAUBER WANGENHEIM CO., San Diego, Cal. Filed Oct. 10, 1914.

POINT LOMA

Particular description of goods.—Jams, Jellies, Preserved Fruits, Teas, Coffee, Spices, Flavoring Extracts for Foods, Cereal Breakfast Foods, Corn Flakes, Corn-Starch for Food, Molasses, Pickles, Olives, Mustard, Olive-Oil, Alimentary Paste Products, Hominy, Tapioca, Cocoa, Pepper, Table-Syrup, Wheat Flakes, Chow-Chow, Cornmeal, Cider Vinegar, Pearl-Barley, Canned Shrimps, Clams, Lobsters, and Crab-Meat.
Claims use since Jan. 1, 1895.

Ser. No. 81,850. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) RUDGE-WHITWORTH, LIMITED, Coventry, England. Filed Oct. 13, 1914.



Particular description of goods.—Wheels for Use in Connection With Motor-Cars, Automobiles, Motor-Cycles, and Cycle-Cars.
Claims use since February, 1891.

Ser. No. 81,851. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) RUDGE-WHITWORTH, LIMITED, Coventry, England. Filed Oct. 13, 1914.



Particular description of goods.—Motor-Cars, Automobiles, Motor-Cycles, and Cycle-Cars.
Claims use since February, 1891.

Ser. No. 81,934. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed Oct. 16, 1914.



Particular description of goods.—Canned Vegetables and Canned Fruits.
Claims use since Aug. 19, 1904.

Ser. No. 81,935. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed Oct. 16, 1914.

OUR C.C.C.

Particular description of goods.—Canned Vegetables and Canned Fruits.
Claims use since May 24, 1901.

Ser. No. 81,937. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CANASTOTA CANNING COMPANY, Canastota, N. Y. Filed Oct. 16, 1914.



Particular description of goods.—Canned Vegetables and Canned Fruits.
Claims use since Sept. 6, 1903.

Ser. No. 82,081. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PEARL CITY FRUIT CO., LTD., Honolulu, Hawaii. Filed Oct. 22, 1914.

KALABASH

Particular description of goods.—Canned Pineapple.
Claims use since Sept. 9, 1914.

Ser. No. 82,084. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HARVEY E. SNYDER, Akron, Ohio. Filed Oct. 22, 1914.

TRIDON

Particular description of goods.—Washing Compounds in a Fluid, Semifluid, or Jelly-Like Condition and Employed for Cleaning or Washing Walls, Ceilings, Floors, and the Like.
Claims use since Sept. 1, 1914.

Ser. No. 82,112. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BENJAMIN BURROUGHS, New York, N. Y. Filed Oct. 23, 1914.



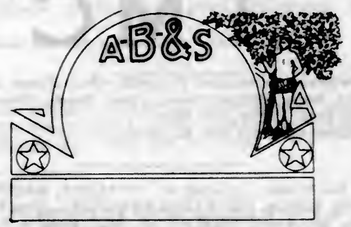
No claim is made to the words "Pure Food Products."
Particular description of goods.—Macaroni, Spaghetti, and Elbows.
Claims use since Aug. 1, 1914.

Ser. No. 82,172. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GIRARD GROCERY COMPANY, Philadelphia, Pa. Filed Oct. 26, 1914.



The words "Girard" and "Brand" being disclaimed.
Particular description of goods.—Canned Peas, Canned Corn, and Canned Tomatoes.
Claims use since Oct. 12, 1914.

Ser. No. 82,199. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ADAM BROS. & SELLERS FIG CO., Alvin, Tex. Filed Oct. 27, 1914.



Particular description of goods.—Preserved Figs.
Claims use since Aug. 15, 1914.

Ser. No. 82,200. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ADAM BROS. & SELLERS FIG CO., Alvin, Tex. Filed Oct. 27, 1914.

ALTEX

Particular description of goods.—Preserved Figs.
Claims use since Aug. 15, 1914.

Ser. No. 82,306. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PILLSBURY FLOUR MILLS COMPANY, Minneapolis, Minn. Filed Oct. 31, 1914. Under ten-year proviso.



Particular description of goods.—Wheat-Flour.
Claims use since Jan. 1, 1870.

Ser. No. 82,313. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SAFETY VAPOR HEATING CO., Buffalo, N. Y. Filed Oct. 31, 1914.



Particular description of goods.—Valves for Heating Apparatus and Damper-Regulators.
Claims use since Sept. 15, 1914.

Ser. No. 82,894. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMPSON MILLING COMPANY, Philadelphia, Pa. Filed Nov. 24, 1914.

TMC

Particular description of goods.—Soup-Flours Made of White Beans, Kidney-Beans, Lima Beans, Green Peas, Sugar-Peas, Barley, and Rice.
Claims use since Oct. 15, 1914.

Ser. No. 82,932. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE D. EUGSTER IMPORTING COMPANY, INC., New York, N. Y. Filed Nov. 27, 1914.

SAENTIS

Particular description of goods.—Shuttle Embroidery-Machines, Hand Embroidery-Machines, Threading-Machines, Embroidery-Reeling Machines, Lace-Making Machines, Bobbin-Winding Machines; Parts of all the Foregoing; Machine-Needles; Shuttles; Threading-Hooks; Knives, Shears, and Scissors for Lace and Embroidery Manufacture.
Claims use since Aug. 1, 1910.

Ser. No. 82,935. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) W. R. GRACE & CO., New York, N. Y. Filed Nov. 27, 1914.

EL CIERVO

Particular description of goods.—Lard Substitute Composed of Cotton-Seed Oil and Beef-Fat.
Claims use since the latter part of June, 1900.

Ser. No. 82,944. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WM. WALTKE & CO., St. Louis, Mo. Filed Nov. 27, 1914. Under ten-year proviso.

WALTKE

Particular description of goods.—Soap.
Claims use since about the year 1858.

Ser. No. 82,982. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW ENGLAND BISCUIT COMPANY, Worcester, Mass. Filed Nov. 30, 1914. Under ten-year proviso.

BOSS

Particular description of goods.—Crackers and Biscuits.
Claims use since Dec. 31, 1868.

Ser. No. 83,013. (CLASS 37. PAPER AND STATIONERY.) BADGER BAG & PAPER CO., Wausau, Wis., and Chicago, Ill. Filed Dec. 2, 1914.



Particular description of goods.—Wrapping-Paper.
Claims use since Oct. 1, 1914.

Ser. No. 83,052. (CLASS 15. OILS AND GREASES.) GEORGE C. SCHNEIDER, Brooklyn, N. Y. Filed Dec. 3, 1914.



Particular description of goods.—Candles.
Claims use since Aug. 11, 1914.

Ser. No. 83,086. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRENNAN PACKING CO., Chicago, Ill. Filed Dec. 5, 1914.

CREAM BRAND

The exclusive use of the word "Brand" not being claimed.
Particular description of goods.—Packing-House Products—viz., Hams and Bacons.
Claims use since Nov. 17, 1914.

Ser. No. 83,092. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, New York, N. Y. Filed Dec. 5, 1914.

RUFF

Consisting of the word "Ruff."
Particular description of goods.—Cakes Commonly Called Snaps.
Claims use since about Oct. 20, 1914.

Ser. No. 83,105. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BEE BEE CONFECTION COMPANY, Dayton, Ohio. Filed Dec. 7, 1914.

FAN TAN

Particular description of goods.—Chewing-Gum.
Claims use since about the 1st day of November, 1913.

Ser. No. 83,136. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAUTÉ PRODUCTS CORPORATION, New York, N. Y. Filed Dec. 7, 1914.

SAUTAY

Particular description of goods.—Pure Butter of Cocoanut for Frying, Baking, and Shortening.
Claims use since on or about Dec. 3, 1914.

Ser. No. 83,138. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE L. TURNER, Bakersfield, Cal. Filed Dec. 7, 1914.

CARMELITA

Particular description of goods.—Face-Cream.
Claims use since Feb. 1, 1907.

Ser. No. 83,201. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MODERN FLOUR MILLS, Macon, Ga. Filed Dec. 10, 1914.



The picture being fanciful.
Particular description of goods.—Self-Rising Wheat-Flour.
Claims use since December, 1913.

Ser. No. 83,206. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OUERBACKER COFFEE CO., Louisville, Ky. Filed Dec. 10, 1914.

FRATERNITY



The picture being fanciful, no claim being made to the exclusive right to the word "Kentucky" as shown on the pennant in the fanciful picture.
Particular description of goods.—Roasted Coffee.
Claims use since Oct. 9, 1913.

Ser. No. 83,222. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FOX CHEMICAL COMPANY, Omaha, Nebr. Filed Dec. 11, 1914.



Particular description of goods.—A Foot-Lotion.
Claims use since Sept. 1, 1914.

Ser. No. 83,377. (CLASS 17. TOBACCO PRODUCTS.) HEINEMAN BROS., Baltimore, Md. Filed Dec. 18, 1914.

LALLA ROOKH

Particular description of goods.—Cigars.
Claims use since the year 1885.

Ser. No. 83,384. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLARA TETLOW, Philadelphia, Pa. Filed Dec. 18, 1914. Under ten-year proviso.

DERMIS

Particular description of goods.—Complexion-Powders.
Claims use since Oct. 1, 1892.

Ser. No. 83,396. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. K. ARMSBY CO., San Francisco, Cal. Filed Dec. 19, 1914.

Mt. Hamilton

Particular description of goods.—Dried Fruits.
Claims use since 1902.

Ser. No. 83,410. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) E. V. GALE CO., Chicago, Ill. Filed Dec. 19, 1914.

ANZECO

Particular description of goods.—Leather in Unmanufactured Form.
Claims use since Jan. 1, 1913.

Ser. No. 83,449. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE PRISCILLA PUBLISHING CO., Boston, Mass. Filed Dec. 21, 1914.

Priscilla

Particular description of goods.—Sewing-Machines.
Claims use since Dec. 24, 1091.

Ser. No. 83,530. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) DOUBLE TREAD TIRE COMPANY, INC., New York, N. Y. Filed Dec. 26, 1914.

DOUTRE

Exclusive use of perspective and sectional views of an automobile-tire being disclaimed.
Particular description of goods.—Automobile Rubber Tires.
Claims use since on or about the 12th day of December, 1914.

Ser. No. 83,568. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BRONISLAW PREBOL, Passaic, N. J. Filed Dec. 29, 1914.

ZUBROWNIK

Particular description of goods.—Medicinal Wines.
Claims use since Sept. 1, 1911.

Ser. No. 83,575. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BACHMAN CHOCOLATE COMPANY, INCORPORATED, Philadelphia, Pa. Filed Dec. 30, 1914.

BACHMAN

Particular description of goods.—Chocolate Candy.
Claims use since Sept. 1, 1914.

Ser. No. 83,620. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. H. MACY & CO., New York, N. Y. Filed Jan. 2, 1915.

Rouge Classique

The word "Rouge" being disclaimed.
Particular description of goods.—Rouges.
Claims use since Dec. 1, 1914.

Ser. No. 83,634. (CLASS 46. FOODS AND INGREDIENTS OF FOODS). PHENIX CHEESE CO., New York, N. Y. Filed Jan. 2, 1915.

ARION

Particular description of goods.—Cheese.
Claims use since Dec. 1, 1911.

Ser. No. 83,646. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMIL J. SCHUENEMANN, Philadelphia, Pa. Filed Jan. 2, 1915.

Shuholz

SHUHOLZ

Particular description of goods.—Candy and Confections of Sugar, Molasses, and Chocolate, Flavored and Colored with Various Substances and Sometimes Combined with Nuts and Fruit.
Claims use since Dec. 27, 1910.

Ser. No. 83,658. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Chicago, Ill. Filed Jan. 4, 1915.

BANTAM

Consisting of the word "Bantam."
Particular description of goods.—Cakes and Crackers.
Claims use since the fall of 1904.

Ser. No. 83,688. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. LINDBERG, Tacoma, Wash. Filed Jan. 5, 1915.

DEL MONTE

Particular description of goods.—Coffee.
Claims use since Nov. 2, 1914.

Ser. No. 83,689. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JESSE J. PARRISH, Titusville, Fla. Filed Jan. 5, 1915.

CONFIDENCE



Particular description of goods.—Oranges, Grape-Fruit, and Tangerines.
Claims use since Nov. 26, 1914.

Ser. No. 83,694. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FITZPATRICK BROS., Chicago, Ill. Filed Jan. 6, 1915.



Particular description of goods.—A Scouring Preparation in Finely-Divided Form for Household Use.
Claims use since Feb. 21, 1908.

Ser. No. 83,698. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT CO., Boston, Mass. Filed Jan. 6, 1915.

BANDROL

Particular description of goods.—Biscuit.
Claims use since on or about Dec. 23, 1914.

Ser. No. 83,699. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MENLEY & JAMES, LIMITED, New York, N. Y. Filed Jan. 6, 1915.

SULFEX

Particular description of goods.—A Compound Sulfur Ointment.
Claims use since the 10th day of December, 1914.

Ser. No. 83,717. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) KLEANALL CHEMICAL COMPANY, Hyde Park, Pa. Filed Jan. 7, 1915.



Particular description of goods.—Water Softeners and Cleansers.
Claims use since Jan. 10, 1914.

Ser. No. 83,730. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HOLBROOK GROCERY CO., Keene, Woodsville, and Nashua, N. H. Filed Jan. 8, 1915.

ANGELUS

Particular description of goods.—Coffee and Tea.
Claims use since about July 10, 1898.

Ser. No. 83,733. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HOLBROOK GROCERY CO., Keene, Woodsville, and Nashua, N. H. Filed Jan. 8, 1915.

COLINDA

Particular description of goods.—Coffee and Tea.
Claims use since about June 10, 1914.

Ser. No. 83,735. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PULVER COMPANY INC., Rochester, N. Y. Filed Jan. 8, 1915.

PULVER TOO CHOOS

Particular description of goods.—Chewing-Gum.
Claims use since Aug. 1, 1914.

Ser. No. 83,738. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RIGNEY & COMPANY, INC., Brooklyn, N. Y. Filed Jan. 8, 1915.

R I RIGCO C O

Particular description of goods.—Rock-Candy, Rock-Candy Syrup, Maple-Syrup, and Table-Syrups, Marshmallows, Hard Candy, Bonbons, and Chocolates, Lozenges, and Honey.
Claims use since Nov. 4, 1914.

Ser. No. 83,750. (CLASS 38. PRINTS AND PUBLICATIONS.) CHAPPLE PUBLISHING COMPANY, Boston, Mass. Filed Jan. 9, 1915.

JOE CHAPPLE'S NATIONAL NEWS-LETTER

No claim being made to the exclusive use of the name of an individual not distinctively displayed.
Particular description of goods.—Monthly Magazines.
Claims use since December, 1911.

Ser. No. 83,754. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EAGLE LAKE CITRUS GROWERS ASSOCIATION, Eagle Lake, Fla. Filed Jan. 9, 1915.

CUCKOO

Particular description of goods.—Citrus Fruits.
Claims use since Nov. 15, 1914.

Ser. No. 83,779. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN NORRIS, Canon City, Colo. Filed Jan. 11, 1915.



Particular description of goods.—Rheumatism Liniment.
Claims use since Dec. 1, 1913.

Ser. No. 83,781. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OSWALD JAEGER BAKING CO., Milwaukee, Wis. Filed Jan. 11, 1915.

Jaegerue

Particular description of goods.—Bread.
Claims use since May 11, 1914.

Ser. No. 83,830. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAKELAND CITRUS GROWERS ASSOCIATION, Lakeland, Fla. Filed Jan. 13, 1915.

CAMEO

Comprising the word "Cameo."
Particular description of goods.—Citrus Fruits.
Claims use since Oct. 15, 1914.

Ser. No. 83,831. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAKELAND CITRUS GROWERS ASSOCIATION, Lakeland, Fla. Filed Jan. 13, 1915.

KINGFISHER

Particular description of goods.—Citrus Fruits—Namely, Oranges, Lemons, Tangerines, Grape-Fruit, and Limes.
Claims use since Nov. 1, 1914.

Ser. No. 83,833. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LINDQUIST CRACKER CO., Denver, Colo. Filed Jan. 13, 1915.

SINCERITY

Particular description of goods.—Crackers.
Claims use since Oct. 26, 1914.

Ser. No. 83,834. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE OPERATORS' PIANO CO., Chicago, Ill. Filed Jan. 13, 1915.

REPRODUCO

Particular description of goods.—Piano-Players, Self-Playing Pianos, Orchestrions, Reproduction-Pianos, Stringed Pianos, Stringed Orchestrions, and Parts of said Instruments.
Claims use since July, 1914.

Ser. No. 83,844. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALEXANDER WOOD & SON, Peterhead, Scotland. Filed Jan. 13, 1915. Under ten-year proviso.

DOLPHIN

Particular description of goods.—Pickled Herrings in Barrels.
Claims use since July 1, 1894.

Ser. No. 83,845. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SMYRNA & HAWK PARK CITRUS GROWERS ASSOCIATION, New Smyrna, Fla. Filed Jan. 13, 1915.



No claim being made to the exclusive use of the word "Brand."
Particular description of goods.—Oranges and Grape-Fruit.
Claims use since November, 1909.

Ser. No. 83,930. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE JOHN DOUGLAS COMPANY, Cincinnati, Ohio. Filed Jan. 18, 1915.

-LEADER-

Particular description of goods.—Water-Closet Fixtures.
Claims use since the year 1904.

Ser. No. 83,933. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLES.) INDIA RUBBER COMPANY, New Brunswick, N. J., and New York, N. Y. Filed Jan. 18, 1915.

"INCO"

Particular description of goods.—Battery-Jars.
Claims use since Jan. 11, 1915.

Ser. No. 83,988. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CARL ZEISS, Jena, Germany. Filed Jan. 20, 1915.

Distar

Particular description of goods.—Lenses for Scientific Use, Prisms, Reflectors for Scientific Use, Microscopes, Projecting Apparatus, Cinematographs, Cystoscopes, Endoscopes, Ophthalmoscopes, Spectacles, Spectacle-Glasses, Spectacle-lens Systems, Objective-lens Systems, Telescopes, Field-Glasses, Opera-Glasses, Telemeters, Periscopes, Photographic Objectives, Photographic Cameras, Photographic Shutters, Photographic Dark Slides, Stands for Cameras and Other Optical Instruments, Eyeglasses, Magnifying-Glasses, Reading-Glasses, Stereoscopes, Stereocomparators, Theodolites, Sextants, Refractometers, Optometers, Photometers, Levels, Leveling Instruments, and Parts of the Said Apparatus and Instruments.
Claims use since July, 1914.

Ser. No. 83,989. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CARL ZEISS, Jena, Germany. Filed Jan. 20, 1915.

Proxar

Particular description of goods.—Lenses for Scientific Use, Prisms, Reflectors for Scientific Use, Microscopes, Projecting Apparatus, Cinematographs, Cystoscopes, Endoscopes, Ophthalmoscopes, Spectacles, Spectacle-Glasses, Spectacle-Lens Systems, Objective-Lens Systems, Telescopes, Field-Glasses, Opera-Glasses, Telemeters, Periscopes, Photographic Objectives, Photographic Cameras, Photographic Shutters, Photographic Dark Slides, Stands for Cameras and Other Optical Instruments, Eyeglasses, Magnifying-Glasses, Reading-Glasses, Stereoscopes, Stereocomparators, Theodolites, Sextants, Refractometers, Optometers, Photometers, Levels, Leveling Instruments, and Parts of the Said Apparatus and Instruments.
Claims use since July, 1914.

Ser. No. 84,016. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WASHINGTON DRUG PRODUCTS CO., INC., New York, N. Y. Filed Jan. 21, 1915.

POLORIS

Particular description of goods.—Poultice.
Claims use since Jan. 19, 1915.

Ser. No. 84,017. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEO. BORGFELDT & CO., New York, N. Y. Filed Jan. 22, 1915.

Yow-caw

Particular description of goods.—Aluminum and Enameled Metal Ware.
Claims use since Jan. 9, 1915.

Ser. No. 84,028. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) F. A. HARDY & CO., Chicago, Ill. Filed Jan. 22, 1915.

NOVIOL

Particular description of goods.—Goggles, Eyeglasses, Spectacles, and Mountings Therefor.
Claims use since Oct. 1, 1914.

Ser. No. 84,036. (CLASS 37. PAPER AND STATIONERY.) KALAMAZOO VEGETABLE PARCHMENT COMPANY, Kalamazoo, Mich. Filed Jan. 22, 1915.

PAPRICLOTH

Particular description of goods.—Paper Ice-Blankets and Nursery-Blankets.
Claims use since about Jan. 1, 1914.

Ser. No. 84,050. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) BLACK DIAMOND SPAD CO., Richmond, Va. Filed Jan. 23, 1915.

BLACK DIAMOND

Particular description of goods.—A Spad, the Device Employed by Mine Engineers as a Centering Device for Running Lines in Mines.
Claims use since April, 1913.

Ser. No. 84,060. (CLASS 37. PAPER AND STATIONERY.) E. E. LLOYD PAPER CO., Chicago, Ill. Filed Jan. 23, 1915.

INCOME $ BOND

No claim to the exclusive right in the word "Bond" is made by the applicant herein.
Particular description of goods.—Writing-Paper.
Claims use since the month of April, 1909.

Ser. No. 84,097. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MIKE RABITH, Barberton, Ohio. Filed Jan. 25, 1915.

RABIOLIUM

Particular description of goods.—A Medicinal Salve Applicable to Cuts, Bruises, and Other Similar External Ailments.
Claims use since June 1, 1914.

Ser. No. 84,144. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RALPH RAPP, New York, N. Y. Filed Jan. 27, 1915.



Particular description of goods.—Bath-Powder.
Claims use since Jan. 15, 1915.

Ser. No. 84,153. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WARD, MEEHAN COMPANY, Philadelphia, Pa. Filed Jan. 27, 1915. Under ten-year proviso.

WARD

Particular description of goods.—Toweling, Bath-Mats, Washmats, and Washcloths.
Claims use since on or about Mar. 15, 1878.

Ser. No. 84,157. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BARCLAY & CO., Wilmington, Del., and New York, N. Y. Filed Jan. 28, 1915.

Ermosol

Particular description of goods.—Toilet, Medicinal, and Shaving Soaps.
Claims use since Oct. 2, 1914.

Ser. No. 84,163. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Jan. 28, 1915. Under ten-year proviso.

DERMAL

Particular description of goods.—Toilet Soap.
Claims use since Jan. 7, 1885.

Ser. No. 84,183. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEST DISINFECTING COMPANY, New York, N. Y. Filed Jan. 28, 1915.

Wescol

The word "Wescol."
Particular description of goods.—Disinfectants and Insecticides.
Claims use since the 1st day of May, 1912.

Ser. No. 84,185. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE GEO. H. BOWMAN COMPANY, Cleveland, Ohio. Filed Jan. 29, 1915.

Royalsaxe

Particular description of goods.—Enamel Tea-Kettles, Saucepans, Frying-Pans, Pots, Dish-Pans, Steam-Cookers, Cups and Saucers, and Plates.
Claims use since Nov. 14, 1914.

Ser. No. 84,191. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) CHANCE & HUNT, LIMITED, Oldbury, England. Filed Jan. 29, 1915.

LIGHTNING

Particular description of goods.—Spelter.
Claims use since Aug. 6, 1914.

Ser. No. 84,231. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANSBACHER INSECTICIDE CO., INC., New York, N. Y. Filed Feb. 1, 1915.

ADHESO

The word "Adheso."
Particular description of goods.—Insecticides and fungicides.
Claims use since December, 1914.

Ser. No. 84,300. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) JOHN C. MCGUIRE, Detroit, Mich. Filed Feb. 4, 1915.

"SWIFT"

Particular description of goods.—Steel of every description.
Claims use since Dec. 1, 1914.

Ser. No. 84,312. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE LUXEL COMPANY, INC., Montpelier, Vt. Filed Feb. 5, 1915.

ZIBOS

Particular description of goods.—A Remedy to Prevent Abortion in Cows.
Claims use since Feb. 1, 1915.

Ser. No. 84,335. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE COOPER MEDICINE CO., Dayton, Ohio. Filed Feb. 6, 1915.

TANLAC

Particular description of goods.—A Medical Preparation Used as a Tonic.
Claims use since June 15, 1914.

Ser. No. 84,338. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE GRADY MFG. CO., Long Island City, N. Y. Filed Feb. 6, 1915.



The word "Cleanser" not being claimed.
Particular description of goods.—A Cleanser.
Claims use since Jan. 18, 1915.

Ser. No. 84,343. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REDWOOD CHEMICAL CO., Newburgh, N. Y. Filed Feb. 6, 1915.



Particular description of goods.—Fire-Extinguisher Compound.
Claims use since Nov. 7, 1914.

Ser. No. 84,367. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE JOHN HAUCK BREWING COMPANY, Cincinnati, Ohio. Filed Feb. 8, 1915.



Particular description of goods.—Beer.
Claims use since the beginning of the year 1907.

Ser. No. 84,368. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE JOHN HAUCK BREWING COMPANY, Cincinnati, Ohio. Filed Feb. 8, 1915. Under ten-year proviso.

Golden Eagle

Particular description of goods.—Beer.
Claims use since the beginning of the year 1880.

Ser. No. 84,411. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) CHARLES S. PROCTOR, Detroit, Mich. Filed Feb. 9, 1915.

ANNIE LAURIE

Particular description of goods.—Scotch whisky.
Claims use since Jan. 1, 1915.

Ser. No. 84,415. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY THAYER & COMPANY, Cambridge, Mass. Filed Feb. 9, 1915.

RED NURSE

Particular description of goods.—Liniment.
Claims use since Dec. 1, 1914.

Ser. No. 84,448. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) COLUMBIA TOOL STEEL COMPANY, Chicago Heights, Ill. Filed Feb. 11, 1915.

CLARITE

Consisting of the fanciful word "Clarite."
Particular description of goods.—Rolled and Hammered Bars and Forgings of High-Speed Steel.
Claims use since Jan. 15, 1915.

TRADE-MARK REGISTRATIONS GRANTED

MARCH 16, 1915.

102,992. LUBRICATING OILS AND GREASES. A. C. C. OIL COMPANY, Dover, Del.; Boston, Mass., and Providence, R. I.
Filed October 17, 1914. Serial No. 81,956. PUBLISHED JANUARY 5, 1915.

102,993. ELECTRIC LAMPS. THE ADAMS & WESTLAKE COMPANY, Chicago, Ill.
Filed September 15, 1914. Serial No. 81,254. PUBLISHED JANUARY 5, 1915.

102,994. LEAF CHEWING AND SMOKING TOBACCO AND SNUFF. AMERICAN TROPICAL TRADING COMPANY, INC., New York, N. Y.
Filed October 24, 1914. Serial No. 82,113. PUBLISHED JANUARY 5, 1915.

102,995. SUGAR, CANE-SYRUP, COCOA, CHOCOLATE, TEA, PEPPER, CLOVES, AND CINNAMON. ARBUCKLE BROTHERS, New York, N. Y., and Chicago, Ill.
Filed October 30, 1914. Serial No. 82,262. PUBLISHED DECEMBER 29, 1914.

102,996. CHOCOLATE. WALTER BAKER & COMPANY, LIMITED, Boston, Mass.
Filed June 13, 1914. Serial No. 79,048. PUBLISHED DECEMBER 22, 1914.

102,997. PREPARED WHEAT-FLOUR. THE CABELL COMPANY, Baltimore, Md.
Filed September 25, 1914. Serial No. 81,463. PUBLISHED DECEMBER 22, 1914.

102,998. PICTURE-CARDS. CAMPBELL ART COMPANY, Elizabeth, N. J.
Filed November 2, 1914. Serial No. 82,336. PUBLISHED JANUARY 5, 1915.

102,999. TWINE, ROPE, AND CORDAGE MADE OF VEGETABLE FIBER. COLUMBIAN ROPE COMPANY, Auburn, N. Y.
Filed September 29, 1914. Serial No. 81,545. PUBLISHED JANUARY 5, 1915.

103,000. CANNED FISH. HOMELIKE CANNING & PACKING CO., San Francisco, Cal.
Filed September 21, 1914. Serial No. 81,371. PUBLISHED DECEMBER 22, 1914.

103,001. TALCUM POWDER. KATZ & BESTHOFF, LTD., New Orleans, La.
Filed October 28, 1914. Serial No. 82,231. PUBLISHED JANUARY 5, 1915.

103,002. BROOMS, CLOTHES AND SCRUBBING BRUSHES, AND FEATHER DUSTERS. KLAUBER WANGENHEIM CO., San Diego, Cal.
Filed November 11, 1914. Serial No. 82,519. PUBLISHED JANUARY 5, 1915.

103,003. CHEMICAL COMPOUND USED FOR CLEANING THE CYLINDERS OF INTERNAL-COMBUSTION ENGINES. CHARLES E. KUBICEK, West Allis, Wis.
Filed November 9, 1914. Serial No. 82,487. PUBLISHED DECEMBER 29, 1914.

103,004. PAPRIKA. MICHAEL P. KUCSOR, New York, N. Y.
Filed October 31, 1914. Serial No. 82,301. PUBLISHED DECEMBER 29, 1914.

103,005. PERFUMES, INCENSE, HAIR-DYE, CERTAIN NAMED LOTIONS, AND TOILET WATER. ZENSEI MIWA, Tokyo, Japan.
Filed August 12, 1914. Serial No. 80,524. PUBLISHED JANUARY 5, 1915.

103,006. CHOCOLATES AND BONBONS. PARK & TILFORD, New York, N. Y.
Filed October 26, 1914. Serial No. 82,187. PUBLISHED DECEMBER 29, 1914.

103,007. READY-MIXED LIQUID PAINT. PATTON PAINT COMPANY, Milwaukee, Wis.
Filed November 19, 1914. Serial No. 82,686. PUBLISHED JANUARY 5, 1915.

103,008. CANNED PINEAPPLE. PEARL CITY FRUIT CO., LTD., Honolulu, Territory of Hawaii.
Filed October 22, 1914. Serial No. 82,079. PUBLISHED DECEMBER 29, 1914.

103,009. CANNED PINEAPPLE. PEARL CITY FRUIT CO., LTD., Honolulu, Territory of Hawaii.
Filed October 22, 1914. Serial No. 82,080. PUBLISHED DECEMBER 29, 1914.

103,010. COFFEE. PUHL-WEBB CO., Chicago, Ill.
Filed October 28, 1914. Serial No. 82,240. PUBLISHED DECEMBER 29, 1914.

103,011. TOY BANKS. EMILY JOSEPHINE SHIVELY, San Francisco, Cal.
Filed November 11, 1914. Serial No. 82,524. PUBLISHED JANUARY 5, 1915.

103,012. REFINED OIL FOR ILLUMINATING AND HEATING AND LUBRICATING OILS AND GREASES. STANDARD OIL CO., Richmond, Cal.
Filed November 25, 1914. Serial No. 82,918. PUBLISHED JANUARY 5, 1915.

103,013. CERTAIN NAMED FOODS. STROHMEYER & ARPE COMPANY, New York, N. Y.
Filed August 11, 1914. Serial No. 80,470. PUBLISHED DECEMBER 22, 1914.

103,014. VEGETABLE COMPOSITION USED IN MANUFACTURING, CLEANSING, AND IMPROVING THE TEXTURE OF CERTAIN NAMED ARTICLES. THE UNITED YEAST COMPANY, LIMITED, Manchester, England.
Filed June 6, 1914. Serial No. 78,899. PUBLISHED NOVEMBER 24, 1914.

103,015. CHOCOLATES AND CANDIES. WALLACE & Co., Brooklyn and New York, N. Y.
Filed October 30, 1914. Serial No. 82,288. PUBLISHED DECEMBER 29, 1914.

103,016. MINERAL OIL FOR INSULATING AND COOLING PURPOSES. WESTINGHOUSE ELECTRIC & MANUFACTURING CO., East Pittsburgh, Pa.
Filed December 3, 1912. Serial No. 67,216. PUBLISHED JANUARY 5, 1915.

103,017. INCANDESCENT LAMPS. WESTINGHOUSE LAMP COMPANY, Bloomfield, N. J.
Filed November 21, 1914. Serial No. 82,767. PUBLISHED JANUARY 5, 1915.

103,018. METAL FORGINGS, METAL CASTINGS, AND STEEL. J. H. WILLIAMS & Co., New York, N. Y.
Filed December 4, 1913. Serial No. 74,375. PUBLISHED JANUARY 5, 1915.

103,019. WRITING AND PRINTING PAPER. WILLIAM E. WRIGHT, Chicago, Ill.
Filed July 6, 1914. Serial No. 79,588. PUBLISHED JANUARY 5, 1915.

103,020. REMEDY FOR THE LIVER. BURNEY BRASEL, Drumright, Okla.
Filed November 14, 1914. Serial No. 82,587. PUBLISHED DECEMBER 29, 1914.

103,021. KNIT SWEATER-COATS, CARDIGAN JACKETS, AND BATHING-SUITS. COLUMBIA KNITTING MILLS, INC., New York, N. Y.
Filed June 10, 1914. Serial No. 78,941. PUBLISHED DECEMBER 15, 1914.

103,022. ARTIFICIAL TEETH. THE DENTISTS' SUPPLY COMPANY, New York, N. Y.
Filed November 16, 1914. Serial No. 82,614. PUBLISHED JANUARY 5, 1915.

103,023. BAKING-POWDER. ELITE BAKING POWDER CO., New York, N. Y.
Filed October 24, 1914. Serial No. 82,131. PUBLISHED JANUARY 5, 1915.

103,024. HAIR-TONIC. M. BARKER FARBIRA, New York, N. Y.
Filed November 12, 1914. Serial No. 82,540. PUBLISHED JANUARY 5, 1915.

103,025. WHEAT-FLOUR. THE FORT COLLINS MILLING & ELEVATOR CO., Fort Collins, Colo.
Filed October 15, 1914. Serial No. 81,898. PUBLISHED DECEMBER 22, 1914.

103,026. REMEDY FOR CORPULENCE. ARTHUR HOROWITZ, Berlin, Germany.
Filed July 6, 1914. Serial No. 79,568. PUBLISHED JANUARY 5, 1915.

103,027. TURKISH TOWELS, TERRY-CLOTHS, TERRY PILE FABRICS, BATH-RUGS, AND WASH-CLOTHS. W. H. & A. E. MARGERISON & CO., Philadelphia, Pa.
Filed November 3, 1914. Serial No. 82,379. PUBLISHED JANUARY 5, 1915.

103,028. CANDY. JAMES A. MCCLURG & SONS, INC., New York, N. Y.
Filed October 15, 1914. Serial No. 81,907. PUBLISHED DECEMBER 22, 1914.

103,029. THREAD. JOHN C. MEYER, Lowell, Mass.
Filed February 4, 1913. Serial No. 68,311. PUBLISHED DECEMBER 29, 1914.

103,030. THREAD. JOHN C. MEYER, Lowell, Mass.
Filed February 4, 1913. Serial No. 68,315. PUBLISHED JANUARY 5, 1915.

103,031. HAIR-BRUSHES, MILITARY BRUSHES, CLOTHES-BRUSHES, AND HAT-BRUSHES. WILLIAM MORRISON, Troy, N. Y.
Filed October 30, 1914. Serial No. 82,279. PUBLISHED DECEMBER 22, 1914.

103,032. CANDY. ORANGE BLOSSOM, INC., San Francisco, Cal.
Filed September 8, 1914. Serial No. 81,075. PUBLISHED DECEMBER 22, 1914.

103,033. CHEWING-GUM. ARTHUR Q. PRYOR, Rochester, N. Y.
Filed October 15, 1914. Serial No. 81,912. PUBLISHED DECEMBER 22, 1914.

103,034. WHEAT-FLOUR. THE REA-PATTERSON MILLING CO., Coffeyville, Kans.
Filed October 12, 1914. Serial No. 81,829. PUBLISHED DECEMBER 22, 1914.

103,035. COLD-CREAM, FACE-POWDER, SACHET-POWDER, TALCUM POWDER, AND TOILET WATER. THE REMMERS SOAP COMPANY, Cincinnati, Ohio.
Filed December 7, 1914. Serial No. 83,131. PUBLISHED DECEMBER 29, 1914.

103,036. BEER. SANDLERBRÄU GES. M. B. HFTG., Kulmbach, Germany.
Filed May 20, 1914. Serial No. 78,427. PUBLISHED JANUARY 5, 1915.

103,037. WOMEN'S COLLARS. SIDNEY M. SCHWARTZ & CO., New York, N. Y.
Filed November 13, 1914. Serial No. 82,577. PUBLISHED JANUARY 5, 1915.

103,038. WHEAT-FLOUR, GRAHAM FLOUR, AND CORNMEAL. WILLIAM BACON STARR, South Bend, Ind.
Filed October 24, 1914. Serial No. 82,152. PUBLISHED DECEMBER 29, 1914.

103,039. FRESH, SMOKED, AND CURED FISH. STORY-SIMMONS CO., Boston, Mass.
Filed September 23, 1914. Serial No. 81,434. PUBLISHED DECEMBER 22, 1914.

103,040. CANDY. TECKEMEYER CANDY CO., Madison, Wis.
Filed October 12, 1914. Serial No. 81,833. PUBLISHED DECEMBER 22, 1914.

103,041. CORN-FLOUR. BLANK & GOTTSHALL, Sunbury, Pa.
Filed October 14, 1914. Serial No. 81,853. PUBLISHED DECEMBER 22, 1914.

103,042. BLANK BOOKS AND STATIONERY USED IN KEEPING ACCOUNTS. ISAAC W. BALL, Sharon, Okla.
Filed November 13, 1914. Serial No. 82,552. PUBLISHED JANUARY 5, 1915.

103,043. HANDKERCHIEFS. TITUS BLATTER AND COMPANY, New York, N. Y.
Filed October 15, 1914. Serial No. 81,920. PUBLISHED NOVEMBER 10, 1914.

103,044. HANDKERCHIEFS. TITUS BLATTER AND COMPANY, New York, N. Y.
Filed October 15, 1914. Serial No. 81,921. PUBLISHED NOVEMBER 10, 1914.

103,045. GRINDING-MILLS. BRADLEY PULVERIZER CO., Portland, Me., and Boston, Mass.
Filed October 29, 1914. Serial No. 82,248. PUBLISHED JANUARY 5, 1915.

103,046. SPARK-PLUGS. WILLIS S. BROWN, Jr., Belvidere, Ill., and Indianapolis, Ind., assignor to Eclipse Manufacturing Company, Indianapolis, Ind., a Corporation of Indiana.
Filed September 25, 1914. Serial No. 81,461. PUBLISHED DECEMBER 29, 1914.

103,047. BLEND WHISKY. CAHN, BELT & CO., Baltimore, Md.
Filed July 29, 1914. Serial No. 80,147. PUBLISHED JANUARY 5, 1915.

103,048. COMPOSITION-STONE STUCCO, FLOORINGS, AND LININGS. THE "COMPOSTONE" CO., Grand Rapids, Mich.
Filed October 12, 1914. Serial No. 81,812. PUBLISHED DECEMBER 22, 1914.

103,049. ADDING-MACHINES AND COMBINED ADDING AND LISTING MACHINES. DALTON ADDING MACHINE COMPANY, St. Louis, Mo., assignor to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio.
Filed May 20, 1912. Serial No. 63,644. PUBLISHED DECEMBER 29, 1914.

103,050. FUSES, SWITCHES, CUT-OUTS, CLIPS, BACK-CONNECTED CONTACTS, LUGS, AND RHEOSTATS. DETROIT FUSE & MANUFACTURING COMPANY, Detroit, Mich.
Filed November 20, 1914. Serial No. 82,710. PUBLISHED JANUARY 5, 1915.

103,051. HAIR-TONIC. FRIEDRICK W. DOEBEL, Philadelphia, Pa.
Filed November 24, 1914. Serial No. 82,798. PUBLISHED JANUARY 5, 1915.

103,052. REMEDY FOR THE LIQUOR AND TOBACCO HABIT. H. WILL ELDERS, Kansas City, Mo.
Filed November 27, 1914. Serial No. 82,933. PUBLISHED DECEMBER 29, 1914.

103,053. JEWELRY FOR PERSONAL ADORNMENT AND CERTAIN NAMED ARTICLES MADE OF OR PLATED WITH PRECIOUS METAL. ELGIN AMERICAN MANUFACTURING CO., Elgin, Ill.
Filed September 23, 1914. Serial No. 81,422. PUBLISHED DECEMBER 1, 1914.

103,054. TONIC MEDICINES. ERTHOL MEDICINE CO., Fort Worth, Tex.
Filed November 30, 1914. Serial No. 82,975. PUBLISHED DECEMBER 29, 1914.

103,055. MOVING-PICTURE FILMS. ESSANAY FILM MANUFACTURING CO., Chicago, Ill.
Filed December 3, 1914. Serial No. 83,043. PUBLISHED DECEMBER 29, 1914.

103,056. BRICK. FARR BRICK COMPANY, Cleveland, Ohio.
Filed July 13, 1914. Serial No. 79,754. PUBLISHED JANUARY 5, 1915.

103,057. BRICK. FARR BRICK COMPANY, Cleveland, Ohio.
Filed July 13, 1914. Serial No. 79,755. PUBLISHED JANUARY 5, 1915.

103,058. CERTAIN NAMED ELECTRICAL APPARATUS AND SUPPLIES. GENERAL DEVICES & FITTINGS CO., Chicago, Ill.
Filed October 19, 1914. Serial No. 81,981. PUBLISHED JANUARY 5, 1915.

103,059. CERTAIN NAMED HARDWARE SUPPLIES. GEUDER, PAESCHKE & FREY CO., Milwaukee, Wis.
Filed October 28, 1914. Serial No. 82,225. PUBLISHED DECEMBER 29, 1914.

103,060. SHOCK-ABSORBERS AND BRAKE-BAND LINING. GIBSON AUTOMOBILE COMPANY, Indianapolis, Ind.
Filed October 19, 1914. Serial No. 81,980. PUBLISHED JANUARY 5, 1915.

103,061. BREAD, BISCUIT, AND PASTRY. ERNEST HICK, Pittsfield, Mass.
Filed September 28, 1914. Serial No. 81,517. PUBLISHED DECEMBER 22, 1914.

103,062. CRACKERS AND CAKES. ITEN BISCUIT CO., Omaha, Nebr.
Filed October 24, 1914. Serial No. 82,142. PUBLISHED DECEMBER 29, 1914.

103,063. LEATHER BOOTS AND SHOES. KELLER & RHODES, Philadelphia, Pa.
Filed November 4, 1914. Serial No. 82,411. PUBLISHED JANUARY 5, 1915.

103,064. COMPOSITION, A SUBSTITUTE FOR PITCH, FOR INTERNALLY COATING BEER-KEGS, BARRELS, AND THE LIKE. CHAS. L. KIEWERT CO., Milwaukee, Wis.
Filed September 12, 1914. Serial No. 81,225. PUBLISHED JANUARY 5, 1915.

103,065. COMPOSITION, A SUBSTITUTE FOR VARNISH, FOR INTERNALLY COATING FERMENTING TUBS, CASKS, AND THE LIKE. CHAS. L. KIEWERT CO., Milwaukee, Wis.
Filed September 12, 1914. Serial No. 81,226. PUBLISHED JANUARY 5, 1915.

103,066. HAIR-INVIGORATOR AND DANDRUFF-KILLER. ABRAHAM LEAVITT, Montreal, Quebec, Canada.
Filed September 24, 1914. Serial No. 81,452. PUBLISHED DECEMBER 8, 1914.

103,067. CONCENTRATED "PURE FRUIT" FLAVOR AND CERTAIN NAMED BEVERAGES. IRVING MCEWEN, Omaha, Nebr.
Filed June 5, 1914. Serial No. 78,841. PUBLISHED OCTOBER 27, 1914.

103,068. THREAD AND YARN. HENRY MYER THREAD MANUFACTURING CO., Chicago, Ill.
Filed July 14, 1913. Serial No. 71,687. PUBLISHED NOVEMBER 10, 1914.

103,069. ELECTRIC BATTERIES. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed November 14, 1914. Serial No. 82,599. PUBLISHED JANUARY 5, 1915.

103,070. WATERPROOF-PAPER CASE-LININGS. NATIONAL WATER-PROOFING COMPANY, Philadelphia, Pa.
Filed August 25, 1914. Serial No. 80,800. PUBLISHED JANUARY 5, 1915.

103,071. CANDY. PACKAGE CONFECTIONERY COMPANY, Boston, Mass.
Filed September 10, 1914. Serial No. 81,169. PUBLISHED NOVEMBER 24, 1914.

103,072. CONDENSATION PRODUCTS OF PHENOL AND FORMALDEHYDE. DR. FRITZ POLLAK G. M. B. H., Berlin, Germany.
Filed July 29, 1914. Serial No. 80,161. PUBLISHED JANUARY 5, 1915.

103,073. WAFERS OR CRACKERS. SANITARY FOOD MANUFACTURING COMPANY, St. Paul, Minn.
Filed July 31, 1913. Serial No. 72,086. PUBLISHED JANUARY 5, 1915.

103,074. INNER TUBES OR AIR-TUBES FOR VEHICLE-TIRES. THE SAVAGE TIRE CO., San Diego, Cal.
Filed August 17, 1914. Serial No. 80,630. PUBLISHED DECEMBER 29, 1914.

103,075. VARNISHES, DRIERS, JAPANS, ENAMELS, READY-MIXED PAINTS, AND VARNISH-REMOVERS. STANDARD VARNISH WORKS, New York, N. Y.
Filed November 19, 1914. Serial No. 82,689. PUBLISHED DECEMBER 29, 1914.

103,076. CERTAIN NAMED MACHINERY AND TOOLS. THE TRIUMPH MANUFACTURING CO., Cincinnati, Ohio.
Filed November 14, 1914. Serial No. 82,603. PUBLISHED JANUARY 5, 1915.

103,077. MOVING-PICTURE FILMS. UNIVERSAL FILM MANUFACTURING COMPANY, New York, N. Y.
Filed April 13, 1914. Serial No. 77,461. PUBLISHED DECEMBER 29, 1914.

103,078. SPECTACLE-FRAMES AND EYEGLASS-MOUNTINGS. THE WALMAN-BENSON OPTICAL CO., Minneapolis, Minn.
Filed November 21, 1914. Serial No. 82,770. PUBLISHED DECEMBER 29, 1914.

103,079. ADHESIVE PASTE. LEON N. ADLER, New York, N. Y.
Filed July 21, 1913. Serial No. 71,867. PUBLISHED NOVEMBER 17, 1914.

103,080. CANNED FRUITS AND VEGETABLES. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed September 3, 1914. Serial No. 80,950. PUBLISHED JANUARY 5, 1915.

103,081. CANNED FRUITS AND CANNED VEGETABLES. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed September 3, 1914. Serial No. 80,951. PUBLISHED JANUARY 5, 1915.

103,082. CANNED FRUITS AND VEGETABLES. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed September 3, 1914. Serial No. 80,952. PUBLISHED JANUARY 5, 1915.

103,083. CANNED FRUITS AND VEGETABLES. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed September 3, 1914. Serial No. 80,953. PUBLISHED JANUARY 5, 1915.

103,084. CANNED SARDINES. CHR. BJELLAND & CO., INC., New York, N. Y.
Filed October 23, 1914. Serial No. 82,089. PUBLISHED JANUARY 5, 1915.

103,085. CANNED SARDINES. CHR. BJELLAND & CO., INC., New York, N. Y.
Filed October 23, 1914. Serial No. 82,090. PUBLISHED JANUARY 5, 1915.

103,086. CANNED SARDINES. CHR. BJELLAND & CO., INC., New York, N. Y.
Filed October 23, 1914. Serial No. 82,091. PUBLISHED JANUARY 5, 1915.

103,087. CANNED HERRINGS IN TOMATO SAUCE. CHR. BJELLAND & CO., INC., New York, N. Y.
Filed October 23, 1914. Serial No. 82,093. PUBLISHED JANUARY 5, 1915.

103,088. CANNED SARDINES. CHR. BJELLAND & CO., INC., New York, N. Y.
Filed October 23, 1914. Serial No. 82,095. PUBLISHED JANUARY 5, 1915.

103,089. CERTAIN NAMED BRISTLE GOODS. BLOOMINGDALE BROS., New York, N. Y.
Filed October 15, 1914. Serial No. 81,887. PUBLISHED NOVEMBER 17, 1914.

103,090. ELECTRICAL FUSE-PLUGS. THE BRYANT ELECTRIC COMPANY, Bridgeport, Conn.
Filed November 20, 1914. Serial No. 82,706. PUBLISHED JANUARY 5, 1915.

103,091. CERTAIN NAMED COTTON AND LINEN FABRICS. CALIFORNIA COTTON MILLS CO., Oakland, Cal.
Filed August 27, 1914. Serial No. 80,836. PUBLISHED OCTOBER 27, 1914.

103,092. HANDKERCHIEFS. CLUETT, PEABODY & CO. INC., Troy, N. Y.
Filed December 11, 1914. Serial No. 83,217. PUBLISHED JANUARY 12, 1915.

103,093. JEWELRY FOR PERSONAL ADORNMENT. LAURENCE I. COHN, New York, N. Y., and Newark, N. J.
Filed August 26, 1914. Serial No. 80,812. PUBLISHED NOVEMBER 10, 1914.

103,094. WOOL-OILS, GASOLENE, NAPHTHA, BENZIN, KEROSENE, LUBRICATING OILS AND GREASES. CREW LEVICK COMPANY, Philadelphia, Pa.
Filed November 24, 1914. Serial No. 82,800. PUBLISHED JANUARY 5, 1915.

103,095. HOSIERY. DAVIS HOSIERY MILLS, Chattanooga, Tenn.
Filed August 4, 1914. Serial No. 80,290. PUBLISHED NOVEMBER 3, 1914.

103,096. HOSIERY. DAVIS HOSIERY MILLS, Chattanooga, Tenn.
Filed August 4, 1914. Serial No. 80,292. PUBLISHED OCTOBER 20, 1914.

103,097. COTTON PIECE GOODS. DOYLE-KIDD DRY GOODS CO., Little Rock, Ark.
Filed September 2, 1914. Serial No. 80,936. PUBLISHED OCTOBER 27, 1914.

103,098. CIGARS. FERNANDEZ Y GARCIA, Habana, Cuba, and New York, N. Y.
Filed July 8, 1914. Serial No. 79,629. PUBLISHED OCTOBER 13, 1914.

103,099. COTTON PIECE GOODS. GRINNELL WILLIS & CO., New York, N. Y.
Filed August 13, 1914. Serial No. 80,529. PUBLISHED OCTOBER 27, 1914.

103,100. CANNED VEGETABLES, WHEAT-FLOUR, AND PEPPER. THE GEORGE J. HALES CO., Rocky Mount, N. C.
Filed October 13, 1914. Serial No. 81,847. PUBLISHED JANUARY 5, 1915.

103,101. LEATHER, CLOTH, AND CANVAS DRESS, COMMON-WEAR, AND SPORTING BOOTS AND SHOES. R. H. HOSKINS CO., New York and Brooklyn, N. Y.
Filed August 26, 1914. Serial No. 80,817. PUBLISHED NOVEMBER 3, 1914.

103,102. CANDIES OF ALL KINDS AND BAKERS' PASTES AND CAKE-FILLERS, ALMOND PASTE, AND PEANUT-BUTTER. HENRY HEIDE, New York, N. Y.
Filed April 8, 1914. Serial No. 77,309. PUBLISHED JANUARY 5, 1915.

103,103. COTTON PIECE GOODS. KING PHILIP MILLS, Fall River, Mass.
Filed December 9, 1914. Serial No. 83,177. PUBLISHED JANUARY 12, 1915.

103,104. TWINES AND CORDS, BRAIDED OR TWISTED. LEES MFG. CO., Westport, Conn.
Filed July 30, 1914. Serial No. 80,180. PUBLISHED NOVEMBER 17, 1914.

103,105. THREADS AND YARNS MADE FROM COTTON, MERCERIZED COTTON, LINEN, AND SILK. LEES MFG. CO., Westport, Conn.
Filed July 30, 1914. Serial No. 80,181. PUBLISHED OCTOBER 13, 1914.

103,106. AMUSEMENT APPARATUS. WILLIAM F. MANGELS, Brooklyn, N. Y.
Filed September 22, 1914. Serial No. 81,410. PUBLISHED NOVEMBER 24, 1914.

103,107. CANDY. ROSS B. MCLEAN, Newark, N. J.
Filed September 25, 1914. Serial No. 81,468. PUBLISHED DECEMBER 1, 1914.

103,108. LINEN PIECE GOODS, HOUSE-LINENS, DAMASK, BLEACHED AND UNBLEACHED LINEN PIECE GOODS, WITE LINENS, AND CAMBRICS. HENRY MATIER & CO. LIMITED, Belfast, Ireland, and New York, N. Y.
Filed July 28, 1914. Serial No. 80,131. PUBLISHED NOVEMBER 10, 1914.

103,109. RAZORS, SHEARS, SCISSORS, AND FILES. PETER J. MICHELS, New York, N. Y.
Filed July 31, 1914. Serial No. 80,206. PUBLISHED NOVEMBER 3, 1914.

103,110. SANITARY CEMENT FLOORING AND MAGNESITE STUCCO. FRANKLYN R. MULLER, Waukegan, Ill.
Filed June 24, 1914. Serial No. 79,336. PUBLISHED OCTOBER 27, 1914.

103,111. CHEMICAL PREPARATION NOXIOUS TO INSECTS AND VERMIN. FRANK J. NELSON, Hallock, Minn.
Filed July 20, 1914. Serial No. 79,926. PUBLISHED NOVEMBER 17, 1914.

103,112. OLIVE-OIL. NEW ORLEANS FRUIT IMPORTING CO., New Orleans, La.
Filed September 5, 1914. Serial No. 81,005. PUBLISHED NOVEMBER 10, 1914.

103,113. NUT PASTES. THE NUTTO PRODUCT CO., INC., New York, N. Y.
Filed July 24, 1914. Serial No. 80,031. PUBLISHED OCTOBER 6, 1914.

103,114. NUTS AND NUT PASTES. THE NUTTO PRODUCT CO., INC., New York, N. Y.
Filed July 28, 1914. Serial No. 80,134. PUBLISHED OCTOBER 6, 1914.

103,115. NUTS AND NUT PASTES. THE NUTTO PRODUCT CO., INC., New York, N. Y.
Filed July 28, 1914. Serial No. 80,135. PUBLISHED OCTOBER 6, 1914.

103,116. PERFUME, COMPLEXION AND SACHET POWDERS. SOLON PALMER, New York, N. Y.
Filed August 4, 1914. Serial No. 80,303. PUBLISHED SEPTEMBER 22, 1914.

103,117. LINIMENTS, OINTMENTS, LAXATIVE TABLETS, AND COUGH-SYRUPS. CARL HERMAN MILLER PARTRIDGE, Millers Falls, Mass.
Filed September 29, 1914. Serial No. 81,552. PUBLISHED NOVEMBER 17, 1914.

103,118. WOOLEN PIECE GOODS. PAWCATUCK WOOLEN MILLS, Westerly, R. I.
Filed August 4, 1914. Serial No. 80,299. PUBLISHED OCTOBER 27, 1914.

103,119. LUBRICATING-OIL. PENN OIL & SUPPLY CO. LTD., Oil City, Pa.
Filed June 12, 1913. Serial No. 71,075. PUBLISHED OCTOBER 13, 1914.

103,120. CORDIALS. PUZIELLO, LUCCARO & CO., New York, N. Y.
Filed August 20, 1914. Serial No. 80,708. PUBLISHED OCTOBER 13, 1914.

103,121. CERTAIN NAMED GAMES, SPORTING GOODS, AND GYMNASIUM SUPPLIES. ROGERS PEET COMPANY, New York, N. Y.
Filed May 29, 1914. Serial No. 78,660. PUBLISHED OCTOBER 20, 1914.

103,122. DOLL-FORM. J. B. ROWLAND MANUFACTURING CO., Yonkers, N. Y.
Filed October 30, 1914. Serial No. 82,280. PUBLISHED JANUARY 12, 1915.

103,123. CAKES, PIES, PASTRY, BREAD, COOKIES, AND CRACKERS. JANE M. SHATTUCK, New York, N. Y.
Filed October 24, 1914. Serial No. 82,153. PUBLISHED DECEMBER 29, 1914.

103,124. METALLIC VALVES FOR GENERAL APPLICATION. SPEAKMAN SUPPLY & PIPE COMPANY, Wilmington, Del.
Filed October 26, 1914. Serial No. 82,193. PUBLISHED JANUARY 5, 1915.

103,125. CERTAIN NAMED OILS AND GREASES FOR ILLUMINATING, HEATING, AND POWER PURPOSES. STANDARD OIL COMPANY, Louisville, Ky.
Filed August 22, 1914. Serial No. 80,750. PUBLISHED NOVEMBER 3, 1914.

103,126. TOILET SOAPS. JOHN T. STANLEY, New York, N. Y.
Filed May 20, 1914. Serial No. 78,426. PUBLISHED NOVEMBER 3, 1914.

103,127. FURNITURE-LEATHER. ALBERT H. STONE, Boston, Mass.
Filed November 11, 1914. Serial No. 82,525. PUBLISHED JANUARY 5, 1915.

103,128. AUTOMOBILE-POLISH. WILBER C. STRAWN, Visalia, Cal.
Filed August 19, 1914. Serial No. 80,688. PUBLISHED DECEMBER 29, 1914.

103,129. RUBBER CEMENT. LOUIS P. SOUTHARD, Roselle, N. J.
Filed August 1, 1914. Serial No. 80,255. PUBLISHED NOVEMBER 17, 1914.

103,130. ELECTRIC DRILLS, GRINDERS, BUFFERS, AND PARTS THEREOF. THE TEMCO ELECTRIC MOTOR COMPANY, Leipsic, Ohio.
Filed August 21, 1914. Serial No. 80,731. PUBLISHED OCTOBER 13, 1914.

103,131. COTTON PIECE GOODS. TREMONT & SUFFOLK MILLS, Lowell, Mass.
Filed April 15, 1913. Serial No. 69,812. PUBLISHED OCTOBER 20, 1914.

103,132. HOSIERY. E. M. TOWNSEND & CO., New York, N. Y.
Filed September 22, 1914. Serial No. 81,414. PUBLISHED NOVEMBER 3, 1914.

103,133. KNITTED UNDERWEAR—VIZ., COMBINATIONS, TWO-PIECE SUITS, AND SEPARATE PIECES. UNION MILLS, INC., St. Johnsville and New York, N. Y.
Filed November 12, 1914. Serial No. 82,548. PUBLISHED JANUARY 12, 1915.

103,134. FOUNTAIN-PENS. JOSEPH WALLACE, New York, N. Y.
Filed April 7, 1914. Serial No. 77,297. PUBLISHED JANUARY 5, 1915.

103,135. WRENCHES. WALWORTH MANUFACTURING CO., Boston, Mass.
Filed September 22, 1914. Serial No. 81,415. PUBLISHED OCTOBER 27, 1914.

103,136. DRY, PASTE, AND READY-MIXED PAINTS. THE WESTERN ELATERITE ROOFING COMPANY, Denver, Colo.
Filed March 27, 1914. Serial No. 77,011. PUBLISHED AUGUST 18, 1914.

103,137. FILE-CABINETS AND MUSIC-CASES. PETER A. WETZEL, Chicago, Ill.
Filed November 2, 1914. Serial No. 82,364. PUBLISHED JANUARY 12, 1915.

103,138. REMEDY FOR PILES, CORNS, BUNIONS, SORE FEET, BRUISES, AND INGROWING NAILS. JOEL C. WHITE, Norfolk, Va.
Filed December 7, 1914. Serial No. 83,140. PUBLISHED DECEMBER 29, 1914.

103,139. PERFUMES, TOILET WATERS, TALCUM POWDER, AND TOILET CREAMS. THE C. B. WOODWORTH SONS CO., Rochester, N. Y.
Filed April 4, 1914. Serial No. 77,224. PUBLISHED NOVEMBER 3, 1914.

103,140. TOOTH-POWDER AND TOOTH-WASH AND TOOTH-PASTE. THE C. B. WOODWORTH SONS CO., Rochester, N. Y.
Filed June 5, 1914. Serial No. 78,849. PUBLISHED OCTOBER 20, 1914.

103,141. LAP-ROBES. HERMAN S. Z. ADLER, Port Chester, N. Y.
Filed October 26, 1914. Serial No. 82,162. PUBLISHED DECEMBER 15, 1914.

103,142. CERTAIN NAMED FURNITURE. AIMONE MANUFACTURING COMPANY, New York, N. Y.
Filed October 14, 1914. Serial No. 81,852. PUBLISHED JANUARY 5, 1915.

103,143. COTTON PIECE GOODS. APPLETON COMPANY, Lowell, Mass.
Filed October 31, 1914. Serial No. 82,319. PUBLISHED DECEMBER 8, 1914.

103,144. HATS. J. T. ASCH & SONS, New York, N. Y.
Filed October 29, 1914. Serial No. 82,245. PUBLISHED DECEMBER 8, 1914.

103,145. CANNED GOODS—VIZ., PEAS, CORN, TOMATOES, AND BEANS AND BUTTER. THE ASHFORD COMPANY, Pittsburgh, Pa.
Filed October 17, 1914. Serial No. 81,955. PUBLISHED DECEMBER 22, 1914.

103,146. LINIMENTS, SALVES, AND DECOCTIONS MANUFACTURED FROM HERBS. V. BAUDENDISTEL & SON, West New York, N. J.
Filed October 20, 1914. Serial No. 82,011. PUBLISHED DECEMBER 15, 1914.

103,147. MEN'S DRESS, NEGLIGÉE, AND WORK SHIRTS. BERKOWITZ BROS., New York, N. Y.
Filed October 10, 1914. Serial No. 81,782. PUBLISHED NOVEMBER 24, 1914.

103,148. RED AND WHITE WINES. BLOOMINGDALE BROS., New York, N. Y.
Filed November 7, 1914. Serial No. 82,456. PUBLISHED DECEMBER 8, 1914.

103,149. PETTICOATS AND WOMEN'S AND MISSES' COATS AND SUITS. BLOOMINGDALE BROS., New York, N. Y.
Filed November 21, 1914. Serial No. 82,731. PUBLISHED DECEMBER 15, 1914.

103,150. NON-METALLIC MACHINERY PACKING. BOWERS RUBBER WORKS, San Francisco, Cal.
Filed July 2, 1913. Serial No. 71,470. PUBLISHED NOVEMBER 3, 1914.

103,151. DRESS-SHIELDS. BROOKLYN SHIELD & RUBBER CO., New York, N. Y.
Filed August 11, 1914. Serial No. 80,455. PUBLISHED JANUARY 5, 1915.

103,152. METALLIC PACKING-RINGS FOR EXPLOSIVE AND OTHER EXPANSION ENGINES. ROY L. BURD, Rockford, Ill.
Filed October 12, 1914. Serial No. 81,804. PUBLISHED DECEMBER 29, 1914.

103,153. SEMILIQUID SEAL FOR PUNCTURES IN PNEUMATIC TIRES. C-V-SEALER CO., Mercersburg, Pa.
Filed October 22, 1914. Serial No. 82,072. PUBLISHED DECEMBER 22, 1914.

103,154. NUTS. DANIELS SAFETY DEVICE CO., Chicago, Ill.
Filed September 29, 1914. Serial No. 81,546. PUBLISHED DECEMBER 29, 1914.

103,155. COTTON PIECE GOODS. MANGOLD H. ELLENBOGEN, Paterson, N. J., and New York, N. Y.
Filed October 21, 1914. Serial No. 82,064. PUBLISHED DECEMBER 8, 1914.

103,156. TIRE-FILLER. CHAS. C. EMERY, Portland, Oreg.
Filed July 3, 1914. Serial No. 79,530. PUBLISHED DECEMBER 22, 1914.

103,157. COTTON PIECE GOODS. EVERETT MILLS, Lawrence, Mass.
Filed October 22, 1914. Serial No. 82,074. PUBLISHED DECEMBER 8, 1914.

103,158. CAGE-VALVES, SIPHON-VALVES, AND COMPRESSION STOPS AND WASTES. EXETER BRASS WORKS, Exeter, N. H.
Filed March 22, 1913. Serial No. 69,252. PUBLISHED NOVEMBER 3, 1914.

103,159. MARSALA WINE. FLORIO & C. SOCIETÀ ANONIMA VINICOLA ITALIANA, Milan, Italy.
Filed September 30, 1912. Serial No. 66,067. PUBLISHED NOVEMBER 24, 1914.

103,160. SMOKING AND CHEWING TOBACCO. W. W. FORD TOBACCO WORKS, Nashville, Tenn.
Filed September 24, 1914. Serial No. 81,445. PUBLISHED JANUARY 5, 1915.

103,161. NAIL-POLISH. OSCAR L. GRAF, New York, N. Y.
Filed December 2, 1914. Serial No. 83,016. PUBLISHED DECEMBER 29, 1914.

103,162. FARM PRODUCTS—NAMELY, FRESH FRUITS AND VEGETABLES AND FRUITS PRESERVED IN GLASS CONTAINERS. HENRY COPLEY GREENE, Newbury, Mass.
Filed October 10, 1914. Serial No. 81,785. PUBLISHED JANUARY 5, 1915.

103,163. COTTON PIECE GOODS. GRINNELL WILLIS & Co., New York, N. Y.
Filed July 9, 1914. Serial No. 79,665. PUBLISHED DECEMBER 22, 1914.

103,164. CONCENTRATED COFFEE EXTRACT. CARLOS HAMMER, New York, N. Y.
Filed September 15, 1914. Serial No. 81,264. PUBLISHED NOVEMBER 24, 1914.

103,165. COTTON, SILK, MIXED SILK AND COTTON, AND LINEN PIECE GOODS. A. G. HYDE & SONS, New York, N. Y.
Filed June 5, 1914. Serial No. 78,836. PUBLISHED DECEMBER 15, 1914.

103,166. MONTHLY TRADE PUBLICATION. THE INDIA RUBBER PUBLISHING CO., New York, N. Y.
Filed October 30, 1914. Serial No. 82,273. PUBLISHED NOVEMBER 24, 1914.

103,167. SERGES. PHILIP KATZ, New York, N. Y.
Filed August 22, 1914. Serial No. 80,746. PUBLISHED NOVEMBER 24, 1914.

103,168. CANNED TOMATOES, PEAS, AND CORN. WM. KING & Co., Philadelphia, Pa.
Filed September 5, 1914. Serial No. 81,002. PUBLISHED JANUARY 5, 1915.

103,169. COMPOUND TO BE TAKEN INTERNALLY FOR THE TREATMENT OF RHEUMATISM. ANTON LANG, Malden, Mass.
Filed October 10, 1914. Serial No. 81,792. PUBLISHED DECEMBER 15, 1914.

103,170. SHOES, MILLINERY, (HATS,) MEN'S, WOMEN'S, AND CHILDREN'S WEARING-APPAREL, HOSIERY, AND CORSETS. MAISON BLANCHE Co., New Orleans, La.
Filed August 31, 1914. Serial No. 80,906. PUBLISHED DECEMBER 1, 1914.

103,171. HANDKERCHIEFS AND CERTAIN NAMED EMBROIDERED LINENS. HENRY MATIER & Co. LIMITED, Belfast, Ireland, and New York, N. Y.
Filed July 28, 1914. Serial No. 80,132. PUBLISHED NOVEMBER 24, 1914.

103,172. BATHING-SUITS AND WOVEN SWIMMING-TIGHTS IN ONE AND TWO PIECES. MAX MAYER & SONS Co., New York, N. Y.
Filed November 5, 1914. Serial No. 82,423. PUBLISHED JANUARY 5, 1915.

103,173. MOTION-PICTURE FILMS. MELIES MANUFACTURING CO., New York, N. Y.
Filed November 18, 1914. Serial No. 82,666. PUBLISHED DECEMBER 29, 1914.

103,174. COTTON, LINEN, WOOLEN, AND SILK PIECE GOODS. JOHN H. MEYER & Co., New York, N. Y.
Filed November 27, 1914. Serial No. 82,940. PUBLISHED DECEMBER 22, 1914.

103,175. LAXATIVES. MISSION CHEMICAL COMPANY, Los Angeles, Cal.
Filed November 23, 1914. Serial No. 82,791. PUBLISHED DECEMBER 29, 1914.

103,176. DRESS, NEGLIGÉE, WORK SHIRTS, NIGHT-SHIRTS, AND PAJAMAS. OSHINSKY & VALENTINE, New York, N. Y.
Filed September 18, 1914. Serial No. 81,323. PUBLISHED NOVEMBER 3, 1914.

103,177. LOTIONS FOR CHAPPED HANDS, LIPS, AND FACE AND TO SOFTEN AND HEAL THE SKIN. JOHN L. POLK, Albany, N. Y.
Filed September 15, 1914. Serial No. 81,272. PUBLISHED DECEMBER 1, 1914.

103,178. COTTON PIECE GOODS. CHARLES L. POOR Co., New York, N. Y.
Filed November 28, 1914. Serial No. 82,958. PUBLISHED DECEMBER 22, 1914.

103,179. LAXATIVE. ELLIS G. POTTER, New York, N. Y.
Filed November 7, 1914. Serial No. 82,470. PUBLISHED DECEMBER 22, 1914.

103,180. RASPBERRY CONFECTION, A LAXATIVE. RITE SPECIALTY CO., New York, N. Y.
Filed July 28, 1914. Serial No. 80,136. PUBLISHED NOVEMBER 24, 1914.

103,181. WASH-BLUE. FREDERICK SCHULZE, Richmond Hill, N. Y.
Filed October 21, 1914. Serial No. 82,068. PUBLISHED DECEMBER 8, 1914.

103,182. MEDICINAL HAIR-RESTORER. HOWARD B. SHREVE, Nogales, Ariz.
Filed August 12, 1914. Serial No. 80,518. PUBLISHED DECEMBER 15, 1914.

103,183. APERIENT OR LAXATIVE. FREDERICK K. STEARNS, Detroit, Mich., and New York, N. Y.
Filed November 25, 1914. Serial No. 82,921. PUBLISHED DECEMBER 29, 1914.

103,184. HATS, CAPS, COATS, DRESS, NEGLIGÉE, AND WORK SHIRTS, TROUSERS, PANTS, OVERALLS, SMOCKS, AND JUMPERS. AUGUST E. STEFFEN COMPANY, Davenport, Iowa.
Filed November 25, 1914. Serial No. 82,919. PUBLISHED JANUARY 12, 1915.

103,185. MEN'S, BOYS', WOMEN'S, GIRLS', AND CHILDREN'S NIGHT-SHIRTS, PAJAMAS, AND NIGHTGOWNS. STEINER & SON, Asbury Park, N. J.
Filed October 15, 1914. Serial No. 81,917. PUBLISHED DECEMBER 8, 1914.

103,186. CHEWING-GUM. THE STERLING GUM COMPANY, INC., New York, N. Y.
Filed July 25, 1914. Serial No. 80,073. PUBLISHED JANUARY 5, 1915.

103,187. CHEWING-GUM. THE STERLING GUM COMPANY, INC., New York, N. Y.
Filed October 31, 1914. Serial No. 82,311. PUBLISHED DECEMBER 29, 1914.

103,188. CERTAIN NAMED FOODS. STROHMEYER & ARPE COMPANY, New York, N. Y.
Filed August 11, 1914. Serial No. 80,465. PUBLISHED JANUARY 5, 1915.

103,189. CERTAIN NAMED FOODS. STROHMEYER & ARPE COMPANY, New York, N. Y.
Filed August 11, 1914. Serial No. 80,466. PUBLISHED JANUARY 5, 1915.

103,190. SHOCK-ABSORBERS. THE TEMCO ELECTRIC MOTOR CO., Leipsic, Ohio.
Filed September 5, 1914. Serial No. 81,011. PUBLISHED DECEMBER 8, 1914.

103,191. MOTION-PICTURE FILMS. THANHOUSER FILM CORPORATION, New Rochelle, N. Y.
Filed November 19, 1914. Serial No. 82,695. PUBLISHED DECEMBER 29, 1914.

103,192. CERTAIN NAMED ARTICLES OF CLOTHING. THE WOOD-WILSON CO., New York, N. Y.
Filed November 6, 1914. Serial No. 82,452. PUBLISHED DECEMBER 15, 1914.

103,193. TALCUM POWDER. CASSADA MANUFACTURING CO., Chester, Pa.
Filed October 19, 1912. Serial No. 66,380. PUBLISHED DECEMBER 29, 1914.

TRADE-MARK REGISTRATIONS RENEWED.

11,913. CHOCOLATES. HUYLER'S, New York, N. Y.
Registered February 10, 1885. Renewed February 10, 1915.

12,027. VARNISHES OF ALL KINDS. JOHN A. SHEPHARD, Wooster, Ohio; Wood & Van Derwerken Varnish Co., assignee.
Registered March 17, 1885. Renewed March 17, 1915.

12,507. SHEEP-DIPPING POWDER OR INSECTICIDE. WILLIAM COOPER & NEPHEWS, Birkhamstead, England.
Registered August 11, 1885. Renewed August 11, 1915.

LABELS

REGISTERED MARCH 16, 1915.

18,301.—*Title:* "ALLWOOD 'VIENNA BRAND' LIME." (For a Lime Product.) ALLWOOD LIME COMPANY, Allwood Siding, near Manitowoc, Wis. Filed December 31, 1914.

18,302.—*Title:* "BUNTE HAPPY HOME." (For Candies.) BUNTE BROTHERS, Chicago, Ill. Filed February 8, 1915.

18,303.—*Title:* "FELTON'S PURE CRYSTAL SPRING RUM." (For Rum.) FELTON & SON, INC., South Boston, Mass. Filed January 13, 1915.

18,304.—*Title:* "FELTON'S CRYSTAL SPRING OLD RUM." (For Rum.) FELTON & SON, INC., South Boston, Mass. Filed January 13, 1915.

18,305.—*Title:* "STANDARD RUM OF THE COUNTRY." (For Rum.) FELTON & SON, INC., South Boston, Mass. Filed January 13, 1915.

18,306.—*Title:* "FIRST NATIONAL BANK." (For Check-Books.) THE FIRST NATIONAL BANK, Sterling, Ill. Filed August 12, 1914.

18,307.—*Title:* "PRO-PHY-LAC-TIC TOOTH BRUSH." (For Tooth-Brushes.) FLORENCE MANUFACTURING COMPANY, Northampton, Mass. Filed January 26, 1915.

18,308.—*Title:* "HAUCK'S BOCK BEER." (For Beer.) THE JOHN HAUCK BREWING COMPANY, Cincinnati, Ohio. Filed February 8, 1915.

18,309.—*Title:* "CROWN." (For a Hair-Tonic.) KATHARINE M. HUGHES, Providence, R. I. Filed May 22, 1914.

18,310.—*Title:* "FAN-TAN." (For Roasted Salted Peanuts.) LOHEIDE MANUFACTURING COMPANY, St. Louis, Mo. Filed February 5, 1915.

18,311.—*Title:* "XXX WHITE DIAMOND BUFFING & POLISHING." (For an Abrasive Composition.) THE MATCHLESS METAL POLISH CO., Chicago, Ill. Filed November 5, 1914.

18,312.—*Title:* "MT. VERNON." (For Evaporated Milk.) MT. VERNON CREAM CO., Mount Vernon and Seattle, Wash. Filed December 9, 1914.

PRINTS

REGISTERED MARCH 16, 1915.

3,847.—*Title:* "THE RICE LEADERS OF THE WORLD ASSOCIATION." (For Certain Specified Articles of Manufacture.) ELWOOD E. RICE, New York, N. Y. Filed January 12, 1914.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Sixth Circuit.

DAVIS SEWING MACHINE COMPANY *v.* NEW DEPARTURE MANUFACTURING COMPANY.

Decided October 16, 1914; on petition for rehearing, December 8, 1914.

217 FED. REP., 775.

1. PATENTS — VALIDITY AND INFRINGEMENT — COASTER-BRAKE FOR BICYCLES.

The Townsend patent, No. 850,077, for a coaster-brake for bicycles, covers a device the essential feature of which is a telescoping screw-threaded connector within the hub of the rear wheel, movable to the right and left and revoluble both with and upon the driver-sleeve and which when the pedal is driven forward moves to the right and clutches the hub and when driven backward moves to the left, releases the hub, and clutches the brake mechanism. In such feature it was not anticipated in the prior art, and, while not strictly a pioneer, the invention was the step which resulted in making practical and commercial the combination in one device of the driving, coasting, and braking functions, and the patent is entitled to a fairly liberal application of the rule of equivalents, its claims being not too broad to cover and protect the real invention; also *Held* infringed.

2. CLAIMS—ELEMENTS DESCRIBED GENERALLY AS "MEANS" OR "MECHANISM."

A claim of a patent is not functional and invalid merely because one of its specified elements is "means" or "mechanism;" but such result may or may not follow, depending upon whether such all-inclusive term is used with reference to the element or subcombination which is the real point and gist of the invention or to elements or parts already well known and designed to coöperate with the new element in order to make a completely operative unit.

3. SAME—CONSTRUCTION—COMPARISON OF SPECIFIC AND GENERAL CLAIMS.

In determining whether the ambiguous terms of a claim should be confined more or less closely to the form shown in the drawings it is usually well to compare with other claims which may not be in suit, and if other claims are found which call for the specific construction of a part mentioned more generally in the claims in suit that will be persuasive for not giving the limited construction to the general terms.

4. WORDS AND PHRASES—"BRAKE"—"BRAKE PAIR"—"BRAKE-SHOE"—"BRAKE-DRUM."

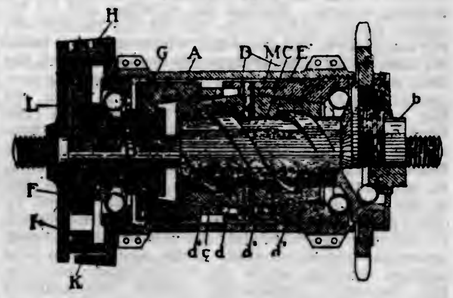
An effective "brake" consists of two members, which are called the "brake pair," consisting of the "brake-shoe," which is the movable member, and the "brake-drum," or the stationary member.

APPEAL from the District Court of the United States for the Southern District of Ohio; Howard C. Hollister, Judge.

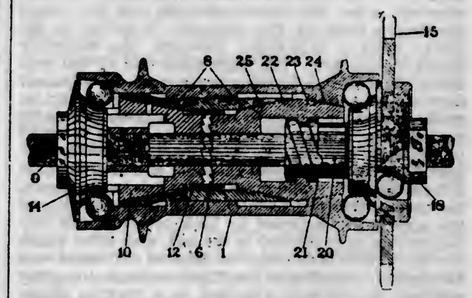
STATEMENT OF THE CASE.

The New Departure Company brought suit against the Davis Company for infringement of claims 25–30, and claim 19, of Patent No. 850,077, issued April 9, 1907, to Townsend, for a coaster-brake for bicycles. There was the usual interlocutory decree for plaintiff, and defendant appeals. The parties will be named here as below. Their respective structures are shown in the following cuts, and claims 19 and 26 are given in the margin.[1] The other claims in suit are similar to 26.

Townsend's Coaster-Brake.



Appellant's Coaster-Brake.



Prior to the Townsend patent, hub-brakes, by which back-pedaling produced a braking contact inside the hub, were common. Devices also had been

[1] Claim 19. In a bicycle, the combination with a wheel hub and axle, of a brake mechanism, a driver for the hub and brake mechanism, a rotatable sleeve connected with the driver and mounted upon the axle within the hub, a laterally shiftable, rotatable sleeve mounted upon the sleeve of the driver and having tapered portions, a complementary spiral connection between said sleeves, and tapered clutch elements carried by the hub and brake mechanism with which the tapered portions of the shiftable sleeve may engage, substantially as described.

Claim 26. A driving, coasting and braking mechanism

made permitting the pedal and the hub-driving clutches to be disengaged, so that the rider could coast downhill with his feet stationary on the pedals. Townsend was not even the first to conceive the abstract desirability of providing mechanism by which the rider could, at his pleasure, drive the wheel forward by his pedaling, or make the pedals stationary while he coasted, or apply the brake by back pressure on the pedals; but he was the first to embody this idea in practical, efficient, commercial form. The operation of his device will be clear, from a brief description of the cut. B is the rear-wheel axle of a bicycle, fixed at each end in the frame (not shown) and held against revolution. At one end it has, rigidly attached, the disk, I, which carries the expansible split ring, K, intended to operate as a brake-shoe. At the other end the axle carries the revolving sprocket-wheel, C^1, driven by a sprocket-chain from the pedal-shaft; and extending inwardly from, and rigidly connected to, this sprocket-wheel, is the sleeve, C, whereby this sleeve revolves with the sprocket freely around the axle in either direction. All the parts intermediate the sprocket and the disk at the other end are included within the revoluble hub, A. Obviously, a driving revolution imparted to the hub will impel the wheel, friction being minimized by suitable ball-bearings, as shown. At the inner end the hub-shell is extended and enlarged as shown, so that its interior surface forms a brake-drum against which the split ring, K, may be expansibly forced into braking contact. Neither the sprocket and its attached sleeve, which form the driving mechanism, nor the parts at the other end, which make the braking mechanism, are permanently connected with the hub; and therefore, in what may be called the normal and is the coasting position of the parts, the hub and wheel freely revolve without much frictional contact with either driving or braking mechanism. The operative contact, necessary for these functions, is accomplished by and through a sleeve, D, which, for convenience, may be called the connector. It surrounds, and, except as limited by other parts, may be revolved upon, the driver-sleeve, C; but interposed between the two is a thread-and-screw connection, so that, if the connector is held against rotating while the driver-sleeve revolves, the connector necessarily moves longitudinally upon the driver-sleeve one way or the other, according as the rotation is forward or back. As constructed, when the driver-sprocket and the wheel are driven forward, the connector is moved to the right; upon a back-pedal pressure, the connector moves to the left. The right-hand end of the connector is given an exterior taper, and the adjacent part of the hub a corresponding interior taper; so, as the connector moves to the right, these two parts constitute a friction-clutch, which, as the forward pressure is maintained, lock together the driver-sleeve, the connector and the hub, and the wheel is driven forward. The greater the driving pressure, the more perfect the clutch. When the motion of the sprocket is reversed by back pressure, the connector is at once carried to the left, and, after slight travel in this direction, its tapered left-hand end becomes one member of the friction-clutch, the other member of which is attached to a rocking sleeve surrounding the axle. When this rocking sleeve is so locked by this friction-clutch to the connector, it makes part of a revolution until a lever which it carries comes in contact with the split ring, K, expanding this against the brake-drum carried by the hub, and so completing the brake action. Obviously, the greater the backward pressure applied to the sprocket, the greater the braking pressure applied to the brake-drum. Obviously, too, when there is pressure in neither direction upon the sprocket, the hub is disconnected from driver and from brake. To insure that the connector shall not rotate with the driver-sleeve until it has nearly or quite reached its clutching position at one or the other end of its travel, Townsend provides a lag-spring, marked M; but its detailed operation need not be described.

Mr. Edward Rector for the appellant.

Mr. G. P. Moore and *Mr. Melville Church* for the appellee.

Before WARRINGTON, KNAPPEN, and DENISON, Circuit Judges.

DENISON, *Cir. J.*:

(1) As in every patent case, the court must select that method of approach to the crucial questions which seems to furnish the simplest and clearest solution; and, in the present case, it seems to us best to inquire: First, what were the scope and extent of Townsend's real invention, as shown by comparison with the state of the art? Second, does the defendant employ this invention? And, if so, then, third, do the terms of the patent grant fairly permit a construction which will cover the form of the invention so appropriated by defendant?

We are satisfied that the substance of Townsend's invention, its real inventive novelty, its meritorious forward step, are found in his creation of this connector, movable to the right and left inside the hub, clutching the hub at one end of its travel, at the other end of such motion clutching the brake mechanism, and, in its intermediate position, clutching neither. Whether its telescoping form with reference to the driving member and its thread-and-screw connection therewith were included in the foundation of his invention, or were only selected and non-essential forms, may be important in some future controversy. In this case it appears that defendant uses these more specific features, and so we hereafter assume, for the purposes of this case, that these two things are essential characteristics of the invention.[*] The peculiar means by which this shiftable connector at one time firmly unites the hub to the driving-sprocket, and at another time firmly joins the brake to the driving-sprocket, constitute only the environment of Townsend's invention. These things were necessary, in order to give the invention its operative field; but they were not, of themselves, of the body or essence of his primary inventive thought.

The prior art shows various forms of driving connections between the sprocket and the hub, released by back-pedaling, and various forms of brakes so constructed that the two members of the braking pair were forced into contact by back-

for vehicles, comprising the combination with a wheel, a brake therefor, and a driver with relation to which said wheel can independently rotate, of a brake-anchoring device anchored to a relatively stationary structural element of the vehicle, a laterally shiftable connector which in one position operatively connects said driver with said wheel for driving the latter and in another position permits said driver to apply said brake, said connector having rotary movement with respect to said driver and said wheel being rotatable with respect to said connector, and threaded operating connection between said driver and said connector, substantially as described.

[*] Some of the claims do not specify "telescoping" or "screw-threaded," but say that the connector has "rotary movement" upon the driver. This is the same thing, so far as now involved.

pedaling pressure; but nowhere do we find any construction that fairly discloses this shiftable connector, screw-threaded upon the driver-sleeve, revoluble both with and upon that sleeve, and clutching one mechanism, or the other, or neither, as it moves back and forth. We do not overlook the patent to Carver, No. 160,570, March 9, 1875, for a friction-pulley. This contains the germ of the idea; but its modification and adaptation from the friction-pulleys of a factory to the hub of a bicycle we think is, clearly enough, invention.

The Brewster patent, No. 713,594, November 18, 1902, and the connected testimony regarding early use, even if they established a sufficiently early date, would not demonstrate any lack of patentable novelty in Townsend's connector as we have described it. Brewster undertook to accomplish his objects by a loosely-mounted sprocket having wedge-shaped cams on its vertical surface, which, upon reverse motion, would constitute a friction-clutch with a loosely-mounted disk having corresponding wedge-shaped cams, and would force this disk laterally into braking contact with a hub-surface. The practical efficiency of this device is, at best, left doubtful by the testimony; and the Brewster patent and device chiefly serve to emphasize the thought that Townsend's invention was not in the driving-clutch or in the braking mechanism, but was in the telescoping, screw-threaded connector-sleeve, clutching, at the pleasure of the rider, the driving mechanism, or the braking mechanism, or neither.

The patent to Priest and Priest, No. 623,825, of April 25, 1899, might or might not need more careful consideration, if it was early enough; but there is nothing tending to carry it back of its date of filing, September 28, 1898, while Townsend's original application, though filed October 10, 1898, was executed September 19, 1898, and the proof is clear enough that Townsend's invention was perfected and in use in the summer of 1898. The Priest and Priest patent, therefore, needs no attention.

From our review of the prior art and the alleged anticipations or limitations, we are satisfied that Townsend's invention is essentially measured by this shiftable sleeve-connector in this surrounding and application, and that his invention, while not rightly to be called pioneer, was the step which resulted in making practical and commercial the combination in one device of the driving, coasting and braking functions, and that his invention is entitled to a fairly liberal application of the rule of equivalents.

If this connector is the characterizing feature of Townsend's improvement, it is hardly to be doubted the defendant uses the invention. Referring again to the cuts, it will be seen that defendant has the Townsend sprocket, driver-sleeve, shiftable connector, and threaded engagement between the two latter, almost precisely like Townsend. Indeed, no difference is said to exist, save in the means of clutching the brake mechanism and in the braking mechanism itself. The extent of these differences and what effect they have on the question of infringement must be reserved to consider in connection with the true meaning of the claim. It is enough to say at present that the shiftable connector-sleeve, with the characteristic functions which have been described, and which we have found constituted the real and substantial advance which Townsend had made in the art, has been appropriated and is being used by defendant without material change of form.

Having thus found what Townsend invented, and that it has been taken by defendant, we come to the inquiry whether, through indifference or otherwise, the patent grant was so limited that it does not give to Townsend a monopoly of his real invention; and this requires that we first observe the departures which the defendant has made in its brake-clutch and brake mechanism.

(4) An effective brake consists of two members, which may be called a brake pair, and which we have spoken of as the brake-shoe and the brake-drum. This terminology implies that the relatively movable member be called the shoe and the stationary one the drum. It cannot make any particular difference which member revolves. In a bicycle structure, the axle is fixed, the hub is revolving, and the two parts of the brake pair are essentially the axle member and the hub member. The drum, as above defined, may be attached to the axle or to the hub. The relatively movable shoe may be pressed, radially, from the axle against the drum on the hub, or from the hub against the drum on the axle. Both forms were common. So, also, before Townsend's invention, brake-drums had taken two forms: a cylindrical surface, against which an expanding or contracting ring was radially forced, and a tapered or conical surface, longitudinal of the axle, against which a corresponding tapered or conical hub-surface was longitudinally forced. Townsend, like all others, could use any of these forms. He selected and illustrated the cylindrical and expanding-ring form of brake that has been described. The defendant selected the conical form. It attached firmly to the axle (and anchored to the frame) the tapered nut, 10, and this became the relatively stationary member of the brake pair, or, as we have called it, the brake-drum. Defendant then provided, within the hub, a sleeve which he splined to the interior surface of the hub, so that it must revolve therewith, but was longitudinally slidable therein. This sleeve is shown in the cut by the numeral 6. It was tapered at both ends corresponding to the tapers in the adjacent surfaces of the connector and the brake-drum. When the driver-sleeve receives back pressure and the connector is driven to the left, it makes contact with this sleeve, 6, and pushes the same along until the taper at the other end of the sleeve contacts with the brake-drum. Then, as the lateral motion continues, it may be assumed that the connector and the right half of the sleeve, 6, lock together with an efficient friction-clutch, in which case the left half of the sleeve obviously becomes the shoe member of

the brake pair, and the braking effect is obtained. Defendant also provides complementary teeth, which make a positive lock between the connector and the brake-drum when the connector reaches the extreme left-hand position; but the office of these interlocking teeth is wholly supplementary to the functions of Townsend's patent. They serve to maintain the braking effect after it is once established, and so lessen the muscular effort otherwise required in maintaining the back-pedal pressure. They cut no figure on the question of infringement.

Defendant says that by the double taper of its interior hub-sleeve it gets a double braking effect, part at each end. This may be true, but it is immaterial. If defendant uses the Townsend shiftable connector, at one point clutching the hub for driving, and at another point clutching the part which actuates the brake-shoe, it is immaterial that it gets a supplementary braking effect somewhere else. Indeed, the difference between a friction-clutch and a brake, in this situation, cannot be determined. Until the two members of the pair are so set that relative motion ceases, they constitute, mechanically, a brake, no matter if they have been called a clutch. When they are so set, they constitute a clutch, no matter if they have been called a brake.

Returning, now, to the terms of the claims, and selecting No. 19, we find that it clearly reads upon defendant's structure. Only two suggestions to the contrary are made. It is first said that, while the hub carries a tapered clutch element with which the right-hand end of the connector (shiftable sleeve) may engage, the brake mechanism carries no tapered clutch element with which the left-hand end of the connector may engage, but that the tapered clutch element with which the left-hand end of the connector engages is carried by the hub and not by the brake mechanism. It is not clear that there would be a material departure from the claim if a specified element was carried by one instead of by the other of two named coöperating parts; but however that might be, and giving defendant the benefit of this argument, it still is true that the left-hand end of this hub-sleeve, 6, is the brake-shoe, one member of the brake pair, and, therefore, a part of the brake mechanism; and so it is literally correct to say that the right-hand end of this hub-sleeve is a taper-clutch element, with which the connector may engage, and which is itself integral with, and is therefore carried by, part of the brake mechanism.

The other suggestion is that unless the call of the claim be restricted to the form of brake mechanism shown in the drawing or its equivalent—in other words, if it calls for any suitable brake mechanism—the claim is too broad, because really for a function, and so is invalid under the rule of *Westinghouse* v. *Boyden*, (170 U. S., 537; 83 O. G., 1067; 1898, C. D., 443.) The principle of the Westinghouse case is not applicable here. There the abstract idea involved in the invention was that the preliminary traverse of the piston should admit air from the reservoir to the brake-cylinder, and that a further traverse of the same piston should admit air directly from the main air-pipe to the brake-cylinder. This abstract idea was given embodiment by the inventor through an auxiliary valve operated by the further traverse of the piston, and this auxiliary valve (with its equivalents and in association with the parts of the older patent) constituted the thing of which, under the patent law, the inventor was entitled to a monopoly. The second claim, as construed by the court, went further, and undertook to claim the abstract idea involved, or, in other words, the function of the piston in its further traverse. The real analogy between that case and this rests on the fact that in one the auxiliary valve and in the other the shiftable connector formed the substance of the inventive advance over the old art.

In order to make the Westinghouse case so parallel as to require here a conclusion of invalidity, we must find therein a holding that a claim which included as an element the auxiliary valve which constituted the invention, and also included the piston which only furnished operative surroundings for the invention, was invalid, because it covered any kind of piston rather than the variety shown in the drawings; and the case carries no such thought. To perfect the parallel from the other point of view, we must suppose a claim which specified as an element, not the form of connector which Townsend had invented, but any connecting means clutching the hub mechanism on one motion and the brake mechanism on the reverse motion. Some of the claims of the Townsend patent are subject to plausible attack on this theory; but not so, we think, of the selected claims in suit. These claims do not extend to every means by which a forward motion makes one connection and a reverse motion makes the opposite connection, nor even to every form of a laterally-shiftable connector housed within the hub. They are confined to what is, in this respect and comparatively speaking, a specific embodiment of this function, viz., the connector-sleeve, telescoping on the driver-sleeve, driven longitudinally thereon by the intermediate screw-thread connection, effecting a taper clutch at each end of its travel and being released from both clutches at its intermediate position.

(2) Reliance is also placed upon the opinion of this court, speaking by Judge (afterward Mr. Justice) Lurton, in *Tyden* v. *Ohio Table Co.*, (152 Fed., 183; 81 C. C. A., 425.) In this case, the claim calling for "means" was held invalid because it covered all means for accomplishing the result, and so was functional. We do not question the application of the rule as made to the facts of that case; but we do not understand that a claim is functional and invalid merely because one of its specified elements is "means," as in the Tyden case, or "mechanism," as in the present case. This result may or may not follow, depending upon whether the all-inclusive term is used with reference to the element or subcombination which is the real point and gist

of the invention, or whether it is used with reference to elements or parts of the combination already well known and designed only to coöperate with the new element in order to make a completely operative unit. In other words, where used with reference to the exact point of novelty, "means" or "mechanism" may expose the claim to attack on the ground that it is functional; in that respect, each case will present a problem by itself. But where used with reference to the make-up of the field in which the real invention finds its usefulness or with reference to the connecting parts which permit the salient novelty of the invention to accomplish its function, these words are only a convenient formula of the broadest equivalency of which the real invention permits. Their use amounts to a statement by the inventor that, as to this element, the claim is not confined to the form shown, nor to any close imitation of that form, but extends as broadly as is consistent with the extent of his inventive step to all forms accomplishing that part of the ultimate, composite result, and, of course, does not, of itself, prevent the court (where the state of the record requires) from interpreting the claim as limited to a more or less close approximation to the "means" described in the specification. (*Rich* v. *Baldwin*, C. C. A., 6, 133 Fed., 920, 923; 66 C. C. A., 464; *Kellogg Co.* v. *Dean Co.*, C. C. A., 6, 182 Fed., 991, 1003; 105 C. C. A., 545.)

That the Supreme Court has not intended, either in the Westinghouse-Boyden case or in other instances where claims have been held void because functional, to predicate this result merely on the presence of the word "means," "mechanism," etc., is apparent. In *Morley Co.* v. *Lancaster* (129 U. S., 263, on page 286; 47 O. G., 267; 1889, C. D., 380) there was an extreme instance. The claim was for the combination of three elements: "button-feeding mechanism; appliances for, etc.; and feeding mechanism." The objection that this and other similar claims were void on their face because for a function could not have escaped the attention of Mr. Justice Blatchford, who wrote the opinion sustaining their broad validity; indeed he expressly said that these claims were not for the result or effect, irrespective of the means employed. The case being, however, one of the class where the vital point of the invention—the making of the combination of these different sets of mechanism—was expressed in these general terms, it was ruled that they did not cover every possible means, but yet must be treated as terms of very considerable scope and inclusiveness. In the latest reported decision touching this point (*Paper Bag Patent Case*, 210 U. S., 405, 422; 136 O. G., 1297; 1908, C. D., 594) the claim called for the combination of a rotating cylinder, forming-plate, and—

operating means for the forming plate adapted to cause the said plate to oscillate about its rear edge, etc.

(The claim included other mention of "means" as elements, but this is the one to which the opinion refers.) It was argued that, by extending the patent to cover a device in which the defendants used very different means of causing a forming-plate to oscillate about its rear edge, the court below had given the patentee a patent for a function. The Supreme Court held, in effect, that the use of these general terms is not objectionable in cases where the element so identified serves to provide a "working relation" for what may be called the more primary elements of the combination. Mr. Justice McKenna says:

The distinction between a practically operative mechanism and its function is said to be difficult to define. (Rob. on Pats., sec. 144 *et seq.*) It becomes more difficult when a definition is attempted of a function of an element of a combination which is the means by which other elements are connected and by which they coact and make complete and efficient the invention. But abstractions need not engage us. The claim is not for a function, but for a mechanical means for bringing into working relation the folding plate and the cylinder.

The Patent Office practice, in the shaping of claims with reference to these phrases, has vacillated. After some of the early court decisions disapproving the particular uses of these words which were involved in the cases decided, the Patent Office was inclined to forbid their use; but this confusion later settled down into the clearly-established rule that these words would not be permitted where the novelty of the invention was in the specific mechanism to which they were intended to refer, but would be approved when they described—

mere adjunctive devices which connect or give coöperation to the various elements or features of the invention, but are in themselves no actual controlling part of it. (*Ex parte Paige*, 40 O. G., 807, 810; *ex parte Pacholder*, 51 O. G., 295; *ex parte Halfpenny*, 73 O. G., 1135.)

Pursuant to this rule regulating the "substantive" and the "adjunctive"—which we consider only another form of words for the distinction we have expressed—the great majority of patents during the last few years have contained claims identifying certain elements as for "means," "mechanism," "devices," etc.

In none of the cited decisions of this court especially relied upon in argument[3] do we find any holding that a claim calling for "means" is thereby, and thereby only, made functional; but, if there were any such holding, it must yield to the rule of the Paper Bag case. These considerations demonstrate to us that the call of claim 19 for "a brake mechanism" does not make the claim functional or invalid, and that this claim is infringed. The same considerations govern the use of similar phrases and terms in claims 25–30.

(3) In determining whether the ambiguous terms of a claim should be confined more or less closely to the form shown in the drawings, it is usually well to compare with other claims which may not be in suit; and if we find other claims which call for the specific construction of a part mentioned more generally in the claims in suit, that will be a persuasive reason for not giving the limited construction to the general terms. That test is not applicable here, because no one of the claims in the Townsend patent calls for anything more particular than a "brake"

[3] *Columbus Co.* v. *Robbins*, (64 Fed., 384; 12 C. C. A., 174;) *Western Co.* v. *Williams Co.*, (108 Fed., 952; 48 C. C. A., 159;) *Rich* v. *Baldwin*, (133 Fed., 920; 66 C. C. A., 464;) *Wessell* v. *United Co.*, (139 Fed. 11; 71 C. C. A., 423;) *American Co.* v. *Sexton*, (139 Fed., 564; 71 C. C. A., 548.)

or "brake mechanism," etc.; but the reason for this omission is found in the specification, which informs us that this patent is not intended to reach the particular form of brake which Townsend has devised, but that he reserves for another copending application the claims which relate to that part of his invention. This situation emphasizes and confirms our conclusion from the face of the claims in suit, viz., that they do not refer to and are not confined to any particular form of brake or brake mechanism.

We should reach the same result, if we considered the calls for a brake and brake mechanism from the point of view of substantial equivalency for the form shown in the drawing. Considering the reasonable range of equivalents to which Townsend is entitled, and the fact that both his general form of the braking mechanism and the defendant's general form were well known, defendant has made no vital departure. In each case, the left-hand travel of the connector brings it into engagement with the clutch element housed in the hub. In each case the clutch element is thereby actuated, and, in turn, directly or indirectly actuates the brake-shoe and drives it against the brake-drum. Defendant's transposition of the drum from the hub to the axle, and of the shoe from the axle to the hub, is not, speaking broadly, a material change. The same elements coact and produce the same braking result. Although the manner of their coaction is not identical, it is similar enough to justify the requirements of the equivalency rule in this case.

The lag-spring forms an element of claims 27 and 28; but defendant uses substantially the same spring in the same location and arrangement, and so these claims present no further question on this account.

The decree below is affirmed, with costs.

ON PETITION FOR REHEARING.

Defendant's petition for rehearing forcefully again presents one position not considered in the opinion filed. The opinion assumes that defendant's interior hub-sleeve 6 is the "tapered clutch element carried by the hub," of claim 19, and that it provides the clutching function at the left-hand end of the connector which is called for when the opinion defines Townsend's invention as residing in the—

connector sleeve clutching at the pleasure of the rider the driving mechanism or the braking mechanism or neither.

This assumption in the opinion is now challenged because (it is said) this hub-sleeve is not a clutch at all, and performs no clutching function, but is one member of a brake pair, and is nothing else.

As matter of strict terminology, the opinion was wrong in calling this hub-sleeve a "clutch," or a "clutch element;" but we think that this precision in name is not a matter of substance, and that the hub-sleeve is fairly within that breadth of definition which, from the record, should be given to "clutching" and "clutch element." Here, again, we must notice, as pointed out in the opinion, the frequent lack of structural distinctions and the uncertain functional distinctions between a clutch and a brake. Not only is a clutch a brake while the clutch is being set, but while a brake of this class is being set it is a *slipping* clutch. Hence it is obvious that the name by which the part happens to be designated is not, of necessity, controlling. Ordinarily, we think of a clutch as a device by which two separable members are made continually to revolve in unison; but Townsend, when speaking of a clutch element at the left-hand end of his connector, did not use the term in this full sense, since his clutch-socket G and its attached rocking actuator could turn only a small fraction of one revolution. The fact is that the left-hand motion of the connector operates to push an intermediate element which, in turn, pushes one of the brake members. As the motion called for by Townsend's form was rotary, he calls this intermediate element a clutch element. His specification calls it merely "a suitable clutch whereby" the connector-sleeve may be connected with the brake-actuator.

When the tapered left-hand end of defendant's connector-sleeve moving to the left first makes contact with the taper socket in the end of the hub-sleeve, there is no effect, except that the hub-sleeve is pushed longitudinally. As soon as the limit of this motion is reached, there is a tendency for the connector-sleeve and the hub-sleeve to set together and to revolve in unison. This is a clutching tendency, and it takes partial effect, but cannot take full effect, because one member cannot revolve. Eventually, when and while the members are set together, neither can revolve, except in unison with the other, and this again discloses a clutching function.

While, as above pointed out, the mutual engagement of Townsend's left-hand taper sleeve and its taper socket is not, in the extremest sense, "clutching," it is properly enough so called in the specification and the claim; but "clutching" is only the form of engaging appropriate to actuate Townsend's form of brake. The real ultimate function is to "engage and actuate;" and the mere use in the claim of the name "clutch element" does not prevent extending it to cover an element which, though it engages and actuates, and though it looks like a clutch, and though part of the time it acts like a clutch, yet is not merely a clutch all the time. We do not intend hereby to adopt a construction for claim 19 which will make it coextensive with certain other claims not in suit, which call for any means of engaging instead of for taper-clutch elements. There is room for distinction.

The suggestion in the opinion that—

it may be assumed that the connector and the right half of the sleeve, 6, lock together with an efficient friction clutch,

implies inaccuracy when thus stated. They do not lock together until the revolution stops; the existing tendency to lock together is resisted and retarded. The definitions in the opinion which incorporate the clutching function should say "clutching or equivalently engaging," and, so re-formed, are not open to the criticisms now urged. That the method of engaging and actuating employed by defendant at this end of the connector, if, indeed, it is not "clutching," is equivalent, is, we think, sufficiently shown by what has been here said about its operation and what was said in the opinion regarding the field of equivalency.

The petition also presents a suppositious structure in which the left-hand end of the connector and the right-hand end of the hub-sleeve are not tapered, but have vertical, parallel faces, and the left-hand movement of the connector operates only to push the hub-sleeve along into a braking contact at its other end. It is said that here the taper-clutch element would disappear. This supposed construction presents questions of equivalency, and of uniting in one part the functions of two, or the converse, which are not necessarily involved in deciding this case. It is sufficient to say of them as we said in *Grever* v. *Hoffman Co.*, (202 Fed., 923, 927; 121 C. C. A., 281, 285:)

It will be time enough to consider that question, if such a machine is ever built and works well enough to justify an infringement suit.

The petition for rehearing is denied.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Mygatt design patent, No. 37,967, for a design for a prismatic glass reflector, *Held* valid and infringed. *Mygatt* v. *Schaffer*, 218 Fed. Rep., 827.

(U. S. C. C. A.) The Mygatt design patent, No. 40,182, for a design for a prismatic glass reflector, *Held* void for anticipation by Design Patent No. 40,140, to the same inventor. *Mygatt* v. *Schaffer*, 218 Fed. Rep., 827.

(U. S. C. C. A.) The Watson patent, No. 559,642, for a corrugated metal culvert, *Held* valid and infringed. *Stillwell* v. *McPherson*, 218 Fed. Rep., 839.

(U. S. C. C. A.) The Smith patent, No. 692,935, for a weft-replenishing mechanism for looms, *Held* void for anticipation. *Crompton & Knowles Loom Works* v. *Stafford Co.*, 218 Fed. Rep., 841.

(U. S. D. C.) The Kiefer reissue patent, No. 12,455, (original No. 797,122,) claims 9 and 10, for a filter-pulp-packing machine for pressing filter-cake for beer-filters, *Held* valid, but not infringed. *Karl Kiefer Mach. Co.* v. *Unionwerke, A. G.*, 218 Fed. Rep. 847.

(U. S. C. C. A.) The Mygatt patent No. 939,062, for an integral shade-reflector of glass, *Held* valid and infringed. *Mygatt* v. *Schaffer*, 218 Fed. Rep., 827.

(U. S. D. C.) The Kiefer patent, No. 993,780, for a filter, claim 1 *Held* valid, but not infringed. *Karl Kiefer Mach. Co.* v. *Unionwerke, A. G.*, 218 Fed. Rep., 847.

(U. S. D. C.) The Kiefer patent, No. 1,015,326, claims 14 to 17, inclusive, for a filter, *Held* void for insufficient description and want of statutory affidavit, and claims 23 to 25, inclusive, for a filter-cake, *Held* void for lack of novelty. *Karl Kiefer Mach. Co.* v. *Unionwerke, A. G.*, 218 Fed. Rep., 847.

(U. S. D. C.) The Kiefer patent, No. 1,023,254, for a filter for straining beer and ale, is void for lack of novelty in view of the prior art. *Karl Kiefer Mach. Co.* v. *Unionwerke, A. G.*, 218 Fed. Rep., 847.

Witnesses to Specifications and Drawings.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 9, 1915.

An act to amend sections forty-eight hundred and eighty-eight and forty-eight hundred and eighty-nine of the Revised Statutes, relating to patents.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section forty-eight hundred and eighty-eight of the Revised Statutes of the United States be, and the same is hereby, amended by striking out from the last clause thereof the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4888. Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor."

SEC. 2. That section forty-eight hundred and eighty-nine of the Revised Statutes of the United States be, and the same is hereby, amended by striking out the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4889. When the nature of the case admits of drawings, the applicant shall furnish one copy signed by the inventor or his attorney in fact, which shall be filed in the Patent Office; and a copy of the drawing to be furnished by the Patent Office, shall be attached to the patent as a part of the specification."

Approved, March 3, 1915.

Witnesses on the specification will not be objected to, and the draftsman may sign the drawing as a witness, as has been heretofore customary.

THOMAS EWING,
Commissioner of Patents.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 12, 1915.

The Eustis Manufacturing Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Cleveland Foundry Company, No. 7609 Platt avenue southeast, Cleveland, Ohio, for registration of a trade-mark and trade-mark registered July

5, 1802, No. 21,427, to The Eustis Manufacturing Company, Jersey City, N. J., and New York, N. Y., and notices of such declaration sent by registered mail to said The Eustis Manufacturing Company at the said addresses having been returned by the post-office undeliverable, notice is hereby given that unless said The Eustis Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 17, 1915.

Forrest F. Tebbetts, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Treinis Bros., of 126–142 Thirteenth street, New York, N. Y., for registration of a trade-mark and trade-mark registered April 23, 1889, No. 16,528, to Forrest F. Tebbetts, of Providence, R. I., and a notice of such declaration sent by registered mail to said Forrest F. Tebbetts at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Forrest F. Tebbetts, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 19, 1915.

The Capitol Manufacturing Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Bonney Vise & Tool Works, Inc., 405 Stephen Girard Building, Philadelphia, Pa., for registration of a trade-mark and trade-mark registered February 24, 1891, No. 19,063, to The Capitol Manufacturing Company, 125–137 Rees street, Chicago, Ill., and because of evidence in the record to the effect that said The Capitol Manufacturing Company cannot be reached at the address given, notice is hereby given that unless said The Capitol Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 19, 1915.

Pace & Sizer, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Mi Favorita Cigar Co., Inc., 200 Fifth avenue, New York, N. Y., for registration of a trade-mark and trade-mark registered March 10, 1885, No. 12,005, to Pace & Sizer, of Richmond, Va., and a notice of such declaration sent by registered mail to said Pace & Sizer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Pace & Sizer, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., February 25, 1915.

The Red Seal Remedy Company and Globe Chemical Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of P. C. Tomson & Co., 25, 27, and 29 Washington avenue, Philadelphia, Pa., for registration of a trade-mark and trade-mark registered July 2, 1895, No. 26,765, to The Red Seal Remedy Company, Rockland, Me., and trade-mark registered May 8, 1894, No. 24,680, to Globe Chemical Company, Cleveland, Ohio, and notices of such declaration sent by registered mail to The Red Seal Remedy Company and Globe Chemical Company at the said addresses having been returned by the post-office undeliverable, notice is hereby given that unless said The Red Seal Remedy Company and Globe Chemical Company, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 2, 1915.

Antonio Magliaro, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Kirk Geary & Co., Nos. 519–523 J street, Sacramento, Cal., for registration of a trade-mark and trade-mark registered December 30, 1913, No. 94,788, to Antonio Magliaro, No. 9 North Virginia avenue, Atlantic City, N. J., and a notice of such declaration sent by registered mail to said Antonio Magliaro at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Antonio Magliaro, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 2, 1915.

Pace & Sizer, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Steeves & Tilton, 276 State street, Boston, Mass., for registration of a trade-mark and trade-mark registered August 11, 1885, No. 12,498, to Pace & Sizer, Richmond, Va., and a notice of such declaration sent by registered mail to said Pace & Sizer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Pace & Sizer, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
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Labels	2	No. 18,313	to No. 18,314,	inclusive.
Prints	None.			
Reissues	1	No. 13,893.		
Total	813			

The patents of this issue were pending an average of 24.5 months.

TO RESIDENTS OF THE UNITED STATES.

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Arizona	1	.....	North Dakota	3	.....
Arkansas	1	1	Ohio	46	7
California	30	7	Oklahoma	3	.....
Colorado	8	1	Oregon	4	1
Connecticut	16	1	Pennsylvania	63	2
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Idaho	2	.....	Tennessee	6	1
Illinois	66	8	Texas	19	.....
Indiana	17	.....	Utah	1	.....
Iowa	19	1	Vermont	1	1
Kansas	5	1	Virginia	5	1
Kentucky	1	.....	Washington	11	4
Louisiana	5	.....	West Virginia	4	.....
Maine	5	1	Wisconsin	18	2
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New Jersey	20	1			
New Mexico	1	.....	Total to residents of the United States	665	77
New York	129	23			

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Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	.....	1	Netherlands	.....	.....
Belgium	.....	.....	New South Wales	.....	.....
British India	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	11	.....	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	1	.....
Chile	.....	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	.....	.....
Denmark	2	.....	South Australia	.....	.....
England	16	.....	Spain	.....	.....
Finland	.....	.....	Sweden	.....	.....
France	6	.....	Switzerland	4	.....
Germany	21	2	Transvaal, South Africa	.....	.....
Guatemala	.....	.....	Victoria	.....	.....
India	.....	.....	Western Australia	1	.....
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Italy	1	.....	Total to residents of foreign countries	64	3
Luxemburg	.....	.....			
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Coupon Orders for Copies of Patents.

(ORDER No. 2,193.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 16, 1915.

The practice of ordering a small number of printed copies of patents, to be charged against the deposit accounts which are maintained by this Office for the accommodation of inventors and attorneys, involves an inordinate amount of clerical labor in a very large number of small transactions. The necessary bookkeeping incident thereto has attained such proportions that the Office does not feel justified in permitting this practice. Coupon orders have been provided with a view to affording a convenient means for ordering less than twenty copies of patents; but the purpose of the coupon has been largely subverted by the extensive practice of ordering single copies of patents to be charged to account.

Coupon orders are sold by the Office in pads of twenty for one dollar and in stub-books of one hundred for five dollars. These coupons may be filled in, signed or stamped with the name of the sender, and mailed without a letter of transmittal.

Hereafter no requests that less than twenty copies of patents be charged to account will receive attention.

THOMAS EWING,
Commissioner of Patents.

Classification of German Patents.

Printed copies of a translation of the Manual of Classification of the German Patent Office may be had upon application to the Commissioner of Patents at $1.00 per copy.

With the aid of this translation and the numerical list of German patents, classified according to classes, subclasses, and groups, which is accessible in the Scientific Library, it will be possible to make complete searches in the German patents.

APPLICATIONS UNDER EXAMINATION.

Condition at close of business March 20, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Dec. 11	Dec. 21	470
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 1	Jan. 20	718
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Mar. 4	Mar. 12	98
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Sept. 5	Mar. 10	610
167	5. Bookbinding; Harvesters; Jewelry; Music.	Oct. 20	Feb. 3	359
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Sept. 23	Mar. 13	540
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Dec. 30	Feb. 2	512
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Feb. 4	Mar. 1	1235
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	July 8	Oct. 26	781
235	10. Carriages and Wagons	Oct. 23	Feb. 26	739
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Jan. 27	Mar. 2	137
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Oct. 1	Mar. 6	812
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Feb. 4	Feb. 6	449
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Oct. 10	Feb. 24	316
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Oct. 10	Mar. 4	729
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Aug. 8	Dec. 8	525
308	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Jan. 2	Mar. 6	187
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Feb. 18	Feb. 17	282
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Feb. 2	Feb. 20	240
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 18	Feb. 11	252

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Nov. 2	Jan. 20	477
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Feb. 23	Feb. 24	182
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 17	Dec. 22	436
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Oct. 16	Feb. 25	445
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Feb. 23	Feb. 19	152
106	26. Electricity, Generation; Motive Power.	July 3	Jan. 30	566
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Nov. 19	Mar. 1	305
65	28. Internal-Combustion Engines	Jan. 22	Feb. 15	425
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Feb. 2	Jan. 18	315
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Nov. 9	Mar. 4	319
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Nov. 30	Feb. 12	351
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Sept. 1	Mar. 8	684
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Nov. 27	Feb. 8	358
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Feb. 17	Mar. 2	194
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Nov. 5	Mar. 12	543
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Dec. 18	Mar. 5	561
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	July 10	Jan. 20	744
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Sept. 26	Feb. 15	592
321	39. Water Distribution	Nov. 23	Jan. 11	491
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Sept. 22	Feb. 9	962
126	41. Railway Draft Appliances; Resilient Tires and Wheels.	Jan. 26	Feb. 23	267
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	July 22	Jan. 15	578
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Feb. 10	Jan. 26	257

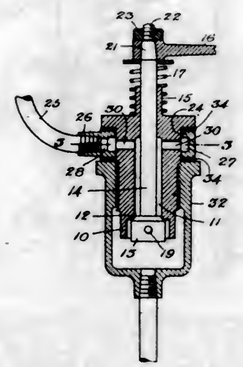
Oldest new case, July 3; oldest amended, Oct. 2.
Total number of applications awaiting action..... 20,195

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Jan. 19	Mar. 4	764
	Designs	Jan. 14	Oct. 26	423
	Labels and Prints	Feb. 19	Feb. 19	201

PATENTS

GRANTED MARCH 23, 1915.

1,132,542. VALVE. ROLLIN ABELL, Milton, Mass. Filed Jan. 14, 1913. Serial No. 741,962. (Cl. 137—4.)



1. A device of the character described, comprising a rotary valve and seat therefor, means for limiting rotary movement in one direction of said valve, said valve having a stem with a frusto-conical portion, an operating member mounted upon said frusto-conical portion, and means for causing said operating member to coact frictionally with said frusto-conical portion, whereby said valve may be adjusted to the limit of its rotary movement and said operating member adjusted rotatively with relation to said valve while said operating members and frusto-conical portions are coactively engaged with each other.

2. The combination with a valve casing having an internally threaded opening, of an externally threaded plug adapted to be screwed into said opening, said plug having a chamber with an opening at the inner end of the plug for communication with the interior of the casing, an annular member adapted to fit around said plug outside the casing, said plug having a smooth cylindric surface for engagement with said annular member and a flange for confining the annular member against the casing, said annular member having an internal annular groove and a port communicating therewith, said plug having a port forming communication between said chamber and groove, and a valve member coöperating with said plug to control communication between said chamber and the interior of the valve casing.

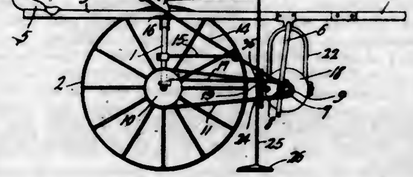
3. A device of the character described comprising inner and outer screw-threaded members one of which is adapted to be screwed into the other, an annular member surrounding said inner member, said inner member having a flange for confining said annular member against the outer member, and a smooth cylindric surface for engaging the internal surface of the annular member, said annular member having an internal annular groove and a conduit communicating therewith, said inner member having a chamber and a port forming communication between the same and said groove, and a valve member carried by said inner member for coöperating therewith to close said chamber.

4. A device of the character described comprising a valve holder, a valve member, said holder having a seat for said valve member and seat, a spring for holding the valve member against said seat, and means secured to said valve member for rotating the same, said valve member having a radial projection and said surrounding portion having a cam surface for coöperating with said projection to move the valve member bodily away from its seat in consequence of rotary movement of the valve member.

5. A device of the character described comprising a casing having an internally threaded mouth, a plug member having an external screw-thread for coöperatively engaging the thread in said mouth, an annular member surrounding said plug member ouside said casing, said plug member having a chamber for communication with the interior of said casing, and a valve for controlling such communication, said plug member having a seat for said valve, and means overlapping said annular member for forcing the latter against said casing, said plug member and annular member having complemental close-fitting cylindric surfaces, one of said members having an annular groove in its cylindric surface, said plug member having a port forming communication between said chamber and said groove, and said annular member having a port communicating with said groove.

[Claim 6 not printed in the Gazette.]

1,132,543. COTTON-CHOPPER. JOE B. ADAMS and LAWRENCE M. MILLER, Cooper, Tex. Filed Apr. 23, 1914. Serial No. 834,020. (Cl. 97—45.)



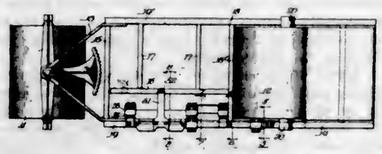
1. In a cotton chopper, a rotary driving member having a wrist pin, a slotted lever engaged by the wrist pin and having a lower blade, an adjusting lever, and a member pivoted to the adjusting lever and pivotally connected to the upper end portion of the slotted lever.

2. In a cotton chopper, a rotary driving member having a wrist pin, a slotted lever engaged by the wrist pin and having a lower blade, an adjusting lever, a sleeve journaled upon the end of one arm of the adjusting lever and having a fork, and a member attached to the upper end portion of the first mentioned lever and trunnioned within the said fork.

3. In a cotton chopper, a wheel mounted frame, an arched hanger carried thereby, a bearing attached to one limb of the said hanger, a shaft journaled through the said bearing, means for connecting and disconnecting the said shaft and one of the wheels of the frame, a casing disposed within the said hanger, a hanger connecting the said casing with the upper portion of the said arched hanger, a brace connecting the said casing and the other limb of the first mentioned hanger, the said shaft being journaled through the casing, a longitudinal shaft journaled through the casing and operatively connected to the aforesaid shaft within the casing, an actuating mem-

ber carried by the last mentioned shaft, and an oscillatory lever operatively connected to the said actuating member and having a blade at its lower end.

1,132,544. TRANSMISSION-BEARING FOR ROAD-ROLLERS. ANDREW W. AITKEN, Chicago, Ill., assignor to Austin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 10, 1913. Serial No. 805,667. (Cl. 64—10.)



1. The combination with a frame including side and cross members; of a transmission supporting bracket comprising an integral structure including a plurality of rigidly alined bearings and a body attached to a side member, the body having a lateral portion extending rigidly therefrom and supporting one of the bearings, the lateral portion being connected to and bracing a cross member.

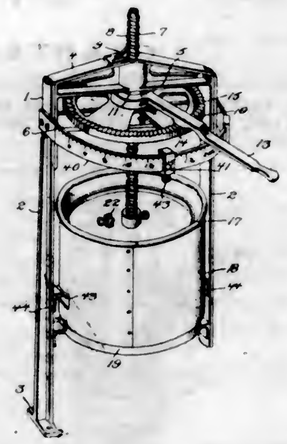
2. The combination with a frame including side and cross members and being provided with a longitudinal member parallel to the side members and connecting certain of said cross members; of a transmission supporting bracket comprising a rigid body connected to one side member of the frame, bearing integral with and rigidly supported from the body, a laterally-extending portion formed rigidly integral with the body and connected to one of the cross members of the frame, and a second laterally extending portion formed rigidly integral with the body and connected to the longitudinal member.

3. The combination with a frame including side and cross members; of a bracket for suporting a transmission provided with a plurality of shafts, said bracket comprising a rigid integral structure including a plurality of series of alined bearings, certain of the bearings in one series being arranged opposite and braced to certain of the bearings in a second series, said bracket being further provided with an integral attaching and bracing member extending from an oppositely disposed pair of the bearings and connected to a cross member of the frame.

1,132,545. DISPENSING APPARATUS. JOHN J. ALLEY, Bristol, Va. Filed Dec. 1, 1911. Serial No. 663,282. (Cl. 31—65.)

1. A dispensing apparatus of the character described including a stand, a head mounted in the stand, a spindle journaled in the stand and supporting said head, a ratchet disk rotatable in the stand and through which the spindle has threaded connection, an actnating handle engageable with the disk to turn the latter, a container support mounted in the stand below the head and formed with a discharge mouth, a gate controlling passage through said mouth, and means for engaging a container and forcing it into engagement with said support.

2. A dispensing apparatus including a stand adapted to support a container, a head mounted in the stand and adapted to move in the container, means for effecting an axial movement of the head in one direction into the container, said means including an oscillatable handle acting upon a movement in one direction to force the head toward the discharge end of the container, a member acting as a stop to limit the movement of the handle in a direction to move the head toward the discharge end of the container, a scale over which the handle moves, and a plurality of index members adjustably supported with reference to the scale for movement toward and from the stop member, the scale having thereon graduations indicating one series of units and fractions thereof, and index members having thereon each a character belonging to a different series of units or fractions thereof.



3. A dispensing apparatus including a stand adapted to support a container, a head mounted in the stand and adapted to move in the container, means for effecting an axial movement of the head in one direction into the container, said means including an oscillatable handle acting upon a movement in one direction to force the head toward the discharge end of the container, a member acting as a stop to limit the movement of the handle in a direction to move the head toward the discharge end of the container, a scale over which the handle moves, and a plurality of index members adjustably supported with reference to the scale for movement toward and from the stop member, the scale having thereon graduations indicating units of measure and fractions thereof and index members having on each a character noting a unit of price.

4. An apparatus of the character described, including a stand adapted to support a container and provided with a discharge mouth, and a gate comprising angular arms pivotally connected to said mouth and formed with a hollow boss, a bar carried by said arms, and a spring mounted in said boss and bearing upon said bar, for the purpose specified.

5. An apparatus of the character described, including a standard adapted to support a container and provided with a discharge mouth and a gate adapted to control the discharge end of said mouth, and comprising angular arms pivotally connected to the mouth, said arms being formed in sections detachably connected together and provided with a hollow boss, a spring mounted in said boss, and a bar carried by said arms and engaged by said spring.

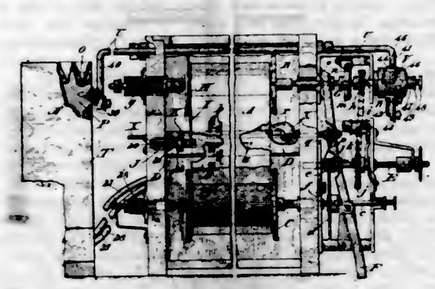
[Claims 6 and 7 not printed in the Gazette.]

1,132,546. VEHICLE-FENDER. OSCAR L. ANDERSON, Flint, Mich. Filed Mar. 30, 1914. Serial No. 828,171. (Cl. 21—23.)



A fender body for vehicles formed from a single sheet of metal having a margin thereof downwardly rolled around a stiffening wire to form a single ply edge bead with the horizontal plane of the wire lying wholly below the horizontal plane of the body and said marginal portion formed into contact with the body at the inner side of said bead and then extended downward in a vertical plane to form a depending single ply flange and inwardly rolled around a strengthening wire along its edge and terminating at the inner side of said flange.

1,132,547. AUTOMATIC MUSIC-SHEET-REGISTRATION MECHANISM FOR AUTOMATIC MUSICAL INSTRUMENTS. JAMES W. BARNES, New York, N. Y., assignor to Estey Piano Company, New York, N. Y., a Corporation of New York. Filed Apr. 12, 1912. Serial No. 690,449. (Cl. 84—161.)



1. An automatic playing mechanism for musical instruments, having, in combination, a music sheet roll carrying a perforated music sheet; a take-up roll for advancing said sheet; a tracker bar over which the perforated sheet travels; a detector bearing against one edge only of said sheet; a sliding rod on which said detector is mounted having a screw threaded section; a collar adjustable on said threaded section; a weighted lever operatively connected with said rod to cause said detector to bear yieldingly against the edge of the music sheet; a swinging slide valve controlling two pneumatic ports and connected with said adjustable collar, whereby adjustment of said collar varies the relative position of said detector and valve; and pneumatically actuated mechanisms governed by said ports for laterally shifting said music sheet and tracker bar relatively to each other to bring them into correct register.

2. An automatic playing mechanism for musical instruments having, in combination, a music sheet roll carrying a perforated music sheet; a take-up roll for advancing said sheet; a tracker bar over which the perforated sheet travels; a detector yieldingly bearing against one edge of said sheet; a sliding rod on which said detector is mounted having a screw threaded section; a collar adjustable on said threaded section; a valve controlling two pneumatic ports and connected with said adjustable collar, whereby adjustment of said collar varies the relative position of said detector and valve; and pneumatically actuated mechanisms governed by said ports for laterally shifting said music sheet and tracker bar relatively to each other to bring them into correct register.

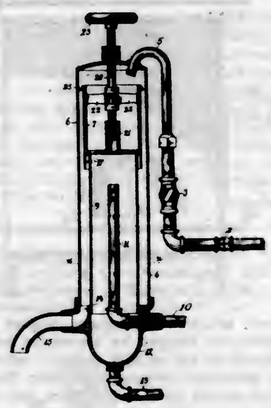
3. An automatic playing mechanism for musical instruments having, in combination, a music sheet roll carrying a perforated music sheet; a take-up roll for advancing the sheet; a tracker bar over which the sheet travels; a detector bearing against one edge of the sheet; a movable valve connected with said detector to move therewith; a port closable by said valve and normally open when the music sheet is in register with the tracker bar; and pneumatically actuated mechanism governed by the closure of said port by said valve for laterally shifting said music sheet and tracker bar relatively to each other to bring them into correct register.

4. An automatic playing mechanism for musical instruments having, in combination, a music sheet roll carrying a perforated music sheet; a lengthwise-moving rotatable spindle coupled to one end of said roll; a spring pressed bearing at the other end of said roll pressing said roll against said spindle; a rocking cam sleeve having a cam-groove; a cam roll on a stationary stud fitting said cam groove; an adjustable screw carried by said cam sleeve and bearing against said spindle; and means governed by the lateral displacement of the music sheet during playing and connected with said cam sleeve to rock it both back and forth.

5. An automatic playing mechanism for musical instruments having, in combination, a music sheet roll carrying a perforated music sheet; a lengthwise-moving rotatable spindle coupled to one end of said music roll; a spring pressing said roll against said spindle; a rocking cam sleeve; a coöperating abutment against which said cam acts; a connection between said cam sleeve and said spindle; and means governed by the lateral displacement of the music sheet during playing and connected with said cam to rock it both back and forth.

[Claims 6 to 8 not printed in the Gazette.]

1,132,548. WATER-HEATER. ROBERT P. BARNSTEAD, Boston, Mass. Filed Mar. 3, 1913. Serial No. 751,730. (Cl. 257—243.)



1. A fluid heater comprising a heated drum, a casing inclosing the same but spaced therefrom, a sleeve located with its lower edge surrounding the upper edge of said drum but presenting a thin space between the same, and variable means for supplying water to said sleeve, whereby only enough water may be supplied to said sleeve to escape through said thin space and to be highly heated by contact with said drum, or an excessive amount may be admitted to the sleeve to escape over the top edge thereof, said edge being constructed to deliver such overflow into contact with the surface of the said casing.

2. A fluid heater comprising a heated drum, a casing inclosing the same but spaced therefrom, a sleeve located with its lower edge surrounding the upper edge of said drum but presenting a thin space between the same, and means controllable at will for delivering water into said sleeve, said sleeve having an undercut flange surrounding its upper edge for delivering an overflow from the sleeve into contact with the surface of the casing.

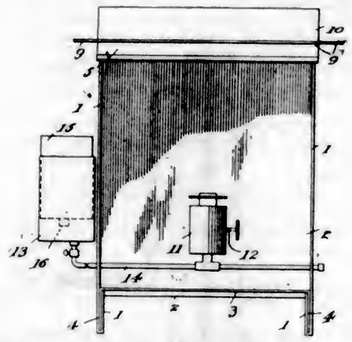
3. A fluid heater comprising a means of fluid supply, a drum, means for supplying a small quantity of the fluid directly to the drum, means whereby an excess of fluid is diverted from the drum, and means whereby such hot fluid and normal fluid are intermixed and delivered together.

4. A fluid heater comprising a cylindrical drum having a drainage means at its lower end, a steam admission pipe having a vertical terminal section within said drum, the end of said section being located near the top of the

drum, a cylindrical casing surrounding said drum, means for admitting fluid at the top of said casing upon said drum, means for directing the fluid down and in contact with the surface of the drum, and means for withdrawing the heated fluid from the lower part of the space between said drum and casing.

5. A fluid heater comprising a cylindrical drum internally heated, a cylindrical casing surrounding said drum, means for supplying fluid at the top of said casing and for withdrawing the same from the bottom exterior to said drum, a sleeve slightly larger in diameter than said drum and having an internally stepped lower edge near the top edge of said drum and concentric therewith, an internally threaded boss on said drum, a hand screw passing through the top of said casing and engaging said boss, and radial arms rigid with said sleeve loosely supported by said hand screw to turn thereon but to move up and down therewith.

1,132,549. SAD-IRON HEATER. JOSEPH P. BECK, Snyder, Tex. Filed May 25, 1912. Serial No. 699,769. (Cl. 126—228.)



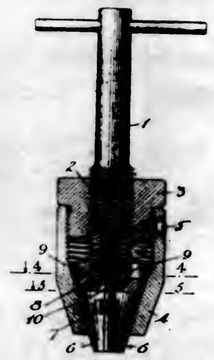
1. A sad-iron heater, comprising a support and means connected with said support for generating heat, and an inclosure carried on top of said support, consisting or a pan having horizontal flanges projecting therefrom intremediate the bottom and the top edges, and having vertical flanges on two sides and the front, and a cover hingedly connected to one of said horizontal flanges and inclosing said vertical flanges.

2. A heater for sad-irons, comprising a box-shaped support, a burner in said support, a tank for supplying oil to said burner, a pan carried on said support and having horizontal flanges projecting therefrom and resting on the four sides of said support and vertical flanges on the front and two sides, and a box-shaped cover hingedly connected to the rear horizontal flange, and inclosing said vertical flanges, and forming a heating drum together with said pan for heating sad-irons.

1,132,550. CHUCK. CHRISTIAN BODMER. New Britain, Conn., assignor to the Stanley Rule & Level Co., New Britain, Conn., a Corporation of Connecticut. Filed Sept. 4, 1914. Serial No. 860,146. (Cl. 29—115.)

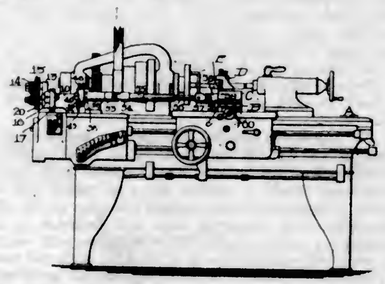
1. In a chuck, a threaded stem, a hollow two-part sleeve, with means for positively connecting the same together, one part of said sleeve having a screw threaded passage to receive said threaded stem, the other part of said sleeve having an internal tapered wall, a plurality of tool-gripping jaws within said sleeve engaging and being guided wholly by said tapered wall and being free to shift around said wall, a jaw presser piece rotatably mounted at the inner end of said stem to be carried to and fro thereby, said presser piece engaging the rear ends of said jaws for operating the same on the movement of said stem.

2. In a chuck, a threaded stem, a hollow two-part sleeve, with means for positively connecting the same together, one part of said sleeve having a screw threaded passage to receive said threaded stem, the other part of said sleeve having an internal tapered wall, a plurality of tool-gripping jaws within said sleeve engaging and being guided wholly by said tapered wall and being free to shift around said wall, a jaw presser piece rotatably mounted at the inner end of said stem to be carried to and fro thereby, said presser piece engaging the rear ends of said jaws for operating the same on the movement of said stem, said presser piece being of larger diameter than the diameter of the threaded part of said stem.



3. In a chuck, a threaded stem, a hollow two-part sleeve, with means for positively connecting the same together, one part of said sleeve having a screw threaded passage to receive said threaded stem, the other part of said sleeve having an internal tapered wall, a plurality of tool-gripping jaws within said sleeve engaging and being guided wholly by said tapered wall and being free to shift around said wall, a jaw presser piece rotatably mounted at the inner end of said stem to be carried to and fro thereby, said presser piece engaging the rear ends of said jaws for operating the same on the movement of said stem, and a row of antifriction balls arranged between said presser piece and the adjacent end of said stem.

1,132,551. MECHANISM FOR RELIEVING THE TEETH OF CUTTERS. CONSTANT BOUILLON, Torrington, Conn., assignor to The Hendey Machine Company, a Corporation of Connecticut. Filed June 26, 1911. Serial No. 635,248. (Cl. 82—19.)



1. In a mechanism for relieving or backing off the teeth of cutters, the combination of a tool carrier, means for moving the same forward and backward, mechanism for reciprocating the tool carrier during its cutting movement, and connections in said mechanism arranged so

that the same will be inoperative to reciprocate the tool carrier when said mechanism is run in a reverse direction.

2. In a device of the class described, the combination of a sliding tool carrier, mechanism for reciprocating the tool carrier during its cutting movement, including a pawl and ratchet, and means arranged to throw the pawl out of operation automatically when the mechanism is run in a reverse direction, thereby preventing reciprocation of said tool carrier.

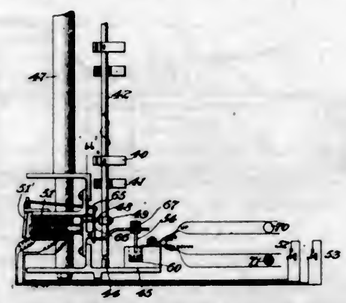
3. In a device of the class described, the combination of a sliding tool carrier, mechanism for reciprocating the tool carrier during its cutting movement, and means for automatically rendering said mechanism at times inoperative, said means including a ratchet wheel and a pawl, a hub on the ratchet wheel, and a strut pivoted to the pawl and mounted to throw the pawl out of operation automatically when the mechanism is run in a reverse direction.

4. In a machine for relieving the teeth of cutters, the combination of a tool carrier, mechanism for reciprocating said carrier toward and from the work, driving means for said mechanism, and a device in said mechanism effective to render the mechanism automatically inoperative when the driving means is run in the reverse direction.

5. In a mechanism for relieving the teeth of cutters, the combination of a sliding tool carrier, means for reciprocating the same during its cutting movement, means for driving said mechanism, including a transmitting device which is continuously rotated in locked engagement during the cutting movement, and means arranged to throw the device out of operation automatically when the driving means is run in the reverse direction for the return of the tool carrier.

[Claims 6 to 12 not printed in the Gazette.]

1,132,552. ELEVATOR SIGNAL SYSTEM. JOHN D. BOWNE, New York, N. Y., assignor, by mesne assignments, to Elevator Supply and Repair Company, a Corporation of Illinois. Filed July 25, 1903. Serial No. 166,952. (Cl. 177—336.)



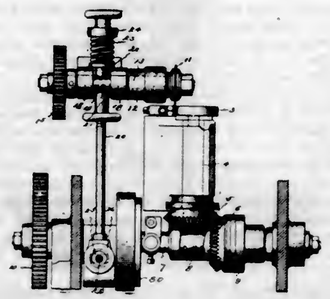
1. In a signaling apparatus for elevators in combination, a shaft and car, an electrically-operated visual signal for the operator, a switch in the circuit to said signal, a detent for holding said switch in open position, a magnet and switch for releasing said detent, and restoring mechanism comprising a movable restoring device moved correspondingly with but much slower than said car and an intermediate normally stationary but slightly movable portion adapted to be engaged and moved by said restoring device, when moving in one direction, to mechanically move said switch to open position where it will be engaged by said detent, and in the other direction, when said restoring device moves in the opposite direction, without moving said switch.

2. In a signaling apparatus for elevators in combination, a shaft and car, an electrically-operated visual signal at each floor, a switch corresponding to each floor in the circuit of the corresponding signal, a detent corresponding to each floor for holding its respective switch in open position, a magnet and switch corresponding to each floor for releasing the corresponding detent, and restoring mechanism comprising a movable restoring device moved correspondingly with but much slower than said car and an intermediate normally stationary but slightly movable portion corresponding to each floor adapted to be engaged and moved by said restoring device, when moving in one direction, to mechanically move its switch to open position where it will be engaged by its detent, and in the other direction, when said restoring device moves in the opposite direction, without moving said switch.

3. In a signaling apparatus for elevators in combination, a shaft and car, a signal, a movable signal-controlling part and a detent for holding said part in position to render the signal undisplayed, a magnet and switch for releasing said detent and thereby releasing said signal-controlling part and causing the signal to be displayed, and restoring mechanism comprising a movable restoring device moved correspondingly with but much slower than said car and an intermediate normally stationary but slightly movable portion adapted to be engaged and moved by said restoring device, when moving in one direction, to mechanically move said signal-controlling part to its detent-engaged position, said signal being canceled by such movement.

4. In an elevator signal system, the combination with a floor-signal-controller, of means for operating said floor-signal-controller, a movable controlling member located in a given position with respect to the elevator shaft and controlled in its movements by the travel of the elevator, a resetting intermediary in the path of and governed by said controlling member and operative for resetting said floor-signal-controller, and means between said controlling member and the resetting intermediary for preventing the operation of the latter on the return movement of the former.

1,132,553. SCREW-SLOTTING MACHINE. CHARLES T. BRENNAN, Waterbury, Conn, assignor to The E. J. Manville Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 20, 1914. Serial No. 846,263. (Cl. 10—6.)



1. In a screw slotting machine the combination with a blank holder, of a movable head, a slotting saw carried by said head toward and from the blank holder, means for rotating the saw, mechanism for moving the head, and a yielding connection between said head moving mechanism and the head, whereby the movement of the saw toward the blank holder is cushioned.

2. In a screw slotting machine the combination with a blank holder, of an oscillatory head, a slotting saw carried by said head toward and from the blank holder, means for rotating the saw, mechanism for oscillating the head, and a yielding connection between said head oscillating mechanism and the head, whereby the swing of the saw toward the blank holder is cushioned.

3. The combination in a screw slotting machine of a

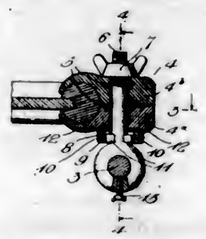
blank holder, a swinging head, a slotting saw carried by said head toward and from the blank holder, means for rotating the saw, and mechanism for oscillating the head, said mechanism positively moving the head and the saw away from the blank holder and yieldingly moving the head and the saw toward the blank holder.

4. In a screw slotting machine the combination of a blank holder, a saw, an arbor carrying the saw, means for rotating the arbor, a head supporting the arbor, and mechanism for oscillating the head, said mechanism being arranged to swing the head positively in one direction and yieldingly in the other direction.

5. The combination in a screw slotting machine of a blank holder, a saw, an arbor carrying said saw, a gear for rotating the arbor, a swinging head supporting the saw, arbor and gear, a cam for oscillating the head, a connecting rod between the cam and the head, and means on the connecting rod for positively swinging the head in one direction and yieldingly swinging the head in the opposite direction.

[Claims 6 to 8 not printed in the Gazette.]

1,132,554. DEVICE FOR DIMMING THE HEADLIGHTS OF AUTOMOBILES. ALBERT H. BRETT, Mason City, Iowa. Filed Apr. 16, 1914. Serial No. 832,282. (Cl. 248—3.)



1. In a device of the class described, a clamping member formed in sections, an eye bolt passing therethrough, means engaged with said bolt to secure the sections of said clamping member together, one face of said clamping member being provided with ratchet teeth, and means carried on said eye bolt for engagement with the teeth on the one section of the clamping member, whereby to retain the eye of said eye bolt in various adjusted positions with respect to the clamping member.

2. In a device of the class described, a clamping member formed in sections, an eye bolt passing therethrough, means engaged with said bolt to secure said sections together, one face of one of the sections of said clamping member being provided with ratchet teeth, a collar carried on the eye bolt adjacent the eye thereon said collar being also provided with ratchet teeth for engagement with the ratchet teeth on the one section of the clamping member, whereby to secure the eye of said eye bolt in various adjusted positions with respect to said clamping member.

3. In a device of the class described, a clamping member formed in sections, an eye bolt passing therethrough, means engaged with said bolt and a portion of said clamping member to secure the sections of the latter together, one face of one section of the clamping member being provided with ratchet teeth, a collar loosely applied to said eye bolt between the last mentioned face of the clamping member and the eye of said bolt, one face of said collar being also provided with ratchet teeth for engagement with the teeth on the clamping member, and additional means in connection with the eye bolt and said collar for retaining the eye on said bolt in various adjusted positions with respect to the clamping member.

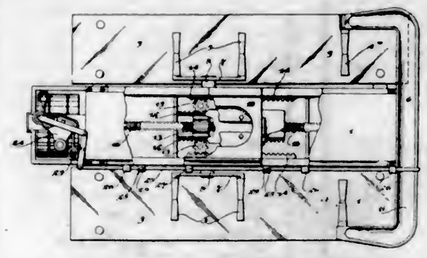
4. In a device of the class described, a clamping member formed in sections, an eye bolt passing through portions thereof, means engaged with said bolt and a portion of said clamping member to secure the sections of the latter together, one face of the one section of the clamping member being provided with ratchet teeth, a collar loosely applied to said eye bolt between the last mentioned face of said clamping member and the eye of said bolt, the inner periphery of said collar being provided with offsets at diametrically opposite points thereon, lugs carried on said eye bolt received in the offsets of said collar to secure the latter on the bolt, the one face of said collar being also provided with ratchet teeth for engagement with the ratchet teeth of the clamping member whereby to retain the eye of said bolt in various adjusted positions with respect to said clamping member.

1,132,555. COLLAR WITH TIE-SLIDE. WILLIAM A. BROWN, Evansville, Ind. Filed June 1, 1914. Serial No. 842,151. (Cl. 2—71.)



The herein described collar including a body portion having a button-hole therein, a turn down flap, and a tie slide flap extending continuously throughout the greater portion of the length of the turn down flap so as to extend around the back and sides of the collar when in use, said tie flap being of a uniform width throughout its length and being adapted to be folded upwardly between the body and turn down flap so as to extend above the button-hole of the body and provide a substantially continuous support for the lower edge of the tie as well as keep the tie out of engagement with the collar-button entering the button-hole of the body.

1,132,556. CANDY-PULLING MACHINE. MAXIMILIAN E. BUHSE, WALTER W. BUHSE, ALEXANDER F. BUHSE, and HENRY L. BUHSE, Minneapolis, Minn. Filed Feb. 16, 1911. Serial No. 608,953. (Cl. 107—30.)



1. In a candy pulling machine, the combination with a local pulling pin, of a carriage mounted to move toward and from said local pulling pin, adjustable means for imparting variable traveling movements to the said carriage, a crank mounted on said carriage and provided with oppositely disposed pulling pins, and means for rotating said crank when said carriage is moved toward said pulling pin, which crank operating means is inoperative when the said carriage is moved away from said local pulling pin.

2. In a candy pulling machine, the combination with a local pulling pin, a carriage and means for moving said carriage toward and from said local pin, of a crank mounted on said carriage and provided with diametrically offset pullings pins, and means for rotating said crank to wind up the candy on the pins thereof, when the said carriage is moved toward said local pin, the said means comprising a pawl and ratchet device, whereby the said cranks are not rotated when the said carriage is moved away from said local pulling pin.

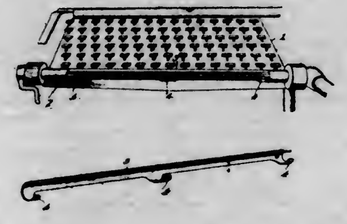
3. In a candy pulling machine, the combintion with a local pulling pin, a carriage and means for moving said carriage toward and from said local pin, of a shaft mounted on said carriage and provided with a crank head having diametrically offset pulling pins, a gear loosely mounted on said shaft, a relatively fixed rack engaging said gear, and a pawl and ratchet connection between said gear and shaft arranged to cause said cranks to rotate only when the said carriage is moved toward said local pin.

4. In a candy pulling machine, the combination with a frame body and a pair of local pulling pins supported from the opposite sides thereof, of a carriage mounted to travel on said frame toward and from said local pins, means for reciprocating said carriage, a shaft mounted on said carriage, crank heads on each end of said shaft each having a pair of diametrically offset pulling pins; means actuated by the traveling movement of said carriage, for rotating the said shaft when said carriage is moved toward said local pins, the said means comprising a gear loose on said shaft, a rack secured to said frame and engaging said gear, and a pawl and ratchet connection between said gear and shaft.

5. In a candy pulling machine, the combination with a local pulling pin, of a carriage mounted to travel toward and from said pin, means for imparting traveling movement to said carriage, a crank mounted on said carriage and having oppositely disposed pulling pins, and means for operating said crank, operative thereon only when said carriage is moved toward said local pulling pin.

[Claims 6 to 11 not printed in the Gazette.]

1,132,557. ATTACHMENT FOR LINOTYPE-MACHINES. CHRISTOPHER B. CALLAN, Austin, Tex. Filed Apr. 7 1914. Serial No. 830,195. (Cl. 33—174.)



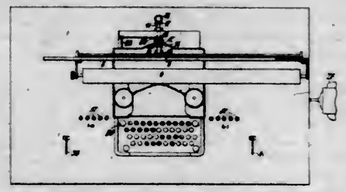
A gage for linotype machines, comprising a graduated strip curved transversely and provided with a stop at one end, and integral spring fingers for embracing a cylindrical member of a linotype machine for attaching the same thereto.

1,132,558. TYPE-WRITING MACHINE. SAMUEL E. CARLIN, Chicago, Ill., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Original application filed June 26, 1909, Serial No. 504,595. Divided and this application filed Feb. 24, 1913. Serial No. 750,065. (Cl. 197—176.)

1. The combination with a carriage, of a source of power, and a driving train between said source of power and said carriage, said driving train having a series of different points of connection corresponding to different degrees of travel of said carriage.

2. The combination with a carriage, of a source of power, and a driving train for connecting said source of power to said carriage to enable the traversing of said carriage by said source of power, said train being normally inactive and having means for rendering it active at a plurality of points, said means varying in its effect at each of said points in a graded manner corresponding to different extents of movement of said carriage.

3. The combination with a carriage, of a motor for traversing said carriage, and a driving train for connecting said motor to said carriage, said train being normally inactive and having means for rendering it active at five points corresponding to one, two, three, four and five letter-space movements of said carriage.

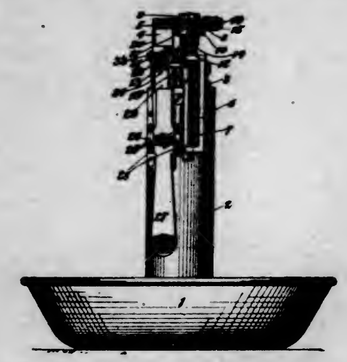


4. The combination with a carriage, of a motor for traversing said carriage, and a driving train connecting said motor with said carriage, said train being normally inactive and having means for rendering it active at a plurality of points, one of which points corresponds to a single letter-space movement of said carriage, and the other points corresponding successively to increasing numbers of letter-space movements of said carriage, increasing by an increment of one letter-space.

5. The combination with a carriage, of a motor for traversing said carriage, and a driving train connecting said motor to said carriage, said train being normally inactive and including a drive shaft, a series of mutilated gaers loosely mounted on said drive shaft and means for individually connecting said mutilated gears to said drive shaft to render said train active, said mutilated gears having varying numbers of teeth corresponding to different movements of said carriage.

[Claims 6 to 80 not printed in the Gazette.]

1,132,559. LIGHTER. JOHN O. CARREY, St. Louis, Mo. Filed Nov. 25, 1914. Serial No. 873,869. (Cl. 67—4.1.)



1. A lighter, comprising a rock shaft, a spark producing mechanism controlled by said rock shaft, a wick, a flame extinguishing hood movable adjacent to said wick, a resilient member having one end in releasable latched engagement with said hood and becoming released from said latched engagement by the bending movement of said resilient member, a lever for bending said member and releasing said latched engagement between said member and said hood, means whereby said resilient member will rock said shaft to actuate said spark producing mechanism when said latched engagement is released, and means for restoring said resilient member into latched engagement with said hood.

2. A lighter comprising a wick, a flame extinguishing hood movable to and from said wick, a resilient member, a support on which said resilient member is mounted, a

releasable connection between said member and said hood whereby said member is retained in latched engagement with said hood when the opposite end of said member is moved, a lever operable to bend said member during the initial movement thereof and to release said connection between said member and said hood during the final movement thereof in one direction, a spark producing mechanism adjacent to said wick, and means for actuating said spark producing mechanism by the movement of said resilient member after release of said releasable connection with said hood.

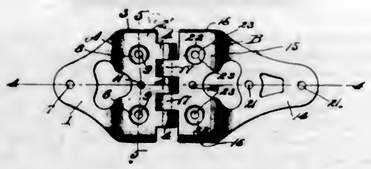
3. In a lighter, the combination with a shaft, a spark producing mechanism controlled by said shaft, a wick supported in position to be ignited by said spark producing mechanism, a flame extinguishing hood movable to and from said wick, a support, a handle pivotally carried by said support, a resilient plate between said support and said handle, a connection between the lower end of said plate and said handle, a connection between the upper end of said plate and said hood effective to hold the upper end of said plate during the initial movement of said handle and to release said plate during the final movement of said handle, means whereby said plate will actuate said hood away from said wick when said plate is released as aforesaid, and means whereby said plate will actuate said spark producing mechanism, substantially as described.

4. In a lighter, a wick, a pivotally supported plate, a spark producing mechanism, a shaft for actuating said spark producing mechanism, a resilient element having releasable latch connection with said plate, a handle for operating said resilient element to release said latch connection, means whereby said resilient element will operate said shaft, and means for restoring said element into latched engagement with said plate, substantially as described.

5. In a lighter, the combination with a wick, a spark producing mechanism operable to ignite said wick, and a flame extinguishing hood movable to and from said wick, of a rod supported below said mechanism and said hood, a resilient lever bearing against said rod and releasably engaging said hood, an element engaging said rod and operable to actuate the lower end of said lever effectively to bend said lever and to tension said lever during the initial movement of said element and to release said lever from said hood during the final movement of said element, means holding said element in engagement with the lower end of said lever, a projection on said hood extending into the path of movement of said lever whereby said lever will actuate said hood away from said wick when said lever is released as aforesaid, means whereby said lever will actuate said spark producing mechanism, and a spring actuating said lever to restore said hood to its normal position adjacent to said wick.

[Claims 6 and 7 not printed in the Gazette.]

1,132,560. HINGE. LEWIS W. CHRISTOPHEL, University City, Mo. Filed July 27, 1914. Serial No. 853,265. (Cl. 16—106.)



1. A hinge, comprising leaves having flat portions arranged to bear against the surface to which the hinge is secured and raised portions provided with holes for fastening devices, knuckles below the outer surface of said raised portions, a pin within said knuckles pivoting said leaves together, struts rigid with the inner sides of said raised portions and arranged to bear against the surface to which the hinge is secured, and members secured within said raised portions and having portions bearing against the surface to which the hinge is secured with holes in said bearing portions registering with the holes in said raised portions of the hinge to receive the fastening devices, substantially as described.

2. A hinge, comprising leaves having raised portions, knuckles formed on said raised portions, a pin passing through said knuckles and pivoting the leaves together, struts formed between said knuckles and arranged to bear against the surface to which the hinge is secured to support said raised portions, and a supporting member secured within the raised portion of each leaf for distributing the stress upon the fastening devices.

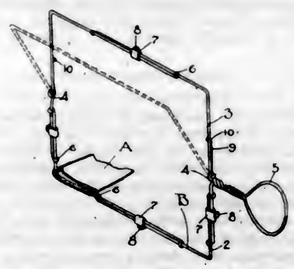
3. A hinge, comprising leaves having raised portions, knuckles formed on said raised portions, a pin mounted in said knuckles and pivoting said leaves together, struts formed between said knuckles and arranged to bear against the surface to which the hinge is secured, and a stress-distributing element secured in the raised portion of each leaf and bearing against said struts to distribute the stresses upon the fastening devices of the hinge.

4. A hinge, comprising leaves having raised portions, knuckles formed on said raised portions, a pivot pin in said knuckles, struts between said knuckles arranged to bear against the surface to which the hinge is secured, flanges at the side edges of said leaves, members secured to said raised portion between said flanges and bearing against said struts, and means preventing displacement of said members, substantially as described.

5. A hinge, comprising leaves having flat portions arranged to bear against the surface to which the hinge is secured and raised portions, said flat portions and said raised portions having holes for the fastening devices, knuckles on said raised portions below the outer surface thereof, a pin within said knuckles pivoting said leaves together, flanges forming rounded walls at the side edges of said raised portions, a member secured within the raised portion of each leaf having bearing portions to bear against the surface to which the hinge is secured and having holes in said bearing portions registering with the holes in said raised portions for receiving the fastening devices, and struts formed on said raised portions between said members, and the pivoted edges of said leaves and arranged to bear against the surface to which the hinge is secured, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,132,561. ASH-PAN HOLDER. CARRIE G. COLWELL and JOHN H. COLWELL, St. Paul, Minn. Filed Feb. 24, 1913. Serial No. 750,195. (Cl. 126—242.)



1. A device of the class described, comprising a flexible receptacle, and a supporting frame secured in the mouth thereof, said frame comprising a pair of pivotally-connected members each of which is formed of adjustable sections, whereby to adjust the size of the frame, one of said members being adapted to fold by gravity upon the other members and thereby close the mouth of the receptacle, and means carried by the other member to limit the gravity-actuated member when the latter is moved to open position.

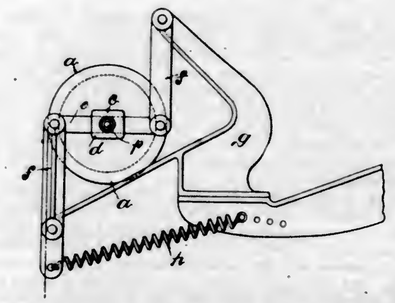
2. A device of the class described, comprising a flexible receiving bag, and a supporting frame secured in the mouth of said bag, said frame being formed of two members the sides of which are pivotally connected at their contiguous portions, said members serving in their open position to distend the mouth of the bag, one of said members being adapted to fold by gravity upon the other, and thereby close the mouth of the bag, and means for limiting the movement of the gravity-actuated member when the latter is swung to position for opening the mouth of the bag.

3. A device of the class described, comprising a flexible receiving bag, and a supporting frame secured in the mouth thereof, said frame comprising two members the contiguous portions of which are pivotally connected, one of said members being capable of folding by gravity upon the other member for closing the mouth of the bag, and limiting stops carried by the latter member and against which the gravity-actuated member is adapted to contact when moved to open position.

4. A device of the class described, comprising a flexible receptacle, and a support secured within the mouth thereof for distending the same, said support comprising a pair of pivotally-connected members one of which is foldable upon the other to close the mouth of the receptacle, and extensions formed on the other member against which the folding member is adapted to contact and thereby limit the movement of said member when the same is swung to open the mouth of the receptacle.

5. A device of the class described, comprising a flexible receptacle, and a support secured to the mouth thereof, said support comprising upper and lower members the sides of which are pivotally connected, the upper members being adapted to fold upon the lower member to close the mouth of the receptacle, a handle extending laterally of the support, and extensions carried by the lower member and arranged in the path of movement of the upper member for contact by the latter when the upper member is swung to position for opening the mouth of the receptacle.

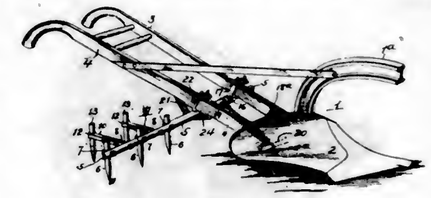
1,132,562. APPARATUS FOR GUIDING FABRICS INTO STENTERING-MACHINES. THOMAS COOK, Staleybridge, and GEORGE DURRANT, Manchester, England. Filed June 8, 1914. Serial No. 843,775. (Cl. 26—18.)



1. The combination, with a stationary support, of two links having their opposite ends pivoted to the support and normally arranged parallel to each other, a bar having its ends pivoted to the adjacent ends of the said links, a spindle mounted on the middle portion of the bar, a roller journaled on the said spindle, and means for moving the roller in a straight line in one direction.

2. The combination, with a stationary support, of two links having their opposite ends pivoted to the support and normally arranged parallel to each other, a bar having its ends pivoted to the adjacent ends of the said links, a socket secured on the said bar, a spindle pivotally connected to the socket and provided with means for securing it to the socket after its angular position has been adjusted, a roller journaled on the said spindle, and means for moving the roller in a straight line in one direction.

1,132,563. HARROW ATTACHMENT FOR PLOWS. HARLEY W. CORATHERS, Van Wert, Ohio. Filed Jan. 27, 1914. Serial No. 814,676. (Cl. 97—44.)



1. The combination with a bar constituting a harrow frame, and harrow teeth secured to said bar, of a swiveling coupling having its respective members adapted for adjustable connection with said bar and with a handle of the plow, and a spring attached at one end to said swiveled bar and adapted for attachment at its lower end to a part of the plow body.

2. The combination with a plow and a clip adjustably secured to the landside handle of the plow, of a harrow comprising a bar, a collar secured to said bar, and a swivel connection between said collar and clip.

3. The combination with a plow and a harrow, of a swiveling coupling having its respective members adapted for adjustable connection with a handle of the plow and with said harrow, and a spring connected with the harrow near said swiveling coupling and adapted to be connected with the plow at a point below the attachment of the harrow with the plow handle.

4. The combination with a bar constituting a harrow frame, and harrow teeth carried by said bar, of a swiveling coupling adjustably attached to said bar for connecting the same to one handle of a plow, a triangular guide bracket through which said bar passes and in which it has vertical play, and means for securing said guide bracket to the other handle of the plow.

5. The combination with a plow body and plow handles, of a bar, a swiveling coupling having its respective members adjustably connected with one plow handle and with said bar, the latter projecting laterally beyond the other plow handle, a guide bracket secured to the last-mentioned plow handle and through which bracket the bar passes, said bracket having an elongated horizontal base portion, harrow teeth carried by said bar, and a spring attached to one end to said bar and at the other end to a part of the plow body.

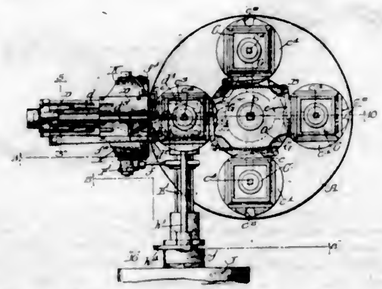
[Claims 6 and 7 not printed in the Gazette.]

1,132,564. BERRY-BASKET MACHINE. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Co., St. Joseph, Mich., a Corporation of Michigan. Filed Dec. 9, 1909. Serial No. 532,199. (Cl. 1—14.)

1. In a machine for making baskets or other articles, a plurality of forms, an axis about which the forms revolve, an individual axis for each form, means connecting all of said axes, a stapler arranged at an angle to said axes, adapted to coöperate with said forms, disposed in such manner that the staples are driven at an angle to the common axis, each form rotatable about its axis to successively present the different sides thereof to said stapler, means for automatically stopping the bodily motion of the forms, to permit each form to rotate in front of said stapler, and means for rotating the forms one at a time.

2. In a machine of the class described, a plurality of forms, means for moving the forms bodily, arranged to maintain the said axes in proper relation to each other, an individual axis for each form, a stapler arranged at an

angle to said axes, adapted to coöperate with said forms, disposed in such manner that the staples are driven at an angle to the direction of travel of said forms at the stapling point, each form rotatable about its axis to successively present the different sides thereof to said stapler, means for automatically stopping the bodily motion of the forms, to permit each form to rotate in front of said stapler, and means for rotating the forms one at a time.



3. In a machine of the class described, a rotary carrier, rotary forms mounted on said carrier, means for locking the carrier against rotation, means for rotating a form while the carrier is locked, a stapler coöperating with the forms, means for automatically stopping the stapler when the form has made a complete rotation, means for automatically stopping the bodily motion of the forms, to permit each form to rotate in front of said stapler, and means for rotating the forms one at a time.

4. The combination of a rotary carrier, rotary forms thereon, means for stapling the materials carried on the forms, means for locking the carrier, means for rotating the forms successively, whenever one is opposite the stapling means, devices for preventing rotation of the forms before they are brought into position before the stapling means, and means for automatically stopping the stapling means, as set forth.

5. In a stapling machine, a series of forms mounted to revolve around a common axis, so that each form may make one or more complete revolutions about said axis, each form having an individual axis about which it rotates, means for rotating the forms one at a time, and stapling mechanism coöperating with said forms successively, the axis of each form being at an angle to the direction of insertion of the staples while coöperating with said mechanism, in combination with means for automatically stopping the bodily motion of said forms, serving also to start the operation of said stapler.

[Claims 6 to 22 not printed in the Gazette.]

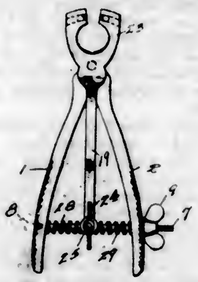
1,132,565. DENTAL INSTRUMENT. THOMAS D. CRAIG, Albia, Iowa. Filed Apr. 30, 1914, Serial No. 835,425. Renewed Dec. 19, 1914. Serial No. 878,185. (Cl. 32—10.)

1. The combination in a dental instrument having pivoted lever arms and spaced angular heads thereon, of movable clutching jaws in said heads, means urging said jaws to move toward each other, and means for moving said jaws in a plane perpendicular to the before mentioned movement.

2. The combination in a dental instrument having pivoted lever arms and spaced angular heads thereon, of movable clutching jaws in said heads, springs in the heads urging said jaws to move toward each other, and means for moving said jaws in a plane perpendicular to the before mentioned movement.

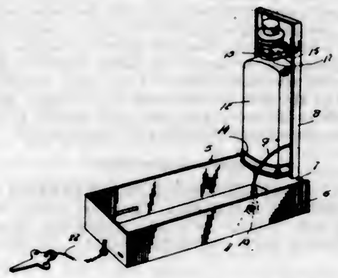
3 The combination in a dental instrument having pivoted levers held apart by springs and spaced angular heads thereon, of movable clutching jaws in said heads, means urging said jaws to move toward each other, and means for moving said jaws in a plane perpendicular to the before mentioned movement.

4. The combination in a dental instrument having pivoted levers held apart by springs and spaced angular heads thereon, of movable clutching jaws in said heads, springs



in the heads urging said jaws to move toward each other, and means for moving said jaws in a plane perpendicular to the before mentioned movement.

1,132,566. LOCK FOR POISON-CONTAINERS. LEON H. DOWNS, Goshen, N. Y. Filed Apr. 29, 1914. Serial No. 835,223. (Cl. 70—14.)



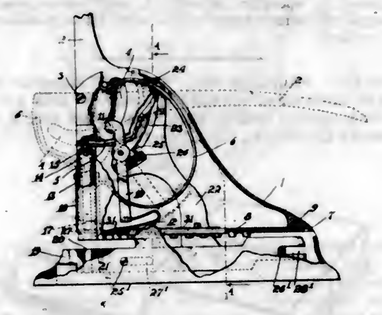
1. A safety poison container comprising a casing, a cover hinged thereto, and means for locking said casing and said cover together, said means comprising a slotted member secured upon said casing, a shoulder on the free end of said member, a spring pressed plate on said cover, a shoulder on said plate adapted to engage said first named shoulder when the cover is closed, and means for releasing the engagement of said shoulders, said means comprising a key adapted to be passed through said slot and engage said plate.

2. A safety poison container comprising a casing, a cover hinged thereto, a spring pressed plate secured on said cover and provided with a shoulder, a slotted member secured on said casing and provided with a shoulder adapted to engage said first named shoulder, a spring secured upon said casing and having its outwardly pressing free end disposed within said slot, and a removable key for pressing said spring into engagement with said plate for disengaging said shoulders.

1,132,567. EYELETING-MACHINE. ARTHUR F. ENGEL, New York, N. Y. Filed July 7, 1911. Serial No. 637,272. (Cl. 218—15.)

1. In an eyeleting machine, in combination, a body portion, eyelet fastening means reciprocatingly mounted therein, a handle pivotally supported by said body portion, said handle being operatively connected to said fastening means to actuate the latter, a guideway adapted to receive the eyelets, and resilient means controlled by the movement of said handle to engage the eyelets within said guideway and feed them to said fastening means.

2. In an eyeleting machine, in combination, a body portion, eyelet fastening means reciprocatingly mounted therein, a handle pivotally supported by said body portion, said handle being provided with a slot, means operatively connected with said fastening means and engaging said slot to actuate the said fastening means when said handle is moved about its pivot, a guideway adapted to receive the eyelets, and resilient means controlled by the movement of said handle to engage the eyelets within said guideway and feed them to said fastening means.



3. In an eyeleting machine, in combination, a body portion, eyelet fastening means reciprocatingly mounted therein, a handle pivotally supported by said body portion, said handle being operatively connected to said fastening means to actuate the latter, a guideway adapted to receive the eyelets, an arm pivotally mounted on said body portion and adapted to be rocked by said handle and a resilient eyelet engaging and feeding member carried by said arm to feed the eyelets along said guideway.

4. In an eyeleting machine, in combination, a body portion, eyelet fastening means reciprocatingly mounted therein, a handle pivotally supported by said body portion, said handle being operatively connected to said fastening means to actuate the latter, a guideway adapted to receive the eyelets, an arm pivotally mounted on said body portion, a pin carried thereby, a recess in said handle adapted to receive said pin and to engage said pin when the handle is in its extreme positions whereby said arm will be rocked upon its pivot and a resilient eyelet engaging and feeding member carried by said arm to feed the eyelets along said guideway.

5. In an eyeleting machine, in combination, eyelet fastening means, actuating means therefor, a guideway adapted to receive the eyelets, said guideway being at right angles to the direction of movement of said fastening means, an arm controlled by the movement of said actuating means, and a resilient eyelet engaging and feeding member carried by said arm to feed the eyelets in said guideway into operative relation with said fastening means.

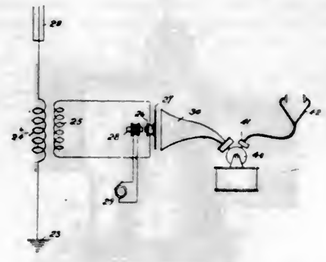
[Claims 6 to 9 not printed in the Gazette.]

1,132,568. ELECTRIC SIGNALING. REGINALD A. FESSENDEN, Brant Rock, Mass., assignor, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Filed Oct. 31, 1907. Serial No. 400,132. (Cl. 250—8.)

1. The method of electric signaling, which comprises sending the signaling waves at high frequency, recording said waves along with the effects of disturbing pulses, and then reproducing the record at a lower speed, whereby the effect of the disturbing impulse is eliminated.

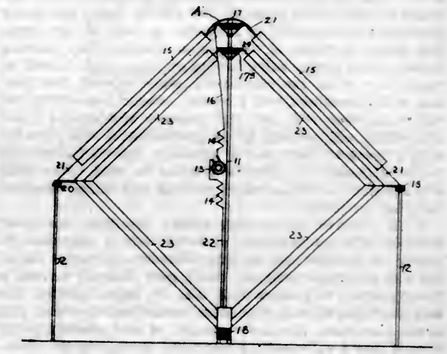
2. The method of wireless signaling, which comprises sending the signaling waves at high frequency, recording said waves and the effects of disturbing impulses at high speed, and then reproducing the record at a speed so low as to eliminate the effect of the disturbing impulse but leaving the signaling waves audible.

3. Apparatus for transmitting and translating intelligence, comprising means for producing signaling waves at high frequency, and means for recording said waves and the effect of disturbing impulses at high speed, said re-



cording means being arranged to reproduce the record at a lower speed in order to eliminate the effect of the disturbing impulse but leaving the signaling waves audible.

1,132,569. WIRELESS TELEGRAPHY. REGINALD A. FESSENDEN, Brant Rock, Mass., assignor, by mesne assignments, to Samuel M. Kintner, of Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J. Filed Feb. 18, 1909. Serial No. 478,593. (Cl. 250—33.)



1. In apparatus for signaling by electro-magnetic waves an antenna having extended upper portion and grounded conductors in proximity to said extended portion arranged in direction so as to increase the capacity of said upper portion, substantially as described.

2. An antenna for wireless signaling comprising an extended radiating or receiving set of conductors and a set of grounded conductors arranged to increase the capacity of said radiating receiving portion, substantially as described.

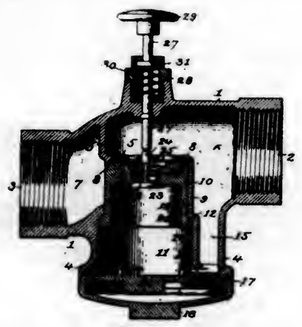
3. An antenna comprising an extended multiple wire upper portion combined with supplementary conductors in close proximity to same and arranged to increase the capacity of the upper portions.

4. An antenna comprising a set of radially arranged conductors of large capacity, and a supplementary set of radially arranged grounded conductors adapted to increase the capacity of the first set, substantially as described.

5. The combination with an antenna of means for increasing its radiation efficiency comprising auxiliary conductors arranged tangentially to the spherical wave form emitted by the antenna.

[Claims 6 to 8 not printed in the Gazette.]

1,132,570. FLUSH-VALVE. ROBERT E. FIVEY, Chicago, Ill. Filed May 29, 1912. Serial No. 700,421. (Cl. 137—93.)

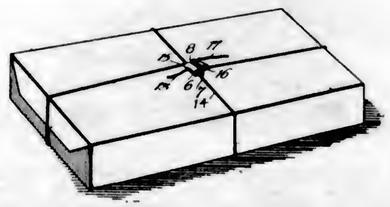


1. In a valve of the type herein described, the combination of a valve casing provided with a partition dividing its interior into an inlet chamber, an outlet chamber and a piston chamber, the piston chamber having a lower portion of greater area than its upper portion, the said partition having a passage connecting the inlet and outlet chambers, the undermargin of said passage being formed into a valve seat, a restricted passage in the aforesaid partition connecting the inlet chamber with the lower end of the piston chamber, a piston valve disposed in said piston chamber and having upper and lower portions corresponding in diameter to that of the upper and lower portions of the piston chamber and moving therein, said piston valve having an upper end formed to engage and close the aforesaid passage between the inlet and outlet chambers, and a central passage connecting the piston chamber with the inlet chamber aforesaid, a valve controlling said passage of the piston valve, and provided with a vertical stem, and a manually operated actuating means disposed in operative relation to said valve stem and adapted in its movement to open said valve, substantially as set forth.

2. In a valve of the type herein described, the combination of a valve casing provided with a partition dividing its interior into an inlet chamber, an outlet chamber and a piston chamber, the piston chamber having a lower portion of greater area than its upper portion, the said partition having a passage connecting the inlet and outlet chambers, the under margin of said passage being formed into a valve seat, a restricted passage in the aforesaid partition connecting the inlet chamber with the lower end of the piston chamber, a piston valve disposed in said piston chamber and having upper and lower portions corresponding in diameter to that of the upper and lower portions of the piston chamber and moving therein, the said piston valve having an upper end formed to engage and close the aforesaid passage between the inlet and outlet chambers, and a central passage connecting the piston chamber with the inlet chamber aforesaid, the piston chamber and piston valve being formed with a valve seat and face at the juncture of their greater and lesser diameters, a valve controlling said passage of the piston valve and provided with a vertical stem, and a manually operated actuating means disposed in operative relation to said valve stem and adapted in its movement to open said valve, substantially as set forth.

3. In a valve of the type herein described, the combination of a valve casing provided with a partition dividing its interior into an inlet chamber, an outlet chamber and a piston chamber, the piston chamber having a lower portion of greater area than its upper portion, the said partition having a passage connecting the inlet and outlet chambers, the under margin of said passage being formed into a valve seat, a restricted passage in the aforesaid partition connecting the inlet chamber with the lower end of the piston chamber, means for regulating the opening of said restricted passage, a piston valve disposed in said piston chamber and having upper and lower portions corresponding in diameter to that of the upper and lower portions of the piston chamber and moving therein, said piston valve having an upper end formed to engage and close the aforesaid passage between the inlet and outlet chambers, and a central passage connecting the piston chamber with the inlet chamber aforesaid, a valve controlling said passage of the piston valve and provided with a vertical stem, and a manually operated actuating means disposed in operative relation to said valve stem and adapted in its movement to open said valve, substantially as set forth.

1,132,571. PACKAGE-TIE. EDWARD F. FORSGARD, Waco, Tex., assignor of one-third to James W. Bass and one-third to Fritz Braatz, Waco, Tex. Filed Dec. 1, 1913. Serial No. 803,942. (Cl. 24—18.)



1. A package tie comprising a flat body portion having its opposite ends bent over the body portion in spaced relation thereto and to each other, the meeting portions of the ends with the body provided with oppositely disposed substantially wedge-shaped recesses terminating in gripping jaws, said recesses extending from opposite ends of the tie toward the center thereof, the edges of the recesses converging inwardly toward the center of the tie, the recesses being tapered from the gripping jaws to the surface of the tie.

2. A package tie comprising a plate having flanges spaced therefrom, said tie provided at the meeting points of the plate and flanges with recesses, said recesses having their edges longitudinally converging and transversely converging, and a binding element, means for engaging said binding element at the inner end of one of the recesses, said binding element adapted to be passed around a package, and means at the inner end of the opposite recess for engaging the binding element.

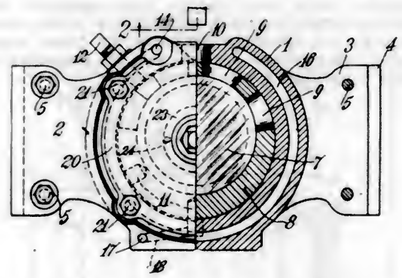
3. A package tie providing a plate having flanges spaced therefrom, and provided with oppositely disposed recesses, the edges of each recess converging longitudinally and transversely, the tie being cut away at the inner end of each recess to form a substantially sharp gripping jaw directed toward said recess.

4. A package tie provided with recesses, said tie being beveled from its outer surfaces adjacent the recesses toward said recesses at the inner ends thereof to form gripping elements directed toward the recesses.

1,132,572. ADJUSTABLE BEARING-BOX. HERBERT J. FRINK, Holyoke, Mass. Filed July 16, 1914. Serial No. 851,285. (Cl. 92—70.)

1. The combination with a paper calendering machine involving a suitable frame formed with vertically disposed ways thereon and a series of calendar rolls, of journal boxes slidably mounted on said ways, bushings within said boxes, said bushings being formed with eccentrically disposed holes adapted to support said rolls, means to turn said bushings in said boxes whereby said rolls are shiftable in a horizontal direction, and means to lock said bushing against rotation.

2. A journal box for a paper calendering machine, comprising, in combination, a suitable body portion formed with integral flanges thereon, other flanges removably secured to said body, a bushing within said body formed with an eccentrically disposed hole adapted to receive the shaft of a calender roll, means to rotate said bushing within said body, and means to lock said bushing against rotation.



3. A journal box for a paper calendering machine, comprising, in combination, with a suitably formed body, a bushing therein formed with an eccentrically disposed hole adapted to receive the shaft of a calender roll, said bushing provided with an enlarged portion extending beyond said body, means in said enlarged portion to rotate said bushing relative to said body, said bushing being formed with a circumferential groove, set screws in said body adapted to engage in said groove and clamp said bushing to said body and a cap removably secured to said body and adapted to cover said enlarged portion of said bushing.

4. A journal box for a calendering machine, comprising, a suitably formed body portion, a bushing rotatably mounted therein, said bushing being provided with an eccentrically disposed hole adapted to receive the shaft of a calender roll; a flanged portion on said bushing extending outwardly from said body, means in said flanged portion to turn said bushing, means in said body to lock said bushing against rotation, a cap removably secured to said body and adapted to inclose said flanged portion, a plate in said cap adapted to bear against the end face of said roll, and means to move said plate axially with respect to said roll.

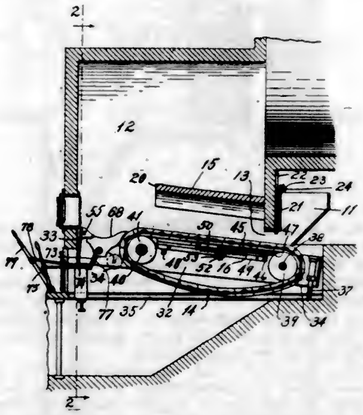
5. A journal box for a calendering machine, comprising in combination, a body, an oil hole in said body, a bushing formed with an eccentrically disposed hole adapted to receive the shaft of a calender roll, a series of slotted holes in the periphery of said bushing arranged in line with said hole in said body and adapted to convey oil to said shaft, means to turn said bushing in said body, said slotted holes being arranged so that one at least is always in communication with said hole in said body, and means to lock said bushing against rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,132,573. FURNACE. GEORGE FURUHOLMEN, Minneapolis, Minn. Filed Jan. 9, 1913. Serial No. 740,968. (Cl. 110—43.)

1. A furnace comprising a fire box and a grate therein continuously moving from the rear to a point near the front of the fire box, means for continuously delivering fuel upon the rear end of said moving grate, means above the grate for causing the gases liberated from the fuel to be delivered into the combustion chamber near the forward end of the grate, means below the grate for limiting the delivery of air through the grate to a point approximately below the point of delivery of said gases, and a normally stationary grate at the front of and within the fire box positioned to receive and hold material from the moving grate for further combustion at a point which is close to the hottest portions of said combustion chamber.

2. A furnace comprising a fire box and a grate therein continuously moving from the rear to a point near the front of the fire box, means for continuously delivering fuel upon the rear end of said moving grate, a baffle arch above said moving grate extending forwardly so that the gases released from the fuel on the grate will be delivered into the combustion chamber at a point approximately above the forward end of the moving grate, a draft plate below the moving grate for limiting air draft through the front portion only of the same to produce the hottest combustion area in the fire box at the front of the moving grate and below the end of said baffle arch, and a normally stationary grate at the front of and within the fire box positioned to receive and hold material from the moving grate for further combustion at a point which is close to the hottest portions of said combustion chamber.



3. A furnace comprising a fire-box, a solid roller outside of the rear of said fire-box, a sectional open roller within and near the front of said fire-box, an endless grate continuously moving on said rollers from the rear to the front of the fire-box and comprised of a series of supporting bars each formed with a multiplicity of draft openings, an imperforate plate extending from the solid roller to a point near the open roller below the moving grate, a baffle arch extending from the rear of the fire-box to a point forward of the imperforate plate and to the rear of the open roller, and means to supply fuel to the moving grate.

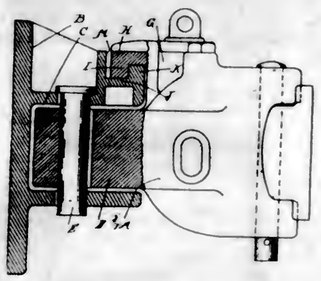
4. A furnace comprising a fire box and a grate therein continuously moving from the rear to a point near the front of the fire box, means for supplying fuel to the moving grate, a normally stationary grate at the front of and within the fire box positioned to receive and hold the material from the moving grate for further combustion at a point which is within the hottest combustion portion of the fire box, said stationary grate being of considerable area and being located below the delivery portion of the moving grate, and means forming a portion of said stationary grate, for engaging and forwarding material thereon to the extreme front portion of the fire box.

5. A furnace comprising a fire-box, a solid roller outside of the rear of said fire-box, a sectional open roller within and near the front of said fire-box, an endless grate continuously moving on said rollers from the rear to the front of the fire-box and comprised of a series of supporting bars each formed with a multiplicity of draft openings, an imperforate plate extending from the solid roller to a point near the open roller below the moving grate, a baffle arch extending from the rear of the fire-box to a point forward of the fixed plate and to the rear of the open roller, means to supply fuel to the moving grate, and a normally stationary grate at the front of and within the fire-box having a portion thereof extended rear-

wardly so as to provide an upwardly-curved surface for receiving material from the moving grate where the same passes about the open roller.

[Claims 6 to 10 not printed in the Gazette.]

1,132,574. LOCOMOTIVE CAR-COUPLING. MASON B. GIBERSON, Detroit, Mich., assignor to Monarch Steel Castings Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 30, 1914. Serial No. 828,381. (Cl. 213—42.)



1. In a car coupler, the combination with the coupler head and shank, of a pocket fitting for receiving said shank providing for lateral angular movement thereof, a pivot-pin for attaching said shank to said fitting, and interlocking means between said pocket fitting and coupler at the upper outer edge of the former, coöperating with the bearing of said shank in said pocket fitting to hold the coupler from drooping.

2. In a car coupler, the combination with the coupler head and shank, of a pocket fitting for receiving the shank providing for the lateral angular movement thereof, a pivot pin for attaching said shank to said fitting, and inter-engaging segmental hooks on said coupler and fitting located at the upper outer edge of the latter and in coöperation with the bearing for the shank within said fitting, holding said coupler from drooping.

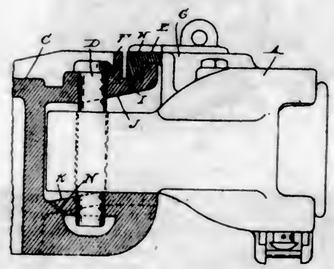
3. In a car coupler, the combination with the coupler head and shank, of a pocket fitting for receiving said shank providing clearance for the lateral angular movement thereof, a pivot pin for connecting said shank to said pocket fitting, and inter-engageable segmental hooks on said coupler head and pocket fitting arranged concentric to the axis of said pin, one of said hooks being cut away to form an entrance slot when the coupler is in extreme angular position.

4. In a car coupler, the combination with the coupler head and shank, of a pocket fitting for receiving said shank providing clearance for the lateral angular movement thereof, a pin for connecting said shank to said pocket fitting, coöperating lugs of segmental form on said fitting and coupler head, one of said lugs being cut away to form an entrance slot when the coupler is in extreme angular position, and detachable means for preventing the disengagement of said lugs.

1,132,575. LOCOMOTIVE CAR-COUPLING. MASON B. GIBERSON, Detroit, Mich., assignor to Monarch Steel Castings Company, Detroit, Mich., a Corporation of Michigan. Filed June 11, 1914. Serial No. 844,443. (Cl. 213—42.)

1. In a car coupler, the combination with a fitting provided with a flaring pocket, of a coupler head having a shank for engaging said pocket, inter-engaging segmental hooked bearings formed integral respectively with said coupler head and fitting and engageable and disengageable by an angular arrangement of the shank in the flaring pocket, and a pivot pin for connecting said shank and fitting, forming a lock for preventing disengagement of said segmental bearings.

2. In a car coupler, the combination with a fitting having a flaring pocket, of a coupler head provided with a shank engageable with said pocket and angularly movable therein in a horizontal plane and also in a vertical plane, inter-engaging segmental hooked bearings integral respectively with said fitting and coupler head and providing for the relative angular movement thereof in a horizontal plane, said bearings being engageable with each other when the shank is tilted in a vertical plane, and a pin for connecting said shank and fitting concentric to said segmental bearings, said pin preventing the tilting of said shank in a vertical plane.
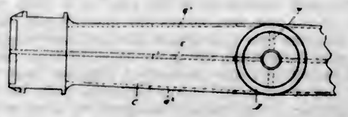


3. In a car coupler, a fitting provided with a flaring pocket, a coupler head having a shank for engaging said pocket and angularly movable therein in a horizontal plane, being also capable of tilting in a vertical plane, inter-engaging segmental hooked bearings integral respectively with said coupler head and fitting and adapted to clear each other when said shank is tilted in a vertical plane, and a pin for connecting said shank and fitting at a point concentric to said segmental bearings, said pin preventing the vertical tilting of said shank to retain said segmental bearings from disengagement, but being provided with sufficient clearance to be relieved from draft stress by said inter-engaging bearings.

4. In a car coupler, the combination with the coupler head provided with a draft shank, of a fitting having a pocket for the reception of said shank, said pocket being under-cut to permit the vertical tilting of said shank in entering, and a drain aperture for the under-cut portion of said pocket.

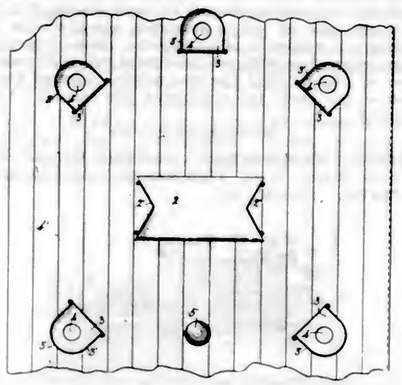
5. In a car coupler, the combination with the coupler head provided with a draft shank, of a fitting having a pocket for the reception of said shank, said pocket being undercut to permit the vertical tilting of said shank in entering, inter-engaging portions on said shank and fitting, and a pivot-pin for connecting said shank and fitting forming a lock for preventing disengagement of said inter-engaging portions.

1,132,576. BOLSTER. MASON B. GIBERSON, Detroit, Mich., assignor to Monarch Steel Castings Company, Detroit, Mich., a Corporation of Michigan. Filed July 11, 1914. Serial No. 850,450. (Cl. 105—104.)



A bolster for railway trucks tapering in a vertical plane from center to opposite ends and comprising continuous top and bottom webs, and parallel side and center webs integrally connected with said top and bottom webs and substantially continuous therewith in cross section.

1,132,577. GAME APPARATUS. JOSEPH E. GRENIER, Waterville, Conn. Filed Dec. 5, 1913. Serial No. 804,951. Renewed Oct. 15, 1914. Serial No. 866,884. (Cl. 46—61.)



1. A game apparatus comprising a bed; a central gateway thereon; a baffling-goal also thereon, and arranged relatively to said gateway; and an object adapted to be rolled along said bed, said baffling-goal adapted to receive, and either return or casually impound said object.

2. A game apparatus comprising a bed; a central gateway thereon; a plurality of baffling-goals also thereon and arranged more or less concentrically to said gateway; and an object adapted to be rolled along said bed, said baffling-goals being each adapted to receive, and either return or casually impound said object.

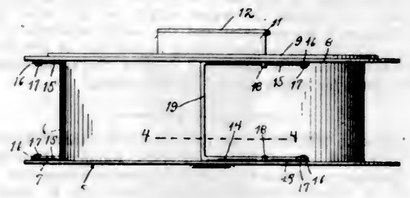
3. A game apparatus comprising a bed; a base centrally thereon, affording opposite flanges, and constituting a gateway; an additional base, positioned on said bed relatively to said gateway, and affording a flange whereby an opening compartment is formed, and constituting a baffling-goal; and an object adapted to be rolled along said bed, said baffling-goal adapted to receive and return said object.

4. A game apparatus comprising a bed; a base thereon affording an upstanding flange, and constituting a gateway; a baffling-goal positioned thereon relatively to said gateway; and an object adapted to be rolled along said bed, said baffling-goal adapted to receive and either return or casually impound said object, and the upstanding flange aforenamed, being in registry lengthwise with said goal.

5. A game apparatus comprising a bed; a base thereon affording opposite, upstanding flanges and constituting a gateway; a plurality of baffling-goals, positioned on said bed more or less concentrically to said gateway, and an object adapted to be rolled along said bed, each of the upstanding flanges aforenamed being in registry with a pair of said baffling-goals situated diagonally opposite said gateway, and each of said goals being adapted to receive and either return or casually impound said object.

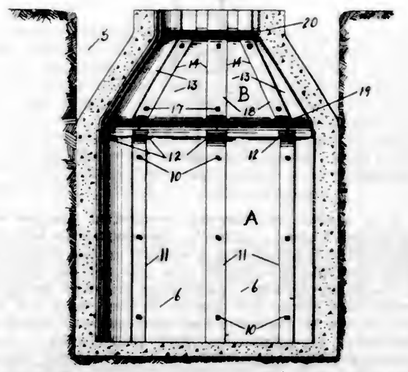
1,132,578. COMBINATION COLLAR-BOX. CARL G. HALL, Pittsburgh, Pa. Filed Nov. 25, 1913. Serial No. 802,985. (Cl. 206—1.)

A device of the class described comprising a receptacle, spaced flanges extending outwardly from the wall thereof, clamping members each comprising a U-shaped length of spring material, eyes at the free end of the arms of said length, alined pins carried by the flanges for detachably securing the eyes of each length and pins carried by the flanges and engaging the arms to hold the bight portion of



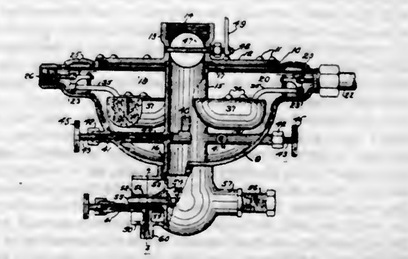
each length in clamping engagement with the said wall of the receptacle.

1,132,579. MOLD. HARRY E. HAMILTON, Fountain City, Ind. Filed Sept. 7, 1911. Serial No. 648,088. (Cl. 25—124.)



A mold comprising in combination, a wall section consisting of a plurality of staves arranged with their adjacent edges disposed in overlapping relation, a clamping strip extending longitudinally against the inner face of the outer edge of each stave, the upper end of each strip being inwardly bent to form a guide finger, means engaging each strip and the outer edge of each stave for clamping the inner edge of each adjacent stave between the strip and the outer edge of each adjacent stave, and a top section seated between the staves of the wall section and the inwardly bent fingers of the strips.

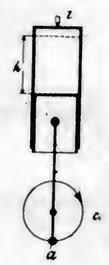
1,132,580. CARBURETER. JEAN D. HAZEN, Sarasota, Fla., assignor of one-half to Owen Burns, Sarasota, Fla. Filed Sept. 4, 1913. Serial No. 788,149. (Cl. 48—155.1.)



In a carbureter, the combination with an air conduit having an inlet, of a central guide element in the inlet

having a stem-receiving bore and a water discharge port located in said element alongside the bore, means for delivering water to the port, a needle valve in the guide element controlling the water supply, an air valve controlling both the air inlet and the water discharge port, said valve having a stem sliding in the bore of the guide element, means for yieldingly holding the valve closed and means for supplying fuel to the conduit.

1,132,581. METHOD OF OPERATING COMBUSTION-ENGINES. HANS HEINRICH HEIN, Randers, Denmark, assignor to Deutsche Automobil-Construktions-Ges. M. B. H., Charlottenburg, Germany, and I./S. H. Hein & Sonners, Randers, Denmark. Filed Feb. 18, 1913. Serial No. 749,172. (Cl. 123—1.)



1. A method of operating combustion engines with liquid fuel, which is ignited by the compression heat, consisting in first introducing a quantity of fuel without air in a mechanically diffused form into the air contained in the engine cylinder, compressing the same during the compression stroke and thereby causing it to mix with the air and to evaporate and thereupon and before the completion of compression stroke introducing a predetermined additional quantity of mechanically diffused fuel without air into the existing mixture, to enrich the latter and postpone the moment of self ignition.

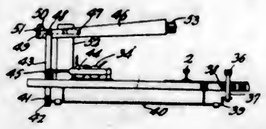
2. A method of operation combustion engines with liquid fuel, which is ignited by the compression heat, consisting in first introducing a quantity of easily volatile fuel without air in a mechanically diffused form into the air contained in the engine cylinder, then compressing the said fuel, causing it to mix with the said air and to evaporate, and thereupon and before the completion of compression stroke introducing a predetermined additional quantity of less easily volatile fuel into the existing mixture for enriching the latter and postponing the moment of self ignition.

3. A method of operating combustion engines with liquid fuel, which is ignited by the compression heat, consisting in first introducing a quantity of easily volatile fuel required for a charge, without air, in a mechanically diffused form into the air contained in the engine cylinder, compressing the said fuel and causing it to mix with the said air and to evaporate and thereupon and before the completion of compression stroke introducing the predetermined additional quantity of mechanically diffused fuel without air in several stages into the existing mixture for enriching the same and postponing the moment of self ignition.

4. A method of operating combustion engines with liquid fuel, which is ignited by the compression heat, consisting in first introducing a quantity of easily volatile fuel required for a charge without air, in a mechanically diffused form into the air contained in the engine cylinder, compresing the said fuel and causing it to mix with the said air and to evaporate and thereupon and before the completion of compression stroke introducing a predetermined additional quantity of fuel in several stages into the existing mixture for enriching the same and postponing the moment of self ignition, the last portion of the fuel being injected at the commencement of the working stroke.

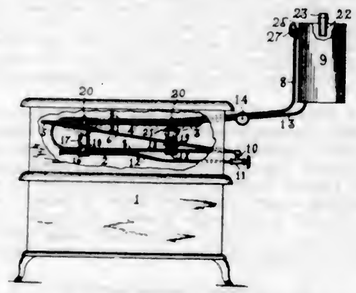
5. A method of operating combustion engines with liquid fuel, which is ignited by the compression heat, consisting in first introducing a quantity of easily volatile fuel required for a charge, without air, in a mechanically diffused form into the air contained in the engine cylinder, compressing the said fuel and causing it to mix with the said air and to evaporate, and thereupon and before the completion of compression stroke introducing a predetermined additional quantity of less easily volatile fuel of different kind into the existing mixture for enriching the same and postponing the moment of self ignition.

1,132,582. TRAIN-CONTROL SYSTEM. DAVID L. HOPKINS, Bryson, N. C. Filed Mar. 22, 1913. Serial No. 756,187. (Cl. 246—59.)



In a ramp throwing and resetting mechanism, a source of electrical energy; an electromagnet; a switch; a normally open circuit including such source, said electromagnet and said switch; train actuated means to close the switch as the train enters the block; a post; a T-shaped member attached to the post; a ramp arm pivoted to said member for vertical movement; coöperable means carried by said member and the ramp arm to limit the swinging movement of the arm; a link having an offset lower end and operably connected at its upper end to the ramp arm; said offset arm having a tension in one direction; a fixed stop in the path thereof; an armature under the influence of the electromaget for engaging the offset end of the link to release it from the stop; the energization of the electromagnet attracting the armature to release the ramp arm, and train actuated means adjacent the post and connected to the link for resetting the ramp arm.

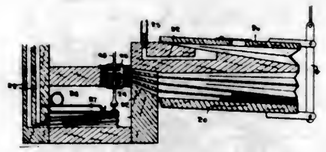
1,132,583. GAS GENERATOR AND BURNER. JAMES F. HOPPER, Sherman, Tex., assignor of one-half to Daniel K. Penn, Sherman, Tex. Filed Dec. 11, 1914. Serial No. 876,630. (Cl. 158—36.)



1. In a gas generator and burner for stoves and the like, a tank, an oil supply pipe and generator pipes, the oil supply pipe connected with the bottom of the oil supply tank, and one of the generator pipes having a jet opening therein, and said generator pipe extended to the top of the tank and connected thereto at two points forking therefrom, one of the said connections being provided with an inlet check valve, and the other with a throttle valve, for the purpose specified.

2. The combination with a stove of a gas generator and burner, an oil supply tank apertured through the top and provided with a tube extending some distance downward within it, and above the same to receive a cork, a generating coil and generating pipes located within the firebox of said stove and an oil supply pipe opening in the bottom of the tank and extending to said coil, and said generating pipes communicating with said coil and passing out of the box and to the top of the tank where it branches, entering the tank at two points; one of said branches being provided with a check valve and the other with a throttle, as and for the purpose specified.

1,132,584. AUTOMATIC EXPRESSION CONTROL FOR MECHANICALLY-OPERATED PIANOS. MONROE S. HOWARD, Waukon, Iowa. Filed Oct. 4, 1913. Serial No. 793,348. (Cl. 84—160.)



1. An automatic piano player comprising; a tracker bar, a plurality of striking pneumatics, said striking pneumatics having opposing chambers, tubular means connecting said tracker bar with one of said chambers, tubular means connecting said tracker bar with the opposing chamber, said last mentioned means regulating the striking force of said striking pneumatics, means communicating between each of said tubular means to reduce the pressure in said tubular means to the same degree of force, and means positioned within said first tubular means adapted to regulatingly actuate said striking pneumatic against the resistance of said opposing chamber, said last mentioned communicating means consisting of a valve member having a tubular chamber, and a reciprocating piston reciprocating within said tubular chamber having an increasing opening thereto.

2. An automatic piano player comprising; a tracker bar, having a plurality of groups of apertures therethrough, a striking pneumatic having opposing chambers, one to actuate said striking pneumatic, and the other to determinately resist said actuation, means connecting one group of said apertures in said bar to said actuating chamber in said striking pneumatic, means connecting another group of apertures in said tracker bar to said opposing chamber, means communicating between said connecting means to equalize the pressure therebetween, and means positioned within one of said communicating means to determinately actuate said striking pneumatics, consisting of a valve casing communicating with said connecting means, and means operating within said valve casing to determinately and increasingly open said communication to said connecting means, said last mentioned means regulating the actuation of said striking pneumatic.

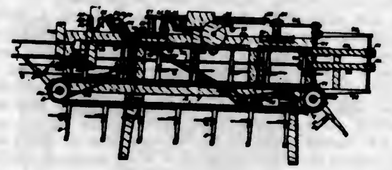
3. An automatic piano player comprising; a plurality of compartmented striking pneumatics, said compartments opposing one another, means connecting each of said compartments to operate the same in unison, a tracker bar, communicating means between said tracker bar and one of said compartments to actuate said striking pneumatics, a second communicating means between said tracker bar and the opposing compartments of said striking pneumatics to oppose the actuation thereof, a tubular means having an increasingly actuated reciprocating member therein, positioned in one of said communicating means to regulate the degree of actuation of said striking pneumatics and means between said communicating means to balance the pressure between said communicating means upon the actuation of said last mentioned means.

1,132,585. SHOW-CASE. WILLIAM E. HUSTON, Valley View, Tex. Filed Mar. 31, 1913. Serial No. 757,985. (Cl. 45—103.)



A display case including a door, an upright shaft journaled within the case, a plurality of circular shelves carried by the shaft, and each having an upturned peripheral relatively narrow flange, and a plurality of radial partitions seated on each shelf and having their inner and outer ends relatively wide and narrow, respectively, and slidably engaging the shaft and the respective flange, respectively, the partitions being held against radial movement by the flanges and being adapted to be withdrawn vertically from between the shaft and flanges.

1,132,586. CARTON-SEALING MACHINE. HARRY L. JOHNSON, Battle Creek, Mich., assignor to Johnson Automatic Sealer Co., Ltd., Battle Creek, Mich. Filed Sept. 29, 1913. Serial No. 792,433. (Cl. 93—6.)



1. In a combined inner container closing and carton sealing machine, the combination of a conveyer having flights thereon, inner container folding devices disposed at the sides of the conveyer, to act successively, each folding device comprising a carriage mounted to reciprocate parallel with the conveyer, a folder member, a reciprocating support on which said folder member is pivotally mounted, said support being mounted on said carriage to reciprocate transversely of said conveyer, a cam member having a cam groove therein, a pin on said folder member support engaging said cam groove, a shaft having a longitudinally slotted arm thereon engaging said pin whereby the carriage and said folder member are reciprocated, a spring for holding said folder member in its elevated position, means for actuating said folder member on its pivot comprising a cam, a pin on said folder member adapted to engage said cam as the said carriage and folder member support are actuated on their work-stroke, downwardly and rearwardly projecting diverging side flap spreaders arranged one at each side of the conveyer to spread the side flaps as the cartons are carried along by the conveyer and to retain the same during the operating of said inner container folding devices, a rear flap closer disposed at the rear of the inner container folder devices adapted to fold the rear carton and the rear inner container flaps forwardly together, a front flap closer adapted to fold the front carton and the front inner container flaps upon the

rear flaps as the cartons are carried along, means for applying glue to the side flaps, means for successively turning the side flaps inwardly, and means for successively pressing the inturned side flaps upon the inner flaps.

2. In a combined inner container closing and carton sealing machine, the combination of a conveyer having flights thereon, inner container folding devices disposed at the sides of the conveyer, to act successively, each folding device comprising a carriage mounted to reciprocate parallel with the conveyer, a folder member, a reciprocating support therefor mounted on said carriage to reciprocate transversely of said conveyer, a cam member having a cam groove therein, a pin on said folder member support engaging said cam groove, a shaft having a longitudinally slotted arm thereon engaging said pin whereby the carriage and said folder member are reciprocated, downwardly and rearwardly projecting diverging side flap spreaders arranged one at each side of the conveyer to spread the side flaps as the cartons are carried along by the conveyer and to retain the same during the operating of said inner container folding devices, a rear flap closer disposed at the rear of the inner container folder devices adapted to fold the rear carton and the rear inner container flaps forwardly together, a front flap closer adapted to fold the front carton and the front inner container flaps upon the rear flaps as the cartons are carried along, means for applying glue to the side flaps, means for successively turning the side flaps inwardly, and means for successively pressing the inturned side flaps upon the inner flaps.

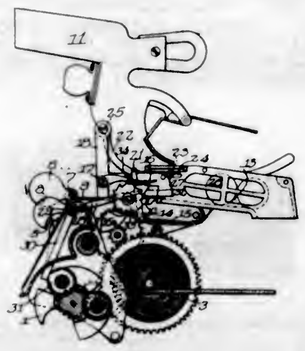
3. In a carton sealing machine the combination with a conveyer of folding devices disposed at the sides of the conveyer, to act successively, each folding device comprising a carriage mounted to reciprocate parallel with the conveyer, a folder member, a reciprocating support on which said folder member is pivotally mounted, said support being mounted on said carriage to reciprocate transversely of said conveyer, a cam member having a cam groove therein, a pin on said folder member support engaging said cam groove, a shaft, having a longitudinally slotted arm thereon engaging said pin whereby the carriage and said folder member are reciprocated, a spring for holding said folder member in its elevated position, means for actuating said folder member on its pivot comprising a cam, a pin on said folder member adapted to engage said cam as the said carriage and folder member support are actuated on their work-stroke, and side flap spreaders arranged to spread the side flaps as the cartons are carried along by the conveyer and to retain the same during the operating of said inner container folding devices.

4. In a carton sealing machine the combination with a conveyer of folding devices disposed at the sides of the conveyer, to act successively, each folding device comprising a carriage mounted to reciprocate parallel with the conveyer, a folder member, a reciprocating support for said folder member mounted on said carriage to reciprocate transversely of said conveyer, a cam member having a cam groove therein, a pin on said folder member support engaging said cam groove, a shaft having a longitudinally slotted arm thereon engaging said pin whereby the carriage and said folder member are reciprocated, and side flap spreaders arranged to spread the side flaps as the cartons are carried along by the conveyer and to retain the same during the operating of said inner container folding devices.

5. In a carton sealing machine, the combination with a conveyer, of a folding device comprising a carriage mounted to reciprocate parallel with the conveyer, a folder member, a reciprocating support on which said folder member is pivotally mounted, said support being mounted on said carriage to reciprocate transversely of said conveyer, a cam member having a cam groove therein, a pin on said folder member support engaging said cam groove, a shaft having a longitudinally slotted arm thereon engaging said pin whereby the carriage and said folder member are reciprocated, a spring for holding said folder member in its elevated position, means for actuating said folder member on its pivot comprising a cam and a pin on said folder member adapted to engage said cam as the said carriage and folder member support are actuated on their work stroke.

[Claims 6 to 22 not printed in the Gazette.]

1,132,587. DISPENSING-MACHINE. FREDERICK C. KAINER, South Haven, Mich. Original application filed July 14, 1909. Serial No. 507,537. Divided and this application filed Apr. 22, 1912. Serial No. 692,370. (Cl. 211—33.)



1. In a device of the class described, the combination of vending mechanism, a motor for operating said mechanism, a controlling element movable between positions for stopping and starting said motor and adapted to be moved into position for starting the motor, a catch adapted to secure said controlling element in its starting position, a reciprocating part actuated by said motor and adapted to release said catch through the operation of the motor, and means adapted to prevent said reciprocating part from engaging said catch and adapted to be retracted through a certain operation of said mechanism.

2. In a device of the class described, the combination of a motor, means initially holding said motor inactive, means for releasing said holding means, a movable counting member adapted when in one position to prevent said holding means from stopping the motor and adapted when moved to a certain other position to allow said holding means to stop the motor, ratchet teeth carried by said movable member, means for engaging said ratchet teeth to advance said member, vending mechanism driven by the motor, and means operated by said mechanism for causing said ratchet-engaging means to advance said counting member at each repetition of the operation of said mechanism.

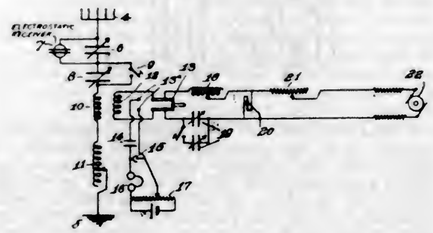
3. The combination of vending mechanism, a motor adapted to operate said mechanism, means normally holding said motor inactive, mechanism for rendering said holding means ineffective to hold said motor, a counting wheel mounted to rotate and located in position to prevent the operation of said holding means when said wheel is in one position and to permit the operation of said holding means when said wheel is in a different angular position, ratchet means adapted to advance said wheel, and means operated by said mechanism for controlling said ratchet means.

4. The combination of a motor, means normally holding said motor inactive, means for releasing said holding means, vending mechanism driven by said motor, means operated by said mechanism for restoring said motor-holding means to holding condition, and means operated by said motor independently of said mechanism for delaying the operation of said restoring means, said delaying means being adapted to count the operations of the mechanism and to permit the operation of said restoring means when said motor has driven said mechanism through a predetermined plural number of operations.

5. The combination of a motor, means normally holding said motor inactive, means tending to restore said holding means to holding condition after it has been released, vending mechanism driven by said motor, means for preventing the restoration of said holding means to normal condition, said preventing means being rendered ineffective by the contact therewith of the article delivered by the mechanism upon each operation of said mechanism, and means arranged to count the operations of said mechanism and to delay the restoration of said holding means to normal condition until said mechanism has delivered a predetermined number of the articles.

[Claims 6 to 8 not printed in the Gazette.]

1,132,588. WIRELESS-TELEGRAPH RECEIVING APPARATUS. SAMUEL M. KINTNER, Pittsburgh, Pa., and JOHN W. LEE, Brant Rock, Mass., assignors, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Filed June 24, 1912. Serial No. 705,484. (Cl. 250—8.)



1. The combination with a highly selective closely tuned wireless telegraph receiving set, of a supplementary broad tuned receiver, and means for tuning the antenna circuit to cause the broadly tuned receiver to respond with maximum effect and arranged to simultaneously vary the tune of the closely tuned receiving set.

2. The combination with a receiving antenna, of a receiver connected thereto and operating by combined effects of received and locally produced oscillations, a supplementary broadly tuned receiver, and a tuning device adapted to simultaneously tune the antenna and the oscillation producing circuit.

3. The combination with a heterodyne receiver for wireless telegraphy, of a finding receiver, a switch to selectively connect either of said receivers with a receiving antenna, and means to vary the tune of the antenna circuit to cause the finding receiver to respond with maximum effect and arranged to simultaneously tune the heterodyne receiver to the waves being received.

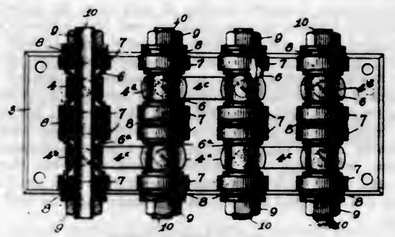
4. In wireless telegraph apparatus, the combination of an antenna, a local generating source of oscillations, a receiver operated by the combined effects of the received and locally generated oscillations, a finding receiver operatively connected to the antenna, and means for simultaneously tuning the antenna and the local oscillation producing circuit.

1,132,589. SPARK-GAP. FRED H. KROGER, Brooklyn, N. Y., assignor, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Filed July 16, 1912. Serial No. 709,663. (Cl. 250—38.)

1. A plural spark gap comprising a series of pairs of concentric cylinders providing sparking spaces, each cylinder being electrically connected with a like cylinder of another pair.

2. A spark gap comprising a suitable mounting, and a series of pairs of removable concentric cylinder elements forming discharge spaces, and means to exclude air from said discharge spaces.

3. A spark gap element comprising two pairs of concentric cylinders and proper mountings to cause a discharge from one outside cylinder to the inside cylinder and thence from the inside cylinder to another outside cylinder insulated from the other cylinders, substantially as described.

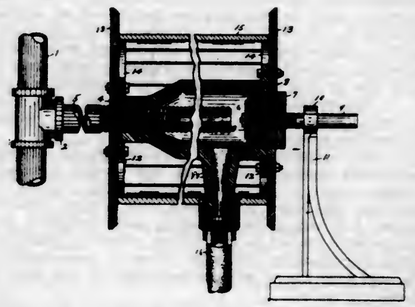


4. In a spark gap the combination of a supporting base, a series of staggered pairs of spring clips, a series of spark gap elements supported in said clips substantially as described, and each such element comprising pairs of concentric cylinders forming spark gaps.

5. A spark gap element comprising a central cylinder, an insulating support therefor and a screw nut thereon, a series of insulating washers on the central cylinder and a series of larger cylinders outside the central cylinder and supported on said washers, and spaced apart, said washers forming air-tight compartments between the central and the outside cylinders, substantially as described.

[Claim 6 not printed in the Gazette.]

1,132,590. COMBINED HOSE-REEL AND VALVE. ROSAMOND L. LANDRY, Houston Heights, Tex. Filed July 8, 1913. Serial No. 777,836. (Cl. 137—31.)

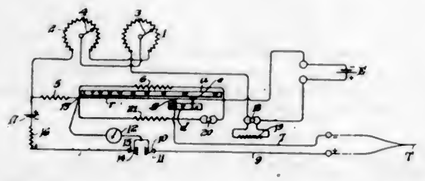


1. A device of the character described in combination a reel comprising a drum and a hub hollow from end to end, one end of said hub being reduced and each end inwardly threaded, a flange integral with each end of said hub upon the periphery thereof, said drum being rigidly secured to said flange, a water supply pipe, a hollow shaft communicating therewith and being outwardly threaded and extending through the reduced portion of said hub and forming an adjustable threaded bearing and having its inner end free, an outwardly threaded plug screwed into the other end of said hub and alined with said shaft; a packing member carried by the inner end of said plug, a supporting shaft extending from said hub, a fixed bearing in which said last mentioned shaft is slidably and rotatably mounted and an outlet spout communicating with the interior of the hub and extending out through said reel and having its free end threaded and a flexible hose secured to said free end.

2. A device of the character described consisting of a reel comprising a hub hollow from end to end, one end

of said hub being reduced and each end inwardly threaded, a flange upon the periphery of said hub at each end thereof and integral therewith, a drum secured thereto, a water supply pipe, a hollow shaft communicating therewith and being outwardly threaded and extending through the reduced threaded portion of said hub, an adjustable threaded bearing having its inner end free, an outwardly threaded plug screwed into the other end of said hub and alined with said shaft, a packing member carried by the iner end of said plug, a means for holding said packing member in position against said plug, a supporting shaft extending from said hub and integral therewith, a fixed bearing in which said last mentioned shaft is slidably and rotatably mounted and an outlet spout integral with said hub communicating with the exterior of said drum and the interior of said hub and having its free end threaded and a flexible hose secured to said free end.

1,132,591. ELECTRICAL MEASURING APPARATUS. MORRIS E. LEEDS, Philadelphia, Pa., assignor to the Leeds & Northrup Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 8, 1914. Serial No. 830,322. (Cl. 73—32.)



1. The combination with a thermo-couple, of a reading instrument associated therewith, said reading instrument having a scale derived from the calibration of said thermo-couple with its cold junction maintained at constant calibration temperature, a correction scale carrying a pointer coöperating with said first named scale, circuit adjusting means, and means for adjusting said correction scale pointer with respect to said circuit adjusting means to a point corresponding with the reference temperature of the cold junction of said thermo-couple at the time the reading is made.

2. The combination with a thermo-couple, of a reading instrument associated therewith, said reading instrument having a scale, a correction scale carrying a pointer cooperating with said first named scale, circuit adjusting means, and means for adjusting said correction scale pointer with respect to said circuit adjusting means to a point corresponding with the reference temperature of the cold junction of said thermo-couple at the time the reading is made.

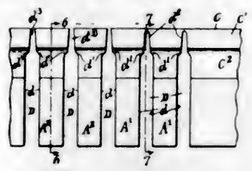
3. The combination with a thermo-couple, of a reading instrument having a main scale derived from a calibration of said thermo-couple with its cold junction maintained at constant calibration temperature, a correction scale, a member with respect to which both said scales are movable, a pointer on said member, means for adjusting said correction scale with respect to said pointer to a marking on said correction scale corresponding with the reference temperature to which the cold junction of said thermo-couple has varied, and a second pointer carried by said correction scale and coöperating with said main scale.

4. The combination with a thermo-couple, of a reading instrument having a main scale, a correction scale, a member with respect to which both said scales are movable, a pointer on said member, means for adjusting said correction scale with respect to said pointer to a marking on said correction scale corresponding with the reference temperature to which the cold junction of said thermo-couple has varied, and a second pointer carried by said correction scale and coöperating with said main scale.

5. The combination with a thermo-couple, of a reading instrument associated therewith comprising a potentiometer, a scale associated therewith, a contact for balancing the potentiometer movable with respect to said scale, a correction scale having a pointer coöperating with said first named scale, and means for adjusting said correction scale to a position corresponding with the reference temperature of the cold junction of said thermo-couple.

[Claims 6 to 12 not printed in the Gazette.]

1,132,592. MANUFACTURE OF SAW-TEETH. WILFRED LEWIS, Philadelphia, Pa. Filed May 31, 1913. Serial No. 770,813. (Cl. 76—112.)



1. As a new article of manufacture, a wrought homogeneous bar of high speed steel generally rectangular in cross section and of greater width than thickness, and having a rib rising from one side of the bar at one edge thereof, the top surface of the rib being inclined toward the side of the bar from which the rib rises, whereby saw teeth having enlarged heads with their inclined cutting lip surfaces formed by the corresponding sections of the top edge of said rib may be obtained by transversely dividing said bar into sections.

2. As a new article of manufacture, a wrought homogeneous bar of high speed steel generally rectangular in cross section and of greater width than thickness, and having a rib rising from one side of the bar at one edge thereof, the top edge of the rib being inclined toward the side of the bar from which the rib rises, said bar having a longitudinal groove formed in the side from which said rib rises adjacent the latter, whereby saw teeth having enlarged heads with their inclined cutting lip surfaces formed by the corresponding sections of the top of the edge of said rib and with groove receiving spaces formed by the corresponding sections of said groove may be obtained by transversely dividing said bar into sections.

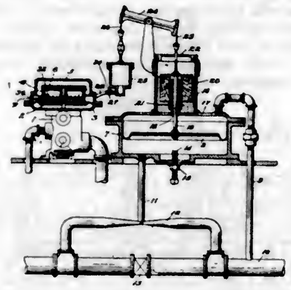
3. The method of forming saw teeth each having a shank terminating at one end in an enlarged head of high speed tool steel which consists in forming a bar of said steel corresponding approximately in cross section to the section of tooth taken parallel to its plane of movement, cutting teeth from the bar by cuts transverse to the length of the bar, tempering the teeth thus cut from the bar and finishing the teeth by grinding.

4. The method of forming saw teeth, each comprising a shank terminating at one end in an enlarged head, which consists in forming a bar with a rib at one edge, cutting transverse kerfs in the bar which extend into the bar from its unribbed edge and have parallel sides terminating adjacent the ribbed edge of the bar, and sundering the ribbed edge of the bar between the parallel sides of each kerf.

5. The method of forming saw teeth, each comprising a shank terminating at one end in an enlarged head, which consists in forming a bar with a rib at one edge, cutting transverse kerfs in the bar which extend into the bar from its unribbed edge and have parallel sides terminating adjacent the ribbed edge of the bar, and cutting kerfs in the ribbed edge of the bar, each narrower than and forming an extension of a corresponding one of the first mentioned kerfs and lying between the parallel sides thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,132,593. MERCURY-LOADER. ERNEST F. LLOYD, Detroit, Mich. Filed Feb. 14, 1911. Serial No. 608,487. (Cl. 50—10.)



1. In gas apparatus, a fluid pressure actuated controlling valve, a liquid holder weighting the valve, a conduit, an adjutage in the conduit, a reciprocable member moving in response to variations in the drop in pressure past the adjutage, a loading liquid container, a displacement member operated by the reciprocating member to vary the level of the liquid in the container and a conduit between the container and the holder whereby the levels of liquid in the two vary correspondingly.

2. In gas apparatus, a fluid pressure actuated controlling valve, a liquid holder weighting the valve, a loading liquid container in communication with the liquid holder, a displacement member movable in the liquid container, and means adapted to be operated by variations in the drop in pressure in a moving column of fluid and adapted to move the displacement member.

3. In gas apparatus, loading means comprising a drum, a movable diaphragm dividing the drum into two compartments, a float chamber on the drum, a stem on the diaphragm passing through the float chamber, a float on the stem in the chamber, pipes each leading from a compartment of the drum, a liquid holder adapted to form a weight for a valve, and means arranged to vary the level of a loading liquid in the holder in response to movements of the float.

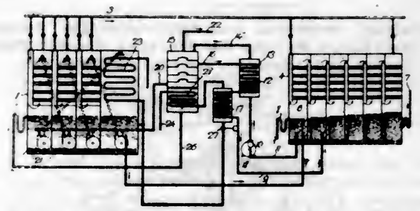
4. In gas apparatus, loading means comprising a drum, a movable diaphragm dividing the drum into two compartments, a float chamber on the drum, a stem on the diaphragm passing through the float chamber, a float on the stem in the chamber adapted to form a liquid seal for the stem, pipes each leading from a compartment of the drum, a liquid holder adapted to form a weight for the valve, and means arranged to vary the level of a loading liquid in the holder in response to movements of the float.

5. In gas apparatus, loading means comprising a drum, a movable diaphragm dividing the drum into two compartments, a float chamber on the drum, a stem on the diaphragm passing through the float chamber, a float on the stem in the chamber, pipes each leading from a compartment of the drum, a liquid holder adapted to form a weight for a valve, means arranged to vary the level of a loading liquid in the holder in response to movements of the float, and an adjustable stop in the drum adapted to limit the movement of the diaphragm in one direction.

[Claims 6 to 12 not printed in the Gazette.]

1,132,594. APPARATUS FOR RECOVERING SULFUR AND AMMONIA FROM GAS. ERNEST F. LLOYD, Detroit, Mich. Filed Apr. 21, 1913. Serial No. 762,534. (Cl. 23—21.)

1. Apparatus for recovering sulfur from coal gas during the manufacture thereof, comprising a wash cooler, a gas scrubber in series therewith, means introducing liquor from the wash cooler to the scrubber, a still supplied with a current of steam, means for forcing combined liquors of the cooler and scrubber from the latter into the still into contact with any steam passing therethrough, and means for tapping off liquor in the still at a point where it is substantially free from sulfur and returning it to the scrubber.



2. Apparatus for recovering sulfur from coal gas during the manufacture thereof, comprising a wash cooler, a gas scrubber in series therewith, means introducing liquor from the wash cooler to the scrubber, a still supplied with a current of steam, means for forcing the combined liquors of the cooler and scrubber from the latter into the still into contact with any steam passing therethrough, means for tapping off liquor in the still at a point where it is substantially free from sulfur and returning it to the scrubber, means for circulating a cooling medium through the wash cooler, and means for utilizing the cooling medium expelled from the wash cooler for reducing the temperature of the liquors discharged from the still and reducing the temperature of the sulfur free liquor tapped from the still and returned to the scrubber.

3. Apparatus for removing sulfur and ammonia from coal gas during the process of manufacture thereof comprising a wash cooler, a gas scrubber in series therewith, a still supplied with a current of steam, means for forcing crude liquor from the wash cooler and scrubber to pass through the still, means for tapping liquor from the still at a point where it is free from sulfur and returning it to the gas scrubber, a heat recovery device for equalizing the temperatures between the ingoing and outgoing columns of crude liquor passing through the still, means for regulating the temperature of the sulfur free liquor discharged from the heat recovery mechanism, and means for passing a cooling medium used in the wash cooler and heat regulating means through the still.

4. Apparatus for removing impurities from gas, comprising means for washing and cooling the gas with liquor, means for removing ammonia by scrubbing with fresh water, and means for freeing ammoniacal liquor from sulfur and returning it for use in said scrubbing means.

5. Apparatus for removing impurities from gas, comprising means for washing and cooling the gas with liquor, means for scrubbing the gas with fresh water, means for withdrawing a portion of the liquor produced by the scrubbing means and substantially eliminating the sulfur therefrom, and means for returning the sulfur free liquor to the washing and cooling and scrubbing means.

[Claims 6 and 7 not printed in the Gazette.]

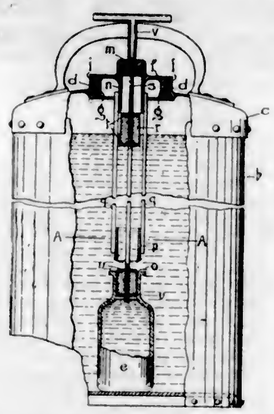
1,132,595. SUSPENDER-BUTTON AND DRAWERS-HOOK. JOHN LOEFFLER, Evansville, Ind. Filed Aug. 6, 1912. Serial No. 713,676. (Cl. 24—73.)



A drawers hook including a plate having a hook at its lower end, said plate provided with a transverse opening therein, a portion being struck up from said plate subjacent the opening to provide an abutment, a portion of the plate in proximity to the abutment being partially severed from the body to provide a spring, and a button

having a shank with an elongated enlargement thereon adapted to be passed through said opening and to be rotated over the spring, so as to be held between the end of the spring and the abutment.

1,132,596. CHEMICAL FIRE-EXTINGUISHER. ROBERT JOHN LOGAN, St. John, New Brunswick, Canada. Filed Aug. 22, 1913. Serial No. 786,130. (Cl. 169—7.)



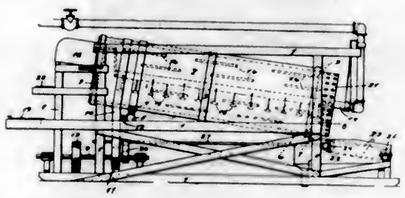
1. In a chemical fire extinguisher the combination with a shell having a comparatively small opening in its upper end, of a cover for closing said opening, a boss upon the cover, the boss and cover having a hole therethrough, a rod slidable in the hole and having a finger-hold at its outer end, a tube mounted rigidly upon the inside of the cover concentric to the rod, a second tube, means supporting this second tube from the cover, a bottle the neck of which is equal in bore to the second tube, and a cork secured upon the inner end of the rod and movable with the rod from the neck into the second tube, and a second cork upon the rod and adapted to seal the hole through the cover simultaneously with the extraction of the other cork from the bottle neck, and means preventing displacement of the corks upon the rod, substantially as described.

2. In a chemical fire extinguisher the combination with a shell having an opening therein and means for closing the said opening, said means having a hole therein, a rod slidable in the hole and having a fingerhold at its outer end, a tube mounted rigidly upon the inside of said means concentric to the rod, a second tube, a pair of rigid wires supporting this second tube from the tube first mentioned, a bottle the neck of which is equal in bore to the second tube, and a cork secured upon the inner end of the rod and adapted to be simultaneously contained within the second tube and bottle-neck and movable with the rod from the neck into the second tube, and a second cork upon the rod and adapted to seal the said hole in the means for closing the opening in the shell simultaneously with the extraction of the other cork from the bottle neck, and means preventing displacement of the corks upon the rod, substantially as described.

1,132,597. VEGETABLE-WASHER. JOHN PETER MARLIN, San Lorenzo, Cal. Filed June 23, 1911. Serial No. 634,921. (Cl. 146—1.4.)

1. A vegetable washer comprising a supporting frame, an imperforate drum rotatably mounted on said frame, cleats secured upon the inner surface of said drum, said cleats extending longitudinally of the axis thereof and arranged spirally within the drum, a water supply pipe extending into the drum and a plurality of sprinkler heads connected therewith and extending outwardly from opposite sides thereof.

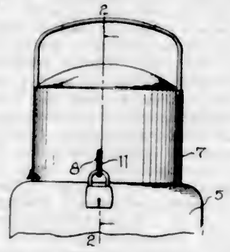
2. In combination with a supporting frame of a vegetable washer provided with rollers, an imperforate drum revolubly mounted on said frame, wear bands surrounding said drum and in contact with said rollers, cleats secured upon the inner surface of said drum longitudinally of its axis and arranged in staggered relation, a water supply pipe in said drum, a plurality of sprinkler heads connected with said pipe and extending therefrom in staggered relation.



3. In a vegetable washer having a supporting frame, an imperforate drum revolubly mounted on said frame, cleats secured upon the inner surface of said drum, said cleats extending longitudinally of the axis thereof and arranged spirally within the drum, a water supply pipe extending into the drum and a plurality of sprinkler heads connected therewith extending outwardly from the opposite sides thereof, and means for separating the soiled water and dirt from the fruit.

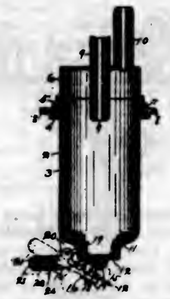
4. A vegetable washer comprising a supporting frame, an inclined imperforate drum mounted on said frame, cleats secured upon the inner surface of said drum longitudinally of its axis, said cleats being arranged spirally within the drum, a water supply pipe extending into the drum and a plurality of sprinkler heads connected therewith within said drum, and means for discharging the soiled water and dirt from said drum separately from said fruit, said means comprising a perforated extension on the lower end of said drum.

1,132,598. LOCKING DEVICE FOR MILK-CANS. LAWRENCE M. MERSHIMER, New Castle, Pa. Filed Feb. 7. 1914. Serial No. 817,322. (Cl. 31—79.)



The combination with the neck of a milk can provided adjacent to its point of juncture with the body with a slot, and a cover provided with a neck-inclosing flange having a slot to register with that of the neck, of a resilient strip secured near its upper end to the inner wall of the can neck and carrying at its lower end a staple to project through the two slots, the staple having its sides bent at an angle to converge to an apex and thus provide cam surfaces, the lower cam surface by contact with the bottom wall of the cover slot, when the cover is lifted, causing the staple automatically to be withdrawn from the slot to release the cover, and the upper cam surface by contact with the under edge of the neck, when the cover is being positioned, causing the staple automatically to recede from the neck to permit the final seating of the cover.

1,132,599. MILKING-MACHINE. ERNEST L. MILLS, Watertown, and RICHARD M. MILLS, Cicero, N. Y. Filed Sept. 18, 1914. Serial No. 862,316. (Cl. 31—98.)



1. In a milking machine, a cylindrical milk chamber, an air exhaust tube entering one end of said chamber, an inlet tube entering said chamber substantially axially and parallel to the air exhaust tube, adapted to discharge the milk into said chamber below the said air exhaust tube, and a counter-weighted valve in the opposite end of said chamber for controlling the discharge of the milk from the said chamber.

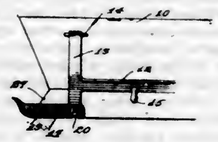
2. A milking machine, including a milk chamber, a screw cap for closing the upper end of said chamber, a milk tube piercing said cap and extending downwardly into the said chamber, a vacuum tube communicating with the interior of said cap, its lower end terminating at the top of said cap, and an outlet valve controlled by a counter-weight for normally closing the bottom of said chamber, said valve adapted to be operated by the weight of the milk in the said chamber whenever the vacuum is destroyed.

3. A milking machine, including a hollow body having an externally threaded open top and contracted bottom provided with the valve seat, a screw-cap for closing the top of said body, a milk-tube passing through the top of said cap and projecting downwardly into said body, a vacuum-tube piercing the top of said cap but terminating at the inner side of said top, a counter-weighted lever hinged to lugs carried by the contracted portion of said body, and a valve loosely supported by said lever adapted to be normally held in said seat by the counter-weight as well as by the force of the vacuum, said valve adapted to be swung open by the weight of the milk whenever the vacuum is destroyed.

4. In a milking machine, a milk chamber having its upper end closed, an air tube piercing the upper end of the chamber, the lower end of said tube being flush with the inner top side of said chamber, a milk inlet tube also piercing the upper end of said chamber and extending downwardly into said chamber, so as to discharge the milk below the lower end of said air tube, said milk tube disposed parallel to said air tube, a valve for closing the lower end of said chamber, said valve engaging a seat formed in said lower end, and a counterweighted lever for normally holding said valve in its seat when the chamber is empty.

5. A milking machine, including a chambered milk receptacle comprising a cylindrical body open at each end, its upper end threaded, its lower end being contracted and having a valve seat within the contracted portion, a cap screwed on to the upper end of said body, a milk tube piercing the top of said cap and then extending downwardly into the upper end of said body, a vacuum tube piercing the top wall of said cap, its lower end being disposed flush with the inner side of said wall, a valve for closing the contracted bottom of the body, a counterweighted lever for supporting the said valve, said lever normally holding said valve in the closed position while said body is empty and also while the vacuum is effective, said valve adapted to be forced open by the weight of the milk in said body whenever the vacuum is destroyed.

1,132,600. SACK-HOLDING ATTACHMENT. HARRISON I. MOORE, Windsor, Nova Scotia, Canada. Filed Oct. 31, 1914. Serial No. 869,717. (Cl. 83—26.)



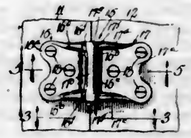
1. A sack holder comprising a frame, pivot ears extending from said frame, cross bars rotatably mounted between said pivot ears, each of said cross bars comprising a tubular major member having its outer end portions reduced to form a bearing and abutment shoulder, an auxiliary member slidably mounted in said major member, pawls rigidly mounted upon the end portions of said cross bars, a set screw passing through a threaded opening in said major member and engaging said auxiliary member to releasably hold the same in an adjusted position, and means for engaging the pawls upon one side of said frame to releasably hold said pawls and cross bars in a set position.

2. A sack holder comprising a frame, pivot ears extending from said frame, a cross bar rotatably carried by said pivot ears, said cross bar comprising a major member and an auxiliary member slidably mounted in said major member, the end portion of said major member being reduced to form a bearing and an abutment shoulder engaging the pivot ear through which said bearing passes, pawls rigidly mounted upon the outer end portions of said major and auxiliary sections, means for releasably holding said auxiliary section in a longitudinally adjusted position, and means for engaging the pawl of said major section to releasably hold the pawls in a set position.

3. A sack holder comprising a frame, a cross bar rotatably carried by said frame, said cross bar comprising a major member and an auxiliary member adjustably connected with said major member and extending beyond said frame, pawls rigidly secured to the end portions of said cross bar to cause said cross bar and pawls to move together and means for releasably holding said pawls in a set position.

4. A sack holder comprising a frame, a cross bar rotatably connected with said frame, said cross bar comprising a rotatably mounted major member and an auxiliary member adjustably connected with said major member for longitudinal adjustment, pawls rigidly connected with said cross bar, and means for engaging said pawls for releasably holding the same in a set position.

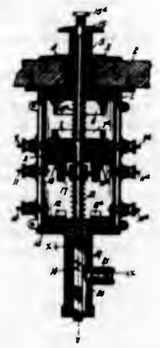
1,132,601. HINGE. JOHN P. MOYNIHAN, Jamestown, N. Y., assignor to The Blackstone Manufacturing Company, Jamestown, N. Y., a Corporation of New York. Filed Sept. 8, 1914. Serial No. 860,511. (Cl. 16—104.)



A hinge of the kind described consisting of two leaf members, said leaf members each comprising a plate one of which is provided with a laterally extending hook member in which is formed a cylindrical bearing surface the axis of which is located in a plane above the top surface of the plate, inclined shoulders on said plate at the ends of the hook member, said shoulders blending into the bearing surface of said hook member, the plate of the other leaf member having a pintle member spaced

laterally therefrom in a plane above the top surface thereof, said pintle being adapted for bearing engagement with the cylindric bearing surface of the hook member before mentioned, arms connecting the ends of said pintle member to said plate, shoulders formed on said arms, said shoulders being adapted for abutting engagement with the shoulders on the first mentioned plate, when said second mentioned plate member is swung about the axis of its pintle member within the bearing surface of the hook member through an angle greater than 90°, said leaf members being adapted to be operatively disconnected from each other in an endwise direction when in one angular position relative to each other.

1,132,602. STARTER-CONTROL FOR EXPLOSIVE-ENGINES. HUBERT A. MYERS, Toledo, Ohio, assignor of one-half to Arthur S. Hickok, Toledo, Ohio. Filed May 15, 1914. Serial No. 838,071. (Cl. 123—165.)



1. In combination, a starter circuit, a battery circuit and a magneto circuit, and single mechanism operable to simultaneously close the starter and battery circuits and to open such circuits and close the magneto circuits.

2. In combination, a starter circuit, a battery circuit and a magneto circuit, and mechanism manually operable to simultaneously close said starter and battery circuits and automatically operable to open said starter and battery circuits and to close the magneto circuit when released for such purpose.

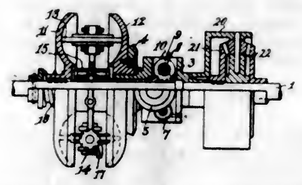
3. In combination, a starter circuit, a battery circuit and a magneto circuit, mechanism operable to simultaneously close the starter and battery circuits, and means operating to normally move said mechanism from starter and battery circuit closing position and into magneto circuit closing position.

4. In combination, a starter circuit, a battery circuit and a magneto circuit, independent means, one movable to open and close the starter circuit and one movable to open and close either the battery or magneto circuits, and means automatically operable to move one of said means from battery circuit to magneto circuit closing position when the other means is permitted to move from starter circuit closing position.

5. In combination, a starter circuit, a battery circuit and a magneto circuit, independent means, one operable to close the starter circuit and the other operable to open and close either the battery circuit or the magnto circuit, and means manually operable to simultaneously move one of said means to starter circuit closing position and the other of said means to battery circuit closing position and then automatically operable to break the starter and battery circuits and to close the magneto circuit.

[Claims 6 to 12 not printed in the Gazette.]

1,132,603. VARIABLE-SPEED GEARING. JAMES JOSEPH MYERS, Thurles, Ireland. Filed Nov. 28, 1913. Serial No. 803,605. (Cl. 74—34.)



1. In variable speed gearing, a worm controlling device comprising a carrier, a series of threaded spindles mounted in the carrier, a series of worms each mounted on a respective one of the threaded spindles for movement lengthwise thereof by the threads of the spindles, means at one limit of travel of each worm on its spindle for positively connecting the worm to the spindle, and a friction brake structure at the other end of the travel of the worm on its spindle and with which the corresponding end of the worm is adapted to engage.

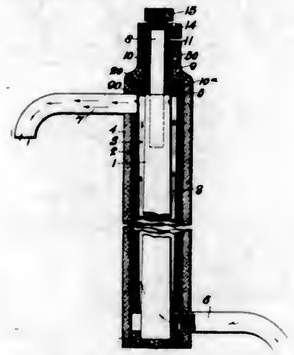
2. In variable speed gearing, a worm controlling device comprising a series of worms, a spindle for each worm upon which the worm is threaded for longitudinal movement thereon, and means at one limit of the travel of each worm along its spindle for connecting the worm and spindle solidly together, and means at the other limit of travel of the worm on the spindle for checking overrunning of the worm.

3. A variable speed gearing comprising in combination a drive shaft, a driven shaft concentric therewith, a worm wheel concentric with the drive shaft, a carrier concentric with the shafts, a series of worms on the carrier in engagement with the worm wheel, pinions on the carrier fast to the worms, gear wheels also on the carrier in engagement with the pinions, bevel wheels fast to the gear wheels and also mounted on the carrier to rotate on axes at right angles to that of the driving and driven shafts, a bevel wheel in engagement with the first-named bevel wheels, a friction disk connected to the last-named bevel wheel and mounted for rotation about the axis of the drive shaft, another friction disk in opposed relation to the first named friction disk and spaced therefrom and provided with means for constantly urging it toward the first-named friction disk, and friction wheels located between and engaging the friction disks and mounted for movement on axes perpendicular to the axes of the friction wheels, whereby power is transmitted from the drive to the driven shafts through the bevel gear, and the friction disks and gearing connecting them to the worms serve to regulate the speed of transmission and are relieved from the transmission of driving power.

1,132,604. ELECTRIC FLUID-HEATER. THOMAS J. NASH, Lincoln, Nebr. Filed Dec. 26, 1914. Serial No. 879,083. (Cl. 219—40.)

1. In an electric heater, a casing of insulating material, heating elements within the casing comprising an outer tubular electrode and an inner electrode, the said electrodes being spaced and insulated from each other, the space between the said electrodes forming the fluid receiving chamber; the said casing having a fluid feed inlet in communication with one end of the said chamber, a fluid outlet in communication with the other end of the said chamber, the opposing faces of the inner and outer electrodes being relatively shaped to form an annular fluid receiving chamber of gradually increasing area from the inlet to the outlet end thereof.

2. In an electric heater, a casing, heating elements within the casing, said elements comprising a tubular electrode whose internal diameter gradually increases from one end to the other, an inner electrode within the tubular electrode spaced and insulated from the said tubular electrode, said inner electrode being of gradually decreasing diameter from one end to the other, means for connecting the electric circuit terminals to the said electrodes, a fluid feed inlet in communication with the restricted end of the space between the electrodes, and a fluid outlet in communication with the other end of the space between the said electrodes.



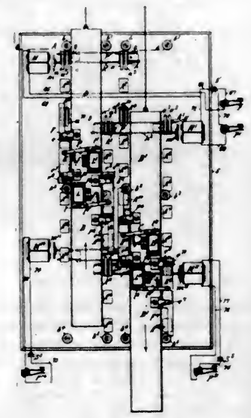
3. In an electric heating appliance of the character stated; a tubular casing of insulating material having a restricted neck, a closure for the lower end of the said casing, said casing having a fluid inlet at the lower end, a tubular electrode within the casing whose upper end terminates in an inturned flange, a fluid outlet that extends through the casing and the upper end of the tubular electrode, an inner electrode located within and spaced from the tubular electrode, the lower end of the said inner electrode having a bearing on the bottom closure of the outer casing, a rod that extends through the restricted neck of the casing and joins with the inner electrode, an insulating sleeve on the said rod that includes a flanged lower end that opposes the flanged end of the tubular electrode, a metallic sleeve on the insulating sleeve, said metallic sleeve including a flanged lower end that fits between the flanged end of the insulating sleeve and the flanged end of the tubular electrode, a metallic washer that contacts with the metallic sleeve, an insulating clamping disk on the upper end of the rod that connects with the inner electrode, a clamp nut on the upper end of the said rod.

4. In an electric water heater, an outer electrode shell, an inner electrode core, said shell and core being spaced apart a distance increasing in cross sectional area from the inlet progressively toward the outlet, means for admitting water into the space between the said electrodes, and means for conveying water out of the space between said electrodes.

1,132,605. SIGNAL APPARATUS. HENRY F. NEWBURY, New York, N. Y., assignor to Elevator Supply & Repair Company, a Corporation of Illinois. Filed Nov. 26, 1904. Serial No. 234,357. (Cl. 177—336.)

1. In a switch apparatus the combination, substantially as set forth, of a switch device provided with a movable portion, a carriage movably mounted in bearings to move past the switch device and provided with an abutment adapted to engage with such movable portion, and means separate from the means which control the movement of the carriage in its bearings provided with a movable portion, which upon being moved in one direction, changes the operative relations of the abutment and the movable portion of the switch device and thereby renders one inoperative upon the other, and upon being moved in another direction restores such relations.

2. In a switch apparatus the combination, substantially as set forth, of a switch device provided with a movable portion, a carriage movably mounted in bearings to move relatively to the switch device and provided with an abutment movable relatively to the carriage in two directions and arranged to engage with such movable portion, means adapted to normally hold the abutment in position in one direction relatively to the switch device, and means adapted to hold such abutment in engaging position relatively to the switch device in the other direction and to move it out of such position, whereby the abutment may be adjusted relatively to the carriage in one direction and to pass by the switch device when moved from its normal position in the other direction.



3. In a signal apparatus the combination, substantially as set forth, of a switch device, a movable part mounted on a support and arranged to coact with the switch device, means adapted to move such part and hold it in a given position, and an actuating device mounted to move relatively thereto and move such part out of its given position, and then move away therefrom and allow the movably mounted part to return to its given position.

4. In a signal apparatus the combination with a movable signal controller, of means for operating such controller, a movable resetting controlling medium controlled in its movements by the travel of the car and movable in the path of the signal controller for resetting the same, and means adapted to change the operative relations of the controller and resetting means, one relatively to the other.

5. In a signal apparatus the combination with a movable signal controller, of means for operating such controller, a movable resetting controlling medium controlled in its movements by the travel of the car and movable in the path of the signal controller for resetting the same, and means movable relatively to a portion of the resetting medium and adapted to change the operative relations between the signal controller and resetting medium, one relatively to the other.

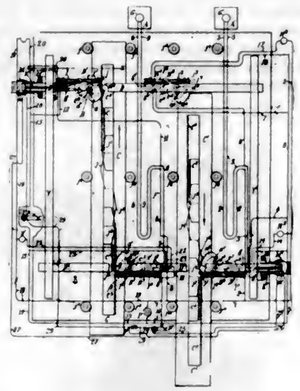
[Claims 6 to 17 not printed in the Gazette.]

1,132,606. SIGNAL APPARATUS. HENRY F. NEWBURY, New York, N. Y., assignor to Elevator Supply & Repair Company, a Corporation of Illinois. Filed Nov. 26, 1904. Serial No. 234,358. (Cl. 177—336.)

1. In a signal apparatus the combination, of a circuit, a switch device connected therewith having two pivotally mounted parts, one of which is movable in one direction by the movement of the other, holding means adapted to engage with the moved part and hold it in the displaced position, and means adapted to move relatively to the switch device and engage with a portion of the holding means and release the moved part.

2. In a signal apparatus the combination, of a circuit, a switch device connected therewith having two levers pivotally mounted on the same axial line one adapted to

engage with one terminal of the circuit and the other to engage with the first lever and also with actuating means, and actuating means adapted to move relatively to such levers to actuate the same and close the switch.



3. In a signal apparatus the combination, of a circuit, a switch device connected therewith having a movable part adapted to engage with one terminal of the circuit, means adapted to move relatively to the switch device in two directions and to actuate such part to close the circuit in only one direction of movement, a retaining device adapted to engage with such movable part after the circuit is closed, and actuating means also movable relatively to the retaining device in two directions of movement and adapted to engage with a portion of the retaining device to actuate it into position to release the movable part for opening the switch.

4. In an elevator signal apparatus, in combination, a signal circuit, a switch in said circuit, a traveler moving correspondingly with the car and arranged to move said switch to close the same, means other than said traveler for holding said switch closed, and means for reopening said switch.

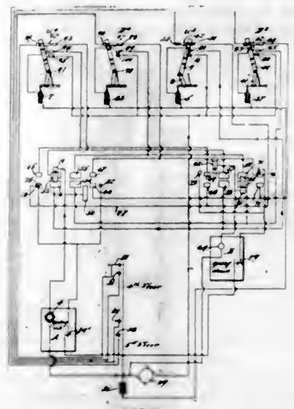
5. In an elevator signal apparatus, in combination, a signal circuit, a switch in said circuit which may close said circuit, a traveler moving correspondingly with the car and arranged to move said switch to close the same, and retaining means for holding said switch closed and arranged to be released by said traveler.

[Claims 6 to 20 not printed in the Gazette.]

1,132,607. ELEVATOR SIGNALING SYSTEM. EMERSON R. NEWELL, New York, N. Y., assignor to Elevator Supply & Repair Company, Chicago, Ill., a Corporation of Illinois. Filed May 24, 1911. Serial No. 629,114. (Cl. 177—336.)

1. In an elevator signaling apparatus in combination, a magnet, a setting circuit for said magnet and a normally-open switch therein operable by a passenger on a floor, a restoring circuit for said magnet and a normally-open switch therein, circuit-shifting means operated by each successive energization of said magnet and adapted to open either of said circuits and close the other to the switch therein, and a signal set at one energization of said magnet and restored through the next energization thereof.

2. In an elevator signaling apparatus in combination, a signal, a magnet, signal-controlling mechanism for setting the signal by one energization of said magnet and restoring the same by another energization and comprising a setting circuit for said magnet and a normally-open switch therein closable by a passenger on a floor, a restoring circuit for said magnet and a normally-open switch therein, and circuit-shifting mechanism operated at each successive energization of said magnet and operating to disconnect said magnet from whichever circuit is closed and connect it to the other circuit.



3. In an elevator signaling apparatus in combination, a signal, a magnet, signal-controlling mechanism for setting the signal by one energization of said magnet and restoring the same by another energization and comprising a setting circuit for said magnet and a normally-open switch therein closable by a passenger on a floor, a restoring circuit for said magnet and a normally-open switch therein, and circuit-shifting mechanism operated at each successive energization of said magnet and operating to disconnect said magnet from whichever circuit is closed and connect it to the other circuit, and mechanism operated automatically by the car and adapted to cause the restoring circuit to remain open during the time the car is moving in one direction.

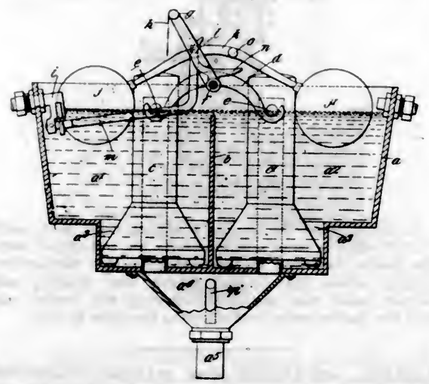
4. In an elevator signaling apparatus in combination, a signal, a magnet, signal-controlling mechanism for setting the signal by one energization of said magnet and restoring the same by another energization and comprising an electro-magnetic device moved in the same direction by said magnet whenever said magnet is energized, a spring adapted to return said device to normal position when released, and a signal-controlling part moved by said electro-magnetic device at each energization of said magnet, a setting circuit for said magnet and a normally-open switch therein closable by a passenger on a floor, a restoring circuit for said magnet and a normally-open switch therein, circuit-shifting mechanism operated at each successive energization of said magnet and operating to disconnect said magnet from whichever circuit is closed and connect it to the other circuit.

5. In an elevator signaling apparatus in combination, a signal, a magnet, signal-controlling mechanism for setting the signal by one energization of said magnet and restoring the same by another energization and comprising a setting circuit for said magnet and a normally-open switch therein closable by a passenger on a floor, a restoring circuit for said magnet and a normally-open switch therein closed and opened by the movement of the car, and circuit-shifting mechanism operated at each successive energization of said magnet and operating to disconnect said magnet from whichever circuit is closed and connect it to the other circuit.

[Claims 6 to 10 not printed in the Gazette.]

1,132,608. FLUSHING-CISTERN. CHARLES LESLIE NEWLAND, Merton, England. Filed Sept. 26, 1910. Serial No. 583,935. (Cl. 4—5.)

1. A double flushing cistern comprising two separate water compartments, separate discharging means for the compartments, manipulating means for the discharging means common to both and normally active to a predetermined one of said discharging means, means responsive to the lowering level of water in the said predetermined compartment, and coactive means on the last-named means and the manipulating means operative to set the manipulating means on the discharge of water from the predetermined compartment into position to become active to the discharging means of the other compartment for the discharge of the latter at the will of the operator, whereby the predetermined one of the compartments is always emptied first and will then refill unless the operator again actuates the manipulating means before the refilling is completed.



2. A double flushing cistern comprising two separate water compartments having a common outflow and a single inlet, separate discharging means for the compartments, manipulating means for the discharging means common to both and normally set to be active to a predetermined one of the discharging means, means responsive to the lowering level of water in the said predetermined compartment to control the inlet to the cistern, and coacting means on the manipulating means and on the said means responsive to the lowering level of water operative to set the manipulating means on the discharge of water from the predetermined compartment into position to become active to the other compartment for its discharge at the will of the operator.

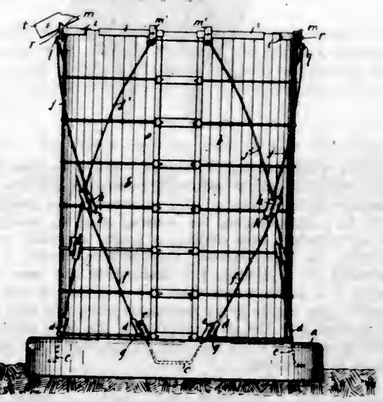
3. A double flushing cistern comprising two separate water compartments communicating with a common outflow pipe, discharging means individual to the compartments, a rock shaft carried by the cistern, connections between the rock shaft and each of the individual discharging means, a lost motion rock arm or lever carried by the shaft for actuating the latter at will, connected floats in the two compartments, a single inlet valve and connections therefrom to both floats, and means controlled by the floats for shifting the operating lever or arm into one or the other of two operative positions in accordance with the water level in the cistern.

4. A double flushing cistern comprising two separate water compartments communicating with a common outflow pipe, controlling means individual to the compartments for the outflow, a rock shaft carried by the cistern, a hanger or rocker carried by the rock shaft and active to either discharging means individual to the compartments in accordance with the direction of rocking of the rock shaft, an arm or lever carried by the rock shaft and having a lost motion connection therewith, a two arm member connected to the rock arm or lever, manipulating means connected to the rock arm or lever for rocking the shaft at will, a float in each compartment, connections between the floats, and means carried by said last named connections for engaging the two armed member to move the manipulating lever to one side or the other of a neutral position in response to the level of water in the cistern.

5. A double flushing cistern comprising two separate water compartments communicating with a common outflow, separate means individual to the compartments for discharging said compartments, operating means for said individual discharging means movable to two operative positions, and means responsive to the level of water in one compartment to move the two-position operating means to one or the other of its operative positions in accordance with the water level in the said compartment.

[Claims 6 to 15 not printed in the Gazette.]

1,132,609. SILO-BRACING. FREDOLIEN J. OBERER, Portland, Oreg., assignor of one-half to Henry North, Portland, Oreg. Filed Feb. 14, 1914. Serial No. 818,808. (Cl. 217—4.)



1. The combination with a foundation and a container formed of staves, thereon mounted, of a holding element seated on a plurality of adjacent staves, being fastened to one thereof and permitting relative movement to the other staves under the holding means, and brace rods arranged helically and in opposite directions around the body of the container, said brace rods being fastened at their extremities to the foundation and to said holding means.

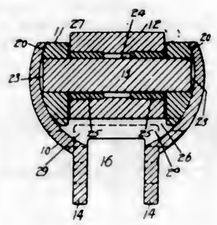
2. The combination with a foundation and a container formed of staves, thereon mounted, of a holding element seated on a plurality of adjacent staves, being fastened to one thereof, and permitting relative movement to the other staves under the holding means, brace rods arranged helically and in opposite directions around the body of the container, said brace rods being fastened at their extremities to the foundation and to said holding means, and means for relatively shortening the brace rods.

3. The combination with a foundation and a container, formed of staves, thereon mounted, of a plurality of channel-like bearing-caps seated on the rim of the container and extending over a series of adjacent staves, said bearing-caps being connected with one stave of said series of staves on which they are seated, and the others of said series being permitted free lateral movement relative to said bearing-caps, and brace-rods connected at their extremities to said bearing caps and the foundation, said brace rods being arranged helically and in opposite directions around the body of the container.

4. The combination with a foundation and a container, formed of staves, thereon mounted, of a plurality of channel-like bearing-caps seated on the rim of the container and extending over a series of adjacent staves, said bearing-caps being connected with one stave of said series of staves on which they are seated, and the others of said

series being permitted free lateral movement relative to said bearing-caps, clamp-plates, fixed on the bearing caps, said clamp-plates having a lateral inclined ears; anchors fastened in the foundation, and adjustable counter brace-rods arranged helically and in opposite directions around the container, said brace-rods connecting said clamp plates to said anchors.

1,132,610. SIDE BEARING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Nov. 24, 1913. Serial No. 802,846. (Cl. 64—64.)



1. In a side bearing for railway cars, a bearing member comprising a hollow spherical casting, a slidable cradle mounted therein, and a roller mounted in the cradle.

2. In a side bearing for railway cars, in combination, an open hollow base casting, a cradle rotatably mounted therein, an axle passing through the cradle, a roller mounted on said axle, the opening in the base casting being of a lesser width than the diameter of the hollow therein, the cradle being removable when one side thereof is rotated into the said opening in the base casting and held in position when the sides of the cradle are arranged below said opening.

3. In a side bearing for railway cars, an open hollow base casting, a rotatable cradle therein, a roller and an axle therefor, the cradle having an opening to receive the roller, the cradle having perforations at the sides of said opening to receive the axle, the opening in the base casting being of lesser width than the diameter of the hollow, the cradle being removable when one side thereof is rotated into the opening of the base casting and held in working position when the sides are moved to positions out of alinement with said opening.

4. In a railway car, in combination, a side bearing, bridge, a hollow base casting, a cradle rotatably mounted therein, and a roller mounted in the cradle, the bridge passing through the hollow portion of the base casting and forming shoulders to limit the rotation of the cradle.

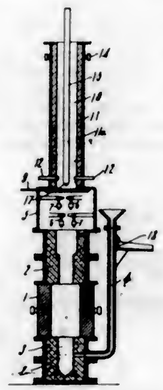
5. In a side bearing for railway cars, in combination, a base casting having a substantially spherical hollow portion with an opening therefrom of lesser width than the diameter of the hollow portion, a cradle rotatably mounted in the base casting and in sliding engagement therewith, a roller mounted in the cradle, and means to limit the rotation of the cradle.

[Claims 6 to 10 not printed in the Gazette.]

1,132,611. METHOD OF MAKING CHILLED ROLLS WITH STEEL CENTERS. JAY T. OSLER, Coraopolis, Pa. Filed Dec. 18, 1913. Serial No. 807,469. (Cl. 22—204.)

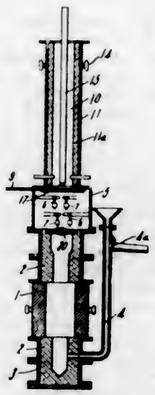
1. The method of forming rolls in a mold, consisting in first pouring into said mold cast iron to form the roll body and then lowering into the cast iron a heated mild steel core to form the roll center, and allowing said core and body to cool.

2. The method of forming composite rolls in a mold, consisting in heating a steel core to form the roll center, pouring into said mold molten iron at a temperature above that of the heated steel core, lowering the core into the molten cast iron, and allowing the core and cast iron to cool and weld together.



3. The method of forming composite rolls in a mold, consisting in heating a core to form the roll center, heating molten cast iron to form the body to a temperature slightly above that of the heated core, pouring said molten metal into the mold, lowering the heated core into the molten metal, and allowing the same to cool.

1,132,612. APPARATUS FOR MAKING COMPOSITE ROLLS. JAY T. OSLER, Coraopolis, Pa. Filed Dec. 18, 1913. Serial No. 807,470. (Cl. 22—60.)



1. Apparatus for making composite rolls, comprising a mold arranged to receive a core for forming the roll center, and movable arms for centering said core as it is introduced into the mold.

2. Apparatus for making composite rolls, comprising a mold arranged to receive a core for forming the roll center, and swinging arms carried by said mold and arranged to move inwardly by gravity for centering the core therein.

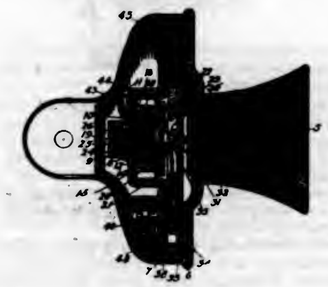
3. Apparatus for making composite rolls, comprising a mold arranged to receive a core for forming the roll center, and two sets of pivoted arms supported at the upper end of said mold for centering the core therein.

4. Apparatus for making composite rolls, comprising a mold arranged to receive a core for forming the roll center, and means arranged to engage said core as it is introduced into the mold and to clean and also center the core therein.

5. Apparatus for making composite rolls, comprising a mold arranged to receive a core for forming the roll center, a casing carried by said mold, cleaning and centering devices in said casing, and a gate for closing the upper end of said casing.

[Claims 6 to 8 not printed in the Gazette.]

1,132,613. TELEPHONE-TRANSMITTER. JOEL C. R. PALMER, Brooklyn, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Apr. 15, 1912. Serial No. 690,844. (Cl. 179—122.)



1. A telephone transmitter having an electrode chamber with a tapered wall, an electrode at one end of said chamber, a second electrode larger than the first at the opposite end of said chamber and having a diameter less than the largest diameter of said chamber.

2. A telephone transmitter having an electrode chamber with a tapered wall, a stationary electrode located at the smaller end of said chamber, a closure for the larger end of said chamber, and an electrode carried by said closure having an area larger than the area of said stationary electrode and smaller than the total area of said closure.

3. A telephone transmitter having an electrode chamber with a tapered wall, comminuted material in said chamber, a stationary electrode located at the smaller end of said chamber, a closure for the larger end of said chamber, said closure presenting a central conducting surface and a peripheral non-conducting surface to said comminuted material, said conducting surface having an area greater than the area of said stationary electrode.

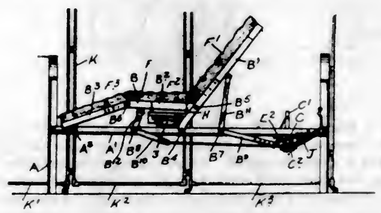
4. A telephone transmitter having an electrode chamber the shape of the frustum of a cone, an electrode of the same diameter as the smaller end of said chamber secured therein, and a movable electrode of rigid material located upon the opposite side of said chamber, said movable electrode being of greater diameter than the first-mentioned electrode and of less diameter than the largest diameter of said chamber.

5. A telephone transmitter having an electrode chamber with a tapered wall, comminuted material in said chamber, an electrode at the smaller end of said chamber, a second electrode located in the opposite end of said chamber, said second electrode having exposed to the comminuted material in the chamber an area greater than the area of said first-mentioned electrode but less than the area of the larger end of said chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,132,614. HOSPITAL-BED. GEORGE PAYNE, Orillia, Ontario, Canada. Filed Mar. 21, 1914. Serial No. 826,150. (Cl. 5—12.)

In a hospital bed the combination with a bed frame provided with the usual side bars, of a mattress comprising a head, center and foot sections, said head and foot sections being pivotally connected to said center section, arms secured to the sides of said head section and extending beyond the inner end thereof, pivotal connections between the inner ends of said arms and the side bars of the frame, a bell crank pivoted to said side bars and having one end bearing against said head section, a similar bell crank having one end bearing against said center section, a link connecting the free ends of said bell crank and a winding drum secured to said frame and connected to the free end of said first mentioned bell crank, as and for the purpose specified.



1,132,615. SERVICE-COVER FOR MILK-BOTTLES, JARS, &c. BLANCHE SMITH PIERCE, Grand Rapids, Mich. Filed Oct. 23, 1913. Serial No. 796,760. (Cl. 215—14.)



1. A service cover for a bottle, jar or other vessel, comprising, in a single piece of suitable thin and flexible sheet metal, an annular vessel-top-contacting portion, a pair of oppositely disposed securing lugs depending from the outer edge of the vessel-top-contacting portion, and a third lug also depending from the outer edge of the vessel-top-contacting portion, and located midway circumferentially thereon between the two securing lugs, to facilitate the manual application of the cover to and its removal from the top of the vessel, substantially as shown and described.

2. A service cover for a bottle, jar or other vessel, comprising, in a single piece of suitable thin and flexible sheet metal, an annular vessel-top-contacting portion, an annular stiffening rim portion external to said annular contacting portion, a pair of oppositely disposed securing lugs depending from said external annular stiffening rim portion, a raised portion within the annular vessel-top-contacting portion whereby an annular offset is provided at the junction of the two last named portions for the purpose of further stiffening the cover, and a third lug depending from the external annular stiffening rim portion, and located midway circumferentially thereon between the two securing lugs, to facilitate the manual application of the cover to and its removal from the top of the vessel, substantially as described.

1,132,616. SUPPORTING MEANS FOR DISAPPEARING BEDS. ELMER C. PITCHER, San Francisco, Cal. Filed Apr. 11, 1914. Serial No. 831,345. (Cl. 5—18.)

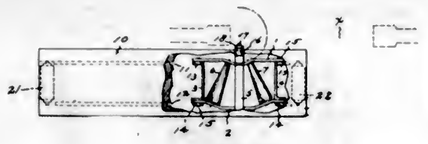
1. A supporting truck mounted on rollers having converging axes; and a platform mounted on said truck and having a movement traverse to said axes.

2. A supporting truck having a frame, conical rollers in said frame, the axes of said rollers converging toward a center outside of said frame.

3. A supporting truck having conical rollers therein the axes of said rollers converging toward a common center; and a platform on said truck having a movement tangential to the normal movement of said truck.

4. A truck; a platform slidable upon said truck; conical rollers in said truck with their axes converging toward a

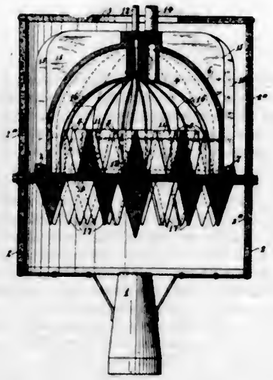
common center whereby said platform may be caused to assume positions parallel with the opposite sides of a wall by passing through an opening therethrough.



5. A truck; a platform slidable upon said truck; conical rollers supporting said truck and having axes converging toward a common center; rollers interposed between said truck and said platform; a roller attached to said truck and overhanging said platform; whereby said platform on the truck is adapted to travel from a position parallel with one side of a wall, through an opening therethrough to a position parallel with the opposite side of the wall.

[Claims 6 to 8 not printed in the Gazette.]

1,132,617. STEAM-GENERATOR. ENOCH RECTOR, New York, N. Y., assignor to Rector Engine Corporation, New York, N. Y., a Corporation of New York. Filed Jan. 3, 1911, Serial No. 600,430. Renewed Aug. 11, 1914. Serial No. 856,288. (Cl. 122—367.)



1. A generator comprising a generating chamber having a plurality of projections extending from the bottom thereof and terminating within the generating chamber at a point above the water level of the generator.

2. In a generator the combination with one of the walls of the generator, of a plurality of circulation producing projections extending above the normal water level of the generator and terminating within the generator slightly above the normal water level thereof.

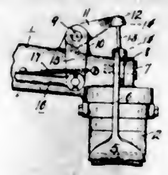
3. In a steam generator comprising a generating chamber, a plurality of conical shaped projections extending partly in the water and partly above the normal water level of said generating chamber and terminating within the generating chamber.

4. In a steam generator comprising a generating chamber, the combination of a plurality of projections terminating within the generating chamber and extending partly in the water and partly above the normal water level, and means for admitting water near the base of said projections.

5. In a steam generator, the combination with a bottom plate having a plurality of vertical projections, of a plurality of radial ribs extending from the center of said plate toward the circumference of the generator to divide said plate into a plurality of sections, said sections having communication with each other adjacent to the wall of the generator.

[Claims 6 to 10 not printed in the Gazette.]

1,132,618. CUT-OFF MEANS FOR METAL-GATHERING HEADS. JOSEPH W. ROBINSON, Toledo, Ohio. Filed Apr. 17, 1914. Serial No. 832,486. (Cl. 49—14.)



1. The combination with a gathering cup, of a pair of arms pivoted to the upper closed end of the cup and extending outward and downward therefrom at opposite sides of the cup and having blades at their free ends for swinging in shearing relation under the cup when the arms are swung inward, and a single mechanism movable with said cup and operable to impart opposed swinging movements in unison to said arms.

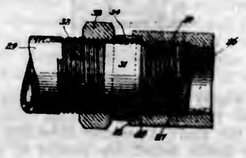
2. The combination with a ram and a gathering cup carried thereby, of a pair of L-shaped arms mounted at one end on a common pivot at the upper closed end of said cup and thence extending outward and downward at opposite sides of the cup and terminating at their free ends in transversely projecting blades for swinging under the lower open end of the cup in shearing relation when the arms are swung inward, a lever pivotally carried by said ram adjacent to the upper end of said cup for rocking movements in a plane lengthwise of the ram and cup, connection between said lever and each of said arms, and means for rocking the lever to impart inward and outward swinging movements to the arms.

3. The combination with a gathering cup, of a pair of arms mounted on a common pivot at the upper closed end of said cup and extending outward and downward at opposite sides of the cup and terminating at their free ends in inwardly projecting blades for swinging in shearing relation under the lower open end of the cup, a lever pivoted adjacent to the top of said cup and having a T-arm, link connection between the free ends of said T-arm and the respective outwardly extending upper end portions of said pivot arms for causing the like opposed swinging movements to be imparted in unison to said arms from a rocking of said lever, and means operable to rock said lever.

4. The combination with a gathering ram and a gathering cup carried thereby, of a pair of arms pivoted to the cup adjacent to the closed end thereof and having shearing parts at their free ends for swinging under the open end of the cup in lapped shearing relation when the arms are swung inwardly, a lever pivoted to the ram, draft means operable to move said lever, and link connection between said lever and each of said arms having universal joint connection with the respective lever and arms.

5. The combination with a gathering cup, of a pivot disposed at the closed end thereof, arms carried by and projecting in opposed relation from said pivot and thence lengthwise of the gathering cup at opposite sides thereof, knives carried by said arms at the free ends thereof and adapted to swing under the gathering end of the cup and to have lapped shearing engagement when the arms are swung inwardly, said knives having broadened V-shaped cutting edges, a lever pivoted adjacent to said head with its pivot at right angles to the pivot of said arms, one arm of said lever having a control member attached thereto and the other arm having a cross-head which is disposed above the inner end portion of said knife carrying arms, and links disposed between each of said knife carrying arms and the adjacent end portion of said cross-head and having universal joint connection with the respective parts.

1,132,619. AMMONIA-PIPE UNION. FRANK N. ROHRICH, Jersey City, N. J., assignor to George P. Carroll, Bridgeport, Conn. Filed Aug. 26, 1912. Serial No. 717,142. (Cl. 137—28.)



1. In combination an internally threaded major conduit, a minor conduit externally threaded in two sections with an intermediate plain section for screwing at its threaded end section into said major conduit, a gasket for occupying a space outside of said intermediate section and at the end of said major conduit, compressing means for completely inclosing said gasket and for compressing it over the joint between said conduits, and a nut adapted to be screwed around said other threaded section so as to force said compressing means to so compress said gasket.

2. In combination an internally threaded major conduit having a surface adjacent to the end of its threads in a plane such that the axis of the conduit is substantially perpendicular to the plane, a minor conduit externally threaded in two sections with an intermediate plain section for screwing at its threaded end section into said major conduit, a gasket for occupying a space outside of said intermediate section and adjacent to said surface, compressing means for completely inclosing said gasket and for compressing it over the joint between said conduits, and a nut adapted to be screwed around said other threaded section so as to force said compressing means to so compress said gasket.

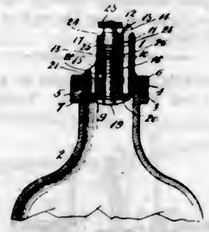
3. In combination an internally threaded major conduit, a minor conduit externally threaded in two sections with an intermediate plain section of reduced diameter for screwing at its threaded end section into said major conduit, a gasket for occupying a space outside of said intermediate section and at the end of said major conduit, compressing means for completely inclosing said gasket and for compressing it over the joint between said conduits, and a nut adapted to be screwed around said other threaded section so as to force said compressing means to so compress said gasket.

4. In combination an internally threaded major conduit having a surface adjacent to the end of its threads in a plane such that the axis of the conduit is substantially perpendicular to the plane, a minor conduit externally threaded in two sections with an intermediate plain section of reduced diameter for screwing at its threaded end section into said major conduit, a gasket for occupying a space outside of said intermediate section and adjacent to said surface, compressing means for completely inclosing said gasket and for compressing it over the joint between said conduits, and a nut adapted to be screwed around said other threaded section so as to force said compressing means to so compress said gasket.

5. In combination an internally threaded major conduit counterbored at an end to form an annular recess at the end of its threads, a minor conduit externally threaded in two sections with an intermediate plain section for screwing at its threaded end section into said major conduit, a gasket for occupying the space outside of said intermediate section at the inner end of said recess, compressing means for covering said gasket in said recess and for composing the gasket over the joint between said conduits, and a nut adapted to be screwed around said other threaded section so as to force said compressing means to so compress said gasket.

[Claims 6 to 8 not printed in the Gazette.]

1,132,620. POUR-OUT FOR BOTTLES. WALLACE C. SABINE, Boston, Mass., assignor to the Carter's Ink Company, Cambridge, Mass., a Corporation of Massachusetts. Filed Aug. 7, 1912. Serial No. 713,789. (Cl. 215—58.)



1. A pour-out for bottles, the same comprising an attachable body having therethrough an air inlet passage and a pour-out passage, said passages being separate and independent of one another, oppositely arranged and extending respectively through the body from the under side thereof, said body having also therein an opening extending therethrough from the under side thereof and lying between said passages, a valve controlling the passages and said opening through the body from the under side of the body, said valve having a stem extending through said opening, and means for controlling said valve through said stem.

2. A pour-out for bottles, the same comprising an attachable body having therethrough an air inlet passage and a pour-out passage, said body having an extension through which said pour-out passage is continued, said passages being separate from one another, oppositely arranged and extending respectively through said body from the under side thereof, said body having also therethrough a further opening extending from the under side of said body and lying between said passages, a valve controlling the passages and said opening through the body from the under side of the body, said valve having a stem extending through said opening in the body, and means for controlling said valve through said stem.

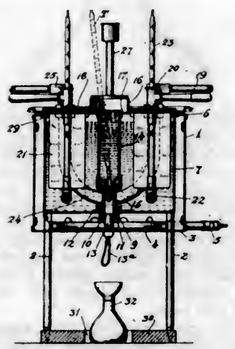
3. A pour-out for bottles, the same comprising an attachable body having therethrough an air inlet passage and a pour-out passage, said passages being separate and independent of one another, oppositely arranged and extending respectively through the body from the under side thereof, said body having also therein an opening extending therethrough from the under side thereof and lying between said passages, a winged valve having separate points of contact with the under side of said body for individually closing the passages and said opening therethrough, said valve having a stem extending through said opening, and means for controlling said valve through said stem.

4. A pour-out for bottles, the same comprising an attachable body having therethrough an air inlet passage and a pour-out passage, said passages being separate and independent of one another, oppositely arranged and extending respectively through the body from the under side thereof, said body having also therein an opening extending therethrough from the under side of the body and lying between said passages, said opening at the top end of the body being enlarged to form a socket, a valve controlling the passages and said opening through the body from the under side of the body, said valve having a stem extending through said opening and socket, and a nut threaded upon said stem and contained within said socket.

5. A pour-out for bottles, the same comprising an attachable body having therethrough an air inlet passage and a pour-out passage, said body having an extension through which said pour-out passage is continued, said passages being separate and independent of one another, oppositely arranged and extending respectively through the body from the under side thereof, said body having

also therein an opening extending therethrough from the under side thereof and lying between said passages, said opening at the top of said body being enlarged to form a socket, a winged valve having separate points of contact with the under side of said body being individually closing the passages and said opening therethrough, said valve having a stem extending through said opening and socket, and a nut threaded upon the end of said stem and contained within said socket.

1,132,621. VISCOSIMETER. GEORGE M. SAYBOLT, Jersey City, N. J. Filed Feb. 2, 1914. Serial No. 815,918. (Cl. 73—51.)



1. In a viscosimeter the combination of a tube for holding liquid the viscosity of which it is desired to ascertain, a bath surrounding the same, means for maintaining the bath at any desired temperature, a turn-table cover for said bath and means connected therewith for agitating the fluid of the bath.

2. In a viscosimeter the combination of a tube for holding liquid the viscosity of which it is desired to ascertain, a bath surrounding the same, means for maintaining the bath at any desired temperature, a turn-table cover for said bath and means depending from said turn-table adapted to support a thermometer within the bath.

3. In a viscosimeter the combination of a tube for holding liquid, the viscosity of which it is desired to ascertain, said tube having a constricted lower portion having an outlet or nozzle of fine bore, a tube surrounding said nozzle adapted when closed to form an air tight chamber, a bath concentrically arranged about said tubes, a turn-table cover therefor, means depending from said turn-table for agitating the bath fluid and means for oscillating said turn-table and agitating means.

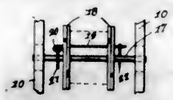
4. In a viscosimeter the combination of a tube for holding liquid, the viscosity of which it is desired to ascertain, a bath concentrically arranged about said tube and supporting the same, a turn-table cover for said bath provided with a hole through which the upper end of said tube projects, paddles extending into said bath for agitating the bath fluid and means extending outside the bath for oscillating said paddles.

5. In a viscosimeter the combination of a tube for holding liquid, the viscosity of which it is desired to ascertain, the upper end of said tube being provided with an overflow enlargement permitting uniform filling of the tube, a nozzle on the lower end of said tube, a tubular casing surrounding said nozzle and adapted to be closed to form an air seal for the nozzle and means for centering a flask under said nozzle to receive the discharge therefrom.

[Claims 6 to 9 not printed in the Gazette.]

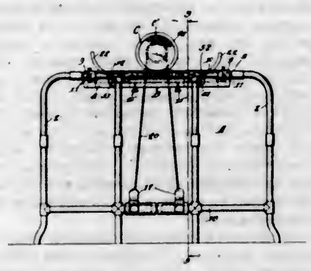
1,132,622. WIRE-WINDER. WILLIAM F. SCHULZ, Campbellsport, Wis. Filed June 21, 1913. Serial No. 775,082. (Cl. 242—90.)

1. A wire winder including a frame having a shaft rotatably mounted therein, independent wire retaining elements carried by said frame for preventing the displacement of the wire while being unwound, and means extending transversely through said elements and being detachably connected with said shaft whereby the elements and shaft are simultaneously actuated while unreeling the wire, the transverse movement of said elements on said shaft being limited.



2. A wire winder including a frame having a shaft revolubly mounted therein, wire retaining elements movably mounted on the shaft, a member extending through said element, and means detachably carried by said shaft adjacent said elements for detachable engagement with said member to produce simultaneous actuation of the wire retaining element and shaft.

1,132,623. PRINTING-MACHINE. JOSEPH M. SCHUTZ, Chicago, Ill., assignor, by mesne assignments, to Ped-O-Graph Company, a Corporation of Arizona. Filed June 3, 1912. Serial No. 701,272. (Cl. 101—11.)



1. In a manually operated printing machine a substantially flat type form supported in a horizontal position, an ink ribbon over-laying the type form and means for holding the ribbon in such position, a relatively heavy impression roll adapted to be passed back and forth over the type form to cause the type to print upon a sheet of paper which may be interposed between the ribbon and the roll, rails arranged adjacent to the type form by which the roll is supported and guided in its movement back and forth over the form, means for moving the roll back and forth over the form, and spring-pressed levers carried by the rails adjacent to their ends in the path of the roll adapted to yieldingly stop the roll at each limit of its movement, and projecting portions on said levers serving to yieldingly retain the roll at either limit of its movement.

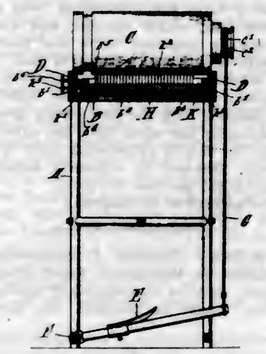
2. In a manually operated printing machine a substantially flat type form and a relatively heavy impression roll adapted to be moved back and forth over said type form to impress sheets of paper which may be interposed between the form and the roll, rails upon which the roll is supported and by which the roll is guided in its movement back and forth over the form, a reverse-curve lever pivotally mounted adjacent to one limit of the movement of the roll in the path of the roll adapted to stop the movement of the roll in one direction, a spring yieldingly retaining the lever in position to control the movement of the roll, the lever having a portion projecting into the path of the roll over which the roll is adapted to pass as it approaches the limit of its movement and which projection rises above the track on which the roll rests as the roll reaches the limit of its movement and serves to yieldingly prevent the return movement of the roll.

3. In a printing machine, the combination with a substantially horisontal type form of a relatively heavy impression roll adapted to be rolled back and forth over the type form to cause the type to print upon a sheet of paper which may be interposed between the type and the roll, rails arranged adjacent to the type form by which the roll is supported and guided in its movement back and forth, means for moving the roll back and forth, and means for yieldingly bringing the roll to a state of rest at each limit of its movement and there retaining the roll against accidental return.

4. In a printing machine, the combination with a substantially horizontal type form of a relatively heavy impression roll adapted to be rolled back and forth over the type form to cause the type to print upon a sheet of paper which may be interposed between the type and the roll, rails arranged adjacent to the type form by which the roll is supported and guided in its movement back and forth, means for moving the roll back and forth, and means for yieldingly bringing the roll to a state of rest at each limit of its movement, and for yieldingly retaining the roll in such position.

5. In a printing machine, the combination with a horizontally arranged type form of a relatively heavy roll adapted to be alternately rolled from end to end of the machine to produce the impression, and means for yieldingly stopping the roll at each limit of its movement, said means including a projection in the path of the roll adjacent to each limit of its movement for yieldingly retaining the roll against return.

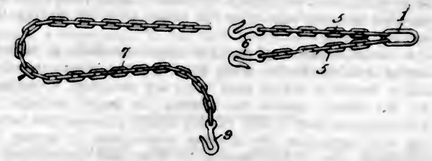
1,132,624. DUPLICATE PRINTING-MACHINE. JOSEPH M. SCHUTZ, Chicago, Ill., assignor to Charles H. Babb, Chicago, Ill. Filed Oct. 28, 1913. Serial No. 797,722. (Cl. 101—11.)



1. In a duplicating machine of the kind described, a pressure roll movable back and forth on the machine, a type form supporting plate arranged beneath the path of the roll and adjustable vertically from and toward the roll, said plate being supported upon two parallel inclined surfaces, one adjacent to the forward edge, and one adjacent to the rear edge, two spaced springs at one edge of the plate, holding it at one limit of its movement and a centrally arranged adjusting screw carried by the machine adapted to contact with the middle portion of the opposite edge of the plate for the purpose of adjusting the plate transversely of the machine upon said inclined surfaces and against said springs for the purpose of raising and lowering the plate relatively to the path of the pressure roll.

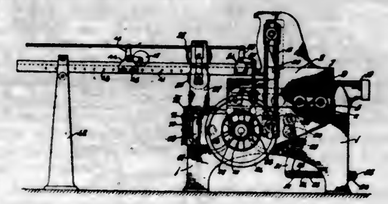
2. In a duplicating printing machine, a type form supporting plate movable transversely of the machine and supported upon parallel inclined surfaces, an adjusting screw carried by the machine and adapted to contact with the middle portion of the forward edge of the plate, said plate being provided with a vertically extending V-shaped groove receiving the point of the screw and a spring arranged between each end of the rear edge of the plate and the frame of the machine normally holding the plate at the forward limit of its movement in contact with said screw, and a pressure roll movable back and forth on the machine over the plate and from and toward which the plate is adapted to be adjusted for the purpose of producing the desired depth of impression.

1,132,625. CHAIN COUPLING FOR CARS. NATHAN D. SCOTT, Deshler, Ohio. Filed Feb. 21, 1913. Serial No. 749,939. (Cl. 213—61.)



A chain coupling comprising a coupling link adapted to be secured in the draw head of a car coupling, a pair of chains, each linked at one end into the coupling link and provided at the other end with a hook, said chains being relatively short so as to clear the track when in hanging position, and a separate relatively long chain designed to be looped around a truck or other portion of a disabled car and adapted to have the sides of the loop separately engaged with the hooks of the short chain, whereby the cars may be coupled together as closely as desired with all of the slack eliminated from the chains and with a uniform strain on the short chains and both sides of the looped relatively long chain, said long and short chains being adapted to be handled and carried separately and the hooks of the short chains being both located adjacent to the ends of the connected cars at the space between the end trucks of the same permit ready uncoupling of the cars, and a repair hook linked into one end of the long chain and constituting a permanent portion of the same and adapted in event of breakage of the long chain to engage with the broken portion to provide a quick repair without materially shortening such relatively long chain.

1,132,626. PAPER-CUTTING MACHINE. CHARLES SEYBOLD, Dayton, Ohio. Filed Mar. 24, 1913. Serial No. 756,305. (Cl. 164—49.)



1. In a machine of the character specified, a reciprocating cutting knife, with driving mechanism therefor, and a frame in which said parts are mounted, a carriage for the frame, means for feeding the paper material in a continuous web to the cutting knife, a clutch for bringing into operation the driving mechanism, the mechanism for advancing the carriage with the paper material with the operation of the driving mechanism.

2. In a machine of the character specified, a reciprocating cutting knife, with driving mechanism therefor, and a frame in which said parts are mounted, a carriage for the frame, means for feeding the paper material in a continuous web to the cutting knife, a clutch for bringing into operation the driving mechanism, a tripping device in the pathway of the paper and actuated thereby to

operate the clutch, and means for advancing the carriage with the paper material during the cutting operation.

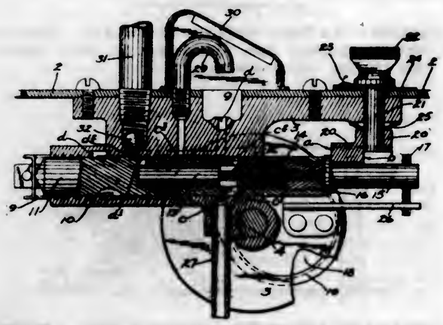
3. In a machine of the character specified, a reciprocating cutting knife, with driving mechanism therefor, and a frame in which said parts are mounted, a carriage for the frame, means for feeding the paper material in a continuous web to the cutting knife, a clutch for bringing into operation the driving mechanism, means for actuating the clutch, devices to hold said clutch out of operation, and a tripping device in the pathway of the paper and actuated thereby to release the clutch, to bring into operation the driving mechanism, and means for advancing the carriage with the paper material during the cutting operation.

4. In a machine of the character specified, a reciprocating cutting knife, with driving mechanism therefor, and a frame in which said parts are mounted, a carriage for the frame, means for feeding the paper material in a continuous web to the cutting knife, a clutch for bringing into operation the driving mechanism, a spring for actuating the clutch, devices to hold said clutch out of operation, and a tripping device in the pathway of the paper and actuated thereby to release the clutch, to bring into operation the driving mechanism, and means for advancing the carriage with the paper material during the cutting operation.

5. In a machine of the character specified, a reciprocating cutting knife, a driving shaft and connecting mechanism for actuating said knife, a driving pulley for the driving shaft, with clutch for coupling the shaft and pulley, and a frame in which said parts are mounted, a carriage for the frame, means for feeding the paper material in a continuous web to the cutting knife, a cam on the driving shaft and a fixed abutment against which said cam operates with the rotation of the driving shaft to advance the carriage with the paper material during the cutting operation.

[Claims 6 to 8 not printed in the Gazette.]

1,132,627. FORCE-FEED LUBRICATOR. HOWARD SMITH, Detroit, Mich., assignor to McCord Manufacturing Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 21, 1914. Serial No. 826,216. (Cl. 184—27.)



1. The combination with a sight-feed well and pump-actuating mechanism, of a double-acting single cylinder and single piston pump, and positive single means to uniformly vary the displacement between both of the opposite ends of said piston and cylinder, whereby a predetermined charge of fluid, variable at will, may be first pumped from source to said sight-feed well, and thence to the point of final delivery, by the opposite ends of said pump, substantially as described.

2. The combination with a sight-feed well and a valve seat, of a combined valve and pump cylinder, having a constant travel in said seat, a pump piston carried by the cylinder of said valve, an adjustable intercepting stop for said piston, and two sets of coöperating ports in said valve and seat, whereby a predetermined charge, variable at will, may be first drawn from source to said sight-feed well, by one end of said pump, and then be drawn back into the cylinder and forced out to the point of final delivery, by the opposite end of said pump, substantially as described.

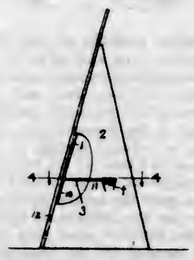
3. The combination with a sight-feed well and a valve seat, of a combined valve and pump cylinder, having a constant travel in said seat, a pump piston carried by the cylinder of said valve, an adjustable stop having two stop surfaces, one constant and the other variable, for intercepting the piston in opposite directions of its travel, and two sets of coöperating ports in said valve and seat, whereby said single pump is made double-acting to pump a predetermined charge, variable at will, from source to said well, and thence out to the point of final delivery, substantially as described.

4. In a lubricator, the combination with a reservoir and cover for the same, of a casting fixed to and depending from said cover into the reservoir, and affording a sight-feed well and a valve seat, and a double-acting, single cylinder and single piston pump comprising a combined valve and pump cylinder movable in said seat, an eccentric-bearing shaft mounted in said casting, an armed strap fitted to said eccentric and pivotally connected to the outer end of said combined valve and cylinder, and imparting a constant stroke thereto, a pump piston, carried by the cylinder of said valve, an adjustable stop for intercepting said piston, and two sets of coöperating ports in said valve and valve seat, arranged to coöperate substantially as described and for the purposes set forth.

5. In a lubricator, the combination with a reservoir and a cover for the same, of a casting, affording a sight-feed well and a valve seat, depending from said cover, and a double-acting, single cylinder and single piston pump comprising a combined valve and pump cylinder movable in said seat, means carried by said casting for imparting a constant travel to said combined valve and cylinder, a pump piston carried by the cylinder of said valve, an adjustable stop for said piston provided with means for adjusting the same from the exterior of said reservoir, and two sets of coöperating ports in said valve and valve seat, arranged to coöperate substantially as described and for the purposes set forth.

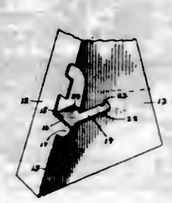
[Claim 6 not printed in the Gazette.]

1,132,628. EASEL. CHARLES T. SPRINGMAN, Detroit, Mich., assignor to Springman Paper Products Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 3, 1910. Serial No. 585,006. (Cl. 40—150.)



An easel, having in combination a suporting member, a back-stay member connected to one side of the suporting member and bendable to a substantially perpendicular position with respect to the supporting member, a locking member connected at one end with the suporting member and adapted to be swung back so that the opposite end engages with the back-stay member, and means for interengaging said locking member with back-stay member, comprising a projection on one of the said members and a latch-like member on the other member, whereby said latch-like member can be swung to engage with the projection but whereby it resists disengagement by presenting rigid portions to the disengaging effort, substantially as described.

1,132,629. EASEL. CHARLES T. SPRINGMAN, Detroit, Mich., assignor to Springman Paper Products Company, Detroit, Mich., a Corporation of Michigan. Filed May 6, 1914. Serial No. 836,592. (Cl. 40—150.)



1. An easel comprising a member adapted to be secured to the article to be supported, a strut on one side edge of the supporting member and bendable to a position at an angle thereto, a brace also on the supporting member and bendable in respect thereto on a line at substantially right angles to the line on which the strut is bendable, a tongue on the strut, said strut having an opening resulting from the forming of the tongue, a projection on the strut adapted to extend into said opening, a laterally extending ear on the brace adapted to be received in the opening in the strut, said ear having a depression therein to receive the projection, whereby disengagement of the strut and brace from each other is then prevented, said tongue holding the ear against said projection.

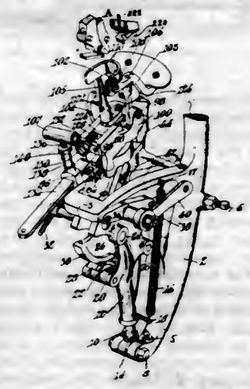
2. An easel comprising a supporting member adapted to be secured to a card, a strut on one side edge of the supporting member and bendable to a position at an angle thereto, a brace also on the supporting member and bendable to extend transversely to the strut, a tongue struck from the strut and leaving an opening therethrough, said tongue having a base along which it is secured to the strut and one edge of the opening being opposite the said base, a projection on the strut adapted to extend into the opening from the edge opposite the base, a laterally projecting ear on the brace adapted to be received in the opening in the strut, said ear having a depression in one face thereof to receive the projection on the strut, and said tongue then contacting with the opposite face of the ear, whereby disengagement of the strut and brace from each other is prevented.

3. An easel comprising a supporting member, a strut on one side edge of the supporting member and bendable to a position at an angle thereto, a brace also on the supporting member and bendable in respect thereto about a base line at substantially right angles to the axis about which the strut is bendable, said strut having an opening therethrough, said brace comprising a base and a laterally projecting ear, the latter of which is adapted to extend through the said opening in the strut, and a rigid shoulder on the inner edge of the strut adapted to engage with the brace at a point intermediate the base and the ear.

4. An easel comprising a supporting member, a strut on one side edge of the supporting member and bendable to a position at an angle thereto, a brace also on the supporting member and bendable in respect thereto about a base line at substantially right angles to the axis about which the strut is bendable, a tongue struck from the strut and leaving an opening therethrough, said tongue having a base along which it unites with the strut and one edge of the opening being opposite the said base, a projection on the strut adapted to extend into the opening from the edge opposite the base, a laterally projecting ear on the brace adapted to be received in the opening in the strut, said ear having a depression in one face thereof in which the projection on the strut may be received, said tongue then contacting with the opposite face of the ear, whereby disengagement of the strut and brace from each other is then prevented, and a shoulder on the strut adapted to engage with the brace at a point intermediate the base and the ear.

5. An article of manufacture, comprising three portions, the first a sheet, the second another sheet on one side edge of the first mentioned sheet and bendable to a position at an angle thereto, the third a brace also on the first mentioned sheet and bendable in respect thereto on a line at substantially right angles to the line on which the second portion is bendable, said second portion having an opening, a projection on the second portion adapted to extend into the opening, a laterally projecting ear on the brace adapted to be received in the opening in the second portion, said ear having a depression in one face thereof in which the projection may be received, whereby disengagement of the second portion and the brace from each other is then prevented.

1,132,630. WORK-SUPPORT. EDWARD A. STIGGINS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 22, 1911. Serial No. 622,756. (Cl. 12—127.)



1. A jack for heel-seat lasting comprising shoe supporting devices, a carrier therefor, manually operable means for raising the carrier, means for compelling backward movement of the shoe supporting devices during the upward movement of the carrier, and means for locking the jack in operative position by the same movement.

2. A jack for heel-seat lasting comprising shoe supporting devices, a carrier therefor, operating means comprising interengaging segment racks for raising the supporting devices, and means comprising oblique pin and slot guiding means to compel rearward movement of the shoe as it is lifted.

3. A jack for heel-seat lasting comprising shoe supporting devices, a carrier therefor, operating means comprising a rack, a hand lever, connections operated by the hand lever to cause the carrier to climb the rack, a pivotal connection between the shoe supporting devices and the carrier, and means to rock the devices and the shoe thereon automatically toward the machine as it is raised.

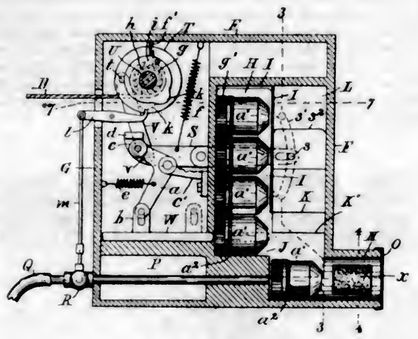
4. A jack for heel-seat lasting comprising shoe supporting devices, a carrier therefor, operating means for raising the carrier, and means for compelling backward movement of the shoe supporting devices during the upward movement of said jack having means formed with the raising means for automatically locking the supporting devices in their raised and posterior position.

5. A jack for heel-seat lasting comprising shoe supporting devices, a carrier therefor, and operating means comprising interengaging segment racks for raising the sup-

porting devices, said segment racks having smooth portions at the ends of the toothed portions to effect locking of the supporting devices in upraised position.

[Claims 6 to 36 not printed in the Gazette.]

1,132,631. TRAIN-FUSEE DISCHARGER. GEORGE M. STILL, New York, N. Y. Filed June 13, 1913. Serial No. 773,448. (Cl. 246—16.)



1. In a train fusee-discharger, the combination, with a receptacle having a discharge-barrel and means to propel the "fusee" therethrough, of means attached to the barrel for igniting the "fusee" in its discharge therefrom.

2. In a train fusee-discharger, the combination, with a receptacle having a discharge-barrel and means to propel the "fusee" therethrough, of a fuse upon the exterior of the "fusee", and a friction-rubber in the barrel adapted to ignite the fuse as the "fusee" is driven past it.

3. In a train fusee-discharger, the combination, with a receptacle having a discharge-barrel and means to propel the fusee therethrough, of a fuse upon the exterior of the "fusee", and friction-rubbers inserted in opposite sides of the barrel in the path of the "fusee" and pressed normally inward by springs and adapted to ignite the fuse when the "fusee" is driven between the friction-rubbers.

4. In a train fusee-discharger, the combination, with a discharge-barrel having a receiving-chamber, of a magazine supplied with "fusees" each having a fuse upon the exterior and said magazine having means for shifting the "fusees" successively into such chamber, means upon the side of the barrel to ignite the fuse, and means for discharging the "fusees" through the barrel.

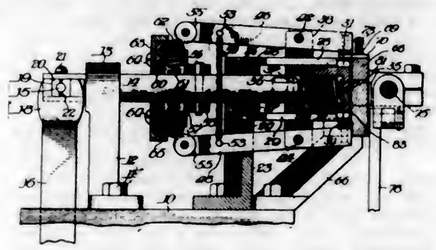
5. In a train fusee-discharger, the combination, with a discharge-barrel having a chamber to receive the "fusee", of a movable gate forming one side of the chamber, a magazine with an aperture at one edge of the gate, means when the gate is lifted for shifting a "fusee" from the magazine to the chamber, and means connected together to operate automatically for first opening the gate and a pusher with means for advancing it to shift one of the "fusees" to the chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,132,632. BOX-SHAPING MACHINE. JULIUS A. STOCK and MICHAEL J. MILMOE, Chicago, Ill., assignors to W. C. Ritchie & Company, Chicago, Ill., a Corporation of Illinois. Filed July 2, 1914. Serial No. 848,529. (Cl. 93—36.)

1. In a machine of the character described, the combination of a form-plunger adapted to enter a necked-box, a plurality of pressers shaped to conform to the exterior surfaces of the box and neck, and means to cause said pressers to squeeze the box-walls and neck inwardly between themselves and said form-plunger, substantially as described.

2. In a machine of the character described, the combination of a form-plunger adapted to enter a necked box, a plurality of pressers shaped to conform to the exterior surfaces of the box and neck and each of a length substantially as long as the corresponding faces of the box and neck, and means to cause said pressers to squeeze the box and walls inwardly between themselves and said form-plunger, substantially as described.



3. In a machine of the character described, the combination of a form-plunger adapted to enter a necked box, a plurality of pressers shaped to conform to the exterior surfaces of the box and neck and each of a length and width substantially the same as those of the corresponding surfaces of the box and neck, and means to cause said pressers to squeeze the box-walls and neck inwardly between themselves and said form-plunger, substantially as described.

4. In a machine of the character described, the combination of an abutment, a spring-pressed form-plunger adapted to enter a necked-box and hold the same in position by pressing its bottom-wall against the abutment, a plurality of bars each adapted to simultaneously bear on the outer-face of a wall of the box and the outer face of the corresponding portion of the box-neck, and means to cause said bars to shape said walls and neck by pressing them inwardly against said form-plunger, substantially as described.

5. In a machine of the character described, the combination of a slidable-shaft, a form-plunger slidable on said shaft and adapted to enter a necked-box, presser-bars movably mounted on said plunger, and means on said shaft to cause said presser-bars to shape the box-walls and neck by pressing them inwardly against the form-plunger, substantially as described.

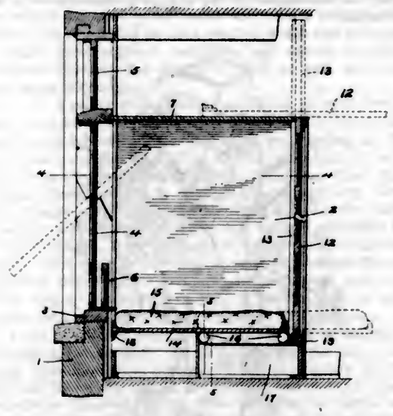
[Claims 6 to 10 not printed in the Gazette.]

1,132,633. BED. SAMUEL A. STONEBACK, Philadelphia, Pa. Filed May 13, 1914. Serial No. 838,260. (Cl. 20—1.11.)

1. The combination with a housing having an open side adapted to be secured to a wall around a window opening, said housing having a sliding sash in its rear wall horizontally closing an opening therein, of a bed in the compartment and adapted to be moved through the opening in the rear wall of the compartment, said sash adapted to be supported at its lower edge upon the bed and divide the bed into two couches, one within the compartment and the other outside of the comparement, substantially as described.

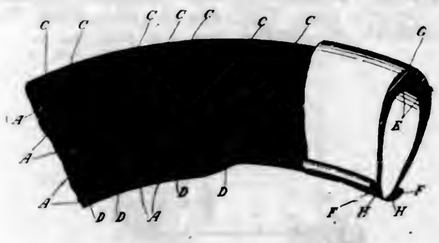
2. The combination with a housing having an open side adapted to be secured to a wall around a window opening, said housing having a sliding sash in its rear wall normally closing an opening therein, of a bed in the compartment and adapted to be moved through the opening in the rear wall of the compartment, said sash adapted to be supported at its lower edge upon the bed and divide the bed into two couches, one within the compartment and the other outside of the compartment, and rollers in the compartment supporting the bed, substantially as described.

3. The combination with a housing having an open side adapted to be secured to a wall around a window opening, said housing having a sliding sash in its rear wall normally closing an opening therein, of a bed in the compartment and adapted to be moved through the opening in the rear wall of the compartment, said sash adapted to be supported at its lower edge upon the bed and divide the bed into two couches, one within the compartment and



the other outside of the compartment, and said compartment having a door in one end adjacent the wall of the building, whereby entrance may be had into the compartment when the bed is moved rearwardly, substantially as described.

1,132,634. LAMINATED COHESIVE INTERWOUND FABRIC CONSTRUCTED IN TUBULAR AND ANNULAR FORM. LAWRENCE A. SUBERS, Cleveland, Ohio. Filed Apr. 1, 1914. Serial No. 828,712. (154—52.)

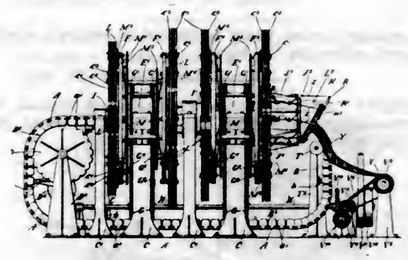


1. An annular and tubular fabric, comprising, a layer of laminated cohering fabric bands, said bands diagonally and continuously wound therein, one series of bands crossing another series of bands at an angle, each band having regularly recurring wide portions located upon the outer circumference of the fabric and tapering from said wide portions in both directions toward the inner circumference of said fabric.

2. An annular, tubular fabric, composed of interwound regularly spaced series of cohering fabric bands, one series crossing the other at an angle, the bands running in one direction overlapping the bands crossing the same, and filling the spaces between bands of the same series, said bands being tapered from the outer circumference to the inner circumference of said fabric, substantially as described.

3. In an annular, tubular fabric, continuously wound diagonally laid fabric bands interwound and cohering together, said bands being wider upon the outer periphery of said fabric, and tapering thence to the inner periphery thereof.

1,132,635. AUTOMATIC MACHINE FOR CONSTRUCTING A LAMINATED COHESIVE INTERWOUND TUBULAR FABRIC CAPABLE OF ASSUMING AN ANNULAR FORM. LAWRENCE A. SUBERS, Cleveland, Ohio. Filed May 1, 1914. Serial No. 835,606. (Cl. 154—1.)



1. In a machine for constructing a tubular, annular fabric, in combination, a flexible mandrel curved at one portion in the form of an arm, spaced devices rotatable about said curved portion of said mandrel for winding fabric bands thereon to construct said fabric, means for propelling said mandrel through said rotatable devices, and means for rotating said band winding devices at a predetermined rate of speed relative to the rate of propulsion of said mandrel.

2. In a machine for constructing tubular, annular fabric, a flexible mandrel having a curved portion, a series of band conducting devices rotatable about said curved portion of said mandrel, said band conducting devices spaced apart and arranged in planes at right angles to the axis of the mandrel and in radial lines to the curvature of said mandrel, means for rotating said band conducting devices, and means for advancing the curved mandrel at a predetermined rate of speed.

3. In a machine for constructing a tubular, annular fabric, a flexible curved mandrel, a series of band conducting and applying devices rotatable about said curved mandrel, means for rotating said band conducting and applying devices, means for propelling said mandrel, means for cutting said fabric on a longitudinal line, and means for removing the same from the mandrel.

4. In a machine for constructing a tubular, annular fabric, a curved mandrel, a series of spaced band conducting and applying devices, rotatable about said curved mandrel at different angles of inclination to each other, means for propelling the mandrel, means for storing said bands and for guiding them to said band conducting and applying devices, means for rotating said conducting and applying devices about said mandrel.

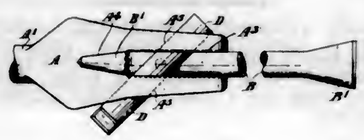
5. In a machine for constructing a tubular, annular fabric, in combination, a longitudinally moving flexible mandrel, means for curving the mandrel into the form of an arc of a circle as it passes through one portion of the machine, spaced devices rotatable about the said aforesaid curved portion of the mandrel for conducting fabric elements thereto and for winding them thereupon, means for rotating said conducting and applying devices, and means for propelling said mandrel.

[Claims 6 to 16 not printed in the Gazette.]

1,132,636. ROCK-DRILL CHUCK. MARTIN THOMAS TAYLOR, Phoenix Mines, near Liskeard, Cornwall, England, and JOHN FRANCIS GARDINER, Mount Chalmers, Queensland, Australia. Filed May 16, 1913. Serial No. 768,067. (Cl. 255—57.)

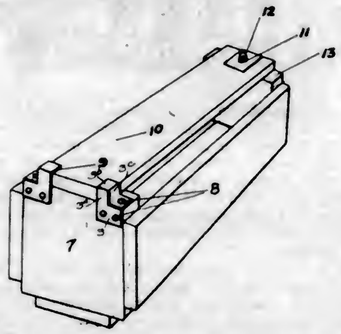
A rock drill chuck having a longitudinal slot opening formed in the side thereof adapted to receive the end of a drill bit, and provided with a tapered keyway formed in

the walls of the chuck, in combination with a tapered key, a flat surface of which engages the drill bit and a curved



or rounded surface which is adapted to engage a similar shaped surface in the keyway.

1,132,637. SHIPPING-CRATE. ALBERT H. THOMS, Indianapolis, Ind. Filed Oct. 11, 1913. Serial No. 794,565. (Cl. 217—56.)



1. A corner bracket adapted to be fastened to the corner of a box or crate and comprising a plane plate member adapted to bear against the box side and provided with an extended tongue, and an angle member projecting from two adjacent edges of said tongue and forming therewith an angular recess extending inwardly over the edge of the box.

2. A corner bracket adapted to be fastened to the corner of a box or crate and comprising a plane plate member adapted to bear against the box side and provide with an extended tongue, an angle member projecting from two adjacent edges of said tongue and forming therewith an angular recess extending inwardly over the edge of the box, and a plate member projecting from said angle member adapted to be secured to the edge of the box.

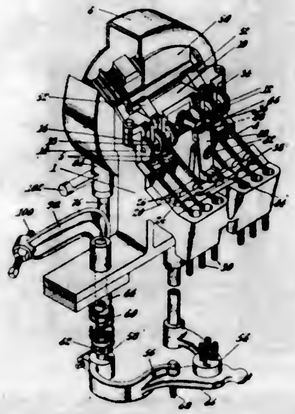
1,132,638. MACHINE FOR FEEDING NAILS. ELIPHALET A. TRIPP, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 10, 1910. Serial No. 543,128. (Cl. 1—39.)

1. In a machine of the class described, a nail separator comprising a disk having in its periphery a groove both walls of which are inclined relatively to the axis of the disk.

2. In a machine of the class described, a nail separator comprising a disk having in its periphery a groove inclined relatively to the axis of the disk, the disk being provided with a depending central stud about which the disk is movable circularly, and an upwardly extending eccentrically arranged pin by which the separator may be actuated.

3. In a machine of the class described, the combination with a plurality of raceways formed to suspend nails by their heads, of a rotary hopper for supplying nails to said raceways, means for automatically rotating said hopper and means for discontinuing the movement of the hopper at the end of a single rotation.

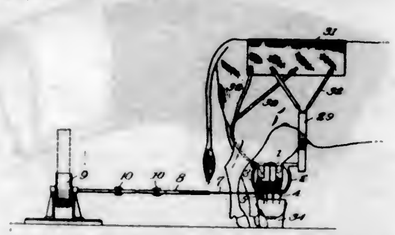
4. In a machine of the class described, the combination with a plurality of raceways formed to suspend nails by their heads, of a movable nail separator adjacent the lower end of each raceway, a rotary hopper for supplying nails to the raceways, means connecting the hopper and separators whereby they move in unison, means for automatically rotating the hopper, and means for discontinuing the movement of the hopper at the end of a single rotation.



5. In a machine of the class described, a raceway formed to support a series of nails, a hopper for supplying nails to said raceway, means for imparting a rotary movement to said hopper, an oscillatory separator in said raceway, and means directly connecting said hopper and said separator whereby rotary movement of the hopper is translated into oscillatory movement of the separator.

[Claims 6 to 8 not printed in the Gazette.]

1,132,639. MILKING-MACHINE. ALEXANDER TRUCHOT, Choteau, Mont. Filed Apr. 3, 1914. Serial No. 829,243. (Cl. 31—96.)



1. In a milking machine, a receptacle having a door provided with an opening in its bottom, means for locking the door, said receptacle having an opening in its top for admitting a teat of the animal, a teat cup, a resilient tube connected therewith at the bottom, said tube passing through the opening of the door, a resilient partition within said casing, a central shaft, a spiral blade disposed upon said central shaft, and means for turning said central shaft.

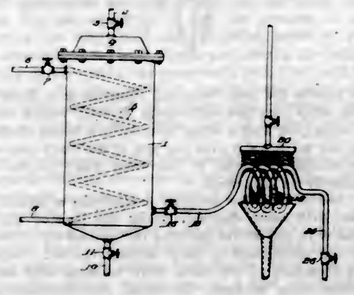
2. In a milking machine, a receptacle having a door provided with an opening in its bottom, means for locking the door, said receptacle having an opening in its top for admitting the teat of the animal, a teat-cup, a resilient tube connected therewith at the bottom, said tube passing through the opening of the door, a resilient partition within said casing, a central shaft, a spiral blade disposed upon said central shaft, means for turning said central shaft, said spiral blade being arranged to engage said resilient partition initially at the top thereof and to exert pressure progressively downward as the blade is turned, thereby pressing the teat and the teat-cup against the door.

3. In a milking machine, a plurality of cylinders, each having a hinged door, means for locking the door, each of said cylinders being provided with an opening in its top for admitting the teat of the animal, a teat-cup, a resilient partition disposed within each cylinder, a central shaft, a spiral blade carried by said central shaft and arranged to engage said resilient partition, and means for simultaneously turning the shafts of each of said cylinders in the same direction.

4. In a milking machine, a plurality of cylinders, each having a hinged door, means for locking the door, each of said cylinders being provided with an opening in its top for admitting the teat of the animal, a teat-cup, a resilient partition disposed within each cylinder, a central shaft, a spiral blade carried by said central shaft and arranged to engage said resilient partition, means for simultaneously turning the shafts of each of said cylinders in the same direction, said last named means comprising beveled gears carried at the bottom of each of said shafts, an individual driving gear arranged to mesh with each of said first named beveled gears, and a friction disk in engagement with the edges of each of said driving gears.

5. In a milking machine, a plurality of cylinders, each having a hinged door, means for locking the door, each of said cylinders being provided with an opening in its top for admitting the teat of the animal, a teat-cup, a resilient partition disposed within each cylinder, a central shaft, a spiral blade carried by said central shaft and arranged to engage said resilient partition, means for simultaneously turning the shafts of each of said cylinders in the same direction, said last named means comprising beveled gears carried at the bottom of each of said shafts, an individual driving gear arranged to mesh with each of said first named beveled gears, a friction disk in engagement with the edges of each of said driving gears, means for driving said friction disk, said means comprising a drive shaft having universal joints, a portion of said drive shaft being telescopic, and means connected with said drive shaft for imparting the movement of the shaft to said friction disk.

1,132,640. PROCESS OF CLARIFYING LIQUID SILICATE OF SODA OR THE LIKE. JAMES G. VAIL, Chester, and JOHN D. CARTER, Lansdowne, Pa. Filed May 1, 1914. Serial No. 835,604. (Cl. 23—13.)



1. The process of clarifying liquid silicate of soda or the like, which comprises the treatment of the liquid silicate with heat while in a quiescent condition.

2. The process of clarifying liquid silicate of soda or the like, which comprises the treatment of the liquid silicate with heat in a closed container without agitation.

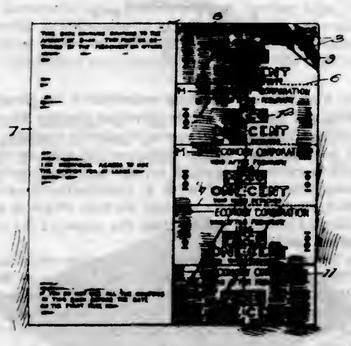
3. The process of clarifying liquid silicate of soda or the like which consists in exposing the liquid silicate in a quiescent condition to the action of heat and pressure in a suitable receptacle.

4. The process of clarifying liquid silicate of soda or the like which consists in introducing the liquid silicate into a suitable receptacle, exposing the liquid silicate to the action of heat therein without agitation, and withdrawing the liquid silicate from said receptacle through a cooling coil.

5. The process of clarifying liquid silicate of soda or the like, which consists in introducing the liquid silicate into a suitable receptacle, exposing the liquid silicate to the action of heat and pressure without agitation within said receptacle, and withdrawing the liquid silicate from said receptacle through a cooling coil.

[Claim 6 not printed in the Gazette.]

1,132,641. COUPON-BOOK. HENRY I. WAINWRIGHT and MICHAEL V. AHERN, Norfolk, Va. Filed Dec. 12, 1913. Serial No. 806,257. (Cl. 11—19.)



1. A book having its leaves each divided in one direction by a line of perforations and at intervals in another direction by lines of perforations extending from one edge of the leaf to the first mentioned line of perforations, the divisions of the leaves constituting coupons having characters printed or otherwise marked thereon and extending across the first mentioned line of perforations, each coupon having characters printed or otherwise marked thereon designating the value of the coupon, one portion of the coupon bearing an expression of the unit of valuation and the other portion bearing an expression of the number of units.

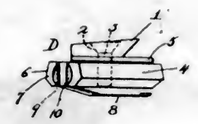
2. A book having its leaves each divided in one direction by a line of perforations and at intervals in another direction by lines of perforations extending from one edge of the leaf to the first mentioned line of perforations, the division of the leaves constituting coupons having characters printed or otherwise marked thereon and extending across the first mentioned line of perforations, each coupon bearing data indicative of the period during which the coupon is valid, the data being so arranged that the expression of one or more periods of time will occur upon the detachable portion of the coupon.

3. A book having its leaves each divided in one direction by a line of perforations and at intervals in another direction by lines of perforations extending from one edge of the leaf to the first mentioned line of perforations, the divisions of the leaves constituting coupons and each coupon having printed or otherwise marked thereon a border, certain of the lines of which extend across the first mentioned line of perforations, and the said first mentioned line of perforations being interrupted at intervals by incisions lying within the said border and dividing the space inclosed thereby.

1,132,642. PLATE-HOLDING DEVICE. FOLKE WILLIAM WESTON, New York, N. Y., assignor to F. Wesel Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed July 2, 1913. Serial No. 777,061. (Cl. 101—169.)

1. In a device of the class described, the combination of a base or block for supporting printers' plates, and a plate-

clamping means, said means comprising a plate-engaging jaw, a nut provided with a base-engaging spring, and a screw which passes through the jaw to and into the threaded portion of the nut, the base being provided with dovetail grooves, into any one of which the nut can be inserted by movement in a direction transverse to that in which the groove extends, said nut having beveled sides so that when the screw is tightened the jaw will be secured in place on the base, the spring in the nut being arranged so that it will engage the base and press the nut upwardly whereby the screw may be readily inserted in the nut during the operation of assembling the various parts of the clamp.



2. In a device of the class described a longitudinally-extending nut having a screw threaded portion for receiving a vertically-extending screw, upwardly tapering sides, a base portion that bulges downwardly and at one end a vertically-extending slotted spring-receiving portion, the nut being also provided with a longitudinally-extending flat bow-spring having an upright portion which is secured in the slotted portion by upsetting the metal at the sides of the slotted portion.

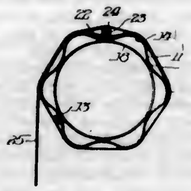
3. A longitudinally-extending nut for use with bases for supporting printing plates, said nut having a flat top, sides that converge toward the top and a bottom that bulges downwardly, the nut being provided with a depending spring that extends substantially the full length of the nut.

4. In a device of the class described, the combination of a base grooved at the top part, and a clamping means, the clamping means comprising a plate-engaging jaw, a screw, and a base engaging drop-in nut which is provided with means that engage the base and force the nut upwardly.

5. A longitudinally-extending nut for use in a printing plate holding device, said nut having upwardly tapering sides and provided with a depending longitudinally-extending bow-shaped spring that is secured at one end of the nut.

[Claims 6 to 9 not printed in the Gazette.]

1,132,643. REINFORCED CURTAIN-ROLLER. EDWARD E. WHITMORE, Chicago, Ill., assignor to Curtain Supply Company, Newark, N. J., a Corporation of New Jersey. Filed July 10, 1914. Serial No. 850,071. (Cl. 156—29.)



1. A curtain roller comprising a shell of longitudinally corrugated sheet metal, and a cylindrical sheet metal reinforcement disposed within the corrugated shell in supporting contact with the inwardly extending walls of the corrugations.

2. An extensible longitudinally fluted sheet metal curtain roller comprising hollow end sections, a coupling section of corresponding cross section arranged within the adjacent ends of the hollow sections, and a cylindrical reinforcement disposed within the fluted hollow portion of the roller in supporting contact with the inner walls of the flutes.

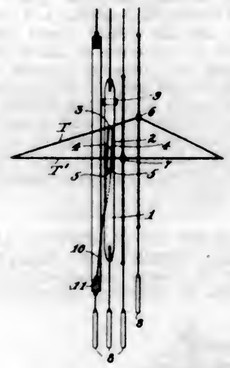
3. The combination with a longitudinally fluted curtain roller, of a curtain having a hem, a rod accommodated within the hem and disposed in one of the flutes of the roller and adapted to be overlain and retained in position by the successive layers of the curtain when rolled thereon.

4. The combination with a curtain roller shell formed of corrugated sheet metal, the corrugations extending parallel to each other and to the axis of the roller, a cylindrical sheet metal reinforcement disposed within the corrugated shell in supporting contact with the inwardly extending walls of the corrugations, of a curtain having a hem, a rod accommodated within the hem and disposed in one of the flutes of the roller and adapted to be overlain and retained in position by the successive layers of curtain when rolled thereon.

5. A reinforced curtain roller comprising outer and inner sheet metal members, one of the members being cylindrical and the other longitudinally fluted, the cylindrical and fluted walls having supporting contact one with the other.

[Claims 6 and 7 not printed in the Gazette.]

1,132,644. HEDDLE FOR LENO-WEAVING MACHINES. WILLIAM P. WOOD, Pawtucket, R. I., assignor to Jenckes Spinning Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Nov. 8, 1911. Serial No. 659,079. (Cl. 131—14.)



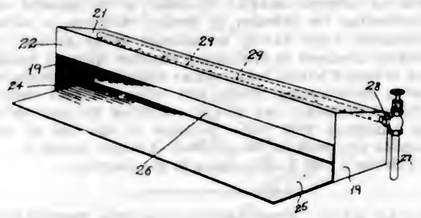
1. A heddle for leno weaving comprising a doup loop, a heddle strip provided with holes through which the legs of the doup pass and a strip between the holes, means for guiding the main warp over the end of the doup and means for preventing clamping of the doup warp by the doup, substantially as described.

2. A heddle for leno weaving comprising a heddle strip provided with holes through which the legs of the doup pass and with guides for guiding the ground warp over the end of the doup, and a doup having its end shaped to prevent clamping of the doup warp between said end and the heddle strip between the holes, substantially as described.

3. A heddle for leno weaving comprising a heddle strip, two holes through the strip for the passage of the doup loop, a wire doup having its legs passed through the holes in the strip and having its end contracted to prevent engagement of the eye at the end of the doup with the strip between the holes, and a recess in the heddle strip for receiving the end of the doup, substantially as described.

4. A heddle for leno weaving comprising a heddle strip 1, provided with slits 5, and a recess 13, and a wire doup 2 provided with legs 4 passing through the slit, and with a contracted eye 3, substantially as described.

1,132,645. APPARATUS FOR SOFTENING PARTS OF ASSEMBLED UNLASTED SHOE-UPPERS. ALEXANDER ANDERSON, Chicago, Ill., assignor to Harry H. Beckwith, Boston, Mass. Filed Apr. 18, 1914. Serial No. 832,763. (Cl. 12—1.)



1. An apparatus of the character described comprising a receptacle having an opening for the reception of a flat box toe blank, and means for supplying a heating agent within the receptacle to act on said blank, the apparatus being provided with an open recess adjacent to said opening for the reception of the toe portion of a last engaged with the assembled and unlasted parts of a shoe upper which includes said blank.

2. An apparatus of the character described comprising a receptacle having an opening for the reception of a flat box toe blank, means being provided for supporting an unlasted toe cap out of contact with said blank, and means for supplying a heating agent within the receptacle to act on said blank, the apparatus being further provided with an open recess adjacent to said opening for the reception of the toe portion of a last engaged with the assembled and unlasted parts of a shoe upper which includes said blank and toe cap.

3. An apparatus of the character described comprising a receptacle having an opening for the reception of a flat box toe blank, supporting means forming with a portion of said receptacle, an open recess at one edge of said opening for the reception of the toe portion of a last supporting the assembled and unlasted parts of a shoe upper which includes said blank, and means for supplying a heating agent within the receptacle to act on said blank.

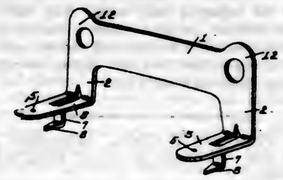
4. An apparatus of the character described comprising a receptacle having an opening for the reception of a flat box toe blank, supporting means forming with a portion of said receptacle, an open recess at one edge of said opening for the reception of the toe portion of a last supporting the assembled and unlasted parts of a shoe upper which includes said blank, and means for supplying a heating agent within the receptacle to act on said blank, the wall of the receptacle at the opposite edge of said opening being arranged to support the unlasted toe cap, forming a part of said upper, out of contact with said blank.

5. An apparatus of the character described comprising a receptacle having an opening for the reception of a flat box toe blank, means for supplying a heating agent within the receptacle to act on said blank, the bottom of the receptacle being inclined to conduct water of condensation rearwardly from said opening and supporting means holding said bottom in a raised position to form a recess for the reception of the toe portion of a last supporting the assembled and unlasted parts of a shoe upper.

[Claims 6 and 7 not printed in the Gazette.]

1,132,646. BOOT-SCRAPER. PAUL H. BAUMAN, Battle Creek, Mich. Filed Jan. 30, 1915. Serial No. 5,287. (Cl. 15—2.)

1. A scraper formed as an integral stamping comprising a blade portion and supporting arms at the ends thereof, said arms terminating in horizontally disposed attaching portions perforated to receive attaching screws and having lugs struck downwardly therefrom adapted to engage the edge of the support on which the arms rest, the ends of said lugs being turned rearwardly and adapted to be driven into the edge of the support.



2. A scraper comprising a blade portion and integral supporting arms at the ends thereof, said arms terminating in horizontal attaching portions having lugs struck downwardly therefrom and adapted to engage the edge of the support on which the arms are mounted whereby the blade is supported in a spaced relation to the edge of the support.

1,132,647. LINOLEUM. EDWIN L. BLABON, Bryn Mawr, Pa., assignor to Geo. W. Blabon Company, Nicetown, Pa., a Corporation of Pennsylvania. Filed Oct. 2, 1914. Serial No. 864,596. (Cl. 154—49.)

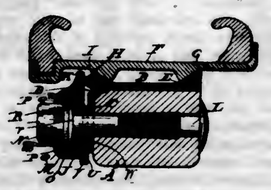


1. The product comprising a body of linoleum composition in combination with a backing fabric of felt treated with a bituminous substance.

2. The product comprising a body of linoleum composition in combination with a backing fabric of felt impregnated with asphaltum.

3. The product comprising a body of linoleum composition in combination with a backing fabric of felt impregnated with asphaltum adhering to said composition.

1,132,648. CLAMPING DEVICE FOR DEMOUNTABLE RIMS. WILLIAM N. BOOTH, Detroit, Mich. Filed July 7, 1913. Serial No. 777,640. (Cl. 152—21.)

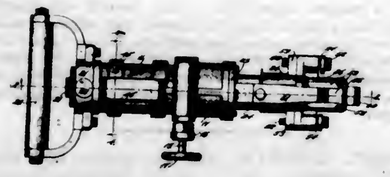


1. In a device for clamping a demountable rim upon a felly rim, said felly rim having a flange on its outer edge, the combination with said rims, of a wedge ring engaging therewith, a bolt for said felly rim, a clamping dog therefor, said dog having a recess, a flanged nut in said recess, a spring washer in said recess engaging said flanged nut, and a resilient washer between said clamping dog and said flange on said felly rim.

2. In a device for securing a demountable rim to a felly rim, said rims having corresponding inclines, and said

felly rim having an inwardly extending flange, a wedge ring engaging both said rims, a bolt in said flange on said felly rim, a clamping dog rotatable on said bolt, and having a heel adapted to engage said flange on said felly rim, and a toe engaging said wedge ring, said clamping dog provided with an annular recess, a nut upon said bolt having a flange inclosed within said recess, said nut having a rounded inner face, and said recess provided with a corresponding concaved rear wall.

1,132,649. PNEUMATIC TOOL. BENJAMIN BRAZELLE, St. Louis, Mo. Filed Jan. 6, 1913. Serial No. 740,312. (Cl. 121—20.)



1. In a single acting fluid pressure engine a cylinder having a pressure reservoir chamber, a sleeve valve slidable within said cylinder having inlet ports open to said chamber in all positions of said valve, a differential piston slidable in said sleeve valve, said valve inlet ports communicating with the outer end of said cylinder, communicating passages in said cylinder wall connecting said outer end with the head end of said cylinder, said valve having ports adapted to uncover the inner end of said passages in one position of said valve, and means for moving said valve at the end of each out stroke of the piston to cover the ends of said passages.

2. In a single acting fluid pressure engine a cylinder having a pressure reservoir chamber, a sleeve valve slidable within said cylinder having inlet ports open to said chamber in all positions of said valve, a differential piston slidable in said sleeve valve, said valve inlet ports communicating with the outer end of said cylinder, and intermediate presure reservoir chamber in said cylinder wall, communicating passages in said cylinder wall connecting said outer end with said intermediate chamber and with the head end of said cylinder, said valve having ports adapted to uncover the inner end of said passages in one position of said valve, and means for moving said valve at the end of each stroke of the piston.

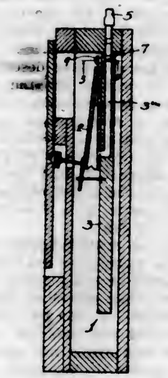
3. In a single acting fluid pressure engine a cylinder having a pressure reservoir chamber, a sleeve valve slidable within said cylinder having inlet ports open to said chamber in all positions of said valve, a differential piston slidable in said sleeve valve, said valve inlet ports communicating with the outer end of said cylinder, communicating passages in said cylinder wall connecting said outer end with the head end of said cylinder, said valve having ports about midway of its length adapted to uncover the inner end of said passages in one position of said valve, said ports being closed by said piston during the last part of its out stroke, and means for moving said valve at the end of each out stroke of the piston to cover the ends of said passages.

4. In a single acting fluid pressure engine a cylinder having a pressure reservoir chamber, a sleeve valve slidable within said cylinder having inlet ports open to said chamber in all positions of said valve, a differential piston slidable in said sleeve valve, said valve inlet ports communicating with the outer end of said cylinder, an intermediate pressure reservoir chamber in said cylinder wall, communicating passages in said cylinder wall connecting said outer end with said intermediate chamber and with the head end of said cylinder, said valve having ports about midway of its length adapted to uncover the inner end of said passages in one position of said valve, said ports being closed by said piston during the last part of its out stroke, and means for moving said valve at the end of each stroke of the piston to cover the ends of said passages.

5. In a single acting engine, the combination of a power cylinder comprising two axially arranged communicating chambers of different diameters, the chamber of larger diameter being closed at one end and provided with an enlarged annular extension at its opposite end surrounding the chamber of smaller diameter, a hollow cylindrical valve having an annular flange at one end slidably arranged in said larger chamber with its flanged end arranged within said annular extension, a differential piston reciprocating within said valve and said smaller cylinder chamber, and means controlled by said piston for admitting fluid under pressure to the end of said annular extension of the chamber of larger diameter.

[Claims 6 and 7 not printed in the Gazette.]

1,132,650. VENT-REGULATOR FOR PNEUMATIC ACTIONS. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 5, 1914. Serial No. 810,300. (Cl. 84—178.)

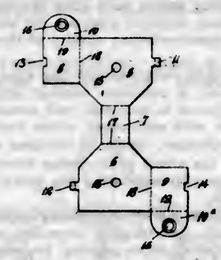


1. In a pneumatic action, in combination with an exhaust chamber, a duct bar sustained wholly within such chamber having an air duct for connection with a primary pneumatic to be contained within the chamber and having a cross port leading to the air duct from one surface of said bar which is exposed within said chamber, and a screw set into the bar transversely of said cross port and having its head exposed for adjustment to vary the extent of its intrusion into the cross port.

2. In a pneumatic action, in combination with the exhaust chamber, duct bars mounted within said chamber having air ducts for communication with the primary pneumatics, and primary pneumatics connected with said duct bars respectively, the duct bars having each a cross port leading from a lateral surface of the bar which is exposed within the chamber into the air duct; an adjusting screw set into each bar transversely of the cross port from the side of the bar which faces toward the outer wall of the chamber, said outer wall having a removable cover plate whose removal exposes the heads of the adjusting screws for adjustment to vary the extent of their intrusion into the cross ports respectively.

1,132,651. PULLEY-CASE. JOHN B. CLERMONT, New York, N. Y., assignor to S and S Window Corporation, New York, N. Y., a Corporation of New York. Filed Sept. 30, 1914. Serial No. 864,229. (Cl. 16—17.)

1. A blank for a pulley case comprising an intermediate section, main sections extending therefrom in opposite directions, auxiliary sections extending from said main sections in a direction transverse to the length of the blank and projecting sections forming continuations of said auxiliary sections in opposite directions.



2. A blank for a pulley case comprising an intermediate section, main sections extending in opposite directions therefrom, projections extending outwardly from opposite edges of said main sections, auxiliary sections extending from opposite edges of said main sections in directions transverse to the length of the blank and provided at their outer edges with recesses adapted to receive said projections, and projecting sections forming continuations of said auxiliary sections in opposite directions parallel to the length of the blank.

1,132,652. WINDOW. HARRY W. CRANE, Philadelphia, Pa., assignor to International Window Manufacturing Company, a Corporation of Delaware. Filed Nov. 19, 1913. Serial No. 801,775. (Cl. 20—49.)



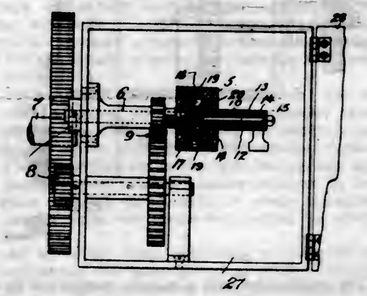
1. In a window, in combination, a shoe which throughout a part of its length has a three-stepped contour on the face thereof opposite the sash, forming a projecting rib adjoining one face and a corresponding inset adjoining the other face, a sash which throughout a part of its length has a similar three-stepped contour on the face thereof adjoining the shoe, forming a projecting rib opposite and corresponding to the inset in the shoe and an inset opposite and corresponding to the rib in the shoe, said shoe in another part of its length being of less depth than in the body of its stepped portion, said sash in the corresponding part of its length having, adjoining its inside and outside faces, projecting ribs closing the space between shoe and sash, and a pivot pin connecting the shoe and sash.

2. In a window, in combination, a shoe, each end portion of which is of a three-stepped contour on the face thereof opposite the sash, forming in one end portion a projecting rib adjoining the inside face and a corresponding inset adjoining the outside face, and in the other end portion a similar rib adjoining the outside face and a corresponding inset adjoining the inside face, a sash of a similar three-stepped contour in its two end portions, the ribs of one member being arranged respectively opposite the insets of the other member, one member in its central portion presenting a flat face and the other member in its central portion having, adjoining the inside and outside face, projecting ribs closing the space between shoe and sash, and means pivotally connecting the sash and shoe at their central portions.

3. In a window, in combination, two members, one a shoe which throughout a part of its length has a three-stepped contour on the face thereof opposite the sash, forming a projecting rib adjoining one face and a corresponding inset adjoining the other face, and the other a sash which throughout a part of its length has a similar three-stepped contour on the face thereof adjoining the shoe, forming a projecting rib opposite and corresponding to the inset in the shoe and an inset opposite and corresponding to the rib in the shoe, one of said members at another part of its length having a flat face while the other member in the corresponding part of its length has, adjoining its inside and outside faces, projecting ribs inclosing a space between shoe and sash, and a pivot pin connecting the shoe and sash.

4. In a window, in combination, two members, one a shoe which throughout a part of its length has a three-stepped contour on the face thereof opposite the sash, forming a projecting rib adjoining one face and a corresponding inset adjoining the other face, and the other a sash which throughout a part of its length has a similar three-stepped contour on the face thereof adjoining the shoe, forming a projecting rib opposite and corresponding to the inset in the shoe and an inset opposite and corresponding to the rib in the shoe, one of said members at another part of its length having projecting ribs adjoining both its inside and outside faces, while the other member has a face spaced from the face between the ribs of the first member, thereby forming an inclosed space between shoe and sash, and a pivot pin connecting the shoe and sash and extending into said inclosed space.

1,132,653. CENTRIFUGALLY-OPERATED CONTACT DEVICE. CHARLES G. CUNNINGHAM, New York, N. Y. Filed Sept. 9, 1913. Serial No. 788,794. (Cl. 175—310.)



1. A centrifugally operated contact controlling device including a block or member of insulating material having radial passages and an axial recess in one face thereof, a rotatable shaft on which said block or member is mounted to be rotated thereby, circuit terminals insulated from each other independent of said shaft and extending into said recess to a point opposite said passages, and bridging material carried in said passages and subject to the centrifugal action of said block or member for controlling the circuit bridging of the space between said terminals.

2. In a centrifugally operated contact controlling device, a head block of insulating material having an axial recess in one face thereof and radial passages communicating with said recess, circuit terminals insulated from each other and extending into said axial recess to a point opposite said passages, and circuit bridging material con-

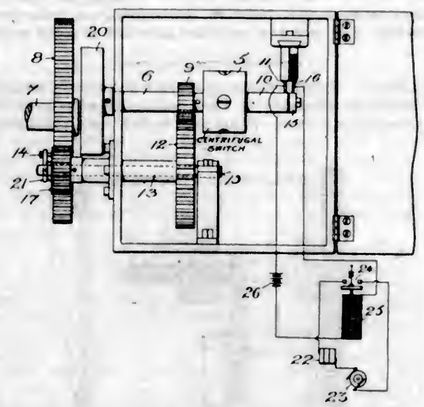
tained loosely in said passages to bridge the space between said terminals when said head is at rest.

3. In a centrifugally operated contact controlling device, a rotatable head of insulating material having an axial recess in one face thereof and radial pasages communicating with said recess, circuit terminals insulated from each other and extending into said recess and centrifugally acting contact material carried in said radial passages to control the circuit connections between said terminals.

4. A centrifugally operated contact controlling device including a rotatable head of insulating material having an axial recess in one face thereof and radial passages communicating with said recess, contact terminals extending into said recess to a point opposite said passages, said terminals being insulated from each other, and movable centrifugal acting means loosely carried in said passages for controlling the circuit connection between said terminals.

5. In a centrifugally operated contact controlling device a rotatable head of insulating material having an axial recess and radial passages communicating with said recess, a contact sleeve extending into the axial recess in said head, a contact rod extending through but insulated from said sleeve and having a head juxtaposed with reference to the inner end of said sleeve, the juxtaposed head and sleeve end extending into coöperative relation with respect to said radial passages and loosely mounted bridging means contained in said passages to control the circuit connection between said head and sleeve and contact brushes respectively coöperating with said sleeve and head.

1,132,654. AUTOMATIC CIRCUIT-CONTROLLING APPARATUS. CHARLES G. CUNNINGHAM, New York, N. Y. Filed Feb. 7, 1914. Serial No. 817,114. (Cl. 175—310.)



1. The combination with a movable member, of an automatic circuit controlling apparatus including circuit terminals normally out of circuit connection with each other during the movement of said member, means to close the circuit between said terminals when the movement of said member ceases, and means to prevent the operation of the circuit closing means until after the movement of said member has been arrested for a definite period of time.

2. An automatic circuit controlling apparatus including circuit terminals, a rotatable member operating through the rotation thereof to maintain said terminals out of circuit connection with each other, prime moving devices for rotating said member, and means to continue said member in rotation for a definite interval of time after the arrest of the prime moving devices.

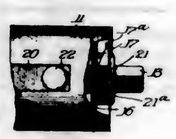
3. The combination with a movable member, of an automatic circuit controlling apparatus including circuit terminals normally out of circuit connection with each other during the movement of said member, means to close the circuit between said terminals when the movement of said member ceases, and means to prevent the operation of the circuit closing means until after the movement of said member has been arrested whereby the period of time of arrest of said member before closure of the circuit may be regulated

4. An automatic circuit controlling apparatus including circuit terminals, a rotatable member operating through the rotation thereof to maintain said terminals out of circuit connection with each other, prime moving devices for rotating said member, means to continue said member in rotation after the arrest of the prime moving devices, and means for adjustably regulating the duration of such continued rotation.

5. An automatic circuit controlling apparatus including circuit terminals, centrifugally controlled devices for bridging said terminals, drive gearing for said centrifugally controlled devices, including a prime mover, and means to continue the centrifugal action of said devices after the arrest of the prime mover.

[Claims 6 to 10 not printed in the Gazette.]

1,132,655. CURTAIN-ROLLER. WILLIAM H. FORSYTH, Chicago, Ill., assignor to The Curtain Supply Co., Newark, N. J., a Corporation of New Jersey. Filed June 19, 1914. Serial No. 846,046. (Cl. 156—36.)



1. In a curtain roller, a barrel, a spindle adapted for engagement with supporting brackets, a torsion spring connecting the barrel and spindle, a stop carried by the spindle, and a detent carried by the barrel and movable longitudinally thereof, the stop and detent adapted to lock the spindle and barrel temporarily against rotation under the influence of the spring, the detent adapted to be automatically disengaged by the stop upon the rotation of the barrel in a reverse direction and to remain disengaged subject to manual reëngagement.

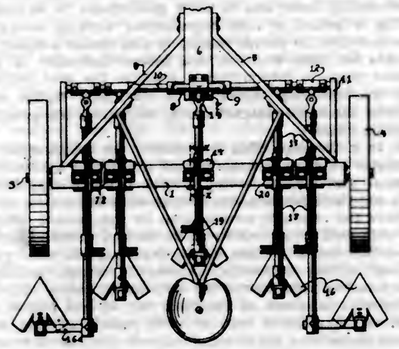
2. In a curtain roller, a barrel, a spindle adapted for engagement within supporting brackets and provided with a lateral projection, a spring connecting the barrel and spindle, and a detent strip slidable longitudinally of the barrel into and out of the path of the projection, the detent and projection provided with inclined faces adapted upon the rotation of the barrel in opposition to the spring to co-act and shift the detent out of the path of the projection, a detent provided with means for manual operation normally inaccessible but exposed when the curtain is unwound.

3. In a curtain roler, a barrel, a spindle adapted for engagement within supporting brackets and provided with a lateral projection, a spring connecting the barrel and spindle, and a detent slidable longitudinally of the barrel into and out of the path of the projection, said detent comprising a metallic strip mounted within guides formed in the shell of the barrel and having an exteriorly accessible portion whereby the detent may be operated, the detent and projection provided with inclined faces adapted upon the rotation of the barrel in opposition to the spring to co-act and shift the detent out of the plane of the projection.

4. In a curtain roller, a barrel, a spindle adapted for engagement within the supporting brackets and provided with a lateral projection, a torsion spring connecting the barrel and spindle, and a detent slidable longitudinally of the barrel substantially flush with the peripheral surface thereof into and out of the path of the projection, said detent comprising a metallic strip mounted within guides formed in the shell of the barrel and having an operating button normally covered by the curtain but accessible

when the curtain is unwound from the barrel, the detent and projection provided with inclined faces adapted upon the rotation of the barrel in opposition to the spring to coact and shift the detent out of the place of the projection.

1,132,656. COTTON-CHOPPER. JESSE B. GANT, Whitney, Tex. Filed Jan. 29, 1914. Serial No. 815,190. (Cl. 97—48.)



1. In a cotton choper, the combination with a wheel supported arch axle and a tongue connected with the axle, of a support depending in front of the axle, a transverse rod carried by the support, a plurality of horizontal beams pivoted to the rod and extending rearwardly therefrom under the axle, a transverse space bar suspended from the axle and provided with a plurality of depressions each receiving one of the beams, and means for adjustably supporting each beam.

2. In a cotton chopper, the combination with a wheel supported arch axle and a tongue connected with the axle, of a support depending in front of the axle, a transverse rod carried by the support, a plurality of horizontal beams pivoted to the rod and extending rearwardly therefrom under the axle, a transverse space bar suspended from the axle and provided with a plurality of depressions each receiving one of the beams, a plurality of levers mounted on the axle and individual connections between the levers and the beams.

3. In a cotton chopper, the combination with a wheel supported arch axle and a tongue connected with the axle, of a support depending in front of the axle, a transverse rod carried by the support, a plurality of horizontal beams pivoted to the rod and extending rearwardly therefrom under the axle, a transverse space bar suspended from the axle and provided with a plurality of depressions each receiving one of the beams, adjusting levers mounted on the axle, and flexible connections extending from the levers to the beams and including a resilient element, there being a lever and connection for each beam.

4. A cotton chopper comprising an arch axle, a pair of transporting wheels carried by the axle extremities, a tongue having rigid connection with the axle, a rod supported transversely by the tongue beneath the rear extremity of the same, a plurality of beams extending rearwardly from said rod, and having pivotal connection with the same, a plow mounted upon the rear extremity of each beam, a saddle receiving each beam beneath the axle, a pair of laterally swinging bars supporting each saddle from the axle, and means maintaining said saddles in a constant spaced relation.

5. In a cotton chopper, the combination with a wheel supported arch axle and a tongue connected with the axle, of a transverse rod suspended below the tongue, a plurality of plow beams pivoted to the rod and extending rearwardly under the axle, hangers depending from the axle, and a transverse space bar carried at the lower ends of the hangers and having a plurality of U-shaped saddles each receiving freely one of the beams, the space bar being integral and continuous from end to end, said space bar having yoke shaped portions pivotally receiving the lower ends of the hangers.

1,132,657. ICE-CREAM LADLE. RAYMOND B. GILCHRIST, Newark, N. J., assignor to The Gilchrist Company, Newark, N. J., a Corporation. Filed Feb. 3, 1908. Serial No. 414,016. (Cl. 107—48.)



1. An ice cream spoon comprising a handle and bowl, the latter having a bearing, a scraper having a trunnion, spindle and pinion; the trunnion fitting in the bearing in the bowl, a bearing formed between the handle and the bowl, means coöperating with the bearing to hold the spindle in position in said latter bearing, a finger lever having teeth which engage the pinion, and a spring for operating the scraper in one direction.

2. An ice cream spoon comprising a handle and bowl having two openings in alinement with each other to form bearings, a spindle, a scraper on the spindle, a trunnion on one end of the scraper, a pinion on the opposite end of the spindle, the trunnion and spindle fitting in the bearings, one of said bearings being open at its top and having coöperating retaining means for retaining the spindle in alinement, a finger lever having teeth which engage the pinion, and a spring for operating the scraper in one direction.

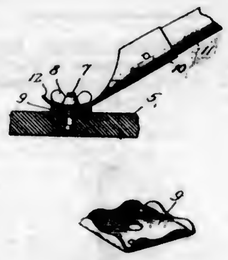
3. An ice cream spoon comprising a bowl and handle, the bowl having an opening and in alinement therewith an open bearing, an end bearing on the handle, a scraper having a trunnion which fits in the opening of the bowl, and a spindle which fits in the open bearing and also the end bearing on the handle, means adjacent to and cooperating with the open bearing to retain the spindle in said open bearing, and means for turning the scraper in the bowl.

4. An ice cream spoon comprising a bowl and handle, the bowl having two bearings, one of which is open at the top, an end bearing extending from the handle, a scraper operating in the bowl and having a trunnion and spindle, the trunnion and spindle operating in the bearings, means located to permit movement of the trunnion in direction of the handle to disengage it from its bearings, whereby the scraper may be removed from the bowl, and means for operating the scraper.

5. An ice cream spoon comprising a bowl and handle, the bowl having two bearings, one of which is open at the top, a scraper operating in the bowl and having a trunnion and spindle, a pinion on the spindle, the trunnion fitting in one of the bearings and the spindle fitting in the other, a finger piece having teeth which engage the pinion, a locking connection between the finger piece and the scraper, the open bearing permitting of the withdrawing of the trunnion from its bearing when the locking connection is released.

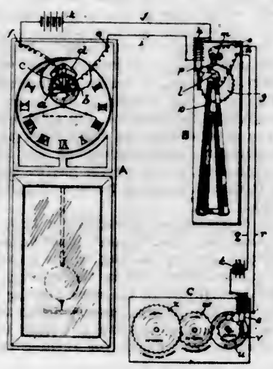
[Claims 6 to 41 not printed in the Gazette.]

1,132,658. DUST-MOP. ARTHUR H. HARRISON, De Kalb, Ill. Filed Feb. 24, 1914. Serial No. 820,517. (Cl. 15—24.)



A dust-mop comprising, in combination, a head, a lock-plate permanently fastened on the head and having upturned flanged edges containing depressions, a screw-bolt projecting from the top of the head through said plate and provided with a nut, and a handle-socket having a curved slotted tongue bearing on the plate and through which the bolt passes, said socket being releasably fastened by the nut with the tongue confined in a depression in said plate to be raised and turned on the bolt for adjustment on loosening the nut.

1,132,659. TIME-RECORDING APPARATUS. ARTHUR C. JACKSON, Philadelphia, Pa., assignor to Miller Lock Company, Frankford, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 7, 1913. Serial No. 746,704. (Cl. 234—41.5.)



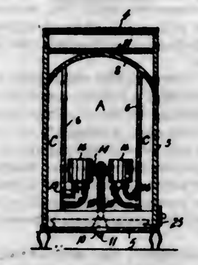
1. In a time recording mechanism, the combination with a master clock, a program device, a time recorder, and electric circuits, of means controlled from the master clock to effect the alternate opening and closing of both circuits synchronously, means actuated in the opening and closing of one circuit to operate the program device, and means actuated in the opening and closing of the other circuit to operate the time recorder, said program device comprising means to prevent closing the last named circuit for a predetermined number of makes and breaks of the first named circuit.

2. In a time recording mechanism, the combination with a master clock and a time recorder, said time recorder provided with means adapted to register successive fractional parts of each of a number of separate working periods, of electric circuits, means actuated by the master clock to open and close said circuits, means included in one circuit to operate the time recorder, a program device, means included in the other circuit to operate the program device, and means controlled from the master clock to open and close said circuits synchronously, said program device including a contrivance to prevent the last named means from closing the first circuit at intervals during periods of time representing non-working periods.

3. In a time recording mechanism, the combination of a master clock, a program device, an electro-magnet adapted to operate the program device, an electric circuit, means included in the program device to maintain said circuit open at intervals during a period of time representing non-working hours and to allow said circuit to be closed during a period of time representing working hours, a time recorder, an electro-magnet in said circuit adapted to operate the time recorder, and means controlled by the master clock to intermittently energize the first magnet and synchronously therewith to close said circuit and energize the second magnet during the period representing working hours.

4. In a time recording mechanism, the combination of a master clock, a program device comprising a rotatable member and a tape having slotted sections alternating with solid sections, a device controlled by the master clock to turn the rotatable member step by step, means operating with said device to alternately contact with and recede from the slotted portion of the tape and the solid part thereof alining therewith, an electric circuit including said rotatable member and the last named means, whereby the circuit is closed at intervals for certain periods of time and maintained open at other periods of time, and means included in the circuit to operate the time recorder.

1,132,660. APPARATUS FOR BURNING UNBURNT GAS PRODUCTS. ANDREW JANSEN, Dallas, Tex. Filed May 5, 1913. Serial No. 765,463. (Cl. 158—99.)



1. A gas burner for burning waste gas products comprising a body having a central opening and provided with gas openings directed toward the central opening, means for supplying gas to the gas openings, and a means for introducing waste gas products into the central opening of the burner body.

2. A gas burner for burning waste gas products comprising a body having a central opening and provided with gas openings communicated with said central opening, means for supplying gas to the gas openings, and means for introducing waste gas products into the central opening of the burner body.

1,132,661. METHOD OF PREPARING IRON FOR CASTINGS. WILLIAM G. KRANS, Sharon, Pa., assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 17, 1911. Serial No. 621,723. (Cl. 204—64.)

1. The method of preparing iron for castings, consisting in treating molten iron relatively high in carbon, by feeding molten iron into an electric furnace, raising its temperature and treating it with lime in the electric furnace to reduce the sulfur content, while maintaining a relatively high carbon content therein, substantially as described.

2. The method of preparing iron for castings, consisting in treating low grade molten iron high in carbon and sulfur, by feeding the molten iron still high in carbon and sulfur into an electric furnace, raising its temperature and treating it therein with lime which forms a basic slag to receive the sulfur content, while maintaining relatively high carbon content, substantially as described.

3. The method of preparing iron for castings, consisting in treating low grade molten iron high in carbon and sulfur, feeding the molten iron still high in carbon and sulfur into an electric furnace, raising its temperature and treating it therein with lime which forms a basic slag to receive the sulfur content, while maintaining a relatively high carbon content, and adding carbon to the molten iron in the electric furnace, substantially as described.

4. The method of preparing iron for castings, consisting in treating molten iron high in carbon, by feeding the molten iron still high in carbon into an electric furnace, raising its temperature therein, treating it with lime to remove the sulfur and continuing the treatment while maintaining a relatively high carbon content until oxids are substantially removed, substantially as described.

5. The method of preparing iron for castings, consisting in treating molten iron high in carbon and sulfur, by feeding the molten iron still high in carbon and sulfur into an electric furnace, raising its temperature therein, treating it with lime to remove the sulfur, continuing the treatment until calcium carbid is formed showing the elimination of oxids from the metal, and then making additions of carbon and tapping out, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,132,662. STUD. LOUIS E. LADD, Providence, R. I. Filed Dec. 8, 1914. Serial No. 876,034. (Cl. 24—100.)



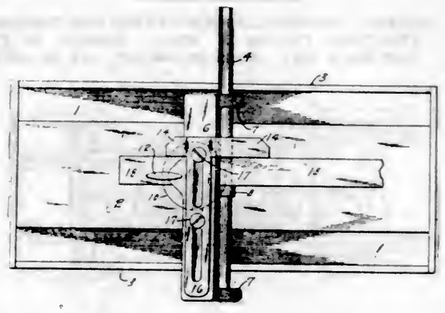
1. In a stud, the combination of a tubular body, a guide plate integral with the tube and provided with a longitudinal slot, a rod slidably mounted in the tube and extending into the slot, a pivot pin in the rod, a spring engaging the tube and rod, a post, ears upon the post engaging the pin and embracing the plate, said post being provided with a cavity between the ears, and a head on the post.

2. In a stud, the combination of a tubular body, a guide plate integral with the tube and provided with a longitudinal slot, and with a point upon its free end, a rod slidably mounted in the tube and slot, resilient means upon the rod for maintaining a portion of the rod within the tube, a post pivotally connected with the rod, a pointed cavity in the post adapted to receive the point upon the guide plate, and a head on the post.

1,132,663. HONING IMPLEMENT FOR CHISELS, &c. CLARENCE J. LUTHER, Milwaukee, Wis., assignor to Luther Grinder Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 1, 1913. Serial No. 782,406. (Cl. 51—7.)

1. A honing implement, comprising a stone holder having raised side margins, a rod adapted to span the holder and to slide freely in all direction upon the margins, a tool rest carried by the rod, and a clamping device supported from the rod in clamping relation to the tool holder.

2. A honing implement, comprising a stone holder having raised side margins, a rod adapted to span the holder and to slide freely in all directions upon the margins, a tool rest carried by the rod, and a clamping device supported from the rod in clamping relation to the tool holder, said tool rest being centrally pivoted to its support and adapted to oscillate with the tool when the tool is moved with a honing motion over the face of the stone.



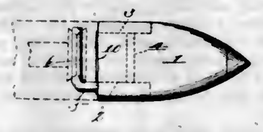
3. A honing implement, comprising a stone holder having raised side margins, a rod adapted to span the holder and to slide freely upon the margins, a tool rest carried by the rod, and a clamping device supported from the rod in clamping relation to the tool holder, said tool rest being centrally pivoted to its support and adapted to oscillate with the tool when the tool is moved with a honing motion over the face of the stone, together with a bracket adjustably supported from said rod and adapted to be secured in position to prevent such oscillations of the tool.

4. In a honing implement, the combination with a supporting rod free to move in all directions of a tool rest rotatably supported therefrom, and a clamping device adapted to engage a tool between it and the tool rest.

5. In a honing implement, the combination with a supporting rod of a tool rest rotatably supported therefrom, and a clamping device adapted to engage a tool between it and the tool rest, together with an adjustable bracket, having arms adapted to bear against the sides of such engaged tool.

[Claim 6 not printed in the Gazette.]

1,132,664. SHUTTLE-BOBBIN HOLDER. ALBERT MANDEVILLE, Ware, Mass. Filed May 17, 1913. Serial No. 768,264. (Cl. 139—27.)



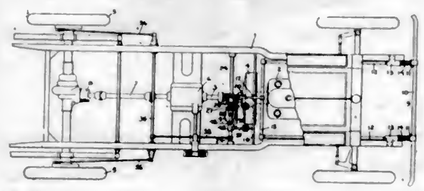
1. The combination with a shuttle body having a recess in its lower face, of a U-shaped spring wire member adapted to fit in said recess, said member having upright parallel jaws at its free end, and a U-shaped plate fitting over an end of said body, the bow portion of said plate resting parallel to the jaws of the spring frame and between said jaws and said shuttle body.

2. The combination with an end portion of a shuttle, said portion having upper and lower recesses, a U-shaped frame, the upper and lower members of which fit respectively in said recesses, and a spring wire frame, the bow portion of which fits in the lower recess, the projecting portion of said spring frame being bent to form spring jaws parallel to and spaced apart from the bow portion of the second mentioned frame, as and for the purpose set forth.

3. The combination with an end portion of a shuttle having upper and lower recesses, a U-shaped retaining plate having its side members fitting said recesses, and a spring wire frame bent at right angles, the bow portion

of the frame fitting snugly in the lower recess of said shuttle end portion, the side members of the wire frame having lateral play in said recess, as and for the purpose set forth.

1,132,665. CONTROLLING MECHANISM FOR POWER-VEHICLES. CHARLES M. MANLY, Brooklyn, N. Y. Filed Feb. 4, 1911. Serial No. 606,615. (Cl. 21—90.)



1. In a motor vehicle, the combination of a driving mechanism, a driving wheel, a clutch between said mechanism and said wheel, said clutch having a control member for direct operation by the driver to release the clutch, a power operated device for actuating said releasing means, a latch for holding said power operated device against movement, and a fender movably supported by said vehicle and operatively connected to said latch.

2. In a motor vehicle, the combination of a driving mechanism, means for rendering said driving mechanism inoperative, a spring for actuating said means, a latch for holding said spring under tension, a fender movably supported by said vehicle and operatively connected to said latch, manually operatable means for rendering said driving mechanism inoperative, and means operated by said manually operated device for placing said spring under tension.

3. In a vehicle, the combination of a brake, means whereby said brake may be directly applied by the driver of the vehicle, a power operated device for operating said brake applying means, means for holding said power operated device against movement, said power operated device being connected to said brake applying means to permit manual operation of the brake without affecting said power operating device, and a fender movably supported on the said vehicle and operatively connected to the said means.

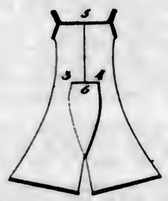
4. In a vehicle, the combination of a brake, a spring for actuating said brake, a latch for holding said spring under tension, a fender carried by the vehicle, means for operatively connecting said fender and said latch, a manually operatable device for actuating said brake, and connections between said device and said spring whereby said spring may be placed under tension by movement of said device.

5. In a motor vehicle, the combination of a driving motor, a driving wheel, a clutch between said wheel and motor, a brake for said vehicle, means for operating said brake and clutch comprising a gear wheel, a second gear wheel, a spring for actuating said second gear wheel, a fender movably supported by said vehicle, a latch for holding said spring under tension operatively connected to said fender, and a pedal pivotally supported on said vehicle and provided with a gear wheel meshing with both said first mentioned gear wheels.

[Claims 6 to 8 not printed in the Gazette.]

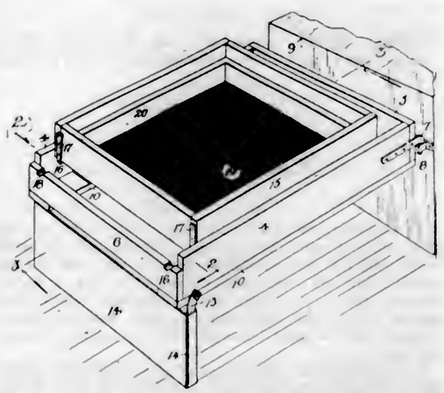
1,132,666. METHOD OF MAKING UNION GARMENTS. WILLIAM MARLOW, New York, N. Y., assignor to Standard Knitting Mills Company, a Corporation of New York. Filed July 8, 1913. Serial No. 777,825. (Cl. 2—144.)

The method of making a union garment from a piece of tubular fabric which consists in forming two transverse cuts extending inwardly at right angles from the edges to the center on one side of the tube, forming two oppositely inclined cuts from the center to the outer edges on the other side of the tube, forming a longitudinal cut on both sides of the tube joining the transverse cut and apices of the inclined cuts, reversing the portions so cut, joining the inclined cuts and longitudinal cuts on that side of the tube to form a single continuous straight front seam



running from the crotch to the neck opening, joining the longitudinal cuts on the other side to form a central back seam, overlapping the transverse cuts on each side of the center back seam, and joining the edge of each transverse cut to the opposite portion by a single horizontal seam.

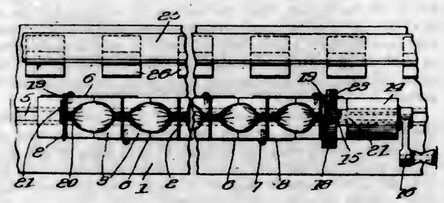
1,132,667. FLORIST'S DIRT-SIEVE. LOUIS MILLIOT, Yonkers, N. Y. Filed June 16, 1910. Serial No. 567,144. (Cl. 83—60.)



A florist's dirt screen comprising a main frame with side bars and end pieces, hook supports for one end of said side bars, a pivoted support for the other end of said side bars, a screen frame adapted to be received between said side bars to reciprocate back and forth therebetween, said end pieces being constructed so that the rear end piece extends to a greater height than the front end piece, brackets mounted on the inner sides of said side bars and carrying rollers, said rollers terminating at a height in the line of the upper edge of the front end piece, said screen frame having track straps connected to the under side of the side edges thereof and resting and operating upon said rollers when said screen frame is reciprocated back and forth between said side bars.

1,132,668. APPARATUS AND PROCESS FOR PACKING ARTICLES. IRA A. MILLIRON, New York, N. Y., assignor, by mesne assignments, to Hammock Egg Carrier Company, a Corporation of West Virginia. Filed Aug. 15, 1913. Serial No. 784,902. (Cl. 93—5.)

1. Apparatus for the packing of eggs in envelops for transportation, comprising means initially for supporting wet strips of paper and the eggs suitably spaced thereon, while the paper is being folded around the eggs, and other means for secondarily supporting the eggs so inclosed while the paper is being twisted about the eggs, said second means being composed of moving elements and said first means composed of sections adapted initially to be arranged alternately with said elements.



2. Apparatus for the packing of eggs in envelops for transportation, comprising means initially for supporting wet strips of paper and the eggs suitably spaced thereon, while the paper is being folded around the eggs, and other means for secondarily supporting the eggs so inclosed while the paper is being twisted about the eggs, said second means being composed of sliding elements and said first means composed of concave sections adapted initially to be arranged alternately with said elements.

3. In an apparatus for packing a series of eggs in an envelop, means to support the eggs and the envelop while the torsion is being applied to the envelop, comprising separate elements arranged to be capable of independent longitudinal movement, means to limit the maximum and minimum distance between the elements, means to engage with one end of the envelop to hold it and means for engaging with the other end of the envelop for twisting the same.

4. In an apparatus for packing a series of eggs in an envelop, a standard to support the eggs and the envelop while torsion is being applied to the latter firmly to inclose the eggs therein and to twist the portions of the envelop intermediate of the eggs, said standard comprising a base, slides fitted to the base and adapted to move independently and longitudinally thereon, said slides having widened bases to limit the minimum distance between the slides, and connections between the adjacent slides to limit the maximum distance between the same, and means to apply said torsion to the envelop.

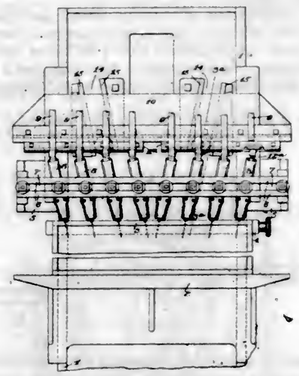
5. In an apparatus for packing eggs in an envelop, a base, slides forming collectively a supporting standard, and being fitted to slide longitudinally on the base, means to limit the maximum and minimum distance between the slides and a carrier hinged to said base and adapted to be swung into and out of operative position initially to receive and to transfer the envelop and eggs, after the envelop has been folded about the eggs, to said slides for further operation.

[Claims 6 to 28 not printed in the Gazette.]

1,132,669. NAILING-MACHINE. HENRY W. MORGAN, Rochester, N. Y. Filed Nov. 19, 1913. Serial No. 801,768. (Cl. 1—10.)

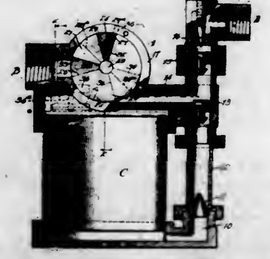
1. In a nailing machine, the combination with a plurality of nailing chucks angularly disposed on a support, of a vertically movable cross head, a slide engaged throughout its length with the cross head and horizontally movable on the cross head, a series of hammers mounted on said slide, and means for moving said slide horizontally during the vertical movement of the cross head.

2. In a nailing machine, the combination with a plurality of sets of nailing chucks angularly disposed on a support, of a vertically movable cross head, a plurality of slides engaged throughout their length with the cross head and horizontally movable on the cross head, stationary cam guides, projections on the slides coöperating with said guides, and a series of hammers mounted on the slides.



3. In a nailing machine, the combination with a plurality of oppositely disposed sets of nailing chucks, angularly disposed on a support, of a vertically movable cross head, slides engaged throughout their length with the cross head and horizontally movable on the cross head, stationary guides, antifriction rollers carried by the slides and in engagement with said guides, and a series of hammers mounted on the slides.

1,132,670. FORCE-PUMP. THOMAS F. MULLIGAN, Fort Wayne, Ind., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind., a Corporation of Indiana. Filed June 19, 1913. Serial No. 774,504. (Cl. 103—67.)



1. In a force pump, a casing reduced in width at one portion, ports communicating with the casing at the wide and narrow portions, and a pivoted oscillatable element having a tight-fitting part in each portion of the casing.

2. In a force pump, a casing having segmental portions one of which is reduced in axial width, ports communicating with the casing at said portions, and a pivoted oscillatable element having a fluid-tight part movable in each portion of the casing.

3. In a force pump, a casing having segmental portions, one of which is reduced in axial width, a pivoted oscillatable element having parts which fit the portions of the casing fluid-tight, ports in communication with the said portions of the casing, and a spring tending to press the element to close the portion of reduced width.

4. In an automatic force pump, a casing having segmental portions, one of which is less in width than the other, ports communicating with the said portions of the

casing, a pivoted reciprocable element having parts to fit the said portions fluid tight and rotatable about the pivot through a limited arc, a stop for limiting the movement in one direction, and a spring tending to press the element against the stop.

5. The combination of a pump casing provided with a sector-shaped inclosure, and a sector-shaped pumping element mounted for oscillation in the inclosure and dividing it into a power chamber and a relatively small pumping chamber, said element being reduced at its pumping chamber end.

[Claims 6 to 10 not printed in the Gazette.]

1,132,671. PROTECTIVE CASING FOR LINE CONDUCTORS. THOMAS E. MURRAY, New York, N. Y. Filed May 20, 1912. Serial No. 698,398. (Cl. 247—8.)



1. A tubular protective casing for line conductors, having substantially parallel side walls, and on the exterior of said walls parallel longitudinal open gutters.

2. A tubular protective casing for line conductors, comprising a base section having three parallel longitudinal channels, and a cover for the middle channel only.

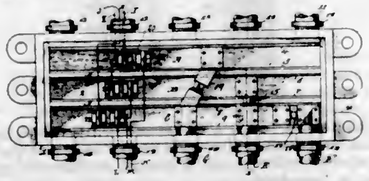
3. A tubular protective casing for line conductors, comprising a base portion and a cover, each integrally formed of sheet metal, the said base portion having three parallel longitudinal channels, and the cover having flanges receiving and engaging the partitions between said flanges.

4. A tubular protective casing for line conductors, comprising a base section having three parallel longitudinal channels, the middle channel being of greater cross sectional area than either outer channel and receiving said conductors, and a cover for said middle channel only.

5. A tubular protective casing for line conductors, comprising a base section of sheet metal integrally forming three parallel longitudinal channels, the middle channel being of greater cross sectional area than either outer channel and receiving said conductors, and a cover having resilient longitudinal flanges receiving and engaging the partitions between said channels.

[Claim 6 not printed in the Gazette.]

1,132,672. JUNCTION-BOX. THOMAS E. MURRAY, New York, N. Y. Filed Oct. 16, 1913. Serial No. 795,407. (Cl. 247—15.)



1. A case, a plurality of pairs of fixed contact plates therein, a group of line conductors entering said case, a contact terminal on each member of said group adapted to enter between the members of said pairs of fixed contact plates, a second group of line conductors entering said case, and a contact terminal on each member of said second group, the said terminals of said second group also being adapted to enter between the members of said pairs of fixed contact plates.

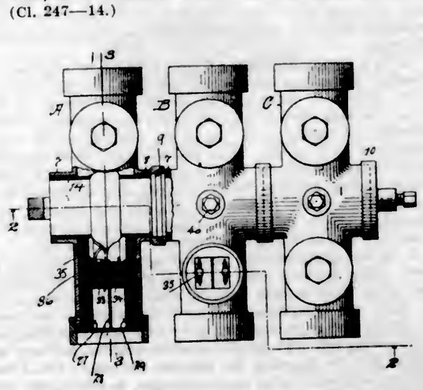
2. A case, having a plurality of openings in its opposite walls, a plurality of pairs of fixed contact plates within and extending across said case, conduits secured in said openings, feeder mains in certain of said conduits and entering said case, a contact terminal on each of said mains within said case adapted to enter between the members of said pairs of fixed contact plates, service leads in one of said conduits and entering said case, and a contact terminal on each of said service leads, said lead terminals also being adapted to enter between the members of said pairs of fixed contact plates.

3. A case, having a plurality of openings in its walls, conduits, means for securing said conduits interchangeably in said openings, a plurality of pairs of fixed contact plates in said case, line conductors in said conduits, a flexible arm secured to the end of each of said conductors within said case, and a pair of contact terminals carried by each of said arms; the said terminals being adapted to enter between the members of said pairs of fixed contact plates.

4. A case, a plurality of pairs of fixed contact plates therein, two groups of line conductors, the members of each group being equal in number to said pairs of contact plates and entering said case, and a contact terminal on each of said members adapted to enter between the members of each pair of fixed contacts.

5. A case, having a plurality of openings in its walls, a lining of insulating material within said case below said wall openings, longitudinal partitions of insulating material dividing the space in said lining into a plurality of channels, contact plates on opposite sides of said channels, conduits secured in said openings, feeder mains in certain of said conduits and entering said case, contacts on said mains within said case coöperating respectively with the contact plates in the different channels, service leads in one of said conduits and entering said case, and contacts on said service leads coöperating respectively with said contact plates.

1,132,673. JUNCTION-BOX. THOMAS E. MURRAY, New York, N. Y. Filed Jan. 31, 1914. Serial No. 815,652. (Cl. 247—14.)



1. A tube section, tubular offsets on opposite sides thereof, a group of conductors longitudinally disposed in said tube, a group of conductors disposed in said offsets, crossing said first-named conductors and respectively in contact with said first-named conductors, and means extending through a wall of said tube for clamping said conductors together at their places of contact.

2. A tube section, tubular offsets on opposite sides thereof, a group of flat-surfaced parallel conductors longitudinally disposed in said tube, and a group of flat-surfaced parallel conductors disposed in said offsets, the members of one of said groups of conductors having their middle portions turned at ninety degrees to their end portions; the said middle portions crossing the members of the other group of conductors and respectively in contact therewith.

3. A case, and two groups of flat parallel conductors therein, the members of one of said groups having their middle portions turned at ninety degrees to their end portions, and the said middle portions crossing and being respectively in contact with the conductors of the other group.

1,132,674. ELECTRIC FUSE. THOMAS E. MURRAY, New York, N. Y. Filed Mar. 28, 1914. Serial No. 827,861. (Cl. 175—273.)



1. A case, end caps thereon having openings, a fuse carrier, and T-shaped clips having their separate arms entering said openings and receiving the ends of said fuse carrier and their cross bars extending over the outer faces of said caps and closing said openings.

2. A case, end caps thereon having openings, a fuse carrier, and T-shaped clips integrally formed of bent sheet metal having their separated arms entering said openings and receiving the ends of said fuse carrier and their cross bars extending over the outer faces of said caps and closing said openings.

3. A case, end caps thereon having openings, a bar of insulating material, a fuse strip wound in a plurality of parallel turns longitudinally upon said bar, and T-shaped clips having their separated arms entering said openings, contacting with said parallel turns and having their cross bars extending over the outer faces of said caps and closing said openings.

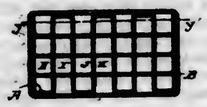
4. A case, end caps thereon having openings, an elongated fuse carrier, an endless fuse longitudinally inclosing said carrier, and T-shaped clips having their separated arms entering said cap openings and their cross bars extending over the outer faces of said caps and closing said openings; the said fuse at the ends of said carrier contacting with said clip arms and cross bars.

1,132,675. VEHICLE-WHEEL. THOMAS E. MURRAY, New York, N. Y. Filed June 4, 1914. Serial No. 842,828. (Cl. 21—171.)



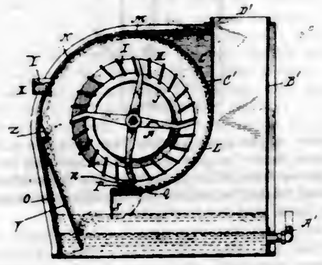
A vehicle wheel, comprising a hub, tubular spokes thereon, a felly having openings, and flanged ferrules having their flanges seated on the outer surface of said felly and extending radially inward through said openings and inclosing the ends of said spokes; the said parts being of sheet metal and homogeneously united.

1,132,676. MULTIDUCT. THOMAS E. MURRAY and ARTHUR V. A. MCHARG, New York, N. Y.; said McHarg assignor to said Murray. Filed Apr. 30, 1913. Serial No. 764,531. (Cl. 247—18.)



A multiduct, consisting of a substantially rigid tube of sheet metal polygonal in cross section, and a plurality of superposed longitudinally crenelated plates of sheet metal therein, the crenelations of each of said plates entering the recesses between the crenelation of adjacent plates, and the said plates coöperating with one another and with the walls of said tube to divide the entire space within said tube into a plurality of groups of parallel compartments.

1,132,677. DEVICE FOR TRAPPING PARTICLES IN SUSPENSION IN GAS-CURRENTS. THOMAS E. MURRAY and CHARLES B. GRADY, New York, N. Y.; said Grady assignor to said Murray. Filed Mar. 28, 1914. Serial No. 827,864. (Cl. 110—144.)



1. A device for trapping particles in suspension in a gas current, comprising a plate, means for retaining liquid thereon to submerge said plate over a predetermined portion of its area, and means for projecting said current upon said liquid: whereby said liquid is caused to flow as a sheet over the normally unsubmerged area of said plate and said particles to engage in said liquid sheet.

2. A device for trapping particles in suspension in a gas current, comprising a curved plate, dams at the lower edge and at the side edges of said plate forming with said plate a receptacle for liquid partly submerging the same, and means for projecting said current upon said liquid: whereby said liquid is caused to flow as a sheet over the normally unsubmerged area of said plate and said particles to engage in said liquid sheet.

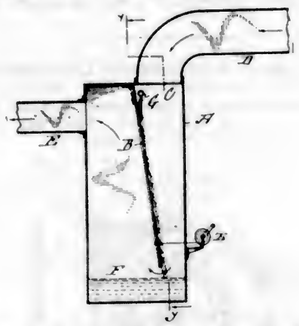
3. A device for trapping particles in suspension in a gas current, comprising a curved plate, means for retaining liquid thereon to submerge said plate over a predetermined portion of its area, and means for projecting said current in a plurality of jets upon said retained liquid and the normally unsubmerged area of said plate: whereby said liquid is caused to flow as a sheet over said plate and said particles to engage in said liquid sheet.

4. A device for trapping particles in suspension in a gas current, comprising a casing, having inlet and outlet openings for said current, an imperforate volute partition extending transversely across said casing, a dam on the lower transverse edge of said partition for retaining liquid thereon to submerge said partition over a predetermined portion of its area, and an outward radial flow rotary fan wheel, disposed in the concavity of said partition, communicating internally with said current inlet and delivering said current upon said partition.

5. A device for trapping particles in suspension in a gas current, comprising a casing having an inlet and an outlet, a curved partition extending across said casing, means for retaining liquid on said partition to submerge a predetermined portion of the area thereof, means for projecting said current upon said liquid, whereby said liquid is caused to flow as a sheet over the normally unsubmerged area of said partition and said particles to engage in said liquid sheet, a liquid receptacle at the bottom of said casing, and a duct in said casing interposed between said receptacle and said plate and delivering said liquid and gas current upon the surface of the liquid in said receptacle.

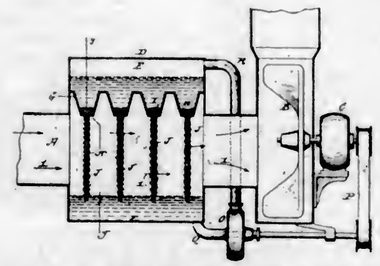
[Claims 6 to 12 not printed in the Gazette.]

1,132,678. APPARATUS FOR TRAPPING PARTICLES IN SUSPENSION IN GAS-CURRENTS. THOMAS E. MURRAY and CHARLES B. GRADY, New York, N. Y.; said Grady assignor to said Murray. Filed. May 15, 1914. Serial No. 838,847. (Cl. 110—183.)



A device of the type set forth for trapping particles in suspension in a dry gas current, comprising a plate of wood, means for delivering liquid upon the surface of said plate, and means for delivering the dry gas current to be purified upon said wet surface.

1,132,679. METHOD OF NEUTRALIZING CORROSIVE FUMES IN GASES. THOMAS E. MURRAY and EDWIN B. RICKETTS, New York, N. Y. Filed Oct. 14, 1914. Serial No. 866,666. (Cl. 75—30.)



1. The process of neutralizing corrosive gas contained in a current of inert gas, which consists in causing said current to pass first through a thin sheet of solution containing an ingredient capable of chemically combining with said corrosive gas to neutralize the same, and then with the liquid entrained by said passage to pass in the form of fine jets through the interstices of a foraminous screen.

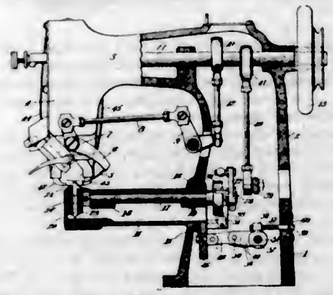
2. The process of neutralizing sulfuric acid fumes contained in an air current, which consists in first causing said current to pass through a thin sheet of soda ash solution, and then with the liquid entrained by said passage to pass in the form of fine jets through the interstices of a foraminous screen.

3. The process of neutralizing sulfuric acid fumes contained in an air-current, which consists in first causing said current to pass through a thin sheet of soda ash solution, and then with the liquid entrained by said passage to pass in the form of fine jets through the interstices of a foraminous plate, over which plate said sheet is kept flowing.

4. The process of neutralizing sulfuric acid fumes contained in an air current, which consists in first causing said current to pass through a thin sheet of soda ash solution, and then with the liquid entrained by said passage to pass in the form of fine jets through the interstices of a foraminous plate, and then to traverse a second thin sheet of soda ash solution, the said liquid sheets being kept flowing on opposite sides of said plate.

5. The process of neutralizing corrosive gas contained in a current of inert gas, which consists in causing said current to traverse a solution containing an ingredient capable of chemically combining with said corrosive gas to produce in said solution a non-corrosive substance.

1,132,680. BLINDSTITCH SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 6, 1907. Serial No. 405,357. (Cl. 112—24.)



1. The combination with an overhanging arm, of a needle carried thereby, a work supporting arm, means for raising and lowering said work supporting arm, and for holding the same rigidly in raised position and means for adjusting the position of the work supporting arm relative to said needle.

2. The combination with an overhanging arm, a needle carried thereby, a work support, a crimping ridge carried thereby, means for raising and lowering said work support and holding the same rigidly in raised position and an adjusting screw for varying the position of said work support relative to said needle.

3. The combination of a work supporting arm, a needle, means for supporting and operating the same, a toggle lever for raising and lowering said work supporting arm relative to said needle, and means for adjusting the position of said toggle lever.

4. The combination with a standard, a needle supported by said standard, a work supporting arm pivoted to said standard and movable relative to said needle, a link pivoted to said arm, a second link pivoted to said first named link and to the standard, and a lug for limiting the movement of said links and for holding the work supporting arm in raised position.

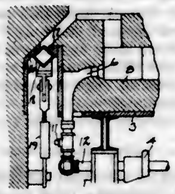
5. The combination with a standard, a needle supported by said standard of a work supporting arm pivoted to said standard and movable relative to said needle, a link pivoted to said arm, a second link pivoted to said first named link and to the standard and a lug for limiting the movement of said links and for holding the work supporting arm in raised position, and means for adjusting the position of the pivotal connection between the second link and the standard.

[Claims 6 to 11 not printed in the Gazette.]

1,132,681. FURNACE. FRANK C. PARSONS, East Cleveland, Ohio, assignor to The Strong, Carlisle and Hammond Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 24, 1913. Serial No. 775,492. (Cl. 75—40.)

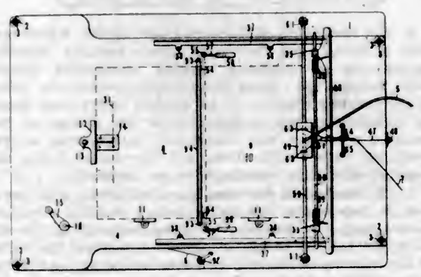
1. Sealing means for furnace chambers adapted to receive a movable car bearing material to be heated, comprising pivotally mounted bars, and complementary members on the sides of said furnace and on such cars adapted to snugly contact the sides of said bars when the same are swung, thereby sealing said furnace at the level of said bars.

2. Sealing means for furnace chambers adapted to receive a movable car bearing material to be heated, comprising pivotally mounted hollow bars, complementary members on the sides of said furnace and on such car adapted to snugly contact the sides of said bars when the same are swung, thereby sealing the furnace at the level of said bars, and means connected to the ends of said bars and adapted to supply cooling material thereto.



3. Sealing means for furnace chambers adapted to receive a movable car bearing material to be heated, comprising pivotally mounted hollow bars, complementary members on the sides of said furnace and on such car adapted to snugly contact the sides of said bars when the same are swung, thereby sealing the furnace at the level of said bars, and flexible means connected to the ends of said bars and adapted to supply cooling material thereto.

1,132,682. APPARATUS FOR TURNING MUSIC-LEAVES. JOSEPH HAIM PÉREZ, Nevada, Mo. Filed Sept. 18, 1911. Serial No. 650,040. (Cl. 84—17.)



1. In apparatus of the class described, in combination, a supporting member adapted to support a sheet in normal disposition with reference thereto, a pneumatic means normally removed from said sheet, means adapted to cause said pneumatic means to contact with said sheet, means adapted to actuate said pneumatic means to grip said sheet, means adapted to permit of the return of said pneumatic means to normal disposition thereby abnormally disposing said gripped sheet, a movable member adapted to have movement for a predetermined distance relatively of said sheet and between said sheet as so gripped and said supporting member, means adapted intermediately of the movement of said movable member said predetermined distance to release said sheet from said pneumatic means whereby said movable member will complete the turning of said sheet, means adapted during the turning of said sheet to positively engage with a portion of said sheet.

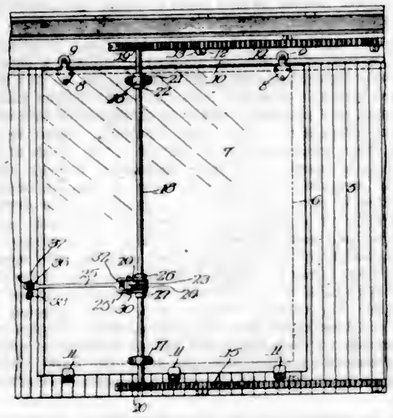
2. In apparatus of the class described, in combination, a supporting member adapted to support a sheet in normal disposition with reference thereto, a pneumatic means normally removed from said sheet, means adapted to cause said pneumatic means to contact with said sheet, means adapted to actuate said pneumatic means to grip said sheet, means adapted to permit of the return of said pneumatic means to normal disposition thereby abnormally disposing said gripped sheet, a movable member adapted to have movement for a predetermined distance relatively of said sheet and between said sheet as so gripped and said supporting member, means adapted intermediately of the movement of said movable member said predetermined distance to release said sheet from said pneumatic means whereby said movable member will complete the turning of said sheet, means adapted during the turning of said sheet to positively engage with a portion of said sheet, and means adapted to actuate said movable member whereby after movement through said predetermined distance it is returned to normal position, said actuating means including a spring means provided with an engaging member adapted to permit intermittently of partial actuations of said spring means.

3. In apparatus of the class described, in combination, a supporting member adapted to support a sheet in normal disposition with reference thereto, a pneumatic means normally removed from said sheet, means adapted to cause said pneumatic means to contact with said sheet, means adapted to actuate said pneumatic means to grip said sheet, means adapted to permit of the return of said pneumatic means to normal disposition thereby abnormally disposing said gripped sheet, a movable member adapted to have movement for a predetermined distance relatively of said sheet and between said sheet as so gripped and said supporting member, means adapted intermediately of the movement of said movable member said predetermined distance to release said sheet from said pneumatic means whereby said movable member will complete the turning of said sheet, means adapted during the turning of said sheet to positively engage with a portion of said sheet, and means adapted to actuate said movable member whereby after movement through said predetermined distance it is returned to normal position.

4. In apparatus of the class described, in combination, a supporting member adapted to support a sheet in normal disposition with reference thereto, a pneumatic means normally removed from said sheet, means adapted to cause said pneumatic means to contact with said sheet, means adapted to actuate said pneumatic means to grip said sheet, means adapted to permit of the return of said pneumatic means to normal disposition thereby abnormally disposing said gripped sheet, a movable member adapted to have movement for a predetermined distance relatively of said sheet and between said sheet as so gripped and said supporting member, means adapted intermediately of the movement of said movable member said predetermined distance to release said sheet from said pneumatic means whereby said movable member will complete the turning of said sheet, means adapted during the turning of said sheet to positively engage with a portion of said sheet, and means adapted to actuate said movable member whereby after movement through said predetermined distance it is returned to normal position, said actuating means including a spring means provided with an engaging member adapted to permit intermittently of partial actuations of said spring means, said spring means driving a cam adapted to actuate said movable member.

[Claims 6 to 12 not printed in the Gazette.]

1,132,683. CAR-DOOR-OPERATING MECHANISM. BROR T. PETERSON, Chicago, Ill., assignor of one-third to Ben R. Peterson and one-third to William J. Maxwell, Chicago, Ill. Filed June 10, 1914. Serial No. 844,139. (Cl. 39—92.)



1. The combination with a car body having a side opening, and a door mounted to slide across said opening, of rack-bars secured to the outer side of the side wall of the car above and below said opening, journal bearings on the outer side of the door adjacent to the upper and lower edges of the latter, a vertical shaft mounted in said bearings and carrying on its upper and lower ends spur gears meshing with said rack-bars, and shaft-operating means secured to said shaft intermediate said bearings.

2. The combination with a car body having a side opening, and a door suspended from a trolley rail above said opening and adapted to slide across the latter, of rack-bars secured to the outer side of the side wall of the car above and below said opening, journal bearings on the outer side of the door adjacent to the upper and lower edges of the latter, a vertical shaft mounted in said bearings and carrying on its upper and lower ends spur gears meshing with said rack-bars, shaft-operating means secured to said shaft intermediate said bearings, and keeper lugs secured to the side wall of the car body below said opening and overlapping the lower edge of the door.

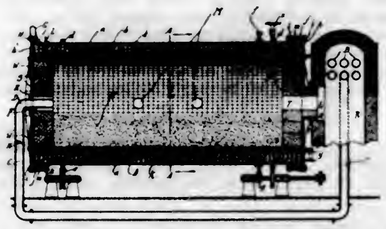
3. The combination with a car body having a side opening, and a door mounted to slide across said opening, of rack-bars secured to the outer side of the side wall of the car above and below said openings, journals bearing on the outer side of the door adjacent to the upper and lower edges of the latter, a vertical shaft mounted in said bearings and carrying on its upper and lower ends spur gears meshing with said rack-bars, a ratchet disk fast on said shaft intermediate said bearings, and an operating lever pivoted on said shaft and carrying a pawl engaging said ratchet disk.

4. The combination with a car body having a side opening, and a door mounted to slide across said opening, of rack-bars secured to the outer side of the side wall of the car above and below said opening, journal bearings on the outer side of the door adjacent to the upper and lower edges of the latter, a vertical shaft mounted in said bearings and carrying on its upper and lower ends spur gears meshing with said rack-bars, a pair of oppositely facing ratchet disks fast on said shaft intermediate said bearings, an operating lever having a forked end pivoted to said shaft and straddling said ratchet disks, a pair of rigidly connected pawls pivoted in the forked end of said lever for coöperation with said ratchet disks respectively, and a spring operative to hold either of said pawls in engagement with its ratchet disk and simultaneously hold the other pawl in idle position.

5. The combination with a car body having a side opening, and a door mounted to slide across said opening, of rack-bars secured to the outer side of the side wall of the car above and below said openings, journal bearings on the outer side of the door adjacent to the upper and lower edges of the latter, a vertical shaft mounted in said bearings and carrying on its upper and lower ends spur gears meshing with said rack-bars, a ratchet disk fast on said shaft intermediate said bearings, an operating lever pivoted on said shaft and carrying a pawl engaging said ratchet disk, and means for securing the free end of said operating lever to the side wall of the car opposite one vertical edge of said opening when the door is closed in position.

[Claim 6 not printed in the Gazette.]

1,132,684. ROASTING OF COMPOUNDS OR ORES CONTAINING ZINC. AUGUSTIN LEON JEAN QUENEAU, Philadelphia, Pa. Filed July 19, 1911. Serial No. 639,400. (Cl. 204—64.)



1. The method of dead-roasting zinc blende, which consists in introducing the blende into a roasting chamber, maintaining an oxidizing roasting atmosphere therein while keeping the charge in agitation, heating the lining of the roasting chamber by an electric current and thereby maintaining the temperature of the charge at the roasting point for zinc blende and establishing neutral conditions between the lining and the charge during the roasting operation; substantially as described.

2. The method of dead-roasting zinc blende, which consists in introducing the blende into a roasting chamber, maintaining an oxidizing roasting atmosphere therein while keeping the charge in agitation, heating the lining of the roasting chamber by an electric current and thereby maintaining the temperature of the charge at the roasting point for zinc blende, and establishing neutral conditions between the lining and the charge during the roasting operation, the temperature prevailing in the charge being raised to the intended maximum during the final stage of the operation; substantially as described.

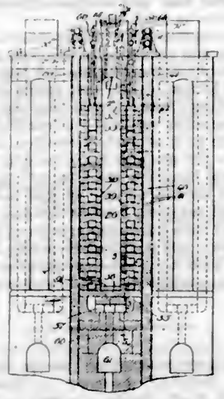
3. An electric roasting furnace for zinc blende, said furnace having an oxidizing roasting chamber provided with a refractory resistor made up of material which at its face of contact with the charge is substantially non-reducing, means for introducing the zinc blende into the chamber, means for maintaining the temperature of the charge at the roasting point for zinc blende by passing an electric current through the resistor of non-reducible material, and means for passing through the chamber a stream of oxidizing gas in such volume as to maintain an oxidizing roasting atmosphere therein while keeping the charge in agitation; substantially as described.

4. An electric furnace for roasting zinc blende, said furnace having an oxidizing roasting chamber provided with a lining made up of magnesite bricks carrying such a percentage of graphite as will make it a conductor of the first order but insufficient to exercise any substantial reducing effect upon the charge, means for introducing the zinc blende into the chamber, means for maintaining the temperature of the charge at the roasting point for zinc blende by passing an electric current through the refractory resistor lining, and means for sending through the chamber a stream of oxidizing gas in such volume as to maintain an oxidizing roasting atmosphere therein while keeping the charge in agitation; substantially as described.

5. An electric furnace for roasting zinc blende, said furnace having an oxidizing roasting chamber provided with a refractory resistor made up substantially of non-reducing material at its face of contact with the charge; means for introducing into the chamber the zinc blende, means for maintaining the temperature of the charge at the roasting point by passing an electric current through the resistor, and means for sending through the chamber a stream of oxidizing gas in such volume as to maintain an oxidizing roasting atmosphere therein, while keeping the charge in agitation; substantially as described.

[Claim 6 not printed in the Gazette.]

1,132,685. COKE-OVEN. ARTHUR ROBERTS, Evanston, Ill. Filed Sept. 8, 1914. Serial No. 860,583. (Cl. 202—9.)



1. In a coke oven a wall comprising tiers of blocks extending through the wall from the inner surface of the carbonizing chamber to the outer surface of the wall, each block having its side portions and its bottom portions recessed, and the blocks of consecutive tiers being laid in courses breaking joints with each other, and the end portions of adjacent blocks lying solidly in contact with each other, whereby there is produced a wall comprising integral blocks of material extending through from face to face of the wall and whereby there are provided zig-zag passages extending downwardly through said wall and in communication with each other.

2. In a coke oven a wall comprising a series of integral blocks laid up in horizontal courses, the blocks of each course breaking joints with the blocks of the adjacent courses, each block having its central side portions and its central bottom portion recessed, and the end portions of adjacent blocks lying solidly in contact with each other, whereby there are provided in the body of the wall zig-zag passages throughout the height and length of the wall, all of said passages being in communication with each other.

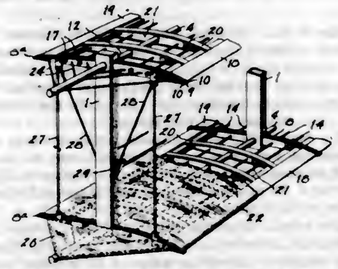
3. In a coke oven a wall comprising a series of integral blocks laid up in horizontal courses, the blocks of each course breaking joints with those of adjacent courses, and each block being recessed on its side portions and on one of its horizontal faces, whereby there are provided in the body of the wall zig-zag passages extending throughout the height and length of the wall and in communciation with each other.

4. In a coke oven a wall comprising a series of integral blocks, each block being recessed on its side faces and on at least one of its horizontal faces, and the adjacent blocks having their end portions laid solidly in contact with each other, whereby there are provided throughout the height and length of the wall zig zag passages in communication with each other.

5. In a coke oven a heating wall comprising integral blocks, the side portions of the blocks being recessed, and at least one of the horizontal faces of each block being recessed, the sizes of the recesses varying throughout the height of the wall, whereby there are provided in the wall zig zag passages in communication with each other, the size of said passages varying throughout the height of the wall.

[Claims 6 to 22 not printed in the Gazette.]

1,132,686. AEROPLANE CONSTRUCTION. JAMES ROONEY, Washington, D. C. Filed Dec. 4, 1914. Serial No. 875,501. (Cl. 244—31.)



1. An aeroplane construction including a frame, cross bars mounted thereon, a series of tension wires connecting the cross bars, edge pieces interposed between the cross bars and bearing loosely at their ends against the cross bars so as to offer no resistance to the warping of the plane, transverse truss members connecting the edge pieces, and a fabric covering applied to the edge pieces and truss members.

2. An aeroplane construction including a frame, cross bars mounted thereon, a series of tension wires connecting the cross bars, edge pieces loosely interposed between the cross bars and divided longitudinally to provide complemental sections adapted to be applied to the outermost tension wires, transverse truss members connecting the edge pieces, and a fabric covering applied to the edge pieces and truss members.

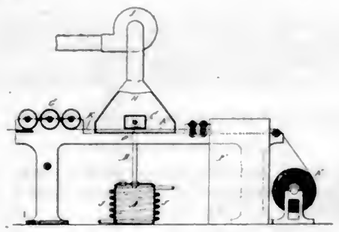
3. An aeroplane construction including a frame, cross bars mounted thereon, a series of tension wires connecting the cross bars, means for adjusting the tension in the said wires, edge pieces loosely interposed between the cross bars and mounted upon the outer tension wires so as to be carried thereby, a series of transverse truss members connecting the edge pieces and each including a vertical web through which the tension wires pass and upper and lower flat strips connected to the edge pieces, and a fabric covering applied to the edge pieces and truss members.

4. An aeroplane construction including a frame formed of tubular uprights and tubular longitudinal frame members interposed between the uprights and abutting against the same, joint pins passing through the uprights and having the projecting ends thereof fitted within the abutting ends of the longitudinal frame members, cross bars passing through the uprights and mounted upon the joint pins, and a supporting plane mounted upon the cross bars.

5. An aeroplane construction including a frame formed of tubular uprights and tubular longitudinal frame members interposed between the uprights and abutting against the same, joint pins passing through the uprights and having the projecting ends thereof fitted within the abutting ends of the longitudinal frame members, cross bars passing through the uprights and provided with openings receiving the joint pins, spacing collars mounted upon the joint pin between the cross arms and the sides of the uprights so as to prevent crushing of the uprights, and a supporting plane mounted upon the cross arms.

[Claims 6 to 8 not printed in the Gazette.]

1,132,687. PROCESS FOR MAKING WATERPROOF MATERIALS AND COATINGS. JOHN F. RYAN, Winthrop, Mass. Filed Jan. 14, 1911. Serial No. 602,588. (Cl. 91—68.)

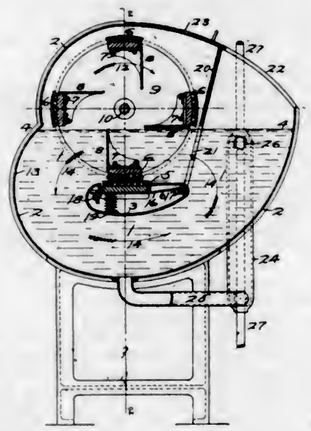


1. The herein described process which consists in moving sheet material through a coating station where it receives coating adapted to be waterproofed by formaldehyde, thence moving the material past a gas treating station, and projecting formaldehyde gas upon the same as it moves past the gas treating station.

2. The herein described process which consists in moving material having a component adapted to be waterproofed by formaldehyde past a gas treating station, and projecting a jet of formaldehyde gas thereupon during the progress of such movement.

3. The herein described process which consists in moving a web of material past a station imparting thereto an organic adhesive substance adapted to combine with formaldehyde, thereafter directing the material past a gas treating station, and projecting formaldehyde gas upon the material as it moves past said station.

1,132,688. GLOVE-CLEANING MACHINE. HERBERT B. SABIN, ARCHIBALD B. TOZER, and ARTHUR R. CURTIS, Cleveland, Ohio, assignors to The Sabin-Curtis Machine Co., Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 31, 1911. Serial No. 646,969. (Cl. 68—37.)



1. In a cleaning device, the combination of a casing adapted to receive a cleaning liquid and articles to be cleaned; means adapted to cause circulation of said liquid and said articles; and means for collecting said articles during such circulation.

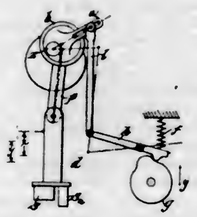
2. In a cleaning device, the combination of a casing adapted to receive a cleaning liquid and articles to be cleaned; means adapted to cause circulation of said liquid and said article; and a perforated member adapted to be placed at some point in such circulating liquid, and adapted to retain such articles while permitting the passage of such liquid.

3. The combination of a casing adapted to receive a cleaning liquid and articles to be cleaned; a second casing mounted in said first-named casing and disposed relative to the sides and bottom of said first casing so as to form a continuous passage between said two casings, the plane of such passage being vertical; means for causing a circulation of such liquid and articles to be cleaned; and brushing means mounted in the path of such circulation and parallel to the surface of such liquid.

4. The combination of a casing adapted to receive a cleaning liquid and articles to be cleaned; a second casing mounted on said first-named casing and disposed relative to the sides and bottom of said first casing so as to form a continuous passage between said two casings, the plane of such passage being vertical; stationary brushing means mounted in the path of such circulation and parallel to the surface of such liquid; and other brushing means rotatably mounted about an axis parallel to said stationary brushing means, said rotatable brushing means being adapted to cause a circulation of such liquid and articles to be cleaned, and to coöperate with said stationary brushing means to clean the articles in such liquid.

5. The combination of a casing adapted to receive a cleaning liquid and article to be cleaned; a second casing mounted in said first-named casing and disposed relative to the sides and bottom of said first casing so as to form a continuous passage between said two casings, the plane of such passage being vertical; stationary brushing means mounted in the path of such circulation at substantially right angles to the plane of the same and parallel to the surface of such liquid; a plurality of brushes rotatably mounted about an axis parallel to said stationary brushing means, said rotatable brushes being adapted to cause a circulation of such liquid and articles to be cleaned, and to coöperate with said stationary brushing means to clean the articles in such liquid; and means mounted in the path of circulation and adapted to collect such articles.

1,132,689. STAMPING-PRESS. GEORG SEYBOLD, Charlottenburg, Germany, assignor to Siemens-Schuckert Werke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Jan. 31, 1912. Serial No. 674,507. (Cl. 164—102.)



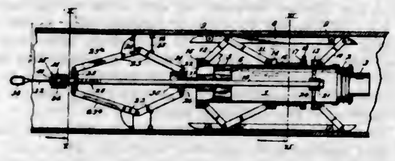
1. In a stamping press the combination with a supporting table adapted for the forward feed of a work piece an actuating means, a plunger reciprocated thereby toward and away from said table, and a set of punches carried by said plunger and projecting toward the table with their operating faces at respectively different distances from said table; of means for varying the operative connection between said plunger and its actuating means during the continued operation of the press to bring a variable predetermined number of said punches into operative engagement with the work piece supported by said table.

2. In a stamping press the combination with a supporting table for the forward feed of a work piece, an actuating means, a plunger reciprocated thereby toward and away from said table and a set of punches carried by said plunger having their operating faces at respectively different distances from said table; of automatic means for causing the reciprocation of said plunger to bring a variable predetermined number of said punches into periodical operative engagement with the work piece supported by said table.

3. In a stamping device the combination with a supporting table for the forward feed of a work piece, and actuating means, a plunger reciprocated thereby toward and away from said table, and a set of punches carried thereby having their operating faces at respectively different distances from said table; of means for periodically varying the normal position of said plunger to bring a variable predetermined number of said punches into operative engagement with the work piece supported by said table.

4. In a stamping press the combination with a supporting table for the forward feed of a work piece, an actuating means, a plunger reciprocated thereby toward and away from said table, and a set of punches carried thereby with their operating faces at respectively different distances from said table; of automatic means for periodically adjusting the stroke of said plunger to bring a variable predetermined number of said punches alternately and in a predetermined succession into operative engagement with the work piece supported by said table.

1,132,690. SEWER-CLEANER. HENRY SIEBEN, Kansas City, Mo., assignor of one-fifth to L. E. Wyne, Kansas City, Mo. Filed Oct. 17, 1913, Serial No. 795,809. Renewed Jan. 14, 1915. Serial No. 2,276. (Cl. 182—2.)



1. In a sewer cleaner, a driven shaft, and a toggle driven by said shaft and having forwardly converging cutting edges.

2. In a sewer cleaner, a driven shaft, a member manually adjustable upon said shaft, means for securing said member at any point of its adjustment, a companion member slidable upon the shaft, a collar fixed to the shaft to limit the sliding movement of said companion member and to drive the same, yielding means to normally press the slidable member toward said collar, and sewer cleaning elements operably-secured to the adjustable member and the companion member.

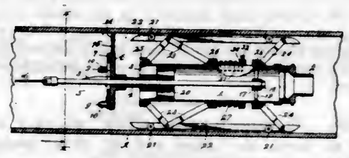
3. In a sewer cleaner, a driven shaft, a member manually adjustable upon said shaft, means for securing said member at any point of its adjustment, a companion member slidable upon the shaft, means fixed to said shaft to limit the sliding movement of said companion member and to drive the same, resilient means to normally hold the companion member in contact with said means, toggles operably-secured to the adjustable member and the companion member, and cutting elements on said toggles.

4. A sewer cleaner, consisting of a tubular body, means for guiding said body through a sewer, arms pivotally-connecting said guiding means to the tubular body, a ring slidable on the tubular body, arms pivotally-connected to said ring and the guiding means, resilient means to force said ring toward the arms pivoted thereto, and sewer cleaning elements operably-connected to the tubular body.

5. A sewer cleaner, consisting of a tubular body, a driven shaft journaled therein, sewer cleaning elements driven by said shaft, longitudinal bars adjacent the tubular body, arms pivotally-connected to said longitudinal bars and the tubular body, a ring slidable on the tubular body, arms pivotally-connected to said ring and the guiding means, and resilient means to force said ring longitudinally upon the tubular body.

[Claims 6 to 8 not printed in the Gazette.]

1,132,691. SEWER-CLEANER. HENRY SIEBEN, Kansas City, Mo., assignor of one-fifth to L. E. Wyne, Kansas City, Mo. Filed Nov. 24, 1913. Serial No. 802,760. (Cl. 182—2.)



1. In a sewer cleaner, a rotary head, a lever yieldingly-mounted upon said head, and a cleaning device secured to said lever and extending forwardly therefrom.

2. In a sewer cleaner, a rotary head, a plurality of levers yieldingly mounted upon said head and extending approximately at a tangent therefrom, and cleaning devices secured to said levers and extending forwardly therefrom.

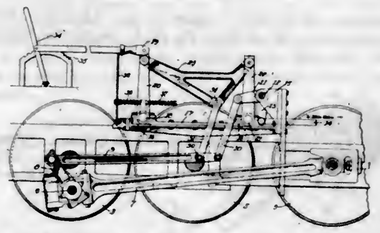
3. In a sewer cleaner, a rotary head, a lever yieldingly-mounted upon said head, and a blade rigidly secured to said lever and extending forwardly therefrom.

4. In a sewer cleaner, a rotary head, a lever pivotally-mounted upon said head, means to limit pivotal movement of said lever and to adjust the same to different size sewers, and a cleaning device on said lever.

5. In a sewer cleaner, a rotary head, studs projecting from said head, bell-crank levers mounted upon said studs and having curved slots struck from the centers of the studs, pins adapted to extend through the slots and adjustably engage the rotary head, springs mounted upon the studs and bearing against the bell-crank levers to press their free ends toward the interior of a sewer, and cleaning devices on the bell-crank levers.

[Claim 6 not printed in the Gazette.]

1,132,692. ENGINE VALVE-GEAR. WILLIS H. SMITH, Knoxville, Tenn. Filed July 22, 1914. Serial No. 852,411. (Cl. 121—99.)



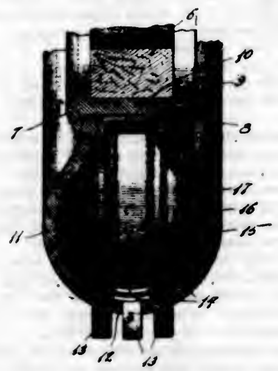
1. A steam engine valve gear comprising a pitman, an auxiliary crank connecting the same with the drive wheel, connections from the said pitman to the slide valve, a link pivotally connected with the pitman and furnishing a fulcrum therefor, a pair of arms arranged parallel and pivotally mounted at their lower ends, a rocker member connected with the upper ends of said parallel arms, the said fulcrum link being pivotally connected to said rocker member at a point below the points of connection between said rocker member and the parallel arms, so that lines drawn to connect said three points would form a triangle, said fulcrum link being of the same length as the said parallel arms, and means for rocking the parallel arms to adjust the fulcrum link, substantially as described.

2. In combination in engine valve gear, connections to the slide valve including a pitman, an auxiliary crank to which the pitman is connected, a pair of parallel arms pivotally mounted at their lower ends, a substantially triangular shaped rocker pivotally connected to said arms at their upper ends, a fulcrum link extending from the low point of said triangular rocker and pivotally connected

with the pitman, and means for operating the parallel arms, substantially as described.

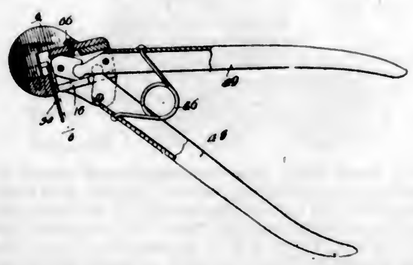
3. In combination in an engine valve, connections to the slide valve including a pitman and a link at the end of said pitman, an auxiliary crank for driving the pitman, a pair of parallel arms mounted on the frame pivotally, a rocker connected with the parallel arms, a fulcrum link between the rocker and the pitman, and a counter balance connected with one of the parallel arms, substantially as described.

1,132,693. PUNCTURE-PROOF TIRE. FRANK P. SPALDING, St. Louis, Mo. Filed Aug. 11, 1913. Serial No. 784,114. (Cl. 152—10.)



In combination with a metallic tire casing having openings in its tread surface, a plurality of rigid tread devices extending through the openings in the metallic casing, spaced apart plates carried by said devices, a jacket within the casing, and held between said plates and an inflatable tube acting on said devices, substantially as shown and for the purposes stated.

1,132,694. SAW-SET. GEORGE N. SPENCER, Forest Grove, Oreg. Filed Nov. 11, 1913. Serial No. 800,293. (Cl. 76—64.)



1. In a device of the character described, a head member consisting in a housing and a pair of separate head plates removably carried thereby, an anvil removably mounted therein, a clamping jaw slidably mounted in the head member and movable tranaversely with respect to the anvil, a setting jaw pivotally mounted in the clamping jaw, adjustable means carried by the head member for limiting the swinging movement of the setting jaw by engagement therewith, and a pair of operating levers connected to the clamping and setting jaws and adapted to successively move the jaws into operative engagement against a saw blade.

2. In a device of the character described, a head member including a housing, a pair of head plates removably secured thereto, said housing being open at its lower portion, inwardly directed flanges formed at the lower edges of the housing, a clamping jaw slidably mounted on the said flanges, a setting jaw pivotally mounted in the clamping jaw, adjustable means carried by the housing for limiting the swinging movement of the setting jaw by engagement therewith, and a pair of coacting operating levers connected to the clamping and setting jaws.

3. In a device of the character described, a head member consisting in a substantially rectangular housing having a pair of spaced parallel side walls and a connecting top wall, a pair of detachable head plates carried by the side walls of the housing, the terminals of the head plates projecting beyond the housing and having slots adapted to receive a saw blade, a removable anvil mounted between the projecting terminals of the head plates, a clamping jaw slidable in the housing, said housing having inwardly directed flanges supporting the clamping jaw, a setting jaw pivoted in the clamping jaw, and co-acting levers operatively connected to the clamping and setting jaws.

4. In a device of the character described, a head member, said head member including a housing and a pair of removable head plates carried thereby, said housing being substantially U-shaped in cross section and having inwardly directed flanges formed on the lower edges of its side walls, an anvil removably mounted between the head plates and spaced from the housing, a clamping jaw arranged in the housing, said clamping jaw being substantially U-shaped in cross section and having the lower edges of its side walls arranged for sliding movement on the flanges of the said housing, there being notches formed in the lower edges of the side walls of the clamping jaw, a setting jaw pivoted between the side walls of the clamping jaw and having an angular bearing face, a pair of co-acting levers, one of which is operatively connected to the setting jaw and the other of which is operatively connected to the clamping jaw, the last-mentioned lever being provided with terminal lugs adapted to freely seat in the said notches of the clamping jaw.

5. In a device of the character described, a head member, said head member including a housing and a pair of detachable head plates carried thereby, an anvil removably mounted between the head plates and spaced from the housing, a clamping jaw slidably mounted in the housing, a setting jaw pivoted in the clamping jaw, co-acting levers operatively connected to and controlling movement of the clamping and setting jaws, and a stop member for limiting the distance which the saw blade may be projected into the head member, said saw stop being detachably secured to the said anvil and having stop arms extending inwardly and laterally therefrom.

[Claim 6 not printed in the Gazette.]

1,132,695. CAR-BRAKE. WILLIAM STEINBURG, Jamaica, and DANIEL WEGNER, New York, N. Y. Filed Feb. 26, 1913. Serial No. 750,829. (Cl. 105—27.)



1. In a car brake of the character described, a plurality of clutches, each having two members, one secured to the inner face of one of the wheels of the car, and each of the second members being slidably mounted on each axle of the wheels, said second members permitting the axles to be rotated independently thereof, and each of said second members being adapted to engage one of the first members of each clutch, a cylinder provided upon the car and adapted to receive air under pressure, a piston reciprocable in the cylinder, a lever having one end pivoted to the piston, a common rod having one end pivoted to the lever, means connecting the opposite end portion of the rod to two of the second members of the clutches on one side of the car so as to slide the second members into engagement with the first members of the clutches when the rod is moved by reciprocation of said piston, and means adapted to yieldingly check the rotation of the wheels and both members of each clutch when in engagement.

2. In a car brake of the character described, a plurality of clutches, each having two members, one secured to the inner face of one of the wheels of the car, and each of the second members being slidably mounted on each axle of the wheels, said second members permitting the axles to be rotated independently thereof, and each of said second members being adapted to engage one of the first members of each clutch, a cylinder provided upon the car and adapted to receive air under pressure, a piston reciprocable in the cylinder, a lever having one end pivoted to the piston, a common rod having one end pivoted to the lever, means connecting the opposite portion of the rod to two of the second members of the clutches on one side of the car so as to slide the second member into engagement with the first members of the clutches when the rod is moved by reciprocation of said piston, and a plurality of springs, one provided upon the second member of each clutch and adapted to yieldingly check the rotation of the wheels and both members of each clutch when in engagement.

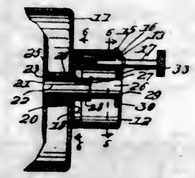
3. In a car brake of the character described, a plurality of gripping elements, each having a toothed member secured to the inner face of one of the wheels of the car, and each having a second toothed member slidably mounted on each axle of the wheels, said second members permitting the axles to be rotated independently thereof, and each of said second members being adapted to engage one of the first members of each gripping element, a cylinder provided upon the car and adapted to receive air under pressure, a piston reciprocable in the cylinder, a lever having one end pivoted to the piston, a common rod having one end pivoted to the lever, means connecting the opposite end portion of the rod to two of the second members of the gripping elements on one side of the car so as to slide the second member into engagement with the first members of gripping elements when the rod is moved by reciprocation of said piston, and means adapted to yieldingly check the rotation of the wheels and both members of each gripping element when in engagement.

4. In a car brake of the character described, a plurality of gripping elements, each having a toothed member secured to the inner face of one of the wheels of the car, and each having a second toothed member slidably mounted on each axle of the wheels, said second members permitting the axles to be rotated independently thereof, and each of said second members being adapted to engage one of the first members of each gripping element, a cylinder provided upon the car and adapted to receive air under pressure, a piston reciprocable in the cylinder, a lever having one end pivoted to the piston, a common rod having one end pivoted to the lever, means connecting the opposite end portion of the rod to two of the gripping elements on one side of the car so as to slide the second member into engagement with the first members of the gripping elements when the rod is moved by reciprocation of said piston, and a plurality of springs, one provided upon the second member of each of the griping elements, and serving to yieldingly check the rotation of the members of two of the gripping elements when in engagement for yieldingly checking two of the wheels in unison.

5. In a car brake of the character described, a plurality of toothed disks, each secured to the inner face of one of the wheels of the car, a plurality of second toothed disks, one slidably mounted on the axle of each of the wheels, said second disks permitting the axles to be rotated independently thereof, and each of said second disks being adapted to mesh with one of the first disks, a cylinder provided upon the car and adapted to receive air under pressure, a piston reciprocable in the cylinder, a lever having one end pivoted to the piston, a common rod having one end pivoted to the lever, means connecting the opposite end portion of the rod to two of the second disks on one side of the car so as to slide the second disks into engagement with the first disks when the rod is moved by reciprocation of said piston, and means adapted to yieldingly check the rotation of the wheels and each pair of the disks when in mesh.

[Claim 6 not printed in the Gazette.]

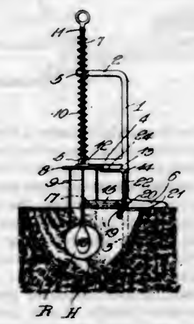
1,132,696. KEYHOLE-GUARD. PETER FRANCIS STRUPPLER, Scranton, Pa. Filed Nov. 18, 1914. Serial No. 872,724. (Cl. 70—8.)



1. In a guard for key holes, a casing having an arm, a member having an opening for a switch key, the wall of said opening having means for engaging a part of the arm to form an anchorage and the said arm filling a portion of the cross sectional area of said opening, a member slidable through the casing in line with the arm and in cooperative engagement therewith and adapted to enter the opening in which the arm is stationed for filling the opening and preventing disengagement of the arm from the wall of the opening, said member having a transversely disposed slot, a latch in the casing adapted to enter the said slot for holding the member in coöperative relation with the arm, means for forcing the latch out of the slot when the guard is to be removed, and means for retracting the sliding member.

2. In a guard for key holes, a casing having an arm, a member having an opening for a switch key, the wall of said opening having means for engaging part of the arm to form an anchorage, the said arm filling a portion of the cross sectional area of said opening, an element slidable through the casing and projecting from the outer face thereof and adapted to be pushed into the opening of the member to coöperate with the arm in retaining the guard in place, said element and arm filling the cross sectional area of the said opening and preventing dislodgment of the arm from the wall of the opening, means for holding the element in coöperative relation with the arm, means for releasing the said means, and means for retracting the element.

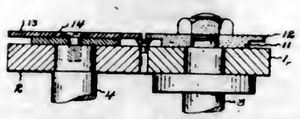
1,132,697. GOPHER-TRAP. HERMAN UHLRIG, Wamego, Kans. Filed Dec. 15, 1913. Serial No. 806,830. (Cl. 43—21.)



The combination with an upright stake to be forced into the earth, said stake having a horizontally projecting finger to limit its insertion into the earth, a spring lowered plunger, a catch to retain the plunger in raised position, and a rock shaft to release said catch, of a horizontal arm

secured to the prong and projecting laterally therefrom at right-angles to said finger, and a second horizontal arm projecting laterally from the free end of the first named arm at substantially right-angles thereto, said second arm extending in the opposite direction from the finger, the free end of the second arm being bent into parallel relation with the first named arm, and the latter and said bent end having alined openings in which the rock shaft is mounted, the finger and the two arms lying in the same horizontal plane.

1,132,698. BLANK-HOLDING MECHANISM. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed July 3, 1914. Serial No. 848,851. (Cl. 10—6.)

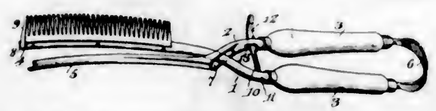


1. In a blank holding device for a screw slotting mechanism, the combination with companion rotary dials; holding means for preventing the relative axial movement of the blank between said dials comprising a member connected with each of said dials in the path of movement of said blank while in said dial holding means and projecting over the head of said blank and exposing only that portion thereof that is to be slotted.

2. In mechanism of the character described, the combination with companion rotary dials designed to hold a blank therebetween; of a disk with an overhanging lip connected with each of said dials, said lip extending part way across the head of said blank when between said dials, with an open space between the edge thereof and the disk connected with the other dial.

3. In mechanism of the character described, the combination with companion rotary dials designed to hold a blank therebetween; of a disk with an overhanging lip connected with each of said dials, said lip extending part way across the head of said blank when between said dials, with an open space between the edge thereof and the disk connected with the other dial; and means for varying the relative positions of said lip and the face of the dial with which it is connected.

1,132,699. GAGE FOR CUTTING HAIR. JOSEPH WRIGHT, Chicago, Ill. Filed Apr. 23, 1914. Serial No. 833,915. (Cl. 132—31.)



1. A gage for cutting hair including two sides or members consisting of inner handle or grip portions and outer gage portions, said sides or members being crossed between the inner handle or grip portions and the said outer gage portions, a spring connecting the handle or grip portions and arranged to normally urge the same outwardly and adapted to be compressed by pressure on the handles to open the gage portions, and a comb located at the outer portion of the gage.

2. A gage for cutting hair including two sides or members consisting of inner handle or grip portions and outer gage portions, a spring connecting the handle or grip portions and arranged to urge the same outwardly and adapted to be compressed by pressure on the handles to open the gage portions, a comb carried by one of the gage portions, and means for automatically locking the sides or members in their adjustment.

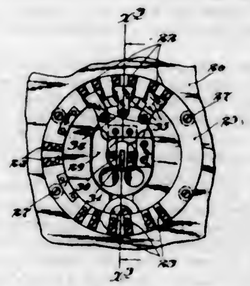
3. A gage for cutting hair including two sides or members consisting of inner handle or grip portions and outer gage portions, said sides or members being crossed between the inner handle portions and the outer gage portions, a spring connecting the handle or grip portions and arranged to urge the same outwardly and adapted to be compressed by pressure on the handles to open the gage portions, locking means carried by one of the sides or members and arranged to engage the other side or member for automatically locking the said sides or members in their adjustment, and a comb carried by one of the gage portions.

4. A gage for cutting hair including two sides or members consisting of inner handle or grip portions and outer gage portions, said sides or members being crossed between the handle or grip portions and the gage portions, a spring connecting the handle or grip portions and arranged to urge the same outwardly to close the gage portions and adapted to be compressed by exterior pressure on the handles to open the gage portions, and a resilient transversely disposed locking bar secured to one of the sides or members and extending through the other side or member and provided with a plurality of shoulders for engaging the same to lock the sides or members in their adjustment, said locking bar being retained in engagement with such side or member by its resiliency.

5. A gage for cutting hair including two sides or members, said sides or members being crossed at an intermediate point and provided beyond the bend or crossing with curved gage portions movable toward and from each other in substantial parallelism, and a comb carried by one of the gage portions, the inner gage portion being relatively small in cross section to enable it to readily pass through the hair.

[Claim 6 not printed in the Gazette.]

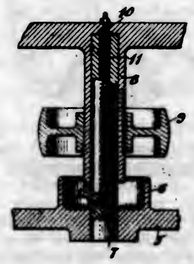
1,132,700. LOCK-SWITCH FOR ELECTRIC CIRCUITS. SAMUEL M. BLAKE and JOSEPH W. BATES, Minneapolis, Minn. Filed May 19, 1913. Serial No. 768,542. (Cl. 175—282.)



1. The combination with an electric switch having three sets of relatively fixed contacts and a set of cooperating contacts movable from engagement with the one and into engagement with the other of the relatively fixed contacts, of a key-actuated lock for the said movable contacts having two sets of key-actuated elements relatively arranged, in respect to the two sets of fixed contacts, so as to permit the key to be removed from the lock in either of its extreme positions in which said movable contacts are engaged with the one or the other of said end sets of fixed contacts but preventing said key from being removed from said lock when said movable contacts are engaged with said intermediate fixed contacts.

2. The combination with an electric switch having three sets of relatively fixed contacts and a set of coöperating contacts movable from engagement with the one and into engagement with the other of the relatively fixed contacts, of a key-actuated lock for the said movable contacts having two sets of key-actuated elements relatively arranged, in respect to the two sets of fixed contacts, so as to permit the key to be removed from the lock in either of its extreme positions in which said movable contacts are engaged with the one or the other of said end sets of fixed contacts but preventing said key from being removed from said lock when said movable contacts are engaged with said intermediate fixed contacts, and different circuit connections extending from the said three sets of fixed contacts.

1,132,701. OILING DEVICE. JOHN W. BLOCK, Joliet, Ill. Filed Jan. 22, 1909, Serial No. 473,671. Renewed Aug. 21, 1914. Serial No. 857,949. (Cl. 64—24.)



1. Oiling means comprising a base having an oil-chamber therein, an upright shaft fixed in said base, said shaft having an oil-channel therein extending to the upper end of said shaft, and having a lateral channel communicating with said oil-chamber and said first named channel, and rotatable means arranged in said shaft for forcing oil from said oil-chamber through said channels.

2. Oiling means comprising a base having an oil-chamber therein, an upright stationary shaft passing through said chamber, said shaft having an axial bore and a lateral channel communicating with said bore and chamber, an element rotatably mounted on said shaft and a spiral conveyer arranged in said bore and operated by said rotatable element.

3. Oiling means comprising a base having an oil-chamber therein, an upright shaft fixed on said base, said shaft having an oil-channel therein extending to the upper end of said shaft and having a lateral channel communicating with said oil-chamber and said first-named channel, and means actuated independently of said shaft for forcing oil from said chamber through said channels to the upper end of said shaft.

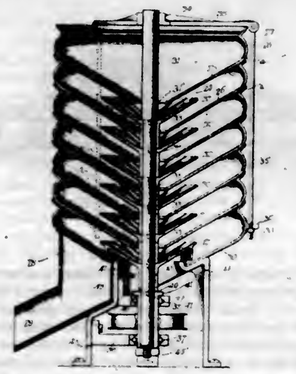
1,132,702. CHURN FOR SEPARATING BUTTER FROM MILK AND CREAM. WILLIAM L. CHANDLER, Mishawaka, Ind. Filed Nov. 25, 1911. Serial No. 662,284. (Cl. 31—7.)

1. In a churn, the combination with a receptacle or container, of a rotary disk presenting an uninterrupted passage from a point near its center to its periphery and adapted to receive cream at a point remote from its periphery and discharge it forcibly against the wall of the churn by centrifugal force, and means to feed milk to said disk from above.

2. In a churn, the combination with a receptacle or container, of a rotary disk having a radially uninterrupted upper surface adapted to receive cream and discharge it against the inner wall of said container, and means for feeding cream to said disk from above.

3. In a churn, the combination with a receptacle, of a rotary disk therein having smooth passages extending from the central portion to the periphery thereof, of a container in which said disk is mounted having walls arranged substantially transversely of the stream of milk discharged from said disk, and means for supplying milk to the disk near the center thereof.

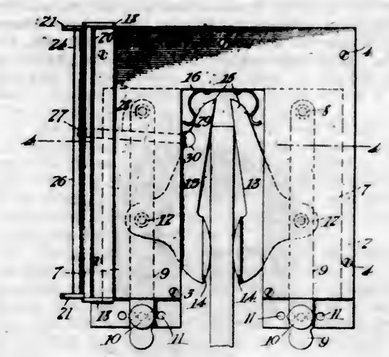
4. In a churn, a rotary disk, means for feeding liquid near the center thereof, a disk having an upturned concave wall or rim surrounding said rotary disk and adapted to receive the impact of liquid thrown by centrifugal force by the rotary disk.



5. In a churn, a rotary disk, means for rotating the same, means for feeding liquid to the center thereof, an impact disk having a concave wall or rim surrounding said rotary disk said impact disk having an outlet at its lowest point and the wall or rim of said stationary disk adapted to receive the impact of liquid discharged from the rotary disk.

[Claims 6 to 8 not printed in the Gazette.]

1,132,703. BENCH-DOG. IRA A. CHURCH, Ontario, Cal. Filed Apr. 2, 1914. Serial No. 829,089. (Cl 144—307.)

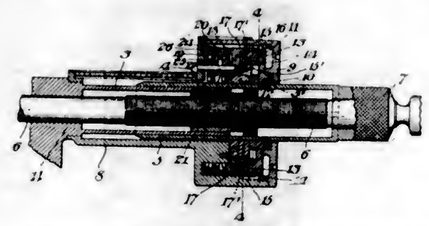


1. In a device of the character described, a suitable base, arms pivotally secured to said base, dogs pivotally secured to said arms, a saw-clamp hinged to one side of said base, and means interposed between one of said dogs and said clamp whereby said dog may operate said clamp.

2. In a device of the character described, a suitable base, arms pivotally secured to said base, dogs pivotally secured to said arms, a saw-clamp hinged to said base, means interposed between one of said dogs and said clamp whereby said dog may operate said clamp, and means for adjusting said arms toward and away from each other.

3. In a device of the character described, a suitable base, arms pivotally secured, at one of their ends, to said base, means carried by the other ends of said arms for engaging spaced apertures in said base for securing said arms in desired positions, dogs pivotally secured to said arms, a saw-clamp secured to said base, means interposed between said clamp and one of said dogs whereby said dog may operate said clamp, and means for swinging said saw-clamp below the bench, when not in use.

1,132,704. MICROMETER. ZORESTER B. COES, Philadelphia, Pa. Filed Aug. 28, 1914. Serial No. 859,007. (Cl. 33—166.)



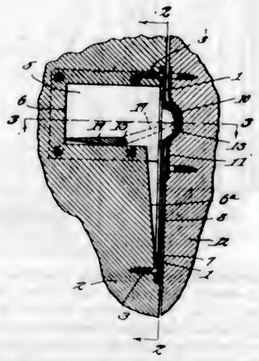
1. A micrometer comprising a cylinder, a screw threaded in said cylinder, a sleeve fixed to said screw and inclosing said cylinder, index wheels operated by said sleeve, and a casing surrounding said sleeve and inclosing said wheels.

2. A micrometer comprising a screw, a barrel connected with said screw, a member revoluble by and movable longitudinally on said barrel, and registering mechanism operated by said member.

3. A micrometer comprising a screw, a device movable along and revoluble by said screw, planetary gearing operated by said device, and a register mechanism operated by said gearing.

4. A micrometer comprising a barrel provided with graduations, a screw fixed in said barrel, a device on said barrel and revoluble therewith, said barrel being movable longitudinally relatively to said device by said screw, a gear operated by said device proportionately to the movement of said screw, and revoluble index wheels operated by said gear.

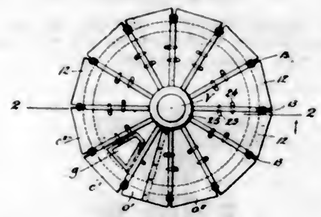
1,132,705. LATCH. EDWIN CROMPTON, Jr., Pueblo, Colo., assignor of one-half to Frances Montgomery Simpson and one-half to Eja Law Snyder, both of Pueblo, Colo. Filed June 12, 1914. Serial No. 844,747. (Cl. 70—119.)



In a device of the character described, a face plate having a slot therein, a leaf spring disposed within the said slot and having one end secured to the face plate adjacent one end of the slot, the leaf spring having an outwardly bulged knob at its free end, and a rotatable spindle having a finger engageable within the said knob to hold it in projected position.

1,132,706. SILO-ROOF. CHRISTIAAN DE JONGE, Zeeland, Mich. Filed Nov. 19, 1913. Serial No. 801,782. (Cl. 20—1.41.)

1. The combination with a silo, of a roof therefor comprising a series of adjacent substantially triangular sections each having a channel in each of its side edges and adapted to be opened and closed relatively to the interior of the silo, means for pivotally supporting each section at its base on the silo-wall, and a series of independent removable fillers each having its sides bent to enter said channels for closing-in the open spaces between said sections when in opened-out position.



2. The combination with a silo, of a roof therefor comprising a series of adjacent substantially triangular sections adapted to be opened and closed relatively to the interior of the silo, means for pivotally supporting each section at its base on the silo-wall, a series of independent removable fillers for closing-in the open spaces between said sections when in opened-out position, and independent clamping devices engaging the opposite faces of said roof-sections and fillers, for holding the latter in position between said roof-sections.

3. The combination with a silo, of a roof therefor comprising a series of adjacent substantially triangular sections adapted to be opened and closed relatively to the interior of the silo, and having grooves at their adjacent sides, means for pivotally supporting each section at its base on the silo-wall, a series of removable fillers having flanges entering said grooves for closing-in the open spaces between said sections when in opened-out position between said roof-sections.

4. The combination with a silo, of a roof comprising a series of substantially triangular sheet metal sections adapted to be closed-in and opened-out, and having their margins bent to form inwardly-open channels, and a series of sheet metal fillers adapted to close the space between said sections when in open position, and having their edges outwardly bent to enter said section channels.

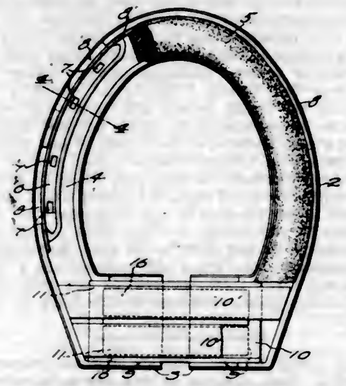
5. The combination with a silo, of a roof comprising a series of sections each having one of its side edges beneath the side edge of an adjacent section and having its other side edge above the edge of the other adjacent section, and a key section having both of its edges seated over the edges of the pair of adjacent sections.

1,132,707. HORSESHOE. JAMES A. DOLAN, Hartford, Conn. Filed Aug. 6, 1914. Serial No. 855,349. (Cl. 168—13.)

1. A horse shoe comprising a body portion and a metallic tread member separate and distinct from the body portion, said tread member extending transversely of the shoe at the heel of the body portion, the ends of the tread member overlying the heel ends of the branches of said body portion and the tread member having an interlocked connection with the body portion.

2. A horse shoe comprising a body portion and a metallic tread member separate and distinct from the body portion, said tread member extending transversely of the shoe at the heel of the body portion, the ends of the tread member overlying the heel ends of the branches of said body portion and the tread member having an interlocked connection with the body portion, said tread member being grooved to removably receive a pad.

3. A horse shoe having a groove in its under side, a tread member fitted in the groove, the shoe having a slot therethrough opening into the groove, and the tread member having projections extending through the slot and bent in opposite directions against the shoe, and soft pads at opposite sides of the slot between the tread member and the shoe.

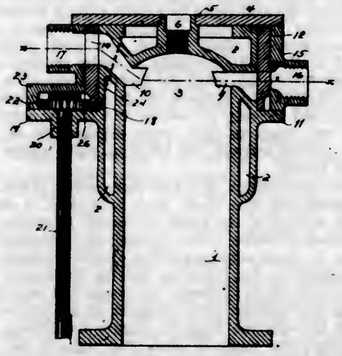


4. A horse shoe having a body portion provided at its heel ends with rigid projections extending toward each other, and a tread member, the ends of which overlie said heel ends, said tread member having projections bent over the other projections.

5. A horse shoe comprising a grooved body portion and heel portions projecting toward and spaced from each other at the outer ends of the branches of the body portion, a grooved member fitted in the heel portions and connected with the shoe, said grooved member having a pad in its groove, and packing material fitted in the groove of the body portion.

[Claims 6 to 12 not printed in the Gazette.]

1,132,708. INTERNAL-COMBUSTION ENGINE. EUGENE OSBORNE EDWARDS, La Crosse, Wis. Filed Mar. 6, 1911. Serial No. 612,575. (Cl. 123—80.)



In an internal combustion engine, the combination with a cylinder provided with a water jacket, said cylinder having a single inlet port and a single exhaust port located opposite each other, of a rotary valve ring outside of and encircling the water-jacketed cylinder, said valve ring having two oppositely located inlet ports and two oppositely located exhaust ports, the inlet ports being located approximately opposite the exhaust ports but in different planes, said valve provided at its lower edge with gear teeth, a casing inclosing said valve and the gear teeth thereon, a gear housed by said casing and meshing with the gear teeth at the lower edge of the valve ring, and means for driving said gear.

1,132,709. MANUFACTURE OF ALUMINIUM-ACETATE COMPOUNDS. GEORG EICHELBAUM, Berlin, Germany, assignor to the firm of Kalle and Company, Aktiengesellschaft, Biebrich-on-the-Rhine, Germany. Filed June 25, 1913. Serial No. 775,769. (Cl. 23—24.)

1. The process of producing water soluble compounds of aluminium acetate which comprises treating the latter with hexamethylene-tetramin.

2. The process of producing water soluble compounds of aluminium acetate which comprises treating the latter with acetate solutions with hexamethylene-tetramin and evaporating to dryness.

3. The process of producing water soluble compounds of aluminium acetate which comprises treating the same with hexamethylene-tetramin in the presence of compounds increasing the solubility of aluminium compounds.

4. The process of producing water soluble compounds of aluminium acetate which comprises treating aluminium acetate solutions with hexamethylene-tetramin and evaporating to dryness in the presence of compounds increasing the solubility of aluminium compounds.

5. The process of producing water soluble compounds of aluminium acetate which comprises treating solutions of aluminium acetate with a solution of hexamethylene-tetramin, and evaporating to dryness.

[Claims 6 to 11 not printed in the Gazette.]

1,132,710. DETOXICATING OIL AND THE LIKE. CARLETON ELLIS, Montclair, N. J. Filed Aug. 15, 1913. Serial No. 784,909. (Cl. 87—12.)

1. The process of treating oil, fat and the like, comprising exposing the same to the action of a spent catalyzer in the absence of hydrogen whereby bodies injurious to catalyzers are removed therefrom.

2. The process of treating oil, fat and the like, comprising exposing the same to the action of a spent metallic catalyzer in the absence of hydrogen whereby bodies injurious to metallic catalyzers are removed therefrom and separating the spent catalyzer from the treated material.

3. The process of treating oil, fat and the like, which consists in exposing the same to the action of a spent catalyzer in the absence of hydrogen, to combine with or absorb catalyzer poisons and then to the action of an active catalyzer in the presence of hydrogen.

4. The process of treating oil, fat and the like, which consists in exposing the same to the action of a spent catalyzer previously employed in hydrogenation to combine with or absorb catalyzer poisons, separating the spent catalyzer from the treated material and then subjecting such material to the action of an active catalyzer in the presence of hydrogen.

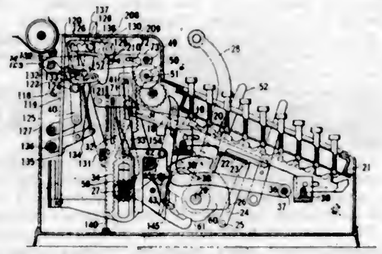
5. The process of treating oil, fat and the like, which consists in exposing the same to the action of a spent catalyzer in the absence of hydrogen to combine with or absorb catalyzer poisons, separating the spent catalyzer from the treated material and then contacting such material with an active catalyzer in the presence of hydrogen.

1,132,711. REGISTERING MECHANISM. FRANCIS K. FASSETT, Dayton, Ohio, assignor to the National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Sept. 23, 1907. Serial No. 394,186. (Cl. 235—60.)

1. In an accounting mechanism, the combination with a bank of keys, of a stop differentially adjustable by said keys, an operating mechanism having a constant excursion at each operation, actuating mechanism having its movement determined by said stop, gearing positively connecting the actuating and the operating mechanisms, and registering mechanism operated by said actuating mechanism.

2. In an accounting mechanism, the combination with a series of keys, of a stop adjustable by said keys, an operating mechanism having a constant excursion at each operation, a rack bar having its movement determined by said stop, gearing positively connecting the actuating and

the operating mechanisms, and registering mechanism operated by said rack bar.



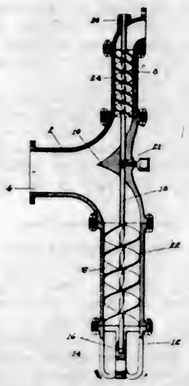
3. In an accounting mechanism, the combination with a series of manipulative devices, and a stop differentially adjustable by said devices, of an operating mechanism having a constant excursion at each operation, complementary stepped actuating devices, gearing positively connecting the actuating devices and the operating mechanism, and co-acting with said stop, and registering mechanism operated by said stepped actuating devices.

4. In an accounting mechanism, the combination with a series of manipulative devices and a stop differentially adjustable by said keys, of a pair of actuating devices having complementary graduations, means for moving said devices until said graduations contact with said stop, and a registering mechanism driven by one of said pair of devices.

5. In an accounting mechanism, the combination with a series of keys and a stop differentially adjustable by said keys, of an operating gear bodily movable, actuating devices connected to said gear and having complementary graduations adapted to engage said stop, and registering mechanism operated by one of said devices.

[Claims 6 to 109 not printed in the Gazette.]

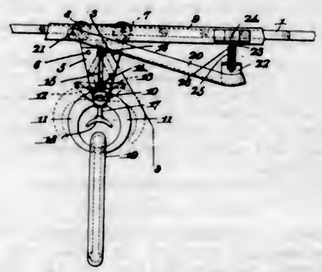
1,132,712. HYDRAULIC APPARATUS. HENRY H. FINN, Orono, Me. Filed Apr. 4, 1914. Serial No. 829,679. (Cl. 103—69.)



1. In an apparatus of the character described, the combination of a casing having a lateral intake passage and two discharge passages leading from said intake passage in subatantially opposite directions, a diaphragm projecting from the back of the casing toward said intake passage and serving to direct water entering the intake passage into the discharge passages, a rotary shaft extending longitudinally through both of said discharge passages and having a bearing in said diaphragm, a water wheel having spiral blades mounted on said shaft in one of said discharge passages and a rotary pump having spiral blades of less pitch than the blades of said water wheel mounted on the shaft in the other discharge passage.

2. In an apparatus of the character described, the combination of a vertical casing having a lateral intake passage, a discharge passage leading downwardly from said intake and a smaller discharge passage leading upwardly from said intake, a diaphragm extending from the back of the casing toward said intake and serving to direct the water entering the intake into said discharge passages, a stool mounted at the bottom of said casing to support the casing, a thrust bearing in said stool, a shaft extending longitudinally through said discharge passages and having its lower end supported in said thrust bearing, said shaft having bearings in said diaphragm and in the upper part of said casing, a water wheel having spiral blades mounted on said shaft in the lower discharge passage and substantially filling said passage, and a rotary pump having spiral blades mounted on said shaft in the upper discharge passage and substantially filling the latter passage.

1,132,713. CONVEYER. GEORGE DANIEL FRANCISCO, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Dec. 9, 1912. Serial No. 735,755. (Cl. 193—2.)



1. The combination of a traveling endless chain, means for guiding the said chain in a fixed path, a series of carriers secured to the chain at regular intervals, a pair of downward-opening tongs pivoted on each carrier and adapted to close automatically, a device on each carrier supplemental to the tongs for locking them open, and a trip on each carrier between the tongs and supplemental to them and serving to release the locking device and permit the tongs to close when engaged by an article thrust upward between the tongs at right angles to the lines of travel.

2. The combination of a traveling endless chain, means for guiding the said chain in a fixed path, a series of carriers secured to the chain at regular intervals, a pair of downward-opening tongs pivoted on each carrier and adapted to close automatically, a device on each carrier supplemental to the tongs for locking them open, and a trip on each carrier between the tongs and supplemental to them and serving when engaged by an article thrust upward between the tongs to release the locking device and permit the tongs to close and support the article, the lower article engaging surface of the trip being considerably above the position of the said article when supported by the tongs.

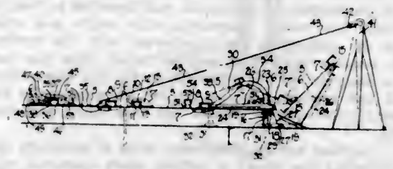
3. The combination of a traveling endless chain guided for movement in a fixed path, a series of carriers secured to the chain at regular intervals, a pair of oppositely swinging downward-opening tongs pivoted to each of the carriers and automatically movable into their lower closed positions, a lock on each carrier for holding the tongs in their separated open positions, and means dependent upon the movement of the carriers for successively separating the tongs of the several pairs, the said means successively engaging the several locks positively and forcing them into their operative positions.

4. The combination of a traveling endless chain guided for movement in a fixed path, a series of carriers secured to the chain at regular intervals, a pair of oppositely swinging downward-opening tongs pivoted to each of the carriers and automatically movable into their lower closed positions, a lock on each carrier for holding the tongs in their separated open positions, means dependent upon the movement of the carriers for successively separating the tongs of the said pairs and for successively moving the said locks into their operative positions, and a lock releasing trip on each carrier engageable by an article to be carried when thrust upward between the tongs.

5. The combination of a traveling endless chain guided for movement in a fixed path, a series of carriers secured to the chain at regular intervals, a pair of oppositely swinging downward-opening tongs pivoted to each of the carriers and automatically movable into their lower closed positions, a pair of links on each carrier supplemental to the tongs for moving them and for locking in their separated open positions, means dependent upon the movement of the carriers for successively actuating the said pairs of links to separate the tongs of the said pairs and lock them in their separated open positions, and a releasing trip on each carrier engageable by an article to be carried when thrust upward between the tongs.

[Claims 6 to 11 not printed in the Gazette.]

1,132,714. HATCH-COVER. MATHEW FUNDER, Fairport Harbor, Ohio, assignor of Ten One-hundredths to Roland G. Skinner, Cleveland, Ohio, and Forty-five One-hundredths to Frank B. Chilson, Painesville, Ohio. Filed Oct. 3, 1914. Serial No. 864,859. (Cl. 114—202.)



1. A hatch cover, means for moving said cover to open or closed position over the hatch opening, and a support moved by the cover to its supporting position to receive and support the cover in open position.

2. A hatch cover, means for moving said cover to open or closed position over the hatch opening, and a support connected to the cover and moved thereby into position upon the deck of the vessel to receive and support the cover in open position.

3. A hatch cover including a plurality of foldable cover sections, means for moving said sections and disposing the same in superposed relation entirely beyond the coaming wall and out of contact therewith, and a support connected to one of the cover sections and movable to its supporting position when said cover is opened to receive and support the cover sections.

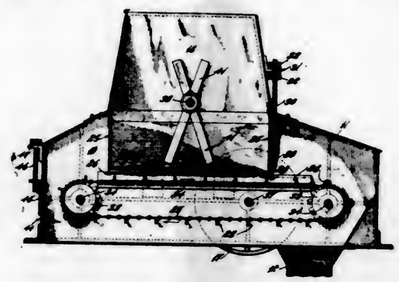
4. A hatch cover including a plurality of foldable cover sections, means for moving said sections longitudinally with respect to the hatch opening and folding the same upon each other in open position at one end of said hatch opening, and means connected to one of said sections and movable therewith to support the folded sections in their open position.

5. A hatch cover, means for moving said cover to open or closed position over the hatch opening, and a support pivotally mounted upon the vessel deck and moved by the cover to its supporting position to receive and support said cover in open position.

[Claims 6 to 35 not printed in the Gazette.]

1,132,715. FUEL-FEEDING DEVICE FOR FURNACES. CHARLES JASON GREENSTREET, Webster Groves, Mo. Filed Mar. 20, 1914. Serial No. 826,002. (Cl. 110—105.)

1. A device for feeding comminuted fuel comprising a fuel storage receptacle with a bottom opening and a wide fixed bottom spaced below said opening, said bottom being of greater width than said opening whereby the fuel is banked up to fill said opening without covering said bottom, and means for moving fuel lengthwise on said fixed bottom, said fixed bottom projecting beyond said fuel receptacle in the direction of movement of said fuel moving means and constituting an open trough wherein the compacted fuel is loosened.



2. A device for feeding comminuted fuel comprising a fuel storage receptacle with a bottom opening and a wide fixed bottom spaced below said opening, means for varying the width of said opening, said bottom being of greater width than the greatest width of said opening, and means for moving fuel lengthwise on said fixed bottom, said fixed bottom projecting beyond said fuel receptacle in the direction of movement of said fuel moving means and constituting an open trough wherein the compacted fuel is loosened.

3. A device for feeding comminuted fuel comprising a fuel storage receptacle with a bottom opening, a wide flat discharge surface of greater width than the greatest width of said bottom opening, said surface being below said bottom opening, means for moving fuel along said discharge surface, and a transversely arranged duct below the discharge end of said surface, said duct having an inclined lower wall sloping downwardly from one extremity of the discharge end of said furnace to beyond the other extremity thereof whereby masses of fuel falling intermittently sidewise off of the end of said discharge surface are transformed into a continuous stream.

4. A device for feeding comminuted fuel comprising a fuel storage receptacle with a wide fixed bottom and elongated transverse openings at its ends, one of the ends of said bottom being extended beyond said receptacle to form a flat discharge surface, means for moving fuel along said discharge surface, and a transversely arranged duct below the discharge end of said surface, said duct having an inclined lower wall sloping downwardly from one extremity of the discharge end of said surface to beyond the other extremity thereof whereby masses of fuel falling intermittently sidewise off of the end of said discharge surface are transformed into a continuous stream.

5. A device for feeding comminuted fuel comprising a fuel storage receptacle having a discharge opening lengthwise of its bottom, the bottom of said receptacle being longer than its top and its end walls diverging downwardly, means below said opening for checking the flow of fuel through said opening, means for moving the fuel below said opening lengthwise thereof, and means above said opening having movement lengthwise thereof whereby the fuel is prevented from bridging over said opening.

1,132,716. HAY-CARRIER. SAMUEL L. HANSON, Albert Lea, Minn. Filed Oct. 22, 1913. Serial No. 796,651. (Cl. 24—125.)

1. In a hay carrier, a ball or head provided with an axially extended clamping member, the ball having a passage therethrough for a rope and the clamping member comprising a box integral with the ball and inclosing a chamber or receptacle for the end of the rope, said box

having at one side a removable clamping block separate from and independent of the ball and adapted to bind the rope in the box.



2. In a hay carrier, a ball or head provided with an axially extended clamping member, the ball having a passage therethrough for a rope, and the clamping member comprising a box integral with the ball and inclosing a chamber or receptacle for the rope, said box having at one side a removable clamping block separate from and independent of the ball and adapted to bind the rope in the box, and a swivel member adapted to the end of the clamping member remote from the head and constructed to be held to the clamping member by the block.

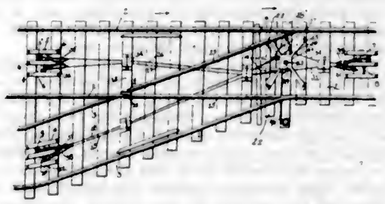
3. In a hay carrier, a ball or head provided with a neck, and both ball and neck having a passage lengthwise therethrough, a box constituting an integral axial extension of the head and neck with its interior in line with the passage through the head and neck, said box having one side open and laterally enlarged with respect to the passage through the ball and neck, and a clamping block separate from and independent of the ball and adapted to the open side of the box to cause the rope when lodged within the box to expand into the enlarged interior of the box.

4. In a hay carrier, a ball or head having a passage therethrough, a box constituting an axial continuation of the head and having its interior constituting a continuation of the passage through the head, the box being open on one side and that end of the box remote from the head having a passage therethrough in line with the passage through the head, and a clamp member shaped to enter the open side of the box and having an end corresponding to the end of the box remote from the head and shaped to overlap the sides of the box to prevent entrance of the clamp member into the box at said end, the ends of the box and clamp member remote from the head being shaped to form a laterally expanded chamber about the opening at the corresponding end of the box, and a swivel member having a head adapted to the chamber and a neck adapted to the opening at the chambered end of the box.

5. In a hay carrier, a ball or head having a passage therethrough and formed with an axial continuation in line with the passage and in the shape of a box having one side open and provided at the end remote from the head with an opening in line with the passage through the head and with an interior shoulder bordering the opening and defining a laterally expanded chamber, the box being also provided with alined openings through its sides in transverse relation to the chambered end of the box and the box having an opening between the first-named openings and the head and located in that portion of the box opposite the open side, and a clamp block adapted to enter the box through the open side, said clamp block having an opening alining with the second-named opening when the clamp block is applied to the box and with a ledge at the end remote from said opening conforming to the opening through that end of the box remote from the head and defining a continuation of the laterally expanded chamber in the corresponding end of the box.

[Claims 6 to 12 not printed in the Gazette.]

1,132,717. RAILWAY-SWITCH. WILLIAM G. HARLAN, Centralia, Wash. Filed May 20, 1913. Serial No. 768,864. (Cl. 104—23.)



1. A railway switch of the character specified comprising pairs of pivoted trip levers, a vertical shaft connected with one of the tongues of the switch, means including wire cables for connecting the trip levers with said shaft and locking means comprising a pair of longitudinally disposed locking keys and a transverse locking bar connected with the free ends of the switch tongues and provided with notches alternately engageable with the locking keys whereby the switch may be securely locked in thrown position.

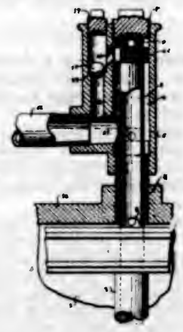
2. A railway switch comprising pairs of vertically disposed pivoted trip levers, a vertical shaft connected with one of the tongues of the switch and mounted to turn on the track and means comprising wire cables and cross chains for connecting the trip levers with the vertical shaft, whereby the switch may be thrown from one position to the other by throwing one of the trip levers, horizontal and vertical guide rollers for the wire cables and adjustable connections between the wire cables and cross chains.

3. A railway switch comprising pairs of vertically disposed pivoted trip levers, a vertical shaft connected with one of the tongues of the switch and mounted to turn on the track, means comprising wire cables and cross chains for connecting the trip levers with the switch stand, whereby the switch may be thrown from one position to the other by throwing one of the trip levers, horizontal and vertical guide rollers for the wire cables, adjustable connections between the wire cables and cross chains, and locking means comprising a pair of longitudinally disposed locking keys and a transverse locking bar connected with the free ends of the switch tongues and provided with notches alternately engageable with the locking keys, whereby the switch may be securely locked in thrown position.

1,132,718. STEAM-CUSHION VALVE. NELSON B. HENRY, Dallas, Tex., assignor to Murray Company, Dallas, Tex., a Corporation of Texas. Filed July 24, 1914. Serial No. 852,903. (Cl. 121—105.)

1. In a device of the character described, the combination with a vertical steam cylinder, and a piston reciprocatory within the same, of a valve casing surmounting the cylinder formed with a vertical bore and having a discharge orifice in communication with the bore, a tubular steam conducting plunger rod passing vertically through a passage establishing communication between the cylinder and bore and having an exterior diameter slightly less than the diameter of the passage, a steam port being formed in said plunger at each end thereof, and a plunger head rigidly carried by the upper end of the plunger rod beneath the upper port, the plunger rod being proportioned to project into the cylinder in its lowest position, in which position the plunger head occupies a position below the discharge orifice, the plunger rod and plunger being displaced upwardly by the piston in the final portion of its upward stroke, shifting the plunger head to a point above the discharge orifice.

2. In a device of the character described, the combination with a vertical steam cylinder, and a piston reciprocatory within the same, of a valve casing surmounting the casing formed with a vertical bore and having a discharge orifice in communication with the bore, and further formed with a steam passage connecting the upper end of the bore with the discharge orifice, a valve interposed in said steam passage allowing a flow of steam to the bore but preventing a flow in the other direction, means for conducting steam to or from the discharge orifice, a tubular steam conducting plunger rod passing vertically through a passage establishing communication between the cylinder and bore, and having an exterior diameter slightly less than the diameter of said passage, a steam port being formed in said rod at each extremity, and a plunger head rigidly carried by the upper end of the plunger rod beneath the upper port, the plunger rod being proportioned to project into the cylinder in its lowest position, in which position, the plunger head occupies a position below the discharge orifice, said rod and plunger being displaced by the piston in the final portion of its upward stroke shifting the piston to a point above the discharge orifice.



3. In a device of the character described, the combination with a vertical steam cylinder and a piston reciprocatory within the same, of a valve casing surmounting the cylinder formed with a vertical bore and having a discharge orifice in communication with the bore, a tubular steam conducting rod passing vertically through a passage establishing communication between the cylinder and bore, and having an exterior diameter slightly less than the diameter of the passage, a steam port being formed in said plunger at each end, a plunger head rigidly carried by the upper end of the plunger rod beneath the upper port, the plunger rod being proportioned to project into the cylinder in its lowest position in which position the plunger rod occupies a position below the discharge orifice, said rod and the plunger head being displaced upwardly by the piston in the final portion of its upward stroke, shifting the plunger head to a point above the discharge orifice, the valve body being formed with a passage communicating with the upper portion of the bore, through which steam may be admitted thereto.

4. In a device of the character described, the combination with a vertical steam cylinder and a piston reciprocatory within the same, of a valve casing surmounting the cylinder formed with a vertical bore and having a discharge orifice in communication with the bore, a tubular steam conducting plunger rod passing vertically through a passage establishing communication between the cylinder and bore, a small flow of steam being possible between said rod and the wall of said passage, a steam port being formed in said rod at each end thereof, and a plunger head rigidly carried by the upper end of the rod beneath the upper port, said rod being proportioned to project into the cylinder in its lowest position, in which position the plunger head occupies a position below the discharge orifice, the plunger rod and plunger being displaced upwardly by the piston during the final portion of its upward stroke, shifting the plunger head to a point above the discharge orifice.

1,132,719. FLUSHING APPARATUS FOR WATER-CLOSETS. EDWARD HOERICHS, Baltimore, Md. Filed May 6, 1914. Serial No. 836,731. (Cl. 4—28.)



1. In a frost-proof closet, the combination with a supply pipe, a tank, a pipe connecting the tank and the supply pipe, a closet bowl, and a flush pipe connecting the supply pipe and the closet bowl, of a main valve arranged at the lower end of the supply pipe, a main valve seat removably fitted in the supply pipe, an auxiliary valve for breaking the communication of the flush pipe and the tank pipe when the main valve is open, a stem connecting and correlating said valves, said main valve, main valve seat, auxiliary valve and connecting stem being removable from and replaceable into said supply pipe as a unit, and operating means for said valves.

2. In a frost-proof closet, the combination with a supply pipe, a tank, a pipe connecting the tank and the supply pipe, a closet bowl and a flush pipe connecting the supply pipe and the closet bowl and leading from the supply pipe at a point above the point of connection therewith of the tank pipe, of a main valve arranged at the lower end of the supply pipe, a main valve seat threaded in the supply pipe, an auxiliary valve for breaking the communication of the flush pipe and the tank pipe when the main valve is open, a stem connecting and correlating said valves, said stem projecting through said main valve seat and being formed to rotate said seat whereby to engage it with or disconnect it from the threads of the supply pipe, said main valve, main valve seat, auxiliary valve and connecting stem being removable from and replaceable into said supply pipe as a unit, and operating means for said valves.

3. In a frost-proof closet, the combination with a supply pipe, a tank, a pipe connecting the tank and the supply pipe, a closet bowl and a flush pipe connecting the supply pipe and the closet bowl and leading from the supply pipe at a point above the point of connection therewith of the tank pipe, of a main valve arranged at the lower end of the supply pipe, a main valve seat threaded in the supply pipe and arranged above the main valve, an auxiliary valve for breaking the communication of the flush pipe and the tank pipe when the main valve is open, a stem connecting and correlating said valves, said stem carrying the main valve at its lower end and having the portion thereof which projects through the main valve seat formed to rotate said seat whereby to engage it with or disconnect it from the threads of the supply pipe, said main valve, main valve seat, auxiliary valve and connecting stem being removable from and replace-

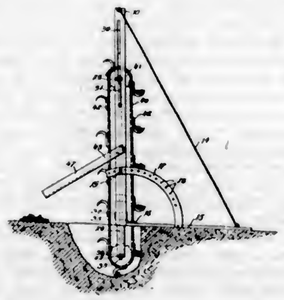
able into said supply pipe as a unit, and operating means for said valves.

4. In a frost-proof closet, the combination with a supply pipe, a tank, a pipe connecting the tank and the supply pipe, a closet bowl and a flush pipe connecting the supply pipe and the closet bowl and leading from the supply pipe at a point above the point of connection therewith of the tank pipe, of a main valve arranged at the lower end of the supply pipe, a main valve seat threaded in the supply pipe and arranged above the main valve, an auxiliary valve for breaking the communication of the flush pipe and the tank pipe when the main valve is open, a stem connecting and correlating said valves, said stem carrying the main valve at its lower end and having the portion thereof which projects through the main valve seat formed to rotate said seat whereby to engage it with or disconnect it from the threads of the supply pipe, said main valve, main valve seat, auxiliary valve and connecting stem being removable from and replaceable into said supply pipe as a unit, the supply pipe having a shoulder near its lower end and a drain port leading from said shoulder, a drain valve surrounding said stem and engageable with said shoulder as a seat, the stem having its lower portion provided with a water duct and with upper and lower openings communicating with said duct at the upper and lower sides of said drain valve, and operating means for said valves.

5. In a frost-proof closet, in combination, a supply pipe, a tank, a bowl, a flush pipe between the supply pipe and the bowl, a pipe between the supply pipe and the tank, a main valve normally closing the lower end of the supply pipe, an auxiliary valve for establishing or disestablishing the communication of the flush pipe and the tank pipe through the supply pipe and being open when the main valve is closed and closed when the main valve is open, a stem connecting and correlating said valves and having a water duct and upper and lower openings communicating with said duct at the upper and lower sides of said auxiliary valve, and outwardly springing valves operable consequent to pressure external to said duct to close the lower openings.

[Claims 6 to 11 not printed in the Gazette.]

1,132,720. EXCAVATING-MACHINE. ELIAS E. HUBBARD, Harrisburg, Ill., assignor, by mesne assignments, of one-half to Herbert E. Mott, Harrisburg, Ill. Filed Jan. 22, 1914. Serial No. 813,724. (Cl. 37—24.)



1. An excavator comprising a frame, a carriage slidably connected with said frame, a cross bar forming part of said frame and provided with a threaded cut out, a threaded shaft rotatably supported by said carriage and passing through the threaded cut out of said cross bar, a threaded closure for said cut out holding said shaft therein, digging means carried by said carriage, and means for operating said digging means and rotating said threaded shaft to move said carriage when said digging means is in operation.

2. An excavator comprising a frame including side bars provided with slots, a carriage slidably connected with said frame, a driving shaft rotatably supported by said carriage and extending through the slots of said frame, a cross bar forming part of said frame and provided with a threaded cut out, a threaded shaft rotatably supported by said carriage and passing through the threaded cut out of said cross bar, a threaded closure for said cut out holding said shaft therein, sprocket wheels rotatably mounted adjacent the bottom of said carriage, sprocket wheels rigidly mounted upon said driving shaft, sprocket chains passing around said sprocket wheels, digging means carried by said sprocket chains, and means for transmitting rotary motion from said driving shaft to said threaded shaft.

3. An excavator comprising a frame, a cross bar forming part of said frame and provided with a cut-out portion forming a section of a threaded opening, a closure carried by said cross bar and fitting within said cut-out portion and coöperating with the threaded portion of said cut-out portion to form a threaded opening in said cross bar, a carriage slidably mounted in said frame and provided with side bars passing through the end portions of said cross bar, a threaded shaft rotatably supported by said carriage and passing through the threaded opening of said cross bar, digging means carried by said carriage and means for operating said digging means rotating said threaded shaft.

1,132,721. CEMENT. GEORGE S. JOHNSTON, Chicago, Ill., assignor to Geo. S. Johnston Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 23, 1914. Serial No. 813,860. (Cl. 87—17.)

1. As a new article of manufacture, a cement for joining eye glass crystals to their mountings, comprising shellac, glass grains, silex, barium sulfate, and calcium carbonate, substantially in the proportions by weight of 40, 25, 5, 10 and 20, respectively.

2. As a new article of manufacture, a cement for joining eye glass crystals to their mountings, comprising shellac, glass grains, silex, barium sulfate, and calcium carbonate, substantially in the proportions by weight of shellac 40 parts, glass grains and silex 30 parts, and barium sulfate and calcium carbonate 30 parts.

3. As a new article of manufacture, a cement for joining eye glass crystals to their mountings, comprising shellac, glass grains, silex, barium sulfate, and calcium carbonate, the glass grains, silex, barium, sulfate, and calcium carbonate together constituting at least 40 per cent. by weight of the total cement.

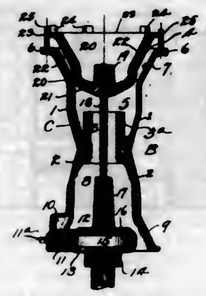
4. As a new article of manufacture, a cement for joining eye glass crystals to their mountings, comprising cementitious material, glass grains, silex, barium sulfate, and calcium carbonate, the cementitious material constituting not over 60 per cent. by weight of the total cement.

5. As a new article of manufacture, a cement for joining eye glass crystals to their mountings, comprising cementitious material, glass grains, silex, barium sulfate, and calcium carbonate, the cementitious material comprising substantially 40 per cent. by weight of the total, and the barium sulfate and calcium carbonate constituting substantially 30 per cent. by weight of the total.

1,132,722. GAS BURNER AND MIXER. JOSEPH A. KLOEB, Piqua, Ohio. Filed Apr. 6, 1914. Serial No. 829,974. (Cl. 158—99.)

1. A gas burner including a burner section constituting a burner element, a mixing section, means for coupling said sections and establishing communication therebetween, gas feeder means adjustable within the mouth of the mixing section to regulate the air intake, and flame regulating means in the burner section.

2. A gas burner including a mixing section having a mixing chamber and also having cored slots in one end, a chambered gas feeder device having radially projecting lugs slidable in the said slots to render the feeder member adjustable within the mixing chamber to regulate the quality of gaseous mixture, and means carried by the mixing section to engage the said lugs to hold the mixing section in adjusted position on the chambered gas feeder device.



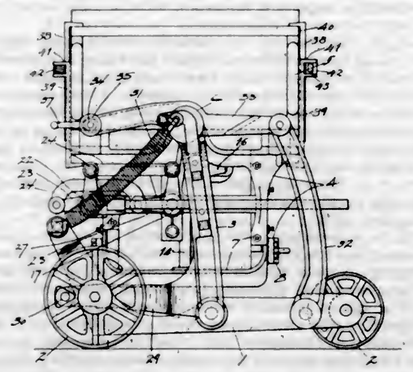
3. A gas burner including a burner section constituting the burner element, a mixing section, a Venturi coupling member connecting said sections and projecting into the burner section, gas feeder means adjustable within the mouth of the mixing section to regulate the air intake, and flame regulating means in the burner section.

4. A gas burner including a burner section constituting the burner element, a mixing section, a Venturi coupling member connecting said sections and projecting into the burner section, gas feeder means adjustable within the mouth of the mixing section to regulate the intake of air, and flame regulating means supported by and adjustable with the gas feeder means and also adjustable independently thereof.

5. A gas burner including a burner section constituting the burner element, a mixing section, means for coupling said sections and establishing communication therebetween, gas feeder means adjustable within the mixing section, a support detachably connected with the gas feeder means, and flame spreader means carried by the support and arranged within the burner section, said flame spreader means adjustable independently of the gas feeder means.

[Claims 6 to 8 not printed in the Gazette.]

1,132,723. MOLD-MAKING MACHINE. CHARLES F. KNOWLTON and FRANK F. ELLIOTT, Pittsburgh, Pa., assignors to The Osborn Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 8, 1911. Serial No. 625,728. (Cl. 22—32.)



1. In a machine of the character described, the combination of a support oscillatory from a vertical to a substantially horizontal position; a frame oscillatorily mounted on said support about a horizontal axis; and a pattern carrier movable in said frame in a direction transverse of such axis.

2. In a machine of the character described, the combination of a pair of rocking arms oscillatory from a vertical to a substantially horizontal position; and a pattern carrier oscillatorily mounted between said arms about a horizontal axis.

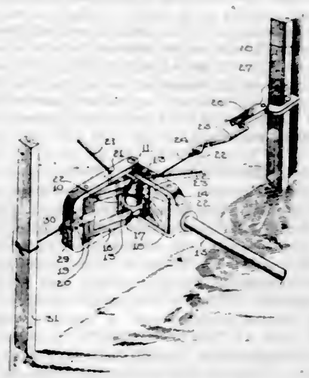
3. In a machine of the character described, the combination of a pair of rocking arms oscillatory from a vertical to a substantially horizontal position; a pattern carrier oscillatorily mounted between said arms about a horizontal axis; and a third arm parallel with the aforesaid arms, adapted to be connected with said carrier to prevent oscillation of the same pending oscillation of said arms.

4. In a machine of the character described, the combination of a pair of rocking arms oscillatory from a vertical to a substantially horizontal position; a pattern carrier oscillatorily mounted between said arms about a horizontal axis; and means adapted to hold said pattern carrier against movement about its axis pending oscillation of said arms, said means including a third rocking arm parallel with the aforesaid pair of arms and means adapted to connect said third arm with said carrier to one side of its axis.

5. In a machine of the character described, the combination of a pair of rocking arms oscillatory from a vertical to a substantially horizontal position; a pattern carrier oscillatorily mounted between said arms about a horizontal axis; and means adapted to hold said pattern carrier against movement about its axis pending oscillation of said arms, said means including a third rocking arm parallel with the aforesaid pair of arms and means adapted to connect said third arm with said carrier to either side of its axis as desired.

[Claims 6 to 31 not printed in the Gazette.]

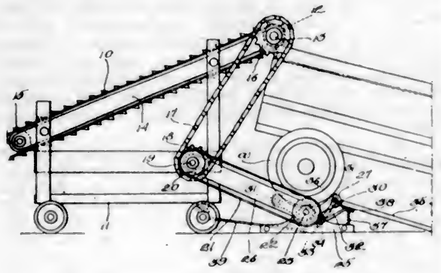
1,132,724. INTERMITTENT-GRIP DEVICE FOR WIRE-STRETCHERS. OLIVER KOONCE, Castor, La. Filed Oct. 24, 1912. Serial No. 727,593. (Cl. 74—54.)



A device of the class described comprising a frame, a drum carried thereby, ratchets formed upon said drum, a pawl engaging said ratchets and comprising substantially U-shaped body portions, said pawl also comprising a pair of substantially parallel arms being spaced from the inner face of said frame, a lifter engaging the under faces of said substantially parallel arms and comprising an off-set crank portion having short bearing portions adjacent each end of said crank portion, a handle extending laterally from one of said short journal portions and projecting from said frame for facilitating the moving of said arms

out of engagement with said ratchets formed upon said drum, and means for normally urging said pawl in engagement with said ratchet.

1,132,725. POWER-TRANSMISSION APPARATUS. GEORGE W. LALLY, Boston, Mass. Filed May 9, 1912. Serial No. 696,137. (Cl. 21—90.)



1. Power transmission mechanism of the kind described, adapted to receive driving impulse from a wheel of a motor vehicle, comprising a movable support, a rotatable member carried thereby arranged to support the vehicle wheel thereon, a cradle pivoted substantially concentric with the rotatable member, and having anti-friction means to engage the vehicle wheel and maintain it in vertical operating position on said member, and means to limit the movement of the cradle.

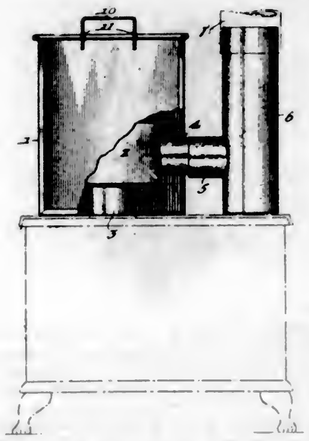
2. Power transmission mechanism of the kind described, adapted to receive driving impulse from a wheel of a motor vehicle, comprising a movable support, a rotatable member carried thereby arranged to support the vehicle wheel thereon, and a cradle pivoted substantially concentric with the rotatable member, and having anti-friction means to engage the vehicle wheel at a plurality of points and maintain it in vertical operating position on said member.

3. An apparatus of the kind described, comprising a driving roller mounted for supporting truck wheels, a yoke frame carrying guide rollers normally elevated above said driving roller at either side thereof, said yoke frame having spring means acting thereon to hold it in normal position, said spring means being yieldable to permit the yoke frame to swing downward at one side for the movement of the truck wheels to operative position, and skids arranged to guide the truck wheels to operative position within said yoke frame.

1,132,726. CANNING APPARATUS. WILLIAM LAWRENCE and GILFORD SCOTT, Hot Springs, Ark. Filed July 9, 1914. Serial No. 850,008. (Cl. 126—272.)

1. A canning apparatus comprising a main water vessel, an internal heating chamber spaced from the bottom and from all sides of the main vessel, flues extending upwardly from the bottom of the water vessel and supporting said heating chamber and in communication therewith and open at their lower ends to the exterior of the water vessel to receive heating gases or products of combustion, an exit flue leading laterally from the internal heating chamber and extending through the wall of the main water vessel, and a separable stack-flue having open upper and lower ends and provided with a lateral flue to register with the lateral flue leading from the internal heating chamber of the vessel, substantially as and for the purposes described.

2. A canning apparatus comprising a main water vessel, an internal heating chamber spaced from the bottom and from all sides of the main vessel, flues extending upwardly from the bottom of the water vessel and supporting said internal heating chamber and communicating therewith and having their lower ends opening through the bottom of the water vessel to receive heating gases or products of combustion, and an exit flue leading laterally from the internal heating chamber and extending through the wall



of the main vessel, substantially as and for the purposes described.

1,132,727. LOCOMOTIVE. NILS D. LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Sept. 25, 1912. Serial No. 722,281. (Cl. 105—227.)



1. In a locomotive, the combination of a main frame, axles and track wheels upon which the frame is resiliently mounted, a rigid auxiliary frame having at one end bearings upon one of the axles at relatively widely separated points, means secured to the main frame but laterally movable with respect thereto for supporting the other end of the auxiliary frame at a single point, a motor on the auxiliary frame, and gearing on the auxiliary frame connecting the motor and the axle upon which one end of the auxiliary frame is supported.

2. In a locomotive, the combination of a main frame, axles and track wheels upon which the frame is resiliently mounted, a rigid auxiliary frame having at one end bearings upon one of the axles at relatively widely separated points, means connected with the main frame for flexibly supporting the other end of the auxiliary frame at a single point on the side of the second axle opposite to that on which the first axle is located, a motor on the auxiliary frame at the said opposite side of the second axle, and gearing on the auxiliary frame connecting the motor and the first axle.

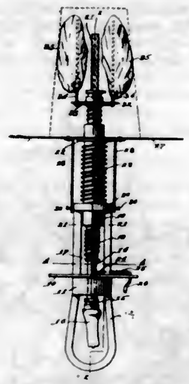
3. In a locomotive, the combination of a main frame, axles and track wheels upon which the frame is resiliently mounted, a rigid auxiliary frame having at one end bearings upon one of the axles at relatively widely separated points, means connected with the main frame for flexibly supporting the other end of the auxiliary frame at a single point on the side of the second axle opposite to that on which the first axle is located, a motor on the auxiliary frame at the said opposite side of the second axle, gearing on the auxiliary frame connecting the motor and the first axle, and means for operatively connecting the two axles.

4. In a locomotive, the combination of a main frame, axles and track wheels upon which the frame is resiliently mounted, a rigid auxiliary frame having at one end bearings upon one of the axles at relatively widely separated points, means connected with the main frame for flexibly supporting the other end of the auxiliary frame at the side of the second axle opposite to that on which the first axle is located, a motor on the auxiliary frame at the said opposite side of the second axle, and gearing on the auxiliary frame connecting the motor and the first axle.

5. In a locomotive, the combination of a main frame, axles and track wheels upon which the frame is resiliently mounted, a rigid auxiliary frame having at one end bearings upon one of the axles at relatively widely separated points, means connected with the main frame for flexibly supporting the other end of the auxiliary frame at the side of the second axle opposite to that on which the first axle is located, a motor on the auxiliary frame at the said opposite side of the second axle, with its lower parts below the level of the axle, and gearing on the auxiliary frame connecting the motor and the first axle.

[Claims 6 and 7 not printed in the Gazette.]

1,132,728. GLASS-WASHING DEVICE. REUBEN J. LIEBIG and EDWARD ANDERSON, St. Paul, Minn. Filed Apr. 15, 1914. Serial No. 832,071. (Cl. 141—3.)



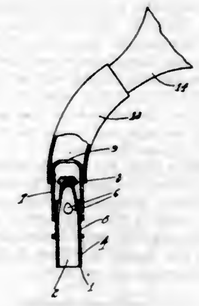
1. A glass washing device comprising a water pipe having its upper end portion provided with outlet openings, a support connected with the lower end portion of said pipe, an external threaded sleeve rotatably mounted upon said pipe, means carried by said sleeve for carrying cleaner elements, an externally threaded cuff carried by said sleeve, a guiding ring placed about said cuff and supported in spaced relation to said support, an abutment carried by said cuff above said guiding ring, a spring mounted upon said cuff between said guiding ring and abutment, a supporting platform mounted upon said cuff and resting upon said abutment, and guiding strips carried by said platform and slidably connected with said ring.

2. A glass washing machine comprising a water pipe, a support carried by said water pipe, a guiding ring, supporting legs for said guiding ring, a control valve for said water pipe slidably connected with said support and passing through one of said supporting legs and having its inner end extending into said water pipe, resilient means for yieldably holding said valve in a normal position, a sleeve rotatably mounted upon said water pipe, a cuff mounted upon said sleeve and in threaded engagement therewith, a platform carried by said cuff, resilient means for yieldably holding said cuff in a normal position, and a cleaning element carried by said sleeve.

3. In a glass cleaning device a feed pipe, a disk carried by said pipe, a collar carried by said disk, a handhold carried by said collar, supporting legs extending above said disk, a guiding ring carried by said supporting legs, a sleeve rotatably mounted upon said pipe, cleaner element carrying means carried by said sleeve, and means for rotating said sleeve, the said last-mentioned means extending through said guiding ring and slidably connected therewith.

4. A glass cleaner comprising a water pipe, a sleeve rotatably mounted upon said water pipe, a cuff threaded upon said sleeve, a guide for said cuff, a platform carried by said cuff, resilient means positioned between said guide and platform for yieldably holding the cuff in a normal position, and means for preventing rotation of said cuff and platform during the sliding movement thereof.

1,132,729. SOUND-MODIFIER. SAMUEL M. MACOMBER, Stockton, Cal. Filed June 23, 1914. Serial No. 846,778. (Cl. 181—2.)



1. A sound modifier of the type described comprising a centrally orificed member provided with openings in its sides, and a tip extending beyond said openings, and a cap threaded upon said member and inclosing said openings and said tip, said cap being provided with an opening in its end in substantial alinement with said tip, as described.

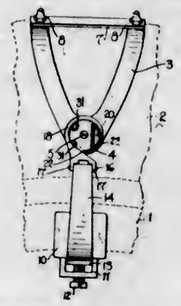
2. A sound modifier of the type described comprising a centrally orificed member tapered at one end, the small end of said tapered portion being closed and provided with an extended tip of a greater diameter than said tapered portion, said member being provided with openings in the sides of said tapered portion and a cap mounted on said member and inclosing said tapered portion, said cap having an opening in its end, as described.

3. A sound modifier of the type described comprising a centrally orificed member tapered at one end and provided with openings in its sides and an extended tip above said openings, a threaded portion on said member and a cap provided with interior threads adapted to receive said threaded portion of said orificed member, such cap being provided with vertical slots in said threaded portion and horizontal slots registering with said vertical slots, as described.

1,132,730. ANTISLIPPING SHOE FOR TIRES. CLYDE J. PEAK, Barada, Nebr. Filed Oct. 8, 1914. Serial No. 865,699. (Cl. 152—14.)

1. An anti-slipping shoe for vehicle wheels including a member curved to conform with the transverse curvature of a tire, rollers carried by the ends of said member, spaced lugs formed upon the outer face of said rollers, loops carried by the rollers and arranged in spaced relation to the lugs, a shoulder formed upon the periphery of each of said rollers, a bracket carried by the rim of the wheel, springs secured each at one end to the bracket, hooks carried by the free ends of the springs, said lugs and loops being adapted to coact with a tool, whereby the hooks may be engaged with the rollers, and spring members carried by the curved member and adapted for engagement with the

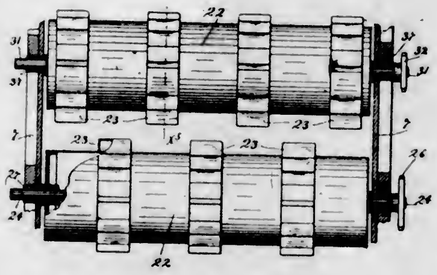
shoulder on the periphery of each of the rollers whereby to prevent rotation of the same in one direction.



2. An anti-slipping shoe for vehicle wheels comprising a member curved to conform with the transverse curvature of a tire, rollers carried by the ends of the member, a bracket carried by the rim of the wheel, springs connected at one end with the bracket, hooks carried by the free ends of the springs, said hooks being adapted for engagement on the rollers carried on the ends of the member, against the tension of said springs, and means for preventing rotation of the rollers in one direction.

3. An anti-slipping shoe for vehicle wheels comprising an elliptical band curved transversely to conform with the curvature of the tire, bars connecting the sides of the band on opposite sides of the longitudinal center thereof, calks carried by the opposite ends of the bars, and a spider arranged between the medial portions of the sides of the band, as and for the purpose set forth.

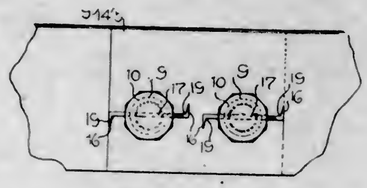
1,132,731. SELF-FEEDER FOR THRESHING-MACHINES. ANDREW J. PETERSON, Isanti, Minn. Filed Dec. 20, 1911, Serial No. 666,878. Renewed Aug. 17, 1914. Serial No. 857,264. (Cl. 130—1.)



1. The combination with the threshing cylinder of a threshing machine, of bundle feeding and band cutting devices, and a multiplicity of pairs of upper and lower distributing rollers having longitudinally spaced diametrically increased sections, the diametrically increased sections of the upper and lower rollers being located in the same vertical planes, and the diametrically increased sections of the inner and outer pair of rollers being laterally off-set at different vertical planes.

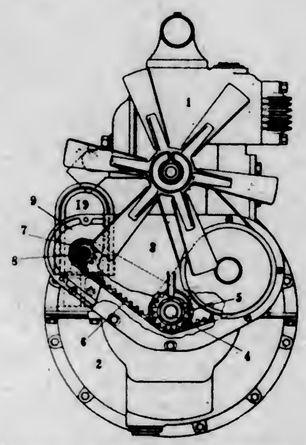
2. The combination with the threshing cylinder, of a threshing machine, of bundle feeding and band cutting devices, and a multiplicity of pairs of upper and lower distributing rollers having longitudinally spaced diametrically increased sections formed by circumferentially spaced teeth, the diametrically increased sections of the upper and lower rollers being located in the same vertical planes, and the diametrically increased sections of the inner and outer pair of rollers being laterally off-set at different vertical planes.

1,132,732. BOLT-LOCK. ROBERT JOHN ROBINSON, Sr., Somerville, Tex. Filed Feb. 14, 1914. Serial No. 818,817. (Cl. 151—32.)



In combination with two members having portions disposed in overlying relation, said overlying portions being provided with registering openings, the outer face of one of said overlying portions being provided with a channel intersecting the opening therethrough the opposite extremities of the channel being angularly disposed and reversely directed; of a bolt directed through said registering openings and having a transverse perforation therethrough registering with the channel, and a key insertible through the perforation in the bolt and accommodated within the channel including the angular extremities of the channel.

1,132,733. MAGNETO ADJUSTMENT. CHARLES B. ROSE, Moline, Ill., assignor to Velie Motor Vehicle Company, Moline, Ill., a Corporation of Illinois. Filed Sept. 3, 1912. Serial No. 718,359. (Cl. 123—149.)



1. In an engine of the class described having a crank-shaft and an adjustable magneto, the combination with the magneto-shaft, of means to convey power from the crank-shaft to the magneto-shaft to operate the latter, said means including a shaft connected to the magneto shaft and in alinement therewith, and means to adjust said shaft and magneto-shaft simultaneously to preserve said alinement.

2. In an engine of the class described having a crank-shaft and a magneto adjustably secured to the machine frame, the combination with the magneto-shaft, to the magneto-shaft to operate the latter including a shaft connected to the magneto-shaft and in alinement therewith, and means eccentric to the axis of both shafts to adjust them simultaneously.

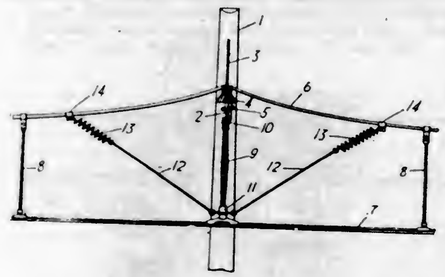
3. In an engine of the class described, the combination of a frame, a crank-shaft journaled thereon, a sprocket on the crank-shaft, a bracket adjustably mounted on the frame, a magneto supported on said bracket, a magneto-shaft, a shaft connected with the magneto-shaft in alinement therewith and having a sprocket connected by a chain with the sprocket on the crank-shaft to convey power from the latter to operate the magneto, and a sleeve in a bearing on the frame and in which the shaft connected with the magneto-shaft is eccentrically journaled, said sleeve adapted to be turned to vary the tension of the chain and to adjust the bracket and magneto simultaneously.

4. In an engine of the class described, the combination of a frame, and a magneto adjustably mounted thereon, a crank-shaft, a magneto-shaft, and means to convey power from the crank-shaft to the magneto-shaft to operate the latter including a shaft connected to the magneto-shaft and in alinement therewith, and having a sprocket connected by a chain with the sprocket on the crank-shaft to convey power from the latter to operate the magneto, a sleeve in a bearing on the frame and in which the shaft connected with the magneto-shaft is eccentrically journaled, an end of said sleeve concentric with said shaft and movable in a bearing on the bracket, said sleeve adapted to be turned to vary the tension of the chain and to adjust the bracket and magneto simultaneously.

5. In an engine of the class described, the combination of a frame, a crank-shaft journaled thereon, a sprocket on the crank-shaft, a bracket adjustably mounted on the frame, a magneto supported by said bracket, a magneto-shaft, a shaft connected with the magneto-shaft in alinement therewith and having a sprocket connected by a chain with the sprocket in the crank-shaft to convey power from the latter to operate the magneto, a sleeve in a bearing on the frame and in which the shaft connected with the magneto shaft is eccentrically journaled, an end of said sleeve being concentric with said shaft and held in a bearing on the bracket, said sleeve adapted to be turned to vary the tension of the chain and to adjust the bracket and magneto simultaneously.

[Claims 6 to 10 not printed in the Gazette.]

1,132,734. SUPPORTING STRUCTURE FOR TROLLEY-CONDUCTORS. WILLIAM SCHAAKE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 14, 1912. Serial No. 703,593. (Cl. 191—41.)



1. In an overhead structure for electric railways, the combination with a messenger cable and a support therefor, of a trolley conductor, a clamp for said conductor, a steadying arm secured to said clamp, and a plurality of supporting members that diverge from said clamp to said messenger cable, substantially in the plane of the cable and the trolley conductor.

2. In an overhead structure for electric railways, the combination with a messenger cable and a support therefor, of a trolley conductor, a pivotally mounted steadying arm secured thereto, and resilient means secured to said messenger cable for yieldingly supporting the free end of said steadying arm.

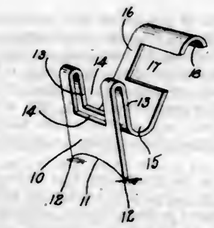
3. In an overhead structure for electric railways, the combination with a messenger cable and a support therefor, of a trolley conductor, a pivotally mounted steadying arm attached to said conductor, and resilient means associated with the free end of said steadying arm and adjustably secured to said messenger cable on the respective sides of said support.

4. In an overhead structure for electric railways, the combination with a messenger cable and a supporting structure therefor, of a trolley conductor suspended from said cable, a pivotally mounted steadying arm having its free end attached to said trolley conductor, and a plurality of divergent resilient members adjustably secured to the messenger cable and adapted to support the free end of said steadying arm.

5. In an overhead structure for electric railways, the combination with a messenger cable, a supporting structure therefor and a trolley conductor suspended from said cable, of a steadying arm pivotally attached to said supporting structure and having its free end attached to said trolley conductor, and a pair of resilient members diverging from the trolley conductor end of said steadying arm to the messenger cable for preventing substantial lateral movement of said arm.

[Claim 6 not printed in the Gazette.]

1,132,735. SUPPORT AND TIE FOR CONCRETE-REINFORCING BARS. GEORGE R. SCHOENTHALER, Chicago, Ill. Filed May 31, 1913. Serial No. 771,116. (Cl. 72—122.)



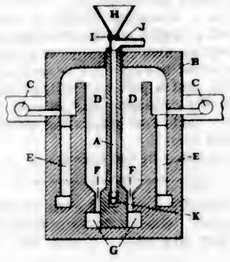
A device of the class described formed of a single piece of metal and comprising a supporting member adapted to be applied to a pair of crossed reinforcing rods, said member being provided with a seat for the lower one of the rods, which seat is located a substantial distance to one side of the point of contact between the lower end of the supporting member and the floor or form on which the device is positioned, said member being open at one side above the seat for the lower rod to accommodate the upper one of the reinforcing rods, the upper end of said supporting member being provided with a single bearing which is located above and a substantial distance to one side of the seat for the lower one of the rods, and which bearing is adapted to engage the top of the upper one of the reinforcing rods, which construction permits the supporting member to tilt and occupy an inclined position when applied to the reinforcing rods, thereby gripping said rods by the reaction of the weight of said rods through the support.

1,132,736. PRODUCING ALUMINUM OXID FROM SULFATE OF ALUMINA. GUSTAVE SCHWAHN, Belleville, Ill. Filed Dec. 12, 1908. Serial No. 467,155. (Cl. 23—13.)

1. The production of aluminum oxid from aluminum sulfate by means which consists in charging anhydrous aluminum sulfate in a porous condition into a retort in a furnace, heating said sulfate to incandescence throughout, and then charging water, aqueous vapors or steam into said retort while maintaining the sulfate at a uniform temperature until all the sulfuric acid is removed, substantially as described.

2. The improved process of producing aluminum oxid, which consists in subjecting porous aluminum sulfate in the presence of aqueous vapors or steam to about an orange red or orange heat, substantially as and for the purpose set forth.

3. The process of producing acid free aluminum oxid which consists in heating aluminum sulfate to incandescence in one part of a chamber of a suitable retort or furnace, while heating water, aqueous vapor or steam in another part or chamber of said retort or furnace, and subjecting said sulfate of alumina to the action of said vapor or steam until all the contained sulfuric acid is removed in a dissociated form, substantially as and for the purpose set forth.



4. The process of producing pure aluminum oxid, which consists in heating a suitable aluminum sulfate in a suitable retort or furnace to incandescence and injecting water, aqueous vapors or steam into said retort or furnace to act upon said incandescent sulfate thereby separating the acid with the impurities from said sulfate and leaving pure aluminum oxid, said reaction being carried on at a point above the dissociating temperature of sulfuric acid.

5. The process of producing acid free aluminum oxid, which consists in subjecting aluminum sulfate to heat in one part of a retort or furnace, and heating water or steam in another part of said refort or furnace, and conveying the resultant vapor or steam upon and through said aluminum sulfate at a uniform temperature until all the contained sulfuric acid is driven off in a dissociated form, substantially as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,132,737. PRODUCTION OF ALUMINUM OXID. GUSTAVE SCHWAHN, Belleville, Ill. Filed Jan. 15, 1912. Serial No. 671,295. (Cl. 23—13.)

1. The process of producing sodium free alumina in the form of an impalpable powder which consists in treating a thin moving mass of uniformly heated aluminum sulfate with water vapor until all the contained sulfuric acid is removed.

2. The process of producing acid free alumina from sulfate of aluminum which consists in rapidly and uniformly heating aluminum sulfate in a mass of little thickness in comparison with its area of heating surface and passing steam through the heated mass.

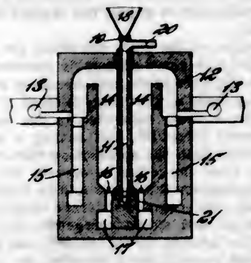
3. The process of producing acid free aluminum oxid which consists in uniformly heating to incandescence a relatively thin mass of aluminum sulfate having a large area exposed to the heat, and passing steam through said mass.

4. The process of producing acid free alumina which consists in uniformly heating a wide thin mass of porous aluminum sulfate to incandescence in the presence of air and then introducing water vapor as long as the sulfur gases continue to be produced.

5. The process of producing alumina substantially free of sulfur which comprises heating a thin mass of aluminum sulfate in the presence of a moving gas mass comprising highly heated water vapor, said heating being to a temperature higher than the dissociating point of sulfur trioxid.

[Claim 6 not printed in the Gazette.]

1,132,738. RETORT AND FURNACE. GUSTAVE SCHWAHN, St. Louis, Mo. Original application filed Dec. 12, 1908, Serial No. 467,155. Divided and this application filed Aug. 27, 1914. Serial No. 858,847. (Cl. 75—137.)

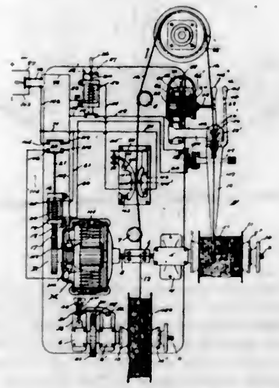


1. The combination of a retort having two flat vertical side walls of large area with a narrow space between them, with a furnace inclosing said retort and having double sets of flues for the combustible gases, there being one set of flues on each side of said retort.

2. The combination of a vertical retort having two flat vertical side walls of large area with a narrow space between them, with a downdraft furnace inclosing said retort and having double sets of flues for the combustible gases, there being one set of flues on each side of said retort.

3. The combination of a retort having two flat vertical side walls of large area with a narrow space between them, with a furnace inclosing said retort and having flues for the combustible gases, said flues being spaced on opposite sides of said retort near the top or bottom extremity thereof, and outlet flues for the products of combustion near the opposite extremity of said retort.

1,132,739. SPOOL-WINDING MACHINE. CAMPBELL SCOTT, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 5, 1906. Serial No. 333,389. (Cl. 242—9.)



1. In a winding machine, the combination with a shaft, of means carried by said shaft for receiving the material to be wound, a motor for rotating said shaft and receiving means, an auxiliary shaft, a reel mounted on said auxiliary shaft and carrying the material to be wound on said receiving means, retarding mechanism associated with said auxiliary shaft to maintain the material taut while being wound, means for controlling said motor, and a device operated by irregularities in the material to be wound to effect a stopping of the motor.

2. The combination with winding mechanism, of an electric motor for driving the same, brake apparatus comprising a magnet, a main line switch operated by said magnet, an auxiliary switch in circuit with said magnet, an electro-magnet associated with said auxiliary switch, and a circuit-closer operated by an irregularity in the material to be wound to effect the energization of said last-named electro-magnet and the opening of said auxiliary switch.

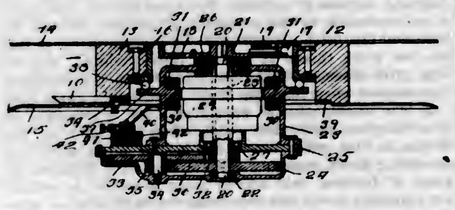
3. The combination with winding mechanism for insulated wire, of a motor for driving the same, motor-controlling means, an electro-magnetic switch associated with said motor-controlling means, a plurality of relatively movable conductors normally held apart by the insulated wire but electrically connected by an uninsulated portion thereof to effect the operation of said electro-magnetic switch and the stopping of the motor, and a circuit-closer co-acting with said conductors and operated by a portion of enlarged diameter of said insulated wire to effect the same operation of the switch and the stopping of the motor.

4. The combination with winding mechanism for insulated wire, of a motor and motor-controlling means, an electro-magnetic switch associated with the motor-controlling means, a fixed conducting member and a pivoted conducting member, a spring tending to move said members into engagement with each other, said members being held apart and insulated from each other by the insulated wire, and a circuit-closer operated by the pivoted member when an enlarged portion passes between said members, circuits and connections to effect the opening of said electro-magnetic switch and the stopping of the motor when said members are electrically connected by bare wire or by the operation of said circuit-closer, and means for holding said switch in open position.

5. In a winding machine, the combination with winding mechanism and a motor, of a guiding arm pivoted for horizontal movement, means whereby the arm may be lifted vertically, and a dashpot connected to said arm for retarding the movement in a horizontal direction.

[Claim 6 not printed in the Gazette.]

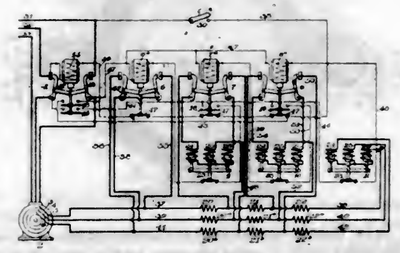
1,132,740. CABLE-REELING MECHANISM FOR ELECTRIC LOCOMOTIVES. FRANK L. SESSIONS and DUDLEY T. FISHER, Columbus, Ohio, assignors to the Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Oct. 6, 1909. Serial No. 521,398. (Cl. 242—91.)



1. In a cable reeling mechanism for an electric locomotive, the combination of an electric motor mounted with its armature axis in vertical position, a horizontal annular ball race on the frame of the motor, a cable reel provided with a central recess adapted to receive the upper part of the motor casing, balls arranged to be supported on the ball race of the motor casing, and to rotatably support the cable reel to permit it to rotate about a vertical axis coincident with the axis of the motor armature, and a power connection between the armature and the reel.

2. In a cable reeling mechanism for an electric locomotive, the combination of an electric motor provided with a hollow armature shaft, a shaft extending through the hollow armature shaft and mounted for rotation at a different speed therefrom, a cable reel mounted for rotation about an axis coincident with the axis of the armature shaft, gearing between the armature shaft and the rotatable shaft extending through it for driving the last said shaft at a speed different from that of the armature shaft, and a frictional power connection between the other end of the said rotatable shaft and the reel.

1,132,741. CONTROLLER FOR ALTERNATING-CURRENT MOTORS. ARTHUR SIMON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed June 1, 1909. Serial No. 499,545. (Cl. 172—289.)



1. In a controller for alternating current motors, in combination, electro-responsive means for accelerating the motor in steps and electro-responsive circuit controlling means therefor necessitating normal electrical conditions in all phases of the secondary circuit prior to each step of acceleration.

2. In a controller for alternating current motors, in combination, electro-responsive means for accelerating the motor in steps and electro-responsive circuit controlling means therefor responsive to abnormal current conditions in any phase of the secondary circuit of the motor to prolong the intervals between the steps of acceleration.

3. In a controller for alternating current motors, in combination, accelerating means, and a relay device having a plurality of windings connected in different phases of the secondary circuit of the motor, said device being adapted to respond upon an excessive flow of current through the motor to check the operation of said means.

4. In a controller for alternating current motors, in combination, accelerating means, and a relay device having a plurality of operating windings, one connected in each phase of the secondary circuit of the motor, said device being adapted to respond upon an excessive flow of current through the motor to check the operation of said means.

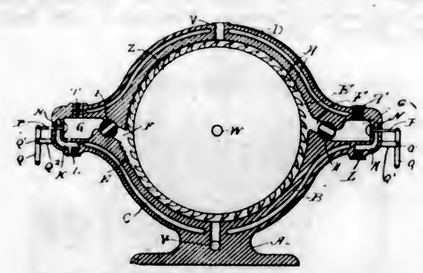
5. In a controller for alternating current motors, in combination, accelerating means, and a relay device adapted to check the operation of said means upon the occurrence of abnormal conditions in the motor circuit, said relay device having a plurality of actuating windings connected in different phases of the secondary circuit of the motor, each of said windings having one terminal thereof connected to one terminal of each of the others of said windings.

[Claims 6 to 11 not printed in the Gazette.]

1,132,742. TURBINE GAS-ENGINE. JEROME J. SMIDDY, Honolulu, Hawaii. Filed Oct. 29, 1910. Serial No. 589,757. (Cl. 123—9.)

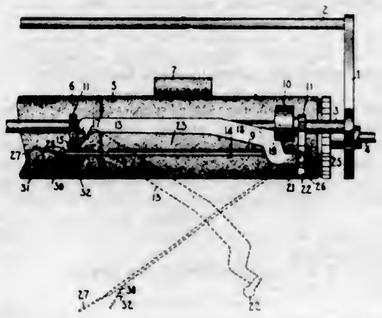
1. In a turbine gas engine, the combination of a casing having projections formed at each side thereof to produce combustion chambers, each of said combustion chambers being connected by a port to the interior of the casing, said ports running in opposite directions for guiding the motive fluid, a series of serrations formed on the interior of the casing above one of the said ports, a similar series of serrations located below the opposite port, rotary valves, one located in each port for intermittingly admit-

ting the motive fluid, first to one side of the casing and then to the other, a rotary member journaled in the casing, and provided with peripheral serrations projecting at an angle from said member, mechanism operated by the revolving of the rotary member for operating the rotary valves in unison, valves for admitting the explosive mixture to the combustion chambers, and means for operating the last named valves in unison with the rotary valves.



2. In a turbine gas engine the combination of a casing provided with a rotor chamber and a pair of oppositely disposed combustion chambers connected with the rotor chamber by suitable ports, one of said ports leading upwardly and the other downwardly, valves situated withing said ports and outlet ports leading from the rotor chamber, valves for controlling admission of an explosive mixture to the combustion chamber, means for operating all of the valves in unison, serrations formed on the interior of the casing, one set above one of the ports and the other set below the other port, a rotor revolubly mounted in the rotor chamber and peripheral serrations carried by the rotor and projecting at an angle therefrom, as shown and for the purpose described.

1,132,743. TYPE-WRITING MACHINE. ARTHUR W. SMITH, New York, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Jan. 18, 1913. Serial No. 742,801. (Cl. 197—133.)



1. A severing device for typewriting machines comprising a slotted bar, a cutting blade engaging the walls or edges of the slot in said bar, the slot in said bar extending completely through it transversely, and means for affording relative transverse movement between said bar and said blade to shear the paper, the cutting edge of said blade being brought as a result of such relative transverse movement to the opposite side of said bar from that normally occupied by it.

2. A severing device for typewriting machines comprising a slotted bar, a cutting blade engaging the walls or edges of the slot in said bar, the slot in said bar extending completely through it transversely, said cutting blade being movably mounted and provided with a finger piece for moving the blade to coöperate with said bar to shear the paper, said blade moving transversely through the slot in said bar from one side to the other.

3. A severing device for typewriting machines comprising a slotted bar, and a cutting blade engaging the walls or edges of the slot in said bar, the slot in said bar extending completely through it transversely, said cutting blade being pivoted at one end and being provided with a finger piece at the opposite end for swinging the blade on its pivot transversely through said slot from one side to the other.

4. A severing device for typewriting machines comprising a slotted bar, and a pivotally mounted cutting blade engaging the walls or edges of the slot in said bar and normally arranged to provide a passageway for the paper between it and the bar, said blade being swingable on its pivot transversely through said slot from one side of the bar to the other to shear the paper.

5. A severing device for typewriting machines comprising a slotted bar, a cutting blade engaging the walls or edges of the slot in said bar, the slot in said bar extending completely through it transversely, said cutting blade being mounted to move transversely of said bar to shear paper, said blade moving transversely through the slot in said bar from one side to the other, and a restoring spring connected to said blade.

[Claims 6 to 14 not printed in the Gazette.]

1,132,744. SAFETY DEVICE FOR ELEVATORS. EDWARD A. SMITH, New York, N. Y., assignor to Otis Elevator Company, a Corporation of New Jersey. Filed Feb. 6, 1905. Serial No. 244,264. (Cl. 187—91.)



1. The combination of an elevator car, a clamping device therefor, guide rails coöperating with said car and device, and a differential screw having a high pitch thread and a low pitch thread for actuating the clamping device, coöperating parts in engagement with said threads with different degrees of friction, the operation of said screw being controlled by the difference of friction between the high and low pitch threads and coöperating parts, so that the low pitch thread is brought into operation, and the high pitch thread is held from operation by the resistance encountered when clamping device engages the guide rails.

2. The combination of an elevator car, a clamping device therefor, guide rails coöperating with said car and device, a high pitch screw and a low pitch screw, cooperating parts engaging said screws with different degrees of friction, said screws being arranged to actuate the clamping device and depending for their relative movement upon the difference of friction between said screws and coöperating parts so that the low pitch screw is brought into operation, and the high pitch screw is held from operation by the resistance encountered when the clamping device engages the car guide rails.

3. An elevator car, a clamping device therefor, a guide rail adapted to coöperate with the said clamping device, a high pitch screw arranged to move the clamping device quickly and a low pitch screw arranged to tighten the clamping device, said screws being separate and independently movable, and coöperating parts in frictional contact with said screws, the independent movement of the screws being controlled by their relative friction with said coöperating parts, so that the low pitch screw is brought into operation and the high pitch screw is held from operation by the resistance encountered when the clamping device engages the guide rails.

4. In a safety device for elevators, the combination of a car, a clamping device therefor, means for moving the clamping device quickly until its movement meets resistance, and additional means brought into action by such resistance for imparting a further movement to the clamping device.

5. In a safety device for elevators the combination of a car, a clamping device therefor, means for moving the clamping device quickly until its movement meets resistance, and additional means brought into action by such resistance for imparting a further movement to the clamping device with greater force.

[Claims 6 to 25 not printed in the Gazette.]

1,132,745. SELF-ADJUSTING PIVOTAL BEARING. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, of Jersey City, N. J., a Corporation of New Jersey. Filed May 7, 1908. Serial No. 431,494. (Cl. 64—7.)



1. The combination with a support, of a bearing pin mounted therein, a spiral guide for the pin, a pivoted member, and means for effecting a bodily movement of said pin into contact with said member with a yielding pressure.

2. The combination with a pivoted member, of a support, a bearing pin mounted in the support and movable toward and from the pivoted member by a combined longitudinal and rotary movement, and means comprising a pivoted weight for automatically moving the pin toward the pivoted member and holding it yieldingly in contact with said member to form a bearing therefor.

3. The combination with a pivoted member, of a support, a bearing pin mounted in the support and formed with a spiral guiding surface, the pitch of said surface being sufficient to permit the pin to respond to a pressure in the direction of its axis, and means comprising a weight for yieldingly holding the pin in contact with said pivoted member.

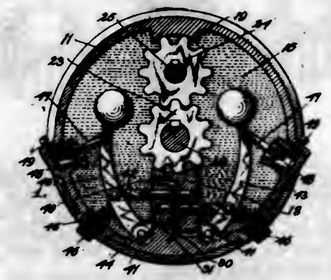
4. The combination with a pivoted member, of a bearing pin, a support having a smooth bore in which the pin is mounted, and means comprising a weight separate from said member for yieldingly pressing the pin into contact with said pivoted member.

5. The combination with a pivoted member, of a cylindrical bearing pin having an inclined or spiral groove in its surface, a support having a smooth bore in which the pin is mounted, a guide pin extending into said groove, and means comprising a weight for holding the pivoted member and bearing pin in contact with a yielding pressure.

1,132,746. AUTOMATIC CLUTCH. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 18, 1909. Serial No. 533,794. (Cl. 192—18.)

1. A driving shaft, a driven shaft, a clutch mechanism intermediate said shafts arranged to connect the shafts together, said clutch being constructed to form a receptacle for a fluid, rotary fluid impellers within the receptacle arranged to effect a circulation of the said fluid, and comprising automatic means within said receptacle operated from said driving shaft for stopping said circulation when the speed of the driving shaft is above a predetermined rate of speed to thereby cause the rotation of the driving shaft to be transmitted through the clutch to the driven shaft.

2. A driving shaft, a clutch comprising a housing affixed thereto, said housing being constructed to form a receptacle for a fluid, a driven shaft extending into said housing, means carried by the driven shaft for circulating said fluid within the receptacle, and automatic means within said housing actuated by the driving shaft for stopping the circulation of the fluid and thereby causing the shafts to rotate together when the speed of said driving shaft is above a predetermined rate.



3. A driving shaft, a clutch comprising a housing affixed thereto, said housing being constructed to form a receptacle for a fluid, a driven shaft extending into said housing, means carried by said shafts for circulating the fluid within the receptacle when there is a relative rotation between the shafts, manual means for controlling the circulation of the fluid, and automatic means within said housing actuated by the driving shaft for allowing a circulation of the fluid and rendering the clutch inoperative when the speed of rotation of the driving shaft is below a predetermined rate.

4. A driving shaft, a clutch comprising a housing affixed thereto, said housing being constructed to form a receptacle for fluid, a driven shaft extending into said housing, a gear affixed to the driven shaft, a second gear mounted in the housing in mesh with said first gear, said gears being arranged to circulate said fluid within the receptacle when there is a relative rotation between the shafts, manual means for controlling the circulation of said fluid, and a centrifugal governor within said housing actuated by the driving shaft for allowing circulation of the fluid and rendering the driven shaft inoperative when the speed of the driving shaft is below a predetermined rate.

5. A driving shaft, a clutch comprising a housing affixed thereto, said housing being constructed to form a receptacle for a fluid, a partition within said receptacle, a driven shaft extending into said housing, a gear affixed to the driven shaft, a second gear mounted in the housing in mesh with said first gear, said gears with the partition dividing the receptacle into two compartments; said partition being constructed with a by-pass between said compartments, and automatic means within said housing actuated by the driving shaft for closing said by-pass when the speed of the driving shaft is above a predetermined rate.

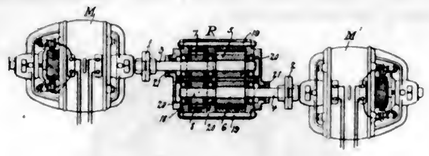
[Claims 6 to 10 not printed in the Gazette.]

1,132,747. ROTARY GEAR-PUMP. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 18, 1910. Serial No. 544,640. (Cl. 103—44.)

1. In a rotary gear pump, the combination of intermeshing pumping gears, shafts on which said gears are secured, guiding gears for the pumping gears, also secured to said shafts, anti-friction bearings for said shafts, and communicating chambers in which said pumping gears, guiding gears and bearings are inclosed.

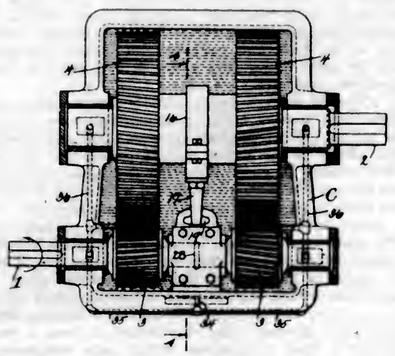
2 In pumping mechanism, the combination of a casing provided with a partition separating the casing into two compartments, shafts extending into the casing, intermeshing rotary pump gears located in one of said compartments and secured to said shafts, intermeshing spur gears secured to said shafts and located in the other compartment, anti-friction bearings for said shafts located in

said partition, and a lubricating material circulated by the pump gears and adapted to maintain said bearings and spur gears lubricated by leakage from the pump gear chamber.



3. In pumping apparatus, the combination of a casing, intermeshing pump gears within the casing, shafts on which said gears are mounted, anti-friction bearings within the casing, a lubricating material circulated by the pump gears, said bearings being lubricated by said material, and stuffing boxes for said shafts located in the walls of the casing outside of said bearings.

1,132,748. LUBRICATING MECHANISM. AUGUST SUNDH, Hastings-upon-Hudson, N. Y. Filed Apr. 4, 1912. Serial No. 688,381. (Cl. 184—1.)



1. In power transmitting mechanism, the combination of a self aligning gear comprising an inner member, and outer member, and an intermediate laminated section, a passage extending through one of said members to said laminated section, and a pump for the purpose of conveying lubricating material under pressure to the latter through said passage.

2. A gear wheel comprising inner and outer members and an intermediate portion flexibly connecting said members, said outer member being formed with a passage extending inward to said intermediate portion for the circulation of a lubricant, and a pump adapted to force a lubricant through said passage.

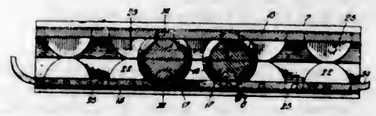
3. A self aligning gear wheel having inner and outer members and a laminated intermediate section yieldingly connecting said members, the inner member having a central bore, and said members being formed with radial passages from the central opening to the intermediate section and from said section to the outer surface of the gear wheel.

4. A gear wheel comprising inner and outer members, and an intermediate connecting member, said wheel being provided with an axial bore or opening and radial passages extending therefrom to the connecting member for the passage of lubricating material.

5. A gear comprising an inner member and an outer annular member adapted to have a limited relative movement, a passage in one of said members for conveying a lubricant between said members, and a force pump discharging into said passage.

[Claims 6 to 21 not printed in the Gazette.]

1,132,749. CAR SIDE BEARING. FRANCIS G. SUSEMIHL, Detroit, Mich. Filed Feb. 24, 1914. Serial No. 820,509. (Cl. 64—64.)



1. A bearing of the type described comprising a bolster section, a transom section, rollers interposed between said sections, and means carried by the ends of said rollers and engaging the side walls of said sections, and approximately attingent cams carried by the walls of said sections for maintaining said rollers in spaced relation during a movement thereof.

2. A bearing of the type described comprising a bolster section, a transom section, flanged rollers interposed between said sections, means carried by the ends of said rollers and engaging the side walls of said sections, means carried by side walls of said sections for moving and maintaining said rollers in spaced relation, and means in connection with said sections for preventing said transom section from becoming vertically displaced relatively to said bolster section.

3. A bearing of the type described comprising a bolster section, a transom section movably connected to said bolster section, confronting rails carried by said sections, flanged rollers engaging said rails, and projections carried by the ends of said rollers and approximately attingent cams at the sides of said sections adapted to move said projections in cycloidal courses for maintaining said rollers in spaced relation.

4. A bearing comprising connected sections capable of shifting longitudinally of one another, confronting rails carried thereby, flanged rollers movable upon said rails, cams carried by the inner sides of said sections with the cams at one side alternating with the cams on the other side and means carried by the ends of said rollers and guided in a cycloidal course by said cams for maintaining said rollers in spaced relation.

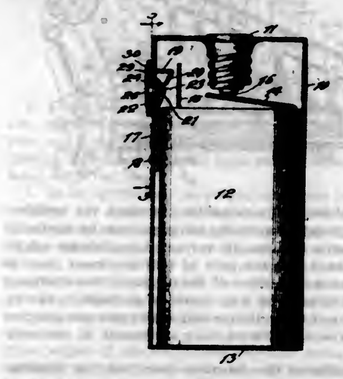
5. A bearing of the type described comprising bolster and transom sections, confronting rails carried by said sections, flanged rollers movable between said rails, projections carried by the ends of said rollers with the projections at one end disposed in a plane at an angle to the projections at the opposite end, and cam members carried by said sections and adapted to be engaged by the projections of said rollers whereby said rollers are maintained in spaced relation throughout a movement thereof between said rails.

[Claims 6 and 7 not printed in the Gazette.]

1,132,750. ELECTRIC SWITCH FOR PORTABLE ELECTRIC LIGHTS. BERNARD TAUBER, New York, N. Y., assignor to Interstate Electric Novelty Co., New York, N. Y., a Corporation of New York. Filed Sept. 27, 1913. Serial No. 792,089. (Cl. 175—282.)

1. A circuit closer switch for a portable electric light comprising a resilient member secured at one end to the casing and at its other or free portion having a part to contact with the battery terminal and adjacent thereto a concave bend forming a pocket at the outer side of said member, and a slide on the exterior of the casing carrying rigidly therewith and within the casing a projection to lie within said pocket when the slide is in its inoperated position and be moved against one side wall of said pocket for forcing said contact part against the battery terminal on the movement of said slide toward its operated position, said casing being slotted to permit the movement of said projection and slide and said slide having an interior recess in line with said slot and one end of the bend in the resilient member being normally projected through said slot and into said recess in the path of said projection.

3. A circuit closer switch for a portable electric light comprising a resilient member secured at one end to the casing and at its other or free portion having a part to contact with the battery terminal and adjacent thereto an inward bend forming a pocket at the outer side of said member, and a slide on the exterior of the casing carrying rigidly therewith and within the casing a projection to lie within said pocket when the slide is in its inoperated position and be moved against the wall of said pocket for forcing said contact part against the battery terminal on the movement of said slide toward its operated position, said casing being slotted to permit the sliding movement of said projection and slide and said resilient member being at one end of the bend therein cut away to reduce its width and at such portion normally projected through said slot.



2. A circuit closer switch for a portable electric light comprising a resilient member secured at one end to the casing and at its other or free portion having a part to contact with the battery terminal and adjacent thereto an inward bend forming a pocket at the outer side of said member, and a slide on the exterior of the casing carrying rigidly therewith and within the casing a projection to lie within said pocket when the slide is in its inoperated position and be moved against the wall of said pocket for forcing said contact part against the battery terminal on the movement of said slide toward its operated position, said casing being slotted to permit the movement of said projection and slide and said slide having an interior recess in line with said slot and one end of the bend in the resilient member being normally projected through said slot and into said recess in the path of said projection.

3. A circuit closer switch for a portable electric light comprising a resilient member secured at one end to the casing and at its other or free portion having a part to contact with the battery terminal and adjacent thereto an inward bend forming a pocket at the outer side of said member, and a slide on the exterior of the casing carrying rigidly therewith and within the casing a projection to lie within said pocket when the slide is in its inoperated position and be moved against the wall of said pocket for forcing said contact part against the battery terminal on the movement of said slide toward its operated position, said casing being slotted to permit the sliding movement of said projection and slide and said resilient member being at one end of the bend therein cut away to reduce its width and at such portion normally projected through said slot.

1,132,751. PORTABLE ELECTRIC LIGHT. BERNARD TAUBER, New York, N. Y., assignor to Interstate Electric Novelty Co., New York, N. Y., a Corporation of New York. Filed Apr. 17, 1914. Serial No. 832,422. (Cl. 175—282.)

1. In an electric flash light of the class described having normally separated circuit terminals to be placed in electrical connection with each other to complete the circuit, circuit closing mechanism for electrically connecting said terminals comprising a chambered casing secured on the shell of the flash light and in electrical connection with one of said terminals, a contact extending from the other of said terminals into the chamber of said casing, a circuit-closer comprising two substantially parallel side-members confined within the chamber of said casing to be closed at their free ends toward each other and against said contact, a manually operative slide on the exterior of said casing in engagement with said circuit-closer, and means whereby the movement of said slide in one direction forces the free ends of said side-members against said contact.



2. In an electric flash light of the class described having normally separated circuit terminals to be placed in electrical connection with each other to complete the circuit, circuit closing mechanism for electrically connected said terminals comprising a chambered casing secured on the shelf of the flash light and in electrical connection with one of said terminals, a contact extending from the other of said terminals into the chamber of said casing, a circuit-closer comprising two substantially parallel side-members confined within the chamber of said casing to be closed at their free ends toward each other and against said contact, a manually operative slide on the exterior of said casing in engagement with said circuit-closer, and means whereby the movement of said slide in one direction forces the free ends of said side members against said contact, said side members being resilient and having a normal tendency to spring outwardly from said contact on the movement of said slide in the opposite direction.

3. In an electric flash light of the class described having normally separated circuit terminals to be placed in electrical connection with each other to complete the circuit, circuit closing mechanism for electrically connecting said terminals comprising a chambered casing secured on the shell of the flash light and in electrical connection with one of said terminals, a contact extending from the other of said terminals into the chamber of said casing, a circuit-closer comprising two substantially parallel side-members confined within the chamber of said casing to be closed at their free ends toward each other and against said contact, a manually operative slide on the exterior of said casing in engagement with said circuit-closer, and means whereby the movement of said slide in one direction forces the free ends of said side-members against said contact and on the movement of said slide in the opposite direction to force said side-members from said contact.

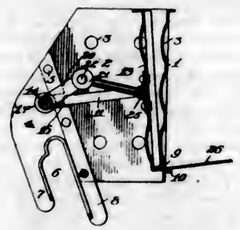
4. In an electric flash light of the class described having normally separated circuit terminals to be placed in electrical connection with each other to complete the circuit, circuit closing mechanism for electrically connecting said terminals comprising a chambered casing secured on the shell of the flash light and in electrical connection with one of said terminals, a contact extending from the other of said terminals into the chamber of said casing, a circuit-closer comprising two substantially parallel side-members confined within the chamber of said casing to be closed at their free ends toward each other and against said contact, a manually operative slide on the exterior of said casing in engagement with said circuit-closer, and means whereby the movement of said slide in one direction forces the free ends of said side members against said contact, said side-members being bowed in opposite directions intermediate their ends, and said means for forcing the free ends of said side members against said contact being adapted to act against said bowed portions on the movement of said slide.

5. In an electric flash light of the class described having normally separated circuit terminals to be placed in electrical connection with each other to complete the circuit, circuit closing mechanism for electrically connecting said terminals comprising a chambered casing secured on the shell of the flash light and in electrical connection with one of said terminals, a contact extending from the other

of said terminals into the chamber of said casing, a circuit-closer comprising two substantially parallel side-members confined within the chamber of said casing to be closed at their free ends toward each other and against said contact, a manually operative slide on the exterior of said casing in engagement with said circuit-closer, and means carried by said slide whereby the movement of said slide in one direction forces the free ends of said side-members against said contact, said side-members being bowed in opposite directions intermediate their ends, and said means for forcing the free ends of said side members against said contact being adapted to act against said bowed portions on the movement of said slide.

[Claims 6 to 10 not printed in the Gazette.]

1,132,752. MOP-WRINGER. CHARLES E. VAN DOORN, Irondequoit, N. Y. Filed July 20, 1914. Serial No. 851,868. (Cl. 15—12.)



1. In a mop wringer, the combination with a fixed jaw and a movable jaw and end walls connected with the fixed jaw, of guides on the fixed jaw and the end walls respectively, the last mentioned guide being located above the bottom of the wringer and above the first mentioned guide, devices on the movable jaw coöperating with said guides to give the movable jaw a parallel movement toward and from the fixed jaw and means for imparting motion to the movable jaw.

2. In a mop wringer, the combination with a fixed jaw having a horizontal slot near the bottom thereof, of a movable jaw having a parallel movement toward and from the fixed jaw, means for imparting motion to the movable jaw and a rigidly connected bottom plate on the latter co operating with the slot in the fixed jaw as a guide.

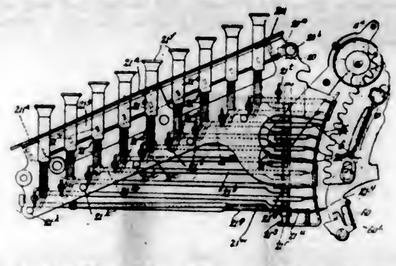
3. In a mop wringer, the combination with a vertically disposed fixed jaw having a horizontal guide near the bottom thereof, of a movable jaw having a parallel movement toward and from the fixed jaw, means for imparting motion to the movable jaw and a rigidly connected bottom plate on the latter coöperating with the guide on the fixed jaw.

4. In a mop wringer, the combination with a fixed jaw having a horizontal slot near the bottom thereof and end walls connected with the fixed jaw and provided with horizontal guides arranged above the said slot, of a movable jaw having a parallel movement toward and from the fixed jaw, means for imparting motion to the movable jaw, devices on the latter coöperating with the guides on the end walls, and a rigidly connected bottom plate on the movable jaw coöperating with the slot in the fixed jaw as a guide.

5. In a mop wringer, the combination with a fixed jaw having a horizontal slot near the bottom thereof and end walls connected with the fixed jaw and also provided with horizontal slots located above the first mentioned slot and subatantially centrally of said end walls, of a movable jaw having a parallel movement toward and from the fixed jaw, means for imparting motion to the movable jaw, devices on the latter coöperating with the slots in the end walls as guides, and a bottom plate on the movable jaw cooperating with the slot in the fixed jaw as a guide.

[Claims 6 and 7 not printed in the Gazette.]

1,132,753. ADDING-MACHINE. CHARLES WALES, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 18, 1908. Serial No. 427,842. (Cl. 235—60.)



1. In a machine of the character described, the combination of a reciprocating actuator having a pass-by abutment piece, and a series of normally retracted stop blades adapted to be projected into the path of said abutment piece to limit the advance movement of the actuator, the abutment piece adapted to pass by a projected stop blade in the return movement of the actuator and then reassume position for abutting the same in advance movement of the actuator.

2. In a machine of the character described, the combination of a reciprocating actuator having a pass-by abutment piece, a series of normally retracted stop blades adapted to be projected into the path of said abutment piece to limit the advance movement of the actuator, the abutment piece adapted to pass by a projected stop blade in the return movement of the actuator and then reassume position for abutting the same in advance movement of the actuator, a normally projected zero stop blade, and means for retracting the latter by projection of one of the first mentioned stop blades.

3. In a machine of the character described, the combination of a reciprocating actuator having a pass-by abutment piece, and a series of normally retracted slide rods having stop blades adapted to be projected into the path of said abutment piece to limit the advance movement of the actuator, the abutment piece adapted to pass by a projected stop blade in the return movement of the actuator and then reassume position for abutting the same in advance movement of the actuator.

4. In a machine of the character described, the combination of a reciprocating actuator having a pass-by abutment piece, a series of normally retracted slide rods having stop blades adapted to be projected into the path of said abutment piece to limit the advance movement of the actuator, the abutment piece adapted to pass by a projected stop blade in the return movement of the actuator and then reassume position for abutting the same in advance movement of the actuator, a slide rod having a zero stop blade normally projected into the path of the abutment piece, and operative connections between such rod and the first mentioned rod for causing retraction of the former by projection of the latter.

5. In a machine of the character described, the combination of a reciprocating actuator having a pass-by abutment piece, a series of normally retracted slide rods having stop blades adapted to be projected into the path of said abutment piece to limit the advance movement of the actuator, the abutment piece adapted to pass by a projected stop blade in the return movement of the actuator and then reassume position for abutting the same in advance movement of the actuator, and depressible keys engaged with the slide rods for advancing and retracting the same.

[Claims 6 to 11 not printed in the Gazette.]

1,132,754. OPHTHALMIC MOUNTING. JOEL C. WELLS, Southbridge, Mass. Filed May 29, 1914. Serial No. 841,814. (Cl. 88—50.)

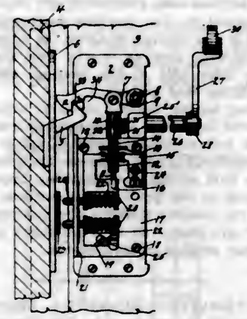
1. The combination with a main guard, of a pad therefor comprising a base plate, an attaching member intermediately secured thereto and projecting therefrom, and separate bearing portions carried by the pad near the ends thereof and extending inward to engage the nose and prevent rotative movement.



2. The combination with a lower bearing member, of an arm extending thereabove, a supporting pad carried by the arm, and a contact point carried by the pad and projecting inward therefrom adjacent each corner thereof for engagement with the nose.

3. In an ophthalmic mounting, an upper holding pad for securing the same in position on the face, said pad being of minimum necessary length to prevent tipping outward of the mounting at the top or outward rotation from the bottom, means carried by the mounting and engaging the pad intermediate the ends thereof for connecting the pad and the mounting, the said pad being relieved at the center whereby the end portions only of the pad contact with the face of the wearer for retaining the mounting, the front edges of the contacting portions being substantially straight to resist to a maximum any rotating movement of the pad about its center.

1,132,755. DOOR-LOCK. BROR E. WESTLIN, Arlington, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 25, 1907. Serial No. 399,100. (Cl. 187—61.)



1. In a door lock, the combination of electrical contacts carried by the door and jamb and movable into engagement when the door is closed, mechanism for locking the door against opening before said contacts are brought into engagement, and means comprising an additional contact device in circuit with said electrical contacts and operated by said mechanism for controlling an electric circuit through said contacts.

2. In a door lock, the combination with electrical contacts on the door and jamb positioned to be engaged when the door is almost closed, of mechanism for locking the door against opening movement before it reaches position to engage said contacts, and operative also to lock the door when fully closed, and means operated by said mechanism to control an electric circuit through said electrical contacts.

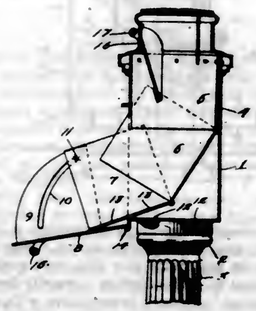
3. In a door lock, the combination with electrical contacts on the door and jamb in position to be brought into engagement as the door approaches its closed position, of mechanism for locking the door against opening movement before the contacts are engaged, and operative also to lock the door in its fully closed position, and means operated by said mechanism to control a circuit through said contacts.

4. In a door lock, the combination with contacts on the jamb and door in position to be engaged as the door approaches its closed position, of a catch, a latch formed with two noses adapted to engage the catch and lock the door against opening movement before and after the contacts have been brought into engagement, and means operatively connected to said latch to control an electric circuit.

5. In a door lock, the combination with a catch on the door, of a pivoted latch supported by the door jamb and formed with two projections positioned to engage the catch respectively before and after the door is fully closed, and electrical contacts carried by the door and latch, respectively, and movable into engagement only after the door is fully closed.

[Claims 6 to 10 not printed in the Gazette.]

1,132,756. MAIL-BOX. ARTHUR B. WISER, Alliance, Ohio, assignor to The Union Metal Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Feb. 21, 1913. Serial No. 749,871. (Cl. 232—53.)



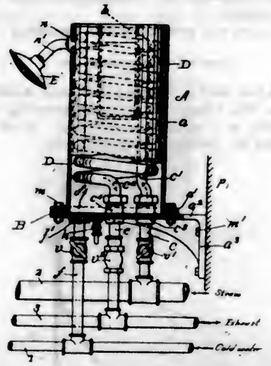
1. In a mail box of the class described, the combination of a box, back and side plates located within the upper portion of the box, mail receiving sections hinged together, the back of the uppermost section hinged to the back plate of the box at its top or upper end and the bottom of the lower mail receiving section hinged to the bottom or lower end of the back of the upper mail receiving section, a door hinged to the front lower portion of the mail box and the bottom of the lower mail receiving section adapted for sliding movement upon the inner face of said door and means for limiting the outward and downward movement of said door.

2. In a mail box of the character described, the combination of a box, mail receiving sections normally located within the box, the upper section hinged to the box at its rear upper corner and the lower mail receiving section hinged to the rear lower corner of the upper mail receiving section, a door hinged to the box, the bottom of the lower mail receiving section adapted for sliding movement upon the inner face of the door, said lower section adapted to rest intermediate its end upon the bottom of the door opening and means for limiting the outward and downward movement of the door.

3. In a mail box of the class described, the combination of a box, a support for said box, means for connecting the box to the support, mail receiving sections hinged together and normally located in the box, the bottom of the lowermost section provided with apertures adapted to register with the box securing means when located within the box and a door hinged to the box and means for moving the mail receiving sections into the box and means for limiting the outward and downward movement of the door, the rear uppermost corner of the upper mail receiving section hinged to the box.

4. In a mail box of the character described, the combination of a box, mail receiving sections normally located within the box, the upper section hinged to the box at its rear upper portion and the lower mail receiving section hinged to the rear lower corner of the upper mail receiving section, a door hinged to the box, the bottom of the lower mail receiving section adapted for sliding movement, said lower section adapted to rest intermediate its ends upon the bottom of the door opening and means for limiting the outward movement of the door.

1,132,757. WATER-HEATER. JOHN H. ASHTON, Providence, R. I. Filed Sept. 23, 1914. Serial No. 863,074. (Cl. 257—229.)



1. A water-heater apparatus comprising a flat, disk-like bottom head, said head having means integral therewith for securing the apparatus to a side wall, a steam heating pipe coil secured to and extending upwardly from said head, said coil adapted to connect respectively with a steam supply and exhaust, means for automatically preventing backflow of vapor or water of condensation into the coil, an inverted hollow cylindrical casing or water tank, said tank fixed water-tight to the upper side of said head and completely enveloping the heating-coil, means connected with said head for supplying water under pressure into the tank to be heated therein by the coil, and means for discharging water from the tank, constructed and arranged whereby the tank is adapted for removal bodily from the bottom head, while all the pipe-joints are intact, thereby rendering the heating-coil easily accessible.

2. In a water heating apparatus of the general character described, the combination of a relatively stationary base head, a steam heating coil secured to said head, a chambered tank or casing enveloping said coil removably secured to the base, the upper portion of said casing being provided interiorly with a fixed longitudinally extending displacement member arranged to reduce the area of the water space at that point to facilitate heating, and having coils of the heater circularly disposed in the space lying between the wall of the said displacement member and the inner surface of the wall of the casing.

3. In a heating device for individual or unitary shower bathing apparatus, a bottom or base flange, said flange having an extension or bracket integral therewith adapted to be secured to a wall or support, a tank for holding water removably secured to said base flange, a steam heating coil having its ends secured in said flange and extending upward in the tank, controlled means for admitting steam under pressure to the heating coil, an automatically operable check valve connected with the exhaust end of the coil to prevent a back flow of condensed steam, vapor, &c., under pressure from entering the coil, and controlled means for admitting water under pressure into the tank and around the heating coil from a source of supply, the said tank being adapted for removal bodily from the said base flange, the latter at the same time having the coil and its connections normally connected therewith.

1,132,758. SELF-LUBRICATING BEARING. LEIGH S. BACHE, Boundbrook, N. J., assignor to The Graphite Lubricating Company, Boundbrook, N. J., a Corporation of New Jersey. Filed July 25, 1913. Serial No. 781,139. (Cl. 64—24.)



1. A bearing having lubricating grooves in opposed halves of the bearing, the grooves of one half terminating in staggered relation between the grooves in the opposed half.

2. A bearing having lubricating grooves arranged in spiral herring-bone formation in opposite halves of the bearing, the herring-bone grooves of one half of the bearing being opposed in their position to the grooves of the opposite half of the bearing whereby the advancing points of the herring-bone grooves in one side of the bearing extend in an opposite direction to those in the opposed half of the bearing.

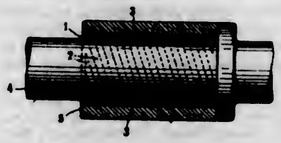
3. A bearing having lubricating grooves in opposed halves of the bearing, the grooves of one half terminating in staggered relation between the grooves in the opposed half and a graphite composition filling said grooves.

4. A bearing having lubricating grooves arranged in spiral herring-bone formation in opposite halves of the bearing, the herring-bone grooves of one half of the bearing being opposed in their position to the grooves of the opposite half of the bearing whereby the advancing points of the herring-bone grooves in one side are opposed to those in the other side of the bearing, and a graphite composition filling said grooves.

5. A bearing having bearing surfaces arranged in herring-bone spiral formation on opposite halves of the bearing and with intermediate grooves of spiral herring-bone formation intermediate said surfaces, the grooves and surfaces of one half of the bearing being opposed in their spiral direction to the grooves and surfaces of the opposite half of the bearing whereby the grooves terminating at each 180° are staggered with reference to each other.

[Claim 6 not printed in the Gazette.]

1,132,759. FLOATING BEARING. LEIGH S. BACHE, Boundbrook, N. J., assignor to The Graphite Lubricating Company, of Boundbrook, N. J., a Corporation of New Jersey. Filed Mar. 17, 1914. Serial No. 825,356. (Cl. 64—24.)



1. A floating bearing comprising a metallic shell having interior grooves and grooves in the exterior of the shell, each set of grooves being completely independent of the other and ununited and terminating within the ends of the shell, and a graphite lubricant filling said grooves.

2. A bearing having a shell and a helical groove extending intermediate the ends of the shell, and isolated pockets formed in continuation of the helices at the ends of the shell and a lubricant filling the grooves and pockets.

3. A bearing having interior grooves and exterior grooves formed in the outer surface of the shell and of helical form and isolated pockets formed in continuation of the helices at the ends of the shell.

4. A bearing having a cylindrical bore and a spheroidal exterior, helical grooves formed in the interior bore and in the exterior spheriodal surface and isolated pockets arranged in continuation of the helical grooves of the exterior surface, said pockets and grooves being filled with a lubricant.

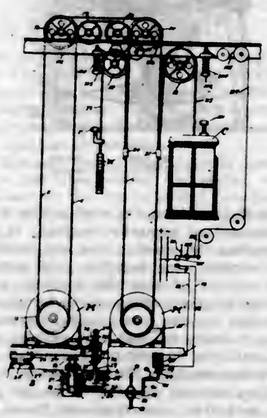
1,132,760. GUARD. NELSON M. BAKER, Southbridge, Mass. Filed Nov. 23, 1914. Serial No. 873,484. (Cl. 88—48.)



1. The process of facing a guard, consisting in forming a blank with an aperture, heating a facing therefor, forcing a portion of the facing while heated through the aperture, and laterally deflecting portions of the facing to secure it in position.

2. The process of facing a guard blade consisting in forming an aperture in the blade, pressing a portion of the facing through the aperture, heating the portion projecting through the aperture and spreading the portion so passed through the aperture while under the influence of heat to prevent its withdrawal when cooled.

1,132,761. ROPE-DRIVE ELEVATOR. ERNEST BORNING, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 17, 1908. Serial No. 468,011. (Cl. 187—22.)



1. The combination with an elevator car, of a driving rope or cable therefor, means for applying tension to the cable, and a fluid motor for relieving the said tension on the cable at a predetermined point in the car travel.

2. The combination with a fixed motor, of a cable forming an endless loop, a movable motor having its drive pulley suspended in a bight of the cable and placing a portion of the weight of the motor on the cable, both of said motors driving said cable, and means for varying the amount of tension placed on the cable.

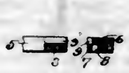
3. The combination with a fixed motor, of an endless cable loop, a movable motor, means comprising said movable motor for applying tension to said cable, and means for automatically releasing the tension on the cable.

4. In elevator controlling apparatus, the combination with an elevator car, of a cable therefor, a fixed motor, a movable motor, means for utilizing the movable motor as a tension weight for said cable, and means for automatically reducing the tension on the cable.

5. In elevator controlling apparatus, the combination with an elevator car, of a rope with ends attached to the top and bottom of said car, a fixed motor, a movable motor, means for utilizing the movable motor as a tension weight for the cable, and means associated with the cable for automatically releasing the said tension.

[Claims 6 to 30 not printed in the Gazette.]

1,132,762. PACKING-RING. EDWARD B. CAMPBELL, St. Louis, Mo. Filed July 6, 1914. Serial No. 849,329. (Cl. 121—108.)



1. A packing ring comprising an open ring, the body of which is substantially rectangular in cross section, two projections of substantially the same length on diagonally opposite corners of one end of said ring and forming two diagonally opposite recesses of substantially the same size, and projections on diagonally opposite corners of the adjacent end of the ring seated in said recesses, substantially as described.

2. A packing ring, comprising an open ring substantially rectangular in cross section, two diagonally opposite projections of substantially the same length on one end of said ring, and two digonally opposite projections of substantially the same length as said first-named projections on the adjacent end of said ring extending above and below said first-named projections, respectively, substantially as described.

3. A packing ring, comprising a resilient open ring, the body of which is substantially rectangular in cross section, two diagonally opposite non-communicating recesses of substantially equal size formed in one end of said ring, and two diagonally opposite projections of substantially the same size on the opposite end of said ring seated in said recesses and forming substantially hermetic joints.

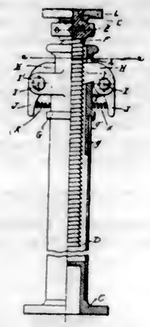
4. A packing ring, comprising a resilient open ring substantially rectangular in cross section, two diagonally opposite projections on one end of said ring forming two diagonally opposite non-communicating recesses, and two diagonally opposite projections formed on the other end of said ring forming two diagonally opposite non-communicating recesses, said projections being seated in said recesses, respectively.

1,132,763. TRENCH-JACK. ADAM H. CLAYMIER, Lake, Wis. Filed Jan. 27, 1913. Serial No. 744,881. (Cl. 254—98.)

1. A trench jack, including the combination with a jack screw, of a tubular fitting adapted to receive said screw, and provided with a set of outwardly projecting ears, a set of elbowed levers pivoted to said ears each with one arm projecting inwardly and adapted to bear upon the fitting, and provided at its extremity with a screw engaging nut segment, and springs interposed between the other ends of said levers and the fitting, said fitting having sufficient thickness and strength to support the inwardly projecting arms of the elbowed levers in close proximity to the screw whereby strain upon the pivotal connection of said levers to the ears is almost wholly relieved.

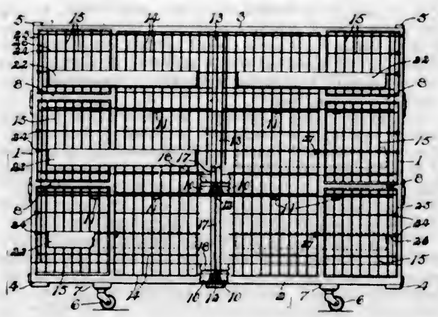
2. A sewer trench jack, comprising the combination with head pieces, each adapted to bear upon the curbing

of a trench, of a hollow spacing member having one end in slip joint connection with one head piece, a fitting in slip joint connection with the other end of said spacing member and provided with slots in opposite sides thereof, a screw having swivel connection with the other head piece



and adapted to slide loosely in said fitting and spacing member, and a set of spring actuated levers pivoted to the fitting and projecting through the slots therein, the inner ends of said levers being threaded and constituting nut segments, adapted to engage the screw, substantially as described..

1,132,764. POULTRY-COOP. BYRON DANLEY, St. Johns, Mich. Filed Sept. 14, 1912. Serial No. 720,323. (Cl. 119—17.)



1. In a poultry battery, the combination of a rectangular frame comprising side sills, corner and intermediate posts, spaced end strips connecting the corner posts, and transverse strips between the intermediate posts, wire grating forming the sides of the structure, end walls, transverse walls of wire between the intermediate posts, woven wire strips dividing the interior of the frame into horizontal tiers of compartments and extending from end to end of the structure, strips secured to the ends of the woven wire strips, adjustable means carried by said corner posts and engaging the said strips on the wire strips to stretch the wire strips longitudinally, and trays slidable between the spaced end strips beneath the woven wire bottoms and abutting the transverse strips between the intermediate posts.

2. In a poultry crate, a structure divided into horizontal tiers of compartments, a pair of trays movably mounted in the outer ends of pairs of the compartments of said structure and having their inner ends terminating at a point centrally of said structure whereby said trays form the bottom of each pair of compartments, and adjustable woven wire strips extending from one end of said structure to the opposite end thereof above each pair of trays.

3. In a poultry crate, a structure having posts connected by foraminous walls, strips of inter-woven wires horizontally disposed within said structure and adjustably supported by said posts, transverse division strips supporting said inter-woven wire intermediate the ends thereof; foraminous partitions supported between said strips of inter-woven wire and having the upper and lower edges connected to said division strips; and dividing said structure into a plurality of superimposed compartments, and trays movably supported beneath said strips of inter-woven wire.

4. In a poultry crate, the combination with a structure comprising posts and sides, ends and a top, of a bottom formed by a strip of woven wire, foraminous partitions having the lower edges thereof held in engagement with the strip of woven wire; bars secured to the ends of said strip, bolts engaging openings in said bars and openings in said posts, and nuts in the outer ends of said bolts to draw the same through the openings in said posts and stretch the woven wire strip.

5. In a poultry crate, a structure having posts connected by foraminous walls, strips of inter-woven wire horizontally disposed within said structure and supported by said posts, foraminous partitions having the lower edges thereof extending through said inter-woven wire; means extending through said posts to adjust and facilitate stretching the said strips of wire, and trays movably supported beneath said strips of wire.

1,132,765. COIL-TAPING MACHINE. WILLIAM DEATS, Yonkers, N. Y. Filed Oct. 1, 1907. Serial No. 395,367. (Cl. 242—6.)

1. In a winding machine, the combination with a winding ring composed of separable sections, of a carrying frame surrounding the winding ring and holding the sections of the winding ring together, said carrying frame being also composed of separable sections, a clamp for connecting together the sections of the frame, and a latch device controlled by the clamp and operated upon the release of said clamp to hold the sections of the ring symmetrical with the sections of the frame.

2. In a winding machine, the combination with a winding ring, of an annular carrying frame for guiding and holding the said ring, said ring and frame both being composed of sections separable at a plane passing through the axis of the ring, clamping mechanism for holding the sections of the frame together and the ring closed, and a latch device operated upon the release of said clamp to hold the sections of the ring symmetrical with the sections of the frame and permit the insertion of an article to be wound.

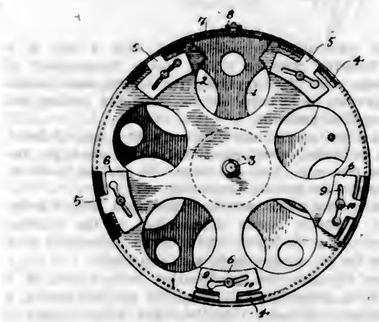
3. In a winding machine, the combination with a winding ring, of an annular frame surrounding the ring and forming a guiding and holding means therefor, said ring and frame being composed of pivoted sections, mechanism tending to open the frame and ring, and a clamp to hold the ring and frame normally closed.

4. In a winding machine, the combination with a sectional winding ring or bobbin, of a sectional carrying frame forming a guide for said ring, a spring hinge for the sections of the frame, and a device for holding the sections of said frame normally together in closed position against the action of said spring hinge.

5. In a winding machine, the combination with a winding ring, of an annular frame surrounding the ring, said ring and frame each being composed of separate sections divided equally, a spring tending to separate the sections at a predetermined point, a clamping device for holding said sections normally together in closed position, and an extension from said clamping device co-acting with a notch in said ring to hold the sections of the latter in a symmetrical position with respect to the sections of the frame to permit the insertion of an article to be wound inside of said ring.

[Claims 6 to 39 not printed in the Gazette.]

1,132,766. ADJUSTABLE FILM-REEL. MICHAEL G. DELANEY, Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio, a Corporation of Ohio. Filed Feb. 21, 1914. Serial No. 820,214. (Cl. 242—70.)



1. A film reel having side plates in spaced relation, a spring rim with overlapped ends lying between the marginal portions of the plate, means for securing the overlapping ends in adjusted relation, and lateral extensions on the rim in adjustably interlocked relation with one of the plates with one of the sides.

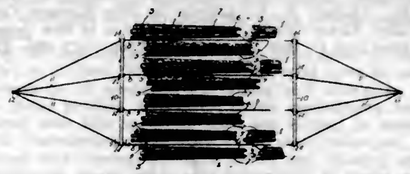
2. In a film reel having side plates in spaced relation, a collapsible rim lying between the plates, extensions integrally formed on the rim in sliding interlocked relation with one of the plates, the end portions of the rim lying in overlapped relation, and means for securing the overlapped ends in adjusted position, the connections between the extensions and contiguous plate maintaining the rim in substantially concentric position.

3. In a film reel having side plates in spaced relation, a collapsible rim with overlapped ends that lies between the marginal portions of the plate, lateral extensions on the rim loosely-engaging marginal recesses in one of the side plates and having sliding engagement with the face of the plate, means on the latter plate detachably securing the plate and contiguous portions of the rim, and means for securing the overlapped ends in adjusted relation.

4. A film reel having a pair of side plates in spaced relation, studs on one of the plates, a collapsible rim with overlapped portions that lies between the plates, extensions of the rim bent to have sliding engagement with the face of the plate and provided with oblique slots engaged by the studs, and means for securing the overlapping end portions in adjusted relation.

5. In a film reel having side plates in spaced relation, a collapsible rim of spring material having overlapped slotted end portions, means engaging the slotted end portions for securing them in adjustable relation, lateral extensions of the rim bent to bear against a face of one of the plates with which they have sliding engagement, and projections on the plate interlocking with guide slots on the extensions for defining the motion of the rim and maintaining it substantially in concentric relation in the reel.

1,132,767. METHOD AND APPARATUS FOR RAFTING LOGS. CHARLES E. EVANS, Weed, Cal. Filed Nov. 9, 1914. Serial No. 870,948. (Cl. 9—15.)



1. A raft comprising a plurality of units arranged one behind the other, each unit consisting of a plurality of cables held in substantially parallel relation, and a plurality of pairs of bundles of logs secured to each cable, said pairs being arranged one behind the other.

2. A logging raft comprising a pair of transversely arranged logs, a plurality of cables secured to said logs and arranged parallel to each other, towing lines extending from a common point to said logs and secured thereto adjacent to the respective points of attachment of said cables, and bundles of logs secured to said cables and arranged to occupy substantially the entire area represented by said transverse logs and cables.

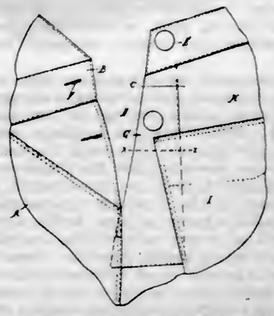
3. A log bundle comprising a plurality of substantially parallel logs, means for spacing certain of said logs apart intermediate the ends thereof, and binding means at each end of said bundle holding the ends of the individual logs closer together than they would be if unrestrained, whereby certain of said logs are sprung slightly and tend to fly apart, thus maintaining the tension of said binding means and insuring the integrity of the bundle as a whole.

4. A log bundle for rafts consisting of a core, a plurality of logs arranged concentrically about said core and projecting beyond both ends thereof and means for binding the ends of said logs together.

5. A log bundle comprising a plurality of logs arranged side by side in the form of a hollow cylinder, means for binding said logs together at the ends thereof and a core arranged intermediate said ends and large enough to maintain said binding means under considerable tension.

[Claims 6 and 7 not printed in the Gazette.]

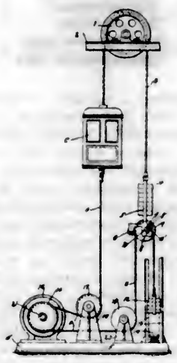
1,132,768. GARMENT. WILLIAM M. FINCK, Detroit, Mich. Filed Jan. 9, 1912. Serial No. 670,188. (Cl. 2—143.)



A garment provided with front and rear flaps forming the opposite sides of the placket, a reinforcing plank of

substantially trapezoidal form, the base of said blank extending below the placket and being stitched to the garment, said blank at one side being stitched for a portion of its length to one flap of the placket, its other side being stitched throughout its entire length to the other flap, and a pocket constituting a reinforcing member stitched to the last mentioned flap and overlying said reinforcing strip and being stitched thereto.

1,132,769. TRACTION-ELEVATOR. ERNEST L. GALE, Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 17, 1907. Serial No. 379,500. (Cl. 187—22.)



1. In an elevator, the combination of a car, a rotatable driving element, a flexible member having a fixed connection at one end to the bottom of the car, a weight connected to the free end of the flexible member for maintaining it under tension and in frictional engagement with the driving element, and means to remove said tension and allow the driving element to rotate independently of the flexible member when the elevator reaches its limit of travel.

2. In an elevator, the combination with a car, of a flexible member connected to the car, a motor having a driving element frictionally engaging the flexible member, means for holding the flexible member under tension, means between the motor and tension means for preventing the flexible member being retracted against the action of the tension means, and a connection between said second-named means and the car.

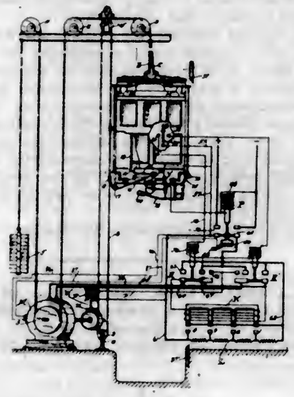
3. In an elevator, a car, a flexible driving member therefor, a take-up device with which the flexible member engages, and movable therewith, means for moving the flexible member relatively to the take-up device in one direction to take up slack in the flexible member, and means to prevent such relative movement in a reverse direction.

4. In an elevator, the combination with a car, of a counterweight, a cable uniting the car and counterweight, a flexible driving member having one end connected to the car and movable therewith, a take-up device carried by the counterweight and with which the flexible driving member engages, means to move the flexible member relatively to the take-up device in one direction, and means to prevent such relative movement in a reverse direction.

5. In a take-up device, a frame having slots or openings, a rotatable member eccentrically journaled in said slots or openings, a second rotatable element journaled in the frame in position to coöperate with the eccentrically journaled member, said eccentric member being movable in the slots to a position permitting rotation of the eccentric member.

[Claims 6 to 9 not printed in the Gazette.]

1,132,770. SAFETY DEVICE FOR ELEVATORS. ERNEST L. GALE, Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 11, 1908. Serial No. 426,436. (Cl. 187—29.)



1. In an elevator, the combination with a car, of a motor, a hoisting cable, a brake, means independent of the hoisting cable for applying the brake, and means held inoperative by tension on the cable for locking the brake in applied position.

2. In an elevator, the combination with a car, of hoisting cables, a brake, speed controlled means to apply the brake, and means to lock the brake in applied position, upon release of tension on the cables.

3. In an elevator, the combination with a car, of hoisting cables, a brake, means independent of the hoisting cable for applying the brake, and a device associated with said cables for automatically locking the brake.

4. In an elevator, the combination with a car, of a motor, driving connections between the car and motor, a brake, appliances for operating the brake independently of said driving connection, and means controlled by said driving connections for locking the brake in operated position.

5. In an elevator, the combination with a car, of a motor, a cable, a brake, speed controlled brake operating mechanism, and means controlled by the cable for locking said mechanism.

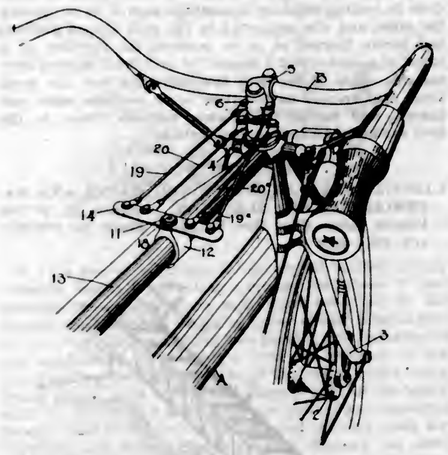
[Claims 6 to 30 not printed in the Gazette.]

1,132,771. STEERING-WHEEL CONTROL. JOHN P. HANDY, Long Prairie, Minn. Filed Jan. 8, 1913. Serial No. 740,756. (Cl. 208—114.)

1. In a machine of the class described, comprising a frame, a steering wheel and handle bar, means for controlling the steering wheel from the handle bar, comprising independent rotatable supports for the steering wheel and handle bar in alinement with each other, a leverage connection between the handle bar and steering wheel supports, and intermediate anchorage for said connection upon the frame of the machine back of the handle bar.

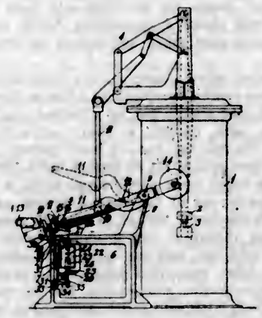
2. In combination with a machine of the class described, comprising a frame, steering wheel, and handle bar, means for controlling the steering wheel from the handle bar, comprising independent rotatable supports for the steering wheel and handle bar, an equalizing cross bar supported by the frame, and leverage connections between said cross bar and said handle bar and steering wheel supports.

3. In combination with a machine of the class described, comprising a frame, a stering wheel, and handle bar, means for controlling the steering wheel from the handle bar, comprising independent rotatable supports for the wheel and handle bar, a cross bar fulcrumed upon the frame, and relatively offset connections between said cross bar and steering wheel and handle bar supports.



4. In combination with a machine of the class described, comprising a frame, a steering wheel, and handle bar, independent rotatable supports for said steering wheel and handle bar, a cross bar fulcrumed upon the frame at the rear of the handle bar, connections between the outer ends of the cross bar and handle bar support, and connections between said cross bar and steering wheel support inwardly offset from said first mentioned connections.

1,132,772. CIRCUIT-INTERRUPTER. FORD W. HARRIS, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 5, 1910. Serial No. 595,638. (Cl. 175—272.)



1. The combination with a circuit interrupter, and an operating mechanism therefor, of a tripping device for releasing said operating mechanism and comprising a magnet having coöperating stationary and movable cores that are normally held together magnetically, and means operatively connected to the movable core of said magnet and to the operating mechanism, under predetermined operating conditions for lifting said movable core to release said operating mechanism.

2. The combination with a circuit interrupter, an operating mechanism and means for holding the same in circuit-closing position, of mechanical releasing means normally dependent upon said operating mechanism and independent of gravity, and electro-responsive means for opposing the releasing action of said mechanical means, said mechanical releasing means being interposed between said operating mechanism and said electro-responsive means under predetermined operating conditions.

3. The combination with a circuit interrupter and an operating mechanism therefor, of resilient means operatively connected to said operating mechanism only under predetermined operating conditions and tending to release said mechanism, and means operatively connected to said resilient means and dependent upon predetermined circuit conditions for restraining the action of said resilient means.

4. The combination with a circuit interrupter, an operating mechanism therefor and an operating lever for said mechanism, of means for restraining said mechanism in its closed position, mechanical means mechanically associated with said operating lever and tending to release said restraining means only when said interrupter is closed, and electro-responsive means for opposing said mechanical means when said interrupter is closed and predetermined circuit conditions obtain.

5. The combination with a circuit interrupter and an operating mechanism therefor, of means for restraining said mechanism in its closed position, spring-actuated means associated with said mechanism and tending to release said restraining means only when said interrupter is closed, and an electromagnet to oppose the action of said spring-actuated means under predetermined voltage conditions.

[Claims 6 to 8 not printed in the Gazette.]

1,132,773. ROLLER WINDOW-SCREEN. WILLIAM HENRY HASKINS, San Jose, Cal. Filed July 15, 1913. Serial No. 779,127. (Cl. 156—39.)

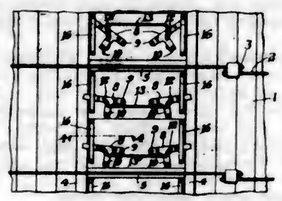


1. In a rolling window screen the combination of a roller having one end portion thereof reduced in diameter with an actuating spring disposed thereon and an axle rod member secured in each end thereof, and a holder for said screen roller having a recess formed therein adapted to receive said diminished end portion of said roller, and having countersunk notches formed in the edge thereof and a segment removed from one side thereof, and means independent of said holder located within the space of said removed segment adapted to engage and hold one end of said spring as shown and describe.

2. In a rolling window screen the combination of a roller having one end portion thereof reduced in diameter with an actuating spring disposed thereon and an axle rod member secured in each end thereof, and a holder for said roller having a slot cut through the body thereof extend-

ing from the center to the outer edge thereof and being of greater width on one face thereof than on the other, and a metallic key bent and formed in such a manner as to fit into said slot when said holder is in position, and adapted to be retained therein, substantially as shown and described.

1,132,774. DOOR-FASTENING DEVICE FOR SILOS. ELBERT E. HAWKINS, UNADILLA, N. Y. Filed June 13, 1914. Serial No. 844,858. (Cl. 20—1.4.)



1. In a device of the character stated, a suitable frame providing an opening the sides of which are beveled toward the outer side of said frame, a door correspondingly beveled and adapted to seat within said opening, keepers fixed to said door at opposite sides thereof, and providing a face inclined to said door, a latch for each keeper pivoted to said door and having a tongue adapted to pass between said keeper inclined face and the door and overlap said frame, each latch having an arched portion provided with a cam slot, and a bail pivoted at each end to said door and passing through the respective cam slots of said latches whereby movement of said bail in one direction forces said latches into engagement with said inclined faces to draw said door outwardly into the opening provided.

2. In a device of the character stated, a suitable frame providing an opening the sides of which are beveled toward the outer side of said frame, a door correspondingly beveled and adapted to seat within said opening, keepers fixed to said door at opposite sides thereof, and providing a face inclined to said door, a latch for each keeper pivoted to said door and having a tongue adapted to pass between said keeper inclined face and the door and overlap said frame, each latch having an arched portion provided with a cam slot, a bail pivoted at each end to said door and passing through the respective cam slots of said latches whereby movement of said bail in one direction forces said latches into engagement with said inclined faces to draw said door outwardly into the opening provided, and a brace member between said door and each latch for supporting said latch and bail when said bail is used as the rung of a ladder.

3. In a device of the character described, a door frame having an opening larger on the inside than on the outside, combined with a door adapted to close said opening from inside outward, a pair of latches hinged to the door and respectively extending outward on opposite sides therefrom to engage the door frame upon its outer side, said latches each having a slotted arch shaped portion and a downwardly extending strut from said arch shaped portion sliding upon the front of the door and acting as a brace, a U-shaped bail having its arms hinged to the door and extending through the slots of the latches to move them in locking the door in position as well as in opening the same and also supported by the arch shaped portions and struts thereof so as to perform the function of a round in a ladder, and a keeper for each latch secured near the side edges of the door and extending over the latch arms.

4. In a device of the character described, a door frame having an opening larger on the inside than on the outside, combined with a door adapted to close said opening from inside outward, a pair of latches hinged to the door and respectively extending outward on opposite sides therefrom to engage the door frame upon its outer side, said latches each having a slotted arch shaped portion and a downwardly extending strut from said arch shaped portion sliding upon the front of the door and acting as a brace, a U-shaped bail having its arms hinged to the door and extending through the slots of the latches to move them in locking the door in position, as well as in opening the same, and also supported by the arch shaped portions and struts thereof so as to perform the function of a round in a ladder, and a keeper for each latch secured near the side edges of the door and extending over the latch arms, said keepers having their inner surfaces made cam shaped, and having their lower portions closer to the door surface than their upper portions.

1,132,775. ROTATABLE INCLINED WATER AND MATERIAL LIFTING ELEVATOR. ADOLPH W. HILLE, Denver, Colo. Filed Nov. 11, 1913. Serial No. 800,411. (Cl. 103—43.)



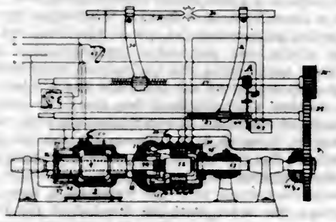
1. An inclined water and material lifting elevator comprising a tubular casing, a spiral flange secured to the inner peripheral wall of said tube, said flange comprising a limb of an angular member, one limb of which is secured to the inner peripheral wall of said tubular casing, and the other limb forms said flange and projects at an obtuse angle from the inner wall of said tube, a spiral conveyer of plate form having the same spiral pitch as said flange, screwed into said tube and in mesh against said spiral flange, a shaft extending through the axial center of said screw conveyer, means for securing said tube and screw conveyer to said shaft, a supporting frame arranged to rotatably support said shaft, and means for rotating said elevator.

2. In a hollow screw conveyer, the combination with a tubular inclined casing, having man holes at intervals and cap plates for said man holes, of a helical angle strip secured within said casing, a shaft extending axially through and beyond the end of said casing, an endless plate wound upon said shaft to form a helix, the marginal edge of which bears upon said helical strip, a bar which bridges the lower end of the casing having an aperture through which the lower end of said shaft passes loosely, said end being threaded, and a nut screwed upon said shaft against said bar, said bar being knife-edged on opposite edges, a roller supported adjacent to said casing, a flared band surrounding said casing, the lowermost point of which contacts with said roller, and means for rotating said casing.

3. In a hollow screw conveyer, a shaft, a spirally wound strip on said shaft having an outwardly flaring upper edge, which forms in conjunction with the shaft a spiral groove or thread, and an endless plate wound about said shaft to form a helix, the upper edge of said plate being inturned upon itself to enter said spiral groove.

4. In a hollow screw conveyer, a revoluble tubular casing, a helical angle strip inserted in said casing and secured thereto to form a thread, a helix in said casing engaging said thread, a shaft extending through said helix, means for securing said helix to the shaft, and means for clamping said helix to said thread.

1,132,776. HORIZONTAL ARC-LAMP. HENRY W. HOSBS, Portland, Me. Filed Feb. 24, 1910. Serial No. 545,626. (Cl. 176—73.)



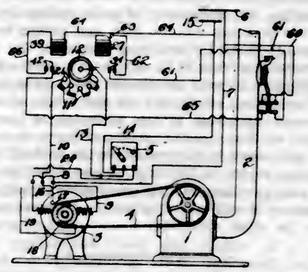
1. In a electric regulator, an arc circuit including lamp elements, means for effecting a gradual movement of said elements to or away from each other according as the current through them varies, a motor circuit independent of the arc circuit comprising two motors, the armature of one motor fixed to and rotary with one element of the other motor, the other element of the latter motor being freely rotary, some of the field magnet coils of the latter motor in circuit with said lamp and mechanism connected between said freely rotary element and said arc lamp for adjusting said lamp when the current through the same varies, and a starting box, the solenoid of which is energized from the arc circuit, whereby, when the arc circuit is opened, said solenoid is automatically deenergized, the motor circuit is opened and further movement of the regulating mechanism is arrested.

2. In an electric regulator, an arc circuit including lamp elements and means for effecting an abrupt measured separation of said elements, in combination with a motor circuit comprising two motors, the armature of one motor fixed to and rotary with one element of the other motor, the other element of the latter motor being freely rotary, some of the field motor coils of the latter motor being energized from the motor circuit and wound to oppose the coils in shunt to the arc, some of the field magnet coils of the latter motor being energized from the motor circuit, some of the field magnet coils of the latter motor in circuit with said lamp and mechanism connected between said freely rotary element and said lamp for adjusting said lamp elements when the current through the same varies, and an adjustable resistance located in the motor circuit and connecting with the field coils of one of the motors, whereby the apparatus can be so set that it will maintain any desired voltage across the arc.

3. In an electric regulator, an arc circuit including lamp elements, means for effecting a gradual movement of said elements to or away from each other according as the current through them varies, a motor circuit independent of the arc circuit, comprising two motors, the armature of one motor fixed to and rotary with one element of the other motor, the other element of the latter motor being freely rotary, some of the field magnet coils of the latter motor in circuit with said lamp, mechanism connected between said freely rotary element and said lamp for adjusting said lamp elements when the current through the same varies, and means operable by the opening of the arc circuit to open the motor circuit and arrest further movement of the adjusting mechanism.

1,132,777. AUTOMATIC PRESSURE-CONTROLLER. CHESTER S. JENNINGS, Brookline, Mass., assignor to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Sept. 19, 1906. Serial No. 335,210. (Cl. 230—24.)

1. In an automatic pressure controller, the combination of an air-transmission tube, a pump communicating with said tube, an electric motor for driving said pump, a variable resistance in circuit with said motor, and means for regulating the resistance of said motor circuit comprising two auxiliary motors with one acting to increase the resistance in said circuit and the other for diminishing the resistance in said circuit, and means controlled from substantially but a single point by the pressure in said air-transmission tube for selecting and singly operating one or the other of said auxiliary motors according to the variation of pressure in said tube, so that one of said auxiliary motors when selected will increase the resistance in said circuit when the pressure varies in the tube in one direction, and the other of said auxiliary motors, when selected will diminish the resistance in said circuit when the pressure in the tube varies in the other direction.



2. In an automatic pressure controller, the combination of an air-transmission tube, a pump communicating with said tube, an electric motor for driving said pump, a variable resistance in circuit with said motor, and means for regulating the resistance of said motor circuit comprising two auxiliary motors with one substantially invariably acting, whenever operative, to increase the resistance in said circuit and the other for similarly diminishing the resistance in said circuit, and means controlled by pressures in said air-transmission tube of but one sign, atmospheric pressure being regarded as zero for the purpose of determining said sign, said means adapted to select and operate one or the other of said auxiliary motors according to the change of pressure in said tube either way from a determined normal pressure to be maintained therein, so that one of said auxiliary motors when selected will increase the resistance in said circuit when the pressure varies in the tube in one direction, and the other of said auxiliary motors when selected will diminish the resistance in said circuit when the pressure in the tube varies in the other direction.

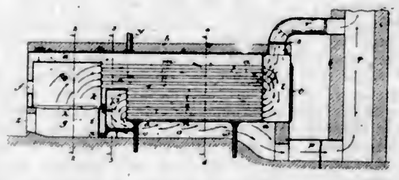
3. In an automatic pressure controller, the combination of an air-transmission tube, a pump communicating with said tube, an electric motor for driving said pump, a variable resistance in circuit with said motor, and means for regulating the resistance of said motor circuit comprising two auxiliary motors with one acting to increase the resistance in said circuit and the other for diminishing the resistance in said circuit, and means controlled by the pressure in said air-transmission tube for selecting and operating one or the other of said auxiliary motors while leaving the other idle, according to the variation of pressure in said tube, so that one of said auxiliary motors when selected will increase the resistance in said circuit when the pressure varies in the tube in one direction, and the other of said auxiliary motors when selected will diminish the resistance in said circuit when the pressure in the tube varies in the other direction, said motors having provisions for gradually varying said resistance substantially regardless of violent and sudden variations in pressure in said tube.

4. In an automatic pressure controller, the combination of an air-transmission tube, a pump communicating with said tube, an electric motor for driving said pump, a variable resistance in circuit with said motor, and means for regulating the resistance of said motor circuit comprising two auxiliary motors, independently driven with respect to said pump, with one acting to increase the resistance in said circuit and the other for diminishing the

resistance in said circuit, and means controlled by the pressure in said air-transmission tube for selecting and operating one or the other of said auxiliary motors according to the variation of pressure in said tube, so that one of said auxiliary motors when selected will increase the resistance in said circuit when the pressure varies in the tube in one direction, and the other of said auxiliary motors when selected will diminish the resistance in said circuit when the pressure in the tube varies in the other direction.

5. In an automatic pressure controller, the combination of an air-transmission tube, a pump communicating with said tube, an electric motor for driving said pump, a variable resistance in circuit with said motor, and means for regulating the resistance of said motor circuit comprising two auxiliary motors with one acting to increase the resistance in said circuit and the other for diminishing the resistance in said circuit, and a device controlled by the pressure in said air-transmission tube for selecting and operating singly one or the other of said auxiliary motors according to the variation of pressure in said tube, so that one of said auxiliary motors when selected will increase the resistance in said circuit when the pressure varies in the tube in one direction, and the other of said auxiliary motors when selected will diminish the resistance in said circuit when the pressure in the tube varies in the other direction.

1,132,778. STEAM-BOILER AND FURNACE. THEODORE KERNER, Milwaukee, Wis. Filed July 11, 1910. Serial No. 571,328. (Cl. 122—74.)



1. In a steam boiler and furnace the combination of the boiler shell, an inclosure forming a flue along the lower part and outside of the shell, a flue chamber at the rear end of the boiler, a fire box at its front end, a flue chamber adjacent to its front end communicating with said flue, upper flues extending lengthwise through the shell from the fire box to the rear flue chamber, lower flues extending lengthwise through the shell from the rear flue chamber to the front flue chamber, and an escape flue leading out of said lower outside flue which is of greater area in cross section than the combined cross sectional area of the lower internal flues.

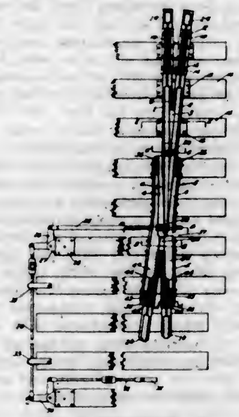
2. In a steam boiler and furnace the combination of the boiler shell having an internal fire box at the front end and a flue chamber in the lower part thereof adjacent to the fire box, a flue chamber at the rear end, an inclosure forming a longitudinal flue along the outside and lower part of the shell in communication with the front flue chamber, an escape flue leading from said flue, upper flues extending through the boiler from the fire box to the rear flue chamber, and lower flues extending through the boiler from the rear flue chamber to the front flue chamber, said outside flue being of greater cross sectional area than all the lower internal flues and serving as a soot separating and smoke arresting chamber.

3. In a steam boiler and furnace the combination of the boiler shell having a transverse flue chamber in the lower part thereof adjacent to the front end, a fire box adjacent to and extending above said chamber, a flue chamber at the rear end of the boiler, an inclosure forming a longitudinal flue along the lower part and outside of said shell in communication with the front flue chamber, flues extending through the boiler from the fire box to the rear flue chamber, return flues extending through the boiler from the rear flue chamber to the front flue chamber, an escape flue leading from said lower outside flue and a valve controlled direct flue connection with the rear escape flue chamber, said outside flue being of greater cross sectional area than all said return flues and serving as a soot separating and smoke arresting chamber.

4. In a steam boiler and furnace the combination of the boiler having an internal fire box at the front end, a flue chamber at the rear end and a transverse flue chamber in the lower part behind the fire box and separated therefrom by a water leg, an ash pit below the fire box, an inclosure forming a longitudinal flue along the lower part and outside of the boiler in communication with the front flue chamber, a water back between the ash pit and the lower outside flue and below said water leg, a circulating connection between said water back and water leg, a feed water connection with the water back, flues extending through the boiler from the fire box to the rear flue chamber, return flues extending through the boiler from the rear flue chamber to the front flue chamber, and an escape flue leading from said lower outside flue, said outside flue being of greater cross sectional area than all of said return flues.

5. In a steam boiler and furnace the combination of a boiler having a fire box at the front end, a flue chamber at the rear end and a transverse flue chamber in the lower part adjacent to the fire box, an inclosure forming a flue along the lower part and outside of the boiler communicating at one end with the front flue chamber, upper flues extending through the boiler from the fire box to the rear flue chamber, return flues extending through the boiler from the rear flue chamber to the front flue chamber, an escape flue having branches extending downwardly around the rear flue chamber and communicating at their lower ends with the lower outside flue, and a valve controlled direct draft opening between said escape flue and the rear flue chamber.

1,132,779. FROGLESS SWITCH FOR RAILWAYS. CHARLES H. KRAUSS, Birmingham, Ala., assignor to Morrison Frogless Switch Company, Birmingham, Ala., a Corporation of Alabama. Filed Sept. 8, 1914. Serial No. 860,820. (Cl. 104—99.)



1. In a frogless switch, the combination of a frog point having divergent rail treads, means to connect said treads to track rails, a track structure with which said movable frog point co-acts and which has divergent treads connected to track rails, and an anti-friction bearing interposed between the frog point and the track structure, as and for the purposes described.

2. The combination with a track structure having divergent rail treads, of a movable frog point having its free end supported on said structure, tread surfaces on said structure with which said frog point is adapted to make a lap joint, a roller bearing connected to the underside of the movable frog point, and a transverse bearing face on the track structure which said roller bearing engages, substantially as described.

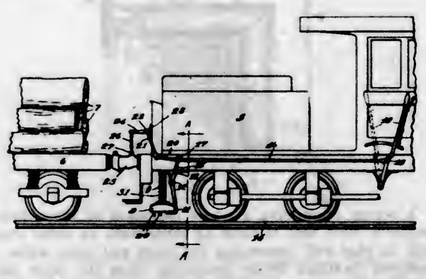
3. In a frogless switch mechanism, a track structure having at each side divergent treads, track rails connected to said treads at one end, a movable frog point adapted to make a lap joint with one or the other of the treads at the other end of the structure, said treads at the latter end of the structure forming a pocket which receives the frog point, a bearing connected to the underface of the frog point, a roller mounted in said bearing, and a transverse vertical end wall of the track structure which is adapted to form a track for the roller and prevent the frog point jamming in said pocket, substantially as described.

4. A track structure comprising an integral casting having divergent treads which are continuous from end to end of the casting, a base connecting the divergent treads at one end and forming with them a pocket, a tapering frog point having its free end supported on said base and adapted to make a lap joint with one of the other of the side treads of said pocket, a transverse slot in the base of said pocket, operating connections for the point comprising a throw rod, brackets mounted on the throw rod and adapted to slidingly engage the base of the track structure and arms of the brackets which project upwardly through said slot on each side of the frog point, and cross bolts to rigidly attach said bracket arms to the frog point, substantially as described.

5. In a track structure having divergent tread members at one end, a pocket for receiving a movable frog point, said pocket having side treads, which form continuations of said divergent treads, and a transversely slotted base, one or more brackets having vertical arms connected to the side of the frog point and extending down through the slot in said base, and a throw rod connected to the horizontal members of said bracket or brackets which are held in sliding engagement with the under wall of the track structure to take the friction wear and hold down the frog point in sliding engagement with the pocket base, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,132,780. CAR-DERAILING DEVICE. ANDREW P. LE DOUX, Sultan, Wash. Filed Aug. 22, 1914. Serial No. 858,016. (Cl. 104—161.)



1. In a car derailing device of the class described, the combination with the tender of a railroad locomotive, of a car derailing block, means for releasably supporting said derailing block at the rear end portion of the tender of said locomotive in a position above and adjacent to the rails upon which said locomotive travels, coupling means between the tender and adjacent car, actuating means connected with said releasable supporting means and extending therefrom to a position within the cab of said locomotive, said actuating means further being connected with the coupling means whereby one may operate said releasable supporting means to drop said derailing block on the rails upon which said locomotive travels, and simultaneously uncouple the tender and adjacent car.

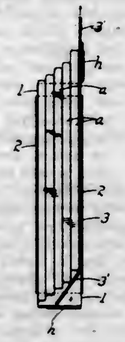
2. In a car derailing device of the class described, the combination with the tender of a railroad locomotive, of a car derailing block; means for releasably supporting said derailing block at the rear end portion of the tender of said locomotive in a position above and adjacent to the rails upon which said locomotive travels; releasing means connected with said releasable supporting means and extending therefrom to a position within the cab of said locomotive; a car coupling pin for coupling a car to the rear end of the tender of said locomotive; mechanism associated with said car coupling pin and with said releasing means whereby when said releasing means is actuated to release and drop said derailing block then said car coupling pin shall be raised to uncouple said locomotive from a car.

3. In a car derailing device of the class described, the combination with the tender of a railroad locomotive, of guiding pins disposed to extend downwardly from said tender; helical compression springs each disposed to surround one of said guiding pins, a derailing block provided with holes into which said guiding pins may be inserted to cause the upper surface of said derailing block to engage with the lower ends of said compression springs to compress them; and releasable means for normally supporting said derailing block in a position to compress said compression spring.

4. The combination with the tender of a railroad locomotive, of a derailing block positioned rearwardly thereof, means carried by the tender for supporting the block, block-actuating means for the supporting means, and car coupling mean sassociated with the block-actuating means whereby the block is dropped on the track simultaneously with the uncoupling of the cars.

5. The combination with the tender of a railroad locomotive, of a derailing block positioned rearwardly thereof, studs carried by said tender slidably engaging said block, means carried by the tender for supporting the block, means associated with said studs adapted to hold the block positioned on the supporting means therefor, and actuating means for the supporting means whereby the block is positioned transversely of the track.

1,132,781. CHEWING-GUM PACKAGE. CLARENCE LILE, Granite City, Ill. Filed May 1, 1914. Serial No. 835,689. (Cl. 206—46.)

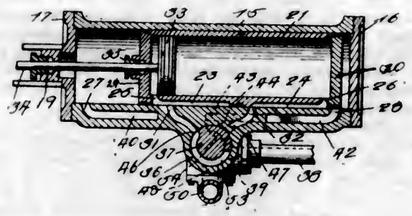


1. In combination with a package comprising an outer sealed wrapper and an inner series of articles engaging one another, a member interposed between a terminal article of the series and the adjacent wall of the wrapper, said member having one end maintained in close contact with the sealed portion of the wrapper and between said sealed portion and the articles aforesaid, the breaking of the wrapper at the seal permitting the seizing of the end of the member aforesaid and the subsequent withdrawal of said member, for the purpose set forth.

2. In combination with a package comprising an outer sealed wrapper and an inner series of articles packed side by side and having their terminals covered by the sealed ends of the wrapper, a strip interposed between a terminal member of the series of articles and the wall of the wrapper and terminating in flaps folded against the ends of the articles and confined between said ends and the sealed terminals of the wrapper and maintained in close contact with said terminals, whereby upon the breaking of the wrapper one of the flaps may be seized and a draft exerted on said strip to start the articles out of the wrapper.

3. In a package of the character described and provided with a wrapper sealed at one end, a loose member in the wrapper confined wholly within the wrapper in close contact between the sealed end aforesaid and the contents of the package the edge of said member being disposed close to the wrapper walls whereby the member may serve to shear the wrapper walls adjacent the seal with the breaking of the wrapper at a point beneath said member.

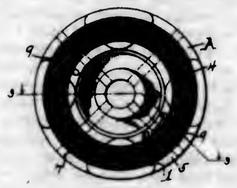
1,132,782. STEAM-ENGINE. ELIAS LUGINBUHL, Norwood, Ohio. Filed June 10, 1914. Serial No. 844,233. (Cl. 121—41.)



1. An engine comprising a closed cylinder, a second cylinder slidable therein and provided adjacent each end with an inlet port, a piston slidable within said second named cylinder, said piston and said second named cylinder having operable connection with a crank shaft, a casing connected with said first named cylinder and provided with independent parallel passages communicating with ports adjacent the ends of said first named cylinder, a valve revolubly mounted within said casing and provided with passages for establishing communication between said parallel passages and exhaust ports in said casing, said casing being further provided with a steam inlet passage, said valve being provided with a passage adapted to establish communication between said inlet passage and with ports communicating with said first named cylinder, said last named ports being adapted to communicate with the ports in said second named cylinder at different stages of the movement of said second named cylinder, said valve being further provided with passages for establishing communication between each of said parallel passages and said second named ports.

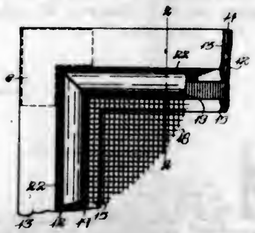
2. An engine comprising a closed cylinder, a second cylinder slidable therein and provided upon its lower side with a pair of passages extending substantially half its length and each communicating with the interior of said second named cylinder adjacent its ends, a piston slidable within said second named cylinder, said piston and said second named cylinder having operable connection with a crank shaft, a valve casing connected with said first named cylinder and provided with passages communicating with said first named cylinder adjacent its ends, a valve revolubly mounted within said casing and operably connected with said crank shaft, said valve being provided with passages for establishing communication between said second named passages and exhaust ports in said casing, said casing being provided with a convolute passage adapted to establish communication between said inlet passage and ports formed in said first named cylinder, said valve being provided with a passage for establishing communication between one of said ports and one of said second named passages and provided with an additional passage for establishing communication between the other of said ports and the other of said second named passages, said ports being adapted to communicate with said first named passages at different stages of the strokes of said movable cylinder and said piston.

1,132,783. ELECTROMAGNET. WILLIAM D. LUTZ, Allendale borough, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 19, 1912. Serial No. 715,704. (Cl. 175—338.)



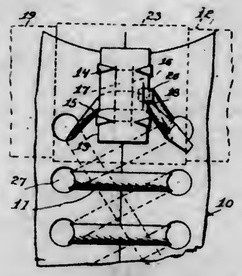
In an electromagnet, the combination of oppositely disposed members each comprising a base, an iron sleeve surrounding the base and formed with projecting pole pieces, said sleeves being formed with spaces in the body of the ring between the pole pieces and breaking the continuity of the magnetic path between adjacent pole pieces, said spaces being arranged to alternate in the said members.

1,132,784. METALLIC SCREEN. CHARLES H. MCGEE, Portland, Me., assignor to Champion Metal Weather Strip and Parting Bead Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 21, 1914. Serial No. 820,171. (Cl. 156—14.)



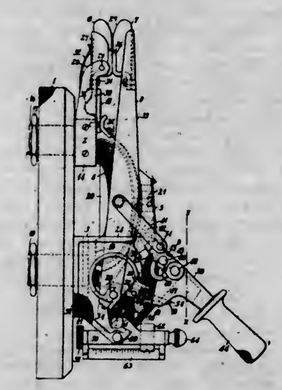
A screen comprising a frame composed of sheet metal members, each bent to form an inner wall, an outer wall, and an edge wall connecting the inner and outer walls, a resilient clamping flange projecting from the inner side wall and a resilient locking flange projecting from the outer side wall, said flanges projecting in opposite directions and forming the sides of a longitudinal throat, a sheet of screen material bent at its edges over the said clamping flanges and confining strips formed to enter said throats and having clamping faces coöperating with the clamping flanges in securing the screen material and locking faces having shoulders adapted to engage the locking flanges to lock the confining strips to the frame, the frame flanges and the faces of the confining strips being inclined, and the said clamping faces being adapted to be tipped outwardly to disengage their shoulders from the locking flanges.

1,182,785. CLASP. CHARLES W. MCGINLEY, Plainfield, N. J. Filed Apr. 18, 1913. Serial No. 762,032. (Cl. 24—121.)



A clip including a single elongated length of spring metal having one end formed with a longitudinal struck-up tongue, said tongue being bowed in length, the opposite end of said length being bent back upon the first named end and formed with a longitudinal slot receiving said tongue, a portion of said tongue arching through said slot, tabs on the side edges of said slotted portion of said length bearing against the portion carrying said tongue, fastening means for the last named portion of said tab, and there being a tab struck from one end edge of said slot and bearing terminally upon the tongue and exerting a pressure against the tongue to increase the clamping pressure exerted by the tongue.

1,132,786. CIRCUIT-INTERRUPTER. JOSEPH N. MAHONEY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 16, 1912. Serial No. 678,124. (Cl. 175—282.)



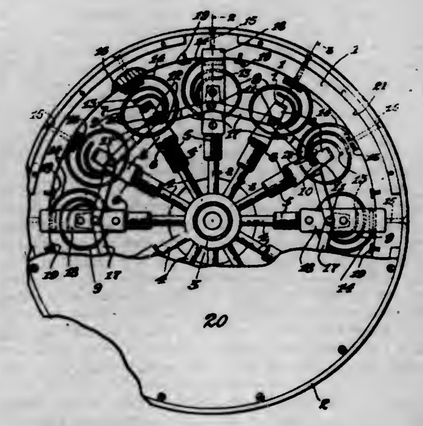
1. In a circuit interrupter, the combination with a plurality of stationary contact members, a plurality of co operating movable contact members, and separate supporting arms for said movable members, of separate operating toggles for said arms, a single operating handle for said toggles, means for releasing one of said toggles, and a lost-motion pin and slot connection between said toggles for permitting one of said toggles to remain set while the other is collapsing and for subsequently releasing the same to allow of its collapse.

2. In a circuit interrupter, the combination with a plurality of stationary contact members, a plurality of co-operating movable contact members, and separate supporting arms for said movable members, of an operating handle, an operating toggle between said handle and one of said arms, means for latching said toggle, a plurality of links for associating said handle with the other arm, one of said links having a slot therein, a pin associated rigidly with said handle and projecting into said slot for permitting the collapse of said links subsequent to the release of said latching means.

3. In a circuit interrupter, the combination with a plurality of stationary contact members, a plurality of co-operating movable contact members, separate supporting arms for said movable members, a fulcrum shaft and an operating handle mounted thereon, of a link joining one of said arms with said handle to form an underset toggle, a plurality of toggles on opposite sides of said handle and said arms and joining said fulcrum shaft with the second arm and embodying links severally pivoted on said shaft and having circular slots therein concentric with said shaft, pins on said handle projecting into coöperative engagement with said slots, and means on said links for oversetting said toggles.

4. In a circuit interrupter, the combination with a plurality of coöperating movable and stationary contact members, two supporting arms for said movable contact members, of separate operating toggles for said arms, a single operating handle for said toggles, and a lost-motion pin and slot connection between said toggles for permitting the toggles to be upset or collapsed at relatively different times.

1,132,787. VEHICLE-WHEEL. AUBY J. MANSFIELD, Seattle, Wash. Filed Apr. 15, 1914. Serial No. 831,969. (Cl. 152—49.)



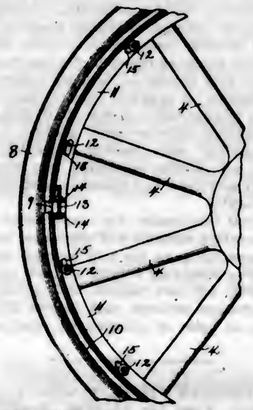
1. In a spring wheel construction, a hub, a rim encircling the hub, rigid spoke sections fixed on the hub, a furcated support on each spoke section, said support having the extremities of its furcations turned inwardly to form abutments, and springs interposed between the supports and the rim, each spring convolving about and being normally free of the abutments of its respective support.

2. In a spring wheel construction, a hub, a rim encircling the hub, rigid spoke sections fixed on the hub, a furcated support on each spoke section, said support having the extremities of its furcations turned inwardly to form abutments, a coiled spring mounted intermediate its ends between the furcations of each support, the ends of the spring terminating outwardly from the abutments of the support and in spaced relation with one another, and means for fastening the springs to the rim.

3. In a spring wheel construction, a hub, a rim encircling the same, rigid spoke sections fixed on the hub, furcated supports threaded on the spoke sections, springs interposed between the supports and the rim, means secur-

ing the springs between the furcations of the supports, links connecting the adjacent supports, and a guard plate on each side of the wheel for inclosing the springs and the supports.

1,132,788. PNEUMATIC TIRE. ALONZO C. MATHER, Chicago, Ill. Filed May 19, 1913. Serial No. 768,546. (Cl. 152—17.)



1. In a device of the class described, a tire of an inherent stable shape, mounted on a wheel, an outer casing of flexible material fitted to envelop said tire, clencher edges on said outer casing, flat rings mounted on either side of the wheel felly, provided with hook shaped edges to engage said clencher edges of the outer casing, said flat rings provided with a plurality of elongated perforations, fastening devices secured to the wheel felly and slidingly engaging in said perforations to secure said rings to the felly and permit circumferential and radical movement of the rings with respect to the felly and means for forcing said flat rings radically toward the center of the wheel to pull the outer casing tightly over the said tire.

2. In a device of the class described, a tire of an inherent stable shape, mounted on a wheel, an outer casing of flexible material fitted to envelop said tire, rings mounted on either side of the wheel felly engaging the edges of said casing, said rings provided with a plurality of elongated perforations, fastening devices secured to the wheel felly and slidingly engaging in said perforations to secure said rings to the felly and permit circumferential and radical movement of the rings with respect to the felly and means for forcing said rings radically toward the center of the wheel to pull the outer casing tightly over the tire.

1,132,789. BUG-TRAP FOR BEDS. CANIO MECCO, Brooklyn, N. Y., assignor of one-fourth to Bartolo Ruggiero, one-fourth to Nazzareno Coseznza, and one-fourth to Guiseppe Disimoni, Brooklyn, N. Y. Filed May 19, 1914. Serial No. 839,502. (Cl. 43—22.)



1. A bug trap, comprising an oblong frame open at the top and bottom and provided with end clips adapted to engage the opposite rails of a bedstead, and an oblong receptacle composed of openwork material and adapted to be inserted into said frame, said receptacle being provided with a hinged cover.

2. A bug trap, comprising an oblong frame of openwork material and provided at its ends with attaching devices adapted to be connected with the opposite rails of a bedstead, and an openwork receptacle adapted to be passed into said frame through an end thereof and provided with a hinged cover.

3. A bug trap, comprising an oblong frame of openwork material and provided at its ends with attaching devices adapted to be connected with the opposite rails of a bedstead, and an openwork receptacle adapted to be passed into said frame through an end thereof and provided with a hinged cover and containing fibrous material.

1,132,790. GARBAGE-INCINERATOR. GUSTAVE A. OVERSON, International Falls, Minn. Filed June 10, 1914. Serial No. 844,243. (Cl. 110—8.)



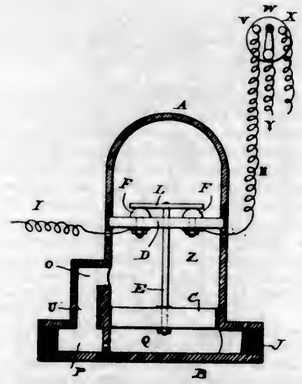
1. A garbage incinerator comprising a casing having a vertical oval shaped chamber to receive the waste matter and a fire chamber disposed below said first chamber and having upwardly converging side walls and the upper end thereof opening into the lower extremity of said first chamber, a grate interposed between said chambers, a frusto-conical shaped hood seated upon the upper end of said first chamber and closing the latter and formed with a door opening therein, doors closing said opening and capable of swinging movement to open and closed positions, and a stack connected with the relatively small end of said hood and upstanding therefrom.

2. A garbage incinerator comprising a casing having a vertically disposed substantially oval-shaped chamber, to receive the waste matter, and a fire chamber disposed below said first chamber and having upwardly converging side walls and the upper end thereof opening into the lower end of said first chamber, and a grate across the opening between said first-named chamber and said second-named chamber acting to support the waste matter in the first-mentioned chamber and break up the gases issuing from the fire chamber so that such gases will pass around the waste material and heat the walls of the first-mentioned chamber to distil the gases off from the waste material and consume such distilled gases.

1,132,791. AUTOMATIC STOPPING DEVICE. JOSEPH PAGANO, Memphis, Tenn. Filed Nov. 17, 1913. Serial No. 801,562. (Cl. 177—317.)

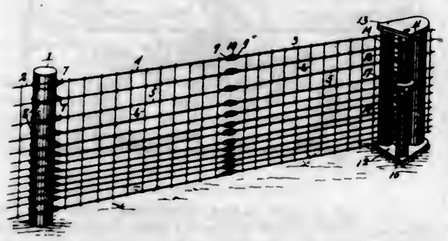
1. In a short circuiting device for explosive engines having ignition circuits the combination of a chamber for oil provided with an inlet, an outlet, and a drain opening into said outlet of a less capacity than said inlet; a float in said chamber; contacts adapted to be controlled by said float; and short circuiting connections for the ignition circuit joined to said contacts, substantially as described.

2. In a short circuiting device for explosive engines having ignition circuits the combination of a chamber provided with a float, an inlet, an outlet and a drain opening coacting with said float; a support within said chamber provided with a pair of contacts; a ground connection for one of said contacts; a connection between the other of said contacts and said ignition circuit; means carried by said float for joining said contacts and grounding said ignition circuit when said float reaches a predetermined position; and means comprising a switch for breaking said last mentioned connection and cutting out said contacts when it is desired to start the engine, substantially as described.



3. In a short circuiting device for engines having ignition circuits, the combination of a chamber adapted to contain the lubricating oil for the engine; an inlet for said oil adapted to be connected with a pump; an outlet for said oil adapted to be connected with the lubricating system; a drain from said chamber into said outlet having a capacity less than that of said inlet; a float; contacts controlled by said float; and connections with said contacts adapted when said float is in a predetermined position to short circuit the current through said ignition circuit, substantially as described.

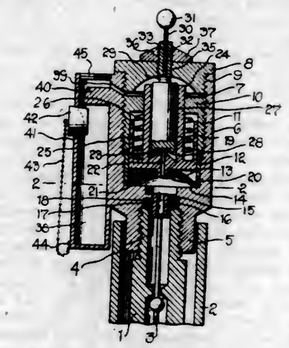
1,132,792. GATE FOR WIRE FENCING. JOHN WALLACE PAGE, Adrain, Mich. Filed June 3, 1912. Serial No. 701,193. (Cl. 39—101.)



1. A gate of flexible wire fabric, comprising a plurality of sections jointedly connected, a post, means for hinging the end of one of said sections to said post, a rotary post having projecting pins adapted to engage the section at the free end of the gate, means for rotating said post to place a longitudinal strain upon the gate, and means for locking the gate under longitudinal tension.

2. A gate composed of flexible wire fabric, and comprising a plurality of sections, the end of one section being hinged to a stationary post, means for connecting the sections together to effect a hinged joint, a rotatable post, a plurality of pins in the said post for engaging the end of the said gate, and means for turning the said post to draw the sections thereof into longitudinal alinement.

1,132,793. ALARM. JOSEPH B. POLO, Clear Lake, S. D. Filed Feb. 28, 1914 Serial No. 821,721. (Cl. 116—1.)



1. A device of the class described comprising the combination with a valve stem and valve positioned therein, of a casing mounted upon said valve stem, means carried by the casing for retaining the valve in open position to allow air from the valve stem to enter the casing, a diaphragm within said casing, means carried by the diaphragm for reciprocating movement in said casing, said means having an opening whereby air within said casing may enter said means, a substantially stationary valve member within said means for preventing escape of air from said means when the latter is in normal position, signal mechanism carried by said casing, and means engaged with the second mentioned means for moving the latter longitudinally of the casing to permit air to pass the valve member and cause operation of the signal mechanism upon decrease of the air pressure within the valve stem and casing.

2. A device of the class described comprising a casing adapted to be secured to a valve stem, means carried by the casing for retaining the valve in the valve stem in open position, a thimble within said casing, a diaphragm within said casing, means for securing the diaphragm in position, said thimble being connected with the diaphragm and adapted to be moved thereby in one direction, a substantially stationary valve member within said thimble, said thimble having an air inlet opening, a cylinder carried by said casing, an air passage connecting the interior of the cylinder with the interior of the casing, a lip within said cylinder adjacent said air passage, said cylinder being provided with an air passage, said cylinder being provided with an air escape opening adjacent said lip, the air pressure from the valve stem pressing against one face of the diaphragm and serving to retain the latter and the thimble in normal position, and means engaged with the thimble for forcing said thimble and diaphragm toward one end of the casing to permit the air to pass the valve member and travel into the cylinder and pass the lip to the atmosphere to give an audible signal upon decrease of the air pressure.

3. A device of the class described comprising a casing, a diaphragm within said casing, said casing having one end open to permit air to enter said casing and operate upon one face of the diaphragm to retain the same in normal position, means for securing the edge of the diaphragm against movement, a thimble secured to said diaphragm, said thimble having a circular flange surrounding its body portion and spaced from the same, a nut within said casing, the body portion of said thimble being slidably engaged through said nut, a valve member within said thimble, said thimble having an air inlet opening, valve means within the thimble for engagement against the air inlet opening when said thimble is in normal position, said valve means serving to close the end of the thimble and prevent air from escaping from said thimble when the latter is in normal position, a cylinder connected with said casing, said cylinder having an air

escape opening, a lip adjacent said air escape opening, and means between the body portion and circular flange of the thimble to cause movement of said thimble and diaphragm in one direction to permit the air to pass the valve means and lip to give an audible signal upon decrease of the air pressure against the diaphragm.

4. A device of the character described comprising a casing having a chamber in its main portion, means for closing the outer end of said casing, the inner end of said casing being reduced and adapted for engagement with a valve stem, means within said reduced inner end of the casing to retain the valve in the valve stem in open position, a diaphragm within the chamber, a thimble within said chamber and connected with the diaphragm, and provided with an opening to afford communication with the chamber at the opposite side of the diaphragm, means for guiding the thimble longitudinally of the chamber, a substantially stationary valve member within said thimble, said casing having an air escape opening, a lip adjacent said air escape opening, and means for forcing the thimble and diaphragm in one direction upon decrease of the air pressure against said diaphragm, said valve member being of a transverse diameter less than the similar diameter of the bore of the thimble.

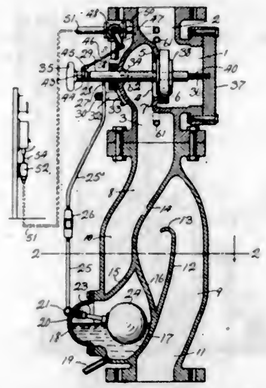
1,132,794. FRUIT-PICKER. LULA E. PORTER, Pawhuska, Okla. Filed June 25, 1914. Serial No. 847,254. (Cl. 56—99.)



A fruit picking device comprising a receptacle including rigid side members and flexible end connecting members, a pair of coöperating horizontal knives mounted on the upper ends of the side members, pivotally connected links pivotally connected to the ends of the knives, and crossed and pivoted operating handles secured to the side members.

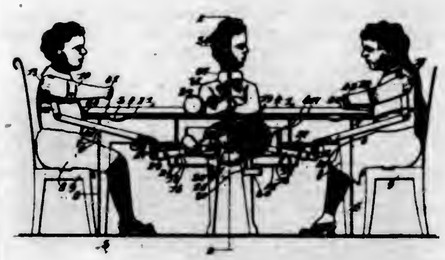
1,132,795. SAFETY APPLIANCE FOR STEAM-ENGINES. WILLIAM T. ROBINSON, Ethel, W. Va. Filed Oct. 25, 1913. Serial No. 797,311. (Cl. 83—90.)

A device of the class described including a body casting having a central vertical wall therein provided with an opening, said casting having chambers arranged upon opposite sides of the central wall and having communication through the opening, a reciprocating valve rod mounted in one side of the casting, a valve carried by said rod and adapted to close the opening in the central wall, a guide pin slidably received within one end of the valve rod which has its outer end mounted in one wall of the casting, a coil spring upon said guide pin adapted to bear against the inner end of the valve rod to retain the valve in its closed position, the outer end of said valve rod having an annular groove therein, a separating chamber within the lower end of the body casting, a float therein, a crank shaft connected with the float, a latch bar having one end connected with the crank shaft and the other end adapted for engagement within the groove



in the valve rod to normally retain the valve in an open position against the tension of said spring, and said float being adapted to actuate the latch bar to disengage the same from the groove, and permit of outward reciprocation of the valve rod to close the valve.

1,132,796. TOY. DOMENICO RONCONI, Chicago, Ill. Filed Nov. 12, 1913. Serial No. 800,624. (Cl. 46—40.)



1. In a toy, a table having longitudinal runway, a toy figure mounted at each end of the table, each of said toy figures including a movable arm, a ball on the table adapted to be projected by the movable arms from one end toward the other, a motor mechanism, coöperative connections between said motor mechanism and the figure arms for imparting timed motion to said arms to alternately push the ball from one end of the table toward the other, and a third figure located along the side of the table and having a pivoted head, and a coöperative connection between said head and said first mentioned figure, operating mechanism for turning said head in the direction in which the ball is rolling.

2. In a toy, a table having longitudinal runway, a toy figure mounted at each end of the table, each of said toy figures including a movable arm, a ball on the table adapted to be projected by the movable arms from one end toward the other, a motor mechanism, coöperative connections between said motor mechanism and the figure arms for imparting timed motion to said arms to alternately push the ball from one end of the table toward the other, said last named means including a cam, levers engaging said cam and operatively connected with said arms, and a spring continuously tending to pull said levers toward said cam, said cam having steps to effect a quick release of said levers under the action of said spring, and a third figure located along the side of the table and having a pivoted head, and a coöperative connection between said head and said first mentioned figure, operating mechanism for turning said head in the direction in which the ball is rolling.

3. In a toy of the class described, a table, a toy figure located at each end of the table, each of said toy figures including a pivoted arm, mechanism for alternately actuating the pivoted arms of the respective figures, a projectile on the table adapted to be pushed by contact with said arms from one end toward the other upon operation of the respective arms, and means for limiting the travel of said projectile to a rectilinear direction, said actuating mechanism including a clock works mechanism provided with a cam rotatable in a vertical plane, and connections between the arms of each of said figures and said cam, and a single spring for holding all of said connections in engagement with the cam.

4. In a toy of the class described, a table, a toy figure located at each end of the table, each of said toy figures including a pivoted arm, mechanism for alternately actuating the pivoted arms of the respective figures, a projectile on the table adapted to be pushed by contact with said arms from one end toward the other upon operation of the respective arms, and means for limiting the travel of said projectile to a rectilinear direction, said last named means comprising a groove in the table, said table having depressions or pockets adjacent to the ends of the groove in which said projectile is adapted to rest, said actuating mechanism including a clock works mechanism provided with a cam rotatable in a vertical plane, and connections between the arms of each of said figures and said cam, and a single spring for holding all of said connections in engagement with the cam.

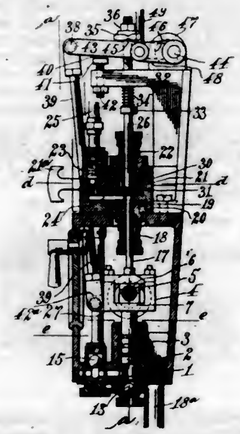
5. In a toy of the class described, a table, a toy figure located at each end of the table, each of said toy figures including a pivoted arm, mechanism for alternately actuating the pivoted arms of the respective figures, a projectile on the table adapted to be pushed from one end toward the other upon operation of the respective arms, and means for limiting the travel of said projectile to a rectilinear direction, and a third figure mounted adjacent to the table, said third figure including a rigid body having a neck pocket, and a head having a neck projected into said pocket, a pivot on which said head is mounted, and a connection between said head and the mechanism that operates said figure arms for turning said head toward one of said end figures or the other according to the direction of motion of said projectile.

[Claim 6 not printed in the Gazette.]

1,132,797. OIL-PUMP FOR DIESEL ENGINES. CLAUDE RORABECK, Dayton, Ohio. Filed Apr. 19, 1913. Serial No. 762,301. (Cl. 123—139.)

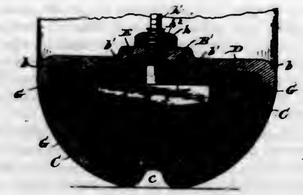
1. In a pump of the type specified, a cylinder, a piston therein, a discharge valve, a combined inlet and regulating valve, a lever actuated by said piston to positively open said combined inlet and regulating valve during the entire suction stroke of the piston, and a lever subject to variable movement and actuated by said piston to open the combined inlet and regulating valve during the discharge stroke of the piston, substantially as specified.

2. In a pump of the type specified, the combination of a pump chamber having a piston therein and a discharge valve, of a combined inlet and regulating valve, a lever adapted to positively actuate said combined inlet and regulating valve during the suction stroke of the piston, and another lever of a different class from said first named lever having an adjustable fulcrum and adapted to positively and variably open said combined inlet and regulating valve during the latter part of the discharge



stroke of the piston, said levers being actuated by the piston, substantially as specified.

1,132,798. CUSHION-TIRE. ADOLPH SCHICK, Wheeling, W. Va. Filed June 17, 1913. Serial No. 774,216. (Cl. 152—6.)

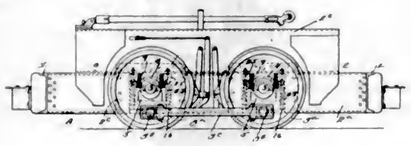


1. In a vehicle wheel, the combination of a rim having a central channel part and narrow outstanding flanges at its edges, of a rubber tire having a central continuous channel therein, the bottom walls of the channel constituting securing flaps extending crosswise of and resting against the rim, said securing flaps having flat upper faces and thickened parts at their inner edges extending into the said central channel of the rim and separated from each other to form a space, fastening devices having heads of a width to pass through the spaces between the flaps and of a length substantially the width of the channel, the heads of the fastening devices being adapted to bear against the top of the securing flaps throughout substantially the full width of the same, a screw stem on the heads of the fastening devices passing through the rim, and a nut for drawing the fastening devices on to the flaps.

2. In a vehicle wheel, the combination of a rim having a central channel part and narrow outstanding flanges at its edges, of a rubber tire having a central continuous channel therein, the bottom walls of the channel constituting securing flaps extending crosswise of and resting against the rim, said securing flaps having flat upper faces and thickened parts at their inner edges extending into the said central channel of the rim and separated from each other to form a space, fastening devices having heads of a width to pass through the spaces between the flaps and of a length substantially the width of the channel, the heads of the fastening devices being adapted to bear against the top of the securing flaps throughout

substantially the full width of the same, a screw stem on the heads of the fastening devices passing through the rim, a nut for drawing the fastening devices on to the flaps, reinforcing means in the said flaps extending into the body of the tire, and a metal band in the outer part of said central channel interposed between the heads of the fastening devices and the upper wall of the central channel of the tire.

1,132,799. LOCOMOTIVE. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Mar. 7, 1910. Serial No. 547,837. (Cl. 105—259.)



1. In an electric locomotive, the combination of the side frame having a downward directed opening and a horizontal flange above the opening, the pedestals attached to the frame at the opening, the said pedestal extending under the flange and having guides inclined downward and inward toward each other, inclined gibs engaging the guides, screws engaging the gibs and the flange and having operating heads above the flange, and a vertically movable journal box engaging the gibs, substantially as set forth.

2. In an electric locomotive the combination of the side frame having a downward directed opening with vertical edges, the guide frame having a vertical flange attached to the outer face of the frame at the opening, and also downward and inward inclined guides extending within the opening, vertically adjustable gibs fitting the guides, and a journal box engaging the gibs, substantially as set forth.

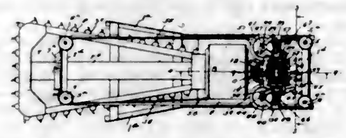
3. In an electric locomotive, the combination of the side frame having a downward directed opening, a guide frame comprising pedestals and extending partly around the opening and attached to the frame and extending within the opening where it is provided with guides, a brace, dowels inserted in the brace and in the lower ends of the pedestals, bolts passing through the brace and dowels and into the pedestal, vertically adjustable gibs engaging the guides, and a journal box engaging the gibs, substantially as set forth.

4. In a locomotive, the combination of the main frame consisting of structural steel parts having integrally connected pedestals fastened to the frame, journal boxes positioned between the pedestals and movable longitudinally of the locomotive, two separate wedge-shaped box-engaging adjusting devices for each box movable independently of each other along lines crossing the horizontal plane of the box axis, means for positively moving either of the said adjusting devices independently of the other in either direction and for independently locking each adjusting device after vertical adjustment whereby the box can be positively moved horizontally forward or backward upon opposite vertical movements of the adjusting devices and positively locked in adjusted position, axles in the said journal boxes, crank pins connected with the axles, and connecting rods between the crank pins of adjacent axles.

5. In a locomotive, the combination of a frame, having each side made up of superposed rolled steel sections, the lower of which is interrupted to provide spaced openings, bearing pedestals independent of the frame but secured thereto at the said openings, bearing boxes connected with the said pedestals for vertical movement, means for adjusting the boxes horizontally relative to the pedestals, axles upon which the boxes are mounted, supporting wheels for the axles, crank pins on the wheels, and connecting rods between the crank pins of adjacent wheels, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,132,800. MINING-MACHINE. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Sept. 3, 1910. Serial No. 580,410. (Cl. 125—14.)



1. In a mining machine, the combination of a stationary frame, a carriage guided for movement with respect to the frame along fixed straight lines, a motor, a winding drum driven by the motor, a rope extending longitudinally at one side of the machine and having one end wound on the drum and the other end secured at the opposite side of the machine, and two transversely separated sheaves over which the rope is guided between its ends, the said guides causing the rope when wound to draw longitudinally upon the carriage at two points substantially equidistant from the longitudinal axis of the carriage.

2. In a mining machine, the combination of a stationary frame, a carriage guided for movement with respect to the frame along fixed straight lines, a motor on the carriage, a winding drum on the carriage driven by the motor, a rope extending longitudinally from the carriage at one side thereof and having one end wound on the drum and the other end secured to the carriage at the opposite side thereof, and two transversely separated sheaves on the frame over which the rope is guided between its ends, the said guides causing the rope when wound to draw longitudinally upon the carriage at two points substantially equidistant from the longitudinal axis of the carriage.

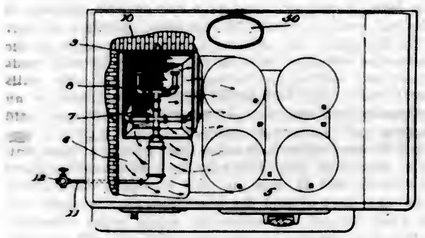
3. In a mining machine, the combination of a stationary frame, a carriage guided for movement with respect to the frame along fixed straight lines, a motor on the carriage, a winding drum on the carriage driven by the motor, a rope extending longitudinally from the carriage at one side thereof and connected to the drum to be wound thereon, rope-guiding devices mounted on the main frame and symmetrically disposed with respect to the longitudinal axis of the carriage, and means for connecting the other or free end of the rope to the carriage at the side opposite to that from which it initially extends whereby the rope applies a longitudinal moving force to the carriage at two points substantially equidistant from the longitudinal axis thereof.

4. In a mining machine, the combination of a stationary frame, a carriage guided for movement with respect to the frame along fixed straight lines, a motor on the carriage, a winding mechanism mounted on the carriage and connected to be driven by the motor, a rope engaging the said winding mechanism, rope-guiding and securing devices arranged to hold the rope in position along two parallel lines substantially equidistant from the longitudinal axis of the carriage, whereby the rope when wound serves to apply two equal advancing forces to the carriage on opposite sides of the longitudinal axis thereof, a second winding mechanism mounted on the carriage and also connected to be driven by the motor, a second rope engaging the said second winding mechanism, and other rope-guiding and securing devices arranged to hold the second rope in position along two parallel lines equidistant from the longitudinal axis of the carriage, whereby the rope when wound serves to apply two equal retracting forces to the carriage on opposite sides of the longitudinal axis thereof.

5. In a mining machine, the combination of a stationary frame, a carriage guided for movement with respect to the frame along fixed straight lines, a motor, two symmetrically disposed drums on opposite sides of the carriage, means for optionally connecting one or the other of said drums with the motor, guide pulleys upon the stationary frame, a rope wound upon one drum and extending over a guide pulley at one end of the frame to a point of attachment at the opposite side of the carriage from its drum, and a second rope wound upon the other drum and extending over a guide pulley at the other end of the frame to a point of attachment at the opposite side of the carriage from its drum.

[Claims 6 to 11 not printed in the Gazette.]

1,132,801. OIL-BURNER. HENRY F. SHARP, South San Francisco, Cal. Filed Oct. 23, 1914. Serial No. 868,171. (Cl. 158—53.)



1. In an oil burner, the combination with a supply pipe having a controlling valve, of an expansion chamber at one end of said supply pipe, a plurality of closed gas forming members communicating with said expansion chamber, and a plurality of gas burner nozzles positioned intermediate said chamber and gas forming members adapted to direct their flames against said gas forming members and receive a supply of gas from both of said gas forming members and expansion chamber.

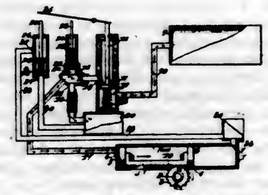
2. In a heater, in combination, a drip pan, a baffle positioned thereabove, and a substantially horizontally disposed oil burner positioned above said drip pan comprising an expansion chamber provided with a supply pipe, gas forming members communicating therewith, and a plurality of burner nozzles interposed between the expansion chamber and gas forming members adapted to direct the flames past said gas forming members against the baffle from which they are deflected toward said expansion chamber.

3. In a heater, in combination, a vertically disposed baffle, an expansion chamber, a source of supply of liquid fuel communicating therewith at one point and a plurality of gas forming members at another point lying in substantially the same horizontal plane, and a plurality of burners connected intermediate the gas forming members and expansion chamber adapted to receive a supply of gas from both of said gas forming members and expansion chamber, the burners being so positioned as to direct their flames past said gas forming members to the baffle from which point they are deflected backwardly into contact with said expansion chamber and gas forming members

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1,132,802. AUTOMOBILE STARTING MECHANISM JAMES HENRY SHAULL, Charlotte, Mich. Filed Mar. 24, 1914. Serial No. 826,935. (Cl. 123—179.)

1. In a starting mechanism; a shaft, a gear on the shaft, means for engaging the said gear and shaft to turn the said gear and shaft together in one direction and to release the shaft when turning the gear in the opposite direction, said means including a cylinder, a piston in the said cylinder and a rack connection between the said piston and the gear; a main air reservoir, a reserve air reservoir, pipe connections between the two reservoirs and the cylinder, a normally closed valve for governing the air passage from the main reservoir to the reserve reservoir and to the said cylinder, the said valve when opened adapted to allow air to pass from the main reservoir to the reserve reservoir and to the cylinder to impel the piston therein under a high pressure and to simultaneously supply the reserve reservoir with air, a valve in the said connection between the said reserve reservoir and the said cylinder for governing the passage of air from the said reserve reservoir to the said cylinder to impel the said piston on its return stroke, the said cylinder having an exhaust port.



2. In a starting mechanism, a shaft, a gear on the shaft, means for engaging the said gear and shaft to turn the said gear and shaft together in one direction and to release the shaft when turning the gear in the opposite direction, said means including a cylinder, a piston in the said cylinder and a rack connection between the said piston and the gear, a main air reservoir, a reserve air reservoir, pipe connections between the two reservoirs and the cylinder, a normally closed valve for governing the air passage from the main reservoir to the reserve reservoir and to the said cylinder, the said valve when opened adapted to allow air to pass from the main reservoir to the reserve reservoir and to the cylinder to impel the piston therein under a high pressure and to simultaneously supply the reserve reservoir with air, a valve in the said connection between the said reserve reservoir and the said cylinder for governing the passage of air from the said reserve reservoir to the said cylinder to impel the said piston on its return stroke, the said cylinder having an exhaust port, and means for normally holding the air pressure in the said reserve reservoir.

3. In a starting mechanism, the combination with a shaft, a gear mounted thereon and ratchet and pawl devices that connect the gear and the shaft, a cylinder, a piston within the cylinder having a rack portion that meshes with the shaft gear and is adapted, under a forward movement, to impel the gear with the shaft and under a reverse movement to turn the gear loosely upon the shaft, a compressed air supply, a pipe connection that joins the said supply with one end of the cylinder, a reserve air reservoir in communication with one end of the cylinder and with the aforesaid pipe connection, a controlling valve that normally cuts out the air supply from the piston cylinder and the reserve air reservoir, a controlling valve mechanism operable under one adjustment for opening up communication with one end of the piston cylinder to lead a high air pressure against the piston to impel it to cause it to spin the shaft and simultaneously lead a portion of the said high air pressure into the reserve air reservoir, the said valve mechanism under another adjustment being adjusted to exhaust air from the front of the piston that impelled it forwardly and simultaneously open up communication between the reserve or low air pressure reservoir and the piston cylinder to impel the piston back and to turn the gear loosely upon the shaft.

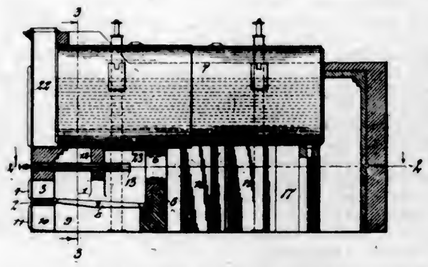
4. In a starting means for motor engines, the combination with the engine shaft and a gear thereon having a ratchet and pawl connection therewith, of a cylinder that extends transversely over the said shaft and has a slot through which the gear projects, a piston within the cylinder having a rack that meshes with the gear, a source of compressed air supply, an air distributing system that

connects the said source of an air supply with the opposite ends of the cylinder, said system including valve devices and means for storing up a reserve low air pressure when the air supply is opened, means under control of the operator for first shifting the valve devices for opening up the air supply direct to the cylinder for feeding air under high pressure against the rack piston to shift it for moving the engine shaft, and simultaneously storing up the reserve low air pressure, for then shifting the said valve devices for cutting out the main air tank and opening up the low air pressure to the cylinder for returning the piston rack to the first or normal position.

5. In an engine starter, the combination with the starting motor, which includes a cylinder, a free piston in the cylinder, an operative connection between the said piston and the shaft of the engine to be started; of an air reservoir, means including a control valve for effecting the communication between the said reservoir and the said cylinder to move the said piston on its starting stroke, means for simultaneously storing up the air contents of the said cylinder on the other side of the said piston under a low pressure to return to the said piston when the pressure from the said reservoir is cut off and other means for exhausting the first mentioned air charge from the cylinder to permit the return of the piston.

[Claims 6 and 7 not printed in the Gazette.]

1,132,803. FURNACE. ALBERT G. SHERMAN, Buffalo, N. Y. Filed Sept. 21, 1914. Serial No. 862,654. (Cl. 110—60.)



1. A furnace comprising a fire place provided with a front wall and a rear wall having a longitudinal opening, a boiler arranged over the fire place, an arch extending transversely across the fire place between said front and rear walls and projecting downwardly from said boiler, and a conduit for conducting air from the exterior of the furnace through said arch and discharging the same from the rear side of said arch into the space between the latter and said rear wall but not in direct communication with the space in front of said arch.

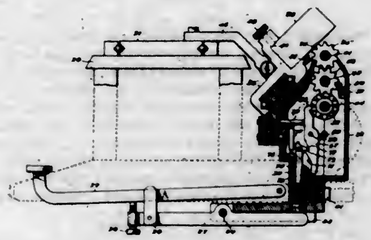
2. A furnace comprising a fire place having a front wall and a rear wall provided with two openings arranged transversely side by side, an arch arranged transversely in the upper part of said fire place between the front and rear walls thereof, horizontal air supply pipes extending lengthwise of the furnace through said front wall and arch and opening at their front ends to the atmosphere while the rear ends thereof open into the fire place between the arch and said rear wall and each of said air pipes being arranged in line with one of said openings in said rear wall, a combustion chamber arranged in rear of the fire place, and two upright deflectors arranged in the combustion chamber between the front and rear ends thereof and converging rearwardly from the side walls thereof while their rear inner edges are separated by an intervening passage.

3. A furnace comprising a fire place having a front wall and a rear wall provided with two openings arranged transversely side by side, an arch arranged transversely in the upper part of said fire place between the front and rear walls thereof, horizontal air supply pipes extending lengthwise of the furnace through said front wall and arch and opening at their front ends to the atmosphere while the rear ends thereof open into the fire place between the arch and said rear wall and each of said air pipes being arranged in line with one of said openings in said rear wall, a combustion chamber arranged in rear of the fire place, two upright deflectors arranged in the combustion chamber between the front and rear ends thereof and converging rearwardly from the side walls thereof while their rear inner edges are separated by an intervening passage, and a boiler arranged over said fire place and combustion chamber.

4. A furnace comprising a fire place having a front wall and a rear wall provided with two openings arranged transversely side by side, an arch arranged transversely in the upper part of said fire place between the front and rear walls thereof, horizontal air supply pipes extending lengthwise of the furnace through said front wall and arch and opening at their front ends to the atmosphere while the rear ends thereof open into the fire place between the arch and said rear wall and each of said air pipes being arranged in the line with one of said openings in said rear wall, a combustion chamber arranged in rear of the fire place, two upright deflectors arranged in the combustion chamber between the front and rear ends thereof and converging rearwardly from the side walls thereof while their rear inner edges are separated by an intervening passage, a boiler arranged over said fire place and combustion chamber, and a protecting covering applied to the underside of said boiler between the arch and the rear wall of the fire place.

5. A furnace comprising a fire place having a front wall and a rear wall provided with two openings arranged transversely side by side, an arch arranged transversely in the uper part of said fire place between the front and rear walls thereof, horizontal air supply pipes extending lengthwise of the furnace through said front wall and arch and opening at their front ends to the atmosphere while the rear ends thereof open into the fire place between the arch and said rear wall and each of said air pipes being arranged in the line with one of said openings in said rear wall, a combustion chamber arranged in rear of the fire place, two upright deflectors arranged in the combustion chamber between the front and rear ends thereof and converging rearwardly from the side walls thereof while their rear inner edges are separated by an intervening passage, a boiler arranged over said fire place and combustion chamber, and a protecting covering applied to the underside of said boiler between the arch and the rear wall of the fire place.

1,132,804. COMPUTING MECHANISM. AUGUSTUS G. SNYDER, Utica, N. Y., assignor, by mesne assignments, to George H. Spitzil, Utica, N. Y. Filed June 3, 1910. Serial No. 564,875. (Cl. 235—62.)



1. In a computing machine, the combination with totalizing mechanism and a master gear for actuating the same, of operating mechanism for said master gear including an actuator, and means for operatively connecting said actuator and totalizing mechanism comprising a series of gears and means for independently connecting said gears with said actuator.

2. In a computing machine, the combination with totalising mechanism and a master gear for actuating the same, of operating mechanism for said master gear including a series of gears, connections whereby each of said gears is adapted independently to operate said master gear, an actuator, and means for independently connecting said gears with said actuator.

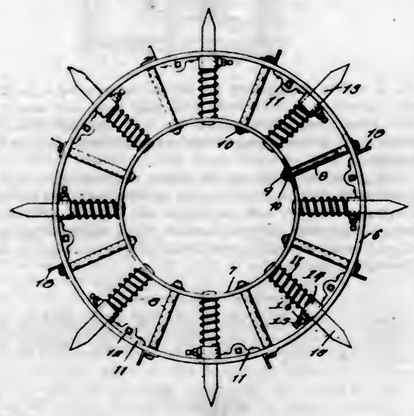
3. In a computing machine, the combination with totalising mechanism and a master gear for actuating the same, of operating mechanism for said master gear including an actuator, a series of gears, connections whereby each of said gears is adapted independently to operate said master gear, and a second series of gears for independently connecting each of said first named gears with said actuator.

4. In a computing machine, operating mechanism including, in combination, a shaft, a series of collars on said shaft, a series of gears on said shaft intermediate said collars, said collars and gears being provided with cooperating clutch faces, and a spring interposed between each of said gears and the next adjacent collar.

5. In a computing machine, the combination with totalising mechanism, of operating mechanism therefor including a shaft, a series of gears on said shaft, devices for normally holding each of said gears against rotation, and devices whereby said shaft may be rotated by each of said gears.

[Claims 6 to 64 not printed in the Gazette.]

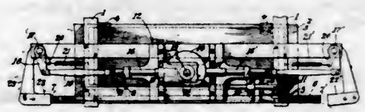
1,132,805. TRACTION DEVICE FOR VEHICLE-WHEELS. EDGAR J. SOLOMON, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Filed July 13, 1911. Serial No. 638,327. (Cl. 21—213.)



The combination with a wheel, of two concentric rings adapted to be removably mounted on the side of the wheel, spiked rods extending through radially alined openings in the two rings and slidable therein, collars mounted on the rods between the two rings, springs surrounding the rods between the collars and inner ring, paddle-like extensions on the outer periphery of the outer ring, the projection of which is within the tread of the wheel, elongated bolts extending through the outer and the inner rings and securing the paddle-like extensions to the outer ring, and spacer tubes surrounding the elongated bolts and positioned between the outer and inner rings.

1,132,806. SIFTING MECHANISM FOR MAKING DISK SOUND-RECORDS OR THE LIKE. THOMAS STEVENTON, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed July 26, 1913. Serial No. 781,324. (Cl. 83—60.)

1. The combination of an open-bottomed hopper, a sieve movably mounted beneath the same, two pivoted hammers adapted to strike respectively against the opposite ends of said sieve, a spring adapted to throw each hammer against said sieve, and a cam-device for alternately retracting one of said hammers and imparting tension to its spring while permititng the other spring to throw its hammer against the adjacent end of said sieve.

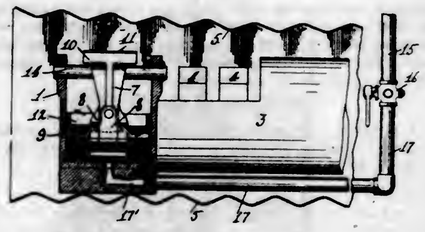


2. The combination of an open-bottomed hopper, a sieve movably mounted beneath the same, a pivoted hammer adapted to contact against the end of said sieve, a spring adapted to throw said hammer against said sieve, and a cam-device for retracting said hammer and imparting tension to said spring and then releasing the same.

3. The combination of an open-bottomed hopper, a sieve movably supported beneath the same, two hammers adapted to strike respectively against opposite ends of said sieve, and mechanism for actuating said hammers alternately.

4. The combination of an open-bottomed hopper, a sieve movably supported beneath the same, a hammer adapted to strike against the end of said sieve, and mechanism for actuating said hammer.

1,132,807. PIPE-EXPANDER. KARL JOHAN THORSBY, Oakland, Cal., assignor to California Corrugated Culvert Company, Oakland, Cal., a Corporation of California. Filed Jan. 24, 1914. Serial No. 814,094. (Cl. 29—84.)



1. In a pipe-expander, the combination of a cylinder adapted to be fitted within the pipe; expansion-members movable in the cylinder; a piston in the cylinder coacting with the expansion members to force them against the pipe to expand it; and means for operating the piston.

2. In a pipe-expander, the combination of a cylinder adapted to be fitted within the pipe; expansion-members movable in the cylinder; means for fixing the cylinder in said pipe; a piston in the cylinder coacting with the expansion members to force them against the pipe to expand it; and means for operating the piston.

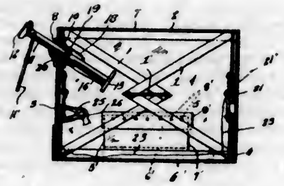
3. In a pipe-expander, the combination of a cylinder adapted to be fitted within the pipe; expansion members movable in the cylinder; a piston in the cylinder coacting with the expansion members to force them against the pipe to expand it; springs to return the expansion members when the pressure of the piston is relieved; and means for operating the piston.

4. In a pipe-expander, the combination of a cylinder adapted to be fitted within the pipe; means for fixing the cylinder in said pipe; expansion members movable in the cylinder; a piston in the cylinder coacting with the expansion members to force them against the pipe to expand it; springs to return the expansion members when the pressure of the piston is relieved; and means for operating the piston.

5. In a pipe-expander, the combination of a cylinder adapted to be fitted within the pipe; expansion-arms pivotally connected at their inner ends for divergence and approach, the pivotal connection of said arms being fitted in the cylinder and having a movement therein parallel with its axis; a piston in the cylinder coacting with the arms and adapted to move them outward to their engagement with the pipe; and means for operating the piston.

[Claims 6 to 10 not printed in the Gazette.]

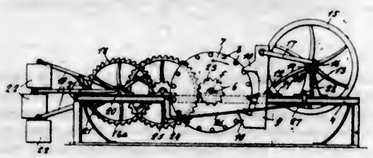
1,132,808. DEVELOPING-CABINET. RALPH V. TUTTLE, Pomeroy, Wash. Filed Apr. 6, 1914. Serial No. 830,021. (Cl. 95—91.)



1. A developing cabinet comprising a frame, a cover for the frame, a sight tube swivelly supported by the covering, shutters carried by the inner end of the sight tube, and means for automatically opening the shutters when the tube is moved inwardly and means for automatically closing the said shutters.

2. A developing cabinet comprising a frame having an aperture therein, a cover for the frame, a ring carried by the covering, a ball swivelly supported by the ring, a sight tube slidably engaged with the ball, shutters carried by the inner end of the sight tube, a ruby glass carried by the covering and closing the aperture therein, a shutter normally covering the ruby glass, and means for operating the first named shutters and second named shutter for uncovering the inner end of the tube and ruby glass, and means for automatically closing the said shutters respectively, as and for the purpose set forth.

1,132,809. MOTION-TRANSMITTING MECHANISM. JOHN C. UKENA, Golden City, Mo. Filed Apr. 24, 1914. Serial No. 834,133. (Cl. 185—46.)



1. The combination of an oscillatory lever, a rotary member having means for oscillating the lever, driving means for said member, a shaft, a crank on the shaft, a pitman connection between the crank and the lever, and means for arresting the movement of the aforesaid rotary member as the crank passes the dead center.

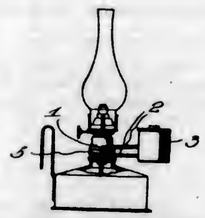
2. The combination of an escapement wheel, an oscillatory lever having pallets coöperating with said wheel, a shaft, a crank on the shaft, a pitman connection between the crank and the lever, driving means for the escapement wheel, and means for arresting the movement of said wheel as the crank passes the dead center.

3. The combination of an oscillatory lever, a rotary member having means for oscillating the lever, driving means for said member, a shaft, a crank on the shaft, a pitman connection between the crank and the lever, an eccentric on the shaft, a slide for arresting the movement of the aforesaid rotary member as the crank passes the dead center, and an actuating connection between the eccentric and the slide.

4. The combination of an escapement wheel having studs on its face, an oscillatory lever having pallets extending into the path of the studs, a shaft, a crank on the shaft, a pitman connection between the crank and the lever, driving means for the escapement wheel, an eccentric on the shaft, a slide movable into and out of the path of the studs of the escapement wheel for arresting the movement of said wheel as the crank passes the dead center, and an actuating connection between the eccentric and the slide.

5. The combination of an escapement wheel, an oscillatory lever having pallets coöperating with said wheel, a shaft, a crank on the shaft, a pitman connection between the crank and the lever, driving means for the escapement wheel, an eccentric on the shaft, a slide for arresting the movement of the escapement wheel as the crank passes the dead center, and an actuating connection between the eccentric and the slide.

1,132,810. SAFETY ATTACHMENT FOR LAMPS. CLAYTON VON CULIN, New York, N. Y. Filed Dec. 14, 1914. Serial No. 877,189. (Cl. 67—36.)



1. A safety attachment for lamps comprising a tank, a pipe connected at both ends with said tank and having a coil formed intermediately of the ends thereof with the members of the coil superposed and arranged in vertical alinement.

2. A safety attachment for lamps comprising a tank, a pipe rigidly secured at both ends to said tank and communicating therewith and having a coil formed intermediately of the ends thereof, and a collar disposed in said coil and secured thereto, said tank being supported by said coil when applied.

1,132,811. SPARK-PLUG. JOHN M. WALTON, New Orleans, La. Filed Oct. 13, 1913. Serial No. 794,980. (Cl. 123—169.)



A spark plug, including a metal bushing having a reduced frusto-conical electrode end, said bushing having a longitudinal bore therethrough terminating in a reduced bore through the electrode end to provide a reduced circular rim upon the electrode end, a tubular body of insulation having an intermediate enlargement, one end of the body seating in the enlarged end of the longitudinal bore of the bushing, a locking means for holding the body of insulation in the bushing, a metal stem extending through the tubular body and projecting beyond the frusto-conical end of the bushing, and a disk electrode riveted upon the extended end of the stem and of greater diameter than the reduced bore of the bushing, the periphery of said disk being provided with a plurality of radial incisions, and the intermediate segments of the disk being alternately bent up out of the plane of the disk to provide a plurality of sparking points and oil drains.

1,132,812. COLLAPSIBLE METAL PACKING-CASE. CHARLES J. WEBSTER, Osceola, Nebr. Filed July 18, 1913. Serial No. 779,821. (Cl. 220—133.)



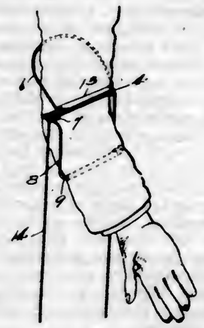
1. A metal folding case comprising four sides hinged together at the corners, and opposite ends each comprising similar halves hinged at the outer edges to related sides and having their edges overlapping, each half being depressed from the marginal edge to produce a marginal flange fitting against the inner portions of the related sides and reinforcing the same against distortion, transverse strips secured upon said halves adjacent their edges and provided upon their ends with U-shaped hooks having their inner arms engaging the inner edges of the marginal flanges upon said halves and straddling the marginal flanges on said halves and the edges of the related sides, longitudinally extending strips on one of said halves formed as continuations of the marginal flanges and lying against the inner arms of the U-shaped hooks upon the transverse strip on the other half, and pins securing said longitudinal strips, the adjacent marginal flanges and the related sides together.

2. A metal folding case including four sides hinged together at the corners and opposite ends each comprising mating halves hinged at the outer edges to related sides and having their ends overlapping, each half being depressed from the marginal edge to produce a marginal flange adapted to fit against the inner marginal portions of the related sides and reinforce the same against distortion, hooks carried by each of said halves adapted to straddle the adjacent edges of opposite sides, forwardly extending strips carried by one of said halves engaging along the marginal flange of the other half, and pins removably passed through said strips, said marginal flange and adjacent sides to secure the case in set up condition.

1,132,813. SUPERBAIL. GEORGE B. WELLER, Rawlins, Wyo. Filed Oct. 6, 1914. Serial No. 865,308. (Cl. 224—45.)

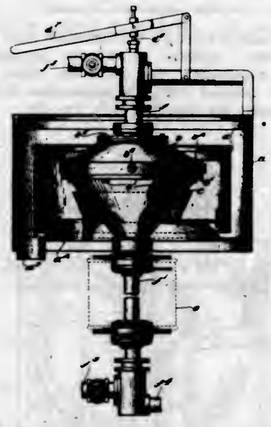
1. A super-bail made of a single piece of wire fashioned with a loop and cross arms, a post and an angular arm extending from the post, and a coiled spring between said post and the cross bar.

2. A super-bail comprising a loop, a post extended therefrom and an angular arm on the post projected over the loop, and a resilient connection forming a fulcrum between the loop and post.



3. A super-bail comprising a loop and fulcrum bars, an eyelet at one end of said bars, and a coiled spring at the other end of the bars to receive and support a cord, a post extending from the spring, and an annular arm projected from the post.

1,132,814. CENTRIFUGAL SEPARATOR. DAVID B. WESTON, Sharon, and MELVILLE H. BARKER, Boston, Mass. Filed May 9, 1911. Serial No. 625,971. (Cl. 127—20.)



1. A centrifugal separator embracing in its construction a pressure-tight separator chamber whose conical walls are flared outwardly to the plane of its greatest diameter, said chamber being provided with a series of valved discharge ports located in its periphery, upper and lower hollow shaft sections secured to the opposite ends of the chamber to rotatably support the same and to allow the inflow and outflow of liquid during the rotation of the receptacle about its vertical axis, substantially as described.

2. A centrifugal separator embracing in its construction upper and lower conical members outwardly flared from their opposite ends to their point of union, a series of valved ports located wholly within one member, and valve actuating mechanism supported by the same member in which the ports are located, hollow shaft sections secured to the small end of each member to form respec-

tively inlet and outlet passages for the flow of liquid, substantially as described.

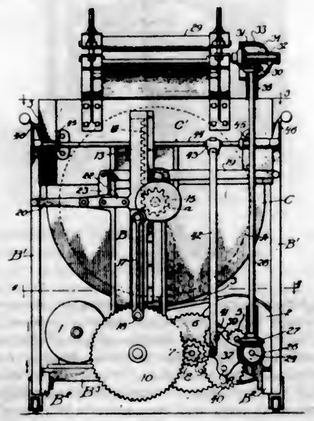
3. In a centrifugal separator the combination of the chamber comprising upper and lower members of frusto conical shape detachably secured together at their larger ends and being pressure tight, a hollow rotary supporting shaft secured to the small end of one of said members, a similar hollow shaft secured to the opposite end of the other section, a series of peripheral ports, inwardly opening valves, levers for actuating said valves said levers being weighted to counterbalance the tendency of said valves to remain closed, substantially as described.

4. In a centrifugal separator the combination of a closed receptacle comprising oppositely flared conical members secured together in the plane of their greatest diameters one of said members being provided with a series of peripheral openings, a series of removable bushings secured in said openings to form ports, valves mounted in said ports to open inwardly, valve actuating mechanism supported by the member containing the ports, hollow shaft sections secured to the upper and lower members at their small diameters to rotatably support said receptacle and permit the inflow and outflow of liquid, substantially as described.

5. A centrifugal separator comprising a receptacle whose upper and lower walls are inclined respectively upward and downward toward the axis of the receptacle said receptacle being provided with a series of peripheral valved ports, upper and lower hollow shaft sections detachably secured to the opposite ends of said receptacle to rotatably support said receptacle and to afford conduits for the inflow and outflow of liquids, a valve controlling rod passing through one of said hollow shaft members, and means external to said hollow shaft for actuating said valve controlling rod, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,132,815. MECHANICAL MOVEMENT FOR LAUNDRY-WRINGERS. SAMUEL T. WHITE, Davenport, Iowa. Original application filed June 20, 1913, Serial No. 774,747. Divided and this application filed Dec. 12, 1913. Serial No. 806,165. (Cl. 74—58.)



1. A mechanical movement comprising a horizontally disposed transverse driven shaft, a suitable support for the bearings thereof, a vertical shaft extending downward below the plane of said driven-shaft, miter-gearing connecting the adjacent ends of said shafts, a horizontal shaft disposed at right angles to said driven-shaft, miter-gears connecting the lower end of said vertical shaft and said last mentioned horizontal shaft, a vibratory bracket pivotally mounted on the latter, transmission gearing carried by said bracket that imparts motion to the shaft on which the bracket is mounted, gearing connecting said transmission gearing to the first mentioned driven shaft, a drive-shaft whose bearings are stationary and the axis of which is parallel to said transmission gearing, and means actuated by said drive-shaft that are adapted to be engaged and disengaged by said transmission gearing.

2. A mechanical movement comprising a horizontally disposed transverse driven-shaft, a suitable support for the bearings thereof, a vertical shaft extending downward below the plane of said driven-shaft, miter-gearing connecting the adjacent ends of said shafts, a horizontal shaft disposed at right angles to said driven-shaft, miter-gears connecting the lower end of said vertical shaft and said last mentioned horizontal shaft, a vibratory bracket pivotally mounted on the latter, differential transmission gearing carried by said bracket that imparts motion to the shaft on which the bracket is mounted, gearing connecting said transmission gearing to the first mentioned driven shaft, a drive-shaft whose bearings are stationary and the axis of which is parallel to said transmission gearing, and means actuated by said drive-shaft that are adapted to be engaged and disengaged by said transmission gearing.

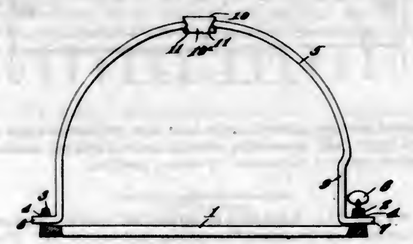
3. A mechanical movement comprising a horizontally disposed transverse driven-shaft, a suitable support for the bearings thereof, a vertical shaft extending downward below the plane of said driven-shaft, miter-gearing connecting the adjacent ends of said shafts, a horizontal shaft disposed at right angles to said driven-shaft, miter-gears connecting the lower end of said vertical shaft and said last mentioned horizontal shaft, a vibratory bracket pivotally mounted on the latter, transmission gearing carried by said bracket that imparts motion to the shaft on which the bracket is mounted, gearing connecting said transmission gearing to the first mentioned driven shaft, a drive-shaft whose bearings are stationary and the axis of which is parallel to said transmission gearing, and speed reducing gearing having stationary bearings actuated by said drive-shaft that is adapted to be engaged and disengaged by said transmission gearing.

4. A mechanical movement comprising a horizontally disposed transverse driven-shaft, a suitable support for the bearings thereof, a vertical shaft extending downward below the plane of said driven-shaft, miter-gearing connecting the adjacent ends of said shafts, a horizontal shaft disposed at right angles to said driven-shaft, miter-gears connecting the lower end of said vertical shaft and said last mentioned horizontal shaft, a vibratory bracket pivotally mounted on the latter, transmission gearing carried by said bracket that imparts motion to the shaft on which the bracket is mounted, a gearing connecting said transmission gearing to the first mentioned driven shaft, a drive-shaft whose bearings are stationary and the axis of which is parallel to said transmission gearing, means actuated by said drive-shaft that are adapted to be engaged and disengaged by said transmission gearing, a horizontally disposed transverse rock-shaft having stationary bearings above the plane of the lower end of the vertical shaft, a suitable arm projecting therefrom and a rod connecting said arm and said bracket.

5. A mechanical movement comprising a horizontally disposed transverse driven-shaft, a suitable support for the bearings thereof, a vertical shaft extending downward below the plane of said driven-shaft, miter-gearing connecting the adjacent ends of said shafts, a horizontal shaft disposed at right angles to said driven-shaft, miter-gears connecting the lower end of said vertical shaft and said last mentioned horizontal shaft, a vibratory bracket pivotally mounted on the latter, differential transmission gearing carried by said bracket that imparts motion to the shaft on which the bracket is mounted, gearing connecting said transmission gearing to the first mentioned driven shaft, a drive-shaft whose bearings are stationary and the axis of which is parallel to said transmission gearing, speed reducting gearing having stationary bearings actuated by said drive-shaft that are adapted to be engaged and disengaged by said transmission gearing, a

horizontally disposed transverse rock-shaft having stationary bearings above the plane of the lower end of the vertical shaft, a suitable arm projecting therefrom and a rod connecting said arm and said bracket.

1,132,816. HOSE-NOZZLE SUPPORT. JOHN A. WIDNER, Alpena, Mich. Filed May 11, 1914. Serial No. 837,889. (Cl. 248—29.)

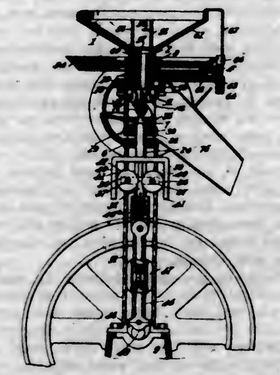


1. In a device of the character described, a base having upstanding lugs, an arch-like rod having its ends bent angularly and pivoted to said lugs, the arch having nozzle-holding means, and clamping means carried by one of said lugs and coöperable with the respective end portion of said rod, to hold the rod in various positions relative to the base.

2. In a device of the character described, an annular base having diametrically opposed upstanding lugs, the lugs having transverse apertures, a bail-like rod having its end portion bent outward and journaled through the said apertures, the said rod having nozzle-holding means at its intermediate portion, and a set screw carried by one lug and adapted to bind against the corresponding end portion of the said rod.

3. In a device of the character described, a base, a bail having its ends pivoted to the base and comprising sections and a clip portion connecting the adjacent ends of the sections, the adjacent ends of the bail sections projecting beyond the ends of the said clip portion to provide retaining lugs.

1,132,817. NUT-CRACKING MACHINE. DICK B. WILLIAMS, New Orleans, La., assignor, by direct and mesne assignments, to Louisiana Nut and Machine Company, New Orleans, La., a Corporation of Louisiana. Filed May 9, 1914. Serial No. 837,481. (Cl. 146—3.)



1. A nut cracking machine including a nut engaging compression member, and a compensating device comprising a self-adjusting connection with the compression member, and normally-disengaged reciprocal means having a frictional interlocking engagement with the self-adjusting connection, said reciprocal means having a relatively constant stroke.

2. A nut cracking machine including a nut engaging compression member, and a compensating device comprising a self-adjusting connection with the compression member, and normally-disengaged reciprocal means having a frictional interlocking engagement in a rectilinear path with the self-adjusting connection, said reciprocal means having a relatively constant stroke.

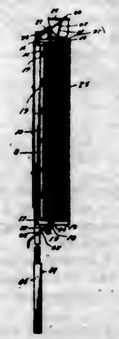
3. A nut cracking machine including a nut engaging compression member, and a compensating device comprising a self-adjusting connection with the compression member, and normally-disengaged reciprocal means having a frictional interlocking engagement of the self-adjusting connection and moving therewith in the same direction while interlocked, said reciprocal means having a relatively constant stroke.

4. A nut cracking machine including a nut engaging compression member, and a compensating device comprising a self-adjusting connection with the compression member, and normally-disengaged reciprocal means frictionally interlocking with the self adjusting connection to solidly connect and move the compensating device as a unit during its compression stroke.

5. A nut cracking machine including a nut engaging compression member, and a compensating device comprising normally disengaged parts, one part having a self-adjusting connection with the compression member, and the other part having a stroke of relatively constant extent arranged to positively interlock with said other part and move therewith in the same direction while interlocked.

[Claims 6 to 50 not printed in the Gazette.]

1,132,818. AUTOMATIC FRUIT PICKER AND CONVEYER. JOSEPH W. WILLIS, Ansonia, Conn. Filed June 4, 1914. Serial No. 843,043. (Cl. 56—99.)



1. A device of the character described comprising a supporting standard, a conveyer mounted thereon, a hopper connected with the upper end of said supporting standard and adapted to receive fruit, a movable knife blade above said hopper for severing the stems of fruit, means for operating said knife, a normally closed trap door in the lower portion of said hopper, and means actuated by the movement of said conveyer for intermittently opening said trap door whereby fruit within said hopper will fall upon said conveyer.

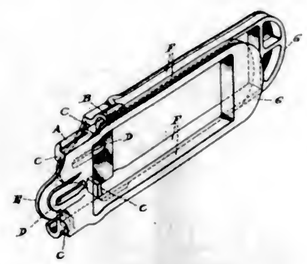
2. A device of the character described comprising a standard, rollers journaled adjacent the upper and lower ends of said standard, an endless belt trained about said rollers, a plurality of buckets secured on said belt, a hopper secured upon the upper end of said standard and adapted to receive fruit, cutting mechanism disposed within the upper end of said hopper, and means actuated by said buckets for permitting the passage of fruit from

said hopper into said buckets, said belt being movable by the weight of fruit within said buckets.

3. A device of the character described, comprising a standard, a pair of brackets secured adjacent the upper and lower ends of said standard, rollers journaled through said brackets, an endless belt trained about said rollers, a plurality of buckets pivotally mounted on said belt, a hopper mounted on the upper end of said standard, cutting mechanism disposed at the upper end of said hopper, and a normally closed spring pressed trap door in the bottom of said hopper, said bucket engaging the free edge of said trap door whereby said trap door will be opened to permit the passage of fruit from said hopper into said buckets, said endless belt being moved by the weight of the fruit within the buckets.

4. A device of the character described comprising a supporting standard, a vertically disposed conveyer associated therewith and including a plurality of buckets adapted to swing vertically, a hopper secured upon the upper end of said standard, cutting mechanism disposed upon the upper end of said hopper, and a normally spring closed door closing the bottom of said hopper, said door being opened by the engagement of the edges of said buckets with the edge of said plate, whereby fruit within said hopper will be conducted to said buckets.

1,132,819. DRAFT-GEAR COUPLING-YOKE. VICTOR WILLOUGHBY, Jeffersonville, Ind., assignor, by direct and mesne assignments, to William H. Miner, Chazy, N. Y. Filed Aug. 5, 1913. Serial No. 783,163. (Cl. 213—42.)



1. A draft gear yoke formed of two interlocking loops which are adapted to be applied to a coupler by transverse movement of each loop and by longitudinal movement of one loop upon its companion loop.

2. A draft gear yoke formed of two loops adapted to be applied to a coupler and to interlock with each other by movement of one loop longitudinally upon its companion loop upon said coupler.

3. A draft gear yoke formed of two loops longitudinally separated and adapted to be brought into interlocking engagement with a coupler and with each other by movement of one loop longitudinally of the other loop.

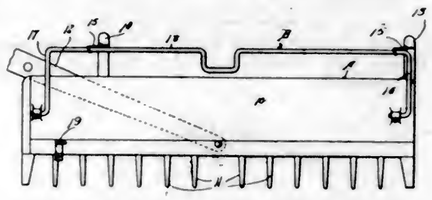
4. A draft gear yoke formed of two relatively parallel loops and means on one of said loops adapted to interlock with coöperating means on the other loop upon longitudinal movement of one loop with relation to the other loop.

5. In a draft gear yoke, the combination comprising two independently formed loops, each of which is formed with integral means adapted to engage coöperating means on the other loop.

[Claims 6 to 23 not printed in the Gazette.]

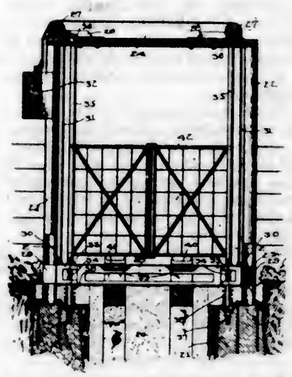
1,132,820. ATTACHMENT FOR REAPER-RAKES. JOHN W. ZUZIK, Stillwater, N. Y. Filed Aug. 5, 1914. Serial No. 855,268. (Cl. 56—95.)

The combination with a reaper rake including a head and a plurality of teeth mounted therein, spaced arms carried by said head and directed oppositely to the teeth, a U-shaped member having its arms pivotally connected to the head and adapted to swing to dispose its arm con-



necting portion against either said first mentioned arms or said teeth, and means for holding said U-shaped member against pivotal movement in either position.

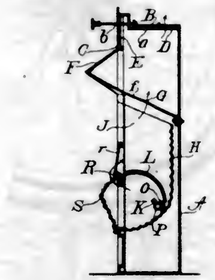
1,132,821. RAILROAD-CROSSING GATE. EDWARD ADAMS and CHARLEY NIEMITALO, Belden, N. D. Filed Apr. 14, 1914. Serial No. 831,852. (Cl. 39—43.)



1. In a device of the class described the combination of a pair of vertical frame posts, vertical uprights pivotally supported adjacent said posts, said uprights provided with threaded portions adjacent their lower ends, gate sections fixedly secured to said uprights, said frame posts provided with vertical slots adjacent their lower ends, a cross bar spanning the distance between said posts, said cross bar provided with a reduced integral end slidably mounted within said slots, said bar provided with a plurality of threaded openings, said vertical uprights passing through said openings so as to allow the threaded portions thereof to engage said threaded openings, whereby upon the moving of said bar said vertical uprights will be swung, the lower ends of said vertical uprights extending for a distance below said bar, coiled springs surrounding the lower ends of said uprights, said springs adapted to bear upon said cross bar, in direct alinement with the threaded openings, thereby normally forcing said bar upwardly and preventing a binding action at either end of said bar, and means for forcing said bar downwardly and compressing said springs.

2. In a device of the class described the combination of a pair of vertical frame posts, vertical uprights pivotally supported adjacent said frame posts, said uprights provided with gate sections, said uprights also provided with threaded portions adjacent their lower ends, said frame posts provided with vertical slots adjacent their lower ends, a cross bar spanning the distance between said posts and provided with reduced ends slidably mounted within said slots, said cross bar provided with a plurality of openings, said uprights extending downwardly through said openings for a spaced distance below said bar, nuts fixedly secured upon said bar and provided with internally threaded portions surrounding said openings, said nuts adapted to engage the threaded portions of said uprights whereby said bar will swing said vertical uprights when the same is moved, and coiled springs surrounding the lower end of each vertical upright, said coiled springs normally urging said cross bar upwardly and bearing in direct alinement with the opening formed in said bar whereby direct pressure will be brought to bear upon the operating portions of the bar and vertical uprights thereby preventing the bar from binding adjacent its end portions, and means for forcing said bar downwardly when it is desired to swing the gate sections.

1,132,822. REFLECTING-HEATER. FREDERICK O. ADAMS and JULIUS F. ADAMS, Pittsburgh, Pa. Filed Aug. 3, 1914. Serial No. 854,866. (Cl. 126—127.)



1. In a reflecting heater, the combination with an outer casing, of an open front, a main reflector extending downwardly within the casing, a gas pipe provided with a series of burners extending horizontally within the casing near the said reflector, a curved deflector coated with white enamel and having tongues projecting upwardly and outwardly from its lower and rear edge upon its concave side and arranged to bear against the said gas pipe thereby assisting in supporting the deflector, and devices attached to the said front and constructed to support the upper edge of the said deflector.

2. In a reflecting heater, the combination with an outer casing, of an open front, a main reflector extending downwardly within the casing, a gas pipe provided with a series of burners extending horizontally within the casing near the said reflector, a curved deflector, means for removably supporting the lower edge of the deflector between the gas pipe and main reflector, devices attached to the said front and constructed to support the upper and front edge of the said deflector, and a receiving and discharging chamber for burned gases constructed at the top of the casing, the said chamber having as its bottom a radiating plate provided with openings and arranged above the said deflector.

3. A reflecting heater, comprising a casing, an open front, a main reflector extending downwardly at the rear of the casing, a gas pipe provided with a series of burners extending horizontally near the reflector, an upwardly and forwardly curving deflector coated with white enamel, means for supporting the rear and lower edge of the deflector between the said gas pipe and the main reflector, and devices attached to the said front and constructed to removably engage the front and upper edge of the deflector.

1,132,823. SIGN. EDWARD BAMBECK, Kalamazoo, Mich., assignor to American Sign Company, Kalamazoo, Mich. Filed Nov. 23, 1911. Serial No. 661,962. (Cl. 40—133.)

1. In a structure of the class described, the combination of a double faced casing, a series of groups of lenses arranged in each face plate of said casing, the corresponding groups in the two series being alined, a series of lamps corresponding to the said groups of lenses arranged in said casing at one side of said groups of lenses, a longitudinal reflector plate arranged in said casing at the other side of said groups of lenses, and a series of transverse reflector plates having notches at one end disposed in said casing between said groups of lenses with their notched ends at said longitudinal reflector plate and their other ends adjacent but not extending between said lamps.



2. In a structure of the class described, the combination of a casing, a series of groups of lenses arranged in the face plate of said casing, a series of lamps corresponding to the groups of lenses arranged within the casing at one side of and to the rear of said groups of lenses, a longitudinal reflector plate arranged at the other side of said groups of lenses, and a series of transverse reflector plates disposed within said casing between said groups of lenses with one end adjacent to but not extending between said lamps, said plates being constructed and arranged to permit the passage of a portion of the reflected rays between them and said longitudinal reflector plate.

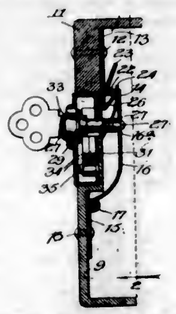
3. In a structure of the class described, the combination of a casing, a series of groups of lenses arranged in the face plate of said casing, a series of lamps corresponding to the groups of lenses arranged in said casing at one side of said groups of lenses, and a series of reflector plates disposed in said casing between said groups of lenses with one end adjacent to but not extending between said lamps, said plates being constructed and arranged to provide openings at their other ends for the passage of a portion of the reflected light, all coacting for the purpose specified.

4. In a structure of the class described, the combination of a casing, a series of groups of lenses arranged in the face of said casing, a corresponding series of lamps arranged in said casing at the rear of said groups of lenses, and a series of plates disposed within said casing between said groups of lenses, said plates being constructed and arranged to obstruct the passage of direct rays from the lamp of one group of lenses to the lenses of the groups at each side thereof and to permit the passage of a portion of the reflected rays to such groups, said plates constituting reflecting members.

5. A structure of the class described, comprising a casing, a series of indicia units arranged in one face of said casing, a corresponding series of lamps arranged within the casing at the rear of and at one side of said indicia units, and reflector plates disposed within the casing between said indicia units to obstruct the passage of direct rays from the lamp of one indicia unit to the adjacent indicia units, said plates being arranged within said casing to permit the passage of a portion of the reflected rays at each end thereof.

[Claim 6 not printed in the Gazette.]

1,132,824. LOCKING MECHANISM FOR BOXES, CASES, OR TRUNKS. JOHN T. BINKLEY, Chicago, Ill. Filed June 10, 1914. Serial No. 844,160. (Cl. 70—27.)



1. The combination with a container formed of sections adapted to be closed together, of a push-button on one of said sections, a catch on the other of said sections, a member pivotally supported on said first-referred to section and movable in the direction of movement of, and by, said push-button, and provided with means for interlocking with said catch, and spring means for normally yieldingly holding said pivoted member in position for interlocking with said catch upon the act of closing said sections together.

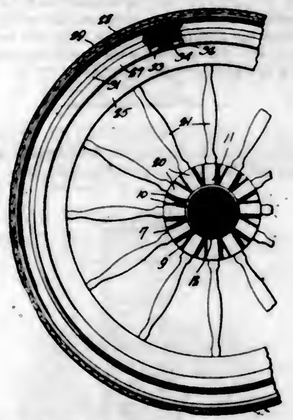
2. The combination with a container formed of sections adapted to be closed together, of a push-button on one of said sections, an inwardly extending member on the other of said sections extending substantially the full length of the latter and forming a catch-surface, and a member supported on said first-referred-to section and movable in the direction of movement of, and by, said push-button, and provided with a forwardly projecting portion extending substantially the full length of said first-referred-to section and adapted to interlock with said first-named member.

3. The combination with a container formed of sections adapted to be closed together, of a push-button on one of said sections, a catch on the other of said sections, a member pivotally supported on said first-referred-to section and movable in the direction of movement of, and by, said push-button, and provided with means for interlocking with said catch, means for releasably locking said push-button against inward movement, and spring means for normally yieldingly holding said pivoted member in position for interlocking with said catch upon the act of closing said sections together.

4. The combination with a container formed of sections adapted to be closed together, of a push-button on one of said sections, an inwardly extending member on the other of said sections extending substantially the full length of the latter and forming a catch surface, a member supported on said first-referred to section and movable in the direction of movement of, and by, said push-button, and provided with a forwardly projecting portion extending substantially the full length of said first-referred to section and adapted to interlock with said first-named member, and means for releasably holding said push-button against inward movement.

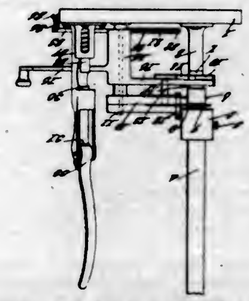
1,132,825. VEHICLE WHEEL-MOUNTING. JEROME BOLICK, Conover, N. C. Filed May 23, 1912. Serial No. 699,260. (Cl. 64—39.)

In a device of the character described, an axle having a spindle at its end, and a flange at the basal end of the spindle, the basal portion of the spindle being circular in cross section, the body portion of the spindle between the basal and free end portions being of circular cross section and of smaller diameter than the said basal portion, the free end portion of the spindle being of circular cross section and of smaller diameter than the body portion, the shoulder formed at the inner end of the body portion of the spindle being of polygonal contour with the corners lying between the surfaces of the basal and body portions of the spindle, the shoulder formed at the inner end of the free end portion of the spindle being of polygonal contour with the corners lying between the surfaces of the body and the free end portions of the spindle, annular bearings mounted snugly upon the basal and free end portions of the spindle, the bearing mounted upon the basal portion of the spindle having a contracted portion snugly embracing the body portion of the spindle



adjacent the first mentioned shoulder and having an inner polygonal recess receiving the said first mentioned shoulder, the bearing mounted upon the free end portion of the spindle having a polygonal recess at its inner end receiving the second mentioned shoulder, a nut threaded upon the free end of the spindle to retain the second mentioned bearing upon the free end portion of the spindle and in engagement with the second mentioned shoulder, and a hub journaled upon the bearings between the said flange and nut.

1,132,826. RIVET-FEEDING MECHANISM. OLE J. BORGE, Davis township, Kittson county, Minn. Filed June 22, 1914. Serial No. 846,662. (Cl. 218—2.1.)

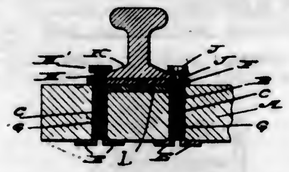


1. The combination with a rivet setting machine having a female die, of means for feeding one rivet at a time to the female die, including a rivet magazine, an arm provided with a rivet receptacle disposed for movement to and from the magazine and female die, and a pivoted member carried by the arm for sealing the rivet receptacle thereof, said arm being disposed to coöperate with the magazine to release a rivet therefrom, and to coöperate with the rivet setting machine to release the rivets to the female die.

2. The combination with a rivet setting machine having a frame and a female die, of means for feeding one rivet at a time to the female die, including a rivet magazine, an arm provided with a rivet receptacle disposed for movement to and from the magazine and female die, and a pivoted member carried by the arm for sealing the rivet receptacle thereof, said arm being disposed to coöperate with the magazine to release the rivet therefrom, and to coöperate with the rivet setting machine to release the rivet for delivery to the female die.

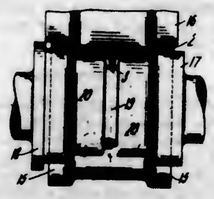
3. The combination with a rivet setting machine having a female die, of means for feeding one rivet at a time to the female die, including a rivet magazine, two blades mounted in the magazine one above the other, said blades being disposed for movement into the path of the rivets within the magazine to regulate the delivery thereof through the magazine, a swingingly mounted arm provided with a rivet receptacle and disposed for movement to and from the magazine and female die, a spring connected thereto for holding the same below the magazine, means actuated thereby for operating the blades to cause the delivery of a rivet at a time into the receptacle of the arm when the arm is below the magazine, and a pivoted member carried by the arm for sealing the rivet receptacle thereof, said member being disposed to coöperate with the rivet setting machine when the arm is operated to dispose the receptacle above the female die and be moved from below the receptacle to release the rivet to the female die.

1,132,827. RAIL CHAIR AND FASTENING. MARY BUSCH, McArthur, N. D. Filed June 22, 1914. Serial No. 846,508. (Cl. 238—2.)



In combination with the rails and tie, of chairs resting upon the tie and supporting the rails, sleeves depending from the chairs and each formed with a slit to provide portions for engaging the tie, said sleeves having their upper portion threaded, and fastening bolts screwed into said sleeves and having heads engaging the foot of the rails.

1,132,828. METHOD OF MAKING MIDDLE RINGS FOR PIPE-COUPLINGS. WILLIAM J. CLARK and FRANK RYMAN, Pittsburgh, Pa., assignors to Hammon Coupler Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 4, 1914. Serial No. 836,157. (Cl. 29—157.)



1. A method of forming middle rings for pipe couplers, which consists in providing a ring body having a projecting rib like portion and reforming the rib portion in such manner as to provide one or more internal centering stops.

2. A method of forming middle rings for pipe couplers, which consists in providing a ring body having a projecting rib like portion and partially cutting away said rib portion to form one or more internal centering stops.

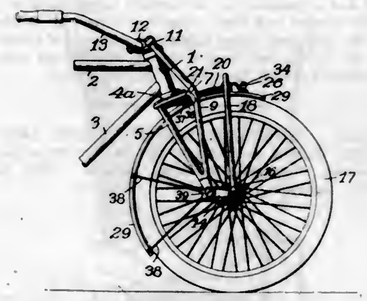
3. A method of forming middle rings for pipe couplers, which consists in providing a strip of stock having a projecting rib like portion, reshaping said rib portion to form one or more centering stops and bending said strip into circular shape and uniting its meeting edges.

4. A method of forming middle rings for pipe couplers, which consists in providing a strip of stock and rolling a projection on one of its faces, reshaping said projection to form one or more centering stops and bending said strip into circular shape and uniting its edges.

5. A method of forming middle rings for pipe couplers, which consists in forming a wrought metal strip so as to provide an intermediate longitudinally disposed rib portion and reshaping said rib to form one or more centering stops and bending the strip into circular shape and uniting its edges.

[Claims 6 to 24 not printed in the Gazette.]

1,132,829. CYCLE-FRAME. LYMAN H. COBB, Fitchburg, Mass., assignor to Mary Elizabeth Johnson, trustee, Fitchburg, Mass. Filed Jan. 29, 1913. Serial No. 744,840. (Cl. 208—97.)



1. In a cycle frame, a head, a member rotatably mounted in the head and having a yielding connection with the axle of a wheel to permit said member to move toward and from the axle, a leaf spring having one end connected to said member, the leaves of the spring being of substantially the same length, and means connecting the other end of the spring with said axle.

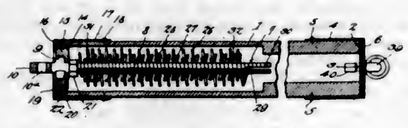
2. In a cycle frame, a head, a member rotatably mounted in the head and having a yielding connection with the axle of a wheel to permit said member to move toward and from the axle, a tapered leaf spring having one end connected to said member, the leaves of the spring being of substantially the same length, and means connecting the other end of the spring with said axle.

3. In a cycle frame, a support having a yielding connection with the axle of a wheel to permit the support to move toward and from the axle, a leaf spring carried by the support, the leaves of the spring being of substantially the same length and the spring having an elongated opening through one end, a post through said opening, and means supporting the post from said axle.

4. In a cycle frame, a support having a yielding connection with the axle of a wheel to permit the support to move toward and from the axle, a leaf spring carried by the support, the leaves of the spring being of substantially the same length and the spring having an elongated opening through one end, a post through said opening, means supporting the post from said axle, and mudguard supporting means carried by the post.

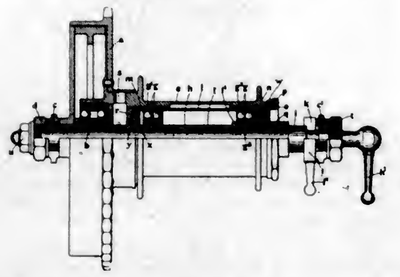
5. In a cycle frame, a support having a yielding connection with the axle of a wheel to permit the support to move toward and from the axle, a spring carried by the support, the spring having an opening through one end, a post through said opening, means supporting the post from said axle, and mudguard supporting means carried by the post.

1,132,830. SHADE-ROLLER ATTACHMENT. HARRY COLE, Tyrrell, Ohio. Filed June 3, 1914. Serial No. 842,740. (Cl. 156—36.)



In a device of the class described, a tubular roller; a ball carrier including a body and a flange outstanding from the body, the body having a recess and there being a ball slot opening into the recess through the flange and the body, the body being inserted into the end of the roller whereby the roller will form a ball stop at the outer end of the slot; a cap on the roller and including a flange overlapped on the outer end of the body; a spindle journaled in the carrier and including a head located in the recess, the head having a shoulder; a ball in the slot and adapted to coöperate with the shoulder; an abutment within the roller and adjustable on the spindle longitudinally of the spindle toward and away from the inner free of the carrier, the abutment being adjustable to exert a brake pressure on the carrier; and a spring forming an operative connection between the spindle and the roller.

1,132,831. WHEEL OF MOTOR-CYCLES AND THE LIKE. HENRY ALBERT COLLIER and CHARLES RICHARD COLLIER, Plumstead, London, England. Filed Apr. 4, 1914. Serial No. 829,664. (Cl. 208—17.)

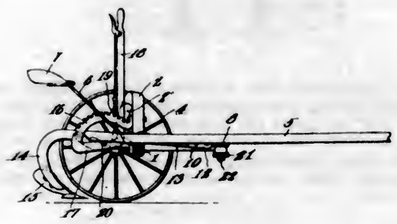


1. A detachable wheel construction for motor cycles, consisting of a driving wheel, a tubular sleeve upon which said driving wheel is mounted to rotate, a forked cycle frame upon one member of which the said sleeve is fixedly mounted, said cycle frame having its opposite member provided with an open-ended slot, a wheel hub separate from the said driving wheel, a tubular sleeve upon which said wheel hub is mounted, a driving connection between the said driving wheel and the said wheel hub adapted to be disconnected on the endwise movement of the said hub, an axle adapted to be passed through the said open-ended slot in one member of the cycle frame and through the tubular hub sleeve and the tubular driving wheel sleeve, means upon the said axle for bringing the frame members together, and a distance piece adapted to prevent the endwise movement of the hub on the frame members being brought together and to be released on the separation of the said members, substantially as described.

2. A detachable wheel construction for motor cycles, consisting of a driving wheel, a tubular sleeve upon which said driving wheel is mounted to rotate, a forked cycle frame upon one member of which the said sleeve is fixedly mounted, said cycle frame having its opposite member provided with an open-ended slot, a wheel hub separate from the said driving wheel, a tubular sleeve upon which said wheel hub is mounted, a driving connection between the said driving wheel and the said wheel hub adapted to be disconnected on the endwise movement of the said hub, an axle adapted to be passed through the said open-ended slot in one member of the cycle frame and through the tubular hub sleeve and the tubular driving wheel sleeve, means upon the said axle for bringing the frame members together, a boss upon the said axle, a distance piece adapted to engage with the said boss, said distance piece having a recess on one face for the reception of one end of the boss, and an open-ended radial slot, substantially as described.

3. A detachable wheel construction for motor cycles, consisting of a driving wheel, a tubular sleeve upon which said driving wheel is mounted to rotate, a forked cycle frame upon one member of which the said sleeve is fixedly mounted, said cycle frame having its opposite member provided with an open-ended slot, a wheel hub separate from the said driving wheel, a tubular sleeve upon which said wheel hub is mounted, a driving connection between the said driving wheel and the said wheel hub adapted to be disconnected on the endwise movement of the said hub, an axle adapted to be passed through the said open-ended slot in one member of the cycle frame and through the tubular hub sleeve and the tubular driving wheel sleeve, means upon the said axle for bringing the frame members together, a boss upon the said axle, a distance piece adapted to engage with the said boss, said distance piece having a recess on one face for the reception of one end of the boss, and an open-ended radial slot, substantially as described.

1,132,832. LISTER. ANDREW J. COMER, Cullison, Kans. Filed Sept. 8, 1914. Serial No. 860,719. (Cl. 97—36.)

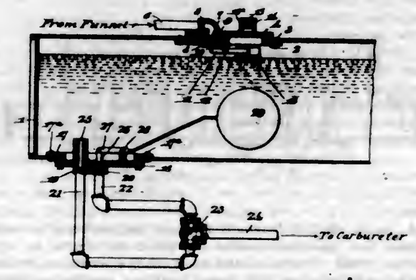


A lister including an axle having arched end portions, the outer arms of each arch being off-set rearwardly, spindles outstanding from said outer arms of the arches and held thereby out of line with the intermediate portion of the axle, supporting wheels engaging the spindles, a front frame member, a draft beam secured upon said frame member and the intermediate portion of the axle, and side strips secured to the ends of the front frame member and mounted on the spindles.

1,132,833. LIQUID-FUEL TANK. FREDERICK C. COSEO, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Sept. 25, 1912. Serial No. 722,359. (Cl. 158—46.5.)

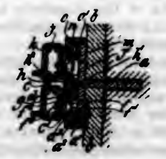
1. In a device for containing and supplying liquid fuel, the combination of a fuel container, a discharge duct communicating with the container at one point, a second discharge duct communicating with the container at another point, means for preventing a part of the fuel in the container from flowing out through the first duct, a manually controllable valve for connecting either duct with an outlet pipe, and a valve controlled by the level of the fuel in the container for closing the second duct so long as there is sufficient fuel to flow out through the first duct and for opening the second duct when the supply of fuel which can flow out through the first duct is exhausted.

2. In a device for containing and supplying liquid fuel, the combination of a tank, two discharge ducts communicating with the tank at different levels, a manually controllable valve for connecting either duct with an outlet pipe, and a valve automatically controlled by the level of the fuel in the tank for closing the lower duct when the



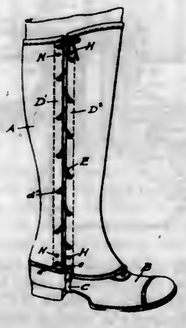
fuel level is above the opening to the upper duct and for opening the lower duct when the fuel level is below the said opening.

1,132,834. WINDOW AND CASEMENT. VALENTINE GEORGE CRITTALL, Braintree, England, assignor to The Crittall Manufacturing Company, Limited, Braintree, England. Filed June 11, 1914. Serial No. 844,568. (Cl. 189—72.)



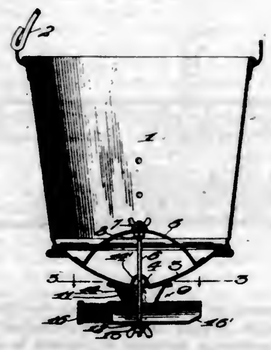
The combination of a jamb, an outer flange fixed to the jamb, an angle piece forming an inner flange and having slots in it, a clamping strip, screws passing through the slots and securing the clamping strip to the jamb whereby said angle piece is made adjustable, a vertical sash bar the outer face of which is in direct contact at all times with the outer flange, and rollers pivoted to the sash bar and in direct contact with the inner flange.

1,132,835. LEGGING. EDWARD P. DEHLER, St. Joseph, Mo. Filed Feb. 11, 1913. Serial No. 747,596. (Cl. 36—2.)



A legging comprising a legging body having an opening at one side throughout its entire length, the edge portion of said body adjacent the front side of said opening forming a front flap and having a pocket extending longitudinally thereof throughout its length, the other edge portion of said body forming a tongue arranged to lap behind said front flap for closing said opening, said body having a rear flap formed at the juncture of said tongue with said body and having a pocket extending longitudinally thereof throughout its length, a metal stiffening strip in each of said pockets extending from the upper end of said body and terminating above the lower end thereof, rivets through the ends of said strips and through said flaps, each of said flaps having a plurality of lacing apertures extending through the metal strip and through the material of the flap and a lacing aperture extending through the material of the flap below the lower end of the metal strip, and a lace cord adapted to be laced through said lacing apertures.

1,132,836. POULTRY-FEEDING DEVICE. LOUIS C. EDWARDS, Ellington, Conn. Filed Mar. 16, 1914. Serial No. 825,060. (Cl. 119—70.)



1. A poultry feeder comprising a feed receptacle having a hopper-like bottom with a central opening forming an outlet, a centrifugal distributer beneath said outlet having an agitator extending upwardly into and spanning said outlet opening and engaging the side walls thereof for loosening the feed in and adjacent to said outlet, said distributer having a discharge opening and means for rotatably supporting said distributer.

2. A poultry feeder comprising a feed receptacle having an outlet in its lower end, a distributing tube mounted for rotation in a horizontal plane and having an opening located beneath the opening in said receptacle, a foraminous extension on one end of said tube, and an upright wall closing the lower portion of the outer end of said extension, whereby a quantity of feed will be trapped in said foraminous extension to be viewed by the poultry.

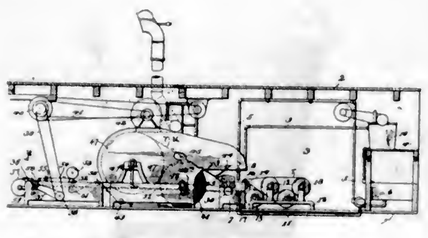
3. A poultry feeder comprising a receptacle having an outlet opening in its lower side, a rod depending through said opening, a horizontal distributing tube beneath said receptacle having an opening located beneath the opening therein, means for connecting said tube with said rod, a bearing bar carried by the tube, and spanning the opening therein, said bar having its central portion bulged upwardly into the opening in the receptacle and constituting an agitator, the latter having a perforation receiving said rod, and means for holding said rod in operative position.

4. A poultry feeder comprising a receptacle having a discharge opening, an upright rod passing through said opening, a funnel shaped member surrounding said rod beneath said opening, a bearing bar extending across the interior of said member and having its central portion bulged upwardly into said opening and centrally perforated, said perforation being provided for the reception of said rod, means for holding said rod in operative position and a distributing tube projecting laterally from the lower end of said member.

5. A poultry feeder comprising a feed receptacle having an outlet in its lower end, a combined distributing and baiting tube mounted for rotation in a horizontal plane and having an opening located beneath and communicating with the outlet in said receptacle, an extension on one end of said tube having openings in its side walls and an upright wall closing the lower portion of the outer end of said extension, whereby a quantity of feed will be trapped in said extension to be viewed by the poultry, and the other end of said tube being open and provided with means for retarding the discharge of feed therefrom.

[Claims 6 to 9 not printed in the Gazette.]

1,132,837. APPARATUS FOR PRODUCING TAPE, STRING, AND THE LIKE. RUFUS E. EGGLESTON, Atlanta, Ga., assignor to National Tape Company, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 9, 1912. Serial No. 735,747. (Cl. 28—7.)



1. Apparatus for producing tape or the like, including in combination, a tank for holding an adhesive solution, means for passing a plurality of threads or strands into said solution in a separated condition, and means disposed within said tank for bodily shifting said threads or strands into contact one with another in the solution, thereby laying them side by side and causing their surfaces to adhere to form a tape.

2. Apparatus for producing tape or the like, including in combination, a tank for holding an adhesive solution, means for passing a plurality of threads or strands into said solution in a separated condition, and means operating in the solution in said holding tank for bodily moving said threads together in the solution and causing their edges to adhere to form tape.

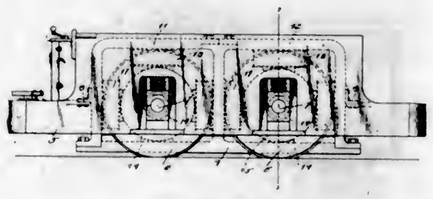
3. Apparatus for producing tape or the like, including in combination, a tank for holding an adhesive solution, means within said tank for effecting a movement of a plurality of initially separated threads or strands toward and against one another in the solution and for causing their edges to adhere to form a tape.

4. Apparatus for producing tape or the like, including in combination, a tank for holding an adhesive solution, means within said tank for effecting a movement of a plurality of initially separated threads or strands toward and against one another in the solution and for causing their edges to adhere to form a tape, a drying instrumentality, and means for passing said tape formed of said plurality of strands in the presence of said drying instrumentality, and means for passing said tape formed of said plurality of strands in the presence of said drying instrumentality.

5. Apparatus for producing tape or the like, including in combination, means for supplying an adhesive medium, means operative in direct relation to said supplying-means for introducing a plurality of initially separated threads or strands to the binding action of said adhesive medium, and means for effecting a movement of said threads or strands toward and into contact with one another while passing through said medium.

[Claims 6 to 17 not printed in the Gazette.]

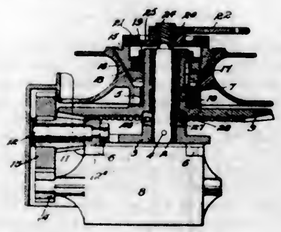
1,132,838. LOCOMOTIVE. DUDLEY T. FISHER, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Apr. 16, 1910. Serial No. 555,787. (Cl. 105—259.)



1. In an electric locomotive, the combination of a main frame, two transverse axles on which the frame is supported, track wheels at the ends of the axles, a continuous box-like motor field frame having a central partition which divides it into two similar compartments, means for mounting the field frame on the main locomotive frame with the axles passing through the said compartments considerably below the centers thereof, the frame extending at the top beyond the peripheries of the wheels and terminating at the bottom inside the peripheries of the wheels, motor armatures mounted in the compartments normally concentrically with the axles and connected thereto, and four motor poles in each compartment for cooperation with the armature, one pole being located above the armature and provided with a coil, two poles being located at the sides of the armature and provided with coils, and the fourth pole being located below the armature and not provided with a coil.

2. In an electric locomotive, the combination with the frame of the locomotive, of driving wheels having their axles journaled in said frame, a vertically disposed motor frame secured to the locomotive frame and having a base piece provided with a middle column and having also two angle plates one secured to each end of said base piece and to the top of said column thereby forming two compartments through which said axles pass, a wound field pole upon each side of said column in each compartment and another upon the uprights of each angle plate, an armature mounted upon each axle transversely of each compartment, and driving connections between the armature and the driving wheels.

1,132,839. CABLE-WINDING MECHANISM FOR LOCOMOTIVES. DUDLEY T. FISHER, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Sept. 24, 1907, Serial No. 394,401. Renewed Nov. 8, 1911. Serial No. 659,246. (Cl. 254—166.)



1. A cable reeling mechanism for an electric mine locomotive comprising in combination a cable reel with its axis vertical, a stationary shaft on which the reel is mounted, an electric motor arranged in vertical alinement with the shaft and close to the reel, with its armature shaft horizontal, a master gear wheel mounted on the stationary shaft in the space vertically between the motor and the reel, gearing connecting the motor to the master gear wheel, a friction clutch interposed between the master wheel and the reel, and a mechanism for operating the clutch.

2. A cable reeling mechanism for an electric mine locomotive, comprising in combination a reel formed with an external peripheral cable cavity and a relatively enlarged interior conical clutch cavity, a vertically arranged stationary shaft about which the reel may rotate, a motor, a master gear wheel, gearing between the motor and the master gear wheel, a conical friction clutch member mounted in the said interior cavity in the reel and positively connected to the master wheel, and means normally held against rotation for adjusting the clutch member while the master wheel is in rotation.

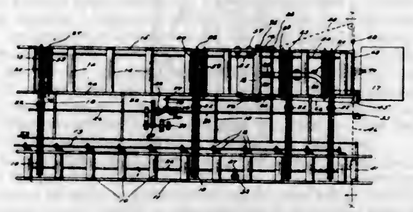
3. A cable reeling mechanism for an electric locomotive comprising in combination a reel having an upward enlarging conical opening at its upper end, a drive element upon which the reel is supported and with respect to which it is freely rotatable, a central shaft rigid with the drive element and disposed within the reel, and a manually controllable clutch element for engaging the walls of the conical opening in the reel, the said clutch element being splined upon the drive element and vertically movable within said opening.

4. The combination with a cable reel rotatable about a vertical axis, and a rotatable concentrically mounted driver upon which the reel rests, of a friction clutch for the reel mounted concentrically with respect to the reel and the driver and having an adjustable member, a nut mechanism for elevating the adjustable member and thereby opening the friction clutch, and springs for depressing the adjustable member and thereby closing the clutch.

5. In a cable winding mechanism, the combination of a vertical non-rotatable shaft, a supporting and driving element rotatable on the shaft, a reel supported on the said element and rotatable with respect thereto, a motor, gearing between the motor and the supporting and driving element, a friction element rotatable with the supporting and driving element but vertically movable with respect thereto, and means for moving said friction element vertically into or out of engagement with the reel, the said means being supported independently of the reel and of the supporting and driving element.

[Claims 6 and 7 not printed in the Gazette.]

1,132,840. TRANSFERRING AND ALINING MACHINE. THOMAS S. GARRETT, Seattle, Wash. Filed May. 22, 1913. Serial No. 769,257. (Cl. 143—92.)

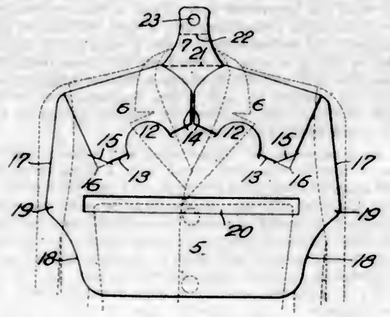


1. In a machine for transferring and alining logs and cants of timber, the combination with a fixed supporting frame adapted to support a timber, of a plurality of driven rollers disposed adjacent to one side of said supporting frame and rotatably mounted in suitable bearings with their axes disposed parallel to each other and at right angles to the side of said fixed supporting frame, means for producing a synchronous rotation of all of said rollers, a plurality of idler rollers disposed with their ends adjacent to the opposite side of said supporting frame and mounted each to be independently rotatable in suitable bearings and disposed with their axes at right angles to said opposite side of said supporting frame, and a plurality of live skids disposed each at a different intermediate point between the ends of said supporting frame and transversely thereof to extend throughout the distance between the outer ends of said driven rollers and the outer ends of said idler rollers with its top surface normally lower than the top surface of said supporting frame and lower than the uppermost part of any of said rollers, each of said live skids comprising two hinged sections in association with an endless chain which is adapted by suitable means to travel always in the same direction lengthwise of said live skid and which chain is further adapted to be raised and lowered by said hinged sections, each of said hinged sections being adapted by suitable means to have its free end raised and lowered.

2. In a machine for transferring and alining logs and cants of timber, the combination with a fixed supporting frame adapted to support a timber, of a plurality of driven rollers disposed adjacent to one side of said supporting frame and rotatably mounted in suitable bearings with their axes disposed parallel to each other and at right angles to such side of said fixed supporting frame; means for producing a synchronous rotation of all of said rollers; a plurality of idler rollers disposed with their ends adjacent to the opposite side of said supporting frame and mounted each to be independently rotatable in suitable bearings and disposed with their axes at right angles to said opposite side of said supporting frame; a plurality of live skids disposed each at a different intermediate point between the ends of said supporting frame and transversely thereof to extend throughout the distance between the outer ends of said driven rollers and the outer ends of said idler rollers with its top surface normally lower than the top surface of said supporting frame and lower than the uppermost part of any of said rollers, each of said live skids comprising two hinged sections in association with an endless chain which is adapted by suitable means to travel always in the same direction lengthwise of said live skid and which chain is further adapted to be raised and lowered by said hinged sections, each of said hinged sections being adapted by suitable means to have its free end raised and lowered; a plurality of other live skids each comprising an endless chain mounted on sprocket wheels attached to an arm that is hinged to a suitable support and disposed in association with said idler rollers and each to be adjacent to and parallel with a section of a different one of said first named live skids, and each adapted by suitable means independently to have its free end raised and lowered; and means for causing the chains of said last named live skids to travel in a direction that is opposite to the direction of travel of the chains of said first named live skids.

3. A machine for transferring and alining logs and cants of timber which embodies a fixed supporting frame, a plurality of driven rollers disposed adjacent to one side of said supporting frame and rotatably mounted in suitable bearings with their axes disposed parallel to each other and at right angles to the side of said supporting frame, a plurality of idler rollers disposed with their ends adjacent to the opposite side of said supporting frame, a plurality of live skids disposed each at a different point between the ends of said supporting frame and transversely thereof to extend throughout the distance between the outer ends of said driven rollers and the outer ends of said idler rollers with its top surface normally lower than the top surface of said supporting frame and normally lower than the uppermost portion of any of said rollers, and each of said live skids embodying an endless carrier chain which is adapted by suitable means to be caused to travel always in the same direction and which is further adapted by suitable means to be raised to lift and carry a cant of timber, a plurality of other live skids, each comprising an endless carrier chain mounted on sprocket wheels attached to an arm that is hinged to a suitable support and disposed in association with said idler rollers and adjacent to one of said first named live skids, means for simultaneously raising said second named live skids to cause their carrier chains to raise and carry a cant of timber, and means for causing the chains of said second named skids to travel in a direction opposite to the direction of travel of the chains of said first named skids.

1,132,841. GARMENT-HOLDING FORM. SOLOMON DAVID GILKERSON, Montreal, Quebec, Canada. Filed Jan. 28, 1913. Serial No. 744,634. (Cl. 211—13.)



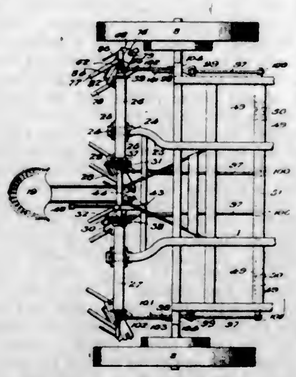
1. A device of the character described comprising a body portion, flaps foldable thereover to form thickened garment shoulder supports, said flaps having adjacent edges abutting on the center line of the body during folded flap position, tongues formed integral with the body holding said flaps in folded position, and slots formed in the body positioned for the insertion of the remote corners of the flaps and adapted to hold the abutting edges of the flaps against separation.

2. A device of the character described comprising a body, a tongue at the center of the upper edge of said body, a pair of flaps extending from the tongue to the side edges of the body and foldable at two creases diverging from the junction of the tongue and body toward the sides of the body, and means for holding said flaps rigidly in folded position.

3. A device of the character described comprising a body portion integral flaps foldable over the body, and extending substantially parallel thereto and having flap parts arranged to form thickened garment shoulder supports, said flap parts extending at substantially right angles to said body and said integral flaps.

4. A device of the character described comprising a body portion, flaps foldable over said body portion a triangular flap part connecting said flap and body adapted to form thickened garment shoulder supports, said flaps having adjacent edges abutting during folded flap position.

1,132,842. CULTIVATOR. JESSE L. GRAHAM, Princeton, Iowa. Filed June 3, 1912. Serial No. 701,263. (Cl. 97—35.)



1. In a cultivator, the combination with the cultivator frame, of cultivating devices, draft means connecting the cultivating devices to the cultivator frame and arranged to shift as an entirety transversely of said frame, and raising and lowering means connecting the cultivating devices to the cultivator frame which are also shiftable transversely thereof with the draft means.

2. In a cultivator, the combination with the cultivator frame, of a hitch or draft bar adapted to slide or move as an entirety transversely of the cultivator frame, independent cultivating devices connected independently to said hitch or draft bar at different points of the length thereof by dragging devices, said cultivating devices being adapted to shift bodily transversely of the cultivator with said hitch or draft bar, rollers supporting the draft bar, and rollers against which the draft bar bears.

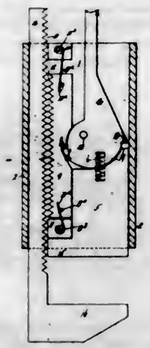
3. In a cultivator, the combination with the frame thereof, of independent cultivating devices, means connecting said devices to the frame, and raising and lowering means for said cultivating devices embodying inner and outer telescoped shafts adapted to slide together as an entirety transversely of the frame, independent means for turning said shafts and locking them, and connections between the shafts and the respective cultivating devices.

4. In a cultivator, the combination with the frame thereof, of independent cultivating devices, means connecting said devices to the frame, raising and lowering means for said cultivating devices embodying inner and outer telescoped shafts adapted to slide together as an entirety transversely of the frame, connections between the shafts and the respective cultivating devices, means on the frame supporting said shafts so that they may shift or slide together as an entirety transversely thereof, means for preventing backward turning of the shafts, and independent means for turning the shafts, whereby the cultivating devices may be independently raised or lowered.

5. In a cultivator, the combination with the frame, of a cultivating device connected thereto, a rotatable shaft mounted on the frame to slide transversely thereof, means for turning said shaft and for locking it where turned, and an operative connection between the shaft and the cultivating device whereby the cultivating device may be raised or lowered.

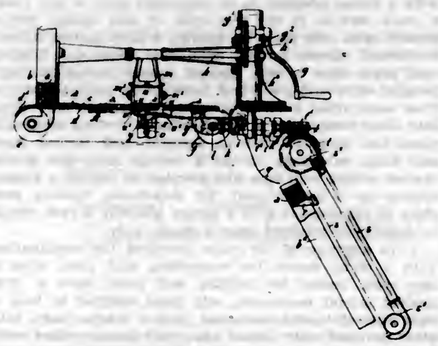
[Claims 6 to 15 not printed in the Gazette.]

1,132,843. WRENCH. GILBERT M. HAGEY, Monroe, Wash. Filed Jan. 27, 1914. Serial No. 814,612. (Cl. 81—126.)



In an article of the class described, the combination of a housing, a lever having one of its ends eccentrically mounted therein, a toothed bar slidable within the housing, tooth and notch connections between the said bar and the eccentric portion of the said lever, a second bar having notches which are adapted to coöperate with teeth in the first mentioned bar, a jaw rigid with the said second bar, a second jaw adapted to coöperate with the first mentioned jaw and which is slidable within the said housing, a tooth upon the said lever which is oppositely disposed to its first mentioned tooth and a shoulder upon the said second jaw which is adapted to be acted upon by the last mentioned tooth of said lever.

1,132,844. PRINTING-MACHINE. AUGUST ERNST KARL GUSTAV HARTMANN, Hamburg, Germany. Filed Jan. 28, 1915. Serial No. 4,949. (Cl. 101—1.)



1. In a printing machine, a type plate support, an extensible carrier revoluble in a vertical plane transversely to the support, a pressure roll mounted in the carrier, means on the latter to yieldingly press the roll onto a type-plate mounted on the support, a yielding paper support surrounding a type plate positioned below the carrier and adapted to be depressed by the roll, and a resilient member on the carrier adapted to engage articles on the support.

2. In a printing machine, a type plate support, an extensible carrier revoluble in a vertical plane transversely to the support and having a spring actuated hinged end portion, a pressure roll rotatably mounted in the latter, a yielding paper support adapted to surround a type plate and depressible by the roller, a resilient arm mounted on the carrier and extending beyond the roller, and means to raise the support into the path of said arm.

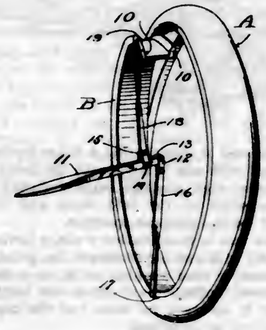
3. A printing machine for minor printings having means for feeding type plates to a printing place, a pressure roll adapted to move in a circle and to roll over the paper to be printed when placed on the type plate, a shaft, a bracket mounted on the shaft, two arms rotatably attached to the bracket, and a spring adapted to hold the arms in a line with the bracket, the pressure roll being journaled between the said arms.

4. A printing machine for minor printings having means for feeding type plates to a printing place and a pressure roll adapted to move in a circle and to roll over the paper to be printed when placed on the type plate, a shaft, a bracket mounted on the shaft, two arms rotatably attached to the bracket, a spring adapted to hold the arms in a line with the bracket, the pressure roll being journaled between the said arms, and a gripper attached to the bracket and adapted to remove the printed material from the type plate when the pressure roller has passed over the same.

5. A printing machine for minor printings having means for feeding type plates to a printing place, a pressure roll adapted to move in a circle and to roll over the paper to be printed when placed on the type plate, a carrier arm for the pressure roll adapted to yield during the working of the roll, a gripper attached to the carrier arm, a frame adapted to embrace the type plate in its printing position, and means adapted to lower the plate during the printing operation and to raise it when the gripper engages the printed article.

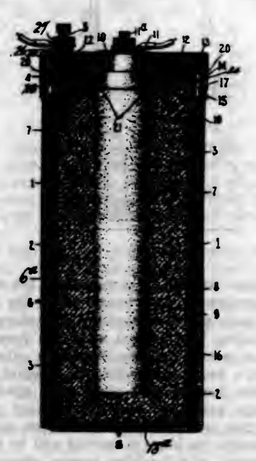
1,132,845. TOOL FOR DEMOUNTABLE RIMS. CARL L. HERRMANN, Torrington, Conn. Filed Nov. 25, 1912. Serial No. 733,514. (Cl. 29—84.)

A tool of the class described comprising an operating lever, a pair of laterally directed spaced ears rigidly mounted on opposite sides of said lever respectively and at one end of the latter, an arm having one end pivoted between said ears, a second pair of spaced ears rigidly mounted on opposite sides of said lever inwardly of the first named pair, an arm having one end pivoted between the second named ears and whereby said arms are both adapted to swing in the plane of movement of



the lever, and hooks formed on the free ends of said arms respectively, said hooks extending away from the grip end of the lever and being constantly disposed in the common plane of the arms and lever.

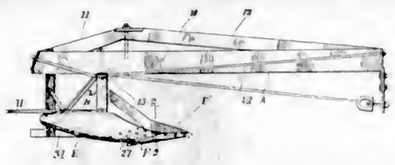
1,132,846. ELECTRIC BATTERY. VALENTINE HOLZAPFEL, Jr., Bayonne, N. J. Filed June 25, 1912. Serial No. 705,703. (Cl. 204—53.)



1. In a cell for a battery the combination of a positive electrode, a binding post and a supporting pin for said electrode, a cover having a hole for said binding post and a right angled slot in said cover to engage said pin.

2. In an electric battery of the character described the combination of a positive electrode and a negative electrode, a hollow post extending from the positive electrode, a locking pin extending from the positive electrode, a cover of insulating material having an elongated cavity with a hole adjacent to one end and having a right angled slot, the hole registering with the hollow post and the right angled slot locking with the locking pin and a binding post extending through the hole of said cavity and engaging said hollow post.

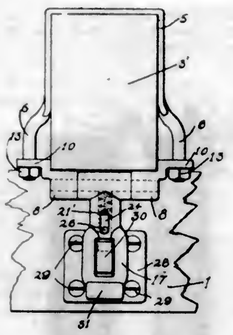
1,132,847. PLOW. OSCAR HOUGH, Camrose, Alberta, Canada. Filed Mar. 5, 1912. Serial No. 681,770. (Cl. 97—21.)



1. In a plow and in combination a share having a flange formed integral with and bent beneath the point thereof, a tapered landside, such landside being designed to be embraced at the point by the said share and its integral flange, as and for the purpose specified.

2. In a plow and in combination a share having a flange formed integral with and bent beneath the point thereof, a tapered landside, a shoe adapted to fit over the front of the said tapered landside, said share and integral flange being adapted to embrace the shoe and the tapered landside substantially as described.

1,132,848. HAY-RACK LOCK. DAVID S. HOWELL, Oconto, Wis. Filed Mar. 25, 1914. Serial No. 827,182. (Cl. 21—74.)



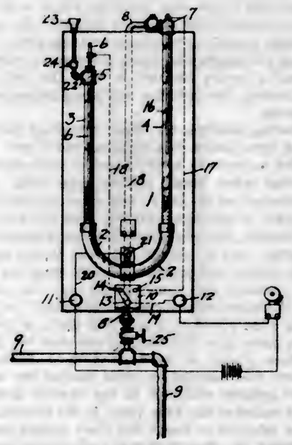
1. In a device of the class described the combination with a U-shaped clamp, a plate carried by the free ends of said clamp, said plate comprising an elongated body, integral depending lugs formed upon the forward end of said body at a spaced distance from each other, each lug provided with a bearing opening, an integral rib formed upon the under face of said plate at a spaced distance from said lugs, said lugs and rib adapted to fit upon the opposite side of a side rail of a wagon body whereby a rack upon which the plate is carried will be held against lateral movement, and latching means pivotally secured to said lugs for detachably retaining a rack upon a wagon body.

2. In a device of the class described the combination with a U-shaped clamp, said clamp terminating at its lower end in off-set threaded bolt portions, a plate, said plate comprising an elongated body, integral spaced lugs upon the outer end of said body, said lugs formed in a spaced relation to each other, outwardly extending ears formed upon the upper outer portions of said lugs thereby constituting shoulder portions between said ears, said plate adapted to be positioned upon a rack whereby said ears may be positioned upon each side of a portion of a rack for holding the plate against lateral movement, means formed upon said plate for holding a rack against lateral movement, said off-set threaded bolt ends of said clamp passing through said ears for firmly holding said plate upon a rack, and means pivotally secured to said lugs for detachably retaining a rack upon a wagon body.

3. In a device of the class described the combination with a clamp adapted to be supported upon a hay rack, a plate secured to the free ends of said clamp, means formed upon said plate for holding a rack against lateral movement, means formed upon said plate for holding said plate upon a rack against lateral movement, lugs integral with said plate and formed at a spaced distance from each other a clasp pivotally secured to said lugs, said clasp comprising a body having a vertical slot, said clasp also provided with an integral neck formed upon said body, said neck having a central bore, and means carried within said bore and adapted to engage a keeper carried by a wagon body for detachably holding said clasp in engagement with a keeper whereby a rack would be detachably retained upon a wagon body.

4. In a device of the class described the combination with a plate, means for supporting said plate upon a hay rack, means for holding said plate upon a rack against lateral movement, said plate adapted to hold a rack against lateral movement upon a wagon body, said plate provided with spaced lugs, said lugs provided with bearing openings, a clasp having a bearing sleeve positioned between said lugs, a pivot pin passing through said lugs and said sleeve for pivotally securing said clasp to said plate, an integral neck formed upon said sleeve and terminating at its lower portion in an enlarged body, said body provided with a vertical slot whereby said body may pass over a keeper, said neck provided with a central bore, a plunger positioned within said bore, a spring positioned within said bore and adapted to urge said plunger upwardly, said plunger adapted to engage a keeper whereby said clasp may detachably engage a keeper thereby allowing a rack to be detachably supported upon a wagon body.

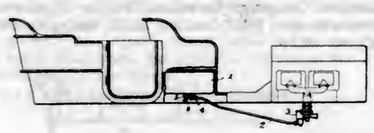
1,132,849. TELLTALE SWITCH. JOHN HOWLAND, San Antonio, Tex. Filed Mar. 10, 1914. Serial No. 823,752. (Cl. 177—317.)



1. A tell-tale switch consisting of a metal tube bent semi-circular, adapted to receive at each end and hold securely glass tubes, one of these glass tubes provided with an adjustable electrode, the other provided with means of connection to a vacuum pipe.

2. A tell-tale switch consisting of a metal tube bent semi-circular provided with means for securing glass tubes, all mounted on a panel board; with mercury in the tube; one of these glass tubes provided with an adjustable electrode, the other tube provided with connections to a vacuum, a standard battery circuit connected to the electrode and the semi-circular tube, whereby a reduction in vacuum closes the bell circuit.

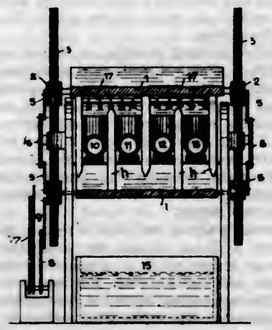
1,132,850. MOTOR-VEHICLE. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit Mich., a Corporation of Michigan. Filed Nov. 6, 1908. Serial No. 461,400. (Cl. 21—90.)



1. In a motor vehicle, the combination with the vehicle body and gasolene tank, of a valve controlling the passage of gasolene from the tank to the carbureter, a shaft comprising two telescoping sections, one connected with the valve by a universal joint, and the other extending through a side of the body of the vehicle, and having at its free end a handle, a key fitted in a groove in one section of the rod and extending into a slot in the other, and a clamping sleeve surrounding the sections and adapted to hold them in any adjusted position.

2. In a motor vehicle, the combination with the vehicle body and gasolene tank, of a valve controlling the passage of gasolene from the tank to the carbureter, a handle arranged on the vehicle body, a universally jointed rotatable shaft connecting the valve and handle, and coöperating stops on the vehicle body and shaft for indicating the relative position of the valve, some of said stops being constructed to receive a locking device.

1,132,851. ARRANGEMENT FOR TRIMMING CLAY PIPES. JENS K. JENSEN, Klützow, Pommerania, Germany. Filed July 14, 1914. Serial No. 850,944. (Cl. 25—30.)



1. Machine for trimming clay pipe, comprising stationary mandrels for receiving the pipe to be trimmed, movable plates, means for moving said plates into contact with said pipes to roll them, and scrapers acting on the ends of the pipes and trimming the ends of the pipes being rolled between said plates.

2. In a machine for trimming clay pipes, portable and stationary mandrels for holding the pipes to be trimmed, movable plates, means for moving said movable plates into contact with said pipes to rotate them, and scrapers on the ends of said mandrels to trim the ends of the pipes being rolled between said plates.

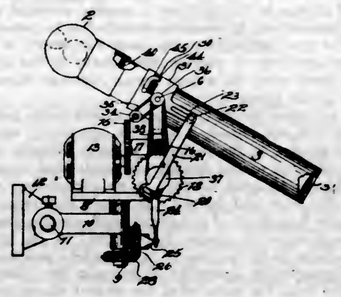
3. In a machine for trimming clay pipes, two sets of spaced plates, the plates of one set alternating with those of the other set, a plate of each set arranged for simultaneous action on a pipe, means to rotatably support pipes between a pair of plates and means to move the plates to rotate the pipes.

4. In a machine for trimming clay pipes, two sets of vertically arranged spaced plates, the plates of one set alternating with those of the other set, a plate of each set arranged for simultaneous action on a pipe, means to rotatably support pipes between a pair of plates and means to move the plates to rotate the pipes.

5. In a machine for trimming clay pipes, two spaced plates, means to rotatably support a pipe between the plates and means to move said plates in opposite directions into contact with said pipes to roll the same.

[Claims 6 to 14 not printed in the Gazette.]

1,132,852. ADVERTISING APPARATUS. GUSTAF A. JOHNSON, Alameda, and PEDER PEDERSEN, San Francisco, Cal. Filed Mar. 19, 1912. Serial No. 684,704. (Cl. 88—27.)



1. In a light-ray projecting apparatus, the combination of a tube with a condensing lens, and a source of light in suitable position relative thereto, and mounted for swinging movement, said tube having within it a diaphragm provided with advertising matter, and means to rotate the diaphragm.

2. In a light-ray projecting apparatus, the combination with a tube with a condensing lens and a source of light in suitable position relative thereto, and mounted for swinging movement, said tube having within it a diaphragm provided with advertising matter, and means to automatically rotate the diaphragm.

3. An apparatus of the character described, comprising a tube carrying a source of light and a condensing lens, means for imparting a swinging movement to the tube, a transverse diaphragm within the tube removed a substantial distance from the light, and adapted to permit the escape of a volume of light, and means for angularly moving the diaphragm relative to the tube.

4. An apparatus of the character described, comprising a tube carrying a source of light and a condensing lens, means for imparting a swinging movement to the tube, a transverse diaphragm within the tube removed a substantial distance from the light and adapted to permit the escape of a volume of light, and means for angularly moving the diaphragm relative to the tube while the tube is swinging.

5. An advertising apparatus, comprising a light projecting tube with suitable lens and source of light, a turntable upon which the tube is mounted, a motor on the table and connections between the motor and table, whereby the latter is rotated in a horizontal plane.

[Claims 6 to 12 not printed in the Gazette.]

1,132,853. GUARD. WILLIAM C. JOHNSON, Eau Claire, Wis. Filed July 24, 1914. Serial No. 852,795. (Cl. 24—86.)

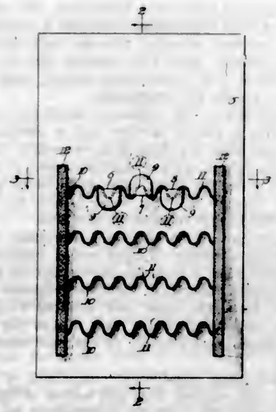


1. An eye-glass holder comprising a fastener to secure it to the wearer, means for securing a pair of eye-glasses thereto, and a freely movable guard which is normally inoperative to permit the removal of the glasses from the securing means and which automatically prevents the release of the glasses from the securing means when the wearer stoops over and varies the position of the fastener.

2. An eye-glass holder comprising a detachable fastener to secure it to the wearer, a hook for detachably securing a pair of glasses to the fastener, a gravity actuated guard for said hook which is normally inoperative to permit the removal of the glasses from the hook and which is automatically operative to prevent the release of the glasses from the hook when the wearer stoops over and varies the position of the fastener.

3. An eye-glass holder comprising a detachable fastener to secure it to the wearer, a hook for detachably securing a pair of glasses to the fastener, a freely movable guard pivotally secured to the fastener adjacent said hook and having depending arms adapted to be disposed on either side of the hook and beyond the same, and means for limiting the movement of the guard, said guard being normally inoperative to permit the removal of the glasses from the hook when the wearer is in upright position and being automatically operative to prevent the release of the glasses from the hook when the wearer stoops over.

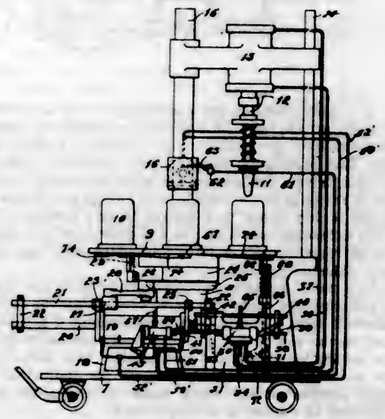
1,132,854. DISPLAY-CARD. JAMES G. JOHNSTON, Evanston Ill., assignor to The Warren Featherbone Company, Three Oaks, Mich., a Corporation of Michigan. Filed Apr. 26, 1913. Serial No. 763,723. (Cl. 211—34.)



1. A display card having three openings in substantially the same plane and adapted to retain a resilient article having staggered protuberances; said card having offset embossed portions adjacent the openings and alternately disposed on opposite sides thereof.

2. A display card having a plurality of openings, two of which are in the same plane and adapted to retain a resilient article having a plurality of protuberances, two of which extend on one side of its longitudinal center; said card having embossed portions adjacent the openings and alternately disposed on opposite sides thereof.

1,132,855. BOTTLE-MAKING MACHINE. JULIAN H. KENDIG, of Pittsburgh, Pa., assignor to Tarentum Bottle Machine Company, Tarentum, Pa., a Corporation of Pennsylvania. Filed Aug. 16, 1913. Serial No. 785,096. (Cl. 49—9.)



1. In a bottle making machine, a rotary mold table, a cylinder, a piston for imparting a step-by-step movement to said table, a pressure-operated reciprocable member cooperating with the molds to form the article, a valvular device for controlling the movement of the reciprocable member, means whereby the piston shifts said valvular device, a second valvular device controlling the movement of the piston, and means whereby the first valvular device shifts the second valvular device when the former is shifted by the piston.

2. In a bottle making machine, a rotary mold table, a main cylinder, a piston therein for imparting a step-by-step movement to the table, a pressure-operated reciprocable plunger coöperating with the molds to form the article, a plunger control valve for controlling the movement of the plunger, said valve being shifted by the piston, a piston control valve for controlling the movement of the piston, and means whereby the plunger control valve positively shifts the piston control valve when the former is shifted by the piston.

3. In a bottle making machine, a rotary mold table, a main cylinder, a piston therein for imparting a step-by-step movement to the table, a pressure-operated reciprocable plunger coöperating with the molds to form the article, a plunger control valve for controlling the movement of the plunger, said valve being shifted by the piston, a piston control valve for controlling the movement of the piston, and a stem for the piston control valve, the plunger control valve having means for moving said stem to shift the piston control valve when the plunger control valve is shifted by the piston.

4. In a bottle making machine, a rotary mold table, a main cylinder, a piston therein for imparting a step-by-step movement to the table, a pressure-operated reciprocable plunger coöperating with the molds to form the article, a plunger control valve for controlling the movement of the plunger, a stem for said valve positively actuated by the piston to shift the valve, a piston control valve for controlling the movement of the piston, and a stem for the piston control valve, said stem being moved to shift the piston control valve by the plunger control valve stem when the latter is shifted on the forward movement of the piston.

[Claims 6 and 7 not printed in the Gazette.]

1,132,856. PRONG-ATTACHED SLIDING-TONGUE BUCKLE. HERMAN KERNGOOD and ISAAC BLUM, Baltimore, Md., assignors to Alma Manufacturing Company, Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Nov. 21, 1912. Serial No. 732,690. (Cl. 24—79.)



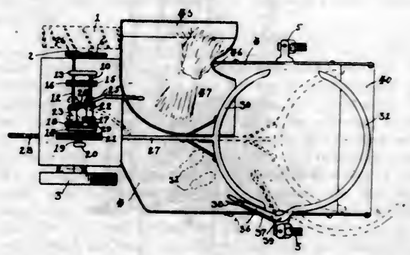
1. A prong-attached buckle, comprising a frame having side bars and end bars devoid of prongs or teeth, a buckle-attaching cross-bar arranged between the end bars and connecting the side bars and depressed below the level of the face of the frame and having prongs integral with and extending backwardly from its opposite edges and out of line with one another, and a strap-gripping device at one end of the frame.

2. A prong-attached buckle, comprising a frame having side bars and end bars devoid of prongs or teeth, a buckle-attaching cross-bar arranged between the end bars and connecting the side bars and depressed below the level of the face of the frame and having a plurality of prongs integral with and extending backwardly from its opposite edges and out of line with one another, and a strap-gripping device arranged at one end of the frame and movable toward and from the cross-bar, said cross-bar when fastened to an article by its prongs serving as a fulcrum upon which the buckle may be tilted to facilitate the insertion of the free end of the strap into the buckle.

1,132,857. SHOCKING ACCESSORY FOR HARVESTING-MACHINES. JOHN G. KERST, Springfield, Ill. Filed July 10, 1913. Serial No. 778,413. (Cl. 56—123.)

1. The combination in an accessory for a harvesting machine, of a frame structure mounted at the forward end on an axle, said axle supported on one end by a wheel and on the other end by one of the wheels of a harvesting machine, independent caster wheels supporting the rear end of said frame structure, said frame structure comprising a shocking platform, a bundle righting chute positioned over said platform and comprising a bottom inclined inward and rearward from the side of the accessory, said chute being provided on the forward side with a curved wall projecting upward at right angles from the bottom of the chute, said chute provided on the rear side with a wall also projecting upward at right angles from the chute bottom and having a forwardly projecting U-shaped bend positioned to engage the heads of the grain bundles, and said chute positioned to receive the bundles of grain delivered from said harvester and to right said bundles and to deliver them to the shocking platform, substantially as described.

2. The combination in an accessory for a harvesting machine, of a wheeled shocking platform attached to said harvester, a bundle righting chute carried by said platform to receive the bundles of grain delivered from said harvester, said bundle righting chute being provided on the forward side with an inclined curved wall extending inward from the mouth of the chute at right angles to the line of travel of the shocking platform and curved rearward and downward adjacent the center of the accessory, said chute being provided with an inclined wall on the rear side having a forwardly projecting U-shaped bend positioned to engage the head of a grain bundle, and said chute having a bottom inclined inward and rearward from the side of the accessory whereupon the bundle may gravitate inward and rearward, substantially as described.



3. The combination in a shocking accessory for a harvesting machine, of a shock-delivering bar adapted to be actuated longitudinally in a line central with a grain shock, a semi-circular yoke carried on the rear end of said delivering bar, a gear rack on said bar, an actuating gear for said gear rack, means for rotating said actuating gear in a counter-clockwise direction whereby a grain shock may be pushed rearwardly off of said shocking floor by the rearward actuation of said delivering bar, and means for rotating said actuating gear in a clockwise direction whereby the delivering bar may be returned, substantially as described.

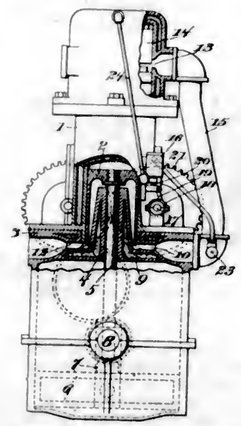
4. The combination in a shocking accessory for a harvesting machine, of a shock-delivering bar having a fixed semi-circular yoke on the rear end thereof adapted to be actuated longitudinally in a line central with a grain shock, a gear rack on said bar, an actuating gear for said gear rack, means for actuating said actuating gear comprising a first gear fixed to the shaft of said actuating gear and provided with a blank portion in the periphery thereof whereby the travel thereof may be limited in either direction, a forward drive shaft for said first gear, a reverse drive shaft for said first gear, sliding gears mounted on said forward drive shaft and said reverse drive shaft, means for actuating said gears selectively into and out of mesh with said first gear whereby said shock-delivering bar may be actuated rearward and a grain shock pushed off of said shocking accessory and returned after such actuation, and means for driving said forward and reverse drive shafts from a harvesting machine, substantially as described.

5. The combination in an accessory for a harvesting machine having a grain shocking platform attached thereto, of a sprocket wheel attracted to and rotated with a harvester wheel, a drive sprocket carried above said shocking platform, a drive chain entrained about said sprocket wheels, a drive shaft diven by said drive sprocket, a reverse shaft parallel to said drive shaft, an actuating gear for said reverse shaft carried on said drive shaft, an actuating gear on said reverse shaft meshing with said actuating gear on said drive shaft, a sliding gear on said drive shaft, a sliding gear on said reverse shaft, a gear carrying a blank portion in its circumference and adapted to mesh with either of said sliding gears, a shaft driven by said gear, a gear rack actuating gear mounted on said shaft and driven thereby, a gear rack carried by a shock-delivering bar, and a shock-delivering bar and yoke adapt-

ed to be actuated backward and forward by said chain of gears, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,132,858. INTERNAL-COMBUSTION ENGINE. MARGARET E. KNIGHT, South Framingham, Mass., assignor, by direct and mesne assignments, to K-D Motor Company, a Corporation of New York. Original application filed July 8, 1911, Serial No. 637,508. Divided and this application filed Oct. 30, 1911. Serial No. 657,501. (Cl. 123—194.)



In an internal combustion engine, the combination with a cylinder and single acting piston, the cylinder being provided with inlet and exhaust ports and valves controlling said ports respectively; of a piston and piston rod; a closure for the bottom of the cylinder, said closure being provided with ports in communication respectively with the atmosphere and with the exhaust passage from the cylinder; and a guide for the piston forming a part of said closure and extending into the cylinder concentric therewith.

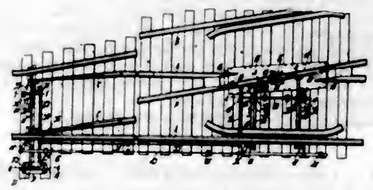
1,132,859. COMBINED KEY-RING AND NAPKIN-HOLDER. ELISABETH GODEY KOHL, San Mateo, Cal. Filed June 4, 1909. Serial No. 500,180. (Cl 24—7.)



In a device of the character described, an arc shaped member adapted to retain keys, and a portion having a curved end and tapering sides, said portion being provided with a wedge shaped slot adapted to engage and hold a napkin, said arc shaped member having one end integral with said portion and the other end adjacent said portion to provide a slot for facilitating the introduction and removal of keys to and from the arc shaped member.

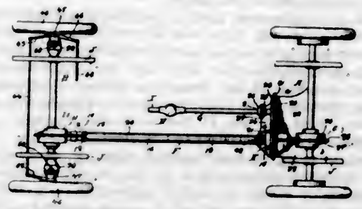
1,132,860. SWITCH MECHANISM FOR RAILWAYS. ROBERT D. LIVINGSTON, Des Moines, Iowa. Filed July 28, 1913. Serial No. 781,610. (Cl. 104—25.)

1. In a switch mechanism, the combination of pivoted switch points, a throw bar connecting said switch points, a plate carried by said throw bar provided with a pair of perforations, a sliding pin adapted to respectively engage in said perforations in the closed and open position of the switch points, means for operating the throw bar to move the switch points to open and closed positions, and means operated by the actuation of the throw bar operating means for sliding said pin out of a given perforation previous to the movement of the throw bar and into a given perforation after the movement of the throw bar has been completed.



2. In a switch mechanism, the combination of a pivoted switch point, a throw bar connected to said switch point, a plate carried by said throw bar provided with perforations, a sliding pin adapted to respectively engage in said perforations in the closed and open position of the switch point, a rotatable shaft, an arm on said shaft connected to the sliding pin whereby the rotation of the shaft will move said pin into and out of the perforations, means for operating the throw bar to move the switch point to open and closed position, and means operated by the actuation of the throw bar, operating means for rotating said shaft to slide the pin out of a given perforation previous to the movement of the throw bar and into a given perforation after the movement of the throw bar has been completed.

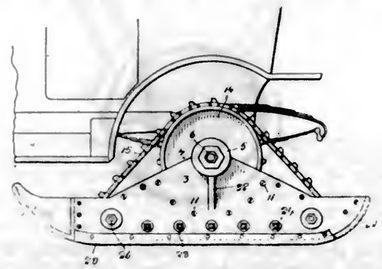
1,132,861. FRONT-WHEEL DRIVE FOR AUTOMOBILES. JOSEPH F. MONTINE, Nevinville, Iowa. Filed Mar. 24, 1914. Serial No. 826,914. (Cl. 21—90.)



1. In front wheel driving mechanism for motor vehicles, the combination of a sectional rear axle, a sectional front axle, rear axle differential gearing, front axle differential gearing, a sectional fore and aft differential shaft connected at opposite ends with the said front and rear axle differential gearing, intermediate differential gearing incorporated in said differential shaft and connecting the sections of said shaft, a master spur gear for said intermediate differential gearing, the intermediate differential gearing being located in close proximity to one of the first named differential gearings, a drive shaft parallel to said differential shaft, a spur gear on said drive shaft meshing with the master gear of the intermediate differential gearing, a sectional housing inclosing both of said proximal differential gearings and the spur gear on the drive shaft, and a webbed housing truss extending from said intermediate to the remaining differential housing and inclosing said differential shaft.

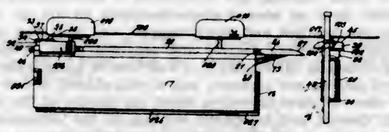
2. In front wheel driving mechanism for motor vehicles, the combination of a sectional rear axle, a sectional front axle, rear axle differential gearing, front axle differential gearing, a sectional fore and aft differential shaft connected at opposite ends with the said front and rear axle differential gearing, intermediate differential gearing incorporated in said differential shaft and connecting the sections of said shaft, the intermediate differential gearing being located in close proximity to one of the first named differential gearings, a sectional housing inclosing both of said proximal differential gearings, a webbed housing truss extending from said intermediate to the remaining differential housing and inclosing said differential shaft, said housing truss embodying sections which are separable on the diametrical line of said shaft, flanges extending laterally from opposite sides of said truss sections, and tie-plates connecting said flanges.

1,132,862. SLEIGH ATTACHMENT FOR AUTOMOBILES. JOSEPH F. MONTINE, Nevinville, Iowa. Filed Mar. 24, 1914. Serial No. 826,915. (Cl. 21—47.)



A sleigh runner attachment for wheeled motor vehicles comprising a main runner body section formed with a recess in one side thereof, driving mechanism inclosed by said runner, a bracing extension projecting laterally from the main runner section and concavo-convex in cross section, said extension embodying separable sections flanged and bolted together, one of said sections being flanged and fastened to said runner section, an annular bead on the housing of the vehicle driving axle, and means for securing said bracing extension to said housing, said housing being formed with a groove to receive said bead to prevent movement of the runner lengthwise of said housing while permitting the runner to oscillate around said housing.

1,132,863. COLLECTION AND DELIVERY APPARATUS. JOSEPH F. MONTINE, Nevinville, Iowa. Filed Feb. 1, 1915. Serial No. 5,472. (Cl. 104—146.)



1. In a delivery and collection apparatus, the combination with the receptacles to be delivered and collected, said receptacles having suspension means capable of a sliding movement; of a car having a longitudinal compartment in which the receptacles are suspended in a row, a support for the receptacles to be collected, a track on which the car is mounted for travel, propelling means for the car, means for discharging the rearmost one of the receptacles in the car, said discharging means including a lifter for elevating the receptacle into position to be taken up by the aforesaid support, means for collecting a receptacle, said collected receptacle entering the car at its front end, means for advancing the collected receptacle into the car and advancing the other receptacles in the car toward the rear end thereof to place the rearmost one in discharge position, and an operative connection between the aforesaid advancing means and the lifter.

2. In a delivery and collection apparatus, the combination with the receptacles to be delivered and collected, said receptacles having suspension means capable of a sliding movement; of a car having a longitudinal compartment in which the receptacles are suspended in a row, a support for the receptacles to be collected, a track on which the car is mounted for travel, propelling means for the car, means for discharging the rearmost one of the receptacles in the car, means for collecting a receptacle, said collected receptacle entering the car at its front end, and means controlled by the discharged receptacle for advancing the collected receptacle into the car and advancing the other receptacles in the car toward the rear end thereof to place the rearmost one in discharge position.

3. In a delivery and collection apparatus, the combination with the receptacles to be delivered and collected, said receptacles having suspension means capable of a sliding movement; of a car having a longitudinal compartment in which the receptacles are suspended in a row, a support for the receptacles to be collected, a track on which the car is mounted for travel, propelling means for the car, means for discharging the rearmost one of the receptacles in the car, means for collecting a receptacle, said collected receptacle entering the car at its front end, means for advancing the collected receptacle into the car and advancing the other receptacles in the car toward the rear end thereof to place the rearmost one in discharge position, and a movable member in the path of the discharging receptacle and actuated thereby, said movable member controlling the receptacle advancing means.

4. In a delivery and collection apparatus, the combination with the receptacles to be delivered and collected, said receptacles having suspension means capable of a sliding movement; of a car having a longitudinal compartment in which the receptacles are suspended in a row, a support for the receptacles to be collected and discharged, a track on which the car is mounted for travel, propelling means for the car, means for discharging the rearmost one of the receptacles in the car, said discharging means including a lifter for elevating the receptacles into position to be taken up by the aforesaid support, a support at the front end of the car for receiving the receptacle to be collected, means for advancing the collected receptacle from said support into the car and advancing the other receptacles in the car toward the rear end thereof to place the rearmost one in discharge position, and an operative connection between the aforesaid advancing means and the lifter.

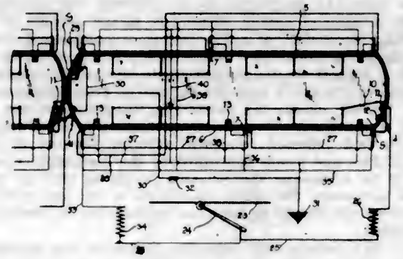
5. In a delivery and collection apparatus, the combination with the receptacles to be delivered and collected, said receptacles having suspension means capable of a sliding movement; of a car having a longitudinal compartment in which the receptacles are suspended in a row, a support for the receptacles to be collected, a track on which the car is mounted for travel, propelling means for the car, means for discharging the rearmost one of the receptacles in the car, a support at the front end of the car for receiving the receptacle to be collected, and means controlled by the discharged receptacle for advancing the collected receptacle from said support into the car and advancing the other receptacles in the car toward the rear end thereof to place the rearmost one in discharge position.

[Claims 6 to 20 not printed in the Gazette.]

1,132,864. SIGNALING APPARATUS FOR STREET-RAILWAY CARS. EDWARD MORRIS, Boston, Mass. Filed Mar. 16, 1914. Serial No. 825,055. (Cl. 246—61.)

1. The combination with a railway car provided with a plurality of entrance and exit doors, of motorman's signal lamps arranged in opposite ends of the car, a circuit for said lamps, switches arranged in the door jambs and connected in series in the circuit, said switches being op-

erated by the doors when the same are closed to close said circuit, and an indicative signal adjacent to each door and operative when the door is open.



2. The combination with a street railway car provided with a plurality of entrance and exit doors, of motorman's signal lamps arranged in opposite ends of the car, a circuit for said lamps, an indicative device adjacent each of the doors, switches arranged in series in the circuit operated by the respective doors, whereby the circuit is closed and the signal lamps illuminated when all of the doors are closed, and a shunt circuit in which the indicative devices are connected in multiple, said switches being included in the shunt circuit whereby, when any one of the doors is opened, the indicative device adjacent thereto is operated.

3. The combination with a street railway car provided with a plurality of entrance and exit doors, of motorman's signal lamps arranged in the opposite ends of said car, a circuit therefor, switches arranged in the door jambs and connected in series in said circuit and operated when the doors are closed to close the circuit and illuminate the lamps, an indicative lamp adjacent to each of the doors, and a shunt circuit therefor which is closed by the respective switches when any one of the doors is open, whereby the lamp adjacent to said door is illuminated.

4. The combination with a street railway car provided with a plurality of entrance and exit doors, of an indicative lamp adjacent to each of said doors, an electric circuit for said lamps, switches arranged in the jambs of the respective doors through which the lamps are connected in multiple in the circuit, whereby when any one of the several doors is open, the lamp adjacent thereto is illuminated.

5. The combination with a railway car provided with a plurality of entrance and exit doors, of motorman's signal lamps arranged in the opposite ends of said car, a circuit for said lamps, a switch arranged in the jamb of each door and each including spaced pairs of contacts, one pair of contacts of each switch being included in said circuit, an indicative lamp adjacent to each of the doors, a shunt circuit for said lamps, said lamps being wired to the other pair of contacts of each switch, each of said switches also including a spring held circuit closing member engaged with the latter pair of contacts when the door with which the switch is associated is open, whereby the door lamps are individually illuminated, said circuit closing member being actuated by the door when the same is closed to engage the same with the first named pair of contacts, whereby the circuit is closed through the motorman's lamps when all of the doors are closed.

1,132,865. GLARE-PREVENTIVE MEANS FOR HEADLIGHTS. JOHN EDWARD MORRISON, Memphis, Tenn., assignor to Safe-T-Lite Co., Memphis, Tenn. a Corporation of Tennessee. Continuation in part of application Serial No. 848,602, filed July 2, 1914. This application filed Aug. 24, 1914. Serial No. 858,266. (Cl. 240—45.)

1. In a headlight projector, the combination of a reflector so constructed as to produce a central field of great intensity and concentric zones of varying intensity diminishing toward the edge thereof, and a glare eliminator adapted to be located in front of the light-giving element and reflector, comprising glass means having a ground-glass surface of a form and area to wholly occupy the upper portion of the light-emitting front of the headlight for its full width to a line below the horizontal diameter of said front and from thence as a drop portion of less width than said front and stopping short of the bottom thereof to leave a clear area with rising ends at said bottom portion, the encroachment of the full-width and drop portions of the ground glass area upon the lower half of the headlight front being such as to provide a light diffusive shield protecting the eye of an observer from direct view of the light-giving element and those portions of the headlight reflector productive of intense illumination, whereby the entire field of light produced by the headlight is utilizible for illumination without distractive glare and all intense glare-producing illumination is limited to an area below the line of direct observation under all conditions of practical use of the headlight.

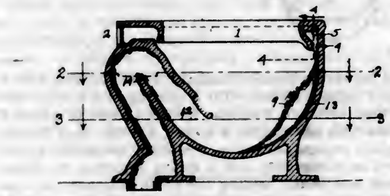


2. A glare eliminator for headlights provided with a centrally located light giving element and reflecting means producing zones of reflected light surrounding the light source, comprising a plate of glass adapted to be located at the light emitting end of the headlight and having a ground-glass light-diffusing surface of even texture embracing an arc of more than one hundred and eighty degrees with said surface occupying all of the upper half and a fractional portion of the lower half of the light emitting end of the headlight and provided with a further continuation into the lower half of said front in the form of a drop of less width than the first-named portion, the area covered by the ground glass surface and the character of the latter being such as to protect the eye of an observer in front of the headlight from direct view of the source of light and the glare producing zones of the reflector, and the area of illumination caused by the headlight remaining unrestricted.

3. An attachment for headlights having light-giving elements and reflectors therein, said attachment being adapted to be applied to the headlight adjacent to the glass front thereof, and comprising a substantially segmental sheet of ground glass including an arc of more than one hundred and eighty degrees and less than three hundred and sixty degrees and provided with an extension from and intermediate of and less in width than the chord side of the segment, and a ring-shaped carrier for the sheet of glass extending about the margin of the main body thereof and in spaced relation to the extension of said main body to there define an arc-shaped clear space free from glass between the projecting portion of the main body and the ring-shaped carrier, the area of the ground glass surface including the extension being such as to interpose between the eye of an observer and both the light-giving element of the headlight and the areas of intense illumination of the reflector of the headlight under all conditions of practical use of such headlight.

1,132,866. SIPHON CLOSET-BOWL. CHARLES H. MUCKENHIRN, Detroit, Mich., assignor, by mesne assignments, to the Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 29, 1910. Serial No. 579,581. (Cl. 4—22.)

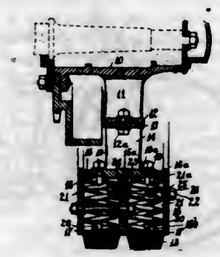
1. In a closet bowl provided with a trap outlet in combination with a discharge passage thereof, a grooved passage extending at a point in the bowl immediately underneath a nozzle formed in the flushing rim below the body of such rim, said nozzle and flushing rim, the bottom of said passage having a cycloidal curve and its sides a reverse curve thereby widening and deepening said channel at a point midway between said nozzle and the bottom of the bowl, the said passage narrowing and terminating in the bottom of the bowl where the side walls of the channel merge into said bottom and thus adapted to direct a stream of water from the flushing rim and from the sides of said passage into it and delivering the same to the mouth of the discharge passage, substantially as described.



2. A water closet bowl of the character described having a water supply, an up-leg constituting an outlet, the opposite portion of the bowl having a channel in its surface arranged to conduct water to the mouth of the up-leg, said channel having a curved bottom and cheek portions or sides merging into the bottom of the bowl proper and projecting inwardly to relatively high positions at a point downwardly beyond the inlet of the channel to give increased depth to and concentrate the water flowing into the channel, and the walls of the channel also contracting at the discharge end of the channel and merging into the bottom of the bowl to emit the water as a core or jet to force and entrain the normal water and contents in the bowl up the up-leg.

3. A water closet bowl of the character described having a water supply and a rearwardly curved up leg constituting an outlet, there being a channel formed in the front portion of the bowl arranged to convey water to the mouth of the up leg, said channel having a curved bottom and cheek portions merging into the bottom of the bowl proper and projecting inwardly to relative high positions at a point beyond the outlet of the channel whereby to give increased depth to and concentrate the water flowing into the channel, the walls of the channel contracting adjacent its discharge end and merging into the bottom of the bowl whereby to emit the water as a jet to force and entrain the normal water and contents in the bowl up the up leg.

1,132,867. SPRING-WHEEL. JOSEPH H. MULLIN, Mifflinburg, Pa. Filed July 24, 1913. Serial No. 780,932. (Cl. 152—37.)



A spring wheel comprising a hub section having a rigid rim, an outer section having inner and outer rims in fixed relation to each other, said inner and outer rims being each unitary and of a width to extend transversely across the wheel from one side thereof to the other, radial bolts rigidly securing the inner rigid rim of the outer section to the rigid rim of the hub section, a tire, springs between the tire and the outer rim of the outer section, and radial bolts securing the inner ends of the said springs to the said outer rim of the outer section, the said inner and outer rims of the outer section being spaced to accommodate the bolt heads and afford clearance for the manipulation of the bolts.

1,132,868. PROCESS OF REFINING RAW CANE-SUGAR. FRANZ MURKE, Fort Collins, Colo. Filed June 20, 1914. Serial No. 846,403. (Cl. 127—15.)

1. The process of refining raw cane sugar, which process comprises removing without chemical change impurities of the syrup surrounding the sugar crystals, and treating at substantially boiling temperature a solution of the resulting crystals with a reagent acting to change the impurities originally included in the sugar crystals to material which will be excluded from the crystals upon recrystallization.

2. The process of refining raw cane sugar, which process comprises removing without chemical change impurities of the syrup surrounding the sugar crystals, and treating at substantially boiling temperature a solution of the resulting crystals with lime or its equivalent to change the impurities originally included in the sugar crystals to a material which will be excluded from the crystals upon recrystallization.

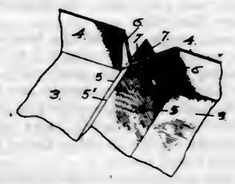
3. The process of refining raw cane sugar, which process comprises removing without chemical change impurities of the syrup surrounding the sugar crystals, treating at substantially boiling temperature a solution of the resulting crystals with lime or its equivalent to change the character of the impurities originally included in the sugar crystals, and recrystallizing the sugar from the solution to the exclusion of the changed impurities from the crystals.

4. The process of refining raw sugar, which process comprises mechanically removing from the sugar impurities of the syrup surrounding the sugar crystals, and treating at substantially boiling temperature a solution of the resulting crystals with lime or its equivalent.

5. The process of refining raw sugar, which process comprises washing the sugar to remove glucose and other impurities of the syrup surrounding the sugar crystals, making a solution of the washed crystals, and acting upon the coloring impurities of said solution by treating said solution at substantially boiling temperature with lime or its equivalent.

[Claims 7 to 16 not printed in the Gazette.]

1,132,869. MATTRESS. WILLIAM W. NICHOLS, San Francisco, Cal. Filed Sept. 29, 1913. Serial No. 792,530. (Cl. 5—13.)

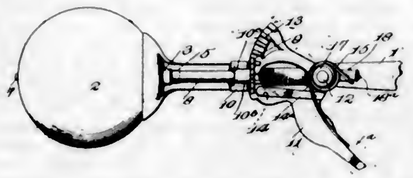


1. A sectional mattress consisting of a bottom piece folded into several sections having ends, sides and bottoms, and reinforcing sections adjacent the corners between the sides and ends; and a top piece sewed to the top edges of the ends and sides of each section.

2. A sectional mattress formed from a single bottom piece of suitable material by folding the same longitudinally along the edges to form the ends and folding trans-

versely the same distance to form the sides of each section, the square portions adjacent the ends and sides being folded diagonally so as to lie against the sides and reinforce the sides adjacent the corners of each section; a suitable stuffing material within each section; and a single top piece sewed to the top edges of each side and end of each section so as to inclose each section and to reinforce the hinge between the tops of the adjacent sections.

1,132,870. ICE-CREAM SPOON. RASMUS NIELSEN, Troy, N. Y., assignor to The Gilchrist Company, Newark, N. J., a Corporation of New Jersey. Filed July 15, 1908. Serial No. 443,706. (Cl. 107—48.)



1. An ice cream spoon comprising a bowl and handle, the bowl having an opening and in alinement therewith an open bearing, an end bearing on the handle, a scraper having a trunnion which fits in the opening in the bowl, and a spindle which fits in the open bearing and also the end bearing on the handle, means including two inwardly projecting flanges on the bowl adjacent to and coöperating with the open bearing to retain the spindle in said bearing, and means for turning the scraper in the bowl.

2. An ice cream spoon comprising a bowl and handle, the bowl having two bearings, one of which is open at the top, an end bearing extending from the handle, a scraper operating in the bowl and having a trunnion and spindle, the trunnion and spindle operating in the bearings, means including two inwardly projecting flanges adjacent the open bearing located to permit movement of the trunnion in direction of the handle to disengage it from its bearing, whereby the scraper may be removed from the bowl, and means for operating the scraper.

3. An ice cream spoon comprising a bowl and handle, a scraper in the bowl, a pinion connected to the scraper, a finger piece having teeth which mesh with the pinion, a spring for operating the finger piece in one direction, a movable stopping device mounted on the finger piece to abut against the handle to limit the movement of said finger piece, and a yielding element for normally projecting the stopping device in the path of movement of the finger piece.

4. An ice cream spoon comprising a bowl and handle, a scraper in the bowl, a pinion connected to the scraper, a finger piece having teeth which mesh with the pinion, a spring for operating the finger piece in one direction and a spring actuated stop carried by the finger piece to limit the movement of the latter.

5. An ice cream spoon comprising a bowl and handle, a scraper in the bowl, a pinion connected to the scraper, a finger piece having teeth which mesh with the pinion, a spring for operating the finger piece in one direction, and a stop in the path of the handle carried by the finger piece to limit the movement of the latter, and a yielding element for normally projecting the stopping device in the path of movement of the finger piece.

[Claims 6 to 20 not printed in the Gazette.]

1,132,871. ICE-CREAM SPOON. RASMUS NIELSEN, Troy, N. Y., assignor to The Gilchrist Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 19, 1907, Serial No. 389,289. Renewed Sept. 11, 1909. Serial No. 517,288. (Cl. 107—48.)

1. An ice cream spoon comprising a handle and a bowl, a slot being formed between said handle and bowl, a scraper having a pinion, said scraper being of such width as will pass through the slot, a finger piece having teeth which engage the pinion, and a spring for locking the finger piece and scraper to the bowl and also serving to operate said scraper in one direction.



2. An ice cream spoon comprising a bowl formed with a bearing, a handle formed with a bearing and a slot communicating therewith, a scraper having trunnions mounted in the bearings and having a pinion, a finger piece having teeth which engage the pinion, means for mounting the finger piece on the handle, and a spring engaging the finger piece and handle for holding the parts together and also serving to move the scraper in one direction, the scraper being withdrawn from the bowl through the slot when said spring is released.

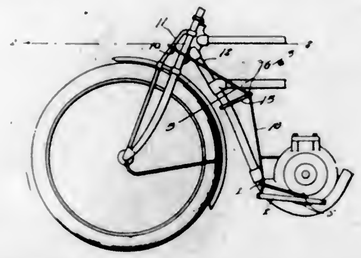
3. An ice cream spoon comprising a handle and a bowl, a slot formed between said handle and bowl, a scraper having a pinion, said scraper being of such width as will pass through the slot, a finger piece having teeth which engage the pinion, and a spring for operating the scraper in one direction.

4. An ice cream spoon comprising a bowl, a scraper having a pinion, a handle, a finger piece pivoted to the handle and having teeth which mesh with the pinion, a spring which locks the scraper and the finger piece to the bowl and the handle and also serves to move the scraper in one direction, and a slot formed between the handle and the bowl for the passage of the scraper when the tension of the spring is released.

5. An ice cream spoon comprising a bowl and a handle formed with bearings, a slot formed adjacent to and communicating with one of the bearings for the passage of the scraper, a pinion on the scraper, a finger piece pivoted to the handle and having teeth which mesh with the pinion, and a spring which positions the finger piece to the handle and thereby holds the trunnions in their bearings and also serves to move the scraper in one direction, said scraper being removable through the slot when the scraper is removed.

[Claims 6 to 31 not printed in the Gazette.]

1,132,872. FOOT STEERING ATTACHMENT FOR MOTOR-CYCLES. JOHN HERMAN NORDIN, South Shore, S. D. Filed May 25, 1914. Serial No. 840,931. (Cl. 208—114.)



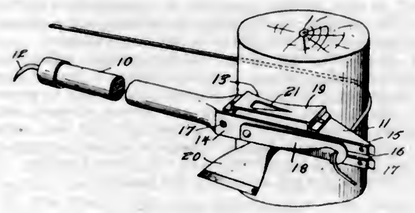
The combination with a motorcycle, of means for steering the same, comprising pedals pivotally mounted to the foot boards of the machine, springs attached to said pedals and to said foot boards to normally hold the forward ends of the pedals spaced from the foot boards, a guide member secured to the forward bar of the frame of the machine and having outwardly inclined arms, pulleys on the ends of said arms, guards for said pulleys, a bar secured to the fork of the machine above the mud guard, ropes secured to the ends of said bar and to the forward ends of the pedals.

1,132,873. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Oct. 14, 1913. Serial No. 795,060. (Cl. 52—1.)

1. An explosive, comprising ammonium perchlorate not less than twenty parts of weight, sodium nitrate not more than fifty-five parts by weight, liquid binitrotoluene ten to fifteen parts by weight, saw dust fourteen to twenty-three parts by weight, and free carbon about five per cent. of the weight of the ammonium perchlorate.

2. An explosive, comprising ammonium-perchlorate twenty to sixty-five parts by weight, sodium-nitrate not more than fifty-five parts by weight, liquid binitrotoluene ten to fifteen parts by weight, sawdust fourteen to twenty-three parts by weight, and free carbon one to three and one-half parts by weight.

1,132,874. WIRE-STRETCHER. WILLIAM H. PAYNE, Cicerone, W. Va. Filed May 13, 1914. Serial No. 838,322. (Cl. 254—77.)



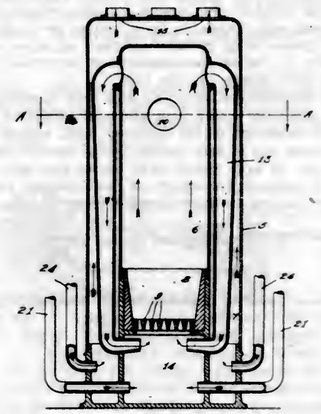
A wire stretcher comprising a handle having a head formed on one end, the outer end of said head being beveled and bifurcated to provide a wire receiving recess, and a wire clamping member pivotally mounted on the head for movement across the recess to clamp a wire, the outer end of said member being hook shape to provide a bill and whereby the wire will be disposed between the body of the member and the bill when the member is in clamping position.

1,132,875. FURNACE. ELMER PEMBERTON, Seattle, Wash. Filed June 8, 1914. Serial No. 843,615. (Cl. 126—99.)

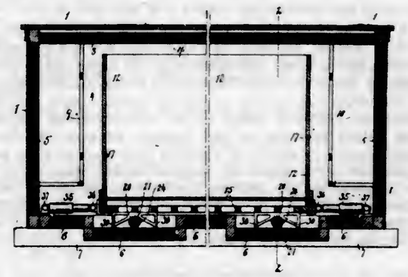
1. In a furnace of the class described, the combination with a casing, of a grate provided in said casing to form a combustion chamber in the upper portion and an air chamber in the lower portion thereof, pipes provided on the outside of said casing, said pipes being connected to the top portion of said combustion chamber and with said products of combustion chamber whereby air may flow therethrough, and other pipes disposed to conduct air into said air chamber.

2. In a furnace of the class described, the combination with an inner casing having a grate provided therein and disposed to form a combustion chamber in the upper portion and an air chamber in the lower portion of such casing, of an outer casing disposed to surround said inner casing and spaced therefrom, pipes disposed in the space between said two casings and connecting the top portion of said combustion chamber with said air chamber to convey products of combustion thereto, heat conducting pipes connected with the top portion of said outer casing, and air pipes to deliver fresh air to said air chamber.

3. In a furnace of the class described, the combination with an inner casing having a grate provided therein to form a combustion chamber in the upper portion and an air chamber in the lower portion thereof, of a smoke pipe connected with the upper portion of said inner casing, air pipes connected with the upper portion of said casing and disposed to pass downwardly along the outside of said casing to connect with said casing at a point below said grate to convey products of combustion thereto, an outer casing disposed about said inner casing and said air pipes, heat conducting pipes connected with the top portion of said outer casing, and outside air pipes for admitting fresh air to the lower portion of said outer casing.



1,132,876. FREIGHT-CAR. DAVID E. PETERSON and ISAAC B. RITTER, Philadelphia, Pa. Filed Jan. 31, 1914. Serial No. 815,602. (Cl. 105—15.)



1. The combination of a car body, an auxiliary body movably arranged within said car body, rollers loosely mounted upon one of said bodies, tracks secured upon the opposite one of said bodies, said tracks and said rollers adapted to support the weight of the auxiliary body, and said tracks being inclined obliquely at either side of said rollers to retard the longitudinal movement of the auxiliary body within the car body.

2. The combination of a car body, an auxiliary body movably arranged within said car body, rollers mounted upon one of said bodies, tracks secured to the opposite one of said bodies, and said tracks forming cam surfaces extending obliquely at either side of said rollers against which said rollers take when the auxiliary body moves longitudinally in relation to the car body.

3. The combination of a car body, an auxiliary body movably arranged within said car body, rollers loosely mounted upon one of said bodies, and tracks forming double faced cams secured upon the opposite one of said bodies whereby the auxiliary body is raised by the longi-

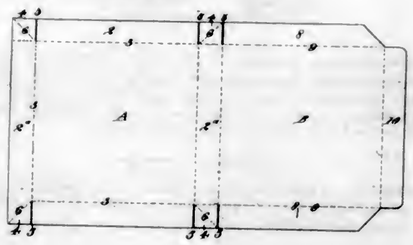
tudinal movement of the cams in relation to the said rollers.

4. The combination of a car body, an auxiliary body movably arranged within said car body, rollers loosely mounted upon one of said bodies, tracks secured upon the opposite one of said bodies, said tracks and said rollers adapted to support the weight of the auxiliary body, flanges upon said rollers to form guides for said tracks, and said tracks being inclined obliquely at either side of said rollers to retard the longitudinal movement of the auxiliary body within the car body.

5. The combination of a car body, an auxiliary body movably arranged within said car body, resilient buffers located at either end of the auxiliary body, rollers loosely mounted upon one of said bodies, tracks secured upon the opposite one of said bodies, said tracks and said rollers adapted to support the weight of the auxiliary body and said tracks having inclined surfaces at either side of said rollers.

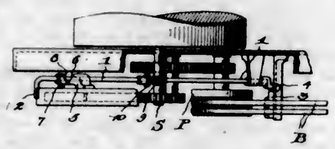
[Claims 6 and 7 not printed in the Gazette.]

1,132,877. FOLDING PAPER BOX. CLARENCE A. PETTERSON, San Anselmo, Cal., assignor of one-half to Jacob Golinsky, San Francisco, Cal. Filed July 15, 1913. Serial No. 779,120. (Cl. 229—33.)



A folding paper box consisting of a blank scored to form a bottom, an outer end and sides for the bottom, a cover with an inner end connecting the cover and bottom, sides on the cover and a flap on the cover, the extremities of the inner end having a pair of parallel slits and the outer end having a single slit at each extremity thereof, said slitted portions on the opposite sides of the blank being diagonally scored in opposite directions to form free triangular parts which are secured to the inner faces of the sides at points between the extremities of the sides whereby the latter will project over and extend beyond the slitted parts and will be engaged by the sides of the cover when the box is assembled.

1,132,878. SPEED-CONTROLLER FOR CARDING-ENGINE DOFFERS. JOHN PILLING, Burnley, England. Filed Aug. 4, 1914. Serial No. 855,062. (Cl. 19—3.)



1. In a carding engine, in combination with the doffer shaft and means to allow drive of the shaft at fast and slow speeds, a manual control rotating upon its longitudinal axis for said means to enable the shaft to be moved at slow speed, and means for rotating and longitudinally shifting said manual control whereby said first means will be automatically restored to fast speed position at a predetermined period following operation of the manual control to slow speed position.

2. In combination with the doffer of a carding engine, and manual means rotating upon its longitudinal axis to allow selective fast or slow drive thereof, means to rotate and longitudinally shift and automatically return the manual means to fast drive position at a period of determinable duration following the operation of the manual means to slow drive position.

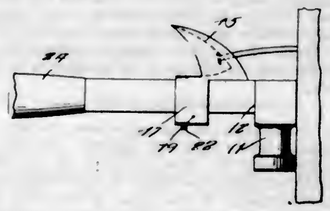
3. In combination with the doffer shaft of a carding engine and a worm thereon, a slow and fast speed drive for said shaft, means to control the drive, a manually operable shiftable and rotatable shaft having a worm rigidly mounted thereon adapted to mesh with the first named worm, whereby to rotate the shaft, a cam on the second shaft, and a stationary cam to engage the first cam, said worms being normally out of engagement and being engaged when the second shaft is manually turned to move the drive from fast to slow, and the second shaft being turned by the action of the worms and longitudinally shifted by the action of the cams when said worms mesh.

4. In combination with the doffer shaft of a carding engine and a slow and fast speed drive therefor, means to control the drive, a manually rotatable and shiftable shaft, normally disengaged driving means for the manual shaft between same and the doffer shaft to rotate the manual shaft, and means whereby after movement of the manual shaft to slow position same will be automatically shifted upon its rotation to disengage the driving means thereof and to move the drive control to fast speed position.

5. In combination with a carding engine doffer, and means to enable same to be rotated either at fast or slow speed, means turnable upon its longitudinal axis to manually control said first means, and means whereby said manual means will be longitudinally shifted and automatically restored to fast drive position at a predetermined period following its movement to slow drive position.

[Claims 6 to 8 not printed in the Gazette.]

1,132,879. CLAW-HAMMER. JAMES S. RAIRDEN, La Grange, Cal. Filed Aug. 13, 1913. Serial No. 784,619. (Cl. 254—26.)

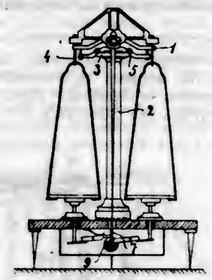


1. A hammer including a handle having an integral poll, there being a dove-tail recess on one side of said handle, a claw having an extension of dove-tail cross section slidably fitting in said recess, and means for securing said claw in various adjusted positions.

2. A hammer including a shank having an integral poll, there being a longitudinal dove-tail recess in said shank, a claw section having an extension in the nature of a sleeve surrounding said shank, a dove-tail guide rib on said claw section fitting in said recess, and a spring pressed locking pawl carried by said sleeve and engaging said shank for locking said claw section in adjusted position on said shank.

1,132,880. BALANCE. ERICH SARTORIUS, Göttingen, Germany. Filed Feb. 24, 1913. Serial No. 750,362. (Cl. 73—99.)

1. The combination in a balance of a scale beam, a device for rendering said scale beam operative and inoperative as desired, pivotally mounted members for effecting the vertical displacement of said device and means for effecting the simultaneous and equal movement of said pivotally mounted members about their pivots.



2. The combination in a balance of a scale beam, a device for rendering said scale beam operative and inoperative as desired, a number of pivotally mounted levers for actuating said device, a vertically movable member for actuating said levers effecting the simultaneous and equal movement of said levers independent of wear on said member.

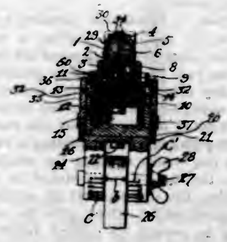
3. The combination in a balance of a scale beam, a device for permitting and arresting the oscillation of said beam, a number of pivotally mounted levers for effecting the operation of said device and means for effecting the simultaneous actuation of said levers regardless of wear.

4. The combination in a balance of a scale beam, a column for supporting said scale beam, a device mounted in the head of said column for arresting the oscillations of said scale beam, pivotally mounted levers located on the underside of said device and means for effecting a simultaneous and equal movement of said levers.

5. The combination in a balance of a scale beam, a column for supporting said beam, a device mounted on said column for arresting the oscillations of said beam a number of levers pivotally mounted on said column and adapted to actuate said device, an operating rod located within said column and operatively connected to said levers and means situated at the base of said column for actuating said operating rod.

[Claims 6 to 12 not printed in the Gazette.]

1,132,881. POLISHING GEMS. SAMUEL M. SCHENKEIN, New York, N. Y. Filed Nov. 17, 1911. Serial No. 660,861. (Cl. 51—11.)



1. A gem support including a gem holder or pot, means for adjusting the pot to center the gem in the support and an annular member supporting said centering means.

2. A gem support having a central ejector pin.

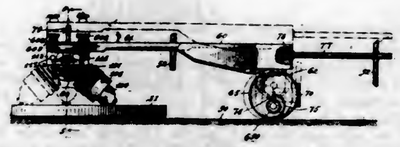
3. A gem support having a central ejector pin and means for forcing the pin gradually against the gem.

4. In combination, an annular member, centering mechanism carried by the annular member, means to clamp the centering mechanism to said member before the centering operation, and a gem holder or pot secured to the centering mechanism.

5. In combination, an annular member, centering mechanism carried by the annular member, means to clamp the centering mechanism to said member before the centering operation, and a gem holder or pot removably secured to the centering mechanism.

[Claims 6 to 23 not printed in the Gazette.]

1,132,882. GEM-POLISHING MACHINE. SAMUEL M. SCHENKEIN, New York, N. Y. Filed June 7, 1911, Serial No. 631,747. Renewed Feb. 17, 1915. Serial No. 8,888. (Cl. 51—11.)



1. A dop having a pot holder, a pot, means for holding the pot against rotation in the holder, means for securing the pot in the holder against longitudinal movement with relation to the pot.

2. A dop having a pot holder, a pot, means for holding the pot against rotation in the holder, a gem retainer cooperating with the pot and means for simultaneously holding both the retainer and pot in operation to the holder.

3. A dop having a pot holder, a pot, means for holding the pot against rotation and means for holding the pot against longitudinal movement, a gem retainer, a gem ejector and means to move the ejector longitudinally.

4. A dop having a pot holder, a pot seated in said holder and having a projecting neck, a gem retainer in sliding relation to the pot, a gem ejector movable longitudinally of the neck and means for holding the retainer and pot to the holder.

5. A dop having a pot holder, a pot seated in the holder, and a gem retainer embracing the pot and means for simultaneously holding the retainer and pot to the holders.

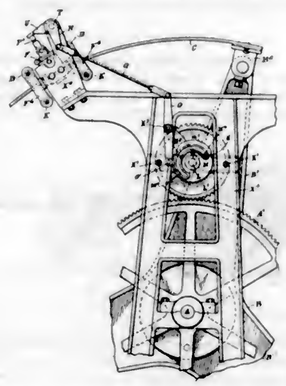
[Claims 6 to 44 not printed in the Gazette.]

1,132,883. AUTOMATIC GAS-BURNER-CONTROLLING MECHANISM. JAMES H. SKITT, Philadelphia, Pa., assignor to Robert E. Smith and George E. Drum, Philadelphia, Pa., trading as Firm of Smith, Drum & Company. Filed May 11, 1914. Serial No. 837,802. (Cl. 26—14.)

1. In a singeing machine of the type described, the combination with the framework, rotating form carrier, and burners, of a cam shaft journaled in said framework at one side of the machine and geared to said form carrier, a pair of independently adjustable cams mounted on said shaft, a rock shaft journaled in said framework and extending from one side of the machine to the other, a sleeve journaled on said rock shaft and in said framework at the side of the machine at which said cam shaft is located, connections between said cams and said rock shaft and sleeve whereby said shaft is rocked by one, and the sleeve rocked by the other of said cams, a burner controlling valve at each side of the machine, an arm secured to said sleeve for actuating the adjacent valve and an arm secured to the rock shaft at the other side of the machine for operating the other valve.

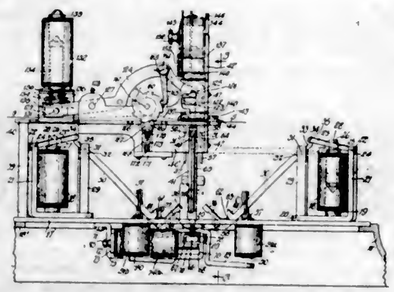
2. In a singeing machine of the type described, the combination with the side frames, rotating form carrier, and burners, of a bracket attached to one side frame, a cam shaft journaled in said bracket and geared to said form carrier, a pair of independently adjustable cams mounted on said shaft, a pair of cam actuated levers also

mounted on said bracket and coöperating one with one, and the other with the second of said cams, a rock shaft journaled in said frames and extending from one side of the machine to the other, a sleeve journaled on said rock shaft and in the said side frame to which said bracket is secured, connections between said levers and said rock



shaft and sleeve whereby said rock shaft is rocked by one of said cams and the sleeve is rocked by the other cam, a burner controlling valve at each side of the machine, an arm secured to said sleeve for actuating the adjacent valve and an arm secured to the shaft at the other side of the machine for operating the other valve.

1,132,884. ELECTRICAL RECORDING APPARATUS. ALFRED L. SOHM, Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Spokane, Wash., a Corporation of Arizona. Filed Jan. 20, 1911. Serial No. 603,621. (Cl. 234—41.5.)



1. In a recording device, in combination, an actuating single type bar, means for guiding said type bar, and means laterally for shifting said guiding means to print the character in different positions.

2. In a recording device, in combination, a loosely mounted oscillating single type bar, means for guiding said type bar, and means laterally for shifting said guiding means to print the character in different positions.

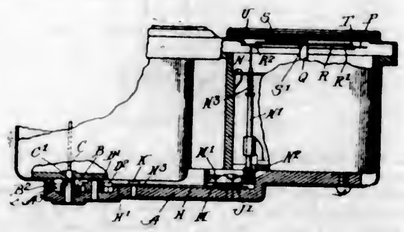
3. In a recording device, in combination, an actuating type bar, means for guiding said type bar, and means for shifting said guiding means both ways from a neutral printing position.

4. In a recording device, in combination, a type bar, electrical means for operating said type bar, means for guiding said type bar, electrical means for shifting said guiding means and means for simultaneously controlling said electrical means.

5. In a recording device, in combination, a type bar, electrical means for operating said type bar, means for guiding said type bar, electrical means for shifting said guiding means, and a switch for closing the circuits through both of said electrical means simultaneously.

[Claims 6 to 17 not printed in the Gazette.]

1,132,885. RECORDING-ODOMETER. JOHN K. STEWART, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, of Virginia. Filed July 27, 1911. Serial No. 640,768. (Cl. 234—33.)



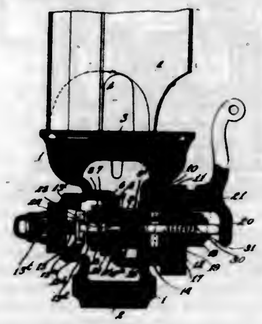
1. In combination, a revolution counter, a clock train and means by which the train carries a record blank rotatively; a prick point mounted for reciprocation transversely of the path of the blank; means for so reciprocating it comprising a driver having movement for controlling both strokes of the prick point; means for impelling the driver positively throughout its said movement, said means comprising a reciprocable actuator whose movement in one direction causes all of said movement of the driver, and means operated by the counter-train adapted to put the actuator under stress in its movement in one direction and release it suddenly for movement in the opposite direction, the driver being impelled by the last-mentioned movement.

2. In combination, a revolution counter, a clock train and means by which the train carries a record blank rotatively; a prick point mounted for reciprocation transversely of the path of the blank; means for so reciprocating it comprising a driver having movement for controlling both strokes of the prick point; means for impelling the driver positively throughout its said movement, said means comprising a reciprocable actuator whose movement in one direction causes all of said movement of the driver; means operated by the counter-train to move the actuator in one direction adapted to release it suddenly, and a spring which retracts the actuator when released, said movement of the driver being caused by said retracting movement of the actuator.

3. In combination, a revolution counter, a clock train and means by which the train carries a record blank rotatively; a prick point device mounted for reciprocation transversely of the path of the blank; a prick-point driver comprising a rotary cam device having alternate upraises and depressions engaging the prick-point device; a spring holding the prick-point device against the cam; an actuator for the prick-point driver comprising a ratchet wheel on the driver; a dog which engages the ratchet wheel; a spring to retract the dog; a cam rotated by the counter-train and actuating the dog against its spring, said cam having an abrupt shoulder which once in each rotation runs off the dog to permit its sudden return under the stress of the spring, the driver being actuated by such return movement.

1,132,886. VALVE. THOMAS MCAVITY STEWART, Montreal, Quebec, Canada. Filed June 23, 1911. Serial No. 634,936. (Cl. 137—4.)

In a valve, the combination with a casing having an inlet and an outlet communicating with each other, a partition located between the inlet and outlet and having an opening therein, a main valve seat within said opening and a piston cylinder formed in the casing, of a main valve adapted to be seated upon the main valve seat and having a tapped opening therein, a bored plug screwed into the opening in the main valve, an adjustable stop for limiting the opening movement of the main valve, such valve comprising a hollow stem communicating with the opening in the valve and leading to the piston cylinder, an auxiliary valve seat formed in said hollow stem, a sleeve slidably mounted upon the stem, engaging at one end with the underside of the main valve and having a piston head at its opposite end and located in and spaced from the inner end of said piston cylinder, such sleeve being of smaller diameter than the interior of the main valve seat and having outwardly projecting ribs thereon, a closely



fitting auxiliary valve located in said hollow stem between the auxiliary valve seat and the bored plug, such auxiliary valve being reduced in diameter at a point above its seat and having a longitudinal passage therethrough and ports leading from such passage to the exterior of the reduced portion of the valve, a loose fitting valve stem extending from the auxiliary valve to the exterior of the casing, a spring yieldingly holding the auxiliary valve upon its seat and means for opening the auxiliary valve against the influence of the spring.

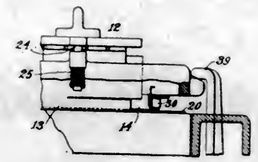
1,132,887. SHIRT. EDWARD L. SWIKARD, Chicago, Ill., assignor of one-third to William R. Durgin and one-third to Edwin P. Goldsmith, Chicago, Ill. Filed Apr. 20, 1914. Serial No. 833,098. (Cl. 2—41.)



1. A shirt having an unbroken neckband comprising a plurality of plies permanently secured together at their edges and a collar button having a base disposed between said plies, said base being provided with prongs adapted to engage the intermediate plies and permanently hold said button in fixed relation to said band.

2. A shirt having an unbroken neckband comprising a plurality of plies permanently secured together at their edges, a reinforcing strip disposed and inseparably held between said plies, and a collar button having a base provided with prongs adapted to engage said reinforcing strip and hold said button in fixed relation with said reinforcing strip and neckband.

1,132,888. PICKING MECHANISM FOR BLANK-FOLDING MACHINES. JOHN TEMPLE, Watervliet, N. Y., assignor to Earl & Wilson, Troy, N. Y., a Corporation of New York. Filed June 27, 1912. Serial No. 706,177. (Cl. 223—55.)



1. In a picking mechanism for blank-folding machines having a bed on which the blank to be folded is placed and a vertically movable head carrying a templet having a fold-defining edge, the combination with the head of a picker carried by the head and arranged to underlie an edge of the blank, and means independent of the templet and arranged adjacent to the fold-defining edge of the templet to clamp the folded edge of the blank upon the picker, whereby the folded blank will be carried off the bed with the movable head.

2. In a picking mechanism for blank-folding machines having a bed on which the blank to be folded is placed, the combination of a head movable toward and from the bed, a movable folder for folding the blank-edge inwardly, a picker carried by the head and arranged to be seated on the blank near the edge thereof whereby the folder will fold the said edge over and upon the picker, and means arranged to be seated on the folded blank-edge to press the same on the picker.

3. In a blank-folding machine, the combination of a bed on which the blank to be folded is placed, a head above the bed and movable toward and from the same, a fold-defining templet carried by the head an inwardly and outwardly movable folder adapted to fold an edge of the blank inwardly over an edge of the templet, and picking mechanism located adjacent to the fold-defining edge of the templet carried by the head and operating automatically to grip a folded edge of the blank when the head is moved away from the bed.

4. In a blank-folding machine, the combination of a bed on which the blank to be folded is placed, a head movable vertically toward and from the bed, a picker carried by the head and adapted to be seated on the blank adjacent to the edge thereof, a folder movable inwardly and outwardly to fold the blank-edge inwardly and over the seated picker, and a clamping member carried by the head above the picker and normally spaced therefrom when the head is in its lowermost position, and means operating to depress the clamping member as the head rises, to cause said member to clamp the folded blank-edge upon the picker.

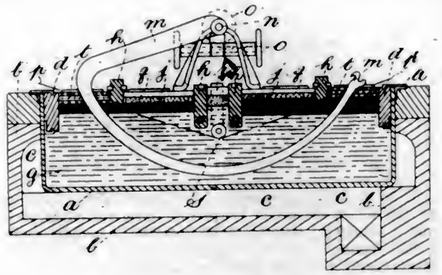
5. In a blank-folding machine, the combination of a bed on which the blank to be folded is placed; a head movable toward and from the bed; a fold-defining templet carried by the head, composed of sections movable to expand and contract the templet, and having a portion adapted to remain under the folded blank-edge after the templet is contracted; a folder movable inwardly and outwardly to fold the blank-edge inwardly over the templet-edge; and means carried by the head and adapted to clamp the folded blank-edge down upon said portion of the templet, whereby as the head moves away from the bed it will carry the folded blank with it.

[Claims 6 to 10 not printed in the Gazette.]

1,132,889. GALVANIZING-BATH. NICHOLAS KING TURNBULL, Manchester, England. Filed Nov. 13, 1913. Serial No. 800,720. (Cl. 91—12.5.)

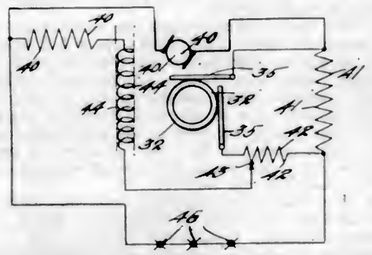
A galvanizing bath comprising, in combination, an outer casing for the metal; a partial lining, composed of a compact non-corrosive material suitable for contact with

molten zinc, and mounted closely against the inner face of the sides of said casing, said lining being restricted to the upper portion of said casing but otherwise substantially co-extensive therewith; and a setting for the



bath provided with heating flues, said flues being adjacent to the exterior of the said casing at the lower and unlined portions thereof only, substantially as herein set forth.

1,132,890. ELECTRICAL MEASURING INSTRUMENT. THOMAS W. VARLEY, New York, N. Y., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 10, 1907. Serial No. 396,867. (Cl. 171—265.)



1. An electrical measuring instrument comprising relatively moveable coils, and resistors having resistance-temperature coefficients different from those of the coils, the ratios of the resistances of the coils to those of the resistors respectively in circuit therewith being in substantially inverse relation to each other.

2. An electrical measuring instrument comprising a substantially constant magnet having an elliptical aperture between its poles, a rotatable armature located in said aperture and having a commutator cylinder, and a support that is adjustable with respect to the magnet and carries the said armature.

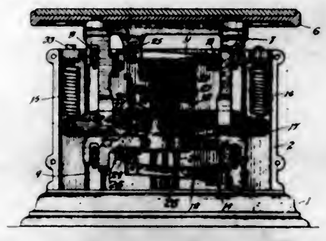
3. An electrical measuring instrument comprising a substantially constant magnet having an elliptical aperture between its poles, a rotatable armature located in said aperture, a support that is adjustable with respect to the magnet and carries the said armature, brushes bearing upon the commutator cylinder, and a support therefor that is carried by the aforesaid support and is adjustable with respect thereto.

4. An electrical measuring instrument comprising a substantially constant magnet having an elliptical aperture between its poles, a core located in said aperture, a rotatable armature surrounding said core and having a commutator cylinder, a support that is adjustable with respect to the magnet and carries the said core and armature, brushes bearing on the commutator cylinder, and a support for the brushes that is carried by and is adjustable with respect to the aforesaid support.

5. An electrical measuring instrument comprising a magnet having an unbroken magnetic circuit and an elliptical aperture between its poles, a core located in said aperture, a movable coil surrounding said core, and a support that is adjustable with respect to the magnet and carries the core and coil.

[Claims 6 to 15 not printed in the Gazette.]

1,132,891. WEIGHING-MACHINE. GEORGE WALKER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Apr. 21, 1913. Serial No. 762,487. (Cl. 73—46.)



1. In a weighing machine, a recessed base, a low upstanding casing thereon, weighing mechanism within said casing, including a load-receiving frame projecting through the top of said casing, a platform on said frame, a recessed extension at one side of said base having a sight aperture in its upper wall beyond the edge of said platform, a dial within the recessed base and extension the graduations of which register with said aperture, a pointer, and means actuated by said frame for producing relative motion between said dial and pointer, said movable part being positively actuated in opposite directions.

2. In a weighing machine, a low upstanding casing, a vertically moving load-receiving frame mounted therein, a platform on said frame, a horizontally oscillating indicator arranged below said platform and exposed beyond the edge thereof, and a connection between said frame and indicator including a part which swings in a vertical plane, driven by said frame and driving said indicator.

3. A casing, a load-receiving frame mounted therein for vertical movement, balance springs connected between said frame and casing, rollers carried by said frame, and oppositely arranged tracks on the front and rear of said casing and on which said rollers run, the distance between the opposed tracks being slightly greater than the diameter of the rollers.

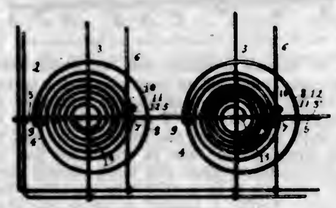
4. A casing, a load-receiving frame therein, balance springs, an interposed member forming a connection between said springs and frame, and movable relatively to the latter, guide levers connected with said frame, pivotal supports for said levers, indicating mechanism including a movable member, and connections between said interposed member and the movable member of said indicating mechanism.

5. A casing, a load-receiving frame mounted therein, balance springs, a spring bar, a pivotal connection between said bar and frame and between the ends of said bar and said springs, indicating mechanism including a movable member, means for actuating said movable member, and connections between said means and said spring bar.

[Claims 6 to 19 not printed in the Gazette.]

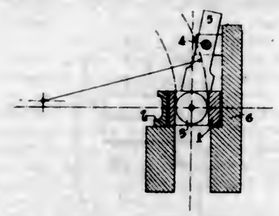
1,132,892. BED-SPRING. GEORGE WETTERHOLD, Wichita, Kans. Filed Jan. 3, 1914. Serial No. 810,150. (Cl. 5—29.)

1. In a bed-spring, upper and lower frames having upper and lower guy-wires connected thereto, springs mounted upon said lower wires, guy-wires positioned under the two top coils of said springs, said coils being on substantially the same plane and resting upon said wires, the outer of said coils being eccentric to the axis of said spring and diametrically opposite, lies contiguous to one of said inner coils and is coiled around said inner coil and extends laterally to form a connection with the adjacent spring and guy-wire, and an S on the free end thereof to bind the said guy-wire to the coil of said spring.



2. In a bed-spring, upper and lower frames having guy-wires, springs mounted upon said wires at their junction, the lower coil of said springs being beneath one wire and above the other wire, and an upward bend on the free end of said coil to prevent displacement of said coil, guy-wires upon the upper frame, said wires provided with an upward bend, giving said wire two different planes, said wires passing beneath the two upper coils of the springs, said coils being substantially in the same plane, and resting upon said guy-wire, the outer coil being eccentric to the axis of the lower coil, the inner of said coils having a downward bend adjacent the upper bend of the aforesaid guy-wire and diametrically opposite said bends the outer coil is bent around the adjacent inner coil, forming an arm extending laterally to the adjacent spring, passing over the outer coil, and means at its terminal to connect the said arm with the said inner coil and guy-wire as described.

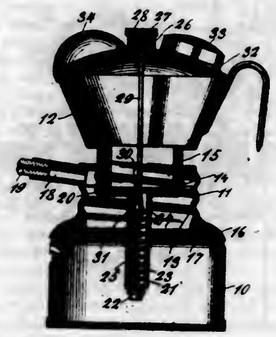
1,132,893. CONSTRUCTION OF SHUTTLES AND SHUTTLE-BOXES IN OVERPICK WEFT-REPLENISHING LOOMS. JOHN WHITTAKER, JOSEPH BRIGGS, and RICHARD BRADSHAW, Rishton, near Blackburn, England. Original application filed June 27, 1911, Serial No. 635,624. Divided and this application filed Oct. 24, 1913. Serial No. 797,066. (Cl. 139—85.)



1. In weft-replenishing mechanism for looms, the combination with a slay and a shuttle-race thereon, of a shuttle having a thickened rear wall, a cop in the shuttle occupying a position therein nearer to the front than to the rear, and a loom picker spindle occupying a position directly above the shuttle when in the box and approximately midway between the center of the cop and the back edge of the shuttle in order to admit of the use of a transferrer of greater radius.

2. In weft-replenishing mechanism for looms, the combination with the slay and a shuttle-race thereon, of a shuttle having a thickened rear wall, a cop in the shuttle occupying a position therein nearer to the front than to the rear, and a loom picker spindle occupying a position directly above the rear half of the shuttle when in the box and approximately midway between the center of the cop and the back edge of the shuttle in order to admit of the use of a transferrer of greater radius.

1,132,894. ACETYLENE-GENERATING LAMP. OSCAR WILLIAMS and ELBERT C. BAKER, Sullivan, Ind. Filed July 29, 1914. Serial No. 853,865. (Cl. 48—4.)



1. In an acetylene generating lamp, a carbid container, a cap mounted on said container and provided with a burner nipple, and a water receptacle removably connected to the cap.

2. In an acetylene generating lamp, a carbid container, a cap mounted on said container and provided with a burner nipple, a water receptacle removably connected to the cap, a water-feed valve carried by the cap, and means for operating said valve carried by the water receptacle, said valve and its operating means being separable.

3. In an acetylene generating lamp, a carbid container, a cap mounted on said container and provided with a burner nipple, a water receptacle removably connected to the cap and having an outlet, a water-feed valve carried by the cap, means for operating said valve carried by the water receptacle, said valve and its operating means being separable, and means carried by the valve operating means for controlling the outlet of the water receptacle.

4. In an acetylene generating lamp, a carbid container, a cap mounted on said container and provided with a burner nipple, a water receptacle removably connected to the cap, a water-feed tube depending from the cap into the carbid container and having a valve seat in said container, a valve for said seat, a stem extending from the valve, said stem being located in the aforesaid tube, a closing spring for the valve, and a longitudinally adjustable stem carried by the water receptacle and engageable with the aforesaid valve stem to open the valve.

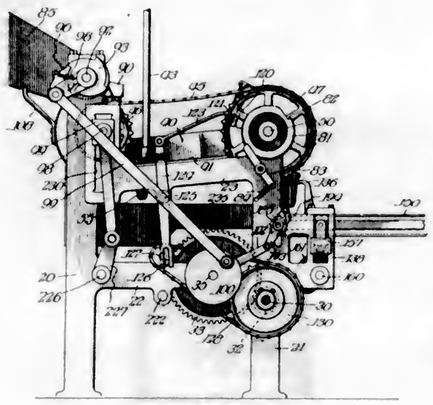
5. In an acetylene generating lamp, a carbid container, a cap mounted on said container and provided with a burner nipple, a water receptacle removably connected to the cap, a water-feed tube depending from the cap into the carbid container and having a valve seat in said container, a valve for said seat, a stem extending from the valve, said stem being located in the aforesaid tube, and a longitudinally adjustable stem carried by the water receptacle and engageable with the aforesaid valve stem to operate the valve.

[Claim 6 not printed in the Gazette.]

1,132,895. COATING-MACHINE. FRANK H. WOOLF, Chicago, Ill., assignor to Henry Harfst, Frank H. Judd, and Thomas M. Sullivan, Chicago, Ill. Filed Aug. 23, 1913. Serial No. 786,206. (Cl. 91—4.)

1. A coating machine comprising an endless traveling carrier, with means to impart thereto an intermittent movement, said carrier embracing pendant, open topped skeleton containers, feed means for feeding the product to said containers, means to apply a coating material to the

product in said containers, and means whereby the product is discharged from the lower ends of the said containers.



2. A coating machine comprising an endless traveling carrier, with means to impart thereto intermittent movement, said carrier embracing open topped skeleton containers, feed means for feeding the product to the said containers, and means to apply a coating material to the product in said containers, said containers being spreadable at their lower ends to open them and to thereby discharge the coated product through said lower ends.

3. A coating machine comprising a carrier, with means to impart thereto an intermittent movement, said carrier embracing open topped containers, feed means for feeding the product to said containers, means to apply a coating material to the product in said containers, said containers comprising pendant wires which are spreadable at their lower ends to open the containers and to thereby discharge the product therefrom, and means located in the path of the carrier and co-acting with the containers to so open them.

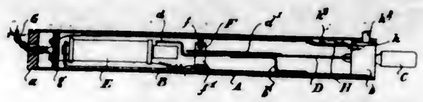
4. A coating machine comprising a carrier, with means to impart intermittent movement thereto, said carrier embracing open topped containers, feed means for feeding the product to said containers, means for applying a coating material to the product in said containers, said containers being spreadable at their lower ends to open them and to thereby discharge the coated product from the said lower ends, and means located in the path of the carrier and coacting with the containers to so open them, comprising means to first partially open the containers and permit them to close and to thereafter fully open the containers.

5. In a coating machine, a carrier, with means to operate it, said carrier embracing a series of open topped, pendant, basket-like containers made of two parts and spreadable at their lower ends to discharge the coated product, and means to control the opening of the containers, constructed to give preliminary movement to the movable part of the container prior to the full opening movement thereof.

[Claims 6 to 42 not printed in the Gazette.]

1,132,896. ARTIST'S STIPPLING-PEN. FRANK CECIL ADAMS, London, England. Filed Apr. 4, 1914. Serial No. 829,564. (Cl. 95—101.)

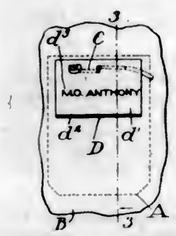
1. In an artist's stippling pen, an outer casing, a frame carrying at one end an electro-magnet, a spring arm formed at one end to constitute the armature to the electro-magnet and carrying a pen or like holder at the other, a bush mounted on the frame at the end remote from the electro-magnet and in which the pen or like holder reciprocates and a make and break contact device to cause the armature to be oscillated by the electro-magnet.



2. In an artist's stippling pen, an outer casing, a frame carrying at one end an electro-magnet, a spring arm formed at one end to constitute the armature to the electro-magnet and carrying a pen or like holder at the other, a bush mounted on the frame at the end remote from the electro-magnet and in which the pen or like holder reciprocates, a make and break contact device to cause the armature to be oscillated by the electro-magnet, and a switch having a contact to which the electrical wire is connected and which is adapted to be brought into contact with the case, to close the circuit from one lead through the winding of the electro-magnet, contact breaker and spring blade to the frame and casing and from thence through the switch contact, back to the other lead.

3. In an artist's stippling pen, an outer casing, a frame carrying at one end an electro-magnet, a spring arm formed at one end to constitute the armature to the electro-magnet and carrying a pen or like holder at the other, a bush mounted on the frame at the end remote from the electro-magnet and in which the pen or like holder reciprocates, a make and break contact device to cause the armature to be oscillated by the electro-magnet, a switch comprising an arm of insulating material pivoted to the bush at one end of the frame, an operating button projecting through the casing at one end and a contact at the other end to which the electrical wire is connected and which is adapted to be brought into contact with the case when the projecting button is operated; to close the circuit from one lead through the winding of the electro-magnet, contact breaker and spring blade to the frame and casing and from thence through the switch contact, back to the other lead.

1,132,897. TAG OR TICKET SEAL. MARCUS O. ANTHONY, New York, N. Y., assignor to A. Kimball Company, New York, N. Y., a Corporation of New York. Filed Oct. 12, 1912. Serial No. 725,364. (Cl. 40—20.)

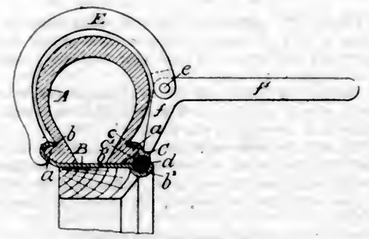


1. A new article of manufacture of the general type used by department stores for marking dry-goods, embodying a tag or ticket adapted to be positioned on one face of the goods, a sealing member adapted to be positioned on the other face of the goods in opposing relation to said tag, attaching stitches passed through the tag, goods, and sealing member whereby they are all secured together, said sealing member being adapted to be folded on itself to cover the adjacent portions of the attaching stitches and be secured in this position, thereby precluding the removal or substitution of the ticket without disrupting the seal or stitches and consequent detection.

2. A new article of manufacture of the general type used by department stores for marking dry-goods, embodying a tag or ticket adapted to be positioned on one face of the goods, a sealing member adapted to be positioned on the other face of the goods in opposing relation to said tag, attaching stitches passed through the tag, goods and sealing member whereby they are all secured together, said sealing member being provided with an adhesive on its outer face whereby it may be folded on itself so as to cover the adjacent portions of the attaching stitches and be secured in this position by the adhesive, thereby precluding the removal or substitution of the ticket without disrupting the seal or the stitches and consequent detection.

3. A new article of manufacture of the general type used by department stores for marking dry-goods, embodying a tag or ticket adapted to be positioned on one face of the goods, a sealing member adapted to be positioned on the other face of the goods in opposing relation to said tag, attaching stitches passed through the tag, goods and sealing member whereby they are all secured together, said sealing member being provided with an adhesive on its outer face whereby it may be folded on itself so as to cover the adjacent portions of the attaching stitches and be secured in this position by the adhesive, thereby precluding the removal or substitution of the ticket without disrupting the seal or the stitches and consequent detection, said sealing member being provided on its face with material susceptible to moisture.

1,132,898. WHEEL-RIM FOR HOLDING PNEUMATIC TIRES. HERBERT AUSTIN, Bromsgrove, England. Filed Feb. 26, 1912. Serial No. 679,821. (Cl. 152—21.)



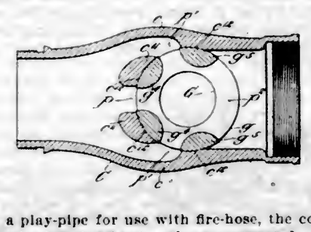
1. In a wheel rim for holding a pneumatic tire, a sole-plate, an abutment at one side of the sole-plate for supporting one side of the pneumatic tire, a ring which may be slipped over the sole-plate at the other side of the pneumatic tire, a groove running around the outer surface of the sole-plate at the side thereof over which the ring is slipped, and an endless packing of elastic waterproof jointing material which is partly within the groove and partly projects therefrom and against the projecting portion of which the ring is pressed by the inflation of the tire, whereby the said packing acts as an abutment for one side of the tire and prevents moisture and dirt from getting in between the rim and tire.

2. In a wheel rim for holding a pneumatic tire, a sole-plate, an abutment at one side of the sole-plate for supporting one side of the pneumatic tire, a ring which may be slipped over the sole-plate at the other side of the pneumatic tire, a groove running around the outer surface of the sole-plate at the side thereof over which the ring is slipped, and a continuous packing ring of elastic waterproof material which may be stretched to pass it over the sole-plate and then allowed to contract to tighten itself within the groove leaving a portion thereof projecting from the groove which resists the outward thrust of the first-mentioned ring.

3. In a wheel rim for holding a pneumatic tire, a sole-plate, an abutment at one side of the sole-plate for supporting one side of the pneumatic tire, a ring which may be slipped over the sole-plate at the other side of the pneumatic tire, a groove running around the outer surface of the sole-plate at the side thereof over which the ring is slipped, and an endless packing of waterproof elastic material which is within the groove and partly projects therefrom, the projecting portion resisting the outward thrust of the ring and the said projecting portion of the packing formed with a rounded surface as seen in transverse section, and the ring formed with a hollowed surface, to bear against the packing, which is shaped to pass over the portion of greatest projection of the packing and fit around a portion of the outer side thereof.

4. In a wheel rim for holding a pneumatic tire, a sole-plate, an abutment at one side of the sole-plate for supporting one side of the pneumatic tire, a ring which may be slipped over the sole-plate at the other side of the pneumatic tire, a groove running around the outer surface of the sole-plate at the side thereof over which the ring is slipped, a seat in the outer side of the groove the inner edge of which is farther from the axis of the wheel than is the bottom of the groove, and a packing ring having a surface of elastic waterproof material and a nonextensible core, said groove being of such depth that the packing ring can be first passed down into the bottom thereof at one part of the circumference of the rim and then be passed over the edge of the rim throughout the remaining portion of the circumference thereof and then be brought into position concentric with the rim and with a portion of the packing projecting beyond the rim around the entire circumference thereof, the packing then resisting the outward thrust of such first-mentioned ring.

1,132,899. PLAY-PIPE FOR USE WITH FIRE-HOSE. JAMES M. BAKER, Providence, R. I. Filed Aug. 13, 1914. Serial No. 856,573. (Cl. 137—17.)



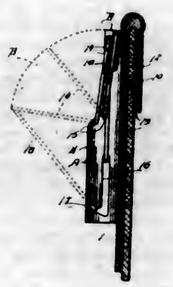
1. In a play-pipe for use with fire-hose, the combination with a valve-housing having three contracted outlet-ports arranged across its interior with one of said ports on the axis of the pipe and the other two adjacent the side-walls thereof, of a conical valve-plug in the housing having four longitudinal barriers so disposed circumferentially of the plug as to form three equally-spaced ports adapted to register with the outlet-ports of the pipe and a fourth enlarged inlet-port arranged opposite these smaller ports.

2. In a play-pipe for use with fire-hose, the combination with a valve-housing formed with circular valve-seats and two barrier-walls extending across the opening of the housing in line with the seats, said barriers forming three spaced-apart outlet-ports, and a rotatable valve-plug fitted to the seats in the housing and formed with four barriers so disposed circumferentially of the plug as to form three ports adapted to register with the outlet-ports in the pipe and a fourth enlarged inlet-port arranged opposite the three smaller ports.

3. In a play-pipe for use with fire-hose, the combination with a valve-housing formed with circular valve-seats and an opening through which the valve-plug is inserted, said housing having two barriers extending across its interior in line with the valve-seats to form three equally-spaced outlet-ports, a valve-plug fitted to the seats in the housing and having four barriers so spaced as to form three ports adapted to register with the outlet-ports of the housing and a fourth larger port arranged opposite the three smaller ports, a cover-plate adapted to close the top of the valve-opening in the housing, a stem on the valve-plug extending through the cover-plate, a handle secured to the end of said stem, and a detent to limit the movement of

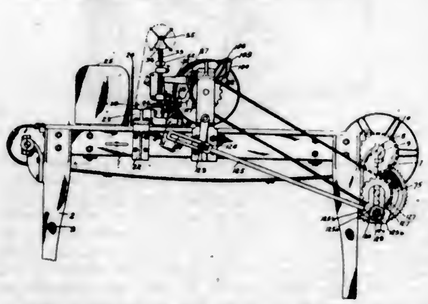
the handle to regulate the turning of the plug in opening and closing the ports.

1,132,900. RAIN-PROTECTOR FOR WIND-SHIELDS. EDWARD C. BARTOW, Little Neck, N. Y. Filed Apr. 18, 1914. Serial No. 832,716. (Cl. 156—15.)



A hood including spaced plates, each of said plates being provided with an elongated slot terminating at one end in an angularly directed portion, a foldable canopy arranged between said plates, and arms pivoted to said canopy and slidable in said slots, said arms being engageable at times in the angularly directed portions of the slots to retain the canopy in open position.

1,132,901. MECHANISM FOR APPLYING FLEXIBLE STRIPS. RALPH E. BATES, Philadelphia, Pa., assignor to John Nazel, Philadelphia, Pa. Filed Aug. 13, 1912. Serial No. 714,764. (Cl. 93—56.)



1. In a machine of the character described, movable mechanical gripper mechanism adapted for automatically engaging and drawing therewith a fabric, frictional mechanism adapted for restraining the movement of said fabric, means for cutting said fabric into sections, means for operating said cutting mechanism and gripping mechanism in synchronous relation, and a movable suction device for engaging said fabric and translating said sections.

2. In a machine of the character described, means for holding a fabric by the application of pressure thereto, automatically acting mechanism for gripping said fabric and drawing it from said means, a revoluble suction wheel to which said gripper mechanism draws said fabric, and a reciprocating cutting mechanism movable relatively to said holding means for cutting said fabric into sections.

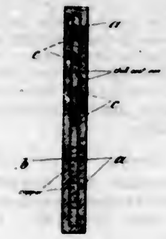
3. In a machine of the character described, holding means for frictionally engaging a fabric, an oscillating gripper mechanism adapted for engaging said fabric and drawing it through said holding means, means comprising a revoluble device adapted for pneumatically holding said fabric, a cutter movable toward and from said holding means, and means for operating said cutter when withdrawn from said holding means to sever said fabric.

4. In a machine of the character described, a revoluble suction wheel, a tape holder, means for drawing tape from said holder over said wheel oppositely to its direction of rotation and delivering said tape to said wheel, and means for severing the section of said tape delivered to said wheel.

5. In a machine of the character described, a holder adapted for applying pressure to tape drawn therethrough, a suction device, and oscillating gripper mechanism for carrying tape from said holder to said device.

[Claims 6 to 22 not printed in the Gazette.]

1,132,902. ARMOR-PLATING FOR SAFES, STRONG-ROOMS, AND THE LIKE. EDWIN BAUER, Zurich, Switzerland, assignor to Frans Bauer & Söhne, A.-G., Zurich, Switzerland. Filed June 23, 1913. Serial No. 775,297. (Cl. 29—181.)

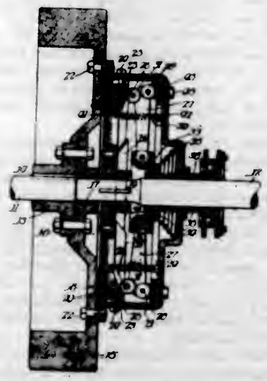


1. Plating for safes and the like comprising in combination a core of metal having a high degree of heat-conductivity and a skin of chill cast iron upon said core and enveloping the same.

2. Plating for safes and the like comprising in combination a core of copper and a skin of chill cast iron upon said core and enveloping the same.

3. Plating for safes and the like comprising in combination a core of metal having a high degree of heat-conductivity, said core having holes, and a skin of chill cast iron upon said core, enveloping the same and penetrating said holes.

1,132,903. FRICTION-CLUTCH. MARSHALL BECK, Moline, Ill., assignor to The Borg & Beck Company, Moline, Ill., a Corporation of Illinois. Filed Mar. 24, 1913. Serial No. 756,370. (Cl. 192—7.)



1. In a friction clutch, the combination of a driving element, a driven element, a thrust member of varying thickness, means for moving said thrust member, whereby a frictional connection is established between said elements, and means fixed against movement longitudinally of said elements and angularly movable with respect thereto to move said moving means angularly with respect to said thrust member, whereby the relation of said moving means to said thrust member is varied to adjust the parts of the clutch to compensate for wear.

2. In a friction clutch, the combination of a driving element, a driven element, a casing secured to one element and embracing the other element, a thrust member of varying thickness mounted within and rotatable with the casing, means interposed between the rear wall of the casing and said thrust member for moving said thrust member longitudinally of the casing, whereby frictional driving connection is established between said elements, and means held against longitudinal movement of said casing and angularly adjustable with respect thereto to move said moving means angularly with respect to the thrust member, whereby the relation of said moving means to said thrust member is varied to adjust the parts to compensate for wear.

3. In a friction clutch, the combination of a driving element, a driven element, a casing fixed to one of said elements and embracing the other element, a thrust member mounted within and rotatable with the said casing, means for moving the said thrust member to establish frictional engagement between the elements, and means held against movement longitudinally of the casing, disposed through the casing and angularly adjustable relatively to the casing and to the thrust member to compensate for wear of the parts.

4. In a friction clutch, the combination of a driving element, a driven element, a casing secured to one element and embracing the other element, a thrust member mounted within and rotatable with said casing and having a thrust seat of varying depth, a bell-crank mounted within said casing and adapted to engage said seat, and means for moving said bell-crank to engage different portions of said seat to compensate for wear of the parts.

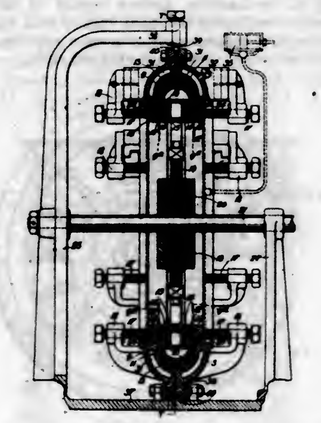
5. In a friction clutch, the combination of a driving element, a driven element, a casing fixed to one element and embracing the other element, a thrust member mounted within and rotatable with the said casing, a bell crank pivoted within the casing and adapted to move the said member longitudinally of the casing to establish frictional engagement between the elements, and means held against movement longitudinally of said casing and angularly adjustable with respect to the said member connecting the bell crank to the casing.

[Claims 6 to 13 not printed in the Gazette.]

1,132,904. APPARATUS FOR SHAPING THE OUTER CASINGS OF PNEUMATIC TIRES. GEORGE WILSON BELL, Stockport, England. Original application filed Feb. 10, 1911, Serial No. 607,811. Divided and this application filed May 16, 1911. Serial No. 627,432. (Cl. 69—8.)

1. A device for shaping the outer casings of pneumatic tires, comprising, in combination, an annular bead-forming piece, a transversely movable die adapted to press an edge portion of a band of leather against said bead forming piece and to turn a radially internal portion thereof transversely over said bead-forming piece, and a radially movable die adapted to act on said internal portion so turned transversely and to press it radially outward against said bead-forming piece to form a recess suitable for the reception of a core.

2. A device for shaping the outer casings of pneumatic tires, comprising, in combination, a mold of concave cross-section, means for clamping a band of leather in said mold, an internal bead-forming piece, a transversely movable external die adapted to act upon the outer side of a projecting edge portion of a band so clamped and to turn a radially internal portion thereof laterally inward over said bead-forming piece, and a radially movable internal die adapted to act on said internal portion so turned laterally inward and to press it radially outward against said bead-forming piece, to form a recess suitable for the reception of a core.



3. A device for shaping the outer casings of pneumatic tires, comprising, in combination, an annular bead-forming piece, formed with an annular groove on one side, a transversely movable die provided with an annular projection corresponding to said annular groove and adapted to press an edge portion of a band of leather against said bead-forming piece and to turn a radially internal portion thereof transversely over said bead-forming piece, and a radially movable die adapted to act on said internal portion so turned transversely and to press it radially outward against said bead-forming piece to form a recess suitable for the reception of a core.

4. A device for shaping the outer casings of pneumatic tires, comprising, in combination, an annular mold of concave cross-section, internal dies adapted to clamp a band of leather in said mold, means for securing said dies in position in said mold, and means for supporting said mold in such manner as to enable it to be turned about its axis, said means being independent of the means for securing said dies in position in said mold.

5. A device for shaping the outer casings of pneumatic tires, comprising, in combination, an annular bead-forming piece, a transversely movable die adapted to press an edge portion of a band of leather against said bead-forming piece and to turn a radially internal portion thereof transversely over said bead-forming piece, devices for moving said die transversely, and a radially movable die adapted to act on said internal portion so turned transversely and to press it radially outward against said bead-forming piece to form a recess suitable for the reception of a core.

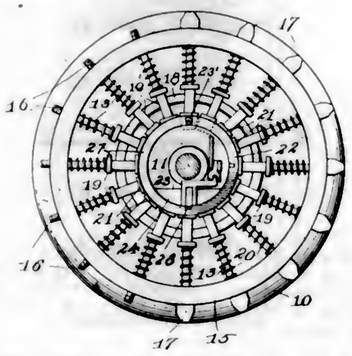
[Claims 6 to 9 not printed in the Gazette.]

1,132,905. NON-SKID DEVICE. STIVE BERRE, East Youngstown, Ohio. Filed Mar. 30, 1914. Serial No. 828,237. (Cl. 21—210.)

1. The combination with a wheel and axle, of a stationary collar within which said axle rotates, an annulus secured to the wheel and provided with radial perforations, radial rods slidably positioned within said perforations and having their inner ends resiliently and slidably seated upon the outer periphery of said collar, a band having slots to receive said rods, one side of said collar being formed with a seat, a wedge slidably mounted within said seat and having an inclined inner edge adapted for engagement with the inner ends of certain of said rods, and means for shifting said wedge.

2. In combination with a wheel and axle, a non-rotating collar upon said axle, an annulus concentric with said hub

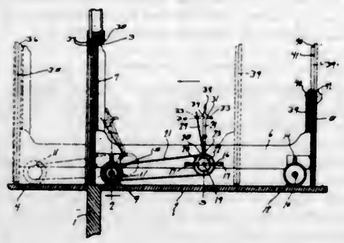
and provided with radial perforations, one side of said collar being formed with a seat, a wedge slidably mounted within said seat and having an inner tapered edge, rods radially arranged through the perforations of said annulus and having their outer ends screw-threaded and projecting outwardly of the annulus, springs carried by said rods and normally positioning the inner ends of said rods slidably upon said collar and wedge during a rotation of the wheel, and removable calks upon said rod ends.



3. The combination with a wheel and axle, of a stationary collar within which said axle rotates having a seat formed on one side thereof and an annular peripheral groove, an annulus secured to the wheel and provided with radial perforations, radial rods slidably positioned within said perforations and having their inner ends resiliently and slidably positioned in said groove, a wedge slidable axially within said seat and having an inclined edge adapted for engagement with the inner ends of certain of said rods, and means for shifting said wedge.

4. The combination with a wheel and axle, of a stationary collar within which said axle rotates having a seat formed on one side thereof and an annular peripheral groove, an annulus secured to the wheel and provided with radial perforations, radial rods slidably positioned within said perforations and having their inner ends resiliently and slidably positioned in said groove, a band carried by said collar, a wedge slidable axially within said seat and provided with a rib acting in conjunction with said band to limit the outward movement of said wedge, and means for shifting said wedge.

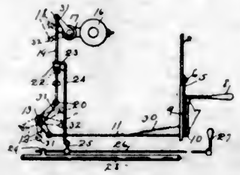
1,132,906. SLEEPING-BED STRUCTURE. KARL J. BERGGREN, Spokane, Wash. Filed Apr. 27, 1914. Serial No. 834,722. (Cl. 20—1.11.)



1. In combination, a building including a floor and an exterior wall with an opening in the latter extending upwardly from the floor and affording communication between the interior of the building and the outer air, a runway projecting exteriorly from said wall, a bed structure movable through said opening on said floor and runway into in-door or out-door positions and having a foot board, and an extension hinged to the inner side of said foot board and adapted to be swung into an extended position to engage the margins of said opening and limit movement of said bed structure in one direction, said foot board and extension being proportioned to close said opening when the latter is extended or swung into a projecting position, substantially as described.

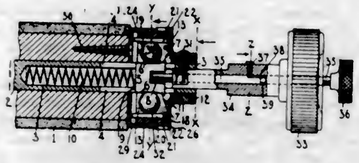
2. In combination, a building including a floor and a wall with an opening in the latter extending upwardly from the floor, a bed structure movable through said opening into laterally opposite positions with respect to said wall and said structure having a relatively high head portion proportioned to close said opening when the bed structure is shifted into one position with respect to said wall, said bed structure having a foot portion of reduced height with respect to said head portion, and an extension mounted on said foot portion for projection therefrom to form with said foot portion a closure for said opening when said bed structure is shifted into a position opposite to said first named position, substantially as described.

1,132,907. ACCELERATOR FOR AUTOMOBILES. JOHN E. BOWMAN, Syracuse, N. Y. Filed June 23, 1914. Serial No. 846,765. (Cl. 74—39.)



An accelerator, in combination with a throttle valve, including a bell-crank, a rod connecting one arm of said bell-crank directly to the throttle valve, said rod having a stop intermediate to its ends, a hand-throttle mechanism including a rod having a loop slidable on said first rod, said loop engaging said stop for opening said valve, means for manually operating said second rod, and a pedal operatively connected to the other arm of said bell-crank for operating said first rod independently of said loop.

1,132,908. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Apr. 17, 1914. Serial No. 832,475. (Cl. 197—123.)



1. In a typewriting machine, comprising a cylindrical platen and a line spacing wheel separately movable on a common axis, a connecting rotary clutch including a pair of rollers and a device which extends between them and has opposite faces on which the rollers act when the platen and line spacing wheel are clutched together, said device being movable in the directions in which the rollers travel as they roll upon it, and being further movable bodily toward each roller when that roller is loose.

2. In a typewriting machine, comprising a cylindrical platen and a line spacing wheel separately movable on a common axis, a connecting clutch having ball-retaining

walls, and including balls, each ball being between outer and inner walls the bearing surfaces of which slope toward points on said axis that are remote from and on one side of the clutch, and some of the walls being movable lengthwise of said axis and operative on the balls to roll them axially of the clutch.

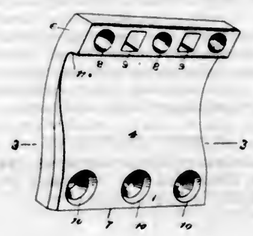
3. In a typewriting machine, comprising a cylindrical platen and a line-spacing wheel separately movable on a common axis, a connecting rotary clutch including balls and a device on which the balls bear and through which said axis passes, said device being constrained to turn with the platen and being movable lengthwise and transversely of said axis and operative on the balls to roll them axially of the clutch.

4. In a typewriting machine, comprising a cylindrical platen and a line-spacing wheel separately movable on a common axis, a connecting rotary clutch including balls and a device on which the balls bear and through which said axis passes, the bearing surfaces of said device being in converging planes that meet at a point on said axis remote from the clutch and said device being constrained to turn with the platen and being movable lengthwise of said axis and operative on the balls to roll them axially of the clutch.

5. In a typewriting machine, comprising a cylindrical platen and a line-spacing wheel separately movable on a common axis, a connecting rotary clutch including outer ball-retaining walls, a pair of balls, and a device which forms inner ball-retaining walls and through which said axis passes, the bearing surfaces of said outer walls sloping toward a point on said axis remote from the clutch, and said device being movable lengthwise and transversely of said axis and operative on the balls to roll them axially of the clutch.

[Claims 6 to 19 not printed in the Gazette.]

1,132,909. LINING-PLATE FOR BALL-MILLS. WALTER BRINTON, Wilmington, Del., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me., and Chicago, Ill., a Corporation of Maine. Filed July 21, 1914. Serial No. 852,150. (Cl. 83—9.)



1. A lining plate for a ball mill formed with a thickened perforated heel, and a toe provided with openings for the reception of fastening bolts.

2. A lining plate for ball mills the thickness of which gradually decreases from the toe to the heel, the latter being thickened and perforated, the toe being provided with holes for the reception of fastening bolts.

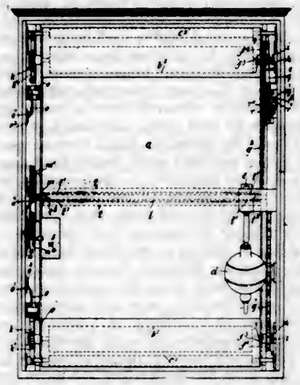
3. A lining plate for ball mills gradually decreasing in thickness from the toe to the heel, the latter being thickened and perforated, and provided with a flat outer face whereby to form a seat for the toe of the adjacent plate.

4. A lining plate for ball mills having a toe and heel, the former being provided with openings for the reception of fastening bolts, and the latter being thickened and perforated and adapted to support the toe of an adjacent plate, said plate gradually decreasing in thickness from the toe to the thickened heel, the rear side of said plate being provided with longitudinal ribs.

5. A lining plate for ball mills having a toe and heel, the plate gradually decreasing in thickness from the former to the latter, said heel being provided in its thickened portion with openings and adapted to support the toe of an adjacent plate, the rear side of said plate being provided with longitudinal ribs gradually increasing in thickness toward the toe of the plate.

[Claims 6 to 8 not printed in the Gazette.]

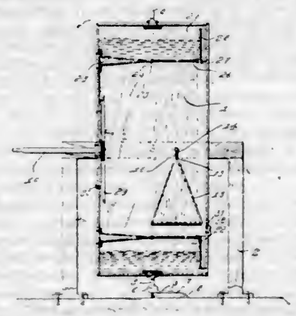
1,132,910. MACHINE FOR INTERMITTENTLY DISPLAYING POSTERS AND THE LIKE. EDWARD WILLIAM BROWN, Holborn, London, England. Filed June 2, 1914. Serial No. 842,530. (Cl. 40—53.)



1. In a poster displaying machine, a band of posters, an electromotor, driving means interconnecting said band and said motor, parallel circuits of said motor, a switch in each said parallel circuit, means for opening one said switch during the passage of each said poster across said machine and for opening the other said switch at the end of said passage and retarded means for closing said first switch after said second switch has been opened.

2. In a poster displaying machine, a roller at opposite ends of said machine, a band of posters led around said rollers, slats between each said poster, an electro-motor, means interconnecting one of said rollers and said motor, parallel circuits of said motor, a switch in one said circuit in the path of said slats, means for delaying closure of said switch and a circuit breaking switch in the other said circuit in the path of said slots.

1,132,911. ETCHING-MACHINE. GEORGE H. BROWN, Point Loma, Cal. Filed Jan. 27, 1913. Serial No. 744,477. (Cl. 41—9.)



1. An etching machine of the class described comprising a support, a body rotatably mounted therein, tanks carried by the ends of said body, means formed in said tanks for

discharging the liquid from one end of the end walls thereof, and a plate support carried within said body.

2. A machine of the class described comprising a support, a body rotatably mounted therein, tanks carried by the opposite ends of said body, means for discharging liquid from one end of the end walls thereof, a plate support carried within said body and being placed in alinement with said liquid discharge means formed in said tank, and means engaging said body for holding the same in the desired position.

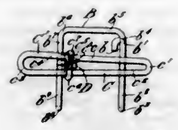
3. A machine of the class described comprising a support, a body rotatably mounted therein, tanks carried by the ends of said body, means formed in said tanks for allowing the discharge of liquid therefrom, and a plate support pivotally secured within said body and capable of being swung therein for causing the plate to be held in the path-way of said discharge means formed in said tanks.

4. A machine of the class described comprising a support, a body rotatably mounted therein, tanks carried by the opposite ends of said body, said tanks provided with inclined end walls for directing liquid into one end of said tanks, said tanks provided with liquid discharge means, and a plate support pivotally secured within said body and capable of being swung in the pathway of said discharge means formed in said tank, and means carried by said body for holding the same in a set position.

5. A machine of the class described comprising a support, a body rotatably mounted therein, tanks carried by opposite portions of said body, spraying means carried by said tanks, a plate support pivotally secured within said body and adapted to be placed in alinement with said spraying means for causing the acid contained within the tank to be discharged directly thereon, and an inlet tube carried by each tank for facilitating the entrance of acid therein.

[Claims 6 to 8 not printed in the Gazette.]

1,132,912. POCKET-CLIP FOR SPECTACLE-CASES OR OTHER ARTICLES. GARDNER M. BURGESS, Providence, R. I. Filed Feb. 12, 1914. Serial No. 818,244. (Cl. 24—3.)

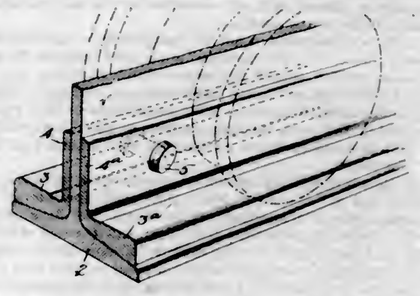


1. In a pocket-clip constructed from a single piece of wire bent to form a spring clamp having opposite jaw-members adapted to bind upon the article to be held in place in the pocket, with an extension of the wire bent in a helical coil to form a spring adjacent the jaw-members, and an extension of the wire from the spring bent to form a finger-lever adapted to be operated by said spring to cause it to grip the edge of the pocket.

2. In a pocket-clip constructed from a single piece of wire in substantially U-shape form having parallel, overlying jaw-members adapted to clamp against the sides of the cover of a spectacle case, with an extension of the wire from said jaw-members bent in a helical coil to form a spring, and an extension of the wire from the spring bent to form a double loop extending cross-wise of the jaw-members and adapted to serve as a spring clasp to bind on the hem of the pocket to hold the case in place.

3. In a pocket-clip constructed from a single piece of wire in substantially U-shape form having parallel, overlying jaw-members adapted to clamp against the sides of the cover of a spectacle case, with an extension of the wire from said jaw-members bent in a helical coil to form a spring, and an extension of the wire from the spring bent to form a double loop extending cross-wise of the jaw-members to serve as a finger lever, with the end of the wire from the loop bent around and extending through the center of the spring to tie the parts of the finger-lever thereto.

1,132,913. MONORAIL. JAMES ROBERT COE, Waterbury, Conn. Filed Sept. 18, 1914. Serial No. 862,272. (Cl. 104—181.)



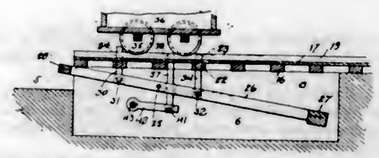
1. A track for devices of the character described comprising a main structural beam including a web and an integral flange, supplemental wear pieces secured to said web and supported on said flange between said web and the edges of said flange, and providing two oppositely arranged rail treads.

2. A track for devices of the character described comprising a main structural beam including a web and an integral flange, supplemental wear pieces secured to said web between said web and the edges of said flange and providing two oppositely arranged rail treads, said supplemental pieces being made of relatively tougher stock than the main beam and supported on said flange.

3. A track for devices of the character described comprising a main structural beam including a web and an integral flange, supplemental wear pieces secured to said web between said web and the edges of said flange and providing two oppositely arranged rail treads, the treads of said wear pieces being in substantially the same horizontal plane and supported on said flange.

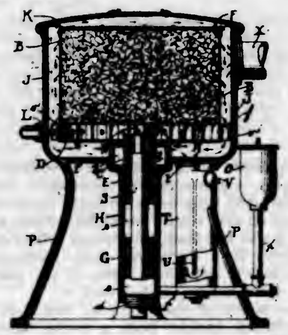
4. A track for devices of the character described comprising a main structural beam including a web and an integral flange, supplemental wear pieces secured to said web between said web and the edges of said flange and providing two oppositely arranged rail treads, each of said supplemental wear pieces including two treads and an intermediate connecting web, said supplemental pieces being reversible and supported on said flange.

1,132,914. SAFETY DEVICE FOR MINE-CARS. FERDINAND DAVIS, Uniontown, Pa. Filed Mar. 28, 1914. Serial No. 827,865. (Cl. 214—12.)



In combination, a track leading to a hoisting cage shaft, a pit arranged below said track, a normally inclined counter-balance frame pivotally supported in said pit and having its forward end projecting into said shaft and capable of being shifted by the descent of said cage, front and rear stop elements pivotally connected to said frame and capable, when the latter is shifted, of being alternately retracted and projected into the path of travel of cars to release and arrest travel of the cars toward said cage, and vertically movable stops, manually operated, and independent of both the hoisting cage and said first named stop elements, and located intermediate the front and rear stop elements first named.

1,132,915. CENTRIFUGAL MACHINE. WILLIAM L. D'OLIER, Philadelphia, Pa. Filed May 16, 1913. Serial No. 768,002. (Cl. 127—3.)



1. The combination with a centrifugal basket, of a bottom therefor to which said basket extends, said basket having perforations at said bottom, motor buckets or vanes disposed at said perforations above said bottom, and a false bottom within said basket disposed above said vanes or buckets.

2. The combination with a centrifugal basket, of a bottom therefor to which said basket extends, said basket having perforations at said bottom, motor buckets or vanes disposed at said perforations above said bottom, a false bottom within said basket disposed above said vanes or buckets, and means for delivering motive fluid to said vanes or buckets to drive said basket, said motive fluid after impact upon said vanes or buckets passing upwardly into said basket through said false bottom.

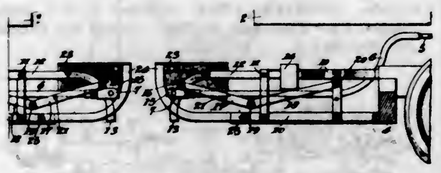
3. The combination with a centrifugal basket, of a bottom therefor, motor vane or bucket members struck out from said basket, an upturned flange secured to said bottom, and complementary motor vane or bucket members struck out from said flange.

4. The combination with a centrifugal basket, of a bottom therefor, a flange on said bottom, said flange and said basket having registering openings, and motor vanes or buckets disposed at said openings.

5. The combination with a centrifugal basket, of a bottom therefor, a flange on said bottom, said flange and said basket having registering openings, motor vanes or bucket members disposed at said openings, a part of each vane or bucket carried by said basket, and a complementary part of each vane or bucket by said flange.

[Claims 6 and 7 not printed in the Gazette.]

1,132,916. AUTOMATIC BRAKE-PIPE COUPLING. DÉSIRÉ DORSO, Vancouver, British Columbia, Canada. Filed June 15, 1914. Serial No. 845,203. (Cl. 188—13.)



1. An automatic pipe coupling for cars, comprising the combination with a coupling end which is flexibly connected to the train pipe of the car, of means for sustaining the coupling end in advance of the coupling of the car said means comprising a support secured to and projecting forward from the bogie truck of the car, a counterweighted lever pivoted to said support said lever having a downwardly curved outer end to which curved end the coupling end of the pipe is pivotally connected, and means for sustaining the coupling end in a substantially horizontal position.

2. An automatic pipe coupling for cars, comprising the combination with a coupling end which is flexibly connected to the train pipe of the car, of means for sustaining the coupling end in advance of the coupling of the car said means comprising a support secured to and projecting forward from the bogie truck of the car, a counterweighted lever pivoted to said support said lever having a downwardly curved outer end to which curved end the coupling end of the pipe is pivotally connected, means for sustaining the coupling end in a substantially horizontal position, means for checking downward movement of the coupling end on its pivot, and means for supporting the flexible pipe adjacent to the coupling end against flexure downward.

3. An automatic pipe coupling for cars, comprising the combination with a coupling end which is formed to make a half lapped connection with that of the other car and has an aperture in the half lapped face which coupling is flexibly connected to the train pipe of the car, of means for yieldingly sustaining the coupling end in advance of the coupling of the car said means comprising a support secured to and projecting from the bogie truck of the car, a counterweighted lever pivoted to said support said lever having a downwardly curved outer end to which curved end the coupling end of the pipe is pivotally connected, a stop on the coupling checking downward movement of the coupling end on its pivot and a toggle lever system pivotally connected to the pivot of coupling end and to the supporting frame from the bogie truck on which toggle lever the flexible pipe connection of the coupling is supported.

4. An automatic pipe coupling for cars, comprising the combination with a coupling end which is formed to effect a half lap junction with that of the other coupling end on being pressed endwise together, of means for yieldingly sustaining the coupling end in advance of the coupling of the car, said means comprising a support secured to and projecting forward from the frame of the bogie truck of the car, two parallel counterweighted levers pivotally mounted on said support the outer ends of said levers being downwardly turned to engage the correspondingly downwardly turned ends of the supporting lever of the adjacent car, means for pivotally connecting the coupling end between the counterweighted levers, means for checking downward movement of the coupling end on its pivot, parallel toggle levers between the bent end of the counterbalanced levers and the supporting frame between which toggle levers the flexible pipe of the coupling is supported against downward flexure adjacent to the coupling end.

5. An automatic pipe coupling for cars, comprising the combination with a coupling end which is flexibly connected to the train pipe of a car, and means for yieldingly sustaining it in advance of the car coupling, of a weather shelter carried over the coupling end and means for independently supporting said weather shelter over said coupling end.

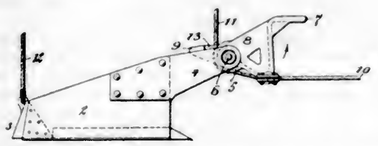
[Claim 6 not printed in the Gazette.]

1,132,917. DRAG-LINE BUCKET. HARRIS T. DUNBAR, Buffalo, N. Y. Filed Oct. 25, 1913. Serial No. 797,298. (Cl. 37—54.)

1. A drag line bucket comprising a scoop, a loading yoke pivoted on said scoop and having a push member which swings through the mouth of the scoop and means for operating said yoke so as to retain said push member in front of the front end of said scoop during the loading operation.

2. A drag line bucket comprising a scoop, a loading yoke pivoted on said scoop and having a push member which swings through the mouth of the scoop, a drag line connected with said yoke and operating to swing the yoke forwardly so as to retain the push member in front

of the front end of the scoop during the loading operation, a lifting line connected with said yoke and operating to swing said yoke rearwardly and a dumping line connected with the rear part of said scoop.

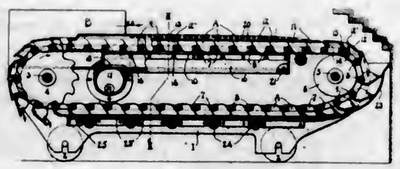


3. A drag line bucket comprising a scoop, a loading yoke pivoted on said scoop and having a push member which swings through the mouth of the scoop and having a stop which engages said scoop to limit the forward swinging movement of the yoke relatively to the scoop and means for operating said yoke so as to retain said push member in front of the front end of said scoop during the loading operation.

4. A drag line bucket comprising a scoop provided at its front end with a mouth and on its side walls with forwardly projecting horns, and a vertically swinging loading yoke having hubs pivotally mounted on the inner sides of said horns, a push bar arranged on one side of said hubs and adapted to move lengthwise through the mouth of the scoop, and stops arranged on the opposite sides of said hubs and adapted to engage the adjacent parts of the side walls of the scoop for limiting the forward turning movement of the yoke.

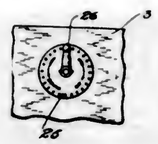
5. A drag line bucket comprising a scoop provided at its front end with a mouth and on its side walls with forwardly projecting horns, a vertically swinging loading yoke having hubs pivotally mounted on the inner sides of said horns, a push bar arranged on one side of said hubs and adapted to move lengthwise through the mouth of the scoop, and stops arranged on the opposite sides of said hubs and adapted to engage the adjacent parts of the side walls of the scoop for limiting the forward turning movement of the yoke, a drag line connected with said yoke and adapted to turn the same forward, a lifting line connected with the yoke and passing around the hubs thereof, and a dumping line connected with the rear part of the scoop.

1,132,918. FURNACE-GRATE. WILLIAM M. DUNCAN, Alton, Ill. Filed Feb. 21, 1913. Serial No. 749,804. (Cl. 110—40.)



A furnace grate comprising endless sprocket chains, buckets hinged to said chains and freely tiltable relative to the chain links, a front support and a rear support about which said chains travel in a continuous circuit, providing for the movement of the chains and buckets in an upper course and in a lower course, an abutment at the rear of the grate against which said buckets strike in tilting automatically at the rear end of the grate while passing from their upper course of movement to their lower course of movement, whereby ashes resting upon the buckets are jarred therefrom and caused to be deposited into the preceding tilted buckets, and a runway on which said buckets are moved toward the links of said chains and held approximately parallel therewith while traveling through the lower course toward the forward end of the grate.

1,132,919. AUTOMATIC HEADLIGHT CONTROL. JOHN W. EASTEP, South Bend, Ind. Filed June 29, 1914. Serial No.847,916. (Cl. 240—61.)



1. In a device of the character described, a lamp, an upright post, a sleeve loosely mounted at the upper end of the post, said lamp being pivotally mounted on a horizontal axis on said sleeve, means for raising and lowering the post, sleeve and lamp, an element relatively stationary with respect to a horizontal plane positioned adjacent the post and a connection between the lamp and said element, substantially as described.

2. In a device of the character described, a lamp, a screw threaded upright post, a sleeve loosely mounted on the upper end of said post, connections between the sleeve and lamp whereby the lamp is mounted for pivotal movement on a horizontal axis below the lamp, a support for the post, means for raising and lowering the post relative to said support, an element mounted for rotative movement in a horizontal plane about the post, and a connection between the lamp and said element, substantially as described.

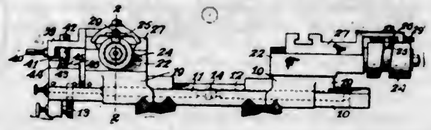
3. In a device of the character described, a casing having an open top, a screw threaded post positioned vertically and passing through said casing, means for vertically moving said post, a lamp mounted on said post for pivotal movement about vertical and horizontal axes, a cover plate for said casing mounted for rotative movement about the post, and a connection between the lamp and cover plate.

4. In a head light, a casing having an open top, a screw threaded post positioned vertically and passing through said casing, means for vertically moving said post, a lamp mounted on said post for pivotal movement about vertical and horizontal axes, a cover plate for said casing mounted for rotative movement about the post, a connection between the cover plate and lamp, and means for rotating the said cover plate about the post.

5. In a head light, a casing having an open top, a screw threaded post positioned vertically and passing through said casing, means for vertically moving said post, a lamp mounted on said post for pivotal movement about vertical and horizontal axes, a cover plate for said casing mounted for rotative movement about the post, a connection between the cover plate and lamp, a bevel gear fixed to the cover plate, a bevel gear meshing therewith, a shaft connected to said second gear, and means for rotating the shaft a limited amount in either direction.

[Claims 6 to 9 not printed in the Gazette.]

1,132,920. TURNING-LATHE. RIMMON C. FAY, Philadelphia, Pa. Filed Apr. 17, 1912. Serial No. 691,340. (Cl. 82—24.)



1. In a device of the character described, the combination of a slide, a shaft carried by the slide, means for transmitting power to the shaft to turn it in different positions of the slide, a support on the slide rotatable about the axis of the shaft, a tool holder movable on said support and means connected with the shaft for reciprocating said tool holder along the support with a predetermined variable feed independently of the position of the support and slide.

2. In a device of the character described, the combination with a lathe carriage base, of a slide movable thereon, a vertical shaft carried by the slide, means for transmitting power to the shaft to turn it in different positions of the slide, a support on the slide rotatable about the axis of the vertical shaft, a tool holder movable on said support and means connected with the vertical shaft for reciprocating said tool holder along the support with a predetermined variable feed independently of the position of the support and slide.

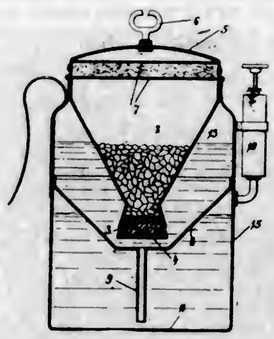
3. The combination with a lathe carriage base having a reciprocable slide thereon, and a support resting on the slide and rotatable thereon about a vertical axis, of a vertical shaft axially in alinement with the center of rotation of said support, means for rotating said vertical shaft by power independently of the positions of the slide and support, a feed shaft mounted in bearings on the rotatable support, means for transmitting a motion of rotation from the vertical shaft to the feed shaft, a tool holder movable along said support, and rotary means on said feed shaft for reciprocating the tool holder.

4. The combination with a lathe carriage base having a reciprocable slide thereon, and a support resting on the slide and rotatable thereon about a vertical axis, of a worm carried by said base, a vertical shaft axially in alinement with the center of rotation of said support, a worm wheel on said shaft engaging said worm to be operated thereby, a feed shaft mounted on the rotatable support, means for transmitting a motion of rotation from the vertical shaft to the feed shaft, a tool holder movable along said support, and means on the end of said feed shaft for variably reciprocating the tool holder.

5. In a tool rest, the combination of a support adapted to swing about a center, a radial feed shaft carried by said support, a tool holder movable on said support, means for transmitting power to said feed shaft to rotate it, a cam fixed on said feed shaft and having a cam groove, a roll stud mounted on the tool rest and adapted to project into said cam groove, a screw on the tool rest for adjusting said roll stud, and means for transmitting power from the feed shaft to the tool rest to reciprocate it radially in all positions of the support.

[Claims 6 to 13 not printed in the Gazette.]

1,132,921. ACETYLENE-GAS GENERATOR. FRITZ FEER, Basel, Switzerland. Filed July 2, 1914. Serial No. 848,630. (Cl. 48—35.)

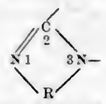


1. An acetylene lamp comprising in combination a water vessel, a partition in said water vessel, a tube fixed on said partition ending near the bottom of said water vessel, an air pump fixed to said water vessel, a pipe connecting said air pump with the chamber below said partition, a receptacle for the carbid loosely mounted on the water vessel having a conical portion projecting into the water vessel, a conical spout on said receptacle, an adjustable cork stopper in said spout, perforated plates in said receptacle, a pad of fibrous material between said plates, a burner fixed on said receptacle substantially as described and for the purpose set forth.

2. An acetylene lamp comprising in combination a water receptacle, a superimposed water receptacle positioned thereon, a pipe secured to the base of said superimposed water receptacle extending into said water receptacle, means for forcing water from said water receptacle into said superimposed receptacle, an inverted cone shaped carbid container having an opening in the base thereof and extending into said superimposed receptacle, an adjustable stop for said opening, a pair of plates secured in spaced relation in the top of said carbid container, a cleansing material positioned intermediate said plates, said plates having means formed therein to tortuously flow the gases through said cleaning material, a burner secured to said carbid container, said burner spaced from said plates to form a gas chamber, substantially as described.

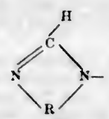
1,132,922. SULFUR COLORS. JOSEPH FLACHSLAENDER, KARL PAUL GRALERT, and MAX BUFF, Elberfield, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Sept. 16, 1913. Serial No. 789,997. (Cl. 8—1.)

1. The new sulfur dyes being sulfur containing derivatives of perimidin compounds containing the nucleus graphically represented:



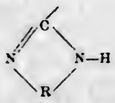
where R stands for a naphthalene nucleus, which dyes are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a brownish to red-brown coloration; being soluble in concentrated sulfuric acid with a brownish coloration; and dyeing unmordanted cotton generally brown shades fast to light and to boiling, substantially as described.

2. The new sulfur dyes being sulfur containing derivatives of perimidin compounds containing the nucleus graphically represented:



where R stands for a naphthalene nucleus which dyes are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a brownish to red-brown coloration; being soluble in concentrated sulfuric acid with a brownish coloration; and dyeing unmordanted cotton generally brown shades fast to light and to boiling, substantially as described.

3. The new sulfur dyes being sulfur containing derivatives of perimidin compounds containing the nucleus graphically represented:



where R stands for a naphthalene nucleus which dyes are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a brownish to red-brown coloration; being soluble in concentrated sulfuric acid with a brownish coloration; and

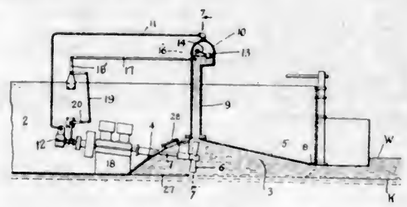
dyeing unmordanted cotton generally brown shades fast to light and to boiling, substantially as described.

4. The new sulfur dye being sulfur containing derivatives of perimidin having most probably the formula:



which is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a reddish-brown coloration and soluble in concentrated sulfuric acid with a brownish coloration; and dyeing unmordanted cotton in pure and brilliant generally brown shades fast to light and to boiling, substantially as described.

1,132,923. SHALLOW-WATER BOAT. CARL H. FOWLER, New York, N. Y. Filed June 30, 1914. Serial No. 848,126. (Cl. 115—39.)



1. A boat having a propeller chamber open at the bottom and having a rear wall, the upper part of which slopes at a gradual angle from the horizontal downwardly and rearwardly to the stern of the boat, and extending through the stern with an orifice below the minimum water line of the boat and above the keel line, a stand pipe superimposed above and connected with said propeller chamber, a vacuum pump, a float in the upper part of said stand pipe, and connections between said float and pump such that under certain conditions the pump is set in operation to exhaust the air from said stand pipe and propeller chamber and under certain other conditions the pump is rendered inoperative, substantially as set forth

2. A boat having a propeller chamber open at the bottom, a propeller shaft extending into said chamber and a propeller thereon, a stand pipe superimposed above and connected with said chamber, a chamber of larger lateral dimensions than said stand pipe into which said stand pipe opens at its upper end, a float in said enlarged chamber, a vacuum pump and connections between said float and pump such that said pump is set in operation whenever the water in said stand pipe and enlarged chamber falls below a predetermined height and is stopped when the level of the water reaches such predetermined height, substantially as set forth.

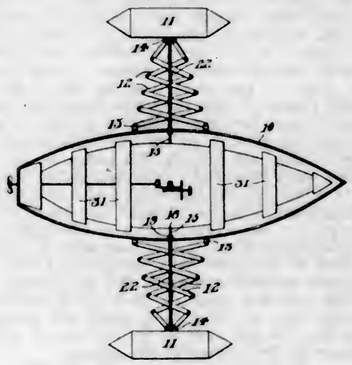
3. A boat having two propeller chambers open at the bottom and having rear orifices below the normal water line, a propeller in each of said chambers, a stand pipe positioned at a higher level than said propeller chambers, upwardly directed connections from the top of said chambers to said stand pipe, and means for exhausting air from said stand pipe, substantially as set forth.

4. A boat having two propeller chambers open at the bottom and having rear orifices below the normal water line, a propeller in each of said chambers, a stand pipe positioned at a higher level than said propeller chambers, upwardly directed connections from the top of said chambers to said stand pipe, means for exhausting air from said stand pipe, and a series of deflecting rods running longitudinally from the forward end of each propeller chamber to a line approximately beneath the propeller in each said chamber, substantially as set forth.

5. A boat having two propeller chambers open at the bottom and having rear orifices below the normal water line, a propeller in each of said chambers, a stand pipe positioned at a higher level than said propeller chambers, upwardly directed connections from the top of said chambers to said stand pipe, means for exhausting air from said stand pipe, a float in said vacuum chamber, a vacuum pump and connections between said float and pump such that said pump is set in operation when the water in said stand pipe falls below a predetermined height and that said pump is rendered inoperative when the water in said stand pipe rises to such predetermined height, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,132,924. ADJUSTABLE OUTRIGGER FOR BOATS. PAUL GEPACK, McKees Rocks, Pa., assignor of one-eighth to Joseph Romanczk, one-fourth to Joseph Wienicki, and one-eighth to John Modranski, McKees Rocks, Pa. Filed Nov. 4, 1914. Serial No. 870,231. (Cl. 114—23.)



1. A boat outrigger comprising a hollow float, a lazy-tong bracket pivotally connected between the float and the boat, central pivots for said bracket, an actuating rod extending through the side of the boat and through said pivots and with its outer end rigidly secured to said float, and having top notches thereon, expansion springs encircling said rod and positioned between said pivots, a pawl carried by the boat and adapted for engaging the said notches with said springs compressed when the float is positioned adjacent the boat side and an operating handle upon the inner end of said rod and within the boat.

2. A device of the class described, comprising a hollow float positioned outwardly of a boat and extending longitudinally thereof, a bracket in the form of lazy-tongs having pivotal connection between the said boat and float, an actuating rod slidably positioned through the side of said boat and through said brackets and having its outer end secured to the float, and having notches in its upper side, expansion springs encircling said rod and positioned between said lazy-tongs and the boat and said float, the said lazy-tongs being normally positioned unfolded with the float positioned outwardly and a pawl carried within the boat and adapted for engaging said notches for retaining said rod and float in their adjusted positions.

3. A boat outrigger comprising a pair of floats, adjustable means for supporting said floats on the boat, means for holding the floats in position adjacent the boat, and means associated with the last-named means for moving the floats outwardly when said last-named means is made inoperative.

1,132,925. BLADE-BOX. KING CAMP GILLETTE, Brookline, Mass. Filed Oct. 28, 1908. Serial No. 459,885. (Cl. 220—18.)



1. A box substantially rectangular in cross section formed of resilient sheet metal comprising a container and a closure therefor, the walls of the container being contracted adjacent to the upper end thereof to provide a shoulder adapted to be engaged by the edge of the closure, the contracted portion telescoping into said closure and means carried by said closure and said container to lock the same in engagement and form a hermetic joint between said shoulder and the edge of the closure in engagement therewith, said locking means embodying a projection pressed from the contracted portion of said container and inclined inwardly from its lower to its upper end and a cutout portion in the wall of said closure adapted to slide over and register with said projection, said locking means being adapted to be released by the application of pressure to said container in a transverse direction and simultaneously to the closure in a longitudinal direction, whereby said projection will be forced out of engagement with said cut out portion to permit the withdrawal of the closure from the container.

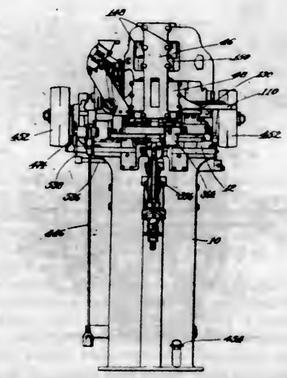
2. A box formed of resilient sheet metal, comprising a body portion, having a shoulder and a contracted portion at its upper end, said box having flat sides formed with outstanding projections inclined inwardly from their lower to their upper ends, and a cover adapted to fit the contracted upper end of said body portion, said cover having perforations to receive the projections of said body portion and having its upper end interiorly enlarged, and a sealing member fitted into the interiorly enlarged upper portion of said cover and adapted to be pressed against the upper end of said body portion, and the said parts adapted to be disengaged by the application of finger pressure to the body in a lateral direction to compress the sides thereof and simultaneously to the cover in a longitudinal direction to expand the sides thereof to force the perforations out of engagement with said projections.

1,132,926. MACHINE FOR INSERTING FASTENINGS. PERLEY R. GLASS, Brookline, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 9, 1910. Serial No. 548,189. (Cl. 12—45.)

1. A machine of the class described, having, in combination, an awl and a driver arranged to operate in succession at the same nail location, reciprocating awl operating means and reciprocating driver operating means guided within the awl operating means.

2. A machine of the class described, having, in combination, reciprocating awl operating means, reciprocating driver operating means guided within the awl operating means, a nail block having a nail receiving opening, an awl, and a driver, and means for bringing said awl into and out of operative relation to its operating means in such manner that the awl and the driver may be moved in succession into the nail receiving opening in the nail block.

3. A nailing machine, having, in combination, reciprocating awl operating means and reciprocating driver operating means, one of said means being guided within the other, a nail block having a nail receiving opening, an awl and a driver, one of said parts being normally in operative relation to its operating means and the other being movable into and out of operative relation to its operating means whereby they may be moved in succession into the nail receiving opening in the nail block.

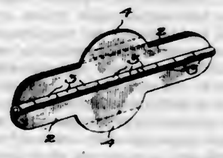


4. A nailing machine, having, in combination, reciprocating awl operating means, reciprocating driver operating means guided within the awl operating means, a driver normally in operative relation to its operating means, an awl normally in inoperative relation to its operating means, and means for moving the awl into and out of operative relation to the awl operating means in advance of the operation of the driver operating means.

5. A machine of the class described, having, in combination, reciprocating awl operating means, reciprocating driver operating means guided within the awl operating means, a plurality of gangs of awls, a plurality of gangs of drivers and means for bringing any one of the gangs of awls and any one of the gangs of drivers into operative relationship to its respective operating means.

[Claims 6 to 35 not printed in the Gazette.]

1,132,927. HINGE. WILLIAM E. GOULD, Cranston, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 16, 1914. Serial No. 867,004. (Cl. 16—104.)

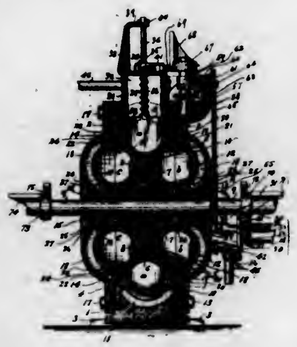


1. In a hinge, a pair of leaves each formed of a piece of sheet metal folded upon itself to provide knuckles, one side of each leaf being formed with a central extension which projects beyond the adjacent side of the other side of the leaf, said leaves, excepting the knuckles thereof being adapted for reception in slots diagonally cut in the two parts which the hinge is to connect, and said extensions projecting beyond the slots and being bendable into engagement with the edge of the adjacent leaf and the respective parts.

2. A box hinge comprising a pair of hingedly connected leaves, each leaf consisting of a single sheet of metal bent upon itself, one side edge of each leaf projecting beyond

the edge of the adjacent side, and freely bendable therebeyond and into engagement with the sides of the box.

1,132,928. GAS-ENGINE. FRANK GRUZECKI, Passaic, N. J., assignor of one-half to Andrew Buchak, Newark, N. J. Filed Aug. 24, 1914. Serial No. 858,178. (Cl. 123—14.)

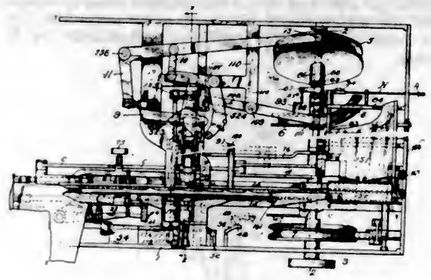


1. A rotary internal combustion engine comprising a casing having a central opening, a rotor-element mounted to rotate in said opening, a main shaft on which said rotor-element is mounted, side face-plates connected with said casing and adapted to inclose said rotor-element therein, bearing portions connected with said face-plates in which said main shaft is journaled to project exteriorly of said casing, the inner side of said casing having an annular channel, the outer circumference of said rotor-element having an annular channel registering with said channel of said casing and forming in conjunction therewith a circular firing chamber, each face-plate being also provided in its inner surface with an annular channel, each side face of said rotor-element having an annular channel which respectively register with said channels of said face-plates and form in conjunction therewith additional circular firing-chambers, each firing-chamber having a gas inlet port and an exhaust port, a gate-member adapted to enter and extend across each firing-chamber to partition its interior between its gas inlet port and its exhaust port, a gas admission-valve connected with each gas-inlet port, housings formed in connection with said casing and its face-plates in which said gate-members are slidably mounted, each gate-member having a stem projecting exteriorly from its housing, spring-means for retaining each gate-member in normal position, valve-housings formed in connection with said casing and its face-plates in which said gas-admission valves are mounted, each valve-housing having an internal seat-portion upon which said valves are normally seated, spring-means for retaining said valves on their seats, a valve-stem connected with each valve and projecting exteriorly from said valve-housing, cam-levers mounted to engage the end of each valve-stem to depress the same and open said valves, piston-vanes affixed transversely to said rotor-element and adapted to respectively ride through said firing-chambers, means for momentarily withdrawing each gate-member out of its firing-chamber to permit the passing of said piston-vanes by the same.

2. A rotary internal combustion engine comprising a casing having a central opening, a rotor-element mounted to rotate in said opening, a main shaft on which said rotor-element is mounted, side face-plates connected with said casing and adapted to inclose said rotor-element therein, bearing portions connected with said face-plates in which said main shaft is journaled to project exteriorly of said casing, the inner side of said casing having an annular channel, the outer circumference of said rotor-element having an annular channel registering with said channel of said casing and forming in conjunction therewith a circular firing-chamber, each face-plate being also provided in its inner surface with an annular channel, each side face of said rotor-element having an annular channel which respectively register with said channels of said face-plates and form in conjunction therewith additional circular firing-chambers, each firing-chamber having a gas inlet port and an exhaust port, a gate-member adapted to enter and extend across each firing-chamber to partition its interior between its gas inlet port and its exhaust port, a gas admission-valve connected with each gas-inlet port, housings formed in connection with said casing and its face-plates in which said gate-members are slidably mounted, each gate-member having a stem projecting exteriorly from its housing, spring-means for retaining each gate-member in normal position, valve-housings formed in connection with said casing and its face-plates in which said gas-admission valves are mounted, each valve-housing having an internal seat-portion upon which said valves are normally seated, spring-means for retaining said valves on their seats, a valve-stem connected with each valve and projecting exteriorly from said valve-housing, cam-levers mounted to engage the end of each valve-stem to depress the same and open said valves, piston-vanes affixed transversely to said rotor-element and adapted to respectively ride through said firing-chambers, means for momentarily withdrawing each gate-member out of its firing-chamber to permit the passing of said piston-vanes by the same.

3. A rotary internal combustion engine comprising a casing having a central opening, a rotor-element mounted to rotate in said opening, a main shaft on which said rotor-element is mounted, side face-plates connected with said casing and adapted to inclose said rotor-element therein, bearing portions connected with said face-plates in which said main shaft is journaled to project exteriorly of said casing, the inner side of said casing having an annular channel, the outer circumference of said rotor-element having an annular channel registering with said channel of said casing and forming in conjunction therewith a circular firing chamber, each face-plate being also provided in its inner surface with an annular channel, each side face of said rotor-element having an annular channel which respectively register with said channels of said face-plates and form in conjunction therewith additional circular firing-chambers, each firing-chamber having a gas inlet port and an exhaust port, a gate-member adapted to enter and extend across each firing-chamber to partition its interior between its gas inlet port and its exhaust port, a gas admission-valve connected with each gas-inlet port, housings formed in connection with said casing and its face-plates in which said gate-members are slidably mounted, each gas-member having a stem projecting exteriorly from its housing, spring-means for retaining each gate-member in normal position, valve-housings formed in connection with said casing and its face-plates in which said gas-admission valves are mounted, each valve-housing having an internal seat-portion upon which said valves are normally seated, spring-means for retaining said valves on their seats, a valve-stem connected with each valve and projecting exteriorly from said valve-housing, cam-levers mounted to engage the end of each valve-stem to depress the same and open said valves, piston-vanes affixed transversely to said rotor-element and adapted to respectively ride through said firing-chambers, means for momentarily withdrawing each gate-member out of its firing-chamber to permit the passing of said piston-vanes by the same, comprising a lift-arm connected with said stems of each gate-member, a cam-member having a gate operating cam-portion for engaging and lifting each lift-arm, stem and gate-member, and each cam-member having also a valve operating cam-portion adapted to engage and depress each cam-lever to open each gas admission valve, said gate-operating cam-portion and said valve operating cam-portion of each cam-member being so related to each other that the former operates in advance of the latter, said cam-members being driven from said main shaft and at main shaft speed.

1,132,929. MACHINE FOR STAMPING AND SEALING MAIL-MATTER. LOUIS J. HALL, Chicago, Ill., assignor, by mesne assignments, to Morris-Hall Mail Closer Co., a Corporation of Delaware. Filed June 13, 1903. Serial No. 161,280. (Cl. 216—3.)



1. In a machine of the class described, a carrier mechanism, containing jaws for clamping the envelop, means for closing the jaws during the beginning of the forward stroke and for opening the jaws during the first part of the return stroke, substantially as described.

2. In a machine of the class described, a reciprocating carrier provided with a plurality of separate clamping means for individually clamping and transferring envelops of different thicknesses at the same time, substantially as described.

3. The combination of a support adapted to receive a plurality of envelops, means for feeding said envelops, a stamp feeding mechanism adapted to feed a stamp to a point in position to be affixed to an envelop and to hold it until an envelop be fed forward to receive said stamp, and means controlled by the presence of an envelop in the feeding means for operating the stamp feeding mechanism.

4. In a machine for sealing and stamping envelops or the like, means for feeding the envelops, means for moistening them, means for affixing a stamp thereto, means for bunching or stacking the envelops under pressure, and means for automatically releasing said pressure as the envelops accumulate in the stacker, substantially as described.

5. In a machine of the class described, a stamp feed and affixing mechanism, a reciprocating carrier for feeding the envelops to the affixer mechanism and means located on said carrier for throwing out the stamp feed and affixing mechanism when there is no envelop in said carrier, substantially as described.

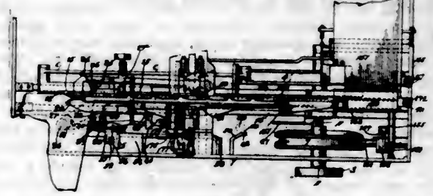
[Claims 6 to 60 not printed in the Gazette.]

1,132,930. MACHINE FOR SEALING MAIL-MATTER. LOUIS J. HALL, Freeport, N. Y., assignor to The Morris-Hall Mail Closer Company, Rochester, N. Y., a Corporation of Delaware. Original application filed June 13, 1903, Serial No. 161,280. Divided and this application filed May 20, 1911. Serial No. 628,438. Renewed Aug. 10, 1914. Serial No. 856,109. (Cl. 120—6.)

1. In an envelop sealing machine, means for turning the flap down toward the body of the envelop, means for bending the body of the envelop between its longitudinal edges, and means for pressing the flap against the bent body of the envelop to seal it, substantially as described.

2. In an envelop sealing machine, means for moistening the envelop, means for folding the flap down toward the body of the envelop, means for bending the body of the envelop to further lower the flap, and means for pressing the flap against the body of the envelop to seal it, substantially as described.

3. In an envelop sealing machine, means for moistening the envelop, means for folding the flap down toward the body of the envelop, devices for retarding the envelop along opposite edges, and envelop bending means engaging the envelop between the retarding devices and pressing the flap against the body of the envelop to seal it, substantially as described.

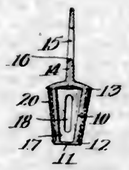


4. In an envelop sealing machine, means for bending the body of the envelop in a direction transverse to the attached margin of the flap, to force the flap against the body of the envelop, and means for pressing the flap against the envelop while in this position to seal it, substantially as described.

5. In an envelop sealing machine comprising means for feeding the envelops, and means for moistening them, a combined sealer and stacker comprising a stacker table, means for pushing the envelops on to the stacker table, obstructions which intercept the envelops while being pushed on to the table, and cause them to bend, said obstructions also preventing the envelops from returning from the stacker table, and means for pressing the envelops to seal them, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,132,931. BOTTLE-STOPPER. MILO E. HAMILTON, Worcester, Mass. Filed Mar. 2, 1914. Serial No. 821,873. (Cl. 215—51.)



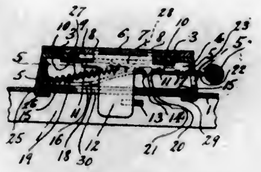
1. As an article of manufacture, a bottle stopper formed of cast metal and having a smooth conical body provided with a solid smaller end provided with an integral flange projecting beyond the surface of the body and having a parallel integral wider flange at the other end, said body having openings through the surface thereof to the interior located oppositely between the flanges, a flat handle extending from the second flange, and a rubber tube on said body between the flanges for covering and protecting said openings, the larger flange projecting beyond the surface of said tube and the tube projecting beyond the edge of the smaller flange.

2. As an article of manufacture, a bottle stopper formed of cast metal and having a conical body provided with a solid smaller end provided with a flange projecting beyond the surface of the body and having a flange at the other end, said body being hollow, and having longitudinal openings through the surface thereof to the interior located oppositely, a flat handle extending from the second flange in the plane in which said openings are located, and a rubber tube on said body between the flanges for covering and protecting said openings.

1,132,932. BAG-FASTENER. JULIUS HAMMERSTAHR, Newark, N. J., assignor to The R. Neumann Hardware Co., a Corporation of New Jersey. Filed Jan. 7, 1915. Serial No. 898. (Cl. 70—116.)

1. A bag-frame fastener comprising a chambered shell, a bolt carrying plate slidably connected with said shell, a

bolt element depending from said bolt carrying plate, a releasable locking means for retaining said bolt carrying plate and its bolt-element in fastening position, and an actuating spring for sliding said bolt carrying plate and its bolt-element out of fastening position.



2. A bag-frame fastener comprising a chambered shell slotted in its upper wall, a bolt-carrying plate mounted to slide on the exterior side of the upper wall of said shell, a bolt-element depending from said bolt carrying plate and extending downwardly through said shell, a keeper-plate connected with said bolt-element and slidably registered with the under surface of said upper wall of said shell, a releasable locking means for retaining said bolt carrying plate and its bolt-element in fastening position, and an actuating spring for sliding said bolt-carrying plate and its bolt-element out of fastening position.

3. A bag-frame fastener comprising a chambered shell slotted in its upper wall, a bolt-carrying plate mounted to slide on the exterior side of the upper wall of said shell, a bolt-element depending from said bolt carrying plate and extending downwardly through said shell, a keeper-plate connected with said bolt-element and slidably registered with the under surface of said upper wall of said shell, a catch-nosing connected with said bolt element and disposed within said shell, and a depressible spring lock-plate arranged within said shell and provided with a receiving opening adapted to embrace said catch-nosing.

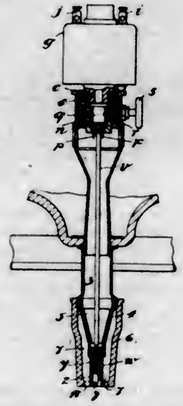
4. A bag-frame fastener comprising a chambered shell slotted in its upper wall, a bolt-carrying plate mounted to slide on the exterior side of the upper wall of said shell, a bolt-element depending from said bolt carrying plate and extending downwardly through said shell, a keeper-plate connected with said bolt-element and slidably registered with the under surface of said upper wall of said shell, a catch-nosing connected with said bolt-element and disposed within said shell, a depressible spring lock-plate arranged within said shell and provided with a receiving opening adapted to embrace said catch-nosing, and an actuating spring for sliding said bolt carrying plate and its bolt-element in one direction when said catch-nosing is released from said spring lock-plate.

5. A bag-frame fastener comprising a chambered shell slotted in its upper wall, a bolt-carrying plate mounted to slide on the exterior side of the upper wall of said shell, a bolt-element depending from said bolt carrying plate and extending downwardly through said shell, a keeper-plate connected with said bolt-element and slidably registered with the under surface of said upper wall of said shell, a catch-nosing connected with said bolt element and disposed within said shell, a depressible spring lock-plate arranged within said shell and provided with a receiving opening adapted to embrace said catch-nosing, a neck-piece connected with the free end of said spring lock-plate, said shell being provided in one end wall with an opening through which said neck-piece projects exteriorly of said shell, and a finger-piece on the exterior end of said neck-piece for depressing said spring lock-plate.

[Claim 6 not printed in the Gazette.]

1,132,933. APPARATUS FOR DISTANCE GAS-LIGHTING. EPHRAIM WILLIAM HAVERS, London, England. Filed Dec. 12, 1913. Serial No. 806,160. (Cl. 175—115.)

1. Apparatus for distance control and ignition of gas, comprising a burner nozzle 6, an electrically incandescent filament (s) mounted in two tubes (w, 2) insulated from one another and contained within a short metal tube (y) disposed centrally of the interior of the said nozzle (6), a gas regulator (o) with an insulated central portion (n), a central conductor rod (v) between the said insulated central portion (n) of the regulator (o) and the tube (w) carrying one end of the filament (z), the tube (2) which carries the other end of the said filament being in contact with the before mentioned short metal outer tube (y) and outer casing of the apparatus, substantially as described.



2. Apparatus for distance control and ignition of gas, comprising a burner nozzle (6), an electrically incandescent filament (z) mounted in two tubes (w, 2) insulated from one another and contained within a short metal tube (y) disposed centrally of the said nozzle (6), a gas regulator (o), an insulating base (22), two separate semi-cylindrical members (19, 20) mounted upon the said base (22) which complete the electric circuit to the filament (z) and form a support for the burner, substantially as described.

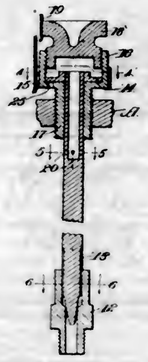
3. Apparatus for distance control and ignition of gas, comprising a burner nozzle (6), an electrically incandescent filament (z) mounted in two tubes (w, 2) insulated from one another and contained within a short metal tube (y) disposed centrally of the interior of the said nozzle (6), a gas regulator (o) with a plurality of holes and formed of two separate insulated parts (o, n), and a central conductor rod (v) removably and centrally connected to the inner separate insulated part (n) of the said regulator (o), substantially as described.

4. Apparatus for distance control and ignition of gas, comprising a burner nozzle (6), an electrically incandescent filament (z), an insulating block (s), a short tube (w) in the said block (s) which receives one end of the said filament (z), and another short tube (2) in metallic connection with the casing (y) containing the said insulating block (s), substantially as described.

1,132,934. CARBURETER. FRANK H. HEITGER, Indianapolis, Ind., assignor to Heitger Carburetor Company, Indianapolis, Ind., a Corporation of Indiana. Filed June 8, 1912. Serial No. 702,615. (Cl. 48—154.1.)

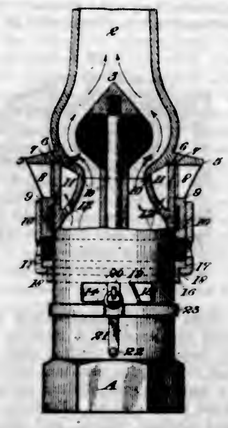
1. A carbureter comprising a casing with carbureting and mixing chambers, a spray nozzle, a needle valve for controlling the flow of gasolene therethrough, a piston on the upper end of said needle valve, a chamber for said piston mounted to be vertically adjusted in the casing, an adjustable cap for said chamber and a communication through a vertical bore in said needle valve between the mixing chamber and said piston chamber, whereby said piston is adapted to be operated by the suction of the engine and both its normal and wide-open positions controlled, substantially as set forth.

2. A carbureter comprising a casing with carbureting and mixing chambers, a spray nozzle, a needle valve for controlling the flow of gasolene through said spray nozzle, means for adjusting said needle valve to secure a normal opening of fixed area, means for securing the part as adjusted, additional means for lifting said needle valve operated by the suction of the engine, means for limiting said lifting movement, and means for fixing the adjustment of said limiting means, substantially as set forth.



3. A carbureter comprising a casing having carbureting and mixing chambers, means for regulating the feed of gasolene consisting of a spray nozzle, a needle valve for regulating the openings through said spray nozzle, a piston chamber adjustably secured in the casing, a piston connected with the stem of said needle valve and mounted in said piston chamber, the stem of said needle valve being formed with a perforation to establish communication from the mixing chamber to the piston chamber on one side of the piston and a vent being formed from said piston chamber on the opposite side of said piston, whereby the feed of gasolene may be regulated automatically to conform to the speed of the engine, substantially as set forth.

1,132,935. FIRE-STREAM DISTORTER. HUBERT J. HOPKINS, San Francisco, Cal. Filed May 27, 1914. Serial No. 841,271. (Cl. 137—17.)



1. In combination with a nozzle having an interior seat and a valve engageable with said seat, an annular flange projecting outwardly from the nozzle periphery and having a gasket on its under face, an annular seat at the base of the valve seat spaced from the gasket and surrounded by the latter, a casing having a chamber the inner wall of which engages the annular seat and the outer wall of which engages the gasket, the inner wall of the chamber having inlet ports, an exteriorly threaded member connected to said nozzle, a sleeve threaded into engagement with the member, a coupling sleeve connected to the threaded sleeve, and means to releasably connect the coupling sleeve to the casing.

2. In combination with a nozzle having an interior seat, and a valve engageable with said seat, an annular flange projecting outwardly from the nozzle periphery and having a gasket on its under face, an annular seat at the base of the valve seat spaced from the gasket and surrounded by the latter, a casing having a chamber the inner wall of which engages the annular seat and the outer wall of which engages the gasket, the inner wall of the chamber having inlet ports, an exteriorly threaded member connected to said nozzle, a sleeve threaded into engagement with the member, a coupling sleeve connected to the threaded sleeve, a pair of lugs on the casing having an angular space therebetween, an angular lug on the coupling sleeve receivable in the space between the pair of lugs and engaging one of the latter, a block receivable in the space between the pair of lugs and engaging the lug of the coupling sleeve and the other lug of the pair of lugs, a flat spring connecting the block to the casing, and a ring slidable on the casing and engaged over the spring to hold the latter and the block in operative position.

3. In combination with a nozzle having an interior seat and a valve engageable in said seat, a flange projecting outwardly from the nozzle periphery, an inner seat on the nozzle, an outer seat on the flange, a casing having a chamber the outer end of which is open and the side walls of which are engageable with said inner and outer seats, said chamber having communication on its inner side with the interior of the casing, and means to adjust the casing relative to said inner and outer seats.

4. In combination with a nozzle, and a valve to cut off the longitudinal discharge of water through the nozzle, a member coöperating with the nozzle to allow of lateral escape of water, said member slidably supporting the nozzle and rigidly supporting the valve, and releasable means to hold the nozzle against sliding movement, said releasable means upon release thereof allowing the nozzle to instantaneously move to a position to enable the valve to cut-off the longitudinal discharge of water.

5. In combination with a supporting member, a nozzle slidable on said member, a valve connected to said member to close the longitudinal discharge of the nozzle, said nozzle and member having a lateral water discharge therebetween, and releasable means to hold the nozzle against sliding movement and which when released allows the nozzle to instantaneously move to a position to engage the valve and to open the lateral discharge.

[Claim 6 not printed in the Gazette.]

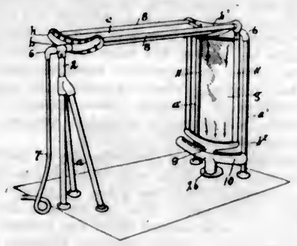
1,132,936. CANDY-COOLING APPARATUS. DAVID HUMPHREY, Cleveland, Ohio. Filed Apr. 14, 1913. Serial No. 761,128. (Cl. 257—75.)

1. A candy cooling apparatus having a cooling pan constructed of two flat sheets of metal of rectangular form and curved transversely with a relatively shallow cooling space between them, and pivot supports parallel with the axis of curvature of said pan on which said pan is adapted to rock.

2. A candy cooling apparatus having an elongated cooling pan comprising two flat plates curved in cross section and united in spaced relation, water distributing connections in open communication with the interior of said pan, and means to support said pan for rocking movement on an axis extending longitudinally of said pan.

3. A candy cooling apparatus having two sheets of copper and a frame in which said sheets are uniformly spaced apart to provide a cooling space between them

and distributing and retarding means at the respective ends of said pan for the cooling fluid.

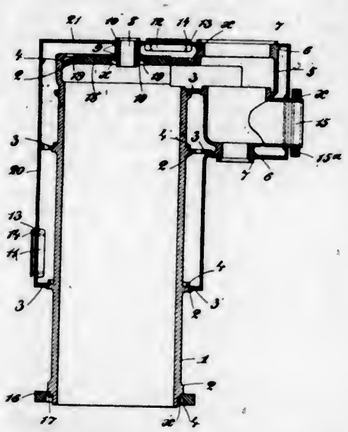


4. A candy cooling apparatus having a cooling pan curved in cross section and consisting of two plates and a border frame in which said plates are spaced apart for the passage of a cooling fluid.

5. A candy cooling apparatus having a cooling pan curved in cross section and mounted on bearings at its ends, and a balancing member on one end of said pan having a passage through the same for the cooling fluid.

[Claims 6 to 21 not printed in the Gazette.]

1,132,937. CONSTRUCTION OF ENGINE-CYLINDERS. ERNST JAENISCH, Berlin, Germany. Filed Feb. 9, 1914. Serial No. 817,569. (Cl. 123—193.)

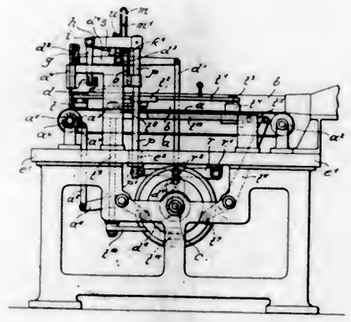


1. An internal combustion engine comprising a cylinder body, cylindrical valve pockets, water inlet socket and cooling jacket, projecting stepped edges around the cylinder body, and valve pockets, a cylinder cover and connecting plates and flanges between the cylindrical parts to be connected, said plates resting on and held in position by the stepped edges, all of said elements adapted to be welded together at their mutual lines of contact.

2. An internal combustion engine comprising a cylinder, cylindrical valve pockets and water cooling jackets, double stepped edges around the cylinder and valve pockets, a cylinder cover and connecting plates between the cylinder and valve pockets and cylinder and water jackets, reduced edges on the cover and plate engaging over the lower step of each double stepped edge and adapted to be firmly clamped between the two edges when the upper edge is riveted over, all of said elements adapted to be welded together at their mutual lines of contact.

3. An internal combustion engine comprising a cylinder, a widened upper end thereof, an inwardly projecting stepped edge around said widened end, a cylinder cover, a reduced edge thereof supported on the stepped edge of the cylinder and a welded connection between said edges.

1,132,938. ARRANGEMENT FOR SEVERING SINGLE PIECES FROM A BAR OF BUTTER. EMIL JAGENBERG, Dusseldorf, Germany. Filed Mar. 10, 1914. Serial No. 823,674. (Cl. 31—65.)

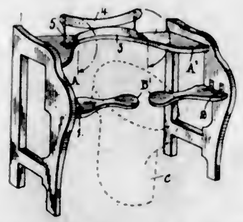


1. Arrangement for severing single pieces from a bar of butter by means of a cutting wire comprising means for quickly removing the severed piece, immediately after the severing operation from the bar of butter and conducting it to the wrapping mechanism, means for rocking the cutting wire at a slightly smaller velocity in the direction of the feed and then raising it, and means for advancing the bar of butter at a still smaller velocity.

2. A butter cutting apparatus, comprising a feed apron adapted to receive a bar of butter, a slide adapted to arrest said bar, a reciprocable and oscillable wire, adapted to sever a piece of butter from the bar, and means for feeding said severed piece away from the bar.

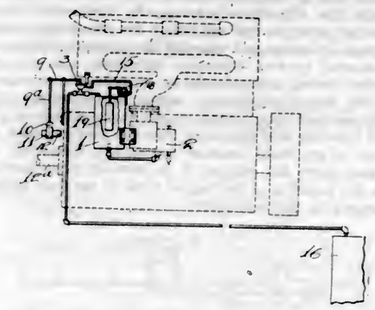
3. In a butter cutting device, a cutter, an oscillable arm carrying said cutter, a reciprocable member to which the arm is pivoted, a strap secured to said member, a lever secured to the arm and adapted to engage the strap, a spring-influenced bar linked to the lever, and an abutment adapted to be frictionally engaged by said bar.

1,132,939. SEAT FOR WATER-CLOSETS. LEOPOLD ANTONIN JAUBARD, Toulouse, France. Filed June 3, 1913. Serial No. 771,378. (Cl. 155—22.)



In a water closet seat, in combination, two side members spaced from one another, a member positioned between said side members and binding them together, seat members secured to said side members below and in front of said binding member, said binding member being provided with a fixed back, and an adjustable back pivotally mounted on said binding member and adapted to be positioned above or below the same whereby the seat may be used by adults or children.

1,132,940. FUEL-ELEVATING DEVICE FOR AUTOMOBILE-ENGINES. WEBB JAY, Chicago, Ill. Filed June 26, 1914. Serial No. 847,417. (Cl. 158—36.)



1. In combination with an automobile engine, a low level liquid supply tank, an elevated liquid receptacle, a pipe line connecting them; two check valves in the pipe line, both opening for flow toward said receptacle, and adapted to be seated by flow in the opposite direction; a pump chamber set off from the pipe line and communicating therewith between said two check valves; a back-and-forth vibrating member which exteriorly closes said pump chamber, and exteriorly connected means for operating said back-and-forth moving member, the capacity of the connecting passage from the pump chamber to the pipe line being as great as the displacement of the vibrating member at each stroke.

2. In combination with an internal combuston engine of an automobile, a low level main storage tank and a higher level receptacle for liquid, a pipe line connecting them; two check valves in the pipe line opening for flow from the main tank to the elevated receptacle and adapted to be closed by flow in the opposite direction; a chamber communicating with the pipe line intermediate the check valves; a diaphragm exteriorly closing said chamber and connections operated by the engine outside the chamber for vibrating the diaphragm, the capacity of the connecting passage from the pump chamber to the pipe line being as great as the displacement effected by each vibration of the diaphragm.

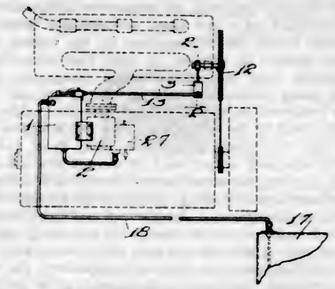
3. In combination with a motor requiring oil for any purpose; a low level main supply tank; a receptacle located at a level from which oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank and the elevated receptacle; two check valves in the pipe line; a pump chamber communicating with the pipe line intermediate the check valves and extending higher than its said communication; a back-and-forth moving member which closes said pump chamber beyond said higher-extending portion thereof, whereby an air piston is obtained between said back-and-forth moving member for directly actuating the liquid by the movement of said member, and exteriorly connected means for giving back-and-forth movement to said member.

4. In combination with an engine requiring oil, a main oil supply tank located at a low level; a receptacle located located at a level from which the oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank with the elevated receptacle; two check valves in the pipe line opening for flow toward the receptacle and adapted to be closed by flow in the opposite direction; a pump chamber communicating with the pipe line intermediate the check valves; a back-and-forth moving member which closes said pump chamber at the side opposite its communication with the pipe line; exteriorly-connected engine-operated means for giving back-and-forth movement to said member; an air vent pipe leading from the pump chamber to the vicinity of the elevated receptacle; a normally closed valve for controlling the entrance of air to said vent pipe, and a float in the receptacle adapted to be operated by the liquid contents thereof at a pre-determined high level of said liquid for opening said valve.

5. In combination with an engine requiring oil, a main oil supply tank at a low level; a receptacle located at a level from which the oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank with the elevated receptacle; two check valves in the pipe line opening for flow toward the receptacle and adapted to be closed by flow in the opposite direction; a pump chamber communicating with the pipe line intermediate the check valves; a back-and-forth moving member which closes said pump chamber at the side opposite its communication with the pipe line; exteriorly-connected engine-operated means for giving said member its back and forth movement; an air inlet pipe leading from the pump chamber to the vicinity of the elevated receptacle; a valve for controlling entrance of air to said inlet pipe positioned for being held on its seat by the suction through said pipe; a device buoyed by the liquid in the receptacle, and connections from said buoyed device for forcing said valve off its seat against said suction upon a pre-determined submergence of said buoyed device.

[Claims 6 and 7 not printed in the Gazette.]

1,132,941. LIQUID-ELEVATING DEVICE FOR AUTOMOBILE-ENGINES. WEBB JAY, Chicago, Ill. Filed June 26, 1914. Serial No. 847,418. (Cl. 158—36.)



1. In combination with an engine requiring oil, a main oil supply tank at a low level; a receptacle located at a level from which the oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank with the elevated receptacle, said receptacle being normally closed so that a partial vacuum may be produced therein; a second pipe line leading from the upper part of the receptacle; a suction pump device having its chamber intake communicating with said second pipe line; said second pipe line having an air inlet in addition to its communication with the receptacle; a normally closed valve for controlling entrance of air through said additional air inlet; a float in the receptacle adapted to be operated by the liquid contents thereof, and connections from said float for opening said last-mentioned valve at a predetermined high level of the liquid in the receptacle.

2. In combination with an engine requiring oil, a main oil supply tank at a low level; a receptacle located at a level from which the oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank with the elevated receptacle, said receptacle being normally closed so that a partial vacuum may be produced therein; a second pipe line leading from the upper part of the receptacle; two check valves in said second pipe line opening for flow away from the receptacle and adapted to be closed by flow in the opposite direction; a pump chamber connected with the second pipe line intermediate the check valves, a back-and-forth moving member closing said chamber at one side; exteriorly-connected engine-operated means for operating said member, said sec-

ond pipe line having an air inlet in addition to its connection with the receptacle; a normally closed valve for controlling entrance of air through said additional inlet; a float in the receptacle adapted to be operated by the liquid contents thereof, and connections from said float for opening said last mentioned valve at a predetermined high level of the liquid in the receptacle.

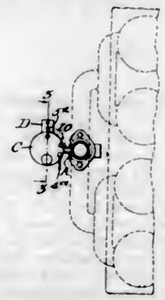
3. In combination with an engine requiring oil, a main oil supply tank at a low level, a receptacle located at a level from which the oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank with the elevated receptacle, said receptacle being normally closed so that a partial vacuum may be produced therein; a pipe line leading from the upper part of the receptacle; two check valves in said pipe line opening for flow away from the receptacle and adapted to be closed by flow in the opposite direction; a pump chamber connected with the pipe line intermediate the check valves; a back-and-forth moving member closing said chamber at one side; exteriorly-connected engine-operated means for operating said member, said pipe line having an air inlet in addition to its communication with the receptacle; a normally closed valve for controlling entrance of air through said additional inlet, positioned and adapted for being held on its seat by suction at said inlet; a device buoyed by the liquid in the receptacle, and connections therefrom for forcing said valve off its seat against the suction upon a predetermined submergence of said device.

4. In combination with an engine requiring oil, a main oil supply tank at a low level, a receptacle located at a level from which the oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank with the elevated receptacle, said receptacle being normally closed so that a partial vacuum may be produced therein; a second pipe line leading from the upper part of the receptacle; two check valves in said second pipe line opening for flow away from the receptacle and adapted to be closed by flow in the opposite direction; a pump chamber connected with said second pipe line intermediate the check valves; a back-and-forth moving member closing said chamber at one side; exteriorly-connected engine-operated means for operating said member, said second pipe line having an air inlet and a valve for controlling entrance thereto positioed in the vicinity of the elevated receptacle and adapted to be held on its seat by the suction through said inlet; a device buoyed by the liquid in the receptacle, and connections therefrom for forcing said valve off its seat against the suction upon a predetermined submergence of said device.

5. In combination with an engine requiring oil, a main oil supply tank at a low level, a receptacle located at a level from which the oil required by the engine may be supplied thereto by gravity; a pipe line connecting the main supply tank with the elevated receptacle, said receptacle being normally closed so that a partial vacuum may be produced therein; a second pipe line leading from the upper part of the receptacle; two check valves in said second pipe line opening for flow away from the receptacle and adapted to be closed by flow in the opposite direction; a pump chamber connected with the second pipe line intermediate the check valves; a back-and-forth moving member closing said chamber at one side; exteriorly-connected engine-operated means for operating said member, said second pipe line having a branch which has an air inlet; a valve positioned in the vicinity of said receptacle adapted to be seated by suction for controlling said air inlet; a device buoyed by the liquid in the receptacle, and connections therefrom for forcing said valve off its seat against the suction upon a predetermined submergence of said device.

1,132,942. CONSOLIDATED CARBURETER AND VACUUM-FEED FUEL-RECEPTACLE. WEBB JAY, Chicago, Ill. Filed June 26, 1914. Serial No. 847,419. (Cl. 158—38.)

1. A structure adapted to be applied as a unit to an internal combustion engine, comprising a carbureter which is adapted for attachment to the engine manifold; a fuel supply receptacle which is supported by rigid connection with the carbureter, and a float chamber which is supported by rigid connection with the fuel supply receptacle for directly supplying the carbureter; means connected with the fuel receptacle for alternately producing partial vacuum and atmospheric pressure therein, and for causing gravity discharge therefrom into the float chamber during the presence of atmospheric pressure in the fuel supply receptacle; means for affording atmospheric pressure continuously to the float chamber; a valve which controls said discharge into the float chamber, and a float in the float chamber operatively connected with the said valve for seating it to prevent such discharge when the liquid is at the proper level in the float chamber for supplying the carbureter.



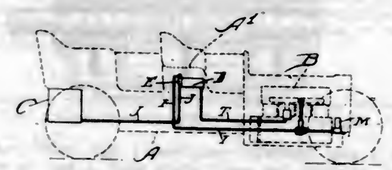
2. The combination with a carbureter of a fuel supply receptacle, and a float chamber auxiliary to both the fuel supply receptacle and the carbureter and which receives the fuel directly from the receptacle, and is connected with the carbureter for discharging thereto by gravity; the fuel supply receptacle having means for alternating suction and atmospheric pressure therein, for alternately drawing the liquid thereto and permitting gravity discharge therefrom into the float chamber; the float chamber having float-operated means for preventing such discharge when the liquid in the float chamber is at a pre-determined level suitable for supplying the carbureter.

3. The combination with a carbureter of a fuel supply receptacle and a float chamber auxiliary thereto, adapted for discharge connection with the carbureter for supplying the latter by gravity; a passage by which the receptacle discharges its liquid contents into the auxiliary chamber; a valve in said passage which is normally seated and adapted to be opened by the flow of liquid therethrough toward the auxiliary chamber; a second valve controlling said passage at its discharge into the chamber, and a float in said chamber connected to said second valve for seating the same to prevent such discharge when the liquid in the float chamber is at a predetermined level suitable for supplying the carbureter.

4. In combination with a float chamber, a liquid supply receptacle above the float chamber, a liquid supply connection leading into the receptacle; means for producing alternately atmospheric pressure and partial vacuum in the upper part of the receptacle; a stand-pipe communicating with the receptacle at the lower part and extending above the pre-determined high liquid level thereof and continuously exposed to atmospheric pressure; a check valve controlling communication of said stand-pipe with the receptacle, adapted to admit liquid from the receptacle to the stand-pipe and prevent its return to the receptacle, connections from the stand-pipe above the check valve leading into the float chamber, and a float-controlled valve in said chamber for controlling the discharge from the stand-pipe into the float chamber.

5. In combination with an internal combustion engine of an automobile, a structure comprising a carbureter adapted for mounting in fixed position in connection with the manifold, a liquid fuel receptacle mounted fixedly with respect to the carbureter so as to be supported thereby in substantially the same vertical plane transverse to the length of the vehicle as the carbureter nozzle, and a float chamber which is connected with the fuel supply receptacle and with the carbureter for receiving the liquid fuel on its way from the fuel receptacle to the carbureter.

1,132,943. LIQUID-SUPPLY DEVICE. WEBB JAY, Chicago, Ill. Filed June 26, 1914. Serial No. 847,420. (Cl. 158—36.)



1. A device for the purpose indicated, including a fitting comprising a chamber having a liquid inlet passage and a liquid outlet passage, the former leading upwardly into and the latter upwardly out of said chamber; check valves controlling said passages for flow inwardly through the inlet and outwardly through the outlet, and adapted to be seated by reverse flow; an exhaust connection at the top of said chamber and a check valve in said exhaust connection opening for outward flow, and adapted to be seated by inward flow.

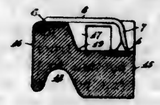
2. A device for the purpose indicated, including a fitting comprising a chamber having a liquid inlet passage and a liquid outlet passage, the former leading upwardly for entrance to the chamber and the latter leading upwardly for discharge from the chamber; check valves controlling said passages by seating downwardly therein; an exhaust connection at the top of the chamber; a check valve therein opening for outlet and adapted to be seated by inflow; a float in said chamber and a valve carried by the float adapted to seat upwardly for closing the exhaust communication, said float being adapted when not buoyed by the contents of the liquid chamber to act as a weight for pulling said valve off its seat against any exhaust suction tending to hold it thereon.

3. A device for the purpose indicated, including an integral fitting comprising a chamber and having bosses projecting inwardly from the wall of said chamber, one extending up from the bottom stopping short of the top, and the other extending down from the top stopping short of the bottom, said fitting being formed with apertures in the top in line with said bosses for boring them out, said apertures being adapted to be permanently plugged, the bosses being bored through from their upper ends to form valve seats near their lower ends, and reduced ports through said seats to the lower ends of said bosses respectively, said fitting being adapted for connection with a pipe line at the lower end of the first mentioned boss, and having a lateral nipple leading into the cavity of the second boss above the valve seat therein, the chamber being provided with a pipe line connection at the top and a check valve in said connection opening for outflow therethrough.

4. A device for the purpose indicated, comprising a fitting having a chamber and two vertical bosses protruding inwardly from the wall of the chamber, one extending up from the bottom stopping short of the top, and the other extending down from the top stopping short of the bottom, both said bosses being bored from the top to form valve seats near the lower ends, and ports through said seats and check valves seating downwardly at said ports, the fitting having a nipple projecting laterally opposite the lower end of the second mentioned boss, and affording a discharge passage leading into the cavity of said boss above the valve seat therein, the top of the chamber having a threaded aperture for receiving a pipe line connection; the two vertical bosses and one wall of the chamber having each a vertical rib, said three ribs having their three edges concentric about the axis of said threaded aperture; a cylindrical float positioned between and guided by said three ribs; a valve body screwed into said aperture, said body having two valve seats, a check valve in the body seating upon one of said seats opening for outflow and seating by inflow, and a valve carried by the float seating upwardly against the other seat.

5. A device for the purpose indicated, comprising a chamber having a liquid inlet and a liquid outlet, and check valves which control them respectively for inflow at the inlet and outflow at the outlet; an exhaust connection at the upper part of the chamber; a valve for closing said exhaust connection which moves for seating in the direction of the outflow through the exhaust and which is thereby adapted to be sucked onto its seat; a float in the chamber operatively connected to the last mentioned valve for moving the valve throughout substantially the entire range of movement of the float and seating the valve by rise and unseating it by fall of the float, the float being long vertically relatively to its area in horizontal section for extending the distance through which change of level of the liquid in the chamber is required for moving the valve to position to be seated by suction and for unseating the same against the suction.

1,132,944. BRAKE-SHOE. HARRY JONES, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed Feb. 4, 1915. Serial No. 6,009. (Cl. 188—82.)



1. A backing for cast metal brake shoes comprising connected, spaced, substantially parallel body and flange arms, the latter being located above the general plane of the former.

2. A backing for cast metal brake shoes comprising body arms, a connecting arm carried thereby and projecting thereabove, a top plate carried at the upper extremity of said connecting arm, and flange arms carried at the remote extremity of said top plate and lying in a general plane above the general plane of the said body arms.

3. A metal backing for cast metal brake shoes comprising oppositely extending body arms, an upwardly extending connecting arm carried thereby and extending at right angles to form a top plate and oppositely extending flange arms carried at the remote extremity of said top plate and bent into contact with the lower surface of the latter, the said body arms and flange arms lying in different general planes.

4. A blank for the formation of backings for cast metal brake shoes comprising a wide, thin, elongated strip of metal, said strip provided with medial slits extending to unequal distances therein.

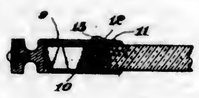
5. A cast metal brake shoe including a body portion and flange, a reinforcing backing anchored therein and including oppositely extending body arms embedded within the body and located adjacent the back of said shoe, a connecting arm carried by said body arms projecting above the back, and embedded within the lug, of said shoe, a top plate extending transversely of said shoe, and oppositely extending flange arms carried by and located at the remote extremity of said top plate and embedded within and located adjacent the back of said shoe flange.

[Claim 6 not printed in the Gazette.]

1,132,945. LENS-FASTENING. FERNANDO H. KAHN, San Francisco, Cal. Filed Dec. 9, 1914. Serial No. 876,206. (Cl. 88—47.)

1. The combination with a lens having a longitudinal slot, of a mount with strap portions embracing said lens

to inclose said slot, a tongue extending from said mount into said slot, said tongue lying between said strap portions, with an intervening clearance, and a hardening substance to unite said tongue and lens within said slot.



2. The combination with a lens having a longitudinal slot with an inner enlargement, of a mount with strap portions embracing said lens to inclose said slot, a tongue extending from said mount into said slot with an enlarged portion to lie in said slot enlargement, said tongue also lying between said strap portions with an intervening clearance, and a hardening body to unite said tongue and lens within said slot.

3. The combination with a lens having a longitudinal slot with an inner enlargement, of a mount with strap portions embracing said lens to inclose said slot, a tongue connected to and extending from said mount into said slot with an enlarged portion to lie in said slot enlargement, between said strap portions, with an intervening clearance, one of said straps and said tongue enlargement having alined thread orifices, a screw engaged in said orifices to connect said strap and tongue, and a hardening substance to unite said tongue and lens within said slot.

4. The combination with a lens having a longitudinal slot with an inner enlargement, of a mount with strap portions embracing said lens to inclose said slot, a tongue connected to and extending from said mount into said slot with an enlarged portion to lie in said slot enlargement, between said strap portions, with an intervening clearance, one of said straps and said tongue enlargement having alined thread orifices, and a screw engaged in said orifices to connect said strap and tongue.

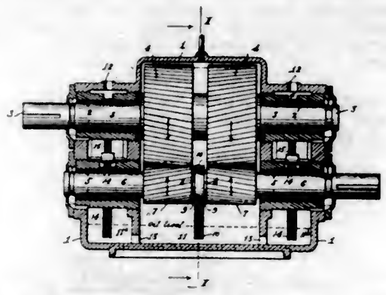
1,132,946. SILO-FILLER. ISAAC W. KELLY, Lynden, Ontario, Canada. Filed Sept. 27, 1913. Serial No. 792,131. (Cl. 193—40.)



1. A silo filler comprising a plurality of telescoping sections, spaced fixed annular members surrounding the lowermost section, an annular member surrounding the said section and arranged to turn thereon and move vertically between said fixed annular members and a handle carried by the movable annular member.

2. A silo filler comprising a plurality of telescoping sections in combination with a handle mounted for both vertical movement upon and horizontal movement around the lowermost section and means for limiting the vertical movement of said handle.

1,132,947. GEAR LUBRICATION. CHARLES VOLNEY KERR, Wellsville, N. Y. Filed Aug. 23, 1913. Serial No. 786,266. (Cl. 184—1.)



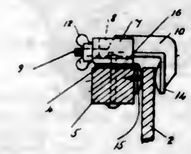
1. A gear lubricator comprising a high speed rotary shaft, an upper low speed rotary shaft, a gear on said lower shaft, a gear on said upper shaft, said gears of the upper and lower shafts intermeshing with each other, an oil reservoir below said shafts, a lubricating ring surrounding and supported on the lower shaft adjacent to the side of the gear on said shaft, the lower section of said ring dipping into the oil reservoir, and an annular projection surrounding and rotating with the lower shaft and interposed between the side of the lubricating ring and the contiguous side of the lower gear and having an outer convex and round edge inclined upwardly from the lubricating ring to the side of the intermeshing gear teeth, whereby the oil adhering to the lubricating ring is transferred to said inclined edge of said annular projection and by centrifugal force thrown between the co-acting or working faces of the superposed rotary gears.

2. A gear lubricator comprising a lower high speed rotary shaft, an upper low speed rotary shaft, a gear on said lower shaft, a gear on said upper shaft, said gears of the upper and lower shafts intermeshing with each other, the teeth of said gears being inclined forwardly in the direction of rotation, an oil reservoir below said shafts, a lubricating ring consisting of a plurality of disks laterally adjacent each other and surrounding and supported on the lower shaft adjacent to the side of the gear on said shaft, the lower section of said disks dipping into the oil reservoir, means attached to said disks for separating them from each other, and an annular projection surrounding and rotating with the lower shaft and interposed between the side of the lubricating ring and the contiguous side of the lower gear having an outer convex and rounded edge inclined upwardly from the lubricating ring to the side of the intermeshing gear teeth, whereby the oil adhering to the lubricating ring is transferred to said inclined edge of said annular section and by centrifugal force thrown between the co-acting or working faces of the superposed rotary gears.

3. A gear lubricator comprising a lower high speed rotary shaft, an upper rotary shaft, separated gears on said lower shaft, separated gears on said upper shaft, said gears of the lower and upper shafts intermeshing with each other, an oil reservoir below said shafts, a lubricating ring interposed between the separated lower gears and surrounding and supported from the lower shaft, an annular projection surrounding and rotating with the lower shaft and interposed on each side of said lubricating ring and between the adjacent sides of the lower gears, each of said annular projections having an outer convex and rounded edge inclined upwardly from the lubricating ring to the side of the adjacent intermeshing gear teeth, whereby the oil adhering to the lubricating ring is transferred to the inclined edge of each of the annular projections, and by centrifugal force thrown between the co-acting or working faces of the superposed rotary gears.

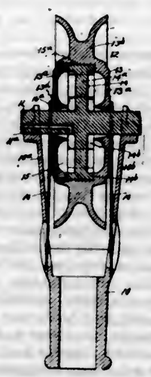
4. A gear lubricator comprising a lower high speed rotary shaft, an upper low speed rotary shaft, separated gears on said lower shaft, separated gears on said upper shaft, said gears of the lower and upper shafts intermeshing with each other, an oil reservoir below said shafts, a lubricating ring consisting of a plurality of disks laterally adjacent each other and interposed between the separated lower gears and surrounding and rotating with and supported from the lower shaft, a rotary annular section surrounding the lower shaft and interposed on each side of said lubricating ring and between the adjacent sides of the lower gears, each of said annular projection having an outer convex and rounded edge inclined upwardly from the lubricating ring to the side of the adjacent intermeshing gear teeth, whereby the oil adhering to the lubricating ring is transferred to the inclined edge of each of the annular projections, and by centrifugal force thrown between the co-acting or working faces of the superposed rotary gears.

1,132,948. WAGON-SEAT. ERNEST E. LLOYD, Missoula, Mont. Filed Mar. 18, 1914. Serial No. 825,612. (Cl. 21—41.)



The combination, with a vehicle body provided with a side, of a seat, a seat bar normally slidable on the said side, a leaf spring secured to the seat and bearing on the seat bar, a clamping plate secured to the seat bar over the lower part of the spring and provided with a socket, a non-revoluble clamping bolt slidable longitudinally in the said socket and having at one end a downwardly projecting clamping member provided with a convex face which bears against the outer surface of the body side, a clamping member secured to the seat bar and provided with a convex face which bears against the inner surface of the body side, and means for operating the clamping bolt to secure and release the seat.

1,132,949. BEARING FOR TROLLEY-WHEELS. SYLVESTER L. MCADAMS, Cleveland, Ohio, assignor to the Cleveland Trolley Wheel Company. Filed Jan. 27, 1911. Serial No. 604,975. (Cl. 64—26.)

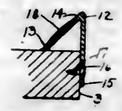


1. A self-oiling trolley-wheel, comprising a fixed spindle, a spider secured to said spindle having a bearing rim, a rotary wheel member having an outer wire-engaging groove and an inner shell-portion provided with an interior peripheral bearing surface adapted to engage and be supported by said bearing rim, the inner side walls of said shell-portion extending inwardly toward the spindle to form a lubricant chamber having a free and unobstructed passage so that a lubricant contained therein may be constantly carried by centrifugal force directly to said bearing.

2. A self-oiling trolley-wheel, comprising a fixed spindle having an integral spider provided with a bearing rim, a rotary wheel having an outer annular grooved portion and an inner shell portion having a lubricant-containing chamber inclosing said spider and provided with an annular bearing surface adapted to engage said rim, the side walls of said chamber forming annular channels which permit a free unobstructed centrifugal action during the rotation of the wheel to continually force lubricant outwardly to the bearing surface, said side walls terminating adjacent the spindle in inwardly extending flaring flanges.

3. A self-oiling trolley-wheel, comprising a fixed spindle having intermediate radial arms provided upon their outer ends with arcuate rim sections forming bearing heads, and a rotary wheel supported by said bearing heads and comprising an outer annular grooved portion and an inner shell portion having a lubricant chamber extending upon opposite sides of said arms and having an intermediate annular bearing surface engaging said bearing heads, the side walls of said chamber extending outwardly and radially inward from said bearing surface and providing unobstructed radial channels for the lubricant moving outwardly under centrifugal action to the bearing surfaces.

1,132,950. BAR TAP-SIGN HOLDER. JAMES H. MCCALLION, Providence, R. I., assignor of one-half to Granville S. Standish, Providence, R. I. Filed May 18, 1912. Serial No. 698,252. (Cl. 40—10.)



The combination with a support, of a label holder comprising a rear member having securing lugs extending below the upper face of the support at the rear edge thereof, means securing said lugs to the rear edge of said support, the body of said rear member extending upwardly above the upper rear edge of said support, and a label holding member secured to the upper edge of said rear member and extending forwardly and downwardly therefrom at a substantial angle and having its lower edge resting upon the upper face of said support.

1,132,951. PUSH CRUMB-TRAY. GEORGE F. MAIDENS, Columbus, Ohio. Filed Mar. 2, 1914. Serial No. 821,974. (Cl. 65—62.)



1. In combination with a scraping pick-up blade, a gravity roller mounted on and preceding said blade and adapted to yieldingly ride upon and hold immovable the material to be picked up so as to facilitate such picking up.

2. In combination with a scraping pick-up blade, an idly rotatable element yieldably mounted on and in advance of said blade, said element being of a structure to ride over and hold immovable the material to be picked up.

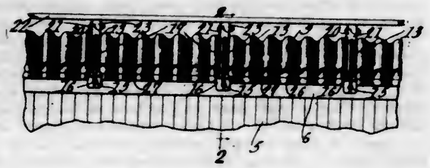
3. In combination with a scraping pick-up blade, an

idly rotatable element yieldably mounted on and in advance of said blade and overlapping the forward edge thereof.

4. A crumbing tray having a scraping edge, and means immediately in advance of such edge and mounted on the tray to automatically confine and hold the material immovable for the scraping edge.

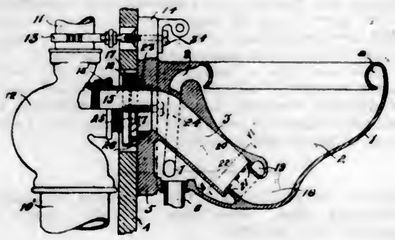
5. In combination with a scraping pick-up blade, a rotatable element yieldably supported upon and in overlapping relation to the scraping blade and adapted to assume a position to prevent return of the material picked up after the blade is lifted.

1,132,952. CAR-ROOFING. WILLIAM CURTAIN MANESS, Laredo, Tex. Filed July 14, 1914. Serial No. 350,984. (Cl. 108—5.)



A car roofing embodying a corrugated sheet metal blank having its corrugations extending transversely, an elongated running board supporting block seated in the central portion of one groove of the corrugations, a strip secured to one side of the said block and having its ends extending angularly beyond the ends of the block and projecting downwardly and seated within the said groove, and tie rods disposed above the said groove and having their adjacent ends engaged through the said ends of the strip.

1,132,953. PLUMBING-FIXTURE. IRA A. MANN, Pittsburgh, Pa. Filed Oct. 3, 1912. Serial No. 723,678. (Cl. 4—22.)

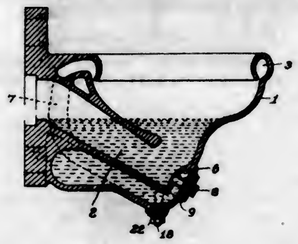


1. In combination in a plumbing fixture, a bowl, an inclined discharge passage, inlet jet means opening into the discharge passage and encircling such passage and directed in substantial parallelism with the walls of the discharge passage at the periphery thereof, and other jet means opening into the discharge passage and directed obliquely with respect to the walls of the discharge passage.

2. In combination in a plumbing fixture, a bowl, an inclined discharge passage, an inlet jet means opening into the discharge passage and encircling such passage and directed in substantial parallelism with the walls of the discharge passage at the periphery thereof, and other jet means for supplying water longitudinally of the discharge passage but inside of the first mentioned jet means and spaced away from the periphery of the passage.

3. In combination in a plumbing fixture, a bowl, a discharge passage having a reduced inlet portion leading downward from the bowl and then inclined upwardly and a main portion of larger diameter than the inlet portion and inclined upwardly, the said portions merging into each other, an annular supply passage in the wall of the reduced inlet portion of the passage and extending around said portion, and jet inlet means leading through the wall of the discharge passage at the point where the two portions of the passage merge, the jet inlet means extending around the discharge passage and being directed in substantial parallelism with the walls of the said main portion of the discharge passage.

1,132,954. PLUMBING-FIXTURE. IRA A. MANN, Pittsburgh, Pa. Filed Jan. 9, 1913. Serial No. 741,003. (Cl. 4—22.)



1. The combination with a bowl having an upwardly directed outlet passage with an opening through the wall of the bowl opposite the lower end of the passage and having a flushing supply passage leading to a point adjacent the said opening, of a removable solid closure plug closing the said opening and provided with a jet member pointing up the said outlet passage and communicating with the said supply passage in the bowl.

2. The combination with a bowl having within its walls an upwardly extending outlet passage and a flushing supply passage leading to a point opposite the lower end of the outlet passage, the said bowl also having an opening through its wall opposite the lower end of the outlet passage, of a solid removable closure plug for the said opening, and a removable jet means opposite the plug and communicating with the said supply passage.

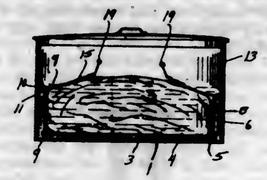
3. The combination with a bowl having within its walls and upwardly extending outlet passage and a flushing supply passage leading to a point opposite the lower end of the outlet passage, the said bowl also having an opening through its wall opposite the lower end of the outlet passage, of a solid removable closure plug for the said opening, and a hollow jet plug carried on the inner side of the plug with its interior communicating with the said supply passage.

4. The combination with a bowl having within its walls an upwardly extending outlet passage and a flushing supply passage leading to a point opposite the lower end of the outlet passage, the said bowl also having an opening through its wall opposite the lower end of the outlet passage, of a solid removable closure plug for the said opening, and removable jet means comprising a jet plug carried by the closure plug, and having an opening through its central portion, and having its periphery spaced away from the opening in which it is mounted provided an annular jet opening, the said openings around and through the plug communicating with the said supply passage.

5. The combination with a bowl having within its walls an upwardly extending outlet passage and a flushing supply passage leading to a point opposite the lower end of the outlet passage, the said bowl also having an opening through its wall opposite the lower end of the outlet passage, of a solid removable closure plug for the said opening, and removable jet means comprising a plug carried by the closure plug having its periphery spaced away from the opening in which it is mounted providing a circumferential jet opening, the said opening around the plug communicating with the said supply passage.

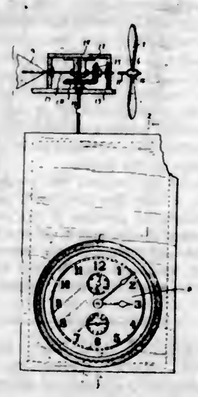
[Claims 6 to 13 not printed in the Gazette.]

1,132,955. WASHBOILER ATTACHMENT. JOHN C. MARTIN, Spokane, Wash. Filed Apr. 13, 1914. Serial No. 831,558. (Cl. 68—30.)



A clothes supporting and draining attachment for wash boilers, comprising a draining clothes tray holder, tray handle sections of substantially U-shaped form having their free ends hinged to said tray holder and having their bights bent to form outwardly projecting supporting loops in spaced relation with respect to each other for engagement with the boiler to support the tray therein, and a handle section hinged to each tray section at the supporting loops thereof to permit the handles to break joint between their ends, substantially as described.

1,132,956. DEVICE FOR UTILIZING WIND-POWER. PAUL MEDVED, Milwaukee, Wis. Filed Oct. 19, 1914. Serial No. 867,289. (Cl. 185—40.)



1. A device for utilizing wind power comprising a windwheel, a spring motor, power transmission mechanism between said wheel and motor, a clutch for throwing said power transmission mechanism into or out of driving relation with said motor, and means operatively connected to the spring of the motor and operated by the lateral movement of said spring for operating said clutch.

2. A device for utilizing wind power comprising a wind wheel, a spring motor, power transmission mechanism between said wheel and motor, a clutch for throwing said power transmission mechanism into or out of driving relation with said motor, and means comprising linkage operatively connected to said clutch and to the spring of the motor whereby the lateral movement of said motor-spring will operate said clutch.

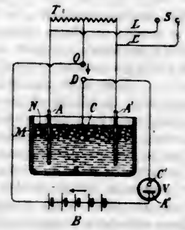
3. A device for utilizing wind power comprising a wind wheel, a spring motor, power transmission mechanism between said wheel and motor, a clutch for throwing said power transmission mechanism into or out of driving relation with said motor, means operatively connected to the spring of the motor and operated by the lateral movement of said spring for operating said clutch, and means for accelerating the movement of said clutch operating means.

4. A device for utilizing wind power comprising a wind wheel, a spring motor, power transmission mechanism between said wheel and motor, a clutch for throwing said power transmission mechanism into or out of driving relation with said motor, means comprising linkage operatively connected to said clutch and to the spring of the motor and movable laterally with the spring for operating said clutch, and means for accelerating the movement of said clutch-operating means.

5. A device for utilizing wind power comprising a casing, a shaft, a wind wheel mounted thereon, a spring motor, power transmission mechanism comprising gearing and connection between said shaft and motor, a clutch comprising a shiftable gear for throwing said power transmission mechanism into or out of driving relation, and linkage for operating said shiftable gear comprising a lever pivotally secured to the casing and means connected to the spring of the motor and operated by the lateral movement of said spring for operating said lever.

[Claims 6 and 7 not printed in the Gazette.]

1,132,957. ELECTROLYTIC CONDENSER AND METHOD OF OPERATING THE SAME. RALPH D. MERSHON, New York, N. Y. Filed Jan. 4, 1910. Serial No. 536,355. (Cl. 175—315.)



1. The combination of an electrolytic condenser, auxiliary exciting means therefor, a source of current, means for opening and closing the circuit between the exciting means and the condenser, and step-by-step means for closing the circuit between the condenser and the said source.

2. The combination of an electrolytic condenser, auxiliary exciting means therefor, a source of current, a transformer connected to the condenser through said exciting means, and a controller connected with the transformer and having a plurality of positions in one of which the source of current is connected to the condenser through the exciting means and in another of which the main circuit is established through the condenser and said source.

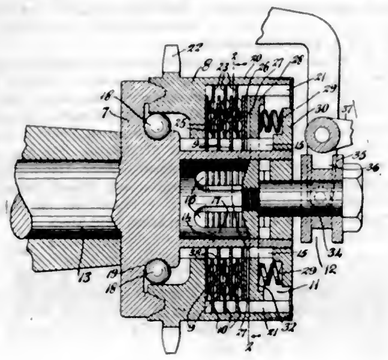
3. The combination of an electrolytic condenser, auxiliary exciting means therefor, a source of current, a transformer connected to the exciting means, and a controller for connecting the transformer and condenser to said source, said controller being constructed to connect the exciting means to the condenser in one position of the controller and in succeeding positions to impress higher and higher voltage on the condenser.

4. The combination of an electrolytic condenser, a source of alternating current, means for deriving unidirectional charging current from the source to excite the condenser, and a controller between the source and the condenser and arranged to connect the exciting means to the condenser to excite the same in advance of closing the circuit between the source and the condenser.

1,132,958. CLUTCH. OTTO. MILLER, Cincinnati, Ohio. Filed Jan. 9, 1914. Serial No. 811,128. (Cl. 192—10.)

1. A multiple disk clutch comprising a driving member and a driven member, a series of disks mounted on the driving member, a second series of disks concentric with and alternately arranged with the disks of the first series and mounted on the driven member, the disks of one of

said series having a plurality of hemispherical projections extending from each side of each disk, a casing inclosing said members and said disks and means causing the disks to frictionally engage each other.



2. A multiple disk clutch comprising a driving member, a driven member, a series of plain disks mounted to rotate with the driving member, a series of disks provided with a plurality of projections and recesses on each side of each disk mounted to rotate with the driven member and alternately arranged with the disks of the driving member, a casing inclosing said members and said disks and means effecting the engagement and disengagement of the disks.

3. A friction disk clutch comprising a driving member, a driven member, a series of driving disks mounted on the driving member, a series of driven disks mounted on the driven member and provided with a pluarity of hemispherical projections, means for causing the disks of one series to engage the disks of the other series, said means comprising auxiliary springs and main springs, the auxiliary springs being interposed between the disks and the main springs, and a casing inclosing said members, said disks and said springs.

4. In a friction clutch, the combination of a series of smooth disks, a series of disks having hemispherical projections extending from each side of each disk, the disks of one series being alternately arranged with the disks of the other series, a plurality of main springs, means adapted to control the main springs, a plurality of auxiliary springs located between the main springs and the disks, adapted to enable said main springs to press said disks together gradually when said means are operated, and to permit said main springs to frictionally lock said disks together after the auxiliary springs have reached the limit of their action, and a casing inclosing said disks and said springs.

5. A clutch comprising a series of thin metal driving disks and a series of thin metal driven disks, the metal of the disks of one of said series being distorted to form a plurality of oppositely disposed recesses and projections, the disks of each series being alternately arranged with one another and the undistorted disks contacting with the projections of the distorted disks, means for causing the driven disks to be brought into driving engagement with the driving disks, and a casing inclosing said disks.

[Claims 6 to 8 not printed in the Gazette.]

1,132,959. BOTTLE-CAP. GEORGE W. MITCHELL, New York, N. Y., assignor of one-half to Joseph A. Wood, Vernon, N. Y. Filed July 14, 1913. Serial No. 778,293. Renewed Sept. 20, 1913. Serial No. 790,854. (Cl. 215—10.)

1. A sheet metal bottle cap, comprising a permanently raised circular center, an annular portion, a permanently upstanding high-angle frusto-conical wall having an obtuse-angle juncture with said center, said wall having normally an obtuse-angle juncture with said annular portion and when depressed an acute-angle juncture with said annular portion to compress an elastic rubber disk between the outer end of a bottle neck and said annular portion, said center and said frusto-conical wall forming a permanently upstanding hollow boss and a plug for the orifice of a bottle.



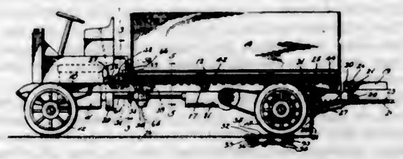
2. A closure for bottles and like receptacles, comprising an elastic member, means for holding the peripheral portion of said member against the external walls of the orifice of the bottle, and means for maintaining the central portion of the said member tensed and extended, and depressed with respect to the peripheral portion thereof, said central portion being within the orifice of the bottle.

3. A closure for bottles and like receptacles, comprising an elastic disk, means for holding the peripheral portion of said disk against the external walls of the orifice of the bottle, and means for maintaining the central portion of the disk tensed and extended, and depressed with respect to the peripheral portion thereof, said central portion being within the orifice of the bottle.

4. A closure for bottles and like receptacles, comprising an elastic member, a cap, the peripheral portion of said cap being adapted to hold the peripheral portion of said elastic member against the external walls of the orifice of the bottle, the central portion of said cap being driven below the peripheral portion thereof, the said elastic member being extended and maintained in a tensed condition within the orifice of the bottle.

5. A closure for bottles and like receptacles, comprising an elastic disk, a cap, the peripheral portion of said cap holding the peripheral portion of the elastic disk against the external walls of the orifice of the bottle, the central portion of said cap being driven below said peripheral portion thereof, the said elastic disk being extended and maintained in a tensed condition within the orifice of the bottle.

1,132,960. VEHICLE LOADING AND UNLOADING MECHANISM. WATT L. MORELAND, Los Angeles, Cal., assignor of one-half to Moreland Motor Truck Company, Los Angeles, Cal., a Corporation of California. Filed May 28, 1913. Serial No. 770,381. (Cl. 214—1.)



1. A loading and unloading mechanism for vehicles comprising a centering member projecting from the vehicle frame, a cooperating guide member secured to a landing platform and means upon the vehicle for actuating the load carrying portion thereof for moving it from the frame to the landing platform or replacing it upon said vehicle frame.

2. A loading and unloading mechanism for vehicles comprising a laterally movable support to receive the wheels of the vehicle and means for moving the vehicle and thereby the said support opposite the point where the loading and unloading operation is to be effected.

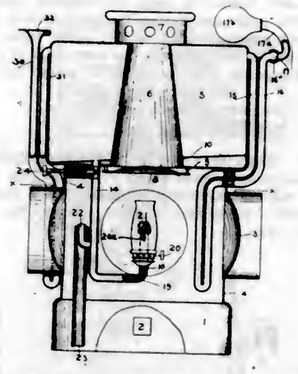
3. A loading and unloading mechanism for vehicles comprising a movable floor adapted to receive the weight of the vehicle and a wedge mechanism for moving the vehicle opposite the unloading point.

4. A loading and unloading mechanism for vehicles comprising a movable wheel supporting floor, bearings supporting said floor, means for normally centering said floor when not engaged by the wheels, and a platform engaging wedge carried by the vehicle adapted to move the wheels to a point opposite the unloading position desired.

5. In an unloading mechanism for vehicles, a movable support for one end of the vehicle, a positioning device controlling that end of said vehicle, a load receiving truck, means for positioning the same opposite the end of the vehicle and mechanism for moving the load carrying portion of the vehicle from the frame of the vehicle to the said truck.

[Claims 6 to 9 not printed in the Gazette.]

1,132,961. ILLUMINATING AND HEATING DEVICE. WILLIAM H. MUZZY, Dayton, Ohio. Filed Jan. 15, 1912. Serial No. 671,249. (Cl. 158—40.)



1. The combination with a sealed oil tank, of a filling pipe for the tank formed with an oil trap, an independent air vent pipe formed with a permanent oil trap and connected at one end to the tank; the opposite end being open, means for removing the oil from the air vent pipe at will and a combined oil feed and breather pipe connected to the tank and extending below the same.

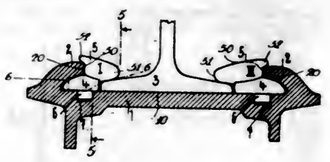
2. The combination with a sealed oil tank, of a filling pipe for the tank formed with an oil trap, an independent air vent pipe formed into a pendant oil trap loop and connected at one end to the tank; the opposite end being of the pipe being open to the air on a level near the top of the tank and an oil feed pipe connected to the tank and extending below the same.

3. The combination with a sealed oil tank, of a filling pipe for the tank formed with a permanently sealing oil trap, an independent air vent pipe formed with a permanently sealing oil trap and connected to the tank, means for removing the oil from the air vent pipe at will and an oil feed pipe connected to the tank and extending below the same.

4. The combination with a sealed oil tank, of a filling pipe for the same formed with a permanently sealing oil trap, an independent air vent pipe formed with a permanently sealing oil trap and connected to the tank near its upper end, a pump for removing the oil from the air vent pipe at will, and an oil feed pipe connected to the tank and extending below the same.

1,132,962. RAIL-FASTENING. PAUL NAUMANN, Dresden, Germany, assignor to Otto & Schlosser, Meissen, Germany. Filed July 23, 1914. Serial No. 852,599. (Cl. 238—2.)

1. A rail fastening comprising a soleplate having upwardly and inwardly projecting undercut lugs at its opposite ends, transverse grooves in its body below said undercut lugs, and a plain bearing surface between said lugs broader than the base of the rail, clamping members provided with ribs on their under faces engaging said grooves, said clamping members having a wedging action independent of the rail between said undercut lugs and said grooves and being provided with heads having ledges projecting over the base of the rail.



2. A rail fastening comprising a soleplate having upwardly and inwardly projecting undercut lugs at its opposite ends, transverse grooves in its body below said undercut lugs, and a plain bearing surface between said lugs broader than the base of the rail, said undercut lugs having inner vertical faces, clamping members having vertical faces engaging the vertical faces of said undercut lugs and ribs on their under sides adapted to engage said grooves, said clamping members having a wedging action independent of the rail between said vertical faces and said grooves and being provided with heads having ledges projecting over the base of the rail.

3. A rail fastening comprising a soleplate having upwardly and inwardly projecting undercut lugs at its opposite ends, transverse grooves in its body below said undercut lugs, and a plain bearing surface between said lugs broader than the base of the rail, said undercut lugs having inner vertical faces, clamping members having vertical faces engaging the vertical faces of said undercut lugs and ribs on their under sides adapted to engage said grooves, said clamping members having a wedging action independent of the rail between said vertical faces and said grooves and being provided with heads having ledges projecting over the base of the rail and lips projecting over said undercut lugs.

4. A rail fastening comprising a soleplate having upwardly and inwardly projecting undercut lugs at its opposite ends, transverse grooves in its body below said undercut lugs, and a plain bearing surface between said lugs broader than the base of the rail, interchangeable clamping members of different widths provided with ribs on their under faces at different distances from their inner edges and engaging said grooves, said clamping members having a wedging action independent of the rail between said undercut lugs and said grooves and being provided with heads having ledges projecting over the base of the rail.

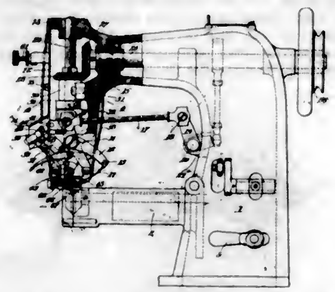
1,132,963. SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 6, 1907. Serial No. 405,354. (Cl. 112—24.)

1. The combination of a needle, a looper and a spreader, means for operating said needle, and means for operating said looper and spreader including a rotating shaft, a crank pin located on said shaft, devices for connecting the crank pin to the looper, and independent devices for connecting the crank pin to the spreader.

2. The combination with a work support and an overhanging arm, of a needle, a looper and a spreader, mounted on said overhanging arm, means for operating said needle and means for operating said looper and spreader, including a rotating shaft and a crank pin, common to both the looper and spreader.

3. The combination of a work support, an overhanging arm, a needle, a looper, and a spreader mounted on said overhanging arm, means for operating said looper and spreader including a vertical shaft, devices for connecting the vertical shaft to the looper for oscillating the

same, and independent devices for connecting the spreader to the vertical shaft for oscillating said spreader.

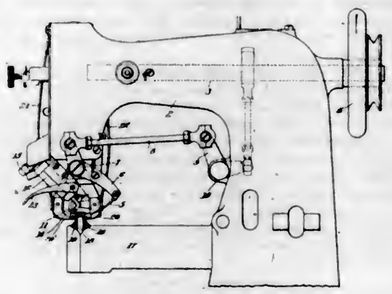


4. The combination of a needle, a looper and a spreader, means for operating said needle, and means for operating said looper and spreader, including a vertical shaft, a crank pin carried thereby, and devices connecting said crank pin with said spreader, and with said looper.

5. The combination of a needle, a looper and a spreader, means for operating said needle and means for operating said looper and spreader, including a horizontal shaft, a vertical shaft geared thereto, a crank disk carried thereby, and a crank pin mounted on the crank disk and connected to said looper and to said spreader.

[Claims 6 to 32 not printed in the Gazette.]

1,132,964. BLINDSTITCH SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 6, 1907. Serial No. 405,355. (Cl. 112—24.)



1. A blind stitch sewing machine including in combination a horizontal work supporting member, a fixed crimping ridge carried by said member, the side faces of which intersect at an angle at the line of stitching, an oscillating needle, and means for supporting said oscillating needle above the work support and the crimping ridge, and with the axis thereof located at one side of a plane passing through said ridge and bisecting the angle formed by the side faces of said ridge.

2. A blind stitch sewing machine including in combination a horizontal work supporting member, a fixed crimping ridge carried thereby, the side faces of said crimping ridge being inclined to a vertical plane passing centrally through said ridge, a needle carrying lever, a curved needle mounted thereon and movable back and forth above said crimping ridge, means for pivotally supporting said needle lever with the axis thereof at one side of said vertical plane, and means for operating said lever.

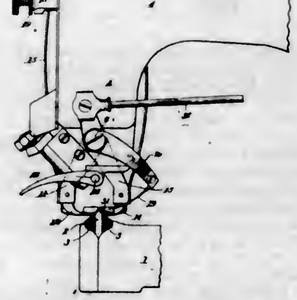
3. A blind stitch sewing machine including in combination a horizontal work supporting member, a fixed crimping ridge carried thereby, the side faces of said crimping ridge being inclined to a vertical plane passing centrally through said ridge, an overhanging arm, a lever pivoted on said overhanging arm, a curved needle carried thereby, said needle being movable back and forth above said crimping ridge and having a centrally located point, means for pivotally supporting said lever with the axis thereof at one side of said vertical plane, said axis being on the side of the plane from which the point of the needle emerges from the material, and means for operating said needle lever.

4. The combination of a horizontal work supporting member, a crimping ridge carried thereby, of a curved needle provided with a centrally located point and having its outer tapered surface lying substantially in the arc of a circle the center of which is located in a vertical plane passing centrally through said crimping ridge, and means for supporting and operating said needle.

5. The combination with a horizontal work support, of a crimping ridge carried thereby, an overhanging arm, presser members carried by said overhanging arm and cooperating to hold the work on said crimping ridge, a curved needle carried by said overhanging arms, means for operating said needle, a needle guide carried by one of said presser members, said needle guide being disposed relative to the needle, whereby the outer face of the needle engages said guide, and the needle is placed under slight strain.

[Claim 6 not printed in the Gazette.]

1,132,965. BLINDSTITCH SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 6, 1907. Serial No. 405,356. (Cl. 112—24.)



1. The combination with an overhanging arm, a curved needle, means for oscillating the same, a work support, a crimping ridge carried thereby, presser members pivoted so as to swing independently on an axis fixed relative to the overhanging arm and coincident with the axis of the needle, and means for swinging the presser members on said axis.

2. The combination with a work support having means for crimping the fabric, a curved needle, means for oscillating said needle, and a plurality of oppositely disposed presser members, each of which is mounted on an axis coincident with the axis of the needle, said presser members operating to hold the material on the work support against the crimping means.

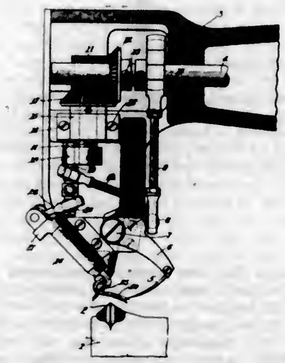
3. The combination of a curved needle, a needle lever, supporting the same, a work support, a crimping ridge carried thereby and presser members each of which is pivoted on an axis co-incident with the axis of the needle lever, said presser members being disposed on opposite sides of said crimping ridge.

4. The combination of a curved needle, a needle lever supporting the same, a work support, a crimping ridge carried thereby, presser members each of which is pivoted on an axis co-incident with the axis of the needle lever, said presser members being disposed on opposite sides of said crimping ridge, means for yieldingly holding said presser members in engagement with the crimping ridge.

5. The combination of a work support, a crimping ridge carried thereby, an overhanging arm, a needle lever pivoted thereon, a needle carried by said needle lever and presser members, each of which is pivoted on an axis coincident with the axis of the needle lever, said presser members being disposed on opposite sides of said crimping ridge.

[Claims 6 to 21 not printed in the Gazette.]

1,132,966. BLINDSTITCH SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 6, 1907. Serial No. 405,359. (Cl. 112—24.)



1. The combination of a work support, an overhanging arm, a main shaft in said overhanging arm, a needle, a looper and a spreader coöperating with each other to form stitches, devices located in the forward end of the overhanging arm for operating said needle, looper and spreader from said main shaft, said devices including a vertical shaft having a driving connection with said main shaft and driving connections with the looper and spreader.

2. The combination of a work support, an overhanging arm, a needle, a looper and a spreader, devices located in the forward end of the overhanging arm for operating said needle, said looper and said spreader, said devices including a vertical shaft and non-alined crank pins carried by said vertical shaft for operating said looper and said spreader.

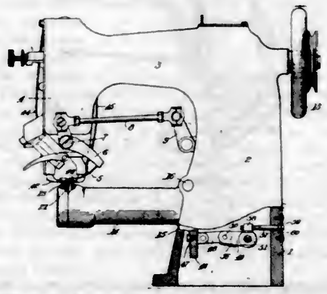
3. The combination of a work support, an overhanging arm, a looper and a spreader, and means for operating said looper and spreader, including a shaft, a crank pin eccentrically mounted on the end of said shaft, an arm carried by said crank pin and a second crank pin carried by said last named arm, and means for connecting the spreader to one of said crank pins, and means for connecting the looper to the other of said crank pins.

4. The combination of a work support, an overhanging arm, a main shaft in said overhanging arm, a vertical shaft in said overhanging arm geared to said main shaft, a looper, a spreader, a crank arm carried by said vertical shaft for operating said spreader, an arm carried by said crank arm and a crank pin carried by said last named arm for operating said looper.

5. The combination of a work support, an overhanging arm, a main shaft in said overhanging arm, a vertical shaft in said overhanging arm geared to said main shaft, a looper, a spreader, a crank arm carried by said vertical shaft for operating said spreader, an arm carried by said crank arm, and a crank pin carried by said last named arm for operating said looper, a needle lever pivoted to said overhanging arm, and devices operated from the forward end of the main shaft for operating said needle.

[Claims 6 to 8 not printed in the Gazette.]

1,132,967. BLINDSTITCH-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 14, 1908. Serial No. 410,774. (Cl. 112—24.)



1. The combination of an overhanging arm, a needle carried thereby, a work support, feeding members carried by said work support, a crimping ridge mounted on said work support and having a fixed position relative thereto, means for raising and lowering the work support to and from operating position relative to the needle, and adjusting means for positively raising and lowering the work support for changing the operative position of the crimping ridge relative to the path of the needle.

2. The combination with an overhanging arm, of a needle carried thereby, a work-supporting arm, feeding members carried by said work-supporting arm, a crimping ridge carried by the work-supporting arm, means for raising and lowering said work-supporting arm and for holding the same rigidly in raised position, and means for adjusting the position of the work-supporting arm and the crimping ridge relative to said needle.

3. The combination of an overhanging arm, a needle carried thereby, a work support, feeding members carried by the work support, a crimping ridge mounted on the work support, means for raising and lowering the work support for holding the same rigidly in raised position, and an adjusting screw for varying the position of the work support and crimping ridge relative to the needle.

4. A sewing machine including in combination, a work-supporting arm, an overhanging arm, a needle carried by said overhanging arm, a toggle lever for raising and lowering the work-supporting arm relative to the overhanging arm, and means for adjusting the position of the toggle lever.

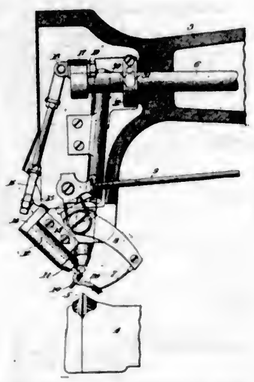
5. A sewing machine including in combination, an overhanging arm, a standard, a work-supporting arm pivoted to said standard and movable toward and from said overhanging arm, a needle carried by said overhanging arm, a link pivoted to said work-supporting arm, a second link pivoted to said first named link and to the standard, and a lug for limiting the movement of said links for holding the work-supporting arm in raised position.

[Claims 6 to 14 not printed in the Gazette.]

1,132,968. BLINDSTITCH SEWING-MACHINE. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 4, 1908. Serial No. 419,092. (Cl. 112—24.)

1. The combination of an overhanging arm, a needle mounted thereon, a work support, a crimping member car-

ried thereby, a main shaft in the overhanging arm, a crank carried by said main shaft at the forward end thereof, a looper supported in a bearing inclined to the vertical and mounted on the overhanging arm, and devices between said crank and said looper for operating said looper.



2. The combination of an overhanging arm, a work support, a crimping member carried by said work support, a needle mounted on said overhanging arm, a looper supported in a bearing inclined to the vertical and mounted upon said overhanging arm, a main shaft located in said overhanging arm, a crank carried by the forward end of the main shaft, a laterally projecting arm carried by said looper support, a ball stud carried by said last named arm, and a link having a universal connection with said ball stud and a crank on the main shaft.

3. The combination with an overhanging arm, a needle mounted thereon, a work support, a crimping member carried thereby, a main shaft in the overhanging arm, a crank carried by said main shaft at the forward end thereof, a looper supported in a bearing inclined to the vertical and mounted on the overhanging arm, devices between the crank and said looper for operating the same, a spreader, a support therefor mounted on the overhanging arm and extending at an angle to a vertical plane containing the longitudinal axis of the work support, an eccentric carried by the main shaft adjacent the forward end thereof, and means coöperating with said eccentric for oscillating said spreader.

4. The combination of a work support, a crimping member carried by said work support, an overhanging arm, a needle mounted on said overhanging arm, and reciprocating back and forth across said crimping member, a spreader coöperating with said needle, a spreader support carrying said spreader, said spreader support being mounted on the overhanging arm, a main shaft located in said overhanging arm, an eccentric on the main shaft adjacent the forward end thereof, a second shaft mounted on said overhanging arm, and operatively connected with said eccentric, and means for oscillating said spreader support from said second shaft.

5. The combination with a work support, of an overhanging arm, a spreader mounted on said overhanging arm, a main shaft located in said overhanging arm, an eccentric carried thereby, a second shaft mounted on said overhanging arm, an eccentric strap coöperating with said eccentric and having universal connection with said second shaft, an arm carried by said second shaft and operatively connected to said spreader.

[Claims 6 to 12 not printed in the Gazette.]

1,132,969. SOLDERING-IRON. ANDREW R. PAUL, Somerset, Pa. Filed Feb. 6, 1914. Serial No. 817,002. (Cl. 158—26.)

1. A tool of the class described comprising a handle, a tubular stem carried by the handle and constituting a supply pipe, said tubular stem being provided at its outer end with a jet aperture, a relatively short burner tube located at the outer end of the supply pipe in position to receive directly therefrom the fuel discharged from the jet aperture, said burner tube being provided at all of its sides and throughout its entire length with lateral air inlet openings and forming a blow torch, and a soldering iron support carried by the stem and having inperforate walls spaced from and surrounding the burner tube, said support terminating short of the outer end of the burner tube and exposing a portion of the same.



2. A tool of the class described comprising a tubular stem constituting a supply pipe and provided at its outer end with a jet aperture, a short burner tube located at the outer end of the tubular stem in position to receive directly the fuel discharged from the jet aperture and provided with lateral air inlet openings, a support mounted on the tubular stem and having a tubular portion surrounding the burner tube in spaced relation with the same and terminating short of the front end thereof, a soldering iron head located in advance of the burner tube, and means for connecting the soldering iron head with the said tubular supporting portion.

3. A tool of the class described, including a supply pipe provided at its outer end with a jet aperture, cup-shaped support having a reduced neck receiving the outer end of the supply pipe, a burner tube located at the outer end of the supply pipe in position to receive the fuel discharged from the jet aperture and having lateral air inlet openings, said burner tube being mounted on the support in spaced relation with the sides thereof, a soldering iron head located in advance of the burner tube, and a coupling sleeve carrying the soldering iron and detachably fitted on the cup-shaped support.

4. A tool of the class described including a fuel supply pipe provided at its outer end with a jet aperture and having a lateral branch extending from it in rear of the jet aperture, a burner tube located at the outer end of the supply pipe in position to receive the fuel discharged from the jet aperture and provided with lateral air inlet openings, a soldering iron head, means for supporting the soldering iron head in advance of the burner tube, and an illuminating burner carried by the said lateral branch and extending forwardly in a direction longitudinal of the tool and in position to throw light over the soldering iron head.

5. A tool of the class described comprising a tubular stem constituting a supply pipe and provided at its outer end with a jet aperture, an imperforate tubular support having an inner reduced portion secured to and extending beyond the stem, a burner tube secured within the said reduced tubular portion of the support and extending outwardly from the stem and forming a continuation of the same, said support having an outer enlarged tubular portion surrounding the burner tube in spaced relation with the same and terminating short of the front end thereof.

[Claim 6 not printed in the Gazette.]

1,132,970. SEAL. WILLIAM T. PEYTON, Fort Worth, Tex. Filed June 15, 1914. Serial No. 845,052. (Cl. 70—99.)



1. A seal comprising a barrel having a groove in the inner wall thereof, a plunger having a groove therein adapted to register with the groove in said barrel, a spring locking member having a part thereof occupying the groove in said barrel and the other part occupying the groove in said plunger, an attaching member detachable from said plunger when the plunger is out of the barrel but locked thereto by said barrel when the plunger is thrust into the barrel, and a flanged head on said plunger inclosing the end of said barrel and having provision for the passage of said attaching member.

2. A seal comprising a barrel having a groove in the inner wall near the bottom thereof, a plunger having a groove in the lower or inner end adapted to register with the groove in said barrel, a spring locking member standing partly in the groove in said barrel and partly in the path of said plunger before the plunger is thrust into the barrel and adapted to occupy in part the groove in said plunger when the plunger is thrust into the barrel, an attaching member engaging said plunger and detachable therefrom before the plunger is thrust in said barrel but locked to the plunger by said barrel when the plunger is thrust into the barrel, and a flanged head on said plunger adapted to engage the open end of said barrel when the plunger is locked in said barrel.

3. A seal comprising a barrel having one end closed and a groove in the inner wall near the bottom thereof, a plunger having a groove adapted to register with the groove in said barrel, a spring locking member standing partly in the groove in said barrel and partly in the path of said plunger before the plunger is thrust down into the barrel but adapted to occupy in part the groove in said plunger after the plunger is thrust to the bottom of the barrel, an attaching member for engaging said plunger and detachable therefrom before the plunger is thrust to the bottom of the barrel but locked thereto by the barrel after the plunger is thrust to the bottom of the barrel, and means for retaining said plunger partly within said barrel prior to the locking of the plunger in the barrel.

4. A seal having a barrel provided with a groove in the lower part thereof, said barrel being closed at one end, a plunger having a groove therein adapted to register with the groove in said barrel and having a flanged head inclosing the other end of said barrel, and a spring locking member occupying a part of the groove in said barrel and a part of the locking member occupying a part of the groove in said plunger.

1,132,971. TREATMENT OF MATERIALS. RAYMOND B. PRICE, Mishawaka, Ind. Filed Oct. 9, 1912. Serial No. 724,874. (Cl. 18—48.)

1. The method of manufacturing articles of vulcanizable plastics consisting in creating a vacuum about an article while it is being formed, whereby the exposed superficial area thereof will be subjected to the action of a reduced pressure to withdraw fluids from the material and thereafter subjecting the aforesaid exposed superficial area of said article to the action of a vulcanizing medium.

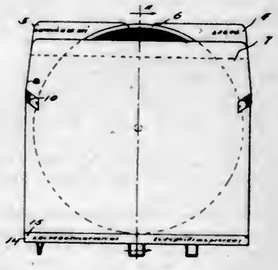
2. The method of manufacturing articles of vulcanizable plastics consisting in superimposing a plurality of layers of the plastic material one upon another while subjecting the article as it is being formed to the action of a vacuum, whereby the exposed superficial area thereof will be subjected to a reduced pressure to withdraw fluids from the material, and thereafter subjecting said article to the action of a vulcanizing medium.

3. The method of manufacturing articles of vulcanizable plastics consisting in superimposing a plurality of layers of the plastic material one upon another while subjecting the article as it is being formed to the action of a vacuum whereby the exposed superficial area thereof will be subjected to a reduced pressure to withdraw fluids from the material, and thereafter breaking the vacuum by the admission of a vulcanizing medium about the article so formed.

4. The method of manufacturing articles of vulcanizable plastics consisting in superimposing a plurality of layers of the plastic material one upon another while subjecting the article as it is being formed to the action of a vacuum whereby the exposed superficial area thereof will be subjected to a reduced pressure to withdraw fluids from the material, inclosing the completely built up article in an envelop impervious to gases while maintaining the reduced pressure, thereafter subjecting said envelop to external pressure, and subsequently removing said article from said envelop and subjecting it to the action of a vulcanizing medium.

5. The method of manufacturing articles of vulcanizable plastics consisting in subjecting the article to the action of a vacuum whereby the exposed superficial area thereof will be subjected to a reduced pressure to withdraw fluids from the material, inclosing the article in a collapsible envelop impervious to gases while maintaining the reduced pressure, subjecting said envelop to external pressure, and finally vulcanizing the article.

1,132,972. FILING-ENVELOP. JOSEPH E. RALPH, Newark, N. J. Filed Nov. 3, 1913. Serial No. 799,052. (Cl. 129—16.)



1. A container for disk records comprising an envelop the bottom of which conforms to the shape of the disk and is adapted to hold the disk centrally within the container.

2. A container for disk records comprising an envelop, a block having an arcuate edge mounted within the envelop in the body thereof, the sides of the envelop adjacent the block being secured to said block.

3. A container for disk records comprising an envelop, the bottom of which has mounted therein a block having an upwardly facing arcuate edge, the block being of a thickness substantially greater than the disk.

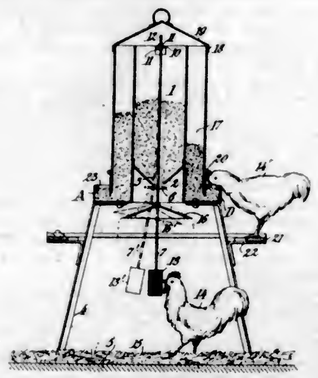
4. A container for disk records comprising an envelop, a block secured to the envelop in the bottom thereof, said block having an arcuate edge conforming to the shape of the disk, the block and envelop being of a substantially greater width than the disk.

5. A container for disk records comprising an envelop, a block secured to and mounted in the bottom of said

envelop, the outer side edges of the block being beveled, the sides of the envelop being secured to the beveled edges of the block, the upper edge of the block being arcuate to conform to the shape of the disk.

[Claims 6 to 17 not printed in the Gazette.]

1,132,973. POULTRY EXERCISER AND FEEDER. FRANK AYERS RAPPLEYE, Interlaken, N. Y., assignor to Hover-Incubator Manufacturing Company, Brown Mills, N. J., a Corporation of New Jersey. Filed Oct. 24, 1914. Serial No. 868,399. (Cl. 119—52.)



1. In a poultry feeder, the combination with a scratch feed container, and a spout for discharging the feed from the container, of a feed trough associated with the container and located in such position relatively to the said spout that spillings from the trough will fall within the zone of discharge of such spout.

2. In a poultry feeder, the combination with a scratch feed container, and a spout for discharging the feed from the container, of a plurality of feed troughs associated with the container and each located in such position relatively to the said spout that spillings from it will fall within the zone of discharge of such spout.

3. In a poultry feeder the combination with a scratch feed container, and a spout for discharging the feed from the container, of a plurality of feed troughs associated with the container and each located in such position relatively to the said spout that spillings from it will fall within the zone of discharge of such spout, and a platform disposed outwardly of the troughs for the birds while feeding at the troughs.

4. In a poultry feeder, the combination with a scratch feed container, supporting means for maintaining the same above a feeding floor, and a spout for discharging the feed from the container upon the floor, of a feed trough carried by the supporting means above the floor and located in such position relatively to the said spout that spillings from the trough will fall upon the feeding floor within the zone of discharge of such spout.

5. In a poultry feeder, the combination with a scratch feed container, supporting means for maintaining the same above a feeding floor, and a spout for discharging the feed from the container upon the floor, of a plurality of feed troughs carried by the supporting means above the floor and each located in such position relatively to the said spout that spillings from it will fall upon the feeding floor within the zone of discharge of such spout.

[Claims 6 to 10 not printed in the Gazette.]

1,132,974. BAG-FASTENER. JACOB RITTER, New York, N. Y. Filed Nov. 16, 1914. Serial No. 872,454. (Cl. 70—116.)

1. An improved lady's hand bag, comprising frames, a yoke portion passing from one frame to the other and provided with a projection adapted to engage one of the frames, a secondary lock within the yoke portion, and an apron beneath the yoke portion for disengaging the yoke portion from the frame.



2. An improved lady's hand bag, comprising frames, a yoke pivotally supported on one of the frames, and fastened over the other frame, and provided with a projection engaging the other frame, an apron secured to said last-named frame, arranged beneath the yoke portion, and a secondary lock engaging the frames.

3. An improved lady's hand bag, comprising frames, a yoke portion pivotally supported and fastened over one of the frames, a secondary lock pivoted within the yoke portion to the other of the frames, and an apron beneath the yoke portion adapted to be operated by the hand to exert a pressure on the yoke portion and cause its disengagement to enable the secondary lock to be disengaged by the movement of the hand disengaging the yoke portion lock.

4. In a device of the character described, the combination, with a pair of hinged frames, of locking-means for fastening the frames together, comprising a resiliently mounted grasping member, the lower wall of the grasping member having a recess formed therein, a projection carried by one of the frames, and adapted to rest within said opening, and a primary locking-member pivotally mounted upon said resilient projection.

5. The combination, with two separable frames adapted to be locked together, of locking-means comprising primary and secondary locking-members, the secondary member being resiliently mounted upon one frame, and adapted to engage a projection carried by the other frame, a yoke pivotally mounted upon the secondary locking-member, a projection carried by said yoke, adapted to engage one of the frames, and means for releasing the yoke.

1,132,975. CAP FOR BOTTLES OR JARS. HUGH H. ROBERTSON, New York, N. Y., assignor to Continental Can Company, Incorporated, Syracuse, N. Y., a Corporation of New York. Filed July 3, 1913. Serial No. 777,283. (Cl. 215—13.)



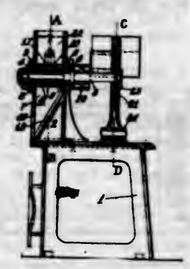
1. A lacquered sheet metal cap for bottles or jars comprising a body portion cut from sheet metal lacquered on both surfaces thereof throughout, said body portion being bent into cylindrical form and having the meeting edges thereof joined by an interfolded seam which conceals and covers the exposed raw edges of the metal formed in cutting the body portion, and a top for closing the end of said body portion, said top being cut from a sheet of metal lacquered on both sides thereof throughout, said top being joined to the body portion by an interfolded seam which conceals and covers the exposed raw upper edge of the metal of the body portion and the exposed raw edge of the metal of the top formed in cutting the top.

2. A lacquered sheet metal cap for bottles or jars comprising a body portion cut from sheet metal lacquered on both surfaces thereof throughout, said body portion being bent into cylindrical form and having the meeting edges

thereof joined by an interfolded seam which conceals and covers the exposed raw edges of the metal formed in cutting the body portion, and a top for closing the end of said body portion, said top being cut from a sheet of metal lacquered on both sides thereof throughout, said top being joined to the body portion by an interfolded seam which conceals and covers the exposed raw upper edge of the metal of the body portion and the exposed raw edge of the metal of the top formed in cutting the top, said top being bent so as to be substantially flush with the extreme upper part of the seam joining the top to the body portion, the lower edge of said body portion being bent upwardly to conceal the raw edge of the metal at the bottom of the body portion and to stiffen the body of the cap, said body portion having a screw-thread formed therein.

3. A sheet metal cap for bottles comprising a body portion cut from sheet metal coated on both surfaces thereof throughout, said body portion being bent into cylindrical form and having the meeting edges thereof joined by an interfolded seam which conceals and covers the exposed raw edges of the metal formed in cutting the body portion, and a top for closing the end of said body portion, said top being cut from a sheet of metal coated on both sides thereof throughout, said top being joined to the body portion by an interfolded seam which conceals and covers the exposed raw upper edge of the metal of the body portion and the exposed raw edge of the metal of the top formed in cutting the top, the lower edge of said body portion being bent upwardly to conceal the raw edge of the metal at the bottom of the body portion and to stiffen the body of the cap, said body portion having a screw-thread formed therein.

1,132,976. MACHINE FOR CUTTING BONES. ADOLF ROGGENMOSER, Zurich, Switzerland. Filed Mar. 14, 1913. Serial No. 754,327. (Cl. 83—6.)

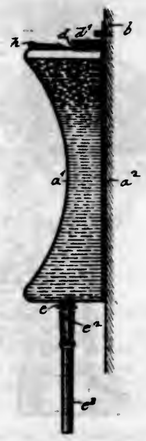


1. A machine for cutting bones comprising in combination a frame, provided with a vertical channel, a shaft rotatably mounted in said frame and crossing said channel, blades fixed to said shaft having teeth upon one half of their circumference only the toothed parts of two consecutive blades being set 180° apart, means to feed the bones against said blades, means to guide off the bone-particles and means to rotate said shaft.

2. A machine for cutting bones comprising in combination, a plurality of cutting disks each of which has teeth on approximately 180° of its circumference, the remaining 180° being smooth, the toothed portion on one disk being arranged in axial alinement with the smooth portion of the adjacent disk, means for rotating said disks, and means for feeding material to be ground.

3. A machine for cutting bones comprising in combination, a shaft, a plurality of toothed disks arranged side-by-side on said shaft, said disks having teeth on slightly more than 180° of their circumferences the remaining portion of their circumferences being smooth and being cut away lower than the level of the toothed portions, the toothed portion on one disk being arranged in axial alinement with the smooth portion of the adjacent disk and with its toothed portion overlapping slightly the toothed portions of both adjacent disks, the points where the teeth overlap being bent together so as to prevent the formation of ridges, and means for rotating said shaft.

1,132,977. HOT-WATER BOTTLE. MAX ROSENTHAL, New York, N. Y., assignor of one-half to George Schmidt, Jr., Elizabeth, N. J. Filed Nov. 15, 1912. Serial No. 731,566. (Cl. 128—47.)



In a water bottle, the combination of a rear wall having surface elements composed of straight lines, a straight line top wall at rigt angles to said rear wall provided with a filling opening in the top wall near a corner formed by the edge of said top wall and the top of said rear wall, a straight line bottom wall at right angles to said rear wall provided with an emptying opening adapted to receive a nipple approximately centrally thereof, a concave front wall joined at its ends to the top and bottom walls by rounded surfaces, straight line side walls at right angles to said rear wall, a fixed suspension handle projecting beyond said top wall and immovably connected with said rear wall, and means for closing and opening said filling and emptying openings.

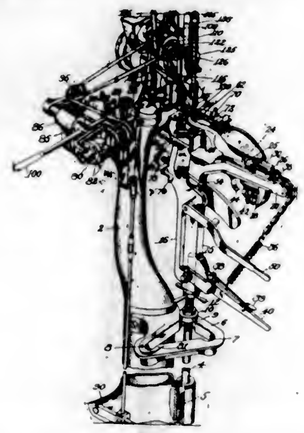
1,132,978. HEEL-LASTING MACHINE. ARTHUR L. RUSSELL, Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 29, 1912. Serial No. 680,575. (Cl. 12—2.)

1. An organized machine having in combination, a heel seat tacker, a heel seat former, a shoe holder upon which the shoe can be prepared for the heel seat lasting operation, and means for retaining the parts of the shoe in said prepared condition, said machine being constructed and arranged to hold the shoe while being prepared out of the fields of operation of the former and the tacker and said holder and retaining means being movable to carry the shoe so prepared first into the field of operation of the heel seat former and then into the field of operation of the heel seat tacker.

2. An organized machine having, in combination, a heel seat tacker, a heel seat former, a shoe holder, and means for tensioning the upper about the heel end of the last forwardly and maintaining it under tension; said holder, tensioning means, and the shoe, and the heel seat former being relatively movable into operative relation for the heel seat forming operation, and said holder, tensioning means and shoe and the tacker being relatively movable into operative relation for the heel seat tacking operation to be performed, said tensioning means being arranged with reference to the holder to maintain the upper under tension during both said operations.

3. An organized machine having, in combination, a heel seat tacker, a heel seat former, a shoe holder, and means to effect and maintain tension of the upper about the heel end of the last, said holder and tensioning means being

movable together from upper tensioning position to operative relations to the former and to the tacker for the purposes described.

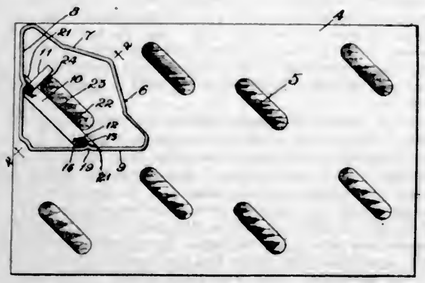


4. An organized machine having, in combination, a heel seat tacker, a heel seat former, a shoe holder, and a gripper mounted on the holder and arranged to pull the upper forwardly and maintain it under tension about the edge of the heel seat; said holder and gripper being movable to carry the shoe into position to be operated upon by the heel seat former and then with the upper still under tension into operative relation to the tacker.

5. An organized machine having, in combination, a heel seat tacker, a heel seat former, a shoe holder, means to tighten the upper forwardly about the heel end of the last, and means to clamp the upper so tightened about the edge of the heel seat; said holder, former and tacker being relatively movable into operative relations for the seat forming and seat tacking operations, and said clamping means being arranged to retain its hold upon the upper during both said operations.

[Claims 6 to 81 not printed in the Gazette.]

1,132,979. CENTERING MEANS FOR ENVELOP-BLANK-CUTTING DIES. ERNEST W. SAUERMAN, Chicago, Ill., assignor to Transo Paper Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 16, 1914. Serial No. 812,561. (Cl. 33—174.)



1. A die for cutting blanks for window envelops comprising a die portion, centering means within the confines of the die portion for centering the die with respect to the window of the blank and a mounting for said centering means permitting it to shift in accordance with the movements of the die through the work, substantially as described.

2. A die for cutting blanks for window envelops comprising a die portion, centering means with the confines of the die portion for centering the die with respect to the window, a mounting for said centering means permitting said means to shift in accordance with the movement of the die through the work and tension means for normally maintaining the centering means at the bottom of the die, substantially as described.

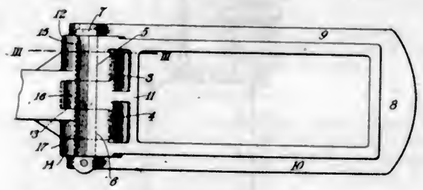
3. A die for cutting blanks for window envelops comprising a die portion, a centering means within the confines of the die portion, for centering the die with respect to the window, a mounting for said centering means permitting it to shift in accordance with the movements of the die through the work and means for adjustably holding said mounting, substantially as described.

4. A die for cutting blanks for window envelops comprising a die portion, a centering means within the confines of the die portion for centering the die with respect to the window, a mounting for the centering means permitting it to slide up and down within the die, substantially as described.

5. A die for cutting blanks for window envelops comprising a die portion, a centering means within the confines of the die portion for centering the die with respect to the window, a mounting for the centering means permitting it to slide up and down within the die, and tension means for normally maintaining the centering means at the bottom of the die, substantially as described.

[Claim 6 not printed in the Gazette.]

1,132,980. COUPLING SHANK AND YOKE CONNECTION. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to National Malleable Castings Company, Cleveland, Ohio. Filed Nov. 26, 1912. Serial No. 733,582. (Cl. 213—42.)



1. In a device of the character described, a yoke strap, a slot between the ends of said strap adapted to receive a coupler extension, an I-shaped brace joining the limbs of said strap, and adapted to engage the coupler extension.

2. A coupler yoke adapted for insertion between the draft sills of a car and comprising an upper and a lower arm, an integral cross piece connecting the rear ends of the arms, and an integral cross piece connecting the arms near their forward ends, flaring reinforcing walls integral with the forward cross piece and with the upper and the lower arms, the said forward ends of the arms and the walls of the forward cross piece comprising a pocket for reception of a bifurcated coupler liner block, an abutment intermediate the forward ends of the arms, integral with the walls of the pocket and the forward cross piece, the said abutment being adapted to seat in the bifurcation of the liner block, and a pivot pin adapted to seat in apertures in the forward ends of the arms, the coupler liner block and the abutment whereby the pivot pin is maintained in quadruple shear.

3. A coupler comprising an upper and a lower arm of T-shape in cross section, an integral cross piece of T-shape in cross section connecting the rear ends of the arms, and an integral cross piece connecting the arms near their forward ends, flaring reinforcing walls integral with the forward cross piece and with the upper and the lower arms, the said forward ends of the arms and the walls of the forward cross piece comprising a pocket for reception of a bifurcated coupler liner block, an abutment intermediate the forward ends of the arms, integral with the walls of the pocket and the forward cross piece, the said abutment being adapted to seat in the bifurcation of the liner block, and a pivot pin adapted to seat in apertures in the forward ends of the arms, the coupler liner block and the abutment, whereby the pivot pin is maintained in quadruple shear.

1,132,981. ADVERTISING DEVICE. HENRY W. SEITER, New York, N. Y. Filed Nov. 20, 1914. Serial No. 873,133. (Cl. 46—40.)



1. An advertising device comprising two sections, a former adjacent the abutting edges of said sections, and flexible material connecting the sections and inclosing the former.

2. An advertising device comprising two sections, flexible material connecting the sections and extending over a portion of one of the sections, and a former on said last-named section, said flexible material extending over the former and being shirred.

3. An advertising device comprising a figure comprising an upper and lower section having abutting ends, a flexible material secured to the lower part of the upper section at the rear thereof, and extending forwardly to the upper part of the lower section at the front thereof and secured thereto, and extending downwardly a distance to form a girdle, and a former underneath the flexible material on the lower section.

4. An advertising device comprising a figure comprising an upper and lower section having abutting ends, a flexible material secured to the lower part of the upper section at the rear thereof, and extending forwardly to the upper part of the lower section and secured thereto and extending downwardly a distance to form a girdle, a fastening member secured to the rear of the upper section, a fastening member secured to the rear of the lower section, and a former underneath the flexible material, said fastening members securing the flexible material to the sections.

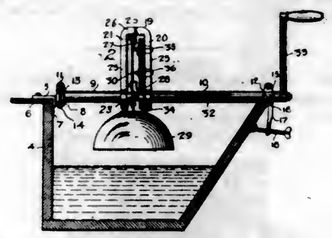
5. As a new article of manufacture, a figure consisting of two sections flexibly connected together, said sections being formed of stiffening material, the connection between the sections being formed of flexible material, and a former arranged within the flexible material.

[Claims 6 and 7 not printed in the Gazette.]

1,132,982. CLOTHES-WASHER. LEMUEL W. SERRELL, Plainfield, N. J. Filed Feb. 12, 1914. Serial No. 818,188. (Cl. 68—19.)

1. A clothes-washer, comprising a stationary support having suitable means of attachment to a tub, a pneumatic cup, parallel arms pivoted on said stationary support and carrying said cup always in vertical position, and means for moving said parallel arms back and forth past the vertical so as to move said cup back and forth in an arcuate path downward, across and upward, thereby dragging the clothes alternately from side to side of the tub.

2. In a clothes-washer, the combination of a support, parallel arms mounted thereon to swing about horizontal axes, a pneumatic cup member carried by said arms, and means for oscillating said arms back and forth past the vertical so as to cause the cup member to oscillate in an arcuate path downward, across and upward, so as to drag the clothes alternately from side to side at each stroke.



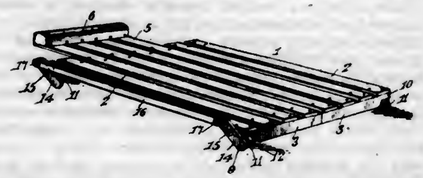
3. In a clothes-washer, the combination of a pair of parallel swinging arms, a plunger carried thereby and bearing a pneumatic cup, and means for oscillating said arms back and forth past the vertical so as to cause the cup to oscillate in an arcuate path downward, across and upward whereby said arms are compelled to move at all times in unison.

4. In a clothes-washer, the combination of a two-part bar adapted to span the top of a tub and having means of attachment thereto at its outer ends, a two-part frame, the members of which are secured to the inner ends of the parts of said bar, said frame comprising spaced base members having meeting portions at their ends and uprights rising from said base members and having meeting portions at their tops, parallel arms disposed within said frame and pivotally mounted on one of the parts thereof, gearing connecting said arms to swing in unison, a vacuum cup member carried by said arms, and suitable mechanism for operating said arms to swing said cup member downward and upward from one side to the other of the vertical center line.

5. In a clothes-washer attachment for tubs, the combination of a sectional bar adapted to span the tub and having means of attachment thereto at its ends, a frame intermediate of the sections of the bar, parallel arms mounted on said frame, a plunger and cup carried by said arms, and mechanism for swinging said arms back and forth so as to carry said cup downward, across and up from side to side alternately.

[Claims 6 and 7 not printed in the Gazette.]

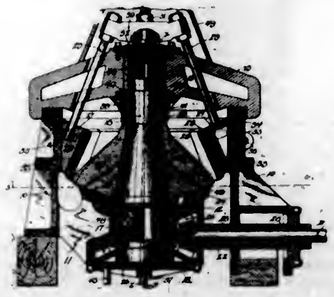
1,132,983. AUTOMOBILE REPAIR-TRUCK. WILLIAM SHUEY, Wellsburg, W. Va. Filed Oct. 19, 1912. Serial No. 726,775. (Cl. 5—9.)



1. A foldable truck of the class described comprising a body composed of longitudinal slats, and transverse connecting bars secured to said slats and divided at the center to form two sections, said bars being provided at opposite sides of the body with reduced ends having recesses, the recesses at one side of the body being located in alinement with the reduced ends of the opposite side, hinges connecting the aforesaid sections, and casters mounted on the reduced ends of the said transverse bars and arranged to extend into the said recess when the body is folded.

2. A truck of the class described including a body, wheels located beneath the corners of the body and supporting the same, and a locking device arranged at the side of the body and composed of levers pivoted at a point intermediate of the ends to the same and having lower portions forming legs and adapted to project below the adjacent wheels to elevate the body, and a longitudinal operating bar pivotally connected to the upper portions of the levers for simultaneously swinging the same.

1,132,984. GYRATORY CRUSHER. THOMAS L. SMITH, Milwaukee, Wis. Filed July 22, 1912. Serial No. 710,912. (Cl. 83—10.)



1. A crusher, comprising a suitably journaled rotary crusher shaft, an eccentric on the crusher shaft, a crusher head surrounding the eccentric and fitting thereon, a bearing on which the crusher head is seated and supporting the weight and the downward stress thereof, and a crusher ring surrounding the crusher head.

2. A crusher, comprising a suitably journaled rotary crusher shaft, a conical eccentric thereon, a crusher head surrounding and fitting upon the eccentric, a bearing on which the crusher head is seated and supporting the weight and the downward stress thereof, and a crusher ring surrounding the crusher head.

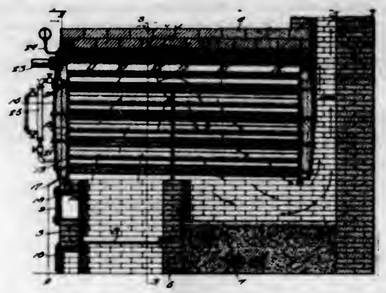
3. A crusher, comprising a suitably journaled rotary crusher shaft, a conical eccentric thereon, a crusher head surrounding and fitting upon the eccentric, a spherical bearing support for the crusher head on which the crusher head is seated and supporting the weight and the downward stress thereof having as its center the point of intersection of the axis of the eccentric with the axis of rotation of the crusher shaft, and a crusher ring surrounding the crusher head.

4. A crusher, comprising a suitably journaled rotary crusher shaft, a conical eccentric thereon, a conical crusher head surrounding and fitting upon the eccentric, a spherical bearing support on which the bottom of the crusher head is seated and supporting the weight and the downward stress thereof, the gyratory motion of the crusher head due to the turning of the eccentric within it resembling the motion of a pivotally suspended crusher head, and a crusher ring surrounding the crusher head and having its inner crushing surface conical to form with the crushing surface of the crushing head an annular crushing space of gradually diminishing width and increasing diameter.

5. A crusher, comprising a suitably journaled vertical rotary crusher shaft having a central opening therethrough, an eccentric on the crusher shaft, a crusher head surrounding and fitting upon the eccentric, a bearing support for the crusher head, a crusher ring surrounding the crusher head, and means for supplying lubricant under pressure through the interior of the crusher shaft and out of the upper end of the same to flow over the bearings of the crusher shaft and the bearings of the crusher head.

[Claims 6 to 16 not printed in the Gazette.]

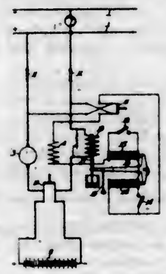
1,132,985. STEAM-BOILER. HERBERT A. TUBBS, Portland, Mich. Filed Sept. 26, 1912. Serial No. 722,503. (Cl. 122—263.)



1. In a heating apparatus of the character described, a furnace including a bridge wall, a boiler having oppositely disposed boiler heads comprising an inner substantially flat sheet and an outer curved sheet having at its periphery an offset flange engaging directly the inner flat sheet and detachably connected thereto, said inner sheets having tube openings therein, water tubes having their opposite ends held within said openings, stay bolts passing through said tubes and water heads, and secured to the outer face of the water heads, a relatively large steam tube projecting between the water heads substantially midway of the sides thereof, and a relatively small steam tube at opposite sides of the first mentioned steam tube and connecting with the water heads at its respective ends.

2. A boiler including oppositely disposed water heads, each comprising an outer plate having an outwardly directed securing flange, and an apertured inner plate secured to the flange of the outer plate, said plates located opposite one another, bolts to detachably secure said plates of the heads together, tubes having their ends fitted into said apertures, threaded stay rods extending through said tubes and heads, and nuts to secure said stay rods, as and in the manner set forth.

1,132,986. SYSTEM OF CHARGING AND DISCHARGING STORAGE BATTERIES DURING FORMING PROCESS. WILLIAM A. TURBAYNE, Buffalo, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, a Corporation of New York, trustee. Filed Nov. 29, 1911. Serial No. 663,155. (Cl. 171—314.)



1. A regulating system for use in forming storage battery electrodes, comprising a constant voltage source, a dynamo electric machine provided with an armature adapted to be connected in series between said source and said battery electrodes, said dynamo electric machine having a variable field, and means for reversing the connections of said dynamo electric machine at will whereby said dynamo electric machine may act as a motor transforming the excess E. M. F. of said source into useful mechanical energy during the initial forming stages, and whereby said dynamo electric machine may act as a booster assisting said source or the C. E. M. F. of said battery electrodes during subsequent forming stages.

2. A system of electrical distribution for causing a uniform rate of charge and discharge of storage battery elements while undergoing the forming process, comprising a constant voltage source of supply, a dynamo electric machine with its armature connected in series with said source and its field connected across said source, mechanical connections adapted to drive said armature or to be driven thereby, and a reversing switch for said field whereby said dynamo electric machine may be caused to operate as a motor, transforming the excess E. M. F. of the supply line into useful energy when said elements are being charged and the C. E. M. F. thereof is low, and whereby said dynamo electric machine may be caused to operate as a booster assisting the voltage of said source to maintain the predetermined charging rate as said C. E. M. F. rises, or as a booster assisting said C. E. M. F. to maintain the predetermined discharge rate as the C. E. M. F. of said battery falls.

3. In combination, supply mains, a plurality of batteries connected across said mains to subject the elements thereof to the forming process, a booster in circuit with each of said batteries, a motor connected across said mains and mechanically connected to all of said boosters to drive the same, and means for reversing the polarity of any booster field, whereby any booster may run as a motor and restore energy to the system during certain stages of said forming process.

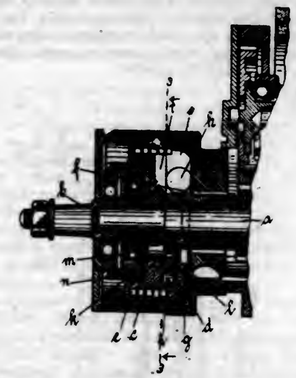
4. In a system of electrical distribution adapted for the process of forming battery elements, a supply circuit, a plurality of batteries connected across said circuit, a booster in series with each of said batteries, a common motor connected across said circuit for driving all of said boosters, means for reversing the polarity of each booster field, whereby when the C. E. M. F. of any battery is low, as in the initial stage of the forming process, the corresponding booster may be run as a bucker opposing the voltage of the supply circuit to hold down the charging current to a predetermined value, and whereby when the batteries approach a fully charged condition said field may be reversed to permit the booster to assist in maintaining the charging rate against the rising C. E. M. F. of the battery, and whereby, when it is desired to discharge said battery back into the system, said field is again reversed, causing the booster voltage to be added to that of the battery.

5. A system of regulation for charging and discharging operations in the forming process for battery elements, comprising supply mains, a battery connected across said mains, a booster provided with a shunt field connected in series between said battery and said mains, a variable resistance in series with the shunt field of said booster, a reversing switch operable at will for reversing the polarity of said field, and a regulating winding connected in series with said battery for regulating the booster voltage in accordance with variations in the battery voltage, whereby the battery charging current is maintained substantially constant.

[Claims 6 to 16 not printed in the Gazette.]

1,132,987. IGNITION APPARATUS FOR STARTING INTERNAL-COMBUSTION ENGINES. GUSTAV UNTERBERG, Durlach, Germany. Filed Mar. 26, 1912. Serial No. 686,272. (Cl. 123—149.)

1. In an electromagnetic ignition apparatus, the combination of an armature and a driving member, a spring arranged between the armature and its driving member and connected therewith, and a device moving under centrifugal force adapted to lock the armature to the casing when said device is in innermost position but to leave it free at high speeds; with a spring pressed pin on the driving member adapted to lock same to the armature after a certain relative rotation, said driving member having a slot to permit release of the locking device after this rotation has occurred.



2. In a magneto electric ignition apparatus, the combination with a casing, of a driving member and a driven member having a radial slot, a device in said slot adapted to lock said driven member to the casing when in its innermost position, means for placing the driving member under torque with relation to the driven member, and means carried by the driving member adapted to inter lock with the driven member and to be unlocked therefrom.

3. In a magneto electric ignition apparatus, the combination with a casing, of a driving member and a driven member having a radial slot, a ball in said slot adapted to lock said driven member to the casing when in its innermost position, a spring between said driven and driving members adapted to place them under torque with relation to each other and means carried by the driving member adapted to interlock with the driven member and to be unlocked therefrom.

4. In a magneto electric ignition apparatus, the combination with a casing, of a driving member and a driven member having a radial slot, a device in said slot adapted to lock said driven member to the casing in its innermost position, a spring between said driving and driven members adapted to place them under torque with relation to each other, and a spring-pressed pin carried by the driving member and adapted to interlock with said driven member and to be unlocked therefrom.

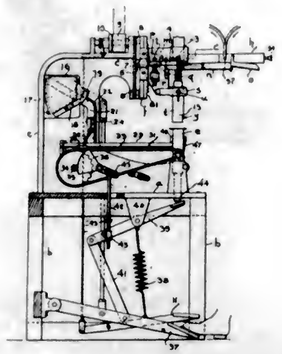
5. In a magneto electric ignition apparatus, the combination with a casing, of a driven member having a circumferential slot, a driving member having a lug thereon engaging said slot, a second radial slot in said driven member, a device in said slot adapted to interlock with a lug on said casing, a spring between said driven and driving members adapted to place said members under torque when said driven member is locked to said casing, and means carried by said driving member adapted to interlock with said driven member after a certain relative movement of said member and adapted to be unlocked therefrom.

1,132,988. RIVETING-MACHINE. CEYLON L. WADE, Detroit, Mich. Filed July 3, 1914. Serial No. 848,735. (Cl. 78—48.)

1. In a riveting machine, the combination of a stationary head, a movable head, means for causing the movable head to have relative movement with respect to the stationary head, the said movable head comprising a barrel, a spring for forcing the barrel downward with respect to the other parts of the head and a spindle within said barrel.

2. In a riveting machine, the combination of a stationary head, a traveling head, and means for causing the traveling head to move relatively with respect to the sta-

tionary head, the said traveling head comprising, among other parts, a barrel in slidable relation with other parts of the head, a spring for forcing the barrel yieldingly downward with respect to the other parts, a sleeve contained within the barrel, a spindle within the sleeve, a block slidable into the lower portion of the sleeve and provided with a tool having positive means for engagement with the end of the spindle.



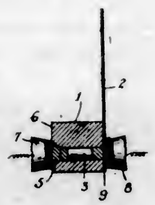
3. In a riveting machine, the combination of a spindle provided with a squared portion, a gear wheel for driving the said spindle in rotation, having a squared opening through which passes the squared portion of the spindle in slidable relation, and a guide or sleeve for the spindle and a block provided with a drill slidable into the lower end of the sleeve to detachably connect the drill in the block with the spindle, said spindle being slidable vertically to act as a hammer when the drill is detached.

4. In a riveting machine, the combination of a stationary head, a movable head, a rack on the stationary head, a gear wheel on the movable head, and means for rotating the gear wheel so it will travel upon the rack, said head being provided with a barrel yieldingly forced downward with respect to the other parts of the head, and a spindle suitably guided within said barrel.

5. In a riveting machine, the combination of a stationary head, a movable head guided thereupon, a rack upon the stationary head, a gear wheel upon the movable head, and means for rotating the gear wheel upon the rack, the said head being provided with a barrel yieldingly pressed downward with respect to the other parts of the head, a rotatable spindle located in said barrel, and flexible driving connections between said spindle and the stationary head.

[Claims 6 to 14 not printed in the Gazette.]

1,132,989. WELDING. EMERY L. WALKER, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed June 17, 1914. Serial No. 845,549. (Cl. 219—10.)

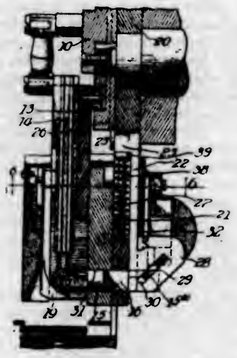


1. The process of welding consisting in passing through a member of non-conducting, vibration-absorbing material, which it is desired to secure to a metallic plate, conducting metallic rods of a length at least equal to the thickness of said member, placing said member in contact with a metallic plate with the adjacent ends of said rods in contact with the plate, and passing a welding current through said plate and rods while pressing the same together with a suitable welding pressure, to weld the same together, reduce the length of said rods, and secure said member to said plate with a close contact, substantially as set forth.

2. The process of welding consisting in passing through a wooden strip conducting metallic rods of a length somewhat greater than the thickness of said strip, said rods having enlarged portions at one end adapted to be seated, when the welding is complete, in corresponding recesses in one face of said strip, placing said strip in contact with a metallic plate with the ends opposite to said enlarged ends of the said rods in contact with the plate and passing a welding current through said plate and rods while pressing the same together with a suitable welding pressure, to weld the same together and cause close contact of said plate and wooden strip, substantially as set forth.

3. As a new article of manufacture, a metallic plate having a wooden strip secured thereto by metallic rods extending through said strip, said rods being welded at one end to the plate, and having enlarged portions at their opposite ends seated in corresponding recesses in the strip on the face thereof opposite to said plate, said plate and strip being in close contact, substantially as set forth.

1,132,990. STAPLING-MACHINE. HENRY WEBER, Chicago, Ill., assignor to Latham Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed May 7, 1914. Serial No. 836,856. (Cl. 1—7.)



1. In a stapling machine having an anvil and a driver, the combination of means independent of the driver for moving the anvil comprising a reciprocating link having slots obliquely positioned with relation to the anvil, an extension upon the anvil overlapping said slots, and a link block engaging and movable in said slots and fixed to said extension.

2. In a stapling machine having an anvil and a driver, the combination of means independent of the driver for moving the anvil comprising a link mounted in the machine for vertical reciprocation, a bearing in the machine in which the anvil is mounted for horizontal reciprocation, said link having slots obliquely positioned with respect to the line of desired movement of the anvil, a rearward extension upon the anvil overlapping said slots, and a link block engaging and movable in said slots and fixed to said extension.

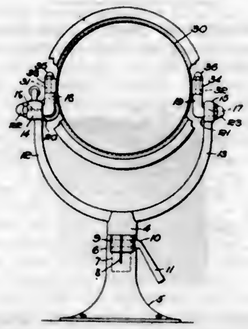
3. In a stapling machine, the combination of a frame therefor, a vertically extending channel in said frame, an anvil movably mounted in the frame, a link movably positioned for vertical reciprocation in said channel, bifurcated at its lower end, and having oblique slots registering with each other formed in the bifurcations, an extension upon the anvil movable between the bifurcations of the link, a link block engaging and movable in said slots and fixed to said extension, a spring member upon which said link is suspended and normally maintaining the link adjacent the upper end of said channel, and a rotating cam adapted to contact with the link and move it downwardly in said channel against the pressure of the spring member.

4. The combination with a stapling head, including a former and a driver, and means for imparting a reciprocatory movement thereto, of an anvil movable across the path of movement of the driver and former aforesaid, and a connection between the means for operating the driver and former and said anvil, comprising a link having oblique slots therein for coöperation with the anvil aforesaid.

5. The combination with a stapling head, including a driver and a former and a cam for imparting a reciprocatory movement thereto, of an anvil mounted for reciprocation across the paths of movement of said driver and said former, and a link operable by said cam, and provided with oblique slots in its lower terminal for engagement with the outer end of said anvil.

[Claims 6 to 8 not printed in the Gazette.]

1,132,991. LAMP-SUPPORTING DECK-BRACKET. ALEXANDER H. WELKER, Berlin, Ontario, Canada, assignor to The Hawthorne Manufacturing Company, Inc., Bridgeport, Conn., a Corporation of Connecticut. Filed June 13, 1912. Serial No. 703,580. (Cl. 240—67.)



The combination with a lamp-support having trunnion-bearings, of a pair of L-shaped trunnion-members provided with laterally projecting trunnions swiveled in said trunnion-bearings and provided with studs disposed in the same vertical plane with said trunnion members, a lamp provided with lugs to receive said studs, and a grasping handle secured to one of said trunnion-members, between said lamp and the adjacent trunnion bearing.

1,132,992. DYNAMO-ELECTRIC MACHINE. JAMES J. WOOD, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed July 1, 1912. Serial No. 706,853. (Cl. 171—209.)

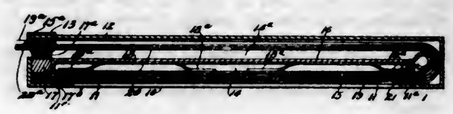


1. In a dynamo electric machine, a field magnet structure consisting of only two parts, each part consisting of a central pole piece and tongues and grooves at the ends, said central pole pieces and said tongues being integral, said parts fitting together to form a complete magnetic circuit, the tongues of one part fitting into the grooves of the other part, field coils surrounding said tongues, and a continuous casing fitting about the outer periphery of said field magnet structure to hold the parts thereof together.

2. In a dynamo electric machine, a field magnet structure consisting of only two parts, each part consisting of members having a central pole-shaped portion and long and short projections at the ends, said central pole shaped portions and said projections being integral, said members being reversely placed so as to form tongues and grooves, said parts fitting together to form a complete magnetic circuit, the tongues of one part fitting into the grooves of the other part, field coils surrounding said projections, and a continuous casing fitting about the outer periphery of said field magnet structure to hold the parts thereof together.

3. In a dynamo electric machine, a field magnet structure consisting of only two parts, each part consisting of laminations and rivets fastening said laminations forming each part together, said parts fitting together to form a complete magnetic circuit, field coils for said magnetic structure, a continuous casing fitting about the outer periphery of said field magnet structure to hold the parts thereof together, end members, and bolts screwed into said rivets for fastening said end members to said field magnet structure.

1,132,993. PHOTOGRAPHIC-FILM PACKAGE. HORACE WYMAN, Worcester, Mass. Filed Apr. 14, 1914. Serial No. 831,759. (Cl. 95—22.)



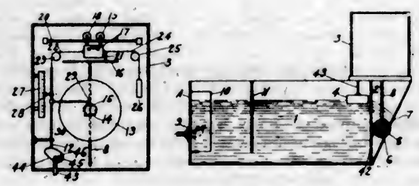
1. A photographic film package having an exposure chamber for unexposed films provided with an exposure opening in its face, and a storage chamber for exposed films communicating therewith at one end and provided with a tab exit passage at its opposite end, a series of films located in said storage chamber, each of said films being provided with a backing terminating in a manipulating tab, said tabs extending through said storage chamber and the exit passage therefrom, a safety sheet for closing the exposure opening of said storage chamber, said sheet being provided with a flexible manipulating tab extending through storage chamber and said tab exit passage; means located in said tab exit passage to separate said safety sheet tab from said film backing tabs and to hold said safety sheet when drawn into said storage chamber separated from said film backing tabs and in a flat position against the back of said storage chamber.

2. A photographic film package having an exposure chamber for unexposed films provided with an exposure opening in its face, and a storage chamber for exposed films communicating therewith at one end and provided with a tab exit passage at its opposite end, a series of films located in said storage chamber, each of said films being provided with a backing terminating in a manipulating tab, said tabs extending through said storage chamber and the exit passage therefrom, a safety sheet for closing the exposure opening of said storage chamber, said sheet being provided with a flexible manipulating tab extending through said storage chamber and said tab exit passage; a plate lying loosely in the rear of the exposure chamber and having formed in its edges a series of outwardly extending flat film follower springs, said springs acting in direct contact with the inner film backing to hold the outer film in close contact with the flanges of the exposure opening.

3. A photographic film package having an exposure chamber for unexposed films provided with an exposure opening in its face, and a storage chamber for exposed films communicating therewith at one end and provided with a tab exit passage at its opposite end, a series of films located in said storage chamber, each of said films being provided with a backing terminating in a manipulating tab, said tabs extending through said storage chamber and the exit passage therefrom, a safety sheet for closing the exposure opening of said storage chamber, said sheet being provided with a flexible manipulating tab extending through said storage chamber and said tab exit passage; a movable transverse light excluding member, provided at its top and bottom sides with resilient material, said member acting against the under side of the manipulating tab, through the resiliency of the material on its sides, thereby retaining said tabs in close contact with each other under the inner side of the package back or guide, substantially as shown and described.

4. A photographic film package having an exposure chamber for unexposed films, provided with an exposure opening in its face, and a storage chamber for exposed films communicating therewith at one end and provided with a tab exit passage at its opposite end, a series of films located in said storage chamber, each of said films being provided with a backing terminating in a manipulating tab, said tabs extending through said storage chamber and the exit passage therefrom, a safety sheet for closing the exposure opening of said storage chamber, said sheet being provided with a flexible manipulating tab extending through said storage chamber and said tab exit passage: a light excluding strip or bar provided in the exposure chamber a having connected thereto a manipulating tab, normally in a recess above the spring plate and under the springs cut from the plate, said tab passing through the storage chamber and the tab exit from said storage chamber, said tab being used to draw the light excluding bar within the communicating opening between the exposure and storage chambers after the series of films have been drawn within the storage chamber after exposure, thereby excluding the light at this point when the package is removed from the camera, substantially as shown and described.

1,132,994. LIQUID-METER. HARLEY C. ALGER, Chicago Heights, Ill. Filed Apr. 13, 1914. Serial No. 831,504. (Cl. 73—167.)

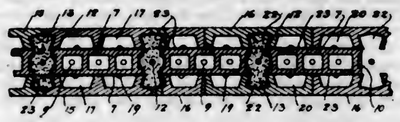


1. In a liquid meter, means for registering the flow of liquid, clockwork for operating the registering means, means driven by the liquid for winding the clockwork and means for causing the driven means to cease the winding operation when the clock work is wound the desired amount.

2. In a liquid meter, registering mechanism, means for storing energy for operating the registering mechanism and movably mounted mechanism driven by the liquid for supplying energy to the storing means.

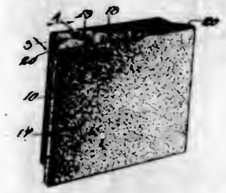
3. In a liquid meter, registering mechanism, means for storing energy for operating the registering mechanism, means driven by the liquid for supplying energy to the storing means and means for causing the driven means to automatically cease its operation when the storing means has stored the desired amount of energy.

1,132,995. WALL FOR BUILDINGS AND THE LIKE. STEPHEN J. ANDERSON, Harvey, Ill. Filed June 29, 1914. Serial No. 847,898. (Cl. 72—30.)



In a wall, the combination with a plurality of tiers of blocks, one of said tiers consisting of superimposed blocks arranged in spaced apart piers, said blocks having pockets in their ends adjacent to said spaces, another of said tiers consisting of superimposed blocks arranged in horizontal rows one above another and located along side the first named tier, each block of one of the horizontal rows of the last named tier having in each of its ends a dove-tailed pocket adapted to register with a similar pocket in the adjacent end of the next block thereto and with the space between the spaced apart piers, and each of the blocks composing the row next above said first named row having centrally a dove-tailed pocket, the last named blocks being arranged so as to break the joints of the blocks of the first named row and so as to locate their dove-tailed pockets directly above the dove-tailed pockets of the blocks of the first named row.

1,132,996. COMPOSITE BLOCK. STEPHEN J. ANDERSON, Harvey, Ill. Filed Sept. 30, 1914. Serial No. 864,277. (Cl. 72—35.)



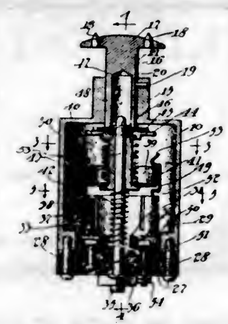
1. A composite block consisting of a hollow block and finishing material applied to one face and to one end thereof, a portion of said material applied to the end of the block being extended into the cavity thereof and provided with an opening having the inner faces of walls thereof downwardly and outwardly inclined.

2. A composite block consisting of a hollow block having its cavity divided into compartments and finishing material applied to one face and to one end of the block, a portion of said material applied to the end of the block being extended into each of said compartments and each of said extended portions provided with an opening having the inner faces of walls thereof downwardly and outwardly inclined, that portion of the material applied to the face of the block having at each of its side edges a lateral extension.

1,132,997. SWITCH. VINCENT G. APPLE, Dayton, Ohio, assignor to the Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed June 8, 1914. Serial No. 843,758. (Cl. 175—284.)

1. In a switch the combination of a base part; a post, secured therein; switch blades, carried by said base; a switch member, slidable upon the post and adapted to engage with said switch blades; means, normally tending to move said switch member into engagement with said blades; means, normally holding said switch member from engagement with the blades and means carried by said post for releasing said holding means.

2. In a switch the combination of a base; a post, carried thereby; switch blades, carried by the insulating base; a switch member, slidable on the post and adapted to engage with said blades; a disk, slidable upon said post above the switch member, a spring interposed between the disk and switch member; means, for normally holding said switch member out of engagement with the switch blades; and a longitudinally movable plunger, for potentiating said spring and subseqnently releasing said holding means.



3. In a switch the combination of a base; a post, carried thereby; a switch blade, carried by the base; a switch member, slidable on said post; means, normally holding the switch member out of engagement with the switch blade; a spring, adapted to move said switch member into engagement with the switch blade; and longitudinally movable means, for potentiating said spring and subsequently releasing said holding means.

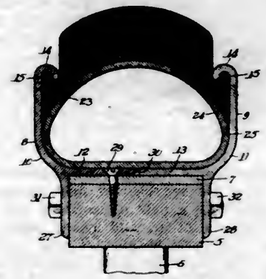
4. In a switch the combination of a base; a post, carried thereby; a switch blade, carried by the base; a switch member, slidable upon said post; a disk, carried by said post above the switch member; a spring, interposed between the two; means, normally holding said switch member out of engagement with the switch blade; a casing, for said switch member; a plunger, slidable therein and adapted to engage said disk; and means, operable by said disk for releasing said holding means.

5. In a switch the combination of a casing; a base, therein; a post, carried by said base; switch blades, carried by said base; a switch member, slidable upon said post; a switch operating plunger, slidable within the casing; a disk, carried by the outer end of said post; a spring, interposed between said disk and switch member; normally operating means, for holding said switch member out of engagement with the switch blades; and means, operated by the inward movement of said plunger for potentiating said spring and subsequently releasing said holding means.

[Claims 6 to 8 not printed in the Gazette.]

1,132,998. PNEUMATIC TIRE. FOREST BAIN, La Grange, Ill., assignor to Federal Rubber Manufacturing Company, Milwaukee, Wis., a Corporation. Filed Mar. 17, 1913. Serial No. 754,702. (Cl. 152—10.)

A pneumatic tire, comprising a relatively deep, metal, channel rim, having parallel side walls with their circumferential free edges inturned for engagement with a tread member; a circumferentially-extending resilient tread member, having its mid portion transversely arched, and of substantially uniform cross-section, and having laterally projecting, integral annuli, for engagement with the inturned portions of said rim, said integral annuli being widened out at their outer edges to provide large bearing surfaces against the side walls of said channel rims but of less radial depth than the parallel walls; a plurality of metallic cables disposed in the outer edges of the widened out portions of the integral annuli, and an inner pneumatic tube, which, when inflated, holds said annuli in engagement with the sides of the channel rim.



1,132,999. PIPE-HANGER. WILBUR M. BEERS, Johnsonburg, Pa. Filed May 25, 1914. Serial No. 840,890. (Cl. 248—32.)



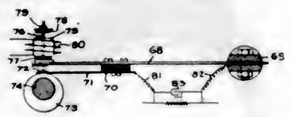
1. In a device of the character described, a stirrup comprising hinged sections having relatively long and short angular portions at their free ends adapted to swing together, the relatively long angular portion having a slot, and the relatively short angular portion having an open slot, and a latch slidably mounted within the slot of the relatively long angular portion and engageable with the said open ended slot to hold the sections closed.

2. In a device of the character described, a stirrup comprising hinged sections having relatively long and short angular portions at their free ends adapted to swing together, the relatively long angular portion having a slot, and the relatively short angular portion having an open slot, and an H-shaped latch mounted within the slot of the relatively long angular portion and engageable with the open ended slot of the relatively short angular portion.

1,133,000. REGULATING DEVICE. ANDRÉ BOURY, Paris, France, assignor to General Electric Company, a Corporation of New York. Filed July 16, 1912. Serial No. 709,813. (Cl. 171—229.)

1. In combination, a variable speed generator, and a voltage regulator for varying the field strength of said generator, comprising a pair of contacts and means for bringing the same together, said means being adapted to be driven by a movable element of said variable speed

generator and means for causing the ratio of the period of closure to that of opening of said contacts to vary inversely as the speed of the movable element of the generator.



2. In combination, a variable speed generator, and a voltage regulator for varying the field strength of said generator, comprising a pair of contacts and means for bringing the same together, said means being adapted to be driven by a movable element of said variable speed generator and said device being so arranged that the ratio of the period of closure to that of opening of said contacts will vary inversely as the speed of the movable element of the generator.

3. The combination, in a voltage regulator for varying the field strength of a variable speed generator, of a vibratory support, a spring having one end secured thereto to vibrate therewith but insulated therefrom, the other end of said spring being free to vibrate independently of the support, a contact on the free end of said spring, a coöperating contact on said support, and a cam mounted upon a shaft and adapted to bear against the free end of said spring so as to bring said contacts together and allow them to separate upon the rotation of the shaft.

4. The combination, in a voltage regulator for varying the field strength of a variable speed generator, of a main spring mounted to vibrate, a secondary spring having one end secured thereto to vibrate therewith but insulated therefrom, the other end of the latter spring being free to vibrate independently of said main spring, a contact on the free end of said secondary spring, a coöperating contact on said main spring, and a cam mounted upon a shaft and adapted to bear against the free end of said secondary spring so as to bring said contacts together and allow them to separate upon the rotation of the shaft.

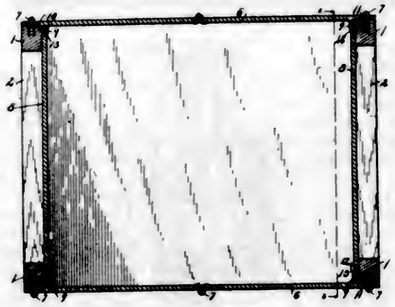
5. The combination, in a voltage regulator for varying the field strength of a variable speed generator, of a vibratory support, a spring having one end secured thereto to vibrate therewith but insulated therefrom, the other end of said spring being free to vibrate independently of the support, a contact on the free end of said spring, a cooperating contact on said support, a cam mounted up on a shaft and adapted to bear against the free end of said spring so as to bring said contacts together and allow them to separate upon the rotation of the shaft, and means for increasing the inertia of said vibratory support.

[Claims 6 to 10 not printed in the Gazette.]

1,133,001. BOX OR CRATE. HUGH BROWN, Battle Creek, Mich. Filed Mar. 10, 1913. Serial No. 753,311. (Cl. 217—12.)

1. In a knockdown box or crate, the combination of frame pieces, each frame piece having at each end a beveled shouldered joint part, adapted to engage the corresponding part on the adjacent frame piece, side wall panels secured to said frame pieces, binding wires constituting flexible connections for the walls whereby they may be extended into the flat form with the frame pieces end to end, the ends of the binding wires being provided with eyes, means for connecting the eyes at the ends of the binding wires, end wall panels having grooves in their inner sides adjacent to their vertical edges, and sheet metal slides arranged in diagonally disposed kerfs in the inner corners of the vertical frame pieces, said slides being adapted to embrace the ends and engage the grooves of the end panels.

2. In a knockdown box or crate, the combination of frame pieces, each frame piece at each end being provided with a beveled shoulder joint part adapted to engage the corresponding part on the adjacent frame piece, side wall panels secured to said frame pieces, binding wires constituting flexible connections for the walls whereby they may be extended into the flat form with the frame pieces end to end, end wall panels having grooves in their inner sides adjacent to their vertical edges and sheet metal slides arranged in diagonally disposed kerfs in the inner corners of the vertical frame pieces, said slides being adapted to embrace the ends and engage the grooves of the end panels.



3. In a knockdown box or crate, the combination of frame pieces having shouldered joints, side wall panels secured to said frame pieces, flexible connections for the walls whereby they may be extended into the flat form with the frame pieces end to end, end wall panels, and sheet metal slides arranged in diagonally disposed kerfs in the inner corners of the opposed frame pieces, said slides being adapted to embrace the ends and engage the grooves of the end panels.

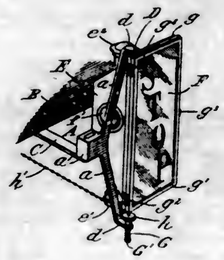
4. In a box or crate, the combination of frame pieces having shouldered joints, side wall panels secured to said frame pieces, flexible connections for the side wall panels whereby they may be extended into the flat form with the frame pieces end to end, end wall panels, and slide members arranged on opposite frame pieces and engaging said frame pieces and said end wall panels and securing said end wall panels in place whereby said end wall panels support the box or crate in erected position, all coacting substantially as described for the purpose specified.

5. In a knockdown box or crate, the combination side panels having flexible connections, frame pieces on said panels adapted to fit together to make a tight shoulder joint, end wall panels and slides arranged in kerfs in opposed frame pieces for holding said end wall panels in place, said slides being retained between the side wall panels and the edges of said end wall panels when the box is in erected position whereby said slides are securely held in place by means of the engagement of side wall panels therewith.

[Claim 6 not printed in the Gazette.]

1,133,002. SIGNALING DEVICE FOR MOTOR-VEHICLES. WILLIAM J. BURKE, New York, N. Y. Filed Dec. 28, 1908. Serial No. 469,626. (Cl. 40—77.)

In a signaling device for automobiles and the like, a supporting member adapted to be fastened to the rear part of the vehicle, a lamp casing pivotally supported in said member for rotation on a vertical axis exterior of the vertical, medial line of the casing for the purpose of allowing the casing to be shifted from one side of the medial line of vision to the opposite side thereof, a lamp in said casing, a lens and a transparent sign carried by the casing at the opposite sides thereof, means for normally retaining the casing on one side of the medial line of vision in which position the sign is concealed and the lens exposed to view rearwardly of the vehicle, whereby the lamp and lenses serve the purpose of a tail light, and means for manually swinging the casing about its axis through an arc of a circle to a position at the other side of the medial line of vision for the purpose of exposing



the sign to view rearwardly of the vehicle and hiding the lens.

1,133,003. SIGNALING DEVICE FOR MOTOR-VEHICLES. WILLIAM J. BURKE, New York, N. Y. Filed Jan. 23, 1909. Serial No. 473,800. (Cl. 40—77.)



1. In a signal device of the class described, a rotatable sign, means for supporting it for movement, on a vertical axis and in a position normally concealed from view, a spring latch operating to retain the sign in a position for concealing its face, and means operable from a distant point for releasing said latch and for swinging the sign to an exposed position.

2. In a signaling device of the class described, a rotatable member carrying a sign and a signal, means for supporting said rotatable member on a vehicle, and in a position wherein the sign is concealed, a latch coöperating directly with said rotatable member so as to retain the sign in the normally concealed position, and means for rotating the rotatable member in an arc of a circle so as to expose the sign to view rearwardly of a vehicle, said latch being released by said operating means.

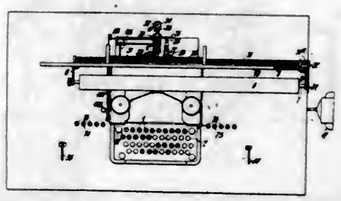
3. In a signaling device of the class described, the combination of a pivoted member provided with a sign, a pulley fast with the pivot of said member, a lever, a cable attached to said pulley and said lever, means for operating the lever, and a latch coöperating with the pivoted member and operated by the cable.

4. In a signal device of the class described, a supporting fixture adapted to be attached to a vehicle, a pivoted carrying member provided with an illuminated sign and a signal, a flexible element for operating said carrying member, a latch mounted on said fixture and coöperating with said carrying member whereby the latter is retained in a position to conceal the sign, said latch being operated by said flexible element, and means acting on the latch for holding it in the path of the pivoted carrying member.

5. In a signaling device of the class described, a rotatable member carrying a signal and a sign, means for supporting said rotatable member in a position wherein the sign is concealed from view at the rear of the vehicle, a member movable to different positions and operating a controller for the rotatable member, means connecting said movable member to the rotatable member and locking means coöperating with the rotatable member for holding it against movement when it occupies a position wherein the sign is concealed, said locking means coöperating with and adapted to be automatically released by the means connecting the movable member with the rotatable member when the former is actuated to operate the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,133,004. TYPE-WRITING MACHINE. SAMUEL E. CARLIN, Chicago, Ill., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Original application filed June 26, 1909, Serial No. 504,595. Divided and this application filed Feb. 25, 1913. Serial No. 750,514. (Cl. 197—114.)



1. The combination with a platen, of a motor for rotating said platen, a driving train connected to said motor, and driving connections between said train and said platen, said train being normally inactive and having means to render the same active comprising a drive shaft, a driven shaft, a connection between said shafts consisting of a loose mutilated gear and a fixed gear, and a clutch associated with said loose gear.

2. The combination with a platen, of a motor for rotating said platen, a driving train connected to said motor, and driving connections between said train and said platen, said train being normally inactive and having means to render the same active comprising a drive shaft, a driven shaft, a connection between said shafts consisting of a loose mutilated gear and a fixed gear, a clutch associated with said loose gear, and means for disconnecting said clutch after said mutilated gear has completed a single rotation.

3. The combination with a platen, of a motor for rotating said platen, a driving train connected to said motor, and driving connections between said train and said platen, said train being normally inactive and having means to render the same active comprising a drive shaft, a driven shaft, a connection between said shafts consisting of intermeshing fixed and loose gears, one of said gears being mutilated, and clutching means associated with said loose gear.

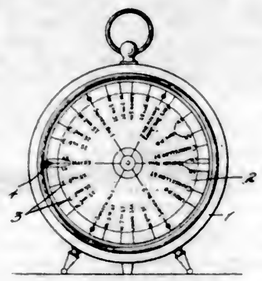
4. The combination with a platen, of a motor for rotating said platen, a driving train connected to said motor and driving connections between said train and said platen, said train being normally inactive and having means to render the same active comprising a drive shaft, a driven shaft, and a connection between said shafts consisting of intermeshing series of fixed and loose gears, the gears of one series being mutilated and each having a different number of teeth from every other one in the series, individual clutches associated with said loose gears, and selective means for determining which of said clutches shall be effective.

5. The combination with a platen, of a motor for rotating said platen, a driving train connected to said motor, and driving connections between said train and said platen, said train being normally inactive and having means to render the same active comprising a drive shaft, a driven shaft, and a connection between said shafts con-

sisting of intermeshing series of fixed and loose gears, the gears of one series being mutilated and each having a different number of teeth than every other one in the series, individual clutches associated with said loose gears, selective means for determining which of said clutches shall be effective, and disconnecting means operating after a predetermined rotation of a loose gear to disconnect the same.

[Claims 6 to 80 not printed in the Gazette.]

1,133,005. TRIP AND STATION INDICATOR. CURTIS L. CARTER, Charlottesville, Va. Filed Oct. 31, 1913. Serial No. 798,385. (Cl. 161—18.)



1. A time controlled station and trip indicator for cars, comprising a rotatable indicator or dial having the series of stops, switches and stations on the line marked thereon at predetermined intervals in accordance with the location of such stops on the line and the time required or desired to traverse the distances between any two successive stops; with clock mechanism for rotating said dial in regular time, and a stationary pointer adjacent the dial, the registry of any stop on the dial with said pointer showing the point on the line at which the car should be at that time.

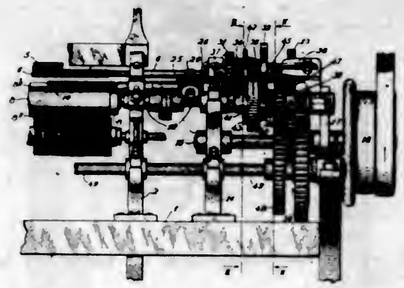
2. A time controlled car trip and station indicator, comprising a rotatable indicator disk bearing on its face designations of the stations or points along the line to be traversed by the car in regular sequence, such designations being spaced apart on the dial proportionately to their relative localities and distances apart along the line, a pointer fixed beside the dial opposite which the designations on the dial are successively brought as the dial revolves, and mechanism for rotating said dial in regular time; whereby after the dial has been properly set at the beginning of the trip the registry of any designated stop on the dial with said pointer will show whether the car is at the proper point on the line at that time and whether the car is properly traversing the line; and means whereby said dial can be adjusted so as to bring the initial or starting point indicated on the dial into register with the pointer at the beginning of the trip.

1,133,006. COMBING-MACHINE. RICHARD B. CHACE, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Dec. 20, 1910. Serial No. 598,302. (Cl. 19—6.)

1. In a cotton comber, a forwardly and backwardly rotating piecing-roll shaft, and a non-separable train of driving gearing connecting the same constantly in positively controlled relation to the drive-shaft of the comber.

2. In a cotton comber, a primary shaft, a forwardly and backwardly rotating piecing-roll shaft and a train of gearing between said shafts connecting the latter in constant positively controlled relation to the former, and comprising the combination of an epicyclic train and a form of intermittent gearing.

3. In a cotton comber, a primary shaft, a forwardly and backwardly rotating piecing-roll shaft and a train of gearing between these shafts connecting the latter in constant positively controlled relation to the former, said train of gearing comprising two intermittent gear-couples provided with means to lock the piecing-roll shaft during a period of rest between its alternate motions.

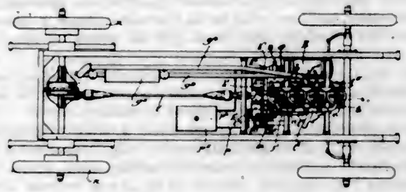


4. In a cotton comber, a primary shaft and a forwardly and backwardly rotating piecing-roll shaft, in combination with an epicyclic train connected to the latter shaft and interlocking, intermittent gearing connected in permanently geared relation to the primary shaft and epicyclic train.

5. A cotton comber comprising means for advancing the lap and means for combing, detaching and piecing the same, including a combing cylinder, piecing-rolls, a piecing-roll shaft, and a countershaft, in combination with an epicyclic train having one of its revoluble gear-elements connected to the piecing-roll shaft and a compound rotary structure including gear teeth and a stud member on the countershaft for actuating the other elements of the epicyclic train.

[Claims 6 to 24 not printed in the Gazette.]

1,133,007. INTERNAL-COMBUSTION ENGINE. EDMUND S. CHURCH, Dayton, Ohio, assignor, by mesne assignments, to Georgiana L. Church, Chicago, Ill. Filed Aug. 24, 1910. Serial No. 578,801. (Cl. 123—104.)



1. The combination with an internal combustion engine, of compression-means comprising two elements, one of said elements being operatively connected to be driven by the engine, means for conducting fluid compressed by said means to the engine, and means connecting the other element to the load to be driven, to control the compressing operation of the compression-means by the resistance of the load.

2. The combination with an internal combustion engine, of compression-means comprising two elements, one of said elements being operatively connected to be constantly driven by the engine, means for conducting fluid compressed by said compression means to the engine, means connecting the other of said elements to the load to be driven, to vary the compression of air by the compression-means, and the density of the fuel supplied to the engine correspondingly to the resistance of the load, and means for independently varying the density of the fluid supplied to the engine.

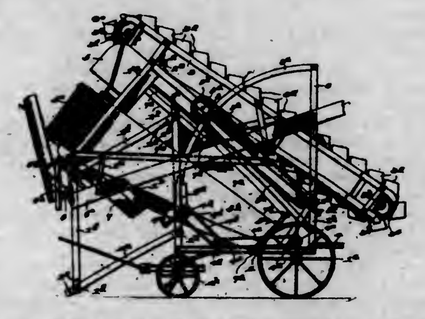
3. The combination with an internal combustion engine, of compression-means comprising two elements, one of said elements being operatively connected to be constantly driven by the engine, means for conducting fluid compressed by said elements to the engine, and means connecting the other of said elements to the load to be driven, to vary the compression operation of the compression-means, and the density of the fluid supplied to the engine correspondingly to the resistance of the load.

4. The combination with an internal combustion engine, of compression means comprising two elements, one of said elements being operatively connected to be constantly driven by the engine, means for conducting air compressed by said elements to the engine, means connecting the other of said elements to the load to be driven to vary the compression of air by the compression-means and the density of the fluid supplied to the engine correspondingly to the resistance of the load, and means for manually controlling the density of the fluid independently of the load.

5. The combination with an internal combustion engine, of compression-means comprising two elements, one of said elements being operatively connected to be constantly driven by the engine, means for conducting air compressed by said elements to the engine, means for supplying fuel to the compressed air in transit to the engine, means connecting the other of said elements to the load to be driven, to vary the compression of air by the compression-means, and the density of the fluid supplied to the engine, correspondingly to the resistance of the load, and means for independently controlling the density of the fluid supplied to the engine.

[Claims 6 to 83 not printed in the Gazette.]

1,133,008. COAL-LOADING MACHINE. FREDERIC S. CONVERSE, Binghamton, N. Y. Filed Aug. 10, 1914. Serial No. 856,023. (Cl. 193—6.)



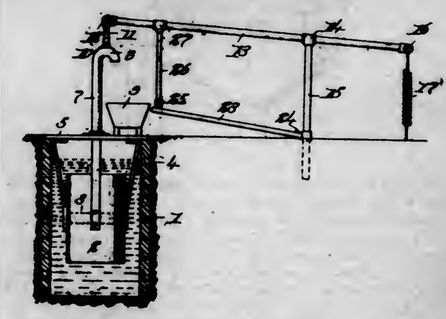
1. In a machine of the character described, the combination of a base frame having vertical uprights composed of sections pivotally connected together, arc-shaped rack bars at the sides of the frame, spur gears engaging said bars, a shaft rotatably connected with opposite uprights and carrying spur gears engaging said bars, and means for rotating said shaft so as to cause the gears to ride up or down on said racks to raise or lower the frame.

2. In a machine of the character described, the combination of a base, a frame having vertical uprights comprised of sections pivotally connected together, arc-shaped rack bars at the sides of the frame, spur gears engaging said bars, a shaft rotatably connected with opposite uprights and carrying spur gears engaging said bars, and means for rotating said shaft so as to cause the gears to ride up or down on said racks to raise or lower the frame, with a conveyer frame mounted on said main frame and adjustable therewith, and means for adjusting the lower end of said conveyer frame independently of said adjustable main frame, for the purpose specified.

3. In a machine of the character described, the combination of a base frame having vertical uprights comprised of sections pivotally connected together, arc-shaped rack bars at the sides of the frame, spur gears engaging said bars, and means for rotating said gears so as to cause them to ride up or down on said racks to raise or lower the frame.

4. In a machine of the character described, the combination of a base frame having vertical uprights comprised of sections pivotally connected together, arc-shaped rack bars at the sides of the frame, spur gears engaging said bars, means for rotating said gears so as to cause them to ride up or down on said racks to raise or lower the frame, a conveyer frame mounted on said main frame and adjustable therewith, and means for adjusting the lower end of said conveyer frame independently of said adjustable main frame.

1,133,009. PUMP. RAPHOEL COOK and OTTO LINDLEY, Cosby, Mo. Filed Apr. 15, 1914. Serial No. 832,087. (Cl. 103—5.)



In combination with a force pump; actuating means therefor including an upright comprising spaced standards, an elbow mounted on each standard, the respective elbows being arranged to open inwardly, and a connecting bar fitting the respective elbows, the latter serving as bearings therefor, said bar being oscillatable; an operating lever having connection with the bar, said bar acting as a fulcrum for the lever; lateral extensions formed on one end of the lever; a spring having connection with the extension terminals to normally maintain one end of said lever elevated; a treadle hingedly connected to the upright at its base; a connection between the lever and the free end of said treadle to normally maintain the latter in an elevated position; and a connection between the lever and the pump mechanism to actuate the latter through movement of said treadle against tension of the spring aforesaid.

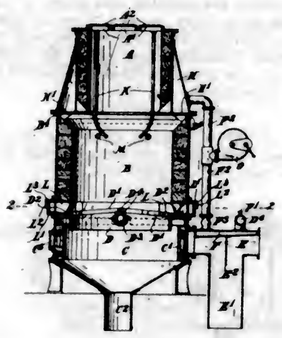
1,133,010. APPARATUS FOR GENERATING OR PRODUCING GAS. WILLIAM RUSSELL DEGENHARDT, Kalgoorlie, and WILLIAM JORDAN, Youanme, Western Australia, Australia. Filed Nov. 14, 1913. Serial No. 800,965. (Cl. 48—207.)

1. A gas generator or producer comprising in combination a generating chamber having a superimposed fuel chamber, a grate at the bottom, a gas chamber beneath the said grate, an annular air supply chamber arranged at the top of the said generating chamber and a vaporiser connected to the said annular air supply chamber substantially as described.

2. A gas generator or producer, comprising in combination a generating chamber having a superimposed fuel chamber, a grate at the bottom of said generating chamber, having fire-bars and a hollow bearer for said bars, an annular air-supply chamber arranged at the top of said generating chamber, and a water-drip vaporiser for supplying superheated steam to the air-supply for the generator, connected to said hollow bearer.

3. A gas generator or producer comprising in combina-

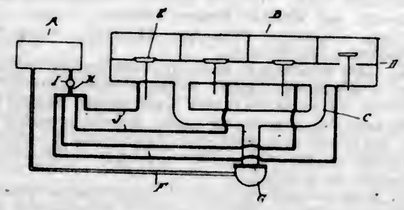
tion a generating chamber having a superimposed fuel chamber, a grate at the bottom, a gas chamber beneath the said grate, an annular air supply chamber arranged at the top of the said generating chamber, the top of said generating chamber being provided with a plurality of openings communicating with said annular air-supply chamber, and a vaporizer connected to the said annular air supply chamber substantially as described.



4. A gas generator or producer comprising in combination a generating chamber having a superimposed fuel chamber, a grate at the bottom, a gas chamber beneath the said grate, an annular air supply chamber arranged at the top of the said generating chamber, and a vaporizer connected to the said annular air supply chamber, said generating chamber having openings in its wall, and covers for said openings, and said covers having openings therein for the insertion of poking rods, substantially as described.

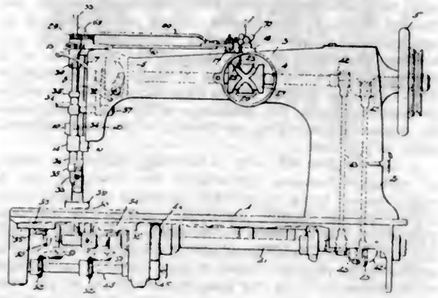
5. A gas generator or producer comprising the combination of a fuel chamber A having feed openings with covers, a generating chamber B, having openings in the sides thereof provided with covers having holes for poking rods and openings B^4 formed in the side of the chamber casing and fitted with removable plugs for the admission of air, a gas chamber C, a grate D, having a central hollow bearer D^3 for the fire bars, a seal pot E, an annular air supply chamber H arranged at the top of the generator having air inlets arranged around the same, and a vaporizer F, connected to the said hollow-bearer and annular air supply chamber, all substantially as described and as shown in the drawings.

1,133,011. PRIMING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. GEORGE W. DUNHAM, Detroit, Mich., assignor to Chalmers Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 5, 1912. Serial No. 724,116. (Cl. 123—187.5.)



The combination with a tank for liquid fuel under pressure, of a multi-cylinder engine supplied from said tank, a separate connection with said tank, a single controlling valve therefor, and valveless conduits leading from said connection beyond said controlling valve, and discharging in the valve-chests of the several cylinders immediately adjacent to each of the valve and outside the cylinders, said valveless conduits being independent of the means for normally supplying said engine.

1,133,012. OVERSEAMING SEWING-MACHINE. GEORGE M. EAMES and JOHN S. FINCH, Bridgeport, Conn., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 2, 1913. Serial No. 739,724. (Cl. 112—4.)



1. In an overseaming sewing machine, the combination with a stitch-forming mechanism including multiple loop-takers, a needle-bar reciprocated in different paths, and a needle carried by said needle-bar and coöperating with each of the loop-takers to form stitches, of means for giving to said needle oscillatory movements about the longitudinal axis of the needle-bar intermediate the different paths of reciprocation of the needle.

2. In an overseaming sewing machine, the combination with a stitch-forming mechanism including multiple loop-takers and a reciprocating needle-bar provided with a needle coöperating with each of the loop-takers to form stitches, of means including coacting gear members for giving to said needle-bar lateral and oscillatory movements intermediate the different reciprocations of the needle.

3. In an overseaming sewing machine, the combination with a stitch-forming mechanism including multiple loop-takers and a reciprocating and laterally movable needle-bar provided with a needle coöperating with each of the loop-takers to form stitches, of means for giving to said needle-bar oscillatory movements including coacting gear members, one of said gear members being controlled to meet changes in the amplitude of said lateral movements.

4. In an overseaming sewing machine, the combination with a stitch-forming mechanism including multiple loop-takers and a needle-bar provided with a concentrically mounted needle coöperating with each of the loop-takers to form stitches, of means for giving to said needle vertical, lateral and oscillatory movements including coacting gear members.

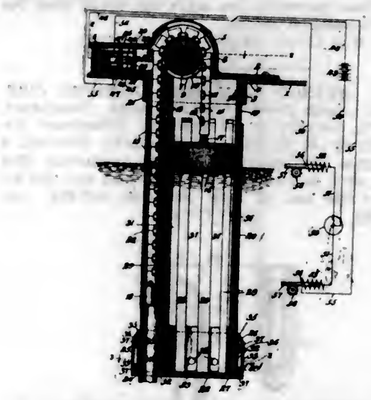
5. In an overseaming sewing machine, the combination with a stitch-forming mechanism including multiple loop-takers, and a needle-bar provided with a concentrically mounted needle coöperating with each of the loop-takers to form stitches, of means for giving to said needle vertical, lateral and oscillatory movements including a main shaft for giving to said needle its vertical movements, a cam carried by said main shaft for effecting said lateral movements, and coacting gear members for effecting said oscillatory movements.

[Claims 6 and 7 not printed in the Gazette.]

1,133,013. INDICATOR-OPERATING DEVICE FOR GASOLENE-TANKS. CLEBURNE EBERHART, Jr., Atlanta, Ga. Filed May 20, 1913. Serial No. 768,832. (Cl. 177—351.)

1. In a device for the purpose described, a float, and a guide therefor comprising two telescoping members in

interspersed slidable relation, said guide being of substantially even internal diameter through the range of movement of the float.



2. In a device for the purpose described, a float, means controlled thereby for indicating variations in level of a liquid sustaining the float, and a telescoping guide for the float of substantially even internal diameter throughout the range of movement of the float.

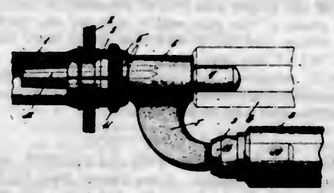
3. In a device for the purpose described, a float, and a guiding chamber therefor composed of two members in telescoping relation, and other members interior to the first-named members and in interspersed slidable relation.

4. In a device for the purpose described, two telescoping members movable one on the other in the direction of their longitudinal axes, one of said members having passages through its walls with a filtering covering, and said members having interior to the telescoping members other telescoping devices provided with interspersed fingers to present a smooth or unobstructed interior passage, and a float lodged in the unobstructed interior passage.

5. In a device for the purpose described, two cylindrical members in telescoping relation, one having a support from which it may depend and the other being related to the pendent member to slide thereon and provided with a closed end remote from the support and with passages through its walls adjacent to the closed end, filtering material traversing the passages, members interior to both telescoping members and of the like diameter and provided with oppositely directed interspersed fingers slidable one with relation to the other to present a smooth interior wall free from lateral projections, and a float movable within the space defined by the interspersed fingers.

[Claims 6 to 12 not printed in the Gazette.]

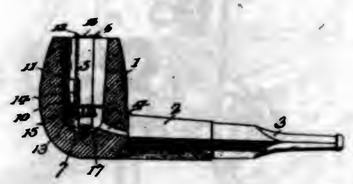
1,133,014. METHOD OF EXTRACTING MANDRELS FROM BOILER-TUBE EXPANDERS. JOHN W. FAESSLER, Moberly, Mo. Filed Oct. 9, 1912. Serial No. 724,835. (Cl. 81—3.)



1. The herein described method of extracting mandrels from boiler tube expanders, which consists in delivering a series of blows (or shocks) upon the expander-sections, and thereby bodily forcing the expander from the mandrel and simultaneously impacting the side of the mandrel with a tool separate from said mandrel.

2. The herein described method of extracting mandrels from sectional boiler tube expanders, which consists in simultaneously delivering a series of blows (or shocks) upon the expander-sections, and thereby bodily forcing all of the sections of the expander from the mandrel and simultaneously impacting the side of the mandrel with a tool separate from said mandrel.

1,133,015. TOBACCO-PIPE. JOSEPH N. PAUL FOURNIER, St. Hyacinthe, Quebec, Canada. Filed Sept. 9, 1914. Serial No. 860,959. (Cl. 131—12.)



1. In a pipe, the combination with the bowl, of a tube attached thereto extending to a point adjacent the bottom of the bowl, a tobacco supporting plate carried by said tube and adjacent the lower end thereof, and a wick extending through the tube adjacent the bottom of the bowl.

2. In a pipe, the combination with the bowl, of a perforated plate supported therein above the bottom of the bowl, a support for the same, a movable plate having projections engaging the perforations in said first plate to keep the same from clogging, and a wick tube carrying a wick extending into the bowl below the perforated plate.

3. In a pipe, the combination with the bowl, of a perforated plate supported therein above the bottom of the bowl, a support for the same, a movable plate having projections engaging the perforations in said first plate to keep the same from clogging, a wick tube carrying a wick extending into the bowl below the perforated plate, and a plate below the wick for catching the nicotin.

4. In a pipe, the combination with the bowl, of a perforated plate supported therein above the bottom of the bowl, a support for the same, a movable plate having projections engaging the perforations, in said first plate to keep the same from clogging, a wick tube carrying a wick extending into the bowl below the perforated plate, a plate below the wick for catching the nicotin, an opening in the wick tube, and a valve to cover the same to prevent a false draft.

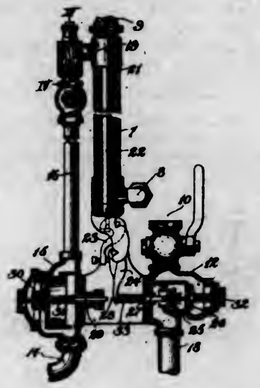
5. An attachment for smoking pipes comprising a vertical plate supported by the bowl and having a horizontal perforated plate above the bottom of the bowl, to support the tobacco, a wick tube carried by said vertical plate and carrying a wick extending into the bowl below the level of the stem opening and leading to the exterior of the bowl.

[Claims 6 and 7 not printed in the Gazette.]

1,133,016. INSTANTANEOUS WATER-HEATER. REYNOLDS C. FRAMPTON, Pittsburgh, Pa., assignor to Pittsburg Water Heater Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 12, 1908. Serial No. 457,383. (Cl. 126—351.)

1. The combination with a thermostat, of a vertical coil tube boiler having an inlet to the upper portion and an outlet from the lower portion passing to the thermostat, a service outlet from the thermostat, a communication from the thermostat to the upper portion of the boiler,

and automatic controlling means for the communication and boiler inlet arranged to permit communication between the thermostat and boiler in both directions when the outlet from the thermostat is closed and to close the communication from the boiler inlet to the thermostat when the outlet from the thermostat is opened.



2. The combination with a thermostat, of a vertical coil tube boiler having upper and lower sections and an inlet to the upper section, a connection from the lower end of the upper section to the lower end of the lower section, an outlet from the upper end of the lower section passing to the thermostat, a service outlet from the thermostat, a communication from the thermostat to the upper portion of the boiler, and automatic controlling means for the communication and boiler inlet arranged to yieldingly maintain communication between the thermostat and boiler in both directions when the outlet from the thermostat is closed and to permit a flow through the boiler inlet and close the communication from said boiler inlet to the thermostat when the outlet from the thermostat is opened.

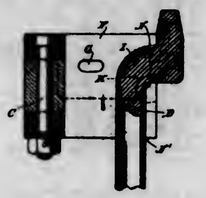
3. The combination with a thermostat, of a coil tube boiler having an inlet to the upper portion and an outlet from the lower portion passing to the thermostat, a service outlet from the thermostat, a valve casing in the said inlet, a communication from the casing to the thermostat, and a piston valve arranged to yieldingly obstruct the flow to the boiler from the said inlet and permit communication between the thermostat and boiler when the outlet from the thermostat is closed, and to be moved by the inflow to open the said inlet and close the communication therefrom to the thermostat when the outlet from the thermostat is opened.

4. The combination with a thermostat, of a coil tube boiler having an inlet to the upper portion, and an outlet from the lower portion passing to the thermostat, a service outlet from the thermostat, a communication from the thermostat to the upper portion of the boiler, and automatic controlling means for the communication and said inlet arranged to yieldingly obstruct the inlet and permit communication between the thermostat and boiler in both directions when the outlet from the thermostat is closed and to be moved by the inflow through the said inlet and close the communication therefrom to the thermostat when the outlet from the thermostat is opened.

5. In heating apparatus, the combination with a coil tube boiler provided with gas heating means, a thermostat casing having a hot water outlet leading from the apparatus, a thermostat in the casing arranged to control the flow of gas to the heating means, an outlet connection from the boiler to the casing, and a pipe for supplying water to the apparatus, of a valve casing having communicating connections with the supply pipe, the thermostat casing and the boiler provided with a valve yieldingly held with its end in position to obstruct the supply connection with the other connections in communication and arranged so as to be moved by the inflow to a position closing the connection with the thermostat casing and placing the supply pipe and connection to the boiler in free communication when the outlet from the thermostat casing is opened.

[Claims 6 to 15 not printed in the Gazette.]

1,133,017. METHOD OF MAKING U-SHAPED PIPE-BENDS. NIELS CHRISTOPHER FRANDSEN, Copenhagen, Denmark, assignor to Schmidt'sche Heissdampf Gesellschaft M. B. H., Cassel-Wilhelmshohe, Germany, a Corporation of Germany. Original application filed Apr. 5, 1912, Serial No. 688,649. Divided and this application filed Jan. 12, 1914. Serial No. 811,558. (Cl. 153—10.)



1. The improvement in the art of making U-shaped pipe bends which comprises taking a piece of straight pipe, applying axial and lateral pressure to opposite end walls thereof so as to both compress and bend the end of the pipe and simultaneously maintaining an outward pressure upon the inside of the end wall of the pipe.

2. The improvement in the art of making U-shaped pipe bends which comprises taking a piece of straight pipe, heating the end thereof, applying axial and lateral pressure to opposite end walls thereof so as to both compress and bend the end of the pipe and simultaneously maintaining an outward pressure upon the inside of the end wall of the pipe.

3. The improvement in the art of making U-shaped pipe bends which comprises taking a piece of straight pipe, cutting off said pipe so as to have an elliptical section, applying axial pressure to the wall about the circumference of the ellipse and lateral pressure to the pipe end in that plane of the pipe which includes the major axis of the ellipse so as to both compress and bend the end of the pipe and simultaneously maintaining an outward pressure upon the inside of the end wall of the pipe.

4. The improvement in the art of making U-shaped pipe bends which comprises taking a piece of straight pipe, cutting off said pipe so as to have an elliptical section, heating the end thereof, applying axial pressure to the wall about the circumference of the ellipse and lateral pressure to the pipe end in that plane of the pipe which includes the major axis of the ellipse so as to both compress and bend the end of the pipe and simultaneously maintaining an outward pressure upon the inside of the end wall of the pipe.

5. The improvement in the art of making U-shaped pipe bends which comprises taking a piece of straight pipe, cutting off said pipe so as to have an elliptical section, applying axial pressure to the wall about the circumference of the ellipse and lateral pressure to the pipe end in that plane of the pipe which includes the major axis of the ellipse and in a direction which will bend the pointed end of the pipe toward the axis of said pipe so as to both compress and bend the end of the pipe and simultaneously maintaining an outward pressure upon the inside of the end wall of the pipe.

1,133,018. RECEPTACLE FOR GARMENTS, CLOTHING, AND THE LIKE. JOHN FREID, New York, N. Y. Filed Jan. 12, 1914. Serial No. 811,546. (Cl. 206—7.)

1. A receptacle of the kind described comprising a body of flexible material, open ended trough like containers extending across said body at opposite ends to spread the same, and facing inwardly, said body material extending over the open ends of said containers under tension to seal the same and foraminated means forming the inner faces of said containers.



2. A receptacle of the kind described comprising a body of flexible material having an opening in one face, a flap for closing said opening movable about a transverse fold, coöperating fastening devices on said body and flap for receiving said flap in its closed position, open ended containers extending across said body at opposite ends of said body to spread the same, said body material extending over the opposite ends of said containers to seal the same and foraminated means forming the inner faces of said containers.

1,133,019. PROCESS OF MAKING ALLOYS. EDWARD D. GLEASON, Flatbush, N. Y., assignor to Richard H. King, Brooklyn, N. Y. Filed July 18, 1911, Serial No. 639,136. Renewed May 13, 1912. Serial No. 697,081. (Cl. 75—1.)

1. The herein described process of making a ductile alloy, which consists in heating silver to approximately its boiling point; and then adding cadmium to the molten silver, under a covering which limits the fuming of the cadmium while the two metals are being mixed.

2. The herein described process of making a ductile alloy, which consists in heating silver to approximately its boiling point; adding cadmium to the molten silver, under a covering of borax; and maintaining the molten mass in a state of agitation while the two metals are being mixed.

3. The herein described process of making a ductile alloy, which consists in heating silver to approximately its boiling point; and, adding cadmium to the molten silver, in the proportion of 55% of silver and 45% of cadmium.

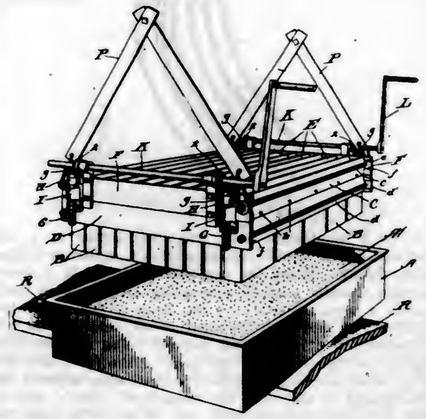
4. The herein described process of making a ductile alloy, which consists in heating silver to approximately its boiling point; then adding cadmium to the molten silver, under a covering of fluxing medium; and, maintaining the molten mass in a state of agitation while the two metals are being mixed.

5. A ductile alloy containing 55% of silver and 45% of cadmium.

[Claim 6 not printed in the Gazette.]

1,133,020. APPARATUS FOR FORMING MOLDS. FREDERICK C. GOODWIN, Louisville, Ky., assignor to Modern Construction Company, Louisville, Ky., a Corporation of Kentucky. Filed Sept. 6, 1912. Serial No. 718,908. (Cl. 18—39.)

1. In apparatus for forming paraffin molds to be used in the manufacture of concrete bricks and the like, the combination with a container for soft paraffin, of a plurality of cores spaced apart and adapted to be simultaneously inserted into and simultaneously withdrawn from the paraffin mass in the container, cooling means in the cores for hardening the mass around and between the cores while they are in the container, and means movable toward and away from the container and adapted to remain in contact with the outer edge of the hardened mass when the cores are withdrawn therefrom leaving said mass in the container in the form of a multiple cavity mold for the purpose specified.



2. In apparatus for forming paraffin molds to be used in the manufacture of concrete bricks and the like, the combination with a container for soft paraffin, said container having a substantially flat internal bottom surface, of a plurality of cores spaced apart and adapted to be inserted into and withdrawn from the paraffin mass in the container, the mass filling the spaces between said cores when the same are inserted into it, and means arranged in said cores for changing the temperature thereof to cause the mass around and between them to harden and form said mass into an integral multiple cavity mold, the adjacent cavities of which have common separating walls.

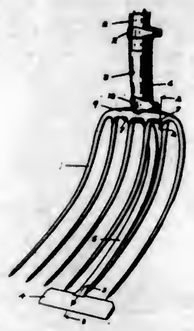
3. In apparatus for forming paraffin molds to be used in the manufacture of concrete bricks and the like, the combination with a container for soft paraffin, of a frame having a series of strips arranged side by sade, a plurality of cores suspended between and spaced apart by said strips, a lower frame also having a series of strips extending between said cores, means for moving the cores and both frames together toward the container for pressing the cores into the paraffin mass therein, and means for moving the cores and upper frame away from the container while the lower frame is retained in contact with the outer edge of the mass, and cooling means in the cores for hardening the mass when aid cores are pressed into the same.

4. The combination with a frame having a series of flexible strips arranged side by side and provided with openings in their vertical faces, of a plurality of cores having pins engaging said openings, for suspending said cores between said strips, said pins being removable from said openings when the flexible strips are forcibly spread apart.

5. The combination with a frame having a series of strips arranged side by side, of a plurality of cores suspended between each pair of adjacent strips, and separators mounted on the cores and extending between them to contact with the outer surface of adjacent cores for positively spacing the cores apart along the strips, at the same time leaving said cores separate and independent of one another.

[Claims 6 and 7 not printed in the Gazette.]

1,133,021. HARVESTING TOOL OR IMPLEMENT. WILLIAM E. GUNN, Ferry, Mich. Filed July 30, 1914. Serial No. 854,039. (Cl. 55—2.)



1. In a hand implement, the combination of a fork provided with a handle having a ferrule, a narrow cutting blade disposed below the ends of the tines in a spaced relation thereto, a blade supporting arm disposed below and in a spaced relation to the tines, a T-shaped clamp member for said arm disposed below said ferrule, the cross portion of the clamp member being shouldered to engage the under side of the head of the fork, said arm being offset downwardly from the said clamp member and constituting a shoe for the implement, and a pair of clips for said clamp member, one of the clips being disposed to embrace said ferrule close to the head of the fork and the other handle above the ferrule.

2. In a hand implement, the combination of a fork provided with a handle, a narrow cutting blade disposed below the ends of the tines in a spaced relation thereto, a blade supporting arm disposed below and in a spaced relation to the tines, and an attaching member for said arm disposed below said handle and shouldered to engage the under side of the head of the fork, said arm being offset downwardly from the said clamp member.

3. In a hand implement, the combination of a fork provided with a handle, a cutting blade disposed below the tines and in a spaced relation thereto, a blade supporting arm disposed below and in a spaced relation to the tines, and a clamp for detachably securing said arm to said handle.

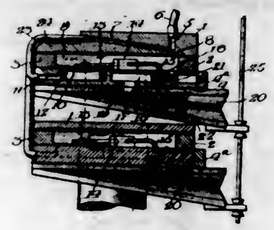
4. In a hand implement, the combination of a fork, a handle, the tines of the fork being disposed so that there is a central space alined with the handle between the inner pair of tines, a cutting blade disposed below the ends of the tines and in a spaced relation thereto, and a blade supporting arm disposed below said central space and in spaced relation to the tines and substantially parallel therewith, said arm being rigidly connected to the handle.

5. In a hand implement, the combination of a fork, a handle, a cutting blade disposed below the tines and in spaced relation thereto, and a blade supporting arm disposed below and in a spaced relation to the tines and substantially parallel therewith, said arm being rigidly connected to the handle.

[Claims 6 and 7 not printed in the Gazette.]

1,133,022. MECHANICAL MUSICAL INSTRUMENT. ADOLPH P. GUSTAFSON, Chicago, Ill., assignor to M. Schulz Co., Chicago, Ill. Filed Dec. 13, 1910. Serial No. 597,069. (Cl. 84—178.)

1. In apparatus of the class described in combination, a striking pneumatic, a wind way connected to said pneumatic provided with an air port and a suction port, a valve for closing said ports alternately, and a rod pivotally mounted and engaging at one end an operating diaphragm, the end of said rod opposite said diaphragm being bent so as to extend through said suction port, said valve being pivotally connected to said rod.



2. In apparatus of the class specified, a valve rod having a valve at one end, and having at its other end formed into a coil or spiral and a diaphragm to which said coil or spiral is secured.

3. An action of the class specified comprising upper and lower members 1 and 4, intermediate side members 2 and 3, said members forming a wind way 9, the upper member being provided with tracker board ducts or passages 7—7, and the lower member being provided with pouch chambers 10 below the wind way 9 and also with pouch ducts 11, connections between the passages 7—7 and 11—11, pivotally mounted valve rods or arms 13, extending crosswise of said wind way 9, pouches 12 between the pouch chambers 10 and the wind way 9, said pouches being attached to the arms 13 and valves 16 carried by the other ends of said arms 13, said valves controlling ports.

4. An action of the class specified, comprising upper and lower longitudinally extending members and intermediate strips separating said members and forming a wind chamber 9 between the same, the lower member having a series of diaphragm chambers 10, and also a longitudinally extending wind passage 17, diaphragms in said diaphragm chambers, valve rods arranged in the wind chamber 9, and attached to said diaphragms, valves 16 arranged in the wind chamber 17 and carried by said valve rods, openings or ports above and below said valves, through the upper ones of which the valve rods extend, and openings from the chamber 17 for communication with power pneumatics.

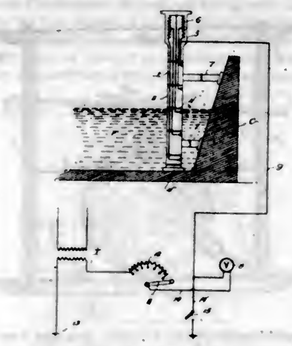
5. An action of the class specified, comprising upper and lower members, intermediate strips separating said members and forming a wind way 9 between the same, pouch chambers 10, and a longitudinally extending wind passage 17 in the lower member, valve rods supported on the lower member and attached to diaphragms covering said pouch chambers, valves carried by said valve rods and arranged in the wind passage 17, and ports opening from the passage 17 for communication with power pneumatics.

[Claims 6 to 20 not printed in the Gazette.]

1,133,023. FLUID-LEVEL INDICATOR. MORTIMER M. HART and RALPH W. CARPENTER, Weiser, Idaho. Filed Feb. 27, 1914. Serial No. 821,610. (Cl. 177—351.)

1. In a fluid level indicator, the combination with a fluid body, of a column therein comprising a plurality of sections insulated one from another, a resistance coil having the turns thereof connected with said sections and diminishing in number as the height of the sections increase, and a measuring instrument connected in circuit with said resistance coil and the body of fluid whereby as the water level rises and falls the measuring instrument will be actuated to indicate the height of the fluid.

2. In a fluid level indicator, the combination with a fluid body, of a column therein comprising a plurality of sections insulated one from another, a resistance coil having the turns thereof connected with said sections and diminishing in number as the height of the sections increase, a measuring instrument connected in circuit with said resistance coil and the body of fluid whereby as the water level rises and falls the measuring instrument will be actuated to indicate the height of the fluid, and means for short circuiting said resistance coil and testing said instrument.



3. In a fluid level indicator, the combination with a fluid body, of a column therein comprising a plurality of sections insulated one from another, a cap closing the upper end of said column, a resistance coil carried by said cap within the latter and having the turns thereof connected with said sections and diminishing in number as the height of the sections increase, and a measuring instrument connected in circuit with said resistance coil and the body of fluid whereby as the water level rises and falls the instrument will be actuated to give the level of the fluid.

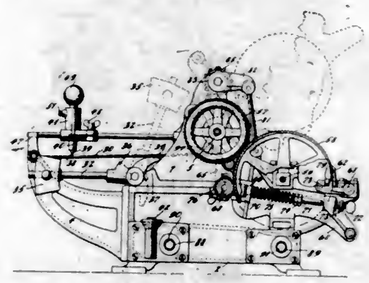
4. In a fluid level indicator, the combination with a fluid body, of a column therein comprising a plurality of sections, couplings connecting the meeting ends of the sections, means insulating the sections one from another, a cap carried by the upper end of said column, a resistance coil within said cap and having the turns thereof connected with said sections and diminishing in number as the height of the sections increase, and a measuring instrument connected in circuit with said resistance coil and the body of fluid.

5. In a fluid level indicator, the combination with a fluid body, of a column therein comprising a plurality of sections, couplings connecting the meeting ends of the sections, means insulating the sections one from another, a cap carried by the upper end of said column, a resistance coil within said cap and having the turns thereof connected with said sections and diminishing in number as the height of the sections increase, a measuring instrument connected in circuit with said resistance coil and the body of fluid, a transformer having the secondary winding thereof connected in circuit with said instrument and resistance sections and the primary winding connected in circuit with a source of supply, and means for compensating for any variation in voltage in said secondary winding.

1,133,024. SHEET-COATING MACHINE. EDGAR MARVIN HAWKINS, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed July 29, 1911. Serial No. 641,246. (Cl. 101—39.)

1. In a machine of the character described, the combination of power-operated means for feeding a sheet to the machine, actuating means for said feeding means, means for exerting feed pressure between said feeding means and a sheet to be fed to the machine, an idler device, means to transfer the feed pressure from said feeding means to the idler device, and mechanical stopping means automatically operative when the pressure is thus transferred to disconnect the actuating means from said feeding means.

2. In a machine of the character described, the combination of a power-operated feed device having a portion of its feed surface movable in a path that does not intersect the path of travel of the sheet being fed, means for exerting feed pressure between said feed device and the sheet to be fed, an idler device to which the feed pressure is transferred when said portion of the feed device is adjacent the sheet, actuating means for said feed device, and automatically operable means for disconnecting the actuating means from said feed device and stopping the latter when the pressure is thus transferred to the idler device.



3. In a machine of the character described, a power-operated feed roll having a portion of its periphery movable in an arc that does not intersect the path of travel of the sheet being fed, means for exerting feed pressure between said feed roll and the sheet to be fed, an idler device to which the feed pressure is transferred when said portion of the feed roll is adjacent the sheet, actuating means for said feed roll, and means for automatically disconnecting the actuating means from said feed roll and stopping the latter when the pressure is thus transferred to the idler device.

4. In a machine of the character described, the combination with a sheet-holder, of a power-operated feed device for feeding a sheet to the machine, pressure means for exerting the feed pressure between the feed device and a sheet on said sheet-holder, an idler roll normally stationary with rspect to the feed device, and means for transferring feed pressure from the feed device to said idler roll at a predetermined point in the feed of the sheet.

5. In a machine of the character described, the combination with a sheet-holder, of a power-operated feed-roll for feeding a sheet to the machine, pressure means for exerting pressure between the feed-roll and a sheet carried by said sheet-holder, an idler roll, normally stationary with respect to the feed roll, and means for transferring feed pressure from the feed-roll to said idler-roll at a predetermined point in the feed of the sheet.

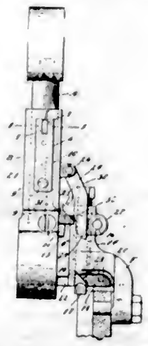
[Claims 6 to 28 not printed in the Gazette.]

1,133,025. SAFETY OPERATING MECHANISM. EDGAR M. HAWKINS, Rochester, N. Y., assignor to M. D. Knowlton Company, Rochester, N. Y., a Corporation of New York. Filed July 15, 1914. Serial No. 851,069. (Cl. 164—107.)

1. Safety operating mechanism for machines of the kind described, comprising a pitman having relatively movable and yieldable parts, a pivoted element mounted in the interior of one of said parts, and means automatically operative near the end of the stroke of the pitman to shift said element to render said parts rigid and non-yieldable for the remainder of the stroke.

2. Safety operating mechanism for machines of the kind described, comprising a pitman having relatively movable and yieldable parts, a pivoted dog mounted in the interior of one of said parts, and means automatically operative near the end of the stroke of the pitman to shift said dog to render said parts rigid and non-yieldable for the remainder of the stroke.

3. In a machine of the kind described, the combination with the actuating means and the work-performing means, of normally yieldable connections between the same comprising relatively movable parts, a pivoted bell-crank lever associated with said parts and adapted to serve as a direct connection between the same, and means operative just prior to the engagement of the work by the work-performing means and operable directly on one arm of the bell-crank lever to shift the same to render said connections rigid and non-yieldable until after the work is operated upon.

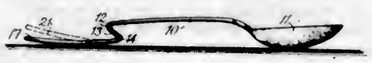


4. Safety operating mechanism for machines of the kind described, comprising a pitman having relatively movable and yieldable parts, a pivoted element mounted in the interior of one of said parts, and yielding means automatically operative near the end of the stroke of the pitman to shift said element to render said parts rigid and non-yieldable for the remainder of the stroke.

5. Safety operating mechanism for machines of the kind described, comprising a pitman having relatively movable and yielding parts, a pivoted dog carried by one of said parts, the other part having a recess adapted to accommodate a portion of the dog if the parts are moved relative to each other, and means operative near the end of the stroke of the pitman to shift the position of the dog out of alinement with said recess to prevent relative movement of said parts.

[Claims 6 to 16 not printed in the Gazette.]

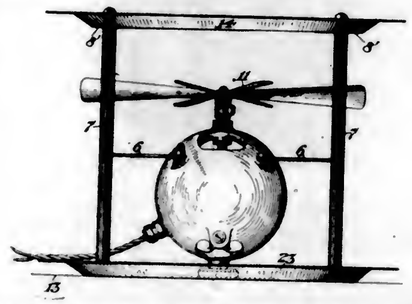
1,133,026. SPOON AND FORK CONSTRUCTION. GUSTAV HEIDELBERG, New York, N. Y. Filed Jan. 24, 1914. Serial No. 814,102. (Cl. 30—22.)



An article of tableware consisting of a one-piece structure comprising a concave bowl, a shank extending backward from the rear edge thereof, a downturned hook at the outer end of said shank forming an acute angle therewith, and a handle proper extending rearward from the lower end of said hook at an acute angle thereto and forming a rest substantially in the plane of said bowl, said shank forming an elevated bridge between said bowl and handle adapted to serve as a grip when the spoon is in horizontal position.

1,133,027. VENTILATING APPARATUS AND METHOD. PETER COOPER HEWITT, New York, N. Y. Filed Sept. 25, 1907, Serial No. 394,484. Renewed Feb. 12, 1915. Serial No. 7,798. (Cl. 230—1.)

1. The combination with a motor fan, base plate, and tray of means for holding said base plate and tray in approximately parallel relation at a distance apart not less than the diameter of said fan, and means for supporting said motor fan between said tray and said plate with its axis substantially concentric with said tray and with the propeller of the fan arranged with its forced draft side nearer to the tray than to the base plate.



2. The combination with a motor fan and two trays of means for holding said trays in approximately parallel relation at a distance apart not less than the diameter of said fan, and means for supporting said motor fan between said trays with its axis substantially concentric with said trays and with its propeller distant from the deflecting tray on the forced draft side about one-half as far as its distance from the tray on the induced draft side.

3. A combined table utensil and ventilating apparatus, comprising a tray, supports secured thereto, adapted to hold the tray at a distance from the table approximately equal to the diameter of said tray, in combination with a motor fan of diameter slightly less than said tray, arranged beneath the same and parallel therewith, spring supports extending from the fan motor case to said tray supports, and elastic supporting means for steadying the lower end of said motor case.

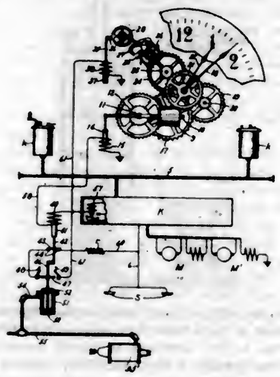
4. A portable device for ventilating tables and the like, comprising a base plate, a deflecting plate disposed above the base plate, an upwardly directed motor fan of slightly less diameter than the deflecting plate disposed between said base plate and deflecting plate, and supports disposed around the fan and connecting the base plate and deflecting plate.

1,133,028. COASTING-REGISTERING MECHANISM FOR ELECTRIC CARS. GEORGE H. HILL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 1, 1910. Serial No. 574,996. (Cl. 161—15.)

1. In a mechanism for timing the coasting of electric cars, a time registering mechanism, a circuit through which said mechanism is started and stopped electrically, a switch mechanism for controlling said circuit, latching means for holding said switch mechanism in registering position, electromagnetically operated means actuated from the car controller when the same is thrown on for moving said switch mechanism to the registering position and latching it there, and means actuated from the brake mechanism of the car for moving said switch mechanism to the non-registering position when the brakes are applied.

2. In a mechanism for timing the coasting of electric cars, a time registering mechanism, a circuit through which said mechanism is started and stopped electrically, a normally open switch mechanism for controlling said circuit, latching means for holding said switch mechanism in closed position, electromagnetically operated means actuated from the car controller when the same is thrown on for moving said switch mechanism to closed position and latching it there, and means actuated from the brake mechanism of the car for moving said switch mechanism to its open position when the brakes are applied.

3. In a mechanism for timing the coasting of electric cars, a time registering mechanism, a circuit through which said mechanism is started and stopped electrically, a normally open switch mechanism controlling said circuit, latching means for holding said switch mechanism in closed position, a magnet energised from the car controller when the same is thrown on for moving said switch mechanism to the closed position and latching it there, and a pneumatically operated piston actuated from the brake mechanism of the car for moving said switch mechanism to its off position when the brakes are applied.



4. In a mechanism for timing the coasting of electric cars, a time registering mechanism, a circuit through which said mechanism is started and stopped electrically, a normally open switch mechanism for controlling said circuit comprising two movable elements, a magnet energised from the car controller when the same is thrown on arranged to move both elements of said switch mechanism, latch mechanism for holding one element in the position to which it is moved by said magnet, a connection between the elements of the switch mechanism such that independent movement of one with reference to the other is permitted in one direction to effect closing of the switch when said magnet is deënergized, and a piston actuated from the brake mechanism of the car for moving said latched element to its original position and thereby opening said switch.

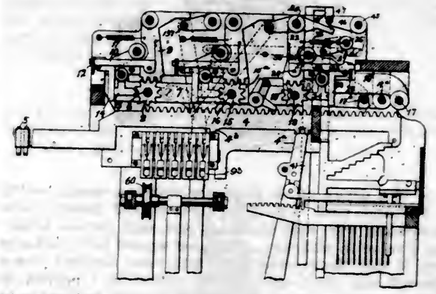
5. In a mechanism for timing the coasting of electric cars, a time registering mechanism, a circuit through which said mechanism is started and stopped electrically, a normally closed switch in said circuit, a magnet energised from the car controller for opening said switch when the controller is in an on position, another switch in said circuit closed by said first mentioned switch in opening, latching means for holding said second mentioned switch closed after said first mentioned switch has closed, and a pneumatically operated piston actuated from the brake mechanism of the car for opening the second mentioned switch when the brakes are applied.

[Claims 6 to 10 not printed in the Gazette.]

1,133,029. COMPUTING AND WRITING MACHINE. WILLIAM W. HOPKINS, St. Louis, Mo., assignor, by mesne assignments, to the Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 28, 1905. Serial No. 276,064. (Cl. 235—60.)

1. In a calculating machine, the combination of wheels capable of rotation in one direction to represent a number in the nature of a minuend, racks coöperating with said wheels, means for operating said racks, and means representing a number in the nature of a subtrahend, which latter means is placed in control of said wheels, through the medium of said racks, to rotate said wheels in the opposite direction whereby they represent the remainder.

2. In a calculating machine, the combination of wheels capable of rotation in one direction to represent a number in the nature of a minuend, racks coöperating with said wheels, means for operating said racks, means for controlling the excursions of said racks so that they may be moved to a position to represent a number in the nature of a subtrahend, and means for controlling the engagement and disengagement between the wheels and the racks, whereby said wheels may be reversely rotated so as to represent a remainder.



3. In a computing machine, the combination with adding mechanism and racks for operating the same, of subtracting mechanism separate from the adding mechanism, consisting of a series of wheels adapted to be operated by the racks, and means whereby when any wheel is moved backward beyond its idle position the wheel in the next higher order will be moved backward one step; substantially as described.

4. In a computing machine, the combination with racks and means for moving them, and adding mechanism arranged to operate to represent numbers and to add when the racks move in one direction, of wheels separate from the adding mechanism, means for causing the racks to operate said wheels when the racks move toward idle position as required to adjust said wheels to represent a number, and means for causing said racks to operate said wheels whereby said wheels can be adjusted to represent any desired less number without clearing the previous number therefrom; substantially as described.

5. In a calculating machine, the combination of wheels capable of rotation in one direction to represent a number in the nature of a minuend, racks coöperating with said wheels, means for operating said racks, digit keys and their controlled stops which normally control the excursions of said racks, and means representing a number in the nature of a subtrahend, which latter means is placed in control of said wheels independently of any digit key operation, through the medium of said racks, to rotate said wheels in the opposite direction whereby they represent the remainder.

[Claims 6 to 60 not printed in the Gazette.]

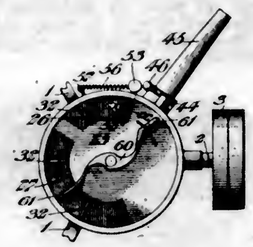
1,133,030. SAUSAGE-STUFFER. CHARLES W. HOFFMANN, Philadelphia, Pa., assignor of one-half to August H. E. Juergens, Philadelphia, Pa. Filed Feb. 26, 1914. Serial No. 821,118. (Cl. 17—6.)

1. In a device of the character stated, a casing having a discharge port therefrom, feed blades mounted to revolve within said casing, means to impart a partial rotation to said blades during their travel, and means to revolve said blades.

2. In a device of the character stated, a casing having a discharge port therefrom, devices within said casing to form a feed channel communicating with said discharge port, feed blades mounted to pass through said channel, means to impart a partial rotation to said feed blades during their travel, and means to revolve said feed blades.

3. In a device of the character stated, a casing having a discharge port, a plurality of feed blades rotatably

mounted within said casing, means to simultaneously rotate said feed blades, and means to cause said feed blades to travel at predetermined periods in a substantially upright position, and during other periods, in a path at an angle to their upright position.



4. In a device of the character stated, a casing having a discharge port, devices to form a feed channel communicating with said discharge port, said devices including a valve in said channel located beyond said discharge port to vary the pressure under which the material passes through said discharge port by permitting a portion of said material to return to said feed channel, and means to feed the material in said casing through said channel and said discharge port.

5. In a device of the character stated, a casing having a discharge port, means to feed the material in said casing to said discharge port, and devices including a valve located beyond said discharge port to cause said material to pass through said discharge port, under a predetermined pressure by permitting a portion of said material to feed into said casing beyond said discharge port.

[Claims 6 to 11 not printed in the Gazette.]

1,133,031. TREATING INSOLUBLE INDIGOID DYES. RUDOLF HUTZLER, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Sept. 26, 1913. Serial No. 791,949. (Cl. 8—1.)

1. The process of producing indigoid coloring matters in a colloidal form soluble in water by passing air through a cold solution of a leuco compound of one of the said coloring matters in the presence of sulfite cellulose waste liquor the air being passed so slowly through the solution that an oxidation to the coloring matter is effected, but a separation of the coloring matter is avoided.

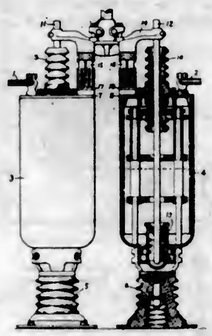
2. The process of producing indigo in a colloidal form soluble in water by passing air through a cold solution of a leuco compound of indigo in the presence of sulfite cellulose waste liquor the air being passed so slowly through the solution that an oxidation to indigo is effected, but a separation of the indigo from the solution is avoided.

1,133,032. OIL-SWITCH. ERNEST H. JACOBS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 18, 1913. Serial No. 774,406. (Cl. 175—282.)

1. In an electric switch, the combination of a vessel containing oil and having a high resistance portion, contacts adapted when in engagement to close a low resistance circuit in parallel with said portion of said vessel, and means for automatically including said portion of said vessel in said circuit as said main contacts are separated.

2. An electric switch comprising, a vessel containing oil and having a high resistance portion, main contacts for closing a low resistance circuit around said oil vessel, and auxiliary contacts connected in series with said high resistance portion and mounted to separate in said vessel after said main contacts move out of engagement.

3. In an electric switch, the combination of a metallic vessel containing oil and comprising high resistance in thermal relation to the oil, main contacts arranged to close a low resistance circuit around said oil vessel, and auxiliary contacts in series with said high resistance, mounted to separate within said vessel and operatively related to said main contacts to remain in engagement after said main contacts are separated, whereby said high resistance is automatically included in circuit with said auxiliary contacts upon disengagement of said main contacts.

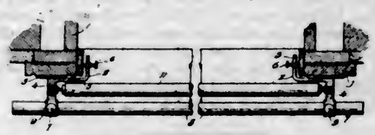


4. An electric switch comprising, a metallic oil vessel of high resistance, a fixed main contact connected to one end of said vessel, a line terminal in direct connection with said fixed main contact, a fixed auxiliary contact connected to said vessel within and at the other end thereof, and movable main and auxiliary contacts coöperating with said fixed main and auxiliary contacts and operatively related to cause said auxiliary contacts to remain in engagement after said main contacts are separated.

5. An electric switch comprising, a high resistance vessel containing oil, relatively movable coöperating main contacts, one of said main contacts being connected to said vessel at one point, a line terminal in direct connection with said main contacts, relatively movable coöperating auxiliary contacts mounted to separate in said vessel, one of said auxiliary contacts being connected to said vessel at another point to include a part of said vessel in series with said auxiliary contacts, and actuating means for operating said main and auxiliary contacts in sequence to automatically include said part of said vessel in series with said auxiliary contacts as the switch opens.

[Claims 6 to 12 not printed in the Gazette.]

1,133,033. COMBINED SHADE-ROLLER AND CURTAIN-POLE SUPPORT. JACOB JARVEY, Billings, Mont. Filed Apr. 21, 1914. Serial No. 833,462. (Cl. 156—24.)



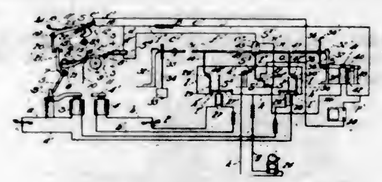
1. In a curtain pole and shade roller support, the combination with the curtain pole, of a pair of brackets adjustably longitudinally upon said pole, means locking said brackets in the desired adjusted position, the pole serving as a means whereby the brackets are held immovable relatively to each other, an extension upon each bracket engageable with the respective adjacent longitudinal faces of the window frame, and means upon said extensions engageable with the said frame to lock the support immovable relatively thereto, as and for the purpose set forth.

2. In a combined curtain pole and shade roller support, the combination with the curtain pole, of a pair of brackets adjustable longitudinally upon said pole, means locking said brackets in the desired adjusted position, said pole serving as a means whereby the brackets are held immovable relatively to each other, and means carried by each bracket, said means being engageable with the window frame to lock the support immovable relatively thereto, as and for the purpose set forth.

3. In a combined curtain pole and shade roller support, the combination with the said pole, of a pair of brackets adjustable longitudinally upon said pole, means locking said brackets in the desired adjusted position, the said pole serving as a means whereby the brackets are held immovable relatively to each other, a base plate forming a part of each bracket, said base plate being engageable with the window frame, an extension integral with each bracket, said extensions being bent intermediate their ends to overlap the adjacent longitudinal edges of the window frame, and means adjustable relatively to said extensions and engageable with the said window frame to lock the support immovable relatively thereto, as and for the purpose set forth.

4. In combination with a curtain pole, supporting brackets therefor engageable with the outer face of the window frame, each bracket being adjustable longitudinally relatively to the pole, means locking the brackets immovable relatively to each other and to the pole subsequent to adjustment, an extension formed upon each bracket, the respective extensions being engageable with the adjacent lateral faces of the window frame, and means adjustable relatively to each extension, said means being engageable with the window frame to lock the brackets immovable relatively thereto.

1,133,034. SELECTIVE SIGNAL-TRANSMITTING APPARATUS. HOWARD JOSLYN and CHESTER L. LYNCH, Seattle, Wash. Filed Aug. 4, 1909. Serial No. 511,247. (Cl. 177—333.)



1. A combination with a series of signal circuits and a signal indicating instrument, of means whereby said indicating instrument is made operative for a signal through an extended closure of a signal circuit, said means causing the other of said circuits to be inoperative with respect to said indicating instrument.

2. In combination with a series of signal originating circuits and a signal indicating instrument, of means whereby said indicating instrument is made operative for a signal through an extended closure of a signal originating circuit, said means causing the other of said signal originating circuits to be inoperative with respect to said indicating instrument.

3. In a system of electrical communications, a plurality of signal originating circuits each embracing a magnet and a movable element which is adapted to be influenced by the respective magnet, an electric signal indicating instrument, a secondary circuit embracing said instrument, said secondary circuit being controlled by each of said movable elements, a means actuated by an extended initial action of any one of said signal originating circuits for causing the aforesaid movable elements of the other circuits to become inoperable and non-interfering with respect to a signal being transmitted through the secondary circuit.

4. In a system of electrical communications, a plurality of signal originating circuits each embracing a magnet and a movable element which is influenced thereby, a locking device for each of said movable elements, electrically controlled mechanical means made operative by a preliminary long continued variation of current conditions in any of the signal originating circuits for controlling the actions of the locking devices to cause all of the elements except that which is influenced by the actuating originating circuit to become inoperative.

5. In a system of electrical communication, a cam, means tending to rotate said cam, electrically controlled means for arresting the movements of the cam, circuit closures controlled by the cam, a plurality of electrically operated switches, and means having coincident movements with the cam and operated by the first named means for causing all but one of said switches to become temporarily inoperative.

[Claims 6 to 12 not printed in the Gazette.]

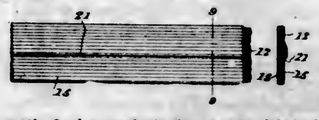
1,133,035. BROOM. HENRY W. JEVNE, Edgar Springs, Mo. Filed Nov. 6, 1913. Serial No. 799,603. (Cl. 15—20.)



1. A cleaning device comprising a handle, carrying elements extending from said handle, a clamping element positioned between said carrying elements and having its end portions extending about said carrying elements and means for releasably holding said clamping element in an adjusted position.

2. A cleaning device comprising a handle, side bars carried by said handle, a head block positioned between said bars and formed from a strip having its end portions bent to form clamps extending about said side bars to slidably mount said head block, a cleaning member extending between said side bars and between said head block and broom handle, and means for holding said head block in an adjusted position to tightly clamp said cleaning member between said head block and handle.

1,133,036. METHOD OF MANUFACTURING FABRIC BELTS. JOSEPH S. KAUFMAN, Baltimore, Md. Filed Aug. 26, 1914. Serial No. 858,599. (Cl. 154—2.)



1. The method of manufacturing woven fabric belts for personal wear, consisting of folding a strip of woven fabric longitudinally with its two edges adjacent so as to form a flat tube; running a line of stitches to unite the said two edges of the flat tube-strip; turning the tube-strip inside out; inserting into the said tube a dry cement-coated strip, and finally applying heat to the flattened tube.

2. The method of manufacturing fabric belts for personal wear consisting in coating a foundation strip with a cement, allowing the cement to dry, forming a tube of the fabric covering, inserting the dry cement coated foundation strip in the tube of fabric covering and applying heat and pressure to the fabric covering.

3. The method of manufacturing fabric belts for personal wear consisting in coating a foundation fabric strip with a cement and allowing the strip to dry out, longitudinally securing an inside-out fabric tube by stitching to said dried strip, turning the tube right side out and simultaneously turning the foundation strip inside and finally applying heat and pressure to the outer side of the tube to cement the fabrics together.

1,133,037. METHOD OF MANUFACTURING COFFEE SUBSTITUTES. JOHN H. KELLOGG, Battle Creek, Mich. Filed May 12, 1913. Serial No. 767,099. (Cl. 99—11.)

1. The method of producing a coffee substitute, which consists in treating a sugar-containing substance or substances to caramelize the sugar, and maintaining the substance or substances in a condition which will prevent roasting thereof during the caramelization of the sugar.

2. The method of making a coffee substitute, which consists in treating a sugar-containing substance or substances in a wet condition to caramelize the sugar thereof.

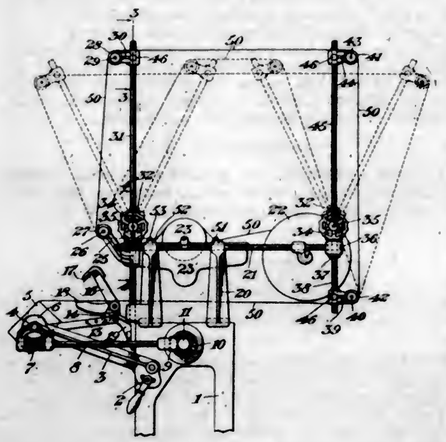
3. The method of making a coffee substitute which consists in wetting a substance or substances containing a sugar, caramelizing the sugar, and maintaining the substance or substances in a wet condition during the caramelization of the sugar.

4. The method of making a coffee substitute, which consists in forming a wet mixture including sugar-containing substances, heating the mixture to caramelizing temperature, and maintaining the mixture in a wet condition during the caramelization of the sugar.

5. The method of making a coffee substitute, which consists in forming a mixture including sugar-containing materials, adding water thereto, cooking under pressure at caramelizing temperature, and removing the insoluble matter.

[Claims 6 to 16 not printed in the Gazette.]

1,133,038. PAPER-BOX-COVERING MACHINE. ANNIE D. KNOWLTON and FREDERIC K. KNOWLTON, Rochester, N. Y., administrators of Mark D. Knowlton, deceased. Filed Feb. 5, 1908. Serial No. 414,456. (Cl. 93—54.)



1. In a box covering machine, the combination of an adhesive-rendering device, a revoluble box form supported at the front of said machine, a support for a box covering strip reel, adjustable guides for directing the covering strip in a circuitous path to the box form, and an automatic vibrating cutting device between the box form and the guides.

2. In a box covering machine, the combination of guides adapted to direct a covering strip in a circuitous path, supports for the guides adjustable toward and from each other whereby to increase and decrease the length of travel of said strip, a revoluble box form adjustably mounted on the machine, a support for a box covering strip reel, and a cutter on the machine adapted to sever the strip upon each revolution of the box form.

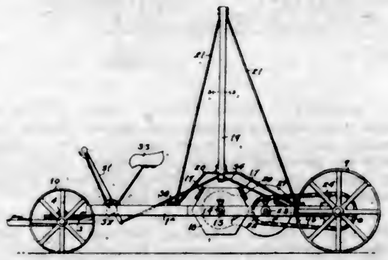
3. In a box covering machine, the combination of an adhesive-rendering device, a revoluble box form at the front of said machine, a plurality of guides for conducting the covering strip to the box form pivotally mounted on the frame, and adapted to swing to and from one another for the purpose of increasing and decreasing the path of travel of the covering strip, means for fastening said guides in adjusted position, a strip cutting device, and means for automatically operating said cutting device actuated by the shaft of said box form at each revolution thereof.

4. In a box covering machine, the combination of an adhesive rendering device, a box form at the front of said machine, a support for a box covering strip reel, guides for directing the cover strip in circuitous path around said adhesive rendering device and the strip roll to the box form, supports carrying said guides pivotally mounted on the machine and adapted to swing to and from one another, said guides being adjustably mounted on the supports and adapted to be moved thereon for the purpose of increasing or decreasing the path of travel of the covering strip.

5. In a box covering machine, in combination with an adhesive rendering device, a box form located at the front of said machine, supports pivoted on said machine adapted to be swung to and from one another, guides surrounding said adhesive rendering device, each of said supports adjustably carrying one of the guides, said guides directing the covering strip in a circuitous path around the rendering device to the box form.

[Claims 6 to 13 not printed in the Gazette.]

1,133,039. GRASSHOPPER-DESTROYER. MARTIN J. A. KOCHEVAR, Jr., Pueblo, Colo. Filed Oct. 18, 1914. Serial No. 866,503. (Cl. 43—1.)



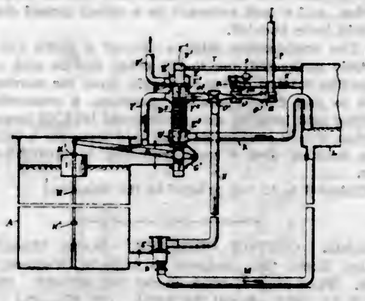
1. A grasshopper destroyer including a movably mounted supporting frame adapted to be propelled across a grasshopper infested field, an upright transparent sheet supported upon the frame, a receptacle arranged under the transparent sheet to catch grasshoppers which strike against the transparent sheet and are stunned thereby, a door for closing the receptacle, and means for rotating the receptacle when closed to kill the grasshoppers therein.

2. A grasshopper destroyer including a movably mounted supporting frame adapted to be propelled across a grasshopper infested field, an upright transparent sheet supported upon the said frame in a rigid position, a receptacle of polygonal cross section arranged under the transparent sheet so that grasshoppers striking against the transparent sheet and stunned thereby will drop into the receptacle, a door for closing the polygonal receptacle, and means for revolving the polygonal receptacle to kill the grasshoppers therein.

3. A grasshopper destroyer including front and rear axles, a frame mounted thereon, a transverse shaft journaled upon the frame, a polygonal grasshopper receptacle mounted upon the transverse shaft and formed with an open side, a door for closing the open side, an upright sheet of transparent material arranged in a vertical position above the transverse shaft, means for holding the transparent sheet of material rigidly in position so that grasshoppers striking against the same and stunned thereby will drop into the polygonal receptacle, a driving connection between one of the axles and the transverse shaft for rotating the polygonal receptacle to kill the grasshoppers therein after the door to the receptacle has been closed, and a clutch controlling the said driving connection.

4. A grasshopper destroyer including front and rear axles, a frame supported thereon, a transverse shaft journaled upon the frame, a grasshopper receptacle of polygonal formation mounted upon the shaft and formed with an open side, a closure for the open side, a sheet of transparent material arranged in a vertical position above the transverse shaft so that grasshoppers striking against the same and stunned thereby will drop into the polygonal receptacle, means for supporting the sheet of transparent material rigidly in position, a countershaft journaled upon the supporting frame and arranged parallel to the transverse shaft, gearing between the countershaft and transverse shaft, a driving connection between the rear axle and the transverse shaft, and a clutch member controlling the driving connection so that the polygonal receptacle can be rotated after the closure has been moved into operative position for the purpose of killing the grasshoppers therein.

1,133,040. AUTOMATIC BOILER FEED APPARATUS. ERNST KOMATING, Pegli, Italy, assignor to Schutte & Koerting Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 15, 1912. Serial No. 731,472. (Cl. 137—101.)



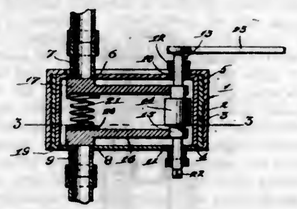
1. In combination, a steam jet injector, a float pump comprising a closed chamber having a water inlet and a water outlet, the latter being connected to the water inlet of the injector, and means responsive to the height of water level in said chamber for establishing and cutting off a steam supply to said injector and to said chamber as the water level in said chamber rises and falls.

2. In combination, a steam jet injector, a float pump comprising a closed chamber having a water inlet and a water outlet, the latter being connected to the water inlet of the injector, a steam supply valve having an outlet chamber connected to the upper end of said closed chamber and to the steam inlet of said injector, and a float located within said chamber and operating said valve.

3. In combination, a steam jet injector, a float pump comprising a closed chamber having a water inlet and a water outlet, the latter being connected to the water inlet of the injector, a steam supply connection to said chamber and to said injector, a partially balanced valve controlling said connection and means responsive to the height of water level in said chamber for actuating said valve.

4. In combination, a steam jet injector, having a steam inlet, a water inlet, a pressure outlet, and an overflow outlet, a loaded relief valve controlling said overflow outlet, a float pump comprising a closed chamber having a water inlet and a water outlet, the latter being connected to the water inlet of the injector, and means responsive to the height of water level in said chamber for controlling the supply of steam to the steam inlet of said injector and to said chamber as the water level in said chamber rises and falls.

1,133,041. VALVE. WILLIAM F. KOLB, McDonald, Pa. Filed Apr. 4, 1914. Serial No. 829,685. (Cl. 137—5.)



1. A valve structure including a valve casing comprising a first casing section having an opening formed therein, a second casing section arranged over said first casing section, said second casing section having an opening formed therein in alinement with said first opening, a third casing section arranged over the said two first mentioned casing sections, the said casing section serving as a locking means to maintain the said first two casing sections immovable and in place, and means movable within the interior of the casing to open and close communication between the respective openings.

2. A valve structure including a valve casing comprising relatively movable casing sections having alined openings formed therein, the outermost of the said casing sections being exteriorly threaded, a third casing section threaded upon the said outermost casing section to lock the said movable section in the desired adjusted position, and means movable within the valve casing to open and close communication between the respective openings.

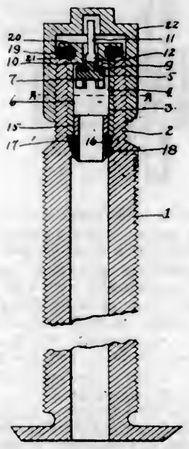
3. A valve structure including a valve casing comprising relatively movable casing sections, the said sections having alined openings formed therein, detachable means engageable with the outermost of the said movable sections for locking the said movable sections in the desired adjusted position, a valve stem, valve members movable in unison through operation of said stem into and out of a position whereby to close communication between the respective openings, and spring means interposed between the said valve members to maintain the said members in engagement with the inner wall of the casing.

4. In a valve, a casing having an inlet opening and an outlet opening formed therein, the respective openings being alined and on opposite sides of the casing, a valve stem polygonal in cross section at points equi-distant from its ends, an enlargement formed on the stem between the polygonal portions aforesaid, parallel arms affixed, one arm on each side of the enlargement, the respective arms being engageable with the polygonal portion of the stem and movable therewith, a valve head formed on each arm, the respective valve heads being engageable with the opposite side of the casing and adapted to traverse the respective openings aforesaid, a spring interposed between the respective valve heads for holding the heads in engagement with the casing sides, means holding the spring against lateral displacement, and means to move the stem.

5. A valve structure including a casing comprising a plurality of casing sections arranged to fit one within the other, said casing having an inlet and an outlet opening formed therein, the said openings being alined, a turntable operating stem, said stem being polygonal in cross section at points intermediate its ends, valve members op-

erable within the casing, said members being secured to the respective polygonal portions of said stem, said members being normally in engagement with the interior wall of the casing and to close communication between the said inlet and outlet openings, a spring interposed between the said two members normally maintaining the same apart, said two members being movable in the path of a circle through a turning of the stem to open communication between said openings, as and for the purpose set forth.

1,133,042. TIRE-VALVE. ALBERT L. KULL, New Rochelle, N. Y., assignor to Double Seal Tire Valve Co., New York, N. Y., a Corporation of Delaware. Filed Jan. 9, 1915. Serial No. 1,412. (Cl. 152—12.)



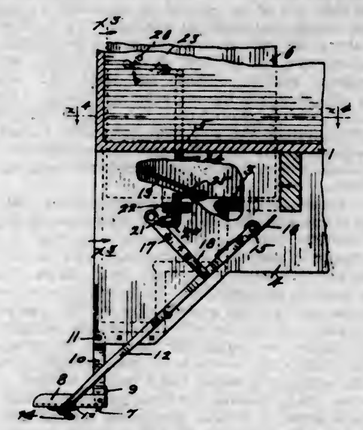
1. In a tire valve, in combination, a valve sten: having threads or their equivalent upon its interior wall, a valve socket screwed therein having an enlarged end projecting from said stem, two separate packings between said socket and stem, one at the outer end of said stem and one between the exterior wall of said stem and the interior wall of said stem and a valve proper located in said socket.

2. In a tire valve for a stem having screw threads upon its interior wall, a socket having a projecting end larger in diameter than said screw threads, a packing between said projecting end and the end of said stem, screw threads upon said socket adapted to fit the threads in said stem, a packing on said socket below said threads to fit against the interior wall of said stem, a valve chamber within said socket and between said packings, a seat in said chamber and a valve proper adapted to engage said seat.

1,133,043. AUXILIARY STEP FOR CAR-PLATFORMS. JOHN R. KUNZELMAN, Duluth, Minn. Filed June 29, 1914. Serial No. 847,828. (Cl. 105—88.)

1. The combination with a car, having a horizontally swinging door, of an auxiliary step, movably mounted on said car, connections between said step and door for moving said step to and from operative positions under the swinging movement of said door, and means for rendering said step-operating connections inoperative, at will, whereby said door may be opened and closed without operating said step.

2. The combination with a car, having a horizontally swinging door, of an auxiliary step movably mounted on said car, connections between said step and door for moving said step to and from operative positions under the swinging movement of said door, means for locking said step in an inoperative position, and means for rendering said step-operating connections inoperative, at will, whereby said door may be opened and closed without operating said step.



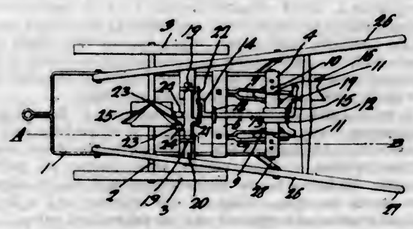
3. The combination with a car, of a tread and riser, pivotally connected one to the other and to said car for toggle-like folding action, a toggle lever for moving said tread to and from operative positions, a connection for buckling said lever to move said tread into an inoperative position, and a lock engageable with said lever for holding the same buckled.

4. The combination with a car, of a tread and riser, pivotally connected one to the other and to said car for toggle-like folding action, a toggle lever for moving said tread to and from operative positions, a connection for buckling said lever to move said tread into an inoperative position, and a lock actuated by a spiral thread for holding said lever buckled.

5. The combination with a car, of a tread and riser, pivotally connected one to the other and to said car for toggle-like folding action, a toggle lever for moving said tread to and from operative positions, a connection for buckling said lever to move said tread into an inoperative position, a lock engageable with said lever for holding the same buckled, and a spring tending to straighten said lever.

[Claims 6 to 12 not printed in the Gazette.]

1,133,044. COTTON-CHOPPER. JAMES HENRY LANHAM, Rome, Ga., assignor to Allie W. Watters, Rome, Ga. Filed May 7, 1914. Serial No. 837,038. Renewed Feb. 13, 1915. Serial No. 8,074. (Cl. 97—45.)



1. A cotton chopper including a hoe, a crank arm movable therewith, a shiftable member, means operated by the forward movement of the machine for actuating said member back and forth, and a spring connection between the member and crank arm for actuating the crank arm.

2. The combination with a wheel supported structure and a hoe carried thereby and mounted for lateral oscillation, of a crank arm movable with the hoe, a spring connected to the crank arm, and means operated by the forward movement of the machine for placing the spring under stress and releasing it successively, thereby to oscillate the hoe under the action of the spring.

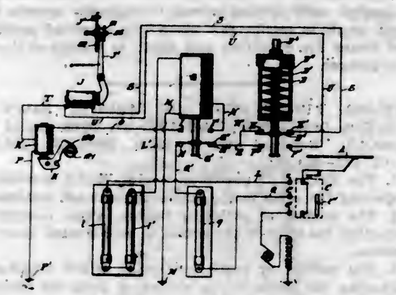
3. The combination with a wheel supported structure and a hoe mounted for lateral oscillation, of a movable member, means operated by the forward movement of the machine for moving said member back and forth, a spring connected to the member, a connection between the spring and hoe, said member operated during its movement in each direction to place the spring under compression and release it successively thereby to actuate the hoe.

4. The combination with a wheel supported structure, of a longitudinal shaft, a hoe connected thereto and mounted for lateral oscillation, a movable member, means operated by the forward movement of the machine for actuating said member back and forth, a crank arm movable with the shaft, and a spring connection between the crank arm and the movable member, for actuating the shaft and hoe.

5. The combination with a wheel supported structure, a longitudinal shaft journaled thereon, and a hoe mounted for lateral oscillation and movable with the shaft, of a movable member, means operated by the forward movement of the machine for moving said member back and forth, a crank arm extending from the shaft, a spring thereon and secured to the member, said member operating during its movement in each direction to place the spring under compression and then to shift the line of force exerted by the spring to permit expansion of the spring and actuation of the crank arm and hoe.

[Claims 6 and 7 not printed in the Gazette.]

1,133,045. TIME-RECORDER FOR VEHICLES. CLINTON E. LARRABEE, Binghamton, N. Y., assignor to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed June 21, 1911. Serial No. 634,454. (Cl. 234—36.5.)



1. In a time recorder for vehicles, the combination of running-time printing devices for recording the total time the vehicle is traveling, actuating means for said devices, said means being dependent for operation upon travel of the vehicle and ceasing to operate when the vehicle ceases to travel, and coasting-time printing devices operative only when the vehicle is coasting.

2. In a time recorder for vehicles, the combination of driving and braking elements for the vehicle, running-time printing devices associated with such elements and operative only when the vehicle is traveling with either element in operation, and coasting-time printing devices associated with said elements and operative only when the vehicle is traveling with neither element in operation.

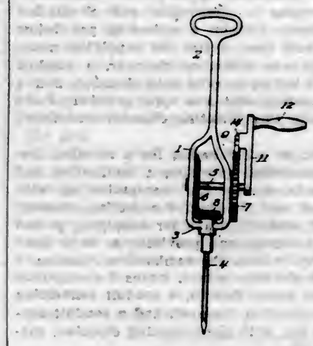
3. In a time recorder for vehicles, the combination of driving and braking elements, a clock, running-time printing devices driven by the clock, coasting-time printing devices driven by the first named devices, controlling mechanism associated with the clock and operating to allow the clock to run when the vehicle is in motion and to stop the clock when the vehicle stops, and controlling means associated with the driving and braking elements and with the coasting-time printing devices and operating to disconnect the latter from the running-time printing devices whenever either of said elements is in operation.

4. In a time recorder for electric vehicles, the combination of running-time printing devices for recording the total time the vehicle is traveling, electrically controlled driving means for said devices, a source of current for said means, delivering current only when the vehicle is in motion, coasting-time printing devices associated with said driving means, and controlling mechanism permitting the coasting-time printing devices to be driven only when the vehicle is coasting.

5. In a time recorded for electric vehicles, the combination of a braking element, a driving motor adapted to operate as a generator when driven by the movement of the vehicle, running-time printing devices for recording the total time the vehicle is traveling, electrical controlling means for said devices, connected with the motor whereby to be energized and cause the said devices to operate only while the vehicle is moving, coasting-time printing devices, electrical controlling mechanism therefor, associated with the motor to receive current only when the motor is acting as a generator, and means associated with the braking element and said electrical controlling mechanism to disconnect the latter from the motor when the braking element is in operation.

[Claims 6 to 14 not printed in the Gazette.]

1,133,046. BIT-STOCK. FRANK W. LABSON, Hartford, Conn. Filed Apr. 22, 1912. Serial No. 692,401. (Cl. 145—67.)



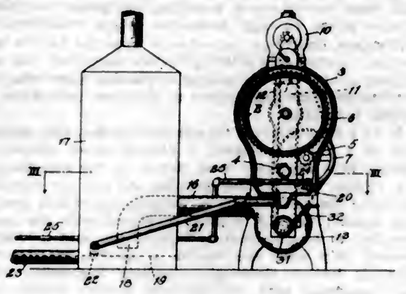
A bit stock comprising a lever loose upon the stock shaft, a pawl having oppositely directed teeth with free ends, stop pins carried by said lever for said pawl and a spring-pressed support for said pawl carried by said lever whereby said pawl may be moved out of the plane of said stop pins to permit its passage and a ratchet wheel engageable by said pawl in either direction and geared to said stock shaft thereby to effect a reverse movement of said stock shaft.

1,133,047. VENTILATING APPARATUS. CHRISTIAN LIMBURG and WILLIAM D. SIEGELHORST, Pittsburgh, Pa. Filed Feb. 5, 1914. Serial No. 816,706. (Cl. 110—183.)

1. The combination with an inclosing casing embodying a combustion chamber, and means for supplying fuel in combustion thereto; of a separate collecting chamber having a water inlet supply, a water outlet conduit arranged to maintain a water bath therein, a gas outlet therefrom, and a suction fan connected with the combustion chamber and the collecting chamber and having a branch damper-controlled suction conduit for connection with a separate receptacle.

2. An outer casing for a roasting machine of the class

described providing a combustion and circulation chamber, a suction fan communicating with said chamber, a separate collecting chamber, a conduit connecting the suction fan with said chamber, a water-sprayed pan in the base of the casing, and a conduit leading therefrom to the collecting chamber.



3. An outer casing for a roasting machine of the class described providing a combustion and circulation chamber, a suction fan communicating with said chamber, a separate collecting chamber, means for supplying to and exhausting water therefrom and providing a water bath therein, a conduit connecting the suction fan with said chamber, a water-sprayed pan in the base of the casing, and a conduit leading therefrom to the collecting chamber.

4. An outer casing for a roasting machine of the class described having a cylindrical upper portion and a rectangular base providing a combustion and circulation chamber, a fuel burner therein, a collecting pan below the fuel burner in said base, means for supplying water to said pan, a separate collecting chamber, a conduit leading from the collecting pan to said chamber, and a suction conduit connected with the upper portion of the outer casing and with the collecting chamber embodying a suction fan.

5. In combination, an outer casing for a roasting machine of the class described providing a combustion and circulation chamber, a suction fan communicating with the upper portion of said chamber, a collecting chamber having a gas outlet conduit, means for supplying to and exhausting water therefrom and providing a water bath therein, a fuel burner within the combustion chamber, a collecting pan below the fuel burner, means for supplying a surrounding water spray thereto, a conduit connecting said pan with the collecting chamber, and a conduit connecting the suction fan with the collecting chamber, substantially as set forth.

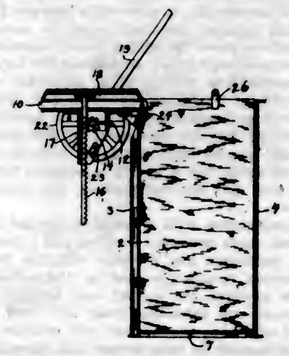
[Claims 6 to 9 not printed in the Gazette.]

1,133,048. BALING-MACHINE. FRED A. LUNDAHL, Moline, Ill. Filed July 2, 1914. Serial No. 848,527. (Cl. 100—5.)

1. A baling press comprising a suitable receptacle provided with a hinged closure at one of its sides; means for holding said closure normally in closed position; a hinged cover for said receptacle, adapted to be tipped rearwardly to completely open the top thereof; compressing mechanism mounted in said cover; and means for locking said cover in closed position.

2. A baling press comprising a receptacle; a door hinged at one side thereof; locking means for said door; a plate hingably mounted at the upper part of said receptacle and adapted to be tipped rearwardly to clear the upper part of the said receptacle; means to support said plate when turned rearwardly; means for locking said plate in closed position; and mechanism carried by said plate, for compressing the contents of said receptacle.

3. A baling press comprising a receptacle, provided at its upper part with outwardly projecting flanges; a hinged closure at one side of said receptacle and means for locking the same; a plate hingeably secured to said receptacle and normally supported upon said flanges; a shaft mounted on said plate; a pinion fixed on said shaft; a rack vertically movable in said plate and engaged by said pinion; a compressing device on the lower end of said rack; means for suitably actuating said shaft to raise or lower said rack; and means for locking said plate in closed position.



4. A device of the class described, comprising a suitable receptacle having one of its sides hingeably attached at one of its sides and provided at the opposite side with fastening means; a plate hingeably mounted in the upper part of said receptacle, and capable of being turned rearwardly to open said receptacle; means for supporting said plate in open position; means for locking said plate in closed position; a shaft rotatably mounted on said plate; a pinion on said shaft; a rack vertically movable in said plate, and engaged by said pinion; a plunger on the lower end of said rack; a ratchet wheel on said shaft; a hand lever pivoted on said shaft, provided with a pawl adapted to engage said ratchet wheel to suitably operate said shaft, or aid in raising said plate from rearward position; and means for operating said shaft to elevate said rack and plunger.

1,133,049. PURIFICATION OF LIQUIDS. RALPH H. MCKEE, Orono, Me. Filed Mar. 27, 1912, Serial No. 686,670. Renewed Aug. 15, 1914. Serial No. 856,986. (Cl. 127—2.)

1. The method of purifying liquids, which consists in subjecting the same to the action of black-ash residues.

2. The method of purifying liquids, which consists in subjecting the same to the action of acid-treated black-ash residues.

3. The method of purifying liquids, which consists in subjecting the same to the action of black-ash residues previously heated to redness.

4. The method of decolorizing sugar solutions, which consists in subjecting the same to the action of black-ash residues.

5. The method of decolorizing sugar solutions, which consists in subjecting the same to the action of acid-treated black-ash residues.

[Claims 6 to 12 not printed in the Gazette.]

1,133,050. COLLAPSIBLE DRINKING-CUP. LOUIS K. MEADKLE, Philadelphia, Pa., assignor to Duquesne Sales Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Jan. 8, 1914. Serial No. 810,990. (Cl. 65—58.)

1. A collapsible drinking cup comprising two rigid metal sides and intervening sides and bottom formed of flexible material with suitable folds, one of said metal sides carrying an engaging recess and the other metal side being adapted to directly fit into said recess in the act of collapsing the cup, in order to seal the opening, substantially as described.

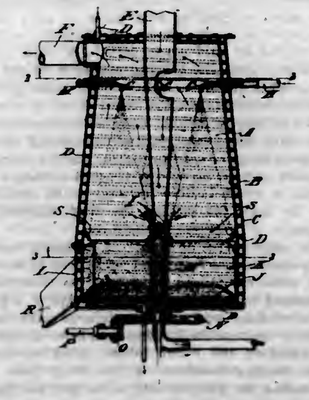
2. A collapsible drinking cup composed of two metal sides, a flexible material forming the remaining walls of the cup, one metal side having a reëntrant flange adapted to engage the other metal side in closing and so to seal the mouth of the cup when in closed position, the flexible sides being adapted to slide one metal side on the other in closing, substantially as described.



3. A collapsible drinking cup composed of two metal walls, a strip of flexible material clamped in folds along the edges of said metal walls, said flexible portion being adapted to fold together at the top of the cup first, and having a flat wall forming the bottom wall of the cup, said bottom wall being adapted to fold along a central longitudinal crease independently of the vertical creases in the side walls of such flexible part, substantially as and for the purposes described.

4. A collapsible drinking cup composed of two metal walls, one having a locking fold at the top and a flexible strip forming the remaining walls and bottom, said strip being creased so as to fold inward at the sides and upward at the bottom in such manner as to allow the bringing together at their upper ends of the metal walls without collapse at the bottom, then upon collapse at the bottom, to force one wall to slide upward against the other, whereby to hold the tops of the walls in locked engagement so long as they are folded together at the bottom.

1,133,051. METHOD OF DESICCATING. IRVING S. MERRELL, Syracuse, N. Y. Filed Dec. 8, 1913. Serial No. 805,424. (Cl. 99—5.)



1. The method of desiccating organic liquids containing a high moisture content which consists in spraying the liquid into a chamber in which a high degree of vacuum is maintained, injecting into said chamber highly superheated steam, the temperature of the steam being sufficiently high so that it will not condense within the chamber at the minus pressure maintained therein, and preventing condensation within the chamber by heating the walls thereof.

2. The method of desiccating organic liquids containing a high moisture content which consists in spraying the liquid into a chamber in which a high degree of vacuum is maintained, and injecting into said chamber superheated steam, the temperature of the steam being sufficiently high so that it will not condense within the chamber at the minus pressure maintained therein.

1,133,052. ICE-PICK. ALEX MIKLOS, Columbus, Ohio. Filed Aug. 24, 1914. Serial No. 858,206. (Cl. 83—62.)



1. An ice pick comprising a handle having a longitudinal central bore, a tubular casing within a portion of said bore, and having an overlapping closed end at one end of the handle, a cap having a screw-threaded opening secured in the open end of said casing, a bushing upon the opposite end of the handle, and having an inwardly projecting portion within said bore, and screw-threaded into said cap, a pick slidably mounted through said bushing and extending into said casing, and an expansion spring within said casing normally engaging the inner end of the pick.

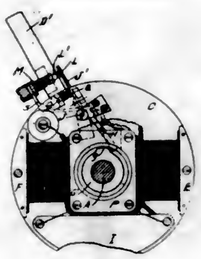
2. An ice pick comprising a handle, a tubular casing carried by said handle, a closure cap at one end of the casing having a central perforation therethrough and provided with radial grooves on its inner face, a disk slidably mounted within said casing, depending ribs upon said disk adapted for engaging the adjacent side of said cap, and in seating engagement with said grooves, a pick extending through said cap perforation, and attached to said disk, and an expansion spring within said casing engaging the said disk.

1,133,053. IGNITION MAGNETO-GENERATOR. HERMAN C. MUELLER, Milwaukee, Wis., assignor to Evinrude Motor Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed July 17, 1913. Serial No. 779,423. (Cl. 123—149.)

1. An igniter magneto generator comprising a set of segmental field magnets provided with polar projections having segmental inner faces, an armature provided with generating coils, an igniter, a condenser and a circuit closer in operative relation to said coils, means for providing relative rotation of the armature and field magnets, means for operating the circuit closer to close the generating circuit during the final stage of the induction interval and breaking such circuit during the initial stage of reversed induction, substantially as described, and means for holding the circuit closer in circuit breaking position at all other stages.

2. A reversible igniter magneto generator provided with a normally retracted circuit closer adapted to close a generating circuit of the magneto during an internal commencing in the final stage of an induction interval and terminating in the initial stage of the succeeding induction interval.

3. A reversible igniter magneto generator provided with a normally open circuit closing arm, controlling a generator circuit, a rotor provided with a short cam in operative relation to said circuit closing arm, and arranged to actuate the arm to circuit closing position during the final stage of an induction interval and release it during the initial stage of the succeeding induction interval.



4. In an igniter magneto generator, the combination of a permanently magnetic circular field adapted to fit within the rim of a fly-wheel and composed of segmental permanent magnets arranged with like poles in proximity, and provided with inwardly extending polar projections.

5. In an igniter magneto generator, the combination of a permanently magnetic circular field adapted to fit within the rim of a fly-wheel and composed of segmental permanent magnets arranged with like poles in proximity, and provided with inwardly extending polar projections of differing weights.

[Claims 6 to 10 not printed in the Gazette.]

1,133,054. STUFFED FRUIT. HORACE C. NEWCOMB, Philadelphia, Pa. Filed Aug. 15, 1914. Serial No. 856,929. (Cl. 99—11.)



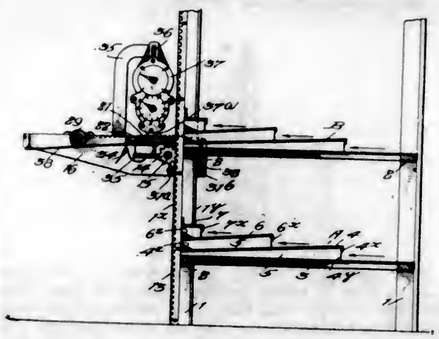
1. A stuffed fruit having the cavity originally occupied by the pit filled with edible stuffing material and having the mouth of said cavity closed by a plug of edible material which fits snugly to the walls of the cavity and is retained in position by frictional contact therewith.

2. A stuffed fruit having the cavity originally occupied by the pit filled with edible stuffing material, said cavity having a mouth of polygonal shape filled by a similarly shaped plug of edible material.

3. The mode herein described of preparing stuffed fruit, said mode consisting in cutting through the flesh of the fruit at one end of the same by means of a knife, then ejecting, by means of a plunger introduced at the other end of the fruit, the pit and the mass of flesh above the same, then stuffing with edible material the cavity formerly occupied by the pit, and then applying a plug of edible material to the mouth of said cavity.

4. The mode herein described of preparing stuffed fruit, said mode consisting in first cutting the flesh of the fruit at one end of the same by means of a tubular knife, then by means of a plunger introduced at the opposite end of the fruit ejecting the pit and the fleshy mass above the same, then stuffing with edible material the cavity formerly occupied by the pit, and then applying to the mouth of said cavity a plug of edible material of a shape similar to that of the tubular cutting knife.

1,133,055. ADJUSTABLE TABLE FOR WIRE-CLOTH RACKS. WILLIAM GOLD NEWMAN, Ogden, Utah. Original application filed Sept. 11, 1913, Serial No. 789,515. Divided and this application filed May 14, 1914. Serial No. 838,555. (Cl. 211—32.)



1. The combination of a pair of uprights, bearing members disposed on the front and rear faces of said uprights, a table, arms carried by said table at each side thereof and arranged to extend past said uprights, and a plurality of rollers carried by said arms, certain of said rollers being arranged to engage the bearing members on the rear faces of the uprights and other rollers being arranged to engage the bearing members on the front faces of the uprights.

2. The combination of a pair of uprights, bearing members disposed on the front and rear faces of said uprights, a table, arms carried by said table at each side thereof and arranged to extend past said uprights, a plurality of rollers carried by said arms, certain of said rollers being arranged to engage the bearing members on the rear faces of the uprights and other rollers being arranged to engage the bearing members on the front faces of the uprights, and means for raising said table and for locking it in its raised position.

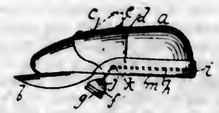
3. The combination of a pair of uprights, bearing members disposed on the front and rear faces of said uprights, a table, arms carried by said table at each side thereof and arranged to extend past said uprights, a plurality of rollers carried by said arms, certain of said rollers being arranged to engage the bearing members on the rear faces of the uprights and other rollers being arranged to engage the bearing members on the front faces of the uprights, means for raising said table and for locking it in its raised position, said last named means comprising racks carried by the front faces of said uprights, a shaft carried by said table, gears carried by said shaft and arranged to engage said racks, a crank handle for said shaft, and means carried by the table for locking the shaft against backward movement.

4. The combination of a pair of uprights, bearing members disposed on the front and rear faces of said uprights, a table, arms carried by said table at each side thereof and arranged to extend past said uprights, a plurality of rollers carried by said arms, certain of said rollers being arranged to engage the bearing members on the rear faces of the uprights and other rollers being arranged to engage the bearing members on the front faces of the uprights, means for raising said table and for locking it in its raised position, said last named means comprising racks carried by the front faces of said uprights, a shaft carried by said table, gears carried by said shaft and arranged to engage said racks, a crank handle for said shaft, means carried by the table for locking the shaft against backward movement, said locking means comprising a ratchet carried by the shaft, and a pivoted pawl carried by the table and arranged to engage the ratchet.

5. The combination with a pair of vertical uprights of an adjustable table slidably secured thereto, said table being provided with a transverse slot or guide groove, and a cutter carried by the table and having a portion arranged to enter the guide groove.

[Claims 6 and 7 not printed in the Gazette.]

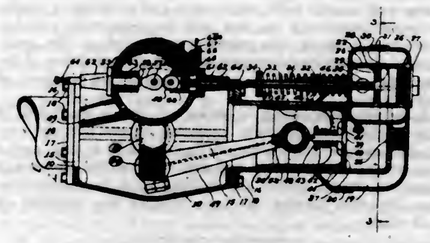
1,133,056. CAP. ISAAC PACHNER, New York, N. Y. Filed Dec. 10, 1913 Serial No. 805,706. (Cl. 2—106.)



1. A cap having a pocket extending transversely of the exterior of the crown portion thereof and intermediate the front and rear portions of the same, said pocket having an opening and adapted to conceal a pair of goggles, and means for fastening the mouth of the pocket.

2. A cap having a pocket extending transversely of the exterior of the crown portion thereof and intermediate the front and rear portions of the same, said pocket opening rearwardly of the crown and adapted to conceal a pair of goggles, means for securing the goggles to the cap to prevent separation of the same therefrom, and means for fastening the mouth of the pocket.

1,133,057. ENGINE. LOUIS PANOSH, Chicago, Ill. Filed May 7, 1914. Serial No. 836,868. (Cl. 123—56.)

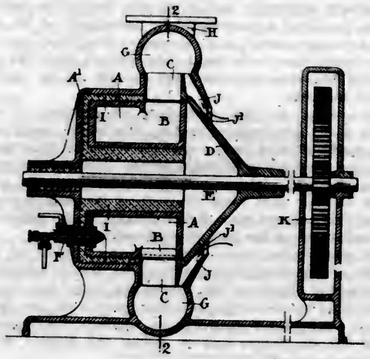


1. In an engine of the class described, the combination with a crank-casing having communication with a supply of explosive mixture, of a pair of opposed cylinders communicating with the casing, a crank-shaft journaled in the casing, a hollow and valved piston in each of said cylinders, connections uniting said pistons with the cranks of said shaft, an exhaust valve for each of the cylinders, and means operated by the crank-shaft to open the exhaust valves alternately.

2. In an engine of the class described, the combination with a crank-casing having communication with a supply of explosive mixture, of a pair of diametrically opposed cylinders communicating with the casing, a hollow plunger piston located in each of said cylinders and each having in its outer portion an opening for the passage of mixture from said casing to its explosion-chamber, a spring-pressed valve carried by each cylinder to close the opening therein, connections uniting said pistons with the cranks of said shaft, a spring-pressed exhaust valve for each of the cylinders, and means operated by the crank-shaft to alternately open said exhaust valves.

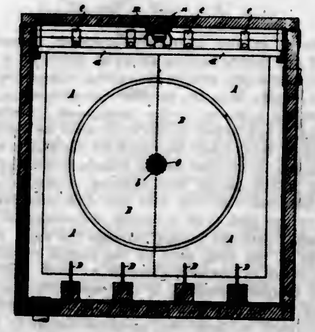
1,133,058. INTERNAL-COMBUSTION GAS-TURBINE. LOUIS PATUREL and PIERRE LAPEYROT, St.-Étienne, France. Filed Oct. 31, 1913. Serial No. 798,551. (Cl. 123—9.)

1. An internal combustion gas turbine comprising a casing, an annular combustion chamber therein in which high temperature and pressure are maintained by the continuous ignition of a combustible mixture, a rotor, vanes thereon, means for injecting air and fuel separately into said chamber, means for directing the burned gases from said chamber onto the vanes of said rotor, a shaft supporting said rotor, a heat insulating jacket surrounding said annular chamber and also forming an insulating sleeve around said shaft, a collecting chamber surrounding said rotor, and means for cooling said rotor and for discharging the burned gases out of the collecting chamber.



2. An internal combustion gas turbine comprising a casing, an annular combustion chamber therein in which high temperature and pressure are maintained by the continuous ignition of a combustible mixture, a rotor, vanes thereon, means for injecting air and fuel separately into said chamber, means for directing the burned gases from said chamber onto the vanes of said rotor, a shaft supporting said rotor, a heat insulating jacket surrounding said annular chamber and also forming an insulating sleeve around said shaft, a collecting chamber surrounding said rotor, and wings on said rotor adapted to suck fresh air into said collecting chamber to expel the burned gases therefrom and also to cool said rotor.

1,133,059. ELECTROLYTIC PROCESS OF PRODUCING COPPER. MARCEL PERREUR-LLOYD, Boulogne-sur-Seine, France. Filed Mar. 28, 1912. Serial No. 686,826. (Cl. 204—15.)



1. A process for the production of a metal by the electrolysis of impure solutions of salts of the metal, wherein sulfur dioxid is added to the electrolyte to be decomposed, and an active vertical circulation is produced in the electrolyte whereby the density of the bath is rendered uniform and the film of electrolyte in contact with the anodes of the apparatus is continually renewed.

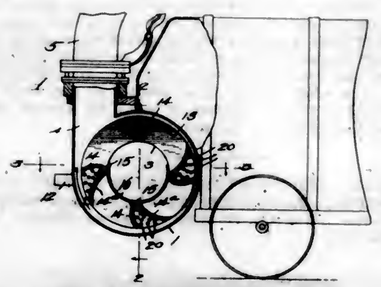
2. A process for the production of a metal by electrolysis of an electrolyte yielding the metal, comprising adding sulfur dioxid to the electrolyte to be decomposed, and actively vertically circulating the electrolyte containing the dissolved sulfur dioxid in such manner that fresh portions of the electrolyte are brought into contact with the electrodes of the apparatus, and the density of the bath is rendered uniform.

3. A process for the production of a metal by electrolysis of an electrolyte yielding the metal, comprising adding sulfur dioxid to the electrolyte to be decomposed, and actively vertically circulating the electrolyte containing the dissolved sulfur dioxid by movement of an electrode of the apparatus, in such manner that fresh portions of the electrolyte are brought into contact with the electrodes of the apparatus and the density of the bath is rendered uniform.

4. A process for the production of a metal by electrolysis of an electrolyte yielding the metal, comprising adding sulfur dioxid to the electrolyte to be decomposed, and actively vertically circulating the electrolyte containing the dissolved sulfur dioxid by movement of the anode in such manner that fresh portions of the electrolyte are brought into contact with the electrodes of the apparatus, and the density of the bath is rendered uniform.

5. A process for the production of a metal by electrolysis, of an electrolyte yielding the metal, comprising adding sulfur dioxid to the electrolyte to be decomposed, and rotating an electrode on a horizontal axis parallel to adjacent electrodes, to produce an active vertical circulation of the electrolyte and to render the density of the electrolyte uniform.

1,133,060. PNEUMATIC STACKER. VICTOR NELSON PERRY, Batavia, N. Y. Filed Apr. 11, 1914. Serial No. 831,163. (Cl. 193—21.)



1. A device of the character specified, comprising a cylindrical fan casing having an axial inlet and a tangential outlet, and a fan within the casing, the casing having at the end remote from the inlet a central opening, a stub shaft journaled adjacent to the casing and extending into the opening, a hub keyed to the stub shaft in the opening, a disk secured to the hub coaxial with the shaft, said disk being adjacent to the end of the casing, a ring at the opposite end of the casing, and a series of blades or vanes arranged between the ring and the disk and connecting the ring to the disk, and a trough delivering to the fan and extending into the casing through the axial inlet and the opening of the ring, each of the blades or vanes comprising a sheet of material having at each side edge a flange, the flanges extending in the same direction and being secured to the disk and the ring, said sheet being doubled upon itself to form two portions radial to the disk and ring and the flanges being between the said portions and the ring having a series of openings between the portions of each blade, the connection between the said portions being at the inner surface of the ring, and each portion being arched radially of the fan in the same direction, the forward portion of each blade being approximately radial to the flange and the rear portion of each blade being inclined at an acute angle to the rearward portion.

2. A device of the character specified, comprising a cylindrical fan casing having an axial inlet and a tangential outlet, and a fan within the casing, the casing having at the end remote from the inlet a central opening, a stub shaft journaled adjacent to the casing and extending into the opening, a hub keyed to the stub shaft in the opening, a disk secured to the hub coaxial with the shaft, said disk being adjacent to the end of the casing, a ring at the opposite end of the casing, and a series of blades or vanes arranged between the ring and the disk and connecting the ring to the disk, each of the said blades or vanes consisting of two portions converging toward the center of the fan, the connection between the two portions being at the inner edge of the ring, the ring having a series of openings between the portions of each blade, the forward portion of each flange being approximately radial to the fan, and the two portions being arched in the same direction and having their convex faces forwardly.

3. A device of the character specified, comprising a fan casing having an axial inlet in one end and a tangential outlet, and a fan arranged within the casing, said fan comprising a disk and a ring arranged coaxial and with the ring adjacent to the inlet and a series of blades connecting the ring to the disk, each blade or vane consisting of two portions connected at the inner edge of the ring and diverging toward the periphery of the ring, a stub shaft at end of the casing remote from the inlet to which the disk is secured, and a trough extending through the inlet and the opening of the ring, the portions of all of the blades being arched radially of the fan and in the same direction and arranged with their convex faces forwardly, the forward portion of each blade or vane being approximately radial to the fan, and the ring having openings between the portions of each blade.

4. In a device of the character specified, a fan comprising a disk and a ring arranged in parallel spaced relation and coaxial with each other and a series of blades or vanes connecting the disk and the ring, each blade or vane consisting of two portions connected at the inner edge of the ring and diverging toward the periphery of the ring, the ring having openings between the portions of each blade.

5. A fan comprising a series of blades arranged in spaced relation, each blade consisting of two portions converging toward the center of the fan, and a disk and a ring arranged co-axial on opposite sides of the blades and connected to the blades for holding them in spaced relation, the disk having openings between the portions of each blade.

1,133,061. PUZZLE. CHARLES H. QUARLES, Akron, Ohio. Filed Sept. 8, 1914. Serial No. 860,692. (Cl. 46—41.)



A puzzle comprising a body plate, a plurality of stems slidably engaged through said plate, rings swiveled on corresponding ends of said stems respectively, certain of said rings embracing certain of said stems and the remainder of said rings being free, and an elongated loop engageable through the rings.

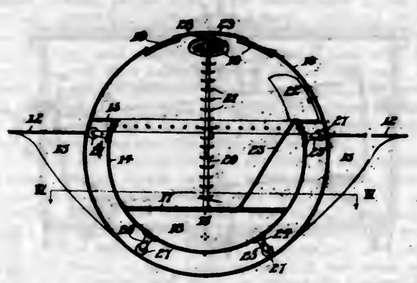
1,133,062. TREATMENT OF OPEN-MESH TEXTILE FABRICS. MARIUS RATIGNIER, Lyon, France. Filed Apr. 21, 1913. Serial No. 762,704. (Cl. 134—16.)

1. The process of impregnating and waterproofing open mesh fabrics such as tulle and the like which comprises treating such a fabric with a solution comprising collodion, gum lac, and amyl acetate, and allowing the treated fabric to dry slowly.

2. The process of impregnating and waterproofing open mesh fabrics such as tulle and the like which comprises

treating such a fabric with a solution comprising collodion, gum lac, and amyl acetate, in the approximate ratio of 3 parts by weight of gum lac dissolved in alcohol, 8 parts by volume of amyl acetate and 6.5 parts by volume of collodion and allowing the treated fabric to dry slowly.

1,133,063. LIFE-BOAT. FRANK SARDYNSKI and JOHN TYSZKO, Amsterdam, N. Y. Filed Jan. 4, 1915. Serial No. 335. (Cl. 9—4.)

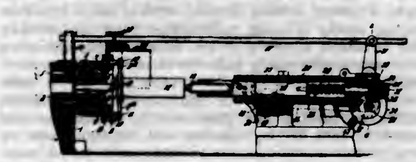


1. A life boat comprising a spherical casing, an annular projecting deck carried thereby, a passenger basket within the said casing substantially hemispherical in form, an annularly projecting platform provided at the upper edge of the said basket, and swivelly mounted rollers carried between the said basket and the inner side of the casing.

2. A life boat comprising a spherical casing, a side door and top windows provided for the said casing, a projecting annular outer deck secured to the said casing above the normal horizontal axis thereof and having opposite projecting portions, bracing brackets connecting the lower sides of the said projecting portions and the outer side of the casing, a passenger basket positioned within said casing, a platform secured to the upper edge of the said basket, a lower deck positioned within said basket below the center of gravity thereof, a ladder between the said platform and lower deck, a ladder centrally carried by the said lower deck and extending adjacent the said casing windows, roller mounting means between the said basket and casing, and a casing engaging swiveled rollers carried by the free end of said centrally carried ladder.

3. In combination with a life boat, a normally horizontally positioned passenger basket substantially hemispherical in form positioned in said boat, a passenger deck within said basket, an outwardly projecting annular platform carried by the upper edge of the said basket, radially positioned legs secured to the outer side of the basket, outer leg portions swiveled to the said legs, and bearing rollers journaled in the said outer portions and engaging the interior of the boat.

1,133,064. WORK-SECURING MECHANISM. WILLIAM L. SCHELLENBACH, Hartwell, Ohio. Filed July 15, 1914. Serial No. 851,221. (Cl. 82—40.)



1. In a device of the class described, in combination with a driven head-stock, spindle, a tail-stock and its spindle, an annulus to be translated on the head-stock spindle, a work dog engaging device on said annulus, and means operated from the tail-stock for translating said annulus.

2. In a device of the class described, in combination with a head-stock, its driven spindle, and a tail-stock and its spindle, a work dog engaging device at the head-stock adapted to be translated thereon, and means on the tail-stock for translating said device.

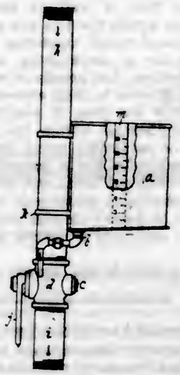
3. In a device of the class described, a head-stock spindle, a tail-stock spindle, tail-stock operating means, an externally grooved annulus to be translated on the head-stock spindle, a work dog engaging device on the annulus, and longitudinally shifting means engaging the annulus groove to translate the same while in rotation, said shifting means being extended to the tail-stock and connected to the tail-stock operating means, for coördinately operating the work dog engaging device and the tail-stock spindle.

4. In a device of the class described, a head-stock spindle, a member to be translated thereon, a work dog engaging device on said member, a tail-stock, a spindle to be translated thereon, and means for coördinately translating said member and tail-stock spindle while the head-stock spindle is in operation.

5. In a device of the class described, a head-stock driven spindle, a work dog engaging device fixed to rotate with and move longitudinally of the spindle, a tail-stock, a spindle to be reciprocated therein, and means for coördinately operating said device and tail-stock spindle while the head-stock spindle is in motion.

[Claims 6 to 26 not printed in the Gazette.]

1,133,065. APPARATUS FOR MIXING COLORS. OTTO SCHUTZ, New York, N. Y., assignor to Badische Company, New York, N. Y., a Corporation of New York. Filed Mar. 6, 1914. Serial No. 822,909. (Cl. 92—21.)



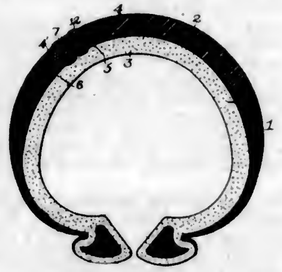
1. An apparatus for mixing color solutions comprising a tank adapted to contain a color solution, means for gaging the solution, a drain pipe connected to the tank, a water inlet pipe, a valve connection between the drain pipe and the water inlet for controlling the solution and the water.

2. An apparatus for mixing color solutions comprising a graduated tank adapted to measure and contain a color solution, a drain pipe connected to the tank, a water inlet pipe, said drain pipe being of smaller diameter to proportion the quantity of the solution flowing from the tank, a valve connection between the drain pipe and the water inlet for controlling the solution and the water.

1,133,066. TIRE. HENRY C. SMITH, Pittsburgh, Pa. Filed Jan. 2, 1913. Serial No. 739,666. (Cl. 152—14.)

1. A tire of resilient material comprising strips for insertion within the tire, said strips being provided with

projections secured thereon extending outward to form receptacles for the insertion of a non-slipping material, a flange on the outer end of said projections for securing said non-slipping material in said receptacle, and wings extending outward from said projections to the periphery of the tire.



2. A tire of resilient material comprising strips for insertion within the tire, said strips being provided with projections thereon secured by means of a flange on said projections and extending outward to form receptacles for the insertion of a non-slipping material, wings extending outward from said flange to the periphery of the tire, and a flange on the outer end of said projection for securing said non-slipping material in said receptacle.

3. A tread for tires of resilient material comprising strips for insertion within the tire and provided with projections of perforated metal extending out therefrom to form receptacles for a non-slipping material, a clamp around said projections, and means on said clamps for securing said projections to said strips.

4. A tread for tires of resilient material comprising strips for insertion within the tire and provided with projections of perforated metal extending out therefrom to form receptacles for a non-slipping material, a clamp around said projections, and prongs on said clamp adapted to secure said projections to their connecting strip.

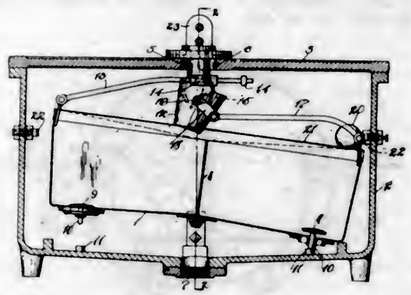
5. A tread device for tires of resilient material comprising strips for insertion within the tire and provided with projections of perforated metal extending out therefrom to form receptacles for a non-slipping material, a base flange extending out from and around said projections, a clamp around said projections, and prongs on said clamp adapted to be passed through said flange and strip and bent against said strip to secure said projections to said strip.

[Claim 6 not printed in the Gazette.]

1,133,067. WATER-MEASURING DEVICE. CHARLES F. SIEGRIST, Cleveland, Ohio, assignor to the Strong, Carlisle & Hammond Company, Cleveland Ohio, a Corporation of Ohio. Filed Apr. 23, 1913. Serial No. 762,986. (Cl. 73—168.)

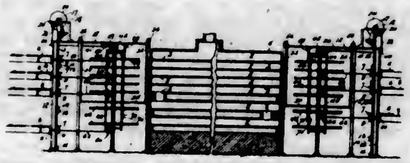
1. In a device of the character described, the combination of an oscillatory bucket comprising two similar compartments, one on each side of the axis of oscillation of said bucket; discharge valves in said compartments adapted to be opened upon depression of the corresponding end of said bucket; a weight movable on said bucket transversely of its axis; a supply pipe terminating above said bucket; a valve adapted to control said pipe; means connecting said bucket with said valve, whereby movement of the former to balanced position will close the latter; a movable nozzle adapted to divert the supply through said pipe from one compartment of said bucket to the other; and lost-motion means operatively connecting said bucket with said nozzle, whereby the latter is moved after said valve is closed.

2. In a device of the character described, the combination of an oscillatory bucket comprising two similar compartments, one on each side of the axis of oscillation of said bucket; discharge valves in said compartments adapted to be opened upon depression of the corresponding end of said bucket; a weight movable on said bucket transversely of its axis; a supply pipe terminating above said bucket; a valve adapted to control said pipe; a link connecting one end of said bucket with said valve, said link being arranged to close said valve when said bucket is in



balanced position, and said valve having a by-pass of restricted opening; a movable nozzle adapted to divert the supply through said pipe from one compartment of said bucket to the other; and a link pivotally connected at one end with said bucket and having a lost-motion connection at the other end with said nozzle.

1,133,068. RAKE-OPERATING MECHANISM FOR ORE-ROASTING FURNACES. JOHN J. SIMMONDS, Iola, Kans., assignor to the Simmonds Engineering Company, Iola, Kans., a Corporation of Kansas. Filed July 16, 1914. Serial No. 851,280. (Cl. 75—142.)



1. In an ore roasting furnace, an oven, a rake movable therein, reciprocative means for moving said rake, a motor which, while the rake moving means is being reciprocated, runs continuously in one direction, means operated by said motor and including reversing clutch mechanism for reciprocating said rake operating means, an operator's support adjacent to said oven, means operable from said support for controlling said clutch mechanism, and means operable from said support for controlling the connecting with and disconnecting from of said motor operated means and said rake moving means.

2. In an ore-roasting furnace, an oven, a rake movable therein, a rotary driving member which, while the rake operating means is being reciprocated runs continuously in one direction, a rotary driven member, rake operating means, means actuated by said driven member for reciprocating said rake operating means when said driven member is rotated alternately in opposite directions, means including connecting and disconnecting mechanism and operated by said driving member and including also reversing clutch mechanism for rotating said driven member in either direction, means operable from said support for controlling said connecting and disconnecting mechanism, and means operable from said support for controlling said clutch mechanism.

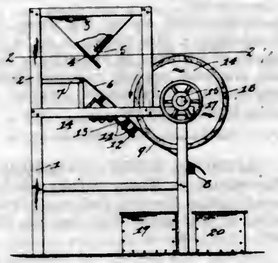
3. In an ore roasting furnace, an oven, a rake movable therein, driving means which, while the rake moving means is being reciprocated, runs continuously in one direction, means for operating said rake, reversing transmission mechanism actuated by said driving means for reciprocating said rake operating means, a turn table adjacent to said oven and adapted to support said rake, and means carried by said turn table for controlling said transmission mechanism.

4. In an ore roasting furnace, an oven, a rake movable therein, driving means which, while the rake moving means is being reciprocated, runs continuously in one direction, means for operating said rake, reversing transmission mechanism actuated by said driving means for reciprocating said rake operating means, a turn table adjacent to said oven and adapted to support said rake, an operator's support adjacent to said turn table, an operating member carried by said turn table, and means actuated by said member for controlling said transmission means, said member being operable from said support.

5. In an ore roasting furnace, an oven, a rake movable therein, driving means which, while the rake moving means is being reciprocated, runs continuously in one direction, means for operating said rake, transmission means including reversing clutch mechanism and actuated by said driving means for reciprocating said rake operating means, a turn table adjacent to said oven and adapted to support said rake, an operator's support adjacent to said turn table, an operating member carried by said turn table and operable from said support, and means actuated by said member for controlling said clutch mechanism.

[Claims 6 to 35 not printed in the Gazette.]

1,133,069. SEED-CLEANER. DAVID E. SKIRVIN, Mount Angel, Oreg. Filed May 11, 1914. Serial No. 837,807. (Cl. 130—18.)



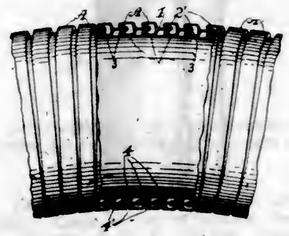
The combination in a seed separating machine with its frame and hopper, of an inclined screen member, a rotary drum operatively coacting with said screen, a flexible covering on the drum lightly contacting with said screen, and springs supported from the frame bearing on the screen member and holding it in light frictional contact with the cover on the drum.

1,133,070. FLEXIBLE INTERLOCKING SPRING-TUBE. LAWRENCE A. SUBERS, Cleveland, Ohio. Filed May 12, 1913, Serial No. 767,200. Renewed Aug. 19. 1914. Serial No. 857,607. (Cl. 137—75.)

1. In a flexible armor, a coiled band having a webbed body portion with an enlarged single edge, and an integral webbed fork, extending from the opposite edge thereof, said fork provided with enlarged edges, the enlarged edges of the fork in one spiral coil of said band inclosing between them the enlarged edge of the webbed body portion of the adjacent coil.

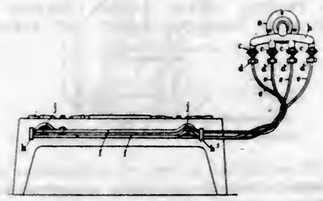
2. In a flexible metal armor, a coiled band comprising a webbed body portion and forked extremities, and enlarged edges for said webbed body and forked extremities, the said forked extremities inclosing the body portion of the adjacent coil between them, said enlarged edges of said forked portions of one coil adapted to engage and inclose the enlarged edge of the body portion of the adjacent coil.

3. In a flexible, interlocking spring tube, a series of interlocking coils, each coil provided with one enlarged edge, and with one forked edge having enlarged extremities, the enlarged edges of the fork on the edge of one coil inclosing the enlarged edge of the next adjacent coil, the said fork forming a chamber and an elastic substance inclosed in said chamber.



4. In a flexible spring tube, a coiled band having a stem edge and forked edges, and composed of thin metal, said edges enlarged at their extremities, the enlarged forked edges of each spiral coil inclosing the enlarged stem edge of the adjacent coil and forming an inclosure, and an elastic substance in said inclosure in which said stem edge is embedded.

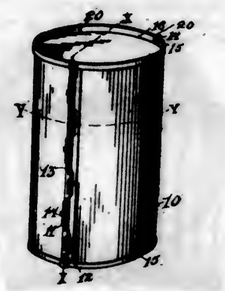
1,133,071. GAS-FEEDING DEVICE FOR COOKING-STOVES. AUGUSTE JULES TOUSSAINT, Paris, France. Filed July 24, 1913. Serial No. 780,941. (Cl. 158—36.)



1. In apparatus of the class described, in combination, a gas stove provided with a plurality of burners, conveying tubes mounted upon said stove and provided with branches communicating with said burners, there being a separate conveying tube for each burner, a feeder adapted to be attached to a gas conduit, said feeder being provided with as many outlets as there are conveying tubes, each of said outlets being provided with a cock for controlling the flow of gas therethrough, and flexible tubes extending between said conveying tubes and said controlling cocks, said apparatus being free from cocks between said burners and the said cocks in said feeder outlets.

2. In apparatus of the class described, in combination, a gas stove provided with a plurality of burners, conveying tubes mounted upon said stove and provided with branches communicating with said burners, there being a separate conveying tube for each burner, said tubes being secured together to form a unit, a feeder adapted to be attached to a gas condnit, said feeder being provided with as many outlets as there are conveying tubes, each of said outlets being provided with a cock for controlling the flow of gas therethrough, and flexible tubes extending between said conveying tubes and said controlling cocks, said apparatus being free from cocks between said burners and the said cocks in said feeder outlets.

1,133,072. SHEET-METAL RECEPTACLE. JOHN VANSTROM, Jamestown, N. Y., assignor to American Window Screen Company, Ridgway, Pa., a Corporation. Filed Mar. 5, 1914. Serial No. 822,629. (Cl. 220—4.)



In a knockdown sheet metal receptacle, a plurality of members each having a series of spaced outwardly-extending loops and a series of inwardly extending loops arranged respectively in the spaces between the outwardly extending loops, the outwardly and inwardly extending loops of adjacent members nesting within one another, the ends of the inwardly extending loops of one member abutting the adjacent ends of the adjacent outwardly extending loops of the adjacent member, whereby to prevent relative longitudinal movement of the members, and rods passed through the loops.

1,133,073. HEATING AND COOKING APPARATUS. ROBERT FRANCIS VENNER, London, England. Filed Sept. 27, 1913. Serial No. 792,087. (Cl. 219—65.)



1. In electric heating or cooking apparatus a resistance conductor laterally distributed within a relatively thin extended and substantially horizontal layer of liquid electrically insulating material.

2. In electric heating or cooking apparatus the combination with a substantially horizontal resistance conductor of a layer of oil surrounding said conductor, said layer being of relatively large area and small substantially uniform transverse thickness.

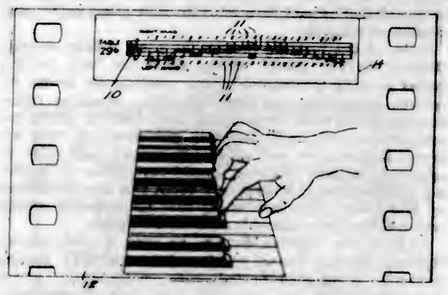
3. In electric heating or cooking apparatus the combination with a substantially horizontal plane layer of liquid electrically insulating material, of a resistance conductor of extended form located approximately in a horizontal plane coinciding with the middle plane of said layer.

4. In electric heating or cooking apparatus the combination with a flat horizontal resistance conductor of extended form, of a layer of liquid electrically insulating material completely surrounding said conductor, the upper and lower surfaces of said layer being approximately equidistant from the plane in which the conductor is located.

5. In electric heating or cooking apparatus the combination with a flat hollow casing, a resistance conductor of extended form located within said casing, a body of liquid electrically insulating material occupying the interior of said casing, and means for permitting the expansion of said liquid material when heated.

[Claims 6 to 11 not printed in the Gazette.]

1,133,074. ART OF AND MEANS FOR PIANO-TECHNIC INSTRUCTION. MARIE VON UNSCHULD-LASARD, Washington, D. C. Filed Dec. 24, 1912. Serial No. 738,505. (Cl. 35—12.)

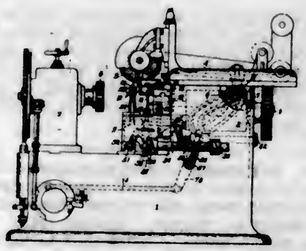


1. The hereindescribed art of piano technic instruction, which consists in displaying a musical notation and a given finger movement for the interpretation thereof, maintaining the musical depiction of said movement unchanged during the period of display, and simultaneously displaying with the musical depiction animated translations of the notation corresponding to the given finger movement.

2. The hereindescribed art of piano technic instruction, which consists in photographically projecting a musical notation and a given finger movement for the interpretation thereof, maintaining the musical depiction of said movement unchanged during the period of projection, and simultaneously therewith projecting photographically animated translations of the notation corresponding to the given finger movement.

3. The hereindescribed means for piano technic instruction, comprising a film having a series of pictures of the movement of the hand in executing a musical composition, said film also bearing representations of such musical composition in associated relation with said pictures of the hand movement.

1,133,075. GRINDING-WHEEL-TRIMMING MECHANISM. FREDERICK A. WARD, Detroit, Mich., assignor to the Gear Grinding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 20, 1909. Serial No. 473,251. (Cl. 125—6.)



1. In a machine of the class described, the combination of a grinding-wheel, a trimmer part capable of compound oscillafory movements relative to such wheel, and mechanism for imparting compound oscillatory trimming movements to such trimmer part.

2. In a machine of the class described, the combination of a grinding-wheel, a plurality of wheel trimming parts capable of compound oscillatory movements relative thereto, and mechanism for imparting compound oscillatory trimming movements to such parts.

3. In a machine of the class described, the combination of a grinding-wheel, wheel trimming means having trimmer parts capable of like compound oscillatory trimming movements in unison, and mechanism for intermittently causing such movements of said parts.

4. In a machine of the class described, the combination of a grinding-wheel, an oscillatory part movable to radially trim a side edge of the wheel, and mechanism for imparting oscillatory movements to said part and lateral movements to its axis whereby to cause said part to have irregular trimming movements and means for causing the irregular movements of such part.

5. The combination with a grinding-wheel, of an oscillatory member, a wheel-trimming part carried by said member and capable of oscillation relative thereto, means for oscillating the trimmer part relative to said member, and means for oscillating said member when the trimmer part is oscillated relative thereto.

[Claims 6 to 17 not printed in the Gazette.]

1,133,076. BOX AND CASE. HENRY WILDBERG, Cincinnati, Ohio. Filed Mar. 13, 1914. Serial No. 824,374. (Cl. 217—22.)



1. In a container for bottles and the like, sides and ends for the container and a series of parallel partitions therefor, partially cut away so as to form recesses in the partitions and form ledges at the bottom of the recesses whereby the bottom and sides of the bottle are retained.

2. In a container for bottles and the like, sides and ends for the container, partitions therefor, partially cut away so as to form segmental shaped recesses in the partitions and ledges in said partions at the bottom of the recesses.

3. In a container for bottles and the like, sides and ends for the container, partitions therefor, partially cut away so as to form recesses in the partitions, and ledges integral with the partitions at the bottom of the recesses whereby the bottom and sides of the bottle are retained.

4. In a container for bottles and the like, sides and ends for the container, partitions therefor, partially cut away so as to form segmental shaped recesses in the partitions and ledges integral with the partitions at the bottom of the recesses whereby the bottom and sides of of the bottle are retained.

5. In a container for bottles and the like, sides and ends for the container, partitions therefor, partially cut away so as to form recesses in the partitions located on each side thereof so as to present a series of adjacent pockets between the partitions to engage opposite sides of bottles inserted in them and ledges in the partitions at the bottom of each recess.

[Claim 6 not printed in the Gazette.]

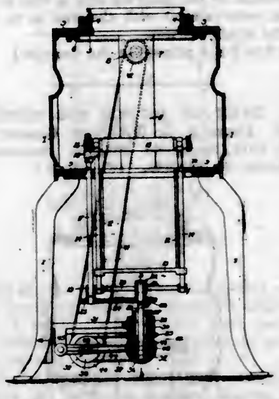
1,133,077. SHOE-FORM. GEORGE T. WILLIAMS, HAROLD S. FOSTER, and NEWTON C. WILKINSON, Cedar Rapids, Iowa. Filed Nov. 13, 1914. Serial No. 871,896. (Cl. 12—128.)

A shoe-form consisting of a vamp-filling form provided near its rear upper edge with a socket, and a distender for the ankle portion of the shoe composed of a wire conforming at the front and back with the ankle and instep, and with the heel or counter, respectively, the legs of the distender being normally sprung apart, and compressed for insertion in the shoe, and the portion of the front leg inserted in the socket being brought flush with the shoe



front close to the vamp-form, so that the whole front and back of the shoe are held out smoothly by said shoe-form.

1,133,078. TAKE-UP MECHANISM FOR KNITTING-MACHINES. LOUIS N. D. WILLIAMS, Ogontz, Pa. Filed Dec. 18, 1911, Serial No. 666,584. Renewed Aug. 15, 1914. Serial No. 856,987. (Cl. 66—9.)



1. The combination, in take-up mechanism for a knitting machine having a rotating cylinder, of take-up rolls rotating with the needle cylinder and also susceptible of rising and falling movement in the plane of the knitted web, and take-up roll operating mechaaism comprising a driving pulley which has no movement of rotation about the axis of the needle cylinder, a driven pulley, a belt connecting said driving and driven pulleys, and means whereby on the fall of the take-up rolls movement is transmitted thereto from the driven pulley and on the rise of said rolls such transmission is arrested.

2. The combination, in take-up mechanism for a knitting machine having a rotating needle cylinder, of take-up rolls rotating with the needle cylinder and also susceptible of rising and falling movement in the plane of the knitted web, and take-up roll operating mechanism comprising driving and driven pulleys neither of which has movement of rotation about the axis of the needle cylinder, a belt connecting said pulleys, and means whereby on the fall of the take-up rolls movement is transmitted thereto from the driven pulley and on the rise of said rolls such transmission is arrested.

3. The combination, in take-up mechanism for a knitting machine having a rotating needle cylinder, of take-up rolls rotating with the needle cylinder and also susceptible of rising and falling movement in the plane of the knitted web, and take-up roll operating mechanism comprising a driving pulley which has no movement of rotation about the axis of the needle cylinder, a driven pulley which partakes of the rising and falling movements of the take-up rolls,

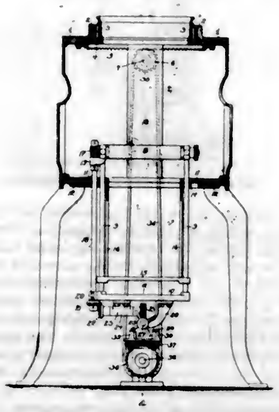
a belt connecting said driving and driven pulleys, and means whereby on the descent of the driven pulley movement is transmitted therefrom to the take-up rolls and on the rise of said driven pulley such transmission is arrested.

4. The combination, in take-up mechanism for a knitting machine having a rotating needle cylinder, of take-up rolls rotating with the needle cylinder and also susceptible of rising and falling movement in the plane of the knitted web, and take-up roll operating mechanism comprising a driving pulley which has no movement of rotation about the axis of the needle cylinder, a driven pulley which also has no movement of rotation about the axis of the needle cylinder but partakes of the rising and falling movements of the take-up rolls, and means whereby on the descent of said driven pulley motion is transmitted therefrom to the take-up rolls and on the rise of such driven pulley said transmission is arrested.

5. The combination, in take-up mechanism for a knitting machine having a rotating needle cylinder, of take-up rolls rotating with said needle cylinder, and take-up roll operating mechanism having, as elements, belt connected pulleys, the driving pulley rotating about an axis which is fixed in the sense that it has no movement of rotation about the axis of the needle cylinder, and the driven pulley being carried by a lever which is mounted upon a non-rotating portion of the machine and is free to descend as the take-up rolls descend with the web or to rise as said take-up rolls climb the web.

[Claims 6 to 8 not printed in the Gazette.]

1,133,079. TAKE-UP DEVICE FOR KNITTING-MACHINES. LOUIS N. D. WILLIAMS, Ogontz, Pa. Filed June 13, 1912, Serial No. 703,433. Renewed Aug. 15, 1914. Serial No. 856,988. (Cl. 66—9.)



1. In take-up mechanism for knitting machines, the combination of a take-up roll carrier movable in the direction of delivery of the knitted web and take-up-roll driving mechanism having a driven member on the movable take-up-roll carrier, and a driving member mounted in fixed bearings.

2. In take-up mechanism for knitting machines, the combination of a take-up-roll carrier movable with the knitted web, and take-up-roll driving mechanism having a driven member on the movable take-up-roll carrier, a driving member therefor mounted in fixed bearings, and connected to a belt pulley, another belt pulley mounted in fixed bearings on the machine and a belt connecting said pulleys.

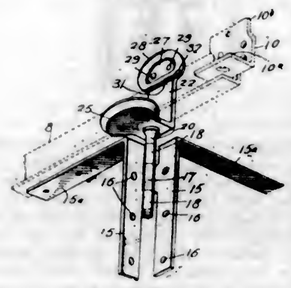
3. In take-up mechanism for knitting machines, the combination of take-up-rolls and their appurtenances whose weight is carried by the knitted web, and a belt-actuated take-up-roll driver carried by a shaft which is mounted in a bearing having no movement of rotation about the axis of the machine, said shaft having a pulley with which the belt is in continuous driving contact.

4. In take-up mechanism for knitting machines, the combination of take-up rolls and their appurtenances mounted in a movable carrier whereby the take-up rolls are free to rise upon or descend with the knitted web and cause their weight to exert tension upon said web, and driving devices for the take-up rolls having as elements a tappet wheel on the movable take-up-roll carrier and a tappet wheel whose shaft is mounted in fixed bearings.

5. In take-up mechanism for knitting machines, the combination of take-up rolls and their appurtenances mounted in a movable carrier whereby the take-up rolls are free to rise upon or descend with the knitted web and cause their weight to exert tension upon said web, and driving devices for the take-up rolls having as elements a tappet wheel on the movable take-up-roll carrier and a tappet wheel on a belt driven shaft mounted in bearings which do not partake of the movement of the take-up-roll carrier.

[Claims 6 and 7 not printed in the Gazette.]

1,133,080. DOOR-HANGER. SWEN J. WILLNER and GUSTAF FOLEEN, Portland, Oreg. Filed July 28, 1914. Serial No. 853,615. (Cl. 16—91.)



1. A combined hinge and slide connection, comprising a hinge having a pintle, a carriage to which said pintle is connected, the hinge comprising sections at right angles to each other, said sections having offset portions on their inner faces, housings fitting partially within the offset portions and having continuous ball races and balls in the races.

2. A fixture, comprising a carriage having portions arranged at an angle to each other and provided with ball races lying in planes at approximately a right angle to each other, and a hinge connected with said carriage.

3. A combined hinge and slide for connection with a track bar of angular material, and comprising a carriage having portions adapted to fit against the outer edges of the track bar, one of the portions being provided with a pintle and hinge leaves having registering bearings for engagement by the pintle, a sectional housing connected with each portion of the carriage, each housing having a continuous ball race, a portion of which is adjacent to the adjacent edge of the track bar, balls in the race, each housing having an opening or passage for receiving the said edge of the track bar to permit the said edge to engage the balls in the race.

4. A combined hinge and slide for connection with a track bar of angular material, and comprising a carriage having portions adapted to fit against the outer edges of the track bar, a hinge in connection with one of the portions of the carriage, a sectional housing connected with each portion of the carriage, each housing having a continuous ball race, a portion of which is adjacent to the adjacent edge of the track bar, balls in the race, each housing having an opening or passage for receiving the said edge of the track bar to permit the said edge to engage the balls in the race.

5. A combined hinge and slide for connection with a track bar of angular material, and comprising a carriage having portions adapted to fit against the outer edges of the track bar, a hinge in connection with one of the portions and a ball bearing carried by each portion and having a passage for receiving the adjacent edge of the track bar to permit the said edge to engage the balls of the race.

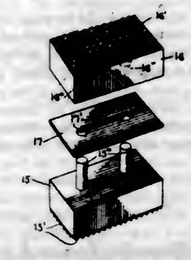
1,133,081. PRODUCTION OF COLORING-MATTERS OF THE ANTHRAQUINONE SERIES. HUGO WOLFF, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Baden. Filed Sept. 26, 1913. Serial No. 791,951. (Cl. 8—1.)

1. The process of producing coloring matters of the anthraquinone series by treating, with a halogenizing agent in the presence of a suitable solvent, a 1-aryl-amino-anthraquinone containing a methyl group in the ortho position to the amino group.

2. The process of producing coloring matter of the anthraquinone series by treating 1-anilino-2-methyl-anthraquinone with chlorin at a raised temperature and in the presence of trichlorbenzene.

3. The new vat coloring matter which can be obtained by treating 1-anilino-2-methyl-anthraquinone with chlorin at a raised temperature and in the presence of trichlorbenzene, which new coloring matter is a chloranthraquinone-acridone and can be obtained in the form of brown-red leaflets, which yields an orange-red solution in concentrated sulfuric acid and is precipitated from this solution by means of water, giving blue-red flakes, which coloring matter yields a blue-red solution in nitrobenzene, and with alkaline hydrosulfite gives a violet-brown vat which dyes cotton very fast red shades with a blue tinge.

1,133,082. WEDGE-SUPPORTING BLOCK FOR AXLE-BOXES. ISAAC B. ABRAHAM, Chicago, Ill. Filed Mar. 30, 1914. Serial No. 828,417. (Cl. 105—17.)



1. The combination with an axle box for locomotives having a binder and a wear adjusting wedge against which the box slides; of a solid block located under the wedge and on the binder and supporting the wedge against rocking and downward movement.

2. The combination with a locomotive axle box having a binder and a wear adjusting wedge and a screw for adjusting the relation of the wedge to the axle box; of a solid block located on the binder adjacent the screw and supporting the wedge against downward movement.

3. The combination with a locomotive axle box having a wear adjusting wedge and a binder; of a block seated on the binder and supporting the wedge and having biting contact with the wedge.

4. The combination with a locomotive axle box having a wear adjusting wedge and a binder; of a block seated on the binder and supporting the wedge and having biting contact with the binder.

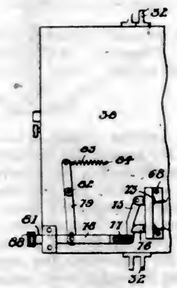
5. The combination with a locomotive axle box having a wear adjusting wedge and a binder; of a block seated on the binder and supporting the wedge and having biting contact with the binder and the wedge.

[Claims 6 to 22 not printed in the Gazette.]

1,133,083. PHENOLIC CONDENSATION PRODUCT. LEO H. BAEKELAND, Yonkers, N. Y., assignor to General Bakilite Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 2, 1909, Serial No. 531,000. Divided and this application filed Oct. 25, 1913. Serial No. 797,326. (Cl. 106—22.)

An infusible composition containing a phenolic condensation product in solid solution with anilin, said composition characterized by the fact that particles or fragments of the substance which has been transformed to its final infusible state, are yet capable of being welded into compact and coherent masses under the action of heat and pressure.

1,133,084. ELEVATOR SAFETY DEVICE. EMERY BARSONY, Castleton-on-Hudson, N. Y. Filed Apr. 3, 1914. Serial No. 829,218. (Cl. 187—31.)



1. A device of the class described comprising an elevator shaft, a car vertically movable therein, a shaft door and a car door, a motive power switch upon said car and means for automatically releasing the said switch upon the opening of said doors.

2. A device of the class described, comprising an elevator shaft, a car vertically movable therein, a slidable shaft door, a slidable car door, a motive-power switch upon the car, automatic opening means for said switch operable upon an opening of the car door, said means obstructingly positionable within the closing path of movement of the car door when the shaft door is open.

3. A device of the class described, comprising an elevator shaft, a car vertically movable therein, a slidable shaft door, a slidable car door, a motive-power switch upon the car, automatic opening means for said switch operable upon an opening of the car door, said means obstructingly positionable within the closing path of movement of the car door when the shaft door is open, means for shifting said switch and automatic opening means upon a closing of the shaft door, and means for closing said switch upon the subsequent closing of the car door.

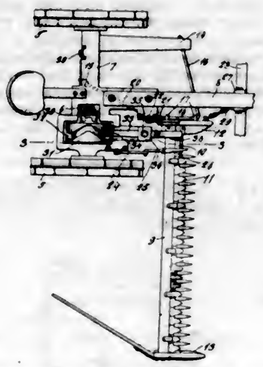
4. A device of the class described, comprising an elevator shaft, a car vertically movable therein, a slidable shaft door, a slidable car door, a motive-power switch upon the car, automatic opening means for said switch operable upon an opening of the car door, said means obstructingly positionable within the closing path of movement of the car door when the shaft door is open, means for shifting said switch and automatic opening means upon a closing of the shaft door, and means for closing said switch upon the subsequent closing of the car door.

5. A device of the class described, comprising an elevator shaft, a car vertically movable therein, a slidable shaft door, a slidable car door, a motive-power switch upon the car, and automatic opening means for said switch

operable upon an opening of the car door, said means obstructingly positionable within the closing path of movement of the car door when the shaft door is open.

[Claims 6 to 9 not printed in the Gazette.]

1,133,085. MOWING-MACHINE. GEORGE S. BEMMER, Meeker, Colo. Filed Nov. 20, 1914. Serial No. 873,146. (Cl. 56—75.)



1. In a mowing machine, a main frame, a reciprocatory cutter bar, means for supporting the cutter bar to permit raising and lowering thereof, a lever operatively connected to the cutter bar, a fulcrum for the lever carried by the main frame, on which fulcrum the lever is slidable vertically, and actuating means for the lever.

2. In a mowing machine, a main frame, a reciprocatory cutter bar, means for supporting the cutter bar to permit raising and lowering thereof, a lever operatively connected to the cutter bar, a fulcrum for the lever carried by the main frame, on which fulcrum the lever is slidable vertically, resilient means opposing the upward sliding movement of the lever, and actuating means for the lever.

3. In a mowing machine, a main frame, a reciprocatory cutter bar, means for supporting the cutter bar to permit raising and lowering thereof, a lever operatively connected to the cutter bar, a vertical pivot pin on which the lever is fulcrumed and slidable, and actuating means for the lever.

4. In a mowing machine, a main frame, a cutting mechanism including a finger bar having a shoe at its inner end, and a cutter bar, a supporting rod for the finger bar slidably and swivelingly connected at one end to the main frame, and extending laterally to the shoe and pivotally connected thereto, a lever carried by the main frame to swing transversely thereof, a loose connection between the lever and the cutter bar, a fulcrum for the lever on which it is vertically slidable, and actuating means for the lever.

1,133,086. PRODUCTION OF AMMONIUM SULFATE. CARL BOSCH, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 21, 1913. Serial No. 743,281. (Cl. 23—21.)

1. The process of producing ammonium sulfate by subjecting a solution of ammonium bisulfite to local heating—that is to say, by applying heat successively to comparatively small portions of the said solution, while preventing the transference of heat from these small portions to the whole quantity of the solution in which reaction is to take place.

2. The process of producing ammonium sulfate by subjecting a solution containing ammonium bisulfite and ammonium sulfite to local heating—that is to say, by applying heat successively to comparatively small portions of the said solution, while preventing the transference of heat from these small portions to the whole quantity of the solution in which reaction is to take place.

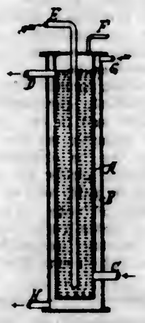
3. The process of producing ammonium sulfate by passing a solution of ammonium bisulfite through a heated tube under pressure.

4. The process of producing ammonium sulfate by passing a solution of ammonium bisulfite through a heated tube under pressure and transferring heat from the solution which has left the said tube to the solution which is about to enter the said tube.

5. The process of producing ammonium sulfate by passing a solution containing ammonium bisulfite and ammonium sulfite through a heated tube under pressure.

[Claim 6 not printed in the Gazette.]

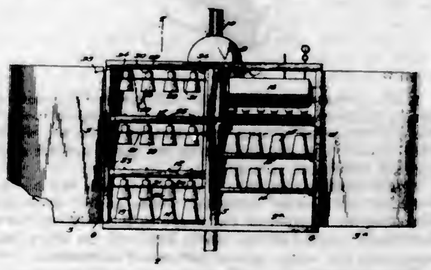
1,133,087. PURIFICATION OF HYDROGEN. CARL BOSCH and WILHELM WILD, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Dec. 4, 1913. Serial No. 804,669. (Cl. 48—220.)



1. The process of freeing hydrogen from sulfur by treating hydrogen containing sulfur under a pressure exceeding that of five atmospheres with a hot solution of fixed caustic alkali.

2. The process of freeing hydrogen from sulfur by treating hydrogen containing sulfur and at a pressure of fifty atmospheres with 10% to 50% solution of caustic soda maintained at a temperature of from 150° to 225° C.

1,133,088. STERILIZER. DAVID WILLIAM BROOKS, Royston, Ga. Filed Apr. 29, 1914. Serial No. 835,158. (Cl. 141—3.)



1. A sterilizer for drinking glasses and like articles, comprising a cabinet or casing having an open front, and a door for closing the front, the top and the bottom of the casing being chambered, and said casing having chambered partition walls arranged horizontally and separating the interior of the casing into compartments, trays for holding the glasses or other articles seated on the bottom and the partitions, a boiler having a steam pipe provided with branches extending through the upper walls of the bottom and of the partitions and through the trays to discharge into the articles on the trays, said boiler having a hot water pipe leading into the partitions and the top of the casings and provided with branches discharging downwardly through the lower walls of the partitions and the top and in register with the first-named branches, said trays being removable, a hood in connection with each of the last-named branches and slidably connected with the branch for protecting the bottoms of the glasses when in inverted position on the trays, a common support for the hoods in each compartment of the casing, a connection between the supports, and a connection between the uppermost support and the door for lowering the supports when the door is closed and for raising the supports when the door is opened, said casing having a lateral compartment for the boiler, and the said lateral compartment having guides for receiving the trays after glasses have been cleaned.

2. A sterilizer for drinking glasses and like articles, comprising a cabinet or casing having an open front, and a door for closing the front, the top and the bottom of the casing being chambered, and said casing having chambered partition walls arranged horizontally and separating the interior of the casing into compartments, trays for holding the glasses or other articles seated on the bottom and the partitions, a boiler having a steam pipe provided with branches extending through the upper walls of the bottom and of the partitions and through the trays to discharge into the articles on the trays, said boiler having a hot water pipe leading into the partitions and the top of the casings and provided with branches discharging downwardly through the lower walls of the partitions and the top and in register with the first-named branches, said trays being removable, a hood in connection with each of the last-named branches and slidably connected with the branch for protecting the bottoms of the glasses when in inverted position on the trays, a common support for the hoods in each compartment of the casing, a connection between the supports, and a connection between the uppermost support and the door for lowering the supports when the door is closed and for raising the supports when the door is opened.

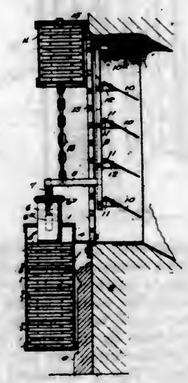
3. A sterilizer for drinking glasses and like articles, comprising a cabinet or casing having an open front, and a door for closing the front, the top and the bottom of the casing being chambered, and said casing having chambered partition walls arranged horizontally and separating the interior of the casing into compartments, trays for holding the glasses or other articles seated on the bottom and the partitions, a boiler having a steam pipe provided with branches extending through the upper walls of the bottom and of the partitions and through the trays to discharge into the articles on the trays, said boiler having a hot water pipe leading into the partitions and the top of the casings and provided with branches discharging downwardly through the lower walls of the partitions and the top and in register with the first-named branches, said trays being removable, a hood in connection with each of the last-named branches and slidably connected with the branch for protecting the bottoms of the glasses when in inverted position on the trays, a common support for the hoods in each compartment of the casing, a connection between the supports, and a connection between the uppermost support and the door for lowering the supports when the door is closed and for raising the supports when the door is opened, said casing having a lateral compartment for the boiler, and the said lateral compartment having guides for receiving the trays after glasses have been cleaned.

4. A sterilizer for drinking glasses and like articles, comprising a cabinet or casing having an open front, and a door for closing the front, the top and the bottom of the casing being chambered, and said casing having chambered partition walls arranged horizontally and separating the interior of the casing into compartments, trays for holding the glasses or other articles seated on the bottom and the partitions, a boiler having a steam pipe provided with branches extending through the upper walls of the bottom and of the partitions and through the trays to discharge into the articles on the trays, said boiler having a hot water pipe leading into the partitions and the top of the casings and provided with branches discharging downwardly through the lower walls of the partitions and the top and in register with the first-named branches, said trays being removable, and a hood in connection with each of the last-named branches, and slidably connected with the branch for protecting the bottoms of the glasses when in inverted position on the trays.

5. A sterilizer for drinking glasses and like articles, comprising a cabinet or casing having an open front, and a door for closing the front, the top and the bottom of the casing being chambered, and said casing having chambered partition walls arranged horizontally and separating the interior of the casing into compartments, trays for holding the glasses or other articles seated on the bottom and the partitions, a boiler having a steam pipe provided with branches extending through the upper walls of the bottom and of the partitions and through the trays to discharge into the articles on the trays, said boiler having a hot water pipe leading into the partitions and the top of the casings and provided with branches discharging downwardly through the lower walls of the partitions and the top and in register with the first-named branches, said trays being removable, and a hood in connection with each of the last-named branches, and slidably connected with the branch for protecting the bottoms of the glasses when in inverted position on the trays.

[Claims 6 and 7 not printed in the Gazette.]

1,133,089. THERMOSTATIC MEANS FOR OPERATING HOT-AIR REGISTERS. ALBERT P. BROOMELL, York, Pa. Filed July 7, 1914. Serial No. 849,584. (Cl. 236—6.)



1. In a hot air heating system, a register provided with gates, a thermostatic member connected with said gates for operating the latter at a predetermined temperature, and an auxiliary thermostatic member acting independently of said first-named thermostatic member for operating the register gates at an abnormally low temperature.

2. In a hot air heating system, a register provided with gates, a thermostat connected with said gates for causing the latter to open below a predetermined room temperature and to close at a higher temperature, and an auxiliary thermostatic member for causing the closing of the register gates below the operating temperature of the first mentioned thermostatic member.

3. In a hot air heating system, a register provided with gates, a thermostat connected with said gates for causing the later to open below a predetermined room temperature and to close at a higher temperature, and an auxiliary thermostatic member acting independently of said first-named thermostatic member for causing the closing of the register gates when cold air is passing out through the register.

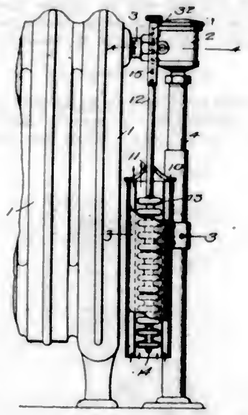
4. In a hot air heating system having a register provided with pivoted gates, a common operating rod for moving said pivoted gates, a counterweight secured to said common operating rod, a thermostatic bellows dis-

posed below said counter weight and arranged to engage the latter in its movement under expansion, the position of said counter weight being adjustable with respect to said thermostatic bellows.

5. In a hot air heating system, a register provided with movable gates, a thermostat disposed below the register and being operatively connected with said gates for opening and closing the latter at a predetermined temperature, and an auxiliary thermostat disposed in front of the register in the path of the incoming hot air, said auxiliary thermostat being operatively connected with the register gates for closing the latter when cold air is coming through the register.

[Claims 6 and 7 not printed in the Gazette.]

1,133,090. AUTOMATIC HEAT-CONTROLLING DEVICE. ALBERT P. BROOMELL, York, Pa. Filed July 8, 1914. Serial No. 849,679. (Cl. 236—6.)



1. The combination with a radiator having a supply pipe, of a valve casing communicating with said radiator and said supply pipe, a valve therein for controlling the heating fluid, a thermostat casing carried by said supply pipe, said thermostat casing being open at the bottom and at the top, means carried by the supply pipe and by the thermostat casing for insulating the heat from the radiator and from the supply pipe, a thermostat disposed within said thermostat casing, means disposed between said thermostat and said valve for operating the latter, said last named means comprising a depending rod connected with the valve, and means for shifting the position of the rod with respect to the thermostat so as to vary the point of contact of the thermostat with the rod.

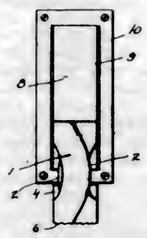
2. The combination with a radiator having a supply pipe, of a valve casing communicating with said radiator and with said supply pipe, a valve within said casing for controlling the supply of heating fluid, a thermostatic member carried by said supply pipe, means for insulating said thermostatic member from the heat from said radiator and said supply pipe, means connected with said thermostatic member for positively operating said valve at a predetermined temperature, and means for regulating the temperature at which the valve is operated.

3. The combination with a radiator having a supply pipe, of a valve casing communicating with said radiator and with said supply pipe, a valve within said casing for controlling the supply of heating fluid, a thermostatic member carried by said supply pipe, means for insulating said thermostatic member from the heat from said radiator and said supply pipe, a rocker arm connected with said valve for operating the latter, a yoke pivotally connected to said rocker arm, and a rod secured to said yoke and arranged to be engaged by said thermostatic member for moving said yoke and said rocker arm.

4. The combination with a radiator having a supply pipe, of a valve casing communicating with said radiator and with said supply pipe, a valve within said casing for controlling the supply of heating fluid, a thermostatic member carried by said supply pipe, means for insulating said thermostatic member from the heat from said radiator and said supply pipe, a rocker arm connected to said valve for operating the latter, a wrist pin carried thereby and having a threaded opening, a regulating screw disposed in the threaded opening of the wrist pin, a yoke connected with said regulating screw and movable with respect to the rocker arm when the screw is turned, and a rod rigidly connected with said yoke and arranged to extend into operative relation with said thermostatic member.

5. The combination with a radiator having an individual supply pipe, of a valve casing carried by said supply pipe, an individual inlet establishing communication between said radiator and said valve casing, said individual supply pipe and said valve casing being in close proximity to said radiator, a valve within said valve casing for controlling the heating fluid, a thermostat member carried by said supply pipe, means for insulating said thermostat member from the heat from said radiator and said supply pipe, means connected with said thermostat member for positively operating said valve at a predetermined temperature, and means for regulating the temperature at which the valve is operated.

1,133,091. SANITARY LID-COVER. WADE T. BROWN, Williamsburg, Va. Filed Feb. 3, 1914. Serial No. 816,234. (Cl. 4—18.)



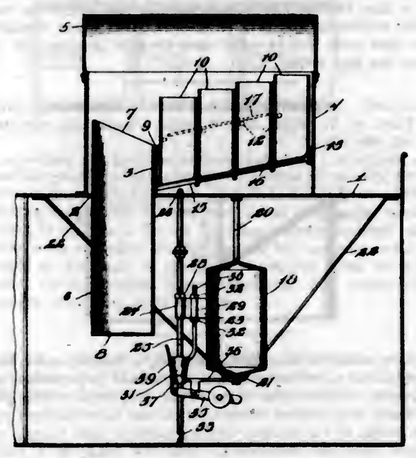
A roll of sanitary lid covers each formed of paper and provided with curved sides, straight ends, a central aperture, said covers being separated one from the other in the series at the central longitudinal portion, and said covers being connected in series, one to the next adjacent cover in the roll by a line of perforations at each side of said central detached portion, and said covers being folded inwardly at the opposite sides to form a comparatively narrow roll.

1,133,092. MEANS FOR PREVENTING INCRUSTATION OF BOILERS. WILLIAM BUCKLEY, Ashland, Wis. Filed Aug. 22, 1914. Serial No. 858,161. (Cl 210—19.)

1. In an apparatus of the character described, a water tank, a receiver removably fitted in the tank and having a grated bottom, a series of receptacles automatically movable toward said receiver, and means controlled by variations in the level of the water in the tank for successively engaging said receptacles and moving them into said receiver to dump the contents thereof into the water.

2. In an apparatus of the character described, a water tank, a receiver projecting into said tank and having a grated bottom, an inclined trackway, a series of receptacles movable by gravity along said trackway toward said receiver, and means controlled by variations of the level of the water in the tank for controlling the movement of said receptacles and for successively dumping said receptacles into said receiver.

3. In an apparatus of the character described, a water tank, a receiver projecting into the said tank and having a grated bottom, an inclined trackway, a series of receptacles movable by gravity along said trackway toward the receiver, means for holding each receptacle against vertical movement, and releasing it for vertical movement and effecting its tilting movement toward the receiver when lifted, and upon reaching a predetermined position, and receptacle lifting means controlled by the level of the water in the tank for successively raising said receptacles for tilting them and dumping them into said receiver.



4. In an apparatus of the character described, a water tank, a receiver extending into said tank, a series of gravity-movable receptacles normally held from vertical movement and adapted to be raised and tilted into the said receiver upon reaching a predetermined position, a lifting device for raising and tilting the receptacles successively, and float-controlled means within the tank for operating said lifting device.

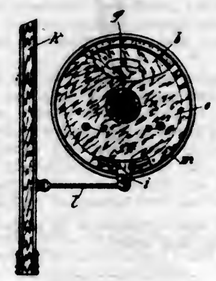
5. In an apparatus of the character described, a water tank, a receiver projecting into said tank and having a grated bottom, inclined track rails leading toward said receiver and having guide and stop rails along a portion of the length thereof, upper inclined guide and stop rails above the first named rails, a series of receptacles movable by gravity along said rails, each having laterally projecting pins to engage the uper guide and stop rails and laterally projecting lugs to engage the flanges of the lower rails, the arrangement of said rails being such that each receptacle in turn, when in an advanced position, will have its stop pins projecting beyond the upper rails and its stop lugs projecting beyond the lower rails, a lifting device for raising each receptacle in turn so as to bring said stop lugs in engagement with the upper rails to invert and dump the receptacle into the receiver, and float-controlled means within the tank for effecting the raising and lowering of said lifting device at predetermined intervals.

[Claims 6 to 10 not printed in the Gazette.]

1,133,093. SHOCK-ABSORBER. ETTORE BUGATTI, Molsheim, Germany. Filed June 3, 1914. Serial No. 842,752. (Cl. 21—105.)

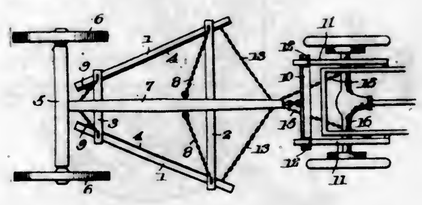
1. In an autovehicle in combination with the chassis and the running gear, a brake drum on the rear wheel, a wheel hub forming a part of the drum, a flared tubular extension extending into the drum, a shock absorber housed by the drum, said tubular extension adapted to direct waste oil from the wheel to the shock absorber.

2. In an autovehicle in combination with the chassis and the running gear, a brake drum on the running gear, a shock absorber of the friction disk type, housed by the drum, and means forming a part of the wheel hub extending into the drum and terminating in proximity to the shock absorber for directing waste oil from the wheel to the shock absorber.



3. In an autovehicle, in combination with the chassis and the running gear, a brake drum on the rear wheel axle, and a shock absorber of the friction disk type extending into said drum coaxial therewith, adapted to be lubricated by the waste oil from the wheel bearing.

1,133,094. ROAD-SCRAPER. WARD S. BUNKER, Biloxi, Miss. Filed May 9, 1914. Serial No. 837,511. (Cl. 37—5.)



1. In an implement of the character described, the combination of a truck, a pole extended forwardly from the truck, a cross bar connected at a middle point to the front end of the pole and provided at its ends with fastenings to make connection with the side springs of a motor vehicle, a road scraper, flexible front and rear connections between the sides of the pole and the front and rear ends of the road scraper, forwardly converged draft connections attached to the front end of the road scraper, other draft connections attached to the front ends of the converged connections and forwardly diverged and fastening means at the forward ends of the last mentioned draft connections for attachment to the side springs of a motor vehicle.

2. In an implement of the character described, the combination of a truck, a pole extended forwardly from the truck, a cross bar connected at a middle point to the front end of the pole and provided at its ends with fastenings to make connection with the side springs of a motor vehicle, at a point in rear of the rear axle thereof, flexible front and rear connections between the sides of the pole and the front and rear ends of the road scraper, forwardly converged draft connections for attachment to the side springs of a motor vehicle at a point in advance of the rear axle thereof.

1,133,095. GARMENT-SUPPORTER. HARRY H. BURROUGHS, Kennebunk, Me. Filed July 28, 1914. Serial No. 853,678. (Cl. 24—81.)

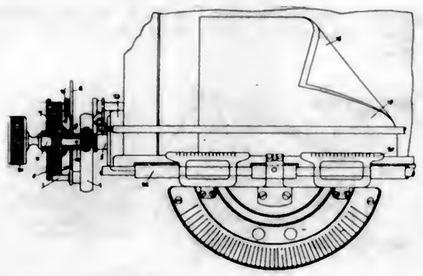
A garment supporting device comprising a pair of plates, a separating member for holding the plates in separated parallel relation, means passing through the plates in the separating member for holding the parts together, levers pivoted to opposite ends of one of the plates, and a com-

mon spring secured between one of the plates and the separating member and being coextensive with said plate



and having its ends arranged to be actuated toward the opposite plate by said levers.

1,133,096. TYPE-WRITING MACHINE. THEODOR EUGEN BUSCHMANN, Chemnitz, Germany, assignor to the Firm of Wanderer Werke Vorm. Winklhofer & Jaenicke Akt.-Ges., Schönau, near Chemnitz, Germany. Filed June 28, 1913. Serial No. 776,383. (Cl. 197—116.)



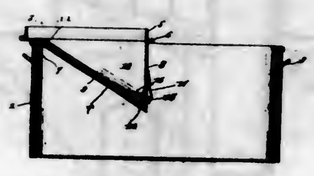
1. In a typewriting machine, the combination with a rotary platen; of stop devices adjustable with respect to the platen and to one another, means to hold one of said devices stationary in its adjusted position under all conditions of operation of the platen, means always moving in unison with the platen and coöperating with said stop devices to permit the platen to move only a predetermined distance in one direction, and for permitting unrestrained movement of the platen in the other direction, and means on the stop device that is held stationary to render the means moving with the platen inoperative.

2. In a typewriting machine, billing mechanism comprising in combination a rotatable platen, paper feed rollers adapted to coact therewith, means for releasing said feed rollers from the platen, means automatically connected to the platen to rotate therewith when the platen is rotated in a backward direction to limit the extent of backward rotation of the platen, and means for automatically returning the feed rollers into engagement with the platen and retaining them in such position when the platen is rotated in a backward direction.

3. In a typewriting machine, the combination with its platen and paper feed rolls arranged for movement to and from the platen; of two stop devices adjustable with respect to each other and arranged to form a housing, means to hold one of the devices in adjusted stationary position, an element in said housing and movable in unison with said platen and coöperating with said devices to permit the platen to move rearward a pre-determined amount, and to be free to move forward any amount, and mechanism actuated by one of the devices to move and hold the paper feed rolls against the platen during such rearward movement.

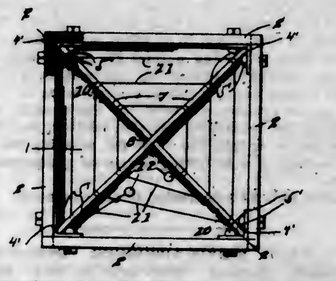
4. In a typewriting machine, the combination with its platen and paper feed rolls arranged for movement to and from the platen; of two stop devices, each having a stop, and means to lock one of the devices in adjusted stationary position with respect to the other device, a notch in the movable element adjacent its stop, a ratchet connected with the platen, a pawl on the movable device engaging the ratchet wheel, a projection in the path of movement of the stop on the movable device, adapted to enter said notch and also in the path of the periphery of said element, mechanism operated by said projection to move the paper feed rolls, whereby said projection acts as a stop for the movable element at the end of its forward movement and may enter said notch when releasing the feed rolls, and is acted upon by said periphery to return the feed rolls.

1,133,097. WASHBOILER. MARY J. CHESSEMAN, New York, N. Y. Filed Dec. 6, 1913. Serial No. 805,100. (Cl. 68—30.)



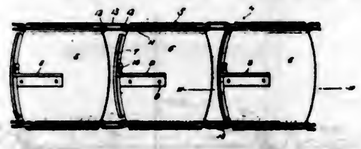
In a device of the class described, a flanged cover outstruck at a point intermediate of its ends to provide a receptacle, said receptacle including a vertically disposed straight wall formed integral with and terminating from the flange of the member and an inclined wall formed integral with and terminating from the flange at a point opposite to the first named wall, the inclined wall inclining downwardly from the upper edge of the vertical wall and terminating short of the opposite edge of the cover, the vertical wall at a point adjacent its intersection with the inclined wall being provided with a drain opening, and a longitudinally curved guard overhanging the opening and secured to the inner surface of said vertical wall at a point adjacent to said drain opening and in spaced superposed relation with the inclined wall.

1,133,098. ELECTRIC HEATING AND COOKING STOVE. ARTHUR O. CHRISTENSEN, Franklin Furnace, N. J. Filed Sept. 25, 1914. Serial No. 863,501. (Cl. 219—35.)



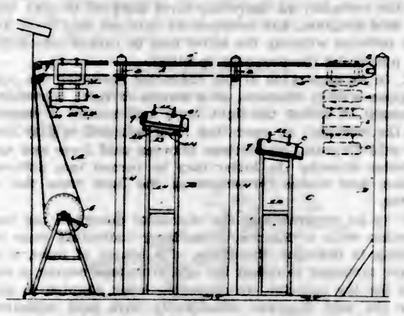
A device of the class described comprising a stove body including sides connected along their vertical edges, a bottom within said sides, said bottom having a central air passage, a horizontal partition spaced above said bottom and having side air passages, corner blocks positioned upon said bottom for supporting said horizontal partition, crossed supporting plates positioned in said body and having their lower edges resting upon said horizontal partition, said supporting plates being interlocked at their crossed centers, binding posts positioned through one side of the body and upwardly through the horizontal partition, and a heating wire engaged through openings in the supporting plates and having its opposite ends secured to said binding posts.

1,133,099. TIRE-ARMOR. JOHN CLATT, Gorin, Mo. Filed June 3, 1914. Serial No. 842,751. (Cl. 152—16.)



An armor for pneumatic tires including a plurality of members shaped to agree with the portion of the tire with which they engage, a flexible connection between all of the sections, each of the sections having one of its edges downturned to provide a lip, an entering member secured centrally upon the outer face of each of the sections and arranged at an angle to the lip and secured with the lip, means for connecting the end sections, and means for securing the armor upon the tire.

1,133,100. RURAL-MAIL-DELIVERY SYSTEM. IRA B. CLAYTON and NEALY MOORE, Cooper, Tex. Filed Jan. 29, 1915. Serial No. 5,096. (Cl. 104—146.)



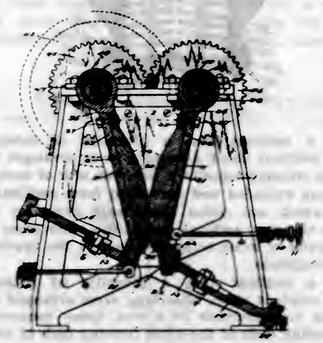
1. In a rural mail delivery system, a mail box, means for moving the box along an elevated path and between two end stations, a fixed cradle located at a third station intermediate said end stations and having an open end, a second mail box normally resting on said cradle and movable with and from the open end thereof and means for including coöperating elements provided on said mail boxes for causing the suspension of the second mail box from the first mail box during the movement of the latter between said intermediate stations and one of said end stations.

2. In a rural mail delivery system, a mail box, means for moving the box along an elevated path and between two end stations, a fixed cradle located at a third station intermediate said first-named stations and having an open front end, a second mail box normally resting on said cradle and movable into and from the open end thereof, a forwardly projecting hook carried by the first mail box and eyes provided on the second mail box for engagement by said hook in the course of the forward travel of said first mail box.

3. In a rural mail delivery system, a mail box, means for moving the mail box along an elevated path and between two end stations, fixed cradles located at other stations intermediate said end stations and having open front ends, other mail boxes normally resting on said respective cradles and movable into and from the open ends thereof, forwardly projecting hooks carried by said first-named mail box and by all except the last of said other mail boxes, and eyes provided on all of said mail boxes except said first-named mail box for engagement by the hooks of the immediately preceding mail boxes, all of the cradles except the last one having their bottoms slotted to receive the hooks of the mail boxes which said cradles normally support.

4. In a rural mail delivery system, a mail box, means for moving the box along an elevated path and between two end stations, a fixed cradle located at a third station intermediate said first-named stations and having an open front end, a second mail box normally resting on said cradle and movable into and from the open end thereof, a forwardly projecting hook carried by the first mail box and eyes provided on the second mail box for engagement by said hook in the course of the forward travel of said first mail box, said cradle having its open end flared and having its bottom inclined at a slight angle forwardly and downwardly.

1,133,101. STONE-CRUSHER. JOSEPH H. COCKFIELD, Cedar Rapids, Iowa. Filed May 7, 1914. Serial No. 837,056. (Cl. 83—53.)



1. A crusher embodying jaws diverging upward and having opposed coacting curved faces, means for imparting crank motion to the upper edges of said jaws, and means for permitting the lower edges of said jaws to move up and down on arcs struck around centers respectively above and below a horizontal line through the lower edges of the jaws.

2. A crusher embodying jaws having opposed curved faces, means for imparting crank motion to their upper edges on opposite sides of an upright median line between them, and struts connected with the lower edges of said jaws and leading outward from them to pivotal points respectively above and below a horizontal line drawn at right angles to said median line.

3. A crusher embodying jaws having opposed faces struck on opposite curves, means for imparting crank motion to their upper edges, struts connected with their lower edges and leading outward from them to pivotal points respectively above and below a horizontal line through said lower edges, means for permitting adjustment in the length of said struts without altering their said pivotal points and yielding means tending to draw said lower edges normally apart.

4. A crusher embodying jaws having opposed faces struck on opposite curves whereof each is part of a circle, means for imparting crank motion in opposite directions and at the same speed to their upper edges, knuckles in rear of their lower edges, a framework having bearings behind said jaws and whereof one is above and the other below a horizontal line through said knuckles, a strut mounted at its outer end in each bearing and having its inner end resting in the nearest knuckle, and means for pressing each knuckle toward its strut.

5. In a crusher, the combination with a framework hav-

ing bearings in its upper portion, a power shaft and a driven shaft mounted in said bearings, eccentrics fast on said shafts, and two jaws having their upper edges embracing said eccentrics and their faces struck on opposite curves; of bearings in the lower portion of said framework behind the jaws and respectively above and below a horizontal line through their lower edges, a strut pivotally connecting each bearing with the lower edge of the nearest jaw, and means for permitting the adjustment of the length of each strut.

[Claims 6 and 7 not printed in the Gazette.]

1,133,102. RESILIENT TIRE. HIRAM C. COHEN, Syracuse, N. Y. Filed Apr. 3, 1914. Serial No. 829,260. (Cl. 152—8.)



1. In a resilient tire, a plurality of substantially straight resilient shock absorbing arms arranged in pairs about the circumference of a tire, one arm of each of said pairs being extended and curved to form resilient convolutions which are coiled about said arms for forming housings therefor, and one end of the other arms of each of said pairs of arms being attached to the uppermost of said convolutions.

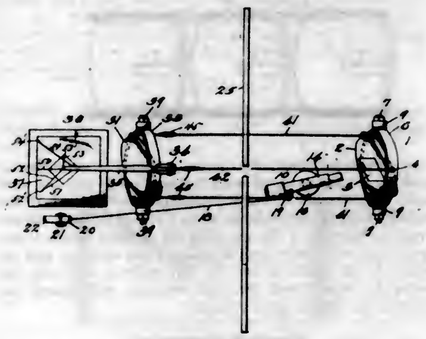
2. In a resilient tire, a plurality of substantially straight resilient shock absorbing arms arranged in pairs about the circumference of a tire, bases connecting the corresponding ends of the arms forming each of said pairs of arms, one of said arms of which each pair is formed being extended and curved to form resilient convolutions which are coiled about said arms for forming housings therefor, the other of said arms being attached to the uppermost of said convolutions.

3. In a resilient tire, a plurality of substantially straight resilient shock absorbing arms having their corresponding ends connected by a base, said arms extending upwardly from said base and crossing each other intermediate their ends, one of said arms having one end thereof extended and curved to form resilient convolutions which are coiled about said arms for limiting the shock absorbing resilient movement of said substantially straight arms.

4. The combination with a wheel having a felly, of a resilient tire having a plurality of substantially straight resilient shock absorbing arms mounted therein, said arms being arranged in pairs about the circumference of said tire, lateral bases connecting the corresponding ends of said arms, said bases being supported by said felly, said arms extending upwardly from said bases and being crossed intermediate their ends, one of said arms having one end thereof extended and curved to form resilient convolutions which are coiled about said arms for limiting the resilient shock absorbing movemnt of said arms, the other of said arms being connected to the uppermost of said resilient convolutions and bearing against the inner surface of the outer portion of said tire.

1,133,103. LIGHT-PROJECTING APPARATUS. GEORGE S. COLEMAN, Washington, D. C. Filed Jan. 8, 1914. Serial No. 811,076. (Cl. 88—24.)

1. In an apparatus of the character described the combination with a source of light comprising a tube and a lighting means arranged within said tube, of a diaphragm arranged within the tube and having a minute aperture through which the rays of light are adapted to pass, a base-ball score-board arranged to receive the said rays of light, a diagram, and means for causing the rays of light to move in various directions over the surface of the said score-board embodying an operating lever adapted to play over the said diagram.



2. In an apparatus of the character described the combination with a diagram, of a source of light, a reflector arranged to reflect the light from said source, a support for the reflector, an operating lever adapted to play over the said diagram, and connections between said lever and said reflector whereby the latter may be turned into different planes for the purposes specified.

3. In an apparatus of the character described the combination with a diagram, of a source of light, a reflector arranged to reflect the light from said source, a support for the reflector, an operating lever adapted to play over the said diagram, connections between said lever and said reflector whereby the latter may be turned into different planes, and means for screening the light from the reflector.

4. In an apparatus of the character described the combination with a diagram comprising indicating lines extending in different directions, of a source of light, a reflector arranged to reflect the lght from said source, a support for the reflector, an operating lever adapted to play over the said diagram coincidently with said indicating lines, and connections between said lever and said reflector whereby the latter may be turned into different planes.

5. In an apparatus of the character described the combination with a source of light comprising a tube and a lighting means arranged within said tube, of a diaphragm arranged within the tube and having a minute aperture through which the rays of light are adapted to pass, a base-ball score-board arranged to receive the said rays of light after passing through the said aperture, a diagram, and means for causing the light to move in various directions over said score-board embodying an operating lever one end of which has a universal support and the other end being adapted to play over the said diagram.

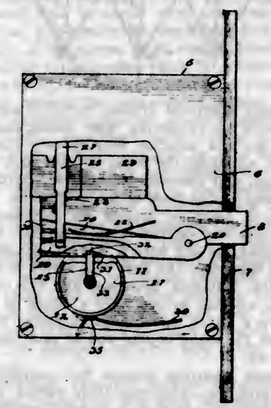
[Claims 6 to 11 not printed in the Gazette.]

1,133,104. KEYHOLE-GUARD. PHILIAS CORMIER, New Bedford, Mass. Filed July 11, 1914. Serial No. 850,364. (Cl. 70—8.)

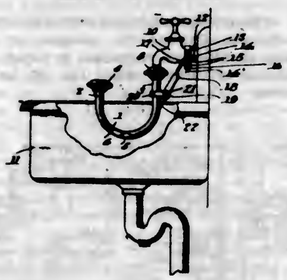
1. In a lock, a casing, locking mechanism arranged therein, a key receiving barrel rotatably supported within the casing, a key insertible therein for controlling the locking mechanism, a keyhole guard slidably fitted in the barrel to close either end thereof on the insertion of the key in the barrel, means acting upon the barrel to prevent free rotation thereof, and means on the guard and engageable with the casing to hold the same stationary on the rotation of the barrel by the key.

2. In a lock, a casing, locking mechanism arranged therein, a key receiving barrel rotatably supported within the casing, a key insertible therein for controlling the locking mechanism, a keyhole guard slidably fitted in the barrel to close either end thereof on the insertion of the key in the barrel, means acting upon the barrel to prevent

free rotation thereof, means on the guard and engageable with the casing to hold the same stationary on the rotation of the barrel by the key, and means on the guard for centering the key in the barrel.



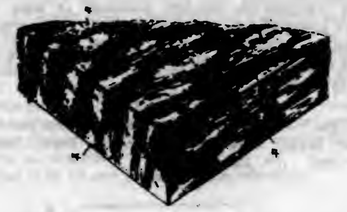
1,133,105. DRINKING-FOUNT. ALBERT CORTHAUS, Milwaukee, Wis. Filed Dec. 27, 1913. Serial No. 809,004. (Cl. 137—109.)



A drinking fount for use in connection with a faucet and comprising a U-shaped tube having an intake bowl at the upper end of one of its arms and a delivering bowl at the end of the other arm, in combination with a clamp for engaging around the faucet, a bracket pivotally connected to the lower side of said clamp, the pivot axis of the connection between the bracket and the clamp being vertical, and a clamp engaging around the intake arm of the fount and pivotally connected to the bracket at a point spaced from the lower end of the latter, the axis of said pivot being horizontal and the lower end of said bracket bearing against the intake arm of the fount.

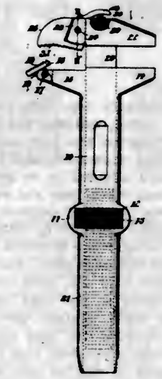
1,133,106. VENEERED AND REINFORCED WOODWORK. WILLIAM BENTON CUPPETT, Portsmouth, Ohio. Filed Dec. 20, 1913. Serial No. 807,922. (Cl. 20—89.)

As an improved article of manufacture, veneered woodwork having the top and edge surfaces so matched as to simulate a solid piece of the costly material forming the veneer, the said improved construction including a costly veneer, a cheap core and backing secured thereto, a pair of V-shaped notches being cut from said backing upward to just penetrate the inner surface of the veneer at each point, the said notches being at right angles to each other and intersecting to allow for the entire removal of the piece embraced between the notches of each pair to enable the bending of the sides of the pieces of wood work



to bring opposite faces of each pair of notches into conjunction thus presenting edge surfaces for a piece of veneered wood work exactly matching the top thereof in simulation of a solid piece of material forming the veneer.

1,133,107. WRENCH. JHAN CSÁNYI, Perryopolis, Pa. Filed Aug. 12, 1914. Serial No. 856,357. (Cl. 81—99.)



In a wrench, a hollow handle portion, a fixed and pivoted jaw carried by the outer end of the hollow handle, a threaded shank mounted in said hollow handle, means for moving said shank in said handle, a fixed jaw carried by the outer end of said shank operating in connection with the fixed inner jaw, a pair of lugs carried by the outer end of said shank, a pivoted outer jaw positioned in said lugs and operating in connection with the pivoted inner jaw, the said shank having recess in its outer end, a coil spring received in said recess, and a trigger carried by the pivoted outer jaw adapted to overlie the spring and be engaged by the same to cause the pivoted jaw to move in an outward direction.

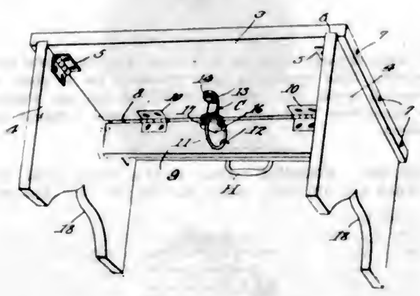
1,133,108. PROCESS OF PRODUCING SOLUBLE TANNING AGENTS. ERICH DEHNEL, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Baden. Filed June 30, 1913. Serial No. 776,545. (Cl. 167—4.)

1. The process of converting difficultly soluble or insufficiently soluble tanning extracts into more soluble compounds by treating such difficultly soluble or insufficiently

soluble extracts with a soluble condensation product of an aromatic phenol, which condensation product possesses at least one hydroxyl group and also at least one salt-forming group.

2. The process of converting difficultly soluble or insufficiently soluble tanning extracts into more soluble compounds by treating such difficultly soluble or insufficiently soluble extracts with a condensation product obtainable by acting on cresol with sulfuric acid and formaldehyde, which condensation product possesses at least one hydroxyl group and at least one sulfonic acid group and is soluble in water, yielding an almost colorless solution which becomes deeply colored on the addition of a solution of a ferric salt.

1,133,109. FOLDING FOOT-REST. RALPH DERBYSHIRE, Fall River, Mass. Filed Apr. 21, 1914. Serial No. 833,550. (Cl. 155—9.)



1. A stool comprising a top, legs hinged thereto to swing toward each other against the top, a spreader hinged to the top between the legs and adapted to be swung to hold the legs separated, and a reversible latch pivoted to the top and adapted to be swung to one position to engage the legs when they are swung against the top, to hold the parts in folded position, and adapted to be swung to another position to coöperate with the spreader and hold the spreader in active position when it is swung to hold the legs separated, the spreader having means for engagement with the latch device.

2. A stool comprising a top, legs hinged thereto to swing toward each other against the top, a spreader hinged to the top between the legs and adapted to be swung to hold the legs separated, and a reversible latch pivoted to the top and having its free end portion offset away from the top, the legs having recesses for accommodating the latch when the legs are swung against the top, and whereby when the latch is swung in one direction, the free end portion is adapted to overlap the adjacent ends of the legs for holding them in position adjacent the top, the free end portion of the latch and the spreader having interengageable means whereby when the latch is swung toward the spreader and the spreader swung to active position, the latch may hold the spreader in place.

3. A stool comprising a top, legs hinged thereto to swing toward each other against the top, a spreader hinged to the top between the legs and adapted to be swung to hold the legs separated, a reversible latch pivoted to the top and having its free end portion offset away from the top, and a ring connected loosely to the spreader, the legs having recesses for accommodating the latch and ring when the legs are swung against the top, and whereby the latch may be swung to one position so that its free end portion will overlap the adjacent ends of the legs for holding the legs against the top, the free end portion of the latch having means for the engagement of the said ring when the latch is swung toward the spreader and the spreader swung to active position, so that the latch will hold the spreader in place.

1,133,110. PROCESS FOR TREATMENT OF PRECIOUS-METAL ORES FOR EXTRACTING THEIR VALUES. EDWARD L. DUFOURCQ, New York, N. Y. Filed Nov. 7, 1911. Serial No. 659,018. (Cl. 75—185.)

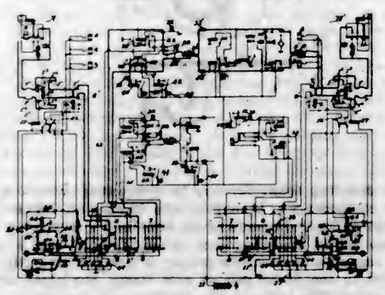


1. The herein described process for treatment of precious metal ores for extracting their values consisting in passing the ore and solution continuously through successive baths, agitating the mass in each bath by means of an air blast, and removing the coarser particles from the mass in any one or more of the said baths.

2. The herein described process for treatment of precious metal ores for extracting their values, consisting, first, in treating the ore with a solvent, second, passing the resulting mass into the first of a series of open-faced V boxes, third, agitating the mass and forcing it from one V box to another by means of a series of air blasts located in the V boxes, and fourth, removing the coarser particles from the mass in any one of said boxes as the process goes on.

3. The herein described process for treatment of precious metal ores for extracting their values, consisting, first, in treating the ore with a suitable solvent, second, passing the parts of the dissolved ore and its solvent solution downwardly along the downtake side of an open-faced V box around a baffleboard, third, in applying a blast of compressed air to the mass when it reaches the bottom of the V box to agitate it and force it upwardly along the uptake side of the V box into a second V box and continuing the treatment through a series of V boxes, and fourth, removing the coarser particles from the mass from time to time as it passes through said series of boxes.

1,133,111. TELEPHONE-EXCHANGE SYSTEM. FRANCIS W. DUNBAR, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Jan. 13, 1905. Serial No. 240,894. (Cl. 179—27.)



1. A telephone exchange system including a plurality of telephone lines provided with line-jacks and divided into groups, a plurality of answering-jack circuits for each group of telephone lines also divided into groups and extending to answering-jacks at different sections of the switchboard, automatically operated selective switching mechanism, including traveling line-terminals and multiplied answering-jack contacts engaged by said terminals, said switching mechanism being associated with the telephone lines and the answering ends of the answering-jack circuits with calling lines, apparatus for changing the electrical character of the answering-jack circuits to cause them, when idle, to coöperate with the selective switching mechanism as if they were busy, to enable the said mechanism to pass the same into coöperation with an idle answering-jack circuit that may be used, and cord circuits in association with said answering-jacks provided with answering-plugs for engagement with said jacks, substantially as described.

2. A telephone exchange system including a plurality of telephone lines provided with line-jacks and divided into groups, a plurality of answering-jack circuits for each group of telephone lines also divided into groups and extending to answering-jacks at different sections of the switch-board, the answering-jacks of each group being distributed among the operators' positions at each section, automatically operated selective switching mechanism, including traveling line-terminals and multiplied answering-jack contacts engaged by said terminals, said switching mechanism being associated with the telephone lines and the answering ends of the answering-jack circuits for connecting said answering-jack circuits with calling lines, apparatus for changing the electrical character of the answering-jack circuits to cause them, when idle, to coöperate with the selective switching mechanism as if they were busy, to enable the said mechanism to pass the same into coöperation with an idle answering-jack circuit that may be used, and cord circuits in association with said answering-jacks provided with answering-plugs for engagement with said jacks, substantially as described.

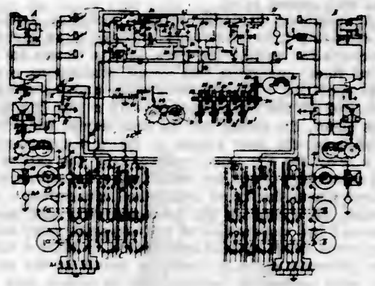
3. A telephone exchange system including a plurality of telephone lines provided with line-jacks and divided into groups, a plurality of answering-jack circuits for each group of telephone lines also divided into groups and extending to answering-jacks at different sections of the switch-board, automatically operated selective switching mechanism, including traveling line-terminals and multiplied answering-jack contacts engaged by said terminals, said switching mechanism being associated with the telephone lines and the answering ends of the answering-jack circuits for connecting said answering-jack circuits with calling lines, apparatus for checking the operation of the selective switching mechanism, answering-jack circuit apparatus governing the aforesaid apparatus to enable the selective switching mechanism to avoid busy answering-jack circuits, apparatus for changing the electrical character of the answering-jack circuits to cause them, when idle, to coöperate with the selective switching mechanism as if they were busy, to enable the said mechanism to pass the same into coöperation with an idle answering-jack circuit that may be used, and cord circuits in association with said answering-jacks provided with answering-plugs for engagement with said jacks, substantially as described.

4. A telephone exchange system including a plurality of telephone lines provided with line-jacks and divided into groups, a plurality of answering-jack circuits for each group of telephone lines also divided into groups and extending to answering-jacks at different sections of the switch-board, the answering-jacks of each group being distributed among the operators' positions at each section, automatically operated selective switching mechanism, including traveling line-terminals and multiplied answering-jack contacts engaged by said terminals, said switching mechanism being associated with the telephone lines and the answering ends of the answering-jack circuits for connecting said answering-jack circuits with calling lines, apparatus for checking the operation of the selective switching mechanism, answering-jack circuit apparatus governing the aforesaid apparatus to enable the selective switching mechanism to avoid busy answering-jack circuits, apparatus for changing the electrical character of the answering-jack circuits to cause them, when idle, to coöperate with the selective switching mechanism as if they were busy, to enable the said mechanism to pass the same into coöperation with an idle answering-jack circuit that may be used, and cord circuits in association with said answering-jacks provided with answering-plugs for engagement with said jacks, substantially as described.

5. A multiple switch-board telephone exchange system including a plurality of telephone lines divided into groups and multiplied to different sections of the multiple switch-board, a plurality of answering-jack circuits for each group of telephone lines also divided into groups and extending to answering-jacks at different sections of the switch-board, automatically operated selective switching mechanism, including traveling line-terminals and multiplied answering-jack contacts engaged by said terminals, said switching mechanism being associated with the telephone lines and the answering ends of the answering-jack circuits for connecting said answering-jack circuits with calling lines, apparatus for changing the electrical character of the answering-jack circuits to cause them, when idle, to coöperate with the selective switching mechanism as if they were busy, to enable the said mechanism to pass the same into coöperation with an idle answering-jack circuit that may be used, and cord circuits in association with said answering-jacks provided with answering-plugs for engagement with said jacks, substantially as described.

[Claims 6 to 51 not printed in the Gazette.]

1,133,112. TELEPHONE SYSTEM. FRANCIS W. DUNBAR, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Mar. 17, 1905. Serial No. 250,619. (Cl. 179—9.)



1. A telephone exchange system including a plurality of telephone lines extending from subscribers' stations to an exchange, service meters for subscribers' lines, link-circuits for uniting subscribers in conversation including connecting plugs adapted for connection with called subscribers' lines, apparatus and circuit connections governing the operation of each service meter and including a called subscriber's switch-hook and the connecting plug effecting association of said called subscriber with the calling subscriber's line and service meter, the circuit for the said service meter being controlled by the switch-hook of the called subscriber's line, a relay for the link-circuit uniting the calling and called subscribers' lines having an armature-switch adapted to close circuit through the relay when energized to maintain the service meter in closed circuit during an established connection, a second relay governing the circuit of the aforesaid relay and serving to effect deënergization of said relay when connection between lines is broken, link-circuit apparatus for governing said second relay, the circuit for the second relay including contacts of the called subscriber's jack and engaging plug.

2. A telephone exchange system including a plurality of telephone lines extending from subscribers' stations to an exchange, service meters for subscribers' lines, link-circuits for uniting subscribers in conversation including connecting plugs adapted for connection with called subscribers' lines, apparatus and circuit connections governing the operation of each service meter and including a called subscriber's switch-hook and the connecting plug effecting association of said called subscriber with the calling subscriber's line and service meter, the circuit for the said service meter being controlled by the switch-hook of the called subscriber's line, a relay for the link-

circuit uniting the calling and called subscribers' lines having an armature-switch adapted to close circuit through the relay when energized, to maintain the service meter in closed circuit during an established connection, a second relay governing the circuit of the aforesaid relay and serving to effect deënergization of the first aforesaid relay when connection between lines is broken, and link-circuit apparatus for governing said second relay.

3. A telephone exchange system including a plurality of telephone lines extending from subscribers' stations to an exchange, service meters for subscribers' lines, link-circuits for uniting subscribers in conversation including connecting plugs adapted for connection with called subscribers' lines, apparatus and circuit connections governing the operation of each service meter and including a called subscriber's switch-hook and the connecting plug effecting association of said called subscriber with the calling subscriber's line and service meter, the circuit for the said service meter being controlled by the switch-hook of the called subscriber's line, a relay for the link-circuit uniting the calling and called subscribers' lines for maintaining the service meter in closed circuit during an established connection, a relay governing the circuit of the aforesaid relay and serving to prevent the reoperation of the aforesaid relay during a connection between lines and serving to effect a release of the aforesaid relay, to open the circuit of the service meter when connection between lines is broken, and link-circuit apparatus for governing said second relay.

4. A telephone exchange system including telephone lines extending from subscribers' stations to an exchange, link-circuits for uniting the lines, service meters for subscribers' lines, apparatus and circuit connections governing the operation of each service meter and including the switch-hook of the line connected with a line having the service meter, the circuit for the said service meter being controlled by the switch-hook of the called subscriber's line, a relay for the link-circuit uniting the calling and called subscribers' lines, for maintaining the service meter in closed circuit during an established connection, a relay governing the circuit of the aforesaid relay and serving to prevent the reoperation of the aforesaid relay during a connection between lines and serving to effect a release of the aforesaid relay, to open the circuit of the service meter when connection between lines is broken, and link-circuit apparatus for governing said second relay.

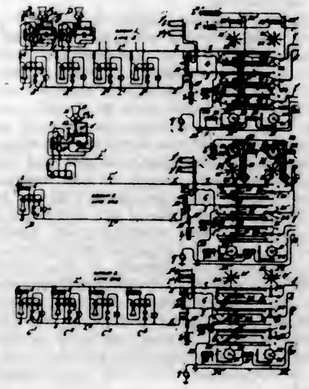
5. A telephone exchange system including telephone lines extending from subscribers' stations to an exchange, link-circuits for uniting the lines, service meters for subscribers' lines, apparatus and circuit connections effecting the operation of each service meter and including the switch-hook of the called line connected with a line having a service meter, a relay for preventing reoperation of the service meter during an established connection, the link-circuit uniting the lines including switching mechanism serving to release the service meter upon disconnection between the subscribers, a relay controlling said switching mechanism, and a circuit governing the relay and including a contact of the jack of the called subscriber and an engaging contact of the plug of the link-circuit.

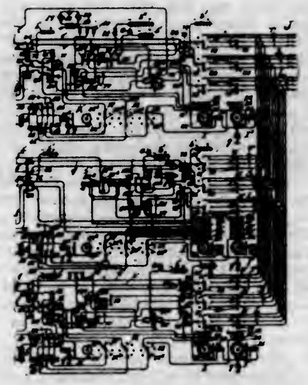
[Claims 6 to 63 not printed in the Gazette.]

1,133,113. TELEPHONE SYSTEM. FRANCIS W. DUNBAR, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Oct. 11, 1906. Serial No. 338,417. (Cl. 179—27.)

1. A telephone exchange system comprising a telephone line, a plurality of associated link-circuits, means including electrically controlled switches for extending the circuit of said telephone line to an idle one of said link-circuits, and means for causing the substantially simultaneous operation of the switches required in extending said line circuit.

2. A telephone exchange system comprising a subscriber's telephone line, a plurality of associated link-circuits, means including electrically controlled switches for extending the circuit of said telephone line to an idle one of said link-circuits, and means under the control of the subscriber for causing the substantially simultaneous operation of the switches required in extending said line circuit.





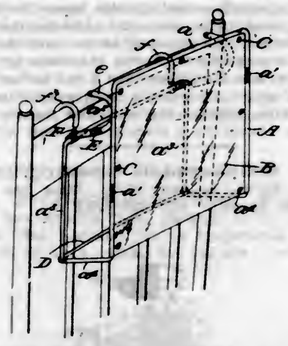
3. A telephone exchange system comprising a telephone line, a plurality of associated link-circuits, manually actuated means for extending the circuit of each of said link-circuits, means including electrically controlled switches for extending the circuit of said telephone line to an idle one of said link-circuits, and means for causing the substantially simultaneous operation of the switches required in extending said line circuit.

4. A telephone exchange system comprising a subscriber's telephone line, a plurality of associated link-circuits, manually actuated means for extending the circuit of each of said link-circuits, means including electrically controlled switches for extending the circuit of said telephone line to an idle one of said link-circuits, and means under the control of the subscriber for causing the substantially simultaneous operation of the switches required in extending said line circuit.

5. A telephone exchange system comprising a telephone line, a plurality of associated link-circuits, a plurality of electrically controlled switches associated with the answering ends of said link-circuits and operative to establish connection between said telephone line and an idle link-circuit, another electrically controlled switch for extending the circuit of a selected idle link-circuit, and means for causing the substantially simultaneous operation of the required switches.

[Claims 6 to 73 not printed in the Gazette.]

1,133,114. HEAD-EASER. ISIDOR ELVENBEIN, New York, N. Y., assignor to Unique Head Easer Incorporated, New York, N. Y. Filed Nov. 29, 1913. Serial No. 803,733. Renewed Feb. 9, 1915. Serial No. 7,116. (Cl. 155—10.)



A device of the character described comprising a frame made of a single piece of bent wire having a rear portion formed of a transversely extending portion of the wire and two portions of the wire bent at right angles to said transverse portion, said frame also having a front portion formed of a transversely extending portion of the wire and two portions of said wire bent at right angles to said transverse portion of the front part of the frame, said front and rear portions of the frame being connected together by portions of the wire joining the ends of the right angularly arranged portions of the wire of the front and rear parts at the points farthest removed from their transverse portions, said joining portions of the wire being disposed angularly with respect to the planes of the front and rear portions of the frame, whereby the latter are arranged substantially parallel and spaced one in front of the other, means for attaching the frame to an article of furniture, and a flexible covering for the front portion of the frame to receive the head of the user.

1,133,115. PRESS-BIT BRIDLE. JOHN ERICKSON, White Earth, N. D. Filed Sept. 16, 1913. Serial No. 790,028. (Cl. 54—6.)



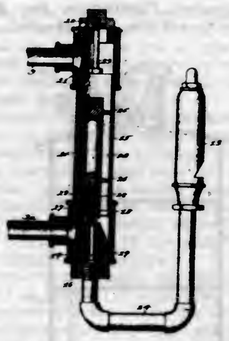
1. In a bridle of the character described the combination with a nose band of a pair of presser members pivoted thereto, a pair of rods journaled upon opposite sides of said nose band connected with said pressers centrally of the ends thereof, eyelets connected with said rods and adapted to be secured to the reins, a second pair of rods operatively connected with said first named rods and the lower terminals of said pressers, and means for causing said pressers to bear against the nose of the horse, operated when the horse lowers its head.

2. In a bridle of the character described the combination with a nose band of a pair of presser members secured thereto, a plurality of curved rods carried upon each side of said nose band and connected with the presser members, said rods connected centrally and at the lower terminals of said presser members in spaced relation to each other, one of said rods adapted to be connected with the driving reins, and means for causing the presser members connected with said rods to press against the nostrils of the horse.

3. In a bridle of the character described the combination with a nose band of a pair of presser members secured thereto, said presser members provided terminally with enlarged portions, means for causing said presser members to be pressed against the sides of the nostrils of the horse, mounted upon said nose band connected with said presser members, and spacing them from said nose band, and means connected with the check rein of a bridle for causing the presser member to be pressed in engagement with the nostrils of the horse, should the animal lower its head.

4. A bridle including a nose band, presser members secured to the nose band, means for causing said presser members to be pressed against the sides of the nostrils of the horse consisting of rods rotatably journaled on the nose band and pivotally connected with the presser members at points adjacent certain ends of the presser members and the central portions thereof, a right angularly extending loop formed on each of the rods, a link connecting the loops with each other, and means to rotate both of the rods to cause the presser members to engage the sides of the horse's head.

1,133,116. AIR-SIGNAL VALVE. EDWARD JOSEPH ERICSSON, San Francisco, Cal. Filed Oct. 21, 1914 Serial No. 867,754. (Cl. 188—83.)



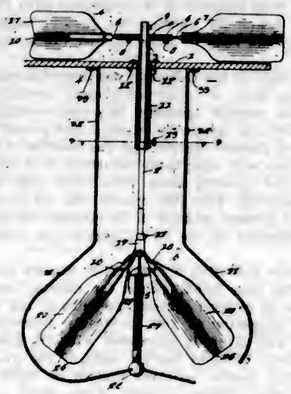
1. The combination with pipes containing air under pressure, of a casing joining said pipes, a plug in one end thereof having a tubular extension and a bore therethrough, a weighted valve provided with a tubular portion encompassing said tubular extension and provided with air ports in the side thereof, said valve being provided with a flange of less diameter than the interior of said casing, and a whistle in communication with said plug bore.

2. The combination with pipes containing air under pressure, of a casing joining said pipes, a plug in one end thereof having a tubular extension and a bore therethrough, a weighted valve having a flange thereon and provided with a tubular portion encompassing said tubular extension and provided with air ports in the side thereof, a whistle in communication with said plug bore, and means for limiting the upward movement of said valve.

1,133,117. AIR-MOTOR FOR FANS FOR RAILROAD-CARS. GAETANO FESTA, Revere, Mass. Filed June 5, 1914. Serial No. 843,180. (Cl. 98—18.)

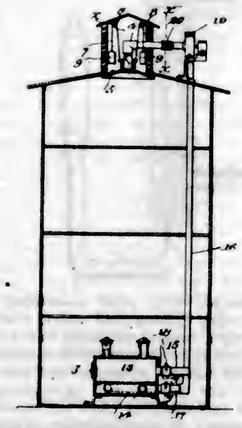
A fan comprising a central disk or hub, said disk being provided with peripheral pockets, fan blades, shanks se

cured to said blades, said shanks being adjustable in the pockets in the disks, a rectangular shaft on which said disk is connected, a rod connected to said shaft and mounted to rotate in the bearing, said rod having a



pointed end, said bearing comprising a ball having a tapering bearing socket therein, fan blades mounted on said rod, and a frame connected to said ball and to the other side of a roof of a car.

1,133,118. SMOKE-HOUSE AND FUEL-ECONOMIZER. EDWARD FLANAGAN, Philadelphia, Pa. Filed July 3, 1914. Serial No. 848,970. (Cl. 34—19.)



1. A smoke house provided in its upper portion with a ventilating projection and having a furnace in its lower portion, a hood for closing the ventilating projection, a pipe establishing communication between such hood and furnace, means for creating a positive draft through the said pipe and means for adjusting the hood whereby its distance from the ventilating projection may be regulated.

2. In combination, a smoke house provided in its upper portion with a ventilating projection, a furnace located in the lower portion of the smoke house, a hood for closing the ventilating projection, means for adjusting such hood and holding it in the adjusted position, a pipe establishing communication between the hood and furnace, branch pipes connecting the lower portion of the main pipe with upper and lower portions of the furnace, dampers in the length of the branch pipes, an independent damper located in the upper portion of the main pipe and means for creating a positive draft through the main pipe.

3. A smoke house having a ventilating projection at its upper portion, a pipe having a depending portion and provided in its length with a damper, a hood for closing the ventilating projection and slidable upon the depending portion of the said pipe, means for adjusting the hood vertically, a vertical pipe connected at its lower end with the furnace, a damper for regulating the discharge from the vertical pipe into the furnace and a fan in the length of the vertical pipe for creating a positive draft through the pipe connection between the hood and furnace.

1,133,119. SPRING-CUSHION CONSTRUCTION. FREDRICK J. FOILL, Jackson, Mich. Filed Dec. 3, 1913. Serial No. 804,501. (Cl. 155—25.)



In a spring cushion, a frame comprising a single strip of sheet metal bent at its opposite ends to provide a pair of parallel flanges, and bent at its intermediate portion and in an opposite direction to the first mentioned flanges, to provide another pair of converging flanges, the latter mentioned flanges being of double thickness, springs and supporting devices secured between the double thickened intermediate flanges, an upholstery mounting strip arranged between said end flanges and burs formed on said end flanges and adapted to be embedded in said strip for holding the latter therebetween.

1,133,120. SHRIMP-SEINE-HAULING DEVICE. MARTIN FOUNTAIN, Jr., Biloxi Miss. Filed Mar. 30, 1914. Serial No. 828,218. (Cl. 43—9.)



1. A seine hauling device comprising a base, spaced apart cleats thereon providing an unobstructed passage therebetween, and guides upon the adjacent sides of the cleats for the lead line of the seine during the haul and automatically detaching the lead line at the end of the haul by the bight of the lead line passing between said cleats.

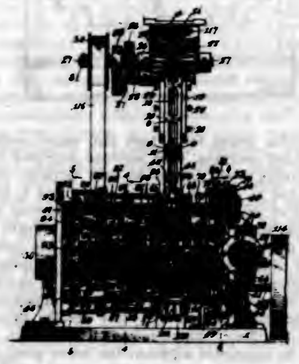
2. A seine hauling device comprising a base, rigid spaced apart guides thereon providing an unobstructed passage therebetween, the guides provided upon their adjacent sides with grooves for guiding the lead line of the seine during the haul and automatically detaching the lead line at the end of the haul by the bight of the lead line passing between the guides.

3. A seine hauling device comprising a base, and spaced apart rigid cleats thereon providing an unobstructed passage therebetween having oppositely extending curved portions provided with grooves for the passage of opposite sides of the lead line during the haul and a sufficient distance apart to allow the lead line at the end of the haul to pass therebetween and automatically detach itself.

4. A seine hauling device comprising a base, spaced apart cleats secured thereon having oppositely extending curved horizontal portions and upwardly curved elbows, each cleat having a groove therein for the passage of the lead line of the seine, whereby said lead line detaches itself at the end of the haul.

5. A seine hauling device comprising a base, cleats secured thereon spaced apart to allow of the passage of a bight of the lead line of the seine, said cleats having oppositely extending curved horizontal front portions, body portions and upwardly curved rear elbows, the adjacent sides of the front and body portions undercut to form a groove for the passage of the lead line of the seine, said groove extending through the rear sides of the elbows, whereby the lead line detaches itself at the end of the haul.

1,133,121. NUT-CRACKING MACHINE. WILLIAM GEBHARDT, San Antonio, Tex., assignor to G. A. Duerler Mfg. Co., San Antonio, Tex., a Corporation of Texas. Filed Oct. 29, 1912. Serial No. 728,430. (Cl. 146—3.)



1. In a nut cracking machine, nut cracking mechanism, a hopper, a chute entering the hopper and leading therefrom to the nut cracking mechanism, a reciprocatory device on the chute having nut engaging parts at the nut entering end, and a rotatable lifting device entering the hopper and chute in coactive relation with the reciprocatory member for causing the nuts to assume a predetermined position within the reciprocatory device and chute.

2. In a machine for cracking nuts, nut cracking mechanism, and a feed chute having a substantially U-shaped nut engaging member extending lengthwise of the chute and reciprocatory in the direction of its length, said chute being open where coinciding with the open side of the nut engaging member to expose nuts therein to view.

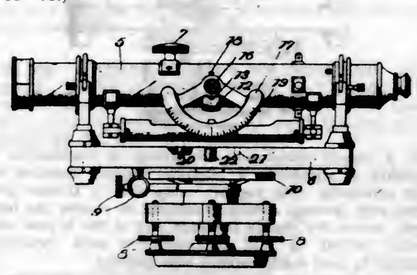
3. In a nut cracking machine, nut cracking mechanism, a feed chute for delivering nuts thereto, said feed chute being provided with a substantially U-shaped nut engaging member movable lengthwise thereof, and means for imparting restricted longitudinal reciprocation to said nut engaging member, said chute being open where coinciding with the open side of the nut engaging member to expose nuts therein to view.

4. In a nut cracking machine, nut cracking mechanism, and feeding mechanism for the nuts leading to the nut cracking mechanism, said feeding mechanism being provided with agitating means for the nuts extending lengthwise thereof to cause feeding of the nuts endwise to the nut cracking mechanism, and means at the delivery end of the feeding mechanism shaped to divert nuts laterally of and into positions substantially perpendicular to their direction of movement through the feeding mechanism.

5. In a nut cracking machine, nut cracking mechanism, and a feeding means therefor comprising an elongated chute open along one side and provided at the end remote from the nut cracking mechanism with a hopper or receptacle for nuts, a reciprocatory substantially U-shaped member within the chute extending lengthwise thereof for substantially the length of the chute, and a rotatable agitator having its axis of rotation transverse to the length of the chute and extending into the hopper to lift the nuts at the receiving end of the chute, said agitator having its ends diametrically expanded with respect to its central portion.

[Claims 6 to 25 not printed in the Gazette.]

1,133,122. SURVEYOR'S INSTRUMENT. JAMES GEIER, Troy, N. Y., assignor of one-half to Joseph Bluhm, Troy, N. Y. Filed Sept. 8, 1913. Serial No. 788,727. (Cl. 33—73.)



1. In a convertible Y level, the combination with a telescope, of a band secured thereto, pivots carried by said band, a vertical arc carried by one of said pivots, means for holding said vertical arc in position upon said pivot and means for supporting said telescope adapted to cooperate with said pivots.

2. In a surveyor's instrument, the combination with a level telescope, of means for supporting the telescope, said means comprising a base, arms one of which is provided with an aperture on said base and extending upwardly therefrom, said arms having U-shaped members provided with sockets, means on said telescope adapted to engage said sockets, swivel clamps adapted to close said sockets, and a vernier carried by one of said arms adapted to be viewed through said aperture.

3. In a surveyor's instrument, the combination with a level telescope, of means for supporting the telescope, said means comprising a base, arms one of which is provided with an aperture on said base and extending upwardly therefrom, said arms having U-shaped members provided with sockets, means on said telescope adapted to engage said support, said means comprising a band secured to said telescope, pivots formed integral with said band and adapted to engage said sockets, swivel clamps adapted to close said sockets, a vernier carried by one of said arms and adapted to be viewed through said aperture.

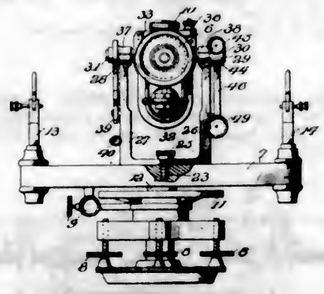
4. In a surveyor's instrument, the combination with a level telescope, of means for supporting the telescope, said means comprising a base, arms on said base and extending upwardly therefrom, said arms having U-shaped members provided with sockets, means on said telescope coöperating with said support, said means comprising a band secured to said telescope, pivots formed integral with said band and adapted to engage said sockets, swivel clamps adapted to close said sockets, a vernier on one of said arms, a vertical arc carried by one of said pivots and adapted to coöperate with the vernier for the purpose of determining the vertical angle.

5. In a combined level and detachable transit, the combination with a revoluble platform of a level telescope, means detachably secured to said platform adapted to support the level telescope, said means comprising a U-shaped member having sockets in its upper extremities, pivots on

said telescope coöperating with said sockets, means for adjusting the telescope in such position, and means for determining the transit angles.

[Claim 6 not printed in the Gazette.]

1,133,123. SURVEYOR'S INSTRUMENT. JAMES GEIER, Troy, N. Y. Filed Mar. 18, 1914. Serial No. 825,589. (Cl. 33—69.)

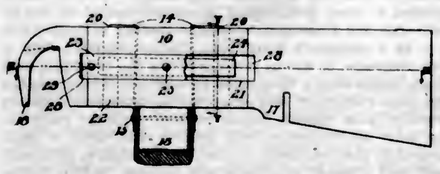


1. A transit attachment comprising in combination a plurality of standards, a telescope support mounted on said standards, said support comprising a U-yoke provided with internal shoulders adapted to receive the telescope, means for closing the open end of the U-yoke and means carried by said yoke adjacent said shoulders adapted to hold a telescope in said position.

2. A transit attachment comprising in combination a plurality of standards, a telescope support mounted on said standards, said support comprising a U-yoke provided with internal shoulders adapted to receive a telescope, means carried by said yoke adapted to hold a telescope in position, said means comprising a pivoted block having a bifurcated end, and a set screw engaging said end to hold said block against the telescope, and adjustable means carried by the yoke adjacent said shoulders adapted to receive various sized telescopes.

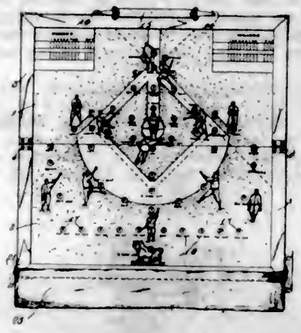
3. In a convertible Y level, the combination with a telescope, of a band secured thereto, a leg formed at each corner of said band, means for supporting the telescope for use as a transit, said means comprising a base having upwardly extending arms provided with bearings, a U-yoke adapted to receive the band on said telescope, the legs of said band engaging the outer edges of said yoke, adjustable means adjacent said shoulders adapted to engage the telescope, means for closing the open end of said yoke, and means for varying the angle of the yoke and the telescope.

1,133,124. COMBINATION IMPLEMENT-HEAD. STEPHEN GERATT, Superior, Wis. Filed July 27, 1914. Serial No. 853,458. (Cl. 145—3.)



A device of the class described comprising an implement head having a dove-tailed slot in each end thereof, implement members each having a tongue for sliding reception in said head slots, each of said members having a notch provided adjacent one edge, said head having a recess formed in one side face thereof, a leaf spring seated in said recess, a plate positioned outwardly of said spring, and a screw passing through said plate and spring engaging said head, the ends of the plate adapted to be seated in the said notches to hold the implement members stationary, said spring adapted to exert its force to move the plate outwardly of the head to free the ends of the plate from the notches in response to loosening of the screw.

1,133,125. BASE-BALL GAME. ROBERT R. GERRARD, Jr., St. Joseph, Mo. Filed Nov. 3, 1914. Serial No. 870,112. (Cl. 46—59.)



1. A playing board for a base ball game comprising a pair of hinged sections, said sections provided with side strips, retaining hooks carried by said sections, said hooks being adapted to receive playing rings, and a detachable bag carried at the lower portion of said playing board for receiving the rings which are not caught by said hooks.

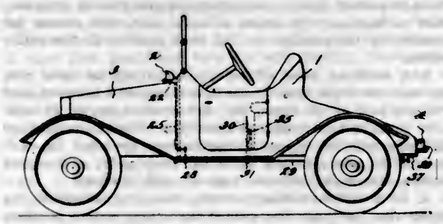
2. In a device of the class described the combination with a pair of hinged sections, a plurality of hooks carried by said sections, said hooks being adapted to catch playing rings, one of said sections provided with alined eyes upon its outer portions, detachable bolts carried by said eyes and a bag detachably supported upon said bolts, said bag adapted to be supported adjacent the lower portion of said playing board, whereby rings which are not caught by said hooks may fall into said bag for allowing the rings to be easily caught and collected.

3. In a device of the class described the combination with a pair of hinged sections, said sections provided with an imitation playing field, hooks carried by said sections, said hooks being adapted to receive playing rings, one of said sections provided with alined eyes adjacent its lower outer portions, bolts detachably supported by said eyes, said bolts provided with retaining heads, a bag having sleeve portions mounted upon said bolts whereby said bag will be held adjacent the lower portion of said playing board, said bag having a rectangular construction whereby rings which are not caught by said hooks may fall into said bag thereby allowing the rings to be easily caught and collected.

4. In a device of the class described the combination with a pair of hinged sections, said sections being adapted to be folded to a closed position to form a box-like construction, a detachable bottom secured to said sections for closing the lower portions thereof, said bottom being adapted to be detached and secured to the outer portions of one of said sections for forming an easel for supporting the device in a set-up position.

5. In a device of the class described the combination with a pair of hinged sections, said sections being adapted to be folded to a closed position, a detachable bottom for closing the lower portions of said sections, said detachable bottom comprising a plurality of strips detachably secured together, said strips being adapted to be detached from said sections and from each other, hinge members carried by said strips and by one of said sections, said strips being adapted to be positioned so as to allow the hinge members thereof to engage the hinge member of one of said sections, whereby said detachable bottom will form an easel for supporting said sections in a set-up position.

1,133,126. INDICATING-LAMP. WILLIAM E. GILBERT, Wakefield, Mich. Filed Dec. 11, 1914. Serial No. 876,746. (Cl. 240—23.)



1. The combination with a vehicle, of a light retaining housing having a vertical front wall formed of translucent material, a light generating mechanism mounted within said housing, a plate of colored transparent material slidably carried by said housing in front of said vertical translucent wall, an angle plate connected to said slidable colored transparent plate and having a horizontal extending arm bifurcated and means connected to said bifurcated horizontal arm for moving said colored slidable plate at various positions in front of said translucent vertical wall.

2. The combination with a vehicle, of a light retaining housing carried thereby, a vertical front wall for said housing constructed of translucent material, light generating means carried by said housing, a plate of colored translucent material slidably carried by said housing in front of said translucent plate, said colored plate being shorter than said translucent front wall, an angle plate secured to said slidable colored plate, said angle plate having its horizontal arm bifurcated, a rod having one end thereof bent vertically and seated between the arm formed by the bifurcation of said horizontal arm, a rock rod connected to said first named rod, a lever connected to said rock rod for rocking the same for sliding said slidable plate into various positions in front of said translucent vertical wall.

3. The combination with a vehicle, of a light retaining housing carried thereby, a vertical front wall for said housing constructed of translucent material, light generating means carried by said housing, a plate of colored transparent material slidably carried by said housing in front of said translucent plate, said colored plate being shorter than said translucent front wall, an angle plate secured to said slidable colored plate, said angle plate having its horizontal arm bifurcated, a rod having one end thereof bent vertically and seated between the arm formed by the bifurcation of said horizontal arm, a rock rod connected to said first named rod, a lever connected to said rock rod for rocking the same for sliding said slidable plate into various positions in front of said translucent vertical wall, a second housing carried by the rear end of said vehicle body, a vertical translucent wall carried by said second housing, a plate slidably mounted in front of said translucent wall, and means connecting said slidable plate to said rock rod for rocking said slidable plate synchronously with the movement of said first mentioned slidable plate.

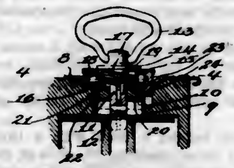
1,133,127. WINDOW-SCREEN. JAMES L. GILL, Bridgeton, N. J. Filed Mar. 20, 1914. Serial No. 826,063. (Cl. 156—38.)

A window screen comprising a frame, the end rails of which are narrower than the top and bottom rails thereof, a wire mesh fabric supported by the frame, the said end rails being formed with slots, leaf springs fixed in spaced relation to each other at the outer edges of the end rails of the frame, extensible sections having cut-away portions for receiving the end rails of the frame whereby the spring will act upon the said sections for spacing the same from the frame, and resilient pins mounted in the sections and passed through the slots in the said end rails and having eye heads for snapping engagement with the end



rails for sustaining the sections in retracted position relative to the frame.

1,133,128. WINDING-KEY FOR ROLL-HOLDING CAMERAS. JOSEPH GODDARD, Rochester, N. Y., assignor to Seneca Camera Manufacturing Company, New York, N. Y., a Corporation of New York. Filed June 25, 1914. Serial No. 847,285. (Cl. 242—71.)



1. In a camera, the combination with the camera body, of a spool winding key, a uni-directional clutch member coaxial with the winding key and connected with the camera body so as to be axially movable but nonrotatable with respect thereto, a second clutch member attached to the key, and adapted to engage the first-mentioned clutch member, and connections between the key and the first clutch member by which they are held to move axially together.

2. In a camera, the combination with the camera body, of a spool winding key, a uni-directional clutch member co-axial with the winding key and connected with the camera body so as to be axially movable but nonrotatable with respect thereto, a second clutch member attached to the key, and adapted to engage the first-mentioned clutch member, connections between the key and the first clutch member by which they are held to move axially together, and a spring tending to move the first clutch member inwardly with respect to the camera body.

3. In a camera, the combination of a winding key to coöperate with a film-winding spool, a clutch coöperative with the key to prevent retrograde movement thereof, a member adapted to be attached to the camera body, and means embodying pins arranged eccentrically of the axis of the key and movable longitudinally relatively to said member for holding said clutch against rotation and permitting axial movement of the clutch relatively to said member.

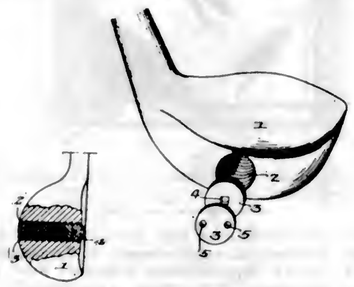
4. In a camera, the combination of a winding key embodying a spindle adapted to coöperate with a film-winding spool, a uni-directional clutch coöperative with the spindle, a plate adapted to be fixed to the camera body, and means comprising pins attached to one of the clutch members and longitudinally movable through said plate for preventing rotation of said clutch member with respect to the plate.

5. In a camera, the combination of a winding key embodying a rotatable spindle movable axially to couple and uncouple relatively to a film-winding spool, a uni-directional clutch coöperative with the spindle and movable axially therewith, a plate adapted to be fixed to the camera

body, and pins attached to the clutch and movable axially through said plate in parallelism with the axis of the spindle.

[Claims 6 to 8 not printed in the Gazette.]

1,133,129. GOLF-CLUB. JAMES GOVAN, Radnor, Pa. Filed Mar. 6, 1913. Serial No. 752,451. (Cl. 46—4.)



1. A golf club having a head with a recess therein disposed transversely to the axis of the shaft, and weighted disks adjustable in said recess for transversely adjusting the center of gravity of said head.

2. A golf club having a head with a recess therein disposed transversely to the axis of the shaft, and removable weighted disks adjustable in said recess and permitting of a transverse adjustment of the center of gravity of said head.

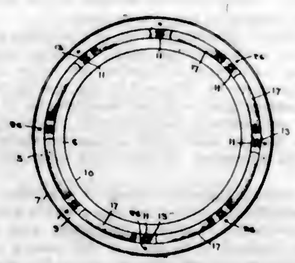
3. A golf club having a head with a threaded recess therein disposed transversely to the axis of the shaft, and weighted disks threaded into and filling said recess for transversely adjusting the center of gravity of said head.

4. A golf club having a wooden head with a recess therein disposed transversely to the axis of the shaft, and disks of various weights in said recess for transversely adjusting the center of gravity of said head.

5. A golf club having a wooden head with a plurality of recesses therein disposed transversely to the axis of the shaft, and metal disks of various weights filling said recess and adjustable therein for transversely varying the center of gravity of said head.

[Claims 6 to 8 not printed in the Gazette.]

1,133,130. RESILIENT WHEEL. ARMAND J. GRANGER, Salix, Iowa. Filed May 16, 1914. Serial No. 839,118. (Cl. 152—32.)



1. In a resilient wheel of the type described, an outer rim, an inner rim, spaced therefrom, a plurality of pneumatic cushions interposed between said rims, metal air stems seated in said inner rim and connected to each of said cushions, and sectional connecting means communicating with said stems whereby each of said cushions is linked to the entire series, each of said sections being subdivided into compartments.

2. A resilient wheel of the type described, an outer rim, an inner rim, pneumatic cushions interposed between said rims, a pair of air stems for each cushion seated in suitable bores in said inner rim, sections of tubing connected to each pair of stems, compartments provided in each section to separate the stems of each pair, and means for connecting the sections to link each cushion to the entire series.

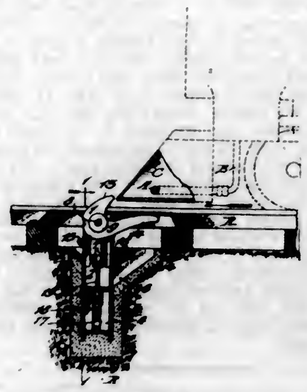
3. A resilient wheel of the type described, an outer rim, an inner rim, pneumatic cushions interposed between said rims, a pair of air stems for each cushion seated in suitable bores in said inner rim, sections of tubing connected to each pair of stems, compartments provided in each section to separate the stems of each pair, and valved means interposed between each of said sections.

4. In a resilient wheel of the character described, an outer rim, an inner rim spaced therefrom, raised portions formed at spaced intervals on the inner periphery of said outer rim, annular channel plates providing side walls for said outer rim and apertured at points opposite said raised portions, pneumatic cushions interposed between said rims, anti-frictional means positioned between said cushions and said outer rim and means formed on said raised portions for conducting particles of foreign matter collecting between said channel plates outwardly through said apertures.

5. A resilient wheel of the type described, an outer rim, an inner rim spaced therefrom, a plurality of pneumatic cushions interposed between said rims, an inlet and an outlet air stem seated in said inner rim and communicating with said pneumatic cushions, sectional means for connecting each outlet stem of one cushion with the inlet stem of the adjacent cushion, means for connecting the separate portions of said sectional means, spring controlled valves interposed between adjacent sections at their meeting points, and means for providing a flow of air through each cushion and each section successively.

[Claim 6 not printed in the Gazette.]

1,133,131. SAFETY DEVICE FOR RAILWAYS. JOSEPH FIDDLER GRAYBILL, York, Pa. Filed Jan. 12, 1914. Serial No. 811,710. (Cl. 246—59.)



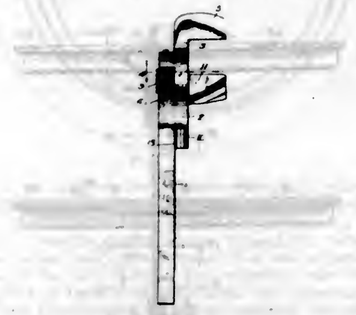
1. A safety appliance for actuating air brakes comprising a casing adapted to be mounted in a pit between the track rails, laterally spaced vertically disposed guides arranged in said casing, a head slidably mounted in said guides, a lever rotatably mounted on said head and having arms positioned one to be engaged by a passing train and the other for upward projection on the engagement of said first mentioned arm by said passing train, and coöperating means on said head and lever for yieldably locking said lever in adjusted position and means for reciprocating said head.

2. A safety appliance for actuating air brakes comprising a casing adapted to be mounted in a pit between the track rails, laterally spaced vertically disposed guides arranged in said casing, a head slidably mounted in said guides, a lever rotatably mounted on said head and having arms positioned one to be engaged by a passing train and the other for upward projection on the engagement of said first mentioned arm by said passing train, said trip lever having a hub provided with a recess and a spring pressed detent mounted on said head for engagement with said recess to lock said lever in operative position, and means for reciprocating said head.

3. An air brake operating device comprising a casing adapted to be mounted in a pit between the rails of a track, a head mounted to slide vertically in said casing and comprising laterally spaced members connected to a cross bar, a rod also arranged between and connecting said members, a lever having a hub rotatably mounted on said rod, said hub having a recess therein, a spring mounted on said head and having a detent for engaging said recess to lock said lever in operative position, said lever having arms positioned one to be engaged by a passing train and the other to be projected upward on the engagement of said first mentioned arm of a train.

4. A safety appliance for air brakes comprising a casing, a head mounted to reciprocate vertically therein, a trip lever rotatably mounted on said head, and means carried by said casing for engagement by said trip lever to turn said lever into operative position after the passing of a train in either direction on the lowering of said head.

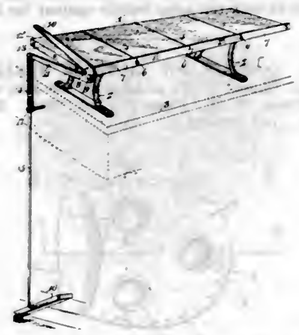
1,133,132. WRENCH. JOHN W. GREB, Lutherville, Md. Filed Dec. 19, 1914. Serial No. 878,130. (Cl. 81—170.)



In a wrench, a handle, a forwardly extending portion of increased thickness fixed with respect to the handle and having a recess in its back and also having in its forwardly extended portion a longitudinal guideway and longitudinal grooves in the side walls thereof, a shank fixed with respect to and extending from the thick portion and arranged in a plane forward of that of the handle and having a guideway and grooves forming continuations of the first-named guideways and grooves; a lateral jaw on said shank, a rotatable screw mounted in the recess of the thick portion, a slidable lateral jaw, and a slidable shank carrying and extending longitudinally in opposite directions from said jaw and in the said guideway and having tongues on its side edges and also having at its back a rack intermeshed with the screw.

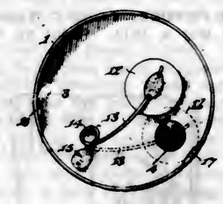
1,133,133. DEVICE FOR MEASURING AND CUTTING FABRICS. HARRY K. GAOUT, Muscatine, Iowa. Filed Jan. 23, 1914. Serial No. 813,930. (Cl. 164—78.)

A device for measuring and cutting fabrics comprising a table provided at intervals with transverse grooves, thin transverse strips seated in the grooves and projecting above the upper face of the table to form raised transverse edges which extend entirely across the table from the front edge to the rear edge of the same, a longitudinal guide plate secured to and extending along the rear edge of the table and projecting above the same and also above the said raised transverse edges to form a continuous guide for the material the full length of the table, said



longitudinal plate being located at the rear ends of the raised edges and provided with scale graduations corresponding therewith, and cutting mechanism extending across one end of the table and arranged to sever the material as the same leaves the said guide plate.

1,133,134. DISPENSING-CAN. HENRY WILLIAM JACOB GRUETTNER, Vallejo, Cal. Filed Mar. 10, 1914. Serial No. 823,743. (Cl. 221—14.)



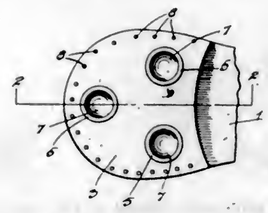
1. A dispensing can including a body provided with a horizontal bottom and having a depending flange supporting the bottom above the lower edge of the can and providing a bottom recess, said bottom being provided adjacent the flange with a discharge aperture, a closure consisting of a plate or piece fitted against the lower face of the bottom and slidable over the same to and from the said discharge aperture and being arranged in contact with the said flange when in its closed position, and a spring secured at one end to the bottom and having its other end free and carrying the closure, said spring being provided at a point intermediate of its ends with a spring coil and adapted to normally urge the closure toward its closed position and maintain the same in contact with the depending flange.

2. A dispensing can consisting of a body having a bottom provided with a discharge aperture located adjacent to one side of the body, said body being also provided with a depending supporting flange having a projecting lip, a spring arranged at the lower face of the bottom and secured at one end, and a closure carried by the spring and slidable over the bottom and normally maintained by the spring in engagement with the lip of the flange, the latter forming a stop for the closure.

3. A dispensing can consisting of a body having a bottom provided with a discharge aperture located adjacent to one side of the body, said body being also provided with a depending stop flange and having a projecting lip extending inwardly from the lower edge of the flange, a spring secured at one end to the can at the

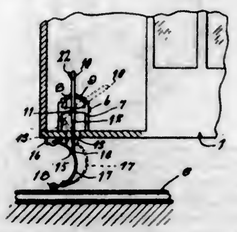
lower face of the bottom, a closure carried by the other end of the spring and slidable over the bottom to and from the discharge aperture and normally maintained by the spring in its closed position and in engagement with the lip of the flange, the latter forming a stop for the closure and the lip presenting an inclined upper face to the closure to hold the same tightly against the bottom.

1,133,135. CUSHION TOP LIFT FOR HEELS. JOHN A. HALL, Union, N. H., assignor of one-half to W. M. Lord, Union, N. H. Filed May 16, 1914. Serial No. 839,001. (Cl. 36—59.)



The hereindescribed cushion top lift comprising a leather lift having a series of tapering openings therein, and rubber plugs of frusto-conical form fitted in said openings and provided each with a concave recess in its upper side and a concave recess in its lower side to form vacuum cavities, and said plugs extending slightly beyond the outer surface of said top lift.

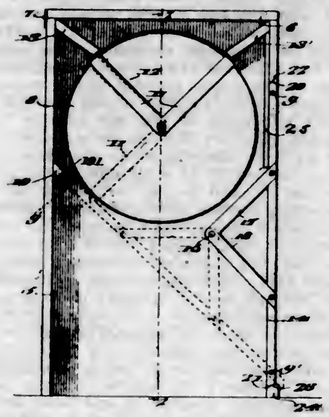
1,133,136. CAR-FENDER. JAMES C. HARRIS, Cambridge, Kans. Filed May 4, 1914. Serial No. 836,252. (Cl. 105—253.)



The combination with a car platform of a frame comprising a pair of uprights, a transverse bar connecting the uprights near their upper terminals, a segment formed at the upper terminals of the uprights, a lever pivotally connected to the transverse bar, means carried by the lever to coöperate with the segment in holding the lever in adjusted position, a fender comprising a pair of curved end bars, a pair of transversely extending bars connecting the end bars at their terminals, means to pivotally secure the fender to the car platform, and a link connected to the lever and to one of the curved end bars, said link being connected intermediate the ends of the end bar so that when upward pull is exerted thereon, the fender will be swung clear of the track.

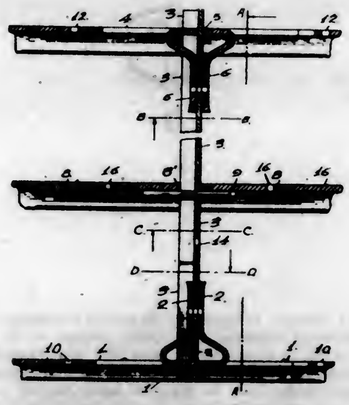
1,133,137. ASH-SIFTER. MAURICE HAYES, Rochester, N. Y. Filed July 29, 1913. Serial No. 781,882. (Cl. 83—60.)

A device of the class described comprising a casing having an opening in one wall thereof, a rotary sieve mounted therein, an adjustable door controlling said opening, and means carried by the door for pivotal connection with the casing at a point in a plane approximately midway between the ends of the door and within the casing,



whereby said door may be swung to adjusted position wholly within the casing to form a chute.

1,133,138. PARTITON CONSTRUCTION. WILBERT D. HENDERSON, San Francisco, Cal. Filed Feb. 21, 1914. Serial No. 820,771. (Cl. 189—34.)



1. In a partition construction, the combination of a vertical studding; a shoe channel having parallel lugs engaging each side of the lower end of the studding; and a top channel having an aperture therein through which the studding passes and lugs thereon engaging each side of the upper portion of the studding.

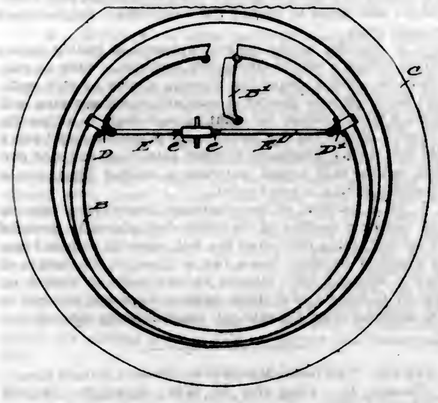
2. In a partition construction, the combination of a vertical studding; a shoe channel having parallel lugs integral therewith and engaging the lower end of the vertical studding; a top channel having a suitable aperture and parallel lugs integral therewith, said aperture and lugs engaging the upper portion of the vertical studding.

3. In a partition construction, the combination of a vertical studding; a shoe channel having apertures at regular intervals therein and upwardly extending parallel lugs integral therewith, said lugs being adapted to engage the lower end of the studding and rigidly securing the same; and a top channel having apertures therein where-

by the same may be secured and a suitable aperture and downwardly extending parallel lugs integral therewith, said aperture and lugs engaging and rigidly securing the upper portion of the studding.

4. In a partition construction, the combination of a vertical channel studding; a shoe channel having apertures at regular intervals therein and upwardly extending parrallel lugs integral therewith and engaging the lower end of the studding, one of the said lugs lying between the flanges on one side of the studding to prevent a lateral movement of the same; a top channel having apertures at regular intervals therein whereby the same may be secured to a ceiling or other structure and an aperture and downwardly extending parallel integral lugs one of said lugs lying between the flanges on one side of the studding to prevent a lateral movement of the same.

1,133,139. DEMOUNTABLE-RIM TOOL. MOSES MILTON HERMAN, Danville, Va. Filed Apr. 22, 1914. Serial No. 833,678. (Cl. 29—84.)



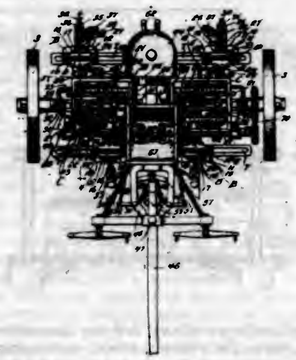
1. A rim tool of the character described, comprising clamping members for engagement with relatively opposite portions of the rim body and each including a body plate, a clamping bolt journaled through the body plate and opposing clamping lugs mounted on and adjustable by means of the said clamping bolt, adjusting rods hingedly connected at their outer ends to the said clamping members, and a turn-buckle threadedly engaging the inner adjacent ends of the adjusting rods, all substantially as described.

2. A rim tool of the character described, comprising a pair of clamping members each of said members having means for detachable engagement with both side edges of a rim and also having means whereby to positively engage portions of the inner periphery of the rim to prevent the clamping members from slipping along the rim, and adjustable connections between the said clamping members.

3. A rim tool of the character described, comprising a pair of clamping members having body projections engageable in conformable recesses in the inner periphery of a rim and also having clamps whereby to detachably engage the side edges of the rim and thus immovably support the members in position, and adjustable connections between, and hinged to, the said clamping members substantially as and for the purpose set forth.

1,133,140. CULTIVATOR. SIDNEY J. HIGGINS, Thorsby, Ala. Filed Feb. 19, 1913. Serial No. 749,454. (Cl. 97—35.)

1. In a cultivator, an arched axle, a longitudinal center bar connected therewith, front and rear cross bars connected with the center bar, cross heads mounted on the cross bars and having downwardly extending guide rods, head blocks movably supported on the guide rods, plow carrying members associated with the head blocks, and means for vertically adjusting the head blocks and for securing them at various adjustments.



2. In a cultivator, an arched axle, a longitudinal center bar connected therewith and having front and rear cross bars, head blocks supported by the cross bars and having downwardly extending guide rods, head blocks supported for vertical movement on the guide rods, each head block having a lifting rod pivotally connected therewith, rock shafts supported for oscillation and having cranks connected with the lifting rods, and means for actuating the rock shafts and for retaining them at various adjustments.

3. In a cultivator, a frame structure including front and rear cross bars, cross heads supported thereon and having downwardly extending guide rods, head blocks supported movably on the guide rods, each of said head blocks being provided with an orifice having a slotted bottom wall and with an overhanging flange also provided with a slot, a lever fulcrumed on the head block and having upwardly and downwardly extending arms guided through the slots, a plow carrying member actuated by and movable with the downwardly extending arm of the lever, a rock shaft having a crank arm provided with a terminal loop engaging the upwardly extending arm of the lever, and means for actuating the rock shaft and for securing it at various adjustments.

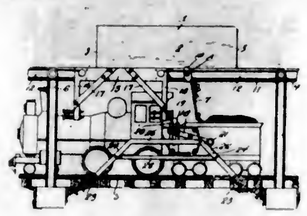
4. A cultivator having a frame structure including an arched axle, a suitably supported head block having an orifice provided with a slotted bottom wall and an overhanging flange likewise provided with a slot, a lever fulcrumed on the head block and having upwardly and downwardly extending arms guided through the slots, sockets mounted on the limbs of the arched axle, pintles supported for oscillation and for vertical movement in the sockets, said pintles having arms guided through the downwardly extending arms of the levers fulcrumed on the head blocks, said arms being equipped with plow carrying standards, means for rocking the levers to effect lateral adjustment of the plows, and means for effecting vertical adjustment of the head blocks.

5. In a cultivator, a frame structure including an arched axle, and front and rear cross bars, cross heads associated with the cross bars and having downwardly extending guide rods, head blocks vertically movable on said guide rods, each head block being provided with an orifice having a slotted bottom wall and with an overhanging flange likewise provided with a slot, a lever pivoted on the head block and having downwardly and upwardly extending arms guided through the slots, a plow carrying member actuated for lateral adjustment by the downwardly extending arm of the lever, and means for actuating the lever and for effecting vertical adjust-

ment of the head block including rock shafts, bearing members for said rock shafts consisting of brackets secured on the arched axle, auxiliary bearings for said rock shafts consisting of stirrups depending from the cross heads, and means for actuating the rock shafts and for securing them at various adjustments.

[Claims 6 to 8 not printed in the Gazette.]

1,133,141. COALING DEVICE. DANIEL HILLEMAN, St. Louis, Mo. Filed Apr. 7, 1914. Serial No. 830,275. (Cl. 214—1.)



1. In combination with coal delivery apparatus comprising a bin above the railway track, a dumping member forming the bottom of the bin and having a locking element, a guide track and a slide mounted for movement on the guide track and to normally engage the locking element to hold the dumping member in closed position; car-carried means to engage and operate the slide, car-carried means to project and withdraw said slide-engaging means and fixed means, at one side of the railway track to automatically withdraw said slide-engaging means as the car passes.

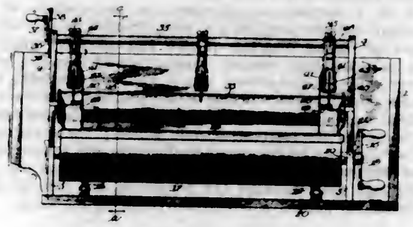
2. In combination with coal delivery apparatus comprising a bin above the railway track, a dumping member forming the bottom of the bin and having a locking element, a guide track and a slide mounted for movement on the guide track and to normally engage the locking element to hold the dumping member in closed position; car-carried means to engage and operate the slide, and including a lever, a tappet on said lever, and a fixed cam rail at one side of the railway track and arranged to engage said tappet and actuate said lever to cause the latter to automatically move the slide-engaging means to inoperative position.

3. In combination with coal delivery apparatus comprising a bin above the railway track, a dumping member forming the bottom of the bin and having a locking element, a guide track and a slide mounted for movement on the guide track and to normally engage the locking element to hold the dumping member in closed position; car-carried means to engage and operate the slide, and including a lever, a tappet on said lever, and a fixed cam rail at one side of the railway track and arranged to engage said tappet and actuate said lever to cause the latter to automatically move the slide-engaging means to inoperative position, said cam rail having an inclined cam member and an elevated supporting member.

1,133,142. CUTTING-MACHINE. OTTO C. L. HIRSCH, Chicago, Ill. Filed Sept. 25, 1911, Serial No. 651,268. Renewed Sept. 11, 1914. Serial No. 861,324. (Cl. 164—65.)

1. A machine of the character described having means for holding a roll of ribbon-like material, a take up roll, means for rewinding said material, rotatable cutting means for cutting a strip from said material and a chute for guiding the severed strip, said chute having side walls to confine the longitudinal displacement of said strip.

2. A machine of the character described having means for holding a roller of ribbon-like material, a take up roll, means for rewinding said material, an idler roll over which said material is carried, rotatable cutting means cooperating with said idler roll to cut a strip from said material and a chute for guiding the severed strip, said chute having side walls to confine the longitudinal displacement of said strip.

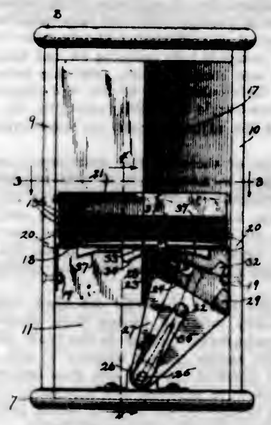


3. A machine of the character described having means for holding a roll of ribbon-like material, a take-up roll, means for rewinding said material, a plurality of cutting means to cut a plurality of strips from said material and a plurality of chutes to guide the severed strips, said chute having side walls to confine the longitudinal displacement of said strip.

4. A machine of the character described having means for mounting a roll of ribbon-like material, a take up roll, rotatable cutting means for severing a strip of said material longitudinally thereof, a rotatable shaft carrying said cutting means, means for rotating said shaft to adjust the pressure of said cutting means against said material and a flat leaf spring interposed between said shaft and said cutting means, said means including a ratchet wheel and a rotatable spring pressed pawl.

5. In a machine of the character described a take up roll having a portion of its outer shell pivotally mounted to the remaining portion of the roll, whereby material may be clamped between these two sections of the roll, and means whereby this pivoted section may be swung inwardly to release said clamp portion to permit removal of the material from the said roll longitudinally thereof.

1,133,143. VENDING-MACHINE. JOSEPH HARRIE HOGAN, Chicago, Ill. Filed May 10, 1913. Serial No. 766,908. (Cl. 211—8.)



1. In a device of the class described, a suitable rectangular case for storing paper cups in a vertical pile arranged with a vertical gutter on two opposite sides of the pile, the inner faces of two opposite walls of the case formed with suitable ridges to fit into the vertical gutters of the pile of cups to retain the cups in proper position in the pile, the remaining two opposite walls of the case provided with suitable slots through which the cups are ejected and means at the lower end of the pile of cups for ejecting cups through said slots alternately.

2. In a device of the class described, a suitable case for storing tapering paper cups in a vertical pile having their wide and narrow ends arranged alternately throughout the pile, means at the lower end of the pile of cups for extracting one cup at a time comprising a support for the pile of cups, a pusher provided with two upward extending fingers spaced apart to straddle the narrow end of the lowermost cup and arranged to move from side to side below the pile of cups and means for operating said pusher whereby a cup is ejected from the pile at each side movement of the pusher.

3. In a device of the class described, means for retaining tapering paper cups in a vertical pile and arranged with their narrow and wide ends alternating throughout the pile, means for extracting one cup from the pile at each operation comprising a pusher provided with two laterally extending fingers spaced apart to straddle the narrow ends of the cups and mounted to move back and forth in a plane at right angles to the axis of the pile of cups with the fingers contacting with the cup next to the end one and means for moving said pusher to extract the end cup.

4. In a device of the class described, means for ejecting a paper cup comprising a rock shaft, an arm loosely mounted to swing about the shaft as a pivot a tilting pusher pivotally mounted on the free end of said arm and a second arm or plate mounted rigidly on said rock shaft having lost motion with respect to said first named arm and arranged to move said first named arm about its pivot.

5. In a device of the class described, means for retaining tapering paper cups in a vertical pile said cups arranged with their narrow and wide ends alternating throughout the pile, means for extracting the lowermost cup from the pile at each operation comprising a pusher provided with two upwardly extending fingers spaced apart to straddle the narrow ends of the cups and mounted to move back and forth in a horizontal plane below the pile of cups, means for yieldingly holding the said fingers upwardly against the lower end of the pile of cups and means for moving said pusher to extract the lowermost cup.

1,133,144. SHEATH OR SCABBARD. VICTOR H. JENNINGS, Worcester, Mass., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 27, 1912. Serial No. 693,667. (Cl. 224—2.)



1. The combination with a sheath or scabbard having an exteriorly-enlarged mouth-end, of a fabric-covering of seamless tubular weave fitting the said body, having a mouth-portion formed with a longitudinal slit, with both margins at such slit woven selvaged and also woven overlapped with each other, and having their overlapping portions partly expanded to suit the enlarged mouth-end and permanently secured together.

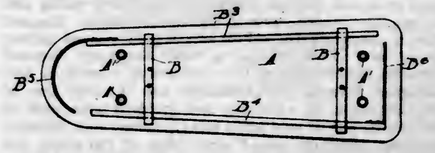
2. The combination with a sheath or scabbard having an exteriorly-enlarged mouth-end, of a fabric-covering of seamless tubular weave fitting the said body, having a mouth-portion expanded to fit said exteriorly-enlarged mouth-end, formed with a longitudinal slit and integral widening, with both margins at such slit woven selvaged, and also woven overlapped with each other, and having their overlapping portions partly expanded and permanently secured together.

3. The combination with a sheath or scabbard having an exteriorly-enlarged mouth-end, of a fabric-covering of seamless tubular weave fitting the said body, having a mouth-portion expanded to fit said exteriorly-enlarged mouth-end, formed with a longitudinal slit and integral widening, with both margins at such slit woven selvaged and also woven, overlapped with each other, and having their overlapping portions partly expanded and permanently secured together, and a suspending tab covering and protecting the slit, widening, and securing means.

4. The combination with a sheath or scabbard having an exteriorly-enlarged mouth-end, of a fabric-covering of seamless tubular weave fitting the said body, having a mouth-portion expanded to fit said exteriorly-enlarged mouth-end, formed with a longitudinal slit and integral widening, with both margins at such slit woven selvaged and also woven, overlapped with each other, and having their overlapping portions partly expanded and permanently secured together, and with the end of such mouth-portion turned in upon itself and one overlapping portion inclosing and confining the other, producing a firm and continuously-closed mouth-end.

5. The combination with a sheath or scabbard having an exteriorly-enlarged mouth-end, of a fabric-covering of seamless tubular weave fitting the said body, having a mouth-portion expanded to fit said exteriorly-enlarged mouth-end, formed with a longitudinal slit and integral widening, with both margins at such slit woven selvaged and also woven, overlapped with each other, and having their overlapping portions partly expanded and permanently secured together, and with the end of such mouth-portion turned in upon itself and one overlapping portion inclosing and confining the other, producing a firm and continuously-closed mouth-end, and a suspending tab covering and protecting the slit, widening, and securing means.

1,133,145. IRONING-BOARD. FRANCIS T. JOHNSON, Chicago, Ill. Filed May 8, 1914. Serial No. 837,104. (Cl. 68—10.)

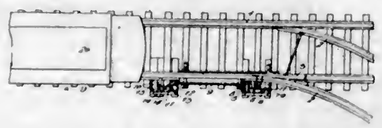


1. The combination of an ironing board and cover therefor of frictional means for yieldingly holding the cover in fixed position upon the board, said means being applied to said cover and board beneath the board and immediately inside the edge thereof, said means being substantially continuous about the periphery of the board and comprising a plurality of separate clamping bars and yielding means for compressing said bars against the board.

2. The combination of an ironing board and cover therefor of frictional means for yieldingly holding the cover in fixed position upon the board, said means being applied to said cover and board beneath the board and immediately inside the edge thereof, said means being substantially continuous about the periphery of the board and comprising a plurality of separate clamping bars and yielding means for compressing said bars against the board, said yielding means taking the form of spring clamps attached to the board which underlie the clamping boards.

3. The combination of an ironing board and cover therefor of movable means for yieldingly holding the cover in fixed position upon the board, said means being applied to said cover and board beneath the board and immediately inside the edge thereof, said means being substantially continuous about the perphery of the board and comprising a plurality of separate clamping bars and yielding means for compressing said bars against the board, said clamping bars having yielding extensions each at one end extending across the end of the board when the clamping members are in position, one of said extensions being curved to correspond with the end of the board.

1,133,146. SWITCH-THROWING DEVICE. FRANK A. JOHNSON, Danville, Ill., assignor of one-half to Chester B. Vail, of Danville, Ill. Filed May 14, 1914. Serial No. 838,595. (C. 104—24.)



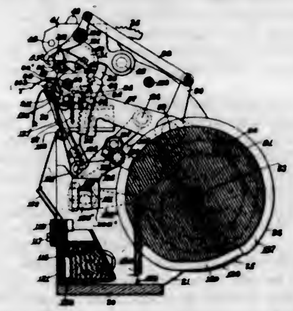
1. In a railway switch mechanism, the combination with a track section including a movable switch point, of a casing mounted contiguous to the latter, an angular arm fulcrumed at the junction of its arm sections on a vertical axis within said casing, means connected with one of the arm sections of said arm and said switch point to actuate the latter upon actuation of said arm, means engaged with the opposite arm sections of said angular arm to actuate the latter, and a corrugated spring actuated plate for coöperation with the extremity of the first mentioned section of said arm to retain the latter and correspondingly said switch rail, in either of its adjusted positions.

2. In a railway switch mechanism, the combination with a track section including a movable switch point of a casing disposed contiguous to the latter, a bell crank fulcrumed at the junction of its arms on a vertical axis within said casing, a link connection between one of said arms, and said movable switch point, a corrugated spring actuated plate coöperating with the extremity of the arm connected with said switch point, a second casing disposed in spaced relation to the first mentioned casing and contiguous to said track, a pair of vertically disposed suitably spaced shafts within said last mentioned casing, one of said shafts having a right angularly disposed extension formed on the lower extremity thereof, a link connection between said extension and the free arm of said bell crank, an actuating arm disposed upon each of said shafts, one of said arms being disposed in a horizontal plane vertically spaced above that of the other, the uppermost of said actuating arms being fulcrumed at its inner end and the lowermost of said arms being fulcrumed intermediate the ends thereof, a connecting link between the inner end of the last mentioned arm and the first mentioned arm substantially as and for the purpose set forth.

3. In a railway switch mechanism, the combination with a track section having a pivoted switch rail in the length thereof; of a casing mounted adjacent the track section, a bell crank lever fulcrumed at the junction of its arms on a vertical axis within said casing, connecting means between one arm of said lever and the pivoted switch rail to actuate the latter upon the actuation of the lever, means in connection with the opposite arm of said lever to actuate the latter, and a yielding stop member carried in said casing and engaged with the free end of the first mentioned arm of said lever to retain the latter and correspondingly the switch rail in either of its actuated positions.

4. In a railway switch mechanism, the combination with a track section having a pivoted switch rail in the length thereof; of a casing mounted adjacent said track section, a bell crank lever fulcrumed at the junction of its arms on a vertical axis within said casing, connecting means between one arm of said lever and the pivoted switch rail, means in connection with the other arm of said lever to actuate the latter, a corrugated plate hinged at its one end to one wall of said casing and spring means in connection with said casing and the plate whereby to dispose the latter in engagement with the first mentioned arm of said lever to retain the latter in any actuated position.

1,133,147. SEWING-MACHINE. LAWRENCE E. JOHNSON, Winthrop, and EDWARD ERICKSON, Lynn, Massachusetts, assignors to Victor Shoe Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed May 19, 1913. Serial No. 768,671. (Cl. 112—20.)



1. In a shoe-sewing machine, a stitch-forming mechanism consisting of a needle, an oscillating shuttle, driving mechanism for said shuttle, a loop-forming mechanism, needle-operating mechanism, including a cam-controlled lever, a tapered spreader mounted to operate in a plane parallel to the needle, and connections between said cam-controlled lever and spreader adapted to cause the latter, by the operation of the former, to be oscillated to expand the loop held by the barb of the needle as the shuttle coöperates therewith.

2. In a shoe-sewing machine, the combination of a needle; operating mechanism therefor including a cam-controlled lever; a loop-spreader comprising a tapered finger mounted to operate in a plane parallel to the needle and having its operating end curved rearwardly; a support therefor; and means operable by the cam-controlled lever for moving the spreader transversely of the loop held by the barb of the needle.

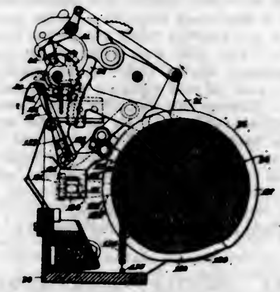
3. In a shoe-sewing machine, the combination of a needle; operating mechanism therefor including a cam-controlled lever; a shuttle, a pivoted loop spreader comprising a finger mounted to operate in a plane with the hook of the shuttle and parallel to the needle, said finger having a tapered end curved rearwardly; and means connected with said cam-controlled lever for moving said spreader about its pivot and causing it to expand the loop held by the barb of the needle as the shuttle coöperates therewith.

4. In a shoe-sewing machine, a stitch-forming mechanism consisting of an oscillating needle, operating mechanism therefor including a cam-controlled lever, a shuttle mechanism, a loop forming mechanism, a finger having a pivoted parallel with the axis of oscillation of said needle and provided with a wedge-shaped operating end adapted to expand the loop as the shuttle coöperates therewith, the side adjacent said needle being parallel thereto, a support for said finger, and means operable by said cam-controlled lever for moving said finger about its pivot and causing it to expand the loop held by the barb of the needle as the shuttle coöperates therewith.

5. In a shoe-sewing machine, a stitch-forming mechanism consisting of a needle, operating mechanism therefor including a cam operated arm; a shuttle mechanism, a loop forming mechanism, a pivoted finger having a wedge-shaped operating end and operable in a plane parallel to the plane of movement of said needle when forming a stitch, and a link between said finger and arm whereby during the operation of the needle said finger will be moved by said arm to cause its wedge-shaped operating end to enter the loop held by the barb of the needle and spread said loop as the shuttle coöperates therewith.

[Claims 6 to 11 not printed in the Gazette.]

1,133,148. LOOPER MECHANISM FOR SEWING-MACHINES. LAWRENCE E. JOHNSON, Winthrop, and EDWARD ERICKSON, Lynn, Mass., assignors to Victor Shoe Machinery Co., Boston, Mass., a Corporation of Massachusetts. Original application filed May 19, 1913, Serial No. 768,671. Divided and this application filed Oct. 3, 1913. Serial No. 793,473. (Cl. 112—20.)



1. In a shoe-sewing machine, the combination with a looper, of a bifurcated support therefor provided with a rearwardly extending arm; rollers mounted on said arm perpendicular to each other; an oscillating member having a flattened end positioned in said bifurcated support and connected thereto by a pivot pin perpendicular to the axis of said oscillating member; cam members coasting with said rollers for simultaneously moving said support about its pivot and said oscillating member about its axis; a lever on said oscillating member; a spring coacting therewith; and means for securing said lever to said oscillating member in adjusted position to vary the tension of said spring.

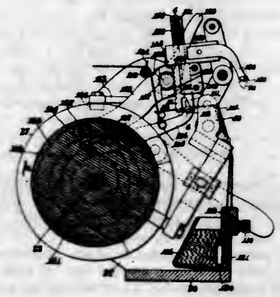
2. In a shoe-sewing machine, the combination of an oscillating member having a flattened head; a bifurcated member straddling said head and provided with a rearwardly extending arm and a forwardly extending socket in a plane perpendicular to the axis of rotation of said oscillating member; a looper positioned in said socket; a pivot pin connecting said oscillating member and bifurcated member perpendicular to the axis of the former; rollers on the rear and side faces of said arm; and a revoluble member having a cam path and peripheral cam throws coacting with said rollers and revoluble about an axis parallel with the axis of said oscillating member.

3. In a shoe-sewing machine, the combination of an oscillating member having a flattened head; a bifurcated member straddling said head and provided with a rearwardly extending arm and a forwardly extending socket, said arm and socket being inclined upwardly from said head and in a plane perpendicular to the axis of said oscillating member; a looper positioned in said socket; a pivot pin connecting said oscillating member and bifurcated member perpendicular to the axis of the former; rollers on the rear and side faces of said arm; and a revoluble member having a cam path and peripheral cam throws coacting with said rollers; resilient means for retaining said rollers in operative position relative to said revoluble member; and means for regulating the tension of said resilient means.

4. In a shoe-sewing machine, the combination of an oscillating member having a flattened head and a cylindrical shank positioned in a horizontal bearing in the frame; a bifurcated member straddling said head and provided with a rearwardly extending arm and a forwardly extending socket; a looper positioned in said socket; a pivot pin connecting said oscillating member and bifurcated member perpendicular to the axis of the former; rollers on the rear and side faces of said arm; a revoluble member having a cam path and peripheral cam throws coacting with said rollers; a lever clamped to the outer end of said shank; and a spring coacting therewith to retain the side rollers in contact with the periphery of said revoluble cam member.

5. In a shoe-sewing machine, the combination of an oscillating member having a cylindrical shank positioned in a bearing in the frame of the machine; a member pivoted to one end of said oscillating member by a pin perpendicular to the axis of said shank and provided with a rearwardly extending arm and a forwardly extending socket; a looper positioned in said socket; rollers mounted on said arm perpendicular to each other; a member having a cam path and peripheral cam throws coacting with said rollers and revoluble about an axis parallel with the axis of said shank; a lever on the outer end of said shank; a spring coacting therewith; and means for securing said lever to said shank in adjusted positions to vary the tension of said spring.

1,133,149. PRESSER-FOOT MECHANISM FOR SEWING-MACHINES. LAWRENCE E. JOHNSON, Winthrop, and EDWARD ERICKSON, Lynn, Mass., assignors to Victor Shoe Machinery Co., Boston, Mass., a Corporation of Massachusetts. Original application filed May 19, 1913, Serial No. 768,671. Divided and this application filed Nov. 14, 1913. Serial No. 801,277. (Cl. 112—20.)



1. In a shoe-sewing machine, the combination of a work support; a presser foot; a slidable support therefor; a spring acting on said support; a cam controlled lever carrying said slidable support; and a cam controlled friction member to retain said presser foot in raised position against the tension of said spring for a predetermined time.

2. In a shoe-sewing machine, the combination of a pivoted cam controlled lever; a slidable member normally positioned thereon and movable therewith, said member being provided with rack teeth; a work support; a presser foot secured to said slidable member; a pinion at the pivotal axis of said lever engaging said rack teeth; and means for preventing the rotation of said pinion for a predetermined time.

3. In a shoe-sewing machine, the combination of a pivoted cam-controlled lever; a slidable member normally positioned thereon and movable therewith, said member being provided with rack teeth; a work support; a presser foot secured to said slidable member; a pinion at the pivotal axis of said lever engaging said rack teeth;

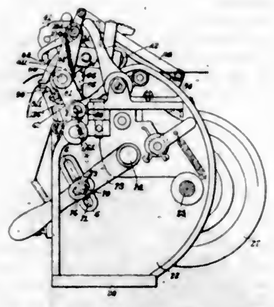
and cam controlled means for preventing the rotation of said pinion for a predetermined time.

4. In a shoe-sewing machine, the combination of a pivoted cam controlled lever; a slidable member normally positioned thereon and movable therewith, said member being provided with rack teeth; a work support; a presser foot secured to said slidable member; a pinion at the pivotal axis of said lever engaging said rack teeth; and a cam controlled friction member for controlling the rotation of said pinion.

5. In a shoe-sewing machine, the combination of a pivoted cam controlled lever; a slidable member normally positioned thereon and movable therewith, said member being provided with rack teeth; a work support; a presser foot secured to said slidable member; a pinion having an axial shank revoluble in a bearing; a handle secured to said shank; a friction member adapted to bear against said handle and the end of said shank; and cam mechanism for controlling the operation of said friction member.

[Claims 6 to 10 not printed in the Gazette.]

1,133,150. AWL-FEEDING MECHANISM FOR SEWING-MACHINES. LAWRENCE E. JOHNSON, Winthrop, and EDWARD ERICKSON, Lynn, Mass., assignors to Victor Shoe Machinery Co., Boston, Mass., a Corporation of Massachusetts. Original application filed May 19, 1913, Serial No. 768,671. Divided and this application filed Nov. 14, 1913. Serial No. 801,278. (Cl. 112—20.)



1. In a shoe-sewing machine, the combination of an oscillating support provided with a tubular shank formed thereon and revoluble therewith in a fixed bearing; a needle and awl secured to said support and adapted to alternately pierce the work; a shaft extending through said tubular shank; a disk on one end of said shaft provided with a needle guide and having a member normally engaging said support; a member secured to and radiating from the opposite end of said shaft; a fixed stop in the path of said radiating member; and a spring coacting with said radiating member to move said shaft about its axis.

2. In a shoe-sewing machine, the combination of an oscillating support provided with a tubular shank formed thereon and revoluble therewith in a fixed bearing; a needle and an awl secured to said support in the same vertical plane and adapted to alternately pierce the work; a needle guide provided with a shaft rigidly secured thereto extending through said tubular shank and adapted to be oscillated therein; a pin on the needle guide normally engaging said support; a spring controlled member secured to the opposite end of said shaft; and a stop to limit the movement of said member about the axis of said shaft.

3. In a shoe-sewing machine, the combination of a frame having guide members thereon movable in the frame of the machine and supporting the needle and awl mechanisms; a fixed work support; a slotted lever pivoted to said movable frame; a roller in the opposite end of said lever; a cam for said roller; a fulcrum member in the slot of said lever; a bifurcated member straddling said lever and to which said fulcrum member is pivoted, said bifurcated member being provided with a shank extending through a slot in a side frame; and a pivoted handle connected to said shank.

4. In a shoe-sewing machine, the combination of a frame having guide members thereon movable in the frame of the machine and supporting the needle and awl mechanisms; a fixed work support; a slotted lever pivoted to said movable frame; a roller in the opposite end of said lever; a cam for said roller; a fulcrum member in the slot of said lever; a bifurcated member straddling said lever and to which said fulcrum member is pivoted, said bifurcated member being provided with a shank extending through a slot in a side frame; a pivoted handle provided with a slot through which said shank extends; a spring surrounding said shank outside of said lever; and a nut on the outer end of said shank.

5. In a shoe-sewing machine, the combination of a fixed frame having a straight slot therein; a movable frame thereon supporting the needle and awl mechanisms and provided with two parallel pins reciprocable in said fixed frame; a fixed work support; a slotted lever pivoted at one end to the machine frame and at the other end to said movable frame, said lever being in the same plane with said straight slot; a roller in the opposite end of said lever; a cam for said roller; a block slidable in said lever slot; a fulcrum pin extending therethrough, a bifurcated member straddling said lever and having said fulcrum pin fixed therein; a shank thereon extending through said straight slot; an operating handle pivoted to the frame of the machine and through which said shank extends; and means on said shank for retaining said pivoted lever in adjusted position.

[Claims 6 and 7 not printed in the Gazette.]

1,133,151. SHUTTLE FOR SEWING-MACHINES. LAWRENCE E. JOHNSON, Winthrop, and EDWARD ERICKSON, Lynn, Mass., assignors to Victor Shoe Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Mar. 28, 1914. Serial No. 828,400. (Cl. 112—28.)



1. A shuttle case containing a bobbin and having a radial passage in said case through which the thread from said bobbin is fed, and an elongated chamber perpendicular to said passage and parallel to the axis of said bobbin, and a spring pressed friction member in said chamber adapted to press on said thread against the outer wall of said passage as it passes therethrough.

2. A shuttle case containing a bobbin and having a radial passage in said case through which the thread from said bobbin is fed, and a spring pressed revoluble ball adapted to press on said thread as it passes through said passage.

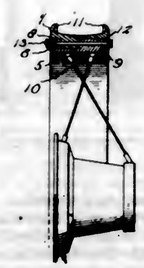
3. A shuttle case provided with an annular recess in one face and having a radial passage in the peripheral wall communicating with said recess and an elongated chamber perpendicular to and communicating with said passage; a bobbin in said recess carrying thread adapted to pass therefrom through said peripheral passage; and a revoluble spring pressed friction member in said chamber adapted to press said thread against the outer wall of said passage as it passes therethrough.

4. A shuttle case provided with an annular recess in one face and having a radial passage in the peripheral wall communicating with said recess; a bobbin in said recess, carrying thread adapted to pass therefrom through said passage; and a revoluble member adapted to press on said thread as it passes through said passage.

5. A shuttle case provided with an annular recess in one face; a bobbin therein; a bobbin retaining member pivoted to said case and provided with a notch in one edge; and a spring pressed locking device coacting with the said notch normally adapted to prevent movement of said retaining member about its pivot.

[Claim 6 not printed in the Gazette.]

1,133,152. DEMOUNTABLE RIM. EDWARD JONES, Great Neck, N. Y. Filed May 22, 1914. Serial No. 840,342. (Cl. 152—21.)



In a vehicle wheel the combination of a fixed rim having a series of inwardly disposed projections which extend transversely across the said fixed rim from edge to edge thereof, said fixed rim having sockets arranged around the periphery thereof and located in said inwardly disposed projections and extending approximately one half of the length thereof transversely of the fixed rim, and a demountable rim circumscribing the fixed rim, said demountable rim having a series of inwardly projecting bosses disposed in the sockets and bolts for securing the projections within the sockets.

1,133,153. CASING FOR PNEUMATIC TIRES. ERNEST HENRY JONES, London, England. Filed Mar. 15, 1912. Serial No. 683,936. (Cl. 152—18.)



1. An outer cover for pneumatic tires having embedded therein an elastic restraining fabric formed of interlaced coils of spring wire, the axes of the coils lying across the cover from edge to edge and being situated at such distances from each other that the coils only firmly engage each other when the cover is expanded beyond the normal and the coils stretched in the direction of their axes.

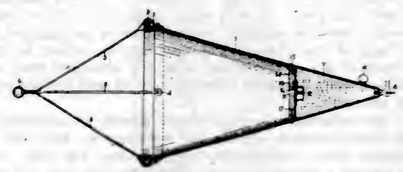
2. An outer cover for pneumatic tires having embedded therein an elastic metal fabric which is stretched to an extent approximately equivalent to the tension of the cover when the tire is fully expanded.

3. An outer cover for pneumatic tires having embedded therein an elastic metal fabric formed of interlaced coils of spring wire, stretched to an extent approximately equivalent to the tension of the cover when the tire is fully expanded.

4. An outer cover for pneumatic tires having embedded therein an elastic restraining fabric formed of interlaced coils of spring wire, the ends of which are doubled upon themselves to provide such fabric with inextensible longitudinal edges, said fabric being stretched to an extent approximately equivalent to the tension of the cover when the tire is fully expanded.

5. An outer tire cover comprising an elastic metal restraining fabric composed of interlaced coils of spring wire stretched to an extent approximately equivalent to the tension of the cover when the tire is fully expanded, and a mass of plastic rubber worked thoroughly into and through the stretched fabric and vulcanized while the said fabric is thus stretched.

1,133,154. SEA-ANCHOR AND OIL-TANK. LOUIS KAHNWEILER and OSCAR KAHNWEILER, New York, N. Y. Filed Nov. 19, 1914. Serial No. 873,060. (Cl. 114—234.)

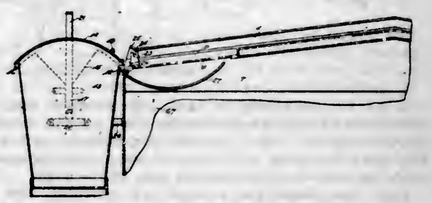


1. In an anchor and tank of the character described, a flexible casing open at one end, means for connecting said casing with a boat, an oil tank arranged in said casing, a valve arranged at the bottom of said tank, and a spring pressed valve member arranged at the top, said spring pressed valve member being designed to be overcome by the water entering the casing so as to force the oil from the tank.

2. In a sea anchor of the character described, a conical-shaped bag of flexible material, a metallic ring at the large end of the bag for holding the mouth continually open, means connected with said bag at the large end for acting as retaining cables, an oil tank arranged at the apex of the bag, a valve for controlling the outflow of oil from said tank, and a spring pressed valve for controlling the amount of water or air allowed to enter said oil tank.

3. In a sea anchor of the character described, a conical-shaped body, an oil tank arranged at the apex of said body, a valve arranged adjacent the apex of the tank for controlling the outflow of oil from the tank, a valve member arranged at the opposite end of said tank, said valve member including in its construction a plate, a spring for normally holding said plate in a predetermined position, and means for holding said spring in operative position, and a retaining member connected with said body for retaining said tank in said body.

1,133,155. ASH CART AND CAN. HUGO KASTOR, New York, N. Y. Filed Oct. 14, 1914. Serial No. 866,721. (Cl. 214—1.)



1. In combination,—an ash cart having an opening; a trap normally covering the opening; guides for the trap whereby the same is mounted to slide; an ash can having a rectangular top, two edges of which top are arcuated; an arcuated cover for said can mounted to swing in the axis of curvature of the arcuated edges of the can; means

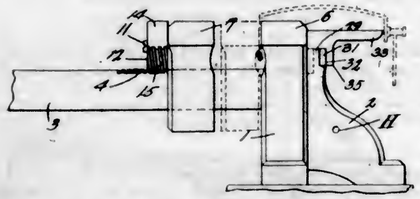
for maintaining the cover over the can top; a lug at each side of the can at the front, adjacent the top, said guides having ears adapted to receive said lugs and forming bearings therefor, whereby said can can be turned over the cart; a lug projecting from each side of the cover adjacent the front end thereof; and brackets on the trap adapted to be engaged by said cover lugs when said can is turned in the ears, said guides for the trap having means for guiding said cover lugs into engagement with the brackets.

2. In combination,—an ash cart having an opening; a trap covering the opening; an ash can; an arcuated cover for the ash can mounted to swing in the axis of curvature of said cover, said can having side lugs at the top adjacent the front thereof, said cart having bearings for said lugs; lugs on said cover adjacent the front edge thereof; brackets on said trap adapted to be engaged by the lugs of the cover when said can is turned in the bearings of the cart, whereby said can cover and trap are simultaneously operated substantially as and for the purpose set forth.

3. In combination,—an ash cart having an opening; a slide trap normally closing the opening; an ash can; a swinging cover therefor normally closing the can, said cart having a support for said can wherefrom said can can be suspended and turned about as an axis; and means bringing said cover and trap into engagement when said can is turned on the support, said means causing the simultaneous operation of said cover and trap when said can is turned, whereby said cover and trap will simultaneously uncover or close the can and cart opening respectively.

4. In combination,—an ash cart having an opening; an ash can having a rectangular top adapted to fit into said opening, said top of can having two arcuated edges; an arcuated cover mounted to swing in the axes of said arcuated edges; an arcuated support associated with the cart and adapted to be engaged by the arcuated edges of the can when said can is moved into the cart opening; a trap for the cart opening normally closing the same; and means for suspending the can on the cart at the opening whereby the top of the can can be swung into the opening of the cart, said cover and trap having co-acting means adapted to simultaneously open the can top and cart opening when the can is swung with its top into engagement with the cart opening, or close the top of the can and the cart opening when the top of the can is swung out of engagement with the cart opening.

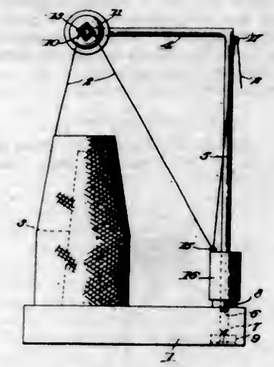
1,133,156. VISE. JOSEPH KINZEY, Johnstown, Pa. Filed Oct. 7, 1913. Serial No. 793,923. (Cl. 81—26.)



1. A vise comprising a fixed jaw provided with a buttress and having an outstanding arm; a punch carried by the buttress; and a movable jaw slidable upon the arm and coöperating with the fixed jaw to hold an object while the same is being operated upon by the punch.

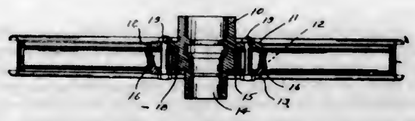
2. A vise comprising a fixed jaw provided with a buttress and having an outstanding arm; a punch having a tang inserted into the top of the buttress and provided with a shoulder, the buttress having polygonal faces adapted to engage the shoulder to permit the punch to be shifted with respect to the axis of the arm; and a movable jaw slidable upon the arm and coöperating with the fixed jaw to hold an object while the same is being operated upon by the punch.

1,133,157. TWINE-HOLDER. FREDERICK H. KUTNEWSKY, Malden, Wash. Filed Sept. 25, 1913. Serial No. 791,797. (Cl. 242—143.)



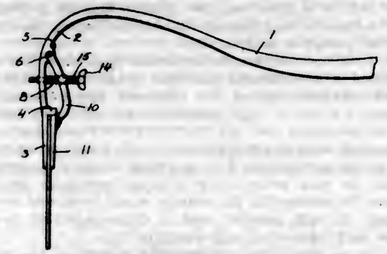
In a device of the class described a bracket having an upright arm serving as a fastening arm, a laterally disposed angle arm integral therewith, a second angle arm, said second angle arm being integral with the first angle arm and having a non-circular portion, disks on said second angle arm to receive cord there between, one of said disks being slidably mounted on the non-circular portion, a nut on the outer end of said second angle arm, a spring surrounding the second angle arm interposed between and bearing against said nut and one of said disks to urge said disks to abut and move toward said first angle arm, a vertically slidable weight on said upright arm having an eyelet through which the cord passes, an eyelet adjacent the junction of the first two mentioned arms through which the cord also passes, a base to which the upright arm is fastened, and cord detaining means mounted on said base.

1,133,158. VEHICLE WHEEL-HUB. ANDREW W. LIVINGSTON, Oakland, Cal., assignor to Standard Steel Wheel and Tire Armor Company, Oakland, Cal., a Corporation of Arizona. Original application filed Sept. 25, 1911, Serial No. 651,200. Divided and this application filed May 7, 1912. Serial No. 695,778. (Cl. 21—69.)



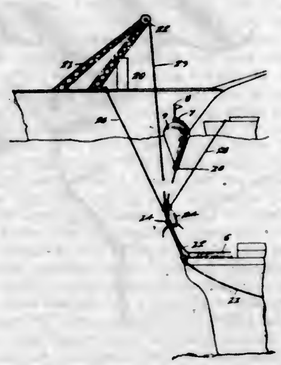
In a wheel the combination of a spoke structure formed from a disk provided with a central opening and having radiating corrugations extending from the central opening, a hub extending through the central opening of the spoke disk, a plate carried by said hub, fingers extending from said plate into the corrugations of said spoke structure, and extending into the corrugations of said plate in diverging relation, a plate mounted upon said hub upon the opposite side of said spoke structure from said first mentioned plate, fingers extending from said second mentioned plate into the corrugations of said spoke structure, said last mentioned fingers extending from said last mentioned plate in diverging relation and extending diagonally between the fingers of said first mentioned plate to interlock with the same, and means connecting said first and second mentioned plates to hold said hub and second mentioned plate secured to said hub structure.

1,133,159. COMBINATION GARDEN HOE AND RAKE. CHARLES W. LOTT and JOHN J. HEIMAN, Center, Colo. Filed Mar. 4, 1914. Serial No. 822,446. (Cl. 55—43.)



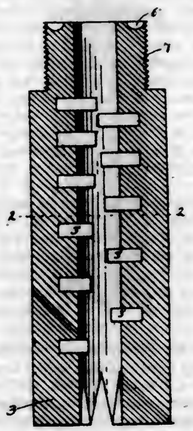
A device of the character described comprising a handle portion, an angular extension formed on the handle portion, a clamping member formed on the angular extension, a shoulder formed at the point where the angular extension and the clamping member join, an ear intermediate the ends of the angular extension, said angular extension being provided with a centrally located internally screw threaded aperture, a coöperating clamping member pivoted to the ear, said coöperating clamping member being provided with a centrally located transversely extending aperture adapted to aline with the first mentioned aperture, a plate secured to the coöperating clamping member and adapted to coöperate with the first mentioned clamping member to hold a blade in place, a thumb screw extending through the apertures in the coöperating clamping member and the angular extension, said thumb screw being adapted to adjust the tension on the blade, and a compressed coil spring interposed between the coöperating clamping member and the head of the thumb screw, whereby the coöperating clamping member is forced toward the first mentioned clamping member when the device is in use.

1,133,160. DEVICE FOR RAISING SUNKEN VESSELS. HENRY LOTZ, Lawrence, Mass. Filed July 10, 1914. Serial No. 850,194. (Cl. 114—51.)



In combination, a vessel, a line secured at one end to said vessel, a buoy removably secured to said line, cables secured longitudinally and under said vessel, grapples including shanks secured at their free ends to said cables and curved arms at the upper ends of said shanks, eyes carried by said grapples above said arms slidably receiving the first mentioned line, an annular member, a plurality of eyes carried by said annular member, a raising line attached to one of said eyes, and guide lines secured in the other eyes.

1,133,161. DRILL-BIT. GEORGE WATSON MCALLISTER, San Francisco, Cal. Original application filed Mar. 8, 1911, Serial No. 613,064. Divided and this application filed Jan. 18, 1912. Serial No. 671,991. (Cl. 255—64.)



1. In a bit for rotary drills, a rod having a plurality of openings therethrough, one of which is central and a plurality of core breaking cutters of different lengths extending into the central opening, substantially as described.

2. In a drill bit for rotary drills, a rod having a plurality of openings therethrough, one of which is central, threads at one end of said rod for connecting said rod to a drill rod, cutting means formed at the other end of said rod and a plurality of rigid inwardly extending cutters of different lengths secured to said drill rod for the purpose of breaking the core formed thereby, substantially as described.

3. In a drill bit for rotary drills, a rod having means to secure the same to an adjacent drill rod at one end and having cutting means at the other end, said rod having a plurality of openings therethrough, one of which is central and having a circumferential groove at the top of the eccentric opening and a plurality of successively longer cutters extending from the drill rod toward the center thereof in the central opening therethrough, substantially as described.

4. In a drill bit for rotary drills, a drill rod formed with hard and soft longitudinal segments and having threads at one end and teeth at the other end, said rod having a plurality of openings therethrough, one of which openings is central and also having a circular groove extending from the other opening around the central opening and a plurality of successively longer cutters projecting in the drill rod toward the center of the central hole therethrough, the longest cutter extending to the center of the drill rod, substantially as described.

5. In a drill bit for rotary drills, a drill rod formed with hard and soft longitudinal segments and having threads at one end and cutting means at the other end, said rod also having a central opening and two other openings extending longitudinally therethrough, a groove in the threaded end of said rod and connecting the two non-central openings therein, and a plurality of cutters projecting into the central opening in said drill rod, the cutter adjacent the drill rod cutting means being the shortest and the other cutters being successively longer until they reach the center of said drill rod, substantially as described.

1,133,162. DRILL-BIT. GEORGE WATSON MCALLISTER, San Francisco, Cal. Filed June 23, 1913. Serial No. 775,356. (Cl. 255—61.)

1. A bit for rotary drills comprising a rod having means at one end to secure an adjacent drill rod thereto and

cutting means at the other end, said rod being formed of a series of alternating hard and soft spiral segments, substantially as described.



2. A drill bit for rotary drills comprising a drill rod having alternately hard and soft spiral segments, said hard spiral segments extending beyond the periphery of the softer segments, substantially as described.

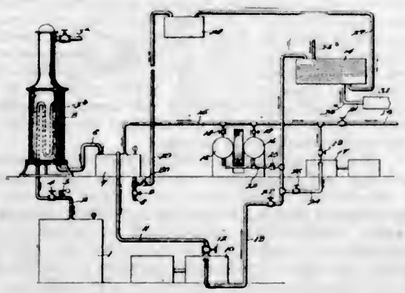
3. A drill bit for rotary drills comprising a rod having means at one end to secure the same to an adjacent drill rod and having cutting means at the other end, said bit being composed of a series of alternately hard and soft segments, the hard segments extending beyond the periphery of the soft segments for their entire length, substantially as described.

4. A bit for rotary drills comprising a rod having an opening therethrough, said rod being threaded at one end and composed of a series of spiral alternating hard and soft segments, substantially as described.

5. A bit for rotary drills comprising a rod having a plurality of openings therethrough, one of which openings is central, and said rod being composed of a plurality of longitudinally extending alternating hard and soft segments, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,133,163. REFRIGERATING APPARATUS. WILLARD B. MCBURNEY, HORATIO T. BARKSDALE, and JOHN B. HOWE, Atlanta, Ga. Filed Sept. 2, 1913. Serial No. 787,765. (Cl. 62—119.)



1. In an absorption refrigerating apparatus, the combination of an ammonia generator, a coil within said generator, a plurality of low pressure steam circulating pumps, a source of high pressure steam connected directly to the generator coil, and independent valve-controlled connections for supplying steam from said high pressure generator coil to said several low pressure pumps.

2. In an absorption refrigerating apparatus, the combination of an ammonia generator, a coil within said generator, a plurality of low pressure steam circulating pumps, a source of high pressure steam connected directly to the generator coil, independent valve-controlled connections for supplying steam from said high pressure generator coil to said several low pressure pumps, a reboiler, and means for conducting the exhaust steam from said several pumps to said reboiler.

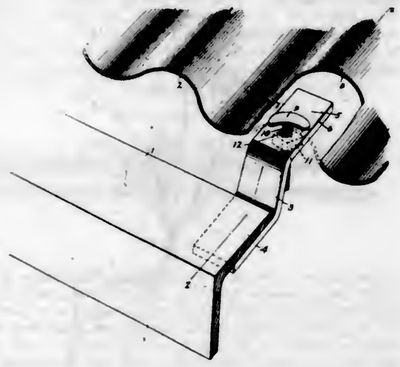
3. In an absorption refrigerating apparatus, the combination of an ammonia generator, a coil within said generator, a plurality of low pressure steam circulating pumps, a source of high pressure steam connected directly to the generator coil, a receiver for the steam discharged from said high pressure generator coil, independent valve-controlled connections for supplying steam from said receiver to said several low pressure pumps, a reboiler, means for conducting the exhaust steam from said several pumps to said reboiler, and a valve-controlled by-pass from said receiver to said reboiler.

4. In an absorption refrigerating apparatus, the combination with an ammonia generator, of a coil within said generator, a supply of steam for said generator coil, a plurality of circulating pumps, independent valve-controlled connections between said generator coil and said pumps, a condenser, means for leading the exhaust steam from said pumps into said condenser, an absorber, and means for leading the liquor from the absorber through said condenser.

5. In an absorption refrigerating apparatus, the combination with an ammonia generator, of a coil within said generator, a supply of high pressure steam for said generator coil, a plurality of low pressure circulating pumps, a receiver, means for leading the exhaust steam from said generator coil into said receiver, independent valve-controlled connections to supply steam to said pumps from said receiver, a condenser, means for leading the exhaust steam from said pumps into said condenser, an absorber, and means for leading the liquor from the absorber through said condenser.

[Claims 6 and 7 not printed in the Gazette.]

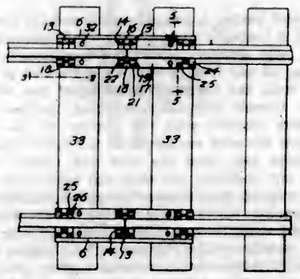
1,133,164. CORRUGATED-IRON FASTENER. MILLARD A. MCCOY, Perth Amboy, N. J. Filed Aug. 8, 1913. Serial No. 783,720. (Cl. 89—35.)



1. In a fastener of the class described, the combination with a supporting bar and a sheet metal covering supported by said bar, of a retaining and clamping bar formed substantially in the shape of an ogee curve with the ends substantially straight, one end being formed on its upper surface so as to conform substantially to the shape of said supporting bar and the other end being provided with a slot, and a clamping bolt extending through said slot and through said sheet metal for clamping the sheet metal to said slotted end and the clamping bar against said supporting bar, said clamping bolt being provided with a head conforming substantially to the shape of the sheet metal, and a clamping member pressing against the clamping bar.

2. In a fastening for sheet metal, the combination with a supporting bar and a sheet metal covering supported by said bar, of a clamping bar formed with a pair of end portions extending in opposite directions in parallel planes and connected by a diagonal portion, and a clamping bolt provided with a head and clamping one end portion to the metal covering, and the other end portion engaging the opposite face of the supporting bar.

1,133,165. RAIL-JOINT. GEORGE HAYWARD MARTIN, Oklahoma, Okla. Filed July 9, 1914. Serial No. 849,906. (Cl. 239—6.)



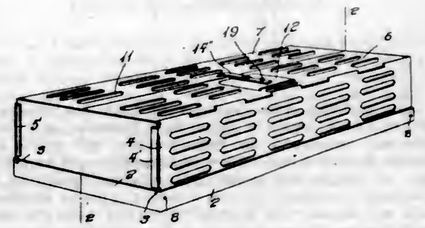
1. A rail joint comprising a flat base plate adapted to underlie adjacent rail ends, said plate provided along its longitudinal edge on the outside of said rail ends with an upwardly extending flange, an outer fish plate adapted to engage the outer faces of the web and base of the rail, said outer fish plate provided with a shoulder adapted to be disposed between the outer edges of the bases of the rail ends and said upwardly extending flange, braces secured at intervals to said outer fish plate, said braces each including a web portion substantially triangular in shape provided with oppositely extending angular flanges adapted to engage the fish plate throughout the width of the latter, rivets connecting the upper portions of said flanges with said fish plate, and rivets extending through and connecting the lower portions of the flanges, the shoulder portion of the fish plate and said base plate adjacent the upwardly extending flange, an inner fish plate adapted to be removably secured to the base plate on the inner side of the rail ends, braces similar to first mentioned braces secured at spaced intervals to said inner fish plate except at one end thereof, a brace secured to the base plate and adapted to engage over the unoccupied end of the inner fish plate, said brace plate being cut away to engage the flanges of said last brace, and adapted to be engaged between said brace and the adjacent rail end, both of said fish plates and said base plate being provided with alining openings adapted to receive spikes whereby to secure the joint to the cross ties of a track, and rivets carried by the outer fish plate and adapted to extend through openings in the webs of the adjacent rail ends and through alining openings in the inner fish plate.

2. A rail joint comprising a base plate adapted to underlie adjacent rail ends, said plate provided with an upwardly extending flange along one edge thereof, an outer fish plate adapted to engage the rail ends and having a shouldered portion disposed between said rail ends and said upwardly extending flange, braces secured to said outer fish plate, means for securing said outer fish plate to said base plate, an inner fish plate adapted to be removably disposed on said base plate in engagement with said rail ends, braces secured to said inner fish plate, a brace secured to said base plate, and adapted to engage over a portion of the inner fish plate, both of said fish plates and said base plates adapted to be engaged by spikes whereby to secure said joint to the cross ties of a track.

3. A rail joint comprising a base plate adapted to underlie adjacent rail ends, a flange provided along one edge of said plate, an outer fish plate adapted to engage said rail ends, said fish plate adapted to abut against said flange, braces secured to said outer fish plate, and abutting against said upwardly extending flange, means for securing said outer fish plate to said base plate, an inner fish plate, a brace secured to said base plate, said inner fish plate adapted to be engaged between the brace and adjacent rail, means for securing said fish plates and base plate to the cross ties of a track, and means connecting the fish plates through the webs of the rail ends for preventing relative longitudinal movement of the latter.

4. A rail joint comprising a base plate adapted to underlie adjacent rail ends, means for engaging the rail ends on one side, a fish plate adapted to engage the rail ends on the opposite side, a brace carried by the base plate and having a lower portion in spaced relation to and overhanging the base flange of the adjacent rail, a flange depending below the lower brace portion at each end thereof and engaging upon the said base flange, said fish plate at one end being cut away to partially engage said depending flanges for preventing lateral movement of the fish plate, said fish plate partially extending between the upper portion of the brace and the adjacent rail web.

1,133,166. COLLAPSIBLE CRATE. CHESTER A. MASTER and OSCAR T. WOLNITZEK, Bellville, Tex. Filed Mar. 4, 1914. Serial No. 822,349. (Cl. 220—17.)



1. A collapsible crate comprising a bottom, side and top members connected thereto and movable into open extended position, a door for permitting access to said crate when in the open position, and common means for holding the crate in the open position and locking the door.

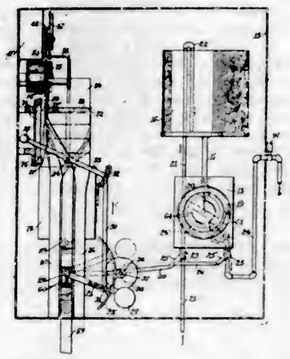
2. A collapsible crate comprising a bottom, side and top members connected thereto and movable into open extended position, a door for permitting access to said crate when in the open position, a locking member in one position adapted to interlock the top members to hold the side and top members interlocked and the crate extended, in a second position interlocking the top and bottom members, maintaining the crate in collapsed position, said locking member also locking the door in the first mentioned position.

3. In a collapsible crate, the combination with a bottom member, side members and top sections, of a door mounted on one of said top sections for permitting access into the crate when in unfolded operative position, a locking lever carried by a top section adjacent the door aforesaid and comprising a link connected to said section, said link being engageable with the bottom member for locking the crate in folded position, and engageable with the other of said top sections to hold the crate in unfolded extended position, the link being engageable with the door in either of the positions aforesaid to maintain the closed position of said door.

1,133,167. AUTOMATIC GASOLENE-SERVICE. SIDNEY F. MIOTON, New Orleans, La. Filed Jan. 8, 1914. Serial No. 811,069. (Cl. 73—176.)

1. In a device of the class set forth, the combination of a tank, scale mechanism supporting said tank, means to

deliver fluid into said tank, said means including a pipe having a siphon at its upper end, a normally closed valve in said pipe, an outlet pipe communicating with the aforesaid pipe between the valve and the siphon, a normally open valve in the first mentioned pipe, means connecting said valves for simultaneous movement, an actuator serving first to open the inlet valve and close the outlet valve, and means operated by the movement of the tank when filled to a predetermined extent for reversing the position of said valves, causing the inflow to cease and permitting the siphon to discharge the contents of the tank.



2. In a device of the character set forth, the combination of a tank, means to deliver fluid thereinto, an outlet pipe, said means and pipe being provided with valves to control the inflow and outflow in succession, and an actuator to operate said valves, said actuator comprising a pivoted gear segment carrying a weight, a pinion meshing with said segment and adapted to run idly while the segment is moved in one direction, a disk and pitman connection with the valves, and pawl and ratchet devices serving when the gear segment moves in the other direction to cause first the movement of the valves in one direction and subsequently movement in the opposite direction.

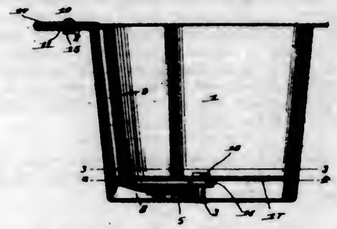
3. In a device of the character set forth, the combination of an oscillating movable gear segment carrying a weight and means to lift the gear segment and its weight, a pair of pawls so arranged with respect to the segment as to provide for temporarily supporting the weighted segment at different positions, a tank, means to deliver material into the tank, means to deliver material from the tank, connections between the gear segment and said delivering means, and means to control the operation of said pawls in succession whereby the two delivery means are caused to operate in succession from said segment.

4. In a device of the character set forth, the combination of an inlet valve, an outlet valve, a link connecting said valves for simultaneous movement, one to opened and the other to closed position, an actuator for controlling the position of said valves, the actuator comprising a pivoted gear segment, a pinion meshing therewith, a disk, pawl and ratchet connection between the pinion and the disk, and a pitman connecting said disk with said valves, and means to control the operations of the actuator.

5. In a device of the character set forth, the combination of inlet and outlet pipes, valves in said pipes, means connecting said valves for simultaneous movement, an actuator for said valves including a weighted movable member, a pair of magnets acting in succession upon said member to regulate its descent under gravity whereby the valves are given two movements, a battery, and independent circuits leading from the battery to said magnets.

[Claims 6 and 7 not printed in the Gazette.]

1,133,168. COOKING UTENSIL. FRANKIE MITCHELL-COLSON, San Bernardino, Cal. Filed Feb. 4, 1914. Serial No. 816,400. (Cl. 53—1.)



1. A vessel having a flanged mouth and its bottom provided with a centrally disposed threaded upstanding stud, a scraper, said scraper including a horizontally disposed web having its end formed with an eye which is arranged upon the stud, the longitudinal edges of the web having integrally formed angularly disposed resilient scraper wings which contact with the bottom of the vessel, a washer upon the stud supported by the eye of the scraper, a foraminous disk upon the stud and resting upon the washer, a nut engaging the stud and contacting with the disk, the web of the scraper having an angular scraper strap extension which contacts the inner wall of the utensil, said strap having its end bent over the flange to provide a handle for the scraper and a slidable vertically disposed adjustable member arranged upon the handle to contact with the underface of the flange and with the outer face of the vessel.

2. The combination of a vessel having its bottom provided with a centrally projecting threaded stud, of a scraper including a web having an extension provided with an opening to receive the stud, the said scraper having angular substantially rectangular wings extending from its longitudinal edges and contacting the bottom of the vessed, a nut upon the stud adapted to retain the scraper upon the stud and to adjust the contact of the wings with the bottom of the vessel.

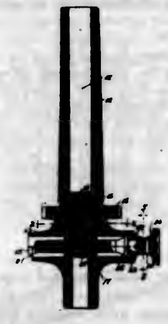
3. In combination, a vessel having a scraper member therein, said scraper including angularly disposed resilient wings, means for retaining the scraper within the vessel, said means including an adjustable member whereby the wings may be spread or permitted to contract in a direction toward each other and to be retained in either of such positions.

4. In a device of the class set forth, the combination with a vessel having a central stud upon its bottom, a scraper, a horizontally disposed web having an opening adjacent one of its ends to receive the stud, the said web having its edges formed with angular depending sides providing wings, a washer upon the stud over the web of the scraper, a disk upon the stud over the washer, and an adjustable element connected with the stud and contacting with the disk.

5. The combination, a vessel having its bottom provided with a centrally arranged stud and a flanged edge, a scraper member within the vessel and mounted for rotary movement upon the stud, said scraper including oppositely disposed angular flanges which have their edges contacting with the bottom, means arranged upon the stud for adjusting the contacting engagement of the said edges with the bottom, an angular member formed with the scraper and contacting with the inner wall of the vessel, said member having its ends arranged angularly over the flange of the vessel to provide an operating handle and longitudinally adjustable means carried by said handle engaging with the flange at the mouth of the vessel.

1,133,169. ADJUSTABLE BORING-TOOL HOLDER. WILLIAM C. MORRIS, Easton, Pa. Filed Feb. 3, 1914. Serial No. 816,239. (Cl. 29—108.)

In a device of the character set forth, the combination of a head adapted to be secured in fixed position, said head having a dovetail groove extending at right angles to the axis of the head, a boring bar holder movable in right lines along said dovetail and having a tongue extending thereinto, means to move the bar holder in graduated amounts, and means to lock the bar holder in adjusted position, said locking means including a bolt 28



having a head countersunk in said first mentioned head, the head of the bolt having a notch 28' conforming to and in alinement with the dovetail groove and receiving the bar holder tongue, and means to tighten the bolt to cause the bar holder tongue to bind in the dovetail groove.

1,133,170. RESILIENT TIRE. CLYDE S. MORSE, De Kalb, Ill. Filed Oct. 6, 1913. Serial No. 793,542. (Cl. 152—8.)



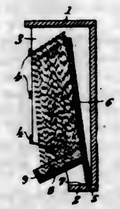
1. In a resilient tire, the combination with a circular casing, of an expansible band located therein at a distance from the tread portion of the casing, means to expand said band, a series of chambered resilient blocks and a series of solid resilient blocks alternately located in contact with one another between said band and the tread portion of the casing, said chambered blocks having lateral extensions interposed between the sides of the casing and the sides of the band, and said solid blocks being located at a distance externally of said band.

2. In a resilient tire, the combination with a circular casing, of an expansible band located concentrically therein at a distance from the tread portion of the casing, means to expand said band, means to lock it against contraction and a series of chambered resilient blocks and a series of solid resilient blocks located in contact with one another alternately between said band and the tread portion of the casing, said chambered blocks having lateral extensions interposed between the sides of the casing and the sides of the band.

3. A resilient tire including a flexible circular casing, a resilient band located therein at a distance from the tread portion of the casing, a series of chambered resilient blocks and a series of solid resilient blocks alternately located between said band and the tread portion of the casing, said solid blocks being movable radially with respect to the casing and band and normally held by frictional engagement between the chambered blocks at a distance from the external surface of said band.

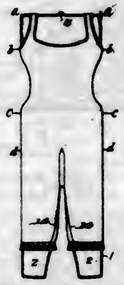
4. A resilient tire including a flexible circular casing, a resilient band located therein at a distance from the tread portion of the casing, a series of chambered resilient blocks each having a slot leading from its chamber through the inner edge of said block, and a series of solid resilient blocks alternately located between said band and the tread portion of the casing, said solid blocks being movable radially with respect to the casing and band and normally held by frictional engagement between the chambered blocks at a distance from the external surface of said band, the chambers of the chambered blocks having communication with the spaces between the solid blocks and said band.

1,133,171. BAG-HOLDER. GEORGE C. MOTTERN, Jonesboro, Tenn. Filed Sept. 12, 1913. Serial No. 789,503. (Cl. 211—2.)



A bag holder comprising a cabinet provided at its front with an opening having a bar extending across the same, a pocket member tiltably resting on the edge of its back in the cabinet and inclined toward the said bar, said pocket member having fixed to its side and between its upper and lower edges a bottom the weight of which tends to normally hold the pocket member in an inclined position whereby an article resting on said bottom is gripped between the bar and the back of the pocket member.

1,133,172. PROCESS OF MAKING AND SHAPING GARMENTS. HERBERT L. NELKE, Philadelphia, Pa. Filed Dec. 14, 1910. Serial No. 597,253. (Cl. 2—144.)



1. The process of manufacturing bifurcated garments, said process consisting of making a tubular knitted fabric, shrinking the same; then making the garment from the shunken tube; then widening the garment above and below the waist line to a limit substantially equal to the original width of the tube before the same was shrunk; and stretching the bifurcated portion beyond the said original width to form wide flared limb portions; then steaming and drying the garment while thus widened and stretched.

2. The process of manufacturing bifurcated garments, said process consisting of making a tubular knitted fabric; shrinking the same; then making the garment from the

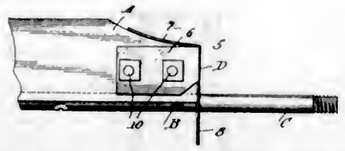
shrunken tube including placing gussets in the bifurcated portions; then widening the garment above and below the waist line to a limit substantially equal to the original width of the tube before the same was shrunk; and stretching the bifurcated portion beyond the said original width to form wide-flared non-elastic limb portions; then steaming and drying the garment while thus widened and stretched.

3. The process of manufacturing garments from tubular knit fabric, which process consists in bleaching and thereby shrinking the tubular fabric, then cutting and making the garment from the shrunken fabric tube and without widening said fabric, then stretching the garment to final form and thereby widening the fabric from its shrunken condition, then subjecting the garment while held in its stretched condition to the free action of live steam until said garment is thoroughly saturated, and then drying said garment while in stretched condition by the free access thereto of drying air.

4. The process of manufacturing garments from tubular knit fabric, which process consists in bleaching and shrinking the tubular fabric, then cutting and making the garment from the shrunken fabric tube and without widening said fabric, then stretching the garment to final form and thereby restoring at least a portion of the fabric to substantially its original unshrunken condition, then subjecting the garment while held in its stretched condition to the free action of live steam until said garment is thoroughly saturated, and then drying said garment while in stretched condition by the free access thereto of a drying agent.

5. The process of manufacturing garments from tubular knit fabric, which process consists in bleaching and shrinking the tubular fabric, then cutting and making the garment from the shrunken fabric tube and without widening said fabric, then stretching the fabric of said garment from its shrunken condition to varying widths and thereby giving to the garment its desired final shape, then subjecting the garment while held in its stretched condition to the free action of live steam until said garment is thoroughly saturated, and then drying said garment while in stretched condition by the free access thereto of heated air.

1,133,173. AXLE-CLIP. DE WITT C. OEHLER, Hopkinton, Iowa. Filed Oct. 31, 1914. Serial No. 869,661. (Cl. 21—5.)



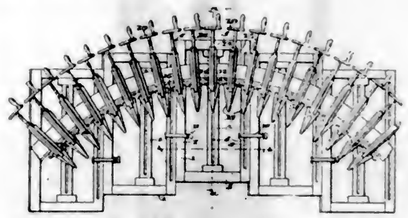
A clip of the class described comprising a body having a perforated disk like terminal adapted to receive an axle of a wagon, wings projecting at right angles to the body from the side and top edges thereof, and adapted to embrace the end of a bolster of a wagon, and means passed through the wings and also adapted to be passed through the bolster for securing the same together.

1,133,174. GLUE FORM AND CLAMP. ROY S. ORM, New York, N. Y. Filed Aug. 4, 1914. Serial No. 855,026. (Cl. 144—256.)

1. A clamp of the class described comprising a series of frames adjustably connected together for a relative longitudinal movement and work holding arms adjustably mounted on said frames for longitudinal movement, and also for angular movement.

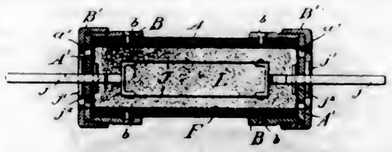
2. A clamp of the class described comprising a series of frames adjustably connected together and work holding arms adjustably mounted on said frames and pivotally connected together.

3. A clamp of the class described comprising a series of frames adjustably connected together and provided with longitudinal slots, work holding arms having bases bearing and adjustable on the frames both longitudinally and transversely, said bases having transverse slots, and connecting and pivoting pins securing the bases of the work holding arms on the frames and arranged to operate in the slots of the bases and frames.



4. A clamp of the class described comprising a series of frames adjustably connected together and provided with longitudinal slots, work holding arms having bases bearing and adjustable on the frames both longitudinally and transversely, said bases having transverse slots, and connecting and pivoting pins securing the bases of the work holding arms on the frames and arranged to operate in the slots of the bases and frames, each of said pins being provided with a locking device.

1,133,175. RELOADABLE CARTRIDGE-FUSE. HERMAN H. OSWALD, Fort Ann, N. Y. Filed June 18, 1912. Serial No. 704,322. (Cl. 175—273.)



1. A reloadable cartridge fuse comprising a tubular casing A, vented end caps for the tube, an inner paper envelop F, a fuse link J with terminals j projecting from its opposite ends, and pins or studs j'—j^3 in the terminals j, lying without and within the end caps respectively and adapted to engage the outer and the inner faces of the end caps when the fuse is loaded.

2. In an electric fuse, an outer cartridge container of infrangible material, together with an inner envelop of frangible material snugly fitting within said outer container and inclosing a fuse link having projecting and exposed terminals, said container having apertures in its walls extending to the walls of the inner envelop whereby the inner envelop is without external support in the region of each aperture and points of fracture thereof are defined at the apertures.

3. In an electric fuse, an outer cartridge container of infrangible material, together with an inner envelop of frangible material snugly fitting within said outer container and inclosing a fuse link having projecting and exposed terminals, said container having apertures in its end walls extending to the end walls of the inner envelop, whereby the areas thereof opposite the apertures are without external support and points of fracture thereof are thus defined.

4. An electric fuse comprising a cylindrical tube of insulating material, concentric conducting sleeves permanently secured to the ends thereof and transversely flush with the same, flat end caps bearing against said sleeves, and a flanged ring threaded onto each sleeve and clamping said flat caps between their flanges and the ends of said metallic sleeves, together with a removable fuse link within said cartridge having end terminals projecting through and secured to said flat caps, independently of the flanged rings.

5. A reloadable electric fuse comprising an outer cartridge container of infrangible material, removable end caps for the same, a fuse extending between the end caps and surrounded by an inner frangible envelop containing refractory material, and abutments retaining the fuse and its envelop in fixed longitudinal position with respect to the end caps and located one interiorly of the frangible envelop and bearing against the end cap and another exteriorly of the end cap.

[Claim 6 not printed in the Gazette.]

1,133,176. LIGHTNING-ROD COUPLING. EDWARD GLEN OWEN, Janesville, Wis. Filed Apr. 19, 1913. Serial No. 762,373. (Cl. 173—31.

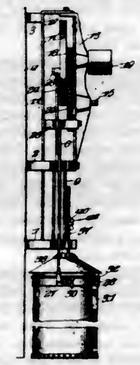


1. In a lightning rod structure, a coupling comprising a yoke member shaped intermediately to embrace a lightning rod and having opposed leg members extending from the intermediate portion, a tubular member having an end adapted to enter between the legs of the yoke and there adjacent to the lightning rod flattened on opposite sides into substantially elliptical cross-section with the longer axis of the ellipse of greater length and the shorter axis of less length than the diameter of the tubular member where entering between the legs of the yoke, and clamping means exterior to the legs of the yoke member in embracing relation thereto adjacent to the outer ends of the legs of the yoke member, whereby the tubular member is prevented from movement away from the lightning rod lengthwise of the yoke because of the greater diameter of the flattened end of the tubular member in the line of the longer axis of the ellipse than that portion of the tubular member where surrounded by the clamping means.

2. A lightning rod structure comprising a lightning rod, a yoke member bent intermediately upon itself and there embracing the lightning rod and having leg portions extending from the intermediate portion in opposed relation, a tubular member having one end flattened or compressed into substantially elliptical form in cross-section and there entering between the legs of the yoke and at the extremity hollowed out at the ends of the longer diameter of the ellipse to engage the lightning rod in partially embracing relation thereto with the longer axis of the ellipse of greater length than the normal diameter of the tubular member where entering between the legs of the yoke, and a clip member surrounding the legs of the yoke adjacent to their outer ends and where the tubular member is of normal diameter, whereby because of the greater length of the longer axis of the flattened end of the tubular member over the normal diameter of said tubular member the latter remains firmly anchored to the lightning rod.

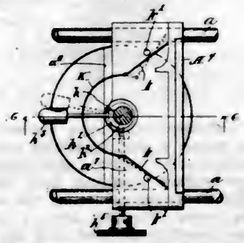
1,133,177. CHURN-OPERATING DEVICE. OLIVER PALM, Albany, Tex. Filed Nov. 13, 1912. Serial No. 731,168. (Cl. 74—14.)

1. In a device of the class described, a plurality of brackets arranged in vertical series, a rear frame bar mounted on said brackets and having a forwardly extending arm at its upper end, clamping frames mounted upon and associated with the two lowermost brackets, a front frame bar connecting the uppermost clamping frame with the forwardly extending arm of the rear frame bar, vertical guide members supported by the clamping frames, a cross head mounted for vertical reciprocation between the guide members, a shaft supported for rotation on the front frame bar, a crank disk on said shaft, a pitman connecting the crank disk with the cross head, and means for driving the crank disk carrying shaft.



2. In a device of the character described, a plurality of supporting brackets arranged in vertical series, clamping frames mounted on some of said brackets, vertical frame members supported by the clamping frames and extending below the lowermost clamping frame, vertical guide members supported by the clamping frames, a cross head guided between the guide members for vertical reciprocation, means for actuating the cross head, and a clamping hoop comprising two hingedly connecting members, one of which is secured on the downwardly extended ends of the vertical frame members.

1,133,178. PROJECTING APPARATUS. HERBERT F. PATTON, Cleveland, Ohio. Filed June 21, 1909. Serial No. 503,306. (Cl. 176—41.)



1. In apparatus of the class described, the combination with the lantern body; of an arc lamp mounted at the rear end of said body and adapted to oscillate about a substantially vertical axis; an inclosing casing for said lamp borne thereby and oscillatory therewith; pivotal extensions to the walls of said casing; and means adapted to coöperate with said extensions to tend to maintain the same in contact with said lantern body irrespective of the position of said casing.

2. In apparatus of the class described, the combination with the lantern body, of an arc lamp mounted at the rear end of said body and adapted to oscillate about a substantially vertical axis; an inclosing casing for said lamp borne thereby and oscillatory therewith; extensions hinged to the walls of said casing, one on each side, and guide pins disposed on the outer sides of said extensions and tending to retain the latter close against said lantern body irrespective of the position of said casing.

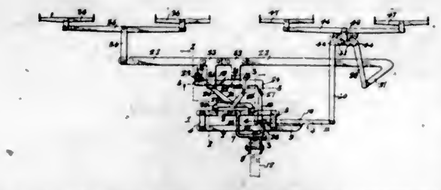
3. In apparatus of the class described, the combination with the lantern body, of an arc lamp mounted at the rear end of said body and adapted to oscillate about a substantially vertical axis; an inclosing casing for said lamp borne thereby and oscillatory therewith; pivoted extensions to the walls of said casing, means tending to retain said extensions against said lantern body irrespective of the position of said casing, and a hood pivoted to said lantern body and adapted to cover the upper end of said casing and its extensions.

4. In apparatus of the class described, the combination with the lantern body, of an arc lamp mounted at the rear end of said body and adapted to oscillate about a substantially vertical axis, an open semi-cylindrical casing borne by said lamp and laterally inclosing the same, extensions hinged to the respective lateral edges of said casing, guide pins disposed on the outer sides of said extensions and tending to retain the latter close against said lantern body irrespective of the position of said casing, and a cover mounted on said lantern body about a transverse axis and adapted to cover the upper end of said casing and its extensions.

5. In apparatus of the class described, the combination with the lantern body, of an arc lamp mounted at the rear end of said body and adapted to oscillate about a substantially vertical axis, an open semi-cylindrical casing borne by said lamp and laterally inclosing the same; extensions hinged to the respective lateral edges of said casing, guide pins disposed on the outer edges of said extensions, said casing having projections adapted to contact said extensions; said pins and said projections tending to retain the latter close against said lantern body irrespective of the position of said casing, and a cover pivotally attached to said lantern body about a transverse axis and adapted to cover the upper end of said casing and its extensions.

[Claim 6 not printed in the Gazette.]

1,133,179. DRAFT-EQUALIZER. CHARLES PETERSON, Carroll, Iowa. Filed Nov. 17, 1914. Serial No. 872,574. (Cl. 21—76.)



1. A draft equalizer including a pivoted transversely disposed lever frame, a rear equalizing lever connected at an intermediate point with the said frame at one end thereof, an intermediate equalizing lever connected with the said frame, means for connecting the inner ends of said equalizing levers with each other, a front or main equalizing lever movably connected with the intermediate equalizing lever, whiffletrees located at the ends of the front or main equalizing lever, means for connecting one of the whiffletrees to one end of the front equalizing lever, and means for connecting the other whiffletree with the other end of the front equalizing lever and with the rear equalizing lever.

2. A draft equalizer including a pivoted transversely disposed lever frame, a rear equalizing lever connected at an intermediate point with said frame at one end thereof, an intermediate equalizing lever also connected with the said frame, means for connecting the inner ends of the said equalizing levers with each other, a front or main equalizing lever provided with a guide slidably receiving the intermediate equalizing lever, whiffletrees located at the ends of the front or main equalizing lever, means for connecting one of the whiffletrees to one end of the front equalizing lever, and means for connecting the other whiffletree with the other end of the front equalizing lever and with the rear equalizing lever.

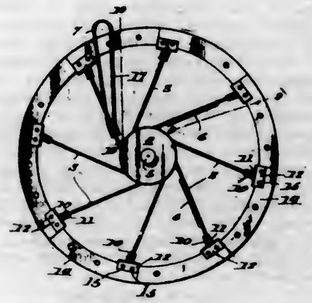
3. A draft equalizer including a transverse lever frame, a rear equalizing lever connected at an intermediate point with the said frame at one end thereof, an intermediate equalizing lever also connected with the said frame, means for connecting the inner ends of the said equalizing levers with each other, a front or main equalizing lever provided with guiding means having spaced lugs slidably receiving the intermediate equalizing lever, the latter being provided with means for engaging the said lugs for limiting its sliding movement, whiffletrees located at the ends of the front equalizing lever, means for connecting one of the whiffletrees to one end of the front equalizing lever, and means for connecting the other whiffletree with the other end of the front equalizing lever and with the rear equalizing lever.

4. A draft equalizer including a transverse lever frame, a rear equalizing lever pivotally connected at an intermediate point to the lever frame at one end thereof, an intermediate equalizing lever located in advance of the lever frame, forwardly diverging links pivotally connected at their rear ends with the lever frame, said links being connected at their front ends to the intermediate equalizing lever at spaced points, means for connecting the inner ends of the rear and intermediate equalizing levers, a front equalizing lever movably connected with the intermediate equalizing lever, a whiffletree connected with one end of the front equalizing lever, and another whiffletree connected with the other end of the front equalizing lever.

5. A draft equalizer including a transverse lever frame, a rear equalizing lever connected with the lever frame at one end thereof, an intermediate equalizing lever located in advance of and also connected with the said frame, means for connecting the inner ends of the equalizing levers, a front equalizing lever connected with the intermediate equalizing lever and provided at one end with an arm extending rearwardly toward the rear equalizing lever, a coupling lever, links or rods connecting the coupling lever with the said rearwardly extending arm of the front equalizing lever and with the outer end of the rear equalizing lever, and opposite whiffletrees connected respectively with the coupling lever and with the front equalizing lever.

[Claims 6 to 8 not printed in the Gazette.]

1,133,180. BELT-LIFTER FOR BULL-WHEELS. EDWARD PETERSON, Arlington, Tex. Filed Dec. 6, 1911. Serial No. 664,192. (Cl. 64—51.)

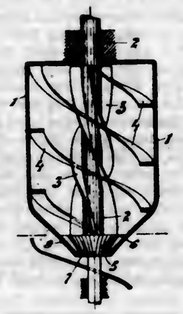


1. A bull wheel having a plurality of broad flat spokes, and a rim supported thereby, in combination with V-shaped dogs secured on the faces of some of the spokes, said V-shaped dogs having curved outer limbs presenting concaved shoulders that project beyond the side of the wheel.

2. A bull wheel having a plurality of broad flat spokes, and a rim supported thereby, in combination with V-shaped dogs secured on the faces of some of the spokes, said V-shaped dogs having curved outer limbs presenting concaved shoulders that project beyond the side of the wheel, and a throw-off loop composed of a strap of material doubled upon itself and terminally pivoted on one of the spokes with the looped portion projecting beyond the perimeter of the wheel.

3. The combination with a bull wheel having broad flat spokes, of a throw-off loop consisting of a strip of material bent upon itself and having limbs terminally positioned adjacent to opposite faces of one of the spokes with which said limbs are pivotally connected, the looped portion of said member projecting beyond the perimeter of the wheel.

1,133,181. PROCESS OF CRUSHING OR DIVIDING METAL SHAVINGS OR THE LIKE. RICHARD PHILIPP, Ilmenau, Germany. Filed Feb. 16, 1914. Serial No. 819,050. (Cl. 83—13.)



1. The herein-described process of crushing metal shavings which consists in feeding the shavings in a spiral path, and simultaneously subjecting them to a preliminary rubbing, cutting and crushing action to reduce and partially crush same; and finally subjecting the reduced and partially-crushed shavings at the completion of their feeding movement and of their said preliminary reduction to a milling action, to complete the crushing.

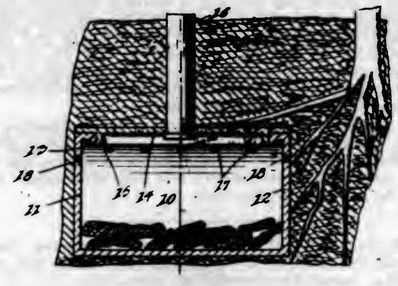
2. The herein-described process of crushing metal shavings which consists in feeding the shavings in a spiral path and simultaneously subjecting them to a preliminary rubbing, cutting and crushing action of gradually increasing intensity to reduce and partially crush the same; and finally subjecting the reduced and partially crushed shavings at the completion of their feeding movement and of their said preliminary reduction to a milling action to complete the crushing.

3. The herein-described process of crushing metal shavings which consists in causing the shavings to continuously move along a definite path, in simultaneously subjecting the shavings during the greater part of their movement to a preliminary rubbing, cutting and crushing action to reduce and partially crush the same, and in finally subjecting the reduced and partially crushed shavings during the remainder of their movement to a milling action, to complete the crushing.

1,133,182. FERTILIZER DEVICE. HEZEKIAH RAY, Des Moines, Iowa. Filed June 26, 1913. Serial No. 775,999. (Cl. 137—60.)

1. An earth fertilizing and moistening device comprising a generator casing embedded in the ground and containing a fertilizing compound, said casing being constructed of a non-porous and impervious material and provided at a point adjacent its upper side with perforations through which water seeps into the generator from the ground in wet weather and out of which saturated vapors issue from the generator casing in dry weather.

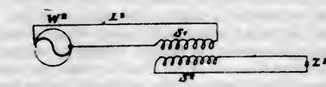
2. An earth fertilizing and moistening device comprising a generator casing embedded in the ground and containing a fertilizing compound, said generator being constructed of a non-porous and impervious material and provided at a point adjacent its upper side with perforations through which the water seeps into the generator casing from the ground in wet weather and out of which saturated vapors issue from the casing in dry weather, and a supply pipe communicating at its lower end with the generator casing and having its upper end disposed at a point above the ground.



3. An earth fertilizing and moistening device comprising a generator casing embedded in the ground and containing a fertilizing compound, said generator casing being constructed of non-porous and impervious material and provided at a point adjacent its upper side with perforations through which the water seeps from the ground into the generator casing during wet weather and out of which saturated vapors issue from the generator casing in dry weather, and said generator casing being provided at a point below said first named perforations with an overflow opening.

4. An earth fertilizing and moistening device comprising a generator casing embedded in the ground and containing a fertilizing compound, said generator casing being constructed of non-porous and impervious material and having perforations in its upper side through which water seeps into the generator casing from the ground in wet weather and out of which saturated vapors issue from the generator casing in dry weather and said generator casing being provided at a point below its upper side with an overflow opening.

1,133,183. DEVICE FOR IGNITING FUSES. JOSEF HEINRICH REINEKE, Weitmar, near Bochum, Germany. Filed Dec. 8, 1914. Serial No. 876,171. (Cl. 175—115.)



1. The described device for igniting electric fuses which comprises in combination, a source of electricity of high frequency, a conductor connecting said source with the fuses, and means to prevent continuous currents or alternating currents of ordinary frequency from acting on said fuses, substantially as, and for the purpose, set forth.

2. The described device for igniting electric fuses comprising in combination, a source of electricity of high frequency, a conductor connecting said source with the fuses, means to prevent continuous currents or alternating currents of ordinary frequency from acting on said fuses, and a device to regulate the intensity of the current passing through said conductor, substantially as, and for the purpose, set forth.

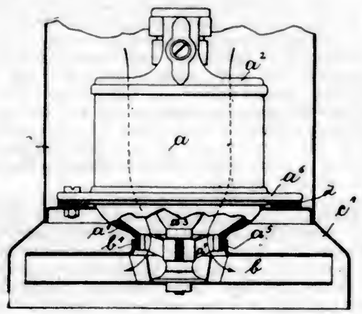
3. The described device for igniting electric fuses comprising in combination, fuses adapted to be ignited by electric currents of different strengths, a source of electricity of high frequency, a conductor connecting said source with the fuses, means to prevent continuous cur-

rents or alternating currents of ordinary frequency from acting on said fuses, a second conductor connecting each of said means with the source of electricity and said fuses, and an adjustable condenser in said second conductor, substantially as, and for the purpose, set forth.

4. The described device for igniting electric fuses comprising in combination, fuses adapted to be ignited by electric currents of different strengths, a source of electricity of high frequency, a conductor connecting said source with the fuses, means to prevent continuous currents or alternating currents of ordinary frequency from acting on said fuses, a second conductor connecting each of said means with the source of electricity and said fuses, a device to regulate the intensity of the current passing through said conductors, and an indicator in the electric circuit formed by said conductors, substantially as, and for the purpose, set forth.

5. The described device comprising in combination, a tube, a fuse within said tube, an induction device comprising a pair of coils disposed within said tube, one of said coils being connected with said fuse, substantially as, and for the purpose, set forth.

1,133,184. SUCTION APPARATUS. FRIEDRICH ROEMER, Frankfort-on-the Main, Germany. Filed Feb. 18, 1914. Serial No. 819,536. (Cl. 230—11.)



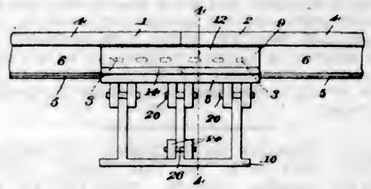
1. In an apparatus of the class described, the combination with a supporting casing, of a motor casing formed with an open neck portion, an electric-motor having a shaft supported therein, and a centrifugal pump on the motor shaft comprising a casing having a telescoping connection with the said neck portion of the motor casing to maintain the said pump concentric therewith.

2. In an apparatus of the class described, the combination with a supporting casing, including a hood, of a motor casing arranged within said supporting casing and having a bottom opening, a spider arranged within said opening and including a central bearing boss, an electric-motor having a shaft journaled in said boss, and a centrifugal pump carried on the end of said shaft and communicating with the motor casing.

3. In an apparatus of the class described, the combination with a supporting casing including a hood, of a motor casing having an annular flange for engaging with the supporting casing and a depending bottom portion terminating in an open neck, a spider including a central supporting boss arranged in the open portion of the neck, an electric-motor having a shaft bearing in said boss, a centrifugal pump carried by the end of the motor shaft and arranged in said hood, and a collar formed on said pump adapted to telescope with the neck of the motor casing to maintain the pump concentric therewith.

1,133,185. RAIL-JOINT. JOHN WILLIAM RYAN, Springfield, Ill. Filed Nov. 21, 1914. Serial No. 873,328. (Cl. 239—6.)

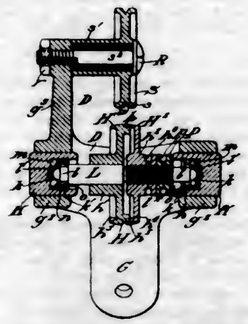
1. A rail joint comprising joint plates, base plates disposed parallel with the joint plates, uprights connecting the base plates with the respective joint plates, and wedge fastenings for drawing the uprights together to hold the base plates in operative relation and the joint plates in position to support and clamp the rails.



2. A rail joint comprising joint plates, having base portions, base plates parallel with the base portions of the joint plates, uprights connecting the base plates with the bases of the joint plates, opposing faces of said uprights being arranged at a normal upwardly diverging angle, a wedge connection for drawing said uprights together to hold the base plates in operative relation and to draw the joint plates into rail supporting and clamping position.

3. A rail joint comprising angle joint plates, each having a base portion, base plates below the base portions of the joint plates, uprights connecting the base plates with the respective joint plates, one of said set of uprights having inclined surfaces, coupling projections extending from the other set of uprights on opposite sides of the first-named uprights and beyond the inclined faces of the latter, and keys extending through said projections and arranged to engage the said inclined faces of the first-named uprights, whereby to hold the parts in assembled relation.

1,133,186. ADJUSTABLE TRAVERSE-GUIDE. CLAES RYDEN, Cranston, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Apr. 1, 1914. Serial No. 828,834. (Cl. 242—25.)



1. An improved rotatable guide-wheel for traversing wire or similar material formed with a circumferential groove on its periphery adapted to be adjusted in width for different sizes of material.

2. An improved guide for use in traversing wire or for other like purposes comprising a rotatably mounted wheel having a relatively broad-faced periphery formed with a shallow groove with the groove adjustable in width for different sizes of material.

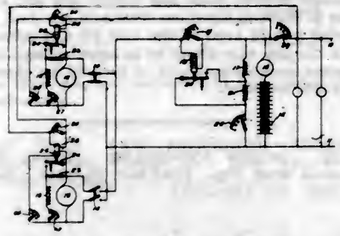
3. In a traverse-guide for use on winding machines or for like purposes, the combination with a rotatable wheel having a shallow groove through which the material leads, and means to adjust the width of the groove in the wheel to adapt it for different sizes of material.

4. An improved guide-wheel for guiding wire or similar material comprising two members fitted together to provide a circumferential groove on the periphery of the wheel, with said members adjustable in relation to each other to vary the size of the groove.

5. In a traverse-guide for winding or like machines, the combination of a wheel comprising two members having adjacent rims adapted to coact to form a peripheral groove, means to adjust the members axially in relation to each other to vary the width of the groove, and means to lock said members in their adjusted relation.

[Claims 6 to 14 not printed in the Gazette.]

1,133,187. SYSTEM OF ELECTRICAL DISTRIBUTION. GEORGE B. SCHLEY, Milwaukee, Wisconsin, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Apr. 30, 1909. Serial No. 493,071. (Cl. 171—310.)



1. In a system of distribution, a generator, a circuit connected thereto, a battery and booster connected in series across said circuit, means for causing the battery and booster to absorb the fluctuations in the load and to maintain the current supplied by the generator substantially constant and without fluctuations proportionate to those of the load, and a regulating device for the field winding of the generator for causing the voltage of the generator to rise and fall as the load on the circuit increases or decreases.

2. In a system of distribution, a generator, a distribution circuit connected thereto, a storage battery and booster connected in series across said circuit between the generator and the load, means for controlling the booster field to cause the battery to absorb the fluctuations in the load and to maintain the current supplied by the generator substantially constant without fluctuations proportionate to those of the load, and a regulator for the generator field controlled by one coil carrying a current proportional to the current demanded by the load and another coil responsive to the voltage of the generator.

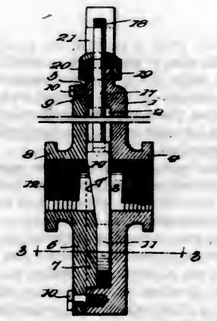
3. In a system of distribution, a generator, a distribution circuit supplied thereby, a storage battery and booster connected in series across said circuit, a coil carrying a current proportional to that delivered by said generator, means controlled by said coil for regulating the booster to cause the battery to absorb all fluctuations in the load on the distribution circuit and to maintain the generator current substantially constant and without fluctuations proportionate to those of the load, and a regulating device for the field winding of the generator, which regulating device is controlled in response to the current demanded by the load.

4. In a system of distribution, a generator, a distribution circuit supplied thereby, a storage battery and booster connected in series across said circuit, a coil carrying a current proportional to that delivered by the generator, means controlled by said coil for regulating the booster to cause the battery to absorb all fluctuations in the load on the distribution circuit and maintain the generator current substantially constant and without fluctuations proportionate to those of he load, and a regulating device for the field winding of the generator, which regulating device is provided with two coils, one responsive to the voltage of the generator, and the other to the current demanded by the load.

5. In a system of distribution, an external circuit, a generator having armature and field windings and connected to said external circuit, boosting means connected across the generator circuit between the generator and said external circuit, means for controlling the boosting means including a relay operative to cause the boosting means to absorb the fluctuations in the load on the external circuit to maintain the current supplied by the generator substantially constant, and regulating means for the generator field including a relay provided with two coils carrying opposing currents, the current in one coil being proportional to the load on the external circuit and the current in the other coil being responsive to the voltage of the generator.

[Claim 6 not printed in the Gazette.]

1,133,188. BLOW-OFF VALVE. ROBERT CREXFORD SERMON, West Duluth, Minn. Filed Oct. 23, 1913. Serial No. 796,891. (Cl. 137—5.)

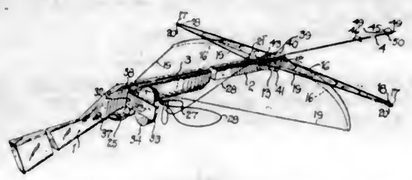


In a device of the class described, a casing composed of two plates secured together and having registering bores extending transversely therethrough intermediately of their ends, one of said plates having its inner face recessed on opposite sides of its bore, the other plate having a longitudinally extending block-like projection on its inner face of a width corresponding to the width of the recess in the other plate and of less thickness than the depth of said recess, said projection being received in said recess and extending from one end thereof to the remote side of the bore in said block carrying plate, the upper portion of said projection inclining toward its terminal, the spaced inner faces of the two plates coöperating to form a valve seat, said valve seat comprising a tapered portion through which said bores pass and a parallel walled lower portion, a valve plate slidable in said seat and being wedge-shaped for a portion of its length to fit the tapered portion of said seat when in a closed position, said valve plate having below said wedge-shaped portion an apertured extension of uniform thickness snugly fitting said lower portion of said valve seat, and means for reciprocating said valve plate whereby to move said aperture into and out of registry with said bores, said valve plate being of a length sufficient to prevent its apertured extension from being raised beyond the lower side walls of the registering bores in the casing plates whereby the lower portion of the valve seat is closed by said valve plate at all times.

1,133,189. SPRING-GUN. ROBERT M. SHANNON, Salmon, Idaho. Filed Jan. 11, 1915. Serial No. 1,638. (Cl. 124—7.)

1. In a spring gun, a captive projectile, a gun stock, a reel mounted on the stock, a cord wound on the reel and connected with the projectile, means for holding a loose intermediate unwound length of cord against entanglement, and trigger mechanism for actuating said means to free such unwound length of cord when the projectile is shot, substantially as described.

2. In a spring gun, a gun stock, a captive projectile, a cord connected with the projectile, means for holding a loose intermediate unwound length of cord against entanglement, trigger mechanism for actuating said means to free such unwound length of cord when the projectile is shot, and a reel mounted on said stock and having a length of cord wound thereon, said reel being movable into a position to pay out the cord endwise one convolution at a time when the said loose intermediate unwound length of cord is exhausted, substantially as described.



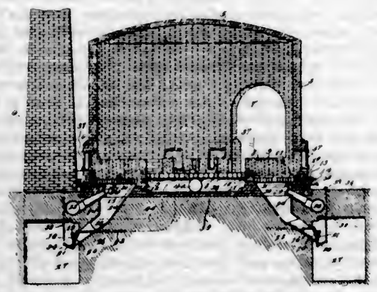
3. In a spring gun, a gun stock, a captive projectile, a cord connected with the projectile, means for holding a loose unwound length of cord against entanglement, and trigger mechanism for actuating said means to free such unwound length of cord when the projectile is shot, substantially as described.

4. In a spring gun, a gun stock, a captive projectile, and a reel mounted on the stock for holding the cord, said reel being movable into winding and endwise unwinding positions, substantially as described.

5. In a spring gun, a captive projectile, a cord connected with the projectile, a reel for holding the cord, said reel being movable into a winding position and into an endwise unwinding position to freely pay out the cord one convolution at a time when the projectile is shot, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,133,190. KILN. JUAN N. SILVA, Pueblo, Colo. Filed Nov. 13, 1912. Serial No. 731,147. (Cl. 25—148.)

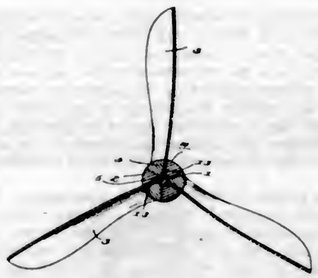


1. In a kiln, a pit located exteriorly of and beyond the plane of the kiln walls and open at its top, a removable man-hole cover for said pit a furnace embodying a fire box located within the plane of the kiln walls, a grate in the bottom of said fire box, an ash hopper beneath the grate, an ash chute sloping downwardly and outwardly therefrom and intersecting said pit, an ash door at the discharge end of said chute, an air supply tube passing through the side wall of said hopper inclining upwardly and terminating under the grate, a hinged slanting upwardly swinging cap for closing the discharge end of said tube, and means operable from the exterior of the furnace for raising and lowering said cap.

2. In a kiln, a pit located exteriorly of and beyond the plane of the kiln walls, a furnace embodying a fire box located within the plane of the kiln walls, a grate in the bottom of said fire box, an ash hopper beneath the grate, an ash chute sloping downwardly and outwardly therefrom, and intersecting said pit, an ash door at the discharge end of said chute and within said pit, means operable exteriorly of the kiln for opening and closing said ash door, and a spring connection within said pit for sustaining the ash door either in an open or shut position.

3. In a kiln, a pit located exteriorly of and beyond the plane of the kiln walls, a furnace embodying a fire box located within the plane of the kiln walls, a grate in the bottom of said fire box, an ash hopper beneath the grate, an ash chute sloping downwardly and outwardly therefrom and intersecting said pit, an ash door at the discharge end of said chute and within said pit, arms extending in opposite directions from said ash door, springs connected to said arms within said pit and operating to sustain the ash door either in an open or shut position, and means operable exteriorly of the kiln for opening and closing said ash door.

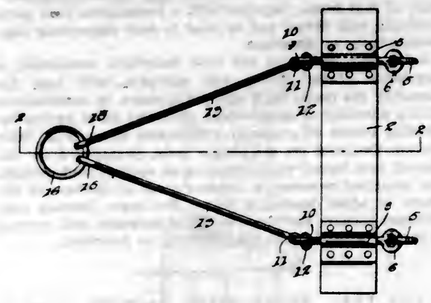
1,133,191. SCREW-PROPELLER. HERSEY STAPLES, Diamond Bluff, Wis. Filed Nov. 29, 1913. Serial No. 803,778. (Cl. 170—173.)



A propeller comprising a shaft, a hub composed of sections divided to present longitudinal abutment surfaces substantially parallel with the axis of the propeller and pairs of coöperating transverse clamping surfaces spirally disposed with relation to the axis of the propeller, said hub sections having lateral recesses communicating with the spaces between the inner ends of said surfaces and extending inwardly beyond the plane of the abutment surfaces, blades having angularly disposed tangs disposed between said abutment and clamping surfaces and portions to engage and interlock with said lateral recesses, and means for fixing said hub sections to the shaft and holding the same assembled.

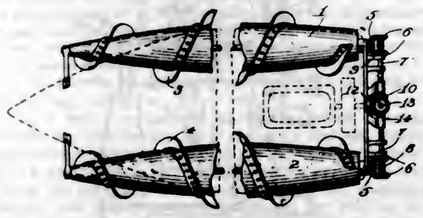
1,133,192. WIRE-FENCE CLAMP. DRURY E. STEVENS, Pleasant Hill, La. Filed Apr. 24, 1914. Serial No. 834,268. (Cl. 254—83.)

A wire fence clamp comprising two bars, each having a keeper plate secured near the opposite ends thereof, hinge members clamped to said bars by said keeper plates, said hinge members on one of said bars comprising shanks extending under the keeper plate, and hooks on the outer ends of said shanks and eyes on the inner ends thereof, the hinge members on the other clamp member having loops to engage said hooks at one end, said loops being off-set from the plane of the shank thereof, and said shanks each having an eye at its opposite end upon opposite sides of the bars from said loops, links secured to the eyes, and levers, each having a hooked end extending



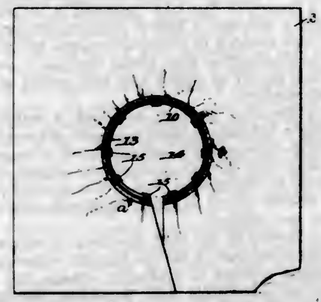
through said links and connected at their outer ends by means of a ring.

1,133,193. BOAT AND PROPELLER THEREFOR. NICHOLAS STIRN, Chicago, Ill. Filed Apr. 9, 1913. Serial No. 759,900. (Cl. 115—19.)



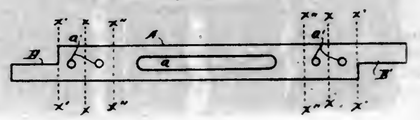
The combination with a boat, of a hollow body rotatably mounted on each side thereof; a shaft extending across the rear end of said boat; means for rotating said shaft; a bevel gear fixed to the rear end of each of said bodies; a pair of bevel gears loosely mounted on said shaft and meshing with opposite sides of each bevel gear on said bodies; a clutch arranged on said shaft between the members of each of said pairs of gears; and a lever for shifting each of said clutches, substantially as described.

1,133,194. BIB. ARTHUR D. SYLVIE, Brooklyn, N. Y. Filed Feb. 4, 1913. Serial No. 746,197. (Cl. 2—54.)



A bib comprising a fabric having a central opening and an incision leading from said opening to its edge, and a band of elastic webbing mounted on the fabric at the edge of the opening and having its ends flush with the edges of the incision and separable securing devices for detachably holding the band on the fabric.

1,133,195. HOSE-CLAMP. FRED TEETER, Battle Creek, Mich. Filed May 15, 1911. Serial No. 627,353. (Cl. 137—28.)



1. A hose clamp comprising a body and an outwardly projecting ear, and a forwardly projecting joint tongue at each end of said body, formed integrally of thin sheet metal, said ears being formed by outward folds in said body and being perforated to receive a clamping bolt, said tongues being diagonally opposed extensions of the ends of the body and adapted to coöperate to form a continuous bearing extending beyond the ears and between the surfaces of the clamp and the hose, and from edge to edge of the clamp.

2. In combination with a garden hose, a hose clamp made from a single sheet metal blank having one half of each end cut away to form overlapping ends, the blank bent to form ears having two thicknesses of metal in each, and the ends extended to lap by each other and well back between the body of the clamp and the surface of the hose, to form a continuous bearing around a hose and rigid braces for the ears, said ears provided with holes, and a bolt passed through said holes and firmly screwed to place.

3. In a hose clamp, a body made from a single sheet of metal having a longitudinal slot and bolt holes, the ends of the blank cut to form one half the width of the blank, each end of the blank bent between the holes and at each side thereof to form ears with the reduced ends lapping by each other and well under the body of the blank to firmly brace the ears and form a continuous uniform bearing entirely around a hose to which it may be applied, and a securing bolt passed through the ears.

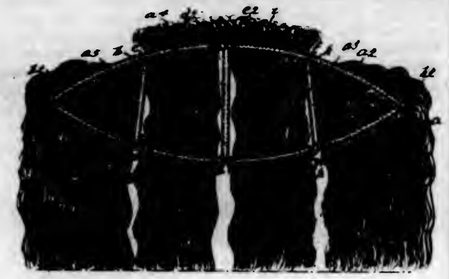
4. A hose clamp comprising a body and an outwardly projecting ear and a forwardly projecting joint tongue at each end of said body formed integrally of sheet metal, said ears being formed by outward folds in said body and being perforated to receive a clamping bolt, said tongues being diagonally opposed extensions of the ends of the body and adapted to coöperate to form a continuous bearing extending between the ears and from edge to edge of the clamp.

5. In a hose clamp, a body made from a single sheet of metal having bolt holes, the ends of the blank cut to form one half of the width of the blank, each end of the blank bent between the holes and at each side thereof to form ears with the reduced ends lapping by each other and well under the body of the blank to firmly brace the ears and form a continuous uniform bearing entirely around a hose to which it may be applied, and a securing bolt passed through the ears.

1,133,196. HAIR-TRANSFORMER. JOSEF JOHANN TEUGELS, Pittsburgh, Pa. Filed May 9, 1914. Serial No. 837,391. (Cl. 132—23.)

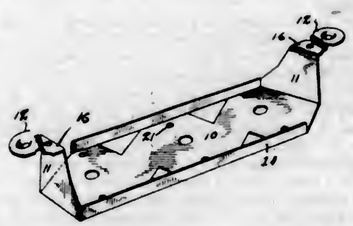
A hair transformer, comprising a frame formed of two main flexible strips joined together at the ends, members joining said main members, and a plurality of hair plaits,

said frame carrying a plurality of fastening devices arranged in pairs thereon, and each of said plaits carrying



a pair of complemental fasteners adapted for engagement with the fasteners on said frame.

1,133,197. ELECTRIC GANG-FITTING. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 25, 1914. Serial No. 858,541. (Cl. 247—5.)



1. A gang fitting of the type described, comprising a suspension frame having end pieces and lugs thereon for mounting the frame on a suitable support, in combination with a plurality of independent electrical units having insulating bodies of like shape mounted on the base of said frame, wire terminals on each of said units and recesses at the opposite margins of the base of the frame and adjacent each of said units for admitting leading-in wires to said terminals, together with marginal flanges on said base affording lateral support for said units.

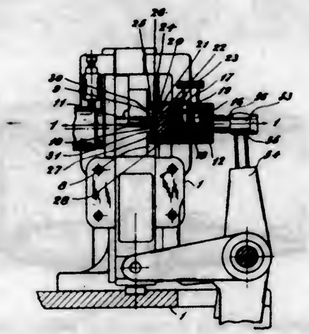
2. A gang fitting of the type described, comprising a suspension frame having end pieces and lugs thereon for mounting the frame on a suitable support, in combination with a plurality of independent electrical units having insulating bodies of like shape mounted on the base of said frame, wire terminals on each of said units and recesses at the opposite margins of the base of the frame and adjacent each of said units for admitting leading-in wires to said terminals, together with marginal flanges in the form of longitudinal strengthening bars affording lateral support for said units.

3. A gang fitting of the type described, comprising a suspension frame of generally trapezoidal shape in plan, end pieces thereon having lugs for mounting the frame on a suitable support, in combination with a plurality of independent electrical units having insulating bodies of generally trapezoidal shape mounted side by side longitudinally of said frame, and relatively low marginal flanges struck up from the opposite sides of the frame base and engaging the units to afford lateral support thereto.

4. A gang fitting of the type described, comprising a suspension frame of generally trapezoidal shape in plan, end pieces thereon having lugs for mounting the frame on a suitable support, in combination with a plurality of independent electrical units having insulating bodies of generally trapezoidal shape mounted side by side longitudinally of said frame, together with a rectangular face plate overlying said fitting and secured to said supporting lugs, substantially as described.

5. A gang fitting of the type described, comprising a suspension frame having end uprights with lugs for mounting the frame on a suitable support, in combination with a plurality of independent electrical units having insulating bodies of generally trapezoidal shape with their corners flattened on the longer axis, juxtaposed on the base of said frame, wire terminals on each of said fittings, and marginal recesses on opposite sides of the base of the frame to admit leading-in wires, the space between said flattened corners and the side of the adjacent unit serving to form a wire channel, substantially as described.

1,133,198. TYPE-CASTING MACHINE. JOHN S. THOMPSON, Chicago, Ill. Filed Apr. 15, 1912. Serial No. 690,879. (Cl. 22—6.)



1. In a device of the kind described, a matrix carrier comprising a carriage, and a matrix support coöperating with said carriage adapted to engage two edges of a matrix, in combination with means adapted to overlap and engage the face of said matrix at opposite points to rigidly hold said matrix in position upon said support.

2. In a device of the kind described, a matrix carrier comprising a carriage, and a matrix support adjustably mounted upon said carriage, arranged to engage two edges of a matrix, in combination with means adapted to overlap and engage the face of said matrix at opposite points to rigidly hold said matrix in position upon said support.

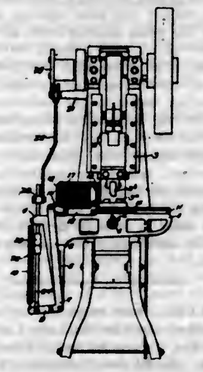
3. In a device of the kind described, a matrix carrier comprising a carriage, a matrix support coöperating with said carriage adapted to resiliently engage two edges of a matrix, in combination with means adapted to engage the face of said matrix to rigidly hold said matrix in position upon said support.

4. In a device of the kind described, a matrix carrier comprising a carriage, a matrix support coöperating with said carriage comprising a movable block arranged to cooperate with said support to resiliently engage two edges of a matrix, in combination with means adapted to engage the face of said matrix to rigidly hold said matrix in position upon said support.

5. In a device of the kind described, a matrix carrier comprising a carriage, a matrix support coöperating with said carriage adapted to resiliently engage two edges of a matrix, in combination with projecting ribs upon said matrix seat adapted to engage the face of said matrix to rigidly hold said matrix in position upon said support.

[Claims 6 to 27 not printed in the Gazette.]

1,133,199. SAFETY DEVICE FOR STAMPING-MACHINES, &c. KONSTANTINE THULANDER, Rockford, Ill., assignor to National Lock Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 19, 1912. Serial No. 737,639. (Cl. 164—107.)



1. In a machine having a dangerous part intermittently operating, a vertically disposed rigidly constructed safety gate horisontally reciprocating in a substantially straight line and adapted to be interposed between the said dangerous part and the hand of the operator, mechanism adapted to hold said gate out of the way of the operator when the said dangerous part is idle, and a spring so disposed as to move the gate to an operative position when released by said holding mechanism.

2. In a stamping machine having dangerous coacting members, the combination of a vertically disposed rigidly constructed safety gate mounted on a member reciprocating in a substantially straight line, with a spring adapted to hold the gate in a position in front of the stamping members, and positively actuated means for holding the gate away from such position when the said dangerous members are not in operation.

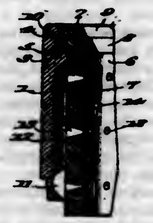
3. In a stamping machine, in combination, a frame, coacting stationary and reciprocating stamping members, a vertically disposed safety gate slidably mounted in front of said stamping members, a pivoted lever arm, a coiled spring connected therewith at one end and having the other end fixed, connections between said gate and said lever arm so arranged that the said spring shall tend to hold the gate in front of the stamping members, a cam wheel mounted on said frame, and connections between said cam wheel and said lever arm so disposed as to operate against the resistance of the spring to hold the gate out of operative position while the stamping members are idle.

4. In a stamping machine, in combination, a frame, coacting stamping members mounted thereon, a drive shaft for operating said stamping members, a bracket attached to said frame and having a horisontal slot, a reciprocal slide in said slot, a safety gate mounted on said slide; a bell crank mounted on said bracket, a link connecting one arm of said bell crank with said gate, a coiled spring under tension between the other arm of said bell crank and a portion of said bracket and having a tendency to hold said gate in front of the stamping members, a cam wheel fixed on said shaft, and connections between said cam wheel and said bell crank whereby said cam wheel tends to hold said safety gate away from in front of the stamping members when said stamping members are idle.

5. In a stamping machine, the combination of a frame having a fixed and a reciprocating stamping member, and a revolving shaft adapted to operate said reciprocating stamping member intermittently, with a reciprocating safety gate; a pivoted bell crank having a horisontal and a vertical arm, connections between said gate and the vertical arm of said bell crank, a coiled spring attached to the horisontal arm of said bell crank and tending to hold the said gate in front of the said stamping members, a reciprocating vertical rod connected with said horisontal arm, an upwardly extending link pivotally connected with said rod, a lever pivotally connected at one of its ends with said link and at its opposite end with a fixed pivot on said frame; a roller stud on said lever between its pivoted ends, and a cam wheel fixed upon said shaft and operating upon said stud, said cam wheel being so disposed on the shaft as to hold said lever in a depressed position until the reciprocating stamping member is about to descend and then suddenly to release the said lever.

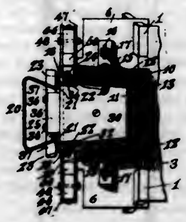
[Claim 6 not printed in the Gazette.]

1,133,200. FURNACE FIRE-POT. JAMES D. TIPPLE, Nashville, Tenn., assignor to Cumberland Foundry and Manufacturing Company, Nashville, Tenn. Filed Dec. 2, 1913. Serial No. 804,270. (Cl. 126—146.)



The herein described fire pot having an inwardly extending supporting flange on its inner side and also having a fixed overlapping flange spaced above, wider than and overhanging said supporting flange, said supporting flange having an inclined upper side, in combination with a series of liners, each having a supporting flange on its outer side at its upper end arranged in the space between the flanges of the fire pot, said supporting flange serving to suspend said lining member and each of said lining members fitting closely against the underside of the upper flange of the fire pot and having its upper end protected thereby from the effect of heat and escape of ashes, the said liners also having outwardly projecting spacing lugs near their lower ends bearing against the fire pot so that said liners are spaced by said lugs and said supporting flanges from the fire pot, said liners being also provided with air openings communicating with the space between them and the fire pot.

1,133,201. HANDLE-ATTACHING MACHINE FOR BASKETS AND ANALOGOUS RECEPTACLES. FRANK BOGART TOWNSEND, Penn Yan, N. Y., assignor of one-half to John E. McMath, Penn Yan, N. Y. Filed Apr. 17, 1914. Serial No. 832,550. (Cl. 140—93.)



1. A handle attaching machine including receptacle holding means, a handle support provided with means for receiving a wire handle and movable into and out of the receptacle to prevent the terminal portions of the handle to the opposite walls of the receptacle and to form an

inner die against which the handle is clenched, and pressure applying means operating exteriorly of the receptacle and coacting with the die of the handle support to force the terminal portions of the handle into engagement with the basket.

2. A handle attaching machine comprising a receptacle holding means, a handle support of a size to receive and to be yieldably embraced by a completed wire handle and to extend into the receptacle to form an inner die, and means operating exteriorly of the receptacle and coacting with the die of the handle support for forcing the terminal portions of the handle into engagement with the receptacle.

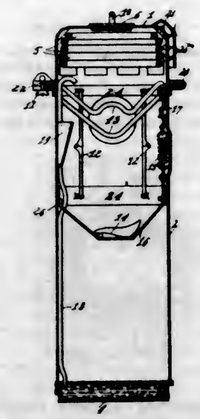
3. A handle attaching machine comprising a receptacle holding means, a handle support provided with means for receiving a completed wire handle and being of a size to extend into the receptacle to form an inner die, and pressure applying levers operating exteriorly of the receptacle and coacting with the die for forcing the handle into engagement with the receptacle.

4. A handle attaching machine including a relatively fixed receptacle holder consisting of a box open at the front and top, a handle support having means for receiving a completed wire handle and movable into and out of the receptacle and adapted to hold the terminals of the handle in position for engaging the opposite walls of the receptacle, said handle support forming an inner die, and pressure applying means located at opposite sides of the receptacle holder and coacting with the die of the handle support for forcing the terminal portions of the handle into engagement with the receptacle.

5. A handle attaching machine including a box open at the front and top and adapted to receive a receptacle, said box being provided with means for adjusting it to accommodate receptacles of different sizes, a handle support having means for receiving a completed wire handle for adjusting the same to center the wire handle with respect to the receptacle, said handle support being of a size to extend into the receptacle to form an inner die, and pressure applying means coöperating with the die of the handle support for forcing the terminal portions of the handle into engagement with the opposite walls of the receptacle.

[Claims 6 to 23 not printed in the Gazette.]

1,133,202. LIFE-SAVING APPARATUS. ROBERT JAMES TRAIN and ALEXANDER HOUSTON, Nashville, Ontario, Canada. Filed May 18, 1914. Serial No. 839,430. (Cl. 9—20.)

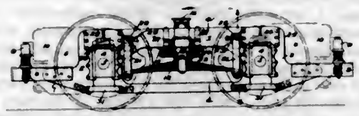


1. A life preserving apparatus comprising in combination, a body having a chamber for receiving a person, a rigid helmet hinged to said body, a water reservoir arranged in the bottom of said chamber, a flexible cover provided for said water reservoir, and a tube for delivering water to the passenger's mouth, whereby water may be forced into said tube as desired by the occupant of the apparatus.

2. A life preserving apparatus comprising in combination, a waterproof casing having a chamber for receiving a person, a rigid helmet for said casing, bellows adapted to be worked by the arms and to force air into the chamber through the top of said helmet, valves arranged to permit the escape of air from said chamber, a seat within said chamber, a water reservoir in said chamber, and means for delivering water to the passenger's mouth.

3. A life preserving apparatus comprising in combination, a collapsible body having a chamber for receiving a person, a rigid helmet for said body, a seat carried within said chamber, means for cushioning said seat, air pumping apparatus arranged to be operated by the passenger for forcing air into said chamber, a water reservoir arranged in the body, a tube to deliver the water to the passenger's mouth, and means for keeping said body afloat when punctured.

1,133,203. TRUCK. BENJAMIN R. VAN KIRK, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 21, 1914. Serial No. 813,428. (Cl. 105—239.)



1. The combination in a car truck, of two side frames made of pressed sheet metal and each having an elongated central opening therein and also having integral gussets at the upper edge of the opening formed by bending the metal from the plate; and transoms extending from one side frame to the other and to which the gussets are secured.

2. The combination in a truck, of two side frames, each frame formed of a single piece of metal pressed into shape and flanged and having a central opening and flanged around said opening and having gussets formed from the metal pressed from the opening and arranged at right angles to the body of the frame; with transoms extending from one frame to the other and secured to the said gussets.

3. The combination in a car truck, of two side frames, each side frame being made of a single piece of sheet metal pressed into shape and flanged around its outer edge, the flanges being turned toward the center of the truck, each plate having a central opening and flanged around the opening, the flanges also extending toward the center of the truck and having triangular gussets pressed from the metal of the side frames and at right angles to the said side frames; transoms extending from one side frame to the other and secured to the said corner pieces; and diagonal braces extending from the corner pieces to the upper flange of each side frame.

4. The combination in a truck, of two side frames; end bars connecting the two side frames, the side frames being made from a single sheet of metal and having recesses for the boxes and a central opening; inturned flanges extending around the outside of the frame and around the opening and the recesses, the upper flange at the central opening being extended to form gussets located below the top of the side frame of the truck; transoms extending from one side frame to the other and secured to the extended angle braces; boxes located in each opening; axles mounted in the boxes; and wheels carried by the axles.

5. The combination in a truck, of two side frames; end bars connecting the frames; transoms extending from one frame to the other at the center of the truck and spaced apart; a bolster in said space, the side frames having inturned flanges; in-turned gussets to which the transoms are secured; diagonal braces extending upward from the gussets to the upper edge of each frame; and chafing plates secured to the transoms and to the diagonal braces.

[Claim 6 not printed in the Gazette.]

1,133,204. LUBRICANT AND PROCESS OF MAKING SAME. ALEXANDER WARRELL, Worcester, Mass., assignor to Continental Asbestos Corporation, Worcester, Mass. Filed June 6, 1914. Serial No. 843,555. (Cl. 87—9.)

1. In the manufacture of a lubricant the process which comprises prolonged agitation of a comminuted soapstone mineral in lubricating oil until a permanent magma is formed.

2. In the manufacture of a lubricant the process which comprises prolonged agitation of chrysotile asbestos in lubricating oil until a permanent magma is formed.

3. In the manufacture of a lubricant, the process which comprises a prolonged agitation of hot dry asbestos in heated lubricating oil until a permanent magma is formed.

4. In the manufacture of a lubricant the process which comprises prolonged agitation of asbestos tailings in lubricating oil until a permanent magma is formed.

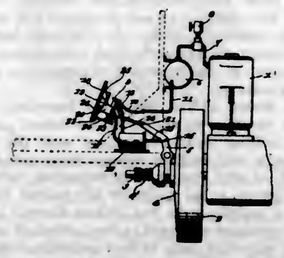
5. As a new composition of matter, a permanent, putty-like magma of a soapstone mineral and lubricating oil.

[Claims 6 and 7 not printed in the Gazette.]

1,133,205. CANDY-MAKING PROCESS. EMIL WEBER, New York, N. Y., assignor of one-third to Christian L. Becker, New York, N. Y. Filed June 19, 1914. Serial No. 846,165. (Cl. 127—4.)

A process for making white chocolate flavored candy consisting in providing three components including the following ingredients and brought together as described the first component consisting of fresh milk, and sugar beaten together and to which 4X sugar is added at 90 degrees temperature the second component consisting of chocolate cake from which the butter has been extracted, ground coffee, vanilla bean, butter and alcohol the third component consisting of wheat flour, corn starch and cocoa flavor all assembled in the manner described and approximately in the proportions named.

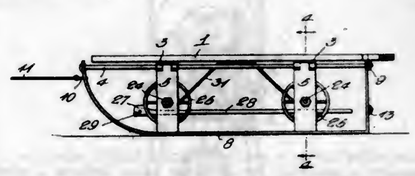
1,133,206. PNEUMATIC CLUTCH CONTROL. RUFUS W. WELTY, San Francisco, Cal. Filed Oct. 3, 1913. Serial No. 793,244. (Cl. 192—1.)



1. Pneumatic clutch control for motor propelled vehicles, comprising a clutch operating lever, a rocking pedal, a clutch lever operating element interposed between and connecting said pedal and clutch lever, a compressed air cylinder and piston for operating said lever, a pressure tank, a three-way valve carried by said clutch lever operating element and adapted to be operated by said pedal, and air connections between said valve and the tank and cylinder.

2. Pneumatic clutch control for motor propelled vehicles, comprising a clutch operating lever, a compressed air cylinder and piston for operating said lever, a pressure tank, a three-way valve, a pipe leading from said tank to said valve, a pipe leading from said valve to said cylinder, a return pipe leading from the cylinder to said valve, a rocking pedal operatively connected with said valve, all of said pipes having flexible sections, and a clutch lever operating element interposed between and connecting said pedal and clutch lever.

1,133,207. COMBINED WAGON AND SLED. WILLIAM E. WICKLINE, Akron, Ohio. Filed Nov. 20, 1913. Serial No. 802,090. (Cl. 21—96.)



1. In a device of the class described, the combination with a board, straps secured across it near its front and rear ends and having eyes at their extremities constituting knuckles, a rod mounted through the eyes along each side of said board, a runner formed of a strap having its front end upbent and secured to the forward end of said rod and its rear end upbent sharply and perforated and passed over said rod, a nut on the rear end of the latter behind the rear end of the runner, upright straps connecting the runner with said rod and having eyes interposed between those of said body-straps, and means for detachably connecting the rear ends of the runners.

2. In a device of the class described, the combination with a board, straps secured across it near its front and rear ends and having eyes at their extremities constituting knuckles, a rod mounted through the eyes along each side of said board, a runner formed of a strap having its front end upbent and secured to the forward end of said rod and its rear end upbent sharply and perforated and passed over said rod, a nut on the rear end of the latter behind the rear end of the runner, upright straps connecting the runner with said rod and having eyes interposed between those of said body-straps, said upright straps having holes, axles carried beneath said board and having threaded stub shafts at their extremities adapted to pass through said holes, wheels on said stub shafts inside the upright straps, and nuts on the extremities of said stub shafts, for the purpose set forth.

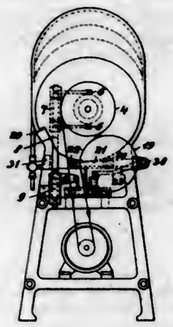
3. In a convertible wagon and sled, the combination with a board, a running gear consisting of axles carried by said board and wheels on said axles, and runners hinged at their upper edges to the sides of the board and of greater height than said wheels; of a link pivotally connected to the rear end of one runner and having a notch in its free end, and a pin in the rear end of the other runner adapted to engage said notch when the runners are in either raised or lowered position.

4. In a convertible wagon and sled, a board, a running gear consisting of axles carried by said board and wheels on said axles, runners hinged at their upper edges to the sides of said board and of greater height than said wheels to project below the latter when said runners are lowered, means to removably secure said runners to said axles when the former are lowered to their operative positions, and a member pivotally mounted on the rear end of one runner and adapted to be removably engaged with the other to additionally brace the runners in their lowered positions, said last named member also operating to brace said runners in their raised and inoperative positions.

1,133,208. APPARATUS FOR DRYING MATRICES USED FOR STEREOTYPE PURPOSES. CARL WINKLER, Berne, Switzerland. Filed Nov. 14, 1914. Serial No 872,272. (Cl. 34—7.)

1. The described apparatus for drying matrices, comprising in combination a drum adapted to contain said

matrices, mechanism to rotate said drum, and a device controlled by the operating mechanism for arresting said drum in the proper position for taking out said matrices, substantially as set forth.



2. The described apparatus for drying matrices, comprising in combination a drum adapted to contain said matrices, mechanism to rotate said drum, a device for arresting said drum in the proper position for taking out said matrices, a door on said drum and mechanism connected with said door to put the mechanism for rotating said drum in and out of gear according as the door is closed or opened, substantially as set forth.

3. The described apparatus for drying matrices, comprising in combination a drum adapted to contain said matrices, mechanism to rotate said drum, a door to open and close said drum, a device for arresting said drum in the proper position for taking out said matrices, a gas cock and means adapted to partly close and completely open said gas cock according as said door is opened and closed, substantially as set forth.

4. The described apparatus for drying matrices, comprising in combination a drum adapted to contain said matrices, mechanism to rotate said drum, a device for arresting said drum in the proper position for taking out said matrices, said device consisting of a friction disk rotating with said drum, a recess in the circumference of said disk, a friction driving disk bearing against the circumference of said first friction disk, and a brake block connected with said friction driving disk and adapted to bear against the circumference of said friction disk when said friction driving disk enters the recess in said first friction disk, substantially as set forth.

5. The described apparatus for drying matrices used for sterotype purposes, comprising in combination a drum adapted to contain said matrices, a friction driving disk, a friction disk adapted to be rotated with said drum by the friction driving disk, a door to open and close said drum, tappets adapted to be moved on opening said door and thus to longitudinally move said friction disk out of engagement with said friction driving disk and into engagement with a fixed friction disk, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

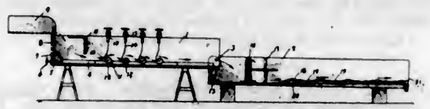
1,133,209. PICTURE-HANGER. JOHN L. WOLKE, Jacksonville, Ill. Filed Apr. 10, 1914. Serial No. 831,008. (Cl. 248—48.)

A picture hanging device constructed of a single piece of metal, a hook formed at one end of the piece, a portion of the piece adjacent the hook being formed to fit the upper portion of the molding and a flat, right-angular



extension adapted to fit behind the picture molding and between the same and the wall.

1,133,210. AMALGAMATOR. JOHN C. WOOD, Monero, N. Mex. Filed Feb. 19, 1913. Serial No. 749,346. (Cl. 83—89.)



1. In a device of the character described, a trough, a plurality of substantially semi-tubular baffling members extending transversely of the trough with their open sides facing the upper end of the trough, said members being longitudinally adjustable in the trough, and vertically adjustable baffle plates having curved lower ends extending into the semi-tubular baffling members.

2. In a device of the character described, a trough adapted to receive matter to be separated, feeding means for said trough, a longitudinally slidable plate arranged in said trough formed with transverse substantially semi-tubular baffling members for receiving a precipitate from the matter fed into the trough, and a baffling plate for each of said semi-baffling members.

3. In a device of the character described, a trough, a longitudinally reciprocating member arranged in the bottom thereof, a plurality of baffling members projecting upwardly from said reciprocating member, means for regulating the position of said reciprocating member, an independent baffling plate for each of said baffling members, and means for adjusting said baffling plates in a direction normal to the direction of movement of said reciprocating member.

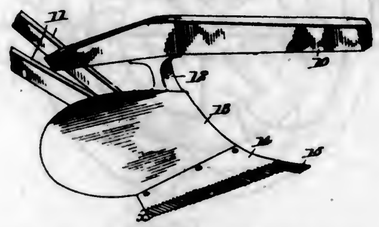
4. In a device of the character described, a trough, means for feeding matter into the upper end of said trough, a baffling member arranged near the upper end of said trough, said baffling member being arranged in the upper part of said trough and extending outwardly toward the bottom so as to direct the matter fed into the trough to a position near the bottom thereof, a plurality of baffling members arranged in the bottom of said trough, means for adjusting said baffling members longitudinally of the trough, and adjustable plates arranged in said trough and co-acting with said baffling members for causing the matter passing over said baffling members to move in a tortuous passageway.

5. In a device of the character described, a trough, a plurality of arc-shaped transversely positioned baffles arranged in the bottom of said trough, means for adjusting said baffles longitudinally of the trough, a plurality of plates extending from the upper edge of said trough downwardly to a position in front of said baffles and then toward the discharge end of the trough and into the arc-shaped baffles in said baffles whereby matter passing over

the bottom of said trough must move in a tortuous passageway and means for raising and lowering said plate whereby the sides of said tortuous passageway may be varied.

[Claims 6 and 7 not printed in the Gazette.]

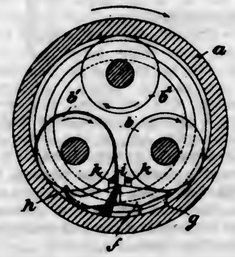
1,133,211. PLOWSHARE. ADOLPH B. WRIGHT, Weston, Iowa. Filed Feb. 6, 1912. Serial No. 675,830. (Cl. 97—22.)



1. A plow share having its cutting edge divided into a plurality of short stepped cutting edges of substantially the same width and disposed in a plane at substantially right angles to the line of draft.

2. A plow share having its cutting edge divided into a plurality of short cutting edges disposed in a plane at substantially right angles to the line of draft and also provided with a plurality of grooves which recede from the short cutting edges upwardly and rearwardly and in the line of draft, each groove being inclined transversely from one side to the other forming relatively pronounced shoulders disposed parallel with the landside of the share.

1,133,212. ROLL-MILL FOR HARD MATERIALS. HERMANN ALDEHOFF, Berlin, Germany. Filed Jan. 19, 1914. Serial No. 813,045. (Cl. 83—45.)



1. The grinding mill for hard materials, comprising in combination, a grinding ring, grinding rolls inside said grinding ring, sieve-plates attached to the sides of said grinding ring and bent to form a circumferential mantle, a guide piece inside said ring behind the first of said grinding rolls, said guide piece having a roof shape in cross section and a wedge shaped front end, substantially as, and for the purpose, set forth.

2. The grinding mill for hard materials, comprising in combination, a grinding ring, grinding rolls inside said grinding ring, sieve-plates attached to the sides of said grinding ring and bent to form a circumferential mantle, a guide piece inside said ring behind the first of said rolls, said guide piece having a roof shape in cross section, a roof shape in longitudinal section and a wedge shaped front end, substantially as, and for the purpose, set forth.

3. A grinding mill for hard materials, comprising a grinding ring, an upper grinding roll and two lower grinding rolls inside of said grinding ring, the upper grinding roll carrying the said grinding ring, sieve plates attached to the sides of said grinding ring, a guide piece arranged inside said grinding ring between the said lower rolls for directing the material from the grinding rolls onto the said sieves, and means for holding the guide piece in position.

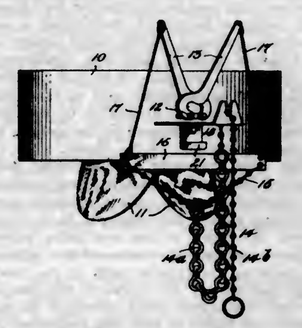
1,133,213. KNIFE. MOTO ARITA, Boston, Mass. Filed Apr. 14, 1914. Serial No. 831,844. (Cl. 30—20.)



1. As a new article of manufacture, a paring knife comprising a straight blade, a handle for the blade, a beveled cutting edge on the blade, said cutting edge being curved relatively to the blade, and a guard on the blade and spaced from the cutting edge to provide a longitudinal slot, said guard being formed to provide an outer blunt beveled face, an inner beveled face and a fulcrum edge formed by the apices of the beveled portions of the outer and inner faces of the guard, with the said fulcrum edge lying in juxta position to the beveled cutting edge of the said blade.

2. As a new article of manufacture, a paring knife comprising a blade having a beveled cutting edge, and a guard for the blade, said guard being of a triangular shape in cross section to provide three faces, two of which are beveled and at their apices form a longitudinal fulcrum edge lying in juxta position to the inner extremity of the cutting edge of the blade.

1,133,214. AUTOMATIC DAMPER. ARTHUR WILLIS ARNOLD, Minneapolis, Minn. Filed July 27, 1912. Serial No. 711,805. (Cl. 236—2.)



1. In an automatic damper, the combination of a wing, a counterbalance for the wing comprising a chain having sections of different weights, one end of the chain being connected to said wing, and a fixed support for the other end of the chain, whereby the length and effective heft thereof may be readily and delicately varied.

2. In an automatic damper, the combination of a wing, a counterbalance for the wing comprising a single chain composed of a plurality of sections, one of said sections being lighter than the other and composed of shorter links, and a fixed support coöperating with the lighter chain section.

3. In an automatic damper, the combination with a pair of wings and arms connected to said wings, of a

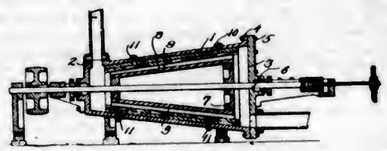
counterbalance for the wings comprising a spreader connected to the arms, and a single chain suspended from both ends of said spreader, and a fixed support coöperating with said chain, whereby the effective heft thereof will be varied.

4. In an automatic damper, the combination of a pair of pivoted wings, a pair of arms connected to said wings, a counterbalance for the wings comprising a spreader, and a single chain having one end connected to the ends of the spreader, said chain comprising a heavy section and a lighter section having shorter links than the heavier section, and a fixed support for coöperation with the links of the lighter chain section.

5. In an automatic damper, the combination of a pair of wings, a pair of arms rigidly connected to the wings for controlling their movement, a counterbalance connected to the arms for operation thereof in one direction, and a bumper adapted to control the extent of movement of the arms when acted upon by the counterbalance, said bumper also including a fixed support for coöperation with the counterbalance, whereby the effective heft thereof may be regulated.

[Claims 6 to 11 not printed in the Gazette.]

1,133,215. SHELL-LINING FOR PAPER-PULP-GRINDING MILLS. AMEL F. BAHR and OTTO B. BAHR, Marion, Ind. Filed Aug. 5, 1913. Serial No. 783,218. (Cl. 92—27.)

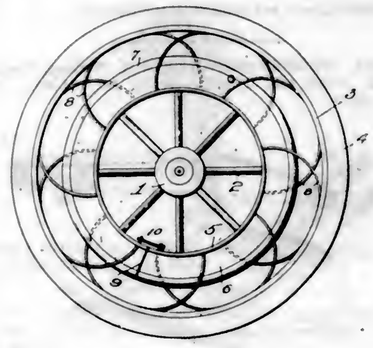


1. A lining shell for paper pulp grinding mills comprising a hollow body and means thereon for imparting to the pulp a tortuous movement, comprising a series of spaced annularly arranged blades, other blades disposed to close the spaces between said first mentioned blades whereby to impart to the pulp an in and out movement with respect to the longitudinal axis of the lining, and still other blades arranged at angles to the last mentioned blades whereby to impart to the pulp a tortuous movement circumferentially of the lining.

2. A lining shell for paper pulp grinding mills comprising a hollow body having internal longitudinal blades or ribs for imparting to the pulp a tortuous movement, said blades being spaced and arranged in a plurality of annular rows, the blades of one row being arranged to close the spaces between the blades of the adjacent row whereby to form an interrupted path to the flow of the pulp through said spaces, the blades of the next row adjacent the last mentioned being arranged to close the spaces between the blades of said last mentioned row and also disposed at a position diagonal with respect thereto, and angularly with respect to the longitudinal axis of the lining.

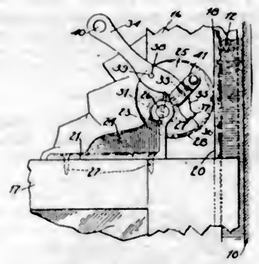
1,133,216. SPRING-WHEEL. HARRY E. BARROWS, Maquoketa, Iowa. Filed July 7, 1914. Serial No. 849,515. (Cl. 152—132.)

The combination in a spring wheel, of an inner portion having a rim, an annulus, of V-shape in cross-section, surrounding the rim with its comparatively wide portion outermost and fixed with respect to the rim, a felly surrounding and spaced from said annulus, and groups of springs arranged at opposite sides of and bearing close against the inwardly-inclined sides of the annulus, said springs being connected at their inner ends to the rim and at their outer ends to the felly and having



their outer ends arranged in the longitudinal center of the felly.

1,133,217. AUTOMATIC SASH-LOCK. JESSE H. BARTON, Brownsville, Tenn. Filed Oct. 9, 1914. Serial No 865,824. (Cl. 16—118.)



1. In combination with an upper and lower window sash separated by a parting bead, a sash lock comprising a bracket secured to the top of the lower sash, a cam journaled on the bracket, a rod attached to the upper sash and between the cam and the parting bead, means for normally holding the cam in engagement with the rod and a lever for operating the cam to release the same from the rod and remove the binding engagement of the latter with the parting bead.

2. In combination with an upper and lower window sash separated by a parting bead, a sash lock comprising a bracket secured to the top of the lower sash, a cam journaled on the bracket, a rod attached to the upper sash and between the cam and the parting bead, and means for normally holding the cam in engagement with the rod.

3. In combination with a window frame having sashes slidable therein, a device carried by one of said sashes to bind against the frame and means carried by the other sash for binding said device against said frame to hold the same, whereby both of said sashes are frictionally locked within the frame, said means being normally held in locking position.

4. In combination with a window frame having sashes slidable therein, a serrated rod carried by one of the sashes and spring actuated means carried by the other sash for binding against said rod to cause frictional engagement of the latter with the frame whereby both of said sashes are frictionally locked within the frame.

5. In combination with a window frame having sashes slidable therein, a serrated rod carried by one of the sashes, spring actuated means carried by the other sash for binding against the rod to cause frictional engagement of the latter with the frame whereby both of said sashes are frictionally located within the frame and permitted to be closed without initially or independently releasing said spring actuated means and means for operating said spring actuated means to release the same and permit opening of the sashes.

[Claims 6 to 11 not printed in the Gazette.]

1,133,218. METHOD FOR LOCATING LIQUID STRATA IN A WELL. TITUS ANDREW BEECHER, Drumright, Okla. Filed Apr. 22, 1914. Serial No. 833,664. (Cl. 73—51.)



1. The method of ascertaining the location at which water flows into a well, consisting in distributing a suitable non-colorable substance in the well within the space where the flow of water may be expected, then forcing water into the well, which water is not contaminated with said substance, then getting samples of water from different known depths of the space in the well where said substance was distributed while the non-contaminated water is continuously forced into the well, then ascertaining if the extracted samples contain said non-colorable substance.

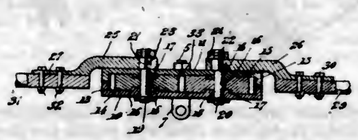
2. The method of ascertaining the location at which water flows into a well, consisting in distributing a known substance in the well within the space where the flow of water may be expected, then preventing the rising of said substance above the place at which the water flows into the well by forcing water into the well, which water is not contaminated with said substance, then getting samples of water from different known depths of the space in the well where the said substance was distributed while the non-contaminated water is forced into the well, and then ascertaining if the extracted samples contain said substance.

1,133,219. GUARD-FINGER. AIME BENOIT, Red Lake Falls, Minn., assignor of one-half to John A. Duffy, Red Lake Falls, Minn. Filed Oct. 3, 1913. Serial No. 793,211. (Cl. 54—43.)



A guard finger provided with a slot and having below the slot side plane surfaces extending from the lower edge of the finger to the lower edge of the slot in synclinal relation to each other, said finger having above the slot other synclinal plane surfaces lying in the same planes as those in which the first mentioned surfaces lie and extending from the upper edge of the slot to the upper side of the finger.

1,133,220. BOW-FACING OAR. VICTOR BENSEN, Duluth, Minn. Filed December 3, 1913. Serial No. 804,451. (Cl. 9—25.)



1. A bow-facing oar comprising an elongated split casing including superimposed sections, detachable means for securing the said sections together, the said sections being provided with intercommunicating sets of registering recesses for the reception of a pair of intermeshing gears, the said casing sections being provided with sets of circular, alining openings communicating concentrically with the respective recesses, shafts secured fixedly to the said gears and being rotatably mounted within the said casing openings, a handle connected fixedly to the outer end of one of the said shafts, a blade fixedly connected with the outer end of the opposite shaft, an attaching member pivotally mounting the said casing for vertical swinging movement, the said gears being provided in their opposite end faces with annular recesses, and annular bearing ridges formed upon the casing sections within their respective recesses surrounding the shaft openings for engagement within the gear recesses.

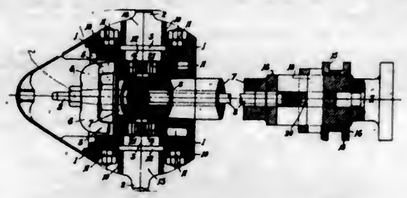
2. A bow-facing oar comprising an elongated split casing including superimposed sections, detachable means for securing the said sections together, the said sections being provided with intercommunicating sets of registering recesses for the reception of a pair of intermeshing gears, the said casing sections being provided with sets of circular, alining openings communicating concentrically with the respective recesses, shafts secured fixedly to the said gears and being rotatably mounted within the said casing openings, a handle connected fixedly to the outer end of one of the said shafts, a blade fixedly connected with the outer end of the opposite shaft, an attaching member pivotally mounting the said casing for vertical swinging movement, the said gears being provided in their opposite end faces with annular recesses, and annular bearing ridges formed upon the casing sections within their respective recesses surrounding the shaft openings for engagement within the gear recesses, the top section of the casing being provided medially with a lubricant opening.

1,133,221. CULTIVATOR-TOOTH. CARL BERG, Brooklyn, N. Y., assignor to James W. Beard, New York, N. Y. Filed Dec. 6, 1913. Serial No. 805,115. (Cl. 97—11.)



A cultivator blade having at its upper end an integral forwardly extending flange which is ogee shaped in edge elevation, one end of the flange being located at a greater distance from the lower end of the blade than the other end.

1,133,222. PROPELLER. RESTAL RATSEY BEVIS, Birkenhead, England. Filed Nov. 13, 1912. Serial No. 731,177. (Cl. 170—163.)



A reversible propeller comprising in combination propeller blades having roots fitted with pinions and provided with cylindrical portions and collars; a main propeller shaft; a central shaft in said main shaft; a yoke with racks on the end of the central shaft and meshing with the pinions; a hollow boss having recessed parts; and angular flanges which inclose the cylindrical portions of the blades, and take into the recessed parts of the boss, and secure the collars on the roots against the boss part; substantially as set forth.

1,133,223. MOLD. WOOD BINNING, Grand River, Iowa. Filed Dec. 12, 1912. Serial No. 736,385. (Cl. 25—121.)

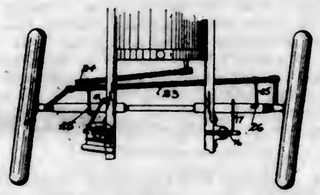


1. A mold structure freely open at the top and bottom and comprising two members, each comprising one side and one end of the mold structure, a single hinge connecting the side of one member with the adjacent end of the other member, a fastening means for connecting the two members together, a board arranged exteriorly of the mold structure and separate therefrom and having greater dimensions than the latter and constituting a bottom board for the mold chamber, and spaced blocks provided on the board and of a size to fit snugly between the side walls of the mold structure, whereby when the members of the mold structure are fastened together, the blocks will be firmly clamped, and the board having the blocks may be transported with the mold.

2. A mold structure freely open at the top and bottom and comprising two members, a board arranged exteriorly of the mold structure and separate therefrom and having greater dimensions than the latter and constituting a bottom board for the mold chamber, spaced blocks provided on the board and of a size to fit snugly between the walls of the two members, and means for fastening the members together, whereby the blocks are firmly clamped and the board having the blocks may be transported with the mold, the blocks enabling a concrete block to be formed with notches or recesses along one edge.

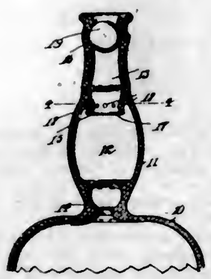
1,133,224. HEADLIGHT-ADJUSTER FOR AUTOMOBILES. HENRY W. BOLLINGER, Altoona, Pa. Filed May 6, 1914. Serial No. 836,690. (Cl. 240—62.)

1. A head light operating mechanism including in combination with the car body and the steering gear, a stationary bracket support, an oscillating bracket element for the head light having a shank portion journaled in and extending below said support, a return spring mounted on the lower end of said shank and engaging therewith, an angled member carried by the said shank, an upstanding T-headed engaging bracket adapted to be clamped to a steering gear element and arranged to engage the angled extension of the lamp bracket.



2. A head light operating mechanism including in combination with the car body and the steering gear, a stationary bracket support carried by the car body, an oscillating bracket element for the head light having a bearing in said support, a socket member detachably fitted to the lower end of said bracket element, a return spring mounted on the lower end of said oscillating bracket and engaging therewith, a rearwardly disposed arm carried by the socket member, and an upstanding T-headed operating member adapted to be clamped to a steering gear element to engage the rearward extension on the socket.

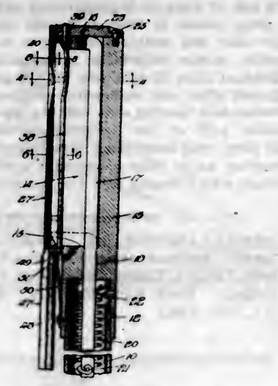
1,133,225. NON-REFILLABLE BOTTLE. EMIL BOSER and EARNEST MATZ, Hollywood, Cal. Filed Apr. 8, 1914. Serial No. 830,466. (Cl. 215—60.)



In a non-refillable bottle, a bottle body having a neck provided with a bulged portion, a lower valve seat in the neck and formed at the juncture of the neck with the bottle body, an intermediate valve seat in the neck, and an upper valve seat in the neck formed adjacent the mouth of the neck, said valve seats being spaced apart, a resilient ball valve normally reposing on the upper valve seat to initially seal the bottle body, said ball valve being movable to engage and repose upon the intermediate valve seat and further movable out of engagement with the intermediate valve seat to engage and repose upon the lower valve seat to seal the bottle body after the same has been emptied to prevent refilling, said intermediate valve seat being formed by an inwardly projecting extension of the upper portion of the neck, lying within the bulged portion of the neck and spaced therefrom, and a series of passages formed in the said inward extension and adapted to be unrestricted by the ball valve when the same is on the intermediate valve seat to permit of pouring the contents of said bottle body therefrom when said ball valve is on said intermediate valve seat.

1,133,226. SHOE-BUTTON-REMOVING MACHINE. HERBERT J. BRAGDON, Rock Island, Ill., assignor of one-half to Albert J. Nolinsky, Rock Island, Ill. Filed Mar. 21, 1914. Serial No. 826,394. (Cl. 218—27.)

1. In a machine of the class described, the combination of a pair of coöperating blades having contiguous thread-severing edges, and means for moving a button longitudinally of the blades with a portion of the button entered between the blades, and between the contiguous thread-severing edges thereof.



2. In a machine of the class described, the combination with a pair of coöperating blades having contiguous cooperating thread-severing cutting edges, of means for forcing a button longitudinally of the blades, the thread carrying portion of the button being entered between the coöperating portions of the blades, and between the contiguous thread-severing edges thereof.

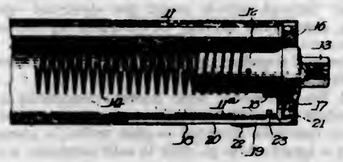
3. In a machine of the class described, the combination with a pair of coöperating blades having contiguous cooperating thread-severing portions, of means for forcing a button longitudinally of the blades with the eye of the button entered between the blades, and between the contiguous thread-severing edges thereof.

4. In a machine of the class described, the combination with a pair of coöperating thread-severing blades and means for forcing a button longitudinally of them, of means for yieldingly maintaining the blades in coöperative relationship.

5. In a machine of the class described, the combination with a pair of coöperating blades having thread-severing portions, and means for forcing a button longitudinally of the blades with its thread carrying portion entered between the blades, of means for carrying the blades into cooperative relationship, and a means for adjusting said carrying means.

[Claims 6 to 41 not printed in the Gazette.]

1,133,227. CURTAIN-ROLLER. CYRUS L. BUNDY, East Orange, and WILLIAM GRANT, Passaic, N. J. Filed Aug. 3, 1914. Serial No. 854,834. (Cl. 156—36.)



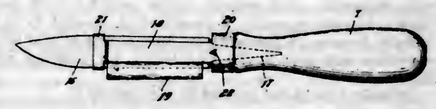
1. In a curtain roller, a barrel, a spindle adapted for engagement within supporting brackets and provided with a lateral projection, a spring connecting the barrel and spindle, and a locking detent slidable longitudinally on the barrel into and out of the path of the projection and having an operative portion accessible only when the curtain is unwound.

2. In a curtain roller, a barrel, a spindle adapted for engagement within the supporting brackets and provided with a lateral projection, a torsion spring connecting the barrel and spindle, and a locking detent slidable longitudinally on the barrel substantially flush with the peripheral surface thereof into and out of the path of the projection, said detent normally covered by the curtain but accesible for actuation when the curtain is unwound.

3. In a curtain roller, a barrel, a spindle adapted for engagement within supporting brackets and provided with a lateral projection, a spring connecting the barrel and spindle, and a detent slidable longitudinally on the barrel into and out of the path of the projection, said detent comprising a metallic strip mounted within guides formed in the shell of the barrel and having an exteriorly accessible portion whereby the detent may be operated.

4. In a curtain roller, a barrel, a spindle adapted for engagement within the supporting brackets and provided with a lateral projection, a torsion spring connecting the barrel and spindle, and a detent slidable longitudinally on the barrel substantially flush with the peripheral surface thereof into and out of the path of the projection, said detent comprising a metallic strip mounted within guides formed in the shell of the barrel and having an operating button normally covered by the curtain but accessible when the curtain is unwound from the barrel.

1,133,228. PARING-KNIFE. OSSIE H. BUTLER, Chicago, Ill. Filed Apr. 9, 1914. Serial No. 830,680. (Cl. 30—20.)



1. The combination with a knife blade and a handle therefor, of a guard for said blade, said guard being provided at one end with a loop fitting over said handle and at the other end with a loop fitting over said blade; and means on said handle for detachably securing the corresponding loop, substantially as described.

2. The combination of a handle; a blade secured thereto; a cap over one end of said handle, said cap being provided with a slot and at one outer edge with a notch; a guard for said blade having a ferrule fitting over said cap and a loop fitting over said blade; a projection on said guard fitting in said notch; a disk in said cap provided with a notch arranged to register with said cap notch; and a projection on said disk projecting through said slot, substantially as described.

1,133,229. PRESSER-FOOT MECHANISM FOR SEWING-MACHINES. EDWARD ERICKSON, Lynn, Mass., assignor to Victor Shoe Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 21, 1913. Serial No. 762,729. (Cl. 112—20.)

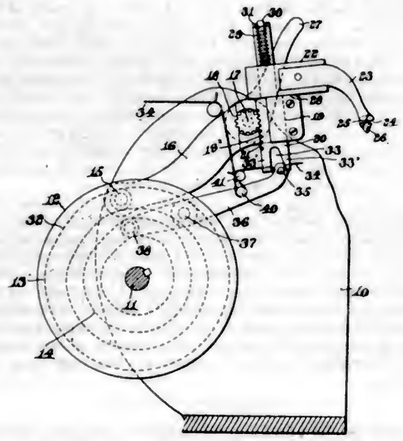
1. The combination of a pivoted cam-controlled lever provided with parallel guide walls; a member supported by said lever and movable concentrically therewith about its pivot adapted to be reciprocated endwise between and lengthwise of said guide walls; a work support; and a presser foot secured to said reciprocating member.

2. The combination of a pivoted cam-controlled lever; a member carried thereby and slidable transversely thereof; a work support; and a presser foot secured to said slidable member.

3. The combination of a pivoted cam-controlled lever; a member carried thereby and slidable transversely thereof; a work support; a presser foot secured to said slidable member; and means for moving said slidable member independently of said lever.

4. The combination of a pivoted cam controlled lever; a slidable member normally positioned thereon and movable therewith; a work support; a presser foot secured

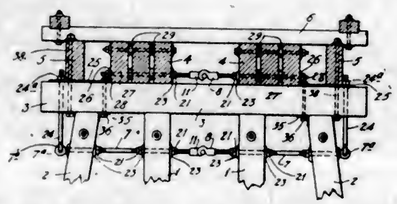
to said slidable member; and manually controlled means for moving said slidable member transversely of said lever.



5. The combination of a pivoted cam-controlled lever; a slidable member normally positioned thereon and movable therewith, said member being provided with rack teeth; a work support; a presser foot secured to said slidable member; a pinion at the pivotal axis of said lever engaging said rack teeth; and means for rotating said pinion.

[Claims 6 to 15 not printed in the Gazette.]

1,133,230. TRESTLE-FRAME AND BRACING MEANS THEREFOR. JOHN L. FUNK, Redondo, Cal., assignor of one-half to Alonzo S. Hawley, Redondo, Cal. Filed May 11, 1914. Serial No. 837,936. (Cl. 14—17.)

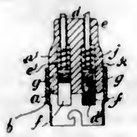


1. In a structure of the character described, the combination, with the piling, the transverse cap timbers, and the longitudinal stringers; of a plate at each end of the trestle having a base portion extending underneath and laterally beyond the outer stringer, said plates each having an upturned apertured portion opposed to the outer surface of one of the main stringers, a connection extending through the aperture of each of said plates to connect opposite plates with each other and tighten them against said main stringers, a suspending bolt extending through the base portion of each of said plates, and a pile-spacing and securing device, said device being adjustably connected at each outer end with one of said suspending bolts.

2. In a structure of the character described, the combination, with a row of timbers, of a plurality of rods in approximate longitudinal alinement to brace said row of timbers, a tension device comprising detachable sections adapted for fastening together, said tension device connecting adjacent ends of said alined rods to adjust said rods longitudinally with relation to each other, and means carried by said rods and adjustable along said rods against opposite sides of individual timbers to draw upon the latter when the said tension device is tightened.

3. In a device of the character described, the combination, with a row of piles and a cap piece supported by said row of piles, of a plurality of rods to brace said row of piles, means to draw said rods longitudinally toward each other and maintain thereupon the desired degree of tension, means adjustable along said rods to maintain individual piles of said row at the proper distance from adjacent piles, and suspending or spacing rods operating between said bracing rods and cap piece to maintain said bracing rods at the desired position longitudinally of said piles, said suspending rods being provided with nuts threading on to their upper ends and with hooked lower portion which engage said bracing rods.

1,133,231. LAMP-HOLDER. HENRY CAPEL LOFFT HOLDEN, London, England, assignor to The United Motor Industries, Limited, London, England, a Corporation of Great Britain. Filed Mar. 26, 1914. Serial No. 827,413. (Cl. 173—328.)



1. In a lamp-holder socket, the combination of an insulator, a plunger slidably mounted therein, and adapted to make contact with a lamp-cap, means mounted on and adjustable relatively to the plunger for securing the lead within the plunger, whereby the current is conducted directly to said plunger, and means for mechanically connecting said lead to the socket.

2. In a lamp-holder socket, an insulator, a plunger slidable therein, said plunger adapted to make contact with a lamp-cap, means including a member adjustable on the plunger for securing the lead within the plunger whereby the current is conducted directly to said plunger, and means for mechanically connecting said lead to the socket.

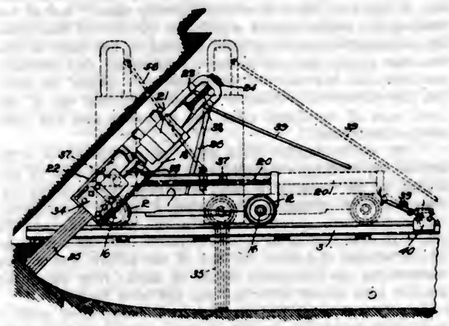
3. In a lamp-holder socket, an insulator, a plunger slidable therein, a spring tending to force said plunger outward into contact with a lamp-cap, means for fixing an electrical lead to said socket, and means including a member engageable with and adjustable relatively to the plunger for securing the lead within the plunger whereby the current is conducted directly to said plunger without passing through said spring.

4. A bayonet socket lamp holder, comprising a socket, means for securing an electrical lead to said socket, an insulator, said insulator mounted in said socket, and a contact-device slidable in said insulator, said contact-device comprising a thimble, a screwed gland adjustable on the thimble through which gland the electrical connection passes, said gland serving to compress an extremity of said electrical connection against an extremity of said thimble, and a spring advancing the thimble outward into contact with the lamp cap.

5. A buoyant-socket lamp holder, comprising a socket, mechanical means for securing said socket to an electrical lead, an insulator mounted in said socket, a plunger slidable in a longitudinal passage in said insulator, a shoulder in said passage, an abutment upon said plunger, a spring between said shoulder and said abutment, a screwed gland adjustable on the thimble and through which gland the electrical connection passes, said gland compressing an extremity of the electrical connection against the plunger and said spring advancing said plunger outward into contact with said lamp cap.

1,133,232. [WITHDRAWN.]

1,133,233. STONEWORKING-MACHINE. PATRICK F. MCCORMACK, West Rutland, Vt., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 5, 1910. Serial No. 575,635. (Cl. 125—2.)



1. In a channeling machine the combination with a percussive channeling tool having a cutting portion, of a main support on which said tool is held movable, mechanism for reciprocatively moving said main support, and means to hold said tool at one portion thereof by attachment to an extraneous point, thereby to cause the movement of the support to move the cutting portion of said tool through a path suitable for corner cutting.

2. In a track channeler, the combination with a truck, truck driving mechanism, a standard held movable on said truck, a channeling tool mounted on said standard, and means for connecting said standard at one portion thereof to an extraneous point while operating said truck driving mechanism.

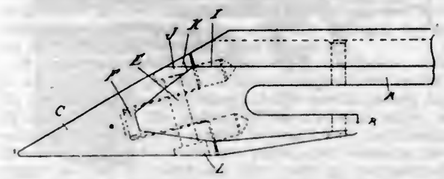
3. In a track channeler the combination with a truck, truck driving mechanism, a reciprocatory channeler tool mounted for swinging movement upon the truck, and means to swing the tool through movement of the truck.

4. In a channeler, the combination with a tool, a support on which the tool is pivoted, a connection to an extraneous point, and means for reciprocatively moving the support.

5. In a track channeler, the combiantion with a truck, a channeling tool mounted to swing on said truck, and connections between said tool and an extraneous point.

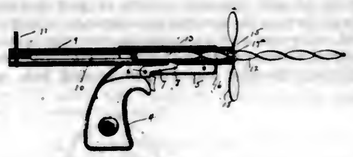
[Claims 6 to 26 not printed in the Gazette.]

1,133,234. EXCAVATING-DIPPER TOOTH. WILLIAM L'E. MAHON, Ann Arbor, Mich. Filed July 15, 1911. Serial No. 638,706. (Cl. 37—16.)



An excavating tooth, comprising a base and a point, and means establishing the same in a rigid relation, the base having a tapering portion fitting within a similarly shaped socket in the point, the point being formed with opposite tongues within the socket, which are received by grooves in opposite faces of the tapering portion of the base, a dowel being projected rearwardly from each tongue and received by a socket in the base, said dowels being parallel.

1,133,235. TOY PISTOL. IGNACE PAPRIAN, Pittsburgh, Pa., assignor of forty-nine one-hundredths to Henry Ahlert and J. C. Ball. Filed June 10, 1914. Serial No. 844,291. (Cl. 244—2.)



1. A toy pistol comprising a handle, a support projecting forwardly from the upper end thereof, a spring controlled longitudinally extending projector mounted in said support, a rod extending into said projector and fixed to said support, said rod having a portion thereof in the form of a spiral, a whirligig mounted on said rod, a trigger for releasing said projector and forcing the whirligig from said rod whereby the said whirligig will have a whirling action imparted thereto.

2. A toy pistol comprising a handle, a support projecting therefrom, a spring controlled trigger carried by said support, a projector mounted in the support, a spiral rod extending into said projector and fixedly secured to said support, a coiled spring arranged in said projector and capable of being placed under a state of compression when said projector is shifted, said projector having means for the reception of said trigger to maintain said spring under a state of compression, and a whirligig mounted upon said rod and capable of being projected therefrom by said projector when the spring is released by said trigger.

3. A toy pistol comprising a handle, a support projecting therefrom, a longitudinally disposed shiftable projector extending through said support, a spiral rod extending into said projector, means for fixedly securing the inner end of said rod to said support, said means limiting the rearward movement in one direction of said projector, a spiral spring arranged in the projector and interposed between said means in the inner end of the projector and capable of being compressed when the projector is shifted rearwardly, a whirligig mounted upon said rod forwardly of said projector, and a trigger engaging in said projector for maintaining said spring under a state of compression and adapted when released from the projector to allow action of said spring to shift the projector forwardly whereby said whirligig is projected from said rod.

1,133,236. WRENCH. KARL PETERSON, Jamestown, N. Y., assignor to Crescent Tool Company, Jamestown, N. Y., a Corporation. Filed Jan. 18, 1915. Serial No. 2,808. (Cl. 81—155.)

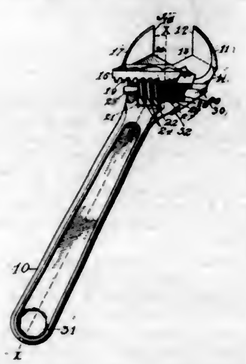
1. In a wrench having a head provided with a rigid jaw, and a slidable jaw having teeth, a screw threaded in the head, a worm rotatable on the screw and engaged with said teeth, and combined spring means to both tension the worm and to hold the screw against rotation.

2. In a wrench having a head provided with a rigid jaw, and a slidable jaw having teeth, a screw threaded in the head, a worm rotatable on the screw and engaged with said teeth, said head having a recessed part, and a spring encircling the screw and having one end abutting the worm and having a portion thereof engaged in the recessed part to hold the screw against rotation.

3. In a wrench having a head provided with a rigid jaw, and a slidable jaw having teeth, a screw threaded in the head, a worm rotatable on the screw and engaged with said teeth, said head having a recess arranged opposite to the inner end of the screw and the screw having a slot in its said inner end, and a coil spring encircling the screw and abutting the worm at one end and having its other end formed with a lateral part which engages in the slot of the screw and in said recess of the head.

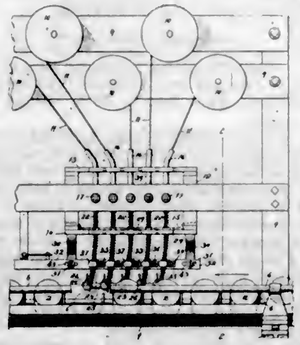
4. A wrench comprising a handle having a head at one

end at an angle thereto, a fixed jaw on said head, said head having an angular crosswise slot with an enlarged opening extending through said head beneath said fixed jaw, a movable jaw having an extension to slidably fit within said slot and enlarged opening in said head, rack teeth on the underside of said enlarged portion of said movable jaw, said head having an opening therethrough at right angles to said crosswise slot and opening into the same and a hole through the end walls of said opening, the inner end of said hole threaded and a screw in said hole, a worm



revolubly mounted on said screw in said opening, a coil spring mounted in an opening around said screw in the wall adjacent the end of said worm to give tension to said worm, a locking projection on said spring, the inner end of said screw having an open ended slot to receive said locking projection, and the inner end of said threaded hole having a groove therein to receive said locking projection of said spring to hold said screw against turning by the turning of said worm.

1,133,237. CAN-SOLDERING MACHINE. DARWIN D. RANNEY, Baltimore, Md., assignor to Atlantic Can Company, Baltimore, Md., a Corporation of New Jersey. Filed Jan. 17, 1913. Serial No. 742,533. (Cl. 113—79.)



1. In a can soldering machine the combination with means to convey can bodies, of a stationary burner adjacent to the path of the traveling cans to project a flame; a strand of wire solder normally to one side and out of the zone of said projecting-flame,—the end of said solder strand normally projecting in the path of the cans to engage and be moved by the latter into the zone of the flame and be melted by the latter, and means for moving the unmelted portion of the solder strand to its normal position and out of the zone of the flame after its end has been melted.

2. In a can soldering machine the combination with means to convey can bodies, of a stationary burner adjacent to the path of the traveling cans to project a flame; a strand of wire solder normally to one side and out of the heat zone of said projecting flame; means for feeding the solder strand when it is out of the heat zone of the burner flame to project its end in the path of the can and enable the can to move said solder end laterally and into the heat zone of the flame and means for moving the unmelted portion of the solder strand out of the heat zone of the flame after the projected end has been melted therefrom.

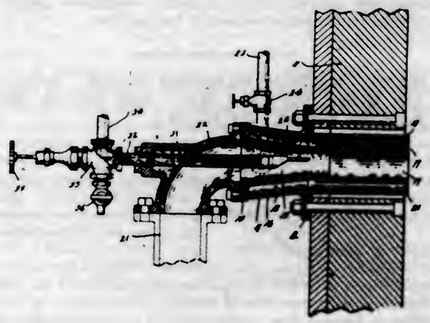
3. In an automatic train stop, the combination with means for feeding wire solder to project the end of the solder in the path of a can; a burner normally in advance of the projecting solder-end; means for moving can bodies into engagement with the projecting end of the wire solder so as to move the latter into the heat zone of the burner and melt the end of the solder, and means for moving the remaining strand of solder from said heat zone of said burner after the end has been melted.

4. In a can-soldering machine the combination with a stationary burner to project a flame, of a yielding wire-solder guide normally to one side of the projecting flame; means for feeding wire solder through the solder guide to project an end of the solder in the path of the can to be soldered; means for moving the can into engagement with the projecting end of the solder to push said solder-end and its yielding guide along with the can and into the projecting flame whereby the solder end may be melted,—said yielding guide and remaining solder strand therein being movable away from said projecting flame when released by the melting of the projecting end of solder.

5. In a can soldering machine the combination with means to convey can bodies, of a stationary burner adjacent to the path of the can bodies; a spiral guide and means for feeding wire solder through the spiral guide to the seam of the moving can.

[Claims 6 and 7 not printed in the Gazette.]

1,133,238. OIL-BURNER. ALBERT D. SMITH, Anderson, Ind., assignor to Koons Oil Furnace Company, Anderson, Ind., a Corporation of Indiana. Filed Dec. 29, 1913. Serial No. 809,185. (Cl. 158—76.)



1. In an oil burner, an air passageway discharging at one end, and a fuel tip located in said passageway, said fuel tip comprising a plate having an upper surface which is flat all the way to its discharge end and a conduit leading to said plate and discharging obliquely upon the flat upper surface of said plate.

2. In an oil burner, an air passageway discharging at one end, and a fuel tip located in said passageway, said fuel tip comprising a plate and a conduit leading to said plate and discharging downwardly upon said plate, said conduit extending from the rear toward said plate below the level of the upper surface thereof and at its forward end being first turned upward to a point slightly above said level and then turned downward to discharge obliquely forwardly upon said plate.

3. A fuel tip, comprising a main body having a fuel passageway through it, and a plate having a flat upper surface upon which said fuel passageway discharges, said passageway extending through the main body upwardly and forwardly and having its forward end turned downward to discharge on to said surface downwardly and forwardly.

4. A fuel tip, comprising a main body having a fuel passageway through it, and a plate upon which said fuel passageway discharges, said passageway extending through the main body upwardly and forwardly and having its forward end turned downward to discharge on to said plate downwardly and forwardly.

5. A fuel tip, comprising a main body which at its forward end consists of a plate having a flat upper surface, said main body being provided with a fuel passageway which enters said main body from the rear and extends forwardly and in part upwardly to a point above and slightly behind the rear end of the upper surface of said plate and then discharges on to such upper surface, the cross section of said passage at its discharge end being long and narrow.

[Claims 6 to 8 not printed in the Gazette.]

1,133,239. AUTOMATIC TRAIN-STOP. WILLIAM M. SMITH, Evansville, Ind. Filed Oct. 5, 1914. Serial No. 865,092. (Cl. 246—59.)

1. In an automatic train stop, a trip adapted to be carried by the movable car, said trip being composed of parts jointed together and adapted to move as an entirety in one direction and to move in relation to each other, spring means coöperating with the complete trip to cushion the movement thereof when it moves as an entirety, and spring means coöperating with the movable section of the trip.

2. In an automatic train stop, the combination with an air-brake valve, of self-contained supplemental operating means therefor comprising a frame having means for its connection to the casing of the air-brake valve, a swinging operating arm carried by said frame and loosely associated with the air-brake valve and normally arranged so that the air-brake valve may be manipulated without interference thereby, air operated means on the frame adapted for shifting the arm, and trip operated means for controlling said arm-operating means.

3. In an automatic train stop, the combination with an air-brake valve, of self-contained supplemental operating means therefor comprising a frame having means for its connection to the casing of the air-brake valve, a swinging operating arm carried by said frame and loosely associated with the air-brake valve and normally arranged so that the air-brake valve may be manipulated without interference thereby, a cylinder on the frame, a spring retracted piston operating therein, an operative connection between the piston and the arm, and trip operated means for controlling the operation of said cylinder.

4. In an automatic trainstop, the combination with an air-brake valve, of self-contained supplemental operating means therefor comprising a frame having means for its connection to the casing of the air-brake valve, a swinging operating arm carried by said frame and loosely associated with the air brake valve and normally arranged so that the air brake valve may be manipulated without interference thereby, a cylinder on the frame, a spring-retracted piston operating therein, an operative connection between the piston and the arm, means for supplying air to the cylinder embodying a normally spring-seated valve, and trip operated mechanism comprising a spring-actuated plunger adapted to engage and open said valve when said plunger is released, a latch for normally holding said plunger retracted, a trip coöperatively related to the latch, and means for restoring the operating plunger to latched position.

1,133,240. HEEL-BREASTING MACHINE. EDWIN A. WEBSTER, Groveland, Mass., assignor to Haverhill Shoe Machinery Company, Haverhill, Mass., a Corporation of Maine. Filed May 8, 1911. Serial No. 625,752. (Cl. 12—47.)

1. In a heel-breasting machine, two operating members comprising a breasting-knife and a jack, said jack being movable horizontally to and from breasting position, a treadle for vertically reciprocating one of said members to perform the breasting operation and a locking device disposed to be actuated by such member during an initial portion of the acting movement thereof to lock the jack against horizontal movement, and means to move said device to unlocked position on the return movement thereof, substantially as described.

2. In a heel-breasting machine, two operating members comprising a breasting-knife and a jack, said jack being movable horizontally to and from breasting position, a treadle for vertically reciprocating one of said members to perform the breasting operation, and an independent locking device disposed to be actuated during the initial portion of the acting movement of said vertically reciprocating member to lock said jack against horizontal movement and to hold it locked during the latter part of the acting movement, substantially as described.

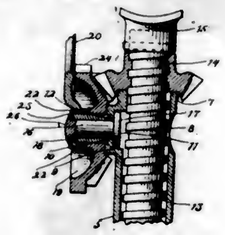
3. In a heel-breasting machine, a depending breasting-knife, a jack movable horizontally into breasting position beneath the knife and having means for moving the same vertically to perform the breasting operation, a locking device for holding the jack against horizontal movement when in breasting position, and means to move said locking device to locking position actuated by the jack during the initial portion of its lifting movement, substantially as described.

4. In a heel-breasting machine, a depending breasting-knife, a jack movable horizontally into breasting position beneath the knife and having means for moving the same vertically to perform the breasting operation, and a locking device, disposed to be actuated by a vertical movement of the jack, for holding the jack against horizontal movement, substantially as described.

5. In a heel-breasting machine, a depending breasting-knife, a jack movable horizontally into breasting position beneath the knife, and having means for moving the same vertically to perform the breasting operation, and a locking device disposed to be actuated by the jack during the initial portion of its upward movement to lock the jack against horizontal movement and to hold it locked during the latter part of the upward movement, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,133,241. JACK. LE ROY WILLOUR, Ashland, Ohio. Filed Apr. 24, 1914. Serial No. 834,125. (Cl. 254—103.)



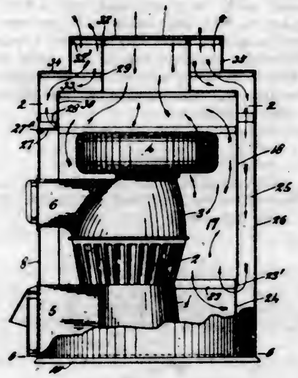
1. In a jack of the character described, a tubular standard provided near its upper end with an opening and an apertured outwardly extending boss arranged opposite the opening, a headed holding pin adapted to be passed through the opening and through the apertured boss with its head disposed interiorly of the tubular standard, a bearing-sleeve carried by the holding pin, a lift-bar mounted to reciprocate within the tubular standard, means to raise and lower the lift-bar embodying a driving member rotatably mounted upon the bearing-sleeve, means to rotate the driving member, and means to retain the driving member upon the bearing-sleeve including an integral mashed head carried by the outer end of the holding pin.

2. In a jack of the character described, a tubular standard provided near its upper end with an opening and an apertured outwardly extending boss arranged opposite the opening, a headed holding pin adapted to be passed through the opening and the apertured boss with its head disposed interiorly of the tubular standard, a bearing-sleeve carried by the holding pin, a lift member mounted to reciprocate within the tubular standard, means to raise and lower the lift member including a driving member rotatably mounted upon the bearing-sleeve, means to rotate the driving member including a lever pivotally mounted upon the bearing-sleeve outwardly of and adjacent the driving member, and means to retain the lever and driving member upon the bearing-sleeve including an integral mashed head carried by the outer end of the holding pin.

3. In a jack of the character described, a tubular standard provided near its upper end with an opening and an apertured outwardly extending boss arranged opposite the opening and provided with an exteriorly arranged recess communicating with the aperture of the boss, a headed pin formed of a relatively soft metal and adapted to be passed through the opening and apertured boss with its head disposed interiorly of the tubular standard, a bearing-sleeve formed of a relatively hard metal arranged upon the holding pin, a lift member mounted to reciprocate within the tubular standard, means to raise and lower the lift member including a driving member rotatably mounted upon the bearing-sleeve, means to rotate the driving member including a lever pivotally mounted upon the bearing-sleeve outwardly of and adjacent the driving member, a washer arranged upon the outer end of the holding pin and engaging a portion of the means to rotate the driving member, and an integral mashed head carried by the free end of the holding pin.

4. In a jack of the character described, a tubular standard provided near its upper end with oppositely arranged large and small openings, a holding pin formed of a relatively soft metal and provided at one end with an enlarged head and adapted to be passed through the large opening into the small opening with its enlarged head arranged interiorly of the small opening, said holding pin having its outer end mashed for providing a stop-head, a bearing-sleeve formed of a relatively hard metal mounted upon the holding pin, a driving member rotatably mounted upon the bearing-sleeve, means to rotate the driving member, a lift member mounted to reciprocate within the tubular standard, and means operated by the driving member to raise and lower the lift member.

1,133,242. FURNACE. WILLIAM J. DOYLE and JUSTUS J. WOLLENHAUPT, Cincinnati, Ohio, assignors to The Monitor Stove & Range Company, of Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 23, 1914. Serial No. 826,801. (Cl. 126—99.)



1. A furnace of the character described combining a heater having passages projecting therefrom, two concentric circumferential casings surrounding said heater providing two chambers communicating at their base, the outer casing having a rigid heater passage terminal plate circumferentially continuous therewith and the inner casing having an offset portion united to the margins of said plate providing an area-way for said heater passages.

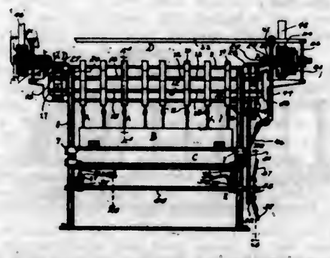
2. A furnace of the character described combining a heater having passages projected from its various compartments, two concentric casings surrounding said heater, providing two chambers communicating at their base, said casings at their upper portions forming conductor passages for the chambers respectively, one to admit cold air into the outer chamber and the second for discharging the heated air from the inner chamber, the outer casing having a heater face plate circumferentially continuous therewith as a terminal for said heater passages and the inner casing having an offset portion united to the margins of the face plate providing an area-way for said heater passages.

3. A furnace of the character described combining a heater having passages projecting therefrom, a casing surrounding said heater having a rigid passage terminal portion continuous with the circumference of said casing, a second casing within said first casing divisional of two chambers communicative at their base, said second casing having an offset portion connecting with said rigid portion of said first casing providing an area-way for said heater passages.

4. A furnace of the character described combining a sectional heater comprising an ash pit, fire-box and combustion chamber substantially coaxial, and a register dome axially eccentric to the aforesaid sections, two concentric circumferential casings surrounding said heater, forming two chambers, an inner and an outer, intercommunicable at their base, the outer providing a terminal for the passages projecting from the heater, and the inner having an offset portion secured to the outer providing an area-way for said passages.

5. A furnace of the character described combining a sectional heater comprising an ash-pit, fire-box and combustion chamber substantially coaxial, and a register dome axially eccentric to the aforesaid sections, two concentric circumferential casings surrounding said heater, forming two chambers, an inner and an outer, intercommunicable at their base, the outer providing a terminal for the passages projecting from the heater, and the inner having an offset portion secured to the outer providing an area-way for said passages, and a register grating supported above said chambers divisionally connected with said casings.

1,133,243. GANG-DRILL. AARON HILL, Los Angeles, Cal., assignor of one-fourth to Raymond Ives Blakeslee, Alhambra, Cal. Filed Jan. 21, 1914. Serial No. 813,433. (Cl. 77—22.)



1. In a machine of the character disclosed, a drill, means for operating the same, a movable work support, means for operating the work support, and means operating automatically for jointly throwing out of operation the drill and the means for operating the work support.

2. In a machine of the character disclosed, a drill, means for operating the same, a movable work support, means for operating the work support, and means operating automatically for jointly throwing out of operation the drill and the means for operating the work support; means being provided for independently operating the work support.

3. A gang drill machine, comprising a plurality of separate drills arranged in a working series, a drive shaft, and a single link belt operatively applied to all of the drills and to the drive shaft whereby the former may be operated upon rotation of the latter; each of said drills comprising a drill spindle provided with a drill proper and with a separate sprocket wheel which coöperates with said link belt.

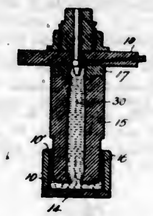
4. In a machine of the character disclosed, a plurality of drills divided into two groups, and separate means for operating the drills of each group; said latter means including staggered sprockets the relative positions of which permit close assemblage of the drills.

5. In a machine of the character disclosed, a plurality of drills divided into two groups, a sprocket wheel mounted on each of said drills, said sprocket wheels being arranged in staggered relation, and separate link belts applied to the sprocket wheels of the respective drill groups for the operation of the drills.

[Claims 6 to 12 not printed in the Gazette.]

1,133,244. GLASS-WORKING. MINOT K. HOLMES, Muncie, Ind., assignor to Hemingray Glass Company, Muncie, Ind., a Corporation of Kentucky. Filed Nov. 22, 1912. Serial No. 732,819. (Cl. 49—77.)

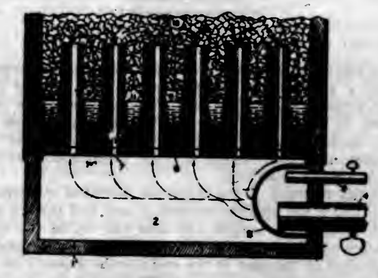
1. That improvement in the art of glass working which consists in depositing a charge of molten glass within a receiver and in thereafter bringing the charged receiver and the open end of a mold together so as to submerge the open mold-end while maintaining a portion of glass between the receiver and the submerged portion of the mold and preventing movement of that portion of glass toward the interior of the mold.



2. In glass working, the combination of a charge-receiver and an open-ended mold, said mold having its open end submergible in molten glass contained in the receiver, said end being of an external diameter less than the internal diameter of the glass-holding portion of the receiver by an amount sufficient to accommodate the chilled skin of the glass formed by contact with the receiver and mold, the receiver and mold being so formed as to prevent material ejection of glass from the receiver and to produce ejection of the center of the molten glass into the mold by reason of submergence of the receiving end of the mold.

3. In glass working, the combination of a charge-receiver and an open-ended mold, said mold having its open end submergible in molten glass, contained in the receiver, through an open end of the receiver having a diameter sufficiently approximating the external diameter of the mold to prevent material outflow of glass there-between while accommodating the chilled skin of glass between the container and exterior of the submergible portion of the mold whereby flow of glass from the container into the mold will take place during submergence of the open end of the mold.

1,133,245. METALLIC UNION. WOOLSEY MCALPINE JOHNSON, Hartford, Conn., assignor to The Continuous Zinc Furnace Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 8, 1914. Serial No. 876,127. (Cl. 75—40.)



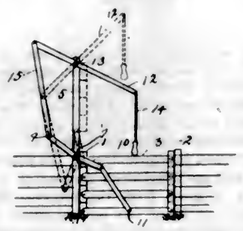
1. A furnace combining a lower mixing chamber, an upper combustion zone, a plurality of non-metallic tubes formed of refractory material and arranged to establish communication between said chamber and zone, a portion of each tube having a roughened surface and having a built-up annulus of metal circumscribing said portion in intimate contact with the surface thereof by being deposited in a state of minute subdivision into the superficial pores thereof; and a metallic partition separating said zone and chamber and connected with said built-up annuli.

2. A surface-combustion furnace of the nature disclosed,

comprising a tube of refractory material for converging a combustible mixture, a film of difficulty fusible metal coating a portion of said tube and permeating the superficial pores thereof, and a body of metal amalgamated with said film.

3. A furnace combining a lower mixing chamber, an upper combustion zone, a plurality of refractory tubes establishing communication therebetween, a metallic film coating a portion of each tube, and a continuous septum of metal amalgamated with the films and forming a gas-tight wall between the mixing chamber and the combustion zone.

1,133,246. FARM-GATE. BLANTON S. LUNSFORD, Columbus Ga., assignor of one-half to G. W. Roberts, Muscogee county, Ga. Filed Aug. 20, 1914. Serial No. 857,625. (Cl. 39—26.)



The combination with a pair of spaced posts, an intermediate post, a tilting and folding gate supported by said intermediate post, a rock shaft supported by said posts, and having a crank arm at each end provided with operating handles, an arm fixed to the shaft intermediate its ends, a link for connecting the arm to the gate, a lever pivotally connected intermediate its ends to each outer post, links connecting one of the ends of the levers to the crank arms respectively and operating means connected to the other ends of the levers.

1,133,247. PIN-FASTENER. THOMAS CARL SPELLING, New York, N. Y. Filed Feb. 18, 1914. Serial No. 819,417. (Cl. 24—161.)



1. A pin fastener of the character described comprising a base, a pin member secured at one end thereto and passed beneath the bottom and over the top of the base adapted to be free to open both on top and bottom to secure opposite ends of a fabric in place, and means for detachably fastening the pin in place, substantially as and for the purpose described.

2. A pin fastener of the character described comprising a base, and a pin member secured at one end thereto and passed beneath the bottom and over the top of the base, the intermediate portion of the pin member being detachably secured to the base at the end thereof opposite to the point of attachment of the shank to said base, whereby the pin may open both beneath and above the base, substantially as and for the purpose described.

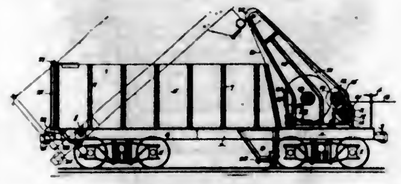
3. A pin fastener of the character described comprising a base, a pin member secured at one end thereto and passed beneath the bottom and over the top of the base adapted to be free to open both on top and bottom to secure opposite ends of a fabric in place, and a catch for the end of the pin located at that end of the base adjacent to the fastening of the shank of the pin to the base.

4. A pin fastener of the character described comprising a base, a pin member secured at one end thereto and passed beneath the bottom and over the top of the base, the intermediate portion of the pin member being detachably secured to the base at the end thereof opposite to the point of attachment of the shank to said base, and a catch for the end of the pin located at that end of the base adjacent to the fastening of the shank of the pin to the base whereby the pin may open both beneath and above the base.

5. A pin fastener of the character described comprising a base, a pin member secured at one end thereto and passed beneath the bottom and over the top of the base adapted to be free to open both on top and bottom to secure opposite ends of a fabric in place, and means for detachably fastening the pin in place, one of the surfaces of the base adjoining the pin being arranged to deflect an intermediate portion of the pin to create a binding action on the fabric adapted to be introduced therebetween, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,133,248. DUMPING-CAR. JOHN S. WORTH, Coatesville, Pa., assignor to John S. Worth and William P. Worth, Coatesville, Pa. Filed Oct. 1, 1914. Serial No. 864,494. (Cl. 105—190.)



1. The combination in a dumping car, of a main frame; wheels on which the frame is mounted; a body portion pivoted at one end of the main frame; a mast mounted on the opposite end of the car from the pivot; a drum; a hoisting chain or rope passing from one end of the body portion to the drum; and a second drum carried on the first mentioned frame and having a rope thereon to which motion can be imparted by mechanism independent of the car, so as to raise the body portion to the dumping position.

2. The combination of a car having trucks; a main frame supported on the trucks; a body portion pivoted to the main frame at one end, said body portion being shorter than the main frame; a mast located at the opposite end of the main frame and overhanging the end of the body portion; a drum; a sheave at the upper end of the mast; a chain or rope attached to the bottom of the body portion and extending over the sheave and to the drum; a second drum geared to the first mentioned drum; and a rope mounted on the said second drum and arranged to have motion imparted to it independently of the car so that, when tension is applied to said rope, the body portion will be turned on its pivot and its contents dumped.

3. The combination in a dumping car, of trucks; a main frame mounted on the trucks; a body portion pivoted to the main frame at one end and having an extension at the opposite end projecting below the main frame; a mast secured to the main frame in advance of the body portion and extending rearwardly over the body portion; a sheave carried by the body portion; a rope or chain passing from the extension of the body portion up and around the sheave; a drum to which the rope or chain is attached; a second drum geared to the first mentioned drum; and a rope leading from said second drum to any means for imparting motion to the rope so as to cause the main drum to turn and to lift the free end of the body portion to such an incline as will discharge its load.

4. The combination in a car, of a main frame; wheels supporting the main frame; a coupling secured to one end of the main frame; a pivot at the opposite end of the main frame; a body portion connected to the main frame by said pivot; a coupling attached to the rear of the body portion; and means for tilting the body portion to the dumping position, the rear coupling moving with said body portion.

1,133,249. PRETZEL-MACHINE. WILLIAM EHRHART, Philadelphia, Pa., assignor to Hymon Ehrhart, Lancaster, Pa. Filed Feb. 15, 1912. Serial No. 677,756. (Cl. 107—13.)



1. In a machine of the character stated, a traveling apron adapted to carry the lumps of dough, and a rolling board supported to face such apron to roll such lumps between it and the apron, and formed in its working face with V-shaped transverse grooves pointing against the direction of travel of said apron.

2. In a machine of the character stated, a dough-feeder provided with a nozzle through which the dough is expressed, a series of cutters traveling across the end of such nozzle, a traveling apron arranged to receive the severed lumps of dough, and a stationary rolling-board supported to face such apron, and formed in its working face with V-shaped transverse grooves pointing against the direction of travel of said apron.

3. In a machine of the character stated, a traveling apron adapted to carry the lumps of dough, and a rolling-board supported to face such apron to roll such lumps between it and the apron, and consisting of longitudinal sections vertically movably supported above said apron and having their meeting-edges above the median line of the same, and means for moving said edges toward and from said apron for vertically adjusting their relative angles.

4. In a machine of the character stated, a traveling apron adapted to carry the lumps of dough, and a rolling-board supported to face such apron to roll such lumps between it and the apron, and consisting of longitudinal sections having means for vertically adjusting their relative angles, said sections formed with obliquely transverse grooves in their working faces converging toward their meeting edges and pointing in a direction against the direction of travel of said apron.

1,133,250. DENTRIFICE. WILLIAM M. RUTHRAUFF, Tucson, Ariz. Filed June 16, 1914. Serial No. 845,504. (Cl. 167—9.)

1. A proteolytic dentifrice containing a proteolytic enzyme, and an agent to render said enzyme active as a digestant of dental mucin films, and which agent is inert to calcium phosphate.

2. A proteolytic dentifrice containing a proteolytic enzyme, and an agent to render said enzyme active as a digestant of dental mucin films, which agent is inert to calcium phosphate, and an abrasive which will not chemically interfere with said digestive action.

3. A proteolytic dentifrice containing a proteolytic enzyme, and an acid inert to calcium phophate and which acts to render said enzyme active as a digestant of dental mucin films.

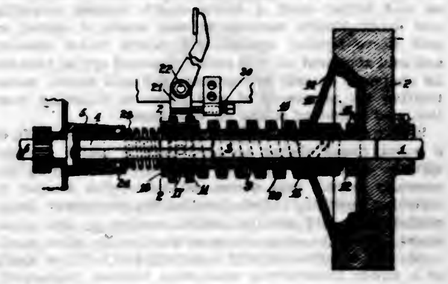
4. A proteolytic dentrifice containing pepsin, an acid inert to calcium phophate and which acts to render said pepsin a digestant of dental mucin films, and an abrasive which will not chemically interfere with said digestive action.

5. A proteolytic dentifrice containing pepsin acidulated with acid calcium phosphate to render the pepsin a digestant of dental mucin films.

[Claim 6 not printed in the Gazette.]

REISSUES.

13,893. CLUTCH. MORRIS B. IRELAND, New York, N. Y. Filed Jan. 14, 1914. Serial No. 812,152. Original No. 1,014,826, dated Jan. 16, 1912, Serial No. 473,613. (Cl. 192—8.)



1. The combination with a driving and a driven shaft, of coöperating clutch members carried by said shafts, one of said clutch members being movably mounted to releasably engage the other member, and power transmitting means between one of said clutch members and a shaft comprising two spirally interlocked members and an interposed spring, one of said members having driving connection with the clutch member, and the other with the shaft.

2. The combination with a driving and a driven shaft, of a releasable clutch connection between the two shafts, said clutch connection comprising a movable member sliding on one shaft, a clutch member spirally mounted thereon for clutching the other shaft, and means whereby upon a predetermined load, the movable clutch member is moved spirally in a direction tending to release the driving connection and relatively to its shaft.

3. The combination with a driving and a driven shaft, of a releasable clutch connection between the two shafts, said clutch connection comprising a member sliding longitudinally on one shaft, a clutch member spirally mounted thereon for clutching the other clutch member, means for holding the clutch members in engagement, and a spring normally holding the movable clutch member in predetermined position on said sliding member.

4. The combination with a driving and a driven shaft, of a friction clutch for releasably connecting said shafts, means for holding the clutch in engagement, power transmitting means between one clutch member and a shaft comprising two spirally interlocked members and an interposed spring normally tending to separate said members, one of said members having driving connection with the clutch member and the other with the shaft, and an abutment limiting the separation of said members.

5. The combination with a driving and a driven shaft, of clutch members coöperating to couple said shafts, one of said clutch members being movable toward and from the other, a movable sleeve carrying said clutch member, said clutch member being threaded thereon, means tending to move the sleeve to engage the clutch members, and a spring carried by the sleeve and resiliently holding the movable clutch member from turning backward on said sleeve when engaged.

6. The combination with a driving and a driven clutch

member, of a spring for holding said members engaged, a sleeve carrying a clutch member and moved by said spring to engage the clutch members, said clutch member carried by the sleeve being movably mounted thereon to have a relative spiral movement when engaged, and a spring carried by said sleeve and opposing such spiral movement.

7. The combination with a driving clutch member, of a driven shaft, a sleeve having an abutment and splined on said driven shaft, a driven clutch member rotatably and longitudinally movable on said sleeve, a spring on said sleeve bearing against said driven clutch member and said abutment on said sleeve, a second spring between an abutment on said driven shaft and said sleeve, and operating means for said sleeve.

8. The combination with a driving clutch member, of a driven shaft, a sleeve having an abutment and splined on said driven shaft, a driven clutch member rotatably and longitudinally movable on said sleeve, a spring on said sleeve bearing against said driven clutch member and said abutment on said sleeve, a second spring between an abutment on said driven shaft and said sleeve, means limiting the movement of said sleeve to clutching position, and operating means for said sleeve.

9. The combination with a driving and a driven shaft, of a worm sleeve sliding on one shaft, a clutch member spirally engaged with said worm sleeve, a spring for normally moving said sleeve and said clutch member to clutching position, a spring controlling the power transmitted from said movable clutch member to said worm sleeve, and coöperating clutch member on the other shaft.

10. The combination with a driving and a driven shaft, of a power transmitting connection between said shafts comprising a driving and a driven element, a spiral interlocking connection between said latter elements operating to move said element relatively longitudinally when power is applied, a spring opposing said relative movement, and an abutment limiting the movement in the opposite direction due to the spring.

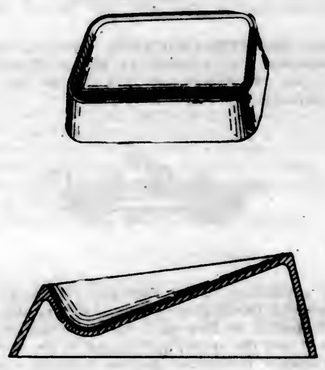
DESIGNS.

47,128. BADGE OR SIMILAR ORNAMENT. MELVILLE C. BARNARD, Winthrop, Mass. Filed Dec. 14, 1914. Serial No. 877,250. Term of patent 7 years.



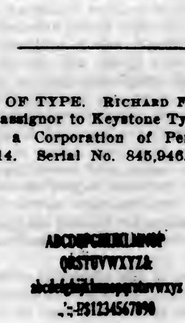
The ornamental design for a badge or similar ornament, as shown.

47,129. CHANGE-TRAY. EDWARD BRUNHOFF, Cincinnati, Ohio. Filed Oct. 15, 1914. Serial No. 866,868. Term of patent 7 years.



The ornamental design for a change tray as shown and described.

47,130. FONT OF TYPE. RICHARD F. BURPEIND, Philadelphia, Pa., assignor to Keystone Type Foundry, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 18, 1914. Serial No. 845,946. Term of patent 14 years.



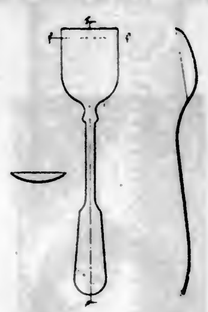
The ornamental design for a font of type shown in the accompanying drawing.

47,131. WATCH-FOB. FRED BUTTLER, Tyndall, S. D. Filed Dec. 10, 1914. Serial No. 876,581. Term of patent 7 years.



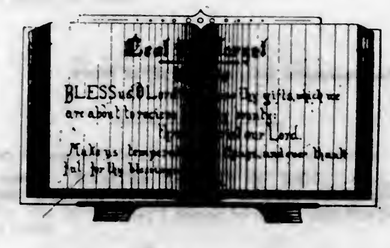
The ornamental design for a watch fob, as shown.

47,132. SPOON-BOWL. NICHOLAS DEDRICK, Manitowoc, Wis. Filed Nov. 6, 1914. Serial No. 870,711. Term of patent 14 years.



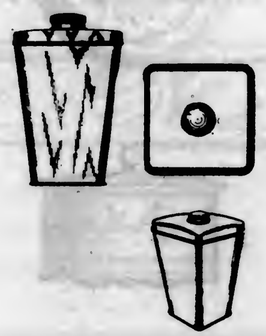
The ornamental design for a spoon bowl, as shown.

47,133. GRACE-PRAYER HOLDER. JOHN H. GARRITY, Pittsburgh, Pa. Filed July 10, 1914. Serial No. 850,263. Term of patent 7 years.



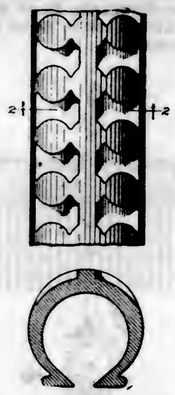
The ornamental design for grace prayer holder as shown and described.

47,134. BOX FOR TALCUM POWDER. EDMUND HOFFMAN, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 7, 1914. Serial No. 865,599. Term of patent 7 years.



The ornamental design for a box for talcum powder, as shown and described.

47,135. AUTOMOBILE-TIRE. HALL H. HOLDAWAY, Los Angeles, Cal. Filed Feb. 9, 1915. Serial No. 7,128. Term of patent 14 years.



The ornamental design of an automobile tire, as shown.

47,136. CLAMP-REFLECTOR. PAUL M. HOTCHKIN, Chicago, Ill., assignor to National X-Ray Reflector Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 8, 1913. Serial No. 805,467. Term of patent 7 years.



The ornamental design for a lamp reflector, as shown and described.

47,137. WOVEN AND PRINTED RIBBON. RICHARD JACOB and EMIL SPECK, Passaic, N. J. Filed Dec. 28, 1914. Serial No. 878,819. Term of patent 3½ years.



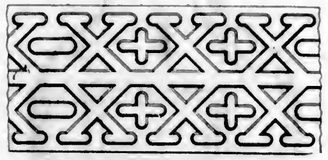
The ornamental design for woven and printed ribbon, as shown and described.

47,138. HANGER FOR LIGHT-REFLECTING BOWLS. NICHOLAS KOPP and ROBERT EDWARD EWING, Pittsburgh, Pa., assignors to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 30, 1914. Serial No. 835,534. Term of patent 3½ years.



The ornamental design for a hanger for light reflecting bowls, as shown.

47,139. TIRE-CASING. THOMAS R. MCKENNAN, East Palestine, Ohio. Filed Nov. 12, 1914. Serial No. 871,796. Term of patent 7 years.



The ornamental design for a tire casing, as shown.

47,140. BOLSTER AND SHAM-HOLDER. FRANK NEWKIRK, New York, N. Y. Filed Dec. 27, 1913. Serial No. 809,133. Term of patent 3½ years.



The ornamental design for a bolster and sham holder, as shown.

47,141. RUG. LIONEL CLAUDE NOBLE, Amsterdam, N. Y., assignor to Stephen Sanford & Sons, Inc., Amsterdam, N. Y., a Corporation of New York. Filed Nov. 21, 1914. Serial No. 873,419. Term of patent 3½ years.



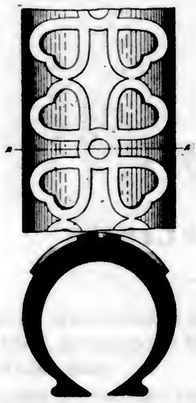
The ornamental design for a rug, as shown.

47,142. DISH OR SIMILAR ARTICLE. JAMES N. OVENS, New York, N. Y. Filed Dec. 16, 1914. Serial No. 877,603. Term of patent 7 years.



The ornamental design for a dish or similar article, as shown.

47,143. TIRE-TREAD. ABRAHAM PALDER, Boston, Mass. Filed Dec. 2, 1914. Serial No. 875,170. Term of patent 14 years.



The ornamental design for a tire tread, as shown.

47,144. PIPE-CLEANER. JACOB PFISTER, Rochelle Park, N. J. Filed Dec. 12, 1914. Serial No. 876,985. Term of patent 14 years.



The ornamental design for pipe cleaner, as shown.

47,145. FOB. JAMES E. PRICE, Pueblo, Colo. Filed Jan. 27, 1914. Serial No. 814,829. Term of patent 3½ years.



The ornamental design for a fob, as shown.

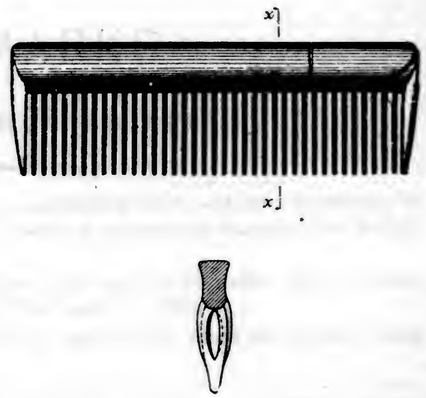
47,146. CURTAIN-LIGHT. CHARLES E. TITCHENER, Binghamton, N. Y., assignor to Crandal, Stone & Company, Binghamton, N. Y., a Corporation of New York. Filed Jan. 4, 1915. Serial No. 529. Term of patent 14 years.





The ornamental design for a curtain light, as shown.

47,147. COMB. WILLIAM W. WEITLING, College Point, N. Y., assignor to American Hard Rubber Company, N. Y., a Corporation of New York. Filed Dec. 22, 1914. Serial No. 878,619. Term of patent 14 years.



The ornamental design for a comb, as shown.

47,148. BRACELET. FRANK F. WELLS, Kansas City, Mo. Filed Dec. 14, 1914. Serial No. 877,243. Term of patent 3½ years.



The ornamental design for a bracelet, as shown.

TRADE-MARKS

PUBLISHED MARCH 23, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 47,826. (CLASS 39. CLOTHING.) GUERNSEY B. WILLIAMS COMPANY, Syracuse, N. Y. Filed Feb. 15, 1910.

UNITED TEXTILE CO.

No claim is made herein to the exclusive use of the words "United Textile Co."

Particular description of goods.—Knitted and Woven Shirts, Dress-Shirts, Negligée Shirts, Work-Shirts, Drawers, Union Suits, Gloves, and Hose.

Claims use since about the 1st of January, 1910.

Ser. No. 67,021. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) FLEXIBLE ARCH SUPPORT CO., New York, N. Y., and Boston, Mass. Filed Nov. 20, 1912.

Foot-Guard

Particular description of goods.—Arch-Supports for Footwear.

Claims use since Nov. 1, 1912.

Ser. No. 67,422. (CLASS 39. CLOTHING.) SILVERBERG AND LINCH, Des Moines, Iowa. Filed Dec. 16, 1912.

SUBWAY

Particular description of goods.—Men's Textile and Knitted Undersuits, Undershirts, Underdrawers, and Men's Clothing—Namely, Outer Suits, Trousers, Coats, Vests, Collars, Hose, Hats, Dress-Shirts, Negligée and Work Shirts.

Claims use since July 1, 1908.

Ser. No. 70,928. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CO-OPERATIVE DRUG MANUFACTURING COMPANY, now, by change of name, AMERICAN DRUG MFG. CO., Jackson, Tenn. Filed June 7, 1913.

The picture being fanciful.



Particular description of goods.—Castor-Oil, Baking-Powder, Soothing Syrup, Quinin, Antiseptics, Neuralgia

Remedy, Laxatives, Rheumatism Remedy, Emulsion Cod-Liver Oil, Wine of Cod-Liver Oil, Beef, Iron, and Wine, Nerve-Stimulant, Massage-Cream, Dental Cream, Tooth Powder and Wash, Salve, Ointment, Shaving-Lotions, Ammonia, Toilet Water, Hair-Tonic, Douches, Toothache Remedy, Insecticide, Essence of Pepsin, Smallpox Remedy, Spavin Remedy, Rat and Roach Paste, a Preparation for the Treatment of and Deodorizer for Tired and Swollen Feet, Corn Remedy, Injections, Dandruff Remedy, Talcum Powder, Cold Remedy, Medicated Stock Foods.

Claims use since Apr. 26, 1901.

Ser. No. 71,622. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY J. NUNES, Tonopah, Nev. Filed July 9, 1913.

THE TWENTIETH CENTURY WONDER



The portrait being that of the applicant and the words "The Twentieth Century Wonder" being disclaimed.

Particular description of goods.—External Remedies for the Treatment of Inflammation, Burns, Ruptures, Rheumatism, Lung Trouble, Pleurisy, Headache, Neuralgia, Bruises, Cuts, Blood-Poison, and Skin Diseases.

Claims use since the 10th day of September, 1912.

Ser. No. 71,647. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ALFALFA FOODS AND MEDICINE COMPANY, Minneapolis, Minn. Filed July 11, 1913.

ALFA-LUSA

Particular description of goods.—Syrup for use in Making Drinks, such as Soda-Water and Other Carbonated Non-Alcoholic Beverages and for such Beverages.

Claims use since about June 15, 1913.

Ser. No. 73,097. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BULL TRACTOR CO., Minneapolis, Minn. Filed Sept. 29, 1913.

BULL

Particular description of goods.—Traction-Engines.

Claims use since the 1st day of September, 1913.

Ser. No. 73,591. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) L. SONNEBORN SONS INC., New York, N. Y. Filed Oct. 24, 1913.

GLORIA

Particular description of goods.—A Mineral Oil Used as a Medicine and as an Essential Ingredient of Medicinal Preparations.

Claims use since about January, 1913.

Ser. No. 74,050. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CECIL BILLUPS, Norfolk, Va. Filed Nov. 18, 1913.

GIRL CHAMPION

Particular description of goods.—Plows. (other than Cultivators and Harrows,) Moldboards, Landsides, Plow-Points, Plow-Beams, and Parts of Plows.

Claims use since and during the year 1876.

Ser. No. 74,791. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SUPERIOR COLOR MANUFACTURING COMPANY, Elkhart, Ind. Filed Dec. 22, 1913.

Sassenhoff's
ODORLESS
BLACK DYE

Applicant makes no claim to the exclusive use of the surname "Sassenhoff's," nor to the descriptive words "Odorless Black Dye."

Particular description of the goods.—Shoe and Leather Dyes.

Claims use since Dec. 5, 1913.

Ser. No. 75,238. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SCHEIDEL-WESTERN X-RAY COIL CO., Chicago, Ill. Filed Jan. 16, 1914.



Particular description of goods.—Autotransformers; Interrupter-Transformers; Portable Coils; Induction-Coils; Foot-Switches; High-Tension Switches; Time-Switches; Interrupters; Rectifiers; Rotary Converters; Rheostats; Resonators; Diaphragms; Plate-Changer Cases; Plate-Protector; Auto Plate-Changers; Rapid Plate-Changers; Electric Lamps; Lead-Lined Boxes; Penetrameters; Tube-Stands; Valve-Tube Clamps; X-Ray-Tube Cases; Lamp-Cases; Rocker-Trays; Tube-Rocks; Intensifying-Screen Holders; Screen Frames and Fluoroscopes; Protection-Screens; Fluoroscopes.

Claims use since July 1, 1913.

Ser. No. 76,026. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE CARBO-COLA COMPANY, Atlanta, Ga. Filed Feb. 19, 1914.

Carbo Cola

Particular description of goods.—A Non-Alcoholic Carbonated Flavored Beverage and Syrup for Making the Same.

Claims use since the 17th of November, 1913.

Ser. No. 76,541. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA STAR MILLING CO., Columbia, Ill. Filed Mar. 11, 1914.

ENERGY

Particular description of goods.—Wheat-Flour.

Claims use since 1896.

Ser. No. 76,909. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD SIMON, Newton, N. J. Filed Mar. 24, 1914.



No claim is made for the exclusive use of the words "Stomach Drops."

Particular description of goods.—Stomach-Drops.

Claims use since Feb. 22, 1914.

Ser. No. 77,135. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) SPRATTS PATENT (AMERICA) LIMITED, London, England, and Newark, N. J. Filed Apr. 1, 1914.

HEARSON'S
CHAMPION

Particular description of goods.—Incubators.

Claims use since Dec. 21, 1891.

Ser. No. 77,560. (CLASS 39. CLOTHING.) MOHAWK OVERALL CO., Detroit, Mich. Filed Apr. 18, 1914.

MOHAWK

Particular description of goods.—Work-Shirts, Jackets, Trousers, and Overalls.

Claims use since May, 1904.

Ser. No. 78,116. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLARA TETTLOW, Philadelphia, Pa. Filed May 7, 1914.

FLEUR de LIS
POWDER

No claim being made for the word "Powder."

Particular description of goods.—A Face-Powder.

Claims use since about Mar. 15, 1906.

Ser. No. 79,449. (CLASS 33. GLASSWARE.) CORNING GLASS WORKS, Corning, N. Y. Filed June 29, 1914.

SPREDLITE

Particular description of goods.—Lamp and Lantern Lenses for Illuminating and Signaling.
Claims use since May 27, 1914.

Ser. No. 79,544. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) RHEINISCHE GUMMI-UND CELLULOID-FABRIK, Mannheim-Neckarau, Germany. Filed July 3, 1914.



Particular description of goods.—Dolls and Other Toys Made of Pyroxylin Compounds, Such as Swans, Ducks, Fishes, Frogs, Bears, Dogs, Cats, Horses, Sheep, Wolves, and Other Animals and Figures.
Claims use since the 9th day of October, 1889.

Ser. No. 79,987. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KONO CEREAL CO., Chicago, Ill. Filed July 22, 1914.



Particular description of goods.—A Cereal Coffee or Substitute for Coffee.
Claims use since Apr. 15, 1914.

Ser. No. 80,340. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SARGENT & COMPANY, New Haven, Conn. Filed Aug. 5, 1914.

SARGENT

Particular description of goods.—Rules, Squares, Levels, Plumbs and Levels, Squares and Bevels, Gages, Try-Squares, Miter-Squares, T-Bevels, Calipers, Dividers, and Compasses.
Claims use since on or about the 30th day of April, 1908.

Ser. No. 80,341. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SARGENT & COMPANY, New Haven, Conn. Filed Aug. 5, 1914.

SARGENT

Particular description of goods.—Planes, Screw-Drivers, "Awls and Tools," Saw-Sets, Carpenters' Pincers, Hoof-Nippers, Vises, Hammers, Hatchets, Axes, Saws, Chisels, Drawing-Knives, Scrapers, Augers, Gimlets, Bits, Pliers, Shears and Scissors, Hair-Clippers, Fetlock-Clippers, and Horse-Clippers.
Claims use since the 30th day of December, 1900.

Ser. No. 80,767. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. G. CUTLER COMPANY, Duluth, Minn. Filed Aug. 24, 1914.

RED

CROWN

Particular description of goods.—Medium Salt.
Claims use since July 20, 1914.

Ser. No. 81,330. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A/S EGRON, Christiania, and Kløften, near Christiania, Norway. Filed Sept. 19, 1914.



The words "A/S Egron" and "Kristiania" being disclaimed.
Particular description of goods.—Dry or Evaporated Milk.
Claims use since September, 1914.

Ser. No. 81,532. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) RADIO-ROUND INCUBATOR CO., Wayne, Nebr. Filed Sept. 28, 1914.



No claim being made to the exclusive use of the word "Round."
Particular description of goods.—Incubator.
Claims use since December, 1913.

Ser. No. 81,811. (CLASS 39. CLOTHING.) CRADDOCK-TERRY COMPANY, Lynchburg, Va., and St. Louis, Mo., Filed Oct. 12, 1914.

Tom Boy

Particular description of goods.—Leather Shoes.
Claims use since Jan. 1, 1911.

Ser. No. 81,946. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SKINNER MFG. CO., Omaha, Nebr. Filed Oct. 16, 1914.

Paul F. Skinner

Consisting of the facsimile of the signature of Mr. Paul F. Skinner, president of the corporation.
Particular description of goods.—Alimentary Paste Products and a Cereal Breakfast Food.
Claims use since June 1, 1912.

Ser. No. 82,041. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SCHUYLER C. UNRUH, Benton Harbor, Mich. Filed Oct. 20, 1914.



Particular description of goods.—A Remedy for Rheumatism.
Claims use since Sept. 15, 1914.

Ser. No. 82,176. (CLASS 17. TOBACCO PRODUCTS.) MACLIN-ZIMMER-McGILL TOBACCO CO., INCORPORATED, Petersburg, Va. Filed Oct. 26, 1914.

Southdown.

Particular description of goods.—Plug, Twist, Cut Plug, Smoking-Tobacco, and Leaf-Tobacco.
Claims use since 1890.

Ser. No. 82,205. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Oct. 27, 1914.

THE TAG MAKERS

Particular description of goods.—Metal Fasteners for Tags, Blank Paper Cards for the Display of Jewelry, Cards for Correspondence, Cards for Presentations, Cards for Congratulations, Cardboard, Adhesive Blank Labels, Blank Paper Seals, Paper Napkins, Paper Handkerchiefs, Envelops, Rubber Bands, Pen-Cases, Tissue-Paper, Crape Paper, and Wrapping-Paper.
Claims use since January, 1906.

Ser. No. 82,407. (CLASS 15. OILS AND GREASES.) PENN OIL AND SUPPLY CO., Pasadena, Cal. Filed Nov. 4, 1914.

Penn-O-Lene

Particular description of goods.—Lubricating Oils and Greases, also Fuel-Oils.
Claims use since Jan. 1, 1910.

Ser. No. 82,478. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE WEIL CORSET CO., New Haven, Conn. Filed Nov. 7, 1914.

Vitex

Particular description of goods.—Abdominal Belts.
Claims use since Sept. 15, 1914.

Ser. No. 82,486. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GUSTAV A. HARTER, Chicago, Ill. Filed Nov. 9, 1914.

NITROLITE

Particular description of goods.—Electric-Light Fixtures.
Claims use since Apr. 22, 1914.

Ser. No. 82,559. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARD O. HARRIS, Mt. Pleasant, Mich. Filed Nov. 13, 1914.

FAMO

Particular description of goods.—Wheat-Flour, Graham Flour, Pancake-Flour, and Cornmeal.
Claims use since Nov. 15, 1902.

Ser. No. 82,622. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEVENSON PACKING COMPANY, Sedalia, Mo. Filed Nov. 16, 1914.

STEVENSON OLIVE BRAND

The word "Brand" is hereby disclaimed. "Stevenson" in the accompanying drawing is hereby disclaimed.
Particular description of goods.—Pork Sausage.
Claims use since the 9th day of November, 1914.

Ser. No. 82,641. (CLASS 38. PRINTS AND PUBLICATIONS.) R. M. FORD & CO., INC., New York, N. Y. Filed Nov. 17, 1914.

EXPORT REGISTER

No claim being made to the word "Export."
Particular description of goods.—A Printed Annual Publication.
Claims use since October, 1913.

Ser. No. 82,651. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WEGELIN & SCHWEIZER, New York, N. Y. Filed Nov. 17, 1914.

ELGGER

Particular description of goods.—Cotton Piece Goods.
Claims use since Oct. 1, 1914.

Ser. No. 82,662. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ANTIPAINOLA COMPANY, Willacoochee, Ga. Filed Nov. 18, 1914.

TRADE ANTI-PAIN-OLA MARK

The words "Trade Mark" not being claimed.
Particular description of goods.—Treating Rheumatism, Neuralgia, Dropsy, Sprains, Colds, Milk-Leg, Toothache, and Headache.
Claims use since the 29th day of October, 1914.

Ser. No. 82,678. (CLASS 5. ADHESIVES.) THOMAS & BISHOP, London, England. Filed Nov. 18, 1914.

PERMAC

Particular description of goods.—Cement for Packing or Jointing Metallic Joints.
Claims use since the 14th day of April, 1913.

Ser. No. 82,784. (CLASS 39. CLOTHING.) JOSEPH GOLDBERG, Philadelphia, Pa. Filed Nov. 23, 1914.



Particular description of goods.—Combination Outer and Under Garments.
Claims use since Oct. 1, 1914.

Ser. No. 82,949. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) THE BRUSH-McCOY POTTERY COMPANY, Zanesville, Ohio. Filed Nov. 28, 1914.

M-i-t-u-s-a

Particular description of goods.—China Bowls, Platters, Plates, Cups, Saucers, Vases, Ewers, Pots, and Earthenware Bowls, (Except Closet-Bowls,) Cuspidors or Spittoons, Culinary Utensils, Dishes, Basins, Funnels, Hearths, Jars, Jugs, Mugs, Plates, Platters, Pots, Vases, Combinettes, Chambers, Jardinières, Pedestals, Umbrella-Stands, and Towel-Urns.
Claims use since Nov. 14, 1914.

Ser. No. 83,002. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) READING HEATER & SUPPLY CO., Reading, Pa. Filed Dec. 1, 1914.

SIMPLEX

Particular description of goods.—Hot-Water Tanks and Automatic Valves for Heating Systems.
Claims use since Sept. 1, 1914.

Ser. No. 83,057. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WHETZEL, BILLUPS AND PICKRELL, Colfax, Wash. Filed Dec. 3, 1914.



Particular description of goods.—A Compound for Treatment of Dandruff and Eczema and for Use as a Hair Tonic.
Claims use since Jan. 1, 1914.

Ser. No. 83,096. (CLASS 39. CLOTHING.) I. & M. PHILLIPS, New York, N. Y. Filed Dec. 5, 1914.



Particular description of goods.—Misses' Outer Suits and Coats.
Claims use since Nov. 30, 1914.

Ser. No. 83,128. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) QUEEN CITY FLOUR & FEED CO., Cincinnati, Ohio. Filed Dec. 7, 1914.

GOLDEN QUEEN "of the Bake-shop"

Particular description of goods.—Wheat-Flour.
Claims use since June 1, 1914.

Ser. No. 83,135. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) S. N. SAMAHA & BRO., Washington, D. C. Filed Dec. 7, 1914.

OH-MY

Particular description of goods.—Preserved Fruit-Pulp, Jellies, Vinegar, and Mustard.
Claims use since Oct. 1, 1913.

Ser. No. 83,153. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DE VILBISS MANUFACTURING CO., Toledo, Ohio. Filed Dec. 8, 1914.

FLOCO

Particular description of goods.—Surface-Coating Apparatus of a Spray Type.
Claims use since Oct. 13, 1914.

Ser. No. 83,183. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MT. VERNON CREAM CO., Mount Vernon, Wash. Filed Dec. 9, 1914.



Particular description of goods.—Canned Evaporated Milk.
Claims use since Apr. 1, 1906.

Ser. No. 83,188. (CLASS 33. GLASSWARE.) STEUBEN GLASS WORKS, Corning, N. Y. Filed Dec. 9, 1914.

CALCITE

No claim being made to the exclusive use of the word "Calcite."
Particular description of goods.—Illuminating-Glassware.
Claims use since June, 1910.

Ser. No. 83,192. (CLASS 46, FOODS AND INGREDIENTS OF FOODS.) THE J. K. ARMSBY CO., San Francisco, Cal. Filed Dec. 10, 1914.

SUN-KIST

Particular description of goods.—Molasses, Honey, Mince-Meat, Vinegar, Spaghetti, Macaroni, Noodles, Corn-Starch, Gelatin, Pearl-Barley, Farina, Hominy, Canned Oysters, and Flavoring Extracts for Foods.
Claims use since Nov. 16, 1914.

Ser. No. 83,228. (CLASS 39. CLOTHING.) LYNAT, LTD., London, England, and Philadelphia, Pa. Filed Dec. 11, 1914.

Lynat

Particular description of goods.—Adjustable Hat-Linings.
Claims use since Oct. 29, 1914.

Ser. No. 83,274. (CLASS 5. ADHESIVES.) THE B. F. GOODRICH COMPANY, New York, N. Y. Filed Dec. 14, 1914.

JIFFY

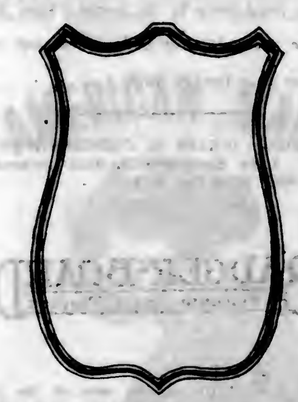
Particular description of goods.—Packages of Rubber Solution for the Repair of Rubber Tires.
Claims use since about the latter half of the year 1895.

Ser. No. 83,309. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL SCHWARZ, Newark, N. J. Filed Dec. 15, 1914.

RIGHT-OUT

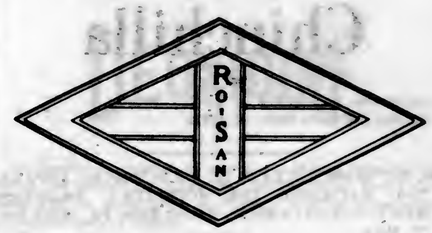
Particular description of goods.—A Preparation for the Treatment of Corns, Bunions, and Warts.
Claims use since Dec. 10, 1914.

Ser. No. 83,338. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN WYETH & BROTHER, INCORPORATED, Philadelphia, Pa. Filed Dec. 16, 1914.



Particular description of goods.—Medicated and Pharmaceutical Tablets, Medicated and Pharmaceutical Triturates, Medicinal and Pharmaceutical Elixirs, Medicinal and Pharmaceutical Syrups, Medicated Wines, Medicated Liquors, Dispensary-Tablets, Hypodermic Tablets, Medicated and Pharmaceutical Lozenges, Ophthalmic Disks, Medicinal Pills, Medicinal Pastils, Medicinal and Pharmaceutical Soluble Powder-Capsules, Medicinal and Pharmaceutical Soluble Globules, Medicinal and Pharmaceutical Soluble Elastic Capsules, Filled, Medicinal and Pharmaceutical Fluid Extracts, Medicinal and Pharmaceutical Tinctures, Medicinal and Pharmaceutical Powdered and Solid Extracts, Medicinal and Pharmaceutical Concentrations and Resinoids, Oleates, Inhalants, Effervescent Salts, Mineral-Water Salts, Glycerols, Ointments, Medicinal Compounds in Liquid, Solid, Granular, Crystalline, Powdered, Viscous, and Spongy Form, Medicinal and Pharmaceutical Mixtures, Serums, Toxins, Vaccines, and Other Analogous Products, Medicinal and Pharmaceutical Herbs, and All Pharmaceuticals and Chemicals Used for Medicinal Purposes.
Claims use since Jan. 1, 1862.

Ser. No. 83,353. (CLASS 32, FURNITURE AND UPHOLSTERY.) ROWE SANITARY MFG. CO., Detroit, Mich. Filed Dec. 17, 1914.



Particular description of goods.—Chemical Closets and Sanitary Washstands.
Claims use since Nov. 30, 1914.

Ser. No. 83,375. (CLASS 46. FOODS AND INGREDIENTS OF FOOD.) ALBERT EHLERS, New York, N. Y. Filed Dec. 18, 1914.

EHLERS

Particular description of goods.—Dry Groceries—Namely, Tea, Coffee, Spices, Flavoring Extracts for Foods, Celery-Salt, Curry-Powder, Paprika, Poultry-Seasoning—viz., Thyme, Sage, and Marjoram—and Tapioca.
Claims use since Dec. 14, 1914.

Ser. No. 83,382. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL BATH POWDER COMPANY, Fort Smith, Ark. Filed Dec. 18, 1914.

"A NATIONAL PRODUCT"



The trade-mark in which the body of the diamond is red and the border-lines yellow. No exclusive claim is made for the words "The Bath Delightful" outside of the environment in the accompanying drawing.
Particular description of goods.—Bath-Powder.
Claims use since Aug. 1, 1914.

Ser. No. 83,440. (CLASS 12. CONSTRUCTION MATERIALS.) HYDRAULIC-PRESS BRICK COMPANY, St. Louis, Mo. Filed Dec. 21, 1914.

Chinchilla

Particular description of goods.—Brick.
Claims use since Sept. 22, 1914.

Ser. No. 83,496. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SHADO-LITE MANUFACTURING COMPANY, Beaver Falls, Pa. Filed Dec. 23, 1914.

SHADO-LITE

Particular description of goods.—Electrical Lighting Means for Motion-Picture and Other Auditoriums.
Claims use since Aug. 10, 1914.

Ser. No. 83,504. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich. Filed Dec. 23, 1914.

ALKABAR.

Particular description of goods.—A Priming or Sizing Coat for Walls and Ceilings.
Claims use since January, 1913.

Ser. No. 83,505. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich. Filed Dec. 23, 1914.

BAR-OX.

Particular description of goods.—Protective Iron and Steel Paints.
Claims use since January, 1912.

Ser. No. 83,616. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) UNITED STATES WIRE MAT COMPANY, Decatur, Ill. Filed Dec. 31, 1914.

SWATMOR

Particular description of goods.—Fly-Killers or Hand Devices for Killing Flies and Other Insects.
Claims use since or about the 1st day of December, 1914.

Ser. No. 83,622. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) L. H. KELLER & COMPANY, New York, N. Y. Filed Jan. 2, 1915.

Tango SAWS No. Brand

No claim being made to the words "Saws No." and "Brand."
Particular description of goods.—Jewelers' Piercing-Saws.
Claims use since Dec. 23, 1914.

Ser. No. 83,623. (CLASS 12. CONSTRUCTION MATERIALS.) JOHN SCHROEDER LUMBER COMPANY, Milwaukee, Wis. Filed Jan. 2, 1915.

BADGER-BOARD
A Wisconsin-Quality Product

Exclusive use of the outline map of the State of Wisconsin and of the words "Board" and "A Wisconsin Quality Product" being disclaimed.
Particular description of goods.—Wall-board.
Claims use since Apr. 1, 1914.

Ser. No. 83,630. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ACME MILLING COMPANY, INC., Talbott, Tenn. Filed Jan. 2, 1915.

FOREST KING

Particular description of goods.—Wheat-Flour.
Claims use since July, 1900.

Ser. No. 83,651. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ADROIT MANUFACTURING CO., Detroit, Mich. Filed Jan. 4, 1915.

ADROIT'S BRAND OF SUPREMACY K L

No claim is made to the words "Adroit's Brand of Supremacy."
Particular description of goods.—Coffee-Grinders.
Claims use since Oct. 1, 1914.

Ser. No. 83,707. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EUGENE M. ATTRIDGE, Binghamton, N. Y. Filed Jan. 7, 1915.

"AMERICAN MAID"



Particular description of goods.—Toilet Water, Sachet-Powder, Toilet Lotion, Face-Powder, Massage-Cream, Liquid Shampoo, Hair-Tonic, and Tooth-Paste.
Claims use since Dec. 1, 1914.

Ser. No. 83,712. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOL MEYER, Indianapolis, Ind. Filed Jan. 7, 1915.

PREVENTUBE

Particular description of goods.—Preparations for the Prevention of Venereal Diseases.
Claims use since Dec. 23, 1914.

Ser. No. 83,716. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN CHEMICAL PAINT COMPANY, Philadelphia, Pa. Filed Jan. 7, 1915.

DEOXIDINE

Particular description of goods.—A Liquid Chemical Solution for Removing Rust and Grease From Metal Surfaces and for Prevention of Further Rusting Preparatory to Application of Paint.
Claims use since Sept. 1, 1914.

Ser. No. 83,722. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Filed Jan. 8, 1915.

RESURGAM

Particular description of goods.—Fertilizers.
Claims use since 1885.

Ser. No. 83,742. (CLASS 32. FURNITURE AND UPHOLSTERY.) WABASH SANI-TRAY CO., Wabash, Ind. Filed Jan. 8, 1915.

Sanitray

Particular description of goods.—High Chairs for Babies.
Claims use since Mar. 5, 1912.

Ser. No. 83,747. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) JACOB B. BLEICHRODE, New York, N. Y. Filed Jan. 9, 1915.

FILTROLA

Said trade-mark consists of the arbitrarily-selected word-symbol "Filtrola."
Particular description of goods.—Coffee-Percolators.
Claims use since Dec. 26, 1914.

Ser. No. 83,749. (CLASS 38. PRINTS AND PUBLICATIONS.) CHAPPLE PUBLISHING COMPANY, Boston, Mass. Filed Jan. 9, 1915.

NATIONAL MAGAZINE

No claim being made to the exclusive use of the word "Magazine."

Particular description of goods.—Monthly Magazines.

Claims use since 1897.

Ser. No. 83,758. (CLASS 15. OILS AND GREASES.) FISKE BROTHERS REFINING CO., New York, N. Y. Filed Jan. 9, 1915.

FISKE'S

The exclusive use of the word "Fiske's" not being claimed.

Particular description of goods.—Lubricating Oils and Greases.

Claims use for the last six years.

Ser. No. 83,762. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) KILLARK ELECTRIC MANUFACTURING CO., St. Louis, Mo. Filed Jan. 9, 1915.

ELECTROLET

Particular description of goods.—Electrical-Conduit Fittings.

Claims use since June, 1911.

Ser. No. 83,792. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EUGENE M. ATTRIDGE, Binghamton, N. Y. Filed Jan. 12, 1915.

"American Maid"



The picture being that of Frances Redding.

Particular description of goods.—Chocolates, Bonbons, Caramels, and Mint, Nut, and Other Candies.

Claims use since Jan. 1, 1915.

Ser. No. 83,794. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) ALBERT D. ROCHAU, Michigan City, Ind. Filed Jan. 12, 1915.

Jiffy

Particular description of goods.—Covering Means for Ironing-Boards.

Claims use since Dec. 1, 1914.

Ser. No. 83,801. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) KING PAINT MFG. CO., New York, N. Y. Filed Jan. 12, 1915.



The exclusive use of the word "Quality" not being claimed.

Particular description of goods.—Prepared Paints, Varnishes, and Enamels.

Claims use since Dec. 28, 1914.

Ser. No. 83,812. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEPHEN FARGO, Cleveland, Ohio. Filed Jan. 13, 1915.

Sozobor



The picture shown being fanciful.

Particular description of goods.—A Remedy for the Treatment of Vaginitis, Leucorrhea, Itching and Inflammation of the Sexual Organs, Ulcers, Wounds, and Inflammatory Conditions of the Nose and Throat.

Claims use since Dec. 10, 1914.

Ser. No. 83,839. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Jan. 13, 1915.

KEWPIE

Particular description of goods.—Cameras.

Claims use since Oct 17, 1914.

Ser. No. 83,855. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) HARDWARE BUYERS ASSOCIATION, Chicago, Ill. Filed Jan. 14, 1915.

BY-LO

Particular description of goods.—Aluminium Ware and Wire Screens.

Claims use since Oct. 14, 1914.

Ser. No. 83,876. (CLASS 15. OILS AND GREASES.) THE HAWKEYE OIL COMPANY, Waterloo, Iowa. Filed Jan. 15, 1915.

RED BALL

Particular description of goods.—Lubricating-Oils and Gasolene.

Claims use since Nov. 1, 1914.

Ser. No. 83,893. (CLASS 32. FURNITURE AND UPHOLSTERY.) BISON FIBRE COMPANY, INC., Buffalo, N. Y. Filed Jan. 16, 1915.



Particular description of goods.—Fiber Chair-Seats.

Claims use since about Apr. 1, 1914.

Ser. No. 83,898. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) E. GODFREE, FELTON & CO., Westminster, England. Filed Jan. 16, 1915.

LIQUEUR SANS NOM

No claim being made to the word "Liqueur" apart from the mark shown in the drawing.

Particular description of goods.—A Liqueur.

Claims use since Nov. 6, 1912.

Ser. No. 83,917. (CLASS 17. TOBACCO PRODUCTS.) WERTHEIMER BROS., Baltimore, Md. Filed Jan. 16, 1915.

EL DALLO

Particular description of goods.—Cigars.

Claims use since January, 1912.

Ser. No. 83,949. (CLASS 48. MALT EXTRACTS AND LIQUORS.) AMERICAN BREWING CO., New Orleans, La. Filed Jan. 19, 1915.



No claim is made to use of the word "Lager" apart from the mark as shown on the drawing.

Particular description of goods.—Lager-Beer.

Claims use since 1906.

Ser. No. 83,958. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS.) L. FRANK SADDLERY CO., San Antonio, Tex. Filed Jan. 19, 1915.

JIM-DANDY

Particular description of goods.—Horse-Collars.

Claims use since July 28, 1913.

Ser. No. 83,981. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL GROCERY COMPANY, Jersey City, N. J. Filed Jan. 20, 1915.

NATIONAL

Particular description of goods.—Baking-Soda, Baking-Powder, Bluing, and Ammonia.

Claims use since September, 1911.

Ser. No. 83,987. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) EDWARD H. WAGNER, New York, N. Y. Filed Jan. 20, 1915.

SIZZERS

Particular description of goods.—Fireworks.
Claims use since July, 1908.

Ser. No. 84,025. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE FAFNIR BEARING COMPANY, New Britain, Conn. Filed Jan. 22, 1915.



Particular description of goods.—Antifriction-Bearings, Antifriction-Bearing Hanger-Boxes, Antifriction Balls, Rollers, Cages, Separators, and Retainers for Antifriction Devices.
Claims use since at least as early as April, 1911.

Ser. No. 84,030. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo. Filed Jan. 22, 1915.

VENOMER

Particular description of goods.—Intravenous Treatment of Syphilis, Pellagra, and Malaria.
Claims use since May 9, 1914.

Ser. No. 84,031. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo. Filed Jan 22, 1915.

VENFERARSEN

Particular description of goods.—Intravenous Treatment of Anemia.
Claims use since Sept. 1, 1914.

Ser. No. 84,032. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo. Filed Jan. 22, 1915.

VENQUININE

Particular description of goods.—Intravenous Treatment of Malaria.
Claims use since Dec. 15, 1914.

Ser. No. 84,037. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CHOJIRO NITTA, Nanba, Minami-Ku, Osaka, Japan. Filed Jan. 22, 1915.



Particular description of goods.—Leather Belting.
Claims use since January, 1886.

Ser. No. 84,045. (CLASS 17. TOBACCO PRODUCTS.) ISIDOR THITELBAUM, Cleveland, Ohio. Filed Jan. 22, 1915.



Particular description of goods.—Cigars.
Claims use since July 23, 1914.

Ser. No. 84,081. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GUNUNG AND MAYER, West Haven, Conn. Filed Jan. 25, 1915.



Particular description of goods.—Anesthetics, Obtundents, and Similar Pharmaceutical Preparations.
Claims use since on or about June 1, 1914.

Ser. No. 84,085. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) INSTANT PRODUCTS CO., Buffalo, N. Y. Filed Jan. 25, 1915.

LIFE-O-WOOD

Particular description of goods.—Polishes for Woodwork, Pianos, Furniture, Automobiles, Polished Surfaces of all Kinds, Linoleum, &c.
Claims use since Dec. 7, 1914.

Ser. No. 84,102. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) IOJI SEKINE, New York, N. Y. Filed Jan. 25, 1915.

SHED-NO

Comprising the words "Shed-No."
Particular description of goods.—Tooth-Brushes.
Claims use since Apr. 2, 1914.

Ser. No. 84,120. (CLASS 37. PAPER AND STATIONERY.) C. H. DEXTER & SONS, INCORPORATED, Windsor Locks, Conn. Filed Jan. 27, 1915. Under ten-year proviso.



Particular description of goods.—Toilet-Paper and Writing, Printing, Manifold, Tissue, and Cover Paper.
Claims use since at least 1859.

Ser. No. 84,138. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE MEASUREGRAPH COMPANY, St. Louis, Mo. Filed Jan. 27, 1915.



Particular description of goods.—Cloth and Fabric Measuring Machines and Parts Thereof.
Claims use since July 15, 1913.

Ser. No. 84,156. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARCLAY & CO., Wilmington, Del., and New York, N. Y. Filed Jan. 28, 1915.

Ermosol

Particular description of goods.—Hair-Tonic.
Claims use since Oct. 2, 1914.

Ser. No. 84,158. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARCLAY & CO., Wilmington, Del., and New York, N. Y. Filed Jan. 28, 1915.



The trade-mark is printed in black upon a pink background.
Particular description of goods.—Hair-Tonic, Face-Cream, Liniments, Blood-Purifier, Hair-Dyes, Talcum Powder, Dentifrice, and Floral Extracts.
Claims use since Oct. 2, 1914.

Ser. No. 84,168. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) C. CONRADTY, Nuremberg, Germany. Filed Jan. 28, 1915.

Pjo

The trade-mark consists of the word "Pjo."
Particular description of goods.—Electrical and galvanic carbons.
Claims use since July 18, 1914.

Ser. No. 84,174. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HOLLISTON MILLS, Norwood, Mass. Filed Jan. 28, 1915.

RECORD BUCKRAM

Comprising the words "Record Buckram," the exclusive use of the word "Buckram" not being claimed.
Particular description of goods.—Sized, Stiffened, and Finished Cloth for Binding Printed Books.
Claims use since Jan. 1, 1915.

Ser. No. 84,177. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE LOWE MANUFACTURING COMPANY, Enderlin, N. D. Filed Jan. 28, 1915.

WAGNER W & L LOWE

Particular description of goods.—Hoof-Nippers.
Claims use since about Dec. 1, 1914.

Ser. No. 84,179. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RECKITTS (U. S. A.) LTD., New York, N. Y., and New Brunswick, N. J. Filed Jan. 28, 1915.

WASHLET

Particular description of goods.—Blue and Laundry Articles Containing Blue.
Claims use since Nov. 16, 1914.

Ser. No. 84,188. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN J. BOCKAR, New York, N. Y. Filed Jan. 29, 1915.

RHEUMATOGEN

Particular description of goods.—A Remedy for Rheumatism put up in Powder, Liquid, Tablet, Capsule, Wafer, and Pill Form.
Claims use since February, 1914.

Ser. No. 84,189. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) BURTON POWDER COMPANY, Pittsburgh, Pa. Filed Jan. 29, 1915.



Particular description of goods.—Permissive Explosives.
Claims use since Jan. 20, 1915.

Ser. No. 84,200. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LASHNEEN COMPANY, Philadelphia, Pa. Filed Jan. 29, 1915.

LASHNEEN

The trade-mark which consists of the word "Lashneen."
Particular description of goods.—A Cosmetic for Effecting the Growth of Thick and Long Eyelashes and Eyebrows.
Claims use since about Oct. 1, 1914.

Ser. No. 84,202. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS H. PINCO, New York, N. Y. Filed Jan. 29, 1915.

CHEWLAXAGUM

Particular description of goods.—A Laxative Gum.
Claims use since Aug. 1, 1914.

Ser. No. 84,217. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FLASH CHEMICAL COMPANY, Boston, Mass. Filed Jan. 30, 1915.

CAMFO-CEDAR

Particular description of goods.—A Bug and Insect Exterminator.
Claims use since 1910.

Ser. No. 84,225. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Jan. 30, 1915.



Particular description of goods.—Beer.
Claims use since Jan. 14, 1915.

Ser. No. 84,228. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HANI A. ROSENBERG, New York, N. Y. Filed Jan. 30, 1915.

QUEEN CLEOPATRA



Particular description of goods.—Hair-Tonic, Hair-Restorer, and Hair-Pomade.
Claims use since Nov. 1, 1914.

Ser. No. 84,234. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BLOCTON CAHABA COAL CO., Piper, Ala. Filed Feb. 1, 1915.

COLEANOR

Particular description of goods.—Coal.
Claims use since the latter part of the year 1900.

Ser. No. 84,261. (CLASS 15. OILS AND GREASES.) DILSIZIAN BROS., New York, N. Y. Filed Feb. 2, 1915.



Particular description of goods.—Refined Petroleum.
Claims use since ten years.

Ser. No. 84,296. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. ELLIOTT COFFEE CO., Newville, Pa. Filed Feb. 4, 1915.

Top Notch

Particular description of goods.—Coffee.
Claims use since about April, 1912.

Ser. No. 84,319. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES BOROMEO SPIES, New York, N. Y. Filed Feb. 5, 1915.

ELYSIAN

Particular description of goods.—Scalp-Tonic, Skin-Cream, Skin-Powder, Perfumes, Smelling-Salts, Brilliantine, Dental Tincture, Liquid Shampoo-Soap, Sachet-Powder, Dental Paste, and Dental Powder.
Claims use since Jan. 7, 1914.

Ser. No. 84,330. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UNITED DISTRIBUTING COMPANIES, Chicago, Ill. Filed Feb. 5, 1915.

"LITTLE WITCH"



Particular description of goods.—Vacuum-Cleaners.
Claims use since Jan. 23, 1915.

Ser. No. 84,345. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) STONEWALL DISTILLING COMPANY, Richmond, Va. Filed Feb. 6, 1915.

Stonewall

Particular description of goods.—Rye Whisky.
Claims use since September, 1914.

Ser. No. 84,356. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) CONSOLIDATED FIREWORKS COMPANY OF AMERICA, New York, N. Y. Filed Feb. 8, 1915.



Particular description of goods.—Fireworks.
Claims use since May 26, 1914.

Ser. No. 84,379. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) NORTHRUP, KING & Co., Minneapolis, Minn. Filed Feb. 8, 1915.



Particular description of goods.—Seeds.
Claims use since Dec. 15, 1914.

Ser. No. 84,391. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE R. L. WATKINS COMPANY, Cleveland, Ohio. Filed Feb. 8, 1915.

MULSIFIED

Particular description of goods.—A Liquid Shampoo.
Claims use since June 15, 1914.

Ser. No. 84,395. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GEORGE A. BANCROFT, Natick, Mass. Filed Feb. 9, 1915.

Psycho

Particular description of goods.—Carbonated Non-Alcoholic Beverages.
Claims use since July, 1913.

Ser. No. 84,397. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BU KOLA TABLET CO., Portland, Oreg. Filed Feb. 9, 1915.



Particular description of goods.—A Remedy for Nerves, Bladder, and Kidneys.
Claims use since November, 1909.

Ser. No. 84,403. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MRS. L. W. JAMES, State Line, Miss. Filed Feb. 9, 1915.

THALIA

Particular description of goods.—A Remedy for Pimples, Black-Heads, Sun-Tan, Sun-Freckles, Making the Skin Like Velvet, and Keeping the Face and Hands from Chapping.
Claims use since Jan. 6, 1915.

Ser. No. 84,407. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. H. METZGER MANUFACTURING COMPANY, Quincy, Ill. Filed Feb. 9, 1915.

Liccil

Particular description of goods.—Pharmaceutical Preparation for Destroying Vermin, &c.
Claims use since Aug. 10, 1906.

Ser. No. 84,414. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE F. SMITH, Washington, Pa. Filed Feb. 9, 1915.

GINGEROLE

Particular description of goods.—A Remedy for Colds in Chest, Sore Joints and Muscles, Pneumonia, Neuralgia, Pleurisy, Rheumatism, Croup, and Asthma.
Claims use since Sept. 27, 1912.

Ser. No. 84,425. (CLASS 39. CLOTHING.) JAMES H. DUNHAM & Co., New York, N. Y. Filed February 10, 1915.

WEST END

Comprising the words "West End."
Particular description of goods.—Kid Gloves.
Claims use since 1895.

Ser. No. 84,446. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CORNELIUS C. BALASSA, New York, N. Y. Filed Feb. 11, 1915.

FIVE-IN-ONE

Particular description of goods.—Safety Fuse-Plugs and Cartridges.
Claims use since or about Dec. 15, 1914.

Ser. No. 84,458. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE KIL-TONE COMPANY, Newark, N. J. Filed Feb. 11, 1915.



Particular description of goods.—Plant Spraying and Powdering Preparation.
Claims use since Jan. 11, 1915.

Ser. No. 84,468. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SCRANTON LACE COMPANY, Scranton, Pa. Filed Feb. 11, 1915.



No claim is made to the words "Scranton Lace" apart from the mark shown in the drawing, (the picture shown being the portrait of Runa Swenson.)
Particular description of goods.—Curtains and Draperies.
Claims use since Mar. 29, 1913.

Ser. No. 84,470. (CLASS 17. TOBACCO PRODUCTS.) JOHN H. WETZEL, Milwaukee, Wis. Filed Feb. 11, 1915.

Rare-Bit

Particular description of goods.—Cigars.
Claims use since June 20, 1914.

Ser. No. 84,472. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WOOD-BEAZLEY SEED CO., Springfield, Mo. Filed Feb. 11, 1915.

SEEGRO BRAND

The word "Brand" not being claimed.
Particular description of goods.—Varieties of Seeds—Namely, Alfalfa, Clover, Timothy, Blue-Grass, Red-Top Orchard-Grass, and Millet.
Claims use since Dec. 15, 1914.

Ser. No. 84,539. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GEBRUDER SIEMENS & COMPANY, Berlin-Lichtenberg, Germany. Filed Feb. 15, 1915.



Particular description of goods.—Alcohol-Measuring Apparatus and Condenser Water-Meters.
Claims use since about June 1, 1913.

Ser. No. 84,562. (CLASS 39. CLOTHING.) PAULINE LIEBERMAN, New York, N. Y. Filed Feb. 17, 1915.



Particular description of goods.—Ladies' Hats.
Claims use since October, 1907.

Ser. No. 84,597. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE BAVARIAN BREWING COMPANY, Wilmington, Del. Filed Feb. 18, 1915.



Which consists of a green background and superposed in red thereupon the word "Luxburger."

Particular description of goods.—Malt Beverages.

Claims use since the 1st day of February, 1915.

Ser. No. 84,649. (CLASS 39. CLOTHING.) DURHAM HOSIERY MILLS, Durham, N. C. Filed Feb. 20, 1915.



Particular description of goods.—Hosiery.

Claims use since Jan. 1, 1914.

Ser. No. 84,663. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE KRANTZ BREWING CO., Findlay, Ohio. Filed Feb. 20, 1915.

SAFETY FIRST

Particular description of goods.—Beer.

Claims use since Oct. 1, 1914.

Ser. No. 84,714. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMOS STEWART, Los Angeles, Cal. Filed Feb. 23, 1915.



The portrait shown being that of Amos Stewart, the applicant.

Particular description of goods.—Remedy for Rheumatism, Lumbago, and Kidney Trouble.

Claims use since Feb. 10, 1915.

Ser. No. 84,776. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SUMTER ELECTRICAL COMPANY, Sumter, S. C. Filed Feb. 25, 1915.

DIXIE

Particular description of goods.—Magnetos.

Claims use since Dec. 1, 1913.

Ser. No. 84,780. (CLASS 39. CLOTHING.) J. & M. COHN, New York, N. Y. Filed Feb. 26, 1915.

FLARO

Particular description of goods.—Collars.

Claims use since Jan. 5, 1915.

Ser. No. 84,799. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WIRT COMPANY, Portland, Me., and Philadelphia, Pa. Filed Feb. 26, 1915.



The trade-mark consisting of the representation of an owl, no claim being made to features other than said owl illustrated in said drawing.

Particular description of goods.—Regulable Electric-Lighting Apparatus, Dimmers for Electric-Light Fixtures.

Claims use since on or about Jan. 15, 1915.

Ser. No. 84,800. (CLASS 39. CLOTHING.) HUB HOSIERY MILLS, Boston, Mass. Filed Feb. 26, 1915.

Q-P

Particular description of goods.—Infants' Hose.

Claims use since about July 1, 1914.

Ser. No. 84,817. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MAXWELL-RAY COMPANY, Milwaukee, Wis. Filed Feb. 27, 1915.



Particular description of goods.—Electric Lamps, Electric-Lamp Stands, Electric-Light Fixtures, and Electric-Light Brackets.

Claims use since January, 1914.

Ser. No. 84,870. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SUMTER ELECTRICAL COMPANY, Sumter, S. C. Filed Mar. 1, 1915.

DIXIE

Particular description of goods.—Magnetos.

Claims use since Dec. 1, 1913.

TRADE-MARK REGISTRATIONS GRANTED

MARCH 23, 1915.

103,194. SOLES AND HEELS OF SHOES. A & A RUBBER COMPANY, South Framingham, Mass.
Filed September 24, 1914. Serial No. 81,458. PUBLISHED NOVEMBER 24, 1914.

103,195. LIQUID CEMENT. ANNA BRANDRISS, New York, N. Y.
Filed May 18, 1914. Serial No. 78,344. PUBLISHED JANUARY 12, 1915.

103,196. IRONING-MACHINES, WASHING-MACHINES, IRONING-BOARDS, TUBS, WRINGERS. CHICAGO DRYER COMPANY, Chicago, Ill.
Filed July 31, 1914. Serial No. 80,199. PUBLISHED JANUARY 5, 1915.

103,197. WHEAT-FLOUR. CHIPPEWA MILLING COMPANY, Montevideo, Minn.
Filed October 15, 1914. Serial No. 81,893. PUBLISHED DECEMBER 22, 1914.

103,198. CARPET-SWEEPERS AND VACUUM-CLEANERS. CLEMENTS MFG. CO., Chicago, Ill.
Filed November 27, 1914. Serial No. 82,927. PUBLISHED DECEMBER 22, 1914.

103,199. FERTILIZERS. COLUMBIA GUANO CO., Norfolk, Va.
Filed November 19, 1914. Serial No. 82,687. PUBLISHED JANUARY 12, 1915.

103,200. NON-ALCOHOLIC HAIR-DRESSING. ELMER H. CONWAY, New York, N. Y.
Filed November 12, 1914. Serial No. 82,536. PUBLISHED JANUARY 5, 1915.

103,201. WATER-CLOSET TOILET-BOWLS. CRONK-SALTER COMPANY, New York, N. Y.
Filed November 30, 1914. Serial No. 82,972. PUBLISHED JANUARY 12, 1915.

103,202. PUMP-ROD COUPLINGS. EDWARD E. JOHNSON, St. Paul, Minn.
Filed November 16, 1914. Serial No. 82,621. PUBLISHED JANUARY 5, 1915.

103,203. CERTAIN NAMED ELECTRICALLY-HEATED VESSELS. LANDERS, FRARY & CLARK, New Britain, Conn.
Filed November 27, 1914. Serial No. 82,939. PUBLISHED JANUARY 5, 1915.

103,204. ENAMELS. THE PATTERSON-SARGENT COMPANY, Cleveland, Ohio.
Filed January 8, 1912. Serial No. 60,687. PUBLISHED JANUARY 12, 1915.

103,205. STOCK FOOD. ED B. PLUMMER, Little Rock, Ark.
Filed November 21, 1912. Serial No. 67,039. PUBLISHED JANUARY 5, 1915.

103,206. STEEL BLOCKS AND BARS, FORGED PIECES FOR MACHINES, ARTISANS' TOOLS, CUTTING-TOOLS, AND SPRINGS. POLDIHÜTTE TIEGELGUSSSTAHLFABRIK, Vienna and Kladno, Austria-Hungary.
Filed August 7, 1914. Serial No. 80,385. PUBLISHED JANUARY 12, 1915.

103,207. KNITTED WASHCLOTHS AND TOWELS. PUTNAM KNITTING COMPANY, Cohoes, N. Y.
Filed April 13, 1914. Serial No. 77,450. PUBLISHED JANUARY 12, 1915.

103,208. MILK AND CREAM. SHEFFIELD FARMS-SLAWSON-DECKER COMPANY, New York, N. Y.
Filed October 9, 1914. Serial No. 81,775. PUBLISHED JANUARY 5, 1915.

103,209. [WITHDRAWN.]

103,210. SALVE. JOSEPH W. STOLBA, Cedar Rapids, Iowa.
Filed November 13, 1914. Serial No. 82,578. PUBLISHED JANUARY 5, 1915.

103,211. ALL KINDS AND SIZES OF FILES, INCLUDING SWISS, AMERICAN, PLATINUM, AND RUBBER FILES. TACONY FILE AND HARDWARE COMPANY, Philadelphia, Pa.
Filed July 21, 1914. Serial No. 79,974. PUBLISHED JANUARY 12, 1915.

103,212. FLAT STEEL SHEETS. THE TRUMBULL STEEL COMPANY, Warren, Ohio.
Filed October 7, 1914. Serial No. 81,732. PUBLISHED DECEMBER 8, 1914.

103,213. FORMED STEEL ROOFING. THE TRUMBULL STEEL COMPANY, Warren, Ohio.
Filed December 9, 1914. Serial No. 83,190. PUBLISHED JANUARY 12, 1915.

103,214. FERTILIZERS. AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.
Filed July 9, 1914. Serial No. 79,654. PUBLISHED OCTOBER 13, 1914.

103,215. CHEMICALS AND PREPARATIONS AND COMPOUNDS THEREOF USED IN PHOTOGRAPHIC PROCESSES. ANSCO COMPANY, Binghamton, N. Y.
Filed October 24, 1914. Serial No. 82,114. PUBLISHED JANUARY 5, 1915.

103,216. CANNED CORN AND SUCCOTASH. H. C. BAXTER & BRO., Brunswick, Me.
Filed April 11, 1914. Serial No. 77,405. PUBLISHED DECEMBER 29, 1914.

103,217. BITUMINOUS CEMENT, BITUMINOUS PAVING-CEMENT, AND FILLERS FOR CEMENT. C. G. BETTS COMPANY, Spokane, Wash.
Filed July 29, 1914. Serial No. 80,146. PUBLISHED DECEMBER 22, 1914.

103,218. HOLLOW ALUMINUM AND ENAMELED METAL WARE. GEO. BORGFELDT & CO., New York, N. Y.
Filed November 10, 1914. Serial No. 82,510. PUBLISHED DECEMBER 29, 1914.

103,219. HOLLOW ALUMINUM AND ENAMELED METAL WARE. GEO. BORGFELDT & CO., New York, N. Y.
Filed November 10, 1914. Serial No. 82,512. PUBLISHED DECEMBER 29, 1914.

103,220. GLOVES. BUSBY GLOVE CO., Oakland, Cal.
Filed November 23, 1914. Serial No. 82,773. PUBLISHED JANUARY 5, 1915.

103,221. GLOVES. BUSBY GLOVE CO., Oakland, Cal.
Filed November 23, 1914. Serial No. 82,774. PUBLISHED DECEMBER 29, 1914.

103,222. GLOVES. BUSBY GLOVE CO., Oakland, Cal.
Filed November 23, 1914. Serial No. 82,775. PUBLISHED DECEMBER 29, 1914.

103,223. HOSIERY. CAROLINA MILLS CO., Winston-Salem, N. C.
Filed November 6, 1914. Serial No. 82,439. PUBLISHED JANUARY 12, 1915.

103,224. BOOTS, SHOES, SLIPPERS, AND RUBBERS. CLAUSON SHOE CO., Rutland, Vt.
Filed November 23, 1914. Serial No. 82,779. PUBLISHED JANUARY 12, 1915.

103,225. CANNED SALMON. COAST FISH COMPANY, Anacortes, Wash.
Filed November 3, 1913. Serial No. 73,750. PUBLISHED FEBRUARY 10, 1914.

103,226. WRITING AND DRAWING PENCILS OF ALL KINDS. H. S. CROCKER COMPANY, San Francisco, Cal.
Filed December 12, 1914. Serial No. 83,240. PUBLISHED JANUARY 12, 1915.

103,227. LIQUID PREPARATION USED AS A SUBSTITUTE FOR SHAVING-SOAP. DE JOIONY SHAVING MIST CO., San Francisco, Cal.
Filed August 31, 1914. Serial No. 80,900. PUBLISHED DECEMBER 29, 1914.

103,228. OLEOMARGARIN. JAMES T. DOWNEY COMPANY, Chicago, Ill.
Filed September 28, 1914. Serial No. 81,513. PUBLISHED JANUARY 5, 1915.

103,229. SELF-RISING WHEAT-FLOUR. THE DUNLOP MILLING CO., Clarksville, Tenn.
Filed February 24, 1914. Serial No. 76,104. PUBLISHED MAY 19, 1914.

103,230. BREAD. GENERAL BAKING COMPANY, New York, N. Y.
Filed October 5, 1914. Serial No. 81,661. PUBLISHED JANUARY 5, 1915.

103,231. SOFT DRINKS AND SYRUP AND FLAVORING EXTRACT FOR SOFT DRINKS. HARRIS GLICKMAN, New York, N. Y.
Filed November 3, 1914. Serial No. 82,374. PUBLISHED JANUARY 12, 1915.

103,232. GLOVE AND SHOE LEATHER AND ALL LEATHER MANUFACTURED BY SAID CORPORATION. GLOVERSVILLE LEATHER MANUFACTURING CORPORATION, Gloversville, N. Y.
Filed July 23, 1914. Serial No. 80,005. PUBLISHED DECEMBER 29, 1914.

103,233. METALLIC PENS, FILE-SIGNALS, INDEX-TABS, PAPER-CLIPS, AND ENVELOPS. GEORGE B. GRAFF COMPANY, Boston, Mass.
Filed November 16, 1914. Serial No. 82,617. PUBLISHED JANUARY 12, 1915.

103,234. SINGLE-DECK COILED-WIRE SPRING-MATTRESSES. GRAND RAPIDS BEDDING COMPANY, Grand Rapids, Mich.
Filed June 9, 1914. Serial No. 78,923. PUBLISHED DECEMBER 22, 1914.

103,235. DOUBLE-DECK COILED-WIRE SPRING-MATTRESSES. GRAND RAPIDS BEDDING COMPANY, Grand Rapids, Mich.
Filed June 9, 1914. Serial No. 78,924. PUBLISHED DECEMBER 22, 1914.

103,236. COILED-WIRE SPRING-MATTRESSES. GRAND RAPIDS BEDDING COMPANY, Grand Rapids, Mich.
Filed June 9, 1914. Serial No. 78,925. PUBLISHED DECEMBER 22, 1914.

103,237. NUTS, NUT-MEATS, HONEY, GELATIN, PEANUT-BUTTER, POPPY-SEED, CARAWAY-SEED, EGG-ALBUMEN, COCOANUT. HABICHT, BRAUN & CO., New York, N. Y.
Filed August 10, 1914. Serial No. 80,486. PUBLISHED JANUARY 5, 1915.

103,238. WASHING-MACHINES. PAUL OSCAR HAGEN, Brooklyn, N. Y.
Filed November 14, 1913. Serial No. 73,982. PUBLISHED OCTOBER 13, 1914.

103,239. REFRIGERATING APPARATUS. THE ICELESS REFRIGERATION COMPANY, Cleveland, Ohio.
Filed August 4, 1914. Serial No. 80,298. PUBLISHED JANUARY 12, 1915.

103,240. CANNED VEGETABLES. INDERRIEDEN CANNING CO., Chicago, Ill.
Filed January 21, 1914. Serial No. 75,334. PUBLISHED OCTOBER 6, 1914.

103,241. MEDICINAL PREPARATIONS USED IN THE TREATMENT OF THE UPPER AIR-PASSAGES. DR. LEONHARDT CO., Buffalo, N. Y.
Filed November 30, 1914. Serial No. 82,979. PUBLISHED DECEMBER 29, 1914.

103,242. ABSORBENT COTTON, ABSORBENT GAUZE, BANDAGES, BANDAGE-ROLLS, AND SURGICAL WADDING. LEWIS MANUFACTURING COMPANY, Walpole, Mass.
Filed July 6, 1914. Serial No. 79,575. PUBLISHED DECEMBER 29, 1914.

103,243. STRINGS FOR MUSICAL INSTRUMENTS. LYON & HEALY, Chicago, Ill.
Filed November 23, 1914. Serial No. 82,788. PUBLISHED DECEMBER 22, 1914.

103,244. WASHING-POWDER. JOHN MACPHERSON, New York, N. Y.
Filed March 15, 1913. Serial No. 69,055. PUBLISHED MAY 19, 1914.

103,245. LAXATIVES. MISSION CHEMICAL COMPANY, Los Angeles, Cal.
Filed November 23, 1914. Serial No. 82,790. PUBLISHED DECEMBER 29, 1914.

103,246. CERTAIN NAMED ARTICLES MADE OF OR PLATED WITH PRECIOUS METALS. MONTGOMERY WARD & CO. INC., New York and Brooklyn, N. Y.; Chicago, Ill.; Fort Worth, Tex.; Kansas City, Mo., and Portland, Oreg.
Filed February 28, 1914. Serial No. 76,249. PUBLISHED JANUARY 12, 1915.

103,247. CERTAIN COMPOUND FOR COVERING AND REPAIRING ROOFS. THE NATIONAL REFINING COMPANY, Cleveland, Ohio.
Filed June 18, 1914. Serial No. 79,195. PUBLISHED OCTOBER 6, 1914.

103,248. MOTION-PICTURES. PARAMOUNT PICTURES CORPORATION, New York, N. Y.
Filed December 3, 1914. Serial No. 83,049. PUBLISHED JANUARY 12, 1915.

103,249. ARTISTS' COLORS OF ALL KINDS. H. SCHMINCKE & Co., Dusseldorf-Grafenberg, Germany.
Filed May 26, 1914. Serial No. 78,564. PUBLISHED JANUARY 12, 1915.

103,250. OIL AND WATER COLORS, PAINTERS' OILS, AND VARNISHES. H. SCHMINCKE & Co., Dusseldorf-Grafenberg, Germany.
Filed May 26, 1914. Serial No. 78,565. PUBLISHED JANUARY 12, 1915.

103,251. MACHINE FOR POLISHING, WAXING, SCRUBBING, AND GRINDING FLOORS, AND PARTS THEREOF. VACUNA SALES CO., New York, N. Y.
Filed October 2, 1914. Serial No. 81,612. PUBLISHED JANUARY 12, 1915.

103,252. HATS, CAPS, GLOVES, MITTENS, AND SWEATER-COATS. WESTERN HAT & MANUFACTURING COMPANY, Milwaukee, Wis.
Filed August 8, 1912. Serial No. 65,149. PUBLISHED JANUARY 12, 1915.

103,253. CERTAIN NAMED MUSICAL INSTRUMENTS AND PARTS THEREOF. SAMUEL BUEGELEISEN, New York, N. Y.
Filed September 12, 1913. Serial No. 72,804. PUBLISHED NOVEMBER 24, 1914.

103,254. CLOTHES-WASHING MACHINES. CAPITAL ELECTRIC COMPANY, Chicago, Ill.
Filed August 17, 1914. Serial No. 80,600. PUBLISHED JANUARY 12, 1915.

103,255. SPARK-PLUGS. CHAMPION IGNITION CO., Flint, Mich.
Filed December 8, 1914. Serial No. 83,152. PUBLISHED JANUARY 12, 1915.

103,256. BEER. CLAUSEN-FLANAGAN BREWERY, New York, N. Y.
Filed July 5, 1913. Serial No. 71,530. PUBLISHED AUGUST 4, 1914.

103,257. REMEDY FOR RHEUMATISM. JACOB COHEN, Troy, N. Y.
Filed December 2, 1914. Serial No. 83,014. PUBLISHED JANUARY 12, 1915.

103,258. TOILET WATER. LUCIENNE CECILE DARBOUR, Cleveland, Ohio.
Filed November 27, 1914. Serial No. 82,931. PUBLISHED JANUARY 12, 1915.

103,259. LIQUID FURNITURE-POLISH. THE DE PREE CHEMICAL COMPANY, Holland, Mich.
Filed July 10, 1913. Serial No. 71,631. PUBLISHED JANUARY 12, 1915.

103,260. WHEAT-FLOUR. ELLSWORTH MILL & ELEVATOR COMPANY, Ellsworth, Kans.
Filed August 8, 1914. Serial No. 80,396. PUBLISHED DECEMBER 22, 1914.

103,261. HATS. THE FAIR, Chicago, Ill.
Filed June 4, 1914. Serial No. 78,796. PUBLISHED NOVEMBER 24, 1914.

103,262. YELLOW DENT CORN. FARMER SEED & NURSERY CO., Faribault, Minn.
Filed December 1, 1913. Serial No. 74,285. PUBLISHED JANUARY 12, 1915.

103,263. RUBBER VEHICLE-TIRES. THE FISK RUBBER COMPANY, Chicopee Falls, Mass.
Filed October 21, 1914. Serial No. 82,058. PUBLISHED DECEMBER 1, 1914.

103,264. FRESH VEGETABLES — NAMELY, BEANS, POTATOES, CABBAGES, AND ONIONS. THE GREELEY MERCANTILE CO., Greeley, Colo.
Filed August 5, 1913. Serial No. 72,167. PUBLISHED DECEMBER 1, 1914.

103,265. EGGS. HARMONY CREAMERY COMPANY, Pittsburgh, Pa.
Filed September 19, 1914. Serial No. 81,838. PUBLISHED NOVEMBER 24, 1914.

103,266. ELECTRIC SIGNAL-LAMPS. INTERNATIONAL SIGNAL COMPANY, Chicago, Ill.
Filed June 1, 1914. Serial No. 78,699. PUBLISHED OCTOBER 20, 1914.

103,267. FACE-POWDER, MASSAGE-CREAM, COLD-CREAM, ROUGE, AND HAIR-RESTORER. ELWY MACGILVRAY, Tacoma, Wash.
Filed August 27, 1914. Serial No. 80,847. PUBLISHED JANUARY 12, 1915.

103,268. PREPARATIONS FOR TREATING CERTAIN NAMED AFFECTIONS. LUCINDA JANE MONTGOMERY, Micanopy, Fla.
Filed November 23, 1914. Serial No. 82,789. PUBLISHED JANUARY 12, 1915.

103,269. ELECTRIC BATTERIES. NATIONAL CARBON COMPANY, Cleveland, Ohio.
Filed December 9, 1914. Serial No. 83,184. PUBLISHED JANUARY 12, 1915.

103,270. GAS-LAMPS, GAS ILLUMINATING-FIXTURES, GAS-VALVES, AND BUOY-LANTERNS. EDUARD SCHROEDER LAMP WORKS, Jersey City, N. J.
Filed December 3, 1912. Serial No. 67,214. PUBLISHED JANUARY 12, 1915.

103,271. CERTAIN NAMED FOODS. SPOKANE VALLEY ORCHARD & LAND COMPANY, Spokane Bridge, Wash.
Filed January 10, 1913. Serial No. 67,826. PUBLISHED MAY 27, 1913.

103,272. SHADES, MADE OF GLASS, FOR LIGHTING PURPOSES. BORGFELDT TOMBY, New York, N. Y.
Filed June 11, 1914. Serial No. 78,994. PUBLISHED JANUARY 12, 1915.

103,273. RODENT-TRAPS. JACOB MILO WOLFE, Lathrop, Cal.
Filed October 28, 1914. Serial No. 82,244. PUBLISHED DECEMBER 29, 1914.

TRADE-MARK REGISTRATIONS RENEWED.

12,018. DRESS-SHIELDS. THE CANFIELD RUBBER COMPANY, Middletown, Conn.; Canfield Rubber Company, successor.
Registered March 17, 1885. Renewed March 17, 1915.

12,029. VALVES AND HYDRANTS. CHAPMAN VALVE MANUFACTURING COMPANY, Indian Orchard and Boston, Mass.; The Chapman Valve Manufacturing Company, successor.
Registered March 17, 1885. Renewed March 17, 1915.

12,227. METALLIC PENS. THE ESTERBROOK STEEL PEN M'F'G. COMPANY, Camden, N. J.
Registered May 12, 1885. Renewed May 12, 1915.

12,228. METALLIC PENS. THE ESTERBROOK STEEL PEN M'F'G. COMPANY, Camden, N. J.
Registered May 12, 1885. Renewed May 12, 1915.

12,324. WHEAT-FLOUR. FISHER & WISE, Boston, Mass.; F. W. Wise & Co., successors.
Registered June 16, 1885. Renewed June 16, 1915.

LABELS

REGISTERED MARCH 23, 1915.

18,313. *Title:* "THE BERGMANN GUARANTEED WATER PROOF SHOE OIL." (For Shoe-Oil.) W. C. MAYNARD AND COMPANY, Newport, Oreg. Filed January 4, 1915.

18,314. *Title:* "MUENCHENER KIND'L BRÄU." (For Beer.) REGENFUSS BREWING CO., Kaukauna, Wis. Filed February 15, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

MCKENZIE v. GARRETT.

Decided January 22, 1914.

1. INTERFERENCE—PRIORITY—RES ADJUDICATA.

Where the parties now owning the McKenzie application are the same as the parties owning the Davis application and the question of priority between McKenzie and Garrett could have been tried at the same time as the question of priority between Davis and Garrett, *Held* that the question of priority between McKenzie and Garrett is *res adjudicata* in view of the decision in *Davis* v. *Garrett*.

2. SAME—SAME—BILL IN EQUITY UNDER SECTION 4915, REVISED STATUTES—SUCCESSFUL PARTY BEFORE COURT OF APPEALS ENTITLED TO A PATENT.

Where an interference has been declared and the question of priority has been decided by the court of appeals and the defeated party files a bill in equity under section 4915, Revised Statutes, to obtain a patent, *Held* that the decision of the court of appeals is final as to the right of the successful party to the interference to have a patent granted to him.

APPEAL from Examiners-in-Chief.

ON MOTION.

VOTING-MACHINE.

Mr. Frank Keiper for McKenzie.

Mr. James C. Garrett pro se.

EWING, *Commissioner:*

This case is before me on an appeal by McKenzie from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority to Garrett and on a motion by McKenzie to suspend the proceedings in this interference pending the determination of the suit of *Sylvanus E. Davis and the United States Standard Voting Machine Company* v. *George T. Cranmer*, now pending in the United States District Court for the District of New Jersey, this being a suit brought under section 4915 of the Revised Statutes, involving the application of Sylvanus E. Davis and the application of Garrett involved herein. A copy has also been filed of McKenzie's motion that Garrett's application be stricken from the files, this being a motion which was filed on January 20, 1913, and denied by the Assistant Commissioner on February 10, 1913, without prejudice to the consideration at final hearing of the question therein raised.

The Examiner of Interferences held that the question of the validity of Garrett's application was *res adjudicata* in view of the decision of the Court of Appeals of the District of Columbia in *Davis* v. *Garrett*, (123 O. G., 1991; 1906, C. D., 724; 28 App. D. C., 9.) He held that Garrett was entitled to an award of priority, since, although McKenzie was the first to conceive the invention, he was the last to reduce to practice and was not diligent at the time Garrett entered the field and subsequently thereto. He further held that the judgment in the case of *Davis* v. *Garrett* was conclusive of the entire controversy between Garrett and McKenzie, since the Davis and McKenzie applications were owned by the same party. The Examiners-in-Chief awarded priority to Garrett on the ground that the entire matter was *res adjudicata* in view of the decision in *Davis* v. *Garrett*.

It was pointed out in the decisions of the lower tribunals that the McKenzie application is owned by the same party in interest that owned the Davis application, that the McKenzie application was pending at the time the Davis-Garrett interference was declared, and that the claims here in issue could have been made by McKenzie at that time and the question of priority between McKenzie and Garrett decided at the same time that the question of priority was decided between Davis and Garrett.

The facts as to the ownership of the McKenzie and Davis applications are not denied by McKenzie; but it is contended that the judgment in the case of *Davis* v. *Garrett* does not render the question here in issue *res adjudicata* for the reason that after the decision of the court of appeals a bill in equity under section 4915 was brought against Garrett. This action is the suit referred to in McKenzie's motion to suspend proceedings, the title of the Garrett application now being in George T. Cranmer, clerk of the United States District Court of the District of New Jersey, as trustee.

In support of the contention that the decision in *Davis* v. *Garrett* is not a final decision counsel cites the decisions of the Supreme Court of the United States in *Frasch* v. *Moore* (137 O. G., 230; 1908, C. D. 609; 211 U. S., 1) and *E. C. Atkins & Co.* v *Moore*, (142 O. G., 571; 1909, C. D., 517; 212 U. S., 285.)

In these cases the Supreme Court held that a decision of the Court of Appeals of the District of Columbia is not "final" within the meaning of section 8 of the act of February 9, 1893, creating the Court of Appeals of the District of Columbia, and that therefore no appeal lay to the Supreme Court of the United States from a decision of the Court of Appeals of the District of Columbia in an interference.

It is of course true that the plea of *res adjudicata*

can be invoked only where there has been a final decree; but, as pointed out by the Examiner of Interferences, that rule does not mean that all phases of the contest must have been terminated. The decisions of the State courts on the question whether the pendency of an appeal suspends the operation of a judgment in respect to all its usual effects, so that it cannot be pleaded in bar in the interval or used in evidence as an estoppel, are conflicting. (Black on Judgments, vol. 2, sec. 510.)

The ground upon which are based the decisions holding that an appeal suspends the operation of a judgment, so that it cannot be pleaded as an estoppel, is that the whole case is removed to the upper court, so that, pending the hearing on appeal, there is no decree in the case. (*Sharon* v. *Hill*, 26 Fed. Rep., 337, 345.) Such, however, is not the effect of a bill in equity under section 4915 upon a decision of the Court of Appeals of the District of Columbia. That decision is final so far as the right of the successful party to an interference to have a patent granted to him is concerned. As pointed out fully in the decision of the Assistant Commissioner in *McIntyre* v. *Perry*, (169 O. G., 943; 1911, C. D., 92,) the filing of a bill in equity by the unsuccessful party to an interference affords no ground for withholding a patent from the successful party. The case of *Butterworth* v. *Hoe* (112 U. S., 50; 29 O. G., 615; 1884, C. D., 429) was referred to by the Supreme Court in the case of *Frasch* v. *Moore*, and there appears to be nothing in the later decision which modifies or reverses the ruling in the former decision. As pointed out in *Butterworth* v. *Hoe*, the decision of the court of appeals is binding upon the Patent Office and "shall govern the further proceedings in the case." As also pointed out in that decision, the proceeding under section 4915 of the Revised Statutes is not a technical appeal from the decision in the interference, but is an original proceeding in which all competent evidence may be adduced and the case heard upon the merits. In *Frasch* v. *Moore* the decisions of the court of appeals, while held not final within the meaning of section 8 creating that court, are referred to as possessing a "qualified finality."

The court of appeals has repeatedly held since the decision in *Frasch* v. *Moore* that the doctrine of *res adjudicata* applies to interferences and in no case has intimated that the question of estoppel is affected by a bill in equity under section 4915.

As stated above, the parties in interest now owning the McKenzie application are the same as the parties owning the Davis application, and the question of priority between McKenzie and Garrett could have been tried out at the same time as the question of priority between Davis and Garrett. (*New Departure Mfg. Company* v. *Robinson*, 188 O. G., 1055; 1913, C. D., 332; 39 App. D. C., 504.)

In the former interference the question of the validity of the Garrett application was fully considered by the court of appeals and decided adversely to Davis's contention.

The question of priority between McKenzie and Garrett is held to be *res adjudicata* in view of the decision in *Davis* v. *Garrett*.

No reason is seen for suspending proceedings in this case pending the termination of the suit in the United States court of New Jersey. The application of Garrett has been pending in this Office since 1895 and that of McKenzie since 1899, and the suit in equity has been pending for over seven years.

The motion to strike Garrett's application from the files is denied. The motion to suspend proceedings is denied. The decision of the Examiners-in-Chief awarding priority to Garrett is affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Harder patent, No. 627,732, for a silo, claim 4 *Held* valid and infringed. *Ryder* v. *Beaver Silo & Box Mfg. Co.*, 219 Fed. Rep., 242.

(U. S. C. C. A.) Claims 1, 3, and 4 of Letters Patent No. 698,542, issued April 29, 1902, to Norcross, for a metallic concrete flooring without supporting-beams, *Held* valid and infringed by floorings constructed as described in Letters Patent Nos. 985,119 and 1,003,384. *Drum* v. *Turner*, 219 Fed. Rep., 188.

(U. S. D. C.) The McClure patent, No. 814,067, for an improvement in silos, *Held* void, as being for a structure substantially identical with that shown in a copending application on which a patent was first issued. *Farmers' Handy Wagon Co.* v. *Beaver Silo & Box Mfg. Co.*, 219 Fed. Rep., 234.

(U. S. C. C. A.) The Price patent, No. 818,639, for a brake, construed and *Held* not infringed. *Standard Truck Co.* v. *Pittsburgh Rys. Co.*, 219 Fed. Rep., 222.

(U. S. C. C. A.) The Tabor patent, No. 824,317, for a molding-machine, *Held* valid and infringed. *International Molding Mach. Co.* v. *Tabor Mfg. Co.*, 219 Fed. Rep., 223.

(U. S. C. C. A.) The Welsbach patent, No. 837,017, for a pyrophoric alloy, construed and *Held* a pioneer patent, entitled to a liberal range of equivalents, and infringed. *Treibacher-Chemische Werke Gesellschaft mit beschränkter Haftung* v. *Roessler & Hasslacher Chemical Co.*, 219 Fed. Rep., 210.

(U. S. D. C.) The Victor patent, No. 863,120, for a washing-machine, *Held* not infringed. *Iowa Washing Mach. Co.* v. *Saecker*, 219 Fed. Rep., 247.

(U. S. C. C. A.) The Robinson patent, No. 942,932, for a vegetable-paring machine, *Held* void for lack of invention. *American Fruit Mahinery Co.* v. *Robinson*, 219 Fed. Rep., 225.

(U. S. C. C. A.) The Hohlfeld patent, No. 947,546, for a settee-hammock, *Held* not infringed. *Patterson* v. *Hohlfeld*, 219 Fed. Rep., 207.

(U. S. D. C.) The Hodges patent, No. 953,334, for a method of operating compressed-air engines, *Held* void for lack of invention. *H. K. Porter Co.* v. *Baldwin Locomotive Works*, 219 Fed. Rep., 226.

(U. S. C. C. A.) The Daugherty patent, No. 1,111,219, for a barrel-jack, *Held* infringed on application for a preliminary injunction. *McMaster* v. *Daugherty Mfg. Co.*, 219 Fed. Rep., 219.

Witnesses to Specifications and Drawings.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 9, 1915.

An act to amend sections forty-eight hundred and eighty-eight and forty-eight hundred and eighty-nine of the Revised Statutes, relating to patents.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section forty-eight hundred and eighty-eight of the Revised Statutes of the United States be, and the same is hereby, amended by striking out from the last clause thereof the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4888. Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor."

SEC. 2. That section forty-eight hundred and eighty-nine of the Revised Statutes of the United States be, and the same is hereby, amended by striking out the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4889. When the nature of the case admits of drawings, the applicant shall furnish one copy signed by the inventor or his attorney in fact, which shall be filed in the Patent Office; and a copy of the drawing to be furnished by the Patent Office, shall be attached to the patent as a part of the specification."

Approved, March 3, 1915.

Witnesses on the specification will not be objected to, and the draftsman may sign the drawing as a witness, as has been heretofore customary.

THOMAS EWING,
Commissioner of Patents.

Changes in Classification.

(ORDER No. 2,191.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 15, 1915.

It is hereby directed that class 173, Electricity, Conductors, be transferred from Division XXXVII to Division XLII.

THOMAS EWING,
Commissioner.

Changes in Classification.

(ORDER No. 2,192.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 15, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 74, Machine Elements, (Division XII,) establish subclass—

Cranks and levers—
88. Controller checks.

The patents contained in this subclass have been taken from class 172, Electricity, Motive Power, subclass 179, Motors, Hand-operating devices.

In class 171, Electricity, Generation, (Division XXVI,) abolish subclasses—

Magneto-electric—
210. Brushes and holders,
211. Commutators and collectors.

The patents formerly contained in these subclasses have been placed for the most part in class 200, Electricity—Circuit Makers and Breakers, hereinafter established. Some have been placed in class 171, Electricity, Generation, subclasses 317, Magneto-electric, Collecter traversing mechanism, and 318, Magneto-electric, Reverse movement brush shifters, hereinafter established.

In the same class establish subclasses—

Magneto-electric—
317. Collector traversing mechanism,
318. Reverse movement brush shifters.

The patents contained in these subclasses have been taken for the most part from class 171, Electricity, Generation, subclasses 210, Magneto-electric, Brushes and holders, and 211, Magneto-electric Commutators and collectors, hereinbefore abolished.

In class 177, Electric Signaling, (Division XVI,) abolish subclasses—

10. **Circuit-closers—**
202. Burglar,
301. Letter-box,
203. Lock,
128. Thermal—
302. Fluid,
303. Fusible.

The patents formerly contained in these subclasses have been placed for the most part in correspondingly entitled subclasses (subclasses 27 to 33) in class 200, Electricity—Circuit Makers and Breakers, hereinafter established.

In same class abolish subclasses—

Alarms—
317. Liquid level,
318. Weight-controlled.

The patents formerly contained in subclass 317 have been placed in class 200, Electricity—Circuit Makers and Breakers, subclass 34, Circuit-closers, Float-operated, and those formerly contained in subclass 318 in class 200, Electricity—Circuit Makers and Breakers, subclass 35, Circuit-closers, Weight-controlled, hereinafter established.

Establish in Division XXXVII—

CLASS 200.—ELECTRICITY—CIRCUIT MAKERS AND BREAKERS,

with the following subclasses:

CLASS 200.—ELECTRICITY—CIRCUIT MAKERS AND BREAKERS. (XXXVII.)

Subclasses.

27. **Circuit-closers—**
28. Burglar,
34. Float-operated,
29. Letter-box,
30. Lock,
31. Thermal—
32. Fluid,
33. Fusible,
35. Weight-controlled.
1. **Controllers—**
26. Brush connectors,
25. Brushes,
24. Brush holders,
23. Combined brushes and holders,
2. Combined fuse—
3. Knife switch,
6. Combined rotary and translating contacts,
5. Compressible rheostats,
4. Liquid rheostats,

Controllers—
7. Multiple switch rheostats.
20. Operating means—
21. Plural switch—
22. Cam operated,
8. Rotary contact—
9. Combined types,
14. Dial switch—
15. Electromagnetic release—
16. Plural switch,
17. Plural switch,
18. Knife,
10. Radial contact pressure—
13. Arc extinguishing and preventing,
12. Commutators and collectors,
11. Plural switch,
19. Translating contact.

In the above class the patents in subclasses 1 to 26, inclusive, have been taken from classes 171, Electricity, Generation, subclasses 210, Magneto-electric, Brushes and holders, and 211, Magneto-electric, Commutators and collectors, hereinbefore abolished; 172, Electricity, Motive Power, subclass 179, Motors, Hand-operating device,

and 177, Electric Signaling, subclass 346, Systems, display, and the subclasses thereunder; the patents in subclasses 27 to 33, inclusive, have been taken from class 177, Electric Signaling, subclass 10, Circuit-closers, and the subclasses thereunder, hereinbefore abolished, and the patents in subclasses 34 and 35 have been taken, respectively, from class 177, Electric Signaling, subclasses 317, Alarms, Liquid-level, and 318, Alarms, Weight-controlled, hereinbefore abolished.

ERRATA.

The following corrections in the Manual of Classification, revised to January 1, 1912, are hereby directed:

On page 24, class 15, Brushing and Scrubbing, in the fourth column, move subclass title 15, Scrubbing-pails, indented under "Scrubbing-machines," one space to the left, to read under the class title.

On page 25, class 16, Builders' Hardware, at the top of the second column, cancel the subclass title "Shutters" and change subclass title 23, Fasteners, to read "23, Shutter-fasteners," under the class title, and in the middle of the second column change the subclass title 24, Workers, to read "24, Shutter-workers," under the class title.

On page 39, class 58, Horology, at the top of the second column, cancel the subclass title "Pendulum" and move the subclasses formerly indented thereunder one space to the left, to read under the title "Electric" above, and at the bottom of the second column move the subclass title 12, Musical, indented under "Clocks, Trains, Striking, Graphophone," one space to the left, coördinate with the title 14, Graphophone, above.

On page 45, class 76, Metal Tools and Implements, Making, in the second column, move subclass title 62, Trip, indented under "Saw making, Setting, Pivoted set, Multiple," one space to the left, coördinate with the title 61, Multiple, above.

On page 45, class 77, Boring and Drilling, at the top of the second column of the class list, move the subclass title "Portable" and the titles thereunder one space to the right, so that "Portable" will be coördinate with the title 20, Post, below.

On page 47, class 82, Turning, in the second column of the class list, move the subclass title 35, Tool and work, indented under "Rests, Tool," one space to the left, coördinate with the title 36, Tool, above.

On page 66, class 126, Stoves and Furnaces, in the second column, move subclass titles 257, Air, and 258, Article-support, indented under "Heaters, Liquid or gaseous fuel, Attachments, Lamp," one space to the right, to read under title "Chimney-heaters" immediately above.

On page 72, class 144, Woodworking, at the end of the third column, change the number of subclass 37, Shaping, Pattern, Miscellaneous, to read "137."

On page 95, class 234, Recorders, at the bottom of the first column and the top of the second column, change the subclass title "Watchman's," indented under "Time," to read "Watchmen's," and in the second column move subclass title 52, Tag-operated marker, indented under "Time, Workmen's, Time-operated record," one space to the right, coördinate with title 50, Single impression, above.

The following corrections in Classification Bulletin No. 28 (January 1, 1912, to June 30, 1912,) are hereby directed:

On page 18, class 170, Motors—Fluid-Current, in the second column, move subclass title 5, Rotary receiver, indented under "Wind motors," one space to the right, to read under subclass title 4, Receiving chamber, above, and on page 19, same class, at the top of the fourth column, after the titles "Wind motors, Rotary, Transverse axis, Feathering-blades," insert the title "Parallel axes," coördinate with title 27, Radial axes, below, and having subclass title 24, Positively operated, indented thereunder.

THOMAS EWING,
Commissioner.

Disclaimer.

1,116,047.—*Walter Enoch*, New York, N. Y. Dress-Form. Patent dated November 3, 1914. Disclaimer filed March 12, 1915, by the patentee.

Enters this disclaimer—

"To that part of the claim in said specification which is in the following words, to wit:

"1. A dress form, embodying therein a bust member having a block near its base, a rod passing through said bust member, and having one end secured to said block, a socket having two compartments through one of which said rod extends and in which it is slidable, a second rod having one end thereof engaging the other compartment in said socket, said second rod being incapable of sliding in said other socket compartment, and a tube in which said second rod is telescopically received."

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 2, 1915.

Pace & Sizer, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Steeves & Tilton, 276 State street, Boston, Mass., for registration of a trade-mark and trade-mark registered August 11, 1885, No. 12,498, to Pace & Sizer, Richmond, Va., and a notice of such declaration sent by registered mail to said Pace & Sizer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Pace & Sizer, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 9, 1915.

Antonio Magliaro, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Kirk Geary & Co., Nos. 519–523 J street, Sacramento, Cal., for registration of a trade-mark and trade-mark registered December 30, 1913, No. 94,788, to Antonio Magliaro, No. 9 North Virginia avenue, Atlantic City, N. J., and a notice of such declaration sent by registered mail to said Antonio Magliaro at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Antonio Magliaro, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 15, 1915.

William Endemann, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Gottschalk Co., of No. 108 Light street, Baltimore, Md., for registration of a trade-mark and trade-mark registered March 12, 1895, No. 26,217, to William Endemann, of New York, N. Y., and a notice of such declaration sent by registered mail to said William Endemann at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William Endemann, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 212—No. 5. TUESDAY, MARCH 30, 1915. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF MARCH 30, 1915.

Patents	838	No. 1,133,251 to No. 1,134,088,	inclusive.
Designs	28	No. 47,148 to No. 47,176,	inclusive.
Trade-Marks	131	No. 103,274 to No. 103,404,	inclusive.
Labels	1	No. 18,315.	
Prints	5	No. 3,868 to No. 3,872,	inclusive.
Reissues	2	No. 13,894 to No. 13,895,	inclusive.
Total	1005		

The patents of this issue were pending an average of 21.2 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	7	....	North Carolina	6	4
Arizona	....	....	North Dakota	2	....
Arkansas	4	1	Ohio	61	5
California	40	6	Oklahoma	3	....
Colorado	9	2	Oregon	6	....
Connecticut	28	2	Pennsylvania	60	12
Delaware	1	....	Rhode Island	5	1
Florida	3	2	South Carolina	2	....
Georgia	2	2	South Dakota	3	....
Idaho	2	1	Tennessee	5	....
Illinois	74	19	Texas	22	....
Indiana	18	2	Utah	3	....
Iowa	14	1	Vermont	....	....
Kansas	11	3	Virginia	3	2
Kentucky	7	....	Washington	10	1
Louisiana	5	1	West Virginia	3	....
Maine	2	2	Wisconsin	14	2
Maryland	10	1	Wyoming	1	....
Massachusetts	38	8	Alaska, District of	....	....
Michigan	22	....	Canal Zone	....	....
Minnesota	19	3	District of Columbia	8	1
Mississippi	3	....	Hawaii Territory	....	....
Missouri	23	7	Philippine Islands	....	....
Montana	3	....	Porto Rico	....	....
Nebraska	9	1	U. S. Army	....	....
Nevada	3	....	U. S. Navy	....	....
New Hampshire	4	....			
New Jersey	42	4	Total to residents of the United States.	723	128
New Mexico	1	....			
New York	160	32			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentine	....	....	Natal	....	....
Austria-Hungary	1	1	Netherlands	....	....
Belgium	1	....	New South Wales	....	....
Bermuda	1	....	New Zealand	....	....
British West Indies	....	....	Norway	3	....
Canada	12	....	Portugal	....	....
Cape Colony	....	....	Queensland	....	....
China	....	....	Roumania	....	....
Costa Rica	....	....	Russia	1	....
Cuba	....	1	Scotland	1	1
Denmark	....	1	South Australia	....	....
England	25	2	Spain	....	....
Finland	....	....	Sweden	1	....
France	5	....	Switzerland	4	....
Germany	26	1	Transvaal, South Africa	....	....
Guatemala	....	....	Victoria	....	....
India	....	....	Wales	....	....
Ireland	....	....			
Italy	1	1	Total to residents of foreign countries	82	9
Japan	....	1			
Mexico	....	....			

Coupon Orders for Copies of Patents.

(ORDER No. 2,193.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 16, 1915.

The practice of ordering a small number of printed copies of patents, to be charged against the deposit accounts which are maintained by this Office for the accommodation of inventors and attorneys, involves an inordinate amount of clerical labor in a very large number of small transactions. The necessary bookkeeping incident thereto has attained such proportions that the Office does not feel justified in permitting this practice. Coupon orders have been provided with a view to affording a convenient means for ordering less than twenty copies of patents; but the purpose of the coupon has been largely subverted by the extensive practice of ordering single copies of patents to be charged to account.

Coupon orders are sold by the Office in pads of twenty for one dollar and in stub-books of one hundred for five dollars. These coupons may be filled in, signed or stamped with the name of the sender, and mailed without a letter of transmittal.

Hereafter no requests that less than twenty copies of patents be charged to account will receive attention.

THOMAS EWING,
Commissioner of Patents.

Notice.

The requirement of Rule 33, that the post-office address of the applicant must be stated in the petition, means that the applicant must give the post-office address at which he customarily receives his mail.

The rule was made in order that the Office in necessary cases might correspond directly with the applicant and not through his attorney. The address of the attorney with instructions to send communications to the applicant in his care will not be accepted as a compliance with this rule.

APPLICATIONS UNDER EXAMINATION.

Condition at close of business March 27, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Dec. 11	Jan. 2	458
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 7	Feb. 2	710
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Mar. 13	Mar. 15	117
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Sept. 28	Mar. 12	620
167	5. Bookbinding; Harvesters; Jewelry; Music.	Oct. 26	Feb. 12	355
818	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilisers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Oct. 2	Mar. 19	545
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Dec. 30	Feb. 16	507
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Sept. 15	Mar. 8	1239
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	July 11	Oct. 26	799
235	10. Carriages and Wagons.....	Nov. 2	Mar. 4	727
184	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Jan. 28	Mar. 2	135
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Oct. 21	Mar. 13	858
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Feb. 12	Feb. 19	449
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Oct. 21	Mar. 3	808
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Oct. 21	Mar. 8	720
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Aug. 17	Jan. 6	514
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Jan. 11	Mar. 13	183
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Feb. 25	Feb. 26	287
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Feb. 9	Feb. 20	238
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Jan. 25	Feb. 18	246

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Nov. 7	Feb. 1	447
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Mar. 1	Mar. 2	192
370	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 17	Dec. 31	436
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Nov. 3	Mar. 19	440
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Feb. 26	Mar. 1	137
106	26. Electricity, Generation; Motive Power.	July 26	Jan. 30	556
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Nov. 19	Mar. 1	308
66	28. Internal-Combustion Engines....	Feb. 1	Feb. 27	419
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Feb. 6	Jan. 18	311
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Nov. 9	Mar. 6	316
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Dec. 11	Feb. 12	347
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Sept. 17	Mar. 11	662
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Dec. 2	Feb. 20	347
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Feb. 17	Mar. 15	191
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Dec. 1	Mar. 18	537
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Jan. 4	Mar. 15	568
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	July 30	Jan. 26	736
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationary; Stone-Working; Wells.	Oct. 3	Feb. 24	579
221	39. Water Distribution.....	Dec. 10	Jan. 11	481
220	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Sept. 30	Feb. 16	940
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Feb. 4	Mar. 2	272
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Aug. 6	Jan. 18	621
282	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Feb. 23	Feb. 12	273

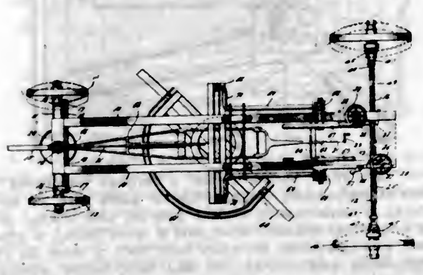
Oldest new case, July 11; oldest amended, Oct. 26.
Total number of applications awaiting action..... 20,141

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Jan. 25	Mar. 10	734
	Designs.....	Jan. 21	Feb. 19	496
	Labels and Prints.....	Mar. 17	Mar. 18	97

PATENTS

GRANTED MARCH 30, 1915.

1,132,251. **GRADER.** ROY E. ADAMS, Indianapolis, Ind. Filed June 12, 1912. Serial No. 703,126. (Cl. 37—49.)



1. A grader, comprising a frame, front and rear axles on which said frame is mounted, supporting wheels for each axle, one of said axles being shiftable transversely of the frame and the rear axle being skewable to different angles relative to the frame, and some of the wheels being tiltable to different vertical angles relative to their associated axles, and a mold board carried by said frame and shiftable transversely thereof.

2. A grader, comprising a frame, front and rear axles on which said frame is mounted, supporting wheels for each axle, one of the said axles being shiftable transversely of the frame and the rear axle being skewable to different angles relative to the frame, and some of the wheels being tiltable to different vertical angles relative to their associated axles, and a mold board carried by said frame.

3. A grader, comprising a frame, front and rear axles on which said frame is mounted, supporting wheels for each axle, the rear axle being skewable to different angles relative to the frame, and some of the wheels being tiltable to different vertical angles relative to their associated axles independently of any movement of said axle, and a mold board carried by said frame and shiftable transversely thereof.

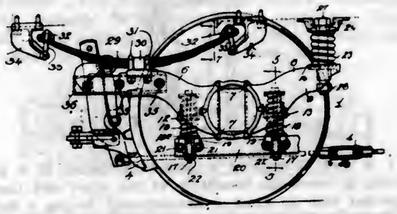
4. A grader, comprising a frame, front and rear axles on which said frame is mounted, supporting wheels for each axle, the rear axle being skewable to different angles relative to the frame, and some of the wheels being tiltable to different vertical angles relative to their associated axles independently of any movement of said axle, and a mold board carried by said frame.

5. A grader, comprising a frame, front and rear axles on which said frame is mounted, supporting wheels for each axle, one of said axles being shiftable transversely of the frame, and some of the wheels being tiltable to different vertical angles relative to their associated axles, and a mold board carried by said frame and shiftable transversely thereof.

[Claims 6 to 41 not printed in the Gazette.]

1,133,252. **CAR-TRUCK.** WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 5, 1913. Serial No. 771,799. (Cl. 105—239.)

1. In a truck of the class described, an axle box, a coiled spring carried by said axle box, a leaf spring carried by said axle box and means connected to said axle box for preventing the same from being tilted under the normal conditions of service.



2. In a truck of the class described, a tie-bar, an axle box, a spring seat in said axle box, springs above and below said seat and a spring post connecting said spring seat and tie bar so that the axle box is prevented from tilting under the normal conditions of service.

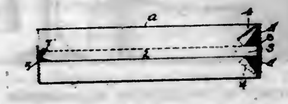
3. In a truck of the class described, means for supporting a car body comprising wheels, axle boxes, extensions from the axle boxes, spiral springs on the inner extensions, leaf springs on the outer extensions, brackets, links securing the ends of the leaf springs to the brackets and adapted to have relative transverse movement, and means for tying the axle boxes together at each side of the truck.

4. In a truck of the class described, a tie-bar, a clamp secured to the said tie-bar with a spring seat thereon, a spring mounted on said seat, a second seat on top of said spring, a second spring on said seat, a cap on said second spring and a spring post passing through said springs and seats.

5. In a truck of the class described, a tie-bar, a clamp with a spring seat secured to said tie-bar, a spring resting on said seat, a second seat resting on said spring, a second spring resting on said seat, a cap resting on said second spring, and a spring post passing through said cap and seat and secured by said clamp, and a nut on said post for putting tension on said springs.

[Claims 6 to 12 not printed in the Gazette.]

1,133,253. **WRAPPING-TUBE.** DANIEL APPEL, East Cleveland, Ohio. Filed Nov. 15, 1912. Serial No. 731,632. (Cl. 229—92.)

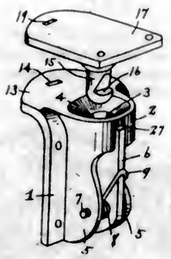


1. As a new article of manufacture, a wrapping tube adapted to be flattened for packing and having a tab of double thickness formed from the stock of the paper itself and even at its end with the end of the tube and flaps at the sides of said tab deepest at the base thereof and folded flat upon the inside of the tube at an inclination from the base of said tab to the edge of the tube.

2. As a new article of manufacture, a paper tube for carrying rolled publications and other articles provided with a seam of double thickness its entire length flush

with the surface of the tube and forming a part thereof and terminating in a tab at its end extending beyond the adjacent end edge portion of the tube at either side of said tab and constituting a gripping end extension to draw the tube over the roll.

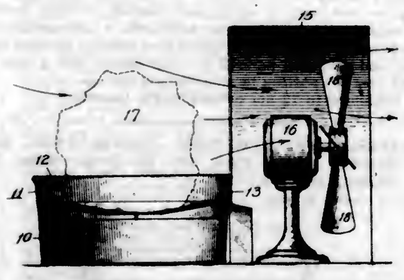
1,133,254. CRATE-LOCK. HENRY N. BACKUS, Detroit, Mich. Filed July 26, 1912. Serial No. 711,642. (Cl. 70—82.)



1. A lock comprising a keeper consisting of a plate having a barrel-like formation at the upper end thereof provided with an aperture therethrough having a flaring opening, said keeper also having projecting sides below said barrel-like formation, a spring-actuated latch bolt pivoted between said sides, said keeper plate having an opening therethrough in line with said latch bolt for the insertion of an actuating instrument to disengage the latch, and a lock bolt provided with a rounded end and a square shoulder adapted to enter the flaring opening of the keeper and automatically engage the latch bolt.

2. A lock comprising a keeper having an aperture for the reception of a lock bolt provided with a flaring opening and having a vertical slot communicating with said aperture, a spring-actuated latch bolt pivoted in the keeper, the upper end of said bolt lying in said slot and projecting therethrough into said aperture, and a lock bolt plate having a bolt rigidly mounted thereon adapted to enter the flaring opening of the keeper and to engage said latch bolt.

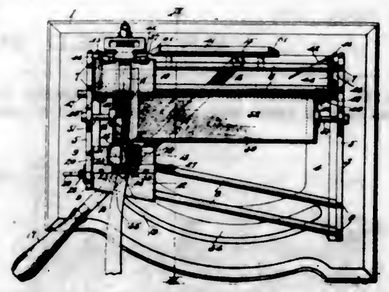
1,133,255. APPARATUS FOR COOLING OR AGITATING AIR. HERMAN E. BAUMGARTNER, Osage, Iowa. Filed Dec. 30, 1912. Serial No. 739,216. (Cl. 62—133.)



In an article of manufacture, a receptacle, a vertical shield provided with a central opening attached to and extending above said receptacle, and a protector secured to said shield at the sides and top thereof, substantially as and for the purpose set forth.

1,133,256. DEVICE FOR HONING RAZORS. HERMANN BOERNER, St. Louis, Mo. Filed Aug. 2, 1913. Serial No. 782,612. (Cl. 51—16.)

1. In a razor honing device, a reciprocatory carriage comprising a pair of slidably mounted blocks, a razor holder carried by one of said blocks, a blade pressing arm carried by the other said blocks, one of said blocks adapted to travel toward and away from said other block during the reciprocatory movement of said carriage, and means for turning said holder and elevating said pressing arm as said carriage nears the end of each stroke.



2. In a razor honing device, a carriage comprising a pair of reciprocably mounted blocks, guide bars for said blocks, a hone carrier located between said blocks, one of said blocks adapted to support a razor holder, a pressure arm carried by the other said block, a lever for reciprocating said carriage on said bars, means whereby one of said blocks is moved toward and away from the other said block during the reciprocatory movement of said carriage, means for elevating one end of said pressure arm, and means carried by said carriage for turning said holder while said pressure arm is elevated as said carriage nears the end of its stroke.

3. In a razor honing device, a carriage comprising a pair reciprocably mounted blocks, a plate rigidly secured to one of said blocks, said plate being slidably mounted in the other said block, guide bars for said blocks, a hone carrier located between said blocks, one of said blocks adapted to support a razor holder, a pressure arm carried by the other said block, a lever for reciprocating said carriage on said bars, means whereby one of said blocks is moved toward and away from the other said block on said plate during the reciprocatory movement of said carriage, means for elevating one end of said pressure arm, and means carried by said carriage for turning said holder while said pressure arm is elevated as said carriage nears the end of its stroke.

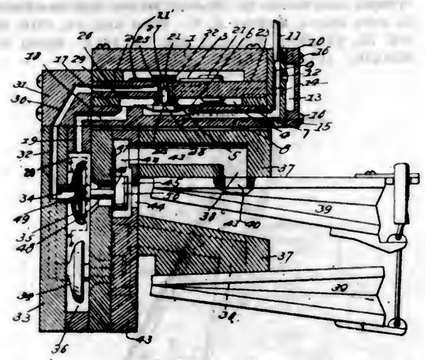
4. In a razor honing device, a reciprocatory carriage comprising a pair of blocks, a razor holder carried by one of said blocks, guide bars for said blocks, supports for said guide bars, a rack and pinion carried by one of said blocks, and a segment mounted on said holder in mesh with said pinion, one of said blocks adapted to move toward and away from the other said block during the reciprocation of said carriage, said rack and pinion being actuated when said rack engages each of said supsupports, said rack and pinion when actuated adapted to turn said razor holder.

5. In a razor honing device, a carriage comprising a pair of slidably mounted blocks, a revolubly mounted razor holder carried by one of said blocks, a blade pressing arm carried by the other said block, a hone carrier located between the path of travel of said blocks, one of said blocks adapted to travel toward and away from said hone carrier during the reciprocation of said carriage, said pressure arm adapted to be elevated while said holder is being turned.

[Claims 6 to 20 not printed in the Gazette.]

1,133,257. PNEUMATIC ACTION. GEORGE P. BRAND, New York, N. Y. Filed Dec. 26, 1913. Serial No. 808,864. (Cl. 84—178.)

1. In a pneumatic action, a primary flap valve, a plurality of ports across which said valve extends and covered thereby, and a bleed affording a restricted communication between said ports.



2. In a pneumatic action, a primary flap valve, a plurality of ports across which said valve extends and covered simultaneously by said valve, and a bleed affording a restricted communication between said ports.

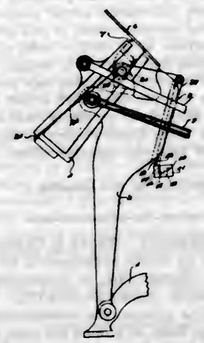
3. In a pneumatic action, a primary flap valve, a plurality of ports across which said valve extends and covered simultaneously by said valve, and a bleed providing a restricted communication between said ports, said ports being of different area.

4. In a pneumatic action, a primary flap valve, a plurality of ports across which said valve extends and covered simultaneously by said valve, and a bleed providing a restricted communication between said ports, said ports being of different area and said restricted communication being of less area than the smaller of said ports.

5. In a pneumatic action, a flap valve, a plurality of ports of different area adapted to be closed simultaneously by said valve, there being a bleed providing a restricted passage of less area than the smaller port and affording communication between said ports, and an exhaust duct from the larger port.

[Claims 6 to 20 not printed in the Gazette.]

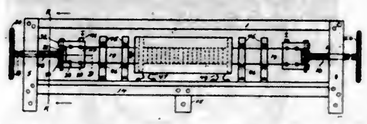
1,133,258. BRONZING ATTACHMENT FOR PRINTING-PRESSES. ASA P. BROOKS, Minneapolis, Minn., assignor to Ida V. Glass, Minneapolis, Minn. Filed Sept. 7, 1911, Serial No. 648,176. Renewed Nov. 16, 1914. Serial No. 872,502. (Cl. 101—14.)



1. The combination with a printing press, of a printing attachment therefor comprising a ribbon constituting an element of said press connected to a movable part of said press and moved thereby with a timed action, a hopper adapted to contain and discharge dry powdered printing material, and a hopper tapping device operated by movements of the ribbon and directly engageable with said hopper, substantially as described.

2. The combination with a printing press, of a printing attachment therefor, comprising a ribbon constituting an element of said press connected to a movable part of said press for movement with a timed action, yielding means tending to retract and roll said ribbon, a hopper overlying a portion of said ribbon and adapted to deliver dry powdered printing material onto said ribbon, and means actuated by movement of the ribbon for agitating the material in said hopper and causing a deposit thereof on said ribbon.

1,133,259. METHOD OF QUICK GRAPHITIZATION OF CARBON ARTICLES. JOHN W. BROWN, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed May 6, 1912. Serial No. 695,354. (Cl. 204—64.)



The method of graphitizing carbon articles which consists in placing them in a column with the surfaces of greatest area in adjacent articles in direct contact, applying pressure to said column and sending an electric current therethrough perpendicular to the contact surfaces.

1,133,260. ABRASIVE. SAMUEL M. BULLOCK, Chicago, and HARRY S. LLOYD, Oak Park, Ill. Filed May 18, 1914. Serial No. 839,212. (Cl. 51—1.)



1. An abrasive coating comprising an abrasive intermixed with a magnesite cement adapted to be applied on an article previously treated with magnesium chlorid solution and dry calcined magnesite powder.

2. A cementitious abrasive coating comprising a mixture of a magnesite cement and an abrasive in a ratio of one to two and magnesium chlorid solution.

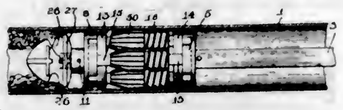
1,133,261. CHEESE-HOOP. WILLIAM R. CAIN and JOHN R. CAIN, Houston, Tex. Filed Mar. 6, 1911. Serial No. 612,545. (Cl. 45—103.)



In a cheese hoop of the character described, the combination with a supporting frame, and a rotatable table mounted thereon and provided to support a cheese of a

hoop mounted on said rotatable table and independently rotatable relative thereto, said hoop comprising a framework having a wire gauze wall and top and having a segment thereof hingedly attached to the top of said hoop so that it may be folded back on said top, a plurality of coil-springs detachably secured to said hoop and said frame and adapted to hold said hoop yieldingly upon the table and also hold said hoop against rotation relative to said table as described and for the purpose set forth.

1,133,262. ROTATIVE BOILER-TUBE CLEANER. JAMES OLIVER CASADAY, South Bend, Ind. Filed Apr. 28, 1913. Serial No. 763,983. (Cl. 83—64.)



1. A shaft, cam disks thereon having cam slots in the inner face of each arranged along equal chords, rigidly connected radially slotted carrying disks rotatively secured on said shaft closely adjacent each of the cam disks, a shaft carried in each pair of slots in the carrying disks and engaging at its opposite ends in corresponding cam slots in the cam disks, rotative crushing and polishing members on each of said shafts, and an opening tool or point secured on the inner extremity of the driving shaft.

2. A shaft, cam disks thereon having a plurality of cam slots in the inner face of each along equal chords in the cam disk faces, rigidly connected radially slotted carrying disks rotatively secured on said shaft between and closely adjacent each of the cam disks, a shaft carried in each pair of radial slots in the carrying disks and slidably engaging at its opposite ends in cam slots in the cam disks, rotative crushing and polishing members on each of said shafts, and a guiding and opening cutter or tool secured on the inner extremity of the driving shaft.

3. In a boiler tube cleaner, a shaft, a centering and guiding drill point on the extremity thereof for opening the tube, an expanding, breaking and polishing head rotative with the shaft and at the rear of the centering and guiding drill point comprising integrally connected ribbed elements, one of said elements provided with ribs running longitudinally thereof and terminating at a tapered end, and the other of said elements provided with spiral ribs, and means acting to force said ribbed elements radially outward when the shaft is rotated.

4. In a boiler tube cleaner a shaft, means for driving the same, a centering and guiding drill point on the extremity thereof for opening the tube, a carrying head rotative with the shaft and at the rear of the centering guiding drill point, independently rotative longitudinally ribbed breaking and crushing elements spirally ribbed polishing elements formed integral therewith said integral elements movable outwardly on the head when in operation, and mechanism having chordally disposed slots therein acting to move said elements on said head.

5. A shaft, cam disks thereon having cam slots arranged along equal chords in the inner faces of the cam disks, rotative rigidly connected radially slotted carrying disks secured on said shaft between and closely adjacent each of the cam disks, a shaft carried in each pair of slots in the carrying disks and engaging at its opposite ends in corresponding slots in the cam disks, independently rotative longitudinally ribbed crushing and spirally ribbed polishing members on each of said shafts, and movable outwardly in said cam slots when in operation, and an opening tool or point secured on the extremity of the driving shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,133,263. TROLLEY-RESTORER. LORAN T. CHRISMAN, Buffalo, N. Y., assignor of one-fourth to John G. Wickser, one-fourth to Edward Mayer, and one-fourth to John Mayer, Buffalo, N. Y. Filed Aug. 24, 1910, Serial No. 578,701. Renewed Aug. 25, 1914. Serial No. 858,515. (Cl. 191—84.)



1. The combination of a trolley pole, a trolley wheel mounted on the pole and adapted to engage with a trolley wire, a bar arranged in rear of the trolley pole and movable bodily vertically relatively to the pole and provided at its upper end with a fork adapted to engage said wire, a link connecting the upper part of said bar with said pole, and a movable connection between the lower part of said bar and the pole.

2. The combination of a trolley pole, a trolley wheel mounted on the pole and adapted to engage with a trolley wire, a vertically oscillating restoring bar arranged in rear of the trolley pole and provided with a fork adapted to engage the trolley wire, and upper and lower vertically swinging links pivotally connecting said restoring bar with said pole.

3. The combination of a trolley pole, a trolley wheel mounted on the pole and adapted to engage with a trolley wire, a vertically movable restoring bar arranged in rear of the trolley pole and provided with a fork adapted to engage the trolley wire and a short upper link and a long lower link connecting said restoring bar with said pole.

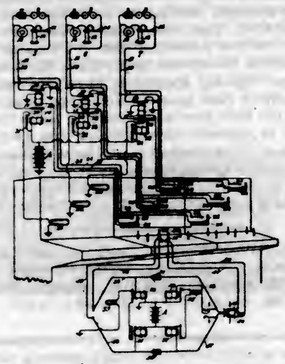
4. The combination of a trolley pole, a trolley wheel mounted on the pole and adapted to engage with a trolley wire, a vertically movable fork mounted on the pole and adapted to engage the wire, links pivotally connecting the fork with the pole and catch horns projecting laterally and upwardly from opposite sides of the pole.

5. The combination of a trolley pole, a trolley wheel mounted on the pole and adapted to engage with a trolley wire, a vertically movable restoring bar arranged in rear of the trolley pole and provided with a fork adapted to engage the trolley wire, links pivotally connecting the fork with the pole and catch horns projecting laterally and upwardly from said pole on opposite sides of said trolley wheel.

[Claim 6 not printed in the Gazette.]

1,133,264. TELEPHONY. HENRY P. CLAUSEN, Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 12, 1912. Serial No. 670,771. (Cl. 179—54.)

1. In a telephone system, the combination with a plurality of telephone lines, of a lamp for each line and a plurality of multiple jacks for each line, all of said lamps being located before certain operators and all of the jacks being located before different operators at the central office, and means of communication between the operator before the lamps and the operators before the jacks, whereby the display of any lamps may be communicated to the operators located before the jacks, and means controlled solely by the operators before the jacks for establishing connections between calling and desired lines.



2. In a telephone system, the combination with a telephone line, of a line signal therefor at a call operator's division free from talking conductors of said line, and multiple jacks therefor at connecting operators' divisions, means to telephonically communicate the number of the calling line from the signal division to the connecting divisions, and means at the connecting operators' divisions only for establishing connections with said line as a calling or a called line.

3. A telephone switchboard having one division containing only line signals, one for each line, other divisions containing only multiple jacks, one for each line in each division, said divisions being in charge of different operators, means in said switchboard by which the operator in charge of the signal division may disclose to the operator in charge of any one of the jack divisions the identity of any displayed signal, and interconnecting means for the lines out of control of the operators at the signal division.

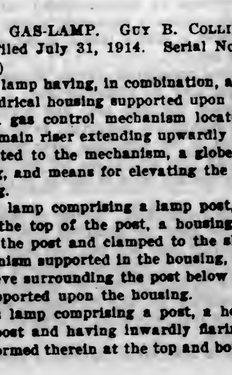
4. A telephone switchboard comprising a plurality of divisions, line lamp signals located in one of said divisions, multiple jacks corresponding to said line lamp signals located in all of the other of said divisions, and means for telephonically communicating the identity of a displayed line lamp signal from an operator in position to observe the signal division to an operator in position to connect with a multiple division of the switchboard without the signal operator making any connection with said line, and interconnecting means for connection between two multiple jacks of the same division.

5. In a telephone system, the combination with a call operator's division and a plurality of connecting operators' positions, of interconnecting circuits at the latter positions, a step-by-step switch, a key at the call operator's position for actuating said switch, a transmitter at the call operator's position, and a receiver at each of said connecting operators' positions independent of the interconnecting circuits, and circuit connections whereby the call operator's transmitter is connected to the various connecting operators' receivers one at a time and in sequence through the contacts of said switch whereby the call operator may communicate with the connecting operators, one at a time.

[Claims 6 and 7 not printed in the Gazette.]

1,133,265. GAS-LIGHTING APPARATUS. GUY B. COLLIER, Kinderbook, N. Y. Filed May 7, 1914. Serial No. 836,884. (Cl. 161—9.)

1. A gas lighting apparatus having a main gas passage, a plate valve closing the open end of the passage, an oscillatory valve shaft, a weighted rocker arm connected with the valve shaft, a heavier weighted rocker arm, the two arms rocking about parallel axes spaced out of alinement with one another, and a time mechanism for oscillating the heavier arm in opposite directions at predetermined intervals.



2. A gas lighting apparatus having a valve shaft, a bell crank, a weighted arm connected to the bell crank, a second bell crank interposed between the first mentioned bell crank and the valve shaft, the two bell cranks rocking about parallel axes spaced out of alinement with one another, a lighter weighted arm connected to the second bell crank, connections between the two bell cranks for imparting abrupt movements to the second bell crank upon a movement of the first mentioned bell crank in either direction, and time controlled mechanism for oscillating the first mentioned bell crank in opposite directions at predetermined intervals.

3. A gas lighting apparatus having a rock shaft, a bell crank secured thereto, pins supported in the opposite arms of the bell crank, a weighted arm secured to the rock shaft and normally tending to assume an inclined position, a second bell crank rocking about an axis spaced out of alinement with the axis of the first bell crank, a heavier weighted arm secured to the second bell crank and arranged to contact at predetermined intervals with one of the pins when the bell crank is rocked by the weighted arm moving under the action of gravity, and time controlled mechanism for oscillating the first mentioned bell crank in opposite directions at predetermined intervals.

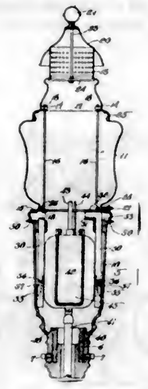
1,133,266. GAS-LAMP. GUY B. COLLIER, Kinderbook, N. Y. Filed July 31, 1914. Serial No. 854,252. (Cl. 240—25.)

1. A gas lamp having, in combination, a post, a substantially cylindrical housing supported upon the upper end of the post, a gas control mechanism located inside of the housing, a main riser extending upwardly through the post and connected to the mechanism, a globe supported upon the housing, and means for elevating the globe relative to the housing.

2. A gas lamp comprising a lamp post, a sleeve fitting tightly to the top of the post, a housing supported upon the top of the post and clamped to the sleeve, a gas control mechanism supported in the housing, a sectional ornamental sleeve surrounding the post below the housing, and a globe supported upon the housing.

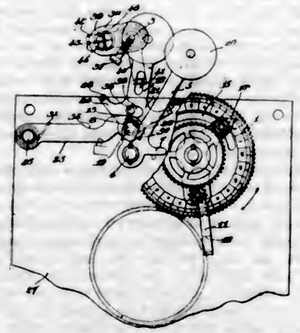
3. A gas lamp comprising a post, a housing supported upon the post and having inwardly flaring air and drain passages formed therein at the top and bottom of the hous-

ing, respectively, to permit the entrance of air without draft and draining of moisture, a globe supported on the



housing having an opening in the bottom communicating with the housing, and a ventilator surmounting the globe.

1,133,267. GAS-LIGHTING APPARATUS. GUY B. COLLIER, Kinderhook, N. Y. Filed Dec. 4, 1914. Serial No. 875,527. (Cl. 161—9.)



1. A gas lighting apparatus, having in combination, a valve shaft, a time gear, an actuating lever, connections between the lever and time gear for oscillating the lever in opposite directions at predetermined intervals, and mechanism for mechanically imparting abrupt movements to the lever when it is moved into a predetermined position by the time gear.

2. A gas lighting apparatus, having in combination, a valve shaft, a time gear, an actuating lever, a valve lever, connections between the time gear and actuating lever, mechanism for mechanically imparting valve opening and closing movements to the actuating lever when in a predetermined position, and mechanism for moving the valve lever when the actuating lever is moved to open or close the valve.

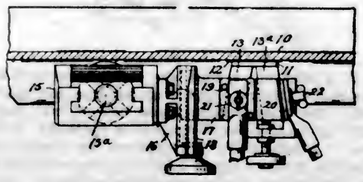
3. A gas lighting apparatus, having in combination, a valve shaft, a time gear, an actuating lever, connections between the actuating lever and the time gear for oscillating the actuating lever in opposite directions at predetermined intervals, a controlling arm for the actuating lever, and means for causing the arm to impart abrupt movements to the actuating lever when it is moved into a predetermined position.

4. A gas lighting apparatus, having in combination, a valve shaft, a time gear, an actuating lever, connections between the actuating lever and time gear for oscillating the actuating lever in opposite directions at predetermined intervals, an arm pivoted at one end and having its free end positioned in operative relation to the actuating lever, a spring normally tending to press the arm against the actuating lever, and connections between the free end of the arm and the actuating lever for causing the arm to impart abrupt movements to the actuating lever.

5. A gas lighting apparatus, having in combination, a valve shaft, a time gear, an actuating lever, connections between the time gear and actuating lever for oscillating the lever in opposite directions, an arm having a wedge shaped face, a pin secured to the lever and engaging with the face, and a spring constantly tending to maintain the free end of the arm in engagement with the pin.

[Claims 6 and 7 not printed in the Gazette.]

1,133,268. PROCESS OF UNITING METAL BODIES. LAWRENCE P. CRECELIUS, Cleveland, Ohio. Filed June 18, 1913, Serial No. 774,313. Renewed Sept. 3, 1914. Serial No. 860,100. (Cl. 219—10.)



1. The process of uniting adjacent metal bodies which consists in holding against one of said bodies with relatively variable pressures two heating electrodes and passing a heating current through the two electrodes and through the said body with the three parts in series relationship.

2. The process of uniting adjacent metal bodies which consists in heating one of said bodies and the adjacent portion of the other to brazing temperature by holding against one of said bodies with relatively variable pressures two heating electrodes and passing a heating current through the two electrodes and through the said body with the three parts in series relationship.

3. The process of uniting adjacent metal bodies which consists in heating both of said bodies by passing an electric current through one of said bodies and through two heating electrodes with the three parts in series relationship and pressing the electrodes against the said body in such a manner that substantially uniform heating effects are secured opposite both electrodes.

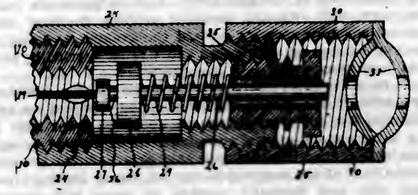
4. The process of uniting adjacent metal bodies which consists in heating both of said bodies by passing an electric current through one of said bodies and through two heating electrodes with the three parts in series relationship, and pressing the electrodes against the said body in such a manner that predetermined heating effects are secured opposite both electrodes.

5. The process of uniting adjacent metal bodies which comprises heating both said bodies by directly heating one of said bodies by holding against said body a pair of adjacent heating electrodes and passing a current through the electrodes and through the said body with the three parts in series relationship, in such a manner that said body is substantially uniformly heated.

[Claim 6 not printed in the Gazette.]

1,133,269. PRESSURE-ALARM FOR PNEUMATIC TIRES. GEORGE A. CULVER, Beatrice, Nebr., assignor of one-half to Thomas W. Keenan, Shenandoah, Iowa. Filed Apr. 5, 1913. Serial No. 759,570. (Cl. 116—1.)

1. The combination with a pneumatic tire inflation valve, of a low pressure signal device comprising a casing connected to the outer end of the valve tube, a hollow adjusting nut threaded into the outer end of said casing, a plunger mounted within said casing and nut centrally thereof and coaxial with the stem of said valve and having the inner end thereof in engagement with the adjacent end of the valve stem, a collar fixed to said plunger, an expansion spring surrounding said stem between said collar and nut and adapted to be placed under tension by said nut whereby said plunger will move inwardly and open the valve against its spring when the pressure within the tire has fallen below a predetermined point, and a signal operated by air passing through the hollow nut and adapted to sound upon the opening of said valve.



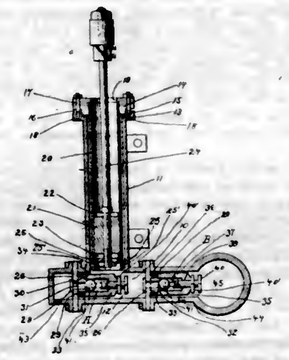
2. The combination with a pneumatic tire inflation valve, of a low pressure signal device comprising a casing connected to the outer end of the valve tube, a hollow adjusting nut threaded into the outer end of said casing, a plunger mounted within said casing and nut centrally thereof and coaxial with the stem of said valve and having the inner end thereof in engagement with the adjacent end of the valve stem, a collar fixed to said plunger adjacent to the inner end thereof, an expansion spring surrounding said stem between said collar and nut and adapted to be placed under tension by said nut whereby said plunger will move inwardly and open the valve against its spring when the pressure within the tire has fallen below a predetermined point, and a signal connected to the outer end of said casing and adapted to sound upon the opening of said valve.

3. The combination with a pneumatic tire inflation valve, of a low pressure signal device comprising a casing connected to the outer end of the valve tube, a hollow adjusting nut threaded into the outer end of said casing, a plunger mounted within said casing and nut centrally thereof and coaxial with the stem of said valve and having the inner end thereof in engagement with the adjacent end of the valve stem a collar fixed to said plunger adjacent to the inner end thereof, an expansion spring surrounding said stem between said collar and nut and adapted to be placed under tension by said nut whereby said plunger will move inwardly and open the valve against its spring when the pressure within the tire has fallen below a predetermined point, a cap threaded onto the outer end of said casing concentrically of said plunger, and a signal carried by said cap and coaxial therewith.

4. The combination with a pneumatic tire inflation valve, of a low pressure signal device comprising a casing connected to the outer end of the valve tube and having the outer end thereof circumferentially reduced, a hollow adjusting nut threaded into the outer end of said casing, a plunger mounted within said casing and nut centrally thereof and coaxial with the stem of said valve, a head on the inner end of said stem and in engagement with said valve stem, a collar fixed to said plunger adjacent to said head, an expansion spring surrounding said stem between said collar and nut and adapted to be placed under tension by said nut whereby said plunger will move inwardly and open the valve against its spring when the pressure within the tire has fallen below a predeter mined point, a cap threaded onto the reduced end of said casing concentrically of said plunger, and a signal carried by said cap and coaxial therewith.

1,133,270. PUMP APPLIANCE. CHARLES E. DALE, Cleveland, Okla. Filed May 3, 1913. Serial No. 765,275. (Cl. 103—59.)

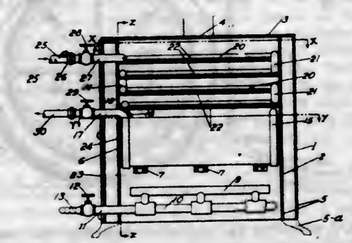
1. A pump comprising a hollow T-shaped casting, including a cylinder casing and a force pipe, a removable collar fixed on the outer end of the casing a liner carried thereby and spaced within the casing, the ends of the casing and liner opening clear toward the force pipe, a piston in the liner, and inlet and outlet valves in the force pipe.



2. A pump comprising a hollow casting including a pressure chamber and a cylindrical casing opening clear into the chamber, the outer end of the casing being enlarged and having packing accommodations, a packing therein, a collar engaging with the packing in the end of the casing, means for securing the collar to the casing, the interior of the collar being threaded, a liner having one end threaded and engaged in the collar and positioned concentrically in the casing, said liner being of less external diameter than the interior diameter of the casing, whereby a space is formed therebetween in free communication with the pressure space, a piston in the liner, and inlet and outlet valves in the force space.

3. In a pump of the class described a cylinder casing, a removable collar fixed at the outer end of the casing, a liner carried by the collar and spaced within the casing, slidably for removal with said collar, and a plurality of lugs formed on the casing adjacent the end of said liner.

1,133,271. WATER-HEATER. JAMES W. DAVIS, Birmingham, Ala. Filed May 11, 1914. Serial No. 837,904. (Cl. 122—260.)



1. In a water heater, a casing, a water conductor within the casing comprising thin flat conduits, a plurality of which are disposed horizontally in the upper portion of the casing and a plurality of which are vertically in the lower part of the casing, means to connect said conduits to cause the water to flow in a tortuous manner through said conductor, a heater below said conductor, and baffles to cause the products of combustion to pass in a tortuous manner through the spaces between said upper horizontal conduits, substantially as described.

2. In a water heater, a casing, a conductor for the water to be heated disposed within said casing and com-

prising a series of flat thin metal conduits which are disposed horizontally in the upper part of the casing and vertically in the lower part of the casing, means connecting the ends of adjacent conduits to cause a circuitous flow of water therethrough, a radiator box in which the vertically disposed conduits are mounted, and a burner below the radiator box, substantially as described.

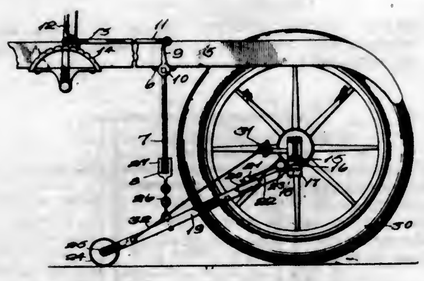
3. In a water heater, a jacketed drum having a top opening, a radiator box mounted within the drum, a coil mounted in the radiator box and having a water outlet pipe, a coil comprising flat horizontally disposed conduits mounted in the drum above the radiator box and having a connection with the first mentioned coil, a water inlet pipe for the upper coil, and a burner below the radiator box.

4. In a water heater, a jacketed drum having a top opening, a radiator box having spaced vertically disposed walls, a water coil mounted within the radiator box and comprising thin flat conduits which are vertically disposed and arranged to alternate with said walls of the radiator box, means to support said conduits by the walls of the radiator box, said conduits being connected to cause the water to flow in a tortuous manner from end to end of the radiator box, a water coil above the radiator connected to the first mentioned coil and comprising flat horizontally disposed conduits connected at their ends to provide a tortuous passage for the water, water inlet and outlet pipes for said coils, and a burner below the radiator box, substantially as described.

5. In a water heater, a jacketed drum having a top opening, a radiator box mounted within the drum and divided by partitions to form vertical flues, a water coil comprising flat vertically disposed conduits disposed in said flues and pipes connecting the ends of said conduits to each other to form a coil, said pipes being adapted to rest on the radiator partitions and freely suspend the coil therein, water connections leading to and from said coil, and a burner below the radiator box.

[Claims 6 to 11 not printed in the Gazette.]

1,133,272. ANTISKIDDING ATTACHMENT FOR AUTOMOBILES. CONRAD A. B. DELGER, Delger township, Wells county, N. D. Filed July 29, 1914. Serial No. 853,939. (Cl. 21—90.)



1. In a device of the character described the combination with an automobile and its steering wheels of a member mounted for lateral movement upon said automobile, means normally tending to move said member into engagement with the ground, connections between said member and the steering gear of the automobile and manually operable means for withdrawing said laterally movable member from engagement with the ground.

2. In a device of the character described, the combination with an automobile and its steering wheels, of an arm mounted for universal movement upon the front axle of the automobile, a ground engaging member carried by said arm and connections between said arm and the steering mechanism of the automobile.

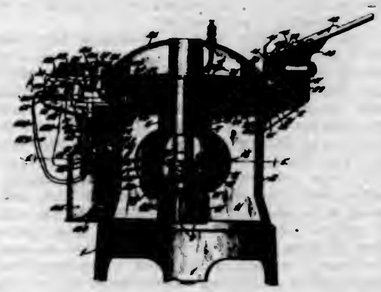
3. In a device of the character described, the combination with an automobile and its steering wheels of an arm mounted for universal movement upon the front axle of the automobile a ground engaging member carried by said arm and connections between said arm and the steering mechanism of the automobile, and spring means bearing upon said arm and normally tending to move said ground engaging member toward the ground.

4. In a device of the character described, the combination with an automobile and its steering wheels of an arm mounted for universal movement upon the front axle of the automobile, a ground engaging member carried by said arm and connections between said arm and the steering mechanism of the automobile, and spring means bearing upon said arm and normally tending to move said ground engaging member toward the ground, a spring, a member carried by said spring and a roller carried by said arm, and upon which said member bears.

5. In a device of the character described, the combination with an automobile and its steering wheel of an arm mounted for universal movement upon the front axle of the automobile, a ground engaging member carried by said arm and connections between said arm and the steering mechanism of the automobile, spring means bearing upon said arm and normally tending to move said ground engaging member toward the ground, a spring, a member carried by said spring, a roller carried by said arm, and upon which said member bears, a swingingly mounted crank manual operating means for said crank, said crank having an arcuate portion and a connection between said arm and said arcuate portion.

[Claims 6 and 7 not printed in the Gazette.]

1,133,273. GAGING-MACHINE. JOHN F. FLAHERTY, Canton, Ohio, assignor to The Timken Roller Bearing Company, Canton, Ohio, a Corporation of Ohio. Filed Feb. 4, 1914. Serial No. 816,648. (Cl. 83—92.)



1. In a gaging machine, a circular way, a carrier adapted to guide rolls around said way at fixed distances apart, said rolls rolling on said way, means controlled by said carrier for feeding rolls thereto, a gaging block pivoted in said way, a trap door in said way over which each of said rolls passes after passing over said gaging block, means operable by said gaging block for opening said trap door, a chute for discharging from said way the rolls passing said gaging block and said trap door, and a revolving dome bearing on said rolls.

2. In a gaging machine, a horizontal circular way, a gaging member pivoted in said way, means for guiding rolls along said way at fixed distances apart, means for discharging from said way each of said rolls that move said gaging member, and a rotating dome freely movable vertically and adapted to bear normally on the rolls on said way, said way having its surface raised at the place where said gaging member is located, so that when a roll is on said gaging member said dome bears solely upon that roll.

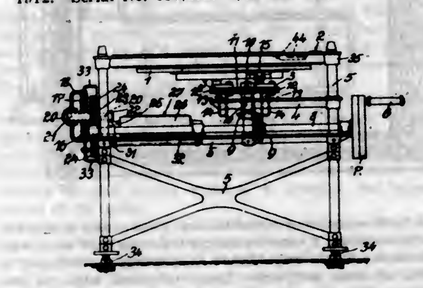
3. In a gaging machine, a way, a carrier for rolling rolls along said way, a gaging block located along said way in position to be engaged by the rolls successively, said gaging block being pivoted on an axis extending longitudinally of said way, a discharge opening from said way adjacent to said gaging block, a door controlling said discharge opening, electrically controlled means operated by said gaging block for opening said door to discharge the roll operating said gaging block, and means on said carrier for closing said door.

4. In a gaging machine, a circular way, a carrier having arms to receive rolls and guide said rolls on said way at fixed distances apart, a feed mechanism for feeding rolls to said carrier arms, a rotating dome free to move vertically and engaging said rolls to roll said rolls along said way, said way having its surface raised at one point, and means for gaging the taper of said rolls, said gaging means being located at the uppermost point on said way.

5. In a gaging machine, a way, means for rolling rolls along said way, a pivoted gaging member located at a point along said way, means located at a point beyond said point in the direction of travel of said rolls for removing a roll from said way, said means being controlled by said gaging member, and a chute for discharging from said way the rolls passing said gaging member and said means.

[Claims 6 to 25 not printed in the Gazette.]

1,133,274. KNEADING-MACHINE. PHILIPP EDUARD FOUCAR, Dusseldorf-Oberbilk, Germany. Filed Mar. 18, 1912. Serial No. 684,472. (Cl. 107—9.)



1. In combination in a kneading machine, a table adapted to move in its own plane, pairs of bars located above said table and spaced to admit the mass to be kneaded, means for adjusting the inclination of the bars relatively to said table and means for moving said table to cause said mass to press against and roll in contact with one of each pair of said spaced rails alternately.

2. In combination in a kneading machine, a table adapted to move in its own plane, pairs of bars located above said table and spaced to admit the mass to be kneaded and means for moving said table to cause said mass to press against and roll in contact with said spaced rails alternately, one of each pair of said spaced rails being more inclined than the other to cause said mass to move progressively over the table.

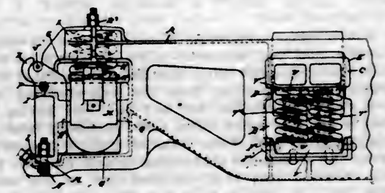
3. In a kneading machine in combination, a table adapted to move in its own plane, a pair of bars mounted over said table and having their lower edges substantially parallel thereto, and means for adjusting the inclination of said bars to said table.

4. In combination with a table adapted to move in its own plane, a supporting frame, bars adjustably mounted on said supporting frame, said bars having projections at their ends, pivoting pins on said supporting frames and engaging in projections at opposite ends, a slidable plate mounted on said supporting frame and having a slotted arm located with the slot opposite one end of said bars and a projection on the bars adapted to engage in the slot on said adjustable plate.

5. In combination in a kneading machine adapted to move in its own plane, pairs of bars located above said table, means for inclining said bars to said table and to one another, an incut portion on said bars at one end of said table, said incut portions being arranged to admit the mass to be kneaded, and means for moving said table to cause said mass to press against and roll in contact with one of each pair of said bars alternately.

[Claim 6 not printed in the Gazette.]

1,133,275. RAILWAY-TRUCK. MASON B. GIBERSON, Detroit, Mich., and HERBERT ROBERTS, Walkerville, Ontario, Canada, assignors to Monarch Steel Castings Company, a Corporation of Michigan. Filed July 11, 1914. Serial No. 850,525. (Cl. 105—243.)



1. A railway truck, comprising a side frame having a bifurcated end portion, an axle journal box insertible between the furcations, a member having a pivotal engagement with the upper furcation, and a hooked engagement with the lower furcation, forming a keeper for retaining the box, and locking means for normally holding said member from disengagement.

2. A railway truck, comprising a side frame having a bifurcated end portion, an axle journal box insertible between the furcations thereof, a spring for yieldably and resiliently supporting the frame on said box, means for retaining said spring in engagement with the upper furcation to permit of the insertion and withdrawal of said box, and a member for closing the outer end of said furcations to retain said box from displacement.

3. A railway truck, comprising a side frame having a bifurcated end portion with a recess in the upper furcation thereof, an axle journal box, laterally insertible between the furcations of said frame, a spring for supporting said frame upon said journal box located in the recess in said upper furcation, an abutment plate for the lower end of said spring, and a vertically adjustable attachment between said abutment plate and said recessed furcation for tensioning the spring and for limiting its downward movement to permit of the insertion or withdrawal of said box.

4. A railway truck, comprising a side frame having a bifurcated end portion with a recess in the upper furcation thereof, a spring engaging said recess, an abutment plate for the lower end of said spring, a rod connected to said abutment plate and extending upward through said furcation, an adjustable stop on said rod for limiting the downward movement of said abutment plate, an axle box laterally insertible between said furcations and beneath said abutment plate, and a member for closing the outer ends of said furcations and for guiding the box to permit vertical oscillation of the frame.

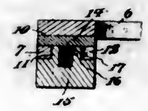
5. A railway truck, comprising a side frame having a bifurcated end portion with a hook at the end of the upper furcation thereof, a member having a pin at its upper end for engaging the hook on said furcation and at its lower end having a shouldered engagement with the lower furcation, locking means for holding said member in engagement with said hook and shoulder, and an axle journal box insertible between said furcations when said member is disengaged and guided by said member when in locked position to permit of relative vertical oscillation.

[Claims 6 to 9 not printed in the Gazette.]

1,133,276. HORSESHOE. JOHN E. GOLDEN, Dunmore, Pa. Filed Mar. 25, 1913. Serial No. 756,810. (Cl. 168—31.)

1. A horse-shoe comprising a body portion having a toe section and heel sections; raised shoulders on said sec-

tions; each shoulder being mortised, and provided with a bore extending from the road engaging surface of the shoulder into the mortise; a tenon provided with a stud fitting in said mortise; and a calk secured in each shoulder and threaded to the stud on each tenon.



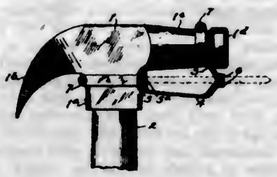
2. A horse-shoe comprising a body portion having a toe section and heel sections; raised shoulders on said sections; each shoulder being mortised and provided with a threaded bore extending from the road engaging surface of the shoe into the mortise; said bore having an opening in one side which forms a slot extending from the road engaging surface of the shoulder into the mortise; a tenon having a threaded stud fitting in said mortise; and a calk threaded into each shoulder and to the tenon therein.

3. A horse-shoe comprising a body portion having a toe section and heel sections; raised shoulders on said sections; each shoulder being mortised and provided with a bore extending from the road engaging surface of the shoulder into the mortise; said bore being open at one side to form a slotted opening extending from the road engaging surface of the shoulder into the mortise.

4. A horse-shoe comprising a body portion having a toe section and heel sections; raised shoulders on said sections; each shoulder being mortised and provided with a threaded bore extending from the road engaging surface of the shoulder into the mortise; said threaded bore being open at one portion to form a slot extending from the road engaging surface of the shoulder into the mortise; a tenon having a threaded stud fitting in said mortise; and a calk having a threaded shank secured in said shoulder and locked to said stud on said tenon.

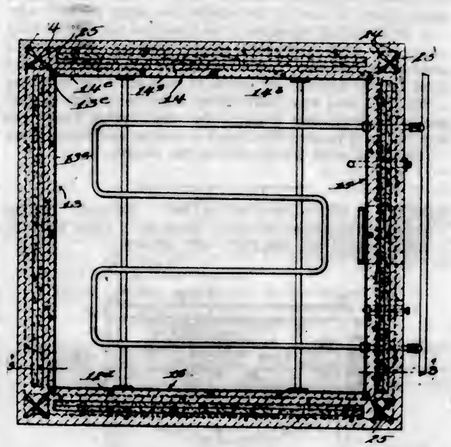
5. A horse-shoe comprising a body portion having a toe section and heel sections; raised shoulders on said sections; each shoulder being mortised and provided with a threaded bore open at one portion to form a slot extending from the road engaging surface of the shoulder into the mortise; a tenon having a threaded stud fitting in said mortise, the stud on the tenon being in angular relation with the inner walls of the threaded bore when inserted; and a calk having a threaded shank and provided with an internal threaded bore locked in each shoulder, the threaded shank of said calk being embraced by said threaded bore in each shoulder, and the threaded bore in said shank embracing the threaded shank on each tenon.

1,133,277. NAIL-HOLDING ATTACHMENT FOR HAMMERS. NORMAL G. GOBE, Vineland, N. C. Filed Dec. 8, 1913. Serial No. 805,284. (Cl. 145—30.)



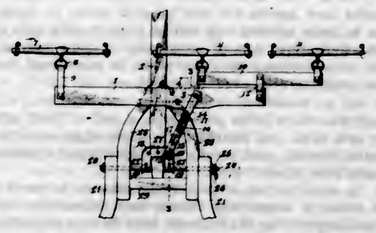
As a new article of manufacture, the herein described nail holding attachment for hammers formed from a single piece of sheet material and including a substantially U-shaped spring clip having a base and spring arms which terminate in converging and coöperating nail engaging jaws, the base being formed with a positioning seat adapted to receive the head of the nail and said base at one side of the clip being transversely concaved to fit against the nail receiving boss and neck of the driving head of the hammer, respectively, a pair of integral spring clamping arms projecting from the base of the clip for fitting around and yieldably engaging the handle receiving boss of the hammer, and a pair of integral spring clamping arms projecting laterally from one arm of the clip for fitting around and yieldably engaging the neck of the driving head of the hammer.

1,133,278. TANK CONSTRUCTION. WILHELM GRIESSER, Denver, Colo. Filed May 15, 1911. Serial No. 627,323. (Cl. 220—125.)



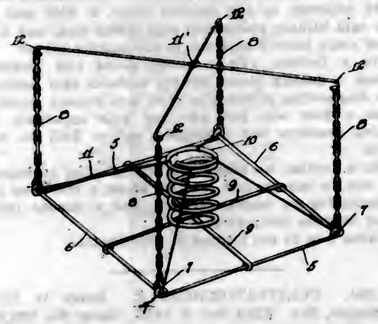
A tank comprising connected top, bottom and side sheet metal members, a concrete casing inclosing said tank, and reinforcing means embedded in said casing consisting of a series of inner and outer frames disposed adjacent the corresponding tank members and composed, each, of intersecting horizontal and vertical bars, the mutually-adjacent vertical bars at the corners of the casing walls having connected tie-wires looped therearound.

1,133,279. DRAFT-EQUALIZER. JOHN GROSS, Carroll, Iowa, assignor to The Gross Company, Carroll, Iowa. Filed Jan. 8, 1914. Serial No. 811,073. (Cl. 21—76.)



The combination with a tongue having a transverse pivot, of a transversely disposed equalizing bar or lever pivotally connected with the tongue at one side thereof in advance of the said pivot, a yoke straddling the tongue and composed of sides connected with the said pivot at opposite sides of the tongue, and a front transverse portion extending across the upper face of the tongue and provided with central and side perforations, and a flexible connection extending from the pivot point of the draft equalizing bar or lever and provided with a pivot adapted to be arranged in any one of the perforations of the yoke, whereby the rear end of the flexible connection is adjustable transversely of the tongue and is adapted to be pivoted either centrally thereof or at either side of the same.

1,133,280. LETTER-HOLDER. SAMUEL LITTLETON GUY, Tangipahoa, La. Filed May 29, 1913. Serial No. 770,669. (Cl. 24—17.)



1. An article carrier including an upper and lower frame, an adjustable connection between said frames, a coil spring carried centrally on said lower frame and means carried by said lower frame and having engagement with the convolutions of said spring for preventing the lateral thrust of the latter.

2. An article holder including an upper and lower frame, an adjustable connection between said frames, a coil spring carried centrally on said lower frame, and flexible stabilizing rods, each of said rods having the one end thereof secured to said lower frame and the opposite end secured to said spring whereby to prevent the lateral thrust of the latter.

3. An article carrier including an upper and lower frame, said lower frame comprising a parallelliogram formed from a plurality of interconnected rods, rods extending transversely and longitudinally of said parallelogram and connected thereto, a coil spring carried midway the ends of said rods, means carried by the parallelogram for preventing the lateral thrust of said spring, and chains permanently secured to said lower frame and detachably engaged with the upper frame for accommodating articles of various sizes between said upper frame and said spring.

4. An article carrier including an upper and lower frame, said upper frame comprising a plurality of rods extending transversely of each other, hooks formed on the opposite ends of said rods, chains detachably engaged with said hooks, the opposite ends of said chains being permanently connected to said lower frame, a coil spring centrally disposed on said lower frame, and stabilizing rods secured to said lower frame for preventing the lateral thrust of said spring.

5. A letter holder including a pair of wire frames, a coil spring mounted on one of said frames for yieldingly engaging letters with the opposite frame, and chains connecting said frames, one end of each of which is permanently engaged with one of said frames, and the opposite end of each detachably engaged with the opposite frame whereby said frames may be relatively adjusted for accommodating various numbers of letters therebetween.

1,133,281. GRIP-SLIDE RETAINER. GRANT HAMMOND, Hartford, Conn., assignor of one-third to Alva C. Washburne, Pittsfield, Mass., and one-third to Frederick G. Crane, Dalton, Mass. Original application filed Oct. 25, 1912, Serial No. 727,694. Divided and this application filed July 16, 1913. Serial No. 779,271. (Cl. 42—7.)

1. A firearm including a frame having retaining grooves, grips slidable into said grooves, pins arranged to engage said grips to prevent them from sliding movement and a single spring resting against said pins to force them into engagement with said grips.



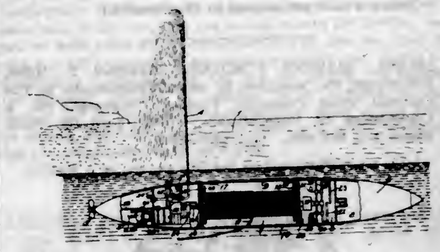
2. A firearm including a handle having retaining grooves on opposite sides thereof, a sleeve mounted in the handle, spring seated pins located in said sleeve and forced in opposite directions, grips slidable into said grooves and having openings to receive the ends of said pins, and means for holding the pins within said sleeve.

3. A firearm including a handle having retaining grooves on opposite sides thereof, a sleeve mounted in the handle, spring seated pins located in said sleeve and having enlarged ends over which the edges of the sleeve are spun to hold the pins in place, a spring thrusting against the inner ends of said pins, and grips slidable into said grooves and having openings to receive the ends of said pins.

4. A firearm including a handle, a member removably located in the handle, a sleeve pin extending through said member to hold it in place, said handle having retaining grooves located on opposite sides thereof, spring seated pins located in said sleeve, grips slidable into said grooves and having openings to receive the ends of said pins, and means for yieldingly holding the pins within said sleeves.

5. A firearm including a handle having retaining grooves on opposite sides thereof, a sleeve mounted in the handle, pins located in said sleeve, means for forcing the pins in opposite directions, and grips slidable into said grooves and having openings to receive the ends of said pins.

1,133,282. TORPEDO. GUSTAV P. HELFRICH, New York, N. Y. Filed July 20, 1914. Serial No. 851,930. (Cl. 114—21.)



1. In a torpedo of the class described, a casing provided with a plurality of compartments, a spool arranged in one of said compartments, said spool being designed to carry a wire, means for supplying current to said wire, means arranged in said casing connected with the wire on said spool for propelling the torpedo, means for supplying a water jet, means for supplying an intermittent light, means for automatically controlling the tossing of the torpedo, and means for turning the torpedo to the right or left according to the amount of current impressed on the wire on said spool.

2. In a device of the character described, means indicating the location of torpedoes comprising an upwardly extending conduit, a pump for forcing water through said conduit so as to provide a jet of water an appreciable distance above the surface of the water in which the torpedo is positioned, means for supplying a light adjacent said jet of water, means for intermittently turning on the jet of water and the light, said means alternately turning on

the jet of water and the light, and means on the shore controlling the supply of current to said light and to the means for forcing the water through said conduit.

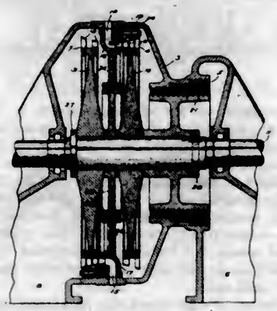
3. In a device of the character described, means indicating the location of a torpedo comprising an upwardly extending conduit, a continuously operating pump for forcing water through said conduit so as to provide a jet of water an appreciable distance above the surface of the water in which the torpedo is positioned, means arranged on the shore for supplying power to said pump, a propeller for said torpedo, means for rotating said propeller, and means actuated by the propeller shaft for intermittently turning on the water from said pump to said conduit whereby said water jet will be supplied intermittently.

4. In a device of the character described, means indicating the location of torpedoes comprising an upwardly directed conduit, a pump for ejecting fluid from said conduit for providing a jet of water extending an appreciable distance above the water in which the torpedo is positioned so as to serve as a visual marker, means for intermittently turning on the water from said pump to said conduit whereby said water jet will be provided at spaced intervals, a pair of guiding tubes associated with said pump, means controlled from the shore for turning on water from said pump to either of said guiding tubes, a plurality of balancing tubes connected with said pump, automatically actuated means for turning on the water to said balancing tube, depth regulating tubes arranged adjacent each end of the torpedo, and automatically operated means for turing on water from said motor to said depth regulating tubes.

5. In a device of the character described, a torpedo shell, means for dividing said torpedo shell into a plurality of compartments, explosive matter arranged in one of said compartments, a wire carrying drum arranged in the second compartment, propelling and steering means arranged in the third compartment, means arranged at each end of the torpedo for balancing the torpedo so as to hold the same on an even keel, means arranged at each end of the torpedo for automatically regulating the depth of the torpedo, a source of current on the shore, and means on the torpedo connected with said wire and with said source of current for controlling the current supplied to the torpedo through said wire.

[Claims 6 to 9 not printed in the Gazette.]

1,133,283. MARINE TURBINE. HERBERT T. HEER, Pittsburgh, Pa., assignor, by mesne assignments, to The Colonial Trust Company, Trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 23, 1910. Serial No. 573,402. (Cl. 121—58.)



1. In a reversing turbine, an ahead portion, a reversing portion, a ring section located between said portions and provided with oppositely discharging fluid delivery passages, a dummy piston mounted on the shaft of the turbine, and a fluid seal located between said piston and said ring section.

2. In a reversing turbine, an ahead portion, a reversing portion, a ring section located between said portions and provided with oppositely discharging delivery passages, a partition mounted on said ring section, a dummy piston mounted on the turbine shaft, and a fluid seal between said partition and said piston.

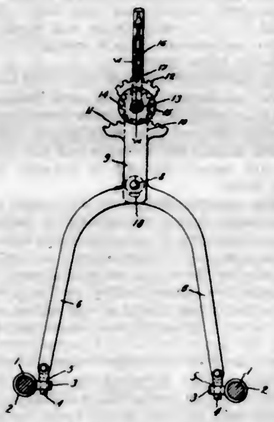
3. In a turbine including an impulse stage and a reaction stage, a nozzle ring for delivering motive fluid to the impulse stage, a balance piston for the reaction stage located adjacent to the impulse stage, a fluid seal between said balance piston and said nozzle ring, and a reversing stage located adjacent to the balance piston.

4. In a turbine, axially alined ahead and reversing portions, a dummy piston located between said portions, and a ring section coöperating with said dummy piston to provide a fluid seal and provided with oppositely discharging passages for delivering motive fluid to each portion.

5. In a turbine, an ahead portion including an impulse stage and an impulse and reaction stage, a reversing portion including an impulse section, and a dummy piston located between the portions.

[Claims 6 to 14 not printed in the Gazette.]

1,133,284. CULTIVATOR-HOPPLE. JOSEF D. HILL, Arlington, Tex. Filed Nov. 8, 1913. Serial No. 799,882. (Cl. 97—35.)

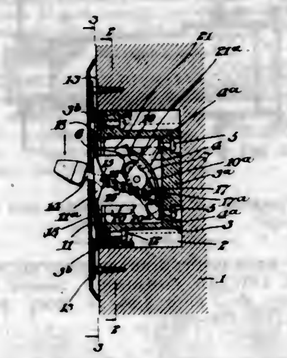


A cultivator hopple comprising a pair of pivotally connected diverging hopple bars, respectively connected at their lower ends to the beams of a cultivator, brackets respectively carried by said bars and extending adjacently upward above their pivotal points, arcuate racks respectively surmounted upon said brackets, a shaft rotatably mounted in one of said brackets, a pinion fast upon said shaft engaging the rack surmounting the other bracket, a lever fast upon said shaft, and a dog carried by the lever engaging the rack surmounting the bracket supporting the shaft carrying the lever.

1,133,285. SNAP-SWITCH. CHARLES HORN, Millbourne, Pa. Filed Oct. 13, 1913. Serial No. 794,764. (Cl. 175—287.)

1. A switch having a terminal, a fulcrumed switch blade, a bearing connected with said blade and extending across the fulcrum thereof, a lever having a bearing engaging said first named bearing, and a coiled spring on said lever and acting against said second named bearing for throwing said blade, said lever being fulcrumed eccentrically to the fulcrum of said blade.

2. A switch having a terminal, a fulcrumed switch blade, a bearing connected with said blade and having a curved surface eccentric to the fulcrum thereof, a lever having a bearing engaging said surface, and a spring acting against said bearing for throwing said switch blade.



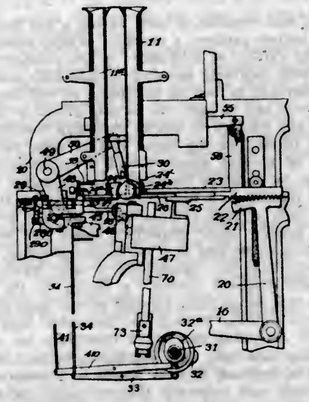
3. A switch having a terminal, a fulcrumed switch blade, a cam connected with said blade, the bearing surface of said cam approaching closest at its median point to the fulcrum of said blade, and a lever fulcrumed eccentrically to said blade and movable over said surface to rock said blade.

4. A switch having a terminal, a fulcrumed switch blade, a lever, a bearing connected with said blade and having members engaging an end of said lever between them, a device carried by said lever and movable thereby over said bearing, and a spring connected with said device for pressing it against said bearing.

5. A switch having a terminal, a fulcrumed switch blade, a lever fulcrumed eccentrically to the fulcrum of said blade, a bearing connected with said blade eccentrically to the fulcrum thereof, a device movable along the length of said lever and along said bearing member, and a spring on said lever and engaging said device for throwing said bearing and blade.

[Claims 6 to 8 not printed in the Gazette.]

1,133,286. FILLING-CHANGER. JOHN E. HUMB and GEORGE S. THOMPSON, Clinton, Mass. Filed Sept. 27, 1912. Serial No. 722,618. (Cl. 139—85.)



1. In a filling changer for looms, the combination with a stationary magazine having a plurality of compartments for bobbins or filling carriers, a transferrer, and a lay, of a set of boxes, means for reciprocating said boxes between the magazine and the lay, means operated by said lay for operating the transferrer to transfer a filling carrier from one of the boxes to the shuttle, and means controlled by the box that is in position to deliver for completing the connections for operating the transferrer.

2. In a filling changer for looms, the combination with a magazine having a plurality of compartments for bobbins or filling carriers, a set of reciprocatory boxes mounted under the magazine, means for reciprocating said boxes, means adapted to be operated by the beat of the lay for transferring a bobbin from one of the boxes to the shuttle, and a set of trips moving with said boxes for controlling the operation of said means.

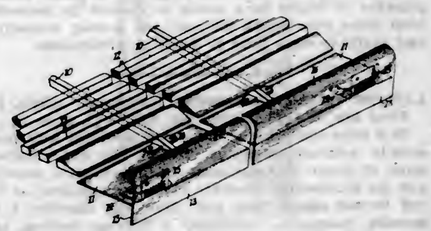
3. In a filling changer for looms, the combination of a magazine having a plurality of compartments therein, a set of boxes movable under said magazine, a transferrer movable to transfer a filling carrier from one of said boxes downwardly, a set of trips on the boxes, a lay, a reciprocable rod, means for moving said rod synchronously with the beat of the lay, means operated by said rod to engage one of the trips on the boxes, and means operated by said trip for receiving the impact of the lay and operating the transferrer thereby.

4. In a filling changer for looms, the combination of a magazine having a plurality of compartments therein, a set of boxes reciprocable under said magazine, each having an open bottom, a transferrer adjacent to said magazine and movable to transfer a filling carrier from one of said boxes downwardly, a set of trips on the boxes, one for each box, a lay, a reciprocable rod, means for moving said rod synchronously with the beat of the lay, means operated by said rod to engage one of the trips on the boxes, and means operated by said trip for receiving the impact of the lay and operating the transferrer thereby.

5. In a machine of the character described, the combination of a magazine having a plurality of vertical compartments therein, a set of boxes reciprocable under said magazine, each having an open bottom, a transferrer movable downwardly into the boxes for transferring a bobbin from one of the boxes through the bottom thereof, a set of trips on said boxes, one for each box, a vertically reciprocable rod, means for reciprocating said rod once for each beat of the lay, said rod having means for moving the one of said trips which corresponds with the box that is under the transferrer, a second reciprocable rod, means in position to be operated by the trip for moving the second rod laterally, a plate in position to be engaged by the second rod on its upward reciprocation when it has been so moved, and means connected with said plate for causing the transferrer to be operated.

[Claims 6 to 16 not printed in the Gazette.]

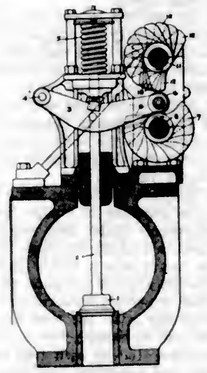
1,133,287. CAR-FENDER. FREDERICK E. HUTCHINGS, New York, N. Y. Filed June 7, 1912. Serial No. 702,227. (Cl. 105—127.)



A car fender having a body portion and means for automatically raising the front edge thereof when the fender encounters a comparatively small obstacle to permit said fender body to pass over said obstacle, said means comprising a comparatively narrow plate extending along

the front edge of the fender body and pivoted intermediate of its edges at the front edge of said fender body, and resilient means normally tending to hold said plate in a forwardly and downwardly inclined position but permitting the downward and rearward movement of said front edge beneath the edge of said fender body to lift the front edge of said body and to bring said plate to a downwardly and rearwardly inclined position.

1,133,288. VALVE-OPERATING MECHANISM. OSCAR JUNGGREN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 16, 1914. Serial No. 851,302. (Cl. 121—118.)



1. The combination with the valve mechanism of an elastic fluid turbine comprising lifting levers and cams, of means independent of said cams for positively closing the valves when the lifting levers are released by the cams.

2. The combination with the valves of an elastic fluid turbine, of levers for lifting them, cams for actuating said levers, and independent mechanical devices operating in synchronism with said cams for depressing said levers when released by said cams.

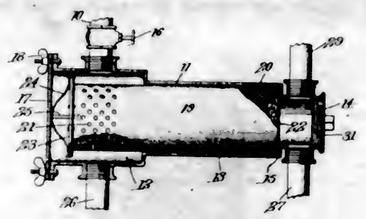
3. The combination with the valves of an elastic fluid turbine, of a lever for lifting each valve, a cam for lifting each lever, and a wiper separate from said cam for depressing said lever.

4. The combination with the valves of an elastic fluid turbine, of levers for lifting them, a shaft carrying cams adapted to actuate said levers, and a countershaft carrying wipers for depressing said levers.

5. The combination with the valves of an elastic fluid turbine, of levers for lifting them, a shaft provided with a plurality of cams for actuating said levers, a countershaft parallel with the cam shaft and provided with a plurality of wipers each acting to depress its respective lever when released by the cam, and gearing connecting said shafts to cause them to rotate in synchronism.

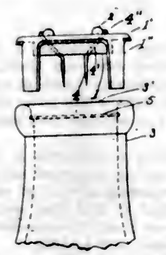
1,133,289. FILTER. JOSEPH S. KEITHLINE, Askam, Pa. Filed Jan. 2, 1915. Serial No. 150. (Cl. 210—15.)

In a filter combination of a casing provided with three serially arranged chambers, one of the end chambers being of larger diameter than the intermediate chamber and the intermediate chamber having an abutment at the end thereof remote from said larger end chamber, a removable receptacle, containing a filtering medium and arranged in said intermediate chamber in engagement with said abutment, said receptacle extending into said larger end chamber and having perforations in its end portions to permit the passage of water, an inlet pipe connected with said larger end chamber, an outlet pipe connected with the other end chamber, removable closures for said end chambers, means for draining said larger end chamber, and a spring between the closure for the



larger end chamber and said receptacle to hold the latter in place.

1,133,290. MILK-BOTTLE SEAL-REMOVER, SEAL-REPLACER, AND LID, COMBINED. JEROME W. KEYS, St. Joseph, Mo. Filed Sept. 14, 1914. Serial No. 861,581. (Cl. 215—53.)

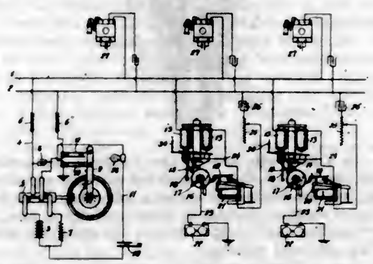


1. In a seal remover, a body having a flat horizontally disposed bottom surface; a plurality of journal members rotatably mounted in said body and extending therethrough said journal members being inclined at an angle of practically forty-five degrees to said bottom surface; an extractor formed on the lower end of each one of said journal members and extended therefrom, said extractors being adapted to project vertically and to puncture and to be passed through a seal of card board, paper and the like; and rotating means on the upper end of each one of said journal members whereby the same and the therewith formed extractor are rotated for moving said extractor from a vertical to a horizontal position and vice versa.

2. In a seal remover, a body having a flat horizontally disposed bottom surface; a plurality of snap bosses formed on the top surface of said body; a like plurality of journal members rotatably mounted in said body and extending threethrough in inclined positions; an extractor formed on the lower end of each one of said plurality of journal members and adapted to extend vertically therefrom; and a handle formed on the upper end of each one of said plurality of journal members and extended horizontally therefrom, for rotating the therewith connected extractor from the vertical to a horizontal position and vice versa, the free ends of said handles being adapted to be snap fastened against their respective bosses for detachably holding said extractors in a horizontal position.

3. A seal remover, comprising a body having a flat horizontally disposed bottom; a flange on the edge of said body said flange being adapted to rest upon the mouth of a bottle; guides formed on the outer edge of said flange and extending downward therefrom for centering and guiding said body into register with said mouth; a plurality of inclined journal members rotatably mouted in said body and extended therethrough; an extractor formed with and vertically extended from the lower end of each one of said plurality of journal members, said extractors being adapted to puncture a seal of card board and to be passed therethrough; a handle formed on the upper end of each one of said plurality of journal members for rotating the therewith connected extractor from the vertical position to a horizontal position beneath said seal; and snap fastening means on said body whereby the free ends of said handles are detachably secured for holding said extractors in said horizontal position.

1,133,291. SELECTIVE SIGNALING SYSTEM. EDWARD E. KLEINSCHMIDT, New York, N. Y., assignor to Hall Switch & Signal Company, a Corporation of Maine. Original application filed Sept. 8, 1910, Serial No. 581,009. Divided and this application filed Apr. 7, 1913. Serial No. 759,483. (Cl. 177—343.)



1. In a selective signaling system, a central station, a plurality of local stations, a line circuit connecting the said stations, circuits bridged on the line at the local stations, a selector and a condenser in series therewith included in said bridged circuits and a signal at each station under the control of the selector thereat responsive only to direct current.

2. In a selective signaling system, a central station, line conductors, selector apparatus at a plurality of stations bridged across the line conductors, said bridged circuits being open to continuous current flow, means for impressing reversals of the current on the line to actuate the selectors and a signal at each station under the control of the selector thereat responsive only to direct current.

3. In a selective signaling system, a central station, a plurality of local stations, a line circuit connecting said stations, selectors responsive to reversals of current and not to direct current, said selectors being bridged on the line circuit, signals at the stations controlled by said selectors and responsive to direct current, means for impressing reversals of current on the line to select a local station, means to impress a direct current on the line to operate a signal at the selected station after the selector is set, and means to prevent the flow of direct current through the bridged circuit.

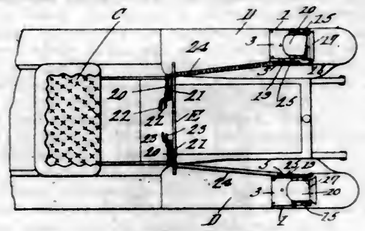
4. In a selective signaling system, a central station, a plurality of local stations, a line circuit connecting said stations, selectors bridged on the line circuit, means for impressing reversals of the current on the line to select a local station, means to impress a direct current on the line to operate a signal at the selected station after the selector is set, and a condenser in the bridged circuit to prevent the flow of direct current therethrough.

5. In a selective signaling system, a central station, a plurality of local stations, a line circuit connecting said stations, selectors at the local stations bridged on the line, a selector battery bridged on the line and connected to ground, means for impressing impulses on the line to select a local station, and means for opening said grounded circuit while said impulses are on the line.

[Claims 6 to 14 not printed in the Gazette.]

1,133,292. DIRIGIBLE LIGHT. ELMER E. KRUMBEIN, Womelsdorf, Pa. Filed Oct. 2, 1914. Serial No. 864,685. (Cl. 240—61.)

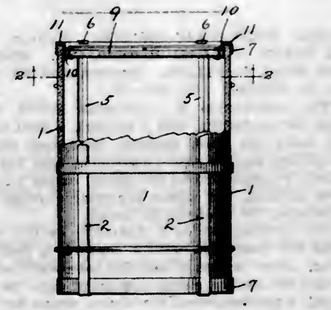
1. The combination with a revoluble lamp support, and means for locking the support against rotation, of a lever, support rotating mechanism, a connection between said mechanism and the lever, yielding means for holding said mechanism and the lamp support normally in a predetermined position, a second lever, and means operated by said second lever for unlocking the lamp support, said second lever being adapted, during its actuation in one direction, to successively unlock the support and actuate the rotating mechanism.



2. The combination with a lamp support mounted for rotation, and means for locking said support against rotation, of a gear revoluble with the support, a second gear meshing therewith, an arm extending from said second gear, a lever, a connection between the lever and arm, yielding means for normally holding the gears in predetermined positions, a second lever, means connected thereto for unlocking the support, said second lever being adapted, during its movement in one direction, successively to unlock the support and to actuate the first mentioned lever.

3. The combination with a lamp support mounted for rotation, and means for locking said support against movement, of a gear revoluble with the support, another gear meshing therewith, an arm extending from the last named gear, a lever, a tubular connection between the lever and arm, yielding means engaging the arm for holding the lever and lamp support normally in predetermined positions, a second lever, and a connection between said second lever and the locking means, said connection being extended through the tubular connection, the said second lever being adapted, during its movement in one direction, successively to unlock the support and to actuate the first named lever to rotate the support.

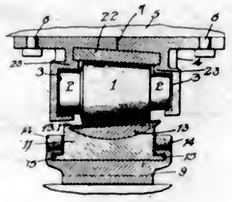
1,133,293. KNOCKDOWN CONTAINER. MAURICE LACHMAN, New York, N. Y., assignor to Lachman Manufacturing Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 12, 1913. Serial No. 760,591. (Cl. 229—67.)



A knock-down container comprising a plurality of sections adapted to form a body, longitudinal stay-members comprising metallic devices of substantially I-cross-sections the width of the webs of which is substantially the same as the thickness of a section, end hoops fitting over

the ends of all of said sections and having a depending flange, a head provided with a flange lapping the ends of the body, and hooks formed by extending the bases of the I cross-section stays and bending said bases over a portion of said head to retain said head within the container.

1,133,294. SIDE BEARING. ELMYR A. LAUGHLIN, Chicago, Ill. Filed Mar. 24, 1913. Serial No. 756,491. (Cl. 64—64.)



1. In a side bearing for cars, the combination of rollers, and a pair of wearing plates located in substantially the same horizontal plane and supporting said rollers, said plates being tiltable independently of each other transversely to the direction of travel of said rollers.

2. In a side bearing for cars, the combination of rollers, and a pair of wearing plates supporting said rollers, said plates being tiltable independently of each other in one direction and together in a transverse direction.

3. In a side bearing for cars, the combination of a roller, a supporting member, a bearing member movable thereon and having a concave seat formed therein, and a wearing plate for said roller, said wearing plate being convex on one side so as to fit into said concave seat and being movable therein to conform to the path of the movement or form of the roller.

4. In a bearing, the combination of two relatively movable supporting members, a roller located between said members, a bearing member shiftably mounted on one of said supporting members, a wearing plate mounted on said bearing member and movable transversely to the shifting thereof so as to adjust itself to the roller during the movement of the latter.

5. In a bearing, the combination of two rollers suitably arranged to support a weight, a wearing plate below each of said rollers and mounted to be tiltable transversely to the direction of travel of the rollers, a bearing plate supporting both of said wearing plates and mounted to be tiltable in the direction of travel of the rollers, and a support for said bearing plate.

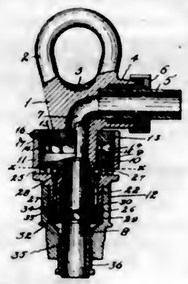
[Claims 6 to 8 not printed in the Gazette.]

1,133,295. HYDRAULIC SWIVEL. MAHLON E. LAYNE and SAMUEL N. HALL, Houston, Tex. Filed Aug. 3, 1909, Serial No. 511,040. Renewed Nov. 25, 1913. Serial No. 803,027. (Cl. 255—25.)

1. The combination in a hydraulic swivel, of a head adapted for connection with a support, a shell mounted to rotate about the head, bearings interposed between the head and the shell, a sleeve associated with the head and the shell, a packing about the sleeve, means for compressing the packing, and means operating through the shell for adjusting the compressing means.

2. The combination in a hydraulic swivel, of a head adapted for connection with a support, a shell mounted to rotate about the head, bearings interposed between the head and the shell, a sleeve associated with the head and the shell, a packing about the sleeve, means for compressing the packing, means operating through the shell for adjusting the compressing means and a coupling member fitting about the sleeve and on the shell, and providing an oil containing chamber about the packing compressing means.

3. In a hydraulic swivel, a non-rotative member, a rotative member coöperating with the first member, a sleeve associated with both members, a packing about the sleeve, and means inclosed within one of the members for adjusting the packing, said member having provision whereby the inclosed adjusting means may be adjusted from the exterior of the swivel without disconnecting any of the parts thereof.

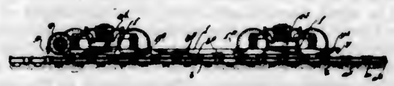


4. In a hydraulic swivel, two members, one positioned about the other, a sleeve associated with the members, the outer member having an opening extending inward from its outer surface, a packing about the sleeve, and means for adjusting said packing having its operating end projecting into said opening.

5. In a hydraulic swivel, two members, one adapted to rotate about the other, a sleeve associated with the members, one of said members having wrench receiving openings, a packing about the sleeve, means for compressing the packing, and means for adjusting the compressing means having wrench engageable parts extending into the openings of said member.

[Claims 6 to 10 not printed in the Gazette.]

1,133,296. ELECTRIC-RAILWAY SYSTEM. PAUL W. LEFFLER, Chicago, Ill.; Anna A. Leffler, administratrix of said Paul W. Leffler, deceased, assignor to Leffler Electric System, Chicago, Ill., a Corporation of Maine. Filed Aug. 13, 1908, Serial No. 448,269. Renewed Aug. 10, 1914. Serial No. 856,152. (Cl. 172—290.)



1. The combination with a car, of a car track divided into insulated blocks, a sectional third rail or conductor, a D. C. series wound dynamo, a supply circuit from said dynamo extending along the line of the car's travel and divided into sections corresponding to said car track blocks, track magnets spaced apart from each other and connected with the feeding side of said supply circuit and with said sectional third rail to afford a magnetic field extending along the line of travel, a non-rotating armature on the car and devices subject to the control of the car for connecting into the supply circuit the field section of a given block occupied by the car and the armature on the car in series with said dynamo and which dynamo delivers current at a substantially constant current, varying in voltage according to load, substantially as described.

2. The combination with a car having a non-rotating armature thereon, of a track divided into insulated blocks, a sectional third rail or conductor, a D. C. series wound dynamo, a supply circuit from said dynamo extending along the line of travel and divided into sections corresponding to said track blocks, track magnets spaced apart from each other in the roadway and connected with the feeding side of said supply circuit and with said sectional third rail to afford a magnetic field extending along the line of travel, and automatic rheostats, in the supply circuit, containing devices which electrically connect the sections of said supply circuit into a closed metallic circuit from said dynamo, with minimum resistance at said rheostats, but which devices, under the control of the car operate, whenever a car comes onto a given block, to increase the resistance of the rheostat for that block, substantially as described.

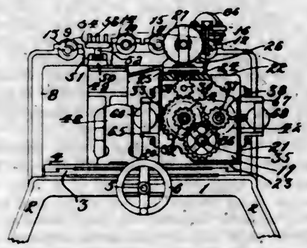
3. The combination with a car, of a track divided into blocks insulated from each other and each provided with a rheostat housing, a third rail or conductor composed of sections insulated from each other and from the ground, magnets in the roadway constituting a magnetic field extending along the entire line of travel, a non-rotating armature, a rotary armature, having windings, actuated by said magnets, a pole changer on the car actuated by said rotary armature to change the polarity of the non-rotating armature, a D. C. series wound dynamo delivering a predetermined constant current varying in voltage according to load, a closed metallic circuit from said dynamo containing automatic rheostats, in said housings, having movable contacts, solenoids for controlling the movable contacts of said rheostat, a shunting connection from one of the track rails through the solenoid magnets, to the feed wire of the supply circuit, which field magnets are connected to the feeding side of the supply circuit and to the third rail, leaving the field circuit open at the sectional third rail, and which car is adapted, when it comes into a given block, to connect up the field magnets under the car, windings of the pole changer on the car, and the car armature and the solenoid magnet of the rheostat of that block, into the supply circuit, in series with each other, for coöperation, substantially as described.

4. The combination with a car having a non-rotating armature and a magnetic pole changer operated by the field electrically connected to said armature to change the polarity of the armature, of track magnets spaced apart from each other in the roadway and affording a magnetic field extending along the line of travel, and supply circuit connections for said parts including windings for said armature which windings are electrically variable at the will of the operator, substantially as described.

5. In an electric railway system, the combination with a magnetic field extending along the line of travel, of a car having a non-rotating armature and a magnetic pole changer operated by the field electrically connected to said armature to change the polarity of the armature, and which armature has windings that are electrically variable at the will of the operator, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,133,297. SELVAGE-CUTTER. ARTHUR P. LEWIS, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 8, 1914. Serial No. 837,230. (Cl. 164—61.)



1. A device for trimming the selvage from a moving strip of fabric embodying a shiftably-mounted knife, means contacting solely with the edge of the fabric arranged to be shifted by its engagement with the meandering edge thereof, said means having connection with said knife for correspondingly changing the position of the latter.

2. A device for trimming the selvage from a moving strip of fabric embodying a shiftably-mounted knife, means positioned wholly to one side of and constantly held in contacting relation with the edge of the fabric and arranged to be shifted by the meandering edge thereof, mechanism for shifting said knife, said means having connection with the edge-engaging means for inducing corresponding changes of position of the knife.

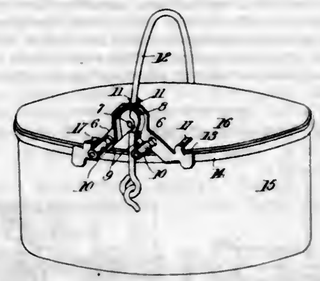
3. A device for trimming the selvage from a moving strip of fabric embodying a shiftably-mounted knife, mechanism for shifting the position of said knife, means positioned wholly to one side of and normally held in contacting relation with the edge of the fabric and arranged to be shifted by the unevenness of the edge thereof, said means having connection with the mechanism for shifting the position of said knife whereby a change of position of the latter is produced by the changes of position of the edge-engaging means.

4. A device for trimming the selvage from a moving strip of fabric embodying a shiftably-mounted knife, mechanism for shifting the position of said knife, a shiftable carriage, means on said carriage positioned wholly to one side of the strip of fabric adapted to contact with the edge of the moving fabric, means to constantly maintain said carriage in position to effect said contacting engagement, means connecting said carriage with the knife-shifting mechanism whereby any movement of the former produces a corresponding movement of the knife.

5. A device for trimming the selvage from a moving strip of fabric embodying a shiftably-mounted knife, mechanism for shifting the position of said knife, a shiftable carriage-carrying means positioned wholly to one side of said strip and normally held in contacting engagement the edge of the fabric and arranged to be moved by its engagement with the uneven portions thereof, means connecting the carriage with the knife-shifting mechanism possessing the function of shifting the knife whenever the position of the carriage changes.

[Claims 6 to 10 not printed in the Gazette.]

1,133,298. BAIL-HOLDER FOR KETTLES. CHARLES H. LINDEGARD, Cleveland, Ohio. Filed May 2, 1914. Serial No. 835,928. (Cl. 220—32.)

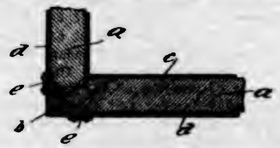


A bail and cover holder for kettles or the like, comprising a pair of arms pivoted together between their ends, said arms having jaws at their upper ends adapted to engage a bail, clips at their lower ends adapted to engage the rim of the kettle when the jaws are engaged with the bail, and tongues projecting inwardly to rest on the cover, and a spring tending to close the jaws.

1,133,299. HEAT-INSULATING STRUCTURE. ANDREAS P. LUNDIN, New York, N. Y. Filed June 24, 1913. Serial No. 775,523. (Cl. 217—5.)

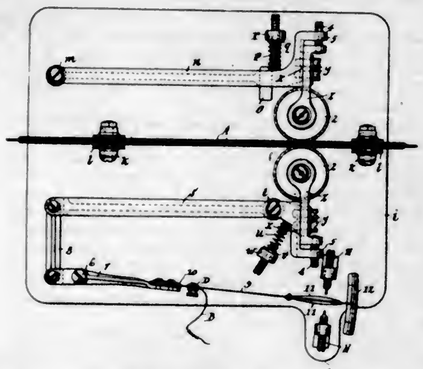
As a new article of manufacture, a substantially air-tight container, constructed to contain perishable matter and preserve the same at a low temperature by means of

a refrigerant contained therein, all the walls of said container being composed substantially entirely of water-



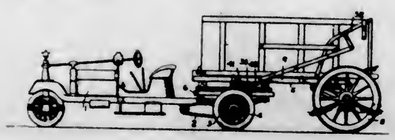
proofed balsa wood, whereby the structural strength and heat insulating effects are united in a single element.

1,133,300. APPARATUS FOR INDICATING VARIATIONS IN GAGE OF INSULATED WIRE. WILLIAM H. MCGAULEY, Bridgeport, Conn. Filed Mar. 5, 1913. Serial No. 751,982. (Cl. 33—147.)



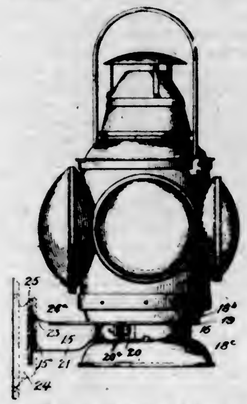
In combination, a supporting structure, a lever fulcrumed therein on a vertical axis, a motion-amplifying means operatively connected with and actuated by said lever and including a pointer, a gage with reference to which the pointer is movable, another lever fulcrumed in said structure on a vertical axis, opposite wire-contact devices carried by the levers, and springs resisting movement of the contact-devices-carrying portions of said levers from each other, the spring for the second lever opposing greater resistance than the other spring, substantially as described.

1,133,301. DUMPING-WAGON. JOHN J. MCGUIRE, New York, N. Y. Filed May 10, 1913. Serial No. 766,747. (Cl. 21—20.)



In a dumping wagon of the class described, a running gear provided with a supporting frame, a body adapted to be dumped therefrom, said body being formed with a tail board, a pair of arms pivotally connected at one end with said body and at the other end with the upper edge of said tail board, means for locking the lower end of said tail board in place while said body is on said frame, a link pivotally connected to each of said arms substantially central thereof and extending normal thereto when the body is on said frame, a rod pivotally connected to each of said links and to said supporting frame, said rods being connected with said supporting frame in front of said arms, whereby when said body is dumped the tail board and the upper end of said arms will move therewith until said links and said rods move to a position substantially in alinement, whereupon a further swinging movement of the arms will be stopped, while said body continues its movement until it strikes the ground, thus causing a separation of the tail board and the body.

1,133,302. LAMP-BRACKET FOR RAILWAY-CARS. BERTRAM H. MANN, St. Louis, Mo. Filed Apr. 5, 1910. Serial No. 553,636. (Cl. 248—20.)

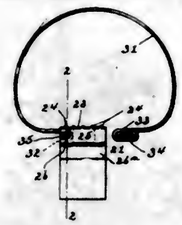


1. A lamp bracket comprising a body portion of ring form adapted to engage the reduced part and both adjacent outwardly projecting surfaces of a lamp base, said body portion being formed in two parts, said parts having radially extending coacting flanges integral therewith at their meeting ends, said flanges being apertured, adjustable means engaging said apertures to secure said parts of said body portion together, an arm integral with one of said parts, said arm having transverse flanges at its end adapted to engage a socket, a horizontally projecting flange extending around the periphery of said body portion and said arm having its upper surface substantially flush with the upper surface of said body portion, said last mentioned flange having notches therein adjacent said transverse flanges to permit engagement of the latter with said socket, said arm being of relatively increased depth adjacent said notches.

2. A lamp bracket comprising a body portion of ring form adapted to engage the reduced part and both adjacent outwardly projecting surfaces of a lamp base, said body portion being formed in two parts, said parts being detachably secured together at their meeting ends, an arm integral with one of said parts, said arm having a transverse flange at its end adapted to engage a socket, a horizontally projecting flange extending around the periphery of said body portion and being continued along said arm, said horizontal flange having its upper surface substantially flush with the upper surface of said body portion, said last mentioned flange having notches therein adjacent said transverse flanges to permit engagement of the latter with said socket, said arm being of relatively increased depth adjacent said notches.

3. A lamp bracket comprising a body portion of ring form adapted to engage the reduced part and both adjacent outwardly projecting surfaces of a lamp base, said body portion being formed in two parts, said parts being detachably secured together at their meeting ends, an arm integral with one of said parts whereby said body portion is spaced from the car body to which it is attached, a horizontally projecting flange extending around the periphery of said body portion and outwardly along said arm, said horizontal flange having its upper surface substantially flush with the upper surface of said body portion and said body portion and said horizontal flange having a relatively great depth vertically and radially, respectively.

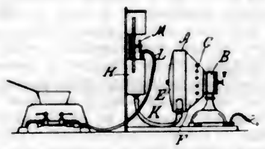
1,133,303. CAR-SEAL. WILLIAM C. MARTINEAU, Albany, N. Y., assignor to Universal Car Seal and Appliance Company, Albany, N. Y., a Corporation of New York. Filed Mar. 13, 1913. Serial No. 753,935. (Cl. 70—99.)



1. A car seal comprising a body of hard and relatively thick metal folded to form a box and front and rear walls depending below said box; a tag of relatively thin metal permanently secured between said walls; a shackle having ends adapted to be inserted within the ends of said box; and coöperating means within said box and on said shackle ends for preventing their separation.

2. In a car seal of the class described, a box having internal shackle-engaging means; and a wire shackle one end of which is formed into a flat coil from within which the extreme end of the wire projects laterally at a low angle so as to form a hook adapted to engage said shackle engaging means, said coil being of a size to substantially close the aperture in said box.

1,133,304. VENTILATOR. HIPPOLYTE MAUGRAS, Marseille, France. Filed Aug. 25, 1913. Serial No. 786,432. (Cl. 230—11.)

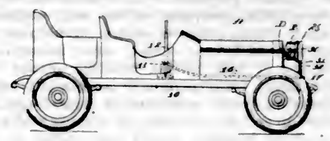


1. In a device of the class described, in combination, a casing consisting of two parts, fan blades rotatably mounted in one of said parts, said part being provided with an air inlet, the other of said parts being provided with an air outlet and with a partition forming a passage communicating with said outlet, said second mentioned part being removable from said first mentioned part.

2. In a device of the class described, in combination, an electric fan consisting of a motor and fan blades, and a two part casing, one of said parts inclosing said blades and being provided with an air inlet, the other of said parts being provided with an air outlet and with a partition forming a passage communicating with said outlet, said second mentioned part being removable from said first mentioned part whereby said fan may be used for the ventilation of apartments in the usual manner.

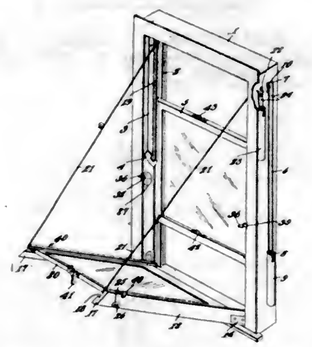
1,133,305. LAMP-SIGNAL FOR AUTOMOBILES. THOMAS MOCYDLARZ, Strathcona, Alberta, Canada. Filed Dec. 23, 1913. Serial No. 808,359. (Cl. 40—65.)

The combination with an automobile, of a signaling device comprising a lamp, vertical guides supported adjacent to the lamp, signal slides movable in said guides, and provided with laterally-projecting stub shafts, a shaft disposed transversely of the machine frame, a sleeve mounted on said shaft, a pair of arms secured at their rear ends to said shaft, a second pair of arms secured at their rear ends to said sleeve, levers secured respectively to said shaft and sleeve, the forward ends of each of said



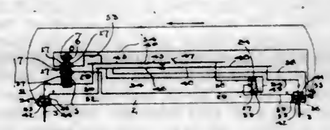
arms being formed with elongated slots to receive said stub shafts.

1,133,306. SAFETY WINDOW CLEANING DEVICE AND VENTILATOR. JOHN B. MORROW and CLAUS P. GERITZ, Brooklyn, N. Y. Filed Jan. 2, 1914. Serial No. 810,041. (Cl. 20—45.)



In a device of the class described, a casing; an upper sash mounted to slide in the casing; a frame pivoted to the casing; a lower sash mounted to slide in the frame; a locking element on the lower sash; and locking elements upon the upper and lower ends of the upper sash, the locking elements on the upper sash being adapted to coact at different times with the locking element on the lower sash; the frame constituting means for opening the casing to permit the upper sash to be swung downwardly, along with the frame, and the lower sash and the locking element on the lower sash coöperating with the locking element upon the upper end of the upper sash, to hold the upper sash in place upon the frame.

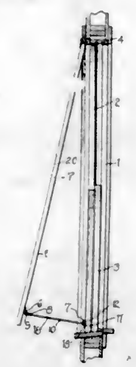
1,133,307. ELECTRICAL SIGNAL. GEORGE C. MURPHY, Louisville, Ky. Filed Jan. 4, 1913. Serial No. 740,219. (Cl. 246—28.)



A double-acting signal system for cars passing in opposite directions upon adjoining tracks comprising a signal carried by each car, a primary circuit carried by each car and electrically connected to a source of electrical supply, a circuit closing member carried by the forward end of each car and placed within said primary circuit, a solenoid placed within said primary circuit, a core carried by said solenoid and provided with a plurality of contact means, an auxiliary circuit including said solenoid, a plurality of contact members in said auxil-

iary circuit adapted to have a circuit closed therethrough by means of one of said contact members of said solenoid, a circuit breaker provided with a plurality of contact points electrically connected within said auxiliary circuit, a signal circuit provided with a plurality of contact points adapted to have a circuit closed therethrough by means of one of said contact members carried by said core, said signal being placed in said signal circuit, a circuit breaking circuit connected to said circuit breaker and adapted to actuate the same for opening said auxiliary circuit, a circuit breaking flapper arm carried by the end of each car and connected to said circuit breaking circuit for closing a circuit through said circuit breaking circuit and circuit breaker for opening said auxiliary circuit and returning said solenoid to its original position and automatically setting the same ready for the next operation, and a manually operated switch for controlling the passage of electrical current to all of said circuits for allowing the electrical current to be manually cut off from said signal system.

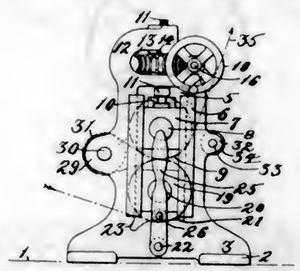
1,133,308. SASH-FASTENER. HENRY L. MUTHER, Minneapolis, Minn. Filed May 2, 1914. Serial No. 835,959. (Cl. 16—22.)



The combination with a window frame and a storm sash pivotally engaged with such frame, of a fastening means for such storm sash comprising a keeper secured to a side sill of the frame, an elongated latch member pivotally engaged with a rail of the storm sash and directed through such keeper, such latch member in close proximity to its pivotal connection with the storm sash being provided with a recess to receive a bar of the keeper, said pivoted extremity of the latch member being provided with an inwardly disposed rounded extension, the inner edge of said extension being in continuation of the edge of the recess, and means carried by a rail of the storm sash and coacting with the latch member for maintaining such bar of the keeper within the recess of the latch, the relative positions of the pivotal connection between the latch member and the storm sash and the recess within the latch being such that when the latch is adjusted on its pivot to release the same from the keeper, the inner edge of the rounded extension engaging the keeper to impart an initial outward movement to the storm sash.

1,133,309. TENSIONING DEVICE. EDWARD NALL, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 8, 1914. Serial No. 837,205. (Cl. 242—75.)

1. A tension device for the purpose described comprising a pair of housings, an idler roll, a pair of pressure rolls mounted in the housings and positioned to permit the peripheral faces thereof to be brought into contact, one of said rolls adapted when shifted toward the other roll to press different portions of a strip of fabric passed in opposite directions and around an idler roll between them to thereby produce frictional tension on the moving strip of fabric.



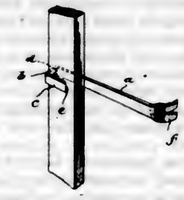
2. A tension device for the purpose described comprising a pair of housings, a pair of independent rolls mounted in said housing, one of which is shiftable toward and away from the other, an idler roll, said shiftable roll adapted when moved toward the other roll to press different portions of a strip of fabric passed in different directions over the opposing faces of the two rolls and around said idler roll together, means to adjust the position of one roll, and means for holding the other roll in its inoperative position, said means when shifted adapted to move the latter roll quickly to a predetermined operative position.

3. A tension device for the purpose described comprising a pair of housings, a pair of independently-shiftable rolls mounted in said housings, an idler roll, said rolls arranged to set up a rubbing frictional engagement between different portions of a strip of fabric passing around said idler rolls and in opposite directions over the adjacent faces of said first-mentioned rolls, means embodying a threaded element adapted to control the position of one roll, an oscillating lever having connection with the other roll arranged when oscillated to shift the latter roll from an operative to an inoperative position and vice versa.

4. A tension device for the purpose described comprising a pair of housings, a pair of independently-shiftable rolls mounted in said housings, an idler roll, said rolls arranged to set up a rubbing frictional engagement between different portions of a strip of fabric passing around said idler rolls and in opposite direction over the adjacent faces of said first-mentioned rolls, means embodying a threaded element adapted to accurately adjust the position of one roll, a rock-shaft mounted in said housings, a lever on said rock-shaft, a pin carried on said rock-shaft adapted to engage the bearing of the other roll arranged when in one position to hold said roll in its operative position, said lever when shifted permitting movement of said roller to its inoperative position.

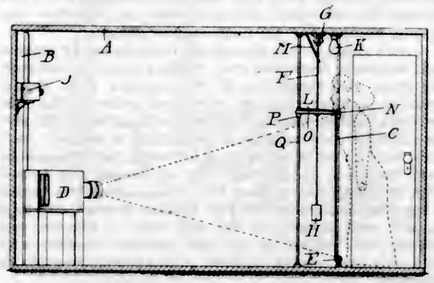
5. A tension device for the purpose described comprising a pair of housings, a pair of independently-shiftable rolls mounted in said housings, an idler roll, said rolls arranged to set up a rubbing frictional engagement between different portions of a strip of fabric passing around said idler rolls and in opposite direction over the opposite faces of said first-mentioned rolls, means embodying a threaded element to accurately adjust the position of one roll, a rock-shaft mounted in said housings, a lever on one end of said shafts, an arm on the opposite end, said lever and arm equipped with pins, said pins adapted to constitute supports for the bearings for the other roll when in one position, said pins arranged when said lever and arm are shifted to move from engagement with said bearings to permit the movement of said roll to its inoperative position.

1,133,310. CARPENTER'S TOOL. RAYMOND F. NASH, Moritz, S. D. Filed Apr. 28, 1914. Serial No. 834,926. (Cl. 57—9.)



A carpenter's tool consisting of a metal bar provided at one end with a stirrup projecting laterally from the bar and opening toward the handle end of the bar, the stirrup on the back bar *b* provided with a forwardly projecting spike, and also of an outer bar *c* arranged at a distance from the main bar and approximately parallel therewith.

1,133,311. COMPOSITE-PICTURE MACHINE. WILLIAM WALLACE NEWCOMB, New York, N. Y., assignor to The McCall Company, a Corporation of New York. Filed Dec. 11, 1914. Serial No. 876,632. (Cl. 88—24.)



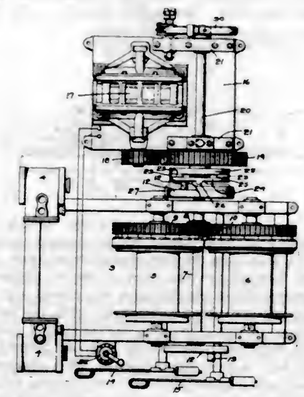
1. A composite picture machine for exhibiting designs of various costumes as they would appear in use including in combination a screen at the back of which the contemplated user can be located and which screen covers that portion of the user's body to which the costume would be applied, a projecting apparatus for throwing pictures of said costumes on said screen and means for combining in a single image the costume covering a portion of the user's body and the remaining exposed portion of said body.

2. A composite picture machine for exhibiting designs of various costumes as they would appear in use including in combination a screen at the back of which the contemplated user can be located and which screen extends from the floor upward and is adjustable in height to the level of the top of the user's clothes, a projecting apparatus for throwing pictures of said costumes on said screen and means for combining in a single image the costume on said screen and the head of the user.

3. A composite picture machine for exhibiting designs of various costumes as they would appear in use including in combination a screen at the back of which the contemplated user can be located and which screen covers that portion of the user's body to which the costume would be applied, a projecting apparatus for throwing pictures of said costumes on said screen and means for combining in a single image the costume covering a portion of the user's body and the remaining exposed portion of said body, means for illuminating said exposed portion of the user's body and means for shading said screen.

4. A composite picture machine including in combination a screen, a projecting apparatus for throwing a portion of the desired composite picture on said screen and a mirror arranged to combine in a single image the portion of the picture thrown on said screen and a portion of a person facing the mirror.

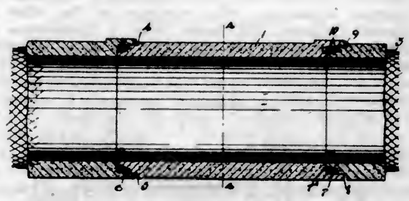
1,133,312. COUPLING CONNECTION. ALMON E. NORRIS, Cambridge, Mass. Filed Mar. 28, 1907. Serial No. 364,981. (Cl. 64—13.)



1. The combination with a crank shaft of a hoisting engine having a crank disk thereon provided with a crank pin, of a driving shaft supported independently from the crank shaft, a cup-shaped crank-disk-receiving member inclosing the crank disk and having an aperture to receive the crank pin, and a flexible connection between said member and the driving shaft.

2. The combination with a crank shaft having a crank disk provided with a crank pin, of a driving shaft, a cup-shaped crank-disk-receiving member loosely fitting over the crank disk and provided with an aperture to receive the crank pin, a driving disk on the end of the driving shaft, and an intermediate member flexibly connecting the driving disk and the crank-disk-receiving member.

1,133,313. CONCRETE PIPE. WALTER C. PARMLEY, Upper Montclair, N. J. Filed Aug. 4, 1910. Serial No. 575,587. (Cl. 72—53.)

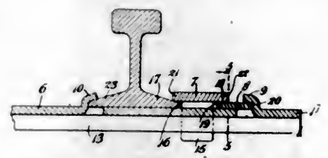


1. A concrete pipe section having a bell shaped end formed with a groove, the walls of the groove being substantially at right angles to each other, the opposite end of said pipe being formed with a projecting portion of less diameter than the pipe, and of substantially the same diameter as the interior of the groove in the bell end of the pipe, and a groove formed in the said projecting portion at the end thereof.

2. A concrete pipe section having a bell shaped end formed with a groove the walls of which are at substantially right angles to each other, the opposite end of said

pipe section being formed with a projecting portion of less diameter than the pipe, and of substantially the same diameter as the interior diameter of the groove in the bell end of the pipe, said projecting portion being longer than the depth of the groove of the bell portion, and a groove formed in the said projecting portion at the end thereof.

1,133,314. CROSS-TIE. CHARLES PARTINGTON, Cincinnati, Ohio, assignor to The Cincinnati Frog & Switch Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 25, 1913. Serial No. 803,013. (Cl. 238—5.)



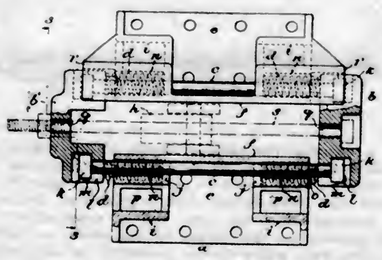
1. In a tie, the combination of a bar having near its end an outer and inner lug, a clamp located upon the tie between the lugs and having downturned ends engaging the bottom face of the bar, and a wedge adapted to be forced between the outer lug and the clamp and to have its end downturned into engagement with the bar.

2. A cross tie comprising a bar having a lug formed adjacent to each end thereof, an end lug formed at each end of the bar, a rail clamp having ends embracing the bar and bent into engagement with the bottom face thereof and slidingly mounted between the lugs at each end of the bar, and a wedge adapted to engage the clamp and the end lug to lock the wedge, clamp, rail, and bar together.

3. A cross tie comprising a bar of channel-iron having lugs formed at each end thereof, and having downturned flanges, a rail clamp located between the lugs at each end, and a wedge located between the clamp and one of the lugs, said rail clamp having downturned ends embracing the downturned flanges of the channel-iron bar and engaging its bottom face.

4. A cross tie comprising a bar of chainnel-iron having a horizontal rail supporting face and vertical depending flanges formed at each edge of the rail supporting face, a rail clamp having vertical downturned ends engaging the face of the vertical flanges and embracing the bottom edges thereof, and a wedge adapted to force the clamp into engagement with a rail mounted on the bar and to have its end bent into engagement with one of the vertical flanges of the bar.

1,133,315. GUIDE FOR LOG-TURNERS. GEORGE M. PELTON, Milwaukee, Wis., assignor to The Filer & Stowell Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed June 11, 1914. Serial No. 844,519. (Cl. 143—97.)



1. In a guide for log turners the combination of parallel side members, stops or bumpers normally spaced from the ends of the side members, rods guided in the side members lengthwise thereof and connecting the stops or bumpers, and springs interposed between the side members and the stops or bumpers.

2. In a guide for log turners the combination of side members each consisting of a horizontal base plate, a vertical guide plate along its inner side, and spring housings, stops or bumpers normally spaced from the outer ends of the spring housings and extending into the space between the side members, springs held in said housings and bearing at their outer ends against the stops or bumpers, and rods guided in said housings parallel with the guide plates and connecting the stops or bumpers at opposite ends thereof.

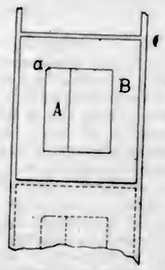
3. In a guide for log turners the combination of parallel side members provided with spring housings adjacent to the ends, yielding stops or bumpers normally spaced from the outer ends of said housings, springs confined in said housings and bearing at their outer ends against said stops or bumpers, and rods passing through and guided in said housings and connecting the stops or bumpers at opposite ends of the guide.

4. In a guide for log turners the combination of parallel side members, yielding stops or bumpers adjacent to the ends of the side members, the front stop or bumper consisting of two parts projecting opposite each other into the space between the side members, springs interposed between the side members and said stops or bumpers, rods guided in the side members lengthwise thereof and connecting the rear stop or bumper with the parts of the front stop or bumper, and spacing bars guided in the side members parallel with said rods and bearing at one end against the rear stop or bumper and at the other end against the parts of the front stop or bumper.

5. In a guide for log turners the combination of parallel side members, front and rear yielding stops or bumpers, the front stop consisting of two opposite parts spaced from each other, springs interposed between the side members and the stops or bumpers, rods guided in the side members and passing through said stops or bumpers, said rods having heads at their front ends for engagement with the parts of the front stop or bumper and formed with slots adjacent to their rear ends, a key piece having a tapering or beveled end and passing through the slots in said rods outside of the rear stop or bumper, and spacing bars guided in the side members parallel with said rods and bearing at their ends against the stops or bumpers.

[Claim 6 not printed in the Gazette.]

1,133,316. TRANSFORMER. ARMIN HENRY PIKLER, Montclair, N. J., assignor to Crocker-Wheeler Company, Ampere, N. J., a Corporation of New Jersey. Filed Mar. 17, 1910. Serial No. 549,908. (Cl. 171—124.)

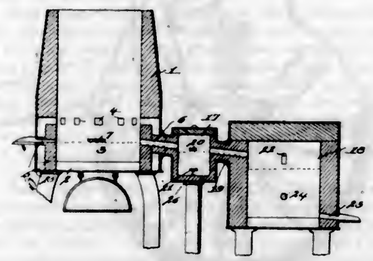


1. In a transformer, a magnetic circuit consisting of a bundle of sheet metal yoke plates, and a bundle of sheet metal core plates punched from the yoke plates the ends of the core-plates being approximately parallel with each other and forming butt joints with the yoke plates, the core plates and the yoke plates being assembled so that each core and yoke plate is the same side up and lies in the same direction that it occupied before the punching, substantially as described.

2. In a transformer, a magnetic circuit consisting of a bundle of sheet metal yoke plates and a bundle of sheet metal core plates the ends of the core-plates being approximately parallel with each other punched from the yoke plates and forming butt joints with the yoke plates, one of the corners of each of the core plates and yoke plates being distinctive, the core plates and the yoke plates being assembled so that each core and yoke plate is the same side up and lies in the same direction that it occupied before the punching, substantially as described.

3. In a transformer, a magnetic circuit consisting of a bundle of sheet metal yoke plates, and a bundle of sheet metal core plates punched from the yoke plates and forming butt joints with the yoke plates, the core plates and yoke plates being assembled so that each core and yoke plate is the same side up and lies in the same direction that it occupied before the punching, the butt joints in the several plates on each side of the transverse axis of the core plate being symmetrical in respect thereto substantially as described.

1,133,317. METALLURGICAL APPARATUS. CHARLES J. RICE, Ashland, Ky., assignor to The Pneumatic Cupola Co., Ironton, Ohio, a Corporation of Ohio. Filed July 11, 1912. Serial No. 708,880. (Cl. 75—109.)



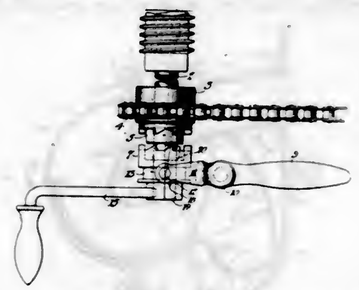
1. A cupola furnace adapted to contain a bath of molten metal, main twyers arranged therein above the bath of metal, means for supplying air at relatively low pressure thereto, and high pressure purifying twyers fitted in the furnace below the main twyers and above the level of the top of such bath and inclined downwardly and having means for supplying air at relatively high pressure thereto to cause the high pressure blasts therefrom to penetrate the bath.

2. A cupola furnace adapted to contain a bath of molten metal, main twyers arranged therein above the bath of metal, and a high pressure twyer fitted in the furnace below the main twyers and above the level of the top of such bath and inclined downwardly to cause the high pressure blasts therefrom to penetrate the bath, such twyer being also arranged tangentially with respect to the axis of the furnace.

3. A cupola furnace adapted to contain a bath of molten metal in the bottom thereof, main twyers arranged therein above the bath of metal, and high pressure purifying twyers mounted with their inner ends below the main twyers and above the level of the top of the bath and directed downwardly toward the same and tangential to the axis of the cupola.

1,133,318. SAFETY DEVICE. BENJAMIN F. RINDFLEISCH, Cleveland, Ohio, assignor to The National-Acme Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 24, 1914. Serial No. 868,367. (Cl. 74—33.)

1. The combination of a driven shaft, means thereon for connecting it with a source of power, means for throwing said means into and out of operation, means for manually rotating said shaft, and a safety device in position to prevent the positioning of said last means when the shaft is connected with the source of power and the connection of said shaft with said source of power when said last means is in position on the shaft.



2. The combination of a driven shaft, a clutch thereon for connecting it with a source of power, means for throwing said clutch into and out of operation, means for manually rotating said shaft, and a safety device in position to prevent the positioning of said last means when the shaft is connected with the source of power and the connection of said shaft with said source of power when said last means is in position on the shaft.

3. The combination of a driven shaft, means thereon for connecting it with a source of power, means for throwing said means into and out of operation, means for manually rotating said shaft, and a pivoted member carried by the shaft and in position to prevent the positioning of said last means when the shaft is connected with the source of power and the connection of said shaft with said source of power when said last means is in position on the shaft.

4. The combination of a shaft carrying a pair of cooperating clutch members, means for engaging and disengaging said clutch members, means adapted to engage said shaft for manually rotating it, and means for preventing the engagement of said clutch members while the rotating means is in operative position.

5. The combination of a shaft carrying a pair of cooperating clutch members, means for engaging and disengaging said clutch members, means adapted to engage said shaft for manually rotating the same, and means for preventing the positioning of said rotating means while the clutch members are in engagement.

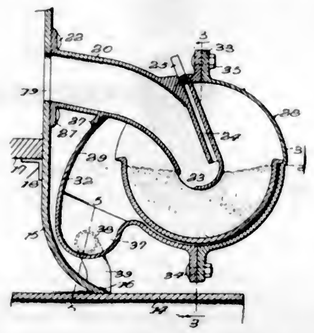
[Claims 6 to 21 not printed in the Gazette.]

1,133,319. COMBINED GRAVITY AND FLUID-PRESSURE SANDER FOR LOCOMOTIVES. EDWIN A. RIVES and HARRISON B. NABORS, Greensboro, N. C., assignors of one-eighth to Henry L. Hicks, Greensboro, N. C. Filed Jan. 28, 1914. Serial No. 814,975. (Cl. 105—263.)

1. A sander including a sand discharging nozzle adapted for communicative attachment with the sand dome of a locomotive, a valve casing mounted about the discharge end of the nozzle, an oscillatory valve mounted in the valve casing with the discharge end of the nozzle extending into the valve, means for limiting the oscillation of the valve, a divided extension formed upon the valve casing adapted to receive sand upon opening of the valve, and pipes leading from said extension.

2. A sander including a sand discharging nozzle adapted for communicative attachment to the sand dome of a locomotive, a valve casing mounted about the discharge end of said nozzle and provided with a branched outlet port, a valve mounted in the casing and controlling the flow of sand from the nozzle to the outlet port, and means for limiting the movement of said valve.

3. A sander including a sand discharging nozzle adapted for communicative attachment to the sand dome of a locomotive, a valve casing mounted about the discharge end of said nozzle and provided with a branched outlet port, a valve mounted in the casing and controlling the flow of sand from the nozzle to the outlet port, and means for supplying a fluid under pressure to the discharge nozzle.

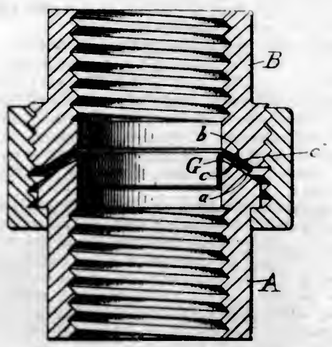


4. A sander including a discharge nozzle adapted for communicative attachment to the sand dome of a locomotive, a valve casing secured about the discharge end of the nozzle and provided with an extension, the extension being divided into opposed chambers, pipes leading from said chambers, a valve mounted in the valve casing and controlling the passage of sand from the nozzle to the valve casing extension, and fluid pressure means for forcing sand through the nozzle and valve.

5. A sander including a sand discharging nozzle adapted for communicative attachment to the sand dome of a locomotive, a substantially cylindrical casing surrounding the discharge end of the nozzle and provided with an extension having a partition wall forming chambers, feed pipes leading from the chambers, and a valve mounted for oscillation in the valve casing and forming a pocket into which the discharge end of the nozzle extends.

[Claims 6 to 11 not printed in the Gazette.]

1,133,320. PACKING-RING FOR PIPE-FITTINGS. GEORGE I. ROCKWOOD, Worcester, Mass. Filed Nov. 16, 1914. Serial No. 872,352. (Cl. 137—28.)

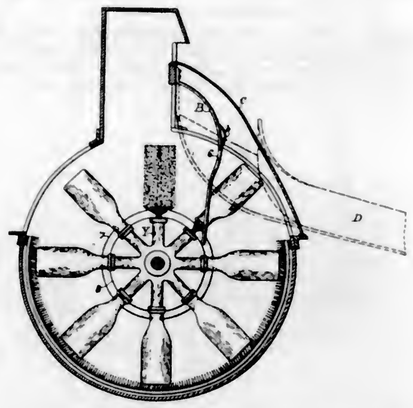


1. In a pipe union, the combination with two members having respectively a concave and a convex seating surface, of a packing ring located between said surfaces and having a continuous narrow rib for engaging said convex seating surface, and provided also with a similar continuous narrow rib on its opposite side for engaging said concave seating surface.

2. In a pipe union, the combination with two members having respectively a concave and a convex seating surface, of a packing ring located between said surfaces and having a circular convex rib for engaging said convex seating surface, and provided also with a similar circular rib on its opposite side for engaging said concave seating surface, the last named rib having a diameter greater than the first named rib and being located outside the same, whereby when said seating surfaces are pressed together, the outer edge of the packing ring will be caused to spring over slightly at the first named rib.

3. In a pipe union, the combination with two members having respectively a concave and a convex seating surface, of a packing ring located between said surfaces and having a continuous rib for engaging said concave seating surface.

1,133,321. BOTTLE-REMOVER FOR BOTTLE-WASHING MACHINES. JEREMIAH SARGEANT, Newark Valley, N. Y. Filed June 14, 1913. Serial No. 773,783. (Cl. 141—7.)



1. In a bottle remover for bottle washing machines, a cross-plate mounted in any convenient manner on the standards of a bottle washing machine; parallel curved bars conforming to the curve of the spider wheel of said machine, adjustably mounted on said plate and over and in alinement with the brush wheels and on either side of the spider wheel, said guide bars terminating in foot projections; said guide bars having opposite sloping surfaces on the same; and curved projecting shoulder bars projecting from said guide bars; rings having opposite projecting shoulders mounted on the inner opposite sides of the brush wheels, and with the shoulders of which the foot projections of the guide bars have sliding contact; mounted on said cross plate an angular guide bar extending diagonally over the spider wheel, adapted to contact with bottles mounted on the spider spokes; an open curved trough mounted on said plate and extending down to the rinsing tank, the upper mouth of said trough being in alinement with the outer surface of the guides; opposite hinged doors conveniently mounted over and across said guide bars; a coil spring mounted on each door holding it in yielding alinement with the opposite door.

2. A bottle remover for bottle washing machines comprising in combination with the spider wheel, a pair of curved bars disposed upon opposite sides of the spider wheel, a trough having its receiving end below the upper ends of the curved bars, and a transversely curved rod disposed above the curved bars.

3. A bottle remover for bottle washing machines comprising in combination with the rotating spider wheel adapted for carrying bottles thereon, a pair of curved bars disposed on opposite sides of the spider wheel, the distance between the curved bars being less than the diameter of the bottles carried on the spider wheel whereby each bottle is gradually withdrawn from its spider as the wheel rotates between the curved bars, a transversely curved rod disposed above the curved bars for tipping over the bottles when they reach a pre-determined point on the curved bars and a trough disposed beneath the curved bars to receive the bottles as they fall therefrom.

4. A bottle remover for bottle washing machines comprising in combination with a rotary brush wheel having a plurality of brush spiders for holding bottles thereon, of a pair of curved bars disposed on opposite sides of the brush wheel and spaced apart sufficiently to permit the passage of the brush spiders therebetween but not sufficient to permit the bottles to pass therethrough, said bars being so curved as to permit each bottle to be gradually withdrawn from its brushed spider as each particular brush spider enters the space between the curved bars, a pair of spring controlled gates opening in the direction of rotation of the brush wheel to permit the brushes and the bottles thereon to pass between said gates but preventing retrograde movements of the bottles, a transversely curved rod disposed above the curved bars to tip over the bottles when they arrive at a pre-determined point on the curved bars, and a receiving trough disposed beneath the curved bars.

1,133,322. PROCESS OF RUBBERIZING FABRIC. FRANK A. SEIBERLING, Akron, Ohio. Filed May 8, 1914. Serial No. 837,145. (Cl. 91—68.)

1. That improvement in methods for coating fabric which consists in placing a constantly-moving continuous strip of fabric under tension, coating one side of the fabric with a plastic covering; subjecting said fabric after the first coating to the action of a tension device; coating the opposite side of said fabric; then changing the temperature of the coated fabric; then trimming the selvage from said strip while under tension; then imposing a skim coating of plastic material on one face of the coated fabric; then spooling up the fabric.

2. That improvement in methods for coating fabric which consists in coating both sides of a constantly-moving continuous strip of fabric with plastic material, regulating the tension on the fabric between the coating operations, reducing the temperature of the coated fabric, and applying a skim coat to the tensioned and cooled coated fabric.

3. That improvement in methods for coating fabric which consists in imposing a preliminary and controlled tension to a constantly-moving continuous strip of fabric, alternately coating the two faces thereof with plastic material, controlling the tension on the fabric between the two coating operations, reducing the temperature of the coated fabric, and skin-coating one face of the coated fabric after the cooling operation.

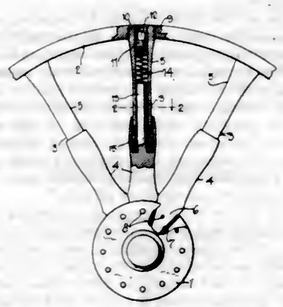
4. That improvement in methods for coating fabric which consists in imposing a preliminary and controlled tension to a constantly-moving continuous strip of fabric alternately coating the two faces thereof with plastic material, controlling the tension on the fabric between the two coating operations, reducing the temperature of the coated fabric, trimming the selvage edges therefrom, and skim-coating one face of the covered fabric after the cooling operation.

5. That improvement in methods for coating fabric which consists in imposing a preliminary and controlled tension to a constantly-moving continuous strip of fabric, successively coating opposite sides of the fabric with plastic material, subjecting the coated fabric to the action of a cooling instrumentality, trimming the selvage edges thereof, and finally skim-coating one of the coated faces of said fabric.

[Claims 6 to 21 not printed in the Gazette.]

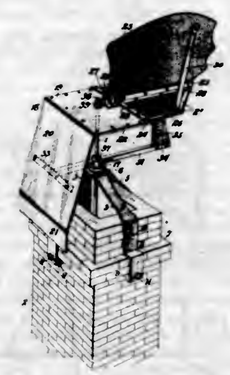
1,133,323. RESILIENT WHEEL. JOHN J. SEVERIN, Barnesboro, Pa. Filed May 2, 1914. Serial No. 836,011. (Cl. 152—48.)

A resilient wheel comprising a hub, a rim, spokes interposed between said hub and rim, each of the spokes comprising inner and outer tubular telescoping members, the inner ends of said inner members being closed, said rim having a plurality of threaded openings therein to threadably receive the outer ends of the outer members of the spokes, said outer members being interiorly threaded at their outer ends, heads threadably mounted in the outer ends of the outer sections, stems projecting outwardly from the inner end walls of the inner members, said



stems projecting within said outer members, springs mounted within said outer members and engaged at one end against said heads and at their other end against the outer ends of said stems, and springs mounted within said inner members for engagement at one end against the inner end of the outer sections and at their other end against the inner end wall of the inner sections.

1,133,324. CHIMNEY-CAP AND STORM-SHIELD. CYRENIUS W. SILLIN, Stuttgart Ark. Filed Mar. 31, 1914. Serial No. 828,604. (Cl. 98—3.)



1. A device of the class described, including a supporting bracket provided with means for mounting it on a chimney at the top thereof, a vertical shaft or spindle mounted in the bearing bracket and extending above and below the same, the lower portion of the spindle being located within the chimney, an anchor brace secured to the lower end of the shaft or spindle and provided at its ends with angularly disposed edges fitting the diagonally opposite corners of the chimney, said brace being diagonally arranged within the chimney and a rotary hood or shield mounted on the upper portion of the shaft or spindle.

2. A device of the class described, including a supporting bracket provided with means for mounting it on a chimney at the top thereof, a vertical shaft or spindle

mounted in the bearing bracket and extending above and below the same, the lower portion of the spindle being located within the chimney, a horizontally disposed anchor brace secured to the lower end of the shaft or spindle and provided at its terminals with arms arranged in pairs, the members of each pair being disposed at right angles to each other to fit the corners of the chimney, said brace being arranged diagonally in the chimney and a rotary hood or shield mounted upon the upper portion of the shaft or spindle.

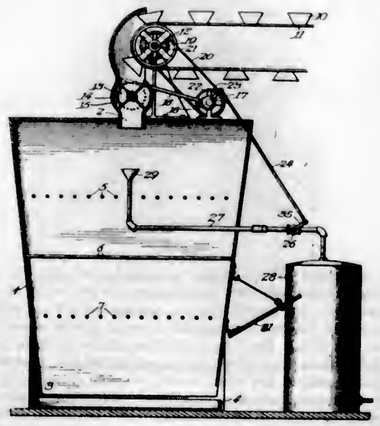
3. A device of the class described, including a bearing bracket comprising legs or braces having inclined upper portions connected together at their upper ends, said legs or braces being provided with lower chimney engaging portions having angular bends to rest upon the projecting portion of a chimney and provided below the bends with shoulders for engaging the underside of the projecting portion of the chimney, clamping means carried by the legs or braces for engaging the chimney, a shaft or spindle supported by the bearing bracket, and a rotary hood or shield mounted upon the shaft or spindle.

4. A device of the class described, including a bearing bracket comprising legs having inclined upper portions and connected at their upper terminals, said legs being also provided with lower chimney engaging portions having angular bends to rest upon the projecting portion of a chimney and provided below the same with blocks adapted to engage beneath the projecting portion of the chimney, clamping screws piercing the legs and the blocks for engaging the chimney, a vertical shaft or spindle supported by the bearing bracket, and a rotary hood or shield mounted on the shaft or spindle.

5. A device of the class described, comprising a vertical shaft or spindle, means for securing the same to a chimney, a rotary hood or shield mounted on the shaft or spindle and comprising a top portion arranged over the chimney, a vane or blade connected with the hood or shield, and a spark arresting screen carried by the hood or shield and extending rearwardly from the top portion thereof.

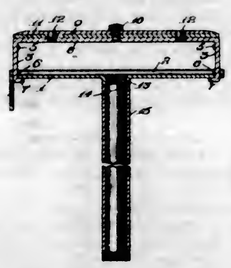
[Claims 6 and 7 not printed in the Gazette.]

1,133,325. APPARATUS FOR MAKING MICA-BOARD. WILLIAM H. SILLS, Chicago, Ill. Filed Apr. 1, 1912. Serial No. 687,912. (Cl. 154—1.)



In an apparatus for making mica board the combination of a tower, means for conveying predetermined amounts of mica flakes to said tower at the top thereof, a retaining device for the flakes mounted on top of the tower and adapted to discharge the material into said tower, said retaining device extending into the tower, means for intermittently actuating said retaining device to release the material, a nozzle within the tower in alinement with the discharge opening of the retaining device and at a distance from said opening, the interspace between said discharge opening and the nozzle being free of obstructions, and a plurality of obstructions below the nozzle arranged in series at different levels, the obstructions of one series extending transversely through the tower in a direction different from the obstructions in the other series.

1,133,326. RAZOR. HAROLD H. SIMMS, Rochester, N. Y., assignor to Auto Strop Company, New York, N. Y., a Corporation of New York. Filed Apr. 17, 1909. Serial No. 490,564. (Cl. 30—12.)



1. A safety razor comprising a guard and a plate to support the blade throughout its length, means connecting said guard and plate so that all portions thereof are movable relatively in parallel lines to provide an opening between them from one end of the blade to the other for the passage of a sharpener transversely of the blade, and means for clamping a blade to said plate, said clamping means being effective as a clamping means when the guard and the plate are separated.

2. In a safety razor, a plate for supporting a blade throughout its length, a guard for coöperating with said plate, means connecting the guard and the plate so that they are relatively and bodily movable to provide a space between them from one end of the blade to the other for the passage of a sharpener transversely of the blade, means for clamping a blade to said plate, said means being effective as a clamping means when the guard and the plate are separated, and means for rigidly holding said plate against movement after the separating movement.

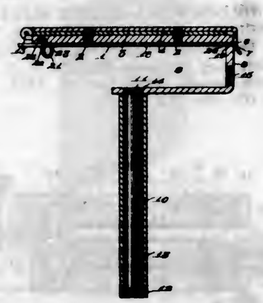
3. A safety razor comprising a handle, a guard frame rigidly secured to the handle, a blade-supporting plate unsupported between its ends, and supporting connections between the adjacent ends of the guard frame and the plate, said connections having provision permitting the plate to be moved bodily relatively to the guard frame, and means for clamping a blade to the blade-supporting plate, said clamping means being effective as a clamping means when the guard frame and the blade supporting plate are separated.

4. A safety razor comprising a plate having a guard thereon, a blade supporting plate, means connecting said plates so that they are relatively movable to provide a space from one end of the blade to the other for the passage of a sharpener transversely of the blade, means for clamping a blade to the blade-supporting plate, said means being effective as clamping means when the latter and the guard plate are separated, and a handle rigidly secured to one of the first two named elements.

5. A safety razor comprising a guard frame having a guard, a handle rigidly secured thereto, a blade-supporting plate, means for securing said plate against movement out of operative relation with the guard and unsupported between its ends, and means clamping a blade to the blade-supporting plate, said means being effective as a clamping means when the guard frame and the blade-supporting plate are out of coöperative relation.

[Claims 6 to 16 not printed in the Gazette.]

1,133,327. RAZOR. HAROLD H. SIMMS, Rochester, N. Y., assignor to Auto Strop Company, New York, N. Y., a Corporation of New York. Original application filed Apr. 17, 1909, Serial No. 490,564. Divided and this application filed Sept. 23, 1909. Serial No. 519,218. (Cl. 30—12.)



1. In a safety razor, the combination with a double-edged blade, and a blade supporting member for supporting the double-edged blade to expose both edges, of a handle having a connection with the supporting member at one end only and symmetrically arranged with relation to opposite sides of the member, a pair of guards for cooperation with the exposed edges of the blade, means for permitting the movement of the guards relatively to the supporting member and to the handle to carry the guards away from the double-edged blade while the latter is clamped to the blade supporting member, and means for clamping the blade to the blade-supporting member, said means being effective as clamping means when the guards are moved away from the supporting member.

2. In a safety razor, the combination with a blade-supporting plate and a blade supported on said plate with its opposite edges projecting from opposite sides of the plate, of a handle secured to one end only of the plate and symmetrically with relation to the opposite edges of the latter, a pair of guards for the projecting edges of the blade, means permitting the guards to be moved relatively to the supporting plate and to the handle, and means for clamping the blade against the supporting plate, said means being effective as a blade-clamping means when the guards are moved away from the supporting plate.

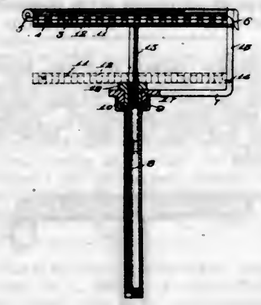
3. In a safety razor, the combination with a blade holder having means for securing a double edged blade between its two edges, of a handle arranged symmetrically with relation to opposite sides of the holder and perpendicularly to the plane of said holder, a connection between the handle and the blade holder provided with a space beneath the blade holder for the passage of a sharpener, a pair of guards for the blade edges, and means permitting such guards to be moved relatively to the holder and the handle to clear the space beneath the blade holder.

4. In a safety razor, the combination with a blade, a blade-supporting plate, and means for clamping the blade against one surface of such plate to cause the blade to project from opposite edges of said plate, of a handle symmetrically arranged with relation to the opposite edges of said plate and also perpendicular to said plate, a rigid connection between the handle and the plate provided with a space on the side of the plate opposite the blade for the passage of a sharpener, a pair of guards, and means permitting said guards to be moved so that a sharpener may be passed through the space of the connection.

5. In a safety razor, the combination with a supporting plate, a blade, and means for clamping the blade against one side of the plate, of a guard arranged on the other side of the plate, a latch detachably securing said guard in position, and a handle secured to said supporting plate only at one end of the latter in proximity to one end of the cutting edge of the blade so that, when the guard is removed, the blade may be stropped.

[Claims 6 to 14 not printed in the Gazette.]

1,133,328. RAZOR. HAROLD H. SIMMS, Rochester, N. Y., assignor to Auto Strop Company, New York, N. Y., a Corporation of New York. Original application filed Apr. 17, 1909, Serial No. 490,564. Divided and this application filed Sept. 23, 1909. Serial No. 519,219. (Cl. 30—12.)



1. In a safety razor, the combination with a blade and a blade holder having a supporting plate for coöperation with the blade substantially throughout the length of the latter, and also having means for securing said blade to said supporting plate, of a handle rigidly connected to the supporting plate at such a point that a space is provided for the passage of a strop or sharpener in a line transverse of the cutting edge of the blade supported by said plate, and a guard for the blade movable on the razor relatively to the supporting plate and to the handle and from the plane of the blade to open said space for the passage of the strop or other sharpener.

2. In a safety razor, the combination with a blade and a blade holder having a supporting plate for cooperation with the blade substantially throughout the length of the latter, and also having means for securing said blade to said supporting plate, of a handle having rigid connection with the plate at a point to provide a space at one side of the plate for the passage of a sharpener to engage with the blade in order to move in a line transverse of the cutting edge of said blade, a guard for the blade movable relatively to said holder and to the handle to open such space for the passage of a sharpener, and a guide on which the guard is adapted to move relatively to the handle to and from the plane of the blade.

3. In a safety razor, the combination with a double-edged blade and a blade holder having a supporting plate adapted to coöperate with the blade substantially throughout the length of the latter and between the edges thereof to expose such edges for sharpening, and also having means for securing the blade to said supporting plate in such position, of a handle rigidly connected to the holder at a point to provide a space at one side of said plate for the passage of a sharpener, and a guard frame having guards coöperating with both blade edges and movable on the razor relatively to the holder and to the handle and away from the plane of the blade to open a space between the blade holder and the guard frame for the passage of a sharpener.

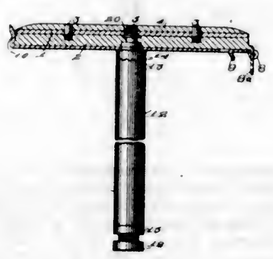
4. In a safety razor, the combination with a blade and a blade holder having a supporting plate coöperating with the blade substantially throughout the length of the

latter, and also having means for securing said blade to said supporting plate, of a handle, a frame rigidly connecting the handle and the supporting plate of the blade holder and having a space for the passage of a sharpener to engage the blade, and a guard for the blade movable on the razor within such space and relatively to the holder and the handle and away from the plane of the blade to permit such sharpener to engage the blade.

5. In a safety razor, the combination with a blade and a blade holder having a supporting plate coöperating with the blade throughout the length of the latter, and also having means for securing said blade to said supporting plate, of a handle having a rigid connection with one end only of the holder at one end of a cutting edge of the blade, such connection providing a space at one side of the plate, and a guide on which the guard moves relatively to the handle and the holder within such space to expose the cutting edge of the blade for sharpening.

[Claims 6 to 12 not printed in the Gazette.]

1,133,329. RAZOR. HAROLD H. SIMMS, Rochester, N. Y., assignor to Auto Strop Company, New York, N. Y., a Corporation of New York. Original application filed Apr. 17, 1909, Serial No. 490,564. Divided and this application filed Sept. 23, 1909. Serial No. 519,220. (Cl. 30—12.)



1. In a safety razor, the combination with a guard, a handle rigidly secured thereto, and a blade, of a supporting member for the blade pivotally carried by the guard to swing about an axis extending transversely of the cutting edge of the blade, and means for clamping said blade to the supporting member, so that the blade is held to said member when the latter is swung away from the guard.

2. In a safety razor, the combination with a guard frame carrying a pair of guards, a handle rigidly secured to said frame, and a double-edged blade, of a supporting member for the blade pivotally secured to the guard frame near one end of the cutting edges and movable on said pivot about an axis extending transversely of the cutting edges of the blade to carry said blade away from the guards, and means for clamping said blade to the supporting member so that the blade is held to the member when the latter is swung away from the guards.

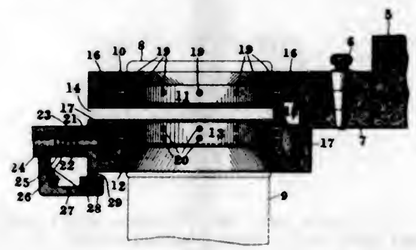
3. In a safety razor, the combination with a guard and a blade, of a blade holder movable about an axis extending transversely of the cutting edge of the blade in the holder to carry the blade away from the guard, and a device for retaining said holder against movement when out of coöperative relation with the guard to permit the blade to be stropped.

4. The combination with a guard and a blade, of a supporting member for holding the blade in coöperative relation with the guard, means for securing said supporting member with said blade therein with the length of the blade at an angle to the length of the guard, and means for clamping said blade to the supporting member so that the blade is held to said member when the latter is out of coöperative relation with the guard.

5. In a safety razor, the combination with a guard, a blade and a handle secured to the guard and extending in a plane transverse to the length of the guard, of a supporting member for securing the blade in coöperative relation to the guard, means for securing said supporting member, with the blade therein, with the length of the blade transverse to the length of the guard, and means for clamping said blade to the supporting member so that the blade is held to said member when the latter is out of coöperative relation with the guard.

[Claims 6 to 17 not printed in the Gazette.]

1,133,330. HOLDER FOR APPLYING SLIP-COVERS TO RECEPTACLES. CHESLEY T. SMALL, St. Louis., Mo., assignor, by mesne assignments, to Automatic Can Filling Machinery Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 11, 1912. Serial No. 736,077. (Cl. 93—55.)



1. The combination with a holder adapted to receive and guide a cover, of means for holding the flange of said cover outwardly to insure its passage over the mouth of the can, said means engaging with the outside only of the cap whereby the interior of the cap is left free and unobstructed.

2. The combination with a holder adapted to receive and guide a cover into position on the can body, of an air duct formed in said holder, a plurality of inlets leading from the inner face of said holder to said air ducts, and means for reducing the air pressure in said duct, whereby the sides of the cover are held outwardly against the holder.

3. The combination with a holder adapted to receive the end of a receptacle body and a receptacle cover, said holder having a passage for a division plate to support said receptacle body and cover, said holder being also provided with a pair of air ducts, one arranged at each side of said passage, a plurality of inlets leading from the inner face of said holder to said ducts, and means for reducing the air pressure in said ducts.

4. The combination with a movable holder adapted to receive a guide cover, said holder being provided with an air duct communicating with the inner face of the holder, of a suction pipe for reducing the pressure in said air duct, and means for guiding said holder into contact with said suction pipe.

5. The combination with a movable holder adapted to receive a guide and cover, said holder being provided with an air duct communicating with the inner face of the holder, of a hollow projection carried by said holder and communicating with said air duct, said projection having a yielding end, and a suction pipe adapted to contact with said projection.

[Claim 6 not printed in the Gazette.]

1,133,331. CARBON-SHEET. JESSE A. B. SMITH, Brooklyn, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 10, 1914. Serial No. 876,409. (Cl. 11—28.)

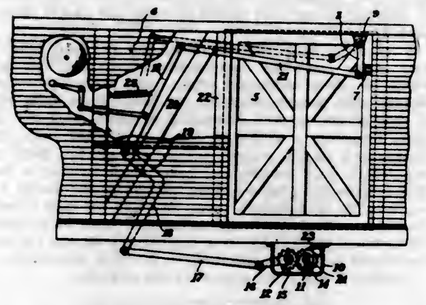
1. A carbon sheet having a leading end and an end opposite thereto, and having at said oposite end an uncoated integral extension, said extension provided with a series of transverse fold-lines for the purpose specified.

2. A carbon sheet having a leading end and an end opposite thereto, and having at said opposite end an uncoated integral extension, said extension provided with a series of transverse fold-lines for the purpose specified, said fold-lines being numbered.



3. A carbon sheet having a top end and a bottom end, and having at said bottom end an uncoated extension provided with a series of spaced transverse fold-lines, for the purpose specified.

1,133,332. LOCK FOR CAR-DOORS. GEORGE STANDFEST, Rochester, N. Y., assignor of one-half to John Nonn, Rochester, N. Y. Filed July 27, 1914. Serial No. 853,452. (Cl. 70—102.)



1. In combination with a railway-car having a sliding door and hollow side-walls, locking-mechanism comprising an abutment, on the door, near the edge and the top thereof; a detent movably mounted on the body of the car, in position to move into or out of engagement with said abutment when the door is closed; manually-operable controlling-mechanism mounted externally at the bottom of the car; and connections extending, from the detent, across the door-way, near the top of the car, and thence downwardly, through the hollow side-wall, to the bottom of the car and to the controlling-mechanism.

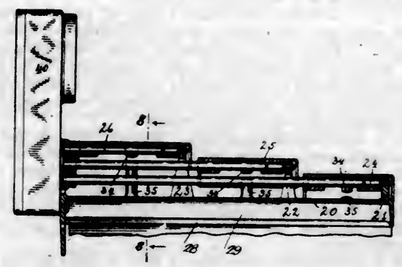
2. In combination with a railway-car having a sliding door, locking-mechanism comprising an abutment, on the door, near the edge and the top thereof; a detent movably mounted on the body of the car, in position to move into or out of engagement with said abutment when the door is closed; a rod, for actuating the detent, extending therefrom across the doorway; a lever, for moving the rod, pivoted thereto and pivoted, in upright position, at the side of the car, the lever extending to the bottom of the car; and controlling-mechanism connected with the lower end of the lever and located in an accessible position at the bottom of the car.

3. In combination with a railway-car having a sliding door, a lock therefor comprising an abutment on the door; a detent pivoted to the door-frame above the door and adapted to swing downwardly into engagement with the abutment when the door is closed; a substantially horizontal rod pivoted to the detent and extending through a wall of the car; a substantially vertical lever located within said wall and pivoted, at its upper end, to said rod, the lower end of the lever extending to the bottom of the car; and manually-operable controlling-mechanism located at the bottom of the car and connected with said lever.

4. In combination with a railway-car having a sliding door, a lock therefor comprising an abutment on the door; a detent movably mounted on the body of the car in position to move into or out of engagement with said abutment when the door is closed; and means, for actuating and controlling the detent, comprising a crank connected with the detent; a crank-shaft for actuating the crank; a gear upon said shaft; a mutilated gear adapted to coöperate with the first-mentioned gear; means for preventing movement of the mutilated gear in one direction; and a spring tending to move the detent out of operative position.

5. In combination with a railway-car having a sliding door, locking-mechanism comprising an abutment, on the door, near the edge and the top thereof; a detent movably mounted on the body of the car, in position to move into and out of engagement with the abutment when the door is closed; manually-operable controlling-mechanism located externally, at the bottom of the car, and operable from either side thereof; and connections, between the detent and the controlling-mechanism, extending within the side-wall of the car at one side of the doorway.

1,133,333. CIGAR-WRAPPER COUNTER. DAVID STRASSER, New York, N. Y., assignor to Cigar Wrapper Register Co., Inc., New York, N. Y., a Corporation of New York. Filed June 10, 1913. Serial No. 772,794. (Cl. 131—60.)



1. In a device of the character described, the combination with plates arranged in pairs, one adapted to be rocked to a limited extent and the other relatively immovable, of a supporting frame for the plates comprising depending flanges of different heights whereby the frame may be placed on other than a plane surface.

2. In a device of the character described, the combination with plates arranged in pairs, one adapted to be rocked to a limited extent and the other relatively immovable, of a supporting frame for the plates comprising depending flanges of different heights whereby the frame may be placed on other than a plane surface arranged at their lower edges to conform to an upper curved surface.

3. In a device of the character described, the combination with plates arranged in pairs, one adapted to be rocked to a limited extent and the other relatively immovable, of a supporting frame for the plates comprising depending flanges of different heights whereby the frame may be placed on other than a plane surface in pairs, an outside pair of greater height than the inside pair.

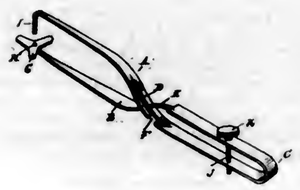
4. In a device of the character described adapted for the counting of tobacco leaves, plates upon which the leaves are placed, shafts arranged beneath the same, and means adapted to prevent the moisture liable to drip from

the tobacco coming into contact with said shafts, comprising protecting collars adapted to surround the upper surface of each shaft at suitable places.

5. In a device of the character described adapted for the counting of tobacco leaves, plates upon which the leaves are placed, shafts arranged beneath the same, and means adapted to prevent the moisture liable to drip from the tobacco coming into contact with said shafts, comprising protecting collars adapted to surround the upper surface of each shaft at suitable places, each of said collars having a groove into which the accumulated moisture is adapted to collect.

[Claims 6 to 16 not printed in the Gazette.]

1,133,334. WORK-HOLDING TOOL. LORAINE W. STRYCKER, New York, N. Y., assignor to Detroit Dental Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed June 18, 1912. Serial No. 704,334. (Cl. 113—102.)



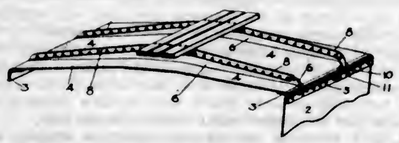
1. A work-holder comprising a pair of tongs, a work-seat having a limited universal movement upon one of said tongs and a pointed finger upon the other tong, said finger being substantially opposite the point of connection between said work-seat and tongue.

2. A work-holder comprising a pair of tongs, a work-seat upon one tong having universal movement relative thereto, a finger upon the opposite tong, resilient means for normally pressing said finger toward said seat, and adjustable means for limiting the movement of said finger toward said seat, said adjustable means acting against the pressure of said resilient means.

3. A work-holder comprising a pair of tongs formed of a metallic strip having integral cross portions, one of said cross portions having intersecting longitudinal and transverse slots therein, the other cross portion being reduced in width to engage said longitudinal slot, a work-seat at the free end of one tong, and a finger upon the opposite tong.

4. A work-holder comprising a pair of tongs formed of a single cross bent metallic strip, one of the crossing portions being longitudinally slotted and the other crossing portion being reduced in width to engage said slot, a finger at the free end of one tong, a pivoted work-seat at the free end of the other tong, and resilient means for normally pressing said finger toward said work-seat.

1,133,335. RAILWAY-CAR-ROOF CONSTRUCTION. EDGAR WEBSTER SUMMERS, Pittsburgh, Pa., assignor to Walter P. Murphy, Chicago, Ill. Filed Sept. 23, 1913. Serial No. 791,347. (Cl. 108—5.)



1. In a car roof, the combination of adjacent metallic roof plates extending transversely of the car from eaves to eaves and provided on their adjoining edges with external vertical flanges, and a U-shaped cover strip fitting over said flanges and rigidly secured thereto throughout its length, the ends of said cover strip being spread out and extending over the eaves and secured at their lower ends.

2. In a car, the combination with the side plates of adjacent metallic roof plates extending transversely of the car and supported at their ends on said side plates, the adjoining edges of said roof plates having external vertical flanges, said flanges extending uninterruptedly from side to side of the car and increasing in depth from the car sides inwardly and forming carlines, and U-shaped cover strips over said flanges and rigidly secured thereto throughout their length, the ends of said cover strips extending over the eaves and being secured at their lower ends to said side plates.

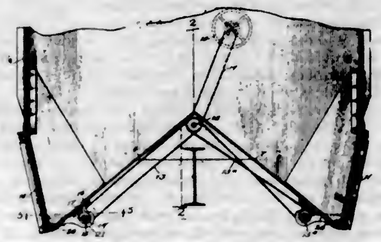
3. In a car, the combination with the side plates of metallic roof plates extending transversely of the car and having downturned end flanges and upturned side flanges, said end flanges being secured to said side plates, and said side flanges extending uninterruptedly from side to side of the car and having cover strips rigidly secured thereto throughout their length forming carlines, the ends of said cover strips being turned down over the eaves and secured to said side plates.

4. In a car, the combination with the side plates of metallic roof plates extending transversely of the car and provided on their adjoining edges with external vertical flanges, said flanges extending uninterruptedly from side to side of the car, cover strips secured thereto throughout their entire length and thereby forming carlines, the ends of said roof sheets and cover strips being turned down outside said side plates and rigidly secured thereto, said side plates conforming to the under sides of the roof sheets and supporting them adjacent to their ends, whereby bending of the roof sheets at their end angles is prevented.

5. In a car roof, the combination of adjacent metallic roof plates extending transversely of the car and provided on their adjoining edges with external vertical flanges, said flanges extending uninterruptedly from side to side of the car and increasing in depth from the car sides inwardly, a U-shaped cover strip fitted over said flanges and rigidly secured thereto throughout their entire length, said flanges and cover strip forming a carline, lengthwise members along the eaves, and means for securing the ends of said cover strip and the ends of said roof sheets thereto, whereby said cover strip and flanges support and stiffen said roof transversely of the car and cause said lengthwise members to function therewith.

[Claims 6 and 7 not printed in the Gazette.]

1,133,336. DOOR-OPERATING MECHANISM FOR DUMP-CARS. RALPH G. TAYLOR, Davenport, Iowa, assignor, by mesne assignments, to The Bettendorf Company, Bettendorf, Iowa, a Corporation of Iowa. Filed Nov. 1, 1911. Serial No. 658,000. (Cl. 105—86.)



1. In a dump car, a hinged door, an arm carried by said door, a shaft with which said arm engages, movable bodily only in a substantially vertical plane, and means for bringing said arm and shaft into position to lock said door in closed position.

2. In a dump car having a roof-shaped floor section, a door pivoted to one side of said car and adapted to swing outwardly, an arm connected to said door, a shaft mounted beneath said floor and adapted to move upwardly, means for moving said door into closed position, and means for bringing said arm and shaft into position to lock said door in closed position.

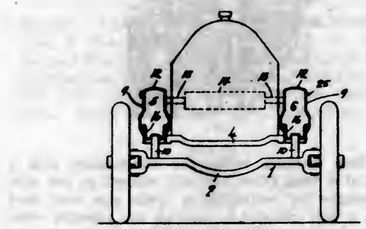
3. In a dump car having a roof-shaped floor section, a door hinged to one side of said car and adapted to swing outwardly, an arm connected with said door, a shaft mounted below said floor and adapted to move upwardly, a winding drum upon said shaft, a chain connected with said door and said winding drum, means for operating said drum to wind up said shaft to move said door into closed position, and means whereby said arm engages said shaft to lock said door in closed position.

4. In a dump car, having a roof-shaped floor, a door hinged upon one side of said car and adapted to swing outwardly, a shaft mounted below said floor and adapted to move upwardly, an arm having a curved end portion carried by said door, means for moving said door into closed position to cause said arm to engage said shaft, means operated by engagement of said arm with said shaft to move said shaft upwardly, and over the end of said shaft, and into position whereby said arm and shaft lock said door in closed position.

5. In a dump car, a hinged door, a winding shaft and a connection therefrom to the door, means controlled by said shaft for locking said door in closed position, said shaft being movable bodily in a substantially vertical plane only to bring the same into locking position.

[Claims 6 to 10 not printed in the Gazette.]

1,133,337. PNEUMATIC-CUSHIONED FRAME SUSPENSION. GUY L. TINKHAM, Paris, France, assignor to Tinkham Suspension Company, a Corporation of Illinois. Filed Sept. 7, 1912. Serial No. 719,215. (Cl. 21—50.)



1. A pneumatic device for vehicle frame suspensions, comprising an air reservoir adapted to be carried on the vehicle frame, a plunger movable within said reservoir and adapted to be connected to an axle of the vehicle, a diaphragm between said plunger and said reservoir, and means for retaining a fluid adjacent the edge of said diaphragm and said reservoir for effecting a gas seal.

2. A pneumatic device for vehicle frame suspensions comprising a cylindrical base adapted to contain air under pressure, said base having a seat, said base further having a cup-shaped part adjacent said seat adapted to hold a sealing fluid, and a diaphragm in engagement with said seat and having its periphery extending into said cup-shaped part.

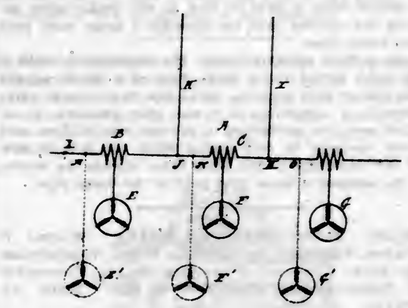
3. In a pneumatic device for vehicle frame suspensions, a hollow base adapted to contain gas under pressure, said base having a sealing seat and a trough-shaped portion proximate said seat.

4. In a pneumatic device for vehicle frame suspensions, a cylindrical base having a bulged portion forming an annular trough for holding a sealing fluid, and a vertically extending portion adjacent said trough adapted to serve as a sealing seat.

5. A pneumatic device for vehicle frame suspensions, comprising in combination a reservoir adapted to contain gas under pressure, means for securing said reservoir in fixed relation to the body of the vehicle, a diaphragm, means including a sealing fluid for effecting a gas-tight connection between said reservoir and said diaphragm, a plunger engaging said diaphragm, and means for supporting said plunger in fixed relation to the wheel frame of the said vehicle.

[Claim 6 not printed in the Gazette.]

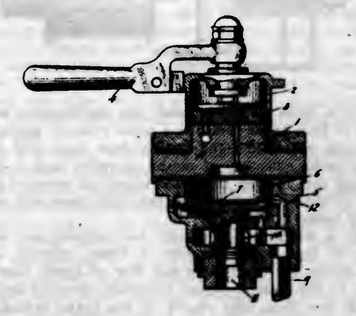
1,133,338. PROTECTIVE DEVICE FOR BUS-BAR CIRCUITS. PHILIP TORCHIO and HARRY RAY WOODROW, New York, N. Y. Filed Apr. 24, 1914. Serial No. 834,067. (Cl. 175—294.)



1. In combination with a plurality of alternating current generators, a circuit including in series reactance coils equal in number to said generators or group of generators; the said coils being tapped and connected at said taps to corresponding terminals of said generators or group of generators.

2. In combination with a plurality of alternating current generators, a circuit including in series reactance coils equal in number to said generators or group of generators; the said coils being tapped and connected at said taps to corresponding terminals of said generators or group of generators, and branch leads connected to said circuit at points between said coils.

1,133,339. BRAKE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Nov. 6, 1913. Serial No. 799,441. (Cl. 188—7.)



1. In a fluid pressure brake, the combination with a brake valve device and a brake pipe, of a valve mechanism associated with the brake valve device and adapted to control communication through which the fluid flows from the brake pipe to the brake valve in service and

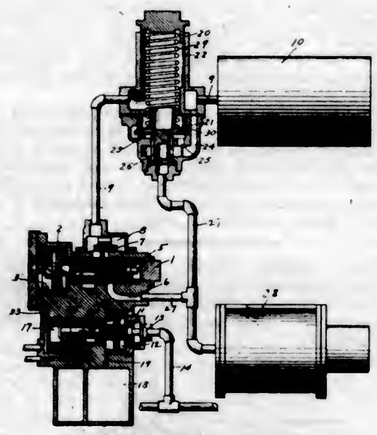
operated by brake pipe pressure upon movement of the brake valve to emergency position for opening a large vent port to the brake pipe.

2. In a fluid pressure brake, the combination with a brake pipe and a brake valve device controlling a port for venting fluid from the brake pipe at a service rate, of a valve mechanism operated by brake pipe pressure acting on one side thereof upon a predetermined reduction in pressure on the other side produced by the brake valve in emergency position for opening a large vent port to the brake pipe.

3. In a fluid pressure brake, the combination with a brake valve device and a brake pipe, of a piston subject on one side to brake pipe pressure, a restricted port adapted to permit flow from the brake pipe to the brake valve at the service rate, and a vent valve operated by said piston upon a rate of flow to the brake valve exceeding the service rate for opening a large vent port to the brake pipe.

4. In a fluid pressure brake, the combination with a brake valve device and a brake pipe, of a piston subject to the flow of fluid from the brake pipe to the brake valve in making a reduction in brake pipe pressure, a restricted port for permitting a service rate of flow, and a valve operated by said piston when the rate of flow from the brake pipe to the brake valve exceeds the service rate for opening a large vent port to the brake pipe.

1,133,340. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Nov. 6, 1913. Serial No. 799,442. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a source of fluid under pressure, a brake cylinder, and a valve device for controlling the flow of fluid from said source to the brake cylinder, of means operated upon a predetermined rate of flow from said source of pressure to the brake cylinder for also supplying fluid from said source to said brake cylinder.

2. In a fluid pressure brake, the combination with a source of fluid under pressure, a brake cylinder, and a valve device for controlling the flow of liquid from said source to the brake cylinder, of means operated upon the rate of flow from said source to the brake cylinder exceeding a predetermined degree for opening a direct connection from said source to the brake cylinder.

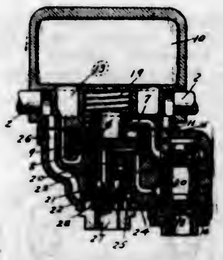
3. In a fluid pressure brake, the combination with a source of fluid under pressure, a brake cylinder, and a valve device operated in service for supplying fluid from said source to the brake cylinder and in an emergency application at a greater rate, of means operated by said greater rate of flow for opening a direct communication from said source to the brake cylinder.

4. In a fluid pressure brake, the combination with a source of fluid under pressure, a brake cylinder, and a valve device operated in service for supplying fluid from said source to the brake cylinder and in an emergency application at a greater rate, of a valve mechanism subject to the flow of fluid from said source to said valve device and having means for permitting a service rate of flow and operated upon an emergency rate of flow for opening a direct communication from said source to the brake cylinder.

5. In a fluid pressure brake, the combination with a main reservoir, a brake cylinder, and a valve device for controlling the supply of fluid from the main reservoir to the brake cylinder in service and emergency applications of the brakes, of a piston subject on one side to main reservoir pressure and on the opposite side to the pressure of fluid flowing from the main reservoir to said valve device and a valve operated by said piston in an emergency application for opening a direct connection from the main reservoir to the brake cylinder.

[Claim 6 not printed in the Gazette.]

1,133,341. BRAKE-PIPE VENT-VALVE DEVICE. WALTER V. TURNER and PATRICK H. DONOVAN, Edgewood, Pa., assignors to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Oct. 7, 1913. Serial No. 793,833. (Cl. 188—14.)



1. In a fluid pressure brake, the combination with a brake pipe, of a vent valve normally subject on one side to fluid pressure for controlling a brake pipe vent port and having a port adapted to connect the opposite sides of the valve, a piston subject to brake pipe pressure and a pilot valve operated by said piston upon a sudden reduction in brake pipe pressure for opening said connecting port for venting fluid from said vent valve to open the same.

2. In a fluid pressure brake, the combination with a brake pipe, of a vent valve normally subject on opposite sides to fluid under pressure for controlling a brake pipe vent port and having a port therethrough, a piston subject on one side to fluid pressure and on the opposite side to brake pipe pressure and a pilot valve actuated by said piston upon a predetermined rate of reduction in brake pipe pressure for opening the port through the vent valve, thereby venting fluid from one side of said vent valve to effect the opening thereof.

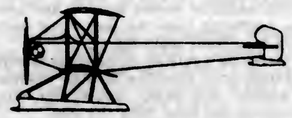
3. In a fluid pressure brake, the combination with a brake pipe, of a vent valve for controlling a brake pipe vent port and normally subject on one side over a restricted area to fluid pressure and having means for normally equalizing the fluid pressures on opposite sides thereof, a piston subject on one side to brake pipe pressure and having means for equalizing the fluid pressures on opposite sides, and a pilot valve actuated by said piston upon a sudden reduction in brake pipe pressure for venting fluid from one side of said vent valve to operate the same.

4. In a fluid pressure brake, the combination with a brake pipe, of a brake pipe vent valve normally subject to opposing fluid pressures and having a restricted vent port therethrough, a pilot valve for normally closing said port, and a piston operated upon a sudden reduction in brake pipe pressure for actuating said pilot valve to open the restricted vent port and thereby vent fluid from one side of said brake pipe vent valve to effect the opening thereof.

1,133,342. FLOAT FOR HYDROAEROPLANES. OSKAR URSINUS, Frankfort-on-the-Main, Germany. Filed Mar. 5, 1914. Serial No. 822,618. (Cl. 244—2.)

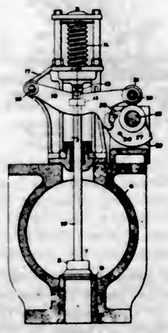
1. A hydroaeroplane float comprising upper and lower planes and a wedge shaped body portion positioned between said planes, the front end of said lower plane being curved upwardly, the sides of said body portion diverging from the front of the float toward the rear thereof.

2. A hydroaeroplane float comprising upper and lower planes and a wedge shaped body portion positioned between said planes, the front end of said lower plane being curved upwardly, the sides of said body portion diverging from the front of the float toward the rear thereof, the sides of said body portion being channeled.



3. A hydroaeroplane float comprising a lower plane having its front end curved upwardly, an upper plane having its front end pointed and a wedge shaped body portion positioned between said planes and having sides diverging from the front of the float to the rear thereof, said sides being channeled.

1,133,343. VALVE-OPERATING MECHANISM. WILLIAM F. VAN HOESEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Continuation in part of application Serial No. 851,564, filed July 17, 1914. This application filed Nov. 12, 1914. Serial No. 871,707. (Cl. 121—118.)



1. Valve mechanism for elastic fluid turbines comprising a plurality of valves biased to closed position, levers for operating the valves, cams for moving the levers to open the valves, and means carried by the cams for engaging the levers to positively close the valves in case any of them should remain open against the biasing force when the cams are moved to permit them to close.

2. Valve mechanism for elastic fluid turbines, comprising a lifting lever for the valve, a cam for moving the lever to open the valve, and a means carried by the cam and normally inactive for engaging the lever and positively moving it to seat the valve.

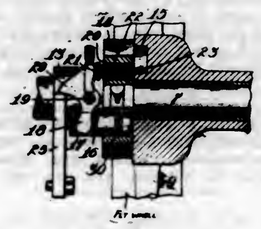
3. Valve mechanism for elastic fluid turbines, comprising a valve, an operating lever therefor, a closing spring, a cam for moving the lever to open the valve against the spring, a valve closing device carried by the lever, and a means carried by the cam adapted to engage the valve closing device at a predetermined point in its travel and coöperate with the spring to close the valve.

4. Valve mechanism for elastic fluid turbines, comprising a lifting lever provided with a hook, and a cam for actuating said lever having a pin adapted to engage with said hook.

5. Valve mechanism for elastic fluid turbines comprising a cam shaft, a plurality of cams thereon, a pin projecting laterally from each cam, a plurality of lifting levers, and a hook on each lever, the circular path of movement of the pins intersecting that of the hooks.

[Claims 6 to 8 not printed in the Gazette.]

1,133,344. AUTOMATIC CLUTCH FOR DIE-PRESSES. HARRY C. H. WALSH, Chicago, Ill. Original application filed May 9, 1907, Serial No. 372,709. Divided and this application filed August 22, 1907, Serial No. 389,641. Renewed Jan. 13, 1913. Serial No. 741,881. (Cl. 192—9.)

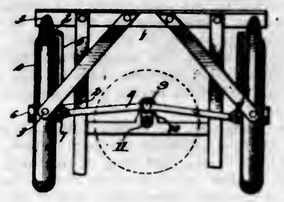


1. In a die-press, the combination with an operating shaft, a power-wheel, and a spring-actuated slide for locking the two together, of a sliding plate carried by said shaft and provided with an inwardly projecting pin located adjacent to said locking slide, said plate and pin being so located that upon being moved from normal position the locking slide will be held from engagement with the wheel.

2. In a die-press, the combination of a normally idle shaft having an integral collar provided with a pair of openings parallel with the axis of said shaft, a constantly rotating fly-wheel provided with an opening in its hub by which the shaft may be locked to the wheel, a pin adapted to slide in one of said openings and to engage the hole in the hub, a T-shaped lever pivoted to said shaft and having one of its ends adapted to engage said pin to move it into engagement with the hole in the hub, a coil spring seated in the other opening in said collar and adapted to be engaged and compressed by another end of said lever, and a tripping arm normally engaging the other end of said lever to compress said spring and hold said pin out of engagement with the hole in said hub.

3. In a die-press, the combination of a normally idle shaft having a collar secured thereto provided with an aperture axially parallel with the axis of said shaft, a constantly rotating fly-wheel provided with an opening in its hub by which said shaft may be locked to the wheel, a slide having bearing in said aperture and adapted to engage the opening in said hub to lock the wheel to the shaft, a bell-crank lever mounted on the exterior of said shaft having a pivot radially arranged with respect to said shaft and having one of its arms adapted to engage said slide to hold it out of engagement with the opening in said hub, a tripping-arm adapted to engage the other arm of said lever to hold said slide out of engagement with said opening in the hub, and a spring adapted to force said slide into engagement with the opening in said hub.

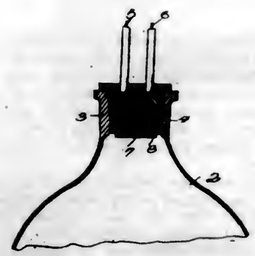
1,133,345. AUTOMOBILE. WESLEY WEBBER, Kearney, N. J. Filed Apr. 23, 1914. Serial No. 833,920. (Cl. 21—192.)



1. In an automobile steering device; wheel carrying brackets each pivoted to parts of the chassis extending from sides thereof, at two points in the wheel plane, one of the points being in front of, and the other above the wheel, so that the axis of the pivots extends upwardly and rearwardly and the wheel will lean in turning; a steering shaft and means operatively connecting the steering shaft and the said wheel carrying brackets.

2. In an automobile; a frame supported on wheel carrying brackets, each of said brackets pivoted to the frame in advance of the wheel axis; a steering shaft carried by said frame and pitmen operatively connecting said steering shaft with said brackets, substantially as described.

1,133,346. ELECTRIC HEATING-STOPPER FOR LIQUID CONTAINERS. ERNEST C. WEBSTER and HENRY GRUENHAGEN, Oakland, Cal. Filed Apr. 30, 1914. Serial No. 835,554. (Cl. 219—40.)



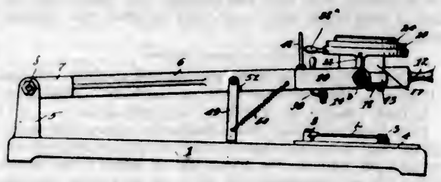
1. An electric heating stopper for liquid containers including a body of insulating material, conductor wires extended through the body, and spaced heating elements disposed upon the inner face of the stopper and connected to the wires, the heating elements extending but a slight distance from such face of the stopper.

2. An electric heating stopper for liquid containers including a body of insulating material, electric conductors leading through the stopper to the inner face thereof, and heating elements secured to the inner face of the stopper and to the conductors, one heating element including a relatively thin disk of carbon and the other a relatively thin ring of carbon surrounding and spaced from the disk.

1,133,347. APPARATUS FOR PRODUCING ELECTRICAL HEATING DEVICES. EDWIN L. WIEGAND, Canal Dover, Ohio. Filed Jan. 9, 1914. Serial No. 811,262. (Cl. 18—1.)

1. In an apparatus of the character described, the combination of a base support, a supporting device for a conductor, means for moving said device toward and from the base, and means adapted to remove the conductor from its supporting device and apply it to the base.

2. In an apparatus of the character described, the combination, with a suitable base, of a supporting device whereto a conductor is applied, and means adapted to remove the conductor from its supporting device and apply it to the base.



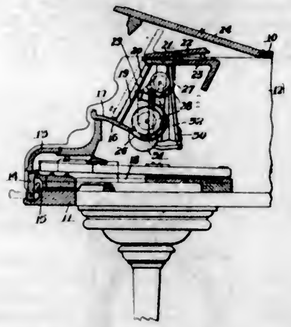
3. In an apparatus of the character described, the combination, with a base, of a supporting device whereto a conductor is applied, and means for transferring the conductor from the supporting device to the base.

4. In an apparatus of the character described, the combination, with a base having a mass of plastic material thereon, of a supporting device adapted to have an elongated flexible conductor wound thereon, and means for removing the conductor from the supporting device and inserting it in the plastic material.

5. As a means for applying a conductor to suitable base, the combination of a plurality of pins whereto the conductor is applied, and means coöperating with the conductor to remove the same from the pins.

[Claims 6 to 14 not printed in the Gazette.]

1,133,348. COMBINATION GRAND PIANO. PETER WELIN, Worcester, Mass., assignor, by mesne assignments, to Lawrence Maxwell, Cincinnati, Ohio. Filed Apr. 6, 1908, Serial No. 425,560. Renewed Nov. 13, 1914. Serial No. 872,040. (Cl. 84—226.)



1. A combination grand piano having a tracker, music rolls, a framing located above the key-bed back of the upper front portion of the piano case for supporting the tracker and music rolls, a closure in front of the tracker and music rolls to conceal them, a ribbed ledge in front and near the bottom of said closure for supporting music sheets against the closure, and a hinged member above the closure having a surface forming substantially a continuation thereof.

2. A combination grand piano having a tracker, music rolls, a framing located above the key-bed back of the upper front portion of the piano case for supporting the tracker and music rolls, a plate located above said frame, a closure hinged to said plate and adapted to swing down in front of the frame to conceal it, and a V-shaped member hinged to said plate and adapted to swing into position above it and having a surface substantially in the same plane with the front of said closure when said V-shaped member is swung forward.

3. A combination grand piano having a tracker, music rolls, a framing located above the key-bed back of the upper front portion of the piano case for supporting the tracker and music rolls, a closure in front of the tracker and music rolls to conceal them, a ribbed ledge in front and near the bottom of said closure for supporting music sheets against the closure, and a hinged member above the closure having a surface forming substantially a continuation thereof, said hinged member constituting a support for the closure when both are swung back.

4. In a grand piano, the combination with the casing and key-bed, of a framing located directly and entirely above the key-bed, a motor and tracker supported by said framing, a door in front of the tracker, a fixed plate above the door and tracker, a closure hinged at the top to the front of said plate and adapted to conceal the door and having a knob on the front thereof, a V-shaped member hinged at the rear of said horizontal plate and extending horizontally back therefrom when in one position so as to support said knob and adapted to be swung forward on its hinge so that one leg will rest on said horizontal plate and the other will project upwardly therefrom on an incline in continuous alinement with the front of said closure when the latter is down to afford a plane support for the music.

5. In a grand piano, the combination with the casing and key-bed, of a framing located directly and entirely above the key-bed, a motor and tracker supported by said framing, a door in front of the tracker, a fixed plate above the door and tracker, a closure hinged at the top to the front of said plate and adapted to conceal the door, a V-shaped member hinged at the rear of said horizontal plate and extending horizontally back therefrom when in one position and adapted to be swung forward on its hinge so that one leg wil rest on said horizontal plate and the other will project upwardly therefrom on an incline in continuous alinement with the front of said closure when the latter is down to afford a plane support for the music.

[Claims 6 to 8 not printed in the Gazette.]

1,133,349. FOUNTAIN-PEN. RUEL W. WHITNEY and CHARLES NELSON RICHARDS, Cleveland, Ohio. Filed June 5, 1914. Serial No. 843,173. (Cl. 120—46.)



1. In a self-filling fountain pen, the combination with a barrel having a slot in the side thereof and an ink reservoir in said barrel formed in resilient material of a band movable on said barrel and a pawl pivotally secured to said band to lie in said slot in said barrel when said band is in its normal position, the arrangement being such that when the said band is shifted on said barrel said pawl will swing down into the interior of said barrel.

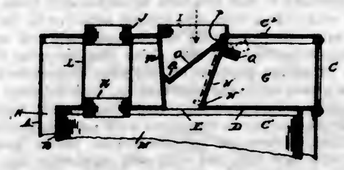
2. In a self-filling fountain pen, the combination with a barrel having a slot in the side thereof and an ink reservoir in said barrel formed of resilient material of a band movable on said barrel, a pawl pivotally secured to said band to lie in said slot in said barrel when said band is in its normal position, the arrangement being such that when the said band is shifted on said barrel said pawl will swing down into the interior of said barrel and a latch mounted on said barrel and adapted to engage with said band when said band is in its normal position and lock said band against movement.

3. In a self-filling fountain pen, the combination with a barrel having a longitudinally extending slot in the side thereof, a compressible ink reservoir in said barrel and a plate arranged on said ink reservoir below the slot in the said barrel of a band arranged on said barrel to slide longitudinally thereon and a pawl pivotally secured to said band to lie in the slot in said barrel when said band is in its normal position, the free end of said pawl engaging with one end of said slot to be swung down into engagement with said plate when said band is shifted longitudinally on the said barrel.

4. In a self-filling fountain pen, the combination with a barrel having a longitudinally extending slot in the side thereof, a pin arranged to form one end of said slot, a compressible ink reservoir in said barrel and a plate arranged on said ink reservoir below the slot in the said barrel of a band arranged on said barrel to slide longitudinally thereon and a pawl pivotally secured to said band to lie in the said barrel when said band is in its normal position, the free end of said pawl engaging with said pin in said slot to be swung down into engagement with said plate when said band is shifted longitudinally on the said barrel.

5. In a self-filling fountain pen, the combination with a barrel having two slots in the side thereof, a compressible ink reservoir arranged in said barrel and a plate arranged between the ink reservoir and the wall of the barrel of a band slidably arranged on the outside of said barrel, a pawl pivotally secured to said band and in the normal position of said band lying in one of said slots in said barrel and a latch arranged in the other slot in said barrel, said latch having a lip which extends up and engages with said band when said band is in its normal position and locks said band against movement, the arrangement being such that when the said latch is detached from the band and the band shifted longitudinally on said barrel said pawl will swing down into engagement with said plate and compress said ink reservoir between said plate and the opposite wall of said barrel.

1,133,350. AIR-HEATER. HARRY S. WILLIAMS, Detroit, Mich., assignor to The Peter Smith Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 17, 1914. Serial No. 825,387. (Cl. 126—99.)

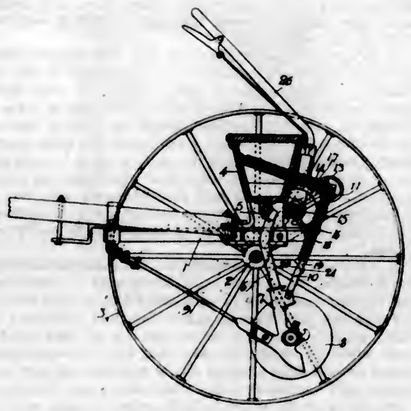


In a heater, the combination with a casing, of a conduit connected therewith and extending therefrom, and provided with a lateral opening in one side thereof, a damper pivoted within said conduit and movable from a position covering said lateral opening into a position obstructing said conduit adjacent to said opening, means for yieldably holding said damper in the latter position, and a flange at the free end of said damper adapted for the impingement of an air current directed to the casing through the conduit to move said damper into a position closing said opening.

1,133,351. SEED-DRILL. GEORGE M. WINWOOD, Jr., Springfield, Ohio. Filed Oct. 4, 1912. Serial No. 723,824. (Cl. 111—11.)

1. In a seed drill, the combination, with a frame, a seed hopper, and a series of boots supported beneath said hopper, of a supporting bar movable about an arc having a fixed center on said frame, said bar having a substantially horisontal portion provided with vertical openings, thrust rods connected with the respective seed boots and extending loosely through the respective openings in said bar, a stop carried by each rod, a spring carried by each rod and confined between said bar and said stop, means for shifting said bar about said fixed axis, and a sprin

connected with said bar and with a fixed part of said frame and tending to move said bar toward its extreme position on either side of the fulcrum thereof.



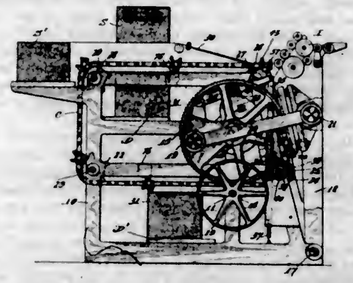
2. In a seed drill, the combination, with a frame, a seed hopper, a seed boot supported beneath said hopper, and a supporting bar, of a thrust rod connected with said seed boot and with said supporting bar, said thrust rod having a series of notches in one edge thereof, a stop carried by said thrust rod and comprising two substantially parallel members arranged on opposite sides of said rod, a collar formed integral with said members, connecting the same at points between their ends and having an opening in one side thereof registering with the space between said parallel members, a cross bar connecting the lower ends of said members, the lower ends of said members and said cross bar being offset from the vertical line of the upper portions of said members to enable said cross bar to engage said rod on that side thereof adjacent to the opening in said collar, a spring coiled about said rod between said supporting bar and said collar and inclosing the upwardly extending portions of said parallel members.

3. In a seed drill, the combination, with a frame, a seed hopper, and a seed boot supported beneath said hopper, of a supporting bar, arms connected with said supporting bar and pivotally mounted on said frame, thrust rods connected with said boot and with said supporting bar, and a spring connected with said supporting bar and with a fixed part of said drill, the point of connection to said drill being so arranged that the movement of said supporting bar about its axis will cause said spring to pass over said axis and thus reverse the direction of its pull on said bar.

4. In a seed drill, the combination, with a frame, a seed hopper, and a seed boot supported beneath said hopper, of a supporting bar, arms connected with said supporting bar and pivotally mounted on said frame, thrust rods connected with said boot and with said supporting bar, and a spring connected to each end of said supporting bar and to the adjacent end of said hopper, the points of connection of said springs to said hopper being so arranged with relation to said supporting bar that when the latter is moved about its axis said springs will be carried across said axis and thus reverse the direction of their pull on said bar.

1,133,352. SHEET-MANIPULATING MECHANISM. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Nov. 15, 1905. Serial No. 287,485. (Cl. 101—36.)

1. A sheet manipulating mechanism for a printing press, comprising a carrier, a gripper mechanism thereon, independently movable means for holding said gripper mechanism away from the impression surface of the press as it passes through the press, and for permitting its retraction when it reaches the end thereof to allow the sheet to come on the impression surface during impression.



2. A sheet manipulating mechanism, comprising a carrier, a series of gripper mechanisms arranged thereon, means for moving said carrier, a printing mechanism through which the carrier is adapted to move the sheets, and movable means for moving each gripper mechanism away from the impression surface of the printing mechanism as it passes through the same and for allowing the gripper mechanism to come in line with the impression surface during the impression.

3. A sheet manipulating mechanism comprising a carrier, a series of gripper mechanisms arranged in the carrier, means for intermittently advancing the carrier, a platen printing mechanism through which the manipulating mechanism carries the sheets, and movable means for moving each gripper mechanism away from the face of the platen as its passes over the same and for allowing the same to come in line with the platen during impression.

4. A sheet manipulating mechanism comprising a carrier, a series of gripper mechanisms arranged in the carrier, means for intermittently advancing the carrier, a platen printing mechanism through which the manipulating mechanism carries the sheets, and means for registering the carrier with the platen for each impression, comprising a slide having a tapering mouth.

5. A sheet manipulating mechanism, comprising a carrier, means for moving the carrier, a printing mechanism through which the carrier moves, and means for registering the carrier with the printing mechanism for each impression, said means comprising a stud on the carrier, a slide having a tapering mouth adapted to engage and center said stud, and means for intermittently reciprocating said slide.

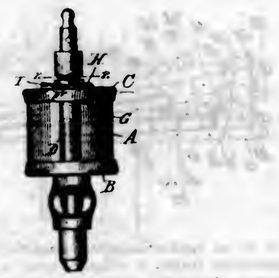
[Claims 6 to 17 not printed in the Gazette.]

1,133,353. LUBRICATOR-CUP. CHARLES F. WRAY, Rochester, N. Y., assignor to National Brass Manufacturing Co., Rochester, N. Y., a Corporation of New York. Filed Feb. 2, 1914. Serial No. 815,860. (Cl. 184—93.)

1. In a lubricator cup, the combination with a top having an opening therein, of a cover for the opening pivotally mounted on the top, the cover embodying an upwardly flaring portion extending from a point above the opening to one edge and forming a passage affording access of air to the interior of the cup.

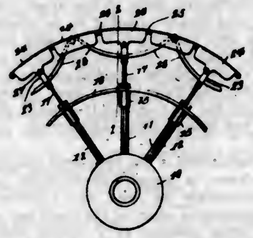
2. In a lubricator cup, the combination with a top having an opening therein, of a cover for the opening fixed upon a pivotally mounted support, the cover embodying an upwardly flaring portion extending from a point above the opening to one edge and forming a passage affording access of air to the interior of the cup, and a spring cooperating with the support to hold the cover normally above the opening.

3. In a lubricator cup, the combination with a top and bottom, the top having an opening therein, of a centrally disposed post connecting the top and bottom, a pin pivotally mounted in the top and extending below the same, a cover for said opening fixed upon the pin, said cover embodying an upwardly flaring portion extending from a point above the opening to one edge and forming a passage affording access of air to the interior of the cup, and a spring surrounding said pin having one end connected thereto and its opposite end engaging the aforementioned post.



4. In a lubricator cup, the combination with a top having an opening therein, of a cover for the opening embodying an upwardly flaring portion extending from a point above the opening to one edge and forming a passage affording access of air to the interior of the cup.

1,133,354. RESILIENT WHEEL. MARION F. YOUNG, Plainview, Tex. Filed June 21, 1913. Serial No. 775,069. (Cl. 152—30.)



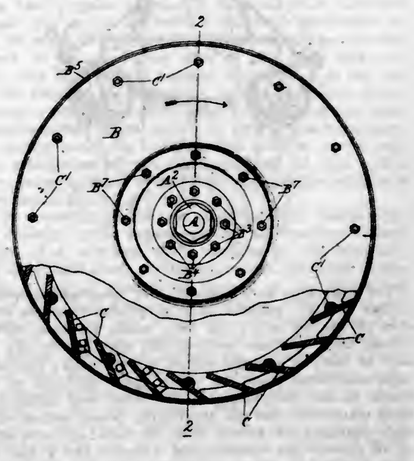
1. A spring wheel including a hub, spokes resiliently associated with said hub, a substantially U-shaped member detachably carried by each of said spokes, a tread comprising a plurality of hinged plates of U-shaped cross-sectional configuration, ears depending from the arms of certain of said plates for pivotal engagement with the arms of said U-shaped members, and a plurality of semi-elliptical springs each of which has a portion midway the ends thereof recessed for engagement with the vertex of each of said U-shaped members, the opposite ends of each of said springs being engaged with the tread plates between the spokes, for absorbing shock occasioned to the tread of said wheel, and preventing lateral thrust.

2. A spring wheel including a hub, cylinders radiating from said hub, bracing means for said cylinders comprising rods arranged on the opposite sides of said cylinders and in parallelism therewith and having the inner ends thereof engaged with said hub, enlarged caps carried by the outer ends of said cylinders and having detachable engagement with said rods, a ring associated with the outer ends of said rods and having engagement with said caps for preventing the displacement of the latter, spokes resiliently mounted in said cylinders, and a tread associated with said spokes and flexible under pressure to operate said spokes in said cylinders.

3. A resilient wheel including a hub, cylinders radiating at intervals from said hub, each of said cylinders being provided with an open outer end, braces arranged in pairs on the periphery of said hub and extending in parallelism to said cylinders, a spring arranged in each of said cylinders, a spoke, a head carried on one end of said spoke for engagement in said cylinder, the opposite end of said spoke extending beyond the outer end of said cylinder and provided with screw-threads, a bifurcated end adapted for screw-threaded engagement on the threaded end of said spoke, a closure for said cylinder, the sides thereof being in engagement with said braces, a ring engaging the upper portions of said closures and being likewise in engagement with said braces, a tire including a plurality of successive plates hingedly mounted together, said tire being provided with depending ears for engagement with the branches of said bifurcated end.

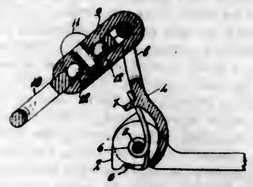
4. A resilient wheel including a hub, cylinders radiating at intervals from the periphery of said hub, a spoke, a head arranged on the one end of said spoke and having engagement in said cylinder, a spring arranged in said cylinder beneath said head adapted to normally hold the same in an outward position, braces radiating from the periphery of said hub in parallelism to said cylinders, a closure for said cylinder, said closure being secured on said cylinder by said braces, the outer ends of said spokes being bifurcated and adjustable, a tire including a plurality of successive plates hingedly mounted together, and a spring brace the opposite ends of which engage the inner periphery of said tire and the midway portion thereof having engagement between the branches of said bifurcated end for the purpose specified.

1,133,355. WHEEL. BRYON G. BAKER, Laporte, Ind. assignor to M. Rumely Company, Laporte, Ind., a Corporation of Indiana. Filed July 28, 1913. Serial No. 781,499. (Cl. 21—216.)



A wheel for traction vehicles and the like comprising a pair of parallel continuous cylindrical tread members, a plurality of intermittent separate inclined tread members fixed in position between said parallel tread members, the outer edges of said inclined members being substantially in line with the effective tread surface of the cylindrical members, the inner edges of said separate tread members being located inside the effective surface of the cylindrical tread members, all of said tread surfaces being located in planes parallel with the axis of rotation of the wheel.

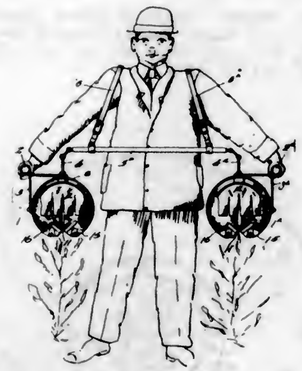
1,133,356. LOOP FOR THILL-SUPPORTS. ABRAHAM BERNSTEIN, Cincinnati, Ohio. Filed Sept. 9, 1911. Serial No. 648,518. (Cl. 54—43.)



1. In combination with a saddle, a loop for a thill support comprising a holder, means whereby said holder is pivotally mounted on said saddle and maintained at a distance therefrom, and a loop pivotally mounted in said holder, the pivotal axis of said loop being at right angles to the axis of said holder, said loop being adapted to receive the thill support to affix the same to said saddle.

2. In combination with a saddle, a loop for a thill support comprising a tension arm rotatably mounted on said saddle, a holder rotatably mounted in said tension arm, means whereby said tension arm is adapted normally to maintain said holder at an elevation with reference to said saddle, and a loop pivotally mounted in said holder and adapted to receive the thill support to affix the same to said saddle.

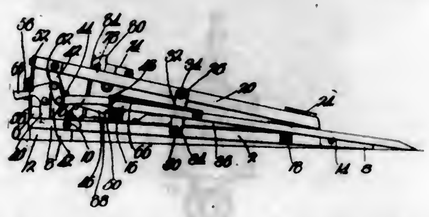
1,133,357. INSECT-DESTROYER. ED BOLAND, Big Creek, Miss. Filed Oct. 12, 1914. Serial No. 866,308. (Cl. 41—1.)



The apparatus herein shown and described comprising a yoke member, adapted to be suspended from the shoulders of the operator; the twin hoods mounted thereon having front and rear semi-circular openings for the passage of rows of growing cotton therethrough; stationary flaps suspended from the inner upper surfaces of said hoods, so that the passage of the cotton bolls agitates the flaps rearwardly and the gravitating return motion of the flaps dislodges the weevils from the bolls; oil pans adapted to receive and destroy said weevils; and a link connection, between said hoods and yoke whereby the operator may adjust said hoods to the height of the plant and to the irregularities of the rows, the whole coöperating as and for the purpose set forth and illustrated.

1,133,358. JACK. LOUIS F. BONALY, Kickapoo township, Leavenworth county, Kans. Filed May 5, 1913. Serial No. 765,492. (Cl. 57—15.)

1. In an apparatus of the character described, a vehicle supporting frame, a support upon which said frame is pivoted, means for retaining said frame normally in inclined position, and means adapted to be operated by a vehicle moving over said frame to trip said retaining means to allow the frame to move into horizontal position under the weight of the vehicle received upon the upper end of the frame, said frame being arranged within the path of travel of the vehicle wheels so as to engage the vehicle frame and, in moving into horizontal position, to remove the weight of said vehicle frame from the wheels.



2. In an apparatus of the character described, a vehicle supporting frame, a support upon which said frame is pivoted, means for retaining said frame normally in inclined position, means adapted to be operated by a vehicle moving over the frame to trip said retaining means to allow the frame to move into horizontal position under the weight of the vehicle received upon the upper end of the frame, said frame being located in position to engage the vehicle frame and adapted, in moving into horizontal position, to remove the weight of said vehicle frame from the wheels, and stops located in position to limit the movement of the tilting frame into horizontal position.

3. In an apparatus of the character described, a vehicle supporting frame, a support upon which said frame is pivoted intermediate its ends, means for retaining said frame normally in inclined position, runways at opposite sides and terminating short of the upper end of said pivoted frame, and means adapted to be operated by a vehicle moving over said frame to trip said retaining means to allow the frame to move into horizontal position under the weight of the vehicle received upon the upper end of the frame after the front wheels have passed off the runways, whereby the rear end of the frame will engage the rear end of the vehicle frame and lift the rear wheels off the runway.

4. In an apparatus of the character described, a vehicle supporting frame, a support upon which said frame is pivoted intermediate its ends, and runways at opposite sides and terminating short of the front end of said frame, said frame being adapted as a vehicle travels over the runways to engage the vehicle frame and be rocked to remove the weight of the vehicle frame from its wheels.

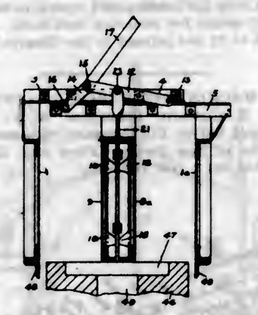
5. In an apparatus of the character described, a vehicle supporting frame, a support upon which said frame is pivoted, runways at opposite sides and terminating short of the front end of said frame, said frame being adapted as a vehicle travels over the runways to be engaged by the vehicle frame and rocked to remove the weight of the as a vehicle travels over the runways to be engaged by the movement of the rocking frame in vehicle supporting position.

[Claims 6 to 20 not printed in the Gazette.]

1,133,359. MOLD. WILLIS N. BRITTON, Rochester, N. Y. Filed Dec. 30, 1911. Serial No. 668,682. (Cl. 25—131.)

1. A mold comprising a pair of outer face forming members mounted for relative movement toward and from each other, a pair of inner face forming members mounted for relative movement toward and from each other, a brace arranged to operate between the inner face forming members, and a common operating member for effecting the relative movement of the outer face forming members and for effecting the movement of said brace.

2. A mold comprising a pair of outer face forming members mounted for relative movement toward and from each other, a pair of inner face forming members mounted for relative movement toward and from each other, a plurality of toggles connecting the outer face forming members to effect the relative movement, and a brace suspended from the toggles and operating between the inner face forming members to prevent the relative movement of the latter.



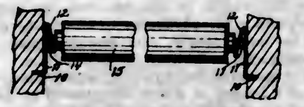
3. A mold comprising a pair of outer face-forming members, a pair of inner face-forming members, means for simultaneously moving said outer face-forming members toward and from each other and for moving said inner face-forming members toward or from each other, and bracing means for the inner face-forming members operated with said first-named means.

4. A mold comprising two relatively movable parts, each carrying an outer face-forming member and an inner face-forming member, the inner face-forming member of one part being positioned between the inner and the outer face-forming member of the other part, bracing means positioned between the two inner face-forming members, and means for moving the two parts relatively to each other, connected to the bracing means for actuating the latter.

5. A mold comprising two relatively movable parts, each carrying an outer face-forming member and an inner face-forming member, the inner face-forming member of one part lying between the inner and the outer face-forming member of the other part, bracing means positioned between the inner face-forming members, and toggles for moving the two parts relatively to each other, connected to the bracing means.

[Claim 6 not printed in the Gazette.]

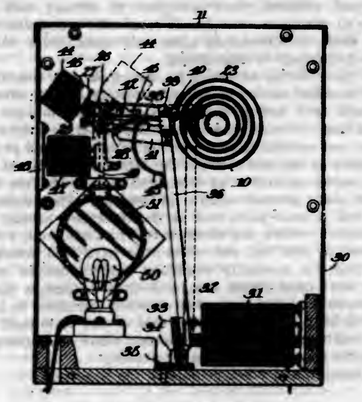
1,133,360. SHADE-BRACKET. JOHN R. CASPER, Washington, D. C. Filed Apr. 14, 1914. Serial No. 831,861. (Cl. 156—24.)



1. A shade roller bracket comprising a body portion adapted to fit against the vertical frame of a window or door, having at its lower end a portion bent at right angles and provided with means to enter the wood work of the frame, said body portion at its upper end being bent downwardly and having formed therein a roller pintle receiving aperture.

2. A shade roller bracket comprising a body portion adapted to fit against the vertical frame of a window or door, having at its lower end a portion bent at right angles and serrated to form teeth to enter the woodwork of the frame, said body portion at its upper end being bent downwardly and having formed therein a roller pintle receiving aperture, said downbent portion terminating short of the bottom of the body portion as and for the purpose described.

1,133,361. SIGNALING DEVICE. JOHN B. CASPER, Washington, D. C. Filed May 6, 1914. Serial No. 836,709. (Cl. 177—329.)



1. A signaling device for automobiles comprising a casing having glazed openings, a rotatable shaft extending through said casing, the ends of the shaft protruding beyond the walls of said casing, a green semaphore attached to each of the protruding ends of said shaft and normally lying in a vertical position with respect to the casing, the glass of the semaphore alining with said glazed openings, a red semaphore attached to said shaft and lying at approximately right angles to said green semaphore, and means for rotating said shaft to throw said green semaphores beyond the outer wall of said casing and to bring said red semaphores into register with said glazed openings.

2. A signaling device for automobiles comprising a casing having glazed openings, a rotatable shaft extending through said casing, the ends of the shaft protruding beyond the walls of said casing, a green semaphore attached to each of the protruding ends of said shaft and normally lying in a vertical position with respect to the casing, the glass of the semaphore alining with said glazed openings, a red semaphore attached to said shaft and lying at approximately right angles to said green semaphore, and electric means for rotating said shaft to throw said green semaphores beyond the outer wall of said casing and to bring said red semaphores into register with said glazed openings.

3. In a device of the type described, the combination with a casing having glazed openings and bearings formed therein, of a rotatable shaft working in said bearings, the ends of said shaft protruding beyond the walls of the casing, a pair of semaphores secured to the protruding ends of said shaft and normally alining with said glazed openings, a second pair of spaced semaphores secured to said shaft within the casing and lying approximately at right angles to the outer semaphores, a crank arm having a bifurcated uper end secured to said shaft, electro-magnets disposed within said casing, a connecting rod pivotally attached at one end between the bifurcations of said crank arm, and means attached to the other end of said rod influences by said electro-magnets to rotate said shaft for throwing said outer semaphores out of register and said inner semaphores into register with said glazed openings.

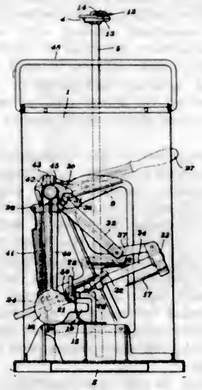
4. In a device of the type described, the combination with a casing having glazed openings, of a shaft extending through said casing, semaphores attached to said shaft at an angle to each other, a crank arm having a bifurcated upper end secured to said shaft, a connecting rod pivotally attached at one end between the bifurcations of said crank arm, said rod having an elongated slot in its free end, a metal plate pivoted within said casing, a bar se-

cured at one end to said plate and at its other end having a pin connection within the elongated slot of said rod, a detent secured to said bar and contacting with said crank arm, and electro-magnets disposed within said casing and adapted when energized to attract said metal plate to withdraw said detent from said crank and rotate said shaft to alternately aline said semaphores with the glazed openings in said casing.

5. In a device of the type described, the combination with a casing having glazed openings, of a shaft extending through said casing, semaphores attached to said shaft at an angle to each other, a crank arm having a bifurcated upper end secured to said shaft, a connecting rod pivotally attached at one end between the bifurcations of said crank arm, said rod having an elongated slot in its free end, a metal plate pivoted within said casing, a bar secured at one end to said plate and at its other end having a pin connection within the elongated slot of said rod, a detent secured to said bar and contacting with said crank arm, a spring for normally retaining said detent in engagement with said crank arm, and electro-magnets disposed within said casing, and adapted when energized to attract said metal plate to withdraw said detent from said crank and rotate said shaft to alternately aline said semaphores with the glazed openings in said casing.

[Claims 6 and 7 not printed in the Gazette.]

1,133,362. APPARATUS FOR KILLING POULTRY. VERNON CASSARD, Stamford, Conn. Filed Dec. 17, 1914. Serial No. 877,673. (Cl. 17—30.)



1. In a poultry killing device, the combination with a lance, of an open cage serving to receive the head of the fowl, means for actuating said lance to move within said cage, concussive means having a portion constructed to project within said cage and means for actuating said lance and said concussive means in succession.

2. In a poultry killing device, the combination with a lance, of an open cage serving to receive the head of the fowl, means for actuating said lance to move within said cage, concussive means having a portion constructed to project within said cage and common means for actuating said lance and said concussive means in succession.

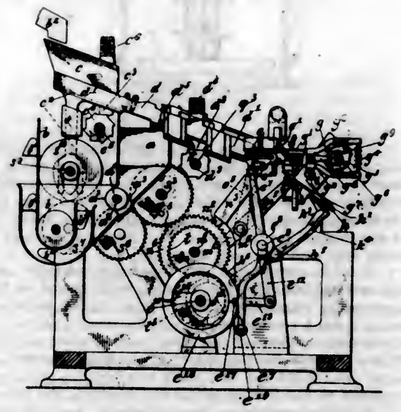
3. In a poultry killing device, the combination with a lance, of an open cage serving to receive the head of the fowl, means for actuating said lance to move within said cage, concussive means having a portion constructed to project within said cage and means for actuating said lance in advance of said concussive means in succession.

4. In a poultry killing device, the combination with a lance, of an open cage serving to receive the head of the fowl, means for actuating said lance to move within said cage, concussive means having a portion constructed to project within said cage and common means for actuating said lance in advance of said concussive means in succession.

5. In a poultry killing device, the combination with a frame, of means for supporting a fowl thereon, concussive means mounted on said frame for striking the head of the fowl, a spring connected with said concussive means, a lever, means controlled by said lever for moving one end of said spring into a tensioned position relative to the other end, a stop for holding said spring in said tensioned position and means for releasing said stop.

[Claims 6 to 11 not printed in the Gazette.]

1,133,363. MACHINE FOR CARDING SAFETY-PINS, &c. HERBERT B. CHURCH, Bloomfield, N. J., assignor to Consolidated Safety Pin Company, Bloomfield, N. J., a Corporation of New Jersey. Filed Aug. 13, 1908. Serial No. 448,301. (Cl. 163—7.)



1. In a machine for handling safety pins, the combination of a stationary hopper in which the pins to be handled may be placed, a second and stationary hopper having inclined sides and a slotted, inclined bottom whereby the pins are uniformly positioned with respect to their transverse axes, and positive means to transfer the pins to be handled from the first named hopper to the second named hopper.

2. In a machine for handling safety pins, the combination of a hopper in which the pins to be handled may be placed, a conveyer, a rotating feed roll mounted between the hopper and the conveyer and having projections to transfer the pins to be handled from the hopper to the conveyer, and a second hopper to which the pins are delivered by the conveyer, said second hopper having inclined sides and an inclined, slotted bottom.

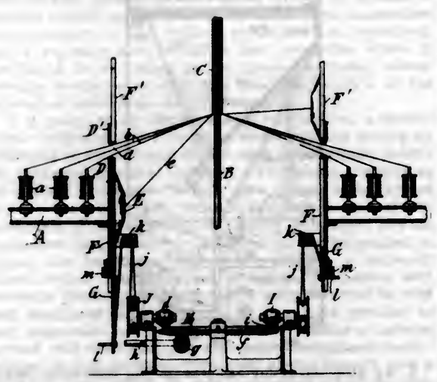
3. In a machine for handling safety pins, the combination of a hopper in which the pins to be handled may be placed, a conveyer, a rotating feed roll mounted between the hopper and the conveyer and having projections to transfer the pins to be handled from the hopper to the conveyer, a second hopper to which the pins are delivered by the conveyer, said second hopper having inclined sides and an inclined, slotted bottom, and means to agitate the pins to cause them to drop partly through the slotted bottom of the second named hopper.

4. In a machine for handling safety pins, the combination of an inclined guide along which the pins to be handled are moved by gravity, a traveling carrier adapted to receive the pins, and independent means to transfer the pins one by one from the guide to the carrier.

5. In a machine for handling safety pins, the combination of an inclined guide along which the pins to be handled are moved by gravity, yielding stops at the end of the guide to prevent the accidental release of the pins, a transversely traveling carrier adapted to receive the pins and means to transfer the pins one by one from the guide to the carrier.

[Claims 6 to 33 not printed in the Gazette.]

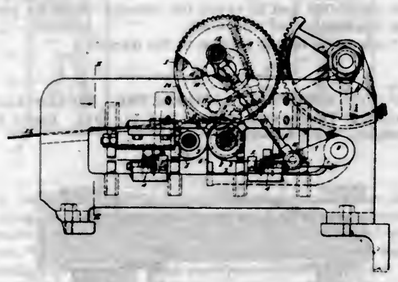
1,133,364. BRAIDING-MACHINE. HENRY ZENAS COBB, Winchester, Mass. Filed Jan. 31, 1913. Serial No. 745,361. (Cl. 28—4.)



1. In a braiding machine, guide rings between which the yarns forming the braiding shed travel, a shuttle movable through said shed adjacent to said rings, and means for throwing the shuttle, said rings approaching each other adjacent to the path of said shuttle whereby to narrow the shed where the shuttle penetrates it.

2. In a braiding machine, guide rings between which the yarns forming the braiding shed travel, a shuttle raceway adapted to guide a shuttle through the shed adjacent to said rings, and means for throwing the shuttle, said guide rings approaching each other adjacent to said raceway to narrow the shed where the shuttle penetrates it.

1,133,365. FOLDING AND DELIVERY MECHANISM. ELLIS W. COOPER, Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 29, 1913. Serial No. 781,774. (Cl. 101—29.)



1. In a folding mechanism, the combination with a pair of folding rolls, of a delivery cylinder to which the folding rolls deliver the folded product direct, said cylinder being provided with sheet taking devices and so arranged with relation to the folding rolls that the head of the folded sheet is taken by the sheet taking devices before the tail of the sheet has been released by the folding means.

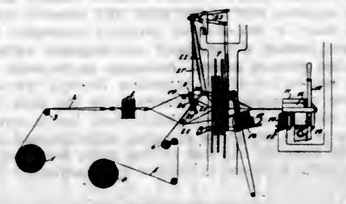
2. In a folding mechanism, the combination with a delivery cylinder provided with sheet taking devices, of a pair of folding rolls located closely adjacent said delivery cylinder, one of said folding rolls being provided with recesses in which the sheet taking devices of the cylinder may enter to seize the head of the sheet while the tail of the sheet is held by the rolls.

3. In a folding mechanism, the combination with sheet forwarding means, of a delivery cylinder having sheet taking grippers, of a pair of folding rolls located closely adjacent to the cylinder, one of said rolls being provided with recesses in which the grippers may enter to seize the head of a folded sheet, and a guide for directing the head of the sheet to the sheet taking devices.

4. In a folding mechanism, the combination with a delivery mechanism provided with sheet-taking devices, of a pair of folding rolls located closely adjacent said delivery mechanism, one of said folding rolls being provided with clearances to permit the sheet-taking devices of the delivery mechanism to enter and seize the head of the sheet while the sheet is held by the rolls.

5. In a folding mechanism, the combination with a delivery mechanism provided with sheet-taking devices, of a folding mechanism located closely adjacent said delivery mechanism, said folding mechanism being provided with clearances into which the sheet-taking devices of the delivery mechanism may enter to seize the head of the sheet while the sheet is held in the folding mechanism.

1,133,366. WARP STOP-MOTION FOR LOOMS. SAMUEL B. CUTTING, Bridgeport, Conn., assignor to The Salt's Textile Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 26, 1912. Serial No. 733,571. (Cl. 139—91.)



1. In a warp stop motion for pile fabric looms, the combination of stopping mechanism and a controller therefor, a pile warp beam, easing rods over which the pile warps are led, drop devices carried by the pile warps, said drops being supported upon a straight inclined section of the pipe warps between the beam and the easing rods and in the space between the back warps, and adapted to set in motion said controller when a pile warp thread breaks or becomes unduly slack.

2. In a warp stop motion for pile fabric looms, the combination of stopping mechanism and a controller therefor, a pile warp beam, easing rods over which the pile warps are led, drop devices carried by the pile warps, said drops being supported upon a straight inclined section of the pile warps between the beam and the easing rods and in the space between the back warps, and adapted to set in motion said controller when a pile warp thread breaks or becomes unduly slack, and means for moving the drop devices.

3. In a warp stop motion for looms the combination of stopping mechanism and a controller therefor, a pile warp beam, easing rods over which the pile warps are led, a frame between said beam and easing rods comprising rods placed in different horizontal planes and over which the pile warps are passed in substantially straight lines, drop devices carried by the pile warps, said drops being supported upon a straight inclined section of the pile warps and in the space between the back warps, and adapted to set in operation said controller when a warp thread breaks or becomes unduly slack.

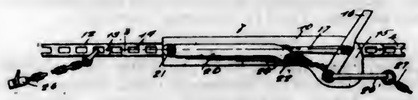
4. In a warp stop motion for looms, the combination of

stopping mechanism and a controller therefor, pile warp let-off rolls and easing rods, the said pile warps leading from said rolls to the easing rods in substantially straight lines, and drop devices supported on the pile warps at some part of said straight section thereof and in the space between the back warps, and adapted to set in operation said controller when a warp thread breaks or becomes unduly slack.

5. In a warp stop motion for looms the combination of stopping mechanism and a controlling circuit therefor, let-off rolls and easing rods, means for leading the pile warps from the let-off rolls in substantially straight lines to the easing rods, drop devices supported upon the pile warps at an inclined section thereof between the said rolls and the easing rods and in the space between the back warp, said drops being adapted to close the circuit when a pile warp breaks or becomes unduly slack.

[Claim 6 not printed in the Gazette.]

1,133,367. WIRE-STRETCHER. WILLIAM M. DALTON, America, Ala., assignor of one-half to James A. Key, America, Ala. Filed May 8, 1914. Serial No. 837,237. (Cl. 39—27.)



A wire stretching device including a plate having a longitudinal slot formed therethrough, a lever pivotally mounted on the plate, a slotted member slidably mounted on the opposite side of the plate and opposite the said slotted plate, a link member pivotally connected to the lever and having a shouldered end disposed within the slot of the plate in position to engage in the slots of the sliding member, a detent extending through the slot of the plate and engaging successively in the slots of the sliding member, and a resiliently held bar mounted on the side of the plate and engaging with the said link to hold the same in the slot of the plate, said bar being formed with a recess to permit free movement of the detent.

1,133,368. POLISHING ELEMENT FOR RATTLING DEVICES. THOMAS A. DE VILBISS, Toledo, Ohio, assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 25, 1914. Serial No. 820,955. (Cl. 51—1.)

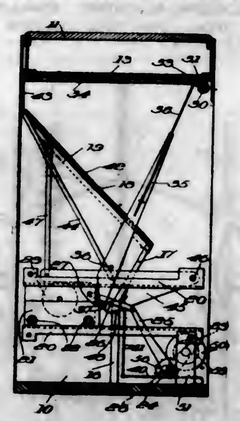


A metal polishing element of the class described which is elongated in form, circular in cross-section throughout its length and terminating at each end in a point, said element having lengthwise extending side arcs intersecting at the ends thereof.

1,133,369. REFLECTING-CAMERA. GUSTAV DIETZ, Yonkers, N. Y., assignor to Multi Speed Shutter Company, New York, N. Y., a Corporation of New York. Filed Jan. 11, 1910. Serial No. 537,386. (Cl. 95—42.)

1. An attachment for cameras having removable backs, said attachment being constructed to form a compartment between the camera and its back, a movable reflector and a member having a focusing surface within said compartment, and means for covering said surface during the movement of the reflector.

2. An attachment for cameras having removable backs, said attachment being constructed to form a compartment between the camera and its back, a movable reflector and a member having a focusing surface within said compartment, a curtain for covering the focusing surface, and a movable member arranged to first draw said curtain across the focusing surface and to then raise the reflector.



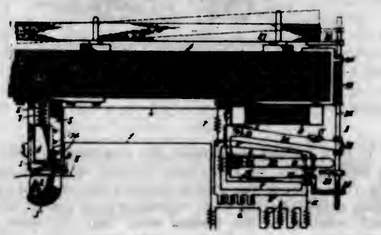
3. An attachment for cameras having removable backs, said attachment being constructed to form a compartment, between the camera and its back, open at front and back, a reflector set obliquely across and dividing said compartment, a member above the reflector having a focusing surface, and means for covering said member and then raising the reflector up into proximity with the member.

4. An attachment for cameras having removable backs, said attachment being constructed to form a compartment, between the camera and its back, open at front and back, a hinged flap, a reflector set obliquely across said compartment and arranged with said flap to obstruct the passage of light through the compartment, a member above the reflector having a focusing surface, a curtain for covering said member, a movable member arranged to first draw said curtain across the focusing surface and to then move the flap and the reflector out of their obstructing positions.

5. In a reflecting camera, a hinged flap, a movable reflector, an actuating shaft, intermediate mechanism, a pivoted connection between the upper edge of the reflector and said mechanism, said mechanism being arranged to swing the flap about its hinge to shift said pivoted connection and to swing the reflector about its pivot upon the rotation of said shaft.

[Claims 6 to 35 not printed in the Gazette.]

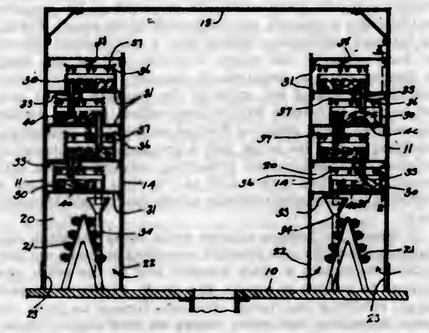
1,133,370. ELECTRIC PIANO-PLAYER. PHILLIP JACOB DREHER, Toledo, Ohio. Filed May 11, 1911. Serial No. 626,611. (Cl. 84—228.)



1. A piano player comprising in combination, a mechanism consisting of a striker, an electro-magnet having an armature to actuate said striker, an an energizing circuit for said electro-magnet including a switch and a resistance in a shunt around the switch, said switch being located to be actuated by said striker toward the end of the movement of the latter to cut in said resistance; and an expression mechanism consisting of an electro-magnet, a circuit for energizing said electro-magnet, a normally closed switch in said circuit, a device for opening said normally closed switch, said device being actuated by said last mentioned electro-magnet, a connection parallel to said expression mechanism circuit for passing a current around said resistance and expression mechanism electro-magnet to said striking mechanism electro-magnet, and a normally open switch in said connection which is positioned to be closed by the above mentioned switch opening device when said first mentioned switch of the expression mechanism circuit is opened.

2. A piano player comprising in combination, a mechanism consisting of a striker, an electro-magnet having an armature to actuate said striker, and an energizing circuit for said electro-magnet including a switch and a resistance in a shunt around the switch, said switch being located to be actuated by said striker toward the end of the movement of the latter to cut in said resistance; and an expression mechanism consisting of an electro-magnet, a circuit for energizing said electro-magnet, a normally closed switch in said circuit, a device for opening said normally closed switch, said device being actuated by said last mentioned electro-magnet, a connection parallel to said expression mechanism circuit for passing a current around said resistance and expression mechanism electro-magnet to said striking mechanism electro-magnet, and a normally open switch in said connection which is positioned to be closed by the above mentioned switch opening device when said first mentioned switch of the expression mechanism circuit is opened, said normally open switch reducing the resistance in the energizing circuit when it is closed.

1,133,371. AIR-CONDITIONING SYSTEM. LOUIS M. DU COMMUN, Cleveland, Ohio. Filed Sept. 20, 1913. Serial No. 790,890. (Cl. 98—47.)



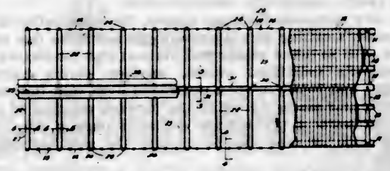
1. In an air-conditioning system, the combination with a room or other inclosed space, of a purifying chamber communicating at both ends with the interior of said room, a series of vertically spaced superimposed water troughs arranged in said purifying chamber, means for supplying water to said water troughs, a series of steam pipes arranged above each water trough, deflectors arranged above said steam pipes and means for producing a continuous circulation of air from the room through the purifying chamber and back into the room, for the purpose set forth.

2. In an air-conditioning system, the combination with a room or other inclosed space, of a purifying chamber communicating at both ends with the interior of said room, a series of vertically spaced superimposed water troughs arranged in said purifying chamber, means for supplying water to said water troughs, a steam pipe arranged in each water trough for heating the water in said trough and means for producing a continuous circulation of air from the room through the purifying chamber and back into the room, for the purpose set forth.

3. In an air conditioning system, the combination with a room or other inclosed space, of a vertically arranged partition extending from end to end of said room but spaced from one wall theref and together with said side wall forming a purifying chamber, a series of superimposed water-troughs arranged in said purifying chamber and spaced vertically from each other, a series of steam pipes arranged above each water-trough, deflectors arranged above said steam pipes, means for supplying water to said water-troughs, and means for producing a continuous circulation of air from the room through the purifying chamber and back into the room for the purpose set forth.

4. In an air-conditioning system, the combination with a room or other inclosed space, of a vertically arranged partition extending from end to end of said room but spaced from one wall thereof and together with said side wall forming a purifying chamber, the lower end of said purifying chamber being in open communication with the outer air and with the interior of the room and the upper end being in communication with the interior of said room, a series of vertically arranged superimposed water-troughs arranged in said purifying chamber and spaced vertically from each other, steam pipes arranged in said troughs, means for supplying water to said troughs and for draining water from said troughs, and means for heating the air in the lower part of said purifying chamber, for the purpose set forth.

1,133,372. CAR-ROOF. RAYMOND C. DUDLEY, Chicago, Ill. Filed Sept. 13, 1909. Serial No. 517,366. (Cl. 105—5.)



In a car roof, in combination; wooden top sheathing, metallic roof sheets formed with upstanding side and ridge flanges, held on the said sheathing and shiftable longitudinally of the car thereon, and spaced apart from each other at their sides and at the ridge; super-carlines arranged between the flanges of the roof sheets and spaced therefrom; transverse seam caps resting at their middle portions on the said super-carlines, and having horizontal extensions beyond the super-carlines and over the flange of the roof sheets and having depending flanges inclosing and interlocking with the side flanges of two sheets, and having their depending flanges spaced from the flanges of the sheets, the said side flanges of the sheets having downward extensions entering between the parts of the flanges of the seam cap, and the seam cap flanges having upward extensions entering between the parts of the flanges of the roof sheet, and formed with flat faces arranged to be brought to bear on the flat portions of the roof sheets to support and brace the said extensions of the seam caps; and ridge caps having flanges inclosing and spaced from the said ridge flanges of the sheets; the eaves edge of the said sheets being fixedly secured to the side of the car to normally maintain and to restore, after flexure of the car, the spacing between the roof sheets and the spacing between the roof sheets and the seam caps.

1,133,373. SUBSCRIBER-CONTROLLED SWITCHING APPARATUS FOR TELEPHONE-EXCHANGE SYSTEMS. JOHN ERICKSON, Chicago, Ill., assignor, by mesne assignments, to First Trust and Savings Bank, Trustee, Chicago, Ill. Filed Nov. 12, 1906. Serial No. 343,043. (Cl. 179—90.)



1. In a telephone exchange system, the combination of a subscriber's rotatable calling dial, an impulse-transmitting mechanism governed thereby, an automatic switch responsive to the operation of said mechanism by the forward rotation of said dial, when rotated for the first digit, another switch responsive to the operation of said mechanism by the return or backward rotation of the dial, a third switch responsive to the backward rotation of the dial when rotated for the second digit, and means for preventing said third switch from operatively responding to the forward rotation of the dial.

2. In a telephone exchange system, the combination of a subscriber's rotatable calling dial, a subscriber's individual switch, a first-selector switch, a subscriber's telephone line, means by which the forward rotation of the dial transmits an electrical impulse over one side of the line to operate the said individual switch, and means by which the backward rotation of the dial transmits one or more electrical impulses over the line to both initially and finally operate the selector-switch.

3. In a telephone exchange system, the combination of a subscriber's calling dial, a subscriber's telephone line provided with so-called rotary and vertical line conductors, a subscriber's individual switch, another switch having vertical and rotary motion controlled over said line conductors, and means by which the forward rotation of the dial transmits a preliminary electrical impulse over the rotary side of said line to operate the said individual switch.

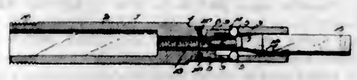
4. In a telephone exchange system, the combination of a subscriber's calling dial, a subscriber's telephone line, means by which the forward rotation of the dial transmits an electrical impulse over one side of said line, and means by which the backward rotation of said dial transmits electrical impulses over both sides of said line, together with switching apparatus operatively affected by said impulses.

5. In a telephone exchange system, the combination of a subscriber's rotatable calling dial, a subscriber's telephone line, means by which the forward rotation of the dial, when rotated for the first digit, transmits a relatively long electrical impulse over one side of the line, and means by which the backward rotation of the dial transmits one or more electrical impulses of shorter duration over the other side of the line, followed by an impulse over the first side of the line, together with switching apparatus operatively affected by said impulses.

[Claims 6 to 24 not printed in the Gazette.]

1,133,374. HOLDER FOR NIPPLES AND OTHER WORK. GEORGE RICHARD GAMBLE, Port Dover, Ontario, Canada, assignor to himself and P. C. Robinson, C. W. Barwell, and H. W. Ansley, Port Dover, Ontario, Canada. Filed Jan. 28, 1914. Serial No. 815,052. (Cl. 10—108.)

1. Means for holding nipples while being threaded consisting essentially of a straight elongated stock at one end formed to be held by a support and bearing on open end longitudinal socket, and at the other end longitudinally reduced to enter the nipple to be threaded and formed with an annular shoulder to engage the inner end edge of the nipple, the elongated portion of the stock between said shoulder and said first mentioned end being exteriorly formed to guide the screw threading tool while acting on said nipple, nipple gripping devices arranged within said nipple receiving end of the stock, and a longitudinally adjustable mandrel arranged longitudinally within the stock for operating said devices, said stock having an intermediate internally threaded bore receiving said mandrel.



2. A holder for nipples, and the like, consisting of an elongated tubular stock screw-threaded at one end to receive a support and at the opposite end reduced and shouldered to enter the nipple to be threaded and to abut the end edge thereof, the portion of said stock between said shoulder and said threaded end being cylindrical and forming a guide for the screw threading die while acting on said nipple, and means for locking the nipple to and against rotation on said stock, said means being mounted in and carried by said stock and operative from the nipple-receiving end of the stock.

3. A holder for nipples and the like, consisting of an elongated tubular stock having a nipple receiving end and approximately throughout the remainder of its length of a diameter approximately equal to the external diameter of the nipples to be received by said end, nipple gripping devices arranged within said end, said stock having an intermediate internally threaded longitudinal bore, and a longitudinally adjustable mandrel arranged longitudinally within the stock for operating said devices and projecting from the nipple receiving end of the stock for actuation, said mandrel having a threaded portion longitudinally adjustable in said bore.

4. A holder for nipples and the like, consisting of a longitudinally elongated tubular stock having a nipple receiving end and being exteriorly threaded at its opposite end to enter a support, and intermediate its length having an internal contraction formed with a longitudinal threaded bore, whereby the nipple receiving end of the stock is formed with a longitudinal mandrel receiving socket and the portion of the stock at the opposite end of said contraction is formed with a longitudinal support receiving socket, nipple gripping devices arranged in said nipple receiving end of the stock, and a gripping-device-operating mandrel arranged in and projecting outwardly from said mandrel receiving socket and at its inner end having a threaded portion longitudinally adjustable in said threaded bore.

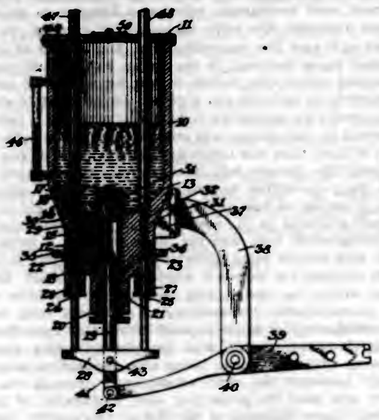
5. Means for holding nipples while being threaded consisting essentially of a straight elongated stock at one end formed to receive a stock support and at the other end formed to receive a nipple, the stock, exclusive of said nipple receiving end, being exteriorly formed to guide the screw threading tool while acting on said nipple, nipple gripping devices arranged within said nipple receiving end of the stock, and a longitudinally adjustable mandrel arranged longitudinally within the stock for operating said devices.

[Claim 6 not printed in the Gazette.]

1,133,375. LUBRICATOR. HOLGER HANSEN, New York, N. Y. Filed Feb. 4, 1914. Serial No. 816,417. (Cl. 184—27.)

1. A lubricator comprising a casing, means for supplying air to the lower portion of the interior thereof, supply chambers in the base of the casing, means for forcing the lubricant from the said supply chambers, and devices for simultaneously actuating both the aforesaid means.

2. A lubricator comprising a casing, means for intermittently supplying air to the lower portion of the interior thereof, supply chambers in the base of the casing, means for forcing the lubricant from the said supply chambers, regulatable devices for supplying oil from the interior of the casing to the said supply chambers, and devices for simultaneously actuating both the aforesaid means.



3. A lubricator comprising a casing having an air chamber in the base thereof and an inlet port making communication between the said air chamber and the atmosphere, a piston in the said air chamber, a valve casing fixed at the inner end of the said air chamber, a check valve therein, and means for moving the said piston to intermittently force air from the said air chamber by the said check valve into the lower portion of the said casing.

4. A lubricator comprising a casing having an air chamber in the base thereof and an inlet port making communication between the said air chamber and the atmosphere, a piston in the said air chamber, a valve casing fixed at the inner end of the said air chamber, a check valve therein, supply chambers in the base of the said casing, plungers operative within the said supply chambers for forcing the lubricant therefrom, and means for actuating the said piston and plungers.

5. A lubricator comprising a casing having an air chamber in the base thereof and an inlet port making communication between the said air chamber and the atmosphere, a piston in the said air chamber, a piston rod, a valve casing fixed at the inner end of the said air chamber, a check valve therein, supply chambers in the base of the said casing, plungers operative within the said supply chambers for forcing the lubricant therefrom, a head to which the said plungers are connected and which is connected to the said piston rod, and devices for reciprocating the said piston rod and simultaneously moving the said head and plungers.

1,133,376. SCYTHE-SNATHE. HORACE B. HEWITT, Indianapolis, Ind., assignor of one-half to North Indianapolis Cradle Works, North Indianapolis, Ind., a Corporation of Indiana. Filed May 4, 1912. Serial No. 695,275. (Cl. 56—27.)

1. A scythe snathe formed near its lower end with a transverse recess for the eye of the clamping bolt with a perforation extending from the bottom of said recess through the snathe for the shank of the bolt, and with a recess in the face of the lower end of said snathe extending from side to side to form a shoulder substantially in line with the bottom of the recess for the eye of the clamping bolt, a ferrule formed with appropriate openings mounted on the lower end of said snathe and formed with a transverse web of a width and form adapted to fit in said recess in the face of the lower end of the snathe and rest at its lower edge upon said shoulder, and a clamping bolt mounted in the perforation in said snathe, substantially as set forth.



2. A scythe snathe formed with a transverse recess adjacent to its lower end for the eye of the clamping bolt and a perforation from the bottom of said recess leading through said snathe for the shank of the clamping bolt and with a recess in the face of the outer end of said snathe extending from side to side thereof and terminating in a curved shoulder at its lower edge, the bottom of the curve of said shoulder being substantially central of said snathe, a ferrule formed with appropriate apertures and sockets mounted on the end of said snathe and formed with a transverse web at its outer end of a width and curvature to fit in the recess and resting upon the curved shoulder in the outer end of said snathe, substantially as set forth.

1,133,377. CARD-FILE HOLDER. FRANK L. HOAGLIN, Waupaca, Wis. Filed Feb. 19, 1914. Serial No. 819,673. (Cl. 129—16.)



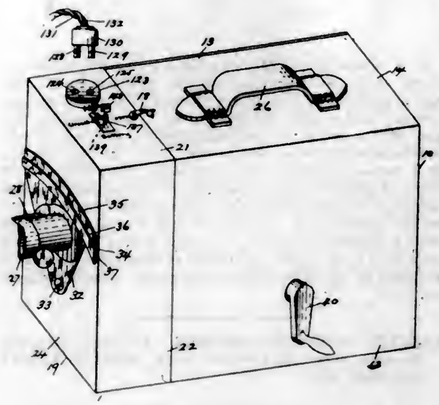
1. In a device of the described class, the combination of a case comprising a bottom, a back, a brace and two side members formed integrally by cutting and bending from a single piece of sheet metal, a cover and a spring, said spring comprising a central member, two circular members and two side members, said spring being adapted to perform the two-fold function of cover retaining hinges and retaining means for yieldingly holding the upper edge of said cover in its closed position against the file cards of said case.

2. In a device of the described class, the combination of a case comprising a bottom, a back, a brace and two side members formed integrally by cutting and bending from a single piece of sheet metal, a cover and a spring, said spring comprising a central member, and two side members formed at right angles to said central member, said spring being adapted to perform the two-fold function of cover retaining hinges and retaining means for yieldingly holding the upper edge of said cover in its closed position against the file cards of said case.

1,133,378. CONVERTIBLE MOVING-PICTURE MACHINE. FREDERICK W. HOCHSTETTER, New York, N. Y. Filed Dec. 4, 1913. Serial No. 804,667. (Cl. 88—17.)

1. In a convertible moving picture machine, in combination, a casing having an exposure window, a pair of lens barrels provided on the casing, one of the barrels carrying a photographic lens, and the other carrying a projecting lens, said barrels being adjustable for alternately focusing light through the exposure window, a drive shaft, mechanism within the casing, and operated by the drive shaft

for intermittently transmitting a sensitized strip before the window so as to be exposed to rays of light focused from the photographic lens for photographing pictures thereon, said mechanism being also adapted to intermittently transmit the strip subsequently through the machine and past the projecting lens, a plurality of lamps mounted in the casing, means for lighting the lamps, and a reflector also mounted in the casing, said reflector serving to deflect the rays of light from the lamps upon the pictures of the strip whereby the pictures will be displayed upon a screen.



2. In a convertible moving picture machine, in combination, a casing having an exposure window, a pair of lens barrels provided on the casing, one of the barrels carrying a photographic lens, and the other carrying a projecting lens, said barrels being adjustable for alternately focusing light through the exposure window, a drive shaft, mechanism within the casing, and operated by the drive shaft for intermittently transmitting a sensitized strip before the window so as to be exposed to rays of light focused from the photographic lens for photographing pictures thereon, said mechanism being also adapted to intermittently transmit the strip subsequently through the machine and past the projecting lens, a plurality of incandescent lamps mounted in the casing, an electric circuit, means provided in the circuit for closing the circuit to light the lamps, and a reflector also mounted in the casing, said reflector serving to deflect the rays of light from the lamps upon the pictures of the strip whereby the pictures will be displayed upon a screen.

3. In a convertible moving picture machine, in combination, a casing having an exposure window, a pair of lens barrels provided on the casing, one of the barrels carrying a photographic lens, and the other carrying a projecting lens, said barrels being adjustable for alternately focusing light through the exposure window, a drive shaft, mechanism within the casing, and operated by the drive shaft for intermittently transmitting a sensitized strip before the window so as to be exposed to rays of light focused from the photographic lens for photographing pictures thereon, said mechanism being also adapted to intermittently transmit the strip subsequently through the machine and past the projecting lens, a plurality of incandescent lamps mounted in the casing, an electric circuit arranged within the casing, a battery provided in the circuit, a switch provided in the casing for closing the circuit to light the lamps, and a reflector also mounted in the casing, said reflector serving to deflect the rays of light from the lamps upon the picture of the strip whereby the pictures will be displayed upon a screen.

4. In a convertible moving picture machine, in combination, a casing having an exposure window, a pair of lens barrels provided on the casing, one of the barrels carrying a photographic lens, and the other carrying a projecting lens, said barrels being adjustable for alternately focusing light through the exposure window, a drive shaft, mechanism within the casing, and operated by the drive shaft for intermittently transmitting a sensitized strip before the window so as to be exposed to rays of light focused from the photographic lens for photographing pictures thereon, said mechanism being also adapted to intermittently transmit the strip subsequently through the machine and past the projecting lens, a plurality of incandescent lamps mounted in the casing, two electric circuits arranged within the casing, means for supplying current separately to each circuit, a switch for alternately closing the circuits to separately light the lamps, and a reflector mounted in the casing, said reflector serving to deflect the rays of light from the lamps upon the pictures of the strip whereby the pictures will be displayed upon a screen.

5. In a convertible moving picture machine, in combination, a casing having an exposure window, a pair of lens barrels provided on the casing, one of the barrels carrying a photographic lens, and the other carrying a projecting lens, said barrels being adjustable for alternately focusing light through the exposure window, a drive shaft, mechanism within the casing, and operated by the drive shaft for intermittently transmitting a sensitized strip before the window so as to be exposed to rays of light focused from the photographic lens for photographing pictures thereon, said mechanism being also adapted to intermittently transmit the strip subsequently through the machine and past the projecting lens, a plurality of incandescent lamps mounted in the casing, two electric circuits arranged within the casing, one leading from a suitable source of supply, batteries carried in the casing for supplying current to the second electric circuit, a switch for alternately closing the circuits to separately light the lamps, and a reflector also mounted in the casing, said reflector serving to deflect the rays of light from the lamps upon the pictures of the strip whereby the pictures will be displayed upon a screen.

[Claims 6 to 22 not printed in the Gazette.]

1,133,379. DENTAL MATRIX FOR APPROXIMAL FILLINGS. JEPTHA G. HOLLINGSWORTH, Kansas City, Mo. Filed Sept. 8, 1914. Serial No. 860,544. (Cl. 32—17.)



A thin ductile matrix consisting of a body portion, a head portion and a narrow neck portion connecting the body portion and the head portion.

1,133,380. FIREPROOF INSULATING COMPOSITION. FRANCIS MARION KERNER, Chicago, Ill., assignor of one-half to Emil G. F. Brill, Chicago, Ill. Filed June 12, 1912. Serial No. 703,225. (Cl. 106—19.)

1. A new composition of matter made up of 16 parts by weight of liquid silicate of soda, 1 part by weight of finely divided cotton, 4 parts by weight of finely divided iron oxid, and as much as 144 parts by weight of completely oxidized mineral ash.

2. The process of producing a new composition of matter which consists in mixing together a small quantity of silicate of soda and a small quantity of finely divided fiber until the combination is the consistency of syrup, then mixing therewith a small quantity of finely divided material such as iron oxid until a soft putty-like substance is formed, then mixing with said soft putty-like substance a quantity of finely divided mineral ash.
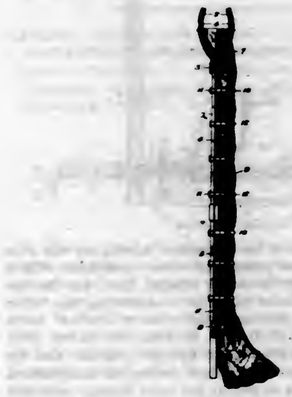
3. The process of producing a new composition of matter which consists in mixing together a small quantity of silicate of soda and a small quantity of finely divided fiber until the combination is the consistency of syrup, then mixing therewith a small quantity of finely divided insoluble material until a soft putty-like substance is formed, then mixing with said soft putty-like substance a quantity of finely divided mineral ash.

4. The process of producing a new composition of matter which consists in mixing together a small quantity of silicate of soda and a small quantity of finely divided fiber until the combination is the consistency of syrup, then mixing therewith a small quantity of finely divided iron oxid until a soft putty-like substance is formed, then mixing with said soft putty-like substance a quantity of finely divided mineral ash.

5. A new composition of matter made up of 16 parts by weight of liquid silicate of soda, 1 part by weight of finely divided cotton, 4 parts by weight of a finely divided metallic pigment, and as much as 144 parts by weight of completely oxidized mineral ash.

[Claim 6 not printed in the Gazette.]

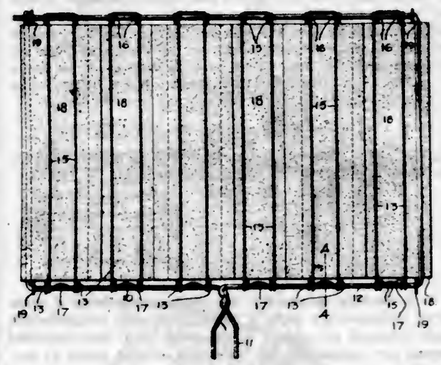
1,133,381. FRUIT-PICKER. CHARLES F. A. KELLOGG, Gloster, Miss. Filed Aug. 7, 1913. Serial No. 783,588. (Cl. 56—99.)



A device of the character set forth comprising a pole, oppositely disposed resilient jaws connected to one extremity thereof and extending longitudinally therefrom, said jaws being arcuate shaped longitudinally and dished transversely to substantially conform to the contour of the fruit, shanks integrally formed on the lower ends of said jaws, the former being curved transversely to conform to the shape of the pole whereby said jaws may be disposed in substantially parallel relationship upon the latter and a wire coil encircling said shanks to secure the latter to said pole, an operating wire bifurcated at one extremity to form converging arms, the free ends of the latter being pivoted to said jaws to contract the same upon actuation of said operating wire, and a conveyer connected to said jaws intermediate their ends substantially as and for the purpose set forth.

1,133,382. MEANS FOR CATCHING INSECTS, MORE ESPECIALLY FLIES AND MOSQUITOES. JOHN HENRY KESSLER, Nyack, N. Y. Filed May 7, 1914. Serial No. 836,900. (Cl. 43—1.)

1. An insect catcher comprising an open frame having a handle and bearing means in spaced planes affording two series of extended sticky surfaces alternating with openings whereby when the device is set in motion a draft is created which draws insects through the openings and against the sticky surfaces.



2. A device for catching insects comprising an open movable frame, means thereon affording a series of extended sticky surfaces alternating with openings, and means spaced in front of said sticky surfaces and affording a series of expanded surfaces alternating with openings through which insects may pass to become entangled in the surfaces behind.

3. An insect catcher, comprising an open movable frame and two series of expanded members thereon provided with sticky surfaces, said series being spaced from each other at a short distance and the members of each series being separated by openings, which openings are opposite the members of the other series.

4. An insect catcher, comprising an open movable frame carrying two series of parallel strips provided with sticky surfaces, the said series being spaced at a short distance and the strips of each series being separated from each other by openings affording entrances to the interior space, the strips of one series being opposite the openings of the other.

5. An insect catcher, comprising an open movable frame, a group of members thereon having expanded sticky surfaces alternating with openings, and another similar group spaced from the first and in staggered relation thereto, said members having sticky surfaces facing in the same direction in the two groups, whereby insects not caught on the outer surfaces of the first group pass through the openings therebetween and become entangled on the surfaces of the second group.

[Claims 6 to 15 not printed in the Gazette.]

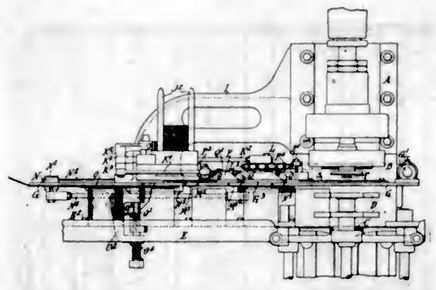
1,133,383. FEED MECHANISM FOR CAN-HEADS. PETER KRUSE, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Jan. 3, 1913. Serial No. 739,974. (Cl. 113—114.)

1. Feeding means for can-heads, comprising a feed table, means for feeding said can-heads along said table, and means for preventing backward movement of said can-heads, said means being adjustable longitudinally of the feed table.

2. A feeding means for can-heads, comprising a regularly reciprocatory part, means upon said reciprocatory part adapted to engage a can-head, and can-controlled means adapted to control the operation of said means at successive reciprocations of said moving part to engage or not engage a can-head.

3. Feeding means for can-heads, comprising a moving part, means thereon adapted to engage a can-head, and means adapted to control the operation of said means at successive movements of said moving part to engage a

can-head, said controlling means having means adapted to coöperate with a can body whereby the feed of the can-heads may be controlled by the feed of the can-bodies.

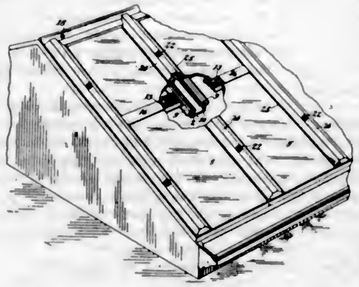


4. A feeding means for can-heads, comprising a regularly reciprocatory part, a finger upon said reciprocatory part adapted to engage a can-head, and can-controlled means for controlling the operation of said finger at successive reciprocations of said moving part to engage or not engage said can-heads.

5. Feeding means for can-heads, comprising a moving part, a finger thereon adapted to engage a can-head and means for controlling the operation of said finger at successive movements of said moving part to engage said can-heads, said controlling means having a part adapted to be engaged by a can body, whereby the feeding of the can-heads may be controlled by the feeding of the can bodies.

[Claims 6 to 15 not printed in the Gazette]

1,133,384. SKYLIGHT. ELOF R. LEONARD, Woodcliff, N. J. Filed Jan. 18, 1915. Serial No. 2,792. (Cl. 108—16.)



The combination in a skylight, of rafters, drainage elements and socket elements carried thereby, a transverse bar intermediate the rafters embodying duplicated packing sockets each with an exteriorly adjacent drainage gutter, a joint-strip cap detachably secured in the upper transverse socket and overlapping the lower transverse socket, an elastic packing filling and extending above the tops of the sockets, and glass supported thereby.

1,133,385. NON-INFLAMMABLE ACETYL-CELLULOSE COMPOSITION. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, a Corporation of New Jersey. Filed May 5, 1909. Serial No. 494,180. (Cl. 106—40.)

1. A product comprising an organic esterified compound of cellulose and triphenylphosphate obtained by dissolving the same in a solvent common to both, and then permitting the solution to dry and harden by evaporation.

2. A product comprising an organic acid ester of cellulose and triphenylphosphate obtained by dissolving the same in a solvent common to both, and then permitting the solution to dry and harden by evaporation.

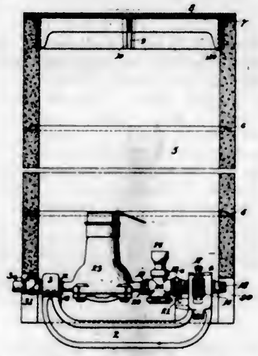
3. A product comprising an organic esterified compound of cellulose and a noninflammable material which is insoluble in water, obtained by dissolving the same in a solvent common to both and a fluid restraining agent, and then permitting the solution to dry and harden by evaporation.

4. A product comprising an organic esterified compound of cellulose and triphenylphosphate obtained by dissolving the same in a solvent common to both, to which solvent has been added a fluid restraining agent and then permitting the solution to dry and harden by evaporation.

5. A product comprising an acetyl cellulose and triphenylphosphate obtained by dissolving the same in a mixture of acetone and acetylene tetrachlorid, and then permitting the solution to dry and harden by evaporation.

[Claims 6 to 9 not printed in the Gazette.]

1,133,386. METER-BOX. HERBERT M. LOFTON, Chattanooga, Tenn. Filed May 25, 1914. Serial No. 840,690. (Cl. 73—167.)



1. In a meter box, a lower portion having at one side an outlet port for the passage of water, combined with a longitudinally adjustable inlet tubular part at the opposite side of the meter box and constituting the other water port thereof and provided with a shut-off valve movable bodily with it toward or from the outlet port, means to hold the valve in an upright position and its body against rotation at all times during its longitudinal movement, and means to adjust the inlet tubular part and valve to or from the outlet port, whereby a meter or testing tube may be clamped between the water outlet port and the longitudinally adjustable inlet tubular part.

2. In a meter box, a lower portion having at one side an outlet port for the passage of water provided with a supporting bearing to receive a meter or testing tube on the inside of the box, combined with a longitudinally adjustable inlet tubular part at the opposite side of the meter box and constituting the other water port thereof and provided with a shut-off valve movable bodily with it toward or from the outlet port and further provided on its inner end with a suporting bearing to receive a meter or testing tube, annular packing around the outlet water port on the inside of the box, annular packing on the inner end of the longitudinally adjustable tubular part, means to hold the valve in an upright position and its body against rotation at all times during its longitudinal movement, and means to adjust the inlet tubular part and valve to or from the outlet port, whereby a meter or testing tube may be clamped between the outlet port and the longitudinally adjustable part.

3. In a meter box, a lower portion having at one side an outlet port for the passage of water, combined with a longitudinally adjustable inlet tubular part at the opposite side of the meter box and constituting the other water port thereof and said inlet tubular part provided with a shut-off valve movable bodily with it, means to hold the valve in an upright position and its body against rotation at all times during its longitudinal movement, and means to adjust the inlet tubular part and valve to or from the outlet port consisting of gearing comprising a worm wheel carried by the meter box and having a screw threaded connection with the longitudinally adjustable inlet part, and a worm carried by the meter box engaging the worm wheel for rotating it, whereby a meter or testing tube may be clamped between the outlet port and the longitudinally adjustable inlet tubular part.

4. In a meter box, the combination of inlet and outlet portions for the water between which a meter may be clamped, said portions being adjustable relatively to or from each other, one of said portions being made longitudinally movable and having a shut-off valve movable bodily with it, combined with means for imparting a relative adjustment to said inlet and outlet portions together with the valve, and means to hold the valve in an upright position and its body against rotation at all times during its longitudinal movement.

5. In a meter box, the combination of inlet and outlet portions for the water between which a meter may be clamped, one of said portions being adjustable relatively to or from the other and having a shut-off valve movable bodily with it, combined with means for imparting a relative adjustment to said adjustable portion and its valve, and a check valve in the other of said portions closing inwardly toward the shut-off valve.

[Claims 6 to 17 not printed in the Gazette.]

1,133,387. BUNDLING RIBBED OPENWORK METAL AND METHOD OF MAKING THE SAME. RALPH MCCARTY, Hamburg, N. Y., assignor to Corrugated Bar Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 28, 1912. Serial No. 717,442. (Cl. 206—65.)



1. The method of bundling sheets having hollow ribs which consists in arranging separator strips at intervals crosswise of said hollow ribs, said strips having portions which are adapted for movement with respect to each other in the direction of their length arranged across said ribs, and placing another sheet with its ribs nesting with the ribs of the first sheet and spaced therefrom by said separator strips, whereby said sheets may be readily separated.

2. The method of bundling sheets of meshed metal having spaced hollow ribs thereon which consists in arranging separator strips comprising integral sections at intervals crosswise of said ribs between the sheets and then nesting the sheets with ribs of one sheet inside the ribs of the next adjacent sheet, whereby said integral sections are pulled into the bottoms of the spaces between said nested ribs.

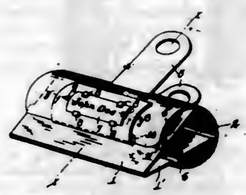
3. The method of bundling sheets of meshed metal having spaced hollow ribs which consists in arranging separator strips between the sheets and crosswise of said ribs, and then nesting the sheets with ribs of one sheet inside the ribs of the next adjacent sheet, the portions of said separator strips near the ribs being flexible, and the intermediate portions of the strips being adapted for endwise movement, whereby the nesting together of the sheets will draw successive portions of the strips into the spaces between the ribs.

4. The method of bundling sheets of meshed metal having spaced hollow ribs which consists in arranging separator strips having spaced longitudinal portions conformable to said ribs between the sheets and crosswise of said ribs, and then nesting the sheets with ribs of one sheet inside the ribs of the next adjacent sheet, and spaced therefrom by said strips.

5. The method of bundling sheets of meshed metal having spaced hollow ribs which consists in arranging separator strips between the sheets and crosswise of said ribs, and then nesting the sheets with ribs of one sheet inside the ribs of the next adjacent sheet, said separator strips having sections arranged between said ribs so as to be free to move relatively, said freedom of movement being at points intermediate the ribs and spaced lengthwise of the strip at distances conforming to the spacing apart of said hollow ribs, whereby the respective sections may move apart at these points under stress and pull into the bottoms of the spaces between said nested ribs.

[Claims 6 to 11 not printed in the Gazette.]

1,133,388. COMBINED TAG-HOLDER AND CLIP. FRANK E. MERRILL, Evanston, Ill. Filed Feb. 5, 1914. Serial No. 816,858. (Cl. 40—17.)



1. The combination with a clip comprising a pair of jaws and a resilient member for normally holding said jaws in clamping relation, said resilient member having an edge pressing against one of said jaws, of a designating member mounted upon said resilient member and formed to conform with the formation of the latter, said designating member having a portion engaging under said edge of said resilient member whereby the said designating member is held in position through the resiliency of said resilient member, substantially as described.

2. The combination with a clip comprising a pair of jaws and a resilient member for normally holding said jaws in clamping relation, said resilient member having an edge pressing against one of said jaws, of a designating member mounted upon the upper side of said resilient member and having a portion extending around said edge of said resilient member and engaging against the under side of the latter, whereby said designating member is held against relative rocking, said designating member being held in position through the resiliency of said resilient member, substantially as described.

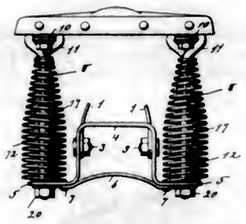
3. The combination with a clip, comprising a pair of jaws and a resilient member, having edges engaging against said jaws to normally hold the latter in clamping relation, of a tag carrier arranged upon said clip and having a flange embracing one of said edges of said resilient member, whereby said carrier is held in position upon the clip through the resiliency of said resilient member, substantially as described.

4. The combination with a clip, comprising a pair of jaws and a resilient member, having edges engaging against said jaws to normally hold the latter in clamping relation, of a tag carrier, arranged upon said clip, and having a portion thereof interposed between one of said edges of said resilient member and the adjacent jaw, said edge of said resilient member being cut away at one extremity thereof to facilitate the insertion of said portion of said tag carrier thereunder, substantially as described.

5. The combination with a clip, comprising a pair of jaws and a resilient member, having edges engaging against said jaws to normally hold the latter in clamping relation, there being beads on said jaws engaging against the inner sides of said edge portions of said resilient member, of a tag carrier arranged upon said clip and having a flange embracing one of said edges of said resilient member, whereby said carrier is held in position upon the clip through the resiliency of said resilient member, the edge of said resilient member engaging with said carrier flange

being beveled at one extremity thereof to facilitate the insertion of said flange thereunder, the outer extremity of said beveled edge portion being disposed beyond the crest of the adjacent bead, substantially as described.

1,133,389. SADDLE FOR MOTOR-CYCLES. FREDERICK MESINGER, New York, N. Y. Filed Dec. 12, 1914. Serial No. 876,787. (Cl. 208—15.)



1. A saddle provided with a saddle top, a rod depending therefrom, a relatively fixed frame adapted to loosely engage the lower end of the rod, a tubular sleeve encompassing the rod and supported upon the frame, and a coiled compression spring encircling the rod and sleeve.

2. A saddle provided with a saddle top, a rod depending therefrom, a relatively fixed frame adapted to loosely engage the lower end of the rod, a tubular sleeve encompassing the rod and supported upon the frame, said sleeve having a pair of beads, a pair of packings within the beads, and a compression spring encircling the rod and sleeve.

3. A saddle provided with a saddle top, a rod depending therefrom, a relatively fixed frame adapted to loosely engage the lower end of the rod, a tubular sleeve encompassing the rod and supported upon the frame, said sleeve having an upper bead and a lower bead, packings within said beads, and a compression spring encircling the rod and sleeve, said compression spring being provided with a lower contracted convolute that engages the sleeve below the lower bead.

1,133,390. AUTOMOBILE WASHING-BRUSH. ROBERT J. MONTGOMERY, Chicago, Ill. Filed Aug. 6, 1913. Serial No. 783,309. (Cl. 15—51.)



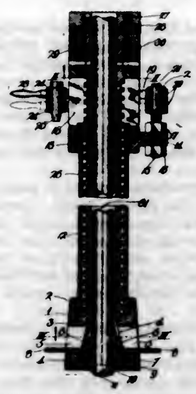
1. A device of the character described, comprising in combination, a tube having water discharging openings through its wall and having a coupling at one end, a cap at the other end of the tube, said cap having an opening therethrough, a clip pivotally mounted on the cap and adapted to be adjusted to cover the opening in the cap, a brush-supporting member held in place at its central portion by said pivoted clip, and other means carried by the tube for holding in place the end portions of said brush-supporting member.

2. A device of the character described, comprising a tube, a coupling at one end thereof, a cap at the other end of said tube, lateral perforations in the latter portion of said tube, sleeves mounted intermediately upon said tube, a brush-supporting member having projecting ends adapted to fit into said sleeves, a brush carried by said brush-supporting member, and movable means for locking the ends of said brush-supporting member in said sleeves.

3. A device of the character described, comprising a tube, a coupling at one end thereof, a cap at the other end of said tube, lateral perforations in the latter portion of said tube, sleeves mounted intermediately upon said tube, a brush-supporting member having projecting ends adapted to fit into said sleeves, a brush carried by said brush-supporting member, and a clip carried by said cap and adapted to engage said brush-supporting member intermediately.

4. A device of the character described, comprising a tube, a coupling at one end thereof, a cap at the other end of said tube, lateral perforations in the latter portion of said tube, sleeves mounted intermediately upon said tube, a brush-supporting member having projecting ends adapted to fit into said sleeves, a brush carried by said brush-supporting member, and a collar mounted on said tube and movable longitudinally thereof, said collar having laterally projecting portions adapted to engage notches in the end portions of the brush-supporting member when the latter are in position in said sleeves.

1,133,391. JACK. CHARLES G. MORRISON, Great Bend, Kans. Filed Feb. 10, 1913. Serial No. 747,328. (Cl. 254—30.)



1. The combination with a rod, a block fitting on the rod and having upwardly tapering internal channels at opposite sides of the rod and slots communicating with said channels, a pair of upwardly-tapering toothed jaws fitting slidingly in said channels and adapted to grip said rod and thereby support the foot block, a screw, and means supported by the foot-block engaging the screw to cause the same to move vertically when turned.

2. In a jack, a foot-block provided with an upwardly-tapering bore and slots communicating with said bore and upwardly-tapering jaws fitting in the said bore and adapted for vertical adjustment therein and provided with handles extending through said slots.

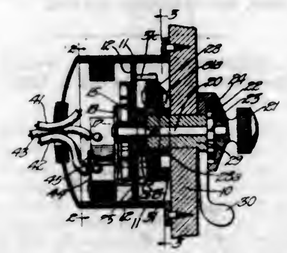
1,133,392. PROCESS OF PRODUCING BARIUM OXID. SPENCER B. NEWBERRY and HARVEY N. BARRETT, Baybridge, Ohio. Filed Aug. 15, 1914. Serial No. 856,916. (Cl. 23—13.)

1. The process of making barium oxid which consists of mixing barium sulfate with barium oxid, pulverizing and heating the mixture with agitation until it is substantially converted into barium oxid with evolution of sulfur dioxid and oxygen.

2. The process of making barium oxid which consists of mixing barium sulfate with barium oxid, pulverizing and heating the mixture with agitation at approximately 2700° F. or over, until it is substantially converted into barium oxid with evolution of sulfur dioxid and oxygen.

3. The process of making barium oxid which consists of mixing barium with barium oxid and pulverizing the mixture until about 90 per cent. of it will pass through a 100-mesh sieve, and heating the mixture with agitation at approximately 2700° F. or over, until it is substantially converted into barium oxid with evolution of sulfur dioxid and oxygen.

1,133,393. AUTOMOBILE-LOCK. JAMES F. O'BRIEN, Los Angeles, Cal. Filed Mar. 7, 1914, Serial No. 823,192. Renewed Feb. 23, 1915. Serial No. 10,122. (Cl. 70—53.)



1. A lock of the character described, comprising a case, a manually rotatable tumbler therein, a pivoted stump lever coöperating with said tumbler, a rotatable locking disk co-axial with the tumbler and manually rotatable independently of the tumbler, and a pivoted dog connected with the pivoted stump and normally engaging the locking disk to prevent its rotation.

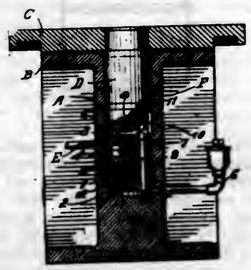
2. A lock of the character described, comprising a case, a manually rotatable flat disk tumbler in the case, a stump lever pivoted within the case and adapted to oscillate across one face of the tumbler, a locking disk co-axial with the tumbler and adjacent thereto and manually rotatable independently of the tumbler, and a dog mounted upon the tumbler axis and moving therewith and co-operating with the locking disk to prevent its movement, the arrangement being such that the stump lever and dog may be moved by manipulation of the tumbler to release the locking disk.

3. A lock of the character described, comprising a case, a manually rotatable flat disk tumbler therein, a locking disk co-axial with the tumbler and manually rotatable independently of the tumbler, independent concentric means for manually independently rotating said tumbler and disk, a pivoted stump lever coöperating with the tumbler, and a dog mounted on the stump lever pivot to move therewith adapted to engage the locking disk to prevent its movement.

4. A lock of the character described, comprising a case, a manually rotatable flat disk tumbler therein, a manually rotatable flat locking disk co-axial with the tumbler, a hollow sleeve connected with the locking disk and extending without the case, a manually engageable handle on the outer end of the sleeve, a shaft contained within and concentric with said sleeve, said shaft being rotatable independently of the sleeve and connected with the tumbler on its inner end and having a manually engageable hand disk on its outer end, a stump lever axis parallel to the axis of the tumbler and the locking disk, a stump lever mounted upon the axis and adapted to move across the face of the tumbler opposite the locking disk, a shoulder on the locking disk, and a dog mounted upon the stump lever axis to move therewith to engage and disengage the shoulder on the locking disk.

5. A lock, comprising in combination a case, a rotating tumbler therein, a rotatable locking disk concentric with the tumbler, the tumbler and disk being independently rotatable, and a dog operated by the tumbler and engaging the disk to prevent its rotation, the arrangement being such that the dog may be moved by manipulation of the tumbler to release the disk for movement.

1,133,394. JOLT RAMMING-MACHINE. AUGUST EVALD ONEBG, Plainfield, N. J., assignor to Mumford Molding Machine Company, Plainfield, N. J., a Corporation of New Jersey. Filed Aug. 9, 1912. Serial No. 714,258. (Cl. 121—19.)



1. In combination in a jolt ramming machine, a cylinder, a piston provided with a passage therethrough leading from the side of the piston to the lower end thereof, an inlet passage through the side of the cylinder adapted to register with the first passage when the piston is in its lower position, an exhaust passage through the side of the cylinder adapted to register with a portion of the first passage when the piston approaches its upper position, and a valve in the piston adapted to be closed by the unbalanced air pressure induced when the exhaust passage is brought into communication with the said passage in the piston.

2. In combination in a jolt ramming machine, a cylinder provided with inlet and exhaust ports, a plunger in the cylinder having a valve chamber providing communication from the inlet port to the rear end of the plunger, and a valve in the chamber arranged to permit a flow of air to the rear end of the plunger during a predetermined upward movement of the plunger and to automatically cut off such flow when the exhaust port is uncovered.

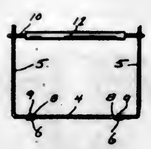
3. In combination in a jolt ramming machine, a cylinder provided with inlet and exhaust ports, a plunger in the cylinder having a valve chamber providing communication from the inlet port to the rear end of the plunger, and a valve in the chamber arranged to permit a flow of air to the rear end of the plunger and to automatically cut off such flow when the exhaust port is uncovered, the said valve being arranged so as to be moved to open position by its own momentum when the piston is stopped in its downward movement.

4. In combination in a jolt ramming machine, a cylinder having inlet and exhaust ports, a plunger having upon its interior a vertically extending valve chamber communicating with the inlet port and with the cylinder to the rear of the plunger, and a vertically movable valve in the valve chamber arranged so as to be moved to open position by its own momentum when the piston is stopped in its downward movement, and adapted to be closed by the unbalancing of the air pressure on its opposite sides induced by the opening of the exhaust.

5. In combination in a jolt ramming machine, a cylinder having inlet and exhaust ports, a plunger having upon its interior a vertically extending valve chamber having a connection from its front end leading to the rear of the plunger and a connection from its rear end also leading to the rear of the plunger, the said chamber having connections registering with the inlet port at one extreme of movement of the plunger and with the exhaust port at the other extreme of movement of the plunger, and a valve in the valve chamber adapted to be closed by the unbalancing of the air pressure on its opposite sides induced by the uncovering of the exhaust port, and arranged so as to remain closed cutting off the supply of air to the rear of the plunger until the plunger reaches its lower position.

[Claims 6 to 9 not printed in the Gazette.]

1,133,395. SACK-HOLDER. JOHN W. OASBURN, Spokane, Wash. Filed Dec. 13, 1913. Serial No. 806,461. (Cl. 211—2.)



1. A releasable sack or bag holder comprising in combination, a supporting frame including upright rods engaging the sides of the stack of bags, a rod having eyes freely slidable onto and off from the ends of said rods and downwardly thereon, and a roller weight rotatably mounted on said eyed rod for engagement with the uppermost bag of the stack, substantially as described.

2. A bag or sack holder comprising in combination, a plurality of U-shaped bars adapted to extend beneath the bottom and upwardly along the sides of a stack of sacks or bags, a plurality of base bars connected with said U-shaped bars to form a rigid structure, rods having eye terminals freely slidable onto and off from the ends of said U-shaped bars and downwardly thereon, and weight rollers rotatably mounted on said eyed rods for engagement with the top of the stack, substantially as described.

1,133,396. BUCKLE. JOHN W. PARMENTER, Springfield, Ohio. Filed June 16, 1911. Serial No. 633,627. (Cl. 24—265.)



1. In a buckle, the combination, with the article to be buckled, of means for securing the free end of said article to said buckle, a clamping lever, a projection on said lever to engage the buckle end of said article to secure the same to said buckle, a keeper for the free end of said article slidably mounted on the buckle end of said article, and a connection on said keeper adapted to be also removably secured by said projection to hold said keeper in position.
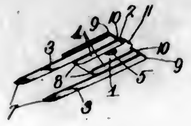
2. In a buckle, the combination, with the article to be buckled, of means for securing the free end of the buckled article to said buckle, a pivoted clamping lever, a projection on said lever to engage the buckle end of said article to secure the same to said buckle, a keeper slidably arranged on said article, a strap connected with said keeper, the end of said strap being also adapted to be engaged by said projection to hold said keeper in position, substantially as specified.

3. In a buckle, the combination, with the article to be buckled, of means for securing the free end of the buckled article to said buckle, a clamping lever, a projection on said lever, the buckle end of said article having an opening to receive said projection whereby the buckle end of said article may be secured to said buckle, a keeper slidably arranged on said article, a flexible strap, a loop on one end of said flexible strap whereby said strap is secured to said keeper, and a loop on the free end of said strap to receive said lever projection to removably attach said keeper thereto, substantially as specified.

4. In a buckle, the combination, with the article to be buckled, of means for securing the free end of the buckled article to said buckle, a lever, means on said lever to engage the buckle end of said article to secure the same to said buckle, a keeper for the free end of said article slidably arranged on the buckle end thereof, and a connection on said keeper adapted to be also removably engaged with said engaging means on said lever to hold said keeper in position.

5. In a buckle, the combination, with the article to be buckled, of a main frame, means for removably securing the free end of said article to said frame, a releasable device for removably securing the buckled end of said article to said securing means, a keeper slidably arranged on the buckle end of said article, and a connection on said keeper also adapted to be removably secured by said releasable device, for the purpose specified.

1,133,397. GARMENT-FASTENER. MYRTLE M. PARSONS, Kansas City, Mo. Filed Oct. 5, 1914. Serial No. 865,055. (Cl. 24—227.)



1. In a garment fastener, a body portion and a pair of substantially parallel pins projecting from the front edge of the body portion and doubled back at the inner side of the body portion and of greater length than the latter so as to be capable of rebending around the rear edge of the body portion and against the outer side of the latter, the body portion being provided at its outer side with a rearwardly opening hook lying in a plane approximately parallel to the planes of said pins and at one side thereof.

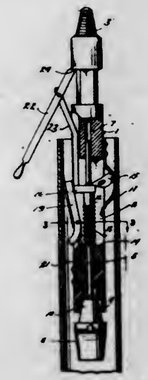
2. In a garment fastener, a body portion and a pair of substantially parallel pins projecting from the front edge of the body portion and doubled back at the inner side of the body portion and of greater length than the latter so as to be capable of rebending around the rear edge of the body portion and against the outer side of the latter, the body portion being provided at its outer side with a rearwardly opening hook lying in a plane approximately parallel the planes of said pins and, at one end, the body portion also having a hump at its outer side to assist in retaining an object in engagement with the hook.

3. In a garment fastener, a body portion, a rearwardly opening hook disposed at the outer side of the body portion and two pairs of pins lying at the opposite side of the body portion from the hook and extending rearwardly with respect thereto, the body portion having a hump at its outer side within the hook.

4. In a garment fastener, a body portion, a rearwardly opening hook disposed at the outer side of the body portion and two pairs of pins of unequal length disposed at the opposite side of the body portion from the hook, the longer pair of pins being of greater length than the body portion.

5. A garment fastener, comprising a body portion of substantially rectangular form provided at one of its ends with two pairs of substantially parallel pins, one pair of said pins being of length to be doubled back to underlie the body portion and the other pair of sufficient length to be also doubled back under the body portion and to be rebent or doubled outwardly around the rear end of the body portion and downwardly toward the outer face of the latter; said body portion being also provided with a fastening element at its outer side.

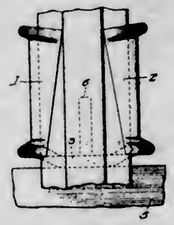
1,133,398. UNDERREAMER. JOHN W. PIPPIN, Brownwood, Tex. Filed Feb. 9, 1914. Serial No. 817,594. (Cl. 255—75.)



1. In a tool of the class described, comprising a body, a rod movable vertically in the body, bits pivoted to the lower end thereof, a spring encircling the rod, means for holding the spring compressed and the bits contracted and means for positively holding the rod against vertical displacement when the first mentioned means is inoperative whereby the bits are maintained in operative positions.

2. In a tool of the class described, the combination with a body having a slot formed therein, a rod movable vertically in the body and slot, a spring encircling the rod and located in the slot, a latch pivotally mounted in the slot, a block carried by the rod for engagement by the latch to hold the spring compressed, bits carried by the lower end of the rod, said bits being contracted when the spring is compressed and the rod is in its lowermost position, said latch being operable to disengage the block when the latch passes from the well casing to permit the spring to expand and force the rod upwardly to expand the bits, and means for engaging the block to prevent accidental movement of the rod downwardly.

1,133,399. ANTICREEPER. FREDERICK A. PRESTON, Highland Park, Ill., assignor to The P. & M. Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 31, 1913. Serial No. 757,792. (Cl. 238—4.)



1. An anti-creeper comprising oppositely arranged pairs of jaws, each pair adapted to wedgingly engage an edge of a rail base, said pairs of jaws being connected by means integral therewith, and being spaced apart sufficiently to permit of their being assembled on a rail with the base flanges between them whereby they may be brought to final gripping position on the rail base by being forced toward each other, said structure being deformed by such operation and given a permanent set.

2. An anti-creeper comprising oppositely arranged pairs of jaws each pair adapted to wedgingly engage an edge of a rail base and a non-resilient yoke integrally connected thereto and maintaining said pairs of jaws at such a distance from each other as to cause a fit thereof on the rail base in such manner that a firm grip thereon is obtained only by forcing the jaws toward each other so as to deform said structure and give it a permanent set.

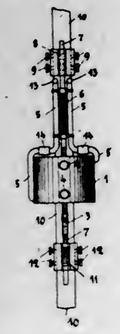
3. An anti-creeper comprising a yoke provided at each end with rail gripping jaws integral therewith, one of said jaws extending substantially horizontally from said yoke at an angle thereto so that it may be caused to operatively engage a rail base only by being driven toward the rail base so as to vary said angle and deform the structure.

4. A one-piece anti-creeper having a plurality of pairs of jaws for gripping a rail base on opposite sides of the rail, a portion of the structure between said pairs of jaws being capable of permanent distortion to bring said pairs of jaws into their final rail-gripping relation to each other and to the rail base.

5. A one-piece anti-creeper having a plurality of pairs of jaws adapted to operatively grip a rail base at opposite sides of the rail, a portion of said structure between said pairs of jaws being capable of permanent distortion to bring one of said jaws into final wedging engagement with a rail base.

[Claims 6 to 14 not printed in the Gazette.]

1,133,400. CAPILLARY-TUBE-SYSTEM MICROMETER. WAZLAW RECHNIOWSKI, St. Petersburg, Russia. Filed May 7, 1914. Serial No. 836,972. (Cl. 73—51.)

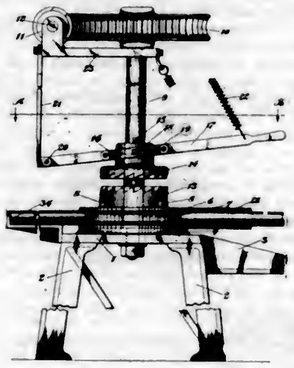


1. An instrument for measuring variations in length, of a body comprising a cylinder, a piston normally positioned centrally in said cylinder, thus forming a chamber at each end, capillary tubes one communicating with one end of each chamber and running parallel outside of said cylinder, a common scale for said tubes, said chambers and part of said tubes being filled with liquid, a pair of clamps for engaging the object to be treated, one of said clamps being rigidly connected with the cylinder and the other with the piston and a fine-adjusting device between said slidable clamp and said piston.

2. An instrument for measuring variations in length of a body comprising a cylinder, a piston normally positioned centrally in said cylinder, thus forming a chamber at each end, capillary tubes one communicating with one end of each chamber and running parallel outside of said cylinder, a common scale for said tubes, said chambers and part of said tubes being filled with liquid, a pair of clamps for engaging the object to be treated, one of said clamps being rigidly connected with the cylinder and the other with the

piston fine-adjusting device between said slidable clamp and said piston, and an auxiliary adjusting device in said cylinder, comprising a capacity varying member in each chamber, whereby the level of the liquid may be raised or lowered in each tube.

1,133,401. TUBE-BENDING MACHINE. ROY F. REDDING, East St. Louis, Ill., assignor to St. Louis Bed and Manufacturing Company, East St. Louis, Ill., a Corporation of Missouri. Filed Jan. 21, 1915. Serial No. 3,517. (Cl. 153—45.)



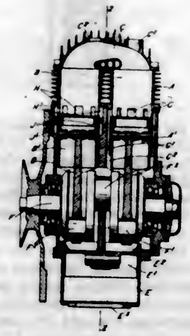
1. A machine of the character described comprising a table, a disk rigidly fixed thereon, a groove formed in the periphery of said disk, a toothed annular member revolubly mounted upon said disk, a lever projecting laterally from said member, a roller secured to said lever, a block removably disposed between said disk and roller, a groove formed in said block disposed opposite the groove of said disk and corresponding to the size thereof, a revoluble shaft vertically projecting through said member, a toothed clutch slidably mounted upon said shaft and revolving in unison therewith, devices for bringing said clutch into engagement with said member, means for automatically releasing said clutch and block, and mechanism for driving said shaft.

2. A machine of the character described comprising a table, a disk rigidly fixed thereon, a groove formed in the periphery of said disk, a toothed annular member revolubly mounted upon said disk, a lever projecting laterally from said member, a roller secured to said lever, a block removably disposed between said disk and roller, a groove formed in said block disposed opposite the groove of said disk and corresponding to the size thereof, a revoluble shaft vertically projecting through said member, a toothed clutch slidably mounted upon said shaft and revolving in unison therewith, devices for bringing said clutch into engagement with said member, means for adjusting the position of said block, means for automatically releasing said clutch and block, and mechanism for driving said shaft.

3. A machine of the character described comprising a table, a disk rigidly fixed thereon, a groove formed in the periphery of said disk, a toothed annular member revolubly mounted on said disk, an arm projecting laterally from said member, a roller secured to said arm, a block removably disposed between said disk and roller, a groove formed in said block disposed opposite the groove of said disk and corresponding to the size thereof, a revoluble shaft vertically projecting through said member, a toothed clutch slidably mounted upon said shaft and revolving in unison therewith, a groove extending around the collar of said clutch, a lever hingedly supported adjacent to and encircling said clutch, pins carried by said lever projecting within the groove of said collar, a spring connected with said lever adapted to normally retain said clutch out of engagement with said member and mechanism for driving said shaft.

4. A machine of the character described comprising a table, a disk rigidly fixed thereon, a groove formed in the periphery of said disk, a toothed annular member revolubly mounted upon said disk, an arm projecting laterally from said member, a roller secured to said arm, a block removably disposed between said disk and roller, a stop disposed in the path of said block, a threaded post adjustably fixed in the head of said block adapted to contact with said stop, a groove formed in said block disposed opposite the groove of said disk and corresponding to the size thereof, a revoluble shaft vertically projecting through said member, a toothed clutch slidably mounted upon said shaft and revolving in unison therewith, a groove extending around the collar of said clutch, a lever hingedly supported adjacent to and encircling said clutch, pins carried by said lever projecting within the groove of said collar, a spring connected with said lever adapted to normally retain said clutch out of engagement with said member, and mechanism for driving said shaft.

1,133,402. INTERNAL-COMBUSTION ENGINE. HARRY RALPH RICARDO, London, and HENRY ANSTRUTHER HETHERINGTON, Byfleet, Surrey, England. Filed Feb. 1, 1915. Serial No. 5,560. (Cl. 123—53.)



1. In an internal combustion engine operating on the two stroke cycle the combination of a closed crank chamber, two working cylinders mounted side by side on and each opening as to one end into the crank chamber, and as to the other end closed except for a free communication between the two cylinders, a third cylinder open at both ends and mounted on the crank chamber oppositely with relation to the working cylinders, pistons in the working cylinders operatively connected to like cranks on a shaft in the crank chamber, a piston in the third cylinder operatively connected to a crank oppositely disposed on the shaft with relation to the other cranks, ports in the wall of one working cylinder for the admission of the combustible mixture thereto, ports in the wall of the other working cylinder for the passage thence of the exhaust products, and ports through which combustible mixture can be drawn into the crank chamber as set forth.

2. In an internal combustion engine operating on the two-stroke cycle the combination of a closed crank chamber, two working cylinders mounted side by side on and each opening as to one end into the crank chamber and as to the other end closed except for a free communication between the two cylinders, a third cylinder open at both ends and mounted on the crank chamber oppositely with relation to the working cylinders, pistons in the working cylinders operatively connected to like cranks on a shaft in the crank chamber, a piston in the third cylinder operatively connected to a crank oppositely disposed on the shaft with relation to the other cranks, ports in the wall of one working cylinder communicating with the crank chamber, a series of ports in the wall of the other working cylinder communicating with the exhaust passage, and a second series of ports in the wall of this working cylinder toward its open end communicating with the fuel supply passage, all the ports in the two working cylinders being controlled by the pistons in these cylinders as set forth.

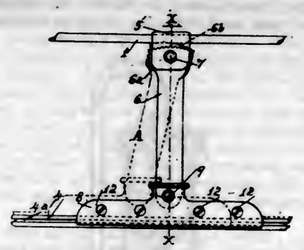
3. In an internal combustion engine operating on the two-stroke cycle the combination of a closed crank chamber, two working cylinders having similar diameters mounted side by side on and each opening as to one end into the crank chamber and as to the other closed except for a free communication between the two cylinders, a third cylinder of larger diameter than either of the working cylinders open at both ends and mounted on the crank chamber oppositely with relation to the working cylinders, pistons in the working cylinders operatively connected to like cranks on a shaft in the crank chamber, a piston in the third cylinder of such dimensions as to equal approximately the combined weights of the two working pistons this third piston being operatively connected to a crank oppositely disposed on the shaft with relation to the other cranks, ports in the wall of one working cylinder for the admission of the combustible mixture thereto, ports in the wall of the other working cylinder for the passage thence of the exhaust products, and ports through which combustible mixture can he drawn into the crank chamber as set forth.

4. In an internal combustion engine operating on the two-stroke cycle the combination of a closed crank chamber, a crank shaft, two working cylinders having similar diameters mounted side by side on and each opening as to one end into the crank chamber and as to the other closed except for a free communication between the two cylinders, a third cylinder of larger diameter than either of the working cylinders open at both ends and mounted on the crank chamber oppositely with relation to the working cylinders, all three cylinders being arranged with their axes in one plane which cuts the axis of the crank shaft, pistons in the working cylinders operatively connected to like cranks on the shaft in the crank chamber, a piston in the third cylinder of such dimensions as to equal approximately the combined weights of the two working pistons this third piston being operatively connected to a crank oppositely disposed on the shaft with relation to the other cranks, ports in the wall of one working cylinder communicating with the crank chamber, a series of ports in the wall of the other working cylinder communicating with the exhaust passage, and a second series of ports in the wall of this working cylinder toward its open end communicating with the fuel supply passage, all the ports in the two working cylinders being controlled by the piston in these cylinders as set forth.

5. In an internal combustion engine operating on the two-stroke cycle the combination of a closed crank chamber, two working cylinders mounted side by side on and each opening as to one end into the crank chamber and as to the other end closed except for a free communication between the two cylinders, a third cylinder open at both ends and mounted on the crank chamber oppositely with relation to the working cylinders, pistons in the working cylinders operatively connected to like cranks on a shaft in the crank chamber, a piston in the third cylinder operatively connected to a crank oppositely disposed on the shaft with relation to the other cranks, ports in the wall of one working cylinder communicating with the crank chamber, an annular exhaust passage surrounding the wall of the other working cylinder, a series of ports in the wall of this working cylinder communicating with the annular exhaust passage, a second annular exhaust passage surrounding the wall of this cylinder toward its open end but adjacent to the first annular exhaust passage this second annular exhaust passage communicating with a source of fuel supply, and a second series of parts in the wall of this working cylinder communicating with the annular fuel suply passage, all the ports in the two working cylinders being controlled by the pistons in these cylinders as set forth.

[Claim 6 not printed in the Gazette.]

1,133,403. TROLLEY-LINE HANGER. CHARLES H. ROBERTSON, Peoria, Ill. Filed Dec. 26, 1914. Serial No. 879,192. (Cl. 191—41.)



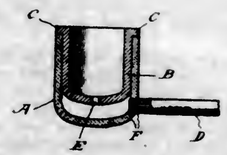
1. A hanger comprising wire-supporting means adapted to support a trolley wire; a suspension device pivotally connected with said wire-supporting means and having a part effective to grip a messenger wire upon the oscillation of the suspension device; means for supporting said suspension device on a messenger wire; and means pivotally connecting said suspension device with the means supporting it on the messenger wire.

2. In an apparatus of the class described, the combination of a messenger wire; loops mounted on the messenger wire; suspension devices pivotally connected with the loops respectively and each having a member adapted to grip the messenger wire upon the oscillation of said suspension devices; and a trolley wire supported by said suspension devices.

3. In an apparatus of the class described, the combination of a messenger wire; loops normally loose on the messenger wire; suspension devices pivotally connected with the loops respectively and each having a member adapted to grip the messenger wire upon the oscillation of the suspension devices; and a trolley wire connected with said suspension devices.

4. In an apparatus of the class described, the combination of a messenger wire; a trolley wire; hangers normally loose on the messenger wire and connected with the trolley wire and each having a member effective to grip the messenger wire upon the parting of the trolley wire.

1,133,404. SMOKING DEVICE. JACOB R. ROETHER, New York, N. Y. Filed Apr. 16, 1914. Serial No. 832,165. (Cl. 131—12.)

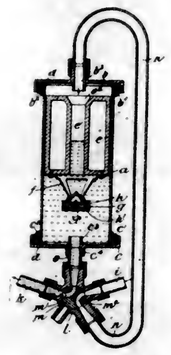


As a new article of manufacture, a pipe comprising an outer horn receptacle, a separable inner absorbent tobacco-holding chamber, a tubular mouthpiece, and means of communication between the inner chamber and the tubular mouthpiece.

1,133,405. BEER-DISPENSING APPARATUS. FRANK SCHNEIBLE, New York, N. Y., assignor to Carl A. Schneible, New York, N. Y. Filed Apr. 7, 1914. Serial No. 830,128. (Cl. 225—8.)

1. Apparatus for dispensing beer or the like, comprising a supply pipe, a discharge pipe, a float chamber normally interposed between the source of supply and the discharge

point, a float within the chamber, means controlled by the float to check automatically the flow of beer to the discharge point before the supply is exhausted, and means for establishing separate communication between the supply and the float chamber to permit the inflow to the chamber of fresh beer when the supply is replenished.



2. Apparatus for dispensing beer including a supply pipe and a dispensing pipe interconnected by passages, a float chamber interposed in said connection to check automatically the flow of beer before the supply is exhausted and a valve with which said passages connect, said valve permitting the source of supply to be connected to the float chamber through one of two independent passages and controlling communication between the float chamber and the dispensing pipe.

3. Apparatus for dispensing beer or the like, comprising a supply pipe, a discharge pipe, a float chamber interposed normally between the supply pipe and the dispensing pipe, a valve controlled by said float for automatically checking the flow of beer before the supply is exhausted, a valve to place the supply in direct communication with the beer in the float chamber subsequently to the checking of the flow to restore the valve to normal position and exhaust the air from the float chamber and its connections, said valve being operable to restore the apparatus to normal operating conditions.

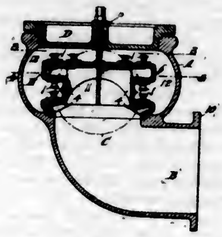
4. Apparatus for dispensing beer or the like, a float chamber interposed between the source of supply and the dispensing pipe, a float within the chamber to cut off communication between the supply and the dispensing pipe before the supply is exhausted, and means to discharge the contents of the apparatus before reëstablishing normal communication between the fresh supply and the dispensing pipe.

5. Apparatus for dispensing beer or the like, comprising a supply pipe, a discharge pipe, a float chamber interposed between the source of supply and the dispensing pipe, a float within the chamber operable to stop automatically the flow of beer when the level of the beer in the chamber falls to a predetermined degree, a valve operable to place the float chamber in communication with the supply when replenished and with an exhaust vent whereby upon the flow of fresh beer into the chamber the contents therein and the connections thereto will be vented, and connections controlled by the valve for reestablishing communication between the float chamber and the dispensing pipe.

[Claims 6 and 7 not printed in the Gazette.]

1,133,406. PUMP VALVE-POT. JOSEPH H. SEBALD, Arlington, N. J., assignor to Henry R. Worthington, New York, N. Y., a Corporation of New Jersey. Filed July 24, 1909. Serial No. 509,387. (Cl. 103—66.)

1. A pump valve pot consisting of an outer casing having inlet and outlet connections, a valve cage within the casing dividing the valve pot into an inlet chamber within the cage and an outlet chamber outside the cage, and annular sets of valves in the valve cage opening longitudinally of the cage, the successive sets of valves being arranged longitudinally of the cage and with the valves of the different sets in line with each other.



2. A valve cage formed to inclose a fluid chamber and having a series of annular valve chambers around the cage open to the fluid chamber and annular sets of valves in the opposite walls of said chambers opening longitudinally of the cage.

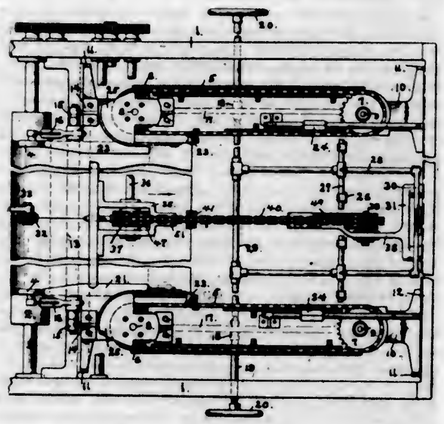
3. A valve cage formed to inclose a fluid chamber and having a series of annular valve chambers around the cage open to the fluid chamber and annular sets of valves in the opposite walls of said chambers opening longitudinally of the cage with the valves of the different sets in line with each other.

4. A valve cage formed to inclose a fluid chamber and having annular valve chambers around the cage open to the fluid chamber and annular sets of valves in said chambers opening longitudinally of the cage with the valves of the successive sets arranged in line with each other.

5. A valve cage formed to inclose a fluid chamber and having annular valve chambers around the cage open to the fluid chamber, and annular sets of valves in said chambers opening longitudinally of and outwardly from the cage with the valves of the successive sets arranged in line with each other.

[Claims 6 and 7 not printed in the Gazette.]

1,133,407. SHEET-DELIVERY MECHANISM. EDWARD P. SHELDON, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 25, 1912. Serial No. 711,489. (Cl. 101—29.)



1. A sheet delivery mechanism including in combination means for advancing a sheet flat, said means including devices for holding the original edges of the sheet, means for dividing the sheet, and sheet forwarding means acting to positively seize the sheet and operating on the sheet on each side next the cut formed by the dividing means.

2. A sheet delivery mechanism including in combination means for advancing a sheet flat, said means including grippers operating on the original edges of the sheet, a slitter for dividing the sheet, and sheet forwarding grippers operating on the sheet on each side of the cut formed by the slitter.

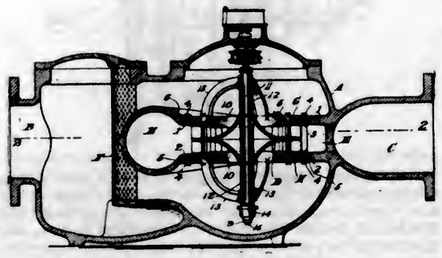
3. A sheet delivery mechanism including in combination a pair of traveling flexible gripper carriers one on each side of the sheet path, grippers on the carriers, a slitting mechanism for dividing the sheet, and grippers operating on the sheet on each side of the cut formed by the slitting mechanism.

4. In a sheet delivery mechanism, the combination with a pair of traveling flexible gripper carriers one on each side of the sheet path, of actuating wheels for the carriers rotating on axes which are normal to the plane of the sheet path, a slitting mechanism, intermediate grippers operating on the sheet on each side of the cut formed by the slitting mechanism, and gripper actuating devices.

5. In a sheet delivery mechanism, the combination with sheet advancing means including a pair of propelling rolls and an abutment roll coöperating therewith, of a slitter operating on the abutment roll, a pair of flexible gripper carriers one on each side of the sheet path, actuating wheels for the carriers rotating on axes which are normal to the plane of the sheet path, grippers on the carriers, and intermediate grippers operating on the sheets on each side of the cut formed by the slitter.

[Claims 6 to 8 not printed in the Gazette.]

1,133,408. ROTARY METER. JOSEPH W. SIMS, East Orange, N. J., assignor to Henry R. Worthington, New York, N. Y., a Corporation of New Jersey. Filed Dec. 6, 1909. Serial No. 531,502. (Cl. 73—37.)



1. In a meter, the combination, with a meter casing separated into two independent compartments by the upper and lower walls of an intermediate discharge chamber, said casing having an inlet leading to both compartments and an outlet leading from the intermediate discharge chamber, the said walls of the discharge chamber having central openings, of a radial discharge meter vane wheel having a centrally arranged deflecting web arranged to receive fluid from opposite directions and discharge it through the vanes, a pair of rings concentric with the vane wheel, means for connecting said rings, side plates having inlet openings connected to said rings and arranged one at each side of said wheel, a shaft on which the vane wheel is mounted, brackets connected to said side plates, and journals carried by the brackets, said wheel, rings, side plates, brackets and journals being connected to form one structure removably mounted in the central openings in the walls of the discharge chamber.

2. In a fluid meter, the combination, with a meter casing separated into two independent compartments by the upper and lower walls of an intermediate discharge chamber, said casing having an inlet leading to both compartments, and having an outlet leading from the intermediate discharge chamber, the said walls of the intermediate discharge chamber having central openings, of a radial flow vane wheel having a centrally arranged deflecting web arranged to receive fluid from opposite directions parallel to the wheel axis and to discharge it radially through the vanes of the wheel, and means for mounting said wheel between the walls of the discharge chamber, with its axis in line with the axes of said central openings in said walls.

3. In a fluid meter, the combination, with a meter casing separated into two independent compartments by the upper and lower walls of an intermediate discharge chamber, said casing having an inlet leading to both compartments, and having an outlet leading from the intermediate discharge chamber, the said walls of the intermediate discharge chamber having central openings, of a radial flow vane wheel having a centrally arranged deflecting web arranged to receive fluid from opposite directions parallel to the wheel axis and to discharge it radially through the vanes of the wheel, side plates inclosing the wheel on opposite sides and carrying shaft bearings, and means for detachably securing said side plates together to form a single structure including the wheel and shaft, wheel chamber and shaft bearings, and open about the periphery of the wheel to permit the free passage of fluid, said single structure being secured in the casing with the wheel between the walls of the discharge chamber and with the axis of the wheel in line with the axes of the said central openings in said walls.

4. In a fluid meter, the combination, with a meter casing separated into two independent compartments by the upper and lower walls of an intermediate discharge chamber, said casing having an inlet leading to both compartments, and having an outlet leading from the intermediate discharge chamber, the said walls of the intermediate discharge chamber having central openings, of a radial flow vane wheel having a centrally arranged deflecting web arranged to receive fluid from opposite directions parallel to the wheel axis and to discharge it radially through the vanes of the wheel, side plates inclosing the wheel on opposite sides and carrying shaft bearings, and a sleeve for detachably securing said side plates together to form a single structure including the wheel and shaft, wheel chamber and shaft bearings, and open about the periphery of the wheel to permit the free passage of fluid, said single structure being secured in the casing with the wheel between the walls of the discharge chamber and with the axis of the wheel in line with the axes of the said central openings in said walls.

5. In a fluid meter, the combination, with a meter casing separated into two independent compartments by the upper and lower walls of an intermediate discharge chamber, said casing having an inlet leading to both compartments, and having an outlet leading from the intermediate discharge chamber, the said walls of the intermediate discharge chamber having central openings, of a radial flow vane wheel having a centrally arranged deflecting web arranged to receive fluid from opposite directions parallel to the wheel axis and to discharge it radially through the vanes of the wheel, a shaft on which said wheel is fixed, plates on opposite sides of the wheel inclosing the wheel and forming a wheel chamber, shaft bearings carried by said plates, in which bearings the wheel shaft is mounted, a sleeve detachably connecting the plates to form a single structure and open on the periphery to permit the free passage of liquid through the sleeve, said single structure being secured in the casing with the wheel between the walls of the discharge chamber and with the axis of the wheel in line with the axes of the said central openings in said walls.

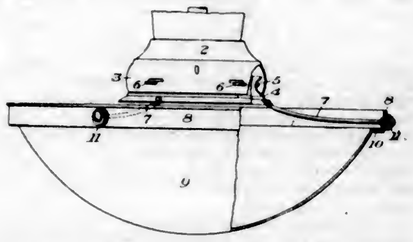
[Claims 6 to 9 not printed in the Gazette.]

1,133,409. DENTAL MANDREL. SILAS E. SMITH, Worcester, Mass. Filed Mar. 26, 1914. Serial No. 827,314. (Cl. 32—13.)



In an expansible and contractible mandrel head, the combination of a contracting sleeve, mounted on said head, an outer sleeve loosely mounted on said contracting sleeve, said outer sleeve being rotatable independently of said contracting sleeve, substantially as shown and described.

1,133,410. SUPPORT OR HOLDER FOR LAMP GLOBES OR REFLECTORS. SAMUEL SNYDER, Camden, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed Aug. 25, 1914. Serial No. 858,462. (Cl. 240—114.)



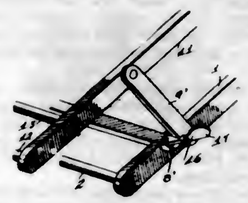
1. A globe or reflector support for incandescent gas lamps comprising an upper ring member having an external seat for the globe retaining means of the lamp, another ring of larger diameter below the first named ring and having internal seats for the globe or reflector, spaced members connecting the two rings, and means whereby said rings may be separated from each other to permit of the removal of the globe or reflector backwardly through the lower ring, substantially as described.

2. The combination with an inverted incandescent gas lamp having a depending globe supporting gallery or flange, of a ring member adapted to fit within said gallery or flange and to be held therein, a lower and larger diameter globe supporting ring below the first named ring, and a plurality of spaced members connecting the two rings, said connections having a loose connection with the lower ring whereby the two rings may be separated sufficiently to permit of the removal of the globe backwardly through the lower ring, substantially as described.

3. A globe or reflector support for use in indirect or semi-indirect lighting systems, comprising an upper ring member adapted to fit the globe retaining means of an inverted gas lamp and having seating means for the shade securing devices of such lamp, a second and larger ring below the first named ring and having a globe or reflector supporting flange, and a plurality of spaced rods connecting the two rings and detachably engaged with the lower ring, substantially as described.

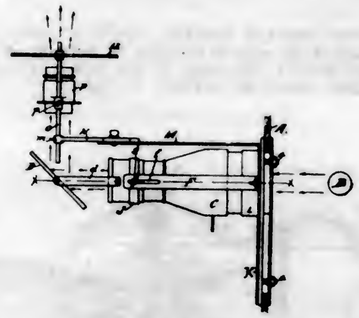
4. A globe or reflector support for use in indirect or semi-indirect lighting systems, comprising an upper ring member adapted to fit the globe retaining means of an inverted gas lamp and having seating means for the shade securing devices of such lamp, a second and larger ring below the first named ring and having a globe or reflector supporting flange, and a plurality of spaced rods connecting the two rings and detachably engaged with the lower ring, one of said rods having a loose engagement with the lower ring to form a hinge connection, substantially as described.

1,133,411. CARRIAGE-PAINTER'S RACK AND BUGGY-JACK. HENRY B. STEELE, Rising Sun, Ind., assignor of one-third to Hugh H. Steele, Paris, Ill., and one-third to William C. Steele, Rising Sun, Ind. Filed Dec. 2, 1913. Serial No. 804,328. (Cl. 254—89.)



A device of the class described comprising an upper and a lower frame, a transversely extending stop cleat carried by said lower frame, said stop cleat having projecting ends constituting an efficient resisting means, pairs of front and rear vertically extending arms mounted upon said lower frame, said rear vertically extending arms provided with notches and adapted to rest against the projecting ends of said stop cleat, and latches adapted to be thrown into engagement with said notches for preventing the upper frame from being swung downwardly.

1,133,412. LANTERN FOR MOVING PICTURES. ABRAHAM J. STONE, Albany, N. Y., assignor of one-half to Samuel Suckno, Albany, N. Y. Filed Oct. 15, 1914. Serial No. 866,765. (Cl. 88—24.)



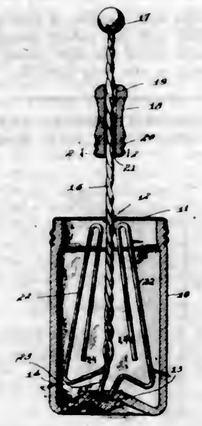
1. A lantern adapted to display a picture from a lamp housing in which the lantern is mounted; with a lens case; means for attaching the same to the said lamp housing; a lens in said case; an adjustable slide in said case; a mirror placed in position to receive the light from said lens; means for adjusting said mirror; a lens adapted to receive the reflection from said mirror; means for adjusting said last mentioned lens; and a disk containing a transparent portion with matter for display placed thereon adapted to be placed in front of the last mentioned lens, substantially as described.

2. A device for projecting a border on a picture, comprising a lantern for displaying the picture on a screen; a lens mounted at the side of said lantern; an adjustable slide comprising four movable strips, one on each side and one at each end of the adjustable slide; with means for moving said strip to and from the center of the adjustable slide; with a central adjustable, opaque portion in said adjustable slide, comprising four plates adapted to be drawn obliquely from the four corners of the central portion, thereby extending the sides and ends of the central portion; with means for clamping and holding said adjustable plates in the desired position; a mirror adapted to receive the light projected around said adjustable slide; a lens mounted to receive the reflection from said mirror; and means for adjusting said last mentioned lens, substantially as described.

3. An attachment for a moving picture lantern, comprising a lens case adapted to be attached to the side of the lantern; a lens in said case; an adjustable slide in said lens case; a mirror at the end of said lens case; an adjustable lens to receive the light from said mirror; and a series of varied colored glass mounted in front of said last mentioned lens, whereby the light therefrom may pass through one of said colored glasses, substantially as described.

4. An adjustable slide for a projection lamp, comprising a frame with movable extension side pieces connected therewith; means for holding said extension side pieces in position on the frame; with movable extension end pieces in connection with said frame; means for holding said end pieces in the desired position; a series of adjustable movable extension plates centrally disposed and attached to said frame; means for extending said last mentioned plates and holding them in the desired position, all substantially as described.

1,133,413. KITCHEN UTENSIL. TURNEY H. STOUGH, Jeannette, Pa. Filed Mar. 16, 1914. Serial No. 825,008. (Cl. 107—39.)



In a device of the kind described, an agitator including a plurality of wires twisted to form a shank and connected at their upper ends, one of the wires being bent abruptly outward from the lower end of the shank, a second wire being bent slightly outward from the lower end of the shank and rebent upon itself to form a substantially U-shaped portion having its bight forming a foot bearing in alinement with the axis of the shank, said last wire being bent outward from said U-shaped portion at an angle to the axis of the shank similar to the abruptly bent portion of the first wire, the ends of said wire being convoluted to the form beater blades; in combination with a jar having a frusto-conical bottom, the sides of the frusto-cone being arranged substantially parallel to the outwardly bent portions of the beater and the top of the frusto-cone being recessed to receive the foot bearing.

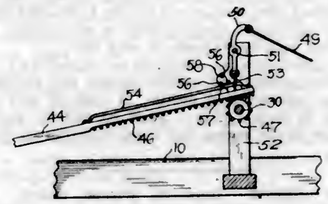
1,133,414. POCKET REFUSE-RECEPTACLE. JOSEPH F. SYKORA, Cedar Rapids, Iowa. Filed May 11, 1914. Serial No. 837,805. (Cl. 4—39.)

A pocket refuse receiver comprising a suitable receptacle having a movable cover, a removable inner receptacle having a lateral flange on the upper edge portion of its wall, the said cover having a groove formed in the underside and extending around and near the marginal edges, a washer disposed in said groove, the upper edge portions of the walls of the inner receptacle



being received within the groove of a cover and bearing against the said washer, and a releasable catch for the lid and means for throwing the lid into open position when the catch is released.

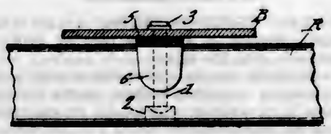
1,133,415. RACK-AND-PINION MECHANISM. FERDINAND M. THEISEN, Waumandee, Wis. Filed Jan. 26, 1914. Serial No. 814,472. (Cl. 74—27.)



1. A device of the character described comprising a member mounted for rocking momvement, a rack pivotally connected to an extremity of said member, a driving pinion for actuating said rack, means for adjusting said rack relative to the actuating gear, spaced member carried by the rack, a lug positioned at a predetermined point above the driving pinion, and means for elevating the rack out of engagement with the pinion to position the lug between the members of the rack.

2. A device of the character described comprising a member mounted for rocking movement, a rack pivotally connected to the member adjacent the extremity thereof, a driving pinion for actuating said rack, means for adjusting the rack operatively to the driving pinion, spaced members carried by the rack, a lug positioned at a point above the driving pinion, and means for elevating the rack out of engagement with the pinion to position the lug between the members of the rack, the lug being so positioned relative to the driving gear as to permit the rack to move freely between the gear and lug.

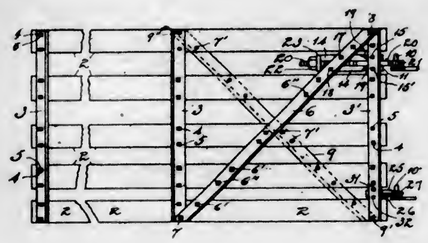
1,133,416. BASKET-RUNNER CLAMP. HERMAN WEGWART, Burlington, Wis., assignor to Badger Basket & Veneer Co., Burlington, Wis. Filed Mar. 24, 1914. Serial No. 826,968. (Cl. 217—123.)



1. The combination with a basket runner, and a fastening piercing the runner and basket, of a reinforcing clamp fitting upon the upper surface of the runner and embracing the sides, said clamp being interposed between the bottom of the basket and the top of the runner.

2. The combination with a basket runner, and a fastening piercing the runner and basket, of a substantially U-shaped malleable metal clamp having an aperture to receive the fastening and fitting astride the runner, the intermediate portion of the clamp being interposed between the bottom of the basket and the runner.

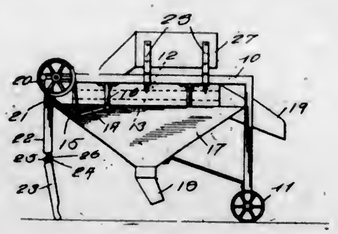
1,133,417. GATE-HINGE. GUSTAVE WENZELMANN, Galesburg, Ill. Filed Jan. 9, 1914. Serial No. 811,241. (Cl. 16—112.)



1. In a gate hinge, an elongated casing having slitted lateral extensions, a portion of each of said extensions bent to form a clip, a hinge-rod having a threaded end, arranged for movement longitudinally in said casing, and a nut engaged with the threads on said rod.

2. In a gate hinge, an elongated casing having a raised semicircular longitudinal central portion and having slitted lateral extensions, a portion of each of said extensions bent to form a clip, a hinge-rod slidably seated in the concave of the casing, and a nut threaded on one end thereof.

1,133,418. SIEVE. JOHN H. WHITE, Oneida, Kans. Filed Oct. 7, 1914. Serial No. 865,494. (Cl. 21—65.)



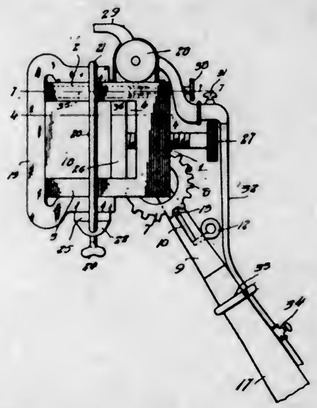
A portable frame, supporting wheels at the forward end of the frame, depending members rigidly secured to the rear end of the frame, combined supporting leg and handle members hingedly connected to the lower ends of said rigid members, means on the hinged connections for preventing the movable members from swinging outwardly beyond the handle position, and means on the hinged connections for preventing the movable members from swinging inwardly beyond the frame supporting position.

1,133,419. WINDOW-WASHER. JULIUS ALOYSIUS WHITLOCK, Newark, N. J. Filed June 16, 1914. Serial No. 845,440. (Cl. 15—53.)

1. In a device of the class described, a body portion, a handle adjustably connected thereto, means for applying soapy water to a window, and means to simultaneously apply clean water thereto.

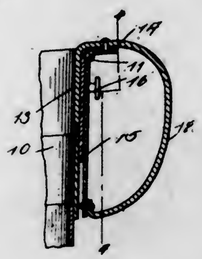
2. In a device of the class described, an elongated body portion having a chamber formed therein, soap adjustably mounted in said chamber, a strip of felt detachably secured to said body portion and over the open face of the chamber, a handle adjustably connected to the body portion, means for adjusting the soap in the chamber, a tank carried by the body portion, means on the tank for applying clean water to a window and means connected to the tank to apply water to the soap.

3. In a device of the class described, a body portion of U-shape in cross section, a chamber formed therein adapted to contain a cake of soap, a plate slidably mounted in said chamber to adjust the soap therein, a thumb screw to operate said plate, a piece of felt secured to the body portion and extending over the open side of the chamber, the said body portion having a recess formed therein, a



tank mounted on the body portion, a pipe having a valve connecting the tank and the recess, means for ejecting water from the tank above the said recess, and a handle adjustably connected to the body portion.

1,133,420. DETACHABLE HANDLE. AUGUST V. YOUNG, Logcabin, Colo. Filed Feb. 19, 1914. Serial No. 819,791. (Cl. 65—13.)

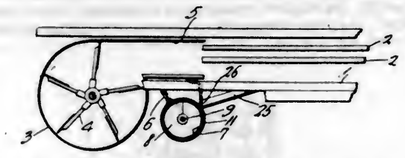


The combination with a cup having a bead at the mouth thereof, of a detachable handle comprising a grip portion in the form of a loop, a downturned finger formed on the grip portion engaging within the mouth of the cup, a lug carried by the upper end of the grip portion adjacent the base of the finger and spaced therefrom, for engagement outwardly of the bead, and a vertically disposed resilient member carried by the lower end of the grip portion and extending upwardly under the bead, said resilient member being provided with a finger-piece for withdrawing the member from under the bead.

1,133,421. DEVICE FOR SCREENING GRAIN. GEORGE E. ASPINWALL and JOE TREWAY, Beaulieu, Minn. Filed July 28, 1914. Serial No. 853,648. (Cl. 130—15.)

1. In a threshing machine, a grain grader embodying an outer cylinder and an inner cylinder, the cylinders having coöperating perforations defining grading openings; means for holding both of the cylinders against rotation; a conveyer rotatable within the inner cylinder; and means for producing relative movement between the cylinders in the direction of the length of the cylinders to vary the size if the grading openings while the conveyer is rotating.

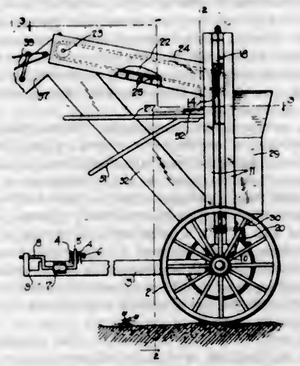
2. In a threshing machine, a frame; a grain grader held by the frame and including an outer cylinder and an inner cylinder, the cylinders having coöperating perforations defining grading openings; means for holding both cylinders against rotation; a conveyer movable within the inner cylinder and with respect to the inner cylinder; interengaging elements on the cylinders for holding the outer cylinder for right line movement on the inner cylinder and constituting a part of the means for holding the cylinders against rotation; a lever fulcrumed on the frame; an operative connection between the lever and the outer cylinder; a latch on the lever; and a frame supported segment with which the latch coöperates.



3. In a threshing machine, a grain grader embodying an outer cylinder and an inner cylinder, the cylinders having coöperating perforations defining grading openings; a conveyer movable within the inner cylinder and with respect to the inner cylinder; means for moving the outer cylinder longitudinally of the inner cylinder to vary the size of the grading openings; and interengaging elements on the cylinders for holding the outer cylinder against rotation on the inner cylinder and means for holding the inner cylinder against rotation.

4. In a threshing machine, a grain grader embodying an outer cylinder and an inner cylinder, the cylinders having coöperating perforations defining grading openings, the cylinders being provided with elongated slots; a grain chute entering the slots; a conveyer movable within the inner cylinder; means for imparting a right line movement to the outer cylinder to vary the size of the grading openings; interengaging elements on the cylinders for holding the outer cylinder for right line movement, thereby to maintain the perforations of the respective cylinders and the slots thereof respectively in alinement and means for holding the inner cylinder against rotation.

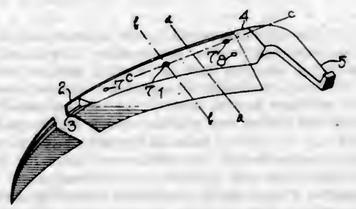
1,133,422. HARVESTER. SOLOMON V. BARNETT, Seymour, Tex., assignor of one-half to Gottlieb Gatzki, Seymour, Tex. Filed Feb. 26, 1914. Serial No. 821,240. (Cl. 56—131.)



1. A device of the character described comprising a wheeled frame including uprights, sliding blocks adjustably engaged with the uprights, a horizontal shaft rotatably supported by the blocks, side members secured to the blocks and projecting forwardly of the uprights, a second horizontal shaft supported by the outer extremities of the side members, an endless belt operatively engaged with the shaft of the blocks and the shaft of the side members, a cutting mechanism operatively supported by the blocks below the belt, the first named horizontal shaft having one extremity projecting beyond certain of the uprights, a vertical shaft operatively supported adjacent the last named uprights, a bearing for the shaft carried by the block, said bearing being capable of movement longitudinally of the shaft, a gear wheel keyed on the shaft above the bearing and capable of movement longitudinally of the shaft, a gear wheel carried by the projected extremity of the first named horizontal shaft positioned above the gear on the vertical shaft and in mesh therewith, and means for imparting axial rotation to the vertical shaft.

2. A device of the character described comprising a wheeled frame including uprights, sliding blocks adjustably engaged with the uprights, a horizontal shaft rotatably supported by the blocks, side members secured to the blocks and projecting forwardly of the uprights, a second horizontal shaft supported by the outer extremities of the side members, an endless belt operatively engaged with the shaft of the blocks and the shaft of the side members, a cutting mechanism operatively supported by the blocks below the belt, a vertical shaft operatively supported adjacent the uprights, means for imparting axial rotation to the vertical shaft, and an operative connection between the vertical shaft and the first named horizontal shaft, a portion of such means being capable of movement longitudinally of the shaft.

1,133,423. SCYTHE. MARCUS M. BARTLETT, Geneva, N. Y. Filed July 13, 1914. Serial No. 850,694. (Cl. 56—27.)

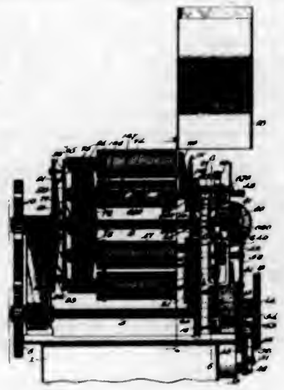


The herein described scythe comprising a blade formed with a back flange, and a groove having a flat bottom, and a combined tang and back support having an arm provided with a strengthening rib at its rear edge conforming in cross section with the groove in the blade, the two parts, namely the combined back and tang, and the blade secured together by rivets passing through the rib and the bottom of the groove, substantially as and for the purpose set forth.

1,133,424. CRIMPING-MACHINE FOR CARTONS. GEORGE W. BEADLE, Montclair, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed June 2, 1910. Serial No. 564,602. (Cl. 93—55.)

1. In a machine for crimping the ends of tubular bodies, the combination of a drive wheel; a shaft driven by said wheel; a gear carried by said shaft; a grooved crimping disk; a reciprocating shaft on which the same is mounted; a second gear carried by said reciprocating shaft; connections between said first and second gears, by which said disk may be rotated by said first named shaft; means carried by said reciprocating shaft for moving the same while said disk is being rotated; a mandrel for carrying said bodies into position to be acted upon by said crimping disk; and connections between said mandrel and drive wheel for operating said mandrel, substantially as described.

2. In a machine for crimping the ends of tubular cartons, the combination of a driving gear; a power shaft driven by said gear; a second gear carried by said shaft; a grooved crimping disk; a movable shaft on which said disk is mounted; a third gear carried by said movable shaft; gear connections between said second and third gears whereby said disk and movable shaft may be rotated from said power shaft; cam means carried by said movable shaft for reciprocating the latter while being rotated by said power shaft; a third shaft; a mandrel carried by said third shaft adapted to properly position said cartons for being acted upon by said crimping disk; and means comprising intermittent gears connecting said third shaft and said driving gear, substantially as described.



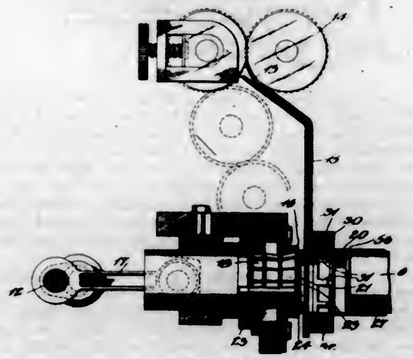
3. In a machine for crimping the ends of tubular cartons, the combination of a power shaft; a gear wheel on said shaft; a crimping disk; a rotating and reciprocating shaft on which said disk is mounted; a second gear carried by said last named shaft; gear connections between said first and last named gears by which said second shaft and disk may be rotated from said power shaft; a cam and coacting means carried by said second shaft for reciprocating said disk and second shaft during their rotary movements; a third shaft; a mandrel carried by said third shaft mounted for revolving therearound; and intermittent gear connections provided with interlocking curved surfaces between said power shaft and said third shaft by which said mandrel is caused to bring cartons located thereon to position to be acted upon by said crimping disk, substantially as described.

4. In a machine for crimping the ends of cartons, the combination of a power wheel provided with gear teeth at intervals around its circumference and with convex smooth surfaces between said gear teeth; a second power wheel provided with gear teeth at intervals around its circumference adapted to intermesh with said first mentioned teeth and with concave smooth surfaces between said teeth adapted to contact with said convex surfaces; a crimping means for said carton; a reciprocating and rotating shaft on which said crimping means is mounted; a gear and a cam carried by said shaft; a train of gears connected to said last named gear; a power shaft connected to said first mentioned power wheel for operating said train of gears and thereby reciprocating and rotating said crimping means; and a mandrel driven by said second power wheel for bringing said carton into position for being crimped, substantially as described.

5. In a machine for crimping the ends of cartons the combination of a power wheel provided with teeth at intervals around its circumference and with convex smooth surfaces between said gear teeth; a second power wheel provided with gear teeth at intervals around its circumference adapted to intermesh with said first mentioned teeth and with concave smooth surfaces between said teeth to contact with said convex surfaces; a crimping means for said carton; connections between said means and said first mentioned wheel for rotating said crimping means; gear connections between said first power wheel and said crimping means for forcing said crimping means against said carton; an expansible mandrel driven by said second wheel for bringing said carton into position for being crimped; and means also driven by said second wheel for expanding said mandrel, substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,133,425. MACHINE FOR CLOSING PAPER CARTONS. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Nov. 5, 1912. Serial No. 729,701. (Cl. 93—55.)



1. In a carton closing apparatus, the combination of a mandrel carrying the carton to be closed; means for supplying to said carton a closure of a slightly larger diameter than the interior of said carton; means for causing said closure to assume an inclined position as it enters said carton; and means of the same diameter as the interior of said carton for forcing said closure inside said carton, substantially as described.

2. In a carton closing apparatus, the combination of a mandrel carrying a carton to be closed; a paper supply; a reciprocating cutting plunger adapted to cut closures from said supply slightly larger than the interior of said carton; an expanding closing plunger located inside said cutting plunger adapted to move relatively thereto and to expand to the size of the interior of said carton, while forcing said closure into the latter; and means located inside said expanding plunger for causing said closure to assume an inclined position as it enters the carton mouth, substantially as described.

3. In a carton closing apparatus, the combination of a mandrel carrying a carton to be closed; a paper supply; a reciprocating cutting plunger adapted to cut closures from said supply slightly larger than the interior of said carton; an expanding closing plunger located inside said cutting plunger adapted to move relatively thereto and to expand to the size of the interior of said carton, while forcing said closure into the latter; a supporting ring adapted to move over the outside of the mouth of said carton; and a movable plunger adapted to cause said closure to assume an inclined position as it enters the carton mouth, substantially as described.

4. In a carton closing apparatus, the combination of means for cutting out a closure slightly larger than the carton to be closed; means for supporting the outer edge of the end of said carton; means for placing said closure in said end in an inclined position; and means of the same diameter as the interior of said carton for forcing said inclined closure to its final position, substantially as described.

5. In a carton closing apparatus, the combination of means for cutting out a closure slightly larger than the carton to be closed; means comprising a movable ring for supporting the outer edge of the end of said carton; means operated from said cutting means for moving said ring; means for placing said closure in said end in an inclined position; and means of the same diameter as the interior of said carton for forcing said inclined closure to its final position, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,133,426. MACHINE FOR CAPPING CARTONS. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Nov. 19, 1912. Serial No. 732,397. (Cl. 93—55.)



1. In a carton capping machine, the combination of a cutting plunger; a hollow forming plunger having an interior diameter equal to the exterior diameter of the carton body to be closed; an expansible mandrel carrying said carton body; means for causing a relative movement between said mandrel and forming plunger; and means for expanding said mandrel, substantially as described.

2. In a carton capping machine, the combination of a reciprocating cutting plunger; a reciprocating hollow forming plunger having an interior diameter equal to the exterior diameter of the carton body to be closed; an expansible mandrel carrying said carton body; means for causing a relative reciprocating movement between said mandrel and forming plunger; and reciprocating means for expanding said mandrel, substantially as described.

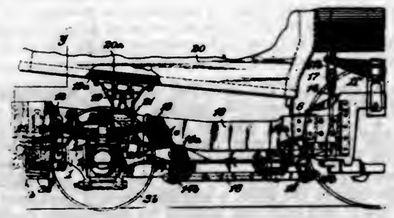
3. In a carton capping machine, the combination of a reciprocating cutting plunger; a reciprocating sleeve coacting with said plunger; a forming plunger adapted to form cap closures having exterior diameters of substantially the same dimensions as the exterior diameter of the carton body to be closed; and an expansible mandrel adapted to carry a carton coacting with said forming plunger, substantially as described.

4. In a carton capping machine, the combination of a reciprocating cutting plunger; a reciprocating sleeve coacting with said plunger; a hollow forming plunger adapted to form cap closures having exterior diameters of substantially the same dimensions as the exterior diameter of the carton body to be closed; an expansible mandrel adapted to carry a carton coacting with said forming plunger; and means to move said mandrel and carton into the hollow of said forming plunger, substantially as described.

5. In a carton capping machine, the combination of a reciprocating cutting plunger; a reciprocating sleeve coacting with said plunger; a forming plunger adapted to form cap closures having exterior diameters of substantially the same dimensions as the exterior diameter of the carton body to be closed; an expansible mandrel adapted to carry a carton coacting with said forming plunger; means on which said mandrel is pivoted for movement into and out of register with said forming plunger; and means for moving said mandrel toward said forming plunger when said mandrel and plunger are in register, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,133,427. LOCOMOTIVE TRAILING TRUCK. JAMES G. BLUNT, Schenectady, N. Y. Filed Dec. 30, 1914. Serial No. 879,679. (Cl. 105—226.)



1. In a locomotive engine, the combination of a main frame, a radial truck pivoted thereto, and an equalizing system interposed between the supporting wheels of the main and truck frames and comprising connected bell cranks journaled on the truck frame, and subjected, respectively, to the weight on the supporting wheels of the main frame and of the truck frame.

2. In a locomotive engine, the combination of a main frame, a radial truck pivoted thereto, and an equalizing system interposed between the supporting wheels of the main and truck frames and comprising connected bell cranks journaled on the truck frame and subjected, respectively, to the weight on the supporting wheels of the main frame, applied in advance and on opposite sides of the pivot of the truck, and to the weight on the truck wheels, applied adjacent thereto.

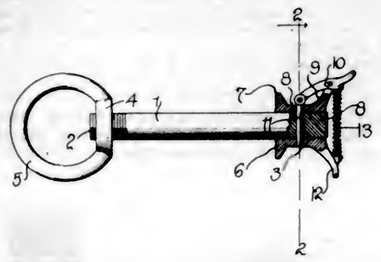
3. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a radial truck pivoted to the main frame, truck wheels journaled in bearings therein, springs transmitting weight from the main frame to the driving wheels, springs transmitting weight from the frame of the truck to its wheels, a pair of bell cranks journaled on the truck frame and coupled to the truck springs, a pair of bell cranks journaled on said frame and coupled to the driving wheel springs, and links connecting one bell crank of each pair to the adjacent bell crank of the other pair.

4. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a radial truck pivoted to the main frame, truck wheels journaled in bearings therein, springs transmitting weight from the main frame to the driving wheels, springs transmitting weight from the frame of the truck to its wheels, a pair of bell cranks journaled on the truck frame and coupled to the truck springs, a pair of bell cranks journaled on said frame and coupled to the driving wheel springs, links connecting one bell crank of each pair to the adjacent bell crank of the other pair, and means for varying the leverage of the bell cranks by adjustment of said links thereon.

5. In a locomotive engine, the combination of a main frame, driving wheels journaled in bearings therein, a boiler supported on the main frame and having its firebox back of the rear driving wheels, a radial truck pivoted to the main frame, brackets secured to the mud ring of the firebox, bearings on the truck frame, and cylindrical members through which weight is transmitted from said brackets to said bearings.

[Claims 6 to 18 not printed in the Gazette.]

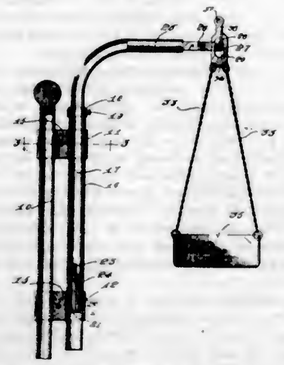
1,133,428. DETACHABLE HEAD FOR CONNECTING ROD OR BOLTS. WARD CALDWELL, Dekalb county, near Leland, Ill. Filed Sept. 5, 1914. Serial No. 860,423. (Cl. 85—9.)



1. A device of the character described comprising a body having a transverse opening therein adjacent one end, a hollow head slidably mounted on the body and through which the body passes and having an opening therein adapted to register with the opening of the body, a lever pivotally mounted upon the body intermediate of the ends of the lever, a plunger pivotally connected at one end to said lever and adapted for engagement through the registering openings and a spring engaging the lever at the end opposite the plunger and normally urging said plunger into the hollow head, the end of the lever engaged by said spring being prolonged beyond the head and providing a finger piece.

2. A device of the character described comprising a cylindrical body having a transverse opening therein adjacent one end, a hollow head slidably mounted on the body, said head having an opening therein adapted to register with the opening in the body, an arm extending radially from said head at one end thereof, a lever pivotally connected intermediate of its ends to said arm, a plunger pivotally connected to one end of said lever and adapted for engagement through the registering openings, a finger hook extending longitudinally from the body at a point diametrically opposite said arm, and an expansion spring disposed between said finger hook and the other end of the lever to normally force said plunger inwardly of the head.

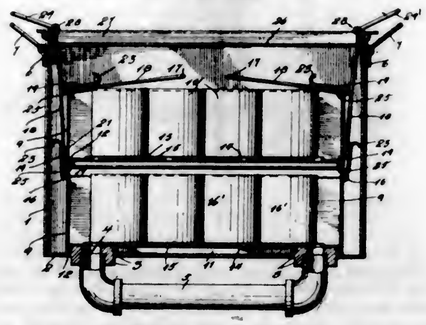
1,133,429. SWINGING CRADLE. PETER CHRISTENSEN, Kingsville, Tex. Filed May 1, 1913. Serial No. 764,855. (Cl. 5—59.)



1. In a device of the class described the combination with a supporting crane, a stem carried by the upper outer end of said crane, said stem terminating in a horizontal hook-shaped outer end, a cone-shaped bearing lug formed upon said hook-shaped outer end, a link pivoted upon said cone-shaped bearing lug, said link adapted to support a cradle, and a strip engaging the body portion of said stem and the end portion of said hook-shaped outer end, whereby said link will be held against accidental displacement.

2. In a device of the class described, the combination of a supporting crane, a stem secured to said supporting crane, and terminating in a horizontal hook-shaped outer end, a cone-shaped bearing lug formed upon said hook-shaped outer end, of a link, said link comprising a body having an opening, said body having a notch communicating with said opening, said hook-shaped outer end of said stem positioned through said opening so as to allow the upper portion of said bearing lug to rest within said notch of said body, said body having an upwardly extending neck terminating in an eye, said eye adapted to carry a cord whereby the link may be rocked upon said bearing lug, and laterally extending flanges formed upon the lower portion of said body whereby securing means may be attached thereto for supporting a cradle, said link being adapted to swing a cradle as the link is being rocked upon said bearing lug.

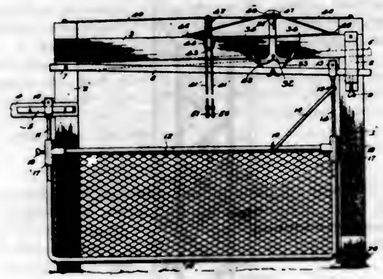
1,133,430. CANNING APPARATUS. STEPHEN J. COCHRAN, Hot Springs, Ark., assignor to Hamp Williams Hardware Company, Hot Springs, Ark. Filed July 13, 1914. Serial No. 850,784. (Cl. 126—346.)



1. A device of the class described comprising a tray, bails pivotally secured to said tray, supporting plates carried by said bails, said supporting plates provided with outwardly bent longitudinally extending lips, said lips being adapted to fit upon the upper portion of the boiler, the lower portions of said plates being provided with an inwardly extending integral shelf, said shelves and bails being adapted to support an upper tray thereon at a spaced distance above the upper portion of the lower tray whereby sufficient space will be provided for the free circulation of water within the boiler.

2. A device of the class described comprising a tray, said tray provided with a plurality of walls, a pair of said walls extending for a spaced distance above the remaining walls and terminating in rolled sleeves, bails pivotally secured within said sleeves and provided with converging side portions, plates positioned between the side portions of said bails, said plates comprising bodies having integral rolled tongues extending therefrom and engaging the side portions of said bails whereby said plates will be fixedly secured to said bails, each plate provided with a longitudinally extending outwardly bent lip extending between said converging sides of said bails, said sleeves being adapted to fit upon the upper portions of a boiler for supporting the tray for allowing free access thereto, the lower portion of each plate being provided with an inwardly extending integral shelf, said bails being adapted to be swung slightly inwardly whereby the shelves may support a second tray above the first tray at a spaced distance above the side portions of the tray for allowing the free circulation of water within the tray.

1,133,431. GATE-OPERATING DEVICE. FRED H. DOERING, Florence, Colo., assignor of one-half to Viola J. Davis, Florence, Colo. Filed Aug. 14, 1913. Serial No. 784,821. (Cl. 30—30.)



1. The combination with a tilting track, and a gate having a wheel rolling thereon, of a track lifter comprising a normally upright stem having a head at its upper end and laterally projecting arms at its lower end, a beam to which the lifter is pivoted at substantially the juncture of its arms with said stem, connections between the outer ends of said arms and the track, stop pins projecting outwardly from one side of said beam, said pins being located on substantially opposite sides of the lifter pivot and being designed to limit the movement of the lifter when either of said connections has passed the pivot thereof, and actuating elements connected to said head whereby to operate said lifter.

2. The combination with a tilting track, and a gate having a wheel rolling thereon; of a track lifter comprising a normally upright stem having a head at its upper end and laterally projecting arms at its lower end, a beam to which the lifter is pivoted at the juncture of its arms with said stem, connections between the outer ends of said arms and the track, said connections being attached to the later at a point directly below the pivot of the lifter, and actuating mechanism connected with the head and leading to a remote point for swinging said lifter aside and for restoring it to normal position, each of said arms being adapted to be swung past dead center to retain said track in raised position.

3. The combination with a tilting track, and a gate having a wheel rolling thereon; of a track lifter comprising a normally upright stem having a grooved head at its upper end and laterally projecting arms at its lower end, a beam to which the lifter is pivoted at the juncture of its arms with said stem, means connecting the outer ends of said arms with the track, guides carried by said beam at opposite sides of the lifter, and two cords leading from remote points through said guides and in opposite directions over said head and attached to the far ends thereof.

4. The combination with a tilting track section, a latch post having a loop in which the free end of said section moves, a second post to which the other end of said section is pivoted, an overhead beam connecting said posts, and a gate having a wheel traveling on said section; of an anchor-shaped lifter pivoted at the juncture of its stem with its arm to said beam, connections between the outer ends of said arm and the track section, and actuating mechanism connected with the head of the anchor and led in opposite directions from said overhead beam to remote points, for the purpose set forth.

5. The combination with a tilting track section, a latch post having a loop in which the free end of said section moves, a set screw passing upward through the lower end of said loop, a second post to which the other end of said section is pivoted, an overhead beam connecting said posts, and a gate having a wheel traveling on said section; of an anchor-shaped lifter pivoted at the juncture of its stem with its arm to said beam, flexible connections between the outer ends of said arm and the track section, and actuating mechanism leading to remote points for turning said lifter aside on its pivot and for restoring it to normal upright position, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,133,432. PRIMER AND VARNISH AND PROCESS OF PREPARING SAME. ARMIN EICHLER, New York, N. Y. Filed Sept. 12, 1913. Serial No. 789,529. (Cl. 134—26.)

1. The process of producing a primer and varnish consisting in melting polymerization products of cumarone, incorporating therein a liquid hydrocarbon solvent while continuing to apply heat, and allowing the resulting uniform product to cool.

2. The process of producing a primer and varnish consisting in heating polymerized cumarone to about 160° C. to liquefy the same, incorporating therein a liquid hydrocarbon solvent while continuing to apply heat, and allowing the resulting uniform product to cool.

3. The process of producing a primer and varnish consisting in melting polymerization products of cumarone, incorporating therein a liquid terpene while continuing to apply heat, and allowing the resulting uniform product to cool.

4. The process of producing a primer and varnish consisting in heating polymerized cumarone to about 160° C. to liquefy the same, incorporating therein spirits of turpentine, and allowing the resulting products to cool.

5. As a new article of manufacture a primer and varnish composed of polymerization products of cumarone and liquid hydrocarbon solvents.

[Claim 6 not printed in the Gazette.]

1,133,433. PAINT AND VARNISH. ARMIN EICHLER, New York, N. Y. Filed Apr. 11, 1914. Serial No. 831,211. (Cl. 134—26.)

1. A paint or varnish comprising the polymerization products of the cumarone and indene group and linseed oil.

2. A paint or varnish comprising the polymerization products of the cumarone and indene group, linseed oil and a volatile solvent.

1,133,434. ARTIFICIAL TOOTH AND PROCESS OF MAKING SAME. BYRON E. ELDRED, Bronxville, N. Y. Filed June 23, 1909. Serial No. 503,888. (Cl. 32—9.)

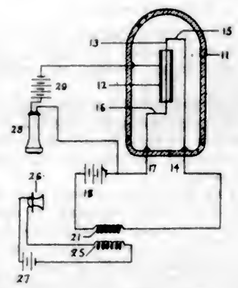


1. The process of making an artificial tooth provided with a cored compound metal anchor element with a core of corrodible metal which comprises placing said anchor element in position, covering the exposed portions of the core with a protective layer of inert mineral matter, molding a tooth plastic about the anchor element and firing the molded tooth.

2. The process of making an artificial tooth provided with a cored compound metal anchor element with a core of corrodible metal which comprises covering the exposed portions of the core with a protective layer comprising alumina, molding a tooth plastic about the anchor element and firing the molded tooth.

3. As a new article of manufacture, an artificial tooth comprising a body of fired ceramic material free of undesirable discolorations and deformations, and a compound metal pin inset in said ceramic material prior to firing and locked in place thereby, said pin comprising a noble metal sheath and a strong metal core, and the inset end of said core being spaced away from said ceramic material by inert material.

1,133,435. METHOD OF AND APPARATUS FOR REPRODUCING IMPULSES. REGINALD A. FESSENDEN, Brookline, Mass. Filed Feb. 9, 1914. Serial No. 817,453. (Cl. 179—171.)



1. The method of reproducing impulses which consists in heating the cathode of a vacuum tube, thereby establishing an electrical current in a circuit which includes the electrodes of said tube and an electroresponsive device, varying the temperature of said cathode by means of the impulses to be reproduced, thereby creating variations in the current established in said circuit, and causing said current variations to actuate said electroresponsive device, thereby reproducing said impulses.

2. In a device for reproducing impulses, a vacuum tube, a tubular anode therein, a cathode located within said anode, electrical means for heating said cathode, impulse-actuated means for varying the temperature of said cathode, a circuit including said anode and cathode, and a device in said circuit responsive to the changes of current resulting from such temperature variations.

3. In a device for reproducing impulses, a vacuum tube, a tubular anode, a cathode located within said anode, means for varying the temperature of said cathode in accordance with the impulses to be reproduced, a circuit including said anode and cathode, and a device and source of electrical energy associated with said circuit responsive to the changes of current resulting from such temperature variations.

4. In a device for reproducing impulses, a vacuum tube, a tubular anode therein, a cathode located within said anode, said cathode having small heat capacity, electrical means for heating said cathode, a circuit including said anode and cathode, impulse-actuated means for varying the temperature of said cathode and a device in said circuit responsive to the changes of current resulting from such temperature variations.

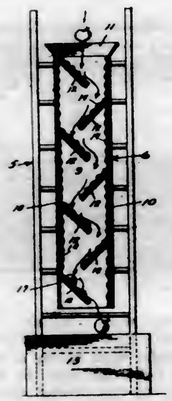
5. In a device for reproducing impulses, a vacuum tube, a tubular anode, a cathode located within said anode, said cathode having small heat capacity, means for varying the temperature of said cathode in accordance with the impulses to be reproduced, a circuit including said anode and cathode and a device responsive to the changes of current resulting from such temperature variations and a source of electrical energy associated with said circuit.

[Claim 6 not printed in the Gazette.]

1,133,436. FRUIT-PICKER CONVEYER. OSCAR C. GRAMLING, Madison, Fla. Filed July 7, 1914. Serial No. 849,590. (Cl. 56—99.)

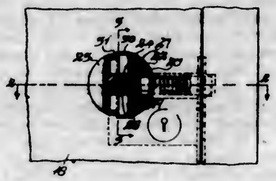
1. In combination with a ladder, a casing open at its top and bottom, a plurality of inclined check plates within said casing, the interior of said casing and the tops of said plates being padded, and a bell disposed upon one inclined plate and adapted to be struck by fruit passing from the preceding plate.

2. In combination with a ladder, a fruit conveyer comprising a casing open at its top and bottom and provided with openings in its front wall, doors for closing said openings in said wall, a plurality of inclined plates within said casing, said plates and the interior of said



casing being padded, and an audible signal within said casing and operated by the passage of fruit.

1,133,437. DOOR-LATCH. HENRY A. HOLT, Wilton, N. H. Filed May 20, 1914. Serial No. 839,731. (Cl. 70—42.)



1. A door latch comprising a hollow shank adapted to be rigidly attached to a door, a telescopic knob, composed of a fixed head provided with outer and inner fixed guide members on said shank, and a movable head provided with complemental inner and outer movable guide members, slidingly engaged with said fixed guide members, a bolt, a bolt-projecting spring, and connections between the bolt and the movable head whereby the knob is expanded when the bolts is projected, the bolt being retractable by the contraction of the knob.

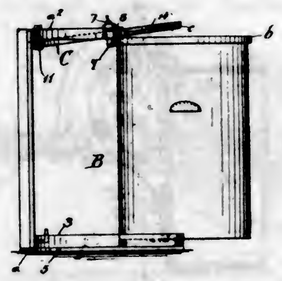
2. A door latch comprising a hollow shank adapted to be rigidly attached to a door, a telescopic knob, composed of a fixed head on said shank, provided with a guiding flange and with a guiding recess, and a movable head slidingly engaged with the fixed head and provided with a face formed to slide on the inner surface of said guiding flange, and with an ear which is movable in and guided by said recess, a bolt, a bolt-projecting spring, and a lever fulcrumed in said shank and engaged with the said ear and with the bolt to hold the knob expanded when the bolt is projected, and to retract the bolt when the knob is contracted.

3. A door latch comprising a hollow shank adapted to be rigidly attached to a door, a telescopic knob, composed of a fixed head on said shank, provided with a recess, and a movable head slidingly engaged with the fixed member and provided with an ear which is movable in said recess, a bolt, a bolt-projecting spring, and means carried by the shank for locking said lever in its normal position to prevent the retraction of the bolt.

4. A door latch comprising a hollow shank adapted to be rigidly attached to a door, a telescopic knob, composed of a fixed head on said shank, provided with a recess, and a movable head slidingly engaged with the fixed head and provided with an ear which is movable in said recess, a bolt, a bolt-projecting spring, and a stud journaled in said shank and provided within the shank with a locking arm adapted to engage said lever, and with an external handle.

5. A door latch comprising a casing having a slot, a bevel-faced bolt movable in the casing and having a pin movable in said slot, a bolt-projecting spring bearing on said pin, the pin being removable to permit the bolt to be adjusted for a right or a left hand door, and means for retracting the bolt.

1,133,438. GARBAGE-RECEPTACLE AND STAND THEREFOR. WILLIAM T. HOOFNAGLE, Glen Ridge, N. J., assignor to Climax Refuse Container Corporation, of State of New York. Filed June 11, 1912. Serial No. 703,087. (Cl. 220—115.)



1. The combination with a base adapted to support a refuse can in sliding engagement therewith and cover supporting means, of a cover connected to the supporting means so as to extend over the base with its lower side downward when the can is removed from the base, the connections between said cover and supporting means constructed to permit the cover to be moved bodily upward with respect to said means, the lower side of said cover being adapted to make a butt joint with the rim of a can, and a can slidably mounted on the base and adapted, when on the base, to support the cover.

2. The combination with a base adapted to support a refuse can in sliding engagement therewith and cover supporting means, of a cover connected to the supporting means so as to extend over the base with its lower side downward when the can is removed from the base, the connections between said cover and supporting means constructed to permit the cover to be moved bodily upward with respect to said means, the lower side of said cover being adapted to make a butt joint with the rim of a can, and said cover having a door, and a can slidably mounted on the base and adapted, when on the base, to support the cover.

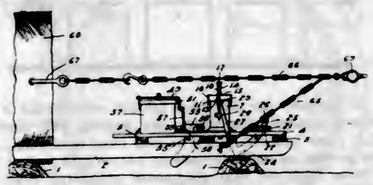
3. The combination with a base adapted to support a refuse can in sliding engagement therewith, and a can slidably mounted on the base, of a cover adapted to make a butt joint with the can, supporting means for the cover adapted to support the latter, when the can is removed from the base, at a distance from the base less than the height of the can, said cover being movable bodily upward with respect to the base and to its points of support on said supporting means.

4. The combination with a refuse can and a base adapted to support the can and to permit the latter to slide onto and off of the base, of a cover adapted to make a butt joint with the can, supporting means for the cover adapted to support the latter at its opposite edges and with its lower side downward, when the can is removed from the base, at a distance from the base less than the height of the can, said cover being movable bodily upward with respect to the base and to its points of support on said supporting means.

5. The combination with a base adapted to support a refuse can, and cover-supporting means, of a cover pivotally connected at opposite edges to said means and movable bodily upward with respect to the base, and to its points of support on said supporting means, the lower side of said cover adapted to make a butt joint with the rim of a can and a can adapted, when on the base, to support the cover above the aforesaid points of support.

[Claims 6 to 14 not printed in the Gazette.]

1,133,439. MEANS FOR OILING SKIDS. FREDERICK WM. KOLB, La Conner, Wash. Filed June 20, 1914. Serial No. 846,411. (Cl. 184—3.)



1. A device for oiling the skids of skidways including a supporting frame, means mounted on the supporting frame for applying oil to each successive skid as the device is drawn over the skidway, and means for regulating the quantity of oil applied to each skid.

2. A device for oiling the skids of skidways including a supporting frame, an oil pump mounted upon the frame, and actuating means carried by the frame and normally disposed in the path of the skids, the actuating means being adapted for engagement with each successive skid as the device is moved along the skidway, to operate the pump and apply a quantity of oil to each skid.

3. A device for oiling the skids of skidways including a supporting frame, an oil pump mounted upon the frame, pump actuating means carried by the platform and normally disposed in the path of the skids, the actuating means being adapted for engagement with each successive skid as the device is moved along the skidway, to operate the pump and apply a quantity of oil to each skid, and means for regulating the quantity of oil applied to each skid.

4. A device for oiling the skids of skidways, including a carriage adapted to travel over the skidway, and oil container mounted upon the carriage and having a downwardly discharging nozzle, a tubular casing extending upward from said nozzle having openings at its lower end, affording communication between the container and the interior of said casing, a plunger movable within the casing, and a lever pivoted to the carriage, depending below the same and adapted to be engaged by successive skids, said lever being operatively connected to said plunger.

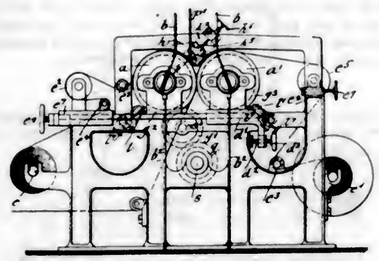
5. A device for oiling the skids of skidways, including a carriage adapted to travel over the skids, an oil container mounted upon the carriage and having a downwardly discharging nozzle, a lever pivotally mounted upon the carriage and depending below the same adapted to be engaged by successive skids, means for controlling the discharge of oil through said nozzle, means operatively connecting the lever to said controlling means, and means for adjusting the pivotal point of said lever.

[Claims 6 to 8 not printed in the Gazette.]

1,133,440. MACHINE FOR DOUBLING FABRICS. ALBERT LEISEL, Newburgh, N. Y. Filed Apr. 17, 1912. Serial No. 691,273. (Cl. 154—37.)

1. A machine for doubling fabrics, comprising a pair of rotary heated rolls, means for guiding two layers of fabrics from opposite sides to and over said rolls, abutments located at opposite ends of one of said heated

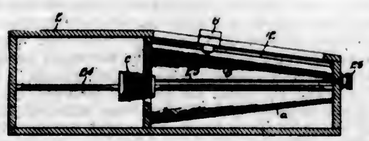
rolls, the lower ends of said abutments extending into close proximity with said roll, a doctor between the abutments, an adjustable guide-block supporting the abutments and doctor, and a steam-pipe extending along the lower end of said guide-block in close proximity to the lower end of the doctor.



2. A machine for doubling fabrics, comprising a pair of rotary heated rolls, means for guiding two layers of fabrics from opposite sides to and over said rolls, abutments located at opposite ends of one of said heated rolls, the lower ends of said abutments extending into close proximity to said roll, a doctor between said abutments, an adjustable guide-block supporting said doctor and said abutments, a steam-pipe extending along the lower end of said guide-block in close proximity to the lower end of the doctor, and means for adjusting the guide-block and abutments relatively to the fabric on the heated roll.

3. A machine for doubling fabrics, comprising a pair of rotary heated rolls, means for guiding two layers of fabric from opposite sides to and over said rolls, abutments located at opposite ends of said heated rolls, the lower arc-shaped ends of said abutments extending into close proximity with said roll, a doctor between the abutments extending over said roll an adjustable guide-block supporting said doctor and abutments a steam-pipe extending along the lower end of said guide blocks, supporting-plates for said block, means for adjusting the doctor and guide-block relatively to said heated roll, and a steam-pipe located in a recess of the lower end of the guide-block in close proximity to said doctor.

1,133,441. INDUCTANCE DEVICE FOR WIRELESS ELECTRICAL SIGNALING. CHARLEY O. LORENZ, Port Arthur, Tex. Filed Nov. 7, 1910. Serial No. 591,130. (Cl. 171—119.)



1. In a system of high frequency electrical signaling, an induction device having a primary coil tapering in diameter gradually from one end to the other, and a contact device for each end of said coil adapted to connect the windings of said coil in circuit; said contact devices being independently movable for selectively cutting in and out convolutions of varying length.

2. In a system of high frequency electrical signaling, an induction device comprising primary and secondary coils, each having convolutions at one end smaller than those at the other end, means for axially adjusting one of said coils relatively to the other, and independently movable contact devices having electrical connections which adapt them to cut in and cut of circuit, respectively, large and small convolutions of the primary coil.

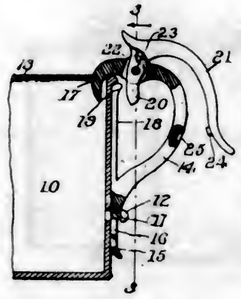
3. In a wireless telegraph system, a set of conical primary coils, a set of conical secondary coils telescopically arranged relative to the primary coils, and means for adjusting the relative positions of said coils.

4. A receiver for electro-magnetic waves comprising cone-shaped primary and secondary coils, means for adjusting the secondary coils relative to the primary coils and means for varying the inductive turns of one of the secondary coils.

5. A receiver for electro-magnetic waves, comprising a conical primary coil, a conical secondary coil wound in sections, and telescoping said primary coil, and a variable switch coöperating with the secondary coil, whereby the number of active sections may be varied.

[Claims 6 to 9 not printed in the Gazette.]

1,133,442. UTENSIL-LIFTER. JOSEPH MARCINKOWSKI, Chicago, Ill. Filed May 15, 1914. Serial No. 838,765. (Cl. 65—13.)



1. In combination with a utensil having a projecting headed lug thereon, a handle, an extension upon said handle provided with a key-hole slot adapted to receive said lug for seating said handle thereon, a projecting hook upon said handle, a resilient finger upon said handle having its free end slightly removed from said hook and adapted for the reception of the utensil rim between said finger end and hook and means for manually engaging said finger and hook upon said rim.

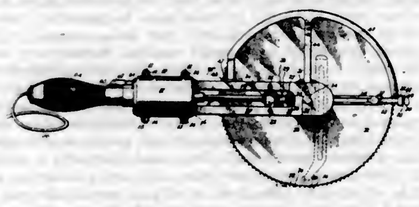
2. A device of the class described comprising a curved handle having a slot through one portion thereof, a projecting hook and a resilient finger upon said handle having their free ends slightly spaced apart and adapted for the reception of a utensil portion therebetween, a pivoted lever extending through said slot and having its free end adapted for engagement with said finger, and a curved operating arm secured to the outer end of said lever.

3. A device of the class described comprising a curved handle having a slot through one portion thereof, a projecting hook and a resilient finger upon said handle having their free ends slightly spaced apart and adapted for the reception of a utensil portion therebetween, a pivoted lever extending through said slot and having its free end adapted for engagement with said finger, a curved operating arm secured to the outer end of said lever, and a projection upon the inner face of said arm, said handle having a socket on its outer face adapted for the seating reception of said projection therein with said arm flatly engaging said handle when the device is in its operative lifting position.

4. A device of the class described comprising a curved handle having a slot through one portion thereof, a projecting hook and a resilient finger upon said handle having their free ends slightly spaced apart and adapted for the reception of a utensil portion therebetween, a pivoted lever extending through said slot and having its free end adapted for engagement with said finger, a curved operating arm secured to the outer end of said lever, said handle having an extension in substantial alinement with said finger, a utensil, and a headed lug projecting outwardly from said utensil, said extension provided with a key-hole slot adapted for receiving said handle thereon.

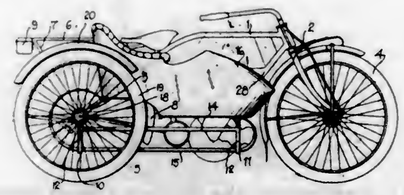
5. A device of the class described comprising a curved handle having a slot through one portion thereof, a projecting hook and a resilient finger upon said handle having their free ends slightly spaced apart and adapted for the reception of a utensil portion therebetween, a pivoted lever extending through said slot and having its free end adapted for engagement with said finger, a curved operating arm secured to the outer end of said lever, a projection upon the inner face of said arm, said handle having a socket on its outer face adapted for the seating reception of said projection therein with said arm flatly engaging said handle when the device is in its operative lifting position, said handle having an extension in substantial alinement with said finger, a utensil, and a headed lug projecting outwardly from said utensil, said extension provided with a key-hole slot adapted for receiving said handle thereon.

1,133,443. PORTABLE CIRCULAR HANDSAW. LOUIE HYPOLITE MARTIN, Augusta, Me. Filed Nov. 14, 1913. Serial No. 800,987. (Cl. 143—43.)



In a portable circular hand saw, a frame, a stud journaled in the frame, a saw mounted on the stud for rotating therewith, a saw guard disposed over the saw, means for detachably securing one end of the saw guard to the frame, there being a guideway in the frame, a guide member for moving in the guideway, a flange on the other end of the saw guard, and means for detachably securing the flange to the guide member.

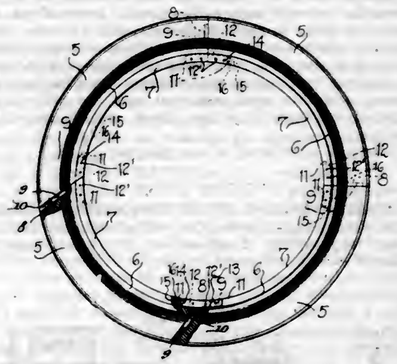
1,133,444. VEHICLE. FELIX E. MESSIER and ADDALORE S. MESSIER, Springfield, Mass. Filed Aug. 1, 1914. Serial No. 854,537. (Cl. 208—45.)



1. In combination with a cycle, a vehicle comprising spaced transverse frames substantially U-shape in form, longitudinally disposed bars connecting the stems of said frames, a transverse bar connecting the stems of one of the transverse frames and projecting beyond one side thereof, the projected portion of the bar serving as a mounting for a wheel, a body, means coacting with the body and the transverse frames for supporting the body, and means carried by the inner stems of the transverse frames engageable with the cycle.

2. In combination with a cycle, a vehicle comprising spaced transverse frames substantially U-shape in form, longitudinally disposed bars connecting the stems of said frames, a transverse bar connecting the stems of one of the transverse frames and projecting beyond one side thereof, the projected portion of the bar serving as a mounting for a wheel, a body, means coacting with the body and the transverse frames for supporting the body, and brackets projecting laterally from the inner stems of the transverse frames, each of said brackets being provided with securing means.

1,133,445. COLLAPSIBLE CORE. GEORGE H. NAYLOR, Trenton, N. J., assignor to Fred R. Parker, Trenton, N. J. Filed Mar. 4, 1914. Serial No. 822,452. (Cl. 18—45.)



A collapsible core for tires comprising a plurality of segmental sections adapted to form a ring when the opposite ends of each section are engaged against the ends of adjoining sections, each section being provided with a flange upon its inner edge to project from the tire while the same is being molded upon the core, the inner face of each flange at its opposite ends being formed with slots, the slots of adjoining sections registering when the core is in a position for use, the walls of said slots having tapered openings formed therein, locking plates having openings therein disposed within the registering slots, said openings in the locking plates registering with the tapered openings in the walls of the slots, and tapered pins adapted for engagement through the registering openings to detachably secure said plates in position.

1,133,446. PROCESS FOR MANUFACTURING A SUBSTANCE FOR PURIFYING WASTE WATER AND FOR DRAINING SLUDGE. FELIX RICHTER, Frankfort-on-the-Main, Germany. Filed June 3, 1912. Serial No. 701,324. (Cl. 23—13.)

1. The process of treating silicates for the manufacture of purifying-agents, which consists in calcining and then reacting thereon with sulfuric and hydrochloric acids in presence of limited proportions of water, and regulating the temperature so as to obtain substantially all of the silicate in the hydrated or water-soluble form.

2. The process of treating silicates for the manufacture of purifying-agents, which consists in calcining the silicate with exclusion of air, reacting on the calcined product with sulfuric acid in presence of limited proportions of water, and regulating the temperature so as to obtain substantially all of the silicate in the hydrated or water-soluble form.

3. The process of treating silicates for the manufacture of purifying-agents, which consists in calcining the silicate with exclusion of air, reacting on the calcined product with sulfuric and hydrochloric acids in presence of limited proportions of water, and regulating the temperature so as to obtain substantially all of the silicate in the hydrated or water-soluble form.

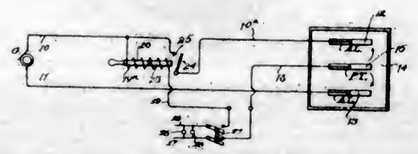
4. A process for manufacturing a substance for purifying waste water, consisting therein that mineral silicic acid compounds, such as silicates of aluminium are calcined

with exclusion of air and thereafter treated with acid and with water in such limited quantity that the silicic acid is converted into gelatinous form or a form soluble in water, and prevented from being precipitated in the form of sand, the acid and the water being added to the mineral in succession so that the whole quantity of acid is added at first and then the water in such limited quantity as to produce such an increase of temperature that the material solidifies during cooling, the solid purifying material being ground to powder if desired.

5. A process for manufacturing a substance for purifying waste water, consisting therein that mineral silicic acid compounds are calcined with exclusion of air and thereafter treated with sulfuric acid, hydrochloric acid and with water in such limited quantity that the silicic acid is converted into gelatinous form or a form soluble in water and prevented from being precipitated in the form of sand the hydrochloric acid addition being limited to an amount which is small compared with the sulfuric acid addition and made after the sulfuric acid reaction is finished.

[Claim 6 not printed in the Gazette.]

1,133,447. CURRENT-RECTIFYING SYSTEM. CHARLES W. SIRCH, Los Angeles, Cal. Filed Jan. 16, 1907, Serial No. 352,492. Renewed Oct. 10, 1907. Serial No. 396,774. (Cl. 171—253.)



In a rectifying system of the class described the combination of an alternating current source, conductors leading from said source, an electrolytic device connected with said conductors, a unidirectional current translating circuit connected with one of said conductors and with the electrolytic device, said electrolytic device acting to allow the pulsations of only one polarity to flow through the translating circuit, a choke coil causing a charge in the translating circuit from the alternating current source and permitting the discharge of the electrolytic device through the translating circuit after each cessation of current flow from the alternating current source, a contact and an armature actuated by said choke coil, the inductance of the choke coil and the capacity of the electrolytic device being so related to each other that the combined effect on the resultant flow of current through the translating circuit is a complete filling in of direct-current flow between the effective impulses of current from the alternating current source through the translating circuit.

1,133,448. CIRCUIT-CLOSING DEVICE. JOHN W. SMITH, Youngstown, Ohio. Filed Aug. 31, 1914. Serial No. 859,318. (Cl. 177—10.)



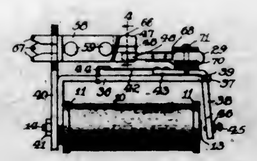
1. A circuit closer of the character described, comprising an apertured base plate having a resilient tongue projected into the aperture thereof and having a slot opening outward therethrough from said aperture, a metal strip lying within said slot and insulated from said plate, said tongue having its free end overlying and normally out of contact with said strip, said plate and said strip being adapted for having circuit terminals attached thereto.

2. A circuit closer of the character described, comprising an apertured base plate having a resilient tongue projected into the aperture thereof and having a slot opening outward therethrough from said aperture, a strip of insulating material mounted on said plate in bridging relation to said slot, a strip of metal supported by said insulating strip and extending through said slot into said aperture, the inner end of said strip and the free end of said tongue being disposed in superposed relation and normally out of contact, one with the other, the uppermost thereof being adapted to be pressed down into contact with the other, and means for attaching circuit terminals to said plate and to said metal strip.

3. A circuit closer of the character described, comprising an apertured base plate having a resilient tongue projected into the aperture thereof and having a slot opening outward therethrough from said aperture, a bridge of insulating material overlying said slot and having its ends attached to said plate, a strip of metal attached to said bridge and lying in said slot, the inner end of said strip being disposed in underlying relation to said tongue, said tongue being upwardly inclined so as to normally remain out of contact with said strip and being adapted to be sprung downward by pressure applied thereto into contact with said strip, said plate and said strip being adapted for having circuit terminals attached thereto.

4. A circuit closer of the character described, comprising an apertured base plate having a resilient tongue projected into the aperture thereof and having a slot opening outward therethrough from said aperture, a bridge of insulating material overlying said slot and having its ends attached to said plate, a strip of metal attached to said bridge and lying in said slot, the inner end of said strip being disposed in underlying relation to said tongue, said tongue being upwardly inclined so as to normally remain out of contact with said strip and being adapted to be sprung downward by pressure applied thereto into contact with said strip, and struck-up tongues formed on said plate and on said strip adapted for receiving circuit terminals thereunder.

1,133,449. MULTICONTACT RELAY. HARRY G. WEBSTER, Chicago, Ill. Original application filed Apr. 11, 1912, Serial No. 690,148. Divided and this application filed Nov. 6, 1914. Serial No. 870,613. (Cl. 175—325.)



1. A multi-contact relay comprising a magnet structure, an armature actuated thereby, an insulating mounting rigidly related to said magnet structure, a series of relatively rigid contact members carried at one end by said mounting and projecting therefrom side by side forming a bank, and a series of relatively flexible contact members movable in planes intersecting the plane of said bank actuated responsive to movement of said armature to make wiping electrical engagement with the projecting portions of certain of said rigid contact members.

2. A multi-contact relay comprising an insulating mounting, a series of relatively rigid contact members supported by said mounting and projecting therefrom side by side forming a bank, an armature, a magnet structure to actuate said armature presenting opposite polar extremities thereto, and a series of relatively flexible wiping contact members movable in planes intersecting the plane of said bank and actuated responsive to movement of said armature to electrically engage the projecting portions of certain of said rigid contact members.

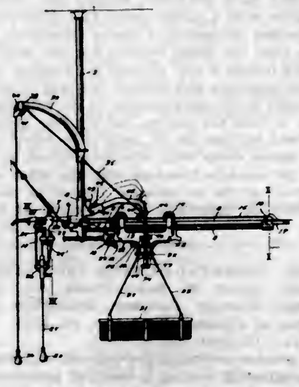
3. A relay structure comprising an electro-magnet, an angle frame, an angular armature actuated by said electro-magnet fulcrumed on said frame and having an extension lying in close proximity thereto, a series of contact springs secured to the rear end of said frame and projecting forward toward said armature extension said contact springs being arranged side by side in a plane parallel to said electro-magnet, and a series of flexible wiping contact pieces carried by said armature extension and movable under the action of said armature into and out of engagement with certain of said contact members.

4. A multi-contact relay comprising an electro-magnet and a frame, an insulating mounting rigidly related thereto, a series of relatively rigid contact springs carried at one end by said mounting and projecting therefrom side by side forming a bank, an armature actuated by said electro-magnet and fulcrumed on said frame, and a series of relatively flexible contact springs forming a second bank co-extensive transversely with the first mentioned bank said springs individually being positioned in edgewise relation to said electro-magnet and actuated responsive to movement of said armature to engage certain of said rigid contact springs.

5. A multi-contact relay comprising a magnet structure, an armature actuated thereby, an insulating mounting rigidly related to said magnet structure, a series of relatively rigid contact springs carried at one end by said mounting and projecting therefrom side by side forming a bank, and a series of pairs of flexible contact members movable in planes intersecting the plane of said bank and actuated responsive to movement of said armature to make wiping electrical engagement with certain of said contact springs, the respective pieces of said pairs being oppositely flexed thereby to equalize the thrust against said contact springs.

[Claim 6 not printed in the Gazette.]

1,133,450. STORE-SERVICE APPARATUS. HARRY L. WILSON, Cleveland, Ohio, assignor, by mesne assignments, to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed May 14, 1912. Serial No. 697,198. (Cl. 186—29.)



1. In a store service system, the combination of a track consisting of a pair of parallel taut wires located in the same horizontal plane, a rod near one end of the track arranged below the track wires and substantially parallel therewith, a frame supported at the end of the rod in which the track wires rest, a propelling cord for the carriers, and a pulley for said propelling cord mounted in the said frame between the track wires, the pulley extending across the plane of the track whereby one of the strands of the propelling cord is above and the other below the track.

2. In a store service system, the combination of a track, a support for one end thereof, a propelling cord, a support carrying a pulley for the cord located adjacent to the track a short distance in front of the said track support, and a hollow rod carried by the track support and extending rearwardly therefrom, the propelling cord extending through the said rod and through a perforation formed in the said support in line with the said hollow rod.

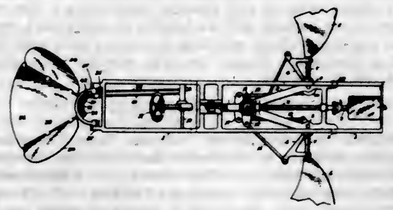
3. In a store service system, the combination of a track, a support for one end thereof, a propelling cord, a support carrying a pulley for the cord located adjacent to the track a short distance in front of the said track support, and a hollow rod carried by the track support and extending rearwardly therefrom, a section of the rod being cut away to form an opening into the interior of the rod, the propelling cord extending through a perforation formed in the said support in line with the rod, through the rod and out through the opening formed by cutting it away as set forth.

4. In a store service system, the combination of a track, a support for one end thereof, a propelling cord, a support carrying a pulley for the cord located adjacent to the track a short distance in front of the said track support, a hollow rod carried by the track support and extending rearwardly therefrom, a section of the rod being cut away to form an opening into the interior of the rod, and a pulley located opposite the cut away portion of the rod, the propelling cord extending through a perforation formed in the said support in line with the rod, through the rod, out through the opening, and over the said pulley located adjacent to the said opening.

5. In a store service system, the combination of a track, a support for one end thereof, a propelling cord, a support carrying a pulley for the cord located adjacent to the track a short distance in front of the said track support, a hollow rod carried by the track support and extending rearwardly therefrom, a section of the rod being cut away to form an opening into the interior of the rod, and a pulley located opposite the said cut away portion of the rod with its rim extending through the opening into the rod so as to bring the cord seat therein at approximately the longitudinal axis of the rod, the propelling cord extending through a perforation formed in the said support in line with the rod, through the rod and into engagement with the said pulley.

[Claims 6 and 7 not printed in the Gazette.]

1,133,451. FLYING-MACHINE. CLARENCE A. WORFEL, Grand Rapids, Mich. Filed May 25, 1914. Serial No. 840,676. (Cl. 244—20.)



1. In a machine of the character described, a frame, a pair of wing-carriers having a swinging movement forward and backward in the same path, a wing on each carrier having a limited turning movement on an axis extending in the wing's longitudinal direction, and means for turning each wing in one portion of its support's swinging movement.

2. In a machine of the character described, a frame, a pair of wing-carriers having a swinging movement forward and backward in the same path, a wing on each car-

rier having a limited turning movement on an axis extending in the wing's longitudinal direction, and means for turning each wing in one portion of its support's swinging movement, and operable in connection with the swinging of the carrier.

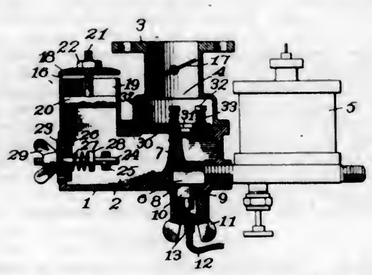
3. In a machine of the character described, a frame, a pair of wing-carriers having a swinging movement forward and backward in the same path, a wing on each carrier having a limited turning movement on an axis extending in the wing's longitudinal direction, and means for turning each wing in one portion of its carrier's swinging movement and in the reverse direction in another portion of such swinging movement.

4. In a machine of the character described, a frame, a pair of wing-carriers having a swinging movement forward and backward in the same path, a wing on each carrier having a limited turning movement on an axis extending in the wing's longitudinal direction, and means for turning each wing in one portion of its carrier's swinging movement and in the reverse direction in another portion of such swinging movement, and operable in connection with the swinging of the carrier.

5. In a machine of the character described, a frame, a pair of wing-carriers having a swinging movement, a wing on each carrier having a limited turning movement on an axis extending in the wing's longitudinal direction, a driven shaft, and connecting rods actuated by the rotation of the shaft and some of which are adapted to swing the carriers, and others to turn the wings.

[Claims 6 to 12 not printed in the Gazette.]

1,133,452. CARBURETER. MILES E. BABBITT, Brookfield, and JAMES F. BEAUMONT, Worcester, Mass. Filed July 22, 1912. Serial No. 710,826. (Cl. 219—38.)

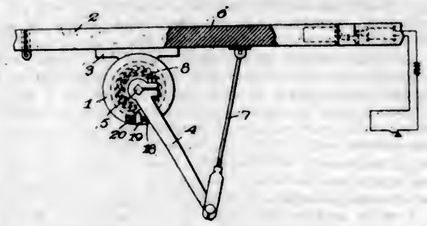


In a carbureter, the combination, with a shell or casing having a fuel passage therein connecting the fuel supply means with a spray nozzle, of an exterior hollow boss on said casing adjacent said passage, there being a thin wall between said passage and the interior of said boss, a resistance coil fitted within said boss in contact with said wall, and a detachable closure for said boss for maintaining said coil in position.

1,133,453. DOOR-CHECK. HARRY BALL, Worcester, Mass., assignor to Worcester Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 20, 1913. Serial No. 785,626. (Cl. 16—46.)

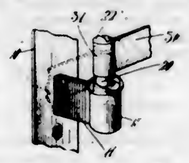
1. A door closer including a casing arranged for attachment to a door, a swinging arm carried by the casing, means for connecting the free end of the arm to a fixed support, means for swinging the arm to move toward closed position, and adjustable means for stopping the swinging of the arm before the door has been entirely closed, said adjustable means including a member having screwthreads to permit fine adjustments thereof.

2. A door closer including a casing arranged for attachment to a door, a swinging arm carried by the casing, means for connecting the free end of the arm to a fixed support, means within the casing for swinging the arm to move the door toward closed position, and a screwthreaded adjustable stop in the path of the arm to arrest its motion before the door has been entirely closed.



3. A door closer including a casing, a swinging arm arranged to be pivotally supported by the casing to swing in either of two paths so as to close a door hinged at either side, means for swinging the arm, said means being reversible to permit it to swing the arm in either of its paths, a fixed support between the adjacent extremes of the two paths of the arm, and an adjustable stop on the support, the stop being reversible to limit the swing of the arm in either of its paths and being screwthreaded to permit fine adjustments of its position.

1,133,454. LOCKING ATTACHMENT FOR HINGES. WILLIAM E. BANZETT, Huntingdon, N. Y. Filed Nov. 28, 1914. Serial No. 874,390. (Cl. 16—110.)



A hinge having two members, the lower one being formed with duplex straight edged members exterior of the articulation thereof, one member being adapted to work freely upon the other without any adjustment, in combination with a supplemental and independent attachment therefor comprising a sleeve attachable to and detachable from the hinge between the two members of the same, and having a slot adapted to interlock with one of the hinge members and inclose the said duplex leaf the entire width of the same exterior of the articulation thereof so as to hold the duplex leaf together and to be held by the said member in an immovable relation, and also having means comprising retaining spaces at the upper part of the same to interlock with the other hinge member exterior of the articulation thereof to hold the last named member immovable in a plurality of positions at will.

1,133,455. INTERVAL-DEMAND INDICATING MECHANISM. JACOB W. BARD, Peoria, Ill., assignor to Sangamo Electric Company, Springfield, Ill., a Corporation of Illinois. Filed Dec. 18, 1911. Serial No. 666,511. (Cl. 234—5.5.)

1. A graphic recording instrument, comprising means for intermittently moving a chart at predetermined time intervals, a stylus operating on said chart and movable transversely thereof, and electrically-operated means adapted to positively move said stylus in one direction and controlling its range of movement in the opposite direction.

2. A graphic recording instrument, comprising means for intermittently moving a chart at predetermined time intervals, a stylus operating on said chart and movable transversely thereof, and intermittently-acting electrically-operated means adapted to positively move said stylus in one direction and controlling its range of movement in the opposite direction.

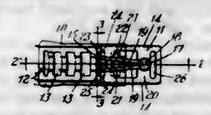
3. A graphic recording instrument, comprising means for intermittently moving a chart at predetermined time intervals, a stylus operating on said chart and movable transversely thereof, retaining means for holding said stylus against reverse movement while the chart is in motion and acting to release the stylus after the chart stops, and electrically-operated means adapted to positively move said stylus in one direction and controlling its range of movement in the opposite direction.

4. A graphic recording instrument, comprising electrically-operated means for intermittently moving a chart at predetermined time intervals, a stylus operating on said chart and moving transversely thereof, means controlled by said chart moving means for retaining said stylus in a fixed position while the chart is in motion, and electrically-operated means adapted to positively move said stylus in one direction and controlling its range of movement in the opposite direction.

5. A graphic recording instrument, comprising means for intermittently moving a chart at predetermined time intervals, a stylus operating on said chart and movable transversely thereof, means controlled by said chart-moving means for retaining said stylus in a fixed position while the chart is in motion, and intermittently-acting electrically-operated means adapted to positively move said stylus in one direction and controlling its range of movement in the opposite direction.

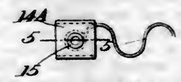
[Claims 6 to 22 not printed in the Gazette.]

1,133,456. CLASP-BUCKLE. WILLIAM P. BARTEL, Waltham, Mass., assignor to Judson L. Thomson M'f'g Co., a Corporation of Massachusetts. Filed Mar. 6, 1912. Serial No. 681,872. (Cl. 24—201.)



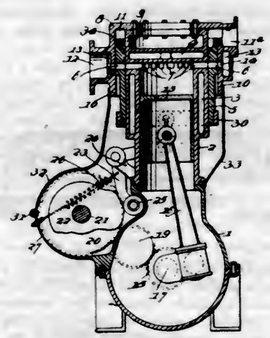
A clasp buckle having, in combination, two members formed of sheet metal adapted to interlock one with the other and a spring bent intermediate its ends to form two legs, said spring rigidly fastened intermediate its ends to one of said members, the free ends of the legs of said spring adapted to engage the other of said members and hold said members in interlocking engagement and a stop on said first-named member located between the legs of said spring.

1,133,457. COLLAR-SUPPORT. DAVID BASCH, New York, N. Y. Filed Dec. 19, 1911. Serial No. 666,784. (Cl. 2—91.)



A device of the character described, comprising a supporting member of resilient wire bent to form alternate waves to provide longitudinal elasticity to said member, and to form a ring at each end in the same plane with the wave portion thereof, a thread wound about said wire, webs of textile fabric folded over the rings and rigidly secured thereto in position to cover only the ring portions of said member, means for securing said webs to said rings, said means comprising double-flanged metallic eyelets, the outside diameter of said eyelet flanges being about equal to the inside diameter of said rings, the webs of fabric being arranged to project beyond the wire supporting member to form cushioning edges.

1,133,458. INTERNAL-COMBUSTION ENGINE. JOHN BAYNE, Wheeling, W. Va. Filed Jan. 4, 1912, Serial No. 669,384. Renewed Sept. 11, 1914. Serial No. 861,327. (Cl. 173—75.)



1. In an internal combustion engine, the combination with a cylinder having peripheral ports, of a guide head secured to the outer end of the cylinder and disposed in encircling relation thereto at a spaced distance therefrom, said guide head being formed with an intake passage and exhaust ports therein for communication with the cylinder ports, a sleeve valve slidably mounted in the space between said guide head and the cylinder and provided with ports for registry with the cylinder ports and those of said guide head, said sleeve valve being also formed with an internal passage at its outer end for registry with the cylinder ports, and means to actuate said sleeve valve from the engine shaft at predetermined intervals.

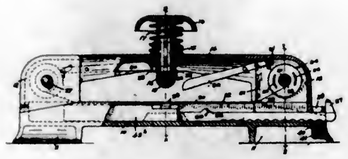
2. In an internal combustion engine, a cylinder having peripheral ports, a guide-head surrounding the cylinder at a spaced distance therefrom, said guide-head having an intake passage and exhaust ports therein, a sleeve valve slidably mounted between said cylinder and said guide-head and having ports adapted to permit of communication between the cylinder ports and the guide-head ports, said sleeve valve being also formed with an internal annular passage for permitting communication between said intake passage and said cylinder ports, and means

intermediate said sleeve valve and the engine shaft for moving said valve at predetermined intervals.

3. In an internal combustion engine, a cylinder having peripheral ports, an annular water jacket about said cylinder, a guide-head surrounding said cylinder at a spaced distance from the outer wall of said water jacket, said guide-head having exhaust ports therein, a sleeve valve mounted to slide in the space between the water jacket and said guide-head and to form an intake passage between its outer end and the cylinder on one side and the guide-head on the other, said valve having an internal annular passage in open communication with said intake passage which is adapted, in one position of said valve, to register with said cylinder ports, said valve also having ports for permitting of communication between the cylinder ports and the exhaust ports of the guide-head, and means under the control of the engine shaft for imparting definite movements to said valve at predetermined intervals.

4. In an internal combustion engine, a cylinder having peripheral ports, a guide-head surrounding the cylinder in spaced relation thereto, said guide-head being formed with an intake passage and with exhaust ports, the latter being in alinement with the cylinder ports, a sleeve valve slidably mounted in the space between said guide-head and the cylinder and formed with ports for registry with the ports of the cylinder and of the guide-head, said sleeve valve being also formed with an internal passage at its outer end in communication with said intake passage and for registry with the cylinder ports and means driven by the engine shaft for imparting definite movements to said valve at predetermined intervals.

1,133,459. CHECK-PROTECTOR. COURTLAND S. CARRIER, Omaha, Nebr. Filed July 30, 1913. Serial No. 782,100. (Cl. 101—57.)



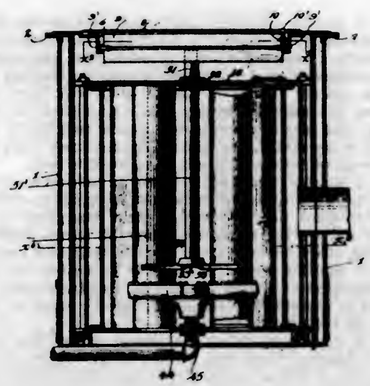
1. In a machine of the class described, the combination with a movable platen, of a die formed by a series of adjoining parallel movable type-bearing members, each of said members having a series of raised printing-characters thereon and being movable so that each of the characters may be brought to a position for coöperation with the platen, and a supplementary type-bearing member secured to one of the first-mentioned type-bearing members and movable therewith, said supplementary member having printing-characters thereon at positions coinciding transversely with the characters on the other member.

2. In a machine of the class described, the combination with a platen, of a die formed by a series of adjoining parallel movable type-bearing members, each of said members having a series of printing-characters thereon and each also having a transverse channel in the same side as that having the printing-characters on it, the members being movable so that each of the printing-characters thereon may be placed adjacent to the platen and so that the transverse channels may also be disposed in a like position and with the channels coincident transversely through the several members, and type-bars having printing-characters thereon and adapted to be removably disposed in the coincident transverse channels for coöperation with the platen.

3. In a machine of the class described, the combination with a platen, of a die formed by a series of adjoining parallel members each having thereon a series of printing-characters and each being movable to bring any of the printing-characters into position for coöperation with the platen, some of the printing-characters on each member being numerals and one of said characters on each bar being a non-numerical "safety" character, and supplementary parts secured to the outer sides of the outer members of the die and movable with the respective members to which they are secured, said parts having a series of printing-characters thereon at positions coinciding transversely with the numerals on the adjoining die-members, and all of the said printing-characters on said parts being non-numerical.

4. In a machine of the class described, the combination with a movable platen, of a die formed by a series of adjoining parallel movable type-bearing members each having a series of printing-characters thereon, said members being movable to bring each of the characters thereon to a position for coöperation with the platen, so that the characters thus positioned form a line adjacent to the platen, and supplementary type-bearing members actuated by the adjacent ones of the first-mentioned members to automatically provide supplementary characters at the ends of the line of characters formed adjacent to the platen.

1,133,460. GAS FLOOR-FURNACE. IVAN G. COWELL, Long Beach, Cal., assignor to John T. Hunter, Long Beach, Cal. Filed Dec. 4, 1913. Serial No. 804,632. (Cl. 158—115.)



1. In combination with a heater, a burner therein having gas outlets in its upper face only, and an ignition tube extending vertically above said burner from a point in proximity to the burner to a point near the top of the heater, said tube being provided at its lower end with mixture collecting means extending over said burner.

2. In combination with a heater, a burner therein, an ignition tube extending from a point a short distance directly above said burner, and a plate on the lower end of said tube resting directly over said burner.

3. In combination with a heater, a burner therein, an ignition tube extending from a point a short distance directly above said burner, a plate on the lower end of said tube resting directly over said burner, and the lower face of said plate being concave to collect the gas from the burner for ignition through said tube.

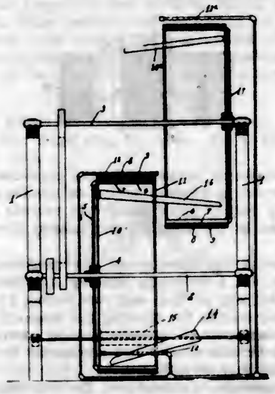
4. In combination with a heater, a burner therein, an ignition tube extending from a point a short distance directly above said burner, a plate on the lower end of said tube resting directly over said burner, the lower face of said plate being concave to collect the gas from the burner for ignition through said tube, and the concavity of said plate leading to the lower end of said tube so as to direct the gas thereinto.

5. In combination with a heater, a burner comprising a plurality of radial arms extending from a common center, a plate having a plurality of radial arms corresponding to the burner arms and resting directly above said burner

arms, and an ignition tube extending through the center of said plate and communicating with said burner.

[Claim 6 not printed in the Gazette.]

1,133,461. SCREEN FOR SEPARATING SAND FROM SLIME. WILTON E. DARROW, Sutter Creek, Cal. Filed May 26, 1914. Serial No. 841,001. (Cl. 83—56.)



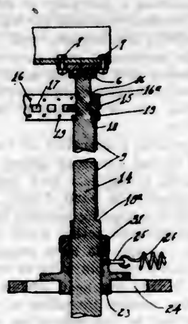
A device of the character described comprising a rotary member mounted on a shaft, the outer periphery of said rotary member comprising an inner and an outer screen spaced apart, each screen comprising a single annular unit, means for discharging watered crushed ore upon the inner surface of the inner screen at the lower end thereof, the mesh of the inner screen being such that the granular portions of the watered crushed ore will pass through the inner screen, the outer screen being sufficiently fine to prevent such granular particles of said crushed ore from passing therethrough but to allow the water and slime to drain therethrough leaving the granular portions masses between the two screens, a discharge means leading from within the inner periphery of the inner screen at the upper side thereof, and means for discharging a water supply upon the outer screen through the inner screen and into said last named discharge means whereby the mass of said granular portions will be washed from the screens into said last named discharge means, as described.

1,133,462. INDICATOR FOR SHAFT-BEARINGS. ALBERT Y. EDWARDS, Springfield, Ohio, assignor to The Foos Gas Engine Company, Springfield, Ohio, a Corporation of Ohio. Filed Sept. 15, 1910. Serial No. 582,281. (Cl. 33—172.)



In an indicator for shaft bearings, a rod, one end of which is adjacent the shaft, a spring for supporting said rod normally away from said shaft, a pivoted indicating lever, the short arm of which rests on the other end of said rod, a casing for said lever into which said other end of said rod extends, and a pivoted cover for said casing, together with means whereby when said cover is raised, said rod will be forced yieldingly against said shaft and said indicating lever will be moved to indicating position.

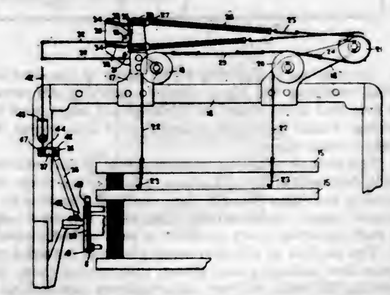
1,133,463. ADVERTISING DEVICE. FRED H. EMERY, Sacramento, Cal. Filed Aug. 6, 1914. Serial No. 855,442. (Cl. 40—32.)



1. A device of the character described comprising the combination of a frame, a plurality of rollers carried by said frame, each roller having an upper and lower shoulder, the diameter of the lower shoulder being greater than that of the upper shoulder, an endless web movable over all of said rollers above the lower shoulders, a sprocket gear carried on one of said rollers, an endless perforated belt on the upper edge of said endless web, such belt engaging said sprocket gear and normally resting on the upper shoulders of said rollers, and means for imparting rotary motion to the roller carrying said sprocket gear, as described.

2. A device of the character described comprising the combination of a frame, a plurality of rollers carried by said frame, one of said rollers being journaled at one end to yield with a slight pivotal movement, a bearing slidably mounted adjacent said frame, said last named roller projecting through said bearing, a driven member means on one end of said last named roller engageable with said driven member to impart motion to said roller, and an endless web mounted over all of said rollers and adapted to be driven by said last named roller as described.

1,133,464. HARNESS STOP-MOTION FOR LOOMS. ERASME GAGNON, Pawtucket, R. I., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Dec. 20, 1913. Serial No. 807,824. (Cl. 139—52.)



1. In a loom, the combination of a plurality of reciprocating harness frames each having overhead lifting and suspending means, a warp stop motion including a vibrating feeler, a vertically movable rod connected with the vibrating feeler, a trigger normally out of, but when moved into, the path of said rod acting to lock the rod against movement and so through the medium of the warp stop motion to stop the loom, an actuator for each suspending means coöperating with said trigger, and means

released by the breakage of a suspending means to move its corresponding actuator and cause it to swing the trigger into the path of said rod.

2. A loom comprising a plurality of reciprocating harness frames each having overhead lifting and suspending means, loom stopping mechanism, and spring actuated means mounted for movement with respect to each frame and suspending means and released upon the breakage or abnormal slackness of the suspending means to move under its spring actuation into a position to actuate the loom stopping mechanism.

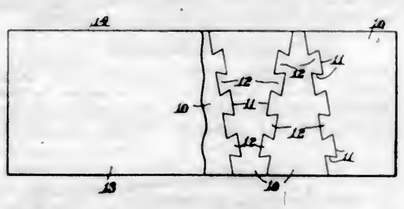
3. A loom comprising a plurality of reciprocating harness frames each having overhead lifting and suspending means, loom stopping mechanism, and means mounted for movement with respect to each frame and suspending means and held out of actuating position by connections to each suspending means and acting when released to move into a position to actuate the loom stopping mechanism.

4. In a loom comprising a plurality of reciprocating harness frames each having overhead lifting and suspending means, a warp stop motion including a vibrating feeler, an element connected to and vibrating with said feeler and spring actuated means connected with each suspending means and released upon the breakage thereof to move into the path of said vibrating element, and thus cause the stopping of the loom.

5. In a loom the combination of a plurality of reciprocating harness frames each having overhead lifting and suspending means, a plurality of normally quiescent actuators one connected with each suspending means and mounted for movement with respect to said suspending means and its frame, and moved upon the breakage of said suspending means into actuating position, loom stopping means, and means for actuating said loom stopping means to stop the loom operated by the movement of any actuator into actuating position.

[Claim 6 not printed in the Gazette.]

1,133,465. WITHDRAWN



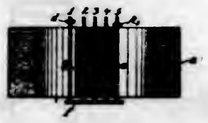
1. The method of utilizing scrap pieces of material comprising mortising the edges thereof; applying adhesive to said mortised edges, then interlocking said edges, and then applying a thin layer of material over one entire face of said united pieces.

2. The method of utilizing scrap pieces of material comprising first softening said pieces, then drying them, then mortising the edges thereof, then applying adhesive to the mortised edges, then interlocking said mortised edges, and then applying roller pressure to said united pieces.

3. The method of utilizing scrap pieces of material comprising first softening said pieces, then drying them, then mortising the edges thereof, then applying adhesive to the mortised edges, then interlocking said mortised edges, then applying roller pressure to said united pieces, then applying over the united pieces a layer of facing material and subjecting the completed article to roller pressure.

4. The method of utilizing scrap pieces of material comprising first softening said pieces, then drying them, then mortising the edges thereof, then applying adhesive to the mortised edges, then interlocking said mortised edges, then applying roller pressure to said united pieces, then applying over the united pieces a layer of facing material and subjecting the completed article to roller pressure, and then cutting from the material a blank for use in the manufacture of shoes.

1,133,466. MEASURING-TRANSFORMER. HERMANN GEWECKE and CHRISTIAN BAEUMLER, Nuremberg, Germany, assignors to Siemens-Schuckert Werke, G. M. B. H., Siemensstadt, near Berlin, Germany, a Corporation of Germany. Filed Nov. 3, 1914. Serial No. 870,153. (Cl. 171—124.)

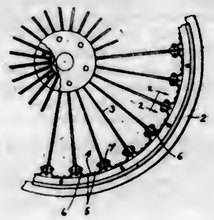


1. In a measuring transformer, the combination of a magnetizable core, a winding having an auxiliary portion, said auxiliary portion being adapted to encircle a smaller or greater part of the magnetic flux passing through said core.

2. In a measuring transformer, the combination of a magnetizable core, a secondary winding comprising an additional or auxiliary portion, said core having a number of holes arranged therein for dividing the magnetic flux and permitting connection to be made by said additional portion through anyone of said holes, whereby the ratio of transformation may be adjusted.

3. In a measuring transformer, the combination of a magnetizable core, a secondary winding, said core having a plurality of holes dividing the magnetic flux through said core, and an adjustable auxiliary turn in the form of a rake-shaped body of conductive material inserted into said holes to form a plurality of open turns, encircling said flux to a various extent and having their open ends projecting from said core thus permitting said secondary winding to include in circuit anyone of said turns for adjusting the ratio of transformation.

1,133,467. RESILIENT WHEEL. WILLIAM B. GRAY, Chicago, Ill. Filed Jan. 30, 1913. Serial No. 745,100. (Cl. 152—28.)



1. In combination, a hub member, a rim member, spokes in the form of springs extending between the said members and fastened to one of said members and free at the other end, and spring plates each fixed at the center to the other of said members and having its ends bent into arms extending approximately radially toward the hub, each spoke being engaged and yieldingly clamped between two of said arms arranged on opposite sides thereof.

2. In combination, a hub member, a rim member, spokes in the form of springs extending between said members, said spokes being fastened at one end to one of said members and having the other end free, and spring plates each fixed at the center to the other of said members and having its ends bent into arms overlapping the free ends of adjacent spokes, the plates corresponding in number to the spokes, and the arms of the plates being bent so that each lies at an angle to one of the spokes and yieldably engages therewith.

3. In combination, a hub member, a rim member, a series of sockets carried by one of said members, spokes in the form of springs secured to the other of said members and each slidably engaged at its other end with one of said sockets, each of said sockets comprising two spring arms lying at an angle to each other and tending normally to approach each other at their free ends more closely than the thickness of one of the spokes.

4. In combination, a hub member, a rim member, spokes in the form of springs extending radially between said members and secured to one of them, spring sockets secured to the other member and embracing the free ends of the spokes, said sockets being provided with rolling anti-friction members engaging with the spokes and movable bodily in the direction of the length of the spokes.

1,133,468. RESILIENT WHEEL. WILLIAM B. GRAY, Chicago, Ill. Filed Jan. 30, 1913. Serial No. 745,101. (Cl. 152—28.)



1. In a wheel, a hub member, a rim member, spokes in the form of flat springs extending radially between said members and secured to one of said members, rigid sockets secured to the other of said members about the ends of said spokes, bearing members mounted in each of said sockets on opposite sides of the corresponding spoke and movable from and toward each other, and means associated with each set of bearing members for yieldingly pressing them toward each other.

2. In a wheel, a hub member, a rim member, spokes in the form of flat springs extending radially between said members and each secured to one of said members, sockets carried by the other of said members and embracing the ends of the spokes, rollers journaled in said sockets on opposite sides of each of the spokes and movable relatively from and toward each other, and means for yieldably pressing said rollers against the spokes.

3. In a wheel, a hub member, a rim member, spokes in the form of flat springs extending radially between said members and each secured to one of the members, sockets carried by the other of said members and embracing the ends of the spokes, each socket including rollers arranged on opposite sides of one of the spokes and means for yieldingly pressing the rollers against the spokes.

1,133,469. LIMP INVERTED MANTLE. SVERRE GULBRANDSEN, Woodbury, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed May 6, 1914. Serial No. 836,670. ((Cl. 67—98.)



1. An inverted limp mantle having a temporary closure at its open end adapted to be destroyed by heat; substantially as described.

2. The combination of an inverted mantle secured to a support, of a burner tip, and a temporary closure for the mouth of the mantle surrounding the burner tip; substantially as described.

3. A limp inverted mantle having a temporary closure secured to the refractory mantle ring; substantially as described.

4. A limp inverted mantle having a perforated closure at its open end adapted to be destroyed by the heat of the burner; substantially as described.

1,133,470. INCANDESCENT MANTLE. SVERRE GULBRANDSEN, Woodbury, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed May 6, 1914. Serial No. 836,671. (Cl. 67—98.)

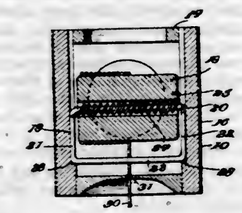


1. As a new article of manufacture, a limp mantle reduced in size to less than one inch diameter when shaped, and adapted for connection to burners using ordinary gas pressures, and a carrier having a correspondingly reduced opening to which the open end of the mantle is secured, substantially as described.

2. As a new article of manufacture, a limp mantle reduced in size to less than one inch diameter when shaped, and adapted for connection to burners using ordinary gas pressures, and a carrier having a correspondingly reduced opening to which the open end of the mantle is secured, said carrier having a screw-threaded portion adapted to screw snugly on a burner tip, substantially as described.

3. As a new article of manufacture, a reduced limp mantle adapted for connection to burners using ordinary city gas pressures, said mantle having its surface area less than five times its volume when shaped, and its open end portion adapted to be tightly secured to a reduced burner tip, substantially as described.

1,133,471. BILLIARD CHALK-HOLDER. CHARLES W. HARPER, Reno, Nev. Filed Mar. 28, 1914. Serial No. 827,913. (Cl. 242—107.)



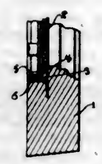
1. A device of the character described including a support, a supporting frame detachably engaging the support, said frame being formed from a length of wire providing a shaft, the wire being bent laterally at one extremity of the shaft to provide a supporting arm and thence again bent to form a base portion, the free extremity of the wire being again bent to form a supporting arm oppositely disposed to said first mentioned arm, a spring actuated drum carried by said shaft, and flexible means normally wound upon the drum, said means extending exteriorly of the support.

2. A device of the character described including a casing, means for supporting the casing, said casing including side and end walls and one bottom wall, one end wall being formed in sections, one of which is detachably secured to the casing, said side walls having transversely extending slots formed therein, a supporting frame mounted in said slots, a spring actuated drum rotatably mounted upon the supporting frame and flexible means normally wound upon the drum, said means extending exteriorly of the casing.

3. A device of the character described including a casing, a frame detachably mounted within the casing and having slidable connection therewith, said frame including a shaft having spaced arms operatively connected therewith, the said arms being joined by a connecting portion arranged to limit the movement of the frame within the casing, a spring actuated drum mounted upon the shaft between said arms, and flexible means normally wound upon the drum.

4. A device of the character described including a support having grooves formed therein, an integrally formed supporting frame provided with drum retaining arms connected by a base, said drum retaining arms being slidably mounted in said grooves to rest upon the base, a spring actuated drum mounted upon the frame between said arms, and flexible means normally wound upon the drum and extending exteriorly of the support.

1,133,472. WINDOW-SASH CONSTRUCTION. JOHN I. HARRIS, Sabano, Tex. Filed Mar. 10, 1914. Serial No. 823,680. (Cl. 20—56.4.)

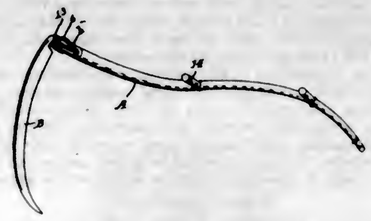


1. In a device of the character described, the combination with a window sash and a pane of glass fitted therein, the sash being formed with a shoulder with which the inner face of the glass is contiguous, of an elongated metal strip of angular cross section having one of its integral parts holding the glass against said shoulder, and its other part contiguous with the inner face of the sash, and a plurality of metallic fasteners driven into the inner face of the sash adjacent to said shoulder, bent outwardly through channels in said face, and embracing the adjacent part of the angular strip holding the same in its proper position.

2. In a device of the character described, the combination with a window sash and a pane of glass fitted therein, the sash being formed with a shoulder with which the inner face of the glass is contiguous, of an elongated metal strip of angular cross section bearing against said pane and sash, and a plurality of metallic fasteners driven into the inner face of the sash adjacent to said shoulder, bent outwardly and embracing the angular strip holding the same in its proper position.

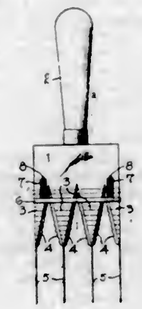
1,133,473. SCYTHE-SNATHE. HORACE B. HEWITT, Indianapolis, Ind., assignor of one-half to North Indianapolis Cradle Works, North Indianapolis, Ind., a Corporation of Indiana. Filed May 4, 1912. Serial No. 695,274. (Cl. 56—27.)

A scythe snathe provided with a clamping ring for securing the scythe thereon, said snathe being formed with a flattened portion at its lower end, a heel plate for the heel of the scythe to rest upon secured on said flattened portion, said plate being formed with wings on each side projecting laterally for a distance sufficient to prevent the ring from sliding thereover, and downwardly to embrace



the edges of the snathe at each side of said flattened portion, substantially as set forth.

1,133,474. BEAN-HARVESTER. CYRUS S. HINDERLITER, Hesperia, Mich. Filed Sept. 21, 1914. Serial No. 862,778. (Cl. 55—65.)



1. A hand bean harvester comprising a body provided with a handle and formed with converging cutting blade, said blades having extended therefrom fork tines substantially as hereinbefore set forth.

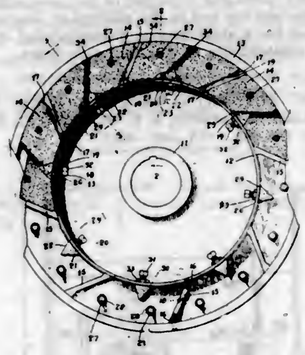
2. A hand bean harvester of the character described comprising a flat body, a handle from which the body projects, the rear edge of the body abutting against the end of the handle, the body being formed with a plurality of converging cutting edges.

3. A hand bean harvester comprising a body provided with a handle and converging cutting blades, a transverse stripping bar overlying the cutting blades, and springs connected at one end to the bar and at the opposite end to the body of the harvester whereby to urge said stripping bar outward.

4. A hand bean harvester comprising a flat relatively thin body having a handle rigidly connected thereto and projecting from one end thereof, the body being formed to provide a plurality of converging cutting edges on the end opposite the handle, and an outwardly urged stripping member supported upon the body for movement lengthwise of the body.

5. A hand bean harvester comprising a flat relatively thin body formed to provide a plurality of cutting blades, the edges of said blades having converging cutting edges, said blades having fork tines extended therefrom, and a stripping member slidably mounted upon the body for movement lengthwise thereof, said stripping member extending across the blades, and springs urging the stripping member toward the ends of the blades.

1,133,475. GRINDING-WHEEL. ELWIN R. HYDE, Bridgeport, Conn. Filed June 23, 1914. Serial No. 846,752. (Cl. 51—1.)



1. A grinding wheel comprising a carrying disk having inner and outer flanges on its face, walls between said flanges oblique to radial lines, grinding blocks in pairs lying between the walls, and means for forcing the blocks of each pair against contiguous walls and the outer flange to lock them in place.

2. A grinding wheel comprising a carrying disk having inner and outer flanges on its face, walls between said flanges oblique to radial lines, grinding blocks in pairs lying between the walls, a locking block between the grinding blocks of each pair and means for moving the locking blocks into locking position.

3. A grinding wheel comprising a carrying disk having inner and outer flanges on its face, walls between said flanges oblique to radial lines, grinding blocks in pairs lying between the walls, means for adjusting the grinding blocks inward and outward and means for locking the grinding blocks in position after adjustment.

4. A grinding wheel comprising a carrying disk having inner and outer flanges on its face, walls between said flanges oblique to radial lines, grinding blocks in pairs lying between the walls, means for adjusting the grinding blocks inward and outward, a locking block between each pair of grinding blocks and means for moving the locking blocks into locking position.

5. A grinding wheel comprising a carrying disk having flanges on its face, grinding blocks provided with base plates, screws engaging the base plates to move said blocks inward or outward and means for locking said blocks after adjustment.

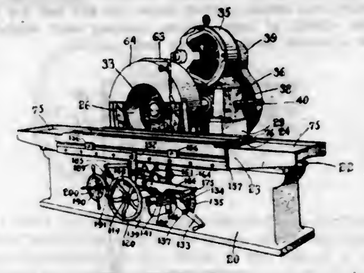
[Claims 6 to 11 not printed in the Gazette.]

1,133,476. GRINDING-MACHINE. ELWIN R. HYDE, Bridgeport, and THOMAS D. ADAMS, Westport, Conn.; said Adams assignor to said Hyde. Filed June 23, 1914. Serial No. 846,779. (Cl. 51—12.)

1. In a machine of the character described, in combination, a frame, a pivoted turret, mechanism in said frame, mechanism on said turret, and power transmitting devices connecting said mechanisms and arranged coaxially with the pivot of said turret.

2. In a machine of the character described, in combination, a carriage, mechanism for operating said carriage, a pivoted turret, grinding mechanism on said turret, and transmission devices connecting said carriage operating mechanism and said grinding mechanism arranged coaxially with the pivot of said turret.

3. In a machine of the character described, in combination, a frame, a grinder turret, a hollow bushing on which said turret is pivoted, grinding mechanism on said turret, a shaft journaled in said bushing, bevel gears connecting said grinding mechanism and shaft, a shaft journaled in said frame, and bevel gears connecting said last-named shaft with said first-named shaft.

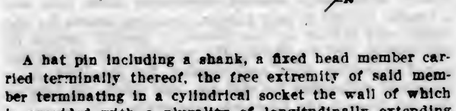


4. In a machine of the character described, in combination, a frame, work-holding and grinding mechanism on said frame, controlling means for said mechanism operable from either side of said frame, and means operable from either side of said frame for locking said controlling means.

5. In a machine of the character described, in combination, a frame, work holding and grinding mechanism on said frame, a shaft journaled in said frame and extending from front to rear thereof, hand levers secured to said shaft at the front and rear ends thereof respectively, and means operated by said hand levers for controlling said mechanism.

[Claims 6 to 42 not printed in the Gazette.]

1,133,477. SAFETY HAT-PIN. JOHN KAMP, Grand Rapids, Mich. Filed Apr. 30, 1912. Serial No. 694,117. (Cl. 24—150.)



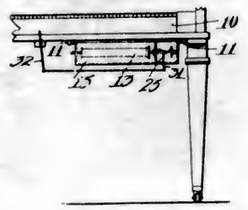
A hat pin including a shank, a fixed head member carried terminally thereof, the free extremity of said member terminating in a cylindrical socket the wall of which is provided with a plurality of longitudinally extending slits defining resilient gripping tongues disposed in spaced relation around the entire circumference of said wall, the said tongues being free at their outer ends, and a removable head member adapted for application to the point of the shank and having a resilient extension adapted to seat in the socket of the fixed head member to bear against said resilient gripping tongues, said extension being provided with an encircling flange forming a shoulder arranged to contact with the adjacent extremity of the wall of the socket to limit the inward movement of the extension within the socket.

1,133,478. SELF-PLAYING GRAND PIANO. WILLIAM J. KEELEY, New York, N. Y., assignor to Auto Pneumatic Action Company, a Corporation of New York. Filed Dec. 9, 1912. Serial No. 735,668. (Cl. 84—266.)

1. A grand piano having, in combination, a reciprocable support, a tracker and music rolls mounted thereon, a shaft for driving the rolls carried by said support and having a sprocket wheel thereon, a power shaft mounted in stationary bearings and having a second sprocket wheel thereon, a chain connecting said sprocket wheels, and means for keeping said chain taut in every position of the support.

2. In a grand piano, in combination a key bed, a drawer movable horizontally thereunder, music rolls located in said drawer and movable therewith, a shaft in

said drawer for driving the music rolls, a sprocket on said shaft, a second sprocket on a shaft mounted in fixed bearings, an endless driving member connecting said sprockets, and means carried below the key bed for keeping the stands of said endless member taut while the drawer is moved under the key bed.



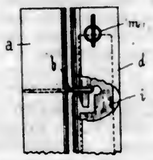
3. In a musical instrument, in combination a reciprocable drawer or support, music rolls carried thereby, a shaft carried by said drawer or support and connected with the music rolls for rotating them, a sprocket wheel on said shaft, a sprocket wheel mounted to turn in stationary bearings, an endless chain connecting said sprocket wheels, a lever having a pair of guide wheels thereon for engaging the two strands of the chain, and means for keeping the last named wheels in engagement with the chain in all positions of said drawer.

4. A grand piano having in combination a reciprocable support, a tracker and music rolls mounted thereon, a shaft for driving the rolls carried by said support and having a sprocket wheel thereon, a power shaft mounted in stationary bearings, also having a sprocket wheel thereon, a chain connecting said sprocket wheels, a lever mounted to swing about the shaft as an axis and having two guide wheels thereon engaging the strands of the chain, and resilient means for holding said lever in position to apply a pressure to the chain through the guide wheels on the lever, whereby the chain will be kept taut while the support reciprocates.

5. In a grand piano, in combination a key bed, a drawer reciprocably mounted thereunder, music rolls and a tracker carried by said drawer, operating means for the music rolls carried by the drawer, a member carried by the drawer for controlling the winding and rewinding, a rod connected with said member for operating it, a telescopic connection for said rod, and means for turning the rod through the telescopic connection.

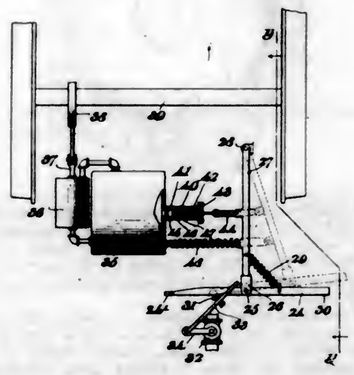
[Claim 6 not printed in the Gazette.]

1,133,479. CLOSING CONTRIVANCE FOR CORSETS AND THE LIKE. GEORG KOSEL, Meissen, Germany. Filed Aug. 4, 1914. Serial No. 855,033. (Cl. 24—205.)



A closing contrivance for corsets and the like, comprising in combination, two double-walled bars of channel cross-section, one of the same being provided with projecting buttons and one wall of the other bar with slots and eyes at the inner ends of the same adapted to engage with said buttons, a sliding-bar within the eye-bar adapted to be moved therein in longitudinal direction and provided with double-bent slots forming hooks thereon and having recessed upper corners and eyes at their inner ends adapted to eventually coincide with the eyes in the eye-bar to allow of the passage of the buttons therethrough, the slots in the eye-bar being closed in this position by the hooks formed by the eyes in the sliding-bar, and an outwardly projecting handle on said sliding-bar to operate the latter and to permit of the outer ends of said slots in the eye-bar and in the sliding-bar coinciding with each other for a simultaneous disengagement of all said buttons, substantially as described and shown.

1,133,480. AUTOMATIC SAFETY DEVICE. EDMUND JOHN LACLAIR, Cranston, R. I. Filed Feb. 17, 1913. Serial No. 748,988. (Cl. 246—59.)



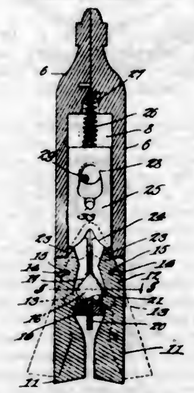
1. An automatic brake actuating mechanism mounted upon a locomotive and comprising a valve actuating trip lever extending transversely of the locomotive to be tripped by a track detent, a bar pivoted at one end to said locomotive and at the other end to said trip lever, means for normally holding said trip lever transversely of said locomotive in any of its extended positions, a cylinder, a piston therein and connected to said bar, and means governed by the speed of the locomotive for supplying compressed air to said cylinder, substantially as described.

2. An automatic brake actuating mechanism mounted upon a locomotive and comprising a valve actuating trip lever extending transversely of the locomotive to be tripped by a track detent, a bar pivoted at one end to said locomotive and at its opposite end to said trip lever, an air tank adjacent said bar, a pump mounted adjacent to and communicating with said air tank, an eccentric upon the axle of said locomotive for operating said pump, a cylinder communicating with said air tank, and provided with a longitudinally disposed series of ports in the wall thereof, a piston within said cylinder and connected to said bar, means upon said bar and said trip lever for holding said trip lever transversely of the locomotive in any of its extended positions, and a spring interposed between said bar and said locomotive to retract said bar and trip lever when pressure within the tank has been relieved, substantially as described.

3. In a device of the class described, a bar pivoted at one end to a locomotive and extending longitudinally thereof, means governed by the speed of the locomotive for moving said bar upon its pivot laterally of the locomotive, a brake controlling valve on said locomotive, a lever pivoted upon the free end of said bar, and extending laterally of said locomotive, a spring interposed between said lever and said bar for holding the former, laterally disposed irrespective of the movements of said bar, and a connection between said lever and said valve whereby the latter will be actuated upon movement of the former, substantially as described.

4. In a device of the class described, a bar pivoted at one end to a locomotive and extending longitudinally thereof, means governed by the speed of the locomotive for moving said bar upon its pivot laterally of the locomotive, means for retracting said bar, a brake controlling valve on said locomotive, a lever pivoted upon the free end of said bar and extending laterally of said locomotive, a spring interposed between said bar and said lever for holding the latter in transverse position with respect to the locomotive irrespective of the movements of said bar, and a connection between said lever and said valve whereby the latter will be actuated upon movement of the former, substantially as described.

1,133,481. UNDERREAMER. JAMES C. LEGO, Lima, Ohio. Filed May 21, 1914. Serial No. 840,086. (Cl. 255—76.)



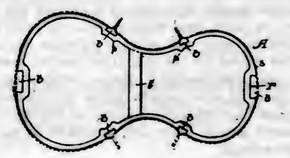
1. An under reamer comprising a bit stock, bits pivoted thereto and having tangs, spring pressed means carried by the stock and engaging the tangs for forcing the same together to extend the bits, and adjustable means carried by the stock between the bit tangs for limiting the inward movement thereof when the bits are separated.

2. An under reamer comprising a bit stock, a spring pressed sliding block disposed therein, bits pivoted to the stock and having tangs, the tangs and sliding block having coöperable portions whereby the block will separate the bits, spring pressed dogs pivoted to the stock and engageable with the sliding block to lock the same in a position with the bits extended, and an adjustable member carried by the stock between the bit tangs for limiting the separation of the bits.

3. An under reamer comprising a bit stock, a spring pressed sliding block disposed therein, bits pivoted to the stock and having tangs, the tangs and sliding block having coöperable portions whereby the sliding block will separate the bits, spring pressed dogs carried by the stock and engageable with the sliding block to lock the same in a position with the bits separated, adjustable means carried by the stock for limiting the movement of the bit tangs when the bits are separated, and adjustable means carried by the stock for limiting the movement of the sliding block.

4. An under reamer comprising a bit stock, a spring pressed sliding block disposed therein, bits pivoted to the stock and having tangs, the tangs and sliding block having coöperable portions whereby the block will separate the bits, a rotary member carried by the stock and having an eccentric element coöperable with the sliding block for limiting the movement thereof, and adjustable means carried by the bit stock for limiting the movement of the bit tangs when the bits are separated.

1,133,482. VIOLIN-MOLD. HENRY G. LELAND, East Boston, Mass. Filed Mar. 5, 1910. Serial No. 547,484. (Cl. 144—259.)



1. A mold for making violins comprising a rib forming frame of ribbon-like material having a permanent internal contour conforming to the shape of the ribs of a violin said frame being recessed at intervals to receive rib uniting blocks.

2. A mold for making violins comprising a rib forming frame of ribbon material having a permanent internal contour conforming to a violin shape and having clamp recesses for receiving adjoining ends of the ribs of the violin.

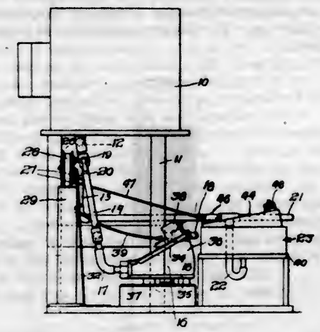
3. A device for making violins comprising a ribbon-like mold having a contour conforming to a violin shape and having clamp recesses formed for receiving the bout ends of the violin side strips.

4. A device for making violins, comprising an inner mold having a contour conforming to a violin shape and adapted to receive violin side strips or ribs exteriorly thereof and an outer mold having a similar contour and sufficiently large to contain said inner mold with its side strips thereon, whereby the sides thus formed may be transferred from said inner to said outer mold to permit the application of linings to the interior sides of said strips.

5. A mold for making violins, comprising outer and inner frame shaped to conform to the contour of a violin and adapted to permit the transfer of the ribs of a violin formed on one to another.

[Claims 6 to 9 not printed in the Gazette.]

1,133,483. AUTOMATIC SHUT-OFF DEVICE. AXEL LEVEDAHL, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Chicago, Ill., a Corporation of Delaware. Filed May 20, 1914. Serial No. 839,677. (Cl. 67—115.)



1. In an automatic shut-off device, the combination of two fluid supply pipes united to form a mixture supply, one of said pipes being a gas supply pipe, a valve for cutting off the flow of gas, an automatically operating member attached to said valve adapted to close the valve, retaining means normally engaging said automatically operating member to prevent the closure of said valve, and independent means controlled by the pressure of the fluid in

either of said supply pipes, for automatically releasing said retaining means to permit the closure of said valve when the pressure in either supply pipe is decreased.

2. In an automatic shut-off device, the combination of a gas and an air supply pipe united to form a mixture supply, a valve in said gas supply pipe, gravity-actuated means adapted to close said valve, retaining means acting to prevent the action of the gravity-actuated means upon said valve, and independent means controlled by the pressure in each of said supply pipes, for releasing said retaining means to permit the closure of the valve by said gravity-actuated means when the pressure in either supply pipe is decreased.

3. In an automatic shut-off device, the combination of gas and air supply pipes united to form a mixture supply, an automatically closing valve in said gas supply pipe, and a vessel communicating with each of said gas and air supply pipes, each vessel being provided with a movable member operatively connected with said valve and adapted to be actuated by the variation of pressure in said supply pipes, to effect the closure of said valve when the pressure in either of said supply pipes is decreased.

4. In an automatic shut-off device, the combination of gas and air supply pipes united to provide a mixture supply, a valve in said gas supply pipe provided with means for automatically closing the same, retaining means normally acting to prevent the closure of said valve, and independent means operatively connected with said retaining means and actuated by the variation in pressure in each supply pipe to effect the closure of said valve when the pressure in either supply pipe is decreased, said means associated with the air supply pipe, acting to provide a quantity of air to said mixture supply after said valve has been closed by said last mentioned means.

5. In an automatic shut-off device, the combination of a gas and air supply pipe united to form a mixture supply, an automatically controlled valve in said gas supply pipe, retaining means acting to normally maintain said valve in open position, and means controlled by the variation of pressure in said air supply pipe and operatively connected with said retaining means, to effect the closure of said valve when the pressure in said air supply pipe is decreased, and adapted to supply a quantity of air under normal pressure to said mixture supply after said valve has been closed.

[Claims 6 to 11 not printed in the Gazette.]

1,133,484. REINFORCEMENT FOR CONCRETING WOODEN PILES. JAMES L. MCCALL, Tampa, Fla., assignor of one-half to Thomas A. Moody, Tarpon Springs, Fla. Filed Apr. 13, 1914. Serial No. 831,664. (Cl. 20—100.)



1. The combination with a pile or the like, of a reinforcement for a concrete coating, said reinforcement including a rod, means engaging the pile for holding the rod spaced from the pile, and means engaging the rod at opposite sides of the spacing means for crimping the rod and holding it upon the spacing means.

2. A reinforcement for concrete coatings comprising a plurality of longitudinally extending rods, spacers engaging said longitudinal rods adapted to hold the same in spaced relation to a pile, each of said spacers including spaced staples and a headed nail there intermediate, said staples and nail coacting to corrugate and rigidly engage the longitudinal rods.

3. A spacer for concrete reinforcing longitudinal rods comprising a pair of staples spaced a distance apart, and a headed nail there intermediate and with the outer surface of the nail-head extending a slight distance beyond the line joining the sets of said staples.

4. The combination with a core, of means thereon for reinforcing a plastic coating, said means including longitudinal rods, spacing devices interposed between each rod and the core, and means straddling each rod for holding it against displacement relative to the spacing devices.

1,133,485. CORSET. FRANCIS J. MCDERMOTT, New Haven, Conn., assignor to Birdsey, Somers Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Oct. 10, 1914. Serial No. 866,158. (Cl. 2—73.)



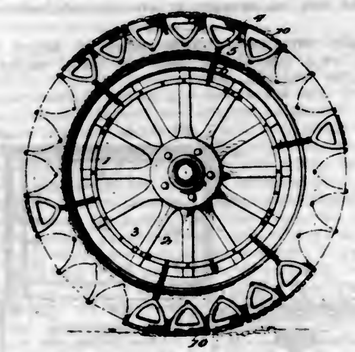
1. A corset having clasp members and side seams, each half-corset comprising a back section, an abdominal section, a bust section and a corded section attached to the clasp members and extending from the top of the corset downward below the waist-line, the upper and lower sides of said section being converging concave curves and the rear end being relatively narrow and connected by the side seam to the back section.

2. A corset having clasp members and side seams, each half-corset comprising a back section, an abdominal section, a single ply quilted bust section and a two-ply corded section attached to the clasp member and extending from the top of the corset downward below the waist-line, the upper and lower sides of said section being converging concave curves and the rear end being relatively narrow and connected by the side seam to the back section.

3. A corset having clasp members and side seams, each half-corset comprising a back section, an abdominal section having an elastic section inserted at the lower front end thereof, a bust section and a corded section attached to the clasp member and extending from the top of the corset downward below the waist-line, the upper and lower sides of said section being converging concave curves and the rear end being relatively narrow and connected by the side seams to the back section.

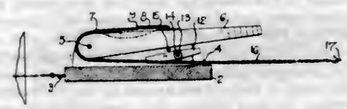
4. A corset having clasp members and side seams, each half-corset comprising a back section, an abdominal section, a bust section, and an approximately triangular corded section attached to the clasp member and extending backward to the side seam, the upper and lower sides of said section being converging concave curves.

1,133,486. PUNCTURE-PROOF SHIELD FOR TIRES. JAMES E. MCLAUGHLIN, Chicago, Ill. Filed Dec. 2, 1912. Serial No. 734,545. (Cl. 152—16.)



The combination with a wheel comprising a rim, spokes, and a pneumatic tire, of a shield for said tire consisting of elliptical sections adapted to fit transversely over the tire and each provided at one edge with a single hinge lug and at its opposite edge with a pair of hinge lugs adapted to receive between them the single hinge lug of an adjacent section and each section being provided in its tread portion with outstanding transversely and longitudinally disposed traction lugs and being further provided with openings near its ends and at opposite sides of the said lugs, pintles inserted through the engaging hinge lugs of adjacent sections, integral rings disposed adjacent the sides of the wheel, springs having their outer ends secured to the ends of some of the sections and their inner ends secured to said rings, and securing bolts inserted through said rings between the spokes of the wheel and bearing against the said spokes at opposite sides of the same.

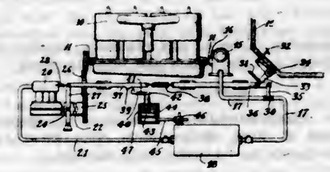
1,133,487. WIRE-STRETCHER. THOMAS B. MCMILLAN, Toro, LA. Filed Aug. 17, 1914. Serial No. 857,215. (Cl. 254—78.)



1. A wire stretcher, comprising a base having two parallel longitudinal spaced sides forming chain guides, means at one end of the base for anchoring the base, a lever pivoted between the sides at one end thereof and having a rounded pivotal end and also having a hook disposed on its under surface in advance of the pivot, a gravity actuated trigger pivoted between the forward ends of the sides, a pulling chain passing between the sides at the forward end of the base and beneath the trigger and the rounded end of the lever and interlocking with the hook on the lever, and means mounted on the under face of the lever in advance of the chain hook for taking up slack in that portion of the chain disposed in advance of the chain hook.

2. A wire stretcher, comprising a base having two parallel longitudinal spaced sides forming chain guides, anchoring means at one end of the base, a pulling chain guide at the opposite end of the base, a lever pivoted between the sides at one end thereof, having a rounded pivotal end and provided with a hook on its under face in advance of the pivot, a gravity actuated trigger disposed between the forward ends of the sides, a pulling chain passing between the sides and beneath the trigger lever, and interlocking with the hook on the lever and means for taking up slack in that portion of the chain beyond said hook, said means comprising a coil spring secured at one end to the lever on its under face and having a hook at its free end adapted to engage one link of the chain.

1,133,488. PNEUMATIC STARTER FOR MOTOR-VEHICLES. ALDEN L. MCMURTRY, Sound Beach, Conn. Filed Mar. 13, 1913. Serial No. 753,942. (Cl. 123—179.)



1. The combination with an engine, a fluid actuated starter therefor, a storage tank and a compressor, of means for controlling the supply of motive fluid from the tank to the starter, a coupling device between the engine and the compressor, and a mechanical connection between said fluid controlling means and the coupling device whereby they may be actuated together by an operator.

2. The combination with an engine, a fluid actuated starter therefor, a storage tank and a compressor, of means for controlling the supply of motive fluid from the tank to the starter, a releasable coupling device between the engine and the compressor, and a mechanical connection between said fluid controlling means and the coupling device whereby they may be actuated together by an operator, and means dependent upon a restoration of pressure in the tank for releasing the coupling device.

3. The combination with an internal combustion engine, a fluid actuated starter therefor, a storage tank and a compressor, of a control valve between the storage tank and the starter and a controller for opening the valve arranged to simultaneously couple the compressor to the engine and means dependent upon a restoration of pressure in the tank for uncoupling the compressor.

4. The combination with an internal combustion engine, a fluid actuated starter therefor, a storage tank and a compressor, of a control valve between the storage tank and the starter and a controller for opening the valve arranged to simultaneously couple the compressor to the engine, means for maintaining the coupling between the compressor and the engine independently of said controller and means dependent upon a predetermined pressure in the tank for releasing said maintaining means.

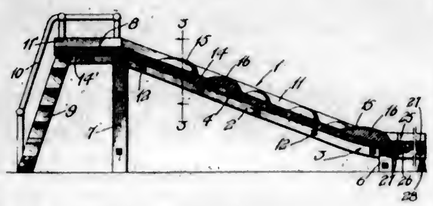
5. The combination with an internal combustion engine, a fluid actuated starter therefor, a storage tank and a compressor, of a control valve between the storage tank and the starter, a controller for opening the valve arranged to simultaneously couple the compressor to the engine, a spring tending to uncouple the compressor from the engine, a latch for maintaining the coupling in opposition to the spring and a plunger influenced by the pressure in the tank for releasing the latch.

[Claims 6 to 10 not printed in the Gazette.]

1,133,489. AMUSEMENT DEVICE. MARCELLUS MIFFLIN MAUCK, Atlanta, Ga. Filed Nov. 2, 1914. Serial No. 869,947. (Cl. 46—69.)

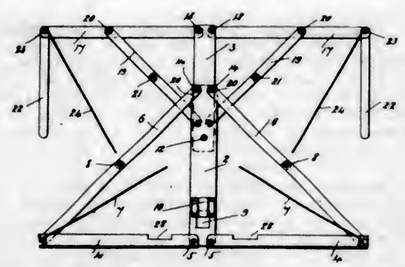
An amusement device comprising an inclined chute having a metal covering provided with a plurality of substantially elliptical openings, in combination with a plurality of inverted pan-shaped members projecting upwardly through said openings and having laterally ex-

tending flanges formed integrally with their lower edges, said flanges being interposed between the chute and the



metal covering therefor, and fasteners passing through said covering and the flanges and into the chute.

133,490. MUSIC-HOLDER. CHARLES H. MEHM and CHARLES E. TITE, Wilkes-Barre, Pa. Filed June 11, 1914. Serial No. 844,497. (Cl. 45—121.)

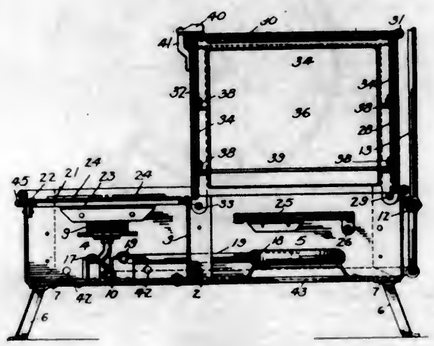


1. In a foldable music holder, the combination, with a center bar formed of two overlapping sections, the lower end portion of the upper section being pivoted to the middle portion of the lower section and being foldable behind it, and the said lower section having at its upper end two rearwardly projecting lugs which normally straddle the upper section and hold it in line with the lower section; of two foldable bottom bars pivoted to the lower end portion of the said lower section, two foldable top bars pivoted to the upper end portion of the upper section, and braces for the bottom and top bars arranged between them and the lower and upper sections respectively.

2. In a foldable music holder, the combination, with a center bar formed of two overlapping sections, the lower end portion of the upper section being pivoted to the middle portion of the lower section and being foldable behind it, and the said lower section having at its upper end two rearwardly projecting lugs which normally straddle the upper section and hold it in line with the lower section; of two foldable bottom bars having their inner end portions pivoted against the front side of the lower end portion of the lower section of the center bar, jointed diagonal braces pivoted to the lower bars and to the upper end portion of the lower section of the center bar and arranged in front of the latter, two foldable top bars having their inner end portions pivoted against the rear side of the upper end portion of the upper section of the center bar, and jointed diagonal braces pivoted to the top bars and to the lower end portion of the upper section of the center bar and arranged behind the latter.

3. In a foldable music holder, the combination, with a center bar formed of two pivoted overlapping sections, the front section having a hole in its lower end portion, of a channel-shaped supporting socket secured wholly against the front side of the front section and partially overlapping the said hole, thereby permitting the rear sections to fold over the said hole, two bottom bars pivoted against the front side of the front section and foldable upwardly one on each side of the said socket, braces between the said front section and the bottom bars, and a supporting upright having a lug which is thrust forwardly through the said hole into engagement with the said socket.

1,133,491. FOLDING STOVE. EDWIN C. MOATS, Colorado City, Colo. Filed Nov. 12, 1913. Serial No. 800,579. (Cl. 126—9.)



1. A stove of the character described comprising a box-shaped base open at its top and divided by a transverse partition into two combustion compartments, and a collapsible oven which covers one of said compartments and which is composed of a series of coöperative plates including a front-plate hinged on the base adjacent its partition, to fold within the compartment normally covered by the oven, a back-plate and a top plate which are articulately connected along adjoining edges and which are capable to conjointly cover the entire base when in alinement, the said back plate being at its edge opposite to that at which it connects with the top-plate hinged to the base adjacent the rear end thereof, side-plates capable of closing the spaces between the opposite sides of the base and the respective edges of the front, back and top-plates, and means for holding said side plates removably in position with relation to the other plates.

2. A stove of the character described comprising a box-shaped base open at its top and divided by a transverse partition into two combustion compartments, and a collapsible oven which covers one of said compartments and which is composed of a series of coöperative, jacketed plates including a front-plate hinged on the base adjacent its partition, to fold within the compartment normally covered by the oven, a back plate and a top plate which are articulately connected along adjoining edges and which are capable to conjointly cover the entire base when in alinement, the said back-plate being at its edge opposite to that at which it connects with the top-plate hinged to the base adjacent the rear end thereof, side-plates capable of closing the spaces between the opposite sides of the base and the respective edges of the front-, back-, and top-plates, and means for holding said side plates removably in position with relation to the other plates.

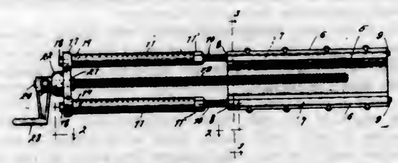
3. A stove of the character described comprising a box-shaped base open at its top and divided by a transverse partition into two combustion compartments, and a collapsible oven which covers one of said compartments and which is composed of a series of coöperative plates including a front-plate hinged on the base adjacent its partition, to fold within the compartment normally covered by the oven, a back-plate and a top-plate which are articulately connected along adjoining edges and which are capable to conjointly cover the entire base when in alinement, the said back plate being at its edge opposite to that at which it connects with the top-plate hinged to the base adjacent the rear end thereof, side-plates capable

of closing the spaces between the opposite sides of the base and the respective edges of the front-back and top-plates, shelves for the support of articles of food within the oven, means for holding said side-plates removably in place with relation to the other plates, and means for the support of said shelves.

4. A stove of the character described comprising a box-shaped base open at its top and divided by a transverse partition into two compartments, vapor-burners in said compartments, a folding pipe outside the base, in connection with said burners and adapted to connect with an elevated reservoir of gaseous liquid, a plate for the support of cooking-utensils over the burner in one of said compartments, and a collapsible oven which covers the other compartment and which is composed of a series of coöperative plates including a front-plate hinged on the base adjacent its partition to fold within the compartment normally covered by the oven, a back-plate and a top plate which are articulately connected along adjoining edges and which are capable to conjointly cover the entire base when in alinement, the said back plate being at its edge opposite to that at which it connects with the top-plate hinged to the base adjacent the rear end thereof, side-plates capable of closing the spaces between the opposite sides of the base and the respective edges of the front-, back-, and top-plates, and means for holding said side plates removably in position with relation to the other plates.

5. A stove of the character described comprising a box shaped base open at its top, and divided by a transverse partition into two combustion compartments, and a collapsible oven which covers one of said compartments and which is composed of a series of coöperative plates including a front plate adapted to fold over the compartment normally covered by the oven, a back-plate and a top-plate which are articulately connected along adjoining edges and which are capable to be folded over the base and to conjointly cover the same when in alinement, and side plates capable of closing the spaces between the opposite sides of the base and the respective edges of the front, back and top-plates, and detachably held with relation to said plates.

1,133,492. EXTENSION-FRAME FOR MINING-DRILLS. GEORGE W. MORGAN and LON EVANS, Commerce, Okla. Filed Oct. 15, 1914. Serial No. 866,804. (Cl. 255—45.)



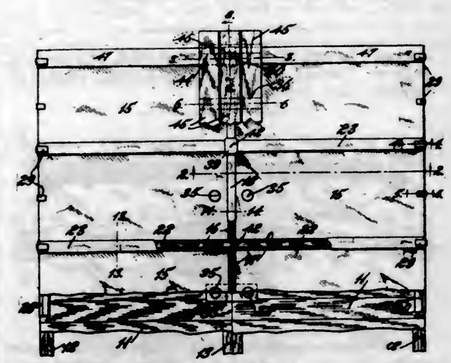
1. An extension frame for drill machines, comprising longitudinal screw-threaded rods having connection with the guide-member of the drill machine, a cross-head arranged near the rear ends of the screw-threaded rods, internally screw-threaded sleeves receiving the screw-threaded rods and adapted to be moved longitudinally thereon upon being rotated and having a permanent swiveled connection with the cross-head, a feed screw engaging the cross-head, and means to rotate the feed screw.

2. An extension frame for drill machines, comprising longitudinal screw-threaded rods having connection with the guide-member of the drill machine, a cross-head arranged near the rear ends of the screw-threaded rods and provided with openings near the ends thereof, internally screw-threaded sleeves receiving the screw-threaded rods and being longitudinally adjustable thereon by rotation thereof and provided near their rear ends with extensions passing through the openings of the cross-head and rotatable therein, a feed-screw engaging the cross-head, and means rotating the feed screw.

3. An extension frame for drill-machines, comprising longitudinal screw-threaded rods having connection with the guide-member of the drill machine, a cross-head arranged near the rear ends of the screw-threaded rods and provided with openings near the ends thereof, internally screw-threaded sleeves receiving the screw-threaded rods and being longitudinally adjustable thereon by rotation thereof and provided near their rear ends with extensions passing through the openings of the cross-head and rotatable therein, a feed screw engaging the cross-head, means rotating the feed screw, and lock nuts engaging the screw-threaded rods adjacent the forward ends of the sleeves to have clamping engagement therewith.

4. A frame extension for drill machines, comprising longitudinal screw-threaded rods having connection with the guide-member of the drill machine, a cross-head arranged near the rear ends of the screw-threaded rods and provided near its ends with transverse openings, internally screw-threaded sleeves receiving the screw-threaded rods and being longitudinally movable thereon upon being rotated and having their rear ends closed by a solid portion of material integral therewith and carrying trunnions integral with the solid portions and extending within the transverse openings of the cross heads to be rotatable therein, means for retaining the trunnions within the transverse openings of the cross-head, a feed screw engaging the cross-head, and means to rotate the feed screw.

1,133,493. CAR-ROOF. CLINTON C. MURPHY, Chicago, Ill. Filed Apr. 22, 1914. Serial No. 833,764. (Cl. 108—5.)



1. A car roof consisting of roof sheets in pairs arranged crosswise of the car, the roof sheets of each pair being disposed end to end on opposite sides of the ridge and linked together for joint bodily movement, seam covers spanning the ridge ends of said roof sheets, and means for loosely securing the ridge corners of said roof sheets and said seam covers, whereby movement of said sheets is permitted.

2. A car roof consisting of roof sheets in pairs arranged side by side crosswise of the car, the roof sheets of each pair being disposed end to end on opposite sides of the ridge and loosely linked thereto for swinging and pivotal movement, channel shape seam covers spanning the ridge ends of said roof sheets, and means for loosely securing the ridge corners of said roof sheets and said seam covers whereby movement of said sheets is permitted.

3. In a car roof, in combination movable roof sheets having upstanding side flanges, said sheets being arranged crosswise of the car in two rows, one on each side of the ridge, and spaced apart lengthwise thereof, battens arranged crosswise of the car between said roof sheets, said battens being of greater vertical thickness than said roof sheet flanges, movable seam covers extending from ridge to eaves over said battens and having downturned side

flanges inclosing said roof sheet flanges, and ridge corner caps covering the ridge ends of said seam covers and the ridge corners of said roof sheets, said ridge corner caps having side walls loosely embracing said seam covers and inner walls bearing upon said battens and loosely spacing said corner caps above said seam covers.

4. In a car roof, in combination movable roof sheets having upstanding side flanges, said sheets being arranged crosswise of the car in two rows, one on each side of the ridge, and spaced apart lengthwise thereof, battens arranged crosswise of the car between said roof sheets, movable seam covers extending from ridge to eaves over said battens and having cross flanges on their ridge ends and downturned side flanges inclosing said roof sheet flanges, and ridge corner caps covering the ridge ends of said seam covers and the ridge corners of said roof sheets, said ridge corner caps having parallel inner and outer side walls forming recesses for the flanged ends of said seam covers, said inner walls bearing upon said battens and loosely spacing said outer walls above said seam covers.

5. In a car roof, movable roof sheets having side flanges arranged in two rows, one row on each side of the ridge, inverted channel-shape seam covers lapping the ridge ends of oppositely arranged sheets, said ridge seam covers having out-turned flanges at the ends of their side walls, inverted channel-shape seam covers lapping the side margins of adjacent sheets, said side seam covers embracing the out-turned flanges of adjacent ridge seam covers, whereby said seam covers are movably connected together and ridge corner caps loosely embracing the ends of said ridge and side seam covers whereby joint movement thereof is permitted.

[Claims 6 to 10 not printed in the Gazette.]

1,133,494. RUNNING-BOARD SADDLE. CLINTON C. MURPHY, Chicago, Ill. Filed Aug. 1, 1914. Serial No. 854,503. (Cl. 105—194.)



1. In a car, a roof structure, a runway and saddle members for said runway, said saddle members being bolted to the roof structure at the ridge and said runway being detachably secured to said saddle members, the runway comprising transverse metal members having running boards secured thereto by vertical bolts with the nuts on the under side and said metal plates and said saddle members having registering holes located laterally beyond the running boards, and bolts extending through said holes, whereby the runway may be completed on the ground and applied as a unit to the car.

2. A running board saddle comprising a main member adapted to be secured to a car roof, a separate plate to which the running boards are secured, said plate having a transverse slot near each end thereof, and a bolt passing through each slot and clamping said plate to said main member.

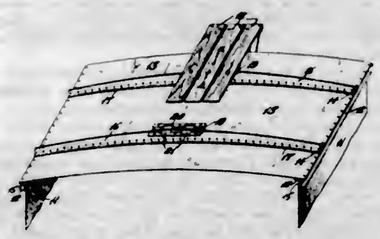
3. A metal running board saddle comprising a main member adapted to be secured to a car roof, rubbing strips of non-abrasive material projecting from the under face of said main member, said rubbing strips being adapted to bear upon the transverse seams of said car roof, a secondary member which is separate from said main member and to which the running boards are secured, and means for fastening said members together.

4. A metal running board saddle comprising a main member having a bottom portion adapted to straddle side seam covers of a car roof, and rubbing strips of non-abrasive material projecting from the under face of said bottom portion and adapted to bear upon said side seam covers.

5. A running board saddle comprising a main member constituting the body portion of said saddle and having a bottom portion, said bottom portion having flanges projecting dwnwardly therefrom and adapted to engage the opposite sides of the transverse seams of a car roof, a hood integral with said bottom portion and extending outwardly from each side thereof, said bottom portion and said hoods constituting a corner cap for the seams of said roof, said main member being adapted to be secured to a car roof, a separate plate to which the running boards are secured, and means for fastening said plate to said main member, said means being accessible after the running boards are secured to said plate.

[Claims 6 and 7 not printed in the Gazette.]

1,133,495. METAL CAR-ROOF. WALTER P. MURPHY, Chicago, Ill. Filed June 25, 1914. Serial No. 847,186. (Cl. 108—5.)



1. A car roof comprising metal roof plates, extending from eaves to eaves and having upstanding flanges along their side margins, said flanges being of substantially uniform height from end to end, and cover strips of inverted U shape arranged over the adjacent flanges of said roof plates, said cover strips having a greater height at the ridge than at the eaves of the roof, and means for securing said flanges and cover strips together to form a rigid joint, whereby said flanges and cover strips together constitute transverse supporting members.

2. A car roof comprising metal roof plates extending from eaves to eaves and having upstanding flanges along their side margins, said flanges being of substantially uniform height from end to end, and cover strips of inverted U shape with outwardly projecting flanges along the bottom edges of the side walls arranged over the adjacent flanges of said roof plates, said cover strips having a greater height at the ridge than at the eaves of the roof, and means for securing said flanges and cover strips together to form a rigid joint, whereby said flanges and cover strips together constitute transverse supporting members.

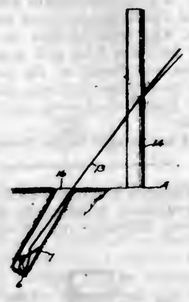
3. A car roof comprising metal roof plates extending from eaves to eaves and having upstanding flanges along their side margins, said flanges being of substantially uniform height from end to end, cover strips of inverted U shape arranged over the adjacent flanges of said roof plates, said cover strips having a greater height at the ridge than at the eaves of the roof, means for securing said flanges and cover strips together to form a rigid joint, and continuous eaves strips arranged lengthwise of said roof under the eaves ends of said roof plates and rigidly secured thereto, whereby said flanges and cover strips together constitute transverse supporting members.

4. In a car roof, in combination, metal roof plates extending from eaves to eaves and having upstanding flanges along their side margins, the flanges of adjacent plates being rigidly fastened together along lines parallel with and close to the bottoms of the flanges, cover strips of inverted U-shape arranged over said flanges and secured thereto along the same lines that said flanges are fastened together on, said cover strips having a greater height than the height of said flanges at the ridge, and running board saddles embracing and rigidly secured to the tops of said flanges at the ridge and stiffening them against buckling.

5. A car roof constructed so as to be adapted to be handled as a separate unitary structure, said roof consisting of plates having upturned side flanges arranged side by side and rigidly secured together, stiffening means for the upstanding joints formed by said flanges, and stiffening means for the eaves ends of the plates.

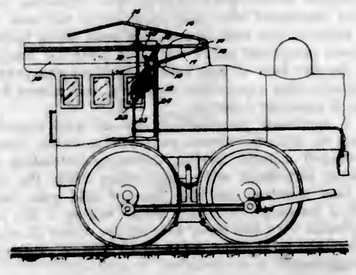
[Claim 6 not printed in the Gazette.]

1,133,496. POST-ANCHOR. CLIFTON F. NOAKES, Portland, Oreg. Filed Apr. 18, 1914. Serial No. 832,805. (Cl. 189—92.)



An anchor comprising two flat plates of suitable length with two pairs of openings in and near the ends of each, said openings being spaced longitudinally of the plates and so arranged that the openings in one plate will register with those in the opposing plate when the plates lap each other, the plates being flat and straight on their lapping ends, their free ends being of suitable form, also a single guy line adapted to thread downwardly through the registered openings of both plates longitudinally thereof thence transversely, thence again longitudinally and upwardly through the opening opposite the entering one and above the two plates when lapped, substantially as described.

1,133,497. BRAKE-APPLYING MECHANISM FOR TRAINS. NATHAN A. OLIVEA, Mattapoisett, Mass. Filed Feb. 25, 1913. Serial No. 750,671. (Cl. 246—59.)



1. A brake applying mechanism for trains comprising a resilient beam, one terminal of which is secured to the cab of an engine, a bracket supporting said beam intermediate its ends, a rod connected to said beam and disposed to extend within the cab, a brake applying mechanism, and a connection between said rod and brake applying mechanism, whereby depression of the beam will apply the brakes.

2. A brake applying mechanism for trains comprising a resilient beam, one terminal of which is secured to the cab of an engine, a bracket supported on the cab, and connected to said beam intermediate its ends, a rod hingedly connected to said beam and extending within the cab, a stub-shaft supported within the cab, a lever arranged on said stub-shaft, a coiled spring, one of the terminal convolutions of said spring being connected to said lever, its other terminal convolution being connected to said rod, a valve controlled brake applying mechanism, the valve of said mechanism including a handle portion, and a rod secured to said lever, said rod at its terminal remote from the lever being bent to embrace the valve handle, whereby the actuation of the lever through the medium of the first-mentioned rod will operate the valve to apply the brakes.

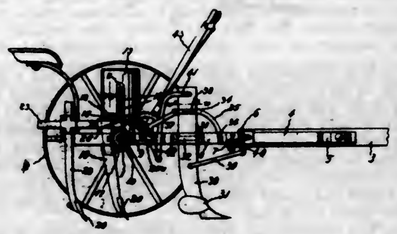
3. A brake applying mechanism for trains including a resilient beam, one terminal of which is secured to the cab of an engine, a bracket supporting said beam intermediate its ends, the free end portion of the beam being substantially arcuate in shape, a rod connected to the intermediate part of the free end portion of the beam, a brake applying mechanism, and operative connection between such mechanism and the rod.

4. A brake applying mechanism for trains including a bracket attached to the cab of a locomotive, a resilient beam attached at one end to the cab of a locomotive and bent intermediate its length to provide an eye for engagement by the bracket, a brake applying mechanism, and operative connection between the brake applying mechanism and the free end portion of the beam.

5. A brake applying mechanism for trains including a resilient beam, one terminal of which is secured to an engine, a bracket supporting the intermediate portion of the beam, an operating member hinged to the free portion of the beam, a lever, a resilient connection between the operating member and lever, a brake controlling valve, and an operative connection between the lever and such valve.

[Claim 6 not printed in the Gazette.]

1,133,498. TWO-ROW PLANTER. BISHOP M. PAYNE, Sidney, Tex. Filed Oct. 13, 1913. Serial No. 794,774. (Cl. 111—6.)



1. In a planter, the combination of a wheel supported main frame, a plow substantially vertically adjustable in the main frame, a lever mounted on the main frame, a connection between the lever and the standard, an auxiliary frame pivoted on the main frame and carrying shovels, a connection between the lever and the auxiliary frame at a point forward of the pivot points of said frame, and a seed can vertically adjustable on the main frame and having a part resting on the auxiliary frame in the rear of the pivot of the auxiliary frame whereby the seed can is adjusted vertically when the auxiliary frame is swung.

2. In a planter, the combination of a wheel supported main frame, a plow standard vertically adjustable in the main frame, a lever mounted on the main frame, a connection between the lever and the standard, an auxiliary frame pivoted on the main frame and carrying shovels, a connection between the lever and the auxiliary frame at a point forward of the pivot point of said frame, a seed can vertically adjustable on the main frame, a shaft car-

ried on the bottom of the seed can and resting on the auxiliary frame in rear of the pivot point of the latter, the auxiliary frame being swung by the lever.

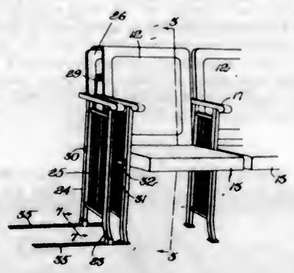
1,133,499. BINDING AND IMPREGNATING MATERIALS MADE FROM WASTE SULFITE LIQUORS. EMIL POLLACSEK, Spezia, Italy. Filed Sept. 10, 1913. Serial No. 789,145. (Cl. 134—1.)

1. A process for the manufacture of a binding and impregnating medium from waste sulfite liquors, lime and mineral oil, which comprises adding lime to the sulfite liquor, heating the mixture to the frothing stage, adding a heavy rock oil distillate, removing the oily mixture containing the calcium compounds, continuing the concentration of the remaining liquor, adding an additional quantity of rock oil distillate to the thickened concentrate, cooling, adding lime paste and more oil to the concentrate, and finally boiling the mixture.

2. A step in the process of manufacturing a binding agent from waste sulfite lye, which comprises adding mineral oil to a lime-sulfite liquor mixture at the frothing period and separating the resulting mixture of oil and excess of lime

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1,133,500. SEATING FOR AUDITORIUMS. HENRY V. POLLARD, Somerville, Mass. Filed Jan. 13, 1914. Serial No. 811,847. (Cl. 155—13.)



1. The combination with a fixed chair having a rigid back, of an incomplete chair comprising a side frame having front and back legs, a back rigidly attached at one edge to said side frame, and a folding seat attached to the back, the back of the fixed chair being provided with means to slidingly support the free edge of the back of the incomplete chair, whereby the seat of the latter may be folded and moved with its back to the rear of the fixed chair when not in use.

2. The combination with a fixed chair having a rigid back, of an incomplete chair comprising a side frame having front and back legs, a back rigidly attached at one edge to said side frame, and a folding seat attached to the back, the back of the fixed chair being provided with means to slidingly support the free edge of the back of the incomplete chair, whereby the seat of the latter may be folded and moved with its back to the rear of the fixed chair when not in use, said fixed chair and said side frame having supporting members to sustain the seat of the incomplete chair when in open position.

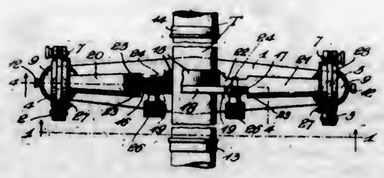
3. The combination with a fixed chair having a rigid back, of an incomplete chair comprising a side frame having front and back legs, a back rigidly attached at one edge to the side frame, and a folding seat attached to the back, and a horizontal track supported by the rear side of the back of the fixed chair, the free edge of the back of the incomplete chair being provided with a runner movable on said track, whereby the seat of the incomplete chair may be folded and moved with its back to the rear of the fixed chair when not in use.

4. The combination with a fixed chair having a rigid back, of an incomplete chair comprising a side frame having front and back legs, a back rigidly attached at one edge to said side frame, and a folding seat attached to the back, the back of the fixed chair being provided with means to slidingly support the free edge of the back of the incomplete chair, whereby the seat of the latter may be folded and moved with its back to the rear of the fixed chair when not in use, and means engaging the legs of the side frame to prevent displacement of the outer edge of the incomplete chair when in extended relation.

5. The combination with a fixed chair having a rigid back, of an incomplete chair comprising a side frame having front and back legs, a back rigidly attached at one edge to said side frame, and a folding seat attached to the back, the back of the fixed chair being provided with means to slidingly support the free edge of the back of the incomplete chair, whereby the seat of the latter may be folded and moved with its back to the rear of the fixed chair when not in use, floor tracks extending outwardly from one side of the fixed chair and provided with overhanging guards, and twin trolleys on the legs of said side frame and held down by said guards, whereby displacement of the outer edge of the incomplete chair is prevented when in extended relation, and said incomplete chair is held in proper relation to the fixed chair during inward movement.

[Claims 6 to 8 not printed in the Gazette.]

1,133,501. LEVELING INSTRUMENT FOR BUILDERS. CHARLES L. PRANDONI, Hoboken, N. J. Filed Sept. 17, 1914. Serial No. 862,244. (Cl. 33—72.)



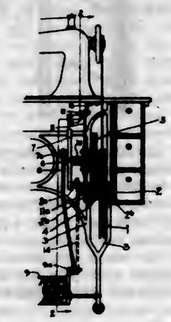
1. A combined leveling instrument and transit comprising an alidade, forked supports mounted thereon, a yoke-shaped member having trunnions extending in longitudinal alinement with each other from the ends of said yoke member, one side face of said yoke being flattened, a telescope encircling collar having a plate for engagement with the flat face of said yoke, and means for locking said plate and yoke together.

2. A combined leveling instrument and transit comprising an alidade, forked supports mounted thereon, a yoke-shaped member having trunnions extending in longitudinal alinement with each other from the ends of said yoke member, one side face of said yoke being flattened, a telescope encircling collar having a plate for engagement with the flat face of said yoke, said plate and yoke carrying interlocking connecting elements, and means for locking said members together.

3. A combined leveling instrument and transit comprising an alidade, forked supports mounted thereon, a yoke-shaped member having trunnions extending in longitudinal alinement with each other from the ends of said yoke member, one side face of said yoke being recessed, a telescope encircling collar having a flat face for engagement with the inner face of the recess of said yoke, lugs on said collar and means for locking said lugs and yoke together.

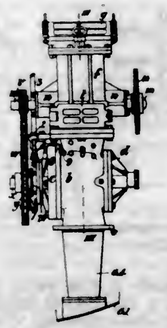
1,133,502. INTERCHANGEABLE-SPEED MECHANISM FOR SEWING-MACHINES. JOHN PSIK, Jackson, Minn. Filed July 25, 1914. Serial No. 853,160. (Cl. 74—7.)

1. The combination in a machine of a fixed normal speed mechanism, a movable constant high speed mechanism operatively associated with said normal speed mechanism, an independent connecting rod for each of said mechanisms, a treadle, means for supporting said high speed mechanism comprising a bearing, a bar, a fixed angle support for said bar, said bar having a plurality of holes at one end to permit fastening said bar to said angle support through either of said holes whereby said high speed mechanism is moved in and out of operation with said normal speed mechanism.



2. The combination in a machine of a fixed normal speed mechanism comprising a drive shaft, a balance wheel and pinion on said drive shaft, a connecting rod for said drive shaft; an auxiliary movable constant high speed mechanism comprising a shaft, a fly-wheel, an auxiliary connecting rod and a gear arranged to mesh with said pinion; means for supporting said high speed mechanism comprising a bearing, a hanger bar, a fixed angle support for said bar, said bar having a plurality of holes in one end thereof whereby said high speed mechanism is movable in and out of operation with said normal speed mechanism.

1,133,503. APPARATUS FOR DISCHARGING REFUSE FROM SHIPS. GAVIN CARLYLE RALSTON, Lee, England, assignor to J. Stone & Company, Limited, Deptford, England. Filed Dec. 5, 1908. Serial No. 466,097. (Cl. 114—186.)



1. Apparatus for discharging ashes and other matter from ships comprising in combination a revoluble hollow plug, a casing inclosing and adapted to revolubly support said plug, a filling connection opening into said casing, a discharge connection opening into said casing, a supply port in said casing, a pressure fluid connection to said supply port, an exhaust port in said casing, an opening in said plug the path of travel of said opening intersecting said filling and discharge connections, and a second opening in said plug the path of travel of said second opening intersecting said supply and exhaust ports said second opening being so disposed with relation to the first named opening and said ports and connections being so disposed with relation to one another that said second opening is registered with said supply port when the first named opening is registered with said discharge connection and is registered with said exhaust port intermediate successive registrations of the first named opening with said discharge and filling connections substantially as set forth.

2. Apparatus for discharging ashes and other matter from ships comprising in combination a revoluble taper hollow plug, a casing inclosing and adapted to revolubly support said plug, elastic means operative to move said taper plug against its seat in said casing, a filling connection opening into said casing, a discharge connection opening into said casing, a supply port in said casing, a pressure fluid connection to said supply port, an exhaust port in said casing, an opening in said plug the path of travel of said opening intersecting said filling and discharge connections, and a second opening in said plug the path of travel of said second opening intersecting said supply and exhaust ports, said second opening being so disposed with relation to the first named opening and said ports and connections being so disposed with relation to one another that said second opening is registered with said supply port when the first named opening is registered with said discharge connection and is registered with said exhaust port intermediate successive registrations of the first named opening with said discharge and filling connections substantially as set forth.

3. Apparatus for discharging ashes and other matter from ships comprising in combination a revoluble taper hollow plug, a casing inclosing and adapted to revolubly support said plug, elastic means operative to move said taper plug against its seat in said casing, an adjustable stop operative at the small end of said taper plug to limit the seating movement of said plug, a filling connection opening into said casing, a discharge connection opening into said casing, a supply port in said casing, a pressure fluid connection to said supply port, an exhaust port in said casing, an opening in said plug the path of travel of said opening intersecting said filling and discharge connections, and a second opening in said plug the path of travel of said second opening intersecting said supply and exhaust ports said second opening being so disposed with relation to the first named opening and said ports and connections being so disposed with relation to one another that said second opening is registered with said supply port when the first named opening is registered with said discharge connection and is registered with said exhaust port intermediate successive registrations of the first named opening with said discharge and filling connections substantially as set forth.

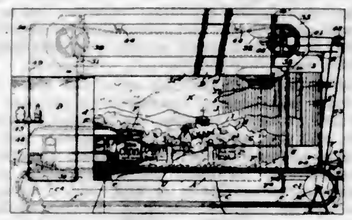
4. Apparatus for discharging ashes and other matter from ships comprising in combination a revoluble taper hollow plug, a casing inclosing and adapted to revolubly support said plug, elastic means operative to move said taper plug against its seat in said casing, an adjustment operative upon said elastic means to regulate the effort thereof on said plug, a filling connection opening into said casing, a discharge connection opening into said casing, a supply port in said casing, a pressure fluid connection to said supply port, an exhaust port in said casing, an opening in said plug the path of travel of said opening intersecting said filling and discharge connections, and a second opening in said plug the path of travel of said second opening intersecting said supply and exhaust ports said second opening being so disposed with relation to the first named opening and said ports and connections being so disposed with relation to one another that said second opening is registered with said supply port when the first named opening is registered with said discharge connection and is registered with said exhaust port intermediate successive registrations of the first named opening with said discharge and filling connections, substantially as set forth.

5. Apparatus for discharging ashes and other matter from ships comprising in combination a revoluble taper hollow plug, a casing inclosing and adapted to revolubly

support said plug, elastic means operative to move said taper plug against its seat in said casing, a spray device directed on to the exterior surface of said plug, a pressure liquid supply connected to said spray device, a filling connection opening into said casing, a discharge connection opening into said casing, a supply port in said casing, a pressure fluid connection to said supply port, an exhaust port in said casing, an opening in said plug the path of travel of said opening intersecting said filling and discharge connections, and a second opening in said plug the path of travel of said second opening intersecting said supply and exhaust ports said second opening being so disposed with relation to the first named opening and said ports and connections being so disposed with relation to one another that said second opening is registered with said supply port when the first named opening is registered with said discharge connection and is registered with said exhaust port intermediate successive registrations of the first named opening with said discharge and filling connections substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,133,504. EXHIBITING AND ADVERTISING APPARATUS. HENRY REICHENBACH, New York, N. Y. Filed Apr. 27, 1910. Serial No. 558,068. (Cl. 46—70.)



1. In an apparatus of the class described, a movable background, a movable track, a vehicle the wheels of which engage said track and are adapted to be rotated thereby, said track being adapted to move the vehicle when the latter is not restrained against movement, and anchoring means for precluding movement of the vehicle with said track, whereby said vehicle is given the appearance of moving.

2. In an apparatus of the class described, a movable background, a movable endless track, a vehicle the wheels of which engage said track and are adapted to be rotated thereby, anchoring means for said vehicle, and means adapted to disengage the anchoring means whereby the track is allowed to move the vehicle.

3. In an apparatus of the class described, a plurality of movable webs, a movable track, a vehicle the wheels of which engage frictionally with the track, means for anchoring the vehicle, a drop curtain, and means operated by said curtain for operating the vehicle anchoring means.

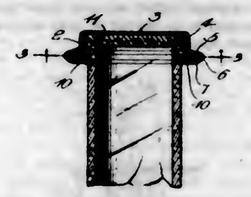
4. In an apparatus of the class described, a plurality of movable webs, a drop curtain, a vehicle, means for imparting movement to the vehicle, means for anchoring the vehicle when the curtain is in raised position and means for releasing the vehicle whereby the movement imparting means is free to operate said vehicle.

5. In an apparatus of the class described, a plurality of movable webs, a vehicle, spools upon which the webs are adapted to be coiled and uncoiled, an endless track, reversible driving mechanism for operating the spools and the endless track, and means operated by the varying size of one of the spools for reversing the operation of said driving mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,133,505. BOTTLE-TOP. OSCAR ROELKE, St. Louis, Mo. Filed Feb. 2, 1914. Serial No. 816,026. (Cl. 215—20.)

1. A device of the character described comprising; a cap formed of a single piece of sheet metal and having a packing receiving socket and an annular inturned flange, a packing disk seated within said socket, and spring metal arms underlying said packing disk and having their ends seated above said flange.

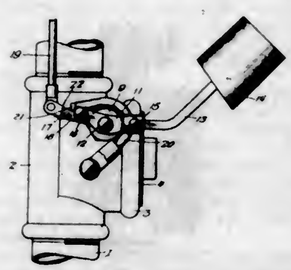


2. A device of the character described comprising; a cap formed of a single piece of sheet metal and having a packing receiving socket and an annular inturned flange, a packing disk loosely seated within said socket, and a resilient polygonal retaining frame underlying said disk and having its corners resting on said flange.

3. A device of the character described comprising; a cap formed of a single piece of sheet metal and having a packing receiving socket and an annular bead substantially U-shaped in cross section, a packing disk seated loosely within said socket, and a resilient rectangular frame underlying said disk and having its corners seated within said U-shaped bead.

4. A device of the class described comprising a cap member, the lower edges of the side flanges of which are bent outwardly and thence inwardly to provide a channel-shaped bead, a packing disk arranged in said cap member, and a substantially rectangular clip formed of a single strand of wire and arranged in the cap member to permit the corners thereof to be received in the channel-shaped bead, said clip retaining the packing disk in place when the cap member is in disuse and adapted for engagement with the bead of a bottle neck in the application of the cap thereto.

1,133,506. AUTOMATIC SHUT-OFF VALVE. FRANK C. SCHIELE, Chicago, Ill. Filed Feb. 17, 1913. Serial No. 748,859. (Cl. 137—92.)



1. In an automatic shut-off valve, means arranged in operative relation to the valve to maintain the same normally open, said means including a pivoted member, a trip lever pivotally mounted thereon, a fusible stop for limiting the relative pivotal movement of said member and said trip lever in one direction, a shoulder between the ends of said trip lever, a lever pivotally mounted on the valve-casing and spaced from the axis of the pivot of said member and provided with a projection adapted to normally engage said shoulder of said trip-lever, the direction of thrust between the said projection and the said shoulder being substantially radial of the lever equipped with the projection; the arc of movement of the said shoulder about the axis of the pivot of said member and the arc described by said projection intersecting each other at a point in the movement of the former at which the valve is open and the arc of movement of said shoulder in the direction of valve-closure being gradually farther from the axis of the pivot of the lever equipped with said projection, and means for manually turning said trip lever relatively to said member to disengage said projection from said shoulder.

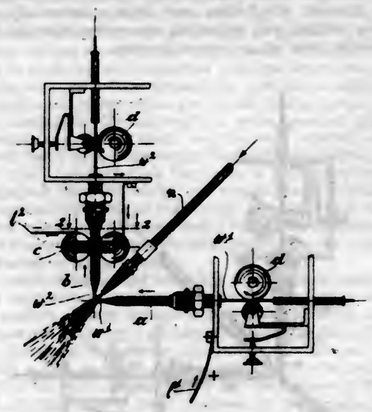
2. In a device of the kind specified, valve-closing means comprising a pivoted lever engaged with the valve, means continually tending to move the said lever to its valve-closure position; and automatically and manually releasable means for normally holding the lever in position to maintain said valve open, said means comprising a trip-lever pivotally connected with said lever and provided between its ends with a shoulder, a fusible stop for limiting relative pivotal movement of said levers in one direction, manually operable means engaged with said trip-lever for turning the same relatively to said lever in the other direction, an arm passing between said lever and the valve casing and having a projection adapted to normally engage said shoulder of said trip-lever, a pivot for said arm spaced from the pivot of said lever, said arm U-shaped to permit said projection to pass the pivot of said lever, the arcs described by said projection and by said shoulder, respectively as the latter turns on the pivot of said lever, intersecting each other at a point in the movement of said lever at which the valve is open, the movement of said shoulder in the valve-closing direction exerting tension on said arm, said trip-lever, when manually actuated, throwing said projection out of engagement with said shoulder and, upon the fusing of said stop, said trip-lever turning on its pivot in the said other direction relatively to the lever.

3. In a device of the kind specified, valve-closing means comprising in combination, a pivoted lever operatively disposed in actuating relation to the valve, means engaging said lever and tending to move the same to its valve-closing position; and means for normally holding said lever in position to maintain said valve open including a trip-lever pivotally mounted on said lever, a fusible stop for limiting relative pivotal movement of said trip-lever and said lever in one direction, a shoulder between the ends of said trip-lever upon one side thereof, said lever adapted to describe an arc of about ninety degrees between valve-closing position and the position in which it is adapted to be supported to maintain the valve open; a pivoted arm equipped with a projection normally engaging the said shoulder on the trip-lever, the pivot of the said arm being at the opposite side of the trip lever from that having the said shoulder, the said projection adapted upon relative movement of the said levers to describe an arc which intersects the arc described by said shoulder at a point therein at which the valve is adapted to be maintained open and adapted to engage said shoulder at said point of intersection of said arcs, and means for manually operating said trip-lever to turn the same relatively to said lever for disengaging said projection from said shoulder.

1,133,507. APPARATUS FOR SPRAYING MOLTEN METAL AND OTHER FUSIBLE SUBSTANCES. MAX ULRICH SCHOOP, Zurich, Switzerland, assignor, by mesne assignments, to Metals Coating Company of America, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 19, 1914. Serial No. 819,722. (Cl. 83—91.)

1. In apparatus for the purpose set forth the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

2. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, electromagnetic means for vibrating one of said electrodes, whereby contact between said electrodes is alternately made and broken, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.



3. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, electromagnetic means for vibrating one of said electrodes, whereby contact between said electrodes is alternately made and broken, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

4. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, electromagnetic means for vibrating one of said electrodes, whereby contact between said electrodes is alternately made and broken, said electromagnetic means being electrically connected in series with said electrodes, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

5. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes comprising an elastically supported iron guide tube for one of said electrodes and an electromagnet to attract same, means for feeding to said electrodes an electric current capable of melting same, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

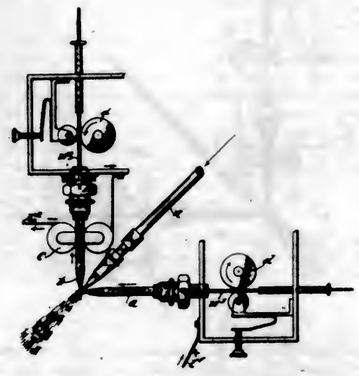
[Claims 6 to 8 not printed in the Gazette.]

1,133,508. METHOD OF SPRAYING FUSIBLE SUBSTANCES. MAX ULRICH SCHOOP, Zurich, Switzerland, assignor, by mesne assignments, to Metals Coating Company of America, Boston, Mass., a Corporation of Massachusetts. Original application filed Feb. 19, 1914, Serial No. 819,722. Divided and this application filed July 6, 1914. Serial No. 849,332. (Cl. 83—91.)

1. In the method of production of the spray of fusible substances, the step which consists in passing an electric current through electrodes formed of said substance whereby said electrodes are melted, and subjecting the molten material to an atomizing blast of gas under pressure.

2. In the method of production of the spray of fusible substances, the step which consists in introducing a fusible substance into a zone where it is melted by an electric current conducted to said zone in part by said substance, and subjecting the molten material to an atomizing blast of gas under pressure.

3. In the method of production of the spray of fusible substances, the step which consists in feeding a filament of the substance forward into a zone where it is melted by an electric current conducted to said zone in part by said filament, the feeding rate being substantially equal to the melting, and subjecting the molten material to an atomizing blast of gas under pressure.



4. In the method of production of the spray of fusible substances, the step which consists in passing an electric current through electrodes formed of a fusible substance, said electrodes being intermittently in contact thereby producing a fusing arc, and subjecting the molten material to an atomizing blast of gas under pressure.

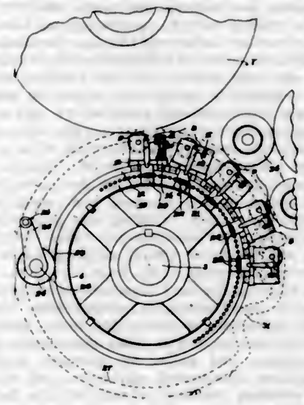
1,133,509. WRENCH. RICHARD SCOTT, Greenville, Ala. Filed Nov. 24, 1913. Serial No. 802,767. (Cl. 81—121.)



1. The herein described wrench comprising a head having a nut-aperture and a lateral integral projection on said head pierced with an angular hole whose axis is parallel with that of the aperture and with a transverse perforation at right angles to the axis of said hole; a handle forked at its inner end and passed astride said projection, a pin through the fork arms and perforation; a second handle having its inner end bent aside and made angular to fit said hole, means for holding this end removably therein; and a loop loosely secured to the outer end of one handle and adapted to be thrown over the outer end of the other, for the purpose set forth.

2. A wrench of the class described comprising a head having a nut-aperture therein and provided with an integral projection, said projection being also provided with an aperture having its axis extending parallel to the axis of the first mentioned aperture, a handle member distorted at its lower end and engaged with the second mentioned aperture in said head, means for removably securing the distorted end of said handle in the aperture of said projection, an additional handle member removably engaged with the aforesaid projection and designed for coöperation with said first mentioned handle as a brace therefor, and means for clamping the outer ends of said handle members together.

1,133,510. NUMBERING-MACHINE. AMOS H. SMITH, New York, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed July 15, 1913. Serial No. 779,083. (Cl. 101—183.)



1. A numbering machine embodying therein a rotary wheel or drum, adapted to have mounted thereon a numbering head, a rotary impression cylinder or platen, a numbering head embodying therein digit wheels and actuating means therefor, vibratory means within the path of the printing surface of said digit wheels and rotatable about the same axis as said wheel or drum and adapted to receive a timely actuation during each rotation thereof, connections between said vibratory means and said digit wheel actuating means, and actuating means for said vibratory means whereby said digit wheels will be advanced with each actuation thereof.

2. A numbering machine embodying therein a rotary wheel or drum adapted to have mounted thereon a numbering head, a rotary impression cylinder or platen, a numbering head embodying therein digit wheels and actuating means therefor, an oscillatory lever one arm of which is adapted to operatively engage said numbering head actuating means, said lever being mounted upon said numbering head and contained entirely within the path of the printing surface of said digit wheels, and means whereby said lever is actuated during each rotation of said wheel or drum.

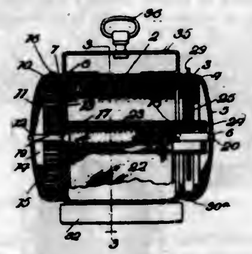
3. A numbering head embodying therein a rotary wheel or drum adapted to have mounted thereon a numbering head, a rotary impression cylinder or platen, a numbering head embodying therein digit wheels and actuating means therefor, a bell crank lever pivotally mounted upon said numbering head, one arm of said lever being operatively connected with said digit wheel actuating means, and the other arm thereof being directed inwardly toward the axis of said wheel or drum, vibratory means carried by said wheel or drum and operatively connected with said inwardly directed lever arm, and means for actuating said last named means with each rotation of said wheel or drum.

4. A numbering machine embodying therein a rotary wheel or drum, adapted to have mounted thereon a numbering head, a rotary impression cylinder or platen, a numbering head embodying therein digit wheels and actuating means therefor, vibratory means within the path of the printing surface of said digit wheels and rotatable about the same axis as said wheel or drum and adapted to receive a timely actuation during each rotation thereof, connections between said vibratory means and said digit wheel actuating means, and actuating means for said vibratory means whereby said digit wheels will be advanced with each actuation thereof, comprising a vibratory member carried by and rotatable with said wheel or drum, means adapted to impart vibratory movement thereto, also carried by said wheel or drum, and fixed means adjacent said wheel or drum adapted to actuate said last named means during each rotation of said wheel or drum.

5. A numbering machine embodying therein a rotary wheel or drum adapted to have mounted thereon a plurality of numbering heads, a rotary impression cylinder or platen, a plurality of numbering heads embodying therein respectively, digit wheels and actuating means therefor, a plurality of vibratory means within the path of the printing surface of said digit wheels, and rotating about the same axis as said wheel or drum, and adapted to receive a timely actuation during each rotation thereof, connections between said vibratory means respectively and the respective digit wheel actuating means, and actuating means common to all said vibratory means whereby said digit wheels of each numbering head will be simultaneously advanced with each actuation thereof.

[Claims 6 to 15 not printed in the Gazette.]

1,133,511. RAZOR-STROP HOLDER. JOSEPH TIDD STUTLER, Janelew, W. Va., assignor of one-half to Robert B. Swartz, Janelew, W. Va. Filed June 3, 1913. Serial No. 771,569. (Cl. 242—107.)



1. A razor strop holder comprising a cylindrical longitudinally slotted casing, a winding spring containing compartment at one end detachably engaged with the casing, a spring contained within said compartment, a detachable cap at the other end, a shaft supported at one end in the spring compartment and engaged with said spring, said detachable cap at the other end of the casing also being adapted to support said shaft, a drum mounted to rotate with the shaft and removable from the casing independently of said shaft, and a flexible member operatively connected to the drum and extending out through said slot in the casing.

2. A razor strop holder comprising a cylindrical longitudinally slotted casing, a winding spring-containing compartment at one end detachably engaged with the casing, a spring contained within said compartment, a detachable cap at the other end, a shaft supported at one end in the spring compartment and engaged with said spring, said detachable cap at the other end of the casing also being adapted to support said shaft, a drum mounted to rotate with the shaft and removable from the casing independently of said shaft, a flexible member operatively connected to the drum and extending out through said slot in the casing, and manually releasable means for operatively engaging the drum to prevent its reverse operation by the spring.

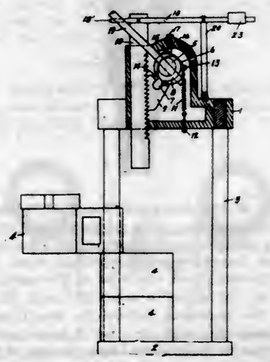
3. A razor strop holder including a cylindrical longitudinally slotted casing, open at both ends, an annular spring-frame screw-threaded into one end of the casing, a coil-spring inclosed within said frame, a cap closing said frame and having a central bearing, a shaft supported at one end in said cap and connected with the inner end of the spring and extending through the cylindrical casing, a detachable cap in the other end of the casing having a bearing opening for the said shaft, a drum mounted upon and rotatable with the shaft but laterally slidable off from said shaft, said drum being longitudinally slotted, a ratchet wheel mounted upon the drum, a spring-actuated pawl mounted upon the casing and engaging said ratchet-wheel against the force of the spring, manually operated means for releasing said pawl, and a flexible member passing into the casing through the slot thereof into the drum and engaging with the shaft.

4. A razor strop holder including a cylindrical casing open at both ends, a spring supported at one end of the casing, a shaft passing through the casing and having one end connected to the spring, a detachable cap at the other end of the casing detachably supporting the like end of the shaft, a ring provided with a groove, said ring forming part of the casing adjacent the last-named end of the shaft, a spring-actuated pawl mounted in the groove in said ring, a pin passed through the ring and operatively engaging the pawl to shift the detent end thereof outward, a drum mounted upon and rotatable with the shaft but laterally shiftable from the shaft, a ratchet-wheel mounted upon the drum with which said pawl normally engages, said drum being longitudinally slotted, and a flexible member having two thicknesses passed through the slot of the casing, through the slot of the drum and embracing the shaft.

5. A holder of the character described comprising a longitudinally slotted casing, a detachable cap at one end of the casing, a cap at the other end of the casing, a shaft operatively supported within the casing, a spring resisting the rotation of the shaft in one direction, a drum mounted to rotate with the shaft and longitudinally slotted, and a flexible member passing through the slot of the casing through the slot of the drum and operatively connected to the shaft.

[Claim 6 not printed in the Gazette.]

1,133,512. LEVER-PRESS. PAUL THEADORE, Lansing, Mich. Filed July 3, 1913. Serial No. 777,359. (Cl. 100—6.)



1. In a press, the combination with a ram provided with a ratchet, of operating mechanism including an eccentric, a pawl operatively connected with the eccentric to coöperate with the ratchet of the ram, means acting to normally maintain the pawl in engagement with the ratchet of the ram, and means acting automatically for disengaging the pawl from the ratchet of the ram.

2. In a press, the combination with a ram provided with a ratchet, of operating mechanism including an eccentric, a pawl operatively connected with the eccentric to cooperate with the ratchet of the ram, means acting to normally maintain the pawl in engagement with the ratchet of the ram, means acting automatically for disengaging the pawl from the ratchet of the ram, and a lever operatively connected to the ram to raise and lower the ram, said lever being provided with a counterbalance for the ram.

3. In a press, the combination with a ram provided with a ratchet, of operating means including an eccentric, a pawl operatively connected with the eccentric to cooperate with the ratchet of the ram, means yieldably maintaining the pawl in engagement with the ratchet of the ram, and mechanism for automatically disengaging the pawl from the ratchet of the ram.

4. In a press, the combination with a ram provided with a ratchet, of a cam, a cam ring on the cam, a pawl pivotally connected with the cam ring to coöperate with the ratchet of the ram, springs engaging the pawl and cam ring and serving to maintain the parallelism between the pawl and the ratchet of the ram, a spring connected with the cam ring and acting to yieldably maintain the pawl in engagement with the ratchet of the ram, means for operating said cam, and mechanism for automatically disengaging the pawl from the ratchet of the ram.

5. In a press, the combination with a ram provided with a ratchet, of operating mechanism including a cam, a cam ring on the cam, a pawl pivotally connected with the cam ring to coöperate with the ratchet of the ram and springs interposed between the cam ring and pawl at each side of the pivotal connection of the pawl with the said ring.

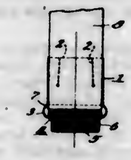
[Claims 6 and 7 not printed in the Gazette.]

1,133,513. PUMP-ROD COUPLING. CASSIUS P. THOMPSON, Lawrenceville, Ill. Filed Aug. 17, 1914. Serial No. 857,222. (Cl. 255—30.)



In a device of the character described, a pair of rods having coupling heads at their adjacent ends, the coupling heads having oblique faces adapted to abut snugly, one coupling head having a rib projecting from its oblique face and extending from one side of the said head to a point short of the opposite side, the said rib having a T-head and the shoulders formed by the T-head having undercut bevels, the said rib and T-head being tapered from their outer to their inner ends, the top of the T-head being approximately parallel with the oblique face of the said coupling head and the said undercut bevels being arranged at an angle relative to the said oblique face, the other coupling head having a slot at its oblique face and extending from one side of the second mentioned coupling head to a point short of the opposite side thereof, the said slot having a T-head and the shoulders provided by the said T-head having undercut bevels, the said slot and its T-head being tapered from their outer to their inner ends, the second mentioned coupling head having a wall closing the inner ends of the said slot and its T-head, the top of the T-head of the said slot being approximately parallel with the oblique face of the second mentioned coupling head and the undercut bevels of the said coupling head being arranged at an angle to the oblique face thereof, as and for the purposes set forth.

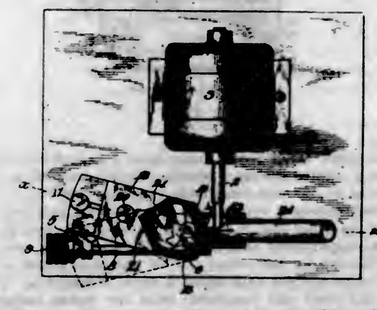
1,133,514. CRUTCH AND FURNITURE TIP. FRANK G. TOWN, Philadelphia, Pa. Filed May 23, 1914. Serial No. 840,540. (Cl. 3—4.)



1. A tip of the character described, comprising a socket having an opening in one end, and a removable plug of two diameters, the smaller diameter projecting through the opening in the socket, and the larger diameter confined within the socket and appreciably smaller in diameter than the diameter of the socket, substantially as described.

2. A tip of the character described, comprising a socket having longitudinal slits at one end, and a circular enlargement at its other end, said circular enlargement having an opening therethrough in the bottom of the socket, and a plug of two diameters, the smaller diameter projecting through the opening, and the larger diameter located within the enlargement and appreciably smaller in diameter than the diameter of the socket, said larger diameter adapted to receive directly thereupon a crutch or other article to which the socket is attached, substantially as described.

1,133,515. LENS-NOTCHING MACHINE. RICHARD H. UHLEMANN, Chicago, Ill. Filed July 6, 1914. Serial No. 849,144. (Cl. 51—11.)



1. In a machine for forming notches in the perimeter of eyeglass lenses, the combination of a grinding disk, a carriage mounted to move to and from said grinding disk, and a lens holding means mounted on said carriage in a manner which permits of a swinging adjustment of the lens holding means upon said carriage, substantially as set forth.

2. In a machine for forming notches in the perimeter of eyeglass lenses, the combination of a grinding disk, a carriage mounted to move to and from said grinding disk, a lens holding means mounted on said carriage in a manner which permits of a swinging adjustment of the lens holding means upon said carriage, and means for restricting the swinging adjustment of the lens holding means, substantially as set forth.

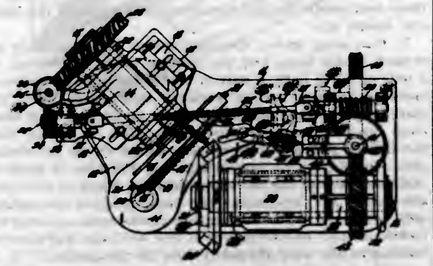
3. In a machine for forming notches in the perimeter of eyeglass lenses, the combination of a grinding disk, a carriage mounted to move to and from said grinding disk, and a lens holding means mounted on said carriage by a trunnion on its inner end engaging a vertical socket on the carriage, and having a swinging adjustment on said trunnion, substantially as set forth.

4. In a machine for forming notches in the perimeter of eyeglass lenses, the combination of a grinding disk, a carriage mounted to move to and from said grinding disk, a lens holding means mounted on said carriage by a trunnion on its inner end engaging a vertical socket on the carriage, and having a swinging adjustment on said trunnion, and means for restricting the swinging adjustment of the lens holding means, substantially as set forth.

5. In a machine for forming notches in the perimeter of eyeglass lenses, the combination of a grinding disk, a fixed track, a carriage mounted on said track and adapted to have movement to and from the grinding disk, a primary head connected to said carriage by a vertical pivot connection, means for restricting the pivotal movement of said head, a secondary head connected to said primary head by a vertical pivot connection, means for clamping said heads in their adjusted relation, and lens holding means carried by said secondary head, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,133,516. MACHINE FOR CUTTING SPIRAL TEETH ON CONICAL GEAR-BLANKS. ROBERT B. WEAVER, Detroit, Mich., assignor to The Timken-Detroit Axle Company, Detroit, Mich., a Corporation of Ohio. Filed Apr. 13, 1914. Serial No. 831,412. (Cl. 90—4.)



1. A machine for cutting spiral bevel gears comprising a rotatably mounted arbor for a gear blank, a rotatably mounted spindle with its axis arranged at an angle to the axis of said arbor and in a plane parallel thereto, a cutter head on said spindle, said cutter head having cutting teeth arranged in the form of a spiral on its face, and means for rotating said spindle and arbor at a fixed velocity ratio.

2. A machine for cutting spiral bevel gears comprising a rotatably mounted arbor for a gear blank, a rotatably mounted spindle with its axis arranged at an angle to the axis of said arbor and in a plane parallel thereto, cutter head on said spindle, said cutter head having cutting teeth arranged in the form of a spiral on its face, means for causing relative movement of approach between said arbor and spindle, and means for rotating said spindle and arbor at a fixed velocity ratio.

3. A machine for cutting spiral bevel gears comprising a rotatably mounted arbor for a gear blank, a rotatably mounted spindle with its axis arranged at an angle to the axis of said arbor, a cutter head on said spindle, said cutter head having cutting teeth arranged in the form of a spiral on its face, means for swinging said spindle with respect to said arbor for causing relative movement of approach between said cutting teeth and said arbor, and means for rotating said spindle and arbor at a fixed velocity ratio.

4. A machine for cutting spiral bevel gears, comprising a bed plate, a rotatably mounted arbor for a gear blank supported on said bed plate, a swinging frame pivoted to said bed plate, the axis of the pivot intersecting the axis of said arbor at right angles, a rotatably mounted spindle carried by said frame with its axis arranged at an angle to the axis of said arbor, a cutter head on said spindle, said cutter head having cutting teeth arranged in the form of a spiral on its face, means for swinging said frame to cause said teeth to approach said arbor, and means for rotating said spindle and arbor at a fixed velocity ratio.

5. A machine for cutting spiral bevel gears comprising a bed plate, a rotatably mounted arbor for a gear blank adjustably supported on said bed plate, a swinging frame pivoted to said bed plate, the axis of the pivot intersecting the axis of said arbor at right angles, a rotatably mounted spindle adjustable in said frame with its axis arranged at an angle to the axis of said arbor, a cutter head on said spindle, said cutter head having cutting teeth arranged in the form of a spiral on its face, means for swinging said frame to cause said teeth to approach said arbor, and means for rotating said spindle and arbor at a fixed velocity ratio.

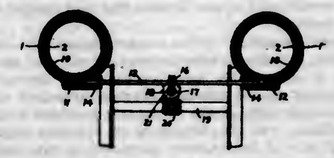
[Claims 6 to 22 not printed in the Gazette.]

1,133,517. TRAMMEL-WHEEL. FERDINAND WEBB, Stewartsville, Ind., assignor of one-third to George W. Norton and one-third to Magnus F. Boyle, Posey county, Ind. Filed May 8, 1913. Serial No. 766,357. (Cl. 74—5.)



In a trammel, the combination with a trammel wheel having intersecting channels, of slides movable in said channels and having wrist pins, a connecting rod journaled to the wrist pins, said slides being provided with lubricating ducts or ports extending therethrough from their outer faces, the mouths of said ports opening out through the outer faces of the slides adjacent the wrist pins and under the inner face of the connecting rod, and lubricators carried by the connecting rod which are arranged to feed the lubricant to the wrist pins, whence it passes into the ducts aforesaid.

1,133,518. HORIZONTAL-CYLINDER ENGINE. STEPHEN WELCH and JOSEPH W. GOYETTE, Schenectady, N. Y. Filed Oct. 10, 1914. Serial No. 866,134. (Cl. 121—105.)



1. The combination in a horizontal cylinder, of a cylinder frame, a horizontal rotatable bushing therein providing the interior surface of the cylinder, a piston to reciprocate in the bushing and means for rotating the bushing.

2. The combination in a horizontal cylinder, of a cylinder frame, a horizontal rotatable bushing therein providing the interior surface of the cylinder, a piston to reciprocate in the bushing and means driven with the piston for rotating the bushing.

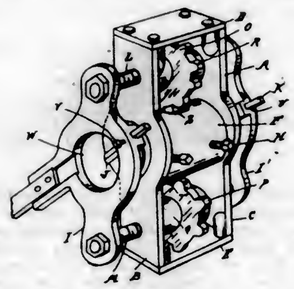
3. The combination in an engine having a horizontal cylinder, of a cylinder frame, a horizontal rotatable bushing therein providing the interior surface of the cylinder, a reciprocating piston driven within the bushing and mechanism driven by said piston including means for rotating the bushing.

4. The combination in an engine having a horizontal cylinder, of a cylinder frame, a horizontal rotatable bushing therein providing the interior surface of the cylinder, and provided externally with gear teeth circumferentially placed about the bushing, a reciprocating piston driven within the bushing, a shaft driven by said piston, a worm meshing with the bushing gear teeth located parallel to said shaft and means between said shaft and worm for driving the latter from the former.

5. In a locomotive, the combination with a pair of wheels and their connecting axle thereof, a horizontal cylinder casing and a reciprocating piston therein for driving the locomotive, of a horizontal rotatable bushing within the cylinder casing providing the interior surface thereof and means between said bushing and said axle for rotating the bushing therefrom.

[Claims 6 to 10 not printed in the Gazette.]

1,133,519. AXLE-TRIMMING DEVICE. WILLIAM E. WILSON, Detroit, Mich. Filed Jan. 10, 1913. Serial No. 741,235. (Cl. 82—4.)



1. An axle trimming device comprising an axle engaging member, a frame rotatively mounted on said member, spaced trimmer carriers arranged at the inner and outer sides of the frame, feed screws connected to said carriers, adjusting means for simultaneously moving said carriers during the rotation of the frame, axle trimmers mounted upon said carriers, one of said carriers being longitudinally adjustable upon said screws, independently of the opposite carrier, and means for securing said carrier in its adjusted position.

2. An axle trimming device comprising an axle engaging member, a frame rotatably mounted on said member composed of spaced side members connected by top and bottom plates, spaced trimmer carriers arranged at the inner and outer sides of the frame and provided with apertures alining with the aperture of the axle engaging member, a pair of feed screws connected to said carriers and adapted to simultaneously longitudinally adjust the carriers upon an adjustment of the feed screw, complementary cog wheels arranged within the frame upon opposite sides of the axle engaging member, said feed screws passing through said rotative frame and the hubs of said cog wheels, the hubs of the cog wheels having a threaded engagement with the feed screws, diametrically opposed lugs mounted upon the axle engaging member adapted to intermittently engage the cog wheels during the rotation of said frame whereby the carriers are intermittently longitudinally adjusted, trimming members arranged upon said carriers, one of said carriers being longitudinally adjustable upon the feed screws independently of the opposite carrier, and means for securing the carrier in its adjusted position upon each of the said feed screws, comprising nuts having threaded engagement with the screws and arranged upon opposite sides of the carrier.

1,133,520. WARP-FRAME. FRIEDRICH EMIL WIRTH, Hartmannsdorf, Germany, assignor to the Firm of Schubert & Salzer Maschinenfabrik, Aktiengesellschaft, Chemnitz, Germany. Filed Sept. 8, 1914. Serial No. 860,624. (Cl. 66—33.)



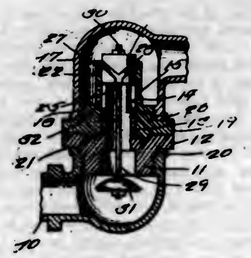
1. In a warp frame, the combination with oppositely arranged needle bars, and the needles mounted thereon, of a pair of guide bars, a pair of sinker bars and the sinkers mounted thereon located between said needle bars, the sinkers being bent rearward at their upper ends and away from the coöperating needle ends to such an extent, that the throats provided between the sinker stems and sinker nibs are adapted to lock in not only the row of loops of their own needle bar but simultaneously those of the opposite needle bar.

2. In a warp frame, the combination with oppositely arranged needle bars, and the needles mounted thereon, of a pair of guide bars, a pair of sinker bars and the sinkers mounted thereon located between said needle bars, the sinkers being bent rearward at their upper ends and away from the coöperating needle ends to such an extent, that the throats provided between the sinker stems and sinker nibs are adapted to lock in not only the row of loops of their own needle bar but simultaneously those of the opposite needle bar, the sinker bar being adapted to perform with reference to the coöperating needle bars not only the locking in and knocking over of the old loops but also the landing of the warp threads placed on the needles.

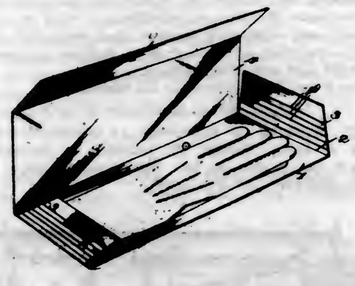
3. In a warp frame, the combination with oppositely arranged needle bars, and the needles mounted thereon, of a pair of guide bars, a pair of sinker bars and the sinkers mounted thereon located between said needle bars, the sinkers being bent rearward at their upper ends and away from the coöperating needle ends to such an extent, that the throats provided between the sinker stems and sinker nibs are adapted to lock in not only the row of loops of their own needle bar but simultaneously those of the opposite needle bar, means operative after the needle points have entered into the old loops to impart swinging movements to the sinkers and to place the same with the outer faces of their nibs into position for engagement with the old row of loops of their own needle bar for knocking over the work.

1,133,521. FAUCET. GEORGE M. WOODMAN, Scotia, N. Y. Filed Apr. 6, 1914. Serial No. 829,933. (Cl. 137—4.)

A faucet comprising a stationary portion having a removable bushing formed with a valve seat, a vertical guide on the bushing, a movable spout portion, a removable bushing carried by the spout portion and rotatably engaged on the guide of the first named bushing, a vertically movable member disposed within the said guide, said movable member having inclined grooves in the outer face thereof, a vertical extension on the movable bushing, lugs carried by the extension and engaging in the grooves, a valve carried by the vertically movable member for engagement with the said seat, and means for limiting the rotatable movement of the extension of the rotatable bushing upon the guide of the stationary bushing.



1,133,522. MERCHANDISE-WRAPPER. GEORGE WOADINGHAM, Milwaukee, Wis. Filed July 8, 1913. Serial No. 777,941. (Cl. 229—87.)



1. In a merchandise wrapper, a relatively stiff back sheet, and a flexible and relatively thin face sheet, the back sheet having adhesive applied thereto along lines parallel and adjacent to its lateral edges, the face sheet having one edge portion secured to the obverse side of the back sheet by one said line of adhesive, the back sheet being provided at its ends with flaps foldable to confine the ends of the article to be wrapped and the lines of adhesive being extended to the free ends of the said flaps whereby the face sheet may be secured to the flaps when stretched across the front of the back sheet and the said face sheet being designed to have its free edge portion folded over the free edge of the back sheet and secured thereto by the other said line of adhesive.

2. In a merchandise wrapper, a relatively stiff back sheet, a flexible and relatively thin face sheet, and closure flaps at the opposite ends of the back sheet, the back sheet having applied to its obverse side, near each edge, a line of adhesive, the said lines of adhesive extending to the ends of the closure flaps, whereby both lateral edge portions of the said flaps may be secured to the folded over portion of the face sheet.

3. A wrapper for laundered articles consisting of a relatively stiff back having parallel lateral edges and provided at its ends with flaps, the back having a narrow zone of adhesive applied to its obverse side at each lateral edge thereof, the said zones of adhesive extending also lengthwise of the flaps adjacent the lateral edges thereof, and a relatively thin flexible front initially and permanently secured at one edge to the obverse side of the back through the medium of one of the said zones of adhesive, the said front being of a width considerably greater than the width of the back and being adapted to have a greater or less area of its surplus width folded to lie beneath the back and to be secured thereto through the medium of the other zone of adhesive, the said flaps being foldable to extend beneath the folded front and to be united at their edges to the front by the said zones of adhesive and thereby held against displacement.

4. In a merchandise wrapper, a relatively stiff back sheet, a flexible and relatively thin face sheet, closure flaps at opposite ends of the back sheet, the back sheet having applied to its obverse side near each end a line of adhesive, one edge of the face sheet being secured to one edge of the face sheet being secured to one edge of the back sheet by one of the lines of adhesive and the face sheet being arranged to be folded over an article to be wrapped and disposed upon the back sheet and to be secured by the other line of adhesive, the face sheet when folded being arranged to overlap the folded end flaps, and means upon the end flaps for securing the same to the face sheet when so folded.

1,133,523. PADLOCK. MARTIN YAKUS, South Akron, Ohio. Filed Dec. 26, 1914. Serial No. 879,151. (Cl. 70—17.)



1. A device of the class described comprising a cup-shaped casing having a slotted neck provided with a perforation in one side thereof, a post removably positioned within the said neck, automatic locking means upon the said post, releasing mechanism for the said locking means and a shackle removably secured to said post.

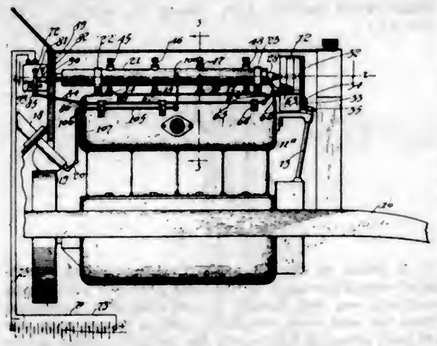
2. A device of the class described comprising a casing having an open neck and provided with a perforation through one side thereof, a post positionable within said neck and having a transverse bore and further provided with a longitudinal opening intersecting the said bore, an operating lever having an angular arm rotatively mounted within the said opening, the said arm having a side perforation therein, a spring pressed locking pin within the said bore normally projected through the said neck perforation when the device is assembled, the said arm perforation being positioned in alinement rearwardly of the said pin when the device is in its unlocked position.

3. A device of the class described comprising a casing having a neck provided with opposite side slots and a side perforation, a post removably positioned within the said neck, a spring pressed pin carried by the said post automatically engageable with the said neck perforation, releasing means for the said pin rotatively mounted upon the said post, the said post being provided with opposite notches, a shackle having spaced free ends removably positioned within said notches and a lock nut screw threaded upon the said post and adapted for engaging the said shackle ends when mounted upon said post.

4. A device of the class described comprising a casing having an open neck and a side perforation therein, a post positionable within the said neck, an open sided shackle removably secured to the said post, the said post having a transverse bore therethrough and a longitudinal opening traversing the said bore, a perforated plate secured within the said bore, a locking pin slidably mounted within the said bore and having a reduced shaft slidably positioned through the perforation of the said plate, a projection spring for the said pin upon the said shaft having one end engaging the said plate and a releasing arm for the said pin provided with a side perforation adapted for registry with the inner end of the said pin shaft and a lever member for said arm swingingly positioned in the outer face of said post.

5. A device of the class described comprising a casing, a post engagingly positioned within the said casing and comprising a head and a threaded shank member, the head member having opposite notches on its lower face and the shank member having a longitudinal slot therein and the shank at one side of said slot being broken away, a shackle having end faces at an open side thereof, inwardly projecting hooks carried by said end faces of the shackle and removably positioned within the said head notches and shank slot, and a lock nut screw threaded upon the said shank overlying the said shackle hooks.

1,133,524. ELECTRIC-CURRENT CONDUCTING AND DISTRIBUTING MEANS. FRANK A. ZIKA, Chicago, Ill., assignor of one-half to James E. Barry, Chicago, Ill. Filed June 9, 1913. Serial No. 772,588. (Cl. 123—167.)



1. A device of the character described, for coöperative association with an engine having a plurality of cylinders and corresponding spark plugs, comprising a cylindrical jacket; an elongated, insulated, rotatable hollow conductor, projecting through said jacket at both ends and rotatably supported in said jacket; contact buttons projecting laterally through said insulation at intervals along said conductor and connected thereto; means for making electric connection with said conductor at either projecting end; relatively stationary conductors for connection respectively to said spark plugs adapted for electric cooperation in relative order with said rotatable buttons and means for electrically energizing said rotatable conductor.

2. A device of the character described, for coöperative association with an engine having a plurality of cylinders and corresponding spark plugs, comprising an elongated, insulated rotatable hollow conductor, adapted for rotatable support on said engine; contact buttons projecting through said insulation at intervals along and connected to said conductor; a jacket inclosing said conductor through which said conductor passes and from which it projects; relatively stationary conductors supported on said jacket for connection, respectively, to said spark plugs adapted for electric coöperation, in relative order, with said rotatable buttons, and a shaft extending into said hollow conductor and projecting from said jacket to afford means for rotating said conductor.

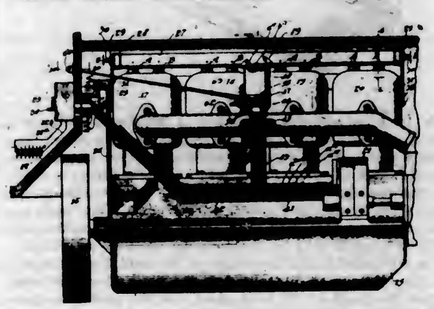
3. A device of the character described, for coöperation with an internal combustion engine having a spark plug, comprising a protecting jacket; straps for securing it to an engine, one at each end; an elongated, insulated electric conductor rotatable in said jacket and projecting at each end therefrom; ball bearing members within said jacket, upon which said conductor is rotatable; electric connections adapted for connection to each end of the projecting structure; a conducting button projecting from one side and connected to said conductor; a yieldable button projecting into said jacket and supported thereon for electrical coöperation with said conducting button and means for connecting said yieldable button to said spark plug.

4. In a device of the character described, in combination with an internal combustion engine having a plurality of spark plugs, of an insulated, rotatable conductor; a conducting button projecting from one side thereof and connected thereto; a relatively stationary, protecting jacket surrounding said rotatable conductor and supported on said engine; a coöperating conducting terminal, in substantially the same radial plane as said button, supported on said jacket; means for rotating said conductor; means for energizing said rotatable conductor and means for oscillating said jacket to change the time of coincidence of said rotatable button and said conducting terminal.

5. In a device of the character described, in combination with an internal combustion engine having a plurality of spark plugs, of an insulated, rotatable conductor; conducting buttons projecting from the sides thereof and connected thereto; a relatively stationary protecting jacket surrounding said rotatable conductor and supported on said engine; coöperating conducting terminals in substantially the same radial plane as the respective buttons, supported on said jacket, there being one said button and one said terminal for each of said spark plugs; means for rotating said conductor; two sources of electric current for energizing said conductor; means for oscillating said jacket to change the time of coincidence of said rotatable button and said conducting terminal and means for alternatively connecting either source of electric current in circuit with said rotatable conductor.

[Claims 6 and 7 not printed in the Gazette.]

1,133,525. SYSTEM OF ELECTRICAL DISTRIBUTION. FRANK A. ZIKA, Chicago, Ill., assignor of one-half to James E. Barry, Chicago, Ill. Filed June 22, 1914. Serial No. 846,441. (Cl. 123—143.)



1. In a system of the character described, the combination of two sources of electric energy; a set of spark plugs to be energized by either source; permanent electric circuits connecting said sources of current to a switch; a switch, having a removable member; a removable, conductor-carrying structure connected to the removable member of said switch, and conductors carried by said structure to connect the respective spark plugs to the switch and means for securing the said structure in place.

2. In a system of the character described, the combination of two sources of electric energy; a set of spark plugs to be energized by either source; permanent electric circuits connecting said source of current to a switch; a switch, having a removable member; a removable, conductor-carrying structure, carrying the removable member of said switch; conductors carried by said structure to connect the respective spark plugs to the switch; yielding terminals for each said conductor carried by said structure to automatically effect such connections and means for securing said structure in place with reference to said plug.

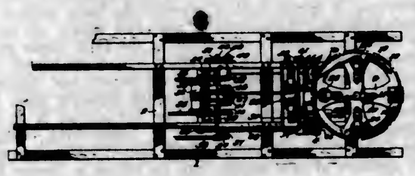
3. In a system of the character described, the combination of two sources of electric energy; a set of spark plugs to be energized by either source; permanent electric circuits connecting said sources of current to a switch; a switch having a removable member; a removable conductor carrying tube perforated at intervals to admit said spark plugs and carrying said switch member; a longitudinally extending partition in said tube, above said perforation; conductors carried by said tubes, above said partition, to connect the respective spark plugs to the switch; yielding terminals, one for each said conductor, secured in said partition, to automatically effect such connection and means for securing said structure in place with reference to said plugs.

4. In a system of the character described, the combination of two sources of electric energy; two sets of spark plugs; permanent electric circuits connecting said sources of current to a switch; a switch, having a removable member; a removable, conductor-carrying structure mechanically connected with a removable member of the switch; conductors carried by said structure to connect respective spark plugs to the switch and means for securing said structure in place.

5. In a system of the character described, the combination of two sources of electric energy; two sets of spark plugs; exposed terminals on the outer ends of said plugs; permanent electric circuits connecting said sources of energy to a switch; a switch, having a removable member; a removable conductor-carrying structure mechanically connected to a removable member of the switch; conductors carried by said structure; spring clips secured to the terminals of said conductor to connect respective spark plugs to the switch and means for securing said structure in place.

[Claims 6 to 10 not printed in the Gazette.]

1,133,526. LOG-LOADER. ANDERS ANDERSON, Garnet, Mich. Filed June 16, 1913. Serial No. 773,974. (Cl. 212—51.)



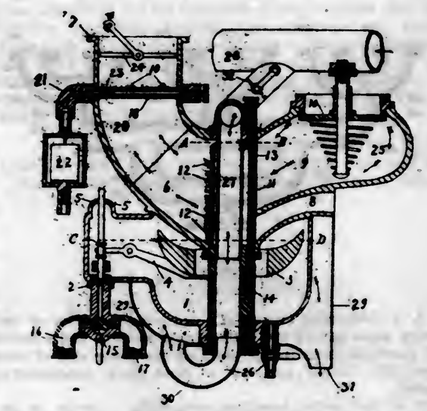
1. In apparatus of the class described, a swinging boom, a turn-table arranged to turn with the boom, a winding drum displaced with relation to the turn-table, a pulley upon the turn-table, a pulley upon the boom, and a hoisting cable wound upon the drum and threaded about the pulley, the pulley upon the turn-table being located eccentrically thereof.

2. In apparatus of the class described, a swinging boom, a turn-table arranged to turn with the boom, a winding drum displaced with relation to the turn-table, pulleys upon the turn-table spaced at opposite sides of the axis thereof, a pulley upon the boom, and a hoisting cable wound upon the drum and trained about the pulleys upon the turn-table interchangeably, said cable being trained also about the pulley upon the boom.

3. In apparatus of the class described, a swinging boom, a turn-table arranged to turn with the boom, a winding drum displaced with relation to the turn-table, means for driving the drum, means actuated by the movement of the turn-table to rotate the drum, a pulley upon the turn-table, a pulley upon the boom, and a hoisting cable wound upon the drum and trained about the pulley, the pulleys upon the turn-table being located eccentrically.

4. In apparatus of the class described, a swinging boom, a turn-table arranged to turn with the boom, a winding drum displaced with relation to the turn-table, means for driving the drum, means actuated by the movement of the turn-table to drive the drum independently of the first mentioned driving means, means for braking the last mentioned means, a pulley upon the turn-table, a pulley upon the boom, and a hoisting cable wound upon the drum and trained about the pulleys, the pulley upon the turn-table being located eccentrically.

1,133,527. CARBURETER. ASHLEY C. BENNETT, Minneapolis, Minn. Filed Mar. 12, 1913. Serial No. 753,754. (Cl. 48—148.)



1. A carbureter comprising a relatively vertical pipe in communication with the exhaust pipe of the engine, a feed pipe surrounding said vertical pipe and having a series of apertures along one side thereof, a casing forming an air passageway about said last named pipe, and means for delivering oil into the space between the feed pipe and the vertical pipe.

2. A carbureter comprising a relatively vertical pipe in communication with the exhaust pipe of the engine, a feed pipe surrounding said vertical pipe and having a series of apertures along one side thereof, a casing forming an air passageway about said last named pipe, a fuel container below said casing and surrounding a portion of the vertical pipe, and means for admitting fuel oil from said container to the bottom of the space between the feed pipe and the vertical pipe.

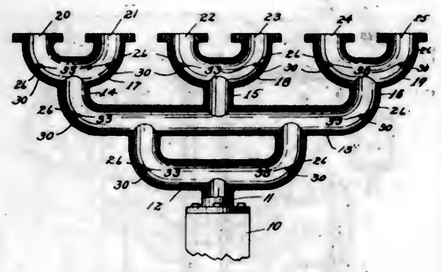
3. A carbureter comprising a relatively vertical pipe in communication with the exhaust pipe of the engine, a feed pipe surrounding said vertical pipe and having a series of apertures along one side thereof, a casing forming an air passageway about said last named pipe, means for admitting air into said passageway from the side away from said apertures to be drawn through the passageway by the operation of the engine, and means for delivering oil into the space between the feed pipe and the vertical pipe.

4. A carbureter comprising a relatively vertical pipe in communication with the exhaust pipe of the engine, a feed pipe surrounding said vertical pipe and having a series of apertures along one side thereof, a casing forming an air passageway about said last named pipe, separate passageways for primary and secondary air for admitting said air into said first named passageway from the side away from said apertures to be drawn through the passageway by the operation of the engine, and means for delivering oil into the space between the feed pipe and the vertical pipe.

5. A carbureter comprising a relatively vertical pipe in communication with the exhaust pipe of the engine, a feed pipe surrounding said vertical pipe and having a series of apertures along one side thereof, a casing forming an air passageway about said last named pipe, a fuel container below said casing and surrounding a portion

of the vertical pipe, means for conducting the exhaust gases from said vertical pipe against the outside of the walls of the fuel container, and means for admitting fuel oil from said container to the bottom of the space between the feed pipe and the vertical pipe.

1,133,528. CARBURETER-MANIFOLD. ASHLEY C. BENNETT, Minneapolis, Minn. Filed Apr. 11, 1913. Serial No. 760,364. (Cl. 123—52.)

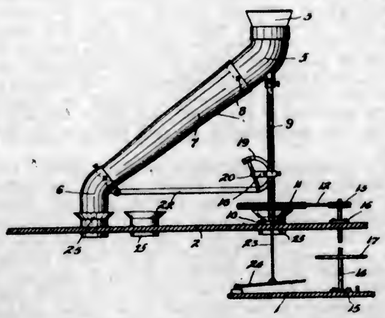


1. A carbureter manifold comprising a series of delivery pipes having upwardly curved portions and a series of shelf-like dams in the pipes at the lower side of said upwardly curved portions to hold back condensation liquid.

2. A carbureter manifold comprising a series of delivery pipes having upwardly curved portions, and a series of shelf-like dams extending inwardly from the lower side of the upwardly curved portions of the pipes, said dams being formed integrally with the pipes and having a straight exposed edge therein.

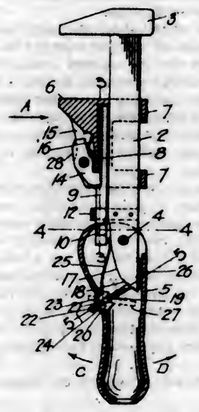
3. A carbureter manifold comprising a series of delivery pipes having upwardly curved portions, and a series of horizontal, shelf-like partitions extending inwardly from the lower side of the upwardly curved portions of the pipes, said dams being formed integrally with the pipes and having a straight exposed edge therein.

1,133,529. ADJUSTABLE SUPPORT FOR SPOUTS AND THE LIKE. EMIL A. BEYL, Minneapolis, Minn. Filed Sept. 9, 1911. Serial No. 648,469. (Cl. 74—5.)



The combination with a tubular standard and an oblique member connected thereto and pivotally associated therewith at its upper end, for oscillatory horizontal movement with said standard, and for vertical swinging movements in respect thereto, of a crank wheel pivotally connected to and working in a slot in said standard, a stiff link pivotally attached at one end to the lower end of said oblique member, and pivotally attached at its other end to said crank wheel at a point eccentric to its journal, and an operative cable attached to and working on the periphery of said crank wheel, and extending axially downward through said tubular standard.

1,133,530. WRENCH. RANSOM Y. BOVEE, Denver, Colo. Filed Jan. 2, 1913. Serial No. 739,786. (Cl. 81—126.)



1. In a wrench, a hollow handle having an opening at one of its ends, a jaw stock having a notched end, extending loosely through said opening in pivotal connection with the handle and having at its opposite end, a fixed jaw, a spring applied between the inner surface of the handle and the portion of the stock within the same to yieldingly oppose a movement of the parts about their pivot, a jaw movable on said stock, a rack-bar loosely extending through the opening of the handle and movably connected with the same at a point separate from its pivot, means on said movable jaw for locking it in its adjusted positions on the bar, by interlocking engagement with the teeth thereof, and a prop extending through an aperture of said handle, into its hollow to engage the notched end of the stock, the said prop being adjustable to engage any one of said notches for holding the stock at different angles with relation to the handle, or to disengage the stock to allow of its pivotal movement independent of the prop.

2. In a wrench, a hollow handle having an opening at one of its ends, a jaw stock having a notched end, extending loosely through said opening in pivotal connection with the handle and having at its opposite end, a fixed jaw, a spring applied between the inner surface of the handle and the portion of the stock within the same to yieldingly oppose a movement of the parts about their pivot, a jaw movable on said stock, a rack-bar loosely extending through the opening of the handle and movably connected with the same at a point separate from its pivot, means on said movable jaw for locking it in its adjusted positions on the bar, by interlocking engagement with the teeth thereof, and a spring-pressed prop extending through an aperture of said handle, into its hollow to engage the notched end of the stock, the said prop being adjustable to engage any one of said notches for holding the stock at different angles with relation to the handle, or to disengage the stock to allow of its pivotal movement independent of the prop.

3. In a wrench, a hollow handle having an opening at one of its ends, a jaw stock having a notched end extending loosely through said opening in pivotal connection with the handle and having at its opposite end, a fixed jaw, springs engaging the interior surface of said handle and the portion of the stock within the same at

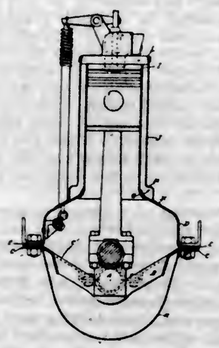
opposite sides of the pivot, a jaw movable on said stock, a rack-bar loosely extending through the opening of the handle and movably connected with the same at a point separate from its pivot, means on said movable jaw for locking it in its adjusted positions on the bar, by interlocking engagement with the teeth thereof, and a spring-pressed prop extending through an aperture of said handle, into its hollow to engage the notched end of the stock, the said prop being adjustable to engage any one of said notches for holding the stock at different angles with relation to the handle, or to disengage the stock to allow of its pivotal movement independent of the prop.

4. In a wrench, a hollow handle having an opening at one of its ends, a jaw stock having an end extending loosely through said opening in pivotal connection with the handle and having at its opposite end, a fixed jaw, a spring applied between the inner surface of the handle and the portion of the stock within the same to yieldingly oppose a movement of the parts about their pivot, a jaw movable on said stock, a rack-bar loosely extending through the opening of the handle and movably connected with the same at a point separate from its pivot, means on said movable jaw for locking it in its adjusted positions on the bar, by interlocking engagement with the teeth thereof, a headed prop pivotally supported in an aperture of the handle, and extending into the hollow of the same to engage the pivoted end of the stock, and a spring disposed between the said handle and the head of the prop exteriorly of the same, to maintain the prop in engagement with the stock.

5. In a wrench, a hollow handle having an opening at one of its ends, a jaw stock having an end, extending loosely through said opening in pivotal connection with the handle and having at its opposite end, a fixed jaw, a spring applied between the inner surface of the handle and the portion of the stock within the same to yieldingly oppose a movement of the parts about their pivot, a jaw movable on said stock, a rack-bar loosely extending through the opening of the handle and movably connected with the same at a point separate from its pivot, means on said movable jaw for locking it in its adjusted positions on the bar, by interlocking engagement with the teeth thereof, a headed prop pivotally supported in an aperture of the handle, and extending into the hollow of the same, the said prop being adjustable to either engage the pivoted end of the stock or to disengage the same to allow of an independent pivotal movement of the stock, and a spring disposed between the said handle and the head of the prop exteriorly of the same, to maintain the prop in engagement with the stock.

[Claim 6 not printed in the Gazette.]

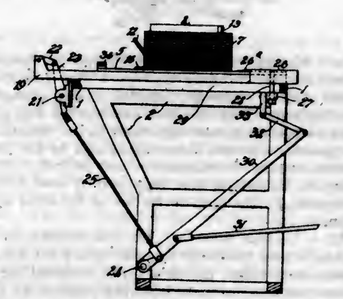
1,133,531. INTERNAL-COMBUSTION ENGINE. WILLIAM L. BREATH, Brooklyn, N. Y. Filed Aug. 20, 1910. Serial No. 578,205. (Cl. 123—173.)



1. In an internal combustion engine, a supporting structure, a crank shaft, and a supporting bracket therefor, said bracket being a unitary structure of sheet metal consisting of two side flanges by which it is secured to the supporting structure, a plurality of cross-arms each carrying a bearing for the shaft, said cross-arms being spaced apart to permit the play of the cranks therebetween and connecting webs between said cross-arms extending to the respective side flanges, said cross-arms and the connecting web being channeled for the purpose set forth.

2. In a engine, a cylinder of sheet metal, a base therefor, and a crank-shaft driven by said cylinder, the base being apertured for the reception of said cylinder and the cylinder projecting through said aperture and being flanged for engagement with the side of the base adjacent said crank shaft, the reactive effort of the cylinder being carried by said flange, said flange being tapered and thereby aiding in centering the cylinder in the base aperture within which it is disposed.

1,133,532. CARTON-FEEDING MACHINE. REUBEN H. BROWN, New Haven, Conn. Filed Sept. 18, 1913. Serial No. 790,409. (Cl. 101—39.)



1. In a machine of the character described, carton carrier plates adapted to support a pile of cartons, means on said plates adapted to engage one edge of the underlying carton, carton ejectors, means for simultaneously reciprocating said plates and ejectors in opposite directions and at different speeds, the former to partially advance the underlying carton from beneath the pile, and the latter adapted to travel at a higher rate of speed to remove said carton from the pile.

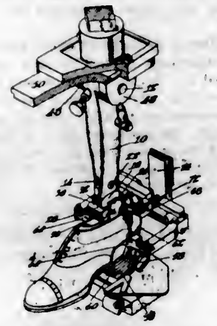
2. In a machine of the character described, carrier plates adapted to support a pile of cartons, means on said plates for engaging one edge of the underlying carton, pusher bars attached to the carrier plates, carton ejectors, means for simultaneously actuating said plates and ejectors in opposite directions and at different rates of speed, the former to partially remove an underlying carton from the pile and the latter to complete its removal.

1,133,533. WORK-SUPPORT. IRA C. BUCKMINSTER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 13, 1912. Serial No. 696,953. (Cl. 1—32.)

1. In a heeling machine, the combination of a jack post movable from an inoperative position to a fixed operative position, means for locating a shoe for operation thereon, and a last plate carried by said jack post constructed and arranged for free and unobstructed movements in a plurality of directions in a single plane responsive to said locating means as the jack is moved to its fixed operative position to automatically position the shoe.

2. In a heeling machine, the combination of a jack post movable longitudinally of the machine from an inoperative position to a fixed operative position, a last plate carried by said jack post, a pin on said last plate adapted to receive a last, and a back stop arranged to be engaged by

a shoe upon said last when the jack is in operative position, said last plate being constructed and arranged for free longitudinal movement independently of the jack, whereby the shoe may be brought automatically into position responsive to the demands of the back stop irrespective of variations in the last.



3. In a machine of the class described, the combination of a jack pivoted to swing between a shoe receiving position and a fixed operative position, a last engaging and supporting member on the jack constructed and arranged for free and unobstructed movement in all directions in a plane transverse to the longitudinal axis of the jack, and a member having longitudinally and laterally adjustable portions for locating a last supported by said freely movable member as the jack is moved to its fixed operative position.

4. In a heeling machine, the combination of a nail block and a jack relatively movable in a right line toward and from each other, the jack being mounted for pivotal movement between a work receiving position at an angle to said right line upon one side thereof and a fixed operative position at an angle to said line upon the opposite side thereof, independently mounted, adjustable means for locating the work relatively to the nail block, and a last engaging member upon the jack mounted to permit the work to adjust itself freely to the locating means when the jack is in said fixed operative position.

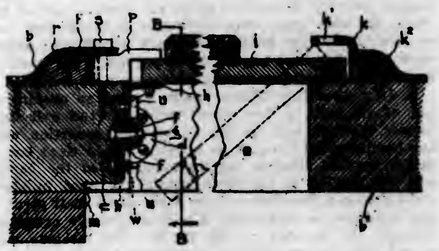
5. In a heeling machine, the combination of a jack post movable from an inoperative position to a fixed operative position, means including a flexible band to engage and locate the rear portion of a shoe upon the last, and a last supporting member mounted upon the jack post for movement in a plurality of directions in a single plane by contact of the shoe with said flexible band as the jack is moved to its fixed operative position.

[Claims 6 to 11 not printed in the Gazette.]

1,133,534. GRAIN-DOOR LOCK. RICHARD WEBB BURNETT, Montreal, Quebec, Canada, assignor to himself, Wilson W. Butler, and Henry H. Vaughan, Montreal, Quebec, Canada. Filed Nov. 11, 1912. Serial No. 730,661. (Cl. 20—30.)

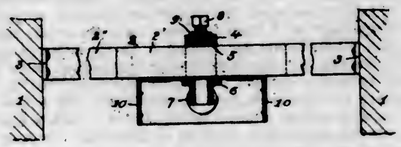
1. The combination with the side of a car having an opening and a door adapted to swing outwardly through the opening, of a door jamb of angle cross-section and means pivotally securing the edge of the flange of the door jamb to one side of the door-opening midway between the inside and outside faces of the car side and in position to lie with one flange in flat contact with the said side of the door opening and its other flange in the plane of and sustaining the door when closed and when swung out to clasp the outside edge of the said side of the door-opening.

2. The combination with the posts of a door opening in the side of a car and a door, of a combined door jamb and lock consisting of an angle-iron, the said angle-iron being constructed and arranged when in door retaining position to have one flange lie in flat contact with one of the door posts and the other flange lie in the plane of and sustain the door when closed, a hinge bar carrying the angle-iron and consisting of a pair of members riveted to opposite sides of the flange of the angle-iron and means pivoting the hinge bar in the door frame.



3. The combination with the side of a car having an opening therein and a door for closing the said opening, of a swinging door retaining device of angle cross-section, means securing the retaining device at one side of the door opening, such retaining device being constructed and arranged to clasp the outside edge of the said side of the opening when out of door retaining position.

1,133,535. OUTLET-BOX HANGER. FRED L. CAIN and CONRAD J. DORFF, Chicago, Ill., assignors to Harvard Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 11, 1914. Serial No. 856,296. (Cl. 247—5.)



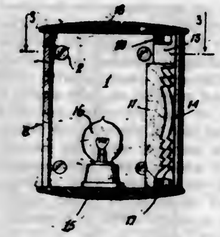
1. The combination of a hanger member adapted for connection to adjacent supports, a carried head having a cylindrical body portion transversely apertured for the reception of said hanger member, a clamping screw fitting a central screw-threaded orifice in the cap portion of said body portion and having bearing upon the top surface of the hanger member, said carrier head having a screw-threaded lower end or shank and an annular collar intermediate of said shank and the aforesaid main body portion, and an outlet box supported on said annular collar.

2. The combination of a hanger member adapted for connection to adjacent supports, a carrier head having a cylindrical body portion transversely apertured for the reception of said hanger member, a clamping screw fitting a central screw-threaded orifice in the cap portion of said body portion and having bearing upon the top surface of the hanger member, said carrier head having a reduced and screw-threaded depending shank and an annular collar intermediate of said shank and the aforesaid main body portion, and an outlet box supported on said annular collar.

3. The combination of a hanger member formed by a pair of flat strips arranged side by side and adjustable one upon the other, a carrier head having a cylindrical body portion transversely apertured for the reception of the flat strips forming the hanger member, a clamping screw fitting a central screw-threaded orifice in the cap portion of said body portion and having bearing upon the top surface of the aforesaid strips, said carrier head having a screw-threaded lower end or shank and an annular collar intermediate of said shank and the aforesaid main body portion, and an outlet box supported on said annular collar.

4. The combination of a hanger member formed by a pair of flat strips arranged side by side and adjustable one upon the other, a carrier head having a cylindrical body portion transversely apertured for the reception of the flat strips forming the hanger member, a clamping screw fitting a central screw-threaded orifice in the cap portion of said body portion and having bearing upon the top surface of the aforesaid strips, said carrier head having a reduced and screw-threaded depending shank and an annular collar intermediate of said shank and the aforesaid main body portion, and an outlet box supported on said annular collar.

1,133,536. SIDE LIGHT FOR BOATS. IRWIN CHASE, Bayonne, N. J., assignor to The Elco Company, Bayonne, N. J., a Corporation of New Jersey. Filed Oct. 8, 1914. Serial No. 865,617. (Cl. 240—21.)



1. A boat light consisting of a body portion closed on two sides and open at the front, a removable top and bottom for said body portion, a curved lens for said open front held in place by said top and bottom and an incandescent lamp mounted on said bottom and removable therewith.

2. A boat light consisting of a body portion open at the front to permit the passage of light, and closed at the side and rear to form a reflector said body having abutments on its front, a curved lens for said light opening, and a removable cover for said body portion holding said lens in place against said abutments to form a substantially water-tight structure.

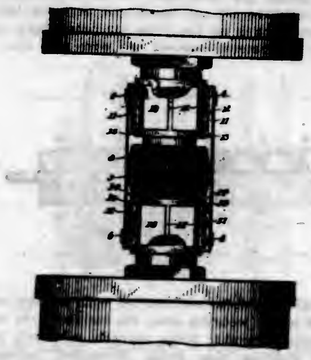
3. A boat light having a body portion, flat along two sides and open at the front, a lens fitted to said open front, a bottom for said body portion having a flange overlapping the lower edge of said lens, and a removable cover for said body portion having a flange overlapping said lens at its top and removably holding the lens against said body portion.

4. In a boat light, the combination of a body portion shaped at its front to receive a curved lens, a lens in said opening, gaskets between said lens and said body portion, and top and bottom closures for said body portion, gripping said lens and holding it seated against said gaskets.

5. A side light for boats comprising a body portion flat along its side and rear, and with an opening at its front bordered by projecting lips, a lens seated behind said lips, gaskets between said lens and said body portion, a bottom for said body portion having a flange engaging the outer face of said lens near its lower edge, and a removable cover for said body portion having a flange gripping said lens and holding it seated against said gaskets.

1,133,537. NUT-LOCKING DEVICE FOR AIR-COMPRESSORS. NELSON T. CLINE, McKees Rocks, Pa. Filed Dec. 8, 1913. Serial No. 805,300. (Cl. 151—44.)

1. A locking device for a peripherally grooved nut comprising a pair of spring controlled semi-cylindrical members normally maintained in position to completely encompass the nut, and longitudinally extending means integral with the inner face of said members and engaging in the grooves of the nut for maintaining said members in locking engagement with the nut, one end of the device lockingly engaging the nut and the other end being locked against rotation.



2. A locking device for a peripherally grooved nut comprising a pair of spring controlled semi-cylindrical members normally maintained in position to completely encompass the nut, longitudinally extending means integral with the inner face of said members and engaging in the grooves of the nut for maintaining said members in locking engagement with the nut, said members having additional means carried by the inner faces thereof and capable of engaging the nut to arrest movement in one direction of said members with respect to the nut, one end of the device lockingly engaging the nut and the other end being locked against rotation.

3. The combination with a peripherally grooved nut, of a locking device therefor, said device comprising a pair of semi-cylindrical members capable of completely encompassing the nut and further capable of being removably mounted around the nut, a handle member projecting from one end of one of said members, a second handle member projecting from one end of the other of said members and pivotally connected to the first mentioned handle member, means for maintaining said semi-cylindrical members normally in abutting engagement, and means carried upon the inner face of said members and capable of engaging in the grooves of the nut for locking said members in position with respect to the nut, one end of the device lockingly engaging the nut and the other end being locked against rotation.

4. A locking device for a plurality of alining spanner nuts comprising a pair of spring controlled semi-cylindrical members capable of completely encompassing the nuts, and a plurality of longitudinally extending ribs carried by the inner face of each of said members and capable of engaging in the sides of the nuts for locking said members relatively to the nuts.

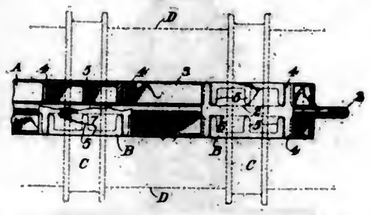
5. A locking device for a plurality of alining spanner nuts comprising a pair of spring controlled semi-cylindrical members capable of completely encompassing the nuts, a plurality of longitudinally extending ribs carried by the inner face of each of said members and capable of engaging in the side of the nuts for locking said members relatively to the nuts, and means projecting from the inner face of each of said members and capable of abutting against said nuts for arresting longitudinal movement of said members in either direction with respect to the nuts.

[Claims 6 and 7 not printed in the Gazette.]

1,133,538. WEARING-SHOE FOR COUPLING-YOKES. WALTER E. COFFIN, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio. Filed Dec. 19, 1913. Serial No. 807,613. (Cl. 213—42.)

1. A coupler yoke having, in combination therewith, a wearing shoe adapted for insertion between the yoke and a

supporting device, said yoke having a flange on its under side, said shoe being movable relatively to the supporting device and having a recess in its upper face adapted to fit about said flange, the flange and recess comprising means to prevent relative lateral movement between the yoke and shoe, and means on the yoke for preventing relative longitudinal movement between the yoke and shoe.

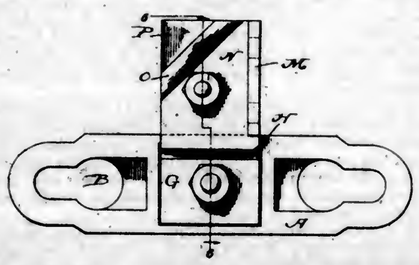


2. A coupler yoke in combination with a yoke supporting member and a wearing shoe, the coupler yoke and the yoke supporting member being movable relatively to each other, the wearing shoe being interposed between the other two members to prevent wear on the yoke and being adapted to be movable with the yoke upon said supporting member, the yoke and the wearing shoe having laterally and longitudinally extending ribs coöperating with each other to prevent relative movement.

3. A wearing shoe for coupler yokes comprising a plate having a recess on its upper face, a yoke having a flange adapted to fit in said recess, the said recess and flange preventing relative lateral movement of the parts, and stops on the yoke having bearings on the plate to prevent relative longitudinal movement of the parts.

4. A coupler yoke having on its under side a longitudinally extending flange, transverse ribs also arranged on the under side of the yoke, said flange and ribs being adapted to coöperate with recesses in a wearing shoe and to prevent relative lateral and longitudinal movement therebetween.

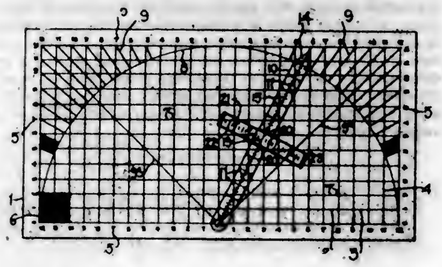
1,133,539. CHAIN AND FLIGHT AND BUCKET CONNECTION. WILLIAM P. COLDREN, Lebanon, Pa. Filed June 20, 1914. Serial No. 846,279. (Cl. 193—8.)



1. In a device of the kind described, the combination with a pair of links, having oppositely disposed recesses the upper and lower edges thereof being beveled, connectors attached to said links said connectors having vertical portions adapted to fit into the link recesses, laterally extending portions, and oblique connecting portions adapted to engage the upper beveled edges of the link recesses and a bolt passing through said links and connectors.

2. In a device of the kind described, the combination with a pair of links, having centrally disposed recesses, the upper and lower edges thereof being beveled, a pair of connectors attached to said links, said connectors having oppositely disposed lateral wings, oblique offset portions and vertical portions adapted to fit the link recesses and bolts for connecting said parts togetner as shown and described.

1,133,540. PROTRACTOR. CHARLES B. DANNENBERG, Wilmington, Del. Filed June 13, 1914. Serial No. 844,974. (Cl. 33—75.)



1. A device of the character described comprising a member divided into a plurality of blocks, a transparent index pivotally engaged with the member midway of a margin thereof and provided with graduations, and a transparent slide scale provided with graduations carried by the index and movable at right angles thereto.

2. A device of the character described comprising a member divided into a plurality of blocks, a transparent index pivotally engaged with the member midway of a margin thereof and provided with graduations, a transparent slide scale provided with graduations carried by the index and movable at right angles thereto, said member being provided with a plurality of radial lines with the pivotal point of the index as their common center.

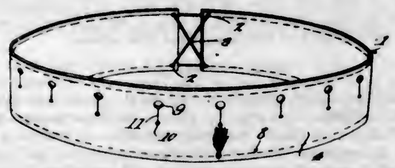
3. A device of the character described comprising a member divided into a plurality of blocks, a transparent index pivotally engaged with the member midway of the inner edge and provided with graduations, a transparent slide scale provided with graduations carried by the index and movable at right angles thereto, said member being provided with a segmental line described about the pivotal point of the index as a center and with lines radiating from the segmental line.

4. A device of the character described comprising a member divided into a plurality of blocks, an index pivotally engaged with the member midway a margin thereof and provided with graduations, and a slide scale provided with graduations carried by the index and movable at right angles thereto.

1,133,541. PACKING. ADAM DAUM, Portage la Prairie, Manitoba, Canada. Filed May 20, 1914. Serial No. 839,841. (Cl. 106—8.)

An improved packing comprising lead wool—nine parts; asbestos fiber—three parts; graphite—four-fifths parts; cylinder oil—one and three-fifths parts; tallow—one and three-fifths parts, substantially as herein set forth and described.

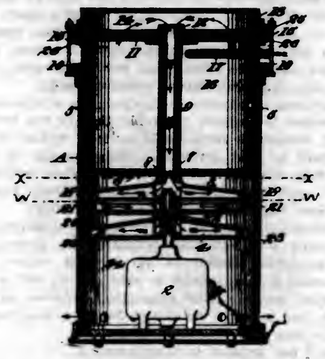
1,133,542. HOOK-HOLDING HATBAND. JOE M. DEAL, Lincoln, Ill. Filed Aug. 27, 1913. Serial No. 786,950 (Cl. 43—28.)



1. A hook holding hat band comprising a strip of material of different colors upon its opposite faces and having a hook receiving opening, the strip being folded upon itself to form an outer wall in which the opening is located, and to form an inner wall constituting a backing for the opening, and to cause that color which is peculiar to one face to be exposed through the opening in contradistinction to the other color which is upon the outer face of the outer wall thereby to render the opening visible and prominent, the space between the walls being open and unencumbered to the rear of the opening.

2. A hook-holding hat band comprising inner and outer walls, the outer wall being provided with spaced openings connected by a reduced slit, one opening being of greater diameter than the other opening.

1,133,543. VACUUM-CLEANER. JOHN J. DUFFIE, Berkeley, Cal., assignor to Vacuum Specialty Manufacturing Co., San Francisco, Cal., a Corporation of Arizona. Filed Aug. 20, 1913, Serial No. 785,701. Renewed Feb. 25, 1915. Serial No. 10,614. (Cl. 83—48.)

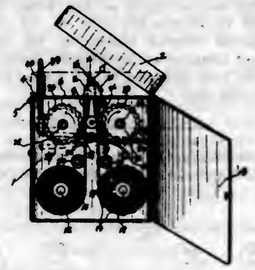


1. In a vacuum cleaner, the combination of a casing inclosing a motor and suction apparatus, and a removable receptacle fitting in the top of the casing and over the suction apparatus, said receptacle having a central upwardly extending air column opening through the bottom of the receptacle into the suction apparatus, a cover, a removable filter medium between said cover and said receptacle encircling the column and inclosing with the receptacle an air inlet chamber, and a single means for locking the cover, receptacle and casing together, and thereby clamp the filter medium in place, said chamber in the receptacle having an air inlet, said parts so constructed and arranged that on the operation of the motor air is drawn into the receptacle thence through the filtering medium and thence outwardly through the column into and through the suction apparatus.

2. In a vacuum cleaner, the combination of a casing inclosing a motor and suction apparatus, a removable receptacle fitting in the top of the casing over the suction apparatus, said receptacle having a central upwardly extending tube opening through the bottom of the receptacle into the suction apparatus, the upper portion of said tube being tapered to form a seat, a cover, a removable filter medium resting on the top of said receptacle beneath the cover, a tapered collar centrally located in said filter and adapted to engage the upper tapered portion of the tube, and a common means for locking the cover, receptacle and casing together to securely clamp the parts in position.

1,133,544. CIGAR-LIGHTER. EDWARD FAINT, Okanagan Landing, British Columbia, Canada. Filed Nov. 27, 1914. Serial No. 874,208. (Cl. 67—7.)

1. A cigar lighter comprising a ribbon having frictionally ignitible composition on its surface, a casing forming a magazine in which the ribbon is stored and having a slot through which one end of the ribbon extends, abrading means in proximity to the slot and to the outside of the casing, means for feeding the ribbon through the slot in contact with the abrading means to ignite the composition carried by the ribbon, and combustible material located outside of the casing and in close proximity to the exposed end of the ribbon, as and for the purpose specified.

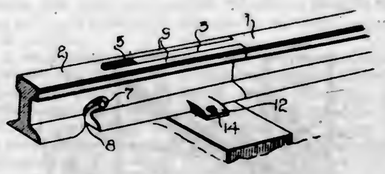


2. A cigar lighter comprising a ribbon having a frictionally ingitible surface, a ribbon of combustible material, a casing containing the ribbons having a pair of slots through which the free ends of each ribbon extend in close proximity to each other, a cap piece on said casing having guideways for said ribbons, abrading means carried by the cap in contact with the frictionally ignitible ribbon surface and means for feeding the ribbons simultaneously through the slots by a step-by-step movement, as and for the purpose specified.

3. In a cigar lighter, an ignitible ribbon, a combustible ribbon, a casing containing said ribbons, a cap piece carried by said casing having two depending guide members through which said ribbons pass and a top portion from which said ribbons extend in proximity to each other, and abrading means for the ignitible ribbon carried by said top portion of the cap piece.

4. In a cigar lighter, an ignitible ribbon, a combustible ribbon, a casing containing said ribbons, a cover for said casing, and means automatically operated by the raising of the cover for simultaneously advancing said ribbons step by step comprising a roller frictionally engaging each ribbon, a lever pivoted on said casing, pawls carried by said lever adapted to rotate said rollers, a finger carried by the free end of the lever extending vertically through the casing to be engaged by said cover when closed and depressed thereby, and spring means for forcing the lever upwardly when the cover is raised.

1,133,545. RAIL-JOINT. WASHINGTON REDURS FERBEE and GRANBERRY SUTTON, Brooklyn, N. Y. Filed July 18, 1914. Serial No. 851,769. (Cl. 239—8.)

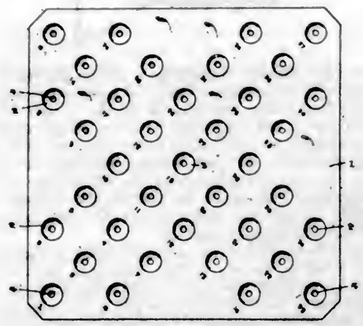


1. A device of the class described including the meeting ends of two rails, one of said rails being provided at one end with a reduced portion having lugs formed upon the opposite sides thereof and further provided at the inner end of the tongue and upon opposite sides thereof with recesses, the other of said rail ends being provided with spaced arms between which said tongue is adapted to be arranged, and spaced tongues formed on the outer ends of said arms adapted to be disposed within said recesses, as and for the purpose set forth.

2. A device of the class described including the meet-

ing ends of two rails, a reduced tongue formed upon the end of one of said rail ends, lugs formed upon the opposite sides thereof at the outer end, said rail end being provided at the inner end of the tongue upon opposite sides thereof with recesses, spaced arms folded upon the end of the other of said rail ends between which said tongue is adapted to be arranged, said rail end being provided with curved slots at the inner ends of said arms adapted to receive the lugs on the tongue of the first rail, spaced tongues formed on the outer ends of said arms and adapted to be disposed within the spaced recesses of the first rail, and means for securing said rail ends to the cross ties.

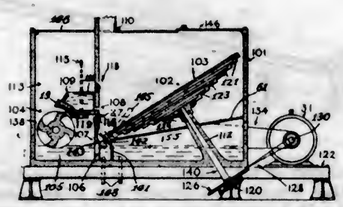
1,133,546. PUZZLE. WILLIAM FITZGERALD, Bridgeport, Conn. Filed Oct. 24, 1914. Serial No. 868,427. (Cl. 46—41.)



1. A game board puzzle, comprising, a game board, having a series of thirty-seven openings therein, a portion of said openings being in registering parallel rows, with one opening in the center and one isolated opening in each of the corners of said game board, consecutively numbered from 1 to 37, and each advancing row reading from left to right starting in the lower left hand corner.

2. A game board puzzle, comprising a game board, having thirty-seven openings therein, thirty-six instruments, one upon each of said openings with the exception of the central opening thereto adapted to be consecutively jumped over each other in thirty-five moves so that the last instrument used will be jumped to the central opening.

1,133,547. ETCHING APPARATUS. FREDERICK A. FLICK, New York, N. Y. Filed July 26, 1913. Serial No. 781,409. (Cl. 41—9.)



1. An etching apparatus comprising an acid-proof container having a cover with a transparent observation portion, and divided into compartments by a partition, means in one of said compartments to support and rotate an article to be etched, at an angle permitting direct inspection from above, through said observation portion, a spreader at one side of said compartment to apply etching fluid to said article, a supply member in another compartment to receive the fluid at the bottom of said container and deliver said fluid past said partition to said spreader, means to move said supply member to regulate the passage of fluid from said supply member past said partition.

2. An etching apparatus comprising a container having a compartment for the article to be etched and for the fluid drained therefrom, a rotatable support therewithin for said article, a separate supply compartment having an open supply trough, a rotary elevator constructed and arranged to dip in etching fluid at the bottom of said supply compartment to elevate said fluid to said supply trough and means to receive said fluid from said trough and project it upon said article.

3. An etching apparatus, comprising an acid-proof container having a support for the article to be etched, a supply chamber having an open supply trough with a discharge orifice, and means to regulate exit of fluid therefrom, a rotary elevator to dip into the fluid in said container and throw the same upward into said supply trough, and a rotary spreader to convert into spray the fluid from said supply trough and apply the same to said article, and means to rotate said rotary elevator and rotary spreader at predetermined relative speeds.

4. An etching apparatus comprising an acid-proof container; means to support rotatably therein the article to be etched, means to rotate said article, means to apply etching fluid to said article, auxiliary means to supply washing fluid for application to said article within said container, and means to drain said etching fluid and washing fluid separately within said container.

5. An etching apparatus comprising an acid-proof container having a plurality of compartment, a supporting member mounted therein to receive the object to be etched, means to apply fluid to said object, and a deflector mounted between said supporting member and compartments and movable to direct the fluid draining from said object into the selected compartment.

[Claim 6 not printed in the Gazette.]

1,133,548. METHOD OF MAKING IMITATION TEXTILE PRODUCTS FROM SOLUTIONS OF CELLULOSE OR PLASTIC SUBSTANCES. JOSEF FOLTZER, Metz, Germany, assignor to Benno Borzykowski, Charlottenburg, Germany. Filed Oct. 29, 1913. Serial No. 798,061. (Cl. 18—57.)

1. The method of making imitation textile products from a mass capable of hardening, which comprises forming the mass into a sheet on a smooth surface, stemming the mass in front of an intaglio surface while on said smooth surface, passing the mass between said surfaces to fill the intaglio only and produce of said mass designs corresponding to the intaglio, and hardening the mass.

2. The method of making imitation textile products from a mass capable of hardening, which comprises forming the mass into a sheet on a smooth surface, stemming the mass in front of an intaglio surface while on said smooth surface, passing the mass between said surfaces to fill the intaglio only and produce of said mass designs of greater dimensions than the designs of the finished article, and hardening the designs as they are formed.

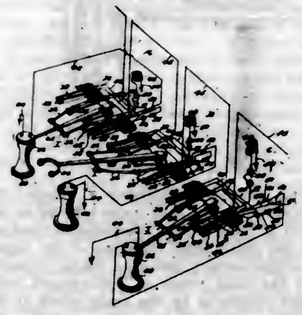
3. The method of making imitation textile products from a mass capable of hardening, which comprises forming the mass into a sheet on a smooth surface, stemming the mass in front of an intaglio surface while on said smooth surface, passing the sheet between said surfaces to fill the intaglio surface only and produce of said mass designs corresponding to the intaglio surface, applying a hardening agent to said intaglio surface before contacting with said mass and bodily hardening the mass.

4. The method of making imitation textile products from a mass capable of hardening, which comprises forming the mass into a sheet on a smooth surface, stemming the mass in front of an intaglio surface while on said smooth surface, passing the sheet between said surfaces to fill the intaglio surface only, and produce of said mass designs corresponding to the intaglio surface, applying to said intaglio surface before contacting with said mass a hardening liquid mixed with a decorating substance, bodily hardening the decorated mass and then drying the latter.

5. The method of making imitation textile products from a mass capable of hardening, which comprises forming the mass into a sheet on a smooth surface, stemming the mass in front of an intaglio surface while on said smooth surface, passing the sheet between said surfaces to fill the intaglio surface only and produce of said mass designs corresponding to the intaglio surface, applying to the intaglio surface before contacting with said mass a hardening liquid, providing the sheet with an outer surface consisting of another substance than the mass of the sheet, bodily hardening the decorated mass, and then drying the latter.

[Claims 6 to 12 not printed in the Gazette.]

1,133,549. PARTY-LINE CUT-OUT. WILLIAM B. FRANCIS, Prague, Okla. Filed June 14, 1913. Serial No. 773,640. (Cl. 179—30.)



1. In a party line cut-out, a group of contacts adapted for electrical connection to a telephone instrument and a line, a second similar group of contacts adapted for electrical connection to the same instrument and line, and a telephone hook pivoted for vertical movement and subsequent horizontal movement controlling the closing of circuits through said contacts.

2. In a party line cut-out, a group of contacts adapted for electrical connection to a telephone instrument and a line, a second similar group of contacts adapted for electrical connection to the same instrument and line, and a telephone hook pivoted for vertical movement and subsequent horizontal movement controlling the closing of circuits through said contacts, the hook in lowered position closing a circuit through certain contacts of each group and in raised position being movable in one direction to close circuits through the contacts of one group and in the opposite direction to close circuits through the contacts of the other group.

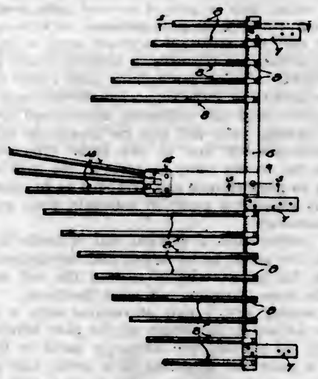
3. In a party line cut-out, a group of contacts adapted for electrical connection to a telephone instrument and a line, a second similar group of contacts adapted for electrical connection to the same instrument and line, and a telephone hook pivoted for vertical movement and subsequent horizontal movement controlling the closing of circuits through said contacts, the hook in lowered position closing a circuit through certain contacts of each group and in raised position being movable in one direction to close circuits through the contacts of one group and in the opposite direction to close circuits through the contacts of the other group, said hook when in raised position opening the circuit which it closes when lowered.

4. In a party line cut-out, a group of contacts adapted for electrical connection to a telephone instrument and a line, a second similar group of contacts adapted for electrical connection to the same instrument and line, and a telephone hook pivoted for vertical movement and subsequent horizontal movement controlling the closing of circuits through said contacts, the hook in lowered position closing a circuit through certain contacts of each group and in raised position being movable in one direction to close circuits through the contacts of one group and in the opposite direction to close circuits through the contacts of the other group, said hook when in raised position opening the circuit which it closes when lowered, and means for automatically securing the receiver hook in either of its raised positions.

5. In a party line cut-out, a pivoted receiver hook, a set of spaced contacts supported at each side of the hook, electrical connection between each contact of one group and the corresponding contact of the other group, a divided main line, and means connected to the ends of the main line and operable by the receiver hook for establishing connection between one set of said contacts and one end of the line or between the other set of said contacts and the other end of the line.

[Claims 6 to 18 not printed in the Gazette.]

1,133,550. WINDROWER. LOUIS FRANZMEIER, Newton, Wis. Filed Nov. 29, 1913. Serial No. 803,712. (Cl. 56—128.)



1. A windrower comprising a bar of right-angle contour in cross-section having the vertical portion thereof slotted at intervals of its length, slats extending through the slots, and means by which the forward ends of the slats are fastened to the horizontal portion of the bar.

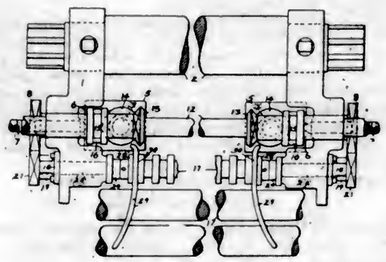
2. A windrower comprising a bar of right-angle contour in cross-section having the vertical portion thereof slotted at intervals of its length, slats extending through the slots, and bolts and nuts by which the forward ends of the slats are detachably fastened to the horizontal portion of the bar.

3. A windrower comprising a bar, an arm fastened at its forward end to the bar, a clamping member capped by the arm to which it is bolted, studs extending into straight seats with which the clamping-member is provided, and rearwardly divergent slats that engage the seats and are provided with eyes which eyes are engaged by the studs.

1,133,551. ROLLING-MILL. WILLIAM W. FRAZIER, Youngstown, Ohio. Filed Mar. 14, 1914. Serial No. 824,644. (Cl. 80—51.)

1. In a rolling mill, a pair of vertical rolls, screws for adjusting the width of the pass between the rolls, a guide in front of each roll for the metal to be rolled, screws for automatically adjusting the guides with respect to each other and means driving all the said screws so as to cause each roll and its associated guide to move simultaneously toward the other roll and its associated guide.

2. In a rolling mill, a pair of vertical rolls, means for adjusting the width of the pass between the rolls, a guide in front of each roll arranged to direct metal to be rolled into the pass between the rolls, a slidable sleeve to support each guide, a screw for causing each sleeve to slide in order to adjust the guide supported thereby, and means connecting the said roll adjusting means and the said screw for causing each roll and its associated guide to travel simultaneously and in the same direction.



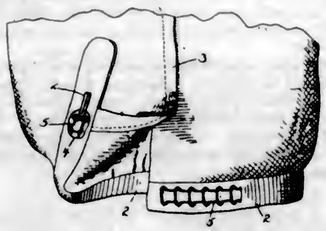
3. In a rolling mill, a pair of vertical rolls, means for adjusting the width of the pass between the rolls, a guide in front of each roll arranged to direct metal to be rolled into the pass between the rolls, a slidable sleeve to support each guide, a screw for causing each sleeve to slide in order to adjust the guide supported thereby, and means connecting the said roll adjusting means and the said screw for causing each roll and its associated guide to travel simultaneously and in the same direction, the threads on the screws being so cut and the said connections being so proportioned and arranged as to cause each roll and its associated guide to maintain fixed relations at all adjustments.

4. In a rolling mill, a vertical roll, a guide in front thereof for the metal to be rolled, and intergeared separate means for simultaneously moving the roll and the guide in the same direction and equal distances.

5. In a rolling mill, a pair of vertical rolls, a pair of screws for adjusting the width of the pass between the rolls, gears for rotating the screws, a guide in front of each roll, a screw for adjusting each guide, and gearing connecting each of the last named screws with one of the first named gears.

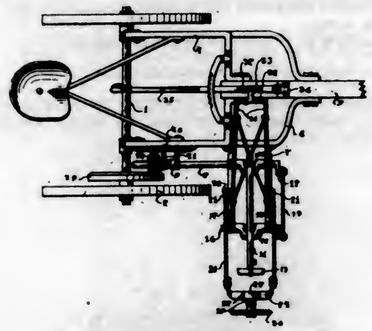
[Claim 6 not printed in the Gazette.]

1,133,552. KNICKERBOCKERS. LUNA C. FREUND, Cheyenne, Wyo. Filed Apr. 14, 1914. Serial No. 831,882. (Cl. 2—122.)



A bifurcated garment of the character described, provided with a placket in the lower end of each leg and also provided with a hem within the lower edge of each leg portion, fastening means for the placket comprising a plurality of links constituting a chain secured within each hem, a portion of the length of one end of each chain being exposed and anchored to the material of the leg, a hook secured to the opposite end of said chain adapted to adjustably engage one of the links of the exposed end of said chain to reinforce and secure the garment around the leg of the wearer, and means on the side of the placket on which the hook is located for concealing the exposed portion of the chain, whereby the placket closing means are concealed from view in all its adjustable positions, substantially as described.

1,133,553. COTTON-CHOPPER. DECK B. FULTZ, Barry, Tex. Filed Apr. 23, 1914. Serial No. 833,851. (Cl. 97—45.)



1. A cotton chopper comprising a wheeled frame, a crank shaft supported by said frame parallel to the direction of travel of the machine, a mechanism communicating rotation to the crank shaft from one of the transporting wheels, a supplementary swinging frame, extending laterally from the main frame at a downward inclination, and pivotally supported by the crank shaft at its upper end, a hoe mounted in the supplementary frame, having the upper end of its handle engaged by the wrist of a crank upon said shaft, and a transporting wheel supporting the outer end of the supplementary frame.

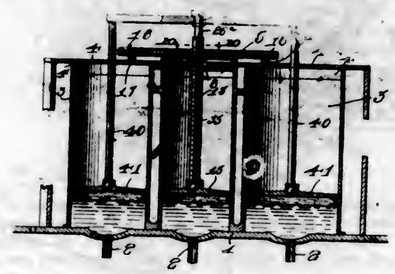
2. A cotton chopper comprising a wheeled frame, a supplementary swinging frame extending laterally from the main frame at a downward inclination, a hoe mounted in the supplementary frame, having its blade adjacent to the ground, a transmission mechanism actuated by one of the transporting wheels, and transmitting to said hoe a motion causing all of its points to traverse circles, a pair of bars projecting outwardly and downwardly from the supplementary frame, and free to undergo a limited angular displacement about a horizontal axis passing through the supplementary frame, and a transporting wheel mounted at the outer ends of said bars.

3. A cotton chopper comprising a wheeled frame, a crank shaft supported by the wheeled frame parallel to the direction of travel of the cotton chopper, a hoe extending laterally at a downward inclination from the main frame, having its upper end engaged by the wrist of a crank of said shaft, a crank having its wrist engaging the middle portion of the hoe handle, a shaft carrying the last specified crank, a pair of bars in which the last specified shaft is rotatably mounted at their lower ends, the upper ends of said bars being pivoted upon the first specified crank shaft, and a transporting wheel supporting the outer end of the swinging frame.

1,133,554. LUBRICATOR. DOUGLAS E. GAINES and WILLIAM L. STULL, Brunswick, Md. Filed Mar. 16, 1914. Serial No. 825,084. (Cl. 184—37.)

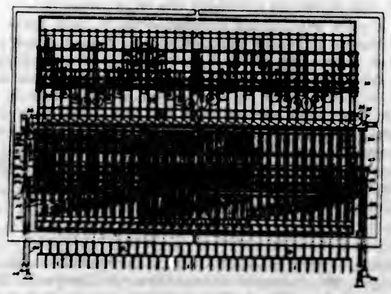
1. A lubricator comprising a plurality of cylinders, a spider frame, a plunger rod supporting said spider frame, additional plunger rods suspended from said spider frame, an operating gear engaging one of said plunger rods,

means for rotating said operating gear for feeding said plunger rods downwardly, and means for engaging said first mentioned plunger rod and adapted to be moved therefrom for facilitating the direct upward movement of said first mentioned plunger rod without the necessity of rotating the same.



2. A device of the class described comprising a plurality of cylinders, an upstanding annular rim, a gear carried by said upstanding annular rim, a threaded plunger rod carried by said gear and adapted to be threaded down as said gear is rotated, a spider frame carried by said plunger, said frame comprising a plurality of diverging arms, depending rods carried by said arms, plunger heads carried by said arms and also by said plunger, a cap supporting said threaded plunger, said cap provided with a transversely extending channel portion, said channel portion provided with longitudinally extending grooves upon each side thereof, thread carrying blocks adjustably mounted within said channel portion, said thread carrying blocks provided with laterally extending lugs working in said grooves, and means for engaging said thread carrying blocks for moving the same into and out of engagement with said threaded plunger for facilitating the feeding of said plunger downwardly and also for facilitating the drawing of said plunger upwardly.

1,133,555. COUPLING MECHANISM FOR ORGANS. JOSEPH GALLEAZZI, San Francisco, Cal. Filed May 12, 1914. Serial No. 838,047. (Cl. 84—1.)

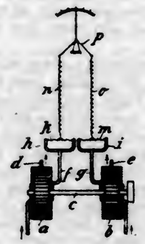


1. The combination of a sounding board having holes, means for producing musical sounds by air currents through said holes, valves for closing said holes, slidable rods for operating said valves, key-operated rods for actuating the first-named rods, devices carried by said key-actuated rods, devices carried by said first-named rods, operative connections from the first devices to the second, means actuated by said first-named devices for operating valves other than those actuated by the first-named rods, and means for rendering operative or inoperative as desired the operative connections corresponding to the notes either above or below, at will, that correspond to the actuated key.

2. The combination of a frame, keys in said frame, slidable rods moved thereby, guards carried by said rods and extending on both sides of the same, levers pivoted on said frame, slides slidable upon said levers, fingers extending from said slides into proximity with said guards on opposite sides of said rods and having oblique portions, means for moving simultaneously all of said levers that carry fingers on one side of said rods, means for moving simultaneously all of said levers that carry fingers on the other side of said rods, rock shafts located to be actuated by the oblique portions of said fingers only when the latter are raised, means controlled by the rock shafts engaged by the fingers on one side of said rods for actuating valves controlling the production of lower tones, and means actuated by the rock shafts engaged by the fingers on the other side of said rods for actuating valves controlling the production of upper tones.

3. The combination of tone-controlling valves, slidable rods, means operated by said rods for actuating said valves, a channel bar, rock shafts therein, having bent arms at their ends, a fixed plate through holes in which the arms at one end of said rock shafts pass, and a movable plate through holes in which the arms at the other end of said rock shafts pass, means for actuating the arms at one end of said rock shafts by some of said slidable rods, and means for actuating the arms at the other ends of said rock shafts by others of said slidable rods corresponding to other valves.

1,133,556. METHOD OF QUANTITATIVELY ANALYZING GAS MIXTURES OF KNOWN CONSTITUENTS AND APPARATUS THEREFOR. HANS GERDIEN, Halensee, near Berlin, Germany, assignor to Siemens & Halske A. G., Berlin, Germany, a Corporation of Germany. Filed July 18, 1913. Serial No. 779,883. (Cl. 23—3.)



1. Apparatus for quantitatively analyzing gas mixtures of known constituents, comprising in combination means for rotating a body of gas to develop difference of pressure from the axis outward, and means for directly observing this difference of pressure for determining the quantity of each constituent.

2. Method for quantitatively analyzing a gas-mixture having known constituents, which consists in rotating said gas-mixture in unison with a test or standard gas, and indicating the quantity of each constituent of the mixture by the ratio of the difference of pressure of said test or standard gas to the difference of pressure of said mixture.

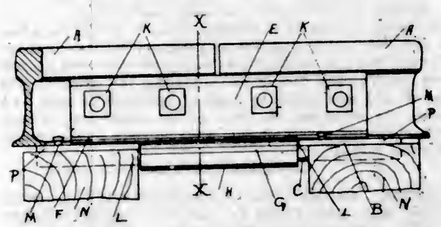
3. Method for quantitatively analyzing a gas-mixture having known constituents, which consists in imparting a rotary motion to said gas-mixture to generate a difference of pressure therein and rotating a test or standard gas in unison with said gas-mixture, maintaining either gas at the same temperature and under the same pressure, and indicating the ratio of the differences of pressure of either gas for determining the quantity of each constituent of the mixture.

4. Method for quantitatively analyzing a gas-mixture having known constituents, which consists in imparting a rotary motion to said gas-mixture and rotating a test or standard gas in unison therewith to generate differences of pressure in either gas thereby, maintaining uniformity

of said rotary motion, and indicating the molecular weight of said gas-mixture as a multiple of that of said test or standard gas.

5. Method for quantitatively analyzing a gas-mixture having known constituents, which consists in imparting a rotary motion to said gas-mixture and rotating a test or standard gas in unison therewith to generate differences of pressure in either gas thereby, regulating the speed of rotation of said gases upon a constant pressure of said test or standard gas, and indicating the molecular weight of said gas-mixture as a multiple of that of said test or standard gas.

1,133,557. MEANS OF FORMING JOINTS IN RAILS. HORATIO G. GILLMOR, Portsmouth, Va. Filed June 2, 1913. Serial No. 771,238. (Cl. 239—6.)



1. A side bar for rail joints constructed so as to engage a chair below the rail that rotational movements of said bar about an axis below and between the two edges thereof will force surfaces of said bar into engagement with the upper surface of the base flange of the rail and thereby produce pressure of said chair and bar upon the rail base flange.

2. A rail joint comprising a chair engaging the bottom of the base flanges of the meeting ends of rails and a side bar so engaging said chair that rotation of said side bar about an axis below and between the two edges of the rail will force surfaces of said bar into engagement with the upper surface of the base flange of the rail and thereby produce upward pressure of the chair and downward pressure of said bar upon the rail base.

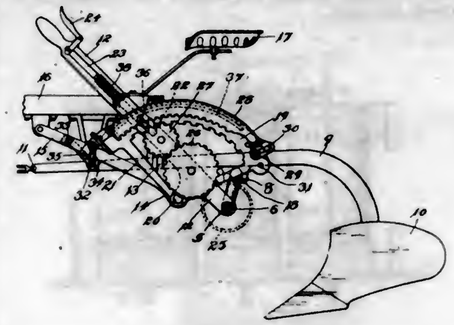
3. A rail joint comprising a chair engaging the bases of meeting rail ends and fish bars so engaging said chair at opposite sides of the rails that rotation of said bars about axes below and between the edges of the rails will force surfaces of said bars into engagement with the upper surfaces of the rail base flanges and thereby produce upward pressure of said chair upon said rail bases.

4. A rail joint comprising the meeting rail ends, a base plate overlapping said rail ends and a fish bar constructed to rotate about an axis below and between the edges of the rail to produce transverse stresses in said base plate and vertical stresses of the base plate upwardly and of the fish bar downwardly upon the rail base flanges.

5. A rail joint, comprising the rails, a base plate engaging with the bases of said rails and side bars constructed to rotate about axes lying below, at opposite sides of and between the two edges of the rails, and produce transverse stress in said base plate and vertical stresses of the base plate upwardly and of the side bars downwardly upon the rail base flanges.

1,133,558. SETTING DEVICE FOR SULKY-PLOWS. RALPH E. GOULD, Hartford, Conn. Filed Mar. 2, 1911. Serial No. 611,859. (Cl. 97—54.)

1. A plow with means for supporting it, said parts being arranged to normally permit the plow to move to a lower position, and said supporting means comprising means for raising and lowering the plow, means for holding the plow in a predetermined position, means for releasing said holding means to lower the plow and to automatically reëngage said holding means at different predetermined points to determine the depth of a furrow to be plowed.



2. A plow with means for supporting it, said parts being arranged to normally permit the plow to move from a raised to a lowered position, and said supporting means comprising means for raising and lowering the plow, means for holding said raising and lowering means in a predetermined position, and means for releasing said holding means and for automatically reëngaging it at variable and predetermined points to determine the depth of a furrow to be plowed.

3. A plow with means for supporting it, said parts being arranged to permit the plow to move from a raised to a lowered position, a lever for raising and lowering the plow, and said supporting means comprising a detent on said lever, a holding rack to receive said detent, a latch lever having a trip to release said detent to permit its reengagement with the holding rack, and means for operating the latch lever.

4. A plow with means for supporting it, said parts being arranged to permit the plow to move from a raised to a lowered position, and said supporting means comprising a lever for raising and lowering the plow, a detent on said lever, a holding rack to receive said detent, a latch lever having a trip to release said detent to permit its reengagement with the holding rack, said detent moving independently of the latch lever in said reëngaging movement, and means for operating the latch lever.

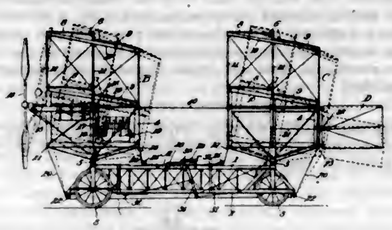
5. A plow with means for supporting it, said parts being arranged to permit the plow to move from a raised to a lowered position, and said supporting means comprising a lever for raising and lowering the plow, a detent on said lever, a holding rack for said detent, a latch lever, a rib on the latch lever serving as a trip and overlying a projection from the detent, said rib terminating at a point to disengage said projection and permit reëngagement of the detent with the holding rack, and means for operating the latch lever.

[Claims 6 to 15 not printed in the Gazette.]

1,133,559. AEROPLANE. CHARLES ULMER GREELEY, Bangor, Me., assignor of one-third to Charles H. Hulburd, Chicago, Ill. Filed Feb. 18, 1910. Serial No. 544,598. (Cl. 244—14.)

1. In an aeroplane, separate and distinct groups of supporting surfaces, each surface being broken into a plurality of planes by a division transversely to the direction of advance, means for connecting said groups, and means for simultaneously tilting said groups as units forward and backward.

2. In an aeroplane, separate and distinct groups of supporting surfaces, each surface being broken into a plurality of planes by a division thereof transversely to the direction of advance, and each rearward plane of said subdivided surface being rigidly supported in a position slightly below the plane in advance thereof, so as to expose its forward edge, means for connecting said groups, and means for simultaneously tilting said groups as units forward and backward.



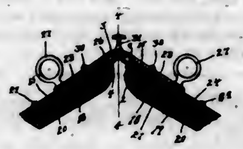
3. In an aeroplane separate and distinct groups of supporting surfaces, each group comprising a plurality of planes, so arranged that each succeeding plane in a group toward the rear is at a greater angle than its predecessor.

4. In an aeroplane separate and distinct groups of supporting surfaces, each group having a supporting surface arranged one above the other and each surface of each group being broken into a plurality of planes by a division transversely to the direction of advance, means for connecting said groups, and means for simultaneously tilting said groups as units forward and backward.

5. In an aeroplane, separate and distinct groups of supporting surfaces, each surface being broken into a plurality of planes by a division transversely to the direction of advance, a central frame in each group to which said planes are rigidly attached, each of said frames having a portion extending to a distance below the supporting surfaces, a carriage pivotally connected at each end to the lower ends of said central frames respectively, and means for swinging said central frames about their pivots.

[Claims 6 to 13 not printed in the Gazette.]

1,133,560. HARNESS-SADDLE. FRANK G. HOOVER, New Berlin, Ohio. Filed Nov. 3, 1913. Serial No. 798,829. (Cl. 54—38.)

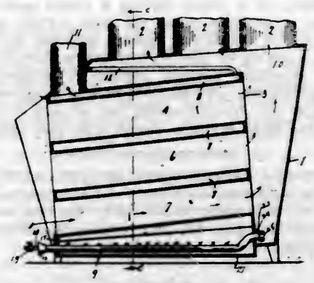


1. A harness saddle comprising a central, rigid, arched member, pad members at the two sides of said arched member and spaced from each other at their upper ends, each pad member comprising a pad and a jockey, the ends of said arched member arranged between said jockeys and pads, and a layer extending over said arched member and overlying the upper margins of said jockeys, said arched member and layer constituting the sole connection between said pad members at their upper ends.

2. In a harness saddle provided with pads and jockeys, an arched member formed of an integral, rigid casting and comprising an arched portion, integral flanges connected thereto and inserted between the upper ends of said pads and jockeys, and integral ribs formed on said arched member at the lines of juncture between said arched portion and said flanges, extending beyond the general front and rear edges of said arched portion, forming closing fillets arranged between said pads and jockeys at their upper ends adjacent the lateral margins thereof, closing the openings between said pads and jockeys and overlying and protecting the upper edges of said jockeys.

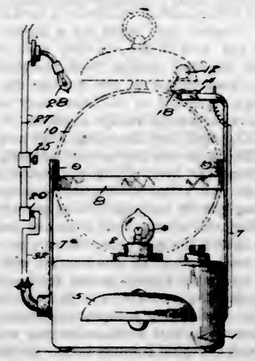
3. A harness saddle of the character described comprising spaced pads, each comprising a pad proper, a pad back connected thereto, a jockey overlying said pad back, connected thereto along its lateral edges, and having its upper edge free and spaced from said pad back, a central, rigid, arched member provided with flanges extending between said jockeys and pad backs and having finishing ribs extending forwardly and rearwardly and terminating in closing fillets extending between the pad backs and jockeys adjacent the lateral edges of the same to close the openings between them adjacent said edges, an arch-covering layer over-lying said arched member, finishing ribs and upper edges of said jockeys intermediate said fillets, and means on each side of said arched member connecting the pad, pad back, flange, jockey and layer together.

1,133,561. FURNACE. LILY E. G. HUBERT, Los Angeles, Cal. Filed Aug. 1, 1912. Serial No. 712,718. (Cl. 126—116.)



In a furnace, the combination of an outer jacket, an inner jacket supported within said outer jacket, said inner jacket having an upwardly inclined top; a vent connected with the lower end of the top of the inner jacket; and a suitable auxiliary vent connecting the raised end of said jacket with the aforesaid vent, and adapted to prevent waste gases from gathering in the top of said inner jacket; flues extending longitudinally through the inner jacket, having spaces between them for the passage of heated vapors; a source of heat located beneath the flues; and register pipes connected with the outer jacket and adapted to convey the heated air from the chamber formed between the inner and outer jackets.

1,133,562. ELECTRIC ILLUMINATING ALARM-CLOCK. PLEASANT A. HUDDLESTON, Oklahoma, Okla. Filed Nov. 10, 1913. Serial No. 800,186. (Cl. 58—19.)



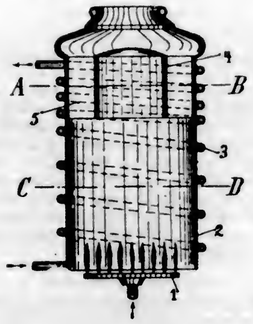
1. Alarm mechanism comprising a clock provided with a striking hammer, an electrically operated alarm, circuit

connections leading from said alarm to a source of electric current, a casing having a standard or frame, a spring-actuated switch secured thereto and connected in circuit with said alarm, and a trigger carried by said frame adjacent said hammer and adapted to hold said switch in open position against the tension of said spring until released by said hammer.

2. Alarm mechanism comprising a clock provided with a striking hammer, an electrically operated alarm, circuit connections leading from said alarm to a source of electric current, a casing having a standard or frame, a spring-actuated switch secured thereto and connected in circuit with said alarm, a trigger carried by said frame adjacent said hammer and adapted to hold said switch in open position until released by said hammer, and means for short-circuiting said alarm at will, thereby permitting the lamp to remain in circuit.

3. The combination with a clock having a striking member adapted to be automatically operated at a predetermined time, of a casing having a frame provided with means to receive and clamp the clock, switch mechanism carried by the casing and located adjacent said striking member, a source of electric currents, a plurality of electrically energized devices, conductors connecting said switch mechanism with said electrically energized devices, and means for short-circuiting one of said devices while leaving the other device in circuit with said source.

1,133,563. LIQUID-HEATING APPARATUS. HUGO JUNKERS, Aachen, Germany. Original application filed May 21, 1907, Serial No. 374,851. Divided and this application filed Dec. 30, 1913. Serial No. 809,466. (Cl. 122—250.)

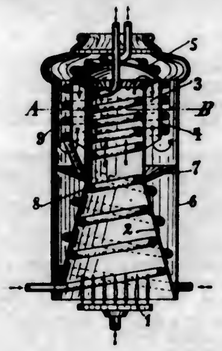


1. In a liquid heater, the combination of a cylindrical wall forming a combustion chamber, a burner at the lower end of the chamber and tubes for a liquid to be heated mounted on the wall of the chamber and arranged closer together over an area distant from the burner than they are over an area closer to the burner the wall of said chamber being increased in thickness over the area where said tubes are arranged closer together to increase the capacity of the wall for absorbing heat and transmitting heat to the liquid in the tubes, substantially as described.

2. Apparatus for facilitating the interchange of heat between a gas and a liquid comprising a metallic mantle, heat-absorbing plates arranged close together in the gas passage within the mantle and near one end thereof and arranged to divide the gas into thin layers, said plates being in full heat-conducting connection with the body of the mantle and said mantle being thickened to increase the heat conducting capacity of the portion thereof surrounding said plates, and a liquid-containing structure of metallic channels in full heat-conducting connection with the mantle and covering a much larger surface area thereof than the area exposed to the gas, substantially as described.

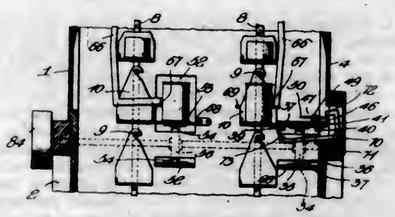
3. In a liquid heater, the combination of a cylindrical wall forming a combustion chamber, a burner in the lower end of the chamber, a substantially cylindrical hood closed at its upper end mounted within the upper end of the chamber, the wall of said chamber being thickened over the portion thereof surrounding said hood, a plurality of plates arranged radially between the hood and chamber, and liquid-containing tubes affixed to the wall of the chamber about said hood and below the same, substantially as described.

1,133,564. APPARATUS FOR HEATING LIQUIDS. HUGO JUNKERS, Aachen, Germany. Filed Dec. 30, 1913. Serial No. 809,467. (Cl. 122—250.)



A liquid heating apparatus comprising the combination of a vertically disposed mantle structure open at its ends, a heater at the lower end of the mantle, a hood mounted over the upper end of the mantle, a plurality of radially disposed plates located between the inner side of the hood and the adjacent portion of the mantle, a coil of piping mounted upon the inner side of the mantle extending from the lower to the upper end thereof and arranged in heat-transferring connection with the mantle, a second coil of piping mounted upon the outer side of the mantle below the hood and upon the outer side and top of the hood and arranged in heat-transferring connection with the mantle and hood, and a casing inclosing the mantle, hood and piping; substantially as described.

1,133,565. EXHAUST-BOX. FRANS KANKKONEN, Astoria, Oreg. Filed May 21, 1914. Serial No. 840,042. (Cl. 193—24.)



1. In a device of the class described, a casing, an endless carrier mounted to operate vertically therein, feed and discharge members also mounted in the casing, to cooperate with the reaches of said vertical carrier, a pair of rock shafts mounted horizontally in said casing, feed arms carried thereby to be actuated upon the rocking of said shafts, laterally extending crank arms on said rock shafts, a vertically reciprocating rod connected with the opposed ends of said crank arms, means for operating said carrier, and additional means for operating the reciprocating rod at predetermined times, whereby to actuate said feed arms and discharge the contents of the feed member onto one reach of the vertical carrier and simultaneously discharge the contents of the other reach of the vertical carrier onto the discharge member.

2. In a device of the class described, a casing, a pair of conveying members mounted therein in slightly spaced relation to one another, an oscillating feed member also mounted in the casing to discharge the contents of one of said conveying members onto the other, a pair of angular arms mounted for oscillation in said casing, and a vertically moving horizontal bar connecting one end of said arms and adapted to be disposed in the space between the two spaced apart conveying members, whereby to form a stop flange for one of the same, the opposite end of said angular arms coöperating with the oscillating member whereby said stop flange will be operatively disposed upon the movement of said oscillating member to its inoperative position and vice versa.

3. In a device of the class described, a casing having an entrance opening in one wall thereof, a feed carrier mounted in connection with the casing and operating through said opening therein, a pair of guide rails continued from one wall of the casing on opposite sides of the opening therein, one of said guide rails having a hinged gate in the length thereof, means for yieldingly retaining said gate member in position to form a continuation of one guide rail, and means actuating at predetermined times for disposing said gate member transversely across the feed carrier, whereby to prevent the contents thereof from passing through the entrance opening of said casing.

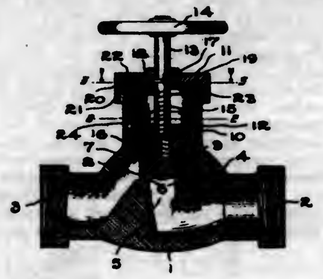
4. In a device of the class described, the combination with a casing having an entrance opening in one end wall thereof, means to feed articles to said casing through said opening, a gate member adapted for disposition to obstruct the path to said opening, and means for yieldingly retaining said gate member in its inoperative position; of a drive shaft on the top of said casing, a vertically movable rod on the aforementioned end wall of said casing having connection at its lower end with said gate member, a lever fulcrumed intermediate of its ends at the upper end of the end wall of said casing, and connected at its one end with the upper end of said vertically movable rod, the opposite end of said lever being arcuately designed and an arm carried on said drive shaft adapted to engage the arcuate end of said lever to actuate the latter and correspondingly actuate said gate member as the drive shaft is rotated.

5. In a device of the class described, the combination with a longitudinally movable member and a stationary member disposed immediately adjacent thereto; of a plurality of spacer members rotatably mounted on said stationary member and each comprising a hub, two pairs of radial arms carried by the hub, the arms of each pair projecting in opposite directions and one pair being disposed in a plane below the other, to permit the arms of each spacer member to overlap the arms of the adjacent members, said radial arms of each spacer member projecting over the movable member to coöperate with the contents of the latter, and means for discharging the contents of said movable member to an additional member.

[Claims 6 and 7 not printed in the Gazette.]

1,133,566. COMBINED COMPRESSION COCK AND DRAIN. LEWIS M. LANCASTER, Philadelphia, Pa. Filed Mar. 2, 1914. Serial No. 821,988. (Cl. 137—4.)

1. A cock comprising a body having a valve case thereon, a valve in said case adapted to close the passage through the body, said valve smaller in diameter than the valve case and having an integral piston thereon fitting the valve case, said valve case having a by-pass directing fluid around the piston when the valve is in closed position, a cap screwed onto the end of the valve case, a stem projecting through the cap and having threaded engagement with the valve, said stem having an enlargement thereon, a disk located against the inner face of the cap and having means thereon engaging the cap, preventing rotary movement of the disk, said disk confining the enlargement on the stem between the cap and the disk, and said disk and cap having registering openings for the drain of fluid from the valve case, substantially as described.



2. A cock comprising a body having a partition therethrough separating the inlet from the outlet of the body and having an opening therethrough with a valve seat around said opening, said body having an integral cylindrical valve case, a valve smaller than the valve case and normally positioned against the seat, a piston integral with the valve and fitting the valve case, said valve case having a by-pass around the piston when the valve is in closed position, a cap screw onto the end of the valve case and having an internal groove, a stem projecting through the cap and having threaded engagement with the valve, said stem having an enlargement thereon, a disk located against the inner face of the cap and confining the enlargement against the cap, said disk having a lug located in the groove in the cap, and said disk and cap having registering openings for the drain of fluid from the valve-case, substantially as described.

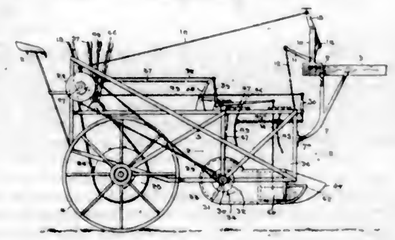
3. A cock comprising a body having a partition therethrough separating the inlet from the outlet of the body and having an opening therethrough with a valve seat around said opening, said body having an integral cylindrical valve case, a valve smaller than the valve case and normally positioned against the seat, a piston integral with the valve and fitting the valve case, said valve case having a by-pass around the piston when the valve is in closed position, a cap screwed onto the end of the valve case and having an internal groove, a stem projecting through the cap and having threaded engagement with the valve, said stem having an enlargement thereon, a disk located against the inner face of the cap and confining the enlargement against the cap, said disk having a lug located in the groove in the cap, and said disk and cap having registering openings for the drain of fluid from the valve case, and a ring clamped against the end of the valve case and against which the piston bears when the valve is in extreme open position, substantially as described.

1,133,567. INSECT-DESTROYER. JOHN H. MOCK, Jetmore, Kans. Filed Nov. 26, 1913. Serial No. 803,242. (Cl. 43—1.)

1. An insect destroyer comprising a frame; two drive wheels supporting said frame; a fan carried by said frame within a casing located forward of the axle of said wheels, connections for driving said fan by movement of said drive wheels; a spout connecting with said fan; a valve hingedly mounted upon the bottom of said spout, and means for operating said valve; a hood pivotally connected to the fan casing, means for raising said hood operated from the driver's seat; a perforate receptacle spaced from said spout and adapted to receive air therefrom; shafts adjustably mounted above said spout; a plurality of depending plant engaging tines secured to said shafts having operable means connected to said tines and located near the driver's seat; and runners supporting the said air spout and said perforate receptacle when in contact with the ground.

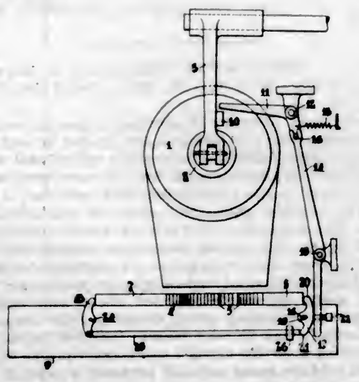
2. An insect catching device comprising an insect re-

ceptacle having receiving pans in the bottom thereof constituting one section of said device, a fan and air spout constituting the other coöperating section, mounted on two supporting wheels, the insect catching mechanism located forward of the axle and the driver's seat and operating levers behind the axle; a plurality of depending, adjustable agitators, controlled from the driver's seat by the operator; an adjustable hood pivotally mounted adjacent the air intake opening of the fan casing and means for operating the said hood from the driver's seat; a valve hingedly mounted on the bottom of the said air spout, controlled by the operator from the driver's seat, whereby the current of air may be directed upwardly at will; supporting runners connected to and supporting the said insect receptacle and the said air spout, when they are in contact with the ground and a plurality of perforate, removable, inner linings for the said pans.



3. An insect destroyer, including a frame mounted on two wheels; a fan carried by said frame having an intake opening on the side of the casing of said fan adjacent the plants being worked on; a hood pivotally mounted above said opening; a valve hingedly mounted on the bottom of the air spout leading from said fan and means for operating the same; a plurality of depending tines carried by adjustably mounted rods over the said air spout, a perforate receptacle spaced opposite the said fan and air spout, having insect receiving pans therein; a plurality of perforate removable linings for said pans and runners attached to said air spout and receptacle whereby they are supported when in contact with the ground.

1,133,568. MEANS FOR CONTROLLING THE PUMP OR THE INDENTER OF A MACHINE FOR MAKING PRINTING-SLUGS. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 11, 1914. Serial No. 871,450. (Cl. 199—15.)



1. In a machine for making printing slugs from a line of pieces confined between two jaws, the combination of two line-confining jaws independently operative, a normally locked device for making a counterpart of the characters in that line, and means dependent upon the conjoint operation of the two jaws to unlock the device.

2. In a machine for making printing slugs from a line of pieces confined between two jaws, the combination of a device for making a counterpart of the characters in that line, two line-confining jaws independently movable, and an independent connection from each jaw to the said device to control its operation.

3. In a typographical casting machine, the combination of a pump, a pair of line confining jaws each mounted to yield under the expanding influence of the line, and means to prevent the action of the pump unless both jaws yield conjointly.

4. In a typographical casting machine, the combination of a pump, locking means therefor, a pair of line confining jaws arranged to yield under the expanding influence of the line, and means dependent upon the conjoint yielding action of both jaws to unlock the pump.

5. In a typographical casting machine, the combination of a pump, two confining jaws, a composed line therebetween, and means for expanding the line, the two confining jaws being arranged to permit each of the opposite ends of the line to move outward during the expanding action, with means to prevent the action of the pump unless both ends of the line are so moved, for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

1,133,569. FUSE-CLIP. HENRY N. MÜLLER, Pittsburgh, Pa., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed July 15, 1914. Serial No. 851,091. (Cl. 175—273.)



1. A fuse clip having a conducting base, spring plates with their lower ends fastened to the base, a pair of contact plates, conducting studs extending from the middle of the backs of the contact plates at right angles thereto to the upper ends of the spring plates, and means projecting from the base for loosely retaining said studs.

2. A fuse clip having a conducting base, spring plates fastened to and extending upwardly from the base, a pair of contact plates, means extending from the middle of the backs of the contact plates to the upper ends of the spring plates, and conducting means connecting the contact plates with the base.

3. A fuse clip having a conducting base, spring plates extending upwardly from the base, a pair of contact plates, studs connecting the contact plates with the upper ends of the spring plates, and conducting leaves connecting the contact plates with the base.

4. A fuse clip having a conducting base, spring plates with their lower ends clamped to the base, a pair of contact plates, studs connected at their inner ends with the center of the contact plates and at their outer ends with spring plates, and conducting leaves extending from the middle of the contact plates to the base.

5. A fuse clip having a conducting base, spring plates with their lower ends clamped to the base, contact plates, studs connecting the contact plates with the upper ends of the spring plates, and conducting leaves with their upper ends held between the studs and the contact plates, and their lower ends fastened between the base and the lower ends of the spring plates.

[Claim 6 not printed in the Gazette.]

1,133,570. RETAINER FOR DENTAL PLATES. JOHN S. NAULDER, Pittsburgh, Pa. Filed July 16, 1912. Serial No. 709,781. (Cl. 32—4.)



A retainer for dental plates comprising a ring shaped metal member having its outer perimeter embedded in the plate and presenting its inner perimeter in the form of a holding flange, and a double annulus of thin metal having its base secured under said holding flange and having its outer portion trailing radially over the top surface of the plate, as and for the purpose set forth.

1,133,571. CLEANING ATTACHMENT FOR FIREARMS. ADOLPH O. NIEDNER, Malden, Mass. Filed Nov. 20, 1914. Serial No. 873,214. (Cl. 42—91.)



1. A cleaning attachment for firearms of the bolt-operated type consisting of a tubular member adapted to be inserted within the receiver in alinement with the breech end of the bore of the barrel and to guide the cleaning rod and swab to and from the latter and provided with means to coöperate with the outer bolt-bearing for holding said tubular member in place while in use.

2. A cleaning attachment for firearms consisting of a tubular member adapted to be inserted within the receiver in alinement with the breech end of the bore of the barrel and to guide the cleaning rod and swab to and from the latter, said member having means adapted by rotative movement of said member to interlock with the receiver to hold said member in place while in use.

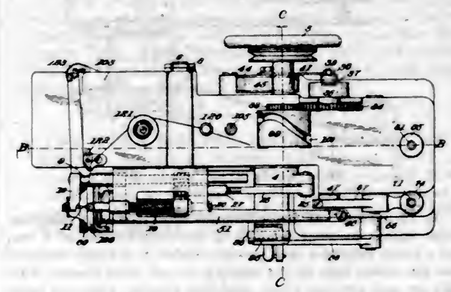
3. A device for use in cleaning the bore of a bolt-operated rifle comprising a removable member with a tubular bore, one portion of said member being exteriorly cylindrical to engage the outer bearing for the bolt member, and said member having locking means to engage the outer bearing for said bolt and thereby hold one end of said member in adjacency to the bore of the rifle and the other end in a readily accessible position.

4. A cleaning attachment for firearms consisting of a tubular guide having a cylindrical portion to fit the outer bearing for the bolt member and having a lug to engage said bearing to prevent outward movement of said guide, and having another lug with a knob to serve the double purpose of means to prevent inward movement of the guide and to rotate the guide into and out of locked position.

1,133,572. SEWING-MACHINE. DONALD NOBLE, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 14, 1911. Serial No. 660,255. (Cl. 112—24.)

1. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanisms including a needle-bar carrying an eye-pointed needle and having reciprocatory movements in a plane substantially transverse to the line of feed, and a coacting loop-taker having stitch-forming movements in a plane substantially at right angles to the plane of the reciprocatory movements of said needle, of an oscillating cylinder in which said needle-bar and loop-taker are mounted and through which they are controlled to form stitches first in one and then the other of two parallel planes.

2. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanisms including a feed-actuating shaft, a needle-bar carrying an eye-pointed needle and having reciprocatory movements in a plane substantially transverse to the line of feed, and a coacting loop-taker having stitch-forming movements in a plane substantially at right angles to the plane of the reciprocatory movements of said needle, of an oscillating cylinder operated from said feed-actuating shaft and in which said needle-bar and loop-taker are mounted and through which they are controlled to form stitches first in one and then the other of two parallel planes.



3. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanisms including a main shaft, a needle-bar carrying an eye-pointed needle and having reciprocatory movements in a plane substantially transverse to the line of feed, and a coacting loop-taker having stitch-forming movements in a plane substantially at right angles to the plane of the reciprocatory movements of said needle, of an oscillating cylinder in which said needle-bar and loop-taker are mounted, said needle-bar and loop-taker being actuated from said main shaft to form stitches and controlled by said cylinder to place said stitches first in one and then the other of two parallel planes.

4. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanisms including a main shaft, a feed-actuating shaft, a needle-bar carrying an eye-pointed needle and having reciprocatory movements in a plane substantially transverse to the line of feed, and a coacting loop-taker having stitch-forming movements in a plane substantially at right angles to the plane of the reciprocatory movements of said needle, of an oscillating cylinder in which said needle-bar and loop-taker are mounted, said needle-bar and loop-taker being actuated from said main shaft to form stitches, and said cylinder being actuated from said feed-actuating shaft to place said stitches first in one and then the other of two parallel planes.

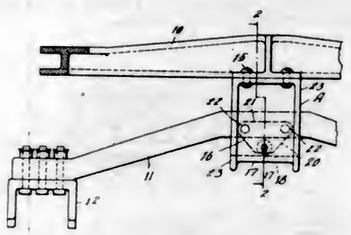
5. In a sewing machine, the combination with fabric-feeding and stitch-forming mechanisms including a needle-bar carrying an eye-pointed needle and having reciprocatory movements in a plane substantially transverse to the line of feed, and a coacting loop-taker having stitch-forming movements in a plane substantially at right angles to the plane of the reciprocatory movements of said needle, of an oscillating cylinder provided with a vertically-yielding cloth presser-foot and in which said needle-bar and loop-taker are mounted and through which they are controlled to form stitches first in one and then the other of two parallel planes.

[Claims 6 to 22 not printed in the Gazette.]

1,133,573. SIDE BEARING FOR SIX-WHEELED PASSENGER-CAR TRUCKS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Jan. 2, 1914. Serial No. 809,875. (Cl. 105—115.)

1. In a device of the character described, the combination with a member secured to the body-bolster of a car, of a truck-bolster having a side bearing bridge, said member having a substantially hook-shaped lower end extending

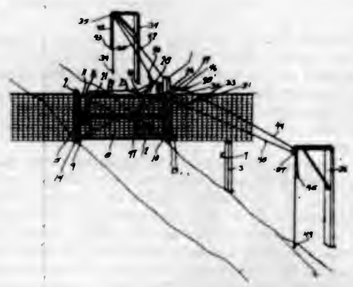
beneath the under side of said bearing bridge, and an anti-friction roller carried by one of said elements and interposed between said member and the inner side of the bearing bridge, whereby when the car body tends to move away from the truck in a vertical plane, the same is limited by the engagement between said member and said bearing bridge.



2. In a device of the character described, the combination with a member secured to the body-bolster of a car, of a truck having a side bearing bridge, a bracket mounted on the under side of the bearing bridge, said bracket having an anti-friction roller mounted therein, and said member secured to the body-bolster having an inwardly extending flange at the lower end thereof, located beneath said anti-friction roller and adapted to engage the roller when the body-bolster moves away from the truck-bolster.

3. A side bearing for passenger cars having six-wheeled trucks and comprising a member secured to the body-bolster, said member having an inturned horizontal flange at the lower end thereof, a bracket secured to the side bearing bridge of the truck, said bracket having an anti-friction roller mounted therein, said roller coming into play between said member and the side bearing bridge when the body-bolster and the wheel truck tend to separate in a vertical line.

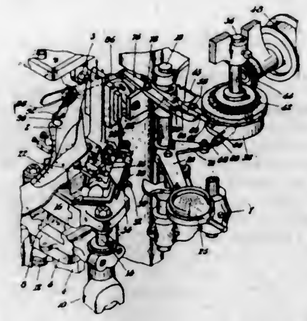
1,133,574. GATE-OPERATING MEANS. LINUS C. PETERSON and GUSTAV ADOLPH PETERSON, Colbert, Wash. Filed May 11, 1914. Serial No. 837,894. (Cl. 39—14.)



1. In a gate operating means, a hinge post, a gate structure hinged to said post, a flexible opening line or cable connected with the gate structure in advance of its hinge and extending rearwardly of such axis and laterally of the gate in a direction opposite to the direction of opening movement of the gate, a leverage bar having one end fixed to the gate in advance of the hinge axis thereof and disposed at an acute angle to the plane of the gate with its free end in advance of the gate with respect to the direction of opening movement of the latter and extending toward the hinge axis, the free end of said bar having a pulley engaging an intermediate portion of the line to maintain the same laterally in advance of the gate, and a flexible closing line connected with the gate structure and extending laterally of the gate in a direction corresponding to the opening movement of the latter, the free end of said bar having a pulley engaging an intermediate portion of said closing line, substantially as described.

2. In a gate operating means, a hinge post, a gate structure hinged to said post, a flexible operating line connected with the gate in advance of its hinge axis to open the gate and extending rearwardly of such axis and laterally of the gate in a direction opposite to the direction of opening movement of the gate, a flexible closing line connected with the gate in advance of the hinge axis thereof and extending laterally of the gate in a direction corresponding to opening movement of the same, and leverage means fixed to the gate and engaging said opening and closing lines to maintain intermediate portions thereof laterally in advance of the gate with respect to the direction of opening movement thereof, substantially as described.

1,133,575. HEEL-ATTACHING MACHINE. CHARLES A. POTTER, Lakeport, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 12, 1908. Serial No. 415,543. (Cl. 1—32.)



1. A heel attaching machine, having in combination, a shoe support, power actuated mechanism for attaching a heel to a shoe sustained upon said support, power-actuated means for bringing nails into position to be driven, and means under the control of the operator for effecting the actuation of said means whenever desired, independently of the actuation of said attaching mechanism.

2. A heel attaching machine, having in combination, mechanism for driving nails into a heel, a shoe support arranged for movement into and out of the range of said mechanism, a movable nail carrier for bringing nails into position to be driven, and power actuated means for reciprocating said carrier controlled by the movement of said shoe support.

3. A heel attaching machine, having in combination, mechanism for driving nails into a heel, a shoe support arranged for movement into and out of the range of said mechanism, a movable nail carrier for bringing nails into position to be driven, and power actuated means for reciprocating said carrier arranged to be brought into action by the movement of the shoe support away from said mechanism and at approximately the outward limit of movement of said shoe support.

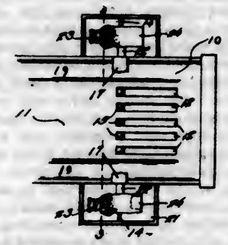
4. A heel attaching machine, having in combination, mechanism for driving attaching nails into a heel, a shoe support arranged for movement into and out of the range of said mechanism, and power actuated means for supplying nails to said mechanism arranged to be brought into action by the movement of the shoe support away from said mechanism.

5. A heel attaching machine, having in combination, mechanism for driving attaching nails into a heel, a shoe support arranged for movement into and out of the

range of said mechanism, and power actuated means constructed for operation independently of said mechanism for supplying nails to said mechanism, said means being arranged to be brought into action by the movement of the shoe support away from said mechanism.

[Claims 6 to 17 not printed in the Gazette.]

1,133,576. BOWLING GAME. WILLIAM J. POWELL, Ocean City, N. J. Filed July 23, 1914. Serial No. 852,604. (Cl. 46—66.)



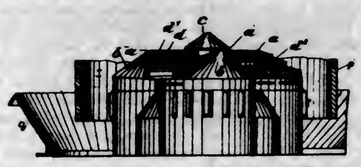
1. In a bowling game, a deck, a plurality of pin devices thereon, an amusement device at a distance from the pins, and operative connections between the amusement device and at least one pin for operation of the amusement device upon displacement of a single predetermined pin alone.

2. In a bowling game, a deck, a plurality of pins pivoted thereon, a revoluble member connected to at least one of the pins and extending laterally of the deck, for rotation by upsetting of the pin, and an amusement device operatively connected with the outer end of the member aforesaid outwardly of the deck.

3. A game of the class described comprising a deck, a plurality of transversely spaced pin members pivoted thereon for upsetting movement and having downwardly extending portions beneath the deck, an amusement device spaced laterally of the deck, operative connections between at least one pin and the amusement device, a board pivoted to lie above the pivot axes of the pins and movable to engage and return to initial position said downwardly extending portions of the pins, means to oscillate the board, and yielding means to hold it in initial position.

4. A game of the class described comprising a deck, a plurality of pins pivoted thereon and arranged to project vertically above the deck at times, a transversely movable member and means to connect it to at least one of the pins, an amusement device operatively connected with the member laterally outward of the deck a distance, and a housing to conceal the amusement device in initial position.

1,133,577. REVOLVING GRATE FOR GAS-PRODUCERS. HUGO REHMANN, Dusseldorf, Germany. Filed Sept. 2, 1913. Serial No. 787,755. (Cl. 48—66.)

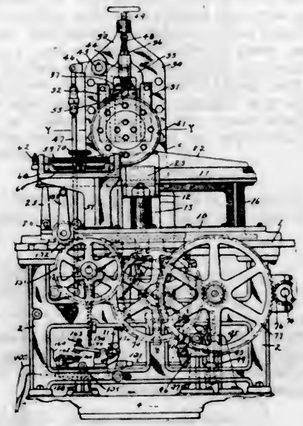


1. In a grate for gas producers, in combination a tower-like erection arranged in the middle part of the grate plate and consisting of a plurality of stepped turrets integral with each other, a saddle-roof bridge connecting each of the outer turrets with the middle turret, and means for leading a blast of air into said stepped turrets, substantially as set forth.

2. In a grate for gas producers, in combination, a tower-like erection arranged in the middle part of the grate plate and consisting of a plurality of stepped turrets integral with each other, a saddle-roof bridge connecting each of the outer turrets with the middle turret, and perforations in one of the walls of said bridge averted to the direction of rotation of the gas producer for leading a blast of air into said turrets, substantially as described.

3. In a grate for gas producers in combination, a central hollow revoluble tower, a plurality of stepped turrets integral therewith, a saddle-roof bridge connecting said turrets, said saddle bridges having apertures formed therein averted to the direction of rotation of said grate, substantially as described.

1,133,578. ELECTRIC METAL-WORKING APPARATUS. ADOLPH F. RIETZEL, Charlestown, R. I., and GEORGE E. BARSTOW, Lynn, Mass., assignors, by mesne assignments, to Thomson Electric Welding Company, a Corporation of Massachusetts. Filed Nov. 20, 1908. Serial No. 463,536. (Cl. 219—6.)



1. In an electric metal working apparatus, the combination of a transformer secondary, a contact mounted on one terminal thereof, a traveling work support of conducting material adapted to carry the work beneath the first named contact so as to cause the same to progressively engage the parts to be heated and means for maintaining the electrical connection between the traveling support and the opposite terminal of the secondary.

2. In an electric metal working apparatus, the combination of a transformer secondary, a contact mounted on one terminal thereof, a traveling mandrel permanently supported at one end and adapted to carry the work beneath the first named contact so as to cause the same to progressively engage the parts to be heated, means for maintaining the electrical connection between the mandrel and the opposite terminal of the secondary and detachable means for supporting the free end of said mandrel.

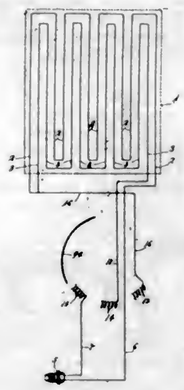
3. In an electric metal working apparatus, the combination of a transformer secondary, a contact mounted on one terminal thereof, a traveling carriage, a mandrel permanently supported on said carriage at one end and adapted to carry the work beneath the first named contact so as to cause the same to progressively engage the parts to be heated, means for maintaining the electrical connection between the mandrel and the opposite terminal of the secondary and a support secured to said carriage and adapted to detachably engage the free end of said mandrel.

4. In an electric metal working apparatus, the combination of a transformer secondary, a contact mounted on one terminal thereof, ways connected to the other terminal a traveling work support adapted to feed the work progressively beneath said contact and a slide electrically united with the work support and sliding on the ways connected to the opposite terminal of said secondary.

5. In an electric metal working apparatus, the combination of a transformer secondary, a contact roller mounted on one terminal thereof, a traveling and conducting work support adapted to feed the work progressively beneath the roller contact and means for maintaining electrical connection between said conducting support and the opposite terminal of said secondary.

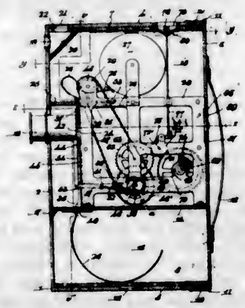
[Claims 6 to 78 not printed in the Gazette.]

1,133,579. ELECTRIC HEATING ELEMENT. EVEN J. ROHNE, Minneapolis, Minn. Filed Oct. 30, 1913. Serial No. 798,203. (Cl. 219—46.)



An electrical heating element comprising a core of pliable insulating material, and a wire that is, *per se*, bare but is wound around the said core and drawn completely into the same and thus protected thereby.

1,133,580. MOVING-PICTURE CAMERA AND PROJECTING DEVICE. JOSEPH L. ROOP, Louisville, Ky. Filed Mar. 24, 1913. Serial No. 756,400. (Cl. 88—17.)



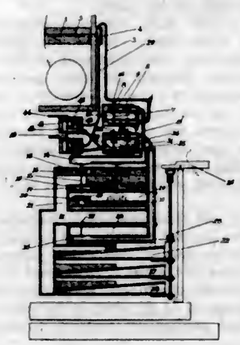
1. In a moving picture camera, a box comprising a front section consisting of a frontboard, top, bottom and sides and a back section comprising a backboard, top, bottom and sides adapted to telescope within the first mentioned top, bottom and sides, a lens barrel fixed to said front board, a substantially horizontal partition in said back section dividing said box into an upper mechanism chamber and a lower light tight chamber to receive the exposed film, means for feeding the film, a shutter and shutter operating mechanism, substantially as described.

2. In a moving picture camera, a box comprising front and rear telescopic sections, one of the said sections being provided with a horizontal partition dividing the box into upper and lower chambers, film feeding mechanism, a shutter and shutter operating mechanism arranged in the upper chamber, said partition being provided with an aperture to permit the exposed film to be fed into the lower chamber and light excluding means for said aperture, substantially as described.

3. In a moving picture camera, a box comprising a front section and a rear section adapted to telescope there into, a horizontal partition in said rear section adapted to divide said box into an upper chamber and a lower light tight chamber to receive an exposed film, a lens barrel fixed in the front section above said partition, film feeding mechanism, a shutter and shutter operating mechanism arranged above said partition and a rearwardly projecting partition arranged in said front section above said lens barrer, substantially as described.

4. In a device of the class described, a casing, a lens barrel arranged in the front of said casing, film feeding mechanism, a shutter and shutter operating mechanism, the rear wall of said casing being provided with an aperture in axial alinement with said lens barrel, a plug and a shell containing a source of light, said plug and said shell being adapted to be interchangeably arranged in said aperture, substantially as described.

1,133,581. AUTOMATIC PLAYING APPARATUS. JOSEPH SCHWERTNER, New York, N. Y., assignor, by direct and mesne assignments, to Heerwagen Company, a Corporation of New York. Filed Mar. 30, 1911. Serial No. 617,968. (Cl. 84—178.)



1. An arrangement of the class described, having a tracker board and sheet, a plurality of power pneumatics, a wind passage for each pneumatic leading thereto, a wind trunk common to said pneumatics, an opening from each wind passage to said wind trunk, a valve closure normally closing each opening, means controlled from the tracker to operate said valve closure to open its passage to the wind trunk, an independently movable valve closure for each of said openings for closing the same, a second wind trunk common to said passages, an opening from each passage to said second wind trunk, a valve closure for each of said last mentioned openings, pneumatics for operating each of said last mentioned valve closures and said independently movable valve closures, and a common wind duct for controlling each of said third mentioned velve closures and its corresponding independently movable valve closure.

2. An arrangement of the class described, having a plurality of power pneumatics and strikers operated thereby, a wind trunk common to said pneumatics, a wind passage leading from each pneumatic to said wind trunk and to the atmosphere, a valve for closing each passage to the atmosphere, a second valve for opening each passage to the wind trunk to connect the wind trunk directly with the pneumatic, a third valve for closing the passage to the wind trunk, a second wind trunk common to said pneumatics, a wind passage from each pneumatic to said second wind trunk and a fourth valve for each pneumatic for opening said last mentioned wind passage to connect the pneumatic directly with the second wind trunk, a tracker board and sheet, means for operating said first and second valves controlled by the tracker board and sheet, separate pneumatics for operating said third and fourth valves, a common wind passage leading to the pneumatics of said third and fourth valves, and controlling means connected with each of said last mentioned passages to control said third and fourth valves simultaneously.

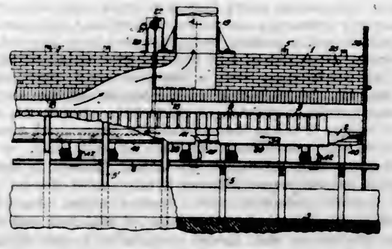
3. The combination of a plurality of power pneumatics, a low pressure wind trunk, a valve for each pneumatic for connecting the same with the wind trunk, a tracker board and sheet, means controlled by the openings of the tracker board and sheet for operating said valve, a high pressure wind trunk, a valve for each pneumatic for opening the high pressure wind trunk to the pneumatic and means controlled by the same openings of the tracker board and sheet for operating said last mentioned valve.

4. The combination of a plurality of power pneumatics, a low pressure wind trunk, a valve for each pneumatic for connecting the same with the wind trunk, a tracker board and sheet, means controlled by the openings of the tracker board and sheet for operating said valve, a high pressure wind trunk, a valve for each pneumatic for opening the high pressure wind trunk to the pneumatic and means controlled by the same openings of the tracker board and sheet for operating said last mentioned valve, and a valve for closing each pneumatic to the low pressure wind trunk controlled by said last mentioned means.

5. The combination of a plurality of power pneumatics, a low pressure wind trunk, a valve for each pneumatic for connecting the same with the wind trunk, a tracker board and sheet, a primary pneumatic controlled by the openings of the tracker board and sheet for operating said valve, a high pressure wind trunk, a valve for each pneumatic for opening the high pressure wind trunk to the pneumatic and a primary pneumatic controlled by the same openings of the tracker board and sheet for operating said last mentioned valve, means for rendering said last mentioned valve inoperative, and a valve for closing each pneumatic to the low pressure wind trunk controlled by said last mentioned primary pneumatic.

[Claims 6 to 22 not printed in the Gazette.]

1,133,582. DOWNDRAFT CONTINUOUS KILN. FRANCES D. SHAW, Chicago, Ill. Filed Mar. 9, 1912. Serial No. 682,733. (Cl. 25—142.)



1. In a kiln, the combination of an inclosed burning chamber, a burning zone below said chamber, heat producing devices, and passages extending from the heat producing devices to deliver the heat produced thereby downward through the top of the burning chamber to the burning zone below throughout the length of said zone.

2. In a kiln, the combination of an inclosed burning chamber, a burning zone below said chamber, oil burners, and passages extending from the oil burners to deliver the heat produced thereby downward through the top of the burning chamber to the burning zone below throughout the length of the zone.

3. In a kiln, the combination of an inclosed burning chamber, a burning zone below said chamber, oil burners each having a steam blast, and passages extending from said oil burners to deliver the heat produced thereby downward through the top of the burning chamber to the burning zone below throughout the length of the zone.

4. In a down draft continuous kiln, the combination of a kiln chamber, an arch of fire brick forming the top of said kiln chamber, said arch having openings extending therethrough throughout the length of the burning zone, there being a central heating chamber above said arch, steam jets for delivering steam into said kiln chamber, and a stack for causing hot gases to pass downward through said openings in said arch and against material in said kiln chamber.

5. In a down draft continuous kiln, the combination of a kiln chamber, an arch of fire brick forming the top of said kiln chamber, said arch having openings extending therethrough throughout the length of the burning zone, there being a central heating chamber above said arch, steam jet burners for forcing hot gases into said central heating chamber, said gases passing from said central heating chamber and downward through said opening in said arch and against material being passed through said kiln chamber, and scaling means for preventing dissipation of said heat.

1,133,583. TRAIN-MARKER. LEON E. SIMMONS, Decoto, Cal. Filed Dec. 11, 1913. Serial No. 806,000. (Cl. 116—9.)

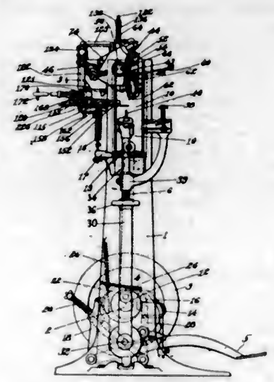


A train marker comprising a flag standard, a plurality of flags hinged to rotate around the standard and colored to present like colors on opposite sides whenever the several flags are folded together, and a pivoted clip carried by the outer edge of one of the flags, said clip carrying means for securing the other flags to the first flag on either or both sides thereof at will.

1,133,584. HEEL-BREASTING MACHINE. RALPH C. SIMMONS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 8, 1911. Serial No. 659,207. (Cl. 12—47.)

1. In a machine of the class described mechanism for performing upon shoes operations analogous to and including the breasting of heels, said mechanism comprising a plurality of turrets rotatable relatively to the work and arranged to present a plurality of operating devices *seriatim* for treatment of said work, one of said turrets being arranged to receive breasting knives, and another of said turrets being arranged to receive presser guide plates corresponding to, and to coöperate with, said knives respectively, and means to support said presser-guide turret tiltably, to clear the same during said rotative adjusting movements thereof.

2. In a machine of the class described a frame, a slide reciprocable therein and having an operating turret, an actuating slide, means to connect said slides operatively at times, and a series of shipping devices, operable respectively in different positions of said turret to control said operating connections between said slides.



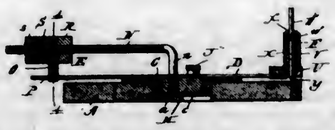
3. In a machine of the class described a frame, a slide reciprocable therein and having a turret for a plurality of operating devices, an actuating slide, a connecting member movable to connect said slides at times, means tending normally to hold said member in connecting position, and shipping devices on and movable with said turret one for, and operable with, each of said operating devices to throw off said connecting member.

4. In a machine of the class described a frame, a front slide and a rear slide capable of independent relative reciprocation therein, means to actuate said rear slide, a strut pivotally mounted on the rear of said front slide and having a spring acting upon one arm to throw the other arm into actuative engagement with a portion of said rear slide, to connect said slides actuatively, a push pin carried by said front slide in position to be moved longitudinally to throw off said strut, a turret on said front slide, and a plurality of shipper levers respectively constructed and arranged to be engaged with the work at times in different positions of said turret and when so engaged to engage also with said pin to push the same and throw off said strut.

5. In a machine of the class described, actuating and operating slides and means to couple said slides, a detector and shipper device comprising a detector arm provided with an adjustable detector, a throw-off arm to operate said coupling means, and means to regulate the normal position of said device bodily and to maintain said device in adjusted position.

[Claims 6 to 15 not printed in the Gazette.]

1,133,585. TOOL FOR LAYING OUT CAMS. ALBERT H. SIMONS, Buffalo, N. Y. Filed Nov. 1, 1912. Serial No. 729,000. (Cl. 73—151.)



1. A tool for laying out cams, comprising a graduated dial having a hollow central boss adapted to fit into a center opening of a cam-blank, a plug rotatable in said hollow boss, and a bar held to said plug and movable lengthwise thereon.

2. A tool for laying out cams, comprising a graduated dial, a pin adjustable radially on said dial and adapted to enter a pin hole in a cam-blank, and a bar adapted for movement lengthwise and rotatable with the axis of the dial as its center.

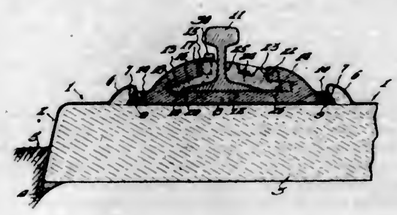
3. A tool for laying out cams, comprising a graduated dial, a bar extending diametrically with respect to said dial and rotatably mounted thereon, a marking device at one end of said bar, and adjusting means at the other end of said bar to move the latter lengthwise any desired distance.

4. A tool for laying out cams, comprising a graduated dial, a plug rotatable on said dial, a bar slidable with reference to said plug and arranged diametrically to extend beyond the circumferential edge of said dial at diametrically opposite points, a screw-rod secured to and rising from said dial and having a threaded portion parallel with said bar, a yoke secured to said bar, an internally-threaded sleeve engaging the threads of said screw-rod and having a reduced portion extending through said yoke, the projecting portion of said reduced portion being externally-threaded, and a nut threaded onto said projecting portion and bearing against the opposite side of said yoke.

5. A tool for laying out cams, comprising a graduated dial having a hollow boss extending from its underside, a plug set into said hollow boss and rotatable therein, said plug having a groove formed on its upper face with one side wall of said groove intersecting the axes of said plug and dial, a bar slidable in said groove, a screw-rod extending upwardly from said plug and having a threaded portion parallel with said bar, and an adjusting device threadingly engaging the threaded portion of said screw-rod and having connection with said bar to cause the latter to move lengthwise when actuating said adjusting device.

[Claims 6 to 9 not printed in the Gazette.]

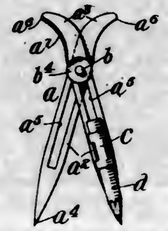
1,133,586. RAIL-SUPPORT. MARTIN SPRINKMAN, Los Angeles, Cal. Filed Aug. 31, 1914. Serial No. 859,298. (Cl. 238—5.)



1. In combination with a concrete tie, a metal cover for said tie, flanges formed on the top of said tie, a chair secured between said flanges on the top of said tie said chair having a recess formed therein, projections extending into said recess from the sides of said chair one of these projections having teeth formed thereon, a spacer having coöperating teeth formed thereon and adapted to be secured between a rail in said recess and said toothed projection, and a locking wedge adapted to be secured between the other side of said rail and said plain projection.

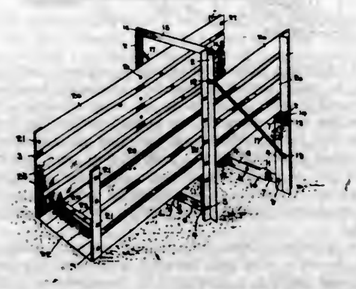
2. In combination with a concrete tie, a metal cover for said tie, flanges formed on the top of said tie, a chair secured between said flanges on the top of said tie, said chair having a recess formed therein, projections extending into said recess from the sides of said chair, one of these projections having teeth formed thereon, a spacer secured in said recess between a rail placed therein and said toothed projection, and a locking wedge adapted to be secured between the other side of said rail and said plain projection, said spacer comprising a face adapted to fit against the flange and base of the rail, a back having a series of projections formed thereon, and a bottom having a rib formed thereon adapted to engage a slot formed in the bottom of the chair.

1,133,587. TOOL. OLE STENERSEN, Brooklyn, N. Y., assignor of one-half to Olaf P. Olsen, Brooklyn, N. Y. Filed Jan. 9, 1914. Serial No. 811,155. (Cl. 33—150.)



A tool of the class described comprising two parts or members pivotally, slidably and adjustably connected, said parts being provided with central, longitudinal slots, and a pencil holder adapted to be connected with one of said parts and designed to hold a pencil parallel therewith, said holder being approximately tubular in form and being open at one side and provided with flexible members adapted to be passed through the slot in said part and to be folded around the side portions thereof and which fit in recesses in the backs of said side portions.

1,133,588. STOCK-CHUTE. JULIUS H. STUEPFERT, Princeton, Ill. Filed Dec. 15, 1913. Serial No. 806,875. (Cl. 119—82.)



1. A stock chute, comprising side members, a bottom arranged between said side members, means for hingedly connecting one side edge of said bottom with one of said side members to provide for the vertical swinging movement thereof, and collapsible means for maintaining said side members in spaced relation, said means being held in extended position by the weight of said bottom and also providing a support for said bottom when in lowered position.

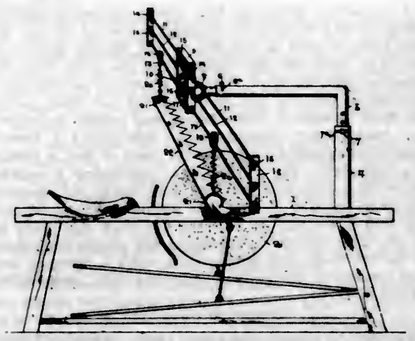
2. A stock chute, comprising side members, a bottom arranged between said side members, hinge connections for said bottom, posts for sustaining said side members, supports arranged upon said posts for sustaining said bottom, and collapsible means connecting said supports and said posts for retaining same in spaced relation, said connecting means also providing for the folding of said chute.

3. A stock chute, comprising side members, a bottom arranged between said side members, hinge connections for said bottom, posts for sustaining said side members, supports arranged upon said posts for sustaining said bottom, means connecting said supports and said posts for retaining the same in spaced relation, and means for securing said connecting means against movement.

4. A stock chute, comprising side members, a bottom arranged between said side members, hinge connections for said bottom, posts for sustaining said side members, supports upon the said posts for sustaining said bottom, means connecting said supports and said posts for retaining the same in spaced relation, and means for securing said connecting means against movement, said connecting means also adapted to provide for the folding of said chute when the same is in unsecured position.

5. A stock chute, comprising side members, a bottom arranged between said side members, hinge connections for said bottom, posts for sustaining said side members, supports arranged upon said posts for sustaining said bottom, means connecting said supports and said posts for retaining the same in spaced relation, means for securing said connecting means against movement, said connecting means also adapted to provide for the folding of said chute when the same is in unsecured position, and L-shaped anti-slipping cleats arranged upon said bottom for securing the strips thereof in fixed relation and also to prevent the slipping of the stock during their ascent, certain of said cleats forming a part of the hinge connections for said bottom.

1,133,589. SICKLE-BAR-HOLDING DEVICE. MARTIN TAUSAN, Gordon, Nebr. Filed Sept. 1, 1914. Serial No. 859,653. (Cl. 51—8.)



1. In combination with a grind stone and the frame thereof, of a telescopically and adjustably jointed supporting arm; a frame pivotedly mounted on said arm; traveler pulleys mounted on said frame and resilient springs attached to said pulleys, whereby a sickle-bar may be suspended above the surface of the said grind stone.

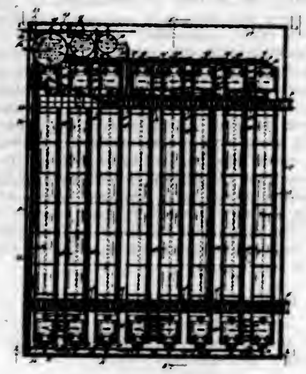
2. In combination with a grind stone and the frame thereof, of a supporting telescopically jointed arm having a bifurcated terminal; a supporting frame mounted on the said terminal; traveler pulleys mounted on said supporting frame and resilient supporting springs attached to the said pulleys.

1,133,590. METHOD AND APPARATUS FOR RETTING FIBROUS MATERIALS. JUSTIN KAY TOLES, San Francisco, Cal., assignor to William R. Brown, Detroit, Mich. Filed Apr. 23, 1913. Serial No. 763,165. (Cl. 92—5.)

1. A method of retting flax, which consists in partially filling a tank with fluid, floating the flax compressed in bales in the tank to fill the tank with the flax, then filling the tank with water under a pressure head, with or without the addition of retting bacteria to the water, and draining the water and adding fresh water to take the place of that drained until complete retting of the flax is effected.

2. A method of retting flax which consists in partially filling a tank with fluid, causing movement of the fluid, and floating bales of the flax by the moving fluid to fill the tank with the flax, then filling the tank with fluid under a pressure head, with or without the addition of

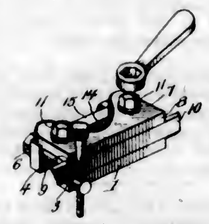
retting bacteria to the fluid, and draining the fluid and adding fresh fluid to take the place of that drained until complete retting of the flax is effected.



3. A method of retting flax, which consists in partially filling a tank with fluid, causing movement of the fluid and floating bales of the flax by the moving fluid to fill the tank with the flax, then filling the tank with fluid under a pressure head, with or without the addition of retting bacteria to the fluid, heating the fluid, ridding the fluid of acid of fermentation and gummy substances, and continuously circulating the fluid under a pressure head until complete retting of the bales of flax is effected.

4. Apparatus for retting flax, comprising a substantially horizontal tank provided with intake and discharge openings, hatches to cover the openings, means for moving fluid in the tank to float the flax from the intake end of the tank toward the discharge end of the tank, means to fill the tank with retting fluid under a pressure head, and means for circulating the retting fluid, substantially as set forth.

1,133,591. LATHE TOOL-HOLDER. THOMAS B. VAN AUKEN, Auburn, N. Y. Filed May 20, 1913, Serial No. 768,709. Renewed Oct. 22, 1914. Serial No. 868,148. (Cl. 29—96.)



1. A tool holder including a main clamping plate, an edge clamping plate, means for adjusting the edge clamping plate with relation to the main clamping plate, said clamping plates being together formed to provide a tool receiving recess having undercut walls, and a tool post engaging plate secured to the main clamping plate.

2. A tool holder including a main clamping plate, an edge clamping plate, means for adjusting the edge clamping plate with relation to the main clamping plate, said clamping plates being together formed to provide a tool receiving recess having undercut walls, and a tool post engaging plate removably secured to and in spaced parallel relation to the main clamping plate.

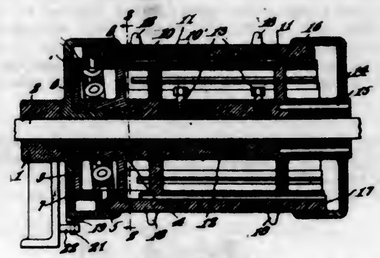
3. A tool holder including a main clamping plate, an edge clamping plate, means for adjusting the edge clamping plate with relation to the main clamping plate, said clamping plates being together formed to provide a tool receiving recess having undercut walls, and an adjusting screw carried by the main clamping plate.

4. A tool holder including a main clamping plate, an edge clamping plate, means for adjusting the edge clamping plate with relation to the main clamping plate, said clamping plates being together formed to provide a tool receiving recess having undercut walls, and an adjusting screw carried by the main clamping plate.

5. A tool holder including a main clamping plate, an edge clamping plate, means for adjusting the edge clamping plate with relation to the main clamping plate, said clamping plates being together formed to provide a tool receiving recess having undercut walls, a stud movably connected to the main clamping plate, and an adjusting screw threaded to the stud.

[Claims 6 to 12 not printed in the Gazette.]

1,133,592. WINDING-DRUM. PHILIP H. VOIGT and OSCAR C. KUEHNE, Houston, Tex. Filed Nov. 25, 1913. Serial No. 803,037. (Cl. 242—117.)



1. A winding drum, including a support having two heads, a cable receiving member journaled between the heads and having a plurality of longitudinally slidable staves, the ends of which are housed within the heads, a section of a cable guiding flange carried by each stave, one head being provided with a cam groove, and means carried by the adjacent end of each stave for engaging the cam groove, whereby as the drum is rotated, the staves have successive longitudinal sliding movement imparted thereto.

2. A winding drum including a support having two heads, a cable receiving member journaled between the heads and having a plurality of longitudinally slidable staves, the ends of which are housed within the heads, a section of a cable guiding flange carried by each stave, one head being provided with a cam groove, and a pin and roller carried at the end of each stave and for engagement with the cam groove, whereby as the drum is rotated, the staves have successive longitudinal sliding movement imparted thereto.

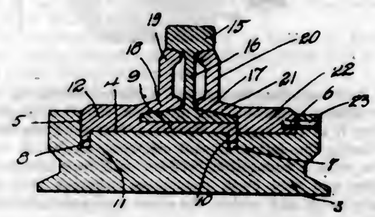
3. A winding drum, including a support having two recessed heads, a shaft journaled through the support, a cable receiving drum having a plurality of longitudinally slidable staves, keyed to the shaft, the ends of the staves being housed within the heads, a section of a cable guiding flange carried by each stave, an annular member seated within the recess of one head and provided with a cam groove, and a projection carried by each stave for fitting in the cam groove, whereby as the drum is rotated, the staves have successive longitudinal movement imparted thereto.

4. A winding drum, including a support, a shaft rotatably mounted therein, a cable receiving member having a plurality of longitudinally slidable staves keyed to the shaft, a cam for actuating the staves to impart longitudinal movement during the rotation of the shaft and staves, an oscillatory member upon which said cam is formed, mounted upon the shaft and in engagement with the staves, and coöperable means carried by said member and the standard for limiting the oscillation of the cam carried member and for varying the position of the cam relatively to the standard.

5. A winding drum, including a standard, a shaft rotatably mounted therein, a cable receiving member keyed to the shaft and having a plurality of longitudinally slidable staves constituting the cable receiving surface thereof, a cam carrying member mounted for oscillation upon the shaft adjacent one end of the staves, means carried by the staves for engaging the cam whereby as the shaft is rotated, the staves have imparted longitudinal movement thereto, and coöperative means carried by the cam carried member of the standard for limiting the oscillation of the said member during the winding and unwinding rotation of the drum, whereby the position of the cam is automatically shifted.

[Claim 6 not printed in the Gazette.]

1,133,593. COMBINED RAIL TIE, CHAIR, AND JOINT. GEORGE VRANAY, Braddock, Pa. Filed June 10, 1914. Serial No. 844,238. (Cl. 239—6.)

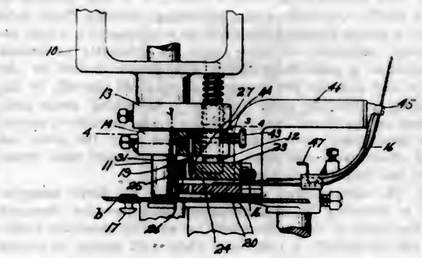


1. The combination with a tie body having a depression in the top face thereof, to form a seat and side shoulders, said seat being provided with a pair of longitudinal pockets, one of which is contiguous with a side shoulder; of a chair plate provided at its ends with depending flanges snugly fitting in said pockets and abutting one of said side shoulders, an extension on one side of the chair plate adapted to overlap the base flanges of a rail and forming a fish plate for one side thereof, a locking plate between the other side shoulder and said chair plate, an additional extension on said locking plate adapted to overlap the opposite base flanges of a rail and also forming a fish plate therefor, and fastening means between said locking plate and the adjacent side shoulder of the tie body.

2. The combination with a tie body having a depression in the top face thereof, to form a seat and side shoulders, said seat being provided with a pair of longitudinal pockets, one of which is contiguous with a side shoulder; of a chair plate provided at its ends with depending flanges snugly fitting in said pockets and abutting one of said side shoulders, an extension on one side of the chair plate adapted to overlap the base flanges of a rail and forming a fish plate for one side thereof, a locking plate between the other side shoulder and said chair plate, an additional extension on said locking plate adapted to overlap the opposite base flanges of a rail and also forming a fish plate therefor, the outer side edge of the locking plate being provided with threaded sockets and set screws inserted through the adjacent side shoulder of the tie body and engaged with said threaded sockets to secure said locking plate and the other parts of the device in position.

1,133,594. LACING-STUD-SETTING MACHINE. EDWARD E. WAKEFIELD, Providence, R. I., assignor to Halkyard Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 24, 1914. Serial No. 868,350. (Cl. 218—17.)

1. In mechanism for applying lacing studs to shoe uppers, means for feeding an upper, means in said feeding means for feeding a reinforcing strip when desired, means for severing the strip and applying the severed sections to the upper when both are fed and means whereby said strip feeding means may be withdrawn to permit the uppers to be fed without feeding the strip.



2. In mechanism for applying lacing studs to shoe uppers, means for feeding an upper, means in said feeding means for feeding a reinforcing strip when desired, means for applying studs and also sections of said reinforcing strip when both are fed to said uppers, and means whereby the strip feeding means may be rendered inoperative when desired.

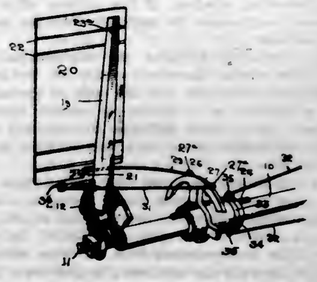
3. In mechanism for applying lacing studs to shoe uppers, means for feeding an upper, one or more spurs in said feeding means adapted to engage and feed a reinforcing strip, means for severing the strip and applying the severed section when fed to the upper, and means whereby said spurs may be withdrawn to permit the uppers to be fed without feeding the strip.

4. In mechanism for applying lacing studs to shoe uppers, means for feeding an upper, one or more spurs in said feeding means adapted to engage and feed a reinforcing strip, means for severing the strip and applying the severed section when fed to the upper, means whereby said spurs may be withdrawn to permit the uppers to be fed without feeding the strip, and means for locking said spurs when in engaged or disengaged position.

5. In mechanism for applying lacing studs to shoe uppers, means for feeding an upper, one or more spurs carried by said feeding means for engaging a reinforcing strip during the feeding stroke to simultaneously advance said strip, means for severing the strip and applying the severed section when fed to the upper, and rack and pinion mechanism for moving said spurs to and from operative position.

[Claim 6 not printed in the Gazette.]

1,133,595. WINDMILL. FREDERICK WENGER, Dresden, Kans. Filed Jan. 24, 1914. Serial No. 814,189. (Cl. 170—68.)



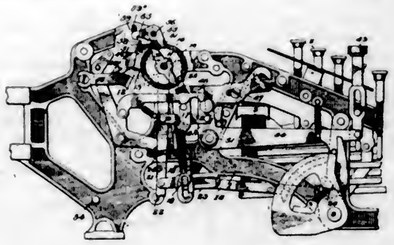
1. The combination with a shaft, of a hub secured to said shaft, having a plurality of sockets; a sleeve slidably mounted on said shaft; a wheel relatively mounted on said sleeve; a plurality of pairs of arms and means to rotatively mount said arms in said sockets; a plurality of blades pivoted between the pairs of arms; means to op

eratively connect the said blades with the said rotatively mounted wheel; and additional means to operatively connect said wheel with said arms.

2. The combination with a shaft, of a hub secured to said shaft; rotating arms extending radially from said hub; a sleeve slidably mounted on said shaft; a wheel rotatively mounted on said sleeve; a plurality of blades pivoted at a point adjacent to the corner formed by the outer end and the inside longitudinal edge thereof, to the radially extending arms; laterally projecting arms positioned on the lower ends of the said rotating arms; means for operatively connecting said blades with the wheel on said sleeve and additional means to connect said wheel with the laterally projecting arm.

3. The combination as substantially set forth comprising a plurality of rectangular blades movably disposed on the arms of the wind wheel; a slidably mounted collar on the mainshaft, a rotatable wheel and means to mount the same upon said collar, curved rods operatively connecting the lower end of the said blades with said wheel, and also rods connecting said wheel with laterally projecting arms positioned on the lower ends of the said wind wheel arms, whereby the position of the blades is adjusted to the direction of the wind.

1,133,596. CALCULATING-MACHINE. CHARLES V. WILGUS, Kingston, Pa., assignor to The Adder Machine Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed July 12, 1913. Serial No. 778,689. (Cl. 235—130.)



1. In a calculating machine, the combination with a counter; drive means therefor; and a stop on the counter; of an abutment shiftable into and out of the path of the stop; a detent to prevent rotation of the counter when the latter is disengaged from its drive means; and means to positively lock the detent in effective position.

2. In a calculating machine, the combination with a counter; and means to clear the counter; of a detent to prevent accidental rotation of the counter after it has been cleared; and means to positively lock the detent in effective position.

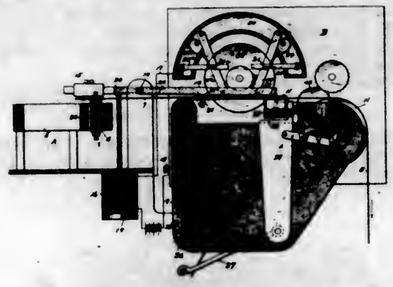
3. In a calculating machine, the combination with a counter; drive means therefor; a stop on the counter; and an abutment shiftable into the path of the stop on a clearing operation; of a detent to prevent rotation of the counter; and a latch shiftable into and out of locking relation with said detent to positively hold the latter against rocking.

4. In a calculating machine, the combination with a counter; drive means therefor; and a stop on the counter; of an abutment shiftable into and out of the path of the stop; a detent to prevent rotation of the counter when the latter is disengaged from its drive means; and means shiftable with the abutment to positively lock the detent in effective position.

5. In a calculating machine, the combination with a counter; drive means therefor; and a stop on the counter; of an abutment shiftable into and out of the path of the stop; a detent to prevent rotation of the counter when the latter is disengaged from its drive means; and a latch carried by the abutment to positively lock the detent in effective position when the abutment is shifted to its operative position.

[Claims 6 to 27 not printed in the Gazette.]

1,133,597. RECORDING INSTRUMENT. CHARLES H. WILSON, Mount Vernon, N. Y., assignor to Wilson-Maeulen Company, Inc., New York, N. Y., a Corporation of New York. Filed January 7, 1914. Serial No. 810,741. (Cl. 234—5.5.)



1. In a recording instrument, a record-impressing member weighted to move in one direction, electrical means for moving it in the opposite direction, and clock mechanism for timing the action of said electrical means, in combination with a connection between said record-impressing member and said clock mechanism whereby said member acts with and assists the clock mechanism in one direction.

2. In a recording instrument having a pointer or the like, the combination of a counterweight striker for cooperating with the pointer to produce a record, electromagnetic means for actuating said striker, clock mechanism for controlling said electro-magnetic means, and a one-way-acting connection between said striker and clock mechanism whereby said clock mechanism permits the striker to move slowly away from the pointer, the striker in such movement acting with the clock mechanism.

3. In a recording instrument of the character described, the combination with a pointer or indicator, of a striker coöperative with said pointer, electro-magnetic means for operating the striker, clock mechanism, a pawl and ratchet connection between the striker and the clock mechanism so arranged that the clock mechanism allows the striker to move gradually away from the pointer, a circuit pertaining to said electro-magnetic means, and means for opening and closing said circuit dependent upon the positions of said striker.

4. In combination with an instrument having a pointer or indicator, electrically-operated record-impressing mechanism coöperating with said pointer, a circuit including an electro-magnet and a circuit controller, the latter controlled by said record-impressing mechanism, clock mechanism, and means whereby said record-impressing mechanism is connected to move with and in assistance to the clock mechanism in one direction.

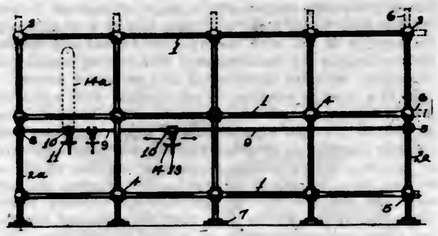
5. In a recording instrument, the combination with a pointer or indicator, of a striker to coöperate therewith, electrical means for moving said striker quickly toward said pointer, clock mechanism, a one-way-acting connection whereby said clock mechanism allows the striker to move slowly with and in assistance to it in the opposite direction, and means dependent upon the position of the striker for controlling the circuit of said electrical means.

[Claims 6 to 22 not printed in the Gazette.]

1,133,598. TIRE-RACK. LINWOOD A. WINSLOW, Norfolk, Va. Filed Mar. 12, 1914. Serial No. 824,293. (Cl. 248—41.)

1. A tire rack comprising vertical and horizontal pipe members having railing pipe fittings, and means for ejecting a tire upward and from said rack.

2. A tire rack or stand composed of piping, and slidable means along the length of the rack for removing a single tire from a collection of abutting tires.

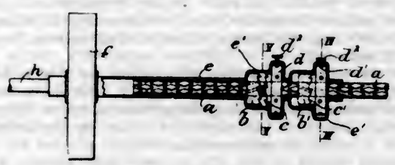


3. A tire rack having adjustable pipe or tube members, a slidable member or carrier therefor, and an arm or lever carried by said slidable member for lifting a tire upward and forward from said rack.

4. The combination of a tire rack or holder, of a tire removing device consisting of a slidable sleeve and a T shaped curve ended rockable lever.

5. A tire rack or stand, having a slidably mounted bifurcated lever for lifting and ejecting a tire from the rack, and stop pin means for said lever.

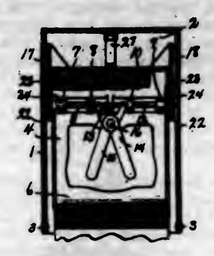
1,133,599. APPARATUS FOR OPERATING PROPELLERS FOR BOATS AND THE LIKE. CHARLES BURTON WINZER, Fulham, London, England, assignor to George Royle, London, England. Filed Aug. 16, 1913. Serial No. 785,064. (Cl. 115—24.)



1. In an apparatus for operating propellers for boats and the like, the combination of a hollow shaft and casings with a fly-wheel and screw propeller attached, an Archimedean screw with a double groove working freely in said hollow shaft and operating same by means of disks with toothed extensions, and short tubes toothed at one end in opposite directions to each other, to engage with the aforesaid toothed extensions, and capped at the other end, with central perforations shaped to correspond with the grooves on said Archimedean screw, said disks and short tubes contained in aforesaid casings, means for throwing the disks and short tubes in or out of gear as required consisting of a spring governed lever and pin engaging in indentations on the disks, constructed and operated substantially as described and illustrated in the accompanying drawings.

2. In an apparatus for operating propellers for boats and the like, the combination of a hollow shaft and casing with a fly-wheel and screw propeller attached, an Archimedean screw with a groove working freely in said hollow shaft and operating same by means of a disk with toothed extensions, and a short tube toothed at one end and in opposite directions to engage with the aforesaid toothed extensions, and capped at the other end, with a central perforation shaped to correspond with the groove on the Archimedean screw, said disk and short tube contained in the aforesaid casing, constructed and operated substantially as described and illustrated in the accompanying drawings.

1,133,600. TOILET-PAPER HOLDER. HERBERT D. WOOD, Phoenix, N. Y. Filed Aug. 18, 1914. Serial No. 857,286. (Cl. 211—31.)



1. In a service cabinet, a paper reel having an endwise movable journal, means for normally holding said journal in bearing engaging position, and a lever pivotally mounted on the reel and pivotally connected to said journal for withdrawing the same from bearing engaging position.

2. In a service cabinet, a flat elongated reel adapted to receive an oval paper roll and having journals upon opposite sides thereof, one of the same being movable endwise, means for normally holding said journal in bearing engaging position, a lever mounted upon said reel and operably connected to said movable journal to withdraw the same from bearing engaging position, said lever lying in substantial parallelism with a flat surface of said reel so that it is adapted to be inclosed by the paper roll to prevent operation thereof until the paper is removed from the reel.

3. In a toilet paper holder, a paper reel having endwise movable journals upon opposite sides thereof, means for normally holding said journals in extended position, separate levers pivotally mounted on said reel and connected respectively to the inner ends of the respective journals for retracting said journals.

4. In a toilet paper holder, a paper reel having endwise movable journals upon opposite sides thereof, means for normally holding said journals in extended position, separate levers pivotally mounted on said reel and having a common axis, and connected respectively to the inner ends of the respective journals for retracting said journals.

5. In a toilet paper holder, a paper reel having endwise movable journals upon opposite sides thereof, a spring connected to and compressed between the inner ends of the respective journals to normally hold them in extended position, separate levers pivotally mounted on said reel and connected respectively to the inner ends of the respective journals for retracting said journals.

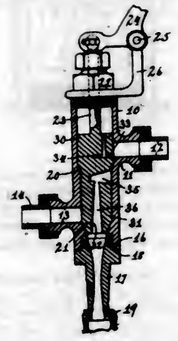
1,133,601. EJECTING DEVICE. ROBERT WOOD, Brooklyn, N. Y., assignor to Nathan Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Mar. 7, 1914. Serial No. 823,240. (Cl. 162—1.)

1. A device of the character described comprising a substantially cylindrical casing, provided with an outlet opening, a valve seat surrounding said opening, the casing also having a water-inlet port, and a steam inlet port, in combination with a plunger adapted normally to contact with the valve-seat to close the outlet opening and simultaneously to close the water and steam ports.

2. A device of the character described, comprising a substantially cylindrical casing having three openings, an end outlet opening, a water-inlet port, and a steam-inlet port, in combination with a plunger adapted to simultaneously close and open all three openings, and means for moving the plunger.

3. A device of the character described, comprising a substantially cylindrical casing provided with an end outlet opening surrounded by a valve-seat, and with two lateral ports one adapted to admit steam and the other adapted to admit water, in combination with a plunger

adapted normally to contact with the valve-seat to close that opening and simultaneously to close the water and steam ports, and means for moving the plunger simultaneously to open the end opening in the two ports, and means for permitting a leakage of steam from the steam-inlet port to one end of the cylinder to maintain a yielding pressure on the plunger to hold it against the valve-seat at the end opening.

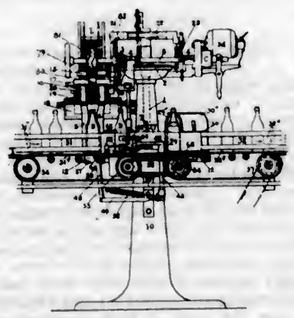


4. In a device of the character described, a casing closed at one end and open at the other, to form an outlet port where it is provided with a valve-seat, a steam-inlet in the casing, a water inlet in the casing intermediate the steam-inlet and the open end of the casing, in combination with a reciprocating valve within the casing adapted to close and open all three ports simultaneously.

5. In a device of the character described, a casing closed at one end and open at the other end to form an outlet port where it is provided with a valve-seat, a steam-inlet port in the casing, a water inlet port also in the casing intermediate the steam-inlet and the outlet port of the casing, in combination with a valve adapted when reciprocated to open and close all three ports simultaneously, and means for reciprocating the valve within the casing.

[Claims 6 to 13 not printed in the Gazette.]

1,133,602. LABELING-MACHINE. FRANK O. WOODLAND, Worcester, Mass., assignor to Economic Machinery Company, Worcester, Mass., a Corporation of Massachusetts. Filed Dec. 10, 1913. Serial No. 805,737. (Cl. 216—54.)



1. In a labeling machine, in combination with a movable carrier provided with a series of devices fixed thereon for supporting bottles or the like, and means for presenting and affixing labels to the same in successive order, guide fenders above said carrier along a portion of the path in which said supporting devices travel, a feed-way having guiding means and an endless traveling-belt bottom for conveying or advancing the bottles or the like to the carrier, said feed-way terminating with a barrier and an offset pass-way communicating with the carrier-path, a laterally movable transferring means adapted for forcing the foremost bottle along said pass-way to a position approximately in line with the supporters upon said carrier, and mechanism for operating said transferring means synchronously with the approach of said supporter devices.

2. In a labeling machine, in combination with means for gluing, delivering and affixing labels, a continuously moving carrier provided with a series of supporting rests individually disposed at intervals thereon, for carrying bottles or the like, and a traveling conveyer for the supply of bottles; of a feeding-in mechanism for passing the bottles from the conveyer to said carrier, including means controlled by the bottles upon said conveyer and adapted for regulating the instant of feeding-in action to relatively correspond with positions of the supporting rests upon the continuously moving carrier without regard to the regularity or variability with which the bottles or the like are brought forward by said conveyer.

3. In a machine of the class described, in combination with means for gluing, delivering and affixing labels, a movable carrier provided with bottle-carrying means; an in-feed way including guiding members and a traveling conveyer means, a lateral pass-way and guiding barrier from said conveyer to said carrier, means for transferring or shifting bottles successively through said pass-way from the conveyer to the carrier, and means for preventing action of said shifting element when no bottle is in position at the mouth of said pass-way.

4. In a labeling machine, in combination with means for gluing, delivering, and affixing labels; a rotary carrier having pushing rests for bottles or the like at predetermined intervals thereon, and label-grip-devices coacting therewith, stationary path-defining fenders above said carrier, a bottle-supply feed-way or conveyer, means for automatically transferring single bottles therefrom to the defined path on the carrier, and yieldable means for frictionally detaining the bottle to insure close contact thereof with said rest.

5. In a labeling machine, the combination with a label-supply means, pickers that adhesively take labels therefrom and present the same for affixment, means for supplying adhesive to said pickers, a rotary carrier provided with a series of bottle-pushing devices adapted for advancing bottles or the like to meet said pickers, grip-devices mounted upon said carrier and acting to hold the presented labels against the bottle while the pickers move away therefrom, means for actuating said grip-devices, means for wiping-on the labels, curved guides above said carrier along the path of the bottle-pusher means, a traveling bed feed-way having a pass-way into the path between said curved guides, means for arresting the bottles in said feed-way at a position in alinement with said pass-way, and an automatically operated element adapted for passing a bottle from said feed-way to the carrier, means for actuating said element controlled by the revolving carrier, a picker-arresting stop, and an operating member therefor that projects within said curved path-way for contact with the in-fed bottle.

[Claims 6 to 15 not printed in the Gazette.]

1,133,603. [WITHDRAWN.]

1,133,604. MEANS FOR SETTING MOSAICS. FÉLIX ALCAN, Zanesville, Ohio, assignor to American Encaustic Tiling Company, Ltd., New York, N. Y., a Corporation of New York. Filed Sept. 2, 1913. Serial No. 787,578. (Cl. 41—23.)

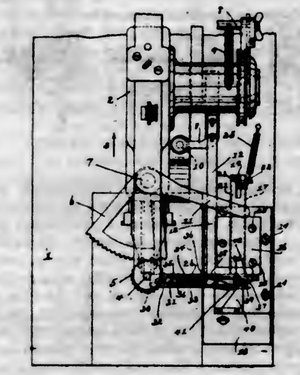
1. Means for setting a mosaic in cementitious material embodying a flexible sheet provided on one surface thereof with a pictorial representation of the design or pattern, and tesseræ attached by cement to the opposite surface of the flexible sheet, said tesseræ on one surface of the sheet being in register with the pictorial representation on the opposite surface of the sheet, whereby said sheet may be positioned upon a cementitious material to which the mosaic is to be applied with the pictorial representation in full view of the workman so that the tesseræ, concealed from view by the sheet, may be embedded in said material in accurate register with other mosaic sections of the design or pattern.



2. Means for setting mosaics embodying a plurality of flexible sheets adapted to be assembled in register with each other over a bed of cementitious material, each sheet being provided on one surface thereof with a pictorial representation of one part of the design or pattern, and said sheet being provided on the other surface thereof with tesseræ cemented to said sheet, all the tesseræ composing the mosaic being in register with the pictorial representation, whereby the sheets may be assembled to embed the tesseræ in the cementitious material so that the partial design formed by the tesseræ on one sheet will register accurately with other parts of the design formed by the tesseræ of the other sheets.

3. Means for setting mosaic designs in cementitious beds of material embodying a flexible backing sheet composed of opaque material, said sheet being provided on one face thereof with a pictorial representation of the design or pattern, and tesseræ cemented to the other face of the backing sheet so as to produce in mosaic a corresponding design or pattern, all parts of which mosaic design are in register with the corresponding parts of the pictorial representation.

1,133,605. THREAD CUTTER AND HOLDER FOR BUTTONHOLE-SEWING MACHINES. HOVSEP H. ASADOORIAN, Troy, N. Y. Filed Sept. 25, 1912. Serial No. 722,214. (Cl. 112—33.)



1. In a machine of the class described, and in combination, a bed; stitch-forming mechanism, comprising in part a thread-carrying member; a slide capable of to-and-fro movement and having a slideway at right angles to the line of said movement; a cutter-plate movable in said slideway at right angles to the line of movement of said slide having a cutter adapted to engage a thread extending between the work and said thread-carrying member; a spring for actuating said cutter-plate in a direction to cut the thread; an automatically engaging keeper for retaining the cutter in its open position against the force of said spring; means for moving said slide to-and-fro; means actuated by movement of said slide in one direction for opening the cutter and permitting the engagement of said keeper; and means for automatically releasing said keeper.

2. In a machine of the class described, and in combination, a bed; stitch-forming mechanism, comprising in part a thread-carrying member; a reciprocatory plate; a cutter movably mounted on said plate and carried thereby, said cutter being adapted to engage a thread extending between the work and said thread-carrying member; a spring for closing said cutter to sever the thread; an automatically engaging keeper for holding said cutter open against the force of said spring; a cam-follower connected with said cutter; a cam-plate in the path of said cam-follower adapted to be engaged thereby when said reciprocatory plate is moved in one direction, to open the cutter and permit the engagement of said keeper; means for reciprocating said reciprocatory plate; and means for automatically releasing said keeper.

3. In a machine of the class described, and in combination, a bed; stitch forming mechanism, comprising in part a thread-carrying member; a slide capable of to-and-fro movement and having a slideway at right angles to the line of said movement; a cutter-plate movable in said slideway at right angles to the line of movement of said slide, having a cutter adapted to engage a thread extending between the work and said thread-carrying member; a spring for actuating said cutter-plate in a direction to cut the thread; an automatically engaging keeper for retaining the cutter in open position against the force of said spring; means for moving said slide to-and-fro; a cam-follower connected with said cutter-plate; a cam-plate in the path of said cam-follower adapted to be engaged thereby when said slide is moved in one direction, to open the cutter and permit the engagement of said keeper; and means for automatically releasing said keeper.

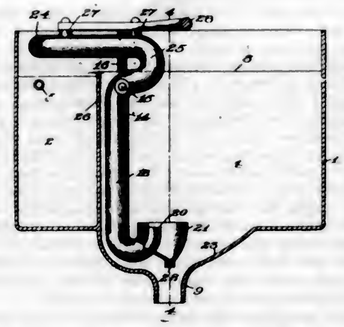
4. In a machine of the class described, and in combination, a bed; stitch-forming mechanism, comprising in part a thread-carrying member; a reciprocatory plate; a cutter movably mounted on said plate and carried thereby, said cutter being adapted to engage a thread extending between the work and said thread-carrying member; a spring for closing said cutter to sever the thread; an automatically engaging keeper for holding said cutter open against the force of said spring; a cam-follower connected with said cutter; a cam-plate in the path of said cam-follower adapted to be engaged thereby when said reciprocatory plate is moved in one direction, to open the cutter and permit the engagement of said keeper; a lever connected with said reciprocatory plate whereby said plate can be moved in the direction to open the cutter; a spring for moving said reciprocatory member in the opposite direction; a rocker-arm adapted at certain times to engage said lever and thereby move said reciprocatory member against the force of its actuated spring; and a rocker-arm adapted at certain times to automatically engage and release said keeper.

5. In a buttonhole-sewing machine of the class described, and in combination, a stationary bed; a frame movable to-and-fro upon said bed; stitch-forming mechanism carried by said movable frame including a rotatively mounted vertically reciprocatory needle-bar and needle, an upright rocker-post, operatively connected with the needle-bar to rotate the same, and a lever whereby the vertical reciprocating movement of the needle is automatically started at the beginning of the stitching of a buttonhole and automatically stopped at the end of the stitching thereof, said frame being automatically moved forward and back and said rocker-post being automatically rocked in one direction during the interval when the needle is idle and said

rocker-post being automatically rocked in the opposite direction during the stitching operation of the needle; a slideway mounted upon said bed; a slide movable in said slideway parallel with the line of the buttonhole; a cutter movably mounted on said slide adapted to engage a thread carried by said needle during the forward movement of said frame, while the vertical reciprocating movement of said needle is discontinued; a spring for closing said cutter to sever the thread; an automatically engaging keeper for holding said cutter open against the force of said spring; a cam-follower connected with said cutter; a cam-plate in the path of said cam-follower adapted to be engaged thereby when said slide is moved forward, to open the cutter and permit the engagement of said keeper; a rocker-arm fixed upon said rocker-post; a lever connected with said slide adapted to be engaged by said rocker-arm to impart a forward movement to said slide; a spring for imparting a return movement to said slide; and an arm mounted upon said first mentioned lever and adapted by the resultant needle-stopping movement thereof and forward movement of said frame to release said keeper.

[Claim 6 not printed in the Gazette.]

1,133,606. MEANS FOR TRANSFERRING LIQUIDS. JOSEPH A. BARR, Gates, N. Y. Filed Oct. 30, 1913. Serial No. 798,259. (Cl. 4—5.)



1. The combination with a receiving tank, a supply tank and means including a supply pipe delivering to the receiving tank for establishing an overflow level in said tanks, of a siphon of greater capacity than the supply pipe for transferring from the receiving to the supply tank and arranged to be submerged and charged at the said level, and intermittently operating means for emptying the supply tank and thereby breaking the siphon.

2. A pivoted siphon mounted to swing between a substantially horizontal inoperative position and a substantially vertical operative position, the ends of the siphon legs being respectively provided with seals turned in the direction of the pivotal movement from the operative to the inoperative position whereby they maintain a level in either position of the siphon.

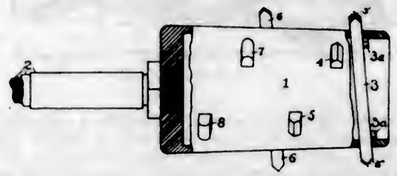
3. A pivoted siphon mounted to swing between a substantially horizontal inoperative position and a substantially vertical operative position, the ends of the siphon legs being respectively provided with seals turned in the direction of the pivotal movement from the operative to the inoperative position whereby they maintain a level in either position of the siphon, and the crown of the siphon being constituted with a loop turned in the same direction as the seals to keep it at a higher level than that of the seals in either position of the siphon.

4. A pivoted siphon mounted to swing between a substantially horizontal inoperative position and a substantially vertical operative position, the ends of the siphon legs being respectively provided with seals turned in the direction of the pivotal movement from the operative to the inoperative position whereby they maintain a level in either position of the siphon and the crown of the siphon being constituted with a loop projecting to one side of the pivot in the same direction as the seals to keep it at a higher level than that of the seals in either position of the siphon and with a further loop projecting to the other side of the pivot to act as a counterweight for the seals.

5. The combination with a supply tank, of a self-starting siphon having a seal at each end movable between a substantially horizontal inoperative position and substantially vertical operative position, one leg of the siphon being arranged to be submerged in the supply tank in the latter position of the siphon.

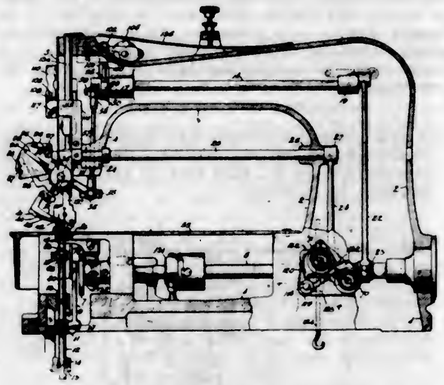
[Claims 6 to 21 not printed in the Gazette.]

1,133,607. PIPE AND TUBE CLEANER. JOHN WARREN BELL, Bellingham, Wash., assignor of one-half to James A. Loggie, Bellingham, Wash. Filed Oct. 12, 1914. Serial No. 866,229. (Cl. 83—64.)



In a machine of the character described the combination with a rotatable cutter head having radial slideways through its body, of normally freely reciprocating double-bitted cutters in said slideways having their bits simultaneously protruding beyond said head, and means to limit the endwise movement of said cutters in said slideways.

1,133,608. SEWING-MACHINE. JOSEPH BERGER, Bayonne, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 2, 1910. Serial No. 590,270. (Cl. 112—5.)



1. In a sewing machine, the combination with the frame comprising a base provided with needle-bar bearings and an overhanging bracket-arm, a main-shaft journaled in the base, a looper-actuating rock-shaft journaled in and extending longitudinally of the bracket-arm, and an operative connection between said shafts, of a reciprocating needle-bar journaled in said bearings and carrying a needle, a looper-supporting rock-shaft journaled in the bracket-arm, a looper mounted upon said supporting rock-shaft and adapted to oscillate upon an axis transverse thereto and to seize thread-loops from the needle, means connected with the looper-actuating rock-shaft for imparting to said looper its endwise operative movements, and means for rocking the looper-supporting rock-shaft to impart sidewise movements to the looper.

2. In a sewing machine, the combination with the frame comprising a base provided with needle-bar bearings and an overhanging bracket-arm, a main-shaft journaled in the base, a looper-actuating rock-shaft journaled in and extending longitudinally of the bracket-arm, and an operative connection between said shafts, of a reciprocating needle-bar journaled in said bearings and carrying a needle, a looper-supporting rock-shaft journaled in the bracket-arm, a looper mounted upon said supporting rock-shaft and adapted to oscillate upon an axis transverse thereto and to seize thread-loops from the needle, means connected with the looper-actuating rock-shaft for imparting to said looper its endwise operative movements, and an operative connection between said looper-supporting rock-shaft and the main-shaft whereby sidewise movements are imparted to the looper.

3. In a sewing machine, the combination with the frame comprising a base provided with needle-bar bearings and an overhanging bracket-arm, a main-shaft journaled in the base, a looper-actuating rock-shaft journaled in and extending longitudinally of the bracket-arm, a looper-supporting rock-shaft also journaled in the bracket-arm parallel with the looper-actuating rock-shaft, and operative connections between the main-shaft and said rock-shafts, respectively, of a reciprocating needle-bar journaled in said bearings and carrying a needle, an operative connection between said needle-bar and the main-shaft, a normally stationary thread-guide adjustably mounted upon said base, a needle-thread take-up arm rigidly mounted upon the needle-bar and provided with a thread-guiding eye, a looper pivotally mounted upon the looper-supporting shaft, and an operative connection between said looper and the looper-actuating rock-shaft.

4. In a sewing machine, the combination with the frame comprising a base provided with needle-bar bearings and an overhanging bracket-arm, and a main-shaft, of a reciprocating needle-bar journaled in said bearings and carrying a needle, an operative connection between the main-shaft and said needle-bar, a loop-taker coöperating with the needle in the production of stitches and mounted for operative movement in the bracket-arm, and means acting while the needle is in the work for partially drawing up the needle-thread to reduce the loop offered by the needle to the loop-taker preparatory to the advance of the latter to seize a thread-loop.

5. In a sewing machine, the combination with the frame comprising a base provided with needle-bar bearings and an overhanging bracket-arm, and a main-shaft, of a reciprocating needle-bar journaled in said bearings and carrying a needle, an operative connection between the main-shaft and said needle-bar a loop-taker coöperating with the needle in the production of stitches and mounted for operative movement in the bracket-arm, and thread-drawing means provided with actuating and controlling means acting intermediate the arrival of the needle at an extreme position and the adjacent loop-seizing position whereby it is caused to act upon the needle-thread twice while the needle is in the work and previous to seizure of a needle-thread loop by the loop-taker.

[Claims 6 to 13 not printed in the Gazette.]

1,133,609. AERIAL-NAVIGATION MACHINE. HARRY C. BERRY, Los Angeles, Cal., assignor to Rapid Transit Air Navigation Company, Los Angeles, Cal., a Corporation of California. Filed May 6, 1911, Serial No. 625,594. Renewed Aug. 22, 1914. Serial No. 858,128. (Cl. 244—10.)



1. In an aerial navigation machine, the combination of a cylindrical machine body having a conical forward end, blowing means within said body, an inlet pipe for said blowing means, said inlet pipe having an inlet opening at the apex of the forward end of the body, and a conical nozzle, surrounding said inlet pipe and surrounding the conical forward end of the body, and nozzle being connected to the outlet of said blowing means to discharge a conical current of air around said forward end of the body.

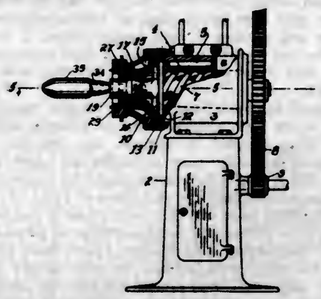
2. In an aerial navigation machine, the combination with the body of the machine, blowing means mounted thereon, an inlet means for said blowing means, an outlet means for said blowing means extending to the rear of the machine and having a rearwardly opening outlet, a box rudder surrounding said outlet, said box rudder being mounted to swing in vertical and horizontal planes, and means for controlling the angular position of said box rudder.

3. In an aerial navigation machine, the combination with the body of the machine, blowing means mounted thereon, an inlet means for said blowing means, an outlet means for said blowing means extending to the rear of the machine and having a rearwardly opening outlet, a box rudder surrounding said outlet, said box rudder being mounted to swing in vertical and horizontal planes, means for controlling the angular position of said rudder, and springs connected to said box rudder tending to retain the same in normal position.

4. In an aerial navigation machine, the combination with the body of the machine, blowing means mounted thereon, an inlet means for said blowing means, an outlet means for said blowing means extending to the top of the machine and having an upwardly opening outlet, a box rudder surrounding said outlet, said box rudder being mounted to swing in vertical and horizontal planes, and means for controlling the angular position of said box rudder.

5. In an aerial navigation machine, the combination with the body of the machine, blowing means mounted thereon, an inlet means for said blowing means, an outlet means for said blowing means extending to the top of the machine and having an upwardly opening outlet, a box rudder surrounding said outlet, said box rudder being mounted to swing in vertical and horizontal planes, means for controlling the angular position of said box rudder, and springs connected to said box rudder to retain the same in normal position.

1,133,610. TUBING-MACHINE. ALBERT BLEECKER, Barberton, Ohio, assignor to The Portage Rubber Company, Barberton, Ohio, a Corporation. Filed Jan. 19, 1914. Serial No. 812,903. (Cl. 18—14.)



1. In a tubing machine, a head section having a die and a core to make a tube, and means to circulate talc-powder through the interior of the tube and back through the core.

2. In a tubing machine, a head section and means to produce a tube, said means being provided with inlet and outlet passages to circulate talc powder continuously through the interior of the tube while it is being produced, and separate inlet and outlet connections for said passages.

3. In a tubing machine, a head section having tube-forming members mounted thereon, an extension for one

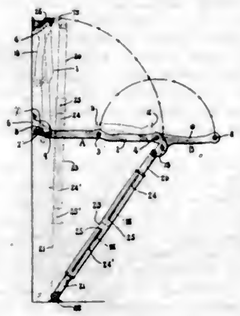
of said members to close the interior of the finished tube in advance of said members, means to deliver a lubricating material into the interior of the formed tube rearwardly of said extension, and means to discharge the surplus lubricating material from the interior of the formed tube rearwardly through one of said members.

4. In a tubing machine, a head section having a tube-forming member removably mounted thereon, a removable extension for said member having a tube-closing portion, and separate inlet and outlet passages extending through said member for the continuous circulation of a material possessing lubricating properties through the interior of the formed tube rearwardly of the tube-closing portion of said extension.

5. In a tubing machine, a head section having a tube-forming core, and an extension therefor adapted to engage with the inner walls of the formed tube in advance of said core, and said parts having inlet and outlet passages for a circulating medium in open communication wth the interior of the tube between said core and its extension.

[Claims 6 to 10 not printed in the Gazette.]

1,133,611. MAIL-BAG RACK. DAVID H. BORGMEYER, St. Charles, Mo. Filed May 6, 1914. Serial No. 836,642. (Cl. 211—36.)



1. A foldable mail bag rack comprising a hanger frame, wall brackets to which said hanger frame is pivoted, said hanger frame being provided with abutments adapted to engage said wall brackets when the hanger frame is unfolded, foot pieces adapted to be secured to the floor of a car, and props connecting the free end of said hanger frame to said foot pieces, each of said props comprising an upper arm pivoted to said hanger frame, a lower arm pivoted to one of said foot pieces, a tube telescoped with both of said arms and means for securing said tube to said arms.

2. A mail bag rack comprising a hanger frame, a support to which said hanger frame is pivoted, and an extensible prop adapted to support the free end of said frame, said extensible prop including an upper arm pivoted to said frame, a pivotally supported lower arm, and a slidable member uniting said pivoted arms.

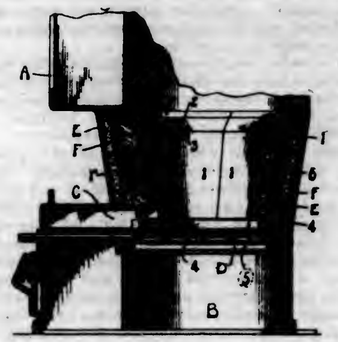
3. A foldable mail bag rack comprising a hanger frame, a support to which said hanger frame is pivoted, and a prop for supporting said hanger frame, said prop comprising an upper arm pivoted to said hanger frame, a pivotally supported lower arm adapted to abut against said upper arm, a slidable tube telescoped with both of said arms, and means for securing said tube to said arms.

4. A mail bag rack comprising a main hanger frame provided with hanger rods, and a hanger frame extension pivoted to said main hanger frame and provided with a hanger rod, said hanger frame extension being foldable to a position where it will lie above the main hanger frame.

5. A mail bag rack comprising a main hanger frame provided with hanger rods, and a hanger frame extension pivoted to one of said hanger rods, said hanger frame extension being adapted to occupy a folded position in which it lies above the main hanger frame and to occupy an extended position in which it extends forwardly from the main hanger frame, and said hanger frame extension being provided with a hanger rod adapted to lie above one of the hanger rods on said main hanger frame.

[Claims 6 and 7 not printed in the Gazette.]

1,133,612. FURNACE APPLIANCE. PAUL BROWN, St. Louis, Mo. Filed Nov. 16, 1914. Serial No. 872,431. (Cl. 126—145.)



1. A furnace having a fire box provided with a main lining; combined with a temporary fire box filler consisting of a circular row of thick segmental filler blocks removably fitted to and surrounded by said main lining, said temporary fire box filler being closely fitted to the inner face of the main lining so as to reduce the capacity of the fire box without otherwise changing its characteristics as a fire box.

2. A furnace having a fire box provided with a main lining; combined with a temporary fire box filler consisting of a circular row of thick segmental filler blocks removably fitted to and surrounded by said main lining, said filler blocks having no direct connection with each other nor with said main lining, and each of said filler blocks being provided with an eye at its upper end for the reception of a lifting device whereby it may be lifted from said main lining.

3. A temporary fire box filler consisting of a circular row of filler blocks adapted to fit into the fire box of a furnace and against the main lining thereof so as to reduce the fuel receiving space, combined with a ring composed of sections adapted to be inserted through the fuel receiving opening of the fire box, said ring sections constituting a seat for the lower ends of the filler blocks.

4. A furnace having a fire box provided with a main lining and a grate below said main lining; combined with a temporary fire box filler consisting of a circular row of thick segmental filler blocks removably fitted to and surrounded by said main lining, said filler blocks having no direct connection with each other nor with said main lining, and a filler support including a ring composed of sections adapted to be inserted through the fuel receiving opening of the fire box, the sectional ring being surrounded by said main lining and arranged above said grate to constitute a seat for the lower ends of said removable filler blocks.

5. The means for temporarily changing the capacity of a furnace to economize fuel when the furnace contains less than the normal fuel supply, said means comprising the combination of a complete fire box adapted to contain the normal fuel supply, and a temporary fire box filler consisting of a circular row of thick segmental filler blocks closely fitted to the inner face of said fire box so as to reduce the diameter of the fuel receiving space without otherwise changing the general characteristics of the fire box.

1,133,613. INCANDESCENT-LAMP-ATTACHING IMPLEMENT. CLAYTON D. BUSS and FRANK HEACOCK, Easton, Pa. Filed Aug. 3, 1914. Serial No. 854,859. (Cl. 240—101.)



An implement of the character described comprising a shaft including rigid terminal sections and a flexible intermediate section, bearings in which the terminal sections rotate respectively, a rigid bar having one end pivoted to one of said bearings and detachably engaged with the other bearing for locking the terminal sections of the shaft in angular relation to each other, flexible strips secured to one of the terminal sections longitudinally of the latter and forming gripping fingers for embracing a member to be rotated, a spring encircling said fingers with its inner end anchored to the shaft and its outer end projected to normally hold the fingers in contracted relation, and means for retracting the outer end of said spring to permit the fingers to move to expanded position.

1,133,614. ORE-CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill. Filed July 25, 1914. Serial No. 852,999. (Cl. 105—185.)



1. An ore car having the total length thereof from coupler center to coupler center a multiple of the distance from the center to center of receptacles into which it is arranged to dump the load, said car being divided at the center longitudinally thereof, into hoppers, the center of each of said hoppers being approximately equidistant from the transverse center line of the car, the spacing of said hoppers permitting the dumping of the load into two adjacent receptacles of a uniformly spaced series, without interference when in a train having included therein cars of a length of a lesser multiple of the distance from center to center of said receptacles and capable of dumping into alternate receptacles only.

2. An ore car of the character described having a plurality of longitudinally arranged hoppers intermediate the trucks, the hoppers having inclined end walls and bottom doors, the distance, longitudinally of the car, between the centers of said hoppers, substantially approximating the distance from the center of the coupler at one end of the car to the center of the hopper nearest thereto, the said spacing of said hoppers permitting the load of the car to be dumped into two adjacent receptacles of a uniformly spaced series, without interference when in a train having cars of a lesser length from center to center of couplers and capable of dumping into alternate uniformly spaced receptacles only.

1,133,615. HARP-HARNESS. MELVILLE A. CLARK, Syracuse, N. Y. Filed Jan. 5, 1912. Serial No. 669,572. (Cl. 84—115.)

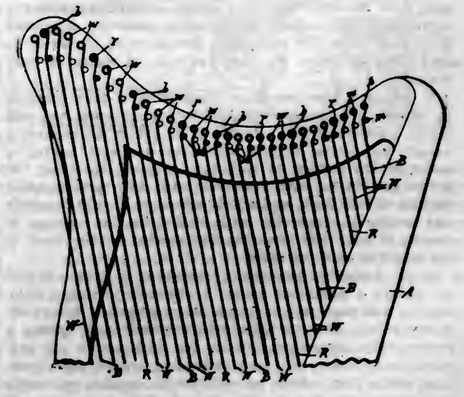


1. In combination with a harp-column having openings therein, a brace having laterally extending curved plate for engagement with the body of the player and arms rigidly secured to the plate and provided with attaching members entering the openings and engaged with the harp-column.

2. In combination with a harp-column having transverse bars spaced apart one above the other, a brace having a laterally extending curved plate for engaging the body of a player, and forwardly diverging arms rigidly secured to the plate and having their forward ends hook-shaped and engaged with the undersides of said bars.

3. In combination with a harp-column, a brace having a laterally elongated plate and forwardly diverging arms rigidly secured thereto and having their front ends attached to the harp-column, the lower arm projecting forwardly beyond the vertical plane of the upper arm when in use.

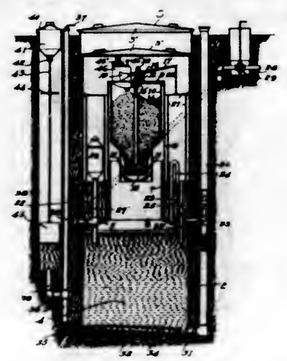
1,133,616. HARP. MELVILLE A. CLARK, Syracuse, N. Y. Filed Jan. 5, 1912. Serial No. 669,573. (Cl. 84—14.)



A harp having a certain tuning pins and their corresponding strings in octave relation of one color, and cer-

tain other pins and their corresponding strings in octave relation of one color different from that of the first named pins and strings.

1,133,617. GAS-GENERATOR. CLAUD J. CLEFTON, Owatonna, Minn., assignor to The Clefton Company, Owatonna, Minn., a Corporation of Minnesota. Filed Aug. 2, 1913. Serial No. 782,639. (Cl. 48—52.)



1. An acetylene generator comprising a tank adapted to contain a supply of water, a pipe communicating with said tank, a sludge agitator having an operating rod within said pipe, a reservoir communicating with said tank through said pipe and means regulated by the height of the water in said reservoir for maintaining a predetermined level in said tank.

2. An acetylene generator comprising a tank, a wall therein dividing the interior of said tank into an upper and lower water chamber, a pipe communicating with the open air and with said lower chamber and through which the sludge and residuum in the lower chamber may be removed, a branch pipe leading from said sludge removing pipe above the level of the water therein through the wall of said generator and into said lower chamber, whereby air will be admitted into said chamber during the sludge removing operation.

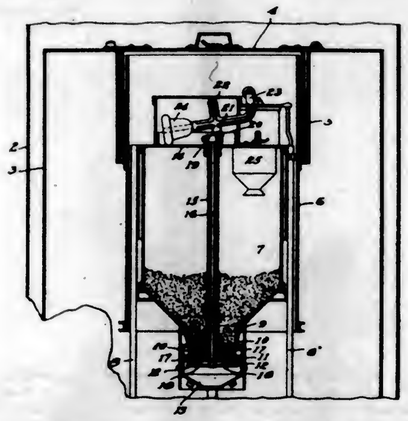
3. An acetylene generator comprising a tank adapted to contain a supply of water, a pipe communicating with said tank, and serving to receive a sludge operating rod and connect a water reservoir with said tank, a sludge agitator having an operating rod within said pipe, a reservoir communicating with said tank through said pipe, and reservoir having a water supply means and a valve therefor, a float within said reservoir connected with said valve for regulating the delivery of water to said reservoir with the rise and fall of water in said tank.

4. An acetylene generator comprising a tank adapted to be set into the ground and having an open top and cover, a reservoir also adapted to be set in the ground, a water can fitting within said reservoir and having a valve in the bottom of said can, a pipe connecting the lower portion of said reservoir with the corresponding portion of said tank, and a float arranged in said reservoir and having a connection with said valve for opening or closing it with the lowering and raising of the level of the water in said reservoir.

5. An acetylene generator comprising a tank adapted to contain a supply of water, a reservoir arranged adjacent to said tank and having a pipe connection therewith, a water can fitting within said reservoir and having a cover, a discharge port, a valve for said port, a rod connected with said valve and depending within said reservoir, and a float carried by said rod for opening or closing said valve with the change of level of the water in said tank and reservoir.

[Claims 6 to 8 not printed in the Gazette.]

1,133,618. VALVE FOR ACETYLENE-GENERATORS. CLAUD J. CLEFTON, Owatonna, Minn., assignor to The Clefton Company, Owatonna, Minn., a Corporation of Minnesota. Filed Dec. 30, 1912. Serial No. 739,276. Renewed Jan. 9, 1914. Serial No. 811,280. (Cl. 48—38.)



1. The combination, with a hopper having discharge openings therein upon opposite sides of its vertical axis and also having a chamber beneath said openings provided with discharge ports also upon opposite sides of the vertical axis of said hopper, a valve having blades arranged to alternately close and open said upper and lower discharge openings, and means for operating said valve.

2. The combination, with a carbid hopper having upper and lower discharge openings therein upon opposite sides of its vertical axis and a chamber formed between said openings, of a valve stem, blades mounted on said stem, one above another, in staggered relation to one another, said blades opening and closing said upper and lower openings alternately, and means for oscillating said stem to operate said blades.

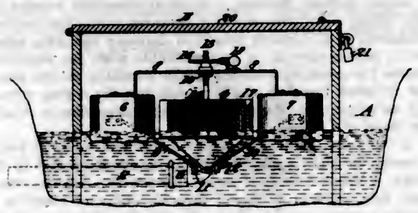
3. The combination, with a hopper having a pair of upper discharge openings and a pair of lower discharge openings and a chamber formed between said openings, of a valve stem arranged between the openings of said pairs, blades projecting laterally from said valve stem and closing and exposing said upper and lower openings alternately when said stem is oscillated, and means for operating said stem.

4. The combination, with a hopper having a pair of upper discharge openings and a pair of lower discharge openings, of a valve stem, and blades mounted in pairs upon said stem and arranged to close and open said upper and lower openings alternately when said stem is oscillated.

5. The combination, with a hopper having a pair of upper discharge openings and a pair of lower discharge openings, of a valve stem arranged between the openings of said pairs, blades projecting laterally from said valve stem and closing and exposing said upper and lower openings alternately when said stem is oscillated, and a weighted lever operatively connected with said stem and normally holding said blades in their closing position, and means for actuating said lever to move said blades to their open position when the volume of gas falls below a predetermined point.

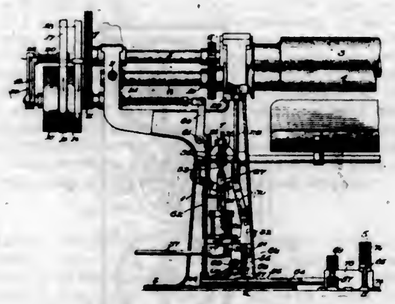
1,133,619. DITCH-GATE. ADONIRAM J. COLLAR, Yreka, Cal. Filed Apr. 21, 1914. Serial No. 833,429. (Cl. 137—21.)

In a device of the type set forth, in combination with a flume pipe, a substantially rectangular funnel-shaped intake, a swivel connection between the rear end of said intake and the adjacent end of said pipe, a pair of similar floats located on opposite sides of the intake at the free end thereof, a bracket having a central horizontal portion which overlies the free end of the intake and having similar ends which are extended downwardly and connected to the respective floats, a pair of guide arms se-



cured at their front ends to the rear portions of the respective floats and having their rear ends converging and pivotally secured on opposite sides of the rear end of the intake, a screw rod connected to the intake and to the horizontal portion of the bracket, and a hand wheel to raise or lower said rod.

1,133,620. IRONING-MACHINE. DANIEL M. COOPER, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 16, 1912. Serial No. 677,943. (Cl. 68—9.)



1. In an ironing machine, the combination with a pair of ironing members, one being movable into and out of engagement with the other, of means for effecting movement of said member comprising a rod operatively connected thereto and to a piston, a cylinder within which the piston travels, a valve for controlling the admission of fluid pressure to the cylinder, and automatically operated means acting to limit the supply of fluid pressure during the initial movement of the piston and to increase the fluid pressure supply during its further movement.

2. In an ironing machine, the combination with a pair of rolls, one of said rolls being movable into and out of engagement with the other roll, of means for effecting movement of said roll comprising a cylinder, a piston movable within the cylinder, operative connections between the piston and the roll, a valve for controlling the supply of fluid pressure to the cylinder, and means carried by the piston for limiting the supply of fluid pressure during the initial movement of the piston and for increasing the supply during its further movement.

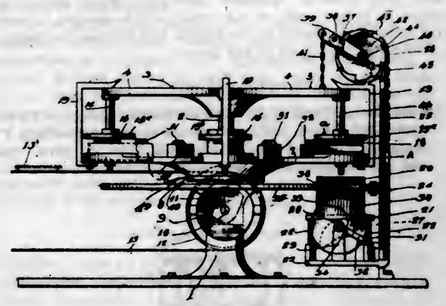
3. In an ironing machine, the combination with a pair of rolls, one of said rolls being movable into and out of engagement with the other roll, of means for effecting movement of said roll comprising a cylinder, a piston movable within the cylinder, operative connections between the piston and the roll, a valve for controlling the supply of fluid pressure to the cylinder, said valve and cylinder being connected by a passage, and a pin carried by the piston and adapted to extend into said passage, the pin being provided with a tapered end portion.

4. In an ironing machine, the combination with a pair of rolls, one of said rolls being movable into and out of engagement with the other roll, of means for effecting movement of said roll comprising a cylinder, a piston movable within the cylinder, operative connections between the piston and the roll, fast and loose pulleys arranged on a shaft, gearing between said shaft and the rolls, a pair of belts leading to the pulleys, a belt-shifter controlling the position of the belts to operate the rolls in normal or reverse direction, a fluid pressure supply leading to the cylinder, a valve for controlling the supply of fluid pressure to the cylinder, a hollow operating member operatively connected to the valve, an operating member extending through said hollow member and operatively connected to the belt-shifter, and means for actuating said operating members.

5. In an ironing machine, the combination with a supporting frame, of a pair of rolls journaled in the supporting frame, one of said rolls being movable into and out of engagement with the other roll, means for effecting movement of said roll comprising a cylinder, a piston movable within the cylinder, operative connections between the piston and the roll, fast and loose pulleys arranged on a shaft, gearing between said shaft and the rolls, a pair of belts leading to the pulleys, a belt-shifter for controlling the position of the belts to operate the rolls in normal or reverse direction, a valve controlling the admission of fluid pressure to the cylinder, a hollow operating member operatively connected to the valve, an operating member extending through said hollow member and operatively connected to the belt-shifter, a block adjustably mounted in the frame for holding said operating members, means for holding the block in adjusted position and means for actuating the operating members.

[Claim 6 not printed in the Gazette.]

1,133,621. WRAPPING-MACHINE. WILLIAM C. CUTLER, Los Angeles, Cal. Filed Mar. 19, 1914. Serial No. 825,829. (Cl. 93—7.)



1. In a wrapping machine, a base, a revoluble table thereon, a non-revoluble reciprocating frame above said table, disks carried by said frame, means for supplying adhesive to said disks, means for feeding a pile of wrapping material to said disks, means for fastening a wrapping material to the first material with an article between said materials, and means for ejecting said wrapped article.

2. In a wrapping machine, a rotating table, a non-rotating table above the rotating table, means for feeding a pile of plates as a unit upward, means carried by the non-rotating table for lifting a plate from said pile, means for depositing said plate on the revolving table, means for securing a sheet to said plate to cover an article on the plate, and means for ejecting the covered article.

3. In a wrapping machine, a revoluble table with a se-

ries of arms, plates carried by said revoluble table, a non-revoluble reciprocating table above said revoluble table for acting in conjunction therewith to press wrapping materials together to wrap an article, and means carried by said rotating table for ejecting the wrapped article therefrom.

4. In a wrapping machine, a revoluble table with a series of arms, plates carried by said revoluble table, means above said revoluble table for acting in conjunction therewith to press wrapping materials to wrap an article, and stems slidable in the table with tilt disks pivoted on said stems, and cam means below said table for lifting said stems to cause said plates to tilt and eject the wrapped articles.

5. In a wrapping machine, a rotating table, a non-revoluble vertically reciprocating frame above the rotating table, disks carried by the non-revoluble frame, ejecting means mounted in the said disks, and means carried by the rotating table and projecting above said disks for depressing said ejecting means.

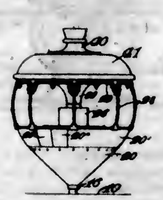
[Claims 6 to 8 not printed in the Gazette.]

1,133,622. HANDLE-COVERING. WILLIS A. DARLING, New York, N. Y., assignor to Continental Rubber Works, Erie, Pa., a Corporation of Pennsylvania. Filed June 8, 1914. Serial No. 843,783. (Cl. 46—24.)



In making my improved handle covering, the raw rubber is placed upon a suitable core, and is then tightly wrapped with suitable fabric, and is then vulcanized in the usual manner, and when the vulcanization is completed, the fabric is removed, which leaves the imprint of the threads of the fabric in the entire exterior surface of the sleeve, as illustrated by the crossed lines C, in Figs. 1 and 2, the effect of which is a roughened cloth-like rubber surface to be engaged by the hand, which is very agreeable to the touch, and enables the user to obtain a firm grip without excessive muscular effort, while the beads B, at the ends of the sleeve which operate to bind the ends of the sleeve to the handle and prevent accidental rolling-up of the ends of the sleeve.

1,133,623. AMUSEMENT APPARATUS. LEOPOLD DREIFUSS, San Diego, Cal., assignor of one-third to Emile P. Antonovich, San Diego, Cal. Filed July 13, 1914. Serial No. 850,691. (Cl. 104—111.)



1. An amusement device, including a carrying truck, and a two sectional passenger carrying member mounted upon the truck, said sections being mounted for simultaneous rotation.

2. An amusement device, including a carrying truck, a two sectioned passenger carrying member mounted upon the truck, said sections being mounted for rotation, a motor carried by the truck for rotating one of the sections, and coöperable means carried by both sections, whereby one section transmits motion at a greater speed to the other section.

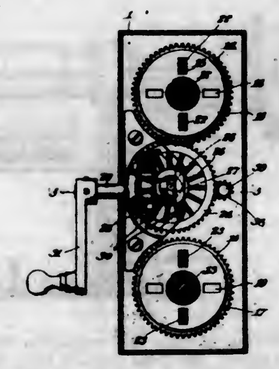
3. An amusement apparatus including a wheeled truck, a vertical standard carried by the truck, a passenger carrying member composed of two sections, one of which sections is adapted to be rotated from the motor of the truck, and coöperable means carried by both sections whereby the remaining section is rotated at a greater speed from the motor driven section.

4. An amusement apparatus, including a wheeled truck, a motor carried thereby, a vertical standard carried by the truck, a tubular member mounted upon the vertical standard, said vertical standard forming the axis therefor, a casing carried by and rotatable with the standard, means for operably connecting the standard to the motor for rotation thereby, and a canopy for the casing rotatably mounted upon the standard and independently rotatable from the casing.

5. An amusement apparatus, including a wheeled truck, a motor carried thereby, a vertical standard carried by the truck, a tubular member mounted upon the vertical standard, said vertical standard forming the axis therefor, a casing carried by and rotatable with the standard, means for operably connecting the standard to the motor for rotation thereby, a canopy for the casing rotatably mounted upon the standard and independently rotatable from the casing, and coöperable means carried by the main casing and the canopy.

[Claims 6 and 7 not printed in the Gazette.]

1,133,624. CHANGEABLE SIGN. CYRUS P. EBERSOLE, Philadelphia, Pa., assignor to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 14, 1912. Serial No. 736,701. (Cl. 40—93.)



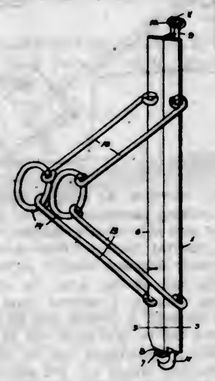
1. In mechanism of the character described, a pair of revoluble wheels, a third wheel movable relatively to said first named wheels, and means comprising a pinion forming a fulcrum about which said third wheel is movable into and out of engagement with each of said pair of wheels.

2. In mechanism of the character described, a pair of revoluble wheels, a wheel movable transversely to the axis thereof, and adapted for engaging each of said first named wheels alternatively, a pinion and a toothed wheel engaging said third named wheel whereby the latter is shiftable into engagement with each of said first named wheels alternatively.

3. In mechanism of the character described, a pair of revoluble wheels, a pair of rollers connected with the respective wheels, a curtain carried by said rollers, a shiftable wheel movable transversely to its axis and adapted for engaging said first named wheels alternatively, a pinion and a toothed wheel engaging said shiftable wheel whereby it is shiftable into engagement with the first named wheels alternatively and said first named wheels are caused to revolve said rollers alternatively.

4. In mechanism of the character described, a pair of revoluble gear wheels, a third gear wheel having bearings whereby it is adapted to slide into engagement with said first named gear wheels alternatively, and a toothed wheel adapted for engaging said third gear wheel between its axis and periphery to shift it into engagement with said wheels first named alternatively.

1,133,625. WIRE-FENCE CLAMP. MARION S. EGLINTON, Houston, Minn. Filed Oct. 28, 1914. Serial No. 869,081. (Cl. 39—53.)



A wire fence stretcher comprising a pair of angle bars, a curved hook carried by the lower extremity of one of said bars, an apertured angular extension carried by the lower extremity of the other bar engaged under the lower extremity of the first mentioned bar pivotally and removably receiving said hook, longitudinal extensions at the upper ends of said bars, a link pivotally connected with one of said extensions and removably positioned over the other extension to secure said angle bars in operative position, links pivotally secured to the forward portions of said bars, and rings connecting the links of each bar.

1,133,626. PROCESS FOR CARBURIZING IRON OR STEEL. SAMUEL S. EVELAND, Bryn Mawr, Pa., assignor to Eveland Electric Riveter Company, a Corporation of New Jersey. Filed Apr. 12, 1910. Serial No. 554,935. (Cl. 148—25.)

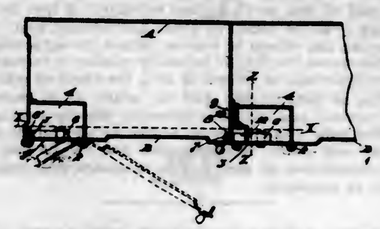
1. The process of carburizing iron or steel, which consists in heating it in the presence of fibrous vegetable waste depleted of starchy matter, but containing carbohydrates and a high percentage of protein.

2. The process of treating iron or low carbon steel for carburization, which consists in placing the iron or steel in proximity to the fibrous refuse from the manufacture of sugar, in a closed receptacle and heating the same.

1,133,627. PARCEL-LOCKER. WILLIS S. FARNSWORTH, San Francisco, Cal., assignor to Coin Controlled Lock Co., San Francisco, Cal., a Corporation of California. Filed May 14, 1912. Serial No. 697,141. (Cl. 45—87.)

1. In a locker, a vertical row of superposed compartments, a channel on each side of said compartments, hinged closures for said compartments, hinged closures for the channels, means for locking the compartment closures and a channel closure together, comprising locks carried on the channel closure, keepers on the compartment closures engageable by the bolts of said locks, and means carried by the channels for locking the channel closures in their closed positions.

2. In a locker, a vertical row of superposed compartments, a channel on each side of said compartments, hinged closures for said compartments, hinged closures for the channels, means for locking the compartment closures and a channel closure together, comprising locks carried on the channel closure, keepers on the compartment closures engageable by the bolts of said locks, means for locking the channel closures in their closed positions, consisting of vertically reciprocable bars carried by the channels, and detachable means for connecting said bars to the channel closures.



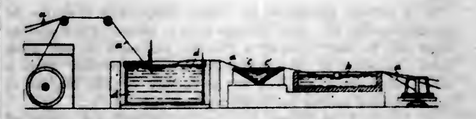
3. In a locker, having a number of vertical rows of superposed compartments, between and at the outside of which channels are formed, hinged closures for said compartments, hinged closures for the channels, means for locking said closures together, comprising locks carried on the channel closure, and keepers on the compartment closures engageable by the bolts of said locks, means for locking the channel closures in their closed positions, consisting of vertically reciprocable bars within said inside channels and carried thereby, detachable means for connecting said bars to the channel closures, means for locking said bars against movement, and means located within one of the said outside channels for controlling said locking means.

4. In a locker, the combination with a series of superposed compartments, hinged doors for closing said compartments, a hinged stile adjacent to said doors, a vertical channel closed by said stile, locks on the inner face of said stile within said channel, keepers on the inside of the doors engageable by the bolts of said locks to lock said doors and said stile together, and means for locking the stile to the channel.

5. In a locker, the combinations with a series of superposed compartments, hinged doors for closing said compartments, a hinged stile adjacent to said doors, a vertical channel closed by said stile, locks on the inner face of said stile within said channel, keepers on the inside of the doors engageable by the bolts of said locks to lock said doors and said stile together, means for locking the stile to the channel, comprising a reciprocable bar, a notched bracket on said bar, and a member on the stile engageable with said bracket.

[Claim 6 not printed in the Gazette.]

1,133,628. GALVANIZING WIRE, HOOPS, SHEETS, AND THE LIKE. HENRY HATTEN FIELD, Grappenhall, MARK HOWARTH, Latchford, and EVAN ARTHUR ATKINS, Liverpool, England. Filed Feb. 11, 1913. Serial No. 747,719. (Cl. 91—68.2.)

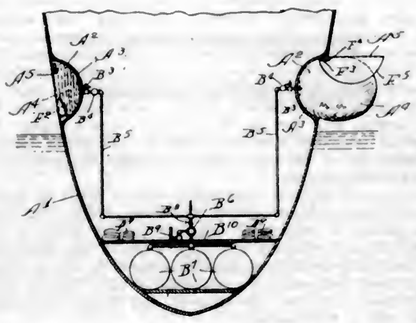


1. In galvanising steel or iron wire, strips, bands, sheets and the like, the process consisting of converting oxid of iron on its surface, to chlorid of iron, by subjecting it to the action of dilute hydrochloric acid; then

removing the chlorid of iron so formed by subjecting its surface to an electrolytic action, by passing it through an electrolytic bath of chlorid of zinc, and also simultaneously thereby coating its surface with a thin coating of zinc, by electrolytic deposition; and finally immersing this iron chlorid free and zinc coated iron or steel article in molten zinc; substantially as described.

2. In galvanizing steel or iron wire, strips, bands, sheets and the like, the process consisting of converting the oxid of iron on its surface to chlorid of iron by subjecting it to the action of dilute hydrochlorid acid; then removing the chlorid of iron so formed, by subjecting its surface to an electrolytic action by passing it through an electrolytic bath of chlorid of zinc, the anode of which is a plate or body of zinc, and the article to be coated is the cathode, and also simultaneously thereby coating its surface with a thin covering of zinc by electrolytic deposition; and finally immersing this iron chlorid free and zinc coated iron or steel article in molten zinc, substantially as described.

1,133,629. SAFETY APPLIANCE FOR BOATS. FRELING C. FOSTER, Chicago, Ill. Filed Aug. 6, 1914. Serial No. 855,384. (Cl. 114—68.)



1. A safety appliance for boats comprising a series of pockets along the side thereof with a series of collapsible bags one in each pocket and movable closures one for each pocket hinged and provided with a latch, said latch adapted to be sprung by the bag as it is expanded and means for inflating the bag.

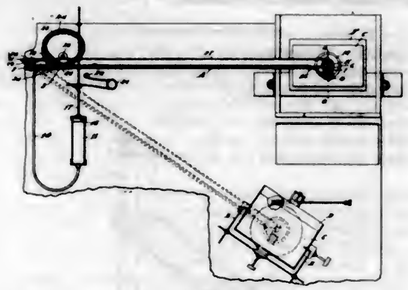
2. A safety appliance for boats comprising a series of pockets along the side thereof with a series of collapsible bags one in each pocket, a closure for each pocket hinged and provided with a latch, said latch adapted to be sprung by the bag as it expands and means for inflating the bag.

3. A safety appliance for boats comprising a series of pockets along the side thereof with a series of collapsible bags one in each pocket and movable closures one for each pocket flush with the side of the boat hinged and provided with a latch, said latch adapted to be sprung by the bag as it is expanded and means for inflating the bag.

4. A safety appliance for boats comprising a series of pockets along the side thereof with a series of collapsible bags one in each pocket, a closure for each pocket flush with the side of the boat hinged and provided with a latch, said latch adapted to be sprung by the bag as it expands and means for inflating the bag.

5. A safety appliance for boats comprising a series of pockets along the side thereof, a series of collapsible bags one in each pocket, means for introducing gas into the bag at the base where the air is introduced and a closure for each pocket flush with the side of the boat hinged and provided with a latch, said latch adapted to be sprung by the expansion of the bag.

1,133,630. SHEET-CONVEYER. ARTHUR J. FREEMAN, Petaluma, Cal. Filed July 15, 1913, Serial No. 779,121. Renewed Oct. 19, 1914. Serial No. 867,533. (Cl. 101—41.)



1. In a sheet conveyer, an arm, a member mounted to have vertical rocking movement, means to pivotally connect one end of said arm to said member whereby the arm may have horizontal reciprocatory movement on said pivot, an angularly disposed bracket adjustably connected to the opposite end of the arm, an element pivotally mounted on the bracket, a tubular stem adjustably connected to said element, a suction cup on the stem, a link connected at one end to said stem and at its opposite end to said member, a shouldered pin on said arm, a cam having a groove into which the pin extends and a raised portion which engages with the shoulder of the pin, and means to create a vacuum in the tubular stem.

2. In a sheet conveyer, an arm, a member mounted to have vertical rocking movement, means to pivotally connect one end of said arm to said member whereby the arm may have horizontal reciprocatory movement on said pivot, a suction cup pivotally connected to one end of the arm, a link in connection with said cup at one end, means to pivotally connect the opposite end of the link to said member, means carried by the second named means, to limit the extent of movement of the link relative to said second named means, means to create a vacuum in the cup, and means to impart vertical and horizontally reciprocatory movement to the arm.

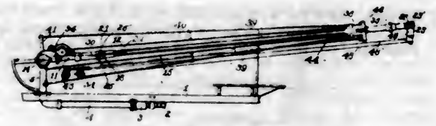
3. In a sheet conveyer, an arm, a member mounted to have vertical rocking movement, means to pivotally connect one end of said arm to said member whereby the arm may have horizontal reciprocatory movement on said pivot, a suction cup pivotally connected to one end of the arm, a spring tensioned right angular arm pivoted at one end to said member, a link having one end in connection with said cup, the opposite end of said link being pivotally connected to the angle of said right angular arm, means borne by the opposite end of the right angular arm to adjustably engage the link, means to impart vertical and horizontal reciprocatory movement to the first named arm, and means to create a vacuum in said cup.

4. In a sheet conveyer, an arm, a suction cup movably connected to the outer end of said arm, a member to which the opposite end of the arm is pivoted, means to revolubly mount said member, a link having one end in connection with said cup, and means pivotally connected to the opposite end of said link and to said member to allow the link to initially move independently of said second mentioned means and about the pivotal connection between said link and second mentioned means and to then upon continued movement to cause the second mentioned means to move with the link and about the pivotal connection between said second mentioned means and member.

5. In a sheet conveyer, an arm, a member mounted to have vertical rocking movement, means to pivotally connect one end of said arm to said member whereby the arm may have horizontal reciprocatory movement on said pivot, a suction cup movably connected to the opposite end of the arm, a link having one end in connection with said cup, a spring pressed element pivotally connected to the other end of the link and to said member, means to rock the arm vertically and horizontally, and means whereby said link after predetermined horizontal movement about its said pivotal connection with said element will engage the element and move therewith about the pivotal connection of the element with said member.

[Claims 6 and 7 not printed in the Gazette.]

1,133,631. WATER-TOWER. LOUIS H. GERDING, Baltimore, Md. Filed July 30, 1913. Serial No. 782,153. (Cl. 169—18.)



1. In combination a supply pipe, a pivotally mounted mast, a pipe carried thereby and having a swivel connection at its lower end with its supply pipe, a nozzle, an outer pipe carrying said nozzle angularly adjustable thereon, said outer pipe telescoping with and turnable about its longitudinal axis on the inner pipe, means for turning the said outer pipe to change the nozzle to different positions, and means for raising and lowering said outer turnable pipe, said raising and lowering means having a swivel connection with the outer pipe, substantially as described.

2. In combination a mast, an inner pipe, a nozzle, an outer pipe carrying the nozzle adjustable angularly thereto and mounted to slide and rotate on the inner pipe, a hoisting and lowering collar on the outer pipe, hoisting and lowering cables connected to said collar, said outer pipe being turnable about its own longitudinal axis in relation to said collar and to the inner pipe, means for operating the raising and lowering cables, and means for rotating the outer pipe on the inner pipe, substantially as described.

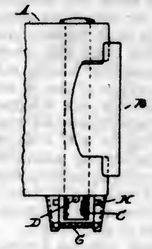
3. In combination with a mast pivotally mounted, an inner pipe also pivotally mounted, an outer pipe mounted on the inner pipe to slide, and rotate about its own longitudinal axis, raising and lowering cables connected with the outer pipe and allowing said pipe to turn, and means for turning the outer pipe on the inner pipe, and a nozzle mounted on the outer pipe and angularly adjustable thereon, substantially as described.

4. In combination a water conveyer pipe, a nozzle connected with said pipe, a cable connected with the nozzle, a lever geared to the nozzle, a cable connected to said lever, and a pair of drums mounted coaxially on the same shaft and receiving said cables to wind on one cable and pay out on the other with means for securing said drums to the shaft or allowing them to be free, and means for turning the shaft, substantially as described.

5. In combination with a mast, an inner conveyer pipe, an outer conveyer pipe slidable and rotatable about its own longitudinal axis on the inner pipe, and having a nozzle connected therewith and angularly adjustable thereon, a collar swiveled on the outer pipe, a lowering cable of loop form having its loop portion engaging the collar, a raising cable of loop form having its loop portion engaging the collar, and its strands extending up therefrom, pulleys for directing the ends of the raising cable downwardly and drums for receiving and winding the ends of the lowering cable and the ends of the raising cable, substantially as described.

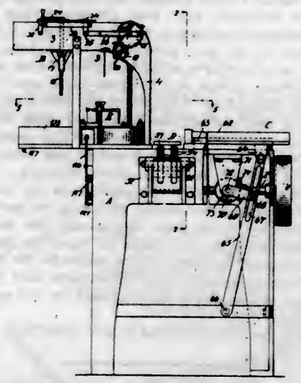
[Claim 6 not printed in the Gazette.]

1,133,632. SECURING DEVICE FOR RAILWAY-CAR-COUPLING PIVOT-PINS. MASON B. GIBERSON, Detroit, Mich., assignor to Monarch Steel Castings Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 30, 1914. Serial No. 828,380. (Cl. 213—13.)



In a car coupler, the combination with a coupler head and knuckle pin, of a pair of lugs projecting downward from said head on opposite sides of said pin, said lugs having longitudinal recesses in their inner faces closed at the lower ends and provided with laterally opening entrance slots at their upper ends extending at right angles to said recesses, and a cross pin engageable and disengageable with said recesses through said entrance slots only when said knuckle pin is removed, said cross pin normally resting at the bottom of said recesses forming a stop for said knuckle pin and being prevented from jumping out by said knuckle pin and the right angle turn in said entrance slots.

1,133,633. WRAPPING OR PACKAGING MACHINE. FELIPE GIROUD, New York, N. Y.; Edith E. Chapman, executrix of said Felipe Giroud, deceased, assignor to Package Machinery Company, a Corporation of Massachusetts. Filed July 15, 1909. Serial No. 507,735. (Cl. 93—2.)



1. The combination with an article-carrier, of wrapper-supplying means, a wrapper-folding channel, gates normally closing said channel and extending substantially across its entire width, means for moving an article from said carrier through said gates into said channel and to cause said gates to initiate the folding throughout its width of a wrapper, and means in said channel for folding said wrapper around the top, front and lower side of said article.

2. The combination with an article-carrier, of wrapper-supplying means, vertical guiding means for wrappers, a wrapper-folding channel, a horizontal plunger for moving an article horizontally from said carrier into said channel,

movable portions on said guiding means adapted to permit the passage of an article with said wrapper from said carrier into said folding channel, and means in and adjacent to said channel for folding a wrapper in successive operations around all sides of said article.

3. The combination with an article carrier, of means for holding a supply of ready cut wrappers, a wrapper folding channel, means for delivering wrappers one at a time from said supply to said channel, means for delivering articles one at a time from said carrier to said channel, means in said channel for folding said wrapper around the top, front and bottom of one of said articles, reciprocating means for folding said wrapper against the rear of said article, rotatable means for folding the side extensions of the rear flaps of said wrapper against the sides of said article, reciprocating means for folding the side extensions of the top and bottom flaps of said wrapper against the sides of said article, and yielding means for folding the side extensions of the front flap of said wrapper against the sides of said article.

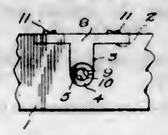
4. The combination with an article carrier, of means for holding a supply of ready cut wrappers, a wrapper folding channel, means for delivering wrappers one at a time from said supply to said channel, means for delivering articles one at a time from said carrier to said channel, gates normally closing said channel and when opening said channel adapted to initiate the folding of said wrapper around said article, parallel plates in said channel adapted to fold said wrapper around the front, top and bottom of said article, means adapted to fold said wrapper against the rear of said article, means comprising radially extending rotatable blades adapted to fold the side extensions of the rear flaps of said wrapper against the sides of said article, and resilient plates adapted to crease the side extensions of the upper and lower flaps of said wrapper.

5. The combination with wrapper folding means, of article delivery and wrapper delivery means, reciprocating means having rear and side folding members, means for moving a partially wrapped article between said reciprocating means, means for causing said reciprocating means to fold the rear flaps of said wrapper against the rear of said article, means adapted to fold the side extensions of the rear flaps of said wrapper against the sides of said article and alternate with said article moving means to move forward a partially wrapped second article into the position of the first article thereby causing the first article to be moved in a second position where said reciprocating folding means fold the side extensions of the top and bottom flaps of the wrapper of the first article against the sides of said article simultaneously with the folding of the rear flaps of the wrapper of the second article against the rear of said second article and alternate with said article moving means to move forward a partially wrapped third article into the position of the second article thereby causing the second article to be moved in the second position of the first article and the first article into a third position, and means for applying an adhesive to the wrapper of the first article while in the third position simultaneously with the operation of said reciprocating folding means upon the wrappers of the second and third article.

[Claims 6 to 18 not printed in the Gazette.]

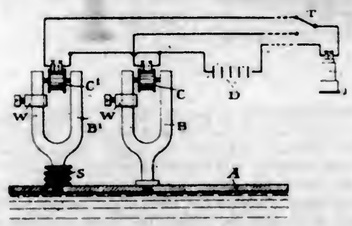
1,133,634. BEARING. FRANK DAVID GUSHURST, Cincinnati, Ohio. Filed Sept. 30, 1913. Serial No. 792,666. (Cl. 64—10.)

A device of the class described comprising a body, having a pair of side boards, a shaft rotatably mounted upon said side boards, one of said boards provided with a comparatively deep pocket, said board also provided with a comparatively shallow notched portion communicating with said pocket, a rib formed in the lower portion of said pocket, said rib being provided with a reduced socket, said shaft provided with a reduced neck at one end thereby forming parallel shoulders, said neck fitting upon the inner periphery of said rib, and said shoulders fitting upon said portions of said rib, a T-shaped retaining block positioned within said pocket and said notch, said block provided at its lower end with a reduced rib having an inner socket, said rib adapted to abut against a portion of the rib formed in the lower portion of said pocket, whereby said rib will fit between the shoulders of said



shaft thereby retaining said shaft in position and holding the same against transverse movement, the upper portion of said block terminating evenly with the upper surface of the side board.

1,133,635. ART OF SUBMARINE SIGNALING. WALTER HAHNEMANN and HEINRICH HECHT, Kiel, Germany. Filed May 22, 1913. Serial No. 769,182. (Cl. 179—122.)



1. In apparatus for receiving submarine signals, a tuning fork adapted for attachment to a structural part which is responsive to sound waves propogated through the sea, a pressure microphone coöperative with the tuning fork so as to be subjected to pressure upon vibration thereof, and means responsive to the microphone for rendering said vibrations apparent; substantially as described.

2. In apparatus for receiving submarine signals, a tuning fork adapted for attachment to a structural part which is responsive to sound waves propagated through the sea, and having differently tuned prongs, a pressure microphone coöperative with the differently tuned prongs of the tuning fork so as to be subjected to pressure upon vibration thereof, and means responsive to the microphone for rendering said vibrations apparent; substantially as described.

3. In apparatus for receiving submarine signals, a tuning fork adapted for attachment to a structural part which is responsive to sound waves propagated through the sea, a pressure microphone adjustably mounted between the prongs of the tuning fork so as to vary the useful damping effect relatively to the radiation damping effect of the receiving system, and means responsive to the microphone for rendering apparent the vibration impressed upon the microphone; substantially as described.

4. In apparatus for receiving submarine signals, a tuning fork adapted for attachment to a structural part which is responsive to sound waves propagated through the sea, a pressure microphone mounted between the prongs of the tuning fork so as to be subjected to pressure upon vibration thereof, and means responsive to the microphone for rendering said vibrations apparent, the amplitude of vibration of said tuning fork and the amplitude of vibration of said microphone being so adjusted that the radiation damping effect is less than the useful damping effect, whereby the sensitiveness of the receiving apparatus is reduced to thereby reduce the effect of interfering vibrations; substantially as described.

5. In apparatus for receiving submarine signals, a yielding support attached to a structural part which is responsive to sound waves propagated through the sea, an element having a definite period of vibration and attached to the yielding support, a pressure microphone coöperative with the said element so as to be subjected to pressure upon vibration thereof, and means responsive to the microphone for rendering said vibrations apparent, the amplitude of vibration of said element and the amplitude of vibration of said microphone being so adjusted that the radiation damping effect does not exceed the useful damping effect; substantially as described.

[Claim 6 not printed in the Gazette.]

1,133,636. PRODUCTION OF SULFUR FROM PYRITES AND OTHER METALLIC SULFIDS. WILLIAM A. HALL, New York, N. Y. Filed June 25, 1913. Serial No. 775,739. (Cl. 23—10.)

1. A process of producing sulfur from pyrites (FeS_2) or other metallic sulfids, consisting in distilling off both atoms of sulfur in a furnace by the direct application of a non-oxidizing flame of a gas containing a high percentage of hydrogen, in the presence of a volume of oxygen admixed with the gas and insufficient to cause the formation of any substantial amount of sulfur dioxid, but sufficient to permit combustion of liberated nascent hydrogen or sulfureted hydrogen formed by reaction, and withdrawing the sulfur from the furnace at a level above that at which the oxygen is admitted.

2. In the production of free sulfur from sulfid ore, the step of subjecting said ore to the action of a reducing flame, produced by burning a gas containing a considerable percentage of hydrogen, while agitating said ore.

3. In the production of free sulfur from sulfid ore, the step of subjecting said ore, to the action of a reducing, hydrogen-containing, gas flame, at a temperature at which substantially all of both the fixed and feeble atoms of sulfur distil from said ore, in the form of elemental sulfur.

4. In the production of free sulfur from sulfid ore, the step of subjecting said ore to the action of a reducing flame, of a gas containing a considerable proportion of hydrogen, while allowing the formation of sufficient H_2O, to decompose any COS formed in the process.

5. In the process of obtaining sulfur from sulfide ore, the step of distilling the fixed atom of sulfur from said sulfid ore, by the application of said ore, of a reducing flame high in hydrogen.

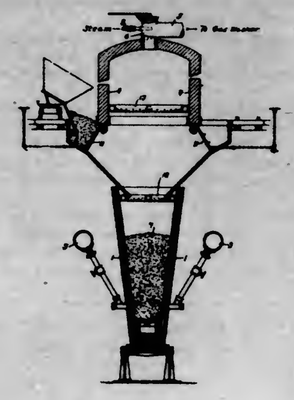
[Claims 6 and 7 not printed in the Gazette.]

1,133,637. PROCESS OF PREVENTING ESCAPE OF NOXIOUS GASES IN SMELTING. WILLIAM A. HALL, New York, N. Y. Filed June 25, 1913. Serial No. 775,740. (Cl. 75—17.)

1. In a process of smelting sulfid ore, the step of preventing the discharge of sulfurous gases into the atmosphere, which comprises continuously maintaining the top of the ore charge, over substantially its entire area, at a temperature below that at which free sulfur will ignite, by spraying the top of the ore charge with a liquid containing water, while avoiding the introduction of any considerable quantities of air into contact with the top of the ore charge, thereby generating sufficient hydrogen sulfid in the upper part of the furnace to reduce substantially all of the sulfur dioxid in the gases coming up through the ore charge, and also preventing combustion of the free sulfur in said gases.

2. In a process of smelting sulfids, the step of preventing the discharge of sulfurous gases into the atmosphere, which comprises continuously maintaining a layer of said ore, at the top of the ore charge, at a temperature below that at which free sulfur will ignite, by spraying the top of the ore charge with a liquid containing water, while introducing ore in a substantially continuous manner, thereby producing hydrogen sulfid, for reducing the sulfur dioxid in the gases.

3. In a process of smelting metal sulfids, the step of preventing the discharge of material amounts of sulfur dioxid into the atmosphere which comprises cooling the gases within the furnace charge in the furnace, to a temperature below the ignition point of free sulfur, while introducing the charge to the furnace in a substantially continuous manner.

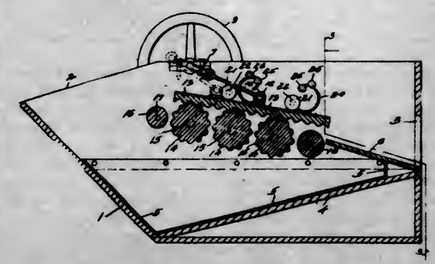


4. In a process of smelting sulfids, the step of preventing the discharge of sulfurous gases into the atmosphere, which comprises maintaining a layer of said sulfids, at the top of the charge, at a temperature below that at which sulfur will ignite, by spraying the top of the ore charge with a liquid containing water.

5. In the process of smelting sulfid ore, the method of preventing the emission of sulfur dioxid, by maintaining a layer of the charge at a temperature below that at which free sulfur will ignite, and generating within the furnace at a point between the focus and said cold layer, hydrogen sulfid in amount capable of reducing at least the major portion of the sulfur dioxid in the furnace gases, to free sulfur.

[Claims 6 and 7 not printed in the Gazette.]

1,133,638. WASHING-MACHINE. GUSTAF HALLDIN, Rural Valley, Pa. Filed June 2, 1913. Serial No. 771,304. (Cl. 68—23.)



A washing machine consisting of a tub, a series of fluted rollers journaled on the tub, guide rollers, a board fluted to mesh with the rollers and reciprocate on top thereof, a crank shaft having a fly wheel thereon, a pitman connected to the board and to the crank shaft, whereby the rotation of the shaft will reciprocate the board, rollers bearing on the board and having adjustable connection with the tub, and oppositely curved springs for holding the board toward the fluted rollers.

1,133,639. CLEANSING AND DISINFECTING FLUID. ISADOR L. HALMAN, Brookline, Mass., assignor to H C Red Label Chemical Company, Boston, Mass., a Corporation of Massachusetts. Filed May 7, 1913. Serial No. 766,069. (Cl. 87—5.)

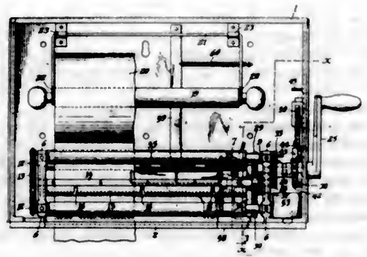
1. A cleaning fluid comprising a solution of from 9% to 11% of a caustic alkali, from 1% to 2% of alkali carbonate, from 2% to 3% of an ammonium compound, and from 4% to 6% of an alcohol.

2. A cleaning fluid comprising an aqueous solution containing about 9.8% of potassium hydrate, 2.5% of ammonium chlorid, 1.25% of potassium carbonate, and 4.95% of alcohol.

3. A cleaning fluid comprising an aqueous solution containing active alkali hydrate and ammonium chlorid, said alkali hydrate being in the proportion of four to one of the ammonium chlorid, in combination with alkali carbonate in the slightly smaller proportions than the ammonia gas in solution, and alcohol.

4. A cleansing fluid comprising from 9% to 11% of a caustic alkali, from 2% to 3% sal ammoniac, from 1% to 2% of alkali carbonate, from 4% to 6% of alcohol, and from 84% to 78% of substantially pure water.

1,133,640. VENDING-MACHINE. ERNEST A. HAMILTON, Philadelphia, Pa., and WALTER LOOMIS HAMILTON, Holyoke, Mass. Filed Apr. 4, 1914. Serial No. 829,466. (Cl. 211—8.)



1. In a device of the character stated, a casing, a supply of material therein, a feeding mechanism for said material, a severing device for cutting said material, means for actuating said feeding mechanism and said severing device, a locking mechanism normally preventing operation of said actuating means, means to release said locking mechanism, and means intermittently operated by said actuating mechanism for rendering said locking mechanism, when released, inoperative for a predetermined interval.

2. In a device of the character stated, a casing, a supply of material therein, a feeding mechanism for said material, a severing device for cutting said material, means for actuating said feeding mechanism and said severing device, a locking mechanism normally preventing operation of said actuating means, means to release said locking mechanism, and means intermittently operated by said actuating mechanism for intermittently engaging said locking mechanism, when released, for rendering the latter mechanism inoperative for a predetermined time.

3. In a device of the character stated, a casing, a supply of material therein, a feeding mechanism for said material, a severing device for cutting said material, means for actuating said feeding mechanism and said severing device, a locking mechanism normally preventing operation of said actuating means, means to release said locking mechanism, a rotatable member operable by said actuating means adjacent said locking mechanism, and means carried by said rotatable member for engaging said locking mechanism, when the latter is released to render said locking mechanism inoperative for a predetermined interval.

4. In a device of the character stated, a casing, a supply of material therein, a feeding mechanism for said material, a severing device for cutting said material, a main operating shaft, a member rotatable therewith provided with an abutment, actuating means controlled by said shaft for operating said feeding mechanism and said severing device, a latch member normally engaging said abutment to lock said shaft against movement, means to release said latch member, and means controlled by said actuating means for rendering said latch member, when released, inoperative for a predetermined interval.

5. In a device of the character stated, a casing, a supply of material therein, a feeding mechanism for said material, a severing device for cutting said material, a main operating shaft, a member rotatable therewith provided with an abutment, actuating means controlled by said shaft for operating said feeding mechanism and said severing device, a latch member normally engaging said abutment to lock said shaft against movement, means to release said latch member, a rotatable member operated by said actuating means, and means carried by said rotatable member for engaging said latch member, when released, after each revolution of said abutment, and for a predetermined number of revolutions.

[Claims 6 to 12 not printed in the Gazette.]

1,133,641. PLATE FOR ELECTRICAL OR SECONDARY BATTERIES OR ACCUMULATORS. EMMANUEL HANCOCK and DANIEL DAVID, Cardiff, England. Filed Aug. 25, 1914. Serial No. 858,536. (Cl. 204—29.)

1. The method of forming active elements for electric accumulators which consists in mixing into a paste a lead compound, sulfuric acid and a substance rich in carbohydrates, then excluding the air and subjecting said mixture to a high temperature, allowing the mixture to cool, and finally purifying the same.

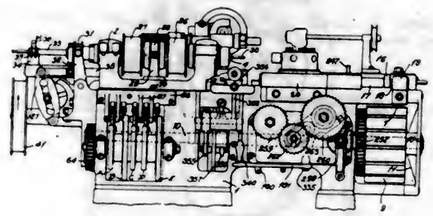
2. The process of manufacturing active elements for electric accumulators which consists in mixing a lead compound with a substance rich in carbohydrates and sulfuric acid to form a paste-like mass, molding the mass into plates, heating said plates in a receptacle from which air is excluded, grinding the burnt plates, and mixing the ground material with part of the original paste in a dried and finely powdered and unburnt condition, adding sulfuric acid to form a paste, molding into plates, and finally heating the plates in a closed receptacle.

3. The herein described process of manufacture of active elements for electric accumulators which consists in mixing potatoes and a lead compound with sulfuric acid to form a paste-like mass, molding the mass into plates, heating said plates in a receptacle from which air is excluded, grinding the burnt plates, and mixing the ground material with part of the original paste in a dried and finely powdered and unburnt condition, adding sulfuric acid to form a paste, molding into plates, and finally heating the plates in a closed receptacle.

4. The herein described process of manufacture of active elements for electric accumulators which consists in mixing potatoes and litharge with sulfuric acid to form a paste-like mass, molding the mass into plates, heating said plates in a receptacle from which air is excluded, grinding the burnt plates, and mixing the ground material with part of the original paste in a dried and finely powdered and unburnt condition, adding sulfuric acid to form a paste, molding into plates, and finally heating the plates in a closed receptacle, said plates being wrapped with paper and covered with carbon during the heating in the closed receptacle.

5. The herein described process of manufacture of active elements for electric accumulators which consists in mixing potatoes and a lead compound with sulfuric acid to form a paste-like mass, molding the mass into plates, heating said plates in a receptacle from which air is excluded, grinding the burnt plates, and mixing the ground material with part of the original paste in a dried and finely powdered and unburnt condition, adding sulfuric acid to form a paste, molding into plates, heating the plates in a closed receptacle, allowing the plates to cool and then short circuiting them between metal plates in acid, and finally placing said plates between positive electrodes in acid and alternately charging and discharging the plates until purified, substantially as described.

1,133,642. METAL-SCREW MACHINE. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Apr. 7, 1910. Serial No. 553,965. (Cl. 29—44.)



1. The combination, in a screw machine, of mechanisms for performing all the major functions of the machine, control devices for starting the said mechanisms independently of each other, and a super-control device for varying the speed of the said control devices.

2. The combination, in a screw machine, of independently operating mechanisms for performing all the major functions of the machine, control devices for determining the time of operation of each of said mechanisms independently of each other, and means for driving the said control devices at various speeds.

3. The combination, in a screw machine, of independently operating mechanisms for performing all the major functions of the machine, control devices for determining the time of each operation independently, and speed changing means for driving the control devices at different speeds, including a super-control device for determining the time of operation of the said speed changing means.

4. In a screw machine, the combination of a tool turret, mechanism for feeding the stock and indexing the tool turret, and control devices for starting the said mechanisms independently of each other.

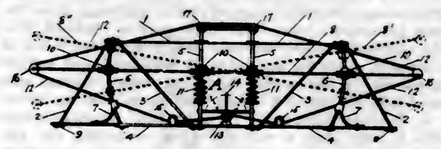
5. In a screw machine, the combination of a tool turret, mechanisms for performing the functions of feeding the stock and indexing the tool turret, control devices for starting the said mechanisms independently of each other, and a super-control device for varying the time of operation of the said control devices.

[Claims 6 to 40 not printed in the Gazette.]

1,133,643. FLYING-MACHINE. JAMES W. HEADLY, Omaha, Nebr., assignor of one-half to Oliver A. Moore, Omaha, Nebr. Filed Nov. 9, 1914. Serial No. 871,051. (Cl. 244—29.)

1. In a flying machine, an elongated upper horizontal frame, an elongated lower frame, a plurality of vertical posts disposed at longitudinal intervals parallel with the longitudinal axes and connected with the frames, an airplane provided with apertures, ball-casings mounted in said apertures, each ball casing being provided with opposed slots disposed parallel with and opening outwardly of the sides of the air-plane, said air-plane being disposed intermediate the upper and lower frames with the slots of its ball-casings traversed by said posts, means for moving the air-plane to a position parallel with said frames, and means for disposing said plane inclinedly with reference to said frames, the ball-casings moving vertically and transversely of said posts.

2. In a flying machine, an upper and lower framework whose horizontal members are vertically connected by supports which form guides to sustain a movable plane, the outer supports being so formed and shaped that they are part of the circumference of a circle, means to connect the movable plane to engage with the segmental supports and enable the plane to be inclined at either end from a common center.



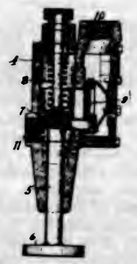
3. In a flying machine, a movable main plane supported upon guides connecting the upper and lower members of the frame work, ball jointed connections attached to the said plane in engagement with segmental and straight guides which connect the upper and lower members of the frame work enabling the plane through its connections to be moved through the arc of a circle whose center is located at or near the vertical axis of the central supporting posts of the upper and lower frame work.

4. In a flying machine, the upper and lower frame work of which is connected vertically by supports forming guides engaging with ball jointed connections attached to a plane, springs under said connections at the center supports holding the said plane in balanced position and enabling the plane to yield and automatically adjust itself at either end to the pressure of the air.

5. In a flying machine, an upper elongated horizontal frame, an elongated lower frame, vertical posts arranged in adjacent pairs between the middle and ends intermediate said frames for maintaining them substantially parallel, ball casings mounted slidably on said posts, each ball casing having slots formed therein at two opposed sides and provided with a pair of flanges, an elongated air-plane mounted between the flanges of said casing and traversed by said posts, means to maintain said air-plane in the vertical plane of said upper and lower frames, the slots of the ball casings being disposed parallel with the longitudinal axis of said air-plane.

[Claim 6 not printed in the Gazette.]

1,133,644. TRIP-VALVE DEVICE. ERNEST ROWLAND HILL, East Orange, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 10, 1911. Serial No. 626,321. (Cl. 246—59.)



1. In a trip valve device for air brakes, the combination with a vent valve for controlling the discharge from the train pipe, and a connection adapted to be operated by a trip mechanism along the track for opening said valve, of means governed by the pressure of air vented through said valve for maintaining the same open a certain length of time.

2. In a trip valve device for air brakes, the combination with a vent valve for controlling the discharge from the train pipe, and a connection adapted to be operated by a

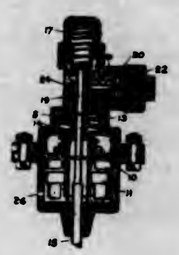
trip mechanism along the track for opening said valve, of a movable abutment subject to the pressure of the air vented through said valve for holding the same open until the train pipe pressure has diminished a predetermined amount.

3. In a trip valve device for air brakes, the combination with a vent valve for controlling the discharge from the train pipe, and a connection adapted to be operated by a trip mechanism along the track for opening said valve, of a movable abutment connected to said valve and subject on one side to the pressure of the air vented through said valve, and an opposing spring tending to close the valve.

4. In a trip valve device for air brakes, the combination with a train pipe, a vent valve for controlling the discharge from the train pipe, and a connection adapted to be operated by a trip mechanism along the track for opening said valve, of a power controller having fluid pressure mechanism for controlling the closing of the same, and a movable abutment operated by the air discharged from the train pipe through the vent valve for governing the action of said fluid pressure mechanism.

5. In a trip valve device for air brakes, the combination with a train pipe, a vent valve for controlling the discharge from the train pipe, and a connection adapted to be operated by a trip mechanism along the track for opening said valve, of a throttle valve having a fluid pressure device for controlling the closing of said throttle valve, and means operated by the air discharged from the train pipe through the vent valve for governing the action of said device.

1,133,645. TRIP-VALVE DEVICE FOR AIR-BRAKES. ERNEST ROWLAND HILL, East Orange, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 10, 1911. Serial No. 626,322. (Cl. 246—59.)

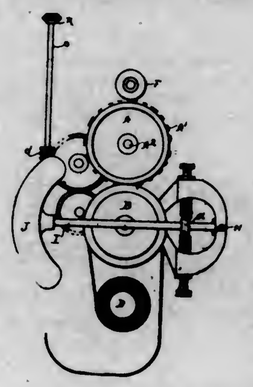


1. In a trip valve device for air brakes, the combination with a main vent valve, and a fluid pressure actuated piston for operating said valve, of a pilot or auxiliary valve for controlling the pressure on the piston, a stem for actuating the pilot valve adapted to coöperate with a track mechanism, and a latch mechanism for said stem governed by train pipe pressure to hold the pilot valve open until the train pipe pressure has reduced a given amount.

2. In a trip valve device for air brakes, the combination with a main vent valve and piston for actuating same, said piston being subject to fluid pressure upon both sides, of a pilot valve for controlling the release of fluid under pressure from one side of said piston, a stem for actuating the pilot valve and adapted to coöperate with a track mechanism, and a latch mechanism governed by train pipe pressure to hold the pilot valve open until the train pipe pressure is reduced to a predetermined point.

3. In a trip valve device for air brakes, the combination with a main vent valve, and a fluid pressure actuated piston for operating said valve, of a pilot valve for controlling the pressure acting on said piston, a stem for operating said pilot valve, a latch for locking said stem, and a movable abutment subject to train pipe pressure for releasing said latch, the latch having a yielding movement independent of the abutment.

1,133,646. MOTOMETER. SAMUEL H. HODGSON, Arlington, N. J. Filed Nov. 1, 1911. Serial No. 657,928. (Cl. 234—36.)



1. In a mechanism for recording vibration, a platen and means for revolving it, a printing drum and means for revolving it and for passing a tape between the printing drum and the platen, and a horizontally extending spring balanced arm for recording successive vibrations on the tape after it has been printed.

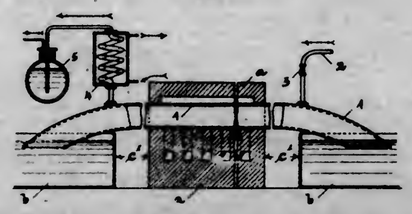
2. In a mechanism for recording vibrations, a platen and means for revolving it, a printing drum and means for revolving it, means for passing a tape between the printing drum and the platen, means as a horizontal balanced vibrating lever for receiving each vibration and a needle operated by said lever for recording each vibration of said lever upon said tape.

3. The combination with a clock of a recording device having means for printing and sub-dividing a record slip to correspond to the indication on said clock and a perforating device operated by vibrations for impressing a variable record upon said slip.

4. In a mechanism for recording vibrations having in combination a clock, a normally horizontally disposed lever adapted to be vibrated out of the horizontal, a shaft partly rotated by said lever, a needle operated by said shaft and said lever for recording the said vibrations upon a tape, and platens and rollers arranged for presenting said tape to said needle.

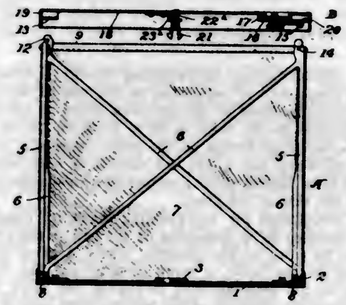
5. In a mechanism for recording vibrations a horizontally and flexibly balanced vibrating member, and a shaft supporting said member and rotated thereby a nearly circular disk upon said shaft, and a spring retrieved horizontal needle arranged for reciprocating motions and operated by said disk, means for presenting a tape to said needle, and means for automatically inscribing a series of characters upon said tape before it is presented to said needle.

1,133,647. ANNEALING APPARATUS. FRIEDRICH KAMMERER, Pforzheim, Germany. Filed Oct. 10, 1912. Serial No. 724,944. (Cl. 148—20.)



Annealing apparatus comprising a heating appliance, sealing appliances adapted for the passage of the work therethrough, arranged at opposite sides of said heating appliance, a retort arranged partly within said heating appliance and with its ends extending from same to said sealing appliances the distance of each of the latter from said heating appliance being at least equal to the length of that part of the retort which lies within said heating appliance, means for introducing a gas into said retort at one side of said heating appliance, a gas-cooler connected to said retort at the other side of said heating appliance, and means enabling gas to issue from said cooler to the atmosphere without admitting air.

1,133,648. COLLAPSIBLE CRATE. HARRY B. LEARY, Washington, D. C. Filed Jan. 29, 1908. Serial No. 413,273. (Cl. 150—49.)



1. A folding crate comprising a bottom corner, posts independently hinged to the bottom, a flexible body connected with the posts and with the bottom, and means connecting the upper ends of the posts, said means having flexible inelastic portions, the posts and body being adapted to fold in upon the bottom.

2. A folding crate comprising an angular bottom, posts independently hinged to the bottom at the corners thereof, means connecting the upper ends of the posts, said means having flexible inelastic portions, and a flexible body connected with the bottom and with said means, the posts and body being adapted to fold in upon the bottom.

3. A folding crate comprising a rectangular bottom, corner posts hinged to the said bottom, a flexible body connected with the corner posts, the said posts and body being adapted to fold in upon the bottom, pintles upon the upper extremities of said posts, a top having sockets at its corner to receive said pintles, bolts for securing the top to the posts, and a device for operating said bolts simultaneously.

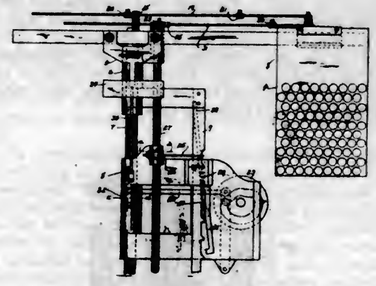
4. A folding crate comprising an angular bottom, corner posts hinged to the bottom, a flexible body connected with the corner posts at their upper ends, rods to which the lower margin of the body is connected, and means for detachably clamping said rods to the bottom.

5. A folding crate comprising a rectangular bottom, corner posts hinged to said bottom, a flexible body connected with the upper parts of the corner posts, and flexible rods to which the lower margin of the body is connected, each of said corner posts having a heel adapted to secure one of said rods to the bottom when the post is erected.

[Claim 6 to 16 not printed in the Gazette.]

1,133,649. AUTOMATIC FEED FOR PUNCHING-MACHINES. GEORGE C. LEES, Shelton, Conn., assignor to The Lees Button Co., Leominster, Mass., a Corporation. Filed Feb. 21, 1914. Serial No. 820,160. (Cl. 164—117.)

1. An automatic feeding device for punching machines, comprising a longitudinally movable work-carrying slide, said slide formed with teeth, a pawl-carrier, a pawl carried thereby one end of the pawl longer than the other, and automatic means for turning the pawl from one position to another, and automatic means for swinging the pawl to reverse the movement of the work-carrying slide.



2. An automatic feeding device for punching machines, comprising a horizontally movable work-holding slide, teeth on said slide, a pawl-carrier, a double-ended pawl on said carrier and adapted at opposite ends to engage with the teeth on the slide, means for moving the pawl-carrier and with it the pawl, and means carried by the slide for automatically tripping the said pawl and reversing the movement of the work-carrying slide.

3. An automatic feeding for punching machines, comprising a longitudinally movable work-holding slide, teeth on said slide, a double pawl coacting with said teeth, and automatic means for moving said pawl, a vertically arranged rack connected with said slide, a double ended pawl adapted to engage with the teeth on said vertical rack, and means for automatically tripping the pawls at the end of each stroke, whereby the position of the slide-operating pawl will be reversed and the slide dropped vertically.

4. An automatic feeding device for punching machines comprising a longitudinally movable work-holding slide, provided with teeth, a pawl-carrier, a double-ended pawl on said carrier and adapted to engage with said teeth, means for rocking said pawl-carrier, a vertically arranged rack connected with said slide, a double-ended pawl adapted to engage with said rack, and automatic means controlled by the movement of the said slide for tripping the pawls whereby the slide is adapted to drop at the end of each back and forth movement, and the operating pawl reversed whereby the movement of the slide is reversed.

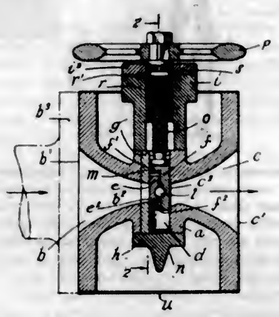
5. An automatic feeding device for punching machines, comprising a longitudinally movable work-carrying slide, said slide formed with teeth, a pawl-carrier, a pawl carried thereby one end of the pawl longer than the other, means for turning the pawl from one position to another, and means for swinging the pawl, and a shield adapted to enter between the pawl and slide.

1,133,650. VALVE. HUGO LENTZ, Berlin-Halensee, Germany. Filed Jan. 20, 1915. Serial No. 3,354. (Cl. 137—5.)

1. In a valve for high pressure gaseous fluid, the combination of a casing having an inlet and an outlet passage with an intermediate valve gate for closing communication between the two passages, said inlet passage gradually tapering down to a nozzle opening of elongated and materially reduced cross section at the gate, narrow in the direction of movement of the gate to form a nozzle to increase the velocity of the fluid at the gate, and the outlet passage being of greater cross sectional area at the gate than the elongated nozzle opening, whereby the flow of the high velocity fluid tends to create a vacuum at the gate to prevent leakage thereat.

2. In a valve for high pressure gaseous fluid, the combination of a casing having an inlet and an outlet passage with an intermediate valve gate for closing communica-

tion between the two passages, said inlet passage being circular in cross section and gradually tapering down to a nozzle opening of elongated and greatly reduced cross section at the gate, narrow in the direction of movement of the gate to form an elongated nozzle to increase the velocity of the fluid at the gate, and the adjacent end of the outlet passage being of greater cross section than the nozzle section and having its wall adjacent the controlling edge of the gate extending beyond the corresponding wall of the nozzle opening, whereby a reduction in pressure at the gate is caused by the flow of the high velocity fluid when the gate is partially open.



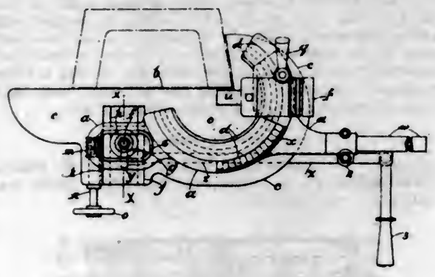
3. In a valve for high velocity gaseous fluid, the combination of a casing having an inlet and an outlet passage with an intermediate valve gate for closing communication between the two passages, said passages each being of elongated cross section at their adjacent ends and narrow in the direction of movement of the gate and each flaring outwardly with gradually and materially increasing cross section, the inner end of the outlet passage being of greater cross section than the adjacent end of the inlet passage whereby the gaseous fluid is delivered with increased velocity at the gate where it is permitted to suddenly expand so as to tend to produce suction.

4. In a valve for high velocity gaseous fluid, the combination of a casing having an inlet and an outlet passage with an intermediate chamber and a valve gate in the chamber for closing communication between the two passages, said passages each being of elongated cross section at their adjacent ends and narrow in the direction of movement of the gate and each flaring outwardly with gradually and materially increasing cross section, the inner end of the outlet passage being of greater cross section than the adjacent end of the inlet passage and having its wall adjacent the controlling edge of the gate extending beyond the inner end of the corresponding wall of the inlet opening, whereby the inlet passage will act as a nozzle to increase the velocity of the fluid as delivered at the gate and whereupon the fluid is permitted to expand behind the gate so as to produce a partial vacuum.

5. In a valve for high velocity gaseous fluid, the combination of a casing having a gate chamber, a gate movable therein, and inlet and outlet passages arranged transversely thereof and communicating therewith, said passages being circular in cross section at their outer ends and gradually and materially reduced in cross sectional area from their outer ends toward said chamber where they are elongated in section, being narrow in the direction of movement of the gate, the sectional area of the gate chamber below the gate when in its full open position, and the cross sectional area of the outlet passage adjacent the chamber each being greater than the cross section of the adjacent end of the inlet passage, whereby the inlet passage acts as a nozzle to increase the velocity of fluid delivered at the gate and the flow of fluid at high velocity past the gate produces a reduction in pressure in the gate chamber to prevent leakage.

[Claim 6 not printed in the Gazette.]

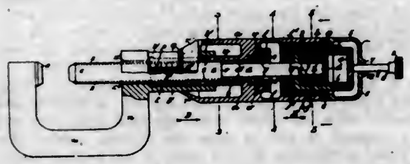
1,133,651. TOOL-HOLDER FOR TOOL-GRINDING MACHINES. THOMAS LUMSDEN, Gateshead, England. Filed Apr. 6, 1914. Serial No. 829,794. (Cl. 51—7.)



1. A tool-holder for tool-grinding machines comprising a table adapted to be supported on the pan of the grinding machine in front of the grinding wheel, a pivot slidably mounted on the table, a lever mounted on the table and adapted to be turned on the pivot, means for reciprocating the lever, and a tool box carried by said lever and adapted to be turned about a second axis substantially parallel to the axis of the pivot.

2. A tool-holder for tool-grinding machines comprising a table adapted to be supported on the pan of the grinding machine in front of the grinding wheel, a pivot slidably mounted on the table, a lever mounted on the table, a bearing on the lever adapted to engage the pivot, means for altering the position of the bearing with regard to the pivot, and a tool box carried by said lever and adapted to be turned about a second axis substantially parallel to the axis of the pivot.

1,133,652. MICROMETER-GAGE. ALBERT CHARLES MAY, London, England. Filed Apr. 11, 1914. Serial No. 831,131. (Cl. 33—165.)



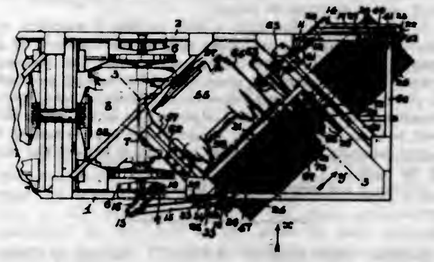
1. A micrometer gage comprising a yoke member, a ram slidably engaged within the yoke member, a graduated operating barrel rotatably mounted upon the yoke and having threaded connection therewith, means permitting free rotation of the said barrel upon the ram adapted to prevent relative longitudinal movement of the same, a nut mounted upon the ram and having threaded connection with the barrel, the pitch of the threads of this latter connection being different from the pitch of the threads of the connection between the barrel and the yoke member, and means by which the said nut may be secured to the ram for movement therewith or may be released from the ram and secured to the barrel for rotation therewith.

2. A micrometer gage comprising a yoke member, a ram slidably engaged within the yoke member, a graduated operating barrel rotatably mounted upon the yoke and having threaded connection therewith, means permitting free rotation of the said barrel upon the ram adapted to prevent relative longitudinal movement of the same, a nut mounted upon the ram and having threaded connection with the barrel, the pitch of the threads of this latter connection being different from the pitch of the threads of the connection between the barrel and the yoke member, clutch mechanism provided within the said barrel and being adapted to connect the said nut with the ram for rotation therewith or with the barrel for rotation with the same to be free with respect to the ram during this movement, and means by which the clutch mechanism may be shifted.

3. A micrometer gage comprising a yoke member, a ram slidably engaged within the yoke member, a graduated operating barrel rotatably mounted upon the yoke and having threaded connection therewith, means permitting free rotation of the said barrel upon the ram adapted to prevent relative longitudinal movement of the same, a nut mounted upon the ram and having threaded connection with the barrel, the pitch of the threads of this latter connection being different from the pitch of the threads of the connection between he barrel and the yoke member, fixed clutch members provided upon the said barrel and upon the ram, a movable clutch member mounted for axial sliding movement alone with respect to the said nut and being adapted for engagement with either of the said fixed clutch members, and an operating stem connected with the said movable clutch member and projecting exteriorly from the barrel.

4. A micrometer gage comprising a yoke member, a ram slidably engaged within the yoke member, a graduated operating barrel rotatably mounted upon the yoke and having threaded connection therewith, means permitting free rotation of the said barrel upon the ram adapted to prevent relative longitudinal movement of the same, a nut mounted upon the ram and having threaded connection with the barrel, the pitch of the threads of this latter connection being different from the pitch of the threads of the connection between the barrel and the yoke member, and means by which the said nut may be secured to the ram for movement therewith or may be released from the ram and secured to the barrel for rotation therewith, the said barrel and ram being provided with limiting shoulders adapted to abut each other.

1,133,653. ROTARY SWEEPER. EDVARD M. MOLLER, Jersey City, N. J. Filed Nov. 18, 1914. Serial No. 872,691. (Cl. 104—65.)



1. In combination with the longitudinally extending side-members of a car body, bearing-plates carried by said side-members, bearing-portions connected with said bearing-plates, said bearing-portions extending at acute angles from the vertical faces of said side-member, journal-pins mounted in said bearing-portions, a forwardly extending link mounted at one end-portion upon each journal-pin, a journal-box connected with the other end-portion of each link, a shaft mounted in said journal-boxes, rotary brushes mounted upon said shaft, and means connected with the said links for lifting and lowering the said shaft and the brushes mounted upon said shaft, consisting of other bearing-plates carried by said side-members, bearing-portions connected with said last-mentioned bearing-plates, said bearing-plates also extending at acute angles from the vertical faces of said side-members, a shaft mounted in said last-mentioned bearing-portions, crank-arms extending in forward directions from said last-mentioned shaft, links between said crank-arms and the previously-mentioned links and journal-boxes, and means connected with said last-mentioned shaft for producing oscillatory motion of said shaft.

2. In combination with the longitudinally extending side-members of a car-body, bearing-plates carried by said side-members, bearing-portions connected with said bearing-plates, said bearing-portions extending at acute angles from the vertical faces of said side-members, journal-pins mounted in said bearing-portions, a forwardly extending link mounted at one end-portion upon each journal-pin, a bracket-like receiving member at the other end of each link, a journal-box mounted upon each bracket-like receiving member, a shaft mounted in said journal-boxes; rotary brushes mounted upon said shaft, and means connected with said bracket-like members for lifting and lowering the said shaft and the brushes mounted upon said shaft.

3. In combination with the longitudinally extending side-members of a car-body, bearing-plates carried by said side-members, bearing-portions connected with said bearing-plates, said bearing-portions extending at acute angles from the vertical faces of said side-members, journal-pins mounted in said bearing-portions, a forwardly extending link mounted at one end portion upon each journal-pin, a bracket-like receiving member at the other end of each link, a journal-box mounted upon each bracket-like receiving member, a shaft mounted in said journal-boxes, rotary brushes mounted upon said shaft, and means connected with said bracket-like members for lifting and lowering the said shaft and the brushes mounted upon said shaft, consisting of other bearing-plates carried by said side-members, bearing-portions connected with said last-mentioned bearing-plates, said bearing-plates also extending at acute angles from the vertical faces of said side-members, a shaft mounted in said last-mentioned bearing-portions, crank-arms extending in forward directions from said last-mentioned shaft, brackets connected with the first-mentioned bracket-like receiving members, said brackets being provided with web-like portions, links between said crank-arms and the said web-like portions, and means connected with said last-mentioned shaft for producing oscillatory motion of said shaft.

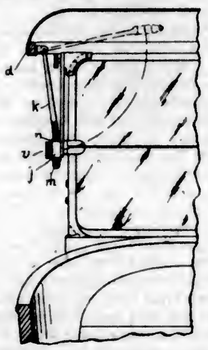
4. In combination with the longitudinally extending side-members of a car-body, bearing-members carried by said side-members, said bearing-members extending at acute angles from the vertical faces of said side-members, links pivotally connected at one end-portion with said bearing-members, a shaft rotatably connected with the other end-portions of said links, a brush mounted upon said shaft, a motor-shaft mounted in bearings secured to the frame-work of said car-body, said motor-shaft being axially in alinement with said bearing-members, a motor connected with said motor-shaft, a driving mechanism between the said motor-shaft and the shaft upon which the brush is mounted, and means connected with said links for lifting and lowering the said last-mentioned shaft and the brush mounted upon said shaft, consisting of other bearing-plates carried by said side-members, bearing-portions connected with said last-mentioned bearing-plates, said bearing-plates also extending at acute angles from the vertical faces of said side-members, a shaft mounted in said last-mentioned bearing-portions, crank-arms extending in forward directions from said last-mentioned shaft, links between said crank-arms and the previously-mentioned links and journal-boxes, and means connected with said last-mentioned shaft for producing oscillatory motion of said shaft.

5. In combination with the longitudinally extending side-members of a car-body, bearing-members carried by said side-members, said bearing-members extending at acute angles from the vertical faces of said side-members, links pivotally connected at one end-portion with said bearing-members, a shaft rotatably connected with the other end-portions of said links, a brush mounted upon said shaft, a motor-shaft mounted in bearings secured to the frame-work of said car-body, said motor-shaft being axially in alinement with said bearing-members, a motor connected with said motor-shaft, a driving mechanism between the said motor-shaft and the shaft upon which the brush is mounted, a casing inclosing said driving mechanism, and means connected with said links for lifting and lowering the said last-mentioned shaft and the brush

mounted upon said shaft, consisting of other bearing-plates carried by said side-members, bearing-portions connected with said last-mentioned bearing-plates, said bearing-plates also extending at acute angles from the vertical faces of said side-members, a shaft mounted in said last-mentioned bearing-portions, crank-arms extending in forward directions from said last-mentioned shaft, links between said crank-arms and the previously-mentioned links and journal-boxes, and means connected with said last-mentioned shaft for producing oscillatory motion of said shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,133,654. VEHICLE-TOP. ALFRED MOORHOUSE, Detroit, Mich., assignor to Hudson Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 8, 1914. Serial No. 810,946. (Cl. 21—62.)



1. The combination of a vehicle body provided with a wind-shield, a top supported by the body, a bearing extended from the joint of the wind-shield and a rigid brace rod pivotally secured to the forward end of the top and detachably secured to the extended bearing, substantially as described.

2. The combination of a vehicle body provided with a wind-shield, a top supported by the body, an extended bearing at the wind-shield joint, a rigid brace rod pivoted at the top of the forward end so as to swing only in a plane transverse the top and detachably securable to the extended bearing, substantially as described.

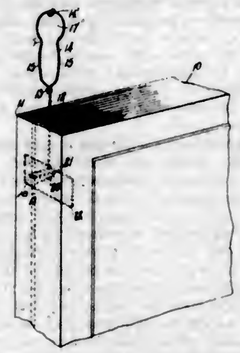
3. The combination of a vehicle body provided with a wind-shield, a top supported by the body, an extended bearing at the wind-shield joint, and a brace rod swingingly supported by the top at the forward end and having a split ring terminal provided with a screw whereby the brace rod may be secured to the extended bearing, substantially as described.

1,133,655. HANGER FOR BOOKS. JOHN MORGAN, New York, N. Y. Filed Jan. 20, 1914. Serial No. 813,305. (Cl. 11—17.)

1. As a new article of manufacture, a hanger for books comprising a single piece of wire bent to provide an eye at one end and having a hook at the opposite end, said hook being constructed to fit across the edges of a plurality of leaves, and the hanger being readily bendable whereby it is adapted to bend at a point intermediate the hook and eye for the purpose set forth.

2. The combination with a book comprising a plurality of sections and means for fastening said sections together, of a one-piece hanger for the book, said fastening means being located so as to assist in holding said hanger in place, said hanger being flexible whereby it is adapted to bend at the point where it passes across the fastening means.

3. The combination with a book comprising a plurality of signatures and means for fastening said signatures together, of a hanger for the book comprising a flexible device having one end thereof secured in place at the rear edge of one of the signatures of the book, said end being held in place by said fastening means and by a part of the hanger which passes around the rear edge of one of the signatures, the flexible device being readily bendable at a point therein near said fastening means and of a length whereby it may be bent to bring the free end of the hanger beyond the top of the book.



4. The combination with a book comprising a plurality of signatures and means for securing said signatures together, of a hanger for the book comprising a single length of flexible wire bent upon itself at one end to form a hook which is located over the rear edge of one of the signatures, said securing means having a part disposed nearer the top edge of the book than said hook end whereby the hook end is retained in place.

5. The combination with a book having a plurality of leaves and means for fastening said leaves together, of a hanger for the book having a part at one end passing around the rear edge of a plurality of leaves and retained in place by said fastening means, said hanger being positioned within the untrimmed edges of the leaves while the book is being trimmed, said hanger being flexible and of a length whereby it may be bent to bring it beyond the top of the book.

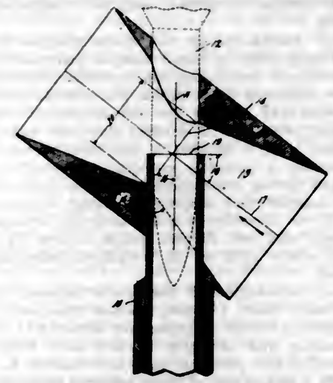
[Claim 6 not printed in the Gazette.]

1,133,656. NEBULIZING-NOZZLE. HOMER N. MOTSINGER, La Fayette, Ind., assignor to Motsinger Device Manufacturing Company, La Fayette, Ind., a Corporation of Indiana. Filed Jan. 29, 1914. Serial No. 815,155. (Cl. 137—80.)

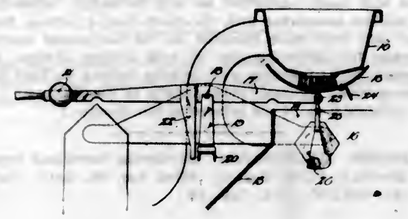
1. A nebulizer comprising a passage for gas having a sharply-defined plane of constriction, and a nozzle for liquid projected into the gas passage with its axis at an appreciable angle less than 90° to the plane of constriction on the inlet side of the gas passage and the axis of the nozzle intersecting the constriction plane.

2. A nebulizer comprising a passage for gas having a sharply-defined plane of constriction, and a nozzle for liquid projected into the gas passage with its axis at an appreciable angle less than 90° to the plane of constriction on the inlet side of the gas passage and the axis of the nozzle intersecting the constriction plane with the delivery end of the nozzle short of the intersection of the axis of the gas passage and the constriction plane.

3. A nebulizer comprising a passage for gas having a sharply-defined plane of constriction, and a nozzle for liquid projected into the gas passage with its axis at an appreciable angle less than 90° to the plane of constriction on the inlet side of the gas passage and the axis of the nozzle intersecting the constriction plane with the delivery end of the nozzle closely adjacent the intersection of the axis of the gas passage and the constriction plane.



1,133,657. AUTOMATIC COMPENSATOR FOR SCALES. JOSIAH NIELD, North Milwaukee, Wis., assignor, by mesne assignments, to W. & T. Avery Ltd., Birmingham, England. Filed Dec. 20, 1912. Serial No. 737,820. (Cl. 73—177.)



1. A compensator for automatic grain scales and the like, comprising a bucket operatively constructed to engage and be supported when filled with grain upon a portion of the weighing hopper of the scale, said bucket positioned in the path of the grain to said weighing hopper to be filled with the grain being weighed and having a capacity approximately equal to the column of grain in suspense at the time the supply is shut off, the weight of the contents of the bucket being borne by the weighing hopper of the scale when said bucket engages said weighing hopper.

2. A compensator for automatic grain scales and the like, comprising a bucket operatively constructed to engage and be supported when filled with grain upon a portion of the weighing hopper of the scale, said bucket positioned in the path of the grain to said weighing hopper to be filled with the grain being weighed and having a capacity approximately equal to the column of grain in suspense at the time the supply is shut off, the weight of the contents of the bucket being borne by the weighing hopper of the scale when said bucket engages said weighing hopper, and means for emptying the bucket at the commencement of the succeeding weighing operation so that the bucket may be refilled afresh with the grain being weighed.

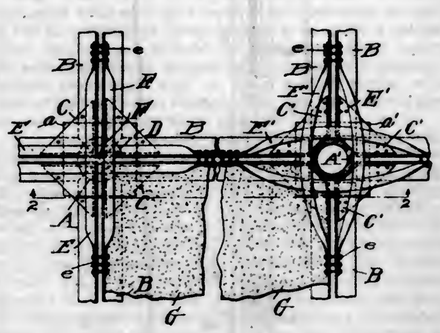
3. A compensator for automatic grain scales and the like, comprising a bucket positioned in the path of the grain to the weighing hopper of the scale to be filled with the grain being weighed and having a capacity approximately equal to the column of grain in suspense at the time the supply is shut off, and a suitably fulcrumed lever from which the buckets is suspended and by which the weight of the empty bucket is counterbalanced and adapted to engage the weighing hopper of the scale to impose the weight of the contents of the bucket upon said weighing hopper.

4. A compensator for automatic grain scales and the like, comprising a bucket positioned in the path of the grain to the weighing hopper of the scale to be filled with the grain being weighed and having a capacity approximately equal to the column of grain in suspense at the time the supply is shut off, a suitably fulcrumed lever from which the bucket is suspended and by which the weight of the empty bucket is counterbalanced, adapted to engage the weighing hopper of the scale to impose the weight of the contents of the bucket upon said weighing hopper, and a swinging door for the bucket adapted to be engaged by the feed gate of the scale on the opening movement thereof for discharging the contents of the bucket at the commencement of a weighing operation so that the bucket may be refilled with the grain being weighed.

5. A compensator for automatic grain scales and the like, comprising a bucket positioned in the path of the grain to the weighing hopper of the scale to be filled with the grain being weighed and having a capacity approximately equal to the column of grain in suspense at the time the supply is shut off, a suitably fulcrumed lever from which the bucket is suspended adapted to engage the weighing hopper of the scale to impose the weight of the contents of the bucket upon said weighing hopper, and a weight adjustably mounted on the lever to counterbalance the weight of the empty bucket.

[Claim 6 not printed in the Gazette.]

1,133,658. CONCRETE FLOOR CONSTRUCTION. ORLANDO W. NORCROSS, Worcester, Mass. Filed Sept. 30, 1914. Serial No. 864,349. (Cl. 72—70.)



1. A supporting structure for a concrete floor, comprising a series of supports radiating from a point in a horizontal plane and connected together at their adjacent ends, and a series of tie members each secured at its ends to two of said supports below the top thereof, that are located on opposite sides of said point and resting at their centers on the tops of supports located at an angle to those to which said tie members are secured and at the same height.

2. A supporting frame for a concrete floor comprising horizontal irons having vertical flanges radiating from a point, and flat metal bars, each secured at its ends in vertical position flat against the vertical flanges of two of said irons that are in alinement and twisted and resting at its center in horizontal position on the tops of others of said irons.

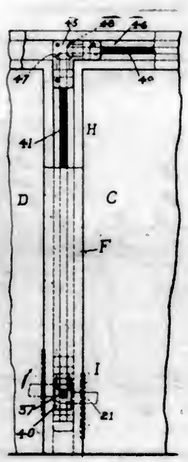
3. A supporting structure for a concrete floor comprising a column, a plurality of angle irons radiating from the column in a plane and placed with one flange horizontal and the other vertical, and a series of flat bars each arranged with its ends vertical and secured against the

vertical flanges of two opposite angle irons at a distance from the column, the central part of each bar lying horizontally over the tops of the ends of others of said angle irons.

4. A support for a concrete floor comprising a column, a plurality of angle irons arranged in pairs radiating therefrom and each placed with one flange vertical, horizontal gusset plates for securing the ends of said angle irons together at the column, and a series of pairs of flat bars each arranged with its ends vertical and secured to the vertical flanges of two of said angle irons which are in alinement with each other, the central part of each of said bars lying horizontally over the tops of others of said angle irons.

5. A supporting structure for a concrete floor comprising a column, a plurality of angle irons radiating from the column in a plane and placed with one flange horizontal and the other vertical, the inner ends of said angle irons resting on the column, a series of flat bars each arranged with its ends vertical and secured against the vertical flanges of two opposite angle irons at a distance from the column, the central part of each bar lying horizontally over the tops of the ends of others of said angle irons, and a series of vertical angle pieces riveted to the ends of said angle irons for securing them together over the column.

1,133,659. MECHANISM FOR LOCKING BATTERIES OF DOORS. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Dec. 26, 1912. Serial No. 738,672. (Cl. 16—63.)



1. The combination of two doors mounted to swing toward each other, a hollow mullion interposed between said doors and having slots in the respective side walls, one of said slots located higher than the other, a plate mounted within said mullion, a swinging bolt pivoted on said plate and having arms operating in the respective slots of the mullion, and adapted to protect through said slots when the bolt is turned into a definite position, said doors being provided at their edges with recesses to engage the terminals of the respective arms, and a key insertible into said mullion to actuate said bolt; substantially as described.

2. The combination of two doors mounted to swing toward each other, a hollow mullion intersposed between said doors, and comprising side members affording jambs for the doors, inner and outer panel members, and an interior stud member, the side members being provided with vertical slots, a plate within the mullion attached to said stud member, a double swinging bolt mounted on said plate and operating in said slots and adapted to engage recesses in the respective doors, and a key insertible into the mullion to actuate said bolt; substantially as described.

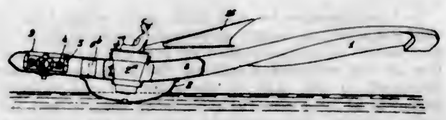
3. The combination of two doors mounted to swing toward each other, a hollow mullion interposed between said doors, and comprising side members affording jambs for the respective doors, inside and outside panels, and an interior stud member, the side members of said mullion being provided with vertical slots, one located above the other, a plate secured to said stud member within said mullion, a vertically swinging bolt pivoted on said plate and having arms operating in the respective slots of the mullion, and adapted to engage recesses in the edges of the respective doors, and a key to engage and turn said bolt, one of said panels having an opening through which said key is insertible; substantially as described.

4. The combination of two doors mounted to swing toward each other, a hollow mullion interposed between said doors, a double swinging bolt mounted in said hollow mullion and arranged to lock both doors simultaneously, a key insertible into said mullion to actuate said bolt, a second pair of doors mounted to swing toward each other, a hollow mullion interposed between the doors of said second pair, a second double swinging bolt mounted within second mullion and arranged to lock both doors of the second pair simultaneously, and transmission mechanism connecting said bolts whereby both may be actuated by a single movement of said key; substantially as described.

5. In a battery of fire exit doors, the combination of a pair of doors mounted to swing toward each other, a mullion interposed between said doors, a locking device for said doors supported on said mullion, a third door, a mullion associated with the third door, a locking device for said third door mounted on the last-named mullion, means for operating one of said locking devices, and means interconnecting said locking devices so that both are operated together; substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,133,660. HELICOPTER. ALPHONSE PAPIN and DIDIER ROUILLY, Paris, France. Filed Apr. 29, 1912. Serial No. 693,776. (Cl. 244—19.)



1. In a helicopter, the combination of a hollow rotating screw propeller, having conduits therein which open into the atmosphere through nozzles arranged at the ends of the screw propeller wings, substantially in a tangential direction to the circle described by said nozzles, a fan carried by the screw propeller and adapted to suck in air from the atmosphere and impel the same through the conduits and nozzles, a motor carried by the screw propeller and adapted to drive the fan and a car rotatably mounted on the screw propeller, substantially as described and for the purpose set forth.

2. In a helicopter, the combination of a single hollow rotation propeller wing having a conduit therein which opens into the atmosphere through nozzles arranged at the end of the wing substantially in a tangential direction to the circle described by said nozzles, a car around which the wing is adapted to rotate and blower means adapted to suck in air from the atmoaphere and impel the same through the conduit and nozzles, said blower means being carried on the wing on the end of the wing remote from the nozzle carrying end, substantially as described and for the purpose set forth.

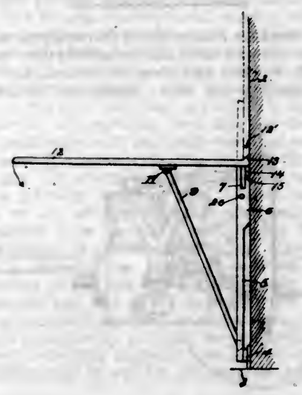
3. In a helicopter, the combination of hollow rotating propeller wings having conduits therein which open into the atmosphere through nozzles arranged at the end of the wings substantially in a tangential direction to the circle described by said nozzles, a car around which the wings are adapted to rotate, blower means carried by the rotating propeller wings and adapted to suck in air from the atmosphere and impel the same through the conduits and nozzles, the propeller wings having a central boss beneath the car, which is adapted to act as a support for the helicopter when it is resting on water or on the ground, substantially as described and for the purpose set forth.

4. In a helicopter the combination of hollow rotating propeller wings having conduits therein which open into the atmosphere through nozzles arranged at the end of the wings substantially in a tangential direction to the circle described by said nozzles, a car around which the wings are adapted to rotate, blower means adapted to suck in air from the atmosphere and impel the same through the conduits and nozzles and a register located in said conduits for the regulation of the air pressure, substantially as described and for the purpose set forth.

5. In a helicopter the combination of hollow rotating propeller wings having conduits therein which open into the atmosphere through nozzles arranged at the end of the wings substantially in a tangential direction to the circle described by said nozzles, a car around which the wings are adapted to rotate, blower means adapted to suck in air from the atmosphere and impel the same through the conduits and nozzles the motive part of said blower means including a gas or internal combustion engine and means for leading the exhaust gases of the engine into the air conduits for heating the air, substantially as described and for the purpose set forth.

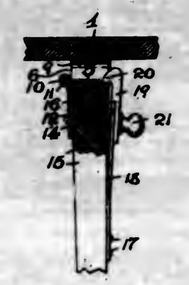
[Claim 6 not printed in the Gazette.]

1,133,661. IRONING-BOARD. ANDREW L. PAYNE, Marion, Ohio. Filed Apr. 11, 1911. Serial No. 620,298. (Cl. 68—10.)



A collapsible ironing board including a pair of vertically disposed supporting members adapted to be fixed to a wall in fixed spaced relation to each other, an enlarged head formed integrally with each of said supporting members and provided with an inverted L-shaped slot, a pair of cross bars adapted to be secured to the wall and arranged horizontally and in parallel relation to each other adjacent the ends of the said vertical supporting members, a supporting leg hingedly secured to the lower of said cross bars, an ironing board hinged to the free end of said supporting leg, a transversely disposed upwardly projecting locking rib carried at the inner end of said ironing board and adapted to engage in the assembled position of the ironing board with the adjacent beveled edge of the said upper cross bar, and a locking bar having a pair of spaced longitudinally extending notches formed in one side, said locking bar being adapted for disposition in the lateral legs of the said L-shaped slots of the vertical supporting members when the ironing board is in assembled position, said locking bar being further adapted for disposition in the vertical legs of said L-shaped slots when the ironing board is in folded position.

1,133,662. SUPPORTING ATTACHMENT FOR IRONING-BOARDS, TABLES, BENCHES, AND THE LIKE. MICHAEL PETRIE, Irvington, N. J. Filed May 22, 1914. Serial No. 840,152. (Cl. 45—11.)

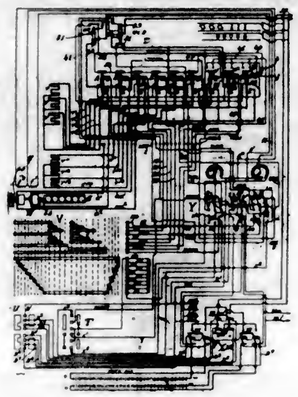


1. A support for ironing boards, tables or benches, comprisig a plate-like element adapted to be attached to and having its main body spaced away from the back of the ironing board, table or bench, a hinge-member pivotally connected with said main body of said plate-like element, a leg to which said hinge-member is secured, a spring-latch also secured to said leg, said spring-latch having an engaging member adapted to be sprung into separable holding engagement with the upper surface of said main body of said plate-like element when said leg is moved into its supporting or operative position.

2. A support for ironing boards, tables or benches, comprising a plate-like element adapted to be attached to the back of the ironing board, table or bench, said plate-like element being provided with angularly bent members forming with the back of the ironing board, table or bench a receiving space, a hinge-member pivotally connected with each angularly bent member, a leg connected with each hinge-member, and a spring-latch also secured to each leg, said spring-latch having an engaging member adapted to be sprung into said receiving space and over an angularly bent member in separable holding engagement therewith when said legs are moved into supporting or operative positions, and means for retracting said spring-latches.

3. A support for ironing boards, tables or benches, comprising a plate-like element adapted to be attached to the back of the ironing board, table or bench, said plate-like element having its main portion angularly bent in opposite directions, each angularly bent portion being provided with another bent portion, all arranged to form with the back of the ironing board, table or bench a receiving space, and perforated fastening ears extending outwardly from said last-mentioned bent portions, pintle-receiving members extending from the said first-mentioned angularly bent members of the plate-like element, pintles mounted in said pintle-receiving members, a hinge-member pivotally connected with each pintle, supporting legs to which said hinge-members are secured, and a spring-latch also secured to each leg, said spring-latches having engaging members adapted to be sprung into said receiving space and in separable holding engagement with the said first-mentioned angularly bent members of the said plate-like element.

1,133,663. DISTANT CONTROL SYSTEM FOR ELECTRIC MOTORS. GEORGE A. PIERCE, Philadelphia, Pa., assignor to William Cramp & Sons Ship & Engine Building Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 9, 1911. Serial No. 643,160. (Cl. 172—8.)



1. In a power generating system, the combination of a plurality of motors, a storage battery, magnetically operated contactors, comprising lifting coils, adapted to connect the motors in series and parallel relations, a circuit for supplying current to the fields of said motors, a distant master controller adapted to control the contactors and means controlled by said controller for supplying current from said battery to the said lifting coils and means controlled by said controller for supplying battery current to the fields of said motors in both forward and reverse operation of the motors, an equalizing resistance and adjusting switching means separate from said contactors and controller for balancing the motor loads.

2. In a power generating system, a plurality of motors, magnetically operated contactors for connecting the motors in series and parallel relations, a source of current supply, all at a common point or station, motor field resistance, a distant master controller for the contactors adapted to vary the motor field resistance and operate the contactors for series or parallel relation of the motors, and field discharging and load equalizing resistance in the several motor field circuits, which field circuits are governed by the master controller.

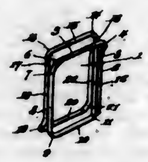
3. An operating system for electric motors, comprising a plurality of electric motors, a supply circuit, a group of contactors, for connecting the motors in series or parallel relation to the supply circuit, control circuits for said contactors, an overload relay comprising a potential winding connected across the supply circuit, a winding in series in the supply circuit, and a switch in the control circuit for the parallel contactors, a master controller governing the contactors, said controller comprising a contact for resetting the overload relay when the controller goes to off position.

4. An operating system for electric motors comprising a plurality of electric motors, a source of supply and a main circuit for supplying said motors extending from said source, a group of contactors for connecting the motors to said main circuit and in series or parallel relation, control circuits extending from said source for operating said contactors, a master controller governing said control circuits and an overload relay for opening the main and control circuits, said controller comprising means for resetting the relay at the master controller when it goes to off position.

5. An operating system for electric motors comprising a plurality of electric motors, a storage battery and a main circuit for carrying current between said motors and said battery, a group of magnetically operated contactors for connecting the motors to the main circuit and in series or parallel relation to each other, a distant controller for the contactors, control circuits extending from said controllers to the contactors, an overload relay for opening both the main and control circuits and a reverse current relay having coils opposing each other when current flows from the motors (as generators) to the battery, one of the said coils being connected in series in the main circuit, and the other across the main circuit, said reverse current relay being adapted to open both the main and control circuits on current reversal.

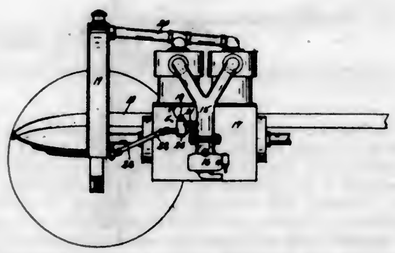
[Claims 6 to 11 not printed in the Gazette.]

1,133,664. PAPER-CLIP. ROY L. PLUMMER, Edinburg, Ill. Filed Mar. 13, 1913. Serial No. 754,037. (Cl. 24—261.)



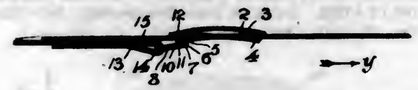
A substantially rectangular clip capable of being arranged upon the article to be fastened from any of the four sides, said clip comprising a single strand of resilient wire bent equi-distant its ends to form duplicate clamping jaws, the central portion of the said strand forming the connecting portion of the jaws of the clip, the ends of the respective jaws being oppositely flared to facilitate arrangement of the clip over the article to be fastened, as and for the purpose set forth.

1,133,665. MEANS FOR SUPPLYING WATER TO FUEL CHARGE OF INTERNAL-COMBUSTION MOTORS. IRVING D. POWERS and JOHN W. BURNS, Los Angeles, Cal. Filed July 15, 1914. Serial No. 851,211. (Cl. 123—25.)



The combination of an internal combustion motor having a carbureter and a manifold, a radiator, a member formed to provide a chamber, a valve chamber, and a passageway leading from the chamber to the valve chamber, a spring-pressed ball in the valve chamber adapted to cover said passageway, a tube connecting said member with the manifold at a point above the carbureter, said tube being in communication with said valve chamber, piping connected between said member and the water zone of said radiator, a screen arranged in said member to strain water passing into said chamber from the piping, and a screw cover fitted on said member to permit access to said chamber, substantially as described.

1,133,666. BELT CLASP OR BUCKLE. THOMAS F. PRYOR, Jr., South Orange, N. J., assignor to B. M. Shanley, Jr. Co., a Corporation of New Jersey. Filed Feb. 18, 1914. Serial No. 819,592. (Cl. 24—191.)



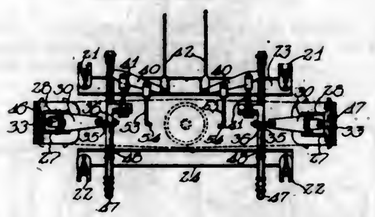
1. In a belt-buckle, a main body comprising a convexly formed face-plate and longitudinally extending guide-flanges projecting from the rear face of said face-plate, at the marginal edge-portions thereof, bar-like members connected with the respective end-portions of said guide-flanges, said bar-like members extending laterally across the rear face of said face-plate and forming with the respective end-portions of the face-plate strap-receiving and guiding spaces, pintle-receiving ears connected with one of the laterally extending marginal edges of one of said bar-like members, combined with a loop-shaped member to which an end of a belt-strap is adapted to be attached, pintle-receiving ears extending from said loop-shaped member into registration with the pintle-receiving ears of said bar-like member, a pintle extending through the said registering ears, all arranged so that the said loop-shaped member is pivotally connected with relation to the said face-plate at one laterally extending edge-portion thereof and is adapted to be projected longitudinally beyond the said edge-portion of the face-plate in the clamping position, and a clamping means connected with the said loop-shaped member and adapted to be moved against a belt-portion arranged back of the said face-plate for pinching the belt-portion against the laterally extending marginal edge-portion of the face-plate, substantially as and for the purposes set forth.

2. In a belt-buckle, a main body comprising a convexly formed face-plate and longitudinally extending guide-flanges projecting from the rear face of said face-plate, at the marginal edge-portions thereof, bar-like members connected with the respective end-portions of said guide-flanges, said bar-like members extending laterally across the rear face of said face-plate and forming with the respective end-portions of the face-plate strap-receiving and guiding spaces, pintle-receiving ears connected with one of the laterally extending marginal edges of one of said bar-like members, combined with a loop-shaped member to which an end of a belt-strap is adapted to be attached, pintle-receiving ears extending from said loop-shaped member into registration with the pintle-receiving ears of said bar-like member, a pintle extending through the said registering ears, all arranged so that the said loop-shaped member is pivotally connected with relation to the said face-plate at one laterally extending edge-portion thereof and is adapted to be projected longitudinally beyond the said edge-portion of the face-plate in the clamping position, and a clamping jaw extending angularly from the hinged portion of the said loop-shaped member and laterally across the rear face of the face-plate, said jaw being adapted to be moved against a belt-portion arranged back of the said face-plate for pinching the belt-portion against the laterally extending marginal edge-portion of the face-plate, substantially as and for the purposes set forth.

1,133,667. LOAD-REGULATED BRAKE MECHANISM. WILLARD G. RANSOM, Davenport, Iowa. Filed Jan. 22, 1912. Serial No. 672,594. (Cl. 188—43.)

1. In a load regulated brake mechanism, a power rod, a brake lever and lifting devices, a longitudinal floating lever connected intermediately of its ends to the lifting devices, at one end to the power rod and at its opposite end to the brake lever, and means whereby said floating lever fulcruma about one point under certain load conditions and about a second point under other load conditions.

2. A load regulated mechanism for cars, comprising a car truck having side frames, brake shoes carried by said truck, means for moving said shoes toward and from the car wheels, said means including a floating lever, a connection from one end of said lever to the brake-actuating power, a connection from the other end thereof to the brake shoes, a weight-lifting lever, pivotal connections from an intermediate point on said floating lever to said weight-lifting lever, and means whereby said floating lever pivots about the point of connection to said weight-lifting lever under certain load conditions, and about a second point under other load conditions.



3. A load regulated brake for cars, comprising a car truck having side frames, brake shoes carried by said truck, means for moving said shoes toward and from the car wheels, said means including a floating lever, a connection from one end of said lever to the brake-actuating power, a connection from the other end thereof to the brake shoes, a weight-lifting lever, a bell crank having one arm connected to said weight-lifting lever and the other end connected to an intermediate point on said floating lever, and means whereby said floating lever pivots about the point of connection to said weight-lifting lever under certain load conditions, and about a second point under other load conditions.

4. A load regulated brake for cars, comprising a car truck having side frames, a bolster, bolster springs supporting the ends of said bolster in said side frames, a weight-lifting lever operating to lift said bolster from said springs, brake shoes, means for moving said shoes to and from the car wheels, and means whereby the power applied to said shoes is controlled by said weight-lifting lever.

5. A load regulated brake for cars, comprising a car truck having side frames, a bolster, bolster springs, a spring cap resting on top of said springs and supporting the ends of said bolster in said side frames, a weight-lifting lever operating to lift said bolster from said spring cap, brake shoes, means for moving said shoes to and from the car wheels, and means whereby the power applied to said shoes is controlled by said weight-lifting lever.

[Claims 6 to 20 not printed in the Gazette.]

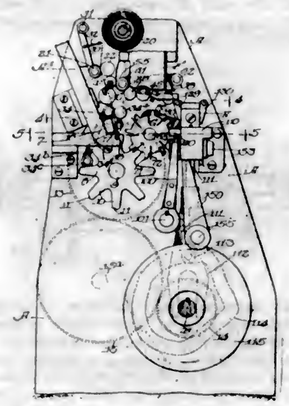
1,133,668. CHEWING-GUM-WRAPPING MACHINE. FRANK B. REDINGTON and MICHAEL J. MILMOE, Chicago, Ill., assignor, by mesne assignments, to Package Machinery Company, Springfield, Mass., a Corporation of Massachusetts. Filed Mar. 22, 1913. Serial No. 756,087. (Cl. 93—2.)

1. The combination of a holder for a supply of articles to be wrapped, means for removing the articles from the supply and maintaining them continually in motion, means for interposing a wrapper in the path of movement of the article, and stationary means for partially folding the wrapper about the said article while it is being moved by said article removing means.

2. The combination of a holder for a supply of articles to be wrapped, means for removing an article from the supply and maintaining it continually in mition, means for interposing a wrapper in the path of the article, and stationary means adjacent the path of movement of the article for partially folding the wrapper about the article, while it is being moved by said article removing means.

3. The combination of a holder for a supply of articles to be wrapped, means for removing an article from the supply and maintaining it continually in motion, means for interposing a wrapper in the path of the article, sta-

tionary means adjacent the path of movement of the article for partially folding the wrapper about the article while it is being moved by said article removing means, and means for assembling a plurality of wrapped articles in a group and discharging the group.

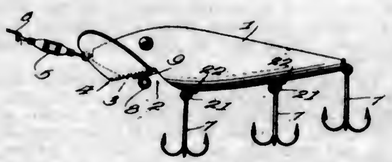


4. The combination of a holder for a supply of articles to be wrapped, means for removing an article from the supply and maintaining it continually in motion, means for interposing a wrapper in the path of the article, stationary means adjacent the path along which the article is moved by said article removing means for partially folding the wrapper about the article, means for assembling a plurality of wrapped articles in a group and discharging the group, and means for reversing one of said articles with respect to the rest of the articles in the group.

5. The combination of a magazine for holding a supply of articles to be wrapped, means for successively withdrawing the articles from said magazine, means for interposing a wrapper in the path of the moving article, means for partially folding the wrapper of said article, means for reversing the article and simultaneously making additional folds in the wrapper about the article, and means for ejecting the article and simultaneously completing the folding of the wrapper about said article.

[Claims 6 to 75 not printed in the Gazette.]

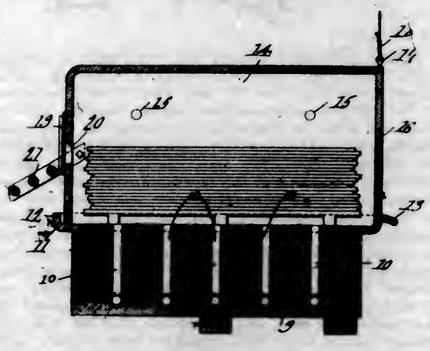
1,133,669. ARTIFICIAL BAIT. JAMES W. REYNOLDS, Chicago, Ill. Filed Apr. 16, 1914. Serial No. 832,235. (Cl. 43—30.)



1. An artificial bait including a body representing a fish and having a downwardly and forwardly inclining surface on the forward portion of its under side, a fin, means for securing said fin to said inclined surface, and a hook carried by said body.

2. An artificial bait including a body representing a fish and having a downwardly and forwardly inclining surface on the forward portion of its under side, an attaching screw entering said inclining surface, and having a head, a triangular attaching plate having a slot opening through its rear edge, and adapted to straddle said screw between its head and said surface, upwardly and outwardly inclining deflecting plates rising from the remaining edges of the plate and projecting forward of the body, and a number of hooks depending from the body.

1,133,670. PROCESS OF FINISHING METAL SHEETS OR PLATES. AMBROSE RIDD, Brackenridge, Pa. Filed Dec. 22, 1913. Serial No. 808,244. (Cl. 148—41.)



1. The process herein described of preparing metal sheets or plates, which consists in subjecting said sheets or plates to an annealing heat, reducing said heat, checking the reduction at an intermediate degree, maintaining the heat at said intermediate degree in a non-oxidising atmosphere, subjecting the plates to a heated non-oxidising fluid while maintained at such intermediate degree, and finally exposing the sheets or plates uniformly throughout their surfaces to an oxidising agent.

2. The process herein described of preparing metal sheets or plates, which consists in subjecting said sheets or plates to an annealing heat, reducing said heat, checking the reduction at an intermediate degree, maintaining the heat at said intermediate degree in a non-oxidising atmosphere, subjecting the plates to a heated non-oxidising fluid while maintained at such intermediate degree, and finally exposing the sheets or plates uniformly to the surrounding atmosphere for oxidizing.

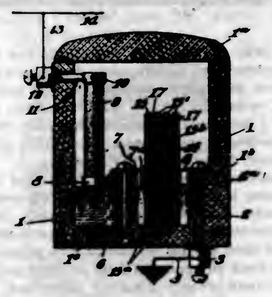
3. The process herein described of preparing metal sheets or plates, which consists in subjecting said sheets or plates to an annealing degree of heat and out of contact with the atmospheric air, subjecting said sheets or plates to a lower degree of heat and out of contact with the atmospheric air and simultaneously to a heated non-oxidizing fluid, and finally subjecting said sheets or plates to the atmospheric air to produce an even oxidization of the surfaces.

4. The process herein described of preparing metal sheets or plates, which consists in placing the sheets or plates in an annealing box and subjecting them to an annealing degree of heat without contact with the atmospheric air, removing the sheets or plates in bulk and placing them in a heat retaining receptacle which has been previously heated at a lower degree than for annealing, said second receptacle maintaining the sheets or plates out of contact with the atmospheric air, removing the sheets or plates from the last receptacle and exposing them to the atmospheric air for axidization.

5. The process herein described of preparing metal sheets or plates, which consists in subjecting the sheets or plates contained within an annealing box to an annealing furnace, withdrawing the box and sheets when red hot, removing the sheets or plates and placing them in a previously heated second box, said second box having been heated to approximately the heat of the plates when removed from the annealing furnace, the sheets or plates being retained therein and out of contact with the atmospheric air, introducing a heated non-oxidising fluid and removing the sheets or plates and exposing them to the air to oxidize them.

[Claims 6 and 7 not printed in the Gazette.]

1,133,671. METHOD OF AND APPARATUS FOR ARRESTING ELECTRIC CURRENTS. ALFRED ROBERTS SHARPLES, Philadelphia, Pa., assignor to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 7, 1912. Serial No. 702,156. (Cl. 175—30.)



1. The method of arresting the flow of an electric current following a high potential discharge across a gap which consists in feeding a limited amount of a non-conducting fluid to said gap and destroying the arc by its vaporization of said fluid.

2. In a current arresting apparatus, the combination of a container, a non-conducting liquid therein, and means comprising carbon electrodes whereby a spark gap is formed above the surface of said liquid and said liquid is fed to said spark gap.

3. In a current arresting apparatus, the combination of a container, a body of carbon tetrachlorid in said container, and means for forming a spark gap and feeding a limited amount of said carbon tetrachlorid to said spark gap.

4. In a current arresting apparatus, the combination of a container, a body of non-conducting liquid in said container and means comprising porous electrodes for forming a spark gap above said body and feeding liquid from said body to said spark gap.

5. In a current arresting apparatus, the combination of a container, a body of non-conducting liquid containing a halogen element in said container, said liquid being capable of eliminating a spark and means providing a pair of electrodes forming a spark gap above the surface of said body and for feeding said liquid to said gap.

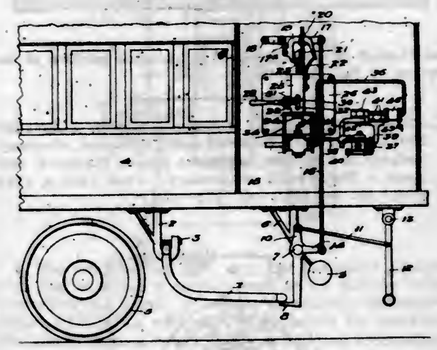
[Claims 6 to 13 not printed in the Gazette.]

1,133,672. PACKING-RING. FRANK SIMONS, St. Louis, Mo. Filed Oct. 12, 1914. Serial No. 866,187. (Cl. 121—108.)



A packing ring comprising a transversely split base-ring, bearing a pair of flanges of relatively greater and less depth, said flanges being adapted to form a peripheral groove in the outer surface of said base-ring, a second transversely split ring bearing a member depending from its inner surface and, also, bearing a lateral extension, said second ring with its depending member and lateral extension being L-shaped in cross section, said depending member being adapted to seat in and substantially fill said groove and the under side of said lateral extension being adapted to be adjacent to the upper edge of the shallower of said flanges, the outer surface of said second ring and its extension being adapted to form a flush surface with the upper edge of the deeper of said flanges, and means borne by said base-ring adapted to maintain the gap formed by the transverse split in the second ring, and the gap formed by the transverse split in the base-ring in spaced relation to each other, comprising a pin borne by the flange of the first-mentioned ring and extending substantially across the peripheral groove, whereby the circumferential motion of the second mentioned ring is prevented.

1,133,673. AUTOMATIC FENDER AND BRAKE. WILLIAM M. SMITH, Evansville, Ind. Filed Nov. 10, 1914. Serial No. 871,334. (Cl. 105—250.)



1. In an automatic fender and brake, the combination with a fender, of a hand-operated air-brake controlling valve adapted for normal use without effect on the fender, air-operated means for operating the said air-brake controlling valve, and means operated when the fender is struck which in turn controls the operation of the air operated means without interfering with normal free hand-operation of the said valve for usual braking purposes, whereby the said air brake valve is automatically operated and the air brakes are applied when the fender is struck.

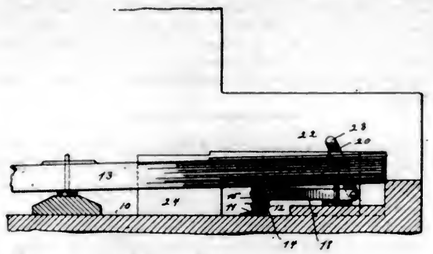
2. In an automatic fender and brake, the combination with a drop fender, of a trip, sustaining means for the fender, operatively connected to the trip, a hand-operated air-brake controlling valve adapted for normal use without effect on the fender, and air operated means controlled by the trip adapted to shift the said valve, whereby the air brakes are automatically applied when the fender is released.

3. In an automatic fender and brake, the combination with a drop fender, of a rockable hook, a counterweight connected thereto adapted to normally position the hook to engage the fender, a depending swinging trip or guard, a connection between the guard and the hook, an arm connected to the hook, air brake controlling means, and a rod connecting the arm to the air brake controlling means, whereby the latter is set into operation when the trip is struck by an object.

1,133,674. KEY-LOCKING MEANS FOR PLAYER-PIANOS. AUGUST STAHL, New York, N. Y., assignor to William Tonk & Bro. Inc., New York, N. Y., a Corporation. Filed Mar. 11, 1914. Serial No. 823,875. (Cl. 84—58.)

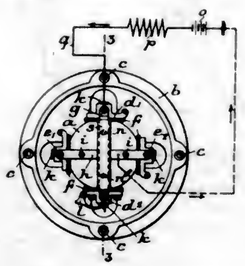
Key locking means for player pianos comprising a key frame, a row of keys mounted on the frame, a mortised key block fast on the frame and flanking one of the end keys of said row, a cheek flanking said key block, a tiltable locking rail extending underneath all of said keys, a freely oscillatable hand lever pivoted to the cheek and extending into the key block-mortise, and a link accommo-

dated within said mortise and operatively connecting the hand lever to the locking rail, whereby the keys may be



maintained in either a locked or unlocked position at the option of the operator.

1,133,675. REVERSING MECHANISM FOR ELECTRIC MOTORS. HERMANN STEINHART, Stuttgart, Germany, assignor to the Firm of Robert Bosch, Stuttgart, Germany, a Corporation of Germany. Filed June 4, 1914. Serial No. 842,818. (Cl. 172—179.)



1. In a multipolar motor of the series type, a reversing mechanism comprising a plurality of insulated brush holders equal in number to the number of poles in the motor, an insulated conducting member electrically connected to the brush holders of one polarity, and a grounded conducting member electrically connected to the brush holders of opposite polarity, said conducting members being interchangeable to reverse the direction of rotation of the motor.

2. In a multipolar motor of the series type, a reversing mechanism comprising a grounded supporting member, a plurality of brush holders supported by but insulated from the supporting member and being equal in number to the number of poles in the motor, a conducting member electrically connected to the brush holders of one polarity and insulated from the supporting member, and a second conducting member electrically connected to the brush holders of opposite polarity and to the supporting member, said conducting members being interchangeable to reverse the direction of rotation of the motor.

3. In a multipolar motor of the series type, a reversing mechanism comprising a grounded supporting member, a plurality of brush holders supported by but insulated from the supporting member and being equal in number to the number of poles in the motor, a conducting member electrically connected to the brush holders of one polarity by disengageable fastening devices and also being electrically connected to one terminal of the field winding, but being insulated from the supporting member, and a second conducting member electrically connected by disengageable fastening devices to the brush holders of opposite polarity and also to the supporting member, said conducting members being interchangeable to reverse the direction of rotation of the motor.

1,133,676. RAKE. CHARLES C. STEVENS, Saginaw, Mich. Filed Feb. 9, 1914. Serial No. 817,553. (Cl. 55—146.)



1. In a rake of the class described, the combination with a rake-head and handle connected thereto, of a rake-tooth cleaner pivotally suspended, at its ends only, and adapted to swing freely from said rake-head, said cleaner comprising a horizontally-disposed head-bar having downwardly-extending teeth thereon, the points of suspension of said cleaner being above the head-bar.

2. In combination with a rake-head and handle connected thereto, a pair of brace-members secured at one end to said handle and at their opposite ends to said rake-head, a supporting lug formed with an opening and projecting from each of said brace-members adjacent the ends of the rake-head and substantially at right-angles thereto, and a rake-tooth cleaner hingedly supported, at its ends only, upon said lugs.

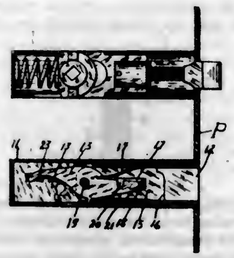
3. In a rake, the combination of a rake-head having a pair of projecting lugs arranged at the ends thereof, a rake-tooth cleaner comprising a horizontally-disposed head-bar formed with downwardly-extending teeth and having laterally projecting spindles arranged above said head-bar, said spindles loosely received in said lugs for hingedly suspending said cleaner from the ends of the rake-head, to permit free oscillation of said cleaner when the rake is operated.

4. The combination with a rake-head and handle, of a pair of brace-bars extending from the handle to the rake-head and bent at their ends to form lugs adjacent the ends of the rake-head, a tooth-cleaner comprising a head-bar having teeth and having laterally projecting spindles at its ends, said spindles being located higher than the head-bar of the cleaner and adapted to be loosely received in the openings of said lugs, the teeth of said cleaner adapted to project between the teeth of the rake-head.

5. A rake-cleaner comprising a horizontally disposed head-bar provided with downwardly extending teeth and having laterally projected V-shaped spindles arranged at a point higher than the head-bar of the cleaner, substantially as shown and for the purpose specified.

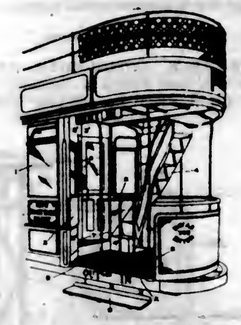
[Claim 6 not printed in the Gazette.]

1,133,677. LOCK. LUIGI TADDEO, Cleveland, Ohio. Filed October 26, 1912. Serial No. 727,942. (Cl. 70—75.)



A lock of the type set forth comprising a casing, a bolt slidably mounted within said casing, means pivotally mounted on said bolt for advancing and retracting said bolt and for locking said bolt in the advanced or retracted position, said means comprising a plurality of tumblers pivotally mounted on said bolt, one end of said tumblers adapted to engage a stationary member in said casing and the other end of said tumblers adapted to be engaged by a key for operating said levers, said key adapted to release and advance or retract said bolt through the medium of said tumblers, all substantially as and for the purpose set forth.

1,133,678. PASSENGER-VEHICLE. ARNOLD JAMES TANNER, London, England, assignor to Prepayment Car Sales Company, New York, N. Y., a Corporation of West Virginia. Filed June 10, 1913. Serial No. 772,739. (Cl. 105—199.)



1. A passenger vehicle having a body portion, a platform, an intervening angular or curved shaped bulkhead extending inwardly and longitudinally toward the inclosed interior or saloon of the vehicle, a centrally located opening in said bulkhead and a barrier or guide rail mounted on the platform extending from the platform steps to a point approximately central but away from the opening.

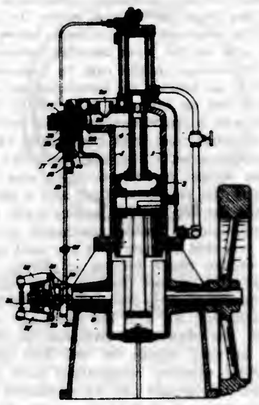
2. A passenger vehicle having a body portion, a platform, an intervening angular or curved shaped bulkhead extending inwardly and longitudinally toward the inclosed interior or saloon of the vehicle, a centrally located opening in said bulkhead, a barrier or guide rail mounted on the platform extending from the platform steps to a point approximately central but away from the opening, and a stairway situated at one side of the platform, the bottom step of the stairway being in close proximity to one side of the opening in the bulkhead and facing a defined exit passage leading to the exit step at the opposite side of the platform.

3. A passenger vehicle having a body portion, a platform, a bulkhead intervening between the body portion and the platform, a rail mounted on the platform defining separate exit and entrance spaces and a conductor's station on the platform, said station being elevated by means of an extension of the flooring of the interior of the car, and a stairway situated in close proximity to one side of the bulkhead, the lower step of the stairway being directly in line with the exit from said platform.

4. A passenger vehicle having a body portion, a platform, an intervening bulkhead provided with a centrally located doorway, a rail mounted on the platform and extending partially across the same for defining separated entrance and exit spaces or passages on the platform, a stairway situated on one side of the platform within the entrance space in close proximity to the said bulkhead, the bottom step of the stairway facing the exit passage leading from said step to the exit step at the opposite side of the platform.

5. A passenger vehicle having a body portion and a platform with an intervening bulkhead, a rail on the platform for defining separate ingress and egress spaces thereon and establishing a conductor's position, a stairway situated within the entrance space on the platform in close proximity to the said bulkhead, and a defined exit passage between the bulkhead and the end of the said rail, said exit passage leading from the bottom step of the stairway to the exit step of the opposite side of the platform.

1,133,679. GOVERNOR FOR INTERNAL-COMBUSTION ENGINES. CHARLES HAROLD TAYLOR, Mere, England, assignor of one-half to Richard Wilson Courtice, Bloemfontein, Orange Free State, South Africa. Filed Aug. 13, 1914. Serial No. 856,699. (Cl. 123—123.)



1. The combination with a spring controlled plunger with limited stroke a suction valve and a delivery valve controlling the supply of fuel to an internal combustion engine, of a spring controlled lever member for operating the said plunger, a rotary reciprocating cam mounted on the engine shaft and having a slanting depression on same below its normal perimeter, an arm on the lever member coöperating with the slanting depression on the cam to regulate the delivery stroke of the fuel plunger, a centrifugal governor boss adjoining the said cam attached to and rotating about the same shaft in unison with the cam, weighted angular levers pivoted on the said governor boss and connected directly to slots in the cam boss, and a spring encircling the engine shaft interposed between the cam boss and the governor boss, substantially as and for the purpose set forth.

2. The combination with a spring-controlled fuel admission device and spring-controlled air injecting device on an internal combustion engine, of a spring-controlled lever member for operating the said devices, a rotary reciprocating member controlling oscillation of the lever member and having its rotation in fixed ratio to the speed of the engine, a projection at one place on the rotary member, a surface at a second place on same which slants relatively to the direction of reciprocation, an arm on the lever member controlling the fuel admission device through the medium of the slanting surface on the rotary member, an arm on the lever member operating the air injection device through the medium of the projection on the rotary member, and means for varying the reciprocatory position of the rotary member in accordance with the speed of the engine.

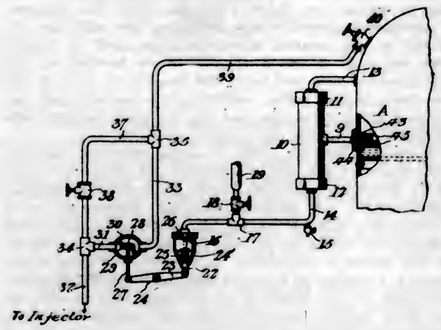
3. The combination with a spring-controlled fuel admission device and a spring-controlled air injecting device on an internal combustion engine, of a spring-controlled lever member for operating the said devices, a rotary member controlling oscillation of the lever member, a sliding connection between the rotary member and its supporting shaft, a projection at one place on the rotary member, a surface at a second place on same which slants relatively to the direction of reciprocation, an arm on the lever member controlling the fuel admission device through the medium of the slanting surface on the rotary member, an arm on the lever member operating the air injecting device through the medium of the projection on the rotary member, and a centrifugal governor connected to and rotating in unison with the rotary member so that the longitudinal position of the latter on its sup-

port is dependent upon the speed of rotation, substantially as described herein.

4. The combination with a spring-controlled fuel admission device and spring-controlled air injecting device on an internal combustion engine, of a spring-controlled lever member for operating the said devices, a cam on the engine shaft having a sliding connection thereto, a projection at one place on the cam above its normal perimeter, a slanting depression on the same below its normal perimeter, an arm on the lever member coöperating with the slanting depression on the cam to regulate the fuel admission device, an arm on the lever member coöperating with the projection on the cam to regulate the air admission device, and a centrifugal governor carried by the engine shaft in connection with the sliding cam thereon.

5. The combination with a spring-controlled plunger of limited suction stroke a suction valve and a delivery valve controlling the supply of fuel, and a spring closed valve controlling the supply of injection air to an internal combustion engine, of a spring controlled lever member for operating the said plunger and the said air valve, a cam on the engine shaft having a sliding connection thereto, a projection at one place on the cam above its normal perimeter, a slanting depression on the same below its normal perimeter, an arm on the lever member cooperating with the slanting depression on the cam to regulate the delivery stroke of the fuel plunger, an arm on the lever member coöperating with the projection on the cam to regulate the air admission valve, and a centrifugal governor carried by the engine shaft in connection with the sliding cam thereon.

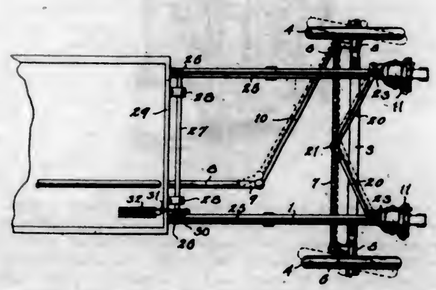
1,133,680. SAFETY BOILER ATTACHMENT. DANIEL O. TILMAN and OTTO C. SCHEIBNER, Parsons, Kans. Filed Sept. 25, 1911. Serial No. 651,167. (Cl. 236—14.)



1. In a device of the character described, the combination of a cylindrical housing made of material sensitive to heat, a diaphragm within said housing less sensitive to heat and in water-tight connection with said housing at a predetermined temperature, means to support said disk within said housing, an exit pipe extending from said housing, a bib within said exit pipe, a spring operated plunger connected to said exit pipe, a throttle valve, means to connect said plunger to said valve, a supply pipe entering said valve, an escape pipe extending from said valve, and a valve within said exit pipe connected to an audible signal.

2. In combination, a cylindrical housing made of metal sensitive to heat, a disk within said cylindrical housing less sensitive to heat and in water-tight connection therewith at a normal temperature, an intake pipe entering said cylindrical housing above said disk, a live steam pipe extending from the upper end of said cylindrical housing, an exit pipe extending from the lower end of said cylindrical housing, a winged chair below said disk and supporting the same, a winged chair upon said disk, said chairs determining the location of said disk within said cylindrical housing, a valve within said exit pipe, a whistle extending from said escape valve, a drain bib communicating with said exit pipe, a cylinder at the end of said exit pipe, a piston within said cylinder, a rock lever actuated at times by said piston, a normally closed check valve, said rock lever being attached to said normally closed throttle valve, an intake pipe entering said normally closed valve, and an exit pipe extending from said normally closed valve, all arranged to operate substantially as and for the purpose set forth.

1,133,681. DIRIGIBLE AUTOMOBILE-HEADLIGHT. LEE C. THOMPSON and JAMES A. GARRIS, Albion, Pa. Filed Oct. 29, 1914. Serial No. 869,229. (Cl. 240—62.)



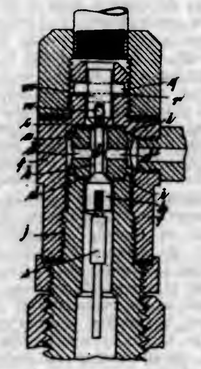
1. A dirigible lamp for motor vehicles including a lamp, a standard carrying the lamp, a vertical shaft journaled upon the motor vehicle so as to turn about a vertical axis and having the standard hingedly connected thereto so as to swing about horizontal axis, means for rotating the vertical shaft to turn the lamp laterally, a socket plate applied to the lamp, a rod terminating in a ball engaged by the socket plate, and means for manipulating the rod to tilt the lamp vertically.

2. A dirigible lamp for motor vehicles including a lamp, a standard carrying the lamp, a vertical shaft journaled upon the motor vehicle so as to turn about a vertical axis and having the standard hinged thereto so as to swing about a horizontal axis, means for rotating the vertical shaft to swing the lamp laterally, a socket plate applied to the back of the lamp, a rock shaft upon the dashboard of the vehicle, a crank arm projecting from the rock shaft, a rod having one end thereof connected to the crank arm while the opposite end thereof terminates in a ball loosely engaged by the socket plate of the lamp, and means for operating the rock shaft to tilt the lamp vertically.

3. A dirigible lamp for motor vehicles including a pair of lamps, a standard carrying each lamp, a vertical shaft for each lamp, said vertical shafts being journaled upon the motor vehicle so as to turn about a vertical axis and having the respective standards hingedly connected thereto so as to swing about a horizontal axis, means for rotating the vertical shafts to swing the lamps laterally, a rock shaft journaled upon the front of the dashboard of the vehicle, crank arms projecting from the rock shaft, forwardly extending rods connected to the said crank arms and terminating in balls, socket plates engaging the balls and applied to the lamps, an operating lever, and an operative connection between the said lever and the rock shaft for simultaneously swinging both of the lamps vertically.

4. A dirigible lamp for motor vehicles including a pair of lamps, a standard carrying each lamp, a vertical shaft for each standard, said vertical shafts being journaled upon the motor vehicle so as to each turn about a vertical axis and having the corresponding standards hingedly connected thereto so as to turn about a horizontal axis, lateral arms projecting from the vertical shafts, link members connecting the lateral arms to the spindle arm connecting rod of the vehicle to automatically turn the lamps when the front wheels are turned to the right or to the left, a rock shaft upon the dashboard of the vehicle, crank arms projecting from the rock shaft, forwardly extending rods connected to the crank arms and terminating in balls, socket plates loosely receiving the balls and applied to the lamps, an operating lever, and an operative connection between the lever and the rock shaft for simultaneously tilting both of the lamps vertically.

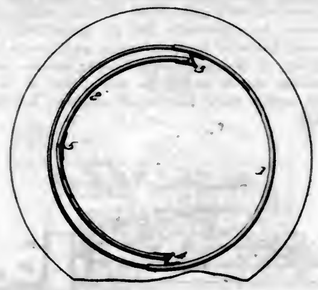
1,133,682. DOUBLE OPPOSITELY-DISPOSED VALVE. ARTHUR RONALD TRIST, London, England. Filed Mar. 15, 1913. Serial No. 754,500. (Cl. 137—69.)



1. A double valve and valve seat unitary element, consisting of, in combination, a valve box having connecting means for a fluid pressure medium, a body having a valve seat on each side oppositely disposed, means on said body for supporting said body at both top and bottom sides in an hermetically jointed manner with the said valve box, means of communication from the center of said body to the exterior through the side walls thereof, one valve having a valve stem, another valve oppositely disposed to the first valve on said valve stem in an adjustable manner, and permanent locking means by which the distance of the two valves from one another can be maintained constant and undisturbable after the amount of opening of the valves on their respective seats has been definitely determined, substantially as described.

2. A double valve and valve seat unitary element consisting of, in combination, a valve box having connecting means for a fluid pressure medium, a body having a valve seat on each side oppositely disposed, means on said body for supporting said body both at top and bottom sides in an hermetically jointed manner within a valve box of suitable form, exit means of communication from the center of said body to the exterior through the side wall thereof, one valve having a valve stem screwed at its end, another valve oppositely disposed to the first valve and having a tapped hole so as to be screwed on to said stem, a hole through the second valve transverse to its axis, the axis of the said transverse hole intersecting the axis of the screwed stem at right angles, the said transverse hole being of larger diameter than the said screwed stem, and a symmetrical enlargement on the screwed stem to fill said transverse hole at the center formed by deforming the screwed stem after the relative adjustment of the valves and their seats in a coaxial manner has been finally made so that such adjustment is finally and permanently locked, substantially as described.

1,133,683. TIRE-RIM. BENJAMIN URQUHART, Plainfield, N. J. Filed Apr. 5, 1911. Serial No. 619,154. (Cl. 152—21.)



A demountable tire rim having two sections, one section being composed of two parts pivoted together to fold toward each other, the extremities of said parts being connected to the other section each by a three-part hinge, the pivots of said hinges being inset from the ends of said last mentioned section to permit the extremities of the two-part section to fold within the extremities of the other section.

1,133,684. OVEN. THOMAS VICARS, JOHN VICARS, and EDWARD LYNTON VICARS, Earlestown, England. Filed Nov. 7, 1912. Serial No. 730,028. (Cl. 107—55.)



1. The combination with ovens of top and bottom flues constructed in a zigzag direction longitudinally of the oven, each flue having at one end an inlet for fire gases from the furnaces, and at the other end an outlet leading into longitudinally arranged zigzag flues in the side walls of the oven and thence to a chimney, substantially as described.

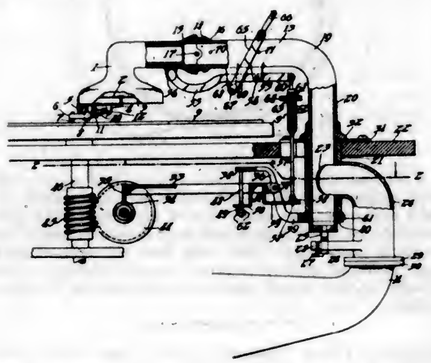
2. The combination with ovens of top and bottom flues constructed in a zigzag direction longitudinally of the oven, each flue having at one end an inlet for fire gases from the furnaces, and at the other end an outlet leading into longitudinally arranged zigzag flues in the side walls of the oven and thence to a chimney, and re-heating flues over the furnace crowns, substantially as described.

1,133,685. TALKING-MACHINE. PETER WEBER, Orange, N. J. Filed Aug. 22, 1911. Serial No. 645,337. (Cl. 181—5.)

1. In a talking machine, the combination of a rotatable record support, an arm pivoted to move transversely of said support, a sound box supported by said arm and movable toward and away from the record surface, a stylus carried by said sound box, a lever carried by said arm and adapted to effect movement of the sound box, feeding means connected with said arm, driving means for said feeding means, adjustable means operatively connecting said lever and said feeding means, and means for moving said lever to cause said connecting means to disengage said feeding means from said driving means and to move said sound box away from the record support substantially as described.

2. In a talking machine, the combination of a rotatable record support, an arm pivoted to move transversely of

said support, a sound box supported by said arm and movable toward and away from the record surface, a stylus carried by said sound box, a lever carried by said arm, and adapted to effect movement of the sound box, feeding means connected with said arm, driving means for said feeding means, an adjustable link for operatively connecting said lever and said feeding means, and means for moving said lever to disengage said feeding means from said driving means and to move the sound box so as to disengage the stylus from the record surface, substantially as described.



3. In a talking machine, the combination with a record support, a reproducer, and means for supporting said reproducer, of driving means, pivotally mounted feeding means coacting with said driving means, a lever separate from said feeding means, adjustable means operatively connecting said lever and said feeding means, and means for moving said lever to cause said connecting means to move said feeding means about its pivot to thereby disengage the same from said driving means, substantially as described.

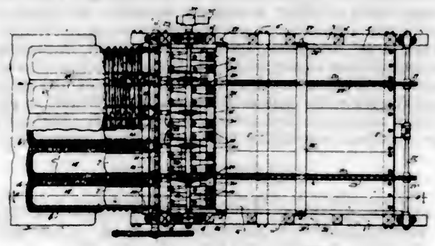
4. In a talking machine, the combination with a record support, a reproducer, and means for supporting said reproducer, of driving means, feeding means coacting with said driving means and connected with said supporting means for feeding the reproducer across the record surface, a lever pivoted to said supporting means, a weighted link connected with said lever and engaged with but not secured to said feeding means, and means for moving said lever to disengage said feeding means from said driving means, substantially as described.

5. In a talking machine, the combination with a record support, a reproducer, and means for supporting said reproducer, of driving means, feeding means coacting with said driving means and connected with said supporting means for feeding the reproducer across the record surface, a lever pivoted to said supporting means, a weighted link connected with said lever and engaged with but not secured to said feeding means, means for moving said lever to disengage said feeding means from said driving means, and means for limiting the movement of said feeding means, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,133,686. PROCESS FOR FORMING AND STUFFING COMPARTMENT-MATTRESSES. IKE J. WEINBERG, Chicago, Ill., assignor, by mesne assignments, to Dixie Cotton Felt Mattress Company, Chicago, Ill., a Corporation. Filed Nov. 15, 1913. Serial No. 801,152. (Cl. 100—57.)

1. The method of forming tuftless mattresses which consists in connecting the opposite sides of the ticking to form a series of narrow compartments, and subsequently stuffing the same by compressing the charge of filling material and simultaneously advancing all portions thereof under pressure and in separate sections into the compartments of the ticking.



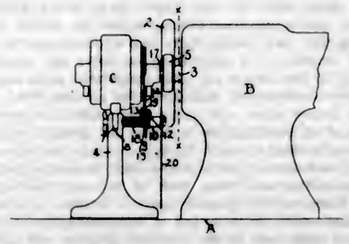
2. The method of forming tuftless mattresses which consists in connecting the opposite sides of the ticking to form a series of narrow compartments, and subsequently stuffing the same by simultaneously advancing the separate sections of the charge of filling material into the compartments of the ticking while holding each charge section both under vertical and lateral compression.

3. The method of forming tuftless mattresses which consists in connecting the opposite sides of the ticking to form a series of narrow compartments, and subsequently stuffing the same by dividing a charge of filling material sufficient to fill the entire mattress into sections, compressing the charge sections and simultaneously advancing the same into the respective compartments of the ticking.

4. The method of stuffing compartment mattresses which consists in compressing the entire charge of filling material, advancing the compressed charge, simultaneously dividing the same into separate sections, and depositing the charge sections in the compartments of the ticking.

5. The method of stuffing compartment mattresses which consists in vertically compressing the charge of filling material, simultaneously advancing all portions of the compressed charge in separate sections into the compartment of the ticking, and laterally compressing the separate charge sections as they are advanced into the respective tick compartments.

1,133,687. MOTOR ATTACHMENT FOR SEWING-MACHINES. GUSTAV WESLEY, St. Paul, Minn. Filed July 10, 1914. Serial No. 850,228. (Cl. 74—26.)



1. The combination with the driving wheel of a machine, of a motor arranged adjacently thereto and mounted to oscillate upon a vertical axis, said motor having on its shaft a friction driving wheel engageable with the periphery of the machine wheel when the motor is swung in one direction, and on its frame a brake engageable with the side face of the machine wheel when the motor is swung in the opposite direction.

2. The combination with the driving wheel of a machine, of a motor arranged adjacently thereto and mounted to oscillate upon a vertical pivot, said motor having on its shaft a friction wheel alining with and engaging the periphery of the machine wheel when the motor is swung in one direction, and on its frame a brake engaging the side face of the machine wheel when the motor is swung in the opposite direction, spring means for keeping the motor normally swung into a predetermined position, and means for swinging the same against the pressure of the spring.

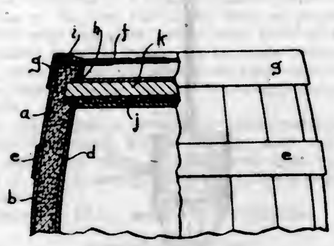
3. A motor attachment for machines comprising a motor mounted to oscillate on a vertical axis, a frictional driving wheel upon one end of the motor shaft, a downwardly extending arm upon the adjacent end of the motor frame, a brake cushion upon the outer face of said arm extending toward, but not into, the vertical plane of said wheel, spring means acting on said arm to hold the motor normally in a predetermined position, and mechanism operatively connected with the lower end of said arm whereby to move the same against the pressure of said spring and thereby swing the motor away from its normal position.

4. A motor attachment for machines comprising a motor mounted to swing upon a vertical axis, a frictional driving wheel upon one end of the motor shaft, a downwardly extending arm secured to the adjacent end of the motor frame, and having an elbow extending forwardly of the motor wheel, a brake cushion mounted upon said elbow and extending out toward, but not into, the vertical plane of the motor wheel, spring means engaging the lower end of said arm for holding the motor in normal position, and mechanism acting upon said arm for swinging the arm and motor against the pressure of said spring.

5. A motor attachment for machines comprising a pedestal, a motor mounted thereon upon a vertical pivot, a frictional driving wheel upon one end of the motor shaft, a laterally extending pin carried by the pedestal, a downwardly extending arm secured to the end of the motor frame with its lower end straddling said pin, spring means exerting pressure on said arm, a sleeve loosely mounted upon said pin and engaging said arm, and means for turning said sleeve whereby to move the arm against the pressure of its spring and thereby swing the motor.

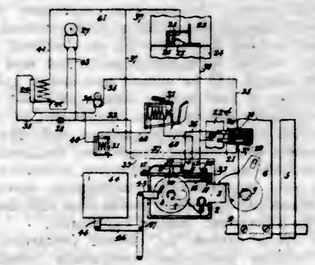
[Claims 6 and 7 not printed in the Gazette.]

1,133,688. CASK. HENRY C. WIEDEMAN and FRANK A. SCHAUM, Detroit, Mich., assignors, by mesne assignments, to Enameled Steel Package Corporation, Avon, N. Y., a Corporation of New York. Filed Oct. 25, 1913. Serial No. 797,156. (Cl. 220—3.)



The combination, with a cask provided with a side structure of soft insulating substance extending beyond the heads of the cask, and suitable heads for the cask, of stave sheaths constructed of sheet metal and fitted together to protect the said soft insulating material, the said stave sheaths extending beyond the heads of the cask, a flat reinforcing ring constructed of heavy stiff metal and adapted to overlie the ends of the filler material and the stave sheaths, and a protecting covering of sheet metal folded over the outside of the ends of the metal stave sheaths and over the said reinforcing ring and fitted into the chime of the cask.

1,133,689. ELECTRIC BURGLAR-ALARM SYSTEM. JOHN P. WILLIAMS, New York, N. Y., assignor to Electric Bank Protection Company, a Corporation of Delaware. Filed Nov. 22, 1910. Serial No. 593,613. (Cl. 177—316.)



1. In an alarm system, an electric protective alarm circuit, locking means, an electrical connection between a movable part of said locking means and said circuit whereby the circuit will be opened and closed under the operative action of said locking means, said locking means and its circuit connection constituting an electro-mechanical protective mechanism, and supplementary mechanical means comprised in said locking mechanism and operative to automatically control the operative movement of said locking means against action for a predetermined period of time, said supplementary mechanical means being independent of the circuit connection of said locking means with the alarm circuit and constituting a mechanical controlling mechanism supplementary to the electro-mechanical locking mechanism.

2. In an alarm system, an electric protective alarm circuit, mechanical means exposed to manipulation and in electrical connection with said circuit and operative under unauthorized tampering to cause the actuation of the alarm, locking means in connection with said exposed mechanical means, an electrical connection between a movable part of said locking means and said circuit, circuit connections operatable by action of said electrically-connected movable part of said locking means whereby the circuit will be opened and closed under the operative action of said locking means, the parts being so arranged that when said locking means is in locked position the alarm circuit is in operatable condition whereby tampering with said exposed mechanical means will cause the actuation of the alarm and when said locking means is in unlocked condition said circuit will be out of operation, said locking means and its circuit connection constituting an electro-mechanical protective mechanism, and supplementary mechanical means comprised in said locking mechanism and operative to automatically control the operative movement of said locking means against action for a predetermined period of time, said supplementary mechanical means being independent of the circuit connection of said locking means with the alarm circuit and constituting a mechanical controlling mechanism supplementary to the electro-mechanical locking mechanism.

3. In an alarm system, an electric protective alarm circuit, contact devices in said circuit the operation of which will cause the actuation of the alarm, locking means, an electrical connection between said locking means and said circuit, said electrical connection embodying contacts carried by a movable part of said locking means whereby the circuit will be opened and closed under the operative action of said locking means at the respective unlocked and locked positions thereof, said locking means and its circuit connection constituting an electro-mechanical protective mechanism, and supplementary mechanical means comprised in said locking mechanism and operative to automatically control the operative movement of said locking means against action for a predetermined period of time, said supplementary mechanical means being independent of the circuit con-

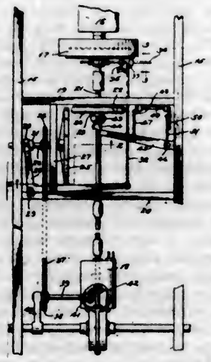
nection of said locking means with the alarm circuit and constituting a mechanical controlling mechanism supplementary to the electro-mechanical locking mechanism.

4. In an alarm system, an electric protective alarm circuit, and a locking mechanism comprising locking means and supplementary mechanical means operative to automatically control the operative movement of said locking means against action for a predetermined period of time, said locking means having an electrical connection between one of its movable parts and said circuit whereby the circuit will be opened and closed under the operative action of said locking means, and said supplementary mechanical means being independent of the circuit connection of said locking means with the alarm circuit, whereby said locking means and its circuit connection constitute an electro-mechanical protective mechanism and said supplementary mechanical means constitute a mechanical controlling mechanism supplementary to the electro-mechanical locking mechanism.

5. In an alarm system, an electric protective alarm circuit, a locking mechanism comprising combination locking means and supplementary mechanical means operative to automatically control the operative movement of said combination locking means against unlocking action for a predetermined period of time, and circuit connections operatable by action of a movable part of said combination locking means whereby the circuit will be opened and closed under the operative action of said locking means, said supplementary mechanical means being independent of the circuit connection of said combination locking means with the alarm circuit, whereby said combination locking means and its circuit connection constitute an electro-mechanical protective mechanism and said supplementary mechanical means constitute a mechanical controlling mechanism supplementary to the electro-mechanical combination locking mechanism.

[Claims 6 to 11 not printed in the Gazette.]

1,133,690. TRANSMISSION SPEED-CONTROLLING MECHANISM. FREDERICK W. WOODHULL, Alhambra, Cal. Filed May 7, 1914. Serial No. 836,918. (Cl. 74—26.)



1. A transmission speed controlling mechanism comprising in combination with driving gears, driven gears, friction disks connected with said driving and driven gears, one of said disks being capable of edge-wise engagement with the other and movable across the face thereof for varying the speed of the gears to facilitate their meshing at equal speeds, when the gears are to be changed.

2. A transmission speed controlling mechanism comprising in combination with driving and driven gears, friction disks, one of which is connected with the driving gears, while the other is connected with the driven gears, means for moving one gear to points at different distances from the axis of the other gear, whereby different speeds will be attained, and the driving and driven gears which are to mesh will be brought to equal speeds, and means for shifting said gears.

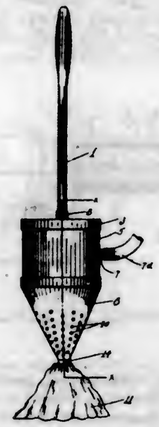
3. A transmission speed controlling mechanism for motor driven vehicles comprising in combination with a clutch shaft, a clutch controlling the same, means for operating the clutch, a disk adapted to be turned by said clutch shaft, a coöperating disk, means for driving said coöperating disk from the driving wheels of the vehicle, and means for adjusting the disks with respect to each other for turning the clutch shaft when the clutch is disconnected whereby the gears of the transmission mechanism will be brought to equal speeds when they are to be thrown into mesh.

4. A transmission speed controlling mechanism for vehicles comprising in combination with a clutch shaft, gears connected therewith, a vehicle propelling shaft, gears connected therewith, a disk connected with said propelling shaft, a disk connected with said clutch shaft, means for setting the disks in different relations to each other and means for forcing them together, whereby the gears of the clutch shaft will be brought to a suitable speed with respect to the gears of the propelling shaft for facilitating the changes of gearing and speed in driving the vehicle.

5. A transmission speed controlling mechanism comprising disks connected with the clutch shaft and the propelling shaft of a vehicle, the said disks being arranged in planes at right angles to each other, whereby the periphery of one disk may be brought against the face of the other for communicating movement thereto, a set lever for moving the disks with respect to each other, an adjustable rack plate adapted to hold the set lever in given positions preparatory to the changing of gears on the vehicle, and means for forcing the disks together in unifying the speeds of the gears to be brought into mesh preparatory to the changing of gears.

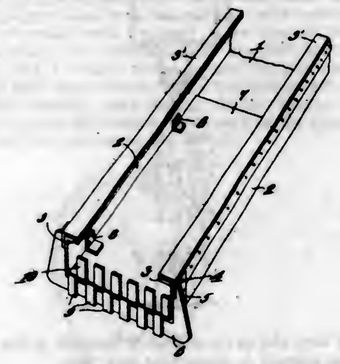
[Claims 6 to 8 not printed in the Gazette.]

1,133,691. DISH-WASHING DEVICE. MABEL AARON, Stockton, Cal. Filed Sept. 5, 1914. Serial No. 860,434. (Cl. 141—9.)



A device of the character described comprising a soap container having a handle, a conical shaped member communicating with said soap container and provided with a plurality of holes, a projecting threaded nipple on the lower end of said conical shaped member, and a member having an interiorly threaded cap adapted to be screw mounted on said nipple, as described.

1,133,692. COAL-CHUTE. ALBERT L. ADAMS, Cedar Rapids, Iowa. Filed Mar. 26, 1914. Serial No. 827,451. (Cl. 193—29.)



1. A coal chute, a reversible slidably mounted auxiliary reinforcing bottom insertible through the inlet end of the chute for disposition above and in contact with the main bottom of the chute to receive the initial impact of the coal dumped into the chute, and means attached to the side of the chute for engaging the upper surface at its edge of the auxiliary bottom for holding the same relatively upon the main bottom of the chute.

2. A coal chute, a reversible and detachable auxiliary and reinforcing bottom mounted at the inlet end and oppositely extended and spaced fingers carried by the reinforcing bottom and for projection across the extreme inlet end of the chute to form a barrier to prevent the spilling of material due to the back crowding in the chute.

3. A coal chute having a main bottom, a slidably mounted removable plate insertible at the inlet end of the chute to be placed co-extensive with the main bottom, said plate constituting an auxiliary covering bottom for the main bottom of the chute, and guiding means attached to the sides of the chute and projecting in contact with the top surface of the edge of the removable plate for holding the plate upon the main bottom.

4. A coal chute having the main bottom thereof at the inlet end reinforced by a slidably mounted reversible plate insertible at the inlet end of the chute to be placed co-extensive with the main bottom said plate constituting an auxiliary covering bottom for the main bottom of the chute, guiding means for holding the plate upon the main bottom, and means for limiting the inward movement of the plate.

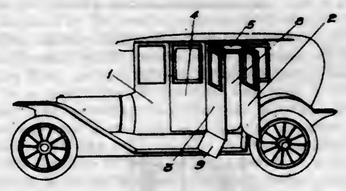
5. A coal chute a detachable plate constituting an auxiliary reinforcing bottom for the inlet end of the chute, said plate being provided with bent up spaced fingers to form a barrier across the extreme inlet end of the chute.

[Claims 6 to 10 not printed in the Gazette.]

1,133,693. FOLDING VESTIBULE. FRANK R. ALLEN, Passaic, N. J. Filed Jan. 2, 1913. Serial No. 739,726. (Cl. 21—125.)

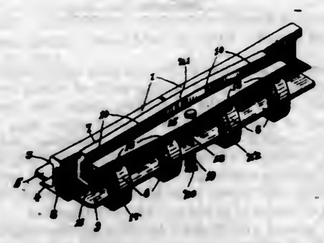
1. In a device of the character described, the combination of a vehicle body provided with a door way, a door adapted to close the said door way and an auxiliary door, adjacent to the said door way, a leaf hung from the upper edge section of said auxiliary door and an apron attached to the lower edge section of said auxiliary door, substantially as shown and described.

2. In a device of the character described, the combination of a vehicle body provided with a door way, a door adapted to close the said door way, an auxiliary door adjacent the said door way, and a member upon one of said doors adapted when open to extend between the upper edge section of said doors whereby a vestibule is formed, substantially as shown and described.



3. In a device of the character described, the combination of a vehicle body provided with a door way, a door adapted to close said door way and an auxiliary door adjacent said door way and a member upon one of said doors adapted to extend between the said doors, and an apron on one of said doors adapted to extend below the door, substantially as shown and described.

1,133,694. RAILWAY-JOINT. PETER BACHER, Canton, Ohio, assignor of one-third to Albert Hoeffer, Hammonton, N. J., and one-third to John Yemiker, Akron, Ohio. Filed July 28, 1914. Serial No. 853,600. (Cl. 239—3.)



1. In a railway joint, the combination of railway rails, a plate adapted for contact with the vertical webs of said rails, a base flange adapted to support the railway rails, said base flanges provided with lateral extensions, jaws located at the outer ends of the extensions, said jaws provided with grooves, a bridge plate provided with flanges having grooves and a series of balls located between the flanges and jaws.

2. In a railway joint, the combination of railway rails, a plate adapted for contact with the vertical webs of said rails, a base flange adapted to support the railway rails, said base flanges provided with lateral extensions, jaws located at the outer ends of the extensions, said jaws provided with grooves, a bridge plate provided with flanges having grooves and a series of balls located between the flanges and jaws, and means for holding the balls against displacement.

3. In a railway rail joint, the combination of railway rails, spliced plates located upon opposite sides of the railway rails, one of said spliced plates constituting a bridge, the bridge plate provided with grooved flanges inclined downward and outward, inclined jaws provided with grooves, balls located in the grooves of the inclined jaws and flanges, said balls adapted to move the flanges and jaws apart.

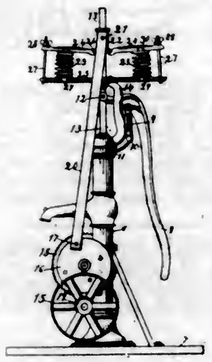
4. In a railway joint, the combination of railway rails, connecting plates provided with rail supporting faces, one of said plates provided with grooved jaws and the other with grooved flanges, the edges of said flanges and jaws inclined, balls located between the jaws and flanges.

5. In a railway joint, the combination of railway rails, connecting plates provided with rail supporting faces, one of said plates provided with grooved jaws and the

other with grooved flanges, the edges of said flanges and jaws inclined, balls located between the jaws and flanges, and a guard plate adapted for contact with the balls.

[Claims 6 to 8 not printed in the Gazette.]

1,133,695. SPRING ATTACHMENT FOR PUMPS. JAMES O. BANE, St. Paul, Minn. Filed June 17, 1914. Serial No. 845,660. (Cl. 74—71.)



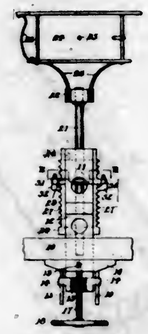
1. In a spring attachment for pumps, a spring-supporting bar comprising two duplicate arms each of which has at its sides a pair of forwardly projecting tangs, one tang of a pair having at one end a stud and the other tang having at the other end a socket to receive a similar stud, and each tang having at one end a bolt hole, whereby the said studs and sockets will register with like sockets and studs and the said bolt holes will also duly register together when two of the said arms are brought together.

2. In a spring attachment for pumps, the combination of a piston rod; a lever operating handle; a pair of spring-supporting arms firmly secured together and located in the vertical plane of the said handle; two arms freely connected with the piston rod and adjustably connected with the first named arms; springs between the first named arms and the freely connected arms; a cross head secured to the piston rod, and a pump jack comprising pitmen connected with the said cross head, and driving wheels connected with the said pitmen by cranks; the cross head being connected with the piston rod in a vertical plane at right angles to the vertical plane of the said springs and handle, whereby the pump may be operated by either the handle or the pump jack separately or by both acting together.

1,133,696. BEDSTEAD ATTACHMENT. JOHN BARBORA, Buffalo, N. Y. Filed June 22, 1914. Serial No. 846,645. (Cl. 45—82.)

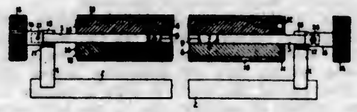
1. In a device of the class described, an upright support comprising complemental clamping members operating in connection with the side rail of a bed, spaced lugs carried by the opposite side of the support, rack bars connecting the side lugs, a vertical arm movably mounted in the lugs, a cross arm carried by the vertical arm and having each end thereof bifurcated to provide a pair of arms to inclose the rack bars, and pawls pivoted to the cross-arms and arranged to engage the rack bars.

2. In a device of the class described, an upright support comprising complemental clamping members operating in connection with the side rail of a bed, spaced lugs carried by the opposite side of the support, rack bars connecting the spaced lugs and having their teeth disposed outwardly, a vertical arm movably mounted in said lugs, a cross-arm carried by said vertical arm and having each end thereof bifurcated to provide a pair of arms inclosing



the rack bars, and pawls pivoted in the ends of the cross-arms and adapted to engage the rack bars.

1,133,697. TYPE-WRITING MACHINE. EDWIN E. BARNEY, Ilion, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 2, 1913. Serial No. 782,611. (Cl. 197—144.)



1. A platen comprising in combination an axle and a wooden core nailed directly to said axle, the nails passing through the axle and extending outwardly therefrom and terminating in the interior of said wooden core.

2. A platen comprising in combination an axle, a core consisting of a plurality of pieces fastened together around said axle and at least one of said pieces nailed to said axle, and a cover on said core.

3. A platen comprising in combination an axle, a core consisting of a plurality of pieces fastened together around said axle and at least one of said pieces nailed to said axle, a cover on said core, and a line space wheel secured to said core.

4. A platen comprising in combination an axle, a core section to which said axle is nailed, and another core section glued to the first core section over the nails.

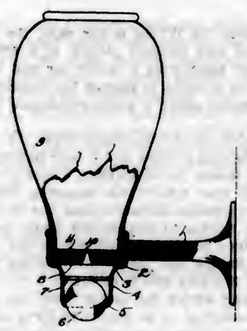
5. A platen comprising in combination an axle, a core section to which said axle is nailed, another core section glued to the first core section over the nails, and metal fixtures fastened to the ends of said core.

[Claim 6 to 8 not printed in the Gazette.]

1,133,698. DISPENSING DEVICE. WALTER S. BARNEY, Boston, Mass., assignor to W. S. Barney Co., Boston, Mass., a Corporation of Massachusetts. Filed Mar. 28, 1912, Serial No. 686,959. Renewed Oct. 27, 1914. Serial No. 868,917. (Cl. 221—94.)

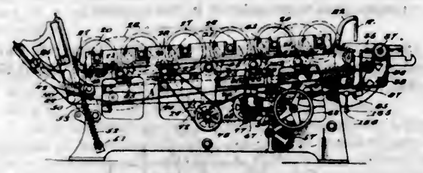
1. A liquid soap dispensing apparatus, comprising a reservoir having an externally threaded neck and a thin seal of penetrable material closing said neck, a support for the reservoir having a dispensing nozzle and a socket provided with internal threads coöperating with those on the neck of said reservoir to support the same while filled and in inverted position, in combination with means carried by the socket constructed and arranged to penetrate automatically the seal of said reservoir during the operation of joining said neck and socket.

2. In a device of the class described, the combination of a permanent support and a liquid soap reservoir adapted to be detachably connected to the support, said support comprising a dispensing nozzle having a threaded socket and a movable member below said socket operative to dispense a liquid from the reservoir, said reservoir having a threaded neck arranged to be screwed into said socket while the reservoir is in inverted position and closed, and a loosely fitting member in the nozzle portion of said support between the threaded socket and the movable member, said loosely fitting member having means to open the closure in the neck of the reservoir as said reservoir and nozzle are united.



3. A liquid-soap dispensing device, comprising a nozzle and socket member adapted to be permanently attached to a support, a closed supply reservoir detachably secured to said member and supported solely thereby, and coöperative means on the socket and the supply member permitting the reservoir to be secured to and supported by the said nozzle while closed and in inverted position, said means permitting further relative movement of the reservoir and socket, in combination with a hollow metallic member to penetrate the closure of the reservoir, whereby said reservoir is opened automatically during such further relative movement.

1,133,699. STOP MECHANISM FOR MANGLES. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to The Troy Laundry Machinery Company, Limited, Chicago, Ill., a Corporation of New York. Original application filed Aug. 17, 1910, Serial No. 577,677. Divided and this application filed October 28, 1912. Serial No. 728,312. (Cl. 74—46.)



1. In a mechanism of the kind described, a stationary member and a coöperating movable member, means for supporting said stationary member and movable member, means for driving said movable member, and a guard device constructed and arranged to automatically disconnect the driving means from said movable member and raise said movable member from contact with said stationary member.

2. In a mechanism of the kind described, a stationary member and a coöperating movable member, means for supporting said stationary member and movable member, means for driving said movable member, and a guard device constructed and arranged to simultaneously disconnect the driving means for said movable member and raise said movable member from said stationary member.

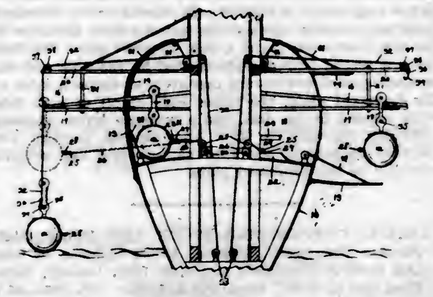
3. In a mechanism of the kind described, a stationary member and a coöperating movable member, means for supporting said stationary member and movable member, means for driving said movable member, and a guard device disposed at the feed of said movable member and constructed and arranged to automatically disconnect the driving means for the movable member and raise said movable member from contact with said stationary member.

4. In a mechanism of the kind described, a stationary member and a coöperating movable member, means for supporting said stationary member and movable member, means for driving said movable member, a guard device mounted relative to said movable member, a trip shaft connected to be operated thereby, and means connected to said trip shaft for shifting the driving connection for said movable member and raise said movable member from said shaft.

5. In a mechanism of the kind described, a stationary member and a coöperating movable member, means for supporting said stationary member and movable member, means for driving said movable member, a guard device mounted relative to said movable member, a trip shaft connected to be operated thereby, and a clutch device connected to a lever carried by said trip shaft for shifting the driving connection for said movable member and raise said movable member from said stationary member.

[Claims 6 to 15 not printed in the Gazette.]

1,133,700. LIFE-BOAT DEVICE. DAVID E. BASILS, New Britain, Conn. Filed Mar. 12, 1914. Serial No. 824,307. (Cl. 9—22.)



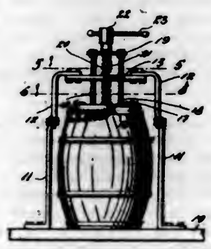
1. A ship having a compartment in the side wall, a plurality of ways extending transversely of the said compartment, in the upper part thereof, the outer ends of the said ways overhanging the said side wall, a set of wheels engaged one with each of the said ways, a corresponding set of connecting devices connected one with each of the said wheels, a life boat connected to the said connecting devices, being supported thereby, and positioned in the said compartment, and the said ways being inclined continuously from the inner end outwardly so as to permit the said life boat to be launched therefrom freely by gravity and independent of any other launching means.

2. A ship having a compartment in the side wall, a plurality of ways having their inner portions housed in the said compartment, in the upper part thereof, and extending outwardly so as to overhang the side of the ship, suspension means engaged with the said ways, a life boat supported by the said suspension means, and cover devices for closing the said compartment, and the said cover devices having slots suitable for admitting the said ways so as to permit the said cover devices to be closed while the outer portions of the said ways remain in such position so as to overhang the side of the ship.

3. A ship having a compartment in the side wall, ways extending across the said compartment and overhanging the said side wall, means for lifting a life boat from the

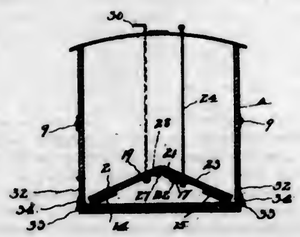
water comprising a plurality of cables and hoisting mechanism, and guide pulleys for the said cables at the outer ends of the said ways and a positioning beam connected to the said cables, and a plurality of hooks serving to connect the said beam with the said life boat.

1,133,701. BARREL-PACKING-HEAD HOLDER. CHARLES C. BENNETT, West Liberty, Ill. Filed Dec. 11, 1913. Serial No. 806,062. (Cl. 100—57.)



In a barrel heading device, the combination with a base, of a pair of standards secured to the base, a pair of arms pivotally connected at their lower ends with the upper ends of the standards, a transverse plate extending between and connecting the upper ends of the arms, said plate having a centrally threaded opening and a pair of smooth bore openings, a ring disposed below the plate, a transversely disposed and centrally depressed plate carried by the ring, a pair of vertical rods carried by the depressed plate and passing through the smooth bore openings of the first mentioned plate, a disk disposed above the first plate, a second pair of rods carried by the ring and extending upward and inward therefrom at opposite sides of the depressed plate, the upper ends of all of said rods being secured to the disk, and a pressure screw disposed vertically through the disk and passing through the threaded opening of the first named plate and secured centrally to the depressed plate.

1,133,702. CONVERTIBLE STOCK AND DUMP CAR. THOMAS BEVINGTON, Lincoln, Nebr., assignor of one-half to T. J. Brownfield and C. S. Polk, Lincoln, Nebr. Filed Oct. 3, 1910. Serial No. 585,042. (Cl. 105—15.)



1. In a car, a vertically movable deck comprising hingedly connected sections, means to raise and lower said deck, means to hold the deck with its sections inclined, and doors in the sides of the car to dump its contents.

2. In a car, a vertically-movable deck comprising hingedly connected sections, means to raise and lower said deck, strips secured to one of the sections of the deck and having depressions therein, a rod engaging said strips and the depressions therein, a rod secured to the other section, links connecting said rods, and doors in the sides of the car to dump its contents.

1,133,703. LIFTING DEVICE FOR MOTOR-VEHICLES. FRANK P. CADY, Cleveland, Ohio, assignor to The Cady Patent Appliance Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 25, 1913. Serial No. 781,107. (Cl. 254—88.)



1. In a device for lifting motor cars, the combination with front and rear inclined planes, of a truck provided with means for supporting a motor car and having front and rear wheels adapted to engage the respective inclined planes and spaced apart a greater distance than the inclined planes.

2. In a device for lifting motor cars, the combination with a track having a front and a rear incline, of a truck provided with means for supporting a motor car and having front and rear wheels for engaging the track and spaced apart a greater distance than the inclines to permit the front wheels to engage the front incline of the track in advance of the engagement of the rear wheels with the rear incline and thereby elevate the front end of the car before the rear end is elevated.

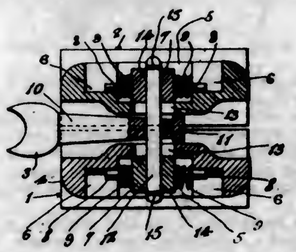
3. In a lifting device for motor cars, the combination with a truck adapted to be propelled by a motor car, of front and rear inclines arranged in alinement and front and rear members carried by the truck for engaging said inclines, the inclines being spaced apart a lesser distance than the engaging members of the truck.

4. In a lifting device for motor cars, the combination with a track having front and rear inclines, of a truck provided with front and rear wheels for engaging said inclines, said wheels being spaced apart a greater distance than the inclines to thereby cause the front wheels to ascend the front inclines in advance of the ascent of the rear inclines by the rear wheels of the truck.

5. In a device for lifting motor vehicles, the combination with a track having forward and rear inclines, of a truck provided with forward wheels adapted to run up the forward incline and rear wheels adapted to run up the rear incline, said forward and rear wheels being spaced apart a greater distance than the inclines, and means on the truck adapted to be engaged by the vehicle in motion to first cause the forward wheels of the truck to run up the forward incline and thereby lift the front end of the vehicle and then cause the rear truck wheels to ride up the rear incline and thereby lift the rear end of the vehicle.

[Claims 6 to 8 not printed in the Gazette.]

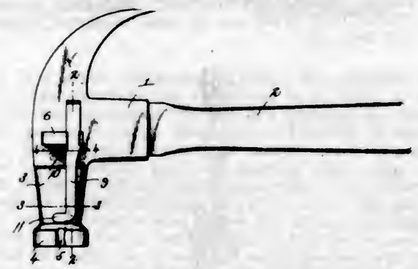
1,133,704. RAILWAY DRAFT DEVICE. HENRY P. CAMBRE, New Orleans, La. Filed Apr. 22, 1914. Serial No. 833,742. (Cl. 213—42.)



1. A railway draft device comprising draft timbers formed in the nature of I-beams and having certain longitudinal edges spaced from each other, a draw head mounted between the webs of the timbers, said timbers having their web portions provided in their outer faces with elongated openings and elongated recesses communicating with the openings at the ends thereof, blocks slidable within the openings, pins on the blocks slidable within the recesses, compression springs mounted on the pins and engaging at their terminals the end walls of the openings and end faces of the blocks, said blocks having openings extending therethrough transversely, said webs having elongated openings formed thereon and communicating with the first mentioned openings, a transverse bar slidable in the last named openings operatively connected intermediate its ends with a draw head and secured at its ends to the blocks.

2. A railway draft device consisting of draft timbers, a draw head mounted within the timbers, said timbers having openings in the sides thereof communicating at their ends with semi-circular recesses formed in the timbers, blocks slidable within the openings, pins on the blocks slidable within the recesses, compression springs mounted on the pins and engaging at their terminals the end faces of the blocks and end walls of the openings and means connecting the blocks and draw head with each other slidable with the block.

1,133,705. HAMMER. NAPOLEON CARON, Nashua, N. H., assignor of one-half to Napoleon Rodier, Lowell, Mass. Filed Feb. 21, 1913. Serial No. 749,933. (Cl. 145—30.)

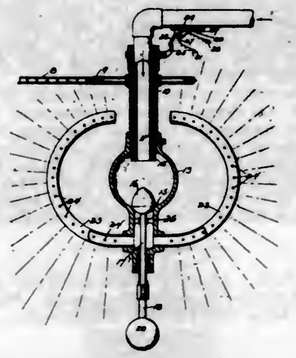


A hammer including a main head having a recess therein, an auxiliary head associated with the main head and provided with a T slot, and a resilient nail holding means slidably engaged through said T slot, one end of said means being turned at right angles and held in said recess by the inherent resiliency of said means, the opposite terminal of said means being normally in engagement with said main head and adapted to be flexed upon the insertion of a nail therebeneath to hold the latter from displacement.

1,133,706. COMBINED FIRE-EXTINGUISHER AND FIRE-ALARM. CARLO CASELLI, Brooklyn, N. Y. Filed May 6, 1914. Serial No. 836,644. (Cl. 169—6.)

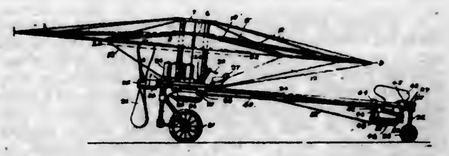
1. In a combined fire-alarm and fire-extinguisher, a pipe adapted to be connected with a source of liquid-supply, a sleeve rotatable on said pipe, a valve-casing carried by said sleeve and rotatable therewith, a valve controlling passage through said casing and normally closing passage therethrough, perforated exit-pipes carried by, and communicating with the interior of, said casing, beneath said valve, a ball-governor device operatively associated with said valve for opening the same upon rotation of said sleeve, and means for rotating said sleeve.

2. In a combined fire-alarm and fire-extinguisher, a pipe adapted to be connected with a source of liquid-supply, a sleeve rotatable on said pipe, a valve-casing carried by said sleeve and rotatable therewith, a valve controlling passage through said casing and normally closing passage therethrough, perforated exit-pipes carried by, and communicating with the interior of, said casing, beneath said valve, a ball-governor device operatively associated with said valve for opening the same upon rotation of said sleeve, and means for rotating said sleeve, including: an electric circuit and an electric motor in said circuit.



3. In a combined fire-alarm and fire-extinguisher, a pipe adapted to be connected with a source of liquid-supply, a sleeve rotatable on said pipe, a valve-casing carried by said sleeve and rotatable therewith, a valve controlling passage through said casing and normally closing passage therethrough, perforated exit-pipes carried by, and communicating with the interior of, said casing, beneath said valve, a ball-governor device operatively associated with said valve for opening the same upon rotation of said sleeve, and means for rotating said sleeve, including: a normally-open electric circuit, an electric motor in said circuit, and a thermal circuit-closer for said circuit.

1,133,707. FLYING-MACHINE. JOSEPH F. CLAESGENS and FREDERICK A. GEIGER, Rochester, N. Y. Filed May 9, 1914. Serial No. 837,573. (Cl. 244—14.)



1. In a flying machine, the combination of an aeroplane, an upright frame for supporting said plane, a ring at the bottom of said plane, a plurality of perforated lugs integral with said ring, a horizontal frame having a pair of bars therein passing through the perforations in said lugs and making a sliding engagement with said vertical frame.

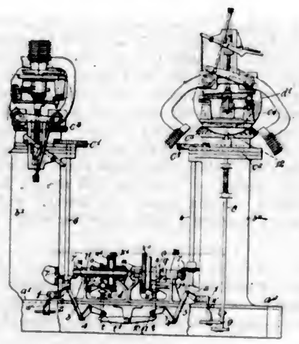
2. In a flying machine, the combination of an aeroplane, an upright frame for supporting said aeroplane, a horizontal frame for supporting the propeller and rudders of said flying machine, said horizontal frame having a sliding engagement with said vertical frame, a ring mounted on said vertical frame, a motor mounted on said ring for driving said propeller.

3. In a flying machine, the combination of an aeroplane, a horizontal frame suspended therefrom, a horizontally extending rudder mounted on said frame and being adapted to swing around either its forward or rear edge, a vertically extending rudder pivotally mounted on said horizontally extending rudder and adapted to swing thereon.

4. In a flying machine, the combination of an aeroplane, a frame suspended therefrom, cross bars mounted on said frame, stems extending downwardly from said cross bars, a horizontally extending rudder having perforations therein adapted to engage with said stems, said rudder being thereby mounted to slide on said stems, springs on said stems below the rudder adapted to normally hold the front and back of said rudder at the top of said stems, a driver seat on said frame, means accessible from said driver seat for depressing either the forward or rear edge of said horizontal rudder.

5. In a flying machine the combination of a circular aeroplane, an upright frame for supporting said plane and motor, a horizontal frame for supporting the propeller and rudders of said flying machine, said horizontal frame being adjustable relative to said upright frame, the weight of said upright and horizontal frames being disposed so as to put the center of gravity thereof substantially below the center of the circular aeroplane.

1,133,708. GLASS-BOTTLE-BLOWING MACHINE. ALBERT EDWARD CLEGG, Leeds, England. Filed Jan. 20, 1913. Serial No. 743,061. (Cl. 49—13.)



1. In glass bottle blowing machines having turnover heads the combination of two machines placed side by side and at an angle to one another having their backs closer together than their fronts, with a motor having its driving shaft midway between the two machines, two independent shafts at right angles to the motor shaft, a loose clutch wheel on each of the independent shafts, gearing from the motor shaft to both of said clutch wheels, cooperative clutch members having sliding keyway and key connections to said independent shafts, two-to-one bevel gears from the ends of said independent shafts to the driving shafts of the machines respectively, a spring around each of said independent shafts between a collar fixed to the shaft and the corresponding clutch member, a recessed cam collar secured to said clutch member, a vertically guided and upwardly spring pressed spindle below each cam collar, lever link and shaft connections from the bottom of each spindle to a corresponding foot lever and a two armed lever having its ends in contact with the bottoms of said vertical spindles substantially as shown for the purposes specified.

2. The combination of two turnover glass bottle blowing machines having their adjoining sides inclosing an angle of 60 degrees or thereabout, with an electric motor placed with its shaft bisecting said angle, worm and worm wheel gear from the motor shaft to a counter shaft, two independent horizontal shafts, spur gears from the ends of the counter shaft respectively to friction clutches on said independent shafts and gear wheels from the independent shafts to the first motion shafts of said machines respectively, substantially as described.

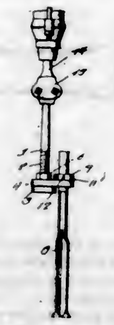
3. In a pair of glass bottle turnover machines placed side by side the combination of a friction clutch driven shaft, a collar fixed on each shaft of each machine, a spring situated between said fixed collar and the slidable member of the friction clutch, a cam connected to said slidable member, a cam-contact spindle, a spring acting on said clutch to move it into operative position and intervening mechanism which is arranged and adapted to prevent the simultaneous action of the two clutches.

4. In a pair of glass bottle blowing machines of the turnover type placed side by side and having separate clutch and motor shafts and starting mechanism for each of said machines, the combination of two cam-contact spindles and two cams operating as described on the slidable members of the friction clutches, means for preventing the simultaneous actuation of the machine heads from said starting mechanism and means connecting said preventing means to said cam spindles for the purpose set forth.

5. In a pair of glass blowing machines of the turnover type, stop devices for the turnover heads, a pair of levers in said machines respectively, for actuating said devices, starting mechanism for each of said machines, an additional pair of levers for said starting mechanism, each of which is arranged above a lever of the first pair in order that its continued depression may actuate the same and means for preventing the simultaneous actuation of the heads from said starting mechanism.

[Claims 6 to 9 not printed in the Gazette.]

1,133,709. DRILL-EXTRACTOR. MICHAEL CONLEY, Denver, Colo. Filed Apr. 22, 1914. Serial No. 833,727 (Cl. 255—45.)

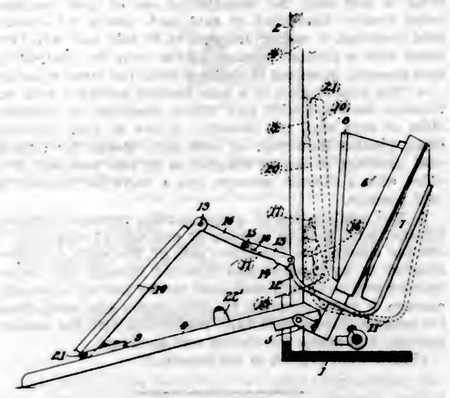


1. A device of the class described comprising a vertical upwardly tapered bar, a head formed on the lower end thereof, a collar resting on said head and having an aperture therein through which the bar extends, means for clamping the collar upon the head, a clamp consisting of two parallel bars, screws securing their ends together adapted to be secured to the upper end of a drill means for securing the said clamp upon the drill, said collar having a slot in its outer end in which the drill is arranged to be loosely mounted, said clamp secured to the drill immediately above the said collar.

2. A device of the class described comprising a drill extractor, means arranged to be connected to the post of the drill operating mechanism, a collar mounted on said means and having a slot on its outer end adapted to encircle the drill and to reciprocate thereon, means for preventing said reciprocation in one direction on the drill beyond a predetermined point.

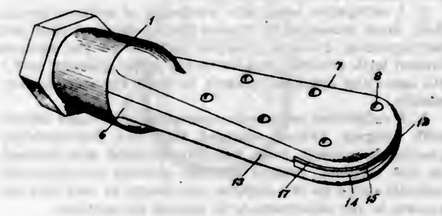
1,133,710. PLAYER MECHANISM FOR PIANOS. WILLIAM F. COOPER, Norwalk, Ohio. Filed Apr. 21, 1914. Serial No. 833,375. (Cl. 84—169.)

1. In a player mechanism for pianos, the combination with a piano case having an opening in its front, of a treadle door pivoted to the case and arranged to close said opening, a treadle having one end pivoted to said door, a player bellows including a movable board, an arm fixed to said movable board and provided with a stop, a link pivoted to said arm and provided with a stop coöperating with the first-mentioned stop at its pivoted end, said link being provided with a second stop at the remaining end, and a link connecting the remaining end of the last-mentioned link with the treadle and being provided with a stop coöperating with the last-mentioned stop.



2. In a player mechanism for pianos, the combination with a piano case having an opening in its front, of a treadle door pivoted to the case and arranged to close said opening, a treadle having one end pivoted to said door, a player bellows including a movable board, an arm fixed to said movable board and provided with a stop, a link pivoted to said arm and provided with a stop coöperating with the first-mentioned stop at its pivoted end, said link being provided with a second stop at the remaining end, a link connecting the remaining end of the last-mentioned link with the treadle and being provided with a stop coöperating with the last-mentioned stop, and manually operable means connected to said treadle board and arranged to close the same.

1,133,711. OIL-BURNER TIP. BENJAMIN L. CORNELIUS, Hutchinson, Kans. Filed Mar. 20, 1913. Serial No. 755,793. (Cl. 137—80.)



1. A burner tip comprising separate body members, having grooved inner faces, a transverse mouth intersecting the face grooves, a grooved wearing-plate seated in the jaw of one of said body members and projecting slightly into the jaw of the other body member, a flat wearing-plate seated in the jaw of said last named body member and adapted for coöperation with said grooved wearing plate, and fastening devices projecting through the body members and wearing plates, on opposite sides of said grooves.

2. In an oil burner tip, the combination with a threaded socket member, of a pair of grooved body members having threaded members adapted for coöperation to form a shank for seating said threaded socket member, a transverse mouth opening from the grooved portion of the body member, a grooved wearing plate seated in the jaw of one of said body members and projecting slightly into the jaw of the last named member and adapted for coöperation with the grooved wearing plate, and fastening devices projecting through the body members and wearing plates, on opposite sides of said grooves.

1,133,712. COOLING SYSTEM. WILLIAM F. DOYLE, Reedsburg, Wis., assignor of one-half to Edward G. Stolte, Reedsburg, Wis.; Florence P. Stolte administratrix of said Edward G. Stolte, deceased. Filed Oct. 8, 1913. Serial No. 794,139. (Cl. 123—170.)



1. In a cooling system, the combination with a casing, of a plurality of thin parallel plates located within the casing and parallel with the sides thereof and forming two separate sets of passages, one set of passages having passed therethrough an engine cooling medium, and the other set connected to the supply of newly volatilized combustible vapor for an internal combustion engine, so that the combustible vapor will absorb the heat of and re-cool the engine-cooling medium.

2. In a cooling system, the combination with a casing, of a plurality of thin walled parallel cells therein and parallel to the sides thereof which together with the casing form two sets of passages, one set being connected with a supply of engine-cooling medium, and the other set being connected with a supply of newly volatilized combustible vapor for an internal combustion engine, so that the combustible vapor will absorb the heat of and re-cool the engine-cooling medium.

3. In a cooling system, the combination with a casing, of a plurality of thin walled cells therein, said cells and casing forming two separate sets of passages, one set of passages being connected with a supply of engine cooling medium, the other set being connected with a supply of newly volatilized combustible vapor for an internal combustion engine, and a baffle forming ribs in the side walls of said cells, said ribs extending into the passages connected with said engine cooling medium, to cause a thorough circulation of said engine-cooling medium through said passages, whereby said newly volatilized combustible vapor in passing through will absorb the heat of and re-cool said engine-cooling medium.

4. In a cooling system, the combination with an internal combustion engine and an intake pipe and carbureter associated therewith, of circulating conduits for an engine cooling medium, a casing interposed between said intake pipe and carbureter, and a plurality of thin plates located within said casing, said plates forming two separate sets of passages, one set being connected with said circulating

conduits for the passage of the engine cooling medium, the other set being connected with the intake pipe for the passage of the gases from the carbureter, for refrigerating said engine cooling medium.

5. In a cooling system, the combination with an internal combustion engine and an intake pipe and carbureter associated therewith, of circulating conduits for an engine cooling medium, a casing interposed between said intake pipe and carbureter, and a plurality of thin plates located within said casing, said plates forming two separate sets of passages one set being connected with said circulating conduits for the passage of the engine cooling medium, the other set being connected with the intake pipe for the passage of the gases from the carbureter, for refrigerating said engine cooling medium, said plates forming a unitary structure removable bodily and as a whole from said casing.

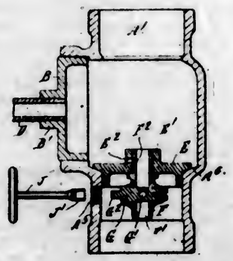
[Claims 6 to 9 not printed in the Gazette.]

1,133,713. WHISTLE. SAMUEL DRESSLER, Brooklyn, N. Y. Filed Sept. 16, 1913. Serial No. 790,088. (Cl. 46—46.)



A whistle comprising a mouth piece formed of two separated plates provided with registering openings and open at the front and sides, said plates being extended beyond the said mouth piece to form a resonating chamber, beads formed in the material of said upper and lower plates between the mouth piece and resonating chamber, said beads being curved to conform to the curve of the lips of the user and extending to the edges of the plates to provide an enlarged transversely curved opening therebetween extending to the edges of the plates, and said resonator being open at the sides beyond said beads, substantially as set forth.

1,133,714. DEVICE FOR TESTING PIPES OR PIPE-JOINTS. JOHN ELDER, New York, N. Y. Filed Feb. 5, 1914. Serial No. 816,715. (Cl. 137—76.)



1. The combination of a pipe portion provided with an internal screw-thread and with two lateral screw-threaded openings at opposite sides of said internal screw-thread, the diameter of one of said lateral openings being greater than that of the internal screw-thread, a cover for closing the last-named opening and provided with a threaded passage, a plug for closing said passage, another plug for closing the other opening, a valve casing adapted to screw on said internal screw-thread and provided with a through passage, and a valve controlling said passage and arranged to register with one of the lateral openings on said pipe portion.

2. The combination of a pipe portion provided with an internal screw-thread and with two lateral openings at opposite sides of said internal screw-thread, the diameter of one of said lateral openings being greater than that of said internal screw-thread, means for closing said openings, a carrier adapted to screw on said internal screw-thread and provided with a projection extending into registry with one of said openings and also provided with a through passage, and a valve for controlling said passage, arranged in registry with the other opening.

3. The combination of a pipe portion provided with an internal seat and with two lateral openings on opposite sides of said seat, the diameter of one of said openings being greater than that of said seat, means for closing said openings, a carrier adapted to fit said seat and provided with a through passage, and a valve for controlling said passage, arranged in registry with the other opening.

4. The combination of a pipe portion provided with an internal seat and with two lateral openings on opposite sides of said seat, the diameter of one of said openings being greater than that of said seat, means for closing said openings, a carrier adapted to fit said seat and provided with a through passage, and a valve for controlling said passage.

5. The combination of a pipe portion provided with an internal seat, a large opening at one side of said seat, a smaller opening on the other side of the seat, a carrier adapted to be inserted and removed through the larger opening and to fit said seat, said carrier having a through passage, a valve mounted on said carrier and controlling the passage thereof, said valve registering with the smaller opening, and means for closing said openings.

[Claim 6 not printed in the Gazette.]

1,133,715. COLLAPSIBLE RECEPTACLE. JOHN W. ELLIS, Great Falls, Mont., assignor of one-fourth to Joseph Kirschwing, Great Falls, Mont. Filed Aug. 29, 1913. Serial No. 787,325. (Cl. 217—44.)



1. A collapsible receptacle, comprising sections having tenons largest at their tips and corresponding grooves formed on the opposing edges of the sections to enable one to take into the other, secondary grooves formed on the opposing faces of the sections, and a pin in the secondary grooves.

2. A collapsible receptacle, comprising sections having tongues largest at their tips and corresponding grooves on the edges of the contiguous sections, and a pin to force the sections in opposite directions.

3. A collapsible receptacle, consisting of sections having their edges connected by tenons having enlarged ends and corresponding grooves, enlarged portions on the sections formed with grooves, gaskets in the latter grooves, and a pin operating upon the gaskets to force the sections outwardly.

4. A collapsible receptacle, consisting of sections formed with tongues having enlarged tips and corresponding grooves to connect them together, grooved enlargements on the sections, gaskets for the grooved enlargements, metallic strips on the gaskets, and means to take into the grooves in the enlargements to expand the sections.

1,133,716. BRUSH FOR LINOTYPE-POTS. LEO EWALD, Minneapolis, Minn. Filed Mar. 28, 1914. Serial No. 827,893. (Cl. 199—14.)

1. A linotype pot brush comprising a head, a crank centrally pivoted thereon and a plurality of brushes rigidly mounted in said head on the opposite side thereof from the pivotal connection of said crank therewith and having bristles extending radially with respect to said head.

2. A linotype pot brush comprising a head in the form of a substantially flat disk having a centrally arranged stud on one side, an operating crank pivotally connected with said stud, a plurality of spindles having end portions fitting within radial slots provided in said head and ad-



justable therein toward and from the center of said head, and bristles mounted in said spindles and projecting outwardly therefrom.

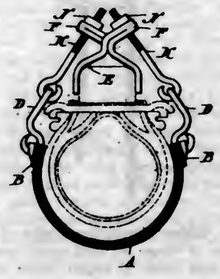
1,133,717. PAPER STRAW. BENJAMIN FLETCHER, Toronto, Ontario, Canada. Filed Mar. 17, 1914. Serial No. 825,439. (Cl. 93—94.)



1. A paper straw formed of two plies superimposed the one on the other and each formed of a spirally wound strip of paper, one of said strips having matter printed on the surface next the other ply, said printed matter being applied in equally spaced sections extending diagonally across the strip, and the whole impregnated with wax.

2. A paper straw formed of two plies superimposed the one on the other and each formed of a spirally wound strip of paper, the inner of said strips having matter printed on the surface next the other ply, said printed matter being applied in equally spaced sections extending diagonally across the strip, and the whole impregnated with wax.

1,133,718. DETACHABLE BOOT FOR AUTOMOBILE-TIRES. CAPTAIN P. FUNK, Wooster, Ohio. Filed July 21, 1914. Serial No. 852,280. (Cl. 152—24.)



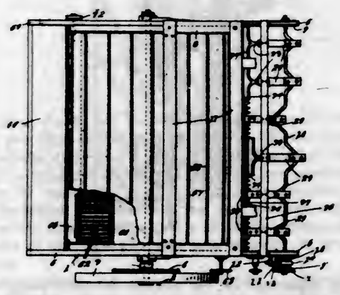
A quick detachable boot for automobile tires comprising a plate bent upon itself and forming two curved felly engaging arms, the shank portions which are bent upon themselves being bent outwardly in opposite directions forming two arms with a V-shaped space intermediate the same, said arms being apertured, eye bolts having threaded portions passing through said apertures and adapted to be positioned one upon either side of the plate and at an angle to each other, a boot, metallic strips secured to the marginal edges thereof, and connections between said strips and the eyes of the bolts.

1,133,719. TOY. HARRY B. FURROW, Piqua, Ohio. Filed May 19, 1914. Serial No. 839,606. (Cl. 46—14.)



In a toy, the combination with a spirally threaded spindle, of a desk rotatably mounted upon said spindle and adapted to travel therealong, and fans loosely carried by the disk and adapted for rotation during movement of said disk with respect to the spindle.

1,133,720. SEED-STRIPPER. EARL L. GLAZE, Lexington, Ky. Filed Sept. 17, 1913. Serial No. 790,364. (Cl. 56—100.)



1. In a seed stripper the combination with a frame, a crank shaft journaled within and transversely of the forward terminal of said frame, a comb disposed transversely of said frame, a beam disposed above and transversely of said frame at the forward terminal thereof, cutters operatively connected with the crank shaft and said beam, means for rotating said crank shaft to cause said cutters to move into engagement with said comb, means for causing said cutters to move into engagement with said comb, comprising a plurality of tubular members pivoted to said beam, rods connected to said cutters and slidably mounted within said tubular members; and springs mounted upon said tubular members.

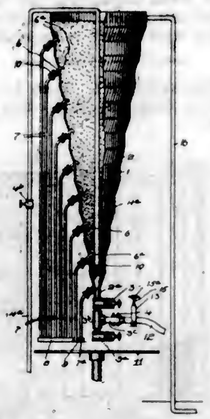
2. In a seed stripper, a frame, a crank shaft rotatably journaled within said frame, a comb disposed transversely of said frame, a plurality of cutters operatively connected with said crank shaft, means for rotating said crank shaft to cause said cutters to move into engagement with said comb, means for causing said cutters to move into engagement with said comb comprising a plurality of tubular members operatively connected with said frame, rods slidable in said tubular members and connected with said cutters and spring means mounted upon said tubular members for lifting said cutters upwardly.

3. In a seed stripper, a frame, a crank shaft rotatably journaled within said frame, a comb disposed transversely of said frame, a plurality of cutters operatively connected with said crank shaft, means for rotating said crank shaft to cause said cutters to move into engagement with said

comb, means for causing said cutters to move into engagement with said comb comprising a plurality of tubular members operatively connected with said frame, rods slidable in said tubular members and connected with said cutters and spring means mounted upon said tubular members for lifting said cutters upwardly, means for pivotally supporting said means for causing the cutters to move into engagement with said comb.

4. A seed stripper comprising a frame, a crank shaft rotatably journaled in said frame, a plurality of cutters pivotally connected with said crank shaft, a plurality of spaced teeth secured upon said frame and arranged to cooperate with said cutters, a beam disposed above said cutters, a plurality of tubular members pivotally connected with said beam, a plurality of rods pivotally connected with said cutters and slidably mounted in said tubular members, guide means for each of said rods and an expansive spring mounted upon each of said tubular members and operatively connected with said rods.

1,133,721. SAND WASHING AND GRADING APPARATUS. WILLIAM E. GREGG, Ford City, Pa. Filed Aug. 23, 1912. Serial No. 716,720. (Cl. 83—82.)



1. An apparatus for the purpose set forth comprising an inverted cone-shaped stepped receptacle having an outlet medially of its lower end, a water and material supply pipe extending down into said receptacle to a point in proximity to said outlet for supplying the material thereto, a controllable discharge pipe connecting directly with said outlet and forming in connection with the steps of said receptacle a material grading current directed upwardly from the lower end of said supply pipe for separating the material into different grades, and means independent of said discharge pipe for independently discharging different grades of material.

2. In a grading apparatus, an inverted cone-shaped receptacle stepped throughout from its lower to its upper end, the steps of said receptacle providing a series of divisions forming compartments for different grades of material, the upper divisions being of greater area throughout than the lower divisions, each lower division having its upper terminus merging directly into the lower terminus of an upper division, said lowermost division having an outlet disposed medially thereof, means for simultaneously supplying the material to be separated and water to the lower portion of said receptacle, and a controllable material outlet means communicating with said outlet and associated with said supply means and with said receptacle for forming an upwardly directed material grading current.

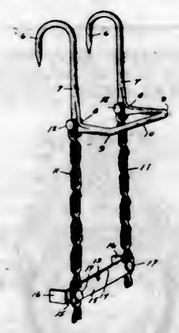
3. In a grading apparatus, an inverted cone-shaped receptacle stepped throughout from its lower to its upper end, the steps of said receptacle providing a series of divisions forming compartments for different grades of material, the upper divisions being of greater area throughout than the lower divisions, each lower division having its upper terminus merging directly into the lower terminus of an upper division, said lowermost division having an outlet disposed medially thereof, the walls of each of said divisions being smooth throughout, means for simultaneously supplying the material to be separated and water to the lower portion of said receptacle, and a controllable material outlet means communicating with said outlet and associated with said supply means and with said receptacle for forming an upwardly directed material grading current.

4. In a grading apparatus, an inverted cone-shaped receptacle stepped throughout from its lower to its upper end, the steps of said receptacle providing a series of divisions forming compartments for different grades of material, the upper divisions being of greater area throughout than the lower divisions, each lower division having its upper terminus merging directly into the lower terminus of an upper division, said lowermost division having an outlet disposed medially thereof, means for simultaneously supplying the material to be separated and water to the lower portion of said receptacle, and a controllable material outlet means communicating with said outlet and associated with said supply means and with said receptacle for forming an upwardly directed material grading current.

5. In a grading apparatus, an inverted cone-shaped receptacle stepped throughout from its lower to its upper end, the steps of said receptacle providing a series of divisions forming compartments for different grades of material, the upper divisions being of greater area throughout than the lower divisions, each lower division having its upper terminus merging directly into the lower terminus of an upper division, the lowermost division having an outlet disposed medially thereof, and a water and material supply pipe extending down into said receptacle, medially thereof and to a point in proximity to said outlet.

[Claims 6 to 13 not printed in the Gazette.]

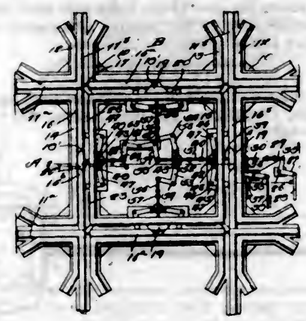
1,133,722. FIRE-ESCAPE. HENRY DEN HARTOG, Orange City, Iowa. Filed June 30, 1914. Serial No. 848,254. (Cl. 228—6.)



A fire escape ladder comprising a pair of spaced chains, and a plurality of steps secured upon said chains, each step being formed from a single sheet of metal longitudinally bent to form a substantially U-shaped portion cut out at each end to form spaced arms in which a chain is received, the innermost of said arms being bent inwardly to form wall engaging extensions.

1,133,723. CONTINUOUS CROSSING. LEE L. HARTZLER, Lima, Ohio. Filed Nov. 12, 1913. Serial No. 800,617. (Cl. 104—116.)

1. In a railroad crossing, alined stationary rails, separable rails arranged in sets located between pairs of the alined rails and movable longitudinally into and out of butting engagement with the respective stationary rails, beveled members adapted to fill the space between said separable rails when outwardly displaced and a system of bell crank levers to move one set of separable rails into engagement and the other set out of engagement and to push said beveled members into engagement with said outwardly displaced rails simultaneously.



2. In a railroad crossing, alined stationary rails, separable rails arranged in sets in alinement with respective pairs of stationary rails, filler blocks movable into and out of alinement with said separable rails, pairs of bell crank levers, respective pairs being fulcrumed adjacent to respective pairs of separable rails to move one set of separable rails into engagement and the other set out of engagement and means connected with said pairs of bell crank levers to push said filler blocks into and out of alinement with said separable rails.

3. In a railroad crossing, a bed plate, a track including a pair of rails and a second pair of rails alined with but spaced from the first pair, a second track at an angle to the first and including similarly alined and spaced rails, guard and base rails integral with said bed plate attached externally to said respective first pairs of rails at the intersection of said tracks, protractile and retractile filling elements arranged in the spaces of the respective tracks, and arranged to completely fill the respective spaces, and means to move the elements oppositely in the respective tracks.

4. In a railroad crossing, a pair of alined and spaced rails, separable rails alined with said rails and having their adjacent ends beveled, a wedge shaped filler rail movable into and out of the space between the beveled ends, and a system of bell crank levers to operate the separable rails and filler rails simultaneously.

5. In a railroad crossing, a pair of alined and spaced rails, a web, separable rails sliding in said web alined with said rails and having their adjacent ends beveled, a second pair of alined and spaced rails arranged at an angle to the first named rails, other separable rails alined with the second pair of rails and having their ends beveled, filler blocks movable into and out of alinement with the separable rails, and means operable simultaneously to move one pair of separable rails apart and insert the filler block therebetween, and move the second pair of filler rails together and withdraw the filler block.

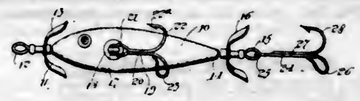
[Claims 6 to 14 not printed in the Gazette.]

1,133,724. FISH-HOOK. CHARLES HEDDON, Dowagiac, Mich. Filed Dec. 26, 1912. Serial No. 738,588. (Cl. 43—30.)

1. A fish hook including a pointed hook bend and a non-penetrating projection located substantially at said hook bend and disposed so as to extend in a direction away from said hook bend.

2. A fish hook including a pointed hook bend and a blunt loop located substantially at said hook bend and disposed so as to extend in a direction away from said hook bend.

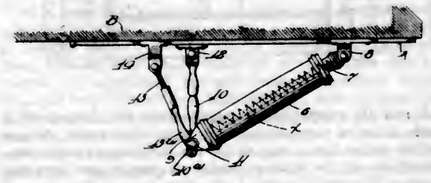
3. A fish hook including a double shank, one part of which terminates in a pointed hook bend, the other part forming a blunt loop located substantially at said hook bend and disposed so as to extend in a direction away from said hook bend.



4. In an artificial fish lure, the combination with a body, of a hook carried thereby, said hook including a pointed hook bend and a non-penetrating projection located substantially at said hook bend and disposed so as to extend in a direction away from said hook bend.

5. In an artificial fish lure, the combination with a body, of a fish hook attached thereto and comprising a pointed hook bend, and a blunt loop located substantially at said hook bend and disposed so as to extend in a direction away from said hook bend.

1,133,725. DOOR CHECK AND CLOSER. JOHN HOFERLE, Chicago, Ill., assignor of one-fourth to Henry A. Hoferle, one-fourth to Andrew Auer, and one-fourth to Louis Auer, Chicago, Ill. Filed Mar. 30, 1914. Serial No. 828,132. (Cl. 16—17.)



1. A door check and closer comprising a cylinder and plunger therefor, means carried thereby for effecting the closure of the door, and a toggle consisting of a straight link and a substantially L-shaped link the shorter arm of which is vertically disposed, an offset member projecting laterally from the shorter arm of said L-shaped link to which the opposite link is pivotally connected and to the end of said shorter arm said cylinder is pivotally connected.

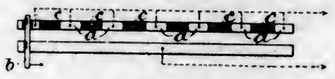
2. A door check and closer comprising a cylinder and plunger therefor, means carried thereby for effecting the closure of the door, and a toggle consisting of a straight link and a substantially L-shaped link the shorter arm of which is vertically disposed, an offset member projecting laterally from the shorter arm of said L-shaped link and provided with a slot and having several openings transverse to said slot in one of which the adjacent end of the opposite link is pivoted, and to the upper end of said shorter arm said cylinder is pivotally connected.

3. A door closer and check comprising a cylinder and a piston therefor, means for retracting said piston within said cylinder, a bracket pivoted to the outer end of said piston, a toggle consisting of two links adjustably pivoted together and pivotally connected at their hinged ends to the base of said cylinder, one of said links pivotally secured to the door opposite the base of the cylinder and the other of said links pivotally secured to the door casing adjacent the place of attachment of the first-mentioned link when the door is closed.

1,133,726. METHOD OF AND APPARATUS FOR SENDING SIGNAL-IMPULSES. ABRAHAM NILSEN HOVLAND, Christiania, Norway. Filed Feb. 12, 1912. Serial No. 677,168. (Cl. 178—52.)

1. The method of obtaining accurate coöperation of a plurality of telegraph instruments, which comprises closing the circuits of said instruments at increasing periods and simultaneously starting the closing of said circuits from zero position after each operation, and thereby preventing the cumulation of errors in synchronism.

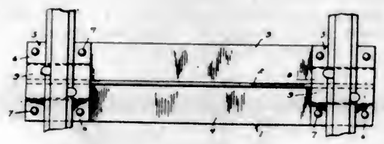
2. The method of obtaining accurate coöperation of a plurality of telegraph instruments, which comprises sending and collecting current impulses in successively increasing periods, said impulses always starting from zero position at the smallest time interval, and thereby preventing the cumulation of errors in synchronism.



3. A sunflower switch having a plurality of contacts insulated from each other and successively increasing in length.

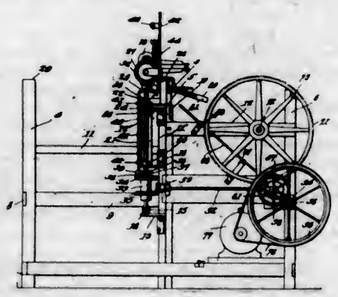
4. A sunflower switch having alternating insulations and conductive contacts, both the insulations and contacts successively increasing in length.

1,133,727. RAILROAD-TIE. MARTIN IMES, Leavenworth, Kans. Filed Jan. 12, 1914. Serial No. 811,738. (Cl. 238—5.)



A rail tie comprising a longitudinal rib, formed of a single strip of sheet metal bent back upon itself, flanges formed at the lower edge of the rib, said flanges being continuations of the strip of metal, U-shaped rail securing members the bight portions of which form rail seats and overlie the upper edge of the rib, flanges at the ends of the arms of the U-shaped rail securing members said flanges lying on the upper faces of the flanges on the rib, rivets securing the flanges on both the rib and U-shaped members together, and the bight portions of the U-shaped members being formed with spike receiving apertures and wood blocks arranged to be inserted between the arms of the U-shaped members and the rib said blocks being arranged to provide a means for retaining rail securing spikes in place in the tie.

1,133,728. OPERATING MECHANISM. HOWARD F. KUHNS, Fullerton, Pa. Filed Dec. 26, 1912. Serial No. 738,640. (Cl. 74—58.)



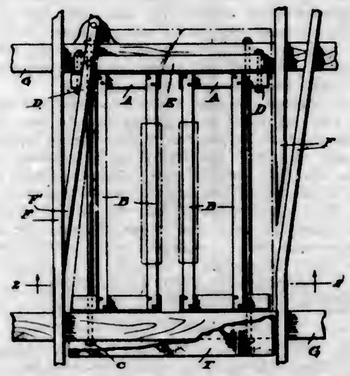
The combination with a supporting structure and superposed brackets outstanding therefrom, of a vertical shaft mounted for rotation within said brackets, a bracket revoluble upon the shaft and bearing downwardly upon the first named brackets, said revoluble bracket having outstanding ears, a horizontal shaft carried by the revoluble bracket and a gear revoluble with the horizontal shaft, a gear secured to the vertical shaft and constantly meshing with the gear upon the horizontal shaft, a drive shaft, a gear thereon, spaced superposed gears upon the vertical shaft, the gear of the drive shaft being extended between the superposed gears, and means guided by the ears upon the revoluble bracket for shifting either of said superposed gears into mesh with the gear on the drive shaft, thereby to rotate the gear of the horizontal shaft in either direction irrespective of the angular adjustment of said shaft relative to the supporting structure.

1,133,729. RAKE-CLEANER. ANDERSON LEE, Salt Lake City, Utah. Filed June 24, 1913. Serial No. 775,489. (Cl. 55—146.)



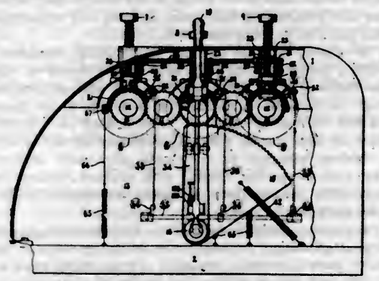
The combination with a rake comprising a handle, a rectangular frame secured to one end of the handle, said frame including front and rear bars, and side bars connecting the front and rear bars, teeth secured to the front bar and extending downwardly therefrom, the rear bars being provided with a pair of spaced grooves, a cleaning device comprising a cleaner bar slidable on the rake teeth, rearward extensions secured to the cleaner bar, loops formed at the rearmost ends of the rearward extensions, said loops lying in the grooves, upward extensions formed on the loops, said extensions projecting at right angles to the rearward extensions of the cleaner bar, said upward extensions being joined to each other and means slidable on the rear handle to rock the upward extensions and thereby cause the stripping bar to descend.

1,133,730. SWITCH-OPERATING DEVICE. JOHN MARCHE LYTLE, Baltimore, Md. Filed May 21, 1912. Serial No. 698,768. (Cl. 104—24.)



In combination with a switch point, a slidably mounted bar pivotally connected to the point, said bar being disposed transversely of the railway, a pair of rods disposed longitudinally of the railway and secured to the ties, a pair of levers pivotally mounted upon the rods and pivotally connected to the bar, each of said levers comprising transversely disposed end pieces and longitudinally disposed bars connecting the end pieces, and a slotted plate disposed above the bars, rods, and levers.

1,133,731. TYPE-SETTING DEVICE. ALBERT J. MCCAULEY, St. Louis, Mo., assignor to Christopher A. Garvey and Howard G. Cook, St. Louis, Mo. Filed Mar. 14, 1913. Serial No. 754,177. (Cl. 101—187.)



1. A device of the character described comprising a bank of type wheels, a rotatable shaft passing through said type wheels, a key operable to lock and unlock said type wheels, said key being carried by said shaft, means for turning said shaft to move said wheels to their printing positions, a locking bar operable to lock said type wheels in their printing positions, means for restoring said locking bar to release said type wheels, means for restoring the type wheels after said locking bar is restored, and means for restoring said key after the type wheels are restored.

2. A device of the character described comprising a bank of type wheels a shaft passing through said type wheels, a slidable key for locking said wheels to said shaft, means for turning said shaft to move said wheels to their printing positions, a slidable locking bar movable into engagement with said wheels to lock them in their printing positions, means for sliding said key and locking bar to unlock said type wheels from said shaft and to lock said wheels in their printing positions, means for restoring said locking bar, means for restoring said type wheels after the locking bar is restored, and means for restoring said key after the wheels are restored.

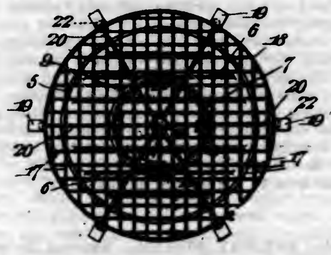
3. A device of the character described comprising a bank of type wheels, a shaft passing through said type wheels, two locking devices, one of which is adapted to lock said type wheels to said shaft, the other locking device being operable to lock said type wheels in their printing positions, means for turning said type wheels to their printing positions, means for moving said locking devices simultaneously to release one of the locking devices and simultaneously lock said wheels in their printing positions by means of the other locking device, and restoring means comprising means for restoring one of said locking devices to release the type wheels, means for turning the type wheels to their normal or non-printing position after said type wheels are released and means for restoring the other locking devices after the type wheels are returned to their normal or non-printing position.

4. A device of the character described comprising a bank of type wheels, each of said wheels being provided with an abutment on its periphery, a key operable to lock and unlock said type wheels, means for turning said type wheels to their printing positions, a locking bar operable to lock said type wheels in their printing positions, means for moving said key and locking bar so as to lock said wheels in their printing positions, and restoring devices including means for restoring said locking bar to release said type wheels, a rotary sweep movable about the axis of said wheels and adapted to engage said abutments, means for turning said sweep to restore the type wheels after the locking bar is restored, and means for restoring said key after the type wheels are restored.

5. A device of the character described comprising banks of type wheels, sets of traveling locking devices associated with said banks of type wheels, means for turning said type wheels to printing positions, means for operating each of said sets of traveling locking devices to lock the type wheels in their printing positions, and selective devices for placing any one of said banks of type wheels and the set of traveling locking devices associated therewith under the control of the operator.

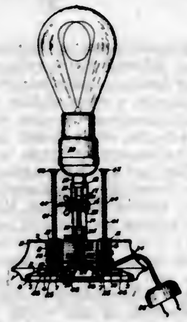
[Claims 6 to 19 not printed in the Gazette.]

1,133,732. CLOTHES-WASHING MACHINE. FRANK H. MCCUNN, Portland, Oreg. Filed Oct. 11, 1912. Serial No. 725,350. (Cl. 68—37.)



In a washing apparatus, a clothes supporting device adapted to be positioned within a tub and comprising a circular frame provided with a foraminated body portion, legs on said frame adapted to rest upon the tub bottom for supporting the said frame thereabove, a core disposed centrally of and beneath said body portion and adapted to rest upon said tub bottom, and a plurality of rods each positioned beneath said body portion and secured at its opposite ends to said core and frame respectively for supporting said body portion, substantially as described.

1,133,733. PORTABLE INCANDESCENT LAMP. WILLIAM A. MCKAY and MARTIN CLAUSSEN, San Francisco, Cal. Filed Feb. 6, 1913, Serial No. 746,505. Renewed Feb. 8, 1915. Serial No. 6,821. (Cl. 240—53.)



1. In an electric lamp support, the combination of a hollow body, a cover closing the top of said body, means for revolubly securing together the cover and body, upwardly extending means on said cover for supporting a lamp, the cover and the sides of the body having holes to permit lamp cords to pass therethrough, and a winding spool within the body and secured to the cover, around which said cords are wound.

2. In an electric lamp support, the combination of a hollow body, having a centrally apertured top and bottom, a cover and plate closing the respective apertures, tubes connecting the cover and plate, a clamp having portions slidable in said tubes, and resilient means for pressing said clamp to said body.

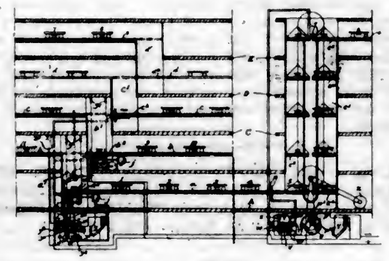
3. In an electric lamp support, the combination of a hollow body, having a centrally apertured and upwardly arched or concave bottom, a cover closing the top of said body, a plate closing said aperture, tubes connecting the cover and plate, a clamp having terminal portions slidable in said tubes, its mediate portion being contained in said concavity, and resilient means for pressing said clamp to said bottom.

4. In an electric lamp support, the combination of a hollow body, having a centrally apertured bottom, a plate closing said aperture, tubes connected with said plate, a wire clamp having its terminal portions passing through said tubes and extending above the body, heads on the ends of said terminal portions, and coiled springs around said terminal portions between said heads and plate.

5. In an electric lamp support, the combination of a hollow body, having a centrally apertured top and bottom, a cover closing the top of said body, a plate closing said aperture, tubes for connecting the cover and plate, a wire clamp having its terminal portions passing through said tubes and extending above the cover, heads on the ends of said terminal portions, and coiled springs around said terminal portions between said heads and plate.

[Claims 6 to 16 not printed in Gazette.]

1,133,734. RAILWAY SYSTEM. BERNARR MACFADDEN, London, England. Filed Sept. 24, 1914. Serial No. 863,400. (Cl. 104—62.)



1. A railway system for use in buildings comprising a series of tracks on different floors with cars arranged to travel around such tracks, a series of lift wells each connecting with two tracks, a series of lifts operating within said lift wells for conveying the cars successively from one of said tracks to the other of said tracks, a lift well extending from the uppermost track to the lowermost track of the building and a lift operating within the said well, substantially as and for the purpose set forth.

2. In a railway system for use in buildings for conveying passengers around the floors of said building, the combination with a lift, electrical elevating and lowering mechanism for said lift, tracks on the floors between which the lift operates, and an electrically propelled car on each track, of means coöperating with said lift for causing the car on the lowermost of said tracks to enter the lift in the lowermost position of said lift, and for causing the other cars to travel over a portion of track, means for stopping a car when it has entered the lift, means for causing the closing of doors or the like to actuate the lift raising mechanism to raise the lift, and means for actuating the lift lowering mechanism as the car passes off the lift substantially as set forth.

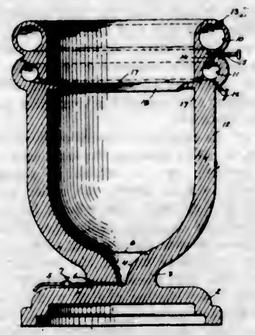
3. In a railway system for use in buildings, the combination with a lift, electrical elevating and lowering mechanism for said lift, tracks, on the floors between which the lift operates, and an electrically propelled car on each track, of means coöperating with said lift for causing the car on the lowermost of said tracks to enter the lift in the lowermost position of said lift, and for causing the other car or cars to travel over a portion of track, means for stopping a car when it has entered the lift, means for causing the closing of doors or the like to actuate the lift raising mechanism to raise the lift and means for actuating the lift lowering mechanism as the car passes off the lift, a lift well extending from the uppermost to the lowermost track, a lift within said well and means for controlling the speed of said lift substantially as and for the purpose set forth.

4. A railway system for use in buildings designed for conveying passengers in cars around the floors or certain of the floors of such buildings, the said system comprising a track on each floor around which a car is to traverse, and a lift for conveying a car from one of such tracks to another of said tracks, contacting means on the cars, contact devices adapted to coöperate with said contacting means, and means for moving said contact devices out of contact with said contacting means substantially as and for the purpose set forth.

5. A railway system for use in buildings designed for conveying passengers around the floors or certain of the floors of such buildings, the said system comprising a lift well disposed substantially centrally of the building, a track extending from each side of said lift well on each of the floors of said building around which a car is to traverse, and a lift adapted to operate within said lift well for conveying a car from one track to another, said lift provided with a plurality of stages, said stages disposed apart distances equal to the distances apart of said tracks, said lift serving to raise at a time a plurality of cars from tracks to other tracks and to lower a plurality of cars from tracks to other tracks at a time.

[Claims 6 and 7 not printed in the Gazette.]

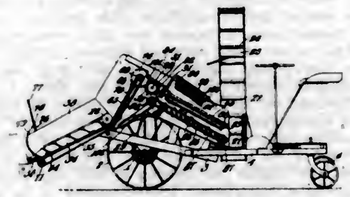
1,133,735. FLOWER-POT. WILLIAM HUSTON MALONE and RICHARD SMITHSON JENKINS, Fort Myers, Fla. Filed Aug. 25, 1914. Serial No. 858,495. (Cl. 47—19.)



1. In a flower pot structure, a wall forming a retaining flower pot having an irrigating liquid retaining raceway formed in the upper edge of said flower pot and a feeding raceway formed in the wall of said flower pot and positioned beneath said retaining raceway, said flower pot wall being provided with an opening providing communication between said raceway for permitting the feeding of irrigating fluid from said retaining raceway into said feeding raceway, said flower pot wall being provided with a plurality of circumferentially spaced openings which communicate with said feeding raceway to permit of the feeding of the irrigating fluid into the interior of said flower pot, and an inwardly extending flange formed directly beneath said circumferentially spaced openings for guiding the irrigating fluid toward the center of said flower pot.

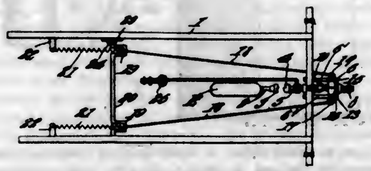
2. In a flower pot structure, a wall forming a retaining flower pot having an irrigating liquid retaining raceway formed in the upper edge of said flower pot and a feeding raceway formed in the wall of said flower pot and positioned beneath said retaining raceway, said flower pot wall being provided with an opening providing communication between said raceways for permitting the feeding of irrigating fluid from said retaining raceway into said feeding raceway, said flower pot wall being provided with a plurality of circumferentially spaced openings which communicate with said feeding raceway to permit of the feeding of the irrigating fluid into the interior of said flower pot, an inwardly extending flange formed directly beneath said circumferentially spaced opening for guiding the irrigating fluid toward the center of said flower pot, and a valve mechanism interposed in said wall for controlling the flow of irrigating fluid from said retaining race-way into said feeding raceway.

1,133,736. CORN-HUSKER. ANDREW J. MARKHAM, Dana, Iowa, assignor of one-tenth to Charles A. Swanson, one-tenth to Charles A. Senter, one-tenth to Edgar J. Clark, one-tenth to George W. Morris, and one-tenth to William C. Johnston, Dana, Iowa. Original application filed Mar. 3, 1913, Serial No. 751,898. Divided and this application filed July 29, 1913. Serial No. 781,845. (Cl. 130—5.)



A corn husker including pivotally connected frame structures, means for supporting the outer ends of each of said structures, husking rolls supported by and movable with one of the frame structures, means for shifting said structures angularly relative to each other, thereby to vary the incline of the husking rolls, means carried by the other frame structures for receiving material discharged from the ends of the husking rolls, and means above and adjustable with the husking rolls for packing ears upon and feeding them along the rolls, said means including a crank shaft extending transversely above the rolls, a brush interposed between and connected to the crank shaft and having its lower active face normally inclined outwardly away from the rolls thereby to form an ear receiving throat, and means for rotating the crank shaft, thereby to move the brush downwardly and outwardly relative to the husking roll.

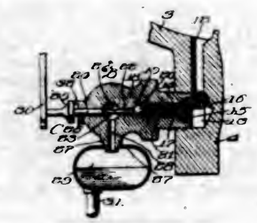
1,133,737. EXPLOSION-ENGINE STARTER. CHARLES R. MILLER, Whitesboro, Tex. Filed Sept. 28, 1914. Serial No. 863,935. (Cl. 123—185.)



1. The combination with an explosion engine, having a starting crank receiving connection, of a starting device, including a frame, a longitudinally slidable rotary shaft mounted in the frame, means carried upon one end thereof for engagement with the crank receiving means of the engine, a member carrying a spiral fixed to the shaft within the frame, an annulus surrounding the shaft and slidably mounted within the frame, said annulus being held against rotary movement, means carried by the annulus for engaging the spiral, two rods connected to the annulus, a transverse shaft having two cranks, each crank being connected to its respective rod, means for rotating the transverse shaft to reciprocate the annulus, and a spring connected to the transverse shaft for operating said transverse shaft and the annulus to impart rotation to the longitudinally slidable rotary shaft in engine starting direction.

2. The combination with an explosion engine, having a starting crank receiving connection, of a starting device, including a frame, a longitudinally slidable rotary shaft mounted in the frame, means carried upon one end thereof for engagement with the crank receiving means of the engine, a member carrying a spiral fixed to the shaft within the frame, an annulus surrounding the shaft and slidably mounted within the frame, said annulus being held against rotary movement, means carried by the annulus for engaging the spiral, two rods connected to the annulus, a transverse shaft having two cranks, each crank being connected to its respective rod, means for rotating the transverse shaft to reciprocate the annulus, a spring connected to the transverse shaft for operating said transverse shaft and the annulus to impart rotation to the longitudinally slidable rotary shaft in engine starting direction, and manually controlled means for sliding the shaft to connect the same to the crank shaft of the engine.

1,133,738. RELIEF-VALVE. MIKE MINTZ, Rock Island, Ill., assignor to Gearless Automatic Pump Company, Rock Island, Ill., a Corporation of Illinois. Filed Feb. 24, 1911. Serial No. 610,642. (Cl. 137—4.)



A device of the class described, comprising a casing having a passage extending therethrough and a central expansion chamber intermediate the ends of said passage, a second expansion chamber and a discharge passage opening from said first chamber and communicating with the second expansion chamber, a threaded bushing fitting within one end of said first named passage, and a plunger fitting within the other end, the passage beyond the end of said plunger being enlarged, a ball valve seat within said enlargement, a ball, and a spring mounted back of said ball and normally holding said ball against the valve seat.

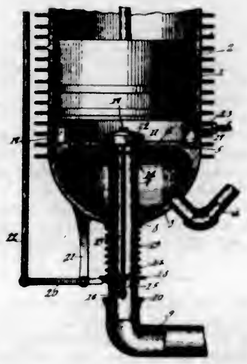
1,133,739. GRINDING-BLOCK. WILLIAM HENRY MORSE, Kenosha, Wis. Filed Nov. 21, 1914. Serial No. 873,393. (Cl. 51—1.)



1. A grinding block, comprising very small globules of chilled iron metal, similar to dust shot in size, and having smooth spherical surfaces of extreme hardness, and a suitable binding cement.

2. A grinding block, comprising very small globules of chilled iron metal, similar to dust shot in size, and having smooth spherical surfaces of extreme hardness, and a suitable binding cement containing particles of sand which is relatively of much less hardness than the metallic globules but which is sufficiently hard to abrade portions of the article to be ground.

1,133,740. HYDROCARBON-ENGINE. GUNDER NYGAARD, Clermont, Iowa. Filed July 20, 1914. Serial No. 852,109. (Cl. 123—75.)



In an engine, a cylinder having a chambered head at one end and an inner contracted valve seat between the said head and the body of the cylinder, a spring pressed tubular shank slidable through the said head, an exhaust valve carried by the said shank and coöperable with the said valve seat, said shank having a valve seat, a yieldably seated intake valve coöperable with the last mentioned valve seat and carried by the said shank, and means for moving the said shank inwardly to unseat the exhaust valve, there being ribs between the body of the cylinder and first mentioned valve seat forming guides for the exhaust valve.

1,133,741. MUSICAL INSTRUMENT. HARMON R. OSBORN, Auburn, N. Y. Filed Sept. 27, 1913. Serial No. 792,185. (Cl. 46—46.)



1. In a musical instrument of the class described, a tubular body having an end piece removably connected to one end thereof, said body having a blow opening therein adjacent said removable end piece, a mouth piece applied to said body in connection with the blow opening therein, said end piece being provided with an opening therein in alinement with the bore of said tubular body, means mounted within the end piece adapted to close a portion of said opening in the end piece, and a plunger mounted in the body operable from the opposite end thereof.

2. In a combined musical instrument of the class described, a cylindrical body having a blow opening therein adjacent one end of the same, an end piece removably applied to the last mentioned end of the body at substantially right angles thereto, said end piece being provided with openings for the admission of sounds therethrough, one of the openings in said end piece having a paper covering disposed thereover, a mouth piece mounted on the body in connection with the blow opening thereof, and a plunger mounted in the body operable from the opposite end of the latter.

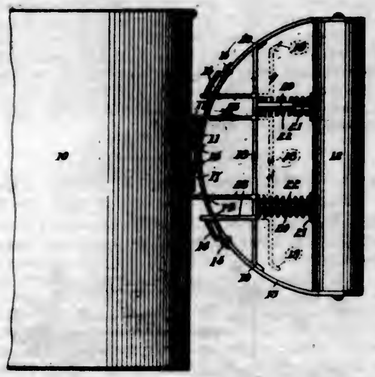
3. In a combined musical instrument of the class described, a cylindrical member having a blow opening adjacent one end thereof, an end piece removably attached to the last mentioned end of said body, said end piece being disposed at right angles to the body and having an opening in the side thereof and in alinement with the body, means applicable to the ends of said end piece to form substantial closures therefor and having openings therein to permit certain sounds therethrough, a mouth piece mounted on the body in connection with the blow opening thereof, and a plunger mounted in said body and operable from the opposite end thereof.

4. A musical instrument of the class described comprising a tubular body, a tubular end piece detachably connected to one end of said body, said body having a blow opening therein adjacent said end piece, said end piece being disposed at right angles to the longitudinal plane of the body and having an opening in the side thereof in alinement with the bore of said body, means mounted in the opposite ends of said end piece to partially close the same, a mouth piece mounted on the body in connection with the blow opening therein, and a plunger mounted in said body and operable from the opposite end thereof.

5. A musical instrument of the class described comprising a tubular body, a tubular end piece removably connected to one end of the body and disposed at right angles to the longitudinal plane thereof, said body having a blow opening therein adjacent said end piece, a mouth piece mounted on the body in connection with the blow opening therein, said end piece having an opening therein in alinement with the bore of said body, a plug disposed in one end of the tubular end piece and having its inner end partially closing the opening in said end piece, said plug having a longitudinal groove formed in its periphery, means for partially closing the other end of said tubular end piece, and a plunger mounted in said body and operable from the opposite end thereof.

[Claim 6 not printed in the Gazette.]

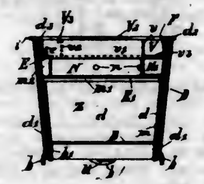
1,133,742. VESSEL-LIFTER. STANISLAW PAJA, Plymouth, Pa. Filed July 7, 1914. Serial No. 849,463. (Cl. 65—13.)



1. In a vessel lifter, a hand grip, a semi-circular band secured at its end to said hand grip and provided with suitably spaced openings therein, socket members carried by said hand grip and positioned thereon in alinement with said band, a plate having its ends normally engaging the inner face of said band, inwardly-directed pins carried by said plate to be received in said sockets, cushion springs surrounding said pins and sockets and normally forcing the plate in an outward direction, locking tongues carried by the opposite side of said plate and extending through said band openings, and oppositely-disposed angle pieces secured to the outer face of said band and constituting complemental means for the locking tongues.

2. In a device of the class described, a hand grip, a curved band carried thereby, oppositely-disposed angle pieces carried by said band and having their free ends normally spaced therefrom, and spring-pressed locking tongues supported on said hand grip and extending through said band to constitute locking means for the angle pieces.

1,133,743. COMBNIED CABINET AND TABLE. ELLA E. PHELPS, Union City, Pa. Filed Jan. 13, 1913. Serial No. 741,735. (Cl. 45—117.)



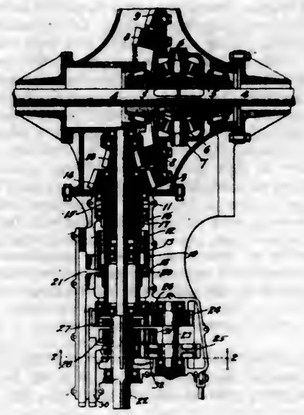
1. In a device of the character described, a cabinet section having a recess formed in the under side thereof, legs for supporting said section, such legs being carried by a base section, an upholstered top on said base section adapted to engage within said recess, and means provided on the two sections for removably connecting them.

2. In a device of the character described, a cabinet section having a recess formed in the under side thereof, legs for supporting said section, such legs being carried by a base section, a reduced top on said base section adapted to engage within said recess, means provided on the two sections for removably connecting them, and foot members on the sides of said cabinet section for supporting the same when removed from said base section.

3. In a combined cabinet and table, a cabinet section having a table top slidable thereon and removable therefrom and a recess formed in the under side thereof, legs for supporting said section, such legs being carried by a base section, a reduced top on said base section adapted to engage within said recess, means provided on the two sections for removably connecting them, and foot members on the sides of said cabinet section for supporting the same when removed from said base section.

1,133,744. TRANSMISSION-GEARING FOR MOTOR-VEHICLES. IRVIN H. PLEUKHARP, Columbus, Ohio. Filed Aug. 10, 1914. Serial No. 856,046. (Cl. 74—59.)

1. In transmission gearing, the combination with a driven shaft and a pair of bevel gears secured thereto, of a driving system, including an inner driving pinion meshing with one of the bevel gears and having an extended hub, an outer driving pinion sleeved upon the hub of the inner pinion and meshing with the other bevel gear, a clutch-member connected with the outer driving pinion, a clutch-member connected with the hub of the inner driving pinion, an intermediate driving member in alinement with but independent of said pinions, a clutch-member slidably connected with the inner end of said intermediate driving member and adapted to selectively engage the clutches of either of said pinions, a second clutch member and a gear wheel connected with the outer end of said intermediate driving member, a driving shaft in alinement with but independent of said intermediate driving member, a counter-shaft parallel with the driving shaft and intermediate driving member, a gear on said counter-shaft meshing with the gear on said intermediate driving member, a second gear mounted on said counter-shaft, and a combined gear and clutch member slidably mounted on said driving shaft and adapted to selectively engage either the second gear of the counter-shaft, or the clutch at the outer end of the intermediate driving member.



2. In transmission gearing, the combination with a driven shaft and a pair of bevel gears secured thereto, of a driving system, including a driving pinion meshing with one of the bevel gears and a driving pinion sleeved upon the first driving pinion and meshing with the other of said driving gears, clutch means associated with each of said pinions, an intermediate driving member in alinement with but independent of said pinions, clutch means associated with said intermediate driving member and adapted to selectively engage the clutches of either of said pinions, a driving shaft in alinement with but independent of said intermediate driving member, a counter-shaft parallel with said driving shaft and intermediate driving member, a gear-train connecting said driving shaft with said intermediate driving member through said counter-shaft, means for throwing said gear-train out of operation, and means for clutching said driving shaft directly to said intermediate driving member.

3. In transmission gearing, the combination with a driven shaft and a pair of bevel gears secured thereto, of a driving system including a driving shaft, a pinion sleeved upon said driving shaft and meshing with one of said bevel gears, a second pinion sleeved upon said driving shaft and meshing with the other of said driving gears, clutch means associated with each of said pinions, an intermediate driving member sleeved upon said driving shaft and having clutch means adapted to be selectively engaged with the clutch-members of either of said pinions, a counter-shaft paralleling said driving shaft, a gear-train for driving said intermediate driving member from said driving shaft, and means for driving said intermediate member directly from said driving shaft.

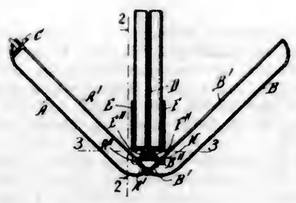
4. In transmission gearing, the combination with a driven shaft and a pair of bevel gears secured thereto, of a driving system, including a driving shaft, a pinion sleeved upon said driving shaft and meshing with one of said bevel gears, a second pinion sleeved upon said first pinion and meshing with the other of said bevel gears, clutch members associated with each of said pinions, an intermediate driving member in alinement with but independent of said pinions and also sleeved upon said driving shaft, a clutch device associated with said intermediate driving member and adapted to selectively engage the clutches of either of said pinions, a gear on said intermediate driving member, a gear on said driving shaft, a counter-shaft paralleling said driving shaft, a gear carried on said counter-shaft and meshing with the gear of the

intermediate driving member, a second gear carried on said counter-shaft, and adapted to mesh with the gear of said driving shaft, and means for clutching said driving shaft directly to said intermediate driving member.

5. In transmission gearing, the combination with a driven shaft and a pair of bevel gears secured thereto, of a driving system, including a driving pinion meshing with one of the bevel gears and having an extended hub, the second driving pinion sleeved upon said hub and meshing with the other of said driving gears, clutch means associated with each of said pinions, an intermediate driving member in alinement with but independent of said pinions, a clutch device associated with said intermediate driving member and adapted to selectively engage it with either of the said pinions, a driving shaft in alinement with but independent of said intermediate driving member, means for clutching said driving shaft directly to said intermediate driving member, a gear-train for forming indirect connection between said driving shaft and said intermediate driving member, said gear-train including selective means for reversing the direction of motion of said intermediate drivng member with relation to said driving shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,133,745. CIGARETTE-CASE. LEO POTTER, New York, N. Y., assignor to Emil Potter, New York, N. Y. Filed May 23, 1914. Serial No. 840,428. (Cl. 206—41.)



1. A case of the character described comprising a pair of hinged lids provided with transverse ribs or bezels adjacent to the hinge, a holder within said case, and elastic means securing said holder to said ribs and tending to swing the lids apart.

2. A case of the character described comprising a pair of hinged lids provided with transverse ribs or bezels adjacent to the hinge, a holder within said case, and flexible means for securing the holder to said ribs.

3. A case of the character described comprising a pair of hinged lids, a holder within said case, and flexible wires extending lengthwise of the hinge the central portions of said wires engaging the holder, while their end portions engage the lids to keep the holder in a central position.

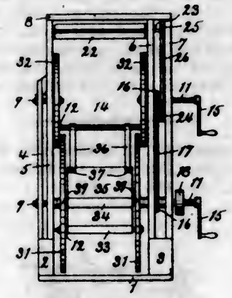
4. A case of the character described comprising a pair of hinged lids, a holder within said case, and flexible wires located on opposite sides of the holder, the central portion of each wire engaging the holder and the end portions of one wire engaging one of the lids, while both end portions of the other wire engage the other lid.

5. A case of the character described comprising a pair of hinged lids, a holder within said case, flexible wires connecting said holder with said lids, the central portions of each wire engaging one of the members connected by such wires, and the end portions engaging the other member.

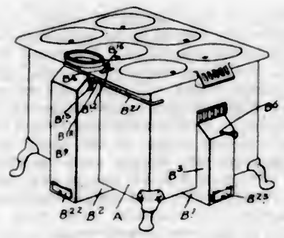
[Claims 6 and 7 not printed in the Gazette.]

1,133,746. EXERCISER. NICHOLAS PSZYSTAS, Westfield, Mass. Filed Apr. 9, 1914. Serial No. 830,689. (Cl. 128—16.)

The combination, in an exerciser, of a frame, two pairs of alining shafts mounted, one pair above the other, in said frame, and provided with crank members, foot and hand supports carried by said crank members, said foot support being provided with a back and a seat, and supporting members between said hand support and said back.

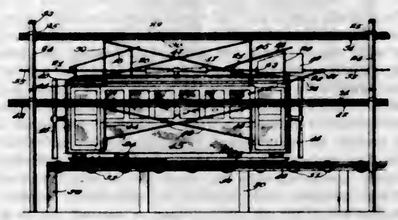


1,133,747. STOVE. WILLIAM JAMES SARVIS, Hanover, Ontario, Canada. Filed May 25, 1914. Serial No. 840,893. (Cl. 126—1.)



In a stove, the combination with the stove body having the usual fire pot and chimney ducts and communicating flues, of a right angular duct extending along the bottom of the stove from the center thereof and having an opening in the bottom wall, vertical branches upwardly from each end of the right angular duct, one vertical branch leading through a suitable opening into the fire pot directly beneath the grate level and the other branch leading to the chimney duct, as and for the purpose specified.

1,133,748. FLYING-MACHINE. GEORGE H. SCHANCK, Libertyville, Ill. Filed Sept. 12, 1914. Serial No. 861,462. (Cl. 104—154.)



1. An aerial railway comprising a car provided with aerial propellers and lifting planes, and an elevated track on opposite sides of the car, said track being pivotally mounted to swing in a vertical plane, and car suspension means mounted for travel on the track.

2. An aerial railway comprising a car provided with aerial propellers and lifting planes, and an elevated track

on opposite sides of the car, said track being pivotally mounted to swing in a vertical plane, and flexible car suspension means mounted for travel on the track.

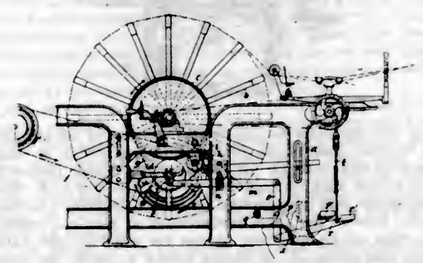
3. An aerial railway comprising a car provided with aerial propellers and lifting planes, and an elevated track on opposite sides of the car, suspension arms flexibly connected to opposite sides of the car, and wheels carried by the outer ends of the arms and mounted for travel on the aforesaid track.

4. An aerial railway comprising a car provided with aerial propellers and lifting planes, an elevated track on opposite sides of the car, said track comprising a hollow member having a slot, and said member being pivotally mounted to swing in a vertical plane, suspension arms flexibly connected to opposite sides of the car and extending through the slot of the hollow member into said member, and wheels carried by the outer ends of the arms and mounted for travel in the hollow member forming the track.

5. An aerial railway comprising a car provided with aerial propellers and lifting planes, an elevated track on opposite sides of the car, said track comprising a hollow member having a slot, and said member being pivotally mounted to swing in a vertical plane, suspension arms flexibly connected to opposite sides of the car and extending through the slot of the hollow member into said member, and wheels carried by the outer ends of the arms and mounted for travel in the hollow member forming the track, said wheels having a peripheral ridge extending into the slot of the hollow member.

[Claims 6 and 7 not printed in the Gazette.]

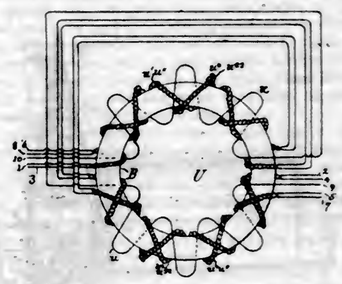
1,133,749. WARPING-MACHINE. EUGENE P. SEARING, Paterson, N. J., assignor to Benjamin Eastwood Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 13, 1912. Serial No. 714,841. (Cl. 28—14.)



A warping machine including, with the frame and the reel journaled therein and having a wheel forming a fixed part thereof, an endless belt loosely embracing the wheel, a driving wheel arranged between the belt and the first wheel and shiftable back and forth out of driving contact with one into driving contact with the other of them, and means for shifting the driving wheel back and forth including a pair of levers fulcrumed in the frame and each having a treadle at one end, and means, common to both levers, for transmitting shifting motion from the levers to said driving wheel, one of said levers being a lever of the second class and having the motion transmitting means connected therewith between its ends and the other lever being a lever of the first class and having said motion transmitting means connected therewith at its other end, substantially as described.

1,133,750. TRANSFORMER. THOMAS SHAW, Hackensack, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Sept. 29, 1913. Serial No. 792,474. (Cl. 179—172.)

1. A transformer comprising a core, windings on the core consisting of plural conductors arranged in sections on different portions of the core, the sections being at different distances from the core, and a winding consisting of a single conductor extending about the entire core.



2. A transformer comprising a core, windings on the core consisting of plural conductors arranged in sections on different portions of the core, the sections being at different distances from the core, and a winding consisting of a single conductor extending about the entire core outside the sectional windings.

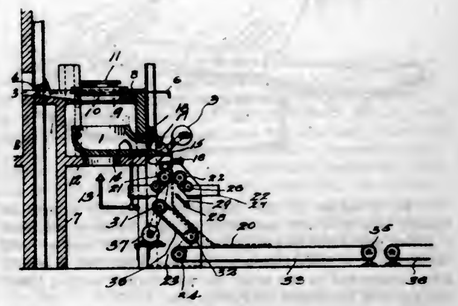
3. A transformer comprising a core, windings on the core consisting of a plurality of pairs of twisted conductors, said pairs being balanced with respect to resistance and inductance, and another winding consisting of a single conductor.

4. A reflection reducing transformer comprising a toroidal core, windings on the core including a plurality of pairs of twisted conductors, each pair being in sections situated on different portions of the core with the sections of the same winding at different distances from the core.

5. A transformer comprising a toroidal core, windings on the core consisting of a plurality of pairs of twisted conductors, and another winding consisting of a single conductor, the twisted windings being in sections situated on different portions of the core with the sections of the same winding at different distances from the core and with the single conductor farthest from the core.

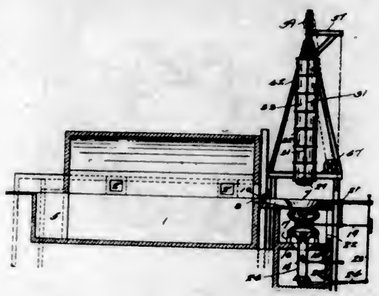
[Claim 6 not printed in the Gazette.]

1,133,751. MACHINE FOR ROLLING SHEET-GLASS. GEORGE A. SHIELDS, Columbus, Ohio. Filed May 28, 1913. Serial No. 770,365. (Cl. 49—3.)



The combination with a receptacle having a broad spout, of means for regulating the thickness of the glass sheet flowing therefrom, means for severing a length from the sheet, means for compressing the severed length of glass, an inclined conveyer below the compressing means, and means located below the compressing means for cooling the length of glass before it passes to the conveyer.

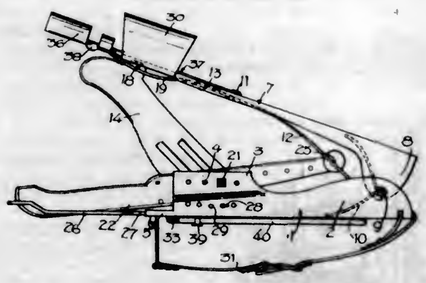
1,133,752. MACHINE FOR DRAWING SHEET-GLASS. GEORGE A. SHIELDS, Columbus, Ohio. Filed May 28, 1913. Serial No. 770,366. (Cl. 49—17.1.)



1. The combination in a glass drawing machine with a supporting frame and a movable carrier thereon, of a revoluble shaft supported in the frame and carrier, guide bars movable on the shaft and means for moving them, a hollow cross head slidable on the bars, a blowing hose attached to the upper portion of the cross head, a drawing tube attached to the lower portion of the cross head, a drum on the shaft, and a rope wound upon the drum and connected to said cross head.

2. The combination in a glass drawing machine with a supporting frame and movable carrier thereon, of a revoluble shaft supported in the frame and carrier, oscillatable and laterally movable guide bars on the shaft, a hollow cross head slidable on the bars and having a blowing hose and drawing tube, a drum on the shaft and a rope connected to the cross head, and an openable shield surrounding said drawing tube.

1,133,753. CUTTER. WILLIAM P. SHORTRIDGE, Granfield, Okla. Filed Aug. 12, 1914. Serial No. 856,401. (Cl. 30—24.)



1. In a cutter of the character described, a pair of handle bars pivotally connected to each other at one end, a pivot pin extending transversely through one of said handle bars, a blade connected to said pivot pin, a second blade connected to the other bar and formed with a longitudinal slot to receive said pivot pin.

2. In a cutter, a pair of handle bars pivotally connected to one another at one end, one of the handle bars being formed with a pair of inwardly facing jaws, a blade extending between said jaws, a pivot pin extending through the jaws and blade, a second blade coöperating with said first mentioned blade, and means for pivotally connecting the second mentioned blade to the other handle bar, the second mentioned blade being formed with a longitudinal slot through which the pivot pin passes.

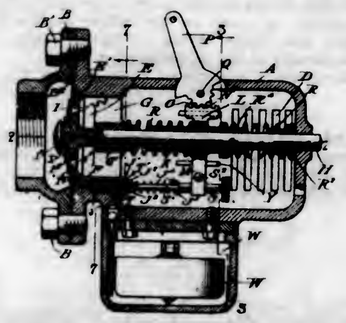
3. In a cutter of the character described, a handle bar formed with a pair of opposed jaws, a blade extending between said jaws, means for securing the blade in position and a guard carried by the handle bar and extending across the outer end of the blade.

4. In a cutter of the character described, a handle bar formed with a pair of opposed jaws each provided with a series of openings, a blade extending between said jaws, a fastening member extending through certain of said openings and through the blade, and a longitudinally adjustable guard carried by the handle bar and extending across the outer end of the blade.

5. In a cutter of the character described, a handle bar formed with a pair of opposed jaws, each formed with a series of openings, a blade extending between said jaws having a series of openings, and a fastening member extending through registering openings formed in the jaws and blade.

[Claim 6 not printed in the Gazette.]

1,133,754. CARBURETER. EDWARD G. SHORTT, Carthage, N. Y., assignor of one-half to M. Clinton Mason, Rockville, Conn. Filed Nov. 27, 1912. Serial No. 733,901. (Cl. 48—155.1.)



1. An apparatus for controlling the flow of air and fuel to internal combustion engines, etc., comprising a chambered casing with an air passageway leading therefrom and a fuel duct through the wall of the latter, a valve regulating said passageway, opposing springs, one normally holding the valve seated when at rest and sealing the flow of air and fuel, means for relieving the valve from the action of its closing spring to allow the other spring to expand and unseat the valve, and means for retarding the flow of fuel as the valve unseats, as set forth.

2. An apparatus for controlling the flow of air and fuel to internal combustion engines, etc., comprising a chambered casing with an air passageway leading therefrom and a fuel duct through the wall of the latter, a valve regulating said passageway, opposing springs, one normally holding the valve seated while at rest and sealing the flow of fuel, manually operated means for relieving the valve from the action of its closing spring to allow the other spring to unseat the valve, and means for retarding the flow of fuel as the valve unseats, as set forth.

3. An apparatus for controlling the flow of air and fuel to internal combustion engines, etc., comprising a chambered casing with a passageway leading therefrom, a portion of the wall of the latter forming a valve seat with an oil duct leading therethrough, said casing having a chambered portion, the inner surface of which flares at an angle to said valve seat, a valve, a spring normally holding the valve seated to seal the flow of air and fuel when at rest and means for moving the valve which coöperates with the flaring surface of said chamber to maintain a substantially uniform flow of air and fuel as the valve moves toward or away from its seat, as set forth.

4. An apparatus for controlling the flow of air and fuel to internal combustion engines, etc., comprising a chambered casing with a passageway leading therefrom, a portion of the wall of the latter forming a valve seat with an oil duct leading therethrough, a valve, springs, one normally holding the valve seated when at rest to seal the flow of fuel through said passageway, means for relieving the valve from the action of its seating spring to allow the other spring to expand to unseat the valve, fuel-regulating mechanism, said valve being arranged to seat automatically under back fire and independent of the means employed for relieving the valve of said seating spring, as set forth.

5. An apparatus for controlling the flow of air and fuel to internal combustion engines, comprising a casing which is chambered with an air passageway leading therefrom, a valve regulating said passageway, opposing springs, one serving to seat the valve, and the other tending to unseat the latter, a resistance block against which the valve seating spring bears, lever means for moving said block to vary the tension of the spring which bears against same, a fuel retarding device adjustably mounted upon a projection of the resistance block.

[Claims 6 to 15 not printed in the Gazette.]

1,133,755. SANITARY WATERING-TROUGH. BENJAMIN F. SIMPSON, Orland, Cal. Filed Feb. 25, 1914. Serial No. 820,998. (Cl. 119—63.)

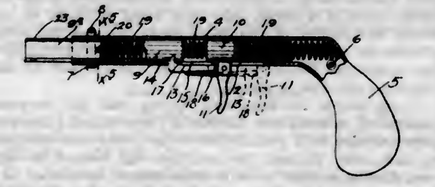


1. A device of the character described comprising a supporting standard consisting of end members provided with bifurcated seats at their upper ends, two pair of end boards, each board having a semi-circular journal pin, such semi-circular journal pins on adjacent boards lying adjacent each other to form a complete circular pin, such pins resting on said bifurcated seats, means on said pins for holding them in position on said seats and a trough carried by each pair of boards, as described.

2. A device of the character described comprising supporting members each having a seat at its upper end, two pair of end boards, each board having a semi-circular pin, said semi-circular pins lying adjacent to each other to form complete circular pins, such pins resting in said seats, each part of each of said pins having a projecting flange on its outer end and a trough carried by each end board, as described

3. A device of the character described comprising end boards each formed of two removable halves, journal pins on said halves, means providing seats for said journal pins to permit said end boards to revolve as a unit, means on said pins for securing them in said seats, and a trough carried by each of said end boards, as described.

1,133,756. TOP-SPINNING PISTOL. ADAM M. SMITH, Minneapolis, Minn., assignor of one-half to Joseph Reiter, Minneapolis, Minn. Filed July 8, 1914. Serial No. 849,724. (Cl. 46—32.)



1. A pistol for spinning tops comprising a handle-equipped barrel, a forwardly spring-pressed propelling bolt and a trigger mounted to slide on said barrel, means for coupling said trigger and said propelling bolt while in forward positions, and for automatically uncoupling the same in rearward positions.

2. A pistol for spinning tops, comprising a handle-equipped barrel, a forwardly spring-pressed propelling bolt movable in said barrel, a trigger mounted to slide on the barrel and provided with a dog having interlocking engagement with said propelling bolt, and means for automatically releasing said dog from said bolt, under rearward movement of said trigger and bolt.

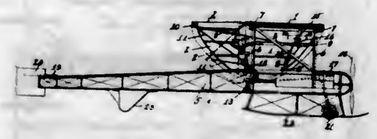
3. A pistol for spinning tops comprising a handle-equipped barrel, a forwardly spring-pressed propelling bolt and a trigger mounted to slide on said barrel, means for coupling said trigger and said propelling bolt while in forward positions, and for automatically uncoupling the same in rearward positions, the said barrel and propelling bolt having coöperating means for spinning a top, under forward movement of the latter.

4. A pistol for spinning tops, comprising a handle-equipped barrel, a forwardly spring-pressed propelling bolt movable in said barrel, a trigger mounted to slide on the barrel and provided with a dog having interlocking engagement with said propelling bolt, and means for automatically releasing said dog from said bolt under rearward movement of said trigger and bolt, the said barrel and propelling bolt having coöperating means for spinning a top under forward movement of the latter.

5. A pistol for spinning tops, comprising a handle-equipped barrel and a forwardly spring-pressed propelling bolt working therein, one of the said members having a rack and the other spindle seats, coöperating to spin a top and to release the same under forward movement of said propelling bolt, a trigger having a head slidable on said barrel and provided with a depending finger piece, and a yieldingly pressed trigger dog engageable with the detent on said propelling bolt, and a part on said barrel engageable with said dog to release the same when said trigger reaches approximately the limit of its rearward movement.

[Claim 6 not printed in the Gazette.]

1,133,757. AEROPLANE. RUSSELL R. SMITH, Rodeo, Cal. Filed May 9, 1914. Serial No. 837,452. (Cl. 244—27.)



1. In an aeroplane, the combination of upwardly converging main planes; stabilizing planes hingedly connected with the rear edges of the main planes, and adapted to be drawn down to an angle with the main planes, said stabilizing planes being fashioned and disposed relatively to the main planes to form a parachute therewith when drawn down in unison; a car pendulously suspended from the apex of the main planes; lines connecting the stabilizing planes with opposite sides of the car for automatically operating said planes as ailerons; and means under the control of the operator for simultaneously drawing down the stabilizing planes to form a parachute with the main planes.

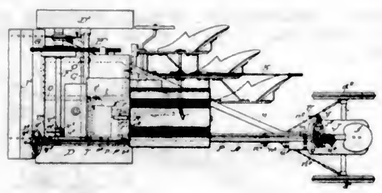
2. In an aeroplane, the combination of upwardly converging main planes; stabilizing planes hingedly connected with the rear edges of the main planes, and adapted to be drawn down to an angle with the main planes, said stabilizing planes being fashioned and disposed relative to the main planes to form a parachute therewith when drawn down in unison; a car pendulously suspended from the apex of the main planes; lines connecting the stabilizing planes with opposite sides of the car for automatically operating said planes as ailerons; and means under the

control of the operator for simultaneously drawing down the stabilizing planes to form a parachute with the main planes, comprising a driven drum and lines wound thereon and connected with the stabilizing planes.

3. In an aeroplane, the combination of upwardly converging main planes; stabilizing planes hingedly connected with the rear edges of the main planes, and adapted to be drawn down to an angle with the main planes, said stabilizing planes being fashioned and disposed relative to the main planes to form a parachute therewith when drawn down in unison; a car pendulously suspended from the apex of the main planes; lines connecting the stabilizing planes with opposite sides of the car for automatically operating said planes as ailerons; means under the control of the operator for simultaneously drawing down the stabilizing planes to form a parachute with the main planes, and means for locking the car and the main planes against relative movement.

4. In an aeroplane, the combination of upwardly converging main planes; stabilizing planes hingedly connected with the rear edges of the main planes, and adapted to be drawn down to an angle with the main planes, said stabilizing planes being fashioned and disposed relatively to the main planes to form a parachute therewith when drawn down in unison; a car pendulously suspended from the apex of the main planes; lines connecting the stabilizing planes with opposite sides of the car for automatically operating said planes as ailerons; means under the control of the operator for simultaneously drawing down the stabilizing planes to form a parachute with the main planes, and means for locking the car and the main planes against relative movement, comprising a lever mounted on the car and a cross bar carried by the main planes and having a keeper notch with which the lever engages.

1,133,758. TRACTION-ENGINE. JOHN F. STEWARD, Chicago, Ill., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed Jan. 14, 1914. Serial No. 811,982. (Cl. 21—114.)



1. In an internal combustion engine tractor, in combination, a carbureter and means for regulating it, means for producing an electric igniting spark and means for timing the same, all of these means properly housed, and means for controlling the direction of travel of said tractor, said means lying beneath the sill of the frame all of said devices controllable at either end of the tractor.

2. In an internal combustion engine tractor, in combination, a main supporting frame having operator's stands at each end, a carbureter and means for controlling the same, a spark producing element, means for controlling the time of ignition, said means properly housed, transmission gearing connecting the engine to the traction wheel, a clutch, and means adjacent to said operator's stand to control all of the elements mentioned, said last mentioned means consisting of rods lying beneath the sill of the frame.

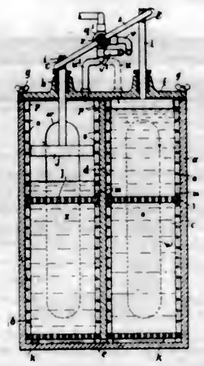
3. In an internal combustion engine tractor, in combination, a main frame supported on traction wheels, an operator's stand at each end of the tractor frame, means for controlling the engine, and means for reversing the direction of travel of said tractor, all means lying beneath the sill of the frame and controllable by means adjacent to the operator's stands.

4. In a tractor, in combination, a main frame supported on traction wheels, an engine for propelling the tractor suitably connected to the engine, controlling means at each end of the tractor, and a reversible yoke secured to the tractor whereby the yoke can be swung to pull implements in the direction of travel, as controlled by the operator, when at his place at either end of the tractor.

5. In a tractor, in combination, a Y-shaped frame consisting of a longitudinal element, A, and an element, B, united thereto, an operator's platform mounted substantially in the line of the longitudinal element of the frame, a clutch lever and lever for changing the direction of movement of the tractor adjacent to the operator's seat, and a lever suitably connected to rods passing forwardly substantially parallel with the longitudinal member of the main frame and by suitable means connected to the clutch device and to the gearing for controlling the direction of movement of the tractor.

[Claims 6 to 8 not printed in the Gazette.]

1,133,759. APPARATUS FOR BLEACHING, DYEING, AND THE LIKE. ORLANDO SUMNER and EMILY HOWARTH SUMNER, St. Margarets-on-Thames, England. Filed Oct. 7, 1913. Serial No. 793,876. (Cl. 8—18.)



1. Apparatus for bleaching, dyeing and like purposes comprising two compartments each of which is charged with both material and liquid, each compartment having a float mechanically connected to the cock of a pump, said cock being operated by the rising and falling of the floats so as to open the pump alternately to the compartments.

2. Apparatus for bleaching, dyeing and like purposes comprising a plurality of closed compartments each of which is charged with both material and liquid, communicating pipes between said compartments, a plurality of cocks operated by the rising and falling of the floats in the compartments and a constantly running pump, the efforts of which are communicated to the compartments according to the positions of the cocks.

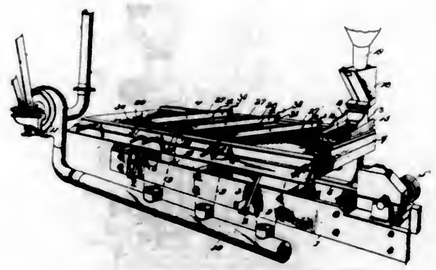
3. Apparatus for bleaching, dyeing and like purposes comprising two closed compartments connected together each compartment having a float mechanically connected to the cock of a pump, said cock being operated by the rising and falling of the floats so as to open the pump alternately to the compartments both compartments having removable perforated plates for the purpose of distributing the flow of liquid.

4. Apparatus for bleaching, dyeing and like purposes comprising a receptacle having a close fitting removable cover divided by a partition into two compartments open to each other through the partition and toward the bottom thereof, a float in each compartment, each float having a rod passing out through the cover and connected to a multi-way cock.

5. Apparatus for bleaching, dyeing and like purposes comprising a receptacle having a close fitting removable cover divided by a partition into two compartments open to each other through the partition and toward the bottom thereof, a float in each compartment, each float having a rod passing out through the cover and connected to a multi-way cock, the said compartments having removable perforated plates with means for adjustably holding some of them in the compartments.

[Claims 6 to 8 not printed in the Gazette.]

1,133,760. PROCESS OF AND APPARATUS FOR SEPARATING AND GRADING SEEDS. HENRY M. SUTTON, WALTER L. STEELE, and EDWIN G. STEELE, Dallas, Tex. Filed Aug. 14, 1914. Serial No. 856,809. (Cl. 130—17.)



1. The process of separating a mass of seeds, consisting in supporting the mass upon an inclined support and imparting to said mass, a positive movement across its path of travel by gravity, and repelling the substantially lighter particles of said mass in a direction opposite to the imparted movement of said articles.

2. The process of separating and grading a mass of seeds, consisting in initially separating the longer seeds from the shorter seeds, supporting the shorter seeds upon an unobstructed surface by a gaseous cushioning medium, imparting to said mass a positive movement, and repelling the movement of the lighter particles of said mass.

3. The process of separating and grading a mass of seeds, consisting in feeding said mass initially upon a screening unit to separate the longer seeds from the shorter seeds, supporting the shorter seeds of said mass upon a transversely inclined supporting surface, imparting to said mass a longitudinal movement upon said surface, and retarding the longitudinal movement of the lighter seeds of said mass, and separately collecting the thus separated seeds.

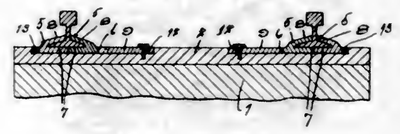
4. The process of separating and grading seeds, consisting in initially separating the longer seeds from the shorter seeds, supporting the shorter seeds upon an unobstructed transversely inclined surface by a gaseous cushioning medium to permit stratification thereof, imparting a positive movement to said seeds, across the movement of said material by gravity, and separately collecting the thus separated seeds.

5. The process of separating and grading a mass of seeds, consisting in initially separating the longer seed from the shorter seed, propelling the mass of shorter seed in a predetermined direction, repelling the travel of said mass in said direction, and separately collecting the thus separated seeds.

[Claims 6 to 54 not printed in the Gazette.]

1,133,761. RAILROAD-TIE. LAWRENCE T. THORN, Lynnville, Tenn. Filed Aug. 7, 1914. Serial No. 855,675. (Cl. 238—5.)

1. A railroad tie including a body, said body being provided with a dove-tail groove near each end, recesses communicating with the grooves, the bottom wall of the recess being provided with a screw-threaded aperture, rail clamps slidable in the dove-tail grooves, said rail clamps conforming to the shape thereof to prevent the same from being accidentally removed and a clamp locking plate removably held in the recess and arranged to abut the rail clamp to prevent the same from becoming accidentally removed.



2. A railroad tie including a body, said body being provided with a dove-tail groove in its upper face, a pair of rail clamps slidable in the dove-tail groove, the body also being provided with a recess in its upper face, said recess communicating with the dove-tail groove, the rail clamps being only of sufficient size to partially fill the dove-tail groove, a plate arranged to be inserted in the recess to fill the same and a dove-tail extension on the plate, said dove-tail extension being arranged to engage the rail clamps to hold the same firmly in place.

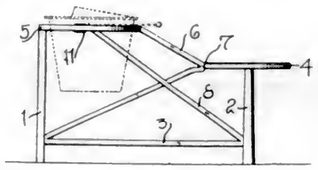
3. A railroad tie including a body, said body being provided with a dove-tail groove in its upper surface, said groove extending longitudinally of the tie, a recess formed in the tie adjacent the groove and arranged to communicate therewith, said recess being of the same width as the width of the widest part of the groove, rail clamps slidable in the groove, said rail clamps being of sufficient length to nearly fill the entire groove, a plate arranged to fit the recess, means to hold the plate in the recess to prevent the same from becoming accidentally removed and a dove-tail extension on one end of the plate, said dove-tail extension being arranged to engage the rail clamps and fill the space between the rail clamps in the end of the dove-tail groove to hold the rail clamps against movement.

1,133,762. EVAPORATOR. GEORGE W. TOWER, Marshfield, Mo., assignor of one-half to W. R. Beaty, Marshfield, Mo. Filed July 31, 1912. Serial No. 712,605. (Cl. 127—9.)



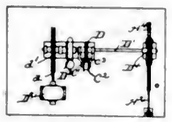
The combination with a furnace having a fire box and a horizontally and rearwardly extending flue, of a juice supply tank arranged above the rearmost end of said flue, an evaporator supported on said furnace, the said evaporator comprising a plurality of compartments, one of said compartments being arranged over said flue, adjacent the rear end thereof and adapted to receive the juice from the said supply tank, a second compartment arranged immediately above the fire box and having communication with the first mentioned compartment, means for preventing said communication, a third compartment arranged adjacent the said second compartment immediately above the fire box and having communication with the second compartment, means for preventing said communication, a fourth compartment arranged adjacent the first compartment above the flue of the furnace, adjacent the rear end thereof and having communication with the third compartment and means for preventing the said communication.

1,133,763. MILKING-STOOL. DENT A. VANDEVEER, Creighton, Nebr. Filed Oct. 3, 1914. Serial No. 864,875. (Cl. 31—13.)



A milking stool including spaced standards, a seat mounted upon the upper ends of said standards, a supporting leg arranged in spaced relation with the standards, a pail supporting ring having one edge thereof mounted upon the leg, divergent brace members having one of their ends connected to the supporting leg and their other ends to each of the standards, including brace members having their other ends connected with the pail supporting ring and their lower ends connected to the spaced standards, and a second brace member having its upper end connected with the pail supporting ring opposite the supporting leg and thence inclined rearwardly and connected with the seat, thence inclined forwardly and connected to the supporting leg at a point adjacent the connection of the divergent brace members, as and for the purpose set forth.

1,133,764. GLASS-BLOWING MACHINE. CHARLES E. VOLK, Erie, Pa. Filed Oct. 27, 1905. Serial No. 284,707. (Cl. 49—17.1.)



1. In a glass blowing machine, the combination of the blow pipe; means for supplying air thereto; a valve controlling the effective air supply; a lever operating said valve; a variation bar arranged at an angle to said operating lever; a connection slidingly mounted on said operating lever and variation bar; and means operating said connection as the pipe is operated.

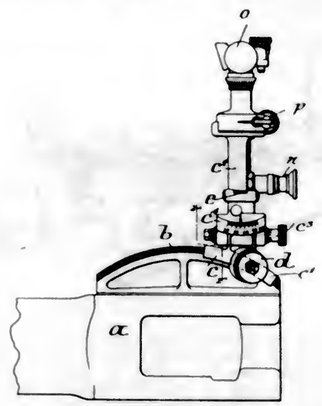
2. In a glass blowing machine, the combination with the blow pipe; of means for supplying air thereto; a valve controlling the effective air supply; a lever operating said valve; a variation bar arranged at an angle to said operating lever; a connection slidingly mounted on said operating lever and variation bar; means operating said connection as the pipe is operated; and means for adjusting the variation bar.

3. In a glass blowing machine, the combination of the blow pipe; means for supplying air thereto; a valve controlling the effective air supply; a lever operating said valve; a variation bar arranged at an angle to said operating lever; a connection slidingly mounted on said operating lever and variation bar; means operating said connection as the pipe is operated; and screws for adjusting the angle of the variation bar.

4. In a glass blowing machine, the combination with the blow pipe; of means for supplying air thereto; a valve controlling the effective air supply; the operating lever H arranged to operate said valve; the variation bar H^5 having the slot h^3 therein; the sliding connection h' slidingly mounted on the lever H and bar H^5; screws H^6 and H^7 for adjusting the angle of the variation bar; and means for adjusting the distance between said screws.

5. In a glass blowing machine, the combination with the blow pipe; of means for supplying air thereto; a valve controlling the effective air supply; the operating lever H arranged to operate said valve; the variation bar H^5 having the slot h^3 therein; the sliding connection h' slidingly mounted on the lever H and bar H^5; screws H^6 and H^7 for adjusting the angle of the variation bar; means for adjusting the distance between said screws; and the stop h^{12} for adjusting the initial opening of the valve.

1,133,765. AIMING DEVICE FOR ORDNANCE. KARL VÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Filed Aug. 10, 1908. Serial No. 447,811. (Cl. 33—48.)



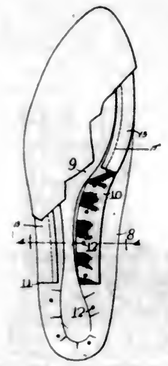
1. The combination, with a gun barrel, an elevation arc fixed thereto, a two part carriage mounted to move over the arc, the one part provided with means to indicate the angle of elevation, a level carried by the second part, the two parts pivoted for relative adjustment on a horizontal axis at right angles to the barrel and provided with a scale to indicate the angle of land, the second part having an arm extending at right angles to the level, and sighting mechanism carried by the arm.

2. The combination, with a gun barrel, an elevation arc fixed thereto and provided with a scale, a two part carriage mounted to move over the arc, the one part arranged to indicate on the said scale the angle of elevation, a level carried by the second part, the two parts pivoted for relative adjustment on a horizontal axis at right angles to the barrel and provided with a scale to indicate the angle of the land, the second part having an arm extending at right angles to the level, and a panorama telescope sight carried by the arm.

1,133,766. METHOD OF MANUFACTURING BOOTS AND SHOES. JOHN H. WAITE, Brockton, Mass. Filed Oct. 13, 1910. Serial No. 586,841. (Cl. 36—17.)

1. The method of making boots and shoes which comprises placing a vamp and insole on a last, temporarily fastening the edge of the vamp to the insole from a point near the heel on the outer side around to the toe and back to the ball only on the inner side, permanently fastening the edge of the vamp to the insole from the ball on the inner side along the shank to the heel, stitching the vamp to the insole where it has been temporarily fastened to the insole from said permanent fastening to the heel on the outer side, and firmly securing an outsole to the edge of the vamp and insole along the inner side of the shank.

2. The method of making boots and shoes which comprises placing a vamp and insole on a last, temporarily fastening the edge of the vamp to the insole from a point near the heel on the outer side around to the toe and back to the ball on the inner side, providing a welt extending from a point near the heel on the outer side of the shoe around the forepart to the ball on the inner side, providing a reinforcement heavier than the welt along the inner side of the shank from the end of the welt, permanently fastening the edge of the vamp to the insole and reinforcement from the ball on the inner side along the shank to the heel while on the last, sewing the vamp and welt to the insole where the vamp has been temporarily fastened to the insole, and firmly securing an outsole to the edge of the vamp along the inside of the shank.



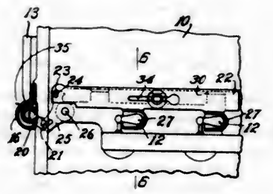
3. The method of making boots and shoes which comprises placing a vamp and insole on a last, temporarily fastening the edge of the vamp to the last from a point near the heel on the outer side around to the toe and back to the ball only on the inner side, sewing the vamp and a welt to the insole where the vamp has been temporarily fastened to the last, applying an outsole, sewing the outsole to the welt from the outside of the heel to the ball on the inner side, removing the incomplete boot or shoe from the last, and firmly securing the insole and outsole to the edge of the vamp along the inside of the shank.

4. The method of making boots and shoes which comprises placing on a last a vamp and an insole having a projection extending beyond the inner edge of the shank inside the vamp, sewing the edge of the vamp and a welt to the insole from a point near the heel on the outer side around to the toe and back to the ball only on the inner side, flexibly sewing an outsole to the welt from the inside ball to the heel on the outer side, removing the incomplete boot or shoe from the last, and permanently securing the outsole to the edge of the vamp along the inner side of the shank between the insole proper and projection.

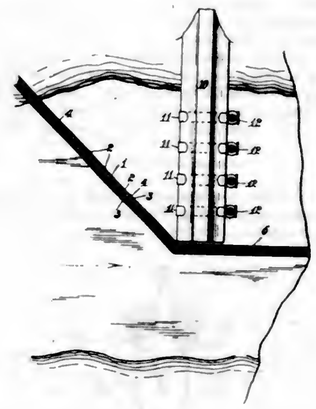
5. The method of making boots and shoes which comprises placing an insole and vamp on a last, placing thereon a welt from the outside front corner of the heel around to the ball on the inside, securing together the insole, vamp and welt throughout the length of the welt, placing a reinforcing piece, heavier and wider than the welt, along the inside shank over the edge of the vamp, nailing it firmly to the vamp and insole, securing an outsole to the welt, removing the boot or shoe from the last, and securing the outsole, reinforcing piece, vamp, and insole together throughout the length of the reinforcing piece.

1,133,767. GAS-STOVE, (OVEN-BURNER.) ARTHUR W. WALKER, Malden, Mass. Filed Jan. 26, 1914. Serial No. 814,313. (Cl. 126—42.)

The combination, in a gas stove, of a closed chamber, a burner therefor, a cock controlling it; and a guard for the cock having a part slidable on the wall of the stove; with a spring pressing said part against the stove wall thereby providing a frictional drag of uniform quality; a hinged door for said chamber; connections, whereby movement of the door slides the guard; and a spring partially counter-balancing the weight of said door, arranged continuously in engagement therewith with its tension increasing as the door is opened.



1,133,768. BUILDING DAMS. OSKAR WARTEMANN, New York, N. Y. Filed July 1, 1914. Serial No. 848,509. (Cl. 61—24.)



The herein described method of constructing a dam across a water way consisting in first constructing a longitudinal coffer dam in the stream between the shores and connecting it with a coffer dam extending from one end of the longitudinal coffer dam up stream to one shore at an angle of about 45 degrees thereby forming a well which is bounded by one shore, the diagonal part of the coffer dam and the longitudinal part of the coffer dam and is open down stream, erecting a dam within the space thus bounded by the coffer dams and shore, providing outlet tubes in the dam thus formed directly above the bed of the stream, removing the diagonal coffer dam section, constructing a coffer dam from the free end of the completed half of the dam up stream at an angle of about 45 degrees to the shore opposite the one to which the first inclined coffer dam section extended, erecting a coffer dam from the down stream side of the completed section of the permanent dam at the free end of said dam, which coffer dam section extends down stream thus forming a space bounded by the last two mentioned coffer dams and a shore, which space is open at the down stream side and constructing the remaining part of the permanent dam in the space thus bounded by the said coffer dams and shore and then removing all the remaining coffer dams, substantially as set forth.

1,133,769. TREATMENT OF TEXTILE FIBERS FOR BLEACHING PURPOSES. EMILE THEODORE JOSEPH WATREMEZ, Brussels, Belgium. Filed Feb. 6, 1914. Serial No. 817,060. (Cl. 8—2.)

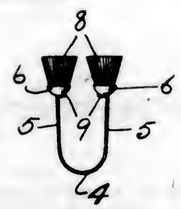
1. The herein-described process of treating textile fibers of vegetable origin previous to bleaching, which consists in subjecting the fibers to the action of an alkaline bath containing the salt of a metal, the oxid of which is soluble in the excess of alkali of the bath, to attack the vegetable coloring matter and in destroying the metal salts remaining in the fibers.

2. The herein-described process of treating textile fibers of vegetable origin previous to bleaching, which consists in subjecting the fibers to the action of an alkaline bath containing the salt of a metal, the oxid of which is soluble in the excess of alkali of the bath, to attack the vegetable coloring matter, and in treating the said fibers with an acid of a concentration varying with the temperature of the bath to destroy the metal salts remaining therein.

3. The herein-described process of treating textile fibers of vegetable origin previous to bleaching, which consists in subjecting the fibers to the action of an alkaline bath containing the salt of a metal, the oxid of which is soluble in the excess of alkali of the bath, to attack the vegetable coloring matter, and in successively treating the fibers with alkaline sulfids and with an acid of concentration varying in accordance with the temperature of the bath to destroy the metal salts remaining therein.

4. The herein-described process of treating textile fibers of vegetable origin previous to the bleaching, which consists in subjecting the fibers to the action of an alkaline bath containing the salt of a metal, the oxid of which is soluble in the excess of alkali of the bath, to attack the vegetable coloring matter, in destroying the metal salts remaining in the fibers, and in again subjecting the fibers to the action of the first-mentioned bath containing the said metal salt, the oxid of which is soluble in an excess of alkali.

1,133,770. NASAL TAMPON. CARL R. WEDLER, Cleveland, Ohio. Filed Aug. 13, 1914. Serial No. 856,528. (Cl. 128—13.)



1. In a nasal tampon, the combination of a flexible U-shaped frame, a cup mounted on each leg of said frame and a pledget secured in each cup, the fibers of the pledgets flaring upwardly and outwardly for the purpose set forth.

2. In a nasal tampon, the combination of a flexible U-shaped frame, a cup mounted on each leg of said frame and a pair of pledgets, each pledget consisting of a tuft folded at its center and detachably secured at the fold in one of said cups.

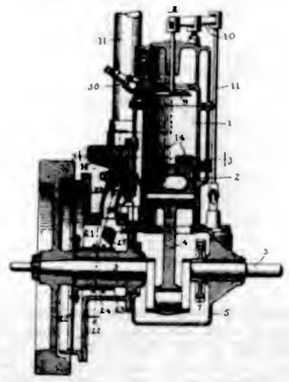
3. In a nasal tampon, the combination of a pair of cups, each cup having an opening in the bottom thereof, a U-shaped connecting frame, said frame having one leg extending through the opening in the bottom of each cup, and each leg being provided with a loop where it extends into the cup, and a pledget arranged within each cup and having the central portion thereof encircled by the loop therein.

4. In a nasal tampon, the combination of a pair of cups having openings in the bottoms thereof, a U-shaped connecting frame formed of fine wire and having the legs thereof extending through the bottoms of said cups, each leg being provided with a loop within the cup thereon and the free end of said loop being arranged to engage with the edge of the opening in the bottom of said cup, and a pledget consisting of a tuft or lint or cotton folded upon itself seated in each cup and with the center portion thereof arranged within the said loop, for the purpose set forth.

5. In a nasal tampon, the combination of a flexible U-shaped frame formed of fine wire, each of the legs of the said frame being provided at its upper end with a loop, and a pledget mounted in said loop.

[Claim 6 not printed in the Gazette.]

1,133,771. INTERNAL-COMBUSTION ENGINE. OTTO H. L. WERNICKE, Grand Rapids, Mich. Filed Feb. 13, 1913, Serial No. 748,099. Renewed Sept. 11, 1914. Serial No. 861,326. (Cl. 123—40.)



1. An internal combustion engine, comprising a cylinder having an exhaust port, means for periodically opening said port, an exhaust valve and an exhaust chamber communicating with said port, means for opening the exhaust valve during the early part of the time that the exhaust port is open, means for drawing the burned gases from the cylinder into the exhaust chamber during the remainder of the time that the exhaust port is open, and for discharging the contents of the exhaust chamber after the exhaust port is closed.

2. An internal combustion engine, comprising a cylinder having an exhaust port opened periodically by movement of the piston, a chamber communicating with said port, a normally closed exhaust valve communicating with said chamber, a reciprocating member in the chamber to exhaust burned gases from the cylinder, and means for opening the exhaust valve during the early part of the time that the exhaust port is open, and again opening said valve after the exhaust port is closed.

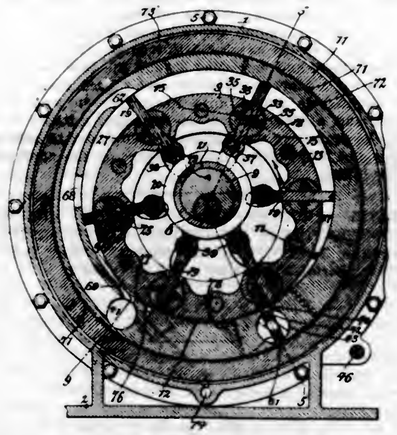
3. An internal combustion engine, comprising a cylinder having an exhaust port, a piston reciprocable in said cylinder and periodically opening said port, a chamber communicating with said port, a normally closed exhaust valve communicating with said chamber, a reciprocable member in said chamber to draw burned gases from the cylinder during the latter part of the time that the exhaust port is open and to discharge the same through the exhaust valve after the exhaust port is closed, means for opening the exhaust valve during the early part of the time that the exhaust port is open, said means also allowing the valve to close during the remainder of said time and while the reciprocating member is drawing the gases from the cylinder, and reopening the valve after the port is closed by the piston.

4. An internal combustion engine of the two cycle type, comprising an inlet valve in the cylinder, an exhaust port in the cylinder wall covered by the piston and uncovered by the same, an exhaust chamber communicating with the exhaust port, a valve leading from the exhaust chamber, a suction chamber communicating with the exhaust chamber and said exhaust valve, a reciprocatory disk in the suction chamber, means for holding the exhaust valve open until the exhaust port is partially uncovered, means for moving the reciprocatory disk outward after the exhaust valve has closed and until the exhaust port is again closed, and for moving the disk inward after the exhaust port has been closed and means for again opening the exhaust valve while the reciprocatory disk is moving inward.

5. An internal combustion engine comprising an inlet valve in the cylinder, an exhaust port in the cylinder wall opened and closed by the movement of the piston, an exhaust chamber an exhaust valve leading directly from the exhaust chamber, means for actuating the said exhaust valve, a suction chamber surrounding the crank shaft bearing and communicating with the exhaust chamber, a reciprocating disk in the suction chamber, and means for moving the disk outward while the exhaust port is uncovered to remove the burned gases from the cylinder and for moving the same inward after the exhaust port has been closed to expel the contents of said chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,133,772. ROTARY ENGINE. JOHN H. WHITING, Buffalo, N. Y., assignor to International Motor Company, Punxsutawney, Pa., a Corporation of Pennsylvania. Filed July 18, 1912. Serial No. 710,111. (Cl. 121—79.)



1. A rotary engine comprising a casing, a piston rotatable centrally within said casing and provided between its ends with a web for forming with the casing two pressure chambers, the piston having driving flanges arranged concentrically relatively to the bore of said casing and the latter having eccentric abutment flanges forming abutments which are engaged by said driving flanges, blades mounted on said driving flanges and engaging the bore of said abutment flanges, and means for admitting a live pressure medium into said pressure chambers on one side of said abutments and for exhausting the spent pressure medium from the said chambers on the other side of said abutments.

2. A rotary engine comprising a casing, a piston rotatable centrally within said casing and provided between its ends with a web for forming with the casing two pressure chambers, the piston having driving flanges arranged concentrically relatively to the bore of said casing and the latter having eccentric abutment flanges forming abutments which are engaged by said driving flanges, blades mounted on said driving flanges and engaging the bore of said abutment flanges, means for mounting said blades on the casing so as to turn eccentrically relatively to said piston, and means for admitting a live pressure medium into said pressure chambers on one side of said abutments and for exhausting the spent pressure medium from the said chambers on the other side of said abutments.

3. A rotary engine comprising a casing, a piston rotatable centrally within said casing and provided between its ends with a web for forming with the casing two pressure chambers, the piston having driving flanges arranged concentrically relatively to the bore of said casing and the latter having eccentric abutment flanges forming abutments which are engaged by said driving flanges, blades mounted on said driving flanges and engaging the bore of said abutment flanges, means for mounting said blades on the casing so as to turn eccentrically relatively to said piston, means for permitting said blades to rock and slide on said peripheral portions of the piston and means for admitting a live pressure medium into said pressure chambers on one side of said abutments and for exhausting the spent pressure medium from the said chambers on the other side of said abutments.

4. A rotary engine comprising a casing provided at its opposite ends with two main bearings and two circular abutment flanges which have their inner sides arranged eccentrically relatively to said main bearings, a main shaft journaled in said main bearings, a piston mounted on said main shaft and having a web arranged between said abutment flanges for forming two pressure chambers with said casing and provided on opposite sides with driving flanges which are arranged concentrically relatively to said shaft and engage at their periphery with abutments on near parts of the bore of said abutment flanges, blades mounted movably on said driving flanges and engaging with said abutment flanges, and means for supplying and exhausting a motive agent to and from the spaces between said driving flanges and abutment flanges on opposite sides of said abutments.

5. A rotary engine comprising a casing provided at its ends with main bearings, a bore concentric with the axis of said bearings, eccentric bearings on the inner sides of its ends, and abutment flanges on the inner sides of its ends each of said abutment flanges having its periphery arranged concentrically with the bore of the casing and its bore arranged concentrically with the adjacent eccentric bearing, a shaft journaled in said bearings, a piston secured to said shaft and having a web arranged between said abutment flanges and eccentric bearings for forming two pressure chambers with said casing and provided on its opposite sides with driving flanges each of which has its periphery arranged concentrically relatively to the bore of the casing and engaging an abutment on the near part of the adjacent abutment flange and said web being also provided at its outer edge with an annular rim which projects laterally with its opposite edges into the spaces between the abutment flanges and the bore of the casing, and piston blades pivotally mounted on said eccentric bearings and projecting through said driving flanges into engagement with the bore of said abutment flanges.

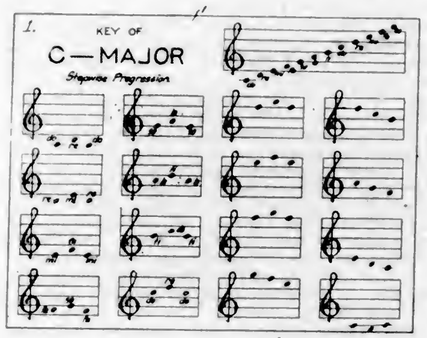
[Claims 6 to 25 not printed in the Gazette.]

1,133,773. DEVICE FOR TEACHING MUSIC. ETHEL M. WIDDIS, Detroit, Mich. Filed June 8, 1914. Serial No. 843,617. (Cl. 35—12.)

1. In a game for teaching music, a plurality of separate supports each having thereon means to indicate a common key, and also having thereon a common clef-sign, together with a plurality of characters of music arranged in a predetermined manner, the manner in which the characters are arranged on some of the supports being different from the manner in which they are arranged on others of the supports, and means to indicate the characters which a student may have identified.

2. In a game for teaching music, a plurality of separate supports each having thereon means to indicate a common key and also having thereon a common clef-sign, together with a plurality of motifs arranged in a plu-

rality of lines, the manner in which the motifs are arranged on some of the supports being different from the manner in which they are arranged on others of the supports, and a plurality of separate covers for indicating the motifs which may be identified by a student.



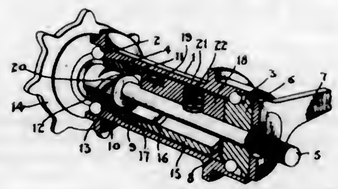
3. In a game for teaching music, a plurality of supports each having thereon a plurality of characters of music arranged in a predetermined manner, the arrangement of the characters of music on some of the supports being different from the arrangement of characters on others of the supports, and means for indicating the characters which a student may have identified.

4. In a game for teaching music, a plurality of supports each having thereon a plurality of characters of music arranged in a predetermined manner, the arrangement of the characters of music on some of the supports being different from the arrangement of characters on others of the supports, means for indicating the characters which a student may have identified, and a separate support having thereon means for indicating all the characters of music together with the different arrangements thereof on all of the other supports.

5. In a game for teaching music, a plurality of supports each having thereon a plurality of motifs arranged in a plurality of lines, the arrangement of the motifs on some of the supports being different from the arrangement of the motifs on others of the supports, means for indicating the motifs which a student may have identified, each of the supports also having thereon means for indicating a key and means for indicating a clef, and a separate support having thereon means for indicating all of the motifs together with the different arrangements thereof on all of the other supports.

[Claims 6 and 7 not printed in the Gazette.]

1,133,774. COASTER-BRAKE. FREDERICK WILKINSON, Toronto, Ontario, Canada. Filed June 1, 1914. Serial No. 842,076. (Cl. 208—57.)



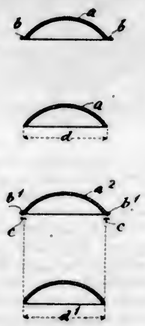
1. In a coaster brake, the combination with the hub and axle, of an expanding brake sleeve arranged within the hub, a wedge member slidably supported and adapted to expand said brake sleeve, a stationary member adapted to engage said wedge and to hold it from rotation during the expanding of the sleeve, and means adapted to move said wedge member into and out of contact with said stationary engaging member.

2. In a coaster brake, the combination with the hub and axle, of an expanding brake sleeve arranged within the hub and split longitudinally, a wedge member extending into the longitudinal split in said brake sleeve from one end and projecting beyond the end thereof, a clutch sleeve adapted to engage the hub to rotate it forwardly and extending into said expanding brake sleeve and operatively connected to said wedge and adapted to move the said sleeve into expanding contact and with said wedge, and a stationary member supported on the axle adapted to engage the outer end of said wedge and to arrest it from rotation.

3. In a coaster brake, the combination with the hub, axle and sprocket sleeve, of a clutch sleeve mounted on said sprocket sleeve adapted to frictionally engage the hub, a slotted expanding brake sleeve extending over the inner end of said clutch sleeve, a wedge member arranged in the slot in said brake sleeve and extending beyond the free end thereof, said wedge having a projecting member engaging said clutch sleeve, and a stationary member mounted on said axle adapted to engage the outer end of said wedge to hold it from rotation.

4. In a coaster brake, the combination with the hub, axle and sprocket sleeve, of a clutch sleeve mounted on said sprocket sleeve adapted to frictionally engage the hub and having a tapered inner end and an orifice in said tapered end, an expanding brake sleeve formed with a tapered end extending over the tapered end of said clutch member, said expanding sleeve having a tapered longitudinal slot, a wedge member fitting in the slot in said expanding sleeve and extending beyond the free end thereof and having a toothed outer end and a hook shaped inner end adapted to extend into the orifice in said clutch sleeve, and a stationary toothed member adapted to engage the projecting toothed end of said wedge to hold said wedge and brake sleeve from rotation on the application of the brake.

1,133,775. PROCESS OF PRODUCING POLISHED SPOONS, FORKS, AND OTHER METAL ARTICLES. ARTHUR WILZIN, St.-Ouen, France. Filed Oct. 11, 1913. Serial No. 794,601. (Cl. 76—105.)

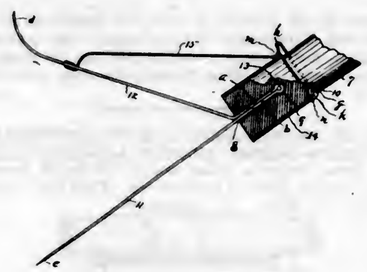


1. The process of producing a finished and polished spoon, fork, or other plated article, which consists in (a) compressing the unplated article between highly burnished dies under a pressure sufficient to cause the polish of the die surfaces to be imparted to the article; (b) trimming off the flash or bur formed by this compression, and at the same time trimming off sufficient additional metal to prevent the plated metal, when spread out under the subsequent final burnishing pressure from forming a flash; (c) plating the article thus diminished in surface and volume; (d) compressing the plated article between highly burnished dies under a pressure sufficient to cause the polish of the die surfaces to be imparted to the plated surface.

2. The process of producing a finished and polished spoon, fork, or other plated metal article, which consists in first subjecting the unplated article to a burnishing pressure, then trimming off the edge of the article, thereupon plating the article, and finally subjecting the plated article to a burnishing pressure.

3. The process of making forks, spoons, and other plated metal articles, which consists in first subjecting the unplated article to a burnishing pressure, then plating the article, and finally subjecting the plated article to a burnishing pressure.

1,133,776. WEEDING IMPLEMENT. ARTHUR A. WIRT, Omaha, Nebr. Filed Jan. 22, 1914. Serial No. 813,692. (Cl. 55—65.)



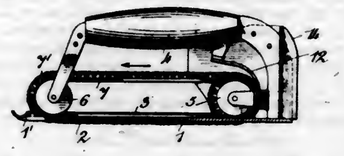
1. In devices for the purpose described, an elongated handle provided at one of its ends with a recess having an enlarged inner part, a metallic strip bent longitudinally between its ends to provide a rectilinear tang having an enlarged terminal part, a blade disposed substantially parallel with the tang and a hook disposed in angular relation to the blade, said strip being adapted to be disposed with its tang engaging in said recess, the enlarged part of the tang engaging in the enlarged part of said recess, said blade being disposed substantially parallel with the longitudinal axis of the handle, and a collar circumscribing the handle and providing a cover for the edges of the tang.

2. The combination of an elongated handle provided at one of its ends with a recess having an enlarged inner part, a metallic strip bent longitudinally between its ends to provide a rectilinear tang having an enlarged terminal part, a blade disposed substantially parallel with the tang and a hook disposed in angular relation to the blade, said strip being adapted to be disposed with its tang engaging in said recess, the enlarged part of the tang engaging in the enlarged part of the recess, the blade being disposed substantially parallel with the longitudinal axis of the handle, a collar circumscribing the handle, a brace engaging the hook and traversing the handle for preventing a movement of the collar inwardly of said handle, and coacting devices upon the collar and brace for preventing a movement of said collar outwardly of the handle.

3. The combination of an elongated handle provided at one of its terminals with a recess having an enlarged inner part, a metallic strip bent longitudinally between its ends to provide a tang having an enlarged terminal part, a blade, and a hook disposed in angular relation to the blade, said strip being adapted to be disposed with its tang and the enlarged part of the tang engaging, respectively, in the recess and in the enlarged part of said recess, and a collar mounted on the handle to overhang the edges of the tang.

4. The combination of an elongated handle provided at one of its terminals with a recess having an enlarged inner part, a metallic strip bent longitudinally between its ends to provide a tang having an enlarged terminal part, a blade, and a hook disposed in angular relation to the blade, said strip being adapted to be disposed with its tang and the enlarged part of the tang engaging respectively in the recess and in the enlarged part of said recess, a collar mounted on the handle to circumscribe the tang, a brace engaging the hook and traversing the handle for preventing a movement of the collar inwardly of said handle, and coacting devices upon said collar and brace for preventing a movement of said collar outwardly of the handle.

1,133,777. APPARATUS FOR CUTTING BINDING-THREADS. JOSEF WOLTER, Rorschach, Switzerland, assignor to Henry Levy, Rorschach, Switzerland. Filed Feb. 3, 1914. Serial No. 816,222. (Cl. 26—9.)



1. In an apparatus for cutting binding-threads of embroidered fabrics the combination with a catching-plate of two knives provided on the plate and converging toward the front end of the apparatus, guide-rollers carried by said plate and an endless flexible member arranged between the knives and passing over said rollers and consisting of a plurality of clamps for seizing and holding fast the threads to be cut, means for driving the endless flexible member, said clamps being opened when the endless band runs on the rollers and being again closed when said band runs off the rollers.

2. In an apparatus for cutting binding-threads of embroidered fabrics the combination with a catching-plate having a longitudinal slot of two knives provided on this plate and converging toward the front end of the apparatus, two guide-rollers carried by said plate, an endless flexible member arranged between the knives and passing over said rollers and consisting of a plurality of clamps for seizing and holding fast the threads to be cut, said clamps being opened when the endless band runs on the rollers and being again closed when said band runs off the rollers and rows of bristles arranged on both sides of the rear guide-roller and connected to the latter, the bristles projecting into the slot of said plate and serving to rotate the rear guide-roller while the apparatus is moved over the fabric and serving also to seize the cut off binding-threads.

3. In an apparatus for cutting binding-threads of embroidered fabrics the combination with a catching-plate having a longitudinal slot of two knives provided on this plate and converging toward the front end of the apparatus, two guide-rollers carried by said plate, an endless flexible member arranged between the knives and passing over said rollers and consisting of a plurality of clamps for seizing and holding fast the threads to be cut, said clamps being opened when the endless band runs on the rollers and being again closed when said band runs off the rollers, rows of bristles arranged on both sides of the rear guide-roller and connected to the latter, the bristles projecting into the slot of said plate and serving to rotate the rear guide-roller while the apparatus is moved over the fabric and serving also to seize the cut off binding-threads and means for stripping the binding-threads off the rear guide-roller.

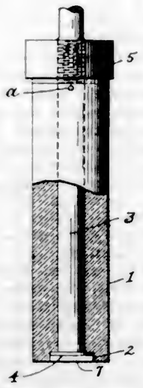
4. In an apparatus for cutting binding-threads for embroidered fabrics the combination with a catching-plate having a longitudinal slot of two knives provided on this plate and converging toward the front end of the apparatus, two guide-rollers carried by said plate, an endless flexible member arranged between the knives and passing

over said rollers and consisting of a plurality of clamps for seizing and holding fast the threads to be cut, said clamps being opened when the endless band runs on the rollers and being again closed when said band runs off the rollers, rows of bristles arranged on both sides of the rear guide-roller and connected to the latter, the bristles projecting into the slot of said plate and serving to rotate the rear guide-roller while the apparatus is moved over the fabric and serving also to seize the cut off binding-threads, means for stripping the binding-threads off the rear guide roller and at least one collecting box for the cut off thread detachably secured to the frame carrying the endless member.

5. In an apparatus for cutting binding-threads of embroidered fabrics the combination with a catching-plate having a longitudinal slot of two knives provided on this plate and converging toward the front end of the apparatus, two guide-rollers carried by said plate, a closed helical spring arranged between the knives and passing over said rollers, the single windings of this spring arranged side by side forming clamps between them and of rows of bristles arranged on both sides of the rear guide-roller and connected to the latter, the bristles projecting into the slot of said plate and serving to rotate the rear guide-roller while the apparatus is moved over the fabric and serving also to seize the cut off binding-threads.

[Claims 6 to 9 not printed in the Gazette.]

1,133,778. PUMP-PLUNGER. GEORGE H. WRIGHTSON, Jr., Butte, Mont. Filed May 16, 1914. Serial No. 839,030. (Cl. 103—63.)

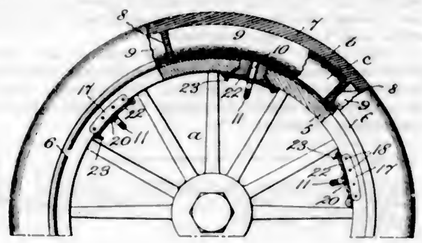


1. In a pump plunger for the purpose described, a vitreous cylinder having an inner diameter which is uniform throughout its length except at one end where it is enlarged to form a recess, combined with a cylindrical rod or core having a head adapted to rest in the recess, and which is threaded and fitted with a nut whereby the head is drawn tightly into the recess, and a joint-forming gasket which is interposed between the head and the cylinder to prevent the passage of liquid into the interior of the cylinder.

2. In a pump plunger for the purpose described, a hollow vitreous cylinder, combined with an actuating rod for the same which is passed through the cylinder, heads on the rod, means whereby the said heads are drawn together and upon the ends of the cylinder, and a joint forming gasket which is interposed between one of the heads and the adjacent end of the cylinder.

1,133,779. VEHICLE-WHEEL. OTTAVIO ZANCAN, New York, N. Y. Filed June 12, 1914. Serial No. 844,703. (Cl. 152—22.)

In combination a wheel including a felly, having openings, channeled bearing plates surrounding the openings, plugs arranged in the openings, keepers mounted on the bearing plates, a locking plate coöperating with the keepers to hold the plugs against displacement, a supplemental locking plate having one end pivotally connected and its opposite end detachably connected to the bearing plate for



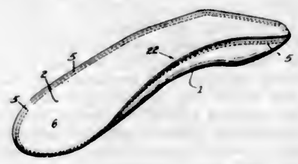
preventing the turning of the first mentioned locking plate, and a pneumatic tire arranged on the wheel and including inner tube sections bearing on the plugs and having nipples extending through the plugs and locking plates.

1,133,780. WATCH-BEZEL WITH UNBREAKABLE CONCAVO-CONVEX TENSIONAL CRYSTAL. BLISS C. AMES, Waltham, Mass., assignor to The E. Ingraham Co., Bristol, Conn., a Corporation. Filed Feb. 16, 1915. Serial No. 8,603. (Cl. 58—91.)



The combination with a watch-bezel formed with an annular groove, of a celluloid watch-crystal larger in diameter than the diameter of the said groove into which its edge is inserted after it has been forced into concavo-convex form and thus reduced in virtual diameter to the diameter of said groove, whereby the crystal is maintained under tension in concavo-convex form and so firmly held in place.

1,133,781. FLEXIBLE ARCH-SUPPORT. ELOF ANDERSON, Los Angeles, Cal., assignor to Carl Hugo Anderson, Los Angeles, Cal. Filed Mar. 18, 1914. Serial No. 825,674. (Cl. 36—71.)



1. An arch support comprising a bottom of durable soft flexible material, durable soft flexible spring supports spaced apart on and fixed to said bottom; an arched spring the ends of which rest on said spring supports; a retainer of soft flexible material over the spring and fixed to the soft flexible durable bottom around the edges of the spring; and a firm solid pliable top fastened at its edges to the edges of said bottom; the top and bottom inclosing the spring, the spring supports and the retainer between them and being conformed to the shape of that portion of the insole of a shoe which is under the heel and instep of the wearer.

2. An arch support comprising a bottom of durable soft flexible material, durable soft flexible spring supports spaced apart on and fixed to said bottom; an arched spring formed of superposed crowned leaves, the ends of one of which rest on said spring supports; a retainer of soft flexible material over the spring and fixed to the soft flexible durable bottom around the edges of the spring; and a firm solid pliable top fastened at its edges to the edges of said bottom; the top and bottom inclosing the spring, the spring supports and the retainer between them and being conformed to the shape of that portion of the insole of a shoe which is under the heel and instep of the wearer.

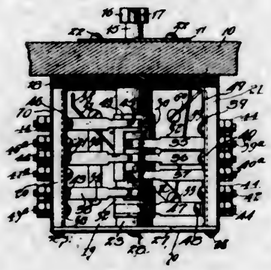
3. The arch support set forth adapted to rest on the inside of a shoe and comprising a horse-hide glove leather bottom substantially conforming to the space to be covered by the heel and instep of the wearer's foot, leather spring supports in the form of pads mounted on the above leather bottom approximately at the mid-width thereof and forwardly of the portion of said bottom which is to support the heel; an arched crowned leaf spring, the ends of which rest upon the leather spring-supports; an arched crowned leaf spring fitted to the crown of the arched leaf spring; a flexible retainer over said springs and leather spring supports, the edges of said retainer being secured by suitable means to the leather spring supports and the bottom; and a prime sole leather top conforming in contour to the glove-leather bottom; said top and bottom being secured together at the edges by suitable means.

1,133,782. VIOLIN. JOHN T. ANDERSON, Etowah, N. C. Filed Oct. 20, 1913. Serial No. 796,365. (Cl. 84—44.)



A violin body comprising two shell sections fastened together, having convexed outer surfaces and concaved inner surfaces, dowel pins holding the sections together, each section having concaved recesses in its edges which merge into the face of the shells of the sections, one end of the shell having integral projections forming an end pin and the lower section having a forwardly extending projection at its other end.

1,133,783. CONTROLLER FOR LIGHTING-CIRCUITS OF DYNAMO-BATTERY EQUIPMENTS. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed May 19, 1914. Serial No. 839,578. (Cl. 172—179.)



1. A controller for the lighting circuit of an automobile dynamo-battery system comprising, a casing having side walls and a bottom wall; a controller drum and contacts within said casing; terminals carried by one side wall of the casing for connection with the lights on one side of the automobile; terminals on the other side wall of the casing for connection with the lights on the other side of the automobile; and terminals on the bottom wall for connection with the battery and dynamo.

2. A controller, adapted to be carried at the rear face of an instrument board; a controller drum therein; means on the front face of the instrument board for operating the controller drum; an indicator with a face approximately flush with the front face of the board and positioned within an opening therein; a rearward extension on said indicator; and means carried by the casing for adjustably securing the rearward extension thereto.

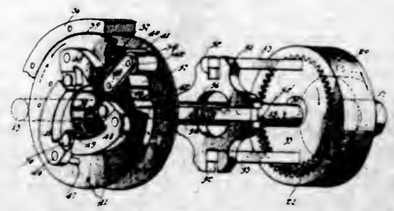
3. In an apparatus of the character described, the combination of a casing adapted to be secured to the rear face of an instrument board; an indicator positioned within an opening in the board with its face approximately flush with the front face of the board; an extension carried by the indicator extending rearwardly through an opening in the casing; and means on the casing for adjustably securing the extension thereto to compensate for the varying thickness of said boards.

4. A controller for the lighting circuit of an automobile dynamo battery system comprising a casing adapted to be secured to the rear face of an instrument board; an indicator plate positioned on the front face of the casing; means securing both the plate and casing to the board; an indicator device registering with an opening in the plate and positioned within an opening in the board with its face approximately flush with the front face of the board; means carried by the casing responsive to changes in the battery-dynamo circuit for operating the indicator, an extension on the indicator extending rearwardly through an opening in the casing and adapted to receive a part of said indicator operating means; and means carried by the casing for adjustably securing the said extension thereto.

5. A controller comprising a casing having integral rear and side walls formed of insulating material, a controller drum positioned within said walls, contact fingers cooperating with said drum; the inner faces of the side walls of the said casing being horizontally grooved to receive the bases of the said contact fingers substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,133,784. TRANSMISSION-GEARING. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed June 1, 1914. Serial No. 842,205. (Cl. 74—35.)



1. In a power transmission gearing, the combination of a primary rotatable member; a secondary rotatable member; speed reducing gearing between the two members including a control member; a clutch for locking said control member from rotation; a clutch for connecting said control member to one of the rotatable members, and centrifugally operated means for actuating said clutches.

2. In a power transmission gearing, the combination of a primary shaft; a secondary shaft; speed reducing gearing between the two shafts including a control member; a clutch for locking said control member from rotation; a normally inoperative one way roller clutch for connecting said control member to one of the shafts, and centrifugally operated means for actuating said roller clutch.

3. In a power transmission gearing, the combination of a primary shaft; a secondary shaft; speed reducing gearing between the shafts, including a control member; a clutch for locking said control member from rotation; a

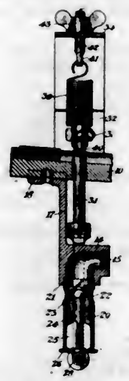
clutch for connecting said control member to one of the shafts, and centrifugally operated means for releasing the first mentioned clutch and causing the engagement of the second clutch.

4. In a power transmission gearing, the combination of a primary shaft; a secondary shaft; speed reducing gearing between the two shafts, including a control member; a stationary member; a one way roller clutch carried by said control member and engaging with the stationary member, and centrifugally operating means for retracting said roller clutch from engagement with the stationary member.

5. In a power transmission gearing, the combination of a primary shaft; a secondary shaft; speed reducing gearing between the two shafts, including a control member; a normally inoperative one way roller clutch carried by said control member and adapted to engage one of the said shafts and centrifugally operated means for causing the engagement of said roller clutch with the said shaft.

[Claims 6 to 13 not printed in the Gazette.]

1,133,785. RELIEF-VALVE FOR LIQUID-SPRAYERS. LEWIS AUGUSTUS ASPINWALL, Jackson, Mich., assignor to Aspinwall Manufacturing Company, a Corporation of Michigan. Continuation in part of application Serial No. 788,556, filed Sept. 8, 1913. This application filed Aug. 8, 1914. Serial No. 855,759. (Cl. 137—53.)



1. In a relief valve and in combination, a support, a head fixed in the said support and provided with an inlet and an outlet connection, between which there is always a free passage, a cylinder secured in and extending from the said outlet connection and provided adjacent thereto with a series of discharge ports, a piston fitting loosely within the cylinder and normally lying adjacent the said outlet connection and between the same and the said discharge ports, a rod connected to the piston and extending from the same to a point beyond the open free end of the cylinder, and means pivotally connected to the free end of the said rod and adjustably connecting the same to the said support exteriorly of the cylinder for regulating the pressure at which the piston will operate to control the extent to which the said ports are opened by the same.

2. In a relief valve and in combination, a support, a head fixed in the said support and provided with an inlet and an outlet connection, a cylinder secured in the said outlet connection and provided adjacent thereto with a series of circularly arranged discharged ports, a piston fitting loosely within the cylinder normally placed between the said discharge ports and the said outlet connection, a rod connected to the piston, a flange connected to the rod exteriorly of the opposite end of the cylinder, a member pivotally connected to the said flange, and means connecting the said member to the said support for regulating the pressure at which said piston will so operate as to control the extent to which the said ports are opened by the same.

3. In a relief valve, and in combination, a support, a head secured to the said support, an inlet connection in the said head, a cylinder fixed in the said head and extending therefrom and provided with a series of ports adjacent the said head, a piston fitting loosely within the cylinder, a piston rod connected to the piston, a flange connected to the said piston rod exteriorly of the cylinder at the free end thereof, lugs connected to the said flange, a yoke pivotally connected to the said lugs and spanning the said cylinder, and adjustable means connecting the said yoke to the said support for normally maintaining the said yoke, flange, rod and piston in position and regulating the pressure at which the said piston will operate.

4. In a relief valve, and in combination, a support, a head secured to the said support, an inlet connection in the said head, a cylinder fixed in the said head and extending therefrom and provided with a series of ports adjacent the said head, a piston fitting loosely within the cylinder, a piston rod connected to the piston, a flange connected to the said piston rod exteriorly of the cylinder at the free end thereof, lugs connected to the said lugs and spanning the said cylinder, a rod connected to the said yoke, a lever pivotally connected to the end of the said rod, a bracket secured to the said support, and a spring connected between the said bracket and the free end of the said lever for normally maintaining the said rod, yoke, flange, piston rod and piston in position and regulating the pressure at which the said piston will operate.

1,133,786. MULTIPLE-CONTACT RELAY. GARRISON BABCOCK, Rochester, N. Y., assignor, by mesne assignments, to Frederick C. Stevens, Attica, N. Y. Filed Sept. 21, 1912. Serial No. 721,621. (Cl. 175—325.)



1. In a relay device, the combination with a plurality of contact springs mounted in closely adjacent vertical planes, of a plurality of spacing insulators respectively positioned therebetween, an inclosing binding-strap provided with attaching terminals mounting the same, a mounting-frame to which said strap is terminally secured, an electromagnet, its movable armature and means associated with said armature for altering the electrical relation of said springs, substantially as set forth.

2. In a multiple contact relay, the combination with an electromagnet and its actuating armature, of a plurality of springs mounted closely adjacent and upon edge in horizontal planes, whereby the contact-making ends thereof are in staggered relation along said horizontal planes, and means controllable by the armature for altering the electrical relation of said springs, substantially as set forth.

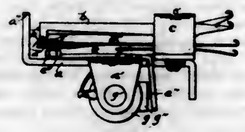
3. In a relay device, the combination with an electromagnet and its actuating armature, of paired contact springs having divergent ends adapted to form one circuit terminal, a second circuit terminal having a rounded or cylindrila contact-making portion and flattened spring-like body-portion, a stationary insulating mounting therefor and means controllable by the armature for engaging and disengaging the second terminal intermediate of the paired contact springs, substantially as set forth.

4. In a multiple contact relay device, the combination with a plurality of rectangular paired contact springs having divergent ends; the said ends being disposed in staggered relation, coacting terminals positioned adjacent to said ends and adapted respectively to be actuated therebetween, an electromagnet, its armature and means governed by the armature for engaging and disengaging the terminals between said contact springs, substantially as set forth.

5. In a relay device of the class described, the combination with an electro-magnet and its actuating armature, of a plurality of paired contact springs mounted on edge in a horizontal plane, a plurality of contact terminals mounted adjacent to the contact-making portions of the paired springs; said portions and terminals being disposed in staggered relation in a plurality of horizontal planes, and means controllable by the armature for engaging and disengaging the respective terminals intermediate of the paired contact springs, substantially as set forth.

[Claims 6 to 22 not printed in the Gazette.]

1,133,787. RELAY DEVICE. GARRISON BABCOCK, Chicago, Ill., assignor to Frederick C. Stevens, Attica, N. Y. Filed Oct. 6, 1913. Serial No. 793,652. (Cl. 175—325.)



1. In a relay device, the combination with a frame, of a plurality of contact springs insulatingly mounted upon said frame, an electro-magnet mounted upon said frame, the windings thereon being adapted to produce a consequent median pole, an armature controlling said contact springs positioned with its axis parallel with said electro-magnet, and a pole-piece extending between the electro-magnet and the armature in the position of the consequent pole, substantially as set forth.

2. In a relay device, the combination with a paramagnetic frame, of contact springs insulatingly mounted thereon, an electro-magnet mounted upon the frame with its core in closed magnetic circuit therewith, the windings of said electro-magnet being differential and adapted to produce a consequent intermediate pole, an armature controlling said contact springs and positioned upon the frame parallel with said electro-magnet, and a pole-piece substantially bridging the gap between the armature and the intermediate magnetic pole, substantially as set forth.

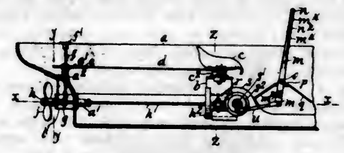
3. In a relay device of the class described, the combination with a paramagnetic frame, of a plurality of contact springs thereon, a straight-core electro-magnet having differential windings positioned to produce a consequent pole intermediately of the core, a bell-crank armature pivoted upon the frame and having its conductive member positioned parallel with said electro-magnet, means associated therewith for actuating the contact springs, and an extension pole-piece bridging substantially the distance between the consequent magnetic pole and the armature, substantially as set forth.

4. In a relay device, the combination with an electro-magnet and its armature, of an integral paramagnetic frame mechanically and magnetically connected with the extremities of the electro-magnet core, and pivotally mounting the armature in closed magnetic circuit with the core, a pole-piece bridging substantially the distance between the armature and the core, and contact springs connected for actuation by the armature, substantially as set forth.

5. In a multiple-contact relay, the combination with an actuating electro-magnet, of its armature, a plurality of contact springs controlled by said armature, and an integral frame mounting the foregoing members in operative position; said frame having an integral protective guard bent up adjacent to the free ends of the contact springs, substantially as set forth.

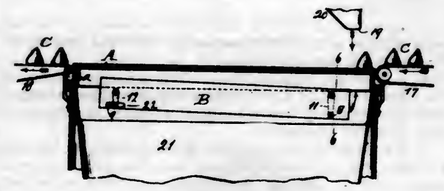
[Claims 6 to 11 not printed in the Gazette.]

1,133,788. BOAT DOING AWAY WITH OARS AND RUDDER. THOMAS BASSFORD, St. Thomas, Ontario, Canada. Filed May 18, 1912. Serial No. 698,352. (Cl. 115—24.)



A manually propelled seat steered boat comprising a boat, a longitudinal propeller shaft extending through the stern of said boat, a stub shaft, a propeller upon the free end of said stub shaft, a universal joint between the adjacent ends of said stub and propeller shafts, an arcuate guide bracket spacedly secured to the stern of the boat and having a longitudinal slot therein, a shoe substantially rectangular in cross-section slidably mounted in said slot, the stub-shaft being journaled through the shoe and said shoe being positioned at a point between said propeller and joint, a vertical shaft connected at its lower end directly to the outer and stub-shaft portion of the universal joint and extending upwardly through said bolt, and means for turning said shaft in the steering operation.

1,133,789. CONFECTIONERY-COATING MACHINE. HERMAN W. BECHT, Dayton, and EDWARD C. BECHT, Newport, Ky. Filed Jan. 13, 1913. Serial No. 741,611. (Cl. 91—3.)



1. In a confectionery coating machine, comprising a tank adapted to discharge coating material upon centers to be coated and a drainage tank below the same, the combination of two sets of parallel bars positioned between these two tanks, the bars in these sets being spaced so closely that any two adjoining bars of either set are adapted to support centers between them, the upper edges of these bars providing straight supports for such centers, one set of these bars being supported substantially horizontal in a stationary position, two rods supported transversely below the stationary bars and upon which the bars of the other set are mounted at each of their ends, the engagement being such as to permit rotation of these rods with respect to these bars which they support, an arm at each end of each of these rods whereby they are carried, a journal on each arm, a bearing for each journal and means to actuate these rods in unison with a rotary movement about the journals of the arms which carry said rods and whereby the bars mounted upon these rods are alternately raised and lowered, the thickness of these bars, vertically considered, being such that when raised they are above the stationary bars.

2. In a confectionery coating machine, comprising a tank adapted to discharge coating material upon centers to be coated and a drainage tank below the same, the combination of two sets of parallel bars positioned between these two tanks, the bars in these sets being spaced so closely that any two adjoining bars of either set are adapted to support centers between them, the upper edges of these bars providing straight supports for such centers, one set of these bars being supported substantially horizontal in a stationary position, two rods supported trans-

versely below the stationary bars and supporting the bars of the other set at their ends, the engagement of one rod being in closely fitting openings in said bars and the engagement of the other rod being in longitudinally arranged slots, arms of equal length supporting the rod first mentioned, shorter arms also of equal length supporting the other rod, a journal on each arm, a bearing for each journal and means to rotate these rods in unison about the journals of their supporting arms.

3. In a confectionery coating machine, comprising a tank adapted to discharge coating material upon centers to be coated and a drainage tank below the same, a set of parallel bars positioned between these two tanks and spaced so that any two adjoining bars are adapted to support centers to be coated, a conveyer for moving chocolate centers supported at each end of the set of these bars and so as to be substantially in alinement with the upper edges of these bars, means to actuate these conveyers so that both move in the same direction, another set of parallel bars also spaced so that any two of them, adjoining, are adapted to support centers to be coated and means to actuate the bars of this set so that they alternately rise above the upper edges of the stationary bars and also move alternately between the ends of the conveyers, this latter movement being so that above the stationary bars it is in a direction substantially like that in which the conveyers move so that centers moved upon the stationary bars by one conveyer are picked up by these movable bars and carried step by step to the other conveyer to be received by the same.

1,133,790. PURIFIED GUM AND PROCESS OF OBTAINING SAME. WILLIAM HENRY BRADSHAW, Brooklyn, N. Y. Filed Apr. 25, 1911. Serial No. 623,140. (Cl. 127—4.)

1. A process of treating gums which consists in treating resin element of a rubbery gum with sugar and thereby removing impurities therefrom.

2. A process of treating gums which consists in treating the resin element of a rubber gum with a solution of sugar and removing said sugar solution whereby impurities of said gum are eliminated.

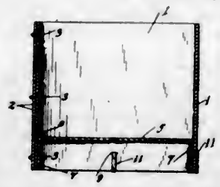
3. A process of treating gums which consists in treating a rubber resin with a solution of sugar heated to approximately 100° C., and thereafter removing the solution and impurities from said resin.

4. A process of treating gums which consists in treating resin occurring as a by-product gum in the deresination of Pontianak gum with sugar, whereby objectionable features are removed.

5. A process of treating gums which consists in treating resin occurring as a by-product gum in the deresination of Pontianak gum by a 5% cane sugar solution which is subsequently drawn off whereby objectionable features are removed.

[Claims 6 to 9 not printed in the Gazette.]

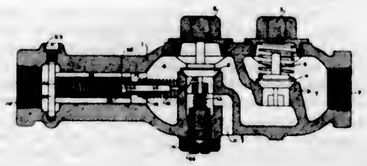
1,133,791. BOX. JOHN F. BROOKS, Vicksburg, Mich., assignor to Howard M. Jordan, Kalamazoo, Mich., and Alfred A. Morse, Lansing, Mich. Filed Feb. 10, 1913. Serial No. 747,418. (Cl. 229—23.)



1. A collapsible box comprising side walls formed of a blank scored to provide five side wall portions, the end portions being overlapped and permanently secured together, a bottom closely fitting within the side walls when erected and having a downturned flap on each edge extending entirely across the bottom, one of the flaps being permanently stapled to the side wall formed by the overlapped end portions of the side wall blank, there being fastener openings in the other flaps and in the adjacent side walls registering when the bottom is in its erected position with the lower edges of the flaps substantially flush with the lower edges of the side walls, and removable bendable fasteners arranged through said fastener openings and folded over the lower edges of the bottom flaps and side walls, the ends of the fasteners being folded against the outer sides of the walls, said fasteners being of a character permitting their insertion and removal without the aid of tools.

2. A box comprising collapsible side walls, a bottom closely fitting within the side walls when erected and having a downturned flap on each edge extending entirely across the bottom permanently secured to one of the side walls by one of its flaps so that it may be collapsed against such side wall and swung between the walls when erected, the lower edges of the flaps being substantially flush with the lower edges of the walls, there being registering clip openings in the free flaps and the walls adjacent thereto when the box is erected, and removable bendable fastener clips arranged through said openings and folded over the lower edges of the bottom flaps and walls and against the outer sides of the walls, said fasteners being of a character permitting their insertion and removal without the aid of tools.

1,133,792. UNLOADING DEVICE FOR COMPRESSORS. HERBERT W. CHENEY, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed May 27, 1912. Serial No. 700,532. (Cl. 230—24.)



1. In an unloading device for compressors, the combination of a casing having a spring-opened-valve-controlled outlet to atmosphere, a check valve controlled outlet to the receiver, a relief port to atmosphere, and a spring-opened valve controlling said relief port.

2. In an unloading device, a compressor, a receiver, a connection between said compressor and said receiver said connection having a plurality of ports connecting to atmosphere, and spring-opened valves controlling said ports.

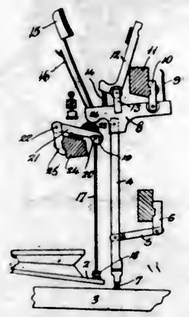
3. In an unloading device, a compressor, a receiver, a connection between said compressor and said receiver, a spring-closed valve in said connection, said connection having between said compressor and said valve a plurality of ports connecting to atmosphere, a valve adapted to be closed by pressure in said connection for controlling one of said ports, and a valve adapted to be closed by flow of air from said compressor into said connection for controlling the other of said ports.

4. In an unloading device, a compressor, a receiver, a connection between said compressor and said receiver, a spring-closed valve in said connection, said connection having between said compressor and said valve a plurality of ports connecting to atmosphere, a second valve adapted to be closed by pressure in said connection for controlling one of said ports, a third valve controlling the other of said ports, a plunger adapted to be moved by flow of air into said connection to close said valve, and a spring between said third valve and said plunger compressible during said movement of said plunger to close said valve.

5. In an unloading device, a compressor, a receiver, a connection between said compressor and said receiver, two relief ports to atmosphere from said connection, a spring-opened valve for one of said ports closable by an excess of connection pressure over atmospheric pressure, a plunger, a valve for the other of said ports, a spring between said plunger and said second valve, said plunger being movable by an excess of compressor pressure over connection pressure to close said second valve through said spring, and a spring for returning said plunger to open said second valve.

[Claims 6 and 7 not printed in the Gazette.]

1,133,793. PNEUMATIC PIANO-ACTION. ROBERT W. COOPER, Dayton, Ky., and FRANK A. LEE and RAY J. MEYER, Cincinnati, Ohio; said Cooper and said Lee assignors to The John Church Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 7, 1913. Serial No. 777,629. (Cl. 84—233.)



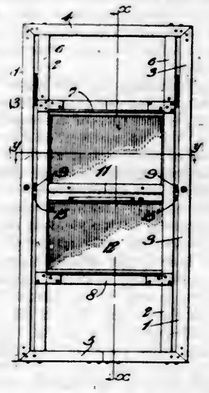
1. In a combination key and pneumatic power piano action, a pivoted wippen for the key action, a pivoted lever positioned to contact therewith, connection from the lever to the pneumatic power parts, a rounded knob on the wippen and a rounded knob on the lever at the point of contact between them, for the purpose described.

2. In a combination key and pneumatic power piano action, a pivoted wippen for the key action, a pivoted lever positioned to contact therewith, connection from the lever to the pneumatic power parts, a depending rounded knob on the wippen and an upwardly extending rounded knob on the lever at the point of contact between them, for the purpose described.

1,133,794. DOORS FOR A CHUTE OF A DUMB-WAITER, ELEVATOR, OR THE LIKE. EDWARD W. DUGDALE, Kearney, N. J. Filed Mar. 24, 1914. Serial No. 826,878. (Cl. 20—19.)

1. A dumb waiter having an exterior frame composed of angular-side pieces, a cap, and a sill, vertically extending channel-shaped guides mounted in said frame, means for connecting said guides with said frame, slidable doors mounted in the said guides, the length of said frame and guides being greater than the combined height of the doors in closed position forming pockets respectively at the top and bottom of said frame to receive said doors respectively in the open position thereof, ears on the lower door extending laterally therefrom and passing freely through the central walls of said guides, and flexible members attached to said ears adapted to pass over pulleys on said guides and to be connected with the upper door.

2. A dumb waiter having an exterior frame composed of angular-side pieces, a cap, and a sill, vertically-extending channel-shaped guides mounted in said frame, means for connecting said guides with said frame, slidable doors mounted in the said guides, the length of said frame and guides being greater than the combined height of the doors in closed position, forming pockets respectively at the top and bottom of said frame to receive said doors respectively in the open position thereof, ears on the lower door extending laterally therefrom and passing freely through the central walls of said guides, flexible members attached to



said ears adapted to pass over pulleys on said guides and to be connected with the upper door, a cross bar at the base of the upper pocket, and a shelf at the top of the lower pocket, said shelf and cross bar having their ends connected respectively with said channel-shaped guides and serving also to brace the latter between their ends.

1,133,795. CHUCK. DANIEL W. EDWARDS, Rockford, Ill., assignor to Greenlee Bros. & Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 19, 1913. Serial No. 762,402. (Cl. 29—141.)



1. A chuck comprising a rotatable spindle member, a socket in the spindle member having a circular bore and an offset portion therefrom, the socket adapted to retain a tool shank therein with an offset on said shank located in the offset of the socket to hold said tool shank rotatable with the spindle member, an oscillatory cap inclosing the socket end of the spindle member and having a tool opening therein to allow said tool shank and offset to be passed therethrough, and yieldable means in connection with the cap to hold same in operative position whereby the cap will lock said tool shank through its offset portion from longitudinal displacement, the oscillation of said cap against the action of said yieldable means moving the cap to an inoperative position to aline said socket and cap end offset whereby a tool held in the socket may be removed therefrom.

2. A chuck comprising a rotatable spindle member having a tool socket with an offset in its tool receiving end an oscillatory end to the spindle member having a tool opening with an offset therein with the offset when the chuck is operative, positioned out of longitudinal alinement with said socket offset, a driving connection between the spindle member and end, and a yieldable connection between the spindle member and end whereby the end may be oscillated against said yieldable connection to bring said two offsets in longitudinal alinement.

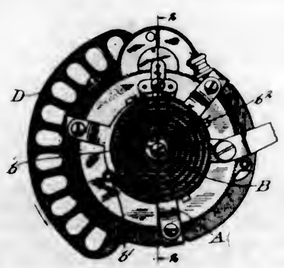
3. A chuck, comprising a spindle-connected member having an axially disposed tool receiving socket at the outer end of which is a laterally extending recess, a head mounted to oscillate upon said member, having an axial opening therethrough shaped in cross-section to conform to that of said socket and recess, means for driving the head with the spindle-connected member when the recesses are out of axial alinement, and means for yieldingly resisting oscillatory movement of the head when the same is moved to aline its recess with that of the spindle-connected member.

4. A chuck comprising a spindle shank, a socket therein irregular in cross-section to retain against rotation a bit-shank having a portion thereof correspondingly irregular in cross-section, an end member at the entrance to the bit receiving end of said socket, movable rotatably on the spindle axis and having an irregular axially disposed bit opening therethrough corresponding in cross-section to the cross-section of said above-mentioned bit shank, and means for maintaining with a yielding force said end member with the transverse axis of its bit opening out of alinement with that of the spindle socket.

5. A chuck comprising a shank having an axial bore at the bit receiving end of the shank, a head rotatably mounted on the shank and having an end inclosing the said bit receiving end of the shank, the shank having a socket extending from its bore and being open at said open end of the bore, and said end having an elongated opening therethrough in alinement with said bore and being movable into and out of registration with said open end of the shank socket by rotary movement of the head upon the shank.

[Claims 6 to 11 not printed in the Gazette..]

1,133,796. TELEPHONE-EXCHANGE-SYSTEM IMPULSE-TRANSMITTER. JOHN ERICKSON, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 14, 1909, Serial No. 501,973. Renewed May 13, 1912. Serial No. 697,079. (Cl. 179—90.)



1. A telephone exchange system impulse transmitter comprising a dial, an impulse wheel, means for returning the wheel to normal position, means for holding the dial locked in its advanced position, means for releasing the dial when the wheel reaches its normal position, and means for returning the dial to normal.

2. A telephone exchange system impulse transmitter comprising a dial, an impulse wheel, spring means for returning said dial and wheel to normal position, and means whereby the wheel returns first and the dial afterward.

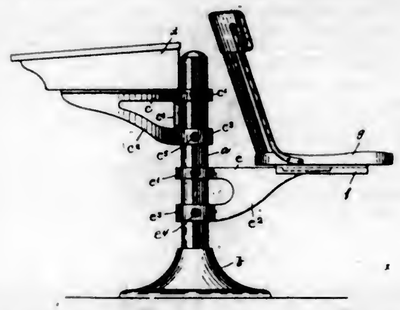
3. A telephone exchange system impulse transmitter comprising a dial, an impulse device, spring means for operating said device and returning said dial to normal position, means for releasing the device by slight backward movement of the dial, means for holding the dial against movement while the device is sending the impulses, and means for releasing the dial when the device is through sending the impulses.

4. In a telephone system, a subscriber's calling dial, an impulse wheel, means for returning the wheel to normal position, means for holding the dial locked in its advanced position, means for releasing the dial when the wheel reaches its normal position, means for returning the dial to normal, and means for abnormally locking the dial against rotation.

5. In a telephone system, a subscriber's calling dial, an impulse wheel, spring means for returning said dial and wheel to normal position, means whereby the wheel returns first and the dial afterward, and means for normally locking the dial against rotation.

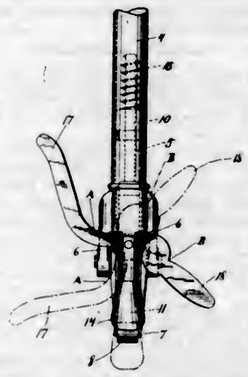
[Claims 6 to 15 not printed in the Gazette.]

1,133,797. SCHOOL DESK AND SEAT. WENDELL P. GETCHELL, Boston, Mass. Filed Feb. 17, 1909. Serial No. 478,389. (Cl. 155—34.)



A combined school desk and seat comprising a single round supporting standard formed with vertically extending grooves, a base supporting said standard, a vertically adjustable bracket provided with a collar fitting within said standard and adapted to support a desk in rear of the standard, a second bracket adapted to support a seat in front of the standard and including a collar slidably adjustable on the same, each of said collars being provided with means to frictionally engage in one of said grooves.

1,133,798. CASTER FOR BEDS, OPERATING-TABLES, AND THE LIKE. DWIGHT K. HALL, Goshen, N. Y., assignor to Frank A. Hall, Montclair, N. J. Filed Dec. 26, 1913. Serial No. 808,758. (Cl. 16—165.)



1. In a device of the class described, in combination, a caster frame, a support movable within the frame, and means for moving one of said parts relatively of the other including a cam.

2. In a device of the class described, in combination, a caster frame, a support movable within the frame, and means for moving one of said parts relatively of the other including a double-acting cam.

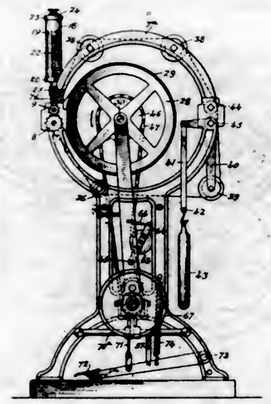
3. In a device of the class described, in combination, a caster frame, a support movable within the frame, and means for moving the one of said parts relatively of the other including a cam and including an operating extention carried by the cam.

4. In a device of the class described, in combination, a caster frame, a support movable within the frame, and means for moving one of said parts relatively of the other including a cam and including a plurality of operating extensions carried by the cam.

5. In a device of the class described, in combination, a caster frame, a support movable within the frame, means for moving one of said parts relatively of the other including a cam, and spring-means tending to maintain said support predeterminedly within the frame.

[Claims 6 to 10 not printed in the Gazette.]

1,133,799. MACHINE FOR STRIPPING AND BOOKING TOBACCO-LEAF. OSCAR HAMMERSTEIN, New York, N. Y. Filed Nov. 21, 1913. Serial No. 802,187. (Cl. 131—56.)



1. A machine of the kind described comprising means for feeding tobacco leaf, relatively stationary bearings for said feeding means, cutting means carried by said feed feeding means for removing the stem from the leaf, booking means adapted to receive the stripped leaf from said feeding means and automatically adjustable relatively thereto by pressure exerted by the booked leaf toward the feeding means as the booking proceeds and mechanism for actuating said means.

2. A machine of the kind described comprising means for feeding tobacco leaf, cutting means connected with said feeding means for removing the stem from the leaf, booking means adapted to receive the stripped leaf from said feeding means and automatically adjustable relatively thereto as the booking proceeds, a device for wiping said cutting means and mechanism for actuating said means.

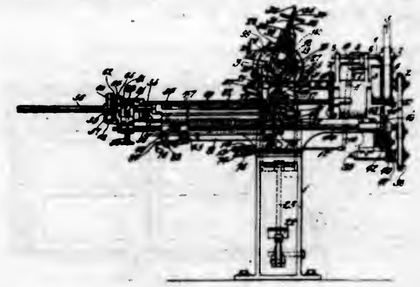
3. A machine of the kind described comprising rollers adapted to feed tobacco leaf, coöperating cutting devices carried by each of said rollers for removing the stem from said leaf, a rotatable booking drum, an apron passing about said drum and one of said rollers and cooperating with said drum to receive the stripped leaf from said rollers and book the same, a movable support for said drum whereby the latter is moved away from the rollers by the pressure of the booked leaf toward the latter as the booking proceeds, means for maintaining said apron under tension and arranged to permit a movement thereof away from the surface of the drum as the books increase in thickness and mechanism for actuating said drum and rollers.

4. A machine of the kind described comprising a main frame, rollers journaled thereon and adapted to feed tobacco leaf, coöperating cutting devices carried by said rollers for removing the stem from said leaf, an auxiliary frame pivotally connected with said main frame and movable to an inoperative position, guide rollers on said main frame, additional guide rollers on said auxiliary frame, a booking drum rotatably mounted on said main frame, an apron passing about said drum and one of said feed rollers and over said guide rollers and coöperating with said drum to receive the stripped leaf from the feed rollers and book the same, a support for said drum pivoted on said main frame, whereby said drum is moved away from the feed rollers by the pressure of the booked leaf toward the latter as the booking proceeds, means arranged to permit said apron to move away from the surface of said drum as the books increase in thickness and adapted to maintain said apron under tension at all times and mechanism for actuating said drum and rollers.

5. In a machine of the kind described, a support, a pair of rollers mounted on said support and each comprising two detachably connected sections, cutting devices carried by said rollers between the sections thereof and detachably clamped in position by said sections, and mechanism for actuating said rollers.

[Claims 6 to 14 not printed in the Gazette.]

1,133,800. FILE-CUTTING MACHINE. JOHN A. HESS, Philadelphia, Pa. Filed Nov. 28, 1913. Serial No. 803,430. (Cl. 76—16.)



1. In a device of the character stated, a support for the file blank, a tool holder, means for feeding the file blank properly to the cutting tool carried thereby, means for raising and releasing said tool holder, a resilient member of relatively large expansion and compression, a stop against which said member abuts to be compressed when the tool holder is raised, a rebound means comprising a yielding member of relatively short compression and of quick expansion, a support for said rebound means, and means carried by said tool holder to compress said yielding member against its support as the blow is struck and to be immediately elevated by it to lift the tool from the file blank.

2. In a device of the character stated, a holder for a file blank, a tool, means for causing said tool to impart a cut to the file blank, means for feeding the blank laterally in the machine and permitting a dwell in said feeding action, means for imparting a slow rotation to said file blank, and means for imparting an intermittent quick rotation to said file blank.

3. In a device of the character stated, a holder for the file blank, a tool, means for causing said tool to impart a cut to the file blank, means for feeding the blank laterally in the machine and permitting a dwell in said feeding action, a rod adapted to be actuated laterally with said feeding means, and in suitable connection with said holder, means for imparting a slow rotation to said rod

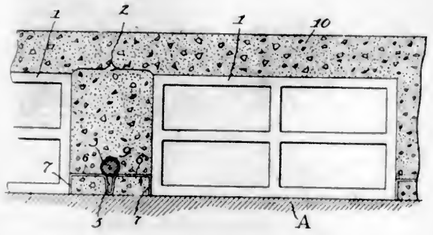
when actuated by said feeding means, and means for imparting an intermittent quick rotation to said rod at the proper times.

4. In a device of the character stated, a holder for a file blank, a tool, means for causing said tool to impart a cut to the file blank, means for feeding the blank laterally in the machine and permitting a dwell in said feeding action, a rod in suitable connection with said holder adapted to move laterally with said feeding means, and having a spiral groove therein, means in suitable engagement with said groove for causing a slow rotation of said rod as it moves laterally by said feeding means, and means for imparting an intermittent quick rotation to said rod.

5. In a device of the character stated, a holder for a file blank, a tool, means for causing said tool to impart a cut to the file blank, means for feeding the file blank laterally in the machine and permitting a dwell in said feeding action, a rod adapted to move laterally with said feeding means, and suitably connected with said holder, a spiral groove in said rod, means in suitable engagement with said groove for imparting a slow rotation to said rod when actuated by said feeding means, a ratchet wheel in suitable engagement with said rod, and a plurality of pawls adapted to be actuated to alternately engage with said ratchet at predetermined times to impart a rotation thereto, and to permit a dwell therein, whereby a quick intermittent rotation is imparted to said rod.

[Claims 6 to 12 not printed in the Gazette.]

1,133,801. REINFORCED CONCRETE CONSTRUCTION. WILLIAM B. HOUGH, Chicago, Ill., assignor, by mesne assignments, to Patented Devices Company, Portland, Me., a Corporation of Maine. Filed Nov. 17, 1911. Serial No. 660,845. (Cl. 72—66.)

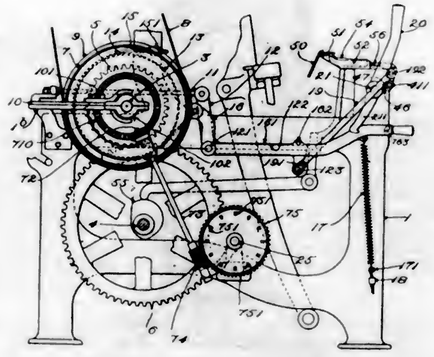


1. Reinforced concrete construction comprising members adapted to rest upon a formwork and provide two opposing side walls, concrete filling the space defined by said members, a reinforcing bar extending longitudinally in the space between said members, and a bar-supporting element consisting of a sheet metal strip bent to provide a gage directly below the bar, said gage being adapted to rest at its lower end upon the formwork and support said reinforcing bar at the upper end of the gage, said sheet metal strip extending laterally in opposite directions from said gage to said side walls and acting to space the gage from said walls, said laterally extending portions being bent to engage said bottom wall and to provide flanges adapted to lie along said side walls.

2. In a floor, the combination of a plurality of rows of tiles spaced apart; a single reinforcing bar extending longitudinally within the space between said rows; and a bar-spacing and securing element extending transversely within said space beneath the reinforcing bar and serving to space the adjacent tiles apart, said element consisting of a flat metal strip of substantial width bent to form a single gage beneath the bar for spacing the latter from a formwork, and wings extending laterally from said gage to the sides of said tiles, said wings having flanges at their outer ends arranged to extend along the vertical sides of the tiles and rest upon the formwork to hold the spacing element against displacement, and means associated with said gage for securing the reinforcing bar thereto.

3. In a floor, the combination of a plurality of rows of tiles spaced apart to provide a channel between the rows; a single reinforcing bar extending longitudinally within said channel; and a spacing and securing element extending transversely within said channel beneath said bar and serving to space the adjacent tiles apart, said element consisting of a flat metal strip of substantial width bent to provide a single gage below said bar for spacing the bar from a formwork, said strip extending laterally in opposite directions from said gage to the sides of said tiles, and the ends of said strip being bent to form vertical flanges adapted to extend along the sides of said tiles, whereby said spacing and securing element is held from tilting or other displacing movement in said channel, and arms secured to said gage and adapted to embrace the reinforcing bar to secure the latter in place.

1,133,802. WEFT-REPLENISHING LOOM. SIMEON SCHOON JACKSON, Readville, Mass., assignor, by mesne assignments, to The Stafford Company, Readville, Mass., a Corporation of New Jersey. Original application filed Oct. 20, 1905, Serial No. 283,615. Divided and this application filed May 19, 1909. Serial No. 496,975. (Cl. 139—85.)



1. In a weft-replenishing loom, the combination with weft-detector devices acting for picks toward the replenishing side of the loom, and mechanism caused to operate on failure of weft to suspend the action of the weaving instrumentalities with the shuttle at the said side, and to effect replenishment, of means operating to prevent effective action of the said devices at the time of the pick from the said side on first restarting the weaving instrumentalities.

2. In a weft-replenishing loom, the combination with stopping mechanism, a change-shaft, replenishing instrumentalities operatively controlled by the change-shaft, and restarting devices also operatively controlled by the change-shaft, of weft-detector devices acting on failure of weft to call the said stopping mechanism and change-shaft into action to cause the action of the weaving instrumentalities to be suspended with the shuttle at the replenishing side of the loom, and to effect replenishment, and means operated by the change-shaft for rendering the said weft-detector devices on first restarting after replenishment temporarily ineffective to call the stopping mechanism and change-shaft again into action.

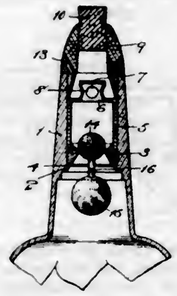
3. In a weft-replenishing loom, the combination with stopping mechanism, a change-shaft, replenishing instrumentalities operatively controlled by the change-shaft, and restarting devices also operatively controlled by the change-shaft, of weft-detector devices acting on failure of weft to call the said stopping mechanism and change-shaft into action to cause the action of the weaving instrumentalities to be suspended with the shuttle at the replenishing side of the loom, and to effect replenishment to be effected, and a substitute-weft device operatively controlled by the change-shaft and acting to render the said weft-detector devices on first restarting after replenishment temporarily ineffective to call the stopping mechanism and change-shaft again into action.

4. A filling-replenishing loom comprising a main continuously driven member, an auxiliary shaft, a rotary clutch-member loosely mounted on said auxiliary shaft, a shaft geared at one end to the said main member and at the other end to said rotary clutch-member, filling-changing means operated from said auxiliary shaft, loom starting mechanism operated from said auxiliary shaft, means for throwing said clutch into action and stopping the loom upon the failure of the filling.

5. A filling-replenishing loom comprising a main driven member, an auxiliary shaft, a rotary clutch-member loosely mounted on said auxiliary shaft, a shaft having a bevel gear connection at one end to the driven member and at the other end a worm gear connection to said rotary clutch-member, filling-changing means operated from said auxiliary shaft, loom starting mechanism operated from said auxiliary shaft, means for throwing said clutch into action and stopping the loom upon the failure of the filling.

[Claims 6 and 7 not printed in the Gazette.]

1,133,803. NON-REFILLABLE BOTTLE. JOHN F. JENSEN, Union Hill, N. J. Filed Aug. 26, 1914. Serial No. 858,651. (Cl. 215—63.)

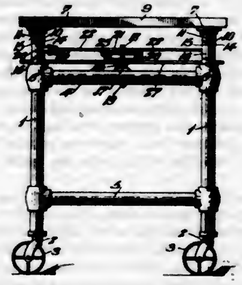


A non-refillable bottle comprising a double valve seat located in the neck of the bottle, the said valve seat having inwardly flaring sides, a cork seat permanently secured in the mouth of the bottle and an intervening cage having one end open and abutting the valve seat and its other end abutting the cork seat being closed against direct ingress but perforate for the tortuous passage of liquid, and a valve in the form of a dumb-bell having a floatable head within the cage and a non-floatable head extending into the bottle.

1,133,804. MAKE-UP TABLE. ANTON KAUFMAN, Philadelphia, Pa. Filed June 20, 1914. Serial No. 846,249. (Cl. 45—111.)

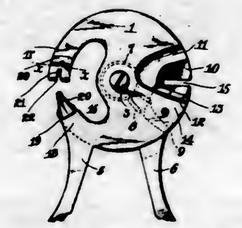
1. In a make-up table, tubular legs, a top provided with plungers telescoping in said legs, cam-sleeves longitudinally adjustable upon said plungers and having inclined lower cam-edges, cam-sleeves having inclined upper cam-edges coöperating with said former cam-edges and rotatable upon the plungers and upon the ends of the legs, and means for simultaneously rotating said latter sleeves.

2. In a make-up table, tubular legs, a top provided with plungers, telescoping in the upper ends of said legs, cam-sleeves longitudinally adjustable upon said plungers and having inclined lower cam-edges, means for adjustably securing such sleeves to said plungers, rotatable sleeves having inclined upper cam-edges coacting with the cam-edges upon the sleeves of the plungers and rotatable upon said plungers and formed each with a radially projecting arm, a disk pivotally supported beneath the top and centrally to the legs and having a handle for rotating it, and connecting rods pivoted with their ends to said disk and to the arms upon the rotary cam-sleeves.



3. In a make-up table, tubular legs, a top provided with plungers telescoping in the upper ends of said legs and formed each with series of holes, cam-sleeves longitudinally adjustable upon said plungers and having inclined lower cam-edges and registering holes in its walls, pins through said holes, cam-sleeves rotatable upon the plungers and having inclined upper cam-edges engaging the cam-edges of the former sleeves, and means for simultaneously rotating said last cam-sleeves.

1,133,805. IMPLEMENT FOR REMOVING SHOE-BUTTONS. STANISLAW KLEIN, College Point, N. Y. Filed Nov. 19, 1914. Serial No. 872,931. (Cl. 218—27.)



1. In a device of the kind described, the combination with two disks pivoted to each other, of a tooth attached to one disk and beveled from the outer surface of said disk toward the inner surface of said disk and toward the free end of the tooth and also beveled laterally toward the free end of said tooth and a jaw formed opposite the free end of said tooth on the other disk, which jaw is constructed to receive the eye of a button, substantially as set forth.

2. In a device of the kind described, the combination with two disks pivoted to each other, each having a recess extending inward from the outer edge and forming prongs on each disk, of a tooth secured to one prong of one disk and beveled from the outer toward the inner surface of the disk and toward the free end of the tooth and also beveled laterally toward the free end of the tooth, and a prong on the other disk and opposite the free end of said tooth and having a notch in its end, substantially as set forth.

3. In a device of the kind described, the combination with two disks pivoted to each other, each having a recess extending inward from the outer edge and forming prongs on each disk, of a tooth secured to one prong of one disk and beveled from the outer toward the inner surface

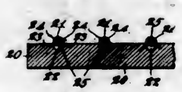
of the disk and toward the free end of the tooth and also beveled laterally toward the free end of the tooth, and a prong on the other disk and opposite the free end of said tooth, and having a notch in its end and also having a cross bar on the outer surface adjacent to the inner end of said notch, substantially as set forth.

4. In a device of the kind described, the combination with two disks pivoted to each other, each having a recess extending inward from the outer edge and forming prongs on each disk, of a tooth secured to one prong of one disk and beveled from the outer toward the inner surface of the disk and toward the free end of the tooth and also beveled laterally toward the free end of the tooth, and a prong on the other disk and opposite the free end of said tooth and having a notch in its end and also having a cross bar on the outer surface adjacent to the inner end of said notch and having two lugs on the inner surface a short distance from the free end of the prong between which lugs the said tooth can pass, substantially as set forth.

5. In a device of the kind described, the combination with two disks pivoted to each other, each having a recess extending inward from the outer edge and forming prongs on each disk, of a tooth secured to one prong of one disk and beveled from the outer toward the inner surface of the disk and toward the free end of the tooth and also beveled laterally toward the free end of the tooth, and a prong on the other disk and opposite the free end of said tooth and having a notch in its end and also having a cross bar on the outer surface adjacent to the inner end of said notch, and having two lugs on the inner surface a short distance from the free end of the prong between which lugs the said tooth can pass, the prong on that disk carrying the tooth and opposite the tooth, being provided with a tongue which can also pass between said lugs in the reverse direction of the tooth, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,133,806. PROCESS OF ELECTRICALLY UNITING METALLIC MEMBERS. LAURENCE S. LACHMAN, New York, N. Y. Filed Oct. 19, 1910. Serial No. 587,795. (Cl. 219—10.)



1. The process which consists in preparing a member with a plurality of spaced welding places; so preparing a second member as to adapt it for integral electrical union therewith; placing the second member in such relation to the first-mentioned member that opposite portions thereof will be in contact with the welding places of the first-mentioned member; and subjecting the contacting parts of the members to a welding current of electricity and the members to relative pressure.

2. The process which consists in so preparing a member that it will have a plurality of spaced welding places; so preparing a second member as to adapt it for integral electrical union therewith; placing the second member in such relation to the first member that portions thereof will be in contact with the welding places of the first-mentioned member and its part intermediate of said places will be free from contact with the first-mentioned member; and subjecting the contacting parts of the members to a welding current of electricity and the members to relative pressure adapted to cause coalescence of molecules of the members and bring the portions of the members which are between said contacting portions into contact with each other.

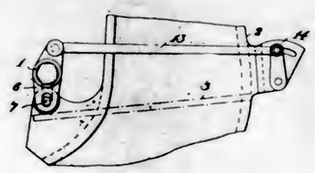
3. The process which consists in preparing a first member with a groove and with welding places adjacent to the groove; placing in operative relation with the first member a second member having portions which respectively contact with said welding places and are free from contact with a portion of the wall of the groove between said places; and subjecting the contacting parts of the members to a welding current of electricity and the members to relative pressure, adapted to cause coalescence of molecules of the members and to force the second member to a full seat in the groove of the first member.

4. The process which consists in mounting over the mouth of a groove in a first member, having welding places at its mouth, a second member which engages said welding places and presents to the wall of the groove a portion which is free from contact therewith; and subjecting the members to a welding current of electricity and pressure until their said confronting non-contacting portions have been brought into contact with each other.

5. The process which consists in mounting in suitable relation with an open groove in the surface of a first member, having welding places adjacent to the groove, a second member having portions which contact with said welding places and presents to the wall of the groove a portion which is free from contact therewith, and integrally uniting these parts together by subjecting them to a welding current of electricity and to relative pressure until their molecules coalesce and the second member has been brought to a seat in the groove below the surface of the first member.

[Claims 6 to 14 not printed in the Gazette.]

1,133,807. SUCTION DEVICE FOR AUTOMATIC PRINTING-PRESSES AND SIMILAR MACHINES. ALEXANDER LAGERMAN, Jr., Villa Alexandra, Lerum, and GUSTAF HJALMAR LINDSTRÖM, Gottenborg, Sweden, assignors to Aktiebolaget Princeps, Gottenborg, Sweden, a Corporation of Sweden. Filed July 24, 1913. Serial No. 780,981. (Cl. 101—41.)



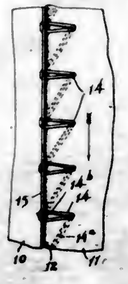
1. In a suction device for automatic printing presses and similar machines, the combination of a suction pipe provided with sets of suction openings, and means for adjusting the suction openings of each set simultaneously and independently of the other set, substantially as described and for the purpose set forth.

2. In a suction device for automatic printing presses and similar machines, the combination of a suction pipe, divided into sections, each comprising pipes one slid into and movable in the other, mouth-pieces provided on the outer pipes, and side openings provided in the pipes and corresponding one with the other and with the passages of the mouth-pieces respectively, substantially as described and for the purpose set forth.

3. In a suction device for automatic printing presses and similar machines, the combination of a suction pipe divided into sections, suction openings provided in the said sections, means for adjusting by sets the suction openings of each section, means for swinging the sections individually around an axis parallel to the axis of the pipe, and means for connecting the sections, substantially as described and for the purpose set forth.

4. In a suction device for automatic printing presses and similar machines, the combination of a suction pipe provided with sets of suction openings, means for adjusting the suction openings of each set simultaneously and independently of the other set and means permitting the suction pipe to be raised against the action of yielding means, substantially as described and for the purpose set forth.

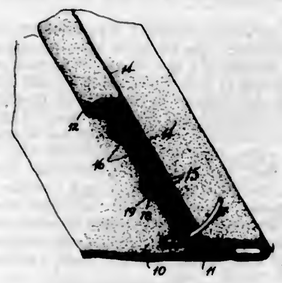
1,133,808. HEM OR SEAM FOR SEWED ARTICLES. JOHN G. LEWIS, St. Louis, Mo. Filed Aug. 7, 1911. Serial No. 642,619. (Cl. 112—34.)



1. A hem or seam for sewed articles comprising a main layer of material, a superimposed layer of material presenting an edge thereon, and a single row of single-thread chain stitches entering and emerging from the same side of the work comprising a series of loops penetrating into the main layer and through the superimposed layer in the general direction away from the preceding stitches at an oblique angle to said edge and thence passing across the edge at substantially right angles to the edge, said loops being enchained at the surface of the main layer and the lineal connections keying said loops lying in a line on the main layer parallel with and close to the edge of the superimposed layer.

2. A hem or seam for sewed articles comprising a main layer of material, a superimposed layer presenting an edge thereon, and a single row of stitches entering and emerging on the same side of the work, comprising a series of loops penetrating into the main layer and through the superimposed layer in a gereral direction away from the preceding stitches at an oblique angle to the said edge and thence passing over the edge substantially at right angles thereto, said loops being enchained and the lineal connections keying said loops lying in a line on the main layer parallel with and beneath the edge of the superimposed layer.

1,133,809. SEAM FOR SEWED ARTICLES. JOHN G. LEWIS, St. Louis, Mo. Filed Aug. 26, 1912. Serial No. 717,094. (Cl. 112—34.)



1. In a hem or seam for sewed articles, the combination of a base layer of fabric, a superimposed body thereon, and a single series of stitches each comprising a keyed penetrant loop, all of said stitches penetrating through-and-through the super-imposed body, regularly recurrent ones of said stitches less than the whole number thereof passing at an angle to the general line of the seam, into and out of the upper surface of the base layer, and the intervening ones of said stitches being free from the base layer, all of said stitches having their upper running connections exposed on the super-imposed body, and their lower running connections concealed beneath the superimposed body.

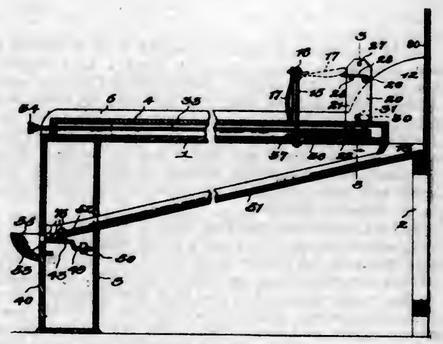
2. In a hem or seam for sewed articles, the combination of a base layer of fabric, a superimposed body of fabric having a folding edge, and a series of stitches having their embedded portions lying in planes at an angle to the edge, each stitch penetrating through-and-through the folded body near its edge, and a number of stitches less than the entire number thereof passing into and out of the upper side of the base layer, and the intervening ones of said stitches being free from the base layer.

3. In a hem or seam for sewed articles, the combination of a base layer of fabric, a superimposed body of fabric having a folded edge, and a series of stitches having their embeded portions in planes at an angle to the edge, each stitch penetrating through-and-through the folded body near its edge, regularly spaced ones of said stitches penetrating into and out of the upper side of the base layer beneath the folded edge, and the intervening ones of said stitches being free from the base layer, the upper running connections of the stitches being exposed upon the superimposed body parallel with the edge and the lower running connections lying under the edge.

4. In a hem or seam for sewed articles, a base layer of fabric, a superimposed body of fabric having a folded edge, and a single series of stitches each having its embedded portion penetrating in planes at an angle to the edge through both layers of the superimposed material, regularly recurrent ones of said stitches penetrating also the base layer entering and emerging from the same face thereof under the folded edge, and the remaining stitches being local to the superimposed material, the needle thread lying exposed in a line parallel with the edge of the upper surface of the superimposed layer and the lower running connections of the stitches being overlain by the superimposed material.

5. In a hem or seam for sewed articles, a base layer of fabric, a superimposed fabric body having a folded edge, and a single row of stitches tightly hemming said folded body close to its edge with short intervals between stitches, and felling said edge to the base layer at longer intervals leaving the base layer puckerless and giving relatively loose adaptive connection between the fabric bodies, said stitches lying in planes at an angle to the edge, each said stitch passing through both piles of the superimposed material, and certain regularly recurrent ones of said stitches less than the whole number thereof penetrating into and out of the stitched side of the base layer.

1,133,810. TOY BOWLING GAME. JOHN F. MCNAMARA, Danbury, Conn. Filed Dec. 12, 1914. Serial No. 876,898. (Cl. 46—66.)



1. In a toy bowling apparatus, a pin support, a plurality of pins pivotally secured thereto, pivoted latching

means for the pins, said latching means being slidable to release the pins, and means for sliding the latching means.

2. In a bowling apparatus, a bowling alley, a plurality of pins pivoted above the alley, a spring pressed frame movable relative to the pins, means to operate the frame against the action of the spring to move the frame away from the pins, and individual latches, borne by the frame and movable independently thereof by the pins striking same and movable bodily with the frame.

3. A toy bowling apparatus, comprising, a stationary pin support, a plurality of pins pivoted to said support above the alleys, a spring retracted frame, a plurality of pin latching means carried by said frame, and means for moving the frame carrying the pin latching means to release the pins.

4. A toy bowling apparatus comprising a stationary pin support, a plurality of pins pivoted to said pin support, a frame behind the pin support, a plurality of pivoted latches on the frame adapted to support the pins, and means for moving the latches longitudinally of the alleys to release the pins.

5. A toy bowling apparatus comprising a plurality of bowling alleys, a pin support rigidly supported above each alley, a plurality of pins suspended from said pin support, a frame behind the pin support, a plurality of latches pivoted in said frame, a stop for the latches, a ball chute for returning the balls to the front of the alleys, and coin controlled means for releasing the balls.

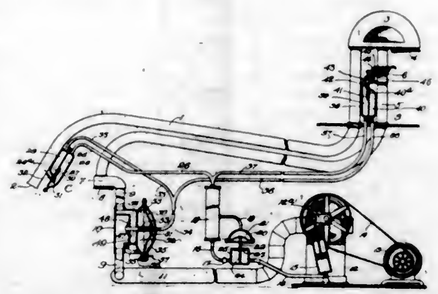
[Claims 6 to 12 not printed in the Gazette.]

1,133,811. CENTRIFUGAL MACHINE. EDWARD D. MACKINTOSH, New York, N. Y., assignor of one-half to S. S. Hepworth Company, New York, N. Y., a Corporation of New York. Filed Apr. 13, 1911. Serial No. 620,749. (Cl. 64—48.)

1. In a centrifugal machine adapted to be driven by a belt, a normally vertical swingable shaft, a head supporting the shaft and swingable therewith, and an abutment against which the belt holds the head and on which and away from which the head rocks as the shaft leaves the vertical, the point of contact between the head and the abutment being above the center line of the belt when the shaft swings from the vertical in one direction and below said center line when the swing is from the vertical in the opposite direction.

2. In a centrifugal machine adapted to be driven by a belt, a head having a rotor and a stator separated by balls that maintain the relative positions of the two while permitting the rotation of one within the other, a normally vertical shaft supported by the head and swingable therewith, an abutment against which the belt holds the head and on which and away from which the head rocks as the shaft leaves the vertical, a spherical zone supporting the head, and a socket fitting and supporting the spherical zone.

1,133,812. PNEUMATIC-DESPATCH-TUBE APPARATUS. JAMES G. MACLAREN, Harrison, N. Y., assignor to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Aug. 20, 1908. Serial No. 449,562. (Cl. 243—13.)



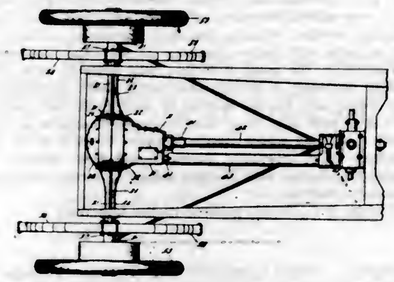
1. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers, means for exhausting air from said tube, a normally closed air valve for controlling the flow of air through said tube, a source of compressed air, mechanism to be operated upon the despatching of a carrier to cause said compressed air to open said valve, and a connection between said mechanism and air exhausting means, said apparatus having provisions for timing the closure of said valve after it has been so opened by permitting a regulated flow of compressed air from said mechanism through said connection to said air exhausting means.

2. In a pneumatic despatch apparatus, the combination of a transmission tube having a carrier depatching part provided with a closure, means for producing a carrier propelling flow of air adapted to be placed in communication with said tube, a valve controlling said communication, a fluid pressure operated device for actuating said valve, a valve chamber adjacent said closure, an auxiliary valve in said chamber, connections between said closure and said auxiliary valve whereby an actuation of said closure causes an actuation of said auxiliary valve, two auxiliary conduits leading to said valve chamber, one of said auxiliary conduits being in communication with one side of said auxiliary valve and the other being in communication with the other side of said auxiliary valve, and a source of compressed air in connection with one of said auxiliary conduits, the other of said auxiliary conduits being connected to said fluid pressure operated device.

3. In a pneumatic despatch apparatus, the combination of a transmission tube having a carrier despatching part, means for producing a carrier propelling flow of air adapted to be placed in communication with said tube, a valve controlling said communication, a fluid pressure operated device for actuating said valve, a valve chamber having therein an auxiliary valve, means for controlling said auxiliary valve from a point adjacent said carrier despatching part, two auxiliary conduits, one of which is in communication with one side of said auxiliary valve and extends thence to said pressure operated device, and a source of pressure fluid, the other of said auxiliary conduits extending from said pressure fluid source and communicating with the other side of said auxiliary valve.

1,133,813. AXLE FOR MOTOR-VEHICLES. HOWARD C. MARMON, Indianapolis, Ind. Filed Mar. 12, 1909. Serial No. 482,929. (Cl. 21—90.)

1. In a motor vehicle, the combination with a rear axle, wheels, and driving mechanism therefor, of an inclosing casing within which said rear axle mechanism is contained and having a lateral opening, a removable plate secured within the chamber adjacent to the opening leading from the central portion into the shell, said central plate being provided with bearings transverse to the plane thereof for the shafts of the transmission gear, and with bearings parallel with the plane thereof for the differential gear.



2. In a motor vehicle, the combination with the rear axle, wheels, and driving mechanism therefor, of an inclosing casing within which said rear axle mechanism is contained composed of two pressed steel portions, each integral from one end of the casing to the other, the two portions meeting along a central substantially vertical longitudinal plane and there being united, said inclosing casing having an enlarged central portion with tubular portions extending out laterally therefrom, and tubular reinforcements surrounding the outer ends of said tubular portions for receiving the wheels and the superstructure.

3. The combination, in a motor vehicle, of the inclosing casing for the rear axle mechanism, and reinforcements secured to the outer ends of said inclosing casing comprising wheel-bearing supports, brake-mechanism supports, and spring-seat supports.

4. The combination, in a motor vehicle, of an inclosing casing for the rear axle mechanism having an enlarged central portion which central portion has oppositely-disposed openings, a shell secured over one of said openings and forming a continuation of the mechanism chamber, and a plate adapted to be secured within said chamber, said plate being somewhat larger in its greater diameter than the opening in the side of said chamber and thus adapted to be secured to a rim bounding the opposite opening but having its sides reduced to enable it to be introduced through the opening.

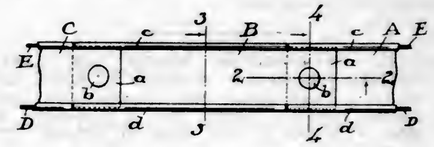
5. The combination, in a motor vehicle, of a rear axle structure comprising a shell-like member having an enlarged central portion, reinforcing members secured to the ends of said shell-like member and embodying wheel-bearing supports, brake-mechanism supports and spring-seat supports, rear axle shafts within the hollow rear axle structure and extending out through the ends thereof, wheels secured to the ends of said rear axle shafts, bearings carried by the wheel-bearing supports on said reinforcing members, brake-drums and brake-mechanisms carried by the brake-mechanism supports, and spring seats carried by the spring-seat supports.

[Claims 6 to 16 not printed in the Gazette.]

1,133,814. WIRED-EDGE BOX-STRAPPING. GEORGE C. D. MILLER, New York, N. Y., assignor to Cary Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Aug. 1, 1912. Serial No. 712,650. (Cl. 217—66.)

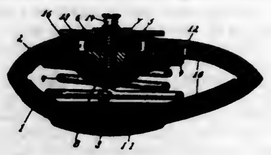
1. As a new article of manufacture, a box strap consisting of united sections of metal, each of said sections having a tongue at one end of less width than the end of the adjacent section to which it is united, and longitudinally extending wires positioned within the respective curled edges of said strip and contiguous to the longitudinal edges of the tongues.

2. As a new article of manufacture, a box strap consisting of united sections of metal, each of said sections having a tongue at one end of less width than the end of the adjacent section to which it is united, and longitudinally extending wires positioned within the respective curled edges of said strip at the joints thereof and contacting with the longitudinal edges of said tongues.



3. Box strapping comprising a series of sheet metal lengths united together by lapping joints, the respective side edges of said metal lengths being curled inwardly, and stay wires retained in contact with the strapping by the curled edges thereof, said wires extending across and into contact with the lapped joints for precluding the otherwise free end edges of the metal lengths from bending outwardly relatively to the strapping.

1,133,815. TRUSS. WARD J. MILLER, Kalamazoo, Mich., assignor to Easy Truss Company, Battle Creek, Mich. Filed Aug. 28, 1914. Serial No. 859,082. (Cl. 128—26.)



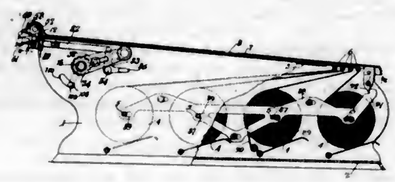
1. A truss comprising a chambered body formed of rubber and having convex front and rear walls, the edges of the walls being permanently united, the front wall having a thickened portion providing a boss-like projection, the edges of the projection being substantially spaced from the edges of the body, the edges of the body being sufficiently stiff to resist stresses to which they are commonly subjected in use, but yielding to unusual stresses, a coiled spring disposed within the body under tension, said spring being located centrally below said enlargement in said front wall, an attaching plate embedded in the rear wall of said body, there being an inward projection on the rear wall in which said plate is embedded, the said inward projection being embraced by the bottom coil of the spring and constituting a support therefor, a support, an attaching screw having threaded engagement with said attaching plate, and a spring washer disposed between said support and the rear wall of the body.

2. A truss comprising a chambered body formed of rubber and having convex front and rear walls, the edges of the walls being permanently united, the front wall having a thickened portion providing a boss-like projection, the edges of the projection being substantially spaced from the edges of the body, the edges of the body being sufficiently stiff to resist stresses to which they are commonly subjected in use, but yielding to unusual stresses, a coiled spring disposed within the body under tension, said spring being located centrally below said enlargement in said front wall, an attaching plate embedded in the rear wall of said body, an attaching screw having threaded engagement with said attaching plate.

3. A truss comprising a chambered body formed of rubber and having convex front and rear walls, the edges of the walls being permanently united, the front wall having a thickened portion providing a boss-like projection, the edges of the projection being substantially spaced

from the edges of the body, the edges of the body being sufficiently stiff to resist stresses to which they are commonly subjected in use, but yielding to unusual stresses, a coiled spring disposed within the body under tension, said spring being located centrally below said enlargement in said front wall and in a spaced relation to the edges of the body, and an attaching member embedded in the rear wall of said body.

1,133,816. MANIFOLDING DEVICE FOR AUTOGRAPHIC REGISTERS. FREDERICK C. NICKOL and MILTON C. STERN, Dayton, Ohio, assignors to The Egry Register Company, Dayton, Ohio, a Corporation of Ohio. Filed July 3, 1912. Serial No. 707,410. (Cl. 11—36.)



1. In a device of the character described, a paper support, a paper feeding device movable toward and away from said paper support and comprising a paper gripping device, a spring to move said gripping device into engagement with the paper, and means to move said gripping device against the action of said spring to render the same inoperative during the movement of said feeding device toward said paper support, and to release said gripping device to permit the spring to move it into engagement with the paper when said feeding device is moved into a position adjacent to said paper support.

2. In a device of the character described, the combination, with a paper support, a paper feeding device movable toward and away from said support and comprising a paper gripping device, an actuating device operatively connected with said paper gripping device in a manner to first actuate said paper gripping device and then upon the continued movement of the actuating device to actuate the feeding device, of means to automatically impart movement to said actuating device when said paper feeding device has been moved into a position adjacent to said paper support.

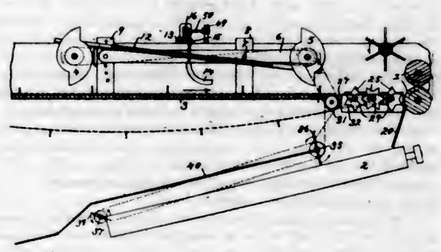
3. In a device of the character described, the combination, with a paper support, a paper feeding device movable toward and away from said support and comprising a paper gripping device, an actuating device operatively connected with said paper gripping device, whereby the first movement of said actuating device will actuate said paper gripping device and the further movement of said actuating device in the same direction will actuate said paper feeding device, of a spring operatively connected with said actuating device and tending normally to move said paper gripping device into operative engagement with the paper.

4. In a device of the character described, the combination, with a paper support, a paper feeding device movable toward and away from said support and comprising a paper gripping device, an actuating device operatively connected with said paper gripping device, whereby the first movement of said actuating device will actuate said paper gripping device and the further movement of said actuating device in the same direction will actuate said paper feeding device, of a spring operatively connected with said actuating device and tending normally to move said paper gripping device into operative engagement with the paper, an operating member operatively connected with said actuating device, and means for releasing said actuating device from said operating member when the feeding device has been returned to its normal position, thus permitting said spring to actuate said paper gripping device.

5. In a device of the character described, the combination, with a frame having a paper support, a paper carriage slidably mounted on said frame, paper gripping devices mounted on said carriage, a rack bar connected with said carriage and having movement relatively thereto, a connection between said rack bar and said paper gripping devices, whereby the first movement of said bar will actuate said paper gripping devices and its further movement in the same direction will actuate said paper feeding carriage, a spring influenced shaft journaled in said frame, and a gear carried by said shaft and meshing with said rack bar, of a handle loosely mounted on said shaft, a toothed wheel rigidly secured to said shaft, and a double pawl pivotally mounted on said handle and adapted to engage said toothed wheel to rotate said shaft in either direction.

[Claims 6 to 32 not printed in the Gazette.]

1,133,817. CORN-HUSKING MACHINE. JEFFREY J. POWER, Madison, Wis., assignor to J. I. Case Threshing Machine Company, Racine, Wis., a Corporation. Filed Mar. 3, 1902, Serial No. 96,538. Renewed Sept. 7, 1907. Serial No. 391,882. (Cl. 130—5.)



1. In a machine of the described class, the combination with husking and snapping rollers; of a stalk conveyer arranged with an ear-receiving throat between it and the snapping rollers; bars extending across said throat; and sets of rotary stalk-advancing devices journaled to said bars,—said stalk-advancing devices and supporting bars being of less width than the length of an ear of corn, and said bars being sufficiently separated to permit the detached ears to drop to the husking rollers.

2. In a machine of the described class, the combination with husking and snapping rollers in operative relation; of stalk-advancing mechanism arranged to deliver stalks to the snapping rollers, and comprising a plurality of sets of rotary plates, each plate having stalk-engaging projections,—said sets of plates being arranged with intervening spaces adapted to permit the downward passage of ears of corn to the husking rollers.

3. In a machine of the described class, the combination with husking and snapping rollers in operative relation; of stalk-advancing rotary plates, arranged in sets, and provided with stalk-engaging projections; and means for independently driving the plates of each set,—said sets being arranged with intervening spaces adapted to permit the downward passage of ears of corn, and the plates being formed to direct the ears into such spaces.

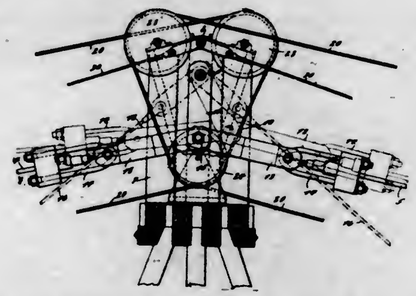
4. In a machine of the described class, the combination with husking and snapping rollers in operative relation; of stalk-advancing rotary plates, arranged in sets of partially overlapping plates, and provided with stalk-engaging projections; and means for independently driving the plates of each set,—said sets being arranged with intervening spaces adapted to permit the downward passage of ears of corn, and the plates being formed to direct the ears into such spaces.

5. In a machine of the described class, the combination

with the husking and snapping rollers in operative relation; of sets of rotary stalk-advancing devices; driving connections for the stalk-advancing devices of each set; and supporting side bars covering said driving connections, and all but the upper portions of the advancing devices,—said devices and supports being arranged in sets with intervening spaces between the sets.

[Claims 6 to 26 not printed in the Gazette.]

1,133,818. CABLEWAY. WILLIAM JAMES ALEXANDER RANKIN, New York, N. Y., assignor to Lidgerwood Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Dec. 14, 1912. Serial No. 736,670. (Cl. 104—146.)



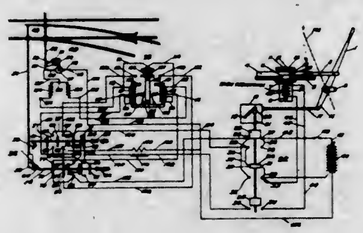
1. In a cableway, in combination, an intermediate support, a member pivoted on the intermediate support and depending from its pivot, and cables each connected at one end to said member below its pivot and having their opposite ends connected to a support.

2. In a tandem cableway, in combination, end supports, an intermediate support, a pivoted member on the intermediate support depending from its pivot and cables supported by the end supports and connected to said member below its pivot.

3. In a tandem cableway, in combination, outer supports, an intermediate support, a horizontal pin on said intermediate support, a rigid member pivoted to said pin, connecting members pivoted to the rigid member below said pivot pin, and cables arranged in tandem and connected to said connecting members and supported by said outer supports.

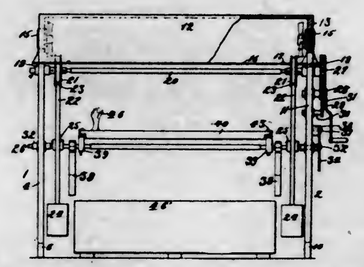
4. In a tandem cableway, in combination, outer supports, an intermediate support, a horizontal pin, a compensating member pivoted on said pin and suspended therefrom, cables supported by said outer supports, and means for pivotally connecting said cables to the compensating member.

1,133,819. RAILWAY SWITCHING AND INDICATING CIRCUITS. WADE H. REICHARD, Troy, N. Y., assignor to Federal Signal Company, Albany, N. Y., a Corporation. Filed Aug. 17, 1910. Serial No. 577,666. (Cl. 246—53.)



In a railway switching and indicating system, the combination of a source of electric energy and electric motors for setting the railway switches; control circuits for causing the said motors to set the switches in the manner desired; an inductive device having two windings; an indication circuit arranged to include the said source of electric energy in series with one winding of the said inductive device; and an indication magnet arranged to operate at a potential in excess of that of the said source when the other winding of the said inductive device is being momentarily connected in circuit with the said motors for the purpose of increasing the current in the said indication circuit to an intensity sufficient to actuate the said indication magnet.

1,133,820. DIPPING AND DRYING MACHINE. EMANUEL T. RICHERT, Massillon, Ohio, assignor to The Reality Rubber Company, Massillon, Ohio, a Corporation of Ohio. Filed May 12, 1913. Serial No. 767,063. (Cl. 18—24.)



1. In a dipping machine, a shaft, channeled standards disposed adjacent to the terminals thereof, a form carrier arranged parallel with the shaft and embodying end members slidably secured within the standards, slats connecting the end members for supporting the forms, means for turning the shaft to invert the carrier, means for locking the shaft against movement, and a fan supported above the form carrier for driving air onto the forms on said carrier.

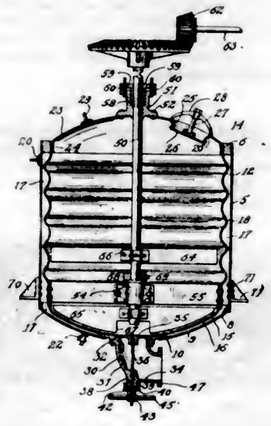
2. In a dipping machine, a counter-weighted shaft, channeled standards disposed adjacent to the terminals thereof, a form carrier arranged parallel with the shaft and embodying end members slidably secured within the standards, slats connecting the end members for supporting the forms, means for turning the shaft to invert the carrier, means for locking the shaft against movement, and fans supported above the carrier at each end thereof for driving air onto the forms on said carrier.

1,133,821. JACKETED VESSEL. CARLTON RIDDLE, Akron, Ohio. Filed Dec. 15, 1913. Serial No. 806,938. (Cl. 127—9.)

1. The combination of an outer shell, a corrugated inner shell spaced from the outer shell and connected therewith at the upper end, end members for the inner and outer shells spaced apart and each having a central opening, a ring secured in said opening and a valve mounted in said ring, a closure for the other end of the inner shell, a bearing centrally mounted thereon, a transverse member carried by the inner shell and having a bearing, a shaft mounted in said bearing, an agitator on said shaft, there being an opening through the upper end member of the inner shell, and a closure for said opening.

2. The combination of an outer shell, an end member closing one end of said shell, a corrugated inner shell secured to the outer shell at its upper end and spaced from the outer shell, an end member parallel with the end member of the outer shell and adjacent thereto, central openings through the adjacent end members of the inner and outer shells, a ring mounted between the end members at the opening, said end members overlapping the same, a valve carried by said ring and adapted to open inwardly

into the inner shell, a closure for the upper end of the inner shell having a downwardly turned flange fitting inside said shell, an opening in said closure surrounded by an inwardly turned flange, a closure for said opening adapted to be drawn upwardly against said flange, and means for securing the same in position.



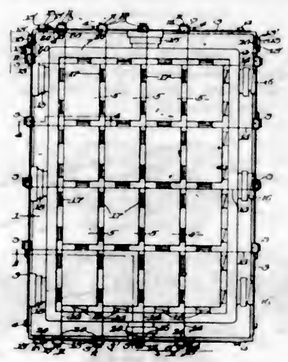
3. The combination of a cylindrical outer shell, a ring secured to the inside of one end of said shell, a corrugated inner shell fitting the inner periphery of said ring, dome-shaped closures for the lower end of each shell, each closure having an upwardly turned flange secured to its respective shell, said closures being parallel and separated forming a space communicating with the space between said inner and outer shells, registering openings in each of said closures, a ring mounted between the closures and at said openings, a valve carried by said ring, a closure for the other end of the inner shell having a downwardly turned flange secured to the inner end thereof, means for supplying steam pressure to the interior of the inner shell, means for supplying steam pressure to the space between said shells, and means for agitating matter in the interior of the inner shell.

4. The combination of an outer shell, a corrugated inner shell spaced from the outer shell and connected therewith at the upper end, end members for the inner and outer shells spaced apart, a closure for the other end of the inner shell, a bearing centrally mounted thereon and provided with a stuffing box, a shaft extending through said stuffing box, an agitator carried on said shaft, means for rotating the shaft, and independent means for admitting pressure to the interior of the inner shell and to the space between the shells.

1,133,822. PRINTING-FORM-ALINING APPARATUS. HARRY B. ROUSE, Chicago, Ill., assignor to H. B. Rouse & Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 11, 1914. Serial No. 817,975. (Cl. 101—166.)

1. The combination with an imposing plate; of a plurality of string supporting riders at each of the upright sides of the imposing plate, the imposing plate having supporting means for the riders along which the riders may move; and means for fixedly securing the riders in position with respect to the imposing plate, said riders being provided with cylindrical formations whereby they may coöperate with a measuring instrument having corresponding formations in establishing the spacings between the riders, there being also cylindrical formations in permanently fixed relation to the imposing plate to act as markers in positioning the riders

2. The combination with an imposing plate; of a plurality of string supporting riders at each of the upright sides of the imposing plate, the imposing plate having supporting means for the riders along which the riders may move; and means for fixedly securing the riders in position with respect to the imposing plate, said riders being provided with measuring formations whereby they may coöperate with a measuring instrument having corresponding formations in establishing the spacings between the riders.

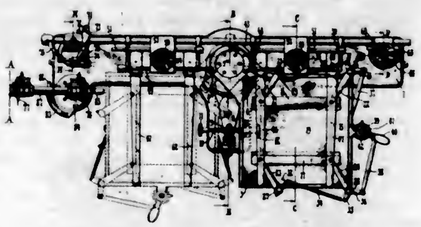


3. The combination with an imposing plate; of a plurality of string supporting riders at each of the upright sides of the imposing plate, the imposing plate having supporting means for the riders along which the riders may move, the riders and said supporting means having interengaging formations whereby the riders are prevented from turning materially; and means for fixedly securing the riders in position with respect to the imposing plate.

4. The combination with an imposing plate; of a plurality of string supporting riders at each of the upright sides of the imposing plate, the imposing plate having supporting means for the riders along which the riders may move, the riders and said supporting means having interengaging formations whereby the riders are prevented from turning materially.

5. The combination with an imposing plate; of a plurality of string supporting riders at each of the upright sides of the imposing plate, the imposing plate having supporting means for the riders along which the riders may move; and means for fixedly securing the riders in position with respect to the imposing plate.

1,133,823. MACHINE FOR SQUARING NEGATIVES AND PLATES. VERNON ROYLE, Paterson, N. J. Filed Apr. 18, 1913. Serial No. 762,133. (Cl. 33—76.)



1. In a machine for squaring negatives and plates, a horizontally bodily swinging table for presenting the work in positions at right angles to each other and means in coöperative relation to the table for locating a marginal line on the work.

2. In a machine for squaring negatives and plates, a horizontally swinging table pivoted at one corner, for presenting the work in positions at right angles to each other and means in coöperative relation to the table for locating a marginal line on the work.

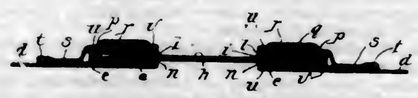
3. In a machine for squaring negatives and plates, a horizontally swinging and vertically movable table for supporting the work, means in coöperative relation to the table means for locating a marginal line on the work and for holding the table in different positions.

4. In a machine for squaring negatives and plates, a bodily swinging, overhanging, translucent table for supporting the work and means in coöperative relation to the table for locating a marginal line on the work.

5. In a machine for squaring negatives and plates, a horizontally bodily swinging table for supporting the work, means for arresting the swinging movement of the table at the ends of an arc of 90° and means in coöperative relation to the table for locating a marginal line on the work.

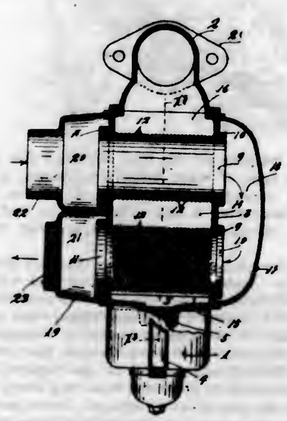
[Claims 6 to 31 not printed in the Gazette.]

1,133,824. CORSET. CHARLES H. SCHOPBACH, Aurora, Ill. Filed Nov. 27, 1912. Serial No. 733,785. (Cl. 2—73.)



In a corset, the combination of two body sections thereof, a ventilating section consisting of two side members laterally spaced from each other, and transverse strips having their ends secured to said side members by stitching independent of the means for securing said ventilating section to the body sections; stiffening strips extending along the said side members between their side margins, and pocket forming strips overlapping said stiffening strips and side members and extending laterally beyond the latter; and means for securing the side members of said ventilating section, pocket forming strips and body portion together, comprising three laterally separated lines of stitching, the first and second lines of stitching extending through the said side members at opposite sides of said stiffening strips, and the third line of stitching extending along the edge of the pocket forming strip remote from the edge of the body section.

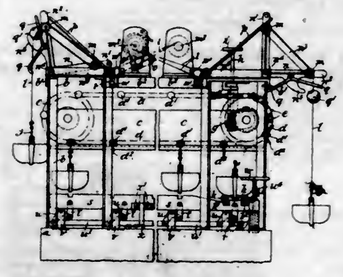
1,133,825. HEATER FOR GASEOUS FLUIDS. PAUL SWENSON, Hopkins, Minn. Filed Jan. 23, 1914. Serial No. 813,906. (Cl. 257—241.)



1. In a heater for heating one gaseous fluid from another, the combination with a casing formed with internal cylindrical surfaces and diametrically opposite inlet and outlet ports, of a flue extended through said vaporizing conduit and provided with closely adjacent external ribs extended in a circumferential direction around the same and closely following the cylindrical surfaces of the said conduit and coöperating therewith to afford a multiplicity of small segmental passages surrounding said flue.

2. In a heater for heating one gaseous fluid from another, the combination with a casing having a vaporizing conduit formed with internal cylindrical surfaces located at different points in said conduit, flues extended axially through the cylindrical portions of said conduit, the said flues having closely adjacent external extensions in a circumferential direction allowing the same to closely follow the adjacent cylindrical surfaces of the said conduit and coöperating therewith to afford a multiplicity of small segmental passages surrounding said flue, and a hood connecting the said flues at one end.

1,133,826. SHIP'S-BOAT STORING, LOWERING, AND RAISING APPARATUS. ISAAC FRANCIS TAYLOR, East Dulwich, London, and SAMUEL PICK, London, England. Filed June 7, 1913. Serial No. 772,322. (Cl. 9—22.)



1. In an apparatus for storing, lowering and raising ships' boats, the combination of endless carriers disposed transversely of the ships; tracks for said carriers and extending from side to side of the ship; boat lowering and raising gear coöperating with the carriers; a series of chocks for supporting the boats in position under the carriers; said boat lowering and raising gear comprising davits adapted to swing outboard in vertical planes to throw the boats clear of the ship's sides; falls on said davits; and means for locking the davits in outboard position and adapted to be released by the winding up of the falls.

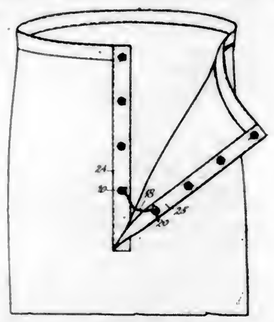
2. In an apparatus for storing, lowering and raising ships' boats, the combination of endless carriers disposed athwart the ship; davits associated with the carriers adapted for swinging the boats outboard in a vertical plane; falls hanging from said davits and carrying weights thereon; and a seating provided on the davit for receiving the weights.

3. In an apparatus for storing, lowering and raising ships' boats, the combination of endless carriers disposed athwart the ship; davits associated with the carriers adapted for swinging the boats outboard in a vertical plane; falls hanging from said davits and carrying weights thereon; a seating provided on the davit for receiving the weights; pulleys on the davits; a winch for controlling the falls; a brake for controlling the winch; and ropes passing over the pulleys from the boats to the winch.

1,133,827. LIMITING ADJUSTABLE PLACKET-CLOSURE. HEINRICH WALDES, Prague-Wrschowitz, Austria-Hungary. Filed Nov. 10, 1913. Serial No. 802,051. (Cl. 2—132.)

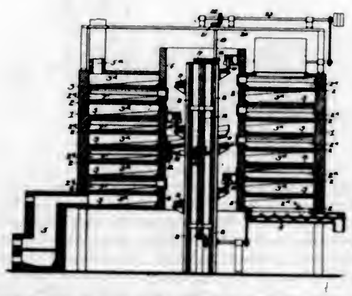
A limiting adjustable placket closure comprising a socket member attached to one edge of the placket and provided with a plurality of radial lugs of different lengths, a stud member attached to the other edge of the

placket and provided with a plurality of radial lugs of different lengths, and a limiting chain connectible at one end with either lug of the socket member and at the other



end with either lug of the stud member, whereby a triple limiting adjustment is secured.

1,133,828. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed Sept. 11, 1912. Serial No. 719,700. (Cl. 75—143.)

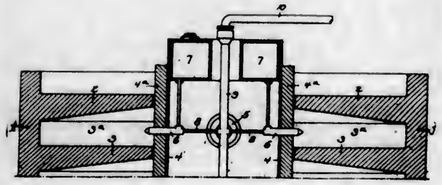


1. A metallurgical furnace having a plurality of helices constituting the hearths of a corresponding plurality of helical chambers.

2. A metallurgical furnace having a sustaining wall, and a plurality of helices projecting therefrom and constituting the hearths of a corresponding plurality of helical chambers.

3. A metallurgical furnace having an outer wall and a plurality of helices projecting inwardly therefrom, and constituting the hearths of a corresponding plurality of helical chambers.

1,133,829. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed Jan. 4, 1913. Serial No. 740,104. (Cl. 75—143.)



1. The combination, in a furnace, of a central rotating hollow shaft and a hearth surrounding the same and having above it a closed treating chamber, said hearth and chamber being in close relation to the shaft, rabble arms and heating devices carried by and rotating with said shaft, said heating devices being disposed at points remote from the rabble arms, and means disposed within said hollow shaft for conveying the heating agent to said heating devices.

2. The combination, in a furnace, of a central rotating shaft and a hearth surrounding the same, with an electrical heating device carried by and rotating with the shaft and having an electrode projecting over the material upon the hearth of the furnace.

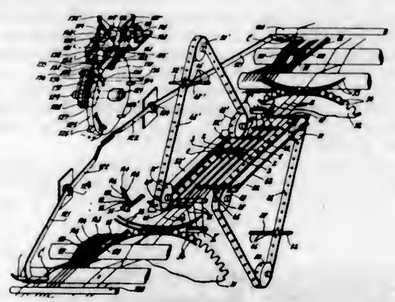
3. The combination, in a furnace, of a central rotating shaft and a hearth surrounding the same, with an electrical heating device carried by and rotating with the shaft, and comprising an arm projecting over the material on the hearth of the furnace and having on its under side an electrode to be heated by the passage of the electric current.

4. The combination, in a furnace, of a central rotating shaft and a hearth surrounding the same, with an electrical heating device carried by and rotating with the shaft and comprising an arm of segmental cross section projecting from the shaft over the material on the hearth and carrying upon its under or concave side an electrode to be heated by the current.

5. The combination, in a furnace, of a central rotating shaft, a hearth surrounding the same, and an electrical heating device comprising an arm projecting from the shaft over the material on the hearth, an electrode carried by said arm and in conducting contact with the same at one end, means for insulating the electrode from the arm except at such point of contact, means for connecting the arm with one pole of the electric generator, and means for connecting the electrode with the other pole of the same.

[Claims 6 to 9 not printed in the Gazette.]

1,133,830. MACHINE FOR PIECING TOGETHER THE THREADS OF WARPS. MAX WENZEL, Spremberg, Germany. Filed Dec. 17, 1912. Serial No. 737,232. (Cl. 139—95.)



1. In a machine of the kind described for piecing together the ends of warp threads, a number of whipping appliances arranged side by side and means for simultaneously conveying a pair of threads to each whipping appliance, essentially as described and for the purpose set forth.

2. In a machine of the kind described for piecing warp threads, the combination of a plurality of whipping appliances arranged side by side and each provided with an inserting slot; means for guiding thereto the ends of the warp thread to be pieced; coaxially arranged toothed rings one for each set of warp threads, the pitch between the teeth thereof being equal to the required width between the threads to be pieced, each ring being adapted to receive in the gap between adjacent teeth one thread to be pieced; and means for rotating said rings step-by-step.

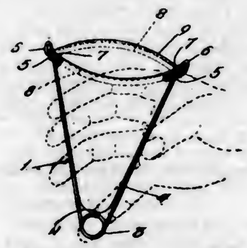
3. In a machine of the kind described for piecing warp threads, the combination of a plurality of whipping appliances arranged side by side and each provided with an inserting slot; means for guiding thereto the ends of the warp thread to be pieced; coaxially arranged toothed rings one for each set of warp threads, the pitch between the teeth thereof being equal to the required width between the threads to be pieced, each ring being adapted to receive in the gap between adjacent teeth one thread to be pieced; means for rotating said rings step-by-step; means for separating the warp threads in said gap over the entire length and holding the separated threads in the right position for insertion into the whipping appliances for subsequent whipping.

4. In a machine of the kind described for piecing warp threads, the combination of a plurality of whipping appliances arranged side by side and each provided with an inserting slot; means for guiding thereto the ends of the warp thread to be pieced; coaxially arranged toothed rings one for each set of warp threads, the pitch between the teeth thereof being equal to the required width between the threads to be pieced, each ring being adapted to receive in the gap between adjacent teeth one thread to be pieced; means for rotating said rings step-by-step; separators to hold the warp threads between the toothed rings over the entire length and for holding the warp threads in the right position for inserting into the whipping appliances, said separators being mounted between said rings for movement along the warp threads; and means for moving the separators in the same direction along the warp threads.

5. In a machine of the kind described for piecing together the ends of warp threads, a number of whipping appliances arranged side by side; means for simultaneously conveying one pair of thread ends to each whipping appliance; one pair of lease rods each for each warp end; one spaced lease rod for each xth thread of each warp end, which special lease rod is located higher than the corresponding lease rods; a contact lever in whose path the threads running over the higher special lease rod are located; a stop disk (125); a contact (126) mounted on the said stop disk; means for rotating the stop disk with the contact lece in proportion to the feeding of the thread and a stop circuit which may be closed by the contact lever and the contact piece (126) when one of the check threads guided over the higher lease rods is missing, essentially as described and for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,133,831. SANITARY DRINKING-CUP. ALFORD PERVIS WILLOUGHBY, Olney, Tex. Filed May 13, 1914. Serial No. 838,310. (Cl. 65—58.)



1. A drinking cup comprising a normally collapsed receptacle, a frame therefor constructed from a single length of wire, rolled upon itself substantially midway of its length forming a coil, side spring arms projecting at angles from each other from the coil and provided with eyes at their outer ends, connections between one of the eyes of each arm and the cup, the other eye of each arm acting as a cup suspending means.

2. A sanitary drinking cup comprising a receptacle, a frame therefor having side spring arms and a coil at its lower portion, said arms having eyes at their upper ends to receive cup attaching means, and connections between the lower end of the receptacle and the coil.

3. A sanitary drinking cup comprising a receptacle, a frame therefor having side spring arms and a coil at its lower portion, said arms having eyes at their upper ends, stiffening members in the peripheral edges of said cup, connecting means between the stiffening members and said eyes, and connections between the lower end of the receptacle and the coil.

1,133,832. METHOD OF MAKING MENTHYL-SALICYLIC METHYL ESTER. GUSTAV BLIEBERGER, New York, N. Y. Filed Mar. 28, 1914. Serial No. 827,817. (Cl. 23—24.)

1. The improvement in the art of producing menthylsalicylic methyl ester consisting in mixing a relatively large excess of salicylic methyl ester with menthol, combining the same by the application of heat, collecting the forerunner, and distilling the remaining combined reaction mass.

2. The improvement in the art of producing menthylsaliscylic methyl ester consisting in mixing about 100 parts by weight of salicylic methyl ester with about 80 parts of menthol and combining the same by the application of heat, collecting the forerunner and distilling the remaining combined reaction mass.

3. The improvement in the art of producing menthylsalicylic methyl ester consisting in mixing about 100 parts by weight of salicylic methyl ester with 80 parts of menthol combining the same by the application of heat in an inert atmosphere under slight pressure, collecting the forerunner, and distilling the remaining combined reaction mass in a greatly rarefied atmosphere.

1,133,833. HEAD-SUPPORT FOR TELEPHONE-RECEIVERS. CHARLES ADAMS-RANDALL, Boston, Mass., assignor to National Shawmut Bank, Boston, Mass., a Corporation of Massachusetts, trustee. Filed Jan. 20, 1914. Serial No. 813,165. (Cl. 179—156.)



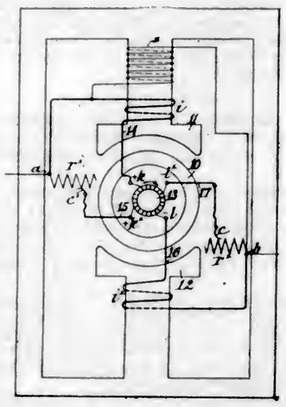
1. In a head support for telephone receivers, a head band, a vertically adjustable arm secured to said head band, a universally adjustable receiver arm carried by said arm, and a receiver pivotally secured to said receiver arm.

2. In a head support for telephone receivers, a head band, a receiver arm, a receiver secured to said arm, and a cam lever carried by said head band and adapted to adjustably secure said arm to said band.

3. In a head support for telephone receivers, a head band, an arm secured to said head band, a receiver arm carried by said arm, a receiver attached to said receiver arm, and means interposed between the aforesaid arm and said receiver arm to permit of vertical adjustment of said receiver.

4. In a head support for telephone receivers, a head band, an arm secured to said head band, an angularly disposed portion on said arm, a receiver arm, a universal joint between said receiver arm and said angular portion, and a receiver pivotally secured to said receiver arm.

1,133,834. DYNAMO-ELECTRIC MACHINE. DIMITRY BALACHOWSKY and PHILIPPE CAIRE, Neuilly-sur-Seine, France. Filed June 16, 1909. Serial No. 502,441. (Cl. 502—441.)



1. In a dynamo electric machine, a field-winding producing a field of opposite poles, an armature intermediate said poles, a commutator, and a double set of brushes including a main set and an auxiliary set, each brush of the auxiliary set being in the same zone of commutation as one brush of the main set, said zones of commutation embracing the neutral points, the field winding being composed of a prevailing shunt winding and an auxiliary winding having coils which connect respectively the positive main brush of one set with the positive auxiliary brush of the other set and the negative main brush of one set with the negative auxiliary brush of the other set.

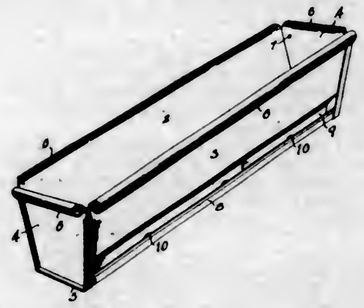
2. In a dynamo electric machine, a field-winding producing a field of opposite poles, an armature intermediate said poles, a commutator, a double set of brushes including a main set and an auxiliary set, each brush of the auxiliary set being in the same zone of commutation as one brush of the main set, said zones of commutation embracing the neutral points, the field winding being composed of a prevailing shunt winding and an auxiliary winding having coils which connect respectively the positive main brush of one set with the positive auxiliary brush of the other set and the negative main brush of one set with the negative auxiliary brush of the other set, and variable resistances in said auxiliary windings.

1,133,835. REMOVABLE RIM. ALBERT R. BEHNKE, St. Paul, Minn. Filed May 18, 1912. Serial No. 698,284. (Cl. 152—21.)



The combination with a two part tire rim separated circumferentially, the rim parts being constructed to centrally overlap and formed in their overlapping portions with corresponding interspaced openings, of a spring ring inwardly formed with a flat portion and with lugs bent at right angles from said flat portion, said lugs being interspaced and tapered toward their free ends to extend through said openings and draw said rim parts together.

1,133,836. FLOWER-BOX. THOMAS P. BOLGER, Gloucester, Mass. Filed Oct. 13, 1914. Serial No. 866,520. (Cl. 47—21.)



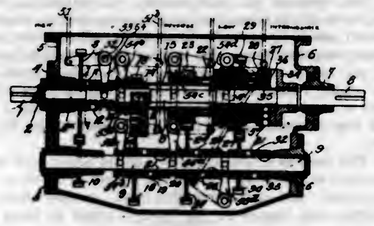
1. A window box for flowers having an open top and a closed bottom, the lower portion of one of the sides being offset inwardly within the box and the corresponding edge of the bottom being formed with an outstanding flange arranged in alinement with the upper portion of the said side of the box and coöperating with the inwardly offset lower portion thereof to provide a drainage trough located within the confines of the box and extending throughout the entire length thereof.

2. A window box for flowers having an open top and a closed bottom, the lower portion of one of the side walls of the box being offset inwardly within the box and the said offset portion having notches in the lower edge thereof, while the corresponding edge of the bottom of the box is formed with an outstanding flange disposed in alinement with the upper portion of the said side of the box and coöperating with the inwardly offset portion thereof to provide a drainage trough located entirely within the confines of the box and extending throughout the entire length thereof, and arched drainage strips extending transversely across the bottom of the box and communicating with the trough through the before mentioned notches in the inwardly offset portion of the side of the box.

3. A window box for flowers including an elongated box which is open at the top and closed at the bottom, one of the sides of the box having the lower portion thereof offset inwardly and provided at the lower edge thereof with notches, said lower edge having a loose joint with the bottom so that water can pass under the same, and the corresponding edge of the bottom being formed with an upstanding flange arranged in alinement with the upper portion of the said side and coöperating with the inwardly offset lower portion of the said side to provide a drainage trough located completely within the confines of the box and extending throughout the entire length thereof, and transversely disposed arched drainage strips applied to the bottom and connected to the inwardly offset portion of the side wall so as to communicate with the notches in the lower edge thereof and at the same time connect the bottom at intervals to the offset portion of the side wall.

1,133,837. VARIABLE-SPEED GEARING. JAMES W. CAMPBELL, Reno, Nev. Filed Apr. 7, 1914. Serial No. 830,164. (Cl. 74—58.)

1. In a variable speed mechanism, a drive shaft, an auxiliary shaft operatively connected therewith, a driven shaft normally disconnected from said drive shaft, a gear disposed on said driven shaft and slidable longitudinally thereof, a gear disposed on said auxiliary shaft and slidable longitudinally of said auxiliary shaft, said gears being constantly in mesh, a clutch member carried by said auxiliary shaft, a clutch member carried by said driven shaft, and clutch members associated with each of said gears and movable therewith for connecting said gears with the respective clutch members on their respective shafts.



2. In a variable speed mechanism, a drive shaft, a driven shaft normally disconnected therefrom, an auxiliary shaft operatively connected with said drive shaft, a gear slidably disposed on said driven shaft and having a clutch member, a gear slidably disposed on said auxiliary shaft and having a clutch member, said gears being constantly in mesh, means for moving said gears and clutch members simultaneously, a clutch member disposed on said auxiliary shaft, and a clutch member disposed on said driven shaft and arranged to be engaged by the first mentioned clutch members respectively.

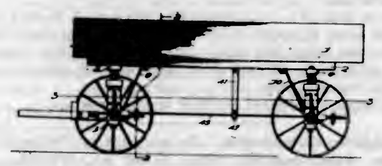
3. In a variable speed mechanism, a driven shaft, a plurality of slidable gears disposed on said driven shaft, each of said gears having an associate clutch member, a common clutch member on said driven shaft arranged to be engaged by any of said first mentioned clutch members, and means for moving any one of said gears and its associate clutch member longitudinally of the driven shaft.

4. In a variable speed mechanism, a driven shaft, a plurality of slidable gears disposed on said driven shaft, each of said gears having an associate clutch member, a common clutch member on said driven shaft arranged to be engaged by any of said first mentioned clutch members, means for moving any one of said gears and its associate clutch member longitudinally of the driven shaft, an auxiliary shaft, a drive shaft operatively connected with said auxiliary shaft, and means carried by the auxiliary shaft for driving said driven shaft through the medium of one of said gears.

5. In a variable speed mechanism, a drive shaft, an auxiliary shaft operatively connected with said drive shaft, a driven shaft, a gear slidably mounted on said driven shaft, a clutch member carried by said gear, a gear slidably mounted on the auxiliary shaft, a clutch member carried by said last named gear, said gears being in mesh, a clutch member secured to said driven shaft and arranged to be engaged by the slidable clutch member on said driven shaft, a clutch member secured to said auxiliary shaft and arranged to be engaged by the slidable clutch member on said auxiliary shaft, and means for moving said slidable gears and their associate clutch members longitudinally of their respective shafts.

[Claim 6 not printed in the Gazette.]

1,133,838. SHORT-TURNING TRUCK. CHARLES JACKSON CLARKE, Kingsburg, Cal. Filed June 9, 1913. Serial No. 772,606. (Cl. 21—140.)



1. A short turning truck comprising a body, bolsters carried by the body, transverse bars below the bolsters, bolts connecting the transverse bars and the bolsters and holding the same in their spaced relation, spindle-carrying members mounted upon the bolts, and adapted to oscillate thereon, and means for oscillating the forward spindle-carrying members in an opposite direction to that of the rear carrying members.

2. A short turning truck comprising a body, bolsters carried thereby, transverse bars below the bolsters, bolts connecting the transverse bars and the bolsters at their outer ends and having sleeves clamped between the bolsters and the transverse bars, spindle-carrying members vertically movably mounted upon the said sleeves and adapted to oscillate thereon, and means for oscillating the forward spindle carrying members in the opposite direction to that of the rear spindle-carrying members, substantially as shown and described.

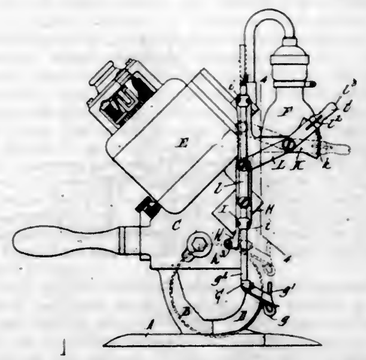
3. A short turning truck comprising a body, bolsters carried thereby, vertically disposed bolts carried by the outer ends of the bolsters, spindle-carrying members oscillating on said bolts and vertically movable thereon, springs surrounding the bolts for normally holding the spindle-carrying members in their downward position, and a tongue-carrying member constructed and arranged to oscillate the forward spindle-carrying members in one direction and the rear carrying members in the opposite direction.

4. A short turning truck comprising a body, bolsters carried by the body, bars below said bolsters, bolts connecting the bars and the bolsters, spindle-carrying members verticaly movable upon the bolts and adapted to oscillate thereon, arms carried by the rear faces of the spindle-carrying members, rods connecting said arms, an intermediately pivoted lever having a sliding connection with the said rods, and a tongue carrying member pivoted to the forward bar and having a sliding connection with the lever, substantially as shown and described.

5. A short turning truck comprising a body portion, bolsters carried by the body, transverse bars below the bolsters, vertically disposed rods connecting the outer ends of the bolsters and bars, sleeves on the bolts between the bars and the bolsters for holding them in their spaced relation, a spindle carrying member surrounding the sleeves and having a vertical and oscillating movement thereon substantially as shown and described.

[Claims 6 to 12 not printed in the Gazette.]

1,133,839. CLOTH-CUTTING MACHINE. FREDERICK J. CLARK, Buffalo, N. Y., assignor to Eastman Machine Company, Buffalo, N. Y. Filed Apr. 28, 1913. Serial No. 763,947. (Cl. 164—75.)



1. In a cloth cutting machine, the combination with the frame of the machine, of a supporting bracket secured to said frame, an upright rod mounted to slide vertically in said bracket, a member carried by said rod and arranged in front of the knife of the machine, an adjusting lever pivoted on said bracket and connected at one end

with said rod for raising and lowering said knife-preceding member, and means for locking said lever in its adjusted positions, substantially as set forth.

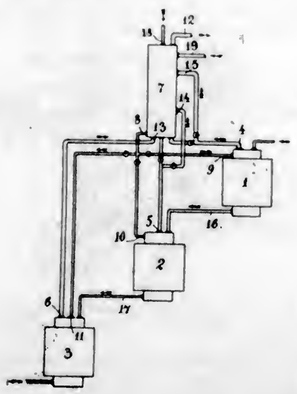
2. In a cloth cutting machine, the combination with the frame of the machine, of a supporting bracket secured to said frame at the front of the machine, an upright rod mounted to slide vertically in said bracket, a member carried by said rod and arranged in front of the knife of the machine, an arm extending fowardly from said bracket, an adjusting lever pivoted on said arm and connected at one end with said rod for raising and lowering said knife-preceding member, and means for locking said lever in its adjusted positions, substantially as set forth.

3. In a cloth cutting machine, the combination with the frame of the machine, of a supporting bracket secured to said frame at the front of the machine, an upright rod mounted to slide verticaly in said bracket, a member carried by said rod and arranged in front of the knife of the machine, an arm extending forwardly from said bracket and terminating in a toothed segment, an adjusting lever pivoted to said arm intermediate of the ends of said arm and connected at one end with said rod for raising and lowering said knife-preceding member, and a spring pressed dog carried by said lever and adapted to engage said toothed segment for locking said lever in its adjusted positions, substantially as set forth.

4. In a cloth cutting machine, the combination with the frame of the machine, of an upright rod mounted to slide vertically on said frame and provided at its lower end with a member arranged in front of the knife, an adjusting lever pivotally mounted on said frame and connected at one end with said rod for raising and lowering said member, and means for locking said lever in any one of a plurality of adjusted operative positions, substantially as set forth.

5. In a cloth cutting machine, the combination with the frame of the machine, of an upright rod mounted to slide vertically on said frame at the front thereof and provided at its lower end with a knife guard arranged in front of the knife, an adjusting lever pivotally mounted on said frame in advance of said rod and connected at one end with said rod for raising and lowering said knife guard, and means for locking said lever in any one of a plurality of adapted operative positions, substantially as set forth.

1,133,840. PROCESS FOR CONCENTRATING DILUTE NITRIC ACID. EMIL COLLETT, Christiania, Norway, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed Oct. 13, 1913. Serial No. 794,936. (Cl. 23—1.)



1. The process of concentrating dilute nitric acid which comprises, evaporating the acid in stages of different concentrations, dephlegmating and condensing the resulting acid vapors while permitting the escape of aqueous vapor, and returning the condensed vapors to one of the stages.

2. The process of continuously concentrating dilute nitric acid which comprises, evaporating acid in stages of different concentrations, dephlegmating and condensing the vapors resulting from the several stages while permitting the escape of aqueous vapor from the vapor of a lower stage, returning the condensed vapors from all the stages to one of the lower stages, and maintaining a constant flow of concentrates from the lowest to the highest stage.

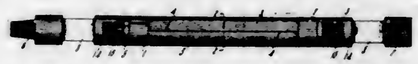
3. The process of concentrating dilute nitric acid which comprises, evaporating the acid in stages of different concentrations, and dephlegmating and concentrating the resulting acid vapors in the inverse order of their concentration.

4. The process of concentrating dilute nitric acid which comprises, evaporating the acid in stages of different concentrations, dephlegmating and concentrating the resulting acid vapors in the inverse order of their concentration by first condensing the vapors from the lowest stage, then using the condensate to condense the vapors of the next lowest stage, etc., and returning the entire condensate to anyone of the stages.

5. The process of concentrating dilute nitric acid which comprises, evaporating the acid in stages of different concentrations, dephlegmating and condensing the resulting acid vapors in the presence of a nitric acid absorbing liquid while permitting the escape of aqueous vapor, and returning the condensed vapors to one of the stages.

[Claims 6 to 8 not printed in the Gazette.]

1,133,841. WELL DRILL-JAR. JAMES F. CRAVEN, Zelienople, Pa. Filed Sept. 1, 1914. Serial No. 859,647. (Cl. 255—27.)



1. A drill jar, comprising two links each formed from a single integral piece of metal divided longitudinally to form the reins and split at one end, said links being interlocked with each other and each being provided with a threaded shank at one end, the grain of the metal in the anvil extending longitudinally of the jar.

2. A drill jar, comprising two links each formed of a single integral piece of metal provided with grooves and separated into a plurality of parts intermediate its ends to form reins, said jars being interlocked with the reins of one sliding in the grooves of the other, at least one of said links having one end split to form a plurality of parts one integral with each rein, the grain of the metal in the anvil extending longitudinally of the jar.

3. A drill jar, comprising two links each formed of a single piece of metal divided longitudinally to form three reins, said reins being connected at one end and separated at the other, and means for securing the separate ends of the links to each other.

4. A drill jar, comprising two links each formed of a single piece of metal divided longitudinally to form reins, said links being interlocked, and a head member connected to the split end of each link and provided with a wrench hold.

5. A drill jar, comprising two links each formed of a single piece of metal divided longitudinally to form reins, said links being interlocked, a collar for holding together the split ends of each link, and a head member connected to each link.

[Claims 6 to 8 not printed in the Gazette.]

1,133,842. SNAP-HOOK. RICHIE DE LAN, Philadelphia, Pa. Filed July 11, 1913. Serial No. 778,449. (Cl. 24—236.)

1. The combination, in a snap hook, of a shank having a longitudinal opening therein, a coiled metallic spring contained in said opening and projecting therefrom across the space between the shank and the point of the hook, the projecting portion of the spring having an inclosing cap and being free to swing laterally in order to open the hook, and that portion of the spring which is contained within the opening of the shank being free to move axially as the projecting portion of the spring moves laterally.



2. The combination, in a snap hook, of a shank having a longitudinal opening therein, a coiled metallic spring contained in said opening and projecting therefrom across the space between the shank and the point of the hook, a cap inclosing said projecting portion of the spring, and means for securing the opposite ends of the spring respectively to the said cap and to the shank of the hook, the projecting portion of the spring and its cap being free to swing laterally in order to open the hook, and that portion of the spring which is contained within the opening of the shank being free to move axially as the projecting portion of the spring is moved laterally.

1,133,843. NUT-LOCK. EDWIN A. DOTY, Albany, N. Y. Filed Nov. 7, 1913. Serial No. 799,718. (Cl. 151—30.)



1. A nut lock comprising a perforated body adapted to receive the threaded shank of a bolt and provided with a plate having two inwardly projecting spurs arranged circumferentially about the opening of the body, the front or advancing spur having a blunt or dull inner end and the rear or trailing spur having a sharp or pointed inner end, whereby upon driving the plate inwardly the dull spur supports the sharp spur and causes the latter to enter the bolt for preventing backward rotation of the lock on the bolt while permitting forward rotation thereof.

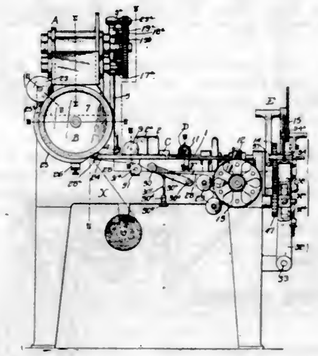
2. A nut lock comprising a perforated body adapted to receive the threaded shank of a bolt and provided with an inwardly turned plate having two inwardly projecting spurs arranged side by side circumferentially around said opening the front or advancing spur having a blunt or dull inner end while the rear or trailing spur has a sharp or pointed inner end, whereby upon driving the plate inwardly the dull spur supports the sharp spur and causes the latter to enter the bolt for preventing backward rotation of the lock on the bolt while permitting forward rotation thereof.

3. A nut lock comprising a body having an opening adapted to receive the threaded shank of a bolt, and a clip embracing said body and having a web on one side of the body, a lip arranged on the inner end of the web and projecting outwardly along the opposite side of the body, and a spur arranged on the outer end of the web and projecting inwardly along the last mentioned side of the body and adapted to engage the thread of the bolt.

4. A nut lock comprising a body having an opening adapted to receive the threaded shank of a bolt, and a clip embracing said body and having a web on one side of the body, a lip arranged on the inner end of the web and projecting outwardly along the opposite side of the body, and a spur arranged on the outer end of the web and projecting inwardly along the last mentioned side of the body and adapted to engage the thread of the bolt, said body being provided in its bore or inner edge with a notch which receives the lip of said clip.

5. A nut lock comprising a body having an opening adapted to receive the threaded shank of a bolt, and a clip embracing said body and having a web on one side of the body, a lip arranged on the inner end of the web and projecting outwardly along the opposite side of the body and two spurs arranged side by side on the outer end of the web and projecting inwardly therefrom along the last mentioned side of the body and adapted to engage the thread of the bolt, the front or advancing spur having a dull or blunt inner end while the rear or trailing spur has a sharp or pointed inner end.

1,133,844. CIGARETTE-MACHINE. NAPOLEON DU BRUL, Cincinnati, Ohio. Filed Mar. 7, 1910. Serial No. 547,807. (Cl. 131—43.)



1. In a cigarette machine, the combination of the feeding and carding mechanism having a substantially vertical discharge throat, a circumferentially continuous unobstructed rotary conveying trough disposed in a plane at right angles to the feeding and carding mechanism and having the upper segment of its trough presented beneath the feed throat, whereby tobacco is deposited by gravity into the trough during its traverse beneath the feed throat, a packing and driving wheel entering the trough immediately beyond the point of deposit of the tobacco, condensing the tobacco deposited in the trough, and means receiving and guiding the tobacco away from the conveying trough at its lowermost point and in a line tangential to the trough at said point, whereby the tobacco rope formed in the trough is received from the trough without bending.

2. In a cigarette machine, means for delivering tobacco, a rotary conveying trough receiving said tobacco, a packing and driving wheel entering said trough at a point above the horizontal diameter of the rotary trough and condensing the tobacco therein immediately beyond the point at which the tobacco is deposited in the trough and a tongue fitting the trough beyond said packing and driving wheel, terminating at the point of removal of the tobacco from the trough.

3. In a cigarette machine, means for delivering tobacco, a rotary conveying trough receiving said tobacco, a

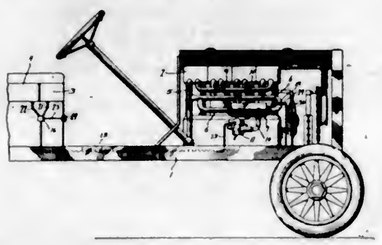
packing and driving wheel entering said trough at a point above the horizontal diameter of the rotary trough and condensing the tobacco therein immediately beyond the point at which the tobacco is deposited in the trough, a tongue fitting the trough beyond said packing and driving wheel, terminating at the point of removal of the tobacco from the trough, and a stripping tongue entering the trough of the wheel above the tongue at the end of removal.

4. In a cigarette machine, means for feeding tobacco, a rotary conveying trough receiving the tobacco, a packing wheel entering the trough at a point above the horizontal diameter of the rotary trough and immediately beyond the point at which it receives the tobacco and packing the tobacco therein, and means receiving the tobacco rope thus formed at a point remote from the packing wheel and in a direction tangential to the wheel at the point where the tobacco is taken off and in a line forming a continuation of the movement of the tobacco.

5. In a cigarette machine, an unobstructed rotary conveying trough having a portion of its circumference presented in position to receive tobacco, a packing wheel entering said trough above the horizontal diameter of the rotary trough and immediately beyond the receiving point and packing the tobacco in said trough, means receiving the tobacco rope thus formed at a point remote from the packing wheel and in a line extending tangential from said point in continuation of the direction in which the tobacco reaches the point, and a confining tongue extending between the packing wheel and the point of taking the tobacco rope from the trough.

[Claims 6 to 28 not printed in the Gazette.]

1,133,845. EXPLOSIVE-ENGINE. GEORGE W. FARNSWORTH, San Francisco, Cal., assignor to Fred Wallace Thurston, San Francisco, Cal. Filed Feb. 2, 1914. Serial No. 816,041. (Cl. 123—122.)



1. In an explosive engine, a plurality of cylinders, a main exhaust pipe leading from one of said cylinders, a by-pass loop structure comprising main and heater leg portions with the terminal of the main leg connected with the main exhaust above the outlet of the latter and the heater terminal being connected with the main leg adjacent to the point of connection of the latter with said main exhaust pipe, exhaust pipes connecting the remaining cylinders with said main leg portion in advance of the point of connection of the heater leg with the main leg with respect to the direction of flow through the main leg, a gas heater interposed in said heater leg portion to be heated by the exhaust gases passing through the latter, a carbureter delivering to said heater, connections delivering the heated charge from said heater to said cylinders, and means interposed between said heater and said exhaust pipes for controlling the volume of gas delivered to said heater, substantially as described.

2. In an explosive engine, a plurality of cylinders, a main exhaust pipe leading from one of said cylinders, a by-pass loop structure comprising a main leg and a heater leg with the terminal of the main leg connected with the main exhaust and the terminal of the heater leg being connected with the main leg adjacent to the point of connection of the latter with the main exhaust pipe, exhaust pipes connecting the remaining cylinders with the main leg in advance of the point of connection of the heater leg with the main leg with respect to the direction of flow through the main leg, a gas heater interposed in said heater leg to be heated by the exhaust gases passing through the latter, a carbureter delivering to said heater, and connections delivering the heated charge from said heater to said cylinders, substantially as described.

1,133,846. BOOK AND BOOK-LEAF FOR HOLDING FISHING-FLIES AND BAIT-HOOKS HAVING SNELLS. GEORGE H. FATH, Denver, Colo. Filed June 1, 1914. Serial No. 842,157. (Cl. 43—28.)



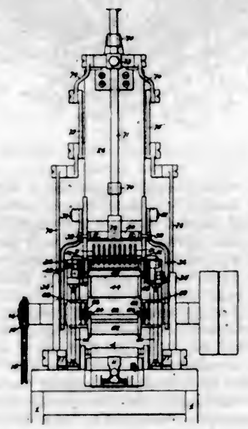
1. A leaf for holding snelled fly and other hooks, comprising a body or core leaf portion, a hook cushion pad secured on each of the opposite sides of said body or core leaf portion, of cork or other suitable material, and a plurality of long hooks secured to said body or core portion and projecting through and arranged above said hook cushions, positioned to receive the loop ends of snells, and said hook cushions arranged to allow the points of fish hooks to be pressed into them.

2. A looped snelled fly and other loop snelled hook holding leaf, comprising a sheet of aluminum, said aluminum leaf body portion being provided with hooks arranged in any predetermined order on its opposite sides and adapted to receive the loop ends of the snells of said fly and other hooks, and hook point receiving cushions of cork secured to the opposite sides of said leaf body portion, said cushions being provided with transversely arranged grooves having shouldered or wall portions adapted to receive the points of said hooks, said aluminum body portion's hooks being composed of long tongue-like portions cut out on three of their sides, from said aluminum body portion in any predetermined or desired order of arrangement, and arranged and adapted to be extended through said cork hook point cushioning pads, and then to be bent into hooks adapted to receive the loop ends of said snells.

3. In a looped snell and other hook holding leaf for fly holding hooks, a leaf provided with hooks adapted to receive said snells, said hook members being cut from the said body portion of said leaf in the form of long tongue members are freed from the body on three of their sides and remain integral with the body portion of the leaf, with flat pad shaped cork cushions arranged and adapted to receive points of hooks, said snell receiving hook members of said aluminum body portion being arranged to extend through the cork cushion and to be bent into hook forms over the surface of said cork cushions, and arranged and adapted to receive the loops of said snelled hooks, said cork cushions and said hooks being arranged and secured on both sides and end portions of said leaf.

4. A loose leaf for fly hooks, said loose leaf comprising a body portion of aluminum, of the size of the leaf, flat pad shaped hook point receiving cushions of cork extending over the opposite end portions of the body portion of said leaf on both sides of it, lug portions formed on the ends and one side edge of the body portion of said leaf, the inner side edge of the body portion of said leaf being arranged to project a short distance beyond said pads and being formed with apertures arranged and adapted to receive the said binding rings of loose leaf covers, said hook point cushioning pads being provided with a continuous row of grooved or channeled recesses, each having a shouldered side extending down into the pad from its top surface, and with an inclined side extending upwardly from the bottom of the shoulder to the top surface of said pad, and a plurality of small receiving hooks comprising tongue portions cut from the metal of said body portion and arranged to project through the pads and to be bent into snell receiving hooks, said snell receiving hooks being arranged in any predetermined order on said leaf.

1,133,847. CIGAR-BUNCH-FORMING MACHINE. THOMAS E. FEARON, Philadelphia, Pa. Filed Feb. 28, 1912. Serial No. 680,548. (Cl. 131—42.)



1. A cigar bunch forming machine in which are combined an apron having a pocket for receiving and rolling the bunch of tobacco, means for imparting forward movement to said pocket, and means for reversing said forward movement at an intermediate point so as to cause the back rolling of the bunch.

2. The combination, in a cigar bunch forming machine, of a hopper having an opening in one side of the same adjacent to the bottom of the hopper, and a segregator for entering the mass of tobacco through the side opening of the hopper and separating the lower portion of the mass of tobacco from the superincumbent portion.

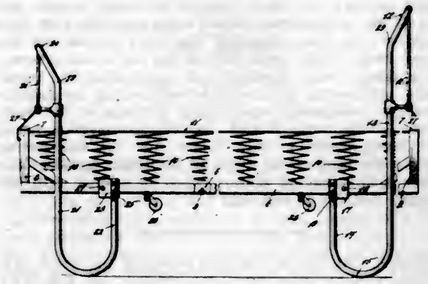
3. The combination, in a cigar bunch forming machine, of a hopper having an opening in one side of the same adjacent to the bottom of the hopper, a segregator for entering the mass of tobacco through the side opening of the hopper and separating the lower portion of said mass of tobacco from the superincumbent portion, and means for adjusting the position of said segregator so as to vary the amount of tobacco which it separates from the mass.

4. The combination, in a cigar bunch forming machine, of a hopper for the tobacco, said hopper having a side opening therein adjacent to the bottom of the hopper, a receiver for a segregated mass of the tobacco, a segregator for entering the mass of tobacco at the lower portion of the hopper through the side opening in said hopper and thereby separate the tobacco in the lower portion of the hopper from the superincumbent mass, and means for swinging said segregator so as to cause it to push the segregated mass of tobacco out of the hopper and into the receiver.

5. The combination, in a cigar bunch forming machine, of a hopper for the tobacco, a receiver for the bunch, a segregator and means for actuating the latter whereby it is caused to enter the mass of tobacco at the lower portion of the hopper, separate the same from the superincumbent mass and push the separated mass out of the hopper into the receiver, said receiver having a yielding member which permits discharge of the mass of tobacco from the receiver.

[Claims 6 to 19 not printed in the Gazette.]

1,133,848. TRUNDLE-BED. WILLIAM E. FRANK, St. Louis, Mo., assignor to Foster Bros. Mfg. Co., St. Louis, Mo., a Corporation of Missouri. Filed Feb. 28, 1914. Serial No. 821,748. (Cl. 5—9.)

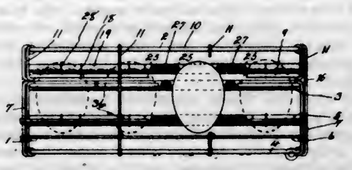


1. In a trundle bed, a frame, a bed leg pivotally connected with the frame, a bed post arranged in parallelism with and spaced part from the bed leg and an arc shaped connection between said leg and post.

2. In a trundle bed, a frame, a single rigid element, comprising a pair of legs, a pair of posts, a connection between the posts, and connections between the legs and posts, and means for pivotally connecting the legs to the frame, said posts being bent at their upper ends in order to hold the connection therebetween out of the plane of the posts, for the purposes stated.

3. In a trundle bed, a frame, rollers carried by the frame, a pair of elements, constituting a bed head and a bed foot, each comprised in a single structure composed of a pair of legs pivotally connected with the frame, a pair of posts forming part of the head and foot, arc shaped connections between the legs and posts, and connections between the posts, forming the bodies of the head and foot, and means for securing the head and foot against movement relative to the frame when the bed is extended for use.

1,133,849. EGG-SHIPPING CRATE. SUMMERS E. GAINOR, Halethorp, Md. Filed Mar. 16, 1914. Serial No. 824,952. (Cl. 217—25.)

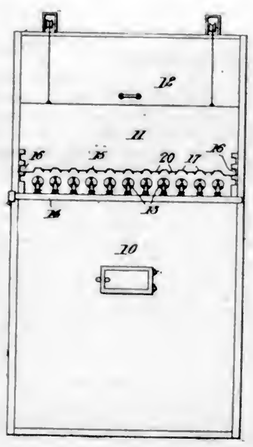


1. An egg shipping crate comprising two opposing upper and lower sections, hingedly connected; the lower part of

the upper section having a rectangular frame; the upper and lower parts of the lower section having rectangular frames, and provided with rods connecting the frames of the lower section; the lower section having two rectangular frames intermediate the upper and lower frames of the lower section, one of said intermediate frames being fixed to the rods, the other intermediate frame being adjustable on said rods below the upper frame of the lower section; the lower frame of the upper section and the intermediate adjustable frame being provided with tube cushions, and longitudinal and transverse intersecting connected wires forming rectangular openings; cushioned rings in said openings to engage the ends of the eggs and being bound to said frames, and the longitudinal intersecting wires.

2. An egg shipping crate comprising two opposing upper and lower sections hingedly connected; the lower part of the upper section having a rectangular frame; the upper and lower parts of the lower section having rectangular frames, and provided with rods connecting the frames of the lower section; the lower section having two rectangular frames intermediate the upper and lower frames of the lower section; the lower frame of the upper section and one of the intermediate frames being provided with tube cushions; the lower frame of the upper section and the upper frame of the lower section and one of the intermediate frames being provided with longitudinal and transverse intersecting connected wires forming rectangular openings; cushioned rings in said openings of the lower frame of the upper section and the intermediate frame and being bound to said frames and the intersecting wires; the intersecting wires of the upper frame of the lower section having tube cushions to contact with the central portions of said eggs.

1,133,850. BROILER. EUGENE GABRAUX, Baltimore, Md. Filed Feb. 27, 1914. Serial No. 821,489. (Cl. 126—41.)



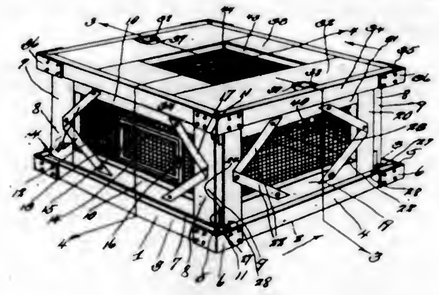
1. An improved broiler comprising a unitary structure formed of a series of spaced apart parallel grid bars having depending diverging imperforate sides to shield a burner placed thereunder and short connecting bars secured to oppositely disposed grid bars below the tops thereof.

2. An improved broiler comprising a unitary structure formed of a series of spaced apart parallel grid bars having depending diverging imperforate sides to shield a burner placed thereunder and short connecting bars secured to oppositely disposed grid bars below the tops thereof, the ends of the grid bars extending beyond the planes of said connecting bars.

3. An improved broiler comprising a unitary structure formed of a series of spaced apart parallel grid bars having depending diverging imperforate sides to shield a burner placed thereunder and short connecting bars secured to oppositely disposed grid bars below the tops thereof, said grid bars having flat top surfaces.

4. An improved broiler comprising a unitary structure formed of a series of spaced apart parallel grid bars having depending diverging sides to shield a burner placed thereunder and short connecting bars secured to oppositely disposed grid bars below the tops thereof, and smaller supplemental grid bars arranged parallel with the first named grid bars and alternating therewith.

1,133,851. COLLAPSIBLE CHICKEN-COOP. CHARLIE GENTRY, Attalla, Ala. Filed Aug. 25, 1913. Serial No. 786,564. (Cl. 217—47.)

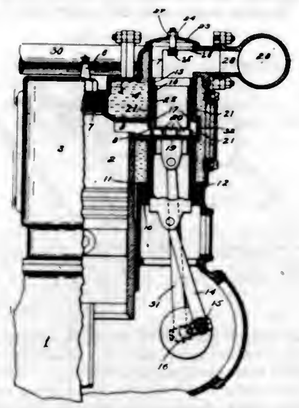


A foldable chicken coop comprising a bottom having side and end flanges, the side flanges having strips arranged adjacent thereto, side and end parts, each comprising an open frame having an area of mesh work thereover and provided with corner reinforcing metal members, the side and end parts having longitudinal grooves in their lower edges, rods arranged in the grooves of the said parts, staples arching the rods and bridging the grooves to loosely and slidably connect the said parts to the rods, the rods in the grooves of the side parts having angled ends, staples arching the angled ends and connected to said end flanges for holding the rods of the side parts in place and against longitudinal movement, the rods carried by the end parts being mounted in bearings of said strips and positioned adjacent the inner faces of the end flanges, the end parts being foldable inwardly adjacent the bottom whereas the side parts are foldable on the end parts, a top member for the coop, bolts passing through the end parts and the top to hold the structure of the coop in readiness for use, said bolts when the side and end parts are folded and the top covering the same, adapted to pass through the bottom adjacent the lower edges of the end parts and the end flanges and through the top to hold the structure collapsed.

1,133,852. INTERNAL-COMBUSTION ENGINE. CLIFFORD S. GOBY, Cleveland, Ohio, assignor to The Engine Holdings Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 17, 1912. Serial No. 709,927. (Cl. 123—188.)

1. In an internal combustion engine, the combination of a cylinder, a valve casing having a port communicating with said cylinder, a tubular valve reciprocably mounted within said casing and controlling said port, a fluid duct communicating with said casing and arranged to supply fluid fuel to said port, one end of said valve being exposed to such fluid, a slidable member located within the valve and arranged to deflect the fluid through the valve casing port, and means for reciprocating said valve and member in opposite directions.

2. In an internal combustion engine, the combination of a cylinder, a valve casing having a port communicating with said cylinder, a tubular valve reciprocably mounted within the casing and having a port adapted to communicate with the former port, a fluid duct communicating with the interior of the valve and exposed to the action of one end of the valve, an abutment within said valve adapted to deflect fluid passing through the port in said valve, and connections for operating the valve and the abutment in opposite directions through distances inversely proportional to the cross sectional areas thereof.



3. In an internal combustion engine, the combination of a cylinder, a valve casing having a port communicating with said cylinder, a tubular valve reciprocably mounted within the casing and having a port adapted to communicate with the former port, a tubular liner slidably mounted within said valve and having ports intermediate of its ends adapted to register with said valve ports, a fluid duct communicating with the interior of said liner, an abutment within said liner on the side of the port thereof opposite to the fluid duct, and means for reciprocating said valve and liner in opposite directions so as alternately to aline and disaline said ports.

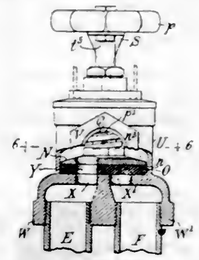
4. In an internal combustion engine, the combination of a cylinder, a valve casing having a port adapted to communicate with said cylinder, a tubular valve reciprocably mounted within said casing and having a port adapted to communicate with the former port, a liner within the valve having a port adapted to communicate with the former ports and having an abutment at one side of the port therein, and connections for operating said sleeve and liner in reverse directions each a distance inversely proportional to the cross sectional area of the exposed part thereof.

5. In an internal combustion engine, the combination of a cylinder, a crank case, a valve casing separate from the cylinder and at one side thereof and having a port communicating therewith and having it bottom in open relation to the crank case, a tubular valve reciprocably mounted within said casing and having a port adapted to communicate with the former port, a liner within said valve having a port adapted to communicate with the former ports, an abutment at one side of the liner port, and connections for reciprocating said valve and liner in reverse directions.

[Claims 6 and 7 not printed in the Gazette.]

1,133,853. VALVE FOR HEATING SYSTEMS AND THE LIKE. EDWARD E. GOLD, New York, N. Y., assignor to Gold Car Heating and Lighting Company, New York, N. Y., a Corporation of New York. Filed May 28, 1913. Serial No. 770,393. (Cl. 137—26.)

1. A valve having an inlet port, a plurality of separated outlet ports therethrough and a rotary valve disk having ports corresponding in number, size and the space separating them to said outlet ports, said disk having a movement of approximately a half turn, and said disk ports being located at one side of a diameter of said disk and the outlet ports being correspondingly arranged, whereby the disk when turned to its extreme movement in one direction will close communication between said ports and when turned in the opposite direction will open communication with said ports successively and when communicating with a plurality of outlet ports will at all times open each one to the same extent, and in its extreme opposite position will open full communication between said inlet port and all said outlet ports.



2. A valve having an inlet port and a plurality of outlet ports, said outlet ports located in the same plane, a valve stem and a valve disk thereon having ports extending therethrough corresponding in size, number and the space separating them to said outlet ports, whereby the disk when turned will uncover said outlet ports successively and when communicating with more than one outlet port will at all times open all said ports to an equal extent and a spring connected to said valve stem and adapted by coöperation with the valve casing to hold said valve disk in adjusted position.

3. A valve having an inlet port and a plurality of outlet ports, said outlet ports located in the same plane, a valve stem and a valve disk thereon having ports extending therethrough corresponding in size, number and the space separating them to said outlet ports, whereby the disk when turned will uncover said outlet ports successively and when communicating with more than one outlet port will at all times open all said ports to an equal extent, said valve stem adapted to turn said disk but having axial movement relative thereto, a collar attached to the stem and a spring tending to exert pressure on said collar and said disk and hold same against their seats.

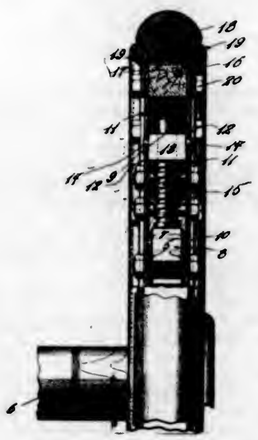
4. A valve having a casing provided with an admission port, a flat valve seat formed at the bottom of said casing and having a plurality of separated outlet ports therethrough, a rotary valve disk mounted in said casing and having ports corresponding in number and space separating them to said outlet ports, stops adapted to limit the movement of said disk to approximately a half turn, and said disk ports and said outlet ports being each located within a space equal to substantially half the area of said disk and at one side of a diameter thereof, whereby the disk when turned to its extreme movement in one direction will close communication between said ports and when turned to its extreme position in the opposite direction will open communication with said ports successively and in its extreme opposite position will open communication between said inlet port and all said outlet ports and said disk adapted when communicating with a plurality of outlet ports to communicate with them all to an equal extent.

5. A valve having a casing provided with an admission port, a flat valve seat formed at the bottom of said casing and having a plurality of separated outlet ports therethrough, a rotary valve disk mounted in said casing and having ports corresponding in number and space separating them to said outlet ports, stops adapted to limit the movement of said disk to approximately a half turn, and

said disk ports and said outlet ports being each located within a space equal to substantially half the area of said disk and at one side of a diameter thereof, whereby the disk when turned to its extreme movement in one direction will close communication between said ports and when turned to its extreme position in the opposite direction will open communication with said ports successively and in its extreme opposite position will open communication between said inlet port and all said outlet ports, and said disk adapted when communicating with a plurality of outlet ports to communicate with them all to an equal extent, a spring indicator connected to said valve and coöperating with recesses in the casing to hold the valve in position, there being recesses for each extreme position of the valve and intermediate recesses the number of which is determined by the number of ports.

[Claims 6 and 7 not printed in the Gazette.]

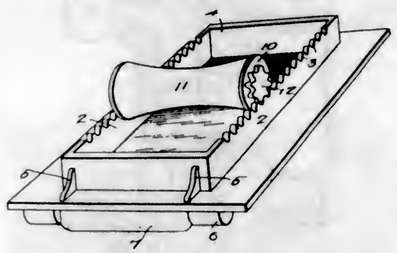
1,133,854. SPRING-WHEEL. THOMAS L. GOOD, Edwardsville, Ill., assignor of one-third to Henry P. Hotz and one-third to Orie T. Dunlap, Edwardsville, Ill. Filed Feb. 24, 1913. Serial No. 750,263. (Cl. 152—28.)



A cushion wheel, comprising a hub and a rim, a pair of spaced rings secured to the hub, a pair of spaced rings secured to the rim and overlapping the rings secured to the hub, a plurality of spokes having their inner ends pivotally mounted between said rings secured to the hub, a plurality of blocks pivotally mounted between the rings secured to the rim and arranged to slidably support the outer ends of the spokes, extensile coil springs surrounding the spokes and impinging said blocks and the pivotal supports of the spokes, there being openings in the rings secured to the rim, pins carried by the rings secured to the hub, and washers carried by said pins for closing said openings around said pins, said openings being larger than said pins to permit limited movements of the rings relative to each other.

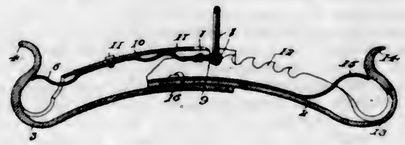
1,133,855. PIPE-SUPPORT. WILLIAM BEALL GRAY, Louisville, Ky., assignor to Martin J. Bannon, Louisville, Ky. Filed July 15, 1914. Serial No. 851,222. (Cl. 137—75.)

1. A pipe support, comprising a cradle consisting of a plate provided on its upper face near each side edge and near each end with an upstanding rib, said ribs being integral at their ends, and the side ribs having rack teeth at their upper edges, the teeth of the ribs registering, and a roller having a peripheral groove for receiving the pipe to be supported, and fitting between the side ribs, and having a pinion at each end for engaging the adjacent series of teeth, the pinions being of equal size and of less diameter than the largest diameter of the roller and co-axial with the roller to form at each end of the roller an annular shoulder for engaging the inner face of the adjacent rib to prevent longitudinal movement of the roller, said cradle having on the under face of the plate pairs of fingers, each pair of fingers being near one end of the plate and being in alinement transversely of the plate, said fingers being near the side edges of the plate and adapted to anchor the plate from movement longitudinally.



2. A pipe suport comprising a cradle consisting of a plate provided on its upper face near each side edge and near each end with an upstanding rib, said ribs being integral at their ends, and the side ribs having rack teeth at their upper edges, the teeth of the ribs registering, and a roller having a peripheral groove for receiving the pipe to be supported, and fitting between the side ribs, and having a pinion at each end for engaging the adjacent series of teeth, the pinions being of equal size and of less diameter than the largest diameter of the roller and co-axial with the roller to form at each end of the roller an annular shoulder for engaging the inner face of the adjacent rib to prevent longitudinal movement of the roller.

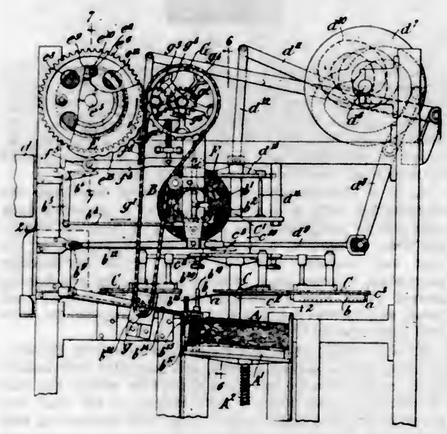
1,133,856. HAME-FASTENER. JOHN R. GRIFFIN, Itasca, Tex. Filed Nov. 18, 1913. Serial No. 801,599. (Cl. 54—26.)



1. A hame fastener comprising two correlated members, one of which has a body portion formed into a sleeve and terminating at one end with a hook, the other correlated member having a channel shaped body portion telescoping in said sleeve and having a hook on the outer end and rack teeth formed on the longitudinal edges of the body thereof, a spring keeper attached in the bed of said channel shaped member and guarding the hook of said member, a detent for engaging said rack teeth projecting through the side of said sleeve member, and a spring member attached to the interior of said sleeve and carrying at the outer end a keeper for the hook of said sleeve member and carrying said detent at the other end, said spring having a bend bearing against the interior of said sleeve for holding said detent down between pairs of said rack teeth.

2. A hame fastener comprising two correlated members, one of which has a body portion formed into a sleeve and having a hook on the outer end terminating with a handle, the other correlated member having a body portion formed into a channel shape telescoping in said sleeve and having a hook on the outer end terminating with a handle and having hooked teeth formed on the edges of the channel shaped portion, a spring keeper attached in the bed of said channel shaped member and guarding the hook of said member, said sleeve member having a slot in the side thereof near its inner end, a detent projected through said slot and engaging said teeth, and a spring member attached to the interior of said sleeve and carrying said detent at one end and having the other end formed into a keeper for the hook of said sleeve member and having a bend between its point of attachment to said sleeve and said detent bearing against said sleeve whereby said detent is held down between pairs of said teeth.

1,133,857. PACKAGE-FORMING MACHINE. PAUL H. GRIMM, Glen Cove, and FRANK L. COCKS, New York, N. Y., assignors to Arbuckle Brothers, New York, N. Y., a Firm comprising William A. Jamison, Catherine A. Jamison, and Christina Arbuckle. Filed Mar. 23, 1914. Serial No. 826,637. (Cl. 93—8.)



1. The combination with sheet supporting means, of sheet shifting means embodying mechanism adapted for engaging the upper face of a sheet upon such support, raising the same therefrom and transferring the same and functioning in timed sequence, and a sheet supplying device adapted for laying a rider sheet upon such sheet prior to the engagement of the shifting device therewith.

2. The combination with sheet supporting means, of sheet shifting means embodying mechanism adapted for engaging the upper face of a sheet upon such support, raising the same therefrom and transferring the same and functioning in timed sequence, and mechanism for imposing a sheet upon the said sheet in position to share with the same the engaging contact of the shifting means.

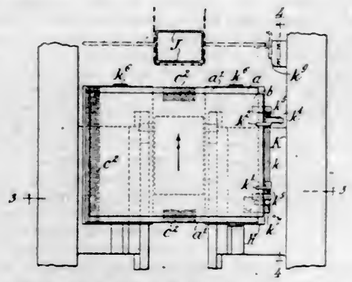
3. The combination with sheet-supporting means of mechanism for pasting and transferring the sheet from such supporting means, and mechanism for imposing a sheet upon the said sheet in position to share with the same the paste from the pasting mechanism.

4. The combination with sheet-supporting means of mechanism for pasting and transferring the sheet from such supporting means, and mechanism for imposing a sheet upon the said sheet in position to share with the same the paste from the pasting mechanism, and driving mechanism for actuating said pasting and transferring mechanism and imposing mechanism in timed sequence.

5. The combination with a sheet-shifting device comprising a combined paster and transferrer adapted for pasting and transferring in timed sequence, of a sheet-supplying device adapted for laying a rider sheet upon each such sheet prior to the application of paste thereto.

[Claims 6 to 16 not printed in the Gazette.]

1,133,858. PACKAGE-FORMING MACHINE. PAUL H. GRIMM, Glen Cove, and FRANK L. COCKS, New York, N. Y., assignors to Arbuckle Brothers, New York, N. Y., a Firm composed of William A. Jamison, Catherine A. Jamison, and Christina Arbuckle Original application filed Mar. 23, 1914, Serial No. 826,637. Divided and this application filed July 13, 1914. Serial No. 850,675. (Cl. 93—12.)

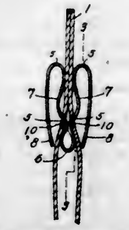


1. In package forming mechanism, the combination with wrapping means embodying a matrix and a former associated therewith, of means for transferring sheets of paper to such matrix, means for moving the matrix from its receiving position to the former, clamps for holding the sheets upon the matrix, means for normally closing the clamps, and clamp releasing means located at the receiving and delivering positions of the matrix.

2. In package forming mechanism, the combination with sheet supporting means, of mechanism for pasting and transferring the sheet from such supporting means, mechanism for imposing a sheet upon said sheet in position to share with the same the paste from the pasting mechanism, a matrix for receiving the superimposed sheets, and means upon the matrix for holding the sheets thereon in the relative positions they occupy at the time of their engagement by the pasting and transferring mechanism.

3. In package forming mechanism, the combination with a sheet supporting device, means adapted for laying a liner sheet upon each such sheet, a combined paster and transferrer adapted for pasting and transferring said superposed sheets, a matrix and a former for folding the said sheets, and means carried by the matrix for automatically engaging the sheets engaging the sheets and holding them in their superposed positions occupied on the transferrer.

1,133,859. CUFF-BUTTON. DAVID M. HENSLEY and EDWARD M. SETHER, Decatur, Ind. Filed May 8, 1914. Serial No. 837,173. (Cl. 24—101.)



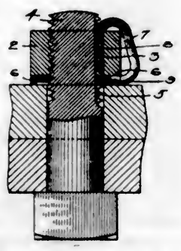
1. A device of the character specified, comprising a strip of metal having its ends rounded and provided in one side edge with a plurality of pairs of notches or recesses, the members of the pairs of notches being spaced apart from each other and the pairs being spaced apart and on opposite sides of the center of the strip, said strip being folded upon itself to form four portions of approximately equal length lying alongside each other, and with

the remote members of the pairs of notches at the junction of the outermost portions with the innermost portions, the innermost portions of the strip being bent to form a loop at the connected ends of the said portions and then being bent outward to lie alongside each other in spaced relation and with the adjacent members of the pairs of notches between the loop and the said last-named portions.

2. A device of the character specified, comprising a strip of metal provided in one side edge with a plurality of pairs of notches or recesses spaced apart from each other, the pairs lying upon opposite sides of the transverse center of the strip, said strip being folded upon itself to form inner and outer portions of approximately the same length and lying alongside each other in spaced relation and with the remote members of the pairs of notches at the junction of the outermost and innermost portions, the portions of the strip on each side of the transverse center being bent into contact between the said center and the adjacent members of the pairs of notches.

3. A device of the character specified, comprising a strip of metal provided in one side edge with a plurality of pairs of notches or recesses spaced apart from each other, the pairs lying upon opposite sides of the transverse center of the strip, said strip being folded upon itself to form inner and outer portions of approximately the same length and lying alongside each other in spaced relation, and with the remote members of the pairs of notches at the junction of the outermost and innermost portions.

1,133,860. NUT AND BOLT LOCK. HARRY HERMAN, Pittsburgh, Pa., assignor of one-half to Jacob Herman, Pittsburgh, Pa. Filed July 19, 1913. Serial No. 780,058. (Cl. 151—8.)



A device of the character described, comprising a screw threaded nut and a bolt therefor, the nut being provided with an inner longitudinal groove extending throughout its length and with a transverse groove on one face extending from said longitudinal groove to the outside of the nut, said bolt being provided with a longitudinal groove at least as long as said nut, and a locking device having a shank portion for insertion in said longitudinal groove and a projection arranged for insertion in said transverse groove.

1,133,861. DISPLAY-RACK. WILLIAM T. HORMES, Govanstown, Md., assignor to Solomon Himmel, Baltimore, Md. Filed Nov. 9, 1914. Serial No. 871,049. (Cl. 211—16.)

1. In a display rack of the character described, the combination with a case or cabinet, of a rotatable rack mounted to reciprocate to and from a position within the case or cabinet, a cam member independent of the rack and movable with the latter in its reciprocable movement, and spring pressed members carried by the rack and in engagement with the cam member to automatically cause the rack to assume a predetermined position with respect to said case or cabinet.

2. In a display rack of the character described, the combination with a case or cabinet, of a carriage mounted to reciprocate within said case or cabinet, a cam flange rigidly secured to said carriage, a rotatable rack supported by said carriage, and spring pressed members carried by the rack and in engagement with the cam flange to automatically cause the rack to assume a predetermined position with respect to said case or cabinet.



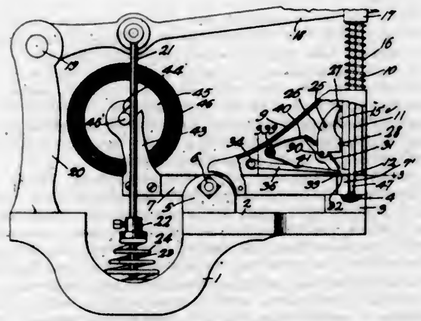
3. In a display rack of the character described, the combination with a case or cabinet, of a carriage mounted to reciprocate within said case or cabinet, a cam flange rigidly secured to the underside of said carriage, a rotatable rack supported by the carriage, a cross head secured to said rack, and spring pressed members carried by said cross head and engaging said flange.

4. In a display rack of the character described, the combination with a case or cabinet, of a rotatable rack mounted to reciprocate to and from a position within the case or cabinet, a cam member independent of the rack and movable with the latter in its reciprocable movement, a cross head secured to the rack and having slotted arms, pins projecting through the slots of said arms, and springs holding said pins into engagement with said cam member.

5. In a display rack of the character described, the combination with a case or cabinet, of a rotatable rack mounted to reciprocate to and from a position within the case or cabinet, a cam member independent of the rack and movable with the latter in its reciprocable movement, said cam member having cam faces and locating recesses, and spring pressed members carried by the rack and in engagement with the cam member.

[Claims 6 to 14 not printed in the Gazette.]

1,133,862. STAPLE-AFFIXING MACHINE. GEORGE F. HULLINGS and DAVID P. MOORE, Washington, D. C. Filed Oct. 10, 1914. Serial No. 866,096. (Cl. 1—48.)



1. A staple affixing machine for operation upon strip staples having a magazine, staple controlling means therein, and manually controlled means for positioning the staple controlling means so that the strip of staples

may be withdrawn from the magazine through the feed-in end.

2. A staple affixing machine for operation upon strip staples having a magazine, a reciprocatory plunger mounted in the magazine, a staple feeding means mounted in the magazine and operated by the plunger, and manually operable means for affecting the feeding means to release the strip of staples to permit their withdrawal through the feed-in-end of the magazine.

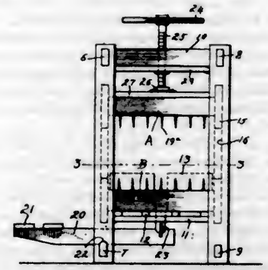
3. A staple affixing machine for operation upon strip staples having a magazine, a reciprocatory plunger mounted in the magazine, a staple feeding pawl mounted in the magazine and operated by the plunger, and manually operated means for releasing the pawl to permit the strip of staples to be withdrawn through the feed-in end of the magazine.

4. A staple affixing machine, including a magazine, a plunger mounted therein for reciprocation, means for feeding a strip of staples to present one staple at a time to the plunger as the plunger is reciprocated, and manually actuated means for releasing the feeding means from the staples to permit the withdrawal of the staples from the magazine.

4. A staple affixing machine, including a magazine, a reciprocatory plunger mounted therein, a pawl for feeding a strip of staples operated by the plunger, and a manually operable retrograde movement preventer mounted in the magazine and arranged in such relation to the pawl and strip of staples, that when said preventer is disengaged from the staples, the pawl is also disengaged.

[Claims 6 to 8 not printed in the Gazette.]

1,133,863. ICE-BREAKING MACHINE. ADOLF G. KROCKER, Waco, Tex. Filed June 22, 1914. Serial No. 846,495. (Cl. 83—62.)



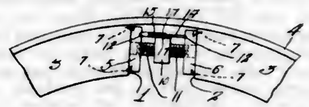
1. An ice breaking machine of the class described comprising a main frame, an ice rack secured to said main frame, a lower breaker frame movable relatively to the ice rack, a rack removably carried by the breaker frame and having cutters, a foot treadle fulcrumed on the main frame, links connecting said treadle with the lower breaker frame, an upper breaker frame disposed above the lower breaker frame and adapted to slide relatively to the main frame, and means for operating the upper frame.

2. An ice breaking machine comprising a main frame, an ice rack secured thereto, an upper and a lower breaker frame, means for slidably supporting said breaker frames relatively to the main frame, prongs carried by said upper and lower breaker frames and projecting toward each other, said ice rack including blocks adapted when the lower frame is in lowered position to receive and maintain a cake of ice above the lower frame, a treadle for moving said lower frame upwardly into engagement with the ice, and a hand screw for moving the upper frame downwardly into engagement with the ice.

3. In an ice breaking machine, a stationary ice rack comprising a series of spaced blocks, a lower breaker frame movable relatively to the ice rack and provided with prongs disposed between the blocks and below the upper surface thereof when the lower frame is in lowered position, means for operating said lower frame for projecting the prongs above the blocks at will, and an upper breaker frame provided with prongs and movable toward the ice rack.

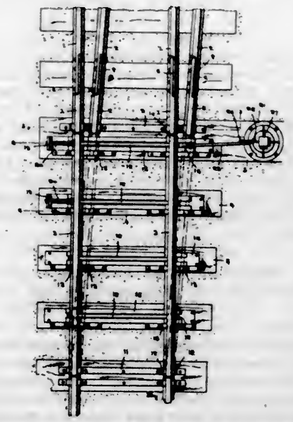
4. An ice breaking machine including a main frame, an ice rack supported thereby, said rack comprising end bars secured to the main frame, and longitudinally spaced bars supported by the end bars, blocks supported by the longitudinal bars, and a breaker frame, said frame comprising end bars adapted to rest upon the longitudinal bars of the ice rack, side bars to which the end bars are connected, coöperating means between the side bars and main frame for slidably positioning the breaker frame relatively to the main frame, and a prong carrying frame removably positioned on the breaker frame, and means for raising and lowering said breaker frame, said breaker frame when in lowered position being below the upper edges of said blocks.

1,133,864. TIRE TIGHTENER OR EXPANDER. JUDGE PECK LAWRENSON and CHARLES HASTINGS KING, Palestine, Tex. Filed July 24, 1914. Serial No. 852,871. (Cl. 21—168.)



The combination with a felly of a wheel having severed ends, of a tire surrounding the felly, a pair of spacing plates engaging the severed ends of the felly and provided with threaded openings, the four corners of each plate adjacent its outer face being chiseled or struck up forming lugs to engage each severed end to prevent displacement of each plate, a rectangular member arranged between said plates having oppositely disposed alined right and left threaded shanks engaging said threaded openings, whereby upon rotating said member in one direction or the other said plates are separated to expand the felly against the tire, the adjacent faces of said plates having oppositely arranged recesses, a second pair of plates having adjustable connections engaging said recesses and disposed adjacent and against one of the flat faces of said rectangular member to prevent the same from unscrewing.

1,133,865. SAFETY RAILROAD-SWITCH. FELIX LEACH, Allenfarm, Tex. Filed Jan. 24, 1914. Serial No. 814,136. (Cl. 104—126.)



1. The combination with main and side tracks of a pair of switch rails, means movably supporting said rails,

means secured longitudinally on the usual ties for guiding said movable means, and means connecting said switch rails and said guiding means for normally holding the former in alinement with said main-track.

2. The combination with main and side tracks of a pair of switch rails, means movably supporting said rails, means secured longitudinally on the usual ties for preventing the vertical movement of said movable means, an extension formed on said longitudinally secured means, and means interposed between said extension and said switch rail for normally holding the latter in alinement with said main tracks.

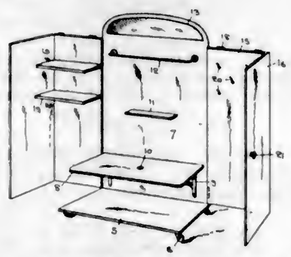
3. The combination with main and side tracks of a pair of switch rails, means movably supporting said rails, means secured longitudinally of the usual ties to direct the movement of said movable means at right-angles to said rails, an extension formed on said longitudinally secured means, and means connected to said extension and to one of said switch rails for normally holding the latter in alinement with said main track.

4. The combination with main and side tracks of a pair of switch rails, means movably supporting said rails, means secured longitudinally on the usual ties for guiding said movable means, and resilient means connecting said switch rails and said guiding means for normally holding the former in alinement with said main tracks.

5. The combination with main and side tracks of a pair of switch rails, means movably supporting said rails, means secured longitudinally on the usual ties for preventing the vertical movement of said movable means, an extension formed on said longitudinally secured means, and resilient means interposed between said extension and said switch rail for normally holding the latter in alinement with said main tracks.

[Claims 6 to 17 not printed in the Gazette.]

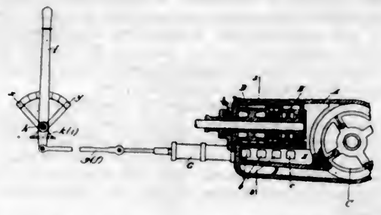
1,133,866. FOLDING CABINET. JULIA J. LEIGHTY, Geddes, S. D. Filed Oct. 4, 1913. Serial No. 793,301. (Cl. 45—38.)



An extendible cabinet comprising; a base, a back vertically mounted upon said base, two oppositely disposed side members hinged to each edge of said back having two rigidly connected portions disposed at right-angles to each other, said sides combining to act as a support for a cover member and simultaneously as front and side walls when closed, or simultaneously as an extended portion of the back, lying flush with the same, and as parallel extended side walls when in open position, and a cover member hinged to and supported by each of said side members.

1,133,867. MEANS FOR CONTROLLING FLUID-TRANSMISSION GEAR. HUGO LENTZ, Grunwald, near Berlin, Germany. Filed May 20, 1911. Serial No. 628,594. (Cl. 138—3.)

1. In a device for controlling fluid transmission gears, a plurality of valves for controlling the speed of a motor and also the braking thereof, said valves having projections, slides having grooves engaged by said projections and means for giving sliding movements as desired to said slides, the grooves of the slides being so formed that the valves are operated from neutral position, to slow speed, to medium speed, to high speed, and then to braking position, in the order named by movement of the slides in one direction.



2. In a device for controlling fluid transmission gears, a plurality of valves for controlling the speed of a motor and also the braking thereof, slides for operating said valves and means, including a single handle, for moving the slides, the connections of the slides with the valves being such that the valves are operated from neutral position, to slow speed, to medium speed, to high speed, and then to braking position, in the order named by movement of the slides in one direction.

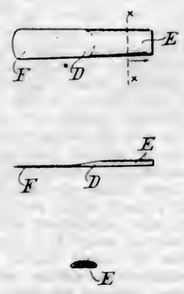
3. In a device for controlling fluid transmission gears, a plurality of valves for controlling the speed of a motor and also the braking thereof, a movable means, and connections whereby the valves are operated from neutral position, to slow speed, to medium speed, to high speed, and then to braking position, in the order named by movement of the movable means in one direction effecting a movement of the slides in one direction.

4. In a device for controlling transmission gears, the combination of a motor; driving means for driving the motor; a plurality of valves interposed between said driving means and the motor for controlling the speed of the motor and the braking thereof; and controlling means for effecting a valve movement corresponding to highest speed of the motor by movement of said controlling means in a certain direction and effecting the braking movement by movement of said controlling means in said same certain direction to the next operative valve position of the controlling means.

5. In a device for controlling fluid transmission gears, a plurality of valves movable independently of one another, for controlling the speed of a motor, a slide for operating both said valves in a predetermined order; a valve for controlling the braking of said motor; a slide for operating said last-mentioned valve; and a single operating handle and connections therefrom to both slides.

[Claim 6 not printed in the Gazette.]

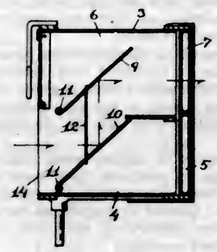
1,133,868. METHOD OF MAKING METAL REEDS FOR WIND INSTRUMENTS. ERNEST LYNN, Beaver Falls, Pa. Filed Apr. 29, 1914. Serial No. 835,142. (Cl. 29—163.)



1. A method of making metal reeds for wind instruments, the said reeds comprising each a rigid end portion and a thin flexible end portion, the said method consisting in hammering the said thin end portion to increase the density and to modify the elasticity, and in musically testing the same, and in repeating the said hammering and testing until a desired quality of tone is obtained.

2. A method of making metal reeds for wind instruments, consisting in heating one end of a piece of metal and forming that end into a thin flexible portion, and in hammering the said thin end portion to increase the density and to modify the elasticity, and in musically testing the same, and in repeating the said hammering and testing until a desired quality of tone is obtained.

1,133,869. PROJECTING APPARATUS FOR MOTION-PICTURE MACHINES. SHERRY MCAULEY, Atlanta, Ga. Filed July 23, 1914. Serial No. 852,645. (Cl. 88—24.)



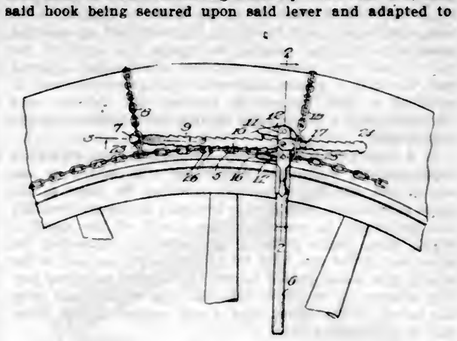
1. In projecting apparatus, a means for dissolving one image into another, consisting of a pair of normally inactive opposite mirrors located at the sides of the normal path of the light rays from a lamp of said apparatus, and means for moving said mirrors in parallel through inclined positions to gradually bar an increasing number of said rays from their first path and reflect them along another and different path.

2. In projecting apparatus, a means for dissolving one image into another, consisting of a pair of normally inactive opposite pivoted parallel mirrors having a link connection and located at the top and bottom of the normal path of the light rays from a lamp of said apparatus, and a crank arm upon the pivot rod of one of said mirrors for moving the mirrors in parallel gradually through inclined positions to accomplish the result stated.

3. In projecting apparatus, the combination with a lamp house having a lamp and a condenser lens, of an attachment including a casing provided with a lower chamber in line with said condenser lens and in the normal path of the rays from said lamp, and an upper chamber, transverse passages in line with the upper and lower chambers and designed for location of the pictures or films, a pair of normally inactive mirrors located at the sides of the lower chamber, and hand operated crank means for moving said mirrors in parallel gradually through inclined positions to accomplish the result stated.

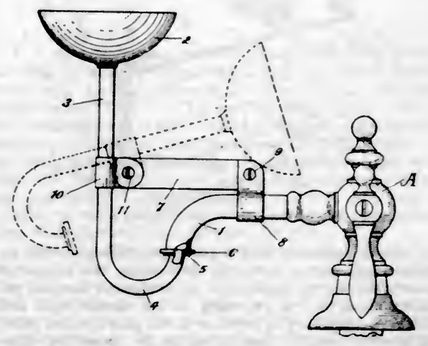
1,133,870. CHAIN-TOOL. EMERSON F. MCGUIRE, Van Houten, N. Mex. Filed June 9, 1914. Serial No. 844,057. (Cl. 254—72.)

A chain tool adapted to be inserted between a chain and the tire of a wheel for stretching said chain upon the tire, said tool comprising a double rack bar, a hook formed at one end of said bar and extending laterally therefrom, a lever having a pair of pawls adapted to coöperate with the rack bar in moving the same relatively to the lever, and a hook carried by the lever in a position opposite the first said hook and also extending laterally from said bar, last said hook being secured upon said lever and adapted to



lie, in operating position, in the same horizontal plane as said rack bar and first said hook.

1,133,871. SANITARY-DRINKING-CUP ATTACHMENT. WILLIAM W. MACE, Portland, Oreg., assignor of one-half to Harry C. Lewis, Portland, Oreg. Filed Nov. 10, 1913. Serial No. 800,201. (Cl. 137—109.)



1. A sanitary drinking cup attachment comprising a supporting arm having a downwardly extending supporting loop adapted to receive the spout of a faucet, means for positively engaging said loop with the faucet spout, a supporting loop pivotally mounted on said arm, a supply pipe encircled by the last mentioned loop and adjustable therein and having a goose neck terminal to engage the outlet end of the faucet spout, and a cup at the other terminal of the pipe.

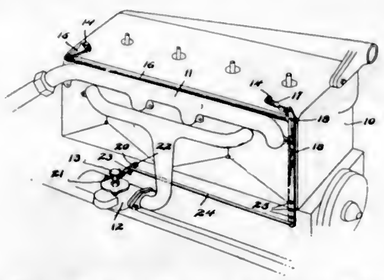
2. A sanitary drinking cup attachment comprising an arm formed at one end with an offstanding loop, means for clamping said loop about the horizontal spout of a faucet to thereby rigidly attach the arm to the latter, a loop carried by the other end of the arm, a supply pipe passing through the last mentioned loop, pivot means for connecting the last mentioned loop with the arm and clamping the loop in engagement with the supply pipe so as to permit adjustment of the latter in respect to the arm, said supply pipe having a spout engaging terminal, and a cup carried by the pipe.

3. A sanitary drinking cup attachment comprising an arm formed at one end with an offstanding loop, means for clamping said loop about the horizontal spout of a faucet to thereby rigidly attach the arm to the latter, a loop carried by the other end of the arm, a supply pipe passing through the last mentioned loop, pivot means for connecting the last mentioned loop with the arm and

clamping the loop in engagement with the supply pipe so as to permit adjustment of the latter in respect to the arm, said supply pipe having at its lower end an inverted goose neck terminal adapted to engage the outlet of the faucet spout and provided with an enlargement adjacent said terminal, a gasket supported by said enlargement to establish a tight connection between the terminal and the spout, and a cup carried by the other terminal of the supply pipe.

4. A sanitary drinking cup attachment comprising an approximately horizontal supporting arm, means at one end of the arm for adjustably securing the same to the spout of a faucet, whereby the arm may be moved inwardly and outwardly in respect to the mouth of the spout, a supply pipe, means pivotally and slidably connecting the other end of the arm with said supply pipe, one end of the supply pipe being curved to provide a spout engaging portion adapted to be tilted with the pipe toward and from the mouth of the spout, and a cup carried by the other end of said supply pipe.

1,133,872. GAS-ENGINE ATTACHMENT. JOHN MOSES MANESS, Ellerbe, N. C., assignor of one-third to J. Fetzer Lintz and one-third to R. Bennett Napier, Richmond county, N. C. Filed Oct. 21, 1914. Serial No. 867,921. (Cl. 48—150.)



1. The combination with a gas engine provided with an exhaust pipe and a valve for controlling the supply of hydrocarbon to the engine; of an expansion member extending along and in proximity to the exhaust pipe and having one end fixed in relation to the pipe and the other end movable relative thereto, means for imparting opening and closing movement to the valve, and an operative connection between the last named end of the member and said means.

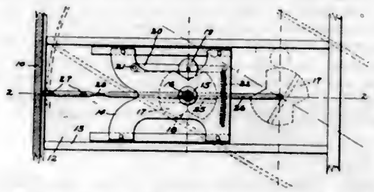
2. The combination with a gas engine provided with an exhaust pipe and with a valve for controlling the supply of hydrocarbon to the engine, said valve having a stem; of an expansion member extending along and in proximity to the exhaust pipe and having one end fixed in relation thereto, a lever pivoted to the remaining end of said member and having a fixed fulcrum, an arm carried by said stem, means for locking the arm in adjusted position on the stem, and a link connecting said lever and arm.

3. The combination with a gas engine provided with an exhaust and a carbureter needle-valve; of an expansion member adjacent and close to and above said exhaust, means for opening and closing the valve, and an operative connection between the member and the means.

1,133,873. DISPLAY-RACK. ANDREW E. MILLER, Baltimore, Md., assignor to Solomon Himmel, Baltimore, Md. Filed Aug. 21, 1913. Serial No. 785,893. (Cl. 211—16.)

1. An improvement in display racks comprising a reciprocable carriage, a rotatable rack member supported thereby, a guide rib secured to said rack member, and means connected with said rack member and engaging either side of said rib to prevent rotation of said rack member during reciprocable movement of the carriage.

2. An improvement in display racks comprising a reciprocable carriage, a rotatable rack member supported thereby, a guide rib secured to said rack member, and a guide member arranged to engage either side of said rib.



3. An improvement in display racks comprising a reciprocable carriage, a rotatable rack member supported thereby, a guide rib carried by said rack member, and a guide member arranged to be engaged by either side of said guide rib, said guide member being of a length to permit partial rotation of said rack member when the carriage is in forward position.

4. An improvement in display racks comprising a reciprocable carriage, a rotatable rack member supported thereby and provided with a disk, a guide rib depending from said disk and located to one side of the axis thereof, and means coöperating with said rib for preventing rotation of said rack.

5. An improvement in display racks comprising a reciprocable carriage, a rotatable rack member supported thereby and provided with a disk, a guide rib depending from said disk and located to one side of the axis thereof, and a guide member coöperating with said rib to prevent rotation of said rack member.

[Claims 6 to 8 not printed in the Gazette.]

1,133,874. ROD-HEAD. PHILIP P. MIETZ, Cleveland, Ohio. Filed May 7, 1914. Serial No. 836,961. (Cl. 74—17.)



1. In combination, an angular headed rod, a pair of opposing perforated jaws spaced apart and each having its inner face fitting one side of the head and each having a shank portion partially encircling the rod back of the said head, and a ferrule for encircling the said shanks and clamping them on the rod.

2. In combination, a rod having an angular head, a pair of opposing similar jaws spaced apart, each having an angular recess adjacent its rear end for receiving and fitting one side of the head and preventing a rotary or longitudinal movement in either direction, and each having a shank portion encircling the said rod back of the head, and a collar for clamping the said shanks to the rod.

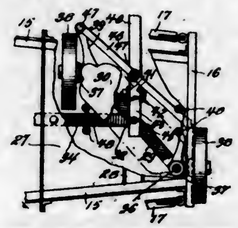
3. In combination, a rod having an angular head, a pair of opposing perforated jaws spaced apart, each having an angular recess for the reception of one side of the head and preventing a rotary or longitudinal movement in either direction and each having a shank portion partially encircling the rod back of the said head, and a ferrule for encircling the said shanks and clamping them on the rod, and provided with an indentation for preventing the accidental removal of the ferrule.

4. In combination, a rod having an angular head, a pair of opposing perforated jaws spaced apart, each having an angular recess for the reception of one side of the head and preventing a rotary or longitudinal movement in either direction and each having a shank portion partially encircling the rod back of the said head with one of such shanks provided with a recess, and a ferrule encircling the shanks and provided with an indentation engaging the said recess in the shank.

5. In combination, a rod having a square head, a pair of opposing jaws spaced apart, each having an angular recess to fit one of the corners of the said head and preventing a rotary or longitudinal movement of the head with respect to the jaws, and each having a shank partially encircling the rod back of the head, and a collar encircling the said shanks.

[Claims 6 to 8 not printed in the Gazette.]

1,133,875. TRUCK FOR ROAD-LEVELING MACHINES. NATHANIEL S. MONROE, Arthur, Ill. Filed July 17, 1913. Serial No. 779,439. (Cl. 21—139.)



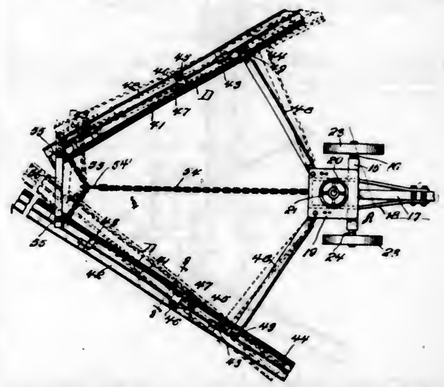
1. A machine frame having a front platform, a channel bar extending across the platform, a king bolt extending through the channel bar and the platform, a brace connecting the lower end of the king bolt with the platform, a truck frame pivoted on the king bolt, vertical shafts journaled in the truck frame and having ground wheel carrying spindles, and means for rocking the shafts with respect to the truck frame and the latter with respect to the king bolt.

2. A machine frame, a truck frame having a slot, a king bolt connecting the machine frame with the truck frame, a yoke pivoted on the king bolt, one limb of said yoke extending through the slot in the truck frame, a tongue connected with the yoke, steering knuckles journaled on the truck frame, said knuckles including vertical shafts having ground wheel carrying spindles and radially extending arms, and a bar pivotally connected with said arms and with the tongue.

3. A machine frame having a platform, a truck frame supporting the platform and having wheel carrying steering knuckles, a king bolt connecting the truck frame with the machine frame, means for rocking the steering knuckles with respect to the truck frame and the latter with respect to the king bolt, and stop members depending from the platform of the machine frame and lying in the path of the truck frame for limiting the rocking movement of the truck frame.

4. A machine frame, a truck frame, a king bolt connecting the truck frame with the machine frame, steering knuckles including vertical shafts journaled on the truck frame and having ground wheel carrying spindles and radially extending arms, a yoke pivoted on the king bolt, a tongue connected with the yoke, and a bar connected pivotally with the tongue and with the radial arms of the steering knuckles; the truck frame including a relatively broad cap plate affording support to the machine frame, and the latter being provided with stop members disposed in the path of the truck frame to limit the swinging movement of the latter about the axis of the king bolt.

1,133,876. ROAD-WORKING MACHINE. NATHANIEL S. MONROE, Arthur, Ill. Filed Dec. 19, 1913. Serial No. 807,649. (Cl. 37—5.)



1. A machine of the class described, comprising a float member, a pair of scraper elements, a flexible element connecting together the scraper elements near the rear ends thereof, link bars connecting the forward ends of the scraper elements with the float, and means for forcibly moving the scraper elements forwardly with respect to the float, the scraper elements being of great weight relatively to the float whereby while said scraper elements are constantly in ground engaging position, said float is capable of being raised clear of the ground by the application of draft strain in a forward direction.

2. In a machine of the class described, a float, link bars pivotally connected therewith and constituting spreader members, scraper elements having their forward ends pivotally connected with the link bars, a flexible connection between the rear ends of the scraper elements, a drum shaft on the float, and a flexible element having one end connected with the drum shaft and the other end with the flexible connection of the scraper elements, the scraper elements being of great weight relatively to the float whereby while said scraper elements are constantly in ground engaging position, said float is capable of being raised clear of the ground by the application of draft strain in a forward direction.

3. In a device of the class described, a pair of ground engaging scraper elements, a float positioned wholly in advance of said elements, rigid link bars connecting the float with the scraper elements at the forward ends of the latter, means flexibly connecting the rearward ends of the scraper elements, and means connected with the last mentioned means for exerting stress in a forward direction on the scraper elements with respect to the float.

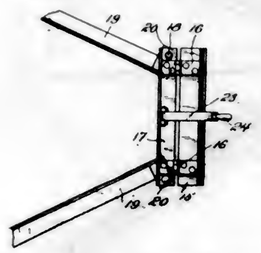
4. A machine of the class described comprising a float member, a pair of scraper elements each including a scraper bar, a tiltable heel bar substantially coextensive therewith, and means for tilting the heel bar to lift the scraper bar clear of the ground, a flexible element connecting together the scraper elements near the rear ends thereof, link bars connecting the forward ends of the scraper elements with the float, and means for forcibly moving the scraper element forwardly with respect to the float.

5. A machine of the class described comprising a float member, link bars pivotally connected therewith and constituting spreader members, scraper elements having their forward ends pivotally connected with the link bars, a flexible connection between the rear ends of the

scraper elements, a drum shaft on the float, and a flexible element having one end connected with the drum shaft and the other end with the flexible connection of the scraper elements; said scraper elements comprising each a scraper bar having a cutting blade, a heel bar hingedly connected with the scraper bar and substantially coextensive therewith, and means for tilting the heel bar with respect to the scraper bar and for sustaining it at various angles with respect thereto to support the scraper bar with its cutting member clear of the ground.

[Claims 6 and 7 not printed in the Gazette.]

1,133,877. ROAD-WORKING MACHINE. NATHANIEL S. MONROE, Arthur, Ill. Filed Mar. 12, 1914. Serial No. 824,161. (Cl. 37—5.)



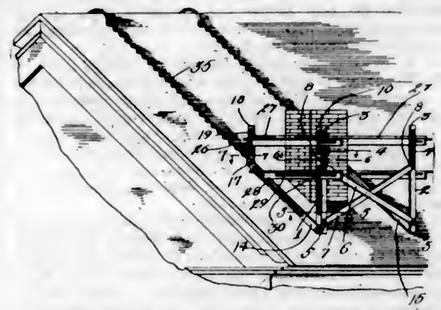
1. In a road machine, the combination with rearwardly converging scraper bars capable of independent longitudinal movement, of a smoothing and packing element connected with said scraper bars with freedom for pivotal movement with respect to the scraper bars and tiltable movement about a substantially horizontal axis, a lever connected with said smoothing and packing element for effecting adjustment of the same, and means for securing the lever in adjusted position.

2. In a road machine, the combination with rearwardly converging scraper bars capable of independent longitudinal movement, of a smoothing and packing element connected with said scraper bars with freedom for pivotal movement with respect to the scraper bars and tiltable movement about a substantially horizontal axis, and additional means for securing said smoothing and packing element against tiltable movement with respect to the scraper bars.

3. In a road machine, rearwardly converging scraper bars, a spacing member pivotally connected with each of said bars, a smoothing and packing element hingedly connected with the scraper bars, a lever associated with and extending upwardly from the smoothing and packing element, said lever having a plurality of notches, and a dog connected with the spacing member and engaging said notches.

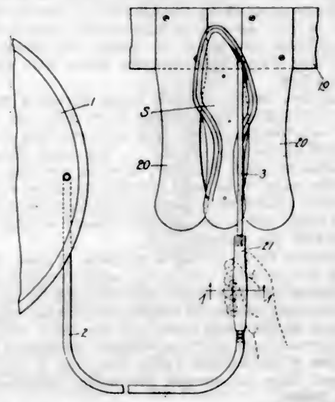
1,133,878. FOLDABLE OR COLLAPSIBLE ADJUSTABLE SCAFFOLD. FREDERICK J. NAGEL, Portville, N. Y. Filed May 29, 1914, Serial No. 841,818. Renewed Feb. 20, 1915. Serial No. 9,736. (Cl. 20—86.)

1. A collapsible roof scaffold comprising a pair of frames constructed of angular bars, each frame comprising a pitch bar, an upright long bar rising from and adjustably pivoted to the lower end of the pitch bar, a short upright bar rising from and adjustably pivoted to the upper end of the pitch bar, a substantially horizontally arranged bar adjustably connecting the pitch bar and the long upright bar, a second substantially horizontally arranged bar adjustably connecting the short and long upright bars, a pair of links crossing one another, the lower end of each link being pivotally connected to the lower end portion of each long bar, the upper end of each link being pivotally and vertically adjustably connected to the upper portion of each long bar, whereby said frames may be adjusted and collapsed relative to each other, the arrangement of the bars and their connections of each frame constituting means whereby said bars of each frame may be adjusted or collapsed.



2. A collapsible roof scaffold comprising a pair of frames constructed of angular bars, each frame comprising a pitch bar, a long upright bar rising from the lower end of the pitch bar including means whereby it may be adjusted pivotally, a short upright bar rising from the upper end of the pitch bar including means whereby it may be adjusted pivotally, a substantially horizontal bar connecting the long and short upright bars including means whereby it may be adjusted vertically, a second substantially horizontally arranged bar connecting the pitch bar and the vertical bar including means whereby it may be adjusted vertically, a pair of links crossing one another, the lower end of each link being connected to the lower end portion of each long bar and including means whereby it may be adjusted pivotally, the upper end of each link being connected to the upper portion of the long vertical bars including means whereby said upper end of each link may be adjusted vertically.

1,133,879. INSOLE-TEMPERING DEVICE. NORMAN J. NICHOLSON, Revere, Mass., assignor of one-half to Nicholas C. Bohr, Boston, Mass.; Henry Barras Bohr administrator of said Nicholas C. Bohr, deceased. Filed Aug. 21, 1911. Serial No. 645,064. (Cl. 12—1.)



1. In a hand manipulated channel moistening device for insoles of shoes, the combination of a hand-manipulated tube having an end portion constructed and arranged to travel in the channel of an insole and raise the channel lip as said tube and end portion are moved by hand about the contour defined by the channel of the insole, a stationary liquid supply, a flexible connection between said supply and tube permitting free hand movement of said tube and end portion about the contour of the shoe, and a valve having a stem extending through the said end portion of the tube to engage the channel surface and unseat the valve to permit liquid to flow slowly through the end portion while in said channel to temper the between substance.

2. In a hand-controlled channel moistening device for insoles of boots and shoes, the combination of a tubular stem having an end portion constructed to engage the channel of an insole and lift the channel lip as it is moved in said channel, a valve having a part extending through said end portion and fitting the same to permit the slow flow of liquid between said part and the walls of the end portion to temper or moisten the between substance as the tubular stem is moved by hand about the insole, a stationary tank and a flexible tube connecting said tank and tubular stem to permit free hand movement of said stem about the contour of a shoe.

3. In a hand-controlled channel moistening device for insoles of boots and shoes, the combination of a tubular stem having an angularly bent end portion to engage the channel of an insole and constructed and arranged to lift the channel lip as it is moved along the channel of the insole, a valve having a part extending through said end portion and fitting the same to permit the slow flow of liquid between said part and the walls of the end portion to temper or moisten the between substance as the tubular stem is moved by hand about the insole, and a hand piece for manually operating the moistening device.

4. In a hand-controlled channel moistening device for insoles of boots and shoes, a tubular stem having an end portion turned at an angle thereto to engage the channel of an insole under the channel lip and constructed and arranged to raise said lip as the stem is moved along the channel, said end portion being provided with a valve having a stem passing through the said end portion and fitting the same to permit the slow flow of the tempering liquid through said end when the valve is unseated.

5. A hand operated device for moistening the between substance of an insole, comprising a metal tube having an end portion at an angle thereto, said end portion being provided with a nozzle to travel in the channel of an insole and constructed and arranged to lift the channel lip as the nozzle is moved by hand along the channel, and a valve having a stem passing through and beyond the end of the nozzle to engage the surface of the channel and unseat the valve to permit the slow flow of liquid as the nozzle is moved by hand along the channel of the insole.

[Claims 6 to 10 not printed in the Gazette.]

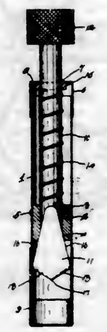
1,133,880. SUPPORT OR ADJUSTER FOR SOFT COLLARS. ROBERT SMITH NOAKES, London, England. Filed Oct. 25, 1912. Serial No. 727,744. (Cl. 2—91.)



1. A unitary device for supporting soft collars comprising two forwardly extending projections adapted to engage the outer fold of the collar, upright members each extending from one of said projections and flaring outwardly therefrom and a single member extending from the upper portions of said upright members and bent downwardly and forwardly therefrom to a central point and serving to maintain the projections in suitable relation to each other.

2. A unitary device for supporting soft collars, comprising two forwardly extending projections adapted to engage the outer fold of the collar, flexible upright members each extending from one of said projections and flaring outwardly therefrom and a single member extending from the upper portions of said upright members and bent downwardly and forwardly therefrom to a central point and serving to maintain the projections in proper relation to each other.

1,133,881. CORN-EXTRACTOR. EDWARD K. OSTNESS, Beloit, Wis. Filed May 8, 1914. Serial No. 837,321. (Cl. 128—28.)



1. A corn treating instrument comprising a hollow cylindrical body fully open at its lower end, a rod rotatably and slidably mounted within the body and having its lower end terminating in a point axially alined therewith, and scraping blades extending upwardly and outwardly from the point, the lower end of the body providing means by which the point of the rod may be placed and held in the center of a corn and preventing the scraping blades from cutting away the callous flesh surrounding the corn.

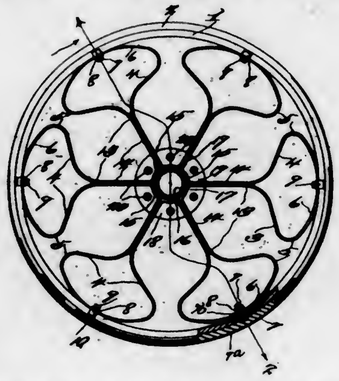
2. A corn treating instrument comprising a hollow cylindrical body fully open at its lower end, a rod rotatably and slidably mounted within the body and having its lower end terminating in a point axially alined therewith, scraping blades extending upwardly and outwardly from said point, and means adapted to normally retain the scraping blades within the body, the lower end of the body providing means for placing and holding the point in the center of the corn and preventing the scraping blades from cutting away the callous flesh surrounding the corn.

3. A corn treating instrument comprising a hollow cylindrical body fully open at its ends, a cap applied to the upper end of the body and having an opening in its top wall, a guide secured within the body at a point above its lower end, a rod slidably and rotatably mounted in the guide and having its upper end projecting through the opening in the cap, the lower end of the rod being flattened to provide a point and scraping blades extending upwardly and outwardly from the point, and a spring surrounding the rod to normally retain the scraping blades within the body, the lower end of the body providing means by which the point may be placed in the center of the corn and preventing the scraping blades from cutting away the callous flesh surrounding the corn.

1,133,882. RESILIENT WHEEL. EUGENE A. PALMER, Belle Plaine, Iowa. Filed Dec. 5, 1912. Serial No. 735,166. (Cl. 152—50.)

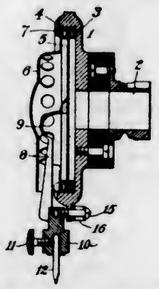
In combination, a hub member, spokes extending therefrom and having substantially elliptical shaped loops at their outer portions, a rim having a series of elongated pockets gradually merging into the surface of the rim, fiber filling blocks in said pockets and terminating slightly beyond where the arches of said loops normally engage, the sides of said pockets acting to prevent twisting of the filler blocks said filler block having recesses to receive the arches of the loops to prevent their twisting, clamping

plates for holding the arches in place, fiber fillers between the plates and the arches, and means for clamping the



rim, the first filler block, the archer portions of the loops, the second fillers and the plates together.

1,133,883. SOUND-BOX. WILLIAM E. PARKER, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Sept. 25, 1912. Serial No. 722,257. (Cl. 181—11.)

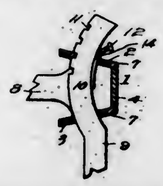


In a sound-box, the combination of a diaphragm-receiving casing having an off-set with a hole therethrough, a diaphragm mounted in said casing, a stylus-bar lying radially of said diaphragm and extending above said hole, two wings parallel to said diaphragm, and extending from said bar in opposite directions, a fulcrum-bearing between each wing and the adjacent portion of said off-set, a headed screw passing freely through the hole aforesaid and adjustably engaging said bar, and a centrally-apertured bow-spring surrounding said screw and pressing against the under side of the head thereof and having its two ends respectively exerting pressure against the offset opposite the two spaced fulcrum-bearings aforesaid.

1,133,884. CULTIVATOR. PAUL RICHARDSON, Longmont, Colo., assignor of one-half to Emil Affolter, Longmont, Colo. Filed Aug. 26, 1914. Serial No. 858,644. (Cl. 55—96.)

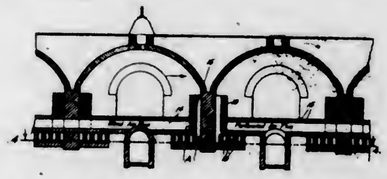
1. The combination of a channel-form transverse bar having apertures in its upper and lower walls, a tool standard disposed in said apertures and having a notch in its edge receiving one wall of one aperture, and a key disposed in said aperture and holding the tool standard in engagement with said wall.

2. The combination of a channel-form bar having apertures in its upper and lower walls, a tool standard having a curved portion disposed in said apertures and also having one edge of said curved portion notched to receive one wall of one aperture, and a key disposed in the aperture and between the opposite wall thereof and the tool standard and supported by the wall of the bar.



3. The combination of a channel form bar open at its forward side and having forwardly diverging upper and lower walls and alined apertures therein, a tool standard having a forwardly curved portion disposed in said apertures and also having one edge of said portion notched and receiving one wall of one aperture and a key arranged between the opposite wall of the aperture and the standard and supported by said wall of the bar.

1,133,885. CONTINUOUS COMPARTMENT GAS-FIRED KILN. WILLARD D. RICHARDSON, Worthington, Ohio. Filed June 9, 1913. Serial No. 772,583. (Cl. 25—136.)



1. In a gas-fired kiln, a firing chamber, passages for conducting gas to said firing chamber, passages for conducting air to said firing chamber, said passages being so constructed that the air is directed downward onto the gas.

2. In a gas-fired kiln, a compartment, a gas main, gas ducts leading to a plurality of points in the compartment, and an intermediate distributing chamber from which said ducts lead, said chamber being accessible for repairs and adapted for connection to said main.

3. In a gas-fired continuous compartment kiln, a series of compartments, passages for conducting fuel into each of said compartments, chambers at the ends of said compartments from which certain of said fuel passages lead, said chambers being adapted for connection to a source of gas supply, and valves for controlling the exit of gas from said chambers.

4. In a gas-fired kiln, a firing compartment, means for conducting a combustible fluid to a plurality of points therein, and delivery ports disposed in staggered relation.

5. In a gas-fired kiln, a firing compartment, means for conducting a combustible fluid to a plurality of points therein, and opposing series of independent bag walls inclosing such points and disposed in staggered relation.

[Claims 6 to 12 not printed in the Gazette.]

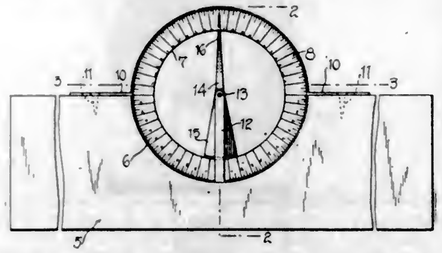
1,133,886. PRUNING-KNIFE. ALPHEUS BUELL ROBBINS, Medford, Oreg. Filed July 25, 1914. Serial No. 853,098. (Cl. 30—24.)

A pruning knife including a handle, a blade secured to the handle, said blade being sharpened on both edges, an angular extension at the free end of the blade, the free end of the angular extension being inclined and sharpened, the angular extension and blade forming a gouge, and a lateral projection formed near the free end of the blade, said lateral projection being provided with a sharpened edge arranged to coincide with the sharpened edge of the



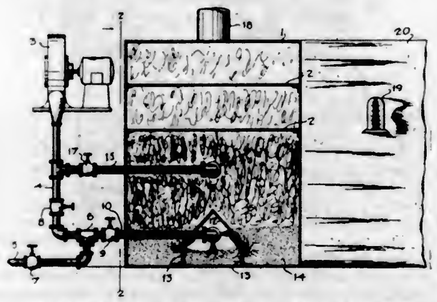
blade to form a means whereby limbs may be cut from a tree.

1,133,887. LEVEL. JOHN E. SATTERFIELD, Brownwood, Tex. Filed Mar. 2, 1914. Serial No. 821,944. (Cl. 33—215.)



The combination with a body centrally provided with a recess in one edge, of an annular dial plate having a circumscribing band integrally formed upon its outer edge and projecting from the opposite faces thereof, inwardly extending radially disposed arms integrally formed upon the opposite edges of said band, a weighted indicating pointer having spaced end portions disposed over the opposite faces of said annular dial plate, the weight element of said pointer being pivotally mounted at one of its ends between the inner ends of said arms and having its other end disposed in spaced relation to the inner edge of said dial plate, and attaching arms integrally formed upon said band and extending therefrom in a plane including the pivot axis of the indicating pointer, said arms being secured upon one edge of said body.

1,133,888. APPARATUS FOR SMOKING AND CURING MEAT PRODUCTS. BEN SCHWENGER, New York, N. Y., assignor to The Airoblast Corporation, New York, N. Y., a Corporation of New York. Filed Jan. 19, 1914. Serial No. 812,998. (Cl. 34—19.)



1. In apparatus of the character described, the combination with a housing, having means for supporting the meat products in the upper portion thereof, and adapted to contain smoke producing material in the lower portion thereof; of a gas supply means, a compressed air supply means, a gas jet pipe disposed in the lower portion of said housing and connected with said gas and air supply means and a hood disposed above said gas jet pipe for deflecting the flame against the smoke producing material and distributing the smoke thus produced.

2. In apparatus of the character described, the combination with a housing having means for supporting the meat products in the upper portion thereof, and adapted to contain smoke producing material in the lower portion thereof; of a gas supply means, a compressed air supply means, a gas jet pipe disposed in the lower portion of said housing and connected with said gas and air supply means, an independent air supply pipe branching from said compressed air supply means and extending within said housing, and a hood disposed above said gas jet pipe for deflecting the flame therefrom against the smoke producing material and distributing the smoke thereby produced.

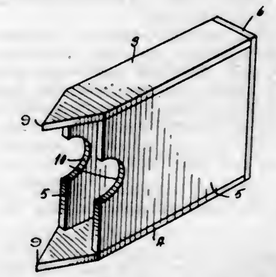
3. In apparatus of the character described, the combination with a housing having means for supporting the meat products, and adapted to contain smoke producing material; of a gas supply means, a compressed air supply means, a gas jet pipe disposed in said housing and connected with said gas and air supply means, and a hood disposed above said gas jet pipe for deflecting the flame toward the smoke producing material.

4. In apparatus of the character described, the combination with a housing having means for supporting the meat products and adapted to contain smoke producing material; of a gas supply means, a compressed air supply means, a gas jet pipe in said housing connected with said gas and air supply means, a hood disposed above said gas jet for deflecting flame therefrom toward the smoke producing material, and an independent air supply pipe branching from said compressed air supply means and extending above said hood.

5. Apparatus for smoking and curing meat products comprising in combination a burner, means for supplying gas thereto, means for supplying compressed air to said burner, and a deflector for distributing the flame from said burner.

[Claims 6 and 7 not printed in the Gazette.]

1,133,889. FILE-CASE. CHARLES H. SMITH, Rhyolite, Nev. Filed Aug. 3, 1914. Serial No. 854,820. (Cl. 129—43.)



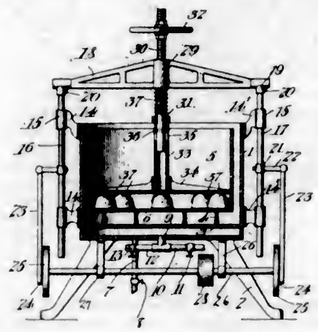
1. A filing case comprising a top and bottom, each having a pointed rear end to assist in guiding the case in replacing it in the filing compartment.

2. A file case comprising top and bottom members, side members, said top and bottom members being extended beyond the side members and cut away at opposite sides to form a central guiding point, and the side members of the case being cut away centrally to give easy access to the papers within the file case.

1,133,890. WASHING-MACHINE. HENRY C. STAMM, Mechanicsburg, Pa. Filed Sept. 28, 1914. Serial No. 863,955. (Cl. 68—19.)

1. A washing machine, comprising a receptacle, guides formed on said receptacle, guide rods mounted in said

guides, a cross bar connecting said guide rods provided with a threaded bore, a plunger rod having a threaded portion working in said threaded bore, means for revolving said plunger rod, a sleeve slidably mounted upon said plunger rod, a spring surrounding said plunger rod between said sleeve and cross bar, a head carried by said sleeve, and means for reciprocating said guide rods.

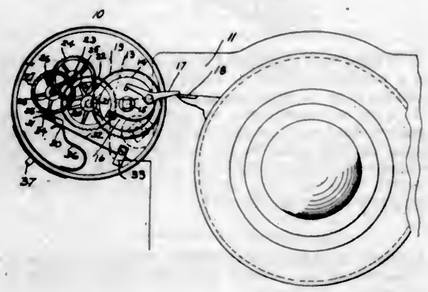


2. In a washing machine, the combination with a receptacle, of a guide rod mounted to each side of said receptacle, a cross bar having a centrally threaded bore, a plunger rod provided with a threaded portion working in said bore, a hand-wheel carried by said plunger rod for revolving said plunger rod within said bore to adjust the position thereof, a head slidably carried by said plunger rod, and means for reciprocating said guide rods.

3. In a washing machine, the combination with a receptacle, of spaced arms projecting outwardly therefrom provided with tubular guides, rods slidably mounted in said guides, a cross bar connecting the upper ends of said rods, an inner receptacle arranged within the first-mentioned receptacle, a plunger arranged within said inner receptacle, and a plunger rod yieldingly connected to said plunger having a threaded portion mounted in the threaded bore of said cross bar, means for turning said plunger rod within the bore of said cross bar for adjusting the position of said plunger within the inner receptacle, and means for reciprocating said rods.

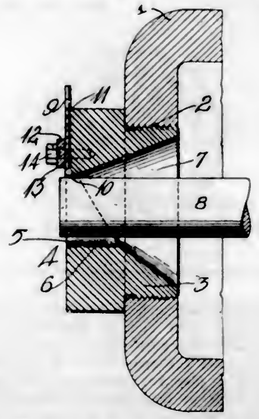
4. A washing machine, comprising an outer receptacle having a false bottom, an inner receptacle supported within said outer receptacle, a plunger working within said inner receptacle, a plunger rod having a slidable connection with said plunger, a cross bar in which said plunger rod is adjustably mounted, and means for reciprocating said cross bar.

1,133,891. CAMERA. WILLIAM SWANK, Altoona, Pa. Filed May 20, 1914. Serial No. 839,771. (Cl. 161—26.)



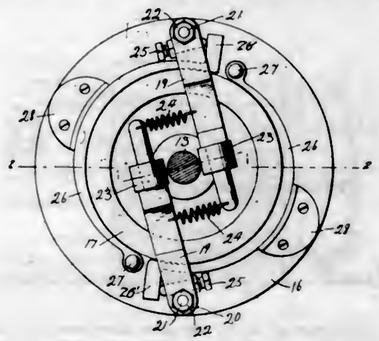
A shutter operating attachment for cameras, comprising a circular casing, a spring actuated shaft journaled in said casing, a rotatable disk carried by said shaft, a shutter operating trip arm pivotally carried by said disk, a gear train operatively connected to the said spring actuated shaft, a brake for the gear train, an auxiliary brake device including a flat spring element having one end fixed in the casing and its opposite free end in contact with said brake, and a finger controlled spring arranged between said flat spring and the wall of the circular casing, said finger controlled spring shiftable in the casing to vary its tension and move its free end toward and from the free end of said flat spring.

1,133,892. TUBING-DIE. JOHN L. SWARTZ, Akron, Ohio. Filed Dec. 12, 1912. Serial No. 736,446. (Cl. 18—14.)



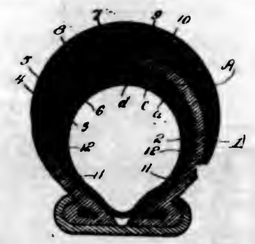
A tubing die comprising a body having a cylindrical bore provided with an enlarged funnel-shaped inner end, into which plastic material may be forced, a core projecting eccentrically through said bore whereby to form an annular discharge opening gradually increasing in width from one side to the other, and a cutter projecting across the narrow side of said annular discharge opening, whereby to slit the material forced therethrough.

1,133,893. CLUTCH. CHARLES H. THAYER, Elmira, N. Y., assignor of one-third to George P. Ransom and one-third to George A. Gucker, Elmira, N. Y. Filed May 10, 1913. Serial No. 766,861. (Cl. 192—14.)



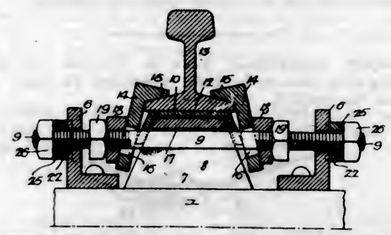
The combination with driving and driven shafts, said driving shaft having a flange thereon, of a disk keyed upon the driven shaft, a clutch band secured at one of its ends upon said flange and having its other end outwardly extended, a lever pivotally mounted at its outer end upon said flange and carrying an adjustable screw intermediate of its ends acting against the outwardly extended end of the clutch band, a roller mounted upon the other end of the lever, a spring yieldably holding said lever against movement in a direction to frictionally engage the clutch band upon the periphery of the disk, and actuating means coöperating with said roller to move the lever and frictionally contract the band upon the periphery of the disk.

1,133,894. PROTECTOR FOR PNEUMATIC TIRES. ARTHUR FREDERICK TIEDGE, Baybridge, Ohio. Filed July 21, 1914. Serial No. 852,233. (Cl. 152—18.)



A protector for pneumatic tires to be interposed between the outer case and inner tube, said protector comprising an inside sheet of chrome leather having its smooth face disposed for contact with the inner tube, an outside sheet of the same material having its smooth face disposed in the same direction, said sheets being of different widths and the sheet of less width being marginally fastened to the sheet of greater width, and a cushion of crescent shape in cross section interposed between said inside and outside sheets and cemented to the inside sheet, said cushion embodying a ply of chrome leather covering its outer face with the smooth side toward the tread of the tire and left free and unattached to said outside sheet to form an arched deflecting surface.

1,133,895. RAIL-CHAIR. JOSEPH F. VALLIN, Audubon, N. J. Filed Aug. 20, 1914. Serial No. 857,724. (Cl. 238—2.)



1. The combination of a tie; upwardly projecting plates secured to the tie; a chair mounted between the said plates and resting on the tie; a non-conducting insulating plate located on the chair; a rail mounted on the insulating plate; clamp plates at each side of the chair having flanges extending over the base flange of the rails; with a transverse bolt securing the clamp plates to the rail and chair and securing the chair to the tie.

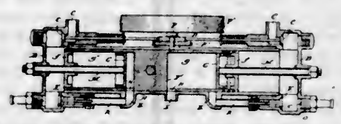
2. The combination of a tie having upright plates; a chair located between the said plates, said chair having a transverse slot; an insulating plate mounted on the chair and having a lining of insulating material; a rail mounted on the insulating plate; two clamp plates, one on each side of the chair and extending over the base flange of the rail, said clamp plates being perforated; a transverse bolt extending through the slot in the chair, through two perforations in the clamp plates and also through perforations in the tie plates; with two sets of nuts on the bolt, one set securing the clamp plates to the rail and chair and the other set securing the chair to the tie plates.

3. The combination of a tie having two angle plates secured thereto and spaced apart, each angle plate being perforated; a chair having tapered sides and having a transverse slot therein extending from the underside; a flanged insulating plate mounted on the chair and having insulating material therein so as to insulate the chair from the plate; a rail mounted on the insulating plate; two flanged clamp plates, one on each side of the chair, the flanges of said plates extending over the base flanges of the rail; a transverse bolt extending through the slot in the chair, through the clamp plates and through the openings in the angle plates; two sets of nuts on the bolt, one set confining the clamp plates to the rail and chair and the other set confining the rail and chair to the tie; with insulating material located between the bolt and its nut and the angle plates of the tie.

4. The combination of a tie having upright plates spaced apart, each plate being slotted for the reception of a transverse bolt; a chair mounted on the tie between the plates; a flanged insulating plate located on the chair and having insulating material therein so as to insulate the chair from the said plate, the chair being slotted transversely; a rail mounted on the insulating plate; clamp plates on each side of the rail and chair and having flanges extending over the base flange of the rail; a transverse bolt extending through the slot in the chair and the slots in the tie plates and through the clamp plates; nuts on the bolt confining the clamp plates to the chair; and rail insulating material between the bolt and the chair; with a washer plate located on the outside of each angle plate and perforated to receive the bolt, each of said washer plates having a lip engaging the end of its tie plate; with nuts on the bolt bearing against the washer plates so as to hold the chair firmly to the tie.

5. The combination of a tie having angle plates secured thereto, each angle plate being slotted; a chair having beveled side walls and located on the tie between the angle plates, said chair having a transverse slot therein; a flanged insulating plate mounted on the chair and having an insulating lining, whereby the chair is insulated from the plate; a rail mounted on the plate; two clamp plates, one on each side of the chair and having flanges extending over the base flanges of the rail, said clamp plates being perforated; a transverse bolt extending through the slot in the chair, through the perforations in the clamp plates and through the slots in the angle plates; beveled washers on the bolts bearing against the clamp plates; nuts on the bolt bearing against the washers; washer plates perforated for the passage of the bolt and having a lip bearing against one end of the angle plates, the nuts on the bolt bearing against the washer plates; and insulating material between the bolt and the chair and between the bolt and the angle plates.

1,133,896. INTERNAL-COMBUSTION ENGINE. FRANK H. VAN HOUTEN, Jr., Fishkill-on-the-Hudson, N. Y. Filed May 29, 1914. Serial No. 841,875. (Cl. 123—63.)



1. In an internal combustion engine, the combination of the cylinder, piston mounted to reciprocate therein and having an internal cylindrical chamber, a fixed piston dividing said chamber into compression and cooling chambers, means for admitting cooling medium into said chamber on one side of the fixed piston, means for admitting a fuel charge into said chamber on the opposite side of the fixed piston, and means for transferring said charge under pressure to the combustion chamber of the cylinder.

2. In an internal combustion engine, the combination of the cylinder, piston mounted to reciprocate therein and having an internal cylindrical chamber having heads at its opposite ends, a fixed piston dividing said chamber into compression and cooling chambers, means for admitting a fuel charge into said chamber on one side of said fixed piston and for transferring the compressed charge to the cylinder at one end of the reciprocatory piston, and a support for the fixed piston extending through the wall of the movable piston having a passage therein for the admission of a cooling medium to the cooling chamber.

3. In an internal combustion engine, the combination of the cylinder, piston mounted to reciprocate therein and having an internal cylindrical chamber of greater length than the length of the piston stroke, a piston within and dividing said chamber into compression and cooling chambers, a tubular support for said last mentioned piston extending through the wall of the first mentioned piston and open to the chamber, means for admitting a fuel charge into said chamber on the compression side of the piston therein and for transferring said charge to the cylinder at one end of the reciprocatory piston, and means for igniting the charge so transferred.

4. In an internal combustion engine, the combination of the cylinder having an intake port and a transfer port and passage leading from a point between the intake port and end of the cylinder to the end of the cylinder, a piston mounted to reciprocate in the cylinder and having an internal cylindrical chamber with a port therein adapted to register alternately with the intake and transfer ports, a fixed piston in said chamber dividing the same into compression and cooling chambers, and a support for said piston having a duct therein communicating with the cooling chamber.

5. In an internal combustion engine, the combination with the cylinder having valve controlled inlet and exhaust ports at one end, an intake port near the opposite end, a transfer port at an intermediate point and a transfer duct connecting the transfer and valve controlled inlet ports, of a piston mounted to reciprocate in said cylinder and having a cylindrical chamber therein with a port in position to register alternately with the intake and transfer ports, a fixed piston in said chamber dividing the same into compression and cooling chambers, and a tubular support for the fixed piston open at its inner end to the cooling chamber.

[Claim 6 not printed in the Gazette.]

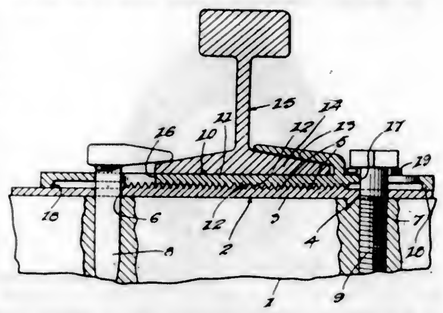
1,133,897. FOUNTAIN-PEN HOLDER. ELIZABETH F. VILKOMERSON, New York, N. Y. Filed Jan. 9, 1915. Serial No. 1,352. (Cl. 24—12.)



1. The combination with a pen encircling band having an ear thereon provided with a transverse rectangular slot, of a member adapted for attachment to a garment and comprising a body portion, an upwardly extending tongue thereon rectangular in cross-section and snugly engageable within said slot and a laterally extending shoulder at the junction of the outer edge of said tongue with said body portion, said shoulder being engaged by said ear.

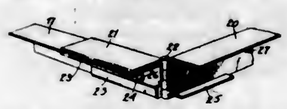
2. The combination with a pen encircling band having an ear thereon provided with a slot, of a member adapted for attachment to a garment and comprising a body portion, an upwardly extending tongue thereon snugly engageable within said slot and a laterally extending shoulder at the junction of the outer edge of said tongue with said body portion, said shoulder being engaged by said ear.

1,133,898. TIE-PLATE. MARCEL VITAS, Lucesco, Pa. Filed Oct. 9, 1914. Serial No. 865,927. (Cl. 238—2.)



A railroad tie plate including a base plate, a rib extending transversely of the base plate, said rib being arranged to extend into a tie to hold the plates in place, teeth formed on the base plate, a top plate, teeth formed on the top plate, the teeth on both plates being arranged to engage each other to hold the plates against relative movement, longitudinal ribs extending across the sides of the top plate and holding said plate in spaced relation to the bottom plate, the bottom plate being provided with a spike-receiving aperture and a bolt-receiving aperture, the top plate being provided with transversely extending slots, a rail flange-engaging member carried by the top plate and arranged to hold a railroad rail thereon, a spike arranged to pass through one of the slots and through the spike-receiving aperture, and a bolt arranged to pass through the opposite slot and the bolt-receiving aperture, and means to lock the bolt against accidental rotation.

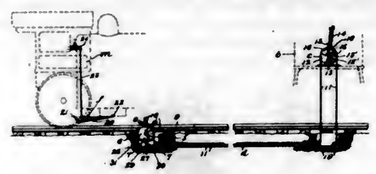
1,133,899. BEDSTEAD. PAUL H. VOELKER and KARL KIMMICH, New York, N. Y. Filed Aug. 15, 1914. Serial No. 856,957. (Cl. 5—8.)



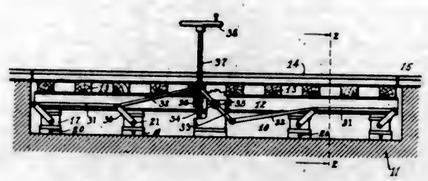
The combination of a head frame; a foot frame; and a plurality of side bars connecting said frames, comprising a plurality of half-length side bar sections, one of said sections on each side of the structure having a slide plate pivotally connected therewith and slidingly engaging the opposite side bar section; and means for rigidly connecting said side bar sections in adjusted position.

1,133,900. TRAIN CONTROL. FREDERICK WETZEL, New York, N. Y., assignor of forty one-hundredths to Julius K. M. Waibel, New York, N. Y. Filed Feb. 27, 1914. Serial No. 821,497. (Cl. 246—59.)

In a train control, the combination of a trip-member provided with a series of radial arms adapted to be positioned in the path of the train, means for actuating the said arms, a flexible element connecting the actuating means and the trip-member, and a series of members carried by the locomotive and adapted to be operated by the said arms for the purposes set forth.



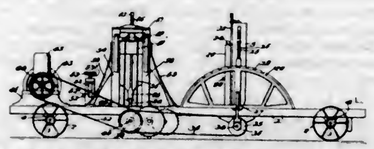
1,133,901. RAILWAY WEIGHING-SCALE. MARLON H. WINSLOW, Terre Haute, Ind. Filed Aug. 14, 1913. Serial No. 784,775. (Cl. 73—121.)



1. A railway weighing scale including a platform, a number of bearing boxes located beneath the platform, cam shafts mounted in said bearing boxes having cam portions located within said boxes, a bearing block located in and guided by said boxes and having convex upper surfaces with a central upwardly projection, said upper surface lying above the box in which the bearing block is located, a cap with a concave and recessed under side adapted to rest upon said bearing block and overlap the top of the box containing said bearing block and to lift the platform when elevated, and means for simultaneously oscillating all of said cam shafts for elevating and supporting the platform.

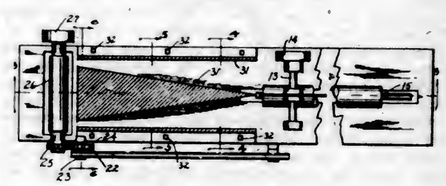
2. A railway weighing scale including a platform, means for lifting said platform and supporting it above the scale bearings of the platform, a base on which said elevating means is mounted, said base consisting of a plurality of overlapping blocks triangular in cross section, and bolts extending longitudinally through said two plates for varying the relative positions so as to adjust the elevation of the means for elevating the platform.

1,133,902. BARN-FRAMING MACHINE. AUGUST F. WOLF, Elma, Iowa. Filed Mar. 14, 1912. Serial No. 683,835. (Cl. 144—45.)



In a machine of the kind described, a frame mounted to be adjustably tilted in the vertical plane of the feed, a reciprocating frame mounted in said tilting frame, a pair of rip saws mounted in said reciprocating frame, a pair of cross-cut saws disposed at right angles to said rip saws also mounted in said frame, a crank shaft connected with the lower end of said tilting frame, pitmen connected at one end with said crank shaft and at their opposite ends slidably connected with said tilting frame and attached to the reciprocating frame, and means for supporting and holding said tilting frame in adjusted angular position.

1,133,903. TUBE-CONVERTING MECHANISM. THOMAS W. WRIGHT, Anderson, Ind. Filed Apr. 14, 1913. Serial No. 761,010. (Cl. 113—1.)



1. A machine for converting metal tubes into flat strips including a wedge-shaped die for laterally spreading the sides of a tube which has been split longitudinally, and rolls between which the flattened form of the tube passes while being acted on by the die, whereby the roll both flattens and feeds the tube.

2. A machine for converting metal tubes into flat strips including a wedge-shaped die for laterally spreading the sides of a tube which has been split longitudinally, rolls in alinement with the die and between which the flattened advance end of the tube passes after leaving the die and while the succeeding part of the tube is being spread, and means for driving one of said rolls.

3. A machine for converting metal tubes into flat strips including rotary means for longitudinally splitting the tube on one side thereof, a stationary die adjacent to and in alinement with the said splitting means for spreading the tube, rolls following and adjacent to and in alinement with said spreader between which the flattened form of the tube may pass as it leaves the die, means for operating the said rolls, and means for feeding the tube longitudinally to said splitting means, spreading means and rolls.

4. A machine for converting metal tubes into flat strips including a wedge-shaped die for laterally spreading the sides of a tube which has been split longitudinally, rolls between which the flattened form of the tube passes after leaving the die, means for feeding the tube to the die until it has been grasped by said rolls, and means for driving one of said rolls.

5. A machine for converting metal tubes into flat strips including a wedge-shaped die for laterally spreading the sides of a tube which has been split longitudinally, rolls between which the flattened form of the tube passes after leaving the die, means for feeding the tube to the die until it has been grasped by said rolls, and means for driving said feeding means and said rolls so that the rolls will move the metal faster than the feeding means.

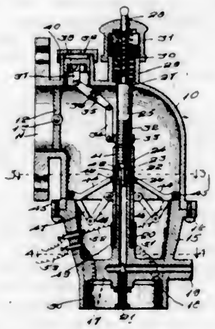
[Claims 6 to 8 not printed in the Gazette.]

1,133,904. CARBURETER. HORACE BARTLETT WYMAN, Minneapolis, Minn. Filed Apr. 4, 1914. Serial No. 829,514. (Cl. 48—154.1.)

1. In a carbureter of the character described, a carbureting shell, a liquid fuel supply tube extending axially within the carbureting shell, a plurality of vertically swinging valve plates arranged within the carbureting shell and surrounding the liquid fuel supply tube to control the passage of air through the carbureting shell in proximity to the supply tube, a perforated tube slidably mounted upon the supply tube to move longitudinally thereof and extending upwardly beyond the outlet end of the supply tube, connecting means between the valve plates and the perforated tube whereby upon the upward swinging movement of the valve plates the perforated tube is simultaneously moved upwardly, a valve connected with and extending into the upper end of the perforated tube to engage and disengage the upper end of the supply tube, and suction operated means connected with the valve to automatically move the same.

2. In a carbureter of the character described, a carbureting shell, a liquid fuel supply tube extending axially

within the carbureting shell, a plurality of vertically swinging valve plates arranged within the carbureting shell and surrounding the supply tube to control the passage of air through the carbureting shell in proximity to the supply tube, a perforated tube slidably mounted upon the supply tube to move longitudinally thereof and extending upwardly beyond the outlet end of the supply tube, cranks connected with and depending from the valve plates, links arranged below the valve plates and connecting the cranks and the perforated tube, a valve connected with the perforated tube and extending therein for a substantial distance to engage and disengage the upper end of the supply tube, a suction operated device, and connecting means between the suction operated device and the valve.

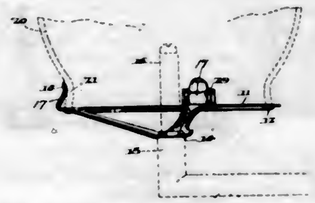


3. A carbureter of the character described, a carbureting shell, a liquid fuel supply tube extending axially within the carbureting shell, a plurality of vertically swinging valve plates arranged within the carbureting shell and surrounding the liquid fuel supply tube to control the passage of air through the carbureting shell in proximity to the supply tube, a perforated tube slidably mounted upon the supply tube to move longitudinally thereof and extending upwardly beyond the upper outlet end of the supply tube with its upper end internally screw-threaded, operative connecting means between the valve plates and the perforated tube, a valve having its lower end screw-threaded to engage within the upper screw-threaded end of the perforated tube to engage and disengage the outlet end of the supply tube, a spring to oppose the upward movement of the valve, a pressure operated device arranged within the shell above the valve plates, a pivoted lever, means connecting the pivoted lever with the pressure operated device, and means connecting the pivoted lever with the valve.

4. In a carbureter of the character described, a carbureting shell, a liquid fuel supply tube extending into the same, a valve movable toward and away from the outlet end of the liquid fuel tube, a perforated control tube connected with the said valve for movement therewith and receiving the liquid fuel supply tube therein, and a valve arranged within the carbureting shell and formed of a plurality of swinging valve plates connected with the said valve to be moved upon the movement thereof and means to move the said valve.

5. In a carbureter of the character described, a carbureting shell, a liquid fuel supply tube extending into the same, a valve movable toward and away from the outlet end of the tube, a perforated control tube connected with the valve to move therewith and receiving the tube therein, a plurality of vertically swinging valve-plates arranged within the mixing shell and surrounding the perforated control tube, operative connecting means between the valve-plates and the control tube, and suction operated means connected with the liquid fuel supply valve to move the same.

1,133,905. GLOBE-HOLDER. JOSEPH G. AKERS and JACOB BRITSCH, Philadelphia, Pa. Filed July 3, 1914. Serial No. 848,990. (Cl. 240—116.)



As a new article of manufacture, a globe holder comprising a globe supporting band having a continuous groove to receive the lower edge of the globe and forming a seat therefor, a hub lying below the plane of the band, diametrically and upwardly projecting spokes formed with the hub and the band and supporting the band above the horizontal plane of the hub, and equi-distantly spaced upwardly projecting ribs formed with the band and projecting upwardly from the outer edge thereof, each rib lying in the vertical plane of one of the spokes, with said ribs inclined relatively inward to partially project over said band.

1,133,906. POCKET. HYMAN ALBAN, Chicago, Ill. Filed Jan. 18, 1913. Serial No. 742,871. (Cl. 2—15.)

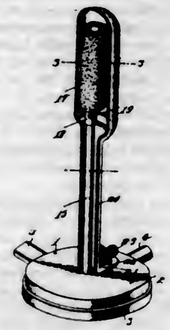


An auxiliary pocket adapted to be introduced into a main pocket and conforming approximately in outline thereto and having a side opening at its upper end and having the edge portion of the front side projecting beyond the edge portion of the rear side, and fastenings applicable to the front edge of the main pocket when the auxiliary pocket is in position therein, said fastenings being secured in a folded edge of the auxiliary pocket at the upper and lower portions of its side opening extending through slits formed in the fold of such folded edge and terminating beyond the front side of said auxiliary pocket.

1,133,907. ROTARY TOOTH-BRUSH. HARRY ALLAN, Toronto, Ontario, Canada. Filed July 29, 1914. Serial No. 853,915. (Cl. 15—37.)

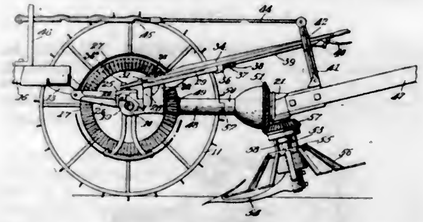
1. A rotary brush comprising a casing, a shaft journaled in and extending from said casing, a brush carried by the projecting end of the shaft, means carried by the casing for rotating the shaft and brush, a channeled guard partially inclosing the shaft and having a spoon-shaped portion partially inclosing the brush, said guard having its channeled portion provided with an angularly bent arm, and means adjustably connecting said arm with the casing for adjusting said guard and its spoon-shaped portion toward and away from the shaft and brush.

2. A rotary brush comprising a flat disk-shaped casing, a shaft journaled in and extending outwardly through one of the flat sides of said casing, a brush carried by the projecting end of the shaft, means carried by the casing for rotating the shaft and brush, a channeled guard partially inclosing the shaft and provided with a spoon-shaped portion partially inclosing the brush, said guard having its



channeled portion provided at its inner end with an arm bent at right angles thereto and formed with a longitudinal slot, and a binding screw passing through said slot and entering the adjacent flat side of the casing, whereby the guard and its spoon-shaped portion may be adjusted toward and from the shaft and brush and fixed in adjusted position to the casing.

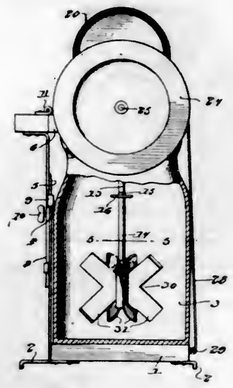
1,133,908. POTATO-DIGGER. EDWARD R. ALLEN, Corning, N. Y. Filed Sept. 19, 1912. Serial No. 721,287. (Cl. 55—56.)



1. In a machine of the class described, the combination of a shaft, a pair of wheels mounted on said shaft, a pair of bevel gears secured to said shaft, a lifting plow, a throwing wheel adapted to receive the potatoes from said lifting plow and deliver the same at the side of the path of the machine, a member fixed between said gears, a second member slidable on said shaft, a pinion carried by said second member and arranged between said gears, means operatively connecting said pinion with said throwing wheel, a lever pivotally connected with said members, a quadrant carried by one of the said members, and a latching mechanism carried by said lever and coöperating with said quadrant to hold said lever in position.

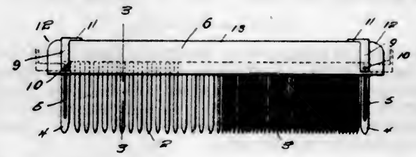
2. In a machine of the class described, the combination of a shaft extending transversely of the machine, means for driving said shaft, a second shaft extending rearwardly of said first mentioned shaft, a third shaft rigidly connected with said second shaft and extending transversely thereof, a lifting plow carried by said third shaft, a throwing wheel rotatably mounted on said third shaft, a gear rotatably mounted on said second shaft and adapted to drive said throwing wheel, a second gear rotatably mounted on said second shaft, a clutch for connecting said gears, and means for reversibly driving said second gear from said first mentioned shaft.

1,133,909. CHURN. STEPHEN BAILES, Nettie, W. Va. Filed July 10, 1914. Serial No. 850,233. (Cl. 31—42.)



In a churn a support including a vertically adjustable standard, a churn body arranged at one side of the standard, a cover pivotally connected to the standard and adapted thereby to be arranged on the upper end of the churn body or turned outwardly therefrom, a dasher shaft comprising pivotally jointed members one of which has a bearing in the cover, means on the cover for revolving the dasher shaft and means to secure the jointed members of the dasher shaft rigidly when the dasher shaft is straightened, the hinged cover and the pivot joint in the dasher shaft adapting the dasher shaft to be drawn out and up from the churn body when the cover is outturned therefrom.

1,133,910. COMB-CLEANER. THOMAS C. BAMFIELD and GEORGE RECHTER, Angel Island, Cal. Filed Apr. 2, 1914. Serial No. 829,083. (Cl. 132—17.)

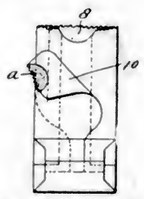


A comb cleaner provided with a longitudinal channel in the upper portion thereof, said cleaner having a series of perforations at the bottom of said channel, through which the teeth of a comb project, the comb having enlarged end teeth and said teeth each provided with a slot extending to near the end thereof, clips pivoted to the opposite ends of the cleaner, pins extending through the clips and cleaner, and through the slots in the end teeth, said clips adapted to be moved on the pins to hold the cleaner up to the back of the comb and to be thrown down for permitting the sliding of the cleaner down to near the ends of the teeth of the comb.

1,133,911. PAPER BAG. HUGH A. BARNARD, Houstonville, N. C. Filed Sept. 2, 1914. Serial No. 859,858. (Cl. 229—62.)

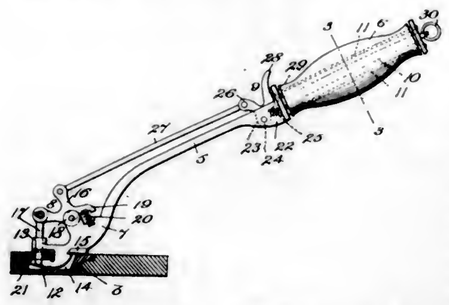
A paper bag having a sealing tongue at the front thereof, said sealing tongue having a free edge, and the opposite edge connected to the bag material by a line of detaching perforations, a portions of the front of the bag

being cut away, and the sealing tongue having an adhesive substance applied thereto in line with the cut



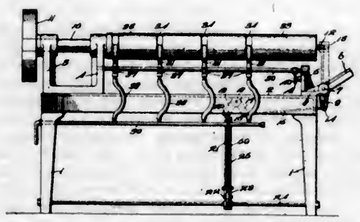
away portion at the front of the bag, to prevent sticking of the tongue to the bag when the latter is folded.

1,133,912. LID-LIFTER. JOSEPH BARRÈRE, New York, N. Y. Filed June 5, 1914. Serial No. 843,252. (Cl. 126—323.)



A lid lifter comprising a shank having a toe portion and a bearing spaced therefrom and provided with outstanding shoulders the lower surfaces of which are in alinement with the space between the toe and the bearing, a pin slidably mounted in the bearing and engageable with the toe portion, and a spring pressed lever fulcrumed upon the shank and operatively connected with the pin.

1,133,913. MACHINE FOR MAKING CARTON-BODIES. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Mar. 20, 1912, Serial No. 685,075. Renewed Aug. 1, 1914. Serial No 854,561. (Cl. 93—77.)



1. In a machine for grooving a formed tubular body intermediate its ends, the combination of a rotatable mandrel having an annular groove intermediate its ends and adapted to have the tube loosely fitted thereon; and a shoe adapted to press a portion of the tubular body into said mandrel groove, substantially as described.

2. In a machine for making carton bodies, the combination of a mandrel provided with a plurality of transverse grooves along its length over which a tube may be placed; means for rotating said mandrel; a shoe for each groove adapted to press the material of said tube into its corresponding groove during the rotation of said mandrel and thereby reduce the diameter of said tube opposite each groove; means for heating said shoes during the reducing operation; and means for severing said tube at its reduced portions, substantially as described.

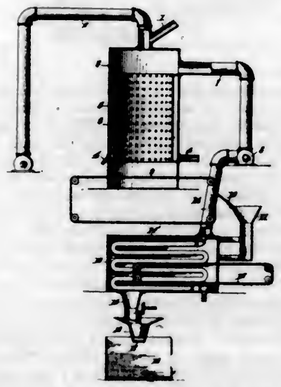
3. In a machine for making carton bodies, the combination of a mandrel provided with a plurality of transverse grooves along its length over one end of which a tube is adapted to be placed; swinging supporting means to engage and disengage one end of said mandrel; means for rotating said mandrel; a curved shoe for each groove adapted to press the material of the tube into its corresponding groove and thereby reduce the diameter of the tube opposite each groove; a swinging cutter opposite each groove; means for causing said cutters to sever said tube at the reduced portions; and connections between said cutter operating means and said swinging supporting means, substantially as described.

4. In a machine for making carton bodies, the combination of a mandrel provided with a plurality of transverse grooves having rounded corners; a swinging support adapted to engage one end of said mandrel, and to disengage said end to permit a tube to be slipped over said mandrel and grooves; means for continuously rotating said mandrel; pivoted shoes adapted to force the material of said tube into said grooves; a hand lever and connections for operating said shoes; a foot lever and connections for operating said swinging support; pivoted cutting means for severing said tube at its reduced portions; and connections between said foot lever and said cutting means, substantially as described.

5. The combination with a machine for forming a groove in a tubular body, of a device for severing the tube at the grooved portion comprising a cutting member, a support on which said cutter is swingingly mounted, a bracket on which said support is journaled, means on which said bracket is adjustably mounted, and means for swinging said bracket to bring said cutter into and out of operative position, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,133,914. PROCESS FOR TREATING STARCH, &c. FREDERICK PENTZ BERGH and HENRY C. NEUBERGER, New York, N. Y., assignors, by mesne assignments, to General Reduction Company, a Corporation of New York. Filed Apr. 28, 1911. Serial No. 623,921. (Cl. 127—23.)



1. The process of treating starch to expand the cells and reduce it to an agglomeration of starch particles which consist in dropping a body of starch containing moisture substantially equivalent to that contained in green starch through an inclosed area and subjecting the body of starch while so dropping to the action of a moisture carrying heated gaseous body, substantially as described.

2. The process of reducing substances in the form of a powder capable of agglomeration which consists in dropping the powder in the presence of moisture through an inclosed area subject to a heat sufficient to agglomerate the particles, substantially as described.

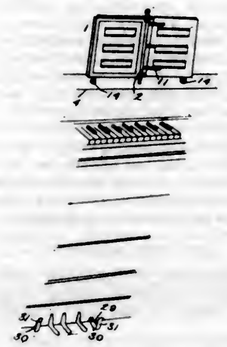
3. The process of treating starch which consists in taking the starch containing an amount of moisture equal to that which it contains in the green state and dropping it through an inclosed area and subjecting it during such dropping action to a current of heated moisture carrying gas, substantially as described.

4. The process of reducing green starch to a gritty state, which consists in dropping the starch into contact with a heated moisture-carrying gaseous body then drying and disintegrating the starch, substantially as described.

5. The process of reducing starch from a powdered form to a gritty form which consists in introducing the starch in a finely dispersed body with moisture contained therein into contact with a body of moisture-carrying heated gaseous matter of a temperature sufficient to semi-gelatinize the starch, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,133,915. MUSIC-LEAF TURNER. PETER J. BERTUCCI, New York, N. Y. Filed Sept. 19, 1913. Serial No. 790,725. (Cl. 84—17.)



A music leaf turner comprising a holder adapted to rest upon a support, an arm journaled upon the holder and disposed in front thereof and having an end portion projecting below the holder, clips carried by the arm, a shaft journaled for rotation, a mechanism adapted to be operated by the foot and operatively connected with the shaft, a universal joint connected with the shaft and a socket member connected with the universal joint and receiving the lower projecting end of the arm.

1,133,916. COMPOUNDS OF HEXAMETHYLENE-TETRAMIN. FRIEDRICH BOEDECKER, Berlin-Mariendorf, Germany, assignor to the Firm of J. D. Riedel Aktiengesellschaft, Berlin-Britz, Germany. Filed Sept. 19, 1913. Serial No. 790,761. (Cl. 22—24.)

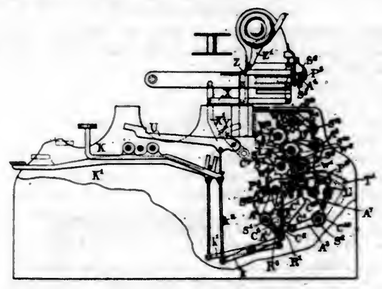
1. The process for the manufacture of secondary sulfo-salicylate of hexamethylene-tetramin, which consists in causing hexamethylene-tetramin to act on sulfo-salicylic acid in the proportion of two molecules of the former to one molecule of the latter, substantially as described.

2. As a new product, secondary sulfo-salicylate of hexamethylene-tetramin having the composition

$$C_7H_6O_6S.2(CH_2)_6N_4,$$

forming large well-formed crystals, very easily soluble in water, sparingly soluble in alcohol, ether, acetone and chloroform, and melting at a temperature approaching 180° C. while turning yellow, substantially as described.

1,133,917. CALCULATING-MACHINE. HENRY SHEPLEY BOOTH, Manchester, England. Filed May 2, 1912. Serial No. 694,741. (Cl. 235—59.)



1. In a calculating machine, the combination, with numeral keys, of a traversing carriage with double setting wheels mounted thereon to which wheels the movement of the numeral keys is imparted, a shaft on which the carriage travels to and fro, a totalizer with which the wheels on the carriage are operatively engaged, means for moving said totalizer laterally in one direction to engage one setting wheel, and means separate from the last-named means for moving said totalizer laterally in the opposite direction to engage the other setting wheel, whereby the same movement of the numeral keys and their operative connections may be employed for addition or subtraction according to the position of the totalizer, substantially as described.

2. In a calculating machine, the combination, with a plurality of numeral keys, of a series of cam plates connecting with corresponding numeral keys, a series of roller levers one for each cam plate, a shaft whereon said levers are mounted, a sector mounted on said shaft, a shaft having gear connections with said sector, a carriage traversing the second named shaft and having wheels rotated thereby, and a totalizer with which the wheels of the carriage operatively engage, substantially as described.

3. In a calculating machine, the combination, with the numeral keys, of a series of cam plates having hooked rods thereon, side plates to operate such hooked rods, and depending hook catches with which the hooked rods engage to lock all the numeral keys but the one depressed, substantially as described.

4. In a calculating machine, the combination, with numeral keys and a traversing carriage, of a pence totalizer constructed with a twelve-tooth wheel, an eccentric adjacent thereto on which the wheel is mounted, and a ten tooth wheel with which the first-named wheel gears and causes a carry over for one complete revolution of said first named wheel.

5. In a calculating machine, the combination, with the platen, the numeral keys, the carriage and the totalizer, of an auxiliary rack for controlling the relative movements of the carriage and the platen, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

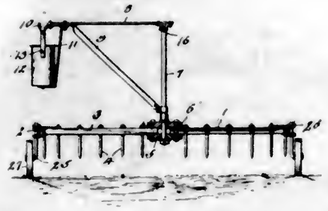
1,133,918. NECK-YOKE. JOHN BOTHMAN, Dante, S. D. Filed Nov. 15, 1911. Serial No. 660,490. (Cl. 21—77.)



A device of the class described comprising an endless band having spaced parallel members, said members having oppositely curved intermediate portions, a collar fixed between and in engagement with the inner sides of said portions, pins bracing the sides of said members, a loop mounted adjacent one of said curved portions and having

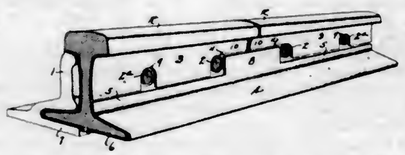
opposite lugs, rivets securing said lugs to the sides of said members, and a hook having its shank secured between said loop and the adjacent curved portion.

1,133,919. REVOLVING HARROW. GEORGE BOWER, Otis, Kans. Filed Dec. 6, 1913. Serial No. 805,103. (Cl. 55—13.)



A revolving harrow comprising a superstructure including a draft bar, a shaft fixed to the rear end of the draft bar, an arm extending from the upper portion of the shaft approximately at a right angle to the draft bar and having a hook located at its outer end, a bracket depending from the outer portion of the bar, a receptacle adapted to rest upon the bracket and having a handle detachably engaging the hook, and a member journaled at the lower portion of the shaft and having harrow teeth.

1,133,920. RENEWABLE INSULATION FOR RAIL-JOINTS. LAWRENCE F. BRAINE and BANCROFT G. BRAINE, New York, N. Y., assignors to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Dec. 23, 1914. Serial No. 878,750. (Cl. 239—5.)



1. An insulated rail joint including upper and lower insulation plates having bolt-engaging means, the upper plate also having a bolt clearance for endwise insertion in the joint.

2. An insulated rail joint including upper and lower insulation plates having bolt-engaging means, the upper plate also having a sheared terminal forming a bolt clearing guide for endwise insertion of the plate.

3. An insulated rail joint including upper and lower insulation plates having bolt-engaging means, the upper plate also having at an upper corner a longitudinally extending bolt clearing guide tongue to permit endwise insertion of the plate.

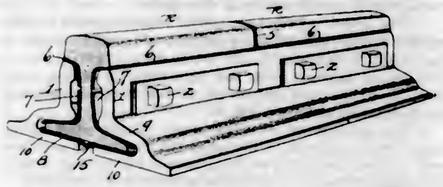
4. An insulated rail joint including an upper rail head insulation plate having bolt-engaging means, and a sheared terminal forming a bolt-clearing guide to admit of endwise insertion of the plate with certain bolts in position.

5. An insulated rail joint including an upper rail head insulation plate having means interlocking with one of the joint bolts, and other guiding means having a clearance from another joint bolt to admit of endwise insertion of the plate with certain bolts in position.

[Claims 6 to 11 not printed in the Gazette.]

1,133,921. INTERLOCKED INSULATION FOR RAIL-JOINTS. BANCROFT G. BRAINE, New York, and JAMES G. DELFOX, Flushing, N. Y., assignors to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Dec. 23, 1914. Serial No. 878,798. (Cl. 239—5.)

1. An insulated rail joint including sectional splice-bar insulation comprising an upper head plate having a depending locking tongue engaging between joint bolts, and a lower flange plate having an upstanding locking tongue engaging a joint bolt.



2. An insulated rail joint including sectional splice-bar insulation comprising an upper head plate provided with a depending locking tongue extending into the space between the central joint bolts, and a separate flange plate having a shoulder engagement with the terminal joint bolts.

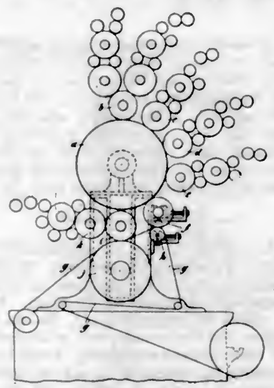
3. An insulated rail joint including sectional splice-bar insulation comprising a head plate having a depending locking tongue extending into the space between the central joint bolts, and a separate flange plate provided at its ends with upstanding locking tongues having a shoulder engagement with the terminal joint bolts.

4. An insulated rail joint including sectional splice bar insulation comprising separate head plates, for the separate rails, each having a locking tongue projecting into the same space between a pair of joint bolts, and a separate flange plate provided at its ends with upwardly projecting locking tongues overlapping the end joint bolts.

5. An insulated rail joint including sectional splice-bar insulation comprising separate head plates, for the separate rails, each having a locking tongue propecting into the space between the central joint bolts, and a separate flange plate provided at its ends with upwardly projecting locking tongues overlapping the end joint bolts.

[Claims 6 to 16 not printed in the Gazette.]

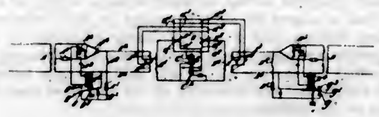
1,133,922. EMBOSSING APPARATUS. LEON AUGUSTE BRILA and WALTER ANDREWS, London, England. Filed May 4, 1912. Serial No. 695,144. (Cl. 101—89.)



1. In an apparatus for printing colors and embossing paper, fabrics or other materials, a frame, a metallic collecting roll journaled therein, a plurality of embossed gelatin ink transfer rolls arranged for coöperation with said collecting roll, a rubber printing roll engaging the metallic collecting roll, and adjustable to and from the same, a counter roll mounted below the printing roll between which and said printing roll the strip of fabric to be printed is fed, and heating rolls mounted below the collecting roll and adjacent said printing and counter rolls between which the strip passes.

2. In an apparatus for printing colors and embossing paper, fabrics or other materials, a frame, a collecting roll journaled therein, a plurality of embossed gelatin ink transfer rolls arranged to engage one side of the collecting roll for coöperation therewith, a printing roll engaging said collecting roll and disposed adjacent the under side thereof, means for adjusting said printing roll to and from said collecting roll, a counter roll adjustable below said printing roll, between which and the printing roll the paper to be printed is fed, heating rolls mounted below the collecting roll, and between which said strip passes, and an engaging roll mounted in the frame and engaging the heating roll which engages the strip to emboss it.

1,133,923. TELEPHONY. SIDNEY GEORGE BROWN, London, England. Filed July 6, 1914. Serial No. 849,261. (Cl. 179—170.)



1. In a telephone relay system between two terminal stations, the combination with relay apparatus, relay energizing circuits through which voice currents from the terminal stations may pass, and relay circuits through which the relay magnified currents may pass, of switching means normally assuming and maintaining either of two positions in one of which the relay energizing circuit corresponding to one station is closed and receiving conditions for the distant station are established, while in the other position the relay energizing circuit for the last mentioned station is closed and receiving conditions for the first mentioned station are established, and means whereby the voice currents from either terminal station automatically cause the switching means to assume the position in which the distant station can receive the relay magnified currents, if said means are not already in that position.

2. In a telephone relay system between two terminal stations, the combination with relay apparatus, relay energizing circuits through which voice currents from the terminal stations may pass, and relay circuits through which the relay magnified currents may pass, of a double-pole overbalancing change-over switch normally assuming and maintaining either of two positions in one of which, the relay energizing circuit corresponding to one station is closed and receiving conditions for the distant station are established, while in the other position the relay energizing circuit for the last mentioned station is closed and receiving conditions for the first mentioned station are established, and means whereby the voice currents from either terminal station automatically cause the change-over switch to assume the position in which the distant station can receive the relay magnified currents, if said switch is not already in that position.

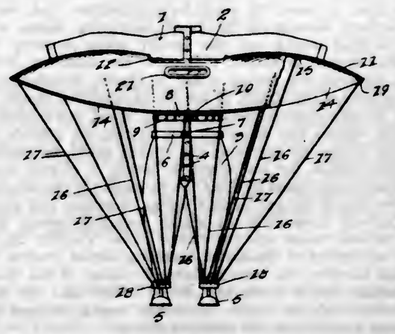
3. In a telephone relay system between two terminal stations, the combination with relay apparatus, relay energizing circuits through which voice currents from the terminal stations may pass, and relay circuits through which the relay magnified currents may pass, of a double-pole overbalancing change-over switch normally assuming and maintaining either of two positions in one of which, the relay energizing circuit corresponding to one station is closed and receiving conditions for the distant station are established, while in the other position it closes the relay energizing circuit for the last mentioned station is closed and receiving conditions for the first-mentioned station are established, electromagnetic devices for moving the double-pole change-over switch into either position, and means whereby voice curents from either one station cause the activity of the respective electromagnetic device that moves the change-over switch into the operative position for bringing about magnification and transmission of the voice currents to the other station.

4. In a telephone relay system between two terminal stations, the combination with relay apparatus, relay energizing circuits through which voice currents from the terminal stations may pass, and relay circuits through which the relay magnified currents may pass, of a double-pole overbalancing change-over switch normally assuming and maintaining either of two positions in one of which, the relay energizing circuit corresponding to one station is closed and receiving conditions for the distant station are established, while in the other position it closes the relay energizing circuit for the last mentioned station is closed and receiving conditions for the first mentioned station are established, electromagnetic devices for moving the double-post change-over switch into either position, electromagnetic means for controlling the energizing circuits of the said electromagnetic devices, and electromagnetic devices responsive to voice currents whereby on speaking at either station the corresponding electromagnetic means complete the energizing circuit of the corresponding electromagnetic device and thereby correspondingly actuate the change-over switch.

5. In a telephone relay system between two terminal stations, the combination with relay apparatus, relay energizing circuits through which voice currents from the terminal stations may pass, and relay circuits through which the relay magnified currents may pass, of a double-pole overbalancing change-over switch, which in one position closes the relay energizing circuit corresponding to one station and establishes receiving conditions for the distant station, while in the other position it closes the relay energizing circuit for the last mentioned station and establishes receiving conditions for the first mentioned station, electromagnetic devices for moving the double-pole change-over switch into either position, electromagnetic means for controlling the energizing circuits of the said electromagnetic devices, a "bridge" connection in the line wire between each station and the relay apparatus, and an electromagnetic device responsive to voice currents included in the "bridge" of each bridge connection for operating said electromagnetic means, substantially as and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,133,924. LIFE-SAVING DEVICE. HOWARD C. BRUBACKER, Sault Ste. Marie, Ontario, Canada. Filed Oct. 9, 1914. Serial No. 865,903. (Cl. 244—21.)



1. A life saving device consisting of a garment arranged to closely fit the body of the wearer and a flexible overhanging and relatively wide circular band secured to the body portion at a point adjacent to the upper end thereof and beneath the arms of the wearer and flexible elements

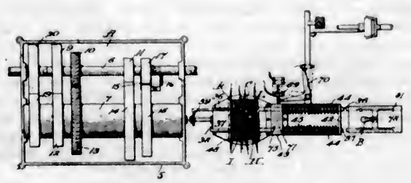
secured to the lower end of the body portion and to the periphery of the overhanging band to limit the upward movement of the band.

2. A safety device consisting of a body portion comprising trousers and waist joined integrally, a flexible circular overhanging portion secured adjacent to the upper end of the waist so as to be disposed beneath the armpits of the wearer and flexible elements secured to the overhanging portion and lower ends of the trousers.

3. A safety device consisting of a body portion comprising trousers and waist joined integrally, a flexible circular overhanging portion secured adjacent to the upper end of the waist so as to be disposed beneath the armpits of the wearer, flexible elements secured to the overhanging portion and lower ends of the trousers, and said overhanging portion being transparent at a point in front of the wearer and intermediate its inner and outer edges.

4. A life saving device consisting of a body portion formed in the nature of trousers and coat to closely fit the body of the wearer, a flexible overhanging portion of circular form secured about the upper edge of the body portion and arranged to be moved outwardly approximately at right angles thereto to provide a parachute, a transparent strip mounted within the front of said flexible overhanging portion at a point in front thereof to enable the wearer to see beneath him and means securing the overhanging portion to the lower portion of the body portion to limit the upward movement thereof.

1,133,925. SELECTIVE SPEED MECHANISM AND CONTROLLING DEVICE THEREFOR. CHARLES P. BURT, East Orange, N. J. Filed Jan. 20, 1914. Serial No. 813,289. (Cl. 74—59.)



1. In combination with a change speed mechanism a clutch, means for operating the clutch, an electric selective device for operating the change speed mechanism, locking means for the selective device, a circuit closer adapted when closed to effect the movement of the selective device from a normal to an abnormal position, and means operatively connecting the clutch operating means with the locking means and the circuit closer whereby the locking means is moved to release the selective device and whereby the circuit closer is closed, subsequent to the release of the clutch, by the clutch operating means.

2. In combination with a change speed mechanism, a clutch, means for operating the clutch, an electric selective device for operating the change speed mechanism, locking means for the selective device, a circuit closer adapted when closed to effect the movement of the selective device from a normal to an abnormal position, and means operatively connecting the clutch operating means with the locking means and the circuit closer whereby the initial movement of the clutch operating means renders the clutch inactive, the intermediate movement of the clutch operating means closes the circuit closer, and the final movement of the clutch operating means releases the locking means from the selective device.

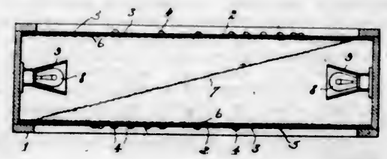
3. In combination with a change speed mechanism, a clutch, means for operating the clutch, an electric selective device for operating the change speed mechanism, locking means for the selective device, a circuit closer adapted when closed to effect the movement of the selective device from a normal to an abnormal position, and means operatively connecting the clutch operating means with the locking means and the circuit closer whereby the initial movement of the clutch operating means renders the clutch inactive, the intermediate movement of the clutch operating means closes the circuit and the final movement of the clutch operating means releases the locking means from the selective device, and the parts may return to normal positions in an order inverse to that named for moving them to abnormal positions.

4. In combination with a change speed mechanism, a clutch, means for operating the clutch, an electric selective device for operating the change speed mechanism, means for locking the selective device in normal and abnormal positions, a circuit closer adapted when closed to effect the movement of the selective device from a normal to an abnormal position, and means operatively connecting the clutch operating means with the locking means and the circuit closer.

5. In combination, a change speed mechanism, electrically controlled devices for operating the said change speed mechanism, said devices including a plurality of bars, a manually operated switch for controlling a supply of current from a source of electric energy to the electrically operated devices, and a locking device connected to the said switch and operable with the same and arranged so as to effect the locking of the said bars upon the opening of the switch and the unlocking of the said bars upon the closing of the switch.

[Claims 6 to 9 not printed in the Gazette.]

1,133,926. ILLUMINATED SIGN. JOHN BUTENSCHON, Anniston, Ala. Filed May 19, 1914. Serial No. 839,624. (Cl. 40—133.)

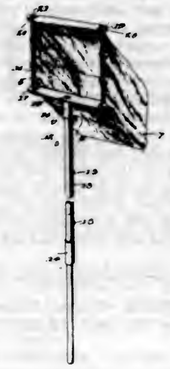


1. In an illuminated sign, a frame, face plates secured to the opposite sides of the frame and each cut out to form the characters of the sign, a screen disposed at the rear of each face plate and in face to face contact therewith, a second screen in face to face contact with each of said first screens, a reflecting plate composed of foraminous material coated with white enamel interposed between the confronting faces of said last screens and arranged diagonally within the casing and sources of light carried by the opposite end walls of said casing and designed to project their rays onto the adjacent surfaces of the reflecting plate.

2. A face plate for illuminated signs having openings formed therein arranged to simulate characters, tongues formed integral with the walls of the openings at the topmost point thereof, and projected outwardly and downwardly therefrom whereby the face plate of the sign is ornamented.

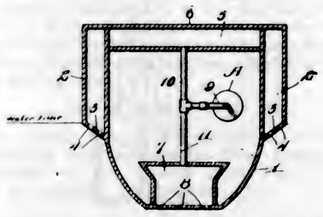
1,133,927. FRUIT-PICKER. EDMIRL D. BUZARD, Pittsburgh, Pa. Filed Sept. 25, 1914. Serial No. 863,594. (Cl. 56—99.)

A fruit picker comprising a handle, a stationary cross arm fixed on the upper end thereof, a sleeve slidably mounted on the handle, a U-shaped frame carried by the sleeve and slidable through said arm, a second arm fixed to the extremities of said frame and disposed above and in parallelism with the said first mentioned arm, a bag having loops at the mouth thereof, said arms being disposed within said loops and adapted to open and close the bag on sliding movement of the frame longitudinally of the



handle, a hand grip adjustably mounted on the handle, and an operating rod connecting said handle and frame.

1,133,928. UNSINKABLE SHIP. PATRICK J. CAHILL, Utica, N. Y. Filed Mar. 14, 1914. Serial No. 824,732. (Cl. 114—68.)

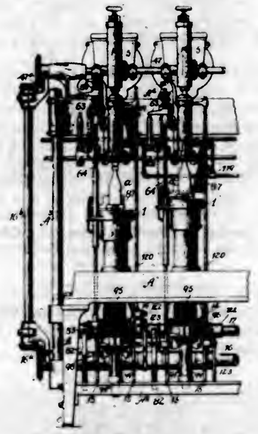


A ship comprising an inverted dome shaped body forming the main hull thereof, oppositely arranged vertical sides formed in continuation of said dome shaped body and forming the unsubmerged part of the hull, a series of compartments extending throughout the length of each of the vertical sides of said vessel and forming hollow projections thereupon, each of said hollow projections being formed with a downwardly and inwardly inclined bottom adapted to project entirely below the water line of the vessel, said downwardly inclined bottoms being formed with a plurality of water intake ports, said side compartments being air tight, and a series of air tight compartments formed continuously underneath the deck of the vessel and disposed flush with the upper ends of the side compartments, said last named air compartments adapted to receive compressed air.

1,133,929. BOTTLING-MACHINE. ALBERT ALFRED CARPER, Catonsville, Md., assignor to The Crown Cork & Seal Company, Baltimore, Md. Filed Feb. 24, 1908. Serial No. 417,542. (Cl. 226—28.)

1. In a bottling machine, a filling head having a filling chamber with capping tool at its upper part, a bottle presenting device, an automatic filling valve, a chamber arranged axially above the filling head and tool to receive the excess gas and air pressure during the entire time of filling the bottle, and a capping plunger having a passage connecting the interior of the filling head with the said chamber and having a valve portion seated above the capping tool for controlling the outlet of the gas from the said chamber when the cap is seated on the bottle.

2. In a bottling machine, a filling head having a filling chamber with a capping tool at its upper part, a chamber connected with the filling chamber and of a capacity to receive the excess gas and air all the time the bottle is filling, and without snifting, and a capping plunger forming the communication between the said filling chamber and receiving chamber, said capping plunger having a valve portion operated by the seating of the cap on the bottle, to release the air and gas pressure from the said chamber, substantially as described.



3. In combination in a bottling machine, a filling head, a chamber to receive excess gas while the bottle is filling to the required height, and a capping plunger within the filling head, said plunger having a passage through which gas may pass to and from the chamber and controlling the discharge of gas from said chamber, said chamber being supported on the capping plunger, substantially as described.

1,133,930. TOOTH-BRUSH. CHARLES E. CARROLL, Newport, Ark. Filed May 27, 1913. Serial No. 770,113. (Cl. 15—39.)

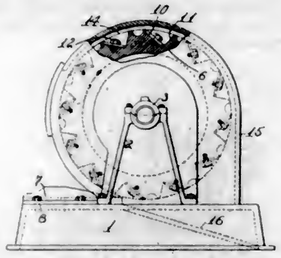


The improved tooth-brush having an approximately semi-circular head and provided with tufts of bristles projecting inwardly toward each other and also downwardly, the outer ends of those tufts which are located at the extremities of the head being cut off upon a slight curve and at an angle to the working ends of the adjacent bristles, whereby they are adapted for cleaning and massaging the gums, while the other bristles work on the teeth, as shown and described.

1,133,931. MACHINE FOR MAKING CHOCK-BLOCKS. ABEL D. CATLIN, Chattanooga, Tenn., assignor to J. M. Card Lumber Co., Chattanooga, Tenn. Filed June 4, 1913, Serial No. 771,760. Renewed Oct. 17, 1914. Serial No. 867,247. (Cl. 144—134.)

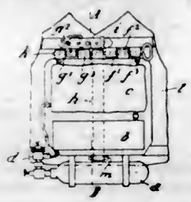
In a machine for making chock blocks, the combination of a rotary drum, a plurality of cutters thereon arranged in two series, one series being at each edge of the drum, those of one series alternating with those of the other series and each cutter extending only part way across the

face of the drum, leaving an intact portion of the drum surface at its edge between the cutters of the other series, a support for the blocks to be formed, arranged to face the cutting drum and substantially tangentially to the



periphery of the cutter head, said support being open at its top and having upstanding sides or guides to receive between them the block to be shaped, substantially as described.

1,133,932. DIVER-SAVING APPARATUS. CHARLES CHRISTIANSEN, Gelsenkirchen, Germany. Filed Jan. 8, 1915. Serial No. 1,158. (Cl. 9—17.)



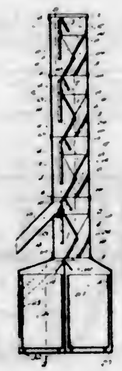
1. In a life saving device comprising two parts, the one part being a buoyant vest and the other a breathing apparatus, a detachable connection between the said buoyant vest and the said breathing apparatus, said connection consisting of loops at the upper part of the buoyant vest, loops at the upper part of the said breathing apparatus adapted to fit in between the said loops on the buoyant vest, a strap whose one end is attached to one part of the life saving device and a part of which is passed around the lower part of the other part of the life saving device, a loop at the other end of the said strap and a rod which is passed through the said loops of the buoyant vest, breathing apparatus and strap and which may be pulled out thereof.

2. In a life saving device comprising a buoyant vest and a breathing apparatus, a detachable connection between the said buoyant vest and the said breathing apparatus, said connection consisting of loops at the upper part of the buoyant vest, loops at the upper part of the said breathing apparatus adapted to fit in between the said loops on the buoyant vest, a strap whose one end is attached to the breathing apparatus, parts at the lower portion of the buoyant vest around which the strap is passed, a loop at the other end of the strap adapted to fit in between the said loops and a rod which is passed through the said loops of the buoyant vest, breathing apparatus and strap and which may be pulled out thereof.

3. In a life saving device comprising a buoyant vest and a breathing apparatus, a detachable connection between the said buoyant vest and the said breathing apparatus, said connection consisting of loops at the upper part of the buoyant vest, loops at the upper part of the said breathing apparatus adapted to fit in between the said loops on the buoyant vest, a strap whose one end is attached to the breathing apparatus, a loop at the lower end of the buoyant vest through which the strap is looosely passed from below, a loop at the other end of the said strap and a rod which is passed through the said loops of the buoyant vest, breathing apparatus and strap and which may be pulled out thereof.

4. In a life saving device comprising a buoyant vest and a breathing apparatus, a detachable connection between the said buoyant vest and the said breathing apparatus, said connection consisting of loops at the upper part of the buoyant vest, loops at the upper part of the said breathing apparatus adapted to fit in between the said loops on the buoyant vest, a strap whose one end is attached to the lower end of the back of the breathing apparatus, a loop at the lower end of the buoyant vest through which the strap is looosely passed from below, a loop at the other end of the said strap and a rod which is passed through the said loops of the buoyant vest, breathing apparatus and strap and which may be pulled out thereof.

1,133,933. SAMPLER. FRANK J. COLBY, Philadelphia, Pa. Filed Mar. 18, 1914. Serial No. 825,628. (Cl. 73—21.)



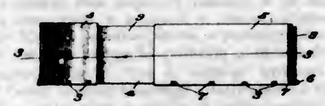
1. A sampler comprising a superimposed series of removable sections, each comprising converging walls, having staggered apertures therein, a series of parallel transversely extending partitions between the oppositely situated edge portions of said apertures, and a passage-way past one of said walls.

2. A sampler comprising a superimposed series of removable sections, each comprising converging walls, having staggered apertures, therein, and a passage-way past one of said walls, one of said walls being extended to deflect material, having fallen through the apertures in the other wall, into the passage-way of the section immediately below.

3. A sampler comprising a superimposed series of removable sections, each comprising converging walls, having staggered apertures therein, and a passage-way past one of said walls, one of said walls being extended to deflect material, having fallen through the apertures in the other wall, into the passage-way of the section immediately below, and a wall to deflect material, having fallen through the apertures in the first wall, against the opposed wall in the section immediately below.

4. A sampler comprising a superimposed series of removable sections, each comprising converging walls, having staggered apertures therein, and a passage-way past one of said walls, one of said walls being extended to deflect material, having fallen through the apertures in the other wall, into the passage-way of the section immediately below, and a wall to deflect material having fallen through the apertures in the first wall, against the opposed wall in the section immediately below, an outlet from said passage-way, and a section to receive the material passed through the last of said first-named sections.

1,133,934. SWEAT-BAND. GEORGE M. COLLINS, Fairfax, Okla. Filed Aug. 5, 1913. Serial No. 783,115. (Cl. 2—114.)



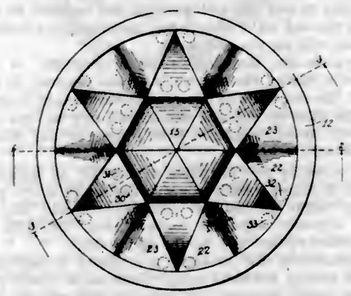
1. A sweat band comprising a frontal series of ventilating tubes and occipital series of venting tubes separated from the frontal series at both ends, means for connecting the series of tubes to each other, a covering for the tubes and a lateral flange on said covering having apertures to register with the tubes and adapted to be attached to the hat.

2. A sweat band comprising a frontal and an occipital section, said section comprising pads and venting tubes disposed within the pads, means to connect the sections together and a covering for the sections having apertures registering with the tubes.

3. A sweatband comprising a frontal and an occipital section, said sections consisting of alternate pads and venting tubes, means for connecting the sections together, and a covering for the sections, said covering having a lateral flange adapted to be fastened to the hat and having apertures to receive the venting tubes.

4. In combination with a hat having ventilating openings in the top thereof, a sweatband comprising a frontal and an occipital section, and means for connecting the ends of the sections each section comprising a pad, a series of venting tubes disposed in the pad and projecting therefrom at the lower end, and a band covering the pad, said band adapted to be attached to the hat, the lateral flange being provided with openings adapted to register with the venting tubes.

1,133,935. SIGN. ABNER F. CONNER and GUY L. WILLETT, Indianapolis, Ind., assignors to Thos. Cusack Co., a Corporation of New Jersey. Filed Feb. 17, 1914. Serial No. 819,191. (Cl. 240—10.)



1. An illuminating advertising device consisting of a casing, a pyramid therein having a number of flat reflecting surfaces, reflecting surfaces inclined in an opposite direction to the adjacent inclined surfaces of the pyramid, and obscured lamps placed between said two series of reflecting surfaces.

2. An illuminating advertising device consisting of a casing, a pyramid therein having a number of flat reflecting surfaces, reflecting surfaces inclined in an opposite direction to the adjacent inclined surfaces of the pyramid, lamps placed between said two series of reflecting surfaces, and a plate in front of each lamp for obscuring the same.

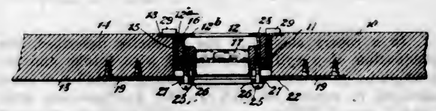
3. An illuminating advertising device consisting of a casing, a pyramid therein having a number of flat reflecting surfaces, a reflecting surface opposite each reflecting surface on the pyramid and oppositely inclined, a lamp between each reflecting surface of the pyramid and its corresponding reflecting surface, and a plate in front of each lamp for obscuring the same.

4. An illuminating advertising device consisting of a casing, a pyramid therein having a number of flat reflecting surfaces, lamps secured in said casing in position for at least one lamp to shine directly upon each reflecting surface of said pyramid, a plate in front of each lamp to obstruct the same, and a series of reflecting plates surrounding said pyramid and with reflecting surfaces inclined oppositely to the adjacent reflecting surfaces on said pyramid and in position to receive light directly from said lamps.

5. An illuminating advertising device consisting of a casing, a pyramid therein having a number of flat reflecting surfaces, lamps secured in said casing in position for at least one lamp to shine directly upon each reflecting surface of said pyramid, a plate in front of each lamp to obstruct the same, and plates on each side of said lamps inclined oppositely to the inclined adjacent surfaces of said pyramid and in position to receive light directly from said lamps.

[Claims 6 to 10 not printed in the Gazette.]

1,133,936. LEVEL. THOMAS COUGHLIN, New York, N. Y. Filed June 27, 1914. Serial No. 847,674. (Cl. 33—213.)



1. In a level, a frame having an opening, a level member rotatably disposed in the opening and having a threaded orifice, a disk having a recess and disposed against a side of the frame, means for adjustably securing the disk against rotation relatively to the frame, a flange having an orifice and disposed against the disk, and a screw disposed in the last mentioned orifice and in the recess and meshing in the threaded orifice.

2. In a level, a frame having an opening, a level member rotatably disposed in the opening and having a threaded orifice, a disk adjustably disposed against a side of the frame, means to prevent the disk from rotating relatively to the frame, a flange engaging the disk and having an orifice, and a screw disposed in the second mentioned orifice and meshing in the first mentioned orifice.

3. In a level, a frame having an opening, a level member rotatably disposed in the opening and having a threaded orifice, a disk disposed against a face of the frame and having a serrated edge and a recess, an arm on the frame having a tooth engaging the serrated edge of the disk, a flange having an orifice and disposed against the disk, and a screw meshing in the last mentioned orifice and in the recess, and meshing in the threaded orifice.

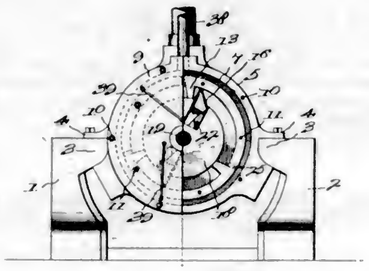
4. In a level, a frame having an opening, a level member rotatably disposed in the opening and having a flange for engaging a face of the frame, the level member having a threaded orifice, a disk having a recess disposed against the opposite face of the frame, means for adjustably securing the disk against rotation relatively to the frame, a flange having an orifice and disposed against the disk and a screw disposed in the last mentioned orifice and in the recess and meshing in the threaded orifice.

5. In a level, a frame having an opening, a level member rotatably disposed in the opening and having a flange for engaging a face of the frame, the level member having two threaded orifices spaced apart, a disk having a central opening and two recesses, the disk being disposed against the opposite face of the frame with its recesses disposed adjacent the threaded orifices, means for adjustably

securing the disk against rotation relatively to the frame, an annular flange with a central opening disposed against the outer side of the disk, the flange having two orifices registering with the threaded orifices in the level member and screws disposed in the last mentioned orifices, the screws passing through the recesses and meshing in the threaded orifices.

[Claims 6 and 7 not printed in the Gazette.]

1,133,937. ROTARY ENGINE. JAMES R. CROW, Cleveland, Tenn. Filed Oct. 26, 1914. Serial No. 868,702. (Cl. 121—77.)



1. In a rotary engine of the character described, the combination of a cylinder provided with intake and exhaust ports, an abutment mounted in said cylinder, a rotor journaled to revolve in said cylinder and provided with a radial recess therein, and a piston slidingly mounted in the recess in said rotor and constructed of a piece of sheet metal bent substantially U-shape and formed with an inclined outer surface for coöperating with said abutment to force the piston inwardly, substantially as described.

2. In a rotary engine of the character described, the combination of a cylinder provided with intake and exhaust ports therein, an abutment mounted in said cylinder, a rotor journaled in said cylinder and provided with a recess therein, and a piston slidably mounted in the recess in said piston and comprising a piece of sheet metal bent substantially U-shape and formed with an inclined outer face adapted to coöperate with said abutment to move the piston inwardly, and a reinforcing member constructed of sheet metal bent substantially U-shaped and inserted in said piston in inverted relation, substantially as described.

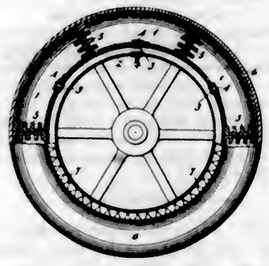
3. In a rotary engine of the character described, the combination of a cylinder provided with intake and exhaust ports therein, an abutment in said cylinder, a rotor journaled in said cylinder and provided with a recess therein, a piston slidingly mounted in said recess, and spring means for snugly tending to project said piston and constructed of a sheet metal strip arranged to provide a base for snugly fitting the recess in said rotor, and a pair of over-turned fingers arranged to engage the under side of said piston and normally project the same, substantially as described.

4. In a rotary engine of the character described, the combination of a cylinder provided with intake and exhaust ports, an abutment mounted in said cylinder, a rotor journaled in said cylinder and provided with a recess therein, a piston slidingly mounted in the recess in said rotor and comprising a piece of sheet metal bent substantially U-shape and formed with an inclined outer surface adapted to coöperate with said abutment to force the piston inwardly, and a reinforcing strip bent substantially U-shaped and inserted in inverted relation between the flanges of said piston, and springs means for normally tending to project said piston located in the recess in said rotor and comprising an intermediate base adapted to snugly fit said recess, and a pair of spring fingers bent over on said base and adapted to be received between the flanges of said piston, substantially as described.

5. In a rotary engine of the character described, the combination of a cylinder provided with intake and exhaust channels therein, a plurality of abutments projecting into said cylinder, a rotor journaled in said cylinder and provided with a plurality of radial recesses therein, a piston mounted to slide in each of said recesses and comprising a substantially U-shaped piece of metal formed with an inclined outer face coöperating with said abutments to force the pistons inwardly, spring means located in the recesses beneath said pistons for normally tending to project the same, a plurality of rotary valves mounted in said cylinder for controlling the intake ports therein, cranks connected to said rotary valves and projecting from said cylinder, and a disk mounted to rotate with said engine and provided with a cam groove engaging the cranks on said valves for actuating the latter to open and close the intake ports, substantially as described.

[Claim 6 not printed in the Gazette.]

1,133,938. PNEUMATIC TIRE FOR ROAD-VEHICLES. EDWARD ROBERT DEVEREUX, London, England. Filed Apr. 25, 1914. Serial No. 834,342. (Cl. 152—22.)



1. A pneumatic tire comprising a plurality of segmental cells having the end walls of one segment in contact with the end walls of adjacent segments, and internal reinforcing ribs on the end walls.

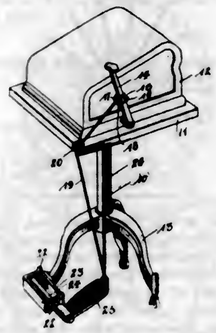
2. A pneumatic tire comprising a plurality of segmental cells having the end walls of one segment in contact with the end walls of adjacent segments, and internal reinforcing ribs on the end walls, the ribs on one contacting wall being staggered with respect to the ribs on the other wall.

3. A pneumatic tire including a plurality of segmental cells each having normally concave end walls which yield outwardly under internal air pressure, whereby the end walls of adjacent segments contact when the cells are inflated, and internal ribs on the end walls.

4. A pneumatic tire including a plurality of segmental cells each having normally concave end walls which yield outwardly under internal air pressure, whereby the end walls of adjacent segments contact when the cells are inflated, and internal ribs on the end walls, the ribs on the end of a cell being staggered with respect to the ribs on the contacting end of an adjacent cell.

1,133,939. MANUAL OPERATING DEVICE FOR ADDING-MACHINES. CHARLES C. DEY, Victoria, La. Filed Feb. 7, 1913. Serial No. 746,907. (Cl. 74—81.)

In combination with a machine having supporting legs constituting a base therefor, a rectangular clamp rigidly attached to the end of one of the supporting legs and projecting laterally thereto to lie in offset relation to the supporting leg, of a shaft journaled on the clamp and extending horizontally to have one end thereof project beyond an end of the clamp, and a foot lever mounted to swing on the projecting end of the shaft and lying exteriorly of the clamp adjacent an end thereof, said foot lever being held



in spaced relation to the floor by the clamp so that a swinging movement can be imparted to the foot lever.

1,133,940. FUEL-HOLDER. JOHN L. DIEHM, Philadelphia, Pa. Filed July 24, 1914. Serial No. 852,868. (Cl. 126—166.)

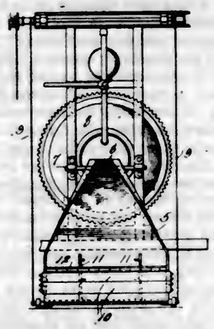
1. A fuel saver comprising pivoted plate elements for coöperation with the fuel body of the heater, said plate elements being so pivoted as to have a horizontal rectilinear motion toward and away from each other, a handle, link mechanism between said handle and plate elements, and a rectilinear plate for guiding the operation of said link mechanism.

2. A fuel saver comprising pivoted plate elements for coöperation with the fuel body of the heater, said plate elements being so pivoted as to have a horizontal rectilinear motion toward and away from each other, a handle, link mechanism between said handle and plate elements, a rectilinear plate for guiding the operation of said link mechanism, and means for slidably supporting said rectilinear plate.

1,133,941. SIDE LOADER FOR CONCRETE-MIXING MACHINES. HERBERT C. DILLIARD, East Bangor, Pa. Filed May 19, 1914. Serial No. 839,574. (Cl. 214—3.)

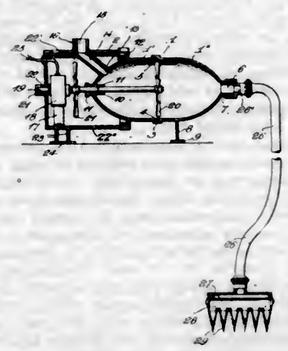
1. A loader comprising a scoop-shaped body having a sectional wall at its filling end, a pouring spout at the opposite end thereof, and partitions arranged within the body to form independent compartments communicating with each other in the direction of the pouring spout end.

2. A loader comprising a scoop-shaped body having a sectional wall at its filling end, a pouring spout at the opposite end thereof, partitions arranged within the body to form independent compartments communicating with each



other in the direction of the pouring spout end, and a grate frame arranged at the open top of the body.

1,133,942. BARBER'S DEVICE. ANTONIO DI SALVIO, Washington, Pa. Filed Apr. 17, 1914. Serial No. 832,540. (Cl. 230—11.)



1. A device of the character specified comprising a main casing, cylindrical in formation and formed at one extremity with an air inlet, a supplemental casing having one end closed, the other telescopically engaged with the inner end of said main casing, an integrally formed hollow extension projecting from the closed end of said main casing to said supplemental casing, said extension having one end communicating with the interior of said main casing, the other registering with an opening formed in said supplemental casing, a motor in the latter, a suction fan revolubly mounted within said main casing and actuated by said motor, and means within said supplemental casing for cooling said motor substantially as and for the purpose set forth.

2. A device of the character specified comprising a main casing cylindrical in formation and having an air inlet formed in the outer end thereof, a supplemental casing having one end closed, the other telescopically engaged with the inner end of said main casing, an integrally formed hollow extension projecting obliquely from said main casing to said supplemental casing, said extension having one end communicating with the interior of said main casing, the other registering with an opening formed in said supplemental casing, a journal bearing formed in the closed end of said supplemental casing, a motor mounted in the latter and including a shaft, said shaft having one end mounted in said journal bearing, the other end

passing through an opening formed in the inner end of said main casing and extending into the interior of the latter, a fan disposed upon the free end of said shaft, and a motor cooling means also disposed upon said shaft within said supplemental casing to cool said motor substantially as and for the purpose set forth.

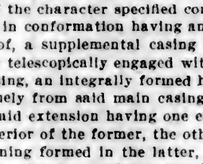
3. A device of the character specified comprising a main casing elliptical in conformation having an air inlet at the outer end thereof, a supplemental casing having one end closed, the other telescopically engaged with the inner end of said main casing, an integrally formed hollow extension projecting obliquely from said main casing to said supplemental casing, said extension having one end communicating with the interior of the former, the other end registering with an opening formed in the latter, a journal bearing formed in the closed end of said supplemental casing, a motor mounted within said supplemental casing and including a shaft, said shaft having one end disposed within said journal bearing, the other passing through an opening in the inner end of said main casing and extending into the interior of the latter, a suction fan disposed upon the free end of said shaft and an auxiliary fan disposed on the latter within said supplemental casing and contiguous to the motor therein substantially as and for the purpose set forth.

4. A device of the character specified comprising a main casing, formed at one extremity with an air inlet, a supplemental casing having one end closed, the other telescopically engaged with the inner end of said main casing, a hollow extension projecting from the closed end of said main casing to said supplemental casing, said extension having one end communicating with the interior of said main casing, the other registering with the opening formed in said supplemental casing, a motor in said supplemental casing, a suction fan revolubly mounted within said main casing and actuated by said motor, and means within said supplemental casing for cooling the motor substantially as and for the purpose set forth.

5. A device of the character specified comprising a main casing formed at one extremity with an air inlet, a supplemental casing having one end closed, the other telescopically engaged with the inner end of said main casing, a hollow extension projecting from the closed end of said main casing to said supplemental casing, said extension having one end communicating with the interior of said main casing, a suction fan revolubly mounted within said main casing, means within said supplemental casing for rotating said fan, and cooling means within said supplemental casing for coöperation with the last mentioned means substantially as and for the purpose set forth.

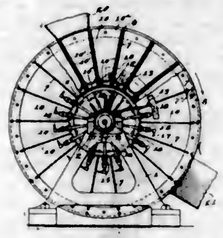
[Claim 6 not printed in the Gazette.]

1,133,943. KEY-OPERATED LOCK. CAPPELLI DOMENICO, New York, N. Y. Filed Sept. 9, 1913. Serial No. 788,953. (Cl. 70—74.)



In a key operated lock the combination of a main bolt adapted to be operated by a key, and a bolt for holding said main bolt in a projected position, means engageable by the key for releasing the main bolt from the holding bolt, a supplemental bolt also adapted to be operated by the key, said main and supplemental bolt having engageable parts whereby the main bolt is moved to projected position when the supplemental bolt is moved to a similar position by the key and whereby the supplemental bolt is moved to retracted position when the main bolt is moved to retracted position by the key.

1,133,944. FILTER. HENRY B. FABER, New York, N. Y. Filed Oct. 28, 1914. Serial No. 869,080. (Cl. 75—86.)



1. In a device of the class described, the combination, with a rotary support, of a pocket carried thereby having an open outer end and being of greater depth radially than width circumferentially, means for discharge of liquid from the inner end of the pocket, and means for preventing discharge of solids from the inner end of the pocket, the pocket being connected with the support in position for being inverted during movement of the support for discharging solids from the outer end of the pocket.

2. In an apparatus of the class described, the combination with a rotary support, of a radially extending pocket carried by the support and having an open outer end, said pocket being of greater depth radially than width circumferentially, means for draining liquid from the pocket inwardly, and means for preventing inward discharge of solids from the pocket.

3. In an apparatus of the class described, the combination with a rotary support, of a radially extending inwardly tapering pocket carried by the support and having an open outer end, said pocket being of greater depth radially than width circumferentially, means for draining liquid inwardly from the pocket, and means for preventing discharge of solids inward from the pocket.

4. In an apparatus of the class described, the combination with a rotary support, of a radially extending inwardly tapering pocket carried by the support and having an outer open end, and means for sucking moisture inwardly from solids in the pocket, the taper of the pocket being such as to substantially uniformly distribute the action of the suction in the various parts of the contained solids.

5. In an apparatus of the class described, the combination with a rotary wheel, of a series of radially disposed, inwardly converging pockets extending from the periphery of the wheel substantially to its hub portion and open at the periphery of the wheel, means for supplying pulp from above into the pockets, suction means connected with the inner end of each pocket for effecting discharge of liquid from the pockets, and means for preventing the discharge of solids inward from the pockets.

[Claim 6 not printed in the Gazette.]

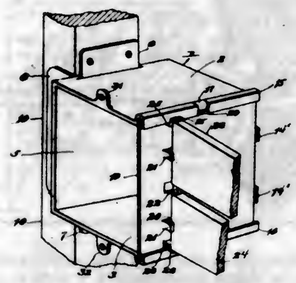
1,133,945. DIAPER. JOSEPH D. FARKAS, Brooklyn, N. Y., assignor to J. J. Beyerle Mfg. Co., Brooklyn, N. Y., a Firm. Filed July 23, 1914. Serial No. 852,698. (Cl. 2—131.)



In a garment of the class described, two triangular plies of fabric stitched together about their short sides and

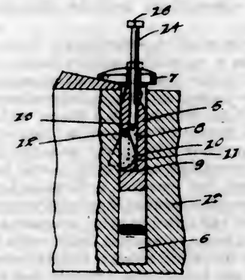
along the long sides for a short distance from each end, a ply of waterproof material of a size equal to the interior of the pocket formed by the stitching, between the outer plies of fabric and the ends of said ply of water proof material being retained in the corners formed by the stitching along the long edge.

1,133,946. SWITCH-BOX. RAY P. FARRELL, Oxnard, Cal. Filed Feb. 17, 1912. Serial No. 678,193. (Cl. 247—5.)



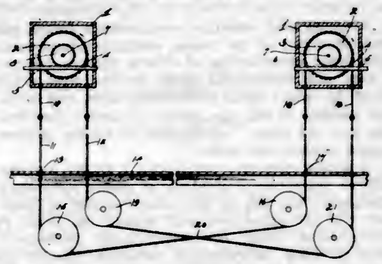
In combination with a metallic switch box having an open end and open side, a plate removably mounted upon the box so as to close the open side of said box, an outwardly projecting upper and lower stamping being step shaped in contour and mounted upon said plate, an outwardly extending right angular stamping formed midway between said step-shaped members, and an upper and lower pair of outwardly extending right angular stamped lugs, each pair of said lugs disposed midway between one of said first mentioned step like stampings and said last named right angular stamping and being spaced apart on either side of the latter whereby to receive a lath.

1,133,947. RAILWAY-SPIKE. ZACHARIUS O. FISCHER, Moccasin, Mont. Filed May 11, 1914. Serial No. 837,841. (Cl. 85—23.)



In a spike, a body, a head projecting laterally of the front face of said body, said body having a longitudinal opening extending from the headed end to a point adjacent the center thereof and having a transverse opening extending inwardly from the front face to and communicating with the inner end of said longitudinal opening, a wedge shaped locking member having its small end arranged adjacent said head and pivotally secured in said transverse opening, the outer face of said locking member normally lying flush with the front face of said body and having an inner cam face, a rod slidable longitudinally through said longitudinal opening having a pointed end adapted to engage the cam face of said locking member to swing the latter laterally of the front face of said body, and a head on said rod adapted to engage the head of said spike.

1,133,948. DEVICE FOR OPERATING DOOR-BOLTS. EMIL F. FLORCKEN, Los Angeles, Cal. Filed Aug. 21, 1914. Serial No. 857,900. (Cl. 16—63.)



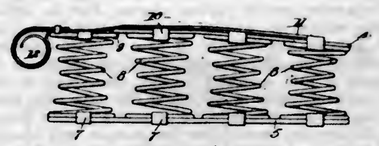
1. A bolt operating device comprising a plurality of casings, a sprocket wheel mounted in each casing, a pinion connected to the shaft of the sprocket wheel, hand operating devices for each of the shafts, a bolt mounted to slide in the casing and to engage the teeth of the pinion and connections between the sprocket wheels for simultaneous operation of a plurality of bolts.

2. A bolt operating device for a plurality of bolts comprising a casing for each device, a sliding bolt mounted in each of said casings, a pinion connected to a sprocket wheel in said casings, means for operating said pinion and sprocket wheel simultaneously, said bolts each having a plurality of teeth thereon to be engaged by the pinion, chains passing over the sprocket wheels, belts connected to said chains and extending over pulleys and crossing in the center so that each bolt when operated will operate the other in the same manner.

3. A bolt operating mechanism comprising a plurality of casings mounted in the door posts of a plurality of doors, said casings each containing a sprocket wheel and pinion, a hand operated device connected to the shaft of the sprocket wheel and pinion, a bolt mounted in each casing and provided with teeth to engage the teeth of the pinion, chains extending over each of the sprocket wheels, and connections between said chains for simultaneously operating a plurality of bolts, when one of said bolts is operated.

4. A device for operating a plurality of bolts comprising a casing, a sprocket wheel in said casing, a pinion connected to the sprocket wheel, a shaft on which the sprocket wheel and pinion are journaled, a hand-hold on the inside end of said shaft, a bolt provided with teeth to be engaged by the teeth of the pinion, and means for operating a plurality of said bolts simultaneously.

1,133,949. SPRING STRUCTURE. GUSTAV . . FRANZ, Jackson, Mich., assignor to Jackson Cushion Spring Company, Jackson, Mich. Filed July 8, 1912. Serial No. 708,139. (Cl. 155—25.)



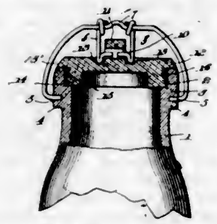
1. A spring seat structure comprising a frame, springs supported on the frame, a plurality of spaced yieldable bands connected to the top of the structure and at their forward ends extending over and beyond the front of the structure and coiled upon themselves with the forward extremities of the bands terminating within the coil and with the coils terminating above and spaced from said frame and forming a plurality of forwardly extending rounded projections at the upper front portion only of the

structure so as to provide for the formation of a pronounced, outstanding, pliable, collapsible, hollow, upholstered roll with a minimum amount of upholstering material located at the upper front edge only of the structure.

2. A spring seat structure comprising a frame, rows of springs mounted on the frame, yieldable bands connected to the upper convolutions of alining springs and projecting over and beyond the front springs, said projecting ends of the bands being formed into coils, and fabric material secured to the top of the structure between said bands and the upper convolutions of alining springs and wrapped around said coils.

3. A spring structure comprising a frame, springs supported on the frame, a plurality of spaced yieldable bands connected to the top of the structure and at their forward ends extending over and beyond the front of the structure and coiled completely upon themselves and thereby forming substantially complete circular projections wholly in advance of the front springs, said circular projections being unconnected with the front row of springs and terminating above and spaced from said frame so as to provide for the formation of a pronounced, outstanding, pliable, collapsible, hollow, upholstered roll with a minimum amount of upholstering material located at the upper front edge only of the structure.

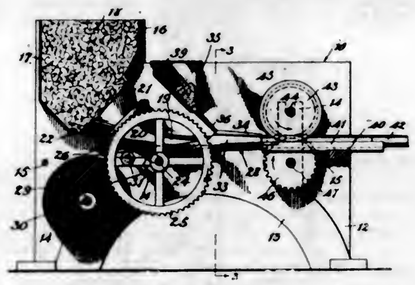
1,133,950. BOTTLE-CLOSURE. JOHN A. FRETZ and THOMAS F. CRAVEN, Philadelphia, Pa. Filed Mar. 31, 1914. Serial No. 828,554. (Cl. 215—46.)



In combination with a jar, a plurality of diametrically opposed depending projections formed on the jar adjacent its mouth, a seat formed within the jar, a cover body for disposition on the jar to close the mouth, said cover having a portion bearing against said seat and another portion projecting across the top of the jar at the mouth thereof, an upwardly projecting centrally arranged arch-like member on the cover body and provided with a transverse opening, said cover body having a plurality of depressions in its top on both sides of the arch-like member and at the ends of the transverse opening in the arch-like member, a wire member having its extremities seated in the projections on the jar, said wire member passing upwardly over the cover body and having its central portion curved upwardly, a second wire member providing a handle and looped around the first wire member adjacent the upwardly curved portion thereof, and an operating portion formed by bending the inner ends of the second wire member downwardly to pass into the transverse opening in the arch-like projection on the cover body, portions of said operating portion being bent to extend into the depressions in the top of the cover body prior to bending the extremities of the operating portion to extend into the opening in the arch-like member, said handle being adapted to bear against the side of the jar to lock the cover body against movement thereon.

1,133,951. CIGARETTE-MACHINE. ETHEL C. GALLUP, New York, N. Y. Filed June 2, 1914. Serial No. 842,349. (Cl. 131—43.)

1. In a cigarette machine, the combination with a forming device receiving a strip fed in continuous form thereto, said forming device rolling the strip to provide a wrapper; of means for sealing the edges of the strip thus rolled, a hopper for receiving a filler, a discharge tube having a funnel end, a rotatable hopper section having an interior spiral flange for grasping the filler and forcing the same through the tube and into the wrapper, said hopper section being mounted between the hopper and discharge tube, and means for rotating the hopper section.



2. In a cigarette machine, the combination with a forming device; of means for supporting a strip to be fed in continuous form thereto, said forming device rolling the strip to provide a wrapper, means for sealing the edges of the strip thus rolled, said sealing means including a liquid supplying tank having a discharge nozzle and an absorbent member carried by the forming device to moisten the wrapper by the liquid supplied thereto from the tank, and means for supplying tobacco to the wrapper and simultaneously feeding the same from the machine in a continuous length.

3. In a cigarette machine, the combination with a forming device adapted to receive a strip fed in continuous form thereto, said forming device rolling the strip to provide a wrapper, means for sealing the edges of the strip thus rolled, said sealing means including a liquid supplying tank having a discharge nozzle and an absorbent member carried by the forming device to moisten the wrapper by the liquid supplied thereto from the tank, means for feeding and forcing tobacco into the wrapper, and additional means simultaneously operated therewith to seal the wrapper and coöperatively feed the filled wrapper from the machine.

4. A cigarette machine, comprising a frame including a permanent side, a supporting portion having slotted bearings and a removable side detachably connected in spaced relation to the permanent side, a hopper mounted in the frame, a discharge tube having a funnel end, a rotatable hopper section journaled between the hopper and funnel end and having an interior spiral conveyer, a shaft journaled in the frame and operatively geared to the hopper section to rotate the conveyer, a forming device, a shaft supporting a wrapper forming strip, said strip being passed into the former and rolled thereby, wrapper sealing means carried by the frame, a grooved guide beyond the former and receiving the filled wraper thereon when the filler is fed through the tube by the conveyer, and means for additionally feeding said filled wrapper in the form of a continuous section from the machine.

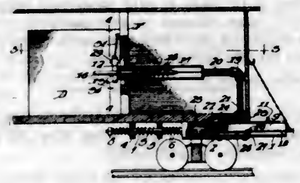
5. A cigarette machine, comprising a frame including a permanent side, a supporting portion having slotted bearings and a removable side detachably connected in spaced relation to the permanent side, a hopper mounted in the frame, a discharge tube having a funnel end, a rotatable hopper section journaled between the hopper and funnel end and having an interior spiral conveyer, a shaft journaled in the frame and operatively geared to the hopper section to rotate the conveyer, a forming device, a shaft supporting a wrapper forming strip, said strip being passed into the former and rolled thereby, said former having a recessed part, a moisture holding element in said part, liquid feeding means coöperating with the moisture holding element to apply adhesive to one edge of the wrapper, a grooved roller journaled in the frame beyond the former to seal the edges of the wrapper as it is fed from the former filled, and hand operated means for simultaneously operating the conveyer and roller.

[Claim 6 not printed in the Gazette.]

1,133,952. PROCESS OF RECLAIMING OLD OR WASTE VULCANIZED INDIA-RUBBER. THOMAS GARE, New Brighton, England. Filed Sept. 17, 1906. Serial No. 335,020. (Cl. 18—52.)

The herein described process of reclaiming waste vulcanized rubber in its manufactured form, which consists in mincing lumps of rubber step-wise gradually into small pieces, and subsequently and progressively frictionally rubbing the said small pieces between resisting surfaces to convert said pieces into a highly plastic mass.

1,133,953. CAR-DOOR LOCK. HARRY GORDON, Boise, Idaho. Filed June 15, 1914. Serial No. 845,189. (Cl. 105—265.)



1. The combination with a railway car having locking means for one of its doors, of a hollow draw bar beneath the car and operating means for said locking means confined within said draw bar, the interior of the drawbar being accessible from the exterior thereof.

2. The combination with a railway car and locking means for one of the doors thereof, of a hollow draw bar beneath the car and having an opening, and a flexible operating element having one of its ends attached to said locking means, its other end passing through said opening and terminating in the hollow draw bar, the interior of the draw bar being accessible from the exterior thereof.

3. The combination with a railway car and locking means for one of its doors, of a draw bar beneath the car and having a bore opening through its outer end and an opening through its top, guides on the car, a flexible operating element connected to said locking means and passing around said guides, its opposite end passing through said openings into the bore of the draw bar, and an operating member on said cable and located in said bore, said member being adapted to be engaged by a tool whereby said flexible element may be actuated to trip said locking means.

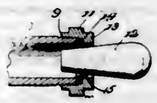
4. The combination with a railway car having a locking bolt for one of its doors, and a slidably mounted draw bar beneath the car, of a connection between said bolt and said draw bar and means whereby said connection may be operated independently of the movements of the draw bar.

5. The combination with a railway car having a locking bolt for one of its doors and a slidably mounted draw bar beneath the car, of an adjustable connection between the draw bar and the bolt and means whereby said connection may be operated independently of the movements of the draw bar.

[Claim 6 not printed in the Gazette.]

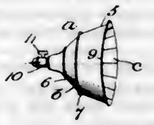
1,133,954. CONNECTING-PIPE FOR FAUCETS. ROLAND D. GOULD, Hood River, Oreg. Filed Aug. 25, 1911. Serial No. 646,043. (Cl. 137—28.)

1. A coupling adapted for attachment to a tapered faucet bib and including a pipe section having one end threaded, a union nut engaging the threaded end of the pipe section and provided with a terminal shoulder, and a yieldable gasket bearing against the adjacent end of the pipe section and having its exterior wall tapered in a direction opposite to the taper of the bib, said gasket being arranged to extend between the bib and the shoulder of the nut with the exterior tapered wall thereof disposed for frictional engagement by the inner adjacent edges of said shoulder.



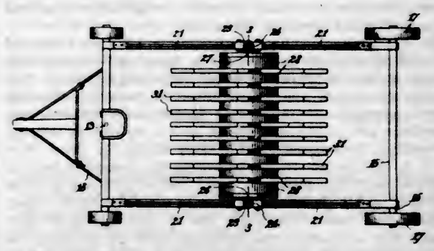
2. An integral coupling for detachably uniting horizontally tapered faucet bibs including a pipe section formed with a discharge nipple and having its opposite ends threaded, union nuts engaging the threaded ends of the pipe section and provided with terminal shoulders, and yieldable gaskets bearing against the ends of the pipe section and having their exterior walls tapered in a direction opposite to the taper of the bibs, said gaskets being arranged to extend between the bibs and the shoulders of the nuts with the exterior tapered walls thereof disposed for frictional engagement by the inner adjacent edges of said shoulders.

1,133,955. REFLECTOR. ROBERT D. GRAY, Ridgewood, N. J. Filed Mar. 21, 1914. Serial No. 826,368. (Cl. 240—103.)



An apparatus for reflecting light rays so that these will converge at a point remote from the apparatus, and comprising a casing open at one end and adapted for containing an incandescent electric lamp and supporting this lamp with its axis in alinement with the point on which the reflected rays converge, and a plurality of circular rows of plane mirrors arranged on the inner surface of the said casing, the said rows being concentric and arranged one in front of the other with the adjacent ends of the mirrors in each abutting, the successive surfaces of mirrors in adjacent rows being arranged at tangents to a common semi-elliptical curve, the mirrors in successive rows progressively increasing in length from the inner end of the casing, and each of such mirrors being proportioned in two dimensions so as to correspond approximately to the corresponding dimensions of the light image to be reflected thereby.

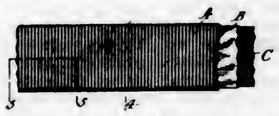
1,133,956. TILLING-MACHINE. ASA B. HARRIS, Vienna, Ill. Filed Aug. 29, 1914. Serial No. 859,189. (Cl. 97—63.)



In a machine of the class described, a rotary element comprising a shaft, a plurality of cylinders mounted there-

on, said cylinders being provided with radially disposed series of recesses in the end faces thereof, and approximately diamond-shaped blades arranged between the opposed faces of the cylinders, said blades being provided with transverse pins engaging the recesses in the end faces of the cylinders.

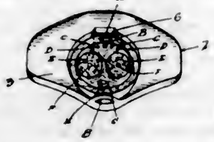
1,133,957. PROCESS OF MAKING LEATHER MATERIAL. LEON HEIMANN, New York, N. Y., assignor, by mesne assignments, to Live Leather Belt Co., New York, N. Y., a Corporation of New York. Filed Dec. 7, 1912. Serial No. 735,402. (Cl. 154—2.)



1. The herein described process for manufacturing leather material, the same consisting in crimping a strip of leather transversely to its length, putting it under longitudinal tension, applying a rubberizing agent, removing the tension, and permitting said agent to set.

2. The herein described process for manufacturing leather material, the same consisting in crimping a strip of leather transversely to its length, putting it under longitudinal tension, applying a rubberizing agent, applying pressure to force agent into the pores of the leather, removing the tension from the latter, and permitting the agent to set.

1,133,958. THERAPEUTIC TRUSS. EDWIN F. HENDERSON, West Allis, Wis. Filed Feb. 4, 1914. Serial No. 816,604. (Cl. 128—28.)



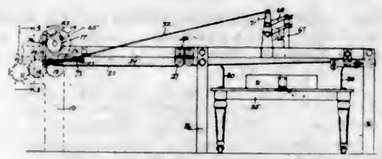
1. A therapeutic truss comprising a body of flexible material, said body being concavo-convex in cross section, said body also having a pair of spaced openings formed therein and a slit connecting the openings, said slit dividing the body between the openings into a pair of tongues, and a cushioning element extending transversely of the body along its inner side.

2. A therapeutic truss comprising a body of flexible material, said body being concavo-convex in cross section, said body also having a pair of spaced openings formed therein and a slit connecting the openings, said slit dividing the body between the openings into a pair of tongues, and a cushioning element extending longitudinally of one of said tongues along its inner side.

3. A therapeutic truss comprising an elongated body of flexible material concavo-convex in cross section, said body being formed along the line of longitudinal center with a pair of spaced circular openings, and a slit connecting said openings, said slit dividing the body between the openings into a pair of tongues, and a cushioning element extending transversely of the body along the inner side.

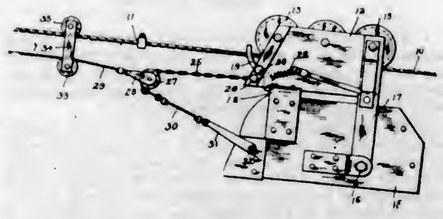
4. A therapeutic truss comprising an elongated body of flexible material, said body being concavo-convex in cross section, said body having a pair of spaced circular openings formed therein along the line of its longitudinal axis, and a slit connecting the openings, said slit dividing the body between the openings into a pair of tongues, and an integral cushioning element extending transversely of the body along one of the tongues on its inner side.

1,133,959. PAPER-DELIVERING APPARATUS. GEORGE K. HENDERSON, Indianapolis, Ind., assignor, by mesne assignments, to The International Printing Company, Indianapolis, Ind., a Corporation. Filed Apr. 28, 1910. Serial No. 558,120. (Cl. 101—31.)



A paper delivering means for a paper making machine, printing press or like device including a main frame, a movable means for grasping the lateral edges of sheets of paper as they come from the machine, a paper depositing frame with upwardly extending rigid bars at each side thereof, uprights on said main frame, a shaft mounted in said uprights, an arm secured at each end of said shaft and pivoted to the bars of said depositing frame, similar and parallel arms pivoted to said uprights and also to said bars extending upwardly from said depositing frame and means for oscillating said shaft.

1,133,960. EXCAVATING APPARATUS. JAMES W. HENSLEY, Indianapolis, Ind. Filed May 25, 1914. Serial No. 840,787. (Cl. 37—10.)



1. Drag bucket excavating mechanism including a carrier, a bucket with its rear portion pivotally mounted thereto, a flexible connection between the forward portions of the carrier and bucket which permits the bucket to drop to a discharging position, and a draft rope movably connected with said flexible connection, whereby the carrier may be held from retreating during the discharge of the bucket and said discharge be controlled.

2. Drag bucket excavating mechanism including a carrier, a bucket with its rear portion pivotally connected with said carrier, a releasable catch for connecting the forward portions of the bucket with the carrier, a flexible connection between the forward ends of the carrier and bucket, and a draft rope with a pulley on the end thereof adapted to engage and travel on said flexible connecting means.

3. Drag bucket excavating mechanism including a supporting cable, a stop block secured thereto, a carrier adapted to travel thereon, a bucket with its rear portion pivotally connected to the carrier, a releasable catch mounted in the carrier for holding the forward end of said bucket locked to the carrier and arranged to be released by engagement with said stop block, and a draft rope with a pulley on the end thereof adapted to engage and travel on said flexible connecting means.

4. Drag bucket excavating mechanism including a carrier, a bucket with its rear portion pivotally connected with said carrier, a releasable catch for connecting the forward portions of the bucket with the carrier, a pair of flexible connections between the lower end of said cable and the front end of the bucket, a draft rope, and a pulley secured to the draft rope and adapted to engage and travel on said flexible cable.

5. Drag bucket excavating mechanism including a carrier, a bucket with its rear portion pivotally connected with said carrier, a releasable catch for connecting the forward portions of the bucket with the carrier, a pair of flexible connections between the lower end of said cable and the front end of the bucket, a draft rope, a pulley secured to the draft rope and adapted to engage and travel on said flexible cable, and a pulley suspended from the supporting cable over which said rope extends.

1,133,961. ORTHOVANADIC-ACID ESTERS AND THEIR SOLUTIONS. LUDWIG HESS, Berlin-Britz, Germany. Filed Feb. 6, 1914. Serial No. 817,056. (Cl. 23—24.)

1. The process for the manufacture of ortho-vanadic acid esters, which consists in boiling an alcohol with vanadium pentoxid, substantially as described.

2. The process for the manufacture of ortho-vanadic acid esters, which consists in boiling an alcohol with vanadium pentoxid and separating the ester thus produced from the product of the reaction, by distillation, substantially as described.

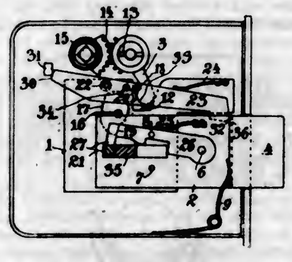
3. The process for the manufacture of tertiary amyl-esters of ortho-vanadic acid, which consists in boiling amylene-hydrate with vanadium pentoxid under a reflux condenser, and separating the ester from the solution thus obtained, by fractional distillation *in vacuo*, substantially as described.

4. As a new product, the tertiary amyl-ester of ortho-vanadic acid

$$(C_5H_{11})_3VO_4,$$

being a colorless liquid having at 15° C. a specific gravity of 0.993, boiling at 161° C. under a pressure of 19 mm., gradually assuming a light green color, when heated in the air to 100° C., boiling at about 206° C., while undergoing decomposition, easily soluble in alcohol, benzol, ether, chloroform, toluol, and acetone, the said liquid being decomposed by prolonged boiling with water, thereby forming amylene-hydrate and separating out vanadic acid, substantially as described.

1,133,962. LOCK. HANS OSKAR HÖGLUND, Christiania, Norway. Filed June 8, 1914. Serial No. 843,872. (Cl. 70—64.)



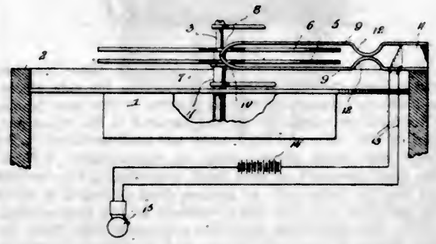
1. In a lock, a catch bolt formed of two independently movable parts, one of said parts being operated by the key and the other carrying the bolt catch, means carried by the key operated part for locking the bolt in extended position, and means carried by the bolt carrying part for locking the bolt in retracted position.

2. In a lock, a catch bolt formed of two independently movable parts, one of said parts being operated by the key and the other carrying the bolt catch, means carried by the key operated part for locking the bolt in extended position, means carried by the bolt carrying part for locking the bolt in retracted position and releasing means for both of said locking means operable alike by both the knob and key of the lock.

3. In a lock, a catch bolt formed of two independently movable parts, one of said parts being operated by the key and the other part carrying the bolt catch, a pawl pivoted on the former part adapted to lock the bolt in extended position, and a second pawl for locking the bolt in retracted position.

4. In a lock, a catch bolt formed of two independently movable parts, one of said parts being operated by the key and the other part carrying the bolt catch, a pawl pivoted on the former part adapted to lock the bolt in extended position, a second pawl for locking the bolt in retracted position and a pivoted member carried by the key operated part through which the key operates the second pivoted pawl.

1,133,963. TIME-CONTROLLED MECHANISM. KIEFFER G. HOOVER, Demopolis, Ala. Filed Apr. 3, 1914. Serial No. 829,327. (Cl. 161—27.)



1. In a device of the class described, a chronometer comprising hour and minute hands, disks rotatable with the hour and minute hands respectively and formed with openings adapted to register with one another at predetermined intervals, and an electric circuit including the contact fingers bearing upon said disks and adapted to be closed when the contact fingers engage one another upon the registration of said openings.

2. In a device of the class described, a chronometer comprising hour and minute hands, disks rotatable with the hour and minute hands respectively and each formed with a number of rows of slots disposed concentrically of one another, the slots of one row of one disk being capable of registration with any one of the slots in the adjacent row of the other disk, contact fingers bearing upon said disks and corresponding in number with the number of rows of slots and adapted to engage one another upon the registration of the particular slots, coacting contact fingers being adapted to control an electric circuit.

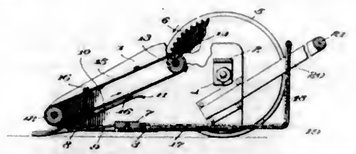
3. In a device of the class described, a chronometer comprising hour and minute hands, disks rotatable with the hour and minute hands respectively and formed with openings adapted to register with one another at predetermined intervals, contact fingers bearing upon said disks and adapted to engage one another upon the registration of said openings and controlling an electric circuit, and means whereby the contact fingers may be disengaged momentarily.

4. In a device of the class described, a chronometer comprising hour and minute hands, disks rotatable with the hour and minute hands respectively and formed with openings adapted to register with one another at predetermined intervals, contact fingers bearing upon said disks and adapted to engage one another upon the registration of said openings and controlling an electric circuit, and a strip of insulation arranged across one of the registering slots whereby the contact fingers may be disengaged momentarily.

1,133,964. LAWN-RAKE. HIRAM ALFRED HOVENDEN, Sandpoint, Idaho, assignor of one-half to Alexander Enos, Sandpoint, Idaho. Filed Apr. 23, 1913. Serial No. 763,112. (Cl. 55—145.)

1. A lawn rake embodying side pieces, an upper rear bar and a lower forward cross bar connecting the side pieces, wheels supporting the rear portions of the main frame,

a drag, a toothed bar supported by and secured to the front portion of the lower forward cross bar and provided in its front edge with spring teeth, said teeth being of substantially V-form and constituting a short lower member and a long upper member, said upper members being of a length to permit the same to overhang the toothed bar and the lower bar and the free end of each upper arm being formed with a downwardly curved portion, the upper member serving as a support for material carried by the drag, the curved portions facilitating the discharge of said material.



2. A lawn rake embodying side faces, an upper rear bar and a lower forward cross bar connecting the side pieces, and wheels supporting the rear portion of the main frame, a toothed bar supported by and secured to the front portion of the lower forward cross bar and provided in its front edge with spring teeth of substantially V-form, the upper members of such teeth overhanging the toothed bar and the lower bar, an endless drag arranged to move the material over the upper members of the spring teeth, handle bars extending upwardly and rearwardly from the side pieces of the main frame, and a catcher removably and frictionally held between the side pieces and handle bars and having its front portion resting upon the rear part of the before mentioned lower bar and abutting against the rear edge of said toothed bar.

1,133,965. ARCH-SUPPORT. PEREZ B. HOWARD, Newtonville, Mass. Filed Jan. 30, 1914. Serial No. 815,331. (Cl. 36—71.)



1. A flexible arch support comprising a flexible fluid filled cushion having an upper wall shaped to conform to the normal arch of the human foot, and base and side walls connected to said upper wall and forming therewith a closed chamber and serving to hold the upper face in its proper position in the shoe.

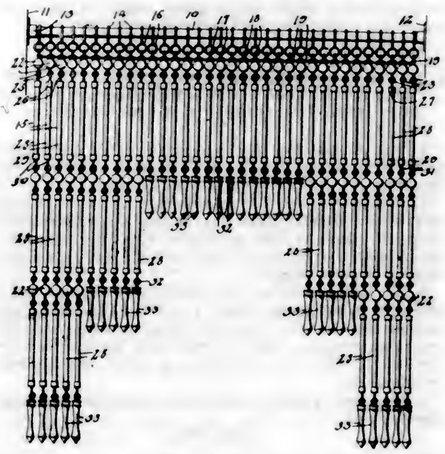
2. A flexible arch support comprising a closed flexible container shaped to fit the normal contour of the foot arch, and a fluid in said container freely movable therein, to afford selective support of the arch members.

3. A flexible arch support comprising a flexible envelop, the upper surface of said envelop being shaped to conform to the normal arch of the human foot, a fluid container in said envelop, and means tending to maintain the support against lateral displacement.

4. A flexible arch support comprising a side wall, said side wall being provided with a base wall, a yielding wall adapted to engage and support the arch of the human foot, said yielding wall being connected at one of its edges to the outer edge of said base wall, and at another edge to said side wall, and forming a closed chamber under said yielding wall and a fluid contained in said chamber.

1,133,966. PORTIÈRE. JAMES HOYE, Rochester, N. Y. Filed May 9, 1914. Serial No. 837,494. (Cl. 156—10.)

1. In a device of the character described, the combination with a series of superposed ornamental bodies, eye bolts interposed between the bodies to relatively connect the same, said eye bolts being in threaded engagement with the bodies whereby the distance between adjacent bodies can be increased or decreased and whereby the length of a pendant formed by said bodies can be varied, and a threaded sleeve threadedly connecting a plurality of the eye bolts for increasing or decreasing the combined length thereof.



2. In a portière, the combination with a supporting rod, of a pendant formed of a series of superposed connected bodies, oppositely disposed eye bolts, a sleeve threadedly connecting the oppositely disposed eye bolts, a member inclosing said sleeve, with the eye bolts loosely passing through openings in said member, means connecting the pendant with the lowermost of said oppositely disposed eye bolts, and means connecting the uppermost of said oppositely disposed eye bolts with said supporting rod so that said pendant will appear to depend therefrom, the length of said pendant being adapted to be increased or decreased by relatively unscrewing or screwing up said oppositely disposed eye bolts with respect to said sleeve without removing said sleeve from its inclosed position in said member and without removing said eye bolts from the openings through which they pass, in said member.

1,133,967. APPARATUS FOR ELECTRO-OSMOTIC PROCESSES. HANS ILLIG and BOTHO SCHWERIN, Frankfort-on-the-Main, Germany, assignors to Gesellschaft für Elektro-Osmose M. B. H., Frankfort-on-the-Main, Germany, a Corporation. Filed Feb. 26, 1914. Serial No. 821,273. (Cl. 204—5.)



1. An apparatus for electro-osmotic processes having a suspension container and a suspension agitating means, which comprises an anode and a cathode locked between the anode and the agitating means, the cathode being provided with openings of much greater length than width.

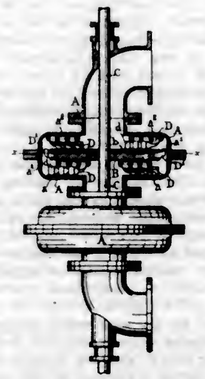
2. An apparatus for electro-osmotic processes having a suspension container and a suspension agitating means, which comprises a cylindrical anode and a cathode locked between the anode and the agitating means, said cathode being formed of laminæ assembled to define openings of much greater length than width through which the suspension passes when directed toward the anode by the agitating means.

3. An apparatus for electro-osmotic processes having suspension container and an agitating means, which comprises an anode, rods extending parallel to the anode, comparatively wide laminæ mounted upon the rods to form a cathode and defining therebetween spaces of considerably greater length than width, said laminæ being substantially in a plane perpendicular to the axis of the anode and locked between the agitating means and said anode.

4. An apparatus for electro-osmotic processes having a suspension container and an agitating means, which comprises an anode, rods substantially parallel to the anode, laminæ of greater length than thickness assembled on the rods to form a cathode provided with slots of greater length and width than thickness, said cathode being locked between the agitating means and the anode.

5. An apparatus for electro-osmotic processes having a suspension container, which comprises an anode, a cathode adjacent to the anode provided with slots of greater length and width than thickness and means to force the suspension in a stream from the container through the slots toward the anode.

1,133,968. APPARATUS FOR HYDRATING, PULPING, OR REDUCING MATERIAL IN A WET OR SEMI-LIQUID STATE. HAROLD JACKSON, Garstang, England. Filed May 14, 1912. Serial No. 697,199. (Cl. 92—20.)



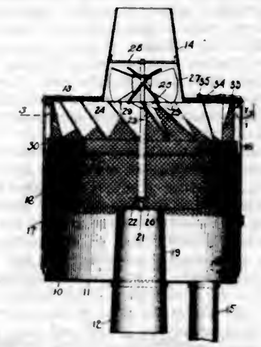
1. In apparatus for hydrating, pulping or reducing material in a wet or semi-liquid state, the combination with a casing, of beaters pivotally connected thereto, and a rotary disk having a ribbed surface against which the beaters contact, beaters pivotally connected to the under side of the said disk, and ribs on the surface of the casing, substantially as described.

2. In apparatus for hydrating, pulping or reducing material in a wet or semi-liquid state, the combination with a casing, of beaters pivotally connected thereto, a rotary disk having a ribbed surface against which the beaters contact, beaters pivotally connected to the disk both on the periphery and on the under surface, and ribs on the casing against which the second-named beaters contact with a gentle hammering action, substantially as described.

1,133,969. HEATER AND VENTILATOR. OLIVER JOHNSTON, Huntington, N. Y. Filed Nov. 13, 1914. Serial No. 871,918. (Cl. 237—47.)

1. In a heater and ventilator, a drum having an inlet and an outlet at the bottom and top respectively, adapted for connection with stove pipe sections, said drum having a lateral open portion, a movable closure for said open portion, and a fan in the drum at the open portion thereof, arranged to force air and gases from the drum outwardly through said open portion.

2. In a heater and ventilator, a drum having an inlet and an outlet at the bottom and top respectively, adapted for connection with stove pipe sections, said drum being closed at its lower portion and open at the upper portion at the sides, a tubular closure for said open portion, the closure being slidable on the drum, and a fan disposed transversely in the drum at the said open portion, and having its blades so disposed as to force air and gases from the drum outwardly through said open portion.



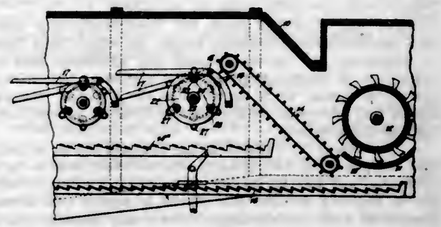
3. In a heater and ventilator, a drum having a tubular inlet at the bottom and a tubular outlet at the top, adapted to connect with stove pipe sections, said drum being open laterally adjacent to the top of the drum, movable means for closing the opening, a fan transversely disposed in the drum adjacent to the lateral opening and a second fan disposed in the tubular outlet and in fixed relation to the first fan, said first fan having its blades disposed so as to force air and gases outwardly from the drum laterally through the open portion thereof.

4. In a heater and ventilator, a drum having an inlet and an outlet at the bottom and top respectively, adapted for connection with stove pipe sections, said drum having a lateral open portion, a movable closure for said open portion, an air inlet pipe leading into the drum at the bottom, and a fan in the drum at the open portion thereof, arranged to force air and gases from the drum outwardly through said open portion.

5. A heater and ventilator comprising a drum having a inlet at the bottom and an outlet at the top adapted to connect with stove pipe sections, an air inlet at the bottom of the drum, said drum presenting an annular open portion below the top, bars extending across the open portion and supporting the top, a tubular shutter having guided movement on certain of said bars to cover or uncover said open portion, and a fan in the drum at the open portion, arranged to force air and gases from the drum outwardly through said open portion.

[Claim 6 not printed in the Gazette.]

1,133,970. BEATER FOR THRESHERS. FRANK KERIAN, Grafton, N. D. Filed Mar. 20, 1914. Serial No. 826,033. (Cl. 130—25.)



1. In a beater for threshers, a straw rack, a drum disposed above the straw rack, the drum having an annular groove, a pivoted beater stick disposed downwardly and

rearwardly in said groove, and a member or members in the groove for raising the beater stick substantially to a horizontal position.

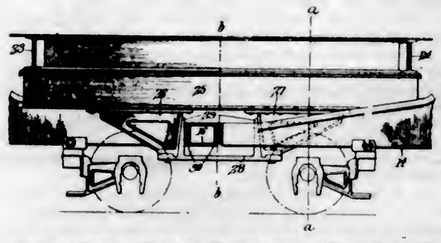
2. In a beater for threshers, a drum having two circular flanges spaced apart to form an annular groove therebetween, a pivoted beater stick disposed in the grooves, a member in the groove for engaging the beater stick for operating the latter with the rotation of the drum, and radial ribs on the drum at each side of the annular groove.

3. In a beater for thresher, a straw rack, a drum disposed above the straw rack, the drum having an annular groove, a beater stick pivoted above the straw rack and disposed downwardly and rearwardly in said groove, and means for raising the beater stick periodically to a horizontal position.

4. In a beater, a straw carrier, a drum disposed in the rear of the straw carrier, the drum having annular grooves and pivoted beater sticks, the pivoted beater sticks being substantially straight and being disposed rearwardly and in the grooves, and members in the grooves for supporting the beater sticks substantially at an incline of fifteen degrees from a horizontal position, and for raising the beater sticks periodically to a horizontal position.

5. In a beater for threshers, a drum having an annular groove and radial ribs at the sides of the groove, a pivoted beater stick disposed in the groove and over the axis of the drum, and a member in the groove for engaging the beater stick for operating the latter with the rotation of the drum.

1,133,971. TRUCK CONNECTION FOR LOCOMOTIVES AND CARS. WILLIAM F. KIEBEL, Jr., Altoona, Pa. Filed Dec. 8, 1914. Serial No. 876,131. (Cl. 105—259.)



1. In railway rolling stock, the combination of a body, and independently swiveling trucks on which said body is supported and having frames, the adjoining ends of which are in abutting relation and curved to permit free lateral movement while maintaining the abutting relation, and a tension member connecting said adjoining ends but supported independently thereof.

2. In railway rolling stock, the combination of a body, and independently swiveling trucks on which said body is supported and having frames, the adjoining ends of which are in abutting relation and curved to permit free lateral movement while maintaining the abutting relation, and a tension member carried by said body and connecting said adjoining ends and whereby draft strains are transmitted from one truck frame to the other.

3. In railway rolling stock, the combination of a body, and independently swiveling trucks on which said body is supported and having frames, the adjoining ends of which are in abutting relation and curved to permit free lateral movement while maintaining the abutting relation, and a link inclosing said ends and forming a draft connection therebetween.

4. In railway rolling stock, the combination of a body, and independently swiveling trucks on which said body is supported and having frames, the adjoining ends of which are in abutting relation and curved to permit free lateral movement while maintaining the abutting relation, and a link supported by said body and inclosing said ends and forming a draft connection therebetween.

5. In railway rolling stock, the combination of a body, independently swiveling trucks on which said body is supported and having frames, the adjoining ends of which are in abutting relation and curved to permit free lateral movement while maintaining the abutting relation, and a link supported by said body and forming a draft connection between said ends, said ends being independently movable vertically and laterally in said link.

[Claims 6 to 10 not printed in the Gazette.]

1,133,972. DEVICE FOR MAKING CIGARETTES. HENRY KNIGHT, Tunbridge Wells, England. Filed May 5, 1914. Serial No. 836,521. (Cl. 131—5.)



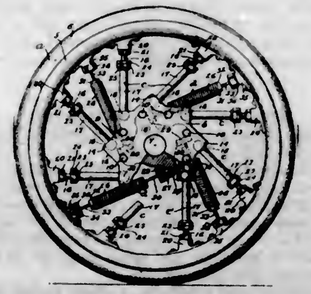
1. A device for making cigarettes comprising a tubular cover portion having one closed end, and a trough slidable in said cover portion and having a closing abutment at one end engaging within said cover, and held from removal therefrom, the parts arranged as and for the purpose described.

2. A device for making cigarettes comprising a tubular cover portion having a longitudinal opening in its periphery, the said cover having one closed end, and a trough slidable in said cover portion and closing the said opening, the said trough having a closing abutment at one end, the cover having a stop adjacent its open end adapted to be engaged by the closing abutment of the trough whereby the said trough is held from removal from the cover, the parts arranged as and for the purpose described.

3. A device for making cigarettes comprising a tubular cover portion having a longitudinal opening in its periphery, said cover portion having one end closed, a trough slidable in said cover portion and closing the longitudinal opening therein, the said trough having a ring shaped abutment at one end encircling the outer periphery of the cover portion, and means coöperating with the abutment whereby the trough is held from removal from the cover, the parts arranged as and for the purpose described.

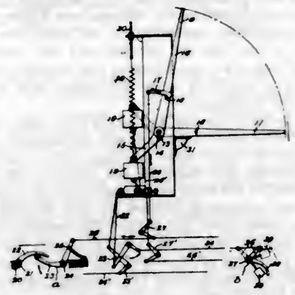
4. A device for making cigarettes comprising a tubular cover portion having a longitudinal opening in its periphery, the said cover portion having one end closed, and a handle carried by the said cover portion adjacent the closed end, a trough slidable in said cover portion and closing the longitudinal opening therein, the said trough having a ring shaped abutment at one end surrounding the outer periphery of the cover portion and providing means for holding the trough as the cover is slid therefrom by means of the handle carried thereby, and means coöperating with said ring shaped abutment whereby the trough is held from removal from the cover.

1,133,973. SPRING-WHEEL. OTTO C. KOCH, Bayonne, N. J. Filed Dec. 31, 1913. Serial No. 809,704. (Cl. 152—52.)



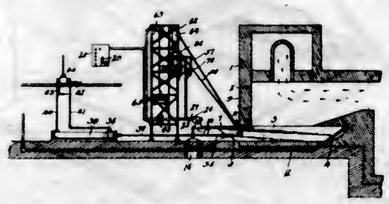
A wheel comprising a rim and a hub which is star shaped in end elevation, said hub being provided at the sides of its pointed portions with sockets, longitudinally extensible spokes having universal joint connection with the rim and provided at their ends with balls which are received in the sockets of the pointed portions of the hub, said spokes being arranged in pairs the inner ends of the members of which are connected with the opposite ends of the hub, the members of the pairs of spokes converging toward each other at their outer ends and being connected with the rim, the springs connected with the rim and the hub and lying in planes between the members of the pairs of spokes and being greater in length than the spokes.

1,133,974. AUTOMATIC RAILROAD-GATE. JOHN KONSEL, New York, N. Y., assignor of one-fourth to Fred Blahnik, New York, N. Y. Filed Apr. 14, 1914. Serial No. 831,856. (Cl. 39—35.)



A gate comprising a housing an arm pivoted therein, a weight mounted on one end of the arm, a spring connecting the weighted end of the arm with the housing, a pawl pivoted in the housing and engageable with the other end of the arm, means for moving the pawl out of engagement with the arm and means for moving the arm into engagement with the pawl.

1,133,975. SLAG REMOVING AND INDICATING MECHANISM FOR OPEN-HEARTH FURNACES. WALTER A. KOSINSKI, Chicago, Ill. Filed July 7, 1914. Serial No. 849,537. (Cl. 75—146.)



1. In a furnace of the character described, a slag box, means for supplying water thereto and maintaining the water at a predetermined level therein, a slag discharging rake movable longitudinally within the box, said rake being adjustable to a vertical position on its discharge motion and to a horizontal position on its return motion, and means for operating and adjusting said rake.

2. In a furnace of the character described, a slag box, a slag discharging rake movable longitudinally within the box, a shear arranged within the box, and means for actuating the shear and rake.

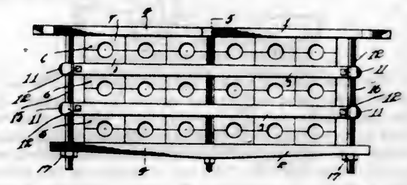
3. In a furnace of the character described, a slag box, means for supplying water thereto and maintaining a predetermined water level therein, a slag discharging rake movable longitudinally within the box, a slag shear within the box, and means for actuating the rake and shear.

4. In a furnace of the character described, a slag box, a rake disposed within and movable longitudinally of the box, said rake being adjustable to a vertical position on its discharge motion and to a horizontal position on its return motion, a shear within the box, means for operating and adjusting the rake, and means controlled by the rake for actuating the shear.

5. In a furnace of the character described, a slag box, means for maintaining a predetermined water level therein, a plunger rod movable longitudinally within the box, means for actuating the same, a rake pivotally connected with the rod for adjustment to a vertical position on its discharge motion and to a horizontal position on its return motion, a latch for holding the rake in vertical position, means for shifting the rake to a vertical position on its discharge motion, and means for releasing the latch and returning the rake to horizontal position on its return motion.

[Claims 6 to 9 not printed in the Gazette.]

1,133,976. CABLE-RACK. JAMES KRAUS, Kimberly, Wis. Filed Nov. 12, 1913. Serial No. 800,596. (Cl. 173—28.)



1. A cable rack comprising outer plates, bolts fixed to one of said outer plates and with which the other outer plate is detachably connected, and an intermediate plate engaging the bolts, said plates being adapted to receive and hold insulators between the faces thereof, the intermediate plate being provided with insulator retaining flanges and formed of separable longitudinal sections adapted to be disconnected and withdrawn laterally from engagement with the bolts.

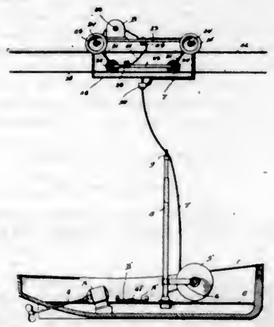
2. A cable rack comprising outer plates, bolts rigidly connected with one of said outer plates and with which the other outer plate is detachably connected, an intermediate plate engaging the bolts, said plates having recesses in their opposed faces to receive and hold rows of insulators, the said intermediate plate being composed of longitudinal sections separably connected and adapted when detached to be withdrawn laterally from engagement with the bolts.

3. A cable rack comprising outer plates, end and intermediate bolts fixed to one of said outer plates and with which the other outer plate is detachably connected, an intermediate plate engaging said bolts, said plates having recesses in their opposed faces to receive and hold rows of insulators, the intermediate plate comprising longitudinal separable sections having notches for the passage of the intermediate bolt and coöperating parts forming eyes engaging the end bolts, the construction being such that when the sections of the intermediate plate are disconnected said sections may be withdrawn laterally from engagement with the bolts.

1,133,977. ELECTRIC PROPULSION AND CONTROL FOR MOTOR-BOATS. JAMES LAMB, Canton, Ill. Filed Jan. 14, 1913. Serial No. 742,044. (Cl. 115—8.)

1. The combination with a pair of electric trolley wires and a pair of superposed supporting cables, of a trolley carriage comprising an upper platform traveling on the supporting cables, a lower platform having a flexible connection with said upper platform and traveling on the trolley wires, a motor for propelling the upper platform, and circuit wires running from the lower platform to the upper platform for supplying current to said motor.

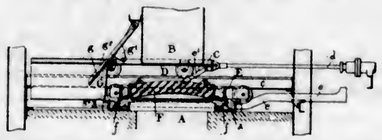
2. The combination with a pair of electric trolley wires and a pair of superposed supporting cables, of a trolley carriage comprising an upper platform, a lower platform having a flexible connection with said upper platform and traveling on the trolley wires, a motor for propelling the upper platform, circuit wires running from the lower platform to the upper platform for supplying current to said motor, and a U-shaped cable supporting frame depending from the upper platform.



3. The combination with a pair of electric wires and a pair of superposed supporting cables, of a trolley carriage comprising an upper rectangular platform having wheels at its corners for traveling on the supporting cables, a lower rectangular platform having a flexible connection with said upper platform and traveling on the trolley wires, a motor for propelling the lower platform, a gear connection between the said motor and one of the wheels of said platform, and circuit wires running from the lower platform to the upper platform for supplying current to said motor.

4. The combination with a pair of electric wires and a pair of superposed supporting cables, of a trolley carriage comprising an upper rectangular platform having wheels at its corners for traveling on the supporting cables, a lower rectangular platform having a flexible connection with said upper platform and traveling on the trolley wires, wheel carriers positioned at the corners of said rectangular lower platform, certain of which are insulated from the platform, wheels supported in the said carriers, binding posts carried by the insulated carriers, a U-shaped cable supporting frame depending from the upper platform, a motor for propelling the upper platform, a gear connection between said motor and one of the wheels of said upper platform, and circuit wires connecting the binding posts on the lower platform with the said motor.

1,133,978. CHARGING-DOORS FOR FURNACES. HENRY NORMAN LEASK, Egremont, England. Filed Dec. 30, 1910. Serial No. 600,012. (Cl. 110—118.)



1. In a furnace closing and charging means for refuse destructors and other furnaces, the combination of a furnace having a seal around its inlet opening, carriages cooperating with the inlet opening of the furnace, one carriage embodying a door for the furnace and said door having rising and depressing movements relatively to the furnace inlet and provided with flanges to engage the seal, and the other carriage having a charging means for the furnace, one carriage being connected to and operated with the other, and means for operating the carriages.

2. In a furnace closing and charging means for refuse destructors and other furnaces, the combination of a furnace having an upper inlet opening, rails at different elevations relatively to the inlet opening of the furnace, carriages mounted to move on the rails, one above the other, and associated for movement one by the other, one carriage embodying a rising and depress-door for the furnace inlet and the other a charging means for the furnace, said charging means being movable with its carriage, and means for operating the carriages.

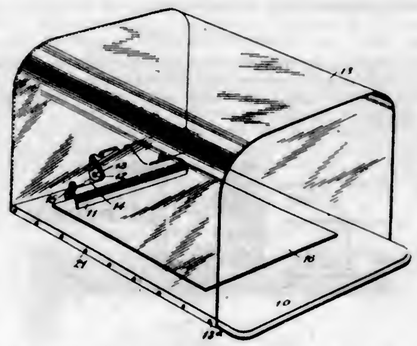
3. In a furnace closing and charging means for refuse destructors and other furnaces, the combination of a furnace having an upper inlet opening, carriages arranged one above the other, the lower carriage embodying a rising and depressing closure for the furnace and the upper carriage having a charging means for the furnace, and means for operating the carriages.

4. In a furnace closing and charging means for refuse destructors and other furnaces, rails adjacent to the inlet of the furnace, structurally independent superposed carriages longitudinally shiftable on the rails, one carriage embodying a door for the furnace and the other having a charging means for the furnace, one carriage being connected to and operated with the other, and means for operating the carriages.

5. In a furnace closing and charging means for refuse destructors and other furnaces, the combination of a furnace having an upper inlet opening and a container for holding material for charging the furnace through said opening, rails at different elevations, a carriage embodying a rising and depressing closure for the furnace and engaging the lower rails, the lower rails having depressions therein, a second carriage having a closure for the container, the carriages being associated for movement of one by the other, and mechanism for operating both carriages.

[Claim 6 not printed in the Gazette.]

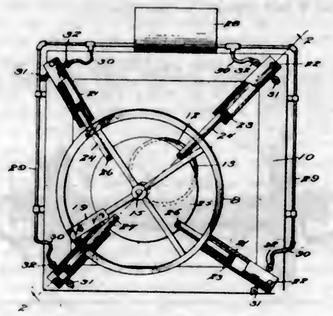
1,133,979. CLIP-BOARD SHIELD. JOHN ALBERT LEE, Brigham, Utah. Filed Feb. 10, 1914. Serial No. 817,910. (Cl. 45—61.)



The combination with a clip board and its clip, of a transparent shield having transparent sides and top, the sides being secured to the clip board at their lower edges, a transparent closure for the head end of the board, the opposite end being open, said clip secured to its board within the hood adjacent its closed end, and a pull device connected with the clip and extending downwardly at the outside of the hood.

1,133,980. PUMP. FRED N. LIVINGSTON, Seattle, Wash. Filed Mar. 12, 1914. Serial No. 824,235. (Cl. 103—62.)

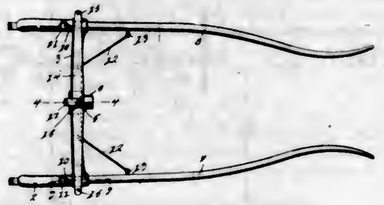
1. In a pumping apparatus, a table; a plurality of cylinder and piston pumps mounted upon the table; a shaft extending through the table; a weight carried at one side of the shaft tending to tilt the shaft against the table; a disk carried by the shaft and pump pistons connected with the disk adapted to permit gyratory movement of the disk.



2. In a pumping apparatus, a table having an opening therethrough; a plurality of cylinders and piston pumps surrounding the opening; a shaft extending upwardly through the opening in the table; a weight carried by the shaft tending to tilt the shaft into engagement with the opening; a disk embracing the shaft and adapted to receive gyratory movement therefrom; and connection between the disk and the pump pistons.

3. In a pumping apparatus, a journaled shaft; a shaft connected with the journaled shaft by a universal joint; a table surrounding the last mentioned shaft; a weight carried at one side of the last mentioned shaft adapted to tilt the same into engagement with the table; a disk mounted to gyrate above the table and embracing the tiltable shaft; and pump members connected with the disk.

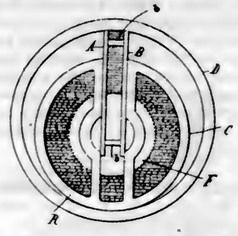
1,133,981. CONVERTIBLE DRAFT APPLIANCE. CHESTER D. LONG, Winchester, Ark. Filed Apr. 4, 1913. Serial No. 758,919. (Cl. 21—91.)



The hereindescribed convertible draft appliance for vehicles comprising a pair of hollow draft irons having unthreaded ends, a tubular metal cross bar comprising two sections connected at their outer ends to the draft irons and having their inner ends connected by a T-coupling, one nipple of said T-coupling being interiorly screw threaded to receive the threaded inner end of a draft pole, a pair of shafts having plane solid rear ends fitted in the unthreaded ends of the draft irons and held therein by cotter pins, and braces pivotally connected to the cross bar sections for detachable connection to screw eyes on the shafts and pole.

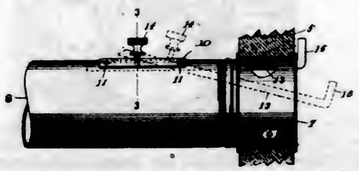
1,133,982. MEANS FOR PACKING THE WORKING PARTS OF ROTARY ENGINES. KARL, PRINZ ZU LÖWENSTEIN, Kleingemünd, near Neckargemünd, Germany. Filed Aug. 25, 1913. Serial No. 786,519. (Cl. 121—78.)

Means for packing the working parts of rotary engines comprising a liquid of high boiling point contained in the motor and adapted to be thrown outward by centrifugal force, and a hollow blade, provided with a radial liquid chamber therein, slidably mounted in said motor, and adapted to permit the influx thereto of the liquid from



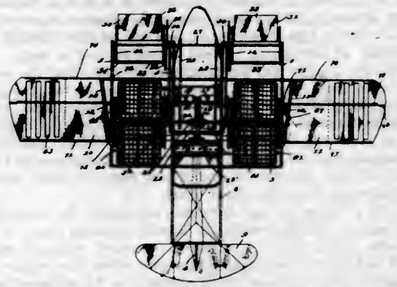
said motor with means for applying steam pressure into the center of said motor, substantially as described.

1,133,983. STOVEPIPE-HOLDER. JACKSON LYNES, Warsaw, Mo. Filed June 10, 1914. Serial No. 844,347. (Cl. 126—318.)



The combination with a pipe having a longitudinal slot therein, of a guiding element comprising a single piece of material having its marginal edges secured to the exterior of the pipe and formed with a grooved portion extending within the pipe and through said slot, a locking bar arranged in the groove for sliding and tilting movements respectively, and a single element carried by the bar for limiting the said sliding and tilting movements thereof and for fastening the same in operative position.

1,133,984. FLYING-MACHINE. WELMAN B. MCCARLEY, Columbus, Ohio. Filed Nov. 26, 1913. Serial No. 803,278. (Cl. 244—16.)

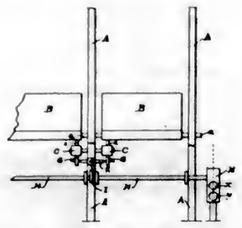


1. A flying machine including a main frame, a supporting surface carried thereby, rotary lifting and propelling wings arranged in advance of said supporting surface and on opposite sides of the longitudinal center of the machine, correspondingly arranged rotary lifting and sustaining wings disposed beneath the main plane and in rear of the first-named wings, each of said wings embodying blades adjustable to different working angles, controlling connections for adjusting said blades, and drive gearing for simultaneously actuating said wings.

2. A flying machine including a main frame, a supporting surface carried thereby, rotary lifting and propelling wings arranged in advance of said surface on opposite

sides of the longitudinal center of the machine, each of said wings embodying blades adjustable to different working angle, gearing for adjusting said blades, correspondingly arranged rotary lifting and sustaining wings arranged beneath the supporting surface in rear of the aforesaid wings, and each of said second-named wings embodying blades adjustable to different working angles, gearing for adjusting said blades, gearing for adjusting the first-named sets of gearing for effecting the adjustments of the blades of the sets of wings in unison, means for controlling the last-named gearing, and means for driving the wings.

1,133,985. CHAIR-SIGNAL FOR THEATERS. JOHN J. MCCOMISH, New York, N. Y. Filed Sept. 13, 1913. Serial No. 789,698. (Cl. 116—31.)



1. In a chair signal for theaters, the combination with a plurality of seats, of a member extending thereralong, a signal shutter operated by the member, a plurality of levers actuated by the chair seats, cross bars intermediate adjacent seats and operated by the levers, and means for transmitting the motion of the cross bars to the member and shutter.

2. In a device of the character set forth, the combination with a plurality of seats of a rocking shaft extending thereralong, signal mechanism including a shutter connected to the rocking shaft, an arm connected to the rocking shaft and extending therefrom between adjacent seats, a cross bar loosely journaled on the free end of said arm, and connections between said adjacent seats and said cross bar whereby the occupancy of either one seat alone or both seats will cause the signal shutter to be moved to varying distances.

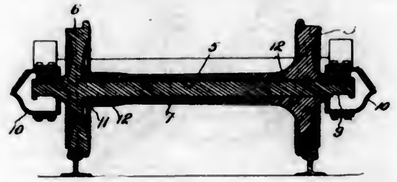
3. In a device of the character set forth, the combination of a plurality of seats arranged in a row, a rocking shaft extending thereralong, signal mechanism connected to said shaft and including a movable shutter having a plurality of differently colored windows and a lamp adjacent the shutter for selective coöperation with the several windows, actuators arranged adjacent the several seats, means connecting the adjacent actuators and connections between said means and the rocking shaft serving to cause the signal shutter to move a certain distance to indicate one color when a single seat is unoccupied and to a different distance to indicate a different color when two adjacent seats are unoccupied.

4. In a device of the character set forth, the combination with a plurality of chairs having movable seats, of a variable signal device, actuators arranged adjacent said seats adapted to be operated thereby when the seats are occupied, each actuator being adapted to be engaged and moved by the seat, means connecting the adjacent actuators and connections between said means and the signal device serving to cause the same to display different indications depending upon whether a single seat is unoccupied or two adjacent seats are unoccupied.

5. In a chair signal for theaters, the combination with a movable chair seat, of a lever adapted to be operated in one direction by the seat, said lever having an upward extension e and a downward extension G, a spring associated with the upward extension tending to elevate the lever, a rocking shaft extending along the seat, an arm extending laterally from the shaft, a shutter carried by the rocking shaft, a lamp adjacent the shutter, and means between the downward extension G and said arm whereby the indication of the signal will be varied according to the movement of the chair seat.

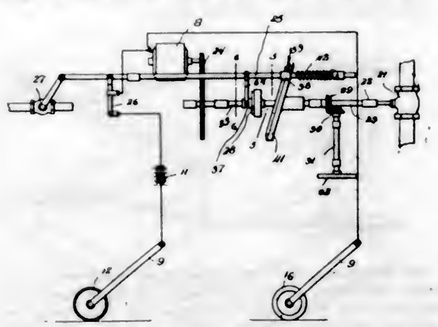
[Claim 6 not printed in the Gazette.]

1,133,986. CAR WHEEL AND AXLE. JOHN W. MCCOY, Syracuse, Mo. Filed May 22, 1914. Serial No. 840,311. (Cl. 105—68.)



A combined axle and car wheel comprising a solid axle section integrally formed with one of the wheels, a hollow axle section integrally formed with the other wheel and receiving the solid axle section, the said solid axle section being of considerably greater length than the hollow axle section to extend entirely through the latter and also through and beyond the wheel integral therewith, the said solid axle section being extended beyond the outer side of the wheel integral therewith, annular shoulders formed internally of the hollow axle section to provide wearing surfaces adapted to contact with the solid axle section at two points thereof, and a washer surrounding the solid axle and abutting the wheel integral therewith and the end adjacent thereto of the hollow axle section.

1,133,987. AUTOMATIC TRAIN-STOPPING APPARATUS. GLENN R. MCQUEEN, Baldwin City, Kans. Filed Apr. 29, 1914. Serial No. 835,245. (Cl. 246—58.)



1. In automatic train stopping apparatus, car carried mechanism comprising a motor, an electric circuit for said motor, means for closing said circuit, a shaft, means operable from said shaft for cutting off the propelling power of the car, a second shaft, driving connections between said second shaft and motor, a clutch normally coupling said second shaft to said first shaft, a rod capable of longitudinal movement, means operable from said rod for disengaging the members of said clutch, and means operable from said first shaft for sliding said rod to disengage the clutch members succeeding the cutting off of the propelling power of the car.

2. In automatic train stopping apparatus, car carried mechanism comprising a motor, an electric circuit for said motor, means for closing said circuit, a shaft, means operable from said shaft for cutting off the propelling power of the car, a second shaft, driving connections between said second shaft and motor, a clutch normally coupling said second shaft to said first shaft, a rod capable of longitudinal movement, means operable from said rod for disengaging the members of said clutch, means operable from said first shaft for sliding said rod to disengage the clutch members succeeding the cutting off of the propelling power of the car, a switch connected in said motor circuit, and a connection between said switch and rod whereby the switch will be opened immediately succeeding the operation of said first shaft.

3. In automatic train stopping apparatus, car carried mechanism comprising a motor, an electric circuit for said motor, means for closing said circuit, a shaft, means operable from said shaft for cutting off the propelling power of the car, a second shaft, driving connections between said second shaft and motor, a clutch normally coupling said second shaft to said first shaft, a rod capable of longitudinal movement, means operable from said rod for disengaging the members of said clutch, means operable from said first shaft for sliding said rod to disengage the clutch members succeeding the cutting off of the propelling power of the car, a switch connected in said motor circuit, a connection between said switch and rod whereby the switch will be opened immediately succeeding the operation of said first shaft.

4. In automatic train stopping apparatus, car carried mechanism comprising a motor, an electric circuit for said motor, means for closing said circuit, a shaft, means operable from said shaft for cutting off the propelling power of the car, a second shaft, driving connections between said second shaft and motor, a clutch normally coupling said second shaft to said first shaft, a rod capable of longitudinal movement, means operable from said rod for disengaging the members of said clutch, means operable from said first shaft for sliding said rod to disengage the clutch members succeeding the cutting off of the propelling power of the car, a switch connected in said motor circuit, a connection between said switch and rod whereby the switch will be opened immediately succeeding the operation of said first shaft, a valve located in the train line air pipe, and a connection between said rod and valve whereby the latter will be opened in the sliding of the rod.

5. In automatic train stopping apparatus, car carried mechanism comprising a motor, an electric circuit for said motor, means for closing said circuit, a shaft, means operable from said shaft for cutting off the propelling power of the car, a second shaft, driving connections between said second shaft and motor, a clutch normally coupling said second shaft to said first shaft, a rod capable of longitudinal movement, means operable from said rod for disengaging the members of said clutch, means operable from said first shaft for sliding said rod to disengage the clutch members succeeding the cutting off of the propelling power of the car, and manually operable means for rotating said first shaft to restore the latter to normal position and relieve the rod of the influence of said first shaft.

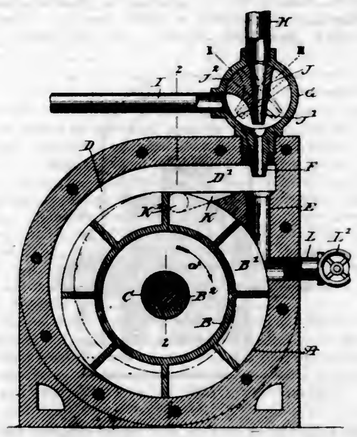
[Claims 6 to 8 not printed in the Gazette.]

1,133,988. ROTARY STEAM-ENGINE. ERNEST ULMO MACK, Florence, S. C. Filed Mar. 31, 1914. Serial No. 828,484. (Cl. 121—59.)

1. In a rotary engine, the combination with a rotor having peripheral buckets, of a cylinder in which rotates the said rotor, the cylinder having a spiral tapering channel open to sundry of the said buckets at a time and having a return connection with another bucket, and a steam nozzle in the return connection.

2. In a rotary engine, the combination of a rotor having peripheral buckets, a cylinder for the rotor to rotate in, the cylinder having a spiral tapering channel contiguous to one side of the cylinder and open to sundry of the said buckets, the cylinder also having a passage approximately tangential to the said rotor and connected with the terminal of the said channel, a nozzle in axial alinement with the said passage and opening into the said terminal.

3. In a rotary engine, the combination of a rotor having peripheral buckets, a cylinder for the rotor to rotate in, the cylinder having a spiral tapering channel contiguous to one side of the cylinder and open to sundry of the said buckets, the cylinder also having a passage approximately tangential to the said rotor and connected with the terminal of the said channel, a nozzle in axial alinement with the said passage and opening into the said terminal, and a valved casing connected with the said nozzle and having a steam supply connection.

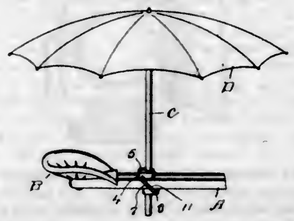


4. In a rotary engine, the combination of a rotor having peripheral buckets, a cylinder for the rotor to rotate in, the cylinder having a tapering channel contiguous to one side of the cylinder and open to sundry of the said buckets, the cylinder also having a passage approximately tangential to the said rotor and connected with the terminal of the said channel, a nozzle in axial alinement with the said passage and opening into the said terminal, and a valved casing connected with the said nozzle and having a steam supply connection and a water supply connection.

5. In a rotary engine, the combination with a rotor having peripheral buckets, of a cylinder in which rotates the said rotor, the cylinder having a spiral tapering channel open to sundry of the said buckets at a time and having a return connection with another bucket, the said cylinder also having exhaust ports at the terminal of the said channel, and a steam nozzle in the return connection.

[Claims 6 to 15 not printed in the Gazette.]

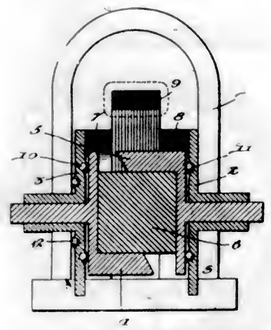
1,133,989. UMBRELLA-HOLDER. GUY MARDOCK, Illinois City, Ill. Filed Dec. 16, 1913. Serial No. 807,118. (Cl. 135—13.)



In combination with a seat supporting bar, an umbrella holder comprising a pair of matched sections arranged on one side of said bar and having a vertical opening in the opposing sides to receive an umbrella stick, and a U-bolt arranged with its central portion on the opposite side of said bar and with its arms above and below the bar and passed through coincident openings in said matched

sections, and nuts screwed on said arms of the U-bolt and clamping said sections together and on opposite sides of the umbrella stick and also clamping said bar between said U-bolt and one of the said matched sections.

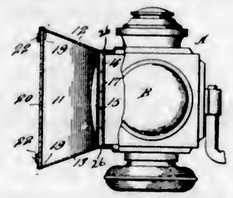
1,133,990. IGNITION-DYNAMO. CHARLES THOMAS MASON, Sumter, S. C., assignor to Sumter Electrical Company, a Corporation of South Carolina. Filed July 28, 1913. Serial No. 781,698. (Cl. 171—209.)



1. In a dynamo, a magnet, end plates adjacent the polar extremities of said magnet, bearings for said end plates, friction reducing magnetic flux conducting means interposed between the adjacent lateral surfaces of said magnet and end plates, a rotor, bearings in said end plates for said rotor, and friction reducing magnetic flux conducting means interposed between the adjacent lateral surfaces of said rotor and end plates.

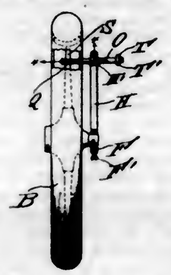
2. In a dynamo, a magnet, a rotor journaled axially between the poles of said magnet, end plates movable about the axis of the rotor, which is also their own axis, said end plates interposed between the ends of the rotor and the opposed cheeks of the magnet poles, and friction reducing magnetically conducting bearing means between said end plates and the said cheeks of the magnet poles, together with an armature coil supported from said end plates.

1,133,991. LICENSE-NUMBER-DISPLAY DEVICE. JAMES R. MAYES, Springfield, and SAMUEL W. ESKEW, Bardstown, Ky. Filed Sept. 10, 1913. Serial No. 789,106. (Cl. 40—131.)



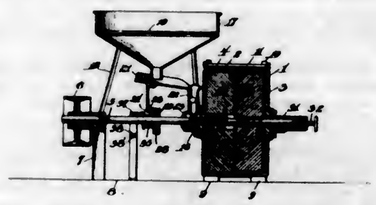
A device of the class described comprising a body having outwardly divergent sides, top and bottom, and open at its front and back, a plate mounted in the front and adapted to be illuminated by the light from a lamp when the body is mounted thereon, a lens mounted in the back of the body and adapted to distribute the light throughout the area of the said plate, flanges formed at the top and bottom edges at the back of the body, and pintle sleeves formed at the side edges of the body at the back thereof, the said flanges and pintles providing means for securing the body in place on a suitable lamp.

1,133,992. PUMP ATTACHMENT FOR AUTOMOBILES, &c. BERNARD MAYFIELDS, Baltimore, Md. Filed Jan. 17, 1914. Serial No. 812,802. (Cl. 74—5.)



In combination with a spoke wheel, a bar having a forked end provided with concaved resilient arms adapted to engage a spoke of said wheel, the ends of the arms projecting beyond the latter and parallel with each other, a thumb screw passing through registering apertures in said parallel ends, a second bar adapted to be fastened at one end to the hub of the wheel, its other end forked and provided with concaved resilient arms for engagement with said spoke engaging bar, and means for clamping the bars together, the end of the spoke engaging bar designed for attachment to a reciprocating rod.

1,133,993. CORN-MILL. ROBERT C. MEADOWS, Poors Knob, N. C. Filed July 2, 1912. Serial No. 707,268. (Cl. 83—8.)



A device of the class described, a shaft, a movable grinding disk mounted thereon, a screen, a cross bar pivotally connected at one end and having its free end disposed adjacent said screen, a shoe mounted upon said arm, a cam fixed upon said shaft and adapted to bear against said shoe, a contractile spring connected to the cross bar at a point adjacent the free end thereof, said spring being operated when said cam engages said cross bar to move the same forwardly, and a flat spring secured at one end to said spring, the opposite end of the latter mentioned spring being hingedly connected to the free end of said cross bar, said first mentioned spring effecting the longitudinal movement of said shaft.

1,133,994. PROCESS OF PRODUCING PURE RESIN-OILS. MEILICH MELAMID, Freiburg, Germany. Filed Aug. 4, 1914. Serial No. 855,050. (Cl. 203—4.)

1. The process of producing pure resin oils, consisting in heating resin with a phosphorus-oxygen compound other than phosphoric acid, substantially as described.

2. The process of producing pure resin oils, consisting in mixing resin with a phosphorus-oxygen compound other than phosphoric acid and heating the mixture, substantially as described.

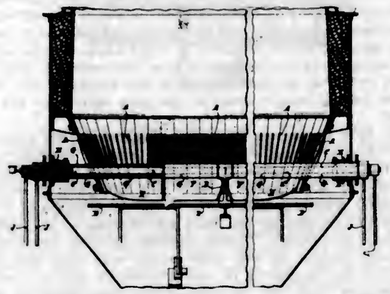
3. The process of producing pure resin oils, consisting in heating resin with a mixture of phosphorus-oxygen compounds, not containing phosphoric acid, substantially as described.

4. The process of producing pure resin oils, consisting in treating resin with a phosphorus-oxygen compound other than phosphoric acid and heating the mixture to a low temperature, substantially as described.

5. The process of producing pure resin oils, consisting in treating resin with a phosphorus-oxygen compound other than phosphoric acid and heating the mixture to approximately 150–200° C, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

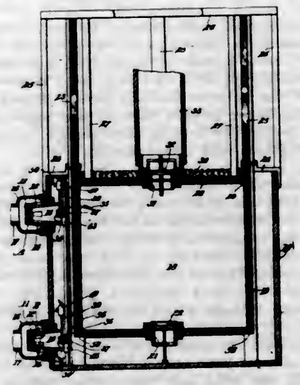
1,133,995. ASH-DISCHARGE DEVICE FOR GAS-PRODUCER GRATES. QUINTIN MOORE, Riddrie, Glasgow, Scotland. Filed Jan. 26, 1915. Serial No. 4,502. (Cl. 48—87.)



1. In connection with gas producer grates, an ash discharging device comprising a table beneath the grate a shaft above and parallel with the table, a sleeve rotatable on the shaft, a plate in parts on the shaft and on the sleeve and depending toward the table, and means for oscillating the shaft and sleeve.

2. In connection with gas producer grates, an ash discharge device comprising a table beneath and conforming in plan to the outline of the lower end of the grate, a shaft longitudinally above the table, stuffing boxes in the producer casing through which the shaft projects, a central support for the shaft, a sleeve in parts on the shaft and also passing out through the stuffing boxes, a plate in parts on the shaft and on the sleeve and depending toward the table, and handles on the projecting ends of the shaft and sleeve.

1,133,996. WATER-LIFTING DEVICE. BERNHARD MUHSOLD, Washington, D. C. Filed Dec. 5, 1913. Serial No. 804,956. (Cl. 103—67.)



1. In a water lifting device, a tank open at its top and provided with an inlet valve and an outlet valve, a water chamber slidable vertically in the tank and provided at its lower end with a valved inlet, means to limit the downward movement of the water chamber to hold it spaced from the bottom of the tank, a fixed piston which is slidably embraced by the water chamber and which forms a closure for the chamber and which is provided with a valved outlet, means between the chamber and the inlet valve of the tank to permit ingress of water into the tank to lift said chamber and thereby discharge water from the chamber through the valve of the piston, means to close said inlet valve of the tank when the chamber reaches its uppermost position, and means for opening the outlet valve of the tank at the time of closing said inlet valve of the tank so that the chamber may move downwardly, the downward movement of the chamber against the pressure of the water in the tank opening the valve in the bottom of the chamber to replenish the latter with water.

2. In a water lifting device, a tank open at its top, an inlet valve, an outlet valve, a vertically movable water chamber in said tank, a piston which is slidably embraced by the water chamber and which has a valve forming an outlet for the water chamber, the water chamber having a valved inlet, means between the water chamber and said inlet and outlet valves of the tank to control the same by the movement of the water chamber and means to provide said chamber with an air chamber.

3. In a water lifting device, a tank provided with an inlet and an outlet valve, a water chamber in said tank provided with an inlet valve and which is movable under the influence of water in said tank, a piston in said chamber provided with a valved outlet, and means for operating said tank valves alternately said chamber having an external air chamber.

4. In a water lifting device, a tank provided with an inlet valve and an outlet valve, a water chamber in said tank movable under the influence of water in said tank and having an inlet valve, said chamber having a surrounding jacket forming an air chamber a piston in said chamber provided with a valved outlet, and connections between the tank and the tank valves to open and close them alternately.

5. In a water lifting device, a tank provided with a valved inlet and a valved outlet, a water chamber in said tank provided with an inlet valve in its bottom, said chamber having a jacket spaced therefrom to provide a surrounding air chamber, the chamber being movable vertically under the influence of the rise and fall of the water in the tank, a frame on the tank, a piston suspended in fixed position from the frame work and located in the water chamber and provided with a valve, and means for operating said tank valves alternately under the influence of movement of said chamber.

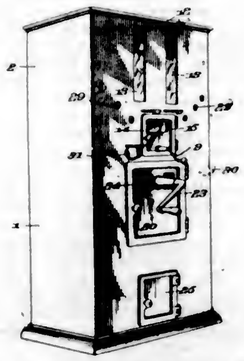
[Claims 6 to 12 not printed in the Gazette.]

1,133,997. CABINET. ERIK NELSON, Holdredge, Nebr. Filed Feb. 13, 1914. Serial No. 818,542. (Cl. 107—7.)

1. A cabinet including an inclosed casing, a bin formed in the upper end thereof, plates spaced from the under surface of the bin for forming a ventilating space which communicates with the atmosphere through apertures formed in the casing, a sifter supported below and in controllable communication with the bin, a water chamber including a bottom and sides of hollow square form, a kneader and mixer arranged within the space between said sides of the chamber, and a heat chamber below said water chamber adapted to receive a heating element, whereby the contents of said kneader and mixer will be heated through the conductivity of the water in said water chamber.

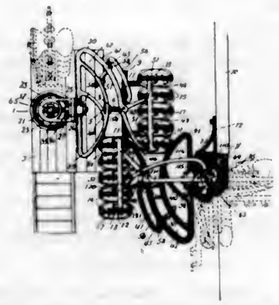
2. As a new article of manufacture, a cabinet including an inclosed casing, a bin formed in the upper end thereof, plates spaced from the under surface of the bin for forming a ventilating space which communicates with the atmosphere through apertures formed in the casing, a sifter supported in the sides of said casing below and in controllable communication with the bin, a water chamber including a bottom and sides of hollow square form, a heating chamber below said water chamber, and a kneader and mixer arranged within the space between said sides of

the chamber, the wall of the casing overlying the bin being formed with a side opening approximating the full height of the bin, the casing wall being formed with an opening above the kneader and mixer for viewing the con-



tents therein, the casing wall being formed with openings to permit the entrance of the sifter and kneader and mixer, and doors closing said openings, the operating means of the kneader and mixer extending through and being operable beyond the closed doors.

1,133,998. MAIL-BAG RECEIVING AND DELIVERING MECHANISM. BENJAMIN FRANKLIN NICOLL, New Orleans, La. Filed Oct. 21, 1913. Serial No. 796,440. (Cl. 258—15.)



1. A mail bag receiving and delivering mechanism, comprising a member having an elongated pocket formed to accommodate a plurality of bags and designed to swing around a pivot, an angular member pivoted in the outer end of said swinging member and designed to support bag engaging devices, and a trigger pivoted to said member and movable into the path of the pocket, said trigger having a connection with the arm to cause the latter to swing into the path of the pocket by engagement of the bags therewith.

2. A mail delivery mechanism, comprising a pivotal support, an automatic hook carried thereby to swing at either side, said hook embodying a substantially semi-circular part having an extension providing a pocket having a flared mouth portion, an angular member pivoted in the free end of said extension, a bar carried by the arms of said angular member, bag engaging fingers pivotally carried by said bar, and a trigger pivoted to the extension and operatively connected to the angular member to cause the latter to swing inwardly at right angles to the extent of the hook by the impact of bags there-against.

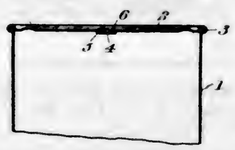
3. A mail delivery mechanism, comprising a pivotal support, an automatic hook carried thereby to swing at either side, said hook embodying a substantially semi-circular part having an extension providing an elongated pocket having a flared mouth portion, an angular member pivoted in the free end of said extension, a bar carried by the arms of said angular member, bag engaging fingers pivotally carried by said bar, and a trigger pivoted to the extension and operatively connected to the angular member to cause the latter to swing inwardly at right angles to the extent of the hook by the impact of bags there-against.

4. A mail delivery mechanism, comprising a pivotal support, an automatic hook carried thereby to swing at either side, said hook embodying a substantially semi-circular part having an extension providing an elongated pocket having a flared mouth portion, an angular member pivoted in the free end of said extension, a bar carried by the arms of said angular member, bag engaging fingers pivotally carried by said bar, and a trigger pivoted to the extension and operatively connected to the angular member to cause the latter to swing inwardly at right angles to the extent of the hook by the impact of bags there-against, said bar also swinging at right angles to the extent of the hook after having been relieved of the bags carried by the fingers.

5. In a mechanism of the class described, the combination with a vertical support; of an element rotatably carried thereby to swing in an arc of 90°, a hook pivotally carried by said element to move to a horizontal or vertical position when in operative or inoperative position, a bar pivotally carried by the hook and having a plurality of spaced projections, fingers carried by said projections, springs carried by and coöperating with said fingers, a similar bar supported in spaced relation and in vertical alinement with the first-named bar and provided with similar fingers and springs, and mail bags having rings engageable with said fingers, whereby the mail bags may be supported in vertical positions to be taken up by a hook of an opposed support or train, thereby effecting the receiving and delivering of the bags.

[Claims 6 to 14 not printed in the Gazette.]

1,133,999. VACUUM-CAN. EDWIN NORTON, Hamilton, Bermuda, assignor to Perfect Vacuum Canning Company, a Corporation of Maine. Filed May 9, 1912. Serial No. 696,181. (Cl. 220—59.)



1. A vacuum can, comprising a can body, a cover therefor, adapted to be hermetically secured to the can body, said cover being formed of black steel and having a resisting coating on its inner face, said cover having a portion of the outer or oxidized surface thereof removed, and having solder secured thereto, said solder and cover having a perforation formed therethrough, through which the can may be placed under vacuum.

2. A vacuum can, comprising a can body, a cover therefor, adapted to be hermetically secured to the can body, said can body and cover being formed of black steel, and having a resisting coating on the inner face thereof, said cover having a depression formed centrally therein, the outer or oxidized surface of said depressed portion of the cover being removed and having solder secured thereto, said solder and cover having a perforation extending therethrough, through which the can may be placed under vacuum.

3. A vacuum can comprising a can body, and a cover therefor adapted to be hermetically secured to the can body, said can body and cover being formed of black steel and having a coating of lacquer on the inner face thereof, said cover having a depression formed centrally therein, the outer or oxidized surface of said depressed portion of the cover being removed and having solder secured thereto, said solder and cover having a perforation extending therethrough through which the can may be placed under vacuum, said can body and cover having a coating of varnish on its outer face to prevent the black steel from oxidizing.

1,134,000. EXTENSION-TABLE. DOCTOR FRANKLIN OLIVER, Oakland, Cal. Filed Oct. 27, 1911, Serial No. 657,015. Renewed Nov. 17, 1914. Serial No. 872,652. (Cl. 45—9.)



1. An extension table comprising a table frame and leaves slidably mounted on said table frame to slide toward or from each other in a lengthwise direction, pairs of transverse guideways fixed on the table frame and inclined in opposite directions, the said guideways being of different depth, extension leaves adapted to move transversely into extended position between the end leaves and flush therewith or into a folded position one above the other and both below the end leaves, and pivots on the sides of the said extension leaves and of different lengths for engaging the said guideways of corresponding depth.

2. An extension table, comprising a table frame and leaves slidably mounted on the said table frame to slide toward or from each other in a lengthwise direction, pairs of transverse guideways fixed on the table frame and inclined in opposite directions, one pair of guideways being arranged in a different vertical plane and terminating at a lower level than the other guideways, the said guideways being of different depth, extension leaves adapted to move transversely into extended position between the end leaves and flush therewith or into a folded position one above the other and both below the end leaves, and pivots on the sides of the said extension leaves and of different lengths for engaging the said guideways of corresponding depth.

3. An extension table, comprising a table frame and leaves slidably mounted on the said table frame to slide toward or from each other in a lengthwise direction, pairs of transverse guideways fixed on the table frame and inclined in opposite directions, the guideways of one pair having a horizontal outward extension beginning approximately at the upper ends of the guideways of the other pair of guideways, and the said guideways of one pair being of a greater depth than the guideways of the other pair of guideways, extension leaves adapted to move transversely into extended position between the end leaves and flush therewith or into a folded position one above the other and both below the end leaves, and pivots on the sides of the said extension leaves and of different lengths for engaging the said guideways of corresponding depth.

4. An extension table, comprising a table frame, end leaves slidably mounted on the said table frame and provided with retaining pins projecting longitudinally beyond the inner opposite edges of the end leaves, pairs of transverse guideways fixed on the table frame, extension leaves adapted to move transversely into extended position between the end leaves and flush therewith, and pivots on the sides of the extension leaves and engaging the said guideways, the said pivots having keepers for engagement by the said retaining pins at the time the parts are in the extended position.

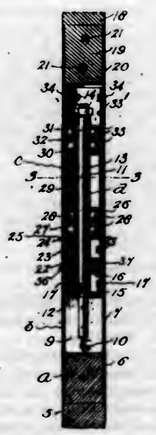
5. An extension table, comprising a table frame, end leaves slidably mounted on the said table frame and provided with retaining pins projecting longitudinally beyond the inner opposite edges of the end leaves, pairs of transverse guideways fixed on the table frame, extension leaves adapted to move transversely into extended position between the end leaves and flush therewith, and pivots each formed of a single piece of metal having an attaching flat portion secured to the under side of the corresponding extension leaf, the flat portion connecting by bent portion with a tubular shank having a head, the shank and head engaging the said guideways and the said bent portion having an opening forming a keeper in alinement with and adapted to be engaged by a corresponding retaining pin at the time the parts are in extended position.

1,134,001. SEWING-NEEDLE. JOSEPH W. OLNEY, Latah, Wash., assignor of one-third to John S. McDonald, Latah, Wash. Filed Apr. 28, 1914. Serial No. 835,005. (Cl. 223—37.)



As a new and improved article of manufacture, a bag sewing needle including a shank having elongated longitudinal slots on opposite sides of its medial line and between its transverse center and butt end, and terminating at a distance from the latter, said slots being separated by an intermediate longitudinal web, the side walls of the slots being divided at points adjacent their forward ends to provide throats or passages, and guards therefor and spring tongues in rear of said throats or passages and coöperating with said guards.

1,134,002. FLAGSTAFF. MARTIN T. OLSTAD, Greenport, N. Y. Filed July 7, 1914. Serial No. 849,607. (Cl. 116—12.)

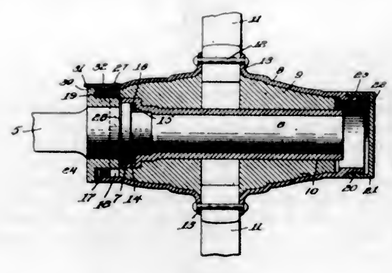


1. A flagstaff comprising a butt, a rod rigidly connected at one end to the butt and provided with a plurality of

spaced shoulders, a top section, a cylindrical casing connected to the lower end of the top section and fitted over the rod, a plurality of bearing cups arranged in spaced relation on the casing and opposed to the shoulders, balls fitted between the cups and the shoulders, spacing collars fitted within the casing for retaining the cups in relative position to the shoulders and a ball bearing disk arranged between the adjacent ends of the butt and top sections for the purposes set forth.

2. A flagstaff comprising a butt, having a diametrically arranged slot at the upper end thereof, a rod having a blade adapted to be fitted within the said slot, so as to position the rod on the butt in a non-rotatable manner, said rod provided with a plurality of annular shoulders arranged in spaced relation, a top section, a cylindrical casing connected to the top section so as to surround the rod, a plurality of bearing cups arranged in spaced relation within the casing and opposed to the shoulders, balls fitted within the cups and between the cups and the shoulders, spacing collars arranged within the casing for retaining the cups in relative position to the shoulders and a ball bearing disk arranged between the adjacent ends of the butt and top sections for the purposes set forth.

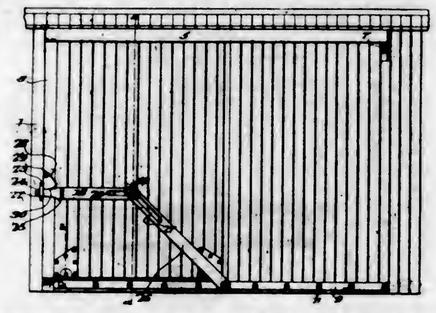
1,134,003. HUB-FASTENER. JENS PETER PEDERSEN, Provo, Utah. Filed Dec. 16, 1913. Serial No. 807,076. (Cl. 21—30.)



The combination with an axle having a collar projecting therefrom, of a hub rotatable upon the axle and having an outer sleeve-like shell formed with an end projected beyond the inner end of the hub, a diametrically notched flange internally of the said projected end of the shell and spaced from the inner end of the hub, a collar loosely surrounding the axle and having a boss for insertion within the projected end of the shell whereby the flange thereon will be concentrically disposed about the same, lugs formed on the boss at diametrically opposite points thereof and movable through the notches in the said flange for slidable engagement between the flange and the inner end of the hub whereby the collar will be locked to the latter, the said collar being formed with a notch in its outer periphery, and a leaf spring fixed to and inset in the outer face of the projected end of the shell and directed longitudinally of the hub for locking engagement in the notch in the outer periphery of the collar.

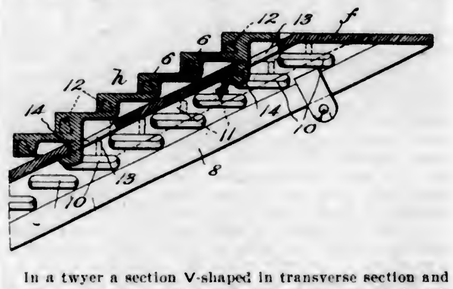
1,134,004. SLIDING-DOOR FASTENER. JOSIAH PICKERING, Schenectady, N. Y. Filed Mar. 4, 1914. Serial No. 822,454. (Cl. 70—102.)

In a structure of the class described a wall having a door opening, a rail spaced from the rail and brought below the opening, a stop bar at one side of the opening, a keeper projecting from said stop bar, a sliding door mounted on the rail, a latch bar to engage the keeper, said latch bar being arranged on the outer side of the door and having a longitudinal slot, a rocking bar also arranged at the outer side of the door, pivotally mounted on its lower end on the rail and having a longitudinal slot near its upper end, and a pivot element projecting from the



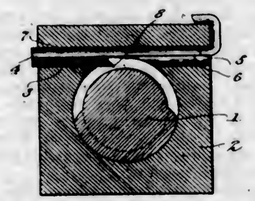
outer side of the door and engaging the slots of the latch bar and rocking bar.

1,134,005. TWYER. JOHN F. PITZ, New York, N. Y., assignor to Pitz & Weber Iron Foundry, New York, N. Y., a Corporation of New York. Filed Apr. 19, 1913. Serial No. 762,408. (Cl. 110—44.)



In a twyer a section V-shaped in transverse section and having at its upper side a plurality of tips provided with openings, said section being provided at its under side with integral hooks the pointed ends of which are disposed in the same direction, said hooks being located along the median long dimension of the section and under the apex of the angle of the V-shaped transverse configuration of the section, said hooks being disposed in a plane and the angles between said plane and the sides of the said V-shaped configuration of the section at the opposite sides of said plane being of equal magnitude, the ends of the said hooks terminating short of the plane in which the side edges of the V-shaped section lie.

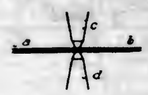
1,134,006. NUT-LOCK. ROBERT R. POWERS, Overbrook, Okla. Filed Feb. 27, 1914. Serial No. 821,616. (Cl. 151—26.)



In combination, a bolt, a nut threaded thereon, said nut having an opening arranged adjacent the periphery of

the bore thereof, a locking key including a cylindrical rigid body portion and a reduced bendable tongue semi-circular in cross section, the body at its juncture with the tongue being slotted inwardly on an angle so as to form a wedge-shaped tooth, the key adapted to be inserted through the opening so that the tooth can be forced into one of the threads of said bolt, the free end of the body portion projecting beyond one face of the nut, the free end of the tongue portion being bent over one edge of the wall of the opening so as to lie parallel with two faces of the nut.

1,134,007. METHOD OF UNITING SHEETS OF BRASS, ALUMINIUM, AND OTHER METALS OR ALLOYS OF HIGH CONDUCTIVITY FOR HEAT. NORBERT PRÖSTLER, Berlin, Germany, assignor to Gesellschaft für Electrotechnische Industrie mit beschränkter Haftung, Berlin, Germany, a Corporation of Germany. Original application filed Nov. 11, 1912, Serial No. 730,737. Divided and this application filed Sept. 19, 1914. Serial No. 862,621. (Cl. 219—10.)



1. The hereinbefore described process of uniting together thin sheets of metals of a higher conductivity for heat than iron, such as brass and like metals or alloys, consisting in abutting together said metallic sheets, exerting perpendicularly to the abutting edges of said sheets an electrode pressure sufficient to produce a slight contact between the plates and the electrodes, and in passing through the plates an electrical current to melt the adjacent contacting surfaces of the sheets.

2. The hereinbefore described process of uniting together thin sheets of metal of a higher conductivity for heat than iron, such as brass and like metals or alloys, consisting in bringing together said metallic sheets by abutting their edges, exerting perpendicularly to the abutting edges of said sheets an electrode pressure sufficient to cause a relatively slight contact between the surfaces of the sheets and the electrodes to provide an increased resistance to the passage of an electrical current between the electrodes and the surfaces of the sheets, and effecting the uniting of the sheets by melting the same at their abutting edges by passing an electric current through the sheets.

3. The hereinbefore described process of uniting together thin sheets of metal of a higher conductivity for heat than iron, such as brass and like metals or alloys, consisting in bringing together said metallic sheets by abutting their edges, exerting transversely to the abutting edges of said sheets an electrode pressure sufficient to produce a slight contact between the plates and the electrodes and in passing through the plates an electrical current to melt the abutting edges of the sheets.

4. The hereinbefore described process of uniting together thin sheets of a metal of a higher conductivity for heat than iron, such as brass and like metals or alloys, consisting in bringing together said metallic sheets by abutting their edges, exerting transversely to the abutting edges of said sheets an electrode pressure sufficient to cause a relatively slight contact between the surfaces of the sheets and the electrodes to provide an increased resistance to the passage of an electrical current between the electrodes and the sheets, and effecting the uniting of the sheets by melting the same at their abutting edges by passing an electric current through the sheets.

5. The herein described process of uniting together thin sheets of brass and like metals or alloys consisting in bringing said sheets together by abutting their edges between two electrodes and applying to the said sheets at the electrodes a pressure sufficient to cause a relatively slight contact between the sheets and the electrodes to provide an increased resistance to the passage of an electrical current at the contacting surfaces of the plates with the electrodes, and in passing an electrical current from one electrode to the other through the plates to cause a localized melting of the metal at the contacting surfaces of the plates with the electrodes which is the point of increase of electrical resistance to melt the abutting edges of the sheets together.

[Claims 6 and 7 not printed in the Gazette.]

1,134,008. DISCUS. WILLIAM F. REACH, Chicopee, Mass. Filed May 26, 1914, Serial No. 841,071. Renewed Feb. 3, 1915. Serial No. 5,975. (Cl. 46—65.)

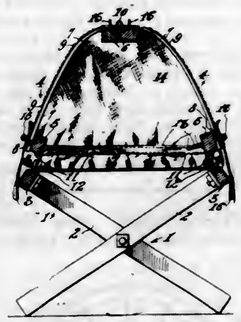


1. A discus comprising a ring and a shell exterior bent around the ring and secured thereto, and a central support for the shell, substantially as described.

2. A discus comprising two shells, a ring within the shells and secured to the shells, and a central support, substantially as described.

3. A discus comprising two shells having their edges brought together, and a ring located within the space formed by the shells and secured thereto, substantially as described.

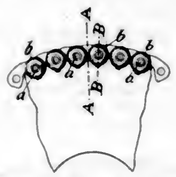
1,134,009. CANOPY FOR BEDS OR COTS. ALFRED J. H. REID, Henderson, Tenn. Filed Nov. 20, 1913. Serial No. 802,096. (Cl. 5—14.)



1. The combination with a base, of a plurality of longitudinally alined upright canopy supporting arches above said base and having laterally bendable lower ends, a pair of longitudinal parallel side bars directly above the base and secured to said bendable ends whereby said bars may be rocked, attaching hooks depending from the said side bars and positioned transversely thereon, and upright eyes on the upper side of the base receiving said hooks, the latter having their bills facing upwardly and lying in the same horizontal plane as the top of said eyes, whereby said hooks may be released only by rocking said side bars.

2. The combination with a base, of a pair of longitudinal ridge bars spaced a considerable distance above said base and contacting one with the other at their inner edges, hinges secured to the upper sides of said ridge bars, longitudinal side bars directly above said base and spaced one from the other, cross bows secured at their upper ends to said ridge bars and at their lower ends to said side bars, said bows being laterally flexible, attaching hooks depending from said side bars and positioned transversely thereon, attaching eyes on said base and located directly beneath said side bars, said eyes receiving said hooks, the bills of the latter facing upwardly and lying in the same horizontal plane as the upper ends of said eyes, whereby said hooks may be released only by rocking said side bars against the tension of said flexible bows.

1,134,010. DRIVING-CHAIN. HANS RENOLD, Manchester, England. Filed Aug. 16, 1913. Serial No. 785,089. (Cl. 74—32.)



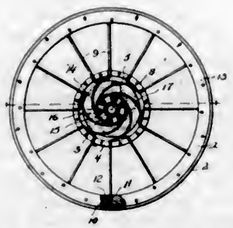
1. In a driving chain, link studs or rivets and a washer rigidly secured to the ends of the said studs or rivets, of a diameter large enough to bear against the sides of the sprocket wheel to guide the chain laterally and by frictional contact with the said sides intermittently rotate the said link studs or rivets, for the purpose specified.

2. In a driving chain, link studs or rivets and a washer rigidly secured to the ends of the said studs or rivets, of a diameter large enough to bear against the sides of the sprocket wheel to guide the chain laterally and by frictional contact with the said sides intermittently rotate the said link studs or rivets, the said washer being employed at both ends of the link stud or rivet, for the purpose specified.

3. In a driving chain, link studs or rivets and a washer rigidly secured to the ends of the said studs or rivets, of a diameter large enough to bear against the sides of the sprocket wheel to guide the chain laterally and by frictional contact with the said sides intermittently rotate the said link studs or rivets, the said washer having a hole of two different diameters forming a shoulder, the smaller part of which is adapted to receive the neck and the larger part the body of the stud or rivet, for the purpose specified.

4. In a driving chain, link studs or rivets and a washer rigidly secured to the ends of the said studs or rivets of a diameter large enough to bear against the sides of the sprocket wheel, in combination with series of links connecting the said studs or rivets, the consecutive series of which are the same in numbers and of equal strength and elasticity, for the purpose set forth.

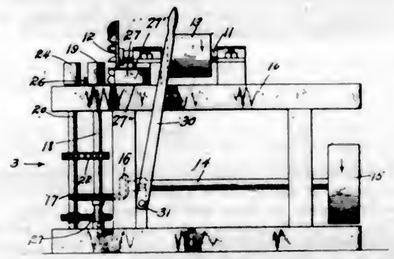
1,134,011. VEHICLE-WHEEL. EMIL RETZLAFF, Hoffman, Minn. Filed June 23, 1914. Serial No. 846,843. (Cl. 152—51.)



1. In a vehicle wheel, the combination of a felly, a hub comprising inner and outer members concentric to each other and the axis of the wheel, and a circular series of spring spokes terminally attached to the felly and inner hub member and slidingly related to the outer hub member, each spoke embodying a straight radially disposed outer portion extending from the felly through the outer hub member and an inner portion described on an involute curve and embracing a part of the inner hub member, said spokes being so arranged that the involute curved portion of each spoke extends in the opposite direction from the corresponding curved portions of the spokes at opposite sides thereof and immediately adjacent thereto.

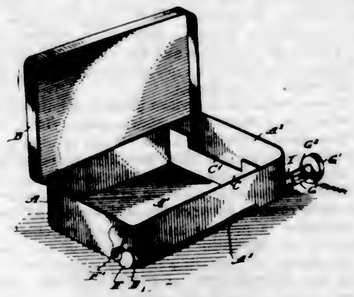
2. In a vehicle wheel, the combination of a felly, a hub comprising inner and outer members concentric to each other and the axis of the wheel, and a circular series of spring spokes terminally attached to the felly and inner hub member and slidingly related to the outer hub member, each spoke embodying a straight radially disposed outer portion extending from the felly through the outer hub member and an inner portion described on an involute curve and embracing a part of the inner hub member, said spokes having their inner curved portions reduced to approximately one-half width and being so arranged that the involute curved portion of each spoke extends in the opposite direction from the corresponding curved portions of the spokes at opposite sides thereof and immediately adjacent thereto.

1,134,012. HOOP-MACHINE. HENRY P. RICHARDSON, Killen, Ala. Filed May 22, 1914. Serial No. 840,323. (Cl. 147—43.)



In a hoop cutting machine, the combination with a cutter rotating in an upright plane, a presser roller standing at one edge of said cutter, and a pair of oppositely rotating draw rollers disposed beyond the presser roller in the direction in which the hoop moves; of a rigid upstanding guide in the rear of the cutter and between the presser roller and the draw rollers, a movable guide comprising a base plate pivoted to the front bar of the frame and a guide proper upstanding from one edge of the plate forward of the cutter and presser roller and turned inward into an overhanging flange, and a spring pressing this movable guide normally toward the presser roller, the whole operating substantially as described.

1,134,013. CIGARETTE-ROLLING MACHINE. JAMES EDWARD ROACHE, New York, N. Y. Filed May 5, 1914. Serial No. 836,455. (Cl. 131—39.)



1. A cigarette rolling machine, comprising a tobacco container, a filling tube in the said container and having one end opening into the said container for the tobacco to pass from the container into the filling tube, the latter having a tangential entrance in the outer side for the insertion of a wrapper, and a manually controlled tool mounted to be turned and adapted to be passed into the said filling tube to distribute and tamp the tobacco in the tube and to rotate the tobacco to cause it by its engagement with the wrapper to draw the wrapper into the tube through the slot thereof and wind it around the tobacco in the filling tube.

2. A cigarette rolling machine, comprising a tobacco container, a filling tube in the said container and having one end opening into the said container for the tobacco to pass from the container into the filling tube, the latter having a tangential entrance in the outer side for the insertion of a wrapper, a closure for the outer end of the said filling tube, and a manually controlled tool mounted to be turned and adapted to be passed into the said filling tube to distribute and tamp the tobacco in the tube and to rotate the tobacco to cause it by its engagement with the wrapper to draw the wrapper into the tube through the slot thereof and wind it around the tobacco in the filling tube and to eject the cigarette through the outer end after the closure has been opened.

3. A cigarette rolling machine, comprising a tobacco container provided near one end with a partition to form a main compartment and a measuring compartment, the compartments being in communication with each other, a filling tube held in the said container and provided with a lengthwise extending slot leading to the outside of the container to permit the insertion of a wrapper, the said filling tube having its inner end opening into the said measuring compartment and the other end of the filling tube extending to the outside of the container, and a rod mounted to turn and to slide in the said container and adapted to pass through the said measuring compartment at the inner end of the filling tube into the latter.

4. A cigarette rolling machine, comprising a tobacco container provided near one end with a partition to form a main compartment and a measuring compartment, the compartments being in communication with each other, a filling tube held in the said container and provided with a lengthwise extending slot leading to the outside of the container to permit the insertion of a wrapper, the said filling tube having its inner end opening into the said measuring compartment and the other end of the filling tube extending to the outside of the container, a closure on the outer end of the said filling tube to normally close the same and to allow of opening the outer end of the filling tube prior to ejecting the cigarette from the tube, and a rod mounted to turn and to slide in the said container and adapted to pass through the said measuring compartment at the inner end of the filling tube into the latter.

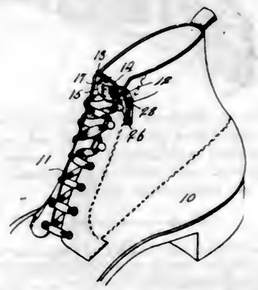
5. A cigarette rolling machine comprising a tobacco container provided near one end with a partition to form a main compartment and a measuring compartment, the compartments being in communication with each other, a filling tube held in the said container and provided with a lengthwise extending slot leading to the outside of the container to permit the insertion of a wrapper, the said filling tube having its inner end opening into the said measuring compartment and the other end of the filling tube extending to the outside of the container, a bushing in axial alinement with the said filling tube and mounted to turn in the end of the container adjacent the said measuring compartment, and a flat bar mounted to slide in the said bushing to pass through the said measuring compartment into the said tube, the outer end of the said bar having a handle.

[Claims 6 to 8 not printed in the Gazette.]

1,134,014. SHOE-LACE FASTENER. JAMES C. ROBERTSON, Cresson, Pa. Filed July 10, 1914. Serial No. 850,202. (Cl. 24—120.)

1. In a shoe lace fastener, the combination with swingingly connected upper and lower sections, each having an opening therein, of a pad in the lower section, a securing plate mounted to swing on the upper section to lie in the openings in the upper and lower sections, said securing plate being adapted to grip a lace passed through the openings of the upper and lower sections, and means for locking the plate against movement.

2. In a shoe lace fastener, the combination with swingingly connected upper and lower sections, each having an opening therein, of a pad in the lower section, a securing plate mounted to swing on the upper section to lie in the openings in the upper and lower sections, said securing plate being adapted to grip a lace passed through the openings of the upper and lower sections, means for locking the plate against movement, and a pad on the securing plate whereby the said lace, when the plate is secured in locked position, will pass between the pad in the lower section and the pad of the said securing plate.



3. In a shoe lace fastener, the combination with relatively movable upper and lower sections, each having an opening, of a pad in the lower section, a plate swingingly carried on the upper section to lie in the openings in the upper and lower sections, said plate being adapted to grip a lace passed through the openings in the upper and lower sections, and a pad on the plate, said lace passed between the pad in the lower section and the pad on the plate.

1,134,015. TRUCK BRAKE AND HANDLE. CHAUNCEY B. RUSK, Galion, Ohio. Filed Jan. 3, 1914. Serial No. 810,204. (Cl. 21—8.)



1. A draft bar for trucks provided at is forward end with a head, vertical means thereon, horizontal means traversing the vertical means, a handle pivotally connected with the bar and free to swing with relation to the said bar and second named means, stop walls adjacent the vertical means to hold the handle against horizontal adjustment, stop walls adjacent the horizontal means to hold the handle against vertical adjustment, and a brake element carried by said handle.

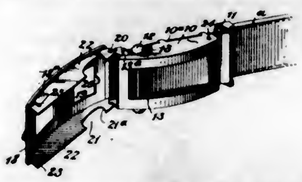
2. In combination, a draft bar having a head in which is formed intersecting vertical and horizontal openings, a truck handle having pivotal connection with the head of the draft bar and adapted to move in the vertical and horizontal openings thereof, a brake, and connecting means between such brake and truck handle.

3. In combination, a draft bar having intersecting vertical and horizontal openings, a coupler connected to the draft bar and having an eye in coincident position with the point of intersection of the vertical and horizontal openings of the draft bar head, a handle engaging the eye of the coupler and adapted to swing vertically and horizontally, a brake, and connecting means between the brake and handle.

1,134,016. INITIAL-BUCKLE. LOUIS SANDERS, New York, N. Y. Filed June 13, 1914. Serial No. 844,925. (Cl. 40—140.)

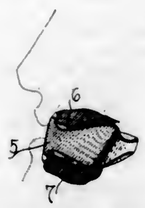
A buckle of the character described, comprising a body, a separate cover plate at the front of the body, said

plate having longitudinally ranging side flanges, there being corrugations in the flanges at the juncture of said flanges with the cover plate, said flanges extending rearwardly from the corrugations at substantially right angles to the front plate and overlapping the side surfaces of



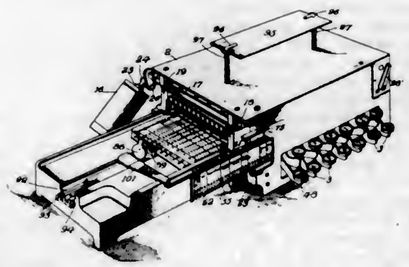
the body, said corrugations presenting interior longitudinal grooves, and letter plates having end members slidably fitting in said grooves in frictional engagement with the walls thereof, said front plate having an opening across which the letter plates extend.

1,134,017. DENTAL BITE-TRAY. MARTIN E. SANDERS, Rosenberg, Tex. Filed Sept. 14, 1914. Serial No. 861,682. (Cl. 32—6.)



The herein described dental bite tray consisting of a homogeneous body molded from a hard pressure resisting substance and adapted to be entirely received within the mouth of the patient, said body being provided in its upper and lower faces with continuous grooves or channels adapted to receive the respective gum ridges.

1,134,018. PAPER-PERFORATING MACHINE. JOHN THOMAS SCHAAFF, Washington, D. C. Filed July 21, 1914. Serial No. 852,136. (Cl. 164—113.)



1. In a perforating machine, the combination of a finger key, a punch, a punch guide and a stationary die registering with the punch, a normally inactive electromagnetic motor device arranged in a normally open circuit, a source of electric supply in said circuit and a pair of contacts normally spaced apart also in said circuit, means movable from its normal position of rest by the depression of the finger key for closing the said circuit at the said contacts whereupon the said motor device becomes energized, means movable by the said motor device for actuating the punch and for effecting the deenergization of the said motor device immediately thereafter and in advance of any return movement of the key toward its normal position of rest, whereupon the said motor device becomes inactive and remains inactive till another key depression whether the then pressure of the finger upon the key be maintained or not.

2. In a perforating machine, the combination of a plurality of punches, a plurality of finger keys one for each punch, means controlled by the finger keys for selecting the punch or punches to be operated, a stationary die plate and a punch guide both rigidly secured to the frame of the machine, a normally inactive electro-magnetic motor device arranged in a normally open circuit, a source of electric supply and a pair of contacts normally spaced apart also in said circuit, means movable from its normal position of rest by any of said finger keys to close the said contacts whereupon the said motor device becomes energized, and means movable by the said motor device for operating any one or more of said punches at the same time as desired, and immediately thereafter effecting the deënergization of the said motor device in advance of any return movement of the finger key toward its normal position of rest, said motor device thereafter remaining inactive until another depression of any of said finger keys.

3. In a perforating machine, the combination of a punch, a finger key, an electromagnet arranged in a normally open circuit, said electro-magnet comprising a fixed part and a reciprocating part, a single pair of contacts, normally spaced apart, in said circuit, one of said contacts having a normal position to which it tends to return when displaced, means operated by the key to close the contacts whereupon the magnet becomes energized, and means movable independently of any further movement of the key, operated by the magnet, for operating the punch and for releasing said contact from its key control, thus permitting said contact to return toward its normal position of open circuit and the magnet to become deënergized in advance of any return movement of the key toward its normal position of rest.

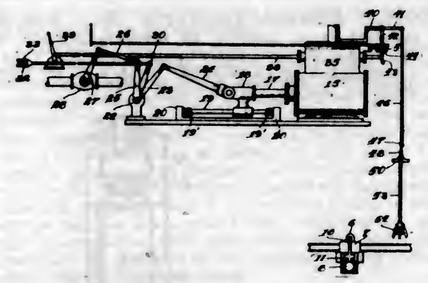
4. In a perforating machine the combination of a punch, a pivoted lever extending across the punch for operating it, a finger key, means for returning said key when displaced to its normal position of rest, a normally inactive motor, a motor plate operated by the motor, an interposing member suitably supported and normally out of the path of movement of the motor plate, said interposing member being connected with the key and adapted to be moved by the key, upon a depression of the key, into a position between the motor plate and the punch actuating lever, means normally controlled by the key to cause the motor to operate the motor plate to effect movement of the punch actuating lever and to disconnect the said motor controlling means from the finger key, whereupon said motor controlling means resumes its normal position and the motor thereupon becomes inactive in advance of the release of the key and remains inactive till another key depression.

5. In a perforating machine, the combination of a finger key and means associated with it for restoring it when displaced to its normal position of rest, a normally inactive motor, a punch, a punch actuating lever, a motor plate actuated by the motor, an interposing member, said key having integral with it an extension serving as a cam to transmit reciprocal motion in a plane other than that of the key to the interposing member, said interposing member being suitably supported and lying normally out of the path of movement of the motor plate and in engagement with said key extension and adapted to be moved thereby, upon the depression of the key, into the path of movement of the motor plate to receive movement therefrom independently of the movement of the key and to transmit motion so received to the punch actuating lever; means normally controlled by the finger key to cause the motor to operate the motor plate, said motor plate thereupon operating the interposing member and disconnecting the motor controlling means from the finger key and thus permitting the motor controlling means automatically to return toward its normal position of rest and thereby to de-

energize the motor after its having once actuated the motor plate and the motor becomes thereupon again inactive in advance of any return movement of the finger key toward its normal position of rest and remains inactive till another key depressing.

[Claims 6 to 42 not printed in the Gazette.]

1,134,019. TRAIN-STOPPING APPARATUS. DAVID S. SHOFFSTALL and HENRY SHOFFSTALL, Mount Carmel, Pa. Filed Sept. 30, 1914. Serial No. 864,318. (Cl. 246—59.)

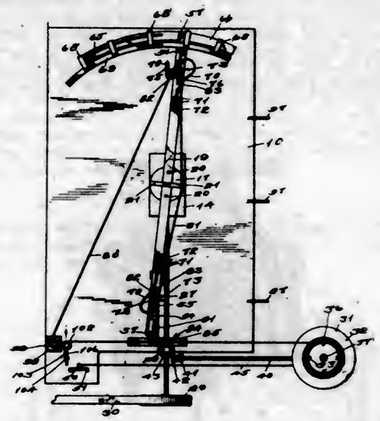


In train stopping apparatus, the combination with a valve for cutting off the propelling power of a motor car and the engineer's brake valve, of a cylinder, a piston within said cylinder and capable of sliding movement therein, a connection between said piston and said valves whereby the latter may be actuated in the movement of the piston, a valve chest on said cylinder, a slide valve within said chest normally establishing communication between said chest and one side of said piston and between the remaining side of said piston and the atmosphere, a source of fluid pressure connected with said chest, a valve rod for setting said slide valve and projecting outwardly from one end of the cylinder, a second rod slidably mounted within the remaining end of the cylinder co-axial with the first rod, a bell crank lever comprising a horizontal limb and a vertical limb disposed adjacent to the outer end of said last rod and formed of pivotally connected sections, means for swinging said bell crank lever to actuate said last rod whereby the slide valve will be shifted to establish communication between the idle side of said piston and the source of fluid supply and between the remaining side of the piston and the atmosphere, and means for moving the rod engaging section of the vertical limb of said bell crank lever out of line with the adjacent end of the rod whereby the rod will be uninfluenced in the movement of the bell crank lever.

1,134,020. BALE-TIE-FORMING MACHINE. AMOS T. SHOWALTER, Hagerstown, Md. Filed Apr. 16, 1914. Serial No. 832,325. (Cl. 140—73.)

1. In a machine of the character described, the combination with a supporting structure, of a rotatable support mounted upon the same, wire holding and twisting elements mounted upon the rotatable support near the ends thereof, means to rotate the wire holding and twisting elements with relation to the rotatable support during the rotation thereof, means to guide the wire into engagement with the wire holding and twisting elements, cutting mechanisms arranged near the wire holding and twisting elements and radially adjustably connected with the rotatable support, and means to rotate the support.

2. In a machine of the character described, the combination with a supporting structure, of a rotatable support mounted upon the same, wire holding and twisting elements mounted upon the rotatable support near the ends thereof, means to rotate the wire holding and twisting elements with relation to the rotatable support during the rotation thereof, elements radially adjustably connected with the rotatable support and arranged near the wire holding and twisting elements to guide the wire thereto, cutting mechanisms connected with the rotatable support and arranged near the guide elements, and means to rotate the support.



3. In a machine of the character described, the combination with a supporting structure, of a rotatable support mounted upon the same, wire holding and twisting elements removably mounted upon the rotatable support near the ends thereof, means to rotate the wire holding and twisting elements with relation to the rotatable support during the rotation thereof, wire guide elements adjustably mounted upon the rotatable support near the wire holding and twisting elements and adapted to be moved longitudinally of the rotatable support, cutting mechanisms adjustably mounted upon the rotatable support to be moved longitudinally thereof and arranged near the wire guide elements, and means to rotate the support.

4. In a machine of the character described, the combination with a supporting structure, of a rotatable support mounted upon the same, rotatable wire holding and twisting elements connected with the rotatable support near the ends thereof, means to rotate the wire holding and twisting elements with relation to the rotatable support during the rotation thereof, means to guide the wire into engagement with the wire holding and twisting elements, means to cut the wire, means to rotate the support, and adjustable means to regulate the tension of the wire during the feeding movement thereof.

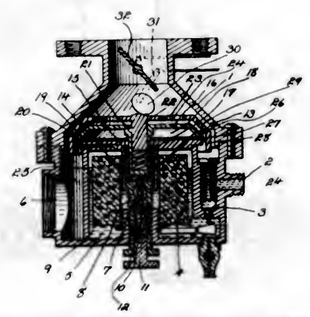
5. In a machine of the character described, the combination with a supporting structure, of a rotatable support mounted upon the same, wire holding and twisting elements mounted upon the rotatable support near the ends thereof, means to rotate the wire holding and twisting elements with relation to the rotatable support, means carried by the rotatable support to guide the wire into engagement with the holding and twisting elements, means to cut the wire, means to rotate the support, an upstanding support, a pulley rotatably mounted upon the upstanding support and engaging the wire, a lever pivoted to the upstanding support, a pulley carried by the pivoted lever and engaging the wire, and means to swing the lever in the desired direction.

[Claims 6 to 11 not printed in the Gazette.]

1,134,021. CARBURETER. FREDERICK SOHON, Washington, D. C. Filed Nov. 14, 1913. Serial No. 800,957. (Cl. 48—155.1.)

1. A carbureter for internal combustion engines, comprising a volatilizing chamber, having an aspirating opening, an air passage in communication with said chamber by means of said aspirating opening to cause an aspirating

effect at said aspirating opening to form a partial vacuum within said chamber, said aspirating opening being sufficiently large to permit egress of a sufficient quantity of fuel in volatilized form to pass therethrough into the said air passage to produce an explosive mixture, and means for maintaining a supply of fuel oil in communication with said chamber in such manner that the partial vacuum formed in said chamber will volatilize said fuel oil, said chamber being open to the atmosphere only at the fuel supply opening and at the aspirating opening and means for regulating the extent of partial vacuum in said chamber.



2. A carbureter for internal combustion engines, comprising a volatilizing chamber, having an aspirating opening, an air passage in communication with said chamber by means of said aspirating opening to cause an aspirating effect at said aspirating opening to form a partial vacuum within said chamber, said aspirating opening being sufficiently large to permit egress of a sufficient quantity of fuel in volatilized form to pass therethrough into the said air passage to produce an explosive mixture, and means for maintaining a supply of fuel oil in communication with said chamber in such manner that the partial vacuum formed in said chamber will volatilize said fuel oil, said chamber being open to the atmosphere only at the fuel supply opening and at the aspirating opening, a throttle for regulating the amount of explosive mixture passing from the carbureter and means for regulating the extent of partial vacuum in said chamber irrespective of the throttle and for admitting a supply of atmospheric air to said volatilized fuel to provide an explosive mixture substantially as described.

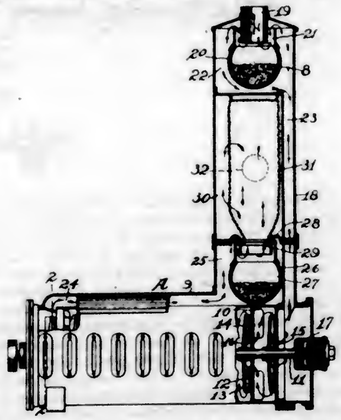
3. A carbureter for internal combustion engines, comprising a chamber, means for maintaining a supply of fuel oil in communication with said chamber, said chamber being provided with an aspirating opening, means for causing an aspirating action at said opening to produce a partial vacuum within said chamber to volatilize the fuel oil in said chamber, a throttle for regulating the quantity of mixture passing from said carbureter and means for regulating the extent of partial vacuum in said chamber irrespective of the said throttle.

4. A carbureter comprising a chamber having a narrow opening, an air passage in communication with said narrow opening of said chamber through which air passage air is adapted to pass at high velocity to cause an aspirating action at said narrow opening of said chamber to produce a partial vacuum therein, means for maintaining a supply of fuel oil in communication with said chamber in such manner that the said fuel oil is volatilized and aspirated from said chamber through the said narrow opening therein, a mixture regulating hood associated with said chamber and adjustable in relation thereto to regulate the velocity of air in said air passage at said narrow opening of said chamber.

5. A carbureter comprising a chamber having a narrow opening, an air passage in communication with said narrow opening of said chamber through which air passage air is adapted to pass at high velocity to cause an aspirating action at said narrow opening of said chamber to produce a partial vacuum therein, means for maintaining a supply of fuel oil in communication with said chamber in such manner that the said fuel oil is volatilized and aspirated from said chamber through the said narrow opening therein, means associated with said chamber and adjustable in relation thereto to regulate the velocity of air in said air passage at said narrow opening of said chamber, and for admitting a supply of atmospheric air to mix with the volatilized fuel in said air passage, substantially as described and for the purposes set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,134,022. CLEANING APPARATUS. IRA H. SPENCER, Hartford, Conn., assignor, by mesne assignments, to The Spencer Turbine Cleaner Company, Hartford, Conn., a Corporation of Connecticut. Filed May 31, 1907. Serial No. 376,608. (Cl. 83—47.)



1. A cleaning apparatus comprising a casing, said casing being provided with a chamber which is adjacent to and in communication with the air inlet pipe of the apparatus and being also provided with a second chamber which is located below said chamber first named, a suction creating device movably mounted in said casing, a dust arrester arranged vertically above the portion of said casing within which said suction creating device is mounted, said dust arrester being located in that said chamber of the casing which is adjacent to the air inlet pipe of the apparatus and being provided with a dust receiving receptacle into which the air inlet pipe of the apparatus projects, an air inlet pive opening into said arrester, means for permitting the passage of air from the chamber in which said arrester is located to the interior of the portion of said casing within which said suction creating device is located, and a second dust arrester in communication with the air outlet end of said casing and arranged below the dust arrester first mentioned.

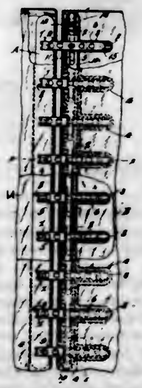
2. A cleaning apparatus comprising a casing, suction inducing centrifugal means revolubly mounted in said casing and involving a plurality of devices successively delivering the same volume of air from one to another and operating to successively increase the density of said air within said casing, a dust receiving receptacle having an imperforate bottom and having an outlet opening in its upper portion, an air inlet pipe opening into said receptacle, the cross-sectional area of the inlet pipe being less than that of the said receptacle to thereby permit a portion of the dirt and trash to settle in said receptacle, and means for permitting the air and finer dust to issue from the outlet opening of the said receptacle and to enter the interior of said casing at one end thereof.

3. A cleaning apparatus comprising a casing, suction inducing centrifugal means revolubly mounted in said casing and involving a plurality of devices successively delivering the same volume of air from one to another and operating to successively increase the density of said air within said casing, a dust receiving receptacle having an opening therein, a drawer movably mounted in said receptacle and having an opening which communicates with the opening in said receptacle, an air inlet pipe projecting into the opening in said receptacle, the cross-sectional area of the inlet pipe being less than that of the opening in said receptacle to thus form an outlet permitting the air and a portion of the dust transported thereby to pass from said receptacle, means for permitting the air issuing from said receptacle to enter the interior of said casing at one end thereof, and an outlet connecting the interior of the casing with the atmosphere.

4. A cleaning apparatus comprising a casing, suction inducing means revolubly mounted in said casing and involving a plurality of devices operating centrifugally to successively displace the air entering said casing and to successively increase its density, an arrester of the settling type adapted to collect a portion of the dirt and trash and to permit the escape of air and fine dust, means for directing the current of dust-laden air downwardly within said arrester, means for permitting the air and dust issuing from said arrester to pass in a continuous stream to said suction inducing means, and a dust arrester of the dry type communicating with said casing and to which the dust-laden air delivered by the suction inducing means passes after leaving said casing.

5. A cleaning apparatus involving a casing having an inlet opening and an outlet opening, successively acting revoluble means mounted in said casing and operating centrifugally to progressively increase the density of the dust-laden air passing through said casing, and an arrester involving a chamber for collecting a portion of the dirt and trash by deposition due to gravity and adapted to permit the air and the remainder of the dust particles to escape therefrom and enter said casing without substantial resistance.

1,134,023. CORSET. ALFRED SPIEGEL, Brooklyn, N. Y. Filed Jan. 31, 1914. Serial No. 815,778. (Cl. 24—206.)

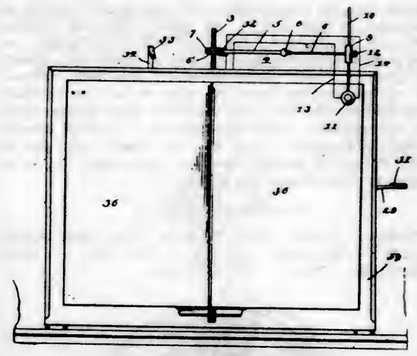


1. A fastening device of the class described comprising a pair of members for attachment to a garment, one of said members having a button and the other having a guide arranged at an angle to said member, a connecting member adapted to be detachably engaged with the button of the first-named member and adjustably secured in the guide of the second member, and a securing member for said connecting member, said securing member being slidably engaged with the second member.

2. A fastening device of the class described comprising a member for attachment to a garment and having a plurality of guides arranged at an angle thereto, a plurality of connecting members extending across the first named member and each adjustably arranged in one of the guides thereof, and a common securing member for said connecting members, said securing member being slidably engaged with the first named member.

3. A fastening device of the class described comprising a member for attachment to a garment and having a plurality of guides arranged at an angle thereto, a plurality of connecting members extending across the first named member and each adjustably arranged in one of the guides thereof, and a common securing member for said connecting members, said securing member being slidably engaged with the first named member, the said connecting members and said guides being provided with coacting means to prevent the connecting members from being entirely withdrawn from the guides.

1,134,024. MUSIC-LEAF TURNER. ELMER T. SPITLER, Pueblo, Colo. Filed Feb. 4, 1914. Serial No. 816,448. (Cl. 84—135.)



1. In a music leaf turner, a rotatably mounted sheet turning arm, means normally tending to actuate the same for turning a sheet of music from one position to another, means for holding the actuating means in inoperative position, means for connecting the arm with a sheet of music, means for successively actuating the connecting means and releasing said holding means, and means for turning the sheet turning arm to normal position.

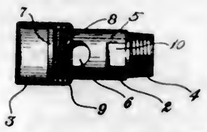
2. In a music leaf turner, a rotatably mounted sheet turning arm, means normally tending to actuate the sheet turning arm to turn a sheet of music from one position to another, means for connecting said arm with a sheet of music, means for holding the actuating means in inoperative position, means for successively actuating the connecting means and releasing the said holding means, means for maintaining the connecting means in operative position, and means for successively throwing the holding means into operative position and rendering the connecting means inoperative.

3. In a music leaf turner, a rotatably mounted sheet turning arm, means normally tending to actuate the sheet turning arm to turn a sheet of music from one position to another, means for connecting said arm with a sheet of music, means for holding the actuating means in inoperative position, means for successively actuating the connecting means and releasing the said holding means, means for maintaining the connecting means in operative position, means for successively throwing the holding means into operative position and rendering the connecting means inoperative, and means for returning the sheet turning arm to normal position.

4. In combination with a sheet of music, having a magnetic armature thereon, together with mechanical means including a sheet turning arm, carrying a magnet, means for energizing and deënergizing the same in different positions in the sheet turning arm, mechanical means for lift-

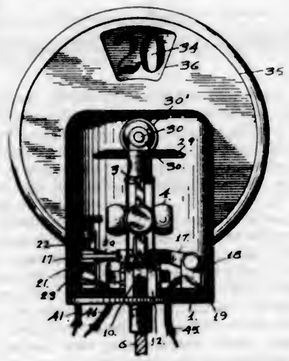
ing the magnet out of engagement with the armature after the same has been deënergized, and means for returning the sheet turning arm to initial position.

1,134,025. OIL-HOLE COVER. CHARLES F. TUCKER, Hartford, Conn. Filed Nov. 11, 1913. Serial No. 800,309. (Cl. 184—95.)



An oil-hole cover having a plug member, and a cap member, the cap member having the forward end open and the rear end wholly closed, said closed end being integral with the body of the cap member, a coiled spring surrounding the plug member, the cap member having an abutment for one end of the spring, the plug member having an abutment for the other end of the spring, the plug member having a bore and also having a port opening into said bore, said spring serving to constantly advance the cap member to cause the body thereof to normally close the port and the outer end of the plug member when the cap member is advanced, having a bearing directly against said closed end of the cap member and the interior of the cap member from its outer closed end to its abutment being of uniform diameter.

1,134,026. SPEED CONTROLLER AND INDICATOR. JOHN L. WHEELER, Napa, Cal. Filed Mar. 21, 1914. Serial No. 826,398. (Cl. 123—118.)



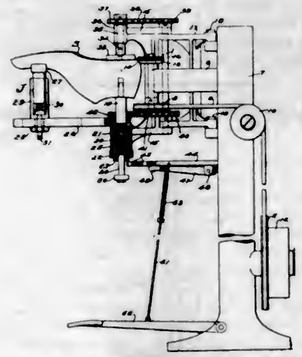
1. A speed controller and indicator for automobiles and the like comprising an indicator secured to the front of a vehicle and arranged to indicate the speed for which the controller is set; a speed controller operatively connected to one of the wheels of the vehicle and to the indicator and adapted to interrupt the igniting circuit of a motor when the speed of the vehicle attains a predetermined speed; and means secured to the dash board of the vehicle and arranged to operate the indicator and to determine the speed at which the speed controller will be operated.

2. A speed controller and indicator for automobiles and the like comprising an indicator secured to the front of the vehicle and adapted to indicate the speed for which the controller is set; a speed controller operatively connected to one of the wheels of the vehicle and adapted to interrupt the igniting circuit of a motor when the vehicle attains the speed indicated by the indicator; a shaft operatively connected to the indicator, controller and to the dash board of the vehicle whereby the controller and indicator may be operated.

3. A speed controller and indicator for automobiles and the like comprising an indicator secured to the front of the vehicle and adapted to indicate the speed for which the controller is set; a speed controller operatively connected to one of the wheels of the vehicle and adapted to interrupt the igniting circuit of a motor when the vehicle attains the speed indicated by the indicator; a shaft operatively connected to the indicator, controller and to the dash board of the vehicle whereby the controller and indicator may be operated; and means secured to the dash board of the vehicle and operatively connected to that end of the shaft and arranged to indicate to the operator the speed for which the controller is set.

4. A speed controller and indicator for automobiles and the like comprising an indicator secured to the front of the vehicle and adapted to indicate the speed for which the controller is set; a speed controller operatively connected to one of the wheels of the vehicle and adapted to interrupt the igniting circuit of a motor when the vehicle attains the speed indicated by the indicator; a shaft operatively connected to the indicator, controller and to the dash board of the vehicle whereby the controller and indicator may be operated; a stationary numbered disk secured to the dash board of the vehicle and arranged to rotatably engage that end of the shaft; and a pointer secured to that end of the shaft and arranged to indicate on the stationary disk the speed for which the controller is set.

1,134,027. INSOLE-HEEL-SEAT-TRIMMING MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Apr. 27, 1912. Serial No. 693,643. (Cl. 12—87.)



1. An insole heel seat trimming machine for trimming to the contour of the heel end of the inst, the heel portion of an insole attached to the bottom of the last, having, in combination, an operating tool, gaging means relatively positioning the last and tool including a thin flange or guard to enter between the insole and last and support the margin of the insole for the action of the tool without interference between the tool and the edge of the last, and insole support including a last movable to transfer the operating tool along the heel seat edge of the insole, a device for holding the insole from movement under the thrust of the tool, and means for positively actuating the device to maintain it in fixed relation to the support as it moves during the trimming operation, substantially as described.

2. An insole heel seat trimming machine, having, in combination, an operating tool, an insole support universally movable in the operating plane to transfer the operating tool along the heel seat edge of the insole, a device for holding the insole from movement under the thrust of the tool, and means for maintaining the device in fixed relation to the support as it moves during the trimming operation, substantially as described.

3. An insole heel seat trimming machine, having, in combination, an operating tool, a rotatable insole support

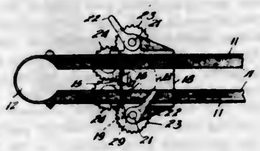
universally movable in the operating plane to transfer the tool along the heel seat edge of the insole, a device for holding the insole from movement under the thrust of the tool, and means for positively actuating the device to maintain it in fixed relation to the support as it moves during the trimming operation, substantially as described.

4. An insole heel seat trimming machine, having, in combination, an operating tool, a toggle pivotally connected at its inner end to the machine frame, an insole support mounted at the outer end of said toggle, a second parallelly arranged and similarly mounted toggle, a device mounted at the outer end of said second toggle for holding the insole from movement under the thrust of the tool, means for clamping the insole between said support and device whereby the insole may be universally used in the operating plane to transfer the tool along its heel seat edge, and means for maintaining said device and support in fixed relation to each other as the support moves during the trimming operation, substantially as described.

5. An insole heel seat trimming machine for trimming to the contour of the heel end of the last the heel portion of an insole attached to the bottom of the last, having, in combination, an operating tool, gaging means for relatively positioning the last and tool including a thin flange or guard to enter between the insole and last and support the margin of the insole for the action of the tool without interference between the tool and the edge of the last, an insole support including a last, and a plate having a depending peripheral wall of elastic material for pressing the marginal portions of the heel part of the insole upon the support, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,134,028. CAN-BODY-FEEDING MECHANISM. AUGUST M. AUGENSEN, Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y., a Corporation of New York. Filed June 20, 1912. Serial No. 704,905. (Cl. 193—1.)



1. In a device of the class described, in combination, an article supporting guideway, a pair of rotating shafts mounted on opposite sides of said guideway, each shaft being provided with a projecting arm movable in a path above the guideway and adapted to engage articles therein, mechanism connected with the said shafts whereby the arms are caused to pass alternately across the same space to engage alternate successive articles of a row of such articles as they arrive at the said space, and means for temporarily preventing the passage of an article along the guideway.

2. In a device of the class described, in combination, a horizontally extending article supporting guideway having a recess therein through which the articles are adapted to drop by gravity, and a rotating shaft located adjacent the guideway and provided with a projecting arm movable in a path above the guideway and adapted to engage articles therein, and means for temporarily preventing the passage of articles along the guideway.

3. In a device of the class described, in combination, a gravity feed chute having a horizontal portion at the bottom thereof and provided with a recess therein through which the articles are adapted to drop by gravity, a rotating arm having a path of movement above said horizontal portion of the guideway and adapted to engage the articles therein, and means located adjacent said rotating arm adapted to temporarily prevent the passage of articles along the guideway.

4. In a device of the class described, in combination, a horizontally disposed can body supporting guideway provided with a recess therein through which the can bodies are adapted to drop by gravity, a plurality of rotating arms having a path of movement above the guideway and adapted to alternately engage the can bodies therein, means for temporarily preventing the can bodies from moving along said guideway and a table located below the recess in the guideway onto which the can bodies are adapted to fall after they pass through the recess.

5. In a device of the class described, in combination, a can body gravity feed chute having a horizontally extending portion at the lower end thereof and provided with a recess through which the can bodies are adapted to fall by gravity, a pair of vertically extending rotating shafts located on opposite sides of said horizontal portion of the guideway, each of said shafts being provided with a projecting arm adapted to alternately engage the can bodies while in said guideway, and means for temporarily preventing the can bodies from moving along the guideway, said means comprising a vertically reciprocating member adapted to be moved into and out of the guideway.

[Claims 6 to 8 not printed in the Gazette.]

1,134,029. PROPELLER-WHEEL. EUGENE BELICZA, Chicago, Ill., assignor of one-sixth to Clarence Wiltzan and one-sixth to Philipp Schaefer, Chicago, Ill. Filed Apr. 9, 1914. Serial No. 830,818. (Cl. 170—153.)



1. In mechanism of the character described, the combination of a shaft; an element mounted upon said shaft for rotary and rocking movement, the rocking movement being in a plane perpendicular to the plane of rotary movement of said element; a cam surface coöperating with opposite ends of said element for effecting rocking movement thereof upon rotation of said element; and a pair of diametric blades fixed to said element so as to be rocked thereby during rocking movement of the latter, substantially as described.

2. In mechanism of the character described, the combination of a shaft; a blade carrier mounted upon said shaft for rotary and oscillatory movement, being in a plane perpendicular to the plane of rotary movement of said element; a cam surface; diametric rollers on said carrier engaging with said cam surface for effecting oscillatory movement of said cutter upon rotation thereof; and a pair of diametric blades fixed to said carrier so as to be oscillated thereby during oscillatory movement of the latter, substantially as described.

3. In mechanism of the character described, the combination of a shaft; a blade carrier mounted upon said shaft for rotary and oscillatory movement, the oscillatory movement being in a plane perpendicular to the plane of rotary movement of said element; a cam surface; diametric rollers on said carrier engaging with said cam surface for effecting oscillatory movement of said carrier upon rotation thereof; and a pair of diametric blades fixed to said carrier and projecting therefrom in alinement with the axis of oscillation of said carrier, substantially as described.

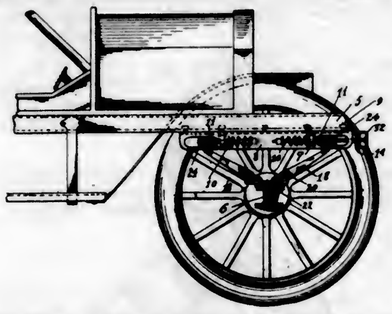
4. In mechanism of the character described, the combination of a shaft; an elongated carrier mounted midway its ends upon said shaft for rotary and oscillatory movement, the oscillatory movement being in a plane perpendicular to the plane of rotary movement of said

element; an annular cam surface; rollers provided at the ends of said carrier engaging with said cam surface for effecting oscillatory movement of said carrier upon rotation thereof; and a pair of diametric blades fixed to said carrier and extending therefrom in alinement with the axis of oscillation of said carrier, substantially as described.

5. In mechanism of the character described, the combination of a shaft; an elongated carrier mounted midway its ends upon said shaft for rotary and oscillatory movement, the oscillatory movement being in a plane perpendicular to the plane of rotary movement of said element; an annular cam surface; rollers provided at the ends of said carrier engaging with said cam surface for effecting oscillatory movement of said carrier upon rotation thereof; outwardly projecting diametric lugs formed upon said carrier in alinement with the axis of rotation thereof; and outwardly projecting blades having their inner ends fixed to said lugs, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,134,030. VEHICLE-SPRING. CHARLES G. BOOTH and FRANK SANKS, Pomona, Cal. Filed Aug. 6, 1913. Serial No. 783,328. (Cl. 21—101.)

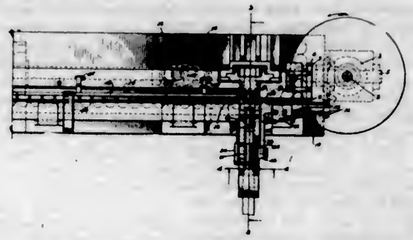


1. A vehicle spring, in combination with a frame and axle of the vehicle, of a pair of arms pivotally secured to the axle, the free ends of said arms being in movable engagement with the vehicle frame, spring rods pivotally secured to the free ends of said pair of pivoted arms, said rods being reciprocally mounted on said vehicle frame, springs mounted on each of said spring rods, and a stop mounted on each of said spring rods and rigidly secured to said vehicle frame, said stops being interposed between the springs on said rods, whereby resiliency is imparted to the axle through the medium of the pivoted arms.

2. In combination with a frame and wheel axle of a vehicle, of a channeled body member secured thereto having slotted flanges depending below said frame and intermediate said axle and frame, pivoted arms secured to said axle and extending intermediate of the slotted flanges of said body, spring rods slidably supported within said flanges, roller means engaging said flanges to support said rods, means to connect said arms to said rods, a plurality of springs adapted to encircle said rods, and means interposed between each pair of springs on said rods to act as a stop therefor.

3. In combination with a frame and wheel axle of a vehicle, of a channeled body member secured thereto having slotted flanges depending below said frame and intermediate said axle and frame, pivoted arms secured to said axle and extending intermediate of the slotted flanges of said body, spring rods slidably supported within said flanges, roller means engaging said flanges to support said rods, means to connect said arms to said rods, a plurality of springs adapted to encircle each of said rods, slotted stops interposed between said springs, adjusting means on one end of each of said rods and means to support a bumper at the oppositely disposed end of each of said rods.

1,134,031. BOTTLE-CAP-ASSEMBLING MACHINE. ROBERT G. CLARK, New York, N. Y., assignor to John Aron Johnson, Brooklyn, N. Y. Filed Aug. 20, 1913. Serial No. 785,637. (Cl. 113—80.)



1. In a machine for assembling bottle caps and the like, in combination, means for receiving the caps, a pair of parallel supporting rails upon which the caps are suspended from the flaring edges, means for shifting the caps successively to the supporting means, a hinged bar positioned over the path of the caps upon said rails and resting lightly thereupon to prevent their displacement, means for advancing the caps successively upon said supporting rails during the operation of assembling, means for placing an adhesive in said caps, means adapted to automatically control the operation of said adhesive placing means, means for heating the cap and adhesive therein, means for placing cork facings in said caps, means adapted to automatically control the operation of said cork placing means, means for pressing the cork facings and caps together against the adhesive, and means for delivering the assembled caps from the machine.

2. In a machine for assembling bottle caps and the like, in combination, means for receiving the caps, means for shifting the caps successively to a supporting means upon which the caps are supported and guided in a straight path, means for advancing the caps successively upon said supporting means during the operation of assembling, a pawl carried by an oscillating slide adapted to feed a strip of adhesive paper to a punch, a punch positioned over the path of the caps adapted to punch disks from the strip of adhesive paper and place the same successively in the caps, a lever having one end weighted and positioned over the path of the caps and held thereby in its inoperative position and having its opposite end arranged and adapted to hold said feeding pawl in an inoperative position when no caps are being fed, means for heating the cap and adhesive therein, means for placing cork facings in said caps, means for pressing the cork facings and caps together against the adhesive, and means for delivering the assembled caps from the machine.

3. In a machine for assembling bottle caps and the like, in combination, means for receiving the caps, means for shifting the caps successively to a supporting means upon which the caps are supported and guided in a straight path, means for advancing the caps successively upon said supporting means during the operation of assembling, means for placing an adhesive in said caps, means for heating the cap and adhesive therein, a cork shifter slide for feeding the cork facings to the caps, a latch pivotally attached to said cork shifter slide and normally engaging an oscillating slide, a lever having one end positioned over the path of the caps and held thereby in its inoperative position and having its opposite end arranged and adapted to automatically control the position of said latch and the movement of said cork shifter slide, means for pressing the cork facings and caps together against the adhesive, and means for delivering the assembled caps from the machine.

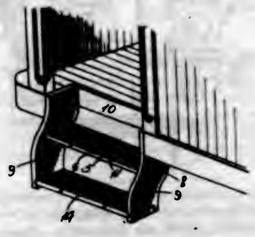
4. In a machine for assembling bottle caps and the like, in combination, means for receiving the caps, means for shifting the caps successively to a supporting means upon which the caps are supported and guided in a straight path, means for advancing the caps successively upon said supporting means during the operation of assembling.

means for placing an adhesive in said caps, means for heating the cap and adhesive therein, means for placing cork facings in said caps, a revolving table upon which the caps are received, a series of pressure plungers mounted on said table adapted to press the cork facings and caps together against the adhesive, means actuated successively by said plunger for positioning and holding the cap in position to be engaged by the following plunger, and means for delivering the assembled caps from the machine.

5. In a machine for assembling bottle caps and the like, in combination, means for receiving the caps, means for shifting the caps successively to a supporting means upon which the caps are supported and guided in a straight path, means for advancing the caps successively upon said supporting means during the operation of assembling, means for placing an adhesive in said caps, means for heating the cap and adhesive therein, means for placing cork facings in said caps, a revolving table upon which the caps are received, a series of pressure plungers mounted on said table adapted to press the cork facings and caps together against the adhesive, a spring actuated finger extending over said table in the path of the caps and successively engaged by said plungers to move the same out of the path while each cap is being fed to the table and adapted when released to position and hold the cap in position to be engaged by the following plunger, and means for delivering the assembled caps from the machine.

[Claims 6 to 13 not printed in the Gazette.]

1,134,032. VEHICLE-STEP. JAMES FRANCIS CLARKE, Los Angeles, Cal. Filed Nov. 16, 1914. Serial No. 872,357. (105—85.)



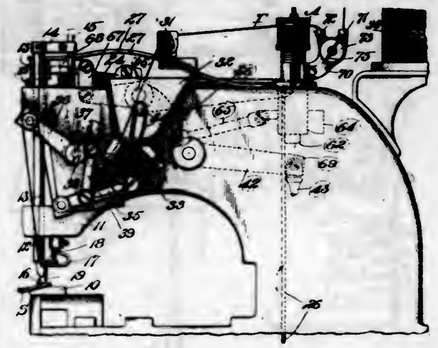
1. A car step, comprising a frame having a plurality of oppositely disposed bolt receiving openings, bolts passing through said openings and extending longitudinally across said frame, and a series of removable tread members supported on said frame having apertured hubs engaged by said bolts.

2. In a car step, a flanged rectangular frame, a plurality of tread members formed with upper and lower serrated edges having apertured hubs on the opposite sides thereof, and bolts passing through said apertured hubs and through the end members of the frame to secure the tread members and the frame together.

3. In a car step, a rectangular frame, a plurality of tread members formed with serrated upper and lower edges, spacing hubs formed on opposite sides of the tread members having apertures therein, and bolts passing through said apertured hubs and through the end members of the frame to secure the tread members and the frame together.

1,134,033. SEWING-MACHINE. GEORGE L. CORCORAN, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 5, 1910. Serial No. 595,799. (Cl. 112—20.)

1. In a sewing machine, the combination with stitch forming mechanism, of a take-up device adapted to take up and set the stitch and then measure thread from the supply, a thread-lock separate from but coöperating with said take-up device, and means for operating said take-up device and thread-lock in coöperative relation, constructed to cause said thread-lock to lock the thread during substantially the entire thread giving movement of the take-up device and while the take-up device sets the stitch, and constructed to then cause said thread-lock to release the thread while said take-up device measures sufficient thread from the supply for the next stitch.



2. In a sewing machine, the combination with stitch forming mechanism, of a take-up device having a movement to take up and set the stitch, and a movement to measure thread from the supply, a thread-lock separate from but coöperating with said take-up device, a single actuator for operating said take-up device and said thread-lock in coöperative relation, constructed to permit said thread-lock to lock the thread during substantially the entire thread giving movement of the take-up device and during the movement of said take-up device in setting the stitch, and constructed to cause said thread-lock to release the thread while said take-up device moves to measure sufficient thread from the supply for the next stitch, and automatic controlling means constructed to automatically vary the amount of thread measured in accordance with the thickness of the work.

3. In a sewing machine, the combination of a pair of take-up levers, a gear connected to one of said levers, a gear meshing with said first gear, a thread-lock, and means for operating said second gear having a portion adapted to engage and actuate the thread-lock.

4. A take-up device, comprising a lever with a thread engaging part, a second lever actuated from the first lever, a tension device, and means connected to the operating means for the second lever for actuating the tension device.

5. A take-up device comprising a lever with a thread engaging part, a second lever with a thread engaging part having a segmental gear attached, an independently mounted gear meshing with said segmental gear, a thread clamp, means for operating said independently mounted gear, having a projection adapted to engage and operate the thread clamp.

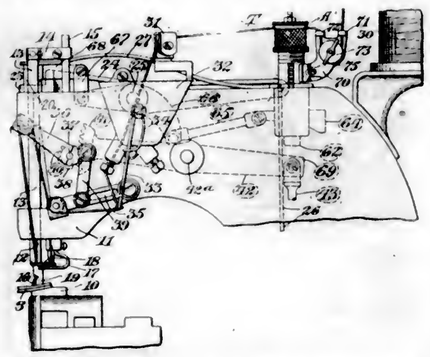
[Claims 6 to 16 not printed in the Gazette.]

1,134,034. THREAD-CONTROLLING MECHANISM FOR SEWING-MACHINES. GEORGE L. CORCORAN, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Dec. 5, 1910, Serial No. 595,799. Divided and this application filed Apr. 7, 1911. Serial No. 619,612. (Cl. 112—39.)

1. In a sewing machine, a thread-lock comprising a tubular body, a plunger having a plunger head, an adjustable sleeve on said body, said sleeve and head having coöperating thread gripping faces, and a spring for moving said gripping faces together.

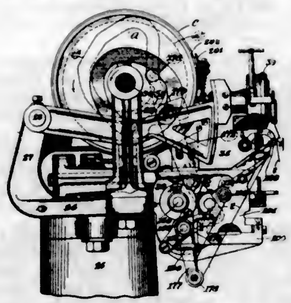
2. In a sewing machine, a thread-lock comprising a tubular body, a plunger having a plunger head, said body and head having coöperating thread gripping faces, a spring for moving said gripping faces together, and a tension device mounted on said body.

3. In a sewing machine, a thread-lock comprising a support and a movable member having coöperating gripping faces, an actuator, and an adjustable wedge carried by said support and interposed between said actuator and movable member.



4. In a sewing machine, a thread-lock comprising a tubular body and a plunger having coöperating gripping faces, a stem on said plunger, a tappet carried by said body, and an adjustable wedge between said stem and tappet.

1,134,035. THREAD-CONTROLLING MECHANISM FOR SEWING-MACHINES. GEORGE L. CORCORAN, GEORGE A. DOHYNE, and AUGUST R. SCHOENKY, St. Louis, Mo., assignors to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed July 11, 1911. Serial No. 638,024. (Cl. 112—20.)



1. In a sewing machine the combination of a member constructed to take up and set the stitch and draw thread from the supply, a thread-lock separate from said member, an actuating connection between said member and thread-lock constructed to cause said member to actuate said thread-lock and release the thread during the take-up stroke of said member, and means for operating said member and thread-lock, said means being constructed to cause said member to take up and set the stitch and draw thread from the supply.

2. In a sewing machine, the combination of a thread-lock, an actuator therefor, a take-up member connected with said actuator, means for moving said actuator to engage and open said thread-lock during the take-up stroke of said take-up member, and means for relatively adjusting said thread-lock and actuator automatically in accordance with the thickness of the work constructed to cause said actuator and thread-lock to engage earlier or later during the stroke of the take-up member.

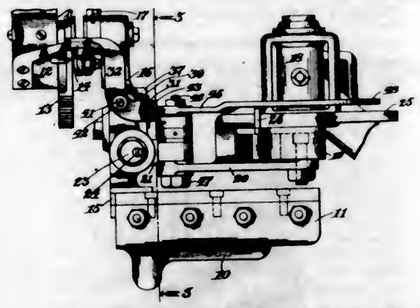
3. In a sewing machine, the combination of thread engaging means having a rotatively supported actuated member, an actuator adapted to actuate said actuted member, and a work engaging member connected to adjust said actuated member rotatively to vary the operation of said actuator on said actuated member.

4. In a sewing machine, the combination of thread engaging means having a rotatively supported actuated member, an actuator adapted to engage and actuate said actuated member, and a work engaging member connected to adjust said actuated member rotatively to vary the point of engagement of said actuator and said actuated member during the movement of said actuator.

5. In a sewing machine, the combination of thread engaging means having an actuated member, a rotatable shaft for supporting said actuated member, an actuator, a rotatable shaft for said actuator positioned parallel with said first shaft, and a work engaging member connected to adjust said first shaft rotatively to vary the operation of said actuator on said actuated member.

[Claims 6 to 26 not printed in the Gazette.]

1,134,036. GUIDE FOR SOLE-SEWING MACHINES. GEORGE L. CORCORAN and GEORGE A. DOHYNE, St. Louis, Mo., assignors to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed July 11, 1911. Serial No. 638,025. (Cl. 112—20.)



1. In a sole-sewing machine, the combination of stitch-forming mechanism, a table adapted to receive upon it and externally support the projecting edge of the welt of a lasted shoe, a sole edge guide adapted to continuously engage and externally guide the shoe during the sewing operation, said guide being movable during the operation of the stitch-forming mechanism to one predetermined adjusted position to guide the shoe, by engagement with its sole edge, along the shank, and movable to another predetermined adjustable position to guide the shoe, by engagement with its sole edge, around the fore part.

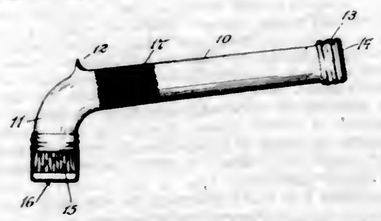
2. In a sole-sewing machine, the combination of stitch-forming mechanism, a table adapted to receive upon it and externally support the projecting edge of the welt of a lasted shoe, a sole edge guide adapted to continuously engage and externally guide the shoe during the sewing operation, said guide being movable during the operation of the stitch-forming mechanism to vary the position of the shoe with relation to the stitch-forming mechanism, and two adjustable stops adapted to adjustably position the guide when sewing along the shank and around the fore part respectively.

3. In a sole-sewing machine, the combination of stitch-forming mechanism, a table adapted to receive upon it and externally support the projecting edge of the welt of a lasted shoe, a feed slide, a guide mounted on said slide and adapted to engage and externally guide the shoe during the sewing operation, operating means for said slide, and means for positioning said guide in two positions, said operating and positioning means having forwardly extending operating heads so as to be adjustable from the front of the machine.

4. In a sole-sewing machine, the combination of stitch-forming mechanism, a table adapted to receive upon it and externally support the projecting edge of the welt of a lasted shoe, a feed slide, a gage slidably mounted upon and movable with said slide and adapted to engage and externally guide the shoe during the sewing operation, and stops on said feed slide adapted to position said gage in two positions on said feed slide.

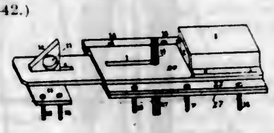
5. In a sole-sewing machine, the combination of stitch-forming mechanism, a table adapted to receive upon it and externally support the projecting edge of the welt of a lasted shoe, a sole edge guide adapted to continuously engage and externally guide the shoe during the sewing operation, said guide being movable during the operation of the stitch-forming mechanism to vary the position of the shoe with relation to the stitch-forming mechanism, a stop adapted to position the guide in one predetermined adjusted position when sewing along the shank, a second stop adapted to position the guide in another predetermined adjusted position when sewing around the forepart, and means for holding the guide when positioned by said second stop.

1,134,037. SPOT-REMOVER. WILFORD RAYMOND DANIELS, Union Course, N. Y., assignor of one-half to Jules E. Kegreisz, New York, N. Y. Filed Sept. 18, 1914. Serial No. 862,358. (Cl. 15—51.)



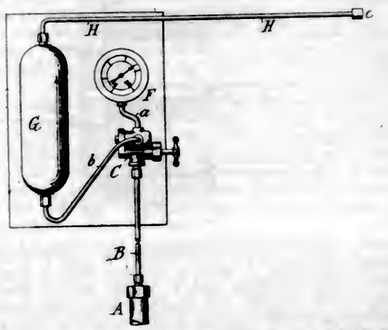
A spot removing device comprising a tube, a cleaning element at one end thereof, an absorptive mass within said tube dividing the same into two chambers, and means adapted to control the air pressure behind said absorptive mass so as to limit the passage of liquid therethrough toward said cleaning element, substantially as described.

1,134,038. DOOR-LATCH. ROY D. DEMIRJEAN, Des Moines, Iowa. Filed Oct. 1, 1913. Serial No. 792,904. (Cl. 70—42.)



In a device of the class described, a base plate having an elongated slot at one end and having a right angled extension at the other end of less width than the width of the base plate, a latch bar guide comprising a flat plate having an elongated slot designed to register with said first mentioned slot, side portions for spacing said latch bar guide plate from the base plate, and flanges on said extensions secured to said base plate, the plate of said latch guide device having its central portion at one end cut away and having near its middle a right angled extension adapted to extend in a plane parallel with the extension on said base plate, a latch bar having at one end an elongated slot, and having at the other end a right angled extension, said latch bar being arranged to travel in the space between the plate of said latch bar guide device and said base plate, with an extension on said latch bar between the first two described extensions, a housing resting upon said first two extensions and on the plate of said latch bar guide device, said latch bar being provided also with an opening through it, detachable handles secured to each other and extended through the elongated openings in said base plate and said latch bar guide device and being secured to each other, and a coil spring in said housing between the extension on said latch bar and one of the other extensions.

1,134,039. TORPEDO-TESTING APPARATUS. WILLIAM DIETER, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Mar. 14, 1912. Serial No. 683,746. (Cl. 220—110.)



1. A torpedo testing apparatus comprising a high-pressure air inlet coupling with a conduit leading therefrom, a throttling valve in said conduit, a pressure gage communicating with the outlet side of the valve, an outlet conduit adapted for connection with the torpedo unit to be tested, and an expansion chamber, constituting an enlargement of the outlet conduit, receiving air at one end from the outlet side of the valve and discharging air from its opposite end through said outlet conduit.

2. A torpedo testing apparatus comprising a casing having a high-pressure air inlet and a duct leading from said inlet, a throttling valve in said duct, a strainer casing forming a chamber with an outer opening, a plug closing said opening, a separate strainer seated in said chamber, said duct entering between the strainer and plug, and said strainer casing having an outlet duct from said strainer chamber.

3. A torpedo testing apparatus comprising a casing having a valve seat and a strainer chamber, and having a duct leading to said valve seat and thence to an end of said strainer chamber, and an outlet duct from said chamber, a strainer within said chamber and having a plug seated between said inlet duct and outlet, a plug closing said chamber, and a valve controlling the flow through said duct.

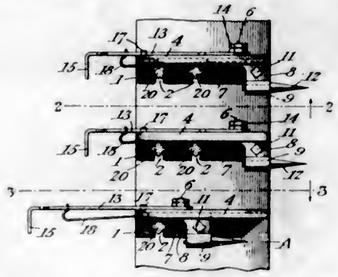
4. A torpedo testing apparatus comprising a casing having a strainer chamber with an internal seat, said chamber screwthreaded on the inlet side of said seat, and having an inlet duct to said inlet side and an outlet duct from the outlet side, a strainer within said chamber having a supporting screw plug engaging said threaded portion and seating against said seat, a screw plug engaging said threaded portion and closing the inlet end of said chamber, and a valve controlling the flow through said duct.

5. A torpedo testing apparatus comprising a casing having a high-pressure air inlet with a duct leading therefrom, a throttling valve in said duct, a chamber on the outlet side of said valve, a pressure gage communicating with said chamber, an outlet duct from said chamber, and an expansion chamber of relatively large capacity forming part of said outlet duct.

1,134,040. EMBROIDERY-MACHINE. FREDERICK EGGE, Bridgeport, Conn., assignor to The American Specialty Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 16, 1913. Serial No. 785,039. (Cl. 112—7.)

1. A piercer holding attachment for embroidery machines comprising a housing provided with a flat base

and an upper flange forming a longitudinally extending slideway, a carrier slidable in the slideway, a piercer mounted in the carrier, a latching lever for operating the carrier and locking the same in either a retracted or projected position, and means engaging the base for rigidly attaching the housing to a piercer bar.



2. A piercer holding attachment for embroidery machines comprising a housing provided with a longitudinally extending guide slot, a carrier slidable longitudinally of the housing and having a pivot bolt extending through said slot, a piercer holder carried by the carrier, a latching lever mounted on the bolt for operating the carrier, and means carried by the housing and engaged by the lever for locking said lever.

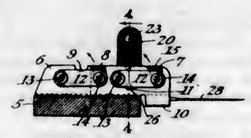
3. A piercer holding attachment for embroidery machines comprising a housing provided with a longitudinally extending guide slot, a carrier slidable longitudinally in said housing and having a bolt extending through said slot, a piercer holder carried by the carrier, a stud projecting from the housing, and a carrier operating lever mounted on the bolt and having spaced notches adapted for selective engagement with the stud.

4. A piercer holding attachment for embroidery machines comprising a housing provided with a longitudinally extending slideway, said housing having a longitudinally extending slot formed in one side of the slideway, a carrier mounted in the slideway and having a bolt extending through the slot, a carrier operating lever pivotally mounted on the bolt and having a handle projecting beyond the rear end of the housing, said lever being provided with spaced notches, a stud carried by the housing and adapted for selective engagement by the notches.

5. In an embroidery machine, the combination with a needle or piercer bar, of a carrier housing having a flat base provided with edge notches, bolts engaging said notches for detachably fastening the housing to the bar, a carrier slidable longitudinally of the housing, and means for operating and locking the carrier.

[Claims 6 and 7 not printed in the Gazette.]

1,134,041. EMBROIDERY-MACHINE. FREDERICK EGGE, Bridgeport, Conn., assignor to The American Specialty Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 16, 1913. Serial No. 785,040. (Cl. 112—7.)



1. A device of the character described comprising a base support, means for rigidly attaching the support to a needle bar, a carrier, links connecting the carrier to the support to permit the carrier to be elevated and retracted or projected relative to the support, and means for locking the carrier in either its retracted or projected position.

2. A device of the character described comprising a base, means for detachably fastening the same to a needle or piercer bar of an embroidery machine, a carrier having link connections with the base to permit the carrier to be elevated and retracted or projected relative to the base, and locking means carried by the carrier and adapted to engage the base to retain the carrier either projected or retracted.

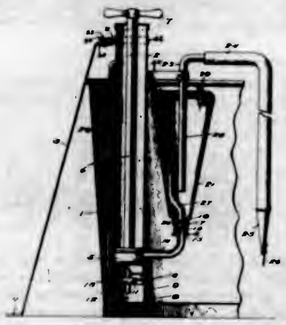
3. A device of the character described comprising a base support, a carrier, means connecting the carrier to the support and permitting the carrier to be elevated and retracted or projected relative to the base support, a clamp carried by the carrier, and a combined finger-grip locking means carried by the carrier for retracting and projecting the carrier and for engaging the support to retain the carrier in projected or retracted positions.

4. A device of the character described comprising a base support having a depressed forward seat, means for rigidly attaching the support to a needle bar, a carrier having a clamp adapted to engage the seat when the carrier is projected, means connecting the carrier and support and permitting the carrier to be elevated and longitudinally projected or retracted relative to the support, and means for locking the carrier in either a retracted or projected position.

5. A needle holding attachment for embroidery machines comprising a base support, means for attaching the same to a needle bar, said base being provided with a forwardly projecting seat parallel with and in a lower plane than said base, a carrier having link connections with the base support, said connections permitting the carrier to be projected or retracted longitudinally relatively to the support, a needle clamp carried by the carrier and adapted to engage the seat when the carrier is projected, and means for locking the carrier in either a retracted or projected position.

[Claims 6 to 10 not printed in the Gazette.]

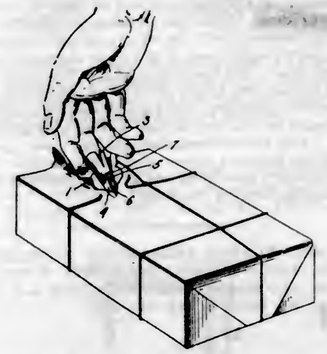
1,134,042. PORTABLE FORCE-PUMP. JOHN FARNER, Orillia, Wash. Filed May 27, 1913. Serial No. 770,226. (Cl. 103—75.)



The herein described portable force pump comprising a barrel having a valved inlet at its lower end, an elbow opening from the barrel above said inlet, an air chamber mounted on the elbow and into whose lower end the elbow delivers, a bracket on the barrel, and an outlet pipe carried by the bracket and extending down into said chamber; combined with a collar fast around the upper end of the barrel, a bracket carried by said collar, an oblique brace having a foot piece at its lower end and its upper end connected with said bracket, and a pipe connected with the cylinder adjacent its upper end and extending downward alongside the same, for the purpose set forth.

1,134,043. WRAPPER-CUTTER. SYLVESTER S. GIBHART, Wanette, Okla. Filed June 12, 1914. Serial No. 844,734. (Cl. 30—14.)

1. In a device of the class described, a tubular body portion having a longitudinally extending hole therein, the said body portion being adapted to be mounted on the finger of an operator and the length of the hole being sufficient to allow the operator to insert his finger therein beyond the first joint, a flat finger formed integrally and extending forwardly from the body portion, a vertically disposed blade formed integrally with the body portion and the said finger, the forward edge of said blade being joined to the finger a short distance rearwardly of the forward end thereof, and inclined upwardly and rearwardly.



2. A device of the class described, a flat finger having knife edges, a vertical cutting blade formed integrally therewith, a cutting edge on said blade being joined to the finger rearwardly of its forward end and extending upwardly and rearwardly therefrom, and means for attaching the device to the finger of an operator.

1,134,044. PROCESS OF PRESERVING WOOD AND PRODUCT THEREOF. ALFRED P. GOODELL, Davisburg, Mich., assignor to Ralzemond A. Parker, Detroit, Mich. Filed Dec. 9, 1912. Serial No. 735,583. (Cl. 99—12.)

1. A process of preserving and waterproofing railway ties, etc., consisting of, first, coating the seasoned, dried article to be preserved with melted coal tar pitch, second, coating the said article so treated before said pitch has ceased to be liquid, with a coating of liquid Portland cement, substantially as described.

2. Protected wood of the character described, comprising a wood body, a coating of coal tar pitch covering the same to protect the wood, and a thin shell of cement directly enveloping and in intimate contact with the adjacent surface of the said coating throughout the extent of the latter to protect the same.

1,134,045. ADJUSTABLE DIAPER-DRYING RACK. HARRY W. HAYES, Indianapolis, Ind. Filed Jan. 2, 1915. Serial No. 218. (Cl. 68—34.)



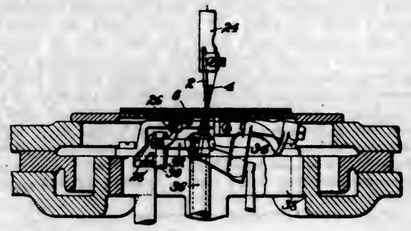
1. In a clothes rack, a substantially rectangular frame comprising a pair of bars and a greater number of other bars connecting the first one, a pair of diagonal legs hinged to an outer one of said last bars, and a second pair of diagonal legs crossing the first pair, said last pair having upper end notches to receive and hold one of the last named bars, and means for hinging the two pairs of legs together on the line of their intersection.

2. In a clothes rack, a substantially rectangular frame comprising a pair of bars and a greater number of other bars connecting the first bars, a pair of diagonal legs hinged to an outer member of said frame, a second pair of diagonal legs crossing the first pair, spring clamps at the upper ends of the second pair of legs to secure the legs to one of the last named bars, and a bar passing through all of the legs at the line of their intersection.

3. In a clothes rack, a substantially rectangular frame comprising a pair of bars and a greater number of other bars connecting the first bars, a pair of diagonal legs hinged to an outside member of said frame, a second pair of diagonal legs crossing the first pair, spring clamps at the upper ends of the second pair of legs to engage one of the last named bars said clamps comprising a slot in the upper end of each leg large enough at its bottom to receive said bar but smaller toward the mouth of the slot to spring the bifurcated members apart by the passing of the bar, and means for hinging the two pairs of legs together.

4. In a clothes rack, a substantially rectangular frame comprising a pair of parellel bars and a greater number of bars of smaller diameter at right angles to and having their ends seated in holes in the first bars, the ends of one of the outside smaller bars passing through and extending beyond the larger bars, a pair of diagonal legs secured to the projecting ends of said last mentioned smaller bar, and a second pair of diagonal legs crossing the first pair and hinged therewith at their crossing line, said last pair of legs having upper end bifurcations to receive one of said smaller bars of the rectangular frame adjacent to and between the pair of larger bars of said frame.

1,134,046. BUTTONHOLE-SEWING MACHINE. GEORGE S. HILL, Strafford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 20, 1913. Serial No. 807,854. (Cl. 112—4.)



1. A buttonhole sewing machine, having, in combination, stitch forming devices including a reciprocating needle inclined to its line of reciprocation through the work, and mechanism for relatively moving the work and stitch forming mechanism while the needle is in the work.

2. A buttonhole sewing machine, having, in combination, stitch forming devices including a reciprocating needle inclined to its line of reciprocation through the work, and mechanism for causing a continuous relative movement between the stitch forming devices and work during the sewing.

3. A buttonhole sewing machine, having, in combination, a work clamp, stitch forming devices including a reciprocating needle inclined to its line of reciprocation, and mechanism for causing a continuous relative movement between the clamp and stitch forming devices during the sewing.

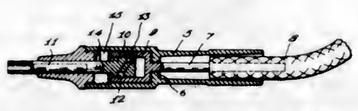
4. A buttonhole sewing machine, having, in combination, a work clamp, a reciprocating needle inclined to compensate for the relative travel of the work during the advances of the needle therethrough, devices coöperating with the needle to form overedge stitches, and mecha-

nism for causing a continuous relative movement between the work clamp and stitch forming devices during the sewing.

5. A buttonhole sewing machine, having, in combination, a work clamp, a vertically reciprocating upper needle inclined to compensate for the relative travel of the work during the advance of the needle therethrough, a cooperating under needle and looper, and mechanism for causing a continuous relative movement between the work clamp and stitch forming devices during the sewing.

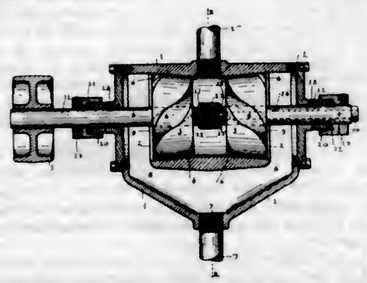
[Claims 6 to 9 not printed in the Gazette.]

1,134,047. CAM-MOVEMENT FOR JIG-POLISHERS. W. LEE HUNTER, Seattle, Wash., assignor to Roy W. Hunter, Una Hunter, and Luella C. Hunter, Seattle, Wash. Filed Apr. 28, 1914. Serial No. 834,938. (Cl. 74—1.)



In a dental jig polisher of the class described, the combination with a casing of tubular form which is provided in its central portion with a perforated partition that is adapted to serve as a shaft-bearing and further provided on one of its ends with an internal screw-threaded portion, of a shaft-bearing member provided on one of its ends with a longitudinal slot through its wall and with an external screw-thread to adapt it to screw within the internal screw-threaded end portion of said casing; a tool-holding shaft movably disposed to extend through said shaft-bearing member, concentrically with said casing and provided on its inner end with a cam slot extending around its periphery and further provided with a stud which projects from its periphery into said longitudinal slot to prevent said shaft from rotating while permitting it to move endwise; a rotatable shaft disposed within said casing and concentrically therewith to extend through said shaft-bearing formed by said perforated partition to project from the other end of said casing, the inner end of said rotatable shaft being provided with an enlarged cup-shaped portion within which such cup-shaped portion is freely disposed the cam slotted inner end of said first named shaft; a cam stud disposed within the wall of such cup-shaped portion to extend into and engage with the cam slot of the inner end of said first named shaft, whereby the rotation of said rotatable shaft shall cause an endwise movement of said first named shaft; and means for communicating rotary motion to said rotatable shaft.

1,134,048. PUMP. ERIC ISBERG, Cadillac, Mich., assignor of one-half to Silas A. Wellman, South Boardman, Mich. Filed Mar. 7, 1914. Serial No. 823,163. (Cl. 103—43.)



1. In a device of the character described, a body having a chamber open at the ends and circular in cross-section, co-axial rotatable pumping disks within the chamber and having a water passage between them and having helically-disposed water passages through them, said helical passages being right-handed in one disk and left-handed in the other, the frame having a water inlet with branches leading to the chamber's open ends and a water outlet leading from the passage between the disks, the disks being conical and oppositely tapering and the internal wall of the chamber corresponding thereto, and means for adjusting the pumping disks toward and away from each other.

2. In a device of the character described, a body having a chamber open at the ends and circular in cross-section, pumping disks within the chamber and having a water passage between them and having helically-disposed water passages through them, said helical passages being right-handed in one disk and left-handed in the other, a driving shaft having two alined portions on which the disks are respectively mounted, said portions having a screw threaded connection and one portion having a longitudinal bore with a bolt therein threaded into the other portion, and the frame having a water inlet with branches leading to the chamber's open ends and a water outlet leading from the passage between the disks.

1,134,049. ELASTIC PRESS-STUD. FRANZ KÄFER, Veltheim, near Winterthur, and ARTHUR WIESINGER, Zollikon, near Zurich, Switzerland. Filed Aug. 22, 1913. Serial No. 786,158. (Cl. 24—224.)



1. A fastener comprising male and female members, the male member having a beaded stud, the female member comprising a casing having a slot therein formed with an enlargement, a coil spring within the casing and beneath the slot, the stud normally passing through the enlarged portion of the slot and engaging between the coils of the spring and frictionally held thereby, the said stud adapted to slide in the slot against the pressure of the spring.

2. A fastener comprising male and female members, the male member consisting of a casing formed with a slot, a spring in said casing, a stud formed with a head at one end and a base at the opposite end, the base fitting in the casing against the spring, the female member consisting of a casing formed with a slot having an enlargement, a coil spring in the casing of the female member, the head of the stud adapted to pass through the enlarged portion of the slot and engaging between the coils of the spring and frictionally held thereby.

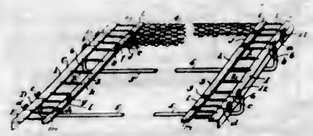
3. A fastener comprising a casing consisting of a housing formed with a slot having an enlargement and a depression which is parallel with the slot, a coil spring in the housing between the slot and the depression, and a beaded stud which is adapted to project through the enlargement of the slot and between the coils of the spring and into the depression, the neck of the beaded stud operating in the slot when the spring is compressed by the movement of said stud on said housing.

1,134,050. BED-SPRING FRAME. FELIX G. KAPELMAN, New York, N. Y. Filed May 20, 1914. Serial No. 839,678. (Cl. 5—65.)

1. A bed-spring frame, in combination, a metal fabric, articulated fabric clamps, and means for holding said fabric clamps in predetermined adjusted positions.

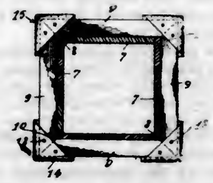
2. In a spring frame for beds, a mattress fabric, articulated fabric clamps therefor, articulated cross rails, resilient fabric tensioning means between said cross rails and said clamps, and means carried by said cross rails located in relatively transverse positions and arranged for holding said articulated members in corresponding successive positions.

3. In a spring frame for beds, a foldable mattress fabric, articulated foldable fabric clamps therefor, articulated foldable angle rails, springs between said cross rails and said clamps and means comprising a slotted lug and a square shouldered stud on said angle rails for adjustably holding said articulations in any desired positions.



4. A bed spring frame, in combination, two series of oppositely arranged articulated cross rails, a mattress fabric stretched therebetween, and means for holding said cross rails in pre-determined adjusted position.

1,134,051. CONCRETE-FORM CONSTRUCTION. CHARLES F. LONG and ALDEN B. HERSMAN, Los Angeles, Cal. Filed Jan. 2, 1913. Serial No. 739,612. (Cl. 25—118.)

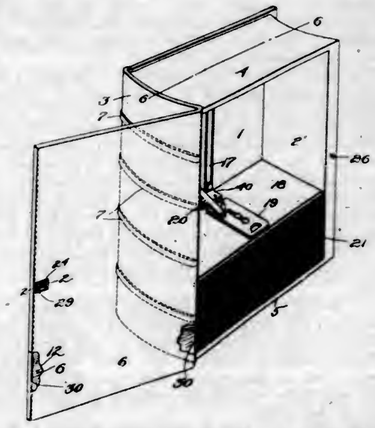


A concrete form construction, comprising a plurality of separable walls completely inclosing a predetermined area, a series of cross bars transversely disposed in relation to said walls and extending therearound on a plane with their adjacent ends abutting on a line in radial relation to the center of the area inclosed by the walls, said bars being provided with bores adjacent their abutting ends, separable connectors having plate portions adapted to extend over the abutting ends of the bars and having walls adapted to extend alongside the outer faces of the adjacent bars, said connectors being provided with bores registering with the bores in the bars, and tapered pins insertible in said registering bores, whereby the abutting ends of the bars are detachably connected together.

1,134,052. FILING-CASE. LOUIS AARON LEBOWICH, Boston, Mass. Filed July 3, 1913. Serial No. 777,267. (Cl. 129—43.)

1. A filing case comprising a container made with a rectangular interior and with an exterior having the form and appearance of a bound book, the bottom of said container having the form of one cover of the book and extending beyond the end and face walls of said container, a lid pivotally connected with the back wall of the container and formed to match the cover-shaped bottom of the container, and flat warp-preventing strips of metal covering certain of the peripheral edges only of said lid, each of said strips being formed near its middle with integral prongs driven into said lid,

2. In a filing case the combination of a container made with an exterior having the form and appearance of a bound book, the bottom of said container having the form of one cover of the book and extending beyond the end and face walls of said container; a lid pivotally connected with said container and formed to match the cover-shaped bottom of the container so that it projects beyond the end and side walls of the latter; a stud projecting from top of the face wall and made with a head; a metal plate secured to the inner side of the lid; a recess in the inner side of said lid adapted to receive the head of the stud when the lid is closed; and a bolt slidably mounted on said plate and adapted to be shifted into position under the head of the stud to lock the lid closed, said bolt being made with a finger-piece arranged upon the inner side of the lid and accessible from the exterior of the container when the lid occupies its closed position.

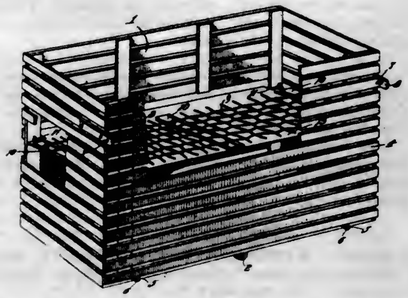


3. A filing case comprising a bottom wall made up of an outer panel provided upon its inner face with a groove, and two inner panels separated one from the other so as to leave a slot between them which registers with the groove of the outer panel; a clamp track arranged within the groove of the outer panel whereof the rails extend partly under the two inner panels, and for perpendicular walls secured to said bottom wall, two of which are formed at their lower edges with rabbets to receive the ends of the inner panels and track of the bottom wall.

4. A filing case comprising a bottom wall made up of an outer panel provided upon its inner face with a groove, and two inner panels separated one from the other so as to leave a slot between them which registers with the groove of the outer panel and a clamp track arranged within the groove of the outer panel whereof the rails extend partly under the two inner panels.

5. A filing case having one side thereof made from a panel of wood, and a flat warp preventing strip fitting flatwise against a peripheral edge only of said panel and made with integral prongs driven into the latter.

1,134,053. WOOL-DRYING DEVICE. MARTIN J. MCHALE, Chicago, Ill. Filed June 17, 1914. Serial No. 845,571. (Cl. 34—17.)



1. A device of the class described comprising a foramenated receptacle open at its upper end; and an imperforate inclined substantially horizontal partition arranged in said receptacle intermediate the upper and lower ends thereof,

the lower edge of said partition projecting outwardly beyond the adjacent side of said receptacle, substantially as described.

2. A device of the class described comprising a foraminated receptacle open at its epper end; a foraminated substantially horizontal false bottom in said receptacle intermediate the upper and lower ends thereof; and an imperforate deflecting member arranged below said false bottom, substantially as described.

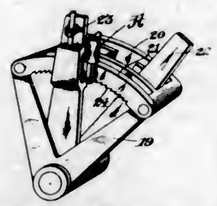
3. A device of the class described comprising a foraminated receptacle open at its upper end; a foraminated substantially horizontal false bottom in said receptacle intermediate the upper and lower ends thereof; and an inclined imperforate deflecting member arranged immediately below said false bottom, substantially as described.

4. A device of the class described comprising a foraminated receptacle open at its upper end; a foraminated false bottom movably mounted in said receptacle substantially medially between the upper and lower ends thereof; and an imperforate deflecting member arranged below said false bottom and movable therewith, substantially as described.

5. A device of the class described comprising a foraminated receptacle open at its upper end; a hingedly mounted fariminated false bottom arranged in said receptacle substantially medially between the upper and lower ends thereof; and an imperforate deflecting member arranged below said false bottom and movable therewith, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,134,054. AUTOMOBILE-LOCK. IRVIN MCNEECE, St. Louis, Mo. Filed Dec. 9, 1911. Serial No. 664,862. (Cl. 70—108.)



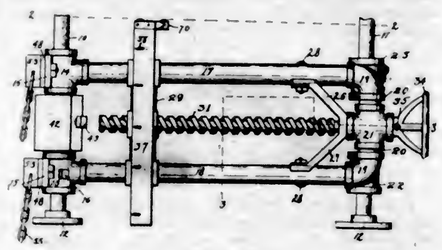
1. A locking device for a lever having a notched segment, comprising a lock casing and a stirrup telescoping with said casing, said stirrup being arranged with respect to said casing and having its legs closely spaced, to laterally engage and embrace the segment and prevent lateral tipping movement thereon, and said stirrup and casing being adapted to closely hold the segment therebetween, a tooth on one of said first two members adapted to engage the teeth on the segment when the device is in position thereon, said parts being adjustable to segments of different depths, and means for interlocking said members in engaged position on the segment.

2. A locking device of the class described, comprising a lock casing, a stirrup mounted in said casing and movably therein to different positions, and a notch engaging tooth mounted on one of said members and movable to operative and inoperative positions.

3. A locking device of the class described comprising a lock casing, a stirrup mounted in said casing and movable therein to different positions and a revirsible tooth mounted on one of said members.

1,134,055. WIRE-STRETCHER. THOMAS J. MEISER, Des Moines, Iowa. Filed Aug. 10, 1914. Serial No. 856,139. (Cl. 254—67.)

1. In a wire stretcher, upright members, a frame slidably mounted thereon, a wire gripping device slidably mounted on said frame, means for imparting horizontal sliding movement to said wire gripping device, a post engaging device having a plurality of faces rotatably mounted on said frame, and means for securing said frame to a post.



2. In a wire stretcher, upright members, a frame slidably mounted thereon, a wire gripping device slidably mounted on said frame, means for imparting horizontal sliding movement to said wire gripping device, a post engaging device having a plurality of faces, adapted to fit the surfaces of differently shaped posts, rotatably mounted on said frame, and securing devices mounted on said frame and adapted to secure a post to the frame in engagement with one of said faces.

3. In a wire stretcher, upright members, a frame slidably mounted thereon, a wire gripping device slidably mounted on said frame, means for imparting horizontal sliding movement to said wire gripping device, a post engaging device having a plurality of faces, adapted to fit the surfaces of differently shaped posts, rotatably mounted on said frame, means for fastening said post engaging device in any of its positions, and securing devices mounted on said frame and adapted to secure a post to the frame in engagement with one of said faces.

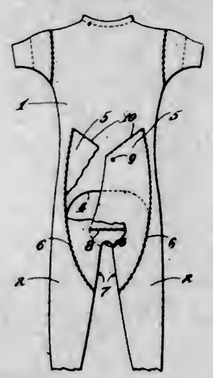
4. In a wire stretcher, upright members, a frame slidably mounted thereon, a wire gripping device slidably mounted on said frame, means for imparting horizontal sliding movement to said wire gripping device, a post engaging device having a plurality of faces rotatably mounted on said frame, means for securing said frame to a post, said means comprising bars on said frame, bars slidably mounted on said first bars, right angled extensions on the opposite ends of said bars adapted to engage a post, and flexible devices adapted to be secured to said extensions.

5. In a wire stretcher, upright members, a frame slidably mounted thereon, a wire gripping device slidably mounted on said frame, means for imparting horizontal sliding movement to said wire gripping device, said means comprising a screw threaded nut on the wire gripping device, a screw threaded rod mounted thereon having a smooth portion, said frame including a cylinder, a sleeve in said cylinder, brace members on said sleeve and secured to the members of the frame, said smooth portion of said rod being rotatably but non-slidably mounted in said sleeve.

1,134,056. UNION GARMENT. WILLIAM A. MEREDITH, Chicago, Ill. Filed June 5, 1912. Serial No. 701,711. (Cl. 2—144.)

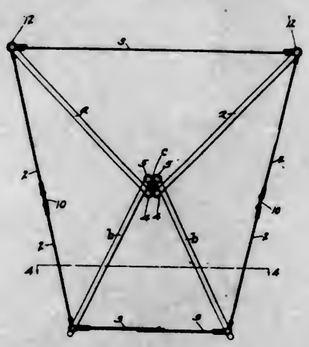
1. A union garment having the upper part or shirt cut away to form an opening just above the crotch at a considerable distance below the waist, the lower portion of the shirt being continuous around the back and the sides, closing flaps overlying said opening and extending upwardly a considerable distance beyond the same, each flap being secured at the sides of said opening and along a line extending upwardly above the opening along the side of the shirt, and means for detachably fastening the adjacent edges of the flaps together independently of the remainder of the garment.

2. A union garment having the upper part or shirt cut away to form an opining just above the crotch at a considerable distance below the waist, the lower portion of the shirt being continuous around the back and the sides, closing flaps overlying said opening and extending upwardly a considerable distance beyond the same, each flap being secured at the sides of said opening and along a line extending upwardly above the opening along the side of the shirt, the inner edges of the flaps overlapping, the overlap being considerable at the lower edge of the seat opening and decreasing toward the upper ends of the flaps, means for permanently fastening the lower ends of the overlapping flaps together, and means for detachably securing the upper corners of the flaps together independently of the remainder of the garment.



3. A union garment having the upper part or shirt cut away to form an opening just above the crotch at a considerable distance below the waist, the lower portion of the shirt being continuous around the back and the sides, closing flaps overlying said opening and extending upwardly a considerable distance beyond the same, each flap being secured at the sides of said opening and along a line extending upwardly above the opening along the side of the shirt, the inner edges of the flaps overlapping, the overlap being considerable at the lower edge of the seat opening and decreasing toward the upper ends of the flaps, the upper edges of the flaps being inclined downwardly at a sharp angle from the outer edges toward the inner edges, means for permanently fastening the lower ends of the overlapping portions of the flaps together, and means for detachably securing the upper overlapping corners of the flaps together independently of the remainder of the garment.

1,134,057. CAMP-STOOL. DOUGLAS M. NEFF, East Cleveland, Ohio, assignor to The Neff Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 24, 1913. Serial No. 763,274. (Cl. 155—32.)



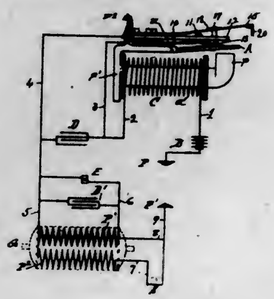
1. A folding stool having seat and leg members of rigid wire and of substantially rectangular shape, a hinge having opposite loops at its top engaging the top cross portions of said leg members and suspended therefrom between said members and parallel loops in the bottom of said hinge projected laterally at both ends between said leg members and having the said seat members hinged therein.

2. A stool having separate seat and leg members of rigid wire and a central hinge consisting of two strips of sheet metal rigidly connected and provided with two sets of loops in parallel planes lengthwise and one set relatively above the other, the said leg members pivoted in the upper set of said loops and the said seat members crossing said leg members on the outside and pivoted in the lower set of loops, and flexible connections between said members to hold the same in working relations.

3. A folding stool having two seat members and two leg members made of rigid wire and provided with substantially parallel cross portions at both outer and inner ends and a hinge in which said members are pivoted in pairs at different elevations, the inner ends of the said members respectively being narrowed as compared with the outer ends and adapted to fold one within the other, and flexible connections between the outer cross portions of said seat and leg members respectively, and a seat on said seat members, whereby the immediate outer portions of the seat members are tied to the outer portions of the said leg members.

4. A folding stool having rigid wire seat and leg members formed with straight transverse ends and inwardly inclined sides, and the extremities of said wire bent inward at right angles and constituting the hinge portion of said members respectively, in combination with a hinge on which said members are pivotally engaged in sets at different elevations and the said leg and seat members crossing each other in substantially X form at said hinge and with the seat members outside, and all said members foldably connected across the top and the bottom and ends of said stool.

1,134,058. IGNITION APPARATUS FOR EXPLOSION-ENGINES. EDWARD L. PARRIS, Jr., New York, N. Y. Filed May 1, 1914. Serial No. 835,662. (Cl. 123—148.)



1. An ignition apparatus, comprising a magneto with primary and secondary windings on its armature and a single circuit breaker, in combination with an electromagnetic vibrator and battery and means for connecting the battery and coil of the electromagnet of the vibrator in series with the primary of the magneto, for the purpose set forth.

2. An ignition apparatus, comprising a magneto with primary and secondary windings on its armature and a single circuit breaker in combination with an electromagnetic vibrator, battery and condenser, and means for connecting them up through the low tension primary winding of the magneto, for the purpose set forth.

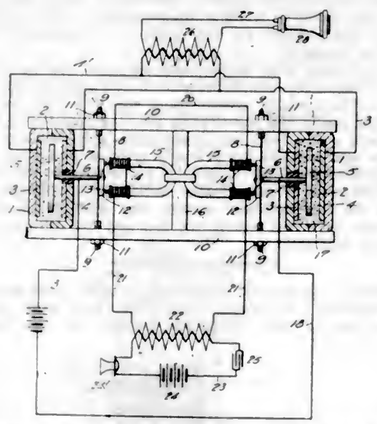
3. An ignition apparatus, comprising a magneto with primary and secondary windings on its armature and a single circuit breaker in combination with an electromagnetic vibrator, battery and condenser, the electromagnet having a single low tension winding, and means for con-

necting up the vibrator, battery and condenser through the low tension primary winding of the magneto, for the purpose set forth.

4. An ignition apparatus, comprising a magneto with primary and secondary windings on its armature, and a single circuit breaker in combination with an electromagnetic vibrator having a closed magnetic field, a condenser and battery, and means for connecting these up through the low tension primary of the magneto, for the purpose described.

5. An ignition apparatus, having an electromagnetic vibrator with an armature, spring contact plate and fixed contact stop in combination with a spring plate and cam to throw the contact plate out of action.

1,134,059. SOUND-TRANSMITTING APPARATUS. MILES E. PEARSON, Seattle, Wash., assignor, by mesne assignments, to Universal High-Power Telephone Company, Seattle, Wash., a Corporation of Washington. Filed Jan. 20, 1913, Serial No. 743,003. Renewed Feb. 6, 1915. Serial No. 6,669. (Cl. 179—171.)

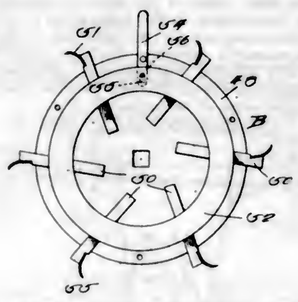


A device of the class described comprising a pair of supports, springs extending between said supports, an armature upon each of said springs, a resistance varying device for each armature disposed between said supports and including outer and inner stationary electrodes and an intermediate granular mass between each pair of electrodes, a movable electrode within each of said granular masses, rods rigidly connecting said armatures and said movable electrodes, electrode magnets operating on the armatures in coöperation with the springs for imparting movement to the movable electrodes, a transmitter circuit for said electrode magnets, a battery and an induction coil in said circuit, separate circuit wires each connecting an outer and an inner one of said stationary electrodes and a receiver circuit in the electrical connection with each of said circuit wires and an induction coil in said receiver circuit.

1,134,060. COTTON-CHOPPER. SAMUEL M. POOL and WILLIAM BUNCH, Aurora, Mo. Filed Jan. 21, 1914. Serial No. 813,563. (Cl. 97—61.)

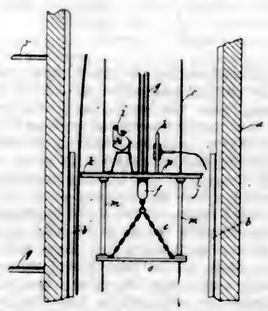
1. In a cotton chopper, a rotary head, a plurality of cutter stems slidably mounted in the head, cutters mounted on the outer ends of said stems respectively, a ring rotatably mounted in the head, connections between said ring and respective cutter stems whereby rotation of the ring will move said cutter stems radially of the head, and means for rotating said ring.

2. In a cotton chopper, a rotary head, a plurality of cutter stems slidably mounted in the head, cutters mounted on the outer ends of said stems respectively, a ring rotatably mounted in the head, connections between said ring and respective cutter stems whereby rotation of the



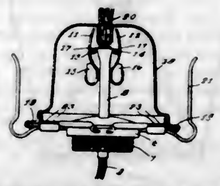
ring will move said cutter stems radially of the head, and lever operated means for adjusting said cutters.

1,134,061. ERECTING-STAGING. WALTER L. POWER, Springfield, Mass.; John J. Murray, Springfield, Mass., administrator of said Power, deceased. Filed Oct. 30, 1912. Serial No. 728,741. (Cl. 20—81.)



An erecting staging, comprising, in combination, a series of guiding cables, a rigid upper working platform, a rigid lower horizontal frame, vertically arranged means rigidly holding said platform and frame in spaced relation, said means being connected to the underside of the platform well within the periphery thereof, said vertically arranged means, platform, and frame being constructed and arranged to receive and embrace said series of tightly strung guide cables, each passable through said platform well within the periphery thereof, whereby the platform is left with a free working space around its periphery and is prevented from tipping due to weight on or adjacent the periphery and adjustable supporting means for the platform spacing means and frame.

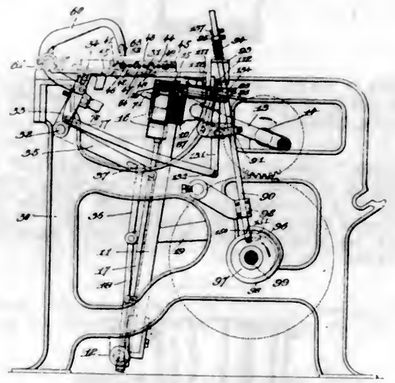
1,134,062. SAFETY-LAMP. WILLIAM E. PUGH, Seattle, Wash. Filed June 23, 1914. Serial No. 846,741. (Cl. 67—79.)



A safety oil lamp comprising a lamp base, a wick tube associated therewith, the upper end of the tube having

lateral projections at the corners of each side thereof rolled to provide pivots, extinguisher plates weighted at their lower ends and having struck-out portions intermediate their ends with the struck-out portion of each plate rolled to provide a pivot and positioned in alinement with the tube pivots, and pintles inserted in the alined rolled portions for pivotally mounting the extinguisher plates on the tube.

1,134,063. LOOM. WILLIAM H. RANKIN, Waltham, Mass. Filed July 30, 1913. Serial No. 782,020. (Cl. 139—85.)



1. A weft replenishing loom having, in combination, a lay, a magazine for holding filling carriers, filling detector mechanism supported on the loom frame, independent of the lay, and means set into operation by the filling detector mechanism when the filling in the shuttle is substantially exhausted for transferring a filling carrier from the magazine to the shuttle during the same pick.

2. A weft replenishing loom having, in combination, a lay, a magazine for holding filling carriers, filling detector mechanism supported on the loom frame independent of the lay for operating to feel for the filling in the shuttle during the beating-up stroke of the lay, and mechanism set into operation by the filling detector mechanism when the filling in the shuttle is substantially exhausted for transferring a filling carrier from the magazine to the shuttle at the completion of the same beating-up stroke of the lay.

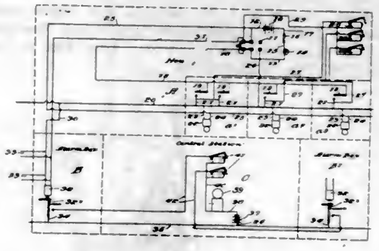
3. A weft replenishing loom having, in combination, a lay and its crank, a magazine for holding filling carriers, filling detector mechanism supported on the loom frame independent of the lay operating to feel for the filling in the shuttle when the lay is back of its forward or beating-in position, and means set into operation by the filling detector mechanism for transferring a filling carrier from the magazine to the shuttle before the lay crank has turned through a complete revolution.

4. A weft replenishing loom having, in combination, a lay, a magazine for holding filling carriers, filling detector mechanism supported on the loom frame independent of the lay operating to feel for the filling in the shuttle while the shuttle is boxed at the magazine end of the lay, and mechanism set into operation by the filling detector mechanism for transferring a filling carrier from the magazine to the shuttle before the shuttle leaves its box at the magazine end of the lay.

5. A weft replenishing loom having, in combination, a lay, a magazine for holding filling carriers, filling detector mechanism including a feeler mounted on the loom frame which enters the active shuttle from the rear and feels for the filling in the shuttle, and mechanism set into operation by the filling detector mechanism for transferring a filling carrier from the magazine to the shuttle.

[Claims 6 to 15 not printed in the Gazette.]

1,134,064. FIRE-ALARM SYSTEM. JOHN B. AMMONS, Houston, Tex., assignor of one-tenth to Evander Ammons and one-fifteenth to Otis McGaffey, Houston, Tex. Filed Jan. 21, 1915. Serial No. 3,650. (Cl. 177—355.)



1. In a fire alarm system, the combination with a battery, of a pair of line wires connected thereto, a third wire open at each end, a series of electrically operated signals, each having one pole connected to one of the line wires and its other pole connected to the third wire, a series of thermostatic circuit closers each having one pole connected to one of said line wires and its remaining pole connected to the third wire, and a switch arranged to connect certain of said signals to the battery when in one position and cause them to constantly ring independently of the closing of the circuit closers, said switch being further arranged when in a second position to cause all of said signals to ring upon the closing of one of the thermostatic circuit closers.

2. In a fire alarm system, the combination with a battery, of a pair of line wires connected thereto, a third wire open at each end, a series of electrically operated signals each having one pole connected to one of the line wires and its other pole connected to the third wire, a series of thermostatic circuit closers each having one pole connected to one of said line wires and its remaining pole connected to the third wire, and annunciator-drops each connected to a respective circuit closer and connected in multiple to said battery.

3. The combination with a series of house signals, of thermostatic circuit closers for controlling the respective signals, a central station signal, operating means for the central station signal, a battery, connections between said battery operating means and signals including a switch arranged to connect all of the house signals and the operating means for the central station signal in multiple through said thermotatic circuit closers when in one position and to connect all of said house signals in closed circuit when in a second position.

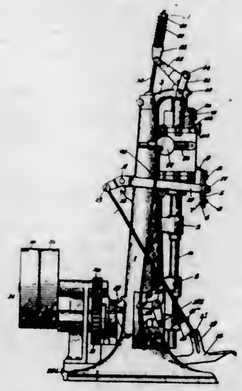
4. In a fire alarm signal system, a series of house signals, thermostatically operated circuit closers for controlling said house signals said thermostatically operated circuit closers normally open, a battery, a double pole double throw switch having its central poles connected to said battery, a line wire leading from said battery, a second line wire leading from one pole of said switch and connected to said battery when the switch is in alarm position, and a carrier wire, said house signals being connected in multiple to said carrier wire and in multiple to the last mentioned line wire, said circuit closers being connected in multiple to said carrier wire and in multiple to the first mentioned line wire.

5. In a fire alarm system, a series of house signals, thermostatically operated circuit closers for controlling said house signals, said thermostatically operated circuit closers being normally open, a battery, a double pole double throw switch having its central poles connected to said battery, a line wire leading from said battery, a second line wire leading from one pole of said switch and connected to said battery when the switch is in alarm position, a station relay, a wire connecting the magnet of said station relay with the second pole of the

switch and through said switch to the battery when the switch is in an alarm position, a carrier wire, and a second wire leading from said relay magnet to the carrier wire.

[Claims 6 to 10 not printed in the Gazette.]

1,134,065. MACHINE FOR VACUUM-SEALING. JOSEPH V. HULL, Brooklyn, N. Y., assignor, by mesne assignments, to Anchor Cap & Closure Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 6, 1912. Serial No. 682,051. (Cl. 113—4.)



1. In a vacuum sealing machine, the combination with a chamber and its closure, of a sealing device located within the chamber, and a self-adjusting support for the container having its moving parts within the chamber.

2. In a vacuum sealing machine, the combination with a chamber having a part thereof in the form of a movable closure whereby the chamber may be opened or may be hermetically sealed, of a power driven sealing device adapted to operate upon a container within said chamber, a support for the container, and a pedal mechanism adapted to operate the said movable closure and to control the operation of the sealing device.

3. In a vacuum sealing machine, the combination with a chamber having a part thereof in the form of a movable closure whereby the chamber may be opened or may be hermetically sealed, of a power driven sealing device adapted to operate upon a container within said chamber, an abutment adapted to bear upon one end of the container, the said abutment being resilient to compensate for varying sizes of containers, and a pedal mechanism adapted to operate the said movable closure and to control the operation of the sealing device.

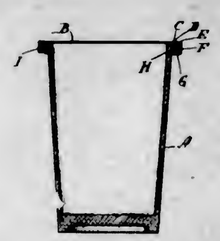
4. In a vacuum sealing machine, the combination with a chamber, of a power sealing device located within the chamber, a support for the container, a closure for the chamber, and a pedal adapted to operate the closure and to control the operation of the sealing device.

5. In a vacuum sealing machine, the combination with a chamber, of a power sealing device located within the chamber, a self-adjusting support adapted to present varying sizes of containers to the sealing device, a closure for the chamber, and a pedal adapted to operate the closure and to control the operation of the sealing device.

[Claims 6 to 21 not printed in the Gazette.]

1,134,066. RECEPTACLE-CLOSURE. JOSEPH V. HULL, New York, N. Y., assignor, by mesne assignments, to Anchor Cap & Closure Corporation, New York, N. Y., a Corporation of New York. Filed July 25, 1912. Serial No. 711,427. (Cl. 215—17.)

A sealing cap for glass containers comprising a body having a downwardly extending flange provided with an annular beading, a rip strip positioned within the beading adjacent to its outer wall, a gasket located within the



beading in contact with the rip strip and holding the strip positioned within the beading and out of contact with the container.

1,134,067. CLOSURE. JOSEPH V. HULL, Brooklyn, N. Y., assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Original application filed Mar. 6, 1912, Serial No. 682,051. Divided and this application filed May 28, 1914. Serial No. 841,491. (Cl. 215—17.)



1. In a sealing closure for bottles, jars or other receptacles, a metallic closure having an annular beading, a packing ring inclosed in the beading and held under compression by the walls of the beading, said ring being squeezed laterally against the side wall of the receptacle, and an annular groove in the upper side of said beading formed from the excess metal of the beading resulting from the sealing operation.

2. In a sealing closure for bottles, jars or other receptacles, a metallic closure having an annular beading, a gasket inclosed in the beading and held under compression by the walls of the beading, the said gasket being squeezed laterally against the side wall of the receptacle, and an annular groove in one of the walls of said beading formed of excess metal in the beading.

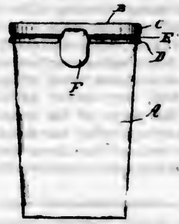
3. In a sealing closure for bottles, jars or other receptacles, a metallic closure having an annular beading, a gasket inclosed in the beading and held under compression by the walls of the beading, the said gasket being squeezed laterally against the side wall of the receptacle, and an inwardly projecting lip extending from one of the beading walls and contacting with the said gasket, the said lip being formed of the excess metal in the beading.

4. A package comprising a container having a mouth with a continuous wall, in combination with a sealing cap having a downwardly extending flange provided with an annular beading, a gasket held compressed between the upper and lower walls of the said beading with a portion of said gasket displaced under pressure radially inward into contact with the wall of the container and forming a frictional seal therewith.

5. A package comprising a container having a mouth with a continuous wall, in combination with a sealing cap having a downwardly extending flange provided with an annular beading, a gasket held under compression between opposing walls of the beading with a portion of said gasket displaced laterally under said compression against the wall of the container and forming a frictional seal therewith.

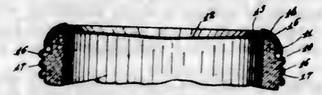
[Claims 6 to 8 not printed in the Gazette.]

1,134,068. RECEPTACLE-CLOSURE. JOSEPH V. HULL, New York, N. Y., assignor, by mesne assignments, to Anchor Cap & Closure Corporation, New York, N. Y., a Corporation of New York. Filed July 25, 1912. Serial No. 711,426. (Cl. 215—81.)



A cap for sealing tapered glass containers and the like comprising a body equipped with a downwardly extending flange tapered inwardly, a skirt extending outwardly and having a greater diameter than the flange, an annular beading between the flange and the skirt, a gasket adapted to form a top seal with the container, the said annular beading being adapted to lock the cap to the container upon the reduction in diameter of the skirt, and a tongue separate from the skirt and connected directly with the beading, and adapted to loosen the latter to remove the cap.

1,134,069. CLOSURE. WILLIAM P. WHITE, Chicago, Ill. Filed July 11, 1913. Serial No. 778,486. (Cl. 215—82.)



1. In combination, a container having a spherical zone sealing surface, a closure having a spherical zone sealing surface, the inner edge of the closure zone being formed into a centering shoulder and a gasket adapted to be interposed between the container and the closure.

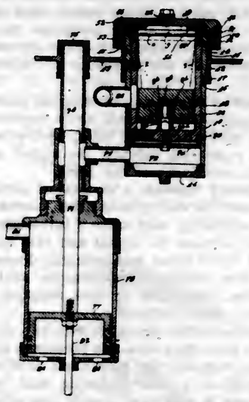
2. In combination, a container having a spherical zone sealing surface, a closure having a spherical zone sealing surface, the inner edge of the closure zone being formed into a shoulder, a gasket adapted to be interposed between the container and the closure, and a screw clamp adapted to engage the closure and force it downward upon the container.

3. In combination, a container having a spherical zone sealing surface, a closure having a spherical zone sealing surface, the inner edge of the closure zone being formed into a shoulder, a gasket adapted to be interposed between the container and the closure, and a screw ring engaging threads upon the container and adapted when screwed down to engage the closure and force it downward upon the sealing lip of the container.

4. In combination, a container having a spherical zone sealing surface, a closure having a spherical zone sealing surface, the inner edge of the closure zone being formed into a shoulder, a gasket adapted to be interposed between the container and the closure, and a screw clamp having an annular portion concentric with the closure zone and adapted to engage the same.

1,134,070. SEALING-MACHINE. ROBERT MAGRANE, New York, N. Y., assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 26, 1914. Serial No. 821,239. (Cl. 113—2.)

1. In a vacuum sealing machine, a cup-shaped vacuum chamber, an annular sealing ring mounted in the chamber, a cap adapted to form a closure for the chamber, an annular sealing ring mounted upon the cap, the said rings being positioned to coact with each other to effect a sealing operation when the cap and chamber are in contact, and mechanism adapted to cause relative movement between the cap and chamber to open and close the chamber.



2. In a vacuum sealing machine, a cup-shaped vacuum chamber, an annular sealing ring mounted in the chamber, a cap adapted to form a closure for the chamber, an annular sealing ring mounted upon the cap, the said rings being positioned to coact with each other to effect a sealing operation when the cap and chamber are in contact, mechanism adapted to open and close the chamber by relative movement of the cap and chamber, and a locking device for locking the cap and chamber together when in their closed position.

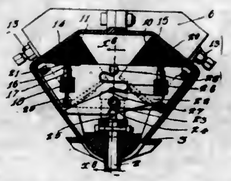
3. In a vacuum sealing machine, a plurality of vacuum chambers, a plurality of closures for the chambers, sealing mechanism positioned within each chamber, a power device operating by atmospheric pressure and adapted to actuate the sealing mechanisms, and exhausting connections for the chambers and the power device.

4. In a vacuum sealing machine, a plurality of vacuum chambers, a plurality of closures for the chambers, sealing mechanism positioned within each chamber, a power device operating by atmospheric pressure, means whereby the power device is adapted to operate the plurality of sealing mechanisms, and exhausting connections for the chambers and the power device.

5. In a vacuum sealing mechine, a vacuum chamber comprising two separable parts, an integral annular sealing jaw mounted upon each part, and means adapted to operate the jaws to effect a mechanical seal.

[Claims 6 to 25 not printed in the Gazette.]

1,134,071. WIGWAG FLAGMAN. JOHN A. BELL, Los Angeles, Cal., assignor to Railway Specialties Company, Los Angeles, Cal., a Corporation of California. Filed Jan. 31, 1914. Serial No. 815,825. (Cl. 177—288.)



1. A case formed in two sections united at the middle, a magnet core detachably secured in each section, a magnet on each core, means securing the sections detachably together, the two sections having journal bearings, the center line through said journal bearings meeting the axial lines of the cores at their points of inter-

section, the said bearings being divided by the line of division between the two sections, an armature mounted in the said journal bearings and having a free movement with respect to said cores, a signal carried by said armature, and switch means located within said case and operated by the movement of the armature for controlling the circuits through the said magnets to reverse the direction of movement of the armature at each end of its stroke.

2. In a wig-wag flagman, a case, arms projecting from the case, a signal carried by said arms, mechanism within said case for oscillating said arms, and a bell mounted between said arms and between the signal and case to be rung by the movement of the arms.

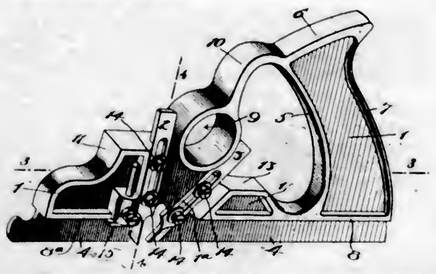
3. In a wig-wag flagman, a case, arms projecting from the case, a signal carried by said arms, mechanism within said case for oscillating said arms, a bell mounted between said arms and between the signal and case to be rung by the movement of the arms, and swinging doors in opposite ends of the case, giving access thereto, said case being in two sections, detachably secured together, said doors extending over both sections.

4. A pivoted armature provided with two radial sockets, a pair of arms projecting into said sockets, a signal carried by said arms, magnets for attracting said armature in opposite directions, a case inclosing said magnets and armature, a base in said case, a rock arm pivoted on said base and having a notch, a tongue on the armature projecting into said notch, switch contacts supported by said base, switch stems extending slidably between said contacts, a disk carried by each stem, and adapted to rest upon the associated contacts when the stem is lowered, said stems being actuated by said rock arm.

5. A pivoted armature provided with two radial sockets, a pair of arms projecting into said sockets, a signal carried by said arms, magnets for attracting said armature in opposite directions, a case inclosing said magnets and armature, a base in said case, a rock arm pivoted on said base and having a notch, a tongue on the armature projecting into said notch switch contacts supported by said base, switch stems extending slidably between said contacts, a disk carried by each stem, and adapted to rest upon the associated contacts when the stem is lowered, said stems being actuated by said rock arm, there being three contacts around each stem, two of said contacts being connected with one side of the circuit through the associated magnet, and the other contact being connected with the opposite side of the circuit whereby burning of the contacts is minimized.

[Claim 6 not printed in the Gazette.]

1,134,072. PLANE. CHRISTIAN BODMER, New Britain, Conn., assignor to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 5, 1914. Serial No. 870,356. (Cl. 145—10.)



1. In a plane, an integral body casting comprising a longitudinal web section, lateral flange reinforcements bordering said web section and extending on each side thereof, the lower flange forming a flat sole, a relatively thin runner depending below said sole and in the plane of the web, said runner being separated intermediate its length to form a front runner section and a rear runner section, said runner sections being bridged and reinforced by said flanged web.

2. In a plane, an integral body casting comprising a longitudinal web section, lateral flange reinforcements bordering said web section and extending on each side thereof, the lower flange forming a flat sole, a relatively thin runner depending below said sole and in the plane of the web, said runner being separated intermediate its length to form a front runner section and a rear runner section, said runner sections being bridged and reinforced by said flanged web, two cutter guide grooves in the body casting in the plane of the runner, both grooves leading to the space separating the front and rear runner sections, the rear end of the front runner section and the forward end of the rear runner section forming cutter seats.

1,134,073. CHICLE SUBSTITUTE AND PROCESS OF MAKING SAME. GEORGE BURT BRADSHAW and WILLIAM HENRY BRADSHAW, Brooklyn, N. Y; said George B. Bradshaw assignor to said William Henry Bradshaw. Filed Apr. 25, 1911. Serial No. 623,141. (Cl. 127—4.)

1. A process of making a chicle substitute which consists in treating resin with a purifying agent and adding thereto gutta and a fatty substance.

2. A process of making a chicle substitute which consists in treating resin extracted from rubber gum with a sugar solution and adding thereto gutta and a fatty substance.

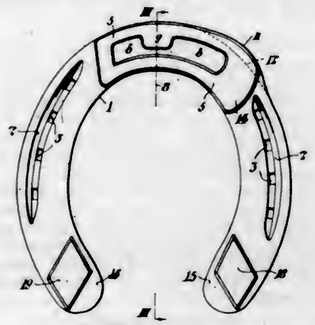
3. A process of making a chicle substitute which consists in treating resin extracted from rubber gum with a sugar and soda solution to purify the same and adding thereto gutta and a fatty substance.

4. A process of making a chicle substitute which consists in treating resin with a purifying agent and adding thereto gutta after having been subjected to a purifying agent.

5. A process of making a chicle substitute which consists in treating resin with a purifying agent and adding thereto gutta after having been subjected to a purifying agent and deodorizing means.

[Claims 6 to 22 not printed in the Gazette.]

1,134,074. HORSESHOE. BERNARD COURLAENDER, Jr., Philadelphia, Pa., assignor of one-third to Morris Rosenbaum and one-third to James A. Murphey, Philadelphia, Pa. Filed Jan. 5, 1915. Serial No. 577. (Cl. 168—13.)



1. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface on the medial line of the shoe extending inwardly from the inner margin of said frame, in said recess, affording a wearing surface at that region approximately double the width, from front to rear, of the other portions of the front of said frame, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof so as to afford a wearing surface, at that side, approximately double the width of the narrower portions of the frame and projecting laterally beyond the normal contour of the shoe; of a calk upon the heel of the shoe, at that side, in longitudinal alinement with said lateral wearing surface; and a calk upon the opposite heel of the shoe; the latter calk being out of longitudinal alinement with the edge of the front calk upon that side; whereby the shoe has a tendency to roll upon that side of the toe opposite to the side which is caused to roll by the action of the horse, so that the tendency to maximum wear upon one side of the toe of the shoe, by the rolling action of the horse, is counteracted both by the construction and arrangement of the toe calk and by the construction and arrangement of the heel calks in coöperative relation therewith.

2. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface on the medial line of the shoe extending inwardly from the inner margin of said frame, in said recess, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof projecting laterally beyond the normal contour of the shoe; of a calk upon the heel of the shoe, at that side, in longitudinal alinement with said lateral wearing surface; and a calk upon the opposite heel of the shoe; the latter calk being out of longitudinal alinement with the edge of the front calk upon that side; whereby the shoe has a tendency to roll upon that side of the toe opposite to the side which is caused to roll by the action of the horse, so that the tendency to maximum wear upon one side of the toe of the shoe, by the rolling action of the horse, is counteracted both by the construction and arrangement of the toe calk and by the construction and arrangement of the heel calks in coöperative relation therewith.

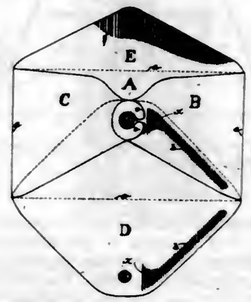
3. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface on the medial line of the shoe extending inwardly from the inner margin of said frame, in said recess, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof projecting laterally beyond the normal contour of the shoe; of a calk upon the heel of the shoe, at that side, in longitudinal alinement with said lateral wearing surface; whereby the shoe has a tendency to roll upon that side of the toe opposite to the side which is caused to roll by the action of the horse, so that the tendency to maximum wear upon one side of the toe of the shoe, by the rolling action of the horse, is counteracted both by the construction and arrangement of the toe calk and by the construction and arrangement of the heel calk in coöperative relation therewith.

4. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface on the medial line of the shoe extending inwardly from the inner margin of said frame, in said recess, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof projecting laterally beyond the normal contour of the shoe; of a calk upon the heel of the shoe, upon the side opposite said lateral projection; said heel calk being out of longitudinal alinement with the edge of the toe calk upon that side; whereby the shoe has a tendency to roll upon that side of the toe opposite to the side which is caused to roll by the action of the horse, so that the tendency to maximum wear upon one side of the toe of the shoe, by the rolling action of the horse, is counteracted both by the construction and arrangement of the toe calk and by the construction and arrangement of the heel calk in coöperative relation therewith.

5. In a horseshoe, the combination with a toe calk forming a continuous annular frame around a recess adapted to receive and hold grit from the road, and having an auxiliary wearing surface on the medial line of the shoe extending inwardly from the inner margin of said frame, in said recess, affording a wearing surface at that region approximately double the width, from front to rear, of the other portions of the front of said frame, and having an auxiliary wearing surface of said frame extending laterally upon one side thereof so as to afford a wearing surface, at that side, approximately double the width of the narrower portions of the frame and projecting laterally beyond the normal contour of the shoe.

[Claims 6 to 10 not printed in the Gazette.]

1,134,075. ENVELOP. HENRY FRANCOIS FLINT, Omaha, Nebr. Filed Nov. 30, 1914. Serial No. 874,869. (Cl. 229—76.)



1. An envelop comprising a sheet bent to provide a rectangular front, a bottom flap and a pair of side flaps, adhesive areas disposed on the outer surface adjacent to the end of one of the side flaps, the other side flap being provided with a pair of curved hooks adapted to be disposed between the adhesive areas and to substantially encircle one of said areas, said bottom flap being provided with adhesive areas and adapted to be folded to overlap the side flaps for connecting its adhesive areas with the adhesive areas of said side flap.

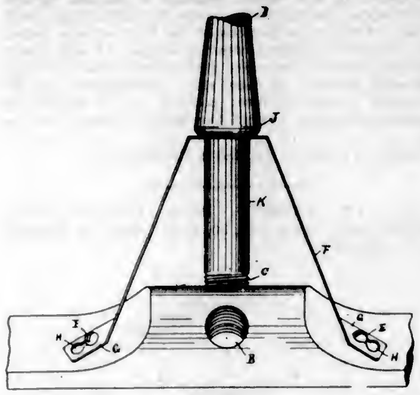
2. An envelop comprising a sheet bent to provide a rectangular front, a sealing flap, a bottom flap, a first side flap and a second side flap, the first side flap being provided near its terminal with a circular adhesive area and adjacent thereto with a secondary adhesive area having a concaved terminal, the second side flap being provided with a pair of curved hooks adapted to be disposed between the circular adhesive area and the concaved terminal of the secondary adhesive area of the first side flap, said bottom flap being provided with a circular adhesive area and adjacent thereto with a secondary adhesive area having a concaved terminal and adapted to be disposed to overlap the side flaps for connecting its circular and secondary adhesive areas respectively with the circular and secondary adhesive areas of the first side flap, the sealing flap being provided with an adhesive area and adapted to be disposed to overlap the bottom flap and side flaps for a connection of its adhesive area with said bottom flap and the first side flap.

1,134,076. PUSH-BROOM. FLOYD R. HIPKINS, Fort Wayne, Ind., assignor of one-half to Hallie Weigel, Fort Wayne, Ind. Filed Jan. 27, 1915. Serial No. 4,640. (Cl. 15—21.)

1. In a broom having a detachable handle, a broom proper, a handle having a shoulder and a screw-threaded connection with the broom proper; a brace adapted to be engaged by the shoulder of the handle and having feet adapted to engage the back of the broom proper; and means for securing said feet to said back.

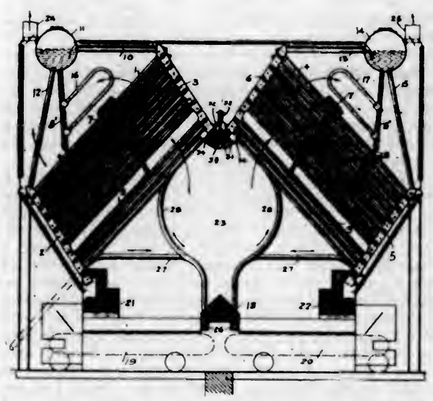
2. In a device of the class described a broom proper; a

handle having screw-threaded connection with the broom proper and having a shoulder thereon; and a brace remov-



ably connected to the broom proper and bearing against the shoulder of the handle.

1,134,077. WATER-TUBE BOILER. DAVID S. JACOBUS, Jersey City, N. J., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Sept. 21, 1912. Serial No. 721,530. (Cl. 122—325.)



1. In a water tube boiler, the combination of two units each comprising a bank of inclined water tubes, upper and lower headers into which said tubes are expanded, said units being so disposed that the upper headers converge toward each other downwardly and extend upwardly to the roof of the setting, whereby there is formed a centrally disposed A-shaped combustion chamber between the units, a steam and water drum for each unit, substantially horizontal separator tubes connecting the upper ends of the upper headers to the corresponding steam and water drum, downcomers connecting said drums to the lower headers, and walls in front of said downcomers and extending from the steam and water drums to the banks of tubes.

2. In a water tube boiler, the combination of two units each comprising a bank of inclined water tubes, upper and lower headers into which said tubes are expanded, said units being so disposed that the upper headers converge toward each other downwardly, whereby there is formed a centrally disposed A-shaped combustion chamber between the units, a steam and water drum for each unit, substantially horizontal separator tubes connecting the upper ends of the upper headers to the corresponding steam and water drum, downcomers connecting said drums to the lower headers, transverse baffles dividing the banks of tubes into a plurality of passes beginning at the steam uptake end, walls extending from the lower transverse baffles to the steam and water drums, a superheater in the space above each bank of tubes, and pipes connecting said superheaters with the steam space of the corresponding drum.

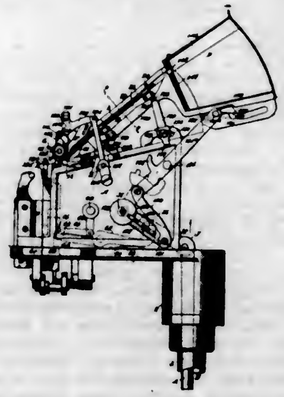
3. In a water tube boiler, the combination of two units each comprising a bank of inclined water tubes, upper and lower headers into which said tubes are expanded, said units being so disposed that the upper headers converge toward each other downwardly, whereby there is formed a centrally disposed A-shaped combustion chamber between the unit, a steam and water drum for each unit, substantially horizontal separator tubes connecting the upper ends of the upper headers to the corresponding steam and water drum, downcomers connecting said drums to the lower headers, a centrally disposed fuel chamber, a wall dividing said chamber along its center, water boxes below said wall, and pipes connecting said boxes with the upper and lower headers of each unit.

4. In a water tube boiler, the combination of two units each comprising a bank of inclined water tubes, upper and lower headers into which said tubes are expanded, said units being so disposed that the upper headers converge toward each other downwardly, whereby there is formed a centrally disposed A-shaped combustion chamber between the units, and a refractory tile to protect the lower ends of the upper headers.

5. In a water tube boiler, the combination of two units each comprising a bank of inclined water tubes, upper and lower headers into which said tubes are expanded, said units being so disposed that the upper headers converge toward each other downwardly, whereby there is formed a centrally disposed A-shaped combustion chamber between the units, a refractory tile to protect the lower ends of the upper headers, a steam and water drum for each unit, tubes connecting the upper ends of the upper headers to said drums, and downcomers connecting said drums to the lower headers.

[Claims 6 and 7 not printed in the Gazette.]

1,134,078. BUTTON-ATTACHING MACHINE. BENJAMIN KOTKOVSKÝ, New York, N. Y., assignor to The Rapid Button-Attaching Machine Company, Incorporated, New York, N. Y., a Corporation of New York. Filed Apr. 14, 1914. Serial No. 831,746. (Cl. 218—8.)



1. A button attaching machine including a staple driver having a slot in which the eye of a button is adapted to enter, and means in the slot to engage the button eye for carrying the button to staple receiving position during the staple driving stroke.

2. A button attaching machine including a longitudinally slotted staple driver, means for feeding buttons to the driver with the eyes of the buttons engaging in the slot thereof, and means movable with the driver and engageable with the button eye in the slot for moving the button to staple receiving position during the staple driving stroke.

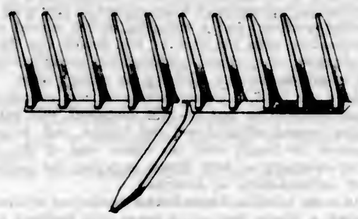
3. A button attaching machine comprising a staple bender, a staple driver, means for feeding buttons successively to receive a staple, and a lost-motion connection between the said means and staple bender whereby the latter is the actuator for the said means.

4. A button attaching machine comprising a staple bender, spaced abutments thereon, a staple driver for moving a button to staple-receiving position while driving a staple having a button attached, and means actuated by the abutments of the bender for feeding buttons to the staple driver.

5. A button attaching machine, comprising a button-feeding means, a wire-feeding means, a staple forming mechanism to which a button and a staple length of wire are successively fed, an actuator for the wire feeding means, a lost motion means between the actuator and wire feeding means for preventing actuation of the wire-feeding means upon failure of the feed of a button to the staple-forming mechanism, and a device actuated by a button for taking up the lost motion between the actuator and wire feeding means.

[Claims 6 to 34 not printed in the Gazette.]

1,134,079. WELDED METAL-WORK. MAURICE LACHMAN, New York, N. Y., assignor to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Original application filed Sept. 28, 1909, Serial No. 519,997. Divided and this application filed Dec. 14, 1911. Serial No. 665,711. (Cl. 55—10.)



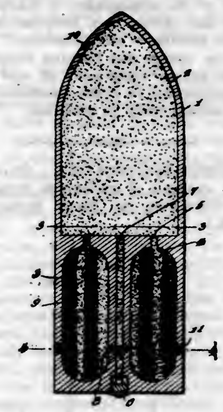
1. As a new article of manufacture, a rake comprising solid metal tines united to an edge of a solid metal head having inclined sides, the tines being split and having a bearing on the inclined sides of the head.

2. A rake consisting of a triangular-shaped solid metal head and solid metal tines welded to the head, the tines being split and having a bearing on the sides of the triangular head and a shank for the handle welded to the head.

1,134,080. SHELL. AARON H. LE VAN, Los Angeles, Cal. Filed June 12, 1914. Serial No. 844,713. (Cl. 102—29.)

1. A shell including a body portion having a powder chamber formed therein, said body portion also having a plurality of smaller compartments formed therein, the said smaller compartments containing inflammable and explosive material, that portion of the said body between the smaller compartments being longitudinally bored and filled with powder, the bore, intermediate its ends, being open to the respective small compartments, and the compartments, at one end, being open to the powder chamber.

2. A shell including a body portion hollow at one end, the chamber formed in the hollow end of the said body being filled with powder, a plurality of comparatively small chambers formed in the opposite end of the said shell, the said chambers being in communication with the said powder chamber, the smaller chambers being filled with an explosive inflammable material, that portion of the body between the said chambers being longitudinally bored, the bore opening into the said powder chamber,



the said longitudinal bore being open to a second bore extending transversely thereof and opening into the respective smaller chambers, the said two bores each containing a fuse, a cap at one end of the longitudinal bore, and means removable relatively to said body to provide for a filling of the several chambers, as and for the purpose set forth.

1,134,081. PROCESS FOR PRODUCING CARBIDS OF SILICON AND BY-PRODUCTS. SAMUEL PEACOCK, Chicago, Ill., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y., a Corporation of New York. Filed July 17, 1912. Serial No. 710,099. (Cl. 204—62.)

1. The process of making a compound containing silicon and carbon and recovering aluminum and potassium compounds which consists in heating a mixture of carbon and a finely divided mineral containing silicon, aluminum and potassium, to a temperature sufficient to produce aluminum and potassium carbids; pumping off said carbids from the sphere of the reaction; and then further heating the residue until said silicon compound is formed, substantially as described.

2. The process of making a compound containing silicon and carbon and recovering aluminum and potassium compounds which consists in heating under a pressure less than that of the atmosphere a mixture of carbon and a finely divided mineral containing silicon, aluminum and potassium, to a temperature sufficient to produce aluminum and potassium carbids; removing said carbids from the sphere of the reaction thereby lowering the partial pressures of the reaction products; and then further heating the residue until said silicon compound is formed, substantially as described.

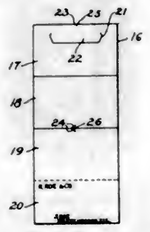
3. The process of making carborundum and by-products from feldspar which consists in heating, under a pressure less than that of the atmosphere, a charge of finely divided feldspar and carbon to a temperature sufficient to form carbids of aluminum and potassium; removing said carbids from the charge and thereby lowering the partial pressures of the reaction products; then raising the temperature to a point sufficient to form the carborundum, substantially as described.

4. The process of making carborundum and by-products from feldspar which consists in heating, under a pressure less than that of the atmosphere, a charge of finely di-

vided feldspar and carbon to a temperature sufficient to form carbids of aluminum and potassium; removing said carbids from the charge; then raising the temperature to a point sufficient to form alloxicon; and finally raising the temperature to a point sufficient to form the carborundum, substantially as described.

5. The process of making carborundum and by-products from feldspar which consists in heating, under a pressure less than that of the atmosphere, a charge of finely divided feldspar and carbon to a temperature sufficient to form carbids of aluminum and potassium; removing said carbids from the charge and burning them in an excess of air to form oxygen compounds of said metals; then raising the temperature to a point sufficient to form the carborundum, substantially as described.

1,134,082. ADVERTISING-FOLDER. OTAKAR VALASEK, Chicago, Ill., assignor of one-half to Peter Berkey, Chicago, Ill. Filed Feb. 24, 1914. Serial No. 820,607. (Cl. 120—74.)



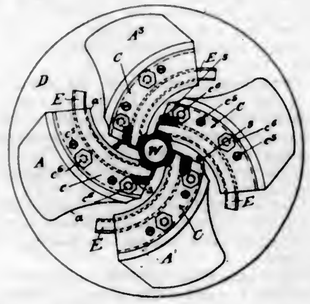
1. An advertising folder comprising a body made of a single piece of foldable material folded to produce a plurality of sections, one of the outer of said sections being slitted to provide a leaf joined to the body along one edge only, an inner section being shorter than the remainder, one end of said shorter section being inserted between the leaf and the body, whereby a portion of said inserted section is exposed through the said outer section, and said exposed portion having thereon the name and address of the party for whom the folder is intended.

2. An advertising folder comprising a plurality of sections folded so as to produce inner and outer sections, one of the outer sections being slitted to provide a window and a leaf joined to the body portion of the folder at one edge only and adapted to close the window, one of the inner sections overlapping said leaf and lying between the same and the section out of which it is cut whereby it is held close to the window by the flap and a portion thereof is exposed through the window, said latter portion being adapted to receive the name and address of the person for whom the folder is intended.

3. An advertising folder comprising a plurality of sections folded on each other so as to produce inner and outer sections, an inner of said sections having on the front thereof a space for the name and address of the person for whom the folder is intended, and one of the outer sections having therein a window registering with said space and extending in one direction at least to one edge of said inner section, and a closing leaf or flap for said window projecting from the body of the folder at the side of the window adjacent to the aforesaid edge of the inner section and lying in rear of the latter section.

4. An advertising folder comprising a body made of a single piece of foldable material folded to produce a plurality of sections, one of the outer of said sections being slitted to provide a leaf joined to the body along one edge only, an inner of said sections having one end inserted between the leaf and the body whereby a portion of said inner section is exposed through the slitted outer section, said inserted section being in the form of a return post card having in the exposed portion a space for the name and address of the person for whom the folder is intended.

1,134,083. THREAD-CUTTING DEVICE. HENRY L. FISHER, Waynesboro, Pa., assignor to Landis Machine Company, Waynesboro, Pa., a Corporation of Pennsylvania. Filed June 2, 1910. Serial No. 564,718. (Cl. 10—104.)



1. In a die head, a chaser holder having a seat for a chaser, a chaser fitted to said seat and extending tangentially with respect to the work when in cutting position, and a clamp extending outside of said chaser and extending to and engaging the front thereof for substantially its entire length.

2. In a die head, a chaser holder having a seat for a chaser, a chaser fitted to said seat, and extending tangentially with respect to the work when in cutting position, and a clamping device secured on the side of the chaser away from the work, and extending over and engaging the same on its front edge throughout substantially its entire length, said clamping device being cut away adjacent the cutting edge of the chaser to provide a clearance for the free operation of the cutting edge upon the work.

3. In a die head, a chaser holder having an arc shaped seat, a chaser of corresponding shape fitted to said seat and extending tangentially with respect to the work when in cutting position, and a clamping device curved on the arc concentric with the arcs of the chaser and its seat, and engaging the chaser throughout substantially its entire length on the side opposite the cutting edge.

4. In a die head, a chaser holder having an abutment, a chaser adapted to rest on said abutment, and extended clamping means secured on the holder and projecting throughout its length over the upper edge of the chaser with an overhang or drop flange engaging the outer face thereof, substantially as described.

5. In a die head, a chaser holder having an oblique face abutment, a chaser having its lower edge inclined to rest on said abutment and dovetail clamping means secured on the holder having an overhang or drop flange with an oblique or beveled lower face engaging throughout its length over the upper edge and outer face of the chaser, substantially as described.

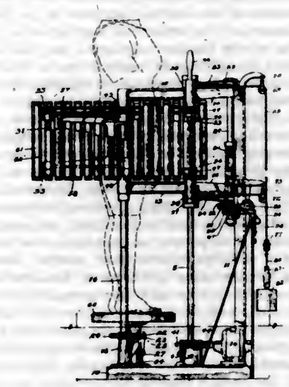
[Claims 6 to 27 not printed in the Gazette.]

1,134,084. BODY-TREATMENT MACHINE. JAMES P. GARDNER, Chicago, Ill., assignor to The Reducing Machine Company, a Corporation of Illinois. Filed Dec. 31, 1913. Serial No. 809,598. (Cl. 128—16.)

1. In a machine of the character set forth, the combination of a series of massaging rollers for engagement with the body of a person, flexible supports for said rollers, said supports being spaced a sufficient distance from the engaging portions of the rollers so as not to come in contact with the body, means for holding said rollers in engagement with the body, and means for moving said rollers while in engagement with the body.

2. In a machine of the character set forth, the combination of a continuous series of rotatable devices for engagement with the body of a person, flexible supports for said devices arranged to avoid contact with the body.

means for actuating said supports to roll the devices against the body, and means for tightening said supports to regulate the pressure against the body.



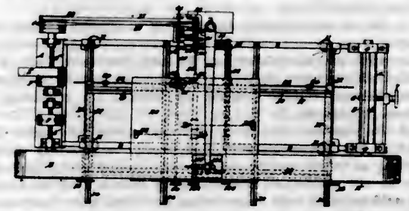
3. In a machine of the character set forth, the combination of two series of oppositely disposed rotatable devices for engagement with the body of a person, flexible carriers for carrying the engaging devices of each of said series, means for adjusting said carriers to bring a plurality of the engaging devices of each series into engagement with the body, and means for actuating said carriers.

4. In a machine of the character set forth, the combination of a pair of oppositely disposed flexible carriers, a series of rollers secured to each of said carriers and spaced sufficiently close to prevent the carriers from coming in contact with the person acted upon, means for supporting said carriers, means for driving said carriers, and means for adjusting the tension on said carriers.

5. In a machine of the character set forth, the combination of a pair of oppositely disposed flexible carriers, a plurality of rollers rotatably supported on each of said carriers, said carriers being arranged so that the rollers of the respective carriers may engage with the opposite sides of the body or limbs of a person placed between the carirers, means for driving said carriers, and means for adjusting the tension on the carriers whereby the pressure on the body or limb placed between the rollers may be regulated.

[Claims 6 to 16 not printed in the Gazette.]

1,134,085. SANDING-MACHINE. JOHN W. KROEZE, Burlingame, Cal. Filed Nov. 15, 1913. Serial No. 801,203. (Cl. 51—13.)



1. In a panel sanding machine, the combination of a movable frame, a table mounted to travel longitudinally on said frame at right angles to the direction of travel of the latter, means for automatically moving the table back and forth on the frame at predetermined lengths of travel, and means controlled by the movement of said table for shifting the frame including a normally inoperative clutch which is rendered momentarily operative by the table at the ends of the movements of the latter.

2. In a sanding machine, a stationary frame, a movable frame thereon, a worm-shaft, means for imparting movement to said frame by the rotation of the worm-shaft, a table mounted to travel longitudinally of the movable frame, a drum having oppositely wound cables thereon connected with the table, means for rotating said drum in alternate directions controlled by said table, and means for driving the worm-shaft from the drum rotating mechanism by which the worm-shaft will be rotated in one direction only.

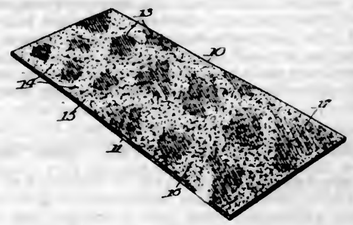
3. In a panel sanding machine, a movable frame, a worm-shaft, means by which the rotation of the worm-shaft in one direction will impart reciprocal movement to the frame, a table mounted to travel longitudinally on the frame, a shaft, a drum on said shaft, oppositely wound cables on said drum attached to the opposite ends of the table, a rock-shaft, means for actuating the rock-shaft by the movement of the table as the latter nears the ends of its stroke, means controlled by the rock-shaft for alternately rotating the shaft and drum thereon in opposite directions, means for rotating the worm-shaft in one direction connecting with the drum-shaft, and means controlled by the table for throwing the worm-shaft in and out of operative connection with the drum-shaft.

4. In a sanding machine, in combination, with a carrier, a table thereon, and sanding means arranged over the table, constantly rotated means to move the carriage, a shiftable device, means whereby said device is shifted by and upon the table reaching its extremes of movement, and means normally disconnected from the constantly rotated means and moved into connection therewith by said device to thereby effect operation of the carriage.

5. In a sanding machine, in combination, with a carriage, a table thereon and sanding means coöperating with the table, means to move the carriage, means whereby said moving means may be reversed, means to reciprocate the table on the carriage, and means actuated by the carriage upon reaching its extremes of movement to effect automatic operation of the reversing means.

[Claims 6 to 24 not printed in the Gazette.]

1,134,086. PREPARED ROOFING. FREDERICK C. LOWREY, River Forest, Ill. Filed Sept. 28, 1914. Serial No. 863,937. (Cl. 91—68.)



1. A prepared roofing sheet comprising a flexible waterproof body layer coated upon one side with an adhesive material containing oil, and a protective and ornamental surface layer consisting of crushed serpentine rock the particles of which are differently affected as to their appearance by the oil contained in said adhesive material.

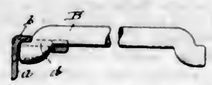
2. A prepared roofing sheet comprising a flexible waterproof backing coated upon one side with an adhesive material containing oil, and a protective and ornamental surface layer on the coated side of said backing, said layer consisting of crushed serpentine rock characterized by comprising an ununiform mixture of particles which are differently affected as to their appearance by the oil contained in said adhesive coating.

3. A prepared roofing sheet comprising a flexible waterproof body layer coated upon one side with an adhesive

material containing oil and a protective and ornamental surface layer consisting of a mixture of mineral particles which are differently affected with reference to their appearance by the oil contained in the said adhesive coating.

4. A prepared roofing sheet comprising a flexible waterproof body layer coated upon one side with an adhesive material containing oil and a protective and ornamental surface layer consisting of an ununiform mixture of mineral particles which are differently affected with reference to their appearance by the oil contained in the said adhesive coating.

1,134,087. LADDER. FRED MATHEWS, Chicago, and EDWIN G. CHENOWETH, Blue Island, Ill., assignors to Clinton C. Murphy, Chicago, Ill. Filed Oct. 7, 1914. Serial No. 865,427. (Cl. 228—1.)



1. A ladder comprising metal side-rails having flattened portions provided with rung-holes therein and depressed transverse seats leading from said rung-holes, and metal rungs that have offset end portions that are adapted to extend through said holes and engage said seats.

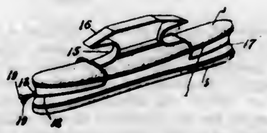
2. A ladder comprising metal side-rails having a portion flattened parallel to the support thereof and provided with rung-holes therein, and depressed transverse seats leading from said rung-holes, and metal rungs that have offset end portions that are adapted to extend through said holes and engage said seats.

3. A ladder comprising angle-iron side-rails one of the flanges of each of which is parallel to the support thereof and provided with suitable rung-holes and depressed transverse seats therein between said holes and the free edge thereof, and metal rungs that have offset ends that pass through said holes and which engage said seats.

4. A ladder comprising angle-iron side-rails each having a portion that is parallel to the support of the ladder and provided with rung-holes and with depressed transverse seats leading from said holes the bottoms of which are inclined, and metal rungs that have offset portions that are adapted to extend through said holes and which engage said seats.

5. A ladder comprising angle-iron side-rails one of the flanges of each of which is parallel to the support of said ladder and has rung-holes in the same and opposite depressed transverse seats extending from said holes; one of said seats being made in the inner surface of said flange between the hole and the angle of the rail and the opposite seat being made in the outer surface between the hole and the free edge of the flange and having its bottom inclined.

1,134,088. REVERSIBLE BUFFER. HARRY MENDELSOHN, New York, N. Y. Filed Nov. 23, 1911. Serial No. 661,971. (Cl. 30—23.)



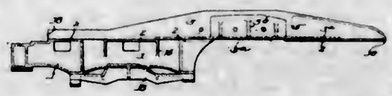
1. A buffer comprising in combination a reversible buffing block having buffing surfaces on opposite faces thereof, and a detachable handle, the handle having a hand grip and block engaging portions extending from the hand grip and including separable members for engaging one end of the block, and the block having its surface between its buffing faces formed to provide a guiding and positioning groove with outwardly flaring walls adapted to receive the block engaging portions of the handle, said groove being of a width substantially greater than required for holding the engaging portions of the handle in position when seated therein, whereby the handle may be readily applied to or removed from the block with either buffing surface of the block outermost by a relative endwise movement of the block and handle with the engaging portions of the handle running in the block groove.

2. A buffer comprising in combination a reversible buffing block having buffing surfaces on opposite faces thereof, and a detachable handle, the handle having a hand grip and block engaging portions extending from the hand grip and including separable members for engaging one end of the block provided with locking means for securing said members together about the end of the block, and the block having its surface between its buffing faces formed to provide a guiding and positioning groove with outwardly flaring walls adapted to receive the block engaging portions of the handle, said groove at and near the ends of the block being of a width substantially greater than required for holding the engaging portions of the handle in position when seated therein and decreasing in width toward the middle portion of the block, whereby the handle may be readily applied to or removed from the block with either buffing surface of the block outermost by a relative endwise movement of the block and handle with the engaging portions of the handle running in the block groove.

3. A reversible buffing block having opposite faces provided with buffing material, and having its surface all the way about the block between the buffing faces formed to provide a guiding and positioning groove with outwardly flaring walls adapted to receive the block engaging portions of a detachable handle, said groove being of a width substantially greater than required for holding the engaging portions of the handle in position when seated therein.

REISSUES.

13,894. DRAFT-GEAR MECHANISM. DAVID F. CRAWFORD, Pittsburgh, Pa. Filed Nov. 30, 1914. Serial No. 874,936. Original No. 915,272, dated Mar. 16, 1909. Serial No. 398,729. (Cl. 213—42.)



1. In combination, a car having a wooden center sill and a transverse bolster, and a gear supporting device at the front of the bolster provided with a truss portion extending to the rear alongside the sill and rigidly secured to the sill for stiffening it above the bolster.

2. A draft gear supporting device provided with a rearwardly extending truss portion, and a seat thereon arranged to support a car truss rod, intermediate the ends of said rod.

3. In combination, a car having a wooden center sill and a transverse bolster, and a gear supporting device at the front of the bolster and beneath the center sill provided with a truss portion extending to the rear alongside the sill and rigidly secured to the sill for stiffening it above the bolster.

4. In combination, a car having a wooden center sill and a transverse bolster, and a gear supporting device having a truss portion adapted to extend alongside said center sill above and a substantial distance on each side of said bolster, said beam being provided with horizontal flange adapted to be secured to a sill at the rear of the body bolster, substantially as described.

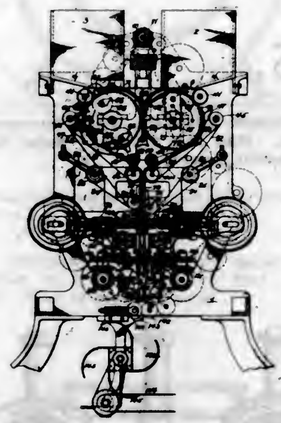
5. In a railway car, the combination of wooden center sills and a transverse bolster, a gear supporting device having a truss-portion extending alongside a center sill above the bolster and a substantial distance on either side thereof, said gear supporting device having a horizontal plate 2, underlying a center sill, and a horizontal flange

5a, projecting oppositely from said horizontal portion, substantially as described.

6. In combination, a car having a center sill and a transverse bolster, and a gear-supporting device having a truss portion extending alongside said center sill above and a substantially equal distance on each side of said bolster, said truss being of a vertical height at the bolster substantially equal to that of the sill, and also provided with a substantially horizontal flange in rear of the body bolster to underlie and to be secured to the sill.

7. The combination with a center sill, a transverse bolster, and a gear-supporting device in front of the bolster, of strain-equalising means to prevent breakage of the sill above the bolster, said strain-equalising means including a plate secured to the sill and lying alongside of one of the upright faces of the sill and extending across and at opposite sides of the bolster, the extension in the rear of the bolster being substantially equal to the extension in front of the bolster, said equalising plate being provided with substantially horizontal flanges located in front and rear of the bolster respectively and underlying the sill in engagement therewith, and the gear-supporting device and the plate being connected, whereby draft and buffing strains transmitted to the sill through the plate will be equalized in the sill portion lying across the bolster.

13,895. FEEDING MECHANISM FOR PAPER-ASSOCIATING MACHINES. CLAUD D. CURRY, Brooklyn, N. Y., assignor of two-thirds to American Assembling Machine Company, a Corporation of Tennessee. Filed Jan. 15, 1913. Serial No. 724,287. Original No. 982,039, dated Jan. 17, 1911. Serial No. 541,397. (Cl. 101—39.)



1. In a machine of the character described, the combination of a hopper for superimposed paper sections devoid of bodily movement while the lowermost section is deflected therefrom, feeding means beneath said hopper for bodily and reversely withdrawing a paper section from the hopper, and means also beneath said hopper for downwardly deflecting the leading end of the paper section without disturbing the bodily relation between the said paper section and the superimposed pile and for uninterruptedly presenting said paper section with the leading edge reversed to the feeding means aforesaid.

2. In a machine of the character described, the combination of a hopper for superimposed paper sections, a frictional feeding member beneath said hopper, a frictional feeding surface adapted to coöperate with the frictional feeding member, means for downwardly deflecting the leading end of the paper section from the hopper without disturbing the bodily relation between said paper section and the superimposed pile, and a reversing member for engaging the upper surface of the said deflected leading end for uninterruptedly reversing the leading edge of said section and presenting it to coaction of the frictional member and surface, whereby the paper is bodily removed from the hopper in inverted position with its leading edge reversed.

3. In a machine of the character described, the combination of a hopper for superimposed paper sections, means for partially deflecting the leading end of the lowermost paper section in the hopper downwardly without disturbing the bodily relation between said paper section and the superimposed pile, means for uninterruptedly reversing the partially deflected leading end of the paper section, and means for bodily removing the paper section from the hopper.

4. In a machine of the character described, the combination of a hopper for superimposed paper sections, means for partially deflecting the leading end of the lowermost paper section in the hopper downwardly without disturbing the bodily relation between the said paper section and the superimposed pile, means for uninterruptedly engaging the upper surface of the deflected leading end of the paper section thereby reversing its position, and means for bodily removing the entire paper section from the hopper.

5. In a machine of the character described, the combination with a support for paper sections, and a revoluble disk disposed below the same and having a slot forming a finger, of a vertically movable needle box located below the disk and movable past the same to engage a paper section on the support, said needle box comprising relatively movable members and needles carried by one of said members, operating means for the members of the needle box, and means for rotating the disk.

6. In a machine of the character described, the combination with a support for paper sections, of a revoluble disk having a slotted portion forming a finger, and a depressed peripheral portion, a finger normally sustaining a portion of a paper section and held in position by the disk throughout a portion of the rotation of the latter, a spring for depressing said finger into the path of the finger of the disk when released at the depressed peripheral portion of the disk whereby the finger of the disk will raise the spring-actuated finger to normal position.

7. In a machine of the character described, the combination with supporting means for paper sections, of a horizontally disposed revoluble disk having a slotted portion forming a finger, means for withdrawing the corner of a paper section in position to enter the slot of the disk, and means controlled by the disk for moving portions of a superimposed paper section out of the path of the disk.

8. In a machine of the character described, the combination with a support for paper sections, of a cylinder below the same, a feed roller coöperating with said cylinder, means located in said cylinder for withdrawing a portion of a paper section, other means for feeding the partially withdrawn paper section from the support to the cylinder, and means carried by the cylinder for presenting the paper section edgewise between said cylinder and feed roller.

9. In a machine of the character described, the combination with a support for paper sections, of a cylinder below said support, a feed roller coöperating with said cylinder, means for removing a paper section from the support, and a tumbling blade carried by the cylinder for presenting a paper section edgewise between the cylinder and feed roller.

10. In a machine of the character described, the combination with a support for superimposed paper sections devoid of bodily movement while the lowermost section is deflected therefrom, of deflecting devices disposed below said support, means for operating said devices to engage a paper section near the leading end thereof, and downwardly deflecting such leading end portion without disturbing the bodily relation between the said paper section and the superimposed pile, and other means located below said support operating to bodily remove the partially deflected section from the support and simultaneously reverse the same uninterruptedly and feed it forwardly.

11. In a machine of the character described, the combi-

nation with a support for paper sections, of a cylinder mounted below said support, a feed roller coöperating with said cylinder, a horizontally disposed disk over the cylinder and having a slotted portion, means for presenting a portion of a paper section to said disk, and a tumbling blade carried by said cylinder.

12. In a machine of the character described, the combination with a support for paper sections, a cylinder below said support, and a feed roller coöperating with said cylinder, of a disk having a slotted portion, horizontally disposed over said cylinder, means in the cylinder to withdraw a portion of a paper section and present it to the slotted portion of the disk, and a tumbling blade carried by the cylinder for presenting a paper section edgewise between the cylinder and feed roller.

13. In a machine of the character described, the combination with a support for paper sections, and a slotted revoluble disk disposed horizontally to receive paper sections from said support, of a cylinder disposed below the disk and provided with heads, a feed roller coöperating with said cylinder, a shaft having crank arms mounted in the cylinder heads, a spring pressed blade mounted on said shaft, a cross head on one of the journals of said shaft, pins on said cross head, and a fixed ring having recesses coöperating with said pins and means for tumbling the blade.

14. In a machine of the character described, the combination with a support for paper sections, and a slotted revoluble disk disposed horizontally to receive paper sections from said support, of a cylinder disposed below said disk, a feed roller coöperating with said cylinder, a spring-pressed tumbling blade carried by the cylinder, means for tumbling said blade, a roller carried by the blade, and a fixed trackway to engage said roller and depress the same to prevent its engagement with the disk.

15. In a machine of the character described, the combination with two supports for paper sections, a slotted disk disposed horizontally to receive paper sections successively from said supports, cylinders disposed below said disk, and feed rollers coöperating respectively with said cylinders, of a spring-pressed tumbling blade carried by each cylinder, rollers carried by said blades, and trackways in position to be engaged by said rollers to prevent engagement of the blades with adjacent cylinders and with said disk.

16. In a machine of the character described, the combination with a support for paper sections, of a revoluble cylinder mounted horizontally below said support, a feed roller coöperating with said cylinder, a revoluble slotted disk disposed between said cylinder and paper support, a longitudinally movable head disposed in said cylinder and movable past the periphery thereof, said head having a member provided with diagonal perforations, a movable carrier, diagonal needles carried by the carrier, means for reciprocating said head and carrier, and means for independently reciprocating the needle carrier.

17. In a machine of the character described, the combination with a support for paper sections, of a cylinder mounted below said support, a feed roller coöperating with said cylinder, a cranked shaft mounted in said cylinder, a blade carried by said shaft for directing paper sections between the cylinder and feed roller, a cross head carried by said shaft, pins on said cross head, rotating means to engage said rollers to tumble the blade, and a notched ring coöperating with said rotating devices and rollers.

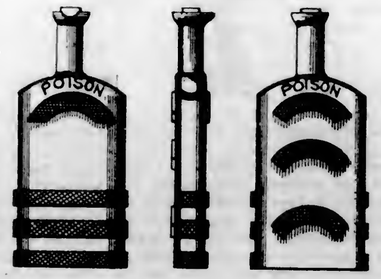
DESIGNS.

47,149. FONT OF TYPE. MORRIS F. BENTON, Plainfield, N. J., assignor to American Type Founders Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 19, 1913. Serial No. 755,545. Term of patent 14 years.



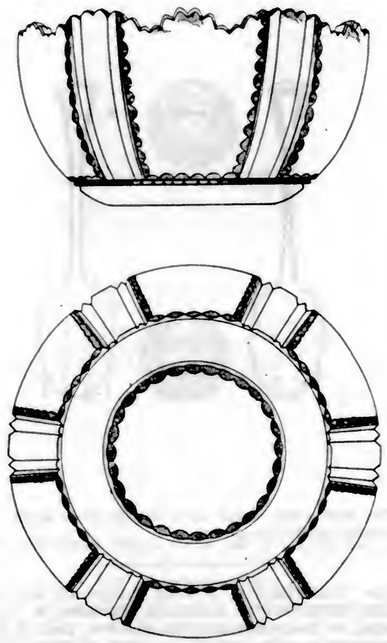
The ornamental design for a font of type shown in the accompanying drawing.

47,150. POISON-BOTTLE. WILLIS BURNETT, Chillicothe, Ill. Filed Jan. 27, 1915. Serial No. 4,805. Term of patent 7 years.



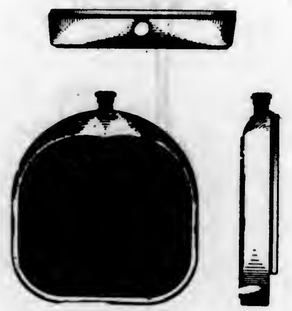
The ornamental design for a poison bottle, as shown.

47,151. GLASS VESSEL OR SIMILAR ARTICLE. THOMAS B. CAMPBELL, New York, N. Y. Filed May 27, 1914. Serial No. 841,391. Term of patent 7 years.



The ornamental design for a glass vessel or similar article, as shown.

47,152. AUTOMOBILE-RADIATOR. HENRY M. CRANE, New York, N. Y. Filed Dec. 12, 1914. Serial No. 876,987. Term of patent 14 years.



The ornamental design for an automobile radiator, as shown.

47,153. LAMP-SHADE. WILLIAM L. FRANKS, Rock Island, Ill. Filed Jan. 2, 1915. Serial No. 276. Term of patent 14 years.



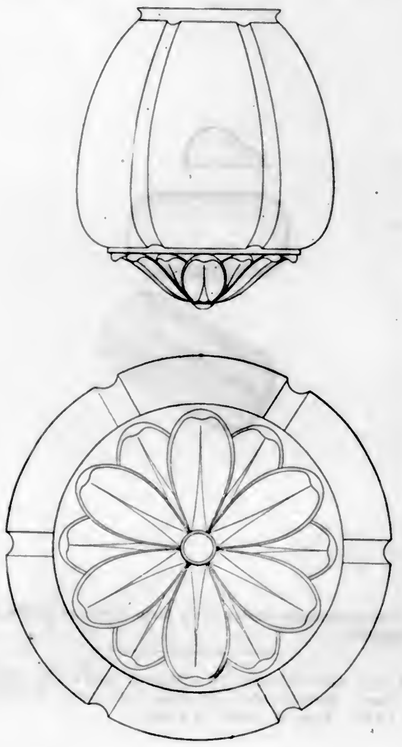
The ornamental design for a lamp shade as shown and described.

47,154. MEDALLION OR SIMILAR ARTICLE. DEZSO FRIED, Berkeley, Cal. Filed Jan. 20, 1915. Serial No. 3,419. Term of patent 3½ years.



The ornamental design for a medallion or similar article, substantially as shown.

47,155. LAMP-GLOBE. WILLIAM FRANK M. HAWS, Pittsburgh, Pa., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 2, 1915. Serial No. 5,795. Term of patent 14 years.



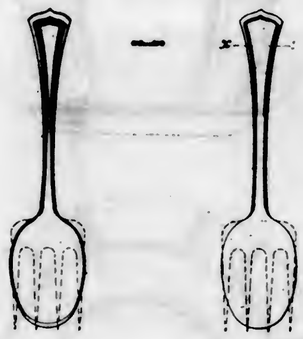
The ornamental design for a lamp globe, as shown.

47,156. NOVELTY SIGN FOR VEHICLES AND THE LIKE. WILLIAM H. HEADY, Los Angeles, Cal. Filed Oct. 28, 1914. Serial No. 869,156. Term of patent 7 years.



The ornamental design for a novelty sign for vehicles and the like, as shown.

47,157. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM A. JAMESON, Niagara Falls, N. Y. Filed Oct. 24, 1914. Serial No. 868,529. Term of patent 7 years.



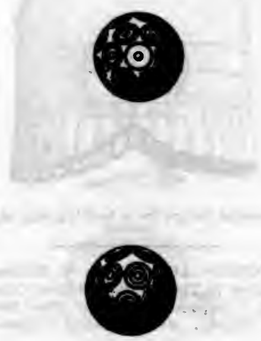
The ornamental design for a handle for a spoon, fork or similar article, as shown.

47,158. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. SIDNEY A. KELLER, Woodmere, N. Y., assignor to Joseph Fabys & Company, New York, N. Y., a Corporation of New York. Filed Jan. 28, 1915. Serial No. 4,959. Term of patent 7 years.



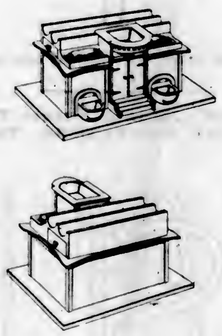
The ornamental design for a handle for a spoon, fork or similar article, as shown.

47,159. GOLF OR PLAYING BALL. ELMARER KEMPSHALL, Washington, D. C. Filed Jan. 6, 1915. Serial No. 777. Term of patent 14 years.



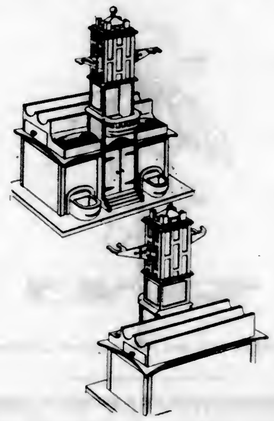
The ornamental design for a golf or playing ball, as shown.

47,160. COMBINED INK-WELL, PINCUSHION, AND PEN-RACK. JOHN H. KULOW, Buffalo, N. Y. Filed Oct. 21, 1914. Serial No. 867,911. Term of patent 7 years.



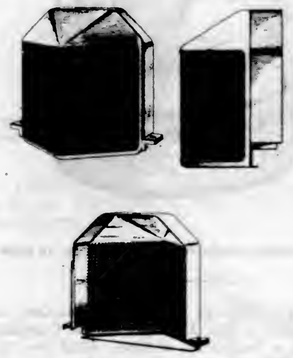
The ornamental design for a combined ink-well, pincushion, and pen-rack substantially as shown.

47,161. COMBINED INK-WELL, PINCUSHION, AND PEN-RACK. JOHN H. KULOW, Buffalo, N. Y. Filed Oct. 21, 1914. Serial No. 867,912. Term of patent 7 years.



The ornamental design for a combined ink-well, pincushion, and pen-rack substantially as shown.

47,162. RADIATOR-HOOD. D MCRA LIVINGSTON, New York, N. Y. Filed Dec. 19, 1914. Serial No. 878,202. Term of patent 7 years.



The ornamental design for a radiator hood, as shown.

47,163. RING, BRACELET, PIN, BUTTON, OR SIMILAR ARTICLE OF JEWELRY. WILLIAM LOEB, Providence, R. I. Filed Apr. 13, 1914. Serial No. 831,646. Term of patent 7 years.



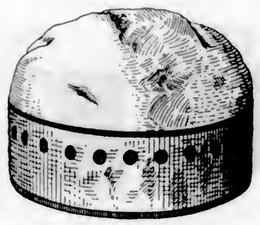
The ornamental design for a ring, bracelet, pin, button or similar article of jewelry, as shown.

47,164. PARASOL. JOHN MCNEILL, New York, N. Y., assignor to Arthe, Levy, Bernhard Company, New York, N. Y., a Corporation of New York. Filed Jan. 22, 1915. Serial No. 3,843. Term of patent 7 years.



The ornamental design for a parasol as shown.

47,165. BATHING-CAP. THOMAS W. MILLER, Ashland, Ohio, assignor to The Faultless Rubber Company, Ashland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1914. Serial No. 878,448. Term of patent 7 years.



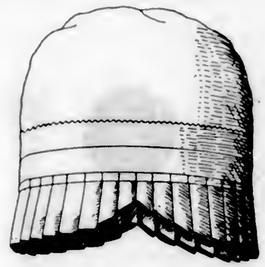
The ornamental design for a bathing cap, as shown.

47,166. BATHING-CAP. THOMAS W. MILLER, Ashland, Ohio, assignor to The Faultless Rubber Company, Ashland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1914. Serial No. 878,449. Term of patent 7 years.



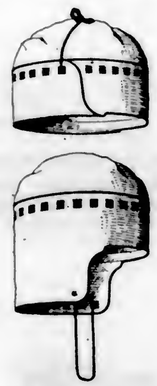
The ornamental design for a bathing cap, as shown.

47,167. BATHING-CAP. THOMAS W. MILLER, Ashland, Ohio, assignor to The Faultless Rubber Company, Ashland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1914. Serial No. 878,450. Term of patent 7 years.



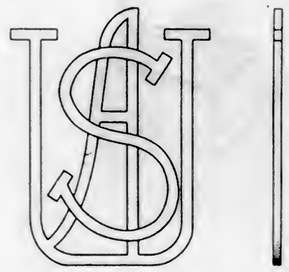
The ornamental design for a bathing cap, as shown.

47,168. BATHING-CAP. THOMAS W. MILLER, Ashland, Ohio, assignor to The Faultless Rubber Company, Ashland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1914. Serial No. 878,451. Term of patent 7 years.



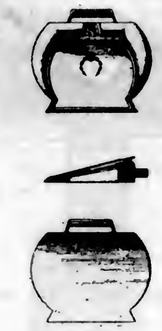
The ornamental design for a bathing cap, as shown.

47,169. EMBLEM. JOSEPH A. SALZMAN, Toledo, Iowa. Filed Dec. 4, 1914. Serial No. 875,542. Term of patent 7 years.



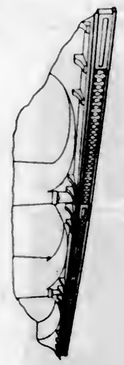
The ornamental design for an emblem, as shown.

47,170. DUST-PAN, SHOVEL, OR SCOOP. LINCOLN CHAS. SCHINDLER, Bridgeport, Conn. Filed Dec. 29, 1914. Serial No. 879,606. Term of patent 7 years.



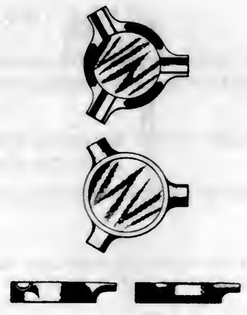
The ornamental design for a dust pan, shovel or scoop, as shown.

47,171. BRIDGE. LLOYD B. SMITH, Topeka, Kans. Filed June 15, 1914. Serial No. 845,318. Term of patent 14 years.



The ornamental design for a bridge, as shown and described.

47,172. ASH-TRAY. THEODORE G. STRATER, West Tisbury, Mass. Filed Oct. 22, 1914. Serial No. 868,139. Term of patent 7 years.



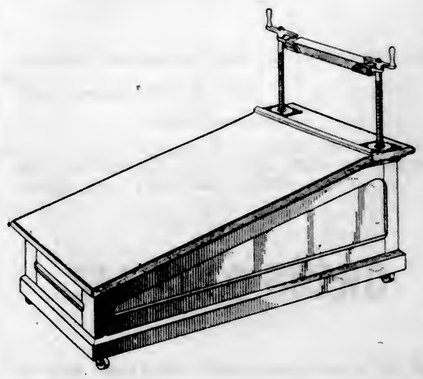
The ornamental design for an ash tray as shown.

47,173. SHELL FOR LIGHTING-FIXTURES. ALBERT E. TEFFER, New York, N. Y., assignor to National Metal Spinning & Stamping Company, New York, N. Y., a Corporation of New York. Filed Jan. 13, 1915. Serial No. 2,083. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures, as shown.

47,174. DISPLAY-RACK. ALBERT H. WALDECK, Clarksburg, W. Va. Filed July 25, 1914. Serial No. 853,176. Term of patent 14 years.



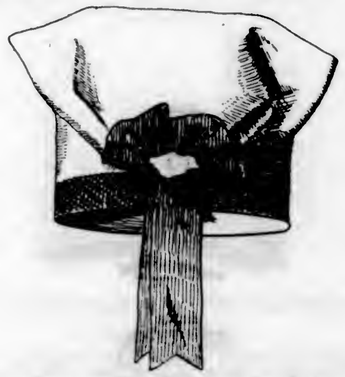
The ornamental design for a display rack, as shown.

47,175. SPOON, FORK, OR SIMILAR ARTICLE. HENRY L. WALLACE, Wallingford, Conn. Filed Nov. 27, 1914. Serial No. 874,346. Term of patent 3½ years.



The ornamental design for a spoon, fork, or similar article as shown.

47,176. BATHING-CAP. GENEVA FAYE WENTZ, Ashland, Ohio, assignor to The Faultless Rubber Company, Ashland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1914. Serial No. 878,452. Term of patent 7 years.



The ornamental design for a bathing cap, as shown.

TRADE-MARKS

PUBLISHED MARCH 30, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

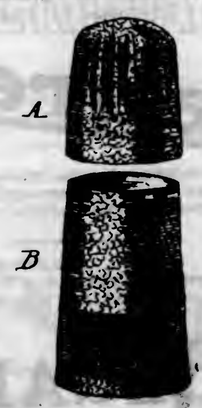
As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 68,242. (CLASS 47. WINES.) LEB. POMMERY, FILS & CIE., Reims, France. Filed Jan. 31, 1913.



Particular description of goods.—Champagne and Sparkling Wines.
Claims use since the year 1902.

Ser. No. 68,243. (CLASS 47. WINES.) LEB. POMMERY, FILS & CIE., Reims, France. Filed Jan. 31, 1913.



No claim is made for the words "Nature Vin Brut."
Particular description of goods.—Champagne and Sparkling Wines.
Claims use since the year 1902.

Ser. No. 69,523. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE E. T. BURROWES COMPANY, Portland, Me. Filed Apr. 2, 1913.

Burrowes

Particular descriptions of goods.—Tables, Chairs, Settees, Stands, and Cedar Chests.
Claims use since on or about 1895.

Ser. No. 70,896. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS M. GRIFFITHS, St. Louis, Mo. Filed June 6, 1913.

Purgalax

Particular description of goods.—A Cathartic and Laxative.
Claims use since Mar. 23, 1912.

Ser. No. 71,027. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAN ANTONIO DRUG COMPANY, San Antonio, Tex. Filed June 11, 1913.

SAN ANGO BRAND

No claim being made to the exclusive use of the word "Brand."
Particular description of goods.—Olive Oil.
Claims use since Feb. 1, 1910.

Ser. No. 72,572. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. S. LOVE MANUFACTURING CO., Johnstown, Pa. Filed Aug. 28, 1913. Under ten-year proviso.



Particular description of goods.—Candies, Bonbons, Fruit Tablets, and Sugar-Coated Popcorn.
Claims use since March, 1890.

Ser. No. 73,441. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CASH BUYERS UNION, INC., Coachella, Cal. Filed Oct. 17, 1913.



Particular description of goods.—Fresh Table-Grapes.
Claims use since June 17, 1913.

Ser. No. 74,830. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE SUPERIOR COLOR MANUFACTURING COMPANY, Elkhart, Ind. Filed Dec. 24, 1913.



Applicant makes no claim to the exclusive use of the representation of a shoe.
Particular description of goods.—Shoe and Leather Dressings.
Claims use since Aug. 24, 1912.

Ser. No. 75,111. (CLASS 12. CONSTRUCTION MATERIALS.) BLISS & VAN AUKEN LUMBER CO., Saginaw, Mich. Filed Jan. 12, 1914.



Particular description of goods.—Maple Flooring.
Claims use since Nov. 13, 1908.

Ser. No. 75,162. (CLASS 37. PAPER AND STATIONERY.) ARKAY RUBBER CO., New York, N. Y. Filed Jan. 14, 1914.

ARKAY

Particular description of goods.—Rubber Elastic Bands.
Claims use since Jan. 1, 1903.

Ser. No. 75,695. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ASPEGREN & CO., New York, N. Y. Filed Feb. 4, 1914.

ATLAS

"Atlas."
Particular description of goods.—Salad-Oil Pressed from Cotton-Seed.
Claims use since Jan. 7, 1914.

Ser. No. 76,347. (CLASS 39. CLOTHING.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Mar. 5, 1914.

Laurel

Particular description of goods.—Women's, Misses', and Children's Cloaks, Suits, and Dresses and Rain-Coats.
Claims use since about Feb. 10, 1914.

Ser. No. 77,376. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAMES & MORGAN MANUFACTURING COMPANY, New York, N. Y. Filed Apr. 10, 1914.

REGAL.

Particular description of goods.—Razor-Strops.
Claims use since the early part of the year 1913.

Ser. No. 77,829. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HIBBARD, SPENCER, BARTLETT & CO., Chicago, Ill. Filed Apr. 28, 1914.



Particular description of goods.—Agricultural Forks, Can-Openers, Ax-Handles, Pick-Handles, Sledge-Handles, Maul-Handles, and All other Wooden Tool-Handles, Hand Seed-Sowers, Pliers, Riveters for Making or Repairing Harness, Saws, Hog Rings and Ringers, Ash-Sifters, and Grinding-Machines.
Claims use since 1908 on all kinds of wooden tool-handles; since 1910 on can-openers; since 1912 on pliers and saws; since 1913 on riveters for making or repairing harness, and since 1914 on hand-sowers, agricultural forks, grinding-machines, ash-sifters, and hog rings and ringers.

Ser. No. 78,411. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AYER & MCKINNEY, Philadelphia, Pa. Filed May 20, 1914.

MERIDALE

Particular description of goods.—Butter, Cheese, Eggs, Milk, and Milk-Producing Cattle.
Claims use since July, 1888.

Ser. No. 78,415. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EGG BAKING POWDER COMPANY, New York, N. Y. Filed May 20, 1914.

E-G

Particular description of goods.—Baking-Powder.
Claims use since Apr. 1, 1914.

Ser. No. 78,783. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE COOPER MEDICINE COMPANY, Dayton, Ohio, assignor, by mesne assignments, to Tona Vita Medicine Company, Dayton, Ohio, a Firm composed of Jacob F. Detrick and Benjamin E. Detrick. Filed June 4, 1914.

TONA-VITA

Particular description of goods.—Medicine for Internal Use as a Tonic, a Stimulant, a General Stomachic, and for Disorders Peculiar to Women.
Claims use since about Sept. 1, 1901.

Ser. No. 79,243. (CLASS 39. CLOTHING.) FRANK MELVILLE, Jr., New York, N. Y. Filed June 20, 1914. Under ten-year proviso.

John Ward

Particular description of goods.—Leather Shoes.
Claims use since Dec. 17, 1894.

Ser. No. 80,156. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MOLINE TOOL COMPANY, Moline, Ill. Filed July 29, 1914.

HOLE HOG

Particular description of goods.—Boring and Drilling Machines.
Claims use since July 1, 1910.

Ser. No. 80,342. (CLASS 25. LOCKS AND SAFES.) SARGENT & COMPANY, New Haven, Conn. Filed Aug. 5, 1914.

SARGENT

Particular description of goods.—Locks, Latches, Keys, Padlocks, Strike-Plates, Lock-Escutcheons, Lock-Cases, and Lock-Fronts.
Claims use since on or about the 19th day of November, 1907.

Ser. No. 80,461. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE MARKET FORGE COMPANY, Chelsea, Mass. Filed Aug. 11, 1914.



Particular description of goods.—Metal Trucks.
Claims use since Apr. 1, 1908.

Ser. No. 81,816. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed Oct. 12, 1914.



No claim being made to the representation of pencils and the words and numerals thereon appearing in the drawing.

Particular description of goods.—Trays for Lead-Pencils and Penholders and Easels for Lead-Pencils and Penholders.

Claims use since the year 1879.

Ser. No. 82,086. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN DRUG & PRESS ASSOCIATION, Decorah, Iowa. Filed Oct. 23, 1914.

Meritol

Particular description of goods.—Toothache-Drops, Sore Throat, Cold-Cream, Tooth-Paste, Rheumatism-Powders, Eczema-Ointment, Salve, Castor-Oil, White Liniment, Shampoo-Paste, Tooth-Powder, Almond-Cream, Hair-Tonic, Coughs, Colds, Croup, Hoarseness, Whooping-Cough, Bronchitis, and Influenza.

Claims use since January, 1910.

Ser. No. 82,159. (CLASS 10. FERTILIZERS.) W. E. WHANN COMPANY, Philadelphia, Pa. Filed Oct. 24, 1914.

CHESTER VALLEY

Particular description of goods.—Fertilizer.

Claims use since 1899.

Ser. No. 82,261. (CLASS 38. PRINTS AND PUBLICATIONS.) WHITMAN OSGOOD, Washington, D. C. Filed Oct. 30, 1914.



Particular description of goods.—Weekly Newspaper.

Claims use since Sept. 1, 1914.

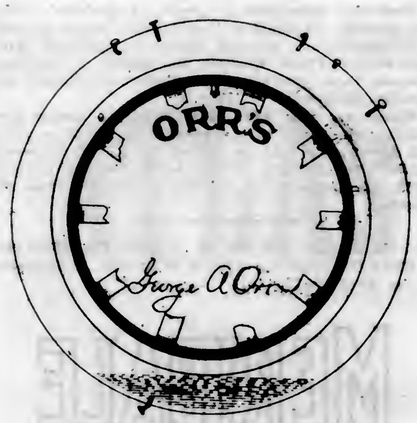
Ser. No. 82,347. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GROCERS CHEMICAL WORKS, Evansville, Ind. Filed Nov. 2, 1914.

CRYSTAL PEARL

Particular description of goods.—Baking-Powder.

Claims use since about Jan. 1, 1891.

Ser. No. 82,433. (CLASS 5. ADHESIVES.) TIRE SEAL CO. INC., New York, N. Y. Filed Nov. 5, 1914.



Which includes a facsimile signature of George A. Orr. The exclusive use of the representation of a wheel and a pneumatic tire and "Orr's" is disclaimed.

Particular description of goods.—A Preparation to Seal Punctures in Tires.

Claims use since Oct. 28, 1914.

Ser. No. 82,450. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PEDRO M. SALAS, Tampa, Fla. Filed Nov. 6, 1914.

ST-O-P-IT

Particular description of goods.—A Remedy for Gonorrhea and Gleet.

Claims use since Aug. 1, 1913.

Ser. No. 82,459. (CLASS 15. OILS AND GREASES.) BERTRAND G. DESMOND, Muncie, Ind. Filed Nov. 7, 1914.

WONDER

Particular description of goods.—Lubricating-Oils and Lubricants.

Claims use since Sept. 1, 1914.

Ser. No. 82,553. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JAY LEE CROSS, Cleveland, Ohio. Filed Nov. 18, 1914.

Sparkade

Particular description of goods.—Carbonated Beverages, Non-Alcoholic.

Claims use since Aug. 1, 1914.

Ser. No. 82,609. (CLASS 32. FURNITURE AND UPHOLSTERY.) BLOOM & GODLEY CO., Trenton, N. J. Filed Nov. 16, 1914.

EUREKA



Particular description of goods.—Cotton-Felt Mattresses.

Claims use since Jan. 3, 1905.

Ser. No. 82,672. (CLASS 10. FERTILIZERS.) CHARLES F. QUINCY, Center Harbor, N. H. Filed Nov. 18, 1914.



Particular description of goods.—Plant and Vegetable Food.

Claims use since 1909.

Ser. No. 82,783. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMERY & COMPANY, INCORPORATED, Boston, Mass. Filed Nov. 23, 1914.

Tango

Particular description of goods.—Cake.

Claims use since on or about Aug. 6, 1914.

Ser. No. 82,969. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY H. BUTLER, Washington, D. C. Filed Nov. 30, 1914.

Economy

Particular description of goods.—Oleomargarin.

Claims use since Jan. 1, 1910.

Ser. No. 83,236. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TEMPLETONS RHEUMATIC CAPSULE CORPORATION LIMITED, Toronto, Ontario, Canada. Filed Dec. 11, 1914.



The signature shown being a facsimile signature of J. G. Templeton, the president of the corporation, the applicant.

Particular description of goods.—A Remedy for Rheumatism.

Claims use since Nov. 17, 1914.

Ser. No. 83,303. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. H. ORR CO., Nashville, Tenn. Filed Dec. 15, 1914.



Particular description of goods.—Apple Vinegar, Canned Blackberries, Black Pepper, Chilli Sauce, Canned Early June Peas, Canned Extra Sifted Early June Peas, Fruit Preserves, Fruit Jam, Extract Lemon, Extract Vanilla, Imitation Banana Extract, Imitation Orange Extract, Imitation Pineapple Extract, Imitation Strawberry Extract, (All of Said Extracts Being Used as Flavorings for Foods,) Canned Hawaiian Pineapple, Canned Grated Hawaiian Pineapple, Honey, Canned Pineapple-Chunks, Canned Kraut, Canned Lye-Hominy, Maple-Syrup, Pepper Sauce, Canned Pitted Red Cherries, Canned Pork and Beans, Prepared Mustard, Rolled Oats, Spanish Olives, Canned Sweet Corn, Tomato Catsup, Allspice, Cinnamon Spice, Ginger, Ground Sage, Nutmeg Spice, Pickling-Spice, Quill-Cinnamon, Red Pepper, Mustard, Whole Clove, and Whole Allspice.
Claims use since 1912.

Ser. No. 83,323. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOME MAID PRODUCTS CO., New York, N. Y. Filed Dec. 16, 1914.



No claim being made to the wording "Dee-Lish-Us."
Particular description of goods.—Chilli Sauce and Marmalade.
Claims use since Dec. 15, 1914.

Ser. No. 83,363. (CLASS 12. CONSTRUCTION MATERIALS.) BALTIMORE ROOFING & ASBESTOS MFG. CO., Asbestos, Md. Filed Dec. 18, 1914.

BRAMCO

Particular description of goods.—Asbestos Millboard, Asbestos Paper, Air-Cell Pipe-Covering, Wool-Felt Sectional Coverings, Asbestos Insulating-Tubes, Asbestos-Cement Felting, Asbestos Heater, Hot-Blast, Lagging, Furnace, and Retort Cements, Asbestos Stove-Lining Cement, Asbestos Roofings, Composite Roofing Material Surfaced with Rubber, Sand, and other Materials other Than Metals, Asbestos Sheathing, Plaster-Board, Asbestos Building-Felt, Asbestos Shingles, Plain and Corrugated, and Asphalt Cements.
Claims use since June 28, 1914.

Ser. No. 83,405. (CLASS 39. CLOTHING.) CONTINENTAL RUBBER WORKS, Erie, Pa. Filed Dec. 19, 1914.

VITALIC

"Vitalic."
Particular description of goods.—Rubber Heels and Rubber Gloves.
Claims use since Sept. 15, 1913.

Ser. No. 83,408. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DENISON & COMPANY, Chicago, Ill. Filed Dec. 19, 1914.

THREE STRIPE

Particular description of goods.—Coffee.
Claims use since Jan. 22, 1914.

Ser. No. 83,413. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LINDSBORG MILLING AND ELEVATOR COMPANY, Lindsborg, Kans. Filed Dec. 19, 1914.

SAFETY FIRST

Particular description of goods.—Wheat-Flour.
Claims use since Nov. 7, 1914.

Ser. No. 83,457. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JESSE J. CULP, Warrensburg, Mo. Filed Dec. 22, 1914.

UNIVERSITY

Particular description of goods.—A Hog-Worm Remedy.
Claims use since Oct. 1, 1913.

Ser. No. 83,503. (CLASS 12. CONSTRUCTION MATERIALS.) TRUSSED CONCRETE STEEL COMPANY, Detroit, Mich. Filed Dec. 23, 1914.

AGATEX.

Particular description of goods.—A Floor-Coating.
Claims use since December, 1913.

Ser. No. 83,513. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. E. ABEL ESTATE, Easton, Pa. Filed Dec. 24, 1914.

Eastonia

Particular description of goods.—Candies.
Claims use since Nov. 1, 1914.

Ser. No. 83,563. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) UNITED DRUG COMPANY, Boston, Mass. Filed Dec. 28, 1914.

Rexall

Particular description of goods.—Fish-Hooks, Fishing-Lines of Silk, Linen, and Cotton; Dolls, Stuffed Toy Figures, Toys Made of Felt, Toy Banks, Baby-Walkers, Card Games, Puzzles, Score-Cards, Billiard-Chalk, Poker-Chips, Skates, Tennis-Balls, Tennis-Rackets, Base-Balls, Bats, Base-Ball Mitts, Sporting-Gloves, Sporting-Masks, Foot-Balls, Golf-Balls, Boxing-Gloves, Basket-Balls, Body-Exercisers, Dumb-Bells, and Indian Clubs.
Claims use since prior to March, 1908.

Ser. No. 83,574. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) LOUIS AUERBACH, INC., New York, N. Y. Filed Dec. 30, 1914.

SIMPLEX

Particular description of goods.—Neckties, Neckscarfs, and Jabots.
Claims use since Dec. 24, 1914.

Ser. No. 83,666. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEWTOWN CUT WHEAT CEREAL AND TRADING COMPANY, Newtown, Pa. Filed Jan. 4, 1915.



No claim being made to the words "Hol Wheat Cereal" as a technical trade-mark.
Particular description of goods.—Wheat Cereal Breakfast Food.
Claims use since July 23, 1914.

Ser. No. 83,691. (CLASS 12. CONSTRUCTION MATERIALS.) UNIT-WALL CONSTRUCTION COMPANY, New York, N. Y. Filed Jan. 5, 1915.

TYSCRU

Particular description of goods.—Concrete-Molding Apparatus for Casting Concrete *in situ*.
Claims use since Dec. 15, 1914.

Ser. No. 83,706. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) EUGENE M. ATTRIDGE, Binghamton, N. Y. Filed Jan. 7, 1915.

"AMERICAN MAID"



The picture being that of Frances Redding.
Particular description of goods.—Soap for Toilet, Shaving, and Laundry Purposes, Washing-Powders, and Washing Compounds.
Claims use since Dec. 1, 1914.

Ser. No. 83,746. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOSTON WOVEN HOSE & RUBBER CO., Boston and Cambridge, Mass. Filed Jan. 9, 1915.

GOOD LUCK

Particular description of goods.—Rubber Jar-Rings and Rubber Hose.
Claims use since Oct. 19, 1906.

Ser. No. 83,772. (CLASS 11. INKS AND INKING MATERIALS.) THE CARTER'S INK COMPANY, Cambridge, Mass. Filed Jan. 11, 1915. Under ten-year proviso.

CARTER'S

Particular description of goods.—Type-Writer Ribbons and Carbon-Paper.
Claims use since 1893.

Ser. No. 83,791. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) AQUAMARINE COMPANY, Oakland, Cal. Filed Jan. 12, 1915.

OCEANO

Particular description of goods.—Laxative Mineral Water.
Claims use since Nov. 17, 1914.

Ser. No. 83,793. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LIZZIE S. BARRON, Baltimore, Md. Filed Jan. 12, 1915.

P. M. C.

Particular description of goods.—Liver-Pills.
Claims use since Sept. 1, 1914.

Ser. No. 83,807. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) JOHN JOSEPH BUKOLT, Stevens Point, Wis. Filed Jan. 13, 1915.

HIGHWAY

Particular description of goods.—Tire-Straps or Tire-Protectors.
Claims use since Aug. 11, 1914.

Ser. No. 83,851. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FLETCHER & WILSON COFFEE CO., Nashville, Tenn. Filed Jan. 14, 1915.

LUXURY

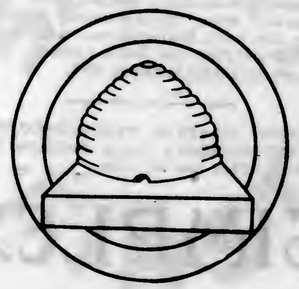
Particular description of goods.—Peanuts and Peanut-Butter.
Claims use since about the year 1897.

Ser. No. 83,866. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALKER & TRACY, Canandaigua, N. Y. Filed Jan. 14, 1915. Under ten-year proviso.



Particular description of goods.—Crackers.
Claims use since January, 1877.

Ser. No. 83,879. (CLASS 12. CONSTRUCTION MATERIALS.) THE OGDEN PORTLAND CEMENT CO., Ogden, Utah. Filed Jan. 15, 1915.



Particular description of goods.—Portland Cement.
Claims use since Sept. 1, 1909.

Ser. No. 83,904. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

FLOTILLAS

Particular description of goods.—Biscuit.
Claims use since at least Jan. 15, 1915.

Ser. No. 83,905. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

HARMONY

Particular description of goods.—Biscuit.
Claims use since at least July 11, 1909.

Ser. No. 83,906. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

VERA

Particular description of goods.—Biscuit.
Claims use since at least Jan. 15, 1915.

Ser. No. 83,907. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

SANTA CLAUS

Particular description of goods.—Biscuit.
Claims use since at least June 25, 1900.

Ser. No. 83,908. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

ARCADIANS

Particular description of goods.—Biscuit.
Claims use since at least May 24, 1908.

Ser. No. 83,911. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

PARAGON

Particular description of goods.—Biscuit.
Claims use since at least July 23, 1901.

Ser. No. 83,912. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

PINETTAS

Particular description of goods.—Biscuit.
Claims use since at least Jan. 15, 1915.

Ser. No. 83,913. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 16, 1915.

SUSTENA

Particular description of goods.—Biscuit.
Claims use since at least Dec. 17, 1914.

Ser. No. 83,952. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BERT JOSEPH BEAN, Wichita Falls, Tex. Filed Jan. 19, 1915.

WHO CAN BEAT IT

Particular description of goods.—Coffee and Tea.
Claims use since December, 1911, on coffee and since Dec. 6, 1914, on teas.

Ser. No. 84,008. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL FRUIT PRODUCT COMPANY, INC., Alexandria, Va. Filed Jan. 21, 1915.

WHITE HOUSE



Particular description of goods.—Apple-Cider Vinegar.
Claims use since Jan. 1, 1905.

Ser. No. 84,009. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NIAGARA SEARCHLIGHT COMPANY, INC., Niagara Falls, N. Y. Filed Jan. 21, 1915.



No claim for registration is herein made for the words "Niagara" or "Niagara Searchlight" apart from the other features of the mark as illustrated in the drawing.

Particular description of goods.—Electric Hand-Lamps or Search-Lights.

Claims use since Oct. 1, 1914.

Ser. No. 84,012. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEINWENDER-STOFFREGEN COFFEE CO., St. Louis, Mo. Filed Jan. 21, 1915.

BLUE ROSE

Particular description of goods.—Rice.

Claims use since about Dec. 5, 1914.

Ser. No. 84,013. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEINWENDER-STOFFREGEN COFFEE CO., St. Louis, Mo. Filed Jan. 21, 1915.

HOMESEEKER

Particular description of goods.—Roasted Coffee.

Claims use since about Dec. 30, 1914.

Ser. No. 84,019. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BITTEL-LEFTWICH TIRE SERVICE CO., St. Louis, Mo. Filed Jan. 22, 1915.

SERVICO

Particular description of goods.—Inner Tubes for Pneumatic Tires.

Claims use since June 1, 1914.

Ser. No. 84,027. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) F. A. HARDY & CO., Chicago, Ill. Filed Jan. 22, 1915.

NOVIOL

Particular description of goods.—Eye-Shades and Eye-Shields.

Claims use since Oct. 1, 1914.

Ser. No. 84,039. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PHENIX CHEESE CO., New York, N. Y. Filed Jan. 22, 1915.

LACTICAN

Particular description of goods.—Cheese.

Claims use since Oct. 1, 1914.

Ser. No. 84,065. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SISCO BROTHERS, Chicago, Ill. Filed Jan. 23, 1915.

Sensation

Particular description of goods.—Candies.

Claims use since Dec. 28, 1914.

Ser. No. 84,091. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 25, 1915.

STARLIGHT

Particular description of goods.—Biscuit.

Claims use since Aug. 25, 1890.

Ser. No. 84,092. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 25, 1915.

RODA

Particular description of goods.—Biscuit.

Claims use since at least Jan. 23, 1915.

Ser. No. 84,093. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 25, 1915.

KRIS KRINGLE

Particular description of goods.—Biscuit.

Claims use since at least Oct. 20, 1902.

Ser. No. 84,119. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ARTHUR E. HEALY, D. D. S., New York, N. Y. Filed Jan. 26, 1915.

Byrtis

Comprising the word "Byrtis."

Particular description of goods.—An Impression Material in Powdered Form for Dental Purposes.

Claims use since Jan. 1, 1915.

Ser. No. 84,127. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed Jan. 27, 1915.



Particular description of goods.—Ophthalmic Mountings and Parts Thereof, Lenses for Optical and Scientific Use, Magnifiers, Optometers, Rrefractometers, Ophthalmascopes, Pupillometers, Astigmascopes, Nose-Gages, Face-Measures, Frame-Measures, Temple-Measures, Trial-Frames, Lens-Testing Instruments, Lens-Measuring Instruments.

Claims use since Dec. 1, 1914.

Ser. No. 84,135. (CLASS 17. TOBACCO PRODUCTS.) KANSAS CITY WHOLESALE GROCERY CO., Kansas City, Mo. Filed Jan. 27, -1915.



O. HENRY

The portrait being that of O. Henry.

Particular description of goods.—Cigars, Chewing and Smoking Tobacco, Cigarettes, and Cheroots.

Claims use since June, 1910.

Ser. No. 84,151. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WOOLSON SPICE COMPANY, Toledo, Ohio. Filed Jan. 27, 1915.

Kentwood

Particular description of goods.—Tea.

Claims use since June 1, 1911.

Ser. No. 84,160. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BATTLEFIELD GRANITE CORPORATION, Fredericksburg, Va. Filed Jan. 28, 1915.

Battlefield

Particular description of goods.—Granite.

Claims use since 1893.

Ser. No. 84,195. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Jan. 29, 1915.

THREE FLOWERS

Particular description of goods.—Perfume, Toilet Water, Headache-Cologne, Smelling-Salts, Creams for the Skin, Sachet-Powder, Face-Powder, Talcum Powder, Bath-Powder, Bath-Salts, Toilet Cerate, Almond-Meal, Lip-Rouge, and Dentifrices.

Claims use since Jan. 23, 1915.

Ser. No. 84,222. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LESTER PIANO COMPANY, Philadelphia, Pa. Filed Jan. 30, 1915.

LESTROLA

Particular description of goods.—Automatic Pianos.
Claims use since the month of December, 1911.

Ser. No. 84,223. (CLASS 12. CONSTRUCTION MATERIALS.) THE NATIONAL BUILDING SUPPLY CO., Baltimore, Md. Filed Jan. 30, 1915.

CREO-COTE

Particular description of goods.—Shingles.
Claims use since Nov. 5, 1914.

Ser. No. 84,232. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANSBACHER INSECTICIDE CO., INC., New York, N. Y. Filed Feb. 1, 1915.



The word "Brand" being disclaimed.
Particular description of goods.—Insecticides and Fungicides.
Claims use since the year 1911.

Ser. No. 84,235. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CHS. BERGENSTEIN & Co., New York, N. Y. Filed Feb. 1, 1915.



The representation of the female head being fanciful and the exclusive use of the word "Ruffling" not being claimed.
Particular description of goods.—Ruffings.
Claims use since about Nov. 1, 1875.

Ser. No. 84,241. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GUSTANTINOS Y. JIANELLIS, Detroit, Mich. Filed Feb. 1, 1915.



The use of the words "Jianellis" and "Hair Preparation" is disclaimed.
Particular description of goods.—Scalp and Dandruff Preparation.
Claims use since Oct. 1, 1914.

Ser. No. 84,255. (CLASS 12. CONSTRUCTION MATERIALS.) PAUL C. BOVING, Philadelphia, Pa. Filed Feb. 2, 1915.



Particular description of goods.—Composition Flooring.
Claims use since Dec. 23, 1914.

Ser. No. 84,263. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ANDREW FORBES, Philadelphia, Pa. Filed Feb. 2, 1915.



Particular description of goods.—Gins.
Claims use since Jan. 25, 1915.

Ser. No. 84,293. (CLASS 37. PAPER AND STATIONERY.) BAUMGARTEN & Co., Baltimore, Md. Filed Feb. 4, 1915.

TINTOGRAPH

Particular description of goods.—Stencils.
Claims use since Jan. 15, 1915.

Ser. No. 84,311. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) KNITTED PADDING COMPANY, Canton, Mass. Filed Feb. 5, 1915. Under ten-year proviso.

Knitted Padding

Particular description of goods.—Unspun Cotton Fiber Made into Sheet or Blanket Form, Reinforced and Held Compacted by Stitching Therethrough.
Claims use since Jan. 1, 1880.

Ser. No. 84,337. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FULLY & LEWIS, Los Angeles, Cal. Filed Feb. 6, 1915.

ZYP

Particular description of goods.—A Foot-Powder.
Claims use since September, 1913.

Ser. No. 84,348. (CLASS 37. PAPER AND STATIONERY.) HARRIET A. SARLE, New York, N. Y. Filed Feb. 6, 1915.

EXEMPLAR BOND

The word "Bond" being hereby disclaimed.
Particular description of goods.—Writing-Paper.
Claims use since the 1st day of September, 1914.

Ser. No. 84,355. (CLASS 15. OILS AND GREASES.) DILSIZIAN BROS., New York, N. Y. Filed Feb. 8, 1915.



No claim being made to the words "Abyssinia," "Arabia," and "Benadir."
Particular description of goods.—Refined Petroleum.
Claims use since 1905.

Ser. No. 84,433. (CLASS 12. CONSTRUCTION MATERIALS.) NORTHWESTERN EXPANDED METAL COMPANY, Chicago, Ill. Filed Feb. 10, 1915.

EUREKA

Particular description of goods.—Expanded-Metal Lathing.
Claims use since on or about Dec. 1, 1913.

Ser. No. 84,434. (CLASS 12. CONSTRUCTION MATERIALS.) NORTHWESTERN EXPANDED METAL COMPANY, Chicago, Ill. Filed Feb. 10, 1915.

KNO-BURN

Particular description of goods.—Expanded-Metal Lathing.
Claims use since on or about Aug. 1, 1905.

Ser. No. 84,449. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) COLE BROTHERS LIGHTNING ROD COMPANY, St. Louis, Mo. Filed Feb. 11, 1915.

C B F R

Particular description of goods.—Lightning-Rods, Lightning-Rod Parts, Lightning-Rod Fixtures, Lightning-Rod Points, and Lightning-Rod Ornaments.
Claims use since 1870.

Ser. No. 84,450. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) COLE BROTHERS LIGHTNING ROD COMPANY, St. Louis, Mo. Filed Feb. 11, 1915. Under ten-year proviso.

FRANKLIN

Particular description of goods.—Lightning-Rods, Lightning-Rod Parts, Lightning-Rod Fixtures, Lightning-Rod Points, and Lightning-Rod Ornaments.
Claims use since 1849.

Ser. No. 84,456. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JAMES PATTERSON HARPER, St. Louis, Mo. Filed Feb. 11, 1915.

DENTECH

Particular description of goods.—Dental Technicons, Articulators, and Articulator-Holders.
Claims use since Mar. 10, 1914.

Ser. No. 84,484. (CLASS 39. CLOTHING.) HEALY SHOE COMPANY, INC., New York, N. Y. Filed Feb. 12, 1915.

FAIR PLAY

Particular description of goods.—Boots and Shoes Made in Whole or in Part of Leather, Textile Fabric, or Rubber.
Claims use since Feb. 2, 1915.

Ser. No. 84,528. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSIE FAY, Detroit, Mich. Filed Feb. 15, 1915.



Particular description of goods.—Ointment.
Claims use since Aug. 11, 1914.

Ser. No. 84,540. (CLASS 39. CLOTHING.) S. L. SILVER & Co., New York, N. Y. Filed Feb. 15, 1915.

The TIPPERARY

Exclusive right to the word "Tipperary" is hereby disclaimed.
Particular description of goods.—Ladies' Coats and Outer Suits.
Claims use since Dec. 1, 1914.

Ser. No. 84,551. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) E. J. FELLMAN, Milwaukee, Wis. Filed Feb. 16, 1915. Under ten-year proviso.

"PHENIX"

Particular description of goods.—Hangers and Fasteners for Window-Screen and Storm-Sash.
Claims use since in January, 1895.

Ser. No. 84,607. (CLASS 39. CLOTHING.) DANIEL GREEN FELT SHOE COMPANY, Boston, Mass., and Dolgeville, N. Y. Filed Feb. 18, 1915.

REST RITE

Particular description of goods.—Felt Shoes and Slippers.
Claims use since Feb. 1, 1914.

Ser. No. 84,660. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) HOWE VARNISH CO. INC., New York, N. Y. Filed Feb. 20, 1915.

ALBALITE

Comprising the word "Albalite."
Particular description of goods.—White Enamel Paints.
Claims use since Feb. 3, 1915.

Ser. No. 84,661. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INDUSTRIAL CHEMICAL COMPANY, New York, N. Y. Filed Feb. 20, 1915.

POCAHONTAS

Particular description of goods.—Tanning Materials and Extracts.
Claims use since on or before Jan. 1, 1915.

Ser. No. 84,690. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NANCY HARTFORD, Silver Creek, Nebr. Filed Feb. 23, 1915.



Particular description of goods.—Medicine for the Treatment of Tuberculosis.
Claims use since Aug. 18, 1914.

Ser. No. 84,706. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REDMANOL CHEMICAL PRODUCTS CO., Chicago, Ill. Filed Feb. 23, 1915.

REDMANOL

Particular description of goods.—Impregnating Liquids to be Used for Coating a Suitable Material so That It Becomes Available for an Insulating Substance and Which Also Protects the Material Against the Weather and Chemical Actions.
Claims use since on or about June 25, 1914.

Ser. No. 84,732. (CLASS 39. CLOTHING.) TIMOTHY F. CROWLEY, INCORPORATED, New York, N. Y. Filed Feb. 24, 1915.

"Pickwick"

Particular description of goods.—Ladies' Collars Made of Fancy and Plain Nets, Laces, Chiffons, Silks, Embroideries, Lawns, Organdies, Linens.
Claims use since Feb. 15, 1915.

Ser. No. 84,847. (CLASS 48. MALT EXTRACTS AND LIQUORS.) INDEPENDENT BREWING ASS'N, Chicago, Ill. Filed Mar. 1, 1915.

RIALTO

Particular description of goods.—Beer.
Claims use since Feb. 6, 1915.

Ser. No. 84,862. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERBERT LOVETTE PARTRIDGE, La Crosse, Wis. Filed Mar. 1, 1915.

SAFETY



Particular description of goods.—Corn Remedy, Toothache-Drops, Cold-Tablets, Cough-Syrup, and Salve.
Claims use since Nov. 1, 1892.

Ser. No. 84,881. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FAVORITA CO., New York, N. Y. Filed Mar. 2, 1915.

FAVORITA

Particular description of goods.—Remedy for Removing Dandruff.
Claims use since Feb. 1, 1915.

Ser. No. 84,891. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RUDOLPH SAENGER CO., New York, N. Y. Filed Mar. 2, 1915.

Bluebird

Comprising the word "Bluebird."
Particular description of goods.—Hair-Nets.
Claims use since about February, 1911.

Ser. No. 84,893. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RUDOLPH SAENGER CO., New York, N. Y. Filed Mar. 2, 1915.

The Vanity Hair Net

Comprising the words "The Vanity Hair Net," the exclusive use of the words "Hair Net" not being claimed.
Particular description of goods.—Hair-Nets.
Claims use since about February, 1911.

Ser. No. 84,894. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RUDOLPH SAENGER CO., New York, N. Y. Filed Mar. 2, 1915.

PARADISE

Comprising the word "Paradise."
Particular description of goods.—Hair-Nets.
Claims use since about February, 1911.

Ser. No. 84,895. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RUDOLPH SAENGER CO., New York, N. Y. Filed Mar. 2, 1915.

The Lucella

Comprising the words "The Lucella."
Particular description of goods.—Hair-Nets.
Claims use since about February, 1911.

Ser. No. 84,916. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WIGHT COMPANY, Lamoni, Iowa. Filed Mar. 3, 1915.

CHICTONE

Particular description of goods.—Poultry Remedies.
Claims use since Jan. 1, 1915.

Ser. No. 84,925. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEPHEN FARGO, Cleveland, Ohio. Filed Mar. 4, 1915.

ZIN-OIL



The exclusive use of the word "Oil" is hereby disclaimed.
Particular description of goods.—A Liniment.
Claims use since Jan. 15, 1915.

Ser. No. 84,930. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HELLO-BOY MANUFACTURING COMPANY, Farrell, Pa. Filed Mar. 4, 1915.

Hello-Boy

Particular description of goods.—An Antiseptic.
Claims use since Jan. 21, 1915.

Ser. No. 84,942. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM L. SCHULTZ, Brooklyn, N. Y., and Paris, France. Filed Mar. 5, 1915.

LA GRACE

Particular description of goods.—A Face-Powder.
Claims use since June 27, 1914.

Ser. No. 84,957. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE EMPIRE REGENERATOR COMPANY, New York, N. Y. Filed Mar. 5, 1915.



Particular description of goods.—Hair-Colorings and Hair-Dyes.
Claims use since January, 1915.

Ser. No. 84,966. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FIELD C. MORGAN, Claremont, N. H. Filed Mar. 5, 1915.

RED LAX

Particular description of goods.—Laxative Pills.
Claims use since Feb. 12, 1915.

Ser. No. 84,967. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL REMEDY COMPANY, INC., New York, N. Y. Filed Mar. 5, 1915.

SYRALAX

Particular description of goods.—A Laxative Syrup.
Claims use since on or about Jan. 11, 1915.

Ser. No. 84,983. (CLASS 20. LINOLEUM AND OILED CLOTH. THE NAIRN LINOLEUM CO., Kearney, N. J. Filed Mar. 6, 1915.



Particular description of goods.—Linoleums.
Claims use since the year 1889.

Ser. No. 84,989. (CLASS 47. WINES.) STONE HILL WINE COMPANY, Hermann, Mo. Filed Mar. 6, 1915.

PIERRE MONT

Particular description of goods.—Wines.
Claims use since about Dec. 10, 1898.

Ser. No. 85,036. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE GOTTLIEB BAUERNSCHMIDT STRAUS BREWING COMPANY, Baltimore, Md. Filed Mar. 9, 1915.

IT HITS THE SPOT

Particular description of goods.—Lager-Beer.
Claims use since Feb. 22, 1913.

Ser. No. 85,049. (CLASS 47. WINES.) THE SCHUSTER COMPANY, Cleveland, Ohio. Filed Mar. 9, 1915.



Particular description of goods.—Wines, White Wines, Still Wines, Claret, Sauterne, Burgundy, Port, Sherry, Champagne, Fruit Wines, Medicinal and Medicated Wines, Compound Bitter Wines, Alcoholic Cider, Sparkling Wines, Sparkling-Wine Cocktail.
Claims use since Oct. 16, 1914.

TRADE-MARK REGISTRATIONS GRANTED

MARCH 30, 1915.

103,274. COATS, VESTS, TROUSERS, OVERCOATS, FULL-DRESS SUITS, TUXEDO SUITS, AND RAIN-COATS. AERO TAILORING COMPANY, Baltimore, Md.
Filed November 27, 1914. Serial No. 82,925. PUBLISHED JANUARY 19, 1915.

103,275. OIL FOR REPELLING MOSQUITOS, FLIES, &C. AUGUSTUS H. BRYANT, Philadelphia, Pa.
Filed September 30, 1914. Serial No. 81,564. PUBLISHED JANUARY 12, 1915.

103,276. BAKING-POWDER. CALUMET BAKING POWDER COMPANY, Chicago, Ill.
Filed October 8, 1914. Serial No. 81,757. PUBLISHED DECEMBER 29, 1914.

103,277. BOOTS AND SHOES, EITHER OF LEATHER OR OF LEATHER AND FABRIC. DONALD J. CAMERON, Syracuse, N. Y.
Filed August 12, 1914. Serial No. 80,486. PUBLISHED JANUARY 19, 1915.

103,278. BOOTS AND SHOES, EITHER OF LEATHER OR OF LEATHER AND FABRIC. DONALD J. CAMERON, Syracuse, N. Y.
Filed August 12, 1914. Serial No. 80,487. PUBLISHED JANUARY 19, 1915.

103,279. BOOTS AND SHOES, EITHER OF LEATHER OR OF LEATHER AND FABRIC. DONALD J. CAMERON, Syracuse, N. Y.
Filed August 12, 1914. Serial No. 80,488. PUBLISHED JANUARY 19, 1915.

103,280. MEDICINAL BITTERS CONTAINING IRON AND QUININ. ARMANDO CARSANA, Milan, Italy.
Filed June 11, 1914. Serial No. 78,993. PUBLISHED DECEMBER 15, 1914.

103,281. BLEACHED MUSLIN. CARSON, PIRIE, SCOTT & Co., Chicago, Ill.
Filed December 10, 1914. Serial No. 83,194. PUBLISHED JANUARY 12, 1915.

103,282. BLEACHED MUSLIN. CARSON, PIRIE, SCOTT & Co., Chicago, Ill.
Filed December 10, 1914. Serial No. 83,195. PUBLISHED JANUARY 12, 1915.

103,283. CHEMICAL SUBSTANCE HAVING GERMICIDAL QUALITIES ADAPTED FOR CERTAIN NAMED PURPOSES. CROOKES COLLOSOLS LIMITED, London, England.
Filed March 4, 1914. Serial No. 76,313. PUBLISHED JANUARY 12, 1915.

103,284. ELECTRIC HEATERS. ELECTRICAL STEAM RADIATOR CO., Portland, Me.
Filed December 9, 1914. Serial No. 83,171. PUBLISHED JANUARY 12, 1915.

103,285. BUTTER. EMIL FELDMAN, Scranton, Pa.
Filed May 13, 1912. Serial No. 63,500. PUBLISHED NOVEMBER 3, 1914.

103,286. TOOTHACHE REMEDY. VINCENZO GENNA, De Ridder, La.
Filed September 22, 1914. Serial No. 81,407. PUBLISHED DECEMBER 1, 1914.

103,287. LENSES FOR SCIENTIFIC USE AND OPHTHALMIC LENSES. F. A. HARDY & Co., Chicago, Ill.
Filed October 19, 1914. Serial No. 81,983. PUBLISHED DECEMBER 22, 1914.

103,288. MEDICINAL PREPARATION FOR PRODUCING ANESTHESIA. THE HOFFMANN-LA ROCHE CHEMICAL WORKS, New York, N. Y.
Filed October 26, 1914. Serial No. 82,173. PUBLISHED JANUARY 12, 1915.

103,289. STABLE SCOPOLAMIN SOLUTION. THE HOFFMANN-LA ROCHE CHEMICAL WORKS, New York, N. Y.
Filed December 3, 1914. Serial No. 83,046. PUBLISHED JANUARY 12, 1915.

103,290. VACUUM-CLEANERS. JEWEL VACUUM CLEANER CO., Chicago, Ill.
Filed November 27, 1914. Serial No. 82,937. PUBLISHED JANUARY 19, 1915.

103,291. WHEAT-FLOUR. JOHN B. A. KERN & SONS, Milwaukee, Wis.
Filed August 10, 1912. Serial No. 65,186. PUBLISHED AUGUST 18, 1914.

103,292. VENTILATORS. JOHN C. KERNCHEN, Chicago, Ill.
Filed October 27, 1914. Serial No. 82,212. PUBLISHED JANUARY 12, 1915.

103,293. INSECTICIDES, ROACH-POWDERS, RAT AND MICE POISONS, VERMIN-DESTROYERS, AND DISINFECTANTS. FREDAICK KOPITZKE, New York, N. Y.
Filed December 15, 1914. Serial No. 83,295. PUBLISHED JANUARY 12, 1915.

103,294. ENAMELED GAS HEATING-STOVES. LOUIS LIPPHARDT, Martins Ferry, Ohio.
Filed October 27, 1914. Serial No. 82,213. PUBLISHED JANUARY 12, 1915.

103,295. PLUG, TWIST, CUT PLUG, SMOKING-TOBACCO, AND LEAF-TOBACCO. MACLIN-ZIMMER-McGILL TOBACCO CO. INCORPORATED, Petersburg, Va.
Filed October 26, 1914. Serial No. 82,179. PUBLISHED JANUARY 12, 1915.

103,296. AUTOMOBILE TIRE-CASINGS AND TIRE-TUBES. THE NATIONAL TIRE & RUBBER COMPANY, East Palestine, Ohio.
Filed November 3, 1914. Serial No. 82,381. PUBLISHED JANUARY 12, 1915.

103,297. SILOS AND TANKS. PACIFIC TANK & PIPE CO., San Francisco, Cal.
Filed October 21, 1913. Serial No. 73,532. PUBLISHED NOVEMBER 17, 1914.

103,298. MECHANICAL RAILROAD-SIGNALS. GRANT SELBY, St. Louis, Mo.
Filed October 30, 1914. Serial No. 82,281. PUBLISHED JANUARY 19, 1915.

103,299. WALL-PLASTER MADE OF GYPSUM. SOUTHERN GYPSUM COMPANY, INCORPORATED, North Holston, Va.
Filed August 5, 1912. Serial No. 65,112. PUBLISHED JANUARY 19, 1915.

103,300. CERTAIN NAMED FOODS. STROHMEYER & ARPE COMPANY, New York, N. Y.
Filed August 11, 1914. Serial No. 80,468. PUBLISHED JANUARY 5, 1915.

103,301. FERTILIZER MATERIALS COMPRISING CERTAIN NAMED INGREDIENTS. TOZABURO SUZUKI, Sunamura, Japan.
Filed September 2, 1913. Serial No. 72,644. PUBLISHED JANUARY 19, 1915.

103,302. READY-MIXED PAINTS. [illegible] BROTHERS, New York, N. Y.
Filed December 2, 1914. Serial No. 83,029. PUBLISHED JANUARY 19, 1915.

WITHDRAWN.

103,303. PAPER DRINKING-CUPS FOR USE AT SODA-WATER FOUNTAINS. THE VORTEX MFG. CO., Chicago, Ill.
Filed September 29, 1914. Serial No. 81,561. PUBLISHED JANUARY 19, 1915.

103,304. FLAT STERLING-SILVER WARE. WEIDLICH STERLING SPOON CO., Bridgeport, Conn.
Filed October 24, 1913. Serial No. 73,593. PUBLISHED JANUARY 12, 1915.

103,305. LEDGER-PAPER AND WRITING-PAPERS. WHITING PAPER COMPANY, Holyoke, Mass.
Filed April 30, 1914. Serial No. 77,905. PUBLISHED JULY 7, 1914.

103,306. PRINTING AND WRITING PAPER. WHITING-PLOVER PAPER CO., Stevens Point, Wis.
Filed December 1, 1914. Serial No. 83,007. PUBLISHED JANUARY 12, 1915.

103,307. ENAMEL. THE A. WILHELM COMPANY, Reading, Pa.
Filed August 7, 1913. Serial No. 72,214. PUBLISHED SEPTEMBER 2, 1913.

103,308. READY-MIXED PAINTS, INCLUDING BRILLIANT GOLD PAINT AND BRILLIANT ALUMINUM PAINT. THE A. WILHELM COMPANY, Reading, Pa.
Filed June 10, 1914. Serial No. 78,972. PUBLISHED JULY 28, 1914.

103,309. JAPAN TEA. F. D. PARMER CO., Omaha, Nebr.
Filed January 12, 1914. Serial No. 75,133. PUBLISHED JUNE 30, 1914.

103,310. FANCY-DESIGNED SAFETY-POCKET. LOUISE H. BOCH, Chicago, Ill.
Filed September 21, 1914. Serial No. 81,363. PUBLISHED NOVEMBER 10, 1914.

103,311. CERTAIN NAMED MUSICAL INSTRUMENTS AND SUPPLIES. C. BRUNO & SON, INC., New York, N. Y.
Filed April 17, 1913. Serial No. 69,840. PUBLISHED OCTOBER 21, 1913.

103,312. CANNED VEGETABLES AND CANNED FRUITS. CANASTOTA CANNING COMPANY, Canastota, N. Y.
Filed October 16, 1914. Serial No. 81,936. PUBLISHED JANUARY 12, 1915.

103,313. MINERAL WATERS. CLAUDIO CONDE, Habana, Cuba.
Filed October 24, 1914. Serial No. 82,128. PUBLISHED JANUARY 19, 1915.

103,314. PREPARED WHEAT-FLOUR. J. & G. COX, LTD., Edinburgh, Scotland.
Filed August 19, 1914. Serial No. 80,678. PUBLISHED JANUARY 12, 1915.

103,315. SLEEPING-ROBES. H. B. GLOVER COMPANY, Dubuque, Iowa.
Filed November 16, 1914. Serial No. 82,612. PUBLISHED JANUARY 5, 1915.

103,316. WHISKY, GIN, AND BRANDY. GOLDBERG, BOWEN & CO., San Francisco, Cal.
Filed October 23, 1914. Serial No. 82,100. PUBLISHED JANUARY 19, 1915.

103,317. CERTAIN NAMED FOODS. HABICHT, BRAUN & CO., New York, N. Y.
Filed August 10, 1914. Serial No. 80,435. PUBLISHED JANUARY 12, 1915.

103,318. SIZED AND STIFFENED CLOTH. THE HOLLISTON MILLS, Norwood, Mass.
Filed October 2, 1914. Serial No. 81,610. PUBLISHED JANUARY 19, 1915.

103,319. LADIES' WAISTS AND LADIES' SUITS. HYNARD AND JUNG COMPANY INC., New York, N. Y.
Filed December 16, 1914. Serial No. 83,325. PUBLISHED JANUARY 19, 1915.

103,320. OLEOMARGARIN AND BUTTERIN. JOHN F. JELKE CO., Chicago, Ill.
Filed October 6, 1914. Serial No. 81,689. PUBLISHED DECEMBER 29, 1914.

103,321. OLEOMARGARIN AND BUTTERIN. JOHN F. JELKE CO., Chicago, Ill.
Filed October 6, 1914. Serial No. 81,690. PUBLISHED DECEMBER 29, 1914.

103,322. HAIR-CREAM AND HAIR-TONIC. ELIZABETH KALDY, Belleville, N. J.
Filed November 27, 1914. Serial No. 82,938. PUBLISHED JANUARY 12, 1915.

103,323. CHEMICALS SUITABLE FOR RENDERING MINERAL OILS EMULSIFIABLE. NATIONAL OIL PRODUCTS CO., Harrison, N. J.
Filed December 14, 1914. Serial No. 83,284. PUBLISHED JANUARY 12, 1915.

103,324. OVERALLS, TROUSERS, SHIRTS, JUMPERS, COATS, AND MACKINAW-COATS. D. M. OBERMAN MFG. COMPANY, Jefferson City, Mo.
Filed July 11, 1914. Serial No. 79,739. PUBLISHED JANUARY 19, 1915.

103,325. CANNED VEGETABLES. OCEAN SHORE CANNING CO., San Francisco, Cal.
Filed September 28, 1914. Serial No. 81,530. PUBLISHED JANUARY 12, 1915.

103,326. A NON-ALCOHOLIC CARBONATED FLAVORED BEVERAGE AND SYRUP FOR MAKING THE SAME. JOHN C. O'DELL, Rome, Ga.
Filed August 31, 1914. Serial No. 80,910. PUBLISHED JANUARY 19, 1915.

103,327. PICKLES. PACIFIC PRESERVE CO., San Francisco, Cal.
Filed September 15, 1913. Serial No. 72,863. PUBLISHED JANUARY 12, 1915.

103,328. CERTAIN NAMED FOODS. PARSONS & SCOVILLE CO., Evansville, Ind.
Filed April 2, 1914. Serial No. 77,158. PUBLISHED JANUARY 12, 1915.

103,329. RYE-BREAD. M. PECHTER, New York, N. Y.
Filed August 4, 1914. Serial No. 80,304. PUBLISHED JANUARY 12, 1915.

103,330. A PREPARATION FOR CERTAIN NAMED AILMENTS. EGBERT J. SORMANI, Brooklyn, N. Y.
Filed November 16, 1914. Serial No. 82,629. PUBLISHED JANUARY 12, 1915.

103,331. WHEAT-FLOUR. STANARD-TILTON MILLING CO., St. Louis, Mo.
Filed September 8, 1914. Serial No. 81,102. PUBLISHED JANUARY 5, 1915.

103,332. FLUX FOR MELTING METALS WITH A COPPER BASE. STANDARD BRASS & ALLOY CO. (NOT INC.,) Quincy, Ill.
Filed March 14, 1914. Serial No. 76,661. PUBLISHED NOVEMBER 3, 1914.

103,333. OLIVE-OIL. JOHN VITTUCCI CO., Seattle, Wash.
Filed October 15, 1913. Serial No. 73,406. PUBLISHED JANUARY 12, 1915.

103,334. HOSIERY. STORK BROTHERS, Adamstown, Pa.
Filed August 18, 1914. Serial No. 80,670. PUBLISHED NOVEMBER 10, 1914.

103,335. PIANO-PLAYERS, PLAYER-PIANOS, AND NOTE-SHEETS FOR THE SAME. AMERICAN PIANO CO., Jersey City, N. J., and New York, N. Y.
Filed August 26, 1912. Serial No. 65,423. PUBLISHED JANUARY 19, 1915.

103,336. TRADE JOURNAL ISSUED MONTHLY. GEORGE B. ARMSTRONG, Chicago, Ill.
Filed October 27, 1914. Serial No. 82,201. PUBLISHED JANUARY 19, 1915.

103,337. ORANGES AND GRAPE-FRUIT. FRANK C. ARMSTRONG, Terra Ceia, Fla.
Filed August 11, 1910. Serial No. 51,348. PUBLISHED JANUARY 12, 1915.

103,338. CERTAIN NAMED CONSTRUCTION MATERIALS. THE BINDER COMPANY, INC., New York, N. Y.
Filed January 13, 1914. Serial No. 75,152. PUBLISHED DECEMBER 8, 1914.

103,339. FLOUR, MORE PARTICULARLY SELF-RISING PANCAKE-FLOUR. THE BLAIR MILLING COMPANY, Atchison, Kans.
Filed May 22, 1914. Serial No. 78,462. PUBLISHED SEPTEMBER 15, 1914.

103,340. ANKLE-SUPPORTERS, WRISTBANDS, AND ATHLETIC SUPPORTERS. HENRY JAMES COLLIS, Taunton, Mass.
Filed September 22, 1914. Serial No. 81,405. PUBLISHED DECEMBER 8, 1914.

103,341. NERVE-TONIC. WM. C. DOAN, Zanesville, Ohio.
Filed November 23, 1914. Serial No. 82,782. PUBLISHED JANUARY 19, 1915.

103,342. PHOTOGRAPHIC DEVELOPERS. EASTMAN KODAK CO., Rochester, N. Y.
Filed December 14, 1914. Serial No. 82,271. PUBLISHED JANUARY 19, 1915.

103,343. TRACING-CLOTH. B. K. ELLIOTT COMPANY, Pittsburgh, Pa.
Filed July 31, 1912. Serial No. 65,008. PUBLISHED JANUARY 19, 1915.

103,344. PLASTIC COMPOSITION USED PRINCIPALLY FOR FLOORING MATERIAL. FIBRE COMPANY, Chicago, Ill.
Filed October 30, 1914. Serial No. 82,271. PUBLISHED JANUARY 12, 1915.

103,345. EMBROIDERY OUTFITS CONSISTING OF CERTAIN NAMED ARTICLES. FISHEL & GORMAN, INC., New York, N. Y.
Filed December 16, 1914. Serial No. 83,318. PUBLISHED JANUARY 19, 1915.

103,346. KNITTED UNDERWEAR. FLAVELL BROS., Philadelphia, Pa.
Filed December 7, 1914. Serial No. 83,143. PUBLISHED JANUARY 19, 1915.

103,347. RIFLES AND GUNS. A. H. FOX GUN COMPANY, Philadelphia, Pa.
Filed December 11, 1914. Serial No. 83,221. PUBLISHED JANUARY 19, 1915.

103,348. CERTAIN NAMED ARTICLES MADE OF ARTIFICIAL STONE. HALL CONCRETE-PRODUCTS COMPANY, INC., Grassland, Pa.
Filed October 17, 1914. Serial No. 81,959. PUBLISHED DECEMBER 15, 1914.

103,349. CERTAIN NAMED MACHINERY AND PARTS THEREOF. INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill.
Filed August 1, 1913. Serial No. 72,109. PUBLISHED OCTOBER 13, 1914.

103,350. EMBROIDERY-YARNS. H. A. JAMES & CO., INC., New York, N. Y.
Filed December 10, 1914. Serial No. 83,198. PUBLISHED JANUARY 19, 1915.

103,351. REMEDY FOR CERTAIN NAMED AILMENTS. HENRY E. KENDALL, Shelby, N. C.
Filed December 7, 1914. Serial No. 83,118. PUBLISHED JANUARY 19, 1915.

103,352. PREPARATION FOR THE TREATMENT OF CERTAIN NAMED AILMENTS. FANNY LAMPLE, Yonkers, N. Y.
Filed October 23, 1914. Serial No. 82,102. PUBLISHED JANUARY 19, 1915.

103,353. WATCHES AND CLOCKS. LEONARD WATCH COMPANY, Boston, Mass.
Filed November 6, 1914. Serial No. 82,444. PUBLISHED JANUARY 19, 1915.

103,354. CERTAIN JUICES, SYRUPS, OILS AND ESSENCES FOR USE WITH BEVERAGES. MORITZ LÖW FABRIK ÄTHERISCHER OELE, ESSENZEN UND FARBEN, Hussowitz, near Brünn, Austria-Hungary.
Filed December 5, 1912. Serial No. 67,245. PUBLISHED JANUARY 19, 1915.

103,355. PILLS, CANDLES, SUPPOSITORIES, AND SALVES USED IN TREATING CERTAIN NAMED AILMENTS. LORENZO TRUJILLO-MARIN, New York, N. Y.
Filed September 29, 1914. Serial No. 81,550. PUBLISHED JANUARY 19, 1915.

103,356. HAIR-NETS. MARLOWE MANUFACTURING COMPANY, New York, N. Y.
Filed November 24, 1914. Serial No. 82,805. PUBLISHED JANUARY 19, 1915.

103,357. SALT. MORTON SALT COMPANY, Chicago, Ill.
Filed December 14, 1914. Serial No. 83,280. PUBLISHED JANUARY 19, 1915.

103,358. BEER. OBERMEYER & LIEBMANN, Brooklyn and New York, N. Y.
Filed August 21, 1913. Serial No. 72,475. PUBLISHED JANUARY 19, 1915.

103,359. CANDIES AND CHOCOLATES. PARK & TILFORD, New York, N. Y.
Filed September 9, 1914. Serial No. 81,143. PUBLISHED JANUARY 12, 1915.

103,360. TOILET SOAPS—*e. g.*, SWEET-SCENTED TOILET SOAP. PIESSE & LUBIN, London, England.
Filed July 6, 1914. Serial No. 79,583. PUBLISHED JANUARY 12, 1915.

103,361. CERTAIN NAMED CLOTHING MADE OF TEXTILE MATERIAL. ORLYSTIS M. POTTERF, Larned, Kans.
Filed November 11, 1912. Serial No. 66,797. PUBLISHED MARCH 18, 1913.

103,362. BEARING METAL IN INGOTS OR CASTINGS. RALPH E. RICH, Los Angeles, Cal.
Filed November 24, 1914. Serial No. 82,887. PUBLISHED JANUARY 19, 1915.

103,363. CIGARS. SALOMON BROS., New York, N. Y.
Filed November 3, 1914. Serial No. 82,383. PUBLISHED JANUARY 19, 1915.

103,364. COUGH MEDICINE. CAROLINA STEINER, Philadelphia, Pa.
Filed December 24, 1914. Serial No. 83,521. PUBLISHED JANUARY 19, 1915.

103,365. PENCIL-SHARPENERS. THE STEWART MANUFACTURING COMPANY, Chicago, Ill.
Filed December 7, 1914. Serial No. 83,137. PUBLISHED JANUARY 19, 1915.

103,366. DOLLS. LOUIS WOLF & CO., New York, N. Y.
Filed August 3, 1914. Serial No. 80,284. PUBLISHED NOVEMBER 3, 1914.

103,367. MOTION-PICTURE FILMS. A/S NORDISK FILMS COMPAGNI, Copenhagen, Denmark.
Filed May 19, 1914. Serial No. 78,375. PUBLISHED JANUARY 19, 1915.

103,368. AUTOMOBILE AND FURNITURE POLISH. OTIS J. ALLEN, Atlanta, Ga.
Filed September 16, 1914. Serial No. 81,278. PUBLISHED JANUARY 19, 1915.

103,369. TWINES MANUFACTURED FROM VEGETABLE FIBER. AMERICAN MANUFACTURING COMPANY, Boston, Mass., and New York, N. Y.
Filed November 21, 1914. Serial No. 82,729. PUBLISHED JANUARY 19, 1915.

103,370. COATS AND SUITS FOR OUTER WEAR. BISCHOF, STERNE & STEIN, Cincinnati, Ohio.
Filed March 25, 1914. Serial No. 76,920. PUBLISHED JANUARY 19, 1915.

103,371. COFFEES, TEAS, RICE, SPICES, TAPIOCA, COCOA, AND FLAVORING EXTRACTS FOR USE IN FOODS. C. F. BONSOR & CO., INC., Philadelphia, Pa.
Filed October 13, 1914. Serial No. 81,843. PUBLISHED JANUARY 19, 1915.

103,372. FERTILIZERS. BOWKER FERTILIZER CO., New York, N. Y.
Filed July 9, 1914. Serial No. 79,657. PUBLISHED OCTOBER 13, 1914.

103,373. CITRUS FRUITS CONSISTING OF GRAPEFRUIT, ORANGES, LEMONS, ETC. FREDERICK C. BUFFUM, Westerly, R. I.
Filed April 7, 1914. Serial No. 77,266. PUBLISHED JANUARY 19, 1915.

103,374. PAPER-BOARD AND WRAPPING-PAPER. CALIFORNIA PAPER & BOARD MILLS, San Francisco, Cal.
Filed November 4, 1914. Serial No. 82,401. PUBLISHED JANUARY 12, 1915.

103,375. REMEDY FOR CERTAIN NAMED AILMENTS. LAURENCE E. CASH, New York, N. Y.
Filed December 14, 1914. Serial No. 83,267. PUBLISHED JANUARY 12, 1915.

103,376. HUNTING-KNIVES. THE CARLSON-LUSK HDWE. CO., LTD., Boise, Idaho.
Filed July 12, 1911. Serial No. 57,594. PUBLISHED JANUARY 19, 1915.

103,377. TOY GAME. EDGAR O. CLARK CO., New York, N. Y.
Filed December 15, 1914. Serial No. 83,288. PUBLISHED JANUARY 26, 1915.

103,378. CANNED FRUITS, CANNED VEGETABLES, AND CANNED FISH. L. COHEN GROCER COMPANY, St. Louis, Mo.
Filed November 13, 1913. Serial No. 73,944. PUBLISHED JANUARY 12, 1915.

103,379. SURGICAL APPLIANCE FOR SORES AND FALLING ARCHES. CORLISS LIMB SPECIALTY CO., Boston, Mass.
Filed July 21, 1914. Serial No. 79,958. PUBLISHED NOVEMBER 10, 1914.

103,380. PRESERVATIVE COATING MATERIAL. DEUTSCHE CONSERVIERUNGSGESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Marienfelde, near Berlin, Germany.
Filed April 29, 1914. Serial No. 77,860. PUBLISHED JANUARY 19, 1915.

103,381. REMEDY FOR THE TREATMENT OF EPILEPSY. FAUCETTE PHARMACAL CO., Argenta, Ark.
Filed December 4, 1914. Serial No. 83,066. PUBLISHED JANUARY 19, 1915.

103,382. SUGAR. FEDERAL SUGAR REFINING CO., Yonkers, N. Y.
Filed October 22, 1914. Serial No. 82,075. PUBLISHED JANUARY 19, 1915.

103,383. RUBBER-STAMP INKS AND INKING-PADS. FULTON RUBBER TYPE CO., Elizabeth, N. J.
Filed February 1, 1913. Serial No. 68,259. PUBLISHED DECEMBER 15, 1914.

103,384. CAKE. JOHN HAMM BAKING COMPANY, St. Louis, Mo.
Filed September 16, 1914. Serial No. 81,283. PUBLISHED JANUARY 5, 1915.

103,385. PHOTOGRAPHIC PORTRAITS. HARRIS & EWING, Washington, D. C.
Filed October 29, 1914. Serial No. 82,256. PUBLISHED DECEMBER 1, 1914.

103,386. INFANTS' HOSE. HUB HOSIERY MILLS, Boston, Mass.
Filed October 24, 1914. Serial No. 82,138. PUBLISHED JANUARY 19, 1915.

103,387. WAGONS AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed September 18, 1914. Serial No. 81,315. PUBLISHED JANUARY 19, 1915.

103,388. WOODEN TOOTHPICKS. INTERNATIONAL MFG. CO., Phillips, Me.
Filed November 12, 1914. Serial No. 82,541. PUBLISHED JANUARY 19, 1915.

103,389. MOTION-PICTURES. JESSE L. LASKY FEATURE PLAY CO. INC., New York, N. Y.
Filed March 7, 1914. Serial No. 76,438. PUBLISHED JANUARY 19, 1915.

103,390. CHEESE. CHARLES C. MARTIN, Denver, Colo.
Filed September 22, 1914. Serial No. 81,406. PUBLISHED JANUARY 19, 1915.

103,391. CERTAIN BEVERAGES AND SYRUPS AND FLAVORING EXTRACTS USED THEREIN. HERMAN R. MELSTER, Jacksonville, Fla.
Filed September 18, 1914. Serial No. 81,322. PUBLISHED NOVEMBER 3, 1914.

103,392. WRITING-TABLETS, WRAPPING-PAPER, AND TOILET-PAPER. THE MOREY MERCANTILE COMPANY, Denver, Colo.
Filed September 28, 1914. Serial No. 81,523. PUBLISHED NOVEMBER 17, 1914.

103,393. SOOTHING AND HEALING REMEDY FOR CERTAIN NAMED AILMENTS. CHARLES A. J. MURPHY, Philadelphia, Pa.
Filed November 13, 1914. Serial No. 82,567. PUBLISHED JANUARY 19, 1915.

103,394. HAIR-TONICS AND TOILET CREAMS. N. Y. INTERNATIONAL CHEMICAL CO. INC., New York, N. Y.
Filed November 27, 1914. Serial No. 82,941. PUBLISHED JANUARY 19, 1915.

103,395. RUBBER BELTING AND FABRIC BELTING. THE NATIONAL BELTING COMPANY, Elyria, Ohio.
Filed October 26, 1914. Serial No. 82,183. PUBLISHED JANUARY 12, 1915.

103,396. TOY VEHICLES. ROBERT P. PAY, Chicago, Ill.
Filed December 8, 1914. Serial No. 83,164. PUBLISHED JANUARY 26, 1915.

103,397. WHEAT-FLOUR AND WHEAT-FLOUR MIDDLINGS. PILLSBURY FLOUR MILLS COMPANY, Minneapolis, Minn.
Filed October 31, 1914. Serial No. 82,305. PUBLISHED JANUARY 5, 1915.

103,398. MARSHMALLOWS. THE ROCHESTER CANDY WORKS, Rochester, N. Y.
Filed September 8, 1914. Serial No. 81,088. PUBLISHED JANUARY 12, 1915.

103,399. MEDICINAL COMPOUND FOR DISEASES OF WOMEN. SANSBY BROTHERS, St. Paul, Minn.
Filed August 3, 1914. Serial No. 80,281. PUBLISHED NOVEMBER 17, 1914.

103,400. GAS LAUNDRY-IRON HEATERS AND SOLDERING-FURNACES. THE SENTINEL AUTOMATIC GAS APPLIANCE CO., New Haven, Conn.
Filed October 26, 1914. Serial No. 82,195. PUBLISHED JANUARY 19, 1915.

103,401. PREPARATION FOR THE TREATMENT OF HOG-CHOLERA. F. W. SMITH & CO., Kansas City, Kans.
Filed September 10, 1914. Serial No. 81,173. PUBLISHED JANUARY 19, 1915.

103,402. WHEAT-FLOUR. THE WABASHA ROLLER MILLS COMPANY, Wabasha, Minn.
Filed September 4, 1914. Serial No. 80,971½. PUBLISHED JANUARY 5, 1915.

103,403. KITCHEN-CABINETS. WASMUTH-ENDICOTT COMPANY, Andrews, Ind.
Filed September 8, 1914. Serial No. 81,121. PUBLISHED NOVEMBER 17, 1914.

103,404. CERTAIN NAMED CUT-GLASS ARTICLES. C. E. WHEELOCK & CO., Peoria, Ill.
Filed June 12, 1914. Serial No. 79,044. PUBLISHED JANUARY 12, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,174. MEDICINE FOR THE DISEASES OF THE THROAT AND LUNGS. HARRIETTE ROMEYN STAFFORD VAN RANSSELAER, deceased; Clara A. Stafford, legatee; Harry W. R. Stafford, executor of said Clara A. Stafford, deceased.
Registered April 21, 1885. Renewed April 21, 1915.

LABELS

REGISTERED MARCH 30, 1915.

18,315.—*Title:* "FAN-TAN." (For Assorted Candies.) LOHEIDE MANUFACTURING COMPANY, St. Louis, Mo. Filed January 13, 1915.

PRINTS

REGISTERED MARCH 30, 1915.

3,848.—*Title:* "YELLOW STRAND." (For Wire Rope and Cables.) BRODERICK & BASCOM ROPE COMPANY, St. Louis, Mo. Filed February 13, 1915.

3,849.—*Title:* "KING PHILIP MILLS." (For Nainsooks.) KING PHILIP MILLS, Fall River, Mass. Filed December 8, 1914.

3,850.—*Title:* "GET NEXT TO THIS INSIDE STUFF." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed February 13, 1915.

3,851.—*Title:* "P. A. AIN'T NEVER HORN-SWOGGLED ANY-ONE YET!" (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed February 13, 1915.

3,852.—*Title:* "MUTT THOUGHT ALL TOBACCOS BIT THE TONGUE TILL JEFF BROUGHT HOME SOME 'GOOD OLD P. A.'" (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed February 13, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

LE COMPTE *v.* ADAMS, CONOVER, AND ROBINSON.

Decided January 4, 1915.

INTERFERENCE—PRIORITY—REDUCTION TO PRACTICE.

The evidence considered and *Held* that A. was the first to reduce to practice and priority was properly awarded to him.

Mr. Robert Craig Greene for the appellant.

Mr. Paul Finckel and *Mr. C. A. Dieterich* for the appellee.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents in an interference involving a hinge specially adapted for use on wind-shields on automobiles.

The issue is contained in one count as follows:

A casing to contain a plurality of hinge members, a plurality of rotatable hinge members each member having an axial part projecting through the casing, and each being formed with exterior gear teeth on which one hinge member is adapted to roll about the other member, and means to prevent the free rotation of the said hinge members consisting of manually actuated means to adjustably create friction between the casing and the hinge members.

The senior party, William G. Le Compte, filed his application April 13, 1910. He took no testimony but relies on his filing date for conception of the invention and reduction to practice.

Edward S. Adams filed May 14, 1910. Conover and Robinson filed September 2, 1910. They have appealed from the final decision, but their appeal has been dismissed.

The preliminary statement of Adams alleges conception November 26, 1909, disclosure January 10, 1910, and reduction to practice middle of February, 1910.

The Examiner of Interferences found that Adams had established conception and actual reduction to practice as alleged, and awarded priority to Adams.

Le Compte appealed to the Examiners-in-Chief, who affirmed the decision of the Examiner of Interferences.

The Board held that Adams's reduction to practice in February, 1910, was sustained by his proof, which showed that it was tried on a moving automobile and found to work successfully.

On appeal to the Commissioner, the latter held that Adams's evidence of reduction to practice was fully sustained by his corroborating witnesses. Consequently the decision of the Examiners-in-Chief was affirmed.

This appeal is made from that decision.

In a petition for rehearing a vigorous attack was made upon the testimony introduced by Adams to show reduction to practice, the argument being directed to the point that it was not shown that Adams's trial hinge was the same as that exhibited by him. This petition was denied.

The argument in this court has been directed to the same question, Le Compte contending that Adams's testimony as to the construction of his first hinge and its test has not been corroborated. The unanimity of the Patent Office tribunals puts a heavy burden upon the appellant.

The consideration of the evidence in the light of the strong argument of the appellant convinces us that there was no error in the conclusion of the Patent Office tribunals, wherefore the Commissioner's decision must be affirmed.

It is so ordered and that the clerk of this court certify this decision to the Commissioner of Patents.

Affirmed.

Court of Appeals of the District of Columbia.

MCKENZIE *v.* GARRETT.

Decided January 4, 1915.

1. INTERFERENCE—NO PLEADINGS.

Where it is urged that the question of former adjudication was not presented by the pleading, *Held* that there are no pleadings in an interference case and the Commissioner of Patents is entitled to look to the records of his own department and the reports and decisions of courts in cases relating to actions therein without pleading, and in this case he was authorized to consider the question.

2. SAME—ESTOPPEL—SUBMISSION OF ADDITIONAL EVIDENCE DOES NOT WAIVE.

Where the applications of M. and D. are assigned to the same assignee and in an interference between D. and G. it was moved to strike the application of G. from the files under Rule 31 of the Patent Office because of changes made in the specification after it had been sworn to by G. and the issue was finally decided in favor of G. and in a later proceeding between M. and G. the same question was raised and G. submitted evidence on the question of changes in the specification after having sworn to the same, *Held* that by submitting evidence on the question G. has not waived the estoppel.

3. SAME—PRIORITY—BILL IN EQUITY UNDER SECTION 4915, REVISED STATUTES—DECISION OF COURT OF APPEALS FINAL SO FAR AS PROCEEDINGS IN THE PATENT OFFICE ARE CONCERNED.

Where it is urged that the decision of the court of appeals in *Davis* v. *Garrett* is not a final adjudication, *Held* that "it is true that the decision in *Davis* v.

Garrett is not final in the sense that it is a complete settlement of the right to the patent. The losing party has the right to proceed in equity under section 4915, Revised Statutes, and the decision in the former case is not *res adjudicata*. (*Morgan* v. *Daniels*, 153 U. S., 120, 124; 67 O. G., 811; 1894, C. D., 285.) But while the proceeding is in the Patent Office that decree is final in so far as proceedings in the Patent Office are concerned. (*Butterworth* v. *Hoe*, 112 U. S., 50; 29 O. G., 615; 1884, C. D., 429.)"

(For *Commissioner's decision see 212 O. G., 1357.*)

Mr. Melville Church for the appellant.

Mr. F. S. Appleman for the appellee.

SHEPARD, *C. J.*:

Angus McKenzie appeals from the decision of the Commissioner of Patents in an interference case awarding priority of invention relating to voting-machines to his opponent, James C. Garrett. The issue is declared in the following counts:

1. In a voting machine, counters and actuators, a device having cams thereon adapted to move all the actuators of the machine to their set or operative position, a barrier, and means connecting the barrier and the said device.

2. In a voting machine, actuators and counters, a sliding bar having notches or recesses therein, each notch having a beveled or inclined surface adapted to move an actuator out, means for operating said bar, and a barrier connected to said means so that the bar and barrier may be moved simultaneously.

3. In a voting machine, actuators and counters therefor, a bar having notches or recesses therein, each notch having a beveled or inclined surface adapted to move the actuators out, a barrier, and means for connecting the barrier and the bar so that the two may be operated simultaneously.

4. In a voting machine, actuators and counters, a sliding bar having notches or recesses in the edge thereof, each notch having one of its surfaces beveled or inclined, the surface of the bottom of each notch being substantially the same shape as that part of the edge of the bar between the notches, a barrier and means for connecting the barrier and the bar so that they may be operated simultaneously.

Garrett is the senior party by virtue of an application filed June 8, 1895. McKenzie filed July 3, 1899. The preliminary statement of Garrett claimed conception of the invention January 20, 1891, and reduction to practice about December 24, 1894. The statement for McKenzie made by his assignee, alleged conception about January 21, 1894, and reduction to practice about March 1st, 1895.

The tribunals of the Patent Office agreed in the decision that McKenzie's proof of reduction to practice was not sufficient and confined him to the date of his application. This being long subsequent to Garrett's filing date, priority was awarded to Garrett. It appears that the application of Garrett had been in an interference proceeding with one Davis. In that proceeding Davis moved to strike Garrett's application from the files under Rule 31 of the Patent Office because of a change made in the application after it had been sworn to by the inventor. That issue was decided in favor of Garrett and was affirmed on appeal to this court June 5, 1906. (See *Davis* v. *Garrett*, 28 App. D. C., 9; 123 O. G., 1991; 1906, C. D., 724.)

It appears from the proceedings in the Patent Office that at the time the interference in the above case was declared the application of McKenzie was on file but was not included in the interference. The invention of McKenzie is owned by the same party who owned the Davis invention at that time. The Patent Office tribunals all decided that the question now raised by McKenzie's assignee was adjudicated in the former case and that he was estopped to litigate it again. On appeal from the Commissioner's decision, it is urged that the question of former adjudication was not presented by the pleading; that by submitting evidence Garrett has waived the question; that the decision of the court of appeals in *Davis* v. *Garrett* is not a final adjudication and is not, therefore, binding upon the applicant.

1. There are no pleadings in an interference case. The preliminary statements of the parties simply allege the dates of conception and reduction to practice. Where the question of priority has previously been determined the question may be raised by a motion to dissolve the interference on that ground; but, in this case, a motion to dissolve would not necessarily have presented the question. The Commissioner of Patents is entitled to look to the records of his own department and the reports and decisions of courts in cases relating to actions therein without pleading. (See *in re Drawbaugh*, 9 App. D. C., 219, 257; 77 O. G., 313; 1896, C. D., 527; *in re Marconi*, 38 App. D. C., 286, 291; 179 O. G., 577; 1912, C. D., 483.)

As the question of *res adjudicata* as presented in this case was shown by his own decisions and those of the court of appeals, on appeal therefrom, he was authorized to consider the question.

2. By submitting evidence on the question, the appellee has not waived the estoppel. As shown in the preceding paragraph the Commissioner was authorized to take into consideration the effect of former decisions in his Office and the appellee was not, therefore, estopped by submitting evidence on the question of changes in the specification after having sworn to the same. His evidence was on the issue as presented in the Office and he has not waived his right by submitting the same.

3. It is true that the decision in *Davis* v. *Garrett* is not final in the sense that it is a complete settlement of the right to the patent. The losing party has the right to proceed in equity under section 4915, Revised Statutes, and the decision in the former case is not *res adjudicata*. (*Morgan* v. *Daniels*, 153 U. S., 120, 124; 67 O. G., 811; 1894, C. D., 285.) But while the proceeding is in the Patent Office that decree is final in so far as proceedings in the Patent Office are concerned. (*Butterworth* v. *Hoe*, 112 U. S., 50, 60; 29 O. G., 615; 1884, C. D., 429.)

The judgment was certified to the Commissioner and governs further proceedings in the Patent Office. For that reason the doctrine of *res adjudicata* has been upheld in the Patent Office in many cases. (*Blackford* v. *Wilder*, 28 App. D. C., 535, 542; 127 O. G., 1255; 1907, C. D., 491; *Horine* v. *Wende*, 29 App. D. C., 415, 426; 129 O. G., 2858; 1907, C. D., 615; *in re Edison*, 30 App. D. C., 321; 133 O. G., 1190; 1908, C. D., 327; *Newcomb Motor Co.* v. *Moore*, 30 App. D. C., 464; 133 O. G., 1680; 1908, C. D., 332; *Carroll* v. *Hallwood*, 31 App. D. C., 165; 135 O. G., 896; 1908, C. D., 444; *New Departure Manufacturing Co.* v. *Robinson*, 39 App. D. C., 504; 188 O. G., 1055; 1913, C. D., 332; *Sutton* v. *Wentworth*, 31 App. D. C., 582; 204 O. G., 320.)

It appears in the evidence that there is a suit pending in the United States District Court for the District of New Jersey, instituted by Davis, the party to *Davis* v. *Garrett*, to compel the issue of the patent that was refused in the Patent Office in *Davis* v. *Garrett*. This suit was brought under section 4915, Revised Statutes, and it is expressly provided for in that section, but does not take away the finality of the judgment in *Davis* v. *Garrett* in so far as proceedings in interference are concerned. If successful, it will have the effect to set aside the former award of priority to Garrett and require issue of the patent to Davis. This is the express object of the section.

We concur with the Commissioner of Patents in his decision that the question that has been raised by McKenzie was adjudicated in *Davis* v. *Garrett* and that McKenzie is estopped to raise that question again.

The decision of the Commissioner of Patents is affirmed and the clerk will certify this decision to him as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

THE ROOKWOOD POTTERY COMPANY *v.* THE A. WILHELM COMPANY.

Decided January 4, 1915.

1. TRADE-MARKS—"ENAMEL PAINT" AND "ROOKWOOD POTTERY"—NOT GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

Enamel paint *Held* not to constitute goods of the same descriptive properties as Rookwood pottery.

2. SAME—OPPOSITION—SHOWING OF ACTUAL CONFUSION OF GOODS NOT NECESSARY.

Where it is urged that appellant's notice of opposition is subject to dismissal because it does not allege that confusion has actually occurred as a result of the use of the mark by the respective parties, *Held* that the contention is without merit, for the reason that the statute is prospective in that it forbids the registration of a mark which is likely to create confusion in the public mind or is likely to deceive purchasers.

Mr. W. F. Murray for the appellant.

Mr. Melville Church for the appellee.

VAN ORSDEL, *J.*:

This is an appeal from the decision of the Commissioner of Patents sustaining a motion to dismiss a notice of opposition filed by appellant, opposing the registration by appellee of the word "Rookwood" as a trade-mark for enamel paint.

The grounds of the opposition stated in appellant's notice are as follows:

1. That the Rookwood Pottery commenced to manufacture in Cincinnati, in the year 1880, a high grade pottery, to designate which as your petitioner's product, it adopted the word "Rookwood," which word had not theretofore been used by any one as a trade-mark; that the Rookwood Pottery, in the year 1890, was incorporated as the Rookwood Pottery Company; that the pottery manufactured by it, since the year first mentioned, has been sold by your petitioner in all the States of the United States, and in foreign countries, as "Rookwood;" and that the word "Rookwood," used in connection with pottery, indicates to the public that it is a product of your petitioner, and is a guarantee of its artistic merit.

2. That your petitioner, since the year 1880, has given the articles in the course of production, a covering of enameling or glazing material, which is then heated and gives the articles an enamel or glazed surface.

3. That the terms enamel and glaze and the terms enameling or glazing material are used interchangeably both by those skilled in the ceramic art and by the public.

4. That the use of the word "Rookwood" by another, upon an enamel or similar goods, would tend to deceive the public as to the origin of the goods, would lead the public to believe that by using the enamel it could obtain the characteristic quality of the Rookwood ware, either upon pottery or upon other articles of manufacture, and would injure your petitioner; and that the registration of this trade-mark "Rookwood," by The A. Wilhelm Company, would greatly damage your petitioner.

The motion to dismiss challenges the likelihood of the mark, when used on the respective goods of the contending parties, to create confusion in trade. It was upon this point alone that the Commissioner of Patents sustained the motion and dismissed the notice of opposition.

Section 5 of the Trade-Mark Act of February 20, 1905, prohibits the registration of a—

trade-mark owned and in use by another, and appropriated to merchandise of the same descriptive properties, or which so nearly resembles a registered or known trade-mark owned and in use by another, and appropriated to merchandise of the same descriptive properties, as to be likely to cause confusion or mistake in the mind of the public, or to deceive purchasers.

It will be observed that the prohibition is two-fold—(1) where the marks used on merchandise of the same descriptive properties are the same, and (2) where the marks so used so nearly resemble each other as to be likely to confuse the public or deceive purchasers. In *Walter Baker & Co.* v. *Harrison* (32 App. D. C., 272; 138 O. G., 770; 1909 C. D., 284) the statute was construed as prohibiting the use of a mark when applied to goods of the same general class as those designated by a similar mark owned and in use by another. In this case, the parties are each using the same mark. The question is, whether the merchandise upon which the respective parties use this mark belong to the same general class? The mark is used by appellant upon pottery-ware and by appellee on enamel paint. It is urged by counsel for appellee, and so held by the tribunals of the Patent Office, that there is no similarity between enamel paint, the product of appellee, and pottery, the product of appellant. On the other hand, it is urged by counsel for appellant that the question here is not the dissimilarity between paint and pottery-ware, but the similarity between the enamel paint of appellee and the enamel used by appellant to produce the glazed finish on its pottery.

The contention of appellant would have force if it applied the trade-mark to the enamel used in producing the glazed finish on its ware, but it is applied to pottery. The statute limits the prohibition of the use of similar marks to their use on articles of merchandise of the same descriptive properties. In *Walter Baker & Co.* v. *Harrison*, *supra*, this court held:

Things may be said to possess the same descriptive properties when they can be applied to the same general use.

While it is true that enamel is an element used in manufacturing the product of appellant, yet the completed article is of a nature manifestly different from the enamel used. They cannot be applied to the same general use. We have no difficulty in agreeing with the Commissioner of Patents that the paint of appellee and the pottery-ware of appellant are not merchandise of the same descriptive properties.

It is urged that the mark cannot legally be registered by appellee, since it is the distinguishing

part of the corporate name of appellant company. The use of a corporate name is forbidden by statute. (*Asbestone Co.* v. *Philip Carey Mfg. Co.*, 41 App. D. C., 507; 200 O. G., 857, 1914 C. D., 146.) This objection, however, is not set out in the notice of opposition, and, however mandatory the stautute may be upon the Commissioner of Patents in determining the legal registrability of a trade-mark, it may be waived by an opposer. It was optional with appellant to oppose or not, and as to any matter not set out in the notice of opposition, it is as if no notice had been filed. The objection, therefore, is not available at this late stage in the proceedings.

It may be suggested that the criticism of counsel for appellee that appellant's notice is subject to dismissal because it does not allege that confusion has actually occurred as a result of the use of the mark by the respective parties is without merit. The statute is prospective, in that it forbids the registration of a mark which is *likely* to create confusion in the public mind, or is *likely* to deceive purchasers. It is not necessary that actual confusion be shown; the mere probability of confusion is sufficient. This appeal, however, is disposed of upon the ground alone that the merchandise of the respective parties on which the mark is used do not possess the same descriptive properties.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Stauf patent, No. 666,711, for a method of desiccating milk, *Held* valid and infringed. *Merrell-Soule Co.* v. *Natural Dry Milk Co.*, 219 Fed. Rep., 572.

(U. S. C. C. A.) The Lewis patent, No. 862,830, for a sewing-machine, *Held* not infringed. *Lewis Blind Stitch Mach. Co.* v. *Arbetter Felling Mach. Co.*, 219 Fed. Rep., 557.

Adverse Decisions in Interference.

PATENT No. 919,996.

On March 1, 1915, a decision was rendered that Young and Townsend were not the first inventors of the subject-matter covered by claims 11, 12, and 13 of their Patent No. 919,996, subject, "Electric signaling system," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,022,601.

On February 23, 1915, a decision was rendered that Rumberg and Harttung were not the first inventors of the subject-matter covered by claims 1, 2, and 4 of their Patent No. 1,022,601, subject, "Vaginal syringe," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 1,075,136.

On February 24, 1915, a decision was rendered that Ames and Harrison were not the first inventors of the subject-matter covered by claims 1 and 2 of their Patent No. 1,075,136, subject, "Stop-motion for cotton roving and spinning frames," and no appeal having been taken within the time allowed such decision has become final.

Disclaimer.

No. 1,014,002.—*John L. Hogan, Jr.*, Brant Rock, Mass. APPARATUS FOR WIRELESS SIGNALING. Patent dated January 9, 1912. Disclaimer filed March 23, 1915, by *Samuel M. Kintner* and *Halsey M. Barrett*, receivers of the assignee, the *National Electric Signaling Company*.

Enter this disclaimer—

"To that part of the claim in said specification which is in the following words, to wit, claims 1 and 2 of the patent, as follows:

"1. The combination with several adjustable oscillation circuits, of a tuning device connecting the several circuits and having an adjustable tuning element arranged to equally and simultaneously vary the electrical periods of the several circuits, substantially as described.

"2. The combination with several interdependent resonant circuits of a tuning device having an element common to said circuits and adjusted so that the variation of said element changes equally the electrical periods of all the said circuits at once and alike."

Witnesses to Specifications and Drawings.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 9, 1915.

An act to amend sections forty-eight hundred and eighty-eight and forty-eight hundred and eighty-nine of the Revised Statutes, relating to patents.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section forty-eight hundred and eighty-eight of the Revised Statutes of the United States be, and the same is hereby, amended by striking out from the last clause thereof the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4888. Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor."

SEC. 2. That section forty-eight hundred and eighty-nine of the Revised Statutes of the United States be, and the same is hereby, amended by striking out the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4889. When the nature of the case admits of drawings, the applicant shall furnish one copy signed by the inventor or his attorney in fact, which shall be filed in the Patent Office; and a copy of the drawing to be furnished by the Patent Office, shall be attached to the patent as a part of the specification."

Approved, March 3, 1915.

Witnesses on the specification will not be objected to, and the draftsman may sign the drawing as a witness, as has been heretofore customary.

THOMAS EWING,
Commissioner of Patents.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 15, 1915.

William Endemann, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Gottschalk Co., of No. 108 Light street, Baltimore, Md., for registration of a trade-mark and trade-mark registered March 12, 1895, No. 26,217, to William Endemann, of New York, N. Y., and a notice of such declaration sent by registered mail to said William Endemann at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William Endemann, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

MARCH, 1915.

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CONSTRUCTION OF CLAIMS.

1. ELEMENTS DESCRIBED GENERALLY AS "MEANS" OR "MECHANISM."

A claim of a patent is not functional and invalid merely because one of its specified elements is "means" or "mechanism;" but such result may or may not follow, depending upon whether such all-inclusive term is used with reference to the element or subcombination which is the real point and gist of the invention or to elements or parts already well known and designed to coöperate with the new element in order to make a completely operative unit.

[d] Davis Sewing Machine Company v. New Departure Manufacturing Company, 1057.

2. COMPARISON OF SPECIFIC AND GENERAL CLAIMS.

In determining whether the ambiguous terms of a claim should be confined more or less closely to the form shown in the drawings it is usually well to compare with other claims which may not be in suit, and if other claims are found which call for the specific construction of a part mentioned more generally in the claims in suit that will be persuasive for not giving the limited construction to the general terms.

[d] Id.

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CONSTRUCTION OF SPECIFICATIONS AND PATENTS.

VALIDITY AND INFRINGEMENT—COASTER-BRAKE FOR BICYCLES.

The Townsend patent, No. 850,077, for a coaster-brake for bicycles, covers a device the essential feature of which is a telescoping screw-threaded connector within the hub of the rear wheel, movable to the right and left and revoluble both with and upon the driver-sleeve and which when the pedal is driven forward moves to the right and clutches the hub and when driven backward moves to the left, releases the hub, and clutches the brake mechanism. In such feature it was not anticipated in the prior art, and, while not strictly a pioneer, the invention was the step which resulted in making practical and commercial the combination in one device of the driving, coasting, and braking functions, and the patent is entitled to a fairly liberal application of the rule of equivalents, its claims being not too broad to cover and protect the real invention; also *Held* infringed.

[d] Davis Sewing Machine Company v. New Departure Manufacturing Company, 1057.

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'ENAMEL PAINT" AND "ROOKWOOD POTTERY."
Enamel paint *Held* not to constitute goods of the same descriptive properties as Rookwood pottery.
[*The Rookwood Pottery Company *v.* The A. Wilhelm Company, 1691.

INFRINGEMENT.

See Construction of Specifications and Patents.

1. PATENTS—PROFITS—APPORTIONMENT.
Where a patent is infringed by selling machines embodying improvements covered by the patent and the value of the machines as marketable articles is attributable in part to the patented improvements and in part to unpatented parts or features, *Held* that the profits arising from the infringing sales belong to the owner of the patent in so far as they are attributable to the patented improvements and in so far as they are due to the other parts or features they belong to the seller.
[**Dowagiac Manufacturing Company *v.* Minnesota Moline Plow Company *et al.* Dowagiac Manufacturing Company *v.* Smith and Zimmer, 327.

2. SAME—SAME—SAME.
Where the plaintiff's patent covered only a part of the infringing machine and created only a part of the profits, *Held* that he is required to take the initiative in presenting evidence looking to an apportionment. [**Id.

3. SAME—DAMAGES—LOSS OF SALES.
Where damages are sought for infringing sales and it does not appear that the plaintiff thereby lost the sale of a like number of machines or of any definite or even approximate number, *Held* that no adequate basis is laid for an assessment of damages upon the ground of lost sales. [**Id.

4. SAME—MEASURE OF DAMAGES—HOW SHOWN.
As the exclusive right conferred by a patent is property and infringement of it is a tortious taking of a part of that property, the normal measure of damages is the value of what was taken, *Held* that this may be shown by proof of an established royalty, if there be such, and, if not, by proof of what would have been a reasonable royalty, considering the nature of the invention, its utility and advantages, and the extent of the use involved. (*Coupe* v. *Royer;* C. D., 1895, 163; 70 O. G., 729; 155 U. S., 565, explained.) [**Id.

INTERFERENCE.

See Priority of Invention.

1. NO PLEADINGS.
Where it is urged that the question of former adjudication was not presented by the pleading, *Held* that there are no pleadings in an interference case and the Commissioner of Patents is entitled to look to the records of his own department and the reports and decisions of courts in cases relating to actions therein without pleading, and in this case he was authorized to consider the question. [*McKenzie v. Garrett, 1689.

2. ESTOPPEL—SUBMISSION OF ADDITIONAL EVIDENCE DOES NOT WAIVE.
Where the applications of M. and D. are assigned to the same assignee and in an interference between D. and G. it was moved to strike the application of G. from the files under Rule 31 of the Patent Office because of changes made in the specification after it had been sworn to by G. and the issue was finally decided in favor of G. and in a later proceeding between M. and G. the same question was raised and G. submitted evidence on the question of changes in the specification after having sworn to the same, *Held* that by submitting evidence on the question G. has not waived the estoppel. [*Id.

3. PRIORITY—BILL IN EQUITY UNDER SECTION 1915, REVISED STATUTES—DECISION OF COURT OF APPEALS FINAL SO FAR AS PROCEEDINGS IN THE PATENT OFFICE ARE CONCERNED.
Where it is urged that the decision of the court of appeals in *Davis* v. *Garrett* (C. D., 1906, 724; 123 O. G., 1991; 28 App. D. C., 9) is not a final adjudication, *Held* that "it is true that the decision in *Davis* v. *Garrett* is not final in the sense that it is a complete settlement of the right to the patent. The losing party has the right to proceed in equity under section 4915, Revised Statutes, and the decision in the former case is not *res adjudicata*. (*Morgan* v. *Daniels*, C. D., 1894, 285; 67 O. G., 811; 153 U. S., 120, 124.) But while the proceeding is in the Patent Office that decree is final in so far as proceedings in the Patent Office are concerned. (*Butterworth* v. *Hoe*, C. D., 1884, 429; 29 O. G., 615; 112 U. S., 50.)" [*Id.

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SHOWING OF ACTUAL CONFUSION OF GOODS NOT NECESSARY.
Where it is urged that appellant's notice of opposition is subject to dismissal because it does not allege that confusion has actually occurred as a result of the use of the mark by the respective parties, *Held* that the contention is without merit, for the reason that the statute is prospective in that it forbids the registration of a mark which is likely to create confusion in the public mind or is likely to deceive purchasers.
[*The Rookwood Pottery Company *v.* The A. Wilhelm Company, 1691.

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See Interference, 1.

PRIORITY OF INVENTION.

1. SECTION 4887—AMENDED GERMAN APPLICATION—CONSTRUCTIVE REDUCTION TO PRACTICE.
Where F. filed an application in the German patent office on June 23, 1905, and on October 28, 1905, an amended application was filed, accompanied by drawings, which was a complete description of the invention embraced in the issue and was not a departure from the original application, and a complete application was filed in this country on June 19, 1906, *Held* that F. is entitled to the date of his amendment (October 28, 1905) as the date of his constructive reduction to practice.
[*Bissell *v.* Fottinger, 669.

2. EVIDENCE—AWARD.
The evidence reviewed and *Held* that priority was properly awarded to F. [*Id.

3. SAME—SAME.
Evidence reviewed and *Held* to establish that the invention in issue originated with T. and that he is entitled to the award of priority. [*Crabill *v.* Teeter, 690.

4. RES ADJUDICATA.
Where the parties now owning the McKenzie application are the same as the parties owning the Davis application and the question of priority between McKenzie and Garrett could have been tried at the same time as the question of priority between Davis and Garrett, *Held* that the question of priority between McKenzie and Garrett is *res adjudicata* in view of the decision in *Davis* v. *Garrett*. [McKenzie *v.* Garrett, 1357.

5. BILL IN EQUITY UNDER SECTION 4915, REVISED STATUTES—SUCCESSFUL PARTY BEFORE COURT OF APPEALS ENTITLED TO A PATENT.
Where an interference has been declared and the question of priority has been decided by the court of appeals and the defeated party files a bill in equity under section 4915, Revised Statutes, to obtain a patent, *Held* that the decision of the court of appeals is final as to the right of the successful party to the interference to have a patent granted to him. [Id.

6. REDUCTION TO PRACTICE—EVIDENCE—AWARD.
The evidence considered and *Held* that A. was the first to reduce to practice and priority was properly awarded to him.
[*Le Compte *v.* Adams, Conover, and Robinson, 1689.

PROCEEDINGS IN THE PATENT OFFICE.

See Interference, 2, 3.

PROFITS.

See Infringement.

PROOF.

See Infringement, 4.

PROPERTY RIGHTS.

See Infringement, 4.

REDUCTION TO PRACTICE.

See Priority of Invention, 1, 6.

RES ADJUDICATA.

See Interference, 3; Priority of Invention, 4.

RESULTS.

See Construction of Claims, 1.

RIGHT TO PATENT.

See Interference, 3; Priority of Invention, 5.

ROYALTY.

See Infringement, 4.

SPECIFIC CLAIMS.

See Construction of Claims, 2.

SPECIFICATION.

See Interference, 2; Priority of Invention, 1.

STATE OF THE ART.

See Construction of Specifications and Patents.

TERMINOLOGY.

See Construction of Claims, 1.

WORDS AND PHRASES—"BRAKE"—"BRAKE PAIR"—"BRAKE-SHOE"—"BRAKE-DRUM."
An effective "brake" consists of two members, which are called the "brake pair," consisting of the "brake-shoe," which is the movable member, and the "brake-drum," or the stationary member.
[d Davis Sewing Machine Company *v.* New Departure Manufacturing Company, 1057.

TORT.

See Infringement, 4.

TRADE-MARKS.

See Goods of Same Descriptive Properties; Opposition to Registration of Trade-Marks.

VALIDITY OF PATENTS.

See Construction of Claims, 1; Construction of Specifications and Patents.

WAIVER.

See Interference, 2.

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF MARCH, 1915.

[Abbreviations: "Gaz."—Official Gazette.]

A. Kimball Company. (See Anthony, Marcus O., assignor.)
A. G. Spalding & Bros. Manf'g. Co. (See Reach and Richey, assignors.)
A. G. Spalding & Bros. Manf'g Company. (See Reach, William F., assignor.)
A. R. Mosler & Co. (See Mosler, Arthur R., assignor.)
Aaron, Mabel, Stockton, Cal. Dish-washing device. No. 1,133,691; Mar. 30; Gaz. vol. 212; p. 1522.
Abell, Rollin, Milton, Mass. Valve. No. 1,132,542; Mar. 23; Gaz. vol. 212; p. 1067.
Abraham, Isaac B., Chicago, Ill. Wedge-supporting block for axle-boxes. No. 1,133,082; Mar. 23; Gaz. vol. 212; p. 1267.
Abraham, Morris, *et al.* (See Smith, Hugh A., assignor.)
Ackerman, Frank J., Pittsburgh, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-traffic-controlling apparatus. No. 1,131,979; Mar. 16; Gaz. vol. 212; p. 815.
Ackerman, Frank J., Pittsburgh, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-traffic-controlling apparatus. No. 1,131,980; Mar. 16; Gaz. vol. 212; p. 815.
Ackerman, Frank J., Pittsburgh, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-traffic-controlling apparatus. No. 1,131,981; Mar. 16; Gaz. vol. 212; p. 816.
Ackerman, Frank J., Pittsburgh, assignor to The Union Switch & Signal Company, Swissvale, Pa. Circuit-controlling device. No. 1,131,982; Mar. 16; Gaz. vol. 212; p. 817.
Ackerman, Henry, Clifton Park, N. J. Base or support for gem-settings. No. 1,130,128; Mar. 2; Gaz. vol. 212; p. 99.
Acme Harvesting Machine Co. (See Smith, Ernest C., assignor.)
Acme Knitting Machine & Needle Company. (See Stewart, Albert E., assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Herzberg and Hoppe, assignors.)
Adams, Albert L., Cedar Rapids, Iowa. Coal-chute. No. 1,133,692; Mar. 30; Gaz. vol. 212; p. 1523.
Adams, Charles, trustee. (See Hobbs, Wilber A., assignor.)
Adams, Edward, and C. Niemitalo, Belden, N. D. Railway-crossing gate. No. 1,132,821; Mar. 23; Gaz. vol. 212; p. 1172.
Adams, Frank C., London, England. Artist's stippling-pen. No. 1,132,896; Mar. 23; Gaz. vol. 212; p. 1198.
Adams, Frederick O. and J. F., Pittsburgh, Pa. Reflecting-heater. No. 1,132,822; Mar. 23; Gaz. vol. 212; p. 1173.
Adams, Joe B., and L. M. Miller, Cooper, Tex. Cotton-chopper. No. 1,132,548; Mar. 23; Gaz. vol. 212; p. 1067.
Adams, John M., Chicago, Ill. Metal bedstead. No. 1,130,873; Mar. 9; Gaz. vol. 212; p. 393.
Adams, Joseph F., St. Clair, Mich. Berry-box. No. 1,130,236; Mar. 2; Gaz. vol. 212; p. 137.
Adams, Julius F. (See Adams, Frederick O. and J. F.)
Adams-Randall, Charles, assignor to National Shawmut Bank, Boston, Mass., trustee. Head-support for telephone-receivers. No. 1,133,833; Mar. 30; Gaz. vol. 212; p. 1571.
Adams, Roy E., Indianapolis, Ind. Grader. No. 1,133,251; Mar. 30; Gaz. vol. 212; p. 1363.
Adams, Thomas D. (See Hyde and Adams.)
Adams, Walter S., assignor to The J. G. Brill Co., Philadelphia, Pa. Car-truck. No. 1,133,252; Mar. 30; Gaz. vol. 212; p. 1363.
Adams & Westlake Company, The. (See Getty and Eichel, assignors.)
Adder Machine Company, The. (See Wilgus, Charles V., assignor.)
Adreon, Robert E., assignor to Westinghouse Automatic Air & Steam Coupler Company, St. Louis, Mo. Automatic train-pipe coupling. No. 1,130,694; Mar. 9; Gaz. vol. 212; p. 333.
Adsit, Charles W., Owatonna, Minn. Acetylene-gas generator. No. 1,132,149; Mar. 16; Gaz. vol. 212; p. 975.
Adsit Company, The. (See Harris, Carl C., assignor.)
Aeolian Company. (See Kelly, George B., assignor.)
Affolter, Emil. (See Richardson, Paul, assignor.)
Agricultural Research Corporation. (See Peacock, Samuel, assignor.)
Ahara, Edwin H., assignor to Dodge Manufacturing Company, Mishawaka, Ind. Driving-clutch and guard. No. 1,130,237; Mar. 2; Gaz. vol. 212; p. 137.
Ahearn, Harold H. H., Wellington, New Zealand. Loose-leaf book and the like. No. 1,131,648; Mar. 16; Gaz. vol. 212; p. 695.
Ahern, Michael V. (See Wainwright and Ahern.)
Ahlert, Henry, *et al.* (See Paprian, Ignace, assignor.)
Ahlm, Charles E. F., assignor to M. S. Towson, Cleveland, Ohio. Dynamo-electric machine No. 1,132,144; Mar. 16; Gaz. vol. 212; p. 875.
Ahlm, Charles E. F., assignor to M. S. Towson, Cleveland, Ohio. Dynamo-electric machine. No. 1,132,145; Mar. 16; Gaz. vol. 212; p. 875.
Ahrens, Werner, Berlin, Germany. Antifriction-bearing. No. 1,131,649; Mar. 16; Gaz. vol. 212; p. 695.
Ainsworth, Robert G., Denver, Colo. Surveyor's transit. No. 1,132,236; Mar. 16; Gaz. vol. 212; p. 909.
Airhart, Noah S., Denison, Tex., and E. H. Gold, Chicago, Ill. Broom or brush. No. 1,131,890; Mar. 16; Gaz. vol. 212; p. 782.
Airoblast Corporation, The. (See Schwenger, Ben, assignor.)
Aitken, Andrew W., assignor to Austin Manufacturing Company, Chicago, Ill. Transmission-bearing for road-rollers. No. 1,132,544; Mar. 23; Gaz. vol. 212; p. 1068.
Aker, Chelsea R. (See Malm, Rauh, and Aker.)
Akers, Harry G., Toronto, Ontario, Canada. Rotary furnace. No. 1,130,953; Mar. 9; Gaz. vol. 212; p. 420.
Akers, Joseph G., and J. Britsch, Philadelphia, Pa. Globe-holder. No. 1,133,905; Mar. 30; Gaz. vol. 212; p. 1596.
Aktiebolaget Baltic. (See Risberg, Johannes V. M., assignor.)
Aktiebolaget Ljungströms Angturbin. (See Ljungström, Birger, assignor.)
Aktiebolaget Princeps. (See Lagerman and Lindström, assignors.)
Aktiebolaget Wigelius Motorer. (See Wigelius, Sven G., assignor.)
Aktiengesellschaft der Maschinenfabriken Escher, Wyss & Cie. (See Ruegger, Eduard, assignor.)
Alban, Hyman, Chicago, Ill. Pocket. No. 1,133,906; Mar. 30; Gaz. vol. 212; p. 1596.
Albertson, George H., Pittsburgh, Pa. Deodorizing device. No. 1,130,681; Mar. 2; Gaz. vol. 212; p. 293.
Albright, Arbannes S., Gainesville, Fla. Automobile-jack. No. 1,131,891; Mar. 16; Gaz. vol. 212; p. 782.
Alcan, Félix, Zanesville, Ohio, assignor to American Encaustic Tiling Company, Ltd., New York, N. Y. Means for setting mosaics. No. 1,133,604; Mar. 30; Gaz. vol. 212; p. 1488.
Aldehoff, Hermann, Berlin, Germany. Roll-mill for hard materials. No. 1,133,212; Mar. 23; Gaz. vol. 212; p. 1312.
Aldendorff, Fritz, Antwerp, Belgium, assignor to Western Electric Company, New York, N. Y. Automatic telephone-exchange system for subscribers' lines with extension sets. No. 1,130,697; Mar. 9; Gaz. vol. 212; p. 333.
Aldendorff, Fritz, Vieux Dieu, near Antwerp, Belgium, assignor to Western Electric Company, New York, N. Y. Selector for machine-switching telephone systems. No. 1,131,811; Mar. 16; Gaz. vol. 212; p. 755.
Aldrich, Frank, assignor of one-half to J. M. Nicol, Detroit, Mich. Garbage-container. No. 1,131,102; Mar. 9; Gaz. vol. 212; p. 472.
Alexander, Albert O., Franklin, N. H. Fish-holding frame. No. 1,132,417; Mar. 16; Gaz. vol. 212; p. 974.
Alexander, Wilson H., Philadelphia, Pa. Shipping-can. No. 1,131,650; Mar. 16; Gaz. vol. 212; p. 695.
Alfano, Louis, assignor of one-half to F. Galietti, Southington, Conn. Device for printing diagrams for tailors' patterns. No. 1,130,653; Mar. 2; Gaz. vol. 212; p. 288.
Alger, Harley C., Chicago Heights, Ill. Recorder. No. 1,130,964; Mar. 9; Gaz. vol. 212; p. 420.
Alger, Harley C., Chicago Heights, Ill. Recorder. No. 1,131,892; Mar. 16; Gaz. vol. 212; p. 783.

Alger, Harley C., Chicago Heights, Ill. Liquid-meter. No. 1,132,994; Mar. 23; Gaz. vol. 212; p. 1236.
Allamong, A. (See Burke, Stephen E., assignor.)
Allen, Harry, Toronto, Ontario, Canada. Rotary tooth-brush. No. 1,133,907; Mar. 30; Gaz. vol. 212; p. 1596.
Allen, Edward E., assignor to Allen Machinery Company, Erie, Pa. Skiving-machine. No. 1,131,589; Mar. 9; Gaz. vol. 212; p. 639.
Allen, Edward R., Corning, N. Y. Potato-digger. No. 1,133,908; Mar. 30; Gaz. vol. 212; p. 1597.
Allen, Fannie A., Louisville, Ky. Copy-holder. No. 1,130,559; Mar. 2; Gaz. vol. 212; p. 252.
Allen, Frank C., Monon, Ind. Clutch-release for Ford automobiles. No. 1,130,560; Mar. 2; Gaz. vol. 212; p. 252.
Allen, Frank R., Passaic, N. J. Folding vestibule. No. 1,133,693; Mar. 30; Gaz. vol. 212; p. 1523.
Allen, Harry, Savannah, Ga. Wrench. No. 1,132,146; Mar. 16; Gaz. vol. 212; p. 876.
Allen, James M., St. Louis, Mo., assignor to Allen Novelty Company. Scissors-sharpener. No. 1,130,695; Mar. 9; Gaz. vol. 212; p. 333.
Allen, Judge S., New York, N. Y. Train-signal apparatus. No. 1,132,418; Mar. 16; Gaz. vol. 212; p. 974.
Allen Machinery Company. (See Allen, Edward E., assignor.)
Allen Novelty Company. (See Allen, James M., assignor.)
Allen, William H., Gallatin, Tex. Plant-supporting device. No. 1,129,838; Mar. 2; Gaz. vol. 212; p. 3.
Allender, Charles S., and G. G. McNee, Clay Center, Kans. Valve. No. 1,131,024; Mar. 9; Gaz. vol. 212; p. 446.
Allensworth, Harry R., Columbus, Ohio. Relay. No. 1,130,654; Mar. 2; Gaz. vol. 212; p. 284.
Alley, John J., Bristol, Va. Dispensing apparatus. No. 1,132,545; Mar. 23; Gaz. vol. 212; p. 1068.
Alliance Machine Company, The. (See Oyster, Earl F., assignor.)
Allis-Chalmers Manufacturing Company. (See Cheney, Herbert W., assignor.)
Allis-Chalmers Manufacturing Company. (See Johnson, John L., assignor.)
Allis-Chalmers Manufacturing Company. (See Knight, Earle R., assignor.)
Allis-Chalmers Manufacturing Company. (See Nichols, Louis C., assignor.
Allis-Chalmers Manufacturing Company. (See Schley, George B., assignor.)
Allvor-Apparate-Gesellschaft mit beschränkter Haftung. (See Mülnch, Gottfried, assignor.)
Alma Manufacturing Company of Baltimore City. (See Kerngood and Blum, assignors.)
Altheide, August F., Mount Carmel, Ill. Roller-mill. No. 1,130,365; Mar. 2; Gaz. vol. 212; p. 182.
Altmann, Joseph. (See Johannesmann, Karl, assignor.)
Alvey-Ferguson Company, The. (See Bernheim, Morris U., assignor.)
Ambrose, Robert L., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Valve-motion for pneumatic tools. No. 1,131,812; Mar. 16; Gaz. vol. 212; p. 755.
American Assembling Machine Company. (See Curry, Claud D., assignor). (Reissue.)
American Automatic Shoe Polishing Machine Company, The. (See Oliver and Ohlgart, assignors.)
American Ball Bearing Company, The. (See Baker, Walter C., assignor.)
American Bank Note Company. (See Marquardt, Frank C., assignor.)
American Bank Note Company. (See Smith, Amos H., assignor.)
American Brake Shoe & Foundry Company. (See Jones, Harry, assignor.)
American Brake Shoe & Foundry Company. (See Winter, Charles N., assignor.)
American Can Company. (See Ford and Birch, assignors.)
American Can Company. (See Jones, Harry W., assignor.)
American Can Company. (See Rudolphi, Frank, assignor.)
American Can Company. (See Stollberg, Charles, assignor.)
American Can Company. (See Tourtellot, Henry B., assignor.)
American Encaustic Tiling Company. (See Alcan, Félix, assignor.)
American Graphophone Company. (See Parker, William E., assignor.)
American Graphophone Company. (See Sheble and Capps, assignors.)
American Graphophone Company. (See Steventon, Thomas, assignor.)
American Hardware Corporation, The. (See Gold, Russell S., assignor.)
American Hardware Corporation, The. (See Svenson, Charles W., assignor.)
American Laundry Machinery Company. (See Cooper, Daniel M., assignor.)
American Laundry Machinery Company. (See Kelso and Binder, assignors.)
American Machine & Foundry Company. (See Rejsek, Rudolph, assignor.)
American Morgan Company. (See Morgan, Edmund C., assignor.)
American Patent Manufacturing Company. (See Bryant, Henry E., assignor.)
American Player Action Company. (See Turney, Eugene T., assignor.)
American Pneumatic Service Company. (See Jennings, Chester S., assignor.)
American Sanitary Lock Company. (See Garvin, Benjamin, assignor.)
American Shop Equipment Co. (See Lunger, Waldo G., assignor.)
American Sign Company. (See Bambeck, Edward, assignor.)
American Skein & Foundry Company. (See Simms, Horace R., assignor.)
American Specialty Co., The. (See Egge, Frederick, assignor.)
American Steel Foundries. (See Janney, Robert E. L., assignor.)
American Steel Foundries. (See Janney and Klune, assignors.)
American Tampon and Applicator Company, The. (See Ellis, Avard A., assignor.)
American Telephone and Telegraph Company. (See Browne, Sidney H., assignor.) (Reissue.)
American Telephone and Telegraph Company. (See Shaw, Thomas, assignor.)
American Tire Company. (See Dees, Mark A., assignor.)
American Tool Handle Company. (See Renkenberger, Edward J., assignor.)
American Toy Works. (See Wankel, Frank, assignor.)
American Train Control Company, The. (See Jones, Frank T., assignor.)
American Type Founders Company. (See Hay, Levi C., assignor.)
American Water Supply Company of New England. (See Bohlman, George J., assignor.)
American Window Screen Company. (See Vanstrom, John, assignor.)
American Writing Paper Company. (See Howe, Henry P., assignor.)
Ames, Bliss C., Waltham, Mass., assignor to The E. Ingraham Co., Bristol, Conn. Watch-bezel with unbreakable concavo-convex tensional crystal. No. 1,133,780; Mar. 30; Gaz. vol. 212; p. 1552.
Amiss, Benjamin F., Salem, Va. Lesch-sprayer. No. 1,130,561; Mar. 2; Gaz. vol. 212; p. 253.
Ammons, Evander, *et al.* (See Ammons, John B., assignor.)
Ammons, John B., assignor of one-tenth to E. Ammons and one-fifteenth to O. McGaffey, Houston, Tex. Fire-alarm system. No. 1,132,245; Mar. 16; Gaz. vol. 212; p. 913.
Ammons, John B., assignor of one-tenth to E. Ammons and one-fifteenth to O. McGaffey, Houston, Tex. Automatic fire-alarm system. No. 1,132,419; Mar. 16; Gaz. vol. 212; p. 975.
Ammons, John B., assignor of one-tenth to E. Ammons and one-fifteenth to O. McGaffey, Houston, Tex. Fire-alarm system. No. 1,134,064; Mar. 30; Gaz. vol. 212; p. 1647.
Amphion Piano Player Company. (See Doman, Lewis B., asignor.)
Anchor Cap & Closure Corporation. (See Hull, Joseph V., assignor.)
Anchor Cap & Closure Corporation. (See Magrane, Robert, assignor.)
Anderau, Joseph E., Terlingua, Tex. Heater for gaseous fluids. No. 1,132,420; Mar. 16; Gaz. vol. 212; p. 975.
Anderson, Alexander, Chicago, Ill., assignor to H. H. Beckwith, Boston, Mass. Apparatus for softening parts of assembled unlasted shoe-uppers. No. 1,132,645; Mar. 23; Gaz. vol. 212; p. 1107.
Anderson, Anders, Garnet, Mich. Log-loader. No. 1,133,526; Mar. 30; Gaz. vol. 212; p. 1461.
Anderson, Carl H. (See Anderson, Elof, assignor.)
Anderson, Charles A., and S. Trepp, East Orange, N. J. Pencil-holder. No. 1,130,696; Mar. 9; Gaz. vol. 212; p. 333.
Anderson, Charles O., Cleveland, Ohio. Drier, tempering-heater, and cooker. No. 1,132,422; Mar. 16; Gaz. vol. 212; p. 976.
Anderson, Cloyd F. and W. C., Denver, Colo. Coffee-percolator. No. 1,130,131; Mar. 2; Gaz. vol. 212; p. 100.
Anderson, Edward. (See Liebig and Anderson.)
Anderson, Elof, assignor to C. H. Anderson, Los Angeles, Cal. Flexible arch-support. No. 1,133,781; Mar. 30; Gaz. vol. 212; p. 1552.
Anderson, Frank B., Cleveland, Ohio. Drier, tempering-heater, and cooker. No. 1,132,421; Mar. 16; Gaz. vol. 212; p. 976.
Anderson, James H., Chicago, Ill. Tire-armor. No. 1,130,562; Mar. 2; Gaz. vol. 212; p. 253.
Anderson, James W., New York, assignor to F. N. Burt Company, Limited, Buffalo, N. Y. Labeling-machine. No. 1,130,129; Mar. 2; Gaz. vol. 212; p. 100.
Anderson, John, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Cover-plate and locking device therefor. No. 1,130,238; Mar. 2; Gaz. vol. 212; p. 137.
Anderson, John T., Etowah, N. C. Violin. No. 1,133,782; Mar. 30; Gaz. vol. 212; p. 1553.
Anderson, Nils H., assignor to The Noiseless Typewriter Company, Middletown, Conn. Type-action for typewriting machines. No. 1,130,130; Mar. 2; Gaz. vol. 212; p. 100.
Anderson, Oscar L., Flint, Mich. Vehicle-fender. No. 1,132,546; Mar. 23; Gaz. vol. 212; p. 1068.

Anderson, Richard S., Coban, Guatemala. Gas-engine speed-controller. No. 1,130,563; Mar. 2; Gaz. vol. 212; p. 253.
Anderson, Stephen J., Harvey, Ill. Wall for buildings and the like. No. 1,132,995; Mar. 23; Gaz. vol. 212; p. 1236.
Anderson, Stephen J., Harvey, Ill. Composite block. No. 1,132,996; Mar. 23; Gaz. vol. 212; p. 1236.
Anderson, William C. (See Anderson, Cloyd F. and W. C.)
Anderson, William K., Colorado Springs, Colo. Railway-switch. No. 1,131,025; Mar. 9; Gaz. vol. 212; p. 446.
Andrew, James T., and A. W. Landers, Montgomery, Ala. Subsoil plow or cultivator. No. 1,130,655; Mar. 2; Gaz. vol. 212; p. 284.
Andrews, Edwin C., Adrian, Mich. Gate. No. 1,130,874; Mar. 9; Gaz. vol. 212; p. 393.
Andrews, George C. (See Raymond, Harry T., assignor.)
Andrews, George C., Minneapolis, Minn. Thermostat. No. 1,131,651; Mar. 16; Gaz. vol. 212; p. 696.
Andrews, Walter. (See Brila and Andrews.)
Anklam, William F., assignor to C. M. Hall Lamp Company, Detroit, Mich. Lamp. No. 1,131,652; Mar. 16; Gaz. vol. 212; p. 696.
Annable Pneumatic Spring Company. (See Annable, Warren W., assignor.)
Annable, Warren W., Grand Rapids, assignor to Annable Pneumatic Spring Company, Detroit, Mich. Pneumatic spring for vehicles. No. 1,130,656; Mar. 2; Gaz. vol. 212; p. 284.
Ansley, H. W., *et al.* (See Gamble, George R., assignor.)
Anspach, Jacob H., Cleveland, Ohio. Gas-furnace. No. 1,132,296; Mar. 16; Gaz. vol. 212; p. 932.
Anthony, Marcus O., assignor to A. Kimball Company, New York, N. Y. Tag or ticket seal. No. 1,132,897; Mar. 23; Gaz. vol. 212; p. 1198.
Anthony, Noel L., Cranston, R. I. Electric annunciator or code-signaling device. No. 1,131,813; Mar. 16; Gaz. vol. 212; p. 756.
Antoine, Alfred D., assignor to C. C. Travis, Chicago, Ill. Machine for making light-mantles. No. 1,131,893; Mar. 16; Gaz. vol. 212; p. 783.
Antonovich, Emile P. (See Dreifuss, Leopold, assignor.)
Antonuccio, Frank, Oakland, Cal. Burner. No. 1,130,132; Mar. 2; Gaz. vol. 212; p. 101.
Apfelbaum, Frederick A., New York, N. Y. Lantern-slide. No. 1,132,423; Mar. 16; Gaz. vol. 212; p. 976.
Appel, Daniel, East Cleveland, Ohio. Wrapping-tube. No. 1,133,253; Mar. 30; Gaz. vol. 212; p. 1363.
Apple Electric Company, The. (See Apple, Vincent G., assignor.)
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Electrical equipment for internal-combustion engines. No. 1,132,297; Mar. 16; Gaz. vol. 212; p. 932.
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Switch. No. 1,132,997; Mar. 23; Gaz. vol. 212; p. 1236.
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Controller for lighting-circuits of dynamo-battery equipments. No. 1,133,783; Mar. 30; Gaz. vol. 212; p. 1553.
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Transmission-gearing. No. 1,133,784; Mar. 30; Gaz. vol. 212; p. 1553.
Appleman, William H., Belmont, N. Y. Steering-gear for motor-vehicles. No. 1,131,590; Mar. 9; Gaz. vol. 212; p. 640.
Arbelter, Traugatt, assignor to J. S. Ewert, Dolton, S. D. Guard. No. 1,132,147; Mar. 16; Gaz. vol. 212; p. 876.
Arbetter Felling Machine Company. (See Hayes, Thomas J., assignor.)
Arbuckle Brothers. (See Grimm and Cocks, assignors.)
Archambault, Arthur J., Chicago, Ill. Plumber's furnace. No. 1,130,133; Mar. 2; Gaz. vol. 212; p. 101.
Archer, William E. (See Shoemaker and Archer.)
Arco, Georg von, Berlin, Germany, and R. H. Rendahl, Lilienholm, near Stockholm, Sweden. Self-inductive means for electrical oscillatory circuits. No. 1,131,187; Mar. 9; Gaz. vol. 212; p. 500.
Arcus, Charles R., Poplar, London, assignor of one-half to O. P. Macfarlane, London, England. Pressure regulating or reducing valve. No. 1,132,424; Mar. 16; Gaz. vol. 212; p. 977.
Arduser, Fred L., Parkston, S. D. Hoisting-machine. No. 1,131,103; Mar. 9; Gaz. vol. 212; p. 472.
Arita, Moto, Boston, Mass. Knife. No. 1,133,213; Mar. 23; Gaz. vol. 212; p. 1313.
Armbruster, George, Fairbury, Ill. Portable mold for fence-posts. No. 1,131,653; Mar. 16; Gaz. vol. 212; p. 696.
Armentraut, Richard B., Eden, Tex. Plow. No. 1,131,026; Mar. 9; Gaz. vol. 212; p. 446.
Armstrong Cork Company. (See Busch, Herman F., assignor.)
Armstrong Cork Company. (See Paschke, Herbert, assignor.)
Armstrong, George F., Hamilton, Ontario, Canada. Heater for incubators. No. 1,130,052; Mar. 2; Gaz. vol. 212; p. 73.
Armstrong, Harry Y., Springfield, Mass. Rail-testing device. No. 1,130,657; Mar. 2; Gaz. vol. 212; p. 285.
Armstrong, Henry A., Brooklyn, assignor to International Typesetting Machine Company, New York, N. Y. First elevator for typographical machines. No. 1,129,941; Mar. 2; Gaz. vol. 212; p. 37.
Arnett, Homer H., Osgood, Ohio. Land-roller. No. 1,131,654; Mar. 16; Gaz. vol. 212; p. 697.
Arnholm, Charles A., assignor to St. Albans Foundry and Implement Company, St. Albans, Vt. Engine-rack. No. 1,131,027; Mar. 9; Gaz. vol. 212; p. 447.
Arnold, Arthur W., Minneapolis, Minn. Automatic damper. No. 1,132,214; Mar. 23; Gaz. vol. 212; p. 1313.
Arnold, Harold D., East Orange, N. J., assignor to Western Electric Company, New York, N. Y. Gaseous repeater in circuits of low impedance. No. 1,129,942; Mar. 2; Gaz. vol. 212; p. 38.
Arnold, Harold D., East Orange, N. J., assignor to Western Electric Company, New York, N. Y. Gaseous repeater in circuits of low impedance. No. 1,129,943; Mar. 2; Gaz. vol. 212; p. 38.
Aron Elektrizitätszahlerfabrik G. m. b. H., H. (See Huth, Gustav, assignor.)
Aronson, Louis V., Newark, N. J. Igniter. No. 1,131,655; Mar. 16; Gaz. vol. 212; p. 697.
Arrow Electric Company, The. (See Gauthier, George A., assignor.)
Arrow Electric Company, The. (See Nero, Arvid H., assignor.)
Arter, William, and B. E. Delle, Worcester, Mass. Valve mechanism. No. 1,129,944; Mar. 2; Gaz. vol. 212; p. 38.
Artista Piano Player Company. (See Turney, Eugene T., assignor.)
Asadoorian, Hovsep H., Troy, N. Y. Thread cutter and holder for buttonhole-sewing machines. No. 1,133,605; Mar. 30; Gaz. vol. 212; p. 1489.
Ashcroft Manufacturing Company, The. (See Crocker, Ernest B., assignor.)
Ashley, Charles G., Chicago, Ill., assignor, by mesne assignments, to General Engineering and Construction Company, Limited. Rapid printing-telegraph system. No. 1,130,688; Mar. 2; Gaz. vol. 212; p. 297.
Ashton, John H., Providence, R. I. Water-heater. No. 1,132,757; Mar. 23; Gaz. vol. 212; p. 1148.
Aspinwall, George E., and J. Terway, Beaulieu, Minn. Device for screening grain. No. 1,133,421; Mar. 30; Gaz. vol. 212; p. 1422.
Aspinwall, Lewis A., Jackson, Mich., assignor to Aspinwall Manufacturing Company. Relief-valve for liquid-sprayers. No. 1,133,785; Mar. 30; Gaz. vol. 212; p. 1554.
Aspinwall Manufacturing Company. (See Aspinwall, Lewis A., assignor.)
Atkin, Clay B. (See Bohner, William H., assignor.)
Atkins, Evan A. (See Field, Howarth, and Atkins.)
Atkinson, Ray E., Fowler, Ind. Adjustable supporting-bracket for mirrors and reading-glasses. No. 1,130,689; Mar. 2; Gaz. vol. 212; p. 297.
Atlantic Can Company. (See Ranney, Darwin D., assignor.)
Atlantic Refining Company, The. (See Van Dyke and Irish, assignors.)
Atlantic Refining Company, The. (See Welsh, Michael J., assignor.)
Atwood, Clarence B., assignor to National Sewing Machine Company, Belvidere, Ill. Tension device for sewing-machines. No. 1,129,945; Mar. 2; Gaz. vol. 212; p. 38.
Atwood, Leonard, Farmington, Me., assignor of one-half to A. H. Gillard, Englewood, N. J. Two-cycle internal-combustion engine. No. 1,130,658; Mar. 2; Gaz. vol. 212; p. 285.
Auel, Carl B., Wilkinsburg, and J. A. Burns, Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Welding-machine. No. 1,130,239; Mar. 2; Gaz. vol. 212; p. 138.
Auer, Andrew, *et al.* (See Hoferle, John, assignor.)
Auer, Louis, *et al.* (See Hoferle, John, assignor.)
Auñero, Emanuel, Brooklyn, N. Y. Direction-indicating device. No. 1,130,690; Mar. 2; Gaz. vol. 212; p. 297.
Augensen, August M., Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y. Combined counting and stamping mechanism. No. 1,130,682; Mar. 2; Gaz. vol. 212; p. 294.
Augensen, August M., Maywood, Ill., assignor to Sanitary Can Company, New York, N. Y. Can-body-feeding mechanism. No. 1,134,028; Mar. 30; Gaz. vol. 212; p. 1635.
Aukam & Co., Hermann. (See Leathem, James, assignor.)
Aurand, Balera J., assignor of one-half to H. G. Peters, Mount Gilead, Ohio. Vehicle-wheel. No. 1,132,148; Mar. 16; Gaz. vol. 212; p. 876.
Aurora Automatic Machinery Company. (See Levedahl, Axel, assignor.)
Aurora Automatic Machinery Company. (See Norling, Reinhold A., assignor.)
Austin, Frederick C. (See Bunnell, Morton G., assignor.)
Austin, Herbert, Bromsgrove, England. Wheel-rim for holding pneumatic tires. No. 1,132,898; Mar. 23; Gaz. vol. 212; p. 1199.
Austin, John T., assignor to Austin Organ Company, Hartford, Conn. Organ stop-action. No. 1,131,814; Mar. 16; Gaz. vol. 212; p. 756.
Austin, Manufacturing Company. (See Aitken, Andrew W., assignor.)

Austin Organ Company. (See Austin, John T., assignor.)
Auto Pneumatic Action Company. (See Keeley, William J., assignor.)
Auto Strop Company. (See Simms, Harold H., assignor.)
Automatic Can Filling Machinery Company. (See Small, Chesley T., assignor.)
Automatic Coinwrapping Machine Company. (See Batdorf, Charles S., assignor.)
Automatic Electric Company. (See Erickson, John, assignor.)
Automatic Electric Company. (See Willis, Bernard D., assignor.)
Automatic Justifier Company. (See Langseth, Randolph, assignor.)
Automatic Magazine Cigarette Box Co. (See O'Donnell, Patrick S., assignor.)
Avery Company. (See Bartholomew, John B., assignor.)
Avery Company. (See Chubbuck, Orlo P., assignor.)
Avery Company. (See Solomon, Edgar J., assignor.)
Avram, Mois H., assignor to Slocum, Avram & Slocum, Inc., New York, N. Y. Efficiency-recorder. No. 1,131,104; Mar. 9; Gaz. vol. 212; p. 472.
Ayers, Charles B., Philadelphia, Pa. Asbestos-containing composition for making shingles. No. 1,130,240; Mar. 2; Gaz. vol. 212; p. 138.
B. & B. Manufacturing Company. (See Belcher, Robert E., assignor.)
B. M. Shanley, Jr., Co. (See Pryor, Thomas F., Jr., assignor.)
Babb, Charles H. (See Schutz, Joseph M., assignor.)
Babbitt, Miles E., Brookfield, and J. F. Beaumont, Worcester, Mass. Carbureter. No. 1,133,452; Mar. 30; Gaz. vol. 212; p. 1434.
Babcock, Earle J., Grand Forks, N. D. Artificial fuel and making the same. No. 1,130,564; Mar. 2; Gaz. vol. 212; p. 254.
Babcock, Frank H., Punxsutawney, Pa. Auto wheel attachment. No. 1,130,366; Mar. 2; Gaz. vol. 212; p. 182.
Babcock, Garrison, Rochester, assignor, by mesne assignments, to F. C. Stevens, Attica, N. Y. Multiple-contact relay. No. 1,133,786; Mar. 30; Gaz. vol. 212; p. 1554.
Babcock, Garrison, Chicago, Ill., assignor to F. C. Stevens, Attica, N. Y. Relay device. No. 1,133,787; Mar. 30; Gaz. vol. 212; p. 1555.
Babcock, Wilbert L., assignor to The Waterbury Brass Goods Corporation, Waterbury, Conn. Hinge construction for face-plates and the like. No. 1,130,241; Mar. 2; Gaz. vol. 212; p. 138.
Babcock & Wilcox Company, The. (See Jacobus, David S., assignor.)
Babcock & Wilcox Company, The. (See Rosenthal, James H., assignor.)
Bache, Leigh S., assignor to The Graphite Lubricating Company, Boundbrook, N. J. Self-lubricating bearing. No. 1,132,758; Mar. 23; Gaz. vol. 212; p. 1148.
Bache, Leigh S., assignor to The Graphite Lubricating Company, Boundbrook, N. J. Floating bearing. No. 1,132,759; Mar. 23; Gaz. vol. 212; p. 1148.
Bacher, Peter, Canton, Ohio, assignor of one-third to A. Hoeffer, Hammonton, N. J., and one-third to J. Yemiker, Akron, Ohio. Railway-joint. No. 1,133,694; Mar. 30; Gaz. vol. 212; p. 1523.
Bachler, Frederick R., assignor to Kieselguhr Company of America, Los Angeles, Cal. Decolorizing liquids. No. 1,131,308; Mar. 9; Gaz. vol. 212; p. 543.
Backer, Arthur J., Syracuse, N. Y. Folding table. No. 1,132,061; Mar. 16; Gaz. vol. 212; p. 844.
Backus, Henry N., Detroit, Mich. Crate-lock. No. 1,133,254; Mar. 30; Gaz. vol. 212; p. 1364.
Bacon, Dexter S., Minneapolis, Minn. Appliance for regulating teeth. No. 1,130,242; Mar. 2; Gaz. vol. 212; p. 138.
Bacon, Frederick J. (See Hewitt, Bernor, and Bacon.)
Bacon, Raymond F., B. T. Brooks, and C. W. Clark, assignors to Gulf Refining Company, Pittsburgh, Pa. Manufacture of gasolene. No. 1,131,309; Mar. 9; Gaz. vol. 212; p. 543.
Badger Basket & Veneer Co. (See Wegwart, Herman, assignor.)
Badische Anilin & Soda Fabrik. (See Bosch, Carl, assignor.)
Badische Anilin & Soda Fabrik. (See Bosch and Wild, assignors.)
Badische Anilin & Soda Fabrik. (See Dehnel, Erich, assignor.)
Badische Anilin & Soda Fabrik. (See Hutzler, Rudolf, assignor.)
Badische Anilin & Soda Fabrik. (See Wolff, Hugo, assignor.)
Badische Company. (See Schutz, Otto, assignor.)
Baekeland, Leo H., Yonkers, assignor to General Bakelite Company, New York, N. Y. Phenolic condensation product. No. 1,133,083; Mar. 23; Gaz. vol. 212; p. 1267.
Baeumler, Christian. (See Gewecke and Baeumler.)
Bahr, Amel F. and O. B., Marion, Ind. Shell-lining for paper-pulp-grinding mills. No. 1,133,215; Mar. 23; Gaz. vol. 212; p. 1314.
Bahr, Otto B. (See Bahr, Amel F. and O. B.)
Bailes, Stephen, Nettie, W. Va. Churn. No. 1,133,909; Mar. 30; Gaz. vol. 212; p. 1597.
Bailey, Charles H., Irving, Ill. Portable railway-crossing. No. 1,131,457; Mar. 9; Gaz. vol. 212; p. 595.
Bain, Forée, La Grange, Ill., assignor to Federal Rubber Manufacturing Company, Milwaukee, Wis. Pneumatic tire. No. 1,132,998; Mar. 23; Gaz. vol. 212; p. 1237.
Baird, Joseph C. (See MacPherson, John G., assignor.)
Baker, Bryon G., assignor to M. Rumely Company, Laporte, Ind. Wheel. No. 1,133,355; Mar. 30; Gaz. vol. 212; p. 1599.
Baker, Elbert C. (See Williams and Baker.)
Baker, Frank B. (See Woodard, William H., assignor.)
Baker, Frank E., Birmingham, England. Internal-combustion engine. No. 1,132,425; Mar. 16; Gaz. vol. 212; p. 977.
Baker, Frederick W., Pittsburg, Kans. Check-holder. No. 1,131,591; Mar. 9; Gaz. vol. 212; p. 640.
Baker, George, *et al.* (See Bourke, Martin, assignor.)
Baker, James M., Providence, R. I. Play-pipe for use with fire-hose. No. 1,132,899; Mar. 23; Gaz. vol. 212; p. 1199.
Baker, John S., Peekskill, N. Y. Convertible toy-box. No. 1,131,894; Mar. 16; Gaz. vol. 212; p. 784.
Baker, Nelson M., Southbridge, Mass. Guard. No. 1,132,760; Mar. 23; Gaz. vol. 212; p. 1149.
Baker, Walter C., assignor to The American Ball Bearing Company, Cleveland, Ohio. Brake mechanism. No. 1,132,540; Mar. 16; Gaz. vol. 212; p. 1020.
Baker, Walter C., assignor to The American Ball Bearing Company, Cleveland, Ohio. Brake mechanism. No. 1,132,541; Mar. 16; Gaz. vol. 212; p. 1020.
Baker, William A., Georgetown, Tex. Cotton-chopper. No. 1,131,028; Mar. 9; Gaz. vol. 212; p. 447.
Balachowsky, Dimitry, and P. Caire, Neuilly-sur-Seine, France. Dynamo-electric machine. No. 1,133,834; Mar. 30; Gaz. vol. 212; p. 1572.
Balch, Milton H., and F. Lange, Chicago, Ill.; said Lange assignor to said Balch. Holder for paper bags and the like. No. 1,131,310; Mar. 9; Gaz. vol. 212; p. 544.
Balcke, Walter H., Winchester, Mass. Dancing toy figure. No. 1,131,895; Mar. 16; Gaz. vol. 212; p. 784.
Baldwin, Arthur L., assignor to Detroit Steel Products Company, Detroit, Mich. Spacing-clip for double-pane windows. No. 1,129,839; Mar. 2; Gaz. vol. 212; p. 3.
Baldwin, Henry G., San Francisco, Cal. Electrically-controlled change-speed mechanism. No. 1,130,134; Mar. 2; Gaz. vol. 212; p. 102.
Baldwin Locomotive Works, The. (See Bullock, Samuel A., assignor.)
Baldwin Locomotive Works, The. (See Van Kirk, Benjamin R., assignor.)
Baldwin, Nathaniel, Midway, Utah. Governor mechanism. No. 1,130,659; Mar. 2; Gaz. vol. 212; p. 285.
Baldwin, Otis N., Baxter Springs, Kans. Clutch mechanism. No. 1,130,788; Mar. 9; Gaz. vol. 212; p. 364.
Ball, Albert, and H. H. Mercer, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Channeling-machine. No. 1,130,660; Mar. 2; Gaz. vol. 212; p. 286.
Ball, Benjamin A. (See Sévigné and Dooley, assignors.)
Ball, Harry, assignor to Worcester Manufacturing Company, Worcester, Mass. Door-check. No. 1,133,453; Mar. 30; Gaz. vol. 212; p. 1434.
Ball, Henry P., Pittsfield, Mass., assignor to General Electric Company. Electric flat-iron. No. 1,132,299; Mar. 16; Gaz. vol. 212; p. 933.
Ball, Herman F., New York, N. Y. Chafing device for railway draft-gear. No. 1,130,462; Mar. 2; Gaz. vol. 212; p. 218.
Ball, J. C., *et al.* (See Paprian, Ignace, assignor.)
Ball, Thomas G. (See Branch and Ball.)
Ballard, Harrie A., Ashland, assignor, by mesne assignments, to The Boylston Manufacturing Company, Boston, Mass. Lasting-machine. No. 1,131,983; Mar. 16; Gaz. vol. 212; p. 817.
Ballard, Sylvester, Cloverdale, W. Va. Saw-set. No. 1,131,105; Mar. 9; Gaz. vol. 212; p. 473.
Ballman, Edwin C., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Alternating-current rectifier. No. 1,131,896; Mar. 16; Gaz. vol. 212; p. 784.
Balsley, Eugene A., Chicago, Ill. Belt-shifting mechanism. No. 1,131,195; Mar. 9; Gaz. vol. 212; p. 504.
Bambeck, Edward, assignor to American Sign Company, Kalamazoo, Mich. Sign. No. 1,132,823; Mar. 23; Gaz. vol. 212; p. 1173.
Bamfield, Thomas C., and G. Rechter, Angel Island, Cal. Sanitary and self-cleaning comb. No. 1,131,592; Mar. 9; Gaz. vol. 212; p. 640.
Bamfield, Thomas C., and G. Rechter, Angel Island, Cal. Comb-cleaner. No. 1,133,910; Mar. 30; Gaz. vol. 212; p. 1597.
Bane, James O., St. Paul, Minn. Spring attachment for pumps. No. 1,133,695; Mar. 30; Gaz. vol. 212; p. 1524.
Banker Manufacturing Company, The. (See Daly, John J., assignor.)
Banning & Banning. (See Schneider, Adolph, assignor.)
Bannon, Martin J. (See Gray, William B., assignor.)
Bansett, William E., Huntingdon, N. Y. Locking attachment for hinges. No. 1,133,454; Mar. 30; Gaz. vol. 212; p. 1434.
Barber-Colman Company. (See Colman, Howard D., assignor.)
Barber, Franklin L., and E. W. Webb, assignors to Standard Car Truck Company, Chicago, Ill. Adjustable brake-staff. No. 1,130,955; Mar. 9; Gaz. vol. 212; p. 421.

Barber, John C., assignor to Standard Car Truck Company, Chicago, Ill. Roller center-bearing for cars. No. 1,130,956; Mar. 9; Gaz. vol. 212; p. 421.
Barbora, John, Buffalo, N. Y. Bedstead attachment. No. 1,133,096; Mar. 30; Gaz. vol. 212; p. 1524.
Bard, Jacob W., Peoria, assignor to Sangamo Electric Company, Springfield, Ill. Interval-demand indicating mechanism. No. 1,133,455; Mar. 30; Gaz. vol. 212; p. 1434.
Bardeen, Hugh A., Hollywood, assignor of one-fourth to H. G. Palmer and one-half to J. E. Randall, Los Angeles, Cal. Well-tool. No. 1,132,062; Mar. 16; Gaz. vol. 212; p. 845.
Bardeen, Hugh A., Hollywood, assignor of one-fourth to H. G. Palmer and one-half to J. E. Randall, Los Angeles, Cal. Impact-tool. No. 1,132,063; Mar. 16; Gaz. vol. 212; p. 845.
Barefield, Mercer D., Hollandale, Miss. Insect-destroyer. No. 1,131,458; Mar. 9; Gaz. vol. 212; p. 595.
Barker, Melville H. (See Weston and Barker.)
Barksdale, Horatio T. (See McBurney, Barksdale, and Howe.)
Barna, Joseph W., Chicago, Ill. Button and buttonhole marker for shoe-uppers. No. 1,132,507; Mar. 16; Gaz. vol. 212; p. 1008.
Barnard, Hugh A., Houstonville, N. C. Paper bag. No. 1,133,911; Mar. 30; Gaz. vol. 212; p. 1597.
Barnard and Leas Manufacturing Company. (See Cornwall, John B., assignor.)
Barnes, George L., Montowese, assignor to The Lyman Gun Sight Corporation, Middlefield, Conn. Sight for firearms. No. 1,131,029; Mar. 9; Gaz. vol. 212; p. 447.
Barnes, James W., assignor to Estey Piano Company, New York, N. Y. Automatic music-sheet-registration mechanism for automatic musical instruments. No. 1,132,547; Mar. 23; Gaz. vol. 212; p. 1069.
Barnes, William H., Spokane, Wash. Truck for handling brick and like material. No. 1,130,243; Mar. 2; Gaz. vol. 212; p. 139.
Barnes, William O., Leominister, assignor to M. E. Johnson, trustee, Fitchburg, Mass. Breech-loading firearm. No. 1,131,984; Mar. 16; Gaz. vol. 212; p. 818.
Barnett, Otto R. (See Hanson, Louis, assignor.)
Barnett, Solomon V., assignor of one-half to G. Gatski, Seymour, Tex. Harvester. No. 1,133,422; Mar. 30; Gaz. vol. 212; p. 1423.
Barney, Edwin E., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,133,697; Mar. 30; Gaz. vol. 212; p. 1524.
Barney, Walter S., assignor to W. S. Barney Co., Boston, Mass. Dispensing device. No. 1,133,698; Mar. 30; Gaz. vol. 212; p. 1524.
Barnstead, Robert P., Boston, Mass. Water-heater. No. 1,132,548; Mar. 23; Gaz. vol. 212; p. 1069.
Barnum, Thomas E., assignor to Cutler-Hammer Clutch Co., Milwaukee, Wis. Driving mechanism for turrets and the like. No. 1,130,053; Mar. 2; Gaz. vol. 212; p. 74.
Barnum, Thomas E., assignor to Cutler-Hammer Clutch Co., Milwaukee, Wis. Driving mechanism for turrets and the like. No. 1,130,054; Mar. 2; Gaz. vol. 212; p. 74.
Barr, John H., New York, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,130,875; Mar. 9; Gaz. vol. 212; p. 394.
Barr, Joseph A., Gates, N. Y. Means for transferring liquids. No. 1,133,606; Mar. 30; Gaz. vol. 212; p. 1490.
Barrère, Joseph, New York, N. Y. Lid-lifter. No. 1,133,912; Mar. 30; Gaz. vol. 212; p. 1598.
Barrett Adding Machine Company. (See Barrett, Glenn J., assignor.)
Barrett, Charles R. (See Shannon, Robert P., assignor.)
Barrett, Glenn J., Grand Rapids, Mich., assignor to Barrett Adding Machine Company, Philadelphia, Pa. Operating-handle for adding-machines. No. 1,130,463; Mar. 2; Gaz. vol. 212; p. 218.
Barrett, Halsey M., *et al.*, receivers. (See Fessenden, Reginald A., assignor.)
Barrett, Halsey M., *et al.*, receivers. (See Kintner and Lee, assignors.)
Barrett, Halsey M., *et al.*, receivers. (See Kroger, Fred H., assignor.)
Barrett, Harvey N. (See Newberry and Barrett.)
Barrett, John H., Paso Robles, Cal. Spring-tire. No. 1,130,367; Mar. 2; Gaz. vol. 212; p. 182.
Barrie, George N., Brookline, Mass. Rake. No. 1,130,789; Mar. 9; Gaz. vol. 212; p. 364.
Barron, Kathrine G., Faribault, Minn. Mail-cart. No. 1,130,464; Mar. 2; Gaz. vol. 212; p. 210.
Barrows, Harry E., Maquoketa, Iowa. Spring-wheel. No. 1,133,216; Mar. 23; Gaz. vol. 212; p. 1314.
Barry, James A., New York, N. Y. Emergency-horseshoe. No. 1,131,615; Mar. 16; Gaz. vol. 212; p. 757.
Barry, James E. (See Zika, Frank A., assignor.)
Barsony, Emery. Castleton-on-Hudson, N. Y. Elevator safety device. No. 1,133,084; Mar. 23; Gaz. vol. 212; p. 1267.
Barstow, George E. (See Rietzel and Barstow.)
Bartel, William P., Waltham, Mass., assignor to Judson L. Thomson M'f'g Co. Clasp-buckle. No. 1,133,456; Mar. 30; Gaz. vol. 212; p. 1435.
Bartholomew, John B., Peoria, Ill., assignor, by mesne assignments to Avery Company. Agricultural implement. No. 1,131,897; Mar. 16; Gaz. vol. 212; p. 785.
Bartholomew, John B., Peoria, Ill., assignor to Avery Company. Clutch mechanism for planters. No. 1,131,898; Mar. 16; Gaz. vol. 212; p. 785.
Bartholomew, John B., Peoria, Ill., assignor to Avery Company. Seed-separating mechanism for planters. No. 1,131,899; Mar. 16; Gaz. vol. 212; p. 786.
Bartholomew, Ohmer H., Beardstown, Ill. Beet-harvester. No. 1,132,149; Mar. 16; Gaz. vol. 212; p. 876.
Bartholomew, William, assignor to The Troy Laundry Machinery Company, Limited, Chicago, Ill. Stop mechanism for mangles. No. 1,133,699; Mar. 30; Gaz. vol. 212; p. 1525.
Bartlett, Marcus M., Geneva, N. Y. Scythe. No. 1,133,423; Mar. 30; Gaz. vol. 212; p. 1423.
Barton, Jesse H., Brownsville, Tenn. Automatic sash-lock. No. 1,133,217; Mar. 23; Gaz. vol. 212; p. 1314.
Barton, Richard J., *et al.* (See Wolstenholme, Charles, assignor.)
Bartow, Edward C., Little Neck, N. Y. Rain-protector for wind-shields. No. 1,132,900; Mar. 23; Gaz. vol. 212; p. 1200.
Barwell, C. W., *et al.* (See Gamble, George R., assignor.)
Basch, David, New York, N. Y. Collar-support. No. 1,133,457; Mar. 30; Gaz. vol. 212; p. 1435.
Bashor, Ulia O., Dorris, Cal. Gem-setting. No. 1,131,593; Mar. 9; Gaz. vol. 212; p. 641.
Basile, David E., New Britain, Conn. Life-boat device. No. 1,133,700; Mar. 30; Gaz. vol. 212; p. 1525.
Basterville, Charles, New York, N. Y. Refining animal and vegetable oils. No. 1,130,698; Mar. 9; Gaz. vol. 212; p. 334.
Baskerville, William L. (See Cline and Baskerville.)
Bass, James W., *et al.* (See Forsgard, Edward F., assignor.)
Bassett, J. Colby. (See Wheaton, Carl M., assignor.)
Bassett, Rufus C., Comanche, Tex. Knee-protector. No. 1,131,816; Mar. 16; Gaz. vol. 212; p. 757.
Bassford, Thomas, St. Thomas, Ontario, Canada. Boat doing away with oars and rudder. No. 1,133,788; Mar. 30; Gaz. vol. 212; p. 1555.
Batchelder, Frank R., Worcester, Mass. Sheath or scabbard. No. 1,131,196; Mar. 9; Gaz. vol. 212; p. 504.
Batdorf, Charles S., Brooklyn, assignor to Automatic Coinwrapping Machine Company, New York, N. Y. Paper tucking and wrapping mechanism. No. 1,130,244; Mar. 2; Gaz. vol. 212; p. 139.
Batdorf, Charles S., Brooklyn, assignor to Automatic Coinwrapping Machine Company, New York, N. Y. Coin-handling machine. No. 1,130,245; Mar. 2; Gaz. vol. 212; p. 140.
Batdorf, Charles S., Brooklyn, assignor to Automatic Coinwrapping Machine Company, New York, N. Y. Coin-package wrapper. No. 1,130,246; Mar. 2; Gaz. vol. 212; p. 140.
Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Wire-tying bags. No. 1,131,811; Mar. 9; Gaz. vol. 212; p. 544.
Bates, Carl F. W., *et al.* (See Gebauer, Theophil H., assignor.)
Bates, Charles G., London, England, assignor to Mills Woven Cartridge Belt Company, Worcester, Mass. Woven fabric and weaving the same. No. 1,132,508; Mar. 16; Gaz. vol. 212; p. 1008.
Bates, Harry A., Galesburg, Ill. Telephone. No. 1,129,840; Mar. 2; Gaz. vol. 212; p. 3.
Bates, Henry A., Middletown, Conn. Wax thread and making the same. No. 1,132,150; Mar. 16; Gaz. vol. 212; p. 877.
Bates, Joseph W. (See Blake and Bates.)
Bates, Ralph E., assignor to J. Nazel, Philadelphia, Pa. Mechanism for applying flexible strips. No. 1,132,901; Mar. 23; Gaz. vol. 212; p. 1200.
Bates Valve Bag Company. (See Bates, Adelmer M., assignor.)
Baty, Edward N., Des Moines, Iowa. Rotary engine. No. 1,131,459; Mar. 9; Gaz. vol. 212; p. 595.
Bauer, Conrad, Pittsburgh, Pa. Screen. No. 1,130,465; Mar. 2; Gaz. vol. 212; p. 219.
Bauer, Edwin, assignor to Franz Bauer & Söhne, A.-G., Zurich, Switzerland. Armor-plating for safes, strong-rooms, and the like. No. 1,132,902; Mar. 23; Gaz. vol. 212; p. 1200.
Baum, Edwin W., Nokomis, Ill. Shock-absorber. No. 1,130,055; Mar. 2; Gaz. vol. 212; p. 74.
Bauman, Paul H., Battle Creek, Mich. Boot-scraper. No. 1,132,646; Mar. 23; Gaz. vol. 212; p. 1107.
Baumer, Clarence E., and J. Correy, Troy, Ohio. Safety appliance for railway-trains. No. 1,131,594; Mar. 9; Gaz. vol. 212; p. 641.
Baumgartner, Herman E., Osage, Iowa. Apparatus for cooling or agitating air. No. 1,133,255; Mar. 30; Gaz. vol. 212; p. 1364.
Bauwens, Seraphine F., Chicago, Ill. Box-blank machine. No. 1,131,460; Mar. 9; Gaz. vol. 212; p. 596.
Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, Jersey City, N. J. Front-head construction for self-rotating hammer-drills. No. 1,130,957; Mar. 9; Gaz. vol. 212; p. 421.
Bayne, John, Wheeling, W. Va. Internal-combustion engine. No. 1,133,458; Mar. 30; Gaz. vol. 212; p. 1435.

Basley, William H., Everett, Mass. Sausage-stuffing machine. No. 1,130,661; Mar. 2; Gaz. vol. 212; p. 286.
Beach, Edward W., Waterbury, Conn. Foundry-riddle. No. 1,131,768; Mar. 16; Gaz. vol. 212; p. 738.
Beach, Harry L., Coshocton, Ohio. Thermometer. No. 1,132,426; Mar. 16; Gaz. vol. 212; p. 977.
Beadle, George W., Montclair, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Crimping-machine for cartons. No. 1,133,424; Mar. 30; Gaz. vol. 212; p. 1423.
Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Machine for closing paper cartons. No. 1,133,425; Mar. 30; Gaz. vol. 212; p. 1424.
Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Machine for capping cartons. No. 1,133,426; Mar. 30; Gaz. vol. 212; p. 1425.
Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Machine for making carton-bodies. No. 1,133,913; Mar. 30; Gaz. vol. 212; p. 1598.
Beadman, Joseph B., Keighley, and H. J. Macklin, Ulverston, England. Journal-box. No. 1,130,876; Mar. 9; Gaz. vol. 212; p. 394.
Beam, Willie C., assignor of one-half to T. D. Reber, Rockford, Ill. Smoke-preventer. No. 1,131,106; Mar. 9; Gaz. vol. 212; p. 473.
Beam, Willie C., assignor of one-half to T. D. Reber, Rockford, Ill. Smoke-preventer. No. 1,131,107; Mar. 9; Gaz. vol. 212; p. 473.
Beamer, Willis D., and J. F. Duffy, Chicago, Ill. Carbureter. No. 1,131,312; Mar. 9; Gaz. vol. 212; p. 544.
Beard, Clement E., Columbiana, Ohio. Resilient tire for vehicles. No. 1,131,313; Mar. 9; Gaz. vol. 212; p. 545.
Beard, James W. (See Berg, Carl, assignor.)
Beaty, W. R. (See Tower, George W., assignor.)
Beaumont, James F. (See Babbitt and Beaumont.)
Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Stereotype-plate fastening for rotary cylinder printing-presses. No. 1,129,946; Mar. 2; Gaz. vol. 212; p. 39.
Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Stereotype-plate boring and cutting machine. No. 1,129,947; Mar. 2; Gaz. vol. 212; p. 39.
Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Plate finishing and trimming machine. No. 1,129,948; Mar. 2; Gaz. vol. 212; p. 40.
Becht, Edward C. (See Becht, Herman W. and E. C.)
Becht, Herman W., Dayton, and E. C. Becht, Newport, Ky. Confectionery-coating machine. No. 1,133,789; Mar. 30; Gaz. vol. 212; p. 1555.
Beck, Joseph P., Snyder, Tex. Sad-iron heater. No. 1,132,549; Mar. 23, Gaz. vol. 212; p. 1070.
Beck, Marshall, assignor to The Borg & Beck Company, Moline, Ill. Friction-clutch. No. 1,132,903; Mar. 23; Gaz. vol. 212; p. 1200.
Becker, Christian L. (See Weber, Emil, assignor.)
Becker, Joseph, Montclair, N. J. Curtain-fixture. No. 1,132,151; Mar. 16; Gaz. vol. 212; p. 877.
Beckwith, Harry H. (See Anderson, Alexander, assignor.)
Bedell, Clinton W., New York, N. Y. Indicating device. No. 1,131,314; Mar. 9; Gaz. vol. 212; p. 545.
Beebe, Stanley J., Binghamton, N. Y. Paper pulley. No. 1,132,509; Mar. 16; Gaz. vol. 212; p. 1009.
Beecher, Titus A., Drumright, Okla. Locating liquid strata in a well. No. 1,133,218; Mar. 23; Gaz. vol. 212; p. 1315.
Beeman, Edwin R., and T. Brennan, Jr., St. Louis Park, assignors to Monitor Drill Company, Minneapolis, Minn. Disk attachment. No. 1,130,699; Mar. 9; Gaz. vol. 212; p. 334.
Beemer, George S., Meeker, Colo. Mowing-machine. No. 1,133,085; Mar. 23; Gaz. vol. 212; p. 1268.
Beer, Attilio, deceased, Venice, Italy; C. Beer, widow. Electromechanical system to avoid railway collisions. No. 1,132,427; Mar. 16; Gaz. vol. 212; p. 978.
Beer, Cesira, widow. (See Beer, Attilio.)
Beers, Roy R., Tulsa, Okla. Saw-filing machine. No. 1,131,030; Mar. 9; Gaz. vol. 212; p. 447.
Beers, Wilbur M., Johnsonburg, Pa. Pipe-hanger. No. 1,132,999; Mar. 23; Gaz. vol. 212; p. 1237.
Behm, Frank, Toledo, Ohio. Latch. No. 1,131,315; Mar. 9; Gaz. vol. 212; p. 546.
Behnke, Albert R., St. Paul, Minn. Removable rim. No. 1,133,835; Mar. 30; Gaz. vol. 212; p. 1572.
Belcher, Robert E., Chicago, Ill., assignor to B. & B. Manufacturing Company. Arch-support. No. 1,131,900; Mar. 16; Gaz. vol. 212; p. 786.
Bellcsa, Eugene, assignor of one-sixth to C. Wiltzan and one-sixth to P. Schaefer, Chicago, Ill. Propeller-wheel. No. 1,134,029; Mar. 30; Gaz. vol. 212; p. 1635.
Bell, Albert C., Chicago, Ill. Lock. No. 1,129,841; Mar. 2; Gaz. vol. 212; p. 3.
Bell, George W., Stockport, England. Apparatus for shaping the outer casings of pneumatic tires. No. 1,132,904; Mar. 23; Gaz. vol. 212; p. 1201.
Bell, Harry L., Norfolk, Va. Earthworking implement. No. 1,132,152; Mar. 16; Gaz. vol. 212; p. 877.
Bell, Horace M., and E. R. Lape, Swanton, Vt. Treating printed paper to remove the ink and recover the pulp. No. 1,130,466; Mar. 2; Gaz. vol. 212; p. 219.
Bell, James H., Philadelphia, Pa. Timing device for pigeons. No. 1,130,247; Mar. 2; Gaz. vol. 212; p. 140.
Bell, John A., assignor to Railway Specialties Company, Los Angeles, Cal. Wigwag flagman. No. 1,134,071; Mar. 30; Gaz. vol. 212; p. 1640.
Bell, John W., assignor of one-half to J. A. Loggie, Bellingham, Wash. Pipe and tube cleaner. No. 1,133,607; Mar. 30; Gaz. vol. 212; p. 1490.
Bell, Robert M., *et al.* (See Tomlinson, John K., assignor.)
Bellois, Frederick W., New York, N. Y. Bottle-closure. No. 1,131,985; Mar. 16; Gaz. vol. 212; p. 818.
Bellows, Fred E., Worcester, Mass. Safety-fender. No. 1,130,056; Mar. 2; Gaz. vol. 212; p. 75.
Bellwood, Thomas, Methuen, and H. Garth, Lawrence, Mass. Condenser-guide. No. 1,130,467; Mar. 2; Gaz. vol. 212; p. 219.
Benedict, Adelbert E. (See Springstein, Luther W., assignor.)
Benedict, Centennial H., Lake Linden, Mich. Extracting copper. No. 1,131,986; Mar. 16; Gaz. vol. 212; p. 818.
Benjamin Eastwood Company. (See Searing, Eugene P., assignor.)
Benners, Edwin H., Elizabeth, N. J. Side frame for car-trucks. No. 1,131,031; Mar. 9; Gaz. vol. 212; p. 448.
Bennett, Ashley C., Minneapolis, Minn. Carbureter. No. 1,130,700; Mar. 9; Gaz. vol. 212; p. 335.
Bennett, Ashley C., Minneapolis, Minn. Carbureter. No. 1,133,527; Mar. 30; Gaz. vol. 212; p. 1461.
Bennett, Ashley C., Minneapolis, Minn. Carbureter-manifold. No. 1,133,528; Mar. 30; Gaz. vol. 212; p. 1462.
Bennett, Charles C., West Liberty, Ill. Barrel-packing-head holder. No. 1,133,701; Mar. 30; Gaz. vol. 212; p. 1526.
Bennett, Clarence W., Toledo, Ohio. Child's sulky. No. 1,131,197; Mar. 9; Gaz. vol. 212; p. 504.
Bennett, Maggie, *et al.* (See Toney, Joseph, assignor.)
Benoit, Aime, assignor of one-half to J. A. Duffy, Red Lake Falls, Minn. Guard-finger. No. 1,133,219; Mar. 23; Gaz. vol. 212; p. 1315.
Bensen, Victor, Duluth, Minn. Bow-facing oar. No. 1,133,220; Mar. 23, Gaz. vol. 212; p. 1315.
Benson, Andrew, assignor to Benson Gear Company, Chicago, Ill. Cutting worm-gears. No. 1,131,198; Mar. 9; Gaz. vol. 212; p. 505.
Benson, David, Lamoille, Ill. Grain-sprouter. No. 1,130,135; Mar. 2; Gaz. vol. 212; p. 102.
Benson Gear Company. (See Benson, Andrew, assignor.)
Benson, Melvin B., assignor of one-half to G. A. Tomlinson, Duluth, Minn. Recording-compass. No. 1,131,622; Mar. 9; Gaz. vol. 212; p. 651.
Benson, Morris N. (See Norris, Robert E., assignor.)
Benton, Earl M., Greeley, Colo. Meat-cutting machine. No. 1,130,248; Mar. 2; Gaz. vol. 212; p. 141.
Benton, Henry, Elizabeth, N. J. Fire-grate. No. 1,131,461; Mar. 9; Gaz. vol. 212; p. 596.
Benz, Eugene A. (See Hoecker and Benz.)
Bepler, Adolph, St. Louis, Mo. Household can-sealer. No. 1,131,901; Mar. 16; Gaz. vol. 212; p. 787.
Beres, Stive, East Youngstown, Ohio. Non-skid device. No. 1,132,905; Mar. 23; Gaz. vol. 212; p. 1201.
Berg, Carl, Brooklyn, assignor to J. W. Beard, New York, N. Y. Cultivator-tooth. No. 1,133,221; Mar. 23; Gaz. vol. 212; p. 1315.
Berg, Henry. (See Ritter, Theodore J., assignor.)
Berger, Joseph, Bayonne, N. J., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,133,608; Mar. 30; Gaz. vol. 212; p. 1490.
Berggren, Karl J., Spokane, Wash. Sleeping-bed structure. No. 1,132,906; Mar. 23; Gaz. vol. 212; p. 1202.
Bergh, Frederick P., and H. C. Neuberger, New York, N. Y., assignors, by mesne assignments, to General Reduction Company. Treating starch, &c. No. 1,133,914; Mar. 30; Gaz. vol. 212; p. 1598.
Bergstein, Samuel, Middletown, Ohio. Folding box. No. 1,131,462; Mar. 9; Gaz. vol. 212; p. 597.
Berkey, Peter. (See Valasek, Otakar, assignor.)
Bernard, Philip, Sioux City, Iowa. Hog-waterer. No. 1,130,662; Mar. 2; Gaz. vol. 212; p. 287.
Bernard, Philip, Sioux City, Iowa. Rain-water filter. No. 1,130,663; Mar. 2; Gaz. vol. 212; p. 287.
Bernhard, George, Dayton, Ohio. Garden-hose support. No. 1,132,065; Mar. 16; Gaz. vol. 212; p. 846.
Bernheim, Morris U., Louisville, Ky., assignor, by mesne assignments, to The Alvey-Ferguson Company, Cincinnati, Ohio. Conveying system. No. 1,130,877; Mar. 9; Gaz. vol. 212; p. 395.
Bernor, John. (See Hewitt, Bernor, and Bacon.)
Bernstein, Abraham, Cincinnati, Ohio. Loop for thill-supports. No. 1,133,356; Mar. 30; Gaz. vol. 212; p. 1400.
Berrigan, John J., Orange, N. J., assignor to Henry R. Worthington. Apparatus for expressing liquids from solids. No. 1,130,701; Mar. 9; Gaz. vol. 212; p. 335.
Berrigan, John J., Orange, N. J., assignor to Henry R. Worthington. Pressing apparatus. No. 1,130,878; Mar. 9; Gaz. vol. 212; p. 396.
Berrigan, John J., Orange, N. J., assignor to Henry R. Worthington. Expressing liquids. No. 1,130,879; Mar. 9; Gaz. vol. 212; p. 396.
Berrigan, John J., Orange, N. J., assignor to Henry R. Worthington. Pressing apparatus. No. 1,131,032; Mar. 9; Gaz. vol. 212; p. 448.

Berry, Edward R., Malden, Mass., assignor to General Electric Company. Shaping ceramic materials. No. 1,131,463; Mar. 9; Gaz. vol. 212; p. 597.
Berry, Everet, *et al.* (See Way, David, assignor.)
Berry, Harry C., assignor to Rapid Transit Air Navigation Company, Los Angeles, Cal. Aerial-navigation machine. No. 1,133,609; Mar. 30; Gaz. vol. 212; p. 1491.
Bertucci, Peter J., New York, N. Y. Music-leaf turner. No. 1,133,915; Mar. 30; Gaz. vol. 212; p. 1599.
Besaw, Willie O., Reedley, Cal. Postage-stamp. No. 1,131,464; Mar. 9; Gaz. vol. 212; p. 597.
Bessinger, George J. (See Dietz, Lafferty, and Bessinger.)
Bestwall Manufacturing Company. (See Johnson, Frank W., assignor.)
Bettendorf Company, The. (See Taylor, Ralph G., assignor.)
Bettenga, Creno P., Wadena, Minn. Rotary road-grader. No. 1,131,902; Mar. 16; Gaz. vol. 212; p. 787.
Beverly, Alexander, Glacier, Wash. Fruit-picker. No. 1,130,057; Mar. 2; Gaz. vol. 212; p. 75.
Bevington, Thomas, assignor of one-half to T. J. Brownfield and C. S. Polk, Lincoln, Nebr. Convertible stock and dump car. No. 1,133,702; Mar. 30; Gaz. vol. 212; p. 1526.
Bevis, Restal R., Birkenhead, England. Propeller. No. 1,133,222; Mar. 23; Gaz. vol. 212; p. 1316.
Beyl, Emil A., Minneapolis, Minn. Adjustable support for spouts and the like. No. 1,133,529; Mar. 30; Gaz. vol. 212; p. 1462.
Bidle, William S., assignor to The W. S. Bidle Company, Cleveland, Ohio. Tire-tool. No. 1,132,153; Mar. 16; Gaz. vol. 212; p. 878.
Bierbrauer, William L., and P. A. H. Sachse, assignors to Eugene Dietzgen Company, Factory, Chicago, Ill. Eye-piece adjustment for surveyors' telescopes. No. 1,130,468; Mar. 2; Gaz. vol. 212; p. 220.
Bierck, Harold A., Philadelphia, Pa. Combination-blower. No. 1,132,237; Mar. 16; Gaz. vol. 212; p. 909.
Bihon, József, Daisytown, Pa. Letter-box. No. 1,130,136; Mar. 2; Gaz. vol. 212; p. 102.
Bijur, Joseph, assignor to The Safety Car Heating and Lighting Co., New York, N. Y. Electrical system of distribution. No. 1,131,316; Mar. 9; Gaz. vol. 212; p. 546.
Binder, Gottlob. (See Kelso and Binder.)
Bingham, Daniel, *et al.* (See Jobke, August F., assignor.)
Binkley, John T., Chicago, Ill. Locking mechanism for boxes, cases, or trunks. No. 1,132,824; Mar. 23; Gaz. vol. 212; p. 1174.
Binning, Wood, Grand River, Iowa. Mold. No. 1,133,223; Mar. 23; Gaz. vol. 212; p. 1316.
Birch, Leslie E. (See Ford and Birch.)
Bird, Charles S., East Walpole, Mass. Floor-covering. No. 1,131,317; Mar. 9; Gaz. vol. 212; p. 547.
Bird, Charles S., and G. R. Wyman, East Walpole, Mass.; said Wyman assignor to said Bird. Floor-covering. No. 1,131,595; Mar. 9; Gaz. vol. 212; p. 641.
Bird, J. Philip. (See Hilbert, John N. J., assignor.)
Bird, James P., New York, N. Y. Box-making machine. No. 1,131,199; Mar. 9; Gaz. vol. 212; p. 505.
Bird, Reginald W., Brookline, Mass., assignor to Flintkote Manufacturing Company, Rutherford, N. J. Roofing-strip. No. 1,130,368; Mar. 2; Gaz. vol. 212; p. 183.
Birdsey, Somers Company. (See McDermott, Francis J., assignor.)
Birdsong, John L. (See Studebaker, Enoch H., assignor.)
Bishop, John, and E. P. Hughes, Detroit, Mich. Weighing-machine. No. 1,131,108; Mar. 9; Gaz. vol. 212; p. 474.
Bishop, Raymond T., New York, N. Y. Extensible window-screen. No. 1,130,565; Mar. 2; Gaz. vol. 212; p. 254.
Bishopric, George F., Ottawa, Ontario, Canada. Machine for manufacturing outer covering material for packages. No. 1,129,949; Mar. 2; Gaz. vol. 212; p. 40.
Bison, John, Breta, W. Va. Combined stretcher and body-carrier. No. 1,131,987; Mar. 16; Gaz. vol. 212; p. 818.
Bjerregaard, Rasmus, Copenhagen, Denmark. Film. No. 1,130,702; Mar. 9; Gaz. vol. 212; p. 335.
Blabon, Edwin L., Bryn Mawr, assignor to Geo. W. Blabon Company, Nicetown, Pa. Linoleum. No. 1,132,647; Mar. 23; Gaz. vol. 212; p. 1107.
Black, Charles F., Waukegan, Ill. Starch-shovel. No. 1,131,318; Mar. 9; Gaz. vol. 212; p. 547.
Black-Clawson Company, The. (See Kutter, Herman L., assignor.)
Black, Henry F., Sioux City, Iowa. Flushing-cuspidor. No. 1,130,249; Mar. 2; Gaz. vol. 212; p. 141.
Black, Mathew, New York, N. Y. Window-cleaning device. No. 1,130,703; Mar. 9; Gaz. vol. 212; p. 336.
Black, William N., Wilkinsburg, Pa. Portable hand-truck. No. 1,131,656; Mar. 16; Gaz. vol. 212; p. 697.
Blackman, Walter W., Birmingham, Ala. Toy motion-picture machine. No. 1,131,033; Mar. 9; Gaz. vol. 212; p. 449.
Blackstone Manufacturing Company, The. (See Moynihan, John P., assignor.)
Blackwood, Arthur J., Carrboro, N. C. Adjustable roller-holder. No. 1,130,880; Mar. 9; Gaz. vol. 212; p. 396.
Blahnik, Fred. (See Konsel, John, assignor.)
Blair, Hosea, assignor of one-half to W. R. Grogan, San Francisco, Cal. Post-card-printing machine. No. 1,131,657; Mar. 16; Gaz. vol. 212; p. 697.
Blair, Robert S., New Rochelle, N. Y. Recording apparatus. No. 1,130,469; Mar. 2; Gaz. vol. 212; p. 220.
Blake, Samuel M., and J. W. Bates, Minneapolis, Minn. Lock-switch for electric circuits. No. 1,132,700; Mar. 23; Gaz. vol. 212; p. 1126.
Blakeslee, Raymond I. (See Hill, Aaron, assignor.)
Blakey, Edward B., and R. B. McCollum, Kansas City, Mo. Pneumatic jack for motor-cars. No. 1,130,884; Mar. 9; Gaz. vol. 212; p. 398.
Blanchard, Benjamin F., Fullerton, Cal. Fishing-tool. No. 1,130,881; Mar. 9; Gaz. vol. 212; p. 397.
Blatchford, John, Oak Park, Ill. Electric furnace. No. 1,129,842; Mar. 2; Gaz. vol. 212; p. 4.
Blaw Steel Construction Company. (See Venable, William M., assignor.)
Blazer, George W., Copperopolis, Cal. Farm-gate. No. 1,131,109; Mar. 9; Gaz. vol. 212; p. 474.
Bleecker, Albert, assignor to The Portage Rubber Company, Barberton, Ohio. Tubing-machine. No. 1,133,610; Mar. 30; Gaz. vol. 212; p. 1491.
Blieberger, Gustav, New York, N. Y. Making menthyl-salicylic methyl ester. No. 1,133,832; Mar. 30; Gaz. vol. 212; p. 1571.
Billey, Charles A., Cripple Creek, assignor of one-half to E. A. Colburn, Jr., Victor, Colo. Electric pull-switch. No. 1,132,154; Mar. 16; Gaz. vol. 212; p. 878.
Blish, John, Brookline, Mass. Breech-closure for fire-arms. No. 1,131,319; Mar. 9; Gaz. vol. 212; p. 547.
Bliss, Ellis B., New York, N. Y. Automobile. No. 1,131,034; Mar. 9; Gaz. vol. 212; p. 449.
Bliss, Herbert R., and L. Johnston, Detroit, Mich.; said Johnston assignor to G. M. Tuttle, Niagara Falls, N. Y. Anvil-pedal. No. 1,131,320; Mar. 9; Gaz. vol. 212; p. 548.
Bliss, Herbert R., and L. Johnston, Detroit, Mich.; said Johnston assignor to G. M. Tuttle, Niagara Falls, N. Y. Work-table for a machine for driving metallic fasteners. No. 1,131,321; Mar. 9; Gaz. vol. 212; p. 548.
Bliss, William L., Brooklyn, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee. Support for dynamo-electric machines. No. 1,131,200; Mar. 9; Gaz. vol. 212; p. 506.
Block, John W., Joliet, Ill. Oiling device. No. 1,132,701; Mar. 23; Gaz. vol. 212; p. 1127.
Blosick, Thomas J., Shaniko, Oreg. Wire-stretcher. No. 1,130,704; Mar. 9; Gaz. vol. 212; p. 336.
Blount, Frederick A., *et al.* (See Smith, Edward W., assignor.)
Bluhm, Joseph. (See Geier, James, assignor.)
Blum, Isaac. (See Kerngood and Blum.)
Blunt, James G., Schenectady, N. Y. Locomotive trailing truck. No. 1,133,427; Mar. 30; Gaz. vol. 212; p. 1425.
Bluthardt, Edwin, Chicago, Ill. Bottle seal and cap. No. 1,131,201; Mar. 9; Gaz. vol. 212; p. 506.
Boardman, Charles H., Columbus, Ohio, assignor to Sundries Manufacturing Company, Portland, Me. Machine for mining coal. No. 1,130,250; Mar. 2; Gaz. vol. 212; p. 141.
Bocorselski, Frank E., Richmond, Va. Fuel-feeder. No. 1,131,988; Mar. 16; Gaz. vol. 212; p. 819.
Bocorselski, Frank E., Richmond, Va. Fuel-feeder. No. 1,131,989; Mar. 16; Gaz. vol. 212; p. 819.
Bocorselski, Frank E., Richmond, Va. Drill-chuck. No. 1,131,990; Mar. 16; Gaz. vol. 212; p. 819.
Bocorselski, Frank E., Richmond, Va. Rotary drill. No. 1,131,991; Mar. 16; Gaz. vol. 212; p. 819.
Bodine, Henry M., Wichita, Kans. Railway-tie and brace. No. 1,132,155; Mar. 16; Gaz. vol. 212; p. 879.
Bodmer, Christian, assignor to Stanley Rule & Level Co. New Britain, Conn. Chuck. No. 1,132,550; Mar. 23; Gaz. vol. 212; p. 1070.
Bodmer, Christian, assignor to The Stanley Rule & Level Company, New Britain, Conn. Plane. No. 1,134,072; Mar. 30; Gaz. vol. 212; p. 1650.
Boedecker, Friedrich, Berlin-Mariendorf, assignor to J. D. Riedel Aktiengesellschaft, Berlin-Britz, Germany. Compounds of hexamethylene-tetramin. No. 1,133,916; Mar. 30; Gaz. vol. 212; p. 1599.
Boening, Ernest, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J.. Rope-drive elevator. No. 1,132,761; Mar. 23; Gaz. vol. 212; p. 1149.
Boerner, Hermann, St. Louis, Mo. Device for honing razors. No. 1,133,256; Mar. 30; Gaz. vol. 212; p. 1364.
Boero, Joseph, New York, N. Y., assignor to Stedman's Foundry & Machine Works, Aurora, Ind. Pulverizer. No. 1,130,251; Mar. 2; Gaz. vol. 212; p. 142.
Bogdánffy, Alexander, New York, N. Y. Machine for manufacturing wood-top corks. No. 1,132,288; Mar. 16; Gaz. vol. 212; p. 910.
Bogga, Atwood L. (See Riley, Lester S., assignor.)
Bohlman, George J., Everett, assignor to American Water Supply Company of New England, Boston, Mass. Holder for drinking-cups. No. 1,130,882; Mar. 9; Gaz. vol. 212; p. 397.
Bohner, William H., assignor to C. B. Atkin, Knoxville, Tenn. Roundtop-work construction. No. 1,132,156; Mar. 16; Gaz. vol. 212; p. 879.
Bohr, Henry B., administrator. (See Nicholson, Norman J.)
Bohr, Nicholas C. (See Nicholson, Norman J., assignor.)
Bokop, Henry D., Defiance, Ohio. Bottle crate or case. No. 1,132,157; Mar. 16; Gaz. vol. 212; p. 879.
Boland, Ed, Big Creek, Miss. Insect-destroyer. No. 1,133,357; Mar. 30; Gaz. vol. 212; p. 1400.
Bolding, William D. (See Willoughby and Bolding.)

Bolger, Thomas P., Gloucester, Mass. Flower-box. No. 1,133,836; Mar. 30; Gaz. vol. 212; p. 1572.
Bolick, Jerome, Conover, N. C. Vehicle wheel-mounting. No. 1,132,825; Mar. 23; Gaz. vol. 212; p. 1174.
Bollinger, Henry W., Altoona, Pa. Headlight-adjuster for automobiles. No. 1,133,224; Mar. 23; Gaz. vol. 212; p. 1316.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,658; Mar. 16; Gaz. vol. 212; p. 698.
Bommer, Emil, New York, N. Y. Spring-hinge for doors. No. 1,131,659; Mar. 16; Gaz. vol. 212; p. 698.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,660; Mar. 16; Gaz. vol. 212; p. 699.
Bommer, Emil, New York, N. Y. Double-acting spring-hinge. No. 1,131,661; Mar. 16; Gaz. vol. 212; p. 699.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,662; Mar. 16; Gaz. vol. 212; p. 700.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,663; Mar. 16; Gaz. vol. 212; p. 700.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,664; Mar. 16; Gaz. vol. 212; p. 700.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,665; Mar. 16; Gaz. vol. 212; p. 700.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,666; Mar. 16; Gaz. vol. 212; p. 701.
Bommer, Emil, New York, N. Y. Spring-hinge. No. 1,131,667; Mar. 16; Gaz. vol. 212; p. 701.
Bonaly, Louis F., Kickapoo township, Leavenworth county, Kans. Jack. No. 1,133,358; Mar. 30; Gaz. vol. 212; p. 1400.
Bond Foundry and Machine Company. (See Condé, Charles A., assignor.)
Bonney Floyd Company. (See Dorsey, Walter A., assignor.)
Bookwalter, Miles L., and S. Saunooke, Altoona, Pa. Train-line coupling. No. 1,130,252; Mar. 2; Gaz. vol. 212; p. 142.
Boos, August N. E., New York, N. Y. Walter's controlling-check. No. 1,130,691; Mar. 2; Gaz. vol. 212; p. 297.
Booth, Charles G., and F. Sanks, Pomona, Cal. Vehicle-spring. No. 1,134,030; Mar. 30; Gaz. vol. 212; p. 1636.
Booth, Charles W., Chicago, Ill. Car-door fastener. No. 1,130,470; Mar. 2; Gaz. vol. 212; p. 220.
Booth, Henry S., Manchester, England. Calculating-machine. No. 1,133,917; Mar. 30; Gaz. vol. 212; p. 1599.
Booth, William N., Detroit, Mich. Clamping device for demountable rims. No. 1,132,648; Mar. 23; Gaz. vol. 212; p. 1107.
Bordson, Martin M., deceased; A. B. Thorsrud, administrator, assignor to J. and M. Bordson, Black Earth, Wis. Gate-operating mechanism. No. 1,132,066; Mar. 16; Gaz. vol. 212; p. 846.
Bordson, John, *et al.* (See Bordson, Martin M., assignor.)
Bordson, Melver, *et al.* (See Bordson, Martin M., assignor.)
Borg & Beck Company, The. (See Beck, Marshall, assignor.)
Borg & Beck Company, The. (See Borg, George W., assignor.)
Borg, George W., Rock Island, assignor to The Borg & Beck Company, Moline, Ill. Friction-clutch. No. 1,131,769; Mar. 16; Gaz. vol. 212; p. 738.
Borge, Ole J., Davis township, Kittson county, Minn. Rivet-feeding mechanism. No. 1,132,826; Mar. 23; Gaz. vol. 212; p. 1174.
Borgmeyer, David H., St. Charles, Mo. Mail-bag rack. No. 1,133,611; Mar. 30; Gaz. vol. 212; p. 1492.
Borschutzky, Karl, Herbesthal, Germany. Combined dredging and ramming device. No. 1,132,510; Mar. 16; Gaz. vol. 212; p. 1009.
Bortman, Emanuel W., Norristown, Pa., assignor to Wildman Mfg. Co. Cloth-cutting machine. No. 1,130,369; Mar. 2; Gaz. vol. 212; p. 183.
Borzykowski, Benno. (See Foltzer, Josef, assignor.)
Bosch, Carl, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Production of ammonium sulfate. No. 1,133,086; Mar. 23; Gaz. vol. 212; p. 1268.
Bosch, Carl, and W. Wild, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Purification of hydrogen. No. 1,133,087; Mar. 23; Gaz. vol. 212; p. 1268.
Bosch Magneto Company. (See Heins and Wild, assignors.)
Bosch, Firm of Robert. (See Honold, Gottlob, assignor.)
Bosch, Firm of Robert. (See Steinhart, Hermann, assignor.)
Boser, Emil and E. Mats, Hollywood, Cal. Non-refillable bottle. No. 1,133,225; Mar. 23; Gaz. vol. 212; p. 1316.
Boss, Hattie A. (See Miller, John L., assignor.)
Boswell, Arthur, Philadelphia, Pa. Animal-trap. No. 1,132,428; Mar. 16; Gaz. vol. 212; p. 978.
Both, David, St. Johns, Mich. Mane-holder. No. 1,131,903; Mar. 16; Gaz. vol. 212; p. 787.
Bothman, John, Dante, S. D. Neck-yoke. No. 1,133,918; Mar. 30; Gaz. vol. 212; p. 1599.
Botz, George W., Milwaukee, Wis. Developing-tank. No. 1,131,817; Mar. 16; Gaz. vol. 212; p. 757.
Bouchery, August, assignor, by mesne assignments, to The Wallace Novelty Company, New York, N. Y. Portable electric-lamp stand. No. 1,132,532; Mar. 16; Gaz. vol. 212; p. 1017.
Boughan, Andrew B., Chicago, Ill. Holder for scrub-brushes. No. 1,132,511; Mar. 16; Gaz. vol. 212; p. 1009.
Bouillon, Constant, Torrington, Conn., assignor to The Hendey Machine Company. Mechanism for relieving the teeth of cutters. No. 1,132,551; Mar. 23; Gaz. vol. 212; p. 1070.
Bourdon, Victor. (See Conning and Bourdon.)
Bourke, Martin, assignor of one-half to G. Baker and one-half to J. A. Logan, Youngstown, Ohio. Ship's lifeboat. No. 1,130,137; Mar. 2; Gaz. vol. 212; p. 102.
Boury, André, Paris, France, assignor to General Electric Company. Regulating device. No. 1,133,000; Mar. 23; Gaz. vol. 212; p. 1237.
Bovee, Ransom Y., Denver, Colo. Wrench. No. 1,133,530; Mar. 30; Gaz. vol. 212; p. 1462.
Bowden, Clyde A., and J. F. Gordon, Garrett, Ind. Attachment for speed-recorders. No. 1,131,668; Mar. 16; Gaz. vol. 212; p. 702.
Bowdish, Albertis, Norwich, assignor of three-fourths to J. W. and F. K. Rhines and B. T. Shaw, Cortland, N. Y. Cultivator. No. 1,131,110; Mar. 9; Gaz. vol. 212; p. 474.
Bowen, Roy A., Commonwealth, Wis. Direction-indicating attachment for drilling-machines. No. 1,131,596; Mar. 9; Gaz. vol. 212; p. 641.
Bower, George, Otis, Kans. Revolving harrow. No. 1,133,919; Mar. 30; Gaz. vol. 212; p. 1600.
Bower, Jacob M., Durham, N. C. Sliding door for automobiles. No. 1,131,322; Mar. 9; Gaz. vol. 212; p. 548.
Bowman, Benjamin. (See Bowman, John and B.)
Bowman, John and B., Toronto, Ontario, Canada. Primer for internal-combustion engines. No. 1,130,705; Mar. 9; Gaz. vol. 212; p. 336.
Bowman, John E., Syracuse, N. Y. Accelerator for automobiles. No. 1,132,907; Mar. 23; Gaz. vol. 212; p. 1202.
Bowne, John D., New York, N. Y., assignor, by mesne assignments, to Elevator Supply and Repair Company. Elevator signal system. No. 1,132,552; Mar. 23; Gaz. vol. 212; p. 1071.
Boyd, David C., assignor to The Galion Iron Works and Manufacturing Company, Galion, Ohio. Steering-gear for road-machines. No. 1,130,471; Mar. 2; Gaz. vol. 212; p. 221.
Boyden, John H., Glenn Dale, Md. Electric indicating system. No. 1,131,202; Mar. 9; Gaz. vol. 212; p. 506.
Boye, James H., Chicago, assignor to The Boye Needle Company, Ravenswood Park Station, Chicago, Ill. Holder for balls and spools of strand material. No. 1,130,058; Mar. 2; Gaz. vol. 212; p. 75.
Boye Needle Company, The. (See Boye, James H., assignor.)
Boyle, Magnus F., *et al.* (See Webb, Ferdinand, assignor.)
Boylston Manufacturing Company, The. (See Ballard, Harrie A., assignor.)
Braatz, Fritz *et al.* (See Foragard, Edward F., assignor.)
Brackett, Robert G., Rochester, N. Y. Cutter-holder. No. 1,131,818; Mar. 16; Gaz. vol. 212; p. 757.
Bradley, William W., assignor of one-half to W. L. Day, Syracuse, N. Y. Machine for making bead chains. No. 1,130,253; Mar. 2; Gaz. vol. 212; p. 143.
Bradshaw, George B. and W. H., Brooklyn, N. Y., said George B. Bradshaw assignor to said W. H. Bradshaw. Chicle substitute and making same. No. 1,134,073; Mar. 30; Gaz. vol. 212; p. 1650.
Bradshaw, Richard. (See Whittaker, Briggs, and Bradshaw.)
Bradshaw, William H. (See Bradshaw, George B. and W. H.)
Bradshaw, William H., Brooklyn, N. Y. Purified gum and obtaining same. No. 1,133,790; Mar. 30; Gaz. vol. 212; p. 1556.
Bradshaw, William T., and W. E. Joost, Oakland, Cal. Toothpick-vending machine. No. 1,132,239; Mar. 16; Gaz. vol. 212; p. 911.
Bragdon, Herbert J., assignor of one-half to A. J. Nolinsky, Rock Island, Ill. Shoe-button-removing machine. No. 1,133,226; Mar. 23; Gaz. vol. 212; p. 1316.
Brall, Herbert. (See Urie, James W., assignor.)
Braine, Bancroft G. (See Braine, Lawrence F. and B. G.)
Braine, Bancroft G., and J. G. Delfox, Flushing, assignors to The Rail Joint Company, New York, N. Y. Interlocked insulation for rail-joints. No. 1,133,921; Mar. 30; Gaz. vol. 212; p. 1600.
Braine, Lawrence F. and B. G., assignors to The Rail Joint Company, New York, N. Y. Renewable insulation for rail-joints. No. 1,133,920; Mar. 30; Gaz. vol. 212; p. 1600.
Branch, Anthony B., and T. G. Ball, Pittsburgh, Pa. Dispensing apparatus. No. 1,132,429; Mar. 16; Gaz. vol. 212; p. 978.
Brand, George P., New York, N. Y. Pneumatic action. No. 1,133,257; Mar. 30; Gaz. vol. 212; p. 1364.
Brandt, Louis, Louisburg, Wis. Potato-gatherer. No. 1,131,465; Mar. 9; Gaz. vol. 212; p. 597.
Brandwood, Edward. (See Brandwood, John, T., and E.)
Brandwood, John, T., and E., Bury, England. Perforated bobbin, tube, or the like for use in textile industries. No. 1,132,240; Mar. 16; Gaz. vol. 212; p. 911.
Brandwood, Thomas. (See Brandwood, John, T., and E.)
Brauer, William A., North Tonawanda, N. Y. Valve for self-playing musical instruments. No. 1,131,203; Mar. 9; Gaz. vol. 212; p. 507.

Brazelle, Benjamin, St. Louis, Mo. Pneumatic tool. No. 1,132,649; Mar. 23; Gaz. vol. 212; p. 1108.
Breath, William L., Brooklyn, N. Y. Internal-combustion engine. No. 1,133,531; Mar. 30; Gaz. vol. 212; p. 1403.
Bremer, John. (See Comeld and Bremer.)
Bremer, Walter H., Kansas City, Mo. Holster for ice-picks. No. 1,131,669; Mar. 16; Gaz. vol. 212; p. 702.
Brennan, Charles T., assignor to The E. J. Manville Machine Company, Waterbury, Conn. Screw-slotting machine. No. 1,132,553; Mar. 23; Gaz. vol. 212; p. 1071.
Brennan, Thomas, Jr. (See Beeman and Brennan.)
Brennan, William R., Hawthorne, near Melbourne, Victoria, Australia. Lock for doors. No. 1,131,992; Mar. 16; Gaz. vol. 212; p. 820.
Brennecke, Herman J., Chicago, Ill. Goggle-lens connection. No. 1,129,950; Mar. 2; Gaz. vol. 212; p. 40.
Brett, Albert H., Mason City, Iowa. Device for dimming the headlights of automobiles. No. 1,132,554; Mar. 23; Gaz. vol. 212; p. 1072.
Brett, Walter B., Kelvedon, England. Tray for printing-type, printing-blocks, and the like. No. 1,129,843; Mar. 2; Gaz. vol. 212; p. 4.
Brewer, Carlos W., Minneapolis, Minn. Starting device for automobiles. No. 1,130,059; Mar. 2; Gaz. vol. 212; p. 76.
Brewer, Harvey, and J. K. Shanaman, Annville; said Brewer assignor to G. P. Speicher, Lebanon, Pa. Combined fishing-rod support and alarm. No. 1,132,158; Mar. 16; Gaz. vol. 212; p. 879.
Brewer, William A., Pittsburgh, assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa. Car-roof. No. 1,130,370; Mar. 2; Gaz. vol. 212; p. 183.
Brewer, William A., Pittsburgh, assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa. Car-roof. No. 1,130,371; Mar. 2; Gaz. vol. 212; p. 184.
Brewer, William A., Pittsburgh, assignor to P. H. Murphy Company, Parnassus, Pa. Metal car-roof. No. 1,130,372; Mar. 2; Gaz. vol. 212; p. 184.
Brewington, Henry S., assignor of one-third to C. G. Guth and one-third to R. B. Tippett, Baltimore, Md. Candy-pulling machine. No. 1,130,683; Mar. 2; Gaz. vol. 212; p. 294.
Bridges, Walter S., Chicago, Ill. Window-screen. No. 1,131,204; Mar. 9; Gaz. vol. 212; p. 507.
Briggs, Arthur J., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,130,883; Mar. 9; Gaz. vol. 212; p. 397.
Briggs, Arthur J., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,131,670; Mar. 16; Gaz. vol. 212; p. 703.
Briggs, Arthur J., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,132,300; Mar. 16; Gaz. vol. 212; p. 933.
Briggs, Arthur J., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,132,908; Mar. 23; Gaz. vol. 212; p. 1202.
Briggs, Joseph. (See Whittaker, Briggs, and Bradshaw.)
Briggs, Leslie F., Brooklyn, N. Y. Window-cleaner. No. 1,130,566; Mar. 2; Gaz. vol. 212; p. 254.
Bright, Albert W., Washington, D. C., assignor to The Columbus Glass Company, Lancaster, Ohio. Device for capping glass cylinders. No. 1,130,373; Mar. 2; Gaz. vol. 212; p. 185.
Brila, Léon A., and W. Andrews, London, England. Embossing apparatus. No. 1,133,922; Mar. 30; Gaz. vol. 212; p. 1600.
Brill, Emil G. F. (See Keener, Francis M., assignor.)
Brink, Charles L., Lansing, Mich. Stop mechanism. No. 1,131,671; Mar. 16; Gaz. vol. 212; p. 703.
Brinton, Walter, Wilmington, Del., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me., and Chicago, Ill. Lining-plate for ball-mills. No. 1,132,909; Mar. 23; Gaz. vol. 212; p. 1203.
Briscoe, William J., Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,131,672; Mar. 16; Gaz. vol. 212; p. 704.
Britsch, Jacob. (See Akers and Britsch.)
Britton, Willis N., Rochester, N. Y. Mold. No. 1,133,359; Mar. 30; Gaz. vol. 212; p. 1400.
Broberg, Henry, Warm Springs, Mont. Clamp for cue-tips. No. 1,131,111; Mar. 9; Gaz. vol. 212; p. 475.
Brock, Matthias, Roxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Molding-machine. No. 1,130,138; Mar. 2; Gaz. vol. 212; p. 103.
Brockett, Bluford W. (See Lord and Brockett.)
Brodrick, James A., Marshalltown, Iowa. Concrete silo. No. 1,130,958; Mar. 9; Gaz. vol. 212; p. 422.
Brogan, James A., Lawrence, assignor to M. Bruner, Newton, Mass. Puzzle. No. 1,132,430; Mar. 16; Gaz. vol. 212; p. 979.
Bromley & Sons, John. (See Peters, Howard L., assignor.)
Brooks, Asa P., assignor to I. V. Glass, Minneapolis, Minn. Bronzing attachment for printing-presses. No. 1,133,258; Mar. 30; Gaz. vol. 212; p. 1365.
Brooks, Benjamin T. (See Bacon, Brooks, and Clark.)
Brooks, David W., Royston, Ga. Sterilizer. No. 1,133,088; Mar. 23; Gaz. vol. 212; p. 1268.
Brooks, George W., Missoula, Mont. Internal-combustion engine. No. 1,130,060; Mar. 2; Gaz. vol. 212; p. 76.
Brooks, John F., Vicksburg, assignor to H. M. Jordan, Kalamazoo, and A. A. Morse, Lansing, Mich. Box. No. 1,133,701; Mar. 30; Gaz. vol. 212; p. 1556.
Brooks, John W. (See Sedlmayer and Brooks.)
Broomell, Albert P., York, Pa. Thermostatic means for operating hot-air registers. No. 1,133,089; Mar. 23; Gaz. vol. 212; p. 1269.
Broomell, Albert P., York, Pa. Automatic heat-controlling device. No. 1,133,090; Mar. 23; Gaz. vol. 212; p. 1270.
Bross, William R., Babylon, N. Y. Jack for automobiles. No. 1,130,472; Mar. 2; Gaz. vol. 212; p. 222.
Brouff, William C. (See McKinnon and Brouff.)
Brown Automatic Indicator Company. (See Brown, George, assignor.)
Brown, Charles W. (See Pelz, Adolf F., assignor.)
Brown, David A., Woodbridge, N. J. Urinal disinfectant-holder. No. 1,130,189; Mar. 2; Gaz. vol. 212; p. 103.
Brown, Delbert C., Acres, Kans. Case for chewing-gum, tickets, or other similar articles. No. 1,131,112; Mar. 9; Gaz. vol. 212; p. 475.
Brown, Edward W., Holborn, London, England. Machine for intermittently displaying posters and the like. No. 1,132,910; Mar. 23; Gaz. vol. 212; p. 1203.
Brown, George, Sarnia, Ontario, Canada, assignor to Brown Automatic Indicator Company, Port Huron, Mich. Signal system. No. 1,131,770; Mar. 16; Gaz. vol. 212; p. 739.
Brown, George E., Summit, N. J. Shovel. No. 1,132,067; Mar. 16; Gaz. vol. 212; p. 847.
Brown, George H., Point Loma, Cal. Etching-machine. No. 1,132,911; Mar. 23; Gaz. vol. 212; p. 1203.
Brown, Gregory, Brooklyn, assignor to Western Electric Company, New York, N. Y. Signaling system for train-despatching. No. 1,131,673; Mar. 16; Gaz. vol. 212; p. 704.
Brown, Herman E., San Francisco, Cal. Washboiler. No. 1,132,431; Mar. 16; Gaz. vol. 212; p. 979.
Brown Hoisting Machinery Company, The, *et al.* (See Dowd and Thompson, assignors.)
Brown, Hugh, Battle Creek, Mich. Box or crate. No. 1,133,001; Mar. 23; Gaz. vol. 212; p. 1238.
Brown, John H. (See Roberts and Brown.)
Brown, John H., Grand Forks, N. D. Wrench. No. 1,131,035; Mar. 9; Gaz. vol. 212; p. 449.
Brown, John W., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Quick graphitization of carbon articles. No. 1,133,259; Mar. 30; Gaz. vol. 212; p. 1365.
Brown, John W. R., and G. S. Otey, Dallas, Tex. Automatic stop device for printing-presses. No. 1,129,844; Mar. 2; Gaz. vol. 212; p. 4.
Brown, Landy B. (See Ries and Brown.)
Brown, Louis E., assignor to Farrington Manufacturing Company, Roxbury, Mass. Machine for covering eye-glass-cases. No. 1,130,790; Mar. 9; Gaz. vol. 212; p. 365.
Brown, Paul, St. Louis, Mo. Furnace appliance. No. 1,133,612; Mar. 30; Gaz. vol. 212; p. 1492.
Brown, Perry, Cornopolis, Pa. Draft-rigging. No. 1,131,205; Mar. 9; Gaz. vol. 212; p. 507.
Brown, Reuben H., New Haven, Conn. Carton-feeding machine. No. 1,133,532; Mar. 30; Gaz. vol. 212; p. 1403.
Brown & Sharpe Manufacturing Company. (See Rich, Charles A., assignor.)
Brown, Sidney G., Loodon, England. Telephony. No. 1,133,923; Mar. 30; Gaz. vol. 212; p. 1601.
Brown, Silas B., assignor to The Rockaway Manufacturing Company, Cincinnati, Ohio. Can-caster. No. 1,130,684; Mar. 2; Gaz. vol. 212; p. 295.
Brown, Thomas A., Chicago, assignor of one-half to A. Mohr, South Chicago, Ill. Hose-coupling. No. 1,130,473; Mar. 2; Gaz. vol. 212; p. 222.
Brown, Wade T., Williamsburg, Va. Sanitary lid-cover. No. 1,133,091; Mar. 23; Gaz. vol. 212; p. 1270.
Brown, Walter T. (See Rowley and Brown.)
Brown, Walter W., Erie, Pa., assignor to General Electric Company. Controlling mechanism for internal-combustion engines. No. 1,132,301; Mar. 16; Gaz. vol. 212; p. 933.
Brown, William A., Evansville, Ind. Collar with tie-slide. No. 1,132,555; Mar. 23; Gaz. vol. 212; p. 1072.
Brown, William R. (See Toles, Justin K., assignor.)
Browne, Sidney H., Short Hills, N. J., assignor to American Telephone and Telegraph Company. Telephone-exchange system. (Reissue.) No. 13,891; Mar. 16; Gaz. vol. 212; p. 1021.
Brownfield, T. J., *et al.* (See Bevington, Thomas, assignor.)
Browning, Esther S., Keefeton, Okla. Telephone-exchange system. No. 1,129,951; Mar. 2; Gaz. vol. 212; p. 41.
Brubacker, Howard C., Sault Ste. Marie, Ontario, Canada. Life-saving device. No. 1,133,924; Mar. 30; Gaz. vol. 212; p. 1601.
Brubaker, Lloyd H., San Francisco, Cal. Hose-coupling. No. 1,130,140; Mar. 2; Gaz. vol. 212; p. 103.
Brucato, George. (See Goodman, Solomon A., assignor.)
Bruce, John R., Wooster, Ohio. Side-car attachment for motor-cycles. No. 1,130,061; Mar. 2; Gaz. vol. 212; p. 77.
Bruce, Wallace, Manton, Cal. Life-preserver. No. 1,131,113; Mar. 9; Gaz. vol. 212; p. 475.
Brugger, Frederick R., Lake City, Iowa. Steam-engine governor. No. 1,132,068; Mar. 16; Gaz. vol. 212; p. 847.
Bruner, Meylert. (See Brogan, James A., assignor.)

Brunswick, Robert B., Philadelphia, Pa. Bottle-opener. No. 1,129,952; Mar. 2; Gaz. vol. 212; p. 41.
Brush, Alanson P., Detroit, Mich. Carbureter. No. 1,130,474; Mar. 2; Gaz. vol. 212; p. 222.
Brush, Alanson P., Detroit, Mich. Vehicle drive mechanism. No. 1,130,793; Mar. 9; Gaz. vol. 212; p. 306.
Bryan, Louis A., *et al.* (See Bryan, Pulaski J., assignor.)
Bryan, Pulaski J., Chicago, Ill., assignor of one-third to E. W. Rusk, Callaway, Nebr., one-third to L. A. Bryan, Gary, Ind., and one-third to G. N. Harris, Adrian, Mich. Meat-cutting machine. No. 1,130,664; Mar. 2; Gaz. vol. 212; p. 288.
Bryant, Henry E., assignor to American Patent Manufacturing Company, Jacksonville, Fla. Turpentine-distilling apparatus. No. 1,130,743; Mar. 9; Gaz. vol. 212; p. 349.
Bryant, Roy B., Little Rock, Ark. Railway signal system. No. 1,130,706; Mar. 9; Gaz. vol. 212; p. 336.
Bryson, Charles R., Pittsburgh, Pa. Metal-forming press. No. 1,130,254; Mar. 2; Gaz. vol. 212; p. 143.
Bryson, James R., Xenia, Ohio. Breeding-pen. No. 1,130,062; Mar. 2; Gaz. vol. 212; p. 77.
Brzozowski, Boleslaw, Erie, Pa. Crib. No. 1,132,432; Mar. 16; Gaz. vol. 212; p. 980.
Buch, Paul H., assignor of one-half to E. McCarthy, Chicago, Ill. Line-stretcher. No. 1,130,063; Mar. 2; Gaz. vol. 212; p. 77.
Buchak, Andrew. (See Gruzecki, Frank, assignor.)
Buchanan, Alexander W., Colorado Springs, Colo. Floor-cleaner. No. 1,130,064; Mar. 2; Gaz. vol. 212; p. 78.
Buchanan Electric Steel Company *et al.* (See Burrows and Ross, assignors.)
Buchignani, Angelo. (See Ghinelli and Buchignani.)
Buchner, Hans, Munich, Germany. Boot and shoe tree. No. 1,130,707; Mar. 9; Gaz. vol. 212; p. 337.
Buckeye Steel Castings Company, The. (See Bush, Samuel P., assignor.)
Buckle, John F., Chicago, Ill. Noiseless stamping-pad. No. 1,131,904; Mar. 16; Gaz. vol. 212; p. 787.
Buckley, William, Ashland, Wis. Means for preventing incrustation of boilers. No. 1,133,092; Mar. 23; Gaz. vol. 212; p. 1270.
Buckley, William M., Winnipeg, Manitoba, Canada. Garment. No. 1,131,674; Mar. 16; Gaz. vol. 212; p. 705.
Buckminster, Ira C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Work-support. No. 1,133,533; Mar. 30; Gaz. vol. 212; p. 1463.
Budenbach, William F. (See Hagen and Budenbach.)
Buff, Max. (See Flachsmender, Gralert, and Buff.)
Bugatti, Ettore, Molsheim, Germany. Shock-absorber. No. 1,133,093; Mar. 23; Gaz. vol. 212; p. 1271.
Bugbee & Niles Co. (See King, Rufus, assignor.)
Buhse, Alexander F. (See Buhse, Maximilian E., W. W., A. F., and H. L.)
Buhse, Henry L. (See Buhse, Maximilian E., W. W., A. F., and H. L.)
Buhse, Maximilian E., W. W., A. F., and H. L., Minneapolis, Minn. Candy-pulling machine. No. 1,132,556; Mar. 23; Gaz. vol. 212; p. 1072.
Buhse, Walter W. (See Buhse, Maximilian E., W. W., A. F., and H. L.)
Bullock, Charles T., Winterville, Ga. Stop mechanism for presses. No. 1,131,597; Mar. 9; Gaz. vol. 212; p. 642.
Bullock, Samuel A., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Swing-dampener for truck-bolsters. No. 1,130,665; Mar. 2; Gaz. vol. 212; p. 288.
Bullock, Samuel M., Chicago, and H. S. Lloyd, Oak Park, Ill. Abrasive. No. 1,133,260; Mar. 30; Gaz. vol. 212; p. 1365.
Bultge, Martin F., Lansing, assignor to National Brick Company, Chicago, Ill. Brick-setting machine. No. 1,131,905; Mar. 16; Gaz. vol. 212; p. 788.
Bunch, Burt K., Marshall, Mo. Electric lantern. No. 1,130,567; Mar. 2; Gaz. vol. 212; p. 255.
Bunch, William. (See Pool and Bunch.)
Bundy, Cyrus L., East Orange, and W. Grant, Passaic, N. J. Curtain-roller. No. 1,133,227; Mar. 23; Gaz. vol. 212; p. 1317.
Bunker, Raymond U., Yonkers, N. Y. Apparatus for treating materials with liquids. No. 1,131,675; Mar. 16; Gaz. vol. 212; p. 705.
Bunker, Ward S., Biloxi, Miss. Road-scraper. No. 1,133,094; Mar. 23; Gaz. vol. 212; p. 1271.
Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Excavating-machine. No. 1,131,114; Mar. 9; Gaz. vol. 212; p. 475.
Burgess, Gardner M., Providence, R. I. Pocket-clip for spectacle-cases or other articles. No. 1,132,012; Mar. 23; Gaz. vol. 212; p. 1204.
Burgess, George A., assignor of one-third to E. E. Seufferle, Washington, D. C. Garter. No. 1,131,467; Mar. 9; Gaz. vol. 212; p. 598.
Burgess, Richard H., Mullin, Tex. Resilient wheel. No. 1,131,468; Mar. 9; Gaz. vol. 212; p. 598.
Burke, Michael A., Kingman, Ariz. Support. No. 1,131,906; Mar. 16; Gaz. vol. 212; p. 788.
Burke, Robert F., and J. E. Craven, Philadelphia, Pa. Attachment for displacement-lubricators. No. 1,131,323; Mar. 9; Gaz. vol. 212; p. 549.
Burke, Stephen E., assignor of one-half to J. Allamong, Hamilton, Ind. Draft-regulator. No. 1,131,036; Mar. 9; Gaz. vol. 212; p. 450.
Burke, William J., New York, N. Y. Signaling device for motor-vehicles. No. 1,133,002; Mar. 23; Gaz. vol. 212; p. 1238.
Burke, William J., New York, N. Y. Signaling device for motor-vehicles. No. 1,133,003; Mar. 23; Gaz. vol. 212; p. 1239.
Burks, Eugene G., and N. Hayes, Birmingham, Ala. Coal-washing apparatus. No. 1,132,433; Mar. 16; Gaz. vol. 212; p. 980.
Burnett, Richard W. (See Ord, Lewis C., assignor.)
Burnett, Richard W., assignor to himself and W. W. Butler and H. H. Vaughan, Montreal, Quebec, Canada. Grain-door lock. No. 1,133,534; Mar. 30; Gaz. vol. 212; p. 1464.
Burnett, Richard W., and H. H. Vaughan, Montreal, Quebec, Canada. Railway freight-car. No. 1,130,791; Mar. 9; Gaz. vol. 212; p. 365.
Burns, Clinton S., Kansas City, Mo. Flushing device. No. 1,130,885; Mar. 9; Gaz. vol. 212; p. 398.
Burns, James A. (See Auel and Burns.)
Burns, John G., *et al.* (See Jobke, August F., assignor.)
Burns, John W. (See Powers and Burns.)
Burns, Owen. (See Hazen, Jean D., assignor.)
Burns, P. J. (See Gurney, Edmund, assignor.)
Burroughs Adding Machine Company. (See Swalm, William E., assignor.)
Burroughs Adding Machine Company. (See Wales, Charles, assignor.)
Burroughs, Harry H., Kennebunk, Me. Garment-supporter. No. 1,133,095; Mar. 23; Gaz. vol. 212; p. 1271.
Burrows, Robert J., and E. B. Ross, Buchanan, Mich., assignors of one-half to Celfor Tool Company and one-half to Buchanan Electric Steel Company, Chicago, Ill. Wheel. No. 1,131,819; Mar. 16; Gaz. vol. 212; p. 758.
Burson, Schuyler C., assignor of one-half to D. H. Piper, Axtell, Kans. Automobile-wheel. No. 1,131,324; Mar. 9; Gaz. vol. 212; p. 549.
Burt, Charles P., East Orange, N. J. Selective speed mechanism and controlling device therefor. No. 1,133,925; Mar. 30; Gaz. vol. 212; p. 1602.
Burton, Charles S., Oak Park, Ill. Extension-table lock. No. 1,130,141; Mar. 2; Gaz. vol. 212; p. 104.
Burton Company, The. (See Burton, George D., assignor.)
Burton, George D., assignor to The Burton Company, Boston, Mass. Treating yarn and the like. No. 1,131,623; Mar. 9; Gaz. vol. 212; p. 651.
Burton, James M., Long Island City, assignor to Neptune Meter Company, New York, N. Y. Separator for meters. No. 1,130,792; Mar. 9; Gaz. vol. 212; p. 366.
Busch, Albert, Brunswick, assignor to Firm of J. A. Wuehing, Berlin, Germany. Manufacturing lithium acetylsalicylate. No. 1,129,953; Mar. 2; Gaz. vol. 212; p. 41.
Busch, Herman F., Millvale, assignor to Armstrong Cork Company, Pittsburgh, Pa. Machine for assembling bottle-stoppers. No. 1,131,325; Mar. 9; Gaz. vol. 212; p. 549.
Busch, Herman F., Millvale, assignor to Armstrong Cork Company, Pittsburgh, Pa. Cork seal for bottle-stoppers and the like and making the same. No. 1,131,326; Mar. 9; Gaz. vol. 212; p. 550.
Busch, Mary McArthur, N. D. Rail chair and fastening. No. 1,132,827; Mar. 23; Gaz. vol. 212; p. 1175.
Buschmann, Theodor E., Chemnitz, assignor to The Wanderer Werke vorm. Winklhofer & Jaenicke Akt.-Ges., Schönau, near Chemnitz, Germany. Type-writing machine. No. 1,133,096; Mar. 23; Gaz. vol. 212; p. 1272.
Bush, Samuel P., assignor to The Buckeye Steel Castings Company, Columbus, Ohio. Car-coupling. No. 1,132,434; Mar. 16; Gaz. vol. 212; p. 980.
Bushey, Fillmore, St. Albans, Vt. Coupling. No. 1,131,820; Mar. 16; Gaz. vol. 212; p. 758.
Buss, Clayton D., and F. Heacock, Easton, Pa. Incandescent-lamp-attaching implement. No. 1,133,618; Mar. 30; Gaz. vol. 212; p. 1493.
Butenschon, John, Anniston, Ala. Illuminated sign. No. 1,133,926; Mar. 30; Gaz. vol. 212; p. 1602.
Butler, Ossie H., Chicago, Ill. Paring-knife. No. 1,133,228; Mar. 23; Gaz. vol. 212; p. 1317.
Butler, Wilson W., *et al.* (See Burnett, Richard W., assignor.)
Butterfield, Arthur W., St. Louis, Mo. Oil-vaporizer. No. 1,129,845; Mar. 2; Gaz. vol. 212; p. 5.
Butterworth, Joseph, Indianapolis, Ind. Convertible motor-vehicle. No. 1,132,435; Mar. 16; Gaz. vol. 212; p. 981.
Button, William N., assignor of one-half to W. Lounie, Providence, R. I. Window-blind catch. No. 1,131,206; Mar. 9; Gaz. vol. 212; p. 508.
Butzen, Thomas F., and M. W. Kingsley, Milwaukee, Wis. Electric work-light. No. 1,129,846; Mar. 2; Gaz. vol. 212; p. 5.
Buzard, Edmirl D., Pittsburgh, Pa. Fruit-picker. No. 1,133,927; Mar. 30; Gaz. vol. 212; p. 1602.
Buzzard, George M. (See McConaughy, Hugh, assignor.)
Byam Tire and Rim Company. (See Byam, William W., assignor.)
Byam, William W., Chicago, Ill., assignor to Byam Tire and Rim Company. Wheel. No. 1,130,886; Mar. 9; Gaz. vol. 212; p. 398.
Byrnes, Clarence P., Sewickley, Pa. Vacuum-bottle. No. 1,130,255; Mar. 2; Gaz. vol. 212; p. 143.
Byrnes, William M., Vail, Iowa. Telephone apparatus. No. 1,131,598; Mar. 9; Gaz. vol. 212; p. 642.

C. B. Cottrell & Sons Company. (See Cottrell, Charles P., assignor.)
C. H. & E. Manufacturing Company. (See Nydegger, Adolph, assignor.)
C. M. Hall Lamp Company. (See Anklam, William F., assignor.)
C. T. Ham Manufacturing Company. (See Pomeroy, Bennard H., assignor.)
C. W. Ferguson Collar Company. (See Gardner, John W., assignor.)
Cady, Frank P., assignor to The Cady Patent Appliance Company, Cleveland, Ohio. Lifting device for motor-vehicles. No. 1,133,703; Mar. 30; Gaz. vol. 212; p. 1526.
Cady Patent Appliance Company, The. (See Cady, Frank P., assignor.)
Cady, William M., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Automatic train-stop device. No. 1,131,207; Mar. 9; Gaz. vol. 212; p. 508.
Cahill, Patrick J., Utica, N. Y. Unsinkable ship. No. 1,133,928; Mar. 30; Gaz. vol. 212; p. 1603.
Caillouette, Alcée, assignor of one-half to J. Caillouette, Jr., Central, La. Device for connecting blades to snathes. No. 1,130,666; Mar. 2; Gaz. vol. 212; p. 289.
Caillouette, Joseph, Jr. (See Caillouette, Alcée, assignor.)
Cain, Fred L., and C. J. Dorff, assignors to Harvard Electric Company, Chicago, Ill. Outlet-box hanger. No. 1,133,535; Mar. 30; Gaz. vol. 212; p. 1464.
Cain, John R. (See Cain, William R. and J. R.)
Cain, William R. and J. R., Houston, Tex. Cheese-hoop. No. 1,133,261; Mar. 30; Gaz. vol. 212; p. 1365.
Caire, Philippe. (See Balachowsky and Caire.)
Cake, Horace M., Washington, D. C. Forming bottle-caps. No. 1,131,676; Mar. 16; Gaz. vol. 212; p. 705.
Caldwell, Edwin D., Dunkirk, N. Y. Motor-vehicle axle. No. 1,130,065; Mar. 2; Gaz. vol. 212; p. 78.
Caldwell, George, Philadelphia, Pa. Manhole-cover. No. 1,131,327; Mar. 9; Gaz. vol. 212; p. 550.
Caldwell, Ward, Dekalb county, near Leland, Ill. Detachable head for connecting rods or bolts. No. 1,133,428; Mar. 30; Gaz. vol. 212; p. 1426.
California Corrugated Culvert Company. (See Thorsby, Karl J., assignor.)
Callan, Christopher B., Austin, Tex. Attachment for linotype-machines. No. 1,132,557; Mar. 23; Gaz. vol. 212; p. 1073.
Callow, Herschel L. (See Callow, John and H. L.)
Callow, John, Liverpool, England. Apparatus for proving dough. No. 1,130,568; Mar. 2; Gaz. vol. 212; p. 255.
Callow, John, Liverpool, England. Apparatus for molding, shaping, and compressing dough and the like plastic materials. No. 1,131,328; Mar. 9; Gaz. vol. 212; p. 550.
Callow, John and H. L., Liverpool, England. Apparatus for dividing and molding dough and other plastic material. No. 1,131,329; Mar. 9; Gaz. vol. 212; p. 551.
Calvert, Osceola, *et al.* (See Pearson, James H., assignor.)
Cambre, Henry P., New Orleans, La. Railway draft device. No. 1,133,704; Mar. 30; Gaz. vol. 212; p. 1526.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Ore-car. No. 1,133,614; Mar. 30; Gaz. vol. 212; p. 1493.
Campbell, Birum G., Jackson, Mich. Stop-cock seal. No. 1,131,821; Mar. 16; Gaz. vol. 212; p. 759.
Campbell, Edward B., St. Louis, Mo. Packing-ring. No. 1,132,762; Mar. 23; Gaz. vol. 212; p. 1149.
Campbell, James W., Reno, Nev. Variable-speed gearing. No. 1,133,837; Mar. 30; Gaz. vol. 212; p. 1572.
Campbell, Ross L., Wilmington, Del. Pump. No. 1,130,959; Mar. 9; Gaz. vol. 212; p. 422.
Campbell, Thomas M., Los Angeles, Cal. Display-can. No. 1,130,256; Mar. 2; Gaz. vol. 212; p. 143.
Campbell, William A., Maricopa, Cal. Hose-coupling. No. 1,130,475; Mar. 2; Gaz. vol. 212; p. 222.
Campbell, William B., Gadsden, Ala. Disinfector for flushing-tanks. No. 1,131,677; Mar. 16; Gaz. vol. 212; p. 706.
Campus, Cesare, New York, N. Y. Intermittent transmission mechanism. No. 1,132,436; Mar. 16; Gaz. vol. 212; p. 981.
Capps, Frank L. (See Sheble and Capps.)
Cardwell, Joseph C. (See Restorff and Lile, assignors.)
Carey, Ida, Tuscarora, Nev. Rail tie and fastening. No. 1,132,437; Mar. 16; Gaz. vol. 212; p. 981.
Carleton, Jerry. (See Scudder and Corlew, assignors.)
Carlin, Samuel E., Chicago, Ill., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Type-writing machine. No. 1,132,558; Mar. 23; Gaz. vol. 212; p. 1073.
Carlin, Samuel E., Chicago, Ill., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Type-writing machine. No. 1,133,004; Mar. 23; Gaz. vol. 212; p. 1239.
Carlson, Albert, Walcott, N. D. Cage animal-trap. No. 1,130,667; Mar. 2; Gaz. vol. 212; p. 289.
Carlson, Albin V., Degerhamn, assignor to C. L. Carlson, Stockholm, Sweden. Manufacturing hydraulic cement. No. 1,130,143; Mar. 2; Gaz. vol. 212; p. 105.
Carlson, Carl A., Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Machine for making card-matches. No. 1,132,802; Mar. 16; Gaz. vol. 212; p. 934.
Carlson, Carl A. and K. E., Campbell, Mass. Apparatus for moistening toe-pieces of shoes. No. 1,130,374; Mar. 2; Gaz. vol. 212; p. 185.
Carlson, Carl L. (See Carlson, Albin V., assignor.)
Carlson, Elnar W., Upland, N. D. Post-puller. No. 1,130,144; Mar. 2; Gaz. vol. 212; p. 105.
Carlson, Frederick E., assignor to Landers, Frary & Clark, New Britain, Conn. Casing for vacuum-bottles and other devices. No. 1,132,512; Mar. 16; Gaz. vol. 212; p. 1010.
Carlson, Knute E. (See Carlson, Carl A. and K. E.)
Carlson, Victor, Chatcolet, Idaho. Saw-set. No. 1,131,208; Mar. 9; Gaz. vol. 212; p. 508.
Carnes, Dudley D., Lott, Tex. Stalk-cutter. No. 1,131,907; Mar. 16; Gaz. vol. 212; p. 788.
Caron, Napoleon, Nashua, N. H., assignor of one-half to N. Rodier, Lowell, Mass. Hammer. No. 1,133,705; Mar. 30; Gaz. vol. 212; p. 1527.
Carothers, George R. (See Williamson and Carothers.)
Carpenter, Allan O. (See Lucker and Carpenter.)
Carpenter, Chauncey C., Conconully, Wash. Cultivator. No. 1,130,887; Mar. 9; Gaz. vol. 212; p. 399.
Carpenter, Ralph W. (See Hart and Carpenter.)
Carpentier, Rodolphe, assignor to Société Carpentier, Ba. & Cie., St.-Denis, France, Sparking plug. No. 1,131,115; Mar. 9; Gaz. vol. 212; p. 476.
Carper, Albert A., Catonsville, assignor to The Crown Cork & Seal Company, Baltimore, Md. Bottling-machine. No. 1,133,929; Mar. 30; Gaz. vol. 212; p. 1603
Carr, Alfred J. (See Mills, Charles B., assignor.)
Carr, Elmer E., Chicago, Ill. Flagstaff. No. 1,132,303; Mar. 16; Gaz. vol. 212; p. 934.
Carr, Joseph B., Metamora, Ohio. Shoe-protector. No. 1,132,159; Mar. 16; Gaz. vol. 212; p. 880.
Carr, Joseph R., Cleveland, Okla. Gate. No. 1,132,438; Mar. 16; Gaz. vol. 212; p. 982.
Carr, Robert P., assignor to U. S. Hame Company, Buffalo, N. Y. Making hames. No. 1,132,513; Mar. 16; Gaz. vol. 212; p. 1010.
Carr, William C., Buffalo, N. Y. Truck. No. 1,129,954; Mar. 2; Gaz. vol. 212; p. 41.
Carrey, John O., St. Louis, Mo. Lighter. No. 1,132,559; Mar. 23; Gaz. vol. 212; p. 1073.
Carrier, Courtland S., Omaha, Nebr. Check-protector. No. 1,133,459; Mar. 30; Gaz. vol. 212; p. 1436.
Carrigan, Daniel H., Portland, Me. Harness-pad. No. 1,129,847; Mar. 2; Gaz. vol. 212; p. 5.
Carroll, Charles E., Newport, Ark. Tooth-brush. No. 1,133,930; Mar. 30; Gaz. vol. 212; p. 1603.
Carroll, George J., and J. Merkel, Tamaqua, Pa. Film-guard for the film-winding mechanism for moving-picture machines. No. 1,131,822; Mar. 16; Gaz. vol. 212; p. 759.
Carroll, George P. (See Roehrich, Frank N., assignor.)
Carroll, George P., Bridgeport, Conn. Rheostat-controller. No. 1,130,476; Mar. 2; Gaz. vol. 212; p. 223.
Carroll, John M. (See Godley and Carroll.)
Carroll, Thomas, assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,131,771; Mar. 16; Gaz. vol. 212; p. 789.
Carson, David J. (See Lanigan and Carson.)
Carter, Charles B., Chicago, Ill. Metal-founding. No. 1,130,066; Mar. 2; Gaz. vol. 212; p. 79.
Carter, Custis L., Charlottesville, Va. Trip and station indicator. No. 1,133,005; Mar. 23; Gaz. vol. 212; p. 1240.
Carter, Frank W. (See Connor, Maurice N. assignor.)
Carter, John D. (See Vail and Carter.)
Carter, Jonas, assignor of three-fourths to A. Long, Waukegan, Ill. Generator for intermittent electric currents. No. 1,130,257; Mar. 2; Gaz. vol. 212; p. 144.
Carter, Ralph N., Bucklin, Mo. Headlight for vehicles. No. 1,130,067; Mar. 2; Gaz. vol. 212; p. 79.
Carter, Vina M. (See Stephens and Carter.)
Carter, William T., Chicago, Ill. Ice-making apparatus. No. 1,130,960; Mar. 9; Gaz. vol. 212; p. 423.
Carter, William W., *et al.* (See Pearson, James H., assignor.)
Carter's Ink Company, The. (See Sabine, Wallace C., assignor.)
Cary Manufacturing Co. (See Cary, Spencer C., assignor.)
Cary Manufacturing Company. (See Miller, George C. D., assignor.)
Cary, Spencer C., New York, assignor to Cary Manufacturing Co., Brooklyn, N. Y. Making bands from sheet metal. No. 1,131,037; Mar. 9; Gaz. vol. 212; p. 450.
Casaday, James O., South Bend, Ind. Rotative boiler-tube cleaner. No. 1,133,262; Mar. 30; Gaz. vol. 212; p. 1366.
Casale, Domenico T., Williamsport, Pa. Nut-lock. No. 1,129,955; Mar. 2; Gaz. vol. 212; p. 42.
Case, Robert E., and F. M. Wait, St. Edward, Nebr. Device for controlling the flow of water under pressure. No. 1,132,439; Mar. 16; Gaz. vol. 212; p. 982.
Caselli, Carlo, Brooklyn, N. Y. Combined fire-extinguisher and fire-alarm. No. 1,133,706; Mar. 30; Gaz. vol. 212; p. 1527.
Casey, William F. J., Kingston, Ontario, Canada, assignor to Locomotive Superheater Company, New York, N. Y. Steam-superheater. No. 1,132,069; Mar. 16; Gaz. vol. 212; p. 847.
Casgrain, Louis A., Beverly, Mass. Starting device for internal-combustion motors. No. 1,132,160; Mar. 16; Gaz. vol. 212; p. 880.

Casper, John R., Washington, D. C. Shade-bracket. No. 1,133,360; Mar. 30; Gaz. vol. 212; p. 1401.
Casper, John R., Washington, D. C. Signaling device. No. 1,133,361; Mar. 30; Gaz. vol. 212; p. 1401.
Cassady, George, New Westminster, British Columbia, Canada, and C. F. Mendham, London, England. Mechanism for the conversion of reciprocating into rotary motion. No. 1,132,161; Mar. 16; Gaz. vol. 212; p. 880.
Cassard, Vernon, Stamford, Conn. Apparatus for killing poultry. No. 1,133,362; Mar. 30; Gaz. vol. 212; p. 1402.
Cast, George, Marion, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill. Scraper for furrow-openers. No. 1,129,848; Mar. 2; Gaz. vol. 212; p. 6.
Casteran, Juan G., Buenos Aires, Argentina. Joint for flexible rails. No. 1,130,145; Mar. 2; Gaz. vol. 212; p. 105.
Casterline, Cyrus L., *et al.* (See Crofoot, Edwin H., assignor.)
Castlebone Co. (See Schloss, Joseph W., assignor.)
Catlin, Abel D., assignor to J. M. Card Lumber Co., Chattanooga, Tenn. Machine for making chock-blocks. No. 1,133,931; Mar. 30; Gaz. vol. 212; p. 1603.
Cavanagh, Anthony B. (See Wooden, Earle M., assignor.)
Cavanagh, James, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. End-lasting machine. No. 1,130,142; Mar. 2; Gaz. vol. 212; p. 104.
Cechal, Barbara, executrix. (See Cechal, Ferdinand, assignor.)
Cechal, Ferdinand, deceased; B. Cechal, executrix, assignor of forty one-hundredths to said B. Cechal, individually, thirty one-hundredths to E. Tredup, and thirty one-hundredths to E. Freyer, Saratoga Springs, N. Y. Toilet-seat. No. 1,130,068; Mar. 2; Gaz. vol. 212; p. 79.
Ceifor Tool Company *et al.* (See Burrows and Ross, assignors.)
Celluloid Company, The. (See Lindsay, William G., assignor.)
Central Hardware Company, The. (See Vondenbosch, Raymond H., assignor.)
Central Trust Company of New York, trustee. (See Bliss, William L., assignor.)
Central Trust Company of New York, trustee. (See Turbayne, William A., assignor.)
Century Electric Company. (See Pillsbury, Edwin S., assignor.)
Chace, Richard B., assignor to The Whitin Machine Works, Whitinsville, Mass. Combing-machine. No. 1,133,006; Mar. 23; Gaz. vol. 212; p. 1240.
Chadeloid Chemical Company. (See Ellis, Carleton, assignor.)
Chalmers Motor Company. (See Dunham, George W., assignor.)
Chamberlin, Benjamin F., Jr., Boston, and J. N. Moulton, Haverhill, assignors to Massachusetts Chemical Company, Boston, Mass. Apparatus for treating coated fabrics. No. 1,131,993; Mar. 16; Gaz. vol. 212; p. 820.
Chamberlin, Edwin, and A. M. Gardner, Avella, Pa.; said Chamberlin assignor to said Gardner. Liquid-elevating apparatus. No. 1,131,209; Mar. 9; Gaz. vol. 212; p. 509.
Champagne, Albert E. (See Mercer and Champagne.)
Champion Chemical Company, The. (See Johnson, Charles L., assignor.)
Champion Metal Weather Strip and Parting Bead Company. (See McGee, Charles H., assignor.)
Champion Shoe Machinery Company. (See Corcoran, George L., assignor.)
Champion Shoe Machinery Company. (See Corcoran and Dobyne, assignors.)
Champion Shoe Machinery Company. (See Corcoran, Dobyne, and Schoenky, assignors.)
Chandler, William L., Mishawaka, Ind. Churn for separating butter from milk and cream. No. 1,132,702; Mar. 23; Gaz. vol. 212; p. 1127.
Chanut, Auguste J., Kennedy, Saskatchewan, Canada. Operating device for whips. No. 1,130,668; Mar. 2; Gaz. vol. 212; p. 289.
Chaplin-Fulton Manufacturing Company, The. (See Fulton, Louis B., assignor.)
Chapman, Edith E., executrix. (See Giroud, Felipe.)
Chapman, John A., Bigelow, Ark. Attachment for carsteps. No. 1,129,956; Mar. 2; Gaz. vol. 212; p. 42.
Chappelle, Charles, assignor of one-half to D. J. Hayden, Oklahoma, Okla. Pneumatic railway-switch. No. 1,130,477; Mar. 2; Gaz. vol. 212; p. 224.
Charles W. Shonk Company. (See Holloway, William M., assignor.)
Chase, Hamilton C., Dayton, Ohio. Internal-combustion engine. No. 1,129,957; Mar. 2; Gaz. vol. 212; p. 42.
Chase, Irwin, assignor to The Elco Company, Bayonne, N. J. Side light for boats. No. 1,133,536; Mar. 30; Gaz. vol. 212; p. 1465.
Cheeseman, Mary J., New York, N. Y. Washboiler. No. 1,133,097; Mar. 23; Gaz. vol. 212; p. 1272.
Cheetham, George. (See Goodwin and Cheetham.)
Cheney, Herbert W., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Dash-pot. No. 1,130,375; Mar. 2; Gaz. vol. 212; p. 186.
Cheney, Herbert W., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Unloading device for compressors. No. 1,133,792; Mar. 30; Gaz. vol. 212; p. 1556.
Chenoweth, Edwin G. (See Mathews and Chenoweth.)
Chidley, Joseph, and W. H. Winterrowd, Cleveland, Ohio. Locomotive. No. 1,130,669; Mar. 2; Gaz. vol. 212; p. 290.
Chilson, Frank B., *et al.* (See Funder, Mathew, assignor.)
Chilton, Henry J., Chicago, Ill. Bottle-handling machine. No. 1,132,162; Mar. 16; Gaz. vol. 212; p. 881.
Chinnock, George H., New York, N. Y. Vehicle-tire. No. 1,131,772; Mar. 16; Gaz. vol. 212; p. 740.
Chomier, Louis, and B. Fressinet, St. Etienne, France. Apparatus for weaving ribbons and fabrics. No. 1,132,440; Mar. 16; Gaz. vol. 212; p. 983.
Chouinard, Oscar. (See Holst and Chouinard.)
Chouinard, Oscar. (See Motley and Chouinard.)
Chrisman, Loran T., assignor of one-fourth to J. G. Wicksr, one-fourth to E. Mayer, and one-fourth to J. Mayer, Buffalo, N. Y. Trolley-restorer. No. 1,133,263; Mar. 30; Gaz. vol. 212; p. 1366.
Christensen, Arthur O., Franklin Furnace, N. J. Electric heating and cooking stove. No. 1,133,098; Mar. 23; Gaz. vol. 212; p. 1272.
Christensen, Christen, Copenhagen, Denmark. Apparatus for cooling molten or emulsion-like substances on a cooling-surface. No. 1,130,670; Mar. 2; Gaz. vol. 212; p. 290.
Christensen, Peter, Kingsville, Tex. Swinging cradle. No. 1,133,429; Mar. 30; Gaz. vol. 212; p. 1426.
Christenson, Alfred C. (See Tysse, Hans C., assignor.)
Christiansen, Charles, Gelsenkirchen, Germany. Diver-saving apparatus. No. 1,133,932; Mar. 30; Gaz. vol. 212; p. 1604.
Christophel, Lewis W., University City, Mo. Hinge. No. 1,132,560; Mar. 23; Gaz. vol. 212; p. 1074.
Christy, Joseph M., Des Moines, Iowa. Loader for box cars. No. 1,131,038; Mar. 9; Gaz. vol. 212; p. 450.
Chryst, William A. (See Kettering and Chryst.)
Chubbuck, Orlo P., Peoria, Ill., assignor to Avery Company. Antislipping device for tires. No. 1,131,116, Mar. 9; Gaz. vol. 212; p. 476.
Church, Edmund S., Dayton, Ohio, assignor, by mesne assignments, to G. L. Church, Chicago, Ill. Internal-combustion engine. No. 1,133,007; Mar. 23; Gaz. vol. 212; p. 1240.
Church, Georgiana L. (See Church, Edmund S., assignor.)
Church, Herbert B., assignor to Consolidated Safety Pin Company, Bloomfield, N. J. Machine for carding safety-pins, &c. No. 1,133,363; Mar. 20; Gaz. vol. 212; p. 1402.
Church, Ira A., Ontario, Cal. Bench-dog. No. 1,132,703; Mar. 23; Gaz. vol. 212; p. 1127.
Churchill, John, Mount Carmel, Pa. Dirigible headlight. No. 1,130,478; Mar. 2; Gaz. vol. 212; p. 224.
Cigar Wrapper Register Co. (See Strasser, David, assignor.)
Cincinnati Frog & Switch Company, The. (See Partington, Charles, assignor.)
Cincinnati Milling Machine Company, The. (See De Leeuw, Adolph L., assignor.)
Cincinnati Milling Machine Company, The. (See Edgar, John, assignor.)
Claesgens, Joseph F., and F. A. Geiger, Rochester, N. Y. Flying-machine. No. 1,133,707; Mar. 30; Gaz. vol. 212; p. 1527.
Claeson, Gunnar, Superior, Wis. Animal-trap. No. 1,131,908; Mar. 16; Gaz. vol. 212; p. 788.
Clapp, Albert L., Braintree, assignor to Hide-Ite Leather Company, Boston, Mass. Leather-board and producing the same. No. 1,131,039; Mar. 9; Gaz. vol. 212; p. 451.
Clark, Burton E., Pittsburgh, Pa. Wheel for roller-skates. No. 1,130,794; Mar. 9; Gaz. vol. 212; p. 366.
Clark, Claude D., New Britain, Conn. Barrel-making machine. No. 1,130,888; Mar. 9; Gaz. vol. 212; p. 309.
Clark, Clinton W. (See Bacon, Brooks, and Clark.)
Clark, Edgar J., *et al.* (See Markham, Andrew J., assignor.)
Clark, Edgar M., Alton, Ill., assignor to Standard Oil Company, Whiting, Ind. Petroleum distillation. No. 1,132,163; Mar. 16; Gaz. vol. 212; p. 881.
Clark, Epaminoudas, New York, N. Y. Nasal liquid-inhaler. No. 1,130,961; Mar. 9; Gaz. vol. 212; p. 423.
Clark, Frederick J., assignor to Eastman Machine Company, Buffalo, N. Y. Cloth-cutting machine. No. 1,133,839; Mar. 30; Gaz. vol. 212; p. 1573.
Clark, George H., Waterloo, Iowa. Game apparatus. No. 1,131,210; Mar. 9; Gaz. vol. 212; p. 509.
Clark, George W. (See McGrath and Clark.)
Clark, James C. (See Lawrence, John R., assignor.)
Clark, Margaret M., Newport, Pa. Mailing-package. No. 1,130,889; Mar. 9; Gaz. vol. 212; p. 399.
Clark, Melville, Chicago, Ill. Vehicle wheel-tire. No. 1,130,146; Mar. 2; Gaz. vol. 212; p. 105.
Clark, Melville, Chicago, Ill. Vehicle wheel-tire. No. 1,130,795; Mar. 9; Gaz. vol. 212; p. 367.
Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Combined recording and playing mechanism for automatic musical instruments. No. 1,132,441; Mar. 16; Gaz. vol. 212; p. 983.
Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Vent-regulator for pneumatic actions. No. 1,132,650; Mar. 23; Gaz. vol. 212; p. 1108.
Clark, Melville A., Syracuse, N. Y. Harp-harness. No. 1,133,615; Mar. 30; Gaz. vol. 212; p. 1493.
Clark, Melville A., Syracuse, N. Y. Harp. No. 1,133,616; Mar. 30; Gaz. vol. 212; p. 1493.

Clark, Robert G., New York, assignor to J. A. Johnson, Brooklyn, N. Y. Bottle-cap-assembling machine. No. 1,134,031; Mar. 30; Gaz. vol. 212; p. 1636.
Clark, William J., and F. Ryman, assignors to Hammon Coupler Company, Pittsburgh, Pa. Making middle rings for pipe-couplings. No. 1,132,828; Mar. 23; Gaz. vol. 212; p. 1175.
Clarke, Charles J., Kingsburg, Cal. Short-turning truck. No. 1,133,838; Mar. 30; Gaz. vol. 212; p. 1573.
Clarke, James F., Los Angeles, Cal. Vehicle-step. No. 1,134,032; Mar. 30; Gaz. vol. 212; p. 1637.
Clarke, Lewis L., New York, N. Y. Camera. No. 1,132,070; Mar. 16; Gaz. vol. 212; p. 848.
Clarke, Ralph S., Walpole, Mass., assignor to Wandel Screen Manufacturing Company. Rotary pulp-screen. No. 1,131,599; Mar. 9; Gaz. vol. 212; p. 643.
Clarkson, Florian L., and O. P. Hummon, Leipsic, assignors to The Enterprise Manufacturing Company, Akron, Ohio. Fish-lure. No. 1,131,909; Mar. 16; Gaz. vol. 212; p. 789.
Clatt, John, Gorin, Mo. Tire-armor. No. 1,133,099; Mar. 23; Gaz. vol. 212; p. 1273.
Claude, Georges, Paris, France. Vacuum discharge-tube for lighting purposes. No. 1,131,910; Mar. 16; Gaz. vol. 212; p. 789.
Claude, Georges, assignor to Societe L'Air Liquide (Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude), Paris, France. Explosive containing liquid air or oxygen and lampblack. No. 1,131,994; Mar. 16; Gaz. vol. 212; p. 820.
Clausen, Henry P., Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill. Call-distributing telephone system. No. 1,131,911; Mar. 16; Gaz. vol. 212; p. 789.
Clausen, Henry P., Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill. Telephone system. No. 1,131,912; Mar. 16; Gaz. vol. 212; p. 790.
Clausen, Henry P., Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill. Telephony. No. 1,133,264; Mar. 30; Gaz. vol. 212; p. 1366.
Claussen, Martin. (See McKay and Claussen.)
Clawson, Monroe S., Weehawken, N. J. X-ray tube. No. 1,132,442; Mar. 16; Gaz. vol. 212; p. 983.
Claymier, Adam H., Lake, Wis. Trench-jack. No. 1,132,763; Mar. 23; Gaz. vol. 212; p. 1149.
Clayton, Ira B., and N. Moore, Cooper, Tex. Rural-mail-delivery system. No. 1,133,100; Mar. 23; Gaz. vol. 212; p. 1273.
Clayton, William R., Barberton, Ohio. Desiccating apparatus. No. 1,130,890; Mar. 9; Gaz. vol. 212; p. 400.
Clefton, Claud J., assignor to The Clefton Company, Owatonna, Minn. Gas-generator. No. 1,133,617; Mar. 30; Gaz. vol. 212; p. 1494.
Clefton, Claud J., assignor to The Clefton Company, Owatonna, Minn. Valve for acetylene-generators. No. 1,133,618; Mar. 30; Gaz. vol. 212; p. 1494.
Clefton Company, The. (See Clefton, Claud J., assignor.)
Clegg, Albert E., Leeds, England. Glass-bottle-making machine. No. 1,132,071; Mar. 16; Gaz. vol. 212; p. 848.
Clegg, Albert E., Leeds, England. Glass-bottle-blowing machine. No. 1,133,708; Mar. 30; Gaz. vol. 212; p. 1528.
Clemens, Albert, Louisville, Ky. Device for delivering material from a container. No. 1,131,117; Mar. 9; Gaz. vol. 212; p. 477.
Clements, Arthur E., Tampa, Fla. Automatic railway-gate. No. 1,131,330; Mar. 9; Gaz. vol. 212; p. 551.
Clemmer, James H., Bluecreek, W. Va. Shoe-repairing jack. No. 1,132,072; Mar. 16; Gaz. vol. 212; p. 849.
Clermont, John B., assignor to S and S Window Corporation, New York, N. Y. Pulley-case. No. 1,132,651; Mar. 23; Gaz. vol. 212; p. 1108.
Cleveland, Clement, New York, N. Y. Hat-pin. No. 1,130,796; Mar. 9; Gaz. vol. 212; p. 367.
Cleveland Pneumatic Tool Company. (See Greve, Louis W., assignor.)
Cleveland Trolley Wheel Company, The. (See McAdams, Sylvester L., assignor.)
Clevenger, Frank A., Ekalka, Mont. Irrigating-siphon. No. 1,131,823; Mar. 16; Gaz. vol. 212; p. 759.
Climax Refuse Container Corporation. (See Hoofnagle, William T., assignor.)
Cline, Fred E., and W. L. Baskerville, San Diego, Cal. Alarm device for motor-vehicles. No. 1,131,824; Mar. 16; Gaz. vol. 212; p. 760.
Cline, Nelson T., McKees Rocks, Pa. Nut-locking device for air-compressors. No. 1,133,537; Mar. 30; Gaz. vol. 212; p. 1465.
Clinton, Michael, Philadelphia, Pa., assignor of one-fourth to Penn Printing House, one-fourth to H. Miller, Delaware county, and one-fourth to W. E. Cunningham, Philadelphia, Pa. Paper-heater for printing-presses. No 1,131,642; Mar. 9; Gaz. vol. 212; p. 660.
Cobb, Elmer M., assignor to Southworth Machine Company, Portland, Me. Hollow rivet. No. 1,130,962; Mar. 9; Gaz. vol. 212; p. 424.
Cobb, Henry Z., Winchester, Mass. Braiding-machine. No. 1,133,364; Mar. 30; Gaz. vol. 212; p. 1403.
Cobb, Lyman H., assignor to M. E. Johnson, trustee, Fitchburg, Mass. Cycle-frame. No. 1,132,829; Mar. 23; Gaz. vol. 212; p. 1175.
Cochell, Stephen A., Detroit, Mich. Muffler. No. 1,131,825; Mar. 16; Gaz. vol. 212; p. 760.
Cochran, Edward H. (See Hellyar, Cochran, and Waggoner.)
Cochran, Stephen J., assignor to Hamp Williams Hardware Company, Hot Springs, Ark. Canning apparatus. No. 1,133,430; Mar. 30; Gaz. vol. 212; p. 1426.
Cochrane, Victor H. (See Hedrick and Cochrane.)
Cockfield, Joseph H., Cedar Rapids, Iowa. Stone-crusher. No. 1,133,101; Mar. 23; Gaz. vol. 212; p. 1273.
Cocking, Ralph R., La Salle, Ill. Life-boat-launching apparatus. No. 1,130,569; Mar. 2; Gaz. vol. 212; p. 256.
Cocks, Frank L. (See Grimm and Cocks.)
Cocks, George H., Ashland, Ky. Wire-fence-making machine. No. 1,130,570; Mar. 2; Gaz. vol. 212; p. 256.
Coe, James R., Waterbury, Conn. Monorail. No. 1,132,913; Mar. 23; Gaz. vol. 212; p. 1204.
Coes, Zorester B., Philadelphia, Pa. Micrometer. No. 1,132,704; Mar. 23; Gaz. vol. 212; p. 1128.
Coey, Stewart C., assignor to The Youngstown Sheet and Tube Company, Youngstown, Ohio. Skelp-charging apparatus. No. 1,130,708; Mar. 9; Gaz. vol. 212; p. 337.
Cofield, Peter T., Dayton, and J. Bremer, Cincinnati, Ohio, assignors, by mesne assignments, to Maytag Company, Newton, Iowa. Driving mechanism. No. 1,131,466; Mar. 9; Gaz. vol. 212; p. 598.
Coffin, James G., trustee. (See Cornwall, George R., assignor.)
Coffin, Walter E., assignor to The National Malleable Castings Company, Cleveland, Ohio. Coupling-shank and yoke connection. (Reissue.) No. 13,889; Mar. 9; Gaz. vol. 212; p. 663.
Coffin, Walter E., assignor to The National Malleable Castings Company, Cleveland, Ohio. Wearing-shoe for coupling-yokes. No. 1,133,538; Mar. 30; Gaz. vol. 212; p. 1465.
Coffin, Zell L. (See Hey and Coffin.)
Cohen, Hiram C., Syracuse, N. Y. Resilient tire. No. 1,133,102; Mar. 23; Gaz. vol. 212; p. 1274.
Cohn, Jack, New York, N. Y. Hair drying and curling comb. No. 1,131,331; Mar. 9; Gaz. vol. 212; p. 551.
Cohn, Max M., Piedmont, Cal. Loose-leaf-dispensing device. No. 1,130,571; Mar. 2; Gaz. vol. 212; p. 257.
Coin Controlled Lock Co. (See Farnsworth, Willis S., assignor.)
Colburn, Ernest A., Jr. (See Bliley, Charles A., assignor.)
Colby, Frank J., Philadelphia, Pa. Sampler. No. 1,133,933; Mar. 30; Gaz. vol. 212; p. 1604.
Coldren, William P., Lebanon, Pa. Chain and flight and bucket connection. No. 1,133,539; Mar. 30; Gaz. vol 212; p. 1466.
Cole, Charles R., *et al.* (See Martin, Charles E., assignor.)
Cole, Dwight S., Grand Rapids, Mich. Latch. No 1,131,826; Mar. 16; Gaz. vol. 212; p. 760.
Cole, Harry, Tyrrell, Ohio. Shade-roller attachment. No 1,132,830; Mar. 23; Gaz. vol. 212; p. 1176.
Cole, John A., New York, N. Y. Wiring system. No. 1,131,469; Mar. 9; Gaz. vol. 212; p. 599.
Cole, Thomas H., Southsea, England. Headlight for automobiles. No. 1, 132,433; Mar. 16; Gaz. vol. 212; p. 984.
Coleman, Arthur, Carmen, Okla. Motor-vehicle. No. 1,131,678; Mar. 16; Gaz. vol. 212; p. 706.
Coleman, Ford, Akron, Ohio. Tire-forming core. No. 1,131,332; Mar. 9; Gaz. vol. 212; p. 551.
Coleman, George S., Washington, D. C. Light-projecting apparatus. No. 1,133,103; Mar. 23; Gaz. vol. 212; p. 1274.
Coleman, John P., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Circuit-controller. No. 1,132,444; Mar. 16; Gaz. vol. 212; p. 984.
Coles, David H., Brooklyn, N. Y. Safety tack-lifter. No. 1,130,147; Mar. 2; Gaz. vol. 212; p. 106.
Collar, Adoniram J., Yreka, Cal. Current water-meter. No. 1,130,572; Mar. 2; Gaz. vol. 212; p. 257.
Collar, Adoniram J., Yreka, Cal. Ditch-gate. No. 1,133,619; Mar. 30; Gaz. vol. 212; p. 1494.
Collard, Victor R., Balaclava, Victoria, Australia. Resilient suspension device for the bodies of motor-cars and similar road-vehicles. No. 1,131,118; Mar. 9; Gaz. vol. 212; p. 477.
Collett, Emil, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Concentrating dilute nitric acid. No. 1,133,840; Mar. 30; Gaz. vol. 212; p. 1574.
Collier, Charles R. (See Collier, Henry A. and C. R.)
Collier, Clyde F., Lakeville, assignor of one-half to J. C. Lake, Big Prairie, Ohio. Rural-mail-delivery signaling apparatus. No. 1,131,211; Mar. 9; Gaz. vol. 212; p. 510.
Collier, Guy B., Kinderhook, N. Y. Hydrocarbon-motor. No. 1,130,148; Mar. 2; Gaz. vol. 212; p. 106.
Collier, Guy B., Kinderhook, N. Y. Gas-lighting apparatus. No. 1,133,265; Mar. 30; Gaz. vol. 212; p. 1367.
Collier, Guy B., Kinderhook, N. Y. Gas-lamp. No. 1,133,266; Mar. 30; Gaz. vol. 212; p. 1367.
Collier, Guy B., Kinderhook, N. Y. Gas-lighting apparatus. No. 1,133,267; Mar. 30; Gaz. vol. 212; p. 1368.
Collier, Henry A. and C. R., Plumstead, London, England. Wheel of motor-cycles and the like. No. 1,132,831; Mar. 23; Gaz. vol. 212; p. 1176.
Collins, George M., Fairfax, Okla. Sweat-band. No. 1,133,934; Mar. 30; Gaz. vol. 212; p. 1605.

Collins, Russell F., Spokane, Wash. Life-preserver. No. 1,129,958; Mar. 2; Gaz. vol. 212; p. 42.

Collis, George, Clinton, Iowa. Icing-rack. No. 1,130,376; Mar. 2; Gaz. vol. 212; p. 186.

Collis, George, Clinton, Iowa. Icing device. No. 1,130,377; Mar. 2; Gaz. vol. 212; p. 186.

Collis, George, Clinton, Iowa. Producing article-holding devices. No. 1,130,378; Mar. 2; Gaz. vol. 212; p. 187.

Collis, George, Clinton, Iowa. Icing-rack. No. 1,130,379; Mar. 2; Gaz. vol. 212; p. 187.

Colman, Howard D., assignor, by mesne assignments, to Barber-Colman Company, Rockford, Ill. Treating warp-threads. No. 1,129,849; Mar. 2; Gaz. vol. 212; p. 6.

Colonial Trust Company, The, trustee. (See Herr, Herbert T., assignor.)

Colpitts, Edwin H., East Orange, N. J. assignor to Western Electric Company, New York, N. Y. System for amplifying electric waves. No. 1,129,959; Mar. 2; Gaz. vol. 212; p. 43.

Columbus Glass Company, The. (See Bright, Albert W., assignor.)

Colwell, Carrie G., and J. H., St. Paul, Minn. Ash-pan holder. No. 1,132,561; Mar. 23; Gaz. vol. 212; p. 1074.

Colwell, John H. (See Colwell, Carrie G. and J. H.)

Comer, Andrew J., Cullison, Kans. Lister. No. 1,132,832; Mar. 23; Gaz. vol. 212; p. 1176.

Commonwealth Steel Company. (See Westlake, Charles T., assignor.)

Condé, Charles A., Camden, N. J., assignor to Bond Foundry and Machine Company, Manheim, Pa. Sheet-metal shaft-hanger. No. 1,130,709; Mar. 9; Gaz. vol. 212; p. 338.

Conduitt, Lester O., East St. Louis, Ill. Press. No. 1,131,212; Mar. 9; Gaz. vol. 212; p. 510.

Conley, Michael, Denver, Colo. Drill-extractor. No. 1,133,709; Mar. 30; Gaz. vol. 212; p. 1528.

Conn, Byron O. (See Root, Charles F., assignor.)

Connecticut Aircraft Company. (See Smith, Rexford M., assignor.)

Conner, Abner F., and G. L. Willett, Indianapolis, Ind., assignors to Thos. Cusack Co. Sign. No. 1,133,935; Mar. 30; Gaz. vol. 212; p. 1605.

Conning, Andrew, and V. Bourdon, Seattle, Wash. Adjustable mirror-bracket. No. 1,129,960; Mar. 2; Gaz. vol. 212; p. 43.

Connor, Elmer R. (See Connor and Voelpel.)

Connor, Joseph M., New York, E. R. Connor, and C. W. Voelpel, Port Richmond, N. Y. Toy game. No. 1,131,995; Mar. 16; Gaz. vol. 212; p. 820.

Connor, Maurice N., assignor to F. W. Carter, Buffalo, N. Y. Fire-extinguisher. No. 1,129,850; Mar. 2; Gaz. vol. 212; p. 6.

Conover, Edwin K., assignor to Conover Motor Car Company, Paterson, N. J. Throttle and spark control for automobiles. No. 1,131,600; Mar. 9; Gaz. vol. 212; p. 643.

Conover Motor Car Company. (See Conover, Edwin K., assignor.)

Conrad, Ezra M., Seville, Ohio. Nut-lock. No. 1,132,073; Mar. 16; Gaz. vol. 212; p. 849.

Conrad, Frank, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Safety device for starting-motors. No. 1,130,573; Mar. 2; Gaz. vol. 212; p. 257.

Conrad, John B., Nicolaus, Cal. Electric motor. No. 1,132,445; Mar. 16; Gaz. vol. 212; p. 984.

Consolidated Safety Pin Company. (See Church, Herbert B., assignor.)

Continental Asbestos Corporation. (See Warrell, Alexander, assignor.)

Continental Can Company. (See Robertson, Hugh H., assignor.)

Continental Can Company. (See Warne, Ivar F., assignor.)

Continental Can Company. (See Wing, John F., assignor.)

Continental Engineering Co. (See Pfeffer, John E., assignor.)

Continental Rubber Works. (See Darling, Willis A., assignor.)

Continental Zinc Furnace Company, The. (See Johnson, Woolsey M., assignor.)

Converse, Francis B., Akron, Ohio, assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,129,851; Mar. 2; Gaz. vol. 212; p. 7.

Converse, Frederic S., Binghamton, N. Y. Coal-loading machine. No. 1,133,008; Mar. 23; Gaz. vol. 212; p. 1241.

Conway, William, South Boston, Mass. Garbage-press. No. 1,130,149; Mar. 2; Gaz. vol. 212; p. 106.

Conwell, Samuel H., Tarentum, Pa., assignor to W. P. Murphy, Chicago, Ill. Release-rigging for car-couplings. No. 1,131,996; Mar. 16; Gaz. vol. 212; p. 821.

Conwell, Walter L., Jr. (See Fisher, Frederick A., assignor.)

Cook, George W., Neosho Rapids, Kans. Thill-tug. No. 1,131,679; Mar. 16; Gaz. vol. 212; p. 706.

Cook, Howard G., *et al.* (See McCauley, Albert J., assignor.)

Cook, John, Manchester, England, assignor to Westinghouse Electric and Manufacturing Company. Welding-machine. No. 1,130,258; Mar. 2; Gaz. vol. 212; p. 144.

Cook, John W., Meyeradale, Pa. Rail-joint. No. 1,132,446; Mar. 16; Gaz. vol. 212; p. 985.

Cook, Raphoel, and O. Lindley, Cosby, Mo. Pump. No. 1,133,009; Mar. 23; Gaz. vol. 212; p. 1241.

Cook, Thomas, Staleybridge, and G. Durrant, Manchester, England. Apparatus for guiding fabrics into stentering-machines. No. 1,132,562; Mar. 23; Gaz. vol. 212; p. 1075.

Cooke, Clarence C., assignor of forty-nine one hundredths to A. C. Leathers, Howard, Pa. Current-motor. No. 1,131,680; Mar. 16; Gaz. vol. 212; p. 706.

Coon, Arthur J., Washington, D. C., assignor of one-half to F. M. Willis, Ithaca, N. Y. Machine for automatically wrapping, binding, and tying packages. No. 1,132,164; Mar. 16; Gaz. vol. 212; p. 882.

Coon, Arthur J., Providence, R. I., assignor of one-half to F. M. Willis, Ithaca, N. Y. Machine for automatically wrapping, binding, and tying packages. No. 1,132,165; Mar. 16; Gaz. vol. 212; p. 882.

Coon, Uri G., Medina, N. Y. Bread-cutting gage. No. 1,131,333; Mar. 9; Gaz. vol. 212; p. 552.

Cooper, Charles, assignor of one-third to C. A. Gross, Kansas City, Mo. Compressed-air motor-machine. No. 1,131,913; Mar. 16; Gaz. vol. 212; p. 790.

Cooper, Daniel M., Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Ironing-machine. No. 1,133,620; Mar. 30; Gaz. vol. 212; p. 1495.

Cooper, Ellis W., Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y. Gripper mechanism. No. 1,132,241; Mar. 16; Gaz. vol. 212; p. 911.

Cooper, Ellis W., Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y. Folding and delivery mechanism. No. 1,133,365; Mar. 30; Gaz. vol. 212; p. 1403.

Cooper Hewitt Electric Company. (See Thomas, Percy H., assignor.)

Cooper, John J., London, England, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,131,997; Mar. 16; Gaz. vol. 212; p. 821.

Cooper, Robert W. (See Lee, Cooper, and Meyer.)

Cooper, Robert W., Dayton, Ky., F. A. Lee, and R. J. Meyer; said Cooper and said Lee assignors to The John Church Company, Cincinnati, Ohio. Cut-out valve for pneumatic instruments. No. 1,131,471; Mar. 9; Gaz. vol. 212; p. 600.

Cooper, Robert W., Dayton, Ky., F. A. Lee and R. J. Meyer; said Cooper and said Lee assignors to The John Church Company, Cincinnati, Ohio. Pneumatic piano-action. No. 1,133,793; Mar. 30; Gaz. vol. 212; p. 1557.

Cooper, William F., Norwalk, Ohio. Player mechanism for pianos. No. 1,133,710; Mar. 30; Gaz. vol. 212; p. 1528.

Copony, Alfred, assignor to W. H. Miner, Chicago, Ill. Yoke for draft-riggings. No. 1,131,040; Mar. 9; Gaz. vol. 212; p. 451.

Copony, Alfred, assignor to W. H. Miner, Chicago, Ill. Combined cast-steel and wrought-iron yoke. No. 1,131,041; Mar. 9; Gaz. vol. 212; p. 451.

Corathers, Harley W., Van Wert, Ohio. Harrow attachment for plows. No. 1,132,563; Mar. 23; Gaz. vol. 212; p. 1075.

Corcoran, Cornelius B., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,132,166; Mar. 16; Gaz. vol. 212; p. 883.

Corcoran, George L., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Sewing-machine. No. 1,134,033; Mar. 30; Gaz. vol. 212; p. 1637.

Corcoran, George L., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Thread-controlling mechanism for sewing-machines. No. 1,340,034; Mar. 30; Gaz. vol. 212; p. 1637.

Corcoran, George L., and G. A. Dobyne, assignors to Champion Shoe Machinery Company, St. Louis, Mo. Guide for sole-sewing machines. No. 1,134,036; Mar. 30; Gaz. vol. 212; p. 1638.

Corcoran, George L., G. A. Dobyne, and A. R. Schoenky, assignors to Champion Shoe Machinery Company, St. Louis, Mo. Thread-controlling mechanism for sewing-machines. No. 1,134,035; Mar. 30; Gaz. vol. 212; p. 1638.

Cordell, Frank N., Wooster Groves, Mo. Railway-switch. No. 1,132,242; Mar. 16; Gaz. vol. 212; p. 912.

Cordova, Horacio de, Habana, Cuba. Sidewalk-skylight. No. 1,130,577; Mar. 2; Gaz. vol. 212; p. 258.

Corlew, Clarence M. (See Scudder and Corlew.)

Corley, Burley W., Chattanooga, Tenn. Brush. No. 1,130,574; Mar. 2; Gaz. vol. 212; p. 258.

Cormier, Phillas, New Bedford, Mass. Keyhole-guard. No. 1,133,104; Mar. 23; Gaz. vol. 212; p. 1274.

Cornelius, Benjamin L., Hutchinson, Kans. Oil-burner tip. No. 1,133,711; Mar. 30; Gaz. vol. 212; p. 1529.

Cornell, Charles H., Valentine, Nebr. Rail-fastener. No. 1,130,797; Mar. 2; Gaz. vol. 212; p. 367.

Corner, Wilfred R., Winnipeg, Manitoba, Canada. Line-support. No. 1,132,514; Mar. 16; Gaz. vol. 212; p. 1010.

Cornwall, George R., Rye, N. Y., assignor, by mesne assignments, to J. G. Conn, trustee. Means for operating upon character-bearing surfaces. No. 1,130,798; Mar. 9; Gaz. vol. 212; p. 367.

Cornwall, John B., assignor to Barnard and Leas Manufacturing Company, Moline, Ill. Machine for finishing, cleaning, and polishing rice. No. 1,132,447; Mar. 16; Gaz. vol. 212; p. 985.

Corona Typewriter Company. (See Hazen and Petermann, assignors.)

Correy, John. (See Baumer and Correy.)

Corrugated Bar Company. (See McCarty, Ralph, assignor.)

Corthaus, Albert, Milwaukee, Wis. Drinking-fount. No. 1,133,105; Mar. 23; Gaz. vol. 212; p. 1275.

Cosco, Frederick C., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Liquid-fuel tank. No. 1,132,833; Mar. 23; Gaz. vol. 212; p. 1176.

Coseznza, Nazzareno, *et al.* (See Mecco, Canlo, assignor.)

Cossey, Myron, assignor to Reliance Ball Bearing Door Hanger Company, New York, N. Y. Gravity door-lock. No. 1,130,150; Mar. 2; Gaz. vol. 212; p. 107.

Cota, Paul and W., Langdon, Alberta, Canada. Shocking-machine. No. 1,130,799; Mar. 9; Gaz. vol. 212; p. 368.

Cota, Walter. (See Cota, Paul and W.)

Cotton, Charles C., H. C. Kennedy, and R. King, assignors to J. & T. M. Greeves Limited and York Street Flax Spinning Company Limited, Belfast, Ireland. Hackling-machine for flax and other long-staple fibers. No. 1,132,448; Mar. 16; Gaz. vol. 212; p. 985.

Cotton, William H., Salem, N. Y. Fountain. No. 1,130,800; Mar. 9; Gaz. vol. 212; p. 369.

Cottrell, Charles P., Westerly, R. I., assignor, by mesne assignments, to C. B. Cottrell & Sons Company, New York, N. Y. Printing mechanism. No. 1,130,259; Mar. 2; Gaz. vol. 212; p. 145.

Coughlin, Thomas, New York, N. Y. Level. No. 1,133,936; Mar. 30; Gaz. vol. 212; p. 1605.

Courlaender, Bernard, Jr., assignor of one-third to M. Rosenbaum and one-third to J. A. Murphey, Philadelphia, Pa. Horseshoe. No. 1,134,074; Mar. 30; Gaz. vol. 212; p. 1650.

Courson, John F., Pitcairn, Pa. Draft-gear. No. 1,131,472; Mar. 9; Gaz. vol. 212; p. 600.

Courtice, Richard W. (See Taylor, Charles H., assignor.)

Courtney, Joseph H., Magdalena, N. Mex. Wire-stripper. No. 1,131,473; Mar. 9; Gaz. vol. 212; p. 600.

Couture, John B., Fall River, Mass. Forming device. No. 1,132,074; Mar. 16; Gaz. vol. 212; p. 849.

Cowell, Burr S. (See Franklin and Cowell.)

Cowell, Ivan G., assignor to J. T. Hunter, Long Beach, Cal. Gas floor-furnace. No. 1,133,460; Mar. 30; Gaz. vol. 212; p. 1486.

Cox, Alvin L., Elizabethtown, Ky. Washing apparatus. No. 1,132,449; Mar. 16; Gaz. vol. 212; p. 986.

Cox, Ezekiel B., Newtown, Pa., assignor to Newtown Cut Wheat Cereal and Trading Company. Food cereal and making same. No. 1,130,575; Mar. 2; Gaz. vol. 212; p. 258.

Cox, W. H. (See Goff, Frank, assignor.)

Crabb, Charles L., Millington, N. J., assignor to Topping Brothers, New York, N. Y. Lifting-jack. No. 1,132,075; Mar. 16; Gaz. vol. 212; p. 850.

Crafton, Minnie F., Mason City, Ill. Mail packer and carrier. No. 1,131,474; Mar. 9; Gaz. vol. 212; p. 600.

Craig, Edward, assignor, by mesne assignments, to Saranac Machine Co., St. Joseph, Mich. Box-blank machine. No. 1,132,515; Mar. 16; Gaz. vol. 212; p. 1011.

Craig, Edward, assignor to Saranac Machine Co., St. Joseph, Mich. Berry-basket machine. No. 1,132,564; Mar. 23; Gaz. vol. 212; p. 1075.

Craig, Thomas D., Albia, Iowa. Dental instrument. No. 1,132,565; Mar. 23; Gaz. vol. 212; p. 1076.

Crandall, Jay E., Belvidere, Ill., assignor to The Warner Brothers Company, Bridgeport, Conn. Grinding. No. 1,131,119; Mar. 9; Gaz. vol. 212; p. 477.

Crandall, Roy L., Minneapolis, Minn. Trade-book. No. 1,132,516; Mar. 16; Gaz. vol. 212; p. 1011.

Crane, Frederick G., *et al.* (See Hammond, Grant, assignor.)

Crane, Harry W., Philadelphia, Pa., assignor to International Window Manufacturing Company. Window. No. 1,132,652; Mar. 23; Gaz. vol. 212; p. 1109.

Cranmer, George T., trustee. (See Garrett, James C., assignor.)

Cratty, Josiah. (See Hardinge, Henry H., assignor.)

Craven, James F., Zellenople, Pa. Well drill-jar. No. 1,133,841; Mar. 30; Gaz. vol. 212; p. 1574.

Craven, John E. (See Burke and Craven.)

Craven, Thomas F. (See Fretz and Craven.)

Craw, Frank C., South Norwalk, Conn. Automatic tire-pump. No. 1,132,167; Mar. 16; Gaz. vol. 212; p. 883.

Crawford, Cary W., assignor to Eureka Shock Absorber Company, Los Angeles, Cal. Vehicle-spring. No. 1,130,880; Mar. 2; Gaz. vol. 212; p. 187.

Crawford, David F., Pittsburgh, Pa. Stoker. No. 1,131,213; Mar. 9; Gaz. vol. 212; p. 510.

Crawford, David F., Pittsburgh, Pa. Automatic stoker. No. 1,131,214; Mar. 9; Gaz. vol. 212; p. 510.

Crawford, David F., Pittsburgh, Pa. Automatic stoker. No. 1,131,215; Mar. 9; Gaz. vol. 212; p. 511.

Crawford, David F., Pittsburgh, Pa. Draft-gear mechanism. (Reissue.) No. 13,894; Mar. 30; Gaz. vol. 212; p. 1656.

Crawford, James, El Paso, Tex. Fly-trap. No. 1,131,120; Mar. 9; Gaz. vol. 212; p. 478.

Crawford, John S., assignor to Reading Specialties Company, Reading, Pa. Rail bending and straightening device. No. 1,129,961; Mar. 2; Gaz. vol. 212; p. 43.

Creahen, William H. (See Jeffreys and Creahen.)

Crecelius, Lawrence P., Cleveland, Ohio. Uniting metal bodies. No. 1,133,268; Mar. 30; Gaz. vol. 212; p. 1368.

Creighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Transmission-line. No. 1,131,216; Mar. 9; Gaz. vol. 212; p. 511.

Creighton, Nelson B., New York, N. Y. Valve. No. 1,131,475; Mar. 9; Gaz. vol. 212; p. 601.

Cremer, Henry, Chicago, Ill. Bottle. No. 1,130,069; Mar. 2; Gaz. vol. 212; p. 80.

Crémieu-Javal, Edgard, London, England. Hydrocarbon-nozzle of spray-carbureters and spray-burners. No. 1,132,539; Mar. 16; Gaz. vol. 212; p. 1020.

Crescent Clay Refining Company, The. (See Thompson, Firman, assignor.)

Crescent Tool Company. (See Peterson, Karl, assignor.)

Creveling, John L., New York, N. Y., assignor to The Safety Car Heating & Lighting Company. Gas tank and regulator. No. 1,131,335; Mar. 9; Gaz. vol. 212; p. 552.

Cridland, Ernest A., Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Work-support. No. 1,130,801; Mar. 9; Gaz. vol. 212; p. 369.

Crim, Le Roy C., Altmar, N. Y. Automatic train-control system. No. 1,132,450; Mar. 16; Gaz. vol. 212; p. 986.

Crim, Samuel E., assignor of one-half to W. B. Crim, Mechanicsburg, Ohio. Tire-bolting machine. No. 1,131,476; Mar. 9; Gaz. vol. 212; p. 601.

Crim, W. B. (See Crim, Samuel E., assignor.)

Criner, Harry J., Burlington, Iowa, assignor to A. Oliphant. Water-motor. No. 1,130,671; Mar. 2; Gaz. vol. 212; p. 290.

Crippen, Stuart S., assignor to L. B. Allen Company, Chicago, Ill. Fluid-holder. No. 1,130,802; Mar. 9; Gaz. vol. 212; p. 370.

Crittall Manufacturing Company, The. (See Crittall, Valentine G., assignor.)

Crittall, Valentine G., assignor to The Crittall Manufacturing Company, Limited, Braintree, England. Window and casement. No. 1,132,834; Mar. 23; Gaz. vol. 212; p. 1177.

Croan, Ernest T., assignor of one-half to T. J. Croan, Mound City, Kans. Band-cutter and feeder. No. 1,131,334; Mar. 9; Gaz. vol. 212; p. 552.

Croan, Thomas J. (See Croan, Ernest T., assignor.)

Crocker, Ernest B., assignor to The Ashcroft Manufacturing Company, Bridgeport, Conn. Releasing device. No. 1,130,803; Mar. 9; Gaz. vol. 212; p. 370.

Crocker-Wheeler Company. (See Pikler, Armin H., assignor.)

Crofford, Charles B., Binghamton, Tenn. Churn, No. 1,131,336; Mar. 9; Gaz. vol. 212; p. 552.

Crofoot, Edwin H., assignor of one-third to C. L. Casterline and one-third to J. E. Fennerty, Findlay, Ohio. Automobile wheel-holder. No. 1,131,477; Mar. 9; Gaz. vol. 212; p. 602.

Crompton, Edwin, Jr., assignor of one-half to F. M. Simpson and one-half to Eja L. Snyder, Pueblo, Colo. Latch. No. 1,132,705; Mar. 23; Gaz. vol. 212; p. 1128.

Crompton & Knowles Loom Works. (See Hacking, Chester, assignor.)

Crompton & Knowles Loom Works. (See Wattie, William, assignor.)

Cromwell, George O. (See Reade and Cromwell.)

Crow, James R., Cleveland, Tenn. Rotary engine. No. 1,133,937; Mar. 30; Gaz. vol. 212; p. 1606.

Crown Cork & Seal Company, The. (See Carper, Albert A., assignor.)

Crown Manufacturing Company, The. (See Hartzell, Forest H., assignor.)

Crumay, Katherine, *et al.* (See Jobke, August F., assignor.)

Csanyi, Henry, assignor to Maxivolt Primary Battery Co., New York, N. Y. Electric battery. No. 1,130,710; Mar. 9; Gaz. vol. 212; p. 338.

Csányi, Jhan, Perryopolis, Pa. Wrench. No. 1,133,107; Mar. 23; Gaz. vol. 212; p. 1275.

Culver, George A., Beatrice, Nebr., assignor of one-half to T. W. Keenan, Shenandoah, Iowa. Pressure-alarm for pneumatic tires. No. 1,133,269; Mar. 30; Gaz. vol. 212; p. 1368.

Cumberland Foundry and Manufacturing Company. (See Tipple, James D., assignor.)

Cunningham, Alexander Y., assignor to The D. F. Briggs Company, Attleboro, Mass. Watch-holder attachment for bracelets. No. 1,130,381; Mar. 2; Gaz. vol. 212; p. 188.

Cunningham, Charles G., New York, N. Y. Centrifugally-operated contact device. No. 1,132,653; Mar. 23; Gaz. vol. 212; p. 1109.

Cunningham, Charles G., New York, N. Y. Automatic circuit-controlling apparatus. No. 1,132,654; Mar. 23; Gaz. vol. 212; p. 1110.

Cunningham, Richard H., New York, N. Y., assignor to Splitdorf Electrical Company, Newark, N. J. Brush-holder and terminal for connecting electric cable. No. 1,132,304; Mar. 16; Gaz. vol. 212; p. 935.

Cunningham, William E., *et al.* (See Clinton, Michael, assignor.)

Cuppett, William B., Portsmouth, Ohio. Veneered and reinforced woodwork. No. 1,133,106; Mar. 23; Gaz. vol. 212; p. 1275.

Curran, Edmund, assignor to J. T. Fuller, Boston, Mass. Dowel-feeding machine. No. 1,132,533; Mar. 16; Gaz. vol. 212; p. 1017.

Curry, Claud D., Brooklyn, N. Y., assignor of two-thirds to American Assembling Machine Company. Feeding mechanism for paper-associating machines. (Reissue.) No. 13,895; Mar. 30; Gaz. vol. 212; p. 1657.

Curtain Supply Co., The. (See Forsyth, William H., assignor.)

Curtain Supply Company. (See Whitmore, Edward E., assignor.)

Curtis, Arthur R. (See Sabin, Tozer, and Curtis.)

Curtis, Edgar R., Brighton, and J. W. Huxley, Stoughton, near Guildford, England. Apparatus for clearing beer. No. 1,130,479; Mar. 2; Gaz. vol. 212; p. 224.

Curtis, Logan, Browns, Ill. Halter. No. 1,130,711; Mar. 9; Gaz. vol. 212; p. 338.

Curtis, Myron S., Pawtucket, R. I. Automobile gear-shift. No. 1,131,042; Mar. 9; Gaz. vol. 212; p. 451.

Cushman, Lysander W., Ontario, Cal. Orchard-furrower. No. 1,130,963; Mar. 9; Gaz. vol. 212; p. 424.

Custer, Arthur E., Salt Lake City, Utah. Vibratory screening and sizing device. No. 1,131,478; Mar. 9; Gaz. vol. 212; p. 602.

Custer, Joseph M., Copper Hill, Va. Steering-wheel. No. 1,129,852; Mar. 2; Gaz. vol. 212; p. 7.

Cutler-Hammer Clutch Co. (See Barnum, Thomas E., assignor.)

Cutler-Hammer Mfg. Co., The. (See Fleet, Arthur H., assignor.)

Cutler-Hammer Mfg. Co., The. (See Horton, Albert J., assignor.)

Cutler-Hammer Mfg. Co., The. (See Simon, Arthur, assignor.)

Cutler-Hammer Mfg. Co., The. (See Wiegand, Henry J., assignor.)

Cutler, William C., Los Angeles, Cal. Wrapping-machine. No. 1,133,621; Mar. 30; Gaz. vol. 212; p. 1495.

Cutting, Samuel B., assignor to The Salt's Textile Manufacturing Company, Bridgeport, Conn. Warp stop-motion for looms. No. 1,133,366; Mar. 30; Gaz. vol. 212; p. 1403.

Czarnik, Wojciech, Chicago, Ill. Inflating foldable boat. No. 1,130,480; Mar. 2; Gaz. vol. 212; p. 225.

D. F. Briggs Company, The. (See Cunningham, Alexander Y., assignor.)

D'Olier, William L., Philadelphia, Pa. Centrifugal machine. No. 1,132,915; Mar. 23; Gaz. vol. 212; p. 1205.

Dahl, Harry J., Nyack, assignor to L. N. Littauer, Gloversville, N. Y. Producing seams. No. 1,129,853; Mar. 2; Gaz. vol. 212; p. 7.

Dahl, Harry J., Nyack, assignor to L. N. Littauer, Gloversville, N. Y. Machine for producing seams. No. 1,129,854; Mar. 2; Gaz. vol. 212; p. 8.

Dahlquist, Anders G. (See Hesselius, Peter, assignor.)

Dally, Dora S., assignor of one-half to T. J. Purcell, San Francisco, Cal. Face-steamer. No. 1,132,243; Mar. 16; Gaz. vol. 212; p. 912.

Dale, Charles E., Cleveland, Okla. Pump appliance. No. 1,133,270; Mar. 30; Gaz. vol. 212; p. 1369.

Dale, George E., Trenton, assignor, by mesne assignments to Philadelphia Steel & Wire Co., Camden, N. J. Centering-form for reinforced concrete construction. No. 1,131,479; Mar. 9; Gaz. vol. 212; p. 602.

Dalén, Gustaf, Stockholm, Sweden. Safety device for incandescent-gas-light burners. No. 1,132,305; Mar. 16; Gaz. vol. 212; p. 935.

Dallmeyer, Thomas D., Oakmont, Pa. Nut-lock. No. 1,130,712; Mar. 9; Gaz. vol. 212; p. 338.

Dalton Adding Machine Company, The. (See Magnus, John, assignor.)

Dalton Adding Machine Company, The. (See Webster, Beator R., assignor.)

Dalton, William M., assignor of one-half to J. A. Key, America, Ala. Wire-stretcher. No. 1,133,367; Mar. 30; Gaz. vol. 212; p. 1404.

Daly, John J., assignor to The Banker Manufacturing Company, New Brunswick, N. J. Door-check. No. 1,131,121; Mar. 9; Gaz. vol. 212; p. 478.

Daly, John J., assignor to The Banker Manufacturing Company, New Brunswick, N. J. Door-check. No. 1,131,122; Mar. 9; Gaz. vol. 212; p. 478.

Daly, Walter J., and B. Wimmer, Rahway, N. J. Clothes-line support. No. 1,130,713; Mar. 9; Gaz. vol. 212; p. 339.

Daniels, Thomas M., Chicago, Ill. Self-locking nut. No. 1,130,481; Mar. 2; Gaz. vol. 212; p. 225.

Daniels, Wilford R., Union Course, assignor of one-half to J. E. Kegreiss, New York, N. Y. Spot-remover. No. 1,134,037; Mar. 30; Gaz. vol. 212; p. 1639.

Danley, Byron, St. Johns, Mich. Poultry-coop. No. 1,132,764; Mar. 23; Gaz. vol. 212; p. 1150.

Dann, Walter M., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Transformer. No. 1,130,260; Mar. 2; Gaz. vol. 212; p. 145.

Dannenberg, Charles B., Wilmington, Del. Protractor. No. 1,133,540; Mar. 30; Gaz. vol. 212; p. 1466.

Daprato Statuary Company. (See Gaul, Godfried J., assignor.)

Darker, Alfred H. Blackheath, assignor to J. Stone & Company Limited. Deptford, England. Electrical installation for lighting, heating, and ventilating railway-carriages and similar purposes. No. 1,131,914; Mar. 16; Gaz. vol. 212; p. 791.

Darling, Willis A., New York, N. Y., assignor to Continental Rubber Works, Erie, Pa. Handle-covering. No. 1,133,622; Mar. 30; Gaz. vol. 212; p. 1496.

Darrow, Wilton E., Sutter Creek, Cal. Screen for separating sand from slime. No. 1,133,461; Mar. 30; Gaz. vol. 212; p. 1437.

Daum, Adam, Portage la Prairie, Manitoba, Canada. Packing. No. 1,133,541; Mar. 30; Gaz. vol. 212; p. 1466.

Davenport, Ransom W. (See Van Wie and Davenport.)

David, Daniel. (See Hancock and David.)

David, Leon H., Fort Casey, Wash. Fuel-oil burner. No. 1,131,480; Mar. 9; Gaz. vol. 212; p. 603.

Davidson, Edward M., *et al.* (See MacGregor, Peter G., assignor.)

Davidson, Frank B., Marseilles, Ill., assignor to Howe and Davidson Company, East Orange, N. J. Partition member for merchandise-receptacles. No. 1,131,773; Mar. 16; Gaz. vol. 212; p. 740.

Davidson, Fredrick W., Abilene, Kans. Sash-fastener. No. 1,130,151; Mar. 2; Gaz. vol. 212; p. 107.

Davidson, Harry R., Lackawanna, N. Y. Trolley-wheel. No. 1,132,168; Mar. 16; Gaz. vol. 212; p. 884.

Davidson, William A., Vancouver, British Columbia, Canada. Surveyor's flagpole. No. 1,131,915; Mar. 16; Gaz. vol. 212; p. 791.

Davis, Albert P., Deposit, N. Y. Photograph-film holder. No. 1,130,152; Mar. 2; Gaz. vol. 212; p. 107.

Davis, Andrew J., Jr., Baltimore, Md. Calk attachment for horseshoes. No. 1,131,998; Mar. 16; Gaz. vol. 212; p. 821.

Davis, Charles L. (See Roberts and Davis.)

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Junction-box. No. 1,130,482; Mar. 2; Gaz. vol. 212; p. 225.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Terminal for cables entering junction-boxes. No. 1,130,483; Mar. 2; Gaz. vol. 212; p. 226.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Electric fuse. No. 1,130,484; Mar. 2; Gaz. vol. 212; p. 226.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Electric fuse. No. 1,130,485; Mar. 2; Gaz. vol. 212; p. 227.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Electric fuse. No. 1,130,486; Mar. 2; Gaz. vol. 212; p. 227.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Electric fuse. No. 1,130,487; Mar. 2; Gaz. vol. 212; p. 228.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Multiple-conductor electrical cable. No. 1,132,451; Mar. 16; Gaz. vol. 212; p. 986.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Multiple-conductor cable. No. 1,132,452; Mar. 16; Gaz. vol. 212; p. 987.

Davis, Cleland, U. S. Navy, assignor to Ordnance Development Company of America, Wilmington, Del. Contour-cap for armor-piercing projectiles. No. 1,132,453; Mar. 16; Gaz. vol. 212; p. 987.

Davis, Ferdinand, Uniontown, Pa. Safety device for mine-cars. No. 1,132,914; Mar. 23; Gaz. vol. 212; p. 1204.

Davis, Frank E., assignor to La Crosse Plow Co., La Crosse, Wis. Plow. No. 1,130,714; Mar. 9; Gaz. vol. 212; p. 339.

Davis, James A., Washington, D. C. Antislipping-horseshoe attachment. No. 1,131,337; Mar. 9; Gaz. vol. 212; p. 553.

Davis, James W., Birmingham, Ala. Water-heater. No. 1,133,271; Mar. 30; Gaz. vol. 212; p. 1369.

Davis, Linford J., Battle Creek, Mich. Receptacle support and cover operating and locking means. No. 1,131,774; Mar. 16; Gaz. vol. 212; p. 740.

Davis, Norris K., Hillsboro, Cal. Spacing-machine. No. 1,132,169; Mar. 16; Gaz. vol. 212; p. 884.

Davis, Viola J. (See Doering, Fred H., assignor.)

Davis, Walter M. Music-indicator. No. 1,131,481; Mar. 9; Gaz. vol. 212; p. 603.

Davol Rubber Company. (See Wesley and Lamont, assignor.)

Davy, Clarence F., Fitzroy, New Zealand. Protective bottle. No. 1,130,488; Mar. 2; Gaz. vol. 212; p. 228.

Dawson, James C., Kirkwood, Mo. Shiftable-sheet binder. No. 1,132,306; Mar. 16; Gaz. vol. 212; p. 936.

Dawson, William A., Delta, Colo. Resilient automobile-wheel. No. 1,130,891; Mar. 9; Gaz. vol. 212; p. 400.

Day, Frederick H., Dawson, Yukon Territory, Canada. Binding-post. No. 1,132,454; Mar. 16; Gaz. vol. 212; p. 988.

Day, Omar L., Portland, Oreg. Oil-burner. No. 1,131,916; Mar. 16; Gaz. vol. 212; p. 792.

Day, Wilbur F., St. Paul, Minn. Burner. No. 1,130,070; Mar. 2; Gaz. vol. 212; p. 80.

Day, William L. (See Bradley, William W., assignor.)

De Bouzek, Jean A., Salt Lake City, Utah. Photographic camera. No. 1,130,576; Mar. 2; Gaz. vol. 212; p. 268.

De Forrest, Julietta S., Andover, Mass. Metallic receptacle for hot water. No. 1,131,338; Mar. 9; Gaz. vol. 212; p. 553.

De Jahn, Fredrik W., New York, N. Y. Hydrogenising fatty matters. No. 1,131,339; Mar. 9; Gaz. vol. 212; p. 553.

De Jonge, Christiaan, Zeeland, Mich. Silo-roof. No. 1,132,706; Mar. 23; Gaz. vol. 212; p. 1128.

De Lan, Richie, Philadelphia, Pa. Snap-hook. No. 1,133,842; Mar. 30; Gaz. vol. 212; p. 1574.

De Laski, Albert, Weehawken, assignor to The De Laski & Thropp Circular Woven Tire Company, Trenton, N. J. Apparatus for winding bobbins. No. 1,132,076; Mar. 16; Gaz. vol. 212; p. 850.

De Laski & Thropp Circular Woven Tire Company, The, (See De Laski, Albert, assignor.)

De Leeuw, Adolph L., Plainfield, N. J., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Machine-tool organization. No. 1,130,685; Mar. 2; Gaz. vol. 212; p. 295.

De Leeuw, Adolph L., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Pump. No. 1,131,044; Mar. 9; Gaz. vol. 212; p. 452.

De Leeuw, Adolph L., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Heavy-duty structure. No. 1,132,534; Mar. 16; Gaz. vol. 212; p. 1018.

De Rose, Ernest A., New York, N. Y. Napkin. No. 1,131,483; Mar. 9; Gaz. vol. 212; p. 604.

De Vilbiss Manufacturing Company, The. (See De Vilbiss, Thomas A., assignor.)

De Vilbiss, Thomas A., assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio. Polishing element for rattling devices. No. 1,133,368; Mar. 30; Gaz. vol. 212; p. 1404.

Deacon, Martin, and W. Gore, London, England. Filtering apparatus. No. 1,130,382; Mar. 2; Gaz. vol. 212; p. 188.

Deal, Joe M., Lincoln, Ill. Hook-holding hat-band. No. 1,133,542; Mar. 30; Gaz. vol. 212; p. 1466.

Dean, Henry, Onaway, Mich. Projectile. No. 1,132,455; Mar. 16; Gaz. vol. 212; p. 988.

Dean, Henry A., Rome, Ga. Heel-sweep. No. 1,130,489; Mar. 2; Gaz. vol. 212; p. 228.

Deats, William, Yonkers, N. Y. Coil-taping machine. No. 1,132,765; Mar. 23; Gaz. vol. 212; p. 1150.

Dececo Company, The. (See Rogers, Alfred, assignor.)

Decker, Jay J., San Diego, Cal. Sweat-band. No. 1,131,043; Mar. 9; Gaz. vol. 212; p. 452.

Dees, Mark A., Lubbock, Tex. Rubberized fabric and rubber tire. No. 1,130,578; Mar. 2; Gaz. vol. 212; p. 259.

Dees, Mark A., assignor to American Tire Company, St. Louis, Mo. Making tires. No. 1,130,964; Mar. 9; Gaz. vol. 212; p. 424.

Defiance Lantern & Stamping Co. (See Hill, James H., assignor.)

Defiance Pressed Steel Co., The. (See Klenk, Gottlieb, assignor.)

Degenhardt, Frank O., New York, N. Y. Puzzle. No. 1,132,244; Mar. 16; Gaz. vol. 212; p. 913.

Degenhardt, William R., Kalgoorlie, and W. Jordan, Youanme, Western Australia, Australia. Apparatus for generating or producing gas. No. 1,133,010; Mar. 23, Gaz. vol. 212; p. 1241.

Dehler, Edward P., St. Joseph, Mo. Legging. No. 1,132,835; Mar. 23; Gaz. vol. 212; p. 1177.

Debler, Lee R., Gary, Ind. Calf-weaner. No. 1,131,482; Mar. 9; Gaz. vol. 212; p. 603.

Dehnel, Erich, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing soluble tanning agents. No. 1,133,108; Mar. 23; Gaz. vol. 212; p. 1275.

Deible, Walter G., Barberton, Ohio. Accelerating device for automobiles. No. 1,132,467; Mar. 16; Gaz. vol. 212; p. 989.

Deibler, Charles E., Lakeville, Minn. Multiple harrow. No. 1,130,579; Mar. 2; Gaz. vol. 212; p. 259.

Delane, Anson W., assignor of one-half to N. W. Ryan, New York, N. Y. Elastic wheel. No. 1,131,775; Mar. 16; Gaz. vol. 212; p. 741.

Delaney, Michael G., Detroit, Mich., assignor to The Northern Sales Co., Toledo, Ohio. Adjustable film-reel. No. 1,132,766; Mar. 23; Gaz. vol. 212; p. 1151.

Delaney, Thomas A., Chicago, Ill., assignor to Hills-McCanna Company. Drive for lubricators. No. 1,131,340; Mar. 9; Gaz. vol. 212; p. 554.

Delaunay-Belleville, Robert, assignor to Societe Anonyme des Automobiles Delaunay-Belleville, St.-Denis, France. Carbureter. No. 1,130,490; Mar. 2; Gaz. vol. 212; p. 229.

Delaunay-Belleville, Robert, assignor to Societe Anonyme Des Etablissements Delaunay-Belleville, St.-Denis, France. Water-jacketed gear-casing for torpedoes. No. 1,130,491; Mar. 2; Gaz. vol. 212; p. 229.

Delaunay-Belleville, Robert, assignor to Societe Anonyme Des Etablissements Delaunay-Belleville, St.-Denis, France. Construction of water-tube boilers. No. 1,132,458; Mar. 16; Gaz. vol. 212; p. 989.

Delfox, James G. (See Braine and Delfox.)

Delger, Conrad A. B., Delger township, Wells county, N. D. Antiskidding attachment for automobiles. No. 1,133,272; Mar. 30; Gaz. vol. 212; p. 1370.

Delle, Bernhard E. (See Arter and Delle.)

Demares, John, Stevens Point, Wis. Portable fence. No. 1,131,681; Mar. 16; Gaz. vol. 212; p. 707.

Deming, William L., Salem, Ohio. Autographic register. No. 1,131,917; Mar. 16; Gaz. vol. 212; p. 792.

Demirjean, Roy D., Des Moines, Iowa. Door-latch. No. 1,134,038; Mar. 30; Gaz. vol. 212; p. 1639.

Dempster, John T., Schenectady, N. Y., assignor to General Electric Company. Arc-lamp. No. 1,132,307; Mar. 16; Gaz. vol. 212; p. 936.

Denley, William H., Birmingham, and B. Makin, Sheffield England. Machine for grinding files. No. 1,131,999; Mar. 16; Gaz. vol. 212; p. 822.

Denning, James J., Gas City, Ind. Firelesa leer. No 1,132,459; Mar. 16; Gaz. vol. 212; p. 989.

Dennis, Thomas L., Prince Bay, N. Y. Boat propelling and steering device. No. 1,130,153; Mar. 2; Gaz. vol. 212; p. 108.

Denton, Tilford S. (See Nagle, George R., assignor.)

Depollier, Charles L., New York, N. Y. Locking device for watch-bracelets. No. 1,131,682; Mar. 16; Gaz. vol. 212; p. 707.

Depollier, Charles L., assignor to Dubois Watch Case Co., Brooklyn, N. Y. Watchcase. No. 1,131,827; Mar. 16; Gaz. vol. 212; p. 761.

Derbyshire, Ralph, Fall River, Mass. Folding foot-rest. No. 1,133,109; Mar. 23; Gaz. vol. 212; p. 1276.

Despres, Joseph. (See Despres, Leon E. and J.)

Despres, Leon E., Marlboro, N. H., and J. Despres, Marlboro, Mass. Seed-sower. No. 1,129,962; Mar. 2; Gaz. vol. 212; p. 44.

Detroit Can Company. (See Harbeck, Jervis R., assignor.)

Detroit Dental Manufacturing Company. (See Strycker, Loraine W., assignor.)

Detroit Steel Products Company. (See Baldwin, Arthur L., assignor.)

Detroit Stove Works. (See Van Wie and Davenport, assignors.)

Dettinger, John G., Jr., and F. H. Welker, Philadelphia, Pa. Artificial tooth. No. 1,130,892; Mar. 9; Gaz. vol 212; p. 401.

Deutsche Automobil-Construktions-Ges. m. b. H. *et a* (See Hein, Hans H., assignor.)

Devereaux, Francis A., assignor of one-half to P. F. Devereaux, Minneapolis, Minn. Slip-trimming attachment for fair-stitching machines. No. 1,130,492; Mar. 2; Gaz. vol. 212; p. 229.

Devereaux, Patric F. (See Devereaux, Francis A., assignor.)

Devereux, Edward R., London, England. Pneumatic tire for road-vehicles. No. 1,133,938; Mar. 30; Gaz. vol. 212; p. 1606.

Devine, Michael T., Pierre, S. D. Drift-pin puller. No. 1,130,071; Mar. 2; Gaz. vol. 212; p. 80.

Dewey, John J., Fairmount, Tenn. Building apparatus. No. 1,132,460; Mar. 16; Gaz. vol. 212; p. 990.

Dewinsky, Aaron, Bethlehem, Pa. Clothes-pin. No. 1,132,170; Mar. 16; Gaz. vol. 212; p. 884.

Dewson, Edward H., New York, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Sanding device. No. 1,131,217; Mar. 9; Gaz. vol. 212; p. 511.

Dewson, Edward H., New York, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Air-strainer. No. 1,131,220; Mar. 9; Gaz. vol. 212; p. 512.

Dewson, Edward H., New York, N. Y., and W. V. Turner, Edgewood, assignors to The Westinghouse Air Brake Company, Wilmerding, Pa. Electrically-controlled brake mechanism. No. 1,131,218; Mar. 9; Gaz. vol. 212; p. 511.

Dewson, Edward H., New York, N. Y., and W. V. Turner, Edgewood, assignors to The Westinghouse Air Brake Company, Wilmerding, Pa. Electropneumatic vent-valve device. No. 1,131,219; Mar. 9; Gaz. vol. 213; p. 512.

Dey, Charles C., Victoria, La. Manual operating device for adding-machines. No. 1,133,939; Mar. 30; Gaz. vol. 212; p. 1606.

Di Salvio, Antonio, Washington, Pa. Barber's device. No. 1,133,942; Mar. 30; Gaz. vol. 212; p. 1607.

Diamond Match Company, The. (See Carlson, Carl A., assignor.)

Diamond Match Company, The. (See Donnelly, Joseph C., assignor.)

Diamond Match Company, The. (See Hobart, James F., assignor.)

Diamond Match Company, The. (See Schafer, Frank, assignor.)

Dickinson, Fairleigh S., Rutherford, N. J. Syringe. No. 1,130,493; Mar. 2; Gaz. vol. 212; p. 229.

Dickson, Alexander, Dublin, Ireland. Manufacture of phosphate compounds for manures and fertilisers. No. 1,132,171; Mar. 16; Gaz. vol. 212; p. 885.

Diehm, John L., Philadelphia, Pa. Fuel-holder. No. 1,133,940; Mar. 30; Gaz. vol. 212; p. 1607.

Dieter, William, New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Speed control for automobile torpedoes. No. 1,131,341; Mar. 9; Gaz. vol. 212; p. 554.

Dieter, William, assignor to E. W. Bliss Company, Brooklyn, N. Y. Torpedo-testing apparatus. No. 1,134,039; Mar. 30; Gaz. vol. 212; p. 1639.

Dieterich, Edward A., New York, N. Y. Auxiliary actuating device for the brake mechanism of an automobile. No. 1,131,484; Mar. 9; Gaz. vol. 212; p. 604.

Dieterich, Edward A., New York, N. Y. Auxiliary actuating device for the brake mechanism of an automobile. No. 1,131,485; Mar. 9; Gaz. vol. 212; p. 604.

Dietz, George, E. J. Lafferty, and G. J. Bessinger, Newark, N. J. Lighting attachment. No. 1,131,221; Mar. 9; Gaz. vol. 212; p. 512.

Dietz, Gustav, Yonkers, assignor to Multi Speed Shutter Company, New York, N. Y. Reflecting-camera. No. 1,133,369; Mar. 30; Gaz. vol. 212; p. 1404.

Dight, William M., Grove City, Pa. Folding shipping-crate. No. 1,132,000; Mar. 16; Gaz. vol. 212; p. 822.

Dilliard, Herbert C., East Bangor, Pa. Side loader for concrete-mixing machines. No. 1,133,941; Mar. 30; Gaz. vol. 212; p. 1607.

Dillon, Frank M., Durham, N. C. Margin-adjusting attachment for type-writers. No. 1,130,804; Mar. 9; Gaz. vol. 212; p. 370.

Dillon, Harry E., Olean, N. Y. Guard-rail. No. 1,132,077; Mar. 16; Gaz. vol. 212; p. 850.

Dimm, Isaac N., Fort Royal, Pa. Rail-splice. No. 1,132,461; Mar. 16; Gaz. vol. 212; p. 990.

Dingman, Allen H., assignor of one-half to H. Kappeler, Allison Park, Pa. Spark-plug. No. 1,130,404; Mar. 2; Gaz. vol. 212; p. 230.

Disco Electric Starter Company, The. (See Guy, Frederick M., assignor.)

Disimoni, Gulseppe, *et al.* (See Mecco, Canio, assignor.)

Dixie Cotton Felt Mattress Company. (See Weinberg, Ike J., assignor.)

Dixon, Henry P., Wallingford, Pa. Golf-club. No. 1,131,486; Mar. 9; Gaz. vol. 212; p. 605.

Dixon, John J., St. Paul, Minn. Horse-check. No. 1,131,601; Mar. 9; Gaz. vol. 212; p. 644.

Doble, John A., Waltham, Mass. Automatic fuel-control system for boilers. No. 1,131,683; Mar. 16; Gaz. vol. 212; p. 707.

Dobson, James, assignor to Henry Pooley and Son Limited, Birmingham, England. Weighing-machine. No. 1,130,154; Mar. 2; Gaz. vol. 212; p. 108.

Dobson, James, assignor to Henry Pooley and Son Limited, Birmingham, England. Weighing-machine. No. 1,130,155; Mar. 2; Gaz. vol. 212; p. 109.

Dobson, Joseph O., Mount Vernon, Iowa. Shade-roller. No. 1,131,684; Mar. 16; Gaz. vol. 212; p. 708.

Dobyne, George A. (See Corcoran and Dobyne.)

Dobyne, George A. (See Corcoran, Dobyne, and Schoenky.)

Dodd, John, Wawota, Saskatchewan, Canada. Vehicle-seat. No. 1,131,487; Mar. 9; Gaz. vol. 212; p. 605.

Dodds, Ethan L., Zelienople, assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Stay-bolt. No. 1,131,342; Mar. 9; Gaz. vol. 212; p. 554.

Dodds, Ethan L., Zeltenoole, assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Making bolts. No. 1,131,343; Mar. 9; Gaz. vol. 212; p. 554.

Dodge, James M., Philadelphia, Pa. Chain-link. No. 1,130,580; Mar. 2; Gaz. vol. 212; p. 259.

Dodge, James M., Philadelphia, Pa. Chain. No. 1,130,581; Mar. 2; Gaz. vol. 212; p. 260.

Dodge, James M., Philadelphia, Pa. Chain-link. No. 1,130,582; Mar. 2; Gaz. vol. 212; p. 260.

Dodge, Karl, Philadelphia, Pa. Chain-link. No. 1,130,583; Mar. 2; Gaz. vol. 212; p. 260.

Dodge Manufacturing Company. (See Ahara, Edwin H., assignor.)

Dodge, Philip T., New York, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,130,261; Mar. 2; Gaz. vol. 212; p. 145.

Dodge, Raymond E., assignor to The Simplex Machine Co., New Haven, Conn. Eyeleting-machine. No. 1,131,123; Mar. 9; Gaz. vol. 212; p. 478.

Dodson, John V., Norwich, Kans. Trap-nest. No. 1,131,124; Mar. 9; Gaz. vol. 212; p. 479.

Doering, Fred H., assignor of one-half to V. J. Davis, Florence, Colo. Gate-operating device. No. 1,133,431; Mar. 30; Gaz. vol. 212; p. 1427.

Dolan, James A., Hartford, Conn. Horseshoe. No. 1,132,707; Mar. 23; Gaz. vol. 212; p. 1128.

Dolensky, Eugen, Frankfort-on-the-Main, Germany. Vacuum process for production of steel. No. 1,131,488; Mar. 9; Gaz. vol. 212; p. 605.

Doman, Lewis B., assignor to Amphion Piano Player Company, Elbridge, N. Y. Tracker-shifting device for self-playing musical instruments. No. 1,132,517; Mar. 16; Gaz. vol. 212; p. 1012.

Domenico, Cappelli, New York, N. Y. Key-operated lock. No. 1,133,943; Mar. 30; Gaz. vol. 212; p. 1608.

Donat, Charles J., assignor of one-half to F. C. Maly, Verdigre, Nebr. Wagon end-gate. No. 1,130,495; Mar. 2; Gaz. vol. 212; p. 230.

Doney, Harvey L., *et al.* (See Pearson, James H., assignor.)

Donnelly, Joseph C., Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Machine for packing match-books, &c. No. 1,132,309; Mar. 16; Gaz. vol. 212; p. 937.

Donnelly, Joseph C., Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Machine for assembling match-books, &c. No. 1,132,310; Mar. 16; Gaz. vol. 212; p. 937.

Donovan, James H., and W. J. Forsyth, Buffalo, N. Y. Measuring instrument. No. 1,130,072; Mar. 2; Gaz. vol. 212; p. 80.

Donovan, Patrick H. (See Turner and Donovan.)

Dooley, Thomas B. (See Sévigné and Dooley.)

Doolittle, Elford F., Torrington, Conn. Bread-wrapper-sealing machine. No. 1,129,963; Mar. 2; Gaz. vol. 212; p. 44.

Doran, Joseph M., Ogden, Utah. Train-pipe. No. 1,130,965; Mar. 9; Gaz. vol. 212; p. 425.

Doremus, Willard D., Washington, D. C., assignor to Exactograph Company. Check-protector. No. 1,131,602; Mar. 9; Gaz. vol. 212; p. 644.

Dorff, Conrad J. (See Cain and Dorff.)

Dorn, Lewis H., Carthage, Mo. Perch-pole. No. 1,130,715; Mar. 9; Gaz. vol. 212; p. 339.

Dorr, John V., Denver, Colo. Agitator. No. 1,131,222; Mar. 9; Gaz. vol. 212; p. 513.

Dorsey, Walter A., assignor to The Bonney Floyd Company, Columbus, Ohio. Car wheel and axle. No. 1,129,855; Mar. 2; Gaz. vol. 212; p. 8.

Dorso, Désiré, Vancouver, British Columbia, Canada. Automatic brake-pipe coupling. No. 1,132,916; Mar. 23; Gaz. vol. 212; p. 1205.

Doty, Edwin A., Albany, N. Y. Nut-lock. No. 1,133,843; Mar. 30; Gaz. vol. 212; p. 1575.

Double, Edward. (See Griffin, Thomas J., assignor.)

Double Seal Tire Valve Co. (See Kull, Albert L., assignor.)

Dowd, John P., Cleveland, and M. S. Thompson, Painesville, assignors of one-half to The Brown Hoisting Machinery Company and one-half to The White Company, Cleveland, Ohio. Dumping-truck. No. 1,131,489; Mar. 9; Gaz. vol. 212; p. 606.

Downs, Leon H., Goshen, N. Y. Lock for poison-containers. No. 1,132,566; Mar. 23; Gaz. vol. 212; p. 1076.

Downs, William H., Morristown, N. J. Trousers. No. 1,130,966; Mar. 9; Gaz. vol. 212; p. 425.

Doyle, Claud D., *et al.*, trustees. (See Finlayson, Alexander W., assignor.)

Doyle, William F., assignor of one-half to E. G. Stolte, deceased, Reedsburg, Wis.; F. P. Stolte, administratrix. Cooling system. No. 1,133,712; Mar. 30; Gaz. vol. 212; p. 1529.

Doyle, William J., and J. J. Wollenhaupt, assignors to The Monitor Stove & Range Company, Cincinnati, Ohio. Furnace. No. 1,133,242; Mar. 23; Gaz. vol. 212; p. 1322.

Dräger, Alexander B., Lübeck, Germany. Diving apparatus. No. 1,131,490; Mar. 9; Gaz. vol. 212; p. 606.

Drake, Sylvester A., Jamestown, N. Y. Poultry-feeder. No. 1,131,491; Mar. 9; Gaz. vol. 212; p. 606.

Draper Company. (See Gagnon, Erasme, assignor.)

Draper Company. (See Hollins, Denis M., assignor.)

Draper Company. (See Snow, Isaac, assignor.)

Draper Company. (See Spofford, George E., assignor.)

Draper Company. (See Stimpson, Edward S., assignor.)

Dreher, Phillip J., Toledo, Ohio. Electric piano-player. No. 1,133,370; Mar. 30; Gaz. vol. 212; p. 1404.

Dreifuss, Leopold, assignor of one-third to E. P. Antonovich, San Diego, Cal. Amusement apparatus. No. 1,133,623; Mar. 30; Gaz. vol. 212; p. 1496.

Dressel, Henry G., Chicago, Ill. Dental tool. No. 1,130,716; Mar. 9; Gaz. vol. 212; p. 340.

Dressler, Samuel, Brooklyn, N. Y. Whistle. No. 1,133,713; Mar. 30; Gaz. vol. 212; p. 1530.

Drew Carrier Company. (See Stevenson, Charles M., assignor.)

Drew, William F., Oakland, assignor of one-half to J. Finn, Mill Valley, Cal. Liquid-hydrocarbon burner. No. 1,130,073; Mar. 2; Gaz. vol. 212; p. 80.

Drumm, Herbert C., assignor to The Union Metal Manufacturing Company, Canton, Ohio. Column. No. 1,130,805; Mar. 9; Gaz. vol. 212; p. 370.

Du Boé, Dominique D., Washington, D. C. Milk-can perforator and pourer. No. 1,130,967; Mar. 9; Gaz. vol. 212; p. 425.

Du Bois, Joseph C., East Lake, Ala. Track-oiler. No. 1,132,311; Mar. 16; Gaz. vol. 212; p. 938.

Du Brul, Napoleon, Cincinnati, Ohio. Cigarette-machine. No. 1,133,844; Mar. 30; Gaz. vol. 212; p. 1575.

Du Commun, Louis M., Cleveland, Ohio. Air-conditioning system. No. 1,132,246; Mar. 16; Gaz. vol. 212; p. 913.

Du Commun, Louis M., Cleveland, Ohio. Air-conditioning system. No. 1,133,371; Mar. 30; Gaz. vol. 212; p. 1405.

Dubois Watch Case Co. (See Depollier, Charles L., assignor.)

Dudley, Raymond C., Chicago, Ill. Car-roof. No. 1,133,372; Mar. 30; Gaz. vol. 212; p. 1405.

Dueberg, Helmuth F. C., assignor of one-third to E. E. Smith and one-third to W. M. Sloan, Kansas City, Mo. Amusement device. No. 1,131,603; Mar. 9; Gaz. vol. 212; p. 645.

Duffie, John J., Berkeley, assignor to Vacuum Specialty Manufacturing Co., San Francisco, Cal. Vacuum-cleaner. No. 1,133,543; Mar. 30; Gaz. vol. 212; p. 1467.

Duffy, James F. (See Beamer and Duffy.)

Duffy, John A. (See Benoit, Aime, assignor.)

Dufour, Léon, Geneva, Switzerland. Regulating device for hydraulic turbines. No. 1,131,344; Mar. 9; Gaz. vol. 212; p. 554.

Dufour, Léon, Geneva, Switzerland. Valve-gear of explosion-engines. No. 1,132,247; Mar. 16; Gaz. vol. 212; p. 914.

Dufourcq, Edward L., New York, N. Y. Treatment of precious-metal ores for extracting their values. No. 1,133,110; Mar. 23; Gaz. vol. 212; p. 1276.

Dugdale, Edward W., Kearney, N. J. Doors for a chute of a dumb-waiter, elevator, or the like. No. 1,133,794; Mar. 30; Gaz. vol. 212; p. 1557.

Dunasky, Joseph E., Cleveland, Ohio. Ticket-canceler. No. 1,131,492; Mar. 9; Gaz. vol. 212; p. 607.

Dunbar, Francis W., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone-exchange system. No. 1,133,111; Mar. 23; Gaz. vol. 212; p. 1276.

Dunbar, Francis W., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone system. No. 1,133,112; Mar. 23; Gaz. vol. 212; p. 1277.

Dunbar, Francis W., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone system. No. 1,133,113; Mar. 23; Gaz. vol. 212; p. 1278.

Dunbar, Frank H., and J. H. Jones, Cleveland, Ohio. Machine for pressing garments. No. 1,131,493; Mar. 9; Gaz. vol. 212; p. 607.

Dunbar, Harris T., Buffalo, N. Y. Drag-line bucket. No. 1,132,078; Mar. 16; Gaz. vol. 212; p. 850.

Dunbar, Harris T., Buffalo, N. Y. Drag-line bucket. No. 1,132,917; Mar. 23; Gaz. vol. 212; p. 1205.

Duncan, Arthur L., assignor of one-third to C. E. Forry and one-third to E. H. Duncan, Fruitvale, Cal. Exhauster. No. 1,132,172; Mar. 16; Gaz. vol. 212; p. 885.

Duncan, E. H., *et al.* (See Duncan, Arthur L., assignor.)

Duncan, William M., Alton, Ill. Furnace-grate. No. 1,132,918; Mar. 23; Gaz. vol. 212; p. 1206.

Dundon, Patrick F., San Francisco, Cal. Cradle for log-rafts. No. 1,130,584; Mar. 2; Gaz. vol. 212; p. 260.

Dundon, Patrick F., San Francisco, Cal. Resilient rim. No. 1,131,223; Mar. 9; Gaz. vol. 212; p. 513.

Dunham, George W., assignor to Chalmers Motor Company, Detroit, Mich. Priming system for internal-combustion engines. No. 1,133,011; Mar. 23; Gaz. vol. 212; p. 1242.

Dunham, James S., Birmingham, Mich. Delivery-wagon. No. 1,131,045; Mar. 9; Gaz. vol. 212; p. 452.

Dunham, James W., New York, N. Y. Lamp-shade. No. 1,130,496; Mar. 2; Gaz. vol. 212; p. 231.

Dunham, James W., New York, N. Y. Stand. No. 1,130,497; Mar. 2; Gaz. vol. 212; p. 231.

Dunhill, Alfred, London, England. Tobacco-pipe. No. 1,130,806; Mar. 9; Gaz. vol. 212; p. 371.

Dunkleberger, Frank L., West Shelby, N. Y. Bean-harvester. No. 1,130,074; Mar. 2; Gaz. vol. 212; p. 81.

Dunlap, Orie T., *et al.* (See Good, Thomas L., assignor.)

Dunn, William J., and H. B. Taylor, Montreal, Quebec, Canada. Wall-paper pasting and trimming apparatus. No. 1,131,685; Mar. 16; Gaz. vol. 212; p. 708.

Duplex Printing Press Company. (See Bechman, Henry F., assignor.)

Dupont, Arthur J., Adams, Mass. Flash-light. No. 1,132,173; Mar. 16; Gaz. vol. 212; p. 885.

Duquesne Sales Company. (See Bearkie, Louis K., assignor.)

Durbin, Nathan, Taylorville, Ill. Splice-bar. No. 1,132,312; Mar. 16; Gaz. vol. 212; p. 938.

Durgin, William R., *et al.* (See Swikard, Edward L., assignor.)

Durr, Ernest, U. S. Navy. Device for saving torpedoes. No. 1,130,585; Mar. 2; Gaz. vol. 212; p. 261.

Durrant, George. (See Cook and Durrant.)

Durst, Ora L., Indianapolis, Ind. Bed-spring. No. 1,131,346; Mar. 9; Gaz. vol. 212; p. 555.

Duryea, James F., Springfield, assignor to Stevens-Duryea Company, Chicopee Falls, Mass. Automobile-hood. No. 1,130,262; Mar. 2; Gaz. vol. 212; p. 145.

Duryea, James F., Springfield, assignor to Stevens-Duryea Company, Chicopee Falls, Mass. Steering-wheel construction for automobiles. No. 1,130,263; Mar. 2; Gaz. vol. 212; p. 146.

Dustin, Ernest G., Kewanee, Ill. Fastener. No. 1,131,347; Mar. 9; Gaz. vol. 212; p. 556.

Dutschke, Hermann, Elberfeld, Germany. Satinizing cotton fabrics. No. 1,132,001; Mar. 16; Gaz. vol. 212; p. 823.

Duval, Hugo G., New York, N. Y. Binder. No. 1,130,803; Mar. 9; Gaz. vol. 212; p. 401.

Dyer, Samuel, Inglewood, Cal. Automatic drinking-fountain. No. 1,131,046; Mar. 9; Gaz. vol. 212; p. 453.

E. Clemens Horst Co. (See Horst, Emil C., assignor.)

E. Goldman & Co. (See Paul, John T. H., assignor.)

E. Ingraham Co., The. (See Ames, Bliss C., assignor.)

E. B. L. Shoe Mfg. Co. (See Loewenbach and Hunter, assignors.)

E. I. du Pont de Nemours Powder Company. (See Gallup, Frederick L., assignor.)

E. J. Manville Machine Company, The. (See Brennan, Charles T., assignor.)

E. W. Bliss Company. (See Dieter, William, assignor.)

E. W. Bliss Company. (See Klocke, William, assignor.)

E. W. Bliss Company. (See Kruse, Peter, assignor.)

Eames, George M., and J. S. Finch, Bridgeport, Conn., assignors to The Singer Manufacturing Company. Overseaming sewing-machine. No. 1,133,012; Mar. 23; Gaz. vol. 212; p. 1242.

Ean, Albert J., New York, N. Y. Mop. No. 1,131,348; Mar. 9; Gaz. vol. 212; p. 556.

Earl & Wilson. (See Temple, John, assignor.)

Earle, Victor M., New York, N. Y. Story-picture device. No. 1,131,494; Mar. 9; Gaz. vol. 212; p. 607.

Early, Bartholomew F., Lowell, Mass. Vehicle-wheel. No. 1,132,462; Mar. 16; Gaz. vol. 212; p. 990.

Earnheart, William P., Indianapolis, Ind. Liquid-serving device. No. 1,131,495; Mar. 9; Gaz. vol. 212; p. 608.

Eastep, John W., South Bend, Ind. Automatic headlight control. No. 1,132,919; Mar. 23; Gaz. vol. 212; p. 1206.

Eastlake, Herbert C., Milwaukee, Wis. Undertaker's clamp. No. 1,129,856; Mar. 2; Gaz. vol. 212; p. 8.

Eastman Machine Company. (See Clark, Frederick J., assignor.)

Easy Truss Company. (See Miller, Ward J., assignor.)

Eaton, George M., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Resilient driving connection. No. 1,130,264; Mar. 2; Gaz. vol. 212; p. 146.

Eaton, Harrison H., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Clicking-machine. No. 1,131,686; Mar. 16; Gaz. vol. 212; p. 709.

Ebeling, Charles W., Wheeling, W. Va., assignor of one-half to H. W. Rogers, New York, N. Y. Reciprocating motor. No. 1,129,964; Mar. 2; Gaz. vol. 212; p. 44.

Eberhard, Otto, Heidenau, near Dresden, Germany. Drying objects formed of plastic masses. No. 1,131,047; Mar. 9; Gaz. vol. 212; p. 453.

Eberhart, Cleburne, Jr., Atlanta, Ga. Indicator-operating device for gasolene-tanks. No. 1,133,013; Mar. 23; Gaz. vol. 212; p. 1242.

Ebersole, Cyrus P., assignor to Electric Service Supplies Company, Philadelphia, Pa. Changeable sign. No. 1,133,624; Mar. 30; Gaz. vol. 212; p. 1496.

Eble, George. (See Hummel and Eble.)

Eckelberg, William, Gettysburg, S. D. Hay-rack. No. 1,130,498; Mar. 2; Gaz. vol. 212; p. 231.

Economic Machinery Company. (See Woodland, Frank O., assignor.)

Edgar Allen American Manganese Steel Company. (See Brinton, Walter, assignor.)

Edgar, John, Hyde Park, Mass., assignor, by mesne assignments, to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Feed mechanism for milling-machines, lathes, &c. No. 1,131,496; Mar. 9; Gaz. vol. 212; p. 608.

Edison Storage Battery Company. (See Hutchison, Miller R., assignor.)

Edison, Thomas A., Llewellyn Park, assignor to New Jersey Patent Company, West Orange, N. J. Machine for shaving sound records or blanks. No. 1,130,156; Mar. 2; Gaz. vol. 212; p. 109.

Edwards, Albert Y., assignor to The Foos Gas Engine Company, Springfield, Ohio. Indicator for shaft-bearings. No. 1,133,462; Mar. 30; Gaz. vol. 212; p. 1437.

Edwards, Daniel W., assignor to Greenlee Bros. & Company, Rockford, Ill. Chuck. No. 1,133,795; Mar. 30; Gaz. vol. 212; p. 1557.

Edwards, Eugene O., La Crosse, Wis. Internal-combustion engine. No. 1,132,708; Mar. 23; Gaz. vol. 212; p. 1129.

Edwards, Louis C., Ellington, Conn. Poultry-feeding device. No. 1,132,836; Mar. 23; Gaz. vol. 212; p. 1177.

Ege, Alexander H., Mechanicsburg, Pa. Artificial fuel. No. 1,130,075; Mar. 2; Gaz. vol. 212; p. 81.

Egge, Frederick, assignor to The American Specialty Co., Bridgeport, Conn. Embroidery-machine. No. 1,134,040; Mar. 30; Gaz. vol. 212; p. 1639.

Egge, Frederick, assignor to The American Specialty Co., Bridgeport, Conn. Embroidery-machine. No. 1,134,041; Mar. 30; Gaz. vol. 212; p. 1640.

Eggleston, Merritt H. (See MacCallum and Eggleston.)

Eggleston, Rufus E, Atlanta, Ga., assignor to National Tape Company, Inc., New York, N. Y. Apparatus for producing tape, string, and the like. No. 1,132,837; Mar. 23; Gaz. vol. 212; p. 1178.

Egite Manufacturing Company. (See Williams, Edward L., assignor.)

Eglington, Marion S., Houston, Minn. Wire-fence clamp. No. 1,133,625; Mar. 30; Gaz. vol. 212; p. 1497.

Egly, Georg, Berlin-Treptow, assignor to Gebrüder Siemens & Co., Berlin-Lichtenberg, Germany. Flame arc-lamp and electrode therefor. No. 1,132,313; Mar. 16; Gaz. vol. 212; p. 938.

Egry Register Company, The. (See Malm, Rauh, and Aker, assignors.)

Egry Register Company, The. (See Nickol and Stern, assignors.)

Ehrendriech, Frank, assignor to National Sewing Machine Company, Belvidere, Ill. Bobbin race and cover. No. 1,129,965; Mar. 2; Gaz. vol. 212; p. 45.

Ehrhard, Joseph, Curtis, Okla. Wrench. No. 1,129,966; Mar. 2; Gaz. vol. 212; p. 45.

Ehrhart, Hymon. (See Ehrhart, William, assignor.)

Ehrhart, William, Philadelphia, assignor to H. Ehrhart, Lancaster, Pa. Pretzel-machine. No. 1,133,249; Mar. 23; Gaz. vol. 212; p. 1325.

Eiber, Frank M., Millvale, Pa. Service-box and lid. No. 1,131,687; Mar. 16; Gaz. vol. 212; p. 709.

Eichel, John. (See Getty and Eichel.)

Eichelbaum, Georg, Berlin, assignor to Kalle and Company, Aktiengesellschaft, Biebrich-on-the-Rhine, Germany. Manufacture of aluminium-acetate compounds. No. 1,132,709; Mar. 23; Gaz. vol. 212; p. 1129.

Eichler, Armin, New York, N. Y. Primer and varnish and preparing same. No. 1,133,432; Mar. 30; Gaz. vol. 212; p. 1427.

Eichler, Armin, New York, N. Y. Paint and varnish. No. 1,133,433; Mar. 30; Gaz. vol. 212; p. 1427.

Eiker, Thaddeus B., Asbury Park, N. J. Carbureter. No. 1,132,314; Mar. 16; Gaz. vol. 212; p. 938.

Eiseman, Moses H., assignor of one-half to Worms & Loeb, Chicago, Ill. Fastener for bag-handles. No. 1,129,967; Mar. 2; Gaz. vol. 212; p. 45.

Eisenmenger, Joseph, Anthon, Iowa. Fence-post cap. No. 1,130,076; Mar. 2; Gaz. vol. 212; p. 81.

Elbion, Samuel, New York, N. Y. Safe for toilet articles. No. 1,132,463; Mar. 16; Gaz. vol. 212; p. 901.

Elco Company, The. (See Chase, Irwin, assignor.)

Elder, John, New York, N. Y. Device for testing pipes or pipe-joints. No. 1,133,714; Mar. 30; Gaz. vol. 212; p. 1530.

Eldred, Byron E., Bronxville, N. Y. Making contact-points. No. 1,130,077; Mar. 2; Gaz. vol. 212; p. 82.

Eldred, Byron E., Bronxville, N. Y. Artificial tooth and making same. No. 1,133,434; Mar. 30; Gaz. vol. 212; p. 1427.

Electric Bank Protection Company. (See Williams, John P., assignor.)

Electric Service Supplies Company. (See Ebersole, Cyrus P., assignor.)

Electric Service Supplies Company. (See Sharples, Alfred R., assignor.)

Electric Time Recorder Company. (See Radtke, Albert A., assignor.)

Elektro-Osmose A. G. (Graf Schwerin Gesellschaft). (See Schwerin, Botho, assignor.)

Elevator Supply and Repair Company. (See Bowne, John D., assignor.)

Elevator Supply & Repair Company. (See Newbury, Henry F., assignor.)

Elevator Supply & Repair Company. (See Nordoff, Max, assignor.)

Elfenbein, Isidor, assignor to Unique Head Easer Incorporated, New York, N. Y. Head-easer. No. 1,133,114; Mar. 23; Gaz. vol. 212; p. 1279.

Elfers, George A. (See Engelfried and Elfers.)

Elling, Jens W. A., Christiania, Norway. Spring for vehicles, especially autocars. No. 1,130,157; Mar. 2; Gaz. vol. 212; p. 109.

Elliott, Frank F. (See Knowlton and Elliott.)

Ellis, Avard A., Denver, Colo., assignor to The American Tampon and Applicator Company. Applicator. No. 1,131,349; Mar. 9; Gaz. vol. 212; p. 556.

Ellis, Carleton, Montclair, N. J. Detoxicating oil and the like. No. 1,132,710; Mar. 23; Gaz. vol. 212; p. 1129.

Ellis, Carleton, Montclair, N. J., assignor to Chadeloid Chemical Company, New York, N. Y. Finish-remover. No. 1,130,409; Mar. 2; Gaz. vol. 212; p. 231.

Ellis, Carleton, Montclair, N. J., assignor to New Jersey Testing Laboratories. Treating masses of concrete. No. 1,130,717; Mar. 9; Gaz. vol. 212; p. 340.

Ellis, John, Salem, Mo. Throttle-valve. No. 1,130,500; Mar. 2; Gaz. vol. 212; p. 232.

Ellis, John W., assignor of one-fourth to J. Kirschwing, Great Falls, Mont. Collapsible receptacle. No. 1,133,715; Mar. 30; Gaz. vol. 212; p. 1530.

Ellis, Mark S., U. S. Navy. Self-scoring target. No. 1,131,549; Mar. 9; Gaz. vol. 212; p. 626.

Ellison, Frederick C., Perth Amboy, N. J., assignor of one-half to W. H. Peach, Zanesville, Ohio. Tile-coating machine. No. 1,130,383; Mar. 2; Gaz. vol. 212; p. 188.

Ellman, Walter, Long Island, N. Y. Music-leaf turner. No. 1,131,125; Mar. 9; Gaz. vol. 212; p. 479.

Ellwood, Thomas B., Marshall, Tex., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Angle-cock device. No. 1,131,224; Mar. 9; Gaz. vol. 212; p. 514.

Elmore, Guy H., Swarthmore, Pa. Jig. No. 1,132,464; Mar. 16; Gaz. vol. 212; p. 991.

Elyria Iron & Steel Company, The. (See Hubler and Jones, assignor.)

Embree, Vern W., Gayville, S. D. Non-refillable bottle. No. 1,131,497; Mar. 9; Gaz. vol. 212; p. 609.

Emerson-Brantingham Company. (See Cast, George, assignor.)

Emerson-Brantingham Company. (See Erickson, Andrew, assignor.)

Emerson-Brantingham Company. (See Greer, Edward R., assignor.)

Emerson-Brantingham Company. (See Hunter, Harry D., assignor.)

Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)

Emery, Fred R., Sacramento, Cal. Advertising device. No. 1,133,463; Mar. 30; Gaz. vol. 212; p. 1437.

Emery, Ralph C., Newton, Mass. Indicator or timer. No. 1,131,498; Mar. 9; Gaz. vol. 212; p. 609.

Enameled Steel Package Corporation. (See Wiedeman and Schaum, assignors.)

Engel, Arthur F., New York, N. Y. Eyeleting-machine. No. 1,132,567; Mar. 23; Gaz. vol. 212; p. 1076.

Engelfried, William F., and G. A. Elfers, Milwaukee, Wis. Helmet. No. 1,131,350; Mar. 9; Gaz. vol. 212; p. 557.

Engine Holdings Company, The. (See Goby, Clifford S., assignor.)

Englert, Joseph J., Chicago, Ill. Corrugated fastener. No. 1,129,968; Mar. 2; Gaz. vol. 212; p. 46.

English, Ferdinand E., St. Louis, Mo. Hat. No. 1,129,857; Mar. 2; Gaz. vol. 212; p. 9.

English, William F. (See Ringland and English.)

Eno, Frank F., Boston, Mass., assignor to Eno Welt Shoe Company. Hand-method lasting-machine. No. 1,132,535; Mar. 16; Gaz. vol. 212; p. 1018.

Eno Welt Shoe Company. (See Eno, Frank F., assignor.)

Enos, Alexander. (See Hovenden, Hirram A., assignor.)

Enterprise Manufacturing Company, The. (See Clarkson and Hummon, assignors.)

Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)

Epling, Emery T., and C. Woolfien, Lewiston, Idaho. Fastening device. No. 1,129,969; Mar. 2; Gaz. vol. 212; p. 46.

Erben, John, Cleveland, Ohio. Kitchen-range. No. 1,131,688; Mar. 16; Gaz. vol. 212; p. 709.

Ercanbrack, John E., Woodstock, Ill. Hot-air furnace. No. 1,130,718; Mar. 9; Gaz. vol. 212; p. 340.

Erichsen, Adolph C. E., Cranston, assignor to Gorham Manufacturing Company, Providence, R. I. Vapor-burner. No. 1,130,501; Mar. 2; Gaz. vol. 212; p. 232.

Erickson, Andrew, assignor to Emerson-Brantingham Company, Rockford, Ill. Plow structure. No. 1,129,859; Mar. 2; Gaz. vol. 212; p. 9.

Erickson, Edward. (See Johnson and Erickson.)

Erickson, Edward, Lynn, assignor to Victor Shoe Machinery Company, Boston, Mass. Presser-foot mechanism for sewing-machines. No. 1,133,229; Mar. 23; Gaz. vol. 212; p. 1317.

Erickson, James, Philadelphia, Pa. Pile-driving mechanism. No. 1,131,048; Mar. 9; Gaz. vol. 212; p. 453.

Erickson, John, White Earth, N. D. Press-bit bridle. No. 1,133,115; Mar. 23; Gaz. vol. 212; p. 1279.

Erickson, John, assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Telephone apparatus. No. 1,131,624; Mar. 9; Gaz. vol. 212; p. 652.

Erickson, John, assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Subscriber-controlled switching apparatus for telephone-exchange systems. No. 1,133,373; Mar. 30; Gaz. vol. 212; p. 1406.

Erickson, John, assignor to Automatic Electric Company, Chicago, Ill. Telephone-exchange-system impulse transmitter. No. 1,133,796; Mar. 30; Gaz. vol. 212; p. 1558.

Erickson, John E., assignor of two-thirds to J. E. McNamara and J. H. Frisby, Tonopah, Nev. Attachment for drill-chucks. No. 1,131,918; Mar. 16; Gaz. vol. 212; p. 792.

Ericson, Lawrence, assignor to Kellogg Switchboard Supply Company, Chicago, Ill. Signaling device for party telephone-lines. No. 1,132,249; Mar. 16; Gaz. vol. 212; p. 915.

Ericsson, Edward J., San Francisco, Cal. Air-signal valve. No. 1,133,116; Mar. 23; Gaz. vol. 212; p. 1279.

Erwin, James B. and O. R., Milwaukee, Wis. Automatically extinguishing fires. No. 1,130,719; Mar. 9; Gaz. vol. 212; p. 341.

Erwin, Orlando R. (See Erwin, James B. and O. R.)

Eskew, Samuel W. (See Mayes and Eskew.)

Espinal, Antonio V., Banes, Cuba. Calipers. No. 1,131,351; Mar. 9; Gaz. vol. 212; p. 557.

Estes, Jeff M. (See Walton and Estes.)

Estey Piano Company. (See Barnes, James W., assignor.)

Eudy, Arch, Riverside, Cal. Combination-tool. No. 1,132,248; Mar. 16; Gaz. vol. 212; p. 914.

Eugene Dietzgen Company. (See Bierbrauer and Sachse, assignors.)

Eureka Shock Absorber Company. (See Crawford, Cary W., assignor.)

Evans, Charles E., Weed, Cal. Method and apparatus for rafting logs. No. 1,132,767; Mar. 23; Gaz. vol. 212; p. 1151.

Evans, David D., Racine, Wis. Guard for presses. No. 1,129,858; Mar. 2; Gaz. vol. 212; p. 9.

Evans, Henry R., New York, N. Y., assignor to Granulator Soap Company. Soap-dispensing machine. No 1,130,672; Mar. 2; Gaz. vol. 212; p. 290.

Evans, Lon. (See Morgan and Evans.)

Evans, William M., Kearney, Nebr. Bumping-post. No. 1,132,315; Mar. 16; Gaz. vol. 212; p. 939.

Evans, William P., assignor to D. L. Schultz, Manchester, England. Shaft-bearing. No. 1,132,002; Mar. 16; Gaz. vol. 212; p. 823.

Eveland Electric Riveter Company. (See Eveland, Samuel S., assignor.)

Eveland, Samuel S., Bryn Mawr, Pa., assignor to Eveland Electric Riveter Company. Carburizing iron or steel. No. 1,133,626; Mar. 30; Gaz. vol. 212; p. 1497.

Eves, Joshua V., Belfast, Ireland. Machine for drawing flax and other long-staple fibers to form slivers or yarn. No. 1,132,316; Mar. 16; Gaz. vol. 212; p. 939.

Evinrude Motor Company. (See Mueller, Herman C., assignor.)

Ewald, Leo, Minneapolis, Minn. Brush for linotype-pots. No. 1,133,716; Mar. 30; Gaz. vol. 212; p. 1530.

Ewart, Robert B., Detroit, Mich. Rotary valve. No. 1,131,776; Mar. 16; Gaz. vol. 212; p. 741.

Ewers, Alexander L., Durmid, Va., assignor to United Cigarette Machine Co. Ltd., London, England. Seam-sealing device for cigarette-machines. No. 1,130,720; Mar. 9; Gaz. vol. 212; p. 341.

Ewert, John S. (See Arbelter, Traugatt, assignor.)

Exactograph Company. (See Doremus, Willard D., assignor.)

F. Wesel Manufacturing Company. (See Weston, Folke W., assignor.)

F. F. Slocomb & Co. (See Slocomb, Frank F., assignor.)

F. N. Burt Company. (See Anderson, James W., assignor.)

Faber, Henry B., New York, N. Y. Filter. No. 1,133,944; Mar. 30; Gaz. vol. 212; p. 1608.

Faessler, John W., Moberly, Mo. Extracting mandrels from boiler-tube expanders. No. 1,133,014; Mar. 23; Gaz. vol. 212; p. 1243.

Fager, Alfred J., and J. W. Milbery, Dayton, Ohio. Automatically-controlled cabinet for protecting milk. No. 1,130,384; Mar. 2; Gaz. vol. 212; p. 189.

Faint, Edward, Okanagan Landing, British Columbia, Canada. Cigar-lighter. No. 1,133,544; Mar. 30; Gaz. vol. 212; p. 1467.

Faires, Elisha J., and C. W. Stockburger, McKinney, Tex. Saw-gage. No. 1,131,352; Mar. 9; Gaz. vol. 212; p. 557.

Faist, William O., assignor to The Machinery & Specialty Company, Milwaukee, Wis. Safety-razor-blade sharpener. No. 1,132,079; Mar. 16; Gaz. vol. 212; p. 851.

Fallows, Edward H. (See Jones, Harry, assignor.)

Farkas, Joseph D., assignor to J. J. Beyerle Mfg. Co., Brooklyn, N. Y. Diaper. No. 1,133,945; Mar. 30; Gaz. vol. 212; p. 1608.

Farkell, George C., Elyria, Ohio. Nut-tightening device. No. 1,131,225; Mar. 9; Gaz. vol. 212; p. 514.

Farmer, Charles H., Ashland, Oreg. Amalgamator. No. 1,132,317; Mar. 16; Gaz. vol. 212; p. 939.

Farner, John Orillia, Wash. Portable force-pump. No. 1,134,042; Mar. 30; Gaz. vol. 212; p. 1640.

Farnham, Stephen H., A. W. Smith, New York, N. Y., and J. Phelps, Belleville, N. J., assignors to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,131,828; Mar. 16; Gaz. vol. 212; p. 761.

Farnsworth, George W., assignor to F. W. Thurston, San Francisco, Cal. Explosive-engine. No. 1,133,845; Mar. 30; Gaz. vol. 212; p. 1576.

Farnsworth, Willis S., assignor to Coin Controlled Lock Co., San Francisco, Cal. Parcel-locker. No. 1,133,627; Mar. 30; Gaz. vol. 212; p. 1497.

Farr, Adrian L., Ogden, Utah. Gage-cock. No. 1,129,970; Mar. 2; Gaz. vol. 212; p. 46.

Farrell, Ray P., Oxnard, Cal. Switch-box. No. 1,133,946; Mar. 30; Gaz. vol. 212; p. 1609.

Farrell, William C., San Jose, Cal. Computing-scale. No. 1,131,126; Mar. 9; Gaz. vol. 212; p. 479.

Farrington Manufacturing Company. (See Brown, Louis E., assignor.)

Fassett, Francis K., assignor to The National Cash Register Company, Dayton, Ohio. Registering mechanism. No. 1,132,711; Mar. 23; Gaz. vol. 212; p. 1129.

Fässler, Ernst, Frankfort-on-the-Main, Germany, assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Alternating-current rectifier. No. 1,131,919; Mar. 16; Gaz. vol. 212; p. 793.

Fässler, Ernst, Frankfort-on-the-Main, Germany, assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Alternating-current rectifier. No. 1,131,920; Mar 16; Gaz. vol. 212; p. 793.

Fath, George H. (See Reifsnyder and Fath.)

Fath, George H., Denver, Colo. Book and book-leaf for holding fishing-flies and bait-hooks having snells. No. 1,133,846; Mar. 30; Gaz. vol. 212; p. 1576.

Fawell, Joseph E., assignor to Mackintosh, Hemphill & Co., Pittsburgh, Pa. Rolling-mill. No. 1,131,604; Mar. 9; Gaz. vol. 212; p. 645.

Fawver, Leslie E., Seligman, Mo. Harrow attachment for cultivators. No. 1,131,499; Mar. 9; Gaz. vol. 212; p. 610.

Fay, Rimmon C., Philadelphia, Pa. Turning-lathe. No. 1,132,920; Mar. 23; Gaz. vol. 212; p. 1206.

Fearon, Thomas E., Philadelphia, Pa. Cigar-bunch-forming machine. No. 1,133,847; Mar. 30; Gaz. vol. 212; p. 1577.

Fears, John, Waco, Tex. Signaling mechanism. No. 1,131,353; Mar. 9; Gaz. vol. 212; p. 557.

Feder, Frank A., Lincoln, Nebr. Spirit-level. No 1,132,318; Mar. 16; Gaz. vol. 212; p. 940.

Federal-Huber Co. (See Watrous, Earl G., assignor.)

Federal Rubber Manufacturing Company. (See Bain, Forée, assignor.)

Federal Signal Company. (See Reichard, Wade H., assignor.)

Feer, Fritz, Basel, Switzerland. Acetylene-gas generator. No. 1,132,921; Mar. 23; Gaz. vol. 212; p. 1207.

Fegley, Thomas J., assignor to North Bro's M'f'g Co. Philadelphia, Pa. Tap-wrench. No. 1,132,319; Mar 16; Gaz. vol. 212; p. 940.

Fegley, Thomas J., and G. O. Leopold, assignors to North Bro's M'f'g Co., Philadelphia, Pa. Vise. No. 1,132,320; Mar. 16; Gaz. vol. 212; p. 940.

Feigenbaum, Isaac, Cleveland, Ohio. Life-saving apparatus. No. 1,131,127; Mar. 9; Gaz. vol. 212; p. 480.

Fellows, Olin S. (See Hopkins and Fellows.)

Fennerty, John E., *et al.* (See Crofoot, Edwin E., assignor.)

Ferebee, Washington R., and G. Sutton, Brooklyn, N. Y. Rail-joint. No. 1,133,545; Mar. 30; Gaz. vol. 212; p. 1467.

Ferguson, Henry M., New Orleans, La. Pile-driver. No. 1,132,321; Mar. 16; Gaz. vol. 212; p. 941.

Ferguson, Jay A., Chicago, Ill. Steam-heating apparatus. No. 1,131,049; Mar. 9; Gaz. vol. 212; p. 454.

Ferranti, Sebastian Z. de, Baslow, England. Roller-bearing. No. 1,131,612; Mar. 9; Gaz. vol. 212; p. 648.

Ferranti, Sebastian Z. de, Hampstead, London, England. Elastic-fluid engine. No. 1,132,456; Mar. 16; Gaz. vol 212; p. 989.

Ferry, Clive C., Middlebury Center, Pa. Tire. No. 1,131,500; Mar. 9; Gaz. vol. 212; p. 610.

Fessenden, Reginald A., Brookline, Mass. Apparatus for converting heat into work. No. 1,132,465; Mar. 16; Gaz. vol. 212; p. 992.

Fessenden, Reginald A., Brookline, Mass. Method of and apparatus for reproducing impulses. No. 1,133,435; Mar. 30; Gaz. vol. 212; p. 1428.

Fessenden, Reginald A., Brant Rock, Mass., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Electric signaling. No. 1,132,568; Mar. 23; Gaz. vol. 212; p. 1077.

Fessenden, Reginald A., Brant Rock, Mass., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Wireless telegraphy. No. 1,132,569; Mar. 23; Gaz. vol. 212; p. 1077.

Festa, Gaetano, Revere, Mass. Air-motor for fans for railway-cars. No. 1,133,117; Mar. 23; Gaz. vol. 212; p. 1279.

Fever, Justus, Barmen, Germany. Driving mechanism. No. 1,132,174; Mar. 16; Gaz. vol. 212; p. 885.

Fiedler, Martin, Zeitz, Germany. Siphon for aerated liquids. No. 1,130,158; Mar. 2; Gaz. vol. 212; p. 110.

Fiego, Alexander J. R., Lynn, Mass., assignor to General Electric Company. Electrical measuring instrument. No. 1,132,322; Mar. 16; Gaz. vol. 212; p. 941.

Field, Henry H., Grappenhall, M. Howarth, Latchford, and E. A. Atkins, Liverpool, England. Galvanizing wire, hoops, sheets, and the like. No. 1,133,628; Mar. 30; Gaz. vol. 212; p. 1497.

Fliczer, Frank, Lorain, Ohio. Device for regulating flow of a fluid. No. 1,132,175; Mar. 16; Gaz. vol. 212; p. 886.

Filer & Stowell Company, The. (See Pelton, George M., assignor.)

Finch, John S. (See Eames and Finch.)

Finck, William M., Detroit, Mich. Garment. No. 1,132,768; Mar. 23; Gaz. vol. 212; p. 1151.

Fingerhut, Carl, Chicago, Ill. Frame-joint. No. 1,130,807; Mar. 9; Gaz. vol. 212; p. 371.

Finlayson, Alexander W., Detroit, Mich., assignor to F. S. Stoepel and C. D. Doyle, trustees. Mold for pneumatic-tire casings. No. 1,132,250; Mar. 16; Gaz. vol. 212; p. 915.

Finn, Henry H., Orono, Me. Hydraulic apparatus. No. 1,132,712; Mar. 23; Gaz. vol. 212; p. 1130.

Finn, John. (See Drew, William F., assignor.)

First Trust and Savings Bank, trustee. (See Erickson, John, assignor.)

Fischer, Richard, Frankfort-on-the-Main-Rödelheim, assignor to Mafam Motor-Apparate G. m. b. H., Frankfort-on-the-Main, Germany. Magneto apparatus. No. 1,131,921; Mar. 16; Gaz. vol. 212; p. 794.

Fischer, Zacharius O., Moccasin, Mont. Railway-spike. No. 1,133,947; Mar. 30; Gaz. vol. 212; p. 1609.

Fisher, Charles C., Ironton, Ohio. Weather-strip. No. 1,132,323; Mar. 16; Gaz. vol. 212; p. 941.

Fisher, Dudley T. (See Sessions and Fisher.)

Fisher, Dudley T., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Locomotive. No. 1,132,838; Mar. 23; Gaz. vol. 212; p. 1178.

Fisher, Dudley T., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Cable-winding mechanism for locomotives. No. 1,132,839; Mar. 23; Gaz. vol. 212; p. 1178.

Fisher, Frederick A., Provincetown, assignor of one-fourth to W. L. Conwell, Jr., Boston, Mass. Emergency-valve. No. 1,131,605; Mar. 9; Gaz. vol. 212; p. 645.

Fisher, Henry L., assignor to Landis Machine Company, Waynesboro, Pa. Thread-cutting device. No. 1,134,083; Mar. 30; Gaz. vol. 212; p. 1654.

Fisher, William E., Miller, Nebr. Delivery apparatus for mail or the like. No. 1,130,721; Mar. 9; Gaz. vol. 212; p. 341.

Fitz Gerald, John M., assignor to The Railroad Supply Co., Chicago, Ill. Battery-well. No. 1,130,808; Mar. 9; Gaz. vol. 212; p. 371.

Fitzgerald, John L., Boston, Mass. Low-water alarm for steam-boilers. No. 1,130,385; Mar. 2; Gaz. vol. 212; p. 189.

Fitzgerald, William, Bridgeport, Conn. Puzzle. No. 1,133,546; Mar. 30; Gaz. vol. 212; p. 1468.

Fitzpatrick, George M., assignor of one-half to J. J. Tully, Milford, Mass. Steaming device for steaming the tips or boxes and vamps of boots and shoes. No. 1,132,518; Mar. 16; Gaz. vol. 212; p. 1012.

Fivey, Robert E., Chicago, Ill. Flush-valve. No. 1,132,570; Mar. 23; Gaz. vol. 212; p. 1078.

Flachslaender, Joseph, K. P. Gralert, and M. Buff, Elberfeld, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y. Sulfur colors. No. 1,132,922; Mar. 23; Gaz. vol. 212; p. 1207.

Flaherty, John F., assignor to The Timken Roller Bearing Company, Canton, Ohio. Gaging-machine. No. 1,133,273; Mar. 30; Gaz. vol. 212; p. 1370.

Flaherty, Mrs. John T., administratrix. (See Siddons, Enoch F.)

Flanagan, Edward, Philadelphia, Pa. Smoke-house and fuel-economizer. No. 1,133,118; Mar. 23; Gaz. vol. 212; p. 1280.

Fleehearty, Edward L., Bay City, Tex. Plow. No. 1,129,971; Mar. 2; Gaz. vol. 212; p. 46.

Fleet, Arthur H., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Circuit-controller. No. 1,130,969; Mar. 9; Gaz. vol. 212; p. 426.
Fletcher, Benjamin, Toronto, Ontario, Canada. Paper straw. No. 1,133,717; Mar. 30; Gaz. vol. 212; p. 1531.
Fletcher, Ernest E., Chicago, Ill. Studding for plasterboards and the like. No. 1,130,722; Mar. 9; Gaz. vol. 212; p. 342.
Fletcher, Ira E., Manchester, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon heels. No. 1,132,080; Mar. 16; Gaz. vol. 212; p. 851.
Flexner, Gustav, *et al.* (See Smith, Hugh A., assignor.)
Flick, Frederick A., New York, N. Y. Etching apparatus. No. 1,133,547; Mar. 30; Gaz. vol. 212; p. 1468.
Flint, Henry F., Omaha, Nebr. Envelop. No. 1,134,075; Mar. 30; Gaz. vol. 212; p. 1651.
Flintkote Manufacturing Company. (See Bird, Reginald W., assignor.)
Flora, Ellsworth E., assignor to The Seal & Fastener Co., Chicago, Ill. Barrel-hoop. No. 1,130,078; Mar. 2; Gaz. vol. 212; p. 82.
Florcken, Emil F., Los Angeles, Cal. Device for operating door-bolts. No. 1,133,948; Mar. 30; Gaz. vol. 212; p. 1609.
Flynn, Clement L., Bellingham, Wash., assignor to Welles Thompson Company, Minneapolis, Minn. Silo. No. 1,130,894; Mar. 9; Gaz. vol. 212; p. 401.
Foill, Frederick J., Jackson, Mich. Spring-cushion construction. No. 1,133,119; Mar. 23; Gaz. vol. 212; p. 1280.
Foleen, Gustaf. (See Willner and Foleen.)
Folger, Harry S., and C. L. Redfield, Chicago, Ill.; said Redfield assignor to said Folger. Self-inking hand-stamp. No. 1,132,519; Mar. 16; Gaz. vol. 212; p. 1012.
Foltzer, Josef, Metz, assignor to B. Borzykowski, Charlottenburg, Germany. Making imitation textile products from solutions of cellulose or plastic substances. No. 1,133,548; Mar. 30; Gaz. vol. 212; p. 1468.
Foos Gas Engine Company, The. (See Edwards, Albert Y., assignor.)
Ford, Ben K., Oak Park, and L. E. Birch, Maywood, Ill., assignors to American Can Company, New York, N. Y. Casing for containers. No. 1,131,689; Mar. 16; Gaz. vol. 212; p. 709.
Fordyce, John R., Little Rock, Ark. Cotton-bale carrier. No. 1,132,003; Mar. 16; Gaz. vol. 212; p. 823.
Forrester, James C., New York, N. Y. Bottle-cap manufacture. No. 1,131,354; Mar. 9; Gaz. vol. 212; p. 558.
Forrester, James C., New York, N. Y. Bottle-cap-assembling machine. No. 1,131,355; Mar. 9; Gaz. vol. 212; p. 558.
Forry, Charles E., *et al.* (See Duncan, Arthur L., assignor.)
Forscher, Herman, New York, N. Y. Food product and making same. No. 1,130,723; Mar. 9; Gaz. vol. 212; p. 342.
Forsgard, Edward F., assignor of one-third to J. W. Bass and one-third to F. Braatz, Waco, Tex. Packagetie. No. 1,132,571; Mar. 23; Gaz. vol. 212; p. 1078.
Forsyth Brothers Company. (See Sisson, Albert H., assignor.)
Forsyth, George H., Chicago, Ill. Metal window construction. No. 1,131,625; Mar. 9; Gaz. vol. 212; p. 652.
Forsyth, William D., Youngstown, Ohio, assignor, by mesne assignments, to Railway Products Corporation, Buffalo, N. Y. Removable assembled draft-gear. No. 1,130,386; Mar. 2; Gaz. vol. 212; p. 190.
Forsyth, William D., Youngstown, Ohio, assignor to Railway Products Corporation, Buffalo, N. Y. Draft-gear. No. 1,130,387; Mar. 2; Gaz. vol. 212; p. 190.
Forsyth, William D., Youngstown, Ohio, assignor to Railway Products Corporation, Buffalo, N. Y. Draft-gear. No. 1,130,388; Mar. 2; Gaz. vol. 212; p. 190.
Forsyth, William D., Youngstown, Ohio, assignor, by mesne assignments, to Railway Products Corporation, Buffalo, N. Y. Metal railway-tie. No. 1,131,356; Mar. 9; Gaz. vol. 212; p. 558.
Forsyth, William H., Chicago, Ill., assignor to The Curtain Supply Co., Newark, N. J. Curtain-roller. No. 1,132,655; Mar. 23; Gaz. vol. 212; p. 1110.
Forsyth, William J. (See Donovan and Forsyth.)
Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Rectifier system. No. 1,130,265; Mar. 2; Gaz. vol. 212; p. 147.
Fortney, Olan V., Kitzmiller, Md. Miner's lamp. No. 1,132,324; Mar. 16; Gaz. vol. 212; p. 942.
Foss, Andrew H., Elbow Lake, Minn. Rotary gas-engine. No. 1,131,922; Mar. 16; Gaz. vol. 212; p. 794.
Foster Bros. Mfg. Co. (See Frank, William E., assignor.)
Foster, Claud H., Cleveland, Ohio. Shock-absorbing device. No. 1,130,724; Mar. 9; Gaz. vol. 212; p. 342.
Foster, Freling C., Chicago, Ill. Safety appliance for boats. No. 1,133,629; Mar. 30; Gaz. vol. 212; p. 1498.
Foster, Harold S. (See Williams, Foster, and Wilkinson.)
Foucar, Philipp E., Dusseldorf-Oberbilk, Germany. Kneading-machine. No. 1,133,274; Mar. 30; Gaz. vol. 212; p. 1371.
Foulks, Irving, *et al.* (See Watts, William E., assignor.)
Fountain, Martin, Jr., Biloxi, Miss. Shrimp-seine-hauling device. No. 1,133,120; Mar. 23; Gaz. vol. 212; p. 1280.
Fountain, Robert, J. K. Waters, and W. C. Winchester, Banning, Cal. Fruit-gatherer. No. 1,132,825; Mar. 16; Gaz. vol. 212; p. 942.
Fournier, Joseph N. P., St. Hyacinthe, Quebec, Canada. Tobacco-pipe. No. 1,133,015; Mar. 23; Gaz. vol. 212; p. 1243.
Fouyer, Joseph F., Marseille, France. Tooth-brush. No. 1,132,326; Mar. 16; Gaz. vol. 212; p. 942.
Fowler, Carl H., New York, N. Y. Shallow-water boat. No. 1,132,923; Mar. 23; Gaz. vol. 212; p. 1208.
Fox, Ellis W., Vancouver, British Columbia, Canada. Fire-protection device for cinematograph-machines. No. 1,130,079; Mar. 2; Gaz. vol. 212; p. 82.
Fragoulis, Spyros, Boston, Mass. Cuspidor. No. 1,131,829; Mar. 16; Gaz. vol. 212; p. 761.
Frailey, Edwin V., Williamsport, Pa. Gage. No. 1,131,923; Mar. 16; Gaz. vol. 212; p. 794.
Frampton, Reynolds C., assignor to Pittsburg Water Heater Company, Pittsburgh, Pa. Instantaneous water-heater. No. 1,133,016; Mar. 23; Gaz. vol. 212; p. 1243.
Francis, William B., Prague, Okla. Party-line cut-out. No. 1,133,549; Mar. 30; Gaz. vol. 212; p. 1469.
Francisco, George D., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Conveyer. No. 1,132,713; Mar. 23; Gaz. vol. 212; p. 1130.
Francisco, Lynn M., Baldwinsville, N. Y. Carbureter. No. 1,130,502; Mar. 2; Gaz. vol. 212; p. 232.
Franckaerts, Emile, San Francisco, Cal. Garbage-can. No. 1,130,503; Mar. 2; Gaz. vol. 212; p. 233.
Frandsen, Niels C., Copenhagen, Denmark, assignor to Schmidt's che Heisdampf Gesellschaft m. b. H. Cassel-Wilhelmshohe, Germany. Making U-shaped pipe-bends. No. 1,133,017; Mar. 23; Gaz. vol. 212; p. 1244.
Frank, William E., assignor to Foster Bros. Mfg. Co., St. Louis, Mo. Trundle-bed. No. 1,133,848; Mar. 30; Gaz. vol. 212; p. 1577.
Frank, William J., Webster Groves, Mo. Heating device. No. 1,131,226; Mar. 9; Gaz. vol. 212; p. 514.
Franklin, Hubert F., assignor to Reliance Ball Bearing Door Hanger Company, New York, N. Y. Door-hanger. No. 1,130,159; Mar. 2; Gaz. vol. 212; p. 110.
Franklin, John F., Picayune, and B. S. Cowell, Meridian, Miss. Cushioned wheel. No. 1,129,860; Mar. 2; Gaz. vol. 212; p. 10.
Franz Bauer & Söhne, A.-G. (See Bauer, Edwin, assignor.)
Franz, Gustav A., assignor to Jackson Cushion Spring Company, Jackson, Mich. Spring structure. No. No. 1,133,949; Mar. 30; Gaz. vol. 212; p. 1609.
Franzmeier, Louis, Newton, Wis. Windrower. No. 1,133,550; Mar. 30; Gaz. vol. 212; p. 1469.
Frazier, William W., Youngstown, Ohio. Rolling-mill. No. 1,133,551; Mar. 30; Gaz. vol. 212; p. 1469.
Frederick, Noah, Portland, Oreg. Buggy-top-bow protector. No. 1,131,357; Mar. 9; Gaz. vol. 212; p. 559.
Freedman, Hyman and N. M., Chicago, Ill. Couch or davenport bed. No. 1,131,358; Mar. 9; Gaz. vol. 212; p. 559.
Freedman, Hyman and N. M., Chicago, Ill. Davenport-bed. No. 1,131,359; Mar. 9; Gaz. vol. 212; p. 559.
Freedman, Nathan M. (See Freedman, Hyman and N. M.)
Freeman, Arthur J., Petaluma, Cal. Sheet-conveyer. No. 1,133,630; Mar. 30; Gaz. vol. 212; p. 1498.
Freeman, Dorothy, administratrix. (See Freeman, Samuel S.)
Freeman, John O., Greenville, S. C. Metallic railway-tie. No. 1,130,586; Mar. 2; Gaz. vol. 212; p. 261.
Freeman, Samuel S., deceased, Oakland, Cal.; D. Freeman, administratrix. Necktie. No. 1,130,587; Mar. 2; Gaz. vol. 212; p. 262.
Freese, Etson L., New York, N. Y. Tree-trunk saw. No. 1,132,251; Mar. 16; Gaz. vol. 212; p. 915.
Freid, John, New York, N. Y. Receptacle for garments, clothing, and the like. No. 1,133,018; Mar. 23; Gaz. vol. 212; p. 1244.
Freise, Albert M., San Francisco, Cal. Wall-seat. No. 1,132,004; Mar. 16; Gaz. vol. 212; p. 824.
French, Horace E., Newcastle, Ind. Pedal connection. No. 1,132,081; Mar. 16; Gaz. vol. 212; p. 851.
Fressinet, Barthelemy. (See Chomier and Fressinet.)
Fretz, John A., and T. F. Craven, Philadelphia, Pa. Bottle-closure. No. 1,133,950; Mar. 30; Gaz. vol. 212; p. 1610.
Freudinger, Charles G., Chicago, Ill. Combination-tool. No. 1,132,252; Mar. 16; Gaz. vol. 212; p. 916.
Freund, Luna C., Cheyenne, Wyo. Knickerbockers. No. 1,133,552; Mar. 30; Gaz. vol. 212; p. 1470.
Freyer, Ernst, *et al.* (See Cechal, Ferdinand, assignor.)
Frid, Carl J., Stege, Cal. Life-preserver. No. 1,131,227; Mar. 9; Gaz. vol. 212; p. 514.
Fried. Krupp Aktiengesellschaft. (See Mandelartz, Ludwig, assignor.)
Fried. Krupp, Aktiengesellschaft. (See Steinbach, Reinhold, assignor.)
Fried. Krupp Aktiengesellschaft. (See Ullrich, Georg, assignor.)
Friedenthal, Hans, Berlin-Nicolassee, Germany. Fruit and vegetable dust and making same. No. 1,130,588; Mar. 2; Gaz. vol. 212; p. 262.
Frink, Herbert J., Holyoke, Mass. Adjustable bearing-box. No. 1,132,572; Mar. 23; Gaz. vol. 212; p. 1078.
Frisby, J. H., *et al.* (See Erickson, John E., assignor.)

Fritsch, John A., Pittsburgh, Pa. Brush. No. 1,130,673; Mar. 2; Gaz. vol. 212; p. 291.
Fritz, William, Philadelphia, Pa. Chocolate-enrobing machine. No. 1,132,253; Mar. 16; Gaz. vol. 212; p. 916.
Fritze, George P., *et al.* (See Martin, Charles E., assignor.)
Frost, James E., Ladysmith, Wis. Device for pulling, stretching, hoisting, &c. No. 1,132,082; Mar. 16; Gaz. vol. 212; p. 852.
Frush, Charles A., Youngstown, Ohio. Safety attachment for jointers. No. 1,132,327; Mar. 16; Gaz. vol. 212; p. 943.
Fry, Isadore. (See Shanks, Jacob, assignor.)
Fuller, Jesse T. (See Curran, Edmund, assignor.)
Fulton, John S. S., New York, N. Y., assignor to E. T. Jester, trustee. Culm-burning furnace. No. 1,130,389; Mar. 2; Gaz. vol. 212; p. 190.
Fulton, Louis B., assignor to The Chaplin-Fulton Manufacturing Company, Pittsburgh, Pa. Feed-water regulator. No. 1,131,600; Mar. 16; Gaz. vol. 212; p. 710.
Fultz, Deck B., Barry, Tex. Cotton-chopper. No. 1,133,553; Mar. 30; Gaz. vol. 212; p. 1470.
Funder, Mathew, Fairport Harbor, assignor of ten one-hundredths to R. G. Skinner, Cleveland, and forty-five one-hundredths to F. B. Chilson, Painesville, Ohio. Hatch-cover. No. 1,132,714; Mar. 23; Gaz. vol. 212; p. 1131.
Funk, Captain P., Wooster, Ohio. Detachable boot for automobile-tires. No. 1,133,718; Mar. 30; Gaz. vol. 212; p. 1531.
Funk, John L., assignor of one-half to A. S. Hawley, Redondo, Cal. Trestle-frame and bracing means therefor. No. 1,133,230; Mar. 23; Gaz. vol. 212; p. 1318.
Furrer, Frank E., Wishek, N. D. Truck-adjusting mechanism. No. 1,131,050; Mar. 9; Gaz. vol. 212; p. 454.
Furrow, Harry R., Piqua, Ohio. Toy. No. 1,133,719; Mar. 30; Gaz. vol. 212; p. 1531.
Furuholmen, George, Minneapolis, Minn. Furnace. No. 1,132,573; Mar. 23; Gaz. vol. 212; p. 1079.
Fusina, Giovanni, Genoa, Italy. Desulfurising ores. No. 1,131,691; Mar. 16; Gaz. vol. 212; p. 710.
Fyrberg, Andrew, Worcester, Mass., assignor to Warner Arms Corporation, New York, N. Y. Automatic hand-firearm. No. 1,131,360; Mar. 9; Gaz. vol. 212; p. 560.
G. A. Duerler Mfg. Co. (See Gebhardt, William, assignor.)
G. E. Prentice Manufacturing Company, The. (See Prentice, George E., assignor.)
Gabbe, Hyman B., New York, N. Y. Window-wicket-operating mechanism. No. 1,130,504; Mar. 2; Gaz. vol. 212; p. 233.
Gadow, Edward P., Preston, Md. Fodder-binder. No. 1,131,501; Mar. 9; Gaz. vol. 212; p. 610.
Gage, Burt O., assignor to Warren Steam Pump Company, Warren, Mass. Tool-holder for rotary drilling and like machines. No. 1,131,777; Mar. 16; Gaz. vol. 212; p. 741.
Gage, Daniel W., Cambridge, Mass., assignor to J. C. Hawkins, Newton, Iowa. Paper-fastener. No. 1,130,589; Mar. 2; Gaz. vol. 212; p. 262.
Gage, Daniel W., Cambridge, Mass., assignor to J. C. Hawkins, Newton, Iowa. Paper-fastener. No. 1,130,590; Mar. 2; Gaz. vol. 212; p. 263.
Gagnon, Erasme, Pawtucket, R. I., assignor to Draper Company, Hopedale, Mass. Harness stop-motion for looms. No. 1,133,464; Mar. 30; Gaz. vol. 212; p. 1437.
Gagnon, Prim, Hammond, Ind. Rail-lifting tool. No. 1,131,051; Mar. 9; Gaz. vol. 212; p. 454.
Gainer, Albert L., St. Louis, Mo. Train-stopping apparatus. No. 1,131,502; Mar. 9; Gaz. vol. 212; p. 610.
Gainer, Douglas E., and W. L. Stull, Brunswick, Md. Lubricator. No. 1,133,554; Mar. 30; Gaz. vol. 212; p. 1470.
Gainor, Summers E., Halethrope, Md. Egg-shipping crate. No. 1,133,849; Mar. 30; Gaz. vol. 212; p. 1577.
Gale, Ernest L., Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Traction-elevator. No. 1,132,769; Mar. 23; Gaz. vol. 212; p. 1152.
Gale, Ernest L., Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Safety device for elevators. No. 1,132,770; Mar. 23; Gaz. vol. 212; p. 1152.
Galletti, Frank. (See Alfano, Louis, assignor.)
Gallon Iron Works and Manufacturing Company, The. (See Boyd, David C., assignor.)
Galland, Charles N., Minneapolis, Minn. Color-printing attachment for printing-presses. No. 1,131,228; Mar. 9; Gaz. vol. 212; p. 515.
Galleazzi, Joseph, San Francisco, Cal. Coupling mechanism for organs. No. 1,133,555; Mar. 30; Gaz. vol. 212; p. 1471.
Galligan, Edward H., Providence, R. I. Combination commodity. No. 1,132,328; Mar. 16; Gaz. vol. 212; p. 943.
Galligan, Emmet F., Idaho Springs, assignor of one-half to H. E. Woodward, Denver, and one-fourth to W. H. Galligan, Idaho Springs, Colo. Dust-collector for rock-drills. No. 1,131,052; Mar. 9; Gaz. vol. 212; p. 455.
Galligan, William H., *et al.* (See Galligan, Emmet F., assignor.)
Gallup, Ethel C., New York, N. Y. Cigarette-machine. No. 1,133,951; Mar. 30; Gaz. vol. 212; p. 1610.
Gallup, Frederick L., Media, Pa., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Making granular nitrate of ammonia. No. 1,131,361; Mar. 9; Gaz. vol. 212; p. 560.
Gamble, George R., assignor to himself and P. C. Robinson, C. W. Barwell, and H. W. Ansley, Port Dover, Ontario, Canada. Holder for nipples and other work. No. 1,133,374; Mar. 30; Gaz. vol. 212; p. 1406.
Gamble, George R., Port Dover, and H. A. Stringer, Simcoe, Ontario, Canada. Pump for oil and gas wells and the like. No. 1,132,329; Mar. 16; Gaz. vol. 212; p. 943.
Gamble, John, Philadelphia, assignor to G. A. Reach, Bala, Pa. Hockey-glove. No. 1,130,895; Mar. 9; Gaz. vol. 212; p. 402.
Gamble, Walter H., Los Angeles, Cal. Receptacle. No. 1,132,466; Mar. 16; Gaz. vol. 212; p. 992.
Gamewell Fire-Alarm Telegraph Company. (See Suren, Nathan H., assignor.)
Gandy, Wiley N., Athens, La. Back-band. No. 1,129,972; Mar. 2; Gaz. vol. 212; p. 46.
Gans, Robert, Pankow, near Berlin, assignor to J. D. Riedel Aktiengesellschaft, Berlin, Germany. Production of hydrated alumino-silicates or artificial zeolites. No. 1,131,503; Mar. 9; Gaz. vol. 212; p. 611.
Gant, Jesse B., Witney, Tex. Cotton-chopper. No. 1,132,656; Mar. 23; Gaz. vol. 212; p. 1111.
Garber, Adolph B., *et al.* (See Thrasher, John W., assignor.)
Gardiner, John F. (See Taylor and Gardiner.)
Gardner, Andrew M. (See Chamberlin and Gardner.)
Gardner, Frank P., Boston, Mass. Gage-glass shield and reflector. No. 1,131,692; Mar. 16; Gaz. vol. 212; p. 710.
Gardner, James P., Chicago, Ill., assignor to The Reducing Machine Company. Body-treatment machine. No. 1,134,084; Mar. 30; Gaz. vol. 212; p. 1654.
Gardner, John W., assignor to C. W. Ferguson Collar Company, Troy, N. Y. Collar. No. 1,132,254; Mar. 16; Gaz. vol. 212; p. 916.
Gare, Thomas, New Brighton, England. Reclaiming old or waste vulcanized India-rubber. No. 1,133,952; Mar. 30; Gaz. vol. 212; p. 1611.
Garen, Odena M., Springfield, Mass. Thread-removing implement. No. 1,131,504; Mar. 9; Gaz. vol. 212; p. 611.
Garford Manufacturing Company, The. (See Manson, Ray H., assignor.)
Garland, John G., High Point, N. C. Nut-lock. No. 1,131,053; Mar. 9; Gaz. vol. 212; p. 455.
Garland, Thomas H., Chicago, Ill. Ventilator. No. 1,131,362; Mar. 9; Gaz. vol. 212; p. 561.
Garlock Auto Specialty Company. (See Whiting, Herman E., assignor.)
Garraux, Eugene, Baltimore, Md. Broiler. No. 1,133,850; Mar. 30; Gaz. vol. 212; p. 1578.
Garrett, James C., San Francisco, Cal., assignor, by mesne assignments, to G. T. Crammer, trustee, Trenton, N. J. Voting-machine. No. 1,131,363; Mar. 9; Gaz. vol. 212; p. 561.
Garrett, Thomas S., Seattle, Wash. Transferring and alining machine. No. 1,132,840; Mar. 23; Gaz. vol. 212; p. 1179.
Garris, James A. (See Thompson and Garris.)
Garth, Hollan. (See Bellwood and Garth.)
Garvey, Christopher A., *et al.* (See McCauley, Albert J., assignor.)
Garvin, Benjamin, assignor to American Sanitary Lock Company, Indianapolis, Ind. Coin-controlled lock. No. 1,132,467; Mar. 16; Gaz. vol. 212; p. 992.
Gary, Shirley L., South Richmond, Va. Dethreading attachment for stay-bolt machines. No. 1,131,364; Mar. 9; Gaz. vol. 212; p. 561.
Gaskins, Jesse S., Nashville, Ga. Lubricator. No. 1,132,330; Mar. 16; Gaz. vol. 212; p. 944.
Gater, William, Shanghai, China. Appliance suitable for life-saving at sea. No. 1,132,468; Mar. 16; Gaz. vol. 212; p. 992.
Gatzki, Gottlieb. (See Barnett, Solomon V., assignor.)
Gaul, Godfried J., assignor to Daprato Statuary Company, Chicago, Ill. Sounding-board. No. 1,130,505; Mar. 2; Gaz. vol. 212; p. 234.
Gauthier, Clarence E., West Springfield, Mass. Extension car-step. No. 1,130,390; Mar. 2; Gaz. vol. 212; p. 191.
Gauthier, George A., assignor to The Arrow Electric Company, Hartford, Conn. Outlet-box bushing. No. 1,129,973; Mar. 2; Gaz. vol. 212; p. 47.
Gay, Gilbert E., Damariscotta, Me. Spring-wheel. No. 1,132,469; Mar. 16; Gaz. vol. 212; p. 993.
Gazzam, H. P., *et al.* (See Jobke, August F., assignor.)
Gear Grinding Machine Company, The. (See Ward, Frederick A., assignor.)
Gearless Automatic Pump Company. (See Mintz, Mike, assignor.)
Gebauer, Charles L., administrator and trustee. (See Gebauer, Theophil H.)
Gebauer, Theophil H., deceased; C. L. Gebauer, administrator, assignor of one-third to C. F. W. Bates, one-third to C. L. Gebauer, and one-third to C. L. Gebauer, trustee, Cleveland, Ohio. Anode for discharge-tubes. No. 1,131,606; Mar. 9; Gaz. vol. 212; p. 646.
Gebhardt, William, assignor to G. A. Duerler Mfg. Co., San Antonio, Tex. Nut-cracking machine. No. 1,133,121; Mar. 23; Gaz. vol. 212; p. 1281.

Gebhardt, William C., San Antonio, Tex. Air-compressing apparatus. No. 1,132,331; Mar. 16; Gaz. vol. 212; p. 944.
Geier, James, Troy, N. Y. Surveyor's instrument. No. 1,133,123; Mar. 23; Gaz. vol. 212; p. 1282.
Geier, James, assignor of one-half to J. Bluhm, Troy, N. Y. Surveyor's instrument. No. 1,133,122; Mar. 23; Gaz. vol. 212; p. 1281.
Geiger, Frederick A. (See Claesgens and Geiger.)
Geiger, George P., assignor to The National Cash Register Company, Dayton, Ohio. Totalizer-resetting mechanism. No. 1,129,974; Mar. 2; Gaz. vol. 212; p. 47.
Geil, Philip P., *et al.* (See McKinnon and Brouff, assignors.)
General Bakelite Company. (See Baekeland, Leo H., assignor.)
General Dehydrator Company. (See Harris and Pollard, assignors.)
General Electric Company. (See Ball, Henry P., assignor.)
General Electric Company. (See Berry, Edward R., assignor.)
General Electric Company. (See Boury, André, assignor.)
General Electric Company. (See Brown, Walter W., assignor.)
General Electric Company. (See Creighton, Elmer E. F., assignor.)
General Electric Company. (See Dempster, John T., assignor.)
General Electric Company. (See Dempster, John T. H., assignor.)
General Electric Company. (See Flego, Alexander J. R., assignor.)
General Electric Company. (See Halvorson, Cromwell A. B., Jr., assignor.)
General Electric Company. (See Hawkins, Laurence A., assignor.)
General Electric Company. (See Hill, George H., assignor.)
General Electric Company. (See Jacobs, Ernest H., assignor.)
General Electric Company. (See Junggren, Oscar, assignor.)
General Electric Company. (See Krämer, Bernhard, assignor.)
General Electric Company. (See Marshall, Norman, assignor.)
General Electric Company. (See Moody, Walter S., assignor.)
General Electric Company. (See Moss, Sanford A., assignor.)
General Electric Company. (See Persson, Otto F., assignor.)
General Electric Company. (See Rafn, Robert, assignor.)
General Electric Company. (See Steinmetz, Charles P., assignor.)
General Electric Company. (See Van Hoesen, William, F., assignor.)
General Electric Company. (See Weintraub, Ezechiel, assignor.)
General Electric Company. (See Wood, James J., assignor.)
General Engineering and Construction Company. (See Ashley, Charles G., assignor.)
General Motors Company. (See Gunn, Earl G., assignor.)
General Motors Company. (See Heinze, John O., Jr., assignor.)
General Railway Signal Company. (See Townsend, Fitzhugh, assignor.)
General Reduction Company. (See Bergh and Neuberger, assignors.)
Gentry, Charlie, Attalla, Ala. Collapsible chicken-coop. No. 1,133,851; Mar. 30; Gaz. vol. 212; p. 1578.
Geo. S. Johnston Company. (See Johnston, George S., assignor.)
Geo. W. Blabon Company. (See Blabon, Edwin L., assignor.)
George, Harmon A., Petaluma, Cal. Brooder-heater. No. 1,132,005; Mar. 16; Gaz. vol. 212; p. 824.
George Hattersley and Sons, Limited. (See Perks, Thomas, assignor.)
Gepack, Paul., assignor of one-eighth to J. Romanczk, one-fourth to J. Wienicki, and one-eighth to J. Modranski, McKees Rocks, Pa. Adjustable outrigger for boats. No. 1,132,924; Mar. 23; Gaz. vol. 212; p. 1208.
Geratt, Stephen, Superior, Wis. Combination implement-head. No. 1,133,124; Mar. 23; Gaz. vol. 212; p. 1282.
Gerber, Christian, Morgan, Utah. Ship-bow shield and shock-absorber. No. 1,130,809; Mar. 9; Gaz. vol. 212; p. 371.
Gerdien, Hans, Halensee, near Berlin, assignor to Siemens & Halske A. G., Berlin, Germany. Method of quantitatively analyzing gas-mixtures of known constituents and apparatus therefor. No. 1,133,556; Mar. 30; Gaz. vol. 212; p. 1471.
Gerding, Louis H., Baltimore, Md. Water-tower. No. 1,133,631; Mar. 30; Gaz. vol. 212; p. 1490.
Geritz, Claus P. (See Morrow and Geritz.)
Germond, Henry S., Jr., assignor to New York Revolving Portable Elevator Company, Jersey City, N. J. Portable elevator. No. 1,130,080; Mar. 2; Gaz. vol. 212; p. 83.
Gerrard, Robert R., Jr., St. Joseph, Mo. Base-ball game. No. 1,133,125; Mar. 23; Gaz. vol. 212; p. 1282.
Gervais, Wainwright B., assignor to Variety Manufacturing Company, Chicago, Ill. Fireproof guideway for doors and shutters. No. 1,131,924; Mar. 16; Gaz. vol. 212; p. 795.
Gervais, Wainwright B., assignor to Variety Manufacturing Company, Chicago, Ill. Fusible washer for fireproof structures. No. 1,131,925; Mar. 16; Gaz. vol. 212; p. 795.
Gesellschaft für Electrotechnische Industrie mit beschränkter Haftung. (See Pröstler, Norbert, assignor.)
Gesellschaft für Elektro-Osmose m. b. H. (See Illig and Schwerin, assignors.)
Getchell, Wendell P., Boston, Mass. School desk and seat. No. 1,133,797; Mar. 30; Gaz. vol. 212; p. 1558.
Geterman, Charles J., assignor to J. E. McLain, Canton, Ohio. Headlight. No. 1,130,391; Mar. 2; Gaz. vol. 212; p. 191.
Getts, Frank E., Chicago, Ill. Liquid-strainer. No. 1,130,725; Mar. 9; Gaz. vol. 212; p. 342.
Getty, Harry S., and J. Eichel, Philadelphia, Pa., assignors to The Adams & Westlake Company. Hinge. No. 1,132,255; Mar. 16; Gaz. vol. 212; p. 917.
Gewecke, Hermann, and C. Baeumler, Nuremburg, assignors to Siemens-Schuckert Werke, G. m. b. H., Siemensstadt, near Berlin, Germany. Measuring-transformer. No. 1,133,466; Mar. 30; Gaz. vol. 212; p. 1438.
Ghinelli, Peter, and A. Buchignani, Swatara Station, Pa. Stopping apparatus for motor-cars. No. 1,132,332; Mar. 16; Gaz. vol. 212; p. 944.
Gibbons, Mary A., Des Moines, Iowa. Hay-baler. No. 1,132,083; Mar. 16; Gaz. vol. 212; p. 852.
Giberson, Mason B., assignor to Monarch Steel Castings Company, Detroit, Mich. Locomotive car-coupling. No. 1,132,574; Mar. 23; Gaz. vol. 212; p. 1080.
Giberson, Mason B., assignor to Monarch Steel Castings Company, Detroit, Mich. Locomotive car-coupling. No. 1,132,575; Mar. 23; Gaz. vol. 212; p. 1080.
Giberson, Mason B., assignor to Monarch Steel Castings Company, Detroit, Mich. Bolster. No. 1,132,576; Mar. 23; Gaz. vol. 212; p. 1080.
Giberson, Mason B., assignor to Monarch Steel Castings Company, Detroit, Mich. Securing device for railway-car-coupling pivot-pins. No. 1,133,632; Mar. 30; Gaz. vol. 212; p. 1409.
Giberson, Mason B., Detroit, Mich., and H. Roberts, Walkerville, Ontario, Canada, assignors to Monarch Steel Castings Company. Railway-truck. No. 1,133,275; Mar. 30; Gaz. vol. 212; p. 1371.
Gibson, Earle M., and C. W. Staples, Washburn, Me. Foot throttle or accelerator for automobiles. No. 1,131,830; Mar. 16; Gaz. vol. 212; p. 762.
Gibson, Lee S., Winnipeg, Manitoba, Canada. Car-seal. No. 1,132,006; Mar. 16; Gaz. vol. 212; p. 825.
Giddings, Frank D., Fort Collins, Colo. Grinding-mill. No. 1,131,229; Mar. 9; Gaz. vol. 212; p. 515.
Giddings, Frank D., Fort Collins, Colo. Grinding-mill. No. 1,131,230; Mar. 9; Gaz. vol. 212; p. 515.
Giddings, Frank D., Fort Collins, Colo. Grinding-mill. No. 1,131,231; Mar. 9; Gaz. vol. 212; p. 516.
Giddings, Frank D., Fort Collins, Colo. Grinding-mill. No. 1,131,232; Mar. 9; Gaz. vol. 212; p. 516.
Giddings, Lawson H., Pasadena, Cal. Electrical oven and kiln. No. 1,130,392; Mar. 2; Gaz. vol. 212; p. 192.
Gierding, Charles E., assignor to The Ohio Brass Company, Mansfield, Ohio. Trolley-base. No. 1,131,831; Mar. 16; Gaz. vol. 212; p. 762.
Gierhart, Sylvester S., Wanette, Okla. Wrapper-cutter. No. 1,134,043; Mar. 30; Gaz. vol. 212; p. 1640.
Giese, Robert W., and P. F. Reilly, Philadelphia, Pa. Signaling device. No. 1,130,393; Mar. 2; Gaz. vol. 212; p. 192.
Gilbert, William E., Wakefield, Mich. Indicating-lamp. No. 1,133,126; Mar. 23; Gaz. vol. 212; p. 1283.
Gilchrist Company, The. (See Gilchrist, Raymond B., assignor.)
Gilchrist Company, The. (See Nielsen, Rasmus, assignor.)
Gilchrist, Raymond B., assignor to The Gilchrist Company, Newark, N. J. Ice-cream ladle. No. 1,132,657; Mar. 23; Gaz. vol. 212; p. 1111.
Gilkerson, Solomon D., Montreal, Quebec, Canada. Garment-holding form. No. 1,132,841; Mar. 23; Gaz. vol. 212; p. 1180.
Gill-Cook Valve Co. (See Gill, William A., assignor.)
Gill, James L., Bridgeton, N. J. Window-screen. No. 1,133,127; Mar. 23; Gaz. vol. 212; p. 1283.
Gill, William A., assignor to Gill-Cook Valve Co., Portland, Oreg. Rotary valve for internal-combustion engines. No. 1,130,896; Mar. 9; Gaz. vol. 212; p. 402.
Gillard, A. H. (See Atwood, Leonard, assignor.)
Gillette, George F., Detroit, Mich. Internal-combustion-engine valve No. 1,132,084; Mar. 16; Gaz. vol. 212; p. 852.
Gillette, King C., Brookline, Mass. Blade-box. No. 1,132,925; Mar. 23; Gaz. vol. 212; p. 1209.
Gillmor, Horatio G., Washington, D. C. Compressor for gases. No. 1,130,894; Mar. 2; Gaz. vol. 212; p. 192.
Gillmor, Horatio G., Portsmouth, Va. Means of forming joints in rails. No. 1,133,557; Mar. 30; Gaz. vol. 212; p. 1472.

Gilmour, Marriam L., Davenport, Iowa. Pipe and iron cutter. No. 1,130,395; Mar. 2; Gaz. vol. 212; p. 193.
Gilpin, Garth G. (See Young and Gilpin.)
Gilstrap, Owen G. (See Van Groos and Gilstrap.)
Girard, Alfred O., Milwaukee, Wis. Refrigerating and ice-manufacturing means. No. 1,132,176; Mar. 16; Gaz. vol. 212; p. 886.
Girolami, Charles, Chicago, Ill. Airship. No. 1,132,085; Mar. 16; Gaz. vol. 212; p. 853.
Giroud, Felipe, deceased; E. E. Chapman, executrix, New York, N. Y., assignor to Package Machinery Company, Springfield, Mass. Wrapping-machine. No. 1,129,975; Mar. 2; Gaz. vol. 212; p. 47.
Giroud, Felipe, deceased, New York, N. Y.; E. E. Chapman, executrix, assignor to Package Machinery Company. Wrapping or packaging machine. No. 1,133,633; Mar. 30; Gaz. vol. 212; p. 1499.
Gisholt Machine Company. (See McCabe, Horace B., assignor.)
Glass, Ida V. (See Brooks, Asa P., assignor.)
Glass, Perley R., Brookline, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for inserting fastenings. No. 1,132,926; Mar. 23; Gaz. vol. 212; p. 1209.
Glassman, Isador, Kalamazoo, Mich. Scabbard or holster hanger. No. 1,131,054; Mar. 9; Gaz. vol. 212; p. 455.
Glaze, Earl L., Lexington, Ky. Seed-stripper. No. 1,133,720; Mar. 30; Gaz. vol. 212; p. 1531.
Gleason, Edward D., Flatbush, assignor to R. H. King, Brooklyn, N. Y. Making alloys. No. 1,133,019; Mar. 23; Gaz. vol. 212; p. 1245.
Gleason, Henry M., Philadelphia, Pa. Apparatus for operating bulkhead-doors. No. 1,131,832; Mar. 16; Gaz. vol. 212; p. 763.
Gilson, Amos A., Fort Worth, Tex. Means for facilitating the use of railway-schedules. No. 1,132,333; Mar. 16; Gaz. vol. 212; p. 945.
Globe Foundry & Machine Company. (See Klumb, Paul, assignor.)
Glowacki, John B., Chicago, Ill. Dust and weather proofing construction. No. 1,131,693; Mar. 16; Gaz. vol. 212; p. 711.
Goble, Bert G., Tulsa, Okla. Bearing. No. 1,131,694; Mar. 16; Gaz. vol. 212; p. 711.
Goby, Clifford S., assignor to The Engine Holdings Company, Cleveland, Ohio. Internal-combustion engine. No. 1,133,852; Mar. 30; Gaz. vol. 212; p. 1578.
Goddard, Joseph, Rochester, assignor to Seneca Camera Manufacturing Company, New York, N. Y. Winding-key for roll-holding cameras. No. 1,133,128; Mar. 23; Gaz. vol. 212; p. 1283.
Godlesky, Peter. (See Onyskow, Silvester, assignor.)
Godley, Jesse E., and J. M. Carroll, Vallejo, assignors to Sperry Flour Company, San Francisco, Cal. Box-strapping machine. No. 1,130,160; Mar. 2; Gaz. vol. 212; p. 110.
Goeler, Frederick, San Francisco, Cal. Sheet-metal-bending machine. No. 1,131,055; Mar. 9; Gaz. vol. 212; p. 456.
Goff, Frank, assignor of one-half to W. H. Cox, Camden, N. J. Nut-lock. No. 1,130,810; Mar. 9; Gaz. vol. 212; p. 372.
Gold Car Heating and Lighting Company. (See Gold, Edward E., assignor.)
Gold, Edward E., assignor to Gold Car Heating and Lighting Company, New York, N. Y. Valve for heating systems and the like. No. 1,133,853; Mar. 30; Gaz. vol. 212; p. 1579.
Gold, Egbert H. (See Airhart and Gold.)
Gold, Egbert H., Chicago, Ill. Heating system for postal cars. No. 1,131,926; Mar. 16; Gaz. vol. 212; p. 795.
Gold, Egbert H., Chicago, Ill. Heating system for railway-cars of metal construction. No. 1,131,927; Mar. 16; Gaz. vol. 212; p. 796.
Gold, Russell S., assignor to The American Hardware Corporation, New Britain, Conn. Panic-bolt mechanism. No. 1,130,266; Mar. 2; Gaz. vol. 212; p. 147.
Golden, John E., Dunmore, Pa. Horseshoe. No. 1,133,276; Mar. 30; Gaz. vol. 212; p. 1371.
Goldsmith, Byron B., New York, N. Y. Shipping and display box. No. 1,130,811; Mar. 9; Gaz. vol. 212; p. 372.
Goldsmith, Edwin P., *et al.* (See Swikard, Edward L., assignor.)
Golinsky, Jacob. (See Petterson, Clarence A., assignor.)
Gong Bell Manufacturing Company, The. (See Watrous, Clifford M., assignor.)
Gonzalez, May H., Birmingham, Ala. Electric heater for liquids. No. 1,129,861; Mar. 2; Gaz. vol. 212; p. 10.
Good, Benjamin H. (See Thurman, George W., assignor.)
Good, Thomas L., assignor of one-third to H. P. Hotz and one-third to O. T. Dunlap, Edwardsville, Ill. Spring-wheel. No. 1,133,854; Mar. 30; Gaz. vol. 212; p. 1580.
Goodall, John N., Melrose, Mass. Pipe-coupling. No. 1,132,086; Mar. 16; Gaz. vol. 212; p. 853.
Goodall Worsted Company. (See Nutter, William S., assignor.)
Goodell, Alfred P., Davisburg, assignor to R. A. Parker, Detroit, Mich., Preserving wood and product thereof. No. 1,134,044; Mar. 30; Gaz. vol. 212; p. 1641.
Goodlue, Frank M., Van Nuys, Cal. Transmission mechanism. No. 1,132,177; Mar. 16; Gaz. vol. 212; p. 887.
Goodman, Lewis W., Lansdowne, Pa. Tool-box. No. 1,131,128; Mar. 9; Gaz. vol. 212; p. 480.
Goodman, Patrick L., and J. Peters, Charleston, Ill. Chair. No. 1,131,365; Mar. 9; Gaz. vol. 212; p. 562.
Goodman, Solomon A., assignor of one-half to G. Brucato, Chicago, Ill. Trousers. No. 1,130,506; Mar. 2; Gaz. vol. 212; p. 234.
Goodwin, Frederick C., assignor to Modern Construction Company, Louisville, Ky. Apparatus for forming molds. No. 1,133,020; Mar. 23; Gaz. vol. 212; p. 1245.
Goodwin, Thomas, Fall River, Mass., and G. Cheetham, Tiverton, R. I., assignors to J. K. Lanning, Boston, Mass. Stop-motion for looms. No. 1,131,833; Mar. 16; Gaz. vol. 212; p. 763.
Goodyear Tire and Rubber Company, The. (See Lewis, Arthur P., assignor.)
Goodyear Tire and Rubber Company, The. (See Nall, Edward, assignor.)
Goodyear Tire and Rubber Company, The. (See Nall and Tyler, assignors.)
Gordon, David D., Chicago, Ill., assignor to Yost Electric Manufacturing Company, Toledo, Ohio. Switching device. No. 1,131,129; Mar. 9; Gaz. vol. 212; p. 480.
Gordon, David D., assignor to Gordon Electric and Manufacturing Co., Chicago, Ill. Switch. No. 1,132,470; Mar. 16; Gaz. vol. 212; p. 993.
Gordon Electric and Manufacturing Co. (See Gordon, David D., assignor.)
Gordon, Harry, Boise, Idaho. Car-door lock. No. 1,133,953; Mar. 30; Gaz. vol. 212; p. 1611.
Gordon, Joseph F. (See Bowden and Gordon.)
Gordon, Noel R., Springfield, Ill. Audiphone. No. 1,130,812; Mar. 9; Gaz. vol. 212; p. 372.
Gore, Normal G., Vineland, N. C. Nail-holding attachment for hammers. No. 1,133,277; Mar. 30; Gaz. vol. 212; p. 1372.
Gorè, William. (See Deacon and Gorè.)
Gorham Manufacturing Company. (See Erichsen, Adolph C. E., assignor.)
Gorham Manufacturing Company. (See Gould, William E., assignor.)
Gorman, John. (See Marrinan and Gorman.)
Gorosa, Carl, Jamaica, N. Y. Muffler. No. 1,131,233; Mar. 9; Gaz. vol. 212; p. 516.
Gossett, Harold W. (See Hadley and Gossett.)
Gottlob, Kurt. (See Hofmann and Gottlob.)
Gould Coupler Company. (See Richards, Willard F., assignor.)
Gould, Ralph E., Hartford, Conn. Setting device for sulky-plows. No. 1,133,558; Mar. 30; Gaz. vol. 212; p. 1472.
Gould, Roland D., Hood River, Oreg. Connecting-pipe for faucets. No. 1,133,954; Mar. 30; Gaz. vol. 212; p. 1611.
Gould, William B., South Orange, N. J. Trunk or case stay. No. 1,131,366; Mar. 9; Gaz. vol. 212; p. 562.
Gould, William E., Cranston, assignor to Gorham Manufacturing Company, Providence, R. I. Hinge. No. 1,132,927; Mar. 23; Gaz. vol. 212; p. 1209.
Goursat, Paul, assignor to Société Anonyme d'Exploitation des Papeteries L. Lacroix Fils, Angoulême, France. Case for cigarette-papers. No. 1,131,505; Mar. 9; Gaz. vol. 212; p. 611.
Govan, James, Radnor, Pa. Golf-club. No. 1,133,129; Mar. 23; Gaz. vol. 212; p. 1284.
Goyette, Joseph W. (See Welch and Goyette.)
Grady, Charles B. (See Murray and Grady.)
Graham, Frank A., Centerville, Wash. Snap-hook for breast and martingale straps. No. 1,130,396; Mar. 2; Gaz. vol. 212; p. 193.
Graham, Jesse L., Princeton, Iowa. Cultivator. No. 1,132,842; Mar. 23; Gaz. vol. 212; p. 1180.
Graham, Joseph M., *et al.* (See Miller, Harry, assignor.)
Graham, Thomas F., Tampa, Fla. Clothes-display rack. No. 1,131,056; Mar. 9; Gaz. vol. 212; p. 456.
Gralert, Karl P. (See Flachslaender, Gralert, and Buff.)
Gramling, Oscar C., Madison, Fla. Fruit-picker conveyer. No. 1,133,436; Mar. 30; Gaz. vol. 212; p. 1428.
Granger, Armand J., Sallx, Iowa. Resilient wheel. No. 1,133,130; Mar. 23; Gaz. vol. 212; p. 1284.
Granger, Horace B., St. Louis, Mich. Rake. No. 1,132,334; Mar. 16; Gaz. vol. 212; p. 945.
Grant, David, assignor to The Lyman Gun Sight Corporation, Middlefield, Conn. Sight for firearms. No. 1,131,057; Mar. 9; Gaz. vol. 212; p. 456.
Grant, George W., Bangor, Me. Nail-puller. No. 1,132,178; Mar. 16; Gaz. vol. 212; p. 887.
Grant Pulley & Hardware Co. (See McQueen, Ulysses G., assignor.)
Grant, William. (See Bundy, Cyrus L., assignor.)
Granulator Soap Company. (See Evans, Henry R., assignor.)
Graphite Lubricating Company, The. (See Bache, Leigh S., assignor.)
Graveley, Harry V. N., London, England. Side splash mud-guard. No. 1,131,644; Mar. 9; Gaz. vol. 212; p. 661.
Graves, John, *et al.* (See Nelson, August T., assignor.)
Graves, Joseph C., assignor of one-half to H. A. Moncrief, Kosse, Tex. Cultivator-foot. No. 1,132,335; Mar. 16; Gaz. vol. 212; p. 945.
Gray, Lou, New York, N. Y. Display-rack for electric wires. No. 1,130,591; Mar. 2; Gaz. vol. 212; p. 263.
Gray, Robert D., Ridgewood, N. J. Reflector. No. 1,133,955; Mar. 30; Gaz. vol. 212; p. 1611.

Gray, William B., Chicago, Ill. Resilient wheel. No. 1,133,467; Mar. 30; Gaz. vol. 212; p. 1438.
Gray, William B., Chicago, Ill. Resilient wheel. No. 1,133,468; Mar. 30; Gaz. vol. 212; p. 1439.
Gray, William B., assignor to M. J. Bannon, Louisville, Ky. Pipe-support. No. 1,133,855; Mar. 30; Gaz. vol. 212; p. 1580.
Graybill, Joseph F., York, Pa. Safety device for railways. No. 1,133,131; Mar. 23; Gaz. vol. 212; p. 1284.
Grayson, Luther W., assignor of one-half to C. G. Runyeon, Youngstown, Ohio. Turbine. No. 1,132,336; Mar. 16; Gaz. vol. 212; p. 946.
Greason, Herbert, Ridgewood, N. J. Cover for washtubs. No. 1,131,367; Mar. 9; Gaz. vol. 212; p. 563.
Greb, John W., Lutherville, Md. Wrench. No. 1,133,132; Mar. 23; Gaz. vol. 212; p. 1285.
Greeley, Charles U., Bangor, Me., assignor of one-third to C. H. Hulburd, Chicago, Ill. Aeroplane. No. 1,133,559; Mar. 30; Gaz. vol. 212; p. 1472.
Green, Charles, New York, N. Y. Sample-card. No. 1,132,337; Mar. 16; Gaz. vol. 212; p. 946.
Green, Dallas F., Fort Wayne, Ind. Lens-mounting. No. 1,130,397; Mar. 2; Gaz. vol. 212; p. 194.
Green, Harry H. R., Forest Hill, England. Means for controlling electrically-operated mechanisms and the like. No. 1,130,161; Mar. 2; Gaz. vol. 212; p. 111.
Greene, Albert E., Chicago, Ill. Reducing ores. No. 1,129,862; Mar. 2; Gaz. vol. 212; p. 10.
Greene, John C. (See Schermerhorn, Amos J., assignor.)
Greene, Philip S., assignor of one-half to A. F. Lampman, Wilkes-Barre, Pa. Amusement device. No. 1,130,813; Mar. 9; Gaz. vol. 212; p. 372.
Greenfield Tap & Die Corporation. (See Wells and Judge, assignors.)
Greenlee Bros. & Company. (See Edwards, Daniel W., assignor.)
Greenstreet, Charles J., Webster Groves, Mo. Fuel-feeding device for furnaces. No. 1,132,715; Mar. 23; Gaz. vol. 212; p. 1131.
Greer, Edward R., Minneapolis, Minn., assignor to Emerson-Brantingham Company, Rockford, Ill. Road-roller. No. 1,129,863; Mar. 2; Gaz. vol. 212; p. 11.
Greer, J. Knox. (See Yoakum, Hugh D., assignor.)
Gregg, William E., Ford City, Pa. Sand washing and grading apparatus. No. 1,133,721; Mar. 30; Gaz. vol. 212; p. 1532.
Grelck, William P. M., Elgin, Ill. Homogenizing-valve. No. 1,131,308; Mar. 9; Gaz. vol. 212; p. 563.
Grenier, Joseph E., Waterville, Conn. Game apparatus. No. 1,132,577; Mar. 23; Gaz. vol. 212; p. 1081.
Greve, Louis W., assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio. Coupling. No. 1,130,726; Mar. 9; Gaz. vol. 212; p. 343.
Gridley, George O., Windsor, Vt. Screw-threading mechanism. No. 1,130,308; Mar. 2; Gaz. vol. 212; p. 194.
Griesser, Wilhelm, Denver, Colo. Tank construction. No. 1,133,278; Mar. 30; Gaz. vol. 212; p. 1372.
Griffin, George B., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Humidifier and air-cleaner. No. 1,130,267; Mar. 2; Gaz. vol. 212; p. 148.
Griffin, John R., Itasca, Tex. Hame-fastener. No. 1,133,856; Mar. 30; Gaz. vol. 212; p. 1580.
Griffin, Thomas J., assignor of one-half to E. Double, Los Angeles, Cal. Underreamer. No. 1,131,928; Mar. 16; Gaz. vol. 212; p. 796.
Griffith, George L., New York, N. Y. Internal-combustion motor. No. 1,131,369; Mar. 9; Gaz. vol. 212; p. 563.
Grimes, George L., Detroit, Mich. Molding-machine. No. 1,130,968; Mar. 9; Gaz. vol. 212; p. 426.
Grimm, Paul H., Glen Cove, and F. L. Cocks, assignors to Arbuckle Brothers, New York, N. Y. Package-forming machine. No. 1,133,857; Mar. 30; Gaz. vol. 212; p. 1581.
Grimm, Paul H., Glen Cove, and F. L. Cocks, assignors to Arbuckle Brothers, New York, N. Y. Package-forming machine. No. 1,133,858; Mar. 30; Gaz. vol. 212; p. 1581.
Griswold Manufacturing Co. (See Griswold, Milton O., assignor.)
Griswold Manufacturing Company, The. (See Wiltsie, Spencer A., assignor.)
Griswold, Milton O., assignor to Griswold Manufacturing Co., Rock Island, Ill. Vending-machine. No. 1,131,058; Mar. 9; Gaz. vol. 212; p. 457.
Groffman, Charles H., Syracuse, N. Y. Support for electric fixtures. No. 1,131,059; Mar. 9; Gaz. vol. 212; p. 457.
Grogan, W. R. (See Blair, Hosea, assignor.)
Groas, Charles A. (See Cooper, Charles, assignor.)
Gross Company, The. (See Gross, John, assignor.)
Gross, John, assignor to The Gross Company, Carroll, Iowa. Draft-equalizer. No. 1,133,279; Mar. 30; Gaz. vol. 212; p. 1372.
Grout, Harry K., Muscatine, Iowa. Device for measuring and cutting fabrics. No. 1,133,133; Mar. 23; Gaz. vol. 212; p. 1285.
Grover, Oscar T. (See Jensen, Soren, assignor.)
Grubbé, Emil H., Chicago, Ill. Ray-tube. No. 1,131,234; Mar. 9; Gaz. vol. 212; p. 517.
Gruenhagen, Henry. (See Webster and Gruenhagen.)
Guentzler, Herman F. (See Mead and Guentzler.)
Gruettner, Henry W. J., Vallejo, Cal. Dispensing-can. No. 1,133,134; Mar. 23; Gaz. vol. 212; p. 1285.
Gruzecki, Frank, Passaic, assignor of one-half to A. Buchak, Newark, N. J. Gas-engine. No. 1,132,928; Mar. 23; Gaz. vol. 212; p. 1210.
Gucker, George A., *et al.* (See Thayer, Charles H., assignor.)
Guggenheim Laundry Machinery Company, The. (See Lord and Brockett, assignors.)
Gulbrandsen, Sverre, Woodbury, assignor to Welsbach Light Company, Gloucester City, N. J. Limp inverted mantle. No. 1,133,469; Mar. 30; Gaz. vol. 212; p. 1439.
Gulbrandsen, Sverre, Woodbury, assignor to Welsbach Light Company, Gloucester City, N. J. Incandescent mantle. No. 1,133,470; Mar. 30; Gaz. vol. 212; p. 1439.
Gulf Refining Company. (See Bacon, Brooks, and Clark, assignors.)
Gunn, Earl G., assignor to General Motors Company, Detroit, Mich. Multicylinder engine. No. 1,132,256; Mar. 16; Gaz. vol. 212; p. 917.
Gunn, William E., Ferry, Mich. Harvesting tool or implement. No. 1,133,021; Mar. 23; Gaz. vol. 212; p. 1246.
Gunther, Martin, Chicago, Ill. Piano-protector. No. 1,130,592; Mar. 2; Gaz. vol. 212; p. 263.
Gurney, Edmund, assignor to P. J. Burns, Portland, Oreg. Brickmaking-machine. No. 1,131,506; Mar. 9; Gaz. vol. 212; p. 611.
Gurney, Edmund, assignor to P. J. Burns, Portland, Oreg. Brick-handling machine. No. 1,131,507; Mar. 9; Gaz. vol. 212; p. 612.
Gurney, Edmund, assignor to P. J. Burns, Portland, Oreg. Brickmaking-machine. No. 1,131,626; Mar. 9; Gaz. vol. 212; p. 652.
Gurney, Edmund, assignor to P. J. Burns, Portland, Oreg. Brickmaking-machine. No. 1,131,627; Mar. 9; Gaz. vol. 212; p. 653.
Gushurst, Frank D., Cincinnati, Ohio. Bearing. No. 1,133,634; Mar. 30; Gaz. vol. 212; p. 1500.
Gushwa, Charles, and C. F. Wilsey, Corunna, Ind. Ratchet sleeve-wrench. No. 1,132,257; Mar. 16; Gaz. vol. 212; p. 917.
Gustafson, Adolph P., assignor to M. Schulz Co., Chicago, Ill. Mechanical musical instrument. No. 1,133,022; Mar. 23; Gaz. vol. 212; p. 1246.
Gustafson, Carl G., Sioux City, Iowa. Angle-cock. No. 1,130,399; Mar. 2; Gaz. vol. 212; p. 194.
Guth, Charles G., *et al.* (See Brewington, Henry S., assignor.)
Guy, Frederick M., assignor to The Disco Electric Starter Company, Detroit, Mich. Starter attachment for motor-vehicles. No. 1,130,814; Mar. 9; Gaz. vol. 212; p. 373.
Guy, Samuel L., Tangipahoa, La. Letter-holder. No. 1,133,280; Mar. 30; Gaz. vol. 212; p. 1373.
Gyro Motor Company. (See Moore and Simmons, assignors.)
H. B. Rouse & Co. (See Rouse, Harry B., assignor.)
H. C. Red Label Chemical Company. (See Halman, Isador L., assignor.)
H. O. Wilbur & Sons. (See Wilbur, Lawrence H., assignor.)
Haas, Cyrus A., St. Louis, Mo. Carbureter. No. 1,129,864; Mar. 2; Gaz. vol. 212; p. 11.
Hackerson, Thomas, Newark, Ill. Tent. No. 1,130,728; Mar. 9; Gaz. vol. 212; p. 343.
Hacking, Chester, Pawtucket, R. I., assignor to Crompton & Knowles Loom Works, Worcester, Mass. Key-seating machine. No. 1,132,179; Mar. 16; Gaz. vol. 212; p. 887.
Hackmann, William H., Dixon, Cal. Oil-burner. No. 1,132,471; Mar. 16; Gaz. vol. 212; p. 993.
Hadaway, William S., Jr., New Rochelle, N. Y. Electric heater. No. 1,131,060; Mar. 9; Gaz. vol. 212; p. 457.
Hadley, Enos W., and H. W. Gossett, Danville, Ind. Concrete-post mold. No. 1,130,507; Mar. 2; Gaz. vol. 212; p. 234.
Haefely, Emil, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company. Electrical transformer. No. 1,130,268; Mar. 2; Gaz. vol. 212; p. 148.
Haefely, Emil, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company. Electrical transformer. No. 1,130,269; Mar. 2; Gaz. vol. 212; p. 149.
Hagearty, John W., New Britain, Conn. Percolator. No. 1,132,472; Mar. 16; Gaz. vol. 212; p. 994.
Hagen, William F., and W. F. Budenbach, Scranton, Pa. Cuspidor. No. 1,129,976; Mar. 2; Gaz. vol. 212; p. 48.
Hagey, Gilbert M., Monroe, Wash. Wrench. No. 1,132,843; Mar. 23; Gaz. vol. 212; p. 1180.
Haggin, Louis T., *et al.*, executors. (See Kendall, Edward D., assignor.)
Haggin, Margaret V., *et al.*, executors. (See Kendall, Edward D., assignor.)
Hagny, Lawrence, San Jose, Ill. Hog-oiler. No. 1,129,977; Mar. 2; Gaz. vol. 212; p. 48.
Hahl, Hans J., Elberfeld, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. Oxyquinolin compounds. No. 1,129,865; Mar. 2; Gaz. vol. 212; p. 11.
Hahnemann, Walter, and H. Hecht, Kiel, Germany. Submarine signaling. No. 1,133,635; Mar. 30; Gaz. vol. 212; p. 1500.

Haines, George A., *et al.* (See Pearson, James H., assignor.)
Hains, Edson, Bedford, Ohio. Beehive. No. 1,131,834; Mar. 16; Gaz. vol. 212; p. 764.
Haiss, George, New York, N. Y. Wagon-loading apparatus. No. 1,132,338; Mar. 16; Gaz. vol. 212; p. 946.
Haizmann, Friedrich, Stuttgart, Germany. Jack. No. 1,132,339; Mar. 16; Gaz. vol. 212; p. 947.
Hale and Kilburn Company. (See Walker, Emery L., assignor.)
Hale, Noah, Corpus Christi, Tex. Battery-connector. No. 1,130,162; Mar. 2; Gaz. vol. 212; p. 111.
Hales, Edward, West Bromwich, England. Holder for bottles, jars, and other like vessels. No. 1,132,180; Mar. 16; Gaz. vol. 212; p. 888.
Halkyard Manufacturing Company. (See Wakefield, Edward E., assignor.)
Hall, Alouza C., Richmond, Va. Fishing-rod support. No. 1,131,508; Mar. 9; Gaz. vol. 212; p. 612.
Hall, Carl G., Pittsburg, Pa. Combination collar-box. No. 1,132,578; Mar. 23; Gaz. vol. 212; p. 1081.
Hall, David, Wilkinsburg, Pa. Superimposed emery-wheel and grindstone. No. 1,130,163; Mar. 2; Gaz. vol. 212; p. 111.
Hall, Dwight K., Goshen, N. Y., assignor to F. A. Hall, Montclair, N. J. Caster for beds, operating-tables, and the like. No. 1,133,798; Mar. 30; Gaz. vol. 212; p. 1558.
Hall, Edward M., Deferiet, N. Y., assignor to Hall Process Corporation. Process and apparatus for reducing wood to pulp. No. 1,132,258; Mar. 16; Gaz. vol. 212; p. 917.
Hall, Frank A. (See Hall, Dwight K., assignor.)
Hall, Harvey B., Homer, Ill. Rail tie and fastener. No. 1,130,081; Mar. 2; Gaz. vol. 212; p. 83.
Hall, John A., assignor of one-half to W. M. Lord, Union, N. H. Cushion top-lift for heels. No. 1,133,135; Mar. 23; Gaz. vol. 212; p. 1286.
Hall, Louis J., Chicago, Ill., assignor, by mesne assignments, to Morris-Hall Mail Closer Co. Machine for stamping and sealing mail-matter. No. 1,132,929; Mar. 23; Gaz. vol. 212; p. 1211.
Hall, Louis J., Freeport, assignor to The Morris-Hall Mail Closer Company, Rochester, N. Y. Machine for sealing mail-matter. No. 1,132,930; Mar. 23; Gaz. vol. 212; p. 1211.
Hall, Owen S., Red Lodge, Mont. Sectional concrete culvert. No. 1,130,508; Mar. 2; Gaz. vol. 212; p. 235.
Hall Process Corporation. (See Hall, Edward M., assignor.)
Hall, Samuel N. (See Layne and Hall.)
Hall Switch & Signal Company. (See Kleinschmidt, Edward E., assignor.)
Hall, William A., New York, N. Y. Production of sulfur from pyrites and other metallic sulfids. No. 1,133,636; Mar. 30; Gaz. vol. 212; p. 1501.
Hall, William A., New York, N. Y. Preventing escape of noxious gases in smelting. No. 1,133,637; Mar. 30; Gaz. vol. 212; p. 1501.
Hall, William A., assignor to Thomas & Betts Company, New York, N. Y. Outlet-box. No. 1,132,087; Mar. 16; Gaz. vol. 212; p. 853.
Halladay, Lewis P., Streator, Ill. Auxiliary spring for motor-vehicles. No. 1,131,370; Mar. 9; Gaz. vol. 212; p. 563.
Halladay, William S., and J. Schaefer, Milwaukee, Wis. Mausoleum. No. 1,132,088; Mar. 16; Gaz. vol. 212; p. 854.
Halldin, Gustaf, Rural Valley, Pa. Washing-machine. No. 1,133,638; Mar. 30; Gaz. vol. 212; p. 1501.
Halley, James M., Keytesville, Mo. Egg-tester. No. 1,130,270; Mar. 2; Gaz. vol. 212; p. 149.
Halliwell, John J., assignor to R. Hoe and Co., New York, N. Y. Inking mechanism. No. 1,130,727; Mar. 9; Gaz. vol. 212; p. 343.
Hallowell, Clifton C., *et al.* (See Smith, Edward W., assignor.)
Halman, Isador L., Brookline, assignor to H. C. Red Label Chemical Company, Boston, Mass. Cleansing and disinfecting fluid. No. 1,133,639; Mar. 30; Gaz. vol. 212; p. 1502.
Halterbeck, John, assignor to G. Piel, New York, N. Y. Woodworking-vise. No. 1,130,082; Mar. 2; Gaz. vol. 212; p. 83.
Halvorson, Cromwell A. B., Jr., Saugus, Mass., assignor to General Electric Company. Inclosed-arc lamp. No. 1,132,259; Mar. 16; Gaz. vol. 212; p. 918.
Hamel, Louis C., Appleton, Wis. Feeder for mixing apparatus. No. 1,129,866; Mar. 2; Gaz. vol. 212; p. 12.
Hamilton, Asbury H., Brooklyn, N. Y. Sanitary clothes-hamper. No. 1,130,509; Mar. 2; Gaz. vol. 212; p. 235.
Hamilton, Ernest A., Philadelphia, Pa., and W. L. Hamilton, Holyoke, Mass. Vending-machine. No. 1,133,640; Mar. 30; Gaz. vol. 212; p. 1502.
Hamilton, Harry E., Fountain City, Ind. Mold. No. 1,132,579; Mar. 23; Gaz. vol. 212; p. 1081.
Hamilton, Milo E., Worcester, Mass. Bottle-stopper. No. 1,132,931; Mar. 23; Gaz. vol. 212; p. 1211.
Hamilton, Walter L. (See Hamilton, Ernest A. and W. L.)
Hammerstein, Oscar, New York, N. Y. Machine for stripping and booking tobacco-leaf. No. 1,133,799; Mar. 30; Gaz. vol. 212; p. 1559.
Hammesfahr, Julius, Newark, N. J., assignor to The R. Neumann Hardware Co. Bag-fastener. No. 1,132,932; Mar. 23; Gaz. vol. 212; p. 1211.
Hammock Egg Carrier Company. (See Milliron, Ira A., assignor.)
Hammon Coupler Company. (See Clark and Ryman, assignors.)
Hammond, Grant, Hartford, Conn., assignor of one-third to A. C. Washburne, Pittsfield, and one-third to F. G. Crane, Dalton, Mass. Grip-slide retainer. No. 1,133,281; Mar. 30; Gaz. vol. 212; p. 1373.
Hammond, Robert O., Farmingdale, assignor to J. B. Stoddard, New York, N. Y. Self-locking box. No. 1,130,271; Mar. 2; Gaz. vol. 212; p. 150.
Hammond Typewriter Co., The. (See Lopez, Arthur, assignor.)
Hammond, William H., Clifford, Mass. Handle connection. No. 1,130,272; Mar. 2; Gaz. vol. 212; p. 150.
Hammond, William P., Charlestown, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Rack. No. 1,131,235; Mar. 9; Gaz. vol. 212; p. 517.
Hamp Williams Hardware Company. (See Cochran, Stephen J., assignor.)
Hampton, Marvin W., Malo, Wash. Automatic train-stopping apparatus. No. 1,132,340; Mar. 16; Gaz. vol. 212; p. 947.
Hancock, Emmanuel, and D. David, Cardiff, England. Plate for electrical or secondary batteries or accumulators. No. 1,133,641; Mar. 30; Gaz. vol. 212; p. 1502.
Handy, John P., Long Prairie, Minn. Steering-wheel control. No. 1,132,771; Mar. 23; Gaz. vol. 212; p. 1152.
Handy Manufacturing Company. (See McGinley, James B., assignor.)
Hannefords, Limited. (See Kjaersgaard, August M., assignor.)
Hannifin Manufacturing Co. (See Schultz, Herman A., assignor.)
Hansen, Holger, New York, N. Y. Lubricator. No. 1,133,375; Mar. 30; Gaz. vol. 212; p. 1406.
Hansen, Olaf H., Glasgow, Mont. Shoe-fastening. No. 1,131,509; Mar. 9; Gaz. vol. 212; p. 613.
Hanson, Bengt M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Metal-screw machine. No. 1,133,642; Mar. 30; Gaz. vol. 212; p. 1503.
Hanson, Louis, Racine, Wis., assignor to O. R. Barnett, Chicago, Ill. Rail-stay. No. 1,130,815; Mar. 9; Gaz. vol. 212; p. 373.
Hanson, Paul, Wild Horse, Colo. Butter-making machine. No. 1,131,778; Mar. 16; Gaz. vol. 212; p. 742.
Hanson, Samuel L., Albert Lea, Minn. Hay-carrier. No. 1,132,716; Mar. 23; Gaz. vol. 212; p. 1131.
Hapgood, Cyrus H., Boston, Mass., assignor to Montclair Refrigerating Corporation, New York, N. Y. Refrigerating apparatus. No. 1,131,130; Mar. 9; Gaz. vol. 212; p. 481.
Harbeck, Jervis R., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich. Cap-ferrule for paper boxes. No. 1,130,816; Mar. 9; Gaz. vol. 212; p. 373.
Harding, Milton E. (See Robinson and Harding.)
Hardinge, Henry H., Chicago, Ill., assignor, by mesne assignments, to J. Cratty. Composing-machine. No. 1,131,643; Mar. 9; Gaz. vol. 212; p. 661.
Hardwick, John W. (See Powell and Hardwick.)
Hardy, Clement A., Chicago, Ill. Tire. No. 1,130,273; Mar. 2; Gaz. vol. 212; p. 150.
Harfst, Henry, *et al.* (See Woolf, Frank H., assignor.)
Harlan, William G., Centralia, Wash. Railway-switch. No. 1,132,717; Mar. 23; Gaz. vol. 212; p. 1132.
Harper, Charles W., Reno, Nev. Billiard-chalk holder. No. 1,133,471; Mar. 30; Gaz. vol. 212; p. 1439.
Harper, Ella S., New Brighton, N. Y. Reducer. No. 1,130,164; Mar. 2; Gaz. vol. 212; p. 112.
Harrington, Clinton O., Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Circuit-controller. No. 1,132,473; Mar. 16; Gaz. vol. 212; p. 994.
Harris, Asa B., Vienna, Ill. Tilling-machine. No. 1,133,956; Mar. 30; Gaz. vol. 212; p. 1611.
Harris, Carl C., assignor, by mesne assignments, to The Adsit Company, Orange, Mass. Adding device. No. 1,129,978; Mar. 2; Gaz. vol. 212; p. 49.
Harris, Ford W., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,132,772; Mar. 23; Gaz. vol. 212; p. 1153.
Harris, George N., *et al.* (See Bryan, Pulaski J., assignor.)
Harris, Gordon D., Bay Shore, N. Y., and J. S. Pollard, Bayonne, N. J., assignors to General Dehydrator Company, New York, N. Y. Apparatus for dehydrating and warming air. No. 1,131,835; Mar. 16; Gaz. vol. 212; p. 764.
Harris, James C., Cambridge, Kans. Car-fender. No. 1,133,136; Mar. 23; Gaz. vol. 212; p. 1286.
Harris, John I., Sabano, Tex. Window-sash construction. No. 1,133,472; Mar. 30; Gaz. vol. 212; p. 1440.
Harrison, Arthur H., De Kalb, Ill. Dust-mop. No. 1,132,658; Mar. 23; Gaz. vol. 212; p. 1112.
Hart, Alice M., assignor to Viking Manufacturing Company Limited, London, England. Waterproofing of fabrics, yarns, and other materials. No. 1,131,929; Mar. 16; Gaz. vol. 212; p. 797.

Hart, George W., Auburn, Wash. Sand-band. No. 1,131,510; Mar. 9; Gaz. vol. 212; p. 613.
Hart, Harry S., and F. Seaberg, assignors to National Dump Car Company, Chicago, Ill. Door-operating mechanism for railway-cars. No. 1,131,236; Mar. 9; Gaz. vol. 212; p. 517.
Hart, John A., Blackburn, England. Means for imparting energy from one body of gaseous fluid to another and the utilization of the resulting product. No. 1,131,511; Mar. 9; Gaz. vol. 212; p. 613.
Hart, John A., Blackburn, England. Means for producing and utilizing energized gaseous fluid. No. 1,131,512; Mar. 9; Gaz. vol. 212; p. 613.
Hart, Mortimer M., and R. W. Carpenter, Weiser, Idaho. Fluid-level indicator. No. 1,133,023; Mar. 23; Gaz. vol. 212; p. 1246.
Hart, Rosenetta, Port Jefferson, N. Y. Fly-paper holder. No. 1,132,007; Mar. 16; Gaz. vol. 212; p. 825.
Harter, William, and A. A. Stephens, Greenville, Ohio. Vehicle door-fastener. No. 1,132,341; Mar. 16; Gaz. vol. 212; p. 947.
Hartley, De Bert, Chicago, Ill. Aerohydroplane flying-machine. No. 1,131,779; Mar. 16; Gaz. vol. 212; p. 742.
Hartmann, August E. K. G., Hamburg, Germany. Printing-machine. No. 1,132,844; Mar. 23; Gaz. vol. 212; p. 1181.
Hartness, James, Springfield, Vt. Metal-turning tool. No. 1,130,274; Mar. 2; Gaz. vol. 212; p. 150.
Hartness, James, Springfield, Vt. Metal-turning tool. No. 1,130,275; Mar. 2; Gaz. vol. 212; p. 151.
Hartness, James, Springfield, Vt. Automatic chucking-lathe. No. 1,130,276; Mar. 2; Gaz. vol. 212; p. 151.
Hartness, James, Springfield, Vt. Multispindle lathe. No. 1,130,277; Mar. 2; Gaz. vol. 212; p. 152.
Hartog, Henry D., Orange City, Iowa. Fire-escape. No. 1,133,722; Mar. 30; Gaz. vol. 212; p. 1532.
Hartzell, Forest H., assignor to The Crown Manufacturing Company, Dayton, Ohio. Tracker-bar. No. 1,131,513; Mar. 9; Gaz. vol. 212; p. 614.
Hartzler, Lee L., Lima, Ohio. Continuous crossing. No 1,133,723; Mar. 30; Gaz. vol. 212; p. 1532.
Harvard Electric Company. (See Cain and Dorff, assignors.)
Harvey, Henry C. (See Hobbs, Albert C., assignor.)
Hascall, H. G. (See McKaig, Eddy T., assignor.)
Haseltine, Stacy B., assignor to W. H. Miner, Chicago, Ill. Draft-yoke for railway-cars. No. 1,130,083; Mar. 2; Gaz. vol. 212; p. 84.
Haseltine, Stacy B., assignor to W. H. Miner, Chicago, Ill. Draft-yoke for railway-car draft-rigging. No. 1,130,692; Mar. 2; Gaz. vol. 212; p. 298.
Haskell, Henry L., Ludington, Mich. Folding table. No. 1,131,780; Mar. 16; Gaz. vol. 212; p. 743.
Haskins, William H., San Jose, Cal. Roller window-screen. No. 1,132,773; Mar. 23; Gaz. vol. 212; p. 1153.
Hasselkus, John W., assignor to Ross Limited, Clapham Common, London, England. Periscope and the like. No. 1,131,514; Mar. 9; Gaz. vol. 212; p. 614.
Hassler, Robert H., Indianapolis, Ind. Spring suspension for vehicles. No. 1,130,897; Mar. 9; Gaz. vol. 212; p. 402.
Hatfield, Charles B., Elmira, N. Y. Fuel-mixing device for internal-combustion engines. No. 1,130,278; Mar. 2; Gaz. vol. 212; p. 152.
Hatfield, Charles B., Elmira, N. Y. Fuel-mixing device for internal-combustion engines. No. 1,131,371; Mar. 9; Gaz. vol. 212; p. 564.
Hausam, Adam, assignor of one-half to J. F. Kite, Visalia, Cal. Flame and spark checking device. No. 1,130,593; Mar. 2; Gaz. vol. 212; p. 263.
Haustetter, Alfred P., Norwood, assignor to The Victor Safe & Lock Company, Cincinnati, Ohio. Safe-locking device. No. 1,132,089; Mar. 16; Gaz. vol. 212; p. 854.
Havener, Arthur R., Waltham, Mass., assignor to Judson L. Thomson M'f'g Co. Hopper. No. 1,130,898; Mar. 9; Gaz. vol. 212; p. 403.
Havens, George F., Sterling, Ill. Poster-display machine. No. 1,130,084; Mar. 2; Gaz. vol. 212; p. 84.
Haverhill Shoe Machinery Company. (See Webster, Edwin A., assignor.)
Havers, Ephraim W., London, England. Apparatus for distance gas-lighting. No. 1,132,933; Mar. 23; Gaz. vol. 212; p. 1212.
Hawaiian Pineapple Company. (See Hill, John, assignor.)
Hawke, Thomas F., Lewistown, Pa. Bag-holder. No. 1,132,181; Mar. 16; Gaz. vol. 212; p. 888.
Hawkins, Edgar M., assignor to M. D. Knowlton Company, Rochester, N. Y. Sheet-coating machine. No. 1,133,024; Mar. 23; Gaz. vol. 212; p. 1247.
Hawkins, Edgar M., assignor to M. D. Knowlton Company, Rochester, N. Y. Safety operating mechanism. No. 1,133,025; Mar. 23; Gaz. vol. 212; p. 1247.
Hawkins, Elbert E., Unadilla, N. Y. Door-fastening device for silos. No. 1,132,774; Mar. 23; Gaz. vol. 212; p. 1154.
Hawkins, J. C. (See Gage, Daniel W., assignor.)
Hawkins, J. C., Newton, Iowa. Paper-fastener. No. 1,130,594; Mar. 2; Gaz. vol. 212; p. 263.
Hawkins, J. C., Newton, Iowa. Paper-fastener. No. 1,130,595; Mar. 2; Gaz. vol. 212; p. 264.
Hawkins, Laurence A., Schenectady, N. Y., assignor to General Electric Company. System of distribution. No. 1,131,237; Mar. 9; Gaz. vol. 212; p. 518.
Hawkins, Laurence A., Schenectady, N. Y., assignor to General Electric Company. Electric lamp. No. 1,132,008; Mar. 16; Gaz. vol. 212; p. 825.
Hawks, William, assignor to Hugo Manufacturing Company, Duluth, Minn. Radiator. No. 1,131,372; Mar. 9; Gaz. vol. 212; p. 564.
Hawkaworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,130,279; Mar. 2; Gaz. vol. 212; p. 152.
Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,130,280; Mar. 2; Gaz. vol. 212; p. 153.
Hawley, Alonzo S. (See Funk, John L., assignor.)
Hawthorne Manufacturing Company, The. (See Welker, Alexander H., assignor.)
Hay, Levi C., assignor to American Type Founders Company, Jersey City, N. J. Printer's ink-knife. No. 1,130,281; Mar. 2; Gaz. vol. 212; p. 153.
Hayden, Doctor J. (See Chappelle, Charles, assignor.)
Hayes, Harry W., Indianapolis, Ind. Adjustable diaper-drying rack. No. 1,134,045; Mar. 30; Gaz. vol. 212; p. 1641.
Hayes, Maurice, Rochester, N. Y. Ash-sifter. No. 1,133,137; Mar. 23; Gaz. vol, 212; p. 1286.
Hayes, Neenian. (See Burks and Hayes.)
Hayes, Thomas F., assignor of twenty-four one-hundredths to H. Howard and twenty-four one-hundredths to F. B. Wilkinson, Jackson, Tenn. Manufacturing and applying washout-plugs to all steam-boilers. No. 1,132,260; Mar. 16; Gaz. vol. 212; p. 918.
Hayes, Thomas J., Cleveland, Ohio, assignor to Arbetter Felling Machine Company, Boston, Mass. Blindstitch sewing-machine. No. 1,131,373; Mar. 9; Gaz. vol. 212; p. 565.
Hays, Fred, Assumption, Ill. Wire-stretcher. No. 1,131,061; Mar. 9; Gaz. vol. 212; p. 458.
Hayton, Thomas, Turtle Creek, Pa. Switch for industrial trucks. No. 1,130,165; Mar. 2; Gaz. vol. 212; p. 112.
Haywood, Edmund B., Raleigh, N. C. Knife-sharpener. No. 1,131,374; Mar. 9; Gaz. vol. 212; p. 565.
Hazen, Jean D., assignor of one-half to O. Burns, Sarasota, Fla. Carbureter. No. 1,132,580; Mar. 23; Gaz. vol. 212; p. 1081.
Hazen, Marshman W., and O. Petermann, New York, N. Y., assignors, by mesne assignments, to Corona Typewriter Company, Incorporated. Paper-feed. No. 1,130,510; Mar. 2; Gaz. vol. 212; p. 235.
Heacock, Frank. (See Buss and Heacock.)
Heacock, Nathan A., Sullivan, Ill. Irrigating system. No. 1,130,282; Mar. 2; Gaz. vol. 212; p. 153.
Headley, Arthur I., Modale, Iowa. Wagon-box. No. 1,131,695; Mar. 16; Gaz. vol. 212; p. 712.
Headly, James W., assignor of one-half to O. A. Moore, Omaha, Nebr. Flying-machine. No. 1,133,643; Mar. 30; Gaz. vol. 212; p. 1503.
Heaslip, Samuel F. (See Sewall, Robert H. F., assignor.)
Hecht, Heinrich. (See Hahnemann and Hecht.)
Hedden, Morris W., Oregon City, Oreg. Treating waste sulfite liquor. No. 1,130,817; Mar. 9; Gaz. vol. 212; p. 374.
Hedden Sales Company. (See Schwarz, Alfred, assignor.)
Heddon, Charles, Dowagiac, Mich. Fish-hook. No. 1,133,724; Mar. 30; Gaz. vol. 212; p. 1533.
Hedrick, Ira G., and V. Cochrane, Kansas City, Mo. Chain. No. 1,130,970; Mar. 9; Gaz. vol. 212; p. 426.
Heerwagen Company. (See Schwertner, Joseph, assignor.)
Heidelberg, Gustav, New York, N. Y. Spoon and fork construction. No. 1,133,026; Mar. 23; Gaz. vol. 212; p. 1248.
Heiman, John J. (See Lott and Heiman.)
Heimann, Leon, assignor, by mesne assignments, to Live Leather Belt Co., New York, N. Y. Making leather material. No. 1,133,957; Mar. 30; Gaz. vol. 212; p. 1612.
Heimbourger, Charles P., Beardstown, Ill. Heat-regulator for incubators. No. 1,130,899; Mar. 9; Gaz. vol. 212; p. 403.
Hein, Hans H., Randers, Denmark, assignor to Deutsche Automobil-Construktions-Ges. m. b. H., Charlottenburg, Germany, and I./s. H. Hein & Sonners, Randers, Denmark. Operating combustion-engines. No. 1,132,581; Mar. 23; Gaz. vol. 212; p. 1082.
Heineck, Frank H., Philadelphia, Pa. Score-card. No. 1,132,261; Mar. 16; Gaz. vol. 212; p. 918.
Heinrich, Hugo, Zwickau, Germany. Rotary engine. No. 1,131,375; Mar. 9; Gaz. vol. 212; p. 565.
Heins, Otto, Edgewater, N. J., and C. M. Wild, Springfield, Mass., assignors to Bosch Magneto Company, New York, N. Y. Electrical ignition system for internal-combustion engines. No. 1,130,729; Mar. 9; Gaz. vol. 212; p. 343.
Heinze, John O., Jr., assignor to General Motors Company, Detroit, Mich. Treating metal structures to prevent subsequent change in form. No. 1,132,262; Mar. 16; Gaz. vol. 212; p. 919.
Heinze, John O., Jr., assignor to General Motors Company, Detroit, Mich. Rotary pump. No. 1,132,263; Mar. 16; Gaz. vol. 212; p. 919.
Heitger Carburetor Company. (See Heitger, Frank H., assignor.)
Heitger, Frank H., assignor to Heitger Carburetor Company, Indianapolis, Ind. Carbureter. No. 1,132,934; Mar. 23; Gaz. vol. 212; p. 1212.

Heitmuller, George H., Washington, D. C. School-desk. No. 1,131,376; Mar. 9; Gaz. vol. 212; p. 566.
Helbronner, André. (See Henri, Helbronner, and Recklinghausen.)
Helbronner, Victor H. A., and M. von Recklinghausen, Paris, France, assignors, by mesne assignments, to The R. U. V. Company, Inc. Artificially maturing or aging wines, spirits, or other potable liquors. No. 1,130,400; Mar. 2; Gaz. vol. 212; p. 194.
Helfrich, Gustav P., New York, N. Y. Torpedo. No. 1,133,282; Mar. 30; Gaz. vol. 212; p. 1373.
Hellstrand, Erick A. (See Hellstrand, Grover W. and E. A.)
Hellstrand, Grover W., Chicago, Ill. Lantern. No. 1,132,090; Mar. 16; Gaz. vol. 212; p. 854.
Hellstrand, Grover W. and E. A., Chicago, Ill. Lantern. No. 1,132,091; Mar. 16; Gaz. vol. 212; p. 855.
Hellyar, Harry W., E. H. Cochran, and H. E. Waggoner, assignors to Spanish Mission Tile Company, Los Angeles, Cal. Tile-forming machine. No. 1,132,264; Mar. 16; Gaz. vol. 212; p. 919.
Helmholz, Henry. (See Roan and Helmholz.)
Hem, Halvor O., Kansas City, Mo. Weighing-scale. No. 1,130,900; Mar. 9; Gaz. vol. 212; p. 403.
Hemingray Glass Company. (See Holmes, Minot K., assignor.)
Hemphill Manufacturing Company. (See Wilcomb, Frank, assignor.)
Henderson, Edwin F., West Allis, Wis. Therapeutic truss. No. 1,133,958; Mar. 30; Gaz. vol. 212; p. 1612.
Henderson, George K., assignor, by mesne assignments, to The International Printing Company, Indianapolis, Ind. Paper-delivering apparatus. No. 1,133,959; Mar. 30; Gaz. vol. 212; p. 1612.
Henderson, Wilbert D., San Francisco, Cal. Partition construction. No. 1,133,138; Mar. 23; Gaz. vol. 212; p. 1286.
Hendey Machine Company, The. (See Bouillon, Constant, assignor.)
Henington, Richard A., Washington, Miss. Track-gage. No. 1,131,377; Mar. 9; Gaz. vol. 212; p. 566.
Hennig, Gustav K., assignor to Ludwig Hupfeld Aktiengesellschaft, Böhlitz-Ehrenberg, near Leipzig, Germany. Automatic violin-bow. No. 1,131,930; Mar. 16; Gaz. vol. 212; p. 797.
Henri, Victor, A. Helbronner, and M. von Recklinghausen, Paris, France, assignors, by mesne assignments, to The R. U. V. Company, Inc. Liquid-sterilizer. No. 1,132,265; Mar. 16; Gaz. vol. 212; p. 920.
Henri, Victor, Paris, A. Helbronner and M. von Recklinghausen, Suresnes, France, assignors, by mesne assignments, to The R. U. V. Company, Inc. Apparatus for the treatment of water and other liquids by ultra-violet rays. No. 1,132,266; Mar. 16; Gaz. vol. 212; p. 920.
Henry, Claud, Edgemont, Ark. Telegraph apparatus. No. 1,130,901; Mar. 9; Gaz. vol. 212; p. 404.
Henry, Nelson B., assignor to Murray Company, Dallas, Tex. Steam-cushion valve. No. 1,132,718; Mar. 23; Gaz. vol. 212; p. 1132.
Henry Pooley and Son Limited. (See Dobson, James, assignor.)
Henry R. Worthington. (See Berrigan, John J., assignor.)
Henry R. Worthington. (See Sebald, Joseph H., assignor.)
Henry R. Worthington. (See Sims, Joseph W., assignor.)
Henry, William W., Wollaston, assignor to S. H. Couch Co. Inc., Atlantic, Mass. Intercommunicating telephone. No. 1,130,971; Mar. 9; Gaz. vol. 212; p. 427.
Hensley, David M., and E. M. Sether, Decatur, Ind. Cuff-button. No. 1,133,859; Mar. 30; Gaz. vol. 212; p. 1581.
Hensley, James W., Indianapolis, Ind. Excavating apparatus. No. 1,133,960; Mar. 30; Gaz. vol. 212; p. 1612.
Hentschel, Andrew J., Schulenburg, Tex. Bridle. No. 1,132,182; Mar. 16; Gaz. vol. 212; p. 888.
Herbert, Michael E., Chicago, Ill. Downdraft side-feed smokeless furnace. No. 1,132,474; Mar. 16; Gaz. vol. 212; p. 994.
Herbing, Johannes, Halle-on-the-Saale, Germany. Apparatus for extracting dust from air or vapor. No. 1,130,596; Mar. 2; Gaz. vol. 212; p. 264.
Herbst, Samuel H., Jr., Fullerton, Pa. Railway-tie. No. 1,130,511; Mar. 2; Gaz. vol. 212; p. 235.
Herkenhoff, Anthony L., Minster, Ohio. Clutch. No. 1,130,972; Mar. 9; Gaz. vol. 212; p. 427.
Herman, Harry, assignor of one-half to J. Herman, Pittsburgh, Pa. Nut and bolt lock. No. 1,133,860; Mar. 30; Gaz. vol. 212; p. 1582.
Herman, Jacob. (See Herman, Harry, assignor.)
Herman, Karl I., Chicago, Ill. Carton-blank. No. 1,130,818; Mar. 9; Gaz. vol. 212; p. 374.
Herman, Moses M., Danville, Va. Demountable-rim tool. No. 1,133,139; Mar. 23; Gaz. vol. 212; p. 1287.
Herr, Herbert T., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Marine turbine. No. 1,133,283; Mar. 30; Gaz. vol. 212; p. 1374.
Herring, Arthur W., Toledo, Ohio. Railway-crossing. No. 1,131,515; Mar. 9; Gaz. vol. 212; p. 614.
Herrmann, Carl L., Torrington, Conn. Tool for demountable rims. No. 1,132,845; Mar. 23; Gaz. vol. 212; p. 1181.
Hersman, Alden B. (See Long and Hersman.)
Hertwig, Max E., Elizabeth, N. J. Shade-support. No. 1,130,973; Mar. 9; Gaz. vol. 212; p. 428.
Herz, Felix. (See Sheldon, Thomas H., assignor.)
Herzberg, Wilhelm, Berlin-Wilmersdorf, and G. Hoppe, Berlin-Treptow, assignors to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Greenish-blue dyes of the anthraquinone series. No. 1,131,516; Mar. 9; Gaz. vol. 212; p. 615.
Herzog, Felix B., deceased, New York, N. Y.; H. Herzog, executrix. Electric signaling apparatus and circuits. No. 1,132,267; Mar. 16; Gaz. vol. 212; p. 920.
Herzog, Henrietta, executrix. (See Herzog, Felix B.)
Hess-Bright Manufacturing Company, The. (See Hess, Henry, assignor.)
Hess, Edward B., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Ribbon mechanism for type-writing machines. No. 1,130,401; Mar. 2; Gaz. vol. 212; p. 195.
Hess, Henry, Philadelphia, Pa. Casting. No. 1,131,697; Mar. 16; Gaz. vol. 212; p. 712.
Hess, Henry, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company. Chuck. No. 1,131,696; Mar. 16; Gaz. vol. 212; p. 712.
Hess, John A., Philadelphia, Pa. File-cutting machine. No. 1,133,800; Mar. 30; Gaz. vol. 212; p. 1559.
Hess, Ludwig, Berlin-Britz, Germany. Orthovanadic-acid esters and their solutions. No. 1,133,961; Mar. 30; Gaz. vol. 212; p. 1613.
Hesselius, Peter, assignor of one-half to A. G. Dahlquist, Chicago, Ill. Manually-controlled phonographic mechanism. No. 1,132,092; Mar. 16; Gaz. vol. 212; p. 855.
Hetherington, Henry A. (See Ricardo and Hetherington.)
Hetts, Charles V. (See Porter, Joseph Y., assignor.)
Hewitt, Charles E., J. Bernor, and F. J. Bacon, Forestdale, Vt. Lawn-mower. No. 1,130,283; Mar. 2; Gaz. vol. 212; p. 154.
Hewitt, Herbert H. (See Sill, Samuel J., assignor.)
Hewitt, Herbert H., Buffalo, N. Y. Car-truck. No. 1,130,730; Mar. 9; Gaz. vol. 212; p. 344.
Hewitt, Herbert H., and C. H. Paeplow, Jr., Buffalo, N. Y. Hose-coupling. No. 1,129,979; Mar. 2; Gaz. vol. 212; p. 49.
Hewitt, Horace B., Indianapolis, assignor of one-half to North Indianapolis Cradle Works, North Indianapolis, Ind. Scythe-snathe. No. 1,133,376; Mar. 30; Gaz. vol. 212; p. 1407.
Hewitt, Horace B., Indianapolis, assignor of one-half to North Indianapolis Cradle Works, North Indianapolis, Ind. Scythe-snathe. No. 1,133,473; Mar. 30; Gaz. vol. 212; p. 1440.
Hewitt, Peter C., New York, N. Y. Ventilating apparatus and method. No. 1,133,027; Mar. 23; Gaz. vol. 212; p. 1248.
Hey, Walter I., and Z. L. Coffin, Ardmore, S. D. Match-lighter. No. 1,132,342; Mar. 16; Gaz. vol. 212; p. 948.
Heybach, Frederick J., assignor to The Unit Weighing and Packing System, Baltimore, Md. Machine for heading receptacles. No. 1,132,343; Mar. 16; Gaz. vol. 212; p. 948.
Heylman, Edward M., assignor to Rock Island Plow Company, Rock Island, Ill. Reversible disk harrow. No. 1,131,238; Mar. 9; Gaz. vol. 212; p. 518.
Heynau, Hans, Nuremberg, Germany. Cutting-disk for metal-cutting machines. No. 1,129,980; Mar. 2; Gaz. vol. 212; p. 50.
Heywood, Charles H., and D. E. Travis, Waukegan, Ill., assignors to United States Envelope Co., Springfield, Mass. Feeding mechanism for paper or cardboard. No. 1,131,836; Mar. 16; Gaz. vol. 212; p. 764.
Hibbard, Walter R. (See Lindsay and Hibbard.)
Hickman, Raymond L., Portland, Oreg. Stove-lid lifter. No. 1,131,517; Mar. 9; Gaz. vol. 212; p. 615.
Hickok, Arthur S. (See Myers, Hubert A., assignor.)
Hicks, Harry H. (See Youngkin and Hicks.)
Hicks, Henry L. (See Rives and Nabors, assignors.)
Hicks, Laura M., Bloomington, Ind. Washmitt. No. 1,132,475; Mar. 16; Gaz. vol. 212; p. 995.
Hidden, Charles P., New York, N. Y. Battery-separator. No. 1,132,183; Mar. 16; Gaz. vol. 212; p. 888.
Hide-lte Leather Company. (See Clapp, Albert L., assignor.)
Higgins, Sidney J., Thorsby, Ala. Cultivator. No. 1,133,140; Mar. 23; Gaz. vol. 212; p. 1287.
Higgins, Thomas, *et al.* (See Jobke, August F., assignor.)
Higgins, Virginia K., *et al.* (See Lorenz, Friedrich, assignor.)
Higley, Asaph M., Cummings, Kans. Drag-saw. No. 1,131,239; Mar. 9; Gaz. vol. 212; p. 519.
Hilbert, John N. J., Chicago, Ill., assignor to J. P. Bird, New York, N. Y. Box-making machine. No. 1,131,131; Mar. 9; Gaz. vol. 212; p. 481.
Hilbert, John N. J., Chicago, Ill., assignor to J. P. Bird, New York, N. Y. Box-making machine. No. 1,131,132; Mar. 9; Gaz. vol. 212; p. 482.
Hildebrand, George F., San Francisco, Cal. Sole-leather cutting and skiving machine. No. 1,131,607; Mar. 9; Gaz. vol. 212; p. 647.
Hill, Aaron, Los Angeles, assignor of one-fourth to R. I. Blakeslee, Alhambra, Cal. Gang-drill. No. 1,133,243; Mar. 23; Gaz. vol. 212; p. 1323.
Hill, Ernest R., East Orange, N. J. Automatic warning system for electric railways. No. 1,131,133; Mar. 9; Gaz. vol. 212; p. 482.

Hill, Ernest R., East Orange, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Trip-valve device. No. 1,133,644; Mar. 30; Gaz. vol. 212; p. 1503.

Hill, Ernest R., East Orange, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Trip-valve device for air-brakes. No. 1,133,645; Mar. 30; Gaz. vol. 212; p. 1504.

Hill, George, Milroy, Ind. Corn-topper. No. 1,130,085; Mar. 2; Gaz. vol. 212; p. 85.

Hill, George, Arlington, Iowa. Olive-picker. No. 1,131,240; Mar. 9; Gaz. vol. 212; p. 519.

Hill, George H., Schenectady, N. Y., assignor to General Electric Company. Coasting-registering mechanism for electric cars. No. 1,133,028; Mar. 23; Gaz. vol. 212; p. 1248.

Hill, George S., Strafford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Buttonhole-sewing machine. No. 1,134,046; Mar. 30; Gaz. vol. 212; p. 1641.

Hill, Horace, Brooklyn, N. Y. Snow-removing machine. No. 1,131,378; Mar. 9; Gaz. vol. 212; p. 566.

Hill, James H., assignor to Defiance Lantern & Stamping Co., Rochester, N. Y. Lantern. No. 1,130,731; Mar. 9; Gaz. vol. 212; p. 345.

Hill, John, assignor to Hawaiian Pineapple Company, Ltd., Honolulu, Hawaii. Feeding device for pineapple-slicers. No. 1,130,819; Mar. 9; Gaz. vol. 212; p. 374.

Hill, Josef D., Arlington, Tex. Cultivator-hopple. No. 1,133,284; Mar. 30; Gaz. vol. 212; p. 1374.

Hill, Joshua A., Essex, Ontario, Canada. Motor-vehicle. No. 1,131,781; Mar. 16; Gaz. vol. 212; p. 743.

Hille, Adolph W., Denver, Colo. Rotatable inclined water and material lifting elevator. No. 1,132,775; Mar. 23; Gaz. vol. 212; p. 1154.

Hilleman, Daniel, St. Louis, Mo. Coaling device. No. 1,133,141; Mar. 23; Gaz. vol. 212; p. 1288.

Hilliard Clutch & Machinery Co., The. (See Scofield, Gilbert J., assignor.)

Hilliard, Edward G. (See Klock, Arden S., assignor.)

Hills, Irving, Deerfield, N. Y. Combined hoe, weeder, and plant-protector. No. 1,132,344; Mar. 16; Gaz. vol. 212; p. 948.

Hills-McCanna Company. (See Delaney, Thomas A., assignor.)

Himmel, Solomon. (See Hormes, William T., assignor.)

Himmel, Solomon. (See Miller, Andrew E., assignor.)

Himmel, Solomon, and G. Eble, Baltimore, Md. Display-rack. No. 1,130,166; Mar. 2; Gaz. vol. 212; p. 112.

Hinderliter, Cyrus S., Hesperia, Mich. Bean-harvester. No. 1,133,474; Mar. 30; Gaz. vol. 212; p. 1440.

Hinman, Frederick C., Lincoln, Nebr. Casting apparatus. No. 1,130,974; Mar. 9; Gaz. vol. 212; p. 428.

Hipkins, Floyd R., assignor of one-half to H. Weigel, Fort Wayne, Ind. Push-broom. No. 1,134,076; Mar. 30; Gaz. vol. 212; p. 1651.

Hipple, Harvey J., Lancaster, Pa. Lock-washer. No. 1,130,284; Mar. 2; Gaz. vol. 212; p. 154.

Hirsch, Otto C. L., Chicago, Ill. Cutting-machine. No. 1,133,142; Mar. 23; Gaz. vol. 212; p. 1288.

Hirschmann, Frederick C. F., Indianapolis, Ind. Engraving-machine. No. 1,131,379; Mar. 9; Gaz. vol. 212; p. 566.

Hirshheimer, Harry J., assignor to La Crosse Plow Company, La Crosse Wis. Wheeled plow. No. 1,130,732; Mar. 9; Gaz. vol. 212; p. 345.

Hirt, Leon E., Pittsburgh, Pa. Method of and apparatus for the manufacture of producer-gas. No. 1,130,512; Mar. 2; Gaz. vol. 212; p. 236.

Hite, Charles E., Burlington, N. J., assignor of one-half to W. Pincus, Philadelphia, Pa. Making and preserving sulfur and alkali compounds. No. 1,132,476; Mar. 16; Gaz. vol. 212; p. 995.

Hitner, Harry F., Mount Vernon, Ohio, assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa. Apparatus for splitting glass cylinders. No. 1,131,134; Mar. 9; Gaz. vol. 212; p. 482.

Hixon, Hiram W., Philadelphia, Pa. Treating ingots. No. 1,130,513; Mar. 2; Gaz. vol. 212; p. 236.

Hoaglin, Frank L., Waupaca, Wis. Card-file holder. No. 1,133,377; Mar. 30; Gaz. vol. 212; p. 1407.

Hobart, James F., Detroit, Mich., assignor to The Diamond Match Company, Chicago, Ill. Machine for packing match-books and the like. No. 1,132,268; Mar. 16; Gaz. vol. 212; p. 921.

Hobbs, Albert C., assignor of one-half to H. C. Harvey, Huntington, W. Va. Iron-cased-basket street-marker. No. 1,130,086; Mar. 2; Gaz. vol. 212; p. 85.

Hobbs, Henry W., Portland, Me. Horizontal arc-lamp. No. 1,132,776; Mar. 23; Gaz. vol. 212; p. 1155.

Hobbs Manufacturing Company. (See Hobbs, Samuel T., assignor.)

Hobbs, Samuel T., assignor to Hobbs Manufacturing Company, Worcester, Mass. Paper-box-topping machine. No. 1,131,241; Mar. 9; Gaz. vol. 212; p. 519.

Hobbs, Wilber A., Pittsburgh, Pa., assignor to C. Adams, trustee, New Rochelle, N. Y. Manufacture of bread. No. 1,131,698; Mar. 16; Gaz. vol. 212; p. 713.

Hochstetter, Frederick W., New York, N. Y. Convertible moving-picture machine. No. 1,133,378; Mar. 30; Gaz. vol. 212; p. 1407.

Hodges, Zula C. (See Phare, John J., assignor.)

Hodgman, Bruce, Shoshone, Idaho. Hay-stacker. No. 1,131,518; Mar. 9; Gaz. vol. 212; p. 615.

Hoecker, Thomas A., and E. A. Benz, St. Louis, Mo. Novelty for advertising and other purposes. No. 1,131,699; Mar. 16; Gaz. vol. 212; p. 713.

Hoeffer, Albert, *et al.* (See Bacher, Peter, assignor.)

Hoerichs, Edward, Baltimore, Md. Flushing apparatus for water-closets. No. 1,132,719; Mar. 23; Gaz. vol. 212; p. 1133.

Hoferle, Henry A., *et al.* (See Hoferle, John, assignor.)

Hoferle, John, assignor of one-fourth to H. A. Hoferle, one-fourth to A. Auer, and one-fourth to L. Auer, Chicago, Ill. Door check and closer. No. 1,133,725; Mar. 30; Gaz. vol. 212; p. 1533.

Hoffman, Adon J., Syracuse, N. Y. Clothes-pressing apparatus. No. 1,130,902; Mar. 9; Gaz. vol. 212; p. 404.

Hoffman, Florette, Houston, Tex. Gate operating and locking means. No. 1,129,867; Mar. 2; Gaz. vol. 212; p. 12.

Hoffman, George D., Pasadena, Cal., assignor to Hoffman Specialty Company, Boston, Mass. Automatic air-valve for steam-radiators. No. 1,132,009; Mar. 16; Gaz. vol. 212; p. 825.

Hoffman, George D., Pasadena, Cal., assignor to Hoffman Specialty Company, Boston, Mass. Radiator air-valve. No. 1,132,010; Mar. 16; Gaz. vol. 212; p. 826.

Hoffman, Peter L., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill. Trolley-track. No. 1,130,820; Mar. 9; Gaz. vol. 212; p. 375.

Hoffman Specialty Company. (See Hoffman, George D., assignor.)

Hofmann, Fritz, and K. Gottlob, Elberfeld, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y. Production of vulcanized synthetic caoutchouc. No. 1,130,903; Mar. 9; Gaz. vol. 212; p. 404.

Hogan, Joseph H., Chicago, Ill. Vending-machine. No. 1,133,143; Mar. 23; Gaz. vol. 212; p. 1288.

Hogg, Leonard J., Philadelphia, Pa. Receptacle for cards. No. 1,130,597; Mar. 2; Gaz. vol. 212; p. 265.

Hoggson, Samuel H., Arlington, N. J. Motometer. No. 1,133,646; Mar. 30; Gaz. vol. 212; p. 1504.

Högiund, Hans O., Christiania, Norway. Lock. No. 1,133,962; Mar. 30; Gaz. vol. 212; p. 1613.

Hoke, Harry A., Altoona, Pa. Locomotive smoke-lifter. No. 1,130,733; Mar. 9; Gaz. vol. 212; p. 345.

Holden, Henry C. L., assignor to The United Motor Industries, Limited, London, England. Lamp-holder. No. 1,133,231; Mar. 23; Gaz. vol. 212; p. 1318.

Holden, Walter A., Ansonia, assignor to The Robert N. Bassett Company, Shelton, Conn. Garment-supporter. No. 1,130,821; Mar. 9; Gaz. vol. 212; p. 375.

Holland, Charles R. and C. C., Taylorville, Ill. Harrow attachment for plows. No. 1,129,981; Mar. 2; Gaz. vol. 212; p. 50.

Holland, Christopher C. (See Holland, Charles R. and C. C.)

Holland, Newman H., assignor to New Jersey Patent Company, West Orange, N. J. Phonograph-recorder. No. 1,131,782; Mar. 16; Gaz. vol. 212; p. 744.

Hollerith, Herman, Washington, D. C. Card-testing device. No. 1,132,345; Mar. 16; Gaz. vol. 212; p. 949.

Hollifield, Horatio B., Washington, D. C. Practice apparatus for small-arms. No. 1,130,402; Mar. 2; Gaz. vol. 212; p. 195.

Hollingsworth, Jeptha G., Kansas City, Mo. Dental matrix for approximal fillings. No. 1,133,379; Mar. 30; Gaz. vol. 212; p. 1408.

Hollins, Denis M., Blackburn, England, assignor to Draper Company, Hopedale, Mass. Feeler-motion for weft-replenishing looms having movable shuttle-boxes. No. 1,130,598; Mar. 2; Gaz. vol. 212; p. 265.

Hollins, Denis M., Blackburn, England, assignor to Draper Company, Hopedale, Mass. Take-up motion of looms for weaving. No. 1,130,599; Mar. 2; Gaz. vol. 212; p. 265.

Holloway, William M., Austin, assignor to Charles W. Shonk Company, Chicago, Ill. Coin-actuated mechanism. No. 1,131,628; Mar. 9; Gaz. vol. 212; p. 653.

Holly, Edgar P., Boston, Mass., assignor to Holly Steam Engineering Company, New York, N. Y. Liquid-impelling device. No. 1,131,519; Mar. 9; Gaz. vol. 212; p. 616.

Holly Steam Engineering Company. (See Holly, Edgar P., assignor.)

Holmes, Minot K., assignor to Hemingway Glass Company, Muncie, Ind. Glass-working. No. 1,133,244; Mar. 23; Gaz. vol. 212; p. 1323.

Holroyd, Charles, Pittsburgh, Pa. Water-wings. No. 1,132,346; Mar. 16; Gaz. vol. 212; p. 949.

Holsinger, Eugene, San Francisco, Cal. Reversible-window supporter. No. 1,132,520; Mar. 16; Gaz. vol. 212; p. 1013.

Holst, Louis J. R., and O. Chouinard, assignors, by mesne assignments, to Lithotex Corporation, New York, N. Y. Step and repeat machine. No. 1,131,629; Mar. 9; Gaz. vol. 212; p. 654.

Holt, Frederick B. (See Schultz and Holt.)

Holt, Henry A., Wilton, N. H. Door-latch. No. 1,133,437; Mar. 30; Gaz. vol. 212; p. 1428.

Holtby, Wilkie H., assignor of one-half to R. M. Simmons, Hobart, Okla. Tire-rest. No. 1,132,477; Mar. 16; Gaz vol. 212; p. 995.

Holton-Abbott Manufacturing Company. (See Holton, Edwin C., assignor.)

Holton, Edwin C., assignor to Holton-Abbott Manufacturing Company, Somerville, Mass. Reinforced handle. No. 1,132,093; Mar. 16; Gaz. vol. 212; p. 855.

Holzapfel, Valentine, Jr., Bayonne, N. J. Electric battery. No. 1,132,846; Mar. 23; Gaz. vol. 212; p. 1181.

Holzmark, Isaac, St. Louis, Mo. Shoemaker's jack. No. 1,131,837; Mar. 16; Gaz. vol. 212; p. 765.

Homans, Thomas S., Hempstead, assignor to International Typesetting Machine Company, New York, N. Y. Linotype-machine. No. 1,130,600; Mar. 2; Gaz. vol. 212; p. 266.

Honnold, Frank, assignor of one-third to I. Vermilyea, Climbing Hill, Iowa. Tractor. No. 1,130,285; Mar. 2; Gaz. vol. 212; p. 154.

Honold, Gottlob, assignor to Firm of R. Bosch, Stuttgart, Germany. Bearing for electromagnetic sparking machines. No. 1,130,004; Mar. 9; Gaz. vol. 212; p. 405.

Hood Rubber Company. (See Roper, Charles H., assignor.)

Hoofnagle, William T., Glen Ridge, N. J., assignor to Climax Refuse Container Corporation, New York State. Garbage-receptacle and stand therefor. No. 1,133,438; Mar. 30; Gaz. vol. 212; p. 1429.

Hoover, Frank G., New Berlin, Ohio. Harness-saddle. No. 1,133,560; Mar. 30; Gaz. vol. 212; p. 1473.

Hoover, Isaac W., Avery, Ohio. Combined potato-digger and vine-separator. No. 1,130,403; Mar. 2; Gaz. vol. 212; p. 195.

Hoover, Kieffer G., Demopolis, Ala. Time-controlled mechanism. No. 1,133,963; Mar. 30; Gaz. vol. 212; p. 1613.

Hopkins, Archibald E., and O. S. Fellows, assignors to Ideal Wrapping Machine Company, Middletown, N. Y. Knife for cutting-machines. No. 1,131,838; Mar. 16; Gaz. vol. 212; p. 765.

Hopkins, David L., Bryson, N. C. Train-control syatem. No. 1,132,582; Mar. 23; Gaz. vol. 212; p. 1082.

Hopkins, Hubert J., San Francisco, Cal. Fire-stream distorter. No. 1,132,935; Mar. 23; Gaz. vol. 212; p. 1213.

Hopkins, William W., assignor, by mesne assignments, to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Computing and writing machine. No. 1,133,029; Mar. 23; Gaz. vol. 212; p. 1249.

Hoppe, Gerhard. (See Herzberg and Hoppe.)

Hopper, James F., assignor of one-half to D. K. Penn, Sherman, Tex. Gas generator and burner. No. 1,132,583; Mar. 23; Gaz. vol. 212; p. 1082.

Hopper, Samuel J., and H. Soley, Woodstock, Oreg. Door-support. No. 1,130,975; Mar. 9; Gaz. vol. 212; p. 428.

Horkman, Henry, Neenah, Wis. Blow-off valve. No. 1,130,286; Mar. 2; Gaz. vol. 212; p. 155.

Hormes, William T., Governstown, assignor to S. Himmel, Baltimore, Md. Display-rack. No. 1,133,861; Mar. 30; Gaz. vol. 212; p. 1582.

Horn, Charles, Millbourne, Pa. Snap-switch. No. 1,133,285; Mar. 30; Gaz. vol. 212; p. 1374.

Hornor, Florence A., Chesterfield, N. J. Box. No. 1,131,520; Mar. 9; Gaz. vol. 212; p. 616.

Horry, William S., Niagara Falls, assignor to Union Carbide Company, New York, N. Y. Electric furnace. No. 1,130,734; Mar. 9; Gaz. vol. 212; p. 346.

Horst, Emil C., assignor to E. Clemens Horst Co., San Francisco, Cal. Hop-separator. No. 1,132,011; Mar. 16; Gaz. vol. 212; p. 826.

Horton, Albert J., White Plains, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Rheostat. No. 1,130,976; Mar. 9; Gaz. vol. 212; p. 428.

Horváth, John, Youngstown, Ohio. Portable fence. No. 1,130,287; Mar. 2; Gaz. vol. 212; p. 155.

Hosford, William F., West Chicago, Ill., assignor to Western Electric Company, New York, N. Y. Contact member. No. 1,132,094; Mar. 16; Gaz. vol. 212; p. 856.

Hosier, Ernest H., White Haven, Pa. Manually-removable bottle-cap. No. 1,130,905; Mar. 9; Gaz. vol. 212; p. 405.

Hotchkin, Paul M., Chicago, Ill. Electric-light fitting. No. 1,129,982; Mar. 2; Gaz. vol. 212; p. 50.

Hottmann, Charles W., assignor of one-half to A. H. E. Juergens, Philadelphia, Pa. Sausage-stuffer. No. 1,133,030; Mar. 23; Gaz. vol. 212; p. 1249.

Hotz, Henry P., *et al.* (See Good, Thomas L., assignor.)

Houck, Asa F., Easton, Pa. Stovepipe-anchor. No. 1,132,347; Mar. 16; Gaz. vol. 212; p. 949.

Hough, Oscar, Camrose, Alberta, Canada. Plow. No. 1,132,847; Mar. 23; Gaz. vol. 212; p. 1182.

Hough, Robert H., and L. J. Stern, Philadelphia, Pa. Projecting images on screens. No. 1,132,269; Mar. 16; Gaz. vol. 212; p. 921.

Hough, William B., Chicago, Ill., assignor, by mesne assignments, to Patented Devices Company, Portland, Me. Reinforced concrete construction. No. 1,133,801; Mar. 30; Gaz. vol. 212; p. 1560.

Hourtienne, Benjamin H. (See Spranger and Hourtienne.)

Houser, John O. (See Yelin and Houser.)

Houston, Alexander. (See Train and Houston.)

Hout, William W., Cortland, N. Y. Welding-flux. No. 1,131,521; Mar. 9; Gaz. vol. 212; p. 617.

House, Ferdinand T., *et al.* (See House, Ulgisse, assignor.)

House, John H., *et al.* (See House, Ulgisse, assignor.)

House, Noel J., *et al.* (See House, Ulgisse, assignor.)

Houze, Ulgisse, assignor of four-fifths to F. T. and J. H. Houze, Pomona, Cal., N. J. Houze, Oshkosh, Wis., and A. McFadden, Grand Rapids, Mich. Device for forming glass cylinders. No. 1,132,270; Mar. 16; Gaz. vol. 212; p. 922.

Hovendèn, Hirram A., assignor of one-half to A. Enos, Sandpoint, Idaho. Lawn-rake. No. 1,133,964; Mar. 30; Gaz. vol. 212; p. 1613.

Hover-Incubator Manufacturing Company. (See Rappleye, Frank A., assignor.)

Hovland, Abraham N., Christiania, Norway. Method of and apparatus for sending signal-impulses. No. 1,133,728; Mar. 30; Gaz. vol. 212; p. 1533.

Howard, Charles B., Brockton, Mass. Steam-trap. No. 1,132,184; Mar. 16; Gaz. vol. 212; p. 889.

Howard, Hal, *et al.* (See Hayes, Thomas F., assignor.)

Howard, Joe E., and E. M. Knothe, Seattle, Wash. Automatic air and steam coupling. No. 1,130,601; Mar. 2; Gaz. vol. 212; p. 266.

Howard, John E., Erin, N. Y. Platform-bridge. No. 1,131,783; Mar. 16; Gaz. vol. 212; p. 744.

Howard, Monroe S., Waukon, Iowa. Automatic expression control for mechanically-operated pianos. No. 1,132,584; Mar. 23; Gaz. vol. 212; p. 1083.

Howard, Perez B., Newtonville, Mass. Arch-support. No. 1,133,965; Mar. 30; Gaz. vol. 212; p. 1614.

Howarth, Mark. (See Field, Howarth, and Atkins.)

Howe and Davidson Company. (See Davidson, Frank B., assignor.)

Howe, George E., East Smethport, Pa., assignor of one-half to E. J. Janowitz, Buffalo, N. Y. Horseshoe. No. 1,130,514; Mar. 2; Gaz. vol. 212; p. 236.

Howe, Henry P., assignor to American Writing Paper Company, Holyoke, Mass. Surface-finishing machine for paper. No. 1,130,515; Mar. 2; Gaz. vol. 212; p. 237.

Howe, John B. (See McBurney, Barksdale, and Howe.)

Howell, Charles W., Jr., Newark, N. J., assignor to The Sun Typewriter Company, New York, N. Y. Printing. No. 1,130,404; Mar. 2; Gaz. vol. 212; p. 196.

Howell, David S., Oconto, Wis. Hay-rack lock. No. 1,132,848; Mar. 23; Gaz. vol. 212; p. 1182.

Howland, John., San Antonio, Tex. Telltale-switch. No. 1,132,849; Mar. 23; Gaz. vol. 212; p. 1182.

Hoy, Adea A., St. Louis, Mo. Meat product and producing the same. No. 1,129,868; Mar. 2; Gaz. vol. 212; p. 12.

Hoye, James, Rochester, N. Y. Portière. No. 1,133,966; Mar. 30; Gaz. vol. 212; p. 1614.

Hoyt, George E., New Orleans, La. Journal-box brass. No. 1,130,602; Mar. 2; Gaz. vol. 212; p. 267.

Hoyt, John S., *et al.* (See Matthews, Edwin S., assignor.)

Hub, John C., Lakewood, Ohio. Fastener for papers. No. 1,131,700; Mar. 16; Gaz. vol. 212; p. 713.

Hubbard, Elias E., assignor, by mesne assignments, of one-half to H. E. Mott, Harrisburg, Ill. Excavating-machine. No. 1,132,720; Mar. 23; Gaz. vol. 212; p. 1154.

Hubbard, Mattie B., Earlsboro, Okla. Mail-box. No. 1,130,288; Mar. 2; Gaz. vol. 212; p. 155.

Hubert, Lily E. G., Los Angeles, Cal. Furnace. No. 1,133,561; Mar. 30; Gaz. vol. 212; p. 1473.

Hubler, Robert M., and D. E. Jones, assignors to The Elyria Iron & Steel Company, Elyria, Ohio. Apparatus for making C-bars. No. 1,132,185; Mar. 16; Gaz. vol. 212; p. 889.

Huddleston, Pleasant A., Oklahoma, Okla. Electric illuminating alarm-clock. No. 1,133,562; Mar. 30; Gaz. vol. 212; p. 1473.

Hudson, Edwin V., Wilkinsburg, Pa. Envelop. No. 1,131,135; Mar. 9; Gaz. vol. 212; p. 483.

Hudson, Mahalah T., Kirksville, Mo. Poison-indicator. No. 1,131,839; Mar. 16; Gaz. vol. 212; p. 765.

Hudson Motor Car Company. (See Moorhouse, Alfred, assignor.)

Huebner, William, and O. Kunkel, Garfield, N. J. Automatic-stabilizing aeroplane. No. 1,131,380; Mar. 9; Gaz. vol. 212; p. 567.

Huey, B. S. (See Judia, George H., assignor.)

Huff, Hiram C., Vegreville, Alberta, Canada. Draft appliance. No. 1,130,516; Mar. 2; Gaz. vol. 212; p. 237.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,132,850; Mar. 23; Gaz. vol. 212; p. 1183.

Huffman, Charlie E., Beatrice, Nebr. Bracket for drapery. No. 1,131,242; Mar. 9; Gaz. vol. 212; p. 520.

Huffman, Edward, Minburn, Alberta, Canada. Wrench. No. 1,131,136; Mar. 9; Gaz. vol. 212; p. 483.

Hughes, Edward P. (See Bishop and Hughes.)

Hughes, Harold K., Brooklyn, N. Y. Oil-separator. No. 1,131,243; Mar. 9; Gaz. vol. 212; p. 520.

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Roller boring-drill. No. 1,130,289; Mar. 2; Gaz. vol. 212; p. 156.

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Roller boring-drill. No. 1,130,290; Mar. 2; Gaz. vol. 212; p. 156.

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Rotary boring-drill. No. 1,131,701; Mar. 16; Gaz. vol. 212; p. 713.

Hughes, Hugh T., assignor of one-half to I. W. and L. S. Wilgoff, Youngstown, Ohio. Antiskid tread for resilient tires. No. 1,130,693; Mar. 2; Gaz. vol. 212; p. 298.

Hughes, John F., Darby, Pa. Automatic dumping and readjusting wagon. No. 1,130,735; Mar. 9; Gaz. vol. 212; p. 346.
Hugo Manufacturing Company. (See Hawks, William, assignor.)
Hulburd, Charles H. (See Greeley, Charles U., assignor.)
Hull, Foster J., New York, assignor, by mesne assignments, to New York Central Iron Works Company, Geneva, N. Y. Sand-riddling machine. No. 1,132,271; Mar. 16; Gaz. vol. 212; p. 922.
Hull, Joseph V., Brooklyn, assignor, by mesne assignments, to Anchor Cap & Closure Corporation, New York, N. Y. Machine for vacuum-sealing. No. 1,134,065; Mar. 30; Gaz. vol. 212; p. 1648.
Hull, Joseph V., assignor, by mesne assignments, to Anchor Cap & Closure Corporation, New York, N. Y. Receptacle-closure. No. 1,134,066; Mar. 30; Gaz. vol. 212; p. 1648.
Hull, Joseph V., assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y. Closure. No. 1,134,067; Mar. 30; Gaz. vol. 212; p. 1648.
Hull, Joseph V., assignor, by mesne assignments, to Anchor Cap & Closure Corporation, New York, N. Y. Receptacle-closure. No. 1,134,068; Mar. 30; Gaz. vol. 212; p. 1649.
Hullings, George F., and D. P. Moore, Washington, D. C. Staple-affixing machine. No. 1,133,862; Mar. 30; Gaz. vol. 212; p. 1582.
Hume, John E., and G. S. Thompson, Clinton, Mass. Filling-changer. No. 1,133,286; Mar. 30; Gaz. vol. 212; p. 1375.
Hummon, Oscar P. (See Clarkson and Hummon.)
Humphrey, David, Cleveland, Ohio. Candy-cooling apparatus. No. 1,132,936; Mar. 23; Gaz. vol. 212; p. 1213.
Hunt, John B., Beloit, Wis. Block-molding machine. No. 1,131,840; Mar. 16; Gaz. vol. 212; p. 766.
Hunt, Thomas B., Chicago, Ill. Card-box for railway-cars. No. 1,130,291; Mar. 2; Gaz. vol. 212; p. 156.
Hunter, Charles M. (See Loewenbach and Hunter.)
Hunter, Harry D., Marion, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill. Scraper for furrow-openers. No. 1,129,869; Mar. 2; Gaz. vol. 212; p. 12.
Hunter, John T. (See Cowell, Ivan G., assignor.)
Hunter, Luella C., *et al.* (See Hunter, W. Lee, assignor.)
Hunter, Robert F., Bellefonte, Pa. Knuckle. No. 1,132,348; Mar. 16; Gaz. vol. 212; p. 949.
Hunter, Roy W., *et al.* (See Hunter, W. Lee, assignor.)
Hunter, Una, *et al.* (See Hunter, W. Lee, assignor.)
Hunter, W. Lee, assignor to R. W., U., and L. C. Hunter, Seattle, Wash. Cam-movement for jig-polishers. No. 1,134,047; Mar. 30; Gaz. vol. 212; p. 1642.
Hurd, William B., Langley, Wash. Leveling device. No. 1,132,349; Mar. 16; Gaz. vol. 212; p. 950.
Hurst, Charles M., St. Louis, Mo. Railway-switch sweeper. No. 1,131,702; Mar. 16; Gaz. vol. 212; p. 714.
Huse, Frederick R., Boston, Mass. Mica chimney. No. 1,131,931; Mar. 16; Gaz. vol. 212; p. 797.
Hussey, Herbert L., Winthrop, Mass. Mat for running-boards. No. 1,130,292; Mar. 2; Gaz. vol. 212; p. 157.
Huston, William E., Valley View, Tex. Show-case. No. 1,132,585; Mar. 23; Gaz. vol. 212; p. 1083.
Hutchings, Frederick E., New York, N. Y. Car-fender. No. 1,133,287; Mar. 30; Gaz. vol. 212; p. 1375.
Hutchins Car Roofing Company. (See Hawksworth, David W., assignor.)
Hutchins, Clayton B., Algona, Iowa. Corn-loom. No. 1,130,603; Mar. 2; Gaz. vol. 212; p. 267.
Hutchinson, Uriah, New York, N. Y. Dish-washing machine. No. 1,131,137; Mar. 9; Gaz. vol. 212; p. 483.
Hutchison, Maurice F., Herndon, Va. Valve. No. 1,132,095; Mar. 16; Gaz. vol. 212; p. 856.
Hutchison, Miller R., assignor to Edison Storage Battery Company, West Orange, N. J. Safety device. No. 1,130,977; Mar. 9; Gaz. vol. 212; p. 429.
Hutchison, Miller R., West Orange, N. J., assignor to Lovell-McConnell Manufacturing Company. Diaphragm-horn. No. 1,131,635; Mar. 9; Gaz. vol. 212; p. 657.
Hutchison, Miller R., West Orange, N. J., assignor to Lovell-McConnell Manufacturing Company. Mechanical horn. No. 1,131,636; Mar. 9; Gaz. vol. 212; p. 657.
Hutchison, Miller R., Summit, N. J., assignor to Lovell-McConnell Manufacturing Company. Gearing. No. 1,131,703; Mar. 16; Gaz. vol. 212; p. 714.
Huth, Gustav, assignor to H. Aron Elektrizitätszahlerfabrik G. m. b. H., Charlottenburg, Germany. Checktill. No. 1,131,381; Mar. 9; Gaz. vol. 212; p. 567.
Hutton, Stanley P. (See Naylor and Hutton.)
Hutzler, Rudolf, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Treating insoluble indigoid dyes. No. 1,133,031; Mar. 23; Gaz. vol. 212; p. 1250.
Huxley, James W. (See Curtis and Huxley.)
Hyatt, Thomas B., Connellsville, Pa. Reserve-supply valve. No. 1,132,350; Mar. 16; Gaz. vol. 212; p. 950.
Hyde, Elwin R., Bridgeport, Conn. Grinding-wheel. No. 1,133,475; Mar. 30; Gaz. vol. 212; p. 1441.
Hyde, Elwin R., Bridgeport, and T. D. Adams, Westport, Conn.; said Adams assignor to said Hyde. Grinding-machine. No. 1,133,476; Mar. 30; Gaz. vol. 212; p. 1441.
Hydeman, Ernest N., Lawrence, Mass. Bath-tub and mat therefor. No. 1,131,932; Mar. 16; Gaz. vol. 212; p. 798.
I. E. Palmer Co. (See Palmer, Isaac E., assignor.)
I./s. H. Hein & Sonners *et al.* (See Hein, Hans H., assignor.)
Ibarra, José, Habana, Cuba. Machine for cutting and pasting stamps to cigarette-boxes or any other packages. No. 1,130,517; Mar. 2; Gaz. vol. 212; p. 237.
Ideal Machinery Company. (See Walsh, John L., assignor.)
Ideal Stencil Machine Company. (See Remsnelder, George, assignor.)
Ideal Wrapping Machine Company. (See Hopkins and Fellows, assignors.)
Iler, Franklin M., Denver, Colo. Crucible-furnace. No. 1,129,983; Mar. 2; Gaz. vol. 212; p. 50.
Illig, Hans, and B. Schwerin, assignors to Gesellschaft für Elektro-Osmose m. b. H., Frankfort-on-the-Main, Germany. Apparatus for electro-osmotic processes. No. 1,133,967; Mar. 30; Gaz. vol. 212; p. 1614.
Iman, Orla H. (See Watson and Iman.)
Imes, Martin, Leavenworth, Kans. Railway-tie. No. 1,133,727; Mar. 30; Gaz. vol. 212; p. 1534.
Ingells, James, Muskegon, Mich. Extension-table slide. No. 1,130,167; Mar. 2; Gaz. vol. 212; p. 113.
Ingersoll-Rand Company. (See Ambrose, Robert L., assignor.)
Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)
Ingersoll-Rand Company. (See Lucker and Carpenter, assignors.)
Intercontinental Fiber & Paper Company, The. (See Roberts, Robert R., assignor.)
International Barrel Company. (See Robinson, Edward W., assignor.)
International Harvester Corporation. (See Steward, John F., assignor.)
International Machine and Screw Company. (See Warwick, George T., assignor.)
International Motor Company. (See Whiting, John H., assignor.)
International Precipitation Company. (See Schmidt and Roberts, assignors.)
International Printing Company, The. (See Henderson, George K., assignor.)
International Register Company, The. (See Woodward, Arthur H., assignor.)
International Time Recording Company of New York. (See Larrabee, Clinton E., assignor.)
International Typesetting Machine Company. (See Armstrong, Henry A., assignor.)
International Typesetting Machine Company. (See Homans, Thomas S., assignor.)
International Typesetting Machine Company. (See Sperry, Samuel E., assignor.)
International Window Manufacturing Company. (See Crane, Harry W., assignor.)
Interstate Electric Novelty Co. (See Tauber, Bernard, assignor.)
Interstate Silo Company. (See MacCallum and Eggleston, assignors.)
Ireland, Morris B., New York, N. Y. Clutch. (Reissue.) No. 13,893; Mar. 23; Gaz. vol. 212; p. 1325.
Irish, William M. (See Van Dyke and Irish.)
Isachson, Norman, Albion, Idaho. Additional air-supply for explosive-engines. No. 1,130,293; Mar. 2; Gaz. vol. 212; p. 157.
Isberg, Eric, Cadillac, assignor of one-half to S. A. Wellman, South Boardman, Mich. Pump. No. 1,134,048; Mar. 30; Gaz. vol. 212; p. 1642.
Ivers, Oscar C., New York, N. Y. Collapsible and demountable tire-rim. No. 1,130,604; Mar. 2; Gaz. vol. 212; p. 267.
Ivins, Clifford E., Los Angeles, Cal. Dust-proof cap for tire-valves. No. 1,131,138; Mar. 9; Gaz. vol. 212; p. 484.
J. Stone & Company. (See Ralston, Gavin C., assignor.)
J. C. Blair Company. (See McSheehy, Bartholomew E., assignor.)
J. D. Riedel Aktiengesellschaft. (See Boedecker, Friedrich, assignor.)
J. D. Riedel Aktiengesellschaft. (See Gans, Robert, assignor.)
J. G. Brill Co., The. (See Adams, Walter S., assignor.)
J. I. Case Threshing Machine Company. (See Morrissey, Patrick W., assignor.)
J. I. Case Threshing Machine Company. (See Power, Jeffrey J., assignor.)
J. J. Beyerle Mfg. Co. (See Farkas, Joseph D., assignor.)
J. M. Card Lumber Co. (See Catlin, Abel D., assignor.)
J. & T. M. Greeves Limited *et al.* (See Cotton, Kennedy, and King, assignors.)
Jabs, Asmus, Zurich, Switzerland. Electric pendulum-clock. No. 1,132,012; Mar. 16; Gaz. vol. 212; p. 827.
Jackson, Albert C., Dayton, Ohio. Coin-wrapping device. No. 1,130,978; Mar. 9; Gaz. vol. 212; p. 429.
Jackson, Arthur C., assignor to Miller Lock Company, Philadelphia, Pa. Lock. No. 1,130,822; Mar. 9; Gaz. vol. 212; p. 375.
Jackson, Arthur C., Philadelphia, assignor to Miller Lock Company, Frankford, Philadelphia, Pa. Time-recording apparatus. No. 1,132,659; Mar. 23; Gaz. vol. 212; p. 1112.

Jackson Cushion Spring Company. (See Franz, Gustav A., assignor.)
Jackson, Harold, Garstang, England. Apparatus for hydrating, pulping, or reducing material in a wet or semi-liquid state. No. 1,133,968; Mar. 30; Gaz. vol. 212; p. 1615.
Jackson, Simeon S., Boston, assignor to The Stafford Company, Readville, Mass. Loom shuttle-reloader. No. 1,130,605; Mar. 2; Gaz. vol. 212; p. 268.
Jackson, Simeon S., assignor to The Stafford Company, Readville, Mass. Loom. No. 1,131,608; Mar. 9; Gaz. vol. 212; p. 647.
Jackson, Simeon S., Boston, assignor to The Stafford Company, Readville, Mass. Weft-parter for looms. No. 1,131,841; Mar. 16; Gaz. vol. 212; p. 766.
Jackson, Simeon S., assignor, by mesne assignments, to The Stafford Company, Readville, Mass. Weft-replenishing loom. No. 1,133,802; Mar. 30; Gaz. vol. 212; p. 1560.
Jacobs, Edwin C., Norwalk, Ohio. School appliance. No. 1,132,272; Mar. 16; Gaz. vol. 212; p. 922.
Jacobs, Ernest H., Schenectady, N. Y., assignor to General Electric Company. Oil-switch. No. 1,133,032; Mar. 23; Gaz. vol. 212; p. 1250.
Jacobs, George, Cleveland, Ohio. Credit-accounting appliance. No. 1,130,823; Mar. 9; Gaz. vol. 212; p. 375.
Jacobus, David S., Jersey City, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Baffle system for Stirling boilers. No. 1,132,013; Mar. 16; Gaz. vol. 212; p. 827.
Jacobus, David S., Jersey City, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Baffle system for Stirling boilers. No. 1,132,014; Mar. 16; Gaz. vol. 212; p. 828.
Jacobus, David S., Jersey City, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Baffle system for Stirling boilers. No. 1,132,015; Mar. 16; Gaz. vol. 212; p. 828.
Jacobus, David S., Jersey City, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Water-tube boiler. No. 1,134,077; Mar. 30; Gaz. vol. 212; p. 1652.
Jacoby, Charles, Croton-on-Hudson, N. Y. Rotary engine. No. 1,130,168; Mar. 2; Gaz. vol. 212; p. 113.
Jaedike, Henry, Evergreen, N. Y. Shoe. No. 1,132,096; Mar. 16; Gaz. vol. 212; p. 856.
Jaenisch, Ernst, Berlin, Germany. Construction of engine-cylinders. No. 1,132,937; Mar. 23; Gaz. vol. 212; p. 1214.
Jagenberg, Emil, Dusseldorf, Germany. Arrangement for severing single pieces from a bar of butter. No. 1,132,938; Mar. 23; Gaz. vol. 212; p. 1214.
Janney, Reynold, New York, N. Y., assignor to The Waterbury Tool Company, New Britain, Conn. Hydraulic controlling mechanism. No. 1,131,704; Mar. 16; Gaz. vol. 212; p. 714.
Janney, Robert E. L., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Coupling. No. 1,130,824; Mar. 9; Gaz. vol. 212; p. 376.
Janney, Robert E. L., Chicago, Ill., and E. P. Kinne, Alliance, Ohio, assignors to American Steel Foundries, Chicago, Ill. Coupling. No. 1,131,139; Mar. 9; Gaz. vol. 212; p. 484.
Janowitz, Ellis J. (See Howe, George E., assignor.)
Janson, Andrew, Dallas, Tex. Apparatus for burning unburnt gas products. No. 1,132,660; Mar. 23; Gaz. vol. 212; p. 1112.
Janson, Paul, Berlin, Germany. Change-speed gearing. No. 1,130,169; Mar. 2; Gaz. vol. 212; p. 113.
Jarvey, Jacob, Billings, Mont. Combined shade-roller and curtain-pole support. No. 1,133,033; Mar. 23; Gaz. vol. 212; p. 1250.
Jarvis, Harold, Toronto, Ontario, Canada. Water-heater. No. 1,129,870; Mar. 2; Gaz. vol. 212; p. 13.
Jaubard, Leopold A., Toulouse, France. Seat for water-closets. No. 1,132,939; Mar. 23; Gaz. vol. 212; p. 1214.
Jay, Webb, Chicago, Ill. Liquid-supply system for explosive-engines. No. 1,132,273; Mar. 16; Gaz. vol. 212; p. 923.
Jay, Webb, Chicago, Ill. Fuel-elevating device for automobile-engines. No. 1,132,940; Mar. 23; Gaz. vol. 212; p. 1215.
Jay, Webb, Chicago, Ill. Liquid-elevating device for automobile-engines. No. 1,132,941; Mar. 23; Gaz. vol. 212; p. 1215.
Jay, Webb, Chicago, Ill. Consolidated carbureter and vacuum-feed fuel-receptacle. No. 1,132,942; Mar. 23; Gaz. vol. 212; p. 1216.
Jay, Webb, Chicago, Ill. Liquid-supply device. No. 1,132,943; Mar. 23; Gaz. vol. 212; p. 1217.
Jefferson, Eugene D., Boston, Mass. Apparatus for preparing paper-pulp. No. 1,129,984; Mar. 2; Gaz. vol. 212; p. 51.
Jeffery, Harold L., and A. W. Wadsworth, Fort Thomas, Ky., assignors to The Wadsworth Watch Case Company. Bracelet. No. 1,130,405; Mar. 2; Gaz. vol. 212; p. 196.
Jeffrey Manufacturing Company, The. (See Coseo, Frederick C., assignor.)
Jeffrey Manufacturing Company, The. (See Fisher, Dudley T., assignor.)
Jeffrey Manufacturing Company, The. (See Francisco, George D., assignor.)
Jeffrey Manufacturing Company, The. (See Levin, Nils D., assignor.)
Jeffrey Manufacturing Company, The. (See Miller, Luther O., assignor.)
Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)
Jeffrey Manufacturing Company, The. (See Sessions and Fisher, assignors.)
Jeffreys, William M., and W. H. Crehen, assignors of one-half to H. W. Kerr and D. T. Murray, Youngstown, Ohio. Time-indicator. No. 1,131,244; Mar. 9; Gaz. vol. 212; p. 521.
Jelley, James G., Coventry, England. Saddle for use preferably on motor-cycles. No. 1,130,606; Mar. 2; Gaz. vol. 212; p. 268.
Jenckes Spinning Company. (See Wood, William P., assignor.)
Jenkins, Charles H., Belleville, N. J., assignor to Newman Clock Company, New York, N. Y. Pedometer attachment for watchmen's portable time-registers. No. 1,131,062; Mar. 9; Gaz. vol. 212; p. 458.
Jenkins, Richard S. (See Malone and Jenkins.)
Jenkins, Robert L. (See Jenkins, Wilton F. and R. L.)
Jenkins, Wilton F. and R. L., Richmond, Va. Fuel-mixing device for internal-combustion engines. No. 1,132,351; Mar. 16; Gaz. vol. 212; p. 950.
Jenninga, Charles H. (See Robinson, Luther, assignor.)
Jennings, Chester S., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass. Pneumatic-despatch-tube apparatus. No. 1,130,518; Mar. 2; Gaz. vol. 212; p. 238.
Jennings, Chester S., Brookline, Mass., assignor to The Lamson Company, Newark, N. J. Automatic pressure-controller. No. 1,132,777; Mar. 23; Gaz. vol. 212; p. 1155.
Jennings, Luther A., Burkesville, Ky. Lock-nut. No. 1,132,521; Mar. 16; Gaz. vol. 212; p. 1013.
Jennings, Victor H., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass. Producing woven-fabric receptacles. No. 1,130,170; Mar. 2; Gaz. vol. 212; p. 114.
Jennings, Victor H., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass. Sheath or scabbard. No. 1,133,144; Mar. 23; Gaz. vol. 212; p. 1289.
Jensen, Jens K., Klützow, Pommerania, Germany. Arrangement for trimming clay pipes. No. 1,132,851; Mar. 23; Gaz. vol. 212; p. 1183.
Jensen, John F., Union Hill, N. J. Non-refillable bottle. No. 1,133,803; Mar. 30; Gaz. vol. 212; p. 1561.
Jensen, Lawrence H., St. Charles, Ill. Pump. No. 1,130,406; Mar. 2; Gaz. vol. 212; p. 196.
Jensen, Soren, assignor of one-half to O. T. Grover, Los Angeles, Cal. Pencil-sharpener. No. 1,130,294; Mar. 2; Gaz. vol. 212; p. 157.
Jerger, Wilhelm, Sr., Villengen, and M. Weiss, Berlin, Germany; said Jerger, Sr., assignor to said Weiss. Electric pocket-lamp. No. 1,129,871; Mar. 2; Gaz. vol. 212; p. 13.
Jerzyk, John, Rainier, Oreg. Stirrup. No. 1,130,607; Mar. 2; Gaz. vol. 212; p. 269.
Jester, Elias T., trustee. (See Fulton, John S. S., assignor.)
Jewett, Fred S., Laconia, N. H. Strip-fastener. No. 1,130,295; Mar. 2; Gaz. vol. 212; p. 158.
Jewett, Israel D., St. Paul, Ind. Preserving rubber. No. 1,130,736; Mar. 9; Gaz. vol. 212; p. 347.
Jobke, August F., Wilkinsburg, assignor of one-half to J. G. Burns, D. Bingham, K. Crumay, T. Higgins, and H. P. Gazzam, Pittsburgh, Pa. Means for forming zones of varying and variable strengths in magnetic fields. No. 1,132,016; Mar. 16; Gaz. vol. 212; p. 829.
Johannesmann, Karl, Ferdinandgrube, assignor to J. Altmann, Kattowitz, Germany. Device for simultaneously cutting and closing hollow bricks. No. 1,131,705; Mar. 16; Gaz. vol. 212; p. 715.
John Church Company, The. (See Cooper, Lee, and Meyer, assignors.)
John Church Company, The. (See Lee, Cooper, and Meyer, assignors.)
John Church Company, The. (See Leisch, Joseph, assignor.)
Johne, Otto, Bautzen, Germany. Cutting-machine. No. 1,131,706; Mar. 16; Gaz. vol. 212; p. 715.
Johns-Pratt Company, The. (See Müller, Henry N., assignor.)
Johnson Acetylene Gas Company. (See Johnson, John A. and T. N., assignors.)
Johnson Automatic Sealer Co. (See Johnson, Harry L., assignor.)
Johnson, Charles L., assignor to The Champion Chemical Company, Springfield, Ohio. Lock for grave-vaults. No. 1,131,522; Mar. 9; Gaz. vol. 212; p. 617.
Johnson, Clinton L., Rockford, Ill. Valve mechanism. No. 1,131,707; Mar. 16; Gaz. vol. 212; p. 715.
Johnson, Conrad T. (See Larson, Henry A., assignor.)
Johnson, Edward F., Pittsfield, Mass. Valve. No. 1,131,382; Mar. 9; Gaz. vol. 212; p. 568.
Johnson, Elmer, Claremont, S. D. Steering attachment for traction-engines. No. 1,131,523; Mar. 9; Gaz. vol. 212; p. 617.
Johnson, Francis T., Chicago, Ill. Ironing-board. No. 1,133,145; Mar. 23; Gaz. vol. 212; p. 1280.
Johnson, Frank A., Dunellen, N. J., assignor to Signature Company, New York, N. Y. Multiple-writing machine. No. 1,130,087; Mar. 2; Gaz. vol. 212; p. 85.

Johnson, Frank A., assignor of one-half to C. B. Vall, Danville, Ill. Switch-throwing device. No. 1,133,146; Mar. 23; Gaz. vol. 212; p. 1290.

Johnson, Frank W., assignor of one-fourth to Bestwall Manufacturing Company, Chicago, Ill. Cutting-machine. No. 1,130,979; Mar. 9; Gaz. vol. 212; p. 429.

Johnson, Gudmundur, Glenboro, Manitoba, Canada. Shocking-machine. No. 1,130,737; Mar. 9; Gaz. vol. 212; p. 347.

Johnson, Gustaf A., Alameda, and P. Pedersen, San Francisco, Cal. Advertising apparatus. No. 1,132,852; Mar. 23; Gaz. vol. 212; p. 1183.

Johnson, Hans O., Sacramento, Cal. Safety appliance for vehicles. No. 1,129,985; Mar. 2; Gaz. vol. 212; p. 52.

Johnson, Harry L., assignor to Johnson Automatic Sealer Co., Ltd., Battle Creek, Mich. Carton-sealing machine. No. 1,132,586; Mar. 23; Gaz. vol. 212; p. 1083.

Johnson, John A. (See Clark, Robert G., assignor.)

Johnson, John A., Crawfordsville, and T. N. Johnson, Waveland, assignors to Johnson Acetylene Gas Company, Crawfordsville, Ind. Valve-actuating mechanism for carbid-receptacles. No. 1,130,906; Mar. 9; Gaz. vol. 212; p. 405.

Johnson, John L., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. System of electrical distribution. No. 1,132,478; Mar. 16; Gaz. vol. 212; p. 996.

Johnson, Lafe, Indianapolis, Ind. Show-case. No. 1,130,407; Mar. 2; Gaz. vol. 212; p. 197.

Johnson, Lawrence E., Winthrop, and E. Erickson, Lynn, assignor to Victor Shoe Machinery Co., Boston, Mass. Sewing-machine. No. 1,133,147; Mar. 23; Gaz. vol. 212; p. 1290.

Johnson, Lawrence E., Winthrop, and E. Erickson, Lynn, assignors to Victor Shoe Machinery Co., Boston, Mass. Looper mechanism for sewing-machines. No. 1,133,148; Mar. 23; Gaz. vol. 212; p. 1291.

Johnson, Lawrence E., Winthrop, and E. Erickson, Lynn, assignors to Victor Shoe Machinery Co., Boston, Mass. Presser-foot mechanism for sewing-machines. No. 1,133,149; Mar. 23; Gaz. vol. 212; p. 1291.

Johnson, Lawrence E., Winthrop, and E. Erickson, Lynn, assignors to Victor Shoe Machinery Co., Boston, Mass. Awl-feeding mechanism for sewing-machines. No. 1,133,150; Mar. 23; Gaz. vol. 212; p. 1292.

Johnson, Lawrence E., Winthrop, and E. Erickson, Lynn, assignors to Victor Shoe Machinery Co., Boston, Mass. Shuttle for sewing-machines. No. 1,133,151; Mar. 23; Gaz. vol. 212; p. 1292.

Johnson, Mary E., trustee. (See Barnes, William O., assignor.)

Johnson, Mary E., trustee. (See Cobb, Lyman H., assignor.)

Johnson, Philip, Springfield, Oreg. Telephone attachment. No. 1,130,608; Mar. 2; Gaz. vol. 212; p. 269.

Johnson, Sanford L., Scotland, Ga. Nut-lock. No. 1,132,352; Mar. 16; Gaz. vol. 212; p. 951.

Johnson, Theodore N. (See Johnson, John A. and T. N.)

Johnson, William C., Eau Claire, Wis. Guard. No. 1,132,853; Mar. 23; Gaz. vol. 212; p. 1184.

Johnson, William E., assignor to Rock Island Plow Company, Rock Island, Ill. Cotton-planter. No. 1,131,245; Mar. 9; Gaz. vol. 212; p. 521.

Johnson, Woolsey M., assignor to The Continuous Zinc Furnace Company, Hartford, Conn. Metallic union. No. 1,133,245; Mar. 23; Gaz. vol. 212; p. 1323.

Johnston, George S., assignor to Geo. S. Johnston Company, Chicago, Ill. Cement. No. 1,132,721; Mar. 23; Gaz. vol. 212; p. 1134.

Johnston, James G., Evanston, Ill., assignor to The Warren Featherbone Company, Three Oaks, Mich. Display-card. No. 1,132,854; Mar. 23; Gaz. vol. 212; p. 1184.

Johnston, Leonard. (See Bliss and Johnston.)

Johnston, Oliver, Huntington, N. Y. Heater and ventilator. No. 1,133,969; Mar. 30; Gaz. vol. 212; p. 1615.

Johnston, William C., *et al.* (See Markham, Andrew J. assignor.)

Jones, Daniel E. (See Hubler and Jones.)

Jones, Edward, Great Neck, N. Y. Demountable rim. No. 1,133,152; Mar. 23; Gaz. vol. 212; p. 1293.

Jones, Ernest H., London, England. Casing for pneumatic tires. No. 1,133,153; Mar. 23; Gaz. vol. 212; p. 1293.

Jones, Frank T., Baltimore, Md., assignor, by mesne assignments, to The American Train Control Company. Speed-controlling mechanism for vehicles. No. 1,131,637; Mar. 9; Gaz. vol. 212; p. 658.

Jones, Harry, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Segmental brake-shoe. No. 1,129,986; Mar. 2; Gaz. vol. 212; p. 52.

Jones, Harry, Suffern, assignor to E. H. Fallows, New York, N. Y. Brake-shoe. No. 1,130,171; Mar. 2; Gaz. vol. 212; p. 114.

Jones, Harry, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Brake-shoe. No. 1,132,944; Mar. 23; Gaz. vol. 212; p. 1217.

Jones, Harry W., assignor to American Can Company, New York, N. Y. Paper can or receptacle. No. 1,130,825; Mar. 9; Gaz. vol. 212; p. 377.

Jones, Howard F., Warrenton, N. C. Railway-signal and automatic train-stopping device. No. 1,130,980; Mar. 9; Gaz. vol. 212; p. 430.

Jones, James H. (See Dunbar and Jones.)

Jones, James S., Harrison, Ark. Syrup-pitcher. No. 1,130,738; Mar. 9; Gaz. vol. 212; p. 347.

Jones, Noley. (See McCune and Jones.)

Jones, Pearl N., Pittsburgh, Pa. Passenger-car. No. 1,130,296; Mar. 2; Gaz. vol. 212; p. 158.

Jones, Seth T., Clinton, Ill. Muffler for shotguns. No. 1,130,609; Mar. 2; Gaz. vol. 212; p. 269.

Joost, William E. (See Bradshaw and Joost.)

Jordan, Howard M., *et al.* (See Brooks, John F., assignor.)

Jordan, William. (See Degenhardt and Jordan.)

Josephson, Joseph, *et al.* (See Zwerdling, Louis C., assignor.)

Joslyn, Howard, and C. L. Lynch, Seattle, Wash. Selective signal-transmitting apparatus. No. 1,133,034; Mar. 23; Gaz. vol. 212; p. 1251.

Judd, Frank H., *et al.* (See Woolf, Frank H., assignor.)

Judd, Henry S., and H. Pletsch, assignors to Judd Laundry Machine Company, Chicago, Ill. Laundry-machine. No. 1,131,842; Mar. 16; Gaz. vol. 212; p. 767.

Judd Laundry Machine Company. (See Judd and Pletsch, assignors.)

Judevine, Henry W., Edgar Springs, Mo. Broom. No. 1,133,035; Mar. 23; Gaz. vol. 212; p. 1251.

Judge, Franklin. (See Wells and Judge.)

Judia, George H., Cisco, assignor of one-half to B. S. Huey, Houston, Tex. Cover for syrup-pitchers. No. 1,131,383; Mar. 9; Gaz. vol. 212; p. 568.

Judson L. Thomson M'f'g Co. (See Bartel, William P., assignor.)

Judson L. Thomson M'f'g Co. (See Havener, Arthur R., assignor.)

Juergens, August H. E. (See Hottmann, Charles W., assignor.)

Junggren, Oscar, Schenectady, N. Y., assignor to General Electric Company. Valve-operating mechanism. No. 1,133,288; Mar. 30; Gaz. vol. 212; p. 1376.

Junkers, Hugo, Aachen, Germany. Liquid-heating apparatus. No. 1,133,563; Mar. 30; Gaz. vol. 212; p. 1474.

Junkers, Hugo, Aachen, Germany. Apparatus for heating liquids. No. 1,133,564; Mar. 30; Gaz. vol. 212; p. 1474.

K-D Motor Company. (See Knight, Margaret E., assignor.)

Käfer, Franz, Velthelm, near Winterthur, and A. Wiesinger, Zollikon, near Zurich, Switzerland. Elastic press-stud. No. 1,134,049; Mar. 30; Gaz. vol. 212; p. 1642.

Kahn, Fernando H., San Francisco, Cal. Lens-fastening. No. 1,132,945; Mar. 23; Gaz. vol. 212; p. 1217.

Kahnweiler, Louis and O., New York, N. Y. Sea-anchor and oil-tank. No. 1,133,154; Mar. 23; Gaz. vol. 212; p. 1293.

Kahnweiler, Oscar. (See Kahnweiler, Louis and O.)

Kainer, Frederick C., South Haven, Mich. Dispensing-machine. No. 1,132,587; Mar. 23; Gaz. vol. 212; p. 1084.

Kaisling, William, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Automatic switch for telephone systems. No. 1,131,140; Mar. 9; Gaz. vol. 212; p. 484.

Kalenborn, Arlon S., San Francisco, Cal. Paper-cutter. No. 1,131,141; Mar. 9; Gaz. vol. 212; p. 485.

Kalle and Company, Aktiengesellschaft. (See Eichelbaum, Georg, assignor.)

Kammerer, Friedrich, Pforzheim, Germany. Annealing apparatus. No. 1,133,647; Mar. 30; Gaz. vol. 212; p. 1504.

Kamp, John, Grand Rapids, Mich. Safety hat-pin. No. 1,133,477; Mar. 30; Gaz. vol. 212; p. 1441.

Kampfe, Otto, New York, N. Y. Bottle-closure. No. 1,131,708; Mar. 16; Gaz. vol. 212; p. 716.

Kane, David L., Cincinnati, Ohio. Rule. No. 1,130,610; Mar. 2; Gaz. vol. 212; p. 270.

Kankkonen, Frans, Astoria, Oreg. Exhaust-box. No. 1,133,565; Mar. 30; Gaz. vol. 212; p. 1474.

Kapelman, Felix G., New York, N. Y. Bed-spring frame. No. 1,134,050; Mar. 30; Gaz. vol. 212; p. 1642.

Kapelman, Felix G., New York, assignor to S. Weisglass, Brooklyn, N. Y. Corner-lock for beds. No. 1,132,274; Mar. 16; Gaz. vol. 212; p. 923.

Kappeler, Herman. (See Dingman, Allen H., assignor.)

Karcher, Otto, assignor to F. X. Volzer, Canton, Ohio. Press. No. 1,131,142; Mar. 9; Gaz. vol. 212; p. 485.

Karpen, William, Brooklyn, N. Y. Sign-board. No. 1,132,097; Mar. 16; Gaz. vol. 212; p. 856.

Kasser, Joseph B. and M., San Francisco, Cal. Life-preserver. No. 1,130,297; Mar. 2; Gaz. vol. 212; p. 158.

Kasser, Morris. (See Kasser, Joseph B. and M.)

Kastner, Henry J., Dayton, Ohio. Headlight-dimmer. No. 1,131,933; Mar. 16; Gaz. vol. 212; p. 798.

Kastor, Hugo, New York, N. Y. Ash cart and can. No. 1,133,155; Mar. 23; Gaz. vol. 212; p. 1293.

Katzenberger, Oscar, Chicago, Ill. Lavatory-strike. No. 1,131,384; Mar. 9; Gaz. vol. 212; p. 568.

Kaufman, Anton, Philadelphia, Pa. Make-up table. No. 1,133,804; Mar. 30; Gaz. vol. 212; p. 1561.

Kaufman, Joseph S., Baltimore, Md. Manufacturing fabric belts. No. 1,133,036; Mar. 23; Gaz. vol. 212; p. 1251.

Kaufmann, Max L., New York, N. Y. Receptacle for cigars or the like. No. 1,130,739; Mar. 9; Gaz. vol. 212; p. 347.

Kearney, Thomas E., and A. J. McFarlane, Berkeley, Cal. Street-car indicator. No. 1,129,987; Mar. 2; Gaz. vol. 212; p. 52.

Keeler, Karl, Ann Arbor, Mich. Planimeter. No. 1,129,872; Mar. 2; Gaz. vol. 212; p. 13.

Keeley, William J., New York, N. Y., assignor to Auto Pneumatic Action Company. Self-playing grand piano. No. 1,133,478; Mar. 30; Gaz. vol. 212; p. 1441.

Keen, William A., Baltimore, Md. Flushing-tank. No. 1,132,353; Mar. 16; Gaz. vol. 212; p. 951.

Keenan, Thomas W. (See Culver, George A., assignor.)

Keener, Francis M., assignor of one-half to E. G. F. Brill, Chicago, Ill. Fireproof insulating composition. No. 1,133,380; Mar. 30; Gaz. vol. 212; p. 1408.

Keeran, Charles R., Bloomington, Ill. Receptacle-closure. No. 1,130,611; Mar. 2; Gaz. vol. 212; p. 270.

Keeran, Charles R., Bloomington, Ill. Lead-pencil. No. 1,130,741; Mar. 9; Gaz. vol. 212; p. 348.

Keesee, Wesley E., Los Angeles, Cal. Spring-wheel. No. 1,130,740; Mar. 9; Gaz. vol. 212; p. 348.

Kegreisz, Jules E. (See Daniels, Wilford R., assignor.)

Kell, Henry F., New York, N. Y. Shipper's cabinet. No. 1,131,143; Mar. 9; Gaz. vol. 212; p. 486.

Kellson, Meyer, New York, N. Y. Alarm device. No. 1,130,408; Mar. 2; Gaz. vol. 212; p. 197.

Keithline, Joseph S., Askam, Pa. Filter. No. 1,133,289; Mar. 30; Gaz. vol. 212; p. 1376.

Kekich, Thomas M., Chicago, Ill. Furnace-grate. No. 1,131,524; Mar. 9; Gaz. vol. 212; p. 617.

Keller Auto Company. (See Keller, Conrad, assignor.)

Keller, Bernhard, Duisburg-Meiderich, assignor to Maschinenfabrik Thyssen & Co., Aktiengesellschaft, Mülheim-on-the-Ruhr, Germany. Molding-machine. No. 1,129,873; Mar. 2; Gaz. vol. 212; p. 14.

Keller, Conrad, Weehawken, assignor to Keller Auto Company, West New York, N. J. Embroidery-pattern machine. No. 1,130,172; Mar. 2; Gaz. vol. 212; p. 114.

Keller, Hermann A., Frankfort-on-the-Main, Germany. Apparatus for use in extracting fruit-juices and comprising vessels for receiving the fruit and the juice. No. 1,130,519; Mar. 2; Gaz. vol. 212; p. 239.

Kelley, Elmer W., Rochester, N. Y. Traffic-signaling system. No. 1,132,186; Mar. 16; Gaz. vol. 212; p. 890.

Kelley, William F., Chicago, and O. L. Wood, Clinton, Ill. Locomotive-curtain. No. 1,131,525; Mar. 9; Gaz. vol. 212; p. 618.

Kellogg, Charles F. A., Gloster, Miss. Fruit-picker. No. 1,133,381; Mar. 30; Gaz. vol. 212; p. 1409.

Kellogg, Edwin M., Moline, Ill. Phonograph. No. 1,130,173; Mar. 2; Gaz. vol. 212; p. 115.

Kellogg, John H., Battle Creek, Mich. Manufacturing coffee substitutes. No. 1,133,037; Mar. 23; Gaz. vol. 212; p. 1252.

Kellogg Switchboard & Supply Company. (See Dunbar, Francis W., assignor.)

Kellogg Switchboard & Supply Company. (See Ericson, Lawrence, assignor.)

Kellogg Switchboard and Supply Company. (See Kaisling, William, assignor.)

Kellogg Switchboard and Supply Company. (See Leaver, William, assignor.)

Kelly, A. H., administrator. (See Kelly, David J.)

Kelly, Alexander M., Knoxville, and B. L. Shaner, Pittsburgh, Pa. Twine-holder. No. 1,131,843; Mar. 16; Gaz. vol. 212; p. 767.

Kelly, David J., deceased; A. H. Kelly, administrator, assignor to The Kelly Filter Press Company, Salt Lake City, Utah. Bearing. No. 1,130,674; Mar. 2; Gaz. vol. 212; p. 291.

Kelly Filter Press Company, The. (See Kelly, David J., assignor.)

Kelly, George B., Jamaica Plain, Mass., assignor to Aeolian Company, New York, N. Y. Combined piano-player and talking-machine. No. 1,132,275; Mar. 16; Gaz. vol. 212; p. 924.

Kelly, Issac W., Lynden, Ontario, Canada. Silo-filler. No. 1,132,946; Mar. 23; Gaz. vol. 212; p. 1218.

Kelly, William M., New York, N. Y. Compressible type-justifying space and making the same. No. 1,130,826; Mar. 9; Gaz. vol. 212; p. 377.

Kelsey, Edgar A., Mount Vernon, assignor to Nathan Manufacturing Company, New York, N. Y. Sight-glass. No. 1,129,988; Mar. 2; Gaz. vol. 212; p. 53.

Kelsey, John, Detroit, Mich. Forming wheel-hubs. No. 1,129,989; Mar. 2; Gaz. vol. 212; p. 53.

Kelso, James E., and G. Binder, Rochester, N. Y., assignors to American Laundry Machinery Company, Cincinnati, Ohio. Clothes-dampening machine. No. 1,129,990; Mar. 2; Gaz. vol. 212; p. 53.

Kendall, Edward D., Elizabeth, assignor of one-half to L. T. Haggin, Closter, N. J., M. V. Haggin and A. McCulloh, New York, N. Y., and H. E. Moller, Montclair, N. J., executors of J. B. Haggin, deceased. Plant for the reduction and smelting of ores. No. 1,131,709; Mar. 16; Gaz. vol. 212; p. 716.

Kendall, Sarah F. (See Kendall, William H., assignor.)

Kendall, William H., assignor to S. F. Kendall, Highland Park, Mich. Machine for forming and pressing hats. No. 1,130,088; Mar. 2; Gaz. vol. 212; p. 86.

Kendig, Julian H., Pittsburgh, assignor to Tarentum Bottle Machine Company, Tarentum, Pa. Bottle-making machine. No. 1,132,855; Mar. 23; Gaz. vol. 212; p. 1184.

Kennedy, Henry C. (See Cotton, Kennedy, and King.)

Kennedy, John C. (See Smith, Samuel D., assignor.)

Kenney, Andrew E., North Plainfield, N. J. Curtainless shower-bath. No. 1,130,520; Mar. 2; Gaz. vol. 212; p. 239.

Kenney, Chester A. (See Manuel, Frank C., assignor.)

Kent, Frederick C., and C. W. Lindholm, Newark, N. J. Speaker connection for talking-machines. No. 1,130,298; Mar. 2; Gaz. vol. 212; p. 158.

Kent, William J., New York, N. Y. Horseshoe. No. 1,132,017; Mar. 16; Gaz. vol. 212; p. 829.

Kephart, Andrew C., Charlotte, Tenn. Attachment for blacksmiths' blowers. No. 1,131,385; Mar. 9; Gaz. vol. 212; p. 569.

Kerlan, Frank, Grafton, N. D. Beater for threshers. No. 1,133,970; Mar. 30; Gaz. vol. 212; p. 1615.

Kerner Manufacturing Company. (See Dodds, Ethan I., assignor.)

Kerner, Theodore, Milwaukee, Wis. Steam-boiler and furnace. No. 1,132,778; Mar. 23; Gaz. vol. 212; p. 1156.

Kerngood, Herman, and I. Blum, assignors to Alma Manufacturing Company of Baltimore City, Baltimore, Md. Prong-attached sliding-tongue buckle. No. 1,132,856; Mar. 23; Gaz. vol. 212; p. 1185.

Kerr, Charles V., Wellsville, N. Y. Steam-turbine. No. 1,131,386; Mar. 9; Gaz. vol. 212; p. 569.

Kerr, Charles V., Wellsville, N. Y. Exhaust for steam-turbines. No. 1,131,645; Mar. 9; Gaz. vol. 212; p. 661.

Kerr, Charles V., Wellsville, N. Y. Gear lubrication. No. 1,132,947; Mar. 23; Gaz. vol. 212; p. 1218.

Kerr, Harry W., *et al.* (See Jeffreys and Creahen, assignors.)

Kerst, John G., Springfield, Ill. Shocking accessory for harvesting-machines. No. 1,132,857; Mar. 23; Gaz. vol. 212; p. 1185.

Kessel, Vilhelm P., San Francisco, Cal. Rock-drill. No. 1,132,276; Mar. 16; Gaz. vol. 212; p. 924.

Kessler Company, The. (See Kessler, Henry W., assignor.)

Kessler, Henry W., assignor to The Kessler Company, Cleveland, Ohio. Making a white pigment. No. 1,131,144; Mar. 9; Gaz. vol. 212; p. 486.

Kessler, John H., Nyack, N. Y. Means for catching insects, more especially flies and mosquitoes. No. 1,133,382; Mar. 30; Gaz. vol. 212; p. 1409.

Kettering, Charles F., and W. A. Chryst, assignors to The National Cash Register Company, Dayton, Ohio. Illuminated cash-register indicator. No. 1,131,246; Mar. 9; Gaz. vol. 212; p. 521.

Key, James A. (See Dalton, William M., assignor.)

Keyes, Eugene L., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Trimming-machine. No. 1,130,742; Mar. 9; Gaz. vol. 212; p. 349.

Keys, Jerome W., St. Joseph, Mo. Milk-bottle-seal remover, seal-replacer, and lid combined. No. 1,133,290; Mar. 30; Gaz. vol. 212; p. 1376.

Keyte, Sarah M., Oakland, Cal. Ventilating-pan. No. 1,132,187; Mar. 16; Gaz. vol. 212; p. 890.

Kidney, Alfred H., Orange, N. J. Screen for the separation of ores. No. 1,131,710; Mar. 16; Gaz. vol. 212; p. 716.

Kleckhefer, Arthur C., *et al.* (See Nelson, August T., assignor.)

Klefer, Otto, Chicago, Ill. Jar. No. 1,131,844; Mar. 16; Gaz. vol. 212; p. 767.

Kiekert, Albert, Heiligenhaus, Germany. Window-closing mechanism. No. 1,131,247; Mar. 9; Gaz. vol. 212; p. 522.

Kiesel, William F., Jr., Altoona, Pa. Truck connection for locomotives and cars. No. 1,133,071; Mar. 30; Gaz. vol. 212; p. 1616.

Kieselguhr Company of America. (See Bachler, Frederick R., assignor.)

Killian, Frank J., Colgate, Md. Shutter-operator. No. 1,132,098; Mar. 16; Gaz. vol. 212; p. 857.

Kimes, Hugh W., assignor to Vaile & Kimes, Dayton, Ohio. Fluid-motor. No. 1,132,188; Mar. 16; Gaz. vol. 212; p. 891.

Kimmich, Karl. (See Voelker and Kimmich.)

Kinard, Chester E., Cooper, Tex. Door-check. No. 1,131,711; Mar. 16; Gaz. vol. 212; p. 716.

King, Charles H. (See Lawrenson and King.)

King, George H., Salt Lake City, Utah. Adjustable support for washbasins. No. 1,130,907; Mar. 9; Gaz. vol. 212; p. 406.

King, Jacob P., Philadelphia, Pa. Rotary valve. No. 1,130,521; Mar. 2; Gaz. vol. 212; p. 239.

King, Reginald A., London, England. Game apparatus. No. 1,132,189; Mar. 16; Gaz. vol. 212; p. 891.

King, Richard H. (See Gleason, Edward D., assignor.)

King, Robert. (See Cotton, Kennedy, and King.)

King, Rufus, Plainville, Mass., assignor to Bugbee & Niles Co., Providence, R. I. Bracelet or endless chain. No. 1,132,099; Mar. 16; Gaz. vol. 212; p. 857.

Kingsbury, E. H., agent. (See Koehler, Ernest F., assignor.)

Kingsbury, George P., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,130,174; Mar. 2; Gaz. vol. 212; p. 115.

Kingsbury, George P., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,130,175; Mar. 2; Gaz. vol. 212; p. 116.

Kingsford, Thomas P., *et al.* (See Lorenz, Friedrich, assignor.)

Kingsley, Michael W. (See Butzen and Kingsley.)

Kingston, George, Kokomo, Ind. Carbureter. No. 1,130,981; Mar. 9; Gaz. vol. 212; p. 430.

Kinkead, Robert S., Minneapolis, Minn. Connecting-rod. No. 1,130,982; Mar. 9; Gaz. vol. 212; p. 431.

Kinne, Edmund P. (See Janney and Kinne.)

Kinnear, William R., New Castle, Pa. Metal-sheet-separating machine. No. 1,130,983; Mar. 9; Gaz. vol. 212; p. 431.

Kintner, Samuel M., *et al.*, receivers. (See Fessenden, Reginald A., assignor.)

Kintner, Samuel M., *et al.*, receivers. (See Kintner and Lee, assignors.)

Kintner, Samuel M., *et al.*, receivers. (See Kroger, Fred H., assignor.)

Kintner, Samuel M., Pittsburgh, Pa., and J. W. Lee, Brant Rock, Mass., assignors, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Wireless-telegraph receiving apparatus. No. 1,132,588; Mar. 23; Gaz. vol. 212; p. 1085.

Kinzey, Joseph, Johnstown, Pa. Vise. No. 1,133,156; Mar. 23; Gaz. vol. 212; p. 1294.

Kiraly, John. (See Virovatz and Kiraly.)

Kirch, Fredrick, Billings, Mont. Tie for railway-rails. No. 1,132,354; Mar. 16; Gaz. vol. 212; p. 951.

Kirk, William F., Hollidaysburg, Pa. Keying device for rolls. No. 1,130,409; Mar. 2; Gaz. vol. 212; p. 197.

Kirschwing, Joseph. (See Ellis, John W., assignor.)

Kissinger, Henry. (See Woodruff and Kissinger.)

Kistler, William J., Coopersburg, Pa. System of electrical wiring. No. 1,132,355; Mar. 16; Gaz. vol. 212; p. 952.

Kitchen, John G. A., and I. H. Storey, Lancaster, England. Vaporizing-carbureter for oil-engines. No. 1,131,934; Mar. 16; Gaz. vol. 212; p. 798.

Kite, James F. (See Hausam, Adam, assignor.)

Kjaersgaard, August M., Corinth, Denmark, assignor, by mesne assignments, to Hannefords, Limited, London, England. Refrigerator. No. 1,129,991; Mar. 2; Gaz. vol. 212; p. 54.

Klein, Henry, Portland, Oreg. Extensible curtain-roller. No. 1,132,100; Mar. 16; Gaz. vol. 212; p. 857.

Klein, Marcell, Berlin, Germany. Pressure control for submarine chambers. No. 1,131,712; Mar. 16; Gaz. vol. 212; p. 717.

Klein, Stanislaw, College Point, N. Y. Implement for removing shoe-buttons. No. 1,133,805; Mar. 30; Gaz. vol. 212; p. 1561.

Klein, Thomas. (See Roussel, Germain, assignor.)

Kleinschmidt, Daniel H., Buffalo, N. Y. Exercising or gaming apparatus. No. 1,132,101; Mar. 16; Gaz. vol. 212; p. 857.

Kleinschmidt, Edward E., New York, N. Y., assignor to Hall Switch & Signal Company. Selective signaling system. No. 1,133,291; Mar. 30; Gaz. vol. 212; p. 1377.

Kleiser, Robert H., De Witt, Ark. Grain-scouring machine. No. 1,131,526; Mar. 9; Gaz. vol. 212; p. 618.

Klemm, Edwin O., Saginaw, Mich. Automatic stop device for sound-reproducing machines. No. 1,132,356; Mar. 16; Gaz. vol. 212; p. 952.

Klemmer, Conrad, Bisbee, Ariz. Portable magneto-electric machine. No. 1,131,063; Mar. 9; Gaz. vol. 212; p. 458.

Klenk, Gottlieb, assignor to The Defiance Pressed Steel Co., Defiance, Ohio. Metal box. No. 1,131,035; Mar. 16; Gaz. vol. 212; p. 799.

Klimes, Albert, assignor of two-fifths to J. Kolda, Chicago, Ill. Trolley protective system. No. 1,130,612; Mar. 2; Gaz. vol. 212; p. 270.

Klock, Arden S., assignor of one-half to E. G. Hilliard, Duluth, Minn. Chain-hook. No. 1,130,613; Mar. 2; Gaz. vol. 212; p. 271.

Klocke, William, assignor to E. W. Bliss Company, Brooklyn, N. Y. Drawing-press. No. 1,130,176; Mar. 2; Gaz. vol. 212; p. 116.

Klocke, William, assignor to E. W. Bliss Company, Brooklyn, N. Y. Drawing-press. No. 1,132,018; Mar. 16; Gaz. vol. 212; p. 829.

Kloeb, Joseph A., Piqua, Ohio. Gas burner and mixer. No. 1,132,722; Mar. 23; Gaz. vol. 212; p. 1134.

Klumb, Paul, assignor to Globe Foundry & Machine Company, Sheboygan, Wis. Self-feeder for ensilage and silo cutters. No. 1,129,992; Mar. 2; Gaz. vol. 212; p. 54.

Knight, Alfred H., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,131,936; Mar. 16; Gaz. vol. 212; p. 799.

Knight, Alfred W., London, England. Horseshoe-nail. No. 1,131,248; Mar. 9; Gaz. vol. 212; p. 522.

Knight, Earle R., Norwood, Ohio, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Retaining-ring for dynamo-electric machines. No. 1,131,249; Mar. 9; Gaz. vol. 212; p. 522.

Knight, Henry, Tunbridge Wells, England. Device for making cigarettes. No. 1,133,972; Mar. 30; Gaz. vol. 212; p. 1616.

Knight, Margaret E., South Framingham, Mass., assignor to K-D Motor Company. Internal-combustion engine. No. 1,132,858; Mar. 23; Gaz. vol. 212; p. 1186.

Knothe, Emil M. (See Howard and Knothe.)

Knowlton, Annie D., *et al.*, administrators. (See Knowlton, Mark D.)

Knowlton, Charles F., and F. F. Elliott, Pittsburgh, Pa., assignors to The Osborn Manufacturing Company, Cleveland, Ohio. Mold-making machine. No. 1,132,723; Mar. 23; Gaz. vol. 212; p. 1135.

Knowlton, Frederic K., *et al.*, administrators. (See Knowlton, Mark D.)

Knowlton, Mark D., deceased; A. D. and F. K. Knowlton, administrators, Rochester, N. Y. Paper-box-covering machine. No. 1,133,038; Mar. 23; Gaz. vol. 212; p. 1252.

Knox Terpezone Company of America. (See Knox, William J., assignor.)

Knox, William J., New York, N. Y., assignor to Knox Terpezone Company of America. Apparatus for generating ozone. No. 1,130,827; Mar. 9; Gaz. vol. 212; p. 377.

Koch, Adolph H., Los Angeles, Cal. Gas burner and mixer. No. 1,130,984; Mar. 9; Gaz. vol. 212; p. 432.

Koch, Otto C., Bayonne, N. J. Spring-wheel. No. 1,133,973; Mar. 30; Gaz. vol. 212; p. 1616.

Kochevar, Martin J. A., Jr., Pueblo, Colo. Grasshopper-destroyer. No. 1,133,039; Mar. 23; Gaz. vol. 212; p. 1252.

Koehler, Ernest F., Hudson, assignor, by mesne assignments, to E. H. Kingsbury, agent, Marlborough, Mass. Miner's safety-lamp. No. 1,132,522; Mar. 16; Gaz. vol. 212; p. 1013.

Koelzer, William, Auburn, Nebr. Internal-combustion engine. No. 1,132,357; Mar. 16; Gaz. vol. 212; p. 952.

Koerting, Ernst, Pegli, Italy, assignor to Schutte & Koerting Company, Philadelphia, Pa. Automatic boiler-feed apparatus. No. 1,133,040; Mar. 23; Gaz. vol. 212; p. 1253.

Kohl, Elisabeth G., San Mateo, Cal. Combined key-ring and napkin-holder. No. 1,132,859; Mar. 23; Gaz. vol. 212; p. 1186.

Kohnle, Frederick, Dayton, Ohio, assignor, by mesne assignments, to The Monarch Tag Company. Price-tag. No. 1,130,614; Mar. 2; Gaz. vol. 212; p. 271.

Kohout, Emanuel G., New York, N. Y. Garment-hanger. No. 1,132,190; Mar. 16; Gaz. vol. 212; p. 891.

Kolashinske, Andrew J., Glenwood City, Wis. Gate-hinge. No. 1,130,908; Mar. 9; Gaz. vol. 212; p. 406.

Kolb, Frederick W., La Conner, Wash. Means for oiling skids. No. 1,133,439; Mar. 30; Gaz. vol. 212; p. 1429.

Kolb, William F., McDonald, Pa. Valve. No. 1,133,041; Mar. 23; Gaz. vol. 212; p. 1253.

Kolda, James. (See Klimes, Albert, assignor.)

Kollenborn, John L., Kansas City, Mo. Vehicle-canopy. No. 1,130,299; Mar. 2; Gaz. vol. 212; p. 159.

Konsel, John, assignor of one-fourth to F. Blahnik, New York, N. Y. Automatic railway-gate. No. 1,133,974; Mar. 30; Gaz. vol. 212; p. 1617.

Koonce, Oliver, Castor, La. Intermittent-grip device for wire-stretchers. No. 1,132,724; Mar. 23; Gaz. vol. 212; p. 1135.

Koons Oil Furnace Company. (See Smith, Albert D., assignor.)

Kopf, Frederick, Memphis, Tenn. Horseshoe-pad. No. 1,131,064; Mar. 9; Gaz. vol. 212; p. 459.

Kosel, Georg, Meissen, Germany. Closing contrivance for corsets and the like. No. 1,133,479; Mar. 30; Gaz. vol. 212; p. 1442.

Kosinski, Walter A., Chicago, Ill. Slag removing and indicating mechanism for open-hearth furnaces. No. 1,133,975; Mar. 30; Gaz. vol. 212; p. 1617.

Kotkovsky, Benjamin, assignor to The Rapid Button-Attaching Machine Company, Incorporated, New York, N. Y. Button-attaching machine. No. 1,134,078; Mar. 30; Gaz. vol. 212; p. 1652.

Krager, Charles L., Daisy, Tenn. Turpentine-cup support. No. 1,130,300; Mar. 2; Gaz. vol. 212; p. 159.

Krämer, Bernhard, Charlottenburg, Germany, assignor to General Electric Company. Centrifugal governor. No. 1,130,177; Mar. 2; Gaz. vol. 212; p. 116.

Krämer, Bernhard, Charlottenburg, Germany, assignor to General Electric Company. Starting mechanism for high-compression engines. No. 1,131,387; Mar. 9; Gaz. vol. 212; p. 570.

Kramer, Carl H., Berlin, Germany. Cover for sewing-machine tables. No. 1,131,713; Mar. 16; Gaz. vol. 212; p. 717.

Kramer, Christoph A., Spokane, Wash. Party-line listening-in-detecting device. No. 1,130,522; Mar. 2; Gaz. vol. 212; p. 239.

Kranz, William G., Sharon, Pa., assignor to The National Malleable Castings Company, Cleveland, Ohio. Preparing iron for castings. No. 1,132,661; Mar. 23; Gaz. vol. 212; p. 1112.

Krarup, Marius C., New York, N. Y. Aeroplane. No. 1,129,874; Mar. 2; Gaz. vol. 212; p. 14.

Kraus, Edward H., Rahway, N. J. Music-leaf turner. No. 1,132,358; Mar. 16; Gaz. vol. 212; p. 953.

Kraus, James, Kimberly, Wis. Cable-rack. No. 1,133,976; Mar. 30; Gaz. vol. 212; p. 1617.

Krauss, Charles H., assignor to Morrison Frogless Switch Company, Birmingham, Ala. Frogless switch for railways. No. 1,132,779; Mar. 23; Gaz. vol. 212; p. 1156.

Krauth & Benninghofen. (See Krauth, Albert, assignor.)

Krauth, Albert, assignor to Krauth & Benninghofen, Hamilton, Ohio. Printing-press. No. 1,132,191; Mar. 16; Gaz. vol. 212; p. 891.

Krebs, Charles H., Milwaukee, Wis. Cleaning-machine. No. 1,129,875; Mar. 2; Gaz. vol. 212; p. 15.

Krebs, Ferdinand, Pine Bluff, Ark. Separator for cotton-seed-oil mills. No. 1,131,845; Mar. 16; Gaz. vol. 212; p. 768.

Kremer, Franklin W., Carlstadt, N. J. Circular calender-cutter. No. 1,130,909; Mar. 9; Gaz. vol. 212; p. 406.

Kremer, Franklin W., Carlstadt, N. J. Auto tire-bead-wrapping machine. No. 1,132,859; Mar. 16; Gaz. vol. 212; p. 953.

Kress, Jacob A., assignor to The Victor Specialty Company, Canton, Ohio. Weeder. No. 1,131,714; Mar. 16; Gaz. vol. 212; p. 717.

Kress, John, New Rochelle, N. Y. Abrading-machine. No. 1,132,192; Mar. 16; Gaz. vol. 212; p. 892.

Kroboth, Frank J., New York, N. Y. Device for removing snow, ice, and sleet from channels and channel-rails of underground railways. No. 1,130,523; Mar. 2; Gaz. vol. 212; p. 240.

Krocker, Adolf G., Waco, Tex. Ice-breaking machine. No. 1,133,863; Mar. 30; Gaz. vol. 212; p. 1583.

Kroeze, John W., Burlingame, Cal. Sanding-machine. No. 1,134,085; Mar. 30; Gaz. vol. 212; p. 1655.

Kroger, Fred H., Brooklyn, N. Y., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Spark-gap. No. 1,132,589; Mar. 23; Gaz. vol. 212; p. 1085.

Krolikowski, Julian, Chicago, Ill. Fence. No. 1,130,089; Mar. 2; Gaz. vol. 212; p. 86.

Kronfeld, Maxim, New York, N. Y. Bread-slicing machine. No. 1,132,360; Mar. 16; Gaz. vol. 212; p. 954.

Krueger, Joseph W. (See Pruett, William M., assignor.)

Krum, Edwin M., *et al.* (See Way, David R., assignor.)

Krumbein, Elmer E., Womelsdorf, Pa. Dirigible light. No. 1,132,292; Mar. 30; Gaz. vol. 212; p. 1377.

Kruse, Peter, New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Feed mechanism for can-heads. No. 1,133,383; Mar. 30; Gaz. vol. 212; p. 1409.

Kübler, Carl F., Wilmersdorf, Germany. Opening out plants or loosening their fibers. No. 1,131,715; Mar. 16; Gaz. vol. 212; p. 718.

Kuehn, Alfred, Milwaukee, Wis. Spring-mounting for bicycle-wheels. No. 1,130,828; Mar. 9; Gaz. vol. 212; p. 378.

Kuehne, Oscar C. (See Voigt and Kuehne.)

Kuhn, Frank. (See Shallor, Frank E., assignor.)

Kuhn, Frank, Detroit, Mich. Thermostatic electric switch. No. 1,130,985; Mar. 9; Gaz. vol. 212; p. 432.

Kuhn, Frank, Detroit, Mich. Air-heater. No. 1,130,986; Mar. 9; Gaz. vol. 212; p. 432.

Kuhn, Frank, Detroit, Mich. Electrical heater. No. 1,130,987; Mar. 9; Gaz. vol. 212; p. 433.

Kuhner, Herman E., deceased, Oxford, Md.; R. L. Kuhner, executrix. Locking-valve. No. 1,131,065; Mar. 9; Gaz. vol. 212; p. 459.

Kuhner, Rose L., executrix. (See Kuhner, Herman E.)

Kuhns, Howard F., Fullerton, Pa. Operating mechanism. No. 1,133,728; Mar. 30; Gaz. vol. 212; p. 1534.

Kull, Albert L., New Rochelle, assignor to Double Seal Tire Valve Co., New York, N. Y. Tire-valve. No. 1,133,042; Mar. 23; Gaz. vol. 212; p. 1254.

Kunik, Michael, Chicago, Ill. Plow. No. 1,130,524; Mar. 2; Gaz. vol. 212; p. 240.

Kunkel, Otto. (See Huebner and Kunkel.)

Kunkle, John L., McCoysville, Pa. Cow-tail holder. No. 1,131,527; Mar. 9; Gaz. vol. 212; p. 619.

Kunzelman, John R., Duluth, Minn. Auxiliary step for car-platforms. No. 1,133,043; Mar. 23; Gaz. vol. 212; p. 1254.

Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,130,178; Mar. 2; Gaz. vol. 212; p. 117.

Kurtz-Hähnle, Carl, Reutlingen, Germany. Paper-sieve cylinder. No. 1,131,066; Mar. 9; Gaz. vol. 212; p. 460.

Kutnewsky, Frederick H., Malden, Wash. Twine-holder. No. 1,133,157; Mar. 23; Gaz. vol. 212; p. 1294.

Kutschinski, Robert, Kohlhasenbrück, near Berlin, Germany. Combustion-turbine. No. 1,130,090; Mar. 2; Gaz. vol. 212; p. 86.

Kutter, Herman L., assignor to The Black-Clawson Company, Hamilton, Ohio. Paper-drier. No. 1,130,179; Mar. 2; Gaz. vol. 212; p. 117.

Kwiatkowski, Jacob, Winnipeg, Manitoba, Canada. Automobile-fender. No. 1,131,716; Mar. 16; Gaz. vol. 212; p. 718.

L. B. Allen Company. (See Crippen, Stuart S., assignor.)

La Chapelle, Euclid I., Beverly, Mass. Machine for turning and relasting shoes. No. 1,132,479; Mar. 16; Gaz. vol. 212; p. 997.

La Crosse Plow Co. (See Davis, Frank E., assignor.)

La Crosse Plow Company. (See Hirshheimer, Harry J., assignor.)

La Fontaine, Leon, Toronto, Ontario, Canada. Life-boat. No. 1,130,301; Mar. 2; Gaz. vol. 212; p. 160.

Labombarde, Elie W., Nashua, N. H. Adhesive-applying mechanism. No. 1,130,744; Mar. 9; Gaz. vol. 212; p. 349.

Lacene Manufacturing Company. (See Nichols, Elmer P., assignor.)

Lacerda, Harry A., Schenectady, N. Y. Stay-bolt for boilers. No. 1,130,525; Mar. 2; Gaz. vol. 212; p. 241.

Lachman, Laurence S., New York, N. Y. Electrically uniting metallic members. No. 1,133,806; Mar. 30; Gaz. vol. 212; p. 1562.

Lachman Manufacturing Company. (See Lachman, Maurice, assignor.)

Lachman, Maurice, assignor to Lachman Manufacturing Company, New York, N. Y. Laminated board and making same. No. 1,130,410; Mar. 2; Gaz. vol. 212; p. 198.

Lachman, Maurice, assignor to Lachman Manufacturing Company, New York, N. Y. Knockdown container. No. 1,133,293; Mar. 30; Gaz. vol. 212; p. 1377.

Lachman, Maurice, assignor to Universal Electric Welding Company, New York, N. Y. Welded metal-work. No. 1,134,079; Mar. 30; Gaz. vol. 212; p. 1653.

Laclair, Edmund J., Cranston, R. I. Automatic safety device. No. 1,133,480; Mar. 30; Gaz. vol. 212; p. 1442.

Ladd, George T., Pittsburgh, Pa. Water-tube boiler. No. 1,130,745; Mar. 9; Gaz. vol. 212; p. 350.

Ladd, George T., Pittsburgh, Pa. Water-tube boiler. No. 1,130,746; Mar. 9; Gaz. vol. 212; p. 350.

Ladd, Louis E., Providence, R. I. Stud. No. 1,132,662; Mar. 23; Gaz. vol. 212; p. 1113.

Lafferty, Edmund J. (See Dietz, Lafferty, and Bessinger.)

Lagerman, Alexander, Jr., Villa Alexandra, Lerum, and G. H. Lindström, assignors to Aktiebolaget Princeps, Gottenborg, Sweden. Suction device for automatic printing-presses and similar machines. No. 1,133,807; Mar. 30; Gaz. vol. 212; p. 1562.

Laing, Andrew, Newcastle-upon-Tyne, England, Liquid-fuel-fired furnace. No. 1,132,361; Mar. 16; Gaz. vol. 212; p. 954.

Lake, John C. (See Collier, Clyde F., assignor.)

Lally, George W., Boston, Mass. Power-transmission apparatus. No. 1,132,725; Mar. 23; Gaz. vol. 212; p. 1136.

Lamb, Charles I., Nashville, Tenn. Talking-machine attachment. No. 1,130,910; Mar. 9; Gaz. vol. 212; p. 407.

Lamb, James, Canton, Ill. Electric propulsion and control for motor-boats. No. 1,133,977; Mar. 30; Gaz. vol. 212; p. 1617.

Lamont, Alexander D. (See Wesley and Lamont.)

Lampman, Albert F. (See Greene, Philip S., assignor.)

Lamson Company, The. (See Jennings, Chester S., assignor.)

Lamson Company, The. (See Maclaren, James G., assignor.)

Lamson Company, The. (See Miller, Charles J., assignor.)

Lamson Company, The. (See Thompson, Clement E., assignor.)

Lamson Company, The. (See Wilson, Harry L., assignor.)

Lancaster, Lewis M., Philadelphia, Pa. Combined compression cock and drain. No. 1,133,566; Mar. 30; Gaz. vol. 212; p. 1475.

Lance, Theodore D., Butte, Mont. Miner's candlestick. No. 1,131,528; Mar. 9; Gaz. vol. 212; p. 619.

Landers, Albert W. (See Andrew and Landers.)

Landers, Frary & Clark. (See Carlson, Frederick E., assignor.)

Landers, Frary & Clark. (See Walker, George, assignor.)

Landgrebe, Karl, Ensley, Ala. Twyer-cap. No. 1,129,993; Mar. 2; Gaz. vol. 212; p. 54.

Landis, Frank F., Waynesboro, Pa. Program-clock apparatus. No. 1,130,091; Mar. 2; Gaz. vol. 212; p. 87.

Landis, Frank F., Waynesboro, Pa. Electric clock. No. 1,130,092; Mar. 2; Gaz. vol. 212; p. 87.

Landis Machine Company. (See Fisher, Henry L., assignor.)

Landis Machine Company. (See Nunn, Orion W., assignor.)

Landreth, Clarence P., Philadelphia, Pa. Treating liquid. No. 1,131,067; Mar. 9; Gaz. vol. 212; p. 460.

Landry, Rosamond L., Houston Heights, Tex. Combined hose-reel and valve. No. 1,132,590; Mar. 23; Gaz. vol. 212; p. 1085.

Lang, William C., Cleveland, Ohio. Mold-making machine. No. 1,131,145; Mar. 9; Gaz. vol. 212; p. 486.

Lange, Felix. (See Balch and Lange.)

Langford, Jeremiah E., Salt Lake City, Utah. Railway-tie and rail-grip. No. 1,131,388; Mar. 9; Gaz. vol. 212; p. 570.

Langseth, Randolph, assignor, by mesne assignments, to Automatic Justifier Company, Hammond, Ind. Page compressor and justifier. No. 1,130,829; Mar. 9; Gaz. vol. 212; p. 378.

Langston, Samuel M., Camden, N. J. Slitter and rewinder. No. 1,131,146; Mar. 9; Gaz. vol. 212; p. 487.

Langton, Herbert. (See Smith and Langton.)

Lanham, James H., assignor to A. W. Watters, Rome, Ga. Cotton-chopper. No. 1,133,044; Mar. 23; Gaz. vol. 212; p. 1254.

Lanier, Jeremiah U., and J. W. Newsom, Newsom, N. C. Nut-lock. No. 1,132,193; Mar. 16; Gaz. vol. 212; p. 892.

Lanigan, James A., Lancaster, and D. J. Carson, Buffalo, N. Y. Feeding and stoking attachment for furnaces. No. 1,130,411; Mar. 2; Gaz. vol. 212; p. 198.

Lanning, Charles D., Boston, Mass. Telephone reinforcing-circuit. No. 1,131,250; Mar. 9; Gaz. vol. 212; p. 522.

Lanning, Charles D., Boston, Mass. Means for controlling direct currents. No. 1,131,251; Mar. 9; Gaz. vol. 212; p. 523.

Lanning, James K. (See Goodwin and Cheetham, assignors.)

Lape, Edmund R. (See Bell and Lape.)

Lape, William L., Markleton, Pa. Container. No. 1,130,988; Mar. 9; Gaz. vol. 212; p. 433.

Lapertot, Pierre. (See Paturel and Lapertot.)

Larrabee, Clinton E., Binghamton, assignor to International Time Recording Company of New York, Endicott, N. Y. Time-recorder for vehicles. No. 1,133,045; Mar. 23; Gaz. vol. 212; p. 1255.

Larson, Frank W., Hartford, Conn. Bit-stock. No. 1,133,046; Mar. 23; Gaz. vol. 212; p. 1255.

Larson, Henry A., assignor of one-half to C. T. Johnson, Jamestown, N. Y. Folding lunch-box. No. 1,131,638; Mar. 9; Gaz. vol. 212; p. 658.

Latham, Albert, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cutting-machine. No. 1,129,876; Mar. 2; Gaz. vol. 212; p. 15.

Latham Machinery Company. (See Weber, Henry, assignor.)

Laughlin, Elmyr A., Chicago, Ill. Side bearing. No. 1,131,252; Mar. 9; Gaz. vol. 212; p. 523.

Laughlin, Elmyr A., Chicago, Ill. Side bearing. No. 1,133,294; Mar. 30; Gaz. vol. 212; p. 1378.

Laurin, Laurentius, Lysekil, Sweden. Internal-combustion engine. No. 1,130,526; Mar. 2; Gaz. vol. 212; p. 241.

Laursen, Laurits A., Eau Claire, Wis. Piston-packing. No. 1,130,615; Mar. 2; Gaz. vol. 212; p. 271.

Lawless, William, Quenemo, Kans. Washboard-clamp. No. 1,132,362; Mar. 16; Gaz. vol. 212; p. 955.

Lawley, Henry V., *et al.* (See Stow, Percival E., assignor.)

Lawrence, John R., assignor of one-half to J. C. Clark, Sarnia, Ontario, Canada. Screening attachment for coal-wagons. No. 1,129,994; Mar. 2; Gaz. vol. 212; p. 55.

Lawrenson, Judge P., and C. H. King, Palestine, Tex. Tire tightener or expander. No. 1,133,864; Mar. 30; Gaz. vol. 212; p. 1583.

Lawrence, William, and G. Scott, Hot Springs, Ark. Canning apparatus. No. 1,132,726; Mar. 23; Gaz. vol. 212; p. 1136.

Lawson, Sherman S., Chicago, Ill. Feed-water heater. No. 1,130,412; Mar. 2; Gaz. vol. 212; p. 199.

Layne, Mahlon E., and S. N. Hall, Houston, Tex. Hydraulic swivel. No. 1,133,295; Mar. 30; Gaz. vol. 212; p. 1378.

Le Doux, Andrew P., Sultan, Wash. Car-derailing device. No. 1,132,780; Mar. 23; Gaz. vol. 212; p. 1157.

Le Van, Aaron H., Los Angeles, Cal. Shell. No. 1,134,080; Mar. 30; Gaz. vol. 212; p. 1653.

Leach, Felix, Allenfarm, Tex. Safety railway-switch. No. 1,133,865; Mar. 30; Gaz. vol. 212; p. 1583.

Lea Francisco G. P., New York, N. Y. Apparatus for dehydrating or desiccating air for industrial purposes. No. 1,132,194; Mar. 16; Gaz. vol. 212; p. 892.

Leary, Harry B., Washington, D. C. Collapsible crate. No. 1,133,048; Mar. 30; Gaz. vol. 212; p. 1505.

Leask, Henry N., Egremont, England. Charging-doors for furnaces. No. 1,133,978; Mar. 30; Gaz. vol. 212; p. 1618.

Leathem, James, Lebanon, Pa., assignor to H. Aukam & Co., New York, N. Y. Sewing-machine. No. 1,130,093; Mar. 2; Gaz. vol. 212; p. 88.

Leathers, A. C. (See Cooke, Clarence C., assignor.)

Leaver, William, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Combined drop and jack. No. 1,131,389; Mar. 9; Gaz. vol. 212; p. 570.

Leavitt, Harry W., Waterloo, Iowa. Tractor. No. 1,132,363; Mar. 16; Gaz. vol. 212; p. 955.

Lebowich, Louis A., Boston, Mass. Filing-case. No. 1,134,052; Mar. 30; Gaz. vol. 212; p. 1643.

Lederer, Anton, Atzgersdorf, near Vienna, Austria-Hungary. Manufacture of incandescent filaments of metallic tungsten or molybdenum for electric incandescent lamps. No. 1,132,523; Mar. 16; Gaz. vol. 212; p. 1014.

Lee, Anderson, Salt Lake City, Utah. Rake-cleaner. No. 1,133,729; Mar. 30; Gaz. vol. 212; p. 1534.

Lee, Frank A. (See Cooper, Lee, and Meyer.)

Lee, Frank A., Cincinnati, Ohio, R. W. Cooper, Dayton, and R. J. Meyer, Pineville, Ky.; said Lee and said Cooper assignors to The John Church Company, Cincinnati, Ohio. Player-piano. No. 1,131,390; Mar. 9; Gaz. vol. 212; p. 571.

Lee, Frank A., Cincinnati, Ohio, R. W. Cooper, Dayton, and R. J. Meyer, Pineville, Ky.; said Lee and said Cooper assignors to The John Church Company, Cincinnati, Ohio. Player-piano. No. 1,131,470; Mar. 9; Gaz. vol. 212; p. 599.

Lee, John A., Brigham, Utah. Clip-board shield. No. 1,133,979; Mar. 30; Gaz. vol. 212; p. 1618.

Lee, John W. (See Kintner and Lee.)

Lee, Waldo J., Munson, Alberta, Canada. Cotton-harvester. No. 1,132,102; Mar. 16; Gaz. vol. 212; p. 858.

Leeds, Morris E., assignor to The Leeds & Northrup Company, Philadelphia, Pa. Electrical measuring apparatus. No. 1,132,591; Mar. 23; Gaz. vol. 212; p. 1086.

Leeds & Northrup Company, The. (See Leeds, Morris E., assignor.)

Lees Button Co., The. (See Lees, George C., assignor.)

Lees, George C., Shelton, Conn., assignor to The Lees Button Co., Leominster, Mass. Automatic feed for punching-machines. No. 1,133,649; Mar. 30; Gaz. vol. 212; p. 1505.

Leffler, Anna A., administratrix. (See Leffler, Paul W.)

Leffler Electric System. (See Leffler, Paul W., assignor.)

Leffler, Paul W., deceased; A. A. Leffler, administratrix, assignor to Leffler Electric System, Chicago, Ill. Combined electric railway and signal system. No. 1,131,717; Mar. 16; Gaz. vol. 212; p. 718.

Leffler, Paul W., deceased.; A. A. Leffler, administratrix, assignor to Leffler Electric System, Chicago, Ill. Electric-railway system. No. 1,133,296; Mar. 30; Gaz. vol. 212; p. 1378.

Leftwich, Charles W., *et al.* (See Miller, Henry M., assignor.)

Legge, Alfred G., Brockton, Mass. Shoe-form. No. 1,130,302; Mar. 2; Gaz. vol. 212; p. 160.

Lego, James C., Lima, Ohio. Underreamer. No. 1,133,481; Mar. 30; Gaz. vol. 212; p. 1443.

Legrand, Emile G., Ste. Andresse, France. Precipitating copper-ammonia solutions of cellulose for the purpose of manufacturing artificial-silk threads or similar products. No. 1,130,830; Mar. 9; Gaz. vol. 212; p. 378.

Leicht, Albert, Sheboygan, Wis. Pencil-sharpener. No. 1,131,529; Mar. 9; Gaz. vol. 212; p. 619.

Leighty, Julia J., Geddes, S. D. Folding cabinet. No. 1,133,866; Mar. 30; Gaz. vol. 212; p. 1584.

Leisch, Joseph, Tryon, N. C., assignor to The John Church Company, Cincinnati, Ohio. Pneumatic motor for piano-players. No. 1,131,391; Mar. 9; Gaz. vol. 212; p. 571.

Leisel, Albert, Newburgh, N. Y. Machine for doubling fabrics. No. 1,133,440; Mar. 30; Gaz. vol. 212; p. 1429.

Leland, Henry G., East Boston, Mass. Violin-mold. No. 1,133,482; Mar. 30; Gaz. vol. 212; p. 1443.

Lemon, Thomas K., Arverne, N. Y. Valve. No. 1,130,989; Mar. 9; Gaz. vol. 212; p. 433.

Lennon, William F., Willimantic, Conn. Headlight attachment. No. 1,130,180; Mar. 2; Gaz. vol. 212; p. 118.

Lentz, Hugo, Berlin-Halensee, Germany. Valve. No. 1,133,650; Mar. 30; Gaz. vol. 212; p. 1505.

Lentz, Hugo, Grunewald, near Berlin, Germany. Means for controlling fluid-transmission gear. No. 1,133,867; Mar. 30; Gaz. vol. 212; p. 1584.

Leonard, Elof R., Woodcliff, N. J. Skylight. No. 1,133,384; Mar. 30; Gaz. vol. 212; p. 1410.

Leopold, George O. (See Fegley and Leopold.)

Levedahl, Axel, Aurora, assignor to Aurora Automatic Machinery Company, Chicago, Ill. Automatic shut-off device. No. 1,133,483; Mar. 30; Gaz. vol. 212; p. 1443.

Levin, Nils D., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Locomotive. No. 1,132,727; Mar. 23; Gaz. vol. 212; p. 1136.

Levis, John H., Jr., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Manual-call-distributing system. (Reissue.) No. 13,890; Mar. 9; Gaz. vol. 212; p. 663.

Levy, Edward D., Springfield, Mo. Composite freight-car. No. 1,132,195; Mar. 16; Gaz. vol. 212; p. 893.

Levy, Firm of Henri. (See Niggli, August, assignor.)

Levy, Henry. (See Wolter, Josef, assignor.)

Lewis, Arthur P., assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Selvage-cutter. No. 1,133,297; Mar. 30; Gaz. vol. 212; p. 1379.

Lewis, Harold C., East Rockaway, N. Y. Tree-removing machine. No. 1,131,392; Mar. 9; Gaz. vol. 212; p. 571.

Lewis, Harry C. (See Mace, William W., assignor.)

Lewis, John G., St. Louis, Mo. Hem or seam for sewed articles. No. 1,133,808; Mar. 30; Gaz. vol. 212; p. 1563.

Lewis, John G., St. Louis, Mo. Seam for sewed articles. No. 1,133,809. Mar. 30; Gaz. vol. 212; p. 1563.

Lewis, Wilfred, Philadelphia, Pa. Manufacture of sawteeth. No. 1,132,592; Mar. 23; Gaz. vol. 212; p. 1086.

Lichtner, Albert, New York, N. Y. Skirt-marking device. No. 1,131,253; Mar. 9; Gaz. vol. 212; p. 523.

Lidgerwood Manufacturing Company. (See Rankin, William J. A., assignor.)

Liebig, Reuben J., and E. Anderson, St. Paul, Minn. Glass-washing device. No. 1,132,728; Mar. 23; Gaz. vol. 212; p. 1137.

Lightfoot, Alfred, Williamsport, Pa. Brush. No. 1,131,068; Mar. 9; Gaz. vol. 212; p. 460.

Lile, Clarence, Granite City, Ill. Chewing-gum package. No. 1,132,781; Mar. 23; Gaz. vol. 212; p. 1157.

Lile, Milton M. (See Restorff and Lile.)

Limburg, Christian, and W. D. Segelhorst, Pittsburgh, Pa. Ventilating apparatus. No. 1,133,047; Mar. 23; Gaz. vol. 212; p. 1255.

Limer, Frank, McWhorter, W. Va. Claw-bar. No. 1,131,393; Mar. 9; Gaz. vol. 212; p. 572.

Lincoln, William S., and J. F. Whitt, Nickerson, Kans. Furnace. No. 1,129,995; Mar. 2; Gaz. vol. 212; p. 55.

Lindau, Charles I., Pearce, Ariz. Burner. No. 1,131,718; Mar. 16; Gaz. vol. 212; p. 719.

Lindegard, Charles H., Cleveland, Ohio. Ball-holder for kettles. No. 1,133,298; Mar. 30; Gaz. vol. 212; p. 1379.

Lindholm, Carl W. (See Kent and Lindholm.)

Lindley, Otto. (See Cook and Lindley.)

Lindner, Frank H., Bloomfield, N. J. Grinder. No. 1,132,196; Mar. 16; Gaz. vol. 212; p. 893.

Lindsay, Charles F., Fairfield, and W. R. Hibbard, assignors to Union Metallic Cartridge Company, Bridgeport, Conn. Waterproofing paper tubes. No. 1,130,303; Mar. 2; Gaz. vol. 212; p. 160.

Lindsay, Charles F., Fairfield, and F. H. Maloney, assignors to Union Metallic Cartridge Company, Bridgeport, Conn. Making and waterproofing paper tubes. No. 1,130,304; Mar. 2; Gaz. vol. 212; p. 161.

Lindsay, William G., New York, N. Y., assignor to The Celluloid Company. Non-inflammable acetyl-cellulose composition. No. 1,133,385; Mar. 30; Gaz. vol. 212; p. 1410.

Lindström, Gustaf H. (See Lagerman and Lindström.)

Linotype and Machinery Limited. (See Parker, Thomas R. G., assignor.)

Linton, Anne. (See Linton, Elizabeth and A.)

Linton, Elizabeth and A., Philadelphia, Pa. Clamp. No. 1,132,364; Mar. 16; Gaz. vol. 212; p. 955.

Lintz, J. Fetzer, *et al.* (See Maness, John M., assignor.)

Lithotex Corporation. (See Holst and Chouinard, assignors.)

Lithotex Corporation. (See Motley and Chouinard, assignors.)

Lithotex Corporation. (See Pilkington, Herbert M., assignor.)

Little, Thomas J., Jr., Woodbury, assignor to Welsbach Light Company, Gloucester City, N. J. Cluster incandescent lamp. No. 1,132,365; Mar. 16; Gaz. vol. 212; p. 955.

Littauer, Lucius N. (See Dahl, Harry J., assignor.)

Live Leather Belt Co. (See Helmann, Leon, assignor.)

Livesay, John M., Ronceverte, W. Va. Auto-spring. No. 1,131,530; Mar. 9; Gaz. vol. 212; p. 619.

Livingston, Andrew W., assignor to Standard Steel Wheel and Tire Armor Company, Oakland, Cal. Vehicle wheel-hub. No. 1,133,158; Mar. 23; Gaz. vol. 212; p. 1294.

Livingston, Fred N., Seattle, Wash. Pump. No. 1,133,980; Mar. 30; Gaz. vol. 212; p. 1618.

Livingston, Robert D., Des Moines, Iowa. Switch mechanism for railways. No. 1,132,860; Mar. 23; Gaz. vol. 212; p. 1186.

Ljungström, Birger, Stockholm, assignor to Aktiebolaget Ljungströms Ångturbin, Liljeholmen, Sweden. Toothed gearing for steam-turbines. No. 1,130,748; Mar. 9; Gaz. vol. 212; p. 351.

Lloyd, Ernest E., Missoula, Mont. Wagon-seat. No. 1,132,948; Mar. 23; Gaz. vol. 212; p. 1219.

Lloyd, Ernest F., Detroit, Mich. Mercury-loader. No. 1,132,593; Mar. 23; Gaz. vol. 212; p. 1087.

Lloyd, Ernest F., Detroit, Mich. Apparatus for recovering sulfur and ammonia from gas. No. 1,132,594; Mar. 23; Gaz. vol. 212; p. 1087.

Lloyd, Harry S. (See Bullock and Lloyd.)

Lloyd, Henry, Lexington, Ky. Barrel-hoop. No. 1,130,413; Mar. 2; Gaz. vol. 212; p. 199.

Lobodzinski, Zdzisław. (See Tomassi and Lobodzinski.)

Lock, John R., Fellows, assignor to A. Wark, Bakersfield, Cal. Oil-well capper. No. 1,130,181; Mar. 2; Gaz. vol. 212; p. 118.

Lockart, Havard L., Philadelphia, Pa. Apparatus for preventing railway accidents. No. 1,130,414; Mar. 2; Gaz. vol. 212; p. 199.

Lockett, John E., Brownsville, Tenn. Wire-stretcher. No. 1,131,937; Mar. 16; Gaz. vol. 212; p. 799.

Locomotive Stocker Company, The. (See Street, Clement F., assignor.)

Locomotive Superheater Company. (See Casey, William F. J., assignor.)

Loeffler, Charles W., Solon township, Leelanau county, Mich. Tractor. No. 1,131,394; Mar. 9; Gaz. vol. 212; p. 572.

Loeffler, John, Evansville, Ind. Suspender-button and drawers-hook. No. 1,132,595; Mar. 23; Gaz. vol. 212; p. 1087.

Loesch, William, assignor of forty one-hundredths to G. B. Storer, Chicago, Ill. Fuel-briquet composition for iron-ore reduction. No. 1,131,531; Mar. 9; Gaz. vol. 212; p. 620.

Loewenbach, Erwin B., and C. M. Hunter, assignors to E. B. L. Shoe Mfg. Co., Milwaukee, Wis. Shoe. No. 1,130,305; Mar. 2; Gaz. vol. 212; p. 161.

Lowenthal, Marcus, New York, N. Y. Picture-frame. No. 1,132,368; Mar. 16; Gaz. vol. 212; p. 956.

Lofton, Herbert M., Chattanooga, Tenn. Meter-box. No. 1,133,386; Mar. 30; Gaz. vol. 212; p. 1410.

Logan, John A., *et al.* (See Bourke, Martin, assignor.)

Logan, Robert J., St. John, New Brunswick, Canada. Chemical fire-extinguisher. No. 1,132,596; Mar. 23; Gaz. vol. 212; p. 1088.

Loggie, James A. (See Bell, John W., assignor.)

Lomason, Harry A., Detroit, Mich. Coach-hinge. No. 1,129,877; Mar. 2; Gaz. vol. 212; p. 15.

Long, August. (See Carter, Jonas, assignor.)

Long, Charles F., and A. B. Hersman, Los Angeles, Cal. Concrete-form construction. No. 1,134,051; Mar. 30; Gaz. vol. 212; p. 1643.

Long, Chester D., Winchester, Ark. Convertible draft appliance. No. 1,133,981; Mar. 30; Gaz. vol. 212; p. 1619.

Long, Don E., Peabody, Kans. Double-row cultivator. No. 1,132,480; Mar. 16; Gaz. vol. 212; p. 997.

Long, George A., Scranton, Pa. Ball-joint. No. 1,132,367; Mar. 16; Gaz. vol. 212; p. 956.

Longman, Charles A., and J. C. Minshall, Logan, Iowa. Child's and toy wagon. No. 1,131,254; Mar. 9; Gaz. vol. 212; p. 524.

Loomis, Allen, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,131,395; Mar. 9; Gaz. vol. 212; p. 572.

Loomis, Jacob, Wheeling, W. Va. Hot-mill roll. No. 1,130,911; Mar. 9; Gaz. vol. 212; p. 407.

Lopez, Arthur, New York, N. Y., assignor to The Hammond Typewriter Co. Type-shifting attachment for type-writing machines. No. 1,131,640; Mar. 9; Gaz. vol. 212; p. 659.

Lord, Albert L., and B. W. Brockett, assignors to The Guggenheim Laundry Machinery Company, Cleveland, Ohio. Ironing-press. No. 1,130,415; Mar. 2; Gaz. vol. 212; p. 200.

Lord, W. M. (See Hall, John A., assignor.)

Lorenc, Victor. (See Lorenc, Vladimir and V.)

Lorenc, Vladimir and V., Paris, France. Device for propelling aerial machines. No. 1,132,368; Mar. 16; Gaz. vol. 212; p. 956.

Lorenz, Charley O., Port Arthur, Tex. Inductance device for wireless electrical signaling. No. 1,133,441; Mar. 30; Gaz. vol. 212; p. 1430.

Lorenz, Friedrich, Wildau, near Berlin, Germany, assignor to T. P. Kingsford and V. K. Higgins, Oswego, N. Y. Balancing device for centrifugal pumps, turbines, blowers, and the like. No. 1,130,616; Mar. 2; Gaz. vol. 212; p. 271.

Lorenz, Rudolf. (See Reiter, Rudolf, assignor.)

Lorimer, George W., Piqua, assignor to Sand Mixing Machine Company, Greenfield, Ohio. Automatic take-up reel. No. 1,131,069; Mar. 9; Gaz. vol. 212; p. 461.

Lott, Charles W., and J. J. Helman, Center, Colo. Combination garden hoe and rake. No. 1,133,159; Mar. 23; Gaz. vol. 212; p. 1295.

Lotz, Henry, Lawrence, Mass. Device for raising sunken vessels. No. 1,133,160; Mar. 23; Gaz. vol. 212; p. 1295.

Louisiana Nut and Machine Company. (See Williams, Dick B., assignor.)

Love, Charles A. (See Wood, James E., assignor.)

Love, James A., Red Spring, N. C. Automatic train-stop device. No. 1,130,990; Mar. 9; Gaz. vol. 212; p. 434.

Lovell Manufacturing Company. (See Robertson, William, assignor.)

Lovell-McConnell Manufacturing Company. (See Hutchison, Miller R., assignor.)

Lowe, Edward T., Sr., *et al.* (See Wood, Halbert M., assignor.)

Lowe, Elijah J., Joaquin, Tex. Wire-stretcher. No. 1,131,846; Mar. 16; Gaz. vol. 212; p. 768.

Lowe, John E., Good Hope, Ill. Measuring-pump. No. 1,130,912; Mar. 9; Gaz. vol. 212; p. 407.

Löwenstein, Karl, Prinz zu Kleingemund, near Neckargemünd, Germany. Means for packing the working parts of rotary engines. No. 1,133,982; Mar. 30; Gaz. vol. 212; p. 1619.

Lowrey, Frederick C., River Forest, Ill. Prepared roofing. No. 1,134,086; Mar. 30; Gaz. vol. 212; p. 1655.

Lowry, Frank, assignor to The Ohio Grease Company, Loudonville, Ohio. Drop-feed lubricator. No. 1,131,396; Mar. 9; Gaz. vol. 212; p. 573.

Lowry, Frank, Steubenville, assignor to The Ohio Grease Company, Loudonville, Ohio. Grease lubricator. No. 1,131,639; Mar. 9; Gaz. vol. 212; p. 659.

Lozano, Antonio, Corpus Christi, Tex. Liquid and gaseous fuel burner. No. 1,130,747; Mar. 9; Gaz. vol. 212; p. 350.

Lucas, Henry J., Whitestone, N. Y. Garbage-can. No. 1,131,847; Mar. 16; Gaz. vol. 212; p. 768.

Lucker, Frederick L., Brooklyn, and A. O. Carpenter, Corning, N. Y., assignors to Ingersoll-Rand Company, Jersey City, N. J. Regulating device for motor-driven compressors. No. 1,129,878; Mar. 2; Gaz. vol. 212; p. 16.

Ludlow Typograph Company, The. (See Reade and Cromwell, assignors.)

Ludwig Hupfeld Aktiengesellschaft. (See Hennig, Gustav K., assignor.)

Luellen, Lawrence W., Mountain Lakes, N. J. Dispensing apparatus. No. 1,131,255; Mar. 9; Gaz. vol. 212; p. 524.

Luginbuhl, Elias, Norwood, Ohio. Steam-engine. No. 1,132,782; Mar. 23; Gaz. vol. 212; p. 1158.

Lumsden, Thomas, Gateshead, England. Tool-holder for tool-grinding machines. No. 1,133,651; Mar. 30; Gaz. vol. 212; p. 1506.

Lund, Thomas, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Compressing-machine. No. 1,130,749; Mar. 9; Gaz. vol. 212; p. 351.

Lund, Thomas, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Woodworking-machine. No. 1,131,719; Mar. 16; Gaz. vol. 212; p. 719.

Lundahl, Fred A., Moline, Ill. Baling-machine. No. 1,133,048; Mar. 23; Gaz. vol. 212; p. 1256.

Lundin, Andreas P., New York, N. Y. Heat-insulating structure. No. 1,133,299; Mar. 30; Gaz. vol. 212; p. 1379.

Lunger, Waldo G., assignor to American Shop Equipment Co., Chicago, Ill. Furnace. No. 1,130,306; Mar. 2; Gaz. vol. 212; p. 161.

Lunnie, William. (See Button, William N., assignor.)

Lunsford, Blanton S., Columbus, assignor of one-half to G. W. Roberts, Muscogee county, Ga. Farm-gate. No. 1,133,246; Mar. 23; Gaz. vol. 212; p. 1324.

Luther, Clarence J., assignor to Luther Grinder Manufacturing Company, Milwaukee, Wis. Honing implement for chisels, &c. No. 1,132,663; Mar. 23; Gaz. vol. 212; p. 1113.

Luther Grinder Manufacturing Company. (See Luther, Clarence J., assignor.)

Luther, William M., Spokane, Wash. Fruit-evaporator. No. 1,132,019; Mar. 16; Gaz. vol. 212; p. 830.

Luther, William M., Spokane, Wash. Fruit-evaporator. No. 1,132,020; Mar. 16; Gaz. vol. 212; p. 830.

Lutz, Franklin, Ada, assignor of one-half to W. J. Schwenck, Bucyrus, Ohio. Trace-eye. No. 1,131,397; Mar. 9; Gaz. vol. 212; p. 573.
Lutz, William D., Allendale borough, assignor to Otis Elevator Company, Jersey City, N. J. Electromagnet. No. 1,132,783; Mar. 23; Gaz. vol. 212; p. 1158.
Lyman Gun Sight Corporation, The. (See Barnes, George L., assignor.)
Lyman Gun Sight Corporation, The. (See Grant, David, assignor.)
Lynch, Chester L. (See Joslyn and Lynch.)
Lynch, Harry W. (See Pierson and Lynch.)
Lynes, Jackson, Warsaw, Mo. Stovepipe-holder. No. 1,133,983; Mar. 30; Gaz. vol. 212; p. 1619.
Lynn, Ernest, Beaver Falls, Pa. Making metal reeds for wind instruments. No. 1,133,868; Mar. 30; Gaz. vol. 212; p. 1584.
Lytle, John M., Baltimore, Md. Switch-operating device. No. 1,133,730; Mar. 30; Gaz. vol. 212; p. 1534.
Lytton, Edward, London, England. Film and like reel mechanism. No. 1,132,369; Mar. 16; Gaz. vol. 212; p. 957.

M. Rumely Company. (See Baker, Byron G., assignor.)
M. Rumely Company. (See Whitworth, Charles S., assignor.)
M. Schulz Co. (See Gustafson, Adolph P., assignor.)
M. A. Donohue & Co. (See Ralph, George H., assignor.)
M. D. Knowlton Company. (See Hawkins, Edward M., assignor.)
MacCallum, Alonzo R., and M. H. Eggleston, Spokane, Wash., assignors to Interstate Silo Company. Silo. No. 1,130,307; Mar. 2; Gaz. vol. 212; p. 161.
MacFarlane, Oliver P. (See Arcus, Charles R., assignor.)
MacGregor, Peter G., New York, N. Y., assignor to P. G. MacGregor, E. M. Davidson, and P. L. Wilbur. Contact-oiler. No. 1,130,750; Mar. 9; Gaz. vol. 212; p. 351.
MacLean, Fredrick F., Syracuse, N. Y. Headlight. No. 1,130,002; Mar. 2; Gaz. vol. 212; p. 57.
MacPherson, John G., Philadelphia, assignor to J. C. Baird, Washington, Pa. Clutch mechanism. No. 1,131,401; Mar. 9; Gaz. vol. 212; p. 575.
Macbeth, George, Liverpool, England. Cash-register. No. 1,130,182; Mar. 2; Gaz. vol. 212; p. 119.
Macdonald, John W. F., Boston, Mass. Furnace-grate. No. 1,130,308; Mar. 2; Gaz. vol. 212; p. 162.
Mace, Arthur T., East Cleveland, Ohio. Sewing-machine. No. 1,130,309; Mar. 2; Gaz. vol. 212; p. 162.
Mace, William W., assignor of one-half to H. C. Lewis, Portland, Oreg. Sanitary-drinking-cup attachment. No. 1,133,871; Mar. 30; Gaz. vol. 212; p. 1585.
Macfadden, Bernarr, London, England. Railway system. No. 1,133,734; Mar. 30; Gaz. vol. 212; p. 1536.
Machinery & Specialty Company, The. (See Faist, William O., assignor.)
Mack, Ernest U., Florence, S. C. Rotary steam-engine. No. 1,133,988; Mar. 30; Gaz. vol. 212; p. 1621.
Mackin, John, Brooklyn, N. Y. Bed. No. 1,131,147; Mar. 9; Gaz. vol. 212; p. 487.
Mackintosh, Edward D., assignor of one-half to S. S. Hepworth Company, New York, N. Y. Centrifugal-machine. No. 1,133,811; Mar. 30; Gaz. vol. 212; p. 1564.
Mackintosh, Hemphill & Co. (See Fawell, Joseph E., assignor.)
Macklin, Harry J. (See Beadman and Macklin.)
Maclaren, James G., Harrison, N. Y., assignor to The Lamson Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 1,133,812; Mar. 30; Gaz. vol. 212; p. 1564.
Maclaurin, Robert, Stirling, Scotland. Manufacture of various products from bituminous fuel. No. 1,130,001; Mar. 2; Gaz. vol. 212; p. 57.
Macomber, Samuel M., Stockton, Cal. Sound-modifier. No. 1,132,729; Mar. 23; Gaz. vol. 212; p. 1137.
Madell, Frederick J., Newark, N. J. Adjustable clamping device. No. 1,130,831; Mar. 9; Gaz. vol. 212; p. 378.
Madson, Andrew, Salt Lake City, Utah. Tenoning-head. No. 1,130,913; Mar. 9; Gaz. vol. 212; p. 407.
Mafam Motor-Apparate G. m. b. H. (See Fischer, Richard, assignor.)
Magee, James, 2d. (See McCollum, Alfred F., assignor.)
Magnus, John, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and recording machine. No. 1,131,849; Mar. 16; Gaz. vol. 212; p. 708.
Magrane, Robert, New York, assignor to Anchor Cap & Closure Corporation, Brooklyn, N. Y. Sealing-machine. No. 1,134,070; Mar. 30; Gaz. vol. 212; p. 1649.
Magron, Henri, Fos, Haute-Garonne, France. Cooling electric furnaces by air. No. 1,131,609; Mar. 9; Gaz. vol. 212; p. 647.
Maher, James, East Liverpool, Ohio. Accounting means. No. 1,130,832; Mar. 9; Gaz. vol. 212; p. 379.
Mahlstedt, John F., Los Angeles, Cal. Printing-machine. No. 1,130,991; Mar. 9; Gaz. vol. 212; p. 434.
Mahon, William L. E., Ann Arbor, Mich. Excavating-dipper tooth. No. 1,133,234; Mar. 23; Gaz. vol. 212; p. 1319.
Mahoney, Joseph N., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,132,786; Mar. 23; Gaz. vol. 212; p. 1159.
Maidens, George F., Columbus, Ohio. Push crumb-tray. No. 1,132,951; Mar. 23; Gaz. vol. 212; p. 1219.
Mainardi, Angelo, S., and H., assignors of one-fifth to J. Mainardi and one-fifth to V. Mainardi, Paterson, N. J. Train-stopping system. No. 1,131,536; Mar. 9; Gaz. vol. 212; p. 621.
Mainardi, Henry. (See Mainardi, Angelo, S., and H.)
Mainardi, John, *et al.* (See Mainardi, Angelo, S., and H., assignors.)
Mainardi, Severino. (See Mainardi, Angelo, S., and H.)
Mainardi, Vittorio, *et al.* (See Mainardi, Angelo, S., and H., assignors.)
Maker, John A., Duluth, Minn. Disk-holder. No. 1,130,914; Mar. 9; Gaz. vol. 212; p. 408.
Makin, Benjamin. (See Denley and Makin.)
Malm, Axel C. V., L. Rauh, and C. R. Aker, assignors to The Egry Register Company, Dayton, Ohio. Manifolding device for type-writing machines. No. 1,130,751; Mar. 9; Gaz. vol. 212; p. 351.
Malone, William H., and R. S. Jenkins, Fort Myers, Fla. Flower-pot. No. 1,133,735; Mar. 30; Gaz. vol. 212; p. 1536.
Maloney, Frank H. (See Lindsay and Maloney.)
Malvisi, Ugo, Turin, Italy. Spring-grip dumb-bell and exerciser. No. 1,130,620; Mar. 2; Gaz. vol. 212; p. 272.
Maly, Frank C. (See Donat, Charles J., assignor.)
Mandelartz, Ludwig, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Combined sighting device and automatic projectile-releaser for air-vehicles. No. 1,130,621; Mar. 2; Gaz. vol. 212; p. 272.
Mandeville, Albert, Ware, Mass. Shuttle bobbin-holder. No. 1,132,664; Mar. 23; Gaz. vol. 212; p. 1113.
Manoss, John M., Ellerbe, assignor of one-third to J. F. Lintz and one-third to R. B. Napier, Richmond county, N. C. Gas-engine attachment. No. 1,133,872; Mar. 30; Gaz. vol. 212; p. 1586.
Manhattan Electrical Supply Company. (See Peterson, Johann G., assignor.)
Maness, William C., Laredo, Tex. Car-roofing. No. 1,132,952; Mar. 23; Gaz. vol. 212; p. 1220.
Manly, Charles M., Brooklyn, N. Y. Controlling mechanism for power-vehicles. No. 1,132,665; Mar. 23; Gaz. vol. 212; p. 1114.
Mann, Bertram H., St. Louis, Mo. Lamp-bracket for railway cars. No. 1,133,302; Mar. 30; Gaz. vol. 212; p. 1380.
Mann, Ira A., Pittsburgh, Pa. Plumbing-fixture. No. 1,132,953; Mar. 23; Gaz. vol. 212; p. 1220.
Mann, Ira A., Pittsburgh, Pa. Plumbing-fixture. No. 1,132,954; Mar. 23; Gaz. vol. 212; p. 1220.
Mansbridge, Arnold W., and S. J. Nash, Winnipeg, Manitoba, Canada. Vaporizing attachment. No. 1,130,915; Mar. 9; Gaz. vol. 212; p. 408.
Mansfield, Auby J., Seattle, Wash. Vehicle-wheel. No. 1,132,787; Mar. 23; Gaz. vol. 212; p. 1159.
Mansfield, Walter P., King City, Cal. Animal-trap. No. 1,130,992; Mar. 9; Gaz. vol. 212; p. 434.
Manson, Ray H., assignor to The Garford Manufacturing Company, Elyria, Ohio. Electric system for vehicles. No. 1,131,402; Mar. 9; Gaz. vol. 212; p. 575.
Manuel, Frank C., assignor of one-third to C. A. Kenney, San Francisco, Cal. Rotary engine. No. 1,131,148; Mar. 9; Gaz. vol. 212; p. 487.
Mapes, John, assignor of one-half to Z. S. McGinnis, Aledo, Ill. Freight-car door. No. 1,132,202; Mar. 16; Gaz. vol. 212; p. 895.
Marble, Harry M. (See Whalen, Thomas J., assignor.)
Marcinkowski, Joseph, Chicago, Ill. Utensil-lifter. No. 1,133,442; Mar. 30; Gaz. vol. 212; p. 1430.
Marconi, Louis, New York, N. Y. Bottle-closure. No. 1,130,183; Mar. 2; Gaz. vol. 212; p. 119.
Marczi, John, La Belle, Pa. Antiskid attachment for tires. No. 1,130,310; Mar. 2; Gaz. vol. 212; p. 163.
Mardock, Guy, Illinois City, Ill. Umbrella-holder. No. 1,133,989; Mar. 30; Gaz. vol. 212; p. 1621.
Marino, Ralph, Clearfield, Pa. Music-leaf turner. No. 1,131,537; Mar. 9; Gaz. vol. 212; p. 622.
Mark, Jacob, Brooklyn, and E. N. Mobl, New York, assignors to Mark & Mobl, Inc., Brooklyn, N. Y. Grating. No. 1,132,021; Mar. 16; Gaz. vol. 212; p. 831.
Mark & Mobl, Inc. (See Mark and Mobl, assignors.)
Markem Machine Company. (See Putnam and Robbins, assignors.)
Markem Machine Company. (See Robbins, Charles F., assignor.)
Markham, Andrew J., assignor of one-tenth to C. A. Swanson, one-tenth to C. A. Senter, one-tenth to E. J. Clark, one-tenth to G. W. Morris, and one-tenth to W. C. Johnston, Dana, Iowa. Corn-husker. No. 1,133,736; Mar. 30; Gaz. vol. 212; p. 1537.
Marlborough, James, Topsfield, Mass. Fountain-pen. No. 1,130,622; Mar. 2; Gaz. vol. 212; p. 273.
Marlin, John P., San Lorenzo, Cal. Vegetable-washer. No. 1,132,597; Mar. 23; Gaz. vol. 212; p. 1088.
Marlow, William, New York, N. Y., assignor to Standard Knitting Mills Company. Making union garments. No. 1,132,666; Mar. 23; Gaz. vol. 212; p. 1114.
Marmon, Howard C., Indianapolis, Ind. Axle for motor-vehicles. No. 1,133,813; Mar. 30; Gaz. vol. 212; p. 1564.
Marquardt, Frank C., New York, N. Y., assignor to American Bank Note Company. Printing-machine. No. 1,132,481; Mar. 16; Gaz. vol. 212; p. 998.
Marrinan, Honora C., and J. Gorman, St. Paul, Minn. Electric bath-cabinet. No. 1,130,916; Mar. 9; Gaz. vol. 212; p. 409.

Marshall, Elmer E., Erie, Kans. Seed-germinator. No. 1,130,752; Mar. 9; Gaz. vol. 212; p. 352.
Marshall, Norman, Newton, Mass., assignor to General Electric Company. Lamp-making machine. No. 1,132,277; Mar. 16; Gaz. vol. 212; p. 925.
Martin, Charles E., Hinton, Va., assignor of one-third to G. P. Fritze and one-third to C. R. Cole, Chicago, Ill. Spike or nail. No. 1,131,149; Mar. 9; Gaz. vol. 212; p. 488.
Martin, George H., Oklahoma, Okla. Rail-joint. No. 1,133,165; Mar. 23; Gaz. vol. 212; p. 1297.
Martin, John C., Spokane, Wash. Washboiler attachment. No. 1,132,955; Mar. 23; Gaz. vol. 212; p. 1221.
Martin, Laurence C., Providence, R. I. Eyeglass construction. No. 1,131,610; Mar. 9; Gaz. vol. 212; p. 647.
Martin, Louie H., Augusta, Me. Portable circular hand-saw. No. 1,133,443; Mar. 30; Gaz. vol. 212; p. 1431.
Martin, Thomas F., Sabraton, W. Va. Guard for pots or crucibles. No. 1,130,184; Mar. 2; Gaz. vol. 212; p. 119.
Martineau, William C., assignor to Universal Car Seal and Appliance Company, Albany, N. Y. Car-seal. No. 1,133,303; Mar. 30; Gaz. vol. 212; p. 1381.
Martinelli, Stephen, Jr., Watsonville, Cal. Attachment for bottle-washing machines. No. 1,130,418; Mar. 2; Gaz. vol. 212; p. 201.
Martini, Carl, deceased; M. Martini, executor, assignor to Martini & Hünecke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany. Apparatus for conveying liquid fuel. No. 1,132,482; Mar. 16; Gaz. vol. 212; p. 998.
Martini & Hünecke Maschinenbau-Aktien-Gesellschaft. (See Martini, Carl, assignor.)
Martini, Marie, executor. (See Martini, Carl.)
Martins, Jens C., assignor to Transmission Akts., Copenhagen, Denmark. Friction-gearing. No. 1,130,527; Mar. 2; Gaz. vol. 212; p. 241.
Maschinenfabrik Thyssen & Co., Aktiengesellschaft. (See Keller, Bernhard, assignor.)
Mason, Charles T., Sumter, S. C., assignor to Sumter Electrical Company. Ignition-dynamo. No. 1,133,990; Mar. 30; Gaz. vol. 212; p. 1622.
Mason, George H., Lubec, Me. Tool-holder. No. 1,131,538; Mar. 9; Gaz. vol. 212; p. 622.
Mason, Daniel, New York, N. Y. Expansion-bolt. No. 1,130,003; Mar. 2; Gaz. vol. 212; p. 57.
Mason, M. Clinton. (See Shortt, Edward G., assignor.)
Massachusetts Chemical Company. (See Chamberlin and Moulton, assignors.)
Mast, William L., Arthur, Ill. Hitching device for traction-engines. No. 1,130,311; Mar. 2; Gaz. vol. 212; p. 163.
Master, Chester A., and O. T. Wolnitzek, Bellville, Tex. Collapsible crate. No. 1,133,166; Mar. 23; Gaz. vol. 212; p. 1297.
Mather, Alonzo C., Chicago, Ill. Pneumatic tire. No. 1,132,788; Mar. 23; Gaz. vol. 212; p. 1160.
Mathews, Fred, Chicago, and E. G. Chenoweth, Blue Island, assignors to C. C. Murphy, Chicago, Ill. Ladder. No. 1,134,087; Mar. 30; Gaz. vol. 212; p. 1656.
Mathey, John J., Robey, S. D. Corn-tipper. No. 1,131,938; Mar. 16; Gaz. vol. 212; p. 800.
Matthews, Edwin, Hereford, England. Gate or door fastening. No. 1,131,403; Mar. 9; Gaz. vol. 212; p. 576.
Matthews, Edwin S., assignor to J. S. Hoyt and W. H. Woodin, New York, N. Y. Automatic stop-valve mechanism. No. 1,132,203; Mar. 16; Gaz. vol. 212; p. 896.
Matti, Max R., Falun, Sweden. Arrangement for reversing internal-combustion engines. No. 1,130,833; Mar. 9; Gaz. vol. 212; p. 379.
Matz, Earnest. (See Boser and Matz.)
Mauck, Marcellus M., Atlanta, Ga. Amusement device. No. 1,133,489; Mar. 30; Gaz. vol. 212; p. 1445.
Maugras, Hippolyte, Marseille, France. Ventilator. No. 1,133,304; Mar. 30; Gaz. vol. 212; p. 1381.
Mauser, Paul, Oberndorf-on-the-Neckar, Germany. Box-magazine for firearms. No. 1,129,884; Mar. 2; Gaz. vol. 212; p. 18.
Mauser, Paul, Oberndorf, Germany. Automatic firearm. No. 1,130,312; Mar. 2; Gaz. vol. 212; p. 163.
Mauser, Paul, Oberndorf-on-the-Neckar, Germany. Automatic firearm. No. 1,131,721; Mar. 16; Gaz. vol. 212; p. 720.
Mauser, Paul, Oberndorf-on-the-Neckar, Germany. Device for securing telescope-sights to firearms. No. 1,132,105; Mar. 16; Gaz. vol. 212; p. 859.
Maxivolt Primary Battery Co. (See Csanyi, Henry, assignor.)
Maxwell, Lawrence. (See Welin, Peter, assignor.)
Maxwell, William J., *et al.* (See Peterson, Bror T., assignor.)
May, Albert C., London, England. Micrometer-gage. No. 1,133,652; Mar. 30; Gaz. vol. 212; p. 1506.
Mayer, Edward, *et al.* (See Chrisman, Loran T., assignor.)
Mayer, John, *et al.* (See Chrisman, Loran T., assignor.)
Mayes, James R., Springfield, and S. W. Eskew, Bardstown, Ky. License-number-display device. No. 1,133,991; Mar. 30; Gaz. vol. 212; p. 1622.
Mayfields, Bernard, Baltimore, Md. Pump attachment for automobiles, &c. No. 1,133,992; Mar. 30; Gaz. vol. 212; p. 1622.
Mayhall, Timothy D., Gloster, Miss. Peanut and potato digger. No. 1,131,850; Mar. 16; Gaz. vol. 212; p. 769.
Mayo, Robert D., Cleveland, Ohio. Toilet-seat-disinfecting means. No. 1,132,204; Mar. 16; Gaz. vol. 212; p. 896.
Maytag Company. (See Cofield and Bremer, assignors.)
McAdams, Sylvester L., Cleveland, Ohio, assignor to The Cleveland Trolley Wheel Company. Bearing for trolley-wheels. No. 1,132,949; Mar. 23; Gaz. vol. 212; p. 1219.
McAllister, George W., San Francisco, Cal. Drill-bit. No. 1,133,161; Mar. 23; Gaz. vol. 212; p. 1295.
McAllister, George W., San Francisco, Cal. Drill-bit. No. 1,133,162; Mar. 23; Gaz. vol. 212; p. 1295.
McAuley, Sherry, Atlanta, Ga. Projecting apparatus for motion-picture machines. No. 1,133,869; Mar. 30; Gaz. vol. 212; p. 1585.
McBane, Walter W., Youngstown, Ohio, assignor to The William Tod Company. Controlling mechanism for reversing-engines. No. 1,130,993; Mar. 9; Gaz. vol. 212; p. 434.
McBurney, Willard B., H. T. Barksdale, and J. B. Howe, Atlanta, Ga. Refrigerating apparatus. No. 1,133,163; Mar. 23; Gaz. vol. 212; p. 1296.
McCabe, Horace B., Chicago, Ill., assignor to Gisholt Machine Company, Madison, Wis. Time-controlled switch mechanism for electric circuits. No. 1,129,996; Mar. 2; Gaz. vol. 212; p. 55.
McCall, Clarence M., Marion, N. C. Self-draining hose-reel. No. 1,130,313; Mar. 2; Gaz. vol. 212; p. 163.
McCall Company, The. (See Newcomb, William W., assignor.)
McCall, James L., Tampa, assignor of one-half to T. A. Moody, Tarpon Springs, Fla. Reinforcement for concreting wooden piles. No. 1,133,484; Mar. 30; Gaz. vol. 212; p. 1444.
McCall, Robert A., Anson, Tex. Draft-equalizer. No. 1,129,997; Mar. 2; Gaz. vol. 212; p. 56.
McCallion, James H., assignor of one-half to G. S. Standish, Providence, R. I. Bar tap-sign holder. No. 1,132,950; Mar. 23; Gaz. vol. 212; p. 1219.
McCarley, Welman B., Columbus, Ohio. Flying-machine. No. 1,133,984; Mar. 30; Gaz. vol. 212; p. 1619.
McCarroll, Edward W., Pittsburgh, Pa. Cigar-holder. No. 1,131,750; Mar. 9; Gaz. vol. 212; p. 488.
McCarthy, Emmet. (See Buch, Paul H., assignor.)
McCarty, Ralph, Hamburg, N. Y., assignor to Corrugated Bar Company, St. Louis, Mo. Bundling ribbed open-work metal and making the same. No. 1,133,387; Mar. 30; Gaz. vol. 212; p. 1411.
McCaskey Register Company, The. (See Moseley, Emerson B., assignor.)
McCauley, Albert J., assignor to C. A. Garvey and H. G. Cook, St. Louis, Mo. Type-setting device. No. 1,133,731; Mar. 30; Gaz. vol. 212; p. 1535.
McClanahan, David, Stacy, Va. Fire-alarm, No. 1,132,103; Mar. 16; Gaz. vol. 212; p. 858.
McClellan, George L., Gold Hill, Oreg. Hose-coupling. No. 1,132,197; Mar. 16; Gaz. vol. 212; p. 894.
McClure, Charles W., Atlanta, Ga. Garment. No. 1,131,532; Mar. 9; Gaz. vol. 212; p. 620.
McClure, Herbert B., Dubuque, Iowa. Humidifier. No. 1,131,784; Mar. 16; Gaz. vol. 212; p. 744.
McCollum, Alfred F., assignor of three-fifths to J. Magee, 2d, Bloomsburg, Pa. Pile-wire. No. 1,130,617; Mar. 2; Gaz. vol. 212; p. 272.
McCollum, Alfred F., assignor of three-fifths to J. Magee, 2d, Bloomsburg, Pa. Pile-wire. No. 1,130,618; Mar. 2; Gaz. vol. 212; p. 272.
McCollum, Rufus B. (See Blakey and McCollum.)
McComish, John J., New York, N. Y. Chair-signal for theaters. No. 1,133,985; Mar. 30; Gaz. vol. 212; p. 1620.
McConaughy, Hugh, assignor of one-half to G. M. Buzzard, Cleveland, Ohio. Tie and rail clamp. No. 1,132,198; Mar. 16; Gaz. vol. 212; p. 894.
McCord, Alvin C., and I. A. Randel, assignors to McCord and Company, Chicago, Ill. Journal-box. No. 1,132,370; Mar. 16; Gaz. vol. 212; p. 957.
McCord and Company. (See McCord and Randel, assignors.)
McCord Manufacturing Company. (See Smith, Howard, assignor.)
McCormack, Patrick F., West Rutland, Vt., assignor, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Stoneworking-machine. No. 1,133,233; Mar. 23; Gaz. vol. 212; p. 1319.
McCormick, Cyrus T., Fredericktown, Mo. Cattle-guard. No. 1,131,848; Mar. 16; Gaz. vol. 212; p. 768.
McCormick, Frank L., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Driving mechanism for automatic musical instruments. No. 1,132,104; Mar. 16; Gaz. vol. 212; p. 859.
McCormick, John H., Bexley, Ohio. Friction draft and buffing apparatus. No. 1,130,416; Mar. 2; Gaz. vol. 212; p. 200.
McCormick, Langdon, London, England. Apparatus for stage illusions. No. 1,131,151; Mar. 9; Gaz. vol. 212; p. 488.
McCormick, Rufus H., Marlbrook, Va. Scale indicating and totaling mechanism. No. 1,131,785; Mar. 16; Gaz. vol. 212; p. 745.
McCoy, John W., Syracuse, Mo. Car wheel and axle. No. 1,133,986; Mar. 30; Gaz. vol. 212; p. 1620.
McCoy, Millard A., Perth Amboy, N. J. Corrugated-iron fastener. No. 1,133,164; Mar. 23; Gaz. vol. 212; p. 1296.
McCoy, Walter E., *et al.* (See Sprong, Severn D., assignor.)

McCray, William L., Bluefield, W. Va. Locking device for automobiles. No. 1,131,720; Mar. 16; Gaz. vol. 212; p. 720.
McCulloh, Allan, *et al.*, executors. (See Kendall, Edward D., assignor.)
McCune, Floyd S., and N. Jones, Tulia, Tex. Attachment for lister-plows. No. 1,132,371; Mar. 16; Gaz. vol. 212; p. 958.
McCune, Frank H., Portland, Oreg. Clothes-washing machine. No. 1,133,732; Mar. 30; Gaz. vol. 212; p. 1535.
McDermott, Francis J., New Haven, assignor to Birdsey, Somers Company, Bridgeport, Conn. Corset. No. 1,133,485; Mar. 30; Gaz. vol. 212; p. 1444.
McDevitt, William J., Philadelphia, Pa. Shoe-lace holder. No. 1,131,533; Mar. 9; Gaz. vol. 212; p. 620.
McDonald, John S. (See Olney, Joseph W., assignor.)
McDougal, Royden K., Lincoln, Nebr. Grinding-machine. No. 1,131,398; Mar. 9; Gaz. vol. 212; p. 573.
McFadden, Austin, *et al.* (See Houze, Ulgisse, assignor.)
McFarland, James G., Higgins, Tex. Oil-cake feeder. No. 1,129,880; Mar. 2; Gaz. vol. 212; p. 17.
McFarlane, Angus J. (See Kearney and McFarlane.)
McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,129,881; Mar. 2; Gaz. vol. 212; p. 17.
McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tacking mechanism. No. 1,129,882; Mar. 2; Gaz. vol. 212; p. 17.
McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-seat-lasting machine. No. 1,129,883; Mar. 2; Gaz. vol. 212; p. 18.
McGaffey, Otis, *et al.* (See Ammons, John B., assignor.)
McGauley, William H., Bridgeport, Conn. Apparatus for indicating variations in gage of insulated wire. No. 1,133,309; Mar. 30; Gaz. vol. 212; p. 1380.
McGee, Charles H., Portland, Me., assignor to Champion Metal Weather Strip and Parting Bead Company, Boston, Mass. Metallic screen. No. 1,132,784; Mar. 23; Gaz. vol. 212; p. 1158.
McGinley, Charles W., Plainfield, N. J. Clasp. No. 1,132,785; Mar. 23; Gaz. vol. 212; p. 1159.
McGinley, James B., assignor to Handy Manufacturing Company, Pittsburgh, Pa. Outlet-box. No. 1,131,399; Mar. 9; Gaz. vol. 212; p. 574.
McGinnis, Zales S. (See Mapes, John, assignor.)
McGrath, William L., and G. W. Clark, Westfield, Mass., assignors to G. Pope, C. A. Morss, and C. A. Persons, receivers. Bicycle-stand. No. 1,130,094; Mar. 2; Gaz. vol. 212; p. 88.
McGray, Arthur N., New York, N. Y. Life-saving apparatus. No. 1,130,528; Mar. 2; Gaz. vol. 212; p. 242.
McGucklin, Henry J. (See Walsh, John P., assignor.)
McGuire, Emerson P., Van Houten, N. Mex. Chain-tool. No. 1,133,870; Mar. 30; Gaz. vol. 212; p. 1585.
McGuire, John J., New York, N. Y. Dumping-wagon. No. 1,133,301; Mar. 30; Gaz. vol. 212; p. 1380.
McGuire, Walter S., Shadyside, Ohio. Flash-light. No. 1,130,529; Mar. 2; Gaz. vol. 212; p. 242.
McHale, Martin J., Chicago, Ill. Wool-drying device. No. 1,134,053; Mar. 30; Gaz. vol. 212; p. 1643.
McHarg, Arthur V. A. (See Murray and McHarg.)
McIntyre, Herbert L., Burlington, Kans. Hen's nest. No. 1,130,095; Mar. 2; Gaz. vol. 212; p. 88.
McKaig, Eddy T., assignor of one-half to H. G. Hascall, Chicago, Ill. Tractor. No. 1,130,314; Mar. 2; Gaz. vol. 212; p. 164.
McKay, William A., and M. Claussen, San Francisco, Cal. Portable incandescent lamp. No. 1,133,733; Mar. 30; Gaz. vol. 212; p. 1535.
McKee, Ralph H., Orono, Me. Purification of liquids. No. 1,133,049; Mar. 23; Gaz. vol. 212; p. 1256.
McKeen Motor Car Company. (See McKeen, William R., Jr., assignor.)
McKeen, William R., Jr., assignor to McKeen Motor Car Company, Omaha, Nebr. Air-heater for carbureters. No. 1,132,199; Mar. 16; Gaz. vol. 212; p. 894.
McKeever, Charles, Jersey City, N. J. Bottle-stopper. No. 1,131,400; Mar. 9; Gaz. vol. 212; p. 575.
McKerihan, Thomas J., Altoona, Pa. Locomotive-boiler. No. 1,132,200; Mar. 16; Gaz. vol. 212; p. 895.
McKinnis, Fredrick E., Arlington, S. D. Stock-rack. No. 1,130,315; Mar. 2; Gaz. vol. 212; p. 164.
McKinnon, Charles, and W. C. Brouff, Oaklands, New South Wales, assignors of one-half to P. P. Gell, Burrowgong, Corowa, and C. McPherson, Yarrawonga, Moira, Australia. Resilient wheel. No. 1,131,534; Mar. 9; Gaz. vol. 212; p. 620.
McLain, John E. (See Geterman, Charles J., assignor.)
McLaughlin, James E., Chicago, Ill. Puncture-proof shield for tires. No. 1,133,486; Mar. 30; Gaz. vol. 212; p. 1445.
McLaurin, Richard A., Glasgow, Scotland. Producing leather substitutes. No. 1,130,619; Mar. 2; Gaz. vol. 212; p. 272.
McLean, George B. (See McLean, Leonard D. and G. B.)
McLean, Leonard D. and G. B., Elizabeth, Ill. Fly-trap. No. 1,131,535; Mar. 9; Gaz. vol. 212; p. 621.
McLendon, Gordon E., Memphis, Tenn. Combined ironing-board and step-ladder. No. 1,130,417; Mar. 2; Gaz. vol. 212; p. 201.
McManus, William F., Shawnee, Okla. Holder for lighted cigars. No. 1,132,201; Mar. 16; Gaz. vol. 212; p. 895.
McMath, John E. (See Townsend, Frank B., assignor.)
McMillan, Thomas B., Toro, La. Wire-stretcher. No. 1,133,487; Mar. 30; Gaz. vol. 212; p. 1445.
McMurtry, Alden L., Sound Beach, Conn. Pneumatic starter for motor-vehicles. No. 1,133,488; Mar. 30; Gaz. vol. 212; p. 1445.
McNamara, J. E., *et al.* (See Erickson, John E., assignor.)
McNamara, John F., Danbury, Conn. Toy bowling game. No. 1,133,810; Mar. 30; Gaz. vol. 212; p. 1563.
McNee, George G. (See Allender and McNee.)
McNeece, Irvin, St. Louis, Mo. Automobile-lock. No. 1,134,054; Mar. 30; Gaz. vol. 212; p. 1644.
McPherson, Clive, *et al.* (See McKinnon and Brouff, assignors.)
McQueen, Glenn R., Baldwin City, Kans. Automatic train-stopping apparatus. No. 1,133,987; Mar. 30; Gaz. vol. 212; p. 1620.
McQueen, Ulysses G., assignor to Grant Pulley & Hardware Co., New York, N. Y. Sash-pulley. No. 1,129,998; Mar. 2; Gaz. vol. 212; p. 56.
McQueen, Ulysses G., New Rochelle, N. Y. Sash-pulley. No. 1,129,999; Mar. 2; Gaz. vol. 212; p. 56.
McQueen, Ulysses G., New Rochelle, N. Y. Sash-pulley and window-frame. No. 1,130,000; Mar. 2; Gaz. vol. 212; p. 56.
McSheehy, Bartholomew E., Nutley, N. J., assignor to J. C. Blair Company, Huntingdon, Pa. Sorting and filing case. No. 1,130,096; Mar. 2; Gaz. vol. 212; p. 88.
Mead, Carl F. (See Mead and Guentzler, assignors.)
Mead, Cyrus E., assignor to The Mead Engine Company, Dayton, Ohio. Driving mechanism for rotary valves. No. 1,130,753; Mar. 9; Gaz. vol. 212; p. 352.
Mead Engine Company, The. (See Mead, Cyrus E., assignor.)
Mead, Henry B., and H. F. Guentzler, assignors to C. F. Mead, Cleveland, Ohio. Signaling system. No. 1,132,106; Mar. 16; Gaz. vol. 212; p. 860.
Mead-Suydam Company. (See Wilson, Robert G., assignor.)
Meadows, Robert C., Poors Knob, N. C. Corn-mill. No. 1,133,993; Mar. 30; Gaz. vol. 212; p. 1622.
Mearkle, Louis K., Philadelphia, assignor to Duquesne Sales Company, Pittsburgh, Pa. Collapsible drinking-cup. No. 1,133,050; Mar. 23; Gaz. vol. 212; p. 1256.
Mears, Robert S., Arkansas City, Kans. Water-glass guard. No. 1,132,372; Mar. 16; Gaz. vol. 212; p. 958.
Mecco, Canlo, assignor of one-fourth to B. Rugglero, one-fourth to N. Coseznzn, and one-fourth to G. Dismoni, Brooklyn, N. Y. Bug-trap for beds. No. 1,132,789; Mar. 23; Gaz. vol. 212; p. 1160.
Medved, Paul, Milwaukee, Wis. Device for utilizing wind-power. No. 1,132,956; Mar. 23; Gaz. vol. 212; p. 1221.
Megosin Company. (See Menden, William S., assignor.)
Mehm, Charles A., and C. E. Tite, Wilkes Barre, Pa. Music-holder. No. 1,133,490; Mar. 30; Gaz. vol. 212; p. 1446.
Melkle, Roy V., Turlock, Cal. Automatic gate for irrigation-cannals. No. 1,130,097; Mar. 2; Gaz. vol. 212; p. 89.
Melnk, Wilhelm L., Portsmouth, Iowa. End-gate. No. 1,131,404; Mar. 9; Gaz. vol. 212; p. 576.
Melser, Thomas J., Des Moines, Iowa. Wire-stretcher. No. 1,134,055; Mar. 30; Gaz. vol. 212; p. 1644.
Melamid, Meilich, Freiburg, Germany. Manufacturing pure resin-oil. No. 1,131,939; Mar. 16; Gaz. vol. 212; p. 800.
Melamid, Meilich, Freiburg, Germany. Producing pure resin-oils. No. 1,133,994; Mar. 30; Gaz. vol. 212; p. 1622.
Melas, William, Ridley Park, assignor of one-half to D. Townsend, Philadelphia, Pa. Oil-fired portable rivet-heating furnace. No. 1,130,185; Mar. 2; Gaz. vol. 212; p. 120.
Melville Clark Piano Company. (See Clark, Melville, assignor.)
Memminger, Robert, Nuremberg, Germany. Fermenting-bung. No. 1,129,885; Mar. 2; Gaz. vol. 212; p. 18.
Mendelsohn, Harry, New York, N. Y. Reversible buffer. No. 1,134,088; Mar. 30; Gaz. vol. 212; p. 1656.
Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. Speed-control device. No. 1,132,205; Mar. 16; Gaz. vol. 212; p. 897.
Mendham, Conrad F. (See Cassady and Mendham.)
Mercer, Henry H. (See Ball and Mercer.)
Mercer, Henry H., and A. E. Champagne, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Tool-actuating device. No. 1,131,256; Mar. 9; Gaz. vol. 212; p. 524.
Meredith, William A., Chicago, Ill. Union garment. No. 1,134,056; Mar. 30; Gaz. vol. 212; p. 1644.
Mergenthaler Linotype Company. (See Converse, Francis B., assignor.)
Mergenthaler Linotype Company. (See Dodge, Philip T., assignor.)
Mergenthaler Linotype Company. (See Kingsbury, George P., assignor.)
Mergenthaler Linotype Company. (See Morehouse, Melvin W., assignor.)
Mergenthaler Linotype Company. (See Muehleisen, Carl, assignor.)
Mergenthaler Linotype Company. (See Rogers, John R., assignor.)

Merk, Friedrich, Charlottenburg, assignor to Siemens & Halske, A. G., Berlin, Germany. Automatic telephone system. No. 1,132,107; Mar. 16; Gaz. vol. 212; p. 860.
Merk-Wirz, August, Zurich, Switzerland. Directory-board. No. 1,132,108; Mar. 16; Gaz. vol. 212; p. 861.
Merkel, Jacob. (See Carroll and Merkel.)
Merrel, Irving S., Syracuse, N. Y. Method of desiccating. No. 1,133,051; Mar. 23; Gaz. vol. 212; p. 1257.
Merrill, Frank E., Evanston, Ill. Combined tag-holder and clip. No. 1,133,388; Mar. 30; Gaz. vol. 212; p. 1411.
Merrill, Florence W., *et al.* (See Watts, William E., assignor.)
Merrill, Guy A., New York, N. Y. Electrical protector for automobiles and similar vehicles. No. 1,131,405; Mar. 9; Gaz. vol. 212; p. 576.
Merrow, Le Roy, Springfield, Ohio. Dumping device. No. 1,129,886; Mar. 2; Gaz. vol. 212; p. 19.
Mershimer, Lawrence M., New Castle, Pa. Locking device for milk-cans. No. 1,132,598; Mar. 23; Gaz. vol. 212; p. 1088.
Mershon, Ralph D., New York, N. Y. Electrolytic condenser and operating the same. No. 1,132,957; Mar. 23; Gaz. vol. 212; p. 1221.
Mesinger, Frederick, New York, N. Y. Saddle for motor-cycles. No. 1,133,389; Mar. 30; Gaz. vol. 212; p. 1412.
Mesinger, Henry, New York, N. Y. Saddle for motor-cycles. No. 1,130,316; Mar. 2; Gaz. vol. 212; p. 165.
Messler, Addalore S. (See Messler, Felix E. and A. S.)
Messler, Felix E. and A. S., Springfield, Mass. Vehicle. No. 1,133,444; Mar. 30; Gaz. vol. 212; p. 1431.
Metnl, Max H., New York, N. Y. Coin-case. No. 1,131,406; Mar. 9; Gaz. vol. 212; p. 576.
Metals Coating Company of America. (See Schoop, Max U., assignor.)
Metzger, Louis C. F., St. Louis, Mo. Push-button or circuit-closer. No. 1,130,994; Mar. 9; Gaz. vol. 212; p. 435.
Meyer, Frank W., assignor to The Oshkosh Trunk Company, Oshkosh, Wis. Garment-supporting fixture. No. 1,131,722; Mar. 16; Gaz. vol. 212; p. 720.
Meyer, Maximilian C., Brooklyn, N. Y. Memorandum-ring. No. 1,130,917; Mar. 9; Gaz. vol. 212; p. 409.
Meyer, Ray J. (See Cooper, Lee, and Meyer.)
Meyer, Ray J. (See Lee, Cooper, and Meyer.)
Michaelis, Ernest, *et al.* (See Platner, David F., assignor.)
Michaud, Onesime E., St. Louis, Mo. Internal-combustion motor. No. 1,132,278; Mar. 16; Gaz. vol. 212; p. 925.
Michaud, Onesime E., St. Louis, Mo. Journal-bearing. No. 1,132,279; Mar. 16; Gaz. vol. 212; p. 926.
Michel, William P., New York, N. Y. Cabinet for meat and other food products. No. 1,132,022; Mar. 16; Gaz. vol. 212; p. 831.
Mielcarek, Wladyslaw, Chester, Pa. Safety device for elevators. No. 1,131,152; Mar. 9; Gaz. vol. 212; p. 488.
Miklos, Alex, Columbus, Ohio. Ice-pick. No. 1,133,052; Mar. 23; Gaz. vol. 212; p. 1257.
Milbery, John W. (See Fager and Milbery.)
Miles, Frederick B., assignor of one-half to W. W. Smith, Wilkinsburg, Pa. Metallic tie for railways and fastening device therefor. No. 1,129,887; Mar. 2; Gaz. vol. 212; p. 19.
Miller, Andrew E., Louisville, Miss. Mechanical movement. No. 1,131,851; Mar. 16; Gaz. vol. 212; p. 769.
Miller, Andrew E., assignor to S. Himmel, Baltimore, Md. Display-rack. No. 1,133,873; Mar. 30; Gaz. vol. 212; p. 1586.
Miller, Charles E., Bellingham, Wash. Saw-set. No. 1,131,407; Mar. 9; Gaz. vol. 212; p. 577.
Miller, Charles J., Minneapolis, Minn., assignor, by mesne assignments, to The Lamson Company, Boston, Mass. Package-carrier. No. 1,130,530; Mar. 2; Gaz. vol. 212; p. 243.
Miller, Charles R., Whitesboro, Tex. Explosion-engine starter. No. 1,133,737; Mar. 30; Gaz. vol. 212; p. 1537.
Miller, Daniel H., Council Bluffs, Iowa. Veterinarian's obstetrical instrument. No. 1,130,098; Mar. 2; Gaz. vol. 212; p. 89.
Miller, Edward A., Ionia, Mich. Lock-strike. No. 1,130,754; Mar. 9; Gaz. vol. 212; p. 352.
Miller, Frederick H., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Safety device for starting-motors. No. 1,130,004; Mar. 2; Gaz. vol. 212; p. 57.
Miller, George C. D., assignor to Cary Manufacturing Company, New York, N. Y. Wired-edge box-strapping. No. 1,133,814; Mar. 30; Gaz. vol. 212; p. 1565.
Miller, Harry, *et al.* (See Clinton, Michael, assignor.)
Miller, Harry, assignor of fifty-five one hundredths to C. E. St. Clair and ten one-hundredths to J. M. Graham, St. Louis, Mo. Antiskidding device for automobiles and the like. No. 1,132,206; Mar. 16; Gaz. vol. 212; p. 897.
Miller, Harry, assignor of 55 100 to C. E. St. Clair and 10 100 to J. M. Graham, St. Louis, Mo. Antiskidding device for automobiles and the like. No. 1,132,207; Mar. 16; Gaz. vol. 212; p. 897.
Miller, Henry M., Foster, assignor of one-half to J. O. Stollings and C. W. Leftwich, Madison, W. Va. Figure toy. No. 1,129,888; Mar. 2; Gaz. vol. 212; p. 19.
Miller, John L., assignor of one-fourth to H. A. Boss, Fort Collins, Colo. Railway-switch-operating mechanism. No. 1,131,940; Mar. 16; Gaz. vol. 212; p. 800.
Miller, John V., East Orange, N. J. Three-way cock. No. 1,129,889; Mar. 2; Gaz. vol. 212; p. 19.
Miller Lock Company. (See Jackson, Arthur C., assignor.)
Miller, Luther O., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Washer. No. 1,130,531; Mar. 2; Gaz. vol. 212; p. 243.
Miller, Lawrence M. (See Adams and Miller.)
Miller Lock Company. (See Jackson, Arthur C., assignor.)
Miller, Otto, Cincinnati, Ohio. Clutch. No. 1,132,958; Mar. 23; Gaz. vol. 212; p. 1221.
Miller, Robert, assignor to R. M. Owen and Company, New York, N. Y. Gas-engine. No. 1,130,419; Mar. 2; Gaz. vol. 212; p. 201.
Miller, Robert A. (See Rawls and Miller.)
Miller, Robert V., and J. A. Molin, Yonkers, N. Y. Lock attachment for sockets. No. 1,131,723; Mar. 16; Gaz. vol. 212; p. 721.
Miller, Sam P., Navasota, Tex. Crossover. No. 1,130,005; Mar. 2; Gaz. vol. 212; p. 58.
Miller, Walter H., Orange, assignor to New Jersey Patent Company, West Orange, N. J. Talking-machine. No. 1,130,099; Mar. 2; Gaz. vol. 212; p. 89.
Miller, Ward J., Kalamazoo, assignor to Easy Truss Company, Battle Creek, Mich. Truss. No. 1,133,815; Mar. 30; Gaz. vol. 212; p. 1565.
Miller, William D., Raywick, Ky. Gate. No. 1,131,408; Mar. 9; Gaz. vol. 212; p. 577.
Miller, William J., Swissvale, Pa. Apparatus for pressing glass articles. No. 1,130,918; Mar. 9; Gaz. vol. 212; p. 409.
Miller, William J., Swissvale, Pa. Apparatus for pressing glass articles. No. 1,130,919; Mar. 9; Gaz. vol. 212; p. 410.
Miller, William J., Swissvale, Pa. Apparatus for pressing glass articles. No. 1,130,920; Mar. 9; Gaz. vol. 212; p. 410.
Milliot, Louis, Yonkers, N. Y. Florist's dirt-sieve. No. 1,132,667; Mar. 23; Gaz. vol. 212; p. 1114.
Milliron, Ira A., New York, N. Y., assignor, by mesne assignments, to Hammock Egg Carrier Company. Apparatus and process for packing articles. No. 1,132,668; Mar. 23; Gaz. vol. 212; p. 1114.
Milloy, Peter D., New York, N. Y. Metallic tread for tires. No. 1,131,070; Mar. 9; Gaz. vol. 212; p. 461.
Mills, Charles B., assignor of one-fourth to A. J. Carr, Baltimore, Md. Electric-lamp socket. No. 1,131,724; Mar. 16; Gaz. vol. 212; p. 721.
Mills, Chester B., East McKeesport, Pa., assignor to Westinghouse Electric and Manufacturing Company. Safety device for starting-motors. No. 1,130,675; Mar. 2; Gaz. vol. 212; p. 292.
Mills, Ernest L., Watertown, and R. M. Mills, Cicero, N. Y. Milking-machine. No. 1,132,599; Mar. 23; Gaz. vol. 212; p. 1089.
Mills, Richard M. (See Mills, Ernest L. and R. M.)
Mills Woven Cartridge Belt Company. (See Bates, Charles G., assignor.)
Mills Woven Cartridge Belt Company. (See Jennings, Victor H., assignor.)
Milmoe, Michael J. (See Redington and Milmoe.)
Milmoe, Michael J. (See Stock and Milmoe.)
Milton, John L., Anderson, Ind. Electric generator. No. 1,130,755; Mar. 9; Gaz. vol. 212; p. 353.
Miner, Charles W., Albion, N. Y. Jewelling-tool. No. 1,130,186; Mar. 2; Gaz. vol. 212; p. 120.
Miner, William H. (See Copony, Alfred, assignor.)
Miner, William H. (See Haseltine, Stacy B., assignor.)
Miner, William H. (See O'Connor, John F., assignor.)
Miner, William H. (See Willoughby, Victor, assignor.)
Minneapolis Iron Store Company. (See Ulven, Christian, assignor.)
Minshall, John C. (See Longman and Minshall.)
Mintz, Mike, assignor to Gearless Automatic Pump Company, Rock Island, Ill. Relief-valve. No. 1,133,738; Mar. 30; Gaz. vol. 212; p. 1537.
Mioton, Sidney F., New Orleans, La. Automatic gasolene service. No. 1,133,167; Mar. 23; Gaz. vol. 212; p. 1297.
Mirkov, George, Budakalász, Austria-Hungary. Device for teaching arithmetic. No. 1,129,890; Mar. 2; Gaz. vol. 212; p. 20.
Mirtz, Philip P., Cleveland, Ohio. Rod-head. No. 1,133,874; Mar. 30; Gaz. vol. 212; p. 1586.
Misee, Thomas E., and E. L. Taylor, Barling, Ark. Rail-joint. No. 1,130,921; Mar. 9; Gaz. vol. 212; p. 411.
Mitchell-Colson, Frankie, San Bernardino, Cal. Cooking utensil. No. 1,133,168; Mar. 23; Gaz. vol. 212; p. 1298.
Mitchell, Joshua B., Richmond, Va. Shoe receptacle and protector. No. 1,132,280; Mar. 16; Gaz. vol. 212; p. 926.
Mitchell, Samuel S., Welser, Idaho. Gripper, perforator, and creaser. No. 1,131,725; Mar. 16; Gaz. vol. 212; p. 721.
Moake, Arthur, Marion, Ill. Safety-stirrup. No. 1,131,153; Mar. 9; Gaz. vol. 212; p. 489.
Moats, Edwin C., Colorado City, Colo. Folding stove. No. 1,133,491; Mar. 30; Gaz. vol. 212; p. 1446.
Mock, John H., Jetmore, Kans. Insect-destroyer. No. 1,133,567; Mar. 30; Gaz. vol. 212; p. 1475.
Mocydlarz, Thomas, Strathcona, Alberta, Canada. Lamp-signal for automobiles. No. 1,133,305; Mar. 30; Gaz. vol. 212; p. 1381.
Modern Construction Company. (See Goodwin, Frederick C., assignor.)
Modranski, John, *et al.* (See Gepack, Paul, assignor.)
Mohl, Emanuel N. (See Mark and Mohl.)
Mohr, Albert. (See Brown, Thomas A., assignor.)

Molin, John A. (See Miller and Molin.)
Moll, Frank O., Portland, Oreg. Furnace. No. 1,132,373; Mar. 16; Gaz. vol. 212; p. 958.
Moller, Edvard M., Jersey City, N. J. Rotary sweeper. No. 1,133,653; Mar. 30; Gaz. vol. 212; p. 1507.
Moller, H. Esk, *et al.*, executors. (See Kendall, Edward D., assignor.)
Monahan, Frank J., Joliet, Ill. Open-type bucket for excavating-machines. No. 1,131,071; Mar. 9; Gaz. vol. 212; p. 461.
Monarch Steel Castings Company. (See Giberson, Mason B., assignor.)
Monarch Steel Castings Company. (See Giberson and Roberts, assignors.)
Monarch Tag Company, The. (See Kohnle, Frederick, assignor.)
Moncrief, Henry A. (See Graves, Joseph C., assignor.)
Monitor Drill Company. (See Beeman and Brennan, assignors.)
Monitor Stove & Range Company, The. (See Doyle and Wollenhaupt, assignor.)
Monroe, Nathaniel S., Arthur, Ill. Road-working machine. No. 1,131,409; Mar. 9; Gaz. vol. 212; p. 577.
Monroe, Nathaniel S., Arthur, Ill. Truck for road-leveling machines. No. 1,133,875; Mar. 30; Gaz. vol. 212; p. 1587.
Monroe, Nathaniel S., Arthur, Ill. Road-working machine. No. 1,133,876; Mar. 30; Gaz. vol. 212; p. 1587.
Monroe, Nathaniel S., Arthur, Ill. Road-working machine. No. 1,133,877; Mar. 30; Gaz. vol. 212; p. 1588.
Montclair Refrigerating Corporation. (See Hapgood, Cyrus H., assignor.)
Montgomery, Robert J., Chicago, Ill. Automobile washing-brush. No. 1,133,390; Mar. 30; Gaz. vol. 212; p. 1412.
Montine, Joseph F., Nevinville, Iowa. Front-wheel drive for automobiles. No. 1,132,861; Mar. 23; Gaz. vol. 212; p. 1186.
Montine, Joseph F., Nevinville, Iowa. Sleigh attachment for automobiles. No. 1,132,862; Mar. 23; Gaz. vol. 212; p. 1187.
Montine, Joseph F., Nevinville, Iowa. Collection and delivery apparatus. No. 1,132,863; Mar. 23; Gaz. vol. 212; p. 1187.
Moock, Jacob J., Orrville, Ohio Valve-gear. No. 1,132,207; Mar. 16; Gaz. vol. 212; p. 897.
Moody, Thomas A. (See McCall, James L., assignor.)
Moody, Walter S., Pittsfield, Mass., assignor to General Electric Company. Reactive coil. No. 1,132,281; Mar. 16; Gaz. vol. 212; p. 926.
Moon-Hopkins Billing Machine Company. (See Hopkins, William W., assignor.)
Moon-Hopkins Billing Machine Company. (See Thieme, Otto, assignor.)
Moore, Albert S., Sault Ste. Marie, Ontario, Canada. Beet-harvesting machine. No. 1,130,922; Mar. 9; Gaz. vol. 212; p. 411.
Moore, David P. (See Hullings and Moore.)
Moore, Edward Y., Cleveland, Ohio. Hoisting mechanism. No. 1,130,420; Mar. 2; Gaz. vol. 212; p. 202.
Moore, Harrison I., Windsor, Nova Scotia, Canada. Sack-holding attachment. No. 1,132,600; Mar. 23; Gaz. vol. 212; p. 1089.
Moore, Hugh K., Berlin, N. H. Making sodium sulfid. No. 1,130,317; Mar. 2; Gaz. vol. 212; p. 165.
Moore, John B., Whiting, Ind., assignor to Standard Oil Company, Chicago, Ill. Apparatus for distilling petroleum-oils. No. 1,130,318; Mar. 2; Gaz. vol. 212; p. 165.
Moore, John C., Lower Edmonton, London, England. Door-closer or door-check. No. 1,130,923; Mar. 9; Gaz. vol. 212; p. 411.
Moore, John H., Oxford, England. Water-closet of the squat or non-contact type. No. 1,132,374; Mar. 16; Gaz. vol. 212; p. 959.
Moore, Nealy. (See Clayton and Moore.)
Moore, Oliver A. (See Headly, James W., assignor.)
Moore, Quintin, Riddrie, Glasgow, Scotland. Ash-discharge device for gas-producer grates. No. 1,133,995; Mar. 30; Gaz. vol. 212; p. 1623.
Moore, Robert S., and J. L. Simmons, assignors to Gyro Motor Company, Washington, D. C. Gas-engine. No. 1,131,257; Mar. 9; Gaz. vol. 212; p. 525.
Moore, Roswell A., Waterbury, Conn. Web-tip. No. 1,130,100; Mar. 2; Gaz. vol. 212; p. 90.
Moorhouse, Alfred, assignor to Hudson Motor Car Company, Detroit, Mich. Vehicle-top. No. 1,133,654; Mar. 30; Gaz. vol. 212; p. 1508.
Morand, Leo J. (See Sattler and Morand.)
Morden, Lucena M., Waterbury, Conn. Loose-leaf binder. No. 1,129,891; Mar. 2; Gaz. vol. 212; p. 20.
Morehouse, Melvin W., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,129,892; Mar. 2; Gaz. vol. 212; p. 21.
Moreland Motor Truck Company. (See Moreland, Watt L., assignor.)
Moreland, Watt L., assignor of one-half to Moreland Motor Truck Company, Los Angeles, Cal. Vehicle loading and unloading mechanism. No. 1,132,960; Mar. 23; Gaz. vol. 212; p. 1222.
Morgan, Edmund C., Chicago, Ill., assignor to American Morgan Company, Pierre, S. D. Pneumatic system of mining coal and removing foul gases from mine-chambers. No. 1,131,852; Mar. 16; Gaz. vol. 212; p. 769.
Morgan, George W., and L. Evans, Commerce, Okla. Extension-frame for mining-drills. No. 1,133,492; Mar. 30; Gaz. vol. 212; p. 1447.
Morgan, Henry W., Rochester, N. Y. Nailing-machine. No. 1,132,669; Mar. 23; Gaz. vol. 212; p. 1115.
Morgan, John, New York, N. Y. Hanger for books. No. 1,133,655; Mar. 30; Gaz. vol. 212; p. 1508.
Morheuser, Joseph, St. Louis, Mo. Wrench. No. 1,132,483; Mar. 16; Gaz. vol. 212; p. 999.
Morin, Jacques A., Quebec, Quebec, Canada. Gas turbine-engine. No. 1,131,072; Mar. 9; Gaz. vol. 212; p. 461.
Morison, Donald B., Hartlepool, England. Apparatus relating to the withdrawal of air and water from steam-condensers. No. 1,130,319; Mar. 2; Gaz. vol. 212; p. 165.
Morris, Edward, Boston, Mass. Signaling apparatus for street-railway cars. No. 1,132,864; Mar. 23; Gaz. vol. 212; p. 1187.
Morris, George W., *et al.* (See Markham, Andrew J., assignor.)
Morris-Hall Mail Closer Co. (See Hall, Louis J., assignor.)
Morris, William C., Easton, Pa. Adjustable boring-tool holder. No. 1,133,169; Mar. 23; Gaz. vol. 212; p. 1298.
Morris, William L., assignor to S. F. Bowser & Company, Inc., Fort Wayne, Ind. Precipitation-tank. No. 1,129,893; Mar. 2; Gaz. vol. 212; p. 21.
Morrison, Arthur M., Detroit, Mich. Pencil. No. 1,131,786; Mar. 16; Gaz. vol. 212; p. 745.
Morrison, Charles G., Great Bend, Kans. Jack. No. 1,133,391; Mar. 30; Gaz. vol. 212; p. 1412.
Morrison Frogless Switch Company. (See Krauss, Charles H., assignor.)
Morrison, John E., assignor to Safe-T-Lite Co., Memphis, Tenn. Glare-preventive means for headlights. No. 1,132,865; Mar. 23; Gaz. vol. 212; p. 1188.
Morrison, William, Des Moines, Iowa. Circuit-controller. No. 1,130,320; Mar. 2; Gaz. vol. 212; p. 166.
Morrison, William R., Chicago, Ill. Armored pneumatic tire. No. 1,130,995; Mar. 9; Gaz. vol. 212; p. 435.
Morrissey, Patrick W., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Baling-press. No. 1,130,006; Mar. 2; Gaz. vol. 212; p. 58.
Morrow, John B., and C. P. Geritz, Brooklyn, N. Y. Safety window-cleaning device and ventilator. No. 1,133,306; Mar. 30; Gaz. vol. 212; p. 1381.
Morrow, William P., Woodward, Okla. Cultivator. No. 1,130,924; Mar. 9; Gaz. vol. 212; p. 411.
Morse, Alfred A., *et al.* (See Brooks, John F., assignor.)
Morse, Clyde S., De Kalb, Ill. Resilient tire. No. 1,133,170. Mar. 23; Gaz. vol. 212; p. 1299.
Morse, William H., Kenosha, Wis. Grinding-block. No. 1,133,739; Mar. 30; Gaz. vol. 212; p. 1537.
Morss, Charles A., *et al.*, receivers. (See McGrath and Clark, assignors.)
Moseley, Emerson B., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Account-register. No. 1,130,421; Mar. 2; Gaz. vol. 212; p. 202.
Mosher, Samuel M., and W. G. Wood, Grand Rapids, Mich. Cross-head pin. No. 1,131,073; Mar. 9; Gaz. vol. 212; p. 462.
Mosier, Arthur R., assignor to A. R. Mosier & Co., New York, N. Y. Separable spark-plug. No. 1,131,154; Mar. 9; Gaz. vol. 212; p. 489.
Moss, Sanford A., Lynn, Mass., assignor to General Electric Company. Elastic-fluid turbine. No. 1,130,187; Mar. 2; Gaz. vol. 212; p. 121.
Motley, Alfred H., Jr., and O. Chouinard, assignors, by mesne assignments, to Lithotex Corporation, New York, N. Y. Step and repeat machine. No. 1,131,630; Mar. 9; Gaz. vol. 212; p. 655.
Motor Compressor Company. (See Spohrer, Gregory J., assignor.)
Motsinger Device Manufacturing Company. (See Motsinger, Homer N., assignor.)
Motsinger, Homer N., assignor to Motsinger Device Manufacturing Company, La Fayette, Ind. Nebulizing-nozzle. No. 1,133,656; Mar. 30; Gaz. vol. 212; p. 1508.
Mott, Herbert E. (See Hubbard, Elias E., assignor.)
Mottern, George C., Jonesboro, Tenn. Bag-holder. No. 1,133,171; Mar. 23; Gaz. vol. 212; p. 1299.
Moulton, James N. (See Chamberlin and Moulton.)
Moynihan, Jeremiah A., assignor of one-half to T. E. Sands, Minneapolis, Minn. Car-replacer. No. 1,131,941; Mar. 16; Gaz. vol. 212; p. 800.
Moynihan, John P., assignor to The Blackstone Manufacturing Company, Jamestown, N. Y. Hinge. No. 1,132,601; Mar. 23; Gaz. vol. 212; p. 1089.
Mt. Holyoke Tissue Mills. (See Teall, Oliver E., assignor.)
Muckenhirn, Charles H., Detroit, Mich., assignor, by mesne assignments, to The Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Water-closet bowl. No. 1,132,109; Mar. 16; Gaz. vol. 212; p. 861.
Muckenhirn, Charles H., Detroit, Mich., assignor, by mesne assignments, to The Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Siphon closet-bowl. No. 1,132,866; Mar. 23; Gaz. vol. 212; p. 1188.
Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Means for controlling the pump or the indenter of a machine for making printing-slugs. No. 1,133,568; Mar. 30; Gaz. vol. 212; p. 1476.

Mueller, Alexander V., Oswego, N. Y. Multistage centrifugal pump. No. 1,130,422; Mar. 2; Gaz. vol. 212; p. 203.
Mueller, Herman C., assignor to Evinrude Motor Company, Milwaukee, Wis. Ignition magneto-generator. No. 1,133,053; Mar. 23; Gaz. vol. 212; p. 1257.
Mueller, Kurt L. E., Detroit, assignor to F. A. Roese, Mount Clemens, Mich. Rotary oscillatory engine. No. 1,130,188; Mar. 2; Gaz. vol. 212; p. 121.
Muhsold, Bernard, Washington, D. C. Water-lifting device. No. 1,133,996; Mar. 30; Gaz. vol. 212; p. 1623.
Mulhollan, William E., Juneau, Alaska. Camera attachment. No. 1,131,410; Mar. 9; Gaz. vol. 212; p. 578.
Müller, Eberhard, Frankfort-on-the-Main, Germany. Last for footwear. No. 1,130,423; Mar. 2; Gaz. vol. 212; p. 203.
Müller, Henry N., Pittsburgh, Pa., assignor to The Johns-Pratt Company, Hartford, Conn. Fuse-clip. No. 1,133,569; Mar. 30; Gaz. vol. 212; p. 1476.
Mulligan, Thomas F., assignor to S. F. Bowser & Company, Fort Wayne, Ind. Force-pump. No. 1,132,670; Mar. 23; Gaz. vol. 212; p. 1115.
Mullin, Joseph H., Mifflinburg, Pa. Spring-wheel. No. 1,132,867; Mar. 23; Gaz. vol. 212; p. 1189.
Multi Speed Shutter Company. (See Dietz, Gustav, assignor.)
Mums, I. J. (See Picotte, Lloyd A., assignor.)
Mumford Molding Machine Company. (See Oberg, August E., assignor.)
München, Gottfried B., Leipzig, assignor to Allvor-Apparate-Gesellschaft mit beschränkter Haftung, Wurzen, Germany. Balancing mechanism for vehicle-windows. No. 1,130,189; Mar. 2; Gaz. vol. 212; p. 121.
München, William. (See Tagner and München.)
Murchey Machine and Tool Co. (See Prance, Albert J, assignor.)
Murie, Adelia *et al.* (See Toney, Joseph, assignor.)
Murke, Franz, Fort Collins, Colo. Refining raw cane-sugar. No. 1,132,868; Mar. 23; Gaz. vol. 212; p. 1189.
Murphy, George W., Dixon, Tex. Wire-fence tool. No. 1,131,539; Mar. 9; Gaz. vol. 212; p. 622.
Murphy, James A., *et al.* (See Courlaender, Bernard, Jr., assignor.)
Murphy, Clinton C. (See Mathews and Chenoweth, assignors.)
Murphy, Clinton C., Chicago, Ill. Car-roof. No. 1,133,493; Mar. 30; Gaz. vol. 212; p. 1447.
Murphy, Clinton C., Chicago, Ill. Running-board saddle. No. 1,133,494; Mar. 30; Gaz. vol. 212; p. 1448.
Murphy, George C., Louisville, Ky. Electrical signal. No. 1,133,307; Mar. 30; Gaz. vol. 212; p. 1381.
Murphy, Patrick H. (See Pilkington, John T., assignor.)
Murphy, Thomas W., Pierpont, S. D. Needle. No. 1,131,155; Mar. 9; Gaz. vol. 212; p. 489.
Murphy, Walter P. (See Conwell, Samuel H., assignor.)
Murphy, Walter P. (See Strid, Sven J., assignor.)
Murphy, Walter P. (See Summers, Edgar W., assignor.)
Murphy, Walter P., Chicago, Ill. Release-rigging. No. 1,132,024; Mar. 16; Gaz. vol. 212; p. 831.
Murphy, Walter P., Chicago, Ill. Metal car-roof. No. 1,133,495; Mar. 30; Gaz. vol. 212; p. 1448.
Murphy, Walter P., Chicago, Ill. Release-rigging. No. 1,132,024; Mar. 16; Gaz. vol. 212; p. 831.
Murray, Albert L., Auburn, Ind. Reinforcement for pneumatic tires. No. 1,130,424; Mar. 2; Gaz. vol. 212; p. 203.
Murray Company. (See Henry, Nelson B., assignor.)
Murray, Dennis T., *et al.* (See Jeffreys and Creahen, assignors.)
Murray, George R., Cleveland, Ohio. Automatic work-register. No. 1,132,110; Mar. 16; Gaz. vol. 212; p. 861.
Murray, John J., administrator. (See Power, Walter L.)
Murray, Thomas E., New York, N. Y. Protective-casing for line-conductors. No. 1,132,671; Mar. 23; Gaz. vol. 212; p. 1116.
Murray, Thomas E., New York, N. Y. Junction-box. No. 1,132,672; Mar. 23; Gaz. vol. 212; p. 1116.
Murray, Thomas E., New York, N. Y. Junction-box. No. 1,132,673; Mar. 23; Gaz. vol. 212; p. 1116.
Murray, Thomas E., New York, N. Y. Electric fuse. No. 1,132,674; Mar. 23; Gaz. vol. 212; p. 1117.
Murray, Thomas E., New York, N. Y. Vehicle-wheel. No. 1,132,675; Mar. 23; Gaz. vol. 212; p. 1117.
Murray, Thomas E., and A. V. A. McHarg, New York, N. Y.; said McHarg assignor to said Murray. Multi-duct. No. 1,132,676; Mar. 23; Gaz. vol. 212; p. 1117.
Murray, Thomas E., and C. B. Grady, New York, N. Y.; said Grady assignor to said Murray. Device for trapping particles in suspension in gas-currents. No. 1,132,677; Mar. 23; Gaz. vol. 212; p. 1117.
Murray, Thomas E., and C. B. Grady, New York, N. Y.; said Grady assignor to said Murray. Apparatus for trapping particles in suspension in gas-currents. No. 1,132,678; Mar. 23; Gaz. vol. 212; p. 1118.
Murray, Thomas E., and E. B. Ricketts, New York, N. Y. Neutralizing corrosive fumes in gases. No. 1,132,679; Mar. 23; Gaz. vol. 212; p. 1118.
Musher, Nathan, Washington, D. C. Soldering-machine. No. 1,131,726; Mar. 16; Gaz. vol. 212; p. 722.
Musher, Nathan, Washington, D. C. Package-filling machine. No. 1,131,727; Mar. 16; Gaz. vol. 212; p. 722.
Mustonen, Matts J., Newberry, Mich. Flying-machine. No. 1,130,623; Mar. 2; Gaz. vol. 212; p. 273.
Muther, Henry L., Minneapolis, Minn. Sash-fastener. No. 1,133,308; Mar. 30; Gaz. vol. 212; p. 1382.
Muzzy, William H., Dayton, Ohio. Illuminating and heating device. No. 1,132,961; Mar. 23; Gaz. vol. 212; p. 1223.
Myers, Charles E., Lebanon, Ill., assignor by meane assignments, to Simplex Shoe Machinery Company, St. Louis, Mo. Sewing-machine. No. 1,131,853; Mar. 16; Gaz. vol. 212; p. 769.
Myers, Charles E., Lebanon, Ill., assignor, by meane assignments, to Simplex Shoe Machinery Company, St. Louis, Mo. Sewing-machine needle. No. 1,131,854; Mar. 16; Gaz. vol. 212; p. 770.
Myers, George S., Electra, Tex. Drill-collar. No. 1,132,375; Mar. 16; Gaz. vol. 212; p. 959.
Myers, Hubert A., assignor of one-half to A. S. Hickok, Toledo, Ohio. Starter-control for explosive-engines. No. 1,132,602; Mar. 23; Gaz. vol. 212; p. 1090.
Myers, James J., Thurles, Ireland. Variable-speed gearing. No. 1,132,603; Mar. 23; Gaz. vol. 212; p. 1090.
Nabors, Harrison B. (See Rives and Nabors.)
Nagel, Frederick J., Portville, N. Y. Foldable or collapsible adjustable scaffold. No. 1,133,878; Mar. 30; Gaz. vol. 212; p. 1588.
Nagle, Daisy, administratrix. (See Nagle, George R.)
Nagle, George R., deceased, Superior, Wis., assignor, by mesne assignments, of fifty one-hundredths to T. S. Denton, Kansas City, Mo.: D. Nagle, administratrix. Agitator. No. 1,130,007; Mar. 2; Gaz. vol. 212; p. 58.
Nagle, Peter J., Rochester, N. Y. Egg carrier or box. No. 1,131,728; Mar. 16; Gaz. vol. 212; p. 722.
Nall, Edward, and W. C. Tyler, assignors to The Goodyear Tire and Rubber Company, Akron, Ohio. Wheel-hub. No. 1,130,425; Mar. 2; Gaz. vol. 212; p. 203.
Nall, Edward, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Tensioning device. No. 1,133,309; Mar. 30; Gaz. vol. 212; p. 1382.
Napier, R. Bennett, *et al.* (See Maness, John M., assignor.)
Nash, Raymond F., Moritz, S. D. Carpenter's tool. No. 1,133,310; Mar. 30; Gaz. vol. 212; p. 1383.
Nash, Sidney J. (See Mansbridge and Nash.)
Nash, Thomas J., Lincoln, Nebr. Strainer attachment for cooking utensils. No. 1,130,756; Mar. 9; Gaz. vol. 212; p. 353.
Nash, Thomas J., Lincoln, Nebr. Electric fluid-heater. No. 1,132,604; Mar. 23; Gaz. vol. 212; p. 1090.
Nathan Manufacturing Company. (See Kelsey, Edgar A., assignor.)
Nathan Manufacturing Company. (See Wood, Robert, assignor.)
National-Acme Manufacturing Company, The. (See Rindfleisch, Benjamin F., assignor.)
National Automatic Fender Company. (See Williams-Eaton, Harry T., assignor.)
National Brass Manufacturing Co. (See Wray, Charles P., assignor.)
National Brick Company. (See Bultge, Martin F., assignor.)
National Carbon Company. (See Brown, John W., assignor.)
National Cash Register Company. (See Carroll, Thomas, assignor.)
National Cash Register Company. (See Fassett, Francis K., assignor.)
National Cash Register Company, The. (See Geiger, George P., assignor.)
National Cash Register Company, The. (See Kettering and Chryst, assignors.)
National Cash Register Company, The. (See Von Pein, Edward J., assignor.)
National Cash Register Company, The. (See Werner, John A., assignor.)
National Dump Car Company. (See Hart and Seaberg, assignors.)
National Lock Company. (See Thulander, Konstantine, assignor.)
National Malleable Castings Company, The. (See Coffin, Walter E., assignor.)
National Malleable Castings Company, The. (See Kranz, William G., assignor.)
National Malleable Castings Company. (See Schmidt, Ernest H., assignor.)
National Sewing Machine Company. (See Atwood, Clarence B., assignor.)
National Sewing Machine Company. (See Ehrendriech, Frank, assignor.)
National Shawmut Bank, trustee. (See Adams-Randall, Charles, assignor.)
National Supply Company, The. (See Wright, Clyde S., assignor.) (Reissue.)
National Tape Company. (See Eggleston, Rufus E., assignor.)
Naulder, John S., Pittsburgh, Pa. Retainer for dental plates. No. 1,133,570; Mar. 30; Gaz. vol. 212; p. 1477.
Naumann, Paul, Dresden, Germany, assignor to Otto & Schlosser, Meissen, Germany. Rail-fastening. No. 1,132,962; Mar. 23; Gaz. vol. 212; p. 1223.
Naylor, George H., assignor to F. B. Parker, Trenton, N. J. Collapsible core. No. 1,133,445; Mar. 30; Gaz. vol 212; p. 1431.
Naylor, Walter N., Forest Hill, and S. P. Hutton, Beckenham, England. Apparatus for the manufacture of metallic alloys. No. 1,132,376; Mar. 16; Gaz. vol. 212; p. 959.
Nazel, John. (See Bates, Ralph E., assignor.)

Neal, George W., Clarksville, Ark. Peach slicer and seeder. No. 1,129,894; Mar. 2; Gaz. vol. 212; p. 21.
Near Side Car Company, The. (See Senter, Ralph T., assignor.)
Neble, John L. W., Everett, Wash. Apparatus for impregnating timbers. No. 1,132,025; Mar. 16; Gaz. vol. 212; p. 832.
Neff Company, The. (See Neff, Douglas M., assignor.)
Neff, Douglas M., East Cleveland, assignor to The Neff Company, Cleveland, Ohio. Camp-stool. No. 1,134,057; Mar. 30; Gaz. vol. 212; p. 1645.
Nelly, Waldo C., Canaan, N. H. Combined ironing-board and step-ladder. No. 1,131,943; Mar. 16; Gaz. vol. 212; p. 801.
Nelke, Herbert L., Philadelphia, Pa. Making and shaping garments. No. 1,133,172; Mar. 23; Gaz. vol. 212; p. 1299.
Nelson, August T., assignor of forty-one one-hundredths to J. Graves and fifteen one-hundredths to A. C. Kleckhefer, Milwaukee, Wis. Means for lowering boats at sea. No. 1,131,411; Mar. 9; Gaz. vol. 212; p. 578.
Nelson, Erik, Holdredge, Nebr. Cabinet. No. 1,133,997; Mar. 30; Gaz. vol. 212; p. 1623.
Nelson, Nordahl O., Westby, Wis. Brace for cabinets. No. 1,130,426; Mar. 2; Gaz. vol. 212; p. 204.
Neptune Meter Company. (See Burton, James M., assignor.)
Nerenhausen, Edmund J., Oconto, Wis. Detachable milk-seat. No. 1,131,540; Mar. 9; Gaz. vol. 212; p. 623.
Nero, Arvid H., New Britain, assignor to The Arrow Electric Company, Hartford, Conn. Electric-lamp socket. No. 1,131,541; Mar. 9; Gaz. vol. 212; p. 623.
Neuberger, Franklin H., Jeffersonville, N. Y. Stationary mortar-spreader. No. 1,130,532; Mar. 2; Gaz. vol. 212; p. 243.
Neuberger, Henry C. (See Bergh and Neuberger.)
Neudorff, Frederick, Atlanta, Ga. Steering mechanism for motor-vehicles. No. 1,131,729; Mar. 16; Gaz. vol. 212; p. 723.
Neumann, Jakob S., Great Falls, Mont. Safety attachment for vessels. No. 1,129,895; Mar. 2; Gaz. vol. 212; p. 21.
New Jersey Patent Company. (See Edison, Thomas A., assignor.)
New Jersey Patent Company. (See Holland, Newman H., assignor.)
New Jersey Patent Company. (See Miller, Walter H., assignor.)
New Jersey Testing Laboratories. (See Ellis, Carleton, assignor.)
New Jersey Zinc Company, The. (See Rigg, Gilbert, assignor.)
New York Central Iron Works Company. (See Hull, Foster J., assignor.)
New York Revolving Portable Elevator Company. (See Germond, Henry S., Jr., assignor.)
Newberry, Spencer B., and H. N. Barrett, Baybridge, Ohio. Producing barium oxid. No. 1,133,392; Mar. 30; Gaz. vol. 212; p. 1413.
Newbury, Henry F., New York, N. Y., assignor to Elevator Supply & Repair Company. Signal apparatus. No. 1,132,605; Mar. 23; Gaz. vol. 212; p. 1091.
Newbury, Henry F., New York, N. Y., assignor to Elevator Supply & Repair Company. Signal apparatus. No. 1,132,606; Mar. 23; Gaz. vol. 212; p. 1091.
Newcomb, Horace C., Philadelphia, Pa. Stuffed fruit. No. 1,133,054; Mar. 23; Gaz. vol. 212; p. 1258.
Newcomb, William W., New York, N. Y., assignor to The McCall Company. Composite-picture machine. No. 1,133,311; Mar. 30; Gaz. vol. 212; p. 1383.
Newcomer, Martin, New York, N. Y. Piano-player. No. 1,131,074; Mar. 9; Gaz. vol. 212; p. 462.
Newcomer, Martin, New York, N. Y., assignor to Volotone Company, Elizabeth, N. J. Pneumatic device for musical instruments. No. 1,130,101; Mar. 2; Gaz. vol. 212; p. 90.
Newell, Emerson R., New York, N. Y., assignor to Elevator Supply & Repair Company, Chicago, Ill. Elevator signaling system. No. 1,132,607; Mar. 23; Gaz. vol. 212; p. 1092.
Newhall, Walter S., Cleveland, Ohio. Flangeway-guard for highway-crossings. No. 1,130,996; Mar. 9; Gaz. vol. 212; p. 435.
Newhall, Walter S., Cleveland, Ohio. Flangeway-guard for highway-crossings. No. 1,130,997; Mar. 9; Gaz. vol. 212; p. 436.
Newland, Charles L., Merton, England. Flushing-cistern. No. 1,132,608; Mar. 23; Gaz. vol. 212; p. 1092.
Newman Clock Company. (See Jenkins, Charles H., assignor.)
Newman, Eugene, and L. A. Seppi, Brea, Cal. Valve-grinding machine. No. 1,131,611; Mar. 9; Gaz. vol. 212; p. 647.
Newman, William G., Ogden, Utah. Adjustable table for wire-cloth racks. No. 1,133,055; Mar. 23; Gaz. vol. 212; p. 1258.
Newsom, James W. (See Lanier and Newsom.)
Newton Cut Wheat Cereal and Trading Company. (See Cox, Ezekiel B., assignor.)
Ney, Charles W., deceased; S. B. Ney, administrator, Schuylkill Haven, Pa. Washing-machine. No. 1,132,484; Mar. 16; Gaz. vol. 212; p. 999.
Ney, Samuel B., administrator. (See Ney, Charles W.)
Nichols, Elmer P., assignor to Lacene Manufacturing Company, Manchester, N. H. Machine for evening and grading cut soles and the like. No. 1,130,321; Mar. 2; Gaz. vol. 212; p. 166.
Nichols, Louis C., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Transformer. No. 1,131,258; Mar. 9; Gaz. vol. 212; p. 525.
Nichols, William W., San Francisco, Cal. Mattress. No. 1,132,869; Mar. 23; Gaz. vol. 212; p. 1189.
Nicholson, Norman J., Revere, assignor of one-half to N. C. Bohr, deceased, Boston, Mass.; H. B. Bohr administrator. Insole-tempering device. No. 1,133,879; Mar. 30; Gaz. vol. 212; p. 1588.
Nickol, Frederick C., and M. C. Stern, assignors to The Egry Register Company, Dayton, Ohio. Manifolding device for autographic registers. No. 1,133,816; Mar. 30; Gaz. vol. 212; p. 1566.
Nicol, John M. (See Aldrich, Frank, assignor.)
Nicol, William M., Hildebrand, Saskatchewan, Canada. Attachment to binders. No. 1,130,757; Mar. 9; Gaz. vol. 212; p. 354.
Nicoll, Benjamin F., New Orleans, La. Mail-bag receiving and delivering mechanism. No. 1,133,998; Mar. 30; Gaz. vol. 212; p. 1624.
Nicolson, Alexander M. (See Van der Bijl and Nicolson.)
Nicolson, Alexander M., Tarrytown, assignor to Western Electric Company, New York, N. Y. Audion. No. 1,130,008; Mar. 2; Gaz. vol. 212; p. 59.
Nicolson, Alexander M., Tarrytown, assignor to Western Electric Company, New York, N. Y. Audion. No. 1,130,009; Mar. 2; Gaz. vol. 212; p. 59.
Niedner, Adolph O., Malden, Mass. Cleaning attachment for firearms. No. 1,133,571; Mar. 30; Gaz. vol. 212; p. 1477.
Nield, Josiah, North Milwaukee, Wis., assignor, by mesne assignments, to W. & T. Avery Ltd., Birmingham, England. Automatic compensator for scales. No. 1,133,657; Mar. 30; Gaz. vol. 212; p. 1509.
Nielsen, Rasmus, Troy, N. Y., assignor to The Gilchrist Company, Newark, N. J. Ice-cream spoon. No. 1,132,870; Mar. 23; Gaz. vol. 212; p. 1190.
Nielsen, Rasmus, Troy, N. Y., assignor to The Gilchrist Company, Newark, N. J. Ice-cream spoon. No. 1,132,871; Mar. 23; Gaz. vol. 212; p. 1190.
Niemitalo, Charley. (See Adams and Niemitalo.)
Nieschang, Charles C. F., Fort Wayne, Ind. Indicator. No. 1,132,282; Mar. 16; Gaz. vol. 212; p. 927.
Niggli, August, Rheineck, assignor to Firm of H. Levy, Rorschach, Switzerland. Screw-cutting machine. No. 1,132,026; Mar. 16; Gaz. vol. 212; p. 832.
Nikonow, John P., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Safety device for starting-motors. No. 1,130,010; Mar. 2; Gaz. vol. 212; p. 59.
Nilson, Mordecai M., Edenton, N. C. Street-sweeper. No. 1,130,758; Mar. 9; Gaz. vol. 212; p. 354.
Noakes, Clifton F., Portland, Oreg. Post-anchor. No. 1,133,496; Mar. 30; Gaz. vol. 212; p. 1449.
Noakes, Robert S., London, England. Support or adjuster for soft collars. No. 1,133,880; Mar. 30; Gaz. vol. 212; p. 1589.
Noble, Donald, Bridgeport, Conn., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,133,572; Mar. 30; Gaz. vol. 212; p. 1477.
Noiseless Typewriter Company, The. (See Anderson, Nils H., assignor.)
Nolan, Edward E., Chicago, Ill. Tubular receptacle. No. 1,130,322; Mar. 2; Gaz. vol. 212; p. 167.
Nolan, Michael C., Bromsgrove, England. Horseshoe. No. 1,130,834; Mar. 9; Gaz. vol. 212; p. 380.
Nolinsky, Albert J. (See Bragdon, Herbert J., assignor.)
Nonn, John. (See Standfest, George, assignor.)
Norcross, Orlando W., Worcester, Mass. Concrete floor construction. No. 1,133,658; Mar. 30; Gaz. vol. 212; p. 1509.
Nordin, John H., South Shore, S. D. Foot steering attachment for motor-cycles. No. 1,132,872; Mar. 23; Gaz. vol. 212; p. 1190.
Nordoff, Max, assignor to Elevator Supply & Repair Company, Chicago, Ill. Indicating device for annunciators and the like. No. 1,131,855; Mar. 16; Gaz. vol. 212; p. 771.
Nordvall, Hjalmar, Chicago, Ill. Grinding-machine. No. 1,130,011; Mar. 2; Gaz. vol. 212; p. 60.
Norling, Reinhold A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Ratchet mechanism. No. 1,130,925; Mar. 9; Gaz. vol. 212; p. 412.
Norris, Almon E., Cambridge, Mass. Coupling connection. No. 1,133,312; Mar. 30; Gaz. vol. 212; p. 1383.
Norris, Robert E., Fayetteville, Ark., assignor of one-half to M. N. Benson, Paris, Tex. Nut-lock. No. 1,129,896; Mar. 2; Gaz. vol. 212; p. 22.
Norsk Hydro-Elektrisk Kvaelstofaktieselskab. (See Collett, Emil, assignor.)
North Bro's M'f'g Co. (See Fegley and Leopold, assignors.)
North Bro's M'f'g Co. (See Fegley, Thomas J., assignor.)
North, Charles H., Cleveland, Ohio, assignor, by mesne assignments, to F. C. Stevens, Attica, N. Y. Telephone-exchange apparatus. No. 1,130,190; Mar. 2; Gaz. vol. 212; p. 122.
North, Henry. (See Oberer, Fredollen J., assignor.)

North Indianapolis Cradle Works. (See Hewitt, Horace B., assignor.)
Northern Sales Co., The. (See Delaney, Michael G., assignor.)
Norton Company. (See Spence, John C., assignor.)
Norton Door Check Company. (See Norton, Lewis C., assignor.)
Norton, Edwin, Hamilton, Bermuda, assignor to Perfect Vacuum Canning Company. Vacuum-can. No. 1,133,999; Mar. 30; Gaz. vol. 212; p. 1624.
Norton, George W., *et al.* (See Webb, Ferdinand, assignor.)
Norton, Lewis C., assignor to Norton Door Check Company, Chicago, Ill. Device for operating doors. No. 1,132,027; Mar. 16; Gaz. vol. 212; p. 832.
Norton, Robert P. (See Talley and Norton.)
Nunn, Orion W., Denver, Colo., assignor to Landis Machine Company, St. Louis, Mo. Wire-feeding mechanism for stapling-machines. No. 1,132,111; Mar. 16; Gaz. vol. 212; p. 862.
Nunn, Orion W., Denver, Colo., assignor to Landis Machine Company, St. Louis, Mo. Button-stapling machine. No. 1,132,112; Mar. 16; Gaz. vol. 212; p. 862.
Nutter, William S., assignor to Goodall Worsted Company, Sanford, Me. Mohair fabric. No. 1,131,259; Mar. 9; Gaz. vol. 212; p. 526.
Nydegger, Adolph, assignor to C. H. & E. Manufacturing Company, Milwaukee, Wis. Plaster-mixer. No. 1,131,260; Mar. 9; Gaz. vol. 212; p. 526.
Nygaard, Gunder, Clermont, Iowa. Hydrocarbon-engine. No. 1,133,740; Mar. 30; Gaz. vol. 212; p. 1538.
O'Brien, James F., Chicago, Ill. Explosive. No. 1,132,873; Mar. 23; Gaz. vol. 212; p. 1191.
O'Brien, James F., Los Angeles, Cal. Automobile-lock. No. 1,133,393; Mar. 30; Gaz. vol. 212; p. 1413.
O'Brien, John, Chicago, Ill. Mortuary-illuminating apparatus. No. 1,130,191; Mar. 2; Gaz. vol. 212; p. 122.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,130,012; Mar. 2; Gaz. vol. 212; p. 60.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Twin-arranged friction draft-gear. No. 1,130,013; Mar. 2; Gaz. vol. 212; p. 60.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Friction draft-rigging for railway-cars. No. 1,130,323; Mar. 2; Gaz. vol. 212; p. 167.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. High-capacity twin-friction draft-gear. No. 1,130,998; Mar. 9; Gaz. vol. 212; p. 436.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Railway draft-rigging. No. 1,130,999; Mar. 9; Gaz. vol. 212; p. 436.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Pedestal-table. No. 1,131,730; Mar. 16; Gaz. vol. 212; p. 723.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Side bearing for railway-cars. No. 1,132,610; Mar. 23; Gaz. vol. 212; p. 1094.
O'Conner, John F., assignor to W. H. Miner, Chicago, Ill. Side bearing for six-wheeled passenger-car trucks. No. 1,133,573; Mar. 30; Gaz. vol. 212; p. 1477.
O'Connor, Stanley H., *et al.* (See Wood, Halbert M., assignor.)
O'Donnell, Patrick J., Chicago, Ill. Repairing brick furnace-arches. No. 1,132,028; Mar. 16; Gaz. vol. 212; p. 833.
O'Donnell, Patrick S., assignor, by mesne assignments, to Automatic Magazine Cigarette Box Co., Chicago, Ill. Cigarette-case. No. 1,131,856; Mar. 16; Gaz. vol. 212; p. 771.
O'Donnell, William J., Alameda, Cal. Display-box. No. 1,131,075; Mar. 9; Gaz. vol. 212; p. 462.
O'Dowd, Henry W., Jersey City, N. J., assignor to William M. Crane Company. Gas-burner. No. 1,132,029; Mar. 16; Gaz. vol. 212; p. 833.
O'Neal, John S., Cincinnati, Ohio. Disk valve for internal-combustion engines. No. 1,130,427; Mar. 2; Gaz. vol. 212; p. 204.
O'Neil, George, Moncton, New Brunswick, Canada. Smoke-consumer. No. 1,131,944; Mar. 16; Gaz. vol. 212; p. 801.
O'Neill, George, Moncton, New Brunswick, Canada. Furnace-door. No. 1,131,945; Mar. 16; Gaz. vol. 212; p. 801.
O'Neill, Wesley, Russellville, Pa. Horseshoe. No. 1,131,858; Mar. 16; Gaz. vol. 212; p. 772.
Oberer, Fredollen J., assignor of one-half to H. North, Portland, Oreg. Silo-bracing. No. 1,132,609; Mar. 23; Gaz. vol. 212; p. 1093.
Oberg, August E., assignor to Mumford Molding Machine Company, Plainfield, N. J. Jolt-ramming machine. No. 1,133,394; Mar. 30; Gaz. vol. 212; p. 1413.
Ocumpaugh, Charles H., Rochester, N. Y. Flying-machine. No. 1,132,377; Mar. 16; Gaz. vol. 212; p. 960.
Oeftger, William F., Detroit, Mich. Gas-lamp control and igniter. No. 1,132,485; Mar. 16; Gaz. vol. 212; p. 999.
Oehler, De Witt C., Hopkinton, Iowa. Axle-clip. No. 1,133,173; Mar. 23; Gaz. vol. 212; p. 1300.
Offerman, Joseph P., Beaver Dam, Wis. Dust-proof journal-bearing. No. 1,131,857; Mar. 16; Gaz. vol. 212; p. 771.
Ohio Brass Company, The. (See Gierding, Charles E., assignor.)
Ohio Grease Company, The. (See Lowry, Frank, assignor.)
Ohlgart, George P. (See Oliver and Ohlgart.)
Olds, Ransom E., Lansing, Mich. Power lawn-mower. No. 1,131,156; Mar. 9; Gaz. vol. 212; p. 489.
Oliphant, Alfred. (See Criner, Harry J., assignor.)
Oliver, Doctor F., Oakland, Cal. Extension-table. No. 1,134,000; Mar. 30; Gaz. vol. 212; p. 1625.
Oliver, Herbert R., and G. P. Ohlgart, assignors to The American Automatic Shoe Polishing Machine Company, Baltimore, Md. Shoe-polishing machine. No. 1,131,613; Mar. 9; Gaz. vol. 212; p. 648.
Oliver, Nathan A., Mattapoisett, Mass. Brake-applying mechanism for trains. No. 1,133,497; Mar. 30; Gaz. vol. 212; p. 1449.
Olney, Joseph W., assignor of one-third to J. S. McDonald, Latah, Wash. Sewing-needle. No. 1,134,001; Mar. 30; Gaz. vol. 212; p. 1625.
Olsen, Olaf P. (See Stenersen, Ole, assignor.)
Olsen, Peter, Copenhagen, Denmark. Safety-lock. No. 1,131,542; Mar. 9; Gaz. vol. 212; p. 623.
Olsen, Victor, Chicago, Ill. Paper-weight. No. 1,131,261; Mar. 9; Gaz. vol. 212; p. 526.
Olson, Charles J., Muskegon, Mich. Boring and drilling machine. No. 1,132,113; Mar. 16; Gaz. vol. 212; p. 863.
Olstad, Martin T., Greenport, N. Y. Flagstaff. No. 1,134,002; Mar. 30; Gaz. vol. 212; p. 1625.
Öman, Erik, Stockholm, Sweden. Producing sulfite cellulose. No. 1,130,192; Mar. 2; Gaz. vol. 212; p. 123.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Blindstitch sewing-machine. No. 1,132,680; Mar. 23; Gaz. vol. 212; p. 1118.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,132,963; Mar. 23; Gaz. vol. 212; p. 1223.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Blindstitch sewing-machine. No. 1,132,964; Mar. 23; Gaz. vol. 212; p. 1224.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Blindstitch sewing-machine. No. 1,132,965; Mar. 23; Gaz. vol. 212; p. 1224.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Blindstitch sewing-machine. No. 1,132,966; Mar. 23; Gaz. vol. 212; p. 1225.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Blindstitch-machine. No. 1,132,967; Mar. 23; Gaz. vol. 212; p. 1225.
Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Blindstitch sewing-machine. No. 1,132,968; Mar. 23; Gaz. vol. 212; p. 1225.
Onsel, John, Risingsun, Ohio. Sharpener for lawn-mowers. No. 1,130,624; Mar. 2; Gaz. vol. 212; p. 273.
Önyskow, Silvester, assignor of one-half to P. Godlesky, Jenkins, Ky. Rat-trap. No. 1,131,000; Mar. 9; Gaz. vol. 212; p. 437.
Ord, Lewis C., assignor to R. W. Burnett, Montreal, Quebec, Canada. Heating system. No. 1,131,946; Mar. 16; Gaz. vol. 212; p. 802.
Ord, Lewis C., assignor to R. W. Burnett, Montreal, Quebec, Canada. Heating system. No. 1,131,947; Mar. 16; Gaz. vol. 212; p. 802.
Ordnance Development Company of America. (See Davis, Cleland, assignor.)
Oregon Woodenware Manufacturing Company. (See Springer, Aaron M., assignor.)
Orm, Roy S., New York, N. Y. Glue form and clamp. No. 1,133,174; Mar. 23; Gaz. vol. 212; p. 1300.
Orr, Chester A., Cleveland, Ohio. Exhaust-muffler. No. 1,131,543; Mar. 9; Gaz. vol. 212; p. 624.
Orsburn, John W., Spokane, Wash. Sack-holder. No. 1,133,395; Mar. 30; Gaz. vol. 212; p. 1414.
Orth, Frank, Indiana Harbor, Ind. Regenerator for furnaces. No. 1,131,262; Mar. 9; Gaz. vol. 212; p. 527.
Osaka, Rikijiro, Denver, Colo. Antislipping attachment for shoes, rubbers, or overshoes. No. 1,132,208; Mar. 16; Gaz. vol. 212; p. 898.
Osborn, Frank H., Sacramento, Cal. Paint-brush. No. 1,130,759; Mar. 9; Gaz. vol. 212; p. 355.
Osborn, Harmon R., Auburn, N. Y. Musical instrument. No. 1,133,741; Mar. 30; Gaz. vol. 212; p. 1538.
Osborn Manufacturing Company, The. (See Knowlton and Elliott, assignors.)
Osborn, William H., Louisville, Ky., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Shipping-package. No. 1,131,948; Mar. 16; Gaz. vol. 212; p. 803.
Osborne, John H., Anderson, Ind. Computing cheese-cutter. No. 1,131,949; Mar. 16; Gaz. vol. 212; p. 804.
Oshkosh Trunk Company, The. (See Meyer, Frank W., assignor.)
Osler, Jay T., Coraopolis, Pa. Making chilled rolls with steel centers. No. 1,132,611; Mar. 23; Gaz. vol. 212; p. 1094.
Osler, Jay T., Coraopolis, Pa. Apparatus for making composite rolls. No. 1,132,612; Mar. 23; Gaz. vol. 212; p. 1094.
Oster, Herman W., assignor of one-half to R. B. Tewksbury, Cleveland, Ohio. Tire holder and lock. No. 1,132,486; Mar. 16; Gaz. vol. 212; p. 999.

Osterberg, Frank M., Rockford, Ill. Safety-razor. No. 1,130,835; Mar. 9; Gaz. vol. 212; p. 380.
Ostness, Edward K., Beloit, Wis. Corn-extractor. No. 1,133,881; Mar. 30; Gaz. vol. 212; p. 1589.
Oswald, Herman H., Fort Ann, N. Y. Reloadable cartridge-fuse. No. 1,133,175; Mar. 23; Gaz. vol. 212; p. 1300.
Otey, George S. (See Brown and Otey.)
Otis Elevator Company. (See Boening, Ernest, assignor.)
Otis Elevator Company. (See Gale, Ernest L., Sr., assignor.)
Otis Elevator Company. (See Lutz, William D., assignor.)
Otis Elevator Company. (See Scott, Campbell, assignor.)
Otis Elevator Company. (See Smith, Edward A., assignor.)
Otis Elevator Company. (See Sundh, August, assignor.)
Otis Elevator Company. (See Westlin, Bror E., assignor.)
Otto & Schlosser. (See Naumann, Paul, assignor.)
Ovenshire, Charles E. (See Thayer, Burt W., assignor.)
Oveson, Gustave A., International Falls, Minn. Garbage-incinerator. No. 1,132,790; Mar. 23; Gaz. vol. 212; p. 1160.
Owen, Edward G., Janesville, Wis. Lightning-rod coupling. No. 1,133,176; Mar. 23; Gaz. vol. 212; p. 1301.
Owen, George B., Jr., Brooklyn, N. Y. Air-moistening device. No. 1,129,897; Mar. 2; Gaz. vol. 212; p. 22.
Owen, Robert C. D., Vancouver, British Columbia, Canada. Building-block for wall constructions. No. 1,130,324; Mar. 2; Gaz. vol. 212; p. 167.
Owensboro Ditcher and Grader Company. (See Williams, William R., assignor.)
Oyster, Earl F., assignor to The Alliance Machine Company, Alliance, Ohio. Grab-bucket. No. 1,130,428; Mar. 2; Gaz. vol. 212; p. 205.
P. & M. Co., The. (See Preston, Frederick A., assignor.)
P. David & Company. (See Pickles, Charles K., assignor.)
P. H. Murphy Company. (See Brewer, William A., assignor.)
Pachner, Isaac, New York, N. Y. Cap. No. 1,133,056; Mar. 23; Gaz. vol. 212; p. 1259.
Package Machinery Company. (See Giroud, Felipe, assignor.)
Package Machinery Company. (See Redington and Milmoe, assignors.)
Packard Motor Car Company. (See Huff, Russell, assignor.)
Packard Motor Car Company. (See Knight, Alfred H., assignor.)
Packard Motor Car Company. (See Loomis, Allen, assignor.)
Packard Motor Car Company. (See Trego, Frank H., assignor.)
Paeplow, Charles H., Jr. (See Hewitt and Paeplow.)
Paffrath, Fritz, Schmalkalden, Germany. Folding gridiron. No. 1,130,760; Mar. 9; Gaz. vol. 212; p. 355.
Pagano, Joseph, Memphis, Tenn. Automatic stopping device. No. 1,132,791; Mar. 23; Gaz. vol. 212; p. 1160.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Mechanism for locking batteries of doors. No. 1,133,659; Mar. 30; Gaz. vol. 212; p. 1510.
Page, Frances M., Springfield, Mass. Duster. No. 1,130,325; Mar. 2; Gaz. vol. 212; p. 167.
Page, John W., Adrian, Mich. Gate for wire fencing. No. 1,132,792; Mar. 23; Gaz. vol. 212; p. 1161.
Paige, Austin B., Des Moines, Iowa. Grain-decorticating machine. No. 1,131,787; Mar. 16; Gaz. vol. 212; p. 746.
Paja, Stanislaw, Plymouth, Pa. Vessel-lifter. No. 1,133,742; Mar. 30; Gaz. vol. 212; p. 1538.
Palm, Oliver, Albany, Tex. Churn-operating device. No. 1,133,177; Mar. 23; Gaz. vol. 212; p. 1301.
Palmatary, John T., Richmond, Va. Winker-strap attachment. No. 1,130,836; Mar. 9; Gaz. vol. 212; p. 380.
Palmbla, Edward S., North Chicago, assignor of one-half to F. Palmbla, Chicago, Ill. Internal-combustion engine. No. 1,130,014; Mar. 2; Gaz. vol. 212; p. 60.
Palmbla, Frank. (See Palmbla, Edward S., assignor.)
Palmer, Eugene A., Belle Plaine, Iowa. Resilient wheel. No. 1,133,882; Mar. 30; Gaz. vol. 212; p. 1589.
Palmer, Harlan G., *et al.* (See Bardeen, Hugh A., assignor.)
Palmer, Isaac E., assignor to I. E. Palmer Co., Middletown, Conn. Couch-hammock. No. 1,130,193; Mar. 2; Gaz. vol. 212; p. 123.
Palmer, Joel C. R., Brooklyn, assignor to Western Electric Company, New York, N. Y. Telephone-transmitter. No. 1,132,613; Mar. 23; Gaz. vol. 212; p. 1095.
Palmer, Verne T., Tuscarora, N. Y. Windmill. No. 1,130,326; Mar. 2; Gaz. vol. 212; p. 168.
Panosh, Louis, Chicago, Ill. Engine. No. 1,133,057; Mar. 23; Gaz. vol. 212; p. 1259.
Papillon, Alfred, Lowry, La. Oil-burner. No. 1,130,194; Mar. 2; Gaz. vol. 212; p. 123.
Papin, Alphonse, and D. Rouilly, Paris, France. Helicopter. No. 1,133,660; Mar. 30; Gaz. vol. 212; p. 1510.
Paprian, Ignace, Pittsburgh, Pa., assignor of forty-nine one-hundredths to H. Ahlert and J. C. Ball. Toy pistol. No. 1,133,235; Mar. 23; Gaz. vol. 212; p. 1319.
Paquet, Pierre J., Jeannette, Pa. Glass-furnace. No. 1,131,788; Mar. 16; Gaz. vol. 212; p. 746.
Park, William, Brantford, Ontario, Canada. Tellurian. No. 1,131,263; Mar. 9; Gaz. vol. 212; p. 527.
Parke, John Y., Philadelphia, Pa. Gas-lighter. No. 1,130,195; Mar. 2; Gaz. vol. 212; p. 124.
Parker, Fred R. (See Naylor, George H., assignor.)
Parker, Ralyzemond A. (See Goodell, Alfred P., assignor.)
Parker, Thomas R. G., Broadheath, assignor to Linotype and Machinery Limited, London, England. Rotary offset sheet-printing press adapting it to perfect. No. 1,131,950; Mar. 16; Gaz. vol. 212; p. 804.
Parker, William E., assignor to American Graphophone Company, Bridgeport, Conn. Sound-box. No. 1,133,883; Mar. 30; Gaz. vol. 212; p. 1590.
Parks, Clifton A., Chicago, Ill. Electrolytic apparatus. No. 1,131,859; Mar. 16; Gaz. vol. 212; p. 772.
Parks, Harry S., Philadelphia, Pa., assignor to Pneumercator Company. Pneumatic depth-indicator. No. 1,131,412; Mar. 9; Gaz. vol. 212; p. 579.
Parmenter, John W., Springfield, Ohio. Buckle. No. 1,133,896; Mar. 30; Gaz. vol. 212; p. 1414.
Parmley, Walter C., Montclair, N. J. Concrete and steel construction. No. 1,131,646; Mar. 9; Gaz. vol. 212; p. 662.
Parmley, Walter C., Upper Montclair, N. J. Concrete pipe. No. 1,133,313; Mar. 30; Gaz. vol. 212; p. 1383.
Parnall, Archie E., assignor, by mesne assignments, to F. W. Williams, Chicago, Ill. Graphophone. No. 1,130,837; Mar. 9; Gaz. vol. 212; p. 380.
Parr, George T., Minneapolis, Minn. Bottle-closure. No. 1,131,544; Mar. 9; Gaz. vol. 212; p. 624.
Parris, Edward L., Jr., New York, N. Y. Ignition apparatus for explosion-engines. No. 1,134,058; Mar. 30; Gaz. vol. 212; p. 1645.
Parsnow, Myrtle M., Kansas City, Mo. Garment-fastener. No. 1,133,397; Mar. 30; Gaz. vol. 212; p. 1414.
Parsons, Frank C., East Cleveland, assignor to The Strong, Carlisle and Hammond Company, Cleveland, Ohio. Furnace. No. 1,132,681; Mar. 23; Gaz. vol. 212; p. 1118.
Parsons, Thomas W. S., Terrace, British Columbia, Canada. Spur. No. 1,130,327; Mar. 2; Gaz. vol. 212; p. 168.
Parsons, William O., Indianapolis, Ind. Journal-jack. No. 1,132,114; Mar. 16; Gaz. vol. 212; p. 863.
Parsons, William S., Ladywell, assignor to J. Stone & Company Limited, Deptford, England. Apparatus for ejecting ashes. No. 1,131,951; Mar. 16; Gaz. vol. 212; p. 804.
Partington, Charles, assignor to The Cincinnati Frog & Switch Company, Cincinnati, Ohio. Cross-tie. No. 1,133,314; Mar. 30; Gaz. vol. 212; p. 1384.
Paschke, Herbert, Ben Avon Heights, assignor to Armstrong Cork Company, Pittsburgh, Pa. Making artificial-cork articles. No. 1,131,860; Mar. 16; Gaz. vol. 212; p. 772.
Pasley, Charles R., Colchester, England. Machine for delinting cotton-seed. No. 1,131,545; Mar. 9; Gaz. vol. 212; p. 624.
Patchel, Le Roy S., Darby, Pa. Kite. No. 1,131,076; Mar. 9; Gaz. vol. 212; p. 463.
Pate, David B., Hornbeck, La. Oil-burner. No. 1,130,761; Mar. 9; Gaz. vol. 212; p. 355.
Patented Devices Company. (See Hough, William B., assignor.)
Patented Devices Company. (See Schuett, Albert H., assignor.)
Paton, James W., Liverpool, England. Apparatus for shaping cardboard tubes. No. 1,132,283; Mar. 16; Gaz. vol. 212; p. 927.
Patterson, Charles A., Portland, Oreg. Butter-cutter. No. 1,132,378; Mar. 16; Gaz. vol. 212; p. 960.
Patterson, Edward B., Sandpoint, Idaho. Surgical instrument. No. 1,131,413; Mar. 9; Gaz. vol. 212; p. 579.
Patterson, Warren A., Dallas, Tex. Cotton-boll separator. No. 1,130,102; Mar. 2; Gaz. vol. 212; p. 90.
Patterson, William. (See Percival and Patterson.)
Patton, Herbert F., Cleveland, Ohio. Projecting apparatus. No. 1,133,178; Mar. 23; Gaz. vol. 212; p. 1301.
Patton, James R. Aspinwall, Pa. Water-distributer. No. 1,129,898; Mar. 2; Gaz. vol. 212; p. 22.
Paturel, Louis, and P. Lapertot, St.-Étienne, France. Internal-combustion gas-turbine. No. 1,133,058; Mar. 23; Gaz. vol. 212; p. 1259.
Paul, Andrew R., Somerset, Pa. Soldering-iron. No. 1,132,969; Mar. 23; Gaz. vol. 212; p. 1226.
Paul, John T. H., assignor to E. Goldman & Co., Inc., Chicago, Ill. Bottle-washing machine. No. 1,130,015; Mar. 2; Gaz. vol. 212; p. 61.
Paulson, Swen, Heber, Utah. Saw setting, filing, and swaging machine. No. 1,132,379; Mar. 16; Gaz. vol. 212; p. 960.
Payne, Andrew L., Marion, Ohio. Ironing-board. No. 1,133,661; Mar. 30; Gaz. vol. 212; p. 1511.
Payne, Bishop M., Sidney, Tex. Two-row planter. No. 1,133,498; Mar. 30; Gaz. vol. 212; p. 1449.
Payne, George, Orillia, Ontario, Canada. Hospital-bed. No. 1,132,614; Mar. 23; Gaz. vol. 212; p. 1095.
Payne, William E., Owosso, Mich. Wire-fence clamp. No. 1,130,328; Mar. 2; Gaz. vol. 212; p. 168.
Payne, William H., Cicerone, W. Va. Wire-stretcher. No. 1,132,874; Mar. 23; Gaz. vol. 212; p. 1191.
Peach, William H. (See Ellison, Frederick C., assignor.)
Peacock, Samuel, Chicago, Ill., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y. Producing carbids of silicon and by-products. No. 1,134,081; Mar. 30; Gaz. vol. 212; p. 1653.

Peak, Clyde J., Barada, Nebr. Antislipping shoe for tires. No. 1,132,730; Mar. 23; Gaz. vol. 212; p. 1137.
Pearce, Walter H., Summit, N. J. Valve-grinding tool. No. 1,131,789; Mar. 16; Gaz. vol. 212; p. 746.
Pearson, Frank L., Borne Falls, Mich. Sand-creeper for automobiles. No. 1,130,838; Mar. 9; Gaz. vol. 212; p. 381.
Pearson, James H., St. Louis, Mo., assignor of one-third to W. W. Carter and one-third to H. L. Doney, Bloomfield, Ind. Phonograph attachment for clocks. No. 1,131,001; Mar. 9; Gaz. vol. 212; p. 437.
Pearson, James H., St. Louis, Mo., assignor of one-third to G. A. Haines, Bloomfield, and one-third to O. Calvert, Shelburn, Ind. Door-check. No. 1,131,264; Mar. 9; Gaz. vol. 212; p. 528.
Pearson, Miles E., assignor, by mesne assignments, to Universal High-Power Telephone Company, Seattle, Wash. Sound-transmitting apparatus. No. 1,134,059; Mar. 30; Gaz. vol. 212; p. 1646.
Pease, Fred J. (See Snyder and Pease.)
Peck, Russell H., Palmerton, Pa. Batter-board. No. 1,130,926; Mar. 9; Gaz. vol. 212; p. 412.
Peck, William, Edinburgh, Scotland. Astronomical instrument for indicating positions of celestial objects. No. 1,130,625; Mar. 2; Gaz. vol. 212; p. 274.
Peck, William E. (See Smith and Snook, assignors.)
Ped-O-Graph Company. (See Schutz, Joseph M., assignor.)
Pedersen, Jens P., Provo, Utah. Hub-fastener. No. 1,134,003; Mar. 30; Gaz. vol. 212; p. 1626.
Pedersen, Peder. (See Johnson and Pedersen.)
Peirce, Paul, assignor to R. B. Bailey Company, Los Angeles, Cal. Tire-cover. No. 1,131,077; Mar. 9; Gaz. vol. 212; p. 463.
Pellow, John T. A., Laurium, Mich. Pail. No. 1,131,731; Mar. 16; Gaz. vol. 212; p. 723.
Pelton, George M., assignor to The Filer & Stowell Company, Milwaukee, Wis. Guide for log-turners. No. 1,133,315; Mar. 30; Gaz. vol. 212; p. 1384.
Peiz, Adolf F., Cleveland, Ohio, assignor of one-third to C. W. Brown. Rim for vehicle-wheels. No. 1,129,899; Mar. 2; Gaz. vol. 212; p. 23.
Pemberton, Elmer, Seattle, Wash. Furnace. No. 1,132,875; Mar. 23; Gaz. vol. 212; p. 1191.
Penn, Daniel K. (See Hopper, James F., assignor.)
Penn Printing House *et al.* (See Clinton, Michael, assignor.)
Perazio, Valentine, Philadelphia, Pa. Rotary engine. No. 1,130,839; Mar. 9; Gaz. vol. 212; p. 381.
Percival, Frank N., and W. Patterson, Chicago, Ill. Kerosene-gas generator. No. 1,131,157; Mar. 9; Gaz. vol. 212; p. 489.
Pérez, Joseph H., Nevada, Mo. Apparatus for turning music leaves. No. 1,132,682; Mar. 23; Gaz. vol. 212; p. 1119.
Perfect Vacuum Canning Company. (See Norton, Edwin, assignor.)
Perfield, Thomas H., Omaha, Nebr. Filing-case for disk records. No. 1,130,016; Mar. 2; Gaz. vol. 212; p. 62.
Perkins, Chester A., South Bend, Ind. Egg-case. No. 1,130,840; Mar. 9; Gaz. vol. 212; p. 382.
Perkins Electric Switch Manufacturing Company, The. (See Thomas, George B., assignor.)
Perkins, Harry J., Grand Rapids, Mich. Reversible rotary driving device. No. 1,131,861; Mar. 16; Gaz. vol. 212; p. 773.
Perkins, Harry J., Grand Rapids, Mich. Marine propulsion mechanism. No. 1,131,862; Mar. 16; Gaz. vol. 212; p. 773.
Perks, Thomas, assignor to George Hattersley and Sons, Limited, Keighley, England. Detector device for weft-replenishing mechanism of looms. No. 1,130,329; Mar. 2; Gaz. vol. 212; p. 169.
Perreur-Lloyd, Marcel, Boulogne-sur-Seine, France. Electrolytic process of producing copper. No. 1,133,059; Mar. 23; Gaz. vol. 212; p. 1259.
Perry, David P., Chicago, Ill. Electric horn. No. 1,130,676; Mar. 2; Gaz. vol. 212; p. 292.
Perry, Victor N., Batavia, N. Y. Pneumatic stacker. No. 1,133,060; Mar. 23; Gaz. vol. 212; p. 1260.
Persons, Charles A., *et al.*, receivers. (See McGrath and Clark, assignors.)
Persson, Otto F., Erie, Pa., assignor to General Electric Company. Variable-stroke fuel-pump. No. 1,132,284; Mar. 16; Gaz. vol. 212; p. 927.
Peter Smith Heater Company, The. (See Williams, Harry S., assignor.)
Petermann, Otto. (See Hazen and Petermann.)
Peters, Horatio G. (See Aurand, Balera J., assignor.)
Peters, Howard L., assignor to J. Bromley & Sons, Philadelphia, Pa. Pattern-setting machine. No. 1,130,841; Mar. 9; Gaz. vol. 212; p. 382.
Peters, John. (See Goodman and Peters.)
Peterson, Andrew J., Isanti, Minn. Self-feeder for threshing-machines. No. 1,132,731; Mar. 23; Gaz. vol. 212; p. 1138.
Peterson, Ben R., *et al.* (See Peterson, Bror T., assignor.)
Peterson, Bror T., assignor of one-third to B. R. Peterson and one-third to W. J. Maxwell, Chicago, Ill. Car-door-operating mechanism. No. 1,132,683; Mar. 23; Gaz. vol. 212; p. 1120.
Peterson, Charles, Carroll, Iowa. Draft-equalizer. No. 1,133,179; Mar. 23; Gaz. vol. 212; p. 1302.
Peterson, David E., and I. B. Ritter, Philadelphia, Pa. Freight-car. No. 1,132,876; Mar. 23; Gaz. vol. 212; p. 1191.
Peterson, Edward, Arlington, Tex. Belt-lifter for bull-wheels. No. 1,133,180; Mar. 23; Gaz. vol. 212; p. 1302.
Peterson, Frank, Lynden, Wash. Scrubbing-machine. No. 1,131,158; Mar. 9; Gaz. vol. 212; p. 490.
Peterson, Gustav A. (See Peterson, Linus C. and G. A.)
Peterson, Johann G., assignor to Manhattan Electrical Supply Company, Jersey City, N. J. Base member for separable attachment-plugs. No. 1,130,626; Mar. 2; Gaz. vol. 212; p. 274.
Peterson, Karl, assignor to Crescent Tool Company, Jamestown, N. Y. Wrench. No. 1,133,236; Mar. 23; Gaz. vol. 212; p. 1319.
Peterson, Linus C. and G. A., Colbert, Wash. Gate-operating means. No. 1,133,574; Mar. 30; Gaz. vol. 212; p. 1478.
Petrie, Michael, Irvington, N. J. Supporting attachment for ironing-boards, tables, benches, and the like. No. 1,133,662; Mar. 30; Gaz. vol. 212; p. 1511.
Petterson, Clarence A., San Anselmo, assignor of one-half to J. Golinsky, San Francisco, Cal. Folding paper box. No. 1,132,877; Mar. 23; Gaz. vol. 212; p. 1192.
Pevear, Munroe R., Boston, Mass. Method of and apparatus for the matching of colors. No. 1,131,265; Mar. 9; Gaz. vol. 212; p. 528.
Peyton, William T., Fort Worth, Tex. Seal. No. 1,132,970; Mar. 23; Gaz. vol. 212; p. 1227.
Pfeffer, John E., Minneapolis, Minn., assignor to Continental Engineering Co., Chicago, Ill. Autocycle. No. 1,132,380; Mar. 16; Gaz. vol. 212; p. 961.
Pfoser, Adolf, Achern, Germany. Conveying air for combustion or gas. No. 1,131,952; Mar. 16; Gaz. vol. 212; p. 804.
Pfyffer, Paul de Kelowna, British Columbia, Canada. Buffer for vehicle-wheels. No. 1,130,927; Mar. 9; Gaz. vol. 212; p. 412.
Phare, John J., assignor to Z. C. Hodges, Cleveland, Ohio. Mop-holder. No. 1,132,524; Mar. 16; Gaz. vol. 212; p. 1014.
Phelps, Ella E., Union City, Pa. Combined cabinet and table. No. 1,133,743; Mar. 30; Gaz. vol. 212; p. 1539.
Phelps, Joseph. (See Farnham, Smith, and Phelps.)
Philadelphia Steel & Wire Co. (See Dale, George E., assignor.)
Philadelphia Storage Battery Company. (See Skinner, James M., assignor.)
Philipp, Richard, Ilmenau, Germany. Crushing or dividing metal shavings or the like. No. 1,133,181; Mar. 23; Gaz. vol. 212; p. 1303.
Philippi, Theodore F., East St. Louis, Ill. Crusher. No. 1,131,002; Mar. 9; Gaz. vol. 212; p. 437.
Phillips, Arthur W., Portersville, Cal. Trail-grader. No. 1,132,487; Mar. 16; Gaz. vol. 212; p. 1000.
Phillips, Helene H., Westchester county, N. Y. Toothbrush. No. 1,131,863; Mar. 16; Gaz. vol. 212; p. 774.
Phillips, Marcus, Chicago, Ill. Catamaran. No. 1,130,627; Mar. 2; Gaz. vol. 212; p. 275.
Phillips, Stanley A., Chicago, Ill. Internal-combustion engine. No. 1,131,266; Mar. 9; Gaz. vol. 212; p. 528.
Phinney, Charles H., assignor to C. O. Willis, Richmond, Va. Machine for cutting and crimping cylinders of sheet metal. No. 1,130,677; Mar. 2; Gaz. vol. 212; p. 292.
Pick, Samuel. (See Taylor and Pick.)
Pickering, Josiah, Schenectady, N. Y. Sliding-door fastener. No. 1,134,004; Mar. 30; Gaz. vol. 212; p. 1626.
Pickett, Frederick A., Baltimore, Md. Automatic gas shut-off. No. 1,132,115; Mar. 16; Gaz. vol. 212; p. 863.
Pickles, Charles K., assignor to P. David & Company, San Francisco, Cal. Manhole-cover. No. 1,131,078; Mar. 9; Gaz. vol. 212; p. 463.
Picotte, Lloyd A., assignor of one-half to I. J. Muma, Los Angeles, Cal. Guard-finger for mowing and reaping machines. No. 1,130,330; Mar. 2; Gaz. vol. 212; p. 169.
Pictet, Raoul P., Walsall, England. Manufacture of furnace tubes or chambers. No. 1,130,533; Mar. 2; Gaz. vol. 212; p. 244.
Piel, Gottfried. (See Halterbeck, John, assignor.)
Pierce, Alfred L., Wallingford, Conn. Cut-out box. No. 1,132,116; Mar. 16; Gaz. vol. 212; p. 864.
Pierce, Alvin Z., Woodhull, N. Y. Detachable post-base. No. 1,131,864; Mar. 16; Gaz. vol. 212; p. 774.
Pierce, Blanche S., Grand Rapids, Mich. Service-cover for milk-bottles, jars, &c. No. 1,132,615; Mar. 23; Gaz. vol. 212; p. 1095.
Pierce, Byron W., Appleton, Wis. Rotary igniter. No. 1,130,628; Mar. 2; Gaz. vol. 212; p. 275.
Pierce, Charles E., Cambridge, Mass. Incandescent lamp. No. 1,131,079; Mar. 9; Gaz. vol. 212; p. 463.
Pierce, George A., assignor to William Cramp & Sons Ship & Engine Building Company, Philadelphia, Pa. Distant control system for electric motors. No. 1,133,663; Mar. 30; Gaz. vol. 212; p. 1512.
Pierce, Simeon F., St. Paul, Minn. Generator. No. 1,130,842; Mar. 9; Gaz. vol. 212; p. 383.
Pierson, Paul, Chicago, Ill. Machine for applying bands to cigars. No. 1,132,209; Mar. 16; Gaz. vol. 212; p. 898.
Pierson, Willard J., and H. W. Lynch, Wilmington, Del. Locking mechanism for revolving gates. No. 1,131,546; Mar. 9; Gaz. vol. 212; p. 625.

Pietsch, James A., New York, N. Y. Automatic feeder for mills, crushers, shredders, and the like. No. 1,131,414; Mar. 9; Gaz. vol. 212; p. 580.
Pietsch, Louis W., Post Falls, Idaho. Smoke-conducting pipe. No. 1,131,159; Mar. 9; Gaz. vol. 212; p. 490.
Pikler, Armin H., Montclair, assignor to Crocker-Wheeler Company, Ampere, N. J. Transformer. No. 1,133,316; Mar. 30; Gaz. vol. 212; p. 1384.
Pilcher, John A., Roanoke, Va. Drifting attachment for locomotives. No. 1,132,030; Mar. 16; Gaz. vol. 212; p. 833.
Pilkington, Alfred C., *et al.*, executors. (See Pilkington, William W.)
Pilkington Brothers. (See Pilkington, William W., assignor.)
Pilkington, Herbert M., Arverne, assignor, by mesne assignments, to Lithotex Corporation, New York, N. Y. Step and repeat machine. No. 1,131,631; Mar. 9; Gaz. vol. 212; p. 655.
Pilkington, Herbert M., Arverne, assignor, by mesne assignments, to Lithotex Corporation, New York, N. Y. Method of setting step and repeat machines. No. 1,131,632; Mar. 9; Gaz. vol. 212; p. 656.
Pilkington, John T., assignor of one-third to P. H. Murphy, Enderby, British Columbia, Canada. Clothes-line support. No. 1,130,534; Mar. 2; Gaz. vol. 212; p. 244.
Pilkington, Richard A., *et al.*, executors. (See Pilkington, William W.)
Pilkington, Sarah L., *et al.*, executors. (See Pilkington, William W.)
Pilkington, William W., deceased, Prescot; S. L., R. A., and A. C. Pilkington, executors, assignors to Pilkington Brothers, Limited, St. Helens, England. Apparatus for drawing glass. No. 1,131,953; Mar. 16; Gaz. vol. 212; p. 804.
Pilling, John, Burnley, England. Speed-controller for carding-engine doffers. No. 1,132,878; Mar. 23; Gaz. vol. 212; p. 1192.
Pillsbury, Edwin S., St. Louis, Mo., assignor to Century Electric Company. Centrifugal circuit-changing device for electric motors. No. 1,130,017; Mar. 2; Gaz. vol. 212; p. 62.
Pincus, Walter. (See Hite, Charles E., assignor.)
Piper, Dorus H. (See Burson, Schuyler C., assignor.)
Piper, Myron H., Walpole, assignor to United Printing Machinery Company, Boston, Mass. Combing mechanism. No. 1,150,928; Mar. 9; Gaz. vol. 212; p. 413.
Pippin, John W., Brownwood, Tex. Underreamer. No. 1,133,398; Mar. 30; Gaz. vol. 212; p. 1415.
Pirtle, Claiborne, Cleveland, Ohio. Resilient wheel. No. 1,130,762; Mar. 9; Gaz. vol. 212; p. 355.
Pisetta, John, Oil City, Pa. Roof-tile-cutting apparatus. No. 1,130,331; Mar. 2; Gaz. vol. 212; p. 170.
Pitcher, Elmer C., San Francisco, Cal. Supporting means for disappearing beds. No. 1,132,616; Mar. 23; Gaz. vol. 212; p. 1095.
Pittenger, Charles E., assignor of one-half to J. Whitworth, Falls City, Nebr. Index-cabinet. No. 1,130,332; Mar. 2; Gaz. vol. 212; p. 170.
Pittings, John, Antler, N. D. Tractor. No. 1,130,018; Mar. 2; Gaz. vol. 212; p. 62.
Pittsburg Water Heater Company. (See Frampton, Reynolds C., assignor.)
Pittsburgh Plate Glass Company, The. (See Hitner, Harry F., assignor.)
Pitz, John F., assignor to Pitz & Webber Iron Foundry, New York, N. Y. Twyer. No. 1,134,005; Mar. 30; Gaz. vol. 212; p. 1626.
Pitz & Webber Iron Foundry. (See Pitz, John F., assignor.)
Plagg, William, Spokane, Wash. Container-cover. No. 1,131,080; Mar. 9; Gaz. vol. 212; p. 464.
Plantation Equipment Company. (See Zelle, William C., assignor.)
Platner, David F., assignor of one-fourth to E. Michaelis and one-fourth to C. N. Tibbits, Monterey, Cal. Gravity-trap dry separator. No. 1,131,081; Mar. 9; Gaz. vol. 212; p. 464.
Pletsch, Henry. (See Judd and Pletsch.)
Pleukharp, Irvin H., Columbus, Ohio. Transmission-gearing for motor-vehicles. No. 1,133,744; Mar. 30; Gaz. vol. 212; p. 1539.
Plumm, Gottfried, Berlin, Germany. Throttle-valve for carbureters. No. 1,130,103; Mar. 2; Gaz. vol. 212; p. 91.
Plummer, Charles O., Fay, Okla. Harrow-cart. No. 1,131,547; Mar. 9; Gaz. vol. 212; p. 625.
Plummer, Roy L., Edinburg, Ill. Paper-clip. No. 1,133,664; Mar. 30; Gaz. vol. 212; p. 1512.
Plushkell, August B., Alhambra, Cal. Flat-opening binder. No. 1,130,333; Mar. 2; Gaz. vol. 212; p. 171.
Pneumatic Cupola Co., The. (See Rice, Charles J., assignor.)
Pneumercator Company. (See Parks, Harry S., assignor.)
Poessel, Arthur L., Chicago, Ill. Flower-box and the like. No. 1,132,210; Mar. 16; Gaz. vol. 212; p. 898.
Pokorny, Edward E., Silver Lake, Minn. Automobile-fender. No. 1,132,117; Mar. 16; Gaz. vol. 212; p. 864.
Polk, C. S., *et al.* (See Bevington, Thomas, assignor.)
Pollacsek, Emil, Spezia, Italy. Binding and impregnating materials made from waste sulfite liquors. No. 1,133,499; Mar. 30; Gaz. vol. 212; p. 1450.
Pollard, Henry V., Somerville, Mass. Seating for auditoriums. No. 1,133,500; Mar. 30; Gaz. vol. 212; p. 1450.
Pollard, James S. (See Harris and Pollard.)
Pollock, William L., Jr., New York, N. Y. Safety shutter-controller for cameras. No. 1,131,160; Mar. 9; Gaz. vol. 212; p. 491.
Polo, Joseph B., Clear Lake, S. D. Alarm. No. 1,132,793; Mar. 23; Gaz. vol. 212; p. 1161.
Pomeroy, Bennard H., assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Tubular lantern. No. 1,130,429; Mar. 2; Gaz. vol. 212; p. 205.
Pool, Samuel M., and W. Bunch, Aurora, Mo. Cotton-chopper. No. 1,134,060; Mar. 30; Gaz. vol. 212; p. 1646.
Pope, George, *et al.*, receivers. (See McGrath and Clark, assignors.)
Poplin, James A., assignor to Williams Mill Manufacturing Company, Inc., Ronda, N. C. Shoe for bur-mills. No. 1,131,548; Mar. 9; Gaz. vol. 212; p. 625.
Portage Rubber Company, The. (See Bleecker, Albert, assignor.)
Porter, Elbert B., Penn Yan, N. Y. Pressure-generator. No. 1,132,381; Mar. 16; Gaz. vol. 212; p. 961.
Porter, Joseph Y., assignor of one-half to C. V. Hetts, Detroit, Mich. Controller-regulator. No. 1,132,525; Mar. 16; Gaz. vol. 212; p. 1014.
Porter, Lula E., Pawhuska, Okla. Fruit-picker. No. 1,132,794; Mar. 23; Gaz. vol. 212; p. 1162.
Potter, Charles A., Lakeport, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-attaching machine. No. 1,133,575; Mar. 30; Gaz. vol. 212; p. 1478.
Potter, Emil. (See Potter, Leo, assignor.)
Potter, Leo, assignor to E. Potter, New York, N. Y. Cigarette-case. No. 1,133,745; Mar. 30; Gaz. vol. 212; p. 1540.
Potterf, Albert A., Kansas City, Mo. Washboiler. No. 1,130,430; Mar. 2; Gaz. vol. 212; p. 205.
Powell, Dalton U., and J. W. Hardwick, Cambridge, Ohio. High-pressure pipe-saddle. No. 1,131,003; Mar. 9; Gaz. vol. 212; p. 438.
Powell, William J., Ocean City, N. J. Bowling game. No. 1,133,576; Mar. 30; Gaz. vol. 212; p. 1479.
Power, Jeffrey J., Madison, assignor, to J. I. Case Threshing Machine Company, Racine, Wis. Corn-husking machine. No. 1,133,817; Mar. 30; Gaz. vol. 212; p. 1566.
Power Specialty Company. (See Primrose, John, assignor.)
Power, Walter L., deceased; J. J. Murray, administrator, Springfield, Mass. Erecting staging. No. 1,134,061; Mar. 30; Gaz. vol. 212; p. 1646.
Powers, Irving D., and J. W. Burns, Los Angeles, Cal. Means for supplying water to fuel charge of internal-combustion motors. No. 1,133,665; Mar. 30; Gaz. vol. 212; p. 1512.
Powers, Robert R., Overbrook, Okla. Nut-lock. No. 1,134,006; Mar. 30; Gaz. vol. 212; p. 1626.
Prance, Albert J., assignor to Murchey Machine and Tool Co., Detroit, Mich. Screw-cutting tap. No. 1,132,536; Mar. 16; Gaz. vol. 212; p. 1018.
Prendergast, John B. (See Proctor and Prendergast.)
Prandoni, Charles L., Hoboken, N. J. Leveling instrument for builders. No. 1,133,501; Mar. 30; Gaz. vol. 212; p. 1450.
Pratt & Whitney Company. (See Hanson, Bengt M. W., assignor.)
Prentice, George E., assignor to The G. E. Prentice Manufacturing Company, New Britain, Conn. Belt-buckle No. 1,131,550; Mar. 9; Gaz. vol. 212; p. 626.
Prenzel, Adam H., Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,131,415; Mar. 9; Gaz. vol. 212; p. 580.
Prenzel, Adam H., Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,131,732; Mar. 16; Gaz. vol. 212; p. 724.
Prepayment Car Sales Company. (See Tanner, Arnold J., assignor.)
Prescott-Adams Table Co. (See Prescott, Ernest C., assignor.)
Prescott, Ernest C., assignor to Prescott-Adams Table Co., Haverhill, Mass. Combined table and ironing-board. No. 1,131,267; Mar. 9; Gaz. vol. 212; p. 529.
Prescott, Ernest C., assignor to Prescott-Adams Table Co., Haverhill, Mass. Combined table and ironing-board. No. 1,131,954; Mar. 16; Gaz. vol. 212; p. 805.
Prestera, Domenick, Bradford, Pa. Window sash and frame. No. 1,132,382; Mar. 16; Gaz. vol. 212; p. 962.
Preston, Frederick A., Highland Park, assignor to The P. & M. Co., Chicago, Ill. Anticreeper. No. 1,133,390; Mar. 30; Gaz. vol. 212; p. 1415.
Pribis, Rudolf, assignor of one-half to S. Vass, New York, N. Y. Garbage-receptacle. No. 1,130,535; Mar. 2; Gaz. vol. 212; p. 244.
Price, Albert A., London, England. Dynamo-electric machine. No. 1,131,551; Mar. 9; Gaz. vol. 212; p. 626.
Price, Raymond B., Mishawaka, Ind. Treatment of materials. No. 1,132,971; Mar. 23; Gaz. vol. 212; p. 1227.
Priest, John, Philadelphia, Pa. Vacuum-producing apparatus. No. 1,131,082; Mar. 9; Gaz. vol. 212; p. 464.
Priest, William J., Brooklyn, N. Y. Railway fog-signal. No. 1,131,552; Mar. 9; Gaz. vol. 212; p. 626.
Primrose, John, Dongan Hills, assignor to Power Specialty Company, New York, N. Y. Steam-superheater. No. 1,132,211; Mar. 16; Gaz. vol. 212; p. 899.
Prince, James, Los Angeles, Cal. Inking mechanism for printing-presses. No. 1,130,334; Mar. 2; Gaz. vol. 212; p. 171.

Proctor, George S., and J. B. Prendergast, Ottawa, Ontario, Canada. Sealing-wax melter. No. 1,129,900; Mar. 2; Gaz. vol. 212; p. 23.
Proell, Reinhold, Dresden, Germany. Apparatus for controlling rotary machines. No. 1,130,431; Mar. 2; Gaz. vol. 212; p. 206.
Prößler, Norbert, assignor to Gesellschaft für Electrotechnische Industrie mit beschränkter Haftung, Berlin, Germany. Uniting sheets of brass, aluminum, and other metals or alloys of high conductivity for heat. No. 1,134,007; Mar. 30; Gaz. vol. 212; p. 1627.
Prouty, George W., Dorchester, Mass. Printing-press. No. 1,131,268; Mar. 9; Gaz. vol. 212; p. 529.
Prouty, George W., Dorchester, Mass. Holder for sales-checks. No. 1,130,629; Mar. 2; Gaz. vol. 212; p. 275.
Pruett, William M., Greensboro, N. C., assignor of two-thirds to J. W. Krueger, Atlanta, Ga. Refrigerating apparatus. No. 1,131,004; Mar. 9; Gaz. vol. 212; p. 438.
Pryor, Joseph F., Eugene, Oreg. Hat-pin-point protector. No. 1,132,488; Mar. 16; Gaz. vol. 212; p. 1000.
Pryor, Thomas F., Jr., South Orange, N. J., assignor to B. M. Shanley, Jr., Co. Belt clasp or buckle. No. 1,133,666; Mar. 30; Gaz. vol. 212; p. 1513.
Psik, John, Jackson, Minn. Interchangeable-speed mechanism for sewing-machines. No. 1,133,502; Mar. 30; Gaz. vol. 212; p. 1450.
Pszystas, Nicholas, Westfield, Mass. Exerciser. No. 1,133,746; Mar. 30; Gaz. vol. 212; p. 1540.
Puclilo, Francesco, Genoa, Italy. Treatment of aluminium to render it unalterable. No. 1,130,196; Mar. 2; Gaz. vol. 212; p. 124.
Pugh, William E., Seattle, Wash. Safety-lamp. No. 1,134,062; Mar. 30; Gaz. vol. 212; p. 1646.
Pulford, Jefferson, Detroit, Mich. Closure for condiment-holders. No. 1,130,019; Mar. 2; Gaz. vol. 212; p. 62.
Purcell, Thomas J. (See Daly, Dora S., assignor.)
Putnam, Frances F., Rye, N. Y. Perambulator. No. 1,130,763; Mar. 9; Gaz. vol. 212; p. 356.
Putnam, Fred A., Melrose, and C. F. Robbins, Abington, assignors to Markhem Machine Company, Boston, Mass. Marking-machine. No. 1,131,865; Mar. 16; Gaz. vol. 212; p. 774.
Putnam, Fred A., Melrose, and C. F. Robbins, Abington, assignors to Markem Machine Company, Boston, Mass. Type-carrier and marking-machine. No. 1,131,866; Mar 16; Gaz. vol. 212; p. 774.
Pyle, George C., Beatrice, Nebr. Pipe-hanger. No. 1,131,867; Mar. 16; Gaz. vol. 212; p. 775.
Quarles, Charles H., Akron, Ohio. Puzzle. No. 1,133,061; Mar. 23; Gaz. vol. 212; p. 1260.
Quenenu, Augustin L. J., Philadelphia, Pa. Roasting of compounds or ores containing zinc. No. 1,132,684; Mar. 23; Gaz. vol. 212; p. 1120.
Quertinmont, Jules J., Point Marion, Pa. Glass-furnace. No. 1,130,536; Mar. 2; Gaz. vol. 212; p. 245.
Quertinmont, Jules J., Point Marion, Pa. Flonter or glass-drawing ring. No. 1,130,537; Mar. 2; Gaz. vol. 212; p. 245.
Quick, Howard L., New York, N. Y. Jigger for dyeing fabrics and similar purposes. No. 1,131,269; Mar. 9; Gaz. vol. 212; p. 530.
Quick, Howard L., New York, N. Y. Treating fabrics. No. 1,131,270; Mar. 9; Gaz. vol. 212; p. 530.
Quigley, Michael C., and L. Trees, Greenfield, Ind. Vending-machine. No. 1,131,955; Mar. 16; Gaz. vol. 212; p. 805.
R. Hoe and Co. (See Cooper, Ellis W., assignor.)
R. Hoe and Co. (See Halliwell, John J., assignor.)
R. Hoe and Co. (See Roesen, Oscar, assignor.)
R. Hoe and Co. (See Sheldon, Edward P., assignor.)
R. Neumann Hardware Co., The. (See Hammesfahr, Julius, assignor.)
R. Neumann Hardware Co., The. (See Tueckmantel, Hugo, assignor.)
R. B. Bailey Company. (See Peirce, Paul, assignor.)
R. M. Owen and Company. (See Miller, Robert, assignor.)
R. U. V. Company, The. (See Helbronner and Recklinghausen, assignors.)
R. U. V. Company, The. (See Henri, Helbronner, and Recklinghausen, assignors.)
Rader, Arthur J., Chesterton, Ind. Cement-post wire-holder. No. 1,131,416; Mar. 9; Gaz. vol. 212; p. 581.
Rader, Harvey S., Palmerton, Pa. Fifth-wheel. No. 1,130,538; Mar. 2; Gaz. vol. 212; p. 246.
Radke, Emil, Blue Earth, Minn. Resilient tire. No. 1,132,031; Mar. 16; Gaz. vol. 212; p. 834.
Radtke, Albert A., Chicago, Ill., assignor to Electric Time Recorder Company. Electric motor. No. 1,131,614; Mar. 9; Gaz. vol. 212; p. 648.
Radziszewski, Dominik. (See Wojtkowski and Radziszewski.)
Rafn, Robert, Porsgrund, Norway, assignor to General Electric Company, Schenectady, N. Y. Producing tungsten powder. No. 1,130,197; Mar. 2; Gaz. vol. 212; p. 124.
Ragona, John. (See Ragona, Vincent and J.)
Ragona, Vincent and J., New York, N. Y. Cigarette-cork-tipping machine. No. 1,131,790; Mar. 16; Gaz. vol. 212; p. 747.
Ragona, Vincent and J., New York, N. Y. Cigarette-cork-tipping machine. No. 1,131,791; Mar. 16; Gaz. vol. 212; p. 747.
Rail Joint Company, The. (See Braine and Delfox, assignors.)
Rail Joint Company, The. (See Braine, Lawrence F. and B. G., assignors.)
Rail Joint Company, The. (See Wolhaupter and Schermerhorn, assignors.)
Railroad Supply Co., The. (See Fitz Gerald, John M., assignor.)
Railway Products Corporation. (See Forsyth, William D., assignor.)
Railway Specialties Company. (See Bell, John A., assignor.)
Rairden, James S., La Grange, Cal. Claw-hammer. No. 1,132,879; Mar. 23; Gaz. vol. 212; p. 1192.
Raleigh, James F., Chicago, Ill. Engine-starter. No. 1,131,417; Mar. 9; Gaz. vol. 212; p. 581.
Ralph, George H., Oak Park, assignor to M. A. Donohue & Co., Chicago, Ill. Wrapper. No. 1,132,212; Mar. 16; Gaz. vol. 212; p. 899.
Ralph, Joseph E., Newark, N. J. Filing-envelop. No. 1,132,972; Mar. 23; Gaz. vol. 212; p. 1227.
Ralston, Gavin C., Lee, assignor to J. Stone & Company, Limited, Deptford, England. Apparatus for discharging refuse from ships. No. 1,133,503; Mar. 30; Gaz. vol. 212; p. 1451.
Ramsden, Edward, Perth, Ontario, Canada. Forging steel car-wheels. No. 1,132,213; Mar. 16; Gaz. vol. 212; p. 900.
Ramsey, George W., Peoria, Ill. Type-writer ribbon. No. 1,130,020; Mar. 2; Gaz. vol. 212; p. 63.
Randall, Jay E., *et al.* (See Bardeen, Hugh A., assignor.)
Randel, Ivar A. (See McCord and Randel.)
Rankin, William H., Waltham, Mass. Loom. No. 1,134,063; Mar. 30; Gaz. vol. 212; p. 1647.
Rankin, William J. A., assignor to Lidgerwood Manufacturing Company, New York, N. Y. Cableway. No. 1,133,818; Mar. 30; Gaz. vol. 212; p. 1567.
Ranney, Darwin D., assignor to Atlantic Can Company, Baltimore, Md. Can-soldering machine. No. 1,133,237; Mar. 23; Gaz. vol. 212; p. 1320.
Ransom, George P., *et al.* (See Thayer, Charles H., assignor.)
Ransom, Willard G., Davenport, Iowa. Load-regulated brake mechanism. No. 1,133,667; Mar. 30; Gaz. vol. 212; p. 1513.
Rapid Button-Attaching Machine Company, The. (See Kotkovsky, Benjamin, assignor.)
Rapid Transit Air Navigation Company. (See Berry, Harry C., assignor.)
Rappleye, Frank A., Interlaken, N. Y., assignor to Hover-Incubator Manufacturing Company, Brown Mills, N. J. Poultry exerciser and feeder. No. 1,132,973; Mar. 23; Gaz. vol. 212; p. 1228.
Raschig, Fritz, Ludwigshafen-on-the-Rhine, Germany. Production of nitric acid. No. 1,130,104; Mar. 2; Gaz. vol. 212; p. 91.
Rasmussen, Laurits T., Council Bluffs, Iowa. Packing and mulching implement. No. 1,132,118; Mar. 16; Gaz. vol. 212; p. 865.
Rasmussen, Martin, assignor to B. C. Thronson, Racine, Wis. Tank. No. 1,131,271; Mar. 9; Gaz. vol. 212; p. 530.
Ratignier, Marius, Lyon, France. Treatment of open-mesh textile fabrics. No. 1,133,062; Mar. 23; Gaz. vol. 212; p. 1260.
Rau, Albert J., Clifton, N. J. Dyeing. No. 1,131,083; Mar. 9; Gaz. vol. 212; p. 465.
Rau, Albert J. and J. A., Clifton, N. J. Dyeing apparatus. No. 1,131,084; Mar. 9; Gaz. vol. 212; p. 465.
Rau, Julius A. (See Rau, Albert J. and J. A.)
Rauh, Leopold. (See Malm, Rauh, and Aker.)
Rawlings, William S., Marshall, Ind. Tire-protector and antiskid device. No. 1,130,539; Mar. 2; Gaz. vol. 212; p. 246.
Rawls, Theophilus M., and R. A. Miller, Dublin, Tex. Window shade, curtain, and drapery hanger. No. 1,130,929; Mar. 9; Gaz. vol. 212; p. 413.
Ray, Hezekiah, Des Moines, Iowa. Fertilizer device. No. 1,133,182; Mar. 23; Gaz. vol. 212; p. 1303.
Ray, James, Jourdantown, Tex. Printing by lithography. No. 1,129,901; Mar. 2; Gaz. vol. 212; p. 24.
Raymond, Harry T., assignor to G. C. Andrews, Minneapolis, Minn. Thermostat. No. 1,131,733; Mar. 16; Gaz. vol. 212; p. 724.
Reach, George A. (See Gamble, John, assignor.)
Reach, Milton B., Springfield, and W. Richey, assignors to A. G. Spalding & Bros. Manf'g. Co., Chicopee, Mass. Tennis-racket frame. No. 1,131,418; Mar. 9; Gaz. vol. 212; p. 581.
Reach, William F., Chicopee, Mass. Discus. No. 1,134,008; Mar. 30; Gaz. vol. 212; p. 1627.
Reach, William F., assignor to A. G. Spalding & Bros. Manf'g Company, Chicopee, Mass. Hockey-skate. No. 1,130,335; Mar. 2; Gaz. vol. 212; p. 171.
Reade, William A., and G. O. Cromwell, assignors to The Ludlow Typograph Company, Cleveland, Ohio. Composing mechanism for typographs. No. 1,130,432; Mar. 2; Gaz. vol. 212; p. 206.
Reading Specialties Company. (See Crawford, John S., assignor.)
Reardon, John F., North Grosvenor Dale, Conn. Apparatus for blooming and cleansing cotton and the like. No. 1,129,902; Mar. 2; Gaz. vol. 212; p. 24.

Reagan, Edgar U. G., Detroit, Mich. Internal-combustion engine. No. 1,132,489; Mar. 16; Gaz. vol. 212; p. 1000.

Reality Rubber Company, The. (See Richert, Emanuel T., assignor.)

Reber, Thomas D. (See Beam, Willie C., assignor.)

Rechniowski, Wazlaw, St. Petersburg, Russia. Capillary-tube-system micrometer. No. 1,133,400; Mar. 30; Gaz. vol. 212; p. 1415.

Rechter, George. (See Bamfield and Rechter.)

Recklinghausen, Max von. (See Helbronner and Recklinghausen.)

Recklinghausen, Max von. (See Henri, Helbronner, and Recklinghausen.)

Recording and Computing Machine Company, The. (See Whistler and Ripsch, assignors.)

Rector Engine Corporation. (See Rector, Enoch, assignor.)

Rector, Enoch, assignor to Rector Engine Corporation, New York, N. Y. Steam-generator. No. 1,132,617; Mar. 23; Gaz. vol. 212; p. 1096.

Redding, Roy F., assignor to St. Louis Bed and Manufacturing Company, East St. Louis, Ill. Tube-bending machine. No. 1,133,401; Mar. 30; Gaz. vol. 212; p. 1416.

Redfield, Casper L. (See Folger and Redfield.)

Redington, Frank B., and M. J. Milmoe, Chicago, Ill., assignors, by mesne assignments, to Package Machinery Company, Springfield, Mass. Chewing-gum-wrapping machine. No. 1,133,668; Mar. 30; Gaz. vol. 212; p. 1513.

Redman, Thomas, Green Royd, Arnside, England. Shuttle for weaving. No. 1,130,764; Mar. 9; Gaz. vol. 212; p. 356.

Reducing Machine Company, The. (See Gardner, James P., assignor.)

Reed, Fannie L., Kokomo, Ind. Garment-hanger. No. 1,130,540; Mar. 2; Gaz. vol. 212; p. 246.

Rees, William H., New York, N. Y. Tab for perforated music-sheets. No. 1,131,005; Mar. 9; Gaz. vol. 212; p. 439.

Reese, Frederick W., Paris, Ill. Broom-machine. No. 1,130,765; Mar. 9; Gaz. vol. 212; p. 356.

Rehmann, Hugo, Dusseldorf, Germany. Revolving grate for gas-producers. No. 1,133,577; Mar. 30; Gaz. vol. 212; p. 1479.

Reichard, Wade H., Troy, assignor to Federal Signal Company, Albany, N. Y. Railway switching and indicating circuits. No. 1,133,819; Mar. 30; Gaz. vol. 212; p. 1567.

Reichenbach, Henry, New York, N. Y. Exhibiting and advertising apparatus. No. 1,133,504; Mar. 30; Gaz. vol. 212; p. 1452.

Reid, Alfred J. H., Henderson, Tenn. Canopy for beds or cots. No. 1,134,009; Mar. 30; Gaz. vol. 212; p. 1627.

Reifsnyder, James D., and G. H. Fath, Philadelphia, assignors to Stokes & Smith Company, Summerdale, Pa. Machine for forming sealed wrapped packages. No. 1,131,792; Mar. 16; Gaz. vol. 212; p. 748.

Reilly, Matthew J., West New Brighton, N. Y. Nut-lock. No. 1,131,085; Mar. 9; Gaz. vol. 212; p. 466.

Reilly, Patrick F. (See Giese and Reilly.)

Reilly, Peter, Worcester, Mass., assignor to J. P. Schmitt, New York, N. Y. Spindle-tester. No. 1,129,903; Mar. 2; Gaz. vol. 212; p. 24.

Reineke, Josef H., Weitmar, near Bochum, Germany. Device for igniting fuses. No. 1,133,183; Mar. 23; Gaz. vol. 212; p. 1303.

Reiter, Joseph. (See Smith, Adam M., assignor.)

Reiter, Rudolf, and R. Lorenz, Leipzig, Germany. Device for securing doubly-bent hooks. No. 1,130,105; Mar. 2; Gaz. vol. 212; p. 91.

Rejsek, Rudolph, assignor to American Machine & Foundry Company, New York, N. Y. Spout for inserting packages in receptacles. No. 1,132,032; Mar. 16; Gaz. vol. 212; p. 834.

Reliance Ball Bearing Door Hanger Company. (See Cossey, Myron, assignor.)

Reliance Ball Bearing Door Hanger Company. (See Franklin, Hubert F., assignor.)

Remington, Joseph P., Philadelphia, Pa. Packaging-machine. No. 1,130,630; Mar. 2; Gaz. vol. 212; p. 276.

Remington Typewriter Company. (See Barney, Edwin E., assignor.)

Remington Typewriter Company. (See Barr, John H., assignor.)

Remington Typewriter Company. (See Briggs, Arthur J., assignor.)

Remington Typewriter Company. (See Farnham, Smith, and Phelps, assignors.)

Remington Typewriter Company. (See Selb, George A., assignor.)

Remington Typewriter Company. (See Smith, Arthur W., assignor.)

Remnsnider, George, assignor to Ideal Stencil Machine Company, Belleville, Ill. Stencil-cutting machine. No. 1,131,956; Mar. 16; Gaz. vol. 212; p. 806.

Rendahl, Ragnar H. (See Arco and Rendahl.)

Renkenberger, Edward J., assignor to American Tool Handle Company, Buffalo, N. Y. Metal bush. No. 1,130,336; Mar. 2; Gaz. vol. 212; p. 172.

Renold, Hans, Manchester, England. Driving-chain. No. 1,134,010; Mar. 30; Gaz. vol. 212; p. 1628.

Restorff, William G., and M. M. Lile, assignors of one-half to said Restorff and one-half to J. C. Cardwell, Washington, D. C. Crutch attachment. No. 1,132,119; Mar. 16; Gaz. vol. 212; p. 865.

Rethorn, Carl J., Shelley, Idaho. Lawn and garden rake. No. 1,131,553; Mar. 9; Gaz. vol. 212; p. 627.

Retzlaff, Emil, Hoffman, Minn. Vehicle-wheel. No. 1,134,011; Mar. 30; Gaz. vol. 212; p. 1628.

Reynolds, Edward A. and H. V., Anderson, Ind. Electric signal system. No. 1,131,006; Mar. 9; Gaz. vol. 212; p. 439.

Reynolds, Henry V. (See Reynolds, Edward A. and H. V.)

Reynolds, James W., Chicago, Ill. Artificial bait. No. 1,133,669; Mar. 30; Gaz. vol. 212; p. 1514.

Reynolds, John N., Greenwich, Conn., assignor to Western Electric Company, New York, N. Y. Line-switch. No. 1,131,734; Mar. 16; Gaz. vol. 212; p. 725.

Reynolds, Robert A., Port Huron, Mich. Grinding-disk. No. 1,131,272; Mar. 9; Gaz. vol. 212; p. 531.

Reynolds, Walter J., Providence, R. I. Compound for treating road surfaces. No. 1,131,793; Mar. 16; Gaz. vol. 212; p. 748.

Reynolds, Walter M., assignor of one-half to M. C. Vanderford, Hattiesburg, Miss. Cultivator. No. 1,131,957; Mar. 16; Gaz. vol. 212; p. 806.

Rheinische Metallwaaren- und Maschinenfabrik. (See Völler, Karl, assignor.)

Rhines, Foster K., *et al.* (See Bowdish, Albertis, assignor.)

Rhines, John W., *et al.* (See Bowdish, Albertis, assignor.)

Rhodes, Robert W., Greensburg, Pa. Lock for handle-sleeves of fluid-operated machines. No. 1,131,794; Mar. 16; Gaz. vol. 212; p. 749.

Rhodes, Seth A., Oak Park, Ill. Optical instrument. No. 1,130,106; Mar. 2; Gaz. vol. 212; p. 92.

Rhoten, James H., Danville, Ill. Garden-plow. No. 1,131,007; Mar. 9; Gaz. vol. 212; p. 439.

Ricardo, Harry R., London, and H. A. Hetherington, Byfleet, Surrey, England. Internal-combustion engine. No. 1,133,402; Mar. 30; Gaz. vol. 212; p. 1416.

Rice, Charles J., Ashland, Ky., assignor to The Pneumatic Cupola Co., Ironton, Ohio. Metallurgical apparatus. No. 1,133,317; Mar. 30; Gaz. vol. 212; p. 1385.

Rice, Clarence S., Indianapolis, Ind. Lubricating grease-cup. No. 1,132,120; Mar. 16; Gaz. vol. 212; p. 865.

Rice, John E., administrator. (See Rice, William H.)

Rice, William H., Hamilton, Mich. Ladder. No. 1,131,273; Mar. 9; Gaz. vol. 212; p. 531.

Rice, William H., deceased, Rochester, N. Y.; J. E. Rice, administrator. Machine for digging peanuts, potatoes, and the like. No. 1,131,419; Mar. 9; Gaz. vol. 212; p. 582.

Rice, William J., Corpus Christi, Tex. Sanitary meat-clamp. No. 1,131,615; Mar. 9; Gaz. vol. 212; p. 649.

Rich, Charles A., assignor to Brown & Sharpe Manufacturing Company, Providence, R. I. Screw-machine. No. 1,131,274; Mar. 9; Gaz. vol. 212; p. 531.

Richards, Charles N. (See Whitney and Richards.)

Richards-Wilcox Manufacturing Company. (See Hoffman, Peter L., assignor.)

Richards, Willard F., Depew, assignor to Gould Coupler Company, New York, N. Y. Car-coupling. No. 1,132,383; Mar. 16; Gaz. vol. 212; p. 962.

Richardson, Charles G., Springfield, Vt. Cloth stretching and rolling machine. No. 1,132,033; Mar. 16; Gaz. vol. 212; p. 834.

Richardson, Frederick, Springfield, Mo. Adjustable support for window-shades. No. 1,131,795; Mar. 16; Gaz. vol. 212; p. 749.

Richardson, Henry P., Killen, Ala. Hoop-machine. No. 1,134,012; Mar. 30; Gaz. vol. 212; p. 1628.

Richardson, John S., Gibbs, Idaho. Toothless attachment for threshing-machines. No. 1,131,086; Mar. 9; Gaz. vol. 212; p. 466.

Richardson Manufacturing Company. (See Watts, Rowland H., assignor.)

Richardson, Paul, assignor of one-half to E. Affolter, Longmont, Colo. Cultivator. No. 1,133,884; Mar. 30; Gaz. vol. 212; p. 1590.

Richardson, Willard D., Worthington, Ohio. Continuous compartment gas-fired kiln. No. 1,133,885; Mar. 30; Gaz. vol. 212; p. 1590.

Richardson, William K., Leavenworth, Kans. Variable line-spacer for type-writing machines. No. 1,131,958; Mar. 16; Gaz. vol. 212; p. 807.

Richert, Emanuel T., assignor to The Reality Rubber Company, Massillon, Ohio. Dipping and drying machine. No. 1,133,820; Mar. 30; Gaz. vol. 212; p. 1567.

Richey, William. (See Reach and Richey.)

Richter, Felix, Frankfort-on-the-Main, Germany. Manufacturing a substance for purifying waste water and for draining sludge. No. 1,133,446; Mar. 30; Gaz. vol. 212; p. 1431.

Richter, Josef, Geneva, Switzerland. Manufacturing stamping or printing dies or plates or blocks. No. 1,132,384; Mar. 16; Gaz. vol. 212; p. 962.

Richter, Samuel G., Doltons Station, Ill. Derailer for cars. No. 1,130,433; Mar. 2; Gaz. vol. 212; p. 207.

Ricketts, Edwin B. (See Murray and Ricketts.)

Ricketts, James R., Los Angeles, Cal. Stove. No. 1,130,930; Mar. 9; Gaz. vol. 212; p. 413.

Rickmeyer, Otto, Milwaukee, Wis. Spark-plug. No. 1,132,385; Mar. 16; Gaz. vol. 212; p. 963.

Ridd, Ambrose, Brackenridge, Pa. Finishing metal sheets or plates. No. 1,133,670; Mar. 30; Gaz. vol. 212; p. 1514.

Riddle, Carlton, Akron, Ohio. Jacketed vessel. No. 1,133,821; Mar. 30; Gaz. vol. 212; p. 1567.

Rider, Harrison S., Deodate, Pa. Sealing device for jar-caps. No. 1,132,121; Mar. 16; Gaz. vol. 212; p. 866.

Rider, Harry L., Oil City, Pa. Air-controlling valve. No. 1,131,420; Mar. 9; Gaz. vol. 212; p. 582.

Ridgedale, Harry E., Winnipeg, Manitoba, Canada. Game apparatus. No. 1,131,735; Mar. 16; Gaz. vol. 212; p. 725.

Ridgway, Thomas J., Wichita, Kans. Spring-bed. No. 1,130,541; Mar. 2; Gaz. vol. 212; p. 247.

Ridlon, John R., Chicago, Ill. Means for drawing gears, pulleys, &c., from shafts. No. 1,131,868; Mar. 16; Gaz. vol. 212; p. 775.

Ries, Harry W., Collingswood, N. J., and L. B. Brown, Philadelphia, Pa. Tennis-racket. No. 1,132,214; Mar. 16; Gaz. vol. 212; p. 900.

Rietzel, Adolph F., Charlestown, R. I., and G. E. Barstow, Lynn, Mass., assignors, by mesne assignments, to Thomson Electric Welding Company. Electric metal-working apparatus. No. 1,133,578; Mar. 30; Gaz. vol. 212; p. 1479.

Rigaud, Albert, Lille, France. Double-acting internal-combustion engine. No. 1,132,386; Mar. 16; Gaz. vol. 212; p. 963.

Rigg, Gilbert, Palmerton, Pa., assignor to The New Jersey Zinc Company, New York, N. Y. Removal of cadmium from zinc ores. No. 1,129,904; Mar. 2; Gaz. vol. 212; p. 24.

Riley, James W. (See Seibert and Riley.)

Riley, Lester S., assignor of one-half to A. L. Boggs, Boston, Mass. Bill or letter file. No. 1,130,631; Mar. 2; Gaz. vol. 212; p. 276.

Rindfleisch, Benjamin F., assignor to The National-Acme Manufacturing Company, Cleveland, Ohio. Safety device. No. 1,133,318; Mar. 30; Gaz. vol. 212; p. 1385.

Ringer, Sören P., Copenhagen, Denmark. Adjustable piece of furniture. No. 1,130,632; Mar. 2; Gaz. vol. 212; p. 276.

Ringland, Edward O., and W. F. English, Petros, Tenn. Ironing-board. No. 1,131,008; Mar. 9; Gaz. vol. 212; p. 439.

Ripsch, Charles W. (See Whistler and Ripsch.)

Risberg, Johannes V. M., assignor to Aktiebolaget Baltic, Södertelje, Sweden. Regulating means for centrifugal liquid-separators. No. 1,131,421; Mar. 9; Gaz. vol. 212; p. 582.

Ritter, Isaac B. (See Peterson and Ritter.)

Ritter, Jacob, New York, N. Y. Bag-fastener. No. 1,132,974; Mar. 23; Gaz. vol. 212; p. 1228.

Ritter, Theodore J., New York, assignor of one-half to H. Berg, Brooklyn, N. Y. Blower. No. 1,131,554; Mar. 9; Gaz. vol. 212; p. 627.

Ritter, Theodore J., New York, assignor of one-half to H. Berg, Brooklyn, N. Y. Blower. No. 1,131,555; Mar. 9; Gaz. vol. 212; p. 627.

Rives, Edwin A., and H. B. Nabors, assignors of one-eighth to H. L. Hicks, Greensboro, N. C. Combined gravity and fluid-pressure sander for locomotives. No. 1,133,319; Mar. 30; Gaz. vol. 212; p. 1385.

Roach, Harry F., St. Louis, Mo. Rigid-point frog. No. 1,129,905; Mar. 2; Gaz. vol. 212; p. 25.

Roache, James E., New York, N. Y. Cigarette-rolling machine. No. 1,134,013; Mar. 30; Gaz. vol. 212; p. 1628.

Roan, George, and H. Helmholz, Chicago, Ill. Blow-off cock. No. 1,131,422; Mar. 9; Gaz. vol. 212; p. 583.

Robb, Harold E., Florence, S. D. Lock. No. 1,130,337; Mar. 2; Gaz. vol. 212; p. 172.

Robbins, Alpheus B., Medford, Oreg. Pruning-knife. No. 1,133,886; Mar. 30; Gaz. vol. 212; p. 1590.

Robbins, Charles F. (See Putnam and Robbins.)

Robbins, Charles F., Abington, assignor to Markem Machine Company, Boston, Mass. Type-adjusting device for printing-machines. No. 1,131,559; Mar. 16; Gaz. vol. 212; p. 807.

Robbins, Elmer, Portland, Oreg. Rocking-chair. No. 1,132,387; Mar. 16; Gaz. vol. 212; p. 963.

Robert N. Bassett Company, The. (See Holden, Walter A., assignor.)

Roberts, Arthur, Evanston, Ill. Coke-oven. No. 1,132,685; Mar. 23; Gaz. vol. 212; p. 1121.

Roberts, Charles A., Rensselaer, Ind. Top-box fastener. No. 1,130,338; Mar. 2; Gaz. vol. 212; p. 172.

Roberts, G. W. (See Lunsford, Blanton S., assignor.)

Roberts, George C. (See Schmidt and Roberts.)

Roberts, George W., Willow Grove, Pa. Poultry coop or crate. No. 1,131,423; Mar. 9; Gaz. vol. 212; p. 583.

Roberts, Herbert. (See Giberson and Roberts.)

Roberts, James R., Cotter, Ark. Cuspidor. No. 1,130,107; Mar. 2; Gaz. vol. 212; p. 92.

Roberts, Lyman R., Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,131,960; Mar. 16; Gaz. vol. 212; p. 807.

Roberts, Lyman R., and C. L. Davis, Detroit, Mich., assignors to Underwood Typewriter Company, New York, N. Y. Sheet feeding and delivering device for automatically-operated type-writing machines. No. 1,132,034; Mar. 16; Gaz. vol. 212; p. 835.

Roberts, Robert R., assignor to The Intercontinental Fiber & Paper Company, Washington D. C. Machine for treating fibrous plants. No. 1,132,122; Mar. 16; Gaz. vol. 212; p. 866.

Roberts, William T. B., and J. H. Brown, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Variable-speed mechanism. No. 1,129,906; Mar. 2; Gaz. vol. 212; p. 25.

Robertson, Charles H., Peoria, Ill. Trolley-line hanger. No. 1,133,403; Mar. 30; Gaz. vol. 212; p. 1417.

Robertson, Hugh H., New York, assignor to Continental Can Company, Incorporated, Syracuse, N. Y. Cap for bottles or jars. No. 1,132,975; Mar. 23; Gaz. vol. 212; p. 1228.

Robertson, James C., Cresson, Pa. Shoe-lace fastener. No. 1,134,014; Mar. 30; Gaz. vol. 212; p. 1629.

Robertson, William, assignor to Lovell Manufacturing Company, Erie, Pa. Wringer. No. 1,131,087; Mar. 9; Gaz. vol. 212; p. 466.

Robertson, William V., New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Work-support. No. 1,131,736; Mar. 16; Gaz. vol. 212; p. 725.

Robinson, Edward W., assignor to International Barrel Company, Savannah, Ga. Barrel. No. 1,130,434; Mar. 2; Gaz. vol. 212; p. 207.

Robinson, George W., Baltimore, and M. E. Harding, Odenton, Md. Coupling or splice for trolley-wires. No. 1,132,388; Mar. 16; Gaz. vol. 212; p. 964.

Robinson, Joseph W., Toledo, Ohio. Cut-off means for metal-gathering heads. No. 1,132,618; Mar. 23; Gaz. vol. 212; p. 1096.

Robinson, Luther, Boston, assignor of one-half to C. H. Jennings, Winthrop, Mass. Stop-motion for worsted-spinning machines. No. 1,132,526; Mar. 16; Gaz. vol. 212; p. 1015.

Robinson, P. C., *et al.* (See Gamble, George R., assignor.)

Robinson, Richard T., Jr., Colorado Springs, Colo., assignor to Robinson & Robinson. Internal-combustion engine. No. 1,130,843; Mar. 9; Gaz. vol. 212; p. 383.

Robinson, Robert J., Sr., Somerville, Tex. Bolt-lock. No. 1,132,732; Mar. 23; Gaz. vol. 212; p. 1138.

Robinson & Robinson. (See Robinson, Richard T., Jr., assignor.)

Robinson & Robinson. (See Winckler, Aage E., assignor.)

Robinson, William T., Ethel, W. Va. Safety appliance for steam-engines. No. 1,132,795; Mar. 23; Gaz. vol. 212; p. 1162.

Robson, John. (See Wilson and Robson.)

Rock Island Plow Company. (See Heylman, Edward M., assignor.)

Rock Island Plow Company. (See Johnson, William E., assignor.)

Rockaway Manufacturing Company, The. (See Brown, Silas B., assignor.)

Rockwell, Byrd C., Camden, Ark. Post. No. 1,131,737; Mar. 16; Gaz. vol. 212; p. 726.

Rockwood, George I., Worcester, Mass. Packing-ring for pipe-fittings. No. 1,133,320; Mar. 30; Gaz. vol. 212; p. 1386.

Roderick Lean Manufacturing Company, The. (See Warne, Frederick C., assignor.)

Rodgers, James D., Georgetown, Ky. Farm-gate. No. 1,130,931; Mar. 9; Gaz. vol. 212; p. 414.

Rodier, Napoleon. (See Caron, Napoleon, assignor.)

Rodliff, Frank E., Burlington, Vt. Leaf-turner. No. 1,130,108; Mar. 2; Gaz. vol. 212; p. 92.

Roehrich, Frank N., Jersey City, N. J., assignor to G. P. Carroll, Bridgeport, Conn. Ammonia-pipe union. No. 1,132,619; Mar. 23; Gaz. vol. 212; p. 1097.

Roelke, Oscar, St. Louis, Mo. Bottle-top. No. 1,133,505; Mar. 30; Gaz. vol. 212; p. 1452.

Roemer, Friedrich, Frankfort-on-the-Main, Germany. Suction apparatus. No. 1,133,184; Mar. 23; Gaz. vol. 212; p. 1304.

Roese, Frederick A. (See Mueller, Kurt L. E., assignor.)

Roesen, Oscar, assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y. Printing-machine. No. 1,132,215; Mar. 16; Gaz. vol. 212; p. 900.

Roether, Jacob R., New York, N. Y. Smoking device. No. 1,133,404; Mar. 30; Gaz. vol. 212; p. 1417.

Rogers, Alfred, Milton, assignor to The Dececo Company, Boston, Mass. Pipe-casing. No. 1,131,961; Mar. 16; Gaz. vol. 212; p. 808.

Rogers, Edward, San Francisco, Cal. Draftsman's triangle. No. 1,131,962; Mar. 16; Gaz. vol. 212; p. 808.

Rogers, Harrison W. (See Ebeling, Charles W., assignor.)

Rogers, John R., New York, N. Y. Clutch. No. 1,132,216; Mar. 16; Gaz. vol. 212; p. 901.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Type or matrix. No. 1,131,424; Mar. 9; Gaz. vol. 212; p. 583.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,131,425; Mar. 9; Gaz. vol. 212; p. 584.

Roggenmoser, Adolf, Zurich, Switzerland. Machine for cutting bones. No. 1,132,976; Mar. 23; Gaz. vol. 212; p. 1229.

Rohne, Even J., Minneapolis, Minn. Electric heating element. No. 1,133,579; Mar. 30; Gaz. vol. 212; p. 1480.

Rojahn, Frederick C., Altoona, Pa. Safety-gate for elevators. No. 1,131,963; Mar. 16; Gaz. vol. 212; p. 809.

Roller, Paul V., Paris, France. Paper-feeder. No. 1,130,109; Mar. 2; Gaz. vol. 212; p. 93.
Rolle, Emile, Frontenac, Kans. Spark-plug attachment. No. 1,131,556; Mar. 9; Gaz. vol. 212; p. 628.
Roller, Frank W., East Orange, N. J., assignor to Roller-Smith Company. Polarity-indicator. No. 1,130,633; Mar. 2; Gaz. vol. 212; p. 277.
Roller-Smith Company. (See Roller, Frank W., assignor.)
Rollman, Michael A., Mount Joy, Pa. Food-chopper. No. 1,132,035; Mar. 16; Gaz. vol. 212; p. 835.
Romanczk, Joseph, *et al.* (See Gepack, Paul, assignor.)
Ronconi, Domenico, Chicago, Ill. Toy. No. 1,132,796; Mar. 23; Gaz. vol. 212; p. 1162.
Rooney, James, Washington, D. C. Aeroplane construction. No. 1,132,686; Mar. 23; Gaz. vol. 212; p. 1121.
Rooney, Martin J., Butte, Mont. Exercising lens-shade. No. 1,130,634; Mar. 2; Gaz. vol. 212; p. 277.
Roop, Joseph L., Louisville, Ky. Moving-picture camera and projecting device. No. 1,133,580; Mar. 30; Gaz. vol. 212; p. 1480.
Root, Charles F., Ravenna, assignor of one-fourth to B. O. Conn, Mansfield, Ohio. Safety device for punching-machines. No. 1,131,161; Mar. 9; Gaz. vol. 212; p. 491.
Roper, Charles H., Belmont, assignor to Hood Rubber Company, Boston, Mass. Production of sheeted rubber stock. No. 1,131,275; Mar. 9; Gaz. vol. 212; p. 531.
Rorabeck, Claude, Dayton, Ohio. Oil-pump for Diesel engines. No. 1,132,797; Mar. 23; Gaz. vol. 212; p. 1163.
Rose, Charles B., assignor to Velie Motor Vehicle Company, Moline, Ill. Magneto adjustment. No. 1,132,733; Mar. 23; Gaz. vol. 212; p. 1138.
Rosenbaum, Morris, *et al.* (See Courlaender, Bernard, Jr. assignor.)
Rosenblatt, Irving S., San Francisco, Cal. Antiseptic attachment for telephone-mouthpieces. No. 1,131,088; Mar. 9; Gaz. vol. 212; p. 467.
Rosenthal, James H., Chiselhurst, England, assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-generator. No. 1,132,036; Mar. 16; Gaz. vol. 212; p. 836.
Rosenthal, Max, New York, N. Y., assignor of one-half to G. Schmidt, Jr., Elizabeth, N. J. Hot-water bottle. No. 1,132,977; Mar. 23; Gaz. vol. 212; p. 1229.
Rosine, Conrad, Chicago, Ill. Combined shoe-horn and buttonhook. No. 1,130,198; Mar. 2; Gaz. vol. 212; p. 124.
Ross, Abraham J., Springfield, Ohio. Gate. No. 1,132,389; Mar. 16; Gaz. vol. 212; p. 964.
Ross, Edwin B. (See Burrows and Ross.)
Ross Limited. (See Hasselkus, John W., assignor.)
Ross, Torey, Chicago, Ill. Pendulum. No. 1,130,435; Mar. 2; Gaz. vol. 212; p. 207.
Roth, Charles F., Pilot Grove, Mo. Chair. No. 1,130,021; Mar. 2; Gaz. vol. 212; p. 63.
Rothermel, Andrew W. S., Milwaukee, Wis. Curtain and shade fixture. No. 1,129,907; Mar. 2; Gaz. vol. 212; p. 25.
Rouilly, Didier. (See Papin and Rouilly.)
Rourk, Joseph D., Bridgeport, Conn. Rotary valve. No. 1,131,089; Mar. 9; Gaz. vol. 212; p. 467.
Rouse, Harry B., assignor to H. B. Rouse & Co., Chicago, Ill. Printing-form-aligning apparatus. No. 1,133,822; Mar. 30; Gaz. vol. 212; p. 1568.
Roushar, Joseph C., Cedar Rapids, Iowa. Molding device. No. 1,130,635; Mar. 2; Gaz. vol. 212; p. 277.
Roussel, Germain, assignor to T. Klein, Broughton, Pa. Acetylene-gas lamp. No. 1,130,339; Mar. 2; Gaz. vol. 212; p. 172.
Row, Reuben R., Jersey City, N. J. Evaporator. No. 1,131,738; Mar. 16; Gaz. vol. 212; p. 726.
Rowley, Washington W., Jr., and W. T. Brown, Philadelphia, Pa. Multigraph printing-machine. No. 1,130,199; Mar. 2; Gaz. vol. 212; p. 125.
Royal Typewriter Company. (See Hess, Edward B., assignor.)
Royce, Frederick H., Derby, England. Change-speed and reversing gearing. No. 1,132,390; Mar. 16; Gaz. vol. 212; p. 964.
Royer, George F., and L. F. Zweibel, Wilkes-Barre, Pa. Universal joint. No. 1,132,123; Mar. 16; Gaz. vol. 212; p. 867.
Royle, George. (See Winzer, Charles B., assignor.)
Royle, Vernon, Paterson, N. J. Machine for squaring negatives and plates. No. 1,133,823; Mar. 30; Gaz. vol. 212; p. 1568.
Rübel, Walter, Westend, near Berlin, Germany. Manufacturing an iron alloy for dynamo-electric purposes. No. 1,130,678; Mar. 2; Gaz. vol. 212; p. 293.
Ruby, Frederick W., assignor to Ruby Manufacturing Company, Jackson, Mich. Sign. No. 1,130,844; Mar. 9; Gaz. vol. 212; p. 383.
Ruby Manufacturing Company. (See Ruby, Frederick W., assignor.)
Rudd, George M. (See Ward and Rudd.)
Ruddick, John J., Newton, assignor to United States Electric Signal Company, West Newton, Mass. Trolley-switch. No. 1,130,340; Mar. 2; Gaz. vol. 212; p. 173.
Rudolph Wurlitzer Manufacturing Company, The. (See McCormick, Frank L., assignor.)
Rudolphi, Frank, assignor to American Can Company, New York, N. Y. Can-body support. No. 1,130,636; Mar. 2; Gaz. vol. 212; p. 278.
Ruegger, Eduard, assignor to Aktiengesellschaft der Maschinenfabriken Escher, Wyss & Cie., Zurich, Switzerland. Thrust-bearing. No. 1,131,739; Mar. 16; Gaz. vol. 212; p. 726.
Rugg, Carrie A., Grandview-on-Hudson, N. Y. Fastening device. No. 1,132,037; Mar. 16; Gaz. vol. 212; p. 836.
Ruggiero, Bartolo, *et al.* (See Mecco, Canio, assignor.)
Rumpel, Julius, Weston, Mo. Receptacle. No. 1,130,932; Mar. 9; Gaz. vol. 212; p. 414.
Runyeon, Charles G. (See Grayson, Luther W., assignor.)
Rupert, George G., Decatur, assignor of one-half to W. T. Russell, Macon, Ill. Bicycle attachment. No. 1,130,933; Mar. 9; Gaz. vol. 212; p. 414.
Rush, Fred O., Wilmington, Del. Dipper-tooth for excavating-machines. No. 1,131,426; Mar. 9; Gaz. vol. 212; p. 584.
Rusk, Chauncey B., Galion, Ohio. Truck brake and handle. No. 1,134,015; Mar. 30; Gaz. vol. 212; p. 1629.
Rusk, Edward W., *et al.* (See Bryan, Pulaski J., assignor.)
Russell, Arthur L., Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-lasting machine. No. 1,132,978; Mar. 23; Gaz. vol. 212; p. 1229.
Russell, Burdsall & Ward Bolt and Nut Co. (See Ward and Rudd, assignors.)
Russell, George A. (See Smith, Oliver A., assignor.)
Russell Manufacturing Company. (See Russell, Whitman, assignor.)
Russell, Whitman, assignor to Russell Manufacturing Company, Greenfield, Mass. Screw-cutting die. No. 1,130,542; Mar. 2; Gaz. vol. 212; p. 247.
Russell, William T. (See Rupert, George G., assignor.)
Rutherford, Charles H., Jerome, Ariz. Hat-Fastener. No. 1,132,038; Mar. 16; Gaz. vol. 212; p. 836.
Ruthrauff, William M., Tucson, Ariz. Dentifrice. No. 1,133,250; Mar. 23; Gaz. vol. 212; p. 1325.
Ruttle, Edgar, Covington, Ky. Automobile heating device. No. 1,132,391; Mar. 16; Gaz. vol. 212; p. 965.
Ryan, Edward J., Buffalo, N. Y. Standard or pedestal. No. 1,129,908; Mar. 2; Gaz. vol. 212; p. 26.
Ryan, John F., Winthrop, Mass. Making waterproof materials and coatings. No. 1,132,687; Mar. 23; Gaz. vol. 212; p. 1122.
Ryan, John W., Springfield, Ill. Rail-joint. No. 1,133,185; Mar. 23; Gaz. vol. 212; p. 1304.
Ryan, Nicholas W. (See Delane, Anson W., assignor.)
Ryden, Claes, Cranston, R. I., assignor to Universal Winding Company, Portland, Me. Adjustable traverse-guide. No. 1,133,186; Mar. 23; Gaz. vol. 212; p. 1304.
Ryder, Hermit W., Mountain Grove, Va. Rail-joint. No. 1,130,200; Mar. 2; Gaz. vol. 212; p. 125.
Rylander, Frank, Dumont, Colo. Dust-collector for rock-drills. No. 1,131,009; Mar. 9; Gaz. vol. 212; p. 439.
Ryman, Frank. (See Clark and Ryman.)
S and S Window Corporation. (See Clermont, John B., assignor.)
S. F. Bowser & Company. (See Morris, William L., assignor.)
S. F. Bowser & Company. (See Mulligan, Thomas F., assignor.)
S. H. Couch Co. (See Henry, William W., assignor.)
S. S. Hepworth Company. (See Mackintosh, Edward D., assignor.)
Sabin-Curtis Machine Co. (See Sabin, Tozer, and Curtis, assignors.)
Sabin, Herbert B., A. B. Tozer, and A. R. Curtis, assignors to Sabin-Curtis Machine Co., Cleveland, Ohio, Glove-cleaning machine. No. 1,132,688; Mar. 23; Gaz. vol. 212; p. 1122.
Sabine, Wallace C., Boston, assignor to The Carter's Ink Company, Cambridge, Mass. Pour-out for bottles. No. 1,132,620; Mar. 23; Gaz. vol. 212; p. 1097.
Sachse, Paul A. H. (See Bierbrauer and Sachse.)
Sackett, Joseph S., Williamsburg, Ohio. Device for clamping patches on tires. No. 1,131,162; Mar. 9; Gaz. vol. 212; p. 491.
Safe-T-Lite Co. (See Morrison, John E., assignor.)
Safety Car Heating and Lighting Co., The. (See Bijur, Joseph, assignor.)
Safety Car Heating & Lighting Company, The. (See Creveling, John L., assignor.)
Safety Car Heating & Lighting Company. (See Schepmoes, Lindsley, assignor.)
Salt's Textile Manufacturing Company, The. (See Cutting, Samuel B., assignor.)
Sampson, Thomas H., New Orleans, La. Apparatus for the treatment of red gum and other like woods. No. 1,131,427; Mar. 9; Gaz. vol. 212; p. 584.
Samuel, Clarence L., Pryor, Okla. Ax-display stand. No. 1,132,392; Mar. 16; Gaz. vol. 212; p. 965.
San Antonio Machine & Supply Co. (See Winterborne, William H., assignor.)
Sand Mixing Machine Company. (See Lorimer, George W., assignor.)
Sandell, John F., Chicago, Ill. Internal-combustion engine. No. 1,130,934; Mar. 9; Gaz. vol. 212; p. 415.
Sanders, Louis, New York, N. Y. Initial-buckle. No. 1,134,016; Mar. 30; Gaz. vol. 212; p. 1629.
Sanders, Mastin E., Rosenberg, Tex. Dental bite-tray. No. 1,134,017; Mar. 30; Gaz. vol. 212; p. 1630.
Sands, Thomas E. (See Moynihan, Jeremiah A., assignor.)
Sanford, George A., Tipton county, Tenn. Plow-drag. No. 1,131,010; Mar. 9; Gaz. vol. 212; p. 440.

Sangamo Electric Company. (See Bard, Jacob W., assignor.)
Sanitary Can Company. (See Augensen, August M., assignor.)
Sanks, Frank. (See Booth and Sanks.)
Santo Manufacturing Company. (See Small, Howard, assignor.)
Sanzay, Edmund D., Yerkes, Pa. Envelop. No. 1,131,276; Mar. 9; Gaz. vol. 212; p. 532.
Saranac Machine Co. (See Craig, Edward, assignor.)
Sardynski, Frank, and J. Tyszko, Amsterdam, N. Y. Life-boat. No. 1,133,063; Mar. 23; Gaz. vol. 212; p. 1261.
Sargeant, Jeremiah, Newark Valley, N. Y. Bottle-remover for bottle-washing machines. No. 1,133,321; Mar. 30; Gaz. vol. 212; p. 1386.
Sargent & Company. (See Page, Albert A., assignor.)
Sartorius, Erich, Göttingen, Germany. Balance. No. 1,132,880; Mar. 23; Gaz. vol. 212; p. 1192.
Sarvis, William J., Hanover, Ontario, Canada. Stove. No. 1,133,747; Mar. 30; Gaz. vol. 212; p. 1540.
Sasgen Derrick Company. (See Sasgen, Michael J., assignor.)
Sasgen, Michael J., assignor to Sasgen Derrick Company, Chicago, Ill. Derrick. No. 1,130,766; Mar. 9; Gaz. vol. 212; p. 357.
Sasser, Edward C., Spencer, N. C. Cinder-deflector. No. 1,130,110; Mar. 2; Gaz. vol. 212; p. 93.
Sasser, Edward C., Washington, D. C. Cinder-deflector. No. 1,130,111; Mar. 2; Gaz. vol. 212; p. 94.
Satterfield, John E., Brownwood, Tex. Level. No. 1,133,887; Mar. 30; Gaz. vol. 212; p. 1591.
Sattler, Rudolph, Cincinnati, Ohio, and L. J. Morand, Covington, Ky. Inking apparatus. No. 1,130,022; Mar. 2; Gaz. vol. 212; p. 63.
Sauerman, Ernest W., assignor to Transo Paper Company, Chicago, Ill. Centering means for envelop-blank-cutting dies. No. 1,132,979; Mar. 23; Gaz. vol. 212; p. 1230.
Sauler, Edward, St. Edward, Nebr. Driving mechanism for power-tools. No. 1,130,543; Mar. 2; Gaz. vol. 212; p. 247.
Saunders, Edward W., and E. H. Steedman, St. Louis, Mo. Surgical needle-holder. No. 1,131,163; Mar. 9; Gaz. vol. 212; p. 492.
Saunooke, Samuel. (See Bookwalter and Saunooke.)
Savidge, Albert C., assignor to Savidge Steering Device Company, Indianapolis, Ind. Steering-gear attachment. No. 1,131,796; Mar. 16; Gaz. vol. 212; p. 750.
Savidge Steering Device Company. (See Savidge, Albert C., assignor.)
Saybolt, George M., Jersey City, N. J. Viscosimeter. No. 1,132,621; Mar. 23; Gaz. vol. 212; p. 1098.
Scarborough, Walter M., Lancaster, Pa. Illuminated-lens sign. No. 1,130,201; Mar. 2; Gaz. vol. 212; p. 125.
Schaaff, John T., Washington, D. C. Paper-perforating machine. No. 1,134,018; Mar. 30; Gaz. vol. 212; p. 1630.
Schaake, William, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Supporting structure for trolley-conductors. No. 1,132,734; Mar. 23; Gaz. vol. 212; p. 1139.
Schade, Edmund A., assignor to Stanley Rule & Level Company, New Britain, Conn. Bench bracket and vise. No. 1,131,869; Mar. 16; Gaz. vol. 212; p. 775.
Schaefer, Jacob. (See Halladay and Schaefer.)
Schaefer, Philipp, *et al.* (See Bellcza, Eugene, assignor.)
Schafer, Frank, Barberton, Ohio, assignor to The Diamond Match Company, Chicago, Ill. Machine for assembling match-books, &c. No. 1,132,285; Mar. 16; Gaz. vol. 212; p. 928.
Schaffer, Martin R., Reading, Pa. Door-bell and burglar-alarm. No. 1,130,436; Mar. 2; Gaz. vol. 212; p. 208.
Schanck, George H., Libertyville, Ill. Flying-machine. No. 1,133,748; Mar. 30; Gaz. vol. 212; p. 1540.
Schatte, Charles, New York, N. Y. Spring-motor. No. 1,130,637; Mar. 2; Gaz. vol. 212; p. 278.
Schaum, Frank A. (See Wiedeman and Schaum.)
Scheibner, Otto C. (See Tilman and Scheibner.)
Schellenbach, William L., Hartwell, Ohio. Work-securing mechanism. No. 1,133,064; Mar. 23; Gaz. vol. 212; p. 1261.
Schenkein, Samuel M., New York, N. Y. Polishing gems. No. 1,132,881; Mar. 23; Gaz. vol. 212; p. 1193.
Schenkein, Samuel M., New York, N. Y. Gem-polishing machine. No. 1,132,882; Mar. 23; Gaz. vol. 212; p. 1193.
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to Safety Car Heating & Lighting Company. Lamp. No. 1,131,428; Mar. 9; Gaz. vol. 212; p. 584.
Schermerhorn, Amos J., assignor of one-third to J. C. Greene, Deposit, N. Y. Air-valve connector. No. 1,131,557; Mar. 9; Gaz. vol. 212; p. 628.
Schermerhorn, Edwards F. (See Wolhaupter and Schermerhorn.)
Scheuch, Jacob J., assignor to The White Tar Company, New York, N. Y. Closure for mothproof bags. No. 1,130,342; Mar. 2; Gaz. vol. 212; p. 173.
Scheurich, John E. (See Scheurich, Joseph M., assignor.)
Scheurich, Joseph M., Chicago, Ill., assignor of one-half to J. E. Scheurich, Hot Springs, Ark. Vehicle-wheel. No. 1,132,039; Mar. 16; Gaz. vol. 212; p. 836.
Schick, Adolph, Wheeling, W. Va. Cushion-tire. No. 1,132,798; Mar. 23; Gaz. vol. 212; p. 1163.
Schiele, Frank C., Chicago, Ill. Automatic shut-off valve. No. 1,133,506; Mar. 30; Gaz. vol. 212; p. 1452.
Schiff, Sarah G., Chicago, Ill. Spool-holder. No. 1,130,437; Mar. 2; Gaz. vol. 212; p. 208.
Schiff, Sigmund, New York, N. Y. Neck-roll apparatus for bottle-making. No. 1,130,845; Mar. 9; Gaz. vol. 212; p. 384.
Schley, George B., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. System of electrical distribution. No. 1,133,187; Mar. 23; Gaz. vol. 212; p. 1305.
Schloss, Joseph W., New York, N. Y., assignor to Castlebone Co. Girdle. No. 1,130,202; Mar. 2; Gaz. vol. 212; p. 125.
Schlueter, Henry, Scribner, Nebr. Bridle-bit. No. 1,130,638; Mar. 2; Gaz. vol. 212; p. 278.
Schmidt, Alvin A., Chicago, Ill. Composition for making resilient molds. No. 1,132,217; Mar. 16; Gaz. vol. 212; p. 901.
Schmidt, Charles G., Okemah, Okla. Holding device for watches. No. 1,130,438; Mar. 2; Gaz. vol. 212; p. 208.
Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Friction draft-rigging. No. 1,130,439; Mar. 2; Gaz. vol. 212; p. 209.
Schmidt, Ernest H., assignor to National Malleable Castings Company, Cleveland, Ohio. Coupling shank and yoke connection. No. 1,132,980; Mar. 23; Gaz. vol. 212; p. 1230.
Schmidt, George, Jr. (See Rosenthal, Max, assignor.)
Schmidt, Paul, Vienna, Austria-Hungary. Tool-grinder. No. 1,130,112; Mar. 2; Gaz. vol. 212; p. 94.
Schmidt, Walter A., and G. C. Roberts, assignors to International Precipitation Company, Los Angeles, Cal. Apparatus for separating suspended particles from gases. No. 1,132,124; Mar. 16; Gaz. vol. 212; p. 867.
Schmidt'sche Heissdampf Gesellschaft m. b. H. (See Frandsen, Niels C., assignor.)
Schmidt'sche Heissdampf-Gesellschaft m. b. H. (See Stirling, James H., assignor.)
Schmitt, Joseph P. (See Reilly, Peter, assignor.)
Schmucker, Earl T., Hawarden, Iowa. Convertible motor and pump. No. 1,132,393; Mar. 16; Gaz. vol. 212; p. 966.
Schneebeli, Emil, Affoltern-on-the-Albis, Switzerland. Machine for dressing or finishing silk stuffs. No. 1,130,846; Mar. 9; Gaz. vol. 212; p. 384.
Schneible, Carl A. (See Schneiblé, Frank, assignor.)
Schneiblé, Frank, assignor to C. A. Schneible, New York, N. Y. Beer-dispensing apparatus. No. 1,133,405; Mar. 30; Gaz. vol. 212; p. 1417.
Schneider, Adolph, assignor to Banning & Banning, Chicago, Ill. Bottle-filling machine. No. 1,132,218; Mar. 16; Gaz. vol. 212; p. 901.
Schneider, Carl, Plau, Germany. Briquet. No. 1,132,527; Mar. 16; Gaz. vol. 212; p. 1015.
Schnell, Albert P., Grangeville, Idaho. Granary. No. 1,131,558; Mar. 9; Gaz. vol. 212; p. 628.
Schnepf, Harry F. (See Zolper, Wilhelm, assignor.)
Schock, Clarence, Mount Joy, Pa. Food-chopper. No. 1,130,024; Mar. 2; Gaz. vol. 212; p. 64.
Schock, Clarence, Mount Joy, Pa. Food-chopper. No. 1,130,025; Mar. 2; Gaz. vol. 212; p. 64.
Schoenky, August R. (See Corcoran, Dobyne and Schoenky.)
Schoenthaler, George R., Chicago, Ill. Support and tie for concrete-reinforcing bars. No. 1,132,135; Mar. 23; Gaz. vol. 212; p. 1139.
Schofield, Eugene H., deceased, Atlanta, Ga.; R. H. Schofield, administrator. Cotton-picking machine. No. 1,130,847; Mar. 9; Gaz. vol. 212; p. 385.
Schofield, Ray H., administrator. (See Schofield, Eugene H.)
Scholes, John, *et al.* (See Wolstenholme, Charles, assignor.)
Schoop, Max U., Zurich, Switzerland, assignor, by mesne assignments, to Metals Coating Company of America, Boston, Mass. Apparatus for spraying molten metal and other fusible substances. No. 1,133,507; Mar. 30; Gaz. vol. 212; p. 1453.
Schoop, Max U., Zurich, Switzerland, assignor, by mesne assignments, to Metals Coating Company of America, Boston, Mass. Spraying fusible substances. No. 1,133,508; Mar. 30; Gaz. vol. 212; p. 1453.
Schopbach, Charles H., Aurora, Ill. Corset. No. 1,133,824; Mar. 30; Gaz. vol. 212; p. 1569.
Schott and Gen. (See Schott, Otto, assignor.)
Schott, Otto, assignor to Firm of Schott and Gen., Jena, Germany. Composition for making glass. No. 1,130,767; Mar. 9; Gaz. vol. 212; p. 357.
Schrek, Herman, Brooklyn, N. Y. Combined carriage and suitcase. No. 1,131,559; Mar. 9; Gaz. vol. 212; p. 629.
Schreyer, Frederick, New York, N. Y. Combined monument, mound, and flower-bed. No. 1,130,208; Mar. 2; Gaz. vol. 212; p. 126.
Schubert & Salzer Maschinenfabrik, Aktiengesellschaft. (See Wirth, Friedrich E., assignor.)
Schuett, Albert H., St. Paul, Minn., assignor to Patented Devices Company, Portland, Me. Reinforced concrete construction. No. 1,131,092; Mar. 9; Gaz. vol. 212; p. 468.
Schultz, David L. (See Evans, William P., assignor.)
Schultz, Herman A., assignor to Hannifin Manufacturing Co., Chicago, Ill. Chuck. No. 1,130,768; Mar. 9; Gaz. vol. 212; p. 358.

Schultz, Hjalmar R., and F. B. Holt, Manchester, England, assignors to Westinghouse Electric & Manufacturing Company. Electric switch. No. 1,130,204; Mar. 2; Gaz. vol. 212; p. 126.
Schulz, William F., Campbellsport, Wis. Wire-winder. No. 1,132,622; Mar. 23; Gaz. vol. 212; p. 1098.
Schuster, Robert. (See Zoller and Schuster.)
Schutte & Koerting Company. (See Koerting, Ernst, assignor.)
Schutz, Joseph M., Chicago, Ill., assignor, by mesne assignments, to Fed-O-Graph Company. Printing-machine. No. 1,132,623; Mar. 23; Gaz. vol. 212; p. 1098.
Schutz, Joseph M., assignor to C. H. Babb, Chicago, Ill. Duplicate printing-machine. No. 1,132,624; Mar. 23; Gaz. vol. 212; p. 1099.
Schutz, Otto, assignor to Badische Company, New York, N. Y. Apparatus for mixing colors. No. 1,133,065; Mar. 23; Gaz. vol. 212; p. 1261.
Schwahn, Gustave, Belleville, Ill. Producing aluminum oxid from sulfate of alumina. No. 1,132,736; Mar. 23; Gaz. vol. 212; p. 1139.
Schwahn, Gustave, Belleville, Ill. Production of aluminum oxid. No. 1,132,737; Mar. 23; Gaz. vol. 212; p. 1140.
Schwahn, Gustave, St. Louis, Mo. Retort and furnace. No. 1,132,738; Mar. 23; Gaz. vol. 212; p. 1140.
Schwarz, Alfred, assignor, by mesne assignments, to Hedden Sales Company, Inc., New York, N. Y. Emergency-horseshoe. No. 1,132,219; Mar. 16; Gaz. vol. 212; p. 902.
Schwarz, Julius, New York, N. Y. Curtain for knee-trousers. No. 1,132,040; Mar. 16; Gaz. vol. 212; p. 837.
Schwarz, Otto C., New Chicago, Ind. Building-block. No. 1,131,740; Mar. 16; Gaz. vol. 212; p. 727.
Schwemann, Dietrich, Berlin-Wilmersdorf, Germany. Device for securing guard-rails on cross-ties. No. 1,130,639; Mar. 2; Gaz. vol. 212; p. 279.
Schwenck, W. J. (See Lutz, Franklin, assignor.)
Schwenger, Ben, assignor to The Airobiast Corporation, New York, N. Y. Apparatus for smoking and curing meat products. No. 1,133,888; Mar. 30; Gaz. vol. 212; p. 1591.
Schwerdtle, Henry G., assignor to Stokes & Smith Company, Philadelphia, Pa. Machine for forming sealed wrapped packages. No. 1,131,741; Mar. 16; Gaz. vol. 212; p. 727.
Schwerin, Botho. (See Illig and Schwerin.)
Schwerin, Botho, assignor to Elektro-Osmose A. G. (Graf Schwerin Gesellschaft), Frankfort-on-the-Main, Germany. Manufacture of chemically-pure soluble silicic acid. No. 1,132,394; Mar. 16; Gaz. vol. 212; p. 966.
Schwertner, Joseph, New York, N. Y., assignor to Heerwagen Company. Automatic playing apparatus. No. 1,133,581; Mar. 30; Gaz. vol. 212; p. 1480.
Scofield, Gilbert J., assignor to The Hilliard Clutch & Machinery Co., Elmira, N. Y. Power-transmission mechanism. No. 1,130,341; Mar. 2; Gaz. vol. 212; p. 173.
Scott, Archibald E., West Hampstead, England. Construction of ships. No. 1,131,429; Mar. 9; Gaz. vol. 212; p. 585.
Scott, Campbell, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Spool-winding machine. No. 1,132,739; Mar. 23; Gaz. vol. 212; p. 1140.
Scott, Gilford. (See Lawrence and Scott.)
Scott, Nathan D., Deshler, Ohio. Chain coupling for cars. No. 1,132,625; Mar. 23; Gaz. vol 212; p. 1099.
Scott, Richard, Greenville, Ala. Wrench. No. 1,133,509; Mar. 30; Gaz. vol. 212; p. 1454.
Scott, William H. (See White, Anna, assignor.)
Scott, William M., Baltimore, Md. Tree protection. No. 1,130,545; Mar. 2; Gaz. vol. 212; p. 248.
Scott, William M., Baltimore, Md. Tree protection. No. 1,130,546; Mar. 2; Gaz. vol. 212; p. 248.
Scudder, Ephraim, and C. M. Corlew, assignors of one-third to J. Carleton, Sioux Falls, S. D. Hose-supporter. No. 1,132,395; Mar. 16; Gaz. vol. 212; p. 966.
Seaberg, Frederick. (See Hart and Seaberg.)
Seal & Fastener Co., The. (See Flora, Ellsworth E., assignor.)
Seaman, Kent L., Fort Wayne, Ind. Garment-support. No. 1,130,343; Mar. 2; Gaz. vol. 212; p. 174.
Searing, Eugene P., assignor to Benjamin Eastwood Company, Paterson, N. J. Warping-machine. No. 1,133,749; Mar. 30; Gaz. vol. 212; p. 1541.
Sears, George H. (See Whipple, William N., assignor.)
Sebald, Joseph H., Arlington, N. J., assignor to Henry R. Worthington, New York, N. Y. Pump valve-pot. No. 1,133,406; Mar. 30; Gaz. vol. 212; p. 1418.
Sebring, Harry O., Sebring, Ohio. Headlight. No. 1,131,797; Mar. 16; Gaz. vol. 212; p. 750.
Sedgwick, Cecil H., Millwall, London, England. Metal-punching machine. No. 1,132,490; Mar. 16; Gaz. vol. 212; p. 1001.
Sedlmayer, Charles I., and J. W. Brooks, Stamford, Conn. Adjustable valve reseating or milling tool. No. 1,132,396; Mar. 16; Gaz. vol. 212; p. 967.
Segelhorst, William D. (See Limburg and Segelhorst.)
Seib, George A., assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,132,286; Mar. 16; Gaz. vol. 212; p. 928.
Seiberling, Frank A., Akron, Ohio. Rubberizing fabric. No. 1,133,322; Mar. 30; Gaz. vol. 212; p. 1387.
Seibert, John W., and J. W. Riley, Galesburg, Ill. Non-skid mud-shoe for autos. No. 1,131,560; Mar. 9; Gaz. vol. 212; p. 629.
Seidel, Harry F., and C. W. Voskamp, Pittsburgh, Pa. Tenpin. No. 1,131,090; Mar. 9; Gaz. vol. 212; p. 467.
Seipp, Henry C., Pittsburgh, Pa. Tire. No. 1,133,066; Mar. 23; Gaz. vol. 212; p. 1261.
Seiter, Henry W., New York, N. Y. Advertising device. No. 1,132,981; Mar. 23; Gaz. vol. 212; p. 1231.
Semet-Solvay Company. (See Steere, Frank W., assignor.)
Semple, John B., Sewickley, Pa. Projectile. No. 1,131,164; Mar. 9; Gaz. vol. 212; p. 492.
Seneca Camera Manufacturing Company. (See Goddard, Joseph, assignor.)
Senter, Charles A., *et al.* (See Markham, Andrew J., assignor.)
Senter, Ralph T., Philadelphia, Pa., assignor to The Near Side Car Company, New York, N. Y. Passenger-vehicle. No. 1,130,026; Mar. 2; Gaz. vol. 212; p. 64.
Seppi, Louis A. (See Newman and Seppi.)
Seppo, James, Nashwauk, Minn. Fish-screen. No. 1,132,041; Mar. 16; Gaz. vol. 212; p. 837.
Sermon, Robert C., West Duluth, Minn. Blow-off valve. No. 1,133,188; Mar. 23; Gaz. vol. 212; p. 1305.
Serrell, Lemuel W., Plainfield, N. J. Clothes-washer. No. 1,132,982; Mar. 23; Gaz. vol. 212; p. 1231.
Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Electric motor. No. 1,130,547; Mar. 2; Gaz. vol. 212; p. 249.
Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Locomotive. No. 1,132,799; Mar. 23; Gaz. vol. 212; p. 1164.
Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Mining-machine. No. 1,132,800; Mar. 23; Gaz. vol. 212; p. 1164.
Sessions, Frank L., and D. T. Fisher, Columbus, Ohio, assignors to The Jeffrey Manufacturing Company. Cable-reeling mechanism for electric locomotives. No. 1,132,740; Mar. 23; Gaz. vol. 212; p. 1141.
Sether, Edward M. (See Hensley and Sether.)
Seufferle, Ella E. (See Burgess, George A., assignor.)
Severin, John J., Barnesboro, Pa. Resilient wheel. No. 1,133,323; Mar. 30; Gaz. vol. 212; p. 1387.
Severy Manufacturing Company. (See Severy, Melvin L., assignor.)
Severy, Melvin L., Arlington Heights, assignor to Severy Manufacturing Company, Boston, Mass. Expansible pulley. No. 1,132,125; Mar. 16; Gaz. vol. 212; p. 868.
Sévigné, Henri A., Winthrop, and T. B. Dooley, Chelsea; said Dooley assignor to B. A. Ball, Boston, Mass. Package and making the same. No. 1,131,561; Mar. 9; Gaz. vol. 212; p. 629.
Sewall, Robert H. F., assignor of one-half to S. F. Heaslip, New Orleans, La. Reinforced-concrete railway-tie. No. 1,131,562; Mar. 9; Gaz. vol. 212; p. 630.
Seward, Otis P., Fredericksburg, Va. Shade-bracket. No. 1,130,848; Mar. 9; Gaz. vol. 212; p. 385.
Sexton, Roy W., Wytheville, Va. Buttonhole-strip. No. 1,132,397; Mar. 16; Gaz. vol. 212; p. 967.
Seybold, Charles, Dayton, Ohio. Paper-cutting machine. No. 1,132,626; Mar. 23; Gaz. vol. 212; p. 1099.
Seybold, Georg, Charlottenburg, assignor to Siemens-Schuckert Werke, G. m. b. H., Berlin, Germany. Stamping-press. No. 1,132,689; Mar. 23; Gaz. vol. 212; p. 1122.
Seymour, James M., Jr., Newark, N. J. Air cooling and filtering device. No. 1,130,849; Mar. 9; Gaz. vol. 212; p. 385.
Sgritta, Alfonso, Brooklyn, N. Y. Attachment for indicating changes in liquid-levels. No. 1,130,548; Mar. 2; Gaz. vol. 212; p. 249.
Shafer, Stewart, Idaville, Ind. Gasolene cut-off for automobiles. No. 1,130,027; Mar. 2; Gaz. vol. 212; p. 65.
Shallor, Frank E., assignor to F. Kuhn, Detroit, Mich. Connector-plug for electrical instruments. No. 1,130,935; Mar. 9; Gaz. vol. 212; p. 415.
Shanaman, John K. (See Brewer and Shanaman.)
Shaner, Benton L. (See Kelly and Shaner.)
Shanks, Jacob, assignor of one-half to I. Fry, St. Louis, Mo. Phonograph attachment for player-pianos. No. 1,130,850; Mar. 9; Gaz. vol. 212; p. 386.
Shannon, Robert M., Salmon, Idaho. Spring-gun. No. 1,133,189; Mar. 23; Gaz. vol. 212; p. 1305.
Shannon, Robert P., assignor to C. R. Barrett, Chicago, Ill. Flat-iron. No. 1,131,277; Mar. 9; Gaz. vol. 212; p. 532.
Shapera, Charles M. (See Shapera, Morris L. and C. M.)
Shapera, Morris L. and C. M., Chicago, Ill. Cloth-piling machine. No. 1,131,647; Mar. 9; Gaz. vol. 212; p. 662.
Sharp, Harry M. V., *et al.* (See Stow, Percival E., assignor.)
Sharp, Henry F., South San Francisco, Cal. Oil-burner. No. 1,132,801; Mar. 23; Gaz. vol. 212; p. 1165.
Sharp-Hughes Tool Company. (See Hughes, Howard R., assignor.)
Sharp, Ralph C., Independence, Kans. Metal wagon-reach. No. 1,132,398; Mar. 16; Gaz. vol. 212; p. 967.
Sharp, William N., Chicago, Ill. Toilet article. No. 1,132,126; Mar. 16; Gaz. vol. 212; p. 868.
Sharples, Alfred R., assignor to Electric Service Supplies Company, Philadelphia, Pa. Method of and apparatus for arresting electric currents. No. 1,133,671; Mar. 30; Gaz. vol. 212; p. 1515.
Shaull, James H., Charlotte, Mich. Automobile starting mechanism. No. 1,132,802; Mar. 23; Gaz. vol. 212; p. 1165.

Shaw, Frances D., Chicago, Ill. Downdraft continuous kiln. No. 1,133,582; Mar. 30; Gaz. vol. 212; p. 1481.
Shaw, John A., West Mount, Montreal, Quebec, Canada. Globe-holder for electric, gas, and other lamps. No. 1,130,113; Mar. 2; Gaz. vol. 212; p. 94.
Shaw, Robert T., *et al.* (See Bowdish, Albertis, assignor.)
Shaw, Thomas, Hackensack, N. J., assignor to American Telephone and Telegraph Company. Transformer. No. 1,133,750; Mar. 30; Gaz. vol. 212; p. 1541.
Sheble, Horace, Philadelphia, Pa., and F. L. Capps, assignors to American Graphophone Company, Bridgeport, Conn. Mounting for sound-boxes. No. 1,132,287; Mar. 16; Gaz. vol. 212; p. 928.
Shekleton, James H., Darlinghurst, New South Wales, Australia. Lock-nut. No. 1,130,851; Mar. 9; Gaz. vol. 212; p. 386.
Sheldon, Edward P., assignor to R. Hoe and Co., New York, N. Y. Printing-machine. No. 1,132,220; Mar. 16; Gaz. vol. 212; p. 902.
Sheldon, Edward P., assignor to R. Hoe and Co., New York, N. Y. Sheet-delivery mechanism. No. 1,133,407; Mar. 30; Gaz. vol. 212; p. 1418.
Sheldon, Thomas H., Victor, assignor of one-half to F. Herz, Goldfield, Colo. Automatic brake-setting and signal-operating apparatus for railway-trains. No. 1,130,028; Mar. 2; Gaz. vol. 212; p. 65.
Shelhamer, Willis P., Ashton, Kans. Kafir-corn header. No. 1,131,091; Mar. 9; Gaz. vol. 212; p. 468.
Shelton, Henry J., St. Louis, Mo. Ring-roll crusher and pulverizer. No. 1,132,042; Mar. 16; Gaz. vol. 212; p. 837.
Sherman, Albert G., Buffalo, N. Y. Furnace. No. 1,132,803; Mar. 23; Gaz. vol. 212; p. 1166.
Sherman, Philip, Chicago, Ill. Railway-rail. No. 1,130,549; Mar. 2; Gaz. vol. 212; p. 249.
Shields, George A., Columbus, Ohio. Machine for rolling sheet-glass. No. 1,133,751; Mar. 30; Gaz. vol. 212; p. 1541.
Shields, George A., Columbus, Ohio. Machine for drawing sheet-glass. No. 1,133,752; Mar. 30; Gaz. vol. 212; p. 1542.
Shipley, Thomas, York, Pa. Manufacture of ice. No. 1,130,440; Mar. 2; Gaz. vol. 212; p. 209.
Shockley, Orville R., Sylvatus, Va. Saw-set. No. 1,131,563; Mar. 9; Gaz. vol. 212; p. 630.
Shoemaker, Frank A., and W. E. Archer, Norristown, Pa. Gravity-feed lubricating system. No. 1,131,011; Mar. 9; Gaz. vol. 212; p. 440.
Shoffstall, David S. and H., Mount Carmel, Pa. Train-stopping apparatus. No. 1,134,019; Mar. 30; Gaz. vol. 212; p. 1631.
Shoffstall, Henry. (See Shoffstall, David S. and H.)
Shortridge, William P., Granfield, Okla. Cutter. No. 1,133,753; Mar. 30; Gaz. vol. 212; p. 1542.
Shortt, Edward G., Carthage, N. Y., assignor of one-half to M. C. Mason, Rockville, Conn. Carbureter. No. 1,133,754; Mar. 30; Gaz. vol. 212; p. 1542.
Shoupe, Joseph R., Longview, Tex. Silo. No. 1,131,798; Mar. 16; Gaz. vol. 212; p. 750.
Showalter, Amos T., Hagerstown, Md. Bale-tie-forming machine. No. 1,134,020; Mar. 30; Gaz. vol. 212; p. 1631.
Showalter, John C., Three Rivers, Mich. Wrench attachment. No. 1,131,430; Mar. 9; Gaz. vol. 212; p. 585.
Shreeve, Herbert E., Milburn, N. J., assignor to Western Electric Company, New York, N. Y. Telephonic apparatus. No. 1,130,029; Mar. 2; Gaz. vol. 212; p. 66.
Shuey, William, Wellsburg, W. Va. Automobile repair-truck. No. 1,132,983; Mar. 23; Gaz. vol. 212; p. 1231.
Shumaker, Jim H., Beaver Falls, Pa. Charge-forming device for internal-combustion engines. No. 1,131,742; Mar. 16; Gaz. vol. 212; p. 728.
Shur, Edward J., New Orleans, La. Mail-bag. No. 1,131,964; Mar. 16; Gaz. vol. 212; p. 809.
Shutt, Albert, Topeka, Kans. Double-bass guitar. No. 1,131,564; Mar. 9; Gaz. vol. 212; p. 630.
Siddons, Enoch F., deceased, Red Lodge, Mont.; Mrs. J. T. Flaherty, administratrix. Animal-trap. No. 1,130,852; Mar. 9; Gaz. vol. 212; p. 386.
Sieben, Henry, assignor of one-fifth to L. E. Wyne, Kansas City, Mo. Sewer-cleaner. No. 1,132,690; Mar. 23; Gaz. vol. 212; p. 1123.
Sieben, Henry, assignor of one-fifth to L. E. Wyne, Kansas City, Mo. Sewer-cleaner. No. 1,132,691; Mar. 23; Gaz. vol. 212; p. 1123.
Siedle, Adolph J., and J. H. R. Yardley, London, England. Stamp-affixing instrument. No. 1,130,205; Mar. 2; Gaz. vol. 212; p. 126.
Siegrist, Charles F., assignor to The Strong, Carlisle & Hammond Company, Cleveland, Ohio. Water-measuring device. No. 1,133,067; Mar. 23; Gaz. vol. 212; p. 1262.
Siemens & Co., Gebrüder. (See Egly, Georg, assignor.)
Siemens & Halske A. G. (See Gerdien, Hans, assignor.)
Siemens & Halske. (See Merk, Friedrich, assignor.)
Siemens-Schuckert Werke G. m. b. H. (See Gewecke and Baeumler, assignor.)
Siemens-Schuckert Werke, G. m. b. H. (See Seybold, Georg, assignor.)
Signature Company. (See Johnson, Frank A., assignor.)
Sill, Samuel J., assignor of one-half to H. H. Hewitt, Buffalo, N. Y. Mandrel for forming and vulcanizing rubber hose. No. 1,130,030; Mar. 2; Gaz. vol. 212; p. 66.
Sillin, Cyrenius W., Stuttgart, Ark. Chimney-cap and storm-shield. No. 1,133,324; Mar. 30; Gaz. vol. 212; p. 1387.
Sills, William H., Chicago, Ill. Apparatus for making mica-board. No. 1,133,325; Mar. 30; Gaz. vol. 212; p. 1388.
Silva, Juan N., Pueblo, Colo. Kiln. No. 1,133,190; Mar. 23; Gaz. vol. 212; p. 1306.
Sim, William, Underwood, Invercargill, New Zealand, assignor to Torris Wold & Co., Chicago, Ill. Machine for fitting closure-caps to cans. No. 1,132,221; Mar. 16; Gaz. vol. 212; p. 903.
Simmonds Engineering Company, The. (See Simmonds, John J., assignor.)
Simmonds, John J., assignor to The Simmonds Engineering Company, Iola, Kans. Rake-operating mechanism for ore-roasting furnaces. No. 1,133,068; Mar. 23; Gaz. vol. 212; p. 1262.
Simmons, James L. (See Moore and Simmons.)
Simmons, Leon E., Decoto, Cal. Train-marker. No. 1,133,583; Mar. 30; Gaz. vol. 212; p. 1481.
Simmons, Ralph C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-breasting machine. No. 1,133,584; Mar. 30; Gaz. vol. 212; p. 1481.
Simmons, R. M. (See Holtby, Wilkie H., assignor.)
Simms, Frederick R., London, England, assignor to The Simms Magneto Company, Bloomfield, N. J. Magneto-electric machine for combined ignition and illumination purposes. No. 1,130,206; Mar. 2; Gaz. vol. 212; p. 127.
Simms, Harold H., Rochester, assignor to Auto Strop Company, New York, N. Y. Razor. No. 1,133,326; Mar. 30; Gaz. vol. 212; p. 1388.
Simms, Harold H., Rochester, assignor to Auto Strop Company, New York, N. Y. Razor. No. 1,133,327; Mar. 30; Gaz. vol. 212; p. 1389.
Simms, Harold H., Rochester, assignor to Auto Strop Company, New York, N. Y. Razor. No. 1,133,328; Mar. 30; Gaz. vol. 212; p. 1389.
Simms, Harold H., Rochester, assignor to Auto Strop Company, New York, N. Y. Razor. No. 1,133,329; Mar. 30; Gaz. vol. 212; p. 1390.
Simms, Horace R., assignor to American Skein & Foundry Company, Racine, Wis. Method of and apparatus for making molds for casting piano-plates. No. 1,131,743; Mar. 16; Gaz. vol. 212; p. 728.
Simms Magneto Company, The. (See Simms, Frederick R., assignor.)
Simon, Arthur, assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Controller for alternating-current motors. No. 1,132,741; Mar. 23; Gaz. vol. 212; p. 1141.
Simoneaux, Edward N., New Orleans, La. Paper box. No. 1,129,909; Mar. 2; Gaz. vol. 212; p. 26.
Simons, Albert H., Buffalo, N. Y. Tool for laying out cams. No. 1,133,585; Mar. 30; Gaz. vol. 212; p. 1482.
Simons, Enos W., Jr., Payson, Utah. Tub attachment. No. 1,132,491; Mar. 16; Gaz. vol. 212; p. 1001.
Simons, Frank, St. Louis, Mo. Packing-ring. No. 1,133,672; Mar. 30; Gaz. vol. 212; p. 1515.
Simons, William S., Houston, Tex. Screen attachment. No. 1,131,565; Mar. 9; Gaz. vol. 212; p. 631.
Simplex Machine Co., The. (See Dodge, Raymond E., assignor.)
Simplex Shoe Machinery Company. (See Myers, Charles E., assignor.)
Simpson, Benjamin F., Orland, Cal. Sanitary watering-trough. No. 1,133,755; Mar. 30; Gaz. vol. 212; p. 1543.
Simpson, Frances M., *et al.* (See Crompton, Edwin, Jr., assignor.)
Simpson, Fred, Blundellsands, near Liverpool, England. Apparatus for indicating and recording small differences of fluid-pressure and for operating integrating or control devices which have to be regulated by the said differences of pressure. No. 1,132,400; Mar. 16; Gaz. vol. 212; p. 968.
Simpson, Fred, Blundellsands, near Liverpool, and A. R. T. Woods, Harrow, near London, England. Apparatus for measuring the flow of liquids in closed conduits. No. 1,132,399; Mar. 16; Gaz. vol. 212; p. 968.
Sims, Joseph W., East Orange, N. J., assignor to Henry R. Worthington, New York, N. Y. Rotary meter. No. 1,133,408; Mar. 30; Gaz. vol. 212; p. 1419.
Singer Manufacturing Company, The. (See Berger, Joseph, assignor.)
Singer Manufacturing Company, The. (See Eames and Finch, assignors.)
Singer Manufacturing Company, The. (See Noble, Donald, assignor.)
Single Service Package Corporation of America. (See Beadle, George W., assignor.)
Singleton, James M. D., Dublin, Ga. Harrow. No. 1,131,566; Mar. 9; Gaz. vol. 212; p. 631.
Sipe, Harry E. (See Sipe, John F. and H. E.)
Sipe, John F. and H. E., New York, N. Y. Resilient wheel for vehicles. No. 1,132,127; Mar. 16; Gaz. vol. 212; p. 868.
Sipe, John F. and H. E., New York, N. Y. Resilient wheel. No. 1,132,492; Mar. 16; Gaz. vol. 212; p. 1002.
Sirch, Charles W., Los Angeles, Cal. Current-rectifying system. No. 1,133,447; Mar. 30; Gaz. vol. 212; p. 1432.
Sissom, Clyde W., Wilson county, Kans. Traveling rural mail-box. No. 1,131,744; Mar. 16; Gaz. vol. 212; p. 729.

Sisson, Albert H., assignor to Forsyth Brothers Company, Chicago, Ill. Car construction. No. 1,130,853; Mar. 9; Gaz. vol. 212; p. 386.
Skalicky, Joseph C., Willow, Okla. Wrench. No. 1,131,567; Mar. 9; Gaz. vol. 212; p. 631.
Skinner Engine Company. (See Stevens, Robert C., assignor.)
Skinner, Henry W., Maywood, Ill. Automatic supervision of service in hotels and the like. No. 1,131,278; Mar. 9; Gaz. vol. 212; p. 532.
Skinner, James M., assignor to Philadelphia Storage Battery Company, Philadelphia, Pa. Battery-separator and making same. No. 1,130,640; Mar. 2; Gaz. vol. 212; p. 279.
Skinner, Roland G., *et al.* (See Funder, Mathew, assignor.)
Skirvin, David E., Mount Angel, Oreg. Seed-cleaner. No. 1,133,069; Mar. 23; Gaz. vol. 212; p. 1262.
Skitt, James H., assignor to Smith, Drum & Company, Philadelphia, Pa. Automatic gas-burner-controlling mechanism. No. 1,132,883; Mar. 23; Gaz. vol. 212; p. 1193.
Slawson, William H., Dayton, Tenn. Package-tie. No. 1,131,279; Mar. 9; Gaz. vol. 212; p. 533.
Slick, Edwin E., Westmont borough, Pa. Brick for hot-blast stoves. No. 1,130,031; Mar. 2; Gaz. vol. 212; p. 66.
Sloan, Frank T., New York, N. Y. Tank. No. 1,130,936; Mar. 9; Gaz. vol. 212; p. 415.
Sloan, W. M., *et al.* (See Dueberg, Helmuth F. C., assignor.)
Slocomb, Frank F., Philadelphia, Pa., assignor to F. F. Slocomb & Co., Incorporated. Leather-staking machine. No. 1,130,769; Mar. 9; Gaz. vol. 212; p. 358.
Slocum, Avram & Slocum. (See Avram, Mois H., assignor.)
Small, Chesley T., St. Louis, Mo., assignor, by mesne assignments, to Automatic Can Filling Machinery Company, Newark, N. J. Holder for applying slip-covers to receptacles. No. 1,133,330; Mar. 30; Gaz. vol. 212; p. 1390.
Small, Frederick E., Needham, Mass. Piston-packing. No. 1,129,910; Mar. 2; Gaz. vol. 212; p. 26.
Small, Howard, Wyncote, assignor to Santo Manufacturing Company, Philadelphia, Pa. Vacuum cleaning apparatus. No. 1,130,114; Mar. 2; Gaz. vol. 212; p. 94.
Smedstad, Osborne, Portland, Oreg. Ratchet-drill. No. 1,130,770; Mar. 9; Gaz. vol. 212; p. 358.
Smetik, Frank S., Nokomis, Ill. Cuspidor. No. 1,130,937; Mar. 9; Gaz. vol. 212; p. 416.
Smiddy, Jerome J., Honolulu, Hawaii. Turbine gas-engine. No. 1,132,742; Mar. 23; Gaz. vol. 212; p. 1141.
Smith, Adam M., assignor of one-half to J. Reiter, Minneapolis, Minn. Top-spinning pistol. No. 1,133,756; Mar. 30; Gaz. vol. 212; p. 1543.
Smith, Albert D., assignor to Koons Oil Furnace Company, Anderson, Ind. Oil-burner. No. 1,133,238; Mar. 23; Gaz. vol. 212; p. 1320.
Smith, Algernon T., Birkdale, England. Vehicle-wheel. No. 1,131,965; Mar. 16; Gaz. vol. 212; p. 809.
Smith, Amos H., New York, N. Y., assignor to American Bank Note Company. Numbering-head. No. 1,132,493; Mar. 16; Gaz. vol. 212; p. 1002.
Smith, Amos H., New York, N. Y., assignor to American Bank Note Company. Numbering-machine. No. 1,133,510; Mar. 30; Gaz. vol. 212; p. 1454.
Smith, Archie, Leetonia, assignor to The Youngstown Iron & Steel Company, Youngstown, Ohio. Making alloys. No. 1,131,799; Mar. 16; Gaz. vol. 212; p. 751.
Smith, Arthur W. (See Farnham, Smith, and Phelps.)
Smith, Arthur W., New York, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,132,743; Mar. 23; Gaz. vol. 212; p. 1142.
Smith, Charles H., Rhyolite, Nev. File-case. No. 1,133,889; Mar. 30; Gaz. vol. 212; p. 1591.
Smith, Cicero G., Palisades, Colo., assignor to Smith Spring Wheel Company, Albuquerque, N. Mex. Spring-wheel for vehicles. No. 1,131,616; Mar. 9; Gaz. vol. 212; p. 649.
Smith, Drum & Company. (See Skitt, James H., assignor.)
Smith, Edward A., New York, N. Y., assignor to Otis Elevator Company. Safety device for elevators. No. 1,132,744; Mar. 23; Gaz. vol. 212; p. 1142.
Smith, Edward W., assignor to F. A. Blount, Philadelphia, and C. C. Hallowell, Penfield, Pa. Flying-machine. No. 1,132,288; Mar. 16; Gaz. vol. 212; p. 929.
Smith, Elbert E., *et al.* (See Dueberg, Helmuth F. C., assignor.)
Smith, Elliston, and G. W. Snook, assignors of one-third to W. E. Peck, Buffalo, N. Y. Clamp for bag-holders. No. 1,129,911; Mar. 2; Gaz. vol. 212; p. 27.
Smith, Ernest C., assignor to Acme Harvesting Machine Co., Peoria, Ill. Push-rake. No. 1,130,032; Mar. 2; Gaz. vol. 212; p. 66.
Smith, Frank K., Manhattan, Kans. Truss. No. 1,131,633; Mar. 9; Gaz. vol. 212; p. 656.
Smith, Frank W., *et al.* (See Sprong, Severn D., assignor.)
Smith, Harry W., West Chester, Pa. Crayon-cutter. No. 1,131,431; Mar. 9; Gaz. vol. 212; p. 585.
Smith, Harry W., West Chester, Pa. Crayon composition. No. 1,131,432; Mar. 9; Gaz. vol. 212; p. 586.
Smith, Harry W., West Chester, Pa. Making crayons. No. 1,131,433; Mar. 9; Gaz. vol. 212; p. 586.
Smith, Howard, Detroit, Mich., assignor to McCord Manufacturing Company, Chicago, Ill. Force-feed lubricator. No. 1,132,627; Mar. 23; Gaz. vol. 212; p. 1100.
Smith, Hugh A., assignor of one-fourth to G. Flexner and one-fourth to M. Abraham, Louisville, Ky. Wagon-scale. No. 1,130,771; Mar. 9; Gaz. vol. 212; p. 358.
Smith, Irwin W., Dayton, Ohio. Trolley-retriever. No. 1,129,912; Mar. 2; Gaz. vol. 212; p. 27.
Smith, Jesse A. B. (See Wernery and Smith.)
Smith, Jesse A. B., Brooklyn, assignor to Underwood Typewriter Company, New York, N. Y. Carbon-sheet. No. 1,133,331; Mar. 30; Gaz. vol. 212; p. 1390.
Smith, John W., Youngstown, Ohio. Circuit-closing device. No. 1,133,448; Mar. 30; Gaz. vol. 212; p. 1432.
Smith, Le Roy M., Chicago, Ill. Scale-beam. No. 1,131,165; Mar. 9; Gaz. vol. 212; p. 492.
Smith, Louis R., Colorado Springs, assignor to The Universal Indexing Company, Denver, Colo. Book-index. No. 1,132,222; Mar. 16; Gaz. vol. 212; p. 903.
Smith, Oberlin, Bridgeton, N. J. Guard for wheels. No. 1,130,207; Mar. 2; Gaz. vol. 212; p. 127.
Smith, Oliver A., assignor of one-half to G. A. Russell, Springfield, Mass. Apparatus for safeguarding automobiles from theft. No. 1,132,128; Mar. 16; Gaz. vol. 212; p. 869.
Smith, Rexford M., Washington, D. C., assignor, by mesne assignments, to Connecticut Aircraft Company, New Haven, Conn. Flying-machine. No. 1,130,208; Mar. 2; Gaz. vol. 212; p. 127.
Smith, Russell R., Rodeo, Cal. Aeroplane. No. 1,133,757; Mar. 30; Gaz. vol. 212; p. 1543.
Smith, Samuel D., East Dedham, assignor of one-half to J. C. Kennedy, Boston, Mass. Cushion-heel. No. 1,131,568; Mar. 9; Gaz. vol. 212; p. 632.
Smith, Saville, and H. Langton, Philadelphia, Pa. Smoke-consumer. No. 1,131,280; Mar. 9; Gaz. vol. 212; p. 533.
Smith, Silas E., Worcester, Mass. Dental mandrel. No. 1,133,409; Mar. 30; Gaz. vol. 212; p. 1420.
Smith Spring Wheel Company. (See Smith, Cicero G., assignor.)
Smith, Thomas L., Milwaukee, Wis. Gyratory crusher. No. 1,132,984; Mar. 23; Gaz. vol. 212; p. 1232.
Smith, William M., Evansville, Ind. Automatic train-stop. No. 1,133,239; Mar. 23; Gaz. vol. 212; p. 1321.
Smith, William M., Evansville, Ind. Automatic fender and brake. No. 1,133,673; Mar. 30; Gaz. vol. 212; p. 1515.
Smith, William W. (See Miles, Frederick B., assignor.)
Smith, Willis H., Knoxville, Tenn. Engine valve-gear. No. 1,132,692; Mar. 23; Gaz. vol. 212; p. 1123.
Smolik, Mathias, Pittsburgh, Pa. Toy. No. 1,131,166; Mar. 9; Gaz. vol. 212; p. 493.
Snee, John A., Jr. (See Snee, William and J. A., Jr.)
Snee, William and J. A., Jr., West Elizabeth, Pa. Electrical regulation. No. 1,131,434; Mar. 9; Gaz. vol. 212; p. 586.
Snee, William and J. A., Jr., West Elizabeth, Pa. Utilizing variable power. No. 1,131,435; Mar. 9; Gaz. vol. 212; p. 586.
Snook, George W. (See Smith and Snook.)
Snook, Homer C., Philadelphia, Pa. Polyphase X-ray system. No. 1,131,870; Mar. 16; Gaz. vol. 212; p. 776.
Snow, Isaac, Lawrence, assignor to Draper Company, Hopedale, Mass. Loom. No. 1,132,223; Mar. 16; Gaz. vol. 212; p. 903.
Snyder, Augustus G., assignor, by mesne assignments, to George H. Spitzli, Utica, N. Y. Computing mechanism. No. 1,132,804; Mar. 23; Gaz. vol. 212; p. 1166.
Snyder, Charles L., Stratford, and F. J. Pease, assignors to Wolverine Motor Works, Inc., Bridgeport, Conn. Internal-combustion engine. No. 1,131,436; Mar. 9; Gaz. vol. 212; p. 587.
Snyder, Eja L., *et al.* (See Crompton, Edwin, Jr., assignor.)
Snyder, Samuel, Camden, assignor to Welsbach Light Company, Gloucester City, N. J. Support or holder for lamp globes or reflectors. No. 1,133,410; Mar. 30; Gaz. vol. 212; p. 1420.
Societe Anonyme des Automobiles Delaunay-Belleville. (See Delaunay-Belleville, Robert, assignor.)
Societe Anonyme Des Etablissements Delaunay-Belleville. (See Delaunay-Belleville, Robert, assignor.)
Société Anonyme d'Exploitation des Papeteries L. Lacroix Fils. (See Goursat, Paul, assignor.)
Société Carpentier, Bal & Cie. (See Carpentier, Rodolphe, assignor.)
Societe L'Air Liquide (Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude). (See Claude, Georges, assignor.)
Sohm, Alfred L., Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Spokane, Wash. Electrical recording apparatus. No. 1,132,884; Mar. 23; Gaz. vol. 212; p. 1194.
Sohm Electric Signal & Recording Company. (See Sohm, Alfred L., assignor.)
Sohon, Frederick, Washington, D. C. Carbureter. No. 1,134,021; Mar. 30; Gaz. vol. 212; p. 1631.
Soldier, Michael, Gillespie, Ill. Clothes-line support. No. 1,130,033; Mar. 2; Gaz. vol. 212; p. 67.
Soley, Harry. (See Hopper and Soley.)
Solomon, Edgar J., Peoria, Ill., assignor to Avery Company. Traction device for vehicle-wheels. No. 1,132,805; Mar. 23; Gaz. vol. 212; p. 1167.

Somerville, William E., Coal City, Ill. Toilet. No. 1,130,441; Mar. 2; Gaz. vol. 212; p. 209.
Sommerfeld, August, St. Louis, Mo. Propeller for swimmers. No. 1,130,209; Mar. 2; Gaz. vol. 212; p. 128.
Soule, Solomon A., Francis, Wash. Sled-plate. No. 1,130,115; Mar. 2; Gaz. vol. 212; p. 95.
Southworth Machine Company. (See Cobb, Elmer M., assignor.)
Sowers Manufacturing Company. (See Walker, Hugh D., assignor.)
Spalding, Frank P., St. Louis, Mo. Puncture-proof tire. No. 1,132,693; Mar. 23; Gaz. vol. 212; p. 1124.
Spanish Mission Tile Company. (See Hellyar, Cochran, and Waggoner, assignors.)
Sparks, Lewis E., Memphis, Tenn. Garbage-burning furnace. No. 1,132,494; Mar. 16; Gaz. vol. 212; p. 1003.
Sparks, Thomas H., Wichita, Kans. Vehicle spring suspension. No. 1,131,281; Mar. 9; Gaz. vol. 212; p. 533.
Speegle, Emanuel A., Sawtelle, Cal. Current-motor. No. 1,131,617; Mar. 9; Gaz. vol. 212; p. 649.
Speese, Jasper, West Milton, Pa. Fountain-brush. No. 1,131,012; Mar. 9; Gaz. vol. 212; p. 440.
Speese, Jasper, West Milton, assignor to The Speese Manufacturing Company, Sunbury, Pa. Brush. No. 1,130,442; Mar. 2; Gaz. vol. 212; p. 210.
Speese Manufacturing Company, The. (See Speese, Jasper, assignor.)
Speicher, George P. (See Brewer and Shanaman, assignors.)
Spelling, Thomas C., New York, N. Y. Pin-fastener. No. 1,133,247. Mar. 23; Gaz. vol. 212; p. 1324.
Spence, John C., assignor to Norton Company, Worcester, Mass. Balanced abrasive wheel. No. 1,130,210; Mar. 2; Gaz. vol. 212; p. 128.
Spencer, George N., Forest Grove, Oreg. Saw-set. No. 1,132,694; Mar. 23; Gaz. vol. 212; p. 1124.
Spencer, Ira H., assignor, by mesne assignments, to The Spencer Turbine Cleaner Company, Hartford, Conn. Cleaning apparatus. No. 1,134,022; Mar. 30; Gaz. vol. 212; p. 1632.
Spencer, Moses, Saylesville, R. I. Protector-guard for tension-pulleys of textile-machines. No. 1,131,167; Mar. 9; Gaz. vol. 212; p. 493.
Spencer Turbine Cleaner Company, The. (See Spencer, Ira H., assignor.)
Sperry Flour Company. (See Godley and Carroll, assignors.)
Sperry, Henry T., assignor to Waterbury Manufacturing Company, Waterbury, Conn. Switch-plate. No. 1,131,093; Mar. 9; Gaz. vol. 212; p. 468.
Sperry, Samuel E., Woodhaven, assignor to International Typesetting Machine Company, New York, N. Y. Magazine-entrance guide for line-composing machines. No. 1,130,641; Mar. 2; Gaz. vol. 212; p. 279.
Spicer, Clarence W., Plainfield, N. J. Universal joint. No. 1,132,043; Mar. 16; Gaz. vol. 212; p. 838.
Spiegel, Alfred, Brooklyn, N. Y. Corset. No. 1,134,023; Mar. 30; Gaz. vol. 212; p. 1633.
Spitler, Elmer T., Pueblo, Colo. Music-leaf turner. No. 1,134,024; Mar. 30; Gaz. vol. 212; p. 1633.
Spitzli, George H. (See Snyder, Augustus G., assignor.)
Splitdorf Electrical Company. (See Cunningham, Richard H., assignor.)
Spoehr, William F., Milwaukee, Wis. Boring and facing bar. No. 1,131,871; Mar. 16; Gaz. vol. 212; p. 776.
Spofford, George E., New Market, N. H., assignor to Draper Company, Hopedale, Mass. Slasher. No. 1,130,642; Mar. 2; Gaz. vol. 212; p. 279.
Spohrer, Gregory J., East Orange, N. J., assignor to Motor Compressor Company, Wilmington, Del. Starter for internal-combustion engines. No. 1,132,224; Mar. 16; Gaz. vol. 212; p. 904.
Spradley, Thaddeus A., Cropwell, Ala. Door-lock. No. 1,130,034; Mar. 2; Gaz. vol. 212; p. 67.
Spranger, Anthony J., and B. H. Hourtienne, assignors to Spranger Rim and Wheel Company, Detroit, Mich. Demountable rim. No. 1,129,913; Mar. 2; Gaz. vol. 212; p. 27.
Spranger Rim and Wheel Company. (See Spranger and Hourtienne, assignors.)
Springer, Aaron M., Portland, Oreg., assignor, by mesne assignments, to Oregon Woodenware Manufacturing Company. Ironing-table. No. 1,132,528; Mar. 16; Gaz. vol. 212; p. 1015.
Springman, Charles T., assignor to Springman Paper Products Company, Detroit, Mich. Easel. No. 1,132,628; Mar. 23; Gaz. vol. 212; p. 1100.
Springman, Charles T., assignor to Springman Paper Products Company, Detroit, Mich. Easel. No. 1,132,629; Mar. 23; Gaz. vol. 212; p. 1101.
Springman Paper Products Company. (See Springman, Charles T., assignor.)
Springstein, Luther W., assignor of one-half to A. E. Benedict, Binghamton, N. Y. Mail-catcher. No. 1,130,035; Mar. 2; Gaz. vol. 212; p. 67.
Sprinkman, Martin, Los Angeles, Cal. Rail-support. No. 1,133,586; Mar. 30; Gaz. vol. 212; p. 1482.
Sprong, Severn D., Brooklyn, assignor of one-third to F. W. Smith and one-third to W. E. McCoy, New York, N. Y. Device for locating faults in line-conductor insulation. No. 1,130,036; Mar. 2; Gaz. vol. 212; p. 68.
St. Albans Foundry and Implement Company. (See Arnholm, Charles A., assignor.)
St. Clair, Charles E., *et al.* (See Miller, Harry, assignor.)
St. Louis Bed and Manufacturing Company. (See Redding, Roy F., assignor.)
St. Pierre, Joseph Ohio, Boston, Mass. Lifting-jack. No. 1,131,285; Mar. 9; Gaz. vol. 212; p. 534.
St. Pierre, Joseph O., Boston, Mass. Lifting-jack. No. 1,131,286; Mar. 9; Gaz. vol. 212; p. 535.
Staab, Peter J., Peoria, Ill. Corn picking and husking machine. No. 1,131,800; Mar. 16; Gaz. vol. 212; p. 751.
Staadeker, Jerome B., Louisville, Ky. Suit-hanger. No. 1,130,643; Mar. 2; Gaz. vol. 212; p. 280.
Staff, Charles, Royal Oak, Mich. Carburizing material. No. 1,131,801; Mar. 16; Gaz. vol. 212; p. 752.
Stafford Company, The. (See Jackson, Simeon S., assignor.)
Stahl, August, assignor to William Tonk & Bro., Inc., New York, N. Y. Key-locking means for player-pianos. No. 1,133,674; Mar. 30; Gaz. vol. 212; p. 1515.
Stamm, Hans, St. Gallen, Switzerland. Self-loading fire-arm. No. 1,132,044; Mar. 16; Gaz. vol. 212; p. 838.
Stamm, Henry C., Mechanicsburg, Pa. Washing-machine. No. 1,133,890; Mar. 30; Gaz. vol. 212; p. 1591.
Standard Car Truck Company. (See Barber, John C., assignor.)
Standard Car Truck Company. (See Barber and Webb, assignors.)
Standard Knitting Mills Company. (See Marlow, William, assignor.)
Standard Oil Company. (See Clark, Edgar M., assignor.)
Standard Oil Company. (See Moore, John B., assignor.)
Standard Sanitary Manufacturing Company. The. (See Muckenhirn, Charles H., assignor.)
Standard Sanitary Manufacturing Company. (See Osborn, William H., assignor.)
Standard Steel Wheel and Tire Armor Company. (See Livingston, Andrew W., assignor.)
Standard Underground Cable Company. (See Davis, Charles W., assignor.)
Standfest, George, assignor of one-half to J. Nonn, Rochester, N. Y. Lock for car-doors. No. 1,133,332; Mar. 30; Gaz. vol. 212; p. 1391.
Standish, Granville S. (See McCallion, James H., assignor.)
Stanley Rule & Level Co. (See Bodmer, Christian, assignor.)
Stanley Rule & Level Company. (See Schade, Edmund A., assignor.)
Stanton, Hugh C., Dillon, S. C. Combined planter and fertilizer-distributer. No. 1,132,401; Mar. 16; Gaz. vol. 212; p. 969.
Staples, Charles W. (See Gibson and Staples.)
Staples, Hersey, Diamond Bluff, Wis. Screw-propeller. No. 1,133,191; Mar. 23; Gaz. vol. 212; p. 1306.
Starker, Charles W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Dynamo-electric machine. No. 1,130,211; Mar. 2; Gaz. vol. 212; p. 128.
Starnes, George M., Little Rock, Ark. Motor sawing-machine. No. 1,132,402; Mar. 16; Gaz. vol. 212; p. 969.
Stauber, Peter, Milwaukee, Wis. Slidable bracket. No. 1,132,495; Mar. 16; Gaz. vol. 212; p. 1004.
Staude, Edwin G., Minneapolis, Minn. Wrapping-machine. No. 1,130,938; Mar. 9; Gaz. vol. 212; p. 416.
Staunton, Gray, Chicago, Ill. Vacuum work-holder. No. 1,130,679; Mar. 2; Gaz. vol. 212; p. 293.
Stedler, Henry W., Boston, Mass. Boot or shoe. No. 1,130,854; Mar. 9; Gaz. vol. 212; p. 387.
Steedman's Foundry & Machine Works. (See Boero, Joseph, assignor.)
Steedman, Edwin H. (See Saunders and Steedman.)
Steele, Edwin G. (See Sutton and Steele.)
Steele, Henry B., Rising Sun, Ind., assignor of one-third to H. H. Steele, Paris, Ill., and one-third to W. C. Steele, Rising Sun, Ind. Carriage-painter's rack and buggy-jack. No. 1,133,411; Mar. 30; Gaz. vol. 212; p. 1420.
Steele, Hugh H., *et al.* (See Steele, Henry B., assignor.)
Steele, Walter L. (See Sutton and Steele.)
Steele, William C., *et al.* (See Steele, Henry B., assignor.)
Steere, Frank W., Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y. Removing tarry substances from gas. No. 1,130,212; Mar. 2; Gaz. vol. 212; p. 129.
Steere, Frank W., Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y. Removing tar from gas. No. 1,130,213; Mar. 2; Gaz. vol. 212; p. 129.
Steere, Frank W., Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y. Removing tar from gas. No. 1,130,214; Mar. 2; Gaz. vol. 212; p. 129.
Steere, Frank W., Detroit, Mich., assignor to Semet-Solvay Company, Solvay, N. Y. Discharging-electrode and forming the same. No. 1,130,215; Mar. 2; Gaz. vol. 212; p. 130.
Stefanka, Michael, Cleveland, Ohio. Vehicle brake-shoe. No. 1,130,939; Mar. 9; Gaz. vol. 212; p. 416.
Steffensen, Andrew J., Woodstock, Ill. Attachment for Chain-Tighteners. No. 1,132,496; Mar. 16; Gaz. vol. 212; p. 1004.
Steinbach, Reinhold, assignor to Fried. Krupp, Aktiengesellschaft, Grusonwerke, Magdeburg-Buckau, Germany. Tubular grinding-mill. No. 1,130,644; Mar. 2; Gaz. vol. 212; p. 280.
Steinburg, William, Jamaica, and D. Wegner, New York, N. Y. Car-brake. No. 1,132,695; Mar. 23; Gaz. vol. 212; p. 1124.

Steinhart, Hermann, assignor to Firm of R. Bosch, Stuttgart, Germany. Reversing mechanism for electric motors. No. 1,133,675; Mar. 30; Gaz. vol. 212; p. 1516.
Steinly, Anna, Mongo, Ind. Stove-grate. No. 1,130,344; Mar. 2; Gaz. vol. 212; p. 174.
Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Constant-current rectifier system. No. 1,131,282; Mar. 9; Gaz. vol. 212; p. 534.
Stenersen, Ole, assignor of one-half to O. P. Olsen, Brooklyn, N. Y. Tool. No. 1,133,587; Mar. 30; Gaz. vol. 212; p. 1483.
Stenshoel, Nels P., Crookston, Minn. Combined head and jaw rest. No. 1,131,802; Mar. 16; Gaz. vol. 212; p. 752.
Stephens, Alva A. (See Harter and Stephens.)
Stephens, Cyrus, Flat Rock, and V. M. Carter, Columbus, Ind. Combined collapsible table and lunch-box. No. 1,130,550; Mar. 2; Gaz. vol. 212; p. 249.
Stephens, Dewey D., Ainsworth, Iowa. Planter. No. 1,131,013; Mar. 9; Gaz. vol. 212; p. 441.
Stephens, Dewey D., Ainsworth, Iowa. Elevating mechanism for corn-planters. No. 1,131,014; Mar. 9; Gaz. vol. 212; p. 441.
Stephens, Edward L., Los Angeles, Cal. Railway-car. No. 1,131,618; Mar. 9; Gaz. vol. 212; p. 650.
Stephens, Hugh T., Carmarthen, Wales. Puncture-mending device. No. 1,131,745; Mar. 16; Gaz. vol. 212; p. 729.
Stern, Lewis J. (See Hough and Stern.)
Stern, Milton C. (See Nickol and Stern.)
Sterzing, Albert A. E., New York, N. Y. Apparatus for generating steam. No. 1,129,914; Mar. 2; Gaz. vol. 212; p. 28.
Stevens, Charles C., Saginaw, Mich. Rake. No. 1,133,676; Mar. 30; Gaz. vol. 212; p. 1516.
Stevens, Charles F., Chicago, Ill. Fire-brick arch. No. 1,130,345; Mar. 2; Gaz. vol. 212; p. 174.
Stevens-Duryea Company. (See Duryea, James F., assignor.)
Stevens, Drury E., Pleasant Hill, La. Wire-fence clamp. No. 1,133,192; Mar. 23; Gaz. vol. 212; p. 1306.
Stevens, Fred M., Cambridge, Mass. Safety-grip for circular saws. No. 1,132,129; Mar. 16; Gaz. vol. 212; p. 869.
Stevens, Frederick C. (See Babcock, Garrison, assignor.)
Stevens, Frederick C. (See North, Charles H., assignor.)
Stevens, John L., South Bend, Wash. Phonograph. No. 1,132,497; Mar. 16; Gaz. vol. 212; p. 1004.
Stevens, Robert C., assignor to Skinner Engine Company, Erie, Pa. Steam-superheater. No. 1,132,225; Mar. 16; Gaz. vol. 212; p. 904.
Stevens, Robert C., assignor to Skinner Engine Company, Erie, Pa. Steam-engine. No. 1,132,226; Mar. 16; Gaz. vol. 212; p. 905.
Stevens, Walter B., Jr., New York, N. Y. Dog-muzzle. No. 1,132,289; Mar. 16; Gaz. vol. 212; p. 929.
Stevenson, Charles M., Rockford, Ill., assignor to Drew Carrier Company, Waterloo, Wis. Stanchion. No. 1,132,045; Mar. 16; Gaz. vol. 212; p. 839.
Stevenson, Mabel L., North Vancouver, British Columbia, Canada. Sleeping-bag. No. 1,130,116; Mar. 2; Gaz. vol. 212; p. 95.
Steventon, Thomas, assignor to American Graphophone Company, Bridgeport, Conn. Sifting mechanism for making disk sound-records or the like. No. 1,132,806; Mar. 23; Gaz. vol. 212; p. 1167.
Steward, John F., Chicago, Ill., assignor to International Harvester Corporation. Traction-engine. No. 1,133,758; Mar. 30; Gaz. vol. 212; p. 1544.
Stewart, Adam N., North Bay, Ontario, Canada. Hydrocarbon rotary engine. No. 1,131,803; Mar. 16; Gaz. vol. 212; p. 752.
Stewart, Albert E., Franklin, N. H., assignor to Acme Knitting Machine & Needle Company. Cam-cylinder for knitting-machines. No. 1,131,619; Mar. 9; Gaz. vol. 212; p. 650.
Stewart, Charles F., Nashville, Kans. Merchandise-cabinet. No. 1,131,283; Mar. 9; Gaz. vol. 212; p. 534.
Stewart, John K., Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation. Recording-odometer. No. 1,132,885; Mar. 23; Gaz. vol. 212; p. 1194.
Stewart, Thomas M., Montreal, Quebec, Canada. Valve. No. 1,132,886; Mar. 23; Gaz. vol. 212; p. 1194.
Stewart-Warner Speedometer Corporation. (See Stewart, John K., assignor.)
Stewart, William W., Muscatine, Iowa. Ironing-board. No. 1,132,498; Mar. 16; Gaz. vol. 212; p. 1005.
Stievenard, Fernand A., Grand Forks, British Columbia, Canada. Cattle-guard. No. 1,131,284; Mar. 9; Gaz. vol. 212; p. 534.
Stiggins, Edward A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-machine. No. 1,131,746; Mar. 16; Gaz. vol. 212; p. 729.
Stiggins, Edward A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Work-support. No. 1,132,630; Mar. 23; Gaz. vol. 212; p. 1101.
Still, George M., New York, N. Y. Train-fusee discharger. No. 1,132,631; Mar. 23; Gaz. vol. 212; p. 1102.
Still, Isaac F., Ossining, N. Y. Game apparatus. No. 1,132,403; Mar. 16; Gaz. vol. 212; p. 969.
Stille, Curt, Zehlendorf-West, near Berlin, Germany. Electro-pneumatic sound-box. No. 1,132,404; Mar. 16; Gaz. vol. 212; p. 970.
Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Filling-end controller for looms. No. 1,132,227; Mar. 16; Gaz. vol. 212; p. 905.
Stirling, James H., London, England, assignor to Schmidt'sche Heissdampf-Gesellschaft m. b. H., Wilhelmshöhe, near Cassel, Germany. Steam-superheater. No. 1,129,915; Mar. 2; Gaz. vol. 212; p. 28.
Stirn, Nicholas, Chicago, Ill. Boat and propeller therefor. No. 1,133,193; Mar. 23; Gaz. vol. 212; p. 1307.
Stites, Charles W., New York, N. Y. Closing device for doors. No. 1,132,405; Mar. 16; Gaz. vol. 212; p. 970.
Stock, Julius A., and M. J. Milmoe, assignors to W. C. Ritchie & Company, Chicago, Ill. Box-shaping machine. No. 1,132,632; Mar. 23; Gaz. vol. 212; p. 1102.
Stockburger, Charles W. (See Faires and Stockburger.)
Stöckemann, Ernst, Berlin, Germany. Steering and propelling mechanism for vessels. No. 1,131,287; Mar. 9; Gaz. vol. 212; p. 535.
Stocker, Florian W., Hoboken, N. J. Perishable dividing-plate. No. 1,131,872; Mar. 16; Gaz. vol. 212; p. 776.
Stockmann, Peter J. A., St. Louis, Mo. Molded wall and column structure. No. 1,131,437; Mar. 9; Gaz. vol. 212; p. 587.
Stocks, Harris L., Kirkcaldy, Scotland. Electric signaling apparatus for ships' telegraphs and like purposes. No. 1,131,168; Mar. 9; Gaz. vol. 212; p. 493.
Stoddard, James B. (See Hammond, Robert O., assignor.)
Stoddard, John, Wilmington, Del. Bearing. No. 1,129,916; Mar. 2; Gaz. vol. 212; p. 29.
Stoepel, F. S. *et al.* trustees. (See Finlayson, Alexander W., assignor.)
Stokes & Smith Company. (See Reifsnyder and Fath, assignors.)
Stokes & Smith Company. (See Schwerdtle, Henry G. assignor.)
Stollberg, Charles, Toledo, Ohio, assignor to American Can Company, New York, N. Y. Screw-cap nozzle for cans. No. 1,129,917; Mar. 2; Gaz. vol. 212; p. 29.
Stollings, Joel O., *et al.* (See Miller, Henry M., assignor.)
Stolte, Edward G. (See Doyle, William F., assignor.)
Stolte, Florence P., administratrix. (See Doyle, William F.)
Stone, Abraham J., assignor of one-half to S. Suckno, Albany, N. Y. Lantern for moving pictures. No. 1,133,412; Mar. 30; Gaz. vol. 212; p. 1420.
Stone & Company Limited, J. (See Parsons, William S., assignor.)
Stone, Junius H., Noroton Heights, Conn. Rotary refrigerating apparatus. No. 1,131,169; Mar. 9; Gaz. vol. 212; p. 494.
Stoneback, Samuel A., Philadelphia, Pa. Bed. No. 1,132,633; Mar. 23; Gaz. vol. 212; p. 1102.
Storer, George B. (See Loeach, William, assignor.)
Storey, Isaac H. (See Kitchen and Storey.)
Stotts, Elza S., Des Moines, Iowa. Eccentric steam-hose lock. No. 1,130,855; Mar. 9; Gaz. vol. 212; p. 387.
Stough, Turney H., Jeannette, Pa. Kitchen utensil. No. 1,133,413; Mar. 30; Gaz. vol. 212; p. 1421.
Stow, Percival E., assignor of one-third to H. M. V. Sharp, Croydon, and one-third to H. V. Lawley, Battersea Park, London, England. Coloring films. No. 1,130,645; Mar. 2; Gaz. vol. 212; p. 281.
Strait, William, Appleton, Wis. Traction-engine. No. 1,130,117; Mar. 2; Gaz. vol. 212; p. 95.
Strait, William, Appleton, Wis. Steering mechanism for traction-machines. No. 1,131,288; Mar. 9; Gaz. vol. 212; p. 536.
Strasser, David, assignor to Cigar Wrapper Register Co., Inc., New York, N. Y. Cigar-wrapper counter. No. 1,133,333; Mar. 30; Gaz. vol. 212; p. 1391.
Strauss, Joseph B., Chicago, Ill. Chute. No. 1,132,228; Mar. 16; Gaz. vol. 212; p. 906.
Strauss, Samuel, Los Angeles, Cal. Shoe-making machine. No. 1,131,873; Mar. 16; Gaz. vol. 212; p. 777.
Street, Clement F., Cleveland, Ohio, assignor to The Locomotive Stoker Company, Wilmerding, Pa. Mechanical stoker. No. 1,130,443; Mar. 2; Gaz. vol. 212; p. 210.
Strid, Sven J., assignor to W. P. Murphy, Chicago, Ill. Release-rigging. No. 1,131,438; Mar. 9; Gaz. vol. 212; p. 587.
Stringer, Harrison A. (See Gambel and Stringer.)
Stroble, John, Seward, Kans. Speed-indicator. No. 1,132,130; Mar. 16; Gaz. vol. 212; p. 870.
Strom, Victor A., Hoffman, Minn. Automobile. No. 1,131,289; Mar. 9; Gaz. vol. 212; p. 536.
Stromberg-Carlson Telephone Manufacturing Company. (See Levis, John H., Jr., assignor.) (Reissue.)
Stromberg Motor Devices Company. (See Williams, Lynn A., assignor.)
Strong, Carlisle and Hammond Company, The. (See Parsons, Frank C., assignor.)
Strong, Carlisle & Hammond Company, The. (See Siegrist, Charles F., assignor.)
Strong, Robert H., Galesburg, Ill. Device for sharpening razor-blades. No. 1,129,918; Mar. 2; Gaz. vol. 212; p. 29.
Strong, Robert H., Galesburg, Ill. Device for sharpening razor-blades. No. 1,131,170; Mar. 9; Gaz. vol. 212; p. 494.
Struppler, Peter F., Scranton, Pa. Keyhole-guard. No. 1,132,696; Mar. 23; Gaz. vol. 212; p. 1125.
Strycker, Loraine W., New York, N. Y., assignor to Detroit Dental Manufacturing Company, Detroit, Mich. Work-holding tool. No. 1,133,334; Mar. 30; Gaz. vol. 212; p. 1392.

Stucker, John M., Ottawa, Kans. Automatic power-jack for automobiles. No. 1,131,747; Mar. 16; Gaz. vol. 212; p. 730.
Stucker, Louis E., Brooklyn, N. Y. Tube-forming machine. No. 1,130,646; Mar. 2; Gaz. vol. 212; p. 281.
Studebaker, Enoch H., Waverly, assignor of one-half to J. L. Birdsong, Kenbridge, Va. Stalk-puller. No. 1,131,290; Mar. 9; Gaz. vol. 212; p. 536.
Stuebner, Gustavus L., Flushing, N. Y. Dumping-bucket. No. 1,131,748; Mar. 16; Gaz. vol. 212; p. 730.
Stuebner, Gustavus L., Flushing, N. Y. Auxiliary unlocking device. No. 1,131,749; Mar. 16; Gaz. vol. 212; p. 731.
Stuepfert, Julius H., Princeton, Ill. Stock-chute. No. 1,133,588; Mar. 30; Gaz. vol. 212; p. 1483.
Stukenborg, Louis C., Covington, Ky. Cotton-picker. No. 1,131,804; Mar. 16; Gaz. vol. 212; p. 752.
Stull, William L. (See Gainer and Stull.)
Sturtevant Mill Company. (See Sturtevant, Thomas J., assignor.)
Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Means for lubricating bearings. No. 1,130,118; Mar. 2; Gaz. vol. 212; p. 96.
Stutler, Joseph T., assignor of one-half to R. B. Swartz, Janelew, W. Va. Razor-strop holder. No. 1,133,511; Mar. 30; Gaz. vol. 212; p. 1455.
Subers, Lawrence A., Cleveland, Ohio. Laminated cohesive interwound fabric constructed in tubular and annular form. No. 1,132,634; Mar. 23; Gaz. vol. 212; p. 1103.
Subers, Lawrence A., Cleveland, Ohio. Automatic machine for constructing a laminated cohesive interwound tubular fabric capable of assuming an annular form. No. 1,132,635; Mar. 23; Gaz. vol. 212; p. 1103.
Subers, Lawrence A., Cleveland Ohio. Flexible interlocking spring-tube. No. 1,133,070; Mar. 23; Gaz. vol. 212; p. 1262.
Submarine Signal Company. (See Williams, Robert L., assignor.)
Suckno, Samuel. (See Stone, Abraham J., assignor.)
Sullivan, Daniel D., Fargo, N. D. Display and vending apparatus for spectacles. No. 1,132,406; Mar. 16; Gaz. vol. 212; p. 970.
Sullivan Machinery Company. (See Ball and Mercer, assignors.)
Sullivan Machinery Company. (See McCormack, Patrick F., assignor.)
Sullivan Machinery Company. (See Mercer and Champagne, assignors.)
Sullivan, Michael H., Poughkeepsie, N. Y. Turbine-wheel and casing therefor. No. 1,130,444; Mar. 2; Gaz. vol. 212; p. 210.
Sullivan, Thomas M., *et al.* (See Woolf, Frank H., assignor.)
Sultzbaugh, Harry L., assignor to Universal Pencil Company, Chicago, Ill. Vending-machine. No. 1,131,015; Mar. 9; Gaz. vol. 212; p. 442.
Summers, Edgar W., Pittsburgh, Pa., assignor to W. P. Murphy, Chicago, Ill. Railway-car-roof construction. No. 1,133,335; Mar. 30; Gaz. vol. 212; p. 1392.
Summers, Leland L., Chicago, Ill. Process for the synthesis of gases. No. 1,130,940; Mar. 9; Gaz. vol. 212; p. 417.
Summers, Leland L., Chicago, Ill. Process for producing reactions in gases and apparatus for practising the same. No. 1,130,941; Mar. 9; Gaz. vol. 212; p. 417.
Sumner, Emily H. (See Sumner, Orlando and E. H.)
Sumner, Orlando and E. H., St. Margarets-on-Thames, England. Apparatus for bleaching, dyeing, and the like. No. 1,133,759; Mar. 30; Gaz. vol. 212; p. 1544.
Sumter Electrical Company. (See Mason, Charles T., assignor.)
Sun Typewriter Company, The. (See Howell, Charles W., Jr., assignor.)
Sundh, August, Hastings-Upon-Hudson, N. Y. Lubricating mechanism. No. 1,132,748; Mar. 23; Gaz. vol. 212; p. 1144.
Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Self-adjusting pivotal bearing. No. 1,132,745; Mar. 23; Gaz. vol. 212; p. 1143.
Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Automatic clutch. No. 1,132,746; Mar. 23; Gaz. vol. 212; p. 1143.
Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Rotary gear-pump. No. 1,132,747; Mar. 23; Gaz. vol. 212; p. 1143.
Sundries Manufacturing Company. (See Boardman, Charles H., assignor.)
Suren, Nathan H., Needham, Mass., assignor to Gamewell Fire-Alarm Telegraph Company, New York, N. Y. Fire-alarm system. No. 1,132,499; Mar. 16; Gaz. vol. 212; p. 1005.
Susemihl, Francis G., Detroit, Mich. Car side bearing. No. 1,132,749; Mar. 23; Gaz. vol. 212; p. 1144.
Sutcliffe, William C., Lismore, New Zealand. Non-refillable bottle. No. 1,130,856; Mar. 9; Gaz. vol. 212; p. 387.
Sutton, Granberry. (See Ferebee and Sutton.)
Sutton, Henry M., W. L. and E. G. Steele, Dallas, Tex. Process of and apparatus for separating and grading seeds. No. 1,133,760; Mar. 30; Gaz. vol. 212; p. 1545.
Svenson, Charles W., assignor to The American-Hardware Corporation, New Britain, Conn. Cast-off device for recorders. No. 1,130,119; Mar. 2; Gaz. vol. 212; p. 96.
Swales, Frank, Holloway, London, England. Mouth-gag for horses and other animals. No. 1,130,346; Mar. 2; Gaz. vol. 212; p. 175.
Swalm, William E., Los Angeles, Cal., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,131,620; Mar. 9; Gaz. vol. 212; p. 651.
Swank, William, Altoona, Pa. Camera. No. 1,133,891; Mar. 30; Gaz. vol. 212; p. 1592.
Swanson, Charles A., *et al.* (See Markham, Andrew J., assignor.)
Swartz, John L., Akron, Ohio. Tubing-die. No. 1,133,892; Mar. 30; Gaz. vol. 212; p. 1592.
Swartz, Robert B. (See Stutler, Joseph T., assignor.)
Sweigard, Emanuel W., Chicago, Ill. Printing-frame. No. 1,132,046; Mar. 16; Gaz. vol. 212; p. 839.
Swenson, Paul, Hopkins, Minn. Heater for gaseous fluids. No. 1,133,825; Mar. 30; Gaz. vol. 212; p. 1569.
Swift, George W., Jr., Bordentown, N. J. Ball making and inserting mechanism. No. 1,129,919; Mar. 2; Gaz. vol. 212; p. 30.
Swift, Willard E., Worcester, assignor to United States Envelope Company, Springfield, Mass. Machine for attaching flap-securing means to envelops. No. 1,131,805; Mar. 16; Gaz. vol. 212; p. 753.
Swikard, Edward L., assignor of one-third to W. R. Durgin and one-third to E. P. Goldsmith, Chicago, Ill. Shirt. No. 1,132,887; Mar. 23; Gaz. vol. 212; p. 1195.
Swill, Savior W. T., Hunkers, Pa. Rail-joint. No. 1,131,569; Mar. 9; Gaz. vol. 212; p. 632.
Sykes, William, Rockford, Ill. Photographic shutter-tripping mechanism. No. 1,132,229; Mar. 16; Gaz. vol. 212; p. 906.
Sykora, Joseph F., Cedar Rapids, Iowa. Pocket refuse-receptacle. No. 1,133,414; Mar. 30; Gaz. vol. 212; p. 1421.
Sylvie, Arthur D., Brooklyn, N. Y. Bib. No. 1,133,194; Mar. 23; Gaz. vol. 212; p. 1307.
Synthetic Patents Co. (See Flachslaender, Graiert, and Buff, assignors.)
Synthetic Patents Co. (See Hahl, Hans J., assignor.)
Synthetic Patents Co. (See Hofmann and Gottlob, assignors.)
T. B. Wood's Sons Company. (See Wood, Charles O., assignor.)
Tabor, Joseph. (See Upton, Jesse H., assignor.)
Taddeo, Luigi, Cleveland, Ohio. Lock. No. 1,133,677; Mar. 30; Gaz. vol. 212; p. 1516.
Tagliabue, Charles J., New York, N. Y. Gage. No. 1,130,445; Mar. 2; Gaz. vol. 212; p. 211.
Tagner, Joseph, New York, and W. Münch, Richmond Hill, N. Y. Scuttle-cover opener. No. 1,130,037; Mar. 2; Gaz. vol. 212; p. 68.
Talley, Edwin R., and R. P. Norton, Algona, Iowa. Telephone-recorder. No. 1,131,439; Mar. 9; Gaz. vol. 212; p. 588.
Tallman, James H., Hamilton, Ontario, Canada. Apparatus for shocking grain. No. 1,131,171; Mar. 9; Gaz. vol. 212; p. 495.
Tanner, Arnold J., London, England. Machine for stamping and issuing tickets. No. 1,130,120; Mar. 2; Gaz. vol. 212; p. 97.
Tanner, Arnold J., London, England, assignor to Prepayment Car Sales Company, New York, N. Y. Passenger-vehicle. No. 1,133,678; Mar. 30; Gaz. vol. 212; p. 1517.
Taplitsky, Morris, Boston, Mass. Guard and thread-container for sewing-machines. No. 1,130,347; Mar. 2; Gaz. vol. 212; p. 175.
Tarentum Bottle Machine Company. (See Kendig, Julian H., assignor.)
Tate, Samuel W., Parma, Idaho. Clamp. No. 1,130,772; Mar. 9; Gaz. vol. 212; p. 359.
Tauber, Bernard, assignor to Interstate Electric Novelty Company, New York, N. Y. Electric switch for portable electric lights. No. 1,132,750; Mar. 23; Gaz. vol. 212; p. 1144.
Tauber, Bernard, assignor to Interstate Electric Novelty Company, New York, N. Y. Portable electric light. No. 1,132,751; Mar. 23; Gaz. vol. 212; p. 1145.
Tausan, Martin, Gordon, Nebr. Sickle-bar-holding device. No. 1,133,589; Mar. 30; Gaz. vol. 212; p. 1483.
Taylor, Burch A., Springville, Ala. Stool. No. 1,132,407; Mar. 16; Gaz. vol. 212; p. 971.
Taylor, Charles H., Mere, England, assignor of one-half to R. W. Courtice, Bloemfontein, Orange Free State, South Africa. Governor for internal-combustion engines. No. 1,133,679; Mar. 30; Gaz. vol. 212; p. 1517.
Taylor, Emmett L. (See Misee and Taylor.)
Taylor, Henry B. (See Dunn and Taylor.)
Taylor, Isaac F., East Dulwich, and S. Pick, London, England. Ship's boat storing, lowering, and raising apparatus. No. 1,133,826; Mar. 30; Gaz. vol. 212; p. 1569.
Taylor, John S., Waipahu, Hawaii. Flushing apparatus. No. 1,131,570; Mar. 9; Gaz. vol. 212; p. 632.
Taylor, Joseph P., Philadelphia, Pa. Means for securing wind-shields to caps of armor-piercing projectiles. No. 1,130,446; Mar. 2; Gaz. vol. 212; p. 211.
Taylor, Martin T., Phoenix Mines, near Liskeard, Cornwall, England, and J. F. Gardiner, Mount Chalmers, Queensland, Australia. Rock-drill chuck. No. 1,132,636; Mar. 23; Gaz. vol. 212; p. 1103.

Taylor, Ralph G., Davenport, assignor, by mesne assignments, to The Bettendorf Company, Bettendorf, Iowa. Door-operating mechanism for dump-cars. No. 1,133,336; Mar. 30; Gaz. vol. 212; p. 1392.

Taylor, Samuel W., South Richmond, Va. Water-gage glass. No. 1,130,857; Mar. 9; Gaz. vol. 212; p. 388.

Taylor, Thomas J., Homer, La. Light-support. No. 1,130,773; Mar. 9; Gaz. vol. 212; p. 359.

Teall, Oliver E., assignor to Mt. Holyoke Tissue Mills, Holyoke, Mass. Package. No. 1,131,874; Mar. 16; Gaz. vol. 212; p. 777.

Teeter, Fred, Battle Creek, Mich. Hose-clamp. No. 1,133,195; Mar. 23; Gaz. vol. 212; p. 1307.

Temm, Francis A., St. Louis, Mo. Automobile top attachment. No. 1,130,348; Mar. 2; Gaz. vol. 212; p. 176.

Temple, John, Watervliet, assignor to Earl & Wilson, Troy, N. Y. Picking mechanism for blank-folding machines. No. 1,132,888; Mar. 23; Gaz. vol. 212; p. 1195.

Templeton Manufacturing Company. (See Templeton, William R., assignor.)

Templeton, William R., assignor to Templeton Manufacturing Company, Boston, Mass. Steam-trap. No. 1,130,349; Mar. 2; Gaz. vol. 212; p. 176.

Terhaar, Aloysius S., San Diego, Cal. Motor-cycle frame. No. 1,130,038; Mar. 2; Gaz. vol. 212; p. 69.

Terway, Joe. (See Aspinwall and Terway.)

Teugler, Josef J., Pittsburgh, Pa. Hair-transformer. No. 1,133,196; Mar. 23; Gaz. vol. 212; p. 1307.

Tewksbury, Russell B. (See Oster, Herman W., assignor.)

Textile Machine Works. (See Zwicky, Melchior, assignor.)

Thau, George G., Evart, Mich. Valve-lifter. No. 1,131,440; Mar. 9; Gaz. vol. 212; p. 588.

Thayer, Burt W., assignor to C. E. Ovenshire, Minneapolis, Minn. Knit undergarment. No. 1,130,216; Mar. 2; Gaz. vol. 212; p. 130.

Thayer, Charles H., assignor of one-third to G. P. Ransom and one-third to G. A. Gucker, Elmira, N. Y. Clutch. No. 1,133,893; Mar. 30; Gaz. vol. 212; p. 1592.

Theadore, Paul, Lansing, Mich. Lever-press. No. 1,133,512; Mar. 30; Gaz. vol. 212; p. 1455.

Thelsen, Ferdinand M., Waumandee, Wis. Rack-and-pinion mechanism. No. 1,133,415; Mar. 30; Gaz. vol. 212; p. 1421.

Thelsen, Hans E., Munich, Germany. Apparatus for cooling, washing, and mixing gases. No. 1,131,966; Mar. 16; Gaz. vol. 212; p. 810.

Thieme, Emil, Warren, Ohio. Combined curtain-pole and window-shade bracket. No. 1,131,571; Mar. 9; Gaz. vol. 212; p. 633.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Tabulating mechanism for calculating-machines. No. 1,130,039; Mar. 2; Gaz. vol. 212; p. 69.

Thomas & Betts Company. (See Hall, William A., assignor.)

Thomas, Charles F., Buckeystown, Md. Brick-surfacing machine. No. 1,131,441; Mar. 9; Gaz. vol. 212; p. 589.

Thomas, Comadore J., Green Bay, Wis. Journal-box. No. 1,130,858; Mar. 9; Gaz. vol. 212; p. 388.

Thomas, George A., and J. A. Yoder, Dubuque, Iowa. Baling-press. No. 1,132,131; Mar. 16; Gaz. vol. 212; p. 870.

Thomas, George B., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Electric gang-fitting. No. 1,133,197; Mar. 23; Gaz. vol. 212; p. 1308.

Thomas, Horace T., Lansing, Mich. Change-speed gearing. No. 1,131,291; Mar. 9; Gaz. vol. 212; p. 537.

Thomas, Joseph S., Greenville, Miss. Making shoes. No. 1,130,859; Mar. 9; Gaz. vol. 212; p. 388.

Thomas, Leslie A., Evansville, Ind. Terminal clip. No. 1,132,500; Mar. 16; Gaz. vol. 212; p. 1005.

Thomas, Percy H., Montclair, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Vapor-converter and circuit therefor. No. 1,131,292; Mar. 9; Gaz. vol. 212; p. 537.

Thompson, Casslus P., Lawrenceville, Ill. Pump-rod coupling. No. 1,133,513; Mar. 30; Gaz. vol. 212; p. 1456.

Thompson, Clement E., assignor to The Lamson Company, Boston, Mass. Store-service apparatus. No. 1,131,806; Mar. 16; Gaz. vol. 212; p. 753.

Thompson, Edmund J., Ottawa, Ontario, Canada. Carbureter. No. 1,130,350; Mar. 2; Gaz. vol. 212; p. 177.

Thompson, Edward L., Glenns Ferry, Idaho. Convertible body for motor-vehicles. No. 1,131,875; Mar. 16; Gaz. vol. 212; p. 777.

Thompson, Firman, Newark, Del., assignor to The Crescent Clay Refining Company, Baltimore, Md. Treating clay and like materials. No. 1,132,537; Mar. 16; Gaz. vol. 212; p. 1019.

Thompson, George S. (See Hume and Thompson.)

Thompson, George T., Philadelphia, Pa. Rotary engine. No. 1,131,750; Mar. 16; Gaz. vol. 212; p. 731.

Thompson, Irwin M., Bannister, La. Bale-tie. No. 1,130,551; Mar. 2; Gaz. vol. 212; p. 250.

Thompson, Jacob M., Fond du Lac, Wis. Apparatus for construction of cement buildings. No. 1,130,647; Mar. 2; Gaz. vol. 212; p. 281.

Thompson, James S., Pelham, N. Y. Brake-shoe. No. 1,130,680; Mar. 2; Gaz. vol. 212; p. 293.

Thompson, John S., Chicago, Ill. Type-casting machine. No. 1,133,198; Mar. 23; Gaz. vol. 212; p. 1308.

Thompson, Lee C., and J. A. Garris, Albion, Pa. Dirigible automobile-headlight. No. 1,133,681; Mar. 30; Gaz. vol. 212; p. 1518.

Thompson, Merwin S. (See Dowd and Thompson.)

Thompson, Milton E., Ridgway, Pa. Turbine-wheel. No. 1,129,920; Mar. 2; Gaz. vol. 212; p. 30.

Thompson, Milton T., Mexico, Mexico. Apparatus for crushing or recrushing rocks, ores, &c. No. 1,132,047. Mar. 16; Gaz. vol. 212; p. 840.

Thoms, Albert H., Indianapolis, Ind. Shipping-crate. No. 1,132,637; Mar. 23; Gaz. vol. 212; p. 1104.

Thomson Electric Welding Company. (See Rietzel and Barstow, assignors.)

Thorberg, George E., Mandan, N. D. Cord-adjuster for electric drop-lights. No. 1,130,860; Mar. 9; Gaz. vol. 212; p. 389.

Thoreson, Martin A., Murdock, Minn. Gearing for traction-engines. No. 1,131,572; Mar. 9; Gaz. vol. 212; p. 633.

Thorn, Lawrence T., Lynnville, Tenn. Railway-tie. No. 1,133,761; Mar. 30; Gaz. vol. 212; p. 1545.

Thornton, David W., Conrad, Mont. Check-registering device. No. 1,132,529; Mar. 16; Gaz. vol. 212; p. 1016.

Thornton, Eugene, and G. M. Wheeler, Butte, Mont. Air heating device for explosive-engines. No. 1,131,016. Mar. 9; Gaz. vol. 212; p. 442.

Thorp, James M., Alameda, Cal. Scaffold-support. No. 1,131,172; Mar. 9; Gaz. vol. 212; p. 495.

Thorsby, Karl J., assignor to California Corrugated Culvert Company, Oakland, Cal. Pipe-expander. No. 1,132,807; Mar. 23; Gaz. vol. 212; p. 1167.

Thorsrud, A. B., administrator. (See Bordson, Martin M.)

Thos. Cusack Co. (See Conner and Willett, assignors.)

Thrasher, John W., assignor of two-thirds to A. B. Garber and C. C. Warren, Waco, Tex. Rivet setting and displacing tool. No. 1,130,121; Mar. 2; Gaz. vol. 212; p. 97.

Threlkeld, Stephen A., Charlton, Iowa. Spring-bolster mounting. No. 1,131,017; Mar. 9; Gaz. vol. 212; p. 442.

Thronson, Bartholomew C. (See Rasmussen, Martin, assignor.)

Thropp, John E., Trenton, N. J. Bead-adjusting device. No. 1,131,173; Mar. 9; Gaz. vol. 212; p. 495.

Thulander, Konstantine, assignor to National Lock Company, Rockford, Ill. Safety device for stamping-machines, &c. No. 1,133,199; Mar. 23; Gaz. vol. 212; p. 1309.

Thurman, George W., assignor of forty-eight one-hundredths to B. H. Good, Cache, Okla. Stove and range. No. 1,131,573; Mar. 9; Gaz. vol. 212; p. 633.

Thurston, Fred W. (See Farnsworth, George W., assignor.)

Tibbits, C. N., *et al.* (See Platner, David F., assignor.)

Tiedge, Arthur F., Baybridge, Ohio. Protector for pneumatic tires. No. 1,133,894; Mar. 30; Gaz. vol. 212; p. 1593.

Tierney, Michael J., Pittsfield, Mass. Stand and lid-operating means for garbage-cans and other receptacles. No. 1,130,774; Mar. 9; Gaz. vol. 212; p. 359.

Tietig, Chester, Cincinnati, Ohio. Tamping device. No. 1,131,876; Mar. 16; Gaz. vol. 212; p. 777.

Tilley, Edwin F., Jr., Plainfield, N. J. Heat-treating furnace. No. 1,130,040; Mar. 2; Gaz. vol. 212; p. 69.

Tilman, Daniel O., and O. C. Schelbner, Parsons, Kans. Safety boiler attachment. No. 1,133,680; Mar. 30; Gaz. vol. 212; p. 1518.

Tilton, John W., Atlantic City, N. J. Curtain-fastener. No. 1,131,293; Mar. 9; Gaz. vol. 212; p. 538.

Timken-Detroit Axle Company, The. (See Weaver, Robert B., assignor.)

Timken Roller Bearing Company, The. (See Flaherty, John F., assignor.)

Tinkham, Guy L., Paris, France, assignor to Tinkham Suspension Company. Pneumatic-cushioned frame suspension. No. 1,133,337; Mar. 30; Gaz. vol. 212; p. 1393.

Tinkham Suspension Company. (See Tinkham, Guy L., assignor.)

Tinsley, Waller P., assignor of one-half to J. A. Wisherd, Fort Worth, Tex. Gas-generator. No. 1,130,861; Mar. 9; Gaz. vol. 212; p. 389.

Tippett, Richard B., *et al.* (See Brewington, Henry S., assignor.)

Tipple, James D., assignor to Cumberland Foundry and Manufacturing Company, Nashville, Tenn. Furnace fire-pot. No. 1,133,200; Mar. 23; Gaz. vol. 212; p. 1309.

Tite, Charles E. (See Mehm and Tite.)

Tkach, George, Hastings-upon-Hudson, New York. Knife-sharpener. No. 1,130,352; Mar. 2; Gaz. vol. 212; p. 177.

Toffey, Ira J. H., Waterbury, Conn. Wire finding and coupling device. No. 1,130,775; Mar. 9; Gaz. vol. 212; p. 360.

Toles, Justin K., San Francisco, Cal., assignor to W. R. Brown, Detroit, Mich. Method and apparatus for retting fibrous materials. No. 1,133,590; Mar. 30; Gaz. vol. 212; p. 1483.

Tomassi, Joseph, and Z. Lobodzinski, Chicago, Ill. Foldable cot. No. 1,130,122; Mar. 2; Gaz. vol. 212; p. 97.

Tomlinson, G. Ashley. (See Benson, Melvin B., assignor.)

Tomlinson, John K., Pickaway, assignor of one-third to R. M. Bell, Lewisburg, and one-tenth to J. J. Townley, Ronceverte, W. Va. Auto tire-protector. No. 1,131,094; Mar. 9; Gaz. vol. 212; p. 469.

Toney, Joseph, assignor of one-half to M. Bennett and A. Murle, Salt Lake City, Utah. Freight-car door. No. 1,131,807; Mar. 16; Gaz. vol. 212; p. 754.

Topham, Laurence E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shuttle. No. 1,131,095; Mar. 9; Gaz. vol. 212; p. 469.

Topping Brothers. (See Crabb, Charles L., assignor.)

Torazzi, Mario F., Ipswich, Queensland, Australia. Winch mechanism. No. 1,131,574; Mar. 9; Gaz. vol. 212; p. 633.

Torchio, Philip, and H. R. Woodrow, New York, N. Y. Protective device for bus-bar circuits. No. 1,133,338; Mar. 30; Gaz. vol. 212; p. 1393.

Torris Wold & Co. (See Sim, William, assignor.)

Tothill, William S., Chicago, Ill. Merry-go-round. No. 1,130,217; Mar. 2; Gaz. vol. 212; p. 131.

Touart, Maximin D., New York, N. Y. Surgical splint. No. 1,131,295; Mar. 9; Gaz. vol. 212; p. 538.

Tourtellot, Henry B., Quincy, Mass., assignor to American Can Company, New York, N. Y. Cigar-display humidor. No. 1,129,921; Mar. 2; Gaz. vol. 212; p. 31.

Toussaint, Auguste J., Paris, France. Gas-feeding device for cooking-stoves. No. 1,133,071; Mar. 23; Gaz. vol. 212; p. 1282.

Town, Frank G., Philadelphia, Pa. Crutch and furniture tip. No. 1,133,514; Mar. 30; Gaz. vol. 212; p. 1456.

Towne, Joseph M., East Orange, N. J. Lock-lever clip for temporary binders. No. 1,130,942; Mar. 9; Gaz. vol. 212; p. 417.

Townley, J. J., *et al.* (See Tomlinson, John K., assignor.)

Tower, George W., assignor of one-half to W. R. Beuty, Marshfield, Mo. Evaporator. No. 1,133,762; Mar. 30; Gaz. vol. 212; p. 1545.

Townsend, David. (See Melas, William, assignor.)

Townsend, Fitzhugh, New York, N. Y., assignor to General Railway Signal Company. System of automatic block-signaling. No. 1,130,353; Mar. 2; Gaz. vol. 212; p. 177.

Townsend, Frank B., assignor of one-half to J. E. McMath, Penn Yan, N. Y. Handle-attaching machine for baskets and analogous receptacles. No. 1,133,201; Mar. 23; Gaz. vol. 212; p. 1309.

Towson, Morris S. (See Ahlm, Charles E. F., assignor.)

Tozer, Archibald B. (See Sabin, Tozer, and Curtis.)

Tracy, Harriet R., New Brighton, N. Y., assignor, by mesne assignments, to J. E. Tracy, Plainfield, N. J. Tension device for sewing-machine loop-takers. No. 1,129,922; Mar. 2; Gaz. vol. 212; p. 31.

Tracy, Jeremiah E. (See Tracy, Harriet R., assignor.)

Train, Robert J. and A. Houston, Nashville, Ontario, Canada. Life-saving apparatus. No. 1,133,202; Mar. 23; Gaz. vol. 212; p. 1310.

Transmission Akts. (See Martins, Jens C., assignor.)

Transo Paper Company. (See Sauerman, Ernest W., assignor.)

Travers, William J., Buffalo, N. Y. Sound reproducer and recorder. No. 1,131,442; Mar. 9; Gaz. vol. 212; p. 589.

Travis, Clarence C. (See Antoine, Alfred D., assignor.)

Travis, Denison E. (See Heywood and Travis.)

Traylor, John A., Denver, Colo. Rotary runner for rotary and centrifugal pumps. No. 1,131,294; Mar. 9; Gaz. vol. 212; p. 538.

Treahy, Bartholomew T., Detroit, Mich. Pneumatic action for pianos. No. 1,130,943; Mar. 9; Gaz. vol. 212; p. 418.

Tredup, Erich, *et al.* (See Cechal, Ferdinand, assignor.)

Trees, Liberty. (See Quigley and Trees.)

Trego, Frank H., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,132,048; Mar. 16; Gaz. vol. 212; p. 840.

Trenholm, Ephraim A., Sparta, Minn. Spirit-level. No. 1,130,552; Mar. 2; Gaz. vol. 212; p. 250.

Trepp, Samuel. (See Anderson and Trepp.)

Tripp, Elphalet A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for feeding nails. No. 1,132,638; Mar. 23; Gaz. vol. 212; p. 1104.

Trist, Arthur R., London, England. Double oppositely-disposed valve. No. 1,133,682; Mar. 30, Gaz. vol. 212; p. 1519.

Trood, Samuel, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Safety device for starting-motors. No. 1,130,041; Mar. 2; Gaz. vol. 212; p. 70.

Trood, Samuel, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Soldering-iron. No. 1,130,218; Mar. 2; Gaz. vol. 212; p. 131.

Trontman, George W., Caldwell, Kans. Traversing jack. No. 1,131,018; Mar. 9; Gaz. vol. 212; p. 443.

Troy Laundry Machinery Company, The. (See Bartholomew, William, assignor.)

Truchot, Alexander, Choteau, Mont. Milking-machine. No. 1,132,639; Mar. 23; Gaz. vol. 212; p. 1104.

Trümper, Julius, Tempelhof, Germany. Bookbinding apparatus. No. 1,131,877; Mar. 16; Gaz. vol. 212; p. 778.

Tubbs, Herbert A., Portland, Mich. Steam-boiler. No. 1,132,985; Mar. 23; Gaz. vol. 212; p. 1232.

Tucker, Charles F., Hartford, Conn. Oil-hole cover. No. 1,134,025; Mar. 30; Gaz. vol. 212; p. 1634.

Tueckmantel, Hugo, Irvington, N. J., assignor to The R. Neumann Hardware Co. Suitcase. No. 1,131,443; Mar. 9; Gaz. vol. 212; p. 589.

Tullis, David K., Glasgow, Scotland. Ironing-machine. No. 1,132,290; Mar. 16; Gaz. vol. 212; p. 929.

Tully, John J. (See Fitzpatrick, George M., assignor.)

Turbayne, William A., Buffalo, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee. Electrical system of distribution. No. 1,131,174; Mar. 9; Gaz. vol. 212; p. 496.

Turbayne, William A., Niagara Falls, N. Y., assignor by mesne assignments, to Central Trust Company of New York, trustee. System of electrical regulation. No. 1,131,175; Mar. 9; Gaz. vol. 212; p. 496.

Turbayne, William A., Niagara Falls, N. Y., assignor by mesne assignments, to Central Trust Company of New York, trustee. Automatic regulator. No. 1,131,176; Mar. 9; Gaz. vol. 212; p. 496.

Turbayne, William A., Buffalo, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, trustee. System of charging and discharging storage batteries during forming process. No. 1,132,986; Mar. 23; Gaz. vol. 212; p. 1232.

Turnbull, Nicholas K., Manchester, England. Galvanizing-bath. No. 1,132,889; Mar. 23; Gaz. vol. 212; p. 1195.

Turner, Claude A. P., Minneapolis, Minn. Reinforced-concrete slab construction. No. 1,131,019; Mar. 9; Gaz. vol. 212; p. 444.

Turner, James R., Chicago, Ill. Temporary binder. No. 1,132,230; Mar. 16; Gaz. vol. 212; p. 907.

Turner, James R., Chicago, Ill. Temporary binder. No. 1,132,231; Mar. 16; Gaz. vol. 212; p. 907.

Turner, Walter V. (See Dewson and Turner.)

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Automatic train-brake-control apparatus. No. 1,130,447; Mar. 2; Gaz. vol. 212; p. 212.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake for locomotives. No. 1,130,448; Mar. 2; Gaz. vol. 212; p. 212.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,130,449; Mar. 2; Gaz. vol. 212; p. 213.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,130,450; Mar. 2; Gaz. vol. 212; p. 213.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Stop-cock handle. No. 1,131,177; Mar. 9; Gaz. vol. 212; p. 497.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Triple-valve device for fluid-pressure brakes. No. 1,131,178; Mar. 9; Gaz. vol. 212; p. 497.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,131,179; Mar. 9; Gaz. vol. 212; p. 498.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Triple-valve device. No. 1,131,180; Mar. 9; Gaz. vol. 212; p. 498.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Device for graduating the release of the brakes. No. 1,131,181; Mar. 9; Gaz. vol. 212; p. 498.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Steam-pump device. No. 1,131,182; Mar. 9; Gaz. vol 212; p. 499.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Load brake apparatus. No. 1,131,967; Mar. 16; Gaz. vol. 212; p. 810.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electropneumatic brake. No. 1,131,968; Mar. 16; Gaz. vol. 212; p. 810.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,131,969; Mar. 16; Gaz. vol. 212; p. 811.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,131,970; Mar. 16; Gaz. vol. 212; p. 811.

Turner, Walter V., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electropneumatic brake mechanism. No. 1,131,971; Mar. 16; Gaz. vol. 212; p. 812.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake. No. 1,131,972; Mar. 16; Gaz. vol. 212; p. 812.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Brake-valve device. No. 1,133,339; Mar. 30; Gaz. vol. 212; p. 1393.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake. No. 1,133,340; Mar. 30; Gaz. vol. 212; p. 1394.

Turner, Walter V., and P. H. Donovan, Edgewood, assignors to The Westinghouse Air Brake Company, Wilmerding, Pa. Brake-pipe vent-valve device. No. 1,133,341; Mar. 30; Gaz. vol. 212; p. 1394.

Turney, Eugene T., assignor, by mesne assignments, to American Player Action Company, New York, N. Y. Tempo-controller for piano-players. No. 1,131,183; Mar. 9; Gaz. vol. 212; p. 499.

Turney, Eugene T., Rock Island, assignor to Artista Piano Player Company, Milan, Ill. Playing attachment for musical instruments. No. 1,131,878; Mar. 16; Gaz. vol. 212; p. 778.
Tuttle, Arnold D., Washington, D. C. Combined applicator, container, and swab. No. 1,131,575; Mar. 9; Gaz. vol. 212; p. 634.
Tuttle, George M. (See Bliss and Johnston, assignors.)
Tuttle, Ralph V., Pomeroy, Wash. Developing-cabinet. No. 1,132,808; Mar. 23; Gaz. vol. 212; p. 1168.
Twombly Motors Company. (See Twombly, Willard I., assignor.)
Twombly, Willard I., assignor to Twombly Motors Company, New York, N. Y. Internal-combustion engine. No. 1,131,296; Mar. 9; Gaz. vol. 212; p. 538.
Tyler, William C. (See Nall and Tyler.)
Tyson, Frank and W. G., Canton, Ohio. Thermostatic heat-controlling device. No. 1,131,444; Mar. 9; Gaz. vol. 212; p. 590.
Tyson, William G. (See Tyson, Frank and W. G.)
Tysse, Hans C., assignor of one-half to A. C. Christenson, Manistee, Mich. Cushion-innersole. No. 1,132,132; Mar. 16; Gaz. vol. 212; p. 870.
Tyszko, John. (See Sardynski and Tyszko.)
U. S. Hame Company. (See Carr, Robert P., assignor.)
Uhlemann, Richard H., Chicago, Ill. Lens-notching machine. No. 1,133,515; Mar. 30; Gaz. vol. 212; p. 1456.
Uhlrig, Herman, Wamego, Kans. Gopher-trap. No. 1,132,697; Mar. 23; Gaz. vol. 212; p. 1125.
Ukena, John C., Golden City, Mo. Motion-transmitting mechanism. No. 1,132,809; Mar. 23; Gaz. vol. 212; p. 1168.
Ulrich, Georg, Magdeburg, assignor to Fried. Krupp Aktiengesellschaft, Grusonwerk, Magdeburg-Buckau, Germany. Magnetic separator. No. 1,130,648; Mar. 2; Gaz. vol. 212; p. 282.
Ulrich, William F., Warren, Pa. Fountain-pen. No. 1,130,944; Mar. 9; Gaz. vol. 212; p. 418.
Ulven, Christian, St. Paul, assignor to Minneapolis Iron Store Company, Minneapolis, Minn. Flexible spring-coupling. No. 1,130,219; Mar. 2; Gaz. vol. 212; p. 131.
Umphryes, Ephraim S., Macomb, Ill. Gate. No. 1,131,184; Mar. 9; Gaz. vol. 212; p. 500.
Underwood Computing Machine Company. (See Carlin, Samuel E., assignor.)
Underwood Typewriter Company. (See Cooper, John J., assignor.)
Underwood Typewriter Company. (See Corcoran, Cornelius B., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See Roberts and Davis, assignors.)
Underwood Typewriter Company. (See Roberts, Lyman R., assignor.)
Underwood Typewriter Company. (See Smith, Jesse A. B., assignor.)
Underwood Typewriter Company. (See Wernery and Smith, assignors.)
Unger, Ernest, New York, N. Y. Projecting-lantern. No. 1,130,451; Mar. 2; Gaz. vol. 212; p. 213.
Union Carbide Company. (See Horry, William S., assignor.)
Union Metal Manufacturing Company, The. (See Drumm, Herbert C., assignor.)
Union Metal Manufacturing Company, The. (See Wiser, Arthur B., assignor.)
Union Metallic Cartridge Company. (See Lindsay and Hibbard, assignors.)
Union Metallic Cartridge Company. (See Lindsay and Maloney, assignors.)
Union Special Machine Company. (See Onderdonk, Lansing, assignor.)
Union Switch & Signal Company, The. (See Ackerman, Frank J., assignor.)
Union Switch & Signal Company, The. (See Coleman, John P., assignor.)
Union Switch & Signal Company, The. (See Harrington, Clinton O., assignor.)
Union Switch & Signal Company, The. (See Utne, Per, assignor.)
Unique Head Easer Incorporated. (See Elfenbein, Isidor, assignor.)
Unit Weighing and Packing System, The. (See Heybach, Frederick J., assignor.)
United Cigarette Machine Co. Ltd. (See Ewers, Alexander L., assignor.)
United Injector Company, The. (See Williston, Belvin T., assignor.)
United Motor Industries. (See Holden, Henry C. L., assignor.)
United Printing Machinery Company. (See Piper, Myron H., assignor.)
United Shoe Machinery Company. (See Briscoe, William J., assignor.)
United Shoe Machinery Company. (See Brock, Matthias, assignor.)
United Shoe Machinery Company. (See Buckminster, Ira C., assignor.)
United Shoe Machinery Company. (See Cavanaugh, James, assignor.)
United Shoe Machinery Company. (See Cridland, Ernest A., assignor.)
United Shoe Machinery Company. (See Eaton, Harrison H., assignor.)
United Shoe Machinery Company. (See Fletcher, Ira E., assignor.)
United Shoe Machinery Company. (See Glass, Perley R., assignor.)
United Shoe Machinery Company. (See Hammond, William P., assignor.)
United Shoe Machinery Company. (See Hill, George S., assignor.)
United Shoe Machinery Company. (See Keyes, Eugene L., assignor.)
United Shoe Machinery Company. (See Latham, Albert, assignor.)
United Shoe Machinery Company. (See Lund, Thomas, assignor.)
United Shoe Machinery Company. (See McFeely, Ronald F., assignor.)
United Shoe Machinery Company. (See Potter, Charles A., assignor.)
United Shoe Machinery Company. (See Prenzel, Adam H., assignor.)
United Shoe Machinery Company. (See Roberts and Brown, assignors.)
United Shoe Machinery Company. (See Robertson, William V., assignor.)
United Shoe Machinery Company. (See Russell, Arthur L., assignor.)
United Shoe Machinery Company. (See Simmons, Ralph C., assignor.)
United Shoe Machinery Company. (See Stiggins, Edward A., assignor.)
United Shoe Machinery Company. (See Topham, Laurence E., assignor.)
United Shoe Machinery Company. (See Tripp, Eliphalet A., assignor.)
United States Electric Signal Company. (See Ruddick, John J., assignor.)
United States Envelope Co. (See Heywood and Travis, assignors.)
United States Envelope Company. (See Swift, Willard E., assignor.)
Universal Car Seal and Appliance Company. (See Martineau, William C., assignor.)
Universal Electric Welding Company. (See Lachman, Maurice, assignor.)
Universal High-Power Telephone Company. (See Pearson, Miles E., assignor.)
Universal Indexing Company, The. (See Smith, Louis R., assignor.)
Universal Pencil Company. (See Sultzbaugh, Harry L., assignor.)
Universal Winding Company. (See Ryden, Claes, assignor.)
Unterberg, Gustav, Durlach, Germany. Ignition apparatus for starting internal-combustion engines. No. 1,132,987; Mar. 23; Gaz. vol. 212; p. 1233.
Upton, Jesse H., assignor of one-half to J. Tabor, Bryson City, N. C. Train-stopping apparatus. No. 1,132,408; Mar. 16; Gaz. vol. 212; p. 971.
Urie, James W., assignor of one-half to H. Brall, Carson City, Mich. Clamp for wire-stretchers. No. 1,132,133; Mar. 16; Gaz. vol. 212; p. 871.
Urquhart, Benjamin, Plainfield, N. J. Tire-rim. No. 1,133,683; Mar. 30; Gaz. vol. 212; p. 1519.
Ursinus, Oskar, Frankfort-on-the-Main, Germany. Float for hydroaeroplanes. No. 1,133,342; Mar. 30; Gaz. vol. 212; p. 1395.
Utne, Per, Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Indication-circuit for railway-traffic-controlling devices. No. 1,131,297; Mar. 9; Gaz. vol. 212; p. 539.
Utsunomiya, Shikanosuke, Vancouver, British Columbia, Canada. Educational device. No. 1,132,409; Mar. 16; Gaz. vol. 212; p. 971.
Uttz, William A., Fort Worth, Tex. Safety attachment for locomotive-cabs. No. 1,130,354; Mar. 2; Gaz. vol. 212; p. 178.
Vacuum Specialty Manufacturing Co. (See Duffie, John J., assignor.)
Vail, Chester B. (See Johnson, Frank A., assignor.)
Vail, James G., Chester, and J. D. Carter, Lansdowne, Pa. Clarifying liquid silicate of soda or the like. No. 1,132,640; Mar. 23; Gaz. vol. 212; p. 1105.
Vail, Joseph M., Bryan, Ohio. Rail-stay. No. 1,131,751; Mar. 16; Gaz. vol. 212; p. 731.
Valle & Kimes. (See Kimes, Hugh W., assignor.)
Vakula, Andrew, Caro, Mich. Automobile wheel construction. No. 1,131,185; Mar. 9; Gaz. vol. 212; p. 500.
Valasek, Otakar, assignor of one-half to P. Berkey, Chicago, Ill. Advertising-folder. No. 1,134,082; Mar. 30; Gaz. vol. 212; p. 1654.
Vales, Edward J., Augusta, Ga. Spring-saddle for feed-rolls. No. 1,130,220; Mar. 2; Gaz. vol. 212; p. 132.
Vallin, Joseph F., Audubon, N. J. Rail-chair. No. 1,133,895; Mar. 30; Gaz. vol. 212; p. 1593.
Valotone Company. (See Newcomer, Martin, assignor.)
Van Auken, Thomas B., Auburn, N. Y. Lathe-tool holder. No. 1,133,591; Mar. 30; Gaz. vol. 212; p. 1484.
Van den Berghe, Jacques M., Montreal, Quebec, Canada. Fire-door for furnaces and the like. No. 1,132,064; Mar. 16; Gaz. vol. 212; p. 846.
Van der Bijl, Hendrik J., assignor to Western Electric Company, New York, N. Y. Alternating-current-responsive apparatus. No. 1,130,043; Mar. 2; Gaz. vol. 212; p. 70.

Van der Bijl, Hendrik J., New York, and A. M. Nicolson, Tarrytown, assignors to Western Electric Company, New York, N. Y. High-current-output audion. No. 1,130,042; Mar. 2; Gaz. vol. 212; p. 70.
Van Doorn, Charles E., Irondequoit, N. Y. Mop-wringer. No. 1,132,752; Mar. 23; Gaz. vol. 212; p. 1146.
Van Dyke, George, New Brunswick, N. J. Vacuum radiator-valve. No. 1,131,096; Mar. 9; Gaz. vol. 212; p. 469.
Van Dyke, John W., and W. M. Irish, assignors to The Atlantic Refining Company, Philadelphia, Pa. Fractional condenser for separating hydrocarbons in distilling petroleum. No. 1,130,862; Mar. 9; Gaz. vol. 212; p. 389.
Van Gelder, Mozes, Chicago, Ill. Mattress. No. 1,130,946; Mar. 9; Gaz. vol. 212; p. 418.
Van Groos, John A., and O. G. Gilstrap, Portland, Oreg. Step-operating means controlling starting of electric cars. No. 1,132,134; Mar. 16; Gaz. vol. 212; p. 871.
Van Hoesen, William F., Schenectady, N. Y., assignor to General Electric Company. Valve-operating mechanism. No. 1,133,343; Mar. 30; Gaz. vol. 212; p. 1395.
Van Houten, Frank H., Jr., Fishkill-on-the-Hudson, N. Y. Internal-combustion engine. No. 1,133,896; Mar. 30; Gaz. vol. 212; p. 1593.
Van Kirk, Benjamin R., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Truck. No. 1,133,203; Mar. 23; Gaz. vol. 212; p. 1310.
Van Norman, Charles E., Springfield, Mass. Grinding-machine. (Reissue.) No. 13,892; Mar. 16; Gaz. vol. 212; p. 1022.
Van Riper, Lewis C., New York, N. Y. Taking and projecting motion-pictures in colors. No. 1,130,221; Mar. 2; Gaz. vol. 212; p. 132.
Van Wie, Edwin G., and R. W. Davenport, assignors to Detroit Stove Works, Detroit, Mich. Stove. No. 1,131,298; Mar. 9; Gaz. vol. 212; p. 540.
Vanderford, Marcus C. (See Reynolds, Walter M., assignor.)
Vandeveer, Dent A., Creighton, Nebr. Milking-stool. No. 1,133,763; Mar. 30; Gaz. vol. 212; p. 1546.
Vandy, Justin M., Atlanta, N. Y. Safety neck-yoke holder. No. 1,130,945; Mar. 9; Gaz. vol. 212; p. 418.
Vanstrom, John, Jamestown, N. Y., assignor to American Window Screen Company, Ridgway, Pa. Sheet-metal receptacle. No. 1,133,072; Mar. 23; Gaz. vol. 212; p. 1264.
Variable Speed Gear, The. (See Wilson and Robson, assignors.)
Variety Manufacturing Company. (See Gervais, Wainwright B., assignor.)
Varley, Thomas W., New York, N. Y., assignor to Westinghouse Electric & Manufacturing Company. Electrical measuring instrument. No. 1,132,890; Mar. 23; Gaz. vol. 212; p. 1196.
Vass, Stephen. (See Pribis, Rudolf, assignor.)
Vaudreuil, Edward J., Vaudreuil, Wis. Apparatus for cooking pulse. No. 1,131,299; Mar. 9; Gaz. vol. 212; p. 540.
Vaughan, Henry H. (See Burnett and Vaughan.)
Vaughan, Henry H., *et al.* (See Burnett, Richard W., assignor.)
Vaughan, Henry H., Montreal, Quebec, Canada. Heating system for railway-cars. No. 1,131,879; Mar. 16; Gaz. vol. 212; p. 778.
Vedder, Joseph R., Reading, Ohio. Recorder for freight-cars. No. 1,130,452; Mar. 2; Gaz. vol. 212; p. 214.
Velie Motor Vehicle Company. (See Rose, Charles B., assignor.)
Venable, William M., assignor to Blaw Steel Construction Company, Pittsburgh, Pa. Form for concrete floors or walls. No. 1,130,453; Mar. 2; Gaz. vol. 212; p. 214.
Venner, Robert F., London, England. Heating and cooking apparatus. No. 1,133,073; Mar. 23; Gaz. vol. 212; p. 1264.
Vermilyea, Ira. (See Honold, Frank, assignor.)
Vest, Eugene W., Tacoma, Wash. Water-heater for ranges, &c. No. 1,131,634; Mar. 9; Gaz. vol. 212; p. 657.
Vicars, Edward L. (See Vicars, Thomas, J., and E. L.)
Vicars, John. (See Vicars, Thomas, J., and E. L.)
Vicars, Thomas, J., and E. L., Earlestown, England. Oven. No. 1,133,684; Mar. 30; Gaz. vol. 212; p. 1519.
Victor Safe & Lock Company, The. (See Haustetter, Alfred P., assignor.)
Victor Shoe Machinery Company. (See Erickson, Edward, assignor.)
Victor Shoe Machinery Co. (See Johnson and Erickson, assignors.)
Victor Specialty Company, The. (See Kress, Jacob A., assignor.)
Vig, Josef, Witherbee, N. Y. Parachute. No. 1,131,800; Mar. 9; Gaz. vol. 212; p. 541.
Viking Manufacturing Company Limited. (See Hart, Alice M., assignor.)
Vilkomerson, Elizabeth F., New York, N. Y. Fountain-pen holder. No. 1,133,897; Mar. 30; Gaz. vol. 212; p. 1594.
Virovatz, Joe, and J. Kiraly, Oneida, Wis. Rail-fastener. No. 1,132,410; Mar. 16; Gaz. vol. 212; p. 972.
Vitas, Marcel, Lucesco, Pa. Tie-plate. No. 1,133,898; Mar. 30; Gaz. vol. 212; p. 1594.
Voelker, George, St. Paul, Minn. Type-writing machine. No. 1,130,776; Mar. 9; Gaz. vol. 212; p. 360.
Voelker, Paul H., and K. Kimmich, New York, N. Y. Bedstead. No. 1,133,899; Mar. 30; Gaz. vol. 212; p. 1594.
Voelpel, Charles W. (See Connor and Voelpel.)
Vogel, Herman A., Kiel, Wis. Grain-divider. No. 1,131,186; Mar. 9; Gaz. vol. 212; p. 500.
Voigt, Albert, New York, N. Y. Locking device for doors. No. 1,131,752; Mar. 16; Gaz. vol. 212; p. 732.
Voigt, Philip H., and O. C. Kuehne, Houston, Tex. Winding-drum. No. 1,133,592; Mar. 30; Gaz. vol. 212; p. 1484.
Volk, Charles E., Erie, Pa. Glass-blowing machine. No. 1,133,764; Mar. 30; Gaz. vol. 212; p. 1546.
Völler, Karl, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Gun adapted to be fired at high elevations. No. 1,131,445; Mar. 9; Gaz. vol. 212; p. 590.
Völler, Karl, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Aiming device for ordnance. No. 1,133,765; Mar. 30; Gaz. vol. 212; p. 1546.
Vollmann, Carl W., Montreal, Quebec, Canada. Ice-manufacturing apparatus. No. 1,129,923; Mar. 2; Gaz. vol. 212; p. 31.
Volz, Joseph, Elliott, N. D. Fanning-mill. No. 1,132,501; Mar. 16; Gaz. vol. 212; p. 1006.
Volzer, Francis X. (See Karcher, Otto, assignor.)
Von Culin, Clayton, New York, N. Y. Safety attachment for lamps. No. 1,132,810; Mar. 23; Gaz. vol. 212; p. 1168.
Von Eschen, Edward L. and E. B., Kirksville, Mo. Policeman's billy. No. 1,130,355; Mar. 2; Gaz. vol. 212; p. 178.
Von Eschen, Eleanor B. (See Von Eschen, Edward L. and E. B.)
Von Hassel, Georg M., New York, N. Y. Plant lifting and transplanting machine. No. 1,129,924; Mar. 2; Gaz. vol. 212; p. 32.
Von Pein, Edward J., assignor to The National Cash Register Company, Dayton, Ohio. Cash and autographic register. No. 1,131,753; Mar. 16; Gaz. vol. 212; p. 732.
Von Pein, Edward J., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,131,754; Mar. 16; Gaz. vol. 212; p. 732.
Von Unschuld-Lazard, Marie, Washington, D. C. Art of and means for piano technic instruction. No. 1,133,074; Mar. 23; Gaz. vol. 212; p. 1264.
Von Wladkowsky, Julius, New York, N. Y. Antibackfiring attachment for carbureters. No. 1,130,553; Mar. 2; Gaz. vol. 212; p. 250.
Vondenbosch, Raymond H., assignor to The Central Hardware Company, Los Angeles, Cal. Hot-air furnace. No. 1,131,576; Mar. 9; Gaz. vol. 212; p. 634.
Voskamp, Charles W. (See Seidel and Voskamp.)
Vranay, George, Braddock, Pa. Combined rail tie, chair, and joint. No. 1,133,593; Mar. 30; Gaz. vol. 212; p. 1485.
W. & T. Avery Ltd. (See Nield, Josiah, assignor.)
W. C. Ritchie & Company. (See Stock and Milmoe, assignors.)
W. S. Barney Co. (See Barney, Walter S., assignor.)
W. S. Bidle Company. (See Bidle, William S.)
Wachowicz, Jacob, Detroit, Mich. Safety garment-rack. No. 1,130,044; Mar. 2; Gaz. vol. 212; p. 71.
Wachtelschneider, Joseph, New York, N. Y. Food container and heater. No. 1,130,222; Mar. 2; Gaz. vol. 212; p. 132.
Wade, Ceylon L., Detroit, Mich. Riveting-machine. No. 1,132,988; Mar. 23; Gaz. vol. 212; p. 1233.
Wadsworth, Arthur W. (See Jeffery and Wadsworth.)
Wadsworth, Frank L. O., Sewickley, Pa. Water-heater construction. No. 1,131,020; Mar. 9; Gaz. vol. 212; p. 444.
Wadsworth, Frank L. O., Sewickley, Pa. Water-heater construction. No. 1,131,021; Mar. 9; Gaz. vol. 212; p. 445.
Wadsworth Watch Case Company, The. (See Jeffery and Wadsworth, assignors.)
Waggoner, Henry E. (See Hellyar, Cochran, and Waggoner.)
Wagner, August, Chester, Ill. Brake for car-trucks. No. 1,131,446; Mar. 9; Gaz. vol. 212; p. 591.
Wagner Electric Manufacturing Company. (See Ballman, Edwin C., assignor.)
Wagner Electric Manufacturing Company. (See Fässler, Ernst, assignor.)
Wagner, Jesse W., Kansas City, Kans. Artificial stone. No. 1,130,223; Mar. 2; Gaz. vol. 212; p. 133.
Waibel, Julius K. M. (See Wetzel, Frederick, assignor.)
Wainwright, Charles, Erie, Pa. Air-compressor. No. 1,131,577; Mar. 9; Gaz. vol. 212; p. 635.
Wainwright, Henry L., and M. Y. Abern, Norfolk, Va. Coupon-book. No. 1,132,641; Mar. 23; Gaz. vol. 212; p. 1105.
Wait, Francis M. (See Case and Wait.)
Waite, John H., Brockton, Mass. Manufacturing boots and shoes. No. 1,133,766; Mar. 30; Gaz. vol. 212; p. 1546.
Wakefield, Edward E., assignor to Halkyard Manufacturing Company, Providence, R. I. Lacing-stud-setting machine. No. 1,133,594; Mar. 30; Gaz. vol. 212; p. 1485.
Waldes, Heinrich, Prague-Wrschowitz, Austria-Hungary. Limiting adjustable placket-closure. No. 1,133,827; Mar. 30; Gaz. vol. 212; p. 1569.

Wales, Charles, assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,132,753; Mar. 23; Gaz. vol. 212; p. 1146.

Walker, Alfred B. and F. P., assignors of one-half to W. R. Wood, Cincinnati, Ohio. Varnishes and other like materials and producing same. No. 1,131,578; Mar. 9; Gaz. vol. 212; p. 635.

Walker, Arthur W. Malden, Mass. Gas-stove, (Oven-burner.) No. 1,133,767; Mar. 30; Gaz. vol. 212; p. 1547.

Walker, Emery L., assignor to Hale and Kilburn Company, Philadelphia, Pa. Welding. No. 1,132,989; Mar. 23; Gaz. vol. 212; p. 1234.

Walker, Franklin P. (See Walker, Alfred B. and F. P.)

Walker, George, assignor to Landers, Frary & Clark, New Britain, Conn. Weighing-machine. No. 1,132,891; Mar. 23; Gaz. vol. 212; p. 1196.

Walker, Hugh D., Grimsby, Ontario, Canada, assignor to Sowers Manufacturing Company, Buffalo, N. Y. Steaming apparatus. No. 1,132,135; Mar. 16; Gaz. vol. 212; p. 872.

Walker, William N., Rome, N. Y. Internal-combustion engine. No. 1,130,045; Mar. 2; Gaz. vol. 212; p. 71.

Wallace, Archbald L., London, England. Wrench. No. 1,130,863; Mar. 9; Gaz. vol. 212; p. 390.

Wallace, Ernest C., Woodfords, Me. Heel for boots and shoes. No. 1,130,356; Mar. 2; Gaz. vol. 212; p. 178.

Wallace, Forrest E., Franklin, Cal. Telegraph-repeater. No. 1,131,447; Mar. 9; Gaz. vol. 212; p. 591.

Wallace, James C., Denver, Colo. Railway-rail joint. No. 1,132,232; Mar. 16; Gaz. vol. 212; p. 907.

Wallace, John E., New York, N. Y. Air-brake system. No. 1,130,224; Mar. 2; Gaz. vol. 212; p. 133.

Wallace, MacKee B., San Francisco, Cal. Parcel-post egg-carrier. No. 1,131,579; Mar. 9; Gaz. vol. 212; p. 635.

Wallace Novelty Company, The. (See Bouchery, August, assignor.)

Wallace, Paul, Philadelphia, Pa. Spinning-machine. No. 1,131,580; Mar. 9; Gaz. vol. 212; p. 636.

Waller, Charles W., Chicago, Ill. Flying-machine. No. 1,132,049; Mar. 16; Gaz. vol. 212; p. 840.

Walling, William F., Los Angeles, Cal. Making imitation-tile flooring. No. 1,132,502; Mar. 16; Gaz. vol. 212; p. 1006.

Walser, John B., Lebanon, Mo. Window-balance. No. 1,131,097; Mar. 9; Gaz. vol. 212; p. 470.

Walser, Max, Sampierdarena, Italy. Cutting-tool for high-speed work. No. 1,129,925; Mar. 2; Gaz. vol. 212; p. 32.

Walsh, Harry C. H., Chicago, Ill. Automatic clutch for die-presses. No. 1,133,344; Mar. 30; Gaz. vol. 212; p. 1395.

Walsh, John L., assignor to Ideal Machinery Company, Chicago, Ill. Unwinding device for spools. No. 1,132,050; Mar. 16; Gaz. vol. 212; p. 841.

Walsh, John P., assignor of one-half to H. J. McGuckin, New York, N. Y. Lamp-burner. No. 1,131,581; Mar. 9; Gaz. vol. 212; p. 636.

Walsh, John P., assignor of one-half to H. J. McGuckin, New York, N. Y. Can-opener. No. 1,131,582; Mar. 9; Gaz. vol. 212; p. 636.

Walton, Harrison B., and J. M. Estes, Levee Camp, Miss; said Estes assignor to said Walton. Spring-latch for wheeled scrapers. No. 1,131,755; Mar. 16; Gaz. vol. 212; p. 733.

Walton, John M., New Orleans, La. Spark-plug. No. 1,132,811; Mar. 23; Gaz. vol. 212; p. 1168.

Wandel Screen Manufacturing Company. (See Clarke, Ralph S., assignor.)

Wanderer Werke vorm. Winklhofer & Jaenicke Akt.-Ges. (See Buschmann, Theodor E., assignor.)

Wankel, Frank, assignor to American Toy Works, New York, N. Y. Spinning device. No. 1,130,554; Mar. 2; Gaz. vol. 212; p. 251.

Ward, Frederick A., assignor to The Gear Grinding Machine Company, Detroit, Mich. Grinding-wheel-trimming mechanism. No. 1,133,075; Mar. 23; Gaz. vol. 212; p. 1264.

Ward, William L., and G. M. Rudd, assignors to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y. Nut-tapping machine. No. 1,130,123; Mar. 2; Gaz. vol. 212; p. 98.

Ward, William R., Kansas City, Kans. Collapsible and portable bath-tub; No. 1,130,777; Mar. 9; Gaz. vol. 212; p. 361.

Wark, Alex. (See Lock, John R., assignor.)

Warme, Ivar F., assignor to Continental Can Company, Inc., Syracuse, N. Y. Can-closing machine. No. 1,132,291; Mar. 16; Gaz. vol. 212; p. 930.

Warne, Frederick C., assignor to The Roderick Lean Manufacturing Company, Mansfield, Ohio. Flexible harrow. No. 1,130,225; Mar. 2; Gaz. vol. 212; p. 133.

Warner Arms Corporation. (See Fyrberg, Andrew, assignor.)

Warner Brothers Company, The. (See Crandall, Jay E., assignor.)

Warner Brothers Company, The. (See Warner, De Ver H., assignor.)

Warner, De Ver H., assignor to The Warner Brothers Company, Bridgeport, Conn. Buckle. No. 1,132,051; Mar. 16; Gaz. vol. 212; p. 841.

Warrell, Alexander, assignor to Continental Asbestos Corporation, Worcester, Mass. Lubricant and making same. No. 1,133,204; Mar. 23; Gaz. vol. 212; p. 1311.

Warren, Charles C., *et al.* (See Thrasher, John W., assignor.)

Warren Featherbone Company, The. (See Johnston, James G., assignor.)

Warren, Frank D., Salt Lake City, Utah. Wardrobe-suit-case. No. 1,132,530; Mar. 16; Gaz. vol. 212; p. 1016.

Warren Steam Pump Company. (See Gage, Burt O., assignor.)

Warsen, August W., New York, N. Y. Crusher. No. 1,130,864; Mar. 9; Gaz. vol. 212; p. 390.

Wartemann, Oskar, New York, N. Y. Building dams. No. 1,133,788; Mar. 30; Gaz. vol. 212; p. 1547.

Warth, Charles H., East St. Louis, Ill. Making liquid fuel. No. 1,131,880; Mar. 16; Gaz. vol. 212; p. 779.

Warwick, George T., assignor to International Machine and Screw Company, Springfield, Mass. Thread-forming mechanism. No. 1,130,226; Mar. 2; Gaz. vol. 212; p. 133.

Washburne, Alva C., *et al.* (See Hammond, Grant, assignor.)

Waskin, Peter, Somerville, N. J. Combined rain-coat, slicker-suit, and life-preserver. No. 1,130,778; Mar. 9; Gaz. vol. 212; p. 361.

Waterbury Brass Goods Corporation, The. (See Babcock, Wilbert L., assignor.)

Waterbury Farrel Foundry and Machine Company, The. (See Wilcox, Richard L., assignor.)

Waterbury Manufacturing Company. (See Sperry, Henry T., assignor.)

Waterbury Tool Company, The. (See Janney, Reynolds, assignor.)

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Plow. No. 1,129,926; Mar. 2; Gaz. vol. 212; p. 32.

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Beam connection. No. 1,129,927; Mar. 2; Gaz. vol. 212; p. 33.

Waters, Clifton, Brookfield, Mo. Dirigible-headlight mechanism. No. 1,130,357; Mar. 2; Gaz. vol. 212; p. 179.

Waters, John K. (See Fountain, Waters, and Winchester.)

Watkins, James M., Buffalo, N. Y. Line-testing switch. No. 1,131,098; Mar. 9; Gaz. vol. 212; p. 470.

Watremez, Emile T. J., Brussels, Belgium. Treatment of textile fibers for bleaching purposes. No. 1,133,769; Mar. 30; Gaz. vol. 212; p. 1548.

Watrous, Clifford M., assignor to The Gong Bell Manufacturing Company, East Hampton, Conn. Toy. No. 1,130,865; Mar. 9; Gaz. vol. 212; p. 391.

Watrous, Earl G., assignor to Federal-Huber Co., Chicago, Ill. Water-closet. No. 1,130,046; Mar. 2; Gaz. vol. 212; p. 71.

Watson, Elmer G., College Place, Wash. Collapsible concrete-form. No. 1,130,947; Mar. 9; Gaz. vol. 212; p. 419.

Watson Solar Window Company. (See Watson and Iman, assignors.)

Watson, William D., and O. H. Iman, Chicago, Ill., assignors, by mesne assignments, to Watson Solar Window Company, Carmel, N. Y. Metal-frame window. No. 1,132,233; Mar. 16; Gaz. vol. 212; p. 908.

Watson, William L., McKenzie, N. D. Control mechanism. No. 1,130,227; Mar. 2; Gaz. vol. 212; p. 134.

Watters, Allie W. (See Lanham, James H., assignor.)

Wattie, William, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Assembling-machine. No. 1,132,136; Mar. 16; Gaz. vol. 212; p. 872.

Wattmann, John, Treptow, near Berlin, Germany. Making welded rail-joints. No. 1,132,062; Mar. 16; Gaz. vol. 212; p. 841

Watts, Rowland H., Concord, assignor of one-half to Richardson Manufacturing Company, Worcester, Mass. Fertilizer-spreader. No. 1,132,063; Mar. 16; Gaz. vol. 212; p. 842.

Watts, William E., Los Angeles, assignor of one-third to F. W. Merrill, Long Beach, and one-third to I. Foulks, Los Angeles, Cal. Bearing for roof-hooks. No. 1,132,411; Mar. 16; Gaz. vol. 212; p. 972.

Waugh, James A., Louisiana, Mo. Combined letter and parcel-post mail-box. No. 1,130,047; Mar. 2; Gaz. vol. 212; p. 72.

Way, David R., assignor of one-half to E. M. Krum, Fairfield, Iowa, I. D. Way and E. Berry, Chicago, Ill. Corn-harvester. No. 1,131,022; Mar. 9; Gaz. vol. 212; p. 445.

Way, Ira D., *et al.* (See Way, David R., assignor.)

Wayland, Francis, Salem, Mass. Hide and leather working machine. No. 1,131,756; Mar. 16; Gaz. vol. 212; p. 733.

Wear, Frank. (See Willcox, James E., assignor.)

Weatherasby, Fred R., Houston, Tex. Drill. No. 1,131,448; Mar. 9; Gaz. vol. 212; p. 591.

Weaver, Herbert H., Southmont, Lower Yoder township, Cambria county, Pa. Incinerator. No. 1,131,158; Mar. 9; Gaz. vol. 212; p. 501.

Weaver, Robert B., assignor to The Timken-Detroit Axle Company, Detroit, Mich. Machine for cutting spiral teeth on conical gear-blanks. No. 1,133,516; Mar. 30; Gaz. vol. 212; p. 1457.

Webb, Edwin W. (See Barber and Webb.)

Webb, Frank, Melrose, Mass. Protector for hand-hole covers. No. 1,130,779; Mar. 9; Gaz. vol. 212; p. 361.

Webb, Ferdinand, Stewartsville, assignor of one-third to G. W. Norton and one-third to M. F. Boyle, Posey county, Ind. Trammel-wheel. No. 1,133,517; Mar. 30; Gaz. vol. 212; p. 1457.

Webber, Wesley, Kearney, N. J. Automobile. No. 1,133,345; Mar. 30; Gaz. vol. 212; p. 1396.

Weber, Emil, assignor of one-third to C. L. Becker, New York, N. Y. Candy-making. No. 1,133,205; Mar. 23; Gaz. vol. 212; p. 1311.

Weber, Henry, assignor to Latham Machinery Company, Chicago, Ill. Work-guide for stitching or stapling machines. No. 1,130,048; Mar. 2; Gaz. vol. 212; p. 72.

Weber, Henry, assignor to Latham Machinery Company, Chicago, Ill. Stapling-machine. No. 1,132,990; Mar. 23; Gaz. vol. 212; p. 1234.

Weber, Peter, Orange, N. J. Talking-machine. No. 1,133,685; Mar. 30; Gaz. vol. 212; p. 1619.

Webster, Bester R., Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Recording-machine. No. 1,131,808; Mar. 16; Gaz. vol. 212; p. 754.

Webster, Charles J., Osceola, Nebr. Collapsible metal packing-case. No. 1,132,812; Mar. 23; Gaz. vol. 212; p. 1169.

Webster, Edwin A., Groveland, assignor to Haverhill Shoe Machinery Company, Haverhill, Mass. Heel-breasting machine. No. 1,133,240; Mar. 23; Gaz. vol. 212; p. 1321.

Webster, Ernest C., and H. Gruenhagen, Oakland, Cal. Electric heating-stopper for liquid containers. No. 1,133,346; Mar. 30; Gaz. vol. 212; p. 1396.

Webster, Harry G., Chicago, Ill. Multicontact relay. No. 1,133,449; Mar. 30; Gaz. vol. 212; p. 1432.

Webster, William R., Bridgeport, Conn. Machine for drawing metal blanks. No. 1,132,531; Mar. 16; Gaz. vol. 212; p. 1017.

Weder, Hermann, Sr., and C. H. Wolff, Philadelphia, Pa. Door stop and holder. No. 1,132,412; Mar. 16; Gaz. vol. 212; p. 972.

Wedge, Utley, Ardmore, Pa. Slag-heated steam-generator. No. 1,129,928; Mar. 2; Gaz. vol. 212; p. 33.

Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,131,449; Mar. 9; Gaz. vol. 212; p. 592.

Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,133,828; Mar. 30; Gaz. vol. 212; p. 1570.

Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,133,829; Mar. 30; Gaz. vol. 212; p. 1570.

Wedler, Carl R., Cleveland, Ohio. Nasal tampon. No. 1,133,770; Mar. 30; Gaz. vol. 212; p. 1548.

Weeks, Charles T., Chelsea, Mass. Dirigible headlight for automobiles. No. 1,131,023; Mar. 9; Gaz. vol. 212; p. 446.

Wegner, Daniel. (See Steinburg and Wegner.)

Wegner, Julius, Astoria, N. Y. Shaping-machine. No. 1,130,454; Mar. 2; Gaz. vol. 212; p. 215

Wegwart, Herman, assignor to Badger Basket & Veneer Co., Burlington, Wis. Basket-runner clamp. No. 1,133,416; Mar. 30; Gaz. vol. 212; p. 1421.

Weigel, Hallie. (See Hipkins, Floyd R., assignor.)

Weimer, Noah C., Grand Junction, Colo. Harness. No. 1,131,801; Mar. 9; Gaz. vol. 212; p. 541.

Weinberg, Ike J., assignor, by mesne assignments, to Dixie Cotton Felt Mattress Company, Chicago, Ill. Forming and stuffing compartment-mattresses. No. 1,133,686; Mar. 30; Gaz. vol. 212; p. 1520.

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Joining lamp-filaments to current-supply wires. No. 1,131,189; Mar. 9; Gaz. vol. 212; p. 501.

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Production of high-frequency currents. No. 1,131,190; Mar. 9; Gaz. vol. 212; p. 502.

Weisglass, Samuel. (See Kapelman, Felix G., assignor.)

Weiss, Joseph W., Baltimore, Md. Collapsible box. No. 1,132,292; Mar. 16; Gaz. vol. 212; p. 930.

Weiss, Joseph W., Baltimore, Md. Collapsible box. No. 1,132,293; Mar. 16; Gaz. vol. 212; p. 931.

Weiss, Marcus. (See Jerger and Weiss.)

Welch, Robert L., Toronto, Ontario, Canada. Wrapping-paper-printing machine. No. 1,131,757; Mar. 16; Gaz. vol. 212; p. 733.

Welch, Stephen, and J. W. Goyette, Schenectady, N. Y. Horizontal-cylinder engine. No. 1,133,518; Mar. 30; Gaz. vol. 212; p. 1457.

Welches, William, near Waymansville, Ind. Hobble. No. 1,130,049; Mar. 2; Gaz. vol. 212; p. 72.

Welin, Peter, Worcester, Mass., assignor, by mesne assignments, to L. Maxwell, Cincinnati, Ohio. Combination grand piano. No. 1,133,348; Mar. 30; Gaz. vol. 212; p. 1396.

Welker, Alexander H., Berlin, Ontario, Canada, assignor to The Hawthorne Manufacturing Company, Inc., Bridgeport, Conn. Lamp-supporting deck-bracket. No. 1,132,991; Mar. 23; Gaz. vol. 212; p. 1235.

Welker, Frank H. (See Dettinger and Welker.)

Weller, George B., Rawlins, Wyo. Superball. No. 1,132,813; Mar. 23; Gaz. vol. 212; p. 1169.

Welles Thompson Company. (See Flynn, Clement L., assignor.)

Wellman, Silas A. (See Isberg, Eric, assignor.)

Wells, Frank O., and F. Judge, assignors to Greenfield Tap & Die Corporation, Greenfield, Mass. Thread-gage. No. 1,130,866; Mar. 9; Gaz. vol. 212; p. 391.

Wells, Joel C., Southbridge, Mass. Ophthalmic mounting. No. 1,132,754; Mar. 23; Gaz. vol. 212; p. 1146.

Wells, Samuel H., Oxford, Miss. Portable fence. No. 1,131,302; Mar. 9; Gaz. vol. 212; p. 541.

Welsbach Light Company. (See Gulbrandsen, Sverre, assignor.)

Welsbach Light Company. (See Little, Thomas J., Jr., assignor.)

Welsbach Light Company. (See Snyder, Samuel, assignor.)

Welsh, Michael J., assignor to The Atlantic Refining Company, Philadelphia, Pa. Earth-treating process and product. No. 1,132,054; Mar. 16; Gaz. vol. 212; p. 842.

Welty, Rufus W., San Francisco, Cal. Pneumatic clutch control. No. 1,133,206; Mar. 23; Gaz. vol. 212; p. 1311.

Wendling, Leo J., Chicago Heights, Ill. Swing. No. 1,130,948; Mar. 9; Gaz. vol. 212; p. 419.

Wenger, Frederick, Dresden, Kans. Windmill. No. 1,133,595; Mar. 30; Gaz. vol. 212; p. 1485.

Wenzel, Max, Spremberg, Germany. Machine for piecing together the threads of warps. No. 1,133,830; Mar. 30; Gaz. vol. 212; p. 1570.

Wenzelmann, Gustave, Galesburg, Ill. Gate-hinge. No. 1,133,417; Mar. 30; Gaz. vol. 212; p. 1422.

Werner, Carl H., Waterloo, Iowa. Floor-surfacing machine. No. 1,129,929; Mar. 2; Gaz. vol. 212; p. 33.

Werner, John A., assignor to The National Cash Register Company, Dayton, Ohio. Cash and autographic register. No. 1,131,758; Mar. 16; Gaz. vol. 212; p. 734.

Werner, John A., assignor to The National Cash Register Company, Dayton, Ohio. Cash and autographic register. No. 1,131,759; Mar. 16; Gaz. vol. 212; p. 734.

Werner, Louis C., Webster, Mass. Automatic train-controlling device. No. 1,131,191; Mar. 9; Gaz. vol. 212; p. 502.

Wernery, Lester A., and J. A. B. Smith, assignors to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,132,055; Mar. 16; Gaz. vol. 212; p. 843.

Wernicke, Otto H. L., Grand Rapids, Mich. Internal-combustion engine. No. 1,133,771; Mar. 30; Gaz. vol. 212; p. 1548.

Wesley, Gustaf, St. Paul, Minn. Motor attachment for sewing-machines. No. 1,133,687; Mar. 30; Gaz. vol. 212; p. 1520.

Wesley, Perley R., and A. D. Lamont, assignors to Davol Rubber Company, Providence, R. I. Collapsible bed-pan. No. 1,132,056; Mar. 16; Gaz. vol. 212; p. 843.

Western Electric Company. (See Aldendorff, Fritz, assignor.)

Western Electric Company. (See Arnold, Harold D., assignor.)

Western Electric Company. (See Brown, Gregory, assignor.)

Western Electric Company. (See Clausen, Henry P., assignor.)

Western Electric Company. (See Colpitts, Edwin H., assignor.)

Western Electric Company. (See Hosford, William F., assignor.)

Western Electric Company. (See Nicolson, Alexander M., assignor.)

Western Electric Company. (See Palmer, Joel C. R., assignor.)

Western Electric Company. (See Reynolds, John N., assignor.)

Western Electric Company. (See Shreeve, Herbert E., assignor.)

Western Electric Company. (See Van der Bijl, Hendrik J., assignor.)

Western Electric Company. (See Van der Bijl and Nicolson, assignors.)

Westinghouse Air Brake Company, The. (See Cady, William M., assignor.)

Westinghouse Air Brake Company, The. (See Dewson, Edward H., assignor.)

Westinghouse Air Brake Company, The. (See Dewson and Turner, assignors.)

Westinghouse Air Brake Company, The. (See Ellwood, Thomas B., assignor.)

Westinghouse Air Brake Company, The. (See Hill, Ernest, assignor.)

Westinghouse Air Brake Company, The. (See Turner and Donovan, assignors.)

Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)

Westinghouse Air Brake Company, The. (See Whitney, Frank H., assignor.)

Westinghouse Automatic Air & Steam Coupler Company. (See Adreon, Robert E., assignor.)

Westinghouse Automatic Air & Steam Coupler Company. (See Wuerpel, Morris, assignor.)

Westinghouse Electric and Manufacturing Company. (See Anderson, John, assignor.)

Westinghouse Electric and Manufacturing Company. (See Auel and Burns, assignors.)

Westinghouse Electric and Manufacturing Company. (See Conrad, Frank, assignor.)

Westinghouse Electric and Manufacturing Company. (See Cook, John, assignor.)

Westinghouse Electric and Manufacturing Company. (See Dann, Walter M., assignor.)

Westinghouse Electric and Manufacturing Company. (See Eaton, George M., assignor.)

Westinghouse Electric and Manufacturing Company. (See Forteecue, Charles L., assignor.)

Westinghouse Electric and Manufacturing Company. (See Grimm, George B., assignor.)

Westinghouse Electric and Manufacturing Company. (See Haefely, Emil, assignor.)

Westinghouse Electric and Manufacturing Company. (See Harris, Ford W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Mahoney, Joseph N., assignor.)
Westinghouse Electric and Manufacturing Company. (See Miller, Frederick H., assignor.)
Westinghouse Electric and Manufacturing Company. (See Mills, Chester B., assignor.)
Westinghouse Electric and Manufacturing Company. (See Nikonow, John P., assignor.)
Westinghouse Electric and Manufacturing Company. (See Schnake, William, assignor.)
Westinghouse Electric and Manufacturing Company. (See Schultz and Holt, assignors.)
Westinghouse Electric and Manufacturing Company. (See Starker, Charles W., assignor.)
Westinghouse Electric and Manufacturing Company. (See Trood, Samuel, assignor.)
Westinghouse Electric & Manufacturing Company. (See Varley, Thomas W., assignor.)
Westlake, Charles T., assignor to Commonwealth Steel Company, St. Louis, Mo. Traller-truck for locomotives. No. 1,129,930; Mar. 2; Gaz. vol. 212; p. 34.
Westlin, Bror E., Arlington, assignor to Otis Elevator Company, Jersey City, N. J. Door-lock. No. 1,132,755; Mar. 23; Gaz. vol. 212; p. 1147.
Weston, David B., Sharon, and M. H. Barker, Boston, Mass. Centrifugal separator. No. 1,132,814; Mar. 23; Gaz. vol. 212; p. 1169.
Weston, Folke W., New York, assignor to F. Wesel Manufacturing Company, Brooklyn, N. Y. Plate-holding device. No. 1,132,642; Mar. 23; Gaz. vol. 212; p. 1105.
Weston, Thomas I., Columbia, S. C. Pipe-joint. No. 1,132,137; Mar. 16; Gaz. vol. 212; p. 872.
Westrich, Alphons L., Tooele, Utah. Telltale bottle. No. 1,130,807; Mar. 9; Gaz. vol. 212; p. 391.
Wetterhold, George, Wichita, Kans. Bed-spring. No. 1,132,892; Mar. 23; Gaz. vol. 212; p. 1196.
Wetzel, Frederick, assignor of forty one-hundredths to J. K. M. Waibel, New York, N. Y. Train control. No. 1,133,900; Mar. 30; Gaz. vol. 212; p. 1594.
Wexler, Isidore, Minneapolis, Minn. Desk-pad calendar. No. 1,129,931; Mar. 2; Gaz. vol. 212; p. 34.
Whalen, Thomas J., New Brunswick, assignor, by mesne assignments, to H. M. Marble, Newark, N. J. Tire-making machine. No. 1,131,760; Mar. 16; Gaz. vol. 212; p. 735.
Wheaton, Carl M., deceased, Newton, G. H. Wheaton, administratrix, assignor to J. C. Bassett, Boston, Mass. Means for conducting submarine warfare. No. 1,131,761; Mar. 16; Gaz. vol. 212; p. 735.
Wheaton, Grace H., administratrix. (See Wheaton, Carl M.)
Wheeler, George A., deceased, New York, N. Y.; H. M. Wheeler, administrator. Moving stairway. No. 1,130,555; Mar. 2; Gaz. vol. 212; p. 251.
Wheeler, George A., deceased, Brooklyn, N. Y.; H. M. Wheeler, administrator. Moving stairway. No. 1,130,556; Mar. 2; Gaz. vol. 212; p. 251.
Wheeler, George M. (See Thornton and Wheeler.)
Wheeler, H. M., administrator. (See Wheeler, George A.)
Wheeler, John L., Napa, Cal. Speed controller and indicator. No. 1,134,026; Mar. 30; Gaz. vol. 212; p. 1634.
Whidden, Mamie P., Fort Myers, Fla. Life-preserving garment. No. 1,129,932; Mar. 2; Gaz. vol. 212; p. 34.
Whipple, Frank H., Visalia, Cal. Pump. No. 1,132,413; Mar. 16; Gaz. vol. 212; p. 973.
Whipple, William N., assignor to G. H. Sears, Syracuse, N. Y. Air-propeller. No. 1,131,762; Mar. 16; Gaz. vol. 212; p. 735.
Whistler, David B., and C. W. Ripach, assignors to The Recording and Computing Machines Company, Dayton, Ohio. Recording and computing machine. No. 1,132,234; Mar. 16; Gaz. vol. 212; p. 908.
Whitaker, John, North Wales, Pa. Cutting-tool. No. 1,130,649; Mar. 2; Gaz. vol. 212; p. 282.
Whitaker, John, North Wales, Pa. Hardening the cutting portions of cutting-tools. No. 1,130,650; Mar. 2; Gaz. vol. 212; p. 282.
White, Anna, Enid, assignor to W. H. Scott, Oklahoma, Okla. Crochet-needle. No. 1,131,621; Mar. 9; Gaz. vol. 212; p. 651.
White Company, The, *et al.* (See Dowd and Thompson, assignors.)
White, Francis S., Philadelphia, Pa. Forging projectiles. No. 1,131,973; Mar. 16; Gaz. vol. 212; p. 813.
White, Francis S., Philadelphia, Pa. Compound die for forging projectiles. No. 1,131,974; Mar. 16; Gaz. vol. 212; p. 813.
White, John H., Oneida, Kans. Sieve. No. 1,133,418; Mar. 30; Gaz. vol. 212; p. 1422.
White, John T., New York, N. Y. Coat-hook. No. 1,132,414; Mar. 16; Gaz. vol. 212; p. 973.
White, Samuel T., Davenport, Iowa. Mechanical movement for laundry-wringers. No. 1,132,815; Mar. 23; Gaz. vol. 212; p. 1170.
White Tar Company, The. (See Scheuch, Jacob J., assignor.)
White, Thelo G., Cedar Rapids, Iowa. Baling-press. No. 1,130,780; Mar. 9; Gaz. vol. 212; p. 361.
White, William, Chicago, Ill. Roundhouse equipment. No. 1,131,192; Mar. 9; Gaz. vol. 212; p. 503.
White, William A., New York, N. Y. Furnace-front. No. 1,130,124; Mar. 2; Gaz. vol. 212; p. 98.
White, William P., Chicago, Ill. Closure. No. 1,134,069; Mar. 30; Gaz. vol. 212; p. 1649.
Whitehurst, Joel S., San Jose, Cal. Sash-fastener. No. 1,131,975; Mar. 16; Gaz. vol. 212; p. 813.
Whitin, George M., assignor to The Whitin Machine Works, Whitinsville, Mass. Heilman-type cotton-comber. No. 1,131,976; Mar. 16; Gaz. vol. 212; p. 814.
Whitin Machine Works, The. (See Chace, Richard B., assignor.)
Whitin Machine Works, The. (See Whitin, George M., assignor.)
Whiting, Herman E., assignor to Garlock Auto Specialty Company, Palmyra, N. Y. Vaporizer for internal-combustion engines. No. 1,130,228; Mar. 2; Gaz. vol. 212; p. 134.
Whiting, John H., Buffalo, N. Y., assignor to International Motor Company, Punxsutawney, Pa. Rotary engine. No. 1,133,772; Mar. 30; Gaz. vol. 212; p. 1549.
Whitlock, Julius A., Newark, N. J. Window-washer. No. 1,133,419; Mar. 30; Gaz. vol. 212; p. 1422.
Whitmore, Edward E., Chicago, Ill., assignor to Curtain Supply Company, Newark, N. J. Reinforced curtain-roller. No. 1,132,643; Mar. 23; Gaz. vol. 212; p. 1106.
Whitney, Dennis A., Holland, N. Y. Inhaling apparatus. No. 1,132,138; Mar. 16; Gaz. vol. 212; p. 873.
Whitney, Elmer E., Biddeford, Me. Trombone-slide. No. 1,130,358; Mar. 2; Gaz. vol. 212; p. 179.
Whitney, Frank H., Mount Vernon, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake apparatus. No. 1,131,977; Mar. 16; Gaz. vol. 212; p. 814.
Whitney, Ruel W., and C. N. Richards, Cleveland, Ohio. Fountain-pen. No. 1,133,349; Mar. 30; Gaz. vol. 212; 1397.
Whitt, James F. (See Lincoln and Whitt.)
Whittaker, John, J. Briggs, and R. Bradshaw, Rishton, near Blackburn, England. Construction of shuttles and shuttle-boxes in overpick weft-replenishing looms. No. 1,132,893; Mar. 23; Gaz. vol. 212; p. 1197.
Whittemore, John M., Boston, Mass. Woven fabric. No. 1,130,868; Mar. 9; Gaz. vol. 212; p. 391.
Whitworth, Charles S., Cedar Falls, Iowa, assignor to M. Rumely Company, Laporte, Ind. Traction-engine guide. No. 1,132,139; Mar. 16; Gaz. vol. 212; p. 873.
Whitworth, John. (See Pittenger, Charles E., assignor.)
Wick, Jacob O., Clifford, N. D. Coffee-pot strainer. No. 1,130,557; Mar. 2; Gaz. vol. 212; p. 252.
Wickline, William E., Akron, Ohio. Combined wagon and sled. No. 1,133,207; Mar. 23; Gaz. vol. 212; p. 1311.
Wicksер, John G., *et al.* (See Chrisman, Loran T., assignor.)
Widdis, Ethel M., Detroit, Mich. Device for teaching music. No. 1,133,773; Mar. 30; Gaz. vol. 212; p. 1549.
Widner, John A., Alpena, Mich. Hose-nozzle support. No. 1,132,816; Mar. 23; Gaz. vol. 212; p. 1171.
Widney, Stanley W., Chicago, Ill. Pedal attachment. No. 1,132,057; Mar. 16; Gaz. vol. 212; p. 843.
Wiedeman, Henry C., and F. A. Schaum, Detroit, Mich., assignors, by mesne assignments, to Enameled Steel Package Corporation, Avon, N. Y. Cask. No. 1,133,688; Mar. 30; Gaz. vol. 212; p. 1521.
Wiedemann, Otto, Demmin, Germany. Manufacture of wall-coverings. No. 1,129,933; Mar. 2; Gaz. vol. 212; p. 35.
Wiedling, Carl T. A. H., North Bergen township, Hudson county, assignor to The Wiedling Manufacturing Company, North Bergen, N. J. Propeller. No. 1,129,934; Mar. 2; Gaz. vol. 212; p. 35.
Wiedling Manufacturing Company. (See Wiedling, Carl T. A. H., assignor.)
Wiegand, Edwin L., Canal Dover, Ohio. Apparatus for producing electrical heating devices. No. 1,133,347; Mar. 30; Gaz. vol. 212; p. 1396.
Wiegand, Henry J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Rheostat. No. 1,130,949; Mar. 9; Gaz. vol. 212; p. 419.
Wienicki, Joseph, *et al.* (See Gepack, Paul, assignor.)
Wiesinger, Arthur. (See Kifer and Wiesinger.)
Wigelius, Sven G., assignor to Aktiebolaget Wigelius Motorer, Stockholm, Sweden. Fuel-sprayer. No. 1,130,229; Mar. 2; Gaz. vol. 212; p. 135.
Wilbur, Lawrence H., assignor to H. O. Wilbur & Sons, Inc., Philadelphia, Pa. Wrapping-machine. No. 1,131,881; Mar. 16; Gaz. vol. 212; p. 779.
Wilbur, Peter L., *et al.* (See MacGregor, Peter G., assignor.)
Wilcomb, Frank, Norristown, Pa., assignor to Hemphill Manufacturing Company, Central Falls, R. I. Circular-knitting machine. No. 1,131,583; Mar. 9; Gaz. vol. 212; p. 637.
Wilcox, Frank E., Mechanicsburg, Pa. Hanger-bar and body-loop. No. 1,130,869; Mar. 9; Gaz. vol. 212; p. 392.
Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Blank-holding mechanism. No. 1,132,698; Mar. 23; Gaz. vol. 212; p. 1126.
Wild, Charles M. (See Heins and Wild.)
Wild, Wilhelm. (See Bosch and Wild.)
Wildberg, Henry, Cincinnati, Ohio. Box and case. No. 1,133,076; Mar. 23; Gaz. vol. 212; p. 1265.
Wilder, Julian, Augusta, Me. Trolley-wheel mount. No. 1,130,359; Mar. 2; Gaz. vol. 212; p. 179.

Wilder, Julian, Augusta, Me. Trolley-wheel mount. No. 1,130,360; Mar. 2; Gaz. vol. 212; p. 179.
Wilder, Squier, Huntingdon, Tenn. Cultivator. No. 1,131,303; Mar. 9; Gaz. vol. 212; p. 541.
Wildman Mfg. Co. (See Bortman, Emanuel W., assignor.)
Wildy, Théophile, Rielefeld, Germany, Spray-carbureter. No. 1,131,584; Mar. 9; Gaz. vol. 212; p. 637.
Wiley, Charles L., Atlanta, Ga. Cover-holder for children's beds. No. 1,130,781; Mar. 9; Gaz. vol. 212; p. 362.
Wilgus, Charles V., Kingston, assignor to The Adder Machine Company, Wilkes-Barre, Pa. Calculating-machine. No. 1,133,596; Mar. 30; Gaz. vol. 212; p. 1486.
Wilkie, John, Crosshill, Glasgow, Scotland. Electric coupling or connector. No. 1,132,294; Mar. 16; Gaz. vol. 212; p. 931.
Wilkins, William T., Shelley, Idaho. Airship. No. 1,130,125; Mar. 2; Gaz. vol. 212; p. 98.
Wilkinson, Frank B., *et al.* (See Hayes, Thomas F., assignor.)
Wilkinson, Frederick, Toronto, Ontario, Canada. Coaster-brake. No. 1,133,774; Mar. 30; Gaz. vol. 212; p. 1550.
Wilkinson, Newton C. (See Williams, Foster, and Wilkinson.)
Wilkoff, Isaac, *et al.* (See Hughes, Hugh T., assignor.)
Wilkoff, Leo S., *et al.* (See Hughes, Hugh T., assignor.)
Willard, Will W., Saginaw, Mich. Railway-tie. No. 1,130,455; Mar. 2; Gaz. vol. 212; p. 215.
Willcox, James E., Malden, Mass., assignor to F. Wear, Gilmanton, N. H. Clutch. No. 1,131,641; Mar. 9; Gaz. vol. 212; p. 660.
Willens, Samuel, Chicago, Ill. Mailing-folder. No. 1,130,782; Mar. 9; Gaz. vol. 212; p. 362.
Willets, William C., Minneapolis, Minn. Shipping-box. No. 1,130,230; Mar. 2; Gaz. vol. 212; p. 135.
Willett, Guy L. (See Conner and Willett.)
William Cramp & Sons Ship & Engine Building Company. (See Pierce, George A., assignor.)
William M. Crane Company. (See O'Dowd, Henry W., assignor.)
William Tod Company, The. (See McBane, Walter W., assignor.)
William Tonk & Bro. (See Stahl, August, assignor.)
Williams, Alfonzo L., Los Angeles, Cal. Trolley-head. No. 1,130,361; Mar. 2; Gaz. vol. 212; p. 180.
Williams, Byron H., Spokane, Wash. Harness-oiling apparatus. No. 1,131,763; Mar. 16; Gaz. vol. 212; p. 736.
Williams, Dick B., assignor to Louisiana Nut and Machine Company, New Orleans, La. Nut-cracking machine. No. 1,132,817; Mar. 23; Gaz. vol. 212; p. 1171.
Williams, Edward L., assignor to Egite Manufacturing Company, Santa Cruz, Cal. Blade-sharpener. No. 1,131,450; Mar. 9; Gaz. vol. 212; p. 592.
Williams, Frank W. (See Parnall, Archie E., assignor.)
Williams, George A., assignor to The Williams Sealing Corporation, Waterbury, Conn. Bottle and cap-fastener. No. 1,130,783; Mar. 9; Gaz. vol. 212; p. 363.
Williams, George A., assignor to The Williams Sealing Corporation, Waterbury, Conn. Bottle and cap-fastener. No. 1,132,140; Mar. 16; Gaz. vol. 212; p. 874.
Williams, George T., H. S. Foster, and N. C. Wilkinson, Cedar Rapids, Iowa. Shoe-form. No. 1,133,077; Mar. 23; Gaz. vol. 212; p. 1265.
Williams, Harry S., assignor to The Peter Smith Heater Company, Detroit, Mich. Air-heater. No. 1,133,350; Mar. 30; Gaz. vol. 212; p. 1397.
Williams-Eaton, Harry T., assignor, by mesne assignments, to National Automatic Fender Company, Seattle, Wash. Car-fender. No. 1,130,651; Mar. 2; Gaz. vol. 212; p. 283.
Williams, James A., *et al.* (See Wood, Halbert M., assignor.)
Williams, James E., Strong City, Okla. Automatic cut-off. No. 1,132,415; Mar. 16; Gaz. vol. 212; p. 974.
Williams, John M., Guthrie, Okla. Apparatus for bleaching and aging cereals. No. 1,132,058; Mar. 16; Gaz. vol. 212; p. 843.
Williams, John P., New York, N. Y., assignor to Electric Bank Protection Company. Electric burglar-alarm system. No. 1,133,689; Mar. 30; Gaz. vol. 212; p. 1521.
Williams, Louis N. D., Ogontz, Pa. Take-up device for knitting-machines. No. 1,129,935; Mar. 2; Gaz. vol. 212; p. 35.
Williams, Louis N. D., Ogontz, Pa. Take-up mechanism for knitting-machines. No. 1,133,078; Mar. 23; Gaz. vol. 212; p. 1265.
Williams, Louis N. D., Ogontz, Pa. Take-up device for knitting-machines. No. 1,133,079; Mar. 23; Gaz. vol. 212; p. 1266.
Williams, Lynn A., Evanston, assignor to Stromberg Motor Devices Company, Chicago, Ill. Carbureter. No. 1,130,950; Mar. 9; Gaz. vol. 212; p. 419.
Williams Mill Manufacturing Company. (See Poplin, James A., assignor.)
Williams, Oscar, and E. C. Baker, Sullivan, Ind. Acetylene-generating lamp. No. 1,132,894; Mar. 23; Gaz. vol. 212; p. 1197.
Williams, Owen J., Duluth, Minn. Attachment for protractors. No. 1,131,585; Mar. 9; Gaz. vol. 212; p. 637.
Williams, Robert L., Newton, Mass., assignor to Submarine Signal Company, Waterville, Me. Sounder for submarine signaling. No. 1,131,764; Mar. 16; Gaz. vol. 212; p. 736.
Williams Sealing Corporation, The. (See Williams, George A., assignor.)
Williams, William E., Chicago, Ill. Steel wheel. No. 1,131,882; Mar. 16; Gaz. vol. 212; p. 780.
Williams, William E., Chicago, Ill. Steel wheel. No. 1,131,883; Mar. 16; Gaz. vol. 212; p. 780.
Williams, William F., Miami, Ariz. Multiple-signature machine. No. 1,131,451; Mar. 9; Gaz. vol. 212; p. 592.
Williams, William R., assignor, by mesne assignments, to Owensboro Ditcher and Grader Company, Owensboro, Ky. Road-grading machine and ditcher. No. 1,129,936; Mar. 2; Gaz. vol. 212; p. 36.
Williamson, Samuel S., and G. R. Carothers, Philadelphia, Pa. Bottle and closure therefor. No. 1,131,304; Mar. 9; Gaz. vol. 212; p. 542.
Willis, Bernard D., assignor to Automatic Electric Company, Chicago, Ill. Measured-service telephone system. No. 1,130,784; Mar. 9; Gaz. vol. 212; p. 363.
Willis, Carroll O. (See Phinney, Charles H., assignor.)
Willis, Francis M. (See Coon, Arthur J., assignor.)
Willis, Joseph W., Ansonia, Conn. Automatic fruit picker and conveyer. No. 1,132,818; Mar. 23; Gaz. vol. 212; p. 1171.
Williston, Belvin T., Somerville, Mass., assignor to The United Injector Company, New York, N. Y. Spring-adjuster. No. 1,130,050; Mar. 2; Gaz. vol. 212; p. 73.
Willner, Swen J., and G. Foleen, Portland, Oreg. Door-hanger. No. 1,133,080; Mar. 23; Gaz. vol. 212; p. 1266.
Willoughby, Alford P., Olney, Tex. Sanitary drinking-cup. No. 1,133,831; Mar. 30; Gaz. vol. 212; p. 1571.
Willoughby, Alford P., and W. D. Bolding, Olney, Tex. Automatic alarm device. No. 1,131,452; Mar. 9; Gaz. vol. 212; p. 593.
Willoughby, Victor, Jeffersonville, Ind., assignor to W. H. Miner, Chazy, N. Y. Draft-gear coupling-yoke. No. 1,132,819; Mar. 23; Gaz. vol. 212; p. 1172.
Willour, Le Roy, Ashland, Ohio. Jack. No. 1,133,241; Mar. 23; Gaz. vol. 212; p. 1322.
Willsie, Henry E., Cranford, N. J. Apparatus for utilizing solar heat. No. 1,130,870; Mar. 9; Gaz. vol. 212; p. 392.
Willsie, Henry E., New York, N. Y. Solar apparatus. No. 1,130,871; Mar. 9; Gaz. vol. 212; p. 392.
Wilm, Alfred, Schlachtensee, near Berlin, Germany. Aluminum alloy. No. 1,130,785; Mar. 9; Gaz. vol. 212; p. 363.
Wilsey, Clyde F. (See Gushwa and Wilsey.)
Wilson, Arthur, and J. Robson, Westminster, London, assignors to The Variable Speed Gear, Limited, Westminster, England. Method of and means for stowing and launching ships' boats. No. 1,131,453; Mar. 9; Gaz. vol. 212; p. 593.
Wilson, Charles H., Mt. Vernon, assignor, to Wilson-Maeulen Company, Inc., New York, N. Y. Recording instrument. No. 1,133,597; Mar. 30; Gaz. vol. 212; p. 1486.
Wilson, Harry L., Cleveland, Ohio, assignor, by mesne assignments, to The Lamson Company, Boston, Mass. Store-service apparatus. No. 1,133,450; Mar. 30; Gaz. vol. 212; p. 1433.
Wilson, Howard G., Chicago, Ill. Gage. No. 1,129,937; Mar. 2; Gaz. vol. 212; p. 36.
Wilson-Maeulen Company. (See Wilson, Charles H., assignor.)
Wilson, Maurice E., Perry, Ohio. Fly-trap. No. 1,132,141; Mar. 16; Gaz. vol. 212; p. 874.
Wilson, Robert G., Brooklyn, N. Y., assignor to Mead-Suydam Company, East Orange, N. J. Bracket for constructing concrete walls. No. 1,132,059; Mar. 16; Gaz. vol. 212; p. 844.
Wilson, William E., Detroit, Mich. Axle-trimming device. No. 1,133,519; Mar. 30; Gaz. vol. 212; p. 1458.
Wilson, William H., St. Paul, Minn. Car-truck. No. 1,131,884; Mar. 16; Gaz. vol. 212; p. 780.
Wilt, Colin D., Chicago, Ill. Extensible clothing-support. No. 1,131,765; Mar. 16; Gaz. vol. 212; p. 736.
Wilt, Lorenzo, Newark, N. J. Engine-stopping device. No. 1,131,193; Mar. 9; Gaz. vol. 212; p. 503.
Wiltsie, Spencer A., assignor to The Griswold Manufacturing Company, Erie, Pa. Percolator. No. 1,131,978; Mar. 16; Gaz. vol. 212; p. 814.
Wiltzan, Clarence, *et al.* (See Bellcza, Eugene, assignor.)
Wilzin, Arthur, St.-Ouen, France. Producing polished spoons, forks, and other metal articles. No. 1,133,775; Mar. 30; Gaz. vol. 212; p. 1550.
Wimmer, Bernhard. (See Daly and Wimmer.)
Winchester, Winfred C. (See Fountain, Waters, and Winchester.)
Winckler, Aage E., Racine, Wis., assignor to Robinson & Robinson. Internal-combustion engine. No. 1,130,872; Mar. 9; Gaz. vol. 212; p. 393.
Wing, John F., Chicago, Ill., assignor, by mesne assignments, to Continental Can Company, Inc. Can-closing machine. No. 1,132,295; Mar. 16; Gaz. vol. 212; p. 931.
Wingett, John N., Denver, Colo. Automatically-registering valve. No. 1,131,885; Mar. 16; Gaz. vol. 212; p. 780.
Wininger, John H., Collinsville, Ill. Acetylene-gas lamp. No. 1,130,456; Mar. 2; Gaz. vol. 212; p. 215.
Winkler, Carl, Berne, Switzerland. Apparatus for drying matrices used for stereotype purposes. No. 1,133,208; Mar. 23; Gaz. vol. 212; p. 1311.
Winkley, Erastus E., Lynn, Mass. Internal-combustion engine. No. 1,131,099; Mar. 9; Gaz. vol. 212; p. 470.

Winkley, Erastus E., Lynn, Mass. Insole-heel-seat-trimming machine. No. 1,134,027; Mar. 30; Gaz. vol. 212; p. 1634.

Winslow, Linwood, A., Norfolk, Va. Tire-rack. No. 1,133,598; Mar. 30; Gaz. vol. 212; p. 1486.

Winslow, Marlon H., Terre Haute, Ind. Railway weighing-scale. No. 1,133,901; Mar. 30; Gaz. vol. 212; p. 1595.

Winter, Charles N., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Brake-shoe. No. 1,130,231; Mar. 2; Gaz. vol. 212; p. 135.

Winterborne, William H., assignor to San Antonio Machine & Supply Co., San Antonio, Tex. Double-stroke pumping-jack. No. 1,132,538; Mar. 16; Gaz. vol. 212; p. 1019.

Winterrowd, William H. (See Chidley and Winterrowd.)

Winwood, George M., Jr., Springfield, Ohio. Seed-drill. No. 1,133,351; Mar. 30; Gaz. vol. 212; p. 1397.

Winzer, Charles B., Fulham, London, assignor to G. Royle, London, England. Apparatus for operating propellers for boats and the like. No. 1,133,599; Mar. 30; Gaz. vol. 212; p. 1487.

Wipperman, Richard O., Chicago, Ill. Stump-puller. No. 1,130,457; Mar. 2; Gaz. vol. 212; p. 216.

Wirt, Arthur A., Omaha, Nebr. Weeding implement. No. 1,133,776; Mar. 30; Gaz. vol. 212; p. 1551.

Wirt, George A., Greensburg, Ind. Fodder-carrier. No. 1,130,786; Mar. 9; Gaz. vol. 212; p. 363.

Wirth, Friedrich E., Hartmannsdorf, assignor to Schubert & Salzer Maschinenfabrik, Aktiengesellschaft, Chemnitz, Germany. Warp-frame. No. 1,133,520; Mar. 30; Gaz. vol. 212; p. 1458.

Wiser, Arthur B., Alliance, assignor to The Union Metal Manufacturing Company, Canton, Ohio. Mail-box. No. 1,132,756; Mar. 23; Gaz. vol. 212; p. 1147.

Wisherd, Jno. A. (See Tinsley, Waller P., assignor.)

Wisterman, Frank S., Gallon, Ohio. Grave-vault. No. 1,131,886; Mar. 16; Gaz. vol. 212; p. 781.

Wittkowski, Otto, Dusseldorf, Germany. Automatic stabilizing apparatus for flying-machines. No. 1,132,503; Mar. 16; Gaz. vol. 212; p. 1007.

Wixom, Joseph F., Hammondsport, N. Y. Rake. No. 1,131,887; Mar. 16; Gaz. vol. 212; p. 781.

Wixson, Lewis S., Rochester, N. Y. Scaffold-bracket. No. 1,130,652; Mar. 2; Gaz. vol. 212; p. 283.

Woelfien, Charles. (See Epling and Woelfien.)

Wogan, Michael, Philadelphia, Pa. Combined curtain ring and clamp. No. 1,130,362; Mar. 2; Gaz. vol. 212; p. 180.

Wojtkowski, Frank, and D. Radziszewski, Chrome, N. J. Padlock. No. 1,130,787; Mar. 9; Gaz. vol. 212; p. 364.

Wolf, August F., Elma, Iowa. Barn-framing machine. No. 1,133,902; Mar. 30; Gaz. vol. 212; p. 1595.

Wolf, Johann, Burg-on-the-Wupper, Germany. Endless conveying means for paper-machines. No. 1,131,766; Mar. 16; Gaz. vol. 212; p. 737.

Wolfe, William C., Lilly, Pa. Sound-reproducing machine. No. 1,131,454; Mar. 9; Gaz. vol. 212; p. 593.

Wolff, Charles H. (See Weder and Wolff.)

Wolff, Hugo, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Production of coloring-matters of the anthraquinone series. No. 1,133,081; Mar. 23; Gaz. vol. 212; p. 1267.

Wolff, Willy, Nuremberg, Germany. Steering-wheel for motor-cars and flying-machines. No. 1,131,888; Mar. 16; Gaz. vol. 212; p. 781.

Wolhaupter, Benjamin, New Rochelle, and E. F. Schermerhorn, Brooklyn, assignors to The Rail Joint Company, New York, N. Y. Reinforced rail-joint bar. No. 1,131,880; Mar. 16; Gaz. vol. 212; p. 782.

Wolke, John L., Jacksonville, Ill. Picture-hanger. No. 1,133,209; Mar. 23; Gaz. vol. 212; p. 1312.

Wollenhaupt, Justus J. (See Doyle and Wollenhaupt.)

Wolnitzek, Oscar T. (See Master and Wolnitzek.)

Wolstenholme, Charles, Blackpool, assignor of two-thirds to J. Scholes and R. J. Barton, Lancaster, England. Platen printing-press. No. 1,130,232; Mar. 2; Gaz. vol. 212; p. 135.

Wolter, Josef, assignor to H. Levy, Rorschach, Switzerland. Apparatus for cutting binding-threads. No. 1,133,777; Mar. 30; Gaz. vol. 212; p. 1551.

Wolverine Motor Works. (See Snyder and Pease, assignors.)

Wood, Ammon Covington, Tenn. Cultivator attachment. No. 1,132,504; Mar. 16; Gaz. vol. 212; p. 1007.

Wood, Charles O., assignor to T. B. Wood's Sons Company, Chambersburg, Pa. Shaft-hanger. No. 1,130,233; Mar. 2; Gaz. vol. 212; p. 136.

Wood, Flora A., administratrix. (See Wood, James E.)

Wood, Halbert M., assignor of one-fourth to S. H. O'Connor, one-fourth to J. A. Williams, and one-fourth to E. T. Lowe, Sr., Nashville, Tenn. Gate. No. 1,129,938; Mar. 2; Gaz. vol. 212; p. 36.

Wood, Henry A. W., assignor to Wood & Nathan Company, New York, N. Y. Sheet-manipulating mechanism. No. 1,133,352; Mar. 30; Gaz. vol. 212; p. 1398.

Wood, Herbert D., Phoenix, N. Y. Toilet-paper holder. No. 1,133,600; Mar. 30; Gaz. vol. 212; p. 1487.

Wood, James E., deceased; F. A. Wood, administratrix, assignor of forty-six and one-third one-hundredths to C. A. Love, Aurora, Ill. Corn-harvester. No. 1,131,586; Mar. 9; Gaz. vol. 212; p. 638.

Wood, James J., Fort Wayne, Ind., assignor to General Electric Company. Dynamo-electric machine. No. 1,132,992; Mar. 23; Gaz. vol. 212; p. 1235.

Wood, John C., Monero, N. Mex. Amalgamator. No. 1,133,210; Mar. 23; Gaz. vol. 212; p. 1312.

Wood & Nathan Company. (See Wood, Henry A. W., assignor.)

Wood, Orie L. (See Kelley and Wood.)

Wood, Robert, Brooklyn, assignor to Nathan Manufacturing Company, New York, N. Y. Ejecting device. No. 1,133,601; Mar. 30; Gaz. vol. 212; p. 1487.

Wood, William G. (See Mosher and Wood.)

Wood, William P., assignor to Jenckes Spinning Company, Pawtucket, R. I. Heddle for leno-weaving machines. No. 1,132,644; Mar. 23; Gaz. vol. 212; p. 1106.

Wood, William R. (See Walker, Alfred B. and F. P., assignors.)

Woodard, William H., East Palatka, Fla., assignor of one-third to P. B. Baker, Washington, D. C. Folding box. No. 1,132,505; Mar. 16; Gaz. vol. 212; p. 1007.

Woodbridge, Joseph L., Philadelphia, Pa. Means for exciting the commutating-poles of a dynamo-electric machine. No. 1,130,686; Mar. 2; Gaz. vol. 212; p. 296.

Woodbridge, Joseph L., Philadelphia, Pa. Car-axle lighting system. No. 1,130,687; Mar. 2; Gaz. vol. 212; p. 296.

Wooden, Earle M., assignor of one-half to A. B. Cavanagh, New York, N. Y. Reel for moving-picture machines. No. 1,130,126; Mar. 2; Gaz. vol. 212; p. 99.

Woodhull, Frederick W., Alhambra, Cal. Transmission speed-controlling mechanism. No. 1,133,690; Mar. 30; Gaz. vol. 212; p. 1522.

Woodin, William H., *et al* (See Matthews, Edwin S., assignor.)

Woodland, Frank O., Worcester, Mass. Internal-combustion engine. No. 1,131,587; Mar. 9; Gaz. vol. 212; p. 638.

Woodland, Frank O., assignor to Economic Machinery Company, Worcester, Mass. Labeling-machine. No. 1,133,602; Mar. 30; Gaz. vol. 212; p. 1488.

Woodman, George M., Scotia, N. Y. Faucet. No. 1,133,521; Mar. 30; Gaz. vol. 212; p. 1458.

Woodrow, Harry R. (See Torchio and Woodrow.)

Woodruff, Willard S., Brooklyn, N. Y., and H. Kissinger, Union Hill, N. J. Signal or indicator. No. 1,131,305; Mar. 9; Gaz. vol. 212; p. 542.

Woods, Arthur R. T. (See Simpson and Woods.)

Woods Automatic Fruit Grading Machine Company. (See Woods, James A., Jr., assignor.)

Woods, James A., Jr., assignor to Woods Automatic Fruit Grading Machine Company, Ogden, Utah. Fruit-grading machine. No. 1,132,506; Mar. 16; Gaz. vol. 212; p. 1008.

Woodward, Arthur H., assignor to The International Register Company, Chicago, Ill. Register mechanism. No. 1,130,951; Mar. 9; Gaz. vol. 212; p. 420.

Woodward, Henry E., *et al.* (See Galligan, Emmet F., assignor.)

Woolf, Frank H., assignor to H. Harfst, F. H. Judd, and T. M. Sullivan, Chicago, Ill. Coating-machine. No. 1,132,895; Mar. 23; Gaz. vol. 212; p. 1197.

Worcester Manufacturing Company. (See Ball, Harry, assignor.)

Wordingham, George, Milwaukee, Wis. Merchandise-wrapper. No. 1,133,522; Mar. 30; Gaz. vol. 212; p. 1459.

Worfel, Clarence A., Grand Rapids, Mich. Flying-machine. No. 1,133,451; Mar. 30; Gaz. vol. 212; p. 1433.

Worms & Loeb. (See Elseman, Moses H., assignor.)

Worswick, Al Lacy, San Francisco, Cal. Rail tie and clip. No. 1,130,952; Mar. 9; Gaz. vol. 212; p. 420.

Worth, John S., assignor to J. S. and W. P. Worth, Coatesville, Pa. Dumping-car. No. 1,133,248; Mar. 23; Gaz. vol. 212; p. 1324.

Worth, William P. (See Worth, John S., assignor.)

Wray, Charles F., assignor to National Brass Manufacturing Co., Rochester, N. Y. Lubricator-cup. No. 1,133,353; Mar. 30; Gaz. vol. 212; p. 1398.

Wright, Adolph B., Weston, Iowa. Plowshare. No. 1,133,211; Mar. 23; Gaz. vol. 212; p. 1313.

Wright, Clyde S., assignor to The National Supply Company, Toledo, Ohio. Hydraulic swivel. (Reissue.) No. 13,888; Mar. 2; Gaz. vol. 212; p. 298.

Wright, Clyde S., assignor to The National Supply Company, Toledo, Ohio. Rotary drilling-machine. No. 1,131,100; Mar. 9; Gaz. vol. 212; p. 471.

Wright, David M., Bergholz, Ohio. Animal-trap. No. 1,131,306; Mar. 9; Gaz. vol. 212; p. 542.

Wright, Harley M., Darlington, Okla. Telephone system. No. 1,131,455; Mar. 9; Gaz. vol. 212; p. 594.

Wright, Joseph, Chicago, Ill. Gage for cutting hair. No. 1,132,699; Mar. 23; Gaz. vol. 212; p. 1126.

Wright, Marshall C., New York, N. Y. Roadside device for automatic train-stops. No. 1,130,558; Mar. 2; Gaz. vol. 212; p. 252.

Wright, Thomas W., Anderson, Ind. Tube-converting mechanism. No. 1,133,903; Mar. 30; Gaz. vol. 212; p. 1595.

Wrightson, George H., Jr., Butte, Mont. Pump-plunger. No. 1,133,778; Mar. 30; Gaz. vol. 212; p. 1552.

Wrobel, Wladyslaw, Little Falls, N. Y. Cooking utensil. No. 1,130,234; Mar. 2; Gaz. vol. 212; p. 136.

Wuelfing, Firm of Johann A. (See Busch, Albert, assignor.)

Wuerpel, Morris, assignor to Westinghouse Automatic Air & Steam Coupler Company, St. Louis, Mo. Automatic car-coupling. No. 1,131,194; Mar. 9; Gaz. vol. 212; p. 503.

Wunschow, Otto B., Chattanooga, Tenn. Perfume-distributer. No. 1,131,307; Mar. 9; Gaz. vol. 212; p. 543.

Wyckoff, Herbert B., Cincinnati, Iowa. Conveyer. No. 1,130,458; Mar. 2; Gaz. vol. 212; p. 216.

Wyman, George R. (See Bird and Wyman.)

Wyman, Horace, Worcester, Mass. Photographic-film package. No. 1,132,993; Mar. 23; Gaz. vol. 212; p. 1235.

Wyman, Horace B., Minneapolis, Minn. Carbureter. No. 1,133,904; Mar. 30; Gaz. vol. 212; p. 1595.

Wyne, L. E. (See Sieben, Henry, assignor.)

Yakus, Martin, South Akron, Ohio. Padlock. No. 1,133,523; Mar. 30; Gaz. vol. 212; p. 1459.

Yandle, Frederick J., Santa Rosa, Cal. Prune-dipping machine. No. 1,130,127; Mar. 2; Gaz. vol. 212; p. 99.

Yardley, John H. R. (See Siedle and Yardley.)

Yeager, Margaret S., Honey Grove, Tex. Necktie-retainer. No. 1,132,416; Mar. 16; Gaz. vol. 212; p. 974.

Yelin, Adolph, and J. O. Houser, Buffalo, N. Y. Fitting-platform for ladies' garments. No. 1,131,101; Mar. 9; Gaz. vol. 212; p. 471.

Yemiker, John, *et al.* (See Bacher, Peter, assignor.)

Yoakum, Hugh D., Waco, Tex., assignor of one-fourth to J. K. Greer, Allen, Okla. Switch mechanism. No. 1,130,459; Mar. 2; Gaz. vol. 212; p. 217.

Yoder, Jonas A. (See Thomas and Yoder.)

York Street Flax Spinning Company Limited, *et al.* (See Cotton, Kennedy, and King, assignors.)

Yost, Donald H., York, Pa. Spark-plug. No. 1,132,060; Mar. 16; Gaz. vol. 212; p. 844.

Yost Electric Manufacturing Company. (See Gordon, David D., assignor.)

Young, August V., Logcabin, Colo. Detachable handle. No. 1,133,420; Mar. 30; Gaz. vol. 212; p. 1422.

Young, Charles B., Aurora, and G. G. Gilpin, Riverside, Ill. Draft-rigging for railway-cars. No. 1,130,051; Mar. 2; Gaz. vol. 212; p. 73.

Young, Charles D., Altoona, Pa. Drying apparatus for railway-vehicles. No. 1,132,142; Mar. 16; Gaz. vol. 212; p. 874.

Young, Marion F., Plainview, Tex. Resilient wheel. No. 1,133,354; Mar. 30; Gaz. vol. 212; p. 1399.

Youngkin, Owen, Richfield, and H. H. Hicks, Weiser, Idaho. Potato-digger. No. 1,129,939; Mar. 2; Gaz. vol. 212; p. 37.

Youngman, Charles A., Louisville, Ky. Filter. No. 1,131,456; Mar. 9; Gaz. vol. 212; p. 595.

Youngstown Iron & Steel Company, The. (See Smith, Archie, assignor.)

Youngstown Sheet and Tube Company, The. (See Coey, Stewart C., assignor.)

Zancan, Ottavio, New York, N. Y. Vehicle-wheel. No. 1,133,779; Mar. 30; Gaz. vol. 212; p. 1552.

Zanotta, Armando, Milan, Italy. Electric-arc lamp. No. 1,130,460; Mar. 2; Gaz. vol. 212; p. 217.

Zdunlewicz, Nicolas, Northampton, Mass. Ship-stabilizer. No. 1,130,235; Mar. 2; Gaz. vol. 212; p. 137.

Zelle, William C., assignor to Plantation Equipment Company, St. Louis, Mo. Tractor. No. 1,130,363; Mar. 2; Gaz. vol. 212; p. 180.

Zelle, William C., assignor to Plantation Equipment Company, St. Louis, Mo. Implement-holder for tilling-machines. No. 1,130,364; Mar. 2; Gaz. vol. 212; p. 181.

Zika, Frank A., assignor of one-half to J. E. Barry, Chicago, Ill. Electric-current conducting and distributing means. No. 1,133,524; Mar. 30; Gaz. vol. 212; p. 1460.

Zika, Frank A., assignor of one-half to J. E. Barry, Chicago, Ill. System of electrical distribution. No. 1,133,525; Mar. 30; Gaz. vol. 212; p. 1460.

Zimmerman, John F., Waynesboro, Pa. Metallic tie. No. 1,131,588; Mar. 9; Gaz. vol. 212; p. 639.

Zint, George, Wapakoneta, Ohio. Automatic sprinkler. No. 1,131,767; Mar. 16; Gaz. vol. 212; p. 737.

Zobel, Benjamin J., Detroit, Mich. Tire. No. 1,131,809; Mar. 16; Gaz. vol. 212; p. 754.

Zoller, Johann, and R. Schuster, Vienna, Austria-Hungary. Brake. No. 1,131,810; Mar. 16; Gaz. vol. 212; p. 754.

Zolper, Wilhelm, assignor of one-half to H. F. Schnepf, Wilmington, Del. Puzzle. No. 1,130,461; Mar. 2; Gaz. vol. 212; p. 218.

Zuzik, John W., Stillwater, N. Y. Attachment for reaper-rakes. No. 1,132,820; Mar. 23; Gaz. vol. 212; p. 1172.

Zweibel, Lewis F. (See Royer and Zweibel.)

Zwerdling, Harry, *et al.* (See Zwerdling, Louis, C., assignor.)

Zwerdling, Louis C., Brooklyn, assignor of one-third to H. Zwerdling and one-third to J. Josephson, New York, N. Y. Fuel-saving construction for furnaces. No. 1,132,235; Mar. 16; Gaz. vol. 212; p. 909.

Zwicky, Melchior, assignor to Textile Machine Works, Wyomissing, Pa. Clutch mechanism for fashioning knitting-machines. No. 1,129,940; Mar. 2; Gaz. vol. 212; p. 37.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. F. Ward Machinery Co., The. (See Ward, Ashley F., assignor.)

Adams, Arra L., Arkadelphia, Ark. Bag. No. 47,064; Mar. 9; Gaz. vol. 212; p. 668.

Allen, Grosvenor N., assignor to Oneida Community, Limited, Oneida, N. Y. Handle for spoons, forks, or similar articles. No. 47,065; Mar. 9; Gaz. vol. 212; p. 668.

American Can Company. (See Hoffman, Edmund, assignor.)

American Hard Rubber Company. (See Weitling, William W., assignor.)

American Type Foundries Company. (See Benton, Morris F., assignor.)

Arthe, Levy, Bernhard Company. (See McNeill, John, assignor.)

Bailey, Charles A., assignor to The J. & E. Stevens Company, Cromwell, Conn. Toy bank. No. 47,095; Mar. 16; Gaz. vol. 212; p. 1025.

Barnard, Melville C. Winthrop, Mass. Badge or similar ornament. No. 47,128; Mar. 23; Gaz. vol. 212; p. 1326.

Baumann, John, Glesson, Wis. Combined bottle-opener and button-hook. No. 47,096; Mar. 16; Gaz. vol. 212; p. 1025.

Bennett, Adolph, New York, N. Y. Necktie. No. 47,097; Mar. 16; Gaz. vol. 212; p. 1025.

Benton, Morris F., Plainfield, assignor to American Type Foundries Company, Jersey City, N. J. Font of type. No. 47,149; Mar. 30; Gaz. vol. 212; p. 1658.

Bertelsen, Peter J., and G. Keenan, Jr., San Francisco, Cal. Fountain-brush. No. 47,098; Mar. 16; Gaz. vol. 212; p. 1025.

Blankenhagen, Albert, assignor of one-half to F. W. Blankenhagen, Akron, Ohio. Casing for liquid-pistols. No. 47,099; Mar. 16; Gaz. vol. 212; p. 1025.

Blankenhagen, Frank W. (See Blankenhagen, Albert, assignor.)

Blesch, Charles, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Paper-weight, curio, toy figure, or similar article. No. 47,019; Mar. 2; Gaz. vol. 212; p. 299.

Boccia, Charles, New York, N. Y. Tooth-brush. No. 47,100; Mar. 16; Gaz. vol. 212; p. 1026.

Boyer, Charles A., Warsaw, Ind., assignor to Hugro Manufacturing Company, Chicago, Ill. Vacuum-cleaner casing. No. 47,020; Mar. 2; Gaz. vol. 212; p. 299.

Brandt, Carl, assignor to Winslow Bros. & Smith Co., Boston, Mass. Leather. Nos. 47,066–7; Mar. 9; Gaz. vol. 212; p. 669.

Bright, Virginia B., Fayetteville, Tenn. Broom. No. 47,101; Mar. 16; Gaz. vol. 212; p. 1026.

Bruce, Avery C., assignor to Senn Pressed Steel Hoe & Tool Company, Birmingham, Ala. Rake. No. 47,021; Mar. 2; Gaz. vol. 212; p. 299.

Brunhoff, Edward, Cincinnati, Ohio. Change-tray. No. 47,129; Mar. 23; Gaz. vol. 212; p. 1326.

Bruton, Karl E., Whitney, Tex. Cooler. No. 47,022; Mar. 2; Gaz. vol. 212; p. 299.

Buermann, George, Newark, N. J. Cheek-piece for bits. No. 47,023; Mar. 2; Gaz. vol. 212; p. 300.

Buermann, George, Newark, N. J. Stirrup. No. 47,024; Mar. 2; Gaz. vol. 212; p. 300.

Burfeind, Richard F., assignor to Keystone Type Foundry, Philadelphia, Pa. Font of type. No. 47,025; Mar. 2; Gaz. vol. 212; p. 300.

Burfeind, Richard F., assignor to Keystone Type Foundry, Philadelphia, Pa. Font of type. No. 47,130; Mar. 23; Gaz. vol. 212; p. 1326.

Burley & Tyrrell Company. (See Hinrichs, Mabel W., assignor.)

Burnett, Willis, Chillicothe, Ill. Poison-bottle. No. 47,150; Mar. 30; Gaz. vol. 212; p. 1658.

Burns & Bassick Company, The. (See Burns, Wilbur F., assignor.)

Burns, Wilbur F., assignor to The Burns & Bassick Company, Bridgeport, Conn. Glass knob. Nos. 47,068–9; Mar. 9; Gaz. vol. 212; p. 669.

Büttler, Fred, Tyndall, S. D. Watch-fob. No. 47,131; Mar. 23; Gaz. vol. 212; p. 1326.

Campbell, Thomas B., New York, N. Y. Glass vessel or similar article. No. 47,151; Mar. 30; Gaz. vol. 212; p. 1659.

Carnahan, Ernest R., Chicago, Ill. Ink-well. No. 47,026; Mar. 2; Gaz. vol. 212; p. 300.

Chalupsky, Joseph, Weed, Cal. Hat-pin guard. No. 47,027; Mar. 2; Gaz. vol. 212; p. 300.

Crandal, Stone & Company. (See Titchener, Charles E., assignor.)

Crane & Breed Manufacturing Company, The. (See Blesch, Charles, assignor.)

Crane, Henry M., New York, N. Y. Automobile-radiator. No. 47,152; Mar. 30; Gaz. vol. 212; p. 1659.

Dedrick, Nicholas, Manitowoc, Wis. Spoon-bowl. No. 47,132; Mar. 23; Gaz. vol. 212; p. 1327.

Detroit Stove Works. (See Van Wie, Edwin G., assignor.)

Dickinson, Fairleigh S., Rutherford, N. J. Handle. No. 47,034; Mar. 2; Gaz. vol. 212; p. 301.

Doty, Walter G., Dayton, Ohio. Suction-cleaner nozzle. No. 47,063; Mar. 2; Gaz. vol. 212; p. 307.

Drake, John W., assignor to Hupp Motor Car Company, Detroit, Mich. Vehicle hub-cap. No. 47,070; Mar. 9; Gaz. vol. 212; p. 669.

Ebeling, Phillip, assignor to Fostoria Glass Company, Moundsville, W. Va. Glass vessel. No. 47,102; Mar. 16; Gaz. vol. 212; p. 1026.

Embroidery Trading Company. (See Zeller, Hans, assignor.)

Ewing Robert E. (See Kopp and Ewing.)

Faultless Rubber Company, The. (See Miller, Thomas W., assignor.)

Faultness Rubber Company, The. (See Wentz, Geneva F., assignor.)

Feasel, Harry L., Philadelphia, Pa. Mop. No. 47,035; Mar. 2; Gaz. vol. 212; p. 301.

Follmer, Charles J., New York, N. Y. Parasol. No. 47,103; Mar. 16; Gaz. vol. 212; p. 1026.

Fostoria Glass Company. (See Ebeling, Phillip, assignor.)

Frank H. Fleer Corporation. (See Swaab, Mayer M., Jr., assignor.)

Frankland, Alexander J., Tropico, Cal. Spoon. No. 47,071; Mar. 9; Gaz. vol. 212; p. 669.

Franks, William L., Rock Island, Ill. Lamp-shade. No. 47,153; Mar. 30; Gaz. vol. 212; p. 1659.

Fried, Dezso, Berkeley, Cal. Medallion or similar article. No. 47,154. Mar. 30; Gaz. vol. 212; p. 1659.

Garrity, John H., Pittsburgh, Pa. Grace-prayer holder. No. 47,133; Mar. 23; Gaz. vol. 212; p. 1327.

Garza, Lázaro de la, Torreon, Mexico. Article of manufacture. Nos. 47,028–33; Mar. 2; Gaz. vol. 212; pp. 300–1.

Gibson, Joseph P., Dayton, Ohio. Chair. No. 47,036; Mar. 2; Gaz. vol. 212; p. 301.

Gilson, Henry R., Baden, Pa. Electrical fixture. Nos. 47,104–5; Mar. 16; Gaz. vol. 212; pp. 1026–7.

Gould, Lena, Rochester, Ind. Doll. No. 47,037; Mar. 2; Gaz. vol. 212; p. 302.

Griffith, Winfred S., assignor to Heald Machine Company, Worcester, Mass. Magnetic chuck. No. 47,038; Mar. 2; Gaz. vol. 212; p. 302.

Hawe, William F. M., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa. Lamp-globe. No. 47,155; Mar. 30; Gaz. vol. 212; p. 1660.

Heady, William H., Los Angeles, Cal. Novelty sign for vehicles and the like. No. 47,156; Mar. 30; Gaz. vol. 212; p. 1660.

Heald Machine Company. (See Griffith, Winfred S., assignor.)

Heisey & Company, A. H. (See Sanford, Andrew J., assignor.)

Hettrich, Archibald L., San Rafael, Cal. Shopping-bag. No. 47,106; Mar. 16; Gaz. vol. 212; p. 1027.

Hillbom, Henrik, assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn. Spoon, fork, or similar article. No. 47,072; Mar. 9; Gaz. vol. 212; p. 670.

Hinrichs, Mabel W., assignor to Burley & Tyrell Company, Chicago, Ill. Article of manufacture. No. 47,107; Mar. 16; Gaz. vol. 212; p. 1027.

Hoffman, Edmund, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y. Box for talcum powder. No. 47,134; Mar. 23; Gaz. vol. 212; p. 1327.

Holdaway, Hall H., Los Angeles, Cal. Automobile-tire. No. 47,135; Mar. 23; Gaz. vol. 212; p. 1327.

Hugro Manufacturing Company. (See Boyer, Charles A., assignor.)

Hulbert, Ansel C., San Francisco, Cal. Electric steam-radiator. No. 47,039; Mar. 2; Gaz. vol. 212; p. 302.

Hotchkin, Paul M., assignor to National X-Ray Reflector Company, Chicago, Ill. Lamp-reflector. No. 47,136; Mar. 23; Gaz. vol. 212; p. 1327.

Hunt, Grace L., Wilkes-Barre, Pa. Invalid's couch. No. 47,108; Mar. 16; Gaz. vol. 212; p. 1027.

Hupp Motor Car Company. (See Drake, John W., assignor.)

Ikle, Charles F., New York, N. Y., assignor to Ikle Freres & Company, St. Gallen, Switzerland. Embroidered trimming. Nos. 47,073–8; Mar. 9; Gaz. vol. 212; pp. 670–1.

Ikle Freres & Company. (See Ikle, Charles F., assignor.)

International Silver Co. (See Kintz, Alfred G., assignor.)

J. & E. Stevens Company, The. (See Bailey, Charles E., assignor.)

Jackson, Arthur C., assignor to Miller Lock Company, Philadelphia, Pa. Padlock. No. 47,100; Mar. 16; Gaz. vol. 212; p. 1027.
Jacob, Richard, and E. Speck, Passaic, N. J. Woven and printed ribbon. No. 47,137; Mar. 23; Gaz. vol. 212; p. 1327.
Jameson, William A., Niagara Falls, N. Y. Handle for spoons, forks, or similar articles. No. 47,040; Mar. 2; Gaz. vol. 212; p. 302.
Jameson, William A., Niagara Falls, N. Y. Handle for spoons, forks, or similar articles. No. 47,157; Mar. 30; Gaz. vol. 212; p. 1660.
Joseph Fahys & Company. (See Keller, Sidney A., assignor.)
Karg, Ernst, Hoboken, N. J. Doll. No. 47,041; Mar. 2; Gaz. vol. 212; p. 302.
Keel, Harry T., Chester, Pa. Package-tie. No. 47,042; Mar. 2; Gaz. vol. 212; p. 302.
Keenan, George, Jr. (See Bertelsen and Keenan.)
Keller, Sidney A., Woodmere, assignor to Joseph Fahys & Company, New York, N. Y. Handle for spoons, forks, or similar articles. No. 47,158; Mar. 30; Gaz. vol. 212; p. 1660.
Kempshall, Eleazer, Washington, D. C. Golf or playing ball. No. 47,159; Mar. 30; Gaz. vol. 212; p. 1661.
Keystone Type Foundry. (See Burfeind, Richard F., assignor.)
Klntz, Alfred G., Wallingford, assignor to International Silver Co., Meriden, Conn. Spoon, fork, or similar article. No. 47,043; Mar. 2; Gaz. vol. 212; p. 303.
Kopp, Nicholas, and R. E. Ewing, assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa. Hanger for light-reflecting bowls. No. 47,138; Mar. 23; Gaz. vol. 212; p. 1328.
Kouyoumjian, Haroutiun K., Cleveland, Ohio. Generator and radiator cooling fan for motor-vehicles. No. 47,079; Mar. 9; Gaz. vol. 212; p. 671.
Kriesemer & Company. (See Wirth, Walter, assignor.)
Kulow, John H., Buffalo, N. Y. Combined ink-well, pincushion, and pen-rack. Nos. 47,160–61; Mar. 30; Gaz. vol. 212; p. 1661.
Lachman, Maurice, New York, N. Y. Fence. Nos. 47,110–13; Mar. 16; Gaz. vol. 212; pp. 1027–8.
Lederer, Joseph, New York, N. Y. Gas-lamp housing. No. 47,080; Mar. 9; Gaz. vol. 212; p. 671.
Lehmann, Edwin, Peoria, Ill. Bottle. Nos. 47,114–16; Mar. 16; Gaz. vol. 212; p. 1028.
Livingston, D. McRa, New York, N. Y. Radiator-hood. No. 47,162; Mar. 30; Gaz. vol. 212; p. 1661.
Loeb, William, Providence, R. I. Ring, bracelet, pin, button, or similar article of jewelry. No. 47,163; Mar. 30; Gaz. vol. 212; p. 1661.
Lynch, David W., Lancaster, Pa. Rocking-horse. No. 47,117; Mar. 16; Gaz. vol. 212; p. 1029.
Macbeth-Evans Glass Company. (See Hawe, William F. M., assignor.)
Mayfair, Inc. (See Murphy, Sarah L., assignor.)
McAllister, Patrick J., Columbus, assignor to The Toystor Company, Cleveland, Ohio. Toy store. No. 47,044; Mar. 2; Gaz. vol. 212; p. 303.
McKennan, Thomas R., East Palestine, Ohio. Tire-casing. No. 47,139; Mar. 23; Gaz. vol. 212; p. 1328.
McNeill, John, assignor to Arthe, Levy, Bernhard Company, New York, N. Y. Parasol. No. 47,164; Mar. 30; Gaz. vol. 212; p. 1662.
Miller Lock Company. (See Jackson, Arthur C., assignor.)
Miller Thomas W., assignor to The Faultless Rubber Company, Ashland, Ohio. Bathing-cap. Nos. 47,165–8; Mar. 30; Gaz. vol. 212; p. 1662.
Mueller Brothers Art and Manufacturing Company. (See Whitson, Peter E., assignor.)
Murphy, Sarah L., assignor to Mayfair, Inc., New York, N. Y. Twine-holder. No. 47,081; Mar. 9; Gaz. vol. 212; p. 671.
National Metal Spinning & Stamping Company. (See Tepfer, Albert E., assignor.)
National X-Ray Reflector Company. (See Hotchkiss, Paul M., assignor.)
Newkirk, Frank, New York, N. Y. Bolster and sham holder. No. 47,140; Mar. 23; Gaz. vol. 212; p. 1328.
Noble, Lionel C., assignor to Stephen Sanford & Sons, Inc., Amsterdam, N. Y. Rug. No. 47,141; Mar. 23; Gaz. vol. 212; p. 1328.
Oneida Community. (See Allen, Grosvenor N., assignor.)
Otstot, George, Springfield, Ohio. Toy. No. 47,045; Mar. 2; Gaz. vol. 212; p. 303.
Ovens, James N., New York, N. Y. Dish or similar article. No. 47,142; Mar. 23; Gaz. vol. 212; p. 1328.
Palder, Abraham, Boston, Mass. Tire-tread. No. 47,143; Mar. 23; Gaz. vol. 212; p. 1329.
Pararo, Constant T., Benhaden, Fla. Spike-gripping tool. No. 47,046; Mar. 2; Gaz. vol. 212; p. 303.
Perfect Window Regulator Company. (See Ternstedt, Alvar K., assignor.)
Pfister, Jacob, Rochelle Park, N. J. Pipe-cleaner. No. 47,144; Mar. 23; Gaz. vol. 212; p. 1329.
Pittsburgh Lamp, Brass & Glass Company. (See Kopp and Ewing, assignors.)
Price, James E., Pueblo, Colo. Fob. No. 47,145; Mar. 23; Gaz. vol. 212; p. 1329.
R. Wallace & Sons Mfg. Co. (See Hillbom, Henrik, assignor.)
Salzman, Joseph A., Toledo, Iowa. Emblem. No. 47,169; Mar. 30; Gaz. vol. 212; p. 1662.
Sanford, Andrew J., assignor to A. H. Heisey & Company, Newark, Ohio. Glass dish. No. 47,118; Mar. 16; Gaz. vol. 212; p. 1029.
Schindler, Lincoln C., Bridgeport, Conn. Dust-pan, shovel, or scoop. No. 47,170; Mar. 30; Gaz. vol. 212; p. 1663.
Schlegel, Charles P., Rochester, N. Y. Ribbon. Nos. 47,119–20; Mar. 16; Gaz. vol. 212; p. 1029.
Schroeder, Albert F., Cleveland, Ohio. Handle. No. 47,082; Mar. 9; Gaz. vol. 212; p. 671.
Senn Pressed Steel Hoe & Tool Company. (See Bruce, Avery C., assignor.)
Seyburn, Wesson, Detroit, Mich. Toy dog. Nos. 47,047–57; Mar. 2; Gaz. vol. 212; pp. 303–6.
Smith, Lloyd B., Topeka, Kans. Bridge. No. 47,171; Mar. 30; Gaz. vol. 212; p. 1663.
Smith, Theodore L., Richmond, Va. Puzzle-board. No. 47,121; Mar. 16; Gaz. vol. 212; p. 1029.
Speck, Emil. (See Jacob and Speck.)
Stephen Sanford & Sons. (See Noble, Lionel C., assignor.)
Stough, Turney G., Jeannette, Pa. Toy candy-container. No. 47,122; Mar. 16; Gaz. vol. 212; p. 1030.
Strater, Theodore G., West Tisbury, Mass. Ash-tray. No. 47,172; Mar. 30; Gaz. vol. 212; p. 1663.
Stroke, William P., Buffalo, N. Y. Rack for supporting watches, watch-chains, key-rings, and similar articles. No. 47,123; Mar. 16; Gaz. vol. 212; p. 1030.
Swaab, Mayer M., Jr., New York, N. Y., assignor to Frank H. Fleer Corporation, Philadelphia, Pa. Candy-coated chewing-gum. No. 47,083; Mar. 9; Gaz. vol. 212; p. 671.
Tepfer, Albert E., assignor to National Metal Spinning & Stamping Company, New York, N. Y. Shell for lighting-fixtures. No. 47,173; Mar. 30; Gaz. vol. 212; p. 1663.
Ternstedt, Alvar K., assignor to Perfect Window Regulator Company, New York, N. Y. Handle. No. 47,058; Mar. 2; Gaz. vol. 212; p. 306.
Thompson, Arthur J., Fulton, N. Y. Hammer. No. 47,124; Mar. 16; Gaz. vol. 212; p. 1030.
Titchener, Charles E., assignor to Crandal, Stone & Company, Binghamton, N. Y. Curtain-light. No. 47,146; Mar. 23; Gaz. vol. 212; p. 1329.
Toystor Company, The. (See McAllister, Patrick J., assignor.)
Van Wie, Edwin G., assignor to Detroit Stove Works, Detroit, Mich. Stove. No. 47,084; Mar. 9; Gaz. vol. 212; p. 672.
Veith, Fred A., Arlington, Minn. Popcorn-bag. No. 47,085; Mar. 9; Gaz. vol. 212; p. 672.
Waldeck, Albert, Clarksburg, W. Va. Display-rack. No. 47,174; Mar. 30; Gaz. vol. 212; p. 1663.
Walker, Frederick H., Philadelphia, Pa. Embossed fabric. No. 47,059; Mar. 2; Gaz. vol. 212; p. 306.
Wallace, Henry L., Wallingford, Conn. Spoon, fork, or similar article. No. 47,175; Mar. 30; Gaz. vol. 212; p. 1664.
Ward, Ashley F., assignor to The A. F. Ward Machinery Co., Boston, Mass. Loaf of biscuit. Nos. 47,060–1; Mar. 2; Gaz. vol. 212; p. 306.
Weitling, William W., College Point, assignor to American Hard Rubber Company, New York, N. Y. Comb. No. 47,147; Mar. 23; Gaz. vol. 212; p. 1329.
Wells, Frank F., Kansas City, Mo. Bracelet. No. 47,148; Mar. 23; Gaz. vol. 212; p. 1329.
Wentz, Geneva F., assignor to The Faultless Rubber Company, Ashland, Ohio. Bathing-cap. No. 47,176; Mar. 30; Gaz. vol. 212; p. 1664.
Whitehouse, John N., Newark, N. J. Baby rattle or toy. Nos. 47,125–6; Mar. 16; Gaz. vol. 212; p. 1030.
Whitson, Peter E., assignor to Mueller Brothers Art and Manufacturing Company, Chicago, Ill. Frame. No. 47,127; Mar. 16; Gaz. vol. 212; p. 1030.
Will & Baumer Co., The. (See Will, Harold H., assignor.)
Will, Harold H., assignor to The Will & Baumer Co., Syracuse, N. Y. Candle. No. 47,086; Mar. 9; Gaz. vol. 212; p. 672.
Winslow Bros. & Smith Co. (See Brandt, Carl, assignor.)
Wirth, Walter, New York, N. Y., assignor to Kriesemer & Company, St. Gallen, Switzerland, and New York, N. Y. Embroidered trimming. Nos. 47,087–8; Mar. 9; Gaz. vol. 212; p. 672.
Woodworth, Frank K., Rochester, N. Y. Bottle. No. 47,062; Mar. 2; Gaz. vol. 212; p. 307.
Zeller, Hans, Dumont, N. J., assignor to Embroidery Trading Company, New York, N. Y. Embroidered trimming. Nos. 47,089–94; Mar. 9; Gaz. vol. 212; pp. 672–3.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Wilhelm Company, The, Reading, Pa. Enamel. No. 103,307; Mar. 30; Gaz. vol. 212; p. 1684.
A. Wilhelm Company, The, Reading, Pa. Ready-mixed paints. No. 103,308; Mar. 30; Gaz. vol. 212; p. 1684.
A. & A. Rubber Company, South Framingham, Mass. Soles and heels of shoes. No. 103,194; Mar. 23; Gaz. vol. 212; p. 1353.
A. C. C. Oil Company, Dover, Del.; Boston, Mass., and Providence, R. I. Lubricating oils and greases. No. 102,992; Mar. 16; Gaz. vol. 212; p. 1049.
A. G. Hyde & Sons, New York, N. Y. Cotton, silk, mixed silk and cotton, and linen piece goods. No. 103,165; Mar. 16; Gaz. vol. 212; p. 1054.
A. H. Fox Gun Company, Philadelphia, Pa. Rifles and guns. No. 103,347; Mar. 30; Gaz. vol. 212; p. 1685.
A. J. Hague & Co. Inc., New York, N. Y. Hair-nets. No. 102,922; Mar. 2; Gaz. vol. 212; p. 324.
A. S. Gilman Printing Company, The, Cleveland, Ohio. Printed forms. No. 102,940; Mar. 2; Gaz. vol. 212; p. 324.
A/S Nordisk Films Compagni, Copenhagen, Denmark. Motion-picture films. No. 103,367; Mar. 30; Gaz. vol. 212; p. 1685.
A. W. Faber, Stein, near Nuremberg, Germany. Lead, &c., pencils, rubber pencils and erasers, penholders. No. 102,891; Mar. 2; Gaz. vol. 212; p. 323.
Adams & Elting Company, Chicago, Ill. Polishes for metal. No. 102,886; Mar. 2; Gaz. vol. 212; p. 323.
Adams, Thomas H., Vincennes, Ind. Digestive or food tonic for live stock. No. 102,953; Mar. 9; Gaz. vol. 212; p. 685.
Adams & Westlake Company, The, Chicago, Ill. Electric lamps. No. 102,993; Mar. 16; Gaz. vol. 212; p. 1049.
Adler, Herman S. Z., Port Chester, N. Y. Lap-robes. No. 103,141; Mar. 16; Gaz. vol. 212; p. 1053.
Adler, Leon N., New York, N. Y. Adhesive paste. No. 103,079; Mar. 16; Gaz. vol. 212; p. 1051.
Aero Tailoring Company, Baltimore, Md. Coats, vests, trousers, overcoats, &c. No. 103,274; Mar. 30; Gaz. vol. 212; p. 1683.
Aimone Manufacturing Company, New York, N. Y. Certain named furniture. No. 103,142; Mar. 16; Gaz. vol. 212; p. 1053.
Allen, Otis J., Atlanta, Ga. Automobile and furniture polish. No. 103,368; Mar. 30; Gaz. vol. 212; p. 1685.
American Agricultural Chemical Co., New York, N. Y. Fertilizer. No. 103,214; Mar. 23; Gaz. vol. 212; p. 1353.
American Manufacturing Company, Boston, Mass., and New York, N. Y. Twines made from vegetable fiber. No. 103,369; Mar. 30; Gaz. vol. 212; p. 1686.
American Piano Co., Jersey City, N. J., and New York, N. Y. Piano-players, player-pianos, and note-sheets for same. No. 103,335; Mar. 30; Gaz. vol. 212; p. 1685.
American Tropical Trading Company, Inc., New York, N. Y. Leaf chewing and smoking tobacco and snuff. No. 102,994; Mar. 16; Gaz. vol. 212; p. 1049.
Amoskeag Manufacturing Company, Manchester, N. H. Cotton bags. Nos. 102,954–6; Mar. 9; Gaz. vol. 212; p. 685.
Ansco Company, Binghamton, N. Y. Chemicals and preparations and compounds thereof for photographic processes. No. 103,215; Mar. 23; Gaz. vol. 212; p. 1353.
Appleton Company, Lowell, Mass. Cotton piece goods. No. 103,143; Mar. 16; Gaz. vol. 212; p. 1053.
Arbuckle Bros., New York, N. Y., and Chicago, Ill. Sugar, cane-syrup, cocoa, &c. No. 102,995; Mar. 16; Gaz. vol. 212; p. 1049.
Armstrong, Frank C., Terra Ceia, Fla. Oranges and grape-fruit. No. 103,337; Mar. 30; Gaz. vol. 212; p. 1685.
Armstrong, George B., Chicago, Ill. Trade journal issued monthly. No. 103,336; Mar. 30; Gaz. vol. 212; p. 1685.
Asch & Sons, J. T., New York, N. Y. Hats. No. 103,144; Mar. 16; Gaz. vol. 212; p. 1053.
Ashford Company, The, Pittsburgh, Pa. Canned goods and butter. No. 103,145; Mar. 16; Gaz. vol. 212; p. 1053.
August E. Steffen Company, Davenport, Iowa. Hats, caps, coats, shirts, &c. No. 103,184; Mar. 16; Gaz. vol. 212; p. 1054.
August Maag Co., The, Baltimore, Md. Baking-pans. No. 102,926; Mar. 2; Gaz. vol. 212; p. 324.
B. K. Elliott Company, Pittsburgh, Pa. Tracing-cloth. No. 103,343; Mar. 30; Gaz. vol. 212; p. 1685.
Ball, Isaac W., Sharon, Okla. Blank books and stationery used in keeping accounts. No. 103,042; Mar. 16; Gaz. vol. 212; p. 1050.
Bartenfeld, Charles F., Lorain, Ohio. Laundry and toilet soap. No. 102,957; Mar. 9; Gaz. vol. 212; p. 685.
Baudendistel & Son, V., West New York, N. J. Liniments, salves, and herb decoctions. No. 103,146; Mar. 16; Gaz. vol. 212; p. 1053.
Baxter & Bro., H. C., Brunswick, Me. Canned corn, succotash, and Lima beans. No. 102,933; Mar. 2; Gaz. vol. 212; p. 324.
Baxter & Bro., H. C., Brunswick, Me. Canned corn and succotash. No. 103,216; Mar. 23; Gaz. vol. 212; p. 1353.
Berkowits Bros., New York, N. Y. Men's shirts. No. 103,147; Mar. 16; Gaz. vol. 212; p. 1053.
Binder Company, Inc., The. New York, N. Y. Certain named construction materials. No. 103,338; Mar. 30; Gaz. vol. 212; p. 1685.
Bischof, Sterne & Stein, Cincinnati Ohio Coats and suits. No. 103,370; Mar. 30; Gaz. vol. 212; p. 1686.
Bixler, Miles F., Cleveland, Ohio. Certain named articles of solid gold and gold filled. No. 102,887; Mar. 2; Gaz. vol. 212; p. 323.
Black, William H., New York, N. Y. Hair-tonic. No. 102,914; Mar. 2; Gaz. vol. 212; p. 324.
Blair Milling Company, The, Atchison, Kans. Self-rising pancake-flour. No. 103,339; Mar. 30; Gaz. vol. 212; p. 1685.
Blank & Gottshall, Sunbury, Pa. Corn-flour. No. 103,041; Mar. 16; Gaz. vol. 212; p. 1050.
Bleecker & Simons, New York, N. Y. Coffee. No. 102,958; Mar. 9; Gaz. vol. 212; p. 685.
Bloomingdale Bros., New York, N. Y. Certain named bristle goods. No. 103,089; Mar. 16; Gaz. vol. 212; p. 1052.
Bloomingdale Bros., New York, N. Y. Red and white wines. No. 103,148; Mar. 16; Gaz. vol. 212; p. 1053.
Bloomingdale Bros., New York, N. Y. Petticoats and women's and misses' coats and suits. No. 103,149; Mar. 16; Gaz. vol. 212; p. 1053.
Boch, Louise H., Chicago, Ill. Fancy-designed safety-pocket. No. 103,310; Mar. 30; Gaz. vol. 212; p. 1684.
Bowers Rubber Works, San Francisco, Cal. Non-metallic machinery packing. No. 103,150; Mar. 16; Gaz. vol. 212; p. 1053.
Bowker Fertilizer Co., New York, N. Y. Fertilizers. No. 103,372; Mar. 30; Gaz. vol. 212; p. 1686.
Boyer & Co., Philadelphia, Pa. Liquid and paste leather-polish. No. 102,888; Mar. 2; Gaz. vol. 212; p. 323.
Boyer & Co., Philadelphia, Pa. Liquid and paste polish and oil coloring for leather. No. 102,889; Mar. 2; Gaz. vol. 212; p. 323.
Bradley Pulverizer Co., Portland, Me., and Boston, Mass. Grinding-mills. No. 103,045; Mar. 16; Gaz. vol. 212; p. 1050.
Bragger, Lucy F., Los Angeles, Cal. Flavoring compounds for foods. No. 102,934; Mar. 2; Gaz. vol. 212; p. 324.
Brandries, Anna, New York, N. Y. Liquid cement. No. 103,195; Mar. 23; Gaz. vol. 212; p. 1353.
Brasel, Burney, Drumright, Okla. Remedy for the liver. No. 103,020; Mar. 16; Gaz. vol. 212; p. 1049.
Brooklyn Shield & Rubber Co., New York, N. Y. Dress-shields. No. 103,151; Mar. 16; Gaz. vol. 212; p. 1053.
Brown, Willis S., Jr., Belvidere, Ill., and Indianapolis, Ind., assignor to Eclipse Manufacturing Company, Indianapolis, Ind. Spark-plugs. No. 103,046; Mar. 16; Gaz. vol. 212; p. 1050.
Bryant, Augustus H., Philadelphia, Pa. Oil for repelling mosquitoes, flies, &c. No. 103,275; Mar. 30; Gaz. vol. 212; p. 1683.
Bryant Electric Company, The, Bridgeport, Conn. Electrical fuse-plugs. No. 103,090; Mar. 16; Gaz. vol. 212; p. 1052.
Buegeleisen, Samuel, New York, N. Y. Certain named musical instruments and parts thereof. No. 103,253; Mar. 23; Gaz. vol. 212; p. 1354.
Buffum, Frederick C., Westerly, R. I. Citrus fruits. No. 103,373; Mar. 30; Gaz. vol. 212; p. 1686.
Burd, Roy L., Rockford, Ill. Metallic packing-rings for explosive, &c., engines. No. 103,152; Mar. 16; Gaz. vol. 212; p. 1053.
Burdon, John W., Puerto de Santa Maria, Spain. Sherry-wine. No. 102,915; Mar. 2; Gaz. vol. 212; p. 324.
Busby Glove Co., Oakland, Cal. Gloves. Nos. 103,220–2; Mar. 23; Gaz. vol. 212; p. 1353.
C. Bruno & Son, Inc., New York, N. Y. Certain named musical instruments and supplies. No. 103,311; Mar. 30; Gaz. vol. 212; p. 1684.
C. B. Woodworth Sons Co., The, Rochester, N. Y. Perfumes, toilet waters and creams, talcum powder. No. 103,139; Mar. 16; Gaz. vol. 212; p. 1053.
C. B. Woodworth Sons Co., The, Rochester, N. Y. Tooth powder, wash, and paste. No. 103,140; Mar. 16; Gaz. vol. 212; p. 1053.

C. E. Wheelock & Co., Peoria, Ill. Certain named cut-glass articles. No. 103,404; Mar. 30; Gaz. vol. 212; p. 1687.

C. F. Bonsor & Co., Inc., Philadelphia, Pa. Coffees, teas, rice, spices, &c. No. 103,371; Mar. 30; Gaz. vol. 212; p. 1686.

C. G. Betts Company, Spokane, Wash. Bituminous cement and paving-cement and fillers for cement. No. 103,217; Mar. 23; Gaz. vol. 212; p. 1353.

C-V-Sealer Co., Mercersburg, Pa. Semiliquid seal for punctures in pneumatic tires. No. 103,153; Mar. 16; Gaz. vol. 212; p. 1053.

Cabell Company, The, Baltimore, Md. Prepared wheat-flour. No. 102,997; Mar. 16; Gaz. vol. 212; p. 1049.

Cactola Remedy Co., Emerson, Nebr. Remedies for whooping-cough, croup, coughs, and colds. No. 102,959; Mar. 9; Gaz. vol. 212; p. 685.

Cahn, Belt & Co., Baltimore, Md. Blend whisky. No. 103,047; Mar. 16; Gaz. vol. 212; p. 1050.

California Cotton Mills Co., Oakland, Cal. Certain named cotton and linen fabrics. No. 103,091; Mar. 16; Gaz. vol. 212; p. 1052.

California Paper & Board Mills, San Francisco, Cal. Paper-board and wrapping-paper. No. 103,374; Mar. 30; Gaz. vol. 212; p. 1686.

Calumet Baking Powder Company, Chicago, Ill. Baking-powder. No. 103,276; Mar. 30; Gaz. vol. 212; p. 1683.

Cameron, Donald J., Syracuse, N. Y. Boots and shoes. Nos. 103,277–9; Mar. 30; Gaz. vol. 212; p. 1683.

Campbell Art Company, Elizabeth, N. J. Picture-cards. No. 102,998; Mar. 16; Gaz. vol. 212; p. 1049.

Canastota Canning Company, Canastota, N. Y. Canned vegetables and fruits. No. 103,312; Mar. 30; Gaz. vol. 212; p. 1684.

Capital Electric Company, Chicago, Ill. Clothes-washing machines. No. 103,254; Mar. 23; Gaz. vol. 212; p. 1354.

Carlson-Lusk Hdwe. Co., Ltd., The, Boise, Idaho. Hunting-knives. No. 103,376; Mar. 30; Gaz. vol. 212; p. 1686.

Carolina Mills Co., Winston-Salem, N. C. Hosiery. No. 103,223; Mar. 23; Gaz. vol. 212; p. 1353.

Carsana, Armando, Milan, Italy. Medicinal bitters containing iron and quinin. No. 103,280; Mar. 30; Gaz. vol. 212; p. 1683.

Carson, Pirie, Scott & Co., Chicago, Ill. Bleached muslin. Nos. 103,281–2; Mar. 30; Gaz. vol. 212; p. 1683.

Cash, Laurence E., New York, N. Y. Remedy for certain named ailments. No. 103,375; Mar. 30; Gaz. vol. 212; p. 1686.

Cassada Manufacturing Co., Chester, Pa. Talcum powder. No. 103,193; Mar. 16; Gaz. vol. 212; p. 1055.

Cemetery Beautiful Publishing Company, Chicago, Ill. Monthly magazine. No. 102,916; Mar. 2; Gaz. vol. 212; p. 324.

Central Telephone & Electric Company, St. Louis, Mo. Incandescent electric lights. No. 102,935; Mar. 2; Gaz. vol. 212; p. 324.

Champion Ignition Co., Flint, Mich. Spark-plugs. No. 103,255; Mar. 23; Gaz. vol. 212; p. 1354.

Chandon et Cie., Epernay, France. Champagne-wine. No. 102,960; Mar. 9; Gaz. vol. 212; p. 685.

Charles L. Poor Co., New York, N. Y. Cotton piece goods. No. 103,178; Mar. 16; Gaz. vol. 212; p. 1054.

Chas. L. Kiewert Co., Milwaukee, Wis. Pitch substitute for internally coating beer-kegs, barrels, &c. No. 103,064; Mar. 16; Gaz. vol. 212; p. 1051.

Chas. L. Kiewert Co., Milwaukee, Wis. Varnish substitute for internally coating fermenting tubs, casks, &c. No. 103,065; Mar. 16; Gaz. vol. 212; p. 1051.

Chicago Dryer Company, Chicago, Ill. Ironing and washing machines, ironing-boards, tubs, wringers. No. 103,196; Mar. 23; Gaz. vol. 212; p. 1353.

Chicago Fire Brick Co., Chicago, Ill. Plastic compounds for repairing and laying up brickwork. No. 102,936; Mar. 2; Gaz. vol. 212; p. 324.

Chippewa Milling Company, Montevideo, Minn. Wheat-flour. No. 103,197; Mar. 23; Gaz. vol. 212; p. 1353.

Chr. Bjelland & Co., Inc., New York, N. Y. Canned sardines. Nos. 103,084–6; Mar. 16; Gaz. vol. 212; p. 1051.

Chr. Bjelland & Co., Inc., New York, N. Y. Canned herrings in tomato sauce. No. 103,087; Mar. 16; Gaz. vol. 212; p. 1051.

Chr. Bjelland & Co., Inc., New York, N. Y. Canned sardines. No. 103,088; Mar. 16; Gaz. vol. 212; p. 1051.

Clausen-Flanagan Brewery, New York, N. Y. Beer. No. 103,256; Mar. 23; Gaz. vol. 212; p. 1354.

Clauson Shoe Co., Rutland, Vt. Boots, shoes, slippers, and rubbers. No. 103,224; Mar. 23; Gaz. vol. 212; p. 1353.

Clefton Company, The, Owatonna, Minn. Gas-generators. No. 102,917; Mar. 2; Gaz. vol. 212; p. 324.

Clements Mfg. Co., Chicago, Ill. Carpet-sweepers and vacuum-cleaners. No. 103,198; Mar. 23; Gaz. vol. 212; p. 1353.

Cluett, Peabody & Co., Inc., Troy, N. Y. Handkerchiefs. No. 103,092; Mar. 16; Gaz. vol. 212; p. 1052.

Coast Fish Company, Anacortes, Wash. Canned salmon. No. 103,225; Mar. 23; Gaz. vol. 212; p. 1354.

Cohen, Goldman & Co., New York, N. Y. Certain named clothing. No. 102,961; Mar. 9; Gaz. vol. 212; p. 685.

Cohen, Jacob, Troy, N. Y. Remedy for rheumatism. No. 103,257; Mar. 23; Gaz. vol. 212; p. 1355.

Cohn, Laurence I., New York, N. Y. Jewelry. No. 103,093; Mar. 16; Gaz. vol. 212; p. 1052.

Collis, Henry J., Taunton, Mass. Ankle and athletic supporters, wristbands. No. 103,340; Mar. 30; Gaz. vol. 212; p. 1685.

Columbia Chemical Company, The, Pittsburgh, Pa. Soda-ash. No. 102,962; Mar. 9; Gaz. vol. 212; p. 685.

Columbia Guano Co., Norfolk, Va. Fertilizers. No. 103,199; Mar. 23; Gaz. vol. 212; p. 1353.

Columbia Knitting Mills, Inc., New York, N. Y. Knit sweater-coats, Cardigan jackets, and bathing-suits. No. 103,021; Mar. 16; Gaz. vol. 212; p. 1050.

Columbia Rope Company, Auburn, N. Y. Twine, rope, and cordage. No. 102,999; Mar. 16; Gaz. vol. 212; p. 1049.

Compostone Co., The, Grand Rapids, Mich. Composition-stone stucco, floorings, and linings. No. 103,048; Mar. 16; Gaz. vol. 212; p. 1050.

Conde, Claudio, Habana, Cuba. Mineral waters. No. 103,313; Mar. 30; Gaz. vol. 212; p. 1684.

Conway, Elmer H., New York, N. Y. Non-alcoholic hair-dressing. No. 103,200; Mar. 23; Gaz. vol. 212; p. 1353.

Corliss Limb Specialty Co., Boston, Mass. Surgical appliance for sores and falling arches. No. 103,379; Mar. 30; Gaz. vol. 212; p. 1686.

Crew Levick Company, Philadelphia, Pa. Wool and lubricating oils, gasolene, &c. No. 103,094; Mar. 16; Gaz. vol. 212; p. 1052.

Cronk-Salter Company, New York, N. Y. Water-closet toilet-bowls. No. 103,201; Mar. 23; Gaz. vol. 212; p. 1353.

Crookes Collosols Limited, London, England. Chemical substance having germicidal qualities adapted for certain named purposes. No. 103,283; Mar. 30; Gaz. vol. 212; p. 1683.

D. M. Oberman Mfg. Company, Jefferson City, Mo. Overalls, trousers, shirts, &c. No. 103,324; Mar. 30; Gaz. vol. 212; p. 1684

Daggett & Ramsdell, New York, N. Y. Face-powder. No. 102,963; Mar. 9; Gaz. vol. 212; p. 685.

Dalton Adding Machine Company, St. Louis, Mo., assignor to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and combined adding and listing machines. No. 103,049; Mar. 16; Gaz. vol. 212; p. 1050.

Daniels Safety Device Co., Chicago, Ill. Nuts. No. 103,154; Mar. 16; Gaz. vol. 212; p. 1053.

Darbour, Lucienne C., Cleveland, Ohio. Toilet water. No. 103,258; Mar. 23; Gaz. vol. 212; p. 1355.

Davis Hosiery Mills, Chattanooga, Tenn. Hosiery. Nos. 103,095–6; Mar. 16; Gaz. vol. 212; p. 1052.

Day, Walter L., Westfield, N. J. Lubricant. No. 102,890; Mar. 2; Gaz. vol. 212; p. 323.

De Joigny Shaving Mist Co., San Francisco, Cal. Liquid substitute for shaving-soap. No. 103,227; Mar. 23; Gaz. vol. 212; p. 1354.

De Free Chemical Company, The, Holland, Mich. Liquid furniture-polish. No. 103,259; Mar. 23; Gaz. vol. 212; p. 1355.

Dentists' Supply Company, The, New York, N. Y. Artificial teeth. No. 103,022; Mar. 16; Gaz. vol. 212; p. 1050.

Detroit Fuse & Manufacturing Company, Detroit, Mich. Fuses, switches, cut-outs, clips, &c. No. 103,050; Mar. 16; Gaz. vol. 212; p. 1050.

Deutsche Conservierungsgesellschaft mit beschränkter Haftung, Marienfelde, near Berlin, Germany. Preservative coating material. No. 103,380; Mar. 30; Gaz. vol. 212; p. 1686.

Dieseldorff, Erwin P., Berlin, Germany. Inhalation apparatuses. No. 102,937; Mar. 2; Gaz. vol. 212; p. 324.

Doan, Wm. C., Zanesville, Ohio. Nerve-tonic. No. 103,341; Mar. 30; Gaz. vol. 212; p. 1685.

Doebel, Friedrick W., Philadelphia, Pa. Hair-tonic. No. 103,051; Mar. 16; Gaz. vol. 212; p. 1050.

Doyle-Kidd Dry Goods Co., Little Rock, Ark. Cotton piece goods. No. 103,097; Mar. 16; Gaz. vol. 212; p. 1052.

Dr. Fritz Pollak G. m. b. H., Berlin, Germany. Condensation products of phenol and formaldehyde. No. 103,072; Mar. 16; Gaz. vol. 212; p. 1051.

Dr. Leonhardt Co., Buffalo, N. Y. Medicinal preparations used in the treatment of the upper air-passages. No. 103,241; Mar. 23; Gaz. vol. 212; p. 1354.

Dukes, Isadore M., Knox, Ind. Rheumatic remedies. No. 102,964; Mar. 9; Gaz. vol. 212; p. 685.

Dunlop Milling Co., The, Clarksville, Tenn. Wheat-flour. No. 103,229; Mar. 23; Gaz. vol. 212; p. 1354.

Dwight Divine & Sons, Ellenville, N. Y. Pocket and kitchen knives, pruners, budders, and erasers. No. No. 102,918; Mar. 2; Gaz. vol. 212; p. 324.

E. Myers Lye Company, St. Louis, Mo. Lye. No. 102,979; Mar. 9; Gaz. vol. 212; p. 685.

E. L. Spencer Company, Providence, R. I. Jewelry. No. 102,908; Mar. 2; Gaz. vol. 212; p. 323.

Eastman Kodak Co., Rochester, N. Y. Photographic developers. No. 103,342; Mar. 30; Gaz. vol. 212; p. 1685.

Eclipse Manufacturing Company. (See Brown, Willis S., Jr., assignor.)

Edgar O. Clark Co., New York, N. Y. Toy game. No. 103,377; Mar. 30; Gaz. vol. 212; p. 1686.

Egry Register Company, The, Dayton, Ohio. Type-writing-machine attachment for manifolding writings. No. 102,938; Mar. 2; Gaz. vol. 212; p. 324.

Egry Register Company, The, Dayton, Ohio. Autographic registers and manifolding devices, parts thereof, &c. No. 102,939; Mar. 2; Gaz. vol. 212; p. 324.

Elders, H. Will, Kansas City, Mo. Remedy for the liquor and tobacco habit. No. 103,052; Mar. 16; Gaz. vol. 212; p. 1050.

Electrical Steam Radiator Co., Portland, Me. Electric heaters. No. 103,284; Mar. 30; Gaz. vol. 212; p. 1683.

Elgin American Manufacturing Co., Elgin, Ill. Jewelry for personal adornment and certain named articles made of or plated with precious metal. No. 103,053; Mar. 16; Gaz. vol. 212; p. 1050.

Elite Baking Powder Co., New York, N. Y. Baking-powder. No. 103,023; Mar. 16; Gaz. vol. 212; p. 1050.

Ellenbogen, Mangold H., Paterson, N. J., and New York, N. Y. Cotton piece goods. No. 103,155; Mar. 16; Gaz. vol. 212; p. 1053.

Ellsworth Mill & Elevator Company, Ellsworth, Kans. Wheat-flour. No. 103,260; Mar. 23; Gaz. vol. 212; p. 1355.

Emery, Charles C., Portland, Oreg. Tire-filler. No. 103,156; Mar. 16; Gaz. vol. 212; p. 1054.

Erthol Medicine Co., Fort Worth, Tex. Tonic medicines. No. 103,054; Mar. 16; Gaz. vol. 212; p. 1051.

Essanay Film Manufacturing Co., Chicago, Ill. Moving-picture films. No. 103,055; Mar. 16; Gaz. vol. 212; p. 1051.

Evans, Mary A., New York, N. Y. Tooth powder and paste, mouth lotion or wash. No. 102,965; Mar. 9; Gaz. vol. 212; p. 685.

Everett Mills, Lawrence, Mass. Cotton piece goods. No. 103,157; Mar. 16; Gaz. vol. 212; p. 1054.

Exeter Brass Works, Exeter, N. H. Cage and siphon valves, compression stops and wastes. No. 103,158; Mar. 16; Gaz. vol. 212; p. 1054.

F. A. Hardy & Co., Chicago, Ill. Lenses for scientific use and ophthalmic lenses. No. 103,287; Mar. 30; Gaz. vol. 212; p. 1683.

F. D. Parmer Co., Omaha, Nebr. Japan tea. No. 103,309; Mar. 30; Gaz. vol. 212; p. 1684.

Fair, The, Chicago, Ill. Hats. No. 103,261; Mar. 23; Gaz. vol. 212; p. 1355.

Fair & Carnival Trading Co., Inc., New York, N. Y. Dolls. No. 102,966; Mar. 9; Gaz. vol. 212; p. 685.

Falkenberg, Jay, Akron, Ohio. Chemical compound for purifying gasolene and preventing formation of carbon in explosive-engines. No. 102,892; Mar. 2; Gaz. vol. 212; p. 323.

Fareira, M. Barker, New York, N. Y. Hair-tonic. No. 103,024; Mar. 16; Gaz. vol. 212; p. 1050.

Faribault Woolen Mill Company, Faribault, Minn. Woolen piece goods and blankets. No. 102,910; Mar. 2; Gaz. vol. 212; p. 324.

Farmer Seed & Nursery Co., Faribault, Minn. Yellow dent corn. No. 103,262; Mar. 23; Gaz. vol. 212; p. 1355.

Farr Brick Company, Cleveland, Ohio. Brick. Nos. 103,056–7; Mar. 16; Gaz. vol. 212; p. 1051.

Faucette Pharmacal Co., Argenta, Ark. Remedy for epilepsy. No. 103,381; Mar. 30; Gaz. vol. 212; p. 1686.

Federal Sugar Refining Co., Yonkers, N. Y. Sugar. No. 103,382; Mar. 30; Gaz. vol. 212; p. 1686.

Feldman Bros., New York, N. Y. Shirt-waists. No. 102,920; Mar. 2; Gaz. vol. 212; p. 324.

Feldman, Emil, Scranton, Pa. Butter. No. 103,285; Mar. 30; Gaz. vol. 212; p. 1683.

Fernandez Y. Garcia, Firm of, Habana, Cuba, and New York, N. Y. Cigars. No. 103,098; Mar. 16; Gaz. vol. 212; p. 1052.

Ferri, Pietro, New York, N. Y. Purgatives. No. 102,967; Mar. 9; Gaz. vol. 212; p. 685.

Fibre Company, Chicago, Ill. Plastic composition for flooring material. No. 103,344; Mar. 30; Gaz. vol. 212; p. 1685.

Fiabel & Gorman, Inc., New York, N. Y. Embroidery outfits consisting of certain named articles. No. 103,345; Mar. 30; Gaz. vol. 212; p. 1685.

Fisher, Harry C., New York, N. Y. Series of cartoons. No. 102,968; Mar. 9; Gaz. vol. 212; p. 685.

Fisk Rubber Company, The, Chicopee Falls, Mass. Rubber vehicle-tires. No. 103,263; Mar. 23; Gaz. vol. 212; p. 1355.

Flavell Bros., Philadelphia, Pa. Knitted underwear. No. 103,346; Mar. 30; Gaz. vol. 212; p. 1685.

Florio & C. Società Anonima Vinicola Italiana, Milan, Italy. Marsala wine. No. 103,159; Mar. 16; Gaz. vol. 212; p. 1054.

Fort Collins Milling & Elevator Co., The, Fort Collins, Colo. Wheat-flour. No. 103,025; Mar. 16; Gaz. vol. 212; p. 1050.

French Feather Novelty & Hat Co. Inc., New York, N. Y. Hats. No. 102,921; Mar. 2; Gaz. vol. 212; p. 324.

Fulton Rubber Type Co., Elizabeth, N. J. Rubber-stamp inks and inking-pads. No. 103,383; Mar. 30; Gaz. vol. 212; p. 1686.

General Baking Company, New York, N. Y. Bread. No. 103,230; Mar. 23; Gaz. vol. 212; p. 1354.

General Devices & Fittings Co., Chicago, Ill. Certain named electrical apparatus and supplies. No. 103,058; Mar. 16; Gaz. vol. 212; p. 1051.

Genna, Vincenzo, De Ridder, La. Toothache remedy. No. 103,286; Mar. 30; Gaz. vol. 212; p. 1683.

Geo. Borgfeldt & Co., New York, N. Y. Hollow aluminum and enameled metal ware. Nos. 103,218–19; Mar. 23; Gaz. vol. 212; p. 1353.

George B. Graff Company, Boston, Mass. Metallic pens, file-signals, index-tabs, &c. No. 103,233; Mar. 23; Gaz. vol. 212; p. 1354.

George J. Hales Co., Rocky Mount, N. C. Canned vegetables, wheat-flour, and pepper. No. 103,100; Mar. 16; Gaz. vol. 212; p. 1052.

Geuder, Paeschke & Frey Co., Milwaukee, Wis. Certain named hardware supplies. No. 103,059; Mar. 16; Gaz. vol. 212; p. 1051.

Gibson Automobile Company, Indianapolis, Ind. Shock-absorbers and brake-band lining. No. 103,060; Mar. 16; Gaz. vol. 212; p. 1051.

Glister, Eva, Chester, Ill. Self-rising wheat-flour. No. 102,941; Mar. 2; Gaz. vol. 212; p. 324.

Glickman, Harris, New York, N. Y. Soft drinks and syrup and flavoring extract for same. No. 103,231; Mar. 23; Gaz. vol. 212; p. 1354.

Gloversville Leather Manufacturing Corporation, Gloversville, N. Y. Glove shoe, &c., leather. No. 103,232; Mar. 23; Gaz. vol. 212; p. 1354.

Goldberg, Bowen & Co., San Francisco, Cal. Whisky, gin, and brandy. No. 103,316; Mar. 30; Gaz. vol. 212; p. 1684.

Gottschalk Co., The, Baltimore, Md. Whisky. No. 102,893; Mar. 2; Gaz. vol. 212; p. 323.

Graf, Oscar L., New York, N. Y. Nail-polish. No. 103,161; Mar. 16; Gaz. vol. 212; p. 1054.

Grand Rapids Bedding Company, Grand Rapids, Mich. Coiled-wire spring-mattresses. Nos. 103,234–6; Mar. 23; Gaz. vol. 212; p. 1354.

Greeley Mercantile Co., Greeley, Colo. Fresh vegetables. No. 103,264; Mar. 23; Gaz. vol. 212; p. 1355.

Greene, Henry C., Newbury, Mass. Fresh fruits and vegetables and fruits preserved in glass containers. No. 103,162; Mar. 16; Gaz. vol. 212; p. 1054.

H. A. James & Co., Inc., New York, N. Y. Embroidery-yarns. No. 103,350; Mar. 30; Gaz. vol. 212; p. 1685.

H. B. Glover Company, Dubuque, Iowa. Sleeping-robes. No. 103,315; Mar. 30; Gaz. vol. 212; p. 1684.

H. S. Crocker Company, San Francisco, Cal. Writing and drawing pencils. No. 103,226; Mar. 23; Gaz. vol. 212; p. 1354.

Habicht, Braun & Co., New York, N. Y. Nuts, nut-meats, honey, &c. No. 103,237; Mar. 23; Gaz. vol. 212; p. 1354.

Habicht, Braun & Co., New York, N. Y. Certain named foods. No. 103,317; Mar. 30; Gaz. vol. 212; p. 1684.

Hagen, P. O., Brooklyn, N. Y. Washing-machine. No. 103,238; Mar. 23; Gaz. vol. 212; p. 1354.

Hall Concrete-Products Company, Inc., Grassland, Pa. Certain named articles made of artificial stone. No. 103,348; Mar. 30; Gaz. vol. 212; p. 1685.

Hammer, Carlos, New York, N. Y. Concentrated coffee extract. No. 103,164; Mar. 16; Gaz. vol. 212; p. 1054.

Harmony Creamery Company, Pittsburgh, Pa. Eggs. No. 103,265; Mar. 23; Gaz. vol. 212; p. 1355.

Harris & Ewing, Washington, D. C. Photographic portraits. No. 103,385; Mar. 30; Gaz. vol. 212; p. 1686.

Hart Schaffner & Marx, Chicago, Ill. Men's outer suits. No. 102,905; Mar. 2; Gaz. vol. 212; p. 323.

Heide, Henry, New York, N. Y. Candies, bakers' pastes and cake-fillers, &c. No. 103,102; Mar. 16; Gaz. vol. 212; p. 1052.

Henry Matier & Co., Limited, Belfast, Ireland, and New York, N. Y. Linen piece goods, house-linens, damask, &c. No. 103,108; Mar. 16; Gaz. vol. 212; p. 1052.

Henry Matier & Co., Limited, Belfast, Ireland, and New York, N. Y. Handkerchiefs and certain named embroidered linens. No. 103,171; Mar. 16; Gaz. vol. 212; p. 1054.

Henry Myer Thread Manufacturing Co., Chicago, Ill. Thread and yarn. No. 103,068; Mar. 16; Gaz. vol. 212; p. 1051.

Hick, Ernest, Pittsfield, Mass. Bread, biscuit, and pastry. No. 103,061; Mar. 16; Gaz. vol. 212; p. 1051.

Hiram Walker & Sons, Limited, Walkerville, Canada, and Detroit, Mich. Whisky. No. 102,913; Mar. 2; Gaz. vol. 212; p. 323.

Hixon, Curtis, Tampa, Fla. Ointment. No. 102,894; Mar. 2; Gaz. vol. 212; p. 323.

Hoffmann-La Roche Chemical Works, The. New York, N. Y. Medicinal preparation for producing anesthesia. No. 103,288; Mar. 30; Gaz. vol. 212; p. 1683.

Hoffmann-La Roche Chemical Works, New York, N. Y. Stable scopolamin solution. No. 103,289; Mar. 30; Gaz. vol. 212; p. 1683.

Holliston Mills, The, Norwood, Mass. Sized and stiffened cloth. No. 103,318; Mar. 30; Gaz. vol. 212; p. 1684.

Homelike Canning & Packing Co., San Francisco, Cal. Canned fish. No. 103,000; Mar. 16; Gaz. vol. 212; p. 1049.

Horowitz, Arthur, Berlin, Germany. Remedy for corpulence. No. 103,026; Mar. 16; Gaz. vol. 212; p. 1050.

Houston Ice & Brewing Co., Houston, Tex. Bottled beer. No. 102,895; Mar. 2; Gaz. vol. 212; p. 323.

Howard Manufacturing Company, Boston, Mass. Yarns and thread. No. 102,970; Mar. 9; Gaz. vol. 212; p. 685.

Hub Hosiery Mills, Boston, Mass. Infants' hose. No. 103,386; Mar. 30; Gaz. vol. 212; p. 1686.

Hultzen, C. H., Norwich, N. Y. Clothes-cleaner, silver cleaner and plater, and rust-remover. No. 102,923; Mar. 2; Gaz. vol. 212; p. 324.

Hydrex Felt & Engineering Company, The, Portland, Me.; New York, N. Y., and Rahway, N. J. Printed books, pamphlets, and periodicals. No. 102,896; Mar. 2; Gaz. vol. 212; p. 323.

Hynard and Jung Company Inc., New York, N. Y. Ladies' waists and suits. No. 103,319; Mar. 30; Gaz. vol. 212; p. 1684.

Iceless Refrigeration Company, The, Cleveland, Ohio. Refrigerating apparatus. No. 103,239; Mar. 23; Gaz. vol. 212; p. 1354.

Icy-Hot-Bottle Company, The, Cincinnati, Ohio. Hot-water bottles of metal, &c. No. 102,971; Mar. 9; Gaz. vol. 212; p. 685.

Inderrieden Canning Co., Chicago, Ill. Canned vegetables. No. 103,240; Mar. 23; Gaz. vol. 212; p. 1354.

India Rubber Publishing Co., The, New York, N. Y. Monthly trade publication. No. 103,166; Mar. 16; Gaz. vol. 212; p. 1054.

International Harvester Company of New Jersey, Chicago, Ill. Certain named machinery and parts thereof. No. 103,349; Mar. 30; Gaz. vol. 212; p. 1685.

International Harvester Corporation, Chicago, Ill. Wagons and parts thereof. No. 103,387; Mar. 30; Gaz. vol. 212; p. 1686.

International Mfg. Co., Phillips, Me. Wooden toothpicks. No. 103,388; Mar. 30; Gaz. vol. 212; p. 1686.

International Signal Company, Chicago, Ill. Electric signal-lamps. No. 103,266; Mar. 23; Gaz. vol. 212; p 1355.

Iten Biscuit Co., Omaha, Nebr. Crackers and cakes. No. 103,062; Mar. 16; Gaz. vol. 212; p. 1051.

J. & E. Atkinson Limited, London, England. Certain toilet preparations and court-plaster. No. 102,956; Mar. 9; Gaz. vol. 212; p. 685.

J. & G. Cox, Ltd., Edinburgh, Scotland. Prepared wheat-flour. No. 103,314; Mar. 30; Gaz. vol. 212; p. 1684.

J. H. Williams & Co., New York, N. Y. Metal forgings and castings and steel. No. 103,018; Mar. 16; Gaz. vol. 212; p. 1049.

J. K. Armsby Co., The, San Francisco, Cal. Canned fruits and vegetables. Nos. 103,080–3; Mar. 16; Gaz. vol. 212; p. 1051.

Jake Teunenbaum Co., The, Cincinnati, Ohio. Certain named furniture. No. 102,987; Mar. 9; Gaz. vol. 212; p. 686.

James A. McClurg & Sons, Inc., New York, N. Y. Candy. No. 103,028; Mar. 16; Gaz. vol. 212; p. 1050.

James T. Downey Company, Chicago, Ill. Oleomargarin. No. 103,228; Mar. 23; Gaz. vol. 212; p. 1354.

Jas. H. Forbes Tea & Coffee Co., St. Louis, Mo. Coffee. No. 102,969; Mar. 9; Gaz. vol. 212; p. 685.

Jesse L. Lasky Feature Play Co. Inc., New York, N. Y. Motion-pictures. No. 103,389; Mar. 30; Gaz. vol. 212; p. 1686.

Jewel Vacuum Cleaner Co., Chicago, Ill. Vacuum-cleaners. No. 103,290; Mar. 30; Gaz. vol. 212; p. 1683.

John F. Jelke Co., Chicago, Ill. Oleomargarin and butterin. Nos. 103,320–1; Mar. 30; Gaz. vol. 212; p. 1684.

John Hamm Baking Company, St. Louis, Mo. Cake. No. 103,384; Mar. 30; Gaz. vol. 212; p. 1686.

John Knight, Limited, Silvertown, London, England. Compound for cleaning or detergent purposes. No. 102,898; Mar. 2; Gaz. vol. 212; p. 323.

John Vittucci Co., Seattle, Wash. Olive-oil. No. 103,333; Mar. 30; Gaz. vol. 212; p. 1684.

Johnson, Edward E., St. Paul, Minn. Pump-rod couplings. No. 103,202; Mar. 23; Gaz. vol. 212; p. 1353.

Johnstown Chemical Company, Johnstown, Pa. Certain specified chemical and pharmaceutical preparations. No. 102,972; Mar. 9; Gaz. vol. 212; p. 685.

Kaldy, Elizabeth, Belleville, N. J. Hair cream and tonic. No. 103,322; Mar. 30; Gaz. vol. 212; p. 1684.

Kats & Besthoff, Ltd., New Orleans, La. Talcum powder. No. 103,001; Mar. 16; Gaz. vol. 212; p. 1049.

Katz, Philip, New York, N. Y. Serges. No. 103,167; Mar. 16; Gaz. vol. 212; p. 1054.

Keller & Rhodes, Philadelphia, Pa. Leather boots and shoes. No. 103,063; Mar. 16; Gaz. vol. 212; p. 1051.

Kellogg Toasted Corn Flake Company, Battle Creek, Mich. Certain named paper. No. 102,924; Mar. 2; Gaz. vol. 212; p. 324.

Kendall, Henry E., Shelby, N. C. Remedy for certain named ailments. No. 103,351; Mar. 30; Gaz. vol. 212; p. 1685.

Kern & Sons, John B. A., Milwaukee, Wis. Wheat-flour. No. 103,291; Mar. 30; Gaz. vol. 212; p. 1683.

Kernchen, John C., Chicago, Ill. Ventilators. No. 103,292; Mar. 30; Gaz. vol. 212; p. 1683.

King & Co., Wm., Philadelphia, Pa. Canned tomatoes, peas, and corn. No. 103,168; Mar. 16; Gaz. vol. 212; p. 1054.

King Philip Mills, Fall River, Mass. Cotton piece goods. No. 103,103; Mar. 16; Gaz. vol. 212; p. 1052.

Klauber Wangenheim Co., San Diego, Cal. Toilet, printing, &c., paper, envelops, lead-pencils, &c. No. 102,897; Mar. 2; Gaz. vol. 212; p. 323.

Klauber Wangenheim Co., San Diego, Cal. Brooms, clothes and scrubbing brushes, and feather dusters. No. 103,002; Mar. 16; Gaz. vol. 212; p. 1049.

Knickerbocker Mills Company, New York, N. Y. Coffee. No. 102,925; Mar. 2; Gaz. vol. 212; p. 324.

Kolb, Charles F., Jr., Philadelphia, Pa. Children's shoes. No. 102,973; Mar. 9; Gaz. vol. 212; p. 685.

Kopitzke, Fredrick, New York, N. Y. Insecticides, roach-powders, rat and mice poisons, &c. No. 103,293; Mar. 30; Gaz. vol. 212; p. 1683.

Kubicek, Charles E., West Allis, Wis. Chemical compound for cleaning the cylinders of internal-combustion engines. No. 103,003; Mar. 16; Gaz. vol. 212; p. 1049.

Kuczor, Michael P., New York, N. Y. Paprika. No. 103,004; Mar. 16; Gaz. vol. 212; p. 1049.

Kunkel, Louis B., St. Louis, Mo. Shoe dressing and polish. No. 102,842; Mar. 2; Gaz. vol. 212; p. 324.

L. Cohen Grocer Company, St. Louis, Mo. Canned fruits, vegetables, and fish. No. 103,378; Mar. 30; Gaz. vol. 212; p. 1686.

Lample, Fanny, Yonkers, N. Y. Preparation for treatment of certain named ailments. No. 103,352; Mar. 30; Gaz. vol. 212; p. 1685.

Landers, Frary & Clark, New Britain, Conn. Certain named electrically-heated vessels. No. 103,203; Mar. 23; Gaz. vol. 212; p. 1353.

Lang, Anton, Malden, Mass. Compound for the treatment of rheumatism. No. 103,169. Mar. 16; Gaz. vol. 212; p. 1054.

Latta, David S., Tatesville, Pa. Compound for destroying scale on trees. No. 102,943; Mar. 2; Gaz. vol. 212; p. 324.

Laxago Bitters Co., Detroit, Mich. Coughs, colds, and catarrh. No. 102,974; Mar. 9; Gaz. vol. 212; p. 685.

Layman, Waldo A., Johnstown, Pa. Shoe-polish. No. 102,975; Mar. 9; Gaz. vol. 212; p. 685.

Layton Pure Food Company, East St. Louis, Ill. Baking powder and soda. No. 102,976; Mar. 9; Gaz. vol. 212; p. 685.

Leavitt, Abraham, Montreal, Canada. Hair-invigorator and dandruff-killer. No. 103,066; Mar. 16; Gaz. vol. 212; p. 1051.

Lees Mfg. Co., Westport, Conn. Twines and cords, braided or twisted. No. 103,104; Mar. 16; Gaz. vol. 212; p. 1052.

Lees Mfg. Co., Westport, Conn. Threads and yarns. No. 103,105; Mar. 16; Gaz. vol. 212; p. 1052.

Leonard Watch Company, Boston, Mass. Watches and clocks. No. 103,353; Mar. 30; Gaz. vol. 212; p. 1685.

Lewis Manufacturing Company, Walpole, Mass. Absorbent cotton and gauze, bandages, &c. No. 103,242; Mar. 23; Gaz. vol. 212; p. 1354.

Lipphardt, Louis, Martins Ferry, Ohio. Enameled gas heating-stoves. No. 103,294; Mar. 30; Gaz. vol. 212; p. 1683.

Lyon & Healy, Chicago, Ill. Strings for musical instruments. No. 103,243; Mar. 23; Gaz. vol. 212; p. 1354.

MacGilvray, Elwy, Tacoma, Wash. Face-powder, massage and cold creams, rouge, and hair-restorer. No. 103,267; Mar. 23; Gaz. vol. 212; p. 1355.

Maclin-Zimmer-McGill Tobacco Co. Incorporated, Petersburg, Va. Tobaccos. No. 103,295; Mar. 30; Gaz. vol. 212; p. 1683.

Macpherson, John, New York, N. Y. Washing-powder. No. 103,244; Mar. 23; Gaz. vol. 212; p. 1354.

Maison Blanche Co., New Orleans, La. Shoes, millinery, (hats,) wearing-apparel, &c. No. 103,170; Mar. 16; Gaz. vol. 212; p. 1054.

Mangels, William F., Brooklyn, N. Y. Amusement apparatus. No. 103,106. Mar. 16; Gaz. vol. 212; p. 1052.

Mansfield, John, Houston, Tex. Paints, dressings, and finishes for vehicle-tops. No. 102,977; Mar. 9; Gaz. vol. 212; p. 685.

Margerison & Co., W. H. & A. E., Philadelphia, Pa. Turkish-towels, terry cloths and pile fabrics, bath-rugs, and washcloths. No. 103,027; Mar. 16; Gaz. vol. 212; p. 1050.

Marglous Manufacturing Company, St. Louis, Mo. Overalls, trousers, coats, jumpers, and shirts. No. 102,944; Mar. 2; Gaz. vol. 212; p. 324.

Marlowe Manufacturing Company, New York, N. Y. Hair-nets. No. 103,356; Mar. 30; Gaz. vol. 212; p. 1685.

Marsh, Ellen D., New York, N. Y. Liquid preparation. No. 102,978; Mar. 9; Gaz. vol. 212; p. 685.

Martin, Charles C., Denver, Colo. Cheese. No. 103,390; Mar. 30; Gaz. vol. 212; p. 1686.

Max Mayer & Sons Co., New York, N. Y. Bathing-suits and woven swimming-tights. No. 103,172; Mar. 16; Gaz. vol. 212; p. 1054.

McEwen, Irving, Omaha, Nebr. Concentrated "pure fruit" flavor and certain named beverages. No. 103,067; Mar. 16; Gaz. vol. 212; p. 1051.

McLean, Ross B., Newark, N. J. Candy. No. 103,107; Mar. 16; Gaz. vol. 212; p. 1052.

Melies Manufacturing Co., New York, N. Y. Motion-picture films. No. 103,173; Mar. 16; Gaz. vol. 212; p. 1054.

Melster, Herman R., Jacksonville, Fla. Certain beverages and syrups and flavoring extracts used therein. No. 103,391; Mar. 30; Gaz. vol. 212; p. 1686.

Meyer & Co., John H., New York, N. Y. Cotton, linen, woolen, and silk piece goods. No. 103,174; Mar. 16; Gaz. vol. 212; p. 1054.

Meyer, John C., Lowell, Mass. Thread. Nos. 103,029–30; Mar. 16; Gaz. vol. 212; p. 1050.

Michels, Peter J., New York, N. Y. Razors, shears, scissors, and files. No. 103,109; Mar. 16; Gaz. vol. 212; p. 1052.

Mission Chemical Company., Los Angeles, Cal. Laxatives. No. 103,175; Mar. 16; Gaz. vol. 212; p. 1054.

Mission Chemical Company, Los Angeles, Cal. Laxatives. No. 103,245; Mar. 23; Gaz. vol. 212; p. 1354.

Miwa, Zenbei, Tokyo, Japan. Perfumes, incense, hair dye and lotion, &c. No. 103,005; Mar. 16; Gaz. vol. 212; p. 1049.

Montgomery, Lucinda J., Micanopy, Fla. Preparations for treating certain named afflictions. No. 103,268; Mar. 23; Gaz. vol. 212; p. 1355.

Montgomery Ward & Co. Inc., New York and Brooklyn, N. Y.; Chicago, Ill.; Fort Worth, Tex.; Kansas City, Mo., and Portland, Oreg. Certain named articles made of or plated with precious metals. No. 103,246; Mar. 23; Gaz. vol. 212; p. 1354.

Morey Mercantile Company, Denver, Colo. Writing-tablets, wrapping and toilet paper, paper bags. No. 103,392; Mar. 30; Gaz. vol. 212; p. 1686.

Moritz Löw Fabrik Ätherischer oele, Essenzen und Farben, Hussowitz, near Brünn, Austria-Hungary. Certain juices, syrups, oils, and essences for use with beverages. No. 103,354; Mar. 30; Gaz. vol. 212; p. 1685.

Morris, Mann & Reilly, New York, N. Y. Certain named articles made of or plated with precious metal. No. 102,927; Mar. 2; Gaz. vol. 212; p. 324.

Morrison, William, Troy, N. Y. Hair, military, clothes, and hat brushes. No. 103,031; Mar. 16; Gaz. vol. 212; p. 1050.

Morton Salt Company, Chicago, Ill. Salt. No. 103,357; Mar. 30; Gaz. vol. 212; p. 1685.

Muller, Franklyn R., Waukegan, Ill. Sanitary cement flooring and magnesite stucco. No. 103,110; Mar. 16; Gaz. vol. 212; p. 1052.

Murphy, Charles A. J., Philadelphia, Pa. Soothing and healing remedy for certain named ailments. No. 103,393; Mar. 30; Gaz. vol. 212; p. 1686.

N. Y. International Chemical Co. Inc., New York, N. Y. Hair-tonics and toilet creams. No. 103,394; Mar. 30; Gaz. vol. 212; p. 1686.

National Belting Company, The, Elyria, Ohio. Rubber and fabric beltings. No. 103,395; Mar. 30; Gaz. vol. 212; p. 1686.

National Carbon Company, Cleveland, Ohio. Electric batteries. No. 103,069; Mar. 16; Gaz. vol. 212; p. 1051.

National Carbon Company, Cleveland, Ohio. Electric batteries. No. 103,269; Mar. 23; Gaz. vol. 212; p. 1355.

National Chemical Company of California, Los Angeles, Cal. Liquid toilet soap. No. 102,980; Mar. 9; Gaz. vol. 212; p. 685.

National Oil Products Co., Harrison, N. J. Chemicals for rendering mineral oils emulsifiable. No. 103,323; Mar. 30; Gaz. vol. 212; p. 1684.

National Refining Company, The, Cleveland, Ohio. Certain compound for covering and repairing roofs. No. 103,247; Mar. 23; Gaz. vol. 212; p. 1354.

National Tire & Rubber Company, The, East Palestine, Ohio. Automobile tire casings and tubes. No. 103,296; Mar. 30; Gaz. vol. 212; p. 1683.

National Water-Proofing Company, Philadelphia, Pa. Waterproof-paper case-linings. No. 103,070; Mar. 16; Gaz. vol. 212; p. 1051.

Nelson, Frank J., Hallock, Minn. Chemical preparation noxious to insects and vermin. No. 103,111; Mar. 16; Gaz. vol. 212; p. 1052.

New Orleans Fruit Importing Co., New Orleans, La. Olive-oil. No. 103,112; Mar. 16; Gaz. vol. 212; p. 1052.

Norfolk Packing Co., Norfolk, Nebr. Canned vegetables. No. 102,928; Mar. 2; Gaz. vol. 212; p. 324.

Nutto Product Co., The, Inc., New York, N. Y. Nut pastes. Nos. 103,113–15; Mar. 16; Gaz. vol. 212; p. 1052.

O'Connell, John J., Lynn, Mass. Leather slippers. No. 102,929; Mar. 2; Gaz. vol. 212; p. 324.

O'Dell, John C., Rome, Ga. Non-alcoholic carbonated flavored beverage and syrup for making same. No. 103,326; Mar. 30; Gaz. vol. 212; p. 1684.

Obermeyer & Liebmann, Brooklyn and New York, N. Y. Beer. No. 103,358; Mar. 30; Gaz. vol. 212; p. 1685.

Ocean Shore Canning Co., San Francisco, Cal. Canned vegetables. No. 103,325; Mar. 30; Gaz. vol. 212; p. 1684.

Orange Blossom, Inc., San Francisco, Cal. Candy. No. 103,032; Mar. 16; Gaz. vol. 212; p. 1050.

Oriental and Occidental Medical Company, Seattle and Ellensburg, Wash. Medicines for treating certain named diseases. No. 102,981; Mar. 9; Gaz. vol. 212; p. 685.

Oshinsky & Valentine, New York, N. Y. Shirts, night-shirts, and pajamas. No. 103,176; Mar. 16; Gaz. vol. 212; p. 1054.

Pacific Preserve Co., San Francisco, Cal. Pickles. No. 103,327; Mar. 30; Gaz. vol. 212; p. 1684.

Pacific Tank & Pipe Co., San Francisco, Cal. Silos and tanks. No. 103,297; Mar. 30; Gaz. vol. 212; p. 1683.

Package Confectionery Company, Boston, Mass. Candy. No. 102,945; Mar. 2; Gaz. vol. 212; p. 324.

Package Confectionery Company, Boston, Mass. Candy. No. 103,071; Mar. 16; Gaz. vol. 212; p. 1051.

Paramount Pictures Corporation, New York, N. Y. Motion-pictures. No. 103,248; Mar. 23; Gaz. vol. 212; p. 1354.

Park & Tilford, New York, N. Y. Chocolates and bonbons. No. 103,006; Mar. 16; Gaz. vol. 212; p. 1049.

Park & Tilford, New York, N. Y. Candies and chocolates. No. 103,359; Mar. 30; Gaz. vol. 212; p. 1685.

Parsons & Scoville Co., Evansville, Ind. Certain named foods. No. 103,328; Mar. 30; Gaz. vol. 212; p. 1684.

Partridge, Carl H. M., Millers Falls, Mass. Liniments, ointments, laxative tablets, cough-syrups. No. 103,117; Mar. 16; Gaz. vol. 212; p. 1052.

Patterson-Sargent Company, The, Cleveland, Ohio. Enamels. No. 103,204; Mar. 23; Gaz. vol. 212; p. 1353.

Patton Paint Company, Milwaukee, Wis. Ready-mixed liquid paint. No. 103,007; Mar. 16; Gaz. vol. 212; p. 1049.

Paul G. Mehlin & Sons, New York, N. Y. Pianos. No. 102,899; Mar. 2; Gaz. vol. 212; p. 323.

Pawcatuck Woolen Mills, Westerly, R. I. Woolen piece goods. No. 103,118; Mar. 16; Gaz. vol. 212; p. 1052.

Pay, Robert P., Chicago, Ill. Toy vehicles. No. 103,396; Mar. 30; Gaz. vol. 212; p. 1686.

Pearl City Fruit Co., Ltd., Honolulu, Hawaii. Canned pineapple. Nos. 103,008–9; Mar. 16; Gaz. vol. 212; p. 1049.

Pechter, Firm of M., New York, N. Y. Rye-bread. No. 103,329; Mar. 30; Gaz. vol. 212; p. 1684.

Penn Oil & Supply Co., Oil City, Pa. Lubricating-oil. No. 103,119; Mar. 16; Gaz. vol. 212; p. 1052.

Perkins-Campbell Co., The, Cincinnati, Ohio. Liquid cleaner. No. 102,900; Mar. 2; Gaz. vol. 212; p. 323.

Perrotts Limited, Leeds, England. Cloths and stuffs. No. 102,901; Mar. 2; Gaz. vol. 212; p. 323.

Perrotts Limited, Leeds, England. Waterproofing compound used in all kinds of textiles. No. 102,946; Mar. 2; Gaz. vol. 212; p. 324.

Peters & Company Proprietary Limited, Melbourne, Australia. Medicinal preparation for the cure of certain named diseases. No. 102,902; Mar. 2; Gaz. vol. 212; p. 323.

Piesse & Lubin, London, England. Toilet soaps. No. 103,360; Mar. 30; Gaz. vol. 212; p. 1685.

Pillsbury Flour Mills Company, Minneapolis, Minn. Wheat-flour and wheat-flour middlings. No. 103,397; Mar. 30; Gaz. vol. 212; p. 1686.

Plummer, Ed B., Little Rock, Ark. Stock food. No. 103,205; Mar. 23; Gaz. vol. 212; p. 1353.

Poldihütte Tiegelgusstahlfabrik, Vienna and Kladno, Austria-Hungary. Steel blocks and bars, artisans' and cutting tools, &c. No. 103,206; Mar. 23; Gaz. vol. 212; p. 1353.

Polk, John L., Albany, N. Y. Lotions for chapped hands, lips, and face and to soften and heal the skin. No. 103,177; Mar. 16; Gaz. vol. 212; p. 1054.

Potter, Ellis G., New York, N. Y. Laxative. No. 103,179; Mar. 16; Gaz. vol. 212; p. 1054.

Potterf, Orlystis M., Larned, Kans. Certain named clothing. No. 103,361; Mar. 30; Gaz. vol. 212; p. 1685.

Pryor, Arthur Q., Rochester, N. Y. Chewing-gum. No. 103,033; Mar. 16; Gaz. vol. 212; p. 1050.

Publ-Webb Co., Chicago, Ill. Coffee. No. 103,010; Mar. 16; Gaz. vol. 212; p. 1049.

Putnam Knitting Company, Cohoes, N. Y. Knitted washcloths and towels. No. 103,207; Mar. 23; Gaz. vol. 212; p. 1353.

Puziello, Lucarro & Co., New York, N. Y. Cordials. No. 103,120; Mar. 16; Gaz. vol. 212; p. 1052.

R. H. Hoskins Co., New York and Brooklyn, N. Y. Boots and shoes. No. 103,101; Mar. 16; Gaz. vol. 212; p. 1052.

Rea-Patterson Milling Co., The, Coffeyville, Kans. Wheat-flour. No. 103,034; Mar. 16; Gaz. vol. 212; p. 1050.

Rees, Alice A., Spring City, Pa. Game-boards and accessories. No. 102,903; Mar. 2; Gaz. vol. 212; p. 324.

Reiche, Max O., Milwaukee, Wis. Soil and seed inoculator. No. 102,904; Mar. 2; Gaz. vol. 212; p. 323.

Reilinger Bros. & Co., South Bend, Ind. Certain named toilet preparation. No. 102,947; Mar. 2; Gaz. vol. 212; p. 324.

Remmers Soap Company, The, Cincinnati, Ohio. Cold-cream, face, sachet, and talcum powders, and toilet water. No. 103,035; Mar. 16; Gaz. vol. 212; p. 1050.

Repasé, George G., Coatesville, Pa. Liniments for rheumatism, &c. No. 102,930; Mar. 2; Gaz. vol. 212; p. 324.

Rich, Ralph E., Los Angeles, Cal. Bearing metal in ingots or castings. No. 103,362; Mar. 30; Gaz. vol. 212; p. 1685.

Riker & Hegeman Co., New York, N. Y. Preparations for biliousness, constipation, and headaches. No. 102,982; Mar. 9; Gaz. vol. 212; p. 685.

Riker & Hegeman Co., New York, N. Y. Nutritive tonics. No. 102,983; Mar. 9; Gaz. vol. 212; p. 685.

Riker & Hegeman Co., New York, N. Y. Preparations for the feet. No. 102,984; Mar. 9; Gaz. vol. 212; p. 686.

Riker & Hegeman Co., New York, N. Y. Medicinal preparation. No. 102,985; Mar. 9; Gaz. vol. 212; p. 686.

Rite Specialty Co., New York, N. Y. Raspberry confection, a laxative. No. 103,180; Mar. 16; Gaz. vol. 212; p. 1054.

Rochester Candy Works, Rochester, N. Y. Marshmallows. No. 103,398; Mar. 30; Gaz. vol. 212; p. 1686.

Rogers Peet Company, New York, N. Y. Certain named games, sporting goods, and gymnasium supplies. No. 103,121; Mar. 16; Gaz. vol. 212; p. 1052.

Rothweiler & Co., Seattle, Wash. Automobile-pumps. No. 102,931; Mar. 2; Gaz. vol. 212; p. 324.

Rowland Manufacturing Co., J. B., Yonkers, N. Y. Dollform. No. 103,122; Mar. 16; Gaz. vol. 212; p. 1053.

Salomon Bros., New York, N. Y. Cigars. No. 103,363; Mar. 30; Gaz. vol. 212; p. 1685.

Sandlerbräu, Ges. m. b. Hftg., Kulmbach, Germany. Beer. No. 103,036; Mar. 16; Gaz. vol. 212; p. 1050.

Sanitary Food Manufacturing Company, St. Paul, Minn. Wafers or crackers. No. 103,073; Mar. 16; Gaz. vol. 212; p. 1051.
Sansby Brothers, St. Paul, Minn. Medicinal compound for diseases of women. No. 103,399; Mar. 30; Gaz. vol. 212; p. 1686.
Sargent Brush Co., Manchester, N. H. Brushes and mops. No. 102,986; Mar. 9; Gaz. vol. 212; p. 686.
Savage Tire Co., The, San Diego, Cal. Inner tubes or air-tubes for vehicle-tires. No. 103,074; Mar. 16; Gaz. vol. 212; p. 1051.
Schmincke & Co., H., Dusseldorf-Grafenberg, Germany. Artists' colors. No. 103,249; Mar. 23; Gaz. vol. 212; p. 1354.
Schmincke & Co., H., Dusseldorf-Grafenberg, Germany. Oil and water colors, painters' oils, and varnishes. No. 103,250; Mar. 23; Gaz. vol. 212; p. 1354.
Schroeder Lamp Works, Edward, Jersey City, N. J. Gas lamps, illuminating-fixtures, and valves, and buoy-lanterns. No. 103,270; Mar. 23; Gaz. vol. 212; p. 1355.
Schultz & Hirsch Co., Chicago, Ill. Mattresses, box-springs, feather pillows and cushions. No. 102,906; Mar. 2; Gaz. vol. 212; p. 323.
Schulze, Frederick, Richmond Hill, N. Y. Wash-blue. No. 103,181; Mar. 16; Gaz. vol. 212; p. 1054.
Schwartz & Co., Sidney M., New York, N. Y. Women's collars. No. 103,037; Mar. 16; Gaz. vol. 212; p. 1050.
Schwind Brothers Coal Company, Louisville, Ky. Coal. No. 102,948; Mar. 2; Gaz. vol. 212; p. 324.
Selby, Grant, St. Louis, Mo. Mechanical railroad-signals. No. 103,298; Mar. 30; Gaz. vol. 212; p. 1683.
Sentinel Automatic Gas Appliance Co., The, New Haven, Conn. Gas laundry-iron heaters and soldering-furnaces. No. 103,400; Mar. 30; Gaz. vol. 212; p. 1686.
Shattuck, Jane M., New York, N. Y. Cakes, pies, bread, &c. No. 103,123; Mar. 16; Gaz. vol. 212; p. 1053.
Sheffield Farms-Slawson-Decker Company, New York, N. Y. Milk and cream. No. 103,208; Mar. 23; Gaz. vol. 212; p. 1353.
Shively, Emily J., San Francisco, Cal. Toy banks. No. 103,011; Mar. 16; Gaz. vol. 212; p. 1049.
Shreve, Howard B., Nogales, Ariz. Medicinal hair-restorer. No. 103,182; Mar. 16; Gaz. vol. 212; p. 1054.
Smith & Co., F. W., Kansas City, Kans. Preparation for treatment of hog cholera. No. 103,401; Mar. 30; Gaz. vol. 212; p. 1687.
Solon Palmer, New York, N. Y. Perfume, complexion and sachet powders. No. 103,116; Mar. 16; Gaz. vol. 212; p. 1052.
Sormani, Egbert J., Brooklyn, N. Y. Preparation for certain named ailments. No. 103,330; Mar. 30; Gaz. vol. 212; p. 1684.
South Texas Drug Co., San Antonio, Tex. Hair-oil, arnica and carbolic salves, with-hazel, &c. No. 102,907; Mar. 2; Gaz. vol. 212; p. 323.
Southard, Louis P., Roselle, N. J. Rubber cement. No. 103,129; Mar. 16; Gaz. vol. 212; p. 1053.
Southern Gypsum Company, Incorporated, North Holston, Va. Wall-plaster made of gypsum. No. 103,299; Mar. 30; Gaz. vol. 212; p. 1683.
Speakman Supply & Pipe Company, Wilmington, Del. Metallic valves for general application. No. 103,124; Mar. 16; Gaz. vol. 212; p. 1053.
Spokane Valley Orchard & Land Company, Spokane Bridge, Wash. Certain named foods. No. 103,271; Mar. 23; Gaz. vol. 212; p. 1355.
Stanard-Tilton Milling Co., St. Louis, Mo. Wheat-flour. No. 103,331; Mar. 30; Gaz. vol. 212; p. 1684.
Standard Brass & Alloy Co., Quincy, Ill. Flux for melting metals with a copper base. No. 103,332; Mar. 30; Gaz. vol. 212; p. 1684.
Standard Oil Co., Richmond, Cal. Refined oil for illuminating and heating and lubricating oils and greases. No. 103,012; Mar. 16; Gaz. vol. 212; p. 1049.
Standard Oil Company, Louisville, Ky. Certain named oils and greases. No. 103,125; Mar. 16; Gaz. vol. 212; p. 1053.
Standard Varnish Works, New York, N. Y. Varnishes, driers, japans, &c. No. 103,075; Mar. 16; Gaz. vol. 212; p. 1051.
Stanley, John T., New York, N. Y. Toilet soaps. No. 103,126; Mar. 16; Gaz. vol. 212; p. 1053.
Starr, William B., South Bend, Ind. Wheat and Graham flours and cornmeal. No. 103,038; Mar. 16; Gaz. vol. 212; p. 1050.
Stearns, Frederick K., Detroit, Mich., and New York, N. Y. Aperient or laxative. No. 103,183; Mar. 16; Gaz. vol. 212; p. 1054.
Steiner, Carolina, Philadelphia, Pa. Cough medicine. No. 103,364; Mar. 30; Gaz. vol. 212; p. 1685.
Steiner & Son, Asbury Park, N. J. Night-shirts, pajamas, and nightgowns. No. 103,185; Mar. 16; Gaz. vol. 212; p. 1054.
Sterling Gum Company, Inc., New York, N. Y. Chewing-gum. Nos. 103,186–7; Mar. 16; Gaz. vol. 212; p. 1054.
Stewart Manufacturing Company, Chicago, Ill. Pencil-sharpeners. No. 103,365; Mar. 30; Gaz. vol. 212; p. 1685.
Stolba, Joseph W., Cedar Rapids, Iowa. Salve. No. 103,210; Mar. 23; Gaz. vol. 212; p. 1353.
Stone, Albert H., Boston, Mass. Furniture-leather. No. 103,127; Mar. 16; Gaz. vol. 212; p. 1053.
Stork Brothers, Adamstown, Pa. Hosiery. No. 103,334; Mar. 30; Gaz. vol. 212; p. 1684.
Story-Simmons Co., Boston, Mass. Fresh, smoked, and cured fish. No. 103,039; Mar. 16; Gaz. vol. 212; p. 1050.
Strawn, Wilber C., Visalia, Cal. Automobile-polish. No. 103,128; Mar. 16; Gaz. vol. 212; p. 1053.
Strohmeyer & Arpe Company, New York, N. Y. Certain named foods. No. 103,013; Mar. 16; Gaz. vol. 212; p. 1049.
Strohmeyer & Arpe Company, New York, N. Y. Certain named foods. No. 103,188–9; Mar. 16; Gaz. vol. 212; p. 1054.
Strohmeyer & Arpe Company, New York, N. Y. Certain named foods. No. 103,300; Mar. 30; Gaz. vol. 212; p. 1683.
Suburban Press, The, New York, N. Y. Monthly magazine. No. 102,909; Mar. 2; Gaz. vol. 212; p. 323.
Suzuki, Tozaburo, Sunamura, Japan. Fertilizer materials. No. 103,301; Mar. 30; Gaz. vol. 212; p. 1684.
Tacony File and Hardware Company, Philadelphia, Pa. Files of all kinds and sizes. No. 103,211; Mar. 23; Gaz. vol. 212; p. 1353.
Teckemeyer Candy Co., Madison, Wis. Candy. No. 103,040; Mar. 16; Gaz. vol. 212; p. 1050.
Temco Electric Motor Company, The, Leipsic, Ohio. Electric drills, grinders, buffers, and parts thereof. No. 103,130; Mar. 16; Gaz. vol. 212; p. 1053.
Temco Electric Motor Company, The, Leipsic, Ohio. Shock-absorbers. No. 103,190; Mar. 16; Gaz. vol. 212; p. 1055.
Thanhouser Film Corporation, New Rochelle, N. Y. Motion-picture films. No. 103,191; Mar. 16; Gaz. vol. 212; p. 1055.
Titus Blatter and Company, New York, N. Y. Handkerchiefs. No. 103,043–4; Mar. 16; Gaz. vol. 212; p. 1050.
Toch Brothers, New York, N. Y. Ready-mixed paints. No. 103,302; Mar. 30; Gaz. vol. 212; p. 1683.
Tomby, Borgfeldt, New York, N. Y. Shades made of glass for lighting purposes. No. 103,272; Mar. 23; Gaz. vol. 212; p. 1355.
Tomson & Co., P. C., Philadelphia, Pa. Soap, soap powder, and cleansers. No. 102,910; Mar. 2; Gaz. vol. 212; p. 323.
Tona Vita Medicine Co., Dayton, Ohio. Tonic or stimulant. No. 102,911; Mar. 2; Gaz. vol. 212; p. 323.
Townsend & Co., E. M., New York, N. Y. Hosiery. No. 103,132; Mar. 16; Gaz. vol. 212; p. 1053.
Trayser Piano Company, Richmond, Ind. Pianos, player-pianos, and parts thereof. No. 102,912; Mar. 2; Gaz. vol. 212; p. 323.
Tremont & Suffolk Mills, Lowell, Mass. Cotton piece goods. No. 103,131; Mar. 16; Gaz. vol. 212; p. 1053.
Triumph Manufacturing Co., The, Cincinnati, Ohio. Certain named machinery and tools. No. 103,076; Mar. 16; Gaz. vol. 212; p. 1051.
Trotter, John A., Milwaukee, Wis. Medicated pads. No. 102,949; Mar. 2; Gaz. vol. 212; p. 325.
Trujillo-Marin, Lorenzo, New York, N. Y. Pills, candies, suppositories, and salves. No. 103,355; Mar. 30; Gaz. vol. 212; p. 1685.
Trumbull Steel Company, The, Warren, Ohio. Flat steel sheets. No. 103,212; Mar. 23; Gaz. vol. 212; p. 1353.
Trumbull Steel Company, The, Warren, Ohio. Formed steel roofing. No. 103,213; Mar. 23; Gaz. vol. 212; p. 1353.
Union Mills Inc., St. Johnsville and New York, N. Y. Knitted underwear. No. 103,133; Mar. 16; Gaz. vol. 212; p. 1053.
United Drug Company, Boston, Mass. Stove-polish and straw-hat cleaner. No. 102,932; Mar. 2; Gaz. vol. 212; p. 324.
United Jewelers Inc., The, New York, N. Y. Apparel-belts. No. 102,950; Mar. 2; Gaz. vol. 212; p. 325.
United Yeast Company, Limited, The, Manchester, England. Vegetable composition for use in manufacturing, cleansing, and improving the texture of certain named articles. No. 103,014; Mar. 16; Gaz. vol. 212; p. 1049.
Universal Film Manufacturing Company, New York, N. Y. Moving-picture films. No. 103,077; Mar. 16; Gaz. vol. 212; p. 1051.
Vacuna Sales Co., New York, N. Y. Machine for polishing, waxing, scrubbing, &c., floors, and parts thereof. No. 103,251; Mar. 23; Gaz. vol. 212; p. 1354.
Van Camp Packing Co., The, Indianapolis, Ind. Certain named foods. No. 102,988; Mar. 9; Gaz. vol. 212; p. 686.
Vortex Mfg. Co., The, Chicago, Ill. Paper drinking-cups for use at soda-water fountains. No. 103,303; Mar. 30; Gaz. vol. 212; p. 1684.
W. W. Ford Tobacco Works, Nashville, Tenn. Smoking and chewing tobacco. No. 103,160; Mar. 16; Gaz. vol. 212; p. 1054.
Wabasha Roller Mills Company, The, Wabasha, Minn. Wheat-flour. No. 103,402; Mar. 30; Gaz. vol. 212; p. 1687.
Wallace & Co., Brooklyn and New York, N. Y. Chocolates and candies. No. 103,015; Mar. 16; Gaz. vol. 212; p. 1049.
Wallace, Joseph, New York, N. Y. Fountain-pens. No. 103,134; Mar. 16; Gaz. vol. 212; p. 1053.
Walman-Benson Optical Co., The, Minneapolis, Minn. Spectacle-frames and eyeglass-mountings. No. 103,078; Mar. 16; Gaz. vol. 212; p. 1051.
Walter Baker & Company, Limited, Boston, Mass. Chocolate. No. 102,996; Mar. 16; Gaz. vol. 212; p. 1049.

Washington Shoe Manufacturing Co., Seattle, Wash. Leather shoes. No. 102,989; Mar. 9; Gaz. vol. 212; p. 686.
Wasmuth-Endicott Company, Andrews, Ind. Kitchen-cabinets. No. 103,403; Mar. 30; Gaz. vol. 212; p. 1687.
Weldlich Sterling Spoon Co., Bridgeport, Conn. Flat sterling-silver ware. No. 103,304; Mar. 30; Gaz. vol. 212; p. 1684.
Western Clock Co., Peru, Ill. Clocks and watches. No. 102,951; Mar. 2; Gaz. vol. 212; p. 325.
Western Elaterite Roofing Company, The, Denver, Colo. Paints. No. 103,136; Mar. 16; Gaz. vol. 212; p. 1053.
Western Hat & Manufacturing Company, Milwaukee, Wis. Hats, caps, gloves, mittens, and sweater-coats. No. 103,252; Mar. 23; Gaz. vol. 212; p. 1354.
Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Mineral oil for insulating and cooling purposes. No. 103,016; Mar. 16; Gaz. vol. 212; p. 1049.
Westinghouse Lamp Company, Bloomfield, N. J. Incandescent lamps. No. 103,017; Mar. 16; Gaz. vol. 212; p. 1049.
Westmoreland Chemical and Color Company, Philadelphia, Pa. Ferric sulfate. Nos. 102,990–1; Mar. 9; Gaz. vol. 212; p. 686.
Wetzel, Peter A., Chicago, Ill. File-cabinets and music-cases. No. 103,137; Mar. 16; Gaz. vol. 212; p. 1053.
White, Joel C., Norfolk, Va. Remedy for piles, corns, bunions, &c. No. 103,138; Mar. 16; Gaz. vol. 212; p. 1053.
Whiting Paper Company, Holyoke, Mass. Ledger and writing paper. No. 103,305; Mar. 30; Gaz. vol. 212; p. 1684.
Whiting-Plover Paper Co., Stevens Point, Wis. Printing and writing paper. No. 103,306; Mar. 30; Gaz. vol. 212; p. 1684.
Willis & Co., Grinnell, New York, N. Y. Cotton piece goods. No. 103,099; Mar. 16; Gaz. vol. 212; p. 1052.
Willis & Co., Grinnell, New York, N. Y. Cotton piece goods. No. 103,163; Mar. 16; Gaz. vol. 212; p. 1054.
Wolf & Co., Louis, New York, N. Y. Dolls. No. 103,366; Mar. 30; Gaz. vol. 212; p. 1685.
Wolfe, Jacob M., Lathrop, Cal. Rodent-traps. No. 103,273; Mar. 23; Gaz. vol. 212; p. 1355.
Wood-Wilson Co., The, New York, N. Y. Certain named articles of clothing. No. 103,192; Mar. 16; Gaz. vol. 212; p. 1055.
Wright, William E., Chicago, Ill. Writing and printing paper. No. 103,019; Mar. 16; Gaz. vol. 212; p. 1049.
Yakima Fruit Products Co., Inc., North Yakima, Wash. Vinegar. No. 102,952; Mar. 2; Gaz. vol. 212; p. 325.
Walworth Manufacturing Co., Boston, Mass. Wrenches. No. 103,135; Mar. 16; Gaz. vol. 212; p. 1053.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Albano, Francesco, New York, N. Y. "Teresa de Rosa." (For Alimentary Pastes.) No. 18,285; Mar. 9; Gaz. vol. 212; p. 687.

Allwood Lime Company, Allwood Siding, near Manitowac, Wis. "Allwood 'Vienna Brand' Lime." (For a Lime Product.) No. 18,301; Mar. 16; Gaz. vol. 212; p. 1056.

Bridgeport Wood Finishing Co., The, Bridgeport and New Milford, Conn. "Bridgeport Standard." (For Prepared Paint.) No. 18,286; Mar. 9; Gaz. vol. 212; p. 687.

Bunte Brothers, Chicago, Ill. "Bunte Happy Home." (For Candies.) No. 18,302; Mar. 16; Gaz. vol. 212; p. 1056.

Busy Bee Manufacturing Company, Springfield, Mass. "E Z Shine." (For Stove and Nickel Polish.) No. 18,273; Mar. 2; Gaz. vol. 212; p. 326.

Davis, Roger T., San Antonio, Tex. "Kleenit." (For Cleaners.) No. 18,298; Mar. 9; Gaz. vol. 212; p. 687.

Doutmaco Selling Associates Incorporated, Chicago, Ill. "Klenzglas Kloth." (For a Glass-Cleaning Cloth.) No. 18,274; Mar. 2; Gaz. vol. 212; p. 326.

Edler, Otto, West Hoboken, N. J. "Virisol." (For a Medicinal Preparation.) No. 18,287; Mar. 9; Gaz. vol. 212; p. 687.

Felton & Son, Inc., South Boston, Mass. "Felton's Pure Crystal Spring Rum." (For Rum.) No. 18,303; Mar. 16; Gaz. vol. 212; p. 1056.

Felton & Son, Inc., South Boston, Mass. "Felton's Crystal Spring Old Rum." (For Rum.) No. 18,304; Mar. 16; Gaz. vol. 212; p. 1056.

Felton & Son, Inc., South Boston, Mass. "Standard Rum of the Country." (For Rum.) No. 18,305; Mar. 16; Gaz. vol. 212; p. 1056.

First National Bank, The, Sterling, Ill. "First National Bank." (For Check-Books.) No. 18,306; Mar. 16; Gaz. vol. 212; p. 1056.

Florence Manufacturing Company, Northampton, Mass. "Pro-phy-lac-tic Tooth Brush." (For Tooth-Brushes.) No. 18,307; Mar. 16; Gaz. vol. 212; p. 1056.

Freeburger, Willie A., Calgary, Alberta, Canada. "Air-Vulc." (For a Preparation for Repairing Pneumatic Tires.) No. 18,275; Mar. 2; Gaz. vol. 212; p. 326.

Goodman Liquor Company, Waco, Tex. "Four Glories." (For Whisky.) No. 18,289; Mar. 9; Gaz. vol. 212; p. 687.

Grocers Biscuit Company, The, Louisville, Ky. "Some Biscuit." (For Crackers.) No. 18,290; Mar. 9; Gaz. vol. 212; p. 687.

Heyniger, Pitt & Co., Inc., Corning, N. Y. "Granulated." (For Coffee.) No. 18,288; Mar. 9; Gaz. vol. 212; p. 687.

Hughes, Katharine M., Providence, R. I. "Crown." (For a Hair-Tonic.) No. 18,309; Mar. 16; Gaz. vol. 212; p. 1056.

Inter-State Distilling Co., Kansas City, Mo. "Old Fashion." (For Whisky.) No. 18,276; Mar. 2; Gaz. vol. 212; p. 326.

John Hauck Brewing Company, The, Cincinnati, Ohio. "Hauck's Bock Beer." (For Beer.) No. 18,308; Mar. 16; Gaz. vol. 212; p. 1056.

Kentucky Carlsbad Springs Co., The, Dry Ridge, Ky. "Kentucky Carlsbad Water." (For Water.) No. 18,291; Mar. 9; Gaz. vol. 212; p. 687.

Laxton, John W. R., Lynn, Mass. "Laxton Constitution Builder for Men." (For Medicine.) No. 18,277; Mar. 2; Gaz. vol. 212; p. 326.

Laxton, John W. R., Lynn, Mass. "Laxton Constitution Builder for Women." (For Medicine.) No. 18,278; Mar. 2; Gaz. vol. 212; p. 326.

Loheide Manufacturing Company, St. Louis, Mo. "Fan-Tan." (For Roasted Salted Peanuts.) No. 18,310; Mar. 16; Gaz. vol. 212; p. 1056.

Loheide Manufacturing Company, St. Louis, Mo. "Fan-Tan." (For Assorted Candies.) No. 18,315; Mar. 30; Gaz. vol. 212; p. 1688.

Lomauro, Frank R., Passaic, N. J. "Lomauro's Universal Salve." (For a Salve.) No. 18,292; Mar. 9; Gaz. vol. 212; p. 687.

M. Wollstein Mercantile Co., Kansas City, Mo. "Ambassador." (For Whisky.) No. 18,284; Mar. 2; Gaz. vol. 212; p. 326.

MacGrath, Marian M., Philadelphia, Pa. "Marian's Burnt Olive Oil Candy." (For a Medicinal Preparation.) No. 18,293; Mar. 9; Gaz. vol. 212; p. 687.

Matchless Metal Polish Co., The, Chicago, Ill. "XXX White Diamond Buffing & Polishing." (For an Abrasive Composition.) No. 18,311; Mar. 16; Gaz. vol. 212; p. 1056.

Maynard and Company, W. C., Newport, Oreg. "The Bergmann Guaranteed Water Proof Shoe Oil." (For Shoe-Oil.) No. 18,313; Mar. 23; Gaz. vol. 212; p. 1355.

Mt. Vernon Cream Co., Mount Vernon and Seattle, Wash. "Mt. Vernon." (For Evaporated Milk.) No. 18,312; Mar. 16; Gaz. vol. 212; p. 1056.

Napoli, Carmine, Philadelphia, Pa. "Rosina." (For Medicine.) No. 18,294; Mar. 9; Gaz. vol. 212; p. 687.

National Fruit Products Company of California, Los Angeles, Cal. "Ulika Raisinette." (For Unfermented and Non-Alcoholic Raisin-Juice.) No. 18,295; Mar. 9; Gaz. vol. 212; p. 687.

O. C. Orr Baking Company, New Castle, Pa. "Orr's Excellent Cakes." (For Cakes.) No. 18,296; Mar. 9; Gaz. vol. 212; p. 687.

Osteyee, Fred M., Pittsfield, Mass. "G-R-S Orange XXXX made from Berkshire's Famous Springs." (For an Orange-Flavored Drink.) No. 18,297; Mar. 9; Gaz. vol. 212; p. 687.

Paulson Medicinal Well Co., Saratoga, Wyo. "Aquatone The Water-Way To Health." (For Mineral Water.) No. 18,279; Mar. 2; Gaz. vol. 212; p. 326.

Regenfuss Brewing Co., Kaukauna, Wis. "Muenchener Kind'l Bräu." (For Beer.) No. 18,314; Mar. 23; Gaz. vol. 212; p. 1355.

Richie, Georgia W., New York, N. Y. "Cream Of Pearls." (For Face-Cream.) No. 18,280; Mar. 2; Gaz. vol. 212; p. 326.

S. S. White Dental Manufacturing Company, The, Philadelphia, Pa. "S. S. White Cleansing Powder." (For a Cleansing-Powder.) No. 18,283; Mar. 2; Gaz. vol. 212; p. 326.

Soele, Fred, San Antonio, Tex. "Ice-Land Sea-Foam Hair Tonic." (For a Hair-Tonic.) No. 18,299; Mar. 9; Gaz. vol. 212; p. 687.

Swangren, Joseph, Maywood, Ill. "Swan-Grain Brand." (For Food Products.) No. 18,300; Mar. 9; Gaz. vol. 212; p. 687.

Tigner, Charles H., Kansas City, Mo. "Nonpariel." (For Shampoo-Tonic, Hair-Grower, and Dandruff-Remover.) No. 18,281; Mar. 2; Gaz. vol. 212; p. 326.

Weissmann, Maria, New York, N. Y. "Ex-Piles." (For an Ointment.) No. 18,282; Mar. 2; Gaz. vol. 212; p. 326.

PRINTS.

Bloch Bros. Tobacco Co., The, Wheeling, W. Va. "Panama Pacific Exposition." (For Smoking-Tobacco.) No. 3,834; Mar. 9; Gaz. vol. 212; p. 687.

Broderick & Bascom Rope Company, St. Louis, Mo. "Yellow Strand." (For Wire Rope and Cables.) No. 3,848; Mar. 30; Gaz. vol. 212; p. 1688.

Edwards & Deutsch Litho. Co., Chicago, Ill. "Frozen Mints—They Captivate." (For Chewing-Gum.) No. 3,843; Mar. 9; Gaz. vol. 212; p. 687.

James S. Kirk & Company, Chicago, Ill. "Kirk's Flake Soap, No. 462." (For Soap.) No. 3,844; Mar. 9; Gaz. vol. 212; p. 687.

King Philip Mills, Fall River, Mass. "King Philip Mills." (For Nainsooks.) No. 3,849; Mar. 30; Gaz. vol. 212; p. 1688.

Meyercord Company, The, Chicago, Ill. "Perfection In Munsingwear." (For Underwear.) No. 3,832; Mar. 2; Gaz. vol. 212; p. 326

Miller, Charles W., Philadelphia, Pa. "Nutty Chocolates." (For Candy.) No. 3,845; Mar. 9; Gaz. vol. 212; p. 687.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Get Next To This Inside Stuff." (For Smoking-Tobacco.) No. 3,850; Mar. 30; Gaz. vol. 212; p. 1688.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "P. A. Ain't Never Hornswoggled Any-one Yet." (For Smoking-Tobacco.) No. 3,851; Mar. 30; Gaz. vol. 212; p. 1688.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Mutt thought all tobaccos bit the tongue till Jeff brought home some 'Good Old P. A.'" (For Smoking-Tobacco.) No. 3,852; Mar. 30; Gaz. vol. 212; p. 1688.

Rice, Elwood E., New York, N. Y. "The Rice Leaders of the World Association." (For Certain Specified Articles of Manufacture.) No. 3,847; Mar. 16; Gaz. vol. 212; p. 1056.

S. S. White Dental Manufacturing Co., The, Philadelphia, Pa. "S. S. White Tooth Paste." (For Tooth-Pastes.) No. 3,833; Mar. 2; Gaz. vol. 212; p. 326.

Thos. Cusack Company, Chicago, Ill. "Look Around! 'There's an Owl dealer right near you.'" (For Cigars.) No. 3,835; Mar. 9; Gaz. vol. 212; p. 687.

Thos. Cusack Company, Chicago, Ill. "'Workmanship'—'hand workmanship counts heavily in a cigar.'" (For Cigars.) No. 3,836; Mar. 9; Gaz. vol. 212; p. 687.

Thos. Cusack Company, Chicago, Ill. "'Eleven busy Owl Factories Prove what smokers think of me.'" (For Cigars.) No. 3,837; Mar. 9; Gaz. vol. 212; p. 687.

Thos. Cusack Company, Chicago, Ill. "'For the love of mildness' Light up another!" (For Cigars.) No. 3,838; Mar. 9; Gaz. vol. 212; p. 687.

Thos. Cusack Company, Chicago, Ill. "'Hand work' makes me—'Head work' buys me." (For Cigars.) No. 3,839; Mar. 9; Gaz. vol. 212; p. 687.

Thos. Cusack Company, Chicago, Ill. "'Eleven busy Owl Factories Prove what smokers think of me.'" (For Cigars.) Nos. 3,840–1; Mar. 9; Gaz. vol. 212; p. 687.

Thos. Cusack Company, Chicago, Ill. "Piedmont Cigarettes Of Quality." (For Piedmont Cigarettes.) No. 3,842; Mar. 9; Gaz. vol. 212; p. 687.

Valentine & Company, New York, N. Y. "Valentine's Valspar—'The Varnish that won't turn white.'" (For Valentine's Valspar.) No. 3,846; Mar. 9; Gaz. vol. 212; p. 687.

DISCLAIMERS.

Enoch, Walter, New York, N. Y.; disclaimer filed by patentee. Dress-form. No. 1,116,047; disclaimer filed Mar. 12, 1915; Gaz. vol. 212; p. 1360.

Hogan, John L., Jr., Brant Rock, Mass.; disclaimer filed by receivers of the assignee, National Electric Signaling Company. Apparatus for wireless signaling. No. 1,014,002; disclaimer filed Mar. 23, 1915; Gaz. vol. 212; p. 1692.

Webster, Harry G., Chicago, Ill.; disclaimer filed by assignee, Kellogg Switchboard and Supply Company. Telephone system. No. 931,904; disclaimer filed Mar. 8, 1915; Gaz. vol. 212; p. 693.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF MARCH, 1915.

[Abbreviations: "Gaz."—Official Gazette.]

Abrading-machine. J. Kress. No. 1,132,192; Mar. 16; Gaz. vol. 212; p. 892.

Abrasive. S. M. Bullock and H. S. Lloyd. No. 1,133,260; Mar. 30; Gaz. vol. 212; p. 1365.

Abrasive wheel, Balanced. J. C. Spence. No. 1,130,210; Mar. 2; Gaz. vol. 212; p. 128.

Account-register. E. B. Moseley. No. 1,130,421; Mar. 2; Gaz. vol. 212; p. 202.

Accounting appliance, Credit-. G. Jacobs. No. 1,130,823; Mar. 9; Gaz. vol. 212; p. 375.

Accounting means. J. Maher. No. 1,130,832; Mar. 9; Gaz. vol. 212; p. 379.

Acetyl-cellulose composition, Non-inflammable. W. C. Lindsay. No. 1,133,385; Mar. 30; Gaz. vol. 212; p. 1410.

Acid, Concentrating dilute nitric. E. Collett. No. 1,133,840; Mar. 30; Gaz. vol. 212; p. 1574.

Acid esters and their solutions, Orthovanadic-. L. Hess. No. 1,133,961; Mar. 30; Gaz. vol. 212; p. 1613.

Acid, Production of nitric. F. Raschig. No. 1,130,104; Mar. 2; Gaz. vol. 212; p. 91.

Acid, Manufacture of chemically-pure soluble silicic. B. Schwerin. No. 1,132,394; Mar. 16; Gaz. vol. 212; p. 966.

Adding and recording machine. J. Magnus. No. 1,131,849; Mar. 16; Gaz. vol. 212; p. 768.

Adding device. C. C. Harris. No. 1,129,978; Mar. 2; Gaz. vol. 212; p. 49.

Adding-machine. W. E. Swalm. No. 1,131,620; Mar. 9; Gaz. vol. 212; p. 651.

Adding-machine. C. Wales. No. 1,132,753; Mar. 23; Gaz. vol. 212; p. 1146.

Adding-machine operating-handle. G. J. Barrett. No. 1,130,463; Mar. 2; Gaz. vol. 212; p. 218.

Adding-machines, Manual operating device for. C. C. Dey. No. 1,133,939; Mar. 30; Gaz. vol. 212; p. 1606.

Adhesive-applying mechanism. E. W. Labombarde. No. 1,130,744; Mar. 9; Gaz. vol. 212; p. 349.

Advertising apparatus. G. A. Johnson and P. Pedersen. No. 1,132,852; Mar. 23; Gaz. vol. 212; p. 1183.

Advertising device. F. R. Emery. No. 1,133,463; Mar. 30; Gaz. vol. 212; p. 1437.

Advertising device. H. W. Seiter. No. 1,132,981; Mar. 23; Gaz. vol. 212; p. 1231.

Advertising-folder. O. Valasek. No. 1,134,082; Mar. 30; Gaz. vol. 212; p. 1654.

Aerial machines, Device for propelling. V. and V. Lorenc. No. 1,132,368; Mar. 16; Gaz. vol. 212; p. 956.

Aerial-navigation machine. H. C. Berry. No. 1,133,609; Mar. 30; Gaz. vol. 212; p. 1491.

Aeroplane. C. U. Greeley. No. 1,133,559; Mar. 30; Gaz. vol. 212; p. 1472.

Aeroplane. M. C. Krarup. No. 1,129,874; Mar. 2; Gaz. vol. 212; p. 14.

Aeroplane. R. R. Smith. No. 1,133,757; Mar. 30; Gaz. vol. 212; p. 1543.

Aeroplane, Automatic-stabilizing. W. Huebner and O. Kunkel. No. 1,131,380; Mar. 9; Gaz. vol. 212; p. 567.

Aeroplane construction. J. Rooney. No. 1,132,686; Mar. 23; Gaz. vol. 212; p. 1121.

Agitator. J. V. Dorr. No. 1,131,222; Mar. 9; Gaz. vol. 212; p. 513.

Agitator. G. B. Nagle. No. 1,130,007; Mar. 2; Gaz. vol. 212; p. 58.

Agricultural implement. J. B. Bartholomew. No. 1,131,897; Mar. 16; Gaz. vol. 212; p. 785.

Air and steam coupling, Automatic. J. E. Howard and E. M. Knothe. No. 1,130,601; Mar. 2; Gaz. vol. 212; p. 266.

Air-brake system. J. E. Wallace. No. 1,130,224; Mar. 2; Gaz. vol. 212; p. 133.

Air-brakes, Trip-valve device for. E. R. Hill. No. 1,133,645; Mar. 30; Gaz. vol. 212; p. 1504.

Air-compressing apparatus. W. C. Gebhardt. No. 1,132,331; Mar. 16; Gaz. vol. 212; p. 944.

Air-compressor. C. Wainwright. No. 1,131,577; Mar. 9; Gaz. vol. 212; p. 635.

Air-conditioning system. L. M. Du Commun. No. 1,132,246; Mar. 16; Gaz. vol. 212; p. 913.

Air-conditioning system. L. M. Du Commun. No. 1,133,371; Mar. 30; Gaz. vol. 212; p. 1405.

Air cooling and filtering device. J. M. Seymour, Jr. No. 1,130,849; Mar. 9; Gaz. vol. 212; p. 385.

Air cooling or agitating apparatus. H. E. Baumgartner. No. 1,133,255; Mar. 30; Gaz. vol. 212; p. 1364.

Air dehydrating and warming apparatus. G. D. Harris and J. S. Pollard. No. 1,131,835; Mar. 16; Gaz. vol. 212; p. 764.

Air for combustion or gas, Conveying. A. Pfoser. No. 1,131,052; Mar. 16; Gaz. vol. 212; p. 804.

Air for industrial purposes, Apparatus for dehydrating or desiccating. F. G. P. Leaó. No. 1,132,194; Mar. 16; Gaz. vol. 212; p. 892.

Air-heater. F. Kuhn. No. 1,130,986; Mar. 9; Gaz. vol. 212; p. 432.

Air-heater. H. S. Williams. No. 1,133,350; Mar. 30; Gaz. vol. 212; p. 1397.

Air-moistening device. G. B. Owen, Jr. No. 1,129,897; Mar. 2; Gaz. vol. 212; p. 22.

Air-strainer. E. H. Dewson. No. 1,131,220; Mar. 9; Gaz. vol. 212; p. 512.

Airship. C. Girolami. No. 1,132,085; Mar. 16; Gaz. vol. 212; p. 853.

Airship. W. T. Wilkins. No. 1,130,125; Mar. 2; Gaz. vol. 212; p. 98.

Alarm; *See*—
Boiler low-water alarm. Fire-alarm.

Alarm. J. B. Polo. No. 1,132,793; Mar. 23; Gaz. vol. 212; p. 1161.

Alarm device. M. Keilson. No. 1,130,408; Mar. 2; Gaz. vol. 212; p. 197.

Alarm device, Automatic. A. P. Willoughby and W. D. Bolding. No. 1,131,452; Mar. 9; Gaz. vol. 212; p. 593.

Alloy, Aluminum. A. Wilm. No. 1,130,785; Mar. 9; Gaz. vol. 212; p. 363.

Alloy for dynamo-electric purposes, Manufacturing an iron. W. Rübel. No. 1,130,678; Mar. 2; Gaz. vol. 212; p. 293.

Alloys, Apparatus for the manufacture of metallic. W. N. Naylor and S. P. Hutton. No. 1,132,376; Mar. 16; Gaz. vol. 212; p. 959.

Alloys, Making. E. D. Gleason. No. 1,133,019; Mar. 23; Gaz. vol. 212; p. 1245.

Alloys, Making. A. Smith. No. 1,131,799; Mar. 16; Gaz. vol. 212; p. 751.

Aluminium-acetate compounds, Manufacture of. G. Eichelbaum. No. 1,132,709; Mar. 23; Gaz. vol. 212; p. 1129.

Aluminium to render it unalterable, Treatment of. F. Pucillo. No. 1,130,196; Mar. 2; Gaz. vol. 212; p. 124.

Aluminum oxid from sulfate of alumina, Producing. G. Schwahn. No. 1,132,736; Mar. 23; Gaz. vol. 212; p. 1139.

Aluminum oxid, Production of. G. Schwahn. No. 1,132,737; Mar. 23; Gaz. vol. 212; p. 1140.

Amalgamator. C. H. Farmer. No. 1,132,317; Mar. 16; Gaz. vol. 212; p. 939.

Amalgamator. J. C. Wood. No. 1,133,210; Mar. 23; Gaz. vol. 212; p. 1312.

Ammonia-pipe union. F. N. Roehrich. No. 1,132,619; Mar. 23; Gaz. vol. 212; p. 1097.

Ammonium sulfate, Production of. C. Bosch. No. 1,133,086; Mar. 23; Gaz. vol. 212; p. 1268.

Amusement apparatus. L. Dreifuss. No. 1,133,623; Mar. 30; Gaz. vol. 212; p. 1496.

Amusement device. P. S. Greene. No. 1,130,813; Mar. 9; Gaz. vol. 212; p. 372.

Amusement device. H. F. C. Dueberg. No. 1,131,603; Mar. 9; Gaz. vol. 212; p. 645.

Amusement device. M. M. Mauck. No. 1,133,489; Mar. 30; Gaz. vol. 212; p. 1445.

Anchor and oil-tank, Sea-. L. and O. Kahnweiler. No. 1,133,154; Mar. 23; Gaz. vol. 212; p. 1293.

Animal-trap. A. Boswell. No. 1,132,428; Mar. 16; Gaz. vol. 212; p. 978.

Animal-trap. G. Claeson. No. 1,131,908; Mar. 16; Gaz. vol. 212; p. 788.

Animal-trap. W. P. Mansfield. No. 1,130,992; Mar. 9; Gaz. vol. 212; p. 434.

Animal-trap. E. F. Siddons. No. 1,130,852; Mar. 9; Gaz. vol. 212; p. 386.

Animal-trap. D. M. Wright. No. 1,131,306; Mar. 9; Gaz. vol. 212; p. 542.
Animal-trap, Cage. A. Carlson. No. 1,130,667; Mar. 2; Gaz. vol. 212; p. 289.
Annealing apparatus. F. Kammerer. No. 1,133,647; Mar. 30; Gaz. vol. 212; p. 1504.
Annunciator or code signaling device, Electric. N. L. Anthony. No. 1,131,813; Mar. 16; Gaz. vol. 212; p. 756.
Annunciators and the like, Indicating device for. M. Nordoff. No. 1,131,855; Mar. 16; Gaz. vol. 212; p. 771.
Anode for discharge-tubes. T. H. Gebauer. No. 1,131,906; Mar. 9; Gaz. vol. 212; p. 646.
Anticreeper. F. A. Preston. No. 1,133,399; Mar. 30; Gaz. vol. 212; p. 1415.
Antiskid attachment for tires. J. Marczi. No. 1,130,310; Mar. 2; Gaz. vol. 212; p. 163.
Antiskidding attachment for automobiles. C. A. B. Delger. No. 1,133,272; Mar. 30; Gaz. vol. 212; p. 1370.
Antiskidding device for automobiles and the like. H. Miller. No. 1,132,206; Mar. 12; Gaz. vol. 212; p. 897.
Antislipping device for tires. O. F. Chubbuck. No. 1,131,116; Mar. 9; Gaz. vol. 212; p. 476.
Anvil-pedal. H. R. Bliss and L. Johnston. No. 1,131,320; Mar. 9; Gaz. vol. 212; p. 548.
Applicator. A. A. Ellis. No. 1,131,349; Mar. 9; Gaz. vol. 212; p. 556.
Applicator, container, and swab, Combined. A. D. Tuttle. No. 1,131,575; Mar. 9; Gaz. vol. 212; p. 634.
Arch, Fire-brick. C. F. Stevens. No. 1,130,345; Mar. 2; Gaz. vol. 212; p. 174.
Arch-support. R. E. Belcher. No. 1,131,900; Mar. 16; Gaz. vol. 212; p. 786.
Arch-support. P. B. Howard. No. 1,133,965; Mar. 30; Gaz. vol. 212; p. 1614.
Arch-support, Flexible. E. Anderson. No. 1,133,781; Mar. 30; Gaz. vol. 212; p. 1552.
Armor-plating for safes, strong-rooms, &c. E. Bauer. No. 1,132,902; Mar. 23; Gaz. vol. 212; p. 1200.
Article-holding devices, Producing. G. Collis. No. 1,130,378; Mar. 2; Gaz. vol. 212; p. 187.
Ash cart and can. H. Kastor. No. 1,133,155; Mar. 23; Gaz. vol. 212; p. 1293.
Ash-pan holder. C. G. and J. H. Colwell. No. 1,132,561; Mar. 23; Gaz. vol. 212; p. 1074
Ashes-ejecting apparatus. W. S. Parsons. No. 1,131,951; Mar. 16; Gaz. vol. 212; p. 804.
Assembling-machine. W. Wattle. No. 1,132,136; Mar. 16; Gaz. vol. 212; p. 872.
Astronomical instrument for indicating positions of celestial objects. W. Peck. No. 1,130,625; Mar. 2; Gaz. vol. 212; p. 274.
Audion. A. M. Nicolson. No. 1,130,008; Mar. 2; Gaz. vol. 212; p. 59.
Audion. A. M. Nicolson. No. 1,130,009; Mar. 2; Gaz. vol. 212; p. 59.
Audion, High-current-output. H. J. Van der Bijl and A. M. Nicolson. No. 1,130,042; Mar. 2; Gaz. vol. 212; p. 70.
Audiphone. N. R. Gordon. No. 1,130,812; Mar. 9; Gaz. vol. 212; p. 372.
Auto-spring. J. H. Livesay. No. 1,131,530; Mar. 9; Gaz. vol. 212; p. 619.
Autos, Non-skid mud-shoe for. J. W. Seibert and J. W. Riley. No. 1,131,560; Mar. 9; Gaz. vol. 212; p. 629.
Autocar-spring. J. W. A. Elling. No. 1,130,157; Mar. 2; Gaz. vol. 212; p. 109.
Autocycle. J. E. Pfeffer. No. 1,132,380; Mar. 16; Gaz. vol. 212; p. 961.
Autographic register. W. L. Deming. No. 1,131,917; Mar. 16; Gaz. vol. 212; p. 792.
Automatic fender and brake. W. M. Smith. No. 1,133,673; Mar. 30; Gaz. vol. 212; p. 1515.
Automatic regulator. W. A. Turbayne. No. 1,131,176; Mar. 9; Gaz. vol. 212; p. 496.
Automatic sprinkler. G. Zint. No. 1,131,767; Mar. 16; Gaz. vol. 212; p. 737.
Automatic take-up reel. G. W. Lorimer. No. 1,131,069; Mar. 9; Gaz. vol. 212; p. 461.
Automobile. E. B. Bliss. No. 1,131,034; Mar. 9; Gaz. vol. 212; p. 449.
Automobile. V. A. Strom. No. 1,131,289; Mar. 9; Gaz. vol. 212; p. 536.
Automobile. W. Webber. No. 1,133,345; Mar. 30; Gaz. vol. 212; p. 1396.
Automobile accelerating device. W. G. Deible. No. 1,132,457; Mar. 16; Gaz. vol. 212; p. 989.
Automobile, Auxiliary actuating device for the brake mechanism of an. E. A. Dieterich. No. 1,131,484; Mar. 9; Gaz. vol. 212; p. 604.
Automobile, Auxiliary actuating device for the brake mechanism of an. E. A. Dieterich. No. 1,131,485; Mar. 9; Gaz. vol. 212; p. 604.
Automobile-engines, Fuel-elevating device for. W. Jay. No. 1,132,940; Mar. 23; Gaz. vol. 212; p. 1215.
Automobile-engines, Liquid-elevating device for. W. Jay. No. 1,132,941; Mar. 23; Gaz. vol. 212; p. 1215.
Automobile-fender. G. Kwiatkowski. No. 1,131,716; Mar. 16; Gaz. vol. 212; p. 718.
Automobile-fender. E. E. Pokorny. No. 1,132,117; Mar. 16; Gaz. vol. 212; p. 864.
Automobile gear-shift. M. S. Curtis. No. 1,131,042; Mar. 9; Gaz. vol. 212; p. 451.
Automobile heating device. E. Ruttle. No. 1,132,391; Mar. 16; Gaz. vol. 212; p. 965.
Automobile-hood. J. F. Duryea. No. 1,130,262; Mar. 2; Gaz. vol. 212; p. 145.
Automobile jack. A. S. Albright. No. 1,131,891; Mar. 16; Gaz. vol. 212; p. 782.
Automobile-jack. W. R. Bross. No. 1,130,472; Mar. 2; Gaz. vol. 212; p. 222.
Automobile-lock. I. McNeece. No. 1,134,054; Mar. 30; Gaz. vol. 212; p. 1644.
Automobile-lock. J. F. O'Brien. No. 1,133,393; Mar. 30; Gaz. vol. 212; p. 1413.
Automobile locking device. W. L. McCray. No. 1,131,720; Mar. 16; Gaz. vol. 212; p. 720.
Automobile sliding door. J. M. Bower. No. 1,131,322; Mar. 9; Gaz. vol. 212; p. 548.
Automobile starting device. C. W. Brewer. No. 1,130,059; Mar. 2; Gaz. vol. 212; p. 76.
Automobile starting mechanism. J. H. Shaull. No. 1,132,802; Mar. 23; Gaz. vol. 212; p. 1165.
Automobile steering-wheel construction. J. F. Duryea. No. 1,130,263; Mar. 2; Gaz. vol. 212; p. 146.
Automobile top attachment. F. A. Temm. No. 1,130,348; Mar. 2; Gaz. vol. 212; p. 176.
Automobile-wheel. S. C. Burson. No. 1,131,324; Mar. 9; Gaz. vol. 212; p. 549.
Automobile wheel construction. A. Vakula. No. 1,131,185; Mar. 9; Gaz. vol. 212; p. 500.
Automobile wheel-holder. E. H. Crofoot. No. 1,131,477; Mar. 9; Gaz. vol. 212; p. 602.
Automobile-wheel, Resilient. W. A. Dawson. No. 1,130,891; Mar. 9; Gaz. vol. 212; p. 400.
Automobiles, Accelerator for. J. E. Bowman. No. 1,132,907; Mar. 23; Gaz. vol. 212; p. 1202.
Automobiles and similar vehicles, Electrical protector for. G. A. Merrill. No. 1,131,405; Mar. 9; Gaz. vol. 212; p. 576.
Automobiles, Automatic power-jack for. J. M. Stucker. No. 1,131,747; Mar. 16; Gaz. vol. 212; p. 730.
Automobiles, Clutch-release for Ford. F. C. Allen. No. 1,130,560; Mar. 2; Gaz. vol. 212; p. 252.
Automobiles, Foot throttle or accelerator for. E. M. Gibson and C. W. Staples. No. 1,131,830; Mar. 16; Gaz. vol. 212; p. 762.
Automobiles from theft, Apparatus for safeguarding. O. A. Smith. No. 1,132,128; Mar. 16; Gaz. vol. 212; p. 869.
Automobiles, Front-wheel drive for. J. F. Montine. No. 1,132,861; Mar. 23; Gaz. vol. 212; p. 1186.
Automobiles, Gasolene cut-off for. S. Shafer. No. 1,130,027; Mar. 2; Gaz. vol. 212; p. 65.
Automobiles, Sand-creeper for. F. L. Pearson. No. 1,130,838; Mar. 9; Gaz vol. 212; p. 381.
Automobiles, Sleigh attachment for. J. F. Montine. No. 1,132,862; Mar. 23; Gaz. vol. 212; p. 1187.
Automobiles, Throttle and spark control for. E. K. Conover. No. 1,131,600; Mar. 9; Gaz. vol. 212; p. 643.
Axle-boxes, Wedge-supporting block for. I. B. Abraham. No. 1,133,082; Mar. 23; Gaz. vol. 212; p. 1267.
Axle-clip. D. C. Oehler. No. 1,133,173; Mar. 23; Gaz. vol. 212; p. 1300.
Axle for motor-vehicles. H. C. Marmon. No. 1,133,813; Mar. 30; Gaz. vol. 212; p. 1564.
Axle lighting system, Car-. J. L. Woodbridge. No. 1,130,687; Mar. 2; Gaz. vol. 212; p. 296.
Axle, Motor-vehicle. E. D. Caldwell. No. 1,130,065; Mar. 2; Gaz. vol. 212; p. 78.
Axle-trimming device. W. E. Wilson. No. 1,133,519; Mar. 30; Gaz. vol. 212; p. 1458.
Back-band. W. N. Gandy. No. 1,129,972; Mar. 2; Gaz. vol. 212; p. 46.
Bag: *See*—
Mail-bag. Sleeping-bag.
Paper bag.
Bag closure. Mothproof-. J. J. Scheuch. No. 1,130,342; Mar. 2; Gaz. vol. 212; p. 173.
Bag-fastener. J. Hammesfahr. No. 1,132,932; Mar. 23; Gaz. vol. 212; p. 1211.
Bag-fastener. J. Ritter. No. 1,132,974; Mar. 23; Gaz. vol. 212; p. 1228.
Bag-handle fastener. M. H. Elseman. No. 1,129,967; Mar. 2; Gaz. vol. 212; p. 45.
Bag-holder. T. F. Hawke. No. 1,132,181; Mar. 16; Gaz. vol. 212; p. 888.
Bag-holder. G. C. Mottern. No. 1,133,171; Mar. 23; Gaz. vol. 212; p. 1299.
Bag-holder clamp. E. Smith and G. W. Snook. No. 1,129,911; Mar. 2; Gaz. vol. 212; p. 27.
Bags, Wire-tying. L. S. Bates. No. 1,131,311; Mar. 9; Gaz. vol. 212; p. 544.
Bail-holder for kettles. C. H. Lindegard. No. 1,133,298; Mar. 30; Gaz. vol. 212; p. 1379.
Bail making and inserting mechanism. G. W. Swift, Jr. No. 1,129,919; Mar. 2; Gaz. vol. 212; p. 30.
Bait, Artificial. J. W. Reynolds. No. 1,133,669; Mar. 30; Gaz. vol. 212; p. 1514.
Balance. E. Sartorius. No. 1,132,880; Mar. 23; Gaz. vol. 212; p. 1192.
Bale carrier, Cotton-. J. R. Fordyce. No. 1,132,003; Mar. 16; Gaz. vol. 212; p. 823.
Bale-tie. I. M. Thompson. No. 1,130,551; Mar. 2; Gaz. vol. 212; p. 250.
Bale-tie-forming machine. A. T. Showalter. No. 1,134,020; Mar. 30; Gaz. vol. 212; p. 1631.
Baler, Hay-. M. A. Gibbons. No. 1,132,083; Mar. 16; Gaz. vol. 212; p. 852.

Baling-machine. F. A. Lundahl. No. 1,133,048; Mar. 23; Gaz. vol. 212; p. 1256.
Baling-press. P. W. Morrissey. No. 1,130,006; Mar. 2; Gaz. vol. 212; p. 58.
Baling-press. G. A. Thomas and J. A. Yoder. No. 1,132,131; Mar. 16; Gaz. vol. 212; p. 870.
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Band-cutter and feeder. E. T. Croan. No. 1,131,334; Mar. 9; Gaz. vol. 212; p. 552.
Bar: *See*—
Boring and facing bar. Splice-bar.
Claw-bar. Tracker-bar.
Rail-joint bar.
Barber's device. A. Di Salvio. No. 1,133,942; Mar. 30; Gaz. vol. 212; p. 1607.
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Barrel. E. W. Robinson. No. 1,130,434; Mar. 2; Gaz vol. 212; p. 207.
Barrel-hoop. E. E. Flora. No. 1,130,078; Mar. 2; Gaz. vol. 212; p. 82.
Barrel-hoop. H. Lloyd. No. 1,130,413; Mar. 2; Gaz. vol. 212; p. 199.
Barrel-making machine. C. D. Clark. No. 1,130,888; Mar. 9; Gaz. vol. 212; p. 399.
Barrel-packing-head holder. C. C. Bennett. No. 1,133,701; Mar. 30; Gaz. vol. 212; p. 1526.
Basket machine, Berry-. E. Craig. No. 1,132,564; Mar. 23; Gaz. vol. 212; p. 1075.
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Baskets and analogous receptacles, Handle-attaching machine for. F. B. Townsend. No. 1,133,201; Mar. 23; Gaz. vol. 212; p. 1309.
Bath: *See*—
Galvanizing-bath. Shower-bath.
Bath-cabinet, Electric. H. C. Marrinan and J. Gorman. No. 1,130,916; Mar. 9; Gaz. vol. 212; p. 409.
Bath-tub and mat therefor. E. N. Hydeman. No. 1,131,932; Mar. 16; Gaz. vol. 212; p. 798.
Bath-tub, Collapsible and portable. W. R. Ward. No. 1,130,777; Mar. 9; Gaz. vol. 212; p. 361.
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Batteries of doors, Mechanism for locking. A. A. Page. No. 1,133,659; Mar. 30; Gaz. vol. 212; p. 1510.
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Batteries or accumulators, Plate for electrical or storage. E. Hancock and D. David. No. 1,133,641; Mar. 30; Gaz. vol. 212; p. 1502.
Battery: *See*—
Electric battery.
Battery-connector. N. Hale. No. 1,130,162; Mar. 2; Gaz. vol. 212; p. 111.
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Bead-adjusting device. J. E. Thropp. No. 1,131,173; Mar. 9; Gaz. vol. 212; p. 495.
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Bearing. D. J. Kelly. No. 1,130,674; Mar. 2; Gaz. vol. 212; p. 291.
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Bearing-box, Adjustable. H. J. Frink. No. 1,132,572; Mar. 23; Gaz. vol. 212; p. 1078.
Bearing, Floating. L. S. Bache. No. 1,132,750; Mar. 23; Gaz. vol. 212; p. 1148.
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Bearing for electromagnetic sparking machines. G. Honold. No. 1,130,904; Mar. 9; Gaz. vol. 212; p. 405.
Bearing for road-rollers, Transmission-. A. W. Aitken. No. 1,132,544; Mar. 23; Gaz. vol. 212; p. 1068.
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Bearing, Roller-. S. Z. de Ferranti. No. 1,131,612; Mar. 9; Gaz. vol. 212; p. 648.
Bearing, Self-adjusting pivotal. A. Sundh. No. 1,132,745; Mar. 23; Gaz. vol. 212; p. 1143.
Bearing, Self-lubricating. L. S. Bache. No. 1,132,758; Mar. 23; Gaz. vol. 212; p. 1148.
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Bearing, Side. E. A. Laughlin. No. 1,131,252; Mar. 9; Gaz. vol. 212; p. 523.
Bearing, Side. E. A. Laughlin. No. 1,133,294; Mar. 30; Gaz. vol. 212; p. 1378.
Bearing, Thrust-. E. Ruegger. No. 1,131,739; Mar. 16; Gaz. vol. 212; p. 726.
Bed. J. Mackin. No. 1,131,147; Mar. 9; Gaz. vol. 212; p. 487.
Bed. S. A. Stoneback. No. 1,132,633; Mar. 23; Gaz. vol. 212; p. 1102.
Bed corner-lock. F. G. Kapelman. No. 1,132,274; Mar. 16; Gaz. vol. 212; p. 923.
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Bed-spring. O. L. Durst. No. 1,131,346; Mar. 9; Gaz. vol. 212; p. 555.
Bed-spring. G. Wetterhold. No. 1,132,892; Mar. 23; Gaz. vol. 212; p. 1196.
Bed-spring frame. F. G. Kapelman. No. 1,134,050; Mar. 30; Gaz. vol. 212; p. 1642.
Bed structure, Sleeping-. K. J. Berggren. No. 1,132,906; Mar. 23; Gaz. vol. 212; p. 1202.
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Beds, Bug-trap for. C. Mecco. No. 1,132,789; Mar. 23; Gaz. vol. 212; p. 1160.
Beds, Cover-holder for children's. C. L. Wiley. No. 1,130,781; Mar. 9; Gaz. vol. 212; p. 362.
Beds or cots, Canopy for. A. J. H. Reid. No. 1,134,009; Mar. 30; Gaz. vol. 212; p. 1627.
Beds, Supporting means for disappearing. E. C. Pitcher. No. 1,132,616; Mar. 23; Gaz. vol. 212; p. 1095.
Bedstead. P. H. Voelker and K. Kimmich. No. 1,133,899; Mar. 30; Gaz. vol. 212; p. 1594.
Bedstead attachment. J. Barbora. No. 1,133,696; Mar. 30; Gaz. vol. 212; p. 1524.
Bedstead, Metal. J. M. Adams. No. 1,130,873; Mar. 9; Gaz. vol. 212; p. 393.
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Beer-clearing apparatus. E. R. Curtis and J. W. Huxley. No. 1,130,479; Mar. 2; Gaz. vol. 212; p. 224.
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Bell and burglar-alarm, Door-. M. R. Schaffer. No. 1,130,436; Mar. 2; Gaz. vol. 212; p. 208.
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Belt-shifting mechanism. E. A. Balsley. No. 1,131,195; Mar. 9; Gaz. vol. 212; p. 504.
Belts, Manufacturing fabric. J. S. Kaufman. No. 1,133,036; Mar. 23; Gaz. vol. 212; p. 1251.
Bench bracket and vise. E. A. Schade. No. 1,131,869; Mar. 16; Gaz. vol. 212; p. 775.
Bench-dog. I. A. Church. No. 1,132,703; Mar. 23; Gaz. vol. 212; p. 1127.
Berry-box. J. F. Adams. No. 1,130,236; Mar. 2; Gaz. vol. 212; p. 137.
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Bicycle attachment. G. G. Rupert. No. 1,130,933; Mar. 9; Gaz. vol. 212; p. 414.
Bicycle-stand. W. L. McGrath and G. W. Clark. No. 1,130,094; Mar. 2; Gaz. vol. 212; p. 88.
Bicycle-wheels, Spring-mounting for. A. Kuehn. No. 1,130,828; Mar. 9; Gaz. vol. 212; p. 378.
Billiard-chalk holder. C. W. Harper. No. 1,133,471; Mar. 30; Gaz. vol. 212; p. 1439.
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Binder attachment. W. M. Nicol. No. 1,130,757; Mar. 9; Gaz. vol. 212; p. 354.
Binder, Flat-opening. A. B. Plushkell. No. 1,130,333; Mar. 2; Gaz. vol. 212; p. 171.
Binder, Loose-leaf. L. M. Morden. No. 1,129,891; Mar. 2; Gaz. vol. 212; p. 20.
Binder, Shiftable-sheet. J. C. Dawson. No. 1,132,306; Mar. 16; Gaz. vol. 212; p. 936.
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Binder, Temporary. J. R. Turner. No. 1,132,231; Mar. 16; Gaz. vol. 212; p. 907.
Binders, Lock-lever clip for temporary. J. M. Towne. No. 1,130,942; Mar. 9; Gaz. vol. 212; p. 417.
Binding-post. F. H. Day. No. 1,132,454; Mar. 16; Gaz. vol. 212; p. 988.
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Bit-stock. F. W. Larson. No. 1,133,046; Mar. 23; Gaz. vol. 212; p. 1255.
Blade-box. K. C. Gillette. No. 1,132,925; Mar. 23; Gaz. vol. 212; p. 1209.
Blades to snathes, Device for connecting. A. Caillonette. No. 1,130,666; Mar. 2; Gaz. vol. 212; p. 289.
Blank-folding machines, Picking mechanism for. J. Temple. No. 1,132,888; Mar. 23; Gaz. vol. 212; p. 1195.

Blank-holding mechanism. R. L. Wilcox. No. 1,132,698; Mar. 23; Gaz. vol. 212; p. 1126.
Bleaching, dyeing, and the like, Apparatus for. O. and E. H. Sumner. No. 1,133,759; Mar. 30; Gaz. vol. 212; p. 1544.
Bleaching purposes, Treatment of textile fibers for. E. T. J. Watremez. No. 1,133,769; Mar. 30; Gaz. vol. 212; p. 1548.
Blind catch, Window-. W. N. Button. No. 1,131,206; Mar. 9; Gaz. vol. 212; p. 508.
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Block-molding machine. J. B. Hunt. No. 1,131,840; Mar. 16; Gaz. vol. 212; p. 766.
Block-signaling, System of automatic. F. Townsend. No. 1,130,353; Mar. 2; Gaz. vol. 212; p. 177.
Blower. T. J. Ritter. No. 1,131,554; Mar. 9; Gaz. vol. 212; p. 627.
Blower. T. J. Ritter. No. 1,131,555; Mar. 9; Gaz. vol. 212; p. 627.
Blower attachment, Blacksmith's. A. C. Kephart. No. 1,131,385; Mar. 9; Gaz. vol. 212; p. 569.
Blower, Combination-. H. A. Bierck. No. 1,132,237; Mar. 16; Gaz. vol. 212; p. 909.
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Boat and propeller therefor. N. Stirn. No. 1,133,193; Mar. 23; Gaz. vol. 212; p. 1307.
Boat device, Life-. D. E. Basile. No. 1,133,700; Mar. 30; Gaz. vol. 212; p. 1525.
Boat doing away with oars and rudder. T. Bassford. No. 1,133,788; Mar. 30; Gaz. vol. 212; p. 1555.
Boat safety appliance. F. C. Foster. No. 1,133,629; Mar. 30; Gaz. vol. 212; p. 1498.
Boat, Inflating foldable. W. Czarnik. No. 1,130,480; Mar. 2; Gaz. vol. 212; p. 225.
Boat-launching apparatus, Life-. R. R. Cocking. No. 1,130,569; Mar. 2; Gaz. vol. 212; p. 256.
Boat, Life-. L. La Fontaine. No. 1,130,301; Mar. 2; Gaz. vol. 212; p. 160.
Boat, Life-. F. Sardynski and J. Tyazko. No. 1,133,063; Mar. 23; Gaz. vol. 212; p. 1261.
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Boat storing, lowering, and raising apparatus, Ship's-. I. F. Taylor and S. Pick. No. 1,133,826; Mar. 30; Gaz. vol. 212; p. 1569.
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Boats at sea, Means for lowering. A. T. Nelson. No. 1,131,411; Mar. 9; Gaz. vol. 212; p. 578.
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Boats, Side light for. I. Chase. No. 1,133,536; Mar. 30; Gaz. vol. 212; p. 1465.
Bobbin race and cover. F. Ehrendriech. No. 1,129,965; Mar. 2; Gaz. vol. 212; p. 45.
Bobbin, tube, or the like for use in textile industries, Perforated. J. T. and E. Brandwood. No. 1,132,240; Mar. 16; Gaz. vol. 212; p. 911.
Body-treatment machine. J. P. Gardner. No. 1,134,084; Mar. 30; Gaz. vol. 212; p. 1654.
Boiler: *See*—
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Boiler attachment, Safety. D. O. Tilman and O. C. Schelbner. No. 1,133,680; Mar. 30; Gaz. vol. 212; p. 1518.
Boiler feed apparatus, Automatic. E. Koerting. No. 1,133,040; Mar. 23; Gaz. vol. 212; p. 1253.
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Boiler-tube expanders, Extracting mandrels from. J. W. Faessler. No. 1,133,014; Mar. 23; Gaz. vol. 212; p. 1243.
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Bolt-lock. R. J. Robinson, Sr. No. 1,132,732; Mar. 23; Gaz. vol. 212; p. 1138.
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Bone-cutting machine. A. Roggenmoser. No. 1,132,976; Mar. 23; Gaz. vol. 212; p. 1229.
Book and the like, Loose-leaf. H. H. H. Ahearn. No. 1,131,648; Mar. 16; Gaz. vol. 212; p. 695.
Book, Coupon-. H. I. Wainwright and M. V. Ahern. No. 1,132,641; Mar. 23; Gaz. vol. 212; p. 1105.
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Bookbinding apparatus. J. Trümper. No. 1,131,877; Mar. 16; Gaz. vol. 212; p. 778.
Boot and shoe tree. H. Buchner. No. 1,130,707; Mar. 9; Gaz. vol. 212; p. 337.
Boot or shoe. H. W. Stedler. No. 1,130,854; Mar. 9; Gaz. vol. 212; p. 387.
Boot-scraper. P. H. Bauman. No. 1,132,646; Mar. 23; Gaz. vol. 212; p. 1107.
Boots and shoes, Machine for use in the manufacture of. R. F. McFeely. No. 1,129,881; Mar. 2; Gaz. vol. 212; p. 17.
Boots and shoes, Manufacturing. J. H. Waite. No. 1,133,766; Mar. 30; Gaz. vol. 212; p. 1546.
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Boring-drill, Roller. H. R. Hughes. No. 1,130,290; Mar. 2; Gaz. vol. 212; p. 156.
Boring drill, Rotary. H. R. Hughes. No. 1,131,701; Mar. 16; Gaz. vol. 212; p. 713.
Boring-tool holder, Adjustable. W. C. Morris. No. 1,133,169; Mar. 23; Gaz. vol. 212; p. 1298.
Bottle. H. Cremer. No. 1,130,069; Mar. 2; Gaz. vol. 212; p. 80.
Bottle and cap fastener. G. A. Williams. No. 1,130,783; Mar. 9; Gaz. vol. 212; p. 363.
Bottle and cap fastener. G. A. Williams. No. 1,132,140; Mar. 16; Gaz. vol. 212; p. 874.
Bottle and closure therefor. S. S. Williamson and G. R. Carothers. No. 1,131,304; Mar. 9; Gaz. vol. 212; p. 542.
Bottle-cap-assembling machine. R. G. Clark. No. 1,134,031; Mar. 30; Gaz. vol. 212; p. 1636.
Bottle-cap-assembling machine. J. C. Forrester. No. 1,131,355; Mar. 9; Gaz. vol. 212; p. 558.
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Bottle-closure. L. Marconi. No. 1,130,183; Mar. 2; Gaz. vol. 212; p. 119.
Bottle-closure. G. T. Parr. No. 1,131,544; Mar. 9; Gaz. vol. 212; p. 624.
Bottle-filling machine. A. Schneider. No. 1,132,218; Mar. 16; Gaz. vol. 212; p. 901.
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Bottle-making machine. J. H. Kendig. No. 1,132,855; Mar. 23; Gaz. vol. 212; p. 1184.
Bottle-making, Neck-roll apparatus for. S. Schiff. No. 1,130,845; Mar. 9; Gaz. vol. 212; p. 384.
Bottle, Non-refillable. E. Boser and E. Matz. No. 1,133,225; Mar. 23; Gaz. vol. 212; p. 1316.
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Bottle-opener. R. B. Brunswick. No. 1,129,952; Mar. 2; Gaz. vol. 212; p. 41.
Bottle or jar cap. H. H. Robertson. No. 1,132,975; Mar. 23; Gaz. vol. 212; p. 1228.
Bottle, Protective. C. F. Davy. No. 1,130,488; Mar. 2; Gaz. vol. 212; p. 228.
Bottle-remover for bottle-washing machines. J. Sargeant. No. 1,133,321; Mar. 30; Gaz. vol. 212; p. 1386.
Bottle-stopper. M. E. Hamilton. No. 1,132,931; Mar. 23; Gaz. vol. 212; p. 1211.
Bottle-stopper. C. McKeever. No. 1,131,400; Mar. 9; Gaz. vol. 212; p. 575.

Bottle-stopper-assembling machine. H. F. Busch. No. 1,131,326; Mar. 9; Gaz. vol. 212; p. 549.
Bottle, Telltale. A. L. Westrich. No. 1,130,867; Mar. 9; Gaz. vol. 212; p. 391.
Bottle-top. O. Roelke. No. 1,133,505; Mar. 30; Gaz. vol. 212; p. 1452.
Bottle, Vacuum-. C. P. Byrnes. No. 1,130,255; Mar. 2; Gaz. vol. 212; p. 143.
Bottle-washing machine. J. T. H. Paul. No. 1,130,015; Mar. 2; Gaz. vol. 212; p. 61.
Bottle-washing-machine attachment. S. Martinelli. No. 1,130,418; Mar. 2; Gaz. vol. 212; p. 201.
Bottles, jars, and other like vessels, Holder for. E. Hales. No. 1,132,180; Mar. 16; Gaz. vol. 212; p. 888.
Bottles, jars, &c., Service-cover for milk-. B. S. Pierce. No. 1,132,615; Mar. 23; Gaz. vol. 212; p. 1095.
Bottles, Pour-out for. W. C. Sabine. No. 1,132,620; Mar. 23; Gaz. vol. 212; p. 1097.
Bottling-machine. A. A. Carper. No. 1,133,929; Mar. 30; Gaz. vol. 212; p. 1603.
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Bearing-box. Mail-box.
Berry-box. Metal box.
Blade-box. Meter-box.
Collapsible box. Outlet-box.
Collar-box. Paper box.
Cut-out box. Self-locking box.
Display-box. Service-box.
Exhaust-box. Shipping and display box.
Flower-box. Sound-box.
Folding box. Switch-box.
Journal-box. Tool-box.
Junction-box. Toy box.
Letter-box. Wagon-box.
Lunch-box.
Box, J. F. Brooks. No. 1,133,791; Mar. 30; Gaz. vol. 212; p. 1556.
Box, F. A. Hornor. No. 1,131,520; Mar. 9; Gaz. vol. 212; p. 616.
Box and case. H. Wildberg. No. 1,133,076; Mar. 23; Gaz. vol. 212; p. 1265.
Box-blank machine. S. F. Bauwens. No. 1,131,460; Mar. 9; Gaz. vol. 212; p. 596.
Box-blank machine. E. Craig. No. 1,132,515; Mar. 16; Gaz. vol. 212; p. 1011.
Box fastener, Top-. C. A. Roberts. No. 1,130,338; Mar. 2; Gaz. vol. 212; p. 172.
Box-making machine. J. P. Bird. No. 1,131,199; Mar. 9; Gaz. vol. 212; p. 505.
Box-making machine. J. N. J. Hilbert. No. 1,131,131; Mar. 9; Gaz. vol. 212; p. 481.
Box-making machine. J. N. J. Hilbert. No. 1,131,132; Mar. 9; Gaz. vol. 212; p. 482.
Box or crate. H. Brown. No. 1,133,001; Mar. 23; Gaz. vol. 212; p. 1238.
Box-shaping machine. J. A. Stock and M. J. Milmoe. No. 1,132,632; Mar. 23; Gaz. vol. 212; p. 1102.
Box-strapping machine. J. E. Godley and J. M. Carroll. No. 1,130,160; Mar. 2; Gaz. vol. 212; p. 110.
Box-strapping, Wired-edge. G. C. D. Miller. No. 1,133,814; Mar. 30; Gaz. vol. 212; p. 1565.
Brace: *See*—
Cabinet-brace.
Bracelet. H. L. Jeffery and A. W. Wadsworth. No. 1,130,405; Mar. 2; Gaz. vol. 212; p. 196.
Bracelet or endless chain. R. King. No. 1,132,099; Mar. 16; Gaz. vol. 212; p. 857.
Bracelets, Locking device for watch-. C. L. Depollier. No. 1,131,682; Mar. 16; Gaz. vol. 212; p. 707.
Bracelets, Watch-holder attachment for. A. Y. Cunningham. No. 1,130,381; Mar. 2; Gaz. vol. 212; p. 188.
Bracket: *See*—
Drapery-bracket. Mirror-bracket.
Lamp-bracket. Scaffold-bracket.
Lamp-supporting deck-bracket. Shade-bracket.
Slidable bracket.
Braiding-machine. H. Z. Cobb. No. 1,133,364; Mar. 30; Gaz. vol. 212; p. 1403.
Brake: *See*—
Car-brake. Fluid-pressure brake.
Coaster-brake. Truck-brake.
Electropneumatic brake.
Brake. J. Zoller and R. Schuster. No. 1,131,810; Mar. 16; Gaz. vol. 212; p. 754.
Brake apparatus, Fluid-pressure. F. H. Whitney. No. 1,131,977; Mar. 16; Gaz. vol. 212; p. 814.
Brake apparatus, Load. W. V. Turner. No. 1,131,967; Mar. 16; Gaz. vol. 212; p. 810.
Brake-applying mechanism for trains. N. A. Oliver. No. 1,133,497; Mar. 30; Gaz. vol. 212; p. 1449.
Brake mechanism. W. C. Baker. No. 1,132,540; Mar. 16; Gaz. vol. 212; p. 1020.
Brake mechanism. W. C. Baker. No. 1,132,541; Mar. 16; Gaz. vol. 212; p. 1020.
Brake mechanism, Electrically-controlled. E. H. Dewson and W. V. Turner. No. 1,131,218; Mar. 9; Gaz. vol. 212; p. 511.
Brake mechanism, Load-regulated. W. G. Ransom. No. 1,133,667; Mar. 30; Gaz. vol. 212; p. 1513.
Brake-pipe vent-valve device. W. V. Turner and P. H. Donovan. No. 1,133,341; Mar. 30; Gaz. vol. 212; p. 1394.
Brake-shoe. H. Jones. No. 1,130,171; Mar. 2; Gaz. vol. 212; p. 114.
Brake-shoe. H. Jones. No. 1,132,944; Mar. 23; Gaz. vol. 212; p. 1217.
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Brake-shoe. C. N. Winter. No. 1,130,231; Mar. 2; Gaz. vol. 212; p. 135.
Brake-shoe, Segmental. H. Jones. No. 1,129,986; Mar. 2; Gaz. vol. 212; p. 52.
Brake-shoe, Vehicle. M. Stefanka. No. 1,130,939; Mar. 9; Gaz. vol. 212; p. 416.
Brake-staff, Adjustable. F. L. Barber and E. W. Webb. No. 1,130,955; Mar. 9; Gaz. vol. 212; p. 421.
Brake-valve device. W. V. Turner. No. 1,133,339; Mar. 30; Gaz. vol. 212; p. 1393.
Brakes, Device for graduating the release of the. W. V. Turner. No. 1,131,181; Mar. 9; Gaz. vol. 212; p. 498.
Brass, aluminum, and other metals or alloys of high-conductivity for heat, Uniting sheets of. N. Pröstler. No. 1,134,007; Mar. 30; Gaz. vol. 212; p. 1627.
Bread-cutting gage. U. G. Coon. No. 1,131,333; Mar. 9; Gaz. vol. 212; p. 552.
Bread, Manufacture of. W. A. Hobbs. No. 1,131,698; Mar. 16; Gaz. vol. 212; p. 713.
Brick-handling machine. E. Gurney. No. 1,131,507; Mar. 9; Gaz. vol. 212; p. 612.
Brick-setting machine. M. F. Bultge. No. 1,131,905; Mar. 16; Gaz. vol. 212; p. 788.
Brick-surfacing machine. C. F. Thomas. No. 1,131,441; Mar. 9; Gaz. vol. 212; p. 589.
Bricks, Device for simultaneously cutting and closing hollow. K. Johannesmann. No. 1,131,705; Mar. 16; Gaz. vol. 212; p. 715.
Brickmaking-machine. E. Gurney. No. 1,131,506; Mar. 9; Gaz. vol. 212; p. 611.
Brickmaking-machine. E. Gurney. No. 1,131,626; Mar. 9; Gaz. vol. 212; p. 652.
Brickmaking-machine. E. Gurney. No. 1,131,627; Mar. 9; Gaz. vol. 212; p. 653.
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Bridle. A. J. Hentschel. No. 1,132,182; Mar. 16; Gaz. vol. 212; p. 888.
Bridle-bit. H. Schlueter. No. 1,130,638; Mar. 2; Gaz. vol. 212; p. 278.
Bridle, Press-bit. J. Erickson. No. 1,133,115; Mar. 23; Gaz. vol. 212; p. 1279.
Briquet. C. Schneider. No. 1,132,527; Mar. 16; Gaz. vol. 212; p. 1015.
Broiler. E. Garraux. No. 1,133,850; Mar. 30; Gaz. vol. 212; p. 1578.
Brooder-beater. H. A. George. No. 1,132,005; Mar. 16; Gaz. vol. 212; p. 824.
Broom. H. W. Judevine. No. 1,133,035; Mar. 23; Gaz. vol. 212; p. 1251.
Broom-machine. F. W. Reese. No. 1,130,765; Mar. 9; Gaz. vol. 212; p. 356.
Broom or brush. N. S. Airhart and E. H. Gold. No. 1,131,890; Mar. 16; Gaz. vol. 212; p. 782.
Broom, Push-. F. R. Hipkin. No. 1,134,076; Mar. 30; Gaz. vol. 212; p. 1651.
Brush. B. W. Corley. No. 1,130,574; Mar. 2; Gaz. vol. 212; p. 258.
Brush. J. A. Fritsch, No. 1,130,673; Mar. 2; Gaz. vol. 212; p. 291.
Brush. A. Lightfoot. No. 1,131,068; Mar. 9; Gaz. vol. 212; p. 460.
Brush. J. Speese. No. 1,130,442; Mar. 2; Gaz. vol. 212; p. 210.
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Brush for linotype-pots. L. Ewald. No. 1,133,716; Mar. 30; Gaz. vol. 212; p. 1530.
Brush, Fountain-. J. Speese. No. 1,131,012; Mar. 9; Gaz. vol. 212; p. 440.
Brush holder, Scrub-. A. B. Boughan. No. 1,132,511; Mar. 16; Gaz. vol. 212; p. 1009.
Brush, Paint-. F. H. Osborn. No. 1,130,759; Mar. 9; Gaz. vol. 212; p. 355.
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Brush, Tooth-. C. E. Carroll. No. 1,133,930; Mar. 30; Gaz. vol. 212; p. 1603.
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Bucket, Drag-line. H. T. Dunbar. No. 1,132,078; Mar. 16; Gaz. vol. 212; p. 850.
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Buckle. J. W. Parmenter. No. 1,133,396; Mar. 30; Gaz. vol. 212; p. 1414.
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Buckle, Clasp-. W. P. Bartel. No. 1,133,456; Mar. 30; Gaz. vol. 212; p. 1435.
Buckle, Initial-. L. Sanders. No. 1,134,016; Mar. 30; Gaz. vol. 212; p. 1629.

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Buffer, Reversible. H. Mendelsohn. No. 1,134,088; Mar. 30; Gaz. vol. 212; p. 1656.
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Bulkhead-doors, Apparatus for operating. H. M. Gleason. No. 1,131,832; Mar. 16; Gaz. vol. 212; p. 763.
Bull-wheel belt-lifter. E. Peterson. No. 1,133,180; Mar. 23; Gaz. vol. 212; p. 1302.
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Hydrocarbon-burner. Vapor-burner.
Lamp-burner.
Liquid and gaseous fuel burner.
Burner. F. Antonuccio. No. 1,130,132; Mar. 2; Gaz. vol. 212; p. 101.
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Button-stapling machine. O. W. Nunn. No. 1,132,112; Mar. 16; Gaz. vol. 212; p. 862.
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Cams, Tool for laying out. A. H. Simons. No. 1,133,585; Mar. 30; Gaz. vol. 212; p. 1482.
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Egg-carrier. Package-carrier.
Fodder-carrier. Type-carrier.
Hay-carrier.
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Case: *See*—
Cigarette-case.
Cigarette-paper case.
Egg-case.
File-case.
Filing-case.
Packing-case.
Pulley-case.
Record-filing case.
Show-case.
Sorting and filing case.
Suitcase.
Watchcase.

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Rail-chair.
Rocking-chair.

Chair. P. L. Goodman and J. Peters. No. 1,131,365; Mar. 9; Gaz. vol. 212; p. 562.

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Check-protector. C. S. Carrier. No. 1,133,459; Mar. 30; Gaz. vol. 212; p. 1436.

Check-protector. W. D. Doremus. No. 1,131,602; Mar. 9; Gaz. vol. 212; p. 644.

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Cotton-chopper.
Food-chopper.

Chuck. C. Bodmer. No. 1,132,550; Mar. 23; Gaz. vol. 212; p. 1070.

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Chute. J. B. Strauss. No. 1,132,228; Mar. 16; Gaz. vol. 212; p. 906.

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Cigarette-case. L. Potter. No. 1,133,745; Mar. 30; Gaz. vol. 212; p. 1540.

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Cistern, Flushing-. C. L. Newland. No. 1,132,608; Mar. 23; Gaz. vol. 212; p. 1092.

Clamp: *See*—
Bag-holder clamp.
Basket-runner clamp.
Cue-tip clamp.
Fence-clamp.
Hose-clamp.
Meat-clamp.
Tie and rail-clamp.
Undertaker's clamp.
Washboard-clamp.
Wire-stretcher clamp.

Clamp. E. and A. Linton. No. 1,132,364; Mar. 16; Gaz. vol. 212; p. 955.

Clamp. S. W. Tate. No. 1,130,772; Mar. 9; Gaz. vol. 212; p. 359.

Clamping device, Adjustable. F. J. Madell. No. 1,130,831; Mar. 9; Gaz. vol. 212; p. 378.

Clasp: *See*—
Belt-clasp.

Clasp. C. W. McGinley. No. 1,132,785; Mar. 23; Gaz. vol. 212; p. 1159.

Claw-bar. F. Limer. No. 1,131,393; Mar. 9; Gaz. vol. 212; p. 572.

Clay and like materials, Treating. F. Thompson. No. 1,132,537; Mar. 16; Gaz. vol. 212; p. 1019.

Cleaner: *See*—
Boiler-tube cleaner.
Comb-cleaner.
Floor-cleaner.
Pipe and tube cleaner.
Rake-cleaner.
Seed-cleaner.
Sewer-cleaner.
Vacuum-cleaner.
Window-cleaner.

Cleaning apparatus. I. H. Spencer. No. 1,134,022; Mar. 30; Gaz. vol. 212; p. 1632.

Cleaning-machine. C. H. Krebs. No. 1,129,875; Mar. 2; Gaz. vol. 212; p. 15.

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Clicking-machine. H. H. Eaton. No. 1,131,686; Mar. 16; Gaz. vol. 212; p. 709.

Clip: *See*—
Axle-clip.
Fuse-clip.
Paper-clip.
Pocket-clip.
Terminal clip.

Clip-board shield. J. A. Lee. No. 1,133,979; Mar. 30; Gaz. vol. 212; p. 1618.

Clock apparatus, Program-. F. F. Landis. No. 1,130,091; Mar. 2; Gaz. vol. 212; p. 87.

Clock, Electric. F. F. Landis. No. 1,130,092; Mar. 2; Gaz. vol. 212; p. 87.

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Clock, Electric pendulum. A. Jabs. No. 1,132,012. Mar. 16; Gaz. vol. 212; p. 827.

Clocks, Phonograph attachment for. J. H. Pearson. No. 1,131,001; Mar. 9; Gaz. vol. 212; p. 437.

Closet: *See*—
Water-closet.

Closet-bowl, Siphon. C. H. Muckenhirn. No. 1,132,866; Mar. 23; Gaz. vol. 212; p. 1188.

Closure. J. V. Hull. No. 1,134,067; Mar. 30; Gaz. vol. 212; p. 1648.

Closure. W. P. White. No. 1,134,069; Mar. 30; Gaz. vol. 212; p. 1649.

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Cloth-cutting machine. F. J. Clark. No. 1,133,839; Mar. 30; Gaz. vol. 212; p. 1573.

Cloth-piling machine. M. L. and C. M. Shapera. No. 1,131,647; Mar. 9; Gaz. vol. 212; p. 662.

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Clothes-line support. W. J. Daly and B. Wimmer. No. 1,130,713; Mar. 9; Gaz. vol. 212; p. 339.

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Comb-cleaner. T. C. Bamfield and G. Rechter. No. 1,133,910; Mar. 30; Gaz. vol. 212; p. 1597.

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Cushioned wheel. J. F. Franklin and B. S. Cowell. No. 1,129,860; Mar. 2; Gaz. vol. 212; p. 10.
Cuspidor. S. Fragoulis. No. 1,131,829; Mar. 16; Gaz. vol. 212; p. 761.
Cuspidor. W. F. Hagen and W. F. Budenbach. No. 1,129,976; Mar. 2; Gaz. vol. 212; p. 48.
Cuspidor. J. R. Roberts. No. 1,130,107; Mar. 2; Gaz. vol. 212; p. 92.
Cuspidor. F. S. Smelik. No. 1,130,937; Mar. 9; Gaz. vol. 212; p. 416.
Cuspidor, Flushing-. H. F. Black. No. 1,130,249; Mar. 2; Gaz. vol. 212; p. 141.
Cut-off, Automatic. J. E. Williams. No. 1,132,415; Mar. 16; Gaz. vol. 212; p. 974.
Cut-out box. A. L. Pierce. No. 1,132,116; Mar. 16; Gaz. vol. 212; p. 864.
Cutter: *See*—
Band-cutter. Paper-cutter.
Butter-cutter. Pipe and iron cutter.
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Cheese-cutter. Stalk-cutter.
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Cutter. W. P. Shortridge. No. 1,133,753; Mar. 30; Gaz. vol. 212; p. 1542.
Cutter-holder. R. G. Brackett. No. 1,131,818; Mar. 16; Gaz. vol. 212; p. 757.
Cutters, Mechanism for relieving the teeth of. C. Bouilion. No. 1,132,551; Mar. 23; Gaz. vol. 212; p. 1070.
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Delivering material from a container, Device for. A. Clemens. No. 1,131,117; Mar. 9; Gaz. vol. 212; p. 477.
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Dental instrument. T. D. Craig. No. 1,132,565; Mar. 23; Gaz. vol. 212; p. 1076.
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Dental matrix for approximal fillings. J. G. Hollingsworth. No. 1,133,379; Mar. 30; Gaz. vol. 212; p. 1408.
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Digging peanuts, potatoes, and the like, Machine for. W. H. Rice. No. 1,131,419; Mar. 9; Gaz. vol. 212; p. 582.
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Door-check. C. E. Kinard. No. 1,131,711; Mar. 16; Gaz. vol. 212; p. 716.
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Draft-gears, Removable assembled. W. D. Forsyth. No. 1,130,386; Mar. 2; Gaz. vol. 212; p. 190.
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Drawing-press. W. Klocke. No. 1,130,176; Mar. 2; Gaz. vol. 212; p. 116.
Drawing-press. W. Klocke. No. 1,132,018; Mar. 16; Gaz. vol. 212; p. 829.
Dredging and ramming device, Combined. K. Borschutsky. No. 1,132,510; Mar. 16; Gaz. vol. 212; p. 1009.
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Drier, tempering-heater, and cooker. F. B. Anderson. No. 1,132,421; Mar. 16; Gaz. vol. 212; p. 976.
Drier, tempering-heater, and cooker. C. O. Anderson. No. 1,132,422; Mar. 16; Gaz. vol. 212; p. 976.
Dry separator, Gravity-trap. D. F. Platner. No. 1,131,081; Mar. 9; Gaz. vol. 212; p. 464.
Drying objects formed of plastic masses. O. Eberhard. No. 1,131,047; Mar. 9; Gaz. vol. 212; p. 453.
Drift-pin puller. M. T. Devine. No. 1,130,071; Mar. 2; Gaz. vol. 212; p. 80.
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Drill-bit. G. W. McAllister. No. 1,133,161; Mar. 23; Gaz. vol. 212; p. 1295.
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Drilling-machines, Direction-indicating attachment for. R. A. Bowen. No. 1,131,596; Mar. 9; Gaz. vol. 212; p. 641.
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Easel. C. T. Springman. No. 1,132,629; Mar. 23; Gaz. vol. 212; p. 1101.
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Brooder-heater. Incubator-heater.
Electric heater. Liquid-heater.
Electric fluid-heater. Reflecting-heater.
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Feed-water heater. Water-heater.
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Hooks, Device for securing doubly-bent. R. Reiter and R. Lorenz. No. 1,130,105; Mar. 2; Gaz. vol. 212; p. 91.
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Flat-iron. Soldering-iron.
Iron for castings, Preparing. W. G. Kranz. No. 1,132,661; Mar. 23; Gaz. vol. 212; p. 1112.
Iron or steel, Carburizing. S. S. Eveland. No. 1,133,626; Mar. 30; Gaz. vol. 212; p. 1497.
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Ironing-board. W. W. Stewart. No. 1,132,498; Mar. 16; Gaz. vol. 212; p. 1005.
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Ironing-board and step-ladder, Combined. W. C. Nelly. No. 1,131,943; Mar. 16; Gaz. vol. 212; p. 801.
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Ironing-press. A. L. Lord and B. W. Brockett. No. 1,130,415; Mar. 2; Gaz. vol. 212; p. 200.
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Irrigation-canals, Automatic gate for. R. V. Meikle. No. 1,130,097; Mar. 2; Gaz. vol. 212; p. 89.
Jack: *See*—
Automatic-jack. Shoe-repairing jack.
Automobile-jack. Shoemaker's jack.
Journal-jack. Traversing jack.
Lifting-jack. Trench-jack.
Pumping-jack.
Jack. L. F. Bonaly. No. 1,133,358; Mar. 30; Gaz. vol. 212; p. 1400.
Jack. F. Halzmann. No. 1,132,339; Mar. 16; Gaz. vol. 212; p. 947.
Jack. C. G. Morrison. No. 1,133,391; Mar. 30; Gaz. vol. 212; p. 1412.
Jack. L. Willour. No. 1,133,241; Mar. 23; Gaz. vol. 212; p. 1322.
Jar: *See*—
Well-drill jar.
Jar. O. Kiefer. No. 1,131,844; Mar. 16; Gaz. vol. 212; p. 767.
Jar-cap-sealing device. H. S. Rider. No. 1,132,121; Mar. 16; Gaz. vol. 212; p. 866.
Jeweling-tool. C. W. Miner. No. 1,130,186; Mar. 2; Gaz. vol. 212; p. 120.
Jig. G. H. Elmoré. No. 1,132,464; Mar. 16; Gaz. vol. 212; p. 991.
Jig-polishers, Cam-movement for. W. L. Hunter. No. 1,134,047; Mar. 30; Gaz. vol. 212; p. 1642.
Joint: *See*—
Frame-joint. Railway-rail joint.
Pipe-joint. Universal joint.
Rail-joint.
Jointers, Safety attachment for. C. A. Frush. No. 1,132,327; Mar. 16; Gaz. vol. 212; p. 943.
Jolt ramming-machine. A. E. Oberg. No. 1,133,394; Mar. 30; Gaz. vol. 212; p. 1413.
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Journal-bearing, Dust-proof. J. P. Offerman. No. 1,131,857; Mar. 16; Gaz. vol. 212; p. 771.
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Junction-box. T. E. Murray. No. 1,132,672; Mar. 23; Gaz. vol. 212; p. 1116.
Junction-box. T. E. Murray. No. 1,132,673; Mar. 23; Gaz. vol. 212; p. 1116.
Key-operated lock. C. Domenico. No. 1,133,943; Mar. 30; Gaz. vol. 212; p. 1608.
Key-ring and napkin-holder, Combined. E. G. Kohl. No. 1,132,859; Mar. 23; Gaz. vol. 212; p. 1186.
Key-seating machine. C. Hacking. No. 1,132,179; Mar. 16; Gaz. vol. 212; p. 887.
Keyhole-guard. P. Cormier. No. 1,133,104; Mar. 23; Gaz. vol. 212; p. 1274.
Keyhole-guard. P. F. Struppler. No. 1,132,696; Mar. 23; Gaz. vol. 212; p. 1125.
Kiln: *See*—
Downdraft continuous kiln. Gas-fired kiln.
Kiln. J. N. Silva. No. 1,133,190; Mar. 23; Gaz. vol. 212; p. 1306.
Kitchen utensil. T. H. Stough. No. 1,133,413; Mar. 30; Gaz. vol. 212; p. 1421.
Kite. L. S. Patchel. No. 1,131,076; Mar. 9; Gaz. vol. 212; p. 463.
Kneading-machine. P. E. Foucar. No. 1,133,274; Mar. 30; Gaz. vol. 212; p. 1371.
Knee-protector. R. C. Bassett. No. 1,131,816; Mar. 16; Gaz. vol. 212; p. 757.
Knickerbockers. L. C. Freund. No. 1,133,552; Mar. 30; Gaz. vol. 212; p. 1470.
Knife: *See*—
Cutting-machine knife. Printer's ink-knife.
Paring-knife. Pruning-knife.
Knife. M. Arita. No. 1,133,213; Mar. 23; Gaz. vol. 212; p. 1313.
Knit undergarment. B. W. Thayer. No. 1,130,216; Mar. 2; Gaz. vol. 212; p. 130.
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Knitting machine, Circular-. F. Wilcomb. No. 1,131,583; Mar. 9; Gaz. vol. 212; p. 637.
Knitting-machine take-up device. L. N. D. Williams. No. 1,129,935; Mar. 2; Gaz. vol. 212; p. 35.
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Knuckle. R. F. Hunter. No. 1,132,348; Mar. 16; Gaz. vol. 212; p. 949.
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Lace holder, Shoe-. W. J. McDevitt. No. 1,131,533; Mar. 9; Gaz. vol. 212; p. 620.
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Ladder. W. H. Rice. No. 1,131,273; Mar. 9; Gaz. vol. 212; p. 531.
Ladle, Ice-cream. R. B. Gilchrist. No. 1,132,657; Mar. 23; Gaz. vol. 212; p. 1111.
Laminated board and making same. M. Lachman. No. 1,130,410; Mar. 2; Gaz. vol. 212; p. 198.
Laminated cohesive interwound fabric constructed in tubular and annular form. L. A. Subers. No. 1,132,634; Mar. 23; Gaz. vol. 212; p. 1103.
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Lamp, Acetylene-generating. O. Williams and E. C. Baker. No. 1,132,894; Mar. 23; Gaz. vol. 212; p. 1197.
Lamp and electrode therefor, Flame-arc. G. Egly. No. 1,132,313; Mar. 16; Gaz. vol. 212; p. 938.
Lamp, Arc-. J. T. H. Dempster. No. 1,132,307; Mar. 16; Gaz. vol. 212; p. 936.
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Lamp-burner. J. P. Walsh. No. 1,131,581; Mar. 9; Gaz. vol. 212; p. 636.
Lamp, Cluster incandescent. T. G. Litle, Jr. No. 1,132,365; Mar. 16; Gaz. vol. 212; p. 955.
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Lamp, Incandescent. C. E. Pierce. No. 1,131,079; Mar. 9; Gaz. vol. 212; p. 463.
Lamp, Inclosed-arc. C. A. B. Halvorson, Jr. No. 1,132,259; Mar. 16; Gaz. vol. 212; p. 918.
Lamp, Indicating-. W. E. Gilbert. No. 1,133,126; Mar. 23; Gaz. vol. 212; p. 1283.
Lamp-making machine. N. Marshall. No. 1,132,277; Mar. 16; Gaz. vol. 212; p. 925.
Lamp, Miner's. O. V. Fortney. No. 1,132,324; Mar. 16; Gaz. vol. 212; p. 942.
Lamp, Miner's safety-. E. F. Koehler. No. 1,132,522; Mar. 16; Gaz. vol. 212; p. 1013.
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Lamp-signal for automobiles. T. Mocydlarz. No. 1,133,305; Mar. 30; Gaz. vol. 212; p. 1381.
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Lamp-supporting deck-bracket. A. H. Welker; No. 1,132,991; Mar. 23; Gaz. vol. 212; p. 1235.
Lamps, Globe-holder for electric, gas, and other. J. A. Shaw. No. 1,130,113; Mar. 2; Gaz. vol. 212; p. 94.
Lamps, Safety attachment for. C. Von Culin. No. 1,132,810; Mar. 23; Gaz. vol. 212; p. 1168.
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Lantern. G. W. Hellstrand. No. 1,132,090; Mar. 16; Gaz. vol. 212; p. 854.
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Lantern, Electric. B. K. Bunch. No. 1,130,567; Mar. 2; Gaz. vol. 212; p. 255.
Lantern for moving pictures. A. J. Stone. No. 1,133,412; Mar. 30; Gaz. vol. 212; p. 1420.
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Lantern, Tubular. B. H. Pomeroy. No. 1,130,429; Mar. 2; Gaz. vol. 212; p. 205.
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Lasting-machine. H. A. Ballard. No. 1,131,983; Mar. 16; Gaz. vol. 212; p. 817.
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Latch. D. S. Cole. No. 1,131,826; Mar. 16; Gaz. vol. 212; p. 760.
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Latch, Door-. R. D. Demirjean. No. 1,134,038; Mar. 30; Gaz. vol. 212; p. 1639.
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Laundry-machine. H. S. Judd and H. Pletsch. No. 1,131,842; Mar. 16; Gaz. vol. 212; p. 767.
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Lawn and garden rake. C. J. Rethorn. No. 1,131,553; Mar. 9; Gaz. vol. 212; p. 627.
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Leaf-turner. F. E. Rodliff. No. 1,130,108; Mar. 2; Gaz. vol. 212; p. 92.
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Leather cutting and skiving machine. G. F. Hildebrand. No. 1,131,607; Mar. 9; Gaz. vol. 212; p. 647.
Leather material, Making. L. Heimann. No. 1,133,957; Mar. 30; Gaz. vol. 212; p. 1612.
Leather-staking machine. F. F. Slocomb. No. 1,130,769; Mar. 9; Gaz. vol. 212; p. 358.
Leather substitutes, Producing. R. A. McLaurin. No. 1,130,619; Mar. 2; Gaz. vol. 212; p. 272.
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Lens-notching machine. R. H. Uhlemann. No. 1,133,515; Mar. 30; Gaz. vol. 212; p. 1456.
Lens-shade, Exercising. M. J. Rooney. No. 1,130,634; Mar. 2; Gaz. vol. 212; p. 277.
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Leveling instrument for builders. C. L. Prandoni. No. 1,133,501; Mar. 30; Gaz. vol. 212; p. 1450.
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License-number-display device. J. R. Mayes and S. W. Eskew. No. 1,133,991; Mar. 30; Gaz. vol. 212; p. 1622.
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Life-preserver. W. Bruce. No. 1,131,112; Mar. 9; Gaz. vol. 212; p. 475.
Life-preserver. R. F. Collins. No. 1,129,958; Mar. 2; Gaz. vol. 212; p. 42.
Life-preserver. C. J. Frid. No. 1,131,227; Mar. 9; Gaz. vol. 212; p. 514.
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Life-preserving garment. M. P. Whidden. No. 1,129,932; Mar. 2; Gaz. vol. 212; p. 34.
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Life-saving apparatus. A. N. McGray. No. 1,130,528; Mar. 2; Gaz. vol. 212; p. 242.
Life-saving apparatus. R. J. Train and A. Houston. No. 1,133,202; Mar. 23; Gaz. vol. 212; p. 1310.
Life-saving at sea, Appliance suitable for. W. Gater. No. 1,132,468; Mar. 16; Gaz. vol. 212; p. 992.
Life-saving device. H. C. Brubacker. No. 1,133,924; Mar. 30; Gaz. vol. 212; p. 1601.
Lifter: *See*—
Bull-wheel belt-lifter. Utensil-lifter.
Lid-lifter. Valve-lifter.
Locomotive smoke-lifter. Vessel-lifter.
Stove-lid lifter.
Lifting-jack. C. L. Crabb. No. 1,132,075; Mar. 16; Gaz. vol. 212; p. 850.
Lifting-jack. J. O. St. Pierre. No. 1,131,285; Mar. 9; Gaz. vol. 212; p. 534.
Lifting-jack. J. O. St. Pierre. No. 1,131,286; Mar. 9; Gaz. vol. 212; p. 535.
Light: *See*—
Dirigible light. Electric work-light.
Electric light. Flash-light.
Light-mantles, Machine for making. A. D. Antoine. No. 1,131,893; Mar. 16; Gaz. vol. 212; p. 783.
Light-projecting apparatus. G. S. Coleman. No. 1,133,105; Mar. 23; Gaz. vol. 212; p. 1274.
Light-support. T. J. Taylor. No. 1,130,773; Mar. 9; Gaz. vol. 212; p. 359.
Lighter. J. O. Carrey. No. 1,132,559; Mar. 23; Gaz. vol. 212; p. 1073.
Lighting attachment. G. Dietz, E. J. Lafferty, and G. J. Bessinger. No. 1,131,221; Mar. 9; Gaz. vol. 212; p. 512.
Lighting purposes, Vacuum discharge-tube for. G. Claude. No. 1,131,910; Mar. 16; Gaz. vol. 212; p. 789.
Lightning-rod coupling. E. G. Owen. No. 1,133,176; Mar. 23; Gaz. vol. 212; p. 1301.

Line conductors, protective casing for. T. E. Murray. No. 1,132,671; Mar. 23; Gaz. vol. 212; p. 1116.
Line-stretcher. P. H. Buch. No. 1,130,063; Mar. 2; Gaz. vol. 212; p. 77.
Line-support. W. R. Corner. No. 1,132,514; Mar. 16; Gaz. vol. 212; p. 1010.
Line-switch. J. N. Reynolds. No. 1,131,734; Mar. 16; Gaz. vol. 212; p. 725.
Line-testing switch. J. M. Watkins. No. 1,131,098; Mar. 9; Gaz. vol. 212; p. 470.
Linoleum. E. L. Blabon. No. 1,132,647; Mar. 23; Gaz. vol. 212; p. 1107.
Linotype-machine. T. S. Homans. No. 1,130,600; Mar. 2; Gaz. vol. 212; p. 266.
Linotype-machine attachment. C. B. Callan. No. 1,132,557; Mar. 23; Gaz. vol. 212; p. 1073.
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Liquid-fuel-fired furnace. A. Laing. No. 1,132,361; Mar. 16; Gaz. vol. 212; p. 954.
Liquid-fuel tank. F. C. Coseo. No. 1,132,833; Mar. 23; Gaz. vol. 212; p. 1176.
Liquid-heater, Electric. M. H. Gonzalez. No. 1,129,861; Mar. 2; Gaz. vol. 212; p. 10.
Liquid-heating apparatus. H. Junkers. No. 1,133,563; Mar. 30; Gaz. vol. 212; p. 1474.
Liquid-heating apparatus. H. Junkers. No. 1,133,564; Mar. 30; Gaz. vol. 212; p. 1474.
Liquid-impelling device. E. P. Holly. No. 1,131,519; Mar. 9; Gaz. vol. 212; p. 616.
Liquid-levels, Attachment for indicating changes in. A. Sgritta. No. 1,130,548; Mar. 2; Gaz. vol. 212; p. 249.
Liquid-meter. H. C. Alger. No. 1,132,994; Mar. 23; Gaz. vol. 212; p. 1236.
Liquid-separators, Regulating means for centrifugal. J. V. M. Risberg. No. 1,131,421; Mar. 9; Gaz. vol. 212; p. 582.
Liquid-serving device. W. P. Earnheart. No. 1,131,495; Mar. 9; Gaz. vol. 212; p. 608.
Liquid-sterilizer. V. Henri, A. Helbronner, and M. von Recklinghausen. No. 1,132,265; Mar. 16; Gaz. vol. 212; p. 920.
Liquid-supply device. W. Jay. No. 1,132,943; Mar. 23; Gaz. vol. 212; p. 1217.
Liquid-transferring means. J. A. Barr. No. 1,133,606; Mar. 30; Gaz. vol. 212; p. 1490.
Liquid, Treating. C. P. Landreth. No. 1,131,067; Mar. 9; Gaz. vol. 212; p. 460.
Liquids, Apparatus for treating materials with. R. U Bunker. No. 1,131,675; Mar. 16; Gaz. vol. 212; p. 705.
Liquids, Decolorizing. F. R. Bachler. No. 1,131,308; Mar. 9; Gaz. vol. 212; p. 543.
Liquids, Expressing. J. J. Berrigan. No. 1,130,879; Mar. 9; Gaz. vol. 212; p. 396.
Liquids from solids, Apparatus for expressing. J. J. Berrigan. No. 1,130,701; Mar. 9; Gaz. vol. 212; p. 335.
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Automobile-lock. Key-operated lock.
Bed corner-lock. Nut-lock.
Bolt-lock. Nut and bolt lock.
Car-door lock. Padlock.
Coin-controlled lock. Poison-container lock.
Crate-lock. Safety-lock.
Door-lock. Sash-lock.
Hay-rack lock. Table-lock.
Hose-lock. Vault-lock.
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Drop-feed lubricator. Grease lubricator.
Force-feed lubricator.
Lubricator. D. E. Gainer and W. L. Stull. No. 1,133,554; Mar. 30; Gaz. vol. 212; p. 1470.
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Mat: *See*—
Running-board mat.
Match-books, &c., Machine for assembling. J. C. Donnelly. No. 1,132,310; Mar. 16; Gaz. vol. 212; p. 937.
Match-books, &c., Machine for assembling. F. Schafer. No. 1,132,285; Mar. 16; Gaz. vol. 212; p. 928.
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Meter: *See*—
Liquid-meter. Water-meter.
Rotary meter.
Meter-box. H. M. Lofton. No. 1,133,386; Mar. 30; Gaz. vol. 212; p. 1410.
Meter-separator. J. M. Burton. No. 1,130,792; Mar. 9; Gaz. vol. 212; p. 366.
Mica-board, Apparatus for making. W. H. Sills. No. 1,133,325; Mar. 30; Gaz. vol. 212; p. 1388.
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Micrometer, Capillary-tube-system. W. Rechniowski. No. 1,133,400; Mar. 30; Gaz. vol. 212; p. 1415.
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Mill: *See*—
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Fanning-mill. Rolling-mill.
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Roll-mill.
Mill-roll, Hot. J. Loomis. No. 1,130,911; Mar. 9; Gaz. vol. 212; p. 407.
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Mirrors and reading-glasses, Adjustable supporting-bracket for. R. E. Atkinson. No. 1,130,689; Mar. 2; Gaz. vol. 212; p. 297.
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Mixing-apparatus feeder. L. C. Hamel. No. 1,129,866; Mar. 2; Gaz. vol. 212; p. 12.
Mohair fabric. W. S. Nutter. No. 1,131,259; Mar. 9; Gaz. vol. 212; p. 526.
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Fence-post mold. Violin-mold.
Mold. H. E. Hamilton. No. 1,132,579; Mar. 23; Gaz. vol. 212; p. 1081.
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Mold-making machine. C. F. Knowlton and F. F. Elliott; No. 1,132,723; Mar. 23; Gaz. vol. 212; p. 1135.
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Molding-machine. M. Brock. No. 1,130,138; Mar. 2; Gaz. vol. 212; p. 103.
Molding-machine. G. L. Grimes. No. 1,130,968; Mar. 9; Gaz. vol. 212; p. 426.
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Monument, mound, and flower-bed, Combined. F. Schreyer. No. 1,130,203; Mar. 2; Gaz. vol. 212; p. 126.
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Mop-wringer. C. E. Van Doorn. No. 1,132,752; Mar. 23; Gaz. vol. 212; p. 1146.
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Motion, Mechanism for the conversion of reciprocating into rotary. G. Cassady and C. F. Mendhan. No. 1,132,161; Mar. 16; Gaz. vol. 212; p. 880.
Motion-transmitting mechanism. J. C. Ukena. No. 1,132,809; Mar. 23; Gaz. vol. 212; p. 1168.
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Electric motor. Reciprocating motor.
Fluid-motor. Spring-motor.
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Motor and pump, Convertible. E. T. Schmucker. No. 1,132,393; Mar. 16; Gaz. vol. 212; p. 966.
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Motor safety device, Starting-. F. H. Miller. No. 1,130,004; Mar. 2; Gaz. vol. 212; p. 57.
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Muffler. C. Gorosa. No. 1,131,233; Mar. 9; Gaz. vol. 212; p. 516.
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Nail-puller. G. W. Grant. No. 1,132,178; Mar. 16; Gaz. vol. 212; p. 887.
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Picker: *See*—
Cotton-picker. Olive-picker.
Fruit-picker.
Picture device, Story-. V. M. Earle. No. 1,131,494; Mar. 9; Gaz. vol. 212; p. 607.
Picture-frame. M. Loewenthal. No. 1,132,366; Mar. 16; Gaz. vol. 212; p. 956.
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Pile-wire. A. F. McCollum. No. 1,130,617; Mar. 2; Gaz. vol. 212; p. 272.
Pile-wire. A. F. McCollum. No. 1,130,618; Mar. 2; Gaz. vol. 212; p. 272.
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Pin-fastener. T. C. Spelling. No. 1,133,247; Mar. 23; Gaz. vol. 212; p. 1324.
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Pipe and iron cutter. M. L. Gilmour. No. 1,130,395; Mar. 2; Gaz. vol. 212; p. 193.
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Pipe coupling, Automatic train-. R. E. Adreon. No. 1,130,694; Mar. 9; Gaz. vol. 212; p. 333.
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Playing apparatus, Automatic. J. Schwertner. No. 1,133,581; Mar. 30; Gaz. vol. 212; p. 1480.
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Plow or cultivator, Subsoil. J. T. Andrew and A. W. Landers. No. 1,130,655; Mar. 2; Gaz. vol. 212; p. 284.
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Poison-indicator. M. T. Hudson. No. 1,131,839; Mar. 16; Gaz. vol. 212; p. 765.
Polarity-indicator. F. W. Roller. No. 1,130,633; Mar. 2; Gaz. vol. 212; p. 277.
Policeman's billy. E. L. and E. B. Von Eschen. No. 1,130,355; Mar. 2; Gaz. vol. 212; p. 178.
Portable elevator. H. S. Germond, Jr. No. 1,130,080; Mar. 2; Gaz. vol. 212; p. 83.
Portière. J. Hoye. No. 1,133,966; Mar. 30; Gaz. vol. 212; p. 1614.
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Post. B. C. Rockwell. No. 1,131,737; Mar. 16; Gaz. vol. 212; p. 726.
Post-anchor. C. F. Noakes. No. 1,133,496; Mar. 30; Gaz. vol. 212; p. 1449.
Post-base, Detachable. A. Z. Pierce. No. 1,131,864; Mar. 16; Gaz. vol. 212; p. 774.
Post-puller. E. W. Carlson. No. 1,130,144; Mar. 2; Gaz. vol. 212; p. 105.
Post wire-holder, Cement-. A. J. Rader. No. 1,131,416; Mar. 9; Gaz. vol. 212; p. 581.
Postage-stamp. W. O. Besaw. No. 1,131,464; Mar. 9; Gaz. vol. 212; p. 597.
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Potato-digger. E. R. Allen. No. 1,133,908; Mar. 30; Gaz. vol. 212; p. 1597.
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Potato-digger and vine-separator, Combined. I. W. Hoover. No. 1,130,403; Mar. 2; Gaz. vol. 212; p. 195.
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Pulley, Sash-. U. G. McQueen. No. 1,129,999; Mar. 2; Gaz. vol. 212; p. 56.
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Pump. F. N. Livingston. No. 1,133,980; Mar. 30; Gaz. vol. 212; p. 1618.
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Pump device, Steam-. W. V. Turner. No. 1,131,182; Mar. 9; Gaz. vol. 212; p. 499.
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Pump, Multistage centrifugal. A. V. Mueller. No. 1,130,422; Mar. 2; Gaz. vol. 212; p. 203.
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Pump, Portable force-. J. Farner. No. 1,134,042; Mar. 30; Gaz. vol. 212; p. 1640.
Pump-rod coupling. C. P. Thompson. No. 1,133,513; Mar. 30; Gaz. vol. 212; p. 1456.
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Puncture-mending device. H. T. Stephens. No. 1,131,745; Mar. 16; Gaz. vol. 212; p. 729.
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Push-rake. E. C. Smith. No. 1,130,032; Mar. 2; Gaz. vol. 212; p. 66.
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Puzzle. J. A. Brogan and M. Bruner. No. 1,132,430; Mar. 16; Gaz. vol. 212; p. 979.
Rack: *See*—
Cable-rack.
Diaper-drying rack.
Display-rack.
Electric-wire-display rack.
Engine-rack.
Garment-rack.
Hay-rack.
Icing-rack.
Mail-bag rack.
Painter's rack.
Stock-rack.
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Rack. W. P. Hammond. No. 1,131,235; Mar. 9; Gaz. vol. 212; p. 517.
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Rail-joint. S. W. T. Swill. No. 1,131,569; Mar. 9; Gaz. vol. 212; p. 632.
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Razor-strop holder. J. T. Stutler. No. 1,133,511; Mar. 30; Gaz. vol. 212; p. 1455.
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Reflecting-heater. F. O. and J. F. Adams. No. 1,132,822; Mar. 23; Gaz. vol. 212; p. 1173.
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Autographic register.
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Rivet, Hollow. E. M. Cobb. No. 1,130,962; Mar. 9; Gaz. vol. 212; p. 424.
Rivet setting and displacing tool. J. W. Thrasher. No. 1,130,121; Mar. 2; Gaz. vol. 212; p. 97.
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Rocking-chair. E. Robbins. No. 1,132,387; Mar. 16; Gaz. vol. 212; p. 963.
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Connecting-rod.
Rod-head. P. P. Mirtz. No. 1,133,874; Mar. 30; Gaz. vol. 212; p. 1586.
Rods or bolts, Detachable head for connecting. W. Caldwell. No. 1,133,428; Mar. 30; Gaz. vol. 212; p. 1426.
Roll-mill for hard materials. H. Aldehoff. No. 1,133,212; Mar. 23; Gaz. vol. 212; p. 1313.

Roller: *See*—
Curtain-roller.
Land-roller.
Road-roller.
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Roller-holder, Adjustable. A. J. Blackwood. No. 1,130,880; Mar. 9; Gaz. vol. 212; p. 396.
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Rolls, Appartus for making composite. J. T. Osler. No. 1,132,612; Mar. 23; Gaz. vol. 212; p. 1094.
Rolls, Keying device for. W. F. Kirk. No. 1,130,409; Mar. 2; Gaz. vol. 212; p. 197.
Roofing, Prepared. F. C. Lowrey. No. 1,134,086; Mar. 30; Gaz. vol. 212; p. 1655.
Roofing-strip. R. W. Bird. No. 1,130,368; Mar. 2; Gaz. vol. 212; p. 183.
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Rotary oscillatory engine. K. L. E. Mueller. No 1,130,188; Mar. 2; Gaz. vol. 212; p. 121.
Rotary steam-engine. E. U. Mack. No. 1,133,988; Mar. 30; Gaz. vol. 212; p. 1621.
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Roundtop-work construction. W. H. Bohner. No. 1,132,156; Mar. 16; Gaz. vol. 212; p. 879.
Rubber, Preserving. I. D. Jewett. No. 1,130,736; Mar. 9; Gaz. vol. 212; p. 347.
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Rule. D. L. Kane. No. 1,130,610; Mar. 2; Gaz. vol. 212; p. 270.
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Saddle, Harness-. F. G. Hoover. No. 1,133,560; Mar. 30; Gaz. vol. 212; p. 1473.
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Safe-locking device. A. P. Haustetter. No. 1,132,089; Mar. 16; Gaz. vol. 212; p. 854.
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Safety device, Automatic. E. J. Laclair. No. 1,133,480; Mar. 30; Gaz. vol. 212; p. 1442.
Safety-fender. F. E. Bellowa. No. 1,130,056; Mar. 2; Gaz. vol. 212; p. 75.
Safety-lock. P. Olsen. No. 1,131,542; Mar. 9; Gaz. vol. 212; p. 623.
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Safety-pins, &c., Machine for carding. H. B. Church. No. 1,133,363; Mar. 30; Gaz. vol. 212; p. 1402.
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Sanding device. E. H. Dewson. No. 1,131,217; Mar. 9; Gaz. vol. 212; p. 511.
Sanding-machine. J. W. Kroeze. No. 1,134,085; Mar. 30; Gaz. vol. 212; p. 1655.
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Sash and frame, Window. D. Prestera. No. 1,132,382; Mar. 16; Gaz. vol. 212; p. 962.
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Sausage-stuffer. C. W. Hottmann. No. 1,133,030; Mar. 23; Gaz. vol. 212; p. 1249.
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Saw-gage. E. J. Faires and C. W. Stockburger. No. 1,131,352; Mar. 9; Gaz. vol. 212; p. 557.
Saw-set. S. Ballard. No. 1,131,105; Mar. 9; Gaz. vol. 212; p. 473.
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Saw setting, filing, and swaging machine. S. Paulson. No. 1,132,379; Mar. 16; Gaz. vol. 212; p. 960.
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Saw, Tree-trunk. E. L. Freese. No. 1,132,251; Mar. 16; Gaz. vol. 212; p. 915.
Saws, Safety-grip for circular. F. M. Stevens. No. 1,132,129; Mar. 16; Gaz. vol. 212; p. 869.
Sawing-machine, Motor. G. M. Starnes. No. 1,132,402; Mar. 16; Gaz. vol. 212; p. 969.
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Scaffold-bracket. L. S. Wixson. No. 1,130,652; Mar. 2; Gaz. vol. 212; p. 283.
Scaffold, Foldable or collapsible adjustable. F. J. Nagel. No. 1,133,878; Mar. 30; Gaz. vol. 212; p. 1588.
Scaffold-support. J. M. Thorp. No. 1,131,172; Mar. 9; Gaz. vol. 212; p. 495.
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Scale indicating and totaling mechanism. R. H. McCormick. No. 1,131,785; Mar. 16; Gaz. vol. 212; p. 745.
Scale, Railway weighing-. M. H. Winslow. No. 1,133,901; Mar. 30; Gaz. vol. 212; p. 1595.
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Scales, Automatic compensator for. J. Nield. No. 1,133,657; Mar. 30; Gaz. vol. 212; p. 1509.
School appliance. E. C. Jacobs. No. 1,132,272; Mar. 16; Gaz. vol. 212; p. 922.
Scrap pieces of material, Utilizing. E. W. Gerrish. No. 1,133,465; Mar. 30; Gaz. vol. 212; p. 1438.
Scraper, Road-. W. S. Bunker. No. 1,133,094; Mar. 23; Gaz. vol. 212; p. 1271.
Scrapers, Spring-latch for wheeled. H. B. Walton and J. M. Estes. No. 1,131,755; Mar. 16; Gaz. vol. 212; p. 733.
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Fish-screen.
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Pulp-screen.
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Screen. C. Bauer. No. 1,130,465; Mar. 2; Gaz. vol. 212; p. 219.
Screen attachment. W. S. Simons. No. 1,131,565; Mar. 9; Gaz. vol. 212; p. 631.
Screen for separating sand from slime. W. E. Darrow. No. 1,133,461; Mar. 30; Gaz. vol. 212; p. 1437.
Screening and sizing device, Vibratory. A. E. Custer. No. 1,131,478; Mar. 9; Gaz. vol. 212; p. 602.
Screens, Projecting images on. R. H. Hough and L. J. Stern. No. 1,132,269; Mar. 16; Gaz. vol. 212; p. 921.
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Scythe-snathe. H. B. Hewitt. No. 1,133,376; Mar. 30; Gaz. vol. 212; p. 1407.
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Seal. W. T. Peyton. No. 1,132,970; Mar. 23; Gaz. vol. 212; p. 1227.
Seal and cap, Bottle. E. Bluthardt. No. 1,131,201; Mar. 9; Gaz. vol. 212; p. 506.
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Seal for bottle-stoppers and the like and making the same, Cork. H. F. Busch. No. 1,131,326; Mar. 9; Gaz. vol. 212; p. 550.
Seal-remover, seal-replacer, and lid, combined, Milk-bottle. J. W. Keys. No. 1,133,290; Mar. 30; Gaz. vol. 212; p. 1376.
Seal, Stop-cock. B. G. Campbell. No. 1,131,821; Mar. 16; Gaz. vol. 212; p. 759.
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Sealed wrapped packages, Machine for forming. J. D. Reifsnyder and G. H. Fath. No. 1,131,792; Mar. 16; Gaz. vol. 212; p. 748.
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Seam-producing machine. H. J. Dahl. No. 1,129,854; Mar. 2; Gaz. vol. 212; p. 8.
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Seating for auditoriums. H. V. Pollard. No. 1,133,500; Mar. 30; Gaz. vol. 212; p. 1450.
Seed-cleaner. D. E. Skirvin. No. 1,133,069; Mar. 23; Gaz. vol. 212; p. 1263.
Seed-delinting machine, Cotton-. C. R. Pasley. No. 1,131,545; Mar. 9; Gaz. vol. 212; p. 624.
Seed-drill. G. M. Winwood, Jr. No. 1,133,351; Mar. 30; Gaz. vol. 212; p. 1397.
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Seed-stripper. E. L. Glaze. No. 1,133,720; Mar. 30; Gaz. vol. 212; p. 1531.
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Selvage-cutter. A. P. Lewis. No. 1,133,297; Mar. 30; Gaz. vol. 212; p. 1379.
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Service-box and lid. F. M. Elber. No. 1,131,687; Mar. 16; Gaz. vol. 212; p. 709.
Sewed articles, Hem or seam for. J. G. Lewis. No. 1,133,808; Mar. 30; Gaz. vol. 212; p. 1563.
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Sewer-cleaner. H. Sieben. No. 1,132,691; Mar. 23; Gaz. vol. 212; p. 1123.
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Sewing-machine. J. Leathem. No. 1,130,093; Mar. 2; Gaz. vol. 212; p. 88.
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Sewing-machine thread-controlling mechanism. G. L. Corcoran, G. A. Dobyne, and A. R. Schoenky. No. 1,134,035; Mar. 30; Gaz. vol. 212; p. 1638.
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Shade, curtain, and drapery hanger, Window. T. M. Rawls and R. A. Miller. No. 1,130,929; Mar. 9; Gaz. vol. 212; p. 413.
Shade-roller. J. O. Dobson. 1,131,684; Mar. 16; Gaz. vol. 212; p. 708.
Shade-roller and curtain-pole support, Combined. J. Jarvey. No. 1,133,033; Mar. 23; Gaz. vol. 212; p. 1250.
Shade-roller attachment. H. Cole. No. 1,132,830; Mar. 23; Gaz. vol. 212; p. 1176.
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Stand. J. W. Dunham. No. 1,130,497; Mar. 2; Gaz. vol. 212; p. 231.
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Stopping device, Automatic. J. Pagano. No. 1,132,791; Mar. 23; Gaz. vol. 212; p. 1160.
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Street-sweeper. M. M. Nixon. No. 1,130,758; Mar. 9; Gaz. vol. 212; p. 354.
Stretcher and body-carrier, Combined. J. Bixon. No. 1,131,987; Mar. 16; Gaz. vol. 212; p. 818.

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Structure, Spring. G. A. Frauz. No. 1,133,949; Mar. 30; Gaz. vol. 212; p. 1609.
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Yoke, Draft-gear coupling-. V. Willoughby. No. 1,132,819; Mar. 23; Gaz. vol. 212; p. 1172.
Yoke for draft-riggings. A. Copony. No. 1,131,040; Mar. 9; Gaz. vol. 212; p. 451.
Yoke holder, Safety neck-. J. M. Vandy. No. 1,130,945; Mar. 9; Gaz. vol. 212; p. 418.
Yoke, Neck-. J. Bothman. No. 1,133,918; Mar. 30; Gaz. vol. 212; p. 1599.
Yokes, Combined cast-steel and wrought-iron. A. Copony. No. 1,131,041; Mar. 9; Gaz. vol. 212; p. 451.
Yokes, Wearing-shoes for coupling-. W. E. Coffin. No. 1,133,538; Mar. 30; Gaz. vol. 212; p. 1465.
Zinc ores, Removal of cadmium from. G. Rigg. No. 1,129,904; Mar. 2; Gaz. vol. 212; p. 24.
Zinc, Roasting of compounds or ores containing. A. L. J. Queneau. No. 1,132,684; Mar. 23; Gaz. vol. 212; p. 1120.

ALPHABETICAL LIST OF DESIGNS.

Article of manufacture. L. de la Garza. Nos. 47,028–33; Mar. 2; Gaz. vol. 212; pp. 300–1.
Article of manufacture. M. W. Hinrichs. No. 47,107; Mar. 16; Gaz. vol. 212; p. 1027.
Ash-tray. T. G. Strater. No. 47,172; Mar. 30; Gaz. vol. 212; p. 1663.
Badge or similar ornament. M. C. Barnard. No. 47,128; Mar. 23; Gaz. vol. 212; p. 1326.
Bag. A. L. Adams. No. 47,064; Mar. 9; Gaz. vol. 212; p. 668.
Bag, Shopping. A. L. Hettrich. No. 47,106; Mar. 16; Gaz. vol. 212; p. 1027.
Ball, Golf or playing. E. Kempshall. No. 47,159; Mar. 30; Gaz. vol. 212; p. 1661.
Biscuit, Loaf of. A. F. Ward. Nos. 47,060–1; Mar. 2; Gaz. vol. 212; p. 306.
Bits, Check-piece for. G. Buermann. No. 47,023; Mar. 2; Gaz. vol. 212; p. 300.
Bolster and sham-holder. F. Newkirk. No. 47,140; Mar. 23; Gaz. vol. 212; p. 1328.
Bottle. E. Lehmann. Nos. 47,114–16; Mar. 16; Gaz. vol. 212; p. 1028.
Bottle. F. K. Woodworth. No. 47,062; Mar. 2; Gaz. vol. 212; p. 307.
Bottle-opener and button-hook, Combined. J. Bauman. No. 47,096; Mar. 16; Gaz. vol. 212; p. 1025.
Bottle, Poison-. W. Burnett. No. 47,150; Mar. 30; Gaz. vol. 212; p. 1658.
Bracelet. F. F. Wells. No. 47,148; Mar. 23; Gaz. vol. 212; p. 1329.
Bridge. L. B. Smith. No. 47,171; Mar. 30; Gaz. vol. 212; p. 1663.
Broom. V. B. Bright. No. 47,101; Mar. 16; Gaz. vol. 212; p. 1026.
Brush, Fountain-. P. J. Bertelsen and G. Keenan, Jr. No. 47,098; Mar. 16; Gaz. vol. 212; p. 1025.
Brush, Tooth-. C. Boccia. No. 47,100; Mar. 16; Gaz. vol. 212; p. 1026.
Candle. H. H. Will. No. 47,086; Mar. 9; Gaz. vol. 212; p. 672.
Cap, Bathing-. T. W. Miller. Nos. 47,165–8; Mar. 30; Gaz. vol. 212; p. 1662.
Cap, Bathing-. G. F. Wentz. No. 47,176; Mar. 30; Gaz. vol. 212; p. 1664.
Chair. J. P. Gibson. No. 47,036; Mar. 2; Gaz. vol. 212; p. 301.
Chuck, Magnetic. W. S. Griffith. No. 47,038; Mar. 2; Gaz. vol. 212; p. 302.
Comb. W. W. Weitling. No. 47,147; Mar. 23; Gaz. vol. 212; p. 1329.
Cooler. K. E. Bruton. No. 47,022; Mar. 2; Gaz. vol. 212; p. 299.
Couch, Invalid's. G. L. Hunt. No. 47,108; Mar. 16; Gaz. vol. 212; p. 1027.
Curtain-light. C. E. Titchener. No. 47,146; Mar. 23; Gaz. vol. 212; p. 1329.
Dish or similar article. J. N. Ovens. No. 47,142; Mar. 23; Gaz. vol. 212; p. 1328.
Display-rack. A. Waldeck. No. 47,174; Mar. 30; Gaz. vol. 212; p. 1663.
Doll. L. Gould. No. 47,037; Mar. 2; Gaz. vol. 212; p. 302.
Doll. E. Karg. No. 47,041; Mar. 2; Gaz. vol. 212; p. 302.
Dust-pan, shovel, or scoop. L. C. Schindler. No. 47,170; Mar. 30; Gaz. vol. 212; p. 1663.
Electrical fixture. H. R. Gilson. Nos. 47,104–5; Mar. 16; Gaz. vol. 212; pp. 1026–7.
Emblem. J. A. Salzman. No. 47,169; Mar. 30; Gaz. vol. 212; p. 1662.
Embroidered trimming. C. F. Ikle. Nos. 47,073–8; Mar. 9; Gaz. vol. 212; pp. 670–1.
Embroidered trimming. W. Wirth. Nos. 47,087–8; Mar. 9; Gaz. vol. 212; p. 672.
Embroidered trimming. H. Zeller. Nos. 47,089–94; Mar. 9; Gaz. vol. 212; pp. 672–3.
Fabric, Embossed. F. H. Walker. No. 47,059; Mar. 2; Gaz. vol. 212; p. 306.
Fence. M. Lachman. Nos. 47,110–13; Mar. 16; Gaz. vol. 212; pp. 1027–8.
Fob. J. E. Price. No. 47,145; Mar. 23; Gaz. vol. 212; p. 1329.
Frame. P. E. Whitson. No. 47,127; Mar. 16; Gaz. vol. 212; p. 1030.
Glass dish. A. J. Sanford. No. 47,118; Mar. 16; Gaz. vol. 212; p. 1029.
Glass vessel. P. Ebeling. No. 47,102; Mar. 16; Gaz. vol. 212; p. 1026.
Glass vessel or similar article. T. B. Campbell. No. 47,151; Mar. 30; Gaz. vol. 212; p. 1659.
Grace-prayer holder. J. H. Garrity. No. 47,133; Mar. 28; Gaz. vol. 212; p. 1327.
Gum, Candy-coated chewing-. M. M. Swaab, Jr. No. 47,083; Mar. 9; Gaz. vol. 212; p. 671.
Hammer. A. J. Thompson. No. 47,124; Mar. 16; Gaz. vol. 212; p. 1030.
Handle. F. S. Dickinson. No. 47,034; Mar. 2; Gaz. vol. 212; p. 301.
Handle. A. F. Schroeder. No. 47,082; Mar. 9; Gaz. vol. 212; p. 671.
Handle. A. K. Ternstedt. No. 47,058; Mar. 2; Gaz. vol. 212; p. 306.
Hat-pin guard. J. Chalupsky. No. 47,027; Mar. 2; Gaz. vol. 212; p. 300.
Hub-cap, Vehicle. J. W. Drake. No. 47,070; Mar. 9; Gaz. vol. 212; p. 669.
Ink-well. E. R. Carnahan. No. 47,026; Mar. 2; Gaz. vol. 212; p. 300.
Ink-well, pincushion, and pen-rack, Combined. J. H. Kulow. Nos. 47,160–1; Mar. 30; Gaz. vol. 212; p. 1661.
Knob, Glass. W. F. Burns. Nos. 47,068–9; Mar. 9; Gaz. vol. 212; p. 669.
Lamp-globe. W. F. M. Hawe. No. 47,155; Mar. 30; Gaz. vol. 212; p. 1660.
Lamp housing, Gas-. J. Lederer. No. 47,080; Mar. 9; Gaz. vol. 212; p. 671.
Lamp-reflector. P. M. Hotchkin. No. 47,136; Mar. 9; Gaz. vol. 212; p. 1327.
Lamp-shade. W. L. Franks. No. 47,153; Mar. 30; Gaz. vol. 212; p. 1659.
Leather. C. Brandt. Nos. 47,066–7; Mar. 9; Gaz. vol. 212; p. 669.
Light-reflecting bowls, Hanger for. N. Kopp and R. E. Ewing. No. 47,138; Mar. 23; Gaz. vol. 212; p. 1328.
Lighting-fixtures, Shell for. A. E. Tepfer. No. 47,173; Mar. 30; Gaz. vol. 212; p. 1663.
Medallion or similar article. D. Fried. No. 47,154; Mar. 30; Gaz. vol. 212; p. 1659.
Mop. H. L. Feasel. No. 47,035; Mar. 2; Gaz. vol. 212; p. 301.
Necktie. A. Bennett. No. 47,097; Mar. 16; Gaz. vol. 212; p. 1025.
Nozzle, Suction-cleaner. W. G. Doty. No. 47,063; Mar. 2; Gaz. vol. 212; p. 307.
Package-tie. H. T. Keel. No. 47,042; Mar. 2; Gaz. vol. 212; p. 302.
Padlock. A. C. Jackson. No. 47,109; Mar. 16; Gaz. vol. 212; p. 1027.
Paper-weight, curio, toy figure, or similar article. C. Bleach. No. 47,019; Mar. 2; Gaz. vol. 212; p. 299.
Parasol. C. J. Follmer. No. 47,103; Mar. 16; Gaz. vol. 212; p. 1026.
Parasol. J. McNeill. No. 47,164; Mar. 30; Gaz. vol. 212; p. 1662.
Pipe-cleaner. J. Pfister. No. 47,144; Mar. 23; Gaz. vol. 212; p. 1329.
Pistols, Casing for liquid-. A. Blankenhagen. No. 47,099; Mar. 16; Gaz. vol. 212; p. 1025.
Popcorn-bag. F. A. Veith. No. 47,085; Mar. 9; Gaz. vol. 212; p. 672.
Powder box, Talcum-. E. Hoffman. No. 47,134; Mar. 23; Gaz. vol. 212; p. 1327.
Puzzle-board. T. L. Smith. No. 47,121; Mar. 16; Gaz. vol. 212; p. 1029.
Rack for supporting watches, watch-chains, key-rings, &c. W. P. Stroke. No. 47,123; Mar. 16; Gaz. vol. 212; p. 1030.
Radiator, Automobile-. H. M. Crane. No. 47,152; Mar. 30; Gaz. vol. 212; p. 1659.
Radiator, Electric steam-. A. C. Hulbert. No. 47,039; Mar. 2; Gaz. vol. 212; p. 302.
Radiator-hood. D. Livingston. No. 47,162; Mar. 30; Gaz. vol. 212; p. 1661.
Rake. A. C. Bruce. No. 47,021; Mar. 2; Gaz. vol. 212; p. 299.
Rattle or toy, Baby. J. N. Whitehouse. Nos. 47,125–6; Mar. 16; Gaz. vol. 212; p. 1030.
Ribbon. C. P. Schlegel. Nos. 47,119–20; Mar. 16; Gaz. vol. 212; p. 1029.
Ribbon, Woven and printed. R. Jacob and E. Speck. No. 47,137; Mar. 23; Gaz. vol. 212; p. 1327.
Ring, bracelet, pin, button, or similar article of jewelry. W. Loeb. No. 47,163; Mar. 30; Gaz. vol. 212; p. 1661.
Rocking-horse. D. W. Lynch. No. 47,117; Mar. 16; Gaz. vol. 212; p. 1029.
Rug. L. C. Noble. No. 47,141; Mar. 23; Gaz. vol. 212; p. 1328.
Sign for vehicles and the like, Novelty. W. H. Heady. No. 47,156; Mar. 30; Gaz. vol. 212; p. 1660.
Spike-gripping tool. C. T. Parabo. No. 47,046; Mar. 2; Gaz. vol. 212; p. 303.
Spoon. A. J. Frankland. No. 47,071; Mar. 9; Gaz. vol. 212; p. 669.

Spoon-bowl. N. Dedrick. No. 47,132; Mar. 23; Gaz. vol. 212; p. 1327.
Spoon, fork, or similar article. H. Hillbom. No. 47,072; Mar. 9; Gaz. vol. 212; p. 670.
Spoon, fork, or similar article. A. G. Kintz. No. 47,043; Mar. 2; Gaz. vol. 212; p. 303.
Spoon, fork, or similar article. H. L. Wallace. No. 47,175; Mar. 30; Gaz. vol. 212; p. 1664.
Spoons, forks, or similar articles, Handle for. G. N. Allen. No. 47,065; Mar. 9; Gaz. vol. 212; p. 668.
Spoons, forks, or similar articles, Handle for. W. A. Jameson. No. 47,040; Mar. 2; Gaz. vol. 212; p. 302.
Spoons, forks, or similar articles, Handle for. W. A. Jameson. No. 47,157; Mar. 30; Gaz. vol. 212; p. 1660.
Spoons, forks, or similar articles, Handle for. S. A. Keller. No. 47,158; Mar. 30; Gaz. vol. 212; p. 1660.
Stirrup. G. Buermann. No. 47,024; Mar. 2; Gaz. vol. 212; p. 300.
Stove. E. G. Van Wie. No. 47,084; Mar. 9; Gaz. vol. 212; p. 672.
Tire, Automobile-. H. H. Holdaway. No. 47,135; Mar. 23; Gaz. vol. 212; p. 1327.
Tire-casing. T. R. McKennan. No. 47,139; Mar. 23; Gaz. vol. 212; p. 1328.
Tire-tread. A. Palder. No. 47,143; Mar. 23; Gaz. vol. 212; p. 1329.
Toy. G. Otstot. No. 47,045; Mar. 2; Gaz. vol. 212; p. 303.
Toy bank. C. A. Bailey. No. 47,095; Mar. 16; Gaz. vol. 212; p. 1025.
Toy candy-container. T. G. Stough. No. 47,122; Mar. 16; Gaz. vol. 212; p. 1030.
Toy dog. W. Seyburn. Nos. 47,047–57; Mar. 2; Gaz. vol. 212; pp. 303–6.
Toy store. P. J. McAllister. No. 47,044; Mar. 2; Gaz. vol. 212; p. 303.
Tray, Change-. E. Brunhoff. No. 47,129; Mar. 23; Gaz. vol. 212; p. 1326.
Twine-holder. S. L. Murphy. No. 47,081; Mar. 9; Gaz. vol. 212; p. 671.
Type, Font of. M. F. Benton. No. 47,149; Mar. 30; Gaz. vol. 212; p. 1658.
Type, Font of. R. F. Burfeind. No. 47,025; Mar. 2; Gaz. vol. 212; p. 300.
Type, Font of. R. F. Burfeind. No. 47,130; Mar. 23; Gaz. vol. 212; p. 1326.
Vacuum-cleaner casing. C. A. Boyer. No. 47,020; Mar. 2; Gaz. vol. 212; p. 299.
Vehicles, Generator and radiator cooling fan for motor-. H. K. Kouyoumjian. No. 47,079; Mar. 9; Gaz. vol. 212; p. 671.
Watch-fob. F. Büttler. No. 47,131; Mar. 23; Gaz. vol. 212; p. 1326.

ALPHABETICAL LIST OF TRADE-MARKS.

Absorbent cotton and gauze, bandages, &c. Lewis Manufacturing Company. No. 103,242; Mar. 23; Gaz. vol. 212; p. 1354.
Adding-machines and combined adding and listing machines. Dalton Adding Machine Company. No. 103,049; Mar. 16; Gaz. vol. 212; p. 1050.
Adhesive paste. L. N. Adler. No. 103,079; Mar. 16; Gaz. vol. 212; p. 1051.
Aluminum and enameled metal ware, Hollow. Geo. Borgfeldt & Co. Nos. 103,218–19; Mar. 23; Gaz. vol. 212; p. 1353.
Amusement apparatus. W. F. Mangels. No. 103,106; Mar. 16; Gaz. vol. 212; p. 1052.
Ankle and athletic supporters, wristbands. H. J. Collis. No. 103,340; Mar. 30; Gaz. vol. 212; p. 1685.
Aperient or laxative. F. K. Stearns. No. 103,183; Mar. 16; Gaz. vol. 212; p. 1054.
Artificial stone, Certain named articles made from. Hall Concrete Products Company. No. 103,348; Mar. 30; Gaz. vol. 212; p. 1685.
Autographic registers and manifolding devices, parts thereof, &c. The Egry Register Company. No. 102,939; Mar. 2; Gaz. vol. 212; p. 324.
Automobile-polish. W. C. Strawn. No. 103,128; Mar. 16; Gaz. vol. 212; p. 1053.
Bags, Cotton. Amoskeag Manufacturing Company. Nos. 102,954–5; Mar. 9; Gaz. vol. 212; p. 685.
Baking-pans. The August Maag Co. No. 102,926; Mar. 2; Gaz. vol. 212; p. 324.
Baking-powder. Calumet Baking Powder Company. No. 103,276; Mar. 30; Gaz. vol. 212; p. 1683.
Baking-powder. Elite Baking Powder Co. No. 103,023; Mar. 16; Gaz. vol. 212; p. 1050.
Baking powder and soda. Layton Pure Food Company. No. 102,976; Mar. 9; Gaz. vol. 212; p. 685.
Bathing-suits and woven swimming-tights. Max Mayer & Sons Co. No. 103,172; Mar. 16; Gaz. vol. 212; p. 1054.
Batteries, Electric. National Carbon Company. No. 103,069; Mar. 16; Gaz. vol. 212; p. 1051.
Batteries, Electric. National Carbon Company. No. 103,269; Mar. 23; Gaz. vol. 212; p. 1355.
Bearing metal. R. E. Rich. No. 103,362; Mar. 30; Gaz. vol. 212; p. 1685.
Beer. Clausen-Flanagan Brewery. No. 103,256; Mar 23; Gaz. vol. 212; p. 1354.
Beer. Obermeyer & Liebmann. No. 103,358; Mar. 30; Gaz. vol. 212; p. 1685.
Beer. Sandlerbräu Ges. m. b. Hftg. No. 103,036; Mar. 16, Gaz. vol. 212; p. 1050.
Beer, Bottled. Houston Ice & Brewing Co. No. 102,895; Mar. 2; Gaz. vol. 212; p. 323.
Belts, Apparel-. United Jewelers Inc. No. 102,950; Mar. 2; Gaz. vol. 212; p. 325.
Beverage and syrup for making same, Non-alcoholic carbonated. J. C. O'Dell. No. 103,326; Mar. 30; Gaz. vol. 212; p. 1684.
Beverages, and syrups and flavoring extracts, Non-alcoholic. H. R. Melster. No. 103,391; Mar. 30; Gaz. vol. 212; p. 1686.
Blue, Wash-. F. Schulze. No. 103,181; Mar. 16; Gaz. vol. 212; p. 1054.
Books and stationery used in keeping accounts, Blank. I. W. Ball. No. 103,042; Mar. 16; Gaz. vol. 212; p. 1050.
Books, pamphlets, and periodicals, Printed. The Hydrex Felt & Engineering Company. No. 102,896; Mar. 2; Gaz. vol. 212; p. 323.
Boots and shoes. D. J. Cameron. Nos. 103,277—9; Mar. 30; Gaz. vol. 212; p. 1683.
Boots, shoes, slippers, and rubbers. Clauson Shoe Co No. 103,224; Mar. 23; Gaz. vol. 212; p. 1353.
Boots and shoes. R. H. Hoskins Co. No. 103,101; Mar. 16; Gaz. vol. 212; p. 1052.
Boots and shoes, Leather. Keller & Rhodes. No. 103,063; Mar. 16; Gaz. vol. 212; p. 1051.
Bottles, Hot-water. The Icy-Hot Bottle Company. No. 102,971; Mar. 9; Gaz. vol. 212; p. 685.
Bread. General Baking Company. No. 103,230; Mar. 23; Gaz. vol. 212; p. 1354.
Bread, biscuit, and pastry. E. Hick. No. 103,061; Mar. 16; Gaz. vol. 212; p. 1051.
Bread, Rye-. M. Pechter. No. 103,329; Mar. 30; Gaz. vol. 212; p. 1684.
Brick. Farr Brick Company. Nos. 103,056–7; Mar. 16; Gaz. vol. 212; p. 1051.
Bristle goods, Certain named. Bloomingdale Bros. No. 103,089; Mar. 16; Gaz. vol. 212; p. 1052.
Brooms, clothes and scrubbing brushes, and feather dusters. Klauber Wangenheim Co. No. 103,002; Mar. 16; Gaz. vol. 212; p. 1049.
Brushes. W. Morrison. No. 103,031; Mar. 16; Gaz. vol. 212; p. 1050.
Brushes and mops. Sargent Brush Co. No. 102,986; Mar. 9; Gaz. vol. 212; p. 686.
Butter. E. Feldman. No. 103,285; Mar. 30; Gaz. vol. 212; p. 1683.
Cabinets and music-cases, File-. P. A. Wetzel. No. 103,137; Mar. 16; Gaz. vol. 212; p. 1053.
Cabinets, Kitchen-. Wasmuth-Endicott Company. No. 103,403; Mar. 30; Gaz. vol. 212; p. 1687.
Cake. John Hamm Baking Company. No. 103,384; Mar. 30; Gaz. vol. 212; p. 1686.
Cakes, pies, pastry, &c. J. M. Shattuck. No. 103,123; Mar. 16; Gaz. vol. 212; p. 1053.
Candies and chocolates. Park & Tilford. No. 103,359; Mar. 30; Gaz. vol. 212; p. 1685.
Candies, bakers' pastes, cake-fillers, &c. H. Heide. No. 103,102; Mar. 16; Gaz. vol. 212; p. 1052.
Candy. James A. McClurg & Sons. No. 103,028; Mar. 16; Gaz. vol. 212; p. 1050.
Candy. Orange Blossom, Inc. No. 103,032; Mar. 16; Gaz. vol. 212; p. 1050.
Candy. Package Confectionery Company. Nos. 102,945–9; Mar. 2; Gaz. vol. 212; pp. 324–5.
Candy. Package Confectionery Company. No. 103,071; Mar. 16; Gaz. vol. 212; p. 1051.
Candy. Techemeyer Candy Co. No. 103,040; Mar. 16; Gaz. vol. 212; p. 1050.
Candy and confections. R. B. McLean. No. 103,107; Mar. 16; Gaz. vol. 212; p. 1052.
Canned corn and succotash. H. C. Baxter & Bro. No. 103,216; Mar. 23; Gaz. vol. 212; p. 1353.
Canned corn, succotash, and Lima beans. H. C. Baxter & Bro. No. 102,933; Mar. 2; Gaz. vol. 212; p. 324.
Canned fish. Homelike Canning & Packing Co. No. 103,000; Mar. 16; Gaz. vol. 212; p. 1049.
Canned fruits and vegetables. The J. K. Armsby Co. Nos. 103,080–3; Mar. 16; Gaz. vol. 212; p. 1051.
Canned fruits, vegetables, and fish. L. Cohen Grocer Company. No. 103,378; Mar. 30; Gaz. vol. 212; p. 1686.
Canned goods and butter. The Ashford Company. No. 103,145; Mar. 16; Gaz. vol. 212; p. 1053.
Canned herrings in tomato sauce. Chr. Bjelland & Co. No. 103,087; Mar. 16; Gaz. vol. 212; p. 1051.
Canned pineapple. Pearl City Fruit Co. Nos. 103,008–9; Mar. 16; Gaz. vol. 212; p. 1049.
Canned salmon. Coast Fish Company. No. 103,225; Mar. 23; Gaz. vol. 212; p. 1354.
Canned sardines. Chr. Bjelland & Co. Nos. 103,084–6; Mar. 16; Gaz. vol. 212; p. 1051.
Canned sardines. Chr. Bjelland & Co. No. 103,088; Mar. 16; Gaz. vol. 212; p. 1051.
Canned tomatoes, peas, and corn. W. King & Co. No. 103,168; Mar. 16; Gaz. vol. 212; p. 1054.
Canned vegetables. Inderrieden Canning Co. No. 103,240; Mar. 23; Gaz. vol. 212; p. 1354.
Canned vegetables. Norfolk Packing Co. No. 102,928; Mar. 2; Gaz. vol. 212; p. 324.
Canned vegetables. Ocean Shore Canning Co. No. 103,325; Mar. 30; Gaz. vol. 212; p. 1684.
Canned vegetables and fruits. Canasto'a Canning Company. No. 103,312; Mar. 30; Gaz. vol. 212; p. 1684.
Canned vegetables, wheat-flour, and pepper. The George J. Hales Co. No. 103,100; Mar. 16; Gaz. vol. 212; p. 1052.
Carpet-sweepers and vacuum-cleaners. Clements Mfg. Co. No. 103,198; Mar. 23; Gaz. vol. 212; p. 1353.
Cartoons, Series of. H. C. Fisher. No. 102,988; Mar. 9; Gaz. vol. 212; p. 685.
Cement and paving-cement and fillers for cement, Bituminous. C. G. Betts Company. No. 103,217; Mar. 23; Gaz. vol. 212; p. 1353.
Cement, Liquid. A. Brandriss. No. 103,195; Mar. 23; Gaz. vol. 212; p. 1353.
Chafing-dishes, coffee-percolators, &c., Electrically-heated. Landers, Frary & Clark. No. 103,203; Mar. 23; Gaz. vol. 212; p. 1353.
Cheese. C. C. Martin. No. 103,390; Mar. 30; Gaz. vol. 212; p. 1686
Chemical and pharmaceutical preparations, Certain specified. Johnstown Chemical Company. No. 102,972; Mar. 9; Gaz. vol. 212; p. 685.
Chemical compound for purifying gasolene and preventing formation of carbon in explosive-engines. J. Falkenberg. No. 102,892; Mar. 2; Gaz. vol. 212; p. 323.
Chemical substance having germicidal qualities adapted for certain named purposes. Crookes Callosols Limited. No. 103,283; Mar. 30; Gaz. vol. 212; p. 1683.
Chocolate. Walter Baker & Company. No. 102,996; Mar. 16; Gaz. vol. 212; p. 1049.

Chocolates and bonbons. Park & Tilford. No. 103,006; Mar. 16; Gaz. vol. 212; p. 1049.
Chocolates and candies. Wallace & Co. No. 103,015; Mar. 16; Gaz. vol. 212; p. 1049.
Cigars. Fernandez & Garcia. No. 103,098; Mar. 16; Gaz. vol. 212; p. 1052.
Cigars. Salomon Bros. No. 103,363; Mar. 30; Gaz. vol. 212; p. 1685.
Cleaner, Liquid. The Perkins-Campbell Co. No. 102,900; Mar. 2; Gaz. vol. 212; p. 323.
Cleaner, silver cleaner and plater, rust-remover, Clothes-. C. H. Hultzen. No. 102,923; Mar. 2; Gaz. vol. 212; p. 324.
Cleaners, Vacuum-. Jewel Vacuum Cleaner Co. No. 103,290; Mar. 30; Gaz. vol. 212; p. 1683.
Cleaning compound for cylinders of internal-combustion engines. C. E. Kubicek. No. 103,003; Mar. 16; Gaz. vol. 212; p. 1040.
Cleaning or detergent compound. John Knight, Limited. No. 102,898; Mar. 2; Gaz. vol. 212; p. 323.
Clocks and watches. Western Clock Co. No. 102,951; Mar. 2; Gaz. vol. 212; p. 325.
Closet toilet-bowls, Water-. Cronk-Salter Company. No. 103,201; Mar. 23; Gaz. vol. 212; p. 1353.
Clothing, Certain named. Cohen, Goldman & Co. No. 102,961; Mar. 9; Gaz. vol. 212; p. 685.
Clothing, Certain named. O. M. Potterf. No. 103,361; Mar. 30; Gaz. vol. 212; p. 1685.
Clothing, Certain named articles of. The Wood-Wilson Co. No. 103,192; Mar. 16; Gaz. vol. 212; p. 1055.
Cloths and stuffs. Perrotts Limited. No. 102,901; Mar. 2; Gaz. vol. 212; p. 323.
Coal. Schwind Brothers Coal Company. No. 102,948; Mar. 2; Gaz. vol. 212; p. 324.
Coats and suits. Bischof Sterne & Stein. No. 103,370; Mar. 30; Gaz. vol. 212; p. 1686.
Coats, vests, trousers, overcoats, &c. Aero Tailoring Company. No. 103,274; Mar. 30; Gaz. vol. 212; p. 1683.
Coffee. Bleecker & Simons. No. 102,958; Mar. 9; Gaz. vol. 212; p. 685.
Coffee. Jas. H. Forbes Tea & Coffee Co. No. 102,969; Mar. 9; Gaz. vol. 212; p. 685.
Coffee. Knickerbocker Mills Company. No. 102,925; Mar. 2; Gaz. vol. 212; p. 324.
Coffee. Puhl-Webb Co. No. 103,010; Mar. 16; Gaz. vol. 212; p. 1040.
Coffee extracts. Concentrated. C. Hammer. No. 103,164; Mar. 16; Gaz. vol. 212; p. 1054.
Coffees, teas, rice, spices, &c. C. F. Bonsor & Co. No. 103,371; Mar. 30; Gaz. vol. 212; p. 1686.
Collars, Women's. S. M. Schwartz & Co. No. 103,037; Mar. 16; Gaz. vol. 212; p. 1050.
Colors, Artists'. H. Schmincke & Co. No. 103,249; Mar. 23; Gaz. vol. 212; p. 1354.
Colors, painters' oils, and varnishes, Oil and water. H. Schmincke & Co. No. 103,250; Mar. 23; Gaz. vol. 212; p. 1354.
Composition used in manufacturing, cleansing, and improving the texture of certain named articles. The United Yeast Company. No. 103,014; Mar. 16; Gaz. vol. 212; p. 1049.
Compound for the treatment of rheumatism. A. Lang. No. 103,169; Mar. 16; Gaz. vol. 212; p. 1054.
Cordials. Puziello, Luccaro & Co. No. 103,120; Mar. 16; Gaz. vol. 212; p. 1052.
Construction materials, Certain named. The Binder Company. No. 103,338; Mar. 30; Gaz. vol. 212; p. 1685.
Corn, Yellow dent. Farmer Seed & Nursery Co. No. 103,262; Mar. 23; Gaz. vol. 212; p. 1355.
Cotton and linen fabrics, Certain named. California Cotton Mills Co. No. 103,091; Mar. 16; Gaz. vol. 212; p. 1052.
Cotton, linen, woolen, and silk goods. J. H. Meyer & Co. No. 103,174; Mar. 16; Gaz. vol. 212; p. 1054.
Cotton piece goods. Appleton Company. No. 103,143; Mar. 16; Gaz. vol. 212; p. 1053.
Cotton piece goods. Charles L. Poor Co. No. 103,178; Mar. 16; Gaz. vol. 212; p. 1054.
Cotton piece goods. Doyle-Kidd Dry Goods Co. No. 103,097; Mar. 16; Gaz. vol. 212; p. 1052.
Cotton piece goods. M. H. Ellenbogen. No. 103,155; Mar. 16; Gaz. vol. 212; p. 1053.
Cotton piece goods. Everett Mills. No. 103,157; Mar. 16; Gaz. vol. 212; p. 1054.
Cotton piece goods. King Philip Mills. No. 103,103; Mar. 16; Gaz. vol. 212; p. 1052.
Cotton piece goods. Tremont & Suffolk Mills. No. 103,131; Mar. 16; Gaz. vol. 212; p. 1053.
Cotton piece goods. G. Willis & Co. No. 103,090; Mar. 16; Gaz. vol. 212; p. 1052.
Cotton piece goods. G. Willis & Co. No. 103,163; Mar. 16; Gaz. vol. 212; p. 1054.
Cotton, silk, mixed silk and cotton, and linen piece goods. A. G. Hyde & Sons. No. 103,165; Mar. 16; Gaz. vol. 212; p. 1054.
Coughs, colds, and catarrh. Laxago Bitters Co. No. 102,974; Mar. 9; Gaz. vol. 212; p. 685.
Crackers and cakes. Item Biscuit Co. No. 103,062; Mar. 16; Gaz. vol. 212; p. 1051.
Cream, face, &c., powders, and toilet water, Cold-. The Remmers Soap Company. No. 103,035; Mar. 16; Gaz. vol. 212; p. 1050.
Doll-forms. J. B. Rowland Manufacturing Co. No. 103,122; Mar. 16; Gaz. vol. 212; p. 1053.
Dolls. Fair & Carnival Trading Co. No. 102,966; Mar. 9; Gaz. vol. 212; p. 685.
Dolls. L. Wolf & Co. No. 103,366; Mar. 30; Gaz. vol. 212; p. 1685.
Dress-shields. Brooklyn Shield & Rubber Co. No. 103,151; Mar. 16; Gaz. vol. 212; p. 1053.
Drills, grinders, buffers, and parts thereof, Electric. The Temco Electric Motor Company. No. 103,130; Mar. 16; Gaz. vol. 212; p. 1053.
Drinks, syrup and flavoring extract for same, Soft. H. Glickman. No. 103,231; Mar. 23; Gaz. vol. 212; p. 1354.
Eggs. Harmony Creamery Company. No. 103,265; Mar. 23; Gaz. vol. 212; p. 1355.
Embroidery outfits. Fishel & Gorman. No. 103,345; Mar. 30; Gaz. vol. 212; p. 1685.
Electric lights, Incandescent. Central Telephone & Electric Company. No. 102,935; Mar. 2; Gaz. vol. 212; p. 324.
Electrical apparatus and supplies, Certain named. General Devices & Fittings Co. No. 103,058; Mar. 16; Gaz. vol. 212; p. 1051.
Enamel. The A. Wilhelm Company. No. 103,307; Mar. 30; Gaz. vol. 212; p. 1684.
Enamels. The Patterson-Sargent Company. No. 103,204; Mar. 23; Gaz. vol. 212; p. 1353.
Ferric sulfate. The Westmoreland Chemical and Color Corporation. Nos. 102,990–1; Mar. 9; Gaz. vol. 212; p. 686.
Fertilizer materials. T. Suzuki. No. 103,301; Mar. 30; Gaz. vol. 212; p. 1684.
Fertilizers. American Agricultural Chemical Co. No. 103,214; Mar. 23; Gaz. vol. 212; p. 1353.
Fertilizers. Bowker Fertilizer Co. No. 103,372; Mar. 30; Gaz. vol. 212; p. 1686.
Fertilizers. Columbia Guano Co. No. 103,199; Mar. 23; Gaz. vol. 212; p. 1353.
Files. Tacony File and Hardware Company. No. 103,211; Mar. 23; Gaz. vol. 212; p. 1353.
Fish, Fresh, smoked, and cured. Story-Simmons Co. No. 103,039; Mar. 16; Gaz. vol. 212; p. 1050.
Flavor and certain named beverages, Concentrated "pure fruit." I. McEwen. No. 103,067; Mar. 16; Gaz. vol. 212; p. 1051.
Flavoring compounds for foods. L. F. Bragger. No. 102,934; Mar. 2; Gaz. vol. 212; p. 324.
Floor polishing, waxing, scrubbing, &c., machine. Vacuna Sales Co. No. 103,251; Mar. 23; Gaz. vol. 212; p. 1354.
Flooring and magnesite stucco, Sanitary cement. F. R. Muller. No. 103,110; Mar. 16; Gaz. vol. 212; p. 1052.
Flour and cornmeal, Wheat and Graham. W. B. Starr. No. 103,038; Mar. 16; Gaz. vol. 212; p. 1050.
Flour and middling, Wheat-. Pillsbury Flour Mills Company. No. 103,397; Mar. 30; Gaz. vol. 212; p. 1687.
Flour, Corn-. Blank & Gottshall. No. 103,041; Mar. 16; Gaz. vol. 212; p. 1050.
Flour, Prepared wheat-. J. & G. Cox. No. 103,314; Mar. 30; Gaz. vol. 212; p. 1684.
Flour, Prepared wheat-. The Cabell Company. No. 102,997; Mar. 16; Gaz. vol. 212; p. 1049.
Flour, Self-rising pancake-. The Blair Milling Company. No. 103,339; Mar. 30; Gaz. vol. 212; p. 1685.
Flour, Self-rising wheat-. E. Gilster. No. 102,941; Mar. 2; Gaz. vol. 212; p. 324.
Flour, Self-rising wheat-. The Dunlop Milling Co. No. 103,229; Mar. 23; Gaz. vol. 212; p. 1354.
Flour, Wheat-. Chippewa Milling Company. No. 103,197; Mar. 23; Gaz. vol. 212; p. 1353.
Flour, Wheat-. Ellsworth Mill & Elevator Company. No. 103,260; Mar. 23; Gaz. vol. 212; p. 1355.
Flour, Wheat-. The Fort Collins Milling & Elevator Co. No. 103,025; Mar. 16; Gaz. vol. 212; p. 1050.
Flour, Wheat-. J. B. A. Kern & Sons. No. 103,291; Mar. 30; Gaz. vol. 212; p. 1683.
Flour, Wheat-. Standard-Tilton Milling Co. No. 103,331; Mar. 30; Gaz. vol. 212; p. 1684.
Flour, Wheat-. The Rea-Patterson Milling Co. No. 103,034; Mar. 16; Gaz. vol. 212; p. 1050.
Flour, Wheat-. The Wabash Roller Mills Company. No. 103,402; Mar. 30; Gaz. vol. 212; p. 1687.
Food, Stock. E. B. Plummer. No. 103,205; Mar. 23; Gaz. vol. 212; p. 1353.
Foods, Certain named. Habicht, Braun & Co. No. 103,317; Mar. 30; Gaz. vol. 212; p. 1684.
Foods, Certain named. Parsons & Scoville Co. No. 103,328; Mar. 30; Gaz. vol. 212; p. 1684.
Foods, Certain named. Spokane Valley Orchard & Land Company. No. 103,271; Mar. 23; Gaz. vol. 212; p. 1355.
Foods, Certain named. Strohmeyer & Arpe Company. No. 103,013; Mar. 16; Gaz. vol. 212; p. 1049.
Foods, Certain named. Strohmeyer & Arpe Company. Nos. 103,188–9; Mar. 16; Gaz. vol. 212; p. 1054.
Foods, Certain named. Strohmeyer & Arpe Company. No. 103,300; Mar. 30; Gaz. vol. 212; p. 1683.
Foods, Certain named. The Van Camp Packing Co. No. 102,988; Mar. 9; Gaz. vol. 212; p. 686.
Forgings and castings and steel, Metal. J. H. Williams & Co. No. 103,018; Mar. 16; Gaz. vol. 212; p. 1049.
Fruits and vegetables and preserved fruits, Fresh. H. C. Greene. No. 103,162; Mar. 16; Gaz. vol. 212; p. 1054.
Fruits, Citrus. F. C. Buffum. No. 103,373; Mar. 30; Gaz. vol. 212; p. 1686.

Furniture, Certain named. Almone Manufacturing Company. No. 103,142; Mar. 16; Gaz. vol. 212; p. 1053.
Furniture, Certain named. The Jake Tennebaum Co. No. 102,987; Mar. 9; Gaz. vol. 212; p. 685.
Furniture-polish, Liquid. The De Pree Chemical Company. No. 103,259; Mar. 23; Gaz. vol. 212; p. 1355.
Fuse-plugs, Electrical. The Bryant Electric Company. No. 103,090; Mar. 16; Gaz. vol. 212; p. 1052.
Fuses, switches, cut-outs, &c. Detroit Fuse and Manufacturing Company. No. 103,050; Mar. 16; Gaz. vol. 212; p. 1050.
Game-boards and accessories. A. A. Rees. No. 102,903; Mar. 2; Gaz. vol. 212; p. 323.
Games, sporting goods, and gymnasium supplies, Certain named. Rogers Peet Company. No. 103,121; Mar. 16; Gaz. vol. 212; p. 1052.
Gas-generators. The Clifton Company. No. 102,917; Mar. 2; Gaz. vol. 212; p. 324.
Glass articles, Certain named cut. C. E. Wheelock & Co. No. 103,404; Mar. 30; Gaz. vol. 212; p. 1687.
Glass shades for lighting purposes. B. Tomby. No. 103,272; Mar. 23; Gaz. vol. 212; p. 1355.
Gloves. Busby Glove Co. Nos. 103,220–2; Mar. 23; Gaz. vol. 212; p. 1353.
Gold and gold-filled articles, Solid-. M. F. Bixler. No. 102,887; Mar. 2; Gaz. vol. 212; p. 323.
Grinding-mills. Bradley Pulverizer Co. No. 103,045; Mar. 16; Gaz. vol. 212; p. 1050.
Gum, Chewing-. A. Q. Pryor. No. 103,033; Mar. 16; Gaz. vol. 212; p. 1050.
Gum, Chewing-. The Sterling Gum Company. Nos. 103,186–7; Mar. 16; Gaz. vol. 212; p. 1054.
Hair cream and tonic. E. Kaldy. No. 103,322; Mar. 30; Gaz. vol. 212; p. 1684.
Hair-dressing, Non-alcoholic. E. H. Conway. No. 103,200; Mar. 23; Gaz. vol. 212; p. 1353.
Hair-invigorator and dandruff-killer. A. Leavitt. No. 103,066; Mar. 16; Gaz. vol. 212; p. 1051.
Hair-nets. A. J. Hague & Co. No. 102,922; Mar. 2; Gaz. vol. 212; p. 324.
Hair-nets. Marlowe Manufacturing Company. No. 103,356; Mar. 30; Gaz. vol. 212; p. 1685.
Hair-restorer, Medicinal. H. B. Shreve. No. 103,182; Mar. 16; Gaz. vol. 212; p. 1054.
Hair-tonic. W. H. Black. No. 102,914; Mar. 2; Gaz. vol. 212; p. 324.
Hair-tonic. F. W. Doebel. No. 103,051; Mar. 16; Gaz. vol. 212; p. 1050.
Hair-tonic. M. B. Fareira. No. 103,024; Mar. 16; Gaz. vol. 212; p. 1050.
Hair-tonics and toilet creams. N. Y. International Chemical Co. No. 103,394; Mar. 30; Gaz. vol. 212; p. 1686.
Handkerchiefs. Cluett, Peabody & Co. No. 103,092; Mar. 16; Gaz. vol. 212; p. 1052.
Handkerchiefs. Titus Blatter and Company. Nos. 103,043–4; Mar. 16; Gaz. vol. 212; p. 1050.
Handkerchiefs and embroidered linens. Henry Matier & Co. No. 103,171; Mar. 16; Gaz. vol. 212; p. 1054.
Hardware supplies, Certain named. Geuder, Paeschke & Frey Co. No. 103,059; Mar. 16; Gaz. vol. 212; p. 1051.
Hats. J. T. Asch & Sons. No. 103,144; Mar. 16; Gaz. vol. 212; p. 1053.
Hats. French Feather Novelty & Hat Co. No. 102,921; Mar. 2; Gaz. vol. 212; p. 324.
Hats. The Fair. No. 103,261; Mar. 23; Gaz. vol. 212; p. 1355.
Hats, caps, coats, shirts, &c. August E. Steffen Company. No. 103,184; Mar. 16; Gaz. vol. 212; p. 1054.
Hats, caps, gloves, mittens, and sweater-coats. Western Hat & Manufacturing Company. No. 103,252; Mar. 23; Gaz. vol. 212; p. 1354.
Heaters, Electric. Electrical Steam Radiator Co. No. 103,284; Mar. 30; Gaz. vol. 212; p. 1683.
Hose, Infants'. Hub Hosiery Mills. No. 103,386; Mar. 30; Gaz. vol. 212; p. 1686.
Hosiery. Carolina Mills Co. No. 103,223; Mar. 23; Gaz. vol. 212; p. 1353.
Hosiery. Davis Hosiery Mills. Nos. 103,095–6; Mar. 16; Gaz. vol. 212; p. 1052.
Hosiery. Stork Brothers. No. 103,334; Mar. 30; Gaz. vol. 212; p. 1684.
Hosiery. E. M. Townsend & Co. No. 103,132; Mar. 16; Gaz. vol. 212; p. 1053.
Inhalation apparatuses. E. P. Dieseldorff. No. 102,937; Mar. 2; Gaz. vol. 212; p. 324.
Inks and inking-pads, Rubber-stamp. Fulton Rubber Type Co. No. 103,383; Mar. 30; Gaz. vol. 212; p. 1686.
Insecticides, roach powders, rat and mice poisons, &c. F. Kopitzke. No. 103,293; Mar. 30; Gaz. vol. 212; p. 1683.
Ironing and washing machines, Ironing-boards, tubs, wringers. Chicago Dryer Company. No. 103,196; Mar. 23; Gaz. vol. 212; p. 1353.
Jewelry. L. I. Cohen. No. 103,093; Mar. 16; Gaz. vol. 212; p. 1052.
Jewelry. E. L. Spencer Company. No. 102,908; Mar. 2; Gaz. vol. 212; p. 323.
Jewelry and certain named articles made of or plated with precious metal. Elgin American Manufacturing Co. No. 103,053; Mar. 16; Gaz. vol. 212; p. 1050.
Journal, Trade. G. B. Armstrong. No. 103,336; Mar. 30; Gaz. vol. 212; p. 1685.
Juices and syrups and essences used with beverages, Certain. Moritz Löw Fabrik Ätherischer oele Essenzen und Farben. No. 103,354; Mar. 30; Gaz. vol. 212; p. 1685.
Knit sweater-coats, Cardigan jackets, and bathing-suits. Columbia Knitting Mills. No. 103,021; Mar. 16; Gaz. vol. 212; p. 1050.
Knitted underwear. Flavell Bros. No. 103,346; Mar. 30; Gaz. vol. 212; p. 1685.
Knitted underwear. Union Mills. No. 103,133; Mar. 16; Gaz. vol. 212; p. 1053.
Knitted washcloths and towels. Putnam Knitting Company. No. 103,207; Mar. 23; Gaz. vol. 212; p. 1353.
Knives, Hunting-. The Carlson-Lusk Hdwe. Co. No. 103,376; Mar. 30; Gaz. vol. 212; p. 1686.
Knives, pruners, budders, and erasers, Pocket and kitchen. D. Divine & Son. No. 102,918; Mar. 2; Gaz. vol. 212; p. 324.
Lamps, Electric. The Adams & Westlake Company. No. 102,993; Mar. 16; Gaz. vol. 212; p. 1049.
Lamps, Electric signal-. International Signal Company. No. 103,266; Mar. 23; Gaz. vol. 212; p. 1355.
Lamps, illuminating-fixtures, and valves, and buoy-lanterns, Gas-. E. Schroeder Lamp Works. No. 103,270; Mar. 23; Gaz. vol. 212; p. 1355.
Lamps, Incandescent. Westinghouse Lamp Company. No. 103,017; Mar. 16; Gaz. vol. 212; p. 1049.
Lap-robes. H. S. Z. Adler. No. 103,141; Mar. 16; Gaz. vol. 212; p. 1053.
Laundry-iron heaters and soldering-furnaces, Gas. Sentinel Automatic Gas Appliance Co. No. 103,400; Mar. 30; Gaz. vol. 212; p. 1686.
Laxative. E. G. Potter. No. 103,179; Mar. 16; Gaz. vol. 212; p. 1054.
Laxative confection. Rite Specialty Company. No. 103,180; Mar. 16; Gaz. vol. 212; p. 1054.
Laxatives. Mission Chemical Company. No. 103,175; Mar. 16; Gaz. vol. 212; p. 1054.
Laxatives. Mission Chemical Company. No. 103,245; Mar. 23; Gaz. vol. 212; p. 1354.
Leather, Furniture-. A. H. Stone. No. 103,127; Mar. 16; Gaz. vol. 212; p. 1053.
Leather, Glove, shoe, &c. Gloversville Leather Manufacturing Corporation. No. 103,232; Mar. 23; Gaz. vol. 212; p. 1354.
Lenses for scientific use and ophthalmic lenses. F. A. Hardy & Co. No. 103,287; Mar. 30; Gaz. vol. 212; p. 1683.
Linen piece goods, house-linens, damask, &c. Henry Matier & Co. No. 103,108; Mar. 16; Gaz. vol. 212; p. 1052.
Liniments for rheumatism, &c. G. G. Repasé. No. 102,930; Mar. 2; Gaz. vol. 212; p. 324.
Liniments, ointments, laxative tablets, &c. C. H. M. Partridge. No. 103,117; Mar. 16; Gaz. vol. 212; p. 1052.
Liniments, salves, and herb decoctions. V. Baudendistel & Son. No. 103,146; Mar. 16; Gaz. vol. 212; p. 1053.
Lotions for chapped hands, lips, and face, &c. J. L. Polk. No. 103,177; Mar. 16; Gaz. vol. 212; p. 1054.
Lubricant. W. L. Day. No. 102,890; Mar. 2; Gaz. vol. 212; p. 323.
Lye. E. Myers Lye Company. No. 102,979; Mar. 9; Gaz. vol. 212; p. 685.
Machinery and parts thereof, Certain named. International Harvester Company. No. 103,349; Mar. 30; Gaz. vol. 212; p. 1685.
Machinery and tools, Certain named. The Triumph Manufacturing Co. No. 103,076; Mar. 16; Gaz. vol. 212; p. 1057.
Magazine, Monthly. Cemetery Beautiful Publishing Company. No. 102,916; Mar. 2; Gaz. vol. 212; p. 324.
Magazine, Monthly. The Suburban Press. No. 102,909; Mar. 2; Gaz. vol. 212; p. 323.
Marshmallows. The Rochester Candy Works. No. 103,398; Mar. 30; Gaz. vol. 212; p. 1686.
Mattresses, box-springs, feather pillows and cushions. Schultz & Hirsch Co. No. 102,906; Mar. 2; Gaz. vol. 212; p. 323.
Mattresses, Coiled-wire spring-. Grand Rapids Bedding Company. Nos. 103,234–6; Mar. 23; Gaz. vol. 212; p. 1354.
Medicated pads. J. A. Trotter. No. 102,949; Mar. 2; Gaz. vol. 212; p. 325.
Medicinal bitters containing iron and quinin. A. Carsana. No. 103,280; Mar. 30; Gaz. vol. 212; p. 1683.
Medicinal compound for diseases of women. Sansby Brothers. No. 103,399; Mar. 30; Gaz. vol. 212; p. 1686.
Medicinal preparation. Riker & Hegeman Co. No. 102,985; Mar. 9; Gaz. vol. 212; p. 686.
Medicinal preparations for catarrh, colds, hay-fever, &c. Dr. Leonhardt Co. No. 103,241; Mar. 23; Gaz. vol. 212; p. 1354.
Medicinal preparation for the cure of certain named diseases. Peters & Company Proprietary Limited. No. 102,902; Mar. 2; Gaz. vol. 212; p. 323.
Medicinal preparation for producing anesthesia. The Hoffmann-La Roche Chemical Works. No. 103,288; Mar. 30; Gaz. vol. 212; p. 1683.
Medicine, Cough. C. Steiner. No. 103,364; Mar. 30; Gaz. vol. 212; p. 1685.
Medicines prepared from roots and herbs for certain named diseases. Oriental and Occidental Medical Company. No. 102,981; Mar. 9; Gaz. vol. 212; p. 685.
Medicines, Tonic. Ertbol Medicine Co. No. 103,054; Mar. 16; Gaz. vol. 212; p. 1051.
Metal-polishes. Adams & Elling Company. No. 102,886; Mar. 2; Gaz. vol. 212; p. 323.

Metals, Flux for melting. Standard Brass & Alloy Co. No. 103,332; Mar. 30; Gaz. vol. 212; p. 1684.
Milk and cream. Sheffield Farms-Slawson-Decker Company. No. 103,208; Mar. 23; Gaz. vol. 212; p. 1353.
Musical-instrument strings. Lyon & Healy. No. 103,243; Mar. 23; Gaz. vol. 212; p. 1354.
Musical instruments and parts thereof, Certain named. S. Buegeleisen. No. 103,253; Mar. 23; Gaz. vol. 212; p. 1354.
Musical instruments and supplies, Certain named. C. Bruno & Son. No. 103,311; Mar. 30; Gaz. vol. 212; p. 1684.
Muslin. Bleached. Carson, Pirie, Scott & Co. Nos. 103,281–2; Mar. 30; Gaz. vol. 212; p. 1683.
Nail-polish. O. L. Graf. No. 103,161; Mar. 16; Gaz. vol. 212; p. 1054.
Nut pastes. The Nutto Product Co. No. 103,113; Mar. 16; Gaz. vol. 212; p. 1052.
Nuts. Daniels Safety Device Co. No. 103,154; Mar. 16; Gaz. vol. 212; p. 1053.
Nuts and nut pastes. Nutto Product Co. Nos. 103,114–15; Mar. 16; Gaz. vol. 212; p. 1052.
Nuts, nut-meats, honey, gelatin, &c. Habicht, Braun & Co. No. 103,237; Mar. 23; Gaz. vol. 212; p. 1354.
Oil, arnica and carbolic salves, &c., Hair-. South Texas Drug Company. No. 102,907; Mar. 2; Gaz. vol. 212; p. 323.
Oil for illuminating and heating, and lubricating oils and greases, Refined. Standard Oil Co. No. 103,012; Mar. 16; Gaz. vol. 212; p. 1049.
Oil for insulating and cooling purposes, Mineral. Westinghouse Electric & Manufacturing Co. No. 103,016; Mar. 16; Gaz. vol. 212; p. 1049.
Oil for repelling mosquitos, flies, &c. A. H. Bryant. No. 103,275; Mar. 30; Gaz. vol. 212; p. 1683.
Oil, Lubricating-. Penn Oil & Supply Co. No. 103,119, Mar. 16; Gaz. vol. 212; p. 1052.
Oil, Olive-. John Vittucci Co. No. 103,333; Mar. 30; Gaz. vol. 212; p. 1684.
Oil, Olive-. New Orleans Fruit Importing Co. No. 103,112; Mar. 16; Gaz. vol. 212; p. 1052.
Oils and greases for illuminating, &c., Certain named. Standard Oil Company. No. 103,125; Mar. 16; Gaz. vol. 212; p. 1053.
Oils and greases, Lubricating. A. C. C. Oil Company. No. 102,992; Mar. 16; Gaz. vol. 212; p. 1049.
Oils, Chemicals for emulsifying mineral. National Oil Products Co. No. 103,323; Mar. 30; Gaz. vol. 212; p. 1684.
Oils, gasolene, naphtha, &c., Wool-. Crew Levick Company. No. 103,094; Mar. 16; Gaz. vol. 212; p. 1052.
Ointment. C. Hixon. No. 102,894; Mar. 2; Gaz. vol. 212; p. 323.
Oleomargarin. James T. Downey Company. No. 103,228; Mar. 23; Gaz. vol. 212; p. 1354.
Oleomargarin and butterin. John F. Jelke Co. No. 103,320; Mar. 30; Gaz. vol. 212; p. 1684.
Oleomargarin and butterin. John F. Jelke Co. No. 103,321; Mar. 30; Gaz. vol. 212; p. 1684.
Oranges and grape-fruit. F. C. Armstrong. No. 103,337; Mar. 30; Gaz. vol. 212; p. 1685.
Overalls, trousers, coats, &c. Marglous Manufacturing Company. No. 102,944; Mar. 2; Gaz. vol. 212; p. 324.
Overalls, trousers, shirts, &c. D. M. Oberman Mfg. Company. No. 103,324; Mar. 30; Gaz. vol. 212; p. 1684.
Packing, Non-metallic machinery. Bowers Rubber Works. No. 103,150; Mar. 16; Gaz. vol. 212; p. 1053.
Packing-rings for explosive, &c., engines, Metallic. R. L. Burd. No. 103,152; Mar. 16; Gaz. vol. 212; p. 1053.
Paint, Ready-mixed liquid. Patton Paint Company. No. 103,007; Mar. 16; Gaz. vol. 212; p. 1049.
Paints. The Western Elaterite Roofing Company. No. 103,136; Mar. 16; Gaz. vol. 212; p. 1053.
Paints, dressings, and finishes for vehicle-tops. J. Mansfield. No. 102,977; Mar. 9; Gaz. vol. 212; p. 685.
Paints, Ready-mixed. The A. Wilhelm Company. No. 103,308; Mar. 30; Gaz. vol. 212; p. 1684.
Paints, Ready-mixed. Toch Brothers. No. 103,302; Mar. 30; Gaz. vol. 212; p. 1684.
Paper-board and wrapping-paper. California Paper & Board Mills. No. 103,374; Mar. 30; Gaz. vol. 212; p. 1686.
Paper case-linings, Waterproof-. National Water-Proofing Company. No. 103,070; Mar. 16; Gaz. vol. 212; p. 1051.
Paper, Certain named. Kellogg Toasted Corn Flake Company. No. 102,924; Mar. 2; Gaz. vol. 212; p. 324.
Paper drinking-cups. The Vortex Mfg. Co. No. 103,303; Mar. 30; Gaz. vol. 212; p. 1684.
Paper, envelops, lead-pencils, &c., Toilet, printing, &c. Klauber Wangenheim Co. No. 102,897; Mar. 2; Gaz. vol. 212; p. 323.
Paper, Printing and writing. Whiting-Plover Paper Co. No. 103,306; Mar. 30; Gaz. vol. 212; p. 1684.
Paper, Writing and printing. W. E. Wright. No. 103,019; Mar. 16; Gaz. vol. 212; p. 1049.
Papers, Ledger and writing. Whiting Paper Company. No. 103,305; Mar. 30; Gaz. vol. 212; p. 1684.
Paprika. M. P. Kucsor. No. 103,004; Mar. 16; Gaz. vol. 212; p. 1049.
Pencil-sharpeners. The Stewart Manufacturing Company No. 103,365; Mar. 30; Gaz. vol. 212; p. 1685.
Pencils, rubber pencils and erasers, penholders, Lead, &c. A. W. Faber. No. 102,891; Mar. 2; Gaz. vol. 212; p. 323.
Pencils, Writing and drawing. H. S. Crocker Company. No. 103,226; Mar. 23; Gaz. vol. 212; p. 1354.
Pens, file-signals, index-tabs, &c., Metallic. George B. Graff Company. No. 103,233; Mar. 23; Gaz. vol. 212; p. 1354.
Pens, Fountain-. J. Wallace. No. 103,134; Mar. 16; Gaz. vol. 212; p. 1053.
Perfume, complexion and sachet powders. Solon Palmer. No. 103,116; Mar. 16; Gaz. vol. 212; p. 1052.
Perfumes, Incense, hair dye and lotions, &c. Z. Miwa. No. 103,005; Mar. 16; Gaz. vol. 212; p. 1049.
Perfumes, toilet waters and creams, talcum powder. The C. B. Woodworth Sons Co. No. 103,139; Mar. 16; Gaz. vol. 212; p. 1053.
Petticoats and women's and misses' coats and suits. Bloomingdale Bros. No. 103,149; Mar. 16; Gaz. vol. 212; p. 1053.
Phenol and formaldehyde condensation products. Dr. Fritz Pollak G. m. b. H. No. 103,072; Mar. 16; Gaz. vol. 212; p. 1051.
Photographic chemicals, preparations, and compounds thereof. Ansco Company. No. 103,215; Mar. 23; Gaz. vol. 212; p. 1353.
Photographic developers. Eastman Kodak Co. No. 103,342; Mar. 30; Gaz. vol. 212; p. 1685.
Piano-players, player-pianos, and note-sheets for same. American Piano Co. No. 103,335; Mar. 30; Gaz. vol. 212; p. 1685.
Pianos. Paul G. Mehlin & Sons. No. 102,899; Mar. 2; Gaz. vol. 212; p. 320.
Pianos, player-pianos, and parts thereof. The Trayser Piano Company. No. 102,912; Mar. 2; Gaz. vol. 212; p. 323.
Pickles. Pacific Preserve Co. No. 103,327; Mar. 30; Gaz. vol. 212; p. 1684.
Picture-cards. Campbell Art Company. No. 102,998; Mar. 16; Gaz. vol. 212; p. 1049.
Picture films, Motion-. A/S Nordisk Films Compagni. No. 103,367; Mar. 30; Gaz. vol. 212; p. 1685.
Picture films, Motion-. Melies Mfg. Co. No. 103,173; Mar. 16; Gaz. vol. 212; p. 1054.
Picture films, Motion-. Thanhouser Film Corporation. No. 103,191; Mar. 16; Gaz. vol. 212; p. 1055.
Picture films, Motion-. Universal Film Manufacturing Company. No. 103,077; Mar. 16; Gaz. vol. 212; p. 1051.
Pictures, Motion-. Jesse L. Lasky Feature Play Co. No. 103,389; Mar. 30; Gaz. vol. 212; p. 1686.
Pictures, Motion-. Paramount Pictures Corporation. No. 103,248; Mar. 23; Gaz. vol. 212; p. 1354.
Picture films, Moving-. Essanay Film Manufacturing Co. No. 103,055; Mar. 16; Gaz. vol. 212; p. 1051.
Pills, candies, suppositories, and salves. L. Trujillo-Marin. No. 103,355; Mar. 30; Gaz. vol. 212; p. 1685.
Pitch substitute for internally coating beer kegs, barrels, &c. Chas. L. Kiewert Co. No. 103,064; Mar. 16; Gaz. vol. 212; p. 1051.
Plaster made of gypsum, Wall-. Southern Gypsum Company. No. 103,299; Mar. 30; Gaz. vol. 212; p. 1683.
Plastic composition for flooring material, &c. Fibre Company. No. 103,344; Mar. 30; Gaz. vol. 212; p. 1685.
Plastic compounds for repairing and laying up brickwork. Chicago Fire Brick Co. No. 102,936; Mar. 2; Gaz. vol. 212; p. 324.
Pocket, Safety-. L. H. Boch. No. 103,310; Mar. 30; Gaz. vol. 212; p. 1684.
Polish and oil coloring for leather, Liquid and paste. Boyer & Co. No. 102,889; Mar. 2; Gaz. vol. 212; p. 323.
Polish, Automobile and furniture. O. J. Allen. No. 103,368; Mar. 30; Gaz. vol. 212; p. 1686.
Polish for leather, Liquid and paste. Boyer & Co. No. 102,888; Mar. 2; Gaz. vol. 212; p. 323.
Portraits, Photographic. Harris & Ewing. No. 103,385; Mar. 30; Gaz. vol. 212; p. 1686.
Powder and paste and mouth lotion or wash, Tooth. M. A. Evans. No. 102,965; Mar. 9; Gaz. vol. 212; p. 685.
Powder, Face-. Daggett & Ramsdell. No. 102,463; Mar. 9; Gaz. vol. 212; p. 685.
Powder, massage and cold creams, &c., Face-. E. MacGilvray. No. 103,267; Mar. 23; Gaz. vol. 213; p. 1355.
Powder, Talcum. Cassada Manufacturing Co. No. 103,193; Mar. 16; Gaz. vol. 212; p. 1055.
Powder, Talcum. Katz & Besthoff. No. 103,001; Mar. 16; Gaz. vol. 212; p. 1049.
Powder, wash, and paste, Tooth. The C. B. Woodworth Sons Co. No. 103,140; Mar. 16; Gaz. vol. 212; p. 1053.
Precious metal, Certain named articles made of or plated with. Morris, Mann & Reilly. No. 102,927; Mar. 2; Gaz. vol. 212; p. 324.
Precious metals, Certain named articles made of or plated with. Montgomery Ward & Co. No. 103,246; Mar. 23; Gaz. vol. 212; p. 1354.
Preparation for treatment of certain named ailments. F. Lample. No. 103,352; Mar. 30; Gaz. vol. 212; p. 1685.
Preparation for certain named ailments. E. J. Sormani. No. 103,330; Mar. 30; Gaz. vol. 212; p. 1684.
Preparation for external use, Liquid. E. D. Marsh. No. 102,978; Mar. 9; Gaz. vol. 212; p. 685.
Preparation for treatment of hog-cholera. F. W. Smith & Co. No. 103,401; Mar. 30; Gaz. vol. 212; p. 1687.
Preparation noxious to insects and vermin, Chemical. F. J. Nelson. No. 103,111; Mar. 16; Gaz. vol. 212; p. 1052.
Preparations for biliousness, constipation, headaches, &c. Riker & Hegeman Co. No. 102,982; Mar. 9; Gaz. vol. 212; p. 685.

Preparations for treating certain named affections. L. J. Montgomery. No. 103,268; Mar. 23; Gaz. vol. 212; p. 1355.
Preparations for the feet. Riker & Hegeman Co. No. 102,984; Mar. 9; Gaz. vol. 212; p. 686.
Preservative coating material. Deutsche Conservierungsgesellschaft mit beschränkter Haftung. No. 103,380; Mar. 30; Gaz. vol. 212; p. 1686.
Printed forms. The A. S. Gilman Printing Company. No. 102,940; Mar. 2; Gaz. vol. 212; p. 324.
Publication, Monthly trade. The India Rubber Publishing Co. No. 103,166; Mar. 16; Gaz. vol. 212; p. 1054.
Pump-rod couplings. E. E. Johnson. No. 103,202; Mar 23; Gaz. vol. 212; p. 1353.
Pumps, Automobile-. Rothweiler & Co. No. 102,931; Mar. 2; Gaz. vol. 212; p. 324.
Purgatives. P. Ferri. No. 102,967; Mar. 9; Gaz. vol. 212; p. 685.
Railway-signals, Mechanical. G. Selby. No. 103,298; Mar. 30; Gaz. vol. 212; p. 1683.
Razors, shears, scissors, and files. P. J. Michels. No. 103,109; Mar. 16; Gaz. vol. 212; p. 1052.
Refrigerating apparatus. The Iceless Refrigeration Company. No. 103,239; Mar. 23; Gaz. vol. 212; p. 1354.
Remedy for certain named ailments. L. E. Cash. No. 103,375; Mar. 30; Gaz. vol. 212; p. 1686.
Remedy for certain named ailments. H. E. Kendall. No. 103,351; Mar. 30; Gaz. vol. 212; p. 1685.
Remedy for certain named ailments, Soothing and healing. C. A. J. Murphy. No. 103,393; Mar. 30; Gaz. vol. 212; p. 1686.
Remedy for corpulence. A. Horowitz. No. 103,026; Mar. 16; Gaz. vol. 212; p. 1050.
Remedy for epilepsy. Faucette Pharmacal Co. No. 103,381; Mar. 30; Gaz. vol. 212; p. 1686.
Remedy for piles, corns, bunions, &c. J. C. White. No. 103,138; Mar. 16; Gaz. vol. 212; p. 1053.
Remedy for rheumatism. J. Cohen. No. 103,257; Mar. 23; Gaz. vol. 212; p. 1355.
Remedy for the liquor and tobacco habit. H. W. Elders. No. 103,052; Mar. 16; Gaz. vol. 212; p. 1050.
Remedy for the liver. B. Brasel. No. 103,020; Mar. 16; Gaz. vol. 212; p. 1049.
Remedy, Toothache. V. Genna. No. 103,286; Mar. 30; Gaz. vol. 212; p. 1683.
Remedies for whooping-cough, croup, coughs, and colds. Cactola Remedy Co. No. 102,959; Mar. 9; Gaz. vol. 212; p. 685.
Remedies, Rheumatic. I. M. Dukes. No. 102,964; Mar. 9; Gaz. vol. 212; p. 685.
Rifles and guns. A. H. Fox Gun Company. No. 103,347; Mar. 30; Gaz. vol. 212; p. 1685.
Robes, Sleeping-. H. B. Glover Company. No. 103,315; Mar. 30; Gaz. vol. 212; p. 1684.
Roofing, Formed steel. The Trumbull Steel Company. No. 103,213; Mar. 23; Gaz. vol. 212; p. 1353.
Roofs, Certain compound for covering and repairing. The National Refining Company. No. 103,247; Mar. 23; Gaz. vol. 212; p. 1354.
Rubber and fabric beltings. The National Belting Company. No. 103,395; Mar. 30; Gaz. vol. 212; p. 1686.
Rubber cement. L. P. Southard. No. 103,129; Mar. 16; Gaz. vol. 212; p. 1053.
Salt. Morton Salt Company. No. 103,357; Mar. 30; Gaz. vol. 212; p. 1685.
Salve. J. W. Stolba. No. 103,210; Mar. 23; Gaz. vol. 212; p. 1353.
Scopolamin solution, Stable. The Hoffmann-La Roche Chemical Works. No. 103,289; Mar. 30; Gaz. vol. 212; p. 1683.
Serges. P. Katz. No. 103,167; Mar. 16; Gaz. vol. 212; p. 1054.
Shirt-waists. Feldman Bros. No. 102,920; Mar. 2; Gaz. vol. 212; p. 324.
Shirts, Men's. Berkowitz Bros. No. 103,147; Mar. 16; Gaz. vol. 212; p. 1053.
Shirts, night-shirts, and pajamas. Oshinsky & Valentine. No. 103,176; Mar. 16; Gaz. vol. 212; p. 1054.
Shirts, pajamas, and nightgowns, Night-. Steiner & Son. No. 103,185; Mar. 16; Gaz. vol. 212; p. 1054.
Shock-absorbers. The Temco Electric Motor Co. No. 103,190; Mar. 16; Gaz. vol. 212; p. 1055.
Shock-absorbers and brake-band lining. Gibson Automobile Company. No. 103,060; Mar. 16; Gaz. vol. 212; p. 1051.
Shoe dressing and polish. L. B. Kunkel. No. 102,942; Mar. 2; Gaz. vol. 212; p. 324.
Shoe-polish. W. A. Layman. No. 102,975; Mar. 9; Gaz. vol. 212; p. 685.
Shoe soles and heels. A. & A. Rubber Company. No. 103,194; Mar. 23; Gaz. vol. 212; p. 1353.
Shoes, Children's. C. F. Kolb, Jr. No. 102,973; Mar. 9; Gaz. vol. 212; p. 685.
Shoes, Leather. Washington Shoe Manufacturing Co. No. 102,989; Mar. 9; Gaz. vol. 212; p. 686.
Shoes, millinery, (hats,) wearing-apparel, &c. Maison Blanche Co. No. 103,170; Mar. 16; Gaz. vol. 212; p. 1054.
Silos and tanks. Pacific Tank & Pipe Co. No. 103,297; Mar. 30; Gaz. vol. 212; p. 1683.
Silverware, Flat sterling. Weidlich Sterling Spoon Co. No. 103,304; Mar. 30; Gaz. vol. 212; p. 1684.
Sized and stiffened cloth. The Holliston Mills. No. 103,318; Mar. 30; Gaz. vol. 212; p. 1684.
Slippers, Leather. J. J. O'Connell. No. 102,929; Mar. 2; Gaz. vol. 212; p. 324.
Soap, Laundry and toilet. C. F. Bartenfeld. No. 102,957; Mar. 9; Gaz. vol. 212; p. 685.
Soap, Liquid toilet. National Chemical Company of California. No. 102,980; Mar. 9; Gaz. vol. 212; p. 685.
Soap, soap powder, and cleansers. P. C. Tomson & Co. No. 102,910; Mar. 2; Gaz. vol. 212; p. 323.
Soap, Substitute for shaving-. De Joigny Shaving Mist Co. No. 103,227; Mar. 23; Gaz. vol. 212; p. 1354.
Soaps, Toilet. Piesse & Lubin. No. 103,360; Mar. 30; Gaz. vol. 212; p. 1685.
Soaps, Toilet. J. T. Stanley. No. 103,126; Mar. 16; Gaz. vol. 212; p. 1053.
Soda-ash. The Columbia Chemical Company. No. 102,992; Mar. 9; Gaz. vol. 212; p. 685.
Soil and seed inoculator. M. O. Reiche. No. 102,904; Mar. 2; Gaz. vol. 212; p. 323.
Spark-plug. W. S. Brown, Jr. No. 103,046; Mar. 16; Gaz. vol. 212; p. 1050.
Spark-plugs. Champion Ignition Co. No. 103,255; Mar. 23; Gaz. vol. 212; p. 1354.
Spectacle-frames and eyeglass-mountings. The Walman-Benson Optical Co. No. 103,078; Mar. 16; Gaz. vol. 212; p. 1051.
Steel in blocks and bars, artisans' and cutting tools, &c. Poldihütte Tiegelgussstahlfabrik. No. 103,206; Mar. 23; Gaz. vol. 212; p. 1353.
Steel sheets, Flat. The Trumbull Steel Company. No. 103,212; Mar. 23; Gaz. vol. 212; p. 1353.
Stove-polish and straw-hat cleaner. United Drug Company. No. 102,932; Mar. 2; Gaz. vol. 212; p. 324.
Stoves, Enameled gas heating-. L. Lipphardt. No. 103,294; Mar. 30; Gaz. vol. 212; p. 1683.
Stucco, floorings, and linings, Composition-stone. The "Compostone" Co. No. 103,048; Mar. 16; Gaz. vol. 212; p. 1050.
Sugar. Federal Sugar Refining Co. No. 103,382; Mar. 30; Gaz. vol. 212; p. 1686.
Sugar, cane-syrup, cocoa, &c. Arbuckle Brothers. No. 102,995; Mar. 16; Gaz. vol. 212; p. 1049.
Suits, Men's outer. Hart Schaffner & Marx. No. 102,905; Mar. 2; Gaz. vol. 212; p. 323.
Surgical appliance for sores and falling arches. Corliss Limb Specialty Co. No. 103,379; Mar. 30; Gaz. vol. 212; p. 1686.
Tablets, wrapping and toilet paper, paper bags, Writing-. Morey Mercantile Company. No. 103,392; Mar. 30; Gaz. vol. 212; p. 1686.
Tea, Japan. F. D. Parmer Co. No. 103,309; Mar. 30; Gaz. vol. 212; p. 1684.
Teeth, Artificial. The Dentists' Supply Company. No. 103,022; Mar. 16; Gaz. vol. 212; p. 1050.
Thread. J. C. Mayer. Nos. 103,029–30; Mar. 16; Gaz. vol. 212; p. 1050.
Thread and yarn. Henry Myer Thread Manufacturing Co. No. 103,068; Mar. 16; Gaz. vol. 212; p. 1051.
Threads and yarns. Lees Mfg. Co. No. 103,105; Mar. 16; Gaz. vol. 212; p. 1052.
Tire casings and tubes, Automobile. The National Tire & Rubber Company. No. 103,296; Mar. 30; Gaz. vol. 212; p. 1683.
Tire-filler. C. C. Emery. No. 103,156; Mar. 16; Gaz. vol. 212; p. 1054.
Tires, Inner or air tubes for vehicle-. The Savage Tire Co. No. 103,074; Mar. 16; Gaz. vol. 212; p. 1051.
Tires, Rubber vehicle-. The Fisk Rubber Company. No. 103,263; Mar. 23; Gaz. vol. 212; p. 1355.
Tires, Semiliquid seal for punctures in pneumatic. C-V-Sealer Co. No. 103,153; Mar. 16; Gaz. vol. 212; p. 1053.
Tobacco and snuff, Leaf-. American Tropical Trading Company. No. 102,994; Mar. 16; Gaz. vol. 212; p. 1049.
Tobacco, Smoking and chewing. W. W. Ford Tobacco Works. No. 103,160; Mar. 16; Gaz. vol. 212; p. 1054.
Tobaccos. Maclin-Zimmer-McGill Tobacco Co. No 103,295; Mar. 30; Gaz. vol. 212; p. 1683.
Toilet preparations and court-plaster, Certain. J. & E. Atkinson. No. 102,956; Mar. 9; Gaz. vol. 212; p. 685.
Toilet preparations, Certain named. Reilinger Bros. & Co. No. 102,947; Mar. 2; Gaz. vol. 212; p. 324.
Tonic for live stock, Digestive or food. T. H. Adams. No. 102,953; Mar. 9; Gaz. vol. 212; p. 685.
Tonic, Nerve. W. C. Doan. No. 103,341; Mar. 30; Gaz. vol. 212; p. 1685.
Tonic or stimulant. Tona Vita Medicine Co. No. 102,911; Mar. 2; Gaz. vol. 212; p. 323.
Tonics, Nutritive. Riker & Hegeman Co. No. 102,983; Mar. 9; Gaz. vol. 212; p. 685.
Toothpicks, Wooden. International Mfg. Co. No. 103,388; Mar. 30; Gaz. vol. 212; p. 1686.
Towels, terry-cloths and pile fabrics, &c., Turkish. W. H. & A. E. Margerison & Co. No. 103,027; Mar. 16; Gaz. vol. 212; p. 1050.
Toy banks. E. J. Shively. No. 103,011; Mar. 16; Gaz. vol. 212; p. 1049.
Toy game. E. O. Clark Co. No. 103,377; Mar. 30; Gaz. vol. 212; p. 1686.
Toy vehicle. R. P. Pay. No. 103,396; Mar. 30; Gaz. vol. 212; p. 1686.
Tracing-cloth. B. K. Elliott Company. No. 103,343; Mar. 30; Gaz. vol. 212; p. 1685.

Traps, Rodent-. J. M. Wolfe. No. 103,273; Mar. 23; Gaz. vol. 212; p. 1355.
Trees, Compound for destroying scale on. D. S. Latta. No. 102,943; Mar. 2; Gaz. vol. 212; p. 324.
Twine, rope, and cordage. Columbian Rope Company. No. 102,999; Mar. 16; Gaz. vol. 212; p. 1049.
Twines. American Manufacturing Company. No. 103,369; Mar. 30; Gaz. vol. 212; p. 1686.
Twines and cords. Lees Mfg. Co. No. 103,104; Mar. 16; Gaz. vol. 212; p. 1052.
Type-writing-machine attachment for manifolding writings. The Egry Register Company. No. 102,938; Mar. 2; Gaz. vol. 212; p. 324.
Valves and compression stops and wastes, Cage and siphon. Exeter Brass Works. No. 103,158; Mar. 16; Gaz. vol. 212; p. 1054.
Valves, Metallic. Speakman Supply & Pipe Company. No. 103,124; Mar. 16; Gaz. vol. 212; p. 1053.
Varnish substitute for internally coating fermenting tubs, casks, &c. Chas. L. Kiewert Co. No. 103,065; Mar. 16; Gaz. vol. 212; p. 1051.
Varnishes, driers, japans, &c. Standard Varnish Works. No. 103,075; Mar. 16; Gaz. vol. 212; p. 1051.
Vegetables, Fresh. The Greeley Mercantile Co. No. 103,264; Mar. 23; Gaz. vol. 212; p. 1355.
Ventilators. J. C. Kernchen. No. 103,292; Mar. 30; Gaz. vol. 212; p. 1683.
Vinegar. Yakima Fruit Products Co. No. 102,952; Mar. 2; Gaz. vol. 212; p. 325.
Wafers or crackers. Sanitary Food Manufacturing Company. No. 103,073; Mar. 16; Gaz. vol. 212; p. 1051.
Wagons and parts thereof. International Harvester Corporation. No. 103,387; Mar. 30; Gaz. vol. 212; p. 1686.
Waists and suits, Ladies'. Hynard & Jung Company. No. 103,319; Mar. 30; Gaz. vol. 212; p. 1684.
Washing-machines. P. O. Hagen. No. 103,238; Mar. 23; Gaz. vol. 212; p. 1354.
Washing machines, Clothes-. Capital Electric Company. No. 103,254; Mar. 23; Gaz. vol. 212; p. 1354.
Washing-powder. J. Macpherson. No. 103,244; Mar. 23; Gaz. vol. 212; p. 1354.
Watches and clocks. Leonard Watch Company. No. 103,353; Mar. 30; Gaz. vol. 212; p. 1685.
Water, Toilet. L. C. Darbour. No. 103,258; Mar. 23; Gaz. vol. 212; p. 1355.
Waters, Mineral. C. Conde. No. 103,313; Mar. 30; Gaz. vol. 212; p. 1684.
Waterproofing compound for all kinds of textiles. Perrotts Limited. No. 102,946; Mar. 2; Gaz. vol. 212; p. 324.
Whisky. Gottschalk Co. No. 102,893; Mar. 2; Gaz. vol. 212; p. 323.
Whisky. Hiram Walker & Sons. No. 102,913; Mar. 2; Gaz. vol. 212; p. 323.
Whisky. Blend. Cahn, Belt & Co. No. 103,047; Mar. 16; Gaz. vol. 212; p. 1050.
Whisky, gin, and brandy. Goldberg, Bowen & Co. No. 103,316; Mar. 30; Gaz. vol. 212; p. 1684.
Wine, Champagne-. Chandon et Cie. No. 102,960; Mar. 9; Gaz. vol. 212; p. 685.
Wine, Marsala. Florio & C. Societa Anonima Vinicola Italiana. No. 103,159; Mar. 16; Gaz. vol. 212; p. 1054.
Wine, Sherry-. J. W. Burdon. No. 102,915; Mar. 2; Gaz. vol. 212; p. 324.
Wines. Bloomingdale Bros. No. 103,148; Mar. 16; Gaz. vol. 212; p. 1053.
Woolen piece goods. Pawcatuck Woolen Mills. No. 103,118; Mar. 16; Gaz. vol. 212; p. 1052.
Woolen piece goods and blankets. Faribault Woolen Mill Company. No. 102,919; Mar. 2; Gaz. vol. 212; p. 324.
Yarns and thread. Howard Manufacturing Company. No. 102,970; Mar. 9; Gaz. vol. 212; p. 685.
Wrenches. Walworth Manufacturing Co. No. 103,135; Mar. 16; Gaz. vol. 212; p. 1053.
Yarns, Embroidery-. H. A. James & Co. No. 103,350; Mar. 30; Gaz. vol. 212; p. 1685.

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"Air-Vulc." (For a Preparation for Repairing Pneumatic Tires.) W. A. Freeburger. No. 18,275; Mar. 2; Gaz. vol. 212; p. 326.
"Allwood 'Vienna Brand' Lime." (For a Lime Product.) Allwood Lime Company. No. 18,301; Mar. 16; Gaz. vol. 212; p. 1056.
"Ambassador." (For Whisky.) M. Wollstein Mercantile Co. No. 18,284; Mar. 2; Gaz. vol. 212; p. 326.
"Aquatone The Water-Way To Health." (For Mineral Water.) Paulson Medicinal Well Co. No. 18,279; Mar. 2; Gaz. vol. 212; p. 326.
"Bridgeport Standard." (For Prepared Paint.) The Bridgeport Wood Finishing Co. No. 18,286; Mar. 9; Gaz. vol. 212; p. 687.
"Bunte Happy Home." (For Candies.) Bunte Brothers. No. 18,302; Mar. 16; Gaz. vol. 212; p. 1056.
"Cream Of Pearls." (For Face-Cream.) G. W. Richie. No. 18,280; Mar. 2; Gaz. vol. 212; p. 326.
"Crown." (For a Hair-Tonic.) K. M. Hughes. No. 18,309; Mar. 16; Gaz. vol. 212; p. 1056.
"Ez-Piles." (For an Ointment.) M. Weissmann. No. 18,282; Mar. 2; Gaz. vol. 212; p. 326.
"E Z Shine." (For Stove and Nickel Polish.) Busy Bee Manufacturing Co. No. 18,273; Mar. 2; Gaz. vol. 212; p. 326.
"Fan-Tan." (For Assorted Candies.) Loheide Manufacturing Company. No. 18,315; Mar. 30; Gaz. vol. 212; p. 1688.
"Fan-Tan." (For Roasted Salted Peanuts.) Loheide Manufacturing Company. No. 18,310; Mar. 16; Gaz. vol. 212; p. 1056.
"Felton's Crystal Spring Old Rum." (For Rum.) Felton & Son. No. 18,304; Mar. 16; Gaz. vol. 212; p. 1056.
"Felton's Pure Crystal Spring Rum." (For Rum.) Felton & Son. No. 18,303; Mar. 16; Gaz. vol. 212; p. 1056.
"First National Bank." (For Check-Books.) The First National Bank. No. 18,306; Mar. 16; Gaz. vol. 212; p. 1056.
"Four Glories." (For Whisky.) Goodman Liquor Company. No. 18,289; Mar. 9; Gaz. vol. 212; p. 687.
"G-R-S Orange XXXX made from Berkshire's Famous Springs." (For an Orange-Flavored Drink.) F. M. Osteyee. No. 18,297; Mar. 9; Gaz. vol. 212; p. 687.
"Granulated." (For Coffee.) Heyniger, Pitt & Co. No. 18,288; Mar. 9; Gaz. vol. 212; p. 687.
"Hauck's Bock Beer." (For Beer.) The John Hauck Brewing Company. No. 18,308; Mar. 16; Gaz. vol. 212; p. 1056.
"Ice-Land Sea-Foam Hair Tonic." (For a Hair-Tonic.) F. Soele. No. 18,299; Mar. 9; Gaz. vol. 212; p. 687.
"Kentucky Carlsbad Water." (For Water.) The Kentucky Carlsbad Springs Co. No. 18,291; Mar. 9; Gaz. vol. 212; p. 687.
"Kleenit." (For Cleaners.) R. T. Davis. No. 18,298; Mar. 9; Gaz. vol. 212; p. 687.
"Klenzglas Kloth." (For a Glass-Cleaning Cloth.) Doutmaco Selling Associates Incorporated. No. 18,274; Mar. 2; Gaz. vol. 212; p. 326.
"Laxton Constitution Builder For Men." (For Medicine.) J. W. R. Laxton. No. 18,277; Mar. 2; Gaz. vol. 212; p. 326.
"Laxton Constitution Builder for Women." (For Medicine.) J. W. R. Laxton. No. 18,278; Mar. 2; Gaz. vol. 212; p. 326.
"Lomauro's Universal Salve." (For a Salve.) F. R. Lomauro. No. 18,292; Mar. 9; Gaz. vol. 212; p. 687.
"Marian's Burnt Olive Oil Candy." (For a Medicinal Preparation.) M. M. MacGrath. No. 18,293; Mar. 9; Gaz. vol. 212; p. 687.
"Mt. Vernon." (For Evaporated Milk.) Mt. Vernon Cream Co. No. 18,312; Mar. 16; Gaz. vol. 212; p. 1056.
"Muenchener Kind'l Bräu." (For Beer.) Regenfuss Brewing Co. No. 18,314; Mar. 23; Gaz. vol. 212; p. 1355.
"Nonpareil." (For Shampoo-Tonic, Hair-Grower, and Dandruff-Remover.) C. H. Tigner. No. 18,281; Mar. 2; Gaz. vol. 212; p. 326.
"Old Fashion." (For Whisky.) Inter-State Distilling Co. No. 18,276; Mar. 2; Gaz. vol. 212; p. 326.
"Orr's Excellent Cakes." (For Cakes.) O. C. Orr Baking Company. No. 18,296; Mar. 9; Gaz. vol. 212; p. 687.
"Pro-phy-lac-tic Tooth Brush." (For Tooth-Brushes.) Florence Manufacturing Company. No. 18,307; Mar. 16; Gaz. vol. 212; p. 1056.
"Rosina." (For Medicine.) C. Napoli. No. 18,294; Mar. 9; Gaz. vol. 212; p. 687.
"S. S. White Cleansing Powder." (For a Cleansing-Powder.) The S. S. White Dental Manufacturing Company. No. 18,283; Mar. 2; Gaz. vol. 212; p. 326.
"Some Biscuit." (For Crackers.) The Grocers Biscuit Company. No. 18,290; Mar. 9; Gaz. vol. 212; p. 687.
"Standard Rum of the Country." (For Rum.) Felton & Son. No. 18,305; Mar. 16; Gaz. vol. 212; p. 1056.
"Swan-Grain Brand." (For Food Products.) J. Swangren. No. 18,300; Mar. 9; Gaz. vol. 212; p. 687.
"Teresa de Rosa." (For Alimentary Pastes.) F. Albano. No. 18,285; Mar. 9; Gaz. vol. 212; p. 687.
"The Bergmann Guaranteed Water Proof Shoe Oil." (For Shoe-Oil.) W. C. Maynard and Company. No. 18,313; Mar. 23; Gaz. vol. 212; p. 1355.
"Ulika Raisinette." (For Unfermented and Non-Alcoholic Raisin-Juice.) National Fruit Products Company of California. No. 18,295; Mar. 9; Gaz. vol. 212; p. 687.
"Virisol." (For a Medicinal Preparation.) O. Edler. No. 18,287; Mar. 9; Gaz. vol. 212; p. 687.
"XXX White Diamond Buffing & Polishing." (For an Abrasive Composition.) The Matchless Metal Polish Co. No. 18,311; Mar. 16; Gaz. vol. 212; p. 1056.

PRINTS.

"'Eleven busy Owl Factories Prove what smokers think of me.'" (For Cigars.) Thos. Cusack Company. No. 3,837; Mar. 9; Gaz. vol. 212; p. 687.
"'Eleven busy Owl Factories Prove what smokers think of me.'" (For Cigars.) Thos. Cusack Company. Nos. 3,840–1; Mar. 9; Gaz. vol. 212; p. 687.
"'For the love of mildness' Light up another!" (For Cigars.) Thos. Cusack Company. No. 3,838; Mar. 9; Gaz. vol. 212; p. 685.
"Frozen Mints—They Captivate." (For Chewing-Gum.) Edwards & Deutsch Litho. Co. No. 3,843; Mar. 9; Gaz. vol. 212; p. 687.
"Get Next To This Inside Stuff." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,850; Mar. 30; Gaz. vol. 212; p. 1688.
"'Hand Work' makes me—'Head work' buys me." (For Cigars.) Thos. Cusack Company. No. 3,839; Mar. 9; Gaz. vol. 212; p. 687.
"King Philip Mills." (For Nainsooks.) King Philip Mills. No. 3,849; Mar. 30; Gaz. vol. 212; p. 1688.
"Kirk's Flake Soap, No. 462." (For Soap.) James S. Kirk & Company. No. 3,844; Mar. 9; Gaz. vol. 212; p. 687.
"Look Around! 'There's an Owl dealer right near you.'" (For Cigars.) Thos. Cusack Company. No. 3,835; Mar. 9; Gaz. vol. 212; p. 687.
"Mutt thought all tobaccos bit the tongue till Jeff brought home some 'Good Old P. A.'" (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,852; Mar. 30; Gaz. vol. 212; p. 1688.
"Nutty Chocolates." (For Candy.) C. W. Miller. No. 3,845; Mar. 9; Gaz. vol. 212; p. 687.
"P. A. Ain't Never Horn-swoggled Any-one Yet." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,851; Mar. 30; Gaz. vol. 212; p. 1688.
"Panama Pacific Exposition." (For Smoking-Tobacco.) The Bloch Bros. Tobacco Co. No. 3,834; Mar. 9; Gaz. vol. 212; p. 687.
"Perfection in Munsingwear." (For Underwear.) The Meyercord Company. No. 3,832; Mar. 2; Gaz. vol. 212; p. 326.
"Piedmont Cigarettes Of Quality." (For Piedmont Cigarettes.) Thos. Cusack Company. No. 3,842; Mar. 9; Gaz. vol. 212; p. 687.
"S. S. White Tooth Pastes." (For Tooth-Pastes.) The S. S. White Dental Manufacturing Co. No. 3,833; Mar. 2; Gaz. vol. 212; p. 326.
"The Rice Leaders of the World Association." (For Certain Specified Articles of Manufacture.) E. E. Rice. No. 3,847; Mar. 16; Gaz. vol. 212; p. 1056.
"Valentine's Valspar—The Varnish that won't turn white." (For Valentine's Valspar.) Valentine & Company. No. 3,846; Mar. 9; Gaz. vol. 212; p. 687.
"'Workmanship'—'hand workmanship counts heavily in a cigar.'" (For Cigars.) Thos. Cusack Company. No. 3,836; Mar. 9; Gaz. vol. 212; p. 687.
"Yellow Strand." (For Wire Rope and Cables.) Broderick & Bascom Rope Company. No. 3,848; Mar. 30; Gaz. vol. 212; p. 1688.

DISCLAIMERS.

Form, Dress-. W. Enoch. No. 1,116,047; date of patent Nov. 3, 1914; disclaimer filed Mar. 12, 1915; Gaz. vol. 212; p. 1360.
Signaling apparatus, Wireless. J. L. Hogan, Jr. No. 1,014,062; date of patent Jan. 9, 1912; disclaimer filed Mar. 23, 1915; Gaz. vol. 212; p. 1692.
Telephone system. H. G. Webster. No. 931,904; date of patent Aug. 24, 1909; disclaimer filed Mar. 8, 1915; Gaz. vol. 212; p. 693.

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UNITED STATES PATENT OFFICE.

VOLUME CCXIII.

APRIL,

1915.

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1915.

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ERRATA.

1,134,183, page 36, second claim, lines 3–4, strike out the words "comprising two links pivoted together and respectively to the actuating and the controlling plate"; same claim, line 7, after the word "plate" insert the words *comprising two links pivoted together and respectively to the actuating and the controlling plate.*

1,134,422, page 123, first claim, line 3, for the word "and", first occurrence, read *an.*

1,134,435, page 128, third claim, line 6, for the word "course" read *source.*

1,134,650, page 207, first claim, line 2, after the word "disks" insert a comma.

1,134,751, page 244, in heading, assignment, after the word "assignor" insert the words *of one-half.*

1,134,784, page 256, second claim, line 4, for the word "starting" read *started.*

1,136,090, page 792, first claim, line 12, after the word "released" insert the words *and means.*

1,137,144, page 1206, fourth claim, line 5, for the word "of" read *on.*

1,137,561, page 1354, in heading, assignment, residence of assignee, for "Ogontz, Pa.," read *Camden, N. J.*

47,234, (Design,) page 722, in heading, assignment, for "Charles P. Monasch, Chicago, Ill.," read *United Table-Bed Company, a Corporation of Illinois.*

Index of patentees, page iii, No. 3, for "Collins, George W." read *Collin, George W.*

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THE

OFFICIAL GAZETTE

OF THE

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Trade-Marks	229—No.	103,405 to No.	103,633, inclusive.
Labels	42—No.	18,316 to No.	18,357, inclusive.
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Total.....1205

The patents of this issue were pending an average of 25.3 months.

TO RESIDENTS OF THE UNITED STATES.

States	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	1	North Carolina	6	1
Arizona	....	1	North Dakota	6	....
Arkansas	2	....	Ohio	65	14
California	46	8	Oklahoma	4	....
Colorado	16	....	Oregon	5	2
Connecticut	17	6	Pennsylvania	75	15
Delaware	....	3	Rhode Island	7	6
Florida	5	2	South Carolina	....	....
Georgia	7	....	South Dakota	1	....
Idaho	2	....	Tennessee	3	1
Illinois	91	84	Texas	10	3
Indiana	25	2	Utah	4	1
Iowa	24	3	Vermont	4	....
Kansas	7	....	Virginia	8	5
Kentucky	5	1	Washington	15	....
Louisiana	3	1	West Virginia	7	2
Maine	3	....	Wisconsin	16	4
Maryland	7	3	Wyoming	2	....
Massachusetts	62	10			
Michigan	27	5	Alaska, District of	....	....
Minnesota	11	3	Canal Zone	....	....
Mississippi	1	....	District of Columbia	7	4
Missouri	25	3	Hawaii Territory	....	1
Montana	6	....	Philippine Islands	....	....
Nebraska	6	3	Porto Rico	....	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	6	....	U. S. Navy	....	....
New Jersey	44	6			
New Mexico	1	....	Total to residents of the United States	859	266
New York	161	62			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	....	Natal	....	....
Austria-Hungary	6	....	Netherlands	....	....
Belgium	1	....	New South Wales	....	....
British India	....	....	New Zealand	1	....
British West Indies	....	....	Norway	....	....
Canada	16	1	Portugal	....	....
Cape Colony	....	....	Queensland	....	....
Chile	....	....	Roumania	....	....
Costa Rica	....	....	Russia	1	....
Cuba	....	....	Scotland	....	1
Denmark	1	....	South Australia	....	....
England	17	2	Spain	....	....
Finland	....	....	Sweden	....	1
France	4	....	Switzerland	....	....
Germany	14	3	Transvaal, South Africa	....	....
Guatemala	....	....	Victoria	3	....
India	....	....	Western Australia	....	....
Ireland	....	....			
Isle of Jersey	1	....	Total to residents of foreign countries	68	8
Italy	2	....			
Mexico	....	....			

Internal Revenue-Stamp Act.

Department of the Interior,
United States Patent Office,
Washington, D. C., April 1, 1915.

This Office has been notified, under date of March 27, 1915, by the Commissioner of Internal Revenue, that a notarial certificate of the acknowledgment of an assignment of Letters Patent, in accordance with the provisions of section 4898 of the Revised Statutes, is not a certificate "required by law" within the meaning of the act of October 22, 1914, and is therefore not taxable under that act.

In view of this ruling the notice issued by this Office on November 14, 1914, (208 O. G., 661,) that an assignment so acknowledged requires a revenue stamp is hereby revoked.

THOMAS EWING,
Commissioner.

Notice—Classified Index of Patents.

Commencing with this issue a classified index of patents will form a part of the OFFICIAL GAZETTE each week.

Date of Patent.

RULE 207. The weekly issue closes on Thursday, and the patents of that issue bear date as of the *fourth* Tuesday thereafter. If the final fee in any application is not paid on or before Thursday, the patent will not go to issue until the following week.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business April 3, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Dec. 22	Jan. 2	454
126	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas and Canes; Tobacco.	Oct. 19	Feb. 3	708
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Mar. 22	Mar. 27	99
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Oct. 8	Mar. 17	623
167	5. Bookbinding; Harvesters; Jewelry; Music.	Oct. 27	Feb. 17	351
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Oct. 7	Mar. 19	527
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Feb. 2	Mar. 5	501
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Sept. 28	Mar. 12	1230
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	Jan. 11	Oct. 26	835
235	10. Carriages and Wagons	Nov. 20	Mar. 12	714
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Feb. 8	Mar. 15	141
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Nov. 10	Mar. 20	829
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Feb. 23	Mar. 3	439
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Nov. 16	Mar. 6	312
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Oct. 28	Mar 20	708
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Aug. 28	Jan. 8	501
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Jan. 23	Mar. 20	181
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 3	Mar. 3	281
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Feb. 9	Feb. 20	237
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Mar. 1	Mar. 1	240

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Nov. 19	Feb. 17	428
240	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Mar. 9	Mar. 4	212
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 17	Dec. 31	433
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Nov. 3	Mar. 19	436
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Mar. 6	Mar. 15	122
106	26. Electricity, Generation; Motive Power.	Aug. 15	Jan. 30	553
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Nov. 19	Mar. 18	295
65	28. Internal-Combustion Engines	Feb. 1	eb. 27	439
147	29. Coopering; Fire-Escapes; Ladders; Rools; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	Feb. 18	Feb. 3	321
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Nov. 9	Mar. 18	309
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Dec. 11	Feb. 24	343
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Oct. 6	Mar. 17	668
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Dec. 4	F b. 24	343
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 4	Mar. 20	205
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Dec. 9	Mar. 27	551
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Jan. 6	Mar. 17	573
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Aug. 17	Feb. 4	728
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Oct. 20	Mar. 1	568
221	39. Water Distribution	Dec. 16	Jan. 28	472
220	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 9	Feb. 16	996
126	41. Railway Draft Appliances; Resilient Tires and Wheels.	Feb. 6	Mar. 5	264
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Aug. 29	Jan. 29	641
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Feb. 25	Feb. 16	296

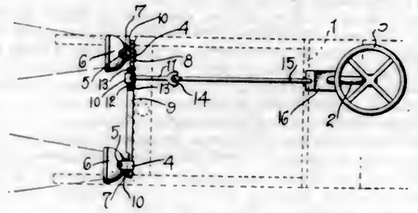
Oldest new case, July 11; oldest amended, Oct. 26.
Total number of applications awaiting action 20,107

	Trade-Marks, Designs, Labels and Prints:			
161	Trade-Marks	Jan. 30	Mar. 20	863
	Designs	Jan. 21	Mar. 2	485
	Labels and Prints	Mar. 23	Mar. 25	74

PATENTS

GRANTED APRIL 6, 1915.

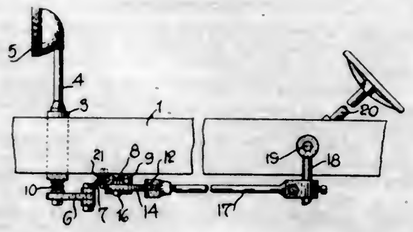
1,134,089. DIRIGIBLE HEAD-LAMPS FOR VEHICLES. Charles Adams, Holstein, Iowa, assignor of one-half to Peter J. A. Schnoor, Holstein, Iowa. Filed Aug. 8, 1914. Serial No. 855,827. (Cl. 240—62.)



1. A device of the class described including the frame of a vehicle, U-shaped brackets supported upon opposite sides thereof at its front end, vertical posts rotatably mounted within said brackets, lamps carried by said posts, segmental gears formed upon the intermediate portions of the posts, a U-shaped bracket supported by the frame, a bar movable through the bracket, rack teeth at each end of the bar adapted to engage the segmental gears, a shaft rotatably mounted within said bracket, a gear wheel carried thereby, and teeth formed upon the upper face of the bar adapted for engagement with the gear wheel whereby upon rotation of the shaft, the bar will be reciprocated to rotate the lamps.

2. A device of the class described including the frame of a vehicle, U-shaped brackets supported upon opposite sides thereof at its front end, vertical posts rotatably mounted within said brackets, lamps carried by said posts, segmental gears formed upon the intermediate portions of the posts, a U-shaped bracket supported by the frame, a bar movable through the bracket, rack teeth at each end of the bar adapted to engage the segmental gears, a shaft rotatably mounted within said bracket, a gear wheel carried thereby, teeth formed upon the upper face of the bar adapted for engagement with the gear wheel, and means connected with said shaft whereby to rotate the same and impart reciprocating movement to the bar to rotate said lamps, as and for the purpose set forth.

1,134,090. HEAD-LAMPS FOR VEHICLES. Charles Adams, Holstein, Iowa, assignor of one-half to Peter J. A. Schnoor, Holstein, Iowa. Filed Oct. 12, 1914. Serial No. 866,360. (Cl. 240—62.)

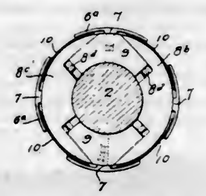


1. In combination with a vehicle frame, of a lamp post rotatably supported by said frame, a bar movable transversely of the frame and capable of reciprocating movement, an operative connection between the post and the bar whereby reciprocating movement of the bar rotates the post, an arm pivotally connected with the frame and provided with a lateral extension having an arcuate slot, said bar being provided with a depending lug adapted to be accommodated within the slot, and means for imparting swinging movement to the arm.

2. In combination with a vehicle frame, a vertically disposed lamp post operatively supported by the frame, a reciprocating bar disposed transversely of the frame, a laterally directed arm carried by the lamp post, a rod in pivotal engagement with the bar and the arm of the post, an outwardly disposed arm pivotally engaged with the vehicle frame and disposed in substantially a horizontal plane and provided with a forwardly directed extension having an arcuate slot, said bar being provided with a depending lug adapted to be accommodated within the slot of the extension, and means for imparting swinging movement to the last named arm.

3. In combination with the frame of a vehicle, a vertically disposed sleeve operatively supported by the frame, a lamp post rotatably supported by the sleeve, an arm projecting laterally from the lower extremity of the post below the sleeve, an expansible member interposed between the arm and the adjacent extremity of the sleeve, a bar disposed transversely of the frame and mounted for reciprocating movement, a rod in pivotal engagement with the arm of the post and with the bar, an arm projecting outwardly and laterally from the vehicle frame and pivotally engaged therewith, said arm being provided with a forwardly directed extension provided with an arcuate slot, said bar being provided with a depending lug adapted to be accommodated within the slot of the extension, and means for imparting swinging movement to the last mentioned arm.

1,134,091. METALLIC PACKING FOR PISTON-RODS. John Badeker, Omaha, Nebr., assignor of fifteen one-hundredths to Henry W. Harsch, Omaha, Nebr. Filed Mar. 12, 1913. Serial No. 753,746. (Cl. 137—116.)



1. A metallic packing for piston rods, comprising a casing having an opening to receive the piston rod, a body portion arranged to enter said casing, said body portion being divided into a plurality of parts, each part being provided with a recess, a block arranged to enter each of said recesses and constituting part of the packing material, means disposed between the walls of the casing and the packing material for pressing the latter toward the piston rod, said last named means comprising a plurality of leaf springs disposed between the wall of the casing and the exterior portions of the packing, and means for preventing the overlapping of adjacent springs and for centering the packing within the casing.

2. A metallic packing for piston rods, comprising a casing having an opening to receive the piston rod, a body portion arranged to enter said casing, said body portion being divided into a plurality of parts, each part being provided with a recess, a block arranged to enter each of said recesses and constituting part of the packing material, means disposed between the walls of the casing and the packing material for pressing the latter toward the piston rod, said last-named means comprising a plurality of leaf springs disposed between the wall of the casing and the exterior portions of the packing, and inwardly projecting lugs carried by the casing and disposed between the ends of the adjacent springs for preventing the overlapping of the latter, said lugs also serving to space the packing from the walls of the casing.

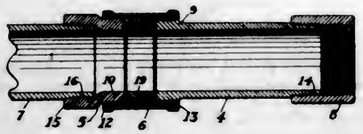
3. In a metallic packing for piston rods, a follower having a central opening arranged to receive the piston rod, said follower being provided with a laterally extending flange having a plurality of cut away portions, inwardly extending lugs carried by said flanges, said lugs being disposed between said cut away portions, a plurality of metallic packing sections carried by said follower, and a leaf spring disposed between each of said sections and the adjacent flanges for pressing the sections toward the piston rod, a portion of each of said springs being in alinement with a cut away portion in said flange.

4. In a metallic packing for piston rods, a follower having a central opening arranged to receive the piston rod, said follower being provided with a laterally extending flange having a plurality of cut away portions, inwardly extending lugs carried by said flanges, said lugs being disposed between said cut away portions, a plurality of metallic packing sections carried by said follower, and a leaf spring disposed between each of said sections and adjacent flanges for pressing the sections toward the piston rod, a portion of each of said springs being in alinement with a cut away portion in said flange, a gland or casing having a wall arranged to be engaged by the metallic packing, and means for securing said gland to the cylinder head.

5. In a metallic packing for piston rods, a follower having a central opening arranged to receive the piston rod, said follower being provided with a laterally extending flange having a plurality of cut away portions, inwardly extending lugs carried by said flanges, said lugs being disposed between said cut away portions, a plurality of metallic packing sections carried by said follower, a leaf spring disposed between each of said sections and the adjacent flanges for pressing the sections toward the piston rod, a portion of each of said springs being in alinement with a cut away portion in said flange, a gland or casing having a wall arranged to be engaged by the metallic packing, means for securing said gland to the cylinder head, and a spring disposed between a portion of said cylinder head and said follower for holding the packing against the wall of the gland.

[Claims 6 to 8 not printed in the Gazette.]

1,134,092. PIPE-JOINT. EDWIN BAHR, New York, N. Y. Filed Oct. 10, 1914. Serial No. 865,997. (Cl. 137—28.)



1. In combination with a pair of alined pipe members such as a threaded pipe and connection internally threaded so as to fit the pipe, of a coupling nipple having its shank similar to the line pipe and threaded at the rear end to fit the line connection, the coupling nipple having its other end enlarged and externally threaded, such enlargement tapering inwardly, a coupling sleeve having an internal thread tapering from one end to the other and adapted to engage the said enlarged end to the coupling nipple to lock thereon at its smaller end portion, and an extension sleeve having a reduced end whereby inner and outer shoulders are provided at its middle portion for engagement respectively with the said pipe member and said coupling nipple, said extension sleeve having its reduced portion tapering toward the end thereof and externally threaded to engage in the larger end of the threaded bore of the coupling sleeve, said extension sleeve having its bore threaded at the larger end portion for engagement with the said threaded pipe member, said extension having the bore of the reduced portion in alinement with the said pipe member and with the bore of the said coupling nipple and a washer interposed between the reduced end of the extension sleeve and the end of the coupling nipple to form a substantially continuous bore for the device.

2. In combination with a pair of alined pipe members such as a threaded pipe and a connection internally threaded so as to fit the pipe, of a coupling nipple having its shank similar to the line pipe and threaded at the rear end to fit the line connection, the coupling nipple having its other end enlarged and externally threaded to engage in the larger end of the threaded bore of the coupling sleeve, said extension sleeve having its bore threaded at the larger end portion for engagement with the said threaded pipe member, said extension sleeve having the bore of the reduced portion in alinement with the said pipe member and with the bore of the said coupling nipple, said extension sleeve having its reduced end whereby inner and outer shoulders are provided at its middle portion for engagement respectively with the said pipe member and said coupling nipple, said extension sleeve having its reduced portion tapering toward the end thereof and externally threaded to engage in the larger end of the threaded bore of the coupling sleeve, said extension sleeve having its bore threaded at the larger end portion for engagement with the said threaded pipe member, said extension sleeve having the bore of the reduced portion in alinement with the said pipe member and with the bore of the said coupling nipple, the internal threads of the extension being of a different pitch from the external threads on the extension sleeve and from the threads of the coupling sleeve.

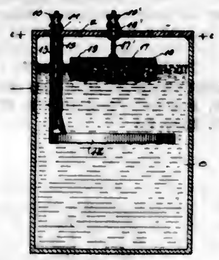
1,134,093. ELECTRIC BATTERY. WILLIAM CHARLES BAUER, Evanston, Ill. Filed Oct. 31, 1910. Serial No. 589,893. (Cl. 204—33.)

1. A depolarizer for electric batteries comprising in combination, an organic oxidizing compound, a suitable form of the element carbon and copper oxid.

2. A depolarizer for electric batteries, comprising in combination, an organic oxidizing compound, a finely divided electrically conducting substance and copper oxid.

3. A depolarizer for electric batteries, comprising an organic oxidizing compound and copper oxid coacting therewith.
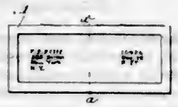
4. A depolarizer for electric batteries comprising in combination, an organic oxidizing compound, a suitable form of the element carbon and a metallic oxygen compound which is practically insoluble in an alkaline electrolyte.



5. A primary electric battery comprising as its essential components, a battery jar, an alkaline electrolyte, a positive zinc element, a suitable negative element, and a depolarizer consisting of an organic oxidizer and a catalytically active substance practically insoluble in said electrolyte coacting with said organic oxidizer.

[Claims 6 to 37 not printed in the Gazette.]

1,134,094. STENCIL. EDWIN DRAYTON BELKNAP, New York, N. Y. Filed Nov. 29, 1911. Serial No. 662,962. (Cl. 101—134.)



1. A stencil card adapted to be used in printing mechanism employing inking means moving along lines having a fixed and uniform relation to the card when it is in said printing mechanism, said card having the stencilled matter thereon divided into definite classes according to the character thereof, each class of matter being spaced and confined to a particular section of the card, the dividing line between any two classes, when the card is inserted in the printing mechanism, extending across the face of the card parallel with the line of motion of the inking means.

2. A card adapted to be used in printing mechanism employing inking means moving along lines having a fixed and uniform relation to the card when it is in said printing mechanism, said card having its surface definitely divided into printing and non-printing sections, a non-printing section extending directly across the card between two printing sections thereof, and in such direction as to be parallel to the line of motion of the inking means when the card is in the printing mechanism.

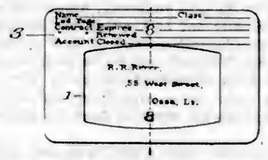
3. A series of cards adapted to be used in printing mechanism employing inking means moving along lines having fixed relations to the cards when they reach said printing mechanism, said cards having their surfaces definitely and uniformly divided into printing and non-printing sections, a non-printing section extending directly across the face of each and between two printing sections thereof, in such direction as to be parallel to the lines of motion of the inking means when the card is in the inking mechanism.

4. A series of rectangular cards of uniform size, having greater length than breadth, each presenting a blank, non-printing section extending directly across the card between two printing sections and parallel to the lesser dimension of the card.

5. A card for use in address printing machines having the printing characters thereon divided into two definite separate areas, one of which contains a name and post office address, and the other additional data relating to the person named, the said areas being divided one from the other by a non-printing space extending across the card at right angles to the lines of printing characters thereon.

1,134,095. STENCIL-CARD. EDWIN D. BELKNAP, New York, N. Y. Filed Mar. 1, 1912. Serial No. 680,933. (Cl. 101—134.)

1. A reinforced stencil card comprising in combination a sheet of stencilized paper and reinforcing frames on each

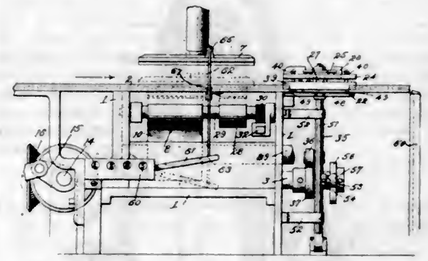


side, two of the opposite inner edges of each frame being so shaped that their outlines at opposite points are always inclined one to the other.

2. In a reinforced stencil card the combination of a stencilized sheet, and reinforcing frames attached thereto on each face, two opposite inner edges of each frame being formed in continuous curves, bowing outwardly one from the other.

3. A reinforced stencil card comprising in combination a thin sheet of stencilized paper, and a reinforcing frame of thicker, stiffer material of rectangular exterior shape, two of the opposite, inner edges of the frame being formed in continuous curves bowing outwardly one from the other.

1,134,096. SELECTIVE ADDRESSING-MACHINE. EDWIN D. BELKNAP, New York, N. Y. Filed Aug. 27, 1912. Serial No. 717,254. (Cl. 101—1.)



1. The combination with an addressing machine having a storage magazine for stencil cards at one side, a receiving magazine for such cards at the other side, guides extending from one magazine to the other, a printing mechanism located along said guides, and means for feeding the cards from ane magazine through the printing mechanism to the other, of a selective ejecting mechanism located at the discharge side of the printing mechanism, and adapted to divert certain of the cards from the guides after they have passed beyond said printing mechanism.

2. The combination with an addressing machine having a storage magazine for stencil cards at one side, a receiving magazine for stencil cards at the other side, guides extending from one magazine to the other, a printing mechanism located along said guides, and means for feeding the cards from one magazine through the printing mechanism to the other, of a selective ejecting mechanism located at the discharge side of the printing mechanism, and adapted to divert certain of the cards from the guides after they have passed through said printing mechanism, said selective ejecting mechanism comprising a transversely movable section of the guides and means for causing said movable section to engage certain of the cards and slip over others.

3. In combination with a guideway and mechanism for feeding a series of cards along said guideways, of a trans-

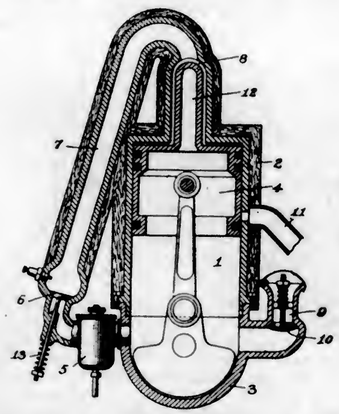
versely movable section in said guideway, means for moving said section periodically out of the line of said guideway and back again, and selective means on said section adapted to coöperate with certain of the cards when in contact therewith to move them with it on its outward stroke, whereby such cards are removed from the guideway at that point.

4. In combination with a guideway and mechanism for feeding a series of cards along said guideway, with intermediate periods of motion and rest, of a transversely movable section in said guideway, means for moving said section periodically out of the line of said guideway and back again during each period of rest of the card feed mechanism, and selective means on said section adapted to coöperate with certain of the cards when in contact therewith to move them with it on its outward stroke, whereby such cards are removed from the guideway at that point.

5. In combination with a guideway and mechanism for feeding a series of cards along said guideway, of a transversely movable section in said guideway, means for moving said section periodically out of the line of said guideway and back again, and selective means on said section adapted to coöperate with certain of the cards when in contact therewith to move them with it on its outward stroke, said selective means comprising a vertically yielding plate forming the upper portion of the guideway and provided with laterally adjustable projections on its under face.

[Claims 6 to 31 not printed in the Gazette.]

1,134,097. INTERNAL-COMBUSTION ENGINE. JOSEPH E. BISSELL, Pittsburgh, Pa. Filed Dec. 11, 1909. Serial No. 532,707. (Cl. 123—1.)

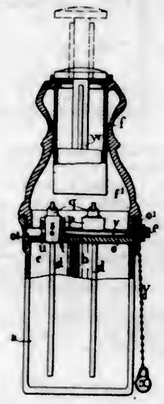


1. In an internal combustion engine the combination with a cylinder and a piston movable therein, of an elongate explosion or combustion chamber having a supply port at one end and opening at the other end to the said cylinder on one side of the said piston, the said chamber extending without substantial enlargement in width from the gas inlet port to the cylinder.

2. In an internal combustion engine, the combination with a cylinder and a piston movable therein, of an elongate explosion chamber having a supply port at one end and opening at the other end to said cylinder, said chamber extending without substantial enlargement in width from said supply port to the end of said piston when in its extreme inward position within said cylinder.

3. In an internal combustion engine, the combination of a cylinder, a piston movable therein, an elongate explosion chamber communicating with said cylinder at one end of said piston, and provided with a valve-controlled inlet port at the other end, said chamber extending without substantial enlargement in width from said inlet port to said cylinder, and a non-conducting covering surrounding the walls of said chamber and of said cylinder; the walls of said chamber and of said cylinder affording a path of heat conduction from said explosion chamber walls to said cylinder walls.

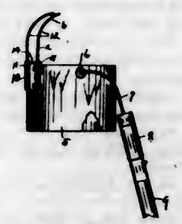
1,134,098. PERFUME-SPRAYER. MAYER JULES ROBERT BLOCH, Paris, France. Filed July 5, 1911. Serial No. 636,864. (Cl. 128—2.)



1. A sprayer for separately and simultaneously projecting several liquids, comprising a receptacle, partitions dividing said receptacle into several compartments, a metal plate closing the compartments, tubulures secured on said plate and corresponding to the compartments, nozzles for spraying the liquids, pipes for putting said tubulures in communication with said nozzles, cock plugs fitted in the tubulures, tubes secured on said plugs and a device for compressing air in the compartments of the receptacle.

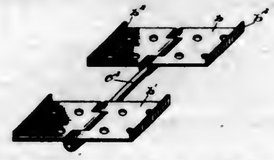
2. A sprayer for separately and simultaneously projecting several liquids, comprising a receptacle, partitions dividing said receptacle into several compartments, a metal plate closing the compartments, tubulures secured on said plate and corresponding to the compartments, nozzles for spraying the liquids, pipes for putting said tubulures in communication with said nozzles, cock plugs fitted in the tubulures and each presenting two passages capable of registering with one of the pipes and an opening of the tubulure, tubes secured on the cock plugs opposite one of said passages, a metallic head forming internally a chamber and screwed on the ring securing the closing plate, and a device for compressing air in said chamber so that this air may act simultaneously upon the liquids of the various compartments.

1,134,099. FRUIT-PICKER. JOSEPH BOLTON, Jackson, Nebr., assignor of one-half to John Ryan, Jackson, Nebr. Filed Sept. 15, 1914. Serial No. 861,754. (Cl. 56—99.)



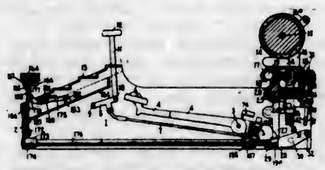
In a fruit picker, the combination of a sleeve, curved fingers attached to and projecting upwardly from one of the sides of the sleeve, a chute comprising a flexible, tubular section arranged to cover the inner and outer sides of the sleeve and having a converging part extending outwardly therefrom, a secondary converging, flexible, tubular section detachably connected with said first named section, a bail provided with a holder, a handle detachably connected with the holder, said bail being mounted near the upper edge upon opposed sides of the sleeve adjacent to said fingers to permit swinging movements of the sleeve with reference to said bail and to normally dispose the holder at the side of the sleeve, opposite to said fingers.

1,134,100. FOLDING BOARD FOR PAPER-HANGERS. JOHN G. BRECKENRIDGE, Springfield, Ohio, assignor to The Ridgely Trimmer Company, Springfield, Ohio, a Corporation of Ohio. Filed Oct. 20, 1909. Serial No. 523,596. (Cl. 45—116.)



As an article of manufacture, a collapsible paste-board comprising a plurality of pairs of flaps capable of being supported entirely by the outer ends of the flaps, a plurality of pairs of hinges secured to the inner ends of the flaps, projecting flanges extending transversely from each of the several parts of each pair of said hinges and transverse grooves formed in the under sides of each of the flaps and a pintle common to the pairs of hinges of a pair of flaps and near the inner edges of the flaps whereby the flanges will be held against movement by the grooves when the paste-board is supported at its outer ends, substantially as specified.

1,134,101. TYPE-WRITING MACHINE. ARTHUR J. BRIGGS, Syracuse, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Sept. 19, 1913. Serial No. 790,583. (Cl. 197—108.)



1. In a typewriting machine, the combination of a carriage; a feed rack therefor; feed dogs which co-act with said feed rack; and line lock and margin stop mechanism comprising a holding rack formed on the upper edge of said feed rack, line lock and margin stops carried by said feed rack and each provided with a detent for engaging said holding rack to hold the stop in the position to which it may be adjusted along the feed rack, and a dog rocker with which the margin stop co-acts to arrest the carriage.

2. In a typewriting machine, the combination of a carriage; a feed rack therefor; and line lock and margin stop mechanism comprising line lock and margin stops carried by said feed rack, a movable line lock device with which said line lock stop co-acts, and a feed dog carrier with which said margin stop co-acts.

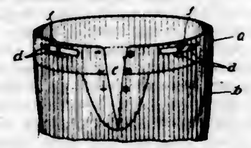
3. In a typewriting machine, the combination of a carriage; a feed rack therefor fixed to said carriage; and line lock and margin stop mechanism comprising line lock and margin stops carried by said feed rack, a movable line lock device with which said line lock stop directly co-acts, a spring for moving said locking device to inoperative position, and hand actuated means operable at will for moving said movable line locking device out of engagement with said line lock stop and thus release the line lock device and enable it to return to normal position under the power of its spring.

4. In a typewriting machine, the combination of a shift rail; a carriage shiftable with said shift rail; a feed rack carried by the carriage; and line lock and margin stop mechanism comprising line lock and margin stops carried by said feed rack, and coöperating devices carried by said shift rail.

5. In a typewriting machine, the combination of a shift rail, a carriage shiftable with said shift rail, a feed dog carrier carried by the shift rail, and a margin stop carried by the carriage and coöperating with said feed dog carrier to arrest the carriage.

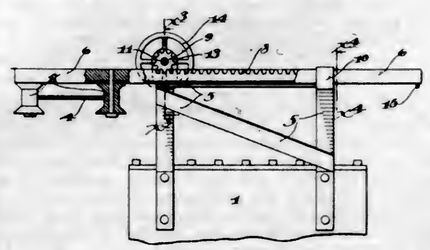
[Claims 6 to 20 not printed in the Gazette.]

1,134,102. MAN'S AND BOY'S DRAWERS. THOMAS M. BROWNING, Philadelphia, Pa. Filed Apr. 10, 1913. Serial No. 760,207. (Cl. 2—143.)



In a pair of men's or boys' drawers, a waist band, a suspender tape having one end permanently secured to the waist band near the front opening therein and extending from its permanently secured end in a direction away from said front opening, means for adjustably attaching the other end of the tape to the waist band, said means comprising spaced button and button hole connections, a part permanently attached to the waist band between and in spaced relation to said means and the permanently secured end of the tape and forming a connection between the waist band and the tape through which the latter may slide longitudinally of the waist band, the portion of said tape between its permanently secured end and said part being sufficiently long to receive a suspender terminal between it and the waist band.

1,134,103. BELT-GUIDE. ANDREW G. BURGESON, Douglas, N. D. Filed Dec. 11, 1913. Serial No. 805,948. (Cl. 64—4.)



The combination with a supporting bracket, of front and rear guides on said bracket, said front guide being U-shaped, a rack bar mounted in said guides for endwise sliding movement, a shaft journaled in the side members of said U-shaped guide over said rack bar, a pinion on said shaft meshing with the teeth of said rack bar and holding the outer end of said rack bar against lifting movement, a hand wheel for rotating said shaft to impart endwise sliding movement to said rack bar, means for locking said pinion against rotation, and a pair of depending laterally-spaced belt guiding rollers loosely journaled on the free outer end of said rack bar.

1,134,104. SIGNAL FOR AUTOMOBILES. GARRETT BURGESS, Detroit, Mich. Filed Sept. 28, 1914. Serial No. 863,831. (Cl. 40—61.)
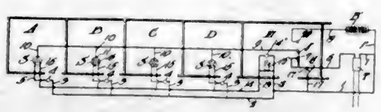


1. In a signal for automobiles, a casing adapted to have the interior thereof illuminated, a partition within said casing having openings formed therein representing characters, tubular guides within said casing, a curtain movable in front of said partition, weights within said guides for holding said curtain normally raised so as to conceal the characters, and means extending into said casing adapted to facilitate lowering said curtain.

2. In a signal for automobiles, a casing adapted to have the interior thereof illuminated, a partition in said casing provided with openings representing characters, vertical guides in said casing, a curtain movable under said partition between said guides and in front of said partition, weights in said guides adapted to hold said curtain normally raised so as to conceal the characters, and means extending into the bottom of said casing adapted to facilitate lowering said curtain to display the characters of said partition.

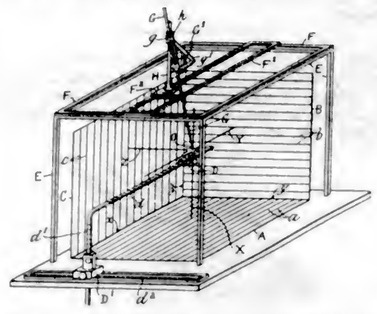
3. In a signal for automobiles, a casing, a partition therein provided with openings representing characters, vertically disposed tubular guides in said casing, a curtain movable in front of said partition and between said guides, means within said guides for holding said curtain normally raised so as to conceal said characters, means extending into said casing adapted to facilitate lowering said curtain.

1,134,105. ELECTRIC SIGNAL SYSTEM FOR HOSPITALS. MAURICE OWEN BURT, Colorado Springs, Colo. Filed Feb. 3, 1912. Serial No. 675,251. (Cl. 177—339.)



An electric signal system for hospitals, comprising a generator circuit, a transformer to reduce the voltage of the generator circuit for the signal system, a conductor led from one side of the transformer and having two branches, an audible and visual signal connected to one branch, a plurality of three point switches located at distant points, two branch conductors from each switch connected to the respective two branches of the conductor led from the transformer, a signal lamp in one of the switch branches, a return conductor having branches leading from the third point of all switches, a conductor leading from the other terminal of the transformer, a switch capable of swinging 180° connected permanently to the return conductor and for connecting the last conductor and the transformer in the system, a pilot lamp bridged from the last conductor to the first conductor to indicate the condition of the transformer circuit, a battery, a short conductor leading from one side of the battery to the first conductor, and another conductor leading from the other side of the battery and having a switch point upon the opposite side of the switch to the transformer conductor, whereby either the transformer or battery by the manipulation of the last named switch may be connected in the system.

1,134,106. APPARATUS FOR GAGING THE POSITION OF AND DIRECTING ACCESS TO POINTS WITHIN CLOSED SURFACES. ROBERT HENRY CLARKE, Warlingham, England. Filed July 17, 1913. Serial No. 779,452. (Cl. 33—174.)



1. In an apparatus for the purpose described the combination with a frame or support of three sets of equally spaced threads representing the lines of intersection of three sets of planes at right angles to each other, each thread representing the line of intersection of two planes and means adapted to coöperate concurrently with the three sets of threads for locating any desired point within said frame or support.

2. In an apparatus for the purpose described the combination with a frame or support or gratings comprising three sets of equally spaced threads representing the lines of intersection of three sets of planes at right angles to each other, each thread representing the line of intersection of two planes and mechanical means adapted to coöperate concurrently with the three sets of threads for locating any desired point within said frame or support.

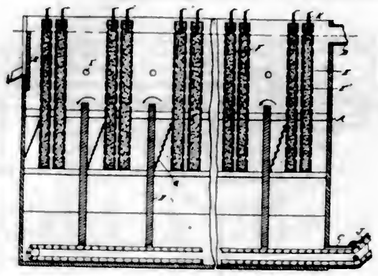
3. In an apparatus for the purpose described the combination with a frame or support of gratings comprising three sets of equally spaced threads representing the lines of intersection of three sets of planes at right angles to each other, each thread representing the line of intersection of two planes, mechanical means adapted to coöperate concurrently with the three sets of threads for locating any desired point within said frame or support and a finder adapted to be brought to the point so located.

4. In an apparatus for the purpose described the combination with a rectangular frame of gratings comprising three sets of equally spaced threads representing the lines of intersection of three sets of planes at right angles to each other, each thread representing the line of intersection of two planes, said frame having its opposite faces parallel respectively to the three sets of planes, means for adjustably supporting an index-point within said frame and index needles adapted to cooperate with the threads of the respective sets for locating said index-point at any desired point concurrently with respect to the three sets of planes.

5. In an apparatus for the purpose described the combination with a rectangular frame of gratings comprising three sets of equally spaced threads representing the lines of intersection of three sets of planes at right angles to each other, each thread representing the line of intersection of two planes, said frame having its opposite faces parallel respectively to the three sets of planes, means for adjustably supporting an index-point within said frame and a finder adapted to be projected into said frame and contact with said index-point.

[Claims 6 to 13 not printed in the Gazette.]

1,134,107. APPARATUS FOR THE TREATMENT OF SEWAGE. THOMAS CRANEY, Bay City, Mich. Filed Feb. 24, 1914. Serial No. 820,653. (Cl. 204—25.)



1. In an apparatus for the treatment of liquids containing solid matter, comprising a vat having a series of transversely-extending partitions extending from the bottom upward to form a series of compartments communicating with each other above said partitions, positive and negative electrodes arranged in adjacent pairs and extending across the vat, depending in each compartment between the partitions, and a separate screen or filter arranged in inclined position between the partition and electrodes on the ascending side of the liquid current for separating the solid from the liquid matter.

2. An apparatus for treating liquids containing solid matter, comprising a vat having a hopper-shaped bottom, a series of cross partitions in said vat dividing the same into compartments communicating with each other above said partitions, trays for holding positive and negative electrodes arranged in pairs and extending across the vat, depending in each compartment thereof, thereby compelling the liquid passing through the vat to take a zigzag course about said electrodes and partitions, screens or filters arranged between said electrodes and partitions in the path of the upwardly-directed liquid current, and a conveyer extending along the hopper bottom of said vat for removing the separated solid matter from the several compartments.

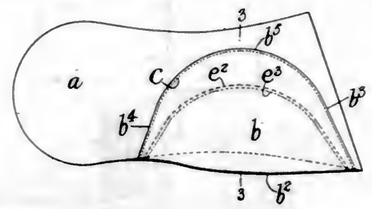
3. An apparatus for the treatment of liquids containing solid matter, comprising a vat having a hopper bottom, a series of cross partitions in said vat dividing the same into separate compartments communicating with each other over the tops of the partitions, a series of trays extending transversely of the vat intermediate said partitions, separated pairs of cells formed by said trays adjacent to each other filled with conducting material forming electrodes, and means for connecting the electrodes of adjacent pairs respectively to the positive and negative leads of a source of electrical energy.

4. An apparatus for the treatment of liquids containing solid matter, comprising a vat provided with a plurality of compartments having communication with each other, positive and negative electrodes arranged in each compartment in the path of the material to be treated, a means for establishing the desired liquid level within said vat, and a conduit extending longitudinally of said vat and communicating with each of said compartments for carrying off any floating substance on the surface of said liquid.

5. An apparatus for the treatment of liquids containing solid matter, comprising a vat, a series of transversely extending partitions in said vat dividing the same into separate compartments, means for passing the material to be treated through said vat, positive and negative electrodes arranged in the path of the material passing therethrough, and a separate screen arranged between said electrodes and a partition in each compartment, the screens in said compartments being of progressively finer mesh throughout the vat.

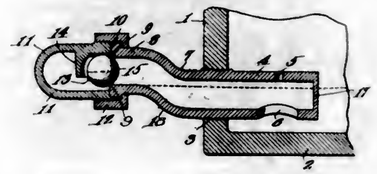
[Claims 6 and 7 not printed in the Gazette.]

1,134,108. ARCH-SUPPORTER. MICHAEL F. CREAHAN, Brooklyn, N. Y. Filed July 23, 1914. Serial No. 852,561. (Cl. 36—71.)



A foot arch support, comprising a main bottom sheet adapted to fit in the back bottom part of the shoe and beneath the arch of the foot and provided with a flexible pad member of less dimensions than the bottom sheet and also adapted to fit beneath the arch of the foot and between which and the bottom sheet is a pocket in which is secured a supplemental sheet of less dimensions than the pad member, and between which and the bottom sheet is a supplemental pocket, supplemental pad members adapted to be inserted above said supplemental sheet and composed of fibrous material, a sheet metal member adapted to be inserted beneath the supplemental sheet, and tack devices passed through the main bottom sheet and on which the sheet metal member bears, said tack devices being adapted to hold the support in proper position in the shoe.

1,134,109. VALVE. WALTER H. DANIELS, Savannah, Ga. Filed Nov. 11, 1912. Serial No. 730,742. (Cl. 182—15.)

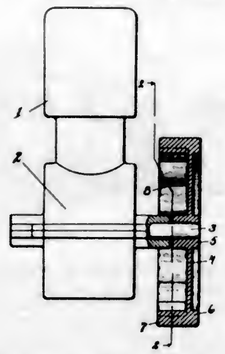


In a device of the class described, a radiator; a horizontal tube having a straight portion located within the radiator and provided with vertically alined upper and lower openings located within the radiator, said portion of the tube being closed at its inner end, and the upper opening being of small diameter compared with the lower opening, the outer end of the tube being axially offset in a direction parallel to the axis of the openings and constituting a means whereby the position of the axis of the openings with respect to the vertical may be determined by superficial inspection of the axial offset end, the offsetting of the outer end of the tube forming a seal retaining shoulder the upper edge of which lies in a plane passing close to the inner end of the upper opening; and an automatically acting valve located at the outer end of the tube.

1,134,110. FLY-WHEEL FOR EXPLOSION-ENGINES. WILLIAM A. DASHWOOD, St. John, New Brunswick, Canada, assignor to Sheffield Car Company, Three Rivers, Mich. Filed Dec. 18, 1911. Serial No. 666,634. (Cl. 74—6.)

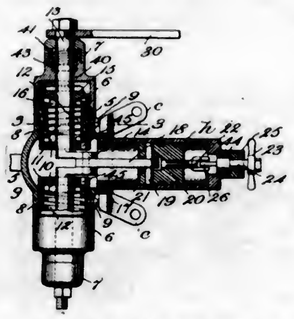
1. In an explosion engine, the combination with the crank shaft, of a fly wheel therefor comprising a web and rim, the rim having a portion projecting inwardly from said web, the inner side of said inwardly-projecting portion being fluted or corrugated to provide a plurality of finger-holds.

2. In an explosion engine, the combination with the crank shaft, of a fly wheel comprising a substantially solid



web and a rim provided with internal corrugation-like finger holds adjacent to its inner edge.

1,134,111. COMBINED DOOR CHECK AND CLOSER. JOHN DORO, New York, N. Y. Filed June 20, 1914. Serial No. 846,355. (Cl. 16—88.)

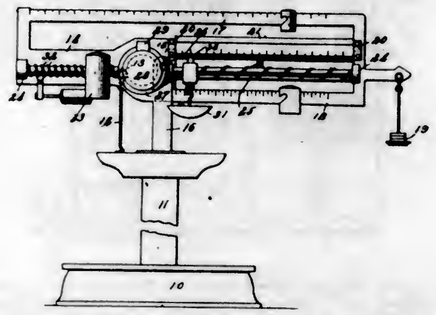


1. In a combined door check and closer, the combination of a casing adapted for connection to a door and including a chamber portion, the said chamber portion being made up of an intermediate and end sections, and bushings arranged for connecting the said intermediate to the end sections and secured against turning movement in the said intermediate section, door closing mechanism associated with the casing, and means for connecting the mechanism to the door frame.

2. In a combined door check and closer, the combination of a casing adapted for connection to a door and including a chamber portion, the said chamber portion being made up of an intermediate and end sections, and bushings arranged for connecting the said intermediate to the end sections and secured against turning movement in the said intermediate section, door closing mechanism associated with the casing and including springs connected at one end to the bushings, and means for connecting the mechanism to the door frame.

1,134,112. COUNTING AND WEIGHING MACHINE. GEORGE W. DREXELIUS, Baltimore, Md., assignor of one-half to Walter R. Metz, Washington, D. C. Filed June 17, 1914. Serial No. 845,601. (Cl. 73—3.)

1. In a scale, the combination with a weighing beam having the usual upper and lower scale beams, of a counting beam mounted on said weighing beam between said scale beams, brackets extending outwardly from the weighing beam, supporting means on the bracket, a unit pan supported on said means, a counter-balance for the unit pan mounted on the supporting means, an index on said unit pan adapted to travel over said counting beam, and means for moving said unit pan and said counter-balance simultaneously in opposite directions.



2. In a scale the combination with a weighing beam having the usual vertically spaced apart scale beams, a plural counting beam adjustably mounted in said weighing beam between said scale beams, brackets extending laterally from the weighing beam, supporting means on the brackets, a unit pan mounted on said supporting means and having an index adapted to move over said plural counting beam, a counter-balance supported by said means, a manually operated device mounted in front of the weighing beam and having connection with said unit pan and the counter-balance whereby the same may be moved simultaneously in opposite directions.

3. In a scale, the combination with a weighing beam, of a single shaft mounted on and extending longitudinally of said beam and having coarse and fine screw threads respectively at its opposite ends, a unit pan mounted on said coarse screw threads, a counter-balance mounted on said fine screw threads, a hand wheel arranged on the front side of said beam, and intermeshing gears on said shaft and the hand wheel whereby the unit pan and the counter-balance may be moved simultaneously and in opposite directions.

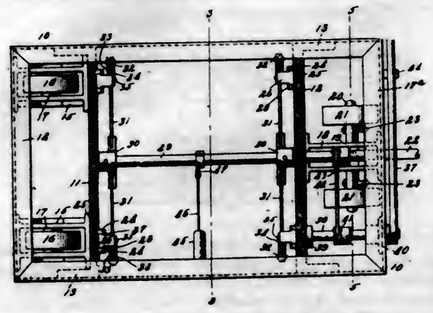
4. In a scale, the combination with a weighing beam, of a shaft journaled on and extending longitudinally of said beam and having coarse and fine opposed screw threads upon the respective ends of the shaft, a unit pan on one end of the shaft, a counter-balance on the other end of the shaft, and a manually operated device engaging the shaft to move the unit pan and the counter-balance simultaneously in opposite directions.

5. In a scale, the combination with a weighing beam, of a shaft journaled thereon, and extending in parallelism therewith, one end of the shaft having coarse screw threads and the other end of the shaft having relatively fine screw threads, a unit pan mounted on said coarse screw threads, a counter-balance mounted on said fine screw threads, and a manually operated device at the forward side of the weighing beam having connection with the shaft to shift the unit pan and the counter-balance simultaneously and in opposite directions.

[Claim 6 not printed in the Gazette.]

1,134,113. ELEVATING-TRUCK. GEORGE W. DREXELIUS, Baltimore, Md., assignor of one-half to Walter R. Metz, Washington, D. C. Filed June 17, 1914. Serial No. 845,602. (Cl. 254—9.)

1. In a truck, the combination with a frame, of an elevating mechanism comprising a plurality of independent posts, a separate toggle connected to each post and to the frame for moving said posts, a rock shaft, means connected to said shaft and to each toggle to actuate said toggles in unison and simultaneously move said posts, and operating means for rocking said shaft to raise and lower the elevating mechanism, said shaft being automatically locked in one extreme position to prevent overthrow of said rock-shaft and toggle-mechanism.



2. In a truck, the combination with a frame, of an elevating mechanism comprising a plurality of independent posts slidable vertically in said frame to raise and support a load, said posts lying within the top surface of the truck frame when out of use, a separate toggle connected to each post and to the frame for moving said posts, a rock shaft, a plurality of lever arms on said shaft, a link connecting each arm with a toggle to actuate said toggles in unison and simultaneously move said posts, and operating means for rocking said shaft to raise and lower said elevating mechanism.

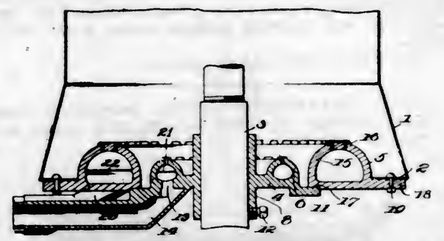
3. In a truck, the combination with a frame, of an elevating mechanism comprising a plurality of independent posts slidable vertically in said frame to raise and support a load, said posts lying within the top surface of the truck frame when not in use, a separate toggle connected to each post and to the frame for moving said posts, a rock shaft, a plurality of lever arms on said shaft, a link connecting each arm with a toggle to actuate said toggles in unison and simultaneously move said posts, a second rock shaft lying parallel to the first-named shaft, an arm fixed on each of said shafts, a link connecting said arms and a hand-lever on said second shaft for rocking the same and raising and lowering the elevating mechanism, the link connecting the arms on the rock shafts being brought into contact with the second shaft when the mechanism reaches its highest position and serving as a lock to maintain said mechanism elevated.

4. In a truck having a rectangular frame with cross-bars extending between opposite sides of said frame and rigidly connected thereto, and a plurality of slide-ways on one side of each of said cross-bars, of an elevating mechanism comprising a post slidable vertically in each of said guideways to raise and support a load, a separate toggle connected to each of said posts and to a cross-bar for moving said posts, a rock-shaft, a plurality of lever arms on said rock shaft, a link connecting one of said arms to each toggle to actuate said toggles in unison and simultaneously move said posts, and manually operated means for rocking said shaft and to raise and lower the elevating mechanism.

5. In a truck having a rectangular frame provided with cross-bars extending between opposite sides thereof and rigidly secured thereto, and pairs of parallel ribs projecting from one side of each of said cross-bars forming guideways, of an elevating mechanism comprising a plurality of independent posts slidable vertically in said guide-ways to raise and support a load, a separate toggle connected with each of said posts and to a cross-bar for moving said posts, a rock shaft, means connected to said shaft and to each toggle to actuate said toggles in unison and simultaneously move said posts, and operating means for rocking said shaft to raise and lower said elevating mechanism, said shaft operating means being automatically locked in one extreme position to prevent overthrow of said rock shaft and toggle mechanism.

[Claims 6 to 12 not printed in the Gazette.]

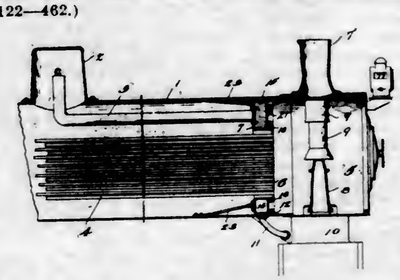
1,134,114. GAS-BURNER. ERNEST W. EVANS, Robinson, Ill. Filed June 5, 1914. Serial No. 843,245. (Cl. 158—105.)



1. In a burner of the class described, an annular pilot burner section, a sleeve located axially of the section and spaced therefrom, an annular burner section disposed to surround the pilot burner section and spaced therefrom, and an independent fuel supply pipe for each of said sections.

2. In a burner of the class described, an annular pilot burner section, a sleeve located axially of the section and spaced therefrom, an annular burner section disposed to surround the pilot burner section and spaced therefrom, an independent fuel supply pipe for each of said sections, and a baffle arranged within each section opposite the point of communication of the fuel supply pipe therewith.

1,134,115. STEAM-BOILER CONSTRUCTION. JOHN FARMER, Argenta, and MARK E. SHERLAND, McGehee, Ark. Filed June 16, 1914. Serial No. 845,368. (Cl. 122—462.)



1. The combination with a steam boiler, of a flanged flue sheet having a central off-set portion forming an annular space thereabout, a plate closing said space, the dry pipe communicating with said space, and steam pipes extending from said spaces to supply the cylinders.

2. The combination with a steam boiler, of a front flue sheet having an off-set portion to receive the fire flues, and forming an annular space, a circumferential flange on the flue sheet bounding the outer area of said space, a flanged plate closing the space, a dry pipe communicating with the space, and steam pipes leading therefrom as described.

3. The combination with a steam boiler, of a front flue sheet having an off-set portion to receive the fire flues, and forming a steam space, an annular flange on the flue sheet inclosing said space, a flanged plate closing the space, a dry pipe communicating with the space, steam pipes leading from said space, and braces connecting said flue sheet with the shell of the boiler.

4. The combination with a boiler, of a front flue sheet having a wide flange, and formed with an off-set projecting portion for the fire flues, said projecting portion forming spaces between it and the wide flange of the sheet, a plate closing said space and said spaces adapted to receive dry steam from the steam dome and having outlet steam pipes for the cylinders.

5. The combination with a steam boiler, of a front flue sheet having an outer wide annular flange, an off-set portion, and a closing plate, said off-set portion forming an upper open space for entrance of steam, and also forming restricted passages extending therefrom around the flue shell, and said restricted passages having outlet steam pipes.

[Claim 6 not printed in the Gazette.]

1,134,116. SURFACING-MACHINE. ANTONIO G. FERRARINI, Chicago, Ill. Filed Jan. 29, 1914. Serial No. 815,180. (Cl. 51—11.)



1. In a machine of the character described, the combination with a carrier for a surfacing element, of a supporting member on which said carrier is revolubly and yieldingly mounted, a driving shaft sustained by said supporting member having a sliding driving connection with said carrier to accommodate itself to the yielding relation between the carrier and the supporting member, and springs resisting the yield of the carrier.

2. In a machine of the character described, the combination with a carrier for a surfacing element, of a supporting member on which said carrier is mounted revolubly, and so as to permit said supporting member and carrier to assume different angular positions with respect to each other, a driving shaft sustained by said supporting member having a driving connection with said carrier operated at different angular positions of the supporting member with respect to the carrier, and springs resisting the angular positioning of the supporting member and carrier.

3. In a machine of the character described, the combination with a carrier for a surfacing element, of a supporting member on which said carrier is mounted, revolubly, yieldingly, and so as to permit the supporting member and carrier to assume different angular positions with respect to each other, springs resisting the yield of the carrier and a driving shaft sustained by said supporting member having a slidable and loose driving connection with the carrier for the purposes described.

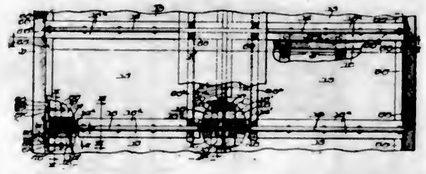
4. In a machine of the character described, the combination with a hollow supporting member, of a driving shaft mounted in said supporting member with its extremity polygonal in cross section, a revoluble carrier for a surfacing element, yieldingly mounted on said supporting member so that the supporting member may assume different angular positions with respect thereto, said carrier being formed with an opening for the polygonal end of the driving shaft of the same configuration as said shaft but of greater area, and springs resisting the yield of the carrier.

5. In a machine of the character described, the combination with a supporting member of a revoluble carrier for a surfacing element, and springs resisting the yield of the carrier, a spring abutment plate arranged at one end of said supporting member, springs interposed between the carrier and said plate and resisting the yield of the carrier, and driving means for revolving said carrier, said spring abutment-plate being rigidly secured to the carrier driving means.

[Claims 6 to 14 not printed in the Gazette.]

1,134,117. CAR-ROOF CONSTRUCTION. WILLIAM E. FOWLER, Jr., Hammond, Ind., and WILLIAM E. FOWLER, Sr., Los Angeles, Cal. Filed Dec. 18, 1913. Serial No. 807,373. (Cl. 108—5.)

1. In a car roof, the combination of a car-line having a water conducting channel and a horizontal roof sheet supporting member disposed in a plane above the base of the channel and below the top line of the car-line, and a purlin having its end engaging the said supporting member and bent under the base of the channel for attachment to the carline.



2. In a car roof, the combination of a roof sheet, means for supporting the bottom edge of the sheet comprising a wedge shaped member suitably carried at the eave, a flanged eaves cap for retaining the said bottom edge on its support, and a connection between the eaves cap and the wedge shaped member.

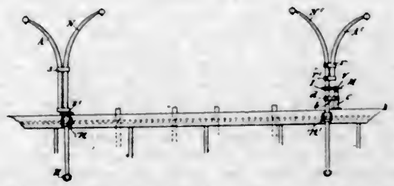
3. In a car roof, the combination of a carline terminally carried by the side of the car and provided with a channel for conducting water away from the roof, eaves caps mounted in spaced relation against the car side and extending upwardly to partially inclose the end of the channel, and a hood member straddling the spaced eaves caps and coöperating therewith to provide a covered passage for water discharging from the carline channel.

4. In a car roof, the combination of a metal carline provided with a water conducting channel, and a metal ridge section for the carline comprising a central web portion and a roof sheet supporting flange, the said flange having its end portion adjacent the carline separated in from the web and bent down into the channel for attachment to the carline.

5. In a car roof, the combination of a metal carline having a water conducting channel for discharging water over the side of the car, a carline cap, a hood member mounted adjacent the end of the channel and having an inwardly projecting portion thereof abutting the carline and received within the end of the carline cap.

[Claims 6 to 14 not printed in the Gazette.]

1,134,118. DUPLEX DAVITS APPARATUS. BENVENUTO GIANESE, Genoa, Italy. Filed July 24, 1913. Serial No. 780,862. (Cl. 9—22.)



An improved boat's davits device comprising a pair of main davits mounted for oscillation on vertical axes, means by which one of the main davits may be operated, an additional davit pivotally connected to the other main davit for independent movement on a vertical axis, an additional davit mounted upon the operable main davit for horizontal adjustment angularly with respect to the last named main davit, and means for securing the last named additional davit fixedly in adjusted position upon the main davit supporting the same.

1,134,119. CABLE-ARMOR. HENRY R. GILSON, Beaver, Pa., assignor to National Metal Molding Company, a Corporation of Pennsylvania. Filed Aug. 14, 1911. Serial No. 643,936. (Cl. 247—4.)

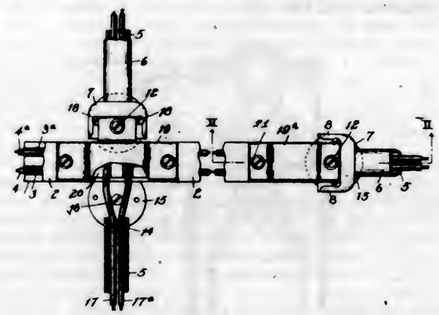
A cable armor formed of inner and outer metallic strips arranged in superposed helical coils, each strip consisting

solely of a flat body portion and a flat continuous interlocking portion formed integrally with and immediately adjoining each edge of said body portion and extending



the full length thereof, said interlocking portions being small in width as compared to said body portion and inclined at less than a right angle thereto.

1,134,120. CONNECTOR FOR WOOD TO METAL MOLDING. HENRY R. GILSON, Baden, Pa., assignor to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 12, 1913. Serial No. 806,295. (Cl. 247—4.)



1. The combination with adjoining sections of wood and metal moldings carrying electrical conductors in circuit, of a connector between said sections and at the end of said metal molding, said connector consisting of an arch-shaped block of insulating material having a tongue extending from the roof thereof and forming with the legs of said block a pair of conductor-receiving grooves diverging from the end of the metal molding, and means for attaching the connector through said tongue to the wood molding.

2. The combination with adjoining sections of wood and metal molding carrying electrical conductors in circuit, of a connector at the end of the metal molding and extending to the wood molding, said connector consisting of an arch-shaped porcelain block having a central tongue extending from the roof thereof and forming with the legs of said block a pair of conductor-receiving grooves diverging from the end of the metal molding, and a seat in said block for the end of the metal molding, said seat extending beyond the outer sides and bottoms of said grooves.

3. The combination with adjoining sections of wood and metal moldings carrying electrical conductors in circuit, of a connector between said sections and at the end of said metal molding, said connector consisting of an arch-shaped block of insulating material having a tongue extending from the roof thereof and forming with the legs of said block a pair of conductor-receiving grooves communicating with the end of the metal molding, and means for attaching the connector through said tongue to the wood molding.

1,134,121. FERRULE CONSTRUCTION FOR UMBRELLA-COVERS. SIMON I. GOLDSTEIN, Baltimore, Md. Filed Sept. 23, 1912. Serial No. 721,902. (Cl. 135—36.)

1. In a device of the class described two conical ferrules having like annular corrugations near their larger ends, one of said ferrules fitting snugly within the other with said corrugations interlocking and holding the parts together, and an umbrella cover, or the like, frictionally gripped between the corrugations of said ferrules.



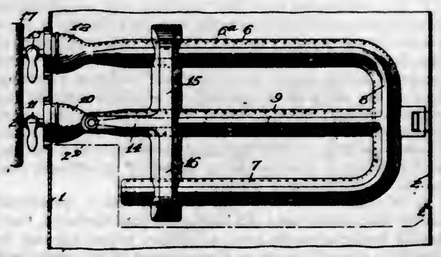
2. In an umbrella, the combination with the usual stick, of ribs pivotally connected thereto, a cover secured to said ribs, and a pair of ferrules surrounding said stick and disposed one inside and the other outside of said cover, said ferrules having interlocking corrugations, with the fabric between such corrugations, said interlocked ferrules being freely slidable on said stick, and arranged to be shifted thereon as the umbrella is opened and closed, such shifting being produced by engagement of one of said ferrules with the ribs.

3. In an umbrella, the combination with the usual stick, a notch secured thereon, ribs pivotally connected to said notch, a cover secured to said ribs and a pair of ferrules surrounding said stick and disposed one inside and the other outside of said cover, said ferrules having interlocking corrugations with the fabric between such corrugations, said interlocked ferrules being freely slidable on said stick and completely enveloping said notch when the umbrella is closed, said ferrules being arranged to be shifted outwardly on said stick by engagement of the ribs therewith as the umbrella is opened.

4. In a device of the class described two conical ferrules having like annular corrugations near their larger ends, one of said ferrules fitting snugly within the other with said corrugations interlocking and holding the parts together, and an umbrella cover, or the like, frictionally gripped between said ferrules, the larger end of said outer ferrule being turned outward upon itself to provide a smooth bearing surface for the cover, the end of the inner ferrule projecting beyond such surface.

5. In a device of the class described two conical ferrules having like annular corrugations near their larger ends, one of said ferrules fitting snugly within the other with said corrugations interlocking and holding the parts together, and an umbrella cover, or the like, frictionally gripped between said ferrules, the inner one of said ferrules having its larger end extending beyond the larger end of the outer ferrule, such extending edge being adapted to engage the ribs when the umbrella is opened.

1,134,122. GAS-BURNER. GEORGE W. GRAVES, Washingtonville, N. Y. Filed Sept. 4, 1914. Serial No. 860,137. (Cl. 158—99.)



1. A gas burner comprising two connected portions spaced apart and forming a tube continuous throughout its length adapted to receive a supply of gas, and an intermediate portion extending parallel to and between the con-

nected portions and adapted to receive an independent supply of gas.

2. A U shaped gas burner having the two arms each perforated along one of their lateral edges and comprising an intermediate portion perforated along both of its lateral edges, a supply of gas for said two arms and an independent supply of gas for said intermediate portion.

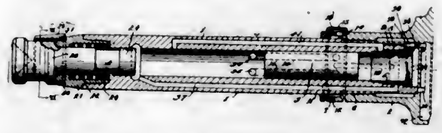
3. A gas burner having two connected portions spaced apart and an intermediate portion separate from and supported on said two connected portions, the end of one of the latter and the adjacent end of said intermediate portion being each adapted to receive independent supplies of gas.

4. A U shaped tubular member forming a main gas burner composed of two spaced portions and provided with a central tubular portion forming an auxiliary burner, said main and auxiliary burners being each adapted to be independently supplied with gas.

5. A gas burner comprising a tubular member substantially triangular in cross section and disposed with its lower side horizontal and provided with outlet orifices located substantially at the junction between said lower side and one of the upwardly extending sides.

[Claim 6 not printed in the Gazette.]

1,134,123. FLUID-OPERATED TOOL. LOUIS W. GREVE, Cleveland, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 25, 1914. Serial No. 827,059. (Cl. 121—20.)



1. In combination in a fluid operated tool, a cylindrical distributing valve open at both ends and having a rearwardly facing pressure area, a hammer piston adapted to pass into the said valve at the rear end of its stroke and compress a volume of fluid, the said pressure receiving area of the valve being adapted to be acted upon by the said compressed fluid to cause the shifting by the valve forwardly, and having another area exposed to continuous pressure tending to shift the valve in the reverse direction.

2. In combination in a fluid operated tool, a cylindrical distributing valve open at both ends and having a rearwardly facing pressure area, a hammer piston adapted to pass into the said valve at the rear end of its stroke and compress a volume of fluid, the said pressure receiving area of the valve being adapted to be acted upon by the said compressed fluid to cause the shifting of the valve forwardly, and having another area exposed to continuous pressure tending to shift the valve in the reverse direction, such continuous pressure being variable in amount and controlled by the hammer piston.

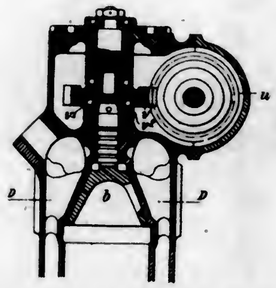
3. In combination in a fluid operated tool, a cylindrical distributing valve open at both ends and having a rearwardly facing pressure area, a hammer piston adapted to pass into the said valve at the rear end of its stroke and compress a volume of fluid, the said pressure receiving area of the valve being adapted to be acted upon by the said compressed fluid to cause the shifting of the valve forwardly, and having another area exposed to continuous pressure tending to shift the valve in the reverse direction, such continuous pressure being varied by an exhaust controlled by the hammer piston.

4. In combination in a fluid operated tool, a cylindrical distributing valve open at both ends and having a rearwardly facing pressure area, a hammer piston adapted to pass into the said valve at the rear end of its stroke and compress a volume of fluid, the said pressure receiving area of the valve being adapted to be acted upon by the said compressed fluid to cause the shifting of the valve forwardly, and having another area exposed to continuous pressure tending to shift the valve in the reverse direction, such continuous pressure being reduced by an exhaust passage which is closed by the hammer piston when it approaches the end of its forward stroke.

5. In combination in a fluid operated tool, a cylindrical distributing valve, a hammer piston adapted to pass into the said valve at the rear end of its stroke and compress a volume of fluid, the said valve having an area adapted to be acted upon by the said compressed fluid to cause the shifting of the valve, and having two other areas one of which is acted upon by a constant pressure and the other of which is acted upon by a continuous variable pressure, the pressures on said two areas tending to shift the valve in a direction the reverse to that secured by the action of the said volume of fluid compressed by the hammer piston.

[Claims 6 to 13 not printed in the Gazette.]

1,134,124. ADMISSION AND EXHAUST MECHANISM FOR ENGINES. RENÉ GUILLERY, Aubervilliers, France, assignor to Societe des Etablissements Malicet & Blin, Aubervilliers, France. Filed Mar. 7, 1912. Serial No. 682,297. (Cl. 136—7.)



1. The combination with a cylinder having a truncated conical end containing admission and exhaust ports, of a hollow ported truncated conical distributer seated in said cylinder end, a shaft forming a continuation of said distributer and extending through the cylinder cover, said shaft and distributer being mounted for limited axial movement, a pressure spring associated with and tending to move the distributer axially without angular displacement and against its seat, and means for angularly and axially displacing said shaft and distributer including inclined planes adapted to divide the applied turning effort into a tangentially directed component tending to angularly displace the distributer and an axially directed component tending to axially displace the distributer, whereby an axial displacement of the distributer occurs whenever the resistance to angular displacement exceeds the tangentially directed component of the applied force.

2. The combination with a cylinder having a truncated conical end containing admission and exhaust ports, of a hollow ported truncated conical distributer seated in said cylinder end, a shaft forming a continuation of said distributer and extending through the cylinder cover, said shaft and distributer being mounted for limited axial movement, a pressure spring associated with and tending to move the distributer axially without angular displacement and against its seat, and means for angularly and axially displacing said shaft and distributer including inclined planes adapted to divide the applied turning effort into a tangentially directed component tending to angularly displace the distributer and an axially directed component tending to axially displace the distributer, and antifriction balls between said planes whereby an axial displacement of the distributer occurs whenever the resistance to angular displacement exceeds the tangentially directed component of the applied force.

3. The combination with a cylinder having a truncated conical end containing admission and exhaust ports, of a hollow ported truncated conical distributer seated in said

cylinder end, a shaft forming a continuation of said distributer and extending through the cylinder cover, said shaft and distributer being mounted for and tending to move the distributer axially without angular displacement and against its seat, and means for angularly and axially displacing said shaft and distributer including inclined planes adapted to divide the applied turning effort into a tangentially directed component tending to angularly displace the distributer and an axially directed component tending to axially displace the distributer, antifriction balls between said planes, stop lugs at the extremities of said planes, and positioning springs between the lugs and the balls, whereby an axial displacement of the distributer occurs whenever the resistance to angular displacement exceeds the tangentially directed component of the applied force.

4. The combination with a cylinder having a truncated conical end containing admission and exhaust ports, of a hollow ported truncated conical distributer seated in said cylinder end, a shaft forming a continuation of said distributer and extending through the cylinder cover, a plate fastened on said shaft and having inclined planes, a plate loosely mounted on said shaft and having inclined planes, a spring tending to hold the distributer to its seat, and means for angularly driving the loosely mounted plate, the inclined planes of the driven plate acting to angularly displace the distributer through the inclined planes of the fastened plate and to bring about an axial movement of the distributer against the stress of the spring when the resistance to angular displacement exceeds the tangentially directed component of the applied force.

5. The combination with a cylinder having a truncated conical end containing admission and exhaust ports, of a hollow ported truncated conical distributer seated in said cylinder end, a shaft forming a continuation of said distributer and extending through the cylinder cover, a plate fastened on said shaft and having inclined planes, a plate loosely mounted on said shaft and having inclined planes, anti-friction balls between said plates, a pressure spring associated with and tending to move the distributer axially without angular displacement and against its seat, and means for angularly driving the loosely mounted plate, the inclined planes of the driven plate acting through the balls to angularly displace the distributer through the inclined planes of the fastened plate and to bring about an axial movement of the distributer against the stress of the pressure spring when the resistance to angular displacement exceeds the tangentially directed component of the applied force.

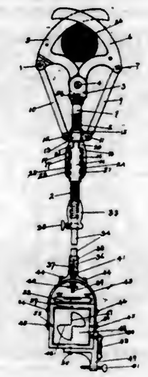
[Claim 6 not printed in the Gazette.]

1,134,125. APPLIANCE FOR ALINING AND LEVELING SHAFTING. CHARLES HAFNER, Boston, Mass., assignor to Kinkead Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed July 7, 1911. Serial No. 637,367. (Cl. 33—84.)

1. A device of the kind described, comprising a support, having a longitudinal portion with opposite jaws mounted to swing about a common pivot on said longitudinal portion to clamp a shaft, said jaws having oppositely converging recessed portions formed to clamp shafts of different sizes with their centers the same distance from the pivot on said portion.

2. A device of the kind described, comprising a support, having a longitudinal portion with jaws oppositely mounted to swing about a common axis on said longitudinal portion to clamp a shaft with its center in the axial center of said support, said jaws having recessed gripping portions with the gripping surfaces thereof formed on lines of curvature such that all shafts within the range of the jaws are gripped with their centers at the same distance from a given point on the support.

3. A device of the kind described, comprising a support having a portion provided with means to grip a shaft and with parts arranged for telescopic adjustment, said support having another portion held by one of said parts carrying a target or the like to be supported, the last named portion having a spring backing arranged for coöperation therewith being mounted for slidable adjustment against the same relative to the shaft gripping portion, and means for effecting a fine threaded adjustment between said portions against said spring backing.

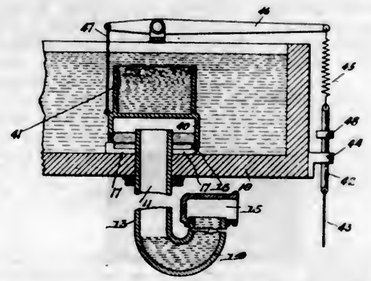


4. A device of the kind described, comprising a support, having a longitudinal portion with opposite swinging jaws pivoted thereto having clamping formations arranged to grip shafts of different sizes with their centers at the same distance from the longitudinal portion, means for operating said jaws mounted for free sliding movement on said portion to fit the jaws to a shaft, said means and said portion being coöperatively formed for a different slower relative adjusting movement to grip the jaws upon the shaft, and a target or the like held by said support in fixed definite relation to the shaft.

5. A device of the kind described, comprising a support, having a longitudinal portion with opposite swinging jaws pivoted thereto, having clamping formations arranged to grip shafts of different sizes with their centers at the same distance from the longitudinal portion, a sleeve slidable on said portion and connected to operate said jaws, said sleeve carrying a movable part having threads to coöperate with threads on said portion when in one position, whereby said jaws may be adjusted to a shaft by a sliding movement of said sleeve on said portion, and may be gripped to the shaft by a turning movement thereof, and a target or the like held by said support in fixed definite relation to the shaft.

[Claims 6 to 9 not printed in the Gazette.]

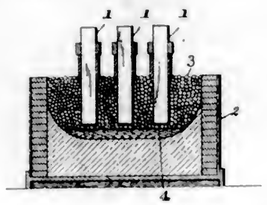
1,134,126. FLUSH-TANK. GEORGE T. HANCHETT, New York, N. Y., assignor to S. Fischer Miller, South Orange, N. J. Filed May 23, 1913. Serial No. 769,430. (Cl. 4—5.)



The combination with a flush tank having a discharge outlet, a trap leading therefrom, and an air trapping bell inclosing said outlet and normally submerged in the liquid within the tank; manually operated means comprising a yielding transmission connection and a stop, adapted to

transmit a limited force sufficient to move said bell when submerged to a predetermined level for releasing the liquid, but insufficient to move said bell when not submerged to said predetermined level.

1,134,127. CRYSTALLINE FERROSILICON PRODUCT AND METHOD OF MAKING THE SAME. HERBERT CHAMPION HARRISON, Lockport, N. Y., assignor, by mesne assignments, to Electro Metallurgical Company, a Corporation of West Virginia. Filed July 30, 1909, Serial No. 510,477. Renewed Sept. 1, 1914. Serial No. 859,721. (Cl. 204—63.)



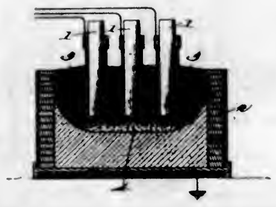
1. The method of producing crystalline ferro-silicon corresponding to the formula Fe_3Si_7, which consists in so chemically proportioning a ferro-silicon furnace charge as to produce substantially between 53 and 54.5 per cent. of silicon; and in suitably producing ferro-silicon from said charge in an electric furnace by maintaining the temperature at or above a predetermined critical temperature, substantially as described.

2. The method of producing crystalline ferro-silicon corresponding to the formula Fe_3Si_7, which consists in so chemically proportioning a ferro-silicon furnace charge as to produce substantially between 53 and 54.5 per cent. of silicon; in suitably producing ferro-silicon from said charge in an electric furnace by maintaining a constant temperature above a critical temperature; and in separating out the crystals thus formed, substantially as described.

3. The herein described ferro-silicon product consisting of matrices of ferro-silicon containing substantially between 53 and 54.5 per cent. of silicon and charged with ferro-silicon crystals corresponding to the formula Fe_3Si_7; substantially as described.

4. The herein described ferro-silicon product consisting of bright, hard, brittle, plate like, crystals corresponding to the formula Fe_3Si_7; substantially as described.

1,134,128. FERROSILICON PRODUCT AND METHOD OF CONTINUOUSLY PRODUCING THE SAME. HERBERT CHAMPION HARRISON, Lockport, N. Y., assignor, by mesne assignments, to Electro Metallurgical Company, a Corporation of West Virginia. Filed Dec. 1, 1909, Serial No. 530,787. Renewed Sept. 1, 1914. Serial No. 859,722. (Cl. 204—63.)



1. The method of continuously producing ferrosilicon of a required proportion of silicon and iron, which consists in suitably proportioning the silicon content of the charge material to the iron content of the charge material in the same ratio as is required by the resulting product; supplying carbon in excess of that required to theoretically effect a reduction of the silica and other oxidizable constituents of the charge, but sufficient to prevent the charge material from bridging between the electrodes, thereby causing a free feeding of the charge material to the zone of reduction and in causing the iron to be melted out of the charge material only so fast as the silica is reduced and to gravitate to the reduced silicon, substantially as described.

2. The method of continuously producing ferrosilicon of a required proportion of silicon and iron, which consists in proportioning the silicon content of the charge material to the iron content of the charge material in the chemical ratio required by the resulting product; supplying carbon in excess of that required to theoretically effect a reduction of the oxidizable constituents of the charge, but only in an amount sufficient to prevent the charge material from bridging between the electrodes, thereby causing a free feeding of the charge material to the zone of reduction and at the same time avoiding an undue rise of temperature in said zone and in causing the iron to be melted out of the charge material only so fast as the silicon is produced, to gravitate to the reduced silicon and to act as a carrier of silicon up to the point of saturation of iron with silicon, substantially as described.

3. The method of producing continuously ferrosilicon of a definite proportion of silicon and iron, which consists in suitably proportioning the size of the furnace with respect to the heat energy to be used and to the percentage of silicon required in the finished product; in maintaining a maximum zone of reduction at substantially the lowest point of the charge; causing the iron to be melted out of the charge material from a point above the said maximum zone and to gravitate to the molten bath below said zone only so fast as the silicon is reduced, substantially as described.

4. The method of producing continuously ferrosilicon of a definite proportion of silicon and iron, which consists in proportioning the size of the furnace to the electrical energy required to be employed and inversely to the silicon percentage of the required alloy; maintaining the maximum zone of reduction in the furnace at substantially the lowest portion of the charge material; permitting the iron to be melted out of the charge material above said maximum zone and to gravitate to the molten bath at the bottom of the furnace at a rate bearing the same ratio to the rate of silicon reduction that the quantity of iron in the charge material bears to the quantity of silicon in the charge material, substantially as described.

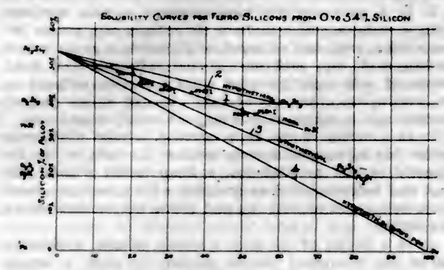
5. The method of producing continuously ferrosilicon of any definite required proportion of silicon and iron which consists in suitably controlling the temperature in the furnace for any required percentage of silicon alloy and in such a manner as to produce a critical temperature in the zone of reduction; increasing said temperature as the silicon content of the alloy produced increases; in determining at what point during the increase of temperature the constituents of the resulting product bear to each other the same ratio that they bore in the charge material; and in maintaining said temperature at that point, substantially as described.

1,134,129. FERROSILICON ALLOYS OF A DEFINITE COMPOSITION. HERBERT CHAMPION HARRISON, Lockport, N. Y., assignor, by mesne assignments, to Electro Metallurgical Company, a Corporation of West Virginia. Filed Dec. 14, 1909, Serial No. 533,110. Renewed Sept. 17, 1914. Serial No. 862,256. (Cl. 75—1.)

1. The herein described ferro alloy having a definite composition and a definite constitution, comprising solid mixtures of definite chemical compounds containing iron, substantially as described.

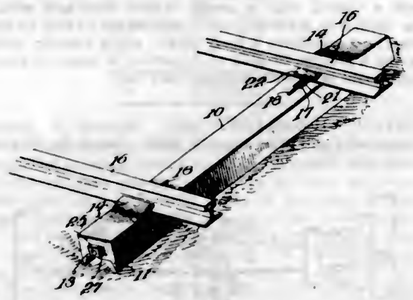
2. The herein described ferro alloy having a definite composition and a definite constitution, comprising solid mixtures of definite chemical compounds containing iron and silicon, substantially as described.

3. The herein described ferro alloy having a definite composition and a definite constitution consisting of a



plurality of definite chemical compounds of iron and silicon, substantially as described.

1,134,130. COMBINED RAILWAY-TIE AND RAIL-CLAMP. JOHN F. HAWLEY, Chillicothe, Mo. Filed Nov. 10, 1914. Serial No. 871,359. (Cl. 238—5.)



1. In a device of the character described, a railway tie including a body portion provided with an abutment and formed to receive a clamping member, an anchoring member carried by the body portion, a clamping member carried by the tie and disposed to co-act with said abutment in engaging a rail, means passing through the clamping member and operatively connecting the said member with the anchoring member, and means carried by the clamping member and engaging said first mentioned means for maintaining the clamping member at its point of intersection with said first mentioned means, at substantially right angles thereto.

2. In a device of the character described, a railway tie including a body portion provided with an abutment and formed to receive a clamping member, an anchoring member carried by the body portion, a clamping member carried by the tie and disposed to co-act with said abutment in engaging a rail, said clamping member including a body portion, means passing through the body portion of the clamping member and operatively connecting said member with the anchoring member, and means carried by the body portion of the clamping member and engaging said first mentioned means for maintaining the body portion of the clamping member at substantially right angles to the said first mentioned means.

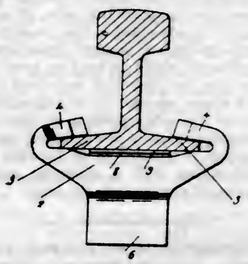
3. In a device of the character described, a railway tie including a body portion provided with an abutment and formed to receive a clamping member, an anchoring member carried by the body portion, a clamping member carried by the tie and disposed to co-act with said abutment in engaging a rail, said clamping member including a body portion apertured to receive a rod, a rod passing through said aperture and operatively connecting the clamping member with said anchoring member, and a guide lip formed on the body portion of the clamping member and engaging the rod for maintaining the body portion at substantially right angles thereto.

4. In a device of the character described, a railway tie including a body portion provided with an abutment and formed to receive a clamping member, an anchoring member carried by the body portion, a clamping member carried by the tie and disposed to co-act with said abutment in engaging a rail, means slidably connected with said clamping member and operatively connecting the said member with the anchoring member, and means carried by the clamping member and slidably engaging said first mentioned means for maintaining the clamping member at its point of intersection with said first mentioned means, at substantially right angles thereto.

5. In a device of the character described, a railway tie including a body portion provided with an abutment and having an opening formed therein disposed to receive a clamping member, an anchoring member carried by said body portion, a clamping member detachably engaging in said opening and including a body portion having a reduced shank formed thereon extending through the opening and provided with a terminal head disposed to co-act with said abutment in engaging a rail, said body portion being apertured to receive a rod and having a guide lip formed thereon projecting laterally upon one side of the body portion and terminating, at its outer extremity, in a plane passing through the said aperture, a rod passing through said aperture and engaged upon one side by said guide lip, said rod operatively connecting the clamping member with said anchoring member and being provided with a head, and resilient means surrounding the rod and bearing between the head thereof and the body portion of the clamping member.

[Claims 6 to 10 not printed in the Gazette.]

1,134,131. SPRING-CLAMP. IRWIN B. HOMAN, Lebanon, Pa. Filed Jan. 13, 1915. Serial No. 1,982. (Cl. 238—4.)



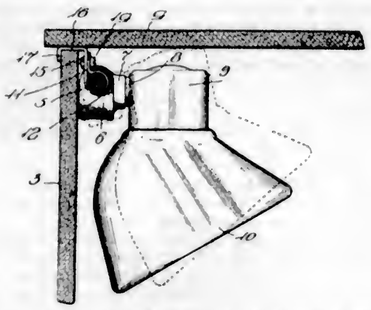
1. An anti-creeping clamp, comprising a vertical plate having hook-shaped lugs at its ends for engaging the bottom flanges of a rail, said plate having at its middle part, between the said lugs, a vertical stop formed of an extension of the middle part of the plate and arranged at an angle thereto, the top of the stop and the bottom of the main portion of the plate being twisted and inclined downwardly at their junction.

2. An anti-creeping spring clamp, comprising a bar or plate having hook-shaped lugs at its ends which are inclined laterally of it in opposite directions, and having also at its middle part a twisted projection or stop which projects downwardly, said bar or plate having also at the middle part of its upper edge an inclined locking lug or tooth having a sharp corner at its top.

1,134,132. BRACKET FOR SHOW-CASE-LIGHTING REFLECTORS. PAUL M. HOTCHKIN, Chicago, Ill., assignor to National X-Ray Reflector Company, Chicago, Ill., a Corporation of Illinois. Filed June 1, 1914. Serial No. 842,004. (Cl. 248—30.)

1. The combination with a show-case having a vertical plate and a top plate supported thereby, of a conduit ad-

jacent the juncture of said plate, a lamp socket and reflector carried by said conduit, and a bracket secured to said conduit having a portion adapted to engage one of said plates.

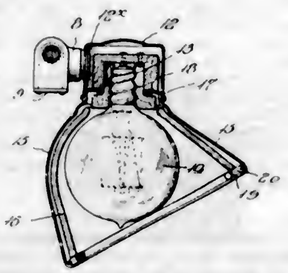


2. The combination with a show-case having a vertical plate and a top plate supported thereby, of a conduit adjacent the juncture of said plate, a lamp socket and reflector carried by said conduit, a bracket adjustably secured to said conduit and provided with a lateral substantially L-shaped extension that fits between the abutting edges of said plates and secures said conduit to said show-case.

3. The combination with a show-case having a vertical plate and a top plate supported thereby, of a conduit adjacent the juncture of said plate, a lamp socket and reflector carried by said conduit, a bracket comprising a strip of metal one portion of which is bent to form a cylindrical sleeve that is adjustably secured to said conduit and the other portion of which is bent laterally and provided with a down turned lip which last-mentioned portion is adapted to fit between the abutting edges of said plates.

4. The combination with a show-case having a vertical plate and a top plate supported thereby, of a conduit adjacent the juncture of said plate, a lamp socket and reflector carried by said conduit, a bracket comprising a strip of metal one portion of which is bent to form a cylindrical sleeve and having the free end bent back parallel with said strip said sleeve adapted to be adjustably secured to said conduit and the other portion of which is bent laterally and provided with a down turned lip which last-mentioned portion is adapted to fit between the abutting edges of said plates, and a clamping member tapped through the parallel portions of said strip.

1,134,133. COMBINED JUNCTION-BOX AND REFLECTOR-CASING. PAUL M. HOTCHKIN, Chicago, Ill., assignor to National X-Ray Reflector Company, Chicago, Ill., a Corporation of Illinois. Filed June 1, 1914. Serial No. 842,005. (Cl. 240—73.)



1. In a device of the kind specified, a tube provided with a suitable outlet mediate its ends, a cap, means for supporting said cap adjacent said outlet, a lamp socket within said cap, and devices for reflecting the light waves of said lamp provided with a portion adapted to be secured to said cap and to retain said lamp socket within said cap.

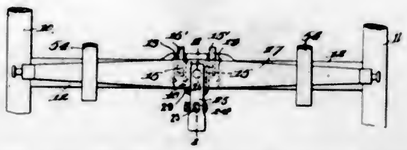
2. In a device of the kind specified, a tube provided with a suitable outlet mediate its ends, a cap, means for supporting said cap adjacent said outlet, a lamp socket within said cap, and devices for reflecting the light waves of said lamp provided with a portion adapted to fit within the open end of said cap and to be secured thereto and to retain said lamp socket within said cap.

3. In a device of the kind specified, a tube, a junction outlet box interposed therein mediate its ends, a cap indirectly carried by said box, a lamp socket within said cap, and reflecting devices provided with a portion adapted to be secured to said cap and retain said socket within the latter.

4. In a device of the kind specified, a tube, a junction outlet box interposed therein mediate its ends, a lateral member tapped into one of the walls of said box, a cap mounted on the outer end of said member and indirectly carried by said box, a lamp socket within said cap, and reflecting devices provided with a portion adapted to fit within the open end of said cap and be secured thereto and retain said socket within the latter.

5. In a device of the kind specified, a conduit, a junction box interposed therein, one of the walls thereof provided with a lateral stub, a nipple tapped into said stub, a cap carried by the outer end of said nipple having an open lower end containing a lamp socket, and a reflector casing having a portion adapted to be secured to said cap and to retain said lamp socket within said cap.

1,134,134. HORSE-DETACHER. MARCUS A. JUAREZ, Oxnard, Cal. Filed Nov. 18, 1913. Serial No. 801,661. (Cl. 21—75.)



1. A device of the class described comprising a guide member adapted to be attached to a whiffletree support, a bearing member slidable upon said guide member and provided with a stud with which the whiffletree is adapted to be detachably engaged, means adapted to hold the whiffletree in engagement with said stud and thereby lock the bearing member in withdrawn position, and means for releasing said holding means to permit the overturning of the slidable member and its stud and the release of the whiffletree.

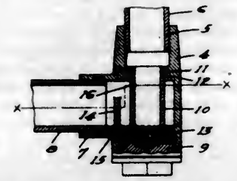
2. The combination with a whiffletree and its support, of guide members attached to said support and each including a socket, a bearing member slidable upon said guide members and having studs engaging in said sockets when the bearing member is overturned and another stud for engaging in the whiffletree, means for detachably engaging said bearing member to said support, and means for releasing said bearing member engaging means.

3. The combination with a whiffletree and its support, of a bearing member detachably engaging said support and including a rearwardly extending guide loop, means for detachably engaging said whiffletree to said bearing member, a releasing device connected to said support, a holding member connected to said releasing device and extending through said guide loop and engaging said support, and means for actuating said releasing device to withdraw said holding member from said guide loop.

4. The combination with a whiffletree and its support, of a bearing member detachably engaging said support and including a rearwardly extending guide loop, means for detachably engaging said whiffletree to said bearing member, a releasing device connected to said support and including means for engaging said whiffletree, a holding member connected to said releasing device and extending through said guide loop and said support, and means for actuating said releasing device to simultaneously release said bearing member and whiffletree.

5. The combination with a whiffletree and its support, of guide members having sockets, a bearing member detachably engaging said guide members and including a rearwardly extending guide loop and laterally directed studs to engage in said sockets when the bearing member is over-turned, means for detachably engaging said whiffletree to said bearing member, a releasing device connected to said support and including means for engaging said whiffletree, a holding member connected to said releasing device and extending through said guide member and engaging said support, and means for actuating said releasing device to simultaneously release said whiffletree and bearing member.

1,134,135. SEAL FOR STEAM-RADIATORS. JAMES L. JUDGE, Minneapolis, Minn. Filed Sept. 2, 1913. Serial No. 787,628. (Cl. 182—15.)



1. The combination, with a radiator and a return pipe therefor, of a casing having an open upper end connected with the radiator and an opening in its side wall connected with said return pipe, means in the lower portion of said casing for trapping the water of condensation from said radiator, said means having a port located near the upper portion of said casing for the passage of air from said radiator into said return pipe.

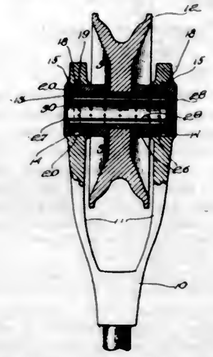
2. The combination, with a radiator and a return pipe therefor, of a casing having an open upper end connected with the radiator and a side opening connected with said return pipe, a tube arranged in said casing having a comparatively large opening in its lower portion for the passage of water of condensation from said tube to said return pipe, and a comparatively small opening in its upper portion for the passage of air, said casing having a trap for collecting the water of condensation and sealing said large opening against the passage of steam.

3. The combination, with a radiator and a return pipe therefor, of a casing having its upper end connected with said radiator and a side wall connection with said return pipe, a tube arranged in said casing and having an open upper end communicating with said radiator and forming a close joint with said casing above said return pipe, said tube having ports in its lower walls leading from said radiator to said return pipe, said ports being below the level of said return pipe, whereby the water of condensation accumulates around said tube and seals said ports against the passage of steam from said radiator, the upper portion of said tube having a comparatively small port for the passage of air from said radiator into the upper portion of said return pipe.

4. The combination, with a radiator and a return pipe therefor, of a casing interposed in said return pipe, a plug removably fitting within said casing, a tube mounted on said plug and seated at one end in said casing and communicating with said radiator, the lower portion of said tube having ports therein leading from said radiator to said return pipe and below the level of said return pipe, the water of condensation accumulating around said ports and sealing them against the passage of steam from said radiator, the upper portion of said tube having a comparatively small port therein for the passage of air from said radiator to said return pipe.

5. The combination, with a radiator and a return pipe therefor, of a casing interposed in said return pipe, a plug tapped into said casing, a tube mounted on said plug and communicating at one end with said radiator and having ports in its lower walls leading from said radiator to said return pipe, said ports being below the level of said return pipe, and a baffle extending partially across said return pipe between it and said tube and having a port therein, substantially level with the ports in said tube.

1,134,136. TROLLEY-HEAD. MINAS H. KASHIAN, Amesbury, Mass. Filed Sept. 9, 1911. Serial No. 648,566. (Cl. 64—67.)



1. A trolley head consisting of a pair of forks having cylindrical open sided sockets therein, a trolley wheel having an axle arranged with its ends extending into said sockets and a pair of removable bushing collars, each fitted to one of the sockets in each fork and forming bearings for the axle, each bushing being removable independently of the other bushing, and while the trolley wheel is held in assembled position with relation to said forks, the sockets being open sided sufficiently to permit lateral movement of the axle therethrough.

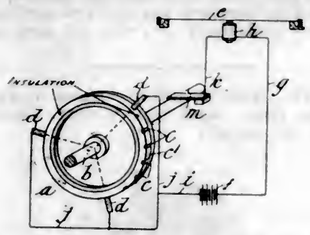
2. A trolley head, consisting of a pair of forks having cylindrical sockets therein, a trolley wheel having an axle arranged with its ends extending into said sockets, a pair of removable bushing collars each fitted to one of the sockets in each fork and forming bearings for the axle, said sockets having a peripheral opening to permit removal of the axle therethrough, said bushings each being provided with a peripheral recess, and means secured to the forks adjacent said bearings for engaging the recess in the bushings to hold the same from longitudinal movement.

3. A trolley head, consisting of a pair of forks having open sided cylindrical sockets therein, a trolley wheel having an axle arranged with its ends extending into said sockets, a pair of removable bushing collars each fitted within the respective sockets, said open sockets being formed to embrace the bushings permitting axial removal of the bushings and lateral removal of the axle through the openings of said sockets, and a pin carried by each fork to engage the bushing therein and prevent its endwise removal.

1,134,137. DEVICE FOR PRODUCING ELECTRIC PULSATIONS. JOHN F. KELLY, Pittsfield, Mass. Filed Sept. 28, 1912. Serial No. 722,984. (Cl. 175—347.)

1. In a rotary make and break device to open and close an electrical circuit to produce and transmit a succession of electrical impulses, a plurality of conducting contacts arranged in a single group on a portion only of the peripheral surface of the make and break device, a source of electrical energy, a plurality of brushes connected in parallel to one terminal of the source of elec-

trical energy, and connections from the other terminal of the source of electrical energy to the other terminals of the brushes to engage the contacts and spaced from each other to produce a succession of impulses, the remainder of the peripheral surface being composed of insulating material, as described.



2. A rotary electric circuit controlling device, comprising in combination, a plurality of conducting contacts distributed in a single group on the periphery thereof, means to electrically connect one terminal of each of the contacts with each other, a plurality of brushes equally spaced from each other to engage the contacts in succession, said brushes being electrically connected together and spaced from each other to coöperate with the other terminal of each of the contacts to produce electrical impulses of equal duration of interval per revolution of the controlling device, and means to insulate the other terminal of each of the contacts from each other.

3. In a device of the character described comprising a single rotor member, contact elements on said member and distributed over one arc only of its peripheral surface; the remainder of the arc being composed of insulating material, brushes equally spaced from each other to engage the peripheral surface of the contact elements and the insulating material to continuously transmit a succession of single impulses which follow each other at regular intervals, a source of electricity and connections therefrom to the rotor member and brushes.

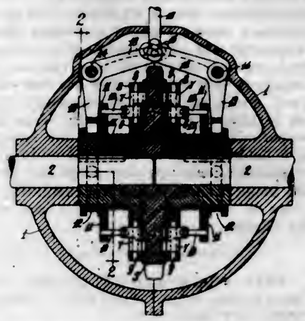
4. A device for producing and transmitting electrical impulses in combination, a rotor-member, the periphery of which is provided with insulating material, contacts embedded in said material and distributed over an arc of the periphery, a source of electrical energy, brushes connected to one terminal thereof in parallel arrangement and engaging the contacts and connections from the other terminal of the source of electrical energy and to the contacts as described.

5. In a circular rotary make and break device for opening and closing an electrical circuit at substantially regular intervals, a rotating member having a periphery of insulating material, a plurality of conducting contacts spaced equidistantly from each other and arranged in a group covering part only of the peripheral surface of the rotating member, a source of electrical energy, a plurality of brushes spaced equidistantly apart around the periphery of the rotary member and connected in parallel to one terminal of the source of energy, connections from the other terminal of said source to the contacts whereby the current will be interrupted in succession through each of said brushes upon rotation of said rotary member.

[Claims 6 and 7 not printed in the Gazette.]

1,134,138. DIFFERENTIAL DRIVE MECHANISM. MICHAEL J. KELLY, South Lee, Mass. Filed Mar. 30, 1914. Serial No. 828,130. (Cl. 74—7.)

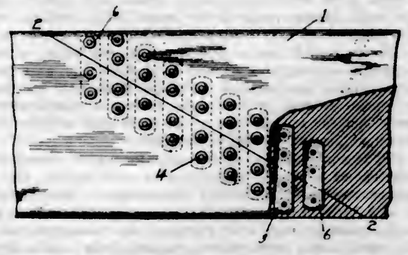
1. A differential mechanism, comprising in combination, divided axle sections, a sprocket or driving gear loosely mounted on said sections, said sprocket being provided with two concentrically arranged series of ratchet teeth in each face thereof, the teeth in one of said rows being oppositely disposed to the teeth in the other row, disks fixed to each axle section and adjacent the sprocket, reversible pawls mounted in said disks and normally in engagement with the ratchet teeth in one of said rows, and means to reverse the pawls to cause them to engage the teeth in the other row of said sprocket.



2. A differential mechanism, comprising in combination, divided axle sections, a sprocket or driving gear loosely mounted on said sections, said sprocket being provided with two concentrically arranged series of ratchet teeth in each face thereof, the teeth in one of said rows being oppositely disposed to the teeth in the other row, disks fixed to each axle section and adjacent the sprocket, reversible pawls mounted in said disks and normally in engagement with the ratchet teeth in one of said rows and means to reverse the pawls to cause them to engage the teeth in the other row of said sprocket, said means comprising members slidably mounted and rotatable with said disks, links connecting said members and said pawls, springs to position said members from said disks and operative means to move said members against said springs to reverse the pawls.

3. A differential mechanism comprising in combination, divided axle sections, driving means loosely mounted on said sections, said means being provided in each face thereof with concentrically arranged rows of ratchet teeth, the teeth in one of said rows being reversely arranged to the teeth in the other row, disks fixed to each axle section and mounted adjacently to each face of the driving means, a plurality of double armed pawls mounted in each of said disks and normally in engagement with the teeth in one of said rows, whereby each axle section is driven in the same direction by said sprocket, and means to force the pawls into engagement with the teeth in the other row, whereby both axle sections are driven in the same direction but in a reverse direction to the former rotation.

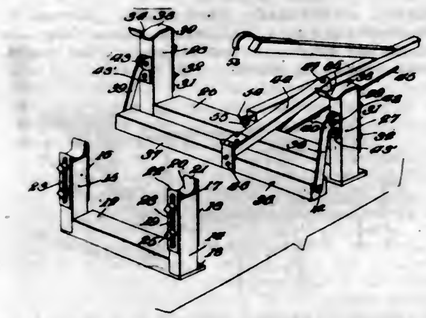
1,134,139. BELT-FASTENING. PATRICK KENNEDY, New York, N. Y. Filed June 28, 1911. Serial No. 635,781. (Cl. 24—31.)



1. In a belt fastening, the combination with belt ends abutting each other in the plane of the belt and obliquely to the length thereof, of a plurality of short narrow fastening strips extending transversely of the belt across the line of abutment and attached to the two ends of the belt on the opposite sides of said line.

2. In a belt fastening, the combination with belt ends abutting each other in the plane of the belt and obliquely to the length thereof, of a plurality of short and narrow thin flexible fastening strips of metal extending transversely of the belt across the line of abutment and attached to the two ends of the belt on the opposite sides of said line.

1,134,140. LIFTING-JACK FOR AUTOMOBILES. VINCENT KOFTAN, Tyndall, S. D. Filed Feb. 28, 1914. Serial No. 821,714. (Cl. 254—89.)



1. An apparatus of the class described including a pair of horses adapted to support the front and rear axles of a vehicle, vertically adjustable axle receiving brackets carried by each of the horses, an auxiliary stabilizing member swingingly connected to one of the horses, said stabilizing member normally gravitating to engage the ground or supporting surface on which the horses are placed and means for swinging the free extremity of the stabilizing member upwardly to permit the tilting of the horses.

2. An apparatus of the class described including a pair of horses adapted to support the front and rear axles of the vehicle, vertically adjustable axle receiving brackets carried by each of the horses, an auxiliary stabilizing member swingingly connected to one of the horses, said stabilizing member normally gravitating to engage the ground or supporting surface on which the horses are placed, and means for swinging the free extremity of the stabilizing member upwardly to permit the tilting of the horses, said means including a bar member pivoted to the stabilizing member, a flexible element connected to the bar, and a staple carried by the horse to which the stabilizing member is attached and receiving the flexible element.

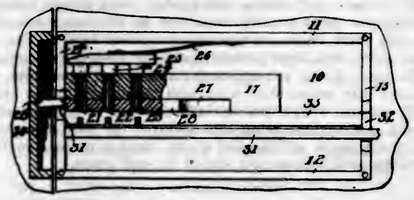
3. An apparatus of the character described including a pair of horses adapted to support the front and rear axles of a vehicle, a pair of axle receiving brackets carried by the legs of one horse, said brackets being in vertical alinement with said legs, a pair of laterally offset axle receiving sockets carried by the legs of the other horse, a stabilizing member freely attached to said last-mentioned horse and normally gravitating to engage the ground, whereby to prevent the tilting of the said last mentioned horse when the vehicle axle is supported in the sockets thereof, and means for swinging the free extremity of the said stabilizing member upwardly out of engagement with the ground whereby the horse to which the stabilizing member is attached will be tilted by the weight of the vehicle.

4. An apparatus of the character described including a horse, a pair of laterally offset vertically adjustable axle receiving brackets carried by the legs of the horse, a stabilizing bar, links pivotally connecting the stabilizing bar to the horse, a bar hinged to the stabilizing bar, and a cable connected to the bar and operable for projecting the bar forwardly to swing the stabilizing member upwardly, said stabilizing member normally falling by gravity to engage the ground whereby the horse is held against tilting when a weight is disposed in the sockets thereof.

5. An apparatus of the character described including a horse having a pair of vertically disposed leg members, a pair of axle receiving brackets carried by the legs, each of said brackets consisting of a strip of metal bent into a substantially L-shape and having its horizontal leg terminally curved to form an axle receiving socket, the vertical leg of said socket being disposed against the vertical face of one of the horse legs whereby the axle receiving socket of the horizontal leg is laterally offset with respect to the horse leg, fastening means for securing the axle receiving brackets in adjusted position, and a swingingly mounted stabilizing member carried by the horse and normally engaging the ground for supporting the horse against tilting.

[Claims 6 to 8 not printed in the Gazette.]

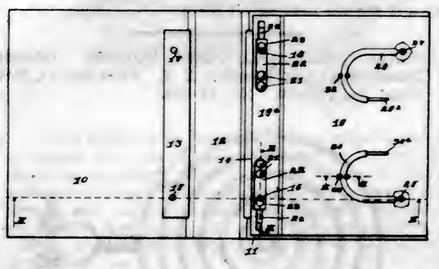
1,134,141. LOCK. FRANK KOSINSKY, Brooklyn, N. Y. Filed Aug. 22, 1914. Serial No. 857,989. (Cl. 70—76.)



1. In a lock, a casing, a longitudinally extending supporting bar therein provided with a series of apertures headed locking pins mounted in the apertures, a bodily and tiltably yielding presser block coacting with the pins, a locking bolt slidably mounted within the bar, and having apertures corresponding in number to the apertures in the bar and arranged when brought into registry therewith to receive the locking pins.

2. In a lock, a casing, a longitudinally extending supporting bar therein, cut-away on its lower side and having a plurality of openings therethrough, a locking bolt slidably mounted in the cut-away portion and having openings corresponding in number to the openings in the bar, headed locking pins in the openings, a bodily and tiltably yielding presser block engaging the heads of the pins, and a shoulder on the locking bolt to limit its range of movement in locking directions.

1,134,142. BOOKBINDING. CHARLES FORREST MCBEE, Athens, Ohio. Filed Oct. 18, 1911. Serial No. 655,411. (Cl. 129—8.)



1. A loose leaf binder, comprising permanent binder devices including spaced tubular posts, and a temporary binder leaf adapted to be mounted on said posts and clamped thereto, the temporary binder leaf also provided with arched posts adapted to connect with and form continuations of said tubular posts whereby sheets in the binder may be separated and maintained in separate piles.

2. A loose leaf binder, comprising permanent binder devices including spaced tubular posts, and a temporary

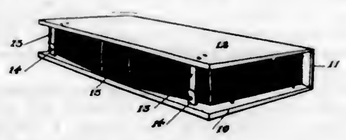
binder leaf adapted to be mounted on said posts and clamped thereto, the temporary binder leaf also being provided with pivoted and swiveled arches adapted to be connected with and form continuations of said tubular posts, and clips adapted to hold said arches in inoperative positions.

3. A loose leaf binder, comprising cover leaves flexibly connected, stubs flexibly connected to the inner margins of the cover leaves, spaced tubular posts fixed to one of said stubs, the other stub formed with eyelets registering with said posts, and a temporary binder leaf adapted to be mounted on and clamped to said posts.

4. A loose leaf binder, comprising cover leaves flexibly connected, stubs flexibly connected to the inner margins of said cover leaves, spaced tubular posts fixed to one of said stubs, the other stub formed with eyelets registering with said posts, a temporary binder leaf adapted to be mounted on and adjustably clamped to said posts, and headed studs adapted to be mounted through said eyelets and seated in said posts.

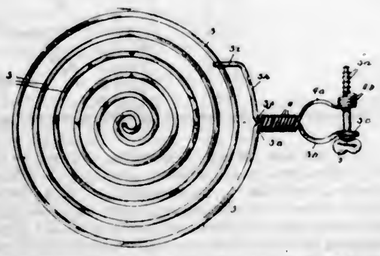
5. A loose leaf binder, comprising cover leaves flexibly connected, stubs flexibly connected to the inner margins of said cover leaves, spaced tubular posts fixed to one of said stubs, the other stub formed with eyelets registering with said posts, a temporary binder leaf apertured to receive said posts, clamps on said temporary binder leaf, said clamps comprising springs adapted to engage said posts, said springs being cam-operated for releasing them from the posts, and headed studs adapted to be mounted through said eyelets and seated in said posts.

1,134,143. FILE-SHEETS FOR LOOSE-LEAF FILES. CHARLES F. MCBEE, Athens, Ohio. Filed July 9, 1913. Serial No. 778,162. (Cl. 129—15.)



A loose leaf file comprising upper and lower covers, posts carried by the end edges of the respective covers to prevent endwise movement of leaves when resting on the lower cover, clasps mounted on the lower cover and disposed in diagonal relation to the forward posts of the lower cover, latch bars carried by the upper cover for detachably engaging said clasps, said clasps being spaced apart longitudinally, index cards insertible between the leaves and having forwardly projecting central portions lying between the clasps and extending beyond the plane of the clasps and bars and forward edges of the leaves, as and for the purpose set forth.

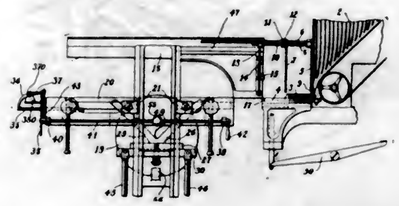
1,134,144. SOAP AND GLASS HOLDER. PATRICK JOSEPH MCKINLEY, Brooklyn, N. Y. Filed Apr. 14, 1913. Serial No. 760,850. (Cl. 45—28.)



1. A receptacle having a body portion formed by a coiled wire, and a collar formed by said wire bent upon itself to provide a neck and an eye and a second wire coiled about said neck and bent to form a collar and coil complementary to said first named collar and eye, and a screw engaging said first named eye and said last named coil.

2. A receptacle having a body portion formed by a coiled wire, bent to form a receptacle, and a collar formed by said wire bent upon itself to provide an eye and a double neck, and a second wire coiled about said neck and bent to form a collar and coil opposite said first named collar and eye, and a thumb-screw engaging said eye and said last mentioned coil.

1,134,145. CENTERING MECHANISM. HOWARD F. MARSTON and JOHN L. MCKITTRICK, Dayton, Ohio; said McKittrick assignor to said Marston. Filed Aug. 1, 1912. Serial No. 712,662. (Cl. 199—7.)



1. Centering mechanism for a line of type including in combination, a pair of oppositely disposed type engaging jaws, means for moving said jaws toward and from each other, and means for adjusting said jaws and their moving means lengthwise said jaws without disturbing the relation of the jaws to each other or to their moving means.

2. Centering mechanism for a line of type including in combination, a pair of oppositely disposed type engaging jaws, means for moving said jaws toward and from each other in predetermined ratios relatively to a fixed point therebetween, means for adjusting said jaws and their moving means lengthwise said jaws without disturbing the relation of the jaws to each other or to their moving means, and means for holding said jaws and their moving means in their adjusted position.

3. Centering mechanism for a line of type including in combination, a pair of oppositely disposed type engaging jaws, means for moving said jaws toward and from each other in synchronism, means for adjusting said jaws and their moving means lengthwise said jaws without disturbing the relation of the jaws to each other or to their moving means, means for holding said jaws and their moving means in their adjusted position, means for assembling a plurality of type to form a composed line and means for delivering said composed line between said oppositely disposed jaws.

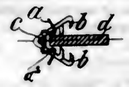
4. Centering mechanism for a line of type including in combination, a pair of oppositely disposed type engaging jaws, a pair of relatively rigid lever slides for engagement with said jaws for moving said jaws toward and from each other, and means for actuating said lever slides for moving said jaws.

5. Centering mechanism for a line of type including in combination, a pair of oppositely disposed type engaging jaws, a pair of lever slides for moving said jaws toward and from each other, means for actuating said lever slides for moving said jaws, and means for adjusting said jaws and their moving means lengthwise said jaws without disturbing the relation of the jaws to each other or to their moving means.

[Claims 6 to 13 not printed in the Gazette.]

1,134,146. BELT-CONNECTING MEANS. CURT MATTHAEI, Offenbach-on-the-Main, Germany. Filed Nov. 12, 1909. Serial No. 527,615. (Cl. 1—50.)

1. A holder for belt connectors comprising a thin strip folded longitudinally and provided with a plurality of sets of transverse slots, the slots of each set being in the same plane so as to receive the belt connectors, and removable means adapted to coöperate with the strip to retain said belt connectors in the slots, substantially as and for the purpose described.

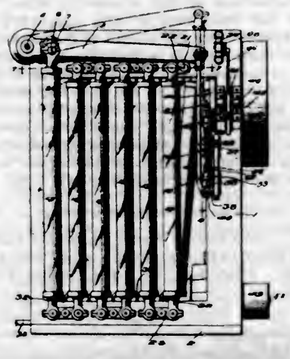


2. A holder for belt connectors comprising a thin strip folded longitudinally and provided with a plurality of parallel sets of transverse slots, the slots of each set being in the same plane so as to receive the belt connectors and the slots being further of determined length so as to limit the extent to which the connectors may be inserted into the holder, and removable means comprising a removable pin for retaining said belt connectors in the slots, substantially as and for the purpose described.

3. A device for belt connectors of the class described comprising a strip folded along lines parallel to its length, said folds being provided with spaced sets of transverse slots, the slots of each set being arranged in the same plane to receive and hold the connectors, portions of said strip being arranged to limit the extent to which the connectors may be inserted into the slots and a removable pin for retaining said connectors against said limiting portions, substantially as and for the purpose described.

4. A device of the class described comprising a thin strip folded longitudinally so as to provide a number of laterally disposed portions, a plurality of which are cut entirely through by transverse slots in transverse planes so as to receive belt connectors and a removable pin for retaining said connectors in the slots, substantially as and for the purpose described.

1,134,147. MOTOR. LEONARD MILLER, Brownwood, Tex. Filed May 5, 1914. Serial No. 836,514. (Cl. 60—1.)



1. A motor comprising a metal bar anchored at one end, a movable member operatively connected with the other end of the bar, means for supplying heating and cooling agents to the said bar, and means actuated by the said movable member for controlling the said means for supplying heating and cooling agents to the bar.

2. A motor comprising a hollow metallic bar anchored at one end, a supply pipe, a connection between the said supply pipe and one end of the bar, an exhaust pipe, a connection between said exhaust pipe and the opposite end of the bar, means for admitting heating and cooling agents to the supply pipe, a movable member operatively connected with the free end of the bar, and means actuated by the movable member for controlling the means for admitting heating and cooling agents to the supply pipe.

3. A motor comprising a series of hollow bars, an anchor for one end of the bar at one end of the series, a movable member connected with one end of the bar at the opposite end of the series, crank shafts connecting the adjacent ends of successive bars throughout the series, and means for successively and alternately supplying heating and cooling agents to the several bars.

4. A motor comprising a hollow bar, an anchor for one end of said bar, a movable member operatively connected with the opposite end of the said bar, a supply pipe communicating with the said bar, a valve controlling the flow through the said pipe, a feed pipe connected with the said valve to supply heating and cooling agents, and means actuated from said movable member to operate said valve.

5. A motor comprising a frame, a cross-head slidably mounted upon the said frame, a power shaft upon the frame, operative connections between the said shaft and the cross-head, a power lever fulcrumed upon the frame, a pitman connecting said lever with the cross-head, a plurality of hollow bars arranged adjacent the frame, one of said bars being anchored to the frame and another of said bars being pivotally connected to the power lever, connections between the intermediate bars movably mounted upon the frame, and means for alternately and successively supplying heating and cooling agents to the bars.

[Claims 6 to 10 not printed in the Gazette.]

1,134,148. ARC-LIGHT ELECTRODE. WILLIAM R. MOTT, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed June 6, 1913. Serial No. 772,130. (Cl. 176—134.)

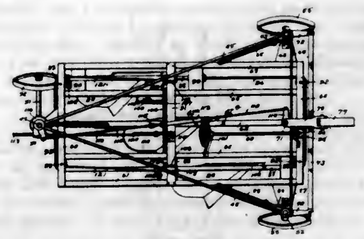
1. An arc lamp electrode containing carbon, flaming materials and precipitated silica.

2. An arc lamp electrode containing a carbonate, a salt of calcium and precipitated silica.

3. The method of forming the materials for arc lamp electrodes which consists in precipitating simultaneously a plurality of oxids from a solution and mixing carbon therewith.

4. An arc lamp electrode containing a carbonate, precipitated silica, and an oxid of tungsten.

1,134,149. PLOW. WILLIAM MOWRY, Marshalltown, Iowa. Filed Feb. 24, 1913. Serial No. 751,147. (Cl. 97—27.)



1. In a device of the class described, a frame, a number of sliding plow beams thereon capable of forward and rearward movement relative to said frame, a central plow beam fixed to the frame, a reversible plow for each of said plow beams, means for shifting the position of the sliding plow beams, and means for automatically reversing the plows on said sliding beams as they are shifted.

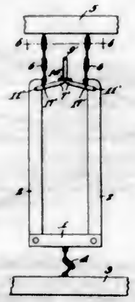
2. In a device of the class described, a frame, a number of sliding plow beams thereon capable of forward and rearward movement relative to said frame, a shaft pivotally mounted in each of said beams, a reversible plow secured to each of said shafts, an arm secured to one end of each of said shafts, a twisted bar mounted longitudinally on said frame above and parallel with each of said sliding beams, a second arm slidingly mounted on each of said twisted bars and capable of being moved

forwardly and rearwardly as said beams are shifted to a forward or rearward position, and a link connecting the free ends of the first and second arms to cause said plows to be automatically reversed as said beams are operated.

3. In a device of the class described, a frame, longitudinal guide members thereon, a number of plow beams having slide blocks mounted in said guides, a chain connecting the forward ends of said slide blocks, a second chain connecting the rear end of said slide blocks, and pulleys on the frame for said chains, an inclined shaft, a hand wheel thereon, a vertical shaft on the forward end of said frame, beveled gears connecting the lower end of said inclined shaft and the upper end of said vertical shaft, a sprocket wheel on the lower end of said vertical shaft operatively connected with said first chain, a shaft pivotally mounted in each of said beams, a reversible plow secured to each of said shafts, an arm secured to one end of each of said shafts, a twisted bar mounted longitudinally on said frame above and parallel with each of said sliding means, a second arm slidingly mounted on each of said twisted bars and capable of being moved forwardly and rearwardly as said beams are shifted to a forward or rearward position, and a link connecting the free ends of the first and second arms to cause said plows to be automatically reversed as said beams are operated.

4. In a device of the class described, a frame, longitudinal guide members thereon, a number of plow beams having slide blocks mounted in said guides, a chain connecting the forward ends of said blocks, a second chain connecting the rear ends of said blocks, and pulleys on the frame for said chains, an inclined shaft, a hand wheel thereon, a vertical shaft in the forward end of said frame, beveled gears connecting the lower end of said inclined shaft with the upper end of said vertical shaft, a sprocket chain on the lower end of said vertical shaft operatively connected with said first chain, a central plow beam fixed to the frame, a reversible plow for each of said plow beams, means for shifting the position of the sliding plow beams, and means for automatically reversing the plows on said sliding beams as they are shifted.

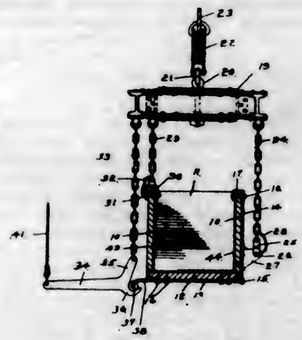
1,134,150. CATTLE-STANCHION. WALTER R. NELSON, Mill Village, N. H. Filed Apr. 16, 1914. Serial No. 832,347. (Cl. 119—149.)



1. A stanchion embodying a bottom bar and a pair of side bars having their lower ends pivoted thereto, a flexible element connected to the bottom bar and arranged for attachment to a lower supporting member, a pair of flexible elements connected to the upper ends of the side bars and arranged for attachment to a superstructure, toggle links connecting the upper ends of the side bars, and means carried by the toggle links, for locking them when their adjacent ends are raised above their remote ends and for limiting the downward movement of the adjacent ends of the links.

2. A stanchion including a pair of pivoted side bars, angular toggle links having their adjacent ends pivoted together, and having their remote ends pivoted to the free ends of the side bars, the adjacent arms being adapted to project upwardly and swing together when the side bars are swung toward each other, and a locking ring disposed upon the adjacent arms of the toggle links to hold them against separation when the adjacent arms of the links are raised, the adjacent ends of the toggle links having a stop for limiting the movement of the locking ring when the locking ring is slid upwardly.

1,134,151. APPARATUS FOR TRANSPORTING AND DUMPING MATERIAL. WILLIAM J. NEWMAN, Chicago, Ill. Filed Oct. 6, 1913. Serial No. 793,751. (Cl. 214—12.)



In apparatus for transporting and dumping material the combination with a supporting frame provided with means whereby it may be raised and lowered, of a vehicle box comprising a body part and a bottom, chains on one side of said supporting frame adapted to be detachably secured to one side of the vehicle body, a trip suspended from the same side of said supporting frame, a pair of chains on the other side of said supporting frame, a pair of hinges hinging the bottom to the body part of the vehicle box comprising in each case a leaf secured to the underside of the bottom and a leaf secured to the side of the body and formed with an eye, said last mentioned pair of chains being adapted to be detachably secured to the eyes formed on said hinges, and a metal bar secured to the bottom between said hinges and furnished at the end opposite to the hinged edge of the bottom with means adapted to be detachably engaged by said trip.

1,134,152. APPARATUS FOR LEACHING SACCHARIFEROUS-VEGETABLE SLICES. MAX PASCHEN, Cöthen, Germany. Filed Sept. 18, 1913. Serial No. 790,402. (Cl. 127—8.)



1. In a leaching apparatus of the kind described, a trough, walls dividing said trough into a plurality of leaching chambers and intermediate separating chambers, and roofs extending from one wall to another, above said intermediate separating chambers.

2. In a leaching apparatus of the kind described, an inclined trough, walls dividing said trough into a plurality of leaching chambers and intermediate separating chambers, and inclined roofs extending from one wall to another, inclosing said separating chambers.

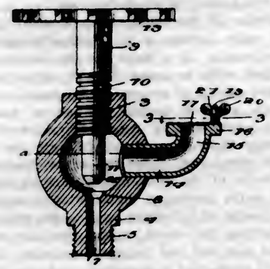
3. In a leaching apparatus of the kind described, a trough, pairs of walls dividing said trough into a plurality of leaching chambers and intermediate separating chambers, a roof above and connected with each pair of walls, and a partition located between each pair of walls and terminating short of said roof.

4. In a leaching apparatus of the kind described, a plurality of leaching chambers, and a plurality of separating chambers and dirt deposit chambers one of each located between adjoining leaching chambers.

5. In a leaching apparatus of the kind described, a trough, a plurality of walls perforated at their lower portions and disposed in pairs to divide said trough into successive leaching chambers, inclined roofs above said pairs of walls, and intermediate partitions in said chambers located beneath said roofs providing a passage and forming with said partitions a plurality of separating chambers and a plurality of dirt deposit chambers.

[Claims 6 to 12 not printed in the Gazette.]

1,134,153. FILLING-VALVE FOR LUBRICATORS. JAMES WILBORN PATE, Jackson, Tenn. Filed Dec. 27, 1913. Serial No. 809,131. (Cl. 184—65.)



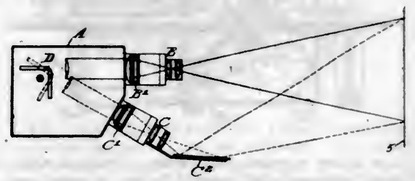
1. In a filling valve for lubricators, a valve casing having a seat, a valve coöperating with the seat, a filling spout communicating with the casing, a closure disk disposed upon the end of the filling spout, means pivotally connecting the disk with the spout, and means yieldably bearing upon the disk whereby to yieldably hold the same in position closing the said spout.

2. In a filling valve for lubricators, a valve casing having a seat, a valve coöperating with the seat, a filling spout communicating with the casing and having an upwardly presented receiving end, a disk disposed upon the said end of the spout, a stud projecting through the said end of the spout and through an opening in the disk whereby to pivotally connect the disk with the said end of the spout, a spring fitted upon the stud and bearing upon the disk, and means for varying the tension of the said spring.

3. In a filling valve for lubricators, a valve casing provided in its bottom with a seat and having a stem provided with a passage communicating with the seat and with the interior of the casing, a valve having a stem threaded through the top of the casing, the said valve being arranged for coöperation with the said seat, a filling spout extending laterally from one side of the casing and having an upwardly presented filling end, a closure member disposed upon the said end and pivotally supported for movement slidable upon the said end of the spout into and out of position to close the spout, and means yieldably holding the said member to bear frictionally upon the said end of the spout.

4. In a filling valve for lubricators, a valve casing provided in its bottom with a seat and having a stem provided with a passage communicating with the seat and with the interior of the casing, a valve having a stem threaded through the top of the casing, the said valve being arranged for coöperation with said seat, a filling spout extending laterally from one side of the casing and thence upwardly, a threaded stud projecting upwardly from the upper end of the filling spout, a closure disk for the said end of the filling spout pivotally fitting the stud, a spring upon the stud bearing downwardly upon the said disk, and a nut threaded upon the stud and bearing against the upper end of the spring, the nut being adjustable upon the stud whereby to vary the tension of the spring.

1,134,154. PROJECTION APPARATUS. WILLIAM L. PATTERSON, Rochester, N. Y., assignor to Bausch and Lomb Optical Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 16, 1912. Serial No. 684,153. (Cl. 88—26.)



1. In a projecting apparatus, the combination with a casing and means supporting it for rotation on a horizontal axis, of a lens system located in said axis, a second lens system arranged at an angle thereto, and a source of illumination for said lenses carried bodily by the casing and adjustable therein.

2. In a projecting apparatus the combination with a dark chamber casing, means supporting it for rotation about a horizontal axis and a lens system located in front of the casing, of a second lens system arranged on one of the sides of the casing, an object holder mounted on the opposite side of the casing and a source of illumination movably supported within and rotating with the casing and adjustable to direct the rays of light emanating therefrom into the first mentioned lens system or onto said object holder in all positions of adjustment of the casing.

3. In a projection apparatus, the combination with two systems of lenses disposed so that their optical axes intersect, of a pivotally mounted lamp movable relatively to both of said lens systems to alternately illuminate them, and a light shield movable with the lamp and positioned to intercept the lateral rays of light and prevent their passing into the lens system which is not being illuminated.

4. In a projection apparatus, the combination with two lens systems and a rotatable lamp adapted to be adjusted into different positions to illuminate either lens system, of a movable shield adapted to be adjusted into positions relatively to said lens systems to prevent the passage of lateral light rays indirectly into the lens system which is not being illuminated by the direct light rays.

5. In a projection apparatus, the combination with a plurality of lens systems and a rotatable lamp adapted to be adjusted into different positions to illuminate one or another of said lens systems, of a condenser carried on the lamp and a plate located above the condenser and arranged to occupy a position between the lamp and one of the lens systems in each position of adjustment of the lamp.

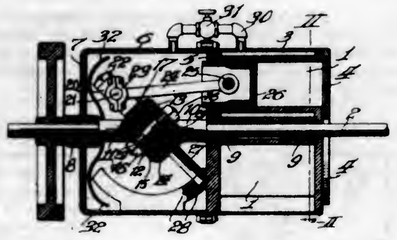
[Claims 6 to 10 not printed in the Gazette.]

1,134,155. MECHANICAL MOVEMENT. WASHINGTON I. PHIFER, Collinsville, Ill., assignor of twenty one-hundredths to Paul Purdy Stone, Des Moines, Iowa. Filed May 19, 1913. Serial No. 768,398. (Cl. 74—14.)

1. A rotary member comprising a two-part shaft, an obliquely arranged disk secured to the adjacent ends of each part of said shaft, a stud mounted in said disks for holding the parts of said shaft in alinement, an impulse receiving member, mounted on said stud between said disks, and connecting rods pivotally secured to said impulse member.

2. A rotary member comprising a two-part shaft, an obliquely arranged disk secured to the adjacent ends of each part of said shaft, a stud mounted in said disks for hold-

ing the parts of said shaft in alinement, shoulders formed on said stud for holding said disks apart, an impulse receiving member mounted on said stud between said disks, and connecting rods pivotally secured to said impulse member.



3. A rotary member comprising a two-part shaft, an obliquely arranged disk secured to the adjacent ends of each part of the shaft, a stud mounted in said disks for holding the parts of said shaft in alinement, an impulse receiving member mounted on said stud between said disks, a series of radially arranged arms carried by said impulse member, and connecting rods pivotally secured to said arms.

4. A rotary member comprising a two-part shaft, an obliquely arranged disk secured to the adjacent ends of each part of the shaft, a stud mounted in said disks for holding the parts of said shaft in alinement, an impulse receiving member mounted on said stud between said disks, a series of radially arranged arms carried by said impulse member, sleeves mounted on said arms, and connecting rods pivotally connected to said sleeves.

5. A rotary member comprising a two-part shaft, an obliquely arranged disk secured to the adjacent ends of each part of the shaft, a stud mounted in said disks for holding the parts of said shaft in alinement, an impulse receiving member mounted on said stud between said disks, a series of radially arranged arms carried by said impulse member, sleeves mounted on said arms, a pair of oppositely disposed pins formed on each of said sleeves, and a connecting rod connected to each pair of pins on each of said sleeves.

1,134,156. GELATIN CAPSULE. HERMANUS ROLFF PLANTEN, New York, N. Y. Filed Dec. 3, 1914. Serial No. 875,265. (Cl. 167—2.)



1. A filled gelatin capsule having gelatin distinguishing portions of two colors, this characteristic being normally concealed by the color of the contents of the capsule.

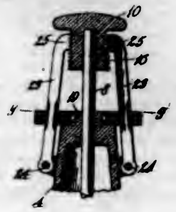
2. A medicine filled gelatin capsule having gelatin distinguishing portions of two colors, this characteristic being concealed in the filled capsule by the color of the medicine.

3. A filled gelatin capsule having light colored and darker gelatin portions of which the darker is of the same color as the contents of the capsule.

4. A filled gelatin capsule the walls of which are composed throughout of light colored and darker layers, the darker layer being of the same color as the contents of the capsule.

5. A filled gelatin capsule the walls of which are composed throughout of light colored and darker layers, the darker layer being outermost and of the same color as the contents of the capsule, substantially as hereinbefore specified.

1,134,157. FAUCET. EDWARD C. POST, Ann Arbor, Mich.; Mary E. Post, Ann Arbor, Mich., executrix of said Edward C. Post, deceased. Filed May 13, 1912, Serial No. 696,879. Renewed Aug. 29, 1914. Serial No. 859,265. (Cl. 137—4.)



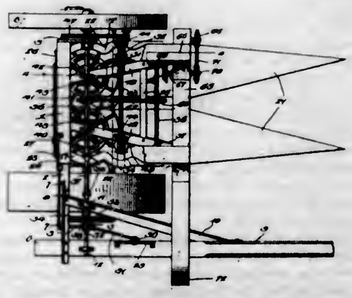
1. In a device of the character described, the combination with a valve casing, a longitudinally movable valve stem in the casing, of a head on the outer end of the stem provided with a groove, an arm attached to the casing and having an end to engage the groove and a cam member on the casing to move the arm.

2. In a device of the character described, the combination with a valve casing, a longitudinally movable valve stem in the casing, of a head on the outer end of the stem provided with a screw thread, arms attached at one end to the casing at opposite sides thereof and formed at their outer ends to engage the screw thread on the head, and a cam member rotatably mounted upon the casing between said arms to separate the same and disengage their outer ends from the screw thread.

3. In a device of the character described, the combination with a valve casing, a longitudinally movable valve stem in the casing, of a formed head on the outer end of the stem for turning the same, arms pivotally attached to the casing at one end and adapted to engage the head at their opposite ends, and a member rotatable between said arms and having cam slots through which the arms project.

4. In a device of the character described, the combination with a valve casing, a longitudinally movable valve stem in the casing, of a head on the outer end of the stem provided with a screwthreaded shank portion, arms attached at one end to opposite sides of the casing and provided with formed outer ends to engage the screwthreaded shank of the head, a boss on the casing surrounding the valve stem, a cam member rotatable upon said boss between said arms to engage and move the same, and means for turning the cam member.

1,134,158. COTTON-PICKING MACHINE. GUSTAV A. PRUSER, Winters, Tex. Filed July 6, 1912. Serial No. 708,045. (Cl. 56—118.)



1. In a cotton picking machine, the combination with a rotary drum, of a stationary circular rack mounted therein, said rack comprising a pair of segments disposed in relatively different horizontal planes, the ends of said segments overlapping each other and being connected together, fingers journaled within said drum, pinons

mounted on the inner ends of said fingers, the under face of the uppermost segment of the rack being formed with teeth to engage the pinions during a portion of the revolutions of the drum, the upper face of the lower segment of the rack being provided with teeth for engagement with the pinions during the remainder of each revolution of the drum, whereby said fingers will be rotated in reverse directions upon each revolution of the drum, and the opposing faces of the overlapping portions of the segments being smooth whereby the fingers will be allowed to cease rotation in one direction before rotation in the opposite direction.

2. In a cotton picking machine, the combination with a rotary drum, of a stationary circular rack mounted therein, said rack comprising a pair of segments disposed in relatively different horizontal planes, the ends of the segments overlapping each other and being connected together, fingers journaled within the drum, pinions mounted on the inner ends of said fingers, the under face of the uppermost segment of the rack being formed with teeth to engage the pinions during a portion of the revolution of the drum, the upper face of the lower segment of the rack being provided with teeth for engagement with the pinions during the remainder of each revolution of the drum, whereby said fingers will be rotated in reverse directions upon each revolution of the drum, the opposing faces of the overlapping portions of the segments being smooth, and portions of diametrically opposed teeth of said pinions being cut away to form smooth portions on the pinions, the smooth portions on the pinions being adapted to engage between the smooth portions of the segments, whereby the pinions will be held against rotation during the time between the changes in the direction of rotation thereof.

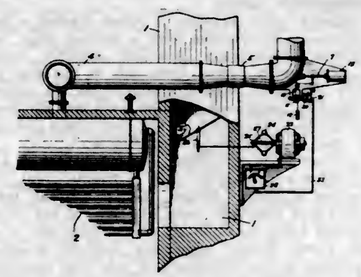
3. A device of the class described comprising a main frame, an axle projecting from said main frame, wheels mounted upon said axle, an auxiliary frame suspended from the main frame, means for retaining the auxiliary frame in position, means for adjusting the auxiliary frame, drums mounted in the auxiliary frame, shafts mounted in the auxiliary frame, picking fingers carried by the drums, brushes carried by the shafts above the picking fingers to unwind material from said picking fingers as the latter pass beneath the brushes, means for operating the drums, means for operating the shafts from the drum operating means, plant guide members forwardly of the drums, means for rotating said fingers independently of the drums, said guide members being hollow to form material receiving compartments, the lowermost compartment being adapted to receive the material unwound from the picking fingers, a transverse tube above the inner ends of the hollow guide members, means for conveying the material from the lowermost compartment to the transverse tube, and means within the transverse tube for conveying the material to one open end thereof and depositing said material in a receptacle beneath said opening.

1,134,159. STEAM-BOILER CONTROL. CHARLES H. RIDDERSTEDT, Philadelphia, Pa. Filed Sept. 1, 1911. Serial No. 647,155. (Cl. 236—7.)

1. The combination of a furnace, a boiler, a steam eduction connection, a draft regulating device, and means in said connection exclusively responsive to the variations in the velocity of the steam flowing through said connection for actuating said draft regulating device.

2. The combination of a furnace, a boiler, an air regulator for the furnace, a steam eduction connection, a device responsive to the velocity of steam flowing through the eduction connection and adapted to automatically operate the regulator, and a brake mechanism for controlling the operation of said device, substantially as described.

3. The combination of a furnace, a steam boiler having an eduction connection, an air regulator for regulating the furnace air supply for combustion, a motor and connections for operating the air regulator, an ajutage in the eduction connection, and a counter-balanced disk coöperating with the ajutage and provided with connections for controlling the motor, substantially as described.

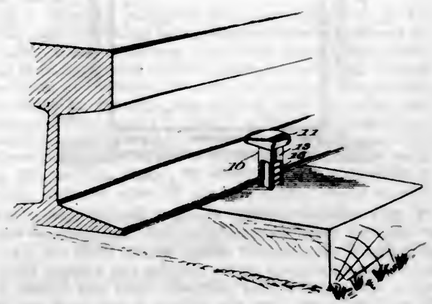


4. The combination of a furnace, a steam boiler having an eduction connection, an air regulator for regulating the furnace air supply for combustion, a motor and connections for operating the air regulator, an ajutage in the eduction connection, a counter-balanced disk coöperating with the ajutage and provided with connections for controlling the motor, and a brake device for the disk, substantially as described.

5. The combination of a steam boiler having an eduction connection, a furnace, an air regulator for regulating the air supply to the furnace for combustion, a motor and connections for operating the air regulator, a counterbalanced disk in the eduction connection, and means between the disk and motor for controlling the latter, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,134,160. RAILWAY-SPIKE. CHARLES D. RUSSELL, St. Paul, Minn. Filed May 5, 1914. Serial No. 836,466. (Cl. 85—19.)



1. A railway spike including a shank having a head formed thereon and being provided with a driving point, said shank being formed with adjacent side faces having lingitudinally extending channels formed therein, one of said channels being substantially smooth and the other of said channels being provided with a plurality of transversely extending shoulders and oppositely inclined converging shoulders.

2. A railway spike including a shank having a head formed thereon and being provided with a driving point, said shank being substantially rectangular in cross section and formed with flat faces adjacent the head thereof, there being longitudinally extending channels medially formed in the sides of the shank at the adjacent extremities of said flat faces, oppositely disposed channels being arranged in pairs, one pair of channels having a series of longitudinally spaced transversely extending parallel grooves medially formed therein, the side walls of each of said grooves providing lingitudinally curved shoulders and the end walls thereof providing oppositely inclined

converging shoulders at the extremities of said first mentioned shoulders, the other pair of channels of the spike being substantially smooth.

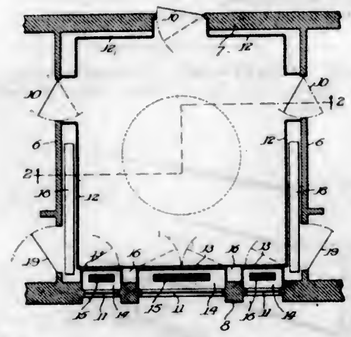
3. A railway spike including a shank having a head formed thereon and provided with a driving point, said shank having transversely arranged shoulder formed thereon continuously curved from end to end and provided with oppositely inclined shoulders at the extremities of said first mentioned shoulder, said last mentioned shoulders inclining inwardly toward each other and in a direction over said first mentioned shoulder.

4. A railway spike including a shank having a head formed thereon and provided with a driving point, said shank having a groove formed therein defining transversely arranged shoulders upon one side of the shank, said shoulders being continuously curved from end to end and said shank having oppositely inclined shoulders mofred thereon at the extremities of said first mentioned shoulders, said last mentioned shoulders inclining inwardly toward each other and in a direction over said groove and over said first mentioned shoulders.

5. A railway spike including a shank having a head formed thereon and provided with a driving point, said shank having a transversely arranged shoulder formed thereon continuously curved from end to end and having outwardly converging oppositely inclined shoulders formed thereon at the extremities of said first mentioned shoulder.

[Claim 6 not printed in the Gazette.]

1,134,161. OPERATING-ROOM FOR HOSPITALS. HENRY J. SCHLACKS, Chicago, Ill. Filed Apr. 13, 1911. Serial No. 620,943. (Cl. 237—1.)



1. In a hospital building having a heating system and an operating room provided with inner supplemental side walls and a supplemental ceiling spaced from the walls and ceiling respectively of the building and defining therewith a space surrounding said side walls and ceiling of the room and sealed from the interior of said room and in operative relation to the heating system of the building, there being a doorway leading through the outer and inner walls to give access to the interior of the room, the space between the inner and outer walls being sealed around the doorway.

2. A hospital building having a heating system, and an operating room provided with inner supplemental side walls and a supplemental ceiling spaced from the walls and ceiling respectively of the building and defining therewith a space surrounding said side walls and ceiling of the room and sealed from the interior of said room for receiving a temporary medium, there being a doorway leading through the outer and inner walls to give access to the interior of the room, the space between the inner and outer walls being sealed around the doorway and a circulating coil located in said space between the inner and outer walls and in communication with the heating system of the building.

3. A hospital building having a heating system, and an operating room provided with inner supplemental side walls and a supplemental ceiling spaced from the walls and ceiling respectively of the building and defining therewith a space surrounding said side walls and ceiling of the room and sealed from the interior of said room for receiving a tempering medium, there being a doorway leading through the outer and inner walls to give access to the interior of the room, the space between the inner and outer walls being sealed around the doorway, a circulating coil located in said space between the inner and outer walls and in communication with the heating system of the building, a light-admitting plate forming a part of one of the inner supplemental walls, and a source of artificial light located in said space between the inner and outer walls and disposed to shine through the light-admitting plate.

4. A hospital building having an operating room provided with inner supplemental side walls and a supplemental ceiling spaced from the walls and ceiling respectively of the building and defining therewith a space surrounding said side walls and ceiling of the room for the circulation of a tempering medium, and sealed from the interior of said room, there being a doorway leading through the outer and inner walls to give access to the interior of the room, the space between the inner and outer walls being sealed around the doorway.

5. A hospital building having an operating room provided with inner supplemental walls spaced from the side walls and ceiling respectively of the building and defining therewith a space surrounding said side walls and ceiling of the room and sealed from the interior of said room for receiving a tempering medium, there being a doorway leading through the outer and inner walls to give access to the interior of the room, the space between the inner and outer walls being sealed around the doorway, a light-admitting plate forming a part of one of the inner supplemental walls, and a source of artificial light located in the space between the inner and outer walls and disposed to shine through the light-admitting plate.

1,134,162. LEVEL. JACOB SCHMID, Detroit, Mich. Filed Mar. 30, 1914. Serial No. 828,161. (Cl. 33—213.)



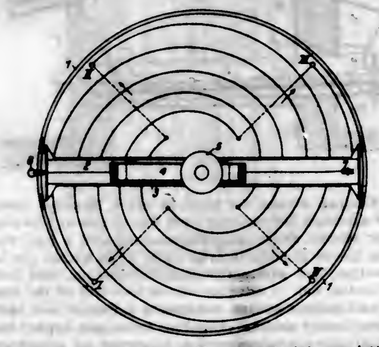
1. The combination with a level frame and housings forming part thereof, of level glass units adjustably clamped in the housings of said frame, each unit comprising circular side plates provided with eccentric openings, oppositely disposed lugs carried by the inner side of one of said plates at diametrically opposed edges of the eccentric opening thereof, a level glass carried by said lugs, socket members protruding from the inner side of one of said plates, and screws extending through the other side plate into said members to detachably clamp said plate in engagement with the ends of the housings of said level frame.

2. A level glass unit comprising circular plates provided with eccentric openings, oppositely disposed lugs carried by the inner side of one of said plates at diametrically opposed edges of the eccentric opening thereof, enlargements forming part of the inner side of the other plate and between which extend the ends of said lugs for maintaining the eccentric openings of said plates in alinement, a level glass carried by said lugs and intercepting the axis of said eccentric openings, and means carried by said plates and correctly positioned by the interlocking of said lugs and said enlargements whereby said plates can be connected together.

3. The combination with a level frame and housings forming part thereof and having open ends provided with circular seats and side walls cut away to provide sight openings, of level glass units adjustably clamped in the seats in the ends of the housings of said frame whereby said level glass units can be positioned to be read through either of the sight openings of said housings, each unit

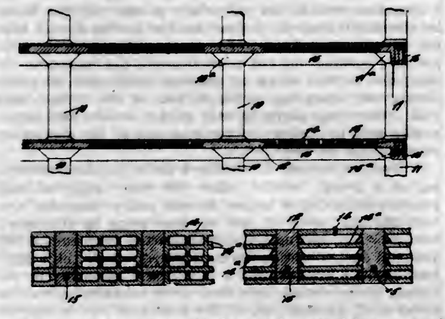
comprising circular side plates provided with openings, interlocking means between said plates for correctly positioning one plate relative to the other, and a level glass supported by said locking means.

1,134,163. METHOD OF MIXING LOOSE FIBROUS MATERIAL. GEORG MAX SCHÜLLER, Kunnersdorf-upon-the-Eigen, Germany. Filed Nov. 12, 1913. Serial No. 800,452. (Cl. 19—5.)



A method of mixing loose fibrous material, consisting in spreading the fibrous material over a relatively large horizontal plane in thin superposed layers and causing the fiber to follow with accelerating speed, spiral paths in producing each horizontal layer, each of which spiral paths beginning at the periphery of each horizontal layer, at a point advanced from the peripheral starting point of the preceding spiral, and terminating toward the center of the horizontal layer, substantially as set forth.

1,134,164. CONCRETE BUILDING CONSTRUCTION. KARL R. SCHUSTER, New York, N. Y. Filed Apr. 12, 1910. Serial No. 554,982. (Cl. 72—66.)



1. A crosswise reinforced floor slab comprising rows of hollow tile blocks, each block being provided with vertical sides and having openings which extend through opposite ends of said block, two series of intersecting concrete beams in contact with the vertical sides and the open ends of said tile blocks, each block being interlocked at the open ends thereof with the concrete beams, the height of said beams being equal to the thickness of the floor slab, and two series of rods the rods of each series extending continuously with respect to said rows of blocks, said blocks being separated and the rods being spaced relatively to the blocks to provide spaces to admit of tamping the material which enters into the formation of the beams.

2. A crosswise reinforced floor slab comprising hollow blocks extending in rows in two directions, each block having closed sides and provided with openings which extend through the block and open through opposite ends thereof, two series of concrete beams extending in two directions and bonded to the blocks, some of the concrete material of the beams filling the end portions of said openings within said blocks, and two series of rods, the rods of each series extending continuously with respect to rows of said blocks, said blocks and the rods being positioned relatively to each other to provide spaces admitting the passage of the material which enters into the formation of the beams.

3. A crosswise reinforced floor slab comprising hollow blocks assembled in rows extending in two directions, each block having closed sides and provided with openings which extend through the block and open through opposite ends thereof, two series of concrete beams bonded to the blocks said open ends of the passages in said blocks being proportioned to admit limited quantities of the concrete material to the interior of the block, said admitted concrete material imparting stiffness to the block sidewise thereof so as to render the sidewise compressive strength of the block equal to the endwise compressive strength thereof, and two series of rods, the rods of each series extending continuously with respect to rows of blocks, said blocks and the rods being positioned relatively to each other to provide spaces admitting the passage of the material which enters into the formation of the beams.

4. A crosswise reinforced floor slab comprising hollow blocks assembled in rows and each spaced with respect to adjoining blocks, each block having closed sides and provided with a series of openings which extend through said block and open through opposite end portions thereof, two series of concrete beams extending in two directions and bonded directly to the blocks, some of the concrete material filling the end portions of said openings in said blocks, the cross sectional area of the beams extending in one direction being equal substantially to the cross sectional area of the beams extending in the other direction, and two series of rods, the rods of each series extending continuously with respect to rows of blocks, said blocks being separated and the rods being positioned relatively to the blocks to provide free spaces of ample size to admit of tamping the material which enters into the formation of the beams.

5. A crosswise reinforced floor slab supported on columns and comprising hollow blocks assembled in rows extending in two directions, each block having closed sides and provided with a series of passages extending through the block and opening through the opposite ends thereof, two series of rods, the rods of each series extending continuously with respect to rows of blocks, said blocks being relatively separated and the rods being so positioned with reference to the blocks as to provide spaces for the tamping of concrete adapted to enter into the formation of beams, and two series of concrete beams bonded to said blocks, said open ends of the blocks admitting into the passages thereof the inflow of plastic concrete material to an extent limited by the angle of repose of said plastic material.

[Claim 6 is not printed in the Gazette.]

1,134,165. SOLDERING-IRON. CHARLES STICHLER, Philadelphia, Pa. Filed Dec. 18, 1912. Serial No. 737,385. (Cl. 158—26.)



1. A self-heating soldering iron comprising a burner-tube adapted for connection with a source of fuel supply, a support movable lengthwise of said tube, a soldering-bit pivotally mounted on said support to swing in a plane passing lengthwise through said burner tube and means movable with said bit for confining the flames and heat from said burner-tube adjacent to said bit.

2. A self-heating soldering iron comprising a burner-tube adapted for connection with a source of fuel supply, a support carried by said tube and movable lengthwise thereof, a clamp pivotally mounted upon said support, the pivot of said clamp extending at a right angle to the axis of said burner-tube and a soldering-bit movably secured in said clamp.

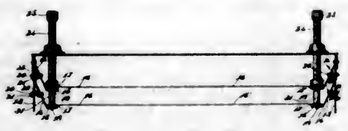
3. A self-heating soldering iron comprising a burner-tube adapted for connection with a source of fuel supply, a support carried by said tube and movable lengthwise thereof, a clamp pivotally mounted upon said support, the pivot of said clamp extending at a right angle to the axis of said burner-tube, a soldering-bit movably secured on said clamp, means for securing said clamp in an adjusted position and means for securing said support against movement relatively to said tube.

4. A self-heating soldering iron comprising a burner tube adapted for connection with a source of fuel supply, a support movable lengthwise of said tube, a soldering-bit pivotally mounted on said support to swing about a pivot extending at a right angle to the axis of said burner-tube and a shield movable with said bit whereby the flame and heat therefrom are confined adjacent to said bit.

5. A self-heating soldering iron comprising a burner-tube adapted for connection with a source of fuel supply, a support movable lengthwise of said tube, a clamp pivotally mounted upon said support, the pivot of said clamp extending at a right angle to the axis of said burner-tube, a soldering-bit movably secured in said clamp and a shield carried by said clamp whereby the flame and heat therefrom are confined adjacent to said bit.

[Claims 6 to 8 not printed in the Gazette.]

1,134,166. SCREEN OR SEPARATOR. THOMAS LEGGETT STURTEVANT, Quincy, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed Nov. 14, 1914. Serial No. 872,138. (Cl. 83—56.)



1. In a separator, the combination with the side walls thereof, of flexible or elastic shields or curtains suspended from said side walls, wire mesh screen clothing supported by said shields or curtains, and adjustable means, acting through said shields or curtains, for stretching the wire mesh screen clothing.

2. In a separator, the combination with the side walls thereof, of spring-metal shields or curtains suspended from said side walls, a screen comprising wire mesh screen clothing supported by said shields or curtains, adjustable means, acting through said shields or curtains, for stretching the wire mesh screen clothing, and means for percussively jarring the screen.

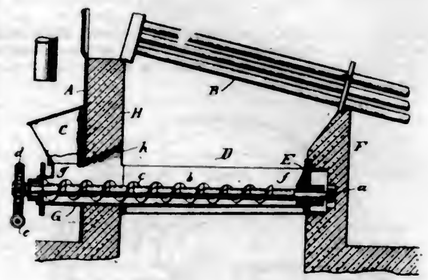
3. In a separator, the combination with the side walls thereof, of spring metal curtains suspended from said side walls, a plurality of superposed screens, comprising wire mesh screen clothing; supported by said curtains, and adjustable means for streiching the said screen clothing.

4. In a separator, the combination with the side walls thereof, of inclined spring metal curtains suspended from said side walls, a plurality of superposed screens comprising wire mesh screen clothing supported by said curtains, means for stretching the said screen clothing, and means for percussively jarring said screens.

5. In a separator, the combination with the side walls thereof, of spring sheet metal curtains suspended from said side walls and provided at their free lower edges with inwardly extending horizontal flanges, and wire mesh screen clothing supported by said flanges.

[Claims 6 to 11 not printed in the Gazette.]

1,134,167. FEEDING DEVICE FOR FURNACE-GRATES. GEORGE H. THACHER, Jr., Albany, N. Y. Filed Oct. 22, 1912. Serial No. 727,147. (Cl. 110—44.)



1. Feeding devices for inclined grate furnaces consisting of a trough unrestricted from end to end and having a hopper section and a magazine section, and a feed screw having blades of substantially equal pitch within the hopper section, and within the magazine section, said blades terminating well in advance of the rear end of the magazine, said hopper section comprising a hopper and having a flaring outlet portion extending from said hopper backward to said magazine section to permit an unrestricted flow of coal into said magazine section, and into the front end of the fire box.

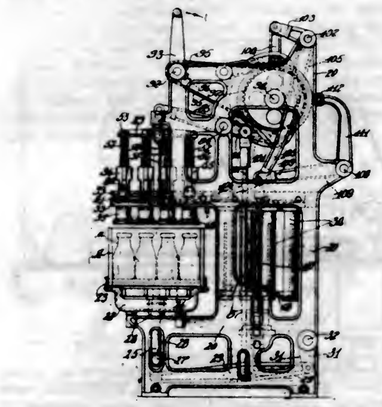
2. Feeding devices for furnaces consisting of a trough having a hopper section and a magazine section, said magazine section being unobstructed from end to end and the side walls of said magazine and hopper sections being in alinement, said hopper section flaring upward directly from the hopper feed opening toward the magazine section, and a continuous feed screw of substantially uniform diameter operating in the bottom of the trough throughout the greater part of its length; substantially as described.

3. Feeding devices for furnaces consisting of a trough unrestricted from end to end having a hopper section and a magazine section, the side walls of said sections being in alinement, and the hopper section having a coal hopper at one end, and being of increasing area from the hopper feed opening onward, until it meets the magazine section, and a feed screw of uniform pitch and diameter throughout, operating in the bottom of the trough, said feed screw lying partly in said hopper section and terminating well in advance of the rear end of the magazine; substantially as described.

4. Feeding devices for inclined grate furnaces consisting of a trough located below the upper edges of said grates and having a hopper section and a magazine section, the side walls of said sections being in alinement, said magazine section being unobstructed from end to end and said hopper section flaring upwardly from the hopper feed opening onward, and a feed screw operating in the bottom of the trough, said feed screw terminating well in advance of the rear end of the magazine and having its conveyer blades of substantially the same pitch throughout, the sides of said trough serving as coking surfaces for the coal before its delivery to the inclined grates; substantially as described.

1,134,168. BOTTLE-CAPPING MACHINE. THEODORE L. VALERIUS, Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 2, 1911. Serial No. 642,007. (Cl. 226—5.)

1. In a bottle-capping machine, the combination of vertically reciprocating cap-applying means, a plurality of cap magazines, a cap-transferring slide arranged to reciprocate from a point adjacent to said magazines to a point adjacent to said cap-applying means, and impaling points on said slide arranged to engage the end caps in said magazines and transfer said caps into position to be acted upon by said applying means.



2. In a bottle-capping machine, in combination, a plurality of cap magazines arranged vertically, said magazines having longitudinal slots therein, bars extending into said slots for supporting the caps therein, means for raising said bars to permit the top layers of caps to be removed, cap-applying means, and means for transferring caps from said magazines to said applying means, comprising a slide movable in a horizontal plane from a point adjacent to said magazines to a point adjacent said applying means.

3. In a bottle-capping machine, in combination, a plurality of cap tubes arranged vertically, cap-applying means, and a slide movable in a horizontal plane from a point above said cap tubes to a point in operative relation to said applying means, said slide having sharp points thereon arranged to pick up the top series of caps in said cap tubes.

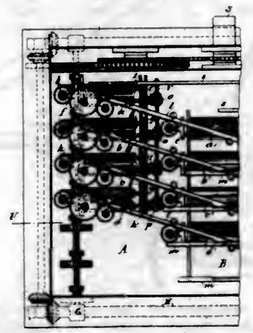
4. In a bottle capping machine, in combination, a framework, a horizontal plate stationarily mounted therein, a plurality of cap tubes supported from the rear portion of said plate, cap-applying means adjacent to the forward portion of said plate, and a cap transferring plate slidable upon the first mentioned plate, said cap-transferring plate having a plurality of sharp projections against which the caps in said cap tubes are pushed at times, the caps being held by said projections and being transferred by said cap-plate from said cap-tubes into position to be operated upon by said applying means.

5. In a bottle-capping machine, in combination, means for supporting a case of bottles, cap-applying plungers positioned above the case-supporting means, yielding means for holding a supply of caps, means for raising said caps, means for adjusting vertically said cap-holding means, and means horizontally movable between said plunger and said bottle case for transferring caps from said cap-holding means into position to be acted upon by said plungers.

[Claims 6 to 31 not printed in the Gazette.]

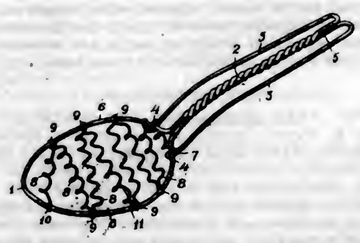
1,134,169. MACHINE FOR THE EFFECTING OF MULTIPLICATIONS JOHANNES VERMEHREN, Hellerup, near Copenhagen, Denmark, assignor to Aktieselskabet Vermehrens Regnemaskiner, Hellerup, near Copenhagen, Denmark. Filed July 1, 1912. Serial No. 707,088. (Cl. 235—61.)

1. In a multiplying machine, in combination, a plurality of groups of elements corresponding to the digits of the multiplicand, said groups being stepped with respect to one another so that the unit element of any group will be in alinement with the unit element of the next preceding group, each of said elements comprising members corresponding to the digits 1 to 9 inclusive, means for setting corresponding elements of all of said groups proportionately to the digits of the multiplicand, means for rotating the thus set elements proportionately to the digits of the multiplier, counter mechanism operating devices adapted to be actuated by said rotated elements and counting mechanism adapted to be operated by said counter mechanism operating devices.



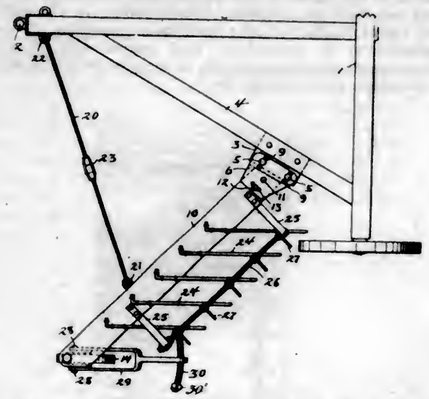
2. In a multiplying machine, in combination, a plurality of groups of elements corresponding to the digits of the multiplicand, said groups being stepped with respect to one another so that the unit element of any group will be in alinement with the tens elements of the next preceding group, each of said elements comprising nine pairs of rotatable members corresponding to the digits 1 to 9 inclusive, the members of each pair being provided with a plurality of actuating devices corresponding to the unit digits and tens digits of products obtained by multiplying the digit represented by said pair of members by the digits from 0 to 9 inclusive, actuating means normally out of operative relation with said rotatable members for rotating the same, means for moving corresponding pairs of elements of all of said groups into operative relation with said actuating means, means for rotating said corresponding pairs of elements proportionately to the digits of the multiplier, counter mechanism operating means adapted to be set by said actuating devices, and counting mechanism adapted to be operated by said operating means.

1,134,170. EGG-BEATER. REGINALD WASHBURN, Worcester, Mass., assignor to The Wire Goods Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 6, 1908. Serial No. 425,549. (Cl. 107—53.)



A beater of the class described, comprising a frame formed from a single stiff wire bent at its central portion into a closed loop and with its ends extended at one end of the loop to form a handle, and a second single wire crossing and recrossing said loop and extending around and secured to its sides, the sections of said second wire being coiled into helical form and adjacent sections having their axes at an acute angle with each other.

1,134,171. SIDE RAKE ATTACHMENT FOR HAY-LOADERS. JOSEPH C. WEAVER, Zanesville, Ind. Filed Apr. 4, 1914. Serial No. 829,677. (Cl. 56—115.)



1. In an appliance of the class described, a beam having attached thereto a series of rake-teeth, a hinged connection between the beam and the loader; an adjustable strut attached at one end to the beam and the other to the loader; an oscillating beater mounted in connection with the beam, the fingers of which are adapted to swing into the spaces between the rake-teeth; a ground wheel supporting the outer end of the beam; a crank on the ground-wheel of the trailer; a pitman actuated by the crank; and an arm on the beater having connection with the pitman to be actuated thereby.

2. In an appliance of the class described a supporting bracket attached to the loader proper and having vertical studs; a beam having a plate at its inner end fitting upon the studs; springs on the studs interposed between the plate and the bracket; a ground wheel at the outer end of the beam upon which the latter is adjustably supported; a strut connecting the beam with the loader; a series of rake-teeth carried by the beam; an oscillating beater the fingers of which are adapted to work between the rake-teeth; and means in connection with the ground wheel to actuate the beater.

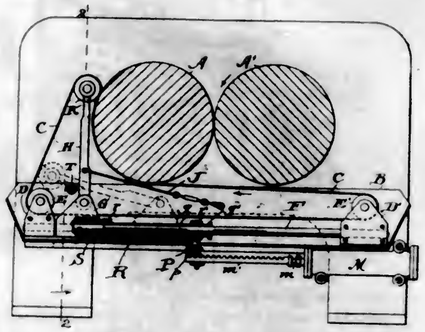
3. In an appliance of the class described, a beam supported at one end by the loader; a swiveled ground wheel supporting the opposite end of the beam; a strut connecting the beam with the loader; a series of rake-teeth carried by the beam; a beater having fingers thereon adapted to work between the teeth; and means in connection with the ground wheel for actuating the beater.

4. In apparatus of the class described, a rake supported at one end by the loader; a ground wheel supporting the other end of the rake; an oscillating beater in connection with the rake; and actuating mechanism between the trailer and the beater for actuating the latter.

1,134,172. FEED MECHANISM FOR MIXING-MILLS. PARK E. WELTON, Akron, Ohio, assignor to Katharine B. Welton, Akron, Ohio. Filed Mar. 10, 1913. Serial No. 753,157. (Cl. 18—2.)

1. In combination with a pair of mixing rolls, two apron rolls mounted in fixed bearings, a frame, supports to which the lower end of said frame is pivoted, a roller mounted in the outer end of said frame, means for moving said supports, a roller for engagement by one of the side members of said frame, a cable secured to said frame and to a fixture, and an endless feed apron which embraces the three apron rolls.

2. In combination with a pair of mixing rolls, two pairs of fixed brackets located in a plane below said rolls, a pair of supports located near one pair of fixed brackets and movable toward and from the same, a frame pivoted to said supports, a roller mounted in the free end of said frame, a cable fixed at one end to said frame and at the other end to a fixture, means for moving said movable supports, and an endless apron which embraces the three rollers.



3. In combination with a pair of mixing rolls, a pan located below the same, a pair of fixed brackets in said pan at opposite ends thereof, an apron roller mounted in each pair of brackets, guideways extending lengthwise of said pan and located on opposite sides thereof, two supports movable upon said guideways respectively, a frame pivoted to said supports, a roller mounted in the outer end of said frame, a cable fixed to said frame and to the pan, an endless apron embracing the three rollers, and means for moving said supports along said guideways.

4. In combination with a pair of mixing rolls, two pairs of bearing brackets located in a plane below the mixing rolls, two guide rods extending between the pairs of bearing brackets, two supports respectively slidable upon said guide rods, a frame pivoted to said supports, an apron roller mounted in the outer end of said frame, rollers mounted in each of the pairs of brackets referred to, a cable secured at its ends to said frame and to a fixture, and means for sliding said supports along said guide rods, and an endless apron embracing the three rollers.

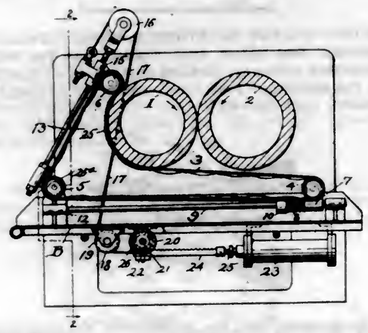
5. In combination with a pair of mixing rolls, two pairs of bearing brackets located in a plane below the mixing rolls, two guide rods extending between the pairs of bearing brackets, two supports respectively slidable upon said guide rods, a frame pivoted to said supports, an apron roller mounted in the outer end of said frame, rollers mounted in each of the pairs of brackets referred to, a cable secured at its ends to said frame and to a fixture,—each of said supports having a sleeve connected with it and embracing the associated guide rod, a rack having two eyes associated with each sleeve and slidably mounted thereon, a shoulder on each sleeve for engagement with the nearby rack eye, a spring interposed between each of said supports and the near by end of the rack, a shaft having pinions engaging with said racks, and means for turning said shaft in either direction, and an endless apron embracing said three rollers.

[Claims 6 to 9 not printed in the Gazette.]

1,134,173. FEED MECHANISM FOR MIXING-MILLS. PARK E. WELTON and HARRY A. WELTON, Akron, Ohio, assignors to Katharine B. Welton, Akron, Ohio. Filed Nov. 3, 1913. Serial No. 798,803. (Cl. 18—2.)

1. In combination with the mixing rolls of a mixing mill, an endless feed apron therefor, three rolls over which said apron runs,—two of said rolls being located in planes below the mixing rolls,—two pivoted arms which when in operative position extend upward at an angle toward the mixing rolls, two bracket sleeves which are slidably mounted on said arms,—the third apron roll being extended between and mounted on these bracket sleeves, and means for drawing said bracket sleeves upward on said arms and for swinging said arms toward the mixing rolls.

2. In combination with the mixing rolls of a mixing mill, an endless feed apron therefor, three rolls over which said apron runs,—two of said rolls being located in planes below the mixing rolls,—two pivoted arms which when in operative position extend upward at an angle toward the mixing rolls, two bracket sleeves which are slidably mounted on said arms,—the third apron roll being extended between and mounted on these bracket sleeves, sheaves mounted upon the upper ends of said arms, winding drums, and cables which are fixed to said bracket sleeves and extend over said sheaves and are wound upon said drums.



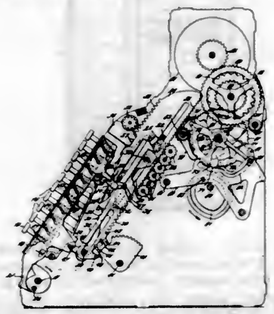
3. In combination with the mixing rolls of a mixing mill, an endless feed apron therefor, three rolls over which said apron runs,—two of said rolls being located in planes below the mixing rolls,—two pivoted arms which when in operative position extend upward at an angle toward the mixing rolls, two bracket sleeves which are slidably mounted on said arms,—the third apron roll being extended between and mounted on these bracket sleeves, sheaves mounted on the upper end of said arms, guide sheaves located adjacent to the pivots of said arms but between said pivots and the mixing rolls, cables which are fixed to said bracket sleeves and extend over the sheaves on the ends of the arms, and under the other sheaves, and winding drums upon which said cables may be wound.

4. In combination with the mixing rolls of a mixing mill, and a supporting member which is removably secured beneath said mixing rolls, and the following co-operating parts which are supported by said removable supporting member, viz: two guide rods located below the mixing rolls and extending in directions at right angles to the axes of said rolls, two brackets slidably mounted on said rods near one end thereof, an apron roll which extends between and is mounted in said brackets, springs acting to yieldingly resist the movement of said brackets toward the opposite ends of said guide rods, a second apron roll which is parallel with the first mentioned roll and is mounted near the opposite ends of said guide rods, two arms pivoted on axes which are substantially coincident with the axis of the last mentioned apron roll, two bracket sleeves which are slidably mounted on said arms, a third apron which extends between and is mounted in said bracket sleeves, sheaves on the upper ends of said arms, cables fixed to said bracket sleeves and extending over said sheaves and downward therefrom, guide sheaves under which said cables run, means for taking in and paying out said cables, and an endless feed apron which runs around the three apron rolls specified.

5. In combination with the mixing rolls of a mixing mill, three apron rolls, two of which are located in planes below the mixing rolls, two pivoted arms in which the other apron roll is mounted, means for swinging said arms toward the adjacent mixing roll,—each of said rolls having a circumferential groove in its periphery, and a stretchable feed apron which embraces and runs over all of said feed rolls, said apron having secured at intervals to its inner face a guide strip adapted to run in said circumferential grooves, the said guide strip between the points at which it is connected with the belt being arranged in loose loops.

[Claim 6 not printed in the Gazette.]

1,134,174. CASH-REGISTER. JOHN A. WERNER, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 25, 1907. Serial No. 375,664. (Cl. 235—9.)



1. In a cash register, the combination with manipulative devices, of mechanism differentially adjusted under control of said devices, an indicating mechanism, a star shaped element connected to said indicating mechanism, and means for moving said differentially adjusted mechanism to adjust said star shaped element.

2. In a cash register, the combination with manipulative devices, of mechanism differentially set thereby, an indicating mechanism, a device having radiating parts connected to said indicating mechanism, and means controlled by said differentially set mechanism for adjusting said device.

3. In a cash register, the combination with manipulative devices, of a register, devices controlled by said manipulative devices for determining the amount added on said register, an indicating mechanism, a star shaped mechanism for adjusting said indicating mechanism, and means adjusted by said amount determining means for moving said star shaped element in different directions.

4. In a cash register, the combination with a bank of keys, of a segment differentially set thereby, an indicator, a star shaped element connected to said indicator for adjusting same, and means adjusted by said segment and adapted to move radially of the same for engaging a ray of said star element and moving same to set said indicator.

5. In a cash register, the combination with manipulative devices, of an element differentially adjusted under control of said devices, indicating mechanism, and means effective at every operation of the machine to move the indicating mechanism in the direction requiring the shortest extent of adjustment.

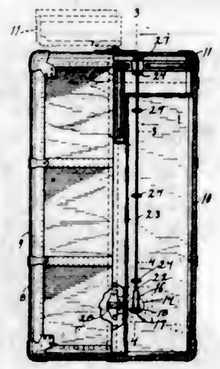
[Claims 6 to 62 not printed in the Gazette.]

1,134,175. AUTOMATIC LOCKING MEANS FOR TRUNKS. GEORGE HENRY WHEARY, Racine, Wis. Filed Apr. 27, 1914. Serial No. 834,644. (Cl. 70—27.)

1. The combination of a trunk having a plurality of connected-together elements, of an automatic locking means therefor, consisting of a locking member for two of the elements controlled by the movement of a third element.

2. The combination of a trunk having a plurality of hinged-together elements, of an automatic locking means therefor, comprising a manually actuated locking member locking two of the elements together, and an automatic locking member locking a third element to one of the locked-together elements, the second mentioned locking

member being unlocked by the movement of one of the first mentioned locked-together elements toward its open position.



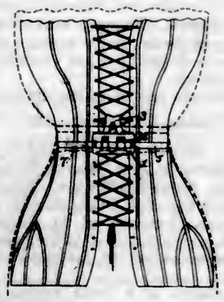
3. An automatic locking means for a trunk having a plurality of hinged-together elements, comprising a hasp member, a bolt member positioned to engage the hasp member, spring means for yieldingly holding the bolt member in unlocked position, and other means for yieldingly holding the bolt in locking position when the bolt member is relieved of the pressure of the first mentioned holding means.

4. An automatic locking means for a trunk having hinged-together elements, comprising a hasp member, a bolt member positioned to engage the hasp member, an actuating member engaging the bolt, a means for imparting a tendency to the bolt to move to a locking position, and a yielding means of stronger value for counteracting said tendency.

5. An automatic locking means, comprising a hasp member, a bolt member positioned to engage the hasp member, an actuating member having a slidable connection with the bolt, a coiled spring engaging the actuating member and exerting a tendency to move the actuating member in a direction away from the bolt, and a means of less tendency for moving the bolt to a locking position when the coiled spring is compressed.

[Claim 6 not printed in the Gazette.]

1,134,176. SKIRT AND WAIST HOLDER. NICHOLAS BECK, Seattle, Wash. Filed Feb. 26, 1914. Serial No. 822,053. (Cl. 241—11.)

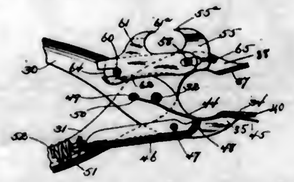


1. A skirt and waist holder comprising a plate having a pair of vertically extending tongues cut therefrom, a suspension hook having branching arms pivotally secured by their ends to the upper free ends of said tongues, the plate being provided with a belt receiving guide at each end, outwardly from the tongues.

2. A skirt and waist holder comprising a plate having vertically extending tongues cut therefrom, with their free ends upward, and a suspending hook pivoted to the upper ends of said tongues, the body of said plate being provided with means for holding a securing belt thereon.

3. A skirt and waist holder comprising a plate having vertically extending tongues cut therefrom with their free ends upward, and also having belt receiving slots in the body of the plate at its ends, and a suspending hook pivoted to the upper or free ends of the tongues.

1,134,177. PLIERS OR SIMILAR TOOL. WILLIAM A. BERNARD, New Haven, Conn., assignor to The William Schollhorn Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 20, 1912. Serial No. 732,550. (Cl. 81—47.)



1. In a hand tool, the combination of crossed lever members pivoted together intermediate of the ends of one member, a pin carried by said last named member in advance of the pivot, a pin carried by the other member at the rear of the pivot, and oppositely sliding members having pivotal engagement with the respective pins, and sliding engagement with the respective pins; substantially as described.

2. In a hand tool, the combination of a pair of pivoted main jaws having rigid handles for operating the same, one of said jaws being of channeled cross section, and an end cutter located in said channeled jaw and composed of sliding subsidiary jaws operatively connected with the main jaws, and having cutting edges disposed parallel to the axis of the main jaws; substantially as described.

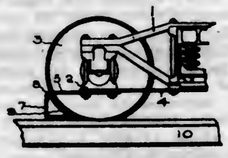
3. In a hand tool, the combination of crossed lever members pivoted together intermediate of their ends, at least one of said members being of channeled cross section, a pin carried by said channeled member in advance of the pivot, a second pin carried by the other member at the rear of the pivot, and a pair of sliding jaws having shanks located side by side between the side walls of said channeled member, each of said jaws having pivotal engagement with one of said pins, and sliding engagement with the other pin; substantially as described.

4. In a hand tool, the combination of crossed lever members pivoted together intermediate of their ends, at least one of said members being of channeled cross section, a pin carried by said channeled member in advance of the pivot, a second pin carried by the other member at the rear of the pivot, a pair of sliding jaws having shanks located side by side between the side walls of the channeled member, each of said jaws pivoted on one of said pins, and sliding on the other pin, and coöperating cutting edges on said sliding jaws arranged parallel to the axis of said lever members, and of greater width than the respective shanks of said jaws; substantially as described.

5. In a hand tool, the combination of crossed lever members pivoted together intermediate of their ends, said lever members having forked portions adjacent the pivot, and coöperating jaws at one side of the tool having shanks located side by side in the forked portions of both lever members, said jaws being provided with coöperating cutting edges extending parallel to the axis of said lever members; substantially as described.

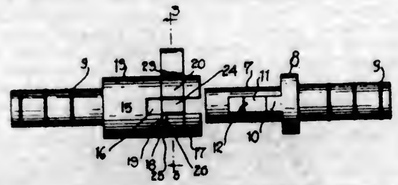
[Claims 6 to 12 not printed in the Gazette.]

1,134,178. WHEEL-GUARD. ARTHUR A. BLENNERHASSETT, Fort William, Ontario, Canada, assignor to Joseph Hodgson, Toronto, Ontario, Canada. Filed Jan. 13, 1915. Serial No. 2,075. (Cl. 105—131.)



In combination with a truck frame and a journal box, a bar secured to the under face of the said frame and extending beneath the said journal box, and a wheel guard carried thereby comprising a bar offset near its front end and bent downwardly and inwardly and curved upwardly to form a triangular head, the end of the upwardly curved portion being free.

1,134,179. COUPLING. CLIFFORD BOYD, Sumas, Wash., assignor of one-half to Ernest Boyd, Sumas, Wash. Filed Apr. 29, 1914. Serial No. 835,233. (Cl. 137—28.)



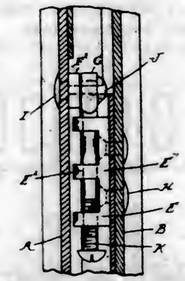
A coupling comprising male and female coupling members, said female member being provided with diametrically opposed longitudinal slots and a circumferential groove intersecting said slots, said female member also having a circumferentially extending recess in its periphery communicating with said groove, said male member being provided with longitudinal ribs to be received in the respective slots and said ribs having recesses in their outer faces to register with said groove, an annular locking band movably mounted in said groove and flush with the periphery of the female member, pins secured in the recesses of the ribs on the male member with which said band is adapted to coöperate, whereby the band when turned, is shifted laterally in the recesses of said ribs and into binding engagement with one edge thereof and with the corresponding edge of the groove in said female member, and a lug projecting from one edge of said band and movable in the circumferential recess in the female member, said lug being adapted to engage the end walls of said recess whereby the turning movement of the band is limited.

1,134,180. ADJUSTABLE HINGE FOR METALLIC-WINDOW VENTILATORS. DELAMAR C. BRIGGS, Detroit, Mich., assignor to Detroit Steel Products Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 24, 1913. Serial No. 763,365. (Cl. 16—106.)

1. In a metallic window, the combination with adjacent bars of stationary and swinging sash sections, of a hinge fitting, comprising a pivot member secured to one of said bars and projecting laterally therefrom, a member secured to the other of said bars and a pivot-eye section adjustably secured to said member.

2. In a metallic window, the combination with adjacent bars of stationary and swinging sash sections, of a hinge comprising a pivot member secured to and projecting laterally from one of said bars, a member secured to the other of said bars having a series of laterally-projecting ears provided with alined apertures therein, an eye member engaging said pivot and provided with a shank engaging said apertured ears, and adjusting means for raising and lowering said shank in said ears.

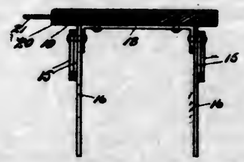
3. In a metallic window, the combination with adjacent parallel bars of stationary and swinging sash sections, of a pivot member secured to and projecting laterally from one of said bars, a member secured to the other of said bars provided with a plurality of laterally-projecting ears having alined apertures therein, an eye member engaging said pivot and provided with a downwardly extending shank engaging the apertures in the upper ear members, and an adjusting screw engaging a threaded aperture in the lower ear member and alined with said shank forming an adjusting means therefor.



4. In a metallic window, the combination with adjacent bars of stationary and swinging sash sections, of a hinge comprising a pivot member secured to and projecting laterally from one of said bars, an eye member carried by the other bar and engaging said pivot, and means for adjusting the eye member relative to the supporting bar transversely of the pivot member.

5. In a metallic window, the combination with adjacent bars of stationary and swinging sash sections, of a member secured to one of said bars having a plurality of laterally-projecting ears, an elongated member passing slidably through said ears and forming a pivotal support for the other bar, and means for adjusting the elongated member longitudinally.

1,134,181. MASSAGING-MACHINE. CHARLES M. BUMP, Bay City, Mich. Filed Sept. 18, 1914. Serial No. 862,283. (Cl. 128—16.)



1. In a device of the character described, a base, pivotally mounted jaws, means whereby said jaws may be made to simultaneously move away from each other and toward the base, and means normally tending to draw said jaws together and away from the base.

2. In a device of the character described, a base, segments pivotally mounted thereon extending toward each other and having interengaging teeth, jaws pivotally mounted on the segments and means normally tending to draw the jaws toward each other.

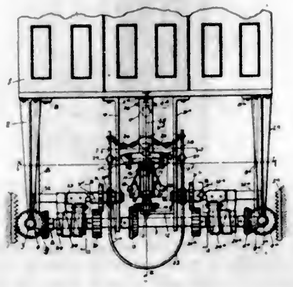
3. In a device of the character described, a base, pivotally mounted jaws, means whereby said jaws may be made to simultaneously move away from each other and toward the base, means normally tending to draw said jaws together and away from the base, and means limiting the movement of the jaws toward each other.

4. In a device of the character described, a base, pivotally mounted jaws, links attached one adjacent either end of each jaw, a bar normally located between the jaws, and pivotal connections between said bar and the links.

5. In a device of the character described, a base, segments at each end of the base pivotally mounted thereon and extending toward each other, teeth formed on the segments the teeth of the segments adjacent each end of the base being interengaged, members pivotally mounted adjacent each end of the base, one to each segment, said members being crossed and pivotally connected together in pairs, and jaws connecting the said members, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,134,182. SAFETY APPLIANCE FOR ELEVATORS. HENRY BURRMANN, Davenport, Iowa. Filed Sept. 22, 1913. Serial No. 791,076. (Cl. 187—89.)



1. An automatic stop for elevator cars consisting of a horizontally extending main shaft supported by said car, stationary racks vertically disposed adjacent to and independent of said car, gearing connecting said racks and shaft, a pair of horizontally disposed counter shafts, friction drums secured to said main shaft, friction straps carried by said counter shafts, and engaging said drums, automatic means controlled by said main shaft whereby the weight of the car becomes effective in causing said straps to grip said drums.

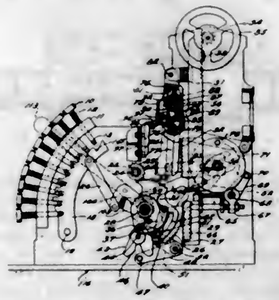
2. An automatic safety device for elevator cars consisting of a horizontal main shaft disposed transversely of and supported by said car; vertically disposed toothed racks adjacent to and independent of said car, gearing connecting said racks and shaft, a pair of horizontally disposed counter-shafts, friction drums secured to said main shaft, friction straps carried by said counter-shafts and engaging said friction drums, clutch pinions slidably and revolubly mounted on said counter shafts, clutch collars rigidly secured to said counter shafts and said friction straps, automatic means operated by said main shaft for throwing said clutch members into engagement.

3. An automatic safety device for elevator cars consisting of a horizontally disposed main shaft supported by said car, vertically disposed toothed racks adjacent to and independent of said car, gearing connecting said racks and shaft, a pair of horizontally disposed counter shafts, clutch members mounted on said counter shafts, braking mechanism supported by said counter-shafts and engaging one of said clutch members on each counter-shaft, a U shaped spring carried by said main shaft and engaging the other clutch member on each of the counter shafts, spring locking means adapted to hold said clutch members out of engagement, automatic spring releasing means controlled by said main shaft for throwing said clutch members into engagement.

4. An automatic safety device for elevator cars, in combination, a horizontally disposed main shaft supported by the car, fixed vertically disposed toothed racks adjacent to and independent of said car, gearing connecting said racks and shaft, a pair of horizontally disposed counter shafts, clutch members mounted on said counter shafts capable of engagement with each other, braking mechanism supported by said counter-shafts and engaging one of said clutch members on each counter-shaft, a spring supported by said main shaft and engaging the other clutch member on each of the counter shafts, manually operated spring locking means adapted to hold said clutch members out of engagement, and an automatic spring releasing means controlled by the velocity of the car for throwing said clutch members into engagement.

5. In an automatic safety device for elevator cars, the combination of a horizontally disposed main shaft supported by said car, vertically disposed toothed racks adjacent to and independent of said car, gearing connecting said shaft and racks, a pair of horizontally disposed counter shafts, clutch-gearing connecting said main shaft and counter shafts, friction drums secured to said main shaft, friction straps capable of engagement with said friction drums and secured to said counter shafts, automatic means externally of the car controlled by the velocity of the car adapted to cause engagement of said clutch gearing to cause said straps to grip said drums, and means manually operated from within the car for releasing said clutch gearing.

1,134,183. CASH-REGISTER. EDMUND S. CHURCH, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Mar. 30, 1908. Serial No. 424,141. (Cl. 235—9.)



1. In an accounting machine, the combination with two similarly mounted members, of two linked arms pivoted respectively to said members, manually actuated means for differentially adjusting one of said members, means for acting on the point of linkage of said arms and thereby differentially positioning the other of said members, and an accounting device controlled as to operation by said other member.

2. In an accounting machine, the combination with a controlling plate, of manually actuated means for adjusting said plate comprising two links pivoted together and respectively to the actuating and the controlling plate to any of a plurality of positions, an actuating device, yielding connections from said actuating device to said controlling plate, means for adjusting said actuating device, through operation of said connections, and accounting devices controlled by said actuating device.

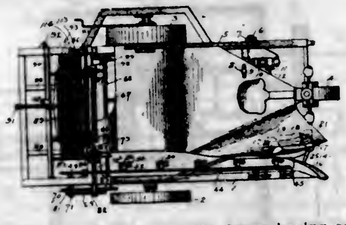
3. In an accounting machine, the combination with two similarly mounted members, of toggle arms connecting said members, manually actuated means for differentially adjusting one of said members, thereby changing the angle between said toggle arms, means for straightening said toggle arms and thereby differentially positioning the other member, and an accounting device controlled as to operation by said other member.

4. In an accounting machine, the combination with accounting devices of an actuator for the same, an adjustable stop, intermediate mechanism acting between the stop and the actuator so that the intermediate mechanism will cause the actuating mechanism to assume a certain relative position to that of the adjustable stop, and means for actuating the intermediate mechanism.

5. In an accounting machine, the combination with accounting devices of an actuator for the same, driving mechanism, an adjustable element for differentially communicating motion from the driving mechanism to the actuator, and means for adjusting said element independent of the actuator.

[Claims 6 to 29 not printed in the Gazette.]

1,134,184. TOBACCO-HARVESTER. FREDERICK H. COOK, Dayton, Ohio, assignor of one-half to Robert N. King, Dayton, Ohio. Filed Mar. 17, 1911. Serial No. 615,060. (Cl. 131—21.)



1. In a tobacco hanger, a main frame having severing devices thereon, a conveyer extending upward in an inclined direction from the severing devices and adapted to independently engage the butt of each stalk allowing the leaves thereof to extend in a pendant position from such conveyer, a supporting member to which the stalks are conveyed in a pendant position by said conveyer, means for independently securing the stalks in spaced relation upon the support, substantially as specified.

2. In a tobacco hanger, a main frame having severing devices thereon, a conveyer inclined upward from the severing devices, engaging devices upon the conveyer for independently engaging the butt of each stalk permitting the leaves thereof to extend free of the conveyer, means to reverse the position of the severed stalk whereby the stalk will be conveyed in a pendant position with its leaves free and downward, a support to which the stalks are carried by the conveyer, means for independently attaching the stalks to said support in an inverted pendant position, and means for automatically discharging the support from the machine when a predetermined quantity of stalks have been collected thereon.

3. In a harvesting machine, a traveling main frame, severing devices carried thereby, intermittently operated conveying mechanism for the severed stalks, a support to which the stalks are conveyed by the conveyer, means for securing the stalks upon the support, and trip mechanism operated by engagement with the standing stalk to be harvested whereby the conveyer will be operated only when a stalk is to be delivered to the support, thereby avoiding any vacant positions upon the support, substantially as specified.

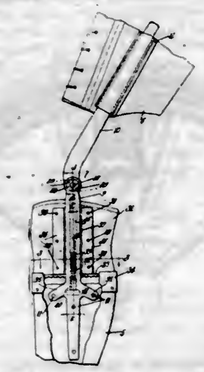
4. In a tobacco hanger, a main frame, a support carried thereon, means for securely gripping each stalk to be attached and for forcibly projecting the stalk upon the sharpened end of the support whereby it will be impaled thereon, and means for advancing the impaled stalks upon the support through a step by step movement to predetermined spaced relation.

5. In a harvesting machine, a main frame, severing devices, impaling devices intermittently operated, conveying mechanism adapted to carry the severed stalks from the severing devices to the impaling devices, and means operated by engagement with the standing stalks to be harvested for causing the operation of the conveying means, whereby said conveying devices will be operated only when a succeeding stalk is to be impaled, thereby avoiding vacancies in the succession of impaled stalks.

[Claims 6 to 23 not printed in the Gazette.]

1,134,185. ARTIFICIAL LIMB. HUBERT A. DOTY, Boston, Mass. Filed May 22, 1914. Serial No. 840,375. (Cl. 3—3.)

1. An artificial limb having, in combination, an upper member, a lower member, hinge members connecting said upper and lower members at opposite sides, a stump socket arranged to slide in said lower member intermediate said hinge members, metal guides on said socket adapted to engage said hinge members to guide said socket during its sliding movements in said lower member, a guide pin on each of said hinge members, a spring encircling each of said pins, and a spring tube surrounding each of said springs and having engagement with the adjacent metal guide.



2. An artificial limb having, in combination, a lower member, a pair of hinge members secured at opposite sides of said lower member, a stump socket arranged to slide between said hinge members, metal guide plates secured to said stump socket, said guide plates having grooves adapted to receive said hinge members, and springs arranged between said guide plates and said hinge member and concealed thereby, said springs adapted to yieldingly support said stump socket relatively to said lower member.

3. An artificial limb having, in combination, a lower member, a pair of hinge members secured at opposite sides of said lower member, a stump socket arranged to slide between said hinge members, metal guide plates secured to said stump socket, said guide plates having grooves adapted to receive said hinge members, and a lining for said grooves adapted to deaden the sound produced by the movements of said socket relatively to said lower member.

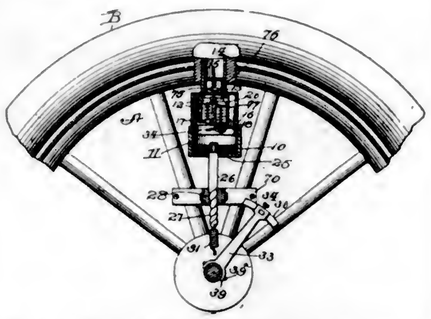
4. An artificial limb having, in combination, a lower member, a pair of hinge members secured to said lower member, a stump socket arranged to slide relatively to said lower member and intermediate said hinge members, guide plates secured to said stump socket, said plates having grooves adapted to receive said hinge members, a pin arranged longitudinally of each of said hinge members, a spring adapted to encircle each of said pins, a tube inclosing each of said springs and having sliding engagement with said pin, and projections on said plates adapted to engage the ends of said tubes.

5. An artificial limb having, in combinations, a lower member, a pair of hinge members secured to said lower member, a stump socket arranged to slide relatively to said lower member and intermediate said hinge members, guide plates secured to said stump socket, said plates having grooves adapted to receive said hinge members, the adjacent faces of each of said plates and their adjacent hinge members being oppositely grooved, and a spring interposed in each of said grooves, between said plate and said hinge member respectively.

1,134,186. MEANS FOR INFLATING PNEUMATIC TIRES. WILLIAM J. DREW, Racine, Wis. Filed Apr. 2, 1914. Serial No. 829,112. (Cl. 152—11.)

1. Means for inflating a pneumatic tire, embracing a pump arranged to be connected to the wheel provided with said tire, said pump comprising a main chamber, an air in-

let chamber between the main chamber and the tire, said air inlet chamber having a check valve, a piston chamber, a piston in the latter chamber arranged to be exposed to the pressure of the air in the tire and having means to oppose the movement of the piston in one direction, an air vent from the main chamber, a valve arranged to cover and uncover said vent, connections between the latter valve and the piston, a pumping piston in the main chamber and means for operating the pumping piston from the rotative movements of the wheel.



2. Means for inflating a pneumatic tire, embracing a pump arranged to be connected to the wheel provided with said tire and having a vent opening, the pump also having a chamber between the vent opening and tire, a piston in the chamber, said piston being arranged to be exposed to the pressure in the tire, a valve arranged to cover and uncover the vent opening, means for adjustably securing the valve to the stem of the piston, a main chamber, a pumping piston in said chamber, means for operating the latter piston from the rotative movements of the wheel, and a valved air inlet chamber arranged to connect the main chamber with the tire.

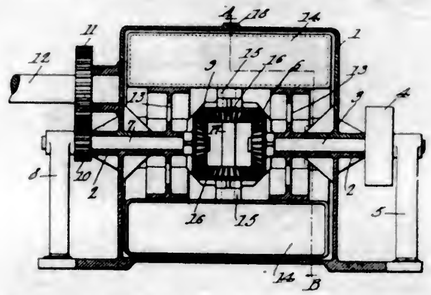
3. Means for inflating a pneumatic tire, embracing a pump arranged to be connected to the wheel provided with said tire and having a vent opening, the pump also having a chamber between the vent opening and tire, a piston in the chamber, said piston being arranged to be operated under control of pressure in the tire, a main chamber, a pumping piston in the main chamber, means for operating the latter piston from the rotative movements of the wheel, an air inlet chamber arranged to connect the main chamber with the tire, valves respectively arranged to open the vent and close communication between the main chamber and the air inlet chamber when a predetermined pressure in the tire has been attained, and operative connections between the latter valves and the first-mentioned piston.

4. Means for inflating a pneumatic tire, embracing a pump arranged to be connected to the wheel provided with said tire and having a vent opening, the pump also having a chamber between the vent opening and tire, a piston in the chamber, said piston being arranged to be operated under control of pressure in the tire, a main chamber, a pumping piston in the main chamber, means for operating the latter piston from the rotative movements of the wheel, an air inlet chamber arranged to connect the main chamber with the tire, a spring-pressed valve for closing the latter chamber, a valve arranged to open and close the vent, an auxiliary valve for closing communication between the main chamber and the air inlet chamber when a predetermined pressure in the tire has been attained, and operative connections between the first mentioned piston and the auxiliary valve and vent valve.

5. Means for inflating a pneumatic tire, embracing a pump arranged to be connected to the wheel provided with said tire and having an operating mechanism by which it is operated from the rotative movements of the wheel, the pump also having a vent, a valve for controlling the vent, means for operating the valve under control of pressure in the tire, and an indicator comprising a relatively movable scale and pointer having connection with the valve operating means.

[Claims 6 to 10 not printed in the Gazette.]

1,134,187. COMPENSATING DRIVING MECHANISM. BION B. FARNHAM, Buffalo, N. Y. Filed June 24, 1914. Serial No. 847,162. (Cl. 74—34.)



1. The combination with a drive shaft and a driven shaft, and gears upon said shafts, of a revoluble series of buckets, a liquid container housing the same, and a gear interposed between and engaging the first named gears and movable with and revoluble relative to the series of buckets.

2. The combination with a casing, a liquid contained therein, a drive shaft, a driven shaft, and gears upon the adjoining ends of the two shafts, of an annular series of buckets mounted within the housing and adapted to successively engage and elevate portions of the liquid, and a gear mounted for rotation and movable with the buckets, said gear being interposed between and engaging the first named gears.

3. The combination with a drive shaft, a driven shaft, gears secured to said shafts, and a gear interposed between and engaging the first mentioned gears, of an annular series of buckets to which the interposed gear is connected, said buckets being revoluble about the axis of the shafts successively to elevate and discharge a fluent material, there being combined inlets and outlets within the buckets.

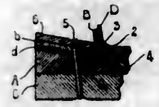
1,134,188. VEHICLE WHEEL-TIRE. SAMUEL FLOERSHEIM, New York, N. Y. Filed Sept. 25, 1914. Serial No. 863,428. (Cl. 152—8.)



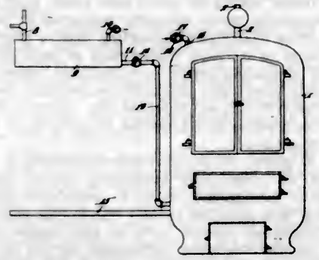
A vehicle tire comprising a continuous circular helical spring adapted to be fitted peripherally around a wheel, a tread and an annular series of independent tread plates interposed between said tread and said spring, said tread plates being arranged continuously end to end, each plate of the series being provided at each end with an inwardly presented pair of lugs receiving a convolution of said spring between them but allowing free movement along the axis of the spring of the convolutions in the space between said pairs of lugs, the spring being otherwise unattached to any part.

1,134,189. SHOE. ALONZO FRAZER, St. Louis, Mo. Filed Apr. 1, 1913. Serial No. 758,185. (Cl. 36—16.)

In a shoe, an upper comprising an outer member and a lining, and a combined inner and outer sole member consisting of a single piece of material having an undercut abutment provided with an upstanding face to which the lining is fitted, said undercut abutment corresponding in location to the edge of an inner sole, and the said undercut abutment terminating in a free feather edge which engages said lining, both the outer member of the upper and the lining being turned outwardly at the base of said undercut abutment and sewed to said combined inner and outer sole member at points beyond the base of said undercut abutment; combined with members driven through substantially vertical portions of both the lining and outer member of said upper and into the upstanding face of said undercut abutment at points above the base of said undercut abutment, so as to firmly force the lining against the upstanding face of said abutment, thereby reinforcing the shoe at the junction of said upper and the combined inner and outer sole member, at the same time firmly forcing said lining against said free feather edge.

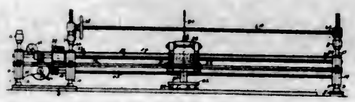


1,134,190. HEATING SYSTEM. JOSEPH H. GIARTH, Altoona, Pa. Filed Apr. 3, 1913. Serial No. 758,690. (Cl. 237—68.)



A heating system, including a generator, a radiator, a supply pipe connecting the radiator to the generator, a return pipe connected to the radiator, a condensation tank connected to said return pipe, an air outlet pipe connected to said tank and having an outwardly opening check valve therein, and an air inlet pipe communicating with the steam space of the generator and having an inwardly opening check valve therein, said inlet pipe adapted to admit air into the generator when the pressure therein falls below that of the atmosphere.

1,134,191. POLISHING-MACHINE. JOHN G. GIESBERG, Houston, Tex. Filed Feb. 21, 1914. Serial No. 820,326. (Cl. 51—11.)



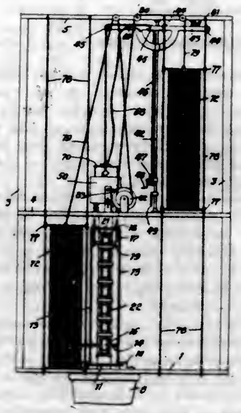
1. A polishing machine including a track, supporting members therefor, a rotatable abrading member, a mechanism slidably mounted on said track and operatively connected with said abrading member, a driving means in operative connection with said mechanism, through which said abrading member is rotated, means for moving said abrading member and its operative mechanism back and forth along said track, means for automatically reversing said moving means, and means for elevating and lowering said track and its appendants on said supporting member.

2. A polishing machine including a track, supporting members therefor, a rotatable abrading member suspended from and movable lengthwise relative to said track, a driving means operatively connected with said abrading member and rotating the same, means in operative connection with said driving means and abrading member and operating to drive said abrading member back and forth along said track, a mechanism for reversing said last mentioned means at predetermined intervals and a manual mechanism for elevating and lowering said track and its appendants upon said supporting members.

3. A polishing machine including a track, supporting members therefor, means for elevating and lowering said track upon said supporting members, a frame slidably mounted on the track, a rotatable abrading member depending from the frame and having a limited oscillatory movement relative to the track, a drive shaft operatively connected with said abrading member and rotating the same, a screw shaft having operative connection with said frame and provided to drive the same back and forth along said track, a mechanism for operatively connecting said drive shaft and screw shaft, means actuated by said frame and automatically reversing said mechanism at predetermined intervals.

4. A polishing machine including a track, supporting members therefor, a rotatable abrading member, a mechanism slidably mounted on said track and operatively connected with said abrading member, a fluid passageway being provided which leads through said abrading member to the operative surface thereof, a fluid-pipe in communication with said passageway, a driving means in operative connection with said mechanism through which said abrading member is rotated, means for moving said abrading member and its operative mechanism back and forth along said track and means for elevating and lowering said track and its appendants on said supporting members.

1,134,192. GLASS-DRAWING APPARATUS. ELISÉE GUELFF, LEON S. DUNN, and VICTOR THENIS, Point Marion, Pa. Filed Sept. 5, 1912. Serial No. 718,771. (Cl. 49—17.1.)



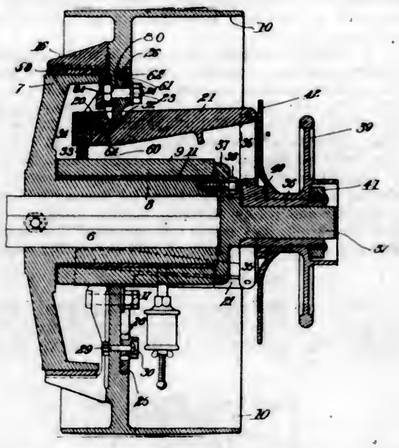
1. In a glass drawing apparatus, a frame work, cylinder chains arranged upon said frame work for moving a cylinder vertically thereof, a drawing head movably supported in said frame work, said drawing head comprising a casing, expansible walls arranged in said casing for gripping the end of a cylinder movable between said chains, and means for supplying air to said casing to expand the walls within said casing.

2. In a glass drawing apparatus, the combination with a drawing head, of adjustable oppositely disposed endless

guides, said guides comprising angle frames, sprocket chains movable between said frames, cylinder gripping members carried by said chains, means for imparting movement to said chains, and means including pivoted yokes for adjusting said angle frames whereby cylinders of various diameters can be moved by said guides.

3. In a glass drawing apparatus, the combination with a glass pot, laterally adjustable chains located above said glass pot, and means for adjusting said chains, of a pneumatic drawing head adapted to move and draw a cylinder between said chains, said drawing head comprising a casing, flexible expansible walls arranged within said casing for gripping the upper end of a cylinder, means for supplying air to said casing to expand said walls, and means for elevating said drawing head.

1,134,193. FRICTION-CLUTCH. IVEN L. HAINES, Cuyahoga Falls, Ohio, assignor of one-fourth to John Motznik and one-fourth to Rudolf D. Motznik, Cuyahoga Falls, Ohio. Filed Apr. 9, 1914. Serial No. 830,702. (Cl. 192—11.)



1. The combination of a rotary friction wheel, a rotary member, jaws movably mounted on said member, and adapted to grip the wheel, fulcrum blocks adjustably mounted on said member an adjusting ring mounted on said member and operatively engaging said blocks, levers bearing on said blocks and connected to the jaws, and means to operate said levers.

2. The combination of a rotary friction wheel, a rotary member, radially movable jaws mounted on said member, fulcrum blocks adjustable radially on said member, an adjusting ring mounted on said member and having cam surfaces bearing against said fulcrum blocks, means to turn the ring, and operating levers bearing on said blocks and connected to the jaws.

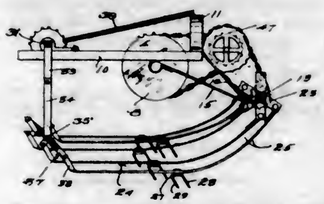
3. The combination of a rotary friction wheel, another wheel having spider arms provided with radial guides on one side thereof, axially projecting jaws slidable radially in said guides and arranged to grip the rim of the friction wheel, levers fulcrumed in said arms and extending across through openings in said arms and connected at one end to the jaws, on one side of the arms, and operating devices connected to the opposite ends of the levers on the other side of the arms.

4. The combination of a rotary friction wheel, a rotary member having spider arms with openings therethrough, jaws slidable on one side of the arms and projecting outwardly and axially therefrom to grip the exterior of the friction wheel, levers extending through said openings and connected at their inner ends to said jaws, said levers having sockets on the outer sides thereof, fulcrum blocks attached to the arms outside of the levers and projecting into said sockets, and operating devices connected to the outer ends of the levers.

5. The combination of a rotary friction wheel, a rotary member, radially movable jaws mounted on said member, fulcrum blocks adjustable radially on said member and having projecting bosses, an adjusting ring mounted to turn on said member and having cam grooves into which said bosses project, means to turn the ring, and operating levers fulcrumed on said blocks and connected to the jaws.

[Claim 6 not printed in the Gazette.]

1,134,194. CULTIVATOR AND WEEDER. JOHN S. HARRIS, Govan, Wash. Filed Apr. 24, 1914. Serial No. 834,225. (Cl. 97—25.)



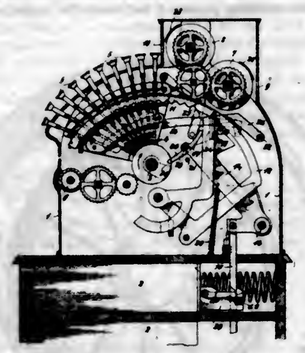
1. In a device of the character described, a frame, crank shafts journaled in said frame, supporting bars journaled in said frame, means to rotate said crank shafts, instrument supporting beams pivotally connected at their ends to said crank shafts and supporting bars, a plate secured intermediate of its ends transversely of each of said instrument supporting beams, an instrument secured at each end of said plates and extending rearwardly thereof and an instrument secured adjacent the central portion of each of said plates and arranged in advance of said first named instruments.

2. In a device of the character described, a frame, a plurality of instrument supporting beams operatively mounted in said frame, means to move said beams back and forth, bars mounted in said frame, link members pivotally connecting certain ends of said beams with said bars, a ground engaging instrument carried by each of said beams, said links having longitudinal slots therein to receive said bars, arms loosely mounted on said bars, expansion springs mounted on said arms, and plates secured to said links engaging certain ends of said springs and slidable upon said arms.

3. In a device of the character described, a frame, crank shafts mounted in said frame, means to rotate said crank shafts, bars mounted in said frame, a plurality of instrument supporting beams pivotally connected at certain of their ends to said crank shafts, a ground engaging instrument carried by each of said beams, substantially upright link members pivotally connecting said beams with said bars, said link members being provided with longitudinal slots to receive said bars, and means operatively connected with said bars and link members to permit yielding of said beams upon engagement of said ground engaging members with rocks or hard surfaces.

4. In a cultivator or weeder, a frame, wheels supporting the frame, a plurality of instrument supporting bars mounted within the frame, a ground engaging instrument carried by each of said bars, means to move the instrument supporting bars back and forth so that the instruments thereon are moved toward the ground when said bars are traveling in a direction opposite to the direction of travel of the frame, said means being operatively connected with the wheels of the frame, link members connecting certain ends of the beams with the frame, arms loosely mounted on said frame, expansion springs mounted on said arms, and plates secured to said link members, engaging certain ends of said spring and slidable upon said arms.

1,134,195. CASH-REGISTER. WOLDEMAR REINHOLD HEINITZ, Chemnitz, Germany, assignor, by mesne assignments, to The National Cash Register Company, a Corporation of Ohio, (incorporated in 1906.) Filed Apr. 28, 1908. Serial No. 429,651. (Cl. 235—9.)



1. In a cash register, the combination with the cash receptacle, of a hook mounted on said receptacle, a catch normally engaging said hook so as to lock the receptacle in closed position, means operated by the closing operation of the receptacle to move said catch and hook out of engagement with each other so as to completely unlock the receptacle, and means to throw said catch and hook into locking position.

2. In a cash register, the combination with the operating mechanism, and locking means therefor, of a cash receptacle, means to lock said receptacle in its closed position, means actuated by said receptacle to completely unlock the same, and means operatively connected with the receptacle to throw the locking means for the operating mechanism out of operation.

3. In a cash register, the combination with the operating mechanism and the cash receptacle, of locking means for the cash receptacle, means actuated by said receptacle to completely unlock the same, automatic means to hold said receptacle locking means in non-locking position, and means controlled by the operation of the operating mechanism to throw said holding means for the receptacle locking means out of operation.

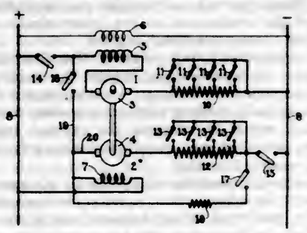
4. In a cash register, the combination with the operating mechanism, and locking means therefor, of a cash receptacle, means to lock said receptacle in its closed position, means actuated by said receptacle to unlock the same, automatic means to hold said receptacle locking means in non-locking position, means operatively connected with the receptacle to throw the locking means for the operating mechanism out of operation, and means controlled by the operation of the operating mechanism to throw said holding means for the receptacle locking means out of operation.

5. In a cash register, the combination with the operating mechanism, of a cash receptacle, a hook mounted on said receptacle, a catch normally engaging said hook so as to lock the same, means operated by the receptacle to move said catch out of engagement with said hook so as to completely unlock the receptacle, and means controlled by the operation of the operating mechanism to throw said catch into locking position.

[Claims 6 to 32 not printed in the Gazette.]

1,134,196. ELECTRIC-MOTOR CONTROLLER. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 2, 1913. Serial No. 793,064. (Cl. 172—179.)

1. In combination, a plurality of electric motors normally coacting to jointly supply power and means for causing one motor to exert a drag on the other for effecting a reduction in the speed of said motors.



2. In combination, a plurality of electric motors, normally coacting to jointly supply power, means connecting the rotors of said motors to insure operation thereof in unison and means for causing one of said motors to exert through said former means a drag on the other of said motors for slowing down said motors.

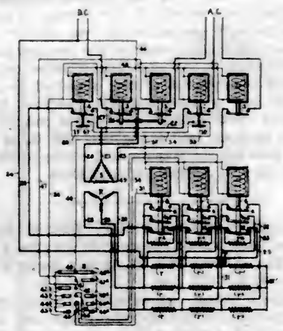
3. In combination, a plurality of driving motors, series fields therefor, means for causing the rotors of said motors to rotate in unison, means for connecting said series fields in series with each other and a dynamic brake for one of said motors whereby said motor may cause a uniform reduction in the speed of said motors regardless of load conditions.

4. In combintaion, a plurality of motors, the rotors of which are connected together, and means for slowing down said motors, said means including means for connecting the fields of said motors in series with each other, and means for closing a local circuit including a resistance around the armature of one of said motors.

5. In combination, a plurality of motors, the rotors of which are connected to rotate together, means for connecting the field of one motor across a source of supply independently of the armature of said motor, and means for closing a dynamic braking circuit around said armature.

[Claims 6 to 15 not printed in the Gazette.]

1,134,197. DYNAMIC-BRAKING CONTROLLER. CLARK T. HENDERSON, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 14, 1913. Serial No. 795,087. (Cl. 172—179.)



1. The method of controlling an alternating current motor for dynamic braking consisting in exciting its stator from a source of direct current and simultaneously regulating the rotor circuit and varying the excitation of the stator.

2. The method of controlling an alternating current motor for dynamic braking consisting in exciting the stator from a source of direct current and varying the excitation of the stator and the resistance of the rotor circuit to corresponding degrees.

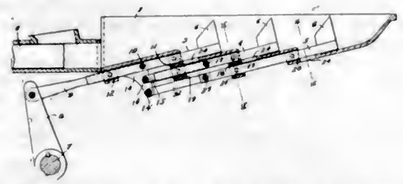
3. The method of controlling an alternating current motor for dynamic braking consisting in exciting the stator by direct current and varying the excitation of the stator and the resistance of the rotor circuit simultaneously and to corresponding degrees.

4. In a dynamic braking controller for alternating current motors, in combination, means for supplying the stator of the motor with direct current, means for regulating the dynamic braking current generated in the rotor circuit, and means for varying the current supplied to the stator, said last two mentioned means being interlocked to operate together.

5. In a dynamic braking controller for alternating current motors, in combination, means for connecting the stator to a source of direct current, means for varying the resistance of the rotor circuit to regulate the dynamic braking action, and means for decreasing the current supplied to the stator upon increase of the resistance of the rotor circuit.

[Claims 6 to 13 not printed in the Gazette.]

1,134,198. STOKER MECHANISM. WILLIAM C. A. HENRY, Columbus, Ohio. Filed July 21, 1913. Serial No. 780,160. (Cl. 110—44.)



1. In combination with a feed trough, a plunger inclined with respect to the trough and working through the bottom thereof, a bearing for the plunger where it passes through the bottom of the trough, a second bearing for the plunger spaced to the rear of the other bearing, means for operating the plunger secured thereto intermediate the two bearings, a second plunger in advance of the first mentioned plunger, and a connection from said first mentioned plunger intermediate the two bearings for operating the said second plunger.

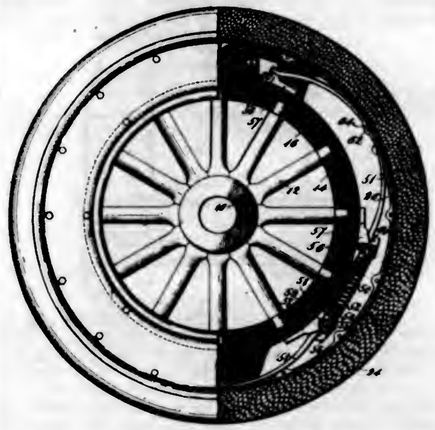
2. In combination with a feed trough, a plunger inclined with respect to the trough and working through the bottom thereof, a bearing for the plunger where it passes through the bottom of the trough, a second bearing for the plunger spaced to the rear of the other bearing, a connecting rod pivoted to the plunger intermediate the two bearings and having a downward extension, means for operating the connecting rod, a second plunger in advance of the first plunger and also working through the bottom of the trough, and a connecting rod for operating said second plunger, said connecting rod being pivoted at one end to said second plunger and at the other end being pivoted to the said downward extension.

1,134,199. RESILIENT WHEEL. JOHN J. HESSE, Boston, Mass., assignor of one-half to William A. Connelly, Boston, Mass. Filed Feb. 21, 1912. Serial No. 679,021. (Cl. 152—37.)

1. A resilient wheel, comprising an inner rim and an outer rim, a plurality of coiled springs and a plurality of bowed springs arranged alternately circumferentially, and means located between each end of each bowed spring and the opposing end of each coiled spring for varying the compression of said springs.

2. A resilient wheel comprising an inner rim and an outer rim, a circumferential series of alternately bowed springs and coiled springs located between said rims, a block interposed between the adjacent ends of each of said bowed and coiled springs, respectively, and means carried by said blocks for varying the pressure on all of said springs longitudinally thereof.

3. A resilient wheel, comprising an inner rim and an outer rim, a plurality of coiled springs, a block at each end of each of said coiled springs, said blocks being provided with notches on their outer faces, a plurality of bowed springs alternating with said coiled springs and having their ends held in said notches, and adjustable means for exerting pressure between the coiled and bowed springs.



4. A resilient wheel, comprising an inner rim and an outer rim, a plurality of coiled springs, a block at each end of each coiled spring, a bowed spring between each pair of coiled springs having its ends mounted in a pair of said blocks, and means carried by said blocks for varying the pressure upon said springs.

5. A resilient wheel, comprising an inner rim and an outer rim, said inner rim being provided with a peripheral groove, a plurality of coiled springs, a block at each end of each of said springs and held in said groove, a plurality of bowed springs bearing against the interior of said outer rim and having their ends held in said blocks, and screws carried by said blocks for adjusting the compression of said springs.

[Claims 6 and 7 not printed in the Gazette.]

1,134,200. PROCESS AND APPARATUS FOR TREATING PRESSED GLASS ARTICLES. HERMAN A. HEUPEL, Charleroi, Pa., assignor to Macbeth-Evans Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 30, 1910. Serial No. 579,709. (Cl. 49—8.)



1. The combination with a mold for a glass shell, of means coöperating therewith to hold the glass shell in form after the forming means has been withdrawn comprising a cover for the open side of the shell, means for supplying fluid under pressure through the cover, and a baffle plate carried by and fixed to the cover and extending transversely of the path of the fluid supplied and within the open end of the shell.

2. In combination with a mold for a glass shell, a cover for the open side of the shell, provided with a wall projecting into the shell but spaced away from the walls thereof, a baffle means beneath the cover and spaced away therefrom, and means for supplying air through the cover to the space between the cover and the baffle means.

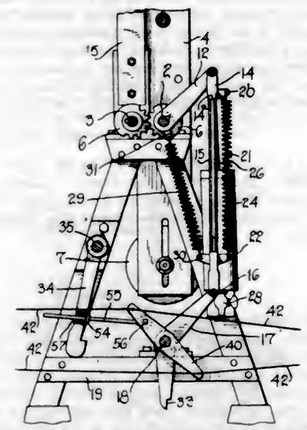
3. The combination with a mold for forming glass shells, of a means for maintaining the plastic glass in its molded form after the die or former has been withdrawn from the mold comprising a member for closing the open side of the shell provided with a depending hollow member projecting into the shell and spaced away from the sides and bottom thereof when such member is in its lowest position means for admitting air under pressure through the said closure member at a point within the hollow member and thence to the space outside the said member.

4. The combination with a mold for forming a glass shell, of a cover for the open side of the mold provided with a wall spaced away from the walls of the shells, a plate secured to the cover adjacent the edge of the wall portion thereof, means for admitting air under pressure through the cover, and means on the plate for deflecting the current of air upwardly.

5. The herein described process of forming pressed glass articles which consists in completely forming the article in a mold by means of a die or former, then in withdrawing the former from the article, then in closing the open side of the article and in maintaining the article in its molded form by means of air under compression.

[Claims 6 to 9 not printed in the Gazette.]

1,134,201. RAILWAY-GATE. JOHN A. HOAR and GEORGE W. HOAR, Oskaloosa, Iowa. Filed Dec. 14, 1914. Serial No. 877,172. (Cl. 39—35.)



1. A device of the character described comprising a suitably supported shaft, a gate member fixed thereto, a rock arm projecting from the shaft, a controlling lever pivotally supported at a point below the shaft, an elongated member pivotally engaged with the rock arm, a second elongated member pivotally engaged with the controlling lever, said elongated members being telescopically engaged, a retractable member connecting the elongated members, and means for imparting movement to the controlling lever in one direction whereby the elongated member carried thereby is moved independently of the coacting elongated member carried by the rock arm.

2. A device of the character described comprising a suitably supported shaft, a gate member fixed thereto, a rock arm projecting from the shaft, a controlling lever pivotally supported at a point below the shaft, an elongated member pivotally engaged with the rock arm, a second elongated member pivotally engaged with the controlling lever, said elongated members being telescopically engaged, a retractable member connecting the elongated members, means for imparting movement to the controlling lever in one direction whereby the elongated member carried thereby is moved independently of the coacting elongated member carried by the rock arm, and means coacting with the controlling lever for holding the same against movement in an opposite direction.

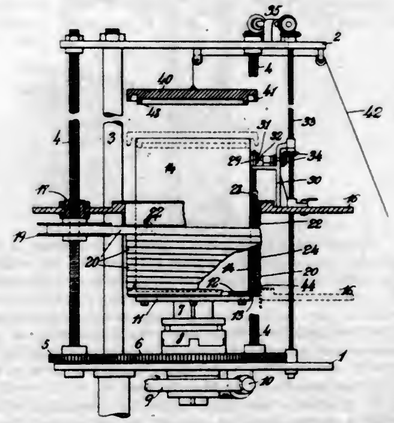
3. A device of the character described comprising a suitably supported shaft, a gate member fixed thereto, a rock arm projecting from the shaft, a controlling lever pivotally supported at a point below the shaft, an elongated member pivotally engaged with the rock arm, a second elongated member pivotally engaged with the controlling lever, said elongated members being telescopically engaged, a retractable member connecting the elongated members, means for imparting movement to the controlling lever in one direction whereby the elongated member carried thereby is moved independently of the coacting elongated member carried by the rock arm, means coacting with the controlling lever for holding the same against movement in an opposite direction, and means carried by the operating means for the controlling lever for releasing the holding means.

4. A device of the character described comprising a suitably supported shaft, a gate member fixed thereto, a rock arm carried by the shaft, a controlling lever, an elongated member pivotally engaged with the rock arm, a second elongated member pivotally engaged with the controlling lever, said elongated members being telescopically engaged, a retractable member connecting the elongated members, a second retractable member interposed between the shaft and the second elongated member, and means for imparting movement to the controlling lever whereby a second elongated member is initially moved independently of the first named elongated member and whereby the retractable members are put under tension.

5. A device of the character described comprising a suitably supported shaft, a gate member fixed thereto, a rock arm carried by the shaft, a controlling lever, an elongated member pivotally engaged with the rock arm, a second elongated member pivotally engaged with the controlling lever, said elongated members being telescopically engaged, a retractable member connecting the elongated members, a second retractable member interposed between the shaft and the second elongated member, means for imparting movement to the controlling lever whereby a second elongated member is initially moved independently of the first named elongated member and whereby the retractable members are put under tension, and means for holding the controlling lever against movement in an opposite direction.

[Claim 6 not printed in the Gazette.]

1,134,202. APPARATUS FOR MAKING CEMENT PIPES. ALEXANDER V. JENSEN, Brooklyn, N. Y. Filed Apr. 23, 1912. Serial No. 692,732. (Cl. 25—30.)



1. An apparatus for making reinforced cement pipe comprising a core, means for depositing a plastic material onto said core to form the pipe, means for supplying the latter with reinforcement, a flexible member and means

for winding the latter around the pipe to support the same.

2. An apparatus for making reinforced cement pipe comprising a collapsible core, means for depositing a plastic material onto said core to form the pipe, an outer shell for supporting the pipe while it is being made, means for embedding reinforcing members in the wall of the pipe as it is being made, means for rotating said core, a flexible member, and means for wrapping the latter around the pipe to support the same while it is being made.

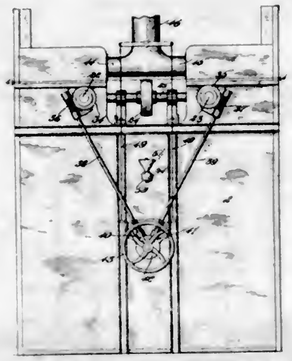
3. An apparatus for making reinforced cement pipe comprising an inner core, a shell surrounding said core and spaced therefrom to form a circular mold, means for supplying material to the latter, stamping means for compressing the material in said mold, a flexible member and means for wrapping the latter around the pipe to support the same after being formed in said mold.

4. An apparatus for making cement pipe comprising a core, a platform, a circular shell supported on the latter and surrounding said core, but spaced therefrom to form an annular mold around the same, means supported on said platform for feeding material to said mold, means for operating said platform to cause the said formed mold and the said feeding means to be shifted lengthwise of the said core as the pipe is being formed around the latter, a flexible member and means for wrapping the same around the formed pipe below the said circular shell.

5. An apparatus for making cement pipe comprising a core, a circular member surrounding the same but spaced a distance therefrom whereby an annular space is formed between said core and said circular member, means for supplying material to the said space to form the pipe therein, means for moving the said circular member upwardly the length of the core as the pipe is being formed and flexible means adapted to be wound around the core to support the material thereon after the pipe has been formed within the said space.

[Claims 6 and 7 not printed in the Gazette.]

1,134,203. BRONZING-MACHINE. BENJAMIN H. JONES, St. Louis, Mo. Filed Nov. 9, 1911. Serial No. 659,295. (Cl. 91—59.)



1. In apparatus for applying powder to articles, a substantially closed chamber adapted to receive the articles to be operated upon, means for circulating the air within said chamber, and means for supplying powder to said circulating air, said air circulating means comprising a pair of rotating fans mounted in the upper part of said chamber, and adapted to oscillate simultaneously in opposite directions about parallel horizontal axes in a vertical plane lengthwise of the chamber.

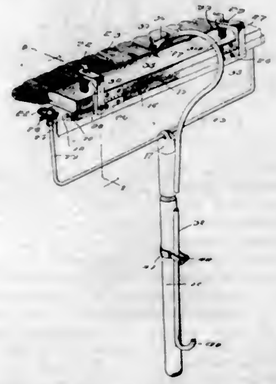
2. In apparatus for applying powder to articles, a substantially closed chamber adapted to receive the articles to be operated upon, means for circulating the air within said chamber, and means for supplying powder to said circulating air, said air circulating means comprising a plurality of rotating fans mounted at opposite ends of the chamber on oscillating axes, and means for simultaneously oscillating said fans toward and from each other in the same vertical direction.

3. An apparatus for creating variable air currents in the chamber of a powdering machine comprising fans arranged to rotate in opposite directions, said fans being mounted on oppositely disposed pivotally supported arms, means for driving said fans from without said chamber, said driving means comprising a shaft extending into said chamber and provided with bevel gears on either end, idler bevel gears rotatably mounted on the pivotal axes of said arms meshing with said first mentioned bevel gears, and adapted to drive bevel gears carried by the pivotally supported arms and meshing therewith, said last named bevel gears being connected with the fans and means for oscillating said arms, said means being operable from the exterior of the casing.

4. An apparatus for creating variable air currents in the chamber of a powdering machine comprising fans mounted on oppositely disposed pivotally supported arms, means for driving said fans from without said chamber, and means for oscillating said arms, said means being operable from the exterior of the casing, and comprising gears on extensions of the arms projecting without the casing meshing with gears carried by shafts adapted to be rotated by hand operated means.

5. In an apparatus for applying powder to articles by means of air currents, a casing adapted to receive the articles to be operated upon, fans rotatably mounted on oppositely arranged oscillating arms within said casing and adapted to be driven from the exterior thereof, said fans being arranged to circulate air simultaneously in opposite directions when the arms are horizontally disposed, and means for causing said arms to oscillate together in the same vertical direction.

1,134,204. COMBINED CLEANER AND PAPER-HANGER. JOHN WILLIAM JONES, ALBERT EDWARD PRICE, and WILLIAM WHILEY PRICE, East Liverpool, Ohio. Filed May 12, 1914. Serial No. 838,121. (Cl. 216—7.)



1. A device of the character described including a handle carried yoke, a head revolubly supported in the yoke, means for clamping the head in adjusted position, a brush carried by and extending longitudinally of the head, and a clamping plate hinged to the head and normally held in close engagement therewith.

2. A device of the character described including a handle carried yoke, a head supported in the yoke, a brush carried by and extending longitudinally of the head, a clamping plate hinged to the head and means normally holding it in close engagement therewith, said holding means including L-shaped brackets carried by the head and extending by their free arms over the clamping plate, said arms being slotted, keeper hooks carried by the clamping plate and extending through the slots of the brackets, and springs bearing between the clamping plates and brackets and surrounding the keeper hooks.

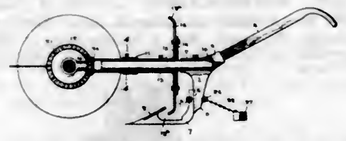
3. A device of the character described including a handle carried yoke, a head revolubly mounted in the yoke, means for securing the head in adjusted position, a clamping plate hinged to the head, means for yieldably holding the clamping plate in engagement with the head, and means for swinging the clamping plate away from the head.

4. A device of the character described including a handle carried yoke, a head revolubly mounted in the yoke, means for holding the head in adjusted position, a clamping plate hinged to the head, means for yieldably holding the clamping plate in engagement with the head, and means for swinging the clamping plate away from the head, irrespective of the position of the latter, said means including an operating rod having slidable connection with the handle, and an arcuate terminal pivotally connected to the intermediate portion of the clamping plate.

5. A device of the character described including a handle, a socket having detachable connection with the handle, a yoke having spaced arms, a head revolubly mounted between said arms, means for clamping the head in adjusted position, a brush carried by and extending longitudinally of the head, and a clamping plate connected to the head and normally engaging against the head, the engaging surfaces between the plate and head lying in a plane parallel to the plane of the brush.

[Claims 6 and 7 not printed in the Gazette.]

1,134,205. POTATO-DIGGING MACHINE. NOAH KEELER, Wallace, N. Y. Filed June 11, 1914. Serial No. 844,426. (Cl. 55—56.)



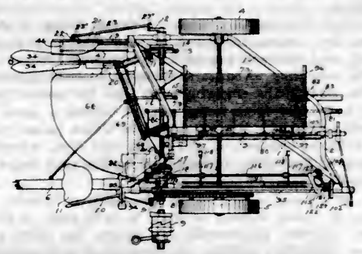
1. In a potato digging machine, a combination with a pair of traction wheels; of a reel having a plurality of arms and means for rotating the said reel; a body portion; controlling handles therefor; a potato raising blade and means for connecting said blade to the body portion; means for connecting said body portion to said traction wheels, and a drag iron attached to said body portion.

2. A potato digging machine comprising a body; controlling handles therefor; a potato raising blade; a reversible rotating reel having a plurality of arms and means for rotating the said reel; a drag iron attached to said body portion whereby the furrow made by the blade is filled.

1,134,206. TOBACCO-HARVESTER. ROBERT NEWTON KING, Dayton, Ohio. Filed Feb. 17, 1912. Serial No. 678,269. (Cl. 131—21.)

1. In a harvesting machine, a traveling main frame, severing devices for the stalks, a removable support for the severed stalks carried upon the main frame in a plane above that of the severing devices, and an inclined needle extending from a point adjacent to the severing devices to the removable support with which it registers, and means for shifting the impaled stalks throughout the length of the needle onto the support, substantially as specified.

2. In a harvesting machine, a traveling main frame, stalk severing means carried thereby, a reciprocating supporting member for the stalk to be harvested, means to thrust said supporting member to a position to engage the forward side of the stalk to be harvested prior to the severing thereof, means to retract said supporting member in relation to the main frame and an impaling needle projecting in proximity to the severing devices and into the path of the supporting member upon which the stalk is drawn by the retrograde movement of the support.



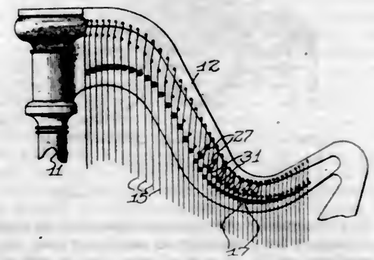
3. In a harvesting machine, a traveling main frame, stalk severing and impaling devices, a reciprocating head, stalk engaging means carried by the head and capable of movement laterally into and out of alinement with the stalk in addition to its reciprocatory movement in unison with the head and adapted to form an abutment for the stalk during the stalk impaling operation, actuating means for moving the stalk engaging means laterally into alinement with the stalk as the reciprocating head approaches the limit of its stroke in one direction, and for withdrawing the stalk engaging means from alinement with the stalk as the said head approaches the opposite limit of its stroke.

4. In a harvesting machine, a traveling main frame, stalk severing devices, and an impaling needle carried on the frame, means for conveying the impaled stalk a limited distance upon the needle in upright position, and means for rotating the stalk about the impaling needle to recumbent position, substantially as specified.

5. In a harvesting machine, a traveling frame, stalk severing devices carried thereby, a support upon which the severed stalks are impaled, a reciprocating member extending adjacent to and parallel with the support, fingers carried by the reciprocating member adapted to simultaneously engage all the impaled stalks and advance them upon the support as the member is reciprocated in one direction, but inoperative when the member is reciprocated in the opposite direction.

[Claims 6 to 35 not printed in the Gazette.]

1,134,207. HARP. WALTER I. KIRK, Chicago, Ill., assignor to Lyon & Healy, Chicago, Ill., a Corporation of Illinois. Filed Oct. 9, 1911. Serial No. 653,652. (Cl. 84—14.)



1. In a musical instrument, a tuned string, a sharping finger for raising the pitch of said string, and means for limiting the rotation of said finger, said finger being so positioned with respect to said string that the tension of the string holds said finger in operated position.

2. In a musical instrument, a tuned string, a sharping finger for raising the pitch of said string, a disk upon which said finger is eccentrically mounted, means for rotating said disk to cause said finger to bear against said string, means for stopping said finger at a point past the

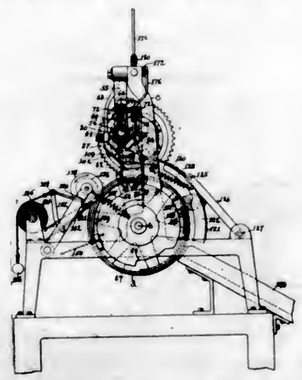
center line of said disk which passes through the point of contact between said string and disk, whereby the tension of the string automatically holds said finger in operated position.

3. In a musical instrument, a tuned string, a sharping finger for raising the pitch of said string, a disk upon which said finger is eccentrically mounted, means for rotating said disk to cause said finger to bear against said string, and means engaging said disk for preventing said disk and finger from being rotated beyond a point which is past the center line of said disk which passes through the point of contact of said string and disk, whereby the tension of the string automatically holds said finger in operative position.

4. In a harp, a column, a neck secured thereto, a plurality of tuned strings secured to said neck, a sharping finger adjacent each string for raising the pitch of that string, means for limiting the rotation of said fingers, said fingers being so positioned with respect to their respective strings that the tension of the strings holds their respective fingers in operative position, and operating handles mounted upon said neck for operating said sharping fingers.

5. In a harp, a column, a neck secured thereto, a plurality of tuned strings secured to said neck, a sharping finger located adjacent to each string for raising the pitch of said strings, a disk upon which each finger is eccentrically mounted, means for rotating said disks to cause said fingers to bear against their respective strings, means for engaging said disks for preventing said disks and fingers from being rotated beyond a point which is past the center line of said disks which passes through the point of contact of said strings and their respective disks, whereby the tension of said strings operatively holds said fingers in operative position, and operating handles mounted upon said neck for operating said sharping fingers.

1,134,208. MACHINE FOR COVERING CIRCULAR OBJECTS. CARL JOHN LANDIN, Boston, Mass., assignor to Boston Woven Hose and Rubber Company, Cambridge, Mass., a Corporation of Massachusetts. Filed Dec. 23, 1912. Serial No. 738,157. (Cl. 93—5.)



1. In a machine of the character described, in combination, a support for a plurality of uncovered rolls, an endless carrier movable on said support and on which said rolls rest, mechanism for moving said endless carrier intermittently, a rotatable bed roll, means for feeding a layer of covering material onto the periphery of said bed roll, means for transferring the uncovered rolls in succession from the endless carrier to the periphery of said bed roll, and means coöperating with the bed roll to press the uncovered roll down on the covering material thereon and cause the latter to be wound upon the uncovered roll by the rotation of the latter by the bed roll, substantially as described.

2. In a machine of the character described, in combination, a rotatable bed roll to support a layer of covering material, means to feed a layer of covering material thereon, a support for uncovered rolls, a rotatable drum carrying a spindle movable with the drum in the rotation of the latter and transversely of said drum to engage an uncovered roll and transfer it from its support to the bed roll, substantially as described.

3. In a machine of the character described, in combination, a rotatable bed roll to support a layer of covering material, a rotatable drum coöperating therewith and provided with a reciprocating spindle to engage an uncovered roll and transfer it to the periphery of said bed roll, and means to operate said parts, substantially as described.

4. In a machine of the character described, in combination, a rotatable drum, a spindle carried thereby and reciprocating transversely thereof, means to rotate said drum, means to reciprocate said spindle while it is being moved in a circular path by said drum, cams carried by said drum, and a feed mechanism reciprocated by said cams to feed the uncovered rolls toward said rotatable drum.

5. In a machine of the character described, in combination, an endless carrier to support a plurality of uncovered rolls, means to move said carrier intermittently, a bed roll upon the periphery of which a layer of covering material for the uncovered rolls is supported, and means to transfer an uncovered roll from the endless carrier to said bed roll to cause the circumference of the uncovered roll to engage the covering material supported by the bed roll, and means coöperating with said bed roll to wind the said covering upon the uncovered roll resting on the bed roll.

[Claims 6 to 14 not printed in the Gazette.]

1,134,209. WEATHER-STRIP. ALFRED M. LANE, St. Louis, Mo., assignor to Monarch Metal Weather Strip Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 26, 1914. Serial No. 814,297. (Cl. 20—69.)



1. In a weather strip, a member formed of a resilient strip of metal and comprising a marginal portion adapted to be fastened to a window frame, an intermediate portion bent at an obtuse angle to said marginal portion to extend away from the face of the window frame when fastened thereto, an opposite marginal portion bent to form a pocket, the marginal edge of said opposite marginal portion being formed with a bead lying close to said opposite portion, and a second member coöperating with said first named member and comprising a marginal portion adapted to be fastened to a window sash, an intermediate portion bent to form a groove adapted to receive said bead, and a tongue adapted to engage said intermediate portion of said first named member and be guided between said bead and said opposite marginal portion into said pocket.

2. A weather strip comprising two coöperating members adapted for attachment, one to each of two relatively movable parts, one member being resilient and mounted with its body portion extended normally across the path of movement of the other member, the free marginal portion of said first named member having a pocket, the mouth edges of said pocket being held resiliently close to one another, one of said mouth edges being bent to form a bead, and said second named member being made of relatively stiff material and formed with a groove adapted to receive the bead on said first named member, one side of said groove forming a relatively rigid tongue adapted to engage the body portion of said first named member and be guided into said pocket.

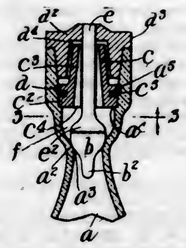
3. The combination with the sides of a window frame and a sash mounted to swing in said frame, of a member attached to each one of said sides and formed of a relatively flexible and resilient strip secured to said side near one marginal edge, the opposite marginal portion of said strip being bent upon itself to form a pocket having its free edge beaded and bent to lie close to said opposite marginal portion, the body portion of said strip extending away from the face of the window frame, and a second member made of relatively stiff material and secured near its marginal edges to a side of said sash, said strip having its intermediate portion bent to form a groove adapted to receive said bead and a tongue extending from one edge of said groove and adapted to engage the body portion of said first named member and be guided into said pocket.

4. A member of a weather strip formed of a resilient piece of metal, and comprising a marginal portion adapted to be attached to a window frame, an intermediate portion extending at an obtuse angle to said marginal portion, a pocket at the edge of said intermediate portion having one of its sides arranged parallel to said marginal portion and its other side formed with a beaded edge which normally lies close to the edge of said first named side of said pocket.

5. In a weather strip, the combination of two coöperating members, one member comprising a resilient metal strip fastened near one longitudinal margin thereof and having the other longitudinal marginal portion thereof bent upon itself to form a pocket, said strip being bent longitudinally between the bottom of said pocket and said first-mentioned margin, said pocket having a relatively narrow throat, and the other member comprising a relatively stiff metal strip having a tongue adapted to enter said pocket.

[Claims 6 to 9 not printed in the Gazette.]

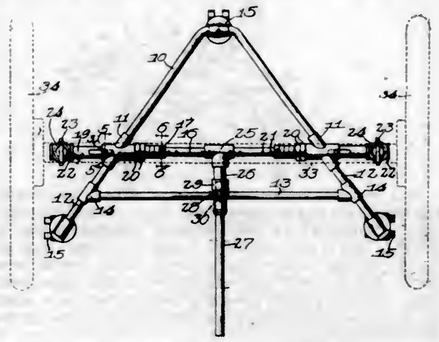
1,134,210. NON-REFILLABLE BOTTLE. EDWARD A. LANGTON, New York, N. Y., assignor of one-half to Charles T. Hayner, New York, N. Y. Filed Apr. 4, 1914. Serial No. 829,411. (Cl. 215—65.)



A bottle or other vessel provided with a neck in the bottom of which is an annular valve seat, a valve adapted to be seated on said valve seat and provided with a downwardly directed projection, a hollow plug secured in said neck and having an upwardly directed extension, a stopper adapted to close said neck and provided centrally of the bottom thereof with a recess or chamber adapted to receive the extension of the plug, and a rod passed upwardly through said plug and secured in said stopper and movable longitudinally through said plug and provided at its lower end with a head normally supported adjacent to said valve.

1,134,211. AUTOMOBILE JACK-TRUCK. ROBERT MCCALMONT, Franklin, Pa. Filed Apr. 15, 1912. Serial No. 691,019. (Cl. 254—89.)

1. In a jack truck the combination with a truck-structure of a rocking member comprising a pair of axle-supports adapted to engage opposite ends of a vehicle axle and a cross-piece rigidly connecting said axle-supports, said rocking member being revolubly mounted on the truck so that the axle-supports when applied to the axle may stand oblique to the vertical, means for turning said rocking member so as to cause said axle-supports to pass through the vertical and assume a position approximating the vertical to raise the vehicle, and means for holding the rocking member in this position.



2. In a jack truck the combination with a truck-structure of a rocking member comprising a pair of axle-supports adapted to engage opposite ends of a vehicle axle and a cross-piece rigidly connecting said axle-supports, said rocking member being revolubly mounted on the truck so that the axle-supports when applied to the axle may stand oblique to the vertical, a lever rigid with said rocking member for turning said rocking member so as to cause said axle-supports to pass through the vertical and assume a position approximating the vertical, and means for holding said rocking member in this position.

3. In a jack truck the combination with a truck-structure of a rocking member comprising a pair of axle-supports adapted to engage opposite ends of a vehicle axle and a cross-piece rigidly connecting said axle-supports, said rocking member being revolubly mounted on the truck so that the axle-supports when applied to the axle may stand oblique to the vertical, and means for turning said rocking member so that said axle-supports assume a position on the other side of the vertical from the first position but at an angle from the vertical less than the angle made by the supports in the first position, said truck being provided with means for supporting the rocking member in the second-named position.

4. In a jack truck the combination with a truck-structure of a rocking member comprising a pair of axle-supports adapted to engage opposite ends of a vehicle axle and a cross-piece rigidly connecting said axle-supports, said rocking member being revolubly mounted on the truck so that the axle-supports when applied to the axle may stand oblique to the vertical and a lever rigid with said rocking member for turning said rocking member so that said axle-supports assume position on the other side of the vertical from the first-named position but at an angle from the vertical less than the angle made by said supports in the first-named position, said truck being provided with a member on which said lever bears to support the rocking member in the second-named position.

5. In a jack truck the combination with a truck-structure of a rocking member comprising a pair of axle-supports adapted to engage opposite ends of a vehicle axle and a cross-piece rigidly connecting said axle-supports, said rocking member being revolubly mounted on the truck so that the axle-supports when applied to the axle may stand oblique to the vertical, means for turning said rocking member so that said axle-supports assume a position on the other side of the vertical from the first position but at an angle from the vertical less than the angle made by the supports in the first position, said truck being provided with means for supporting the rocking member in the sec-

ond-named position, and a locking device for holding the rocking member against accidental displacement from the last-named position.

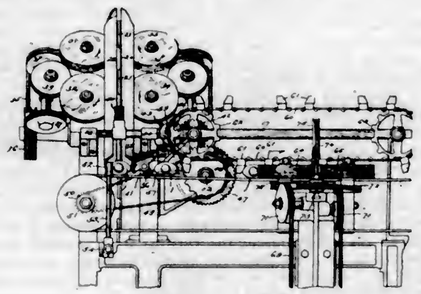
[Claims 6 and 7 not printed in the Gazette.]

1,134,212. CAR-REPLACER. DANIEL W. MARTIN, Lufkin, Tex. Filed Apr. 25, 1913, Serial No. 763,672. Renewed Dec. 18, 1914. Serial No. 877,973. (Cl. 104—163.)



In a device of the class described, a body having a sloping upper face and provided along one of its upright edges with a depressed deck which projects beyond said edge of the body and is provided in its under face with a rail receiving recess, there being a lifting block formed integrally with the deck and connected with said edge of the body, the lifting block extending laterally beyond a vertical plane passing through the longitudinal center of the rail receiving recess.

1,134,213. MACHINE FOR CLEANING THE EXTERIORS OF RECEPTACLES. JOSEPH MERRITT and ERNEST WALKER SMITH, Hartford, Conn. Filed Oct. 30, 1912. Serial No. 728,629. (Cl. 141—7.)



1. A machine for cleaning the exteriors of receptacles, having a way that is curved longitudinally and twisted transversely for guiding the receptacles and giving them a quarter turn while passing therethrough, a rotary carrier with its periphery projecting into said curved and twisted way for advancing the receptacles therethrough, mechanism for rotating the carrier, cleaning wheels projecting into the way on both sides near the entrance end, cleaning wheels projecting into both sides of the way near the delivery end, and mechanism for rotating the cleaning wheels.

2. A machine for cleaning the exteriors of receptacles, having a curved way for guiding and turning over the receptacles, a rotatory carrier, arms projecting from the carrier into the said way for advancing the receptacles longitudinally therethrough, mechanism for rotating the carrier, cleaning wheels projecting into the path of the receptacles near the entrance end of the way, cleaning wheels projecting into the path of the receptacles near the delivery end of the way, and mechanism for rotating the cleaning wheels.

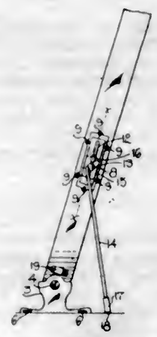
3. A machine for cleaning the exteriors of receptacles, having a longitudinally curved and transversely twisted way for guiding and turning over the receptacles, a rotatory carrier with arms projecting into said way for advancing the receptacles therethrough, mechanism for rotating the carrier, cleaning wheels projecting into the way in the path of the receptacles, and mechanism for rotating the cleaning wheels.

4. A machine for cleaning the exteriors of receptacles, having a longitudinally curved and transversely twisted guide-way, a rotatory carrier with arms projecting into said way for advancing the receptacles therethrough, mechanism for rotating the carrier, and means for cleaning the receptacles while being advanced through said way by said carrier.

5. A machine for cleaning the exteriors of receptacles, having a way for guiding the receptacles, a carrier for advancing the receptacles through said way, wheels projecting into the way in the path of the receptacles for cleaning the sides thereof, means for carrying the receptacles away from the guide-way, and wheels rotating in opposite directions on each side of and projecting into the path of the receptacles carried by said means for completely cleaning both ends of the receptacles.

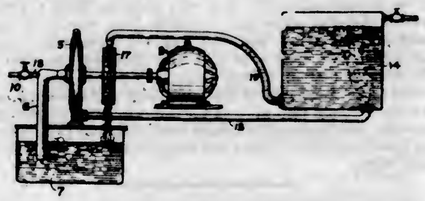
[Claims 6 to 14 not printed in the Gazette.]

1,134,214. STEP-LADDER. IRA G. MITCHELL, Meeker, Colo. Filed July 18, 1914. Serial No. 851,792. (Cl. 228—15.)



The auxiliary brace or prop consisting of a rearwardly recessed and vertically slotted frame; a block slidable within the recess of the frame and provided with a projecting threaded stem extending through the vertical slot and secured to an exterior head or block; a member pivotally connected with said block or head, and means surrounding the threaded stem and between the block or head and the face of the frame for securing the vibrative member in any adjusted position, substantially as hereinbefore set forth.

1,134,215. AIR-PUMPING APPARATUS. ROBERT V. MORSE, Ithaca, N. Y. Filed July 5, 1911. Serial No. 637,009. Renewed Sept. 1, 1914. Serial No. 859,717. (Cl. 230—14.)



1. In a pumping apparatus, the combination with a liquid circulating pump having a suction intake and a discharge, of an air inlet communicating with said intake, a source of power for driving the pump, a separating and storage tank connected to the pump discharge, and a motor device operated by a discharge of liquid under pressure from the tank for assisting in driving the pump.

2. In a pumping apparatus, the combination with a water circulating pump, of an air inlet for admitting air into the water, a source of power for driving the pump, a tank for separating the air from the water, and a motor device operated by the discharge of water under pressure from the tank to assist in driving the pump.

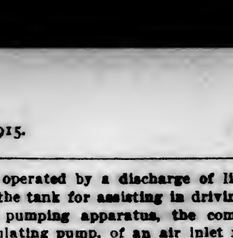
3. In a pumping apparatus, the combination with a rotary water circulating pump having a suction intake and a discharge pipe, of an air inlet communicating with said intake, a source of power for driving the pump, a separating tank connected to the discharge pipe for storing the air, and an impulse wheel operated by the discharge of water under pressure from the tank to assist in driving the pump.

4. In an air pumping apparatus, the combination with a multi-stage centrifugal pump having a liquid suction intake, and an air inlet whereby the air will be drawn in and forced through the pump with the liquid, said air inlet being provided with a throttle valve and a check valve, of a source of power for driving the pump, a separating tank for storing the compressed air, and a wheel operated by the discharge of liquid under pressure from said tank for assisting in driving the pump.

5. In a pumping apparatus for mines, the combination with a drainage pump having a liquid suction intake, and an air inlet whereby the air is drawn into and forced through the pump with the liquid, of a separating tank connected to the pump outlet for storing the compressed air, and a discharge from said tank for carrying the drainage liquid to a higher level.

[Claims 6 to 8 not printed in the Gazette.]

1,134,216. SAFE CONSTRUCTION. MOSES MOSLER, Cincinnati, and CARL BARTELS, Hamilton, Ohio, assignors to The Mosler Safe Company, New York, N. Y. Original application filed Apr. 3, 1914, Serial No. 829,215. Divided and this application filed Dec. 21, 1914. Serial No. 878,251. (Cl. 29—148.)

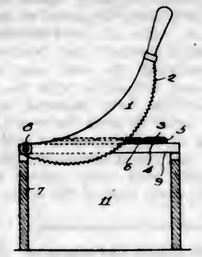


In safe-construction the method for the production of stepped door-jambs or stepped door-frames which consists in taking a bar of stepped cross-section, cross-cutting the bar in such manner as to leave uncut that portion of the bar which is to form the inner member of the article, bending the bar so as to produce an open corner at the cross-cut, disposing in said open corner a corner-block forming cross-sectional continuations of the cut portions of the bar, and autogeneously welding the corner-block to the cut ends of the bar, combined substantially as and for the purpose set forth.

1,134,217. CUTTING APPARATUS. JAMES H. MUNRO, Newark, N. J., assignor of one-half to John Milton Van Orden, Newark, N. J. Filed Jan. 2, 1909. Serial No. 470,886. (Cl. 125—5.)

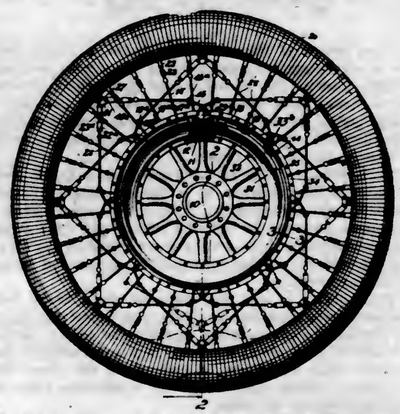
1. Cutting apparatus; comprising a work table; and an extended saw blade having near one end a fulcrum mounted on said table, said blade presenting a serrated edge of radius shorter than the length of the blade for acute sawing relation in every position of operative engagement progressively with said work as the latter lies stationary upon said work table.

2. Cutting apparatus; comprising a support for the article to be cut; and a plurality of crescent saws of radius shorter than their length respectively, and spaced apart to engage and saw said article to a predetermined shape; said saws each having near one end a fulcrum mounted on said support; substantially as described.



3. Cutting apparatus; comprising a support for a flat slate or similar article to be cut; two crescent shaped saws spaced widely apart and arranged in parallelism to engage said article and square the same; a pivoted clamping leaf to engage said article between said members and clamp said article in position on said support; and means to enable said leaf to be cleared from the work independently of said saws; substantially as described.

1,134,218. SPRING-WHEEL. GEORGE J. MURPHY, Baradero, Argentina. Filed Jan. 27, 1914. Serial No. 814,798. (Cl. 152—29.)



1. A wheel comprising an inner hub section having a rim an outer tire section, and intermediate spoke elements, the rim of the hub section presenting lateral forks at each side, and the spoke elements including spring coils disposed peripherally around the wheel, there being friction rollers within the spring coils, said friction rollers being journaled in the forks of the rim.

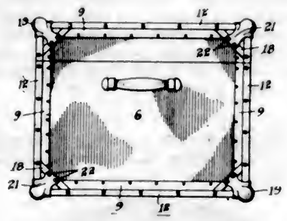
2. A wheel comprising an inner hub section having a rim, an outer tire section, and intermediate spoke elements at each side of the wheel, the rim of the hub section having pairs of arms formed at their outer ends with hooks presenting concave depressions disposed in the direction of the axis of the wheel, the spokes having spring coils disposed peripherally around the wheel, and there being friction rollers within the said coils, said rollers being provided with journals having bearings in the depressions presented by the hooks.

3. In a spring wheel, a hub section, an outer tire section, spokes connected at their outer ends with the tire section, coiled springs connected with the rim and with the said spokes, the spokes being arranged at each side

of the wheel, stays disposed at approximately the radial center of the wheel, the spokes being connected at their outer ends with the tire section, and coiled springs connected with the rim and with the said stays.

4. A resilient wheel comprising an inner hub section having a rim formed with an annular series of seats at each side, a tire section, series of spokes at each side of the wheel, said spokes being connected at their outer ends with the tire section, series of coiled springs having their convolutions arranged laterally and presenting arms extending radially outward, the said arms of the springs having an articulated connection with the inner ends of the spokes, said springs being mounted on the seats of the rim section, a series of stays connected at their outer ends with the rim of the tire section and extending inwardly therefrom, and coiled springs mounted on the rim section and provided with arms having an articulated connection with the inner ends of the stays.

1,134,219. TRUNK-EDGE PROTECTOR. HENRY MYERS, Philadelphia, Pa. Filed Sept. 27, 1912. Serial No. 722,587. (Cl. 190—37.)



1. In a device of the character stated, a trunk body, a pair of edge strips therefor meeting in a corner, a diagonal strip joining the corner strips near their meeting point, a corner piece fitting over the meeting portions of the edge strips, an extension of said corner piece secured to the diagonal strip and means for securing the strips and corner piece to the trunk.
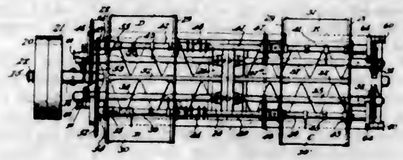
2. In a device of the character stated, a trunk body, three edge strips meeting in a corner, diagonal strips joining the edge strips in the three planes represented, a corner piece covering the meeting ends of the edge strips, three extensions from the corner piece joined to the diagonal strips and means for securing the strips and corner piece to the trunk.

3. In a device of the character stated, a trunk body having a corner, main and auxiliary edge-protecting angles along two of the edges united to form the corner, having one flange of each along one edge in a substantially parallel plane with one flange of each along the other edge and a brace joining these flanges at a distance from the corner and united to them.

4. In a device of the character stated, a trunk body having a corner, edge-protecting angles along two of the edges uniting to form the corner having one flange along one edge in a substantially parallel plane with one flange along the other edge, a brace joining these flanges at a distance from the corner and united to them and a corner buffer having an extension diagonal to the meeting flanges and united to the brace.

5. In a device of the character stated, a trunk body, covering material therefor, a pair of rigid edge protecting angles for two edges joining in a corner, means for uniting the edge protecting angle with the body, a second pair of edge protecting angles having narrower flanges than the first angles, means for uniting the two sets of angles separate from the trunk body, a strip engaging flanges of different angles of the second pair of strips lying in substantially parallel planes, said strip extending transversely across the corner, means uniting the strip to the flanges of said angles, a corner buffer extended to engage with the strip and uniting means for the buffer and strip.

1,134,220. FEED-MIXING MACHINE. WALTER D. NASH, Atlanta, Ga., assignor to Atlanta Utility Works, East Point, Ga., a Corporation of Georgia. Filed Feb. 5, 1913. Serial No. 746,397. (Cl. 99—2.)



1. In a mixing machine, the combination of a mixing bin, a snaft extending therethrough and provided with mixing paddles adapted to move the materials through the bin in the direction of the shaft, a plurality of material hoppers, rotary feeding devices associated with each of said hoppers for delivering the materials to said bin, and means for giving to each of said devices a variable intermittent movement.

2. In a mixing machine, the combination of a mixing bin, a rotary shaft extending therethrough and provided with paddles adapted to move the materials through the bin in the direction of the shaft, a plurality of material hoppers, feeding screws associated with each of said hoppers for delivering materials therefrom to said bin, and means for giving to each of said screws a variable intermittent movement.

3. In a mixing machine, the combination of a mixing bin, a rotary shaft extending therethrough and provided with paddles, the faces of some of which are inclined relative to their plane of rotation whereby they are adapted to move the materials through the bin, a plurality of material hoppers arranged above said bin, feeding screws associated with each of said hoppers and adapted to deliver materials from the hoppers to said bin, means for driving said screws, and means whereby the speed of a plurality of screws may be simultaneously varied or the speed of any of the screws varied independently of the others.

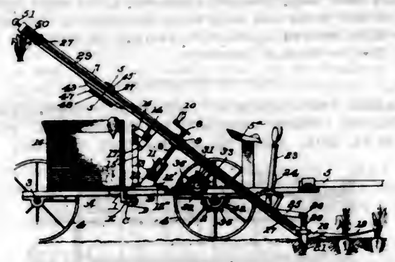
4. In a mixing machine, the combination of a mixing bin, a rotary shaft extending therethrough and provided with paddles adapted to mix the materials in the bin and move them toward a discharge opening in the bin, a plurality of material hoppers, feeding screws adapted to deliver material from the hoppers to said bin, and independently adjustable intermittently operating variable speed driving means for said screws.

5. In a mixing machine, the combination of a mixing bin, mixing means therein, a plurality of material hoppers arranged above said bins, means in said hoppers adapted to agitate the material therein, feeding means for delivering the materials from said hoppers to said bin, and intermittently operating variable speed driving means for said feeding means.

[Claims 6 to 10 not printed in the Gazette.]

1,134,221. BEET-HARVESTER. CHARLES O. I. NILSSON, Brockton, Mass. Filed June 22, 1914. Serial No. 846,668. (Cl. 55—108.)

1. In a beet harvester a wheel supported frame, means to clamp the tops of beets, withdraw the beets from the ground and elevate them to the topping means whereby the tops are severed, said last named means consisting of spaced parallel upwardly and rearwardly inclined bars mounted on the frame with their lower ends disposed to engage the ground, sprockets in the bars, chains on the sprockets arranged in spaced relation to each other along opposed sides to clamp the tops of beets and remove the beets from the ground and elevate the beets to the topping mechanism, means arranged intermediate the ends of the bars to adjust the bars relative to one another in a lateral plane, and means to move the lower end of the bars away from the ground arranged in connection with the frame and bars at a point forwardly of the means for adjusting the bars laterally, said means for adjusting the bars laterally acting as a pivot for the bars upon vertical adjustment thereof, and said means for adjusting the bars vertically being slidable laterally with relation to the frame.



2. In a beet harvester a wheel supported frame, topping means to sever the tops of beets, means to withdraw the beets from the ground and elevate them to the topping means whereby the tops are severed from the beets, said last named means including bars arranged in spaced relation to one another and having chains rotatably mounted thereon to grip the tops of beets therebetween, means to adjust the bars in a vertical plane comprising screwthreaded rods clamped to the bars intermediate the ends thereof, handles on the screwthreaded rods, means slidably secured to the frame to secure the adjusting rods, and means to adjust the bars laterally with relation to one another.

3. In a beet harvester a wheel supported frame, topping means to sever the tops of beets, means to withdraw the beets from the ground and elevate them to the topping means whereby the tops are severed from the beets, said last named means including bars arranged in spaced relation to one another and having chains rotatably mounted thereon to grip the tops of beets therebetween, means to adjust the bars in a vertical plane comprising screwthreaded rods clamped to the bars intermediate the ends thereof, handles on the screwthreaded rods, angularly disposed sockets and means secured to the frame to rotatably secure the adjusting rods in the sockets.

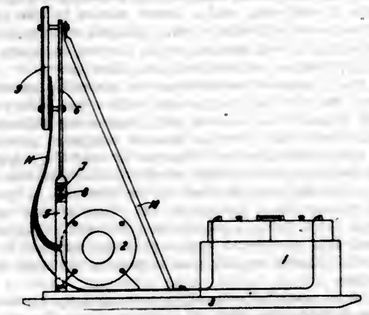
4. In a beet harvester a wheel supported frame, means to top the beets, means to clamp the tops of the beets and elevate them to the topping means consisting of bars arranged in spaced parallel relation to one another and upon the frame, sprockets mounted within the bars, chains mounted on the sprockets and arranged to clamp the tops of the beets, means to rotate the same, a bar adjustable transversely of the first named bars, a depending shaft rotatably journaled in the last named bar, and supporting the topping means, a gear on the lower end of said shaft, and a gear operatively connected with one of the sprockets connected with said last named gear, and means to adjust the bars to and from one another in a lateral plane.

5. In a beet harvester including a wheel supported frame having means to top the beets, means to grasp the tops of the beets and elevate them to the topping means consisting of bars arranged in spaced parallel relation to one another and upon the frame, sprockets mounted within the bars, chains mounted on the sprockets and arranged to clamp the tops of the beets, means to rotate the chains, a bar adjustable transversely of the first named bars, a depending shaft rotatably mounted in the last named bar, and supporting the topping means, a gear on the lower end of said shaft, and a gear oppositely connected with one of the sprockets connected with said last named gear, and means to adjust the bars to and from one another in a lateral plane.

[Claim 6 not printed in the Gazette.]

1,134,222. PORTABLE SELF-CONTAINED ELECTRIC PLANT. WILLIAM HENRY PALMER, Jr., Wyncote, Pa. Filed Feb. 9, 1914. Serial No. 817,514. (Cl. 171—314.)

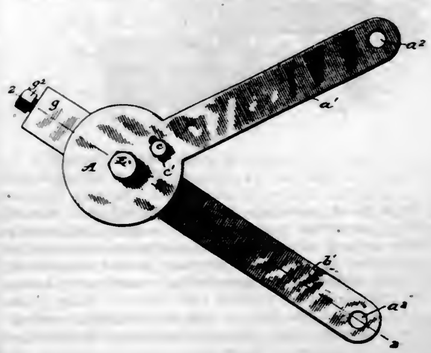
1. A portable self-contained electric plant comprising the combination of a movable base, a storage battery and a dynamo machine fixed to the base, an immovable frame projecting upward from the base a stop, a swinging frame pivotally connected with the upper part of the immovable frame and adapted to be supported on the stop and to be alined with the immovable frame, a switchboard carried by the swinging frame, and flexible connections which permit of movement of the swinging frame and permanently interconnect said electrical elements, substantially as described.



2. A portable self-contained electric plant comprising the combination of a movable base, a storage battery and a dynamo machine fixed to the base, a stop, a swinging frame pivotally connected with the upper part of the movable frame and adapted to be supported on the stop and to be alined with the immovable frame, a switchboard carried by the swinging frame, flexible connections which permit of movement of the swinging frame and permanently interconnect said electrical elements, and a brace detachably and removably connected with the base and the swinging frame, substantially as described.

3. A portable self-contained electric plant comprising the combination of a movable base, electrical generating apparatus fixed to the base, an immovable frame projecting upward from the base, a swinging frame pivotally connected with the upper part of the immovable frame and adapted to be supported horizontally above the generating apparatus and to be alined vertically with the immovable frame, a switchboard carried by the swinging frame, and flexible connections which permit of movement of the swinging frame and permanently interconnect said electrical elements, substantially as described.

1,134,223. SHOCK-ABSORBER. FRANCIS V. PHILLIPS, Orlando, Fla. Filed Jan. 19, 1914. Serial No. 812,959. (Cl. 21—105.)



1. A shock absorber comprising two pivotally connected members, a friction element carried by one of said mem-

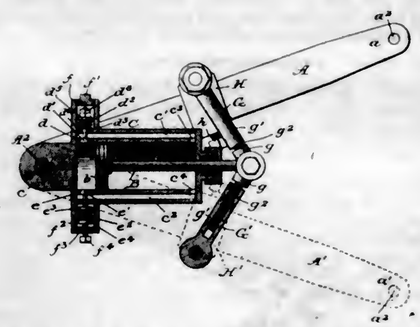
bers, and a ring pivotally secured to the other of said members and surrounding their pivotal connection, said ring being normally out of engagement with said frictional element and being adapted to engage therewith at a predetermined point in the relative movement of the two members.

2. A shock absorber comprising two pivotally connected members, a ring surrounding the pivotal connection of said members, a spring pressed friction block carried by one of said members and adapted to frictionally engage the periphery of said ring, and a clutch carried by the other of said members, said clutch being adapted to engage and lock said ring to said member, when the two members are moved relatively to each other in one direction.

3. A shock absorber comprising two pivotally connected members, one of which is provided with a hub, two rings mounted on said hub, one of said rings being adjustably secured to said hub carrying member and being provided with a cam surface, a clutch carried by said hub adapted to lock the other ring thereto when the two members are moved relatively to each other in one direction, a spring pressed friction block carried by the other of said members, said block being normally in frictional engagement with said last mentioned ring, and being adapted to be frictionally engaged by the cam surface of the first mentioned ring.

4. A shock absorber comprising two pivotally connected members forming two sides of a closed receptacle, one of said members being provided with a flange forming the peripheral wall of said receptacle, and the other of said members being provided with an inwardly projecting hub, the flanged member being also provided with a chambered extension, a friction block slidably mounted in said chambered extension, a spring operating to press said block toward said hub, a ring surrounding said hub and frictionally engaging said block, a clutch carried by said hub and adapted to lock said ring thereto when said members are moved in one direction relatively to each other, and a cam ring adjustably mounted on said hub and adapted to frictionally engage said block at a predetermined point in the relative movements of said members in the opposite direction.

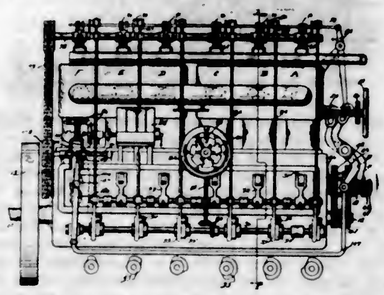
1,134,224. SHOCK-ABSORBER. FRANCIS V. PHILLIPS, Orlando, Fla. Filed Mar. 10, 1914. Serial No. 823,695. (Cl. 21—105.)



1. In a shock absorber, the combination of a pair of pivotally connected arms, a pivot support adjustably mounted on each of said arms, a movement retarding device supported by said arms at their pivotal connection, said device including a reciprocating member and means for resisting movement thereof, and a pair of links pivotally connected at one end to said reciprocating member, each of said links being pivotally connected at its other end to one of said pivot supports.

2. In a shock absorber, the combination of a pair of pivotally connected arms, a movement retarding device supported by said arms at their pivotal connection, said device including a reciprocating member and means for resisting movement thereof, and a pair of links pivotally connected at one end to said reciprocating member, each of said links being pivotally connected at its other end to one of said arms, and each being composed of two parts adjustably secured together for varying the length of the link, for the purpose described.

1,134,225. REVERSIBLE INTERNAL-COMBUSTION ENGINE. HENRY POKORNEY, Indianapolis, Ind. Filed May 21, 1914. Serial No. 839,964. (Cl. 123—41.)



1. An internal combustion engine, comprising a cylinder, a piston, inlet and exhaust valves for said cylinder, means for operating said valves by the piston operation, means for varying the relation between the piston movement and the valve movement, a mechanical electric generator for providing an ignition spark within said cylinder, means for driving said generator from said piston, and means for varying the relation between the operation of said generator and the operation of said piston simultaneously with the variation between the valve movement and the piston movement.

2. An internal combustion engine, comprising a cylinder, a piston, an inlet and exhaust valves for said cylinder, means for operating said valves by the piston operation, means for varying the relation between the piston movement and the valve movement, a mechanical electric generator for providing an ignition spark within said cylinder, means for driving said generator from said piston, and means for varying the relation between the operation of said generator and the operation of said piston to correspond with the change in the relation between the piston movement and the valve movement.

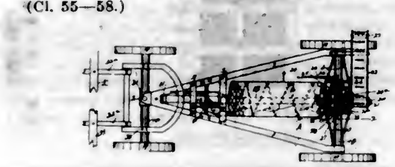
3. An internal combustion engine, comprising a cylinder, a piston, a crank shaft operated by said piston, inlet and exhaust valves for said cylinder, means for operating said valves from the crank shaft, means for varying the relation between the crank shaft movement and the movement of the valves to produce opposite directions of rotation of the crank shaft, a mechanical electric generator driven from said crank shaft, and means for varying the relationship between the movement of said generator and the movement of the crank shaft simultaneously with the variation in the relation between the movements of the valves and the crank shaft.

4. An internal combustion engine, comprising a cylinder, a piston, a crank shaft operated by said piston, inlet and exhaust valves for said cylinder, means for operating said valves from the crank shaft, means for varying the relation between the crank shaft movement and the movement of the valves to produce opposite directions of rotation of the crank shaft, a mechanical electric generator driven from said crank shaft, and means for varying the relationship between the movement of said generator and the movement of the crank shaft to correspond with the direction of crank shaft rotation.

5. An internal combustion engine, comprising a cylinder, a piston, a crank shaft operated by said piston, inlet and exhaust valves for said cylinder, means for operating said valves from the crank shaft, means for varying the relation between the crank shaft movement and the movement of the valves to produce opposite directions of rotation of the crank shaft, a mechanical electric generator driven from said crank shaft, and means for varying the relationship between the movement of said generator and the movement of the crank shaft simultaneously with the variation in the relation between the movements of the valves and the crank shaft, and for maintaining the movement of the generator in the same direction regardless of the direction of movement of the crank shaft.

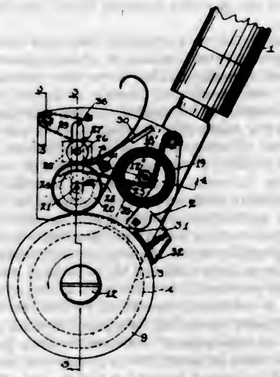
[Claims 6 to 27 not printed in the Gazette.]

1,134,226. ROCK-CLEARING MACHINE. JOHN W. REDDING, Seattle, Wash. Filed Mar. 2, 1912, Serial No. 681,271. Renewed Feb. 10, 1915. Serial No. 7,370. (Cl. 55—58.)



A rock clearing machine comprising, in combination, a frame, traction wheels therefor, a plow swung beneath said frame, a lever for adjusting said plow to regulate its thrust, a gradually curved extension from said plow to conduct the earth upwardly and rearwardly, an upwardly inclined cylindrical sieve rotatable longitudinally, the lower end of which communicates with said curved extension, a worm within said sieve to elevate the rock, cups around the rear edge of said sieve wherein the rocks are collected, an elevator belt, means for conducting the rocks from said cups to said belt, means for transmitting motion from said traction wheels to said sieve, and means for transmitting said motion to said elevator belt and means for regulating said power transmission means so that said sieve is caused to rotate at varying speeds and the movement of said elevator belt is stopped.

1,134,227. EMBOSSING APPARATUS. FREDERICK W. REINDEL, East Cleveland, Ohio. Filed June 2, 1914. Serial No. 842,370. (Cl. 41—8.)



1. In a device of the character described, the combination of an embossing roller, a spool bearing thereon a strip of embossing ribbon, a feed roller movably mounted in the plane of said embossing roller to move toward or away from the latter, resilient means adapted to normally maintain said feed roller against said embossing roller with a uniform pressure, whereby operation of the latter causes rotation of said feed roller, thereby drawing such ribbon between the two rollers, a lubricating device in peripheral contact with said embossing roller and adapted to lubricate the same before rotation into contact with such ribbon against said feed roller, and means adapted to guide such ribbon away from said embossing roller after the embossing material has been stripped therefrom.

2. In a device of the character described, the combination of an embossing roller, a spool bearing thereon a strip of embossing ribbon, a feed roller movably mounted in the plane of said embossing roller to move toward or away from the latter, resilient means adapted to normally maintain said feed roller against said embossing roller, whereby operation of the latter causes rotation of said feed roller, thereby drawing such ribbon between the two rollers, a lubricating device in peripheral contact with said embossing roller and adapted to lubricate the same before rotation into contact with such ribbon against said feed roller, and means adapted to guide such ribbon away from said embossing roller after the embossing material has been stripped therefrom, said means including a guideway and a roller operable by said feed roller.

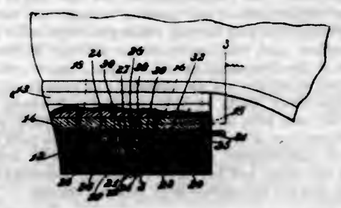
3. In a device of the character described, the combination of a casing open at one end and having a central threaded aperture in the closed end and a thrust bearing block projecting into said casing, a heating coil concentrically mounted in said casing, a centrally apertured embossing roller mounted upon the open end of said casing and having a concentric collar extending into said casing and abutting against said thrust block; and a bolt passing through such aperture in said roller and journaling the same, said bolt also removably engaging in such threaded aperture in said casing.

4. In a device of the character described, the combination of an embossing roller, a spool bearing thereon a strip of embossing ribbon, a slide mounted to move toward and away from said embossing roller, a pin mounted on said slide, a feed roller rotatably mounted on said pin in the same plane as said embossing roller, resilient means adapted to normally maintain said slide in such a position that said feed roller presses such ribbon against said embossing roller, and a latch adapted to engage said pin and maintain said slide in a position preventing such operation of said feed roller.

5. In a device of the character described, the combination of a cylindrical casing open at one end, an embossing roller rotatably attached to said casing and closing the open end thereof, and heating means disposed in said casing in substantially lateral contact with said roller.

[Claim 6 not printed in the Gazette.]

1,134,228. SAFETY-HEEL. ALBERT C. RIGHTOR, Pittsburgh, Pa. Filed Apr. 10, 1914. Serial No. 830,962. (Cl. 36—61.)



1. A device of the character described comprising a plate arranged for attachment to the heel of a boot or shoe and provided with integral struck up flanges, an outer lift beneath said plate provided with a slot extending therethrough from top to bottom and in which said flanges are received, an antislipping device movable in said slot into and out of operating position, and a cam slide guided between said flanges for operating said antislipping device.

2. The combination with a boot or shoe having a heel, of a resilient auxiliary lift secured to said heel, a guide plate embedded in said auxiliary lift between the top and bottom thereof, and an antislipping device guided by said plate and movable into and out of operative position.

3. A device of the character described comprising a plate arranged for attachment to the heel of a boot or

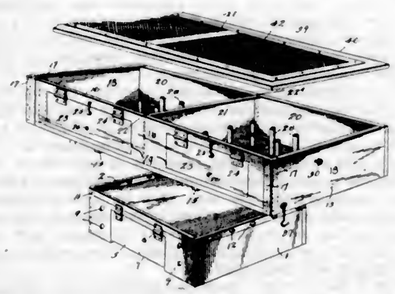
shoe, a resilient outer lift beneath said plate provided with a slot extending therethrough from top to bottom, a plate embedded in said resilient lift between the top and bottom thereof, said last named plate being disconnected from said first named plate and having a slot registering with said first named slot, and an antislipping device movable in said slots into and out of operative position.

4. A boot or shoe provided with an antislipping device movable into and out of operative position and having a slot, and a leaf spring secured at one end to said boot or shoe and having its opposite end engaged in said slot.

5. The combination with a boot or shoe having a heel, of an outer lift secured to said heel and provided with an antislipping device movable into and out of operative position, said antislipping device having a slot, a plate interposed between said heel and outer lift, and a leaf spring secured at one end to said plate and having its opposite end engaged in said slot.

[Claims 6 to 12 not printed in the Gazette.]

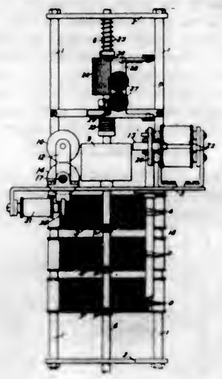
1,134,229. BROODER. HENRY E. RINGLE, Bremen, Ind., assignor of one-half to Oliver E. Dietrich, Bremen, Ind. Filed Oct. 4, 1910. Serial No. 585,208. (Cl. 119—32.)



In a chicken brooder of the character described, the combination with a lamp box, of a section of sheet metal attached to the upper portion of the lamp box at a point near and spaced from the upper end thereof for providing above the section of sheet metal a hot air chamber having air inlet, a box-structure to be mounted upon the upper end of the lamp box and longer than the same to extend beyond the lamp box at both ends for equal substantial distances, a central transverse partition dividing the box-structure into two compartments, hot air inlets leading into the compartments and passing through the bottom of the box-structure and having communication with the hot air chamber, and transverse strips secured to the lower surface of the box-structure in parallel spaced relation to removably enter the hot air chamber and engage with their sides, the inner walls of the transverse portions of the lamp box and with their ends the longitudinal portions of the lamp box, whereby the box-structure is held against improper longitudinal and lateral movements with relation to the lamp box but may be readily separated therefrom by upward movement with relation thereto.

1,134,230. AUTOMATIC SWITCHING MECHANISM. JOHN G. ROBERTS, Dobbs Ferry, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Original application filed Mar. 10, 1906, Serial No. 305,272. Divided and this application filed June 12, 1914. Serial No. 844,666. (Cl. 179—27.5.)

1. A swith for an automatic telephone exchange, comprising stationary contact members and a movable contact member, said movable contact member being arranged to have a vertical movement and a horizontal movement, constantly moving means associated with said movable member, but normally out of engagement therewith, for effecting said movements, electromagnetic controlling mechanism for throwing said moving means into engagement with said movable member, and electromagnetically controlled retaining mechanism for maintaining said movable member in the position to which it has been moved.



2. A switch for an automatic telephone exchange, comprising a plurality of stationary contact members, a movable contact member having a horizontal and a vertical movement and having a driven surface connected therewith, a movable arm, a friction driving member carried thereon and adapted to be moved into engagement with said surface to cause the vertical movement of said member, means for causing said driving member to rotate, a magnet arranged to swing said arm to bring said driving member into engagement with said driven surface, and electromagnetically controlled retaining means for holding said movable member in the position to which it is moved.

3. A switch for an automatic telephone exchange, comprising a plurality of stationary contact members, and a movable contact member having a horizontal and a vertical movement, and having a driven surface associated therewith, constantly operating driving mechanism adapted to be moved into contact with said driven surface to effect the vertical movement of said member, constantly operating driving mechanism adapted to be moved into engagement with said driven surface to effect the horizontal movement of said member, and means adapted to retain the movable member in the position to which it is moved.

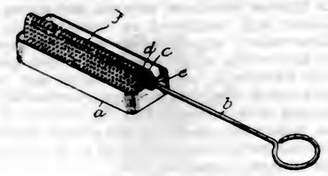
4. A switch for an automatic telephone exchange, comprising a plurality of stationary contact members, a movable contact member having a vertical movement and a horizontal movement and having a driven surface connected therewith, a constantly moving horizontal driving member and a constantly moving vertical driving member normally out of engagement with said driven surface, and electrically actuated mechanism associated with each of said driving members, and adapted to bring either one into engagement with said driven surface to effect a horizontal or a vertical movement of said movable member.

5. A switch for an automatic telephone exchange, comprising a plurality of stationary contact members, a movable contact member adapted for a vertical movement and a horizontal movement, and having a driven part connected therewith, a constantly operating vertical driving member and a constantly operating horizontal driving member normally out of engagement with said driven part, a lever upon which each of said driving members is mounted, and magnetically actuated means for tilting each of said levers to bring said driving members into engagement with said driven part.

[Claims 6 to 20 not printed in the Gazette.]

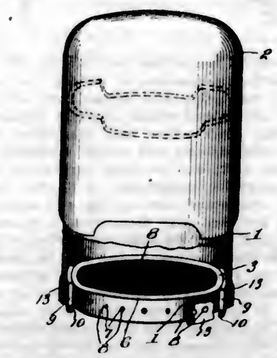
1,134,231. TORCH. MARTIN ROCKSTED, Chicago, Ill., assignor to The Imperial Brass Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 7, 1913. Serial No. 777,707. (Cl. 67—41.)

1. In a torch, the combination with a trough generally rectangular in its cross section, of a perforated metallic screen therein, of a generally inverted U-shape in the same cross section, placed in the bottom of the trough, and a filling of loose asbestos fiber for the screen.



2. In a torch, the combination with a trough, generally rectangular in its cross section, of a perforated metallic screen therein, of a generally inverted U-shape in the same cross section, placed in the bottom of the trough, and having its edges turned substantially at right angles to the body thereof and extending to the sides of the trough, and a filling of loose asbestos fiber for the screen.

1,134,232. TOBACCO-MOISTENER. HARRY A. ROSS, Atlantic City, N. J. Filed May 22, 1914. Serial No. 840,288. (Cl. 131—30.)

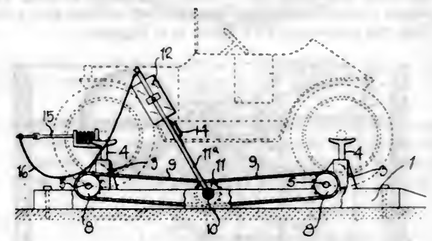


1. A moistening attachment for tobacco containers comprising a cover member having a foraminous top, means for securing the cover member within the container whereby the foraminous top will act as a support for the tobacco, notched arms depending from the cover member, a pad receptacle removably mounted within the cover member, and means journaled on the receptacle for engaging the notched arms whereby the receptacle will be removably held within the cover member.

2. A moistening attachment for tobacco containers comprising a cover member having a foraminous top, means for securing the cover member within the container whereby the foraminous top will act as a support for the tobacco, notched arms depending from the cover member, a pad receptacle removably mounted within the cover member, a bowed spring centrally journaled upon the receptacle and having its terminal positioned to engage the notches of said arms, and a reinforcing ring secured upon the outside of the container by said securing means.

1,134,233. VEHICLE-JACK. PETER J. A. SCHNOOR, Holstein, Iowa, assignor of one-half to Charley Adams, Holstein, Iowa. Filed June 27, 1914. Serial No. 847,704. (Cl. 254—89.)

1. A device of the character described comprising a base, a plurality of vertically adjustable elements carried by the base for engagement with the axles of a vehicle, a shaft rotatably supported by the base, an operative connection between the shaft and the vertically adjustable elements whereby movement of the shaft in one direction will impart upward movement to the elements, a weighted rock arm carried by the shaft and normally disposed in substantially a vertical position, and means under control of the vehicle to be lifted for throwing the weighted rock arm off of its normal position whereby said rack arm will cause the vertically adjustable elements to move upwardly.



2. A device of the character described comprising a base, a plurality of vertically adjustable elements carried by the base for engagement with the axles of a vehicle, a shaft rotatably supported by the base, an operative connection between the shaft and the vertically adjustable elements whereby movement of the shaft in one direction will impart upward movement to the elements, a weighted rock arm carried by the shaft and normally disposed in substantially a vertical position, a movable device positioned adjacent certain of the elements and adapted to be engaged by the front axle of the vehicle, such engagement between the front axle and the device causing movement of the device in one direction, and a flexible connection between the device and the weighted rock arm whereby the movement of the device throws the weighted rock arm from its normal position.

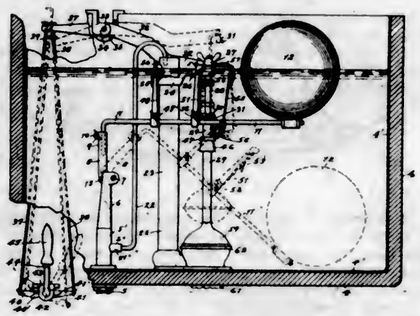
3. A device of the character described comprising a base, a plurality of vertically disposed elements carried by the base for engagement with the axles of a vehicle, a plunger carried by one of the elements and adapted to be engaged by an axle of the vehicle, a shaft, operative connections between the shaft and the vertically adjustable elements whereby movement of the shaft in one direction causes a simultaneous upward movement of the elements, a weighted rock arm carried by the shaft and normally disposed in substantially a vertical position, and an operative connection between the plunger and the rock arm whereby the movement of the plunger under the influence of the axle of the vehicle serves to throw the rock arm from its normal position whereby the elements are automatically caused to move upwardly under the influence of the weighted arm.

1,134,234. FLUSHING-TANK. GEORGE SCHONMEYER, Cleveland, Ohio. Filed Nov. 2, 1914. Serial No. 869,869. (Cl. 4—5.)

1. In a flushing apparatus, the combination of a tank provided with inlet and outlet valves, the latter having a stem with a plurality of projections thereon at different heights, a float and its lever operatively connected to the inlet valve, a trip-lever connected to the outlet valve and adapted to be moved to different positions to lift said valve more or less, a catch engageable with one of said projections according to the extent said valve is lifted, and a plurality of projections on the float lever adapted to selectively strike and release said catch according to the height the outlet valve is lifted.

2. In a flushing apparatus, the combination of a tank provided with inlet and outlet valves, a trip lever operatively connected to the outlet valve and movable to different positions to lift said valve more or less, a float operatively connected to the inlet valve, means to hold the outlet valve in open position, and means controlled by the float to release said holding means at different positions of the float, according to the extent to which said valve was lifted.

3. In a flushing apparatus, the combination of a tank provided with inlet and outlet valves, a float in the tank controlling the inlet valve, the outlet valve having a stem provided with upper and lower projections, a catch engageable with either of said projections, to hold the valve in open position, a trip lever operatively connected to said stem and movable to selectively lift the valve to permit the catch to engage one or other of said projections, and means carried by the float to selectively release said catch from the projection with which it is engaged.



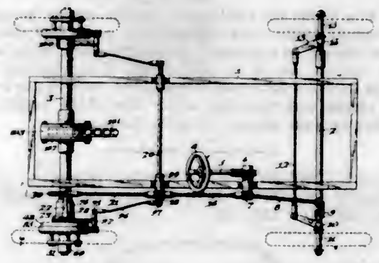
4. In a flushing apparatus, the combination of a flushing tank having inlet and outlet valves, a trip lever operatively connected with the outlet valve, an operating lever which may be turned in either direction, a plurality of connecting members between the operating lever and the trip lever to respectively operate the latter when the former is turned either way, stops for the operating lever located in different positions with respect thereto and adapted to permit a different extent of movement of the lever when turned in opposite directions, whereby the outlet valve is opened more or less, a float controlling the inlet valve, a catch engageable with the outlet valve and adapted to hold the same open in either position, and means actuated by the float to release the catch in either position of the valve.

5. In a flushing apparatus, the combination of a tank provided with inlet and outlet valves, the outlet valve having a stem with an incline thereon, means to lift the outlet valve to different positions, a yielding catch adapted to hold the outlet valve in open position, and engageable with the incline to locate the catch in different positions according to the extent the outer valve is lifted, a float controlling the inlet valve, and a plurality of arms carried by the float and projecting in different position to selectively engage and release the catch as the float falls, to permit the outlet valve to close at different stages of the water level in the tank.

1,134,235. DIFFERENTIAL MECHANISM FOR VEHICLES. HENRY W. SHERMAN, Reading Pa., assignor of one-half to Elmer L. Schreck, Reading, Pa. Filed Feb. 28, 1914. Serial No. 821,685. (Cl. 21—90.)

1. In a differential mechanism for vehicles, the combinationg with driving wheels, of an undivided driving shaft rigidly connected with one of said wheels, a clutch operatively connecting said shaft with the other wheel, a spring normally tending to press the driving member of said clutch into engagement with the driven member, a cam arranged to retract said spring and thereby release said members, a lever engaged with the shank of the cam, a yoke connecting the free end of the lever, steering mechanism for said vehicle, and means connecting said cam with said steering mechanism operative to rotate said cam to the position to retract said spring when said steering mechanism is actuated to divert said vehicle from the straight course.

2. In differential mechanism for vehicles, the combination with steering mechanism, of driving wheels, an undivided shaft connecting said wheels and being rigidly connected with one of said wheels, a clutch connecting said shaft with the other wheel and comprising relatively movable frictional driving and driven members, a spring normally tending to hold said members in operative engagement, a follower interposed between said spring and driving member and comprising an annular body provided with diametrically opposite wings extending parallel with its axis and having alined apertures, a cam operative to shift said follower to retract said spring and thereby release said clutch members, and means connecting said cam and steering mechanism to effect the rotation of said cam and the consequent release of said clutch members when said steering mechanism is actuated to divert said vehicle from its straight course.



3. In differential mechanism for vehicles, the combination with steering mechanism, of driving wheels, an undivided shaft connecting said wheels, and being rigidly engaged with one of said wheels, a clutch connecting said shaft with the other wheel and comprising relatively movable frictional driving and driven members, a spring embracing said shaft and normally tending to hold said members in operative engagement, a follower interposed between said clutch and said spring, and comprising an annular body provided with diametrically opposite wings extending parallel with its axis and having alined apertures, cams having a recess in one side of their periphery, disposed in said apertures in axial alinement with each other and respectively having projecting shanks, a roller in each of said apertures coöperatively engaged with the periphery of the respective cams, and arranged to normally rest in said recesses, but to ride to the higher periphery of said cam when rotated, and thereby shift said follower to compress said spring and relieve said clutch members, means to adjust the tension of said spring, levers engaged with the shanks of the respective cams, a yoke connecting the free ends of said levers, and means connecting said levers with the steering mechanism whereby the actuation of said steering mechanism to divert the vehicle from the straight course will actuate said cams to retract said follower and permit the clutch-connected wheel to rotate relative to said driving shaft, and a wheel rigidly mounted on said driving shaft arranged to be directly connected with any desired form of power generator.

1,134,236. MICROPHONE. HERBERT EDWARD SHREEVE, Milburn, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Original application filed May 25, 1911, Serial No. 629,261. Divided and this application filed Dec. 26, 1913. Serial No. 808,732. (Cl. 179—124.)

1. In a microphonic device, a container for comminuted material having as one wall a thermostatic diaphragm arranged to bend inwardly and outwardly with varying degrees of heat generated by the flow of current through said device.

2. In a microphonic device, comminuted material and a container therefor having as one wall a movable diaphragm composed of two plates of different coefficients of expansion and responsive to heat generated by the flow of current through said device to vary the pressure upon the comminuted material.

3. In a microphonic device, a container for a granular resistance varying material having as one wall a thermostatic diaphragm adapted to bend outwardly with decreasing temperature.

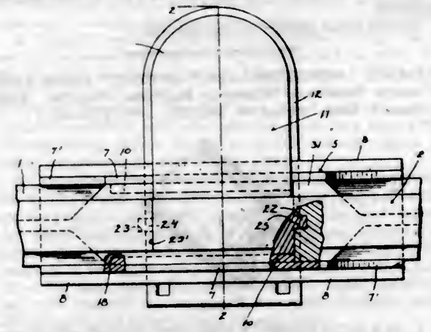


4. In a microphonic device, a container for granular resistance varying material having as one wall a thermostatic diaphragm adapted to bend inwardly with increasing temperature and outwardly with decreasing temperature.

5. In a microphonic device, a container for comminuted material having as one wall a thermostatic diaphragm adapted in response to heat conducted from the granules to automatically relieve the pressure of the granules upon a tendency thereof to pack.

[Claim 6 not printed in the Gazette.]

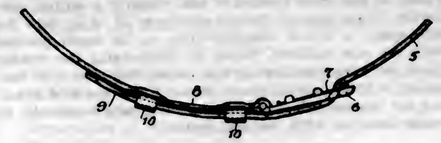
1,134,237. RAIL-JOINT. ARTHUR F. SMITH, Zebra, Mo. Filed Mar. 18, 1914. Serial No. 825,489. (Cl. 239—8.)



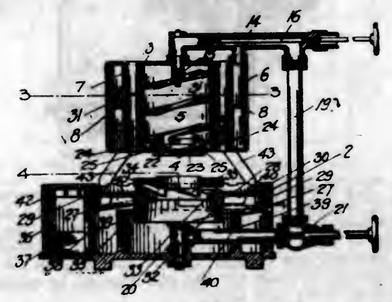
The combination with the abutting ends of a pair of rails, enlargements formed on the ends, the enlargement of one of the rails being formed with inwardly and downwardly inclined sides, a shoulder formed on each side at its lower edge, the upper faces of the enlargement being inwardly and downwardly inclined to form a central depression, an extension formed on the enlargement of the second rail, said extension being flush with the rail head and having its bottom faces inclined to conform to the inclination of the upper faces of the first mentioned enlargement, the lateral walls of the extension being upwardly and inwardly inclined, a joint-chair arranged to surround the enlargement, inwardly extending projections formed on the joint-chair and arranged to lie in the spaces formed by the inclined walls of the first named enlargement, of a rail brace, said rail brace being arranged to underlie the joint chair and also arranged to engage the extension on the second mentioned rail to prevent twisting.

1,134,238. BELT. CHARLES S. SMITH, Providence, R. I.; William H. Thornley, Providence, R. I., administrator of said Smith, deceased. Filed Sept. 9, 1911. Serial No. 648,509. (Cl. 241—8.)

A belt comprising a strip of inelastic material having a buckle at one end, an elastic section close to said buckle, a confining loop at each end of the elastic section to hold the free end of the inelastic section in position to conceal the elastic section, said free end of the inelastic section having a width equal to or greater than that of the elastic section.



1,134,239. HYDROCARBON-BURNER. OSCAR W. SMITH, Denver, Colo., assignor to The National Oil-Gas Burner Company, Denver, Colo., a Corporation of Wyoming. Filed Jan. 17, 1912. Serial No. 671,658. (Cl. 158—56.)



1. In a hydro-carbon burner, a vaporizing chamber having an opening in its lower surface, a cup spaced from the wall of said opening to provide a vapor-outlet, and a nozzle for the introduction of steam into said chamber, onto said cup, the said chamber having a spirally winding surface adapted to discharge matter flowing along the same into said cup.

2. In a hydro-carbon burner, a vaporizing chamber and a base spaced from each other to provide a combustion space, said chamber having an annular outlet, and a gas chamber surrounding said outlet and having an outlet for gas into the said space.

3. In a hydro-carbon burner, a vaporizing chamber and a surrounding boiler, an air-chamber spaced from said vaporizing chamber to provide a combustion space, and nozzles in communication with said boiler for the introduction of steam into said chambers, the latter having outlets for fluid into said combustion space.

4. In a hydro-carbon burner, an air-chamber, a cover having a central opening, and a plate normally spaced from the edge of said opening for the discharge of air, the said cover having inclined tracks upon which said plate is loosely supported.

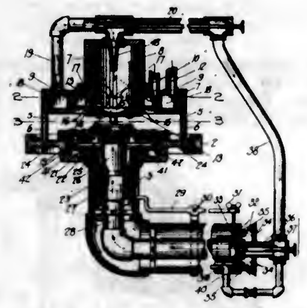
5. In a hydro-carbon burner, an air chamber, a cover having a central opening, and a plate normally spaced from the edge of said opening for the discharge of air, the said chamber and the said cover having inclined tracks upon which the cover and the plate are respectively supported.

[Claims 6 to 24 not printed in the Gazette.]

1,134,240. HYDROCARBON-BURNER. WILLIAM O. SMITH, Denver, Colo., assignor, by mesne assignments, to The National Oil-Gas Burner Company, Denver, Colo., a Corporation of Wyoming. Filed May 10, 1911. Serial No. 626,248. (Cl. 158—56.)

1. In a hydrocarbon burner, a base and in superposed, spaced relation thereto a central mixing chamber having passages for the introduction of vapor into said space, an annular retort in communication with said chamber, an annular boiler, and a nozzle for the introduction of steam into said chamber, in communication with said boiler.

2. In a hydrocarbon burner, a base and in superposed, spaced relation thereto a mixing chamber an element providing at the lower portion of said chamber a central concavity, and a passage for the discharge of vapor into the said space, a retort communicating at its upper portion with the said chamber, means for discharging the residue from the lower portion of said retort into the said concavity, a boiler, and a nozzle directed into the said chamber for the ejection of steam onto the said concavity, in communication with the said boiler.



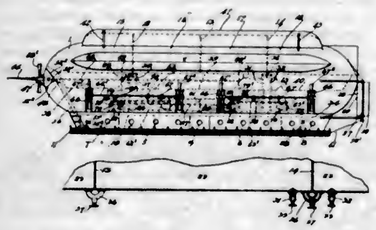
3. In a hydrocarbon burner, a base and in superposed spaced relation thereto a mixing chamber having in its lower portion downwardly directed passages for the discharge of vapor into the said space, a retort communicating with the said chamber, a boiler, and a nozzle for the introduction of steam into the said chamber, in communication with the said boiler.

4. In a hydrocarbon burner, a base, and in superposed, spaced relation thereto a central mixing chamber, having notches in its lower edge, a spreader having an outwardly sloping surface in engagement with said edge, a retort in communication with the said chamber, a boiler, and a nozzle for the introduction of steam into the chamber, in communication with the said boiler.

5. In a hydrocarbon burner, a base, and in superposed, spaced relation thereto a central mixing chamber having notches in its lower edge, a spreader having an outwardly sloping surface in engagement with said edge, a retort in communication with the said chamber, a pipe for the discharge of residue from the said retort onto the said spreader, a boiler, and a nozzle for the ejection of steam onto the said spreader, in communication with the said boiler.

[Claims 6 to 26 not printed in the Gazette.]

1,134,241. DIRIGIBLE AIRSHIP. JOSEPH SPITERI, Winnipeg, Manitoba, Canada. Filed Aug. 31, 1914. Serial No. 859,302. (Cl. 244—3.)



1. In a dirigible airship a cylindrical gas containing body sub-divided by cross partitions into distinct sections and having the sections individually sub-divided by a plurality of partitions into a plurality of compartments, means for separately inflating the sections and valve controlled means connecting the adjacent compartments of the respective sections, as and for the purpose specified.

2. In a dirigible airship, a cylindrical gas containing body sub-divided by cross partitions into distinct sections and having the sections individually sub-divided by a plurality of partitions into a plurality of compartments, a feed pipe, a branch pipe for each section leading from the feed pipe, valve controlled inlet pipes connecting the branch pipes with the compartments and valve controlled means connecting the compartments of adjacent sections, as and for the purpose specified.

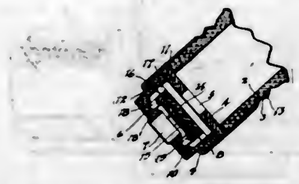
3. In a dirigible airship, in combination a cylindrical gas container having adjacent longitudinally disposed outstanding side wings opening to the interior of the container and partitions passing across the container and wings and dividing the same into a plurality of gas sections, as and for the purpose specified.

4. In a dirigible airship, in combination, a cylindrical gas container having longitudinally disposed outstanding side wings opening to the interior of the container, partitions passing across the container and wings and dividing the same into a plurality of gas sections, and further partitions in the respective sections sub-dividing the sections each into a plurality of campartments, as and for the purpose specified.

5. In a dirigible airship the combination with a gas container or body, of an expansion chamber mounted on the body, gas pipes connecting the expansion chamber with the body, spring pressed ball valves located in the pipes and spring pressed pop valves inserted in the pipes and designed to release under excessive pressure the gases in the expansion chamber to atmosphere, as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

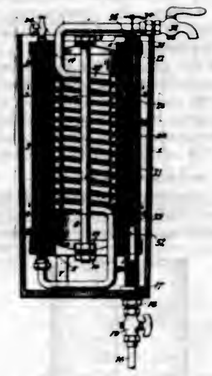
1,134,242. NON-REFILLABLE BOTTLE. JAMES ALEXANDER STODGELL, Winnipeg, Manitoba, Canada. Filed June 8, 1914. Serial No. 843,813. (Cl. 215—62.)



1. In a bottle stopper, a head piece supplied with a centrally located outlet opening, a V-shaped channel on the inside of the head piece and encircling said opening, a guard comprising a disk provided with outwardly extending legs on the periphery thereof, said legs having V-shaped extremities and ribs extending between said legs beveled on their outside to the same angle as the V of the legs, and a seat for said guard, the V legs of said guard being adapted to perfectly fit into the V channel in the head piece.

2. The combination with a bottle provided with suitable ribs, of a cap piece bearing on the upper end of the neck and provided with a central opening, a head piece supplied with a centrally located outlet opening and provided with a marginal flange resting on the cap and fitted on the outer side with a continuous shoulder, there being further a substantially V-shaped groove formed in the inner face of the head piece between the outlet opening and the inner wall of the flange, a band enveloping the neck of the bottle and having the lower end pressed into the ribs and the upper end thereof pressed over the shoulder, a winged valve slidably mounted within the flange of the head piece and normally closing the opening in the cap piece and a guard of less diameter than the valve bearing on the valve and provided with similar extending legs having their extremities formed in a V-shape to fit the V-shaped groove of the head piece and provided further on the upper side with V-shaped ribs located between the bases of the legs, as and for the purpose specified.

1,134,243. LIQUID-COOLER. GEORGE A. STRICKER, Buffalo, N. Y., assignor to The Economic and Sanitary Liquid-Cooling Company, Inc., a Corporation of New York. Filed Oct. 3, 1913. Serial No. 793,101. (Cl. 257—197.)



1. A liquid cooler comprising an annular cooling chamber having inner and outer upright walls and an outlet for the liquid to be cooled, annular pipes arranged within the upper and lower parts of said chamber around the inner wall thereof and each provided with outlet openings, and a supply pipe connected with said annular pipes.

2. A liquid cooler comprising an annular cooling chamber having inner and outer upright walls and an outlet for the liquid to be cooled, annular pipes arranged within the upper and lower parts of said chamber around the inner wall thereof and each provided with outlet openings, a supply pipe connected with said annular pipes, and means for placing either one or the other of said annular pipes in communication with said supply pipe.

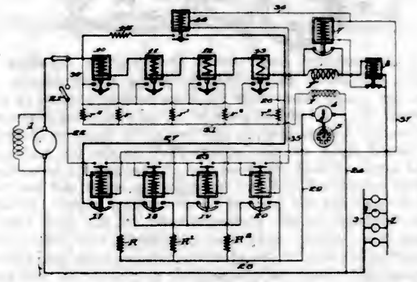
3. A liquid cooler comprising an annular cooling chamber having inner and outer upright walls and an outlet for the liquid to be cooled, annular pipes arranged within the upper and lower parts of said chamber around the inner wall thereof, said upper annular pipe having outlet openings in its outer side and said lower annular pipe having outlet openings in its underside, and a liquid distributing pipe adapted to be placed in communication with either one or the other of said annular pipes.

4. A liquid cooler comprising an annular cooling chamber having inner and outer upright walls and an outlet for the liquid to be cooled, annular pipes arranged within the upper and lower parts of said chamber around the inner wall thereof, said upper annular pipe having outlet openings in its outer side and said lower annular pipe having outlet openings in its underside, an upright liquid distributing pipe arranged in said chamber and provided in its side with upper and lower ports opening respectively into the upper and lower annular pipes, and means for opening either one or the other of said ports comprising upper and lower rotatable valves arranged in said supply pipe and controlling said upper and lower ports, and a valve rod connecting said valves and extending through the top of said chamber.

5. A liquid cooler comprising an annular cooling chamber having inner and outer upright walls and an outlet for the liquid to be cooled, annular pipes arranged within the upper and lower parts of said chamber around the inner wall thereof, said upper annular pipe having outlet openings in its outer side and said lower annular pipe having outlet openings in its underside, an upright liquid distributing pipe arranged in said chamber and provided in its side with upper and lower ports opening respectively into the upper and lower annular pipes, and means for opening either one or the other of said ports comprising upper and lower rotatable valves arranged in said supply pipe and controlling said upper and lower ports, a valve rod connecting said valve and extending through the top of said chamber, a handle arranged on the upper end of said valve rod, and a pointer arranged on said rod and traversing a scale.

[Claims 6 and 7 not printed in the Gazette.]

1,134,244. REGULATION OF DYNAMO-ELECTRIC MACHINES. LEWIS L. TATUM, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 11, 1910. Serial No. 543,295. (Cl. 171—312.)



1. In combination, a source of electrical supply, a load circuit connected thereto, a dynamo-electric machine connected to said source to normally operate as a motor and having energy storing means associated therewith, and means for increasing the excitation of said machine upon an increase in the power demanded by said load circuit and to a degree proportional to the increased demand whereby said machine is caused to act as a generator and other means automatically increasing the excitation of said machine as the speed decreases.

2. In combination, a source of electrical supply, a load circuit connected thereto, a dynamo-electric machine connected to said source to normally operate as a motor and having energy storing means associated therewith, means for exciting said machine under certain conditions by the load current to cause said machine to act as a generator, and means for independently increasing the excitation of said machine as the speed thereof decreases.

3. In combination, a source of electrical supply, a load circuit connected thereto, a dynamo-electric machine connected to said source to normally operate as a motor and having energy storing means associated therewith and means for additionally exciting said machine by the load current but only under abnormal load conditions to cause the same to act as a generator.

4. In combination, a source of electrical supply, a load circuit connected thereto, a dynamo-electric machine connected to said source to normally operate as a motor and having energy storing means associated therewith, said machine having an exciting winding connected between the same and said load circuit to cause said machine to act as a generator under certain load conditions, and means independent of said winding for increasing the excitation of said machine as the speed decreases.

5. In combination, a source of electrical supply, a load circuit connected thereto, a fly-wheel dynamo-electric machine connected to said source to normally operate as a motor, said machine having an exciting time winding connected between the same and said load circuit to cause said machine to act as a generator under certain load conditions, and means responsive to the current from said source to increase the excitation of said machine independently of said winding as the speed of said machine decreases.

[Claims 6 to 17 not printed in the Gazette.]

1,134,245. COMBINED CORN HUSKER AND STRIPPER. ROBERT N. THOMAS, Shenandoah, Iowa. Filed Sept. 9, 1911. Serial No. 648,484. (Cl. 130—4.)

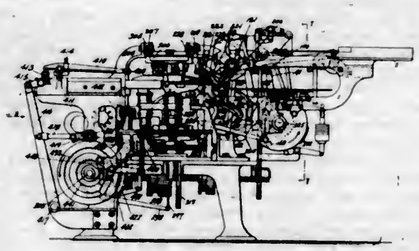
1. A combined corn husker and stripper including a stall, a husking pin secured to the stall and extending

transversely thereof, a pad secured longitudinally along the husking pin, a loop extending transversely of and outstanding from the pad and pin, a strap secured at one end between the pad and pin and extending through the loop and through one end of the pad, means for adjustably and detachably securing one end portion of said strap to that end of the pin remote from the stall.



2. A combined corn husker and stripper including a stall, a husking pin, a pad extending longitudinally of the pin, a clip connecting the intermediate portion of the pad to the pin, one end portion of the pad being extended outwardly beyond the pin and having an aperture therein, a looped strap secured between and to the pin and pad and adjacent said extended end of the pad, an attaching strap secured at one end between the other end portion of the pad and the pin and being extended loosely through the aperture in the projecting end of the pad, means upon the looped strap for adjustably and detachably securing one end of the attaching strap to the pin, a loop extending through an intermediate portion of the pad and held thereto by the clip, said attaching strap being extended loosely through the loop, and attaching strap and stall being separate.

1,134,246. CIGAR-MACHINE. OLUF TYBERG, Point Loma, Cal., assignor to International Cigar Machinery Company, New York, N. Y., a Corporation of New Jersey. Filed June 10, 1905. Serial No. 264,568. (Cl. 131—5.)



1. In a cigar machine, the combination with a bunch forming mechanism, of a source of long filler supply, means for separating and delivering sections of long filler to the bunch forming mechanism, a wrapping mechanism, means for automatically forming and supplying wrappers to the wrapping mechanism, and means for transferring bunches from the bunch forming mechanism to the wrapping mechanism.

2. In a cigar machine, the combination with bunch forming mechanism, of a source of long filler supply, means for separating and delivering sections of long filler to the bunch forming mechanism, means for supplying binders to the bunch forming mechanism, a wrapping mechanism, and means for transferring bunches from the bunch forming mechanism to the wrapping mechanism.

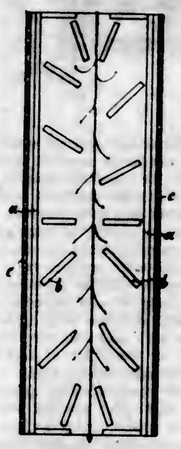
3. In a cigar machine, the combination with bunch forming mechanism, of a source of long filler supply, means for separating and delivering sections of long filler to the bunch forming mechanism, means for supplying binders to the bunch forming mechanism, a wrapping mechanism, means for supplying wrappers to the wrapping mechanism, and means for transferring bunches from the bunch forming mechanism to the wrapping mechanism.

4. In a cigar machine, the combination with a bunch forming mechanism, of means for supplying filler material thereto, means for supporting a plurality of binders in the machine and successively presenting them to the bunch forming mechanism, a wrapping mechanism, means for transferring bunches from the bunch forming mechanism to the wrapping mechanism, and means for supplying wrappers to the wrapping mechanism.

5. In a cigar machine, the combination with a bunch forming mechanism, of means for supplying filler material thereto, means for supporting a plurality of binders in the machine and for successively presenting them to the bunch forming mechanism, a wrapping mechanism, means for transferring the bunch from the bunch forming mechanism to the wrapping mechanism, and means for forming and supplying wrappers to the wrapping mechanism.

[Claims 6 to 124 not printed in the Gazette.]

1,134,247. PROCESS FOR DRYING BOARDS AND THE LIKE. JOHANN VOOT, Göppingen, Germany. Filed Oct. 25, 1913. Serial No. 797,182. (Cl. 34—24.)



1. The herein described process of drying boards, beams and the like which consists in drying the center portions before drying the outer portions.

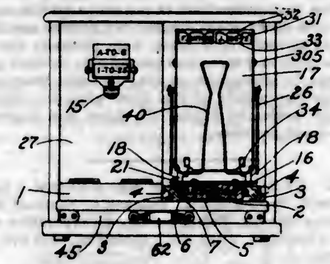
2. The herein described process of drying boards, beams and the like which consists in subjecting the board, beam or the like to the action of a current of air and retarding the drying of the outer portions.

3. The herein described process of drying boards, beams and the like which consists in causing an air current to traverse the board, beams or the like in the direction of its length and impeding the progress of the current adjacent the outer portions of the board beam or the like.

4. The herein described process of drying boards, beams and the like which consists in placing the boards, beams or the like in superposed relation and spaced from one another by spaced supporting members positioned adjacent their outer portions whereby longitudinally extending passages are formed between adjacent boards, and causing a heated medium to pass through said passages and into the spaces between said supporting members.

1,134,248. CREDIT-CABINET. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (incorporated in 1906.) Filed Sept. 10, 1909. Serial No. 517,177. (Cl. 45—2.)

1. In a filing cabinet of the class described, the combination which means for receiving accounts, etc., consisting of a series of individual receptacles each formed with a main body portion and side flanges on an angle to the main body portion and having bearing holes formed therein near their lower ends, of a retaining means for record material mounted in each of said receptacles consisting of a spring wire bent into angular form and having its ends normally resting in said bearing holes and a bearing flange on an angle to the main body portion provided with notches adapted to engage said retaining means at certain of its angles, said bearing flange being in a lower plane than said bearing holes.



2. In a filing cabinet of the class described, the combination with means for receiving accounts, etc., consisting of a series of individual receptacles formed with a main body portion and side flanges on an angle to the main body portion and having bearing holes formed therein near their lower ends, of a retaining means for record material mounted in each of said receptacles and consisting of a spring wire having an angular form and having its ends normally resting in said bearing holes and a bearing flange on an angle to the main body portion provided with notches adapted to engage said retaining means at certain of its angles, said bearing flange being in a lower plane than said bearing holes, and supporting means for the record material comprising lugs on the main body portion projecting in a plane higher than said holes.

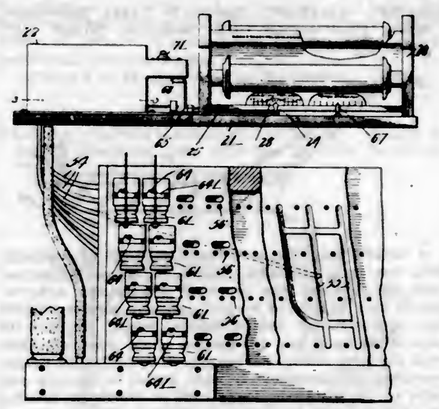
3. In a filing cabinet of the class described, the combination with an inclosing casing having a sliding drawer or receptacle therein, of means mounted in said drawer for receiving accounts said means comprising a series of individual receptacles having at their lower edges projections integral therewith and which form pivot eyes, means for mounting said individual receptacles in the drawer said mounting means consisting of a flat metal sub-base mounted on the base of the drawer and having a plurality of projecting pivot pins formed integral therewith in the plane of said base and adapted to coöperate with the said pivot eyes to form pivots for the individual receptacles and a retaining strip mounted on said sub-base to prevent a lateral shifting of the individual receptacles to cause the pivot eyes to slip off their appropriate pivot pins.

4. In a filing cabinet of the class described, the combination with an inclosing casing, of a sliding drawer or receptacle therein having its forward end hinged to tilt in a forward direction, means in said drawer for receiving accounts, said means consisting of a series of individual receptacles pivotally mounted on the base of said drawer and means connecting the forward end of the drawer and the rearmost individual receptacle to effect a simultaneous tilting of said end and receptacle in opposite directions.

5. In a filing cabinet of the class described, the combination with an inclosing casing, of a sliding drawer or receptacle therein having its forward end hinged to tilt in a forward direction, means in said drawer for receiving accounts, said means consisting of a series of individual receptacles pivotally mounted on the base of said drawer and means connecting the forward end of the drawer and the rearmost receptacle to effect a simultaneous tilting of said end and receptacle in opposite directions, said connecting means comprising a pair of levers one end of each being pivotally connected to said front end and said rearmost receptacle respectively, and a rocking arm connecting the opposite ends of said levers, said rocking arm being mounted on a rigid part of the drawer or receptacle.

[Claims 6 to 9 not printed in the Gazette.]

1,134,249. PLAYER FOR MUSICAL INSTRUMENTS. PETER WELIN, Newcastle, Ind., assignor, by mesne assignments, to Lawrence Maxwell, Cincinnati, Ohio. Filed Jan. 7, 1907, Serial No. 351,087. Renewed Feb. 16, 1915. Serial No. 8,615. (Cl. 84—168.)



1. In a music playing device, the combination of striking pneumatics, a valve box, means including modulating valves in said valve-box for modulating the striking effect of a portion of said striking pneumatics, means including switch valves for neutralizing the effect of said modulating valves, and a switch box mounted on the valve box and having means for controlling said switch box.

2. In a music playing device, the combination of a valve box, valves therein, pneumatics for said valves, passages controlled by said valves, a switch valve in said box for additionally controlling said passages, pneumatics for operating said switch valves, and a switch box mounted on the valve-box and having passages connected with the switch valve pneumatics for controlling them, and having means for controlling the last named passages.

3. In a music playing device, the combination of a valve box, a series of throttle valves, modulating valves in said valve box, switch valves in said valve box, both the modulating valves and the switch valves having connections for controlling said throttle valves, and a switch box mounted on the valve box and having means for controlling said switch valves independently of the operation of said modulating valves.

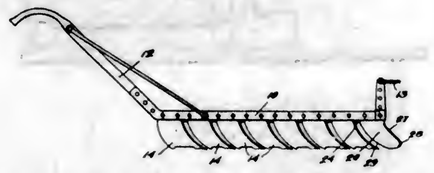
4. In a piano player, the combination of a modulating valve box having a suction chamber, throttle valves, pneumatics for said throttle valves, channels connecting said pneumatics with said suction chamber, means for controlling the connection of said channels with the suction chamber and with the outside air, a second suction chamber, a switch valve for connecting the throttle valve pneumatics with the second suction chamber independently of the position of said controlling means, a pneumatic in said second suction chamber for operating the switch valve, and a switch box mounted on said valve box for operating said switch valve pneumatic, said switch box having means for normally preventing the admission of air thereto and for permitting the connection of the switch box with the suction chamber at the same time.

5. The combination of a modulating valve box having two suction chambers, a channel with which both of said chambers can communicate, a switch valve for controlling the connection of said channel with one of said chambers, a pneumatic for said switch valve in the last named chamber, a switch box on the valve box having means for controlling the admission of air to said pneumatic, a modulating valve for controlling the connection of said channel with the other of said suction chambers, a pneumatic in the last named suction chamber for operating said modu-

lating valve, and a sliding valve below both of said suction chambers for controlling the admission of air to the last named pneumatic.

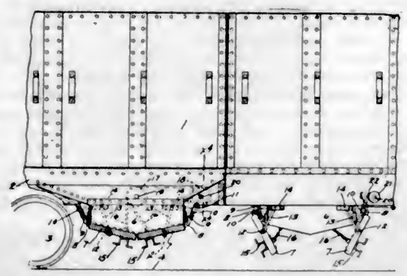
[Claims 6 to 13 not printed in the Gazette.]

1,134,250. ICE-PLOW. EDWARD W. AYERS, Manchester, Mass. Filed Dec. 20, 1912. Serial No. 737,837. (Cl. 125—14.)



A clearing tooth for ice plows constructed of a metallic strip having approximate uniform thickness throughout with the forward edge projected downwardly and forwardly and the nose or ice kerf engaging portion rounded into approximately semi-cylindrical shape, the forward edge of the tooth and the portion of the nose coincident with the forward edge having oppositely projecting flanges extending at approximately right angles to the side surfaces of the tooth, the lower ends of the flange limiting the riding depth of the tooth in the cut, the flange in advance of that portion of the tooth normally resting in the cut presenting a comparatively wide rounded portion to act as a riding abutment to displace or over-ride an obstruction.

1,134,251. HOPPER-CAR. FRANKLIN L. BARBER and EDWIN W. WEBB, Chicago, Ill., assignors to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 30, 1914. Serial No. 869,403. (Cl. 105—185.)

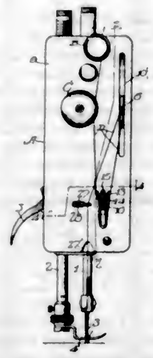


1. The combination with a car having a depending hopper, of trap doors normally closing the bottom of said hopper, upwardly extended door guides fixed in respect to said hopper, and to which the doors are connected for pivotal and sliding movements at their outer edges, links pivoted to said hoppers and doors and having play in the pivotal connections to one of the said parts for permitting the doors to be raised after they have been swung to approximately closed positions, to thereby relieve the links from the weight of the load, and means independent of said links for raising and holding the doors in closed positions.

2. The combination with a car having a depending hopper, of trap doors normally closing the bottom of said hopper, door guides fixed in respect to said hopper, and to which said doors are connected for pivotal and sliding movements at their outer edges, links pivotally supported at their upper ends and pivotally connected at their lower ends to the intermediate end portions of said doors and coöperating with the said guides to cause the outer edges of said doors to rise, and the inner edges thereof to lower, when said doors are moved from closed into open positions, the pivoted upper ends of the links supporting coöperating doors having a greater spread than the lower ends thereof, when said doors are closed, and the pivotal connections between said doors and the lower ends of said links being more than one-half way outward between the inner and outer edges thereof.

3. The combination with a car having a depending hopper, of trap doors normally closing the bottom of said hopper, oblique door guides fixed in respect to said hopper and to which the doors are connected for pivotal and sliding movements at their outer edges, links pivotally connected to said hoppers and doors and having play in their pivotal connections to said doors, so that the said links are relieved from the weight of the doors when the latter are closed, and means for raising the doors and holding the same in closed positions.

1,134,252. THREAD-TAKE-UP MECHANISM. EDWARD L. BARTON, Belvidere, Ill., assignor to National Sewing Machine Company, Belvidere, Ill., a Corporation of Illinois. Filed Jan. 31, 1912. Serial No. 674,446. (Cl. 112—26.)



1. The improvement herein described comprising a sewing machine head having a detachable face plate thereon, and a slot in said face plate; a gib mounted in said head; a resilient oscillatory take-up arm mounted in said head, extening through said slot and normally pressing against said gib; and a guide adapted to maintain the arm in proper position when the face plate is detached.

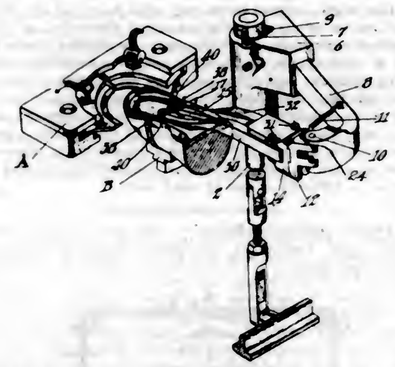
2. The improvements herein described, comprising a sewing machine head having a slotted face plate, a presser foot bar, a mechanism for operating said bar, in combination with a vibratory take-up arm mounted within said head and having a thread receiving portion extending through the slot in said face plate, a gib mounted on said presser foot bar within the head and upon which said vibratory arm rests, a guide post within said head for said gib, and means on said gib for preventing the displacement of said vibratory arm.

3. In a mechanism of the class described, the combination of a sewing machine head having a presser foot bar and means for actuating it, a member secured within said head and having a spring arm secured thereto, said arm having a thread receiving eyelet at its free end, a gib mounted on said presser foot bar, and upon which said spring arm rests, a post within said head for guiding the end of said gib, a removable plate on said head concealing said parts and having an opening therein through which the eyelet end of said spring arm projects when the plate is in place, a bent wire hook secured on said plate and having side members spaced apart and between which the eyelet end of said spring arm oscillates.

4. In a mechanism of the class described, the combination with a sewing machine head having a presser foot bar and means for actuating it, a member secured within said head and having a spring arm secured thereto, said arm having a thread receiving eyelet at its free end, a gib mounted on said presser foot bar, and upon which said

spring arm rests, a post within said head for guiding the end of said gib, a removable plate on said head concealing said parts and having an opening therein through which the eyelet end of said spring arm projects when the plate is in place, a bent wire hook secured on said plate and having side members spaced apart and between which the eyelet end of said spring arm oscillates, and means on said gib for preventing the displacement of said spring arm relatively to the opening in the removable plate.

1,134,253. HOLDDOWN FOR LASTING-MACHINES. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 2, 1912. Serial No. 681,163. (Cl. 12—14.)



1. A hold down for lasting machines comprising an elongated plate constructed and proportioned to have one end engage the toe of the shoe while the other end bears upon the ball of the shoe and having its opposite ends differently contoured to adapt said ends to fit behind the toe portion of the innersole rib of different styles of shoes respectively, and means for holding the plate in operative position with either end foremost.

2. In a lasting machine, the combination with means for sustaining a shoe in position to be operated upon and a hold down device comprising an arm movable over a shoe supported by said means, of a pressing member connected with said arm and provided with two pressing faces formed to operate similarly upon toes of different shapes, either of which pressing faces is adapted to engage with the toe end of the innersole, and each of which presents a substantially continuous end face to back up the channel lip at the tip of the toe, one of said pressing faces conforming approximately to the contour of one shape of toe and the other of said pressing faces conforming approximately to a different shape of toe.

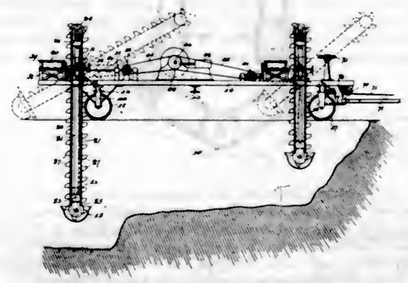
3. In a lasting machine, the combination with means for sustaining a shoe in position to be operated upon, of a hold down device comprising a pressing member having two pressing faces formed to operate similarly upon toes of different shapes, one conforming approximately to the contour of one shape of toe and the other approximately to the contour of a differently shaped toe, each of said pressing faces presenting a substantially continuous end abutment to back up the channel lip at the tip of the toe, and mountings by which said pressing member is supported and actuated and which are constructed and arranged to permit said member to be reversed for rendering said faces interchangeably operative.

4. In a lasting machine, the combination with means for sustaining a shoe in position to be operated upon and a hold down device comprising an arm movable over a shoe supported by said means; a hold down foot having two pressing faces, one conforming to the toe portion of one shape of sole and the other to the toe portion of a different shape of sole, said faces being formed to operate similarly upon soles the toe portions of which have different shapes; and connections between said arm and hold down foot whereby said foot can be detached, turned and reëngaged with the arm to make said faces interchangeably operative.

5. A hold down for lasting machines comprising means for engaging the forepart of an innersole, and means for applying pressure thereto resiliently until a predetermined degree of pressure is reached and then applying positive unyielding pressure thereto.

[Claims 6 to 26 not printed in the Gazette.]

1,134,254. EARTH-HANDLING MACHINE. WILSON F. BRUNT, Hammond, Ind. Filed May 31, 1913. Serial No. 770,914. (Cl. 193—3.)



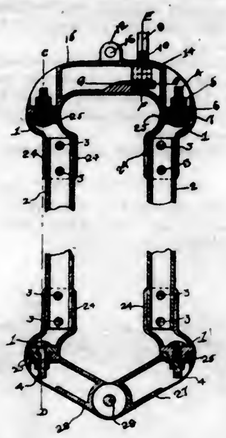
1. In an earth-handling machine of the character described, the combination of a main frame, a shaft having its ends journaled in said main frame, a pair of longitudinal guides each embracing, keyed to, spaced apart on, and extending in a direction at right-angles to the axis of said shaft intermediate the journal supports on said shaft, a bucket carrier frame including two members T-shaped in cross-section with their center legs placed adjacent and opposite to each other on either side of said shaft and between said guides, and adapted to slide upon and within said guides, a drum rotatably mounted on said shaft between said guides and one of the journal supports for said shaft, a flexible member trained around said drum, secured to it at one of its ends and having its other end secured to the lower end of said bucket carrier frame, and adapted to be rotated independently of said shaft to raise or lower said bucket carrier frame with reference to said main frame, and means for rotating said shaft to adjust the angle of inclination of said T-shaped members.

2. In an earth-handling machine of the character described, the combination of a main frame, a shaft having its ends journaled in said main frame, a pair of channel-shaped guides each embracing said shaft and keyed thereto with the legs of said guides adjacent to each other and slightly spaced apart on said shaft, the flanges of said members being located adjacent to each other on each side of said shaft and extending in a direction at right-angles to the axis thereof, and a bucket carrier frame adapted to slide upon said guide members including a pair of members T-shaped in cross-section, spaced apart on either side of said shaft, with their middle limbs extending toward each other between said channel-shaped guide members and having their flanges adapted to slide upon the adjacent flanges of said channel-shaped guide members, means connecting said T-shaped members together, and means for raising and lowering said bucket carrier frame with reference to said shaft.

1,134,255. CATTLE-STANCHION. ROSWELL H. BUCKINGHAM, East Moline, Ill., assignor to J. E. Porter Company, Ottawa, Ill., a Corporation of Illinois. Filed June 8, 1914. Serial No. 843,791. (Cl. 119—149.)

1. In a cattle stanchion, the combination of end and side members, one of said side members having pivotal connection at its ends with said end members, the axis of rota-

tion of said side member being laterally offset from the longitudinal axis of said side member.



2. In a cattle stanchion, the combination of end and side members, said side members having pivotal connection at their ends with said end members, said points of pivotal connection being offset laterally from said side members to permit the same to be rotated about axes disposed laterally from the longitudinal axes of said side members.

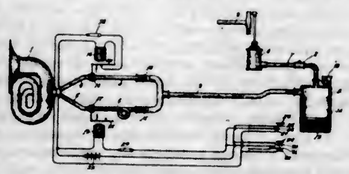
3. In a cattle stanchion, the combination of end and side members, at least one of said side members being provided with laterally offset end portions having pivotal connection with said end members to permit rotative movement of said side member about an axis offset from the longitudinal axis of said side member.

4. In a cattle stanchion, the combination of end members and side members, and means for pivotally connecting at least one of said side members with said end members, said means being laterally offset from the longitudinal axis of said side member.

5. In a cattle stanchion, the combination of end and side members, at least one of said side members being pivotally connected at its ends to said end members, said points of pivotal connection being offset from said side member to permit the same to be rotatively adjusted about an axis laterally offset from the longitudinal axis of said side member, and means for securing said side member in its adjusted position.

[Claims 6 to 8 not printed in the Gazette.]

1,134,256. SIGNALING DEVICE. CURTIS B. CAMP, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 15, 1912. Serial No. 690,972. (Cl. 177—353.)



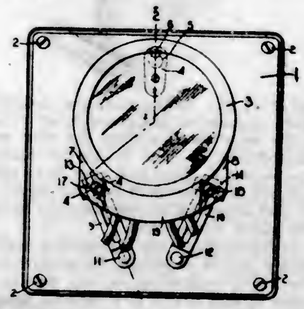
1. In a signaling device of the class described the combination with a sound producing wind horn, of air ducts and a source of air pressure connected therewith, electromagnetic controlling means for each of said air ducts, and a manually operable switching lever and suitable connections for operating one or both of said electromagnetic controlling means to produce different sounds from said horn.

2. In a signaling device of the class described the combination with a sound producing wind horn, of air ducts and a source of air pressure connected therewith, electromagnetic controlling means for each of said air ducts, a manually operable switching lever having different degrees of actuation and suitable connections whereby one or more of said electromagnetic controlling means are operated and whereby different sounds may be produced by said horn.

3. In a signaling device of the class described, the combination with a sound producing wind horn, of air ducts and a source of air pressure connected therewith, a valve in each of said ducts, electromagnetic controlling means for each of said valves, a manually operable switching lever having different degrees of actuation whereby one or more of said electromagnetic controlling means are operated and whereby different sounds may be produced by said horn.

4. In a signaling device of the class described, the combination with a sound producing wind horn, of air ducts and a source of air pressure connected therewith, a valve in each of said ducts, electromagnetic controlling means for each of said valves, a manually operable switching lever having different operating positions and suitable connections whereby when said lever is in one position one of said electromagnetic controlling means is operated and when said lever is moved to another of its operating positions another of said electromagnetic controlling means is operated, each of said controlling means being adapted to produce a different sound by said horn.

1,134,257. METER-SUPPORT. FRANK E. CHASE, Danvers, Mass. Filed May 27, 1914. Serial No. 841,356. (Cl. 248—30.)



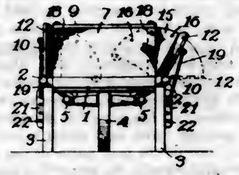
1. An adjustable support for meters comprising a base, a fastening device thereon to provide a fixed point of attachment for a meter, and a pair of links pivoted to said base at points spaced from said fastening device and having auxiliary fastening devices adjustable longitudinally thereof to provide adjustable points of attachment for the meter.

2. An adjustable support for meters comprising a base, a fastening device thereon providing a fixed point of attachment for a meter, and a pair of adjustable fastening devices thereon spaced from said first mentioned fastening device comprising transversely adjustable members having means providing longitudinally adjustable attachment for the meter.

3. A support for meters comprising a base, a projecting fastening device thereon to provide a fixed point of attachment for a meter, a pair of slotted links permanently and pivotally connected to said base and blocks slidably mounted on said links and having holes tapped to receive screws to provide adjustable points of attachment for the meter.

1,134,258. WHEELBARROW. JOHN D. CURTIS, Worcester, Mass., assignor to Richardson Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed Nov. 14, 1912. Serial No. 731,250. (Cl. 21—68.)

1. A wheelbarrow including a frame, a side pivotally attached to said frame, said side having an extension at an angle thereto providing a closure for the front end of the body as said side is tipped outwardly, means for retaining said extension in various positions of adjustment with respect to said frame, and means for supporting the other end of said side in positions corresponding to the adjusted positions of said extension.

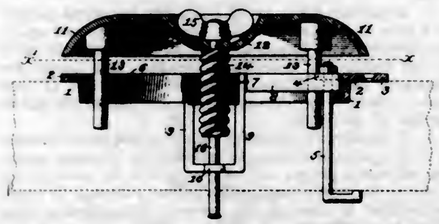


2. A wheelbarrow including a frame, a side, the side being pivotally attached to the frame to allow the side to be tipped outwardly, means for supporting the forward portion of the side in various adjusted positions, a rod pivotally attached at one end to the rear portion of the side, the other end of the rod being bent at an angle to the main portion of the rod, and a plate having a substantially vertical series of openings to receive the bent end of the rod, whereby the rod and the rear portion of the side may be supported in correspondingly adjusted position.

3. A wheelbarrow including a frame, a side, the side being pivotally attached to the frame to allow the side to be tipped outwardly, means for supporting the forward portion of the side in adjusted position, a rod pivotally attached at one end to the rear portion of the side, and a member having a series of openings to receive the lower end of the rod whereby the member may support the rear portion of the side in adjusted position, the end of the rod attached to the side being attached out of vertical alinement with the openings to cause the lower end of the rod to tend to remain in the openings.

4. A wheelbarrow including a frame, a side, the side being pivotally attached to the frame to allow the side to be tipped outwardly, and a rod pivotally attached at one end to the side, there being a series of openings to receive the lower end of the rod whereby the side may be supported in various adjusted positions, the end of the rod attached to the side being attached out of vertical alinement with the openings to cause the lower end of the rod to tend to remain in the openings.

1,134,259. VENTILATOR. JAMES R. ELLIOTT, Denver, Colo. Filed Apr. 11, 1912. Serial No. 689,945. (Cl. 98—49.)



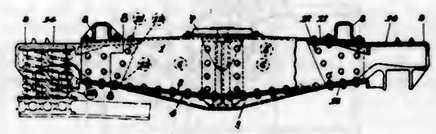
1. A register, comprising a frame, a closure, a screw journaled at its opposite extremities in parts of said register and connecting said closure with said frame, the register having a threaded opening intermediate the journaled extremities of said screw, the screw passing through said threaded opening and coöperating with the threads of the latter when the screw is turned for moving the closure to and from the said frame.

2. A register, comprising a frame adapted to surround the heat or ventilating opening, a closure, a screw connecting said closure with said frame, the register having parts in which the opposite extremities of said screw are journaled, the register having a threaded opening intermediate the journaled extremities of said screw, the screw passing through the said threaded opening and coöperating with the threads of the latter when the screw is turned to move the closure to and from the said frame, and guide rods connecting said closure with the frame for preventing turning of the closure.

3. A register, comprising a frame, a closure, a screw connection between said frame and the closure, one extremity of the said screw having a reduced extension, the frame having a centrally located member in which the said reduced extension of said screw is journaled, and guide rods for said closure, the said guide rods preventing truning of the said closure.

4. A register, comprising a frame adapted to surround a heat or ventilating opening, a closure, a screw connection between said frame and the closure, one extremity of the said screw having a reduced part, the frame having a centrally located member and the said reduced part of said screw being journaled in said centrally located member and guide rods for preventing turning of the closure.

1,134,260. BOLSTER. HOWARD W. ELVERSON, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 29, 1912. Serial No. 717,696. (Cl. 105—106.)



1. A car bolster comprising an inverted trough shaped upper member and a trough shaped lower member both of said members being deepest at their central portion and tapering thence toward their ends, and end extensions secured to said members.

2. A car bolster comprising an inverted trough shaped upper member and a trough shaped lower member both of said members being deepest at their central portion and tapering thence toward their ends, and end extensions secured to said members to form spring seats.

3. A car bolster comprising an inverted trough shaped upper member and a trough shaped lower member both of said members being deepest at their central portion and tapering thence toward their ends, and end extensions secured to said members, said extensions having recesses for the reception of the ends of the springs.

4. A car bolster comprising an inverted trough shaped upper member and a trough shaped lower member both of said members being deepest at their central portion and tapering thence toward their ends, and end extensions projecting inside of said members and secured thereto.

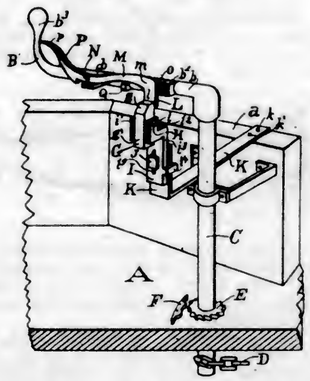
5. A car bolster comprising an inverted trough shaped upper member and a trough shaped lower member both of said members being deepest at their central portion and tapering thence toward their ends, and end extensions projetcing inside of said members and secured thereto to form spring seats.

[Claims 6 to 11 not printed in the Gazette.]

1,134,261. BRAKE-HANDLE ARRESTER. EDWARD TINKHAM GIBSON, Brooklyn, N. Y. Filed Dec. 15, 1914. Serial No. 877,343. (Cl. 74—33.)

1. In a trolley car hand-brake comprising a vertically disposed brake-chain-winding shaft having a crank-arm or brake-handle secured to the upper end thereof and adapted to travel on a horizontal plane when said shaft is revolved the combination with said hand-brake of a brake-handle arrester having a catch and a catch-handle, said catch comprising a pivoted-part having a nose-portion and mounted to turn on an axis disposed at right angles with the long diameter of said nose-portion and supported on a

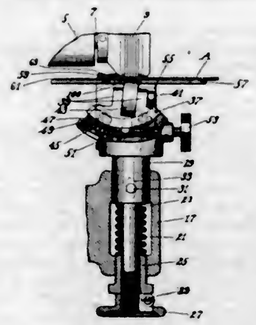
device secured to a suitably located immovable object in the car, and a coöperating part carried by said brake-handle, said coöperating part consisting of a lug downwardly projecting from and integral with an end portion of a latch-arm pivotally secured at the other end to said brake handle to turn in a vertical plane parallel with the vertical plane of the horizontal portion of the long diameter of the said brake-handle, and said lug being adapted to come into a contact engagement with the said nose-portion of said pivoted-part when the two said parts are in their normal positions and the central long diameter of the said brake-handle is disposed in a predetermined position with relation to the vertical plane of the central long diameter of the car, said catch-handle having one of its ends integral with the pivoted end of the said latch-arm, and its other end disposed within easy reach of the right hand of the operator of the hand-brake when said hand is on the said brake-handle and the central long diameter of the latter is disposed in the said predetermined position; and said catch-handle adapted to move the said lug out of its normal position when manual pressure is exerted against it in a downward direction.



2. In a trolley car hand-brake comprising a vertically disposed brake-chain-winding shaft having a crank-arm or "brake-handle" secured to the upper end thereof and adapted to travel on a horizontal plane when said shaft is revolved, the combination with said hand-brake of a brake-handle arrester having a catch and a catch-handle, said catch comprising a pivoted-part having a nose-portion and mounted to turn on an axis disposed at right angles with the long diameter of said nose-portion and supported on a device secured to a suitably located immovable object in the car, and a coöperating part carried by said brake-handle and adapted to come into a contact engagement with the said nose-portion of said pivoted-part when the two said parts are in their normal positions and the central long diameter of the said brake-handle is disposed in a predetermined position with relation to the vertical plane or the central long diameter of the car, said catch-handle being suitably supported, and disposed within easy reach of the right hand of the operator of the hand-brake when said hand is on the said brake-handle and the central long diameter of the latter is disposed in the said predetermined position; and said catch-handle being suitably connected to one of the said parts of the said catch to adapt the said catch-handle to move the part out of its normal position when manual pressure is exerted against it in a predetermined direction.

3. In a trolley car hand-brake comprising a vertically disposed brake-chain-winding shaft having a crank-arm or "brake-handle" secured to the upper end thereof and adapted to travel on a horizontal plane when said shaft is revolved, the combination with said hand-brake of a brake-handle arrester having a catch and a catch-handle, said catch comprising a pivoted-part having a nose portion and mounted to turn on an axis disposed at right angles with the long diameter of said nose-portion, and a coöperating part adapted to come into a contact engagement with the said nose-portion of said pivoted-part when the two said parts are in their normal positions and the central long diameter of the said brake-handle is disposed in a predetermined position with relation to the vertical plane of the central long diameter of the car; one of said parts of the said catch being carried by said brake-handle and the other being supported on a device secured to a suitably located immovable object in the car, said catch-handle being suitably supported, and disposed within easy reach of the right hand of the operator of the hand-brake when said hand is on the said brake-handle and the central long diameter of the latter is disposed in the said predetermined position; and said catch handle being suitably connected to one of the said parts of the said catch to adapt the said catch-handle to move the part out of its normal position when manual pressure is exerted against it in a predetermined direction.

1,134,262. CEMENTING-MACHINE. JOHN B. HADAWAY, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 21, 1911. Serial No. 639,781. (Cl. 91—49.)



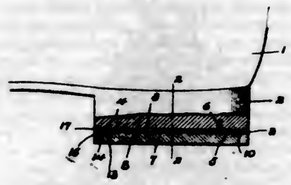
1. A machine for applying cement to the skived margin of a piece of stock having, in combination, a cement applying roll and a presser roll between which the stock is fed during the cementing operation, and means for angularly adjusting said presser roll about an axis which coincides approximately with one edge of the skived portion of the stock.

2. A machine for applying cement to the skived margin of a piece of stock having, in combination, a cement applying member and a presser member between which the stock is fed during the cementing operation, and means for angularly adjusting one of said members about an axis which coincides approximately with one edge of the skived portion of the stock.

3. A machine for applying cement to the skived margin of a piece of stock having, in combination, a cement applying roll and a presser roll between which the stock is fed, a carrier for said presser roll, a curved guideway in which said carrier is mounted, the curve of said guideway being concentric with an axis which coincides approximately with one edge of the skived portion of the stock, and means for adjusting said carrier in said guideway.

4. A machine for applying cement to the skived margin of a piece of stock having, in combination, a cement applying roll and a presser roll between which the stock is fed, a carrier for said presser roll, a yielding support for said carrier, said support being provided with a curved guideway in which said carrier is adjustably mounted, the curve of said guideway being concentric with an axis which coincides approximately with one edge of the skived portion of the stock, and means for adjusting said carrier in said guideway.

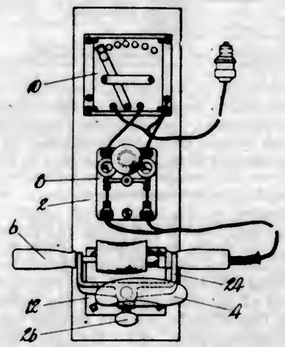
1,134,263. DETACHABLE HEEL-SECTION. LEON HAIN, Philadelphia, Pa., assignor of one-half to John Nelson, Philadelphia, Pa. Filed May 6, 1914. Serial No. 836,635. (Cl. 36—42.)



1. A permanent heel section having a plate secured to its lower face with its forward edge flush with the forward edge of said heel, the said forward edge of said plate being recessed and the rear edge of said recess being beveled, in combination with a removable heel section, said removable heel section being provided with a plate having its forward edge flush with the forward edge of the section to which it is attached and provided with means to interlock with the edges of the plate on said permanent heel section, said forward edge of said plate being cut away to provide a spring tongue, and a block secured to said tongue to extend upwardly therefrom and provided at its inner edge with a beveled surface for locking engagement with the beveled edge of the recess on said permanent heel section, substantially as described.

2. The combination with a permanent heel section and a removable heel section arranged in sliding interlocking engagement with each other, of a spring tongue formed upon said latter heel section flush with the forward edge thereof and provided with an upwardly and inwardly extending block, the said permanent heel section having its forward edge adjacent said block inclined inwardly and upwardly, and the inner face of said block being inclined downwardly and inwardly for engagement with the said forward face of said permanent heel section, whereby said removable section will be held against sliding movement and the forward edge thereof will be held against downward movement, substantially as described.

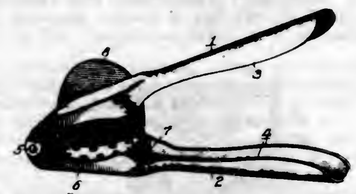
1,134,264. SHOE-IRONING APPARATUS. JOHN S. HANSEN, Brockton, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me., a Corporation of Maine. Filed Aug. 24, 1912. Serial No. 716,844. (Cl. 12—69.)



1. An apparatus of the character described comprising a bracket plate, a rod rotatably supported in said bracket plate and having a portion constructed to support a shoe form, and a tool receiving bracket supported on said rod at the front of said plate.

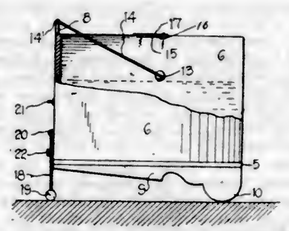
2. An apparatus of the character described comprising a bracket plate having a boss formed thereon, a rod rotatably supported in said boss, means for holding the rod against movement out of the bracket plate, a bracket shaped to receive an ironing tool having an aperture for the passage therethrough of said rod, said rod having a reduced end portion and a key thereon, a shoe form having a socket shaped to receive snugly the end portion and key of said rod, and means for clamping said rod against rotative movement.

1,134,265. NUTCRACKER. JAMES M. HARPER, Chicago, Ill., assignor to Harper Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 15, 1914. Serial No. 831,895. (Cl. 146—3.)



A nut-cracker, comprising in combination, a pair of opposed members having spaced flanges providing holding recesses and pivot ears for the members, a pivot pin passing through the flanges aforesaid, and a pair of opposed cracking jaws disposed in the holding recesses aforesaid and held by inturned portions of said flanges, one of said flanges being extended to constitute a bottom for the nut containing cavity between the jaws.

1,134,266. FILING-CASE. ROBERT N. HAWKINS, Helena, Mont. Filed Feb. 26, 1914. Serial No. 821,247. (Cl. 45—2.)



1. A filing cabinet comprising a bottom member normally disposed with its bottom inclining downwardly toward its rear ends when supported on a horizontal surface, and means attached to the casing whereby the bottom may be supported in a horizontal position and clip members adapted to engage said means for holding it to support the bottom members in such position.

2. A file cabinet including a bottom normally inclined downwardly toward its rear end when the device is supported on a horizontal surface, a supporting leg pivoted at one end to the rear of the casing, said leg being adapted to swing to dispose its free end below the casing to support the casing with its bottom horizontal, and means for holding the leg member at its limits of movement.

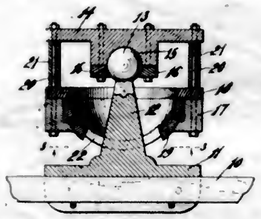
3. A file cabinet comprising a body portion including a bottom, sides, and a rear end wall, depending flanges at the sides of the bottom tapering rearwardly and terminating adjacent the rear wall of the body, a leg member pivotally connected to the rear wall and adapted to swing to extend below the bottom of the casing, and means for holding the leg member in position to hold the bottom horizontally.

4. A file cabinet including side walls and a back wall, a plate mounted upon the upper edge of the back wall, rods pivotally connected at one end to the plate, a weight carried by the free ends of the rods, said rods being adapt-

ed to swing to dispose the weight either forwardly or rearwardly of the back wall.

5. The combination with a file cabinet having its bottom normally inclined downwardly toward its rear end, of a supporting member for the back of the casing comprising a pair of rods pivotally connected to the back of the casing, and a transverse foot secured to the free ends of the rods, said rods being adapted to lie upwardly against the face of the casing or to lie downwardly against the face of the casing and extend therebelow, to support the casing with its bottom horizontal, and spring clip members for holding the leg at its limits of movement.

1,134,267. KING-BOLT CONNECTION FOR VEHICLES. PAUL HEINZ and WILLIAM A. GOEBEL, Janesville, Wis. Filed Jan. 21, 1914. Serial No. 813,607. (Cl. 21—24.)



1. A king bolt connection for the front axles of vehicles, comprising a bolster plate having a bearing socket, a pivotal post adapted for connection with the axle and provided with a spherical head fitting in the socket, and a rotatably mounted slotted guide supported by the bolster plate and having the pivotal post passing through the slot thereof, the front and rear surfaces of the pivotal post fitting against the walls of the slot to cause the guide to turn therewith.

2. A king bolt connection for the front axles of vehicles, comprising a bolster plate having a socket, a pivotal post adapted for connection with the axle and provided with a spherical head fitting in the socket, a flanged ring secured to the bolster plate and spaced therefrom, a flat ring mounted on the flanged ring and forming a swivel seat therewith, and a flanged bowl-shaped guide having its flange fitting within the swivel seat and provided with a slot therethrough, said pivotal post having flat front and rear surfaces fitting against the sides of the slot of the guide whereby forward and rearward movements of the pivotal post are prevented, while pivotal movements from side to side, as well as turning movements, are permitted, the turning movements of the post causing the turning of the guide therewith.

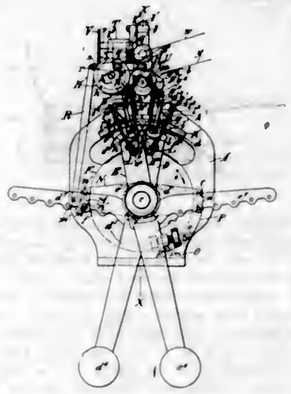
1,134,268. WINDING-MACHINE. MAX HELM, Pankow, near Berlin, Germany, assignor to Joseph Robert Leeson, Boston, Mass. Original application filed Jan. 4, 1913, Serial No. 740,266. Divided and this application filed Feb. 13, 1913. Serial No. 748,221. (Cl. 242—10.)

1. In a winding machine for winding coils for electrical purposes, the combination with a winding-spindle, of a plurality of guides operated simultaneously but independently of each other to direct the material onto the spindle, and means to cause a relative reciprocation between the spindle and the guides.

2. In a winding machine for winding coils for electrical purposes, the combination with a winding-spindle, of a plurality of guides for directing the material onto the spindle, and means to simultaneously reciprocate the guides independently of each other.

3. In a winding machine, the combination with the winding-spindle, of a plurality of guides for directing the material onto the spindle, and separate means for simultaneously reciprocating the guides with respect to the spindle.

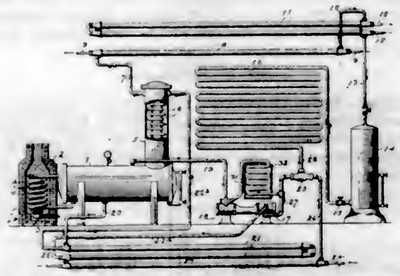
4. In a winding machine, the combination with the winding-spindle, of a plurality of guides adapted to be reciprocated with respect to the spindle, and means to simultaneously reciprocate said guides at different rates of speed.



5. In a winding machine, the combination with the winding-spindle, of a plurality of guides adapted to be independently and simultaneously reciprocated longitudinally of the spindle, separate means to reciprocate each guide, and means to adjust the ratio of speed of traverse of the guides.

[Claims 6 to 30 not printed in the Gazette.]

1,134,269. REFRIGERATING APPARATUS. HARRY M. HIESTER and WILLIAM C. HIESTER, Dayton, Ohio. Filed Sept. 21, 1912. Serial No. 721,699. (Cl. 62—119.)



1. In a refrigerating apparatus, a generator, expansion coils, a weak liquor conduit leading from the generator, with which the outlet extremity of the expansion coils communicates and through which the weak liquor is circulated by the gas pressure within the generator, the said conduit continuing from the juncture of the expansion coils and the liquor conduit, a hot vapor driven pump, with which such continuation of the weak liquor conduit communicates and to which the hot rich liquor is supplied through such continuation under the influence of the gas pressure within the generator, said hot vapor driven pump being adapted to return to the generator the rich liquor formed by the mixing of the weak liquor and the expanded gases and supplied thereto under pressure through the extension of the weak liquor conduit, and a hot vapor conduit leading from the generator to the pump for conveying hot vapors thereto, by which the pump is operated to return the rich liquor to the generator, substantially as specified.

2. A refrigerating apparatus including a generator, expansion coils, a pump operating to return to the generator the rich liquor resulting from the combination of the weak liquor and expanded gases, a hot vapor conduit leading from the generator to the power end of the pump, an exhaust conduit leading from the power end of the pump and discharging into the suction end thereof whereby the pump exhaust is returned to the generator.

3. In a refrigerating apparatus, a generator, expansion coils, a weak liquor conduit leading from the generator with which the expansion coils communicate, a hot vapor driven pump adapted to return the rich liquor formed by the mixing of the weak liquor and the expanded gases to the generator, a hot vapor conduit leading from the generator to the pump for conveying hot vapors thereto, by which the pump is operated to return the rich liquor to the generator and an exhaust conduit from the power end of the pump thence through a condenser and discharging through the operating end of the pump with the rich liquor to the generator.

4. A refrigerating apparatus including a generator, expansion coils, a weak liquor supply conduit, a pump operated by vapors from the generator to return to the generator the rich liquor resulting from the combination of the weak liquor and expanded gases, a condenser for the vapors exhausted by the pump and a connection whereby the condensed exhausted vapors from the pump are reintroduced into the generator with the rich liquor.

5. In a refrigerating apparatus, a generator, a gas conduit leading from the generator, a rectifier, a condenser, and expansion coils included in said gas conduit, a weak liquor conduit leading from the generator, a nozzle in said weak liquor conduit adapted to discharge a jet of weak liquor under generator pressure across the terminus of the gas conduit whereby the gas is forcibly withdrawn from the gas conduit and combined with the jet of weak liquor, a pump to which the enriched liquor is supplied under generator pressure, said pump being adapted to return the liquor to the generator, and a hot vapor supply conduit leading from the generator to the pump whereby the pump will be operated by hot vapors generated in said generator, and an exhaust conduit from the pump motor discharging into the liquor conduit, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,134,270. STEP-BEARING HEAD FOR ROTARY SPINDLES. ALBERT R. JACKSON, Waterloo, Iowa, assignor to William Galloway Company, Waterloo, Iowa. Filed May 23, 1914. Serial No. 840,531. (Cl. 64—25.)

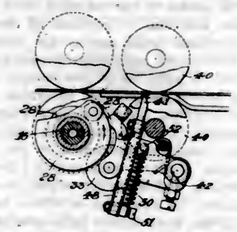


The combination with a cylindrical step-bearing sleeve, of a wear-head plate secured fixedly upon the upper edge of the sleeve, the plate having its outer part directed downwardly and provided with an inwardly-directed part forming an annular hollow in the plate into which the sleeve may be cast and thus fixedly secured thereto.

1,134,271. TRIP FOR CANCELING-MACHINES. FREDERICK G. JAHN, Brooklyn, N. Y., assignor to International Postal Supply Company of New York, Brooklyn, N. Y., a Corporation of New York. Filed Oct. 23, 1912. Serial No. 727,384. (Cl. 101—81.)

1. In a canceling machine, a finger carrying member, a finger thereon, a die hub having a projection, an arm adapted to be displaced by said finger carrying member and normally intercepting said projection, and means actuated by a moving part of the mechanism for positively returning said arm when the latter has been displaced.

2. In a canceling machine, a finger carrying member, a finger thereon and independently movable in the direction of its length thereon, a die hub having a projection, an arm adapted to be displaced by said finger carrying member and normally intercepting said projection, said die hub and arm coöperating to positively continue the displacement of said arm and thereafter return it to normal position.



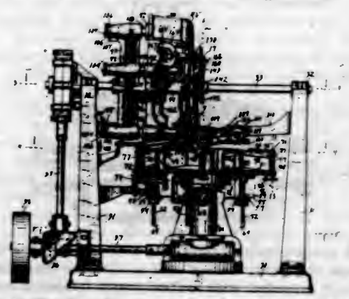
3. In a canceling machine, a finger carrying member, a finger thereon, a die hub having a projection, an arm adapted to be displaced by said finger carrying member and normally intercepting said projection, said die hub and arm coöperating to positively continue the displacement of said arm and thereafter return it to normal position.

4. In a canceling machine, a finger carrying member, a finger thereon, a die hub having a projection, an arm adapted to be displaced by said finger carrying member and having a roller intercepting said projection, and means actuated by a moving part of the mechanism for positively returning said arm when the latter has been displaced.

5. In a canceling machine, a finger carrying member, a finger thereon, a die hub having a projection, an arm adapted to be displaced by said finger carrying member and normally intercepting said projection, said arm being forced laterally by the movement of said projection, and means actuated by a moving part of the mechanism for positively returning said arm when the latter has been displaced.

[Claims 6 to 13 not printed in the Gazette.]

1,134,272. PAPER-BOTTLE-FORMING MACHINE. MAXIMILLIAN P. JANISCH, Milwaukee, Wis., assignor to U. S. Fiber Bottle Machinery Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 17, 1913. Serial No. 790,226. (Cl. 93—36.)



1. A bottle forming machine, comprising a frame, a revoluble member mounted thereon, a plurality of revoluble tubular mandrels mounted on the revoluble member and having suction openings in their peripheries, means for feeding bottle necks to the mandrels, means for feeding sheets of paper to the mandrels, and means for applying adhesive material to the sheets of paper.

2. A bottle forming machine, comprising a frame, a revoluble member mounted thereon, a plurality of revoluble tubular mandrels mounted on the revoluble member, and having suction openings in their peripheries, means for feeding bottle necks to the mandrels, a revoluble table provided with spaces for holding sheets of paper to be fed to the mandrels, and means for applying adhesive material to portions of the sheets of paper.

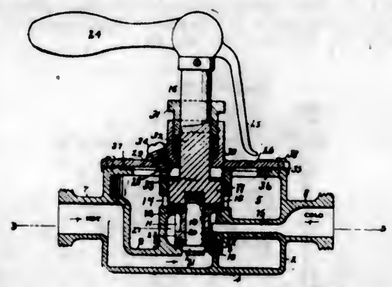
3. A bottle forming machine, comprising a frame, a revoluble member mounted thereon, revoluble tubular mandrels mounted on the revoluble frame, and having suction openings in their peripheries, means for feeding and applying bottle necks to the mandrel ends, means for applying adhesive material to portions of the necks, a revoluble table provided with spaces for holding sheets of paper to be fed to the mandrels, means for applying adhesive material to portions of the sheets, and means for wrapping the sheets around the mandrels and the necks.

4. A bottle forming machine, comprising a frame, a revoluble tubular member mounted thereon, revoluble tubular conical mandrels journaled on the revoluble member, and having suction openings in their peripheries, means for feeding and applying bottle necks to the mandrel ends, means for applying adhesive material to portions of the necks, a revoluble table provided with spaces for holding sheets of paper to be fed to the mandrels, a gluing mechanism for applying adhesive material along one edge of each sheet of paper, a plurality of brushes positioned in the path of travel of the mandrels, for engaging the sheets of paper on the mandrels, and means for revolving the mandrels.

5. A bottle forming machine, comprising a frame, a revoluble tubular member mounted thereon, revoluble tubular conical mandrels journaled on the revoluble member, and having suction openings in their peripheries, means for feeding and applying bottle necks to the mandrel ends, means for applying adhesive material to portions of the necks, a revoluble table provided with spaces for holding sheets of paper to be fed to the mandrels, a gluing mechanism for applying adhesive material along one edge of each sheet of paper, a plurality of brushes positioned in the path of travel of the mandrels, for engaging the sheets of paper on the mandrels, means for revolving the mandrels before the sheets of paper wrapped thereon are engaged by the brushes, and means for discharging the bottles from the mandrels.

[Claims 6 to 11 not printed in the Gazette.]

1,134,273. HOT AND COLD WATER MIXING VALVE. BERNARD H. JANSEN, Cleveland, Ohio. Filed Dec. 13, 1913. Serial No. 806,367. (Cl. 137—26.)



1. A mixing valve comprising a body having a cylindrical core centrally thereof and a circular chamber about said core provided with walled water-intake passages extending through said chamber to the core and provided with a discharge passage from said chamber, said core having differential bores with screw threads and discharge openings in its upper end and a pair of valve seats at different elevations therein, in combination with a screw-threaded valve stem and a pair of valve members therewith to engage said seats and provided each with a valve plunger to snugly fit the correspondingly differential bore.

2. A mixing valve, comprising a chambered body having a central core provided with valve seats and intake and discharge ports for the fluid, in combination with a screw stem having valve members to control the flow of fluid through said ports, a rotatable metal ring carried by said stem, and an adjustable stop to engage said ring and limit the movement of said stem.

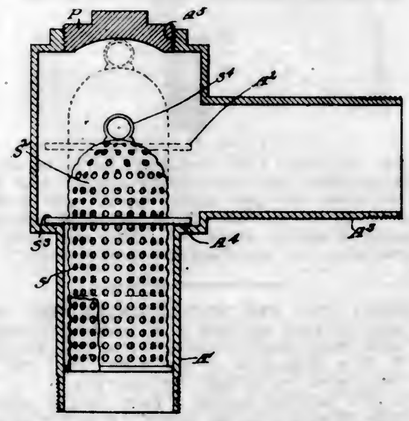
3. A mixing valve comprising a cylindrical body having an annular chamber and a central core provided with valve seats and intake and discharge ports, an annular inwardly-extending flange at the top of said body, a gasket seated upon said flange, a cover for said body seated upon said gasket, means to secure said cover in place, and a packing gland centrally of said cover, in combination with a screw stem engaged within said core and having valve members to engage said valve seats and to control said ports, an adjustable stop on said cover for the stem, and means loosely mounted upon the stem adapted to be engaged by said stop.

1,134,274. NUT-LOCK. LOUIS D. JOHNSON, Stockton, Cal. Filed July 30, 1914. Serial No. 854,065. (Cl. 151—18.)



A device of the character described comprising the combination with a bolt, of a nut mounted on said bolt and having an annular portion provided with a plurality of slots on its periphery, a locking nut mounted on the bolt and threaded into said nut, such threading being the reverse to the threading on the bolt whereby said locking nut may be moved to lock said nuts on said bolt, a clamp engageable with said locking nut in different positions, and a lug on said clamp engageable with one of said slots, as described.

1,134,275. STRAINER. EDWARD C. KELLY, Jr., Boston, Mass., assignor to Kelly Separator Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 28, 1914. Serial No. 863,815. (Cl. 210—16.)



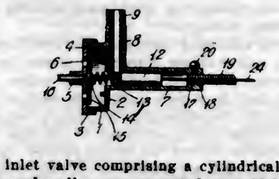
1. In combination, a casing adapted to form part of a conduit system, said casing comprising inlet and outlet branches and a chamber intermediate between the said branches, a screen formed with a tubular part slidably mounted in the inlet branch of the casing, and a hood part at the outlet end of the same, said screen adapted to advance into the intermediate chamber of the casing in response to pressure exerted by fluid passing through the casing.

2. In combination, a casing adapted to form part of a conduit system, said casing comprising inlet and outlet branches and a chamber intermediate between the said branches, a screen formed with a tubular part slidably mounted in the inlet branch of the casing, and a hood part at the outlet end of the same, said screen adapted to advance into the intermediate chamber of the casing in response to pressure exerted by fluid passing through the casing, and means to limit movement of the screen into the inlet branch of the casing.

3. In combination, a casing adapted to form part of a conduit system, said casing comprising inlet and outlet branches and a chamber intermediate between the said branches, a screen formed with a tubular part slidably mounted in the inlet branch of the casing, and a hood part at the outlet end of the screen and provided with a projection adjacent to the hood part adapted to rest normally on a coöperating bearing in the casing, and said bearing, said screen adapted to advance in the intermediate chamber of the casing in response to pressure exerted by fluid passing through the casing.

4. In combination, a casing adapted to form part of a conduit system, said casing comprising inlet and outlet branches and a chamber intermediate between the said branches, a screen formed with a tubular part slidably mounted in the inlet branch of the casing, and a hood part at the outlet end of the same, said screen adapted to advance into the intermediate chamber of the casing in response to pressure exerted by fluid passing through the casing, and means to limit movement of the screen into the inlet branch of the casing, the screen normally resting on said limiting means.

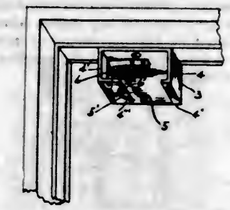
1,134,276. AUXILIARY AIR-INLET FOR ENGINES. LEWIS H. KIRBY, Detroit, Mich. Filed Feb. 6, 1914. Serial No. 816,976. (Cl. 137—26.)



An air inlet valve comprising a cylindrical hollow body having an end wall, a cap mounted on said body and provided with openings, a guide concentric of said cap, a flat valve in said body of less diameter than said body and normally closing the openings of said cap, a stem carried by said valve and extending into said guide, a tubular extension concentric of the end wall of said body, a nipple integral with the end wall of said casing and in communication with said tubular extension and radially disposed relative thereto, a plunger slidably mounted in said tubular extension and adapted to close the communication between said extension and said nipple, a coiled compression spring between said plunger and said valve, and means extending into the end of said extension and connected direct to said plunger for moving said plunger longitudinally of said tubular extension.

1,134,277. MILK-BOTTLE LOCK. GEORGE S. LANE, Portland, Oreg., assignor to Christian Christensen, Portland, Oreg. Filed May 4, 1914. Serial No. 836,259. (Cl. 232—42.)

1. A locking device for a milk bottle or the like having a flange around its top, comprising a box-like body provided in its bottom with an opening of less diameter than the extreme outside diameter of the bottle flange, said body being closed at all sides except its bottom and one side and adapted to be mounted in the frame of a door or window whereby to close said open side, and a locking member mounted within said body and projecting yieldingly over the edge of said bottom opening, whereby a bottle flange must be inserted first at the opposite side of said bottom opening and then moved flatwise through said opening to flex said locking member sufficiently to permit the bottle flange to pass the same, substantially as described.



2. A locking device for a milk bottle or the like having a top flange, comprising a box-like body having one side open and provided in its bottom with an opening of less diameter than the outside diameter of the bottle flange, whereby a bottle must be inserted one edge of the flange at a time in order to pass flatwise through said bottom opening, and a movable locking member mounted within said body and projecting across the edge of said bottom opening and adapted to move inwardly as said bottle is inserted and to fall back under the edge of the flange, said body being adapted to be secured to a door or window frame with its open side adjacent said door or window, whereby to be closed thereby, substantially as described.

3. In a locking device for milk bottles and the like having a top flange, a body having an opening in its bottom through which the bottle is inserted by an upward endwise movement, said opening being of less diameter than the outside diameter of the bottle flange, whereby the bottle flange must be inserted one side at a time, and a movable locking member mounted within said body and projecting across the edge of said opening and adapted to move inwardly as said bottle is inserted and to fall back under the flange of the bottle whereby to support and lock the same in place, substantially as described.

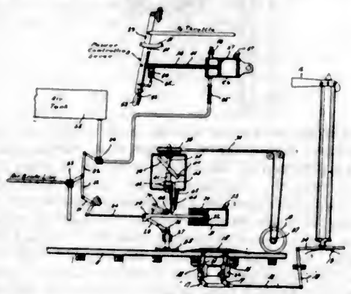
4. In a locking device for milk bottles and the like having a top flange, a body having an opening in its bottom through which the bottle is inserted by an upward endwise movement, said opening being of less diameter than the outside diameter of the bottle flange, whereby the bottle flange must be inserted one side at a time, and a movable locking member mounted within said body and projecting across the edge of said opening and adapted to move inwardly as said bottle is inserted and to fall back under the flange of the bottle, whereby to support and lock the same in place, and an auxiliary bottle holding device under said body, substantially as described.

5. A locking device for a milk bottle or the like, comprising a box-like body open at its bottom and one end only and having integral side and end walls, with an inturned flange member at the bottom of each side wall forming an opening in the bottom of less diameter than the outside diameter of the bottle flange, one of said flange members being provided with a notch to permit the bottle flange to pass thereinto, and a spring locking member within said body and overlying said notch and adapted to be moved inwardly by said bottle to permit the latter to enter, substantially as described.

1,134,278. RAILWAY SAFETY SYSTEM. HARRY W. MCNAUGHT, Indianapolis, Ind. Filed Apr. 3, 1913. Serial No. 758,591. (Cl. 246—59.)

1. A safety device for track-traveling vehicles, comprising a member carried by the vehicle and biased in one direction, a pair of latches restraining it against movement in such direction, one of said latches being released when the vehicle exceeds a predetermined speed and the other being releasable by a controlling device along the track, and means operated by the movement of such member in the direction in which it is biased for causing the application of the brakes and the shutting off of the driving power.

2. A safety device for track-traveling vehicles, comprising a member carried by the vehicle and biased in one direction, a pair of latches restraining it against movement in such direction, one of said latches being released when the vehicle exceeds a predetermined speed and the other being releasable by a controlling device along the track, and means operated by the movement of such member in the direction in which it is biased for causing the shutting off the driving power.



3. A safety device for track-traveling vehicles, comprising a member carried by the vehicle and biased in one direction, a pair of latches restraining it against movement in such direction, one of said latches being released when the vehicle exceeds a predetermined speed and the other being releasable by a controlling device along the track, and means operated by the movement of such member in the direction in which it is biased for causing the application of the brakes.

4. In a track-traveling vehicle, the combination of a power-controlling lever, a locking pawl for holding it in desired position, a cylinder and piston connected to said power-controlling lever so that relative movement between them actuates said lever, a second cylinder and piston associated with said locking pawl so that relative movement between them releases said pawl, said two cylinders being interconnected, and means controlled by the passage of the vehicle past a controlling device arranged along the track and by the speed of the vehicle for producing a difference in the pressures in each of said cylinders on opposite sides of the piston therein.

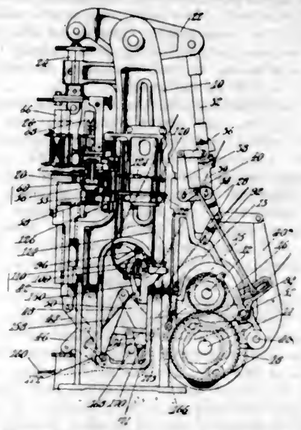
5. In a track-traveling vehicle, the combination of a power-controlling lever, a locking pawl for holding it in desired position, a cylinder and piston connected to said power-controlling lever so that relative movement between them actuates said lever, a second cylinder and piston associated with said locking pawl, so that relative movement between them releases said pawl, said two cylinders being interconnected, and means controlled by the speed of the vehicles for producing a difference in the pressures in each of said cylinders on opposite sides of the piston therein.

[Claims 6 to 11 not printed in the Gazette.]

1,134,279. AUTOMATIC HEEL-NAILING MACHINE. BENJAMIN F. MAYO, Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 24, 1910. Serial No. 545,668. (Cl. 1—32.)

1. A heeling machine having, in combination, mechanism for automatically attaching a heel to a shoe, driving means for operating said mechanism, a magazine for holding heels, mechanism for automatically taking a heel from said magazine and presenting it to said attaching mechanism, and driving means for said presenting mechanism arranged to be brought into action by the operator separately from said first named driving means.

2. A heeling machine having, in combination, mechanism for automatically attaching a heel to a shoe, driving means for operating said mechanism, mechanism for automatically presenting a heel to said attaching mechanism, driving means for said presenting mechanism, arranged to be brought into action by the operator separately from said first named driving means, and a single successively operative controlling device for said two driving means.



3. In a heeling machine, the combination of a horizontally stationary nail block, mechanism for automatically presenting a heel to said nail block, automatic mechanism for attaching a heel to a shoe, separate driving means for said two automatic mechanisms, and a common controlling means for said two separate driving means constructed and arranged to effect operation of the driving means for the presenting mechanism and then permit a dwell or rest in the action of said two driving means between the operation of the presenting mechanism and the operation of the attaching mechanism.

4. In a heel attaching machine, the combination of a shoe support, a heel holder, automatic means for effecting relative movement of said support and holder to locate the shoe and heel in proper relation to each other, automatic mechanism for attaching the heel to the shoe, and a single controlling device arranged to set said automatic means in operation during the initial portion of its movement and to set said automatic mechanism separately in operation at the will of the operator upon further movement of the controlling device.

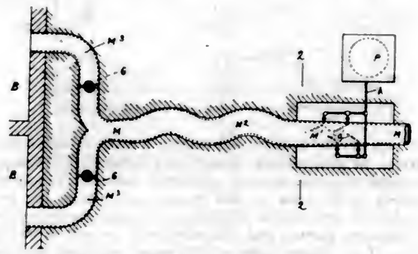
5. A heeling machine having, in combination, mechanism for automatically inserting heel attaching nails, mechanism for thereafter automatically modifying the action of said inserting mechanism to permit a top lift to be spanked on the ends of the attaching nails, driving means for operating said mechanisms, mechanism for automatically presenting a heel to said inserting mechanism, mechanism for automatically presenting nails to said inserting mechanism, mechanism for automatically presenting a top lift to said inserting mechanism, and driving means for said presenting mechanisms separate from said first named driving means.

[Claims 6 to 12 not printed in the Gazette.]

1,134,280. METHOD OF PURIFYING SEWAGE AND RECOVERING ORGANIC MATTER THEREFROM. GEORGE WELLINGTON MILES, Belmont, Mass., assignor to himself, trustee. Filed Feb. 16, 1914. Serial No. 818,854. (Cl. 210—1.)

1. The method of purifying sewage and recovering therefrom normally non-precipitant organic matter, which consists in introducing into the sewage before decomposition of the said organic matter has materially progressed, an inorganic acid as the sole effective reagent, to render said organic matter precipitant, allowing the said organic matter, after it has become precipitant by the agency of the acid, to precipitate, and subsequently separating the cleared liquid from the precipitate.

2. The method of purifying sewage and recovering therefrom normally non-precipitant organic matter, which consists in introducing into the sewage, before decomposition of the said organic matter has materially progressed, an inorganic acid under conditions which preclude the formation of insoluble soaps, to render said organic matter precipitant, allowing the said organic matter, after it has become precipitant by the agency of said acid, to precipitate, and subsequently separating the cleared liquid from the precipitate.



3. The method of purifying sewage and recovering therefrom normally non-precipitant organic matter, which consists in introducing sulfurous acid into the sewage before decomposition of the said organic matter has materially progressed, thereby rendering precipitant the said organic matter, and subsequently separating the cleared liquid from the precipitate.

4. The method of purifying sewage and recovering therefrom normally non-precipitant organic matter, which consists in introducing sulfurdioxid into the sewage before decomposition of the said organic matter has materially progressed, thereby producing sulfurous acid, rendering precipitant the said organic matter, and subsequently separating the cleared liquid from the precipitate.

1,134,281. SACCHARIFICATION AND FERMENTATION OF AMYLACEOUS SUBSTANCES. ALFRED MOLHANT, Mons, Belgium. Filed July 17, 1914. Serial No. 851,475. (Cl. 195—32.)

1. In processes for the saccharification and fermentation of amylaceous substances, the employment of boracic acid or any of its compounds for the purposes set forth.

2. In the liquefaction of amylaceous substances by boiling under pressure, with a view to their saccharification and subsequent fermentation, the addition to the said substances before boiling of about one part of boracic acid for each two hundred parts by weight of the said substances.

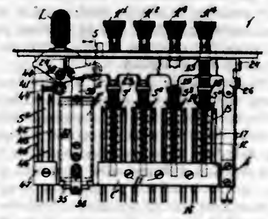
3. In the fermentation of amylaceous substances that have been treated with boracic acid, the employment of a yeast that has been acclimatized to boracic acid substantially as set forth.

1,134,282. TELEPHONE-KEY. GEORGE E. MUELLER, Aurora, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Mar. 1, 1907. Serial No. 360,116. (Cl. 179—177.)

1. A telephone key comprising a supporting frame, suitable contacts carried thereby, a spring returned actuating member for said contacts having three operating positions, means for holding said member in its second and third positions when moved thereto, and means for operating said holding means.

2. A telephone key comprising a supporting frame, suitable contacts carried thereby, a spring returned actuating member for said contacts having three operating positions, means for holding said member in its second and third positions when moved thereto, and electromagnetically actuated means for operating said holding means.

3. A telephone key comprising a supporting frame, suitable contacts carried thereby, a spring returned actuating member for said contacts having three operating positions, and electromagnetically actuated catches for holding said member in its second and third positions when moved thereto.

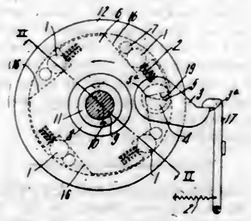


4. A telephone key comprising a supporting frame, suitable contacts carried thereby, a spring returned actuating member for said contacts having three operating positions, a pair of catches for severally holding said member in two of said operating positions, and means for simultaneously disengaging one of said catches and moving the other into engaging position to thereby allow the movement of said member from one operating position to another.

5. A telephone key comprising a supporting frame, suitable contacts carried thereby, a spring returned actuating member for said contacts having three operating positions, a pair of catches for severally holding said member in two of said operating positions, and electromagnetically actuated means for simultaneously disengaging one of said catches and moving the other into engaging position to thereby allow the movement of said member from one operating position to another.

[Claims 6 to 32 not printed in the Gazette.]

1,134,283. CLUTCH. WILLIAM H. MURSCH, Swissvale, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed June 26, 1914. Serial No. 847,402. (Cl. 192—22.)



1. A clutch comprising two concentrically mounted rotatable members, one of said members having recesses in the surface adjacent the other member said recesses forming wedge-shaped openings between the contiguous surfaces of said members, locking members located in said wedge-shaped openings, springs attached to one rotatable member for biasing said locking members into wedging positions between the two rotatable members, a third rotatable member having projections adapted to drive the locking members out of wedging positions against the action of said springs, and a lever device for causing sufficient relative movement of said third rotatable member and of the rotatable member to which said springs are attached to move the locking members out of locking position.

2. A clutch comprising two concentrically mounted rotatable members, one of said members having recesses in the surface adjacent the other member said recesses forming wedge-shaped openings between the contiguous surfaces of said members, locking members located in said

wedge-shaped openings, springs attached to one rotatable member for biasing said locking members into wedging positions between the two rotatable members, a third rotatable member having projections adapted to drive the locking members out of wedging positions against the action of said springs, a lever device for causing sufficient relative movement of said third rotatable member and of the rotatable member to which said springs are attached to move the locking members out of locking position, and means for preventing rebound of the rotatable member to which the springs are attached.

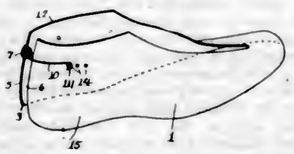
3. A clutch comprising a drum, a plate located within the drum and movable with relation thereto and having recesses in its periphery, locking members located in said recesses, springs fixed to said plate and adapted to press said locking members into wedging position between the plate and the drum, a disk mounted to rotate with relation to the plate, said disk having projections adapted to force the locking members out of wedging positions, a cam pin journaled in said disk and adapted to shift the disk with respect to the plate, a pawl fixed to said cam pin and projecting therefrom, and a member movable into and out of the path of said pawl.

4. A clutch comprising a drum, a plate located within the drum and movable with relation thereto and having recesses in its periphery, locking members located in said recesses, springs fixed to said plate and adapted to press said locking members into wedging positions between the plate and the drum, a disk mounted to rotate with relation to the plate, said disk having projections adapted to force the locking members out of wedging positions, a cam pin journaled in said disk and having a substantially plane surface parallel to the axis of the pin, said plate having a substantially radial surface adapted to coact with the plane surface on the cam pin, a pawl fixed to the said cam pin and projecting therefrom, and a member movable into and out of the path of said pawl.

5. A clutch comprising a drum, a plate located within the drum and movable with relation thereto, and having recesses in its periphery, locking members located in said recesses, springs fixed to said plate and adapted to press said locking members into wedging positions between the plate and the drum, a disk mounted to rotate with relation to the plate, said disk having projections adapted to force the locking members out of wedging positions, a cam pin journaled in said disk and adapted to shift the disk with respect to the plate, a pawl fixed to said cam pin and projecting therefrom, a member movable into and out of the path of said pawl, the effective radius of said pawl being greater than the effective radius of said cam pin whereby a comparatively slight force exerted by said movable member on the pawl causes the exertion of a considerable force on said springs.

[Claim 6 not printed in the Gazette.]

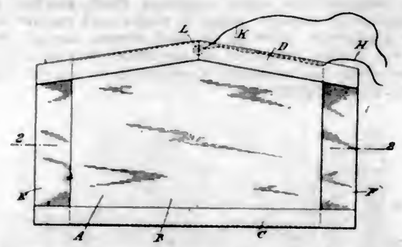
1,134,284. LASTING-SHELL AND UPPER-PROTECTOR. CHARLES H. NICKERSON, Derry, N. H. Filed May 11, 1914. Serial No. 837,644. (Cl. 36—72.)



1. The combination with a shoe last, of a shell snugly fitting the lateral surface thereof but leaving the under surface exposed, said shell being cut apart on a vertical line, and means for forcibly drawing toward each other the edges of said cut shell.

2. The combination with a last, of a shell inclosing the sides thereof but leaving the under surface of the last exposed, the heel of said shell being cut apart on a vertical line, said shell having means for forcibly drawing toward each other the edges of the cut shell.

1,134,285. WRAPPER. HARVEY L. PAGE, San Antonio, Tex., assignor of one-half to Robert L. Burnett, Sr., San Antonio, Tex. Filed Oct. 31, 1914. Serial No. 869,503. (Cl. 150—52.)



1. An article wrapper comprising a body or foundation portion to give certain rigidity and form to the finished wrapper, a cover portion of flexible material adhesively secured to the back of said foundation portion and provided with flaps at the sides which overlap the side edges of the body portion and are adhesively secured to the interior of the latter adjacent said edges, and also provided with flaps extending from the ends thereof adapted to be folded inwardly and over the article contained in the wrapper, and means for securing the article in wrapped condition.

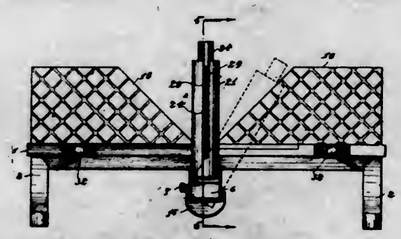
2. An article wrapper comprising a body or foundation portion of material that is adapted to be rolled up and capable of giving a certain amount of rigidity and form to the finished wrapper, a cover portion of flexible material secured to said body portion and provided with flaps at the sides which overlap the side edges of the body portion and are secured to the interior of said body portion adjacent to and for the protection of said edges, said cover also provided with flaps which protrude from the ends of said body portion and adapted to be folded inwardly and over the article contained in the wrapper, means for securing the article in wrapped condition, and means secured under one of the side flaps and projecting from one corner of the wrapper for securing a tab or other identifying means to said wrapper.

3. An article wrapper comprising a body or foundation portion of material that is adapted to be rolled up and capable of giving a certain amount of rigidity and form to the finished wrapper, a cover portion of flexible material secured to said body portion and provided with flaps at the sides which overlap the side edges of the body portion and are secured to the interior of said body portion adjacent to and for the protection of said edges, said cover also provided with flaps which protrude from the ends of said body portion and adapted to be folded inwardly and over the article contained in the wrapper, and means secured under one of the flaps and projecting from one corner of the wrapper for securing a tab or other identifying means to said wrapper.

4. An article wrapper comprising a body or foundation portion of material that is adapted to be folded up and capable of giving a certain amount of rigidity and form to the finished wrapper, protecting means secured to said body portion comprising flaps which are secured to said body portion adjacent the side edges thereof, said flaps overlapping the side edges and secured to the interior of said body portion for protecting the side edges, and also comprising flaps which protrude from the ends of said body portion and adapted to be folded inwardly and over the edges of the article contained in the wrapper.

1,134,286. MITER-BOX. JOSEPH PELLETIER, Montreal, Quebec, Canada. Filed Apr. 20, 1914. Serial No. 833,022. (Cl. 143—88.)

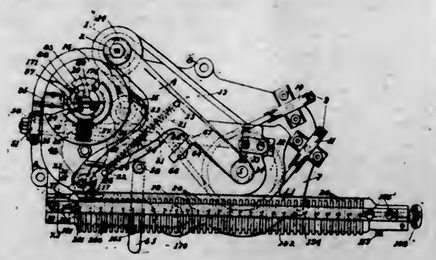
1. In a miter box of the character described, the combination of; a table; a bed mounted thereon; a hollow beam pivoted to the under face of the table, at the center of the back edge thereof, and provided in one side with a perforation; a segmental rack rigid with the under face of the table, above the said beam; a yoke slidably mounted on the beam and provided with a tooth adapted to normally engage the teeth of the said rack: a pressure foot pivotally mounted on the beam and having its arms mounted in recesses in the arms of the yoke; a rod rotatably mounted through the said beam and having a block at each end, a spring catch adapted to lock said rod to said beam; vertically adjustable saw guides carried by the blocks at the end of the rod; adjusting means therefor; and means for holding small pieces of material.



2. In combination with a miter box table and a hollow beam pivoted thereto, means for locking said beam in any position of pivotal adjustment, a rod rotatable in said beam and provided with a circumferential series of bores, a spring catch mounted on said beam and engaging any one of said bores according to the axial position of said rod and a saw-guide block carried by said rod substantially as set forth.

3. In a device of the character described, means for holding small material, comprising; a table; a bed mounted thereon and provided near each end with a slot and a recess contiguous therewith; backs secured to the said table; rods rotatably mounted in the said slot, the said rods being of rectangular cross section and having serrated sides, and having their inner ends loosely secured; and blocks slidable on the said rods, the said blocks being provided with bores slightly larger than the rods and being adapted to be turned down into the recesses, when not in use, and being of such a height as to be flush with the upper face of the bed when so turned down.

1,134,287. MACHINE FOR GENERATING PATTERNS. FREDERICK H. PERRY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 8, 1911. Serial No. 637,520. (Cl. 144—144.5.)



1. An attachment for pattern-generating machines; said attachment comprising an elongated supporting member having means to secure said attachment to a pattern-generating machine; a series of adjustable edge-blocks; a removable retaining cap having graduations marked adjacent to said blocks to facilitate adjustment thereof; and a retaining member to hold said blocks in adjusted position; said blocks being constructed and arranged for limited transverse movement relatively to said supporting member and retaining cap.

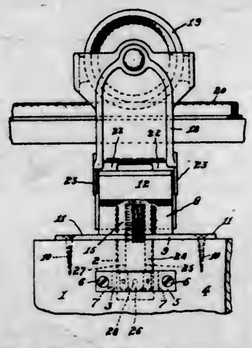
2. An attachment for pattern-generating mechanism; said attachment comprising a holder having an attaching pivot; a slide carried by said holder; and a plurality of transversely movable parts carried by said slide and movable bodily therewith relatively to said holder; said parts presenting adjacent ends respectively for engagement with the model, and opposite ends constituting a composite abutment for engagement of the follower of the pattern-generating mechanism to which said attachment may be applied.

3. An attachment for pattern-generating mechanism comprising edge-blocks having rounded noses; a support therefor with a roughened face; and a guide strip between said face and blocks; said parts serving to aid the operator in turning the shoe-sole and upper, or other model, in engagement with said blocks, to set the latter.

4. An attachment for pattern-generating mechanism comprising a holder having a member to be pivoted upon the frame of pattern-generating mechanism, and provided with a spring-controlled stop to fasten the holder in adjusted position; a slideway upon said holder; a longitudinally extended support on said slideway; and a variable edge device carried by said support.

5. An attachment for pattern-generating mechanism comprising a supporting member having a groove; transversely movable edge blocks, and distance or separator blocks, movable in said groove; a retaining member operating to crowd said edge blocks and separator blocks laterally against an end piece; and other retaining members extending into said groove to prevent longitudinal displacement of said edge blocks, and a removable retaining cap to hold said retaining blocks and edge blocks adjustably in assembled relation.

1,134,288. DOOR-HANGER. THOMAS V. PLICE, Ashland, Ohio, assignor to W. V. B. Topping, Ashland, Ohio. Filed May 9, 1914. Serial No. 837,397. (Cl. 16—7.)



1. In a door hanger, the combination of a door provided with a recess intersecting its upper surface and a communicating recess intersecting the front door surface; a guide-member fixed to such upper door surface and projecting upwardly from said first-named recess; a trolley-wheel and depending frame connected therewith; said frame projecting into said guide-member and being laterally removable therefrom; and a threaded member engaging the lower end of said guide-member and the said hanger member and having its lower end positioned in said first-named recess opposite the said second-named recess.

2. In a door hanger, the combination of a door provided with a recess intersecting its upper surface and a recess communicating therewith intersecting the front surface of the door; a guide-member fixed to said upper surface, having a portion thereof extending into said first-named recess, and another portion extending upwardly therefrom; a trolley-wheel and depending frame connected therewith, the lower end of said frame extending into said guide-member and formed with a central threaded

nut portion; said upwardly projecting portion of the guide-member being provided with a horizontal space communicating laterally with the exterior and adapted to receive said centrally threaded portion, and with a vertical enlargement of its interior space also adapted to receive said portion; and a threaded bolt whose upper end engages said centrally threaded nut portion of said hanger member and whose head engages the lower end of said guide-member; such head of said threaded member being located opposite said second-named recess.

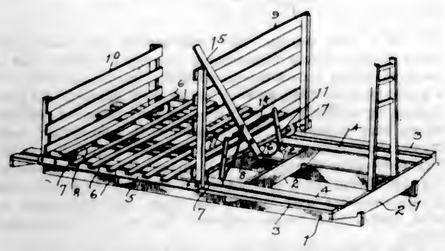
3. In a door hanger, the combination of a guide-member adapted to be secured to the door and provided with upwardly extending guiding walls forming an interior space contracted at the top and bottom and communicating laterally with the exterior, the central lower portion of said space being enlarged to form a cylindrical space having a vertical axis; a trolley-wheel and hanger depending therefrom, the lower end of said hanger being formed with two vertical laterally placed slide members adapted to slide in the contracted portions of said interior space, and connected at the bottom by an enlarged central threaded portion adapted to enter laterally the enlarged portion of the guide-space and to slide vertically in the cylindrical enlargement thereof; the upper outer portions of said slide members being provided with flanges of greater width than the contracted portions of said guiding-space; and a threaded bolt having its head engaging the lower end of the guide-member, and its upper or threaded end engaging the cylindrical enlargement of the lower part of said hanger.

1,134,289. PROCESS FOR FORMING CURVED TUBULAR CASINGS FOR HORSE-COLLARS. LEONARD J. POWERS, Waterloo, Iowa, assignor to The Powers Manufacturing Company, Waterloo, Iowa. Filed Aug. 20, 1912. Serial No. 716,060. (Cl. 54—19.)



The process of forming tubular roll-casings for horse-collars, which comprises gathering and securing spaced parts on one long side edge portion of an oblong piece of flexible material to contract such parts, then forming and securing on the other long side edge-portion opposite said spaced parts triangular plaits, and securing the long side edges together to produce a longitudinally curved roll-casing.

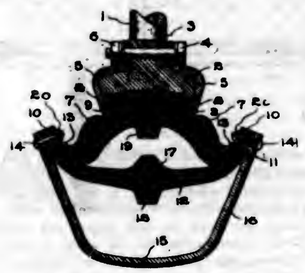
1,134,290. HAY-LOADING DEVICE. HARRY SMITH, near Sulphur Grove, Ohio. Filed Aug. 22, 1913. Serial No. 786,129. (Cl. 21—74.)



1. In a construction as described, a movable truck, a longitudinally disposed bar alined with the path of travel of the truck in relation with which the truck is movable, a pivoted arm carried by the truck, a hook shaped extremity upon the arm, a sharpened edge on said arm adjacent to the hook shaped extremity, the construction and arrangement being such that upon oscillation of the arm the hook shaped extremity thereof will be projected beneath the bar and the sharpened edge will be projected into engagement with the edge of the bar.

2. In a device of the character described, a vehicle bed, a reciprocatory truck mounted thereon, spaced bars carried by the vehicle bed in parallel alinement with the path of travel of the truck, two oppositely disposed locking members carried by the truck, each locking member having a sharpened portion adapted to be engaged with the adjacent bar to prevent reciprocatory movement of the truck and an extension adjacent to the sharpened portion adapted to be projected beneath the bar to prevent vertical disengagement of the truck and bed, and a releasing member common to both locking members.

1,134,291. TIRE. WILLIAM J. SPENCER, New York, N. Y. Filed Apr. 27, 1914. Serial No. 834,711. (Cl. 152—36.)



1. A tire comprising a yielding shock absorbing member of general arch shape in cross section, a tread secured at its edges to the edges of said member, and a resilient member connecting the ends of the arch shaped members and interposed between said arch shaped member and the tread, substantially as described.

2. A tire comprising a yielding shock absorbing member of general arch shape in cross section, a tread secured at its edges to the edges of said member, and a resilient member secured at its edges to the first-mentioned member and exerting a sustaining action upon the said member, substantially as described.

3. A tire comprising a yielding member of general arch shape in cross section, a resilient member connecting the edges of the arch shape member, and a tread of general U-shape secured at its edges to the arch shape member and inclosing the resilient member, substantially as described.

4. A tire comprising a yielding member of general arch shape with its edges curved outwardly, and a U-shaped tread having its edges secured to the outwardly curved edges of the said member, and a resilient member secured to the outwardly curved portions of the first-mentioned member and inclosed within the tread, substantially as described.

5. The combination with a wheel felly, an annular yielding member fitting around the wheel felly and of general arch shape in cross section, said member having grooves in its opposite faces, clamping devices secured to the felly and projecting into said grooves, a tread secured at its outer edges to the outer edges of said member, and a resilient annular member secured at its edges to the outer portions of the first-mentioned member and inclosed within the tread, substantially as described.

[Claim 6 not printed in the Gazette.]

1,134,292. GLASS-CUTTER. LANDON P. SMITH, New York, N. Y., assignor to Smith & Hemenway Company, Incorporated, New York, N. Y., a Corporation of New York. Filed June 8, 1912. Serial No. 702,593. (Cl. 49—52.)

1. A glass cutter comprising a head, a movably mounted cutter-wheel-carrying member carried by said head, a lubricating ring carried by said head, said ring contacting with each of said cutters.

2. A glass cutter having a revolubly mounted wheel-carrying member provided with an annular groove, a plurality of cutters independently mounted in said groove, and a ring of absorbent material arranged within said groove and contacting with said cutter wheels.

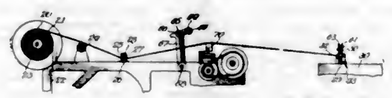


3. A glass cutter comprising a head provided with a shank, a handle carried by said shank, said head being provided with a recess on one of its side faces and having its side wall centrally apertured, a member arranged within said recess having a central threaded bore, a screw working in the aperture of the head extending into the threaded bore of said member for securing said member in its adjusted position therein, said member being provided with an annular groove in its periphery, a plurality of cutting wheels mounted in the groove of said member, and a lubricating member arranged within the bottom of said groove in contact with each of said cutter wheels.

4. A glass cutter having an adjustably mounted cutter carrying member, said member being provided with an annular groove, a ring of absorbent material arranged within said groove, and a plurality of cutters independently mounted within said groove engaging said ring for retaining said ring in position therein.

5. In a glass cutter, the combination with a head having a recess, of a circular member adjustably mounted within said recess, said member being provided with a plurality of cutting wheels extending beyond the peripheral edge thereof, and a central lubricating ring carried by said member, and engaging each of said cutter wheels.

1,134,293. FABRIC-TEARING DEVICE. WILLIAM C. STEVENS, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Nov. 26, 1913. Serial No. 803,137. (Cl. 223—59.)



1. In a fabric gripping device, the combination of an abutment, and a series of fingers spaced apart a distance substantially equal to their width and adapted to grasp the edge portion of a fabric sheet at intervals between themselves and said abutment, whereby to hold and leave free alternate edge portions of the cloth, substantially as described.

2. In a fabric gripping device, the combination of an abutment, and a series of spring-pressed fingers spaced apart and adapted to grasp the edge portion of a fabric sheet at intervals between themselves and the said abutment, and other means movable relative to the fingers and adapted to grasp the cloth between said fingers, substantially as described.

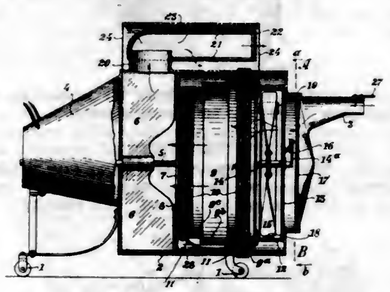
3. In a fabric gripping device, the combination of an abutment, a series of fingers spaced apart and adapted to grasp the edge portion of a fabric sheet at intervals between themselves and said abutment, means to operate a plurality of said fingers simultaneously, and other means movable relative to the fingers and adapted to grasp the cloth between said fingers, substantially as described.

4. In a fabric gripping device, the combination of an abutment, a series of independently operable fingers spaced apart a distance substantially equal to their width and adapted to grasp the edge portion of a fabric sheet at intervals between themselves and said abutment, whereby to hold and leave free alternate edge portions of the cloth, and means to simultaneously operate a plurality of said fingers, substantially as described.

5. In a device of the character described, the combination of a first fabric gripping device adapted to grasp the edge portion of a fabric sheet at intervals, and a second fabric gripping device movable relatively to the first gripping device to tear the fabric and adapted to grasp the edge portions of the fabric sheet ungrasped by said first gripping device, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,134,294. VACUUM-CLEANER. GEORG SUPANZ, Vienna, Austria-Hungary. Filed May 7, 1914. Serial No. 837,091. (Cl. 83—47.)



1. In a vacuum cleaner the combination of a sieve, a vane wheel adjacent the rearward side of said sieve and adapted to be rotated by a stream of air passing through said sieve, and a brush connected to said vane wheel and sweeping the forward side of said sieve.

2. In a vacuum cleaner the combination with a casing, of a cover having a window, a sieve in said casing, a vane wheel adjacent the rearward side of said sieve and adapted to be rotated by a stream of air passing through said sieve, said vane wheel being visible through said window, and a brush connected to said vane wheel and sweeping the forward side of said sieve.

3. In a vacuum cleaner the combination of a casing having a detachable cover, a series of fine sieves in said casing, a coarse sieve in said cover, means for drawing a stream of air through said coarse sieve and fine sieves in series, a vane wheel mounted in said cover, and a brush connected to said vane wheel sweeping said coarse sieve.

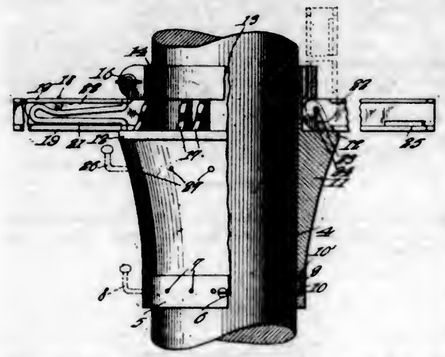
4. In a vacuum cleaner the combination of a casing having a detachable cover, a series of fine sieves in said casing, a coarse sieve in said cover, means for drawing a stream of air through said coarse sieve and fine sieves in series, a vane wheel mounted in said cover, and a brush connected to said vane wheel sweeping said coarse sieve, said fine sieves being divided in groups whose fineness of mesh increases in the direction of the stream of air.

5. In a vacuum cleaner the combination of a casing having a detachable cover, a series of fine sieves in said casing, a coarse sieve in said cover, means for drawing a stream of air through said coarse sieve and fine sieves in series, a vane wheel mounted in said cover, and a brush connected to said vane wheel sweeping said coarse sieve, said fine sieves having rims whereby they are slightly spaced apart.

1,134,295. TENT-RACK. JOSEPH TAYLOR, Jr., Saco, Me. Filed Apr. 20, 1914. Serial No. 833,264. (Cl. 211—22.)

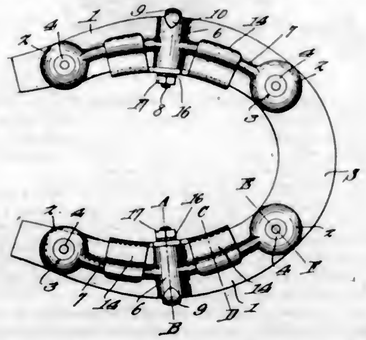
A rack comprising a head including arcuate sections adapted to surround a pole, a ring adapted to be secured upon the pole and having an upstanding annular flange, the lower end of the head being reduced and arranged to fit within the said flange, a clamping ring embracing the

upper ends of the sections of the head, and bracket arms pivoted to the sections of the head to swing upwardly,



the head sections having shoulders for supporting the bracket arms when they are swung downward.

1,134,296. ICE-CREEPER ATTACHMENT FOR HORSE-SHOES. DANIEL W. THOMAS, Richmond, Ind. Filed Dec. 31, 1914. Serial No. 879,900. (Cl. 168—31.)



1. A creeper attachment for horseshoes, including a holding plate having a flat shoe engaging face, said plate being curved laterally, calks carried by the plate, a gripping plate for engaging the inner side of a shoe, an extension upon said gripping plate for engaging the hoof engaging surface of the shoe, a bolt extending between the shoe and plate and extending through said gripping plate, a head upon the bolt for straddling the outer side of the shoe and plate, and means engaging the inner end of the bolt for holding the bolt in engaging position.

2. A creeper attachment for horseshoes, including a holding plate, calks carried thereby, said plate having a transverse groove in the shoe engaging face thereof, the said plate being curved laterally, a gripping plate at the inner or concave side of the holding plate, a bolt removably seated in the groove and having a head for straddling the holding plate and the outer edge of the shoe, and means engaging the inner end of the bolt for tightening the bolt in engaging position.

3. A creeper attachment for horseshoes, including a holding plate, calks carried thereby, said plate having a transverse groove in its shoe engaging face, a gripping plate for engaging the inner side of the holding plate and the inner side of the shoe to which the plate is attached, means upon the gripping plate for engaging the hoof engaging surface of a shoe, means upon said gripping plate for engaging the bottom face of the holding plate, a bolt seated within the transverse groove, means thereon for straddling and engaging the outer side of the holding plate and shoe to tie them together, and means engaging the inner end of the bolt for securing it in active position.

4. A creeper attachment for horseshoes, including a holding plate, calks extending therefrom, longitudinal ribs upon the plate and between the calks, there being a transverse groove within the shoe engaging face of the holding plate, a gripping plate for engaging the inner side of the holding plate, means extending therefrom for engaging the longitudinal ribs to hold the gripping plate against lateral displacement relative to the holding plate, means upon the gripping plate for engaging the hoof engaging face of the shoe to which the plate is attached, a bolt within the transverse groove and extending through the gripping plate, means upon the bolt for straddling the outer sides of the holding plate and shoe respectively to tie them together, and means engaging the inner end of the bolt for binding the gripping plate to the holding plate.

5. The combination with a horseshoe having a recess therein, of a holding plate having a flat face engaging the shoe, there being bores within the holding plate, tapered calks within the bores and having their broad ends bearing against the shoe, said holding plate having a transverse groove in the shoe engaging one face thereof, a shoe gripping plate upon the inner side of the holding plate and adapted to straddle and engage the inner side of the shoe, a bolt seated within the groove and between the holding plate and shoe, means upon the outer end of the bolt for straddling and engaging the holding plate and shoe to tie them together at their outer edges, means engaging the inner end of the bolt for holding said bolt in active position, and a projection adapted to be seated in the recess in the shoe to hold the plates against longitudinal sliding movement relative to the shoe.

1,134,297. GAGE. LYNN B. TILLERY, Rocky Mount, N. C. Filed Aug. 20, 1914. Serial No. 857,694. (Cl. 33—189.)



1. An article of the character described comprising an elongated body portion provided with a longitudinally extending slot and angular arms located at one end of said body portion and disposed centrally thereof, spirit vials pivoted at the other end of said body portion and centering means carried in said elongated slot and parallel with the axis of said spirit vials and the apex of the angularly disposed arms.

2. An article of the character described comprising an elongated body portion provided with an elongated slot therein, spirit vials pivoted to said body portion and capable of making a complete revolution, said spirit vials arranged in fixed relation to each other, angularly disposed arms at one end of said body portion, the apex of said arms being in the medial plane of the said elongated slot and centering means adjustable in said elongated slot and parallel with the axis of said spirit vials and the apex of the angularly disposed arms.

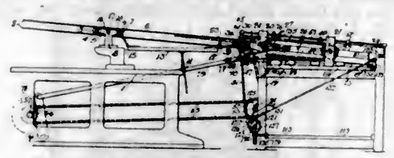
3. An article of the character described comprising an elongated body portion provided with a longitudinally extending slot, angularly disposed arms at one end of said body portion and the apex of the arms being in the medial plane of the elongated slot of the body portion, a circular dial graduated in degrees located at the other end of said body portion, spirit vials pivoted at the center of said dial arranged in fixed relation with each other and the axis of said vials being in the medial plane of the elongated slot of said body portion, and the apex of the said angularly disposed arms.

4. An article of the character described, comprising a body portion, spirit vials carried thereby adjustable with regard to said body portion and in fixed relation to each other, angularly disposed arms at one end of said body portion, and centering means located between said spirit vials and said arms, the point of which is disposed at right angles to the long dimension of said body portion.

5. An article of the character described, comprising a body portion, spirit vials located at the upper portion thereof, said spirit vials adjustable with regard to said body portion and in fixed relation to each other, arms located at one end of said body portion, and disposed at an angle of 90 degrees to each other, and adjustable centering means carried by said body portion, the point of which is disposed at right angles to the long dimension of said body portion.

[Claims 6 to 11 not printed in the Gazette.]

1,134,298. DELIVERY MECHANISM FOR PRINTING-PRESSES. JOHN H. E. TORLINA and ELMER E. WOLF, Springfield, Ohio; said Wolf assignor to said Torlina. Filed July 8, 1911. Serial No. 637,400. (Cl. 101—31.)



1. In a mechanism of the character described, a sheet delivering device arranged to receive a printed sheet, means to impart movement to said device in two directions, a rockshaft journaled on said device, stops fixed on said shaft, actuating means connected to the shaft to position the stops against the device when the latter is in its initial position to limit the movement of the sheet being received thereon, and to automatically elevate said stops above the sheet previous to the device reaching the other limit of movement, and a second stop carried by said actuating means and arranged to be disposed in advance of the sheet when the device is returning to its initial position.

2. In a mechanism of the character described, a frame having a guideway on each side thereof, a carriage mounted in each of said guideways, a shaft extending transversely to said frame and mounted in said carriages, a plurality of fingers rigidly secured to said shaft in a position to receive a printed sheet, sprocket wheels mounted on each side of said frame near the front and rear ends thereof, sprocket chains passing about said wheels, and connections between said sprocket chains and said carriages.

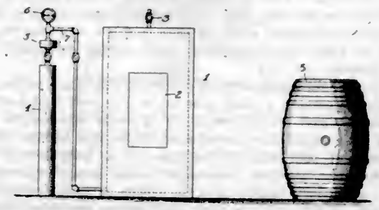
3. In a mechanism of the character described, a frame having a guideway on each side thereof, a carriage mounted in each of said guideways, a shaft extending transversely to said frame and mounted in said carriages, a plurality of fingers rigidly secured to said shaft in a position to receive a printed sheet, sprocket wheels mounted on each side of said frame near the front and rear ends thereof, a sprocket chain passing about said wheels, and arms secured to the opposite ends of said shaft, extending parallel with said sprocket chain and connected thereto.

4. In a mechanism of the character described, the combination, with a sheet delivering device comprising a series of fingers arranged to receive a printed sheet, and means for imparting reciprocatory movement to said device, of a stop comprising parts adapted to engage the rear ends of said fingers to limit the rearward movement of the sheet relatively thereto, a second stop supported normally in an in operative position, and a device controlled by the movement of said sheet delivering device to move the first-mentioned stop into an inoperative position and to move the second stop into a position to engage the forward edge of the sheet as said sheet delivering device moves forward.

5. In a mechanism of the character described, the combination, with a sheet delivering device comprising a series of fingers arranged to receive a printed sheet, and means for imparting reciprocatory movement to said device, of a stop carried by said device and supported normally in a position to limit the rearward movement of said sheet relatively to said fingers, a second stop supported independently of said device, a trip arm connected with the first-mentioned stop, a supporting device for the second stop, and a part connected with said supporting device and adapted to be engaged by said arm to move the first stop into an inoperative position and to move the second stop into an operative position.

[Claims 6 to 14 not printed in the Gazette.]

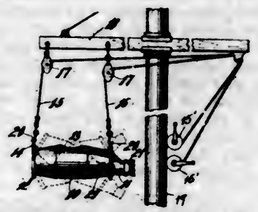
1,134,299. PROCESS OF CURING MEAT. CHARLES B. TRESCOTT, Indianapolis, Ind., assignor to Henry L. Mills, Chicago, Ill. Filed Nov. 18, 1913. Serial No. 801,674. (Cl. 99—8.)



1. The process of curing meat, which consists in first pickling it in brine to impregnate it with salt throughout a portion only of its thickness and thereby retain its natural juices, and thereupon continuing the curing action of the salt throughout the remainder of the thickness of the meat while impregnating the latter with carbonic acid gas.

2. The process of curing meat, which consists in first pickling it in a comparatively strong brine-pickle until the salt of the pickle has penetrated through only a portion of the thickness of the meat and while retaining therein its natural juices, then removing the meat from the pickle and immersing it in carbonic acid gas under confinement and holding it thus immersed until the salt has permeated the remainder of the thickness of the meat and the carbonic acid gas has penetrated the same.

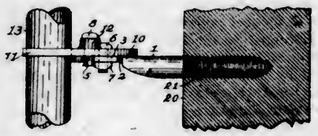
1,134,300. CONCRETE-MIXER. CHARLES H. VINAL, Appleton, Wis. Filed June 13, 1914. Serial No. 844,939. (Cl. 83—73.)



1. A concrete mixer, comprising a drum, hoisting means at each end thereof, and separate means for operating each of the said hoisting means independently for giving the drum an oscillating motion that will tilt it from end to end.

2. A receptacle having a top and an end opening, the latter with a closure, and separate means for raising and lowering said receptacle, said means being connected respectively with the end of said receptacle.

1,134,301. LATCH FOR GATES. WALTER K. VOORHEES and FRANK A. ANDERSON, Cedar Falls, Iowa. Filed June 5, 1914. Serial No. 843,227. (Cl. 70—28.)



1. The combination with a gate-post and a gate-stile, of a latch comprising a body secured to the post and having a flattened portion provided with spaced stops on opposite side edges, a fork medially pivoted on said flattened part, and bodies mounted on said fork to depend releasably into engagement with said stops, the members of the fork embracing said stile releasably.

2. The combination with a gate-post and a gate-stile, of a latch comprising a body secured to the post adjustably, extending toward the stile and having opposite side edges provided with curved recesses having abrupt end-walls to serve as stops, a fork medially pivoted to said body to releasably embrace the stile with its members, headed pins mounted on opposite sides of said fork for vertical movements to have their depending ends seated releasably in said recesses.

3. The combination with a gate-post and a gate-stile, of a latch comprising a body secured to the post and having a flattened end formed with its opposite side edges recessed with concentric arc-shaped walls and having stop-shoulders at the ends of the recesses, a body seated on said flattened portion, both said bodies being orificed in line, a pivot-bolt seated in said alined orifices concentric with said arc-shaped recesses, said second-mentioned body having divergent forks extending toward and embracing said stile, and having orifices on opposite sides, headed pins seated in said orifices to depend into said recesses and be locked against like shoulders when so depending, the second-mentioned body adapted to rock laterally to release the stile, when either pin is lifted to clear its engaged shoulder.

4. The combination with a gate-post and a gate-stile, of a latch comprising a body secured to the post and having a flattened end portion, a plate having divergent fork-members pivoted on said flattened portion to removably embrace said stile, the opposite side edges of said flattened portion being recessed to have spaced radially-extending shoulders to serve as stops, said plate having orifices in opposite sides, headed pins movable through said orifices to depend into said recesses and into engagement with the shoulders nearest the stile, said pins being located between said stile and the pivot of said plate.

5. The combination with a gate-post and a gate-stile, of a latch comprising a disk-shaped body with a forward projection and having spaced shoulders on opposite side edges, said body being secured on said post, a plate pivoted concentrically on said disk and having divergent forks embracing said stile releasably, orifices in said plate, headed pins seated in said orifices to be vertically movable and depend on each side of the disk to engage the shoulders on like parts of the disk, said pins being adapted to become released from said disk when lifted, and being irremovable from said plate.

[Claim 6 not printed in the Gazette.]

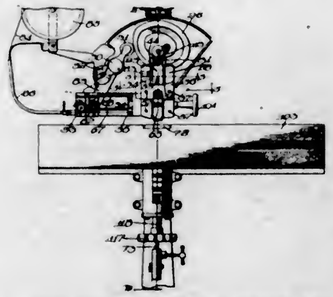
1,134,302. DOLLY-POST FOR WASHING-MACHINES. EDWARD L. WATROUS, Des Moines, Iowa, assignor to David B. Gann, Chicago, Ill. Filed Feb. 11, 1911. Serial No. 608,163. (Cl. 68—15.)

1. A dolly post having an aperture in its lower end and being longitudinally recessed, a button at the lower end of the post and having a tongue extending into the aperture, and a bolt set through the post and tongue, its ends being housed within the recesses.



2. A dolly post apertured at and transversely channeled across its lower end and having longitudinal recesses, a button positioned within the channel and having a tongue projecting into the aperture, and a bolt set through the post and the tongue, the bolt ends being housed within the recesses.

1,134,303. STAPLE FORMING AND DRIVING MACHINE. HENRY WEBER, Chicago, Ill., assignor to Latham Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed July 7, 1908. Serial No. 442,269. (Cl. 1—7.)



1. The combination with a staple forming and driving mechanism, of an anvil coöperating therewith provided with an inclined groove in the face thereof arranged to receive a wire and deflect the same transversely of its direction of travel, said deflected portion of the wire forming the cross bar of the staple, said cross bar being supported by the anvil while being operated upon by the forming mechanism, and means for supporting the cross bar after its disengagement from the anvil and during the driving and clenching operations in a position parallel to that imparted thereto at its deflection by the anvil aforesaid.

2. A machine for forming staples, including in combination an anvil over which the staple is formed, a staple former, a staple driver, a staple support for receiving the staple from the anvil, means for clenching the legs of the staple while the latter rests upon the support, and means for moving the support from the staple after the latter is clenched.

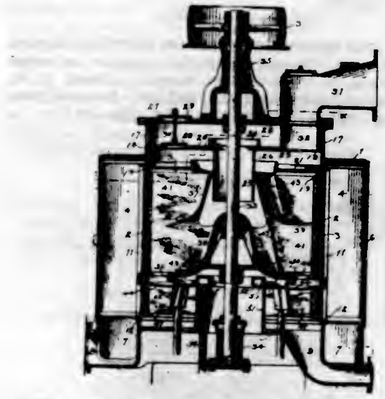
3. A machine for forming staples, including in combination an anvil over which the staple is formed, a staple former, a staple support for receiving the staple from the anvil, a staple driver for forcing the legs of the staple through the material, means for clenching the legs of the staple against the material and around the staple support, and means for withdrawing the said support from the staple.

4. A stapling machine, including in combination an anvil over which the staple is formed, a staple former, a bodily movable staple support for receiving the staple from the anvil, means for imparting such bodily movement to the staple support, a staple driver for forcing the legs of the staple through the material, means for clenching the staple against the material and around the said support, means for imparting movement to the staple forming and driving parts, and means for withdrawing the support from the staple.

5. A stapling machine, including in combination an anvil, a staple former, a pivotally mounted and bodily movable staple support for receiving the staple from the anvil, a staple driver, means for clenching the legs of the staple against the material and around the support, means for imparting motion to the staple former and driver and a bodily movement to the support, and means for withdrawing the support from the staple.

[Claims 6 to 18 not printed in the Gazette.]

1,134,304. PULP-SCREEN. PEDER P. WESTBYE, Peterborough, Ontario, Canada. Filed May 17, 1912. Serial No. 698,070. (Cl. 92—34.)



1. In a pulp screening machine, a screen member, a revoluble distributer, an annular equalizing chamber into which the supply of pulp is received, the bottom of said equalizing chamber having a centrally disposed flanged opening therein, the flange of which is overflowed by the pulp in its passage to the rotor, substantially as specified.

2. In a pulp screening machine, a screen member, a revoluble distributer, an equalizing chamber into which the supply of pulp is received, the said equalizing chamber having a flanged feeding orifice located coincident with the axis of the revoluble distributer, the said flange being equal in height throughout whereby the pulp will overflow said flange equally throughout its periphery thereby supplying the distributer equally throughout its circle of operation, substantially as specified.

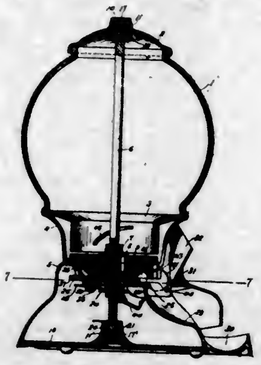
3. In a pulp screening machine, a screen member, a traveling distributer, a pulp supply leading to the axial center of the distributer, a barrier overflown by the pulp in its passage to the distributer thereby equalizing the supply of pulp to the distributer throughout the extent of the barrier, substantially as specified.

4. In a pulp screening machine, a screen member, a rotary distributer, a plurality of equalizing chambers each independent of the other into which the supply of pulp is received, each chamber being adapted to independently discharge its supply of pulp into the distributer at a different height, substantially as specified.

5. In a pulp screening machine, a screen member, a rotary distributer, a plurality of equalizing chambers into which the supply of pulp is received, concentric flanged openings in the bottoms of said chambers, the flanges about said openings projecting upward above the bottoms of the chambers, the said flanged openings being of different diameters and each adapted to discharge pulp from its corresponding chamber into the distributer, substantially as specified.

[Claims 6 to 20 not printed in the Gazette.]

1,134,305. VENDING-MACHINE. OSCAR C. WIESNER, Kansas City, Mo. Filed Jan. 29, 1914. Serial No. 815,173. (Cl. 194—85.)



1. In a vending machine, a receptacle for the articles to be vended provided with an exit opening, a rotary delivery member having holes therethrough arranged to consecutively register with said exit opening, a guard covering the hole which is in register with said exit opening, and an oscillatory valve having means for supporting, in connection with said receptacle, a coin in position for engaging and turning said rotary member, when the oscillatory valve is turned from an initial to a predetermined position, said valve being arranged to close said exit opening when moved to said pre-determined position, and to uncover said exit opening when retracted to the initial position.

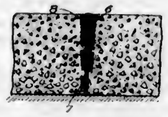
2. In a vending machine, a receptacle for the articles to be vended provided with an exit opening and having a coin support, a rotary delivery member having holes therethrough arranged to consecutively register with said exit opening, a guard covering the hole which is in register with said exit opening, and an oscillatory valve having means for supporting a coin, in connection with said coin support, in position for engaging and turning said rotary member, when the oscillatory valve is turned from an initial to a pre-determined position, the coin passing from said support and being released from said valve when the valve has reached said pre-determined position, the valve in passing from the initial to the pre-determined position closing said exit opening, and uncovering said exit opening when retracted to the initial position.

3. In a vending machine, a receptacle for the articles to be vended provided with an exit opening, a rotary delivery member having holes therethrough arranged to consecutively register with said exit opening, a guard covering the hole which is in register with said exit opening, and an oscillatory valve having a slot for receiving a coin and having means, in connection with said receptacle, for supporting the coin in position for engaging and turning said rotary member, when the oscillatory valve is turned from an initial to a pre-determined position, the coin being released from said rotary member when said member has been turned to said pre-determined position and also released from said valve, said valve being arranged to close said exit opening when moved to said pre-determined position and to uncover said exit opening when retracted to the initial position.

4. In a vending machine, a receptacle for the articles to be vended having an exit opening and a coin support, a rotary delivery member having holes therethrough arranged to consecutively register with said exit opening and provided with a plurality of slots corresponding in number to the number of said holes, a guard covering the hole of said delivery member which is in register with said exit opening, and an oscillatory valve having a slot for receiving a coin, and having means in connection with said coin support for supporting said coin when the slot in the valve contains said coin, said slot in said valve registering with one of the slots in the delivery member, when the valve is in the initial position, said rotary member being adapted to be engaged and turned by said coin when the valve is turned from the initial to a pre-determined position, the coin being carried from said support and released by said valve when the valve has been turned to said pre-determined position, the valve being arranged to close the exit opening when the valve is moved to the pre-determined position and to uncover said opening when retracted to the initial position.

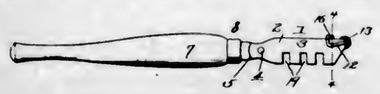
5. In a vending machine, a receptacle for the articles to be vended provided in its bottom with an exit opening, a rotary delivery member having a vertical axis and located in the receptacle adjacent to the bottom thereof and provided with a plurality of vertical holes therethrough arranged to consecutively register with said exit opening, and an oscillatory valve disposed in said receptacle intermediate of the bottom thereof and said rotary member and having the same axis as said rotary member, and having means for supporting, in connection with said receptacle, a coin in position for engagement with and adapted to turn said rotary member when the valve is turned from an initial to a predetermined position, the coin being released from said valve when the valve reaches said predetermined position, the valve being arranged to close said exit opening when moved to the predetermined position and to uncover said opening when the valve is moved to the initial position.

1,134,306. CONCRETE PAVEMENT. ELBERT F. WILCOX, Kansas City, Mo. Filed Feb. 16, 1914. Serial No. 818,827. (Cl. 94—1.)



The method of constructing a concrete roadway, consisting of setting screeds, filling the spaces between the screeds with coarse concrete, drawing a straight edge over the exposed edges of the screeds, to smooth the surface of the concrete, removing the screeds to provide channels between concrete slabs, spacing an expansion member in the channel, filling the spaces on opposite sides of the expansion member with fine concrete, tooling the upper surfaces of the fine concrete along the expansion member to form recesses, and mashing the expansion member into said recesses.

1,134,307. MAGAZINE GLASS-CUTTER. FRANK R. WOODWARD, Hill, N. H., assignor of one-half to Smith & Hemenway Company, Incorporated, New York, N. Y. Filed Aug. 21, 1912. Serial No. 716,232. (Cl. 49—52.)



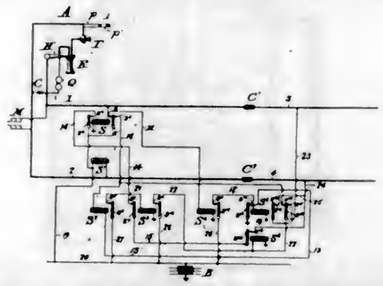
1. A glass cutter, having a sectional head formed of two sections having contacting side faces, the abutting face of one section being provided with wheel-retaining pockets, one of said sections being movably mounted in respect to the other section, means for holding said sections with their side faces in contact for closing the wheel-retaining pockets, and a revoluble cutter wheel journaled between said sections.

2. A glass cutter having a sectional head, one section being movable in respect to the other section, a pocket formed in the fixed section, means carried by the fixed section for locking the movable section over said pocket, and a cutter wheel journaled between the sections of said head.

3. A glass cutter, comprising a head composed of a fixed section and a movable section, said sections having contacting side faces, the fixed section of said head being provided with a shank, a handle arranged over said shank, said sections having registering openings at one end thereof, a cutter wheel arranged between said sections in alinement with said openings, and a retaining member having means at one end for holding the cutter wheel in position between said sections and at its other end, means for fastening said sections together.

4. A glass cutter comprising a fixed section, and a movable section, said fixed section being provided with a reduced portion, the wall thereof being notched to form a swab-chamber, a swab arranged within said chamber, a cutter wheel arranged within the reduced portion of said fixed section extending into said swab chamber, and a pin passing through said sections upon which said cutter wheel is mounted.

1,134,308. TELEPHONE-EXCHANGE SYSTEM. JOSEPH LANE WRIGHT, Washington, D. C., assignor, by mesne assignments, to Frederick C. Stevens, Attica, N. Y. Filed May 18, 1906, Serial No. 317,459. Renewed Dec. 24, 1912. Serial No. 738,476. (Cl. 179—24.)



1. In a telephone exchange system, the combination with a plurality of subscribers' stations having impulse senders and a central station provided with an extension circuit, of switching mechanism at the central station in the extension circuit controlling the continuity of the subscribers' lines as between subscribers, impulse transmitting means for the rotary side of the extension, impulse transmitting means for the vertical side of the extension, said impulse transmitting means for the vertical side of the extension controlling both the rotary and vertical impulses, releasing mechanism for said switching mechanism, and means for controlling the same.

2. In a telephone exchange system, the combination with a switching circuit, switching mechanism at the terminus thereof, impulse transmitting means for the vertical side of the circuit, impulse transmitting means for the rotary side of the circuit, controlling means for both the vertical and rotary sides of the circuit, said controlling means acting in conjunction with the vertical impulse transmitting means to control the rotary impulse transmitting means, releasing mechanism, and means comprising the vertical and the rotary impulse transmitting means and controlling means for operating said releasing mechanism.

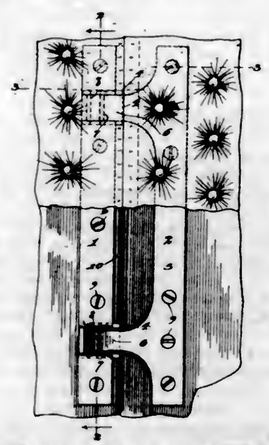
3. In a telephone exchange system, the combination with a switching circuit, switching mechanism at the terminus thereof, impulse transmitting means for the vertical side of the circuit, controlling means for both the vertical and rotary sides of the circuit, said controlling means acting in conjunction with the vertical impulse transmitting means to control the rotary impulse transmitting means, a plurality of subscribers' stations having impulse senders, means located thereat for controlling the impulse transmitting means, releasing mechanism at the central station, and means comprising the vertical and the rotary transmitting means and the controlling means for operating said releasing mechanism when the subscriber has hung up his receiver.

4. In a telephone exchange system, the combination with a plurality of subscribers' lines and stations having impulse senders and a central station containing an extension circuit for each line, and switching mechanism at the terminus thereof, of a set of relays for sending the vertical impulses to the switching mechanism, a set of relays for sending the rotary impulses for the switching mechanism, and a controlling relay acting in conjunction with the vertical relay through its back contact to control the rotary relays.

5. In a telephone exchange system, the combination with a plurality of subscribers' lines and stations having impulse senders and a central station containing an extension circuit for each line and switching mechanism at the terminus thereof, of a set of sluggish relays controlling the vertical impulses to the switching mechanism, a quick acting relay in the set for operating said sluggish relays, a set of relays for transmitting the rotary impulses to the switching mechanism, said quick acting relay of the vertical set controlling in combination with the sluggish relays the action of the relays for the rotary impulses, releasing mechanism, and means comprising the vertical and rotary relays and the quick acting relay for operating said releasing mechanism when the subscriber hangs up his receiver.

[Claims 6 to 11 not printed in the Gazette.]

1,134,309. DOOR-HINGE. EDWARD ANDERSEN and HARRY M. MINK, Kenosha, Wis., assignors to J. P. Zens and W. J. Cavanagh, Kenosha, Wis. Filed May 31, 1913. Serial No. 770,861. (Cl. 16—5.)



1. A door hinge comprising a generally flat facing member provided with a plurality of relatively deep hinge-arm-receiving sockets offset from the plane of the facing member and spaced remote from each other, each socket being open as to its facing side and as to one of its lateral sides, a second facing member provided with a plurality of hinge arms rigid with its main body and suitably spaced to register with the sockets of said first member, and suitable pintle connections whereby the ends of said arms are pivotally secured in said sockets to hinge about a common axis.

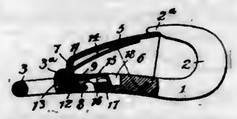
2. A door hinge comprising a sheet-metal strap-like member provided intermediate its ends with a plurality of spaced apart U-bends having parallel sides and constituting hinge-arm-receiving sockets, a second hinge member consisting of a strap-like plate provided with a plurality of integral arms extending from one edge of the strap-body and curved to bring the ends of said arms into alinement with an axis laterally offset from the plane of said strap body and remote from the proximate edge of the latter, and suitable pintle connections whereby the ends of said arms are pivotally secured in the respective sockets with their pivotal axes in alinement.

3. In combination with a vehicle-body and the door thereof, a door-hinge comprising one strap-like member provided with a plurality of hinge-arm-receiving sockets spaced apart from each other, another strap-like member provided with a plurality of arms integral with the main strap-body projecting therefrom and suitably spaced to register with the sockets of said first member, and suitable pintle connections whereby the ends of said arms are pivotally secured in said sockets with their axes alined, said strap members being secured to the adjacent inner sides of said door and body and spaced from said edges a sufficient distance to permit the application of upholstery to said edges to conceal said strap members.

4. The combination of a door frame having mortises therein open at the edge and inner side thereof, a plate secured to the inner side of said frame and provided with sockets projecting into said mortises, a door for said frame, and curved arms pivoted in the inner portions of said mortises at the outer portion of said frame, the other ends of said arms carrying a plate secured to the inner side of said door, substantially as described.

5. A duplex door-hinge construction adapted to provide in a single structure the equivalent hinge support and to perform the functions of two spaced-apart relatively distant and distinct alined hinges, said construction comprising a strap-like facing plate member adapted to be secured to the frame of a door and provided at widely separated points with hinge-arm-receiving sockets, the entrances to which lead through said facing plate, transverse separate pintles within the respective sockets in axial alinement with each other, and arms secured to said door spaced to register with the sockets of said first member, curved to enter the respective sockets, and connected with said pintles therein.

1,134,310. SNAP-HOOK. JOHN B. BAXTER, Watervliet, N. Y., assignor to Covert Manufacturing Company, Watervliet, N. Y., a Corporation of New York. Filed Dec. 20, 1910. Serial No. 598,347. (Cl. 24—233.)



1. In a snap hook, the combination of a body part having an eye at one end and an opening therethrough forwardly of the eye and a hook at the opposite end of the body part overlying the same, a single piece tongue adapted at its free end to engage and close the hook and at its opposite end having a flat tail piece, one surface of which is bent around one wall of the opening in the body part to form a loose relatively wide pivotal bearing, and said tongue having two transverse openings therethrough adjacent said tail piece forming an integral relatively narrow bearing bar, a substantially U-shaped spring, the opposite arms of which project inward through said openings with the bend thereof loosely engaging the outer surface of the bearing part of the tongue, and the arms of the spring engaging, one the body part and the other the hook apart.

2. In a snap hook, the combination of a body portion having a hook at one end and a slot therein adjacent its opposite end, a sheet metal tongue struck up to form side

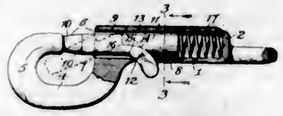
ears adjacent its forward end, and a projecting tail at its rear end adapted to pass through said slot in the body portion of the hook, said tail being relatively wide and bent around the wall of said slot, the bent portion of the tongue having cut out portions forming therebetween a bearing bar integral with the tongue, a spring loosely mounted at its bend upon the bearing bar and adapted to engage the body portion of the hook to normally retain the tongue in locking engagement with the hook, and the said bearing bar constituting the only support for the spring intermediate its ends.

3. A snap hook comprising a hook part proper, a movable tongue to close the same, a substantially U-shaped spring to actuate the tongue, the tongue having an opening extending through its body part through which opening one arm of the spring passes, and an auxiliary opening adapted for the reception of the other arm of the spring, that portion of the tongue intermediate said openings constituting a loose supporting bar or bearing for the bend of the spring.

4. In a snap hook, the combination of a body portion and a hook, the body portion having an integral bearing part, a tongue having an integral bendable lip engaging about said bearing part, said tongue having a plurality of openings in its bendable lip constituting therebetween a bearing member, and a substantially U-shaped spring loosely mounted upon said bearing member whereby its respective arms pass through the adjacent openings of the tongue to bear against the body portion of the hook and tongue respectively.

5. In a snap hook, a body part having a hook at one end and a transversely extending slot adjacent the opposite end thereof, a tongue adapted to engage at its forward end the hook and having a downwardly projecting part adjacent the rear end thereof, said downwardly projecting part having a relatively wide bearing surface adapted for pivotal connection with the hook part and having transversely extending openings extending therethrough forming therebetween a support and bearing bar, and a substantially U-shaped spring mounted at its bend upon said bar, with one arm of the spring engaging the tongue and the other the hook part, the spring being otherwise unconnected with the tongue and hook part.

1,134,311. BOLT SNAP-HOOK. JOHN B. BAXTER, Watervliet, N. Y., assignor to Covert Manufacturing Company, Watervliet, N. Y., a Corporation of New York. Filed June 5, 1913. Serial No. 771,991. (Cl. 24—239.)



1. In a bolt snap hook, the combination with a body part having a longitudinal central bore and an end hook part projecting from one side thereof, the said side being formed with an elongated slot, and the opposite side of the body part being closed throughout, the said bore being open at the hook end thereof, a bolt fitted in the bore and having an outward projection constituting a thumb piece extending through said slot, the bolt with the thumb piece being insertible through the open end of the bore, and the thumb piece being of a width to be inserted outwardly through said slot.

2. In a bolt snap hook, a barrel portion having a longitudinal bore open at its forward end and having a relatively short elongated slot in one of its sides, said slot being closed at its ends, a spring pressed bolt located within the barrel and having a projecting integral thumb piece fitted in the said slot, and an auxiliary bolt within said bore for securing the bolt in place.

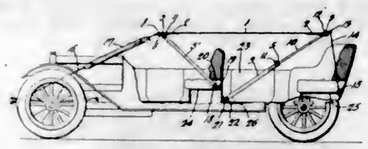
3. In a bolt snap hook, the combination with a barrel having a longitudinal bore and a narrow relatively short elongated slot closed at its ends, said bore having a hook projection at one end and being open at the hook end of the barrel thereof, of a bolt fitted to reciprocate in the barrel, and a thumb piece projecting directly from the bolt through the said slot, said thumb piece being insertible through the open end of the barrel and outwardly through the slot.

4. In a sliding bolt snap hook, the combination of a cylindrical barrel having a laterally offset hook part terminating in a return bill in substantial alinement with the forward end of the barrel, said barrel being open at its hook end and having an elongated closed slot intermediate its ends, a two-part bolt the sections of which are arranged end to end and slidably mounted in the barrel, one of said bolt parts having a lateral operating projection insertible outwardly through said slot, and a spring interposed between the rear end of the barrel and the rear bolt part acting to normally force the forward bolt part into engagement with the bill of the hook.

5. In a sliding bolt snap hook, the combination of a cylindrical barrel having a hook part offset rearwardly and terminating in a bill in substantial alinement with the longitudinal axis of the barrel, the barrel having an open forward end, and an elongated relatively short narrow closed slot in one side intermediate the ends thereof, a two- part bolt member slidably mounted in the barrel, the sections of the bolt being arranged end to end, one of said bolt parts having a laterally projecting finger engaging piece insertible through the slot, the adjacent ends of the bolt having interengaging parts, and a spring interposed between the rear end of the barrel and the rear bolt part acting to hold the bolt parts in engagement with one another and the forward bolt part in contact with the bill.

[Claims 6 to 11 not printed in the Gazette.]

1,134,312. STRETCHER OR BED FOR AUTOMOBILES. RALPH L. BRADLEY, Butte, Mont. Filed Feb. 9, 1914. Serial No. 817,648. (Cl. 21—43.)

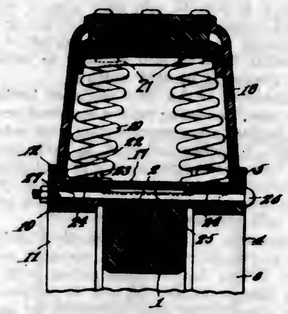


1. In combination with an automobile body, base members permanently secured thereto and having rounded knobs, an apron, front and rear legs having their upper ends engageable with the ends of the apron and having tubular portions at their lower ends to engage over the said knobs, and front and rear guys for connecting the front and rear ends of the apron with the body.

2. In combination with an automobile body, base members secured thereto in advance and in rear of the back of the front seat, respectively, the base members having rounded knobs, an apron, front and rear legs having their upper ends engageable with the ends of the apron and having tubular portions at their lower ends to engage the said knobs, and front and rear guys for connecting the front and rear ends with the front and rear end portions of the body.

1,134,313. TIRE-FASTENING MEANS. JOHN W. BURGESS and GEORGE F. BURGESS, Brookfield, Mo. Filed May 15, 1914. Serial No. 838,795. (Cl. 152—6.)

1. In a device of the class described, a felly; a rim band thereon and having its lateral edges disposed beyond the side faces of the felly, one of the lateral edges of the rim band being provided with an opening; angle members comprising upright flanges, and transverse flanges coacting with the inner face of the rim band; securing elements carried by the transverse flanges of the angle members, one securing element being permanently connected with the rim band and the other securing element being movably seated in the opening to permit a transverse movement of that angle member wherewith said other securing element is assembled; a casing; a base plate engaging the longitudinal edges of the casing; a fixed binding strip inserted between one edge of the casing and the rim band and engaged by one angle member; a removable binding strip inserted between the other edge of the casing and the rim band and engaged by the other angle member; and an adjustable connection between the upright flanges of the angle members, both of the binding strips comprising a plurality of parts having spaced ends defining openings through which the adjustable connection passes.



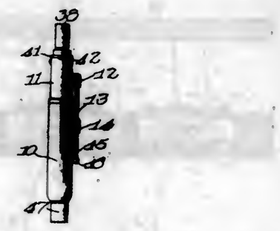
2. In a device of the class described, a felly; a rim band thereon and having its lateral edges disposed beyond the edges of the felly; angle members comprising upright flanges, and transverse flanges coacting with the inner face of the rim band; means for connecting the angle members; a casing; a base plate located within the casing; and binding strips inserted between the casing and the rim band and engaged by the upright flanges of the angle members, one binding strip being removable.

3. In a device of the class described, a rim band; a pair of beads disposed along the longitudinal edges of the rim band; a pair of binding strips disposed in the angles defined by the beads and the rim band, one binding strip being removable; a casing located between the beads and engaged by the strips; and a connection between the beads, each binding strip comprising a plurality of parts having their ends spaced to define openings in which the connection is located.

4. In a device of the class described, a rim band; an angle member applied to one longitudinal edge of the rim band; a securing element uniting the angle member with the rim band; a binding strip disposed upon the rim band and overlapped upon the securing element; a second securing element uniting the binding strip with the rim band; a movable binding strip located adjacent the other longitudinal edge of the rim band; a bead coöperating with the last specified binding strip; a connection between the bead and the angle member; and a tire engaged by the binding strips.

5. In a device of the class described, a felly; a rim band thereon and having its lateral edges disposed beyond the side faces of the felly, one of the lateral edges of the rim band being provided with an opening; angle members comprising upright flanges and transverse flanges coacting with the inner face of the rim band; securing elements carried by the transverse flanges of the angle members, one of the securing elements being permanently connected with the rim band and the other securing element being movably mounted in the opening to permit a transverse movement of that angle member wherewith said other securing element is assembled; a tire surrounding the rim band; an adjustable connection between the upright flanges of the angle members; and binding strips inserted between the tire and the rim band, the binding strips comprising a plurality of parts having spaced ends defining openings in which the connection is located.

1,134,314. IGNITER. DAVID J. CANCHESTER, Chicago, Ill. Filed Feb. 3, 1913. Serial No. 745,853. (Cl. 67—7.1.)



1. The combination of a wick and its container, and a spark-producing device and its casing, the container and the casing being removably sheathed one with the other and slidably hinged together.

2. The combination of a wick, a tubular container therefor, a spark-producing device, a tubular casing therefor removably sheathed upon said container, a web forming a closure for the casing, an apertured lug upon the container, and a hinge pin secured to the casing and slidably pivoted in the apertured lug.

3. The combination of a wick, a tubular container therefor, a spark-producing device, a tubular casing therefor removably sheathed upon said container, a web forming a closure for the casing, an apertured lug upon the container, a hinge pin secured to the casing and slidably tainer, a hinge pin secured to the casing and slidably pivoted in the apertured lug, and means for securing the container and the casing to a relatively thin material comprising an extension upon the free extremity of the hinge pin in close proximity to the body of the container.

4. The combination of a wick, a container therefor having an aperture adjacent one extremity of the wick, a spark-producing device, a casing therefor having an opening for the passage of sparks produced, a tubular extension upon the casing into which the container is removably sheatned, and means connecting the container and the casing for positioning the opening of the casing opposite the aperture of the container.

5. The combination of a container having an aperture for the passage of sparks adjacent its outer extremity and having air holes adjacent its upper extremity, a wick therein having its upper extremity opposite said aperture and adjacent said air holes, a spark-producing device, a casing therefor having an opening for the passage of sparks produced and slidably hinged to the container, one end of said container being removably sheathed with one end of said casing, and means connecting the casing and the container for positioning the spark opening opposite the spark aperture.

[Claims 6 to 10 not printed in the Gazette.]

1,134,315. THREAD-GUIDE FOR SPINNING-MACHINES. JOSEPH COLDWELL, South Swansea, Mass. Filed Sept. 9, 1914. Serial No. 860,828. (Cl. 118—16.)

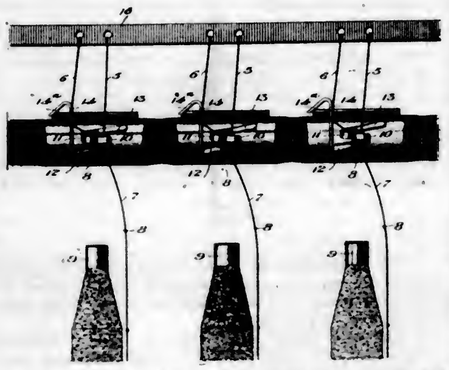
1. A thread-guide for spinning machines, comprising separate eyes for the threads, one of said eyes having an arm or guide-member located below said eyes and at opposite sides of which the threads pass.

2. A thread-guide for spinning machines, comprising an arm or guide-member having a tapered lower edge, and means for guiding the threads to opposite sides of said arm, for the purpose set forth.

3. A thread-guide for spinning-machines, comprising a pair of eyes located side by side, and an arm or guide-member located below said eyes and having a tapered lower edge, the threads passing at opposite sides of said arm or guide-member, for the purpose set forth.

4. A thread-guide for spinning machines, comprising a pair of eyes located side by side, one of said eyes having an arm or guide-member located below said eyes and at

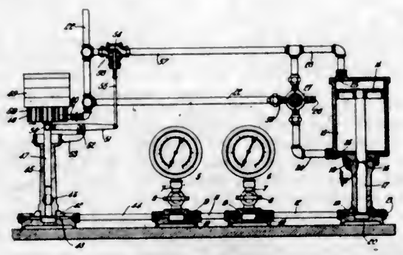
opposite sides of which the threads pass from the eyes, and means for guiding the threads to the eyes.



5. A thread-guide for spinning machines, comprising a pair of eyes located side by side, an arm or guide-member located below said eyes, a substantially horizontal guide-member above one of the eyes, and a guide-member for the other eye located above and at one side of the same.

[Claims 6 to 9 not printed in the Gazette.]

1,134,316. TESTING APPARATUS. AUSTIN B. COLLETTE, Everett, Mass., assignor to American Steam Gauge & Valve Manufacturing Co., a Corporation of Massachusetts. Filed Sept. 12, 1913. Serial No. 789,564. (Cl. 73—51.)



1. An apparatus of the class described having, in combination, a gage supporting base, a standard provided with a cylinder having intercommunication with said gage supporting base, a plunger adapted to reciprocate in said cylinder, a table carried by said plunger adapted to support a plurality of weights, means to rotate said plunger in said cylinder, instrumentalities adapted to force fluid into said cylinder to elevate said plunger and table, and means to automatically retain said table in its elevated position.

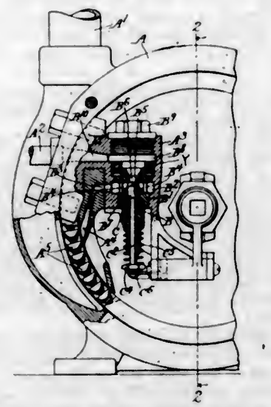
2. An apparatus of the class described having, in combination, a cylinder, a piston arranged to reciprocate within said cylinder, a fluid pipe connected with said cylinder, a valve connected with said pipe adapted to regulate the movements of said piston, a secondary cylinder adapted to contain fluid, a plunger secured to said piston and projecting into said secondary cylinder adapted to be operated by said piston to eject said fluid therefrom, a gage support, a third cylinder having intercommunication with said secondary cylinder and said gage support, a plunger arranged in said third cylinder adapted to support a plurality of weights and to be elevated by the ejection of fluid from said secondary cylinder into said third cylinder, and means rendered effective by a downward movement of said weights adapted to automatically operate said valve.

3. In combination a cylinder, a piston arranged to reciprocate in said cylinder, a secondary cylinder substantially smaller in cross sectional area than said cylinder adapted to contain fluid, a plunger operatively connected with said piston adapted to be moved thereby to eject fluid from said secondary cylinder, a gage having intercommunication with said secondary cylinder, a third cylinder also having intercommunication with said cylinder and said gages, a plunger arranged in said third cylinder adapted to support weights, said plunger adapted to be floated by the ejection of fluid from said secondary cylinder into said third cylinder, a fluid pipe connected with said cylinder, a valve adapted to admit a predetermined amount of fluid into said cylinder to move said piston, a by-pass in said fluid pipe, a valve in said by-pass, and means automatically operated by the downward movement of said weights adapted to open said valve to admit fluid to said cylinder to counteract the downward movement of said weights.

4. An apparatus of the class described having, in combination, a gage supporting base, a standard provided with a cylinder having intercommunication with said gage supporting base, a plunger adapted to reciprocate in said cylinder, a series of weights carried by said plunger, means to automatically rotate said plunger in said cylinder, and instrumentalities adapted to force fluid into said cylinder to elevate said plunger.

5. An apparatus of the class described having, in combination, a gage supporting base, a standard provided with a cylinder having intercommunication with said gage supporting base, a plunger adapted to reciprocate in said cylinder, a plurality of weights carried by said plunger, instrumentalities adapted to force fluid into said cylinder to elevate said plunger, and means to automatically operate said instrumentalities to maintain said plunger in a predetermined position.

1,134,317. UNBALANCED VALVE FOR TURBINES. CHARLES W. DAKE, Chicago, Ill., assignor to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Aug. 9, 1913. Serial No. 783,968. (Cl. 121—118.)



1. The combination with a turbine of a valve cage removably socketed therein, an unbalanced valve mounted in said cage to control the motive fluid to the turbine and a governor means to control the movement of said valve.

2. The combination with a turbine of a valve cage removably socketed in position, an unbalanced valve mounted in said cage, a governor and means responsive thereto for actuating said valve to control the motive fluid and means comprising said valve for increasing the resisting action of the governor as the valve closes.

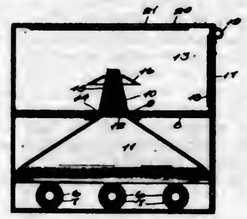
3. The combination with a housing of a valve cage socketed therein, a steam chamber located above said valve cage, a removable plug closing one side of said chamber the valve cage being located in line with said plug and on the opposed side of the steam chamber, and means for holding said valve cage in position, said valve cage and holding means being free to be withdrawn only when the plug has been removed.

4. The combination with a steam engine governor of a slidably mounted plug valve, a valve seat in line with said plug valve, a steam supply controlled by said valve, a discharge from said valve in a direction at right angles to the line of movement thereof, said valve being exposed to the steam only on the side opposed to the seat.

5. The combination with a steam engine governor of a slidably mounted plug valve actuated thereby, a valve seat in line with the movement of said valve, a steam supply discharging through said valve seat, a steam supply discharging away from said valve seat substantially in a direction at right angles to the line of movement of the valve.

[Claim 6 not printed in the Gazette.]

1,134,318. ROACH-TRAP. EDWARD A. DEARDOFF, Davenport, Iowa. Filed May 5, 1914. Serial No. 836,433. (Cl. 43—22.)



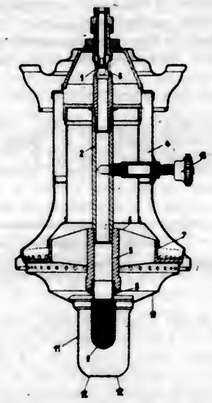
1. In an insect trap of the character described, a shell, oppositely arranged inlet tubes connected with the shell and having their inner ends arranged adjacent each other so that the insect passing from the inner end of one tube is conducted directly upon the exterior surface of the other tube, upon which the same crawls to the wall of the shell, a retaining shell connected with the upper portion of the first named shell, and means disposed between the retaining shell and first named shell, to permit the insects passing from the first named shell into the retaining shell and preventing the same passing in an opposite direction.

2. In an insect trap of the character described, a receiving shell, oppositely arranged inlet tubes connected with the receiving shell having their inner ends arranged contiguous with each other so that the insect passing from the inner end of one tube is conducted directly upon the exterior surface of the other tube, upon which the same crawls to the inner wall of the receiving shell, and insect catching and retaining means arranged upon the upper portion of the receiving shell and having suitable communication with the interior thereof.

3. In an insect trap of the character described, a receiving shell, oppositely arranged conical inlet tubes decreasing in diameter inwardly and connected with the receiving shell with their inner ends arranged contiguous with relation to each other so that the insect passing from the inner end of one tube is conducted directly upon the exterior surface of the other tube, upon which the same crawls to the inner wall of the receiving shell, and insect catching and retaining means mounted upon the upper portion of the receiving shell.

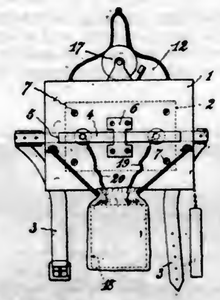
1,134,319. COMPRESSED-GAS LAMP. ERNST DRESLER, Neukölln, Germany. Filed Dec. 12, 1914. Serial No. 876,766. (Cl. 67—90.)

1. In a compressed gas lamp the combination of a gas burner, an air chamber directly exposed to the heat of the flame, means for supplying compressed gas to said burner mixed with heated air drawn from said air chamber, an incandescent mantle, and a practically closed narrow glass chimney closely surrounding the mantle and provided with small openings for admitting cool outside air for the purpose described.



2. In a compressed gas lamp the combination of a mixing tube, a gas burner attached to the lower end thereof, an air chamber surrounding said mixing tube and directly exposed to the heat of the flame, means for supplying compressed gas to said mixing tube, means permitting heated air to be drawn from said air chamber into said mixing tube, an incandescent mantle, and a practically closed narrow glass chimney closely surrounding the mantle and provided with small openings in its otherwise closed bottom for admitting cool outside air for the purpose described.

1,134,320. APPARATUS FOR THE ATTAINMENT OF CORRECT BREATHING. VERNON DREW, London, England. Filed July 6, 1914. Serial No. 849,254. (Cl. 177—311.)



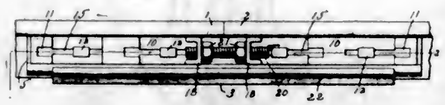
1. A device of the class described comprising a frame, a movable member mounted on the frame, means normally holding said movable member in a given position with respect to the frame, a signal operated by a predetermined movement of said member, and means for attaching the device to the body in position to effect movement of the member under the influence of the natural distention of the body resultant upon the correct intake of the breath.

2. A device of the class described comprising a frame, a member slidable in the frame, means for normally holding the member in a given position with respect to the frame, a signal operated by a predetermined movement of said member, and means for attaching the device to the body in position to effect such predetermined movement of the member under the influence of the natural distention of the body resultant upon the correct intake of the breath.

3. A device of the class described comprising a frame having an opening therein, a member slidable in the opening, a yieldable member extending across said member and

normally holding the sliding member in a given position with respect to the frame, a signal operated by a predetermined movement of the yieldable member, and means for securing the device to the body in position to effect movement of the sliding member sufficient to impart signal operating movement to the yieldable member by the natural distention of the body resultant upon the correct intake of the breath.

1,134,321. RAILWAY-RAIL JOINT. CORNELIUS S. ELLIXSON, Granville county, N. C. Filed Mar. 16, 1910. Serial No. 549,678. (Cl. 230—11.)



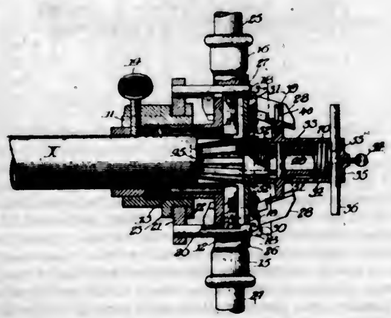
1. In a rail joint, a pair of rails, fish plates overlapping said rails, bolts connecting said fish plates and rails, oppositely disposed wedges arranged to engage said bolts, outstanding lugs on the adjacent ends of said wedges and a rigid adjustable connection engaging said lugs for simultaneously moving said wedges in opposite directions and holding said bolts in position.

2. In a rail joint, pair of rails, fish plates overlapping said rails, bolts connecting said fish plates and rails, reversely arranged wedges engaging said bolts and a common rigid means for simultaneously moving said wedges in opposite directions and holding said bolts in position.

3. In a rail joint, a pair of rails, fish plates overlapping said rails, bolts connecting said fish plates and rails, oppositely disposed wedges arranged to engage said bolts, outstanding lugs on the adjacent ends of said wedges, a threaded bar passing through openings on said outstanding lugs, and a pair of nuts threaded on said bar and adapted to engage said outstanding lugs for simultaneously moving said wedges in opposite directions and holding said bolts in position.

4. In a rail joint, a pair of rails, fish plates overlapping said rails, bolts connecting said fish plates and rails, reversely arranged wedges engaging said bolts and common means for simultaneously moving said wedges in opposite directions and holding said bolts in position and resilient means for locking said tightening means in position.

1,134,322. REAMER. SAMUEL F. ESTELL, Los Angeles, Cal. Filed May 2, 1913. Serial No. 765,012. (Cl. 77—73.)



1. In combination, a cutting tool having an axially disposed flattened head, the end of the tool adjacent the base of said head being recessed to provide an inwardly facing shoulder at each side of the head, and a handle for the tool having its end slotted to receive the flattened head of the tool and enter the said recess adjacent the base of the head.

2. In combination, a cutting tool having an axially disposed flattened head, the end of the tool adjacent the base of said head being recessed to provide an inwardly facing annular shoulder at each side of the head, and a tubular handle for the tool having its wall bifurcated at one end to straddle the flattened head of the tool and enter the socket in the end of the tool for engagement with the said inwardly facing annular shoulder at each side of the head.

3. A reamer for smoothing the interior of pipe ends comprising, in combination, a plate constructed to be fitted against the end of a pipe threading die, a reaming tool carried by the plate, a plurality of holding dogs carried by the plate, the ends of the dogs being constructed for hooked engagement with the said die and one of the dogs being pivotally mounted on the plate, and a cam rotatably mounted on the plate for swinging the pivoted holding dog.

4. A reamer for smoothing the interior of pipe ends comprising, in combination, a plate constructed to be fitted against the end of a pipe threading die, a reaming tool carried by the plate, a plurality of holding dogs carried by the plate, the ends of the dogs being constructed for hooked engagement with the said die and one of the dogs being pivotally mounted on the plate, a cam rotatably mounted on the plate for swinging the pivoted holding dog in one direction, a spring acting on the pivoted holding dog to swing it in the other direction and a latch for holding the cam against movement in one position.

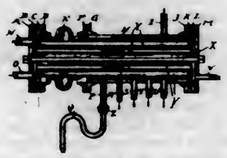
5. In combination, a clamp constructed to be secured upon a pipe adjacent one end, a rotatable frame having threaded engagement with the clamp, a plate, a plurality of holding dogs pivotally mounted on the plate and adapted for hooked engagement with the said rotatable frame, and a cutting tool carried by the plate and engageable with the interior of the pipe.

[Claims 6 to 9 not printed in the Gazette.]

1,134,323. PROCESS FOR PREVENTING DECOMPOSITION OF HYDROGEN-PEROXID SOLUTIONS. ANDREAS FARAGÓ, Budapest, Austria-Hungary. Filed Apr. 20, 1914. Serial No. 833,306. (Cl. 23—10.)

A process of preventing the decomposition of hydrogen peroxid which consists in saturating the solution with oxygen then subjecting the said solution to high gaseous pressure in hermetically closed receptacles.

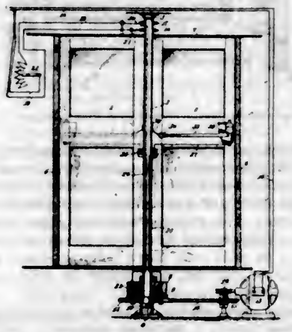
1,134,324. FEED-WATER HEATER. OSCAR FISHER, Port Angeles, Wash. Filed Dec. 11, 1913. Serial No. 806,066. (Cl. 257—236.)



1. In a feed water heater, in combination, a casing, an end wall member at the rear end of said casing, an expansion member connected at one end to said casing and forming a continuation thereof, a tube sheet at the rear end of said casing and located short of the end wall member to form a chamber, a second tube sheet at one end of said expansion member, and an end wall member adjacent the said last mentioned tube sheet spaced apart therefrom and provided with pipe connections therethrough, a separating plate adjacent each of said tube sheets, the plate adjacent the tube sheet at the end of the expansion member being divided centrally to form upper and lower water passages, circulating means connected with said tube sheets and provided with inlet and outlet openings, and steam inlets in the walls of said casing adapted to direct the flow of steam against that portion of the circulating means conveying the incoming water to be heated.

2. In a feed water heater, in combination, a casing, an end wall member at the rear end of said casing, an expansion member connected at one end to said casing and forming a continuation thereof, a tube sheet at the rear end of said casing and located short of the end wall member to form a chamber, a second tube sheet at one end of said expansion member, and an end wall member adjacent said last mentioned tube sheet and provided with pipe connections therethrough, a separating plate adjacent each of said tube sheets, the plate adjacent the tube sheet at the end of the expansion member being divided centrally to form upper and lower water passages, circulating means connected with said tube sheets and provided with inlet and outlet openings, and steam inlets in the walls of said casing adapted to direct the flow of steam against that portion of the circulating means conveying the incoming water to be heated, an outlet for the exhaust steam, trap means for permitting the withdrawal of the condensed steam, and means for draining the circulating means.

1,134,325. DOOR-OPERATING MECHANISM. RALPH N. FLINT, Washington, D. C. Filed Feb. 2, 1911. Serial No. 606,097. (Cl. 39—99.)



1. In door operating mechanism, a door comprising a rotary central axle and a plurality of leaves or panels carried by said axle; a motor normally disconnected from said axle; electrically operated clutch mechanism between said motor and said axle, the same being normally inactive to transmit motion to said axle; a circuit in which said clutch mechanism is included; a source of electricity for supplying current to said circuit; and a switch adapted to control the flow of electricity through said circuit to thereby operate said clutch mechanism and operatively connect said motor with said axle through said clutch mechanism, said switch being located upon and partaking of the movement of said door.

2. In door operating mechanism, a door comprising a rotary central axle and a plurality of leaves or panels carried by said axle; a continuously operating motor; electrically operated clutch mechanism between said motor and said axle, the same being normally inactive to transmit motion to said axle; a circuit in which said clutch mechanism is included; a source of electricity for supplying current to said circuit; and a switch adapted to control the flow of electricity through said circuit to thereby operate said clutch mechanism and operatively connect said motor with said axle through said clutch mechanism, said switch being located upon and partaking of the movement of said door.

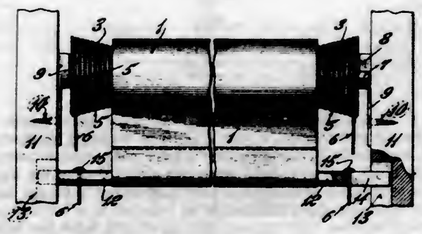
3. The combination with a door movable in a direction to open it by force communicated thereto by a person passing through the same, of a motor adapted to open the door; electrically operated clutch mechanism between said motor and the door, the same being normally inactive to transmit motion to the door; a circuit in which said clutch mechanism is included; a source of electricity for supplying current to said circuit; a switch located upon and partaking of the movement of the door and adapted to control the flow of electricity through said clutch mechanism to thereby actuate said clutch mechanism and operatively connect said motor with the door through said clutch mechanism and means for retarding the movement of said switch in a direction to open said circuit after the circuit has been closed by said switch.

4. The combination with a door movable in a direction to open it by force communicated thereto by a person passing through the same, of a continuously operating motor adapted to open the door; electrically operated clutch mechanism between said motor and the door, the same being normally inactive to transmit motion to the door; a circuit in which said clutch mechanism is included; a source of electricity for supplying current to said circuit; a switch located upon and partaking of the movement of the door and adapted to control the flow of electricity through said clutch mechanism to thereby actuate said clutch mechanism and operatively connect said motor with the door through said clutch mechanism and means for retarding the movement of said switch in a direction to open said circuit after the circuit has been closed by said switch.

5. In door operating mechanism, a door; a motor; electrically operated clutch mechanism between said motor and said door, the same being normally inactive to transmit motion to said door; a circuit in which said clutch mechanism is included; a source of electricity for supplying current to said circuit; a variable resistance in said circuit in series with said electrically operated clutch mechanism; a solenoid through which a current of electricity flows; means actuated by said solenoid for progressively cutting out said variable resistance; and a switch adapted to control the flow of electricity through said circuit to thereby operate said clutch mechanism and operatively connect said motor with said door through said clutch mechanism, said switch being located upon and partaking of the movement of said door and the direction of motion of said motor being such that it operates the door in a direction to open the same.

[Claims 6 to 21 not printed in the Gazette.]

1,134,326. WINDOW-SHADE FIXTURE. JOHN M. GAMBON, St. Louis, Mo., assignor of one-fourth to William C. Tieman, St. Louis, Mo. Filed Apr. 20, 1914. Serial No. 833,023. (Cl. 156—28.)



1. In a shade fixture, a shade roller, a shade adapted to wind on said roller, a conical drum secured to each end of said roller, and having a helical groove in its circumferential face, a rod secured to the free end of said shade, pulleys connected by springs to the window casing near the bottom thereof, and a cord secured at one end to each drum and adapted to wind in said groove toward the smaller end of said drum, each cord passing around one of said pulleys and connected at its other end to the corresponding end of said rod, said springs operating to hold said cords taut.

2. In a shade fixture, a shade roller, a shade adapted to wind on said roller, said roller having a conical drum at each end thereof, each drum having a helical groove in its circumferential face, a rod secured to the free end of said shade and having its ends fitting into grooves in

the sides of the window casing, a cord operatively connected at one end to each drum, to wind or unwind as said shade is unwound or wound respectively, said cords in winding on said drums moving toward the smaller ends of said drums, and a pulley over which each cord passes, the other end of each cord being connected to the corresponding end of said rod.

3. In a shade fixture, a shade roller, a shade adapted to wind on said roller, said roller having a conical drum near each end thereof, each drum having a helical groove in its circumferential face, a rod secured to the free end of said shade, a pulley connected by a tension spring to the window casing near the bottom of each side thereof, a cord operatively connected at one end to each drum and arranged to wind on or unwind from said drum as said shade is unwound or wound respectively, said cords in winding on said drums moving toward the smaller ends of said drums, each cord being connected at its other end to the corresponding end of said rod, and means for limiting the upward movement of each pulley.

4. In a shade fixture, a shade roller, a shade adapted to wind on said roller, a conical grooved drum fastened to each end of said roller, a cord secured at one end to each drum and connected at its other end to the corresponding side of the free end of said shade, said cords winding on or unwinding from said drums as said shade unwinds or winds respectively, said cords in winding on said drums moving toward the smaller ends of said drums, and means for guiding each cord between its ends.

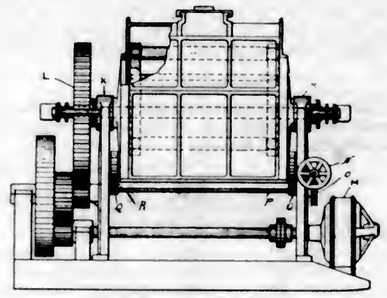
1,134,327. GATE FOR IRRIGATING-DAMS. BOND EARL GILBERT, Morrill, Nebr. Filed July 11, 1914. Serial No. 850,475. (Cl. 161—7.)



1. In an irrigating dam, a stationary gate frame, a movable gate frame, a series of links pivotally connected at their ends to said frames, a lever connected to one of said links, a spring held latch bar slidably mounted upon the stationary frame, an alarm mechanism having a key, and a canvas sheet adapted to be clamped in a vertical position between said frames, one end of said latch bar being adapted for engagement upon the alarm key and the other end thereof disposed in the path of movement of said lever to prevent the opening movement of the movable gate frame, the contraction of said spring upon the rotation of the alarm key moving said latch bar to permit the movable gate frame to move downwardly and outwardly away from the stationary frame and release the canvas sheet.

2. In an irrigating dam, a stationary gate frame, a movable gate frame, a series of links connecting said gate frames upon their opposite sides, a lever connected to one of the links at one side of the gate, a canvas sheet attached at its lower edge to the stationary gate frame, a rod secured to the opposite edge of said sheet, the upper bars of said gate frames being provided with grooves in their opposed faces to receive said rod, a spring held latch bar, and an alarm mechanism having a key, said bar being slidably mounted upon the stationary frame and adapted for engagement at one of its ends with said key whereby the bar is held in the path of movement of said lever and the movable gate frame retained in its closed position against the stationary frame, the sounding of the alarm releasing said latch lever whereby it is moved under the action of its spring to permit of the movement of said lever and the outward and downward movement of the movable gate frame with respect to the stationary gate frame whereby said canvas sheet is released.

1,134,328. DOUGH-MIXING MACHINE. JAMES C. GORDON, Detroit, Mich. Filed July 2, 1912. Serial No. 707,227. (Cl. 107—40.)



1. A dough manipulating machine comprising a substantially uninterrupted, endless surface, a roll revoluble about its axis, means for carrying said roll through an orbit spaced from and substantially equidistant from said endless surface throughout substantially the entire extent thereof, and said surface having an elevation in proximity to the orbit of said roll, there being a space at the advancing side of the roll permitting its free independent action on the mass.

2. A dough manipulating machine comprising a cylindrical surface having a flattened segment, a roll revoluble about its axis, and means for carrying said roll through an orbit spaced from said cylindrical surface but in proximity to said flattened segment.

3. A dough manipulating machine comprising a cylindrical receptacle having a flattened bottom, and a revoluble member within said receptacle traveling through an orbit in proximity to said flattened bottom but spaced from the remaining portions of the surface of said cylinder.

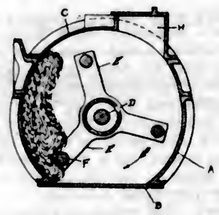
4. A dough manipulating machine comprising a cylindrical receptacle, a revoluble member eccentrically mounted within said receptacle, said member including a plurality of radially extending arms all of which are the same length, rollers supported by said arms adjacent their terminals, said rollers contacting with the mass to simultaneously compress the mass and convey the same across the surface of the receptacle.

5. A dough manipulating machine comprising a cylindrical receptacle having a flattened bottom, a member revoluble within said receptacle, said member including rolls traveling in an orbit in proximity to the flattened bottom whereby there is greater clearance at the top of the receptacle than at the sides and bottom.

[Claims 6 to 13 not printed in the Gazette.]

1,134,329. METHOD OF MIXING DOUGH. JAMES C. GORDON, Detroit, Mich. Filed July 2, 1912. Serial No. 707,228. (Cl. 107—54.)

1. The art of kneading dough, consisting in applying to a surface a batch of dough in mass formation, and of a length less than that of such surface, and applying successive rolling pressures to the mass progressively from one end of the batch to the other and by the applied pressure causing the mass to bodily move over the surface without shredding or breaking up the mass.



2. The method of manipulating dough, which consists in rolling and advancing the plastic mass as a unit over and in contact with a substantially uninterrupted endless surface, applying varying pressure to the mass during said rolling, and allowing the mass to expand without limitation at certain points in the movement over said surface.

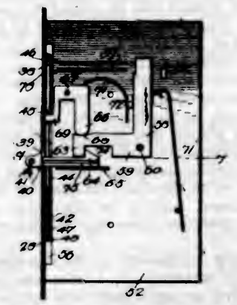
3. The method of manipulating dough consisting in continuously rolling a mass of material over a surface subjecting the mass to periodically varying pressure, and allowing the material to have unlimited expansion at certain parts of its travel.

4. The method of manipulating dough consisting in applying separate rolling pressures to the mass over a resisting surface, while subjecting the mass to substantially uniform pressure for the greater portion of its movement, and to an increased pressure for a relatively smaller but extended interval, and permitting the mass to expand at intervals during the rolling movement thereof.

5. The method of manipulating dough consisting in subjecting the plastic mass to independent roller pressure over a smooth surface, maintaining the mass in continuous contact with said surface, and periodically varying the pressure applied to the mass.

[Claims 6 to 9 not printed in the Gazette.]

1,134,330. LOCKER. JOHN GRIESMAIER, Chicago, Ill. Filed Aug. 10, 1914. Serial No. 856,063. (Cl. 194—18.)



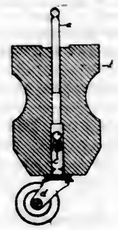
1. A lock comprising a housing, a key and a bolt insertible into the housing, key-operated main tumblers for locking the bolt against withdrawal, a slide having means for locking the key against withdrawal, the key when thus locked holding the main tumblers inoperative, check-controlled means for actuating the slide to release the key, and auxiliary tumblers for holding the slide in inoperative position when the bolt is locked, said auxiliary tumblers being operated by the main tumblers.

2. A lock comprising a housing, a key and a bolt insertible into the housing, key-operated tumblers for locking the bolt against withdrawal, a slide having means for locking the key against withdrawal, the key when thus locked holding the tumblers inoperative, check-controlled means for actuating the slide to release the key, and means actuated by the tumblers for holding the slide in inoperative position when the bolt is locked.

3. A lock comprising a housing, a key and a bolt insertible into the housing, key-operated pivoted main tumblers for locking the bolt against withdrawal, a slide having means for locking the key against withdrawal, the key when thus locked holding the main tumblers inoperative, check-controlled means for actuating the slide to release the key, and pivoted auxiliary tumblers for holding the slide in inoperative position when the bolt is locked, the main tumblers having parts engageable with the auxiliary tumblers for actuating the same.

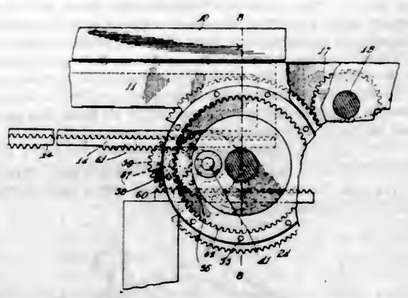
4. A lock comprising a housing, a key, a bolt having a longitudinal side slot, said key and bolt being insertible into the housing, a rib in the housing which enters the bolt slot when the bolt is inserted into the housing, key-operated tumblers for locking the bolt against withdrawal, means for locking the key against withdrawal, the key when thus locked holding the tumblers inoperative, and check-controlled means for actuating said key-holding means to release the key.

1,134,331. TABLE-DISPLAY STILT. EDWARD T. GRUNWALD and JOSEPH A. GRUNWALD, Louisville, Ky. Filed May 18, 1914. Serial No. 839,339. (Cl. 45—111.)



A table display stilt comprising a body adapted to provide a continuation of a table leg, a spindle extending vertically and centrally from the upper end of said body in position to be inserted in the caster socket of the table leg and a caster carried by the lower end of said body.

1,134,332. RECIPROCATING-GEAR MECHANISM. WILLIAM L. HAMILTON, Chicago, Ill. Filed Mar. 15, 1913. Serial No. 754,516. (Cl. 101—158.)



1. In combination, a reciprocable member, a pair of oppositely facing racks mounted on such member, a main shaft, a gear on said main shaft, a pinion meshing with said gear, said pinion being rotatable about a fixed axis and being engageable with the racks in alternation, the racks being movable beyond the pinion in each direction, a crank shaft carried by the main shaft and having a planetary movement around the axis of the same, a crank on the crank shaft, and means acting to operatively connect the said crank and the reciprocable member when the pinion is disengaged from the racks.

2. In combination, a reciprocable member, a pair of oppositely facing racks mounted on such member, a main

shaft, a gear on the main shaft, a pinion meshing with the gear and engaging the said racks in alternation, the racks being movable beyond the pinion in each direction, a crank shaft parallel with the main shaft and carried thereby, the axis of the crank shaft being spaced apart from the axis of the main shaft, an internally geared annulus surrounding the main shaft, a pinion on the crank shaft meshing with the annulus, a crank on the crank shaft, and means acting to operatively connect the said crank and the reciprocable member when the first-mentioned pinion is disengaged from the said racks.

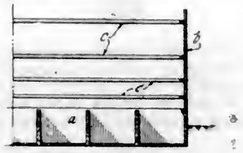
3. In combination, a coöperating rack and pinion, the pinion being rotatable about a fixed axis and the rack being movable beyond the pinion, a rotatable shaft having a planetary movement about an axis which is parallel with and spaced apart from the axis of the pinion, and means acting to operatively connect the rack and the said rotatable shaft having the planetary movement when the rack is disengaged from the pinion.

4. In a printing press, in combination, a frame, a type bed reciprocating thereon, a rack secured to the bed, a shaft having a planetary movement, a crank on the shaft, a pinion on the crank meshing with the said rack, and means for controlling the rotation of the pinion.

5. In combination, a pair of racks, one being reciprocable and the other fixed, a shaft having a planetary movement, a crank on said shaft, and a gear member rotatably mounted on the crank and meshing with both of the said racks.

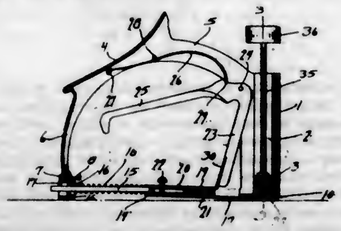
[Claims 6 to 11 not printed in the Gazette.]

1,134,333. METHOD FOR THE CONSTRUCTION OF DRY OR GRAVING DOCKS. FREDERIC ROBERT HARRIS, Brooklyn, N. Y. Filed Oct. 16, 1913. Serial No. 795,508. (Cl. 61—8.)



The method of constructing graving docks, locks, and similar structures, which consists in building in a dry site a water tight shell which will float and is adapted to form the permanent exterior of the bottom and sides of the base of the structure; floating the shell to its permanent site; providing the shell with temporary side wall extensions; charging the shell with material to form with said shell the permanent base of the structure and whereby the flotation of the shell is overcome and the structure retained *in situ*, and in extending the walls of the shell upwardly within the temporary walls to form the permanent walls of the structure.

1,134,334. GLAZIER'S POINT-SETTER. THOMAS CHARLES HARTLEY, Spokane, Wash. Filed Mar. 16, 1914. Serial No. 825,146. (Cl. 1—44.)



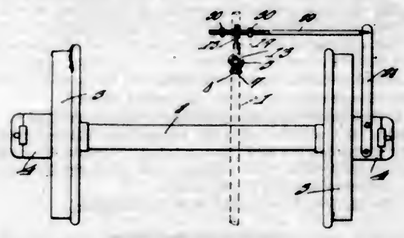
1. In a glazier's point setter, a frame provided with a point holder and a supporting leg, tilting means for the supporting leg for tilting the frame, and a driver movable in said tilting means for driving the points from the holder into the sash at an angle to the glass in accordance with the angle of tilt of the frame, substantially as described.

2. In a glazier's point setter, a frame provided with a point holder and a supporting leg, a tilting block for said leg, means for adjusting said block with respect to said leg to tilt the frame, an elevating shoe attached to the holder, and a driver structure having one portion slidable between said holder and shoe and another portion slidable in said leg and block, substantially as described.

3. In a glazier's point setter, a holder structure having adjustable tilting means, and a driver having one portion slidable in said structure and another portion slidable in said means, substantially as described.

4. In a glazier's point setter, a holder for the points having a delivery end, a hardened wearing plate at said end, a shoe for elevating the holder with respect to the glass and being secured to the holder, and a driver slidable between said wearing plate and shoe and having bent-up portions engaging said wearing plate to guide said driver to a straight line of travel, substantially as described.

1,134,335. SAFETY APPLIANCE FOR RAILROAD-CARS. BENJAMIN HOOVER, Meridian, Miss. Filed Nov. 10, 1914. Serial No. 871,325. (Cl. 188—2.)



1. In a safety attachment of the character described, a valve structure attachable to a train pipe and including a releasable valve, a longitudinally projecting bracket attachable to a journal box to project beyond the adjacent wheel, and a transverse rod connected to the free end of the bracket and operatively connected to the said valve structure for releasing the valve.

2. In a safety attachment of the character described, a valve structure attachable to a train pipe and including a releasable valve, a longitudinally projecting bracket attachable to a journal box to project beyond the adjacent wheel, a transverse rod pivotally connected to the free end of the bracket, and means operatively connecting the said rod and valve structure for enabling the rod to have limited movement relative to the valve structure, and whereby the abnormal movement of the rod will release the valve.

3. In a safety attachment of the character described, a valve structure attachable to a train pipe and including a releasable valve, an oscillatory arm carried by the valve structure and arranged to release the valve, a longitudinally projecting bracket attachable to a journal box to project beyond the adjacent wheel, and a transverse rod pivotally engaged to the free end of the bracket and having a limited sliding movement relative to the said arm.

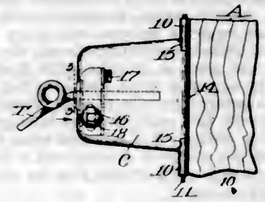
4. In a safety attachment of the character described, a valve structure attachable to a train pipe and including a releasable valve, an oscillatory arm carried by the valve structure and arranged to release the valve, a longitudinally projecting bracket attachable to a journal box to project beyond the adjacent wheel, a rod pivotally engaged to the free end of the bracket and slidably engaging the said arm, and adjustable members upon the said rod and engageable with the said arm upon the abnormal movement of the rod, to swing the arm.

5. In a safety attachment of the character described, a brake applying device, a longitudinally projecting bracket attachable to a journal box to project beyond the adjacent

wheel, and means operatively connecting the free end of the bracket and the said device whereby an abnormal movement of the bracket will render the said device operative.

[Claims 6 to 9 not printed in the Gazette.]

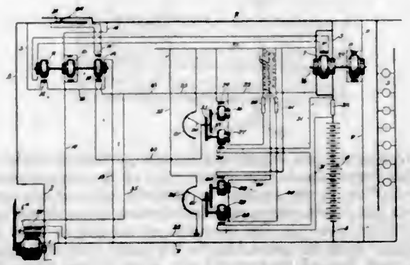
1,134,336. THREAD-GUIDE SUPPORT FOR SPINNING OR TWISTING MACHINES. LEWIS T. HOUGHTON, Worcester, Mass. Filed Sept. 10, 1908, Serial No. 452,460. Renewed Jan. 21, 1915. Serial No. 3,642. (Cl. 118—16.)



1. In a thread board mechanism, the combination of a thread-guide support having a front, outside, downwardly depending flange, a thread-guide, and means for obtaining lateral adjustments of the thread-guide, comprising a thread-guide clamp for holding the thread-guide in fixed position, means for keeping the thread-guide clamp in engagement with the front flange to constrain the same from turning but to permit lateral adjustments of the same in parallel positions, and means for tightening the clamp to engage the thread-guide.

2. A thread-guide support comprising a metal plate with a depending flange at its forward edge, a clamp having a longitudinal slot therein and having spaced, parallel, transversely notched edges, said notches fitting the shank of a thread-guide and preventing rotation thereof, a lug on the under side of said plate spaced from the forward flange of said plate a distance substantially equal to the width of said clamp, and fastening means extending through a perforation in said plate and through the longitudinal slot in said clamp, this construction permitting longitudinal adjustment of said clamp and lateral adjustment of said guide to parallel positions only, and said fastening means being effective to hold said clamp and guide in adjusted position.

1,134,337. ELECTRICAL SYSTEM OF DISTRIBUTION. ALBERT S. HUBBARD, Belleville, N. J., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Feb. 10, 1909. Serial No. 477,222. (Cl. 171—310.)



1. The combination of a source of electricity, a storage battery in parallel therewith, a booster regulated to compel the battery to discharge to compensate for increases of load, and means, maintained inoperative during the discharge of the battery until a given battery current is reached, for reducing the potential of said source.

2. The combination of a source of electricity, a storage battery in parallel therewith, a booster regulated to compel the battery to discharge to compensate for increases of load, and means, maintained in operative during the discharge of the battery until a given booster potential is reached, for reducing the potential of said source.

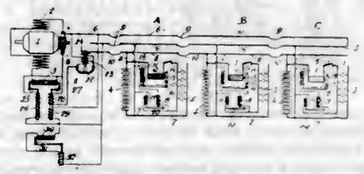
3. The combination of a source of electricity, a storage battery in parallel therewith, a booster regulated to compel the battery to discharge to compensate for increases of load, and means, maintained inoperative during the charge of the battery until a given battery current is reached, for increasing the potential of said source.

4. The combination of a source of electricity, a storage battery in parallel therewith, a booster regulated to compel the battery to discharge to compensate for increases of load, and means, maintained inoperative during the charge of the battery until a given booster potential is reached for increasing the potential of said source.

5. The combination of dynamo apparatus receiving alternating current and supplying direct current, a storage battery in parallel with the direct current supply means thereof, means for limiting the battery load, and means operating independently of said limiting means for decreasing the direct current potential from said dynamo apparatus.

[Claims 6 to 25 not printed in the Gazette.]

1,134,338. ELECTRICAL SYSTEM OF DISTRIBUTION. JOHN W. JEPSON, Depew, N. Y., assignor to Gould Coupler Company, a Corporation of New York. Filed Dec. 21, 1911. Serial No. 667,239. (Cl. 171—313.)



1. In an electrical train lighting system, a main generator, a plurality of train units, a work circuit on each unit, arranged to be fed by said generator, means for regulating the generator voltage to maintain a substantially constant output, means for increasing said substantially constant current output as more train units are added to the system, and means for limiting the increase produced by said last mentioned means when a predetermined number of train units have been added.

2. In an electrical system of distribution, a main generator, translating devices arranged to be fed thereby, means for regulating the generator voltage responsive to departures from a predetermined electrical condition of the system, means for changing said condition to increase the generator voltage as more translating devices are connected and fed by the generator, and means for limiting the change produced by said changing means when a predetermined number of translating devices have been connected and energized by the generator.

3. In an electrical train lighting system, a plurality of train units, a work circuit on each unit, a main generator for feeding said work circuits, a rheostat for regulating the generator voltage, a coil for regulating said rheostat responsive to changes in the current output of the generator to maintain a substantially constant current output, a coil coöperating with said first mentioned coil for causing said substantially constant current to be increased when additional work circuits are connected to the generator, and means for limiting such increase of said substantially constant-current when a predetermined number of work circuits have been connected.

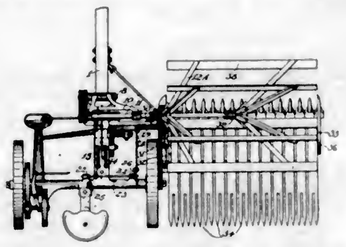
4. In an electrical system of distribution having a main source of electrical energy, a plurality of work circuits, and storage batteries connected to be fed thereby, means for causing the source to supply a substantially constant output to the work circuits and batteries, means for causing said output to increase as more work circuits and batteries are connected to be fed by the source and means for

causing the output to be limited when a predetermined number of work circuits and batteries have been connected to be fed by the source.

5. In an electrical train lighting system, a main generator, a plurality of train units, a work circuit and battery on each unit connected to be fed by the generator, a rheostat for regulating the generator, electromagnetic means for regulating said rheostat, comprising a coil responsive to current variations of the system tending to maintain a substantially constant output by the generator, a coil responsive to changes in the voltage drop of the line of the system for causing the generator output to increase as additional train units are connected to be fed by the generator, and means for limiting the action of said last mentioned coil when the line drop has reached a predetermined value.

[Claims 6 to 16 not printed in the Gazette.]

1,134,339. ATTACHMENT FOR MOWING-MACHINES. DANEL A. LINDHOLM, Belfield, N. D. Filed Sept. 6, 1912. Serial No. 718,923. (Cl. 56—47.)



The combination with the tongue of a mowing machine, of a casting, a rotary shaft carried by said casting, a sectional adjustable support carried by said rotary shaft, a reel shaft carried by said sectional adjustable support, a bar connected to said rotary shaft, connection between said bar and said sectional adjustable support, manually operable means connected to said bar and carried by said tongue for raising and lowering said adjustable support with relation to the mowing machine, a lever carried by said tongue and connection between said tongue and sectional adjustable support whereby the latter may be moved forward or rearward with respect to the mowing machine.

1,134,340. TYPE-TURTLE OR FUDGE-BED FOR ROTARY PRINTING-PRESSES. WILLIAM LOVELAND and HARRY ELLWOOD SLOAN, Philadelphia, Pa. Filed July 15, 1913. Serial No. 779,155. (Cl. 101—169.)



1. In a type-turtle or fudge-bed, a segmental bed plate, a series of elongated closely adjacent, segmental strips fixed to the bed plate to form continuous type receiving grooves, end pieces fixed to the bed plate of which one end piece is provided with fixed pins and of which the other end piece is apertured, for the passage therethrough of shiftable resiliently held pins, each set of pins being alined with aforesaid grooves and means for moving the shiftable pins away from said grooves to permit of the withdrawal and insertion of type.

2. In a type-turtle or fudge-bed, a bed plate segmental in form having formed integral therewith a series of elongated, closely adjacent, equally spaced segmental strips, forming continuous type receiving grooves, end pieces removably fixed to the respective bed plate ends, of which one end piece is provided with fixed pins and of which the other piece is apertured for the movement therethrough of resiliently held pins, each set of pins being in alinement with the aforesaid grooves, and a head operatively connected with the movable pins for shifting them in unison away from said grooves to permit of the withdrawal and insertion of type.

3. In a type-turtle or fudge-bed, a bed plate segmental in form, having formed integral therewith a series of elongated, alined, equally spaced, segmental strips, forming continuous type receiving grooves, end pieces removably fixed to the bed plate immediately adjacent the strip ends of which one end piece is provided with fixed pins, arranged upon an arc of a circle, and of which the other end piece is apertured for the passage therethrough of shiftable resiliently held pins, arranged in staggered relation upon arcs or circles, all of said pins being disposed in alinement with the aforesaid grooves, and a head operatively connected with the shiftable pins for moving them away from said grooves.

4. In a type-turtle or fudge-bed, a segmental bed plate, a series of elongated closely adjacent, segmental strips having fixed relation with the bed plate to form continuous type receiving grooves, end pieces fixed to the bed plate of which one end piece is provided with fixed type engaging means and of which the other end piece is apertured for the passage therethrough of a multiplicity of longitudinally disposed resiliently held mediums spaced apart in juxtaposition to one another and extended across the entire width of the type turtle or fudge bed, the working ends of which are designed for independent type slug engagement and means operatively connected with said mediums for shiftable purposes.

5. A type-turtle or fudge-bed embracing a bed plate constructed for type slug reception, end pieces for the bed plate of which one is provided with fixed type slug engaging means and of which the other end piece is constructed to shiftably accommodate a multiplicity of resiliently held mediums spaced apart in juxtaposition to one another and extended across the entire width of the type-turtle or fudge-bed the working ends of which are designed for independent type slug engagement.

1,134,341. PAPER BAG. JAMES H. MCKENDRICK, Media, Pa. Filed June 18, 1914. Serial No. 845,993. (Cl. 229—54.)



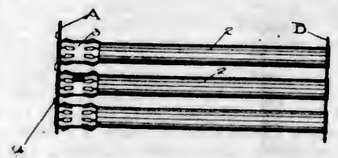
1. A paper bag comprising a body portion the sides of which terminate at the upper edge of the bag, separate reinforcing pieces applied to opposite sides of the bag, along its upper edges, each reinforcing piece being substantially wider in the direction of its height than the distance from its lower edge to the upper edge of the bag, the part thereof that would otherwise extend above the upper edge of the bag being folded upon itself to form a reinforcing member of special thickness, narrow relative to the total width of the reinforcing piece, extending along the upper edge of the bag, each reinforcing piece and special reinforcing member being of materially less length than the width of the bag and located centrally between the ends of the bag, and flaps cut from the body and reinforcing pieces beneath said members.

2. A paper bag comprising a body portion the sides of which terminate at the upper edge of the bag, separate reinforcing pieces applied to opposite sides of the bag, along its upper edges, each reinforcing piece being substantially wider in the direction of its height than the distance from its lower edge to the upper edge of the bag, the part thereof that would otherwise extend above the upper edge of the bag being of a material heavier than the material of the body of the bag and bent upon itself first outward and downward and thence inward and upward to form a reinforcing member of special thickness, narrow relative to the total width of the reinforcing piece, extending along the upper edge of the bag, each reinforcing piece and special reinforcing member being of materially less length than the width of the bag and located centrally between the ends of the bag, and flaps cut from the body and reinforcing pieces beneath said members.

3. A paper bag comprising a body portion the sides of which terminate at the upper edge of the bag, reinforcing pieces applied to opposite sides of the bag, each reinforcing piece terminating at its opposite ends a substantial distance from the ends of the bag and extending in the direction of its height from a substantial distance below the upper edge of the bag to its upper edge and thence bent upon itself for a distance substantially less than its height to form a relatively narrow reinforcing member of special thickness extending along the upper edge of the bag and separate reinforcing strips applied to the sides of the bag along the upper edge thereof and terminating at the ends of the bag, there being a row of perforations extending along the reinforced upper edge of the bag.

4. A paper bag comprising a body portion the sides of which terminate at the upper edge of the bag, reinforcing pieces applied to opposite sides of the bag, each reinforcing piece terminating at its opposite end a substantial distance from the ends of the bag and extending in the directions of its height from a substantial distance below the upper edge of the bag to its upper edge and thence bent upon itself for a distance substantially less than its height to form a relatively narrow reinforcing member of special thickness extending along the upper edge of the bag, and separate reinforcing strips applied to the sides of the body adjacent to their upper edges and extending between the edges of the bag and the outer margins of the reinforcing pieces, there being a row of perforations extending along both the reinforcing strips and the special reinforcing members.

1,134,342. FLUE-CLEANER. CHARLES MAIER, Canby, Minn. Filed June 20, 1912. Serial No. 704,848. (Cl. 122—379.)

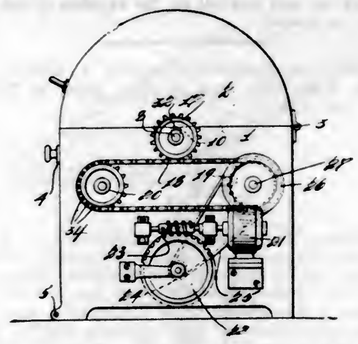


1. A flue cleaner comprising a tubular shell adapted to fit slidingly over a flue and having outwardly bowed spring fingers terminating in contiguous knives encircling the flue and conforming to the curvature thereof.

2. The combination with a tubular shell adapted to fit slidingly about a flue, said shell having terminal spring knives and a radial lug formed with a key-hole slot, of an operating rod formed with a key-end coacting with said slot to lock the rod to the shell, whereby to move the same endwise.

3. A flue cleaner comprising a tube of resilient sheet metal having a rigid tubular middle portion, and being horizontally slit and transversely bowed on each side of said middle portion to form mutually independent barrel-shaped spring scraping fingers.

1,134,343. PORTABLE ROTARY ROASTER. BARTOLOMEO MAGO, New York, N. Y., assignor of one-half to Peter Carbone, Brooklyn, N. Y. Filed May 22, 1914. Serial No. 840,145. (Cl. 53—5.)



1. A broiling or roasting device consisting of a support, a frame rotatably supported thereby, a sprocket pulley carried by said frame, a sprocket chain meshing with said pulley, means for driving said chain constantly and means arranged to mesh with said sprocket pulley at intervals to drive said frame intermittently.

2. A broiling or roasting device consisting of a support, a frame rotatably supported thereby, a slidable sprocket-pulley carried by said frame, a sprocket chain adapted to mesh with said pulley, means adapted to actuate said chain constantly, and means carried by said chain adapted to mesh with said pulley at intervals whereby said frame is intermittently actuated.

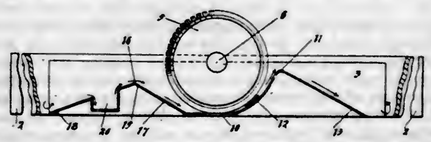
3. A roasting and broiling device consisting of a support, a rotatable frame carried thereby, a sprocket chain, studs projecting therefrom throughout a portion of its length, means to actuate said chain, and a pulley slidably mounted on said frame adapted to mesh with said chain or the studs carried thereby.

4. A roasting and broiling device consisting of a support, a rotatable frame carried thereby, a sprocket chain, studs projecting therefrom throughout a portion of its length, means to actuate said chain, a pulley slidably mounted on said frame adapted to mesh with said chain or the studs carried thereby and a resilient lock adapted to hold said frame stationary between the periods of intermittent rotation.

5. A roasting and broiling device consisting of a casing, a rotatable frame located within the same and supported thereby, a sprocket chain, studs projecting therefrom throughout a portion of its length, means to actuate said chain, a pulley slidably mounted on said frame adapted to mesh with said chain or the studs carried thereby and a resilient lock adapted to hold said frame stationary between the periods of intermittent rotation.

[Claims 6 to 8 not printed in the Gazette.]

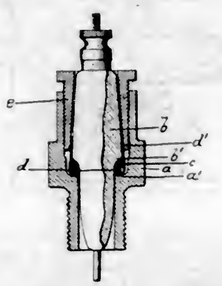
1,134,344. BEATER. HENRY J. MEADER, Utica, N. Y. Filed Apr. 10, 1912. Serial No. 689,747. (Cl. 92—24.)



In a pulp beater, the combination with a tank, a beater roll and a bed plate coöperating with said beater roll, of a front-fall or feed-fall having a plain sloping part which descends from a top or ridge, considerably removed from said beater roll, to a point beneath the beater roll at the bottom of the tank, the lower end of said sloping

part being at a considerable distance from said bed plate, leaving a level space, at the bottom of the tank, between the said lower end of said sloping part and said bed plate; thereby providing a wide mouth between the said beater roll and the said feed-fall for the entrance of the material to be reduced.

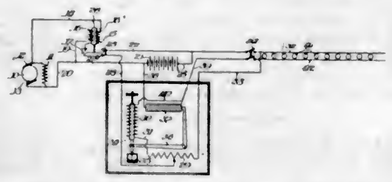
1,134,345. SPARK-PLUG. CHARLES A. MEZGER, New York, N. Y. Filed Sept. 20, 1912. Serial No. 721,491. (Cl. 123—169.)



1. A spark plug comprising the combination with the body, porcelain and gland of a fibrous gasket to engage the porcelain, and a rigid metal ring engaging the gasket and the body and a thin skirt of metal extending from the ring upward between the outer peripheral surface of the porcelain and inner surface of the gland and pinched therebetween, whereby the gland, porcelain and ring may be removed together without disturbing their related positions.

2. A spring plug comprising the combination with the body, porcelain and gland, of a fibrous gasket engaging a shoulder on the porcelain, a metal ring or annulus engaging the gasket and a shoulder on the body, said shoulders opposing each other, and a thin metal skirt extending from the ring upward between the outer peripheral surface of the porcelain and inner surface of the gland and pinched therebetween, whereby the gland, porcelain and ring may be removed together without disturbing their relative positions.

1,134,346. ELECTRIC-LAMP REGULATOR. CHESTER C. OBERLY, Chicago, Ill., assignor to The Pullman Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1914. Serial No. 836,111. (Cl. 171—313.)



1. In an electric lamp regulator, the combination of a variable resistance device adapted for connection in the lighting circuit, actuating means for varying the resistance of said device, and means for selectively changing the action of said actuating means on changing the source of current supplying said lighting circuit, whereby the resistance of said resistance device will be correspondingly changed, substantially as described.

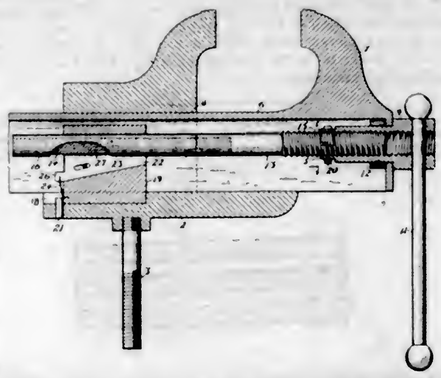
2. In an electric lamp regulator, the combination of a variable resistance device adapted for connection in the lighting circuit, a solenoid for changing the resistance of said resistance device, resistance means connected in circuit with said solenoid, and means for changing the resistance of said resistance means on changing the source of current supplying said lighting circuit, whereby the resistance of said resistance device will be correspondingly changed, substantially as described.

3. In an electric lamp regulator, the combination of a carbon pile resistance device adapted for connection in the lighting circuit, a solenoid adapted to change the pressure between the carbon units of said device, resistance means included in circuit with said solenoid, and means for changing the amount of resistance of said resistance means on changing the source of current supplying said lighting circuit, whereby the pressure between the carbon units of said resistance device will be correspondingly changed, substantially as described.

4. In an electric lamp regulator, the combination of a carbon pile resistance device adapted for connection with the lighting circuit, a generator adapted for connection in said circuit, a storage battery in said circuit, a solenoid for controlling the pressure between the carbon units of said resistance device, resistance means connected in circuit with said solenoid, said solenoid and resistance means being in shunt with said lighting circuit, and means for changing the resistance of said resistance means on changing the source of current from said battery to said generator or vice versa, substantially as described.

5. In an electric lamp regulator, the combination of a carbon pile resistance device adapted for connection in the lighting circuit, a generator adapted for connection in said circuit, a storage battery in said circuit, a solenoid for controlling the pressure between the carbon units of said resistance device, a resistance coil included in circuit with said solenoid, said solenoid and resistance coil being in shunt with said lighting circuit, and means for cutting out a portion of said resistance means when said generator is included in said lighting circuit, thereby increasing the actuation of said solenoid and decreasing the pressure between the carbon units of said resistance device, substantially as described.

1,134,347. VISE. AXEL W. PETERSON, San Francisco, Cal. Filed Aug. 10, 1914. Serial No. 856,034. (Cl. 81—32.)



1. In a vise, a stationary jaw having a channel-way, a movable jaw having an inverted-U-shaped body and slidable in said channel-way, a retainer secured in the bottom of the channel-way within said U-shaped body and having a groove of which the bottom slopes upward toward the movable jaw and having also a longitudinal aperture with the bottom of which said groove communicates, a wedge in said groove, a stem passing through said aperture having a longitudinal flattened portion and a shoulder on one side of said flattened portion and having on the other side of said flattened portion corrugations, the top of the wedge having corrugations, the stem having a threaded portion and a threaded tube screwed on said threaded portion and movable with the movable jaw.

2. In a vise, a stationary jaw having a channel-way, a movable jaw having an inverted-U-shaped body and slidable in said channel-way, a retainer secured in the bottom of the channel-way within said U-shaped body and having a groove of which the bottom slopes upward toward the movable jaw and having also a longitudinal aperture with the bottom of which said groove communicates, a wedge in said groove, a stem passing through said aperture having a longitudinal flattened portion and a shoulder on one side of said flattened portion and having on the other side of said flattened portion corrugations, the top of the wedge having corrugations, the stem having a threaded portion, a threaded tube screwed on said threaded portion and movable with the movable jaw, and means for producing frictional engagement between the tube and stem, whereby the stem turns with the tube when free to so turn.

1,134,348. APPARATUS FOR TREATING CAST INGOTS. TÖNIS PREKS, St. Petersburg, Russia. Filed May 28, 1909. Serial No. 499,054. (Cl. 29—1.)



1. In an apparatus of the character described the combination with a matrix adapted to receive a cast ingot, and a compression cup-shaped head closing one end of the matrix, of means for compressing the solid ingot within the matrix to cause a portion of the metal of the ingot to be forced into the said opening of the compression head in the manner and for the purpose set forth.

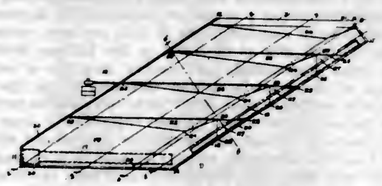
2. In an apparatus of the character described the combination with a pivotally mounted matrix adapted to be turned from a vertical position into horizontal position and vice versa and adapted to receive a cast ingot, of a hydraulic press comprising a plunger adapted to enter the matrix when the latter is in vertical position whereby to compress the ingot, a cup-shaped compression head closing one end of the matrix and means for ejecting the compressed ingot from the matrix comprising a horizontally arranged plunger adapted to enter the matrix when the latter is in horizontal position.

3. In an apparatus of the character described the combination with a pivotally mounted matrix adapted to be turned from a vertical position into horizontal position and vice versa and adapted to receive a cast ingot, of a hydraulic press comprising a plunger adapted to enter the matrix when the latter is in vertical position whereby to compress the ingot, a cup-shaped compression head closing one end of the matrix and means for ejecting the compressed ingot from the matrix comprising a horizontally arranged plunger adapted to enter the matrix when the latter is in horizontal position and means for cooling the matrix comprising a hollow ring surrounding the matrix and conduits in the matrix communicating with the interior of the same and with the interior of said ring.

4. In an apparatus of the character described the combination with a pivotally-mounted matrix adapted to be swung from a vertical position into a horizontal position and vice versa, and adapted to contain a cast ingot, of a press comprising an endwise movable screw, a cup-shaped head carried by said screw and adapted to close one end of the matrix, a hydraulic press for compressing the ingot comprising a plunger adapted to enter the matrix when the latter is in vertical position, and a hydraulic press for ejecting the compressed ingot from the matrix comprising a plunger adapted to enter the matrix when it is in horizontal position.

5. In an apparatus of the character described the combination with a pivotally-mounted matrix adapted to receive a cast ingot, and a compression cup-shaped head closing one end of said matrix, of means for compressing the solid ingot within the matrix to cause a portion of the metal of the ingot to be forced into the said head in the manner and for the purpose set forth.

1,134,349. ORE-CONCENTRATOR. FRASER D. REID, Cobalt, Ontario, Canada. Filed Sept. 19, 1913. Serial No. 790,699. (Cl. 83—88.)



1. In a differentially reciprocable ore concentrating table the combination of a plurality of concentrating sections on the surface of the table, one section extending from the feed end to the tailings discharge end of the table being substantially level transversely, a series of spaced sections extending from the head motion side of the deck toward the concentrates discharge side which slope in all directions from the concentrates discharge end thereof toward the substantially level section above it, a section extending along the concentrates discharge side of the table, which slopes transversely toward the substantially level section and is coterminous therewith and with each of the series of spaced sections, and sections coterminous with the spaced sections and with the transversely inclined section which slope downwardly to the concentrates discharge edge of the table.

2. In a differentially reciprocable ore concentrating table the combination of a plurality of concentrating sections on the surface of the table, one section being substantially level in the direction of reciprocation of the table, a transversely inclined section extending along the concentrates edge of the table which is highest along said edge and is coterminous with the first named section, a plurality of sections spaced apart extending from the head motion side of the table toward the concentrates discharge side, which slope downwardly toward said head motion side, toward the first named section and toward the transversely inclined section and which are coterminous with both said sections, and sections coterminous with the transversely inclined section and with the ends of some of the spaced sections which slope downwardly to the concentrates discharge edge of the table.

3. In a differentially reciprocable ore concentrating table the combination of a plurality of concentrating sections on the surface of the table, one section being substantially level in the direction of the reciprocating movement of the table, a transversely inclined section adjacent the concentrates discharge edge of the table which is coterminous with the first named section and which is highest along said concentrates discharge edge of the table, and a plurality of sections at suitable intervals on the surface of the table which extend from the head motion side thereof toward the concentrates discharge side, each of said sections sloping downwardly from the end nearest the concentrates discharge edge toward the head motion side and toward the first named section and being widest adjacent the transversely inclined section and tapering toward its head motion end.

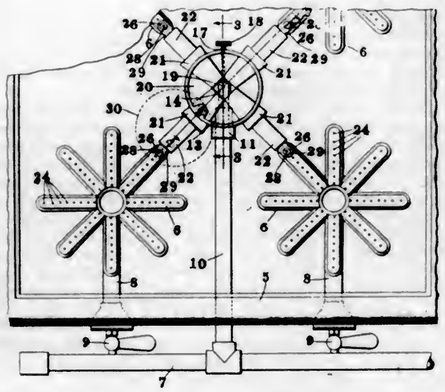
4. In a differentially reciprocable ore concentrating table the combination of a plurality of concentrating sections on the surface of the table; one of the sections extending from the feed side of the table to the tailings discharge side being substantially level in the direction of reciprocation, a section extending along the concentrates discharge edge of the table which is transversely inclined from said edge toward the first named section, a series of sections spaced apart and extending substantially parallel to the direction of reciprocation of the table, each of said sections being coterminous with the first and second named sections and being inclined downwardly in every direction toward the portion of the first named section above it from its coterminal line with the

second named section said inclination along the said coterminal line being opposite to the inclination of the second named section whereby a V shaped pocket is formed by said sections along said coterminal line.

5. In a differentially reciprocable ore concentrating table the combination of a series of concentrating sections on the surface, of the table, one of said sections, extending from the feed side of the table to the tailings discharge side, being substantially level in the direction of reciprocation of the table, a section extending along the concentrates discharge edge of the table coterminous with the first named section and sloping transversely from said edge where it is highest toward the first named section, and a section extending along the tailings discharge side of the table which is coterminous with both the first and second named sections and which slopes both longitudinally and transversely toward the first named section and is highest adjacent the second named section.

[Claims 6 and 7 are not printed in the Gazette.]

1,134,350. LIGHTING DEVICE FOR GAS-BURNERS. GEORGE H. SCHAETZEL, St. Louis, Mo. Filed Jan. 2, 1914. Serial No. 809,858. (Cl. 158—115.)



1. The combination with a plurality of burners, of a casing provided with a source of ignition, and a plurality of tubes, each supported at one end by one of said burners and at the other end having a flexible connection with said casing.

2. The combination with a plurality of burners, of a casing provided with a source of ignition, said casing being provided with a plurality of sockets, and a plurality of tubes, each supported at one end by one of said burners and having the other end inserted in one of said sockets and forming therewith a flexible connection.

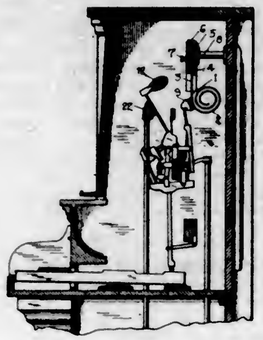
3. The combination with a plurality of burners, of a casing provided with a source of ignition, an upwardly extending nipple having a lateral opening carried by each of said burners, and a plurality of tubes adapted to convey gas from said nipples to said source of ignition.

4. The combination with a burner, of a source of ignition, an upwardly extending nipple having a lateral opening and carried by said burner, and a tube engaging with said nipple and adapted to receive gas therefrom, said tube extending from said burner to the source of ignition.

5. The combination with a plurality of burners, of a casing provided with a source of ignition, a nipple having a lateral opening carried by each of said burners, and a plurality of tubes, each having an extension adapted to fit over one of said nipples, the other end of each of said tubes being supported by said casing.

[Claims 6 to 8 not printed in the Gazette.]

1,134,351. GONG-PIANO. LAURA L. SCHLENSKER, Evansville, Ind. Filed Nov. 15, 1913. Serial No. 801,251. (Cl. 84—31.)



A piano of the character described, including a casing, an action therein embodying key-operated hammers and dampers, a beam within the casing and extending longitudinally thereof in a horizontal position in spaced relation to the back of the casing, supporting rods connecting said beam to the back of the casing, the beam being provided with downwardly opening sockets, and gongs formed with flattened ends received and secured in said sockets, the gongs extending downwardly from said ends in substantially vertical position and being coiled at their other ends, the hammers being arranged to strike the vertical portions of the gongs and the dampers being arranged to contact with the coiled portions thereof.

1,134,352. MANOMETER. RALPH F. SCHNEIDER, New York, N. Y., assignor to Charles J. Tagliabue, Brooklyn, N. Y. Filed June 27, 1912. Serial No. 706,145. (Cl. 73—31.)



1. A manometer comprising a main tube, an auxiliary tube movably mounted on said main tube and movable to an operative position to form a continuation of said main tube in a lengthwise direction, a coupling member communicating with said main tube and adapted to connect the manometer with the source of the force to be measured and provided with means for establishing and disestablishing communication between said main tube and said coupling member, means for establishing and disestablishing communication between said main and auxiliary tubes and an indicating medium normally in said main tube and movable into said auxiliary tube when the latter is in its operative position.

2. A manometer comprising a main tube, an auxiliary tube movably mounted on said main tube and movable to an operative position to form a continuation of said main tube in a lengthwise direction, a coupling member adapted to connect the manometer with the source of the force to be measured, means movable with said auxiliary tube adapted to concurrently establish and disestablish communication between said main and auxiliary tubes and between said main tube and said coupling member as the auxiliary tube is moved to and from an operative position and an indicating medium normally in said main tube when the latter is in its operative position.

3. A manometer comprising main tubes communicating with each other, a rotatable member mounted thereon and provided with a nozzle, an auxiliary tube carried by said rotatable member and normally extending between said main tubes in an inoperative position and movable to an operative position to form a continuation of said main tubes in a lengthwise direction, said rotatable member being provided with channels whereby communication between said auxiliary tube and said main tubes and between said main tubes and said nozzle is concurrently established and disestablished as the auxiliary tube is moved, and an indicating medium normally in said main tubes and movable into said auxiliary tube when in its operative position.

4. A manometer comprising main tubes communicating with each other, caps secured on the free ends of said tubes each provided with a channel communicating with a main tube and alining transverse bores, a rotatable member journaled in said bores, an auxiliary tube carried by said rotatable member and normally extending between said main tubes in an inoperative position and movable to an operative position to form a continuation of said main tubes in a lengthwise direction, said rotatable member being provided with disconnected passages one of which forms an inlet passage and the other of which communicates with said auxiliary tube, both passages being arranged to be brought into and out of registry with said channels as the auxiliary tube is moved to and from an operative position whereby communication between the main tubes and the auxiliary tube and the inlet passage is concurrently established and disestablished and an indicating medium normally in said main tubes and movable into said auxiliary tube when in its operative position.

5. A manometer comprising two main tubes in communication with each other, an auxiliary tube pivoted on one of said tubes and normally extending parallel thereto in an inoperative position, said auxiliary tube being movable to an operative position to form a continuation of said main tube in a lengthwise direction, a valve connected with said auxiliary tube and adapted to establish and disestablish communication between said main and auxiliary tubes as the auxiliary tube is in an operative or an inoperative position, a nozzle for the other main tube, means arranged to connect or disconnect said nozzle from said main tube and an indicating medium normally in said main tubes and movable into said auxiliary tube when in its operative position.

[Claims 6 to 9 not printed in the Gazette.]

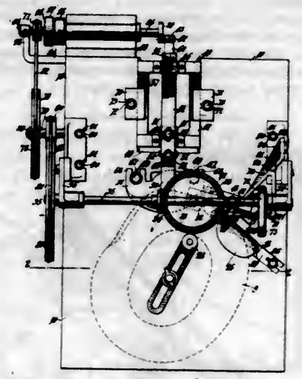
1,134,353. HAT-BRIM-CURLING MACHINE. GUSTAV SEGSCHNEIDER, Yonkers, N. Y. Filed Jan. 17, 1914. Serial No. 812,844. (Cl. 223—22.)

1. A hat-brim curling machine, comprising curling-devices, and a moving dampening device for dampening the brim before the entrance of the same between said curling devices.

2. A hat-brim curling machine, comprising curling-devices, a brim-guide, and a moving brim-dampening device adjacent the path of the brim between said brim-guide and curling-devices.

3. A hat-brim curling machine, comprising curling-devices, a brim-guide, feeding-devices, and a moving brim-dampening device adjacent the path of the brim between said brim-guide and the feeding-devices.

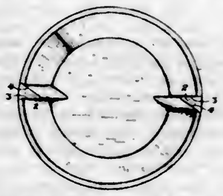
4. A hat-brim curling machine, comprising curling-devices, a continuously-moving feeding-device in advance thereof, and a continuously-moving dampening device in advance thereof.



5. A hat-brim curling machine, comprising curling-devices, and a wet-belt movable in contact with the brim being fed thereto.

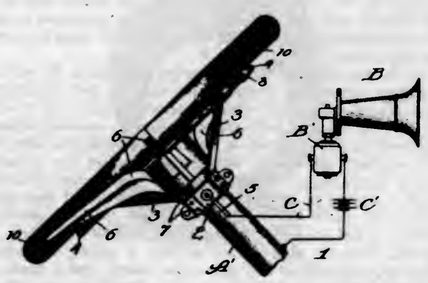
[Claims 6 to 22 not printed in the Gazette.]

1,134,354. MIXING-TUMBLER. HERMAN A. SEIFKE, San Francisco, Cal. Filed Mar. 25, 1913. Serial No. 756,785. (Cl. 65—13.)



An upwardly flaring open-topped glass mixing tumbler having an integral upwardly directed rib extending inwardly from its inner wall.

1,134,355. CIRCUIT-CONTROLLING DEVICE. WENDELIN P. SENG, Chicago, Ill. Filed May 21, 1912. Serial No. 698,823. (Cl. 177—10.)



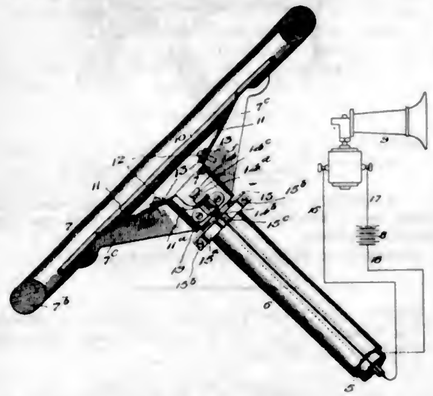
1. The combination with a steering-wheel and its shaft, of an electric circuit comprising a collar encircling the steering-wheel shaft and insulatingly mounted thereon, arms supported by said collar, and an annular contact-member supported by said arms and disposed close to the steering-wheel.

2. The combination with a steering-wheel and its shaft, of an insulatingly-mounted collar encircling said shaft,

resilient arms carried by said collar, and an annular contact-member carried by said arms and disposed close to the steering-wheel.

3. In means of the character set forth adapted to be mounted on the steering-shaft of an automobile, the combination of a collar, means for insulatingly mounting the same on said steering-shaft, and a spring-carried annular contact-member mounted on said collar.

1,134,356. CIRCUIT-CLOSER FOR MOTOR-VEHICLE ELECTRIC HORNS. WENDELIN P. SENG, Chicago, Ill. Filed Sept. 7, 1912. Serial No. 719,244. (Cl. 177—10.)



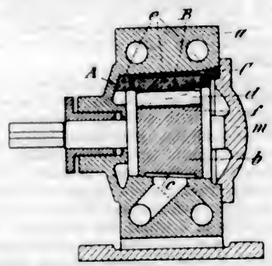
1. In combination with a steering mechanism for motor-vehicles comprising a stationary element and a circularly movable element, of an electric circuit including a substantially annular contact-member disposed in close relation to and surrounding the axis of the movable element and adapted to complete the circuit through the same, and electric conductors on the aforesaid movable and stationary elements, respectively, and normally in movable contact one with the other, the conductor on the movable element being electrically-connected to the aforesaid contact-member.

2. In combination with a steering mechanism for motor-vehicles comprising a stationary element and a movable steering-wheel, of an electric circuit having a substantially annular contact-member disposed in close relation to the steering-wheel and adapted to complete the circuit through said wheel, an annular plate insulatingly attached to the stationary element, and a presser-foot insulatingly supported by the movable steering wheel to travel over and in contact with the plate and electrically connected to the contact member, said presser-foot and plate being included in the circuit.

3. In combination with a steering mechanism for motor-vehicles, comprising a stationary element and a movable steering-wheel, of an electric signal circuit and circuit closer including a substantially annular contact-member disposed in close relation to the steering-wheel and adapted to complete the circuit through said wheel, an annular plate insulatingly attached to the stationary element, and a conductor carried by the steering wheel and comprising a sleeve insulatingly attached to said steering wheel, a nut threaded on the upper end of the sleeve, a spring-actuated presser-foot having a shank extending through and beyond the end of the sleeve, and a head on the end of the shank having a pin adapted to take into a hole in the aforesaid nut to permit the presser-foot to slidably engage the plate, said presser-foot being electrically connected to the aforesaid contact member.

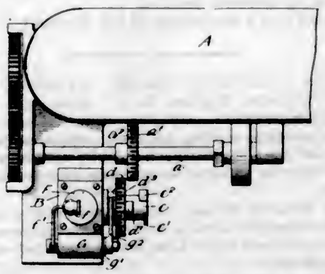
4. In combination with a steering mechanism for motor-vehicles, comprising a stationary element and a movable steering-wheel, of an electric signal circuit and circuit-closer having a substantially annular contact-member disposed in close relation to the steering-wheel and adapted to complete the circuit through the same, and a series of springs extending from the annular contact-member and insulatingly attached to the steering-wheel, one of said springs having an extension forming an electric connection; together with an annular plate insulatingly attached to the stationary element, and a conductor carried by the movable steering-wheel and comprising a sleeve insulatingly attached thereto and adapted to receive the spring extension or connection, a nut threaded on the end of the sleeve against said extension or connection, a spring-actuated presser-foot having a shank extending through and beyond the nut, and a head on the end of the shank having a pin adapted to take into a hole in said nut and permit the presser-foot to slidably engage the plate.

1,134,357. ROTARY ENGINE. GIULIO SILVESTRI, Vienna, Austria-Hungary. Filed Oct. 28, 1912. Serial No. 728,115. (Cl. 121—74.)



In a rotary engine, the combination with a stator casing, and a rotatable conical piston drum therein, an annular working chamber being provided intermediate the inner circular wall of the casing and the circumference of the piston drum, of pistons radially displaceable in slots in said drum, said pistons being longer in the direction of the axis of the drum than the said working chamber, and a packing device arranged in a longitudinal groove of the casing and separating the inlet side of the working chamber from the outlet side thereof, said packing device being divided into three parts, *i. e.* a middle portion B and end portions A and C, the said middle portion serving as the actual packing piece and being of such length as to extend beyond the end faces of the slots for the pistons, which faces are parallel to the plane of rotation of the piston drum.

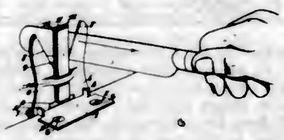
1,134,358. GEARING. FRANK E. TEN EYCK, Boston, Mass., assignor to Auto Air-Rotar Company, a Corporation of Maine. Filed July 30, 1912. Serial No. 712,335. (Cl. 74—7.)



The combination of a driving shaft, of a pump provided with an actuating shaft, a driving gear fixed on said driving shaft, a driven gear normally out of alinement with the driving gear, loosely mounted concentrically of the pump shaft, and movable longitudinally thereof, a part connected for rotation with the pump shaft, provided

with an arresting face, substantially perpendicular to and extending nearly all the way around said shaft, and a clutch lug projecting beyond said face toward the movable gear, a locking recess being provided between said lug and adjacent portions of the part provided with said arresting face, a lug secured to said movable gear constructed to fit said locking recess and prevent backlash, and adapted to be arrested by said arresting face, when said gears are in mesh and said clutch lug on the movable gear is in position to engage the first mentioned clutch lug, an actuating cylinder and piston, operative connections between said actuating piston and the movable gear for actuating the same yieldingly, and a connection for pressure fluid between the pump cylinder and the actuating cylinder, whereby said actuating piston may be operated by back pressure to the pump cylinder, to connect the pump shaft and the driving shaft, and hold the connected parts in operative position continuously while the pump is in operation.

1,134,359. KNIFE-SHARPENER. JOSEPH WALKER, Niagara Falls, N. Y. Filed Nov. 12, 1913. Serial No. 800,545. (Cl. 76—86.)

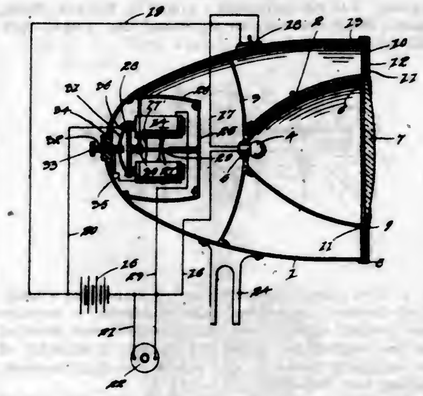


1. A knife sharpner comprising a base plate adapted to be secured to a suitable support, said base plate having an eye turned up at one edge to form one part of a hinged member and having lugs turned up at the sides to form stops, a sharpener plate having eye portions to aline with the eye of said base plate and a hinge pin passing through said eyes, said sharpener plate including a sharpener edge, and a sharpener steel carried by said plate to operate with said sharpener edge, all being arranged whereby, as the knife to be sharpened is drawn over said sharpener plate in one direction, said sharpening plate will be held up against said lugs, said lugs being spaced slightly back from the "hinge" whereby to tilt said sharpening plate slightly rearwardly against said lugs thereby to throw the center of gravity of said sharpening plate to the rear of said "hinge" when said sharpening plate is projected upwardly in its operative position, said sharpening plate adapted to swing down along the edge of the support and below the plane of said base plate when not in use.

2. In a knife sharpener, the combination with a flat support having an edge, a base plate secured to the top of said support and having one edge arranged adjacent to the edge of said support, said plate having a hinge eye at the support adjacent edge and upwardly projected lugs spaced inwardly from the support adjacent edge, a sharpening plate having hinge eyes, and a hinge pin connecting said sharpening plate eyes with said base plate eye whereby when said base plate is swung upwardly above the plane of said support, it will rest against said stops in a position tilted slightly backwardly from the vertical plane of the edge of the support to rest against said stops and whereby when said sharpening plate is swung downwardly it will lie against the edge of said support and below the upper horizontal surface of the support, said sharpening plate including sharpening elements.

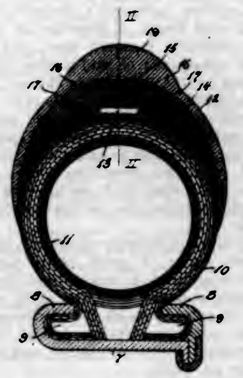
1,134,360. SIGNAL-HORN AND LAMP. PERCY WALKER, Detroit, Mich. Filed Mar. 17, 1914. Serial No. 825,353. (Cl. 177—7.)

1. In a device of the character described, a support, electromagnets, a circuit for said magnets, a sound diaphragm, a slidable armature, means operatively connecting said armature with the diaphragm, a spring secured at its ends to said armature, a support for said spring rigidly secured thereto intermediate the ends thereof and a relatively stationary contact pin normally engaging said spring and operatively connected in said circuit, said spring being operatively connected with said circuit and arranged to move into and out of contact with said pin to open and close said circuit.



2. In a combined signal horn and lamp the combination with a shell having one end open, a conical elongated reflector mounted within said shell, a spider within said shell and supporting the inner end of said conical reflector, illuminating means within the reflector, audible signaling means mounted between the closed end of the shell and inner end of the reflector, an inner ring mounted upon the open end of said reflector, an outer ring mounted upon the open end of said shell, arms connecting said rings with each other and foraminous material arranged between said rings at the open end of said shell.

1,134,361. SELF-FILLING TIRE. ANSON B. WETHERELL, Pittsburgh, Pa. Filed Feb. 13, 1912. Serial No. 677,394. (Cl. 152—11.)

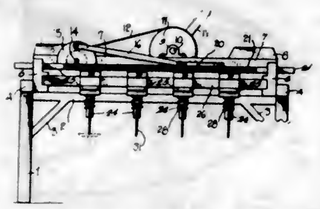


1. A self inflating tire comprising in combination an outer casing, an inner tube, and a channel which is open to the atmosphere adjacent one end and to the inner tube adjacent the other end adapted to compress air to inflate the inner tube as the tire is rotated, said channel being tapered toward the end communicating with the inner tube.

2. In a self filling tire, the combination with an outer compressible casing, an inner tube mounted therein, a cir-

cumferential pumping channel lying in the outer casing and surrounding the inner casing, the ends of the said channel extending past each other and each lying outside the inner tube and exposed to the compressive action of the outer tube, and one of said ends communicating with the atmosphere in advance of the other end which communicates with the inner tube.

1,134,362. VALVE-GRINDER. JAMES W. WILSON, Tulsa, Okla. Filed Jan. 11, 1915. Serial No. 1,634. (Cl. 51—4.)



1. A valve grinder including spaced standards, a longitudinal member connecting said standards, a movable frame hingedly connected to said standards and mounted upon the longitudinal supporting member, a plurality of valve engaging elements, and means for simultaneously actuating said elements.

2. A device of the class described including spaced standards, a longitudinal member connecting said spaced standards, a movable frame hingedly connected to the standards and adapted to be supported by the longitudinal member, a plurality of adjustable blocks carried by said frame, vertically disposed shafts mounted within said blocks, gear teeth formed upon the upper ends of said shafts, and a reciprocating rack bar adapted to engage said gear teeth and simultaneously rotate the shafts.

3. A valve grinder including spaced standards, a supporting member connecting said standards, a movable frame consisting of longitudinally extending spaced beams, a guide plate provided with a longitudinal slot, cross beams connected to the ends of said beams and plate, a plurality of rotatable shafts adjustably mounted within the guide plate, and means supported by the spaced beams and having connection with said shafts to simultaneously rotate the same.

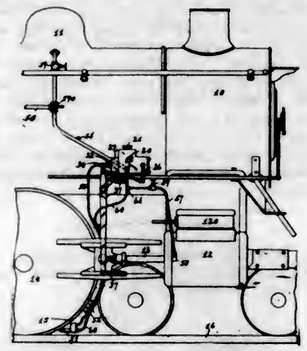
4. A valve grinder including a movable frame, means for supporting said frame, a plurality of vertically disposed shafts adjustably mounted upon said frame, gears carried by the upper ends of said shafts, valve engaging elements carried by the lower ends thereof, a reciprocating rack bar adapted to engage the gears on the shafts, a transverse shaft carried by the movable frame, a pulley carried by the shaft, a pitman having one end eccentrically connected to the pulley and its other end connected to the rack bar, and means for imparting rotary movement to the transverse shaft whereby to reciprocate the rack bar and simultaneously rotate the vertical shafts, as and for the purpose set forth.

5. A valve grinder including a movable frame, means for supporting said frame, a guide plate carried by said frame and provided with a longitudinal slot, supporting blocks adjustably mounted upon the plate, vertically disposed shafts extending through the blocks and the slot in the plate, valve engaging elements carried by said shafts, and means for simultaneously rotating said shafts, as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,134,363. FLANGE-LUBRICATOR. ROBERT WOOD, Brooklyn, N. Y., assignor to The Nathan Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Jan. 29, 1914. Serial No. 815,103. (Cl. 184—3.)

1. A flange oiler for a locomotive, comprising an oil reservoir, an oil delivery pipe adapted to receive oil therefrom, a ram adapted to be moved from a moving part of the engine in unison with the reciprocation of the piston to force oil from the reservoir to the supply pipe at a rate coresponding to the flow of the steam, in combination with means for maintaining a pressure greater than atmospheric pressure in the oil delivery pipe consisting in coiling the pipe near its terminal.



2. A flange oiler for a locomotive, comprising an oil reservoir, an oil delivery pipe adapted to receive oil therefrom, a ram adapted to be moved from a moving part of the engine in unison with the reciprocation of the piston to force oil from the reservoir to the supply pipe at a rate corresponding to the flow of the steam, in combination with means for maintaining a pressure greater than atmospheric pressure in the oil delivery pipe consisting in coiling the pipe near its terminal and reducing its cross sectional area.

3. A flange oiler for a locomotive, comprising an oil reservoir, an oil delivery pipe adapted to receive oil therefrom, a ram adapted to be moved from a moving part of the engine in unison with the reciprocation of the piston to force oil from the reservoir to the supply pipe at a rate corresponding to the flow of the steam in combination with means for heating the oil in the reservoir, including a heater pipe passing through the reservoir and connected to a source of steam supply and means for forcibly ejecting the oil toward the wheel flange at the delivery end of the supply pipe, consisting of a pipe leading from the heater pipe to the delivery end of the supply pipe.

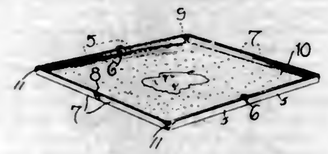
4. A flange oiler for a locomotive comprising an oil reservoir, means for forcing the oil therefrom in harmony with the actuation of the engine, a pipe leading from the reservoir to one or more of the wheel flanges, through which the oil is forced, and a heater for the oil adapted to exhaust at the terminus of the pipe leading to the wheel flanges, to assist in forcibly ejecting the oil from such pipe.

5. A flange oiler for locomotives comprising one or more pipes adapted to convey a supply of oil to the wheel flanges, in combination with two optional means for assisting in ejecting the oil from the pipes, one constant and the other intermittent.

[Claims 6 to 8 not printed in the Gazette.]

1,134,364. BATH APPARATUS. BENJAMIN F. ADAMS, Albuquerque, N. Mex. Filed Oct. 17, 1914. Serial No. 867,172. (Cl. 4—27.)

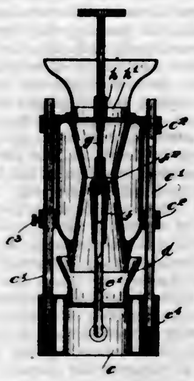
1. A bath apparatus of the character described including a frame consisting of a plurality of frame strips permanently connected together for folding movement, said strips being arranged in opposed series, the strips in each series being adapted to be folded upon each other in the plane of said strips, and the strips in one series being adapted to be folded in a plane at right angles to the folding movement of the series of strips, upon the strips in the other series, and a sheet of water proof material adapted to be detachably engaged upon the upper edge of the frame when the same is set up.



2. A bath apparatus of the character described including a frame consisting of opposed series of strips, each series defining one half of the frame and the strips thereof being hingedly connected to each other for folding movement in the plane of the frame, the corresponding strips in one series being hingedly connected to the ends of the same strips in the other series whereby one series of strips may be folded over upon the other series in a plane at right angles to the folding movement of the strips upon each other, whereby the corresponding edges of the two series of strips are engaged, and a sheet of water proof material adapted to be removably attached to the upper edge of the frame when the same is set up.

3. A bath apparatus of the character described including a frame consisting of two halves each comprising a plurality of hingedly connected strips foldable upon each other into intimate compact relationship, the two halves of said frame being pivotally connected together for folding movement in a plane at right angles to the plane of folding movement of the individual frame strips to dispose the corresponding strips of the two halves of the frame in superposed relationship with their opposed longitudinal edges in contact, and a sheet of water proof material adapted to be detachably engaged upon the upper edge of the frame when the same is extended or set up.

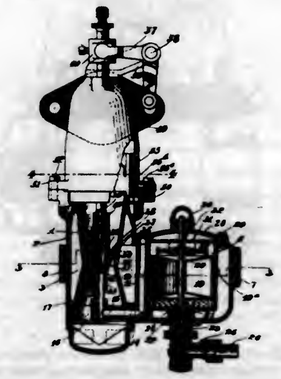
1,134,365. CARBURETER. LLEWELLYN T. BARNES, Sea Cliff, N. Y. Filed Dec. 1, 1913. Serial No. 803,877. (Cl. 48—155.1.)



1. In a carbureter, the combination of an auxiliary air supply tube with a flaring inlet, a Venturi supply tube arranged in axial relation thereto, a fuel supply pipe extending axially through said auxiliary tube and entered within said Venturi tube, and a fuel supply member extending from said pipe, said member having an annular shoulder with radial orifices directed toward the constricted portion of said Venturi tube, together with a needle valve adjusted within said fuel supply member, said Venturi tube being axially adjustable to at one movement regulate the fuel supply and both air supplies.

2. A carbureter having a Venturi tube for air supply and a fuel supply member disposed axially therein, said fuel supply member having radial orifices directed toward the constricted portion of said tube, one of said members being movable axially with respect to the other, a valve for said fuel supply member, an auxiliary air supply member in axial relation to said Venturi tube, means for regulating the air, fuel and auxiliary air supplies proportionately with the movement of said movable member, and a heating jacket for said Venturi tube.

1,134,366. CARBURETER. LLEWELLYN T. BARNES, Sea Cliff, N. Y. Filed June 2, 1914. Serial No. 842,465. (Cl. 48—148.)



1. A carbureter having a fuel chamber, central fuel displacing means therein, a fuel and air mixing chamber, a duct lying vertically between the fuel chamber and mixing chamber in communication with said fuel chamber at a point near the upper level of the fuel, and leading from its lower end to the mixing chamber, and a single heating jacket enveloping said fuel chamber, vertical duct and mixing chamber in the same horizontal zone.

2. A carbureter having a fuel chamber, central fuel displacing means therein to provide a thin annular fuel head, a vertical hollow enlargement at one side of said fuel chamber, with a communicating orifice near the upper fuel level, a fuel inlet in the base of said chamber, a heating jacket forming a chamber around said fuel chamber and hollow enlargement, a mixing chamber alongside said fuel chamber in the same horizontal zone therewith, and in communication with the hollow portion of said hollow enlargement, said mixing chamber being also surrounded by said heating jacket, and said jacket having oppositely arranged inlet and outlet openings, whereby a heat medium passing therethrough will envelop said fuel chamber, hollow enlargement and mixing chamber.

3. A carbureter having a fuel chamber, central fuel displacing means therein to provide a thin annular fuel head, a Venturi tube adjacent said chamber with its constricted portion in the same horizontal zone therewith, a vertical duct between said fuel chamber and said Venturi tube, said duct receiving fuel from near the upper level thereof in said chamber and delivering it to the constricted portion of said Venturi tube to mix with air passing therethrough, and a heating jacket surrounding said fuel chamber, vertical duct and Venturi tube.

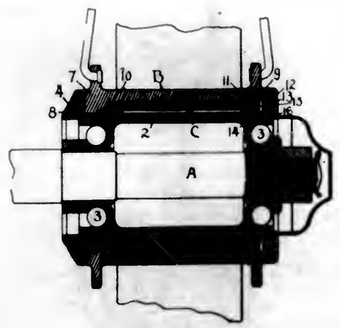
4. A carbureter having a Venturi air supply tube, a fuel pipe therein, a nozzle for said pipe adjustable within the constricted portion of said supply tube, to regulate the main air supply, an upper casing, a valve stem connected to said casing, said stem carrying a needle valve for said fuel pipe and also carrying said nozzle, and an annular valve carried by said stem for the proportionate supply of auxiliary air.

5. A carbureter having a Venturi air supply tube, a fuel pipe therein, a nozzle for said pipe adjustable within the constricted portion of said supply tube, to regulate the main air supply, an upper casing, a valve stem connected

to said casing, said stem carrying a needle valve for said fuel pipe and also carrying said nozzle, an annular valve carried by said stem for the proportionate supply of auxiliary air, and a throttle lever to operate said stem whereby the fuel, main air and auxiliary air are all controlled.

[Claims 6 to 8 not printed in the Gazette.]

1,134,367. HUB FOR REMOVABLE WHEELS. ALBERT R. BEHNKE, St. Paul, Minn. Filed Aug. 1, 1914. Serial No. 854,490. (Cl. 21—31.)



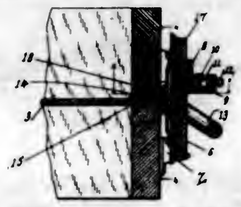
1. In combination with the spoke supporting member of a wheel, a hub removably supporting the same, the spoke supporting member being cut away upon its inner face to form a rim at one end resting upon the hub and an opening between said member and hub extending to the outer face of the member, a sleeve fitted in said opening and having inclined bearing surfaces at both its inner and outer ends bearing against the adjacent portion of the rim, and a pair of coöperating securing nuts interposed between the outer ends of said sleeve and hub and having screw threaded engagement therewith.

2. In combination with the spoke supporting member of a removable wheel, a supporting hub therefor, said spoke supporting member being cut away upon its inner face to form an opening around the hub with the inner end of the member in contact with the hub and being formed at the inner end of said opening with an inclined face and with an inclined face at the outer end of the opening, a sleeve fitted in said opening and formed with inclined faces bearing against the inclined faces of said spoke member, and means for securing said sleeve in position.

3. In combination with the spoke supporting member of a removable wheel, a supporting hub therefor, said spoke supporting member being cut away upon its inner face to form an opening around the hub with the inner end of the member in contact with the hub and being formed at the inner end of said opening with an inclined face and with an inclined face at the outer end of the opening, a sleeve fitted in said opening and formed with inclined faces bearing against the inclined faces of said spoke member, means for securing said sleeve in position, said means comprising a nut having screw connection with said sleeve, and a second nut fitted within said first nut and having screw connection with the hub, said nuts being oppositely threaded.

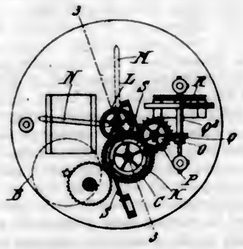
1,134,368. FLASK. WILLIAM C. BOGENSCHUTZ, Kalamazoo, Mich. Filed Mar. 22, 1913. Serial No. 756,103. (Cl. 22—96.)

In a molding device, the combination with a drag, cope, and parting plate, of a guide member support on said cope adapted as a hand piece, a parting plate handle having a plate-like attaching portion lapped upon the upper side of said parting plate and removably secured thereto so that when the parting plate is reversed the handle may be secured in the same relative relation thereon, said handle being inclined downwardly away from said



cope guide member support to permit the grasping of said cope guide member support.

1,134,369. SPEED-INDICATOR AND THE LIKE. BAHNE BONNIKSEN, Coventry, England. Filed Jan. 15, 1913. Serial No. 742,175. (Cl. 235—104.)

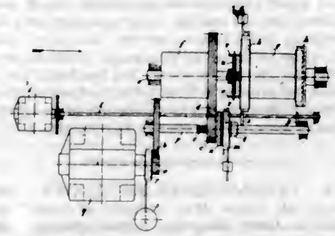


1. In a speed indicator, the combination with a main driving spindle, of indicating hands, means for operating the hands alternately as described to cause each of them to partially rotate in a forward direction with the driving spindle comprising a driving wheel fast on the said spindle, a toothed wheel loose on the spindle and resting upon the said driving wheel, ratchet wheels also loose on the spindle, means for pressing the various wheels into frictional engagement with each other, concentric spindles carrying the hands, gear wheels on said spindles and gearing with the said ratchet wheels, an escapement mechanism operating directly upon the said ratchet wheels to temporarily arrest the rotation of the same, the hand spindles and hands when the latter are at an indicating position and to then release the said parts and cause the hands to continue their rotation in the forward direction until they reach their initial position.

2. In a speed indicator, the combination with a main driving spindle, of indicating hands, means for operating the hands alternately as described to cause each of them to partially rotate in a forward direction with the driving spindle comprising a driving wheel fast on said spindle, a toothed wheel loose on said spindle and resting upon the said driving wheel, a cam ring on said loose toothed wheel and beveled radially at one end and provided with a radial swell at the other end, ratchet wheels also loose on the spindle, means for pressing the various wheels into frictional engagement with each other, concentric spindles carrying the hands, gear wheels on said spindles and gearing with the said ratchet wheels, pawl engaging the said loose ratchet wheels and having fingers engaging pins on the said ratchet wheels, the said cam ring on the loose toothed wheel being adapted to operate upon the said pawls as set forth, and an escapement mechanism operating directly upon the said ratchet wheels to temporarily arrest the rotation of same, the hand spindles and hands when the latter are at an indicating position and to then release the said parts and cause the hands to continue their rotation in the forward direction until they reach their initial position.

3. In a speed indicator, the combination with a main driving spindle, of indicating hands, means for operating the hands alternately as described to cause each of them to partially rotate in a forward direction with the driving spindle comprising a driving wheel fast on the said spindle, a toothed wheel loose on the said spindle and resting upon the said driving wheel, a cam ring on said loose wheel and beveled radially at one end and provided with a radial swell at the other end, ratchet wheels also loose on the spindle and each provided with a pin, a spring arranged to normally press the various wheels into frictional engagement with each other, pawls provided with fingers adapted to engage the pins on the respective ratchet wheels, said pawls also having portions which engage the teeth of the said ratchet wheels and portions adapted to engage the cam ring as described, concentric spindles carrying the hands, gear wheels on said spindles and gearing with the said ratchet wheels, and an escapement mechanism operating directly upon the said ratchet wheels to temporarily arrest the rotation of same, the hand spindles and hands when the latter are at an indicating position and to then release the said parts and cause the hands to continue their rotation in the forward direction until they reach their initial position.

1,134,370. ELECTRIC CONTROL-GEAR FOR AUTOMATIC GRAB-CRANES. KOLOMAN BRÜLL, Pestszentlörincz, Austria-Hungary. Filed Sept. 27, 1911. Serial No. 651,649. (Cl. 254—187.)

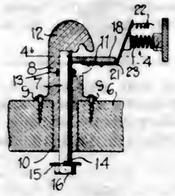


1. Electric control gear for automatic grab cranes comprising a shaft, a grab closing drum fast thereon, a motor for driving said drum, driving connections between said motor and said drum, a brake adapted to operate on said connections, a grab opening drum loose on said shaft, a clutch for connecting said opening drum to the shaft, a brake for retaining said opening drum during the opening of the grab, a cam shaft having operative connections with said clutch and both of said brakes, electric means for controlling said shaft, and a common control for said driving motor and said electric means controlling the cam shaft, substantially as described.

2. Electric control gear for automatic grab cranes comprising a shaft, a grab closing drum keyed theron, a motor for driving said drum, reduction gearing coupling said drum with said motor, a brake operatively connected with said gearing, a grab opening drum loosely carried on said shaft, a clutch for positively coupling said opening drum to the shaft, a brake for retaining said opening drum during the opening of the grab, a cam shaft having operative connections with said clutch and said brakes respectively, a brake motor adapted to control the movements of said cam shaft, and a common control for said driving and brake motors, respectively, substantially as described.

1,134,371. CURRENT-SUPPLY SYSTEM FOR ELECTRIC RAILWAYS. WILLIAM FLOYD BYRAM and ROBERT PINK PHRONEBARGER, Charlotte, N. C. Filed June 24, 1914. Serial No. 847,098. (Cl. 191—47.)

1. In a current supply system for electric railways, spaced vertically disposed contact members arranged between the track rails, an insulating standard for each of said contact members extending through and secured to the rail tie, said standard being recessed upon one side to expose the contact member and having a convex head overhanging said recess, means secured to the contact and engaged with the base of the recess to prevent longitudinal movement of the contact member with respect to the insulating standard, the lower end of said member projecting below the rail tie and being connected to a source of current supply; in combination with a contact shoe yieldably mounted upon the truck frame of a car and of greater length than the distance between any two adjacent contacts whereby said shoe will at all times be engaged with one of the contact members.



2. In a current supply system for electric railways, a series of vertical contact members arranged between the track rails, insulating standards secured to the rail ties within which said contact members are disposed, the upper end of each of said standards being cut away on one side to expose the upper end of the contact member and provide an overhanging protecting crown, a collar secured upon the contact member to hold the same against longitudinal movement through the insulating standard, the lower end of said member being connected to the source of current supply, in combination with a contact shoe yieldably mounted upon the truck frame of the car and of greater length than the distance between any two adjacent contacts whereby said shoe will at all times be engaged with one of the contact members.

1,134,372. COMBINED BUTTON AND WATCH-CHAIN ATTACHMENT. THOMAS CAMERON, Norfolk, Va. Filed Mar. 4, 1914. Serial No. 822,491. (Cl. 24—73.)



1. A combined button and chain attachment including a button adapted to be worn in the button hole of a lapel and composed of a separable front and back, the back of the button being provided at its inner face with a recess, and a chain attaching device of a size to fit within the recess, said chain attaching device being hinged to the back of the button and arranged to swing to and from the said recess to fold the chain attaching device within the button and to project it therefrom.

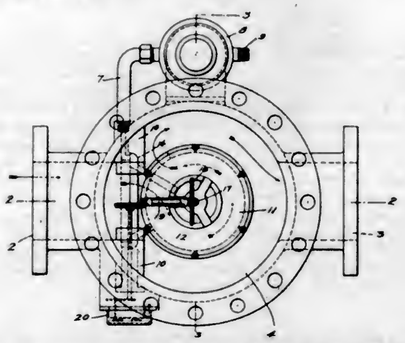
2. A combined button and chain attachment including a button adapted to be worn in the button hole of a lapel and composed of a separable front and back, and a chain attaching ring hinged to the back of the button at the periphery of the same and adapted to swing inwardly and outwardly to arrange it in a projecting position or to fold it against the back.

3. A combined button and chain attachment including a separable back having a tubular shank, and a chain attaching ring carried by the said back, one of the parts being provided with a projecting eye and the other having a pintle passing through the eye, whereby the ring is hinged to the back of the button and is adapted to be arranged either in an extended position or in a folded position and the said projecting eye permitting the ring to be arranged substantially concentric with the tubular shank.

4. A combined button and chain attachment including a button having a removable back, and a chain attaching ring hinged to the said back and arranged to swing inwardly and outwardly to and from the inner face of the back to fold the chain attaching device within the button and to project it therefrom.

5. A combined button and chain attachment including a button adapted to be worn in the button hole of a lapel and composed of a separable front and back, and a chain attaching ring hinged to the button and arranged to fold within the same when the front and back are separated, said ring being retained in its folded position by the front and back of the button when the same are connected together.

1,134,373. MEANS FOR MEASURING AND INDICATING FLOWS. HORACE CHRISMAN, Edgewood Park, Pa., assignor to Pittsburg Meter Company, a Corporation of Pennsylvania. Filed Jan. 14, 1910. Serial No. 538,150. (Cl. 73—167.)



1. The combination of a main having inlet and outlet ports, of a meter in the main for measuring normal flows through said main, and an indicator having a port within the main normally covered by the meter and uncovered by the meter when abnormal flows take place through the main.

2. In combination with a water main, a meter normally lying in the path of the flow of the water through said main, but automatically moving out of the path of the flow when the pressure on the discharge side of the meter is reduced beyond a pre-determined amount, and a detector meter having a port normally covered by the first named meter but adapted to be uncovered by said first named meter when said first named meter moves out of the path of the flow of the water.

3. The combination with a water main having a port, an indicator for indicating abnormal flows and in communication with the port in said water main and a measuring device for measuring flows in said water main for normally closing said port.

4. The combination with a water main of an indicator for indicating abnormal flows and having a port in communication with said water main and a gravitating measuring device for normally closing said port.

5. The combination with a water main, of a grooved flange in said main, a detector meter in ported communication with said groove in the flange, a water meter mounted for swinging movement in the main, and means on the water meter for normally closing the groove in the flange.

[Claims 6 to 22 not printed in the Gazette.]

1,134,374. LATHE. BURTON H. CLEMENT, Beloit, Wis., assignor of one-half to Henry L. Trowbridge, Beloit, Wis. Filed Mar. 31, 1914. Serial No. 828,545. (Cl. 82—2.)

1. A lathe provided with a bed mounted for rocking movements about its longitudinal axis, and a head stock fixed to the bed and participating in the rocking movements thereof.



2. A lathe provided with a bed mounted for rocking movements about its longitudinal axis, and a head and tail stock both fixed to the bed and participating in the rocking movements thereof.

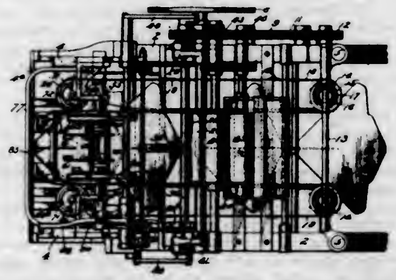
3. A lathe provided with a bed mounted for rocking movements about its longitudinal axis and having head and tail stocks fixed to said bed.

4. A lathe provided with a bed having head and tail stocks permanently fixed thereto in spaced relation, the tail stock having an elongated spindle with a range of movement with respect to the tail stock substantially equal to the effective distance between the head and tail stocks.

5. A lathe provided with a bed having head and tail stocks at and in permanently fixed relation to the respective ends of the bed and also effectively in one piece therewith, said head and tail stocks having alined head and tail spindles, the tail spindle being mounted for longitudinal movement with respect to the tail stock and of a length to have a range of movement substantially equal to the effective distance between the head and tail stocks, and means for causing a lengthwise movement of the tail spindle to any desired extent within its range of travel.

[Claims 6 to 26 not printed in the Gazette.]

1,134,375. PAPER-FEEDING MECHANISM. ORPH W. COWGILL, St. Louis, Mo., assignor of twelve one-hundredths to Jacob Bongner, twelve one-hundredths to Otto F. Stifel, twelve one-hundredths to L. H. Tiemann, and twelve one-hundredths to A. G. Solari, St. Louis, Mo., and twelve one-hundredths to The Envelope Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed July 24, 1911. Serial No. 640,190. (Cl. 101—40.)



1. In a paper feeding mechanism, the combination of separating mechanism and conveyer bands for picking up the separated sheet, said bands approaching said sheet in directions converging toward the medial line of said sheet, and leaving said sheet in directions diverging from its medial line.

2. In a paper feeding mechanism, the combination of separating mechanism and delivery bands traveling in horizontal planes around vertically disposed axes, said separating means being adapted to separate sheets from a pile and deliver them to said bands.

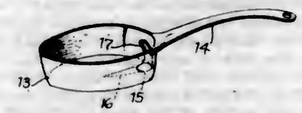
3. In a paper feeding mechanism, the combination of means for separating the top sheet from a pile, and delivery bands having fingers for engaging the separated top sheet, said fingers approaching said sheet in converging lines and leaving said sheet in diverging lines.

4. In a paper feeding mechanism, the combination of picking means for separating the top sheet from a pile and moving it bodily, feeding means adapted to receive said separated sheet from the picking means and start it in the direction of its feed, and delivery means for carrying said top sheet onward.

5. In a paper feeding mechanism, the combination of picking means for selecting the top sheet and moving it to a feeding means, feeding means for advancing said top sheet in the direction of its feed, and delivery means for carrying said top sheet onward at an accelerated speed.

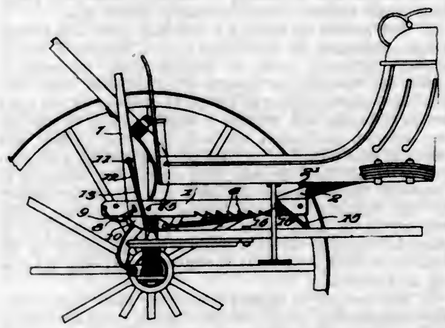
[Claims 6 to 30 not printed in the Gazette.]

1,134,376. CULINARY UTENSIL. ARTHUR D. ELZY, Louisville, Ky. Filed Mar. 3, 1913. Serial No. 751,899. (Cl. 53—7.)



A frying pan having an opening in its bottom in close proximity to the side flange thereof and having a radially disposed groove in the under surface of its bottom in communication with the opening, and having a curved tube within the opening formed with the bottom and side flange thereof and disposed about the opening, and having its upper edge terminating below the upper edge of the side flange, and a cover for such pan having a depending flange to fit within the side flange of the pan, the flange of the cover being provided with a recess to receive the curved tube disposed about the opening in the bottom of the pan.

1,134,377. COMBINED JACK AND THILL-SUPPORT. OLIN J. FAUNCE, Grantham, N. H. Filed Feb. 9, 1914. Serial No. 817,625. (Cl. 21—108.)



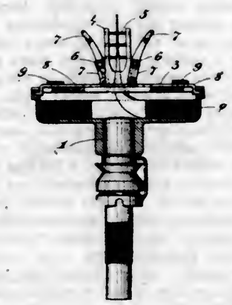
A device of the character described comprising a pair of horizontal transversely spaced side bars designed to be inserted between the body of a vehicle and above the front axle thereof, spacing blocks between the opposite ends of said side bars, one block being extended upwardly to contact with the floor of the vehicle body, said bars having a series of transversely alined openings, an upright lever having its lower end inserted between and depending below said bars, the upper end of said lever being designed to contact with the cross bar of a pair of thills when the latter is raised, a removable pin projecting through certain of said openings and through said lower end of the lever and a U-shaped yoke having its cross bar contacting with the inner edge of the depending end of the lever and with the adjacent lower edges of the side bars, the arms of said yoke embracing said side bars and being pivoted to the opposite sides of the lever at a point above said removable pin.

1,134,378. JOINT-BINDER. EDOUARD CHARLES GLARDON, Hamburg, Germany. Filed Oct. 20, 1913. Serial No. 796,275. (Cl. 70—100.)



A U-shaped joint binder or clamp the back or web of which interconnecting the two legs or shanks of said clamp being formed on each side with a single point arranged about midway between the ends of the back or web, such point being produced by gradually reducing the width of said back or web from the center of each side edge of said back toward opposite ends of said back substantially as and for the purpose set forth.

1,134,379. SPINNING-TRAY FOR CELLULAR-MATERIAL-SPINNING MACHINES. OSKAR ARTHUR GÜNTHER, Chemnitz, Germany, assignor to Carl Hamel Actien-Gesellschaft, Schönau, near Chemnitz, Germany. Filed Dec. 20, 1913. Serial No. 807,937. (Cl. 28—21.)

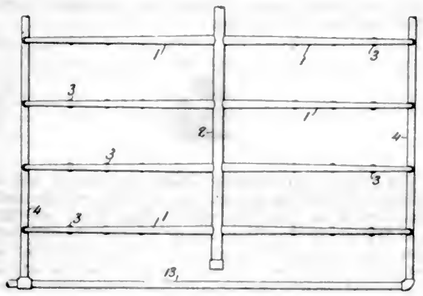


1. A spinning tray provided with a removable bridge, locking bolts slidably mounted on said bridge to be moved into and out of locking engagement with said tray, and levers mounted on said bridge to swing radially relatively to the axis of rotation of said spinning tray, said levers being respectively connected to said locking bolts, the connections between said levers and bolts being adapted to apply the centrifugal force of said levers to holding said bolts in locking position.

2. A spinning tray provided with a removable bridge, a boss raised in the middle portion of said bridge, two levers pivoted to said boss, bolts slidable radially with respect to the axis of rotation of said tray and pivoted at their inner ends respectively to the lower ends of said levers, the larger part of the mass of said bolt being eccentric to said axis to hold the bolt in locked position by centrifugal force.

3. A spinning tray provided with a removable bridge, a boss raised in the middle portion of said bridge, two levers pivoted to said boss, bolts slidable radially with respect to the axis of rotation of said tray and pivoted at their inner ends respectively to the lower ends of said levers, the larger part of the mass of said bolt being eccentric to said axis to hold the bolts in locked position by centrifugal force, and each of said levers being adapted by its arrangement to impart a thrust to its connected bolt in a direction to hold it in locked position due to centrifugal force.

1,134,380. ANTIFREEZING MEANS FOR SPRINKLER-PIPES. LOUIS W. HASKELL, New York, N. Y., assignor to General Fire Extinguisher Company, Providence, R. I., a Corporation of New York. Filed Aug. 21, 1906. Serial No. 331,448. (Cl. 169—20.)



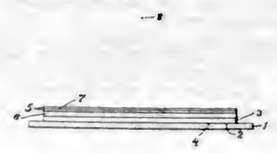
1. In an automatic fire extinguishing apparatus, the combination of a system of sprinkler pipes provided with automatic sprinkler heads and each in open communication at one end with a water supply main, whereby the pipes are normally kept filled with water under the service pressure, a supplementary supply pipe and connections between the same and the opposite ends of the several sprinkler pipes, and means for forcing a heated fluid into the supplementary supply pipe and thence into the sprinkler pipes against the service pressure therein.

2. In an automatic fire extinguishing apparatus, the combination of a system of sprinkler pipes provided with automatic sprinkler heads and each in open communication at one end with a water supply main, whereby the pipes are normally kept filled with water under the service pressure, a supplementary supply pipe and connections between the same and the opposite ends of the several sprinkler pipes, means for forcing a heating fluid into the supplementary supply pipe and thence into the sprinkler pipes against the service pressure therein, and flow-choking devices included in said connections and having such capacity as to insure the distribution of the heating fluid among the several sprinkler pipes.

3. In an automatic fire extinguishing apparatus, the combination of a system of sprinkler pipes provided with automatic sprinkler heads and each in open communication at one end with a water supply main, whereby the pipes are normally kept filled with water under the service pressure a supplementary supply pipe and connections between the same and the opposite ends of the several sprinkler pipes, and means for forcing a heating fluid into the supplementary supply pipe and thence into the sprinkler pipes against the service pressure therein, each of said connections being provided with a flow-choking device consisting of a wall having therein a perforation of such size that the aggregate capacity of the perforations is sufficiently limited to insure the distribution of the heating fluid among the several sprinkler pipes.

1,134,381. PROCESS FOR PRODUCING PRINTING-PLATES. JOSEPH ARTHUR HENRY HATT, Brooklyn, N. Y. Filed Oct. 30, 1912. Serial No. 728,583. (Cl. 101—205.)

1. The process of making a printing plate which comprises sensitizing the surface of a plate, placing a screen, having successive areas of varying light transmitting power but carrying no design, at a distance from said sensitized surface equal to the focal distance of the clear screen openings, and placing a negative carrying the design between said screen and said sensitized surface, and exposing said sensitized surface to the action of light through said screen and negative to create on the surface of the plate a combined impression of the design and screen figures, said exposure being stopped at a point when such screen figures are of greatest intensity at the center and decreasing in intensity outwardly therefrom when developed, and developing said surface.



2. The process of making a printing plate which comprises sensitizing the surface of a plate, placing a screen, having successive areas of varying light transmitting power but carrying no design, at a distance from said sensitized surface equal to the focal distance of the clear screen openings, and placing a negative carrying the design between said screen and said sensitized surface and with the film side of said negative in contact with said sensitized surface, and exposing said sensitized surface to the action of light through said screen and negative to create on the surface of the plate a combined impression of the design and screen figures, said exposure being stopped at a point when such screen figures are of greatest intensity at the center and decreasing in intensity outwardly therefrom when developed, and developing said surfaces.

3. The process of making a printing plate which comprises sensitizing the surface of a plate, placing a screen having successive areas of varying light transmitting power but carrying no design, at a distance from said sensitized surface equal to the focal distance of the clear screen openings, and placing a negative carrying the design between said screen and said sensitized surface and exposing said sensitized surface to the action of a point of light through said screen and negative to create on the surface of the plate a combined impression of the design and screen figures, said exposure being stopped at a point where such screen figures are of greatest intensity at the center and decreasing in intensity outwardly therefrom when developed, and developing said surface.

4. The process of making a printing plate which comprises sensitizing the surface of a plate, placing a screen, having successive areas of varying light transmitting power but carrying no design, at a distance from said sensitized surface equal to the focal distance of the clear screen openings, and placing a negative carrying the design between said screen and said sensitized surface, and exposing said sensitized surface to the action of a stationary point of light through said screen and negative to create on the surface of the plate a combined impression of the design and screen figures, said exposure being stopped at a point where such screen figures are of greatest intensity at the center and decreasing in intensity outwardly therefrom when developed, and developing said surface.

5. The process of making a printing plate which comprises sensitizing the surface of a plate, placing a screen, having successive areas of varying light transmitting power but carrying no design, at a distance from said sensitized surface equal to the focal distance of the clear screen openings, and placing a negative carrying the design between said screen and said sensitized surface and with the film side of said negative in contact with said sensitized surface, and exposing said sensitized surface to the action of a stationary point of light through said screen and negative to create on the surface of the plate a combined impression of the design and screen figures, said exposure being stopped at a point where such screen figures are of greatest intensity at the center and decreasing in intensity outwardly therefrom when developed, and developing said surface.

[Claims 6 to 19 not printed in the Gazette.]

1,134,382. PROCESS OF MAKING PRINTING-PLATES AND PRINTING IN COLORS. JOSEPH ARTHUR HENRY HATT, Brooklyn, N. Y. Filed Jan. 14, 1913. Serial No. 742,026. (Cl. 101—182.)

1. The process of making multi-color prints which comprises taking a single negative and making therefrom a plurality of printing plates each having a screen figure, the screen figures in one of said printing plates being in different positions relatively to its design from the screen figures in another of said printing plates relatively to its design, and printing said plates in different colors in superimposition upon an impression receiving material with the designs in register.

2. The process of making multi-color prints which comprises taking a single photographic negative, making a plurality of printing plates from said negative by means of an instrumentality for making grain figures in the printing plate, disposing the grain figures in one printing plate in different positions relatively to the design from the grain figures in another of said printing plates with respect to its design, and printing the design from said plurality of plates superimposed in register with each other, said plates being printed in different colors from each other.

3. The process of making multi-color prints which comprises taking a single continuous tone negative, making a printing plate therefrom by means of a screen whereby said printing plate will have screen figures thereon, making another printing plate from said negative by means of a screen, but changing the relative position of the screen and negative to cause the screen figures in such second plate to be in a different position relatively to the design from the screen figures on said first-mentioned plate relatively to the design on said first-mentioned plate, and printing the designs from said plurality of plates superimposed and in register with each other, said plates being printed in different colors from each other.

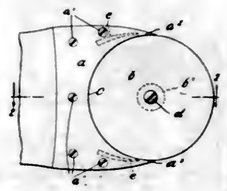
4. The process of making multi-color prints which comprises taking a single photographic or continuous tone negative, placing said negative and a figured screen in contact with each other and with one of them in contact with the sensitized surface of a printing plate, developing said plate and preparing it for printing, placing said negative and said figured screen in contact with the sensitized surface of another plate, but changing the position of the screen relatively to the negative in order to change the position of the screen figures relatively to the design with respect to the positions of the screen figures in the first-mentioned plate relatively to their designs, developing said plate and preparing it for printing, printing said plates in superimposition with their designs in register, said plates being printed in different colors from each other.

5. The process of making multi-color prints which comprises taking a single photographic or continuous tone negative, placing said negative and a figured screen in contact with each other and with said negative in contact with the sensitized surface of a printing plate, developing said plate and preparing it for printing, placing said negative and said figures screen in contact with the sensitized surface of another plate but changing the position of the screen relatively to the negative in order to change the position of the screen figures relatively to the design with respect to the positions of the screen figures in the first-mentioned plate relatively to their designs, developing said plate and preparing it for printing, printing said plates in superimposition with their designs in register, said plates being printed in different colors from each other.

[Claims 6 to 25 not printed in the Gazette.]

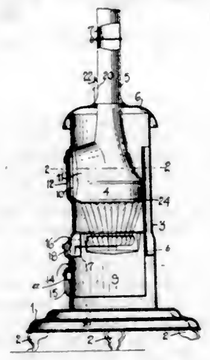
1,134,383. SHOE-HEEL. ELLIS S. HELWITZ and ARTHUR LOBEL, New York, N. Y. Filed June 11, 1913. Serial No. 772,976. (Cl. 36—39.)

A rubber heel for shoes having a stationary part of rubber and a part arranged to turn, the stationary part having portions projecting therefrom and partially embracing the turning part and provided with springs embedded therein so constructed and arranged as to tend to



press the projecting portions into contact with the turning part.

1,134,384. HEATING-STOVE. HENRY B. HEMPHILL, Eldorado, Ill. Filed Nov. 25, 1914. Serial No. 874,015. (Cl. 126—67.)

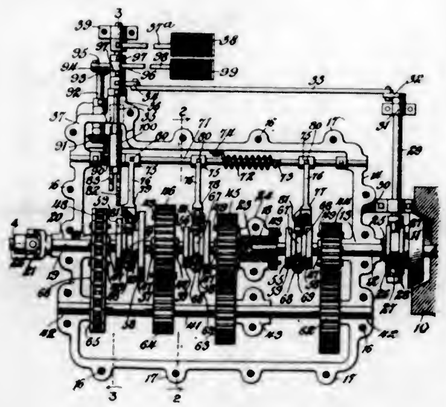


1. A device of the character described comprising a casing, supporting means therefor maintaining the same normally spaced from its supporting surface, the base of the casing being provided with openings, a fire box and ash-pit supported within the casing and substantially entirely surrounded by an air space, and a flue in communication with the ash-pit and the upper portion of the casing.

2. A device of the character described comprising a casing, supporting means therefor for maintaining the same in spaced relation above the supporting surface, the base of the casing being provided with openings, a fire box and ash-pit mounted within the casing and substantially entirely surrounded by an air space, a discharge member in communication with the casing through the top thereof, a revoluble member mounted in the free end of the discharge member and adapted to rotate under the influence of the heated air passing through said discharge member, a flue in communication with the ash-pit and the upper portion of the casing, an air valve in communication with the ash-pit, and means for controlling the flow through the discharge member.

3. A device of the character described comprising a casing, supporting means therefor for maintaining the same in spaced relation above the supporting surface, the base of the casing being provided with openings, a fire box, an ash-pit mounted within the casing and substantially entirely surrounded by an air space, a discharge member in communication with the casing through the top thereof, means for controlling the flow through the discharge member, and a flue in communication with the upper portion of the ash-pit and the upper portion of the casing, and an air valve in communication with the ash-pit.

1,134,385. TRANSMISSION-GEARING. ROBERT H. HEMPHILL, Port St. Joe, Fla. Filed Mar. 6, 1913. Serial No. 752,507. (Cl. 74—59.)



1. The combination with a clutch for connecting a prime mover to and disconnecting it from the work, of a pedal for operating the clutch, transmission gearing between the prime mover and the work, means for actuating and having a normal tendency to actuate the transmission gearing to different operative positions, and means actuated solely by the pedal for controlling the first-named means.

2. The combination with a clutch for connecting a prime mover to and disconnecting it from the work, of a pedal for operating the clutch, a transmission gearing between the prime mover and the work, means other than the pedal for actuating the transmission gearing progressively to different predetermined operative positions, and means actuated solely by the pedal for controlling the first-named means.

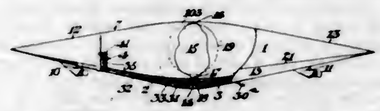
3. The combination with a clutch for connecting a prime mover to and disconnecting it from the work, of a pedal for operating the clutch, transmission gearing between the prime mover and the work, means for actuating and having a normal tendency to actuate the transmission gearing to different operative positions, and means actuated solely by the pedal for controlling the first-named means and timed to release the first-named means while the clutch is in the inactive position.

4. In combination, a clutch for coupling a prime mover to the work, a pedal for operating the clutch, transmission gearing interposed between the prime mover and the work, means controlled solely by the clutch pedal for actuating the transmission gearing into and out of operative positions and timed in action to cause such movements while the clutch is in the inoperative position, the mechanism controlled by the clutch pedal when the clutch is inoperative being constructed to respond to reciprocatory movements of the pedal to actuate the transmission gearing in progressive order to the different operative positions.

5. In combination, a clutch for coupling a prime mover to and uncoupling it from the work, a reciprocatory pedal for actuating the clutch, transmission gearing between the prime mover and the work, means for causing the actuation of the transmission gearing to different operative positions in predetermined order, and means responsive to oscillatory movements of the clutch pedal while the clutch is in the inactive position for controlling the actuation of the transmission gearing to the different operative positions in the predetermined order.

[Claims 6 to 30 not printed in the Gazette.]

1,134,386. BALLOON AND ANALOGOUS DEVICE. PETER COOPER HEWITT, Ringwood Manor, N. J. Filed Apr. 21, 1908. Serial No. 428,302. (Cl. 244—6.)



1. A motor balloon comprising an elongated envelop, in combination with a load supporting truss located close to the envelop, propellers located at equal distances from, and on opposite sides of, the envelop and between the horizontal plane of the load and the plane of the center of resistance, means for balancing the operative effect of said propellers and two similar deflecting surfaces of substantially equal areas located one forward and the other aft in such relation, as to exert equal and opposite deflecting efforts for the purpose described.

2. A motor balloon comprising an elongated envelop, in combination with a truss supporting the load close to the envelop, and balanced propellers located between the horizontal planes of said load and of the center of resistance respectively and having the unbalanced dynamic effect of the propellers balanced by means of rudders which serve to create a dynamic couple operating in a vertical plane.

3. In a dirigible balloon, a gas bag comprising a longitudinally tapered envelop, a load carrying truss, conforming in contour to the longitudinal contour of the envelop, propellers carried by said truss, and located between the horizontal plane of the load and the horizontal plane of the center of resistance of the balloon and at or near the vertical plane of the center of resistance of the balloon, means for varying the speed of the propellers to balance their operative effect and means for balancing the unbalanced dynamic effect of the propellers in a horizontal and vertical plane without causing the balloon to drift.

4. In a dirigible balloon, a gas bag comprising an envelop having a longitudinally tapered head in which the maximum pressure developed by the forward movement of the balloon is uniform over a large portion of its surface, auxiliary means for supporting the tip of said head, means for maintaining an internal pressure greater than the head pressure on said gas bag when the latter is traveling at full speed, separate propellers adjacent opposite sides of said gas bag and means for balancing the thrust of said propellers.

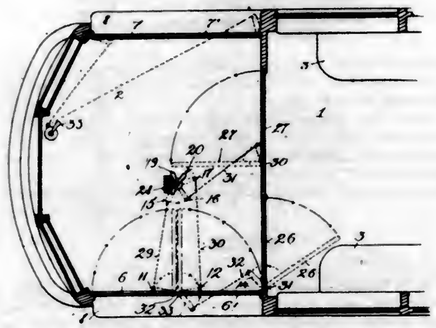
5. In a dirigible balloon, a gas bag comprising an envelop having a longitudinally tapered head in which the maximum pressure developed by the forward movement of the balloon is uniform over a large portion of its surface, auxiliary means for supporting the tip of said head, means for maintaining an internal pressure greater than the head pressure on said gas bag when the latter is traveling at full speed, a motor, separate propellers driven thereby and disposed adjacent opposite sides of said gas bag, and differential gearing connecting said propellers.

[Claims 6 to 8 not printed in the Gazette.]

1,134,387. PREPAYMENT-CAR. CLARENCE C. HUNICKE, New York, N. Y., assignor to Prepayment Car Sales Company, New York, N. Y., a Corporation of West Virginia. Filed Sept. 5, 1912. Serial No. 718,623. (Cl. 105—205.)

1. A car having a platform, an entrance and an exit door separating the platform from the interior of the car, doors for said doorways, said entrance door mounted to swing, in opening, outwardly over the platform to form a barrier to divide the platform into separate entrance and exit passages.

2. A car having a platform, an entrance and an exit doorway separating the platform from the interior of the car, doors for said doorways, said entrance door mounted to swing, in opening, outwardly over the platform to form a barrier to divide the platform into separate entrance and exit passages, and means for operating said entrance door.



3. A car having a loading and unloading platform, a doorway in the side of said platform, an entrance doorway from the platform to the interior of the car, swinging doors for said doorways, said doors, when swung into open position extending across the platform and cooperating to form a barrier to divide the platform area into separate entrance and exit passages.

4. A car having a loading and unloading platform, a doorway in the side of said platform, an entrance doorway from the platform to the interior of the car, swinging doors for said doorways, said doors, when swung into open position extending across the platform at an angle to each other with their free edge adjacent each other, and coöperating to form a barrier to divide the platform area into separate entrance and exit passages, and means located adjacent the free edges of said doors when in open position for independently controlling the movements of said doors.

5. A car having a platform, an exit door from the car to the platform an exit door from the platform to the street, and means for simultaneously moving said doors to open or closed position.

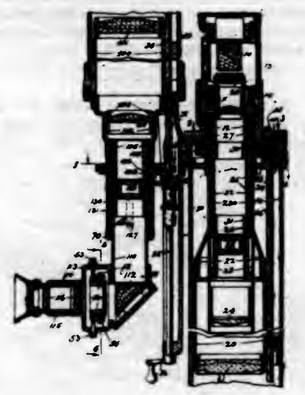
[Claims 6 and 7 not printed in the Gazette.]

1,134,388. OPTICAL INSTRUMENT. FREDERICK L. G. KOLLMORGEN, Boonton, N. J., assignor to Keuffel & Esser Company, Hoboken, N. J., a Corporation of New Jersey. Filed May 6, 1913. Serial No. 765,728. (Cl. 88—2.2.)

1. The combination with an optical instrument having means for varying the magnification of an object viewed therethrough, of mechanism coöperating with said means and dependent on the actuation thereof in varying the magnification of an object of predetermined size, for approximately indicating the distance of such object.

2. An optical instrument comprising a reducing telescope, an expanding telescope, means for varying the magnification of each telescope including a movable member within reach of the observer, a device for indicating the ascertained size of an image of the object viewed through the instrument as projected on the field of vision, and means for reading the range of the object so viewed consisting of a scale arranged near to the movable member.

3. An optical instrument comprising a reducing telescope, an expanding telescope, means for varying the magnification of each telescope including a movable member within reach of the observer, a device for indicating the ascertained size of an image of the object viewed through the instrument as projected on the field of vision, and means for reading the range of the object so viewed consisting of a scale arranged near to the movable member of either telescope.

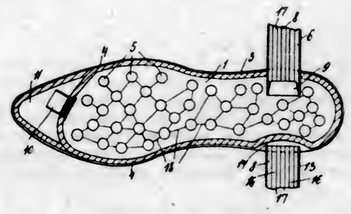


4. An optical instrument comprising a reducing telescope, an expanding telescope, means for varying the magnification of each telescope including a movable member within reach of the observer, a device for indicating the ascertained size of an image of the object viewed through the instrument as projected on the field of vision, and means for reading the range of the object so viewed consisting of a scale arranged near to the movable member whereby as the magnification is varied to cause the image of the object to coincide with the indication of its size, the extent of such variation is ascertained in terms of distance of the object from the observer.

5. In an instrument of the character described, a device arranged at its eye piece end comprising a frame adapted to carry two wires for measuring an object in the field of vision, means for moving the wires with respect to each other, and means for bodily moving the frame while maintaining the wires in fixed relation.

[Claims 6 to 19 not printed in the Gazette.]

1,134,389. SHOE INSERTION. RUDOLF LACK, Berlin, Germany. Filed June 15, 1914. Serial No. 845,263. (Cl. 36—3.)



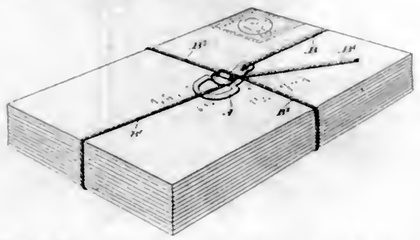
1. In a shoe insertion the combination of a ventilating device, with a hollow band forming an air supply pipe connected with the device and removable with the latter from the shoe, and spacing-pieces of flexible non-compressible material arranged in the interior of the said hollow band.

2. In a shoe insertion the combination of a ventilating device, with a hollow band forming an air supply pipe connected with the device and removable with the latter from the shoe, spacing-pieces of flexible non-compressible material arranged in the interior of the said hollow band, and a lip-valve formed of an end of the said band and arranged in the interior of the said device.

3. In a shoe insertion the combination of a ventilating device, with a hollow band forming an air supply pipe

connected with the device and removable with the latter from the shoe, spacing-pieces of flexible non-compressible material arranged in the interior of the said hollow band, a lip-valve formed of an end of the said band and arranged in the interior of the said device, and air-outlet-devices connected with the said device.

1,134,390. FASTENING DEVICE FOR PACKAGES. ELIJAH C. LAWRENCE, Fitzwilliam, N. H. Filed June 5, 1914. Serial No. 843,158. (Cl. 24—18.)



1. A package-holder consisting of a cord or similar material, a fastening device of the character described attached to said cord, said fastening device consisting of a body member having a single tongue projecting therefrom adapted, when in use, to engage with a plurality of portions of the cord, said tongue provided with means for engaging with a portion of the cord to hold it against movement, the said tongue and cord-engaging means being so proportioned that one portion of the cord tends to hold another portion of the cord in engagement with said cord-engaging means.

2. In a fastening device of the character described, a body-member, a tongue projecting outward from one face thereon, said last-mentioned tongue being bent upon itself so as to form wedge-shaped locking means adapted to engage with a cord to hold it against movement.

3. In a fastening device of the character described, a body member, a member projecting upward from said body, said member provided with means adapted to engage with a cord to hold it against movement and provided at its ends with outwardly extending wings adapted to guide the cord into the locking means.

4. In a fastening device of the character described, a body member, a member projecting upward from said body member, said last-mentioned member being bent upon itself in a direction toward the body member and then again bent upon itself in a direction substantially parallel to the body member, substantially as set forth.

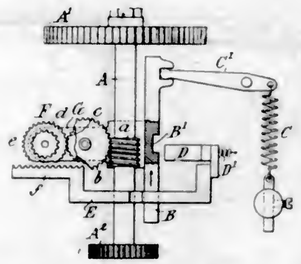
5. In a fastening device of the character described, a body member, a member projecting upward from said body member, said last-mentioned member being bent upon itself in a direction toward the body member and then again bent upon itself in a direction substantially parallel to the body member, the end of said member being provided with outwardly extending wings, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,134,391. TIMING MECHANISM. FRANK M. LEAVITT, Smithtown, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Mar. 14, 1912. Serial No. 683,898. (Cl. 74—46.)

1. A timing mechanism comprising an impelling part, a controlled part, a lock for the latter, a traveler driven from said impelling part and moving a determined distance to operate said lock to release said controlled part, and means operated at the end of the movement of the traveler for disconnecting it from the impelling part so that it is no longer driven thereby.

2. A timing mechanism comprising an impelling part, a controlled part, a lock for the latter, a traveler driven from said impelling part and moving a determined distance to operate said lock to release said controlled part, and means in connection with said controlled part for disconnecting the traveler from the impelling part to stop the driving of the traveler upon the release and displacement of the controlled part.



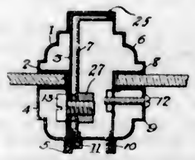
3. A timing mechanism comprising an impelling part, a controlled part, a lock for the latter, a traveler, a rack and pinion connection between the impelling part and traveler whereby the latter is driven, a traveler adapted to move a determined distance to operate said lock and release said controlled part, and means acting upon the movement of the controlled part to separate said rack and pinion to stop the driving of the traveler whereby the parts remain inoperable until the return of the controlled part to its locked position.

4. A timing mechanism comprising an impelling part, a controlled part, a lock therefor, a timing traveler driven from said impelling part, and operating said lock to release said controlled part, means for freeing the traveler upon such operation, and retracting means for restoring the traveler to its starting point when so freed.

5. A timing mechanism comprising an impelling part, a reducing train driven therefrom, a controlled part, a lock therefor, a traveler driven from said train and operating said lock to release said controlled part, a connection between the controlled part and train whereby upon such release the train is unmeshed from the traveler to free the latter, and retracting means for restoring the traveler to its starting point.

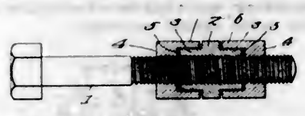
[Claims 6 to 8 not printed in the Gazette.]

1,134,392. FIREPROOF METAL WINDOW-FRAME. EDWARD LINCK, Philadelphia, Pa., assignor of one-half to Frank Lyster, Philadelphia, Pa. Filed Feb. 27, 1912. Serial No. 680,367. (Cl. 189—78.)



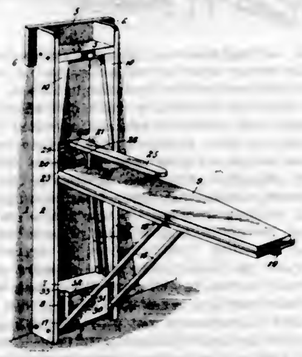
A pane support comprising a hollow metallic bar having oppositely disposed flat offet portions, a web depending from the ridge of said bar, webs depending from said offset portions and in spaced parallel relation with the aforesaid web, a bar fitted over and having grooves for the reception of the aforesaid first mentioned web and one of the webs depending from the offset portions, and a bar fitted over and having grooves for the reception of the other web depending from the offset portions and one of the groove portions of the last mentioned bar to detachably secure the same in place, said last mentioned bars having offset portions complemental to and coöperating with the offset portions of the first mentioned bar to form seats for window panes, substantially as described.

1,134,393. LOCK-NUT. SOLOMON C. LINDSAY, Greensburg, Pa. Filed May 8, 1914. Serial No. 837,228. (Cl. 151—19.)



In combination, a threaded element, a second element threaded thereon and having oppositely projecting exteriorly-threaded portions, and a pair of binding elements threaded upon the first mentioned element and having counter bores threaded over the said portions, the interengaging screw threads of the said portions and counter bores being of a different pitch than the interengaging threads of the first mentioned element and the second and third mentioned elements.

1,134,394. CABINET IRONING-BOARD. CHARLES LINFORD, Logan, Utah. Filed July 14, 1914. Serial No. 850,951. (Cl. 68—10.)



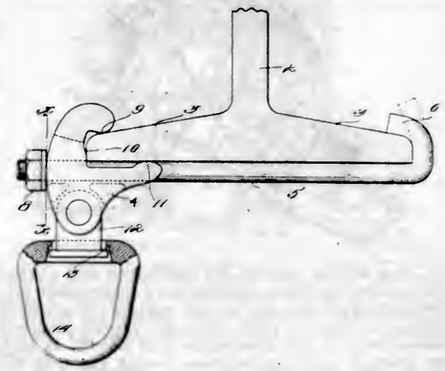
1. A device of the class described including a cabinet provided at opposite sides with upwardly extending guides or ways, an ironing board having its inner or lower end engaged with and slidable upwardly and downwardly in the said ways, a brace hinged at its lower end to the cabinet and at its upper end to the ironing board and supporting the outer portion thereof when the ironing board is arranged in an extended position, and a catch mounted in the cabinet and arranged to lock the ironing board in its extended position.

2. A device of the class described including a cabinet open at the front and provided at opposite sides with upwardly extending ways having approximately horizontal branches at their upper terminals, an ironing board provided with projecting means slidable upwardly and downwardly in the said ways and movable into the said branches for supporting the inner end of the ironing board, a catch for locking the ironing board in engagement with the said branches, and means for supporting the outer portion of the ironing board.

3. A device of the class described including a cabinet provided at opposite sides with upwardly extending ways having approximately horizontal branches extending forwardly from the upper terminals of the ways, an ironing board having projecting means slidable in the said ways and movable outwardly into the branches thereof for supporting the inner end of the ironing board, a gravity catch mounted within the cabinet and arranged to automatically engage the ironing board for locking the same against inward or rearward movement, and means for supporting the outer portion of the ironing board.

4. A device of the class described including a cabinet provided with upwardly extending ways having approximately horizontal branches, an ironing board provided with projecting means slidable in the ways and movable into the said branches, a keeper carried by the ironing board, and an inclined gravity catch hinged at its upper edge and having its lower edge arranged in the path of the keeper and adapted to automatically engage the same when the ironing board is moved to an extended position, and means for supporting the outer portion of the ironing board.

1,134,395. PIPE-HANGER. ALBERT JOHN LOEPSINGER, Providence, R. I., assignor to General Fire Extinguisher Company, Providence, R. I., a Corporation of New York. Filed Aug. 28, 1911. Serial No. 646,420. (Cl. 248—32.)



1. A pipe hanger comprising a jaw member shaped to provide three projecting bearing surfaces adapted to bear simultaneously upon the top, bottom and one edge of an I-beam flange having any one of several thicknesses and hold said jaw rigidly and against rocking in whatever position it may assume, a coöperating clamping member adapted to engage the I-beam and passing through a vertical slot in the jaw member to permit adjustment of parts to the thickness of said I-beam flange, and a pipe supporting device pivotally depending from said jaw member.

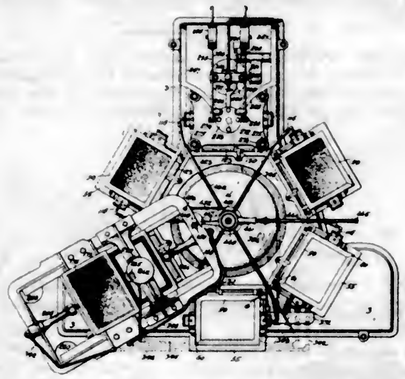
2. A pipe hanger comprising a jaw member having an upper portion provided with a downwardly-facing bearing surface, a lower-portion extending beyond the top portion in the same direction and provided with an upwardly-facing bearing surface, and an intermediate bearing surface formed on a curved line and projecting into the jaw formed by said upper and lower portions of the jaw member, means for clamping said jaw member upon an I-beam flange with said bearing surfaces in contact respectively with the top, bottom and edge of the flange, and a pipe-supporting device carried by said parts.

3. A pipe hanger comprising a body member from one side of which project two vertically spaced fingers, a bearing surface formed on the under side of the upper finger, a second bearing surface formed on the upper face of the lower finger, and a third bearing surface formed on the body member between said fingers, said bearing surfaces being so related one to the other as to always engage the top, bottom and adjacent edge of an I-beam flange having any one of various thicknesses and hold the hanger from rocking, a clamping member extending through a vertical elongated opening in the body member to permit angular adjustment to position of said body member on I-beams of different thicknesses, and a swiveled pipe supporting device pivotally depending from the body member.

1,134,396. MOLDING-MACHINE. ALEXANDER MCCARTE, Newark, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 12, 1911. Serial No. 602,354. (Cl. 22—21.)

1. In a molding machine, the combination with a thrust-platen provided with a gate-pin aperture, a press-platen

movable toward and from the same, and press-platen actuating means, of a gate-pin movable toward and from the press-platen through the aperture in said thrust-platen, and automatically acting means actuated independently of the press-platen actuating means for operating said gate-pin.



2. In a molding machine, the combination with a press-platen, actuating means therefor, and a thrust-platen provided with a gate-pin aperture and mounted for movement toward and from the press-platen, of a gate-pin sustained independently of the thrust-platen and movable through the aperture in the thrust-platen toward and from the press-platen, and means for imparting to the thrust-platen and gate-pin differential operative movements toward and from the press-platen.

3. In a molding machine, the combination with a press-platen, actuating means therefor, and a thrust-platen provided with a gate-pin aperture and mounted for movement toward and from the press-platen, of a gate-pin sustained independently of the thrust-platen and movable through the aperture in the thrust-platen toward and from the press-platen, the gate-pin and thrust-platen being provided the one with operative means movable relatively to the press-platen and the other with an operative connection with said operating means.

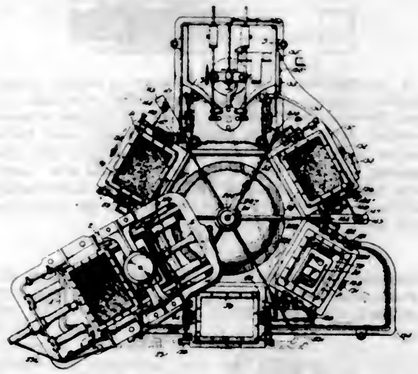
4. In a molding machine, the combination with a press-platen, actuating means therefor, and a thrust-platen provided with a gate-pin aperture and mounted for movement toward and from the press-platen, of a gate-pin sustained independently of the thrust-platen and movable through the aperture in the thrust-platen toward and from the press-platen, gate-pin operating means, and an operative connection between the gate-pin operating means, and the thrust-platen for imparting operative movements to the latter.

5. In a molding machine, the combination with a thrust-platen provided with a gate-pin aperture, a press-platen movable toward and from the same, and press-platen actuating means, of a plurality of gate-pins movable toward and from the press-platen and adapted to enter successively the aperture of said thrust-platen, gate-pin selecting means for controlling the presentation of the gate-pins to said gate-pin aperture, and gate-pin reciprocating means.

[Claims 6 to 17 not printed in the Gazette.]

1,134,397. MOLDING-MACHINE. ALEXANDER MCCARTE, Newark, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Feb. 13, 1912. Serial No. 677,331. (Cl. 22—21.)

1. In a molding machine, the combination with a support, of a flask-sustaining carrier mounted for rotary movement upon said support and driving means for said carrier comprising a continuously moving actuator, means supported by the carrier and engaged by the actuator whereby the carrier is given intermittent rotary movements beginning with gradually increased speed and ending with gradually decreased speed, and turret detaining means carried by said actuator whereby the carrier is periodically locked against movement.



2. In a molding machine, the combination with a flask-sustaining turret provided with a series of radial channel-ways and intermediate peripheral cavities, of an actuator for the same carrying a crank-stud adapted to enter successively said channel-ways and provided with a segmental stop member arranged upon the opposite side of its axis of movement from said crank-stud and having a periphery adapted to enter said cavities of the turret and to temporarily detain the latter from turning.

3. In a molding machine, the combination with a flask-sustaining turret, of a disk rigidly connected with the same and provided with a series of segmental plates spaced apart to form radial channel-ways and formed with arcuate cavities in and centrally of their outer edges, an actuator carrying a crank-stud moving in a path intersecting said channel-ways and provided with a segmental stop member arranged diametrically opposite said crank-stud and having a periphery corresponding in curvature with that of said cavities, and means for imparting operative movements to said actuator.

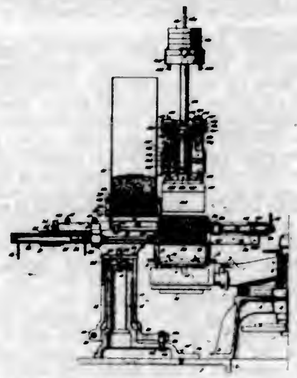
4. In a molding machine, the combination with a flask-sustaining turret provided with a series of radial channel-ways and intermediate peripheral cavities, of an actuator for the same in constant engagement therewith, carrying a member adapted to enter successively said channel-ways, and also a member to enter successively said peripheral cavities, to intermittently turn and to intermittently hold said turret in fixed position, substantially as shown and set forth.

5. In a molding machine, the combination with a support, of a plurality of flask-sustaining carriers mounted upon said support and each provided with a plurality of parallel tubular sockets, bushings fitted within said sockets and provided with central guiding apertures and with external oil-ducts having connections with the central apertures, and pattern-carriers each sustained by one of the flask-carriers and provided with a plurality of depending plungers entering the guide-apertures of said bushings.

[Claims 6 to 28 not printed in the Gazette.]

1,134,398. FLASK-FILLING APPARATUS. ALEXANDER MCCARTE, Newark, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Feb. 13, 1912. Serial No. 677,332. (Cl. 22—35.)

1. The flask-filling apparatus comprising a sand-box movable into and out of operative relation with the flask to be filled, a sand-plate affording a bottom for the sand-box throughout its movements between extreme positions, sand-plate actuating means, sand-box actuating means for operating the sand-box to strike off the superfluous sand from the flask after the filling operation, a tucking member adapted to enter the flask through the sand-box, and actuating means for the tucking member operative between the advance movement of the sand-box to operative relation with the flask and the return thereof to initial position.



2. The flask-filling apparatus comprising a sand-box movable into and out of operative relation with the flask to be filled, a sand-plate sustained independently of the sand-box and affording a bottom for said sand-box throughout its travel between extreme positions, automatic actuating means whereby the sand-box and sand-plate are intermittently advanced and both are simultaneously arrested in operative relation with the flask and the sand-plate is thereafter retracted, and independently acting means whereby at the end of said retraction of the sand-plate the sand-box is automatically returned to initial position.

3. The flask-filling apparatus comprising a sand-box movable into and out of operative relation with the flask to be filled, and independently sustained sand-plate affording a bottom for said sand-box throughout its travel between extreme positions and movable relatively to the same, sand-plate actuating means whereby the sand-plate may be moved into and out of operative relation with the flask, an operative connection between said sand-plate and sand-box whereby the latter is advanced into said operative relation, and automatic means controlled independently of the sand-plate and its actuating means for retracting the sand-box into initial position.

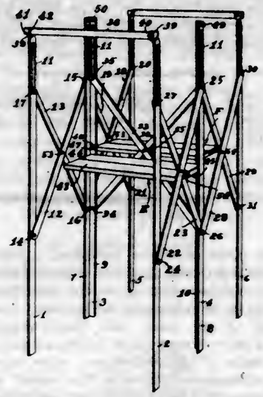
4. The flask-filling apparatus comprising a sand-box movable into and out of operative relation with the flask to be filled, an independently sustained sand-plate affording a bottom for said sand-box and movable relatively thereto, actuating means connected respectively with the sand-box and sand-plate and each controlled independently of the other, and means for establishing an operative connection between the sand-box and sand-plate during their travel in one direction only.

5. The flask-filling apparatus comprising a sand-box movable into and out of operative relation with the flask to be filled, an independently sustained sand-plate affording a bottom for said sand-box and movable independently thereof, means for advancing both the sand-box and sand-plate simultaneously to carry a charge of sand over the unfilled flask and for returning the sand-plate to initial position, and independently operating means for thereafter automatically returning the sand-box to initial position for a succeeding charge of sand.

[Claims 6 to 26 not printed in the Gazette.]

1,134,399. COLLAPSIBLE BOOTH. EARL S. MESSER, Pasadena, Cal. Filed Apr. 4, 1914. Serial No. 829,706. (Cl. 20—3.)

1. A collapsible booth having uprights, links connecting said uprights with one another, the links having pivotal and slidable connections with said uprights, and curtains to be secured to the uprights and to the pivotal and slidable connections of said links with said uprights to hold said uprights in extended position.



2. In a collapsible booth, the combination with uprights, of links connecting said uprights with one another, said links having pivotal and slidable connections with said uprights, curtains to be secured to the uprights and to the pivotal and slidable connections of said links with said uprights, and means for locking said uprights in extended position.

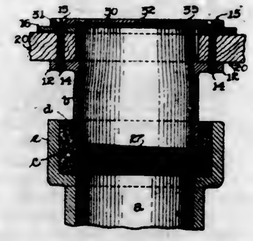
3. In a collapsible booth, the combination with an extensible frame, of curtains fastened to said frame, the fastening of said curtains to said frame serving to hold the frame in extended position.

4. In a collapsible booth, the combination with uprights, two links connecting each two adjacent uprights of the side walls of said booth, said links having a fixed pivotal connection at their lower ends with the uprights and having a slidable pivoted connection at their upper ends with the uprights, and curtains to be fastened to said uprights and links, the fastening of said links with said curtains serving to hold the uprights in extended position.

5. In a collapsible booth, the combination with uprights, of links connecting the uprights with one another, curtains to be fastened to said uprights and links, and a shelf locked in place by said links.

[Claims 6 to 15 not printed in the Gazette.]

1,134,400. SOIL-PIPE CONNECTION. JOHN MILLER, Sr., Boston, Mass., assignor of one-fourth to John J. Barker, Arlington Heights, Mass., and one-fourth to Ernest Blasser and one-fourth to Walter C. Sargeant, Boston, Mass. Filed Nov. 8, 1912. Serial No. 730,154. (Cl. 137—94.)



1. In combination, a soil pipe, a ferrule secured thereto and provided with lugs extended therefrom below the upper edge of said ferrule and above the soil pipe, a floor flange separate from said ferrule but coöperating with and movable on the portion thereof above said lugs, means for mechanically fastening said floor flange with said lugs,

a bowl, and means for mechanically securing said bowl to said flange, substantially as described.

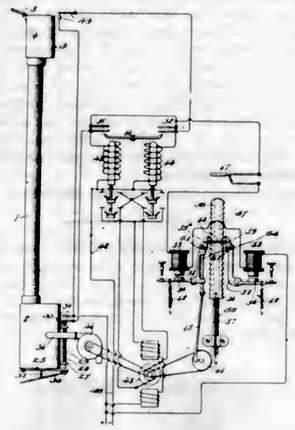
2. In combination, a ferrule provided below its upper edge with an outwardly extended device, a floor flange separate from said ferrule but coöperating with and movable on the portion thereof above said device, and means for mechanically securing said floor flange to said device.

1,134,401. HAT-PIN-POINT PROTECTOR. JOSEPH MONJO, New York, N. Y. Filed Aug. 22, 1914. Serial No. 858,095. (Cl. 24—155.)



A hat pin point protector including a head, said head being provided with an aperture, a stem extending from the head in parallel relation to the longitudinal axis of the aperture, a shank-engaging member formed at the opposite end of the stem, said shank-engaging member comprising a pair of converging loops, a transverse loop at the spaced ends of the converging loops, said transverse loop being arranged to receive the shank of a hat pin and being normally out of alinement with the aperture in the head, said loop being also arranged so that when a hat pin is inserted therethrough the same will be drawn upwardly to frictionally enguge the shank and hold the same against movement and the converging loops will frictionally engage said pin.

1,134,402. PNEUMATIC-DESPATCH-TUBE APPARATUS. JOHN T. NEEDHAM, New York, N. Y., assignor, by mesne assignments, to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 21, 1908. Serial No. 416,954. (Cl. 243—7.)



1. A pneumatic despatch tube apparatus comprising a transmission tube, an electric motor, means whereby the motor will move air through the tube, a pair of solenoids to complete the circuit through said motor, means at one end of the transmission tube to complete the circuit through one of said solenoids to drive the motor in one direction, means at the other end of the tube to complete the circuit through the other solenoid to drive the motor in the reverse direction, and means operated by one solenoid when the circuit is completed therethrough to prevent the movement of the core of the other solenoid.

2. A pneumatic despatch tube apparatus comprising a transmission tube, an electric motor, means whereby the motor will move air through the tube, a pair of solenoids to complete the circuit through said motor, means at one end of the transmission tube to complete the circuit through one of said solenoids to drive the motor in one direction, means at the other end of the tube to complete the circuit through the other solenoid to drive the motor in the reverse direction, and means adapted to be operated by either solenoid when the circuit is completed therethrough to prevent the movement of the core of the other solenoid.

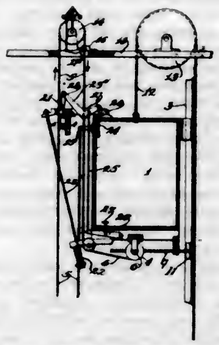
3. A pneumatic despatch tube apparatus comprising a transmission tube, an electric motor, means whereby the motor will move air through the tube, a pair of solenoids to complete the circuit through said motor, means at one end of the transmission tube to complete the circuit through one of said solenoids to drive the motor in one direction, means at the other end of the tube to complete the circuit through the other solenoid to drive the motor in the reverse direction, and a movable bar adapted to be operated by either solenoid when the circuit is completed therethrough to prevent the movement of the core of the other solenoid.

4. A pneumatic despatch tube apparatus comprising a transmission tube, an electric motor, means whereby the motor will move air through the tube, two solenoids adapted to independently complete the motor circuit, means at one end of the tube to complete the circuit through one solenoid, means at the other end of the tube to complete the circuit through the other solenoid, an electrically controlled timing means, and means operated by the solenoids to complete the circuit through said timing means and through the solenoid in use independently of the circuit making means at the ends of the tube.

5. A pneumatic despatch tube apparatus comprising a transmission tube, an electric motor, means whereby the motor will drive air through the tube, a solenoid to complete the motor circuit, means at one terminal of the transmission tube to complete the solenoid circuit, mechanical means operated by the solenoid core to complete the solenoid circuit independently of the means at the terminal, and means operated by the motor to break the solenoid circuit after a predetermined time.

[Claims 6 to 37 not printed in the Gazette.]

1,134,403. ELEVATOR SAFETY DEVICE. THEODORE W. NEUMUTH, New York, N. Y. Filed Apr. 15, 1914. Serial No. 831,928. (Cl. 187—91.)



1. In an elevator safety-device, the combination, with the elevator-car, of a governor-control cable; and controlling mechanism, engageable with said cable, including a pivoted and resiliently held member carried by said car and provided with a wide aperture through which said cable passes, and wedge means engageable with said aperture to clamp said cable to said member.

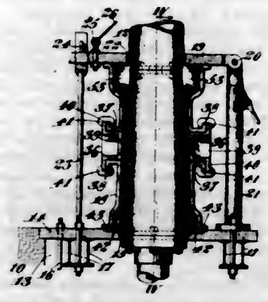
2. In an elevator safety-device, the combination, with the elevator-car, of a governor-control cable; and controlling mechanism, engageable with said cable, including a pivoted and resiliently held member carried by said car and provided with a wedge-aperture through which said cable passes, and a wedge-member engageable with said aperture to clamp said cable to said pivoted member.

3. In an elevator safety-device, the combination, with the elevator-car, of a governor-control cable; and controlling mechanism, engageable with said cable, including an arm pivoted, at one end, to the car, and a spring-actuated rod connected to the other end of said arm and resiliently holding said arm against movement in one direction.

4. In an elevator safety-device, the combination, with the elevator-car, of a governor-control cable; and controlling mechanism, engageable with said cable, comprising: a pivoted and resiliently-held member carried by said car and provided with a wedge-aperture, through which said cable passes; a wedge engageable with said aperture to clamp said cable to said member; and manually-operable means for moving said wedge into said aperture to clamp said cable to said member.

5. In an elevator safety-device, the combination, with the elevator-car, of a governor-control cable; and controlling mechanism, engageable with said cable, comprising: a pivoted and resiliently-held member carried by said car and provided with a wedge-aperture, through which said cable passes; a wedge engageable with said aperture to clamp said cable to said member; and manually-operable means, including a lever fulcrumed to said member, for moving said wedge into said aperture to clamp said cable to said member.

1,134,404. METHOD AND APPARATUS FOR MOLDING. JOHN C. OGDEN, Westmont borough, Pa. Filed Mar. 17, 1911. Serial No. 615,004. (Cl. 22—27.)



1. The method of forming molds, which consists in placing molding material within a flask around the smaller end of a tapered pattern-plunger, then inserting further patterns around and in contact with the said pattern-plunger, and then moving said pattern-plunger longitudinally, thereby simultaneously compacting the molding material.

2. The method of forming molds, which consists in placing molding material within a flask around the smaller end of a tapered pattern-plunger, then inserting lug patterns around and in contact with said plunger, then simultaneously compressing the molding material throughout its length by moving said plunger longitudinally, then forming a geat in the molding material and then withdrawing the pattern-plunger from the mold.

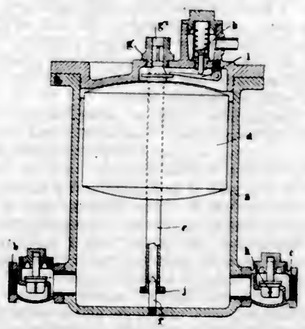
3. The method of forming molds, which consists in placing molding material within a flask around the smaller end of a tapered pattern-plunger, then inserting lug-patterns around and in contact with said plunger, then simultaneously compressing the molding material throughout its length by moving said plunger longitudinally, then forming a geat in the molding material by pulling a pear-shaped former therethrough, then withdrawing the pattern-plunger from the mold and setting inserts in the sides of the mold.

4. The method of forming molds, which consists in placing molding material within a flask around the smaller end of a tapering pattern-plunger, inserting lug patterns in contact with the said tapering pattern-plunger, simultaneously compressing the molding material throughout its length by moving said plunger longitudinally, forming a geat in the molding material, withdrawing the tapering pattern-plunger from the mold, connecting the geat with the mold and setting inserts in the sides of the molds.

5. The method of forming molds, which consists in placing molding material within a flask around the smaller end of a tapering pattern-plunger, inserting lug patterns in contact with the said tapering pattern-plunger, simultaneously compressing the molding material throughout its length by the longitudinal movement of said plunger, forming a geat in the molding material, withdrawing the tapering pattern-plunger from the mold, connecting the geat with the mold, setting inserts in the sides of the molds and then placing the mold thus formed upon a casting base having a central core.

[Claims 6 to 21 not printed in the Gazette.]

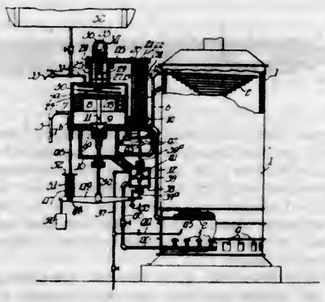
1,134,405. PRESSURE-PUMP AND VACUUM-TRAP. JOHN EDWARD LEWIS OGDEN, Liscard, England. Filed Jan. 12, 1914. Serial No. 811,701. (Cl. 103—8.)



1. A pressure pump and vacuum trap, comprising in combination, a casing having inlet and outlet ports, a floating piston in said casing, a rod guiding said piston and operated by the latter, an equalizing valve on said rod, a pressure valve, and an arm engaging said equalizing valve and operating said pressure valve, as set forth.

2. A pressure pump and vacuum trap, comprising in combination, a casing having inlet and outlet ports, a floating piston within said casing, a rod guiding said piston and operated thereby, an equalizing valve upon said rod having piston and miter portions, a pressure valve, and an arm operating the latter valve and engaging the equalizing valve, as set forth.

1,134,406. AUTOMATIC WATER-HEATER. JOHN E. OSMER, Chicago, Ill., assignor to Humphrey Company, Kalamazoo, Mich. Filed Aug. 15, 1910. Serial No. 577,268. (Cl. 126—351.)



1. The combination, with a water heater, of a valve casing communicating therewith; a piston slidably mount-

ed in said casing; said casing having an inlet and an outlet for cold water at one side of said piston; said casing having an inlet and an outlet for hot water at the opposite side of said piston; valves controlling certain of said inlets and outlets, said valves being operable by said piston; a fuel valve; and a connection between one of the first mentioned valves and said fuel valve.

2. The combination with a water heater, of valve mechanism comprising a casing; a piston slidably mounted in said casing, said casing having an entrance for cold water at one side of said piston, the casing at said side of the piston communicating with said heater, said casing having a hot water outlet at the opposite side of said piston; and a conductor between the heater and the hot water side of said casing including a valve, said valve being adapted to be opened by said piston.

3. The combination, with a water heater, of a fuel valve having an oppositely extending valve stem; a spring tending to close said valve; a thermostat; means positioned between said thermostat and one end of said valve stem arranged to communicate motion of said thermostat to said stem for closing the fuel valve; a water-inlet valve; a lever; a link connecting said lever between its ends to said water inlet valve, one end of said lever being arranged to engage the opposite end of said fuel valve stem for opening the fuel valve; and means tending to move the opposite end of said lever in the direction away from said water-inlet valve.

4. The combination, with a water heater, of valve mechanism communicating therewith, said mechanism comprising a casing; a piston slidably mounted in said casing, said casing having an inlet and an outlet for cold water at one side of said piston, and having an inlet and outlet for hot water at the opposite side of said piston; a valve arranged to control communication between said cold water inlet and outlet; and a valve controlling communication between said hot water inlet and outlet, said valves being operable by said piston.

5. The combination with a water heater, of valve mechanism comprising a casing; a piston slidably mounted in said casing; said casing having an entrance for cold water at one side of said piston; a chamber adjacent the casing at said side of the piston; said chamber communicating with said heater; a valve connected with said piston and controlling communication between said chamber and the casing; said casing having a hot water outlet at the opposite side of said piston; a chamber on said casing adjacent said hot water outlet, the last mentioned chamber communicating with said heater; and a valve controlling communication between the last mentioned chamber and the hot water side of said casing, the last mentioned valve being operable by said piston.

[Claims 6 to 21 not printed in the Gazette.]

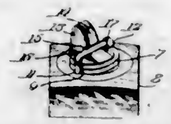
1,134,407. KNIFE. HERMAN C. PAGE, Newark, N. J., assignor to The Whitehead & Hoag Company, Newark, N. J., a Corporation of New Jersey. Filed June 10, 1913. Serial No. 772,736. (Cl. 30—10.)



1. A side piece for handles comprising a plate having its central portion depressed forming a marginal bead running entirely around the depression, the depressed portion being provided with apertures, a panel fitted in said depression and comprising a reinforcing plate having tongues passed through said apertures and clenched against the inner face of the first-named plate, and a cover secured to said outer plate.

2. A side piece for knife handles comprising a plate having its central portion depressed forming a marginal bead running entirely around the depression, the depressed portion being provided with apertures, and a panel fitted in said depression and comprising a reinforcing plate having tongues passed through said apertures and clenched against the inner face of the first named plate and a covering coextensive with the area of and having its marginal edges crimped around and under the edges of the reinforcing plate.

1,134,408. NUT-LOCK. JAMES L. PATTERSON, Freeport, Ill., assignor of one-half to James F. Patterson, Leaf River, Ill. Filed Dec. 10, 1914. Serial No. 876,519. (Cl. 151—8.)



1. A nut-lock comprising a bolt and a nut therefor, each having longitudinal slots diametrically oppositely disposed on its threaded face and being adapted to register, and a U-shaped member the arms of which are adapted to be received in said slots, the end portions of the bolt at the sides thereof adjacent to said slots being cut away to form shoulders and a reduced body portion intermediate the shoulders, said reduced body portion being shaped to permit the cross-portion of the U-shaped member to be disposed in proximity to said shoulders and provided with means located at the outer side of said cross-portion for precluding the same from being moved outwardly to withdraw its arms from the slots.

2. A nut-lock comprising a bolt and a nut therefor, each having longitudinal slots diametrically oppositely disposed on its threaded face and being adapted to register, and a U-shaped member the arms of which are adapted to be received in said slots, the end portion of the bolt being provided with a cam-face disposed in the path of said cross-member when the same is being moved toward the end of the bolt to operative position, the cam-face being shaped to spring said U-shaped member laterally with respect to said slots by the engagement of the cross-portion with the cam-face, the cam-face terminating at its inner end in a laterally extending recess in which the said cross-portion is adapted to locate and be prevented from moving outwardly.

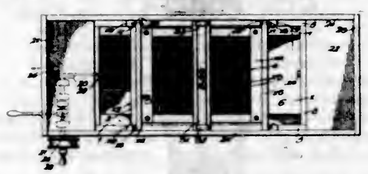
3. A nut-lock comprising a bolt and a nut therefor, the threaded faces of the bolt and nut having diametrically oppositely disposed longitudinal slots adapted to register, a U-shaper member the arms of which are adapted to be received into said registered slots to prevent the nut from turning on the bolt, and means engageable by the cross-portion of the U-shaped member for springing the same laterally with respect to a plane passing through said slots, as the said member is moved longitudinally to operative position.

4. A nut-lock comprising a bolt and a nut therefor, the threaded faces of the bolt and nut having diametrically oppositely disposed longitudinal slots adapted to register, a U-shaped member the arms of which are adapted to be received into said registered slots to prevent the nut from turning on the bolt, and a cam-face at the threaded end of the bolt inclined with respect to a plane passing through said slots and being arranged in the path of the cross-portion of said U-shaped member when the same is moved to operative position whereby to spring said member laterally with respect to said plane.

5. A nut-lock comprising a bolt having longitudinal slots diametrically oppositely disposed on its threaded face and having at its threaded end a cam-face extending from a point in proximity to a plane passing longitudinally through said slots, away from the bolt at an angle to said plane, a nut formed on its threaded face with longitudinal slots adapted to register with those on the bolt, and a U-shaped member the arms of which are adapted to be entered in said registered slots and be moved longitudinally therein to operative position, such movement of the U-shaped member bringing the cross-portion thereof into engagement with said cam-face whereby to move the cross-portion laterally with respect to said plane, and means permitting said cross-portion to be retracted laterally and for precluding the cross-portion from being retracted longitudinally of the bolt.

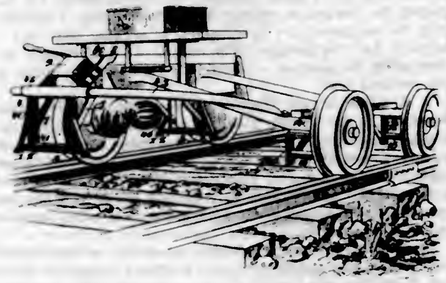
[Claim 6 not printed in the Gazette.]

1,134,409. WASHING-MACHINE. WILLIAM PAVLIK, Bayport, N. Y. Filed Apr. 20, 1914. Serial No. 833,286. (Cl. 68—23.)



A washing machine comprising a rectangular washing receptacle, spaced upright guides rising from one side of the receptacle, a reciprocating carriage in the receptacle and having a scrubbing surface, a rectangular wash board above the carriage, lateral stops on the four corners of the board and adapted to limit the downward movement thereof, and pivot studs projecting longitudinally from two of the stops and engaged with said guides, whereby the board may be moved vertically or swung around its pivots.

1,134,410. SAFETY ATTACHMENT FOR RAILROAD-SPEEDERS. ROY KRATER PAYNE, Beaverton, Oreg. Filed Nov. 17, 1914. Serial No. 872,553. (Cl. 105—94.)



1. In a speeder car, the combination with the truck, of guard members, one for each wheel at one side of the truck, the said guard members each including a supporting member that extends across the adjacent rail, and an auxiliary guard member for each wheel on the other side of the truck and located at the inner side of the said wheels only.

2. As an improvement in speeder cars, the combination with the truck frame, said frame including arms that extend across the wheels at one side, means for bracing the outer ends of said arms to the car framing, hangers pendently supported on the inner ends of each of the said arms, a cross member on the lower ends of each of the hangers located adjacent the wheels to drop onto the rail when the said wheels leave the track and having stop portions at the ends for engaging the rail from either side, and an auxiliary guard member for each wheel on the other side, said auxiliary guard members being pendently supported from the truck frame at the inner side of their respective wheels, the said auxiliary guard members including a cross member for riding on the rail when the adjacent wheels jump outside of the rail engaged thereby, the said auxiliary members also including a stop portion for engaging the inner edges of the adjacent rail only.

3. In a speeder car, the combination with the truck frame; of a guard member, one for each wheel at one side of the said truck, the said guard members each including a hanger pendently supported from the truck frame, a cross bar on the lower end of the hanger that extends across the rail and beyond the opposite sides of the wheel, a roller bearing mounted on the under side of the said cross bar, the ends of the said cross bar being bent down to form stops for engaging the rail, and an auxiliary guard member for each wheel on the other side of the truck, located at the inside of the said wheel, said auxiliary guards each including a Π-shaped hanger pendent from the truck frame and located at the inner side of the said last mentioned wheels, a roller between the pendent arms of the said hanger the inner one of the said arms being extended below the roller to form a stop for engaging the inner side of the adjacent rail.

1,134,411. VOLATILE COMPOUNDS AND PROCESS OF PRODUCING SAME. SAMUEL PEACOCK, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1914. Serial No. 832,808. (Cl. 23—13.)

1. The process of producing a carbonitrid a portion of which is in a volatile form, which consists in preparing a mixture of a suitable oxid and carbon; subjecting said mixture in an atmosphere containing free nitrogen to a temperature sufficient to produce said portion of volatile carbo-nitrid and suitably recovering said volatile portion, substantially as described.

2. The process of producing a volatile carbo-nitrid, which consists in preparing a mixture of a suitable oxid and carbon; subjecting said mixture in an atmosphere containing free nitrogen to a temperature sufficient to produce said volatile carbo-nitrid and suitably recovering the latter, substantially as described.

3. The process of producing a volatile alkali earth carbo-nitrid, which consists in preparing a mixture of an alkali earth oxid and carbon; subjecting the same in an atmosphere containing nitrogen, to a temperature sufficient to produce said carbo-nitrid and suitably recovering the latter, substantially as described.

4. The process of producing a volatile calcium carbo-nitrid, which consists in preparing a mixture of calcium oxid and carbon; subjecting the same in an atmosphere containing nitrogen but substantially devoid of free oxygen to a temperature sufficient to produce said carbo-nitrid and suitably recovering the latter, substantially as described.

5. The process of producing a volatile calcium carbo-nitrid, which consists in preparing a mixture of calcium oxid and carbon; subjecting the same in an atmosphere of nitrogen substantially free from chemically active oxygen and to a temperature sufficient to produce said carbo-nitrid and suitably recovering the latter, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,134,412. VOLATILE MAGNESIUM COMPOUNDS AND PROCESS OF PRODUCING SAME. SAMUEL PEACOCK, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1914. Serial No. 832,810. (Cl. 23—13.)

1. The process of producing a volatile magnesium carbo-nitrid, which consists in preparing a mixture of magnesium oxid and carbon; and subjecting said mixture in an atmosphere containing free nitrogen to a temperature sufficient to produce said volatile carbo-nitrid, substantially as described.

2. The process of producing a volatile magnesium carbo-nitrid which consists in preparing a mixture of magnesium oxid and carbon; subjecting said mixture in an atmosphere containing nitrogen to a temperature sufficient to produce said carbo-nitrid, and recovering the latter in a medium devoid of chemically active oxygen, substantially as described.

3. The process of producing a volatile magnesium carbo-nitrid which consists in preparing a mixture of magnesium oxid and carbon; subjecting said mixture in an atmosphere of producer gas to a temperature sufficient to produce said carbo-nitrid, and recovering the latter in a medium devoid of chemically active oxygen, substantially as described.

4. The process of producing a volatile magnesium carbo-nitrid, which consists in preparing a mixture of magnesium oxid and carbon; and subjecting the same in an atmosphere containing nitrogen to a temperature sufficient to produce said carbo-nitrid thereby causing carbon-monoxid to be evolved while maintaining the partial pressure of the carbon monoxid present below 400 millimeters of mercury, substantially as described.

5. The herein described new product containing chemically combined carbon nitrogen and magnesium the same being volatile at 1500° C., capable of forming a soluble white powder and of producing a white precipitate with soluble silver and lead salts, as well as producing ammonia when subjected to the action of hot water, substantially as described.

[Claim 6 not printed in the Gazette.]

1,134,413. PROCESS OF DECOMPOSING ALKALI-METAL SILICATES. SAMUEL PEACOCK, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1914. Serial No. 832,812. (Cl. 23—13.)

1. The process of separating potassium, sodium and aluminum from their silicate combinations which consists in providing a finely divided mixture of carbon and a mineral containing said metals; and heating the same in an atmosphere of nitrogen to a temperature sufficient to produce volatile compounds containing said metals combined with carbon and nitrogen while maintaining the partial pressure of the reaction products below 350 millimeters of mercury, substantially as described.

2. The process of simultaneously producing volatile carbo-nitrids of an alkali metal and aluminum which consists in mixing carbon with a mineral containing said metals; and heating the same in an atmosphere of nitrogen to a temperature sufficient to produce said carbo-nitrids; and suitably recovering the same, substantially as described.

3. The herein new composition of matter consisting of alkali metal and aluminum carbo-nitrids the same being volatile at their temperatures of formation, but capable of being condensed in the form of a powder, or of forming ammonia when treated with water at 200° C. as well as alkali-metal carbonates and alumina, substantially as described.

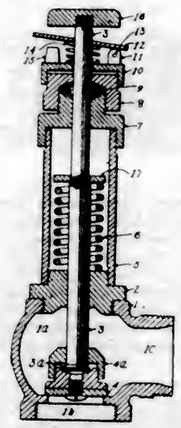
1,134,414. PROCESS OF MAKING ALUMINUM PERNITRIDS. SAMUEL PEACOCK, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1914. Serial No. 832,817. (Cl. 23—13.)

1. The process of producing aluminum pernitrids having a plurality of nitrogen atoms to each atom of aluminum which consists in heating a mixture of carbon and aluminum phosphate in an atmosphere of nitrogen to a temperature too high to form volatile aluminum carbo-nitrids and too low to form aluminum nitrid, substantially as described.

2. The process of producing aluminum pernitrids having a plurality of combined nitrogen atoms to each atom of aluminum which consists in heating a mixture of finely divided aluminum phosphate and carbon in an atmosphere of nitrogen to substantially 1700° C. while maintaining the partial pressures of the reaction products below 400 millimeters of mercury, substantially as described.

3. The process of producing a volatile product containing a metal combined with nitrogen and constituting a pernitrid which consists in heating a mixture of carbon and a metal combined with another element in an atmosphere containing free nitrogen to a temperature sufficient to produce said volatile product, and suitably recovering said volatile product substantially as described.

1,134,415. VALVE FOR RADIATORS. EARL D. PEERSTONE, Chicago, Ill. Filed Apr. 1, 1914. Serial No. 828,682. (Cl. 137—4.)



1. A valve device, comprising a casing, a valve stem mounted in the casing, yielding resistance means for opposing the inward movement of the valve stem, a friction grip for engaging the valve stem, a packing nut, and a support for the friction grip having an adjustment for regulating the position of the friction grip with relation to the packing nut.

2. A valve device, comprising a casing, a valve stem mounted in the casing, yielding resistance means for opposing the inward movement of the valve stem, a tread mounted upon the upper end of the valve stem, a friction grip for engaging the valve stem, a packing nut, and a support for the friction grip having an adjustment for regulating the position of the friction grip with relation to the packing nut.

3. A valve device, comprising a casing, a valve stem mounted in the casing, a bonnet having a recess for packing, a packing nut, yielding resistance means for opposing the inward movement of the valve stem, a friction grip for engaging the valve stem, and an adjustable support for the friction grip.

4. A valve device, comprising a casing, a valve stem mounted in the casing, a valve disk attached to the lower end of the valve stem, a thimble attached to the upper portion of the valve stem, having a conic shaped upper section, and a catch for engaging the conic shaped upper section of the thimble when the valve is closed.

5. A valve device, comprising a casing, a valve stem mounted in the casing, a valve disk attached to the lower end of the valve stem, a thimble attached to the upper portion of the valve stem, having upper and lower conic shaped sections, tapering inwardly in opposite directions from the common base, and a spring actuated catch for engaging the upper conic shaped section of the thimble when the valve is closed.

[Claims 6 to 9 not printed in the Gazette.]

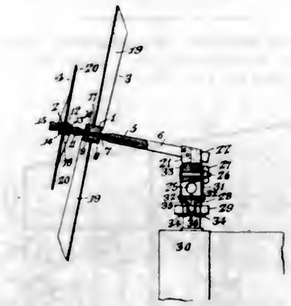
1,134,416. PROCESS OF MAKING HYDROGEN. RAOUL PIERRE PICTET, Wilmersdorf, near Berlin, Germany. Filed May 29, 1911. Serial No. 630,177. (Cl. 48—198.)

1. The method of producing pure hydrogen from exothermic hydrocarbons such as described, which comprises passing a current of hydrocarbon vapor continuously through a conduit and heating said conduit to temperatures increasing from the entrance of said conduit to a temperature sufficient to dissociate the hydrocarbon into carbon and pure hydrogen and collecting the hydrogen.

2. The method of producing pure hydrogen from exothermic hydrocarbons such as described, which comprises supplying to one end of a conduit a continuous current of hydrocarbon vapor while heating the conduit to near the melting point of iron, thereby dissociating the hydrocarbon into pure hydrogen and carbon, and discharging the pure hydrogen in a continuous current from the other end of the conduit.

3. The method of producing pure hydrogen from exothermic hydrocarbons such as described, which comprises passing a continuous current of hydrocarbon vapor through a conduit heated from about 1200° C. to 1350° C. and supplying through the walls of the conduit 181 calories of heat to every 16 grams of gas, thereby dissociating the hydrocarbon into carbon and hydrogen, and discharging the hydrogen continuously from said conduit.

1,134,417. TOY DECORATION-WHEEL. JACOB POLE, Hamden, N. Y. Filed Nov. 11, 1914. Serial No. 871,566. (Cl. 46—14.)



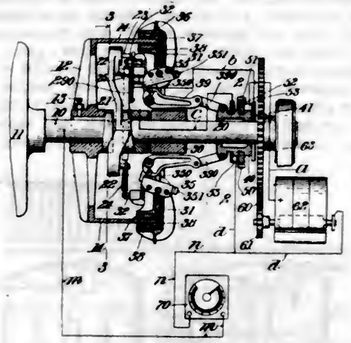
1. A toy of the class described including a supporting member having a tapered end, a spindle extending from the tapered end of the supporting member, spaced wind wheels having hubs arranged on the spindle, the hub of the inner wheel fitting against the tapered end of the supporting member, an oppositely tapered sleeve mounted on the spindle and interposed between the hubs of the wind wheels, and an outer tapered or conical sleeve mounted on the spindle and fitting against the hub of the outer wind wheel.

2. A toy of the class described including a supporting member, a wind wheel mounted thereon, and a clamp comprising fixed and movable sections provided with opposite engaging portions, the movable section being slidably interlocked with the supporting member, and the fixed section being secured thereto, and adjusting means connecting the sections.

3. A toy of the class described including a supporting member, a wind wheel mounted thereon, and a clamp comprising fixed and movable sections having engaging portions, the fixed section being secured to the said member, adjusting means connecting the sections, and jaws projecting from the sections and consisting of transversely curved loops arranged to receive and engage the radiator cap of an automobile.

1,134,418. DYNAMOMETER. JOHN A. RANDALL, Brooklyn, N. Y. Filed Apr. 25, 1913. Serial No. 763,574. (Cl. 73—15.)

1. In combination a driving shaft, a driven shaft, a spider secured to the driven shaft, a disk loosely mounted on the same shaft, a clutch connecting the disk to the driving shaft, a spring connecting the disk and the spider, a contactor, a lever actuated from the spider to move the contactor, a rheostat over which the contactor is adapted to move and a source of electrical energy in circuit with the rheostat.



2. In combination, a driving shaft, a driven shaft, a spider secured to the driven shaft, a disk loosely mounted on the same shaft, a clutch connecting the disk to the driving shaft, a spring connecting the disk and the spider, a contactor, a lever actuated from the spider to move the contactor, a rheostat over which the contactor is adapted to move and a source of electrical energy in circuit with the rheostat, and means for indicating the variations in the resistance in the rheostat due to the movement of the contactor.

3. In combination a driving shaft, a driven shaft, a spider secured to the driven shaft, a disk loosely mounted on the same shaft, a clutch connecting the disk to the driving shaft, a spring connecting the disk and the spider, a contactor, a lever actuated from the spider to move the contactor, a rheostat over which the contactor is adapted to move and a source of electrical energy in circuit with the rheostat, and means for indicating the variations in the resistance in the rheostat due to the movement of the contactor, including a voltmeter.

4. In combination a driving shaft, a driven shaft, a spider secured to the driven shaft, a disk loosely mounted on the same shaft, a clutch connecting the disk to the driving shaft, a spring connecting the disk and the spider, a contactor, a lever actuated from the spider to move the contactor, a rheostat over which the contactor is adapted to move and a source of electrical energy in circuit with the rheostat, and means for indicating the variations in the resistance in the rheostat due to the movement of the contactor, including a voltmeter graduated in terms of the power transmitted between the driving and the driven shafts.

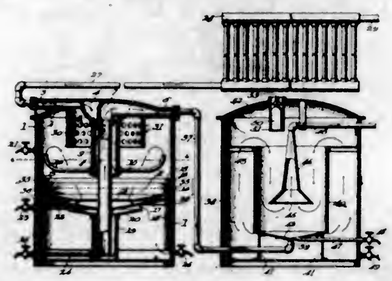
5. In combination a driving shaft, a driven shaft, a spider secured to the driven shaft, a disk loosely mounted on the same shaft, a clutch connecting the disk to the driving shaft, a shifter for operating the clutch, a spring connecting the disk and the spider, a contactor, a lever actuated from the spider to move the contactor, a rheostat over which the contactor is adapted to move and a source of electrical energy in circuit with the rheostat.

[Claims 6 to 27 not printed in the Gazette.]

1,134,419. OIL SEPARATOR AND PURIFIER. GEORGE C. RENSINK, Denver, Colo. Filed Nov. 5, 1913. Serial No. 799,326. (Cl. 210—5.)

1. In an oil separator and purifier, a tank having a cap thereon provided with an axial chamber which terminates in an inlet passage, said chamber having an opening in its bottom, and an outlet passage which terminates in an elbow within the said chamber, a pipe threaded to said elbow and extending nearly to the bottom of the tank, a jacket threaded to the opening in the said chamber, and surrounding, but spaced from the upper portion of said pipe, and being closed at its lower end, radially disposed pipes extending from the lower portion of said jacket, a

cylindrical partition in the lower part of the tank and spaced therefrom, a diaphram near the upper end of the partition, having a hub tightly surrounding the said pipe, a jacket surrounding the lower portion of the pipe and spaced therefrom, and having a flange on its upper end parallel with and adjacent to the said diaphragm, said jacket being fast to the bottom of the tank; and a second diaphragm above, but adjacent to and parallel with the first diaphragm, having an annular step portion which extends above the upper edge of the cylindrical partition, and is secured to the wall of the tank, said second diaphragm having a relatively large central opening.



2. In an oil separator and purifier, the combination with an oil separating tank, of a cylindrical partition in the lower half thereof and spaced from the bottom and wall of said tank, a conical diaphragm near the upper end of said partition, a jacket extending centrally from the bottom of said tank to within a short distance of said diaphragm and having a flared flange parallel with said diaphragm, a cap on said tank having an axial chamber with a threaded opening in its bottom and a radial inlet opening into said chamber, an elbow in said chamber terminating in a radial outlet, said inlet and outlet being non-communicating, a jacket threaded to the opening in said inlet chamber provided with radial tubes adajacent to its lower end, having upturned outer ends, a pipe extending from said elbow through the adjacent jacket, and the diaphragm and into the lower jacket to within a short distance of the bottom of the tank, draw-off tubes leading from the bottom of the lower jacket and the bottom of the diaphragm and provided with faucets; a ring form of diaphragm spaced from the first diaphragm and cylindrical partition and secured to the wall of the tank, and automatically operated means for permitting the escape of air or steam from the upper end of the tank.

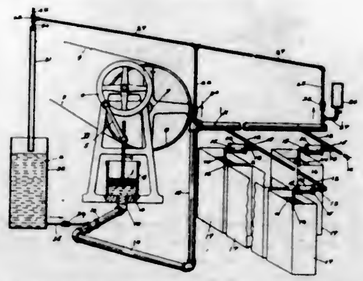
3. In an oil separator and purifier, a separating tank, a cap therefor having an axial inlet, an outlet within the inlet, said inlet and outlet terminating at opposite sides of the cap and having no communication, a pipe extending down from the axial outlet to within a short distance of the bottom of the tank, a jacket loosely surrounding the upper portion of said pipe and threaded at its upper end to the axial inlet, its bottom being closed around the said pipe, tubes having upturned outer ends extending from the bottom of said jacket, a jacket surrounding loosely the lower portion of the pipe and made fast to the bottom of the tank, said jacket having a flaring flange at its upper end, a diaphragm secured to the pipe above and parallel with the said flaring flange, a cylindrical partition secured to the circumferential edge of said diaphragm, which is spaced from the wall of the tank and extends above the diaphragm and to within a short distance of the bottom of the tank, a ring-like diaphragm slightly above the first diaphragm, having an annular perforated stepped portion, which extends above the top of the cylindrical partition and is secured to the wall of the tank, perforations being formed in the said partition below the first diaphragm, and a float valve attached to said cap, which normally closes a vent therein.

4. In an oil separator and purifier, the combination with a tank, of a cap therefor having an inlet terminating in an axial opening, and an outlet terminating in an axial opening within the axial inlet opening, a pipe extending from the axial outlet opening to within a short distance of the bottom of the tank, means for conveying the contents of the tank through a devious course to the bottom of said pipe, a float valve supported at the top of the tank and adapted to normally close a vent in said tank.

5. In a device of the character described, the combination with a tank, of a cap therefor having a radial inlet terminating in an axial chamber with an opening in its bottom, and a radial outlet which extends into said chamber and terminates in an elbow, a pipe extending from said elbow to within a short distance of the bottom of the tank, a jacket loosely surrounding the lower portion of said pipe and secured to the bottom of the tank, a diaphragm secured to said pipe above said jacket, a cylindrical partition secured to said diaphragm and spaced from the wall and bottom of said tank, an open diaphragm above and spaced from the first diaphragm, a jacket threaded to the axial opening of the inlet and loosely surrounding the upper portion of said pipe, and radial tubes extending from the lower end of said jacket, means for drawing off the contents at settling points in the tank, and automatically operating means for permitting the escape of air or steam from the upper end of the tank.

[Claims 6 to 8 not printed in the Gazette.]

1,134,420. ICE-MAKING APPARATUS. GEORGE L. REUSCHLINE, Philadelphia, Pa. Filed Nov. 8, 1913. Serial No. 799,844. (Cl. 62—157.)



1. In apparatus for the manufacture of ice, the combination with a piping system containing fluid, of means for alternately withdrawing fluid from and re-injecting it into said system, a cylinder, a floating piston therein, a connection from one side of said piston to said piping system, a container for water to be frozen, a connection from the other side of said piston extending into said container, an overflow piping system, and a connection therefrom to said first named piping system.

2. In an apparatus for the manufacture of ice, the combination with a piping system containing fluid, of means for alternately withdrawing fluid from and re-injecting it into said system, a cylinder, a floating piston therein, a connection from one side of said piston to said piping system, a container for water to be frozen, a connection from the other side of said piston extending into said container, an overflow piping system, a connection therefrom to said first named piping system, and a valve in said connection preventing return flow into said first named piping system.

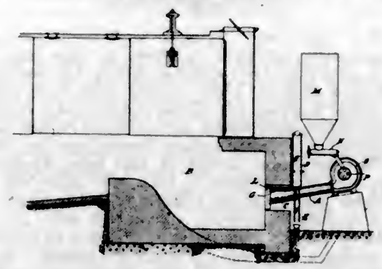
3. In apparatus for the manufacture of ice, the combination with a piping system containing fluid, of means for alternately withdrawing fluid from and re-injecting it into said system, a cylinder, a floating piston therein, a connection from one side of said piston to said piping system, a container for water to be frozen, a connection from the other side of said piston extending into said container, an overflow piping system, and a connection therefrom to said first named piping system, said overflow piping system being disposed at an altitude higher than said first named piping system.

4. In apparatus for the manufacture of ice, the combination with a piping system, of means connected therewith for changing the direction of flow of liquid contained therein, a cylinder, a floating piston therein, a connection from one side of said piston to said piping system, a container for water to be frozen, a connection from the other side of said piston extending into said container, and a cushion chamber connected with said piping system.

5. In apparatus for the manufacture of ice, the combination with a piping system containing fluid, of means for alternately withdrawing fluid from and reinjecting it into said system, a cylinder, a floating piston therein, a connection from one side of said piston to said piping system, a container for water to be frozen, a connection from the other side of said piston extending into said container, an overflow piping system, a connection therefrom to said first named piping system, a supply of fluid, and a connection therefrom into said piping system.

[Claims 6 to 17 not printed in the Gazette.]

1,134,421. METHOD OF BURNING FUEL. EDWIN F. STEWART, Woodcliff, and RAY POTTER PERRY, Montclair, N. J., assignors to Barrett Manufacturing Company, New York, N. Y., a Corporation of West Virginia. Filed Mar. 17, 1914. Serial No. 825,348. (Cl. 110—28.)



1. In the consuming of pulverized fuel which softens so as to become adherent at a temperature below 400° F., the method which consists in cooling the surfaces with which such fuel makes contact in passing into the zone of combustion, so as to maintain their temperature below that at which such fuel becomes adherent.

2. In the burning of pulverized fuel which softens so as to become adherent at a lower temperature than 400° F., the method which consists in delivering said fuel in a stream into the place of combustion, and in circulating a cooling fluid around and adjacent said stream so as to maintain the temperature of the particles of fuel below that at which they would become adherent.

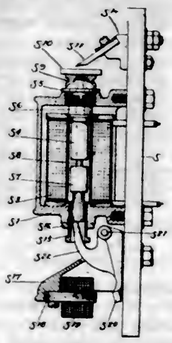
3. In feeding to a furnace a pulverized fuel which softens at a critical temperature below 400° F., so as to become adherent, the method which consists in delivering said fuel with a commingled current of combustion-supporting gas, and meanwhile maintaining the particles of fuel in said current below said critical temperature.

4. In feeding to a furnace a pulverized fuel which softens so as to become adherent at a critical temperature below 400° F., the method which consists in delivering said fuel in a stream with combustion-supporting gas, confining said stream against lateral expansion, and maintaining the temperature of the confining means below such critical degree.

5. In the operation of feeding into the combustion chamber of a furnace a pulverized fuel which softens so as to become adherent at a critical temperature less than 400° F., the method which consists in delivering said fuel in a blast through a conduit which is subjected to a much higher temperature than said critical degree, and at the same time maintaining the temperature of the surfaces of said conduit with which such stream of fuel makes contact below said critical temperature.

[Claims 6 to 9 not printed in the Gazette.]

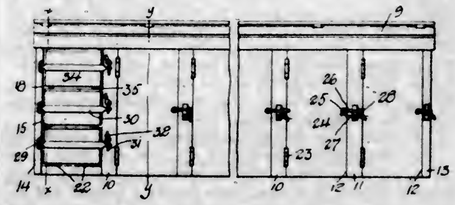
1,134,422. ELECTRIC SWITCH. HARRY F. STRATTON, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 27, 1911. Serial No. 640,885. (Cl. 175—282.)



1. In a switch, a movable switch member, a winding for moving the said member toward its closed position, and electro-magnet, and a lever biased to move a portion thereof toward the electro-magnet, the lever having a portion acted on by the said switch member when in its initial position to prevent the lever from operating under its bias, and the lever having operated under its bias being attracted and held by the electro-magnet to prevent the return of the switch member to its initial position.

2. In a switch, a movable switch-operating member, an operating winding therefor in the circuit controlled by the switch, the contacts of the switch being arranged when closed to deënergize the winding, a second winding, and an armature therefor normally beyond but biased toward the effective influence of the second winding, and restrained by the movable member while in its initial position from movement into the influence of the second winding, a portion of the armature being arranged to hold the switch member closed when the armature is held by the second winding.

1,134,423. COMPARTMENT FRUIT-CAR. JOHN W. SWARTZ, East Liverpool, Ohio. Filed Oct. 10, 1914. Serial No. 866,044. (Cl. 105—77.)



1. A fruit car comprising a body portion provided with a plurality of compartments and independent doors for each of said compartments, said doors hinged with the car body, means for locking the doors, bearing balls mounted in the floor of each of said compartments, and a shipping receptacle arranged in each of said compartments upon the bearing balls and having its bottom provided with bearing balls capable of traveling upon the floor of its respective compartment.

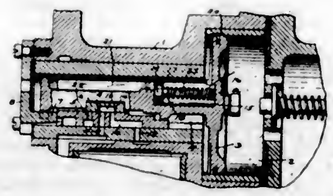
2. A fruit car comprising a body portion provided with an open side compartment, bearing balls mounted in the floor of said compartment, a series of superposed shipping receptacles mounted in said compartment, the lowermost of said shipping receptacles positioned upon said bearing balls and having its bottom provided with bearing balls capable of traveling upon the floor of said compartment, the other of said receptacles having their bottoms pro-

vided with bearing balls engaging the tops of the lowermost receptacles, and means connected with the car body and extending across the open sides of said compartment for maintaining the receptacles within the compartment.

3. A fruit car comprising a body portion provided with an open side compartment, bearing balls mounted in and projecting above the floor of said compartment, a series of superposed receptacles arranged in the said compartments, the lowermost of said receptacles mounted upon said bearing balls, and means carried by the car body and extending across the open sides of said compartment for maintaining said receptacle in the compartment.

4. A fruit car comprising a car body provided with a compartment, a pair of doors hinged with the car body for closing said compartment, means for maintaining said doors in closed position, bearing balls mounted in and projecting above the floor of said compartment, and a shipping receptacle mounted in said compartment upon said bearing balls.

1,134,424. RETARDED-RELEASE TRIPLE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1908. Serial No. 448,190. (Cl. 188—15.)



1. A triple valve device comprising a casing containing a piston subject to variations in train pipe pressure, and a graduating valve actuated by said piston for controlling the supply of fluid to the brake cylinder and the release from the brake cylinder, the graduating valve having a normal full release position and an inner retarded release position, and a yielding resistance means carried by the moving parts of the triple valve device and acting to oppose the movement of said graduating valve from its full release position to its retarded release position.

2. A triple valve device comprising a casing containing a piston subject to variations in train pipe pressure, a valve actuated by said piston for controlling the supply of fluid to the brake cylinder and the release from the brake cylinder, said valve having a normal full release position and an inner retarded release position, and a spring carried by the moving parts of the triple valve device and tending to move the same from the retarded release position to the normal full release position.

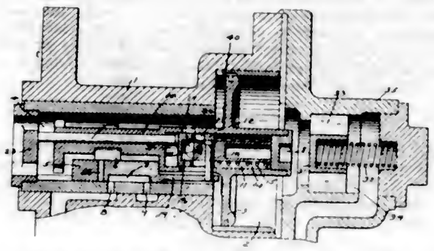
3. A triple valve device comprising a casing containing a valve mechanism composed of a piston and slide valve for controlling a brake cylinder service port and a brake cylinder exhaust port, said valve having a normal full release position and an inner retarded release position, and yielding resistance means carried by said valve mechanism for opposing the movement of the same from its full release position to its retarded release position.

4. A triple valve device comprising a casing containing a valve mechanism composed of a piston and slide valve for controlling the supply to and the release from the brake cylinder, said valve having a normal full release position and an inner retarded release position, and a spring carried by said valve mechanism and tending to move the same from its retarded release position to its full release position.

5. In a triple valve device, a valve mechanism comprising a piston subject to variations in train pipe pressure, a main valve, and a graduating valve mounted on the main valve operated by said piston for controlling the supply of fluid to and the release from the brake cylinder, said graduating valve having a normal full release position and a retarded release position, a spring carried by said valve mechanism and tending to move the graduating valve from its retarded release position to full release position, and a fixed stop for engaging one end of the spring in full release position.

[Claims 6 to 10 not printed in the Gazette.]

1,134,425. RETARDED-RELEASE TRIPLE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 14, 1908. Serial No. 452,991. (Cl. 188—15.)



1. In a triple valve device, a valve mechanism comprising a piston subject to variations in brake pipe pressure, a main slide valve operated thereby for controlling the exhaust from the brake cylinder, said valve mechanism having a normal full release position and a retarded release position, an auxiliary valve operated by said piston for controlling the brake cylinder service port, and yielding resistance means carried by said valve mechanism for opposing the movement of main slide valve from the full release position to the retarded release position.

2. In a triple valve device, a main slide valve for controlling the exhaust from the brake cylinder, an auxiliary valve having a movement relative to the exhaust controlling valve for controlling the brake cylinder service port, a piston subject to variations in brake pipe pressure for operating said valves and a spring carried by the moving parts of the triple valve device for opposing the movement of the piston and exhaust valve from full release position to a position in which the exhaust opening from the brake cylinder is restricted.

3. A triple valve device consisting of a casing containing a valve mechanism comprising a main slide valve for controlling the exhaust from the brake cylinder, an auxiliary valve having a movement relative to said main valve for controlling the supply of air from the auxiliary reservoir to the brake cylinder in service applications of the brakes, a piston subject, to variations in brake pipe pressure for operating said valves and a yielding resistance means carried by said valve mechanism for returning said main valve and piston from a position in which the flow of air from the brake cylinder through the exhaust port is restricted to the normal full release position.

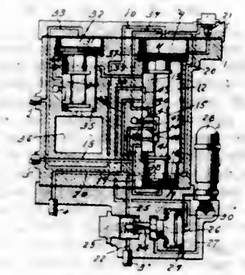
4. In a triple valve device a valve for controlling the brake cylinder exhaust having a full release position and a retarded release position, an auxiliary valve having a movement relative to the exhaust controlling valve, a piston subject to variations in brake pipe pressure for operating said valve and having a fixed relation to said auxiliary valve, and a spring carried by said piston for returning the exhaust valve and piston from the retarded release position.

5. In a fluid pressure brake, the combination with a brake pipe and brake cylinder, of a valve and piston operated by variations in brake pipe pressure for controlling the brake cylinder exhaust, an auxiliary valve operated by and having the same traverse as said piston and having a movement relative to said exhaust controlling valve for controlling the brake cylinder service supply port, and a yielding resistance means carried by said piston for opposing the movement of the exhaust valve and piston from normal full release position to a position

in which the flow of air from the brake cylinder through the exhaust port is restricted.

[Claims 6 to 13 not printed in the Gazette.]

1,134,426. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Nov. 25, 1913. Serial No. 802,915. (Cl. 188—15.)



1. In a fluid pressure brake, the combination with a brake pipe and a reservoir, of an equalizing valve device having a main piston head subject to the opposing pressures of the brake pipe and a chamber and a differential piston head subject on one side to reservoir pressure and having means for supplying fluid to said chamber in the release position of said equalizing valve device.

2. In a fluid pressure brake, the combination with a brake pipe and a reservoir normally charged with fluid under pressure, of valve means for controlling the release of the brakes, a piston device for operating said valve means comprising a main piston head subject to the opposing pressures of the brake pipe and a chamber and a differential piston head subject on one side to reservoir pressure, and means for supplying fluid under pressure to said chamber in the release position of the parts for shifting the parts to close the brake cylinder exhaust.

3. In a fluid pressure brake, the combination with a brake pipe, brake cylinder, and a reservoir normally charged with fluid under pressure, of an equalizing valve device comprising valve means for controlling the release of fluid from the brake cylinder, a piston device subject to the opposing pressures of the brake pipe and reservoir, comprising a main piston head and a differential piston head of less area, for operating said valve means, and means for supplying fluid under pressure to the intermediate chamber formed by said piston heads in the release position of the parts.

4. In a fluid pressure brake, the combination with a brake pipe, brake cylinder, and a reservoir normally charged with fluid under pressure, of an equalizing valve device comprising valve means for controlling the release of fluid from the brake cylinder, a piston device for operating said valve means comprising a large piston head subject on its outer face to brake pipe pressure and a small piston head subject on its outer face to reservoir pressure, and means for supplying fluid under pressure to the intermediate chamber formed by said piston heads in the release position of the parts.

5. In a fluid pressure brake, the combination with a brake pipe and a reservoir normally charged with fluid under pressure, of valve means for controlling the release of the brakes, a piston device having differential piston heads subject to the opposing pressures of the brake pipe and said reservoir for operating said valve means, and means for venting fluid under pressure to the intermediate chamber formed by said piston heads in the release position of the parts.

[Claim 6 not printed in the Gazette.]

1,134,427. RECEPTACLE. EMIL H. W. ULLRICH, Chicago, Ill. Filed Apr. 9, 1914. Serial No. 830,577. (Cl. 220—76.)



1. In a receptacle, the combination of a container body and an external slip cover, the body having an annular external groove at the cover engaging section, and said cover having an internal bead adapted to engage in and to interlock with said groove after the cover has been fully applied, said cover when partially applied having slip fit with the body above its groove and the cover bead then serving as an abutment to engage with the upper edge of the body.

2. In a receptacle, the combination of a container body an an external slip cover, the cover comprising a top and side flange for receiving the upper end of the body, said body at its cover engaging section having an external annular groove, said cover flange having an internal annular bead, the end of said flange below said bead being adapted for slip fit engagement with the section of the body above its groove when the cover is partially applied and the upper edge of the body then forming an abutment for the cover bead, said cover bead and body groove entering into interlocking engagement when the cover is fully applied, the receptacle being sealed during either application of the cover.

3. In a receptacle, the combination of a body and a slip cover therefor, the body at its upper edge being curled inwardly to form an internal seat, the cover receiving section of the body being externally grooved and the flange of the cover being internally beaded, such beading and grooving being adapted for interlocking engagement only after the cover has been fully applied, the section of the cover flange below its beading being adapted for slip fit with the exterior of the body when the cover is partially applied and the upper edge of the body then acting as an abutment for the cover bead, the central portion of the cover top being deflected to form a peripheral seat adapted for engaging said internal seat of the body when the cover has been fully applied.

4. In a receptacle, the combination of a body and a slip cover therefor, the body at its upper edge being curled inwardly to form an internal seat, the cover receiving section of the body being externally grooved and the flange of the cover being internally beaded, such beading and grooving being adapted for interlocking engagement only after the cover has been fully applied, the section of the cover flange below its beading being adapted for slip fit with the exterior of the body when the cover is partially applied and the upper edge of the body then acting as an abutment for the cover bead, the central portion of the cover top being deflected upwardly to provide a peripheral seating area adapted for intimately engaging with said interior seat of the body when the cover is inverted and applied with its deflected portion into the body mouth.

1,134,428. FISH-TRAP. JOHN UMSTÄTTER, New York, N. Y. Filed Sept. 21, 1914. Serial No. 862,674. (Cl. 43—20.)

1. A collapsible trap of the class described, comprising an oblong body portion composed of four oblong, rectangular, openwork, side frames hinged together; said trap both when set for use and when collapsed being

rectangular in form in both longitudinal and cross section, said body portion being also provided at one end with a hinged and spring controlled door which is adapted to fold inwardly and at the opposite end with an inwardly directed, tapered or truncated device composed of four similar triangular parts two of which are hinged together and two of which are hinged to the front end portions of two of the side frame members, said side frame members being also provided with spring devices which normally serve to hold the parts of the trap in an expanded position for use, the triangular inlet frame members being also provided with springs for a similar purpose, and two opposite side frame members of the body portion being composed of separate parts hinged together centrally and longitudinally thereof.

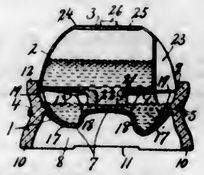


2. A collapsible trap of the class described, comprising an oblong, body portion composed of four oblong, rectangular, openwork, side frame members hinged together; said body portion being rectangular both in longitudinal and cross section when set for use, and being also rectangular in longitudinal and cross section when collapsed, and said body portion being provided at one end with a hinged and spring controlled door and at the opposite end with an inwardly directed tapered or truncated inlet device composed of four similar triangular parts two of which are hinged together and two of which are hinged to the front end portions of two of the side frame members, two opposite side frame members of the body portion being also composed of separate parts hinged together centrally and longitudinally thereof and said body portion being adapted to be collapsed by pressure applied to the other opposite side frame members thereof in which operation the side frame members which are composed of separate parts fold inwardly.

3. A collapsible trap of the class described, comprising an oblong body portion composed of four, oblong, rectangular, openwork, side frames hinged together; said body portion being rectangular in form both in longitudinal and cross section when expanded for use and also when collapsed, and said body portion being provided at one end with a door which opens inwardly and at the opposite end with an inwardly directed, tapered or truncated inlet composed of four similar triangular parts adapted to be folded together, two opposite side frame members being composed of separate parts hinged together centrally and longitudinally thereof and said body portion being collapsed by pressing the other opposite side frame members thereof inwardly in which operation the side frame members composed of separate parts fold inwardly.

4. A collapsible trap of the class described, comprising an oblong, rectangular body portion, composed of four oblong, rectangular, openwork, side frames hinged together; said body portion being oblong and rectangular in form when expanded for use and also when collapsed, and said body portion being also provided at one end thereof with a hinged door and at the opposite end with an inwardly directed, tapered or truncated inlet device composed of four similar triangular parts, part of which are hinged together and part to the front end portion of said side frame members, two opposite side frame members being composed of separate parts hinged together centrally and longitudinally and said body portion being adapted to be collapsed by pressure applied to other opposite side frame members.

1,134,429. INK-WELL. JAMES V. WASHBURNE, Syracuse, N. Y. Filed Feb. 6, 1911, Serial No. 606,840. Renewed Sept. 4, 1914. Serial No. 860,302. (Cl. 120—59.)



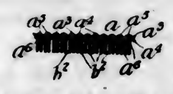
1. An ink well comprising a hollow base, a diametrically extending portion of the bottom wall thereof depressed and the ends of the depressed portion still further depressed below its intermediate portion to form diametrically opposite ink pockets, an inverted bottle resting on the base and having an outlet directly over said intermediate portion and a portion of the side wall of said bottle depressed to form a channel adapted to be brought into registration with either of said pockets.

2. An ink well comprising a hollow base having ink pockets in its bottom at opposite sides of its center and the upper face of its central portion convex so as to incline from the center toward the pockets, and an inverted ink bottle resting on the top of the base and having an outlet directly over the center of the bottom of said base.

3. An ink well comprising a base having a diametrically extending channel in its bottom, the ends of said channel being depressed below the center to form diametrically opposite ink pockets, the portions of the base at opposite sides of the channel being inclined toward the channel, an edge flange extending upwardly from said base, and an inverted bottle resting upon the top of the base and within said edge flange and rotatable with respect to said base and having its outlet registering with the intermediate portion of the channel between the pockets.

4. An ink well comprising a hollow base having its bottom provided with a diametrically extending channel, the ends of which are depressed below the central portion to form diametrically opposite ink pockets, the portions of the bottom of the base at opposite sides of the channel being inclined toward said channel and having raised portions, and an inverted ink bottle resting on said raised portions and having an outlet registering with the intermediate portion of the channel between said pockets.

1,134,430. IRONING-PAD. BENJAMIN WENDER and JAMES BRUNELLI, New York, N. Y. Filed Feb. 1, 1915. Serial No. 5,345. (Cl. 68—1.)

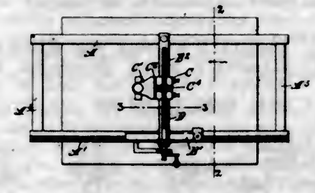


1. An ironing pad, comprising a body portion composed of wire mesh and one side of which is provided with projecting brush material also composed of wire.

2. An ironing pad, comprising a body portion composed of wire mesh and one side of which is provided with projecting brush material also composed of wire and consisting of loops which are woven into the body of said mat.

1,134,431. STAMPING-MACHINE. EDWARD ABERLE, West Nutley, N. J. Filed Apr. 18, 1908. Serial No. 427,785. (Cl. 101—13.)

1. In a stamping machine, the combination of a frame, a stamp adapted for horizontal rotative and vertical reciprocating movement thereon, and provided with a stop member arranged to rotate and reciprocate in unison with the stamp and a stop member located on the frame and adapted to coöperate with said movable stop member to limit the reciprocating movement, one of said stop members being adjustable, so as to vary the reciprocating movement of the stamp.



2. In a stamping machine, the combination of a guide, a traveling carriage made in two horizontal and contiguous sections, connected by a horizontal pivot, so that one of the sections may be swung up or down relatively to the other, the non-swinging section being mounted to travel on the guide, and the other swinging section being hinged at a distance from the guide, and held in alinement by the abutting edges of the sections and a stamp carried by the swinging section and adapted to be reciprocated therein.

3. In a stamping machine, the combination of a frame, a type holding stamp adapted for horizontal rotative and vertical reciprocating movement thereon, and an indicator projecting from the central portion of the stamp at an angle to the line of type and lying in a plane passing through the axis about which the stamp is adapted to rotate, said indicator being adapted to partake of both the rotative and reciprocating movement of the stamp and to indicate the center of the line of type.

4. In a stamping machine, the combination of a traveling carriage made in two contiguous sections hinged together so that one section may be swung relatively to the other, the end face of each section adjacent to the hinge being arranged to abut to limit the movement of the swinging section relatively to the non-swinging section in one direction, a guide on which the non-swinging section is mounted to travel and a stamp carried by the swinging section and adapted to be reciprocated therein.

5. In a stamping machine, the combination of a frame, a sleeve mounted to turn therein but held against longitudinal motion, and a stamp provided with a shank mounted to slide in said sleeve, but held to turn in unison therewith.

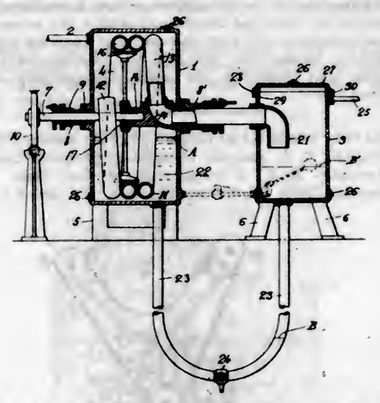
[Claims 6 to 23 not printed in the Gazette.]

1,134,432. PROCESS AND APPARATUS FOR COMPRESSING, DRYING, AND TRANSFERRING CHLORIN GAS. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Halogen Products Company, Glen Ridge, N. J., a Corporation of New Jersey. Filed Nov. 6, 1913. Serial No. 799,530. Renewed Sept. 2, 1914. Serial No. 859,906. (Cl. 23—10.)

1. The process of transferring, compressing and drying chlorin gas which consists in entrapping volumes of the chlorin gas between alternate volumes of sulfuric acid, forcing the entrapped alternate volumes continuously through an inclosed path to a desired point, causing intimate contact between the acid and the gas and thereby drying the latter, and permitting the separation of the acid from the dried gas, substantially as described.

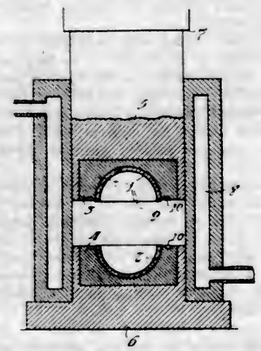
2. The process of transferring, compressing and drying chlorin gas which consists in causing alternate volumes of chlorin gas and sulfuric acid to continuously enter a helical pipe, rotating the latter and thus transferring the acid and gas compressed thereby into a receiver, causing intimate contact between the acid and gas therein and thereby drying the gas, and separating the acid from the dried gas, substantially as described.

3. The process of transferring, compressing and drying chlorin gas which consists in entraping alternate pistons of the chlorin gas and sulfuric acid at a point of low pressure, in forcing the entrapped volumes of gas and acid in a helical path continuously in the same direction, while compressing the pistons of gas by the action thereon of the pistons of liquid, to a point of higher pressure, causing intimate contact between the acid and gas to dry the latter, and returning the acid from the point of high pressure to the point of low pressure, substantially as described.



4. In an apparatus for transferring, compressing and drying chlorin, the combination of a chamber partially filled with sulfuric acid and adapted to be supplied with chlorin gas, a second chamber, and means comprising a continuously rotating helical pipe coil having one end opening into said first chamber and its other end communicating with said second chamber, whereby alternate volumes of the acid and chlorin gas are entrapped from said first chamber, discharged into said second chamber, the gas being under pressure, the gas dried by contact with the acid, and the acid separated from the gas in said second chamber, and a vertically positioned U-shaped pipe mounted below said chambers, with its ends respectively opening into the lower portions of each of the same for returning acid from said second to said first chamber, the vertical height of said pipe being sufficient so that the maximum pressure in said second chamber shall not force the level of the acid in said pipe beyond the bend in the same, substantially as described.

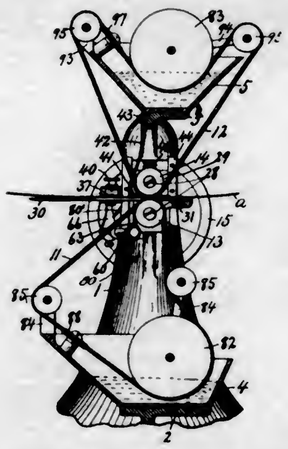
1,134,433. PRODUCTION OF HOLLOW RESILIENT BALLS. JONAS W. AYLSWORTH, East Orange, and DYER SMITH, Montclair, N. J., assignors to Condensite Company of America, Glen Ridge, N. J., a Corporation of New Jersey. Filed Mar. 14, 1911. Serial No. 614,375. (Cl. 154—16.)



The process of making hollow resilient balls, which consists in forming two half shells of material comprising a fusible phenolic condensation product capable of being hardened into an infusible mass on application of sufficient heat, placing the same in a tube in alinement with each other with their interiors opposed, and forcing

the same together while preventing escape of air or other gas from the space between the half shells until their adjacent edges abut, heating the said adjacent edges to cause the same to weld together to form a continuous ball with air or other gas compressed within the same, forming a compressed air core therefor, and applying heat sufficient to harden the ball into an infusible hard shell, cooling and removing the same, substantially as described.

1,134,434. SEAM-DAMPENER. FRANK C. BARNES, Haddon Heights, N. J., assignor to National Chemical Company, Syracuse, N. Y., a Corporation of New York. Filed June 19, 1913. Serial No. 774,626. (Cl. 68—9.)



1. In a collar dampening machine, a collar feeding member movable to and from its feeding position, means normally holding the feeding member in its inoperative position, and additional means actuated by the collar for tripping said holding means and allowing the feeding member to assume its feeding position while the collar is engaged thereby.

2. In a collar dampening machine, a collar feeding member movable to and from its feeding position, means normally holding said member from its feeding position, separate means for forcing said member to its feeding position, and additional means operated by the collar as it is fed by hand toward the feeding member for tripping said holding means.

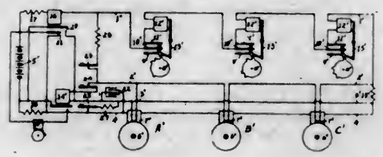
3. In a collar dampening machine, a collar feeding member movable to and from its feeding position, means for forcing said member to its feeding position, mechanism actuated by the collar for holding the feeding member in its feeding position while engaged with the collar, and additional means for automatically forcing the feeding member from its feeding position when not engaged with the collar.

4. In a collar dampening machine, a collar feeding and moistening device having one of its feeding members movable to and from its feeding position, means for forcing said member to its feeding position, collar actuated means for holding said member in its feeding position while engaged with the collar, and additional means for forcing said member from its feeding position when not engaged with the collar.

5. In a collar dampening machine, a collar feeding means having one of its feeding members movable to and from its feeding position, a trigger in the path of movement of the collar and operated thereby, means for forcing the movable feeding member to its feeding position, and separate mechanism controlled by said trigger for moving said feeding member into engagement with the collar and holding it in its feeding position while engaged with the collar, and for forcing said member from its feeding position when the collar passes out of engagement with said member.

[Claims 6 to 8 not printed in the Gazette.]

1,134,435. TELLTALE SYSTEM FOR ELECTRIC CIRCUITS. CLARENCE E. BEACH, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed Nov. 13, 1914. Serial No. 871,979. (Cl. 177—367.)



1. In a signaling system: a circuit including a source of energy, a resistance, transmitting devices, and receiving devices; a shunt for a portion of said circuit including said resistance and no transmitting devices or receiving devices; an indicating device in said shunt; and means controlled by each of several of said receiving devices for controlling the operation of said indicating device.

2. In a signaling system: a source of energy; a resistance; transmitting devices; receiving devices; conductors operatively connecting said source, said resistance, said transmitting devices, and said receiving devices; said resistance being connected in the current path between a terminal of said source and said receiving devices; a shunt for said resistance including an indicating device; and mechanism associated with each of several of said receiving devices for suitably controlling said shunt.

3. In a signaling system: a source of energy; a resistance; transmitting devices; receiving devices; conductors operatively connecting said source, said resistance, said transmitting devices, and said receiving devices; said resistance being connected in the current path between a terminal of said course and said receiving devices; a shunt for said resistance including an indicating device; and mechanism associated with each of several of said receiving devices for controlling the continuity of said shunt.

4. In a signaling system: a source of energy; a resistance; transmitting devices; normally wound receiving devices; conductors operatively connecting said source, said resistance, said transmitting devices, and said receiving devices; said resistance being connected in the current path between a terminal of said source and said receiving devices; a shunt for said resistance including an indicating device; and mechanism operated by the running down of any of several of said receiving devices for suitably controlling said shunt.

5. In a signaling system: a source of energy; a resistance; transmitting devices; normally wound receiving devices; conductors operatively connecting said source, said resistance, said transmitting devices, and said receiving devices; said resistance being connected in the current path between a terminal of said source and said receiving devices; a shunt for said resistance including an indicating device; and mechanism operated by the running down of any of several of said receiving devices for controlling the continuity of said shunt.

[Claims 6 to 13 not printed in the Gazette.]

1,134,436. PROCESS OF IMPREGNATING POROUS SUBSTANCES. WALLACE APPLETON BEATTY, New York, N. Y., assignor, by direct and mesne assignments, of three-twentieths to Horace Herbert Smith and one-half to James Dudley Dusenberry, New York, N. Y., and one-tenth to Thomas A. Witherspoon, Washington, D. C. Filed Aug. 26, 1913. Serial No. 786,814. (Cl. 99—12.)

1. The process of impregnating porous substances which consists in suitably applying thereto in the form of a liquid a synthetic gum obtained as a condensation product of a phenol, a ketone and an aldehyde, substantially as described.

2. The process of impregnating porous substances which consists in suitably opening the pores of said substances and then applying thereto in the form of a liquid a synthetic gum obtained as a condensation product of a phenol, a ketone and an aldehyde, substantially as described.

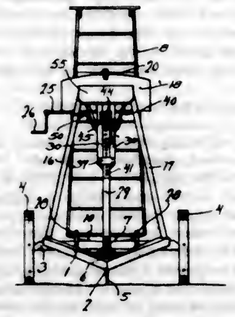
3. The process of impregnating porous substances which consists in suitably opening the pores of said substances; and heating the same while applying thereto in the form of a liquid a synthetic gum obtained as a condensation product of dioxy-diphenyl-dimethyl-methane and formaldehyde, substantially as described.

4. The process of impregnating porous substances which consists in suitably subjecting said substances to the action of a vacuum while heating the same to open the pores thereof; and then applying thereto in the form of a liquid a synthetic gum obtained as a condensation product of dioxy-diphenyl-dimethyl-methane and formaldehyde, substantially as described.

5. The process of impregnating porous substances which consists in subjecting the same to the action of a vacuum while applying heat thereto in order to open the pores thereof; then applying to said substances in a liquid form a synthetic gum obtained as a condensation product of dioxy-diphenyl-dimethyl-methane and formaldehyde; and subjecting said substances and applied gum to heat and pressure, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,134,437. TILTABLE-LADDER STRUCTURE. OLE H. BLOM, Fairfield, Wash. Filed June 9, 1914. Serial No. 844,012. (Cl. 228—15.)

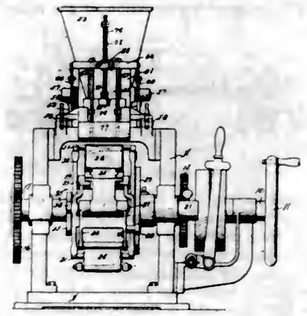


1. A tiltable ladder structure comprising the combination with a base frame having one part fulcrumed at its lower end and supported at its upper end by a part extensible to vary the angle to the vertical of said first part, of a ladder pivoted at its foot to tilt sidewise in its own plane, and means substantially at the top of the base frame to support and guide the ladder in its sidewise tilt.

2. A tiltable ladder structure comprising the combination with a wheeled frame, a base frame having one part pivoted at its lower end on said wheeled frame and supported at its upper end by a part extensible to vary the angle to the vertical of said first part, a ladder pivoted at its foot to the wheeled frame to tilt sidewise in its own plane, and means substantially at the top of the base frame to support and guide the ladder in its sidewise tilt.

3. A tiltable ladder structure comprising in combination, a wheeled frame, a ladder, means loosely holding the foot of the ladder on the wheeled frame to permit sidewise tilt of the former in its own plane and also adjustment with respect to the vertical in directions angular to the plane of the ladder, adjustable means movably mounted on the wheeled frame for inclining the ladder with respect to the vertical and engaging the ladder near its upper end to support the latter in an inclined or substantially vertical position, and mechanism carried by the ladder and said movably mounted means for tilting the ladder sidewise in its own plane, and locking the ladder in its tilted position, substantially as described.

1,134,438. CIGARETTE WRAPPING AND TUCKING MACHINE. BERNHARD T. BURCHARDI and BENJAMIN E. TEALE, Brooklyn, N. Y. Filed July 15, 1912. Serial No. 709,530. (Cl. 131—5.)



1. In a machine of the class described and in combination, a traveling wrapping carrier having a suction area, a previous wrapper-receiving and retaining belt overlying said suction area and moving with said carrier into position to receive a charge of tobacco, and belt-manipulating instrumentalities on the carrier operative to roll a suction-held wrapper and a charge of tobacco into a cigarette.

2. In a machine of the class described and in combination, a traveling wrapping carrier having a suction area, a pervious wrapper-receiving and retaining belt overlying said suction area and moving with said carrier, belt-manipulating instrumentalities moving with said carrier and operative to roll a suction-held wrapper and a charge of tobacco into a cigarette, and means to tuck the ends of said cigarette on completion of the rolling operation.

3. In a machine of the class described and in combination, traveling wrapping carrier having a suction area, a pervious wrapper-receiving and retaining belt overlying said area and moving with said carrier, means for depositing a charge of tobacco on said belt at a certain angular position of the carrier, belt manipulating instrumentalities operative to roll a suction-held wrapper and a charge of tobacco into a cigarette, and means to tuck the ends of said cigarette on completion of the rolling operation.

4. In a machine of the class described and in combination, a traveling wrapping carrier having a suction area, a pervious wrapper-receiving and retaining belt overlying said suction area and moving with said carrier, belt manipulating instrumentalities mounted on and movable with said carrier but operable independently thereof to roll a suction-held wrapper and a charge of tobacco into a cigarette, and means to tuck the ends of said cigarette on completion of the rolling operation.

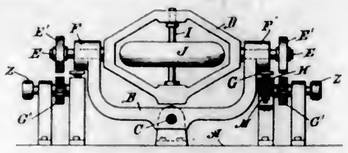
5. In a machine of the class described and in combination, a traveling wrapping carrier having a plurality of spaced suction areas, means for moving the said carrier to position said areas successively in a predetermined position, wrapper-receiving and retaining belts overlying said suction areas, belt manipulating instrumentalities on and movable with said carrier but independently operative to roll a suction-held wrapper and charge of tobacco into a cigarette, and means to tuck the ends of said cigarette on completion of the rolling operation.

[Claims 6 to 44 not printed in the Gazette.]

1,134,439. STABILIZING APPARATUS. ALEXANDER S. CHESSIN, New York, N. Y. Filed May 29, 1909. Serial No. 499,181. (Cl. 74—78.)

1. A gyrostat structure comprising a rotor mounted to turn about a normally vertical axis, a frame in which said

rotor is journaled, and a support connected with said frame by a normally horizontal pivotal connection, the combined center of gravity of the rotor and frame being below the point of intersection of the rotor axis with said normally horizontal pivotal connection, in combination with a body to which said support is connected loosely to swing about a normally horizontal axis perpendicular to the first named horizontal axis, and members carried by said body and normally out of contact with the gyrostat structure but adapted to engage the same when said body swings and to produce a precession of the rotor.



2. The combination of a rotor mounted to turn about a normally vertical axis, a frame in which said rotor is journaled, a body connected with the frame by a universal joint comprising a normally horizontal pivotal connection with the frame, the joint center of gravity of the rotor and frame being below the point of intersection of the rotor axis with the said normally horizontal pivotal connection, and members carried by the body and normally out of contact with the gyrostat structure but arranged to engage one of the above mentioned elements of the gyrostat structure when said body swings and to produce a precession of the rotor.

3. The combination of a carrier comprising a frame and a support having a normally horizontal pivotal connection with the frame, with a rotor journaled in said frame, the combined center of gravity of the rotor and frame being below the point of intersection of the rotor axis with said normally horizontal pivotal connection, a body with which the support is connected by a normally horizontal pivotal connection perpendicular to the first named pivotal connection, and members carried by the body and normally out of engagement with the carrier but adapted to engage the same when said body swings to produce a precession of the rotor.

4. A gyrostat structure comprising a rotor mounted to rotate about a normally vertical axis, a frame in which said rotor is journaled, and a support having a pivotal connection with said frame, the joint center of gravity of the rotor and frame being below the axis connecting the frame with the support, in combination with a body to which said support is pivoted, and members carried by said body and normally out of contact with the support but adapted to engage the same when said body swings and to produce a precession of the rotor.

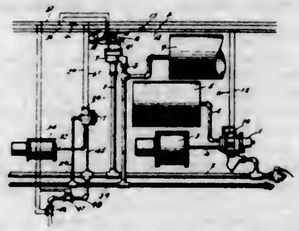
5. The combination with a body, of a gyrostat structure comprising a support mounted to swing relatively to the body, a frame mounted on said support to swing about an axis at right angles to that of the support, and a rotor mounted to turn in said frame about a normally vertical axis, the joint center of gravity of the rotor and frame being below the axis connecting the frame with the support, and members carried by said body and normally out of contact with the gyrostat structure but adapted to engage the same when said body swings to produce a precession of the rotor.

[Claims 6 to 26 not printed in the Gazette.]

1,134,440. ELECTROPNEUMATIC BRAKE. JOHN W. CLOUD, London, England, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Dec. 20, 1913. Serial No. 807,810. (Cl. 188—4.)

1. The combination with a brake cylinder and fluid pressure controlled means for supplying fluid to said brake cylinder, of an emergency brake cylinder, a source of fluid pressure, and electrically controlled valve means for supplying fluid from said source to the emergency brake cylinder and for releasing fluid from the brake cylinder.

2. The combination with a brake cylinder and fluid pressure controlled means for supplying fluid to said brake cylinder, of an emergency brake cylinder, a source of fluid pressure, a valve for controlling communication from said source to the emergency brake cylinder and from the brake cylinder to the exhaust, and an electro-magnet for controlling said valve.



3. The combination with a brake pipe and means operated upon a reduction in brake pipe pressure for effecting an application of the brakes, of an electrically controlled valve device for supplying fluid to effect an emergency application of the brakes and for venting fluid from the brake pipe to the atmosphere.

4. The combination with a brake pipe and means subject to variations in brake pipe pressure for normally controlling the brakes, or an emergency brake cylinder, a source of fluid pressure, and an electrically controlled valve device adapted to supply fluid from said source to the emergency brake cylinder and vent fluid from the brake pipe to the atmosphere to effect a sudden reduction in brake pipe pressure.

5. The combination with a brake pipe, brake cylinder, auxiliary reservoir, and a triple valve device operated upon a reduction in brake pipe pressure for supplying fluid from the auxiliary reservoir to the brake cylinder, of a main reservoir, an emergency brake cylinder, and an electrically controlled valve device for supplying fluid directly from the main reservoir to the emergency brake cylinder.

[Claim 6 not printed in the Gazette.]

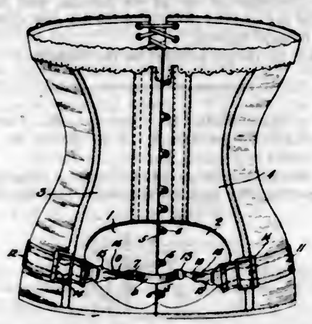
1,134,441. SURGICAL CORSET. HARRY EDWIN CURTIS, West Hampstead, London, England. Filed May 28, 1914. Serial No. 841,550. (Cl. 128—3.)

1. A surgical corset comprising a hypo-gastric plate in two similar rigid parts, one part permanently attached to each corset half at the front and lower end thereof, means to detachably and flexibly connect adjacent edges of said two parts, a blade spring adapted to extend transversely across the division between said parts and to bear on the front of each of said parts, forwardly extending opposite ends to said spring, means to retain said spring in said transverse position, and adjustable means coacting between the ends of said spring and the corset to draw said ends toward said parts and press said hypo-gastric plate parts toward the body of the wearer.

2. A surgical corset comprising in combination, a hypo-gastric plate in two similar rigid parts, one part permanently attached to each corset half at the front and lower end thereof, means to detachably and flexibly connect the adjacent edges of said parts, a metal blade spring adapted to extend transversely across the division between and in front of the two-part hypo-gastric plate, said spring having outwardly extending end portions, a pivoted connection between said spring and one of said plate parts, engaging means on the other of said parts for said spring, and an adjustable flexible connection between each end of said spring and the corset adapted to stress said spring to cause pressure to be exerted independently on each part of said hypo-gastric plate to press said parts toward the body of the wearer.

3. A surgical corset comprising a two-part hypo-gastric plate one part on each corset half at the front and lower end thereof, means to detachably and flexibly connect adjacent edges of said two parts, a blade spring adapted to extend transversely across the division between said parts and to bear on the front of each of said parts, forwardly extending opposite ends to said spring, means to retain said spring in said transverse position, a soft flexible band on each corset half one end of each of said bands being connected to said corset the other end of said band being connected to one end of said spring, and means for adjusting the length of said bands whereby the outwardly extending ends of said spring are drawn toward the parts of the hypo-gastric plate to exert pressure independently on each plate part.

4. A surgical corset comprising a two-part hypo-gastric plate one part on each corset half at the front and lower end thereof, means to detachably and flexibly connect adjacent edges of said two parts, a blade spring adapted to extend transversely across the division between said parts and to bear on the front of each of said parts, forwardly extending opposite ends to said spring, means to retain said spring in said transverse position, a soft flexible band on each corset half one end of each of said bands being connected to said corset the other end of said band being connected to one end of said spring, and means for adjusting the length of said bands whereby the outwardly extending ends of said spring are drawn toward the parts of the hypo-gastric plate to exert pressure independently on each plate part, said spring being adapted to engage said spring when the free end of the latter is moved in a vertical plane toward said finger and thereby prevent the upward movement of said free end beyond a predetermined distance, forwardly extending ends to said spring, and means coacting between the ends of said spring and the corset to draw said ends toward said parts and independently press said hypo-gastric plate parts toward the body of the wearer.

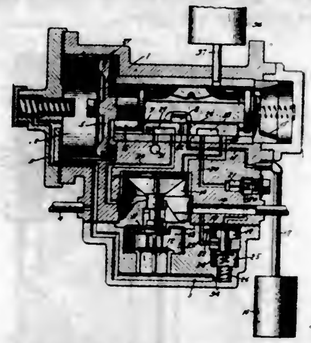


4. A surgical corset comprising a two-part hypo-gastric plate one part on each corset half at the front and lower end thereof, means to detachably and flexibly connect adjacent edges of said two parts, a blade spring adapted to extend transversely across the division between said parts and to bear on the front of each of said parts, forwardly extending opposite ends to said spring, means to retain said spring in said transverse position, a soft flexible band on each corset half one end of each of said bands being connected to said corset the other end of said band being connected to one end of said spring, and means for adjusting the length of said bands whereby the outwardly extending ends of said spring are drawn toward the parts of the hypo-gastric plate to exert pressure independently on each plate part.

5. A surgical corset comprising in combination, a two-part hypo-gastric plate, one part on each corset half at the front and lower end thereof, means to detachably and flexibly connect adjacent edges of said two parts, a metal blade spring adapted to extend transversely across the division between said parts and to bear on the front of each of the latter, a horizontal pivot pin projecting from the front of one of said plate parts to permanently attach said spring to said part and to permit said spring to be moved in a vertical plane, a forwardly and downwardly extending finger fixed to the other plate part to engage said spring when the free end of the latter is moved in a vertical plane toward said finger to prevent the upward movement of said free end beyond a predetermined distance, forwardly extending opposite ends to said spring, a soft flexible band on each corset half one end of each of said bands being connected to said corset, means to detachably connect the other end of each band to the opposite ends of said spring, and means for adjusting the length of said bands to draw the outwardly extending ends of said spring toward the parts of the hypo-gastric plate and to exert pressure independently on each part of said plate toward the body of the wearer.

1,134,442. TRIPLE-VALVE DEVICE. PATRICK H. DONOVAN, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 18, 1912. Serial No. 671,864. (Cl. 188—15.)

1. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir, and a triple valve device operating upon a reduction in train pipe pressure for supplying fluid from the auxiliary reservoir to the brake cylinder to effect a service application of the brakes, of an additional source of fluid under pressure, a movable abutment operated by flow of fluid from said source during the initial movement of the triple valve device from release position for opening a communication for supplying fluid from said source to the brake cylinder, and a check valve for preventing back flow.



2. In a fluid pressure brake, the combination with a train pipe and auxiliary reservoir, of a triple valve device comprising a piston subject to the opposing pressures of the train pipe and auxiliary reservoir, a valve operated by said piston upon a reduction in train pipe pressure for supplying fluid from the auxiliary reservoir to the brake cylinder, an additional source of fluid under pressure, a movable abutment operated by the flow of fluid from the additional source of fluid under pressure for supplying fluid from said source to the brake cylinder, and means controlled by said valve for connecting said source to said abutment in the initial movement of the valve from release position to effect an application of the brakes, and a check valve for preventing back flow.

3. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir and triple valve device, of an additional reservoir normally charged with fluid under pressure and means operated by fluid from said additional reservoir in making a service application of the brakes for venting fluid from the train pipe to the brake cylinder to effect a local reduction in train pipe pressure.

4. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir and triple valve device, of an additional reservoir normally charged with fluid under pressure, a movable abutment subject on one side to brake cylinder pressure and operated by fluid from said additional reservoir in making an application of the brakes for connecting said reservoir to the brake cylinder, and a valve operated by said abutment for venting fluid from the train pipe to the brake cylinder.

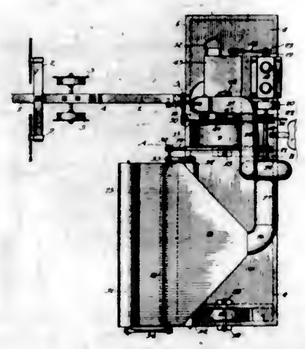
5. In a fluid pressure brake, the combination with a train pipe, auxiliary reservoir and triple valve device, of an additional reservoir normally charged with fluid under pressure, a movable abutment subject on one side to brake cylinder pressure and operated by fluid from said additional reservoir in making an application of the brakes for connecting said reservoir to the brake cylinder, and a valve operated by said abutment for venting fluid from the train pipe to the brake cylinder, said abutment being operated upon equalization of the additional reservoir into the brake cylinder to close said valve.

[Claim 6 not printed in the Gazette.]

1,134,443. STANDING-GRAIN THRESHER. WILLIAM GARRISON ENGLE, Enderlin, N. D., assignor of one-tenth to J. M. Bates, Lisbon, N. D., and one-tenth to K. O. Sandum, Minneapolis, Minn. Filed Sept. 23, 1913. Serial No. 791,268. (Cl. 56—29.)

1. A standing grain thresher having, in combination with a motor carried upon the wheeled main frame of the

machine, and means for moving the machine over the ground, a fan, a hood and tubular connections, in communication with the intake of said fan and extending thereto from the front of the machine, a toothed stripping cylinder rotating within said hood parallel with its front and spaced from its top, the teeth of said cylinder traveling upward at its front, a blower in advance of said cylinder having its outlet directed rearward and upward toward the space at the top of said cylinder, and connections through which said cylinder and the rotors of said fan and blower are driven by said motor.



2. A standing grain thresher having, in combination with a motor carried upon the wheeled main frame of the machine, and means for moving the machine over the ground, a fan, a hood and tubular connections in communication with the intake of said fan and extending thereto from the front of the machine, a toothed stripping cylinder rotating within said hood parallel with its front and spaced from its top, the teeth of said cylinder traveling upward at its front having its outlet directed rearward and upward toward the space at the top of said cylinder, a blower close behind said cylinder having its outlet directed upward beneath the descending teeth of said cylinder, and connections through which said cylinder and the rotors of said fan and blower are driven by said motor.

3. A standing grain thresher having, in combination with a motor carried upon the wheeled main frame of the machine, and means for moving the machine over the ground, a fan, a hood and tubular connections in communication with the intake of said fan and extending thereto from the front of the machine, a toothed stripping cylinder rotating within said hood parallel with its front and spaced from its top and from the front edge of the bottom of the hood, the teeth of said cylinder traveling upward at its front, blowers at the front of said hood ahead of and behind said cylinder, the outlet of the front blower being directed rearward and upward toward the space at the top of said cylinder and its blast serving to assist the cylinder teeth in throwing the grain and detached heads over said cylinder to be caught by the air current within said hood, and the outlet of the rear blower being directed upward beneath the descending teeth of said cylinder and its blast serving to prevent grain from going down behind the cylinder and to counteract any tendency of the cylinder to produce an adverse current of air at its bottom, and connections through which said cylinder and the rotors of said fan and blowers are driven by said motor.

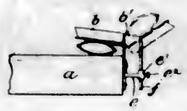
4. The combination, in a standing grain thresher, of an ingathering hood, a suction fan in communication with said hood and adapted to produce an air current therethrough, a toothed stripping cylinder rotating within said hood parallel with its front and spaced from its top, the teeth of said cylinder traveling upward at its front, a blower in advance of said cylinder having its outlet directed rearward and upward toward the space at the top of said cylinder and its blast serving to assist the cylinder teeth in throwing the grain and detached heads over said cylinder to be caught by the air current within said hood, and means for driving said cylinder and the rotors of said fan and blower.

5. The combination, in a standing grain thresher, of an ingathering hood, means for producing an air current therethrough, a stripping cylinder rotating within said hood parallel with its front and spaced from its top and from the front edge of the bottom of said hood, the teeth of said cylinder traveling upward at its front, a blower behind said cylinder having its outlet directed upward beneath the descending cylinder teeth and its blast serving to prevent grain from going down behind the cylinder and to counteract any tendency of the cylinder to produce an adverse current of air at its bottom, and means for driving said air current producing means said cylinder and the rotor of said blower.

[Claims 6 to 19 not printed in the Gazette.]

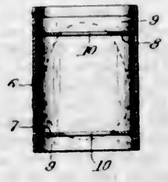
1,134,444. WAGON-SEAT. THOMAS H. FARRINGTON, Owego, N. Y. Filed Jan. 3, 1914. Serial No. 810,118. (Cl. 21—42.)

In combination with a wagon body, a wagon seat, a hinge to secure the seat to the body adjacent the front



edge of the body to permit the seat to be rotated about the hinge line and thrown forward of the wagon body to an inactive position, and devices to limit the movement of rotation of the seat about the hinge line, including a fixed member secured to the wagon body and an adjustable member mounted on the fixed member, said adjustable member being movable into the path of the seat when the latter is thrown forward and adapted to engage the seat to maintain the same in a predetermined position of rest.

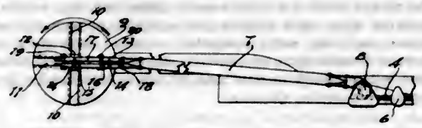
1,134,445. EGG-CARRIER. GEORGE FLESHER, Cleveland, Ohio. Filed May 16, 1914. Serial No. 839,010. (Cl. 217—29.)



1. An individual egg carrier, comprising a cylindrical tube of proper size to receive a single egg, and heads fitting in the ends thereof, said heads having marginal flanges which project toward the ends of the tube when the heads are in place, and also having holes to receive the ends of the egg, one of said heads being slidable into and out of the tube and the said holes being open and unobstructed, whereby the egg may be candled while in the carrier.

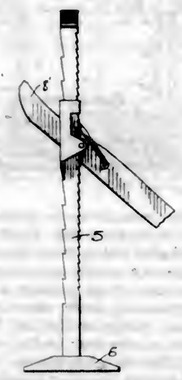
2. An individual egg carrier, comprising a cylindrical tube of proper size to receive a single egg, and having disks in the ends thereof, tubular supporting members contacting with said disks and projecting toward the ends of the tube when the disks are in place, said disks also having holes to receive the ends of the egg, one of said disks being slidable into and out of the tube and the said holes being open and unobstructed whereby the egg may be candled while in the carrier.

1,134,446. PITMAN CONNECTION. EUGENE ADDISON FULKERSON, Roblin, Manitoba, Canada. Filed Oct. 27, 1913. Serial No. 797,644. (Cl. 74—5.)



The combination with a pitman and a rotatably mounted pitman shaft, of a disk permanently secured to the end of the shaft and centered thereon, said disk being supplied with a pair of intersecting dove-tailed slots, the said slots intersecting at right angles and having the point of intersection located on the center point of the disk, a beveled block slidably mounted in each slot and having a length greater than the width of the slot, pins extending from the blocks, cylindrical bearing places pivotally mounted on the pins, a split sleeve carried by the pitman and receiving the bearing pieces free of the pins and adjusting bolts connecting the split portions of the sleeve and holding the bearing blocks in position within the sleeve, as and for the purpose specified.

1,134,447. LIFTING-JACK. LOYD JOSHUA GAY, Brookfield, Ga. Filed Apr. 10, 1914. Serial No. 831,029. (Cl. 254—129.)

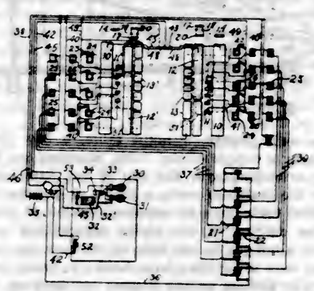


1. In a lifting jack the combination with a standard having reversely arranged ratchet teeth upon its opposite faces, of a head slidably engaging said standard said head being made of sheet metal and comprising integral spring fingers adapted to engage the ratchet teeth upon one face of the standard, a lever pivoted to said head and a pawl carried by said lever for engaging the ratchet teeth upon the opposite face of the standard.

2. In a device of the character described, the combination with a vertically arranged standard which is centrally slotted and which has reversely arranged ratchet teeth upon its opposite faces, of a sheet metal head slidably engaged with said standard and comprising integral spring fingers adapted to engage the ratchet teeth upon one side of said standard, a lever pivoted to said head and a yoke shaped pawl pivoted to said lever and extending across said standard to engage the ratchet teeth on both sides of the slotted portion of the standard.

3. In a device of the character described the combination with a vertically arranged standard which is centrally slotted and which has reversely arranged ratchet teeth upon its opposite faces, of a sheet metal head slidably mounted upon said standard and comprising integral spring fingers extending downwardly from its lower portion, which fingers are adapted to engage the ratchet teeth upon one side of said standard, a lever extending through the slotted portion of the standard and pivoted to said head upon the side remote from said integral spring fingers, and a yoke-shaped pawl pivoted to said lever and extending across said standard to engage the ratchet teeth on both sides of the slotted portion thereof.

1,134,448. ELEVATOR-SIGNAL. ROBERT H. GAYLORD, Pasadena, and GUY B. CAPPS, Los Angeles, Cal., assignors to Foulkes-Gaylord Company, Los Angeles, Cal., a Corporation of California. Filed July 25, 1914. Serial No. 853,222. (Cl. 177—336.)



1. In an elevator signaling system, the combination of a car signal device, floor circuit closers and means controlled by the said floor circuit closers and by the movement of the car to operate said car signal device to first give a preliminary signal, and then, in the further movement of the car, to give a stop signal.

2. In an elevator signaling system, a car signal device adapted to respond to currents of different strength to give distinctive preliminary and stop signals, an energizing circuit for said signal device, and means controlled by the movement of the elevator car to control said circuit to send a current of definite strength through the car signal device to give a preliminary signal when the car reaches a certain point and to send a current of different strength through said signal device, to give a stop signal when the car reaches another point.

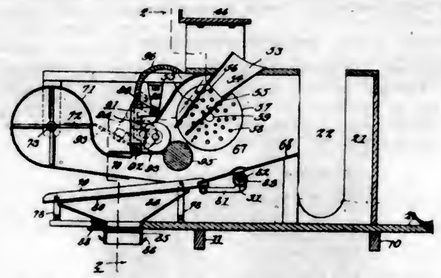
3. In an elevator signaling system, a car signal device, and an energizing circuit provided with a plurality of branches, push buttons at different floors and means controlled thereby to control the respective branches, a circuit controlling means controlled by the movement of the elevator car and adapted to put the car signal device successively in connection with said branch circuits, said circuit controlling means being provided with a resistance and with means for first including such resistance in the connection established to the car signal and to then cut out such resistance, to give a preliminary signal and to respond to the current flowing through such circuit when such resistance is cut out to give a stop signal.

4. In an elevator signaling system, the combination with a car signal device provided with means for distinctively indicating a stop signal and a preliminary signal, controlling circuits for said signal device including a plurality of push buttons, means controlled by the movement of an elevator car for bringing said signal device successively under control of the respective controlling circuits, said car controlled means being provided with means for closing a circuit connection to control the signal device to give a preliminary signal and to thereafter close a connection to the signal device to give a stop signal.

5. In an elevator signaling system, the combination of a car-operated circuit controlling means, provided with contacts for closing a stop signal circuit, and with contacts for closing a connection for giving a preliminary signal, and a car signal means connected to said circuit controlling means and responsive to closure of the preliminary signal contacts of the circuit controller to give a preliminary signal.

[Claim 6 and 7 not printed in the Gazette.]

1,134,449. CORN-HUSKING MACHINE. SOLOMON GERMAN, Savage, Md., assignor of one-third to Arthur P. Gorman and one-third to James A. Berger, Laurel, Md. Filed May 26, 1914. Serial No. 840,986. (Cl. 130—5.)



1. In a corn husker, a main table, a saw projecting therethrough, a supplemental table mounted on the main table and extending over the top of the saw for the reception of the stalks of corn, a guard projecting from the supplemental table over an exposed portion of the saw to prevent the cutting of the stalks before they reach the main table, a hopper to one side of the saw for the reception of the ears after they have been cut from the stalks, means at the bottom of the hopper for turning back the husks on the ears, and means for severing the ear stalks together with the turned back husks.

2. In a corn husker, a main table, a saw projecting therethrough, a supplemental table mounted on the main table and extending over the top of the saw for the reception of the stalks of corn, a guard projecting from the supplemental table over an exposed portion of the saw to prevent the cutting of the stalks before they reach the main table, a frame connected to said main table in front of the saw and having slotted sides for the reception of the cornstalks after the ears have been cut therefrom, a hopper to one side of the saw for the reception of the ears after they have been cut from the stalks, means at the bottom of the hopper for turning back the husks on the ears, and means for severing the ear stalks together with the turned back husks.

3. In a corn husker, the combination of a saw, a table above the saw, a receptacle to receive stalks severed by the saw, a hopper to receive the ears with the husks thereon and means at the lower end of said hopper to turn back the husks on the ears.

4. In a corn husker the combination of a saw, a table above the saw, a receptacle to receive stalks severed by the saw, a hopper to receive the ears with the husks thereon, means at the lower end of said hopper to turn back the husks on the ears and means for severing the ear stalks and turned back husks.

5. In a corn husker the combination of a saw, a table above the saw, a receptacle to receive stalks severed by the saw, a hopper to receive the ears with the husks thereon, means at the lower end of said hopper to turn back the husks on the ears, means for severing the ear stalks and turned back husks, said means comprising a swinging frame and a saw rotatably mounted in said frame.

[Claims 6 to 9 not printed in the Gazette.]

1,134,450. TOOTH-BRUSH. ERNEST S. GOLDY, Haddonfield, N. J. Filed Nov. 20, 1913. Serial No. 802,035. (Cl. 15—39.)

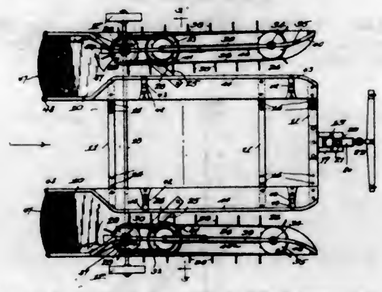
1. In a toothbrush, the combination with a handle having a space adapted to contain the brush-head and an outwardly extending cylindrical socket, of a detachable brush-head having a shank provided with a slot, and means movable upon said handle adapted to partially surround said socket and having a depending portion adapted to enter said slot when the brush-head is in operative position upon said handle.

2. In a toothbrush, the combination with a handle having a space adapted to contain the brush-head and an outwardly extending portion forming a cylindrical socket provided with a slot, of a detachable brush-head having a shank adapted to enter said socket and also having a slot, and means having a downwardly depending dog, pivotally mounted upon said handle and adapted to embrace said socket, said dog being operative to enter said slots and prevent longitudinal or rotative movement of said brush-head with respect to said handle when said handle is in operative position thereon.



3. In a brush, the combination of a handle forming a casing for the brush-head when not in use, a detachable brush-head, and means separate from said handle pivotally mounted thereon and adapted to partially embrace said handle operative to maintain said brush-head fixedly positioned upon said handle.

1,134,451. STALK-CUTTER. JAMES H. GROVE, Shawnee, Okla. Filed May 8, 1914. Serial No. 837,302. (Cl. 56—103.)



1. A stalk-cutter comprising a wheel-supported platform having a stalk passage-way, front, rear and intermediate vertical shafts rising from the platform on one side of the passage-way, guard rails carried by the platform on the other side of the passage-way, a cutter carried by the intermediate shaft, sprocket-wheels on the front and the rear shafts at the top thereof, the rear shaft being located to the rear of the cutter, an endless chain connecting the sprocket-wheels, and having outstanding conveyer fingers, sprocket-wheels on the rear and the intermediate shafts, an endless chain connecting the last-mentioned sprocket-wheels, said sprocket-wheels being below the first-mentioned sprocket-wheels, and having outstanding conveyer fingers and a driving connection for one of the shafts.

2. A stalk-cutter comprising a wheel-supported platform having a stalk passage-way, front, rear and intermediate vertical shafts rising from the platform on one side of the passage-way, guard rails carried by the platform on the other side of the passage-way, a cutter carried by the intermediate shaft, sprocket-wheels adjustably mounted on the front and the rear shafts at the top thereof, the rear shaft being located to the rear of the cutter, a stalk-conveyer chain connecting the sprocket-wheels, sprocket-wheels on the rear and the intermediate shafts, a stalk-conveyer chain connecting the last-mentioned sprocket-wheels, said sprocket-wheels being below the first-mentioned sprocket-wheels, and a driving connection for one of the shafts.

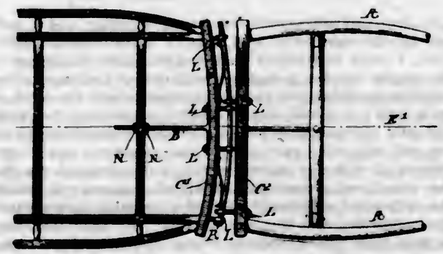
3. A stalk-cutter comprising a wheel-supported platform having a stalk passage-way, front, rear and intermediate vertical shafts rising from the platform on one side of the passage-way, a cutter carried by the intermediate shaft posts rising from the platform on the other side of the passage-way, top and bottom guard rails carried by the posts, the top guard rail being adjustable vertically, sprocket-wheels carried by the front and rear shafts at the top thereof and adjustable vertically thereon, the rear shaft being located to the rear of the cutter, a stalk-conveyer chain connecting the sprocket-wheels, sprocket-wheels on the rear and the intermediate shafts, a stalk-conveyer chain connecting the last-mentioned sprocket-wheels, said sprocket-wheels being below the first-mentioned sprocket-wheels, and a driving connection for one of the shafts.

4. A stalk-cutter comprising a wheel-supported platform having a stalk passage-way, front, rear and intermediate vertical shafts rising from the platform on one side of the passage-way, a cutter carried by the intermediate shaft posts rising from the platform on the other side of the passage-way, top and bottom guard rails carried by the posts, a guard rail connecting the front and rear shafts, said guard rail and the first-mentioned guard rails terminating to the rear of the cutter and spreading thereat to form a stalk holder, a gate connecting the rear ends of the respective guard rails, sprocket-wheels on the front and the rear shafts at the top thereof, the rear shaft being located to the rear of the cutter, an endless chain connecting the sprocket-wheels, and having outstanding conveyer fingers, sprocket-wheels on the rear and the intermediate shafts, an endless chain connecting the last-mentioned sprocket-wheels, said sprocket-wheels being below the first-mentioned sprocket-wheels, and having outstanding conveyer fingers and a driving connection for one of the shafts.

1,134,452. THERMO-ELECTRIC BATTERY FOR MOTOR-VEHICLES. LEIGH E. HALE, Stockton, Cal., assignor of one-half to Floyd C. Bolin, Stockton, Cal. Filed Nov. 20, 1913. Serial No. 802,068. (Cl. 171—73.)

A thermo electric battery comprising elements arranged in couples, each couple being composed of metals differing in the thermo electric order, the terminal of one element being offset and in face contact with the adjacent element, such offset portion forming an intermediate space between such elements, a sheet of insulation interposed in such space, a sheet of insulation applied to the outer face of said element having such offset portion forming a recess between such last named sheet of insulation and such offset portion, a washer interposed in such recess, all of said elements being secured together and provided with a continuous passageway through their ends, as described.

1,134,453. SLEIGH. DEAN S. HALL, Marshfield, Vt. Filed Mar. 9, 1908. Serial No. 420,054. (Cl. 21—95.)



1. In combination, a sleigh, a shaft structure, a means slidably connecting the shaft structure to the forward end of the body said means embodying a forwardly curved guide bar extending transversely of the vehicle, whereby the shaft structure may be adjusted to a position in line with the travel of the vehicle or to a position oblique thereto, for the purpose set forth.

2. In combination, a sleigh structure, a shaft structure, and means connecting the shaft structure to the sleigh structure, whereby the shaft structure may be adjusted centrally in line with the line of travel or slid to one side to a position oblique to the line of travel, said means embodying a rod or bar extending transversely of the vehicle and devices for rigidly attaching it to one of the structures and means for slidingly connecting the other structure to the rod or bar, for the purpose set forth.

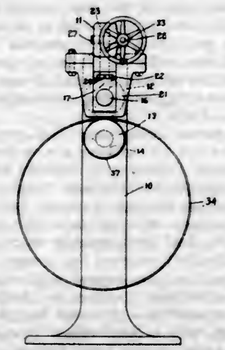
3. In combination, a sleigh forming one element, a shaft structure forming another element, and means connecting the shaft structure to the sleight whereby the shaft structure may be adjusted centrally in line with the line of travel, or slid to one side to a position oblique to the line of travel, said means embodying a rod or bar extending transversely of the vehicle and devices for rigidly attaching it to one of said elements and means for slidingly connecting the other of said elements to the rod or bar, for the purpose set forth.

4. In combination, a sleigh carrying at its forward end a transverse guide rod curved forwardly and adapted to be flexed to have its curvature changed, and means on the sleigh for varying the curvature of the bar and holding it at the degree the curvature is adjusted to, and a shaft structure slidingly connected to said rod.

5. In combination with a sleigh having a curved bar mounted at its forward end and adapted to be flexed slightly, a guide rod curving forwardly and mounted on the front side of said bar, means connecting said curved bar and the sleigh and adapted to flex the bar and the rod carried thereby, and a shaft structure slidingly connected to said rod.

[Claim 6 not printed in the Gazette.]

1,134,454. MACHINE FOR MAKING SOLID-RUBBER TIRES. HUGO HENNIG, Bridgeport, Conn. Filed July 27, 1914. Serial No. 853,255. (Cl. 18—11.)



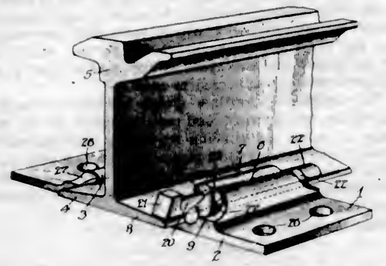
1. A machine of the character described, comprising a standard, a lower roll adapted to receive thereon a tire base, spaced collars longitudinally adjustably mounted upon the lower roll and adapted to receive the tire base therebetween to prevent lateral movements thereof, an upper roll disposed above the lower roll, and gearing connecting the upper and lower rolls.

2. A machine of the character described, comprising a standard carrying a head at its upper end, a lower roll connected with the standard beneath the head, spaced collars longitudinally adjustably mounted upon the lower roll, vertically movable bearings arranged near the head, an upper roller disposed above the lower roller, a shaft carrying the upper roller and journaled through the vertically movable bearings, rods connected with the bearings and engaging the head, a shaft carried by the head, driving devices connecting the last named shaft with the rods,

independently operated clutch members carried by the last named shaft to render the devices active and inactive, and means to rotate the rolls.

3. A machine of the character described, comprising a standard carrying a head at its upper end, a lower roll, collars longitudinally adjustably mounted upon the lower roll, a shaft carrying the lower roll and supported by the standard, an upper roll, a shaft carrying the upper roll, gearing between the upper and lower shafts, vertically movable bearings receiving the upper shaft, upstanding rods connected with the bearings, worm wheels having screw-threaded engagement with the rods and engaging the head, a substantially horizontal shaft carried by the head and provided with worms engaging the worm wheels, independently operated clutches to lock and unlock the worms with and from the substantially horizontal shaft, and means to rotate the substantially horizontal shaft.

1,134,455. COMBINATION TIE-PLATE AND RAIL-FASTENER. ARTHUR HOSMER, Chicago, Ill. Filed Aug 23, 1913. Serial No. 786,278. (Cl. 238—2.)



1. A combined tie-plate and rail fastening, comprising a base plate, opposing lugs thereon arranged to receive the base of the rail, a leverage member formed and adapted to coact between one of the lugs and the adjacent rail flange and having one part adapted to engage the edge of said rail flange and another part adapted to project over the said rail flange, and a wedge-key adapted to coact between the upper surface of said rail flange and said projecting part to set the fastening, substantially as and for the purpose set forth.

2. A rail fastener comprising a tie-plate of substantially flat formation for seating a rail thereon, coactive opposing means on the plate at opposite sides of the rail to receive and rigidly grip the base flange of the rail, one of said means being arranged to engage the adjacent flange and powerfully force the rail laterally against the opposite means, the first of these said means comprising an upstanding cylindrically curved lug, integral with the said plate and facing inwardly toward said adjacent flange, a substantially cylindrical locking bar fitting within the cylindrical inner surface of the said lug parallel with the rail and formed with a longitudinal groove in its under side, one side of said groove being formed as a shoulder to engage the edge of the said adjacent flange, and a wedge key formed for wedging between the said arm and adjacent flange to rotate said bar for forcing said shoulder tightly against the flange.

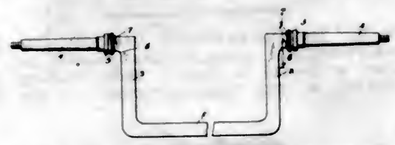
3. On a tie-plate, a rail flange fastening comprising an upstanding lug formed integrally with the plate and extending transversely thereupon and parallel with the position for the rail, said lug being cylindrically curved along its inner side facing toward the position for the rail, in combinaton wth a cylindrical locking bar formed to fit within the said lug between the inner surface thereof and the adjacent flange of the rail, and projecting somewhat beyond the ends of said lug, said bar being formed with a longitudinal shoulder along its under side for abutting against the edge of the said adjacent rail flange, and with a projecting radial flange extending along the side thereof opposite from the said lug and overlapping the said flange of the rail, said flange having a channel formed along its under side, and a wedge-key adapted to reciprocate within the said channel and adapted for driving inwardly between the flange of the rail and the flange of the locking bar to rotate the latter to force said shoulder tightly into gripping engagement with the edge of the said rail flange.

4. In a holding device of the class described, a plate and a lug thereon cylindrically curved along one side and extending transversely of the plate, in combination with a locking member of substantially cylindrical shape on one side corresponding with that of said lug, and adapted to rotatively oscillate therein, said locking member being suitably formed on the opposite side to engage the object to be held and having a leverage projection extending past the said object, and wedging means adapted for driving between the said object and the said projection to rotate the said locking member into its locking position.

5. In a rail fastener, in combination, a rotary lock piece having a shoulder for engaging the edge of the rail flange, a rigid support for said lock piece and means bearing on the rail flange for forcibly rotating said lock piece in said support to set the said shoulder tightly against the rail.

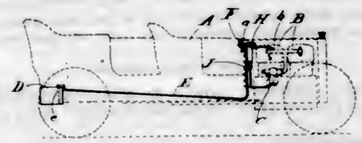
[Claims 6 to 22 not printed in the Gazette.]

1,134,456. METHOD OF MAKING DROP-FORGED DROP-AXLES. LEON C. IRISH, Haynesville, Me. Filed Oct. 6, 1913. Serial No. 793,647. (Cl. 29—153.)



The method of making drop axles of the type having a stub provided with an annular collar and an angularly extending leg, which consists in drop forging the stub and leg from one integral piece of stock and simultaneously forcing the metal of the stock to fill up the re-entrant angle between the stub and its leg, to thereby form a reinforcement at the junction of the stub and leg, and to form a reinforcement on the stub immediately adjacent the collar thereof.

1,134,457. FUEL-FEEDING MEANS FOR AUTOMOBILE-ENGINES. WEBB JAY, Chicago, Ill. Filed Sept. 12, 1913. Serial No. 789,513. (Cl. 158—36.)



1. In combination with an explosive engine and a carbureter through which the same is supplied with liquid fuel; a main fuel supply tank located below the plane of the engine intake, a supplemental closed fuel supply receptacle extending for containing liquid above the level of such tank; a liquid supply conduit connecting the tank and said receptacle; a suction conduit communicating at one end with the upper part of the receptacle, and at the other end with the engine intake, and connected for the last mentioned communication with the passage by which the carbureter supplies the engine at a point intermediate the carbureter and the engine intake; a liquid feed connection from the receptacle to the carbureter, and automatic means for alternately admitting and excluding atmospheric pressure in the receptacle.

2. In combination with an explosive engine and a carbureter through which it is supplied with liquid fuel, a main fuel supply tank located below the carbureter; a supplemental closed fuel supply receptacle above the level of said tank; a liquid supply conduit leading from the main supply tank to said receptacle for supplying liquid thereto; a suction conduit leading from the upper part of said closed receptacle for communication with the engine intake and connected with the passage thereto from the carbureter for producing partial vacuum in said receptacle by the suction stroke of the piston in the engine cylinder, and means controlled by the level of the liquid in said receptacle for opening and closing the communication of said conduit therewith.

3. In combination with a carbureter for supplying explosive mixture to an engine cylinder, a main fuel supply tank; a closed supplemental fuel supply receptacle located in a plane above said tank and extending above the fuel supply level of the carbureter; a liquid supply conduit leading from said tank to said receptacle; a liquid feed conduit leading from the receptacle to the carbureter; a suction conduit leading from the upper part of said closed receptacle communicating with the engine intake, said suction conduit being independent of the carbureter or the air supply thereto; whereby through the last mentioned conduit the pressure in said receptacle is reduced by the suction created in the engine cylinder; a by-pass conduit connecting the liquid supply conduit with the suction conduit by-passing said receptacle, and a valve for controlling the passageway through said by-pass conduit.

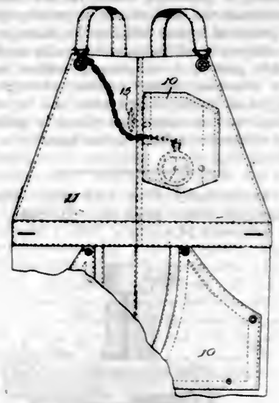
4. In combination with the carbureter of an internal combustion engine, a low-level main fuel-supply tank, a liquid conduit therefrom by which fuel is delivered to the carbureter, comprising an air-containing chamber appurtenant to the liquid passages of said conduit; a suction conduit leading from said air-containing chamber to the engine intake independent of the carbureter or any conduit supplying air thereto; whereby suction caused by the movement of the piston in the engine cylinder tends to produce a partial vacuum in said appurtenant air chamber; and valve devices by which the flow of the liquid through the first mentioned conduit is permitted only in the direction toward the carbureter.

5. In combination with the carbureter of an explosive engine through which it is supplied with liquid fuel, a main fuel-supply tank located below the level of the carbureter; a supplemental fuel receptacle extending for containing fuel above the level of said tank; liquid conducting connection from said tank to said receptacle; a liquid-conducting connection from the receptacle to the carbureter; a suction conduit leading from the upper part of said receptacle and communicating with carbureter discharge passage, intermediate the carbureter and the engine intake; means by which change in the liquid level in the receptacle opens and closes communication of the receptacle with said suction conduit, and automatic means by which the receptacle is alternately afforded and deprived of atmospheric communication above the liquid therein.

[Claim 6 not printed in the Gazette.]

1,134,458. SAFETY WATCH-POCKET. RALPH E. JONES, Manhattan, Kans. Filed July 17, 1914. Serial No. 851,599. (Cl. 2—154.)

The combination with a supporting body formed of portions having their adjacent edges secured together to provide an overlapping seam, of a safety watch pocket including a patch having its edges stitched to the body except for a relatively small portion of one edge arranged adjacent said seam, which unstitched portion constitutes the mouth of the pocket, coacting fastening devices carried by the mouth portion of the pocket and the adjacent portion of the body, the fastening device carried by the body being arranged upon one side of and immediately adjacent said seam, and a slit formed immediately adjacent the other side of the seam opposite said last mentioned fastening device and extending substantially parallel with the seam whereby the said seam will provide a relatively thick portion upon one side of said slit and between the slit and said last mentioned fastening device, whereby the wearer of the body may readily insert a



finger in said slit to bear against the base of the said last mentioned fastening device.

1,134,459. FOLDING TOOTH-BRUSH. LOESER KALINA, New York, N. Y. Filed May 4, 1914. Serial No. 836,176. (Cl. 15—39.)



1. A foldable brush, comprising a hollow handle, a brush having a short shank, a yoke held movable in the said hollow handle and in which the said shank is mounted to turn, the axis of the shank being to one side of the center line of the yoke and the handle to allow the brush to be turned into an active position and into a folding position, a clamping block held movable in the said yoke and adapted to engage the said shank, and a screw for moving the said block into and out of clamping engagement with the said short shank.

2. A foldable brush, comprising a hollow handle, a brush having a short shank, a carrier held in the said hollow handle and in which the said shank is mounted to turn, and means for fastening the shank in position in the carrier and for fastening the latter in position on the handle.

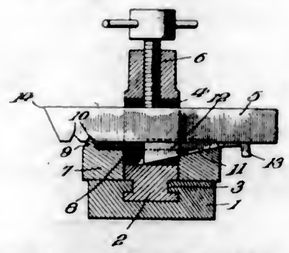
3. A foldable brush, comprising a hollow handle, a brush having a short shank, a carrier held in the said hollow handle and in which the said shank is mounted to turn, the axis of the shank being to one side of the center line of the carrier and the handle to allow the brush to be turned into an active position and into a folding position, the bristle of the brush when the latter is in active position projecting beyond one side of the handle and the bristles of the brush when the latter is in folded position registering with the opening of the handle, and a fastening and clamping device for fastening the shank in active or folded position on the carrier and for fastening the carrier to the handle.

4. A foldable brush, comprising a hollow handle open at one end and closed at the other end, a yoke in the said hollow handle, a brush having a shank mounted to turn in the said yoke, means for holding the shank against outward movement in the said yoke, and means for fastening the said shank in position in the said yoke and fastening the latter in position in the said hollow handle.

5. A foldable brush, comprising a hollow handle open at one end and closed at the other end, a yoke in the said

hollow handle, a brush having a shank mounted to turn in the said yoke, means for holding the shank against outward movement in the said yoke and provided with an annular groove, a clamping block in the said yoke and adapted to engage the said shank, a locking plate having an opening enlarged at one end for the passage of the said shank, the side walls of the opening being adapted to engage the said groove, a cup-shaped holder for the said yoke, and a clamping screw passing through a side of the handle, the said holder and yoke and screwing in the said clamping block to clamp the shank in position in the yoke and to clamp the holder to the handle.

1,134,460. TOOL-POST FOR LATHES. FREDERICK C KEHR, Hartford, Wis. Filed Nov. 21, 1914. Serial No. 873,381. (Cl. 82—37.)



1. The combination of a tool post, a tool rest fitted around the post, a tool inserted through the post and bearing directly on the rest, interengaging means on the tool rest and the tool to prevent movement of the tool through the post, and means for clamping the tool to the rest.

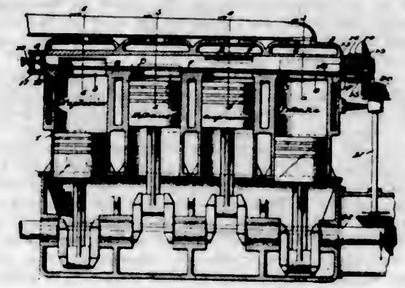
2. The combination with a tool post, of a tool rest fitted around the post and provided with a seat in its upper face at one side and a fixed projection at the opposite side, a tool bearing on the rest and extending over said seat and engaging said projection, a supporting member adjustable vertically in said seat and engaging the under side of the tool whereby to support it in a horizontal plane in any vertically adjusted position, and means acting upon the tool to clamp it against said supporting member.

3. The combination with a tool post, of a tool rest fitted around said post and having a radial groove in its upper side, said groove having a downwardly and inwardly inclined base, a wedge disposed in said groove and having its upper face disposed in a horizontal plane, a tool inserted through the post extending over the tool rest and bearing upon the same and said wedge, interengaging means on the tool and the rest to prevent longitudinal movement of the tool, and means for clamping the tool to the wedge and the tool rest.

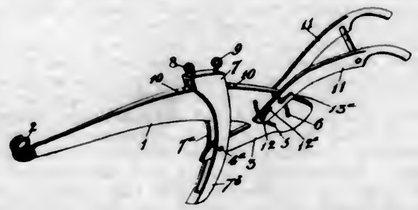
4. The combination of a tool post having a vertical slot therein, a tool rest fitted on said post and provided with a downwardly and inwardly inclined groove in its upper face and having a rib projecting upwardly from said face, a tool inserted through the slot in the post and extending over the said groove and provided in its underside with a notch adapted to engage said rib, a wedge fitted in said groove and bearing against the underside of the tool, and means carried by the post for clamping the tool to the said wedge and to the tool rest.

1,134,461. ROTARY VALVE FOR GAS-ENGINES. LEONARD C. KEMMING, Denison, Iowa. Filed June 14, 1912, Serial No. 703,723. Renewed Oct. 1, 1914. Serial No. 864,529. (Cl. 123—59.)

In an internal combustion engine, the combination of a plurality of cylinders arranged side by side, a head extending over all the cylinders and provided with a single admission port at the end of each cylinder and with inlet and outlet tubes extending transversely from its opposite sides over each cylinder and terminating immediately adjacent the admission port in the end of the cylinder, a rotary valve mounted in the said head immediately over the admission ports in the cylinders and between the inlet and outlet tubes of the same, said valve having both its ends and its entire circumferential surfaces closed to the admission of fluid and provided in its circumferential surface with spaced recesses adapted to successively register with the admission ports in the respective cylinders, tubular extensions at the ends of the head, an adjustable thrust bearing mounted in one of said tubular extensions and engaging the adjacent end of the valve, a shaft extending from the opposite end of the valve, a disk loose upon said shaft, a cap adjustably mounted on the adjacent tubular extension of the head and providing a bearing for said shaft, a spring coiled around the shaft within said extension between said cap and said disk, and valve-operating gearing connected with said shaft.

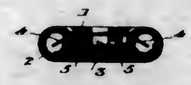


1,134,462. SHOVEL-PLOW. JAMES Z. KENDRICK, Statesboro, Ga. Filed July 17, 1912. Serial No. 710,016. (Cl. 97—26.)



The combination with the beam of a plow having shallow recesses on its top, of a stock pivoted between its ends to rock upon the beam; and a plurality of set screws at the upper end of the stock, adapted to engage the recesses in the beam to hold the stock in adjusted position relatively thereto, said set screws being inclined relatively to each other and to the beam, whereby to pull against each other to simultaneously brace the stock, one against a forward movement and the other against a backward movement, and to hold either of said screws against working loose so long as the other is tight against its bearing.

1,134,463. BALL-BEARING. OLIVER C. KNIPE, Palo Alto, Cal. Filed Oct. 31, 1912. Serial No. 728,861. (Cl. 64—59.)

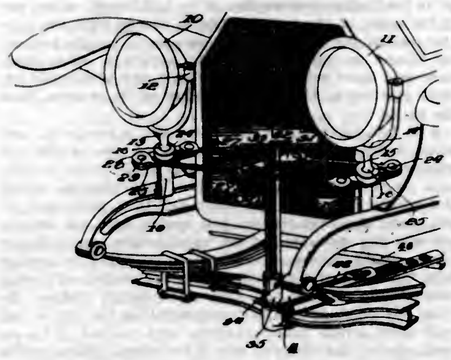


1. A ball bearing comprising two members each having a circular track for balls, a floating ball-spacer having angular tongues separating the balls from one another and other tongues locking the two members together, and a series of balls between the two members.

2. A ball bearing comprising two members both having a circular track for balls, a floating ball-spacer in close relation consisting of a ring with tongues at each side one set of tongues at an angle to separate the several balls from one another and the other set of tongues at an angle to overlap one of the members and act to lock the members together.

3. A ball bearing comprising an inner and an outer member both flanged at each side, the inner member adapted to pass through the outer member, a ball-spacer consisting of a split ring adapted to be contacted to enter one of the said flanges and having at its sides integral angular tongues, one set of tongues separating the several balls from each other and the other set of tongues overlapping the flange of a member to lock the members together.

1,134,464. STEERING MECHANISM FOR AUTOMOBILE-HEADLIGHTS. CHARLES E. KRATZER, New Vienna, Ohio. Filed Sept. 10, 1914. Serial No. 861,067. (Cl. 240—62.)



1. In dirigible headlights for vehicles, the combination with the connecting rod of a vehicle steering gear, of lamp brackets supported for turning movement, connecting means between the brackets, means carried by said connecting means and formed to receive a bar, a vertically disposed rotatable bar engaging said last mentioned means whereby turning of the bar will reciprocate the connecting means, and an operative connection between the connecting rod and bar whereby reciprocation of the connecting rod will turn the bar.

2. In dirigible head lights for vehicles, the combination with the connecting rod of the vehicle steering gear, of lamp brackets supported for turning movement, connecting means betwen the brackets, a vertically disposed rotatable bar, an operative connection between the bar and the connecting means whereby turning of the bar will reciprocate the connecting means, and an operative connection between the connecting rod and bar whereby reciprocation of the connecting rod will turn the bar, said latter means including arms rigidly secured to the bar and connecting rod and having pivotal sliding connection with each other.

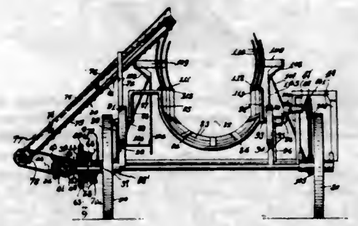
3. In dirigible head light mechanism for vehicles, the combination with the connecting rod of the steering gear, of brackets carried by the vehicle frame, lamp supporting brackets journaled in the first brackets, link plates rigidly connected to the lamp supporting brackets, rod connecting the free ends of the link plates and extending in parallel spaced relation, a connecting plate pivotally secured at its free ends to the intermediate portions of the rods and provided centrally with a slot, a bar supported in vertical position and for rotation with one end extending through the slot of the connecting plate, an operative connection between the bar and connecting rod of the steering gear whereby reciprocation of the connecting rod will turn the bar.

4. In dirigible head lights for vehicles, the combination with the connecting rod of the steering gear, of a vertically disposed bearing, a head member rotatable in the bearing and provided with a vertically disposed slot, connecting means between the rod and head member whereby reciprocation of the rod will turn the head member, a bar pivoted in the slot of the head, a plate slotted to slidably receive the upper end of the bar and be turned thereby, connecting rods pivotally secured intermediate their length to the ends of the plate, link plates pivotally connecting the adjacent free ends of the connecting rods, and lamp supporting brackets carried by the link plates to swing upon swinging of the link plates.

5. In dirigible head lights for vehicles, the combination with the connecting rod of the steering gear, of lamp brackets supported for turning movement, link plates secured intermediate their lengths to the lamp brackets to turn therewith, connecting rods pivotally connecting the free ends of the link plates, a connecting plate pivotally connecting the intermediate portions of the connecting rods, and an operative connection between the connecting plate and the connecting rod of the steering gear whereby reciprocation of the connecting rod will cause turning of the connecting plate.

[Claims 6 to 10 not printed in the Gazette.]

1,134,465. GRAIN-SHOCKER. PHILIP C. KUHL, Medicine Hat, Alberta, Canada, assignor of one-half to Francis M. Ginther, Medicine Hat, Canada. Filed Oct. 25, 1911. Serial No. 656,668. (Cl. 56—121.)



1. The combination in a shocker, of a wheeled frame, a cradle located in said frame, a shaft supporting said cradle, an axle rotatable with the wheels of said frame, a slotted arm connected to the shaft which supports the cradle, an arm extending from the axle, a pin supported by the arm and movable through the slot formed in the before mentioned arm whereby a rotary movement will be imparted to the cradle and means to intermittently move said axle supported arm carried by said axle.

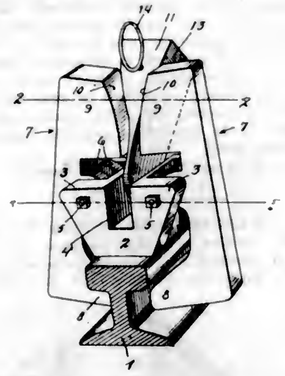
2. A shocker such as described comprising a frame, a cradle mounted in the said frame, a crank shaft supporting the cradle, cam disks keyed to the crank shafts and resting upon the frame, a slotted arm extending from the crank shaft, a pair of axles journaled in the frame, wheels carried by the axles and supporting said frame, an arm extending from one of said axles, a pin carried by the arm and engaging the slotted arm.

3. The combination in a shocker, of a frame, a cradle rotatable therein, a crank shaft supporting said cradle, cam disks keyed to the ends of the crank shaft and engaging the frame, a slotted arm extending from the crank shaft, axles journaled in said frame, wheels carried by the axles, an arm extending from one of said axles, a pin carried by the arm and engaging the slotted arm, fingers mounted upon the cradle, and means for moving the fingers to and from the cradle upon the rotation thereof.

4. The combination in a shocker, of a frame, axles journaled in said frame, wheels keyed to the axles and supporting the frame, a cradle mounted in the frame, a crank shaft supporting the cradle and engaging the frame, cam disks secured to the crank shaft and engaging the frame, a conveyer supported by the frame and extending to the cradle, a clutch mechanism carried by one of the axles for throwing the elevator and the cradle into and out of op-

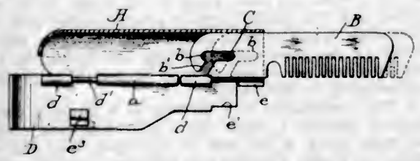
erative connection with one of said axles, a pair of bars journaled upon the edges of the cradle, fingers supported by said bars, arms extending from the fingers, cam plates engaging said arms for moving the fingers inwardly to close one side of the cradle, a slotted arm extending from the crank shaft, an arm extending from one of said axles and provided with a pin engaging the slot formed in said slotted arm and means for connecting said shocker to a harvester.

1,134,466. CAR-MOVING DEVICE. ROMAN LAFRAMBOISE, Maple Ridge, Mich. Filed June 21, 1913. Serial No. 775,029. (Cl. 57—9.)



A device of the character described, comprising a block adapted to be seated upon the tread of a rail and provided with a longitudinal slot and transverse recesses, a pair of vertically extending arms pivoted intermediate their ends within said recesses and provided upon their lower ends with jaws adapted to engage the web of the rail and provided upon their opposed inner faces adjacent their upper ends with outwardly and forwardly beveled surfaces, a block pivoted within said longitudinal slot and wedge-shaped in longitudinal and cross section for engagement with said beveled surfaces, and draft attaching means on said block whereby said block may be moved forwardly for clamping said arms upon the rail.

1,134,467. TOILET ARTICLE. ROBERT D. LEARY, Worcester, Mass. Filed Dec. 29, 1913. Serial No. 809,154. (Cl. 132—3.)



1. A toilet article provided with a longitudinally extending slot, a handle for said article embodying a casing provided in its interior with a pintle, said toilet article being cut-away for a portion of its extent between the slot and at one of its lateral edges so as to permit the pintle in the handle to enter the slot, whereupon the longitudinal shifting of the toilet article brings one of its lateral edges into engagement with the interior of the handle, while the pintle is extending through the slot, whereby said toilet article is rigidly locked against pivotal movement on the pintle.

2. A toilet article provided with a two-way slot, a handle for the article embodying a casing, a pintle within said handle, the slot in the toilet article being adapted to be passed over the pintle in the handle, and the toilet article thereafter moved longitudinally within the handle for a portion of its extent to permit a portion of one of the lateral edges of the toilet article to engage with the interior of the casing while the pintle is extending through the slot, whereby the toilet article is rigidly locked to said handle against pivotal movement in either direction.

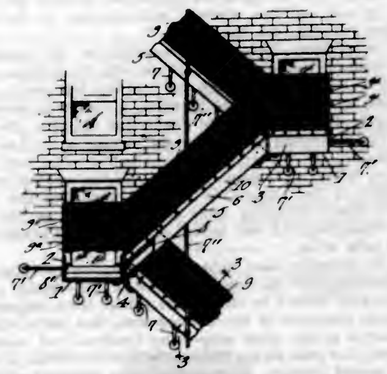
3. A toilet article having a slot, and a handle for said toilet article, which handle is provided with a pintle adapted to coöperate with the slot of the toilet article, whereby said toilet article is mounted for pivotal movement in the handle, said handle being hollow, a sliding closure for said handle, which closure, when in its closed position, serves to maintain the toilet article against pivotal movement on the pintle.

4. A toilet article provided with a two-way slot one portion of which extends longitudinally of the toilet article and the other transversely thereof, a handle for said toilet article, a pintle mounted on the handle and adapted to coöperate with the slot in the toilet article, whereby the longitudinal movement of the toilet article, with the pintle in the longitudinal portion of the slot hereof, causes one of the edges of the toilet article to engage with the interior wall of the handle for the purpose of rigidly precluding pivotal movement of the toilet article in either direction, said toilet article being shiftable to a position in angular relation to the handle to allow of its removal from the pintle.

5. A toilet article provided with a slot, a handle for said toilet article, and a pintle mounted on the handle and adapted to coöperate with the slot in the toilet article, said pintle being being mounted in such position within the handle that when the toilet article is positioned on the pintle one edge thereof will engage with the handle, whereby the movement of the toilet article longitudinally of its length causes one of its lateral edges to contact with the casing of the handle, while the pintle is extending through the slot for the purpose of rigidly locking the toilet article against pivotal movement on the pintle, and said toilet article being cut-away for a portion of its extent between the slot and one of its lateral edges, whereby it may be removed from the pintle.

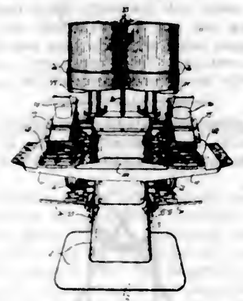
[Claims 6 to 9 not printed in the Gazette.]

1,134,468. FIRE-ESCAPE. ELIAS LEMONS, Scranton, Pa. Filed Apr. 25, 1913. Serial No. 763,686. (Cl. 227—7.)



A fire escape structure comprising a plurality of platforms arranged in staggered relation, chutes arranged in zig-zag order and having their ends hinged to the adjoining edges of the adjoining platforms, the inner ends of the platforms being extended to communicate with openings in a building, with the chutes spaced from the building.

1,134,469. CIGAR-MAKING MACHINE. WILLARD C. LIPE and JOHN W. COUGHTRY, Syracuse, N. Y.; Stella S. Coughtry administratrix of said John W. Coughtry, deceased. Filed Nov. 16, 1906. Serial No. 343,762. (Cl. 131—42.)



1. In a cigar making machine, the combination of a hopper comprising a stationary circular base having a discharge passage opening through the top and the peripheral face thereof, and a cylindrical wall having the lower portion thereof skirting the peripheral face of the base and closing the exit end of the discharge passage, said wall being revoluble about the axis of the base and having an opening in the portion thereof skirting the base, for registering with the exit end of such discharge passage, and means for rotating the cylindrical wall, substantially as described.

2. In a cigar making machine, the combination of a hopper comprising a stationary circular base having a discharge passage opening through the top and the peripheral face thereof, a cylindrical wall having the lower portion thereof skirting the peripheral face of the base and closing the exit end of the discharge passage, said wall being revoluble about the axis of the base and having an opening in the portion thereof skirting the base for registering with the exit end of such discharge passage, and an adjustable piece in the passage for regulating the size thereof, and means for rotating the cylindrical wall, substantially as described.

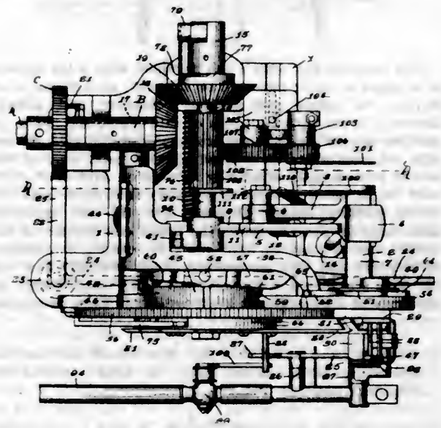
3. In a cigar making machine, the combination of a hopper comprising a stationary circular base having a discharge passage opening through the top and the peripheral face thereof, a cylindrical wall having the lower portion thereof skirting the peripheral face of the base and closing the exit end of the discharge passage, said wall being revoluble about the axis of the base and having an opening in the portion thereof skirting the base for registering with the exit end of such discharge passage, and an adjustable piece in the passage for regulating the size thereof, said piece having a face inclining downwardly and outwardly toward said lower portion of the cylindrical wall and the exit end of said passage, and means for rotating the cylindrical wall, substantially as described.

4. In a cigar making machine, the combination of a hopper comprising a stationary base having a discharge passage, a movable member for forcing material into position to move into the discharge passage, said member being journaled in the base and having a part thereof serving as a closure for the inlet of the discharge passage, and a wall revoluble with said member and closing the exit end of the discharge passage, said wall being provided with an opening for registering with said exit end, and mechanism for rotating said member and wall, substantially as described.

5. In a cigar making machine, the combination of a hopper comprising a base, a discharge passage, a movable member formed with a plurality of arms movable successively above the base and the inlet of the discharge passage in a plane intersecting a line coincident with the axis of said inlet and thereby stirring the material and forcing material into position to move into the discharge passage, one of the arms serving as a closure for the inlet, and one of the arms having a part thereof extending in the direction of its movement, toward the base and thereby tending to move the material from the base and loosen said material, and means for opening and closing the exit end of the discharge passage, and mechanism for moving said member, substantially as described.

[Claims 6 to 100 not printed in the Gazette.]

1,134,470. HEADING AND FINISHING MECHANISM FOR CIGAR-MAKING MACHINES. WILLARD C. LIPE, Syracuse, and JOHN W. COUGHTRY, deceased, Syracuse, N. Y., by Stella S. Coughtry, administratrix, Syracuse, N. Y. Original application filed Nov. 16, 1906, Serial No. 343,762. Divided and this application filed Sept 18, 1913. Serial No. 790,552. (Cl. 131—39.)



1. In a cigar-making machine, heading mechanism comprising a holder for holding the cigar stationary, a thimble for finishing the head end of the cigar having the free end of the wrapper projecting therefrom, the thimble being revoluble relatively to the holder, and having spaced apart surfaces between which the free end of the wrapper is interposed, and actuating means for revolving the thimble, substantially as and for the purpose specified.

2. In a cigar-making machine, heading mechanism comprising a holder for the cigar, a revoluble thimble for finishing the head end of the cigar having the free end of the wrapper projecting therefrom, the thimble including a plurality of separable sections, opposing surfaces of separable sections of the thimble being spaced apart for receiving between them the free end of the wrapper, and actuating means for revolving the thimble, substantially as and for the purpose specified.

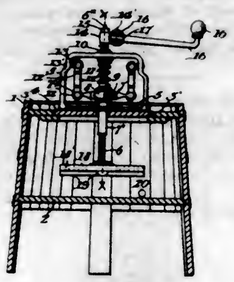
3. In a cigar-making machine, heading mechanism comprising a holder for the cigar, a revoluble thimble for finishing the head end of the cigar including a plurality of sections separable from each other for opening the thimble, and actuating means for revolving the thimble, substantially as and for the purpose set forth.

4. In a cigar-making machine, heading mechanism comprising means for holding the cigar stationary, a revoluble thimble for finishing the head end of the cigar including a plurality of sections, and actuating means including mechanism for automatically opening and closing the thimble and for revolving the thimble, substantially as and for the purpose specified.

5. In a cigar-making machine, heading mechanism comprising a holder for the cigar, a revoluble thimble for finishing the head end of the cigar including a plurality of sections, one section being movable into and out of operative position, and actuating means for revolving the thimble, substantially as and for the purpose described.

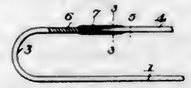
[Claims 6 to 50 not printed in the Gazette.]

1,134,471. WASHING-MACHINE. JACOB LUSTENBERGER, St. Joseph, Mo. Filed June 21, 1912. Serial No. 704,976. (Cl. 68—24.)



The combination with a tub provided with a lid thereon, of a frame securely mounted on said lid; an agitator shaft having its upper end portion rotatably and slidably mounted in the upper portion of said frame the lower end portion of said shaft being extended through said lid into said tub; an agitator secured on the lower end of said shaft; a cross-head adjustably secured on said shaft above said lid; a guide sleeve formed with said cross-head said sleeve passing loosely through said lid and encircling said shaft to laterally guide the lower end portion of said shaft; means whereby said shaft is rotated in alternate directions; and link connecting means whereby the ends of said cross-head are connected with said frame for raising and lowering said shaft when the same is rotated.

1,134,472. SAFETY-PIN. SAMUEL M. MCCONNELL, Wellsville, Ohio. Filed Sept. 5, 1912. Serial No. 718,735. (Cl. 24—161.)

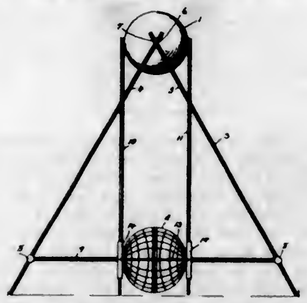


1. A safety pin having a back bar, a piercing bar and ends all of the same diameter and free from projections at all points, one of the ends of the pin being provided with a seat for the entering end of the piercing bar, and a sleeve upon the said end of the pin and slidable to position to inclose the entering end of the piercing bar and its seat, the sleeve at each end being gradually tapered exteriorly whereby its outer surface at its ends will merge with the surface of the piercing bar and the said end of the pin, the wall of the sleeve being relatively thin and the sleeve between its tapered ends being exteriorly cylindrical and of approximately the same diameter as the piercing bar.

2. A safety pin including a back bar, a piercing bar and ends all of the same diameter and free from projections at all points, one of the ends of the pin being channeled, and the other end of the pin being reduced and adapted to seat in the channel, whereby the joint formed by the meeting ends of the pin is of the same diameter as the back bar and piercing bar, and a sleeve slidable upon the pin, said sleeve being movable in a position to inclose the joint formed by the meeting ends of the pin, said sleeve being exteriorly tapered at each end, whereby its outer surface terminally merges with the surface of the piercing bar and end of the pin.

3. A safety pin having a back bar, a piercing bar and ends all of the same diameter and free from projections at all points, the piercing bar being normally disposed parallel with the back bar, said piercing bar, back bar and ends each being circular in cross section, one of the ends of the pin being provided with a seat opening into the space between the piercing bar and back bar and having its inner face inclined to conform to and adapted to bear against the pointed end of the piercing bar, and a sleeve upon the said end of the pin and slidable to a position to inclose the pointed end of the piercing bar and its seat and maintain the piercing bar and back bar in spaced parallel relation to each other, the sleeve, at each end, being gradually tapered exteriorly, whereby its outer surface, at its ends, will gradually merge into the surface of the piercing bar and the said end of the pin, the wall of the sleeve being relatively thin and the sleeve between its tapered ends being exteriorly cylindrical and of approximately the same diameter as the piercing bar.

1,134,473. ASTRONOMICAL DEMONSTRATING DEVICE. SAMUEL B. MCHENRY, Chicago, Ill. Filed Nov. 19, 1913. Serial No. 801,839. (Cl. 35—3.)

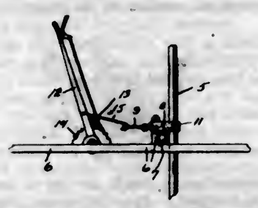


1. In a device of the character described a stationary but partially revoluble element arranged to represent the sun, a suitable frame-work to which said element is pivoted, a horizontally arranged frame-piece, an element rotatable on said horizontally arranged frame-piece and slidable thereon to represent the earth, a ring encompassing said element representing the earth and disposed in line with the poles of the element representing the earth when said element is on said horizontal frame-piece and directly under the said element representing the sun, frame-pieces connecting said two elements representing the sun and the earth and arranged tangentially to said two elements, the said ring being mounted on said tangential frame-pieces so that its position is altered with relation to the poles of the element representing the earth when said tangential frame-pieces and said element representing the earth are moved along said horizontal frame-piece bearing the said element representing the earth, substantially as described and for the purposes set forth.

2. A device of the character described comprising a sphere representing the sun, a sphere representing the earth, a suitable frame upon which the sphere representing the sun is mounted, a horizontal frame-piece upon which the sphere representing the earth is revoluble and slidable relative to the sphere representing the sun, a ring encompassing the sphere representing the earth and supported in line with the poles thereof when said sphere representing the earth is directly under the sphere representing the sun, means for connecting the two spheres together, said connecting means being two frame-pieces arranged tangentially to the two spheres and connected to said ring encompassing the sphere representing the earth to alter the position of the said ring with respect to the poles of the sphere representing the earth when said sphere is moved on the said horizontal frame-piece bearing the same.

3. A device of the character described comprising a sphere representing the sun, a sphere representing the earth, a horizontal member upon which said sphere representing the earth is rotatable and slidable relatively to the sphere representing the sun, pieces connecting the two spheres arranged tangentially thereto and means encompassing the sphere representing the earth and connected to said tangentially arranged pieces and moved thereby upon sliding movement of said sphere representing the earth on the said element bearing the same.

1,134,474. BRAKE MECHANISM. GEORGE C. MCNEIL, Ethridge, Tenn., assignor of one-half to E. C. Massey, Ethridge, Tenn. Filed July 29, 1912. Serial No. 712,168. (Cl. 74—37.)



1. In combination with a driven shaft, means for stopping the rotation of said shaft including a manually operable brake lever, a strap embracing said shaft and connected at both ends to said lever, a curved terminal portion formed on said lever and means for rocking said lever whereby to impinge said terminal portion against said strap with a resultant frictional engagement of said strap with said shaft sufficient to stop rotation of said shaft.

2. In combination with a driven shaft, a brake mechanism comprising a brake lever having one end reflexly bent, said lever being pivoted intermediate its ends adjacent said driven shaft, a strap trained about said shaft and having its ends connected with said lever upon opposite sides of said pivot point and manual means for rocking said lever to engage said reflexly bent portion against said strap with a resultant frictional engagement of said strap with said shaft.

3. In combination with a driven shaft, a brake mechanism comprising a lever pivoted intermediate its ends adjacent said shaft and adapted to swing at right angles to said shaft, a laterally curved portion formed on one end of said lever, a strap trained about said shaft and having its ends connected with said lever on opposite sides of said pivot point, a pivoted hand lever and a link connecting said hand lever with said brake lever for swinging said brake lever to force said laterally curved portion against said strap.

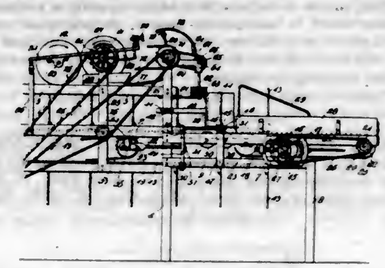
1,134,475. PIPE-COVERING. WILLIAM A. MACAN, Ridley Park, Pa., assignor to Ehret Magnesia Manufacturing Company, Valley Forge, Pa., a Corporation of Pennsylvania. Filed Apr. 4, 1913. Serial No. 758,896. (Cl. 154—44.)



As a new article of manufacture a sectional pipe covering embracing a pair of semi-cylinders of non-conductive material having a flexible jacket of fabric for binding the same together and an outer jacket of fine mesh fabric exteriorly coated with an elastic gum-like substance permanently applied to the flexible jacket at the time of manufacturing said sectional covering, the edges or flaps of said flexible jacket and said outer jacket being free for later application.

1,134,476. TOP-FLAP-SEALING MACHINE FOR SEALED CARTONS. FRANK B. MARTIN, Battle Creek, Mich., assignor to Postum Cereal Co., Limited, Battle Creek, Mich., a Partnership Association. Filed July 22, 1909. Serial No. 509,027. (Cl. 93—6.)

1. In a machine of the character described, a supporting frame, a carton carrying mechanism arranged in said frame, said mechanism comprising guiding and supporting bars, carton supporting plates, a carrying chain, a series of followers secured to said chain, supporting tracks adapted to be engaged by said followers and to support and hold said chain in operative position, a feeding mechanism arranged on each side of the machine, means whereby the cartons are alternately pushed from said feeding mechanism and into position to be engaged by the followers on said chain, a series of folding devices adapted to fold the top flaps of the cartons into closed position, and means whereby glue is applied to the flaps as the same are folded.



2. In a device of the character described, a supporting frame, a carton carrying mechanism arranged in said frame, a feeding mechanism arranged at each side of the machine whereby the cartons are fed one at a time into the path of movement of said carrying mechanism, a series of top flap folding devices, glue applying devices adapted to apply glue to the top side flaps of the cartons, a flap sealing device adapted to press the folded and glued flaps into sealing engagement with each other, a discharging mechanism whereby the sealed cartons are pushed off from the machine, and a turn table adapted to receive the sealed cartons when discharged from the machine.

3. In a machine of the character described, a supporting frame, a carton carrying mechanism arranged in said frame, a feeding mechanism adapted to feed the cartons one at a time into the path of movement of said carrying mechanism, a pair of revolubly mounted carton shaping rolls, adapted to straighten up and shape the cartons, a first end flap folding device comprising an inclined bar adapted to engage and fold down the first end flap of the carton, a second end flap folding device comprising a revolubly mounted segmental flap engaging bar, adapted to be brought into engagement with the second end flap and to hold the latter over into closed position onto the first folded end flap, glue applying rollers adapted to apply the proper quantity of glue to the side flaps of the cartons, side flap elevating devices adapted to engage and partially close the side flaps of the carton, side flap closing and folding devices adapted to successively engage first one side flap and then the other and to fold the same down into closed position, a series of sealing rollers adapted to press the glued and folded flaps into firm engagement with each other, a discharging mechanism adapted to push the sealed cartons from the machine, and a turn table to receive the cartons when thus pushed from the machine.

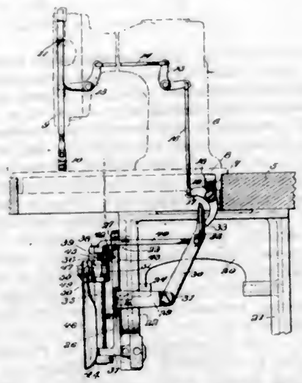
4. In a machine of the character described, a supporting frame, a carton carrying mechanism operatively arranged in said frame, a feeding mechanism comprising endless feed belts and pairs of feeding rolls adapted to receive the cartons from said belts, stop devices arranged over said feeding rolls to receive and hold the cartons fed forwardly by said rolls, a carton pushing mechanism comprising push bars adapted to be moved inwardly and outwardly over said feeding rolls whereby first one and then another carton is pushed from the opposite pairs of feeding rolls into the path of movement of the carrying mechanism, means to alternately operate said pushing mechanism, a series of top flap folding devices, and a series of glue applying devices adapted to fold and apply glue to the top flaps of the cartons while being moved along by said carrying mechanism.

5. In a top flap sealing machine for filled cartons, a series of top flap folding devices, adjustably mounted glue applying rollers, a carton feeding mechanism, said

mechanism comprising a pair of endless belts, means to operate said belts, pairs of feeding rolls to receive the cartons from said belts, carton pushing devices, said devices comprising push plates arranged over said feeding rolls, operating bars connected to said plates, operating shafts, plate reciprocating levers mounted on said shafts and loosely engaged with said operating bars, a shaft operating bar, cams operatively engaged with said bar, and means to actuate said cams whereby a reciprocating movement is alternately applied to said push plates and thereby to push the cartons from first one side and then the other of the machine into the path of movement of said carrying mechanism.

[Claims 6 to 15 not printed in the Gazette.]

1,134,477. PRESSER-FOOT-LIFTING MECHANISM. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Sept. 30, 1913. Serial No. 792,647. (Cl. 112—13.)



1. The combination with a machine part to be moved under control of knee-pressure, of an upright rotatable shaft, a knee-lever adjustably secured to said shaft, and connections to the machine part for moving the latter upon actuation of the knee-lever.

2. The combination with a machine part to be moved under control of knee-pressure, of an upright rotatable shaft, a knee-lever adjustable to any desired elevation along said shaft, and connections to the machine part for lifting the latter upon actuation of the knee-lever.

3. The combination with a machine part to be moved under control of knee-pressure, of an upright rotatable shaft, a knee-lever adjustable longitudinally of and radially to said shaft, means for securing the knee-lever to the shaft in any position of the adjustment of the former, and connections to the machine part for lifting the latter upon actuation of the knee-lever.

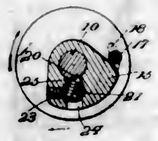
4. The combination with a presser-foot, of an upright rotatable shaft, an extensible knee-lever adjustable longitudinally of and radially to said shaft, means for securing the knee-lever to the shaft in any position of the adjustment of the former, and connections to the presser-foot for lifting the same upon actuation of the knee-lever.

5. The combination with a presser-foot, of an upright rotatable shaft, in extensible knee-lever secured to said shaft, and connections to the presser-foot for lifting the latter upon actuation of the knee-lever.

[Claims 6 to 8 not printed in the Gazette.]

1,134,478. MEANS FOR FIXING MACHINE ELEMENTS ON SHAFTS. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Sept. 30, 1913. Serial No. 792,648. (Cl. 74—8.)

1. In combination, a shaft having a seat thereon, a member to be secured to the shaft, and a securing element adapted to engage said seat and adjustably mounted upon said member to vary the angle of its position upon the member and relative to the shaft and thereby the direction of its engagement with the seat and the position in which it secures the member to the shaft.



2. In combination, a shaft having a seat thereon, a member to be secured to the shaft and a securing element adapted to engage said seat and mounted upon said member to be rotatably adjustable on an axis approximately parallel to the shaft to vary the angle of the position of the securing element relative to the shaft and the direction of its engagement with the seat and thereby the position in which it secures the member to the shaft.

3. In combination, a shaft having a seat thereon, a member to be fixed to the shaft, and a securing element adapted to engage the seat on the shaft and rotatably mounted upon said member to vary the angle of its position upon the member and relative to the shaft and thereby the direction of its engagement with the seat and the position in which the member is secured to the shaft.

4. In combination, a shaft having a seat thereon, a machine part to be fixed to the shaft, and an element having a point adapted to engage the seat on the shaft to lock the machine part to the shaft, said element being rotatably mounted upon the machine part and adapted by its rotation to change the angle of its position upon said part and relative to the shaft and the direction of engagement of the point with the seat, thereby varying the position in which the machine part is locked to the shaft.

5. In combination, two parts adapted to be locked together, and a securing element adapted to engage a seat on one part, said element being rotatably mounted upon the other part and adapted by its rotation to change the angle of its position upon the part on which it is mounted and relative to the other part and the direction of its engagement with the seat thereon to thereby lock the parts together in different positions of relative adjustment.

[Claims 6 to 8 not printed in the Gazette.]

1,134,479. DEEP-WELL PUMP. JOHN E. MILLS, Chicago, Ill. Filed Mar. 27, 1914. Serial No. 827,545. (Cl. 103—43.)

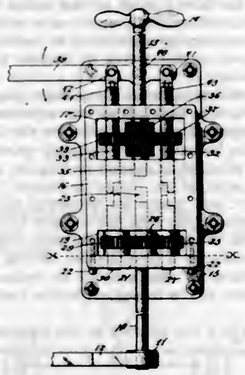


1. In a pump, the combination with a plurality of vertical shaft sections in substantially axial alinement with each other, of a tube housing said sections, and separate bearings carried by the tube and independently carrying said sections respectively; the consecutive sections being

equipped at their adjacent ends with interlocking formations for non-rotatably coupling said sections, the said formations slidably interfitting to permit relative motion of the coupled sections longitudinally of the latter to compensate for differences in the relative expansion and contraction of the tube and the shaft sections.

2. In a pump, the combination with a plurality of vertical and hollow shaft sections in substantially axial alinement with each other, of a tube housing said sections, and separate bearings carried by the tube and independently carrying said sections respectively; the consecutive sections being equipped at their adjacent ends with interlocking formations for non-rotatably coupling said sections, the said formations slidably interfitting to permit relative motion of the coupled sections longitudinally of the latter, the bores of the shaft sections being enlarged at the coupled ends of the latter; and oil tubes connecting the coupled ends of the shaft sections, each of said tubes being slidable with respect to at least one of the shaft sections coupled thereby and housed at its ends by the enlarged bores of the said shaft sections.

1,134,480. REVERSIBLE DRIVING-GEAR. MICHAEL J. MULHALL, Brooklyn, N. Y. Filed Apr. 27, 1914. Serial No. 834,558. (Cl. 74—58.)



1. A reversible transmission gearing comprising in combination a driving member, a driven member, two intermediate shafts driven in opposite directions by the driving member, two slidable shafts geared to said driven member, and means adapted to move said slidable shafts simultaneously in opposite directions so as to produce engagement of one or the other at will with its corresponding intermediate shaft, substantially as described.

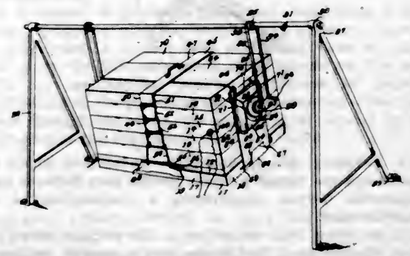
2. A reversible transmission gearing comprising in combination a driving member, a driven member, two intermediate shafts driven in opposite directions by the driving member, a long spur gear on the driven shaft, two slidable shafts each adapted to engage with a corresponding intermediate shaft, a short spur gear on each slidable shaft continually in engagement with said long gear, and means for shifting said slidable shafts in opposite directions simultaneously, substantially as described.

3. A reversible transmission gearing comprising in combination a driving member, a driven member, two intermediate shafts driven in opposite directions by the driving member, two slidable shafts geared to said driven member, both being out of engagement with their corresponding intermediate shafts when in neutral position, and means adapted to move said slidable shafts simultaneously in opposite directions so as to produce engagement of one or the other at will with its corresponding intermediate shaft, substantially as described.

4. A reversible transmission gearing comprising in combination a driving shaft, two intermediate shafts having clutch members at one end of each, gearing uniting said driving shaft with said intermediate shafts and adapted to drive the latter in opposite directions, a driven shaft, two slidable shafts having clutch members adapted to engage said first named clutch members respectively, gearing between said slidable shafts and said driven shaft and means adapted to bring either slidable shaft at will and alone into engagement with its corresponding intermediate shaft, substantially as described.

5. A reversible transmission gearing comprising in combination a casting provided with chambers at its ends and having a cover plate closing at least one of said chambers, and bearing cavities opening into said chambers; in combination with a driving shaft and intermediate shafts having bearings in the cavities at one end and passing through one of said chambers, gearing within said chamber connecting said driving shaft with said intermediate shafts for opposite revolution of the latter, a driven shaft and slidable shafts passing through the opposite chamber, gearing within said chamber connecting said last named shafts, and means for causing one of said slidable shafts at a time to engage alone with its corresponding intermediate shaft, substantially as described.

1,134,481. REVOLUBLE EGG-CRATE. OLUF OPSJON, Saltese, Mont. Filed Sept. 16, 1913. Serial No. 790,060. (Cl. 217—13.)



1. A revoluble egg crate including a plurality of separate section adapted to be assembled into a unitary structure, a flexible band for holding said sections in assembled relation, bearing cups carried by said band, a supporting frame for revolubly mounting said crate, and grooved disks carried by said supporting frame and adapted to be inserted in the said bearing cups for supporting said crate.

2. A crate including a plurality of separate sections, and means for securing said sections in assembled relation, said means including a pair of flexible elements adapted to encircle the said sections, means for detachably connecting said elements to the sections, and means carried by one of said elements for rotatably mounting said crate.

3. A revoluble egg crate including a plurality of separate sections, a flexible band for holding said sections in assembled relation, said band consisting of a plurality of freely connected elements, bearing cups carried by certain of said elements and located at the terminals of the crate, a supporting frame, and hanger members carried by the supporting frame and engageable with the bearing cups for revolubly supporting the crate.

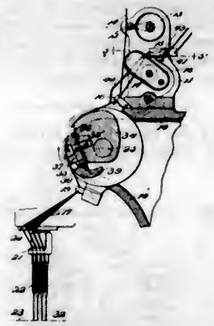
4. A revoluble egg crate including a plurality of separate sections, each of said sections including a plate member having a plurality of openings adapted to receive the terminals of eggs, a depending rim formed on the periphery of the plate, a spacing frame mounted on the plate, a retaining plate having a plurality of openings adapted to register with the openings of the body plate, said retaining plate being held in spaced relation to the body plate by the said spacing rim, means for holding the retaining plate and spacing frame in position on the said body plate, and means for holding the sections in assembled relation.

5. An egg crate including a plurality of separate sections, each of said sections including a body plate having a depending rim adapted to bear against the body plate of the next adjacent section for spacing the body plates from each other, a retaining plate, a spacing frame interposed

between the retaining plate and body plate, said retaining plate and body plate being each provided with a plurality of openings adapted to receive the egg terminals, flexible means maintaining the body plate, spacing frame and retaining plate in assembled relation to each other, and a flexible means independent of the crate and removable therefrom for holding the sections in assembled relation.

[Claim 6 not printed in the Gazette.]

1,134,482. ROTARY TAKE-UP. GARRET B. OSTERHOUT, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Sept. 30, 1913. Serial No. 792,675. (Cl. 112—26.)



1. A rotary take-up having in its surface which contacts with the thread a fixed cam-like part followed by an adjustable portion constituting a continuation of said cam-like part.

2. A rotary take-up having in its surface which acts upon the thread, a fixed section and a movable section adjustable in its position to increase or decrease the take-up action upon the thread one of said sections following the other as an approximate continuation thereof.

3. A rotary take-up having in its surface which acts upon the thread a fixed section and a movable section adjustable radially to the axis of rotation to vary its take-up action upon the thread, one of said sections following the other as an approximate continuation thereof.

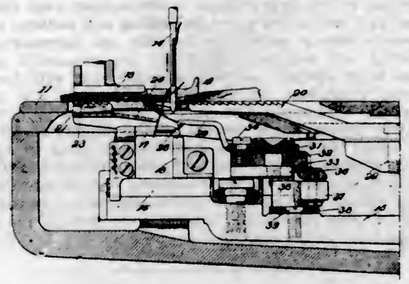
4. The combination of thread tensioning means; a rotary take-up for acting upon the thread after the latter has passed the thread tensioning means; and a take-up spring separate from the rotary take-up and acting on the thread at one side of said rotary take-up.

5. The combination of thread tensioning means; a rotary take-up for acting upon the thread after the latter has passed the thread tensioning means; and a take-up spring separate from the rotary take-up and acting on the thread at one side of said rotary take-up and adapted to take up slack thread when the rotary take-up is moving from its position of maximum action to its position of minimum action upon the thread.

1,134,483. SEWING-MACHINE. GARRET B. OSTERHOUT, Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Sept. 30, 1913. Serial No. 792,676. (Cl. 112—5.)

1. The combination with one or more loopers and means for imparting thereto loop-taking and releasing or shedding movements; of a movable loop-shedder adapted to contact loops or thread on the looper or loopers and by its movement to push said loops toward the point of the looper or loopers while the latter are making their releasing or shedding movement; and means for actuating said loop-shedder.

2. The combination with one or more loopers and means for imparting thereto loop-taking and releasing or shedding movements; of a movable loop-shedder adapted to contact and push toward the point of the looper or loopers loops of thread on the latter, and means for actuating said loop-shedder causing it to advance toward the point of the looper or loopers simultaneously with the receding or releasing movement of the latter.



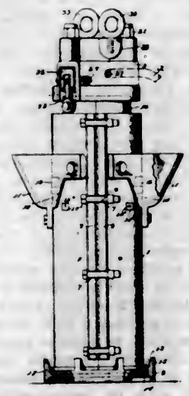
3. The combination with one or more thread-carrying needles; of one or more loopers coöperating with said needles; means for imparting to said looper or loopers movements for taking loops of the needle thread and for releasing or shedding said loops; and a movable loop-shedder and means actuating the same to contact and push toward the point of the looper or loopers loops of needle-thread thereon.

4. The combination with one or more loopers and means imparting thereto loop-taking and releasing or shedding movements approximately parallel to the line of feed; of a loop-shedder movable approximately parallel to the line of feed and adapted to contact and by its movement push toward the point of the looper or loopers loops of thread on the latter; and means for actuating said loop-shedder.

5. The combination with one or more loopers and means for imparting thereto loop-taking and releasing or shedding movements; of a feed-member having a part adapted in the movement of said member to contact and push toward the point of the looper or loopers loops of thread on the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,134,484. MOLD. WILLIAM MARSHALL PAGE, Ridley Park, Pa. Filed Feb. 8, 1911. Serial No. 607,338. (Cl. 22—146.)



1. A separable casting mold, comprising a mold body having a mold cavity therewithin, a casting orifice in the upper part of said body communicating with said cavity, fluid metal receiving means mounted on said body portion in casting relation to said orifice, a separable base adapted to register with said mold body and cover said cavity, a cover registering with said mold body and protecting said cavity against access of air, and means on said cover adapted to grip said body.

2. A separable casting mold, comprising a mold body having flanged sections, a casting orifice of relatively small dimensions near the top of said body, a hopper mounted on said body and in open communication with said casting orifice, a separable base, a cover fitting closely on said mold body and gripping means connecting said body and cover.

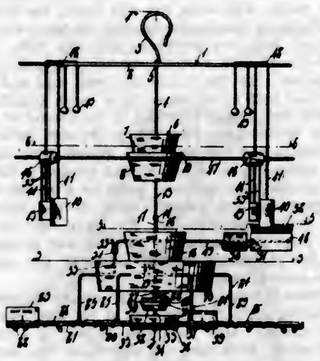
3. A billet casting mold comprising a mold body having a mold cavity and seating upon a separable base, means near the top of said mold body for receiving molten metal, a casting orifice of small size through said mold body and connecting said receiving means with the interior of the mold, a chuck adapted to seat upon and cover said mold body and protect the cavity against access of air, and means for attaching said chuck to said mold body.

4. A sectional mold for coating billets, comprising a sectional mold body seating upon a separable base, a metal receiving hopper mounted on the upper portion of said body, casting orifices in said body opening through the mold body into said hopper near the base thereof, a removable cover seating upon and gripping said mold body.

5. A sectional mold for coating billets, comprising a sectional mold body having flanged sections and seating upon a separable base, hopper-like molten metal receiving means mounted on said mold body, casting openings in said mold body connecting said receiving means with the interior of the mold, a cover for said mold body, gripping means connecting the removable top and body and gas-introducing means connected to the mold.

[Claims 6 to 18 not printed in the Gazette.]

1,134,485. POST-CARD-DISPLAY RACK. ERIC PETERSON, Lougheed, Alberta, Canada. Filed Nov. 25, 1913. Serial No. 803,003. (Cl. 40—39.)



1. A device of the class described comprising a stationary frame, a sectional hub supported by the frame, a disk revolubly supported by the lowermost section of the hub, a rack comprising concentrically arranged rings, yokes having their bight portions supported by said disk, horizontal arms carried by the yokes, said rings being supported by said arms, said rings having depressions formed therein, cards detachably engaged in said depressions, and disposed in inclined relation, thereby causing the rack to rotate when currents of air are directed against the cards.

2. A device of the class described comprising a stationary frame, a hub supported by the frame, a card supporting rack supported by the hub, and arranged to rotate therewith, a plurality of cords having their upper ends adjustably supported by the frame, tone plates connected to the lower ends of the cords, a pair of concentrically arranged rings encircling the hub, cylinders for holding the rings in spaced relation, said cylinders engaging certain of the cords, the other cords being arranged to swing freely between the rings, a sweep supported by said frame for engaging successively certain of the tone plates to swing them in contact with the other tone plates to create a musical sound during the rotation of the sweep and rack.

3. A device of the class described comprising a stationary frame, a sectional hub supported by the frame, a disk revolubly supported by the lowermost section of the hub, a card supporting rack supported by the said disk, cards supported by the rack and disposed in inclined relation, said rack comprising a plurality of concentrically arranged rings, a second sectional hub suspended beneath the said disk, the said section of the hub being revolubly connected to the uppermost section thereof, a disk supported by the lowermost section of the second named hub, and a card supporting rack carried by the last named disk and comprising concentric rings for supporting the cards at inclinations opposite to the inclinations of the first named cards, whereby when currents of air are directed against the cards the racks will rotate in opposite directions.

4. A device of the class described, comprising a stationary frame, a card supporting rack revolubly carried by said frame, a second card supporting rack revolubly carried by the first-mentioned rack, means on the said racks for maintaining post-cards thereon in angular relationship to the planes of the racks, whereby when heat arises through the racks, the same will be rotated by the impinging of the heat waves upon the cards.

1,134,486. COMPOSITION OF MATTER CONTAINING ARTIFICIAL DYE AND PROCESS OF MAKING SAME. FREDERICK REISSMANN, West Point, N. Y. Filed Feb. 6, 1914. Serial No. 816,920. (Cl. 134—26.)

1. The herein described composition of matter containing an artificial dye comprising the product of reaction of a mixture containing an oil having as a constituent a substantial amount of oil of safrol, and bichlorid of tin, dissolved in a paint thinner containing acetone.

2. The herein described composition of matter containing an artificial dye comprising the product of reaction of a mixture containing bichlorid of tin and an oil having as a constituent a substantial amount of oil of safrol.

3. The herein described composition of matter containing an artificial dye comprising the product of reaction of a mixture containing bichlorid of tin and oil of safrol.

4. The herein described composition of matter containing an artificial dye comprising the product of reaction of a mixture containing bichlorid of tin and oil of safrol, dissolved in a paint thinner containing acetone.

5. The herein described composition of matter containing an artificial dye comprising the product of reaction of a mixture containing bichlorid of tin, an oil having as a constituent a substantial amount of oil of safrol, and liquid chlorid of sulfur, dissolved in a solution of acetone, benzol and methyl alcohol.

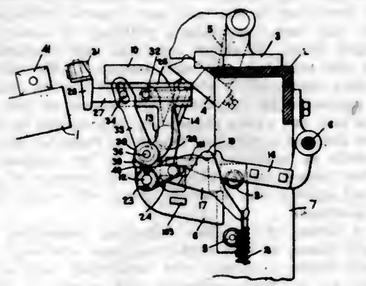
[Claims 6 to 9 not printed in the Gazette.]

1,134,487. THREAD PARTING AND HOLDING MEANS FOR LOOMS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 7, 1914. Serial No. 849,605. (Cl. 139—85.)

1. In an automatic filling replenishing loom, means for parting the running filling comprising an abrading surface located on the shuttle in the path of the filling, a member provided with a coöperating abrading surface, and means for moving said member to carry the coöperating abrading surface into the path of the abrading surface on

the shuttle to effect the parting of the filling by the cooperative action of said abrading surfaces.

2. In an automatic filling replenishing loom, means for parting the running filling comprising an abrading surface located on the shuttle in the path of the filling, a member provided with a coöperating abrading surface, and means for moving said member to carry the coöperating abrading surface into the path of the abrading surface on the shuttle to effect the parting of the filling by the coöperative action of said abrading surfaces, and means located adjacent to and movable with said member to catch and hold the parted filling end.



3. In an automatic filling replenishing loom, means for parting the running filling comprising an abrading surface located on the shuttle in the path of the filling, a member provided with a coöperating abrading surface, and means for moving said member to carry the coöperating abrading surface into the path of the abrading surface on the shuttle to effect the parting of the filling by the cooperative action of said abrading surfaces, and means located adjacent to and movable with said member to catch and hold by adherent action the parted filling end.

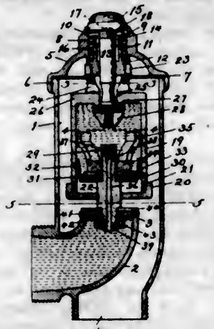
4. In an automatic filling replenishing loom, means for parting the running filling comprising an abrading surface located on the shuttle in the path of the filling, a member provided with a coöperating abrading surface, and means for moving said member to carry the coöperating abrading surface into the path of the abrading surface on the shuttle to effect the parting of the filling by the coöperative action of said abrading surfaces, and means located adjacent to and movable with said member a thread adherent surface to catch and hold the parted filling end.

5. In an automatic filling replenishing loom, means for parting the running filling comprising an abrading surface located on the shuttle in the path of the filling, a member provided with a coöperating abrading surface, means for moving said member to carry the coöperating abrading surface into the path of the abrading surface on the shuttle to effect the parting of the filling by the cooperative action of said abrading surfaces, and means located adjacent to and movable with said member presenting a fibrous thread adherent surface to catch and hold the parted filling end.

[Claims 6 to 12 not printed in the Gazette.]

1,134,488. FLUSHING-VALVE. EDRO RICHARDSON, Baltimore, Md., assignor of one-half to Thomas R. Jenkins, Jr., Baltimore, Md. Filed July 22, 1912. Serial No. 710,898. (Cl. 137—93.)

In a flushing valve the combination with a shell having an outlet in its lower end and an upturned water-inlet above said outlet, of a detachable cap at the upper end of the shell, said cap having a central depending base; a cylinder sustained by the depending base of the cap; a piston in said cylinder and having a stem whose upper end is reduced in size; and a tripod-shaped head on the reduced end of the stem and having its arms in sliding con-



tact with the interior wall of the cylinder when the piston is making its movement.

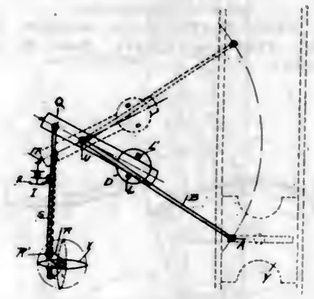
1,134,489. GRASS-CATCHER. LAWRENCE J. RIDDLE, Cheney, Wash., assignor of one-half to John E. Tormey, Cheney, Wash. Filed May 16, 1914. Serial No. 839,174. (Cl. 56—114.)



1. A grass catcher comprising a receptacle adapted for being attached to a lawn mower at the rear thereof and adjacent thereto, said receptacle having a bottom, side and rear walls, with open top and front, the bottom and rear walls being longitudinally split at the center thereof and formed into two portions, with the side, rear and bottom walls of each portion connected together and pivoted together near the top of the rear wall and the bottom portions held in alinement by a catch attached thereto, the side walls being attached to the handle of the lawn mower by arched rods attached to the side walls pivoted to the handle and the rear wall attached to the handle by a rod secured to the rear wall and pivoted to the handle, handles attached to the rear walls as a means for manually separating the two portions of the catcher and turning them upwardly in the path of the arched rods and a spring attached to the rear wall of the catcher adapted for returning the two parts of the catcher together to normal position.

2. A grass catcher comprising a receptacle adapted for being attached to a lawn mower at the rear thereof and adjacent thereto, said receptacle having a bottom, side and rear walls, with open top and front, the bottom and rear walls being longitudinally split at the center thereof and formed into two portions, with the side, rear and bottom walls of each portion connected together and pivoted together near the top of the rear wall and the bottom portions held in alinement by a catch attached thereto, the side walls being attached to the handle of the lawn mower by arched rods attached to the side walls pivoted to the handle and the rear wall attached to the handle by a rod secured to the rear wall and pivoted to the handle, handles attached to the rear wall as a means for manually separating the two portions of the catcher and turning them upwardly in the path of the arched rods and a spring attached to the rear wall of the catcher adapted for returning the two parts of the catcher together to normal position, said rod connecting the rear wall with the mower handle being adapted for adjustment to regulate the height of the rear end of the catcher.

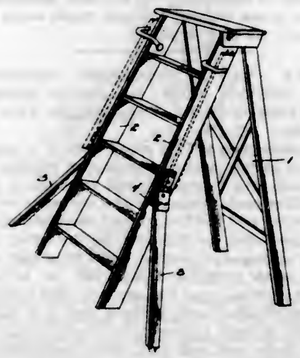
1,134,490. ELECTRICAL ARRANGEMENT FOR THE CONTROL OF THE SPEED OF SEA-ENGINES. SANTO RUMOLINO, Genoa, Italy. Filed Nov. 26, 1913. Serial No. 803,365. (Cl. 121—113.)



1. A governor for marine engines, motors and the like, comprising in combination, a cross head, a balance beam controlled by said cross head, an electrically operated means governed by said balance beam for cutting off the fluid supply of the said engine or motor.

2. A governor for marine engines, motors and the like, comprising in combination, an electric mechanism, a member constantly moved by the machine to be governed, a member connected to the throttle valve, and means operated by said electric mechanism for clutching said last mentioned member to said first mentioned member, means for throwing said electric mechanism into action by closing a circuit, said mechanism comprising an auxiliary circuit for maintaining the mechanism in operation, and means whereby said second mentioned member may open said auxiliary circuit.

1,134,491. STEP-LADDER. JOHN Y. SAVAGE, Scotland Neck, N. C. Filed June 13, 1913. Serial No. 773,511. (Cl. 228—15.)



A step ladder comprising socketed rung supporting members or side pieces, rungs and a top piece connecting the same, said sockets forming shoulders, lateral braces for the ladder, hinges secured to the rung supporting member above the socket and to the braces, said braces having their ends adapted to engage said shoulders to remove the strain from the hinges, said braces adapted to turn upwardly against the rung supporting members beneath the top piece, and means for holding the braces in elevated position against and parallel with the said members.

1,134,492. DETACHING APPARATUS FOR USE ON HYDROAEROPLANES TO PROMOTE SAFETY IN AIR NAVIGATION. WILLIAM H. SEABROOK, Jr., Savannah, Ga. Filed Sept. 2, 1914. Serial No. 859,925. (Cl. 244—21.)

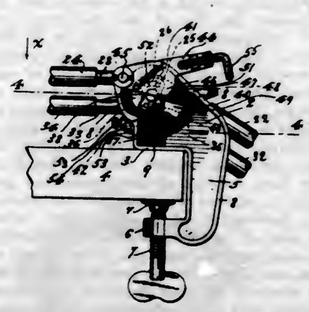


1. In a flying machine, a gas bag supporting frame provided with a plurality of openings, and aeroplane frame provided with a plurality of openings adapted to register with the openings in the gas bag supporting frame, apertured bolts passing through the registered openings, pins passing through the apertures in each of the bolts, to secure the frames together, and means for withdrawing the pins to permit of disconnection of the frames.

2. In a flying machine, a gas bag supporting frame provided with a plurality of bolt openings, an aeroplane frame provided with a plurality of bolt openings adapted to register with the openings in the gas supporting frame, a plurality of apertured bolts adapted to pass through the openings, pins passing through the apertures in said bolts to secure the frames together, a drum carried by the aeroplane frame, and means passing around said drum for withdrawing the pins from the bolts to permit of disconnection of the frames.

3. In a flying machine, a gas bag supporting frame, an aeroplane frame, apertured bolts passing through said frames, pins in the apertures of the said bolts to secure the frames together, a drum carried by the aeroplane frame, and means operated by said drum to withdraw the pins from the apertures in the bolts to permit of disconnection of the frames.

1,134,493. VALVE MECHANISM. JAMES A. SKINNER, East Orange, and HAROLD D. THOMAS, Bloomfield, N. J. Filed June 25, 1914. Serial No. 847,352. (Cl. gas-ports, a movable valve-plate provided with a connect-



1. In a device of the kind described, a stationary valve-plate provided with a pair of noncommunication air ports and a pair of noncommunication gas ports, means for supporting said stationary valve-plate, air conveying means, gas conveying means, means for connecting said air conveying means in communication with said air ports and said gas conveying means in communication with said gas-ports, a movable valve-plate provided with a connecting air channel adapted to register with said air ports to pass air from one to the other and a connecting gas channel adapted to register with said gas ports to pass gas from one to the other, and means for moving said movable valve-plate to carry into and out of such registration said respective connecting channels, comprising a pivoted lever-arm, and means between said lever-arm and said rotary valve-plate whereby the oscillation of the former rotates the latter.

2. In a device of the kind described, a frame-member, a clamp-means for securing said frame-member to a work-

bench or the like, a stationary valve-plate fixed upon said frame-member, said stationary valve-plate having a pair of non-communicating air passages and a pair of non-communicating gas passages, a rotary valve-plate registered against said stationary valve-plate, said rotary valve-plate having a connecting air channel and a connecting gas channel adapted to be moved into and out of communication respectively with said air passages and said gas passages of said stationary valve-plate by the rotation of said rotary valve-plate, a lever-arm pivoted to said frame-member, an extension connected with said lever-arm having an inwardly extending pin, a radially projecting portion connected with the rotary valve-plate having a slot to receive said pin, a stop on said frame-member adapted to limit the movement of said lever-arm to fix its normal position, a pull spring interconnecting said lever-arm with said frame-member to maintain the former in normal position, and a stop means limiting the rotary movement of said rotary valve-plate under the impulsion of said lever-arm.

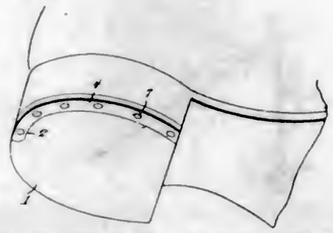
3. In a device of the kind described, a stationary valve-plate provided with a pair of non-communicating air ports and a pair of non-communicating gas ports, said stationary valve-plate having a flat smooth face at which one end of each of said respective air and gas ports terminate, a journal projecting from said stationary valve-plate, a rotary valve-plate mounted on said journal, said rotary valve-plate having a flat smooth face registering slidably against the face of said stationary valve-plate, said rotary valve-plate being provided in its face with a connecting air channel and a connecting gas channel adapted to be moved respectively into and out of registration with said air channel and a connecting gas channel adapted to be by the rotation of said rotary valve-plate, and means for rotating said rotary valve-plate.

4. In a device of the kind described, a stationary valve-plate provided with a pair of non-communicating air ports and a pair of non-communicating gas ports, said stationary valve-plate having a flat smooth face at which one end of each of said respective air and gas ports terminate, a journal projecting from said stationary valve-plate, a rotary valve-plate mounted on said journal, said rotary valve-plate having a flat smooth face registering slidably against the face of said stationary valve-plate, said rotary valve-plate being provided in its face with a connecting air channel and a connecting gas channel adapted to be moved respectively into and out of registration with said air ports and said gas ports of said stationary valve-plate by the rotation of said rotary valve-plate, said stationary valve-plate having a by-pass channel extending circumferentially from one of said ports, and said rotary valve plate having a by-pass channel extending circumferentially from one end of said connecting gas channel and adapted to register with said by-pass channel of said stationary valve-plate when said rotary valve-plate is moved to shut-off position to allow a minimum area of communication between said gas-ports of said stationary valve-plate, and means for rotating said rotary valve-plate.

5. In a device of the kind described, a stationary valve-plate provided with a pair of non-communicating air ports and a pair of non-communicating gas ports, said stationary valve-plate having a flat smooth face at which one end of each of said respective air and gas ports terminate, a journal projecting from said stationary valve-plate, a rotary valve-plate mounted on said journal, said rotary valve-plate having a flat smooth face registering slidably against the face of said stationary valve-plate, said rotary valve-plate being provided in its face with a connecting air channel and a connecting gas channel adapted to be moved respectively into and out of registration with said air ports and said gas ports of said stationary valve-plate by the rotation of said rotary valve-plate, said stationary valve-plate having a by-pass channel extending circumferentially from one of said gas ports, and said rotary valve-plate having a by-pass channel extending circumferentially from one end of said connecting gas channel and adapted to register with said by-pass channel of said stationary valve-plate when said rotary valve-plate is moved to shut-off position to allow a minimum area of communication between said gas-ports of said stationary valve-plate, and means for rotating said rotary valve-plate, comprising a pivoted lever-arm, and means between said lever-arm and said rotary valve-plate whereby the oscillation of the former rotates the latter.

[Claims 6 to 11 not printed in the Gazette.]

1,134,494. HEEL-PLATE. JACOB SOLOMON, East St. Louis, Ill. Filed Aug. 7, 1911. Serial No. 642,628. (Cl. 36—75.)



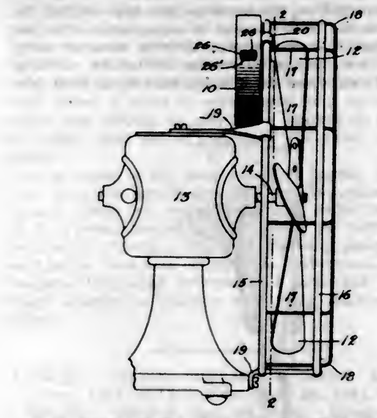
A shoe heel provided with a recess extending partly around the lower edge of its side, that wall of the recess which is in proximity to the tread of the heel being vertical, and the wall thereof which is remote from the tread of the heel, being inclined upwardly and inwardly toward the center of the heel, a heel plate arranged within the recess and disposed with its outer faces flush with the bottom and rear of the heel, its inner face being formed with a vertical shoulder engageable with the vertical wall of the recess and an upwardly inclined portion bearing on the upwardly inclined wall of the recess, said plate having nail openings formed therein, the upper portions of which ore of conical bore and extend approximately midway through the plate and terminate at one end at annular and horizontally disposed shoulders arranged substantially in transverse alinement with the outer extremity of said inclined portion of the plate and the lower portions of which are of cylindrical bore concentrically arranged with the conical bores, the said bores of each opening communicating with each other, and said cylindrical bores being arranged substantially parallel with the vertically disposed shoulders of the plate and opening upon the lower face of the plate, and nails having shank portions and heads adapted to completely fill the nail openings in the plate and the bores thereof, the said heads being adapted to engage said annular shoulders.

1,134,495. FAN ATTACHMENT. RODOLPHUS W. WALKER, Lawrence, Mass., assignor to Elizabeth S. Walker, Lawrence, Mass. Filed Jan. 22, 1914. Serial No. 813,693. (Cl. 98—44.)

1. The combination with a guard ring of a rotary fan, of a reservoir having devices arranged to embrace the top portion of such ring to support said reservoir, a plurality of wick holders each having devices arranged to embrace such ring below said devices of said reservoir, means for connecting said wick holders to hold the latter in place, and wicking arranged to conduct liquid from said reservoir to the path of air propelled by such fan, the delivery portions of said wicking being supported by said wick holders.

2. The combination with a guard ring of a rotary fan, of a plurality of wick holders each having hooks adapted to embrace such ring and each being detachable by unhooking said hooks from said ring, said wick holders being arranged at opposite sides of the center of said ring, one or more springs connecting said wick holders to keep said hooks forcibly against said ring, a reservoir, and wicking arranged to conduct liquid from said reservoir to the path of air propelled by such fan, the delivery portions of such wicking being supported by said wick holders.

3. A device of the character described comprising an open holder having two series of lacing-engaging devices, a lacing member laced back and forth from said devices of one series to those of the other series, a reservoir, and wicking interlaced with said lacing member between said series of devices and extending into said reservoir to feed liquid therefrom.



4. A device of the character described comprising an open holder having two series of wick-engaging devices, wicking engaging and held by said devices and extending from said devices of one series to those of the other series, a reservoir, and wicking interlaced with the first-mentioned wicking and extending into said reservoir to conduct liquid from the latter to the first-mentioned wicking.

5. A wick-holder consisting of two stretches of wire each having a series of bends, each of said bends being adapted to hold the bight of a looped member, the portions of wire between said bends of one of said series being offset laterally from each other to facilitate the casting of such member upon the latter bends.

1,134,496. UPRIGHT PIANO. JOHN A. WESER, New York, N. Y. Filed Mar. 22, 1913. Serial No. 756,100. (Cl. 84—25.)



An upright piano having a sounding board disposed between the front and rear sides of the case with its rear face exposed, a continuous integral top piece extending between the side walls of the case in rear of the sounding board and having flaring parallel, vertically disposed ducts formed therethrough to permit the passage of sound waves and a top hinged along the rear edge of the piano and disposed over the ends of said ducts normally.

1,134,497. JEWEL-CLUSTER SETTING. JOHN A. ABEL and EDWARD C. ABEL, Woodhaven, N. Y. Filed Aug. 28, 1914. Serial No. 859,112. (Cl. 63—28.)

1. A jewel cluster setting comprising a setting plate adapted to receive a plurality of single jewels and a frame work secured to said plate, and depending therefrom, said frame work having its sides substantially closed but provided with small openings therein to admit light and permit cleaning the jewels, said frame work tapering toward its bottom and having a small opening at the bottom to provide ventilation.



2. A jewel cluster setting comprising a setting plate having a plurality of apertures for single jewels and a frame work secured to said plate and depending therefrom, said frame work having its outer surface polished and having its sides tapering toward the bottom and substantially closed but provided with small openings therein to admit light and permit cleaning the jewels and having a small opening at the bottom to provide ventilation, said frame work when the setting is viewed from the side presenting the appearance of a diamond below the girdle.

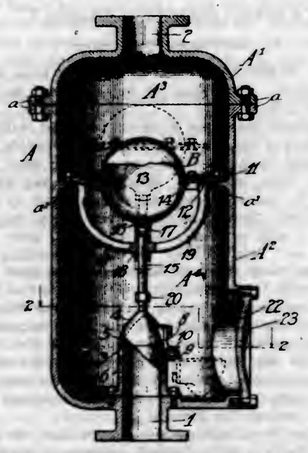
3. A jewel cluster setting comprising a disk-shaped plate having a plurality of apertures for single jewels and a frame work secured to said plate and depending therefrom, said frame work having its sides tapered and formed in substantially the shape of the facets of a diamond below the girdle and substantially closed but provided with small spaces between the plate and the frame to permit cleaning the jewels, and having a small opening at the bottom to provide ventilation.

4. A jewel cluster setting comprising a disk-shaped plate having a plurality of apertures for single jewels and a frame work of substantially inverted cone shape secured to said plate and depending therefrom, said frame work having portions removed at its upper part or the base of the cone forming openings to permit cleaning the jewels and having a small opening at the bottom or apex of the cone to provide ventilation.

5. A jewel cluster setting comprising a disk-shaped plate having a plurality of apertures for single jewels, and a frame work secured to said plate and depending therefrom, said frame work having corrugations extending from top to bottom thereof, and portions of the frame being removed from the top providing openings to admit light and permit cleaning the stones and having a small opening at the bottom to provide ventilation.

[Claims 6 to 8 not printed in the Gazette.]

1,134,498. FIRE-EXTINGUISHER. CHARLES D. ALLAN, Chicago, Ill. Filed Nov. 9, 1914. Serial No. 870,978. (Cl. 169—23.)



1. In a dry-pipe valve, the combination of a casing provided with admission and discharge openings, a valve

adapted for closing said admission opening, means for movably supporting said valve whereby water under pressure entering the casing through the admission opening thereto will move said valve into stable open position, a differential air valve a rigid part of which is adapted to bear on the valve applied to the admission opening to said casing, and means for guiding the movement of said air valve, substantially as described.

2. In a dry-pipe valve, the combination of a casing provided with admission and discharge openings, a valve adapted for closing said admission opening, means for movably supporting said valve whereby water under pressure entering the casing through the admission opening thereto will move said valve into stable open position, a differential air valve a rigid part of which is adapted to bear on the valve applied to the admission opening to said casing, means for guiding the movement of said air valve, and a float applied to said air valve for imparting buoyancy thereto, substantially as described.

3. In a dry-pipe valve, the combination of a casing provided with admission and discharge openings, a nipple which surrounds said admission opening within said casing, a valve hinged to said nipple and adapted for closing the open end thereof, the relation being such that water under pressure entering said casing through said nipple will turn said valve into stable open position, a differential air valve a rigid part of which is adapted to bear on the valve hinged to said nipple, and means for guiding the movement of said air valve, substantially as described.

4. In a dry-pipe valve, the combination of a casing provided with admission and discharge openings, a nipple which surrounds said admission opening within said casing, a valve hinged to said nipple and adapted for closing the open end thereof, the relation being such that water under pressure entering said casing through said nipple will turn said valve into stable open position, a differential air valve a rigid part of which is adapted to bear on the valve hinge to said nipple, means for guiding the movement of said air valve, and a float applied to said air valve for imparting buoyancy thereto, substantially as described.

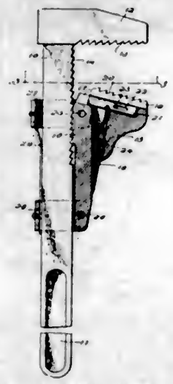
5. In a dry-pipe valve, the combination of a casing provided with admission and discharge openings, a detachable nipple which surrounds said admission opening within said casing, a valve hinged to said nipple and adapted for closing the open end thereof, the relation being such that water under pressure entering said casing through said nipple will turn said valve into stable open position, a differential air valve a rigid part of which is adapted to bear on the valve hinged to said nipple, and means for guiding the movement of said air valve, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,134,499. PIPE-WRENCH. ARMIDOS J. AUBE, Sault Ste. Marie, Mich. Filed Mar. 20, 1913. Serial No. 755,763. (Cl. 81—179.)

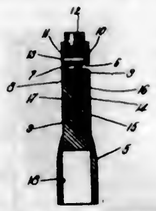
1. A wrench including a stock provided with a fixed jaw and having teeth formed thereon, a movable jaw slidably mounted upon the stock and provided with teeth adjacent the inner extremity thereof, a spring operatively connected to the movable jaw and adapted to normally hold the teeth thereof in engagement with the teeth of the stock, a grip member slidably mounted upon the movable jaw, said grip member having its working face inclined away from the working face of the fixed jaw and being movable toward said jaw to decrease the angle between the jaws, and a spring carried by the movable jaw and adapted to normally hold the grip member at the limit of its outward movement away from the fixed jaw, the movable jaw being shiftable against the tension of said first mentioned spring to disengage the teeth thereof from the teeth of the stock and simultaneously increase the angle between the jaws.

2. A wrench including a stock provided with a fixed jaw and having teeth formed thereon, a movable jaw slidably mounted upon the stock and provided with teeth adjacent the inner extremity thereof, said movable jaw being pivotally mounted adjacent its opposite extremity and operatively connected with the stock, a spring operatively connected to the movable jaw and adapted to normally hold the teeth thereof in engagement with the teeth of the stock, a grip member slidably mounted upon the movable jaw, said grip member having its working face inclined away from the working face of the fixed jaw



and being movable toward said jaw to decrease the angle between the jaws, and a spring carried by the movable jaw and adapted to normally hold saiad grip member at the limit of its outward movement away from the fixed jaw, the movable jaw being shiftable against the tension of said first mentioned spring to disengage the teeth thereof from the teeth of the stock and simultaneously increase the angle between the jaws.

1,134,500. PAPER AND TWINE CUTTER. FRANK L. ANTTILA and AUGUST I. LILIUS, Lowell, Mass. Filed Dec. 11, 1913. Serial No. 805,882. (Cl. 120—35.)



1. A device of the class described having, in combination, a holder having a groove extending transversely of one end, a stationary cutter blade movably arranged in said holder with its cutting edge projecting into said groove, a rotatable cam adapted to move said blade toward said groove, and a roller mounted to rotate in conjunction with the cutting edge of said blade.

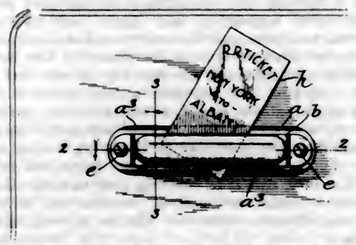
2. A device of the class described having, in combination, a holder, a stationary cutter mounted in said holder, a cam arranged beneath and adapted to move said cutter in said holder, a roller pivotally arranged in said holder with its periphery arranged to revolve in close proximity to the cutting edge of said cutter blade and in a plane containing said cutting edge, said holder having a groove extending transversely of the cutting edge of said cutter blade to a point substantially beyond the center of said roller, said groove alining with the contacting portions of said cutter blade and said roller.

3. A device of the class described having, in combination, a holder provided with a groove extending transversely thereof, a cutter blade movably arranged in said holder with its cutting edge projecting into said groove, and a cam adapted to adjust said cutter blade relatively to said groove.

4. A device of the class described having, in combination, a holder provided with a groove extending transversely thereof and a recess arranged longitudinally of said holder and opening into said groove, a cutter blade adapted to adjustably fit said recess with its cutting edge projecting into said groove, a roller arranged in said holder to rotate in conjunction with the cutting edge of said blade, a plate adapted to inclose said cutter within said recess, a screw to secure said plate to said holder, and a cam pivoted on said screw adapted to be operated to engage said cutter and move the same toward said roller.

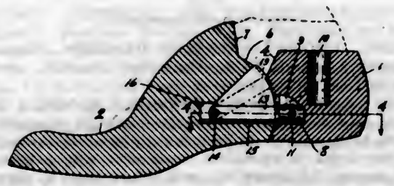
5. A device of the class described having, in combination, a holder provided with a groove extending transversely across one end, an adjustable cutter blade mounted in a recess formed in said holder, the cutting edge of said blade projecting into said groove, a plate secured to said holder over said cutter blade, and a piece of resilient material interposed between said plate and said cutter blade adapted to position said blade relatively to said roller.

1,134,501. TICKET-HOLDER. GEORGE A. BEATTIE, Jersey City, N. J. Filed May 15, 1911, Serial No. 627,319. Renewed Jan. 29, 1915. Serial No. 5,137. (Cl. 40—11.)



A ticket holder comprising a base plate having the central portions for a considerable extend longitudinally of the plate curved outwardly transversely leaving plane longitudinally extending marginal guiding portions on each side of the convex portion, said plate having its longitudinal edges bent in a direction away from the convex face of the plate, and an exterior plate of less width than the base plate having its end portions only in contact with the base plate, and the portions between said contacting portions curved throughout its central portion parallel to the convex portion of the base plate, and having longitudinal marginal portions in a plane parallel to the longitudinal guiding portions of the base plate.

1,134,502. LAST. GEORGE EDWARD BELCHER, Stoughton, Mass. Filed June 23, 1913. Serial No. 775,266. (Cl. 12—136.)



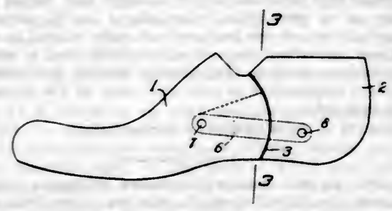
1. A last of the class described comprising a fore part and a heel part having suitable bearing therebetween, a guiding member in one of said parts having a slot vertically disposed therein, and a link pivoted at one end in said part and located within the slot of said guide and having its other end fixed in said other part, the edges of said guide extending beyond the bearing surface of said first named part, the bearing surface of said second named part being grooved to receive said projecting edges to guide the same.

2. A last of the class described comprising a fore part and a heel part having coöperating bearing faces, one of said parts having a grooved face, a channeled guiding member in the other part having its edges exposed to engage said grooves, and a connection pivoted at one end in said part and guided within the channel of said guide and having its other end fixed in said other part.

3. A last of the class described comprising a fore part and a heel part having suitable bearing surfaces therebetween, the bearing surface of one of said parts being grooved, a guide member located in the other of said parts and having its edges exposed to have continuous engagement in said grooves throughout the movement of the parts, a link pivoted in said guide at one end and fixed in the coöperating last part at its other end, and shoulders on said link engaging the exposed edges of the guide member.

4. A last of the character described comprising a fore part and a heel part having suitable bearing surfaces therebetween, a guiding member in one of said parts and having a slot vertically disposed therein, and a link pivoted in said guiding member and fitting within the slot thereof, said guiding member having its edges exposed and curved concentric with the pivot of said link, said link having shoulders slidably engaging the exposed edges of said guiding member and arranged to find continuous bearing thereon.

1,134,503. LAST. GEORGE E. BELCHER, Stoughton, Mass. Filed Jan. 24, 1914. Serial No. 814,208. (Cl. 12—136.)



1. In a last a fore part and a heel part formed from an integral block severed by a transverse cut and a facing plate attached to the face of one of said members, said plate being substantially of the thickness of the cut.

2. In a last a fore part and a heel part formed from an integral block severed by a transverse cut, and a facing plate loosely attached to the face of one of said members, said plate being substantially of the thickness of the cut.

3. In a last a fore part and a heel part formed from an integral block severed by a transverse cut, and a resilient facing plate loosely attached to the face of one of said members, said plate being substantially of the thickness of the cut.

4. A divided last comprising fore and heel parts, and a smooth, hard facing mounted on the bearing face of one of said parts to relieve the friction between the parts.

5. A last comprising a fore part and a heel part, a connection uniting said parts in movable relation and a smooth, hard facing mounted on one face of one of said last parts to relieve the friction between the parts.

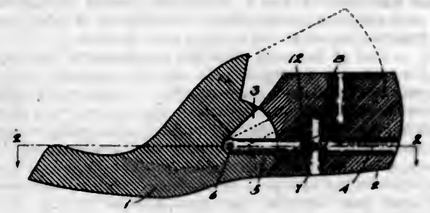
[Claims 6 and 7 not printed in the Gazette.]

1,134,504. LAST. GEORGE E. BELCHER, Stoughton, Mass. Filed Feb. 18, 1914. Serial No. 819,311. (Cl. 12—136.)

1. In a divided last comprising last parts and a union connecting said parts, an anchor for fixing one end of said union in a last part consisting of a bearing and reinforcing member removably inserted in one of the last parts and effectively disposed relative to the union, and an engaging device rotatably set up in said bearing member and operatively engaging said union at its end.

2. In a divided last comprising last parts and a union connecting said parts and having an axial bore, means for fixing one end of said union in a last part consisting of a bearing and reinforcing member removably inserted in

one of said parts and vertically arranged relative to the union, and an engaging device rotatably set up in said bearing member and threading into said axial bore in the opposed end of the union.



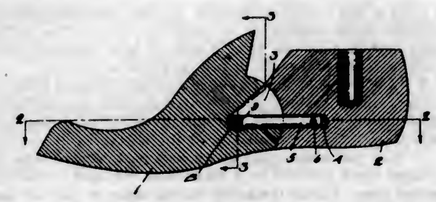
3. In a divided last comprising last parts and a union connecting said parts and having an axial bore, means for fixing one end of said union in a last part consisting of a plug in one of said last parts arranged at right angles to the union, and a screw set up in said plug and threading into said axial bore in the opposed end of the union.

4. In a divided last comprising last parts and a union connecting said parts, an anchor for drawing up on said union, comprising a bearing and reinforcing member removably inserted in one of the last parts and anchoring one end of the union, and a setting up device operatively mounted in said bearing member and having a detachable engagement with the opposed end of said union.

5. In a divided last comprising last parts and a union connecting said parts and having an axial bore, means for drawing up on said union, comprising a bearing member arranged in one of the last parts at right angles to the union and anchoring one end of the union, and a screw operatively mounted in said bearing member and having a threaded engagement in said axial bore in the opposed end of said union.

[Claims 6 to 9 not printed in the Gazette.]

1,134,505. LAST. GEORGE E. BELCHER, Stoughton, Mass. Filed Feb. 18, 1914. Serial No. 819,312. (Cl. 12—136.)



1. In a divided last comprising last parts and a union pivotally connecting said parts, and a pivot for said union comprising enlarged lateral bearings embedded in the body of the last and an intermediate union supporting portion, said intermediate portion having a removable fit in one of said enlarged bearings.

2. In a divided last, a link having a hole let therethrough near one end and having the material at each end of said hole cleared away, a transverse pin lodged in one of the last parts and extending through said hole in the link and an enlarged bearing on said pin arranged to be brought up close against both sides of said link at said cleared ends of the hole therethrough, a part of said enlarged bearing having a removable fit on said pin.

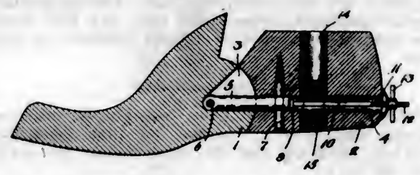
3. In a divided last, a pivotal connection comprising a link, a transverse pin lodged in one of the last parts and extending through a hole in the link, a head integral with said pin at one end and providing an enlarged bearing for said link at one side and a slidable sleeve on said pin at its opposite end and providing an enlarged bearing for said link at the other end.

4. In a divided last comprising last parts and a union pivotally connecting said parts, a transverse pin lodged in one of the last parts and extending through a hole in the union and a fixed and a movable member on said pin affording enlarged lateral bearing for said union on both sides of said hole.

5. In a divided last comprising last parts and a union pivotally connecting said parts, a transverse pin lodged in one of the last parts and extending through a hole in the union, a head integral with said pin at one end and providing an enlarged bearing for said union at one side, and a sleeve on said pin on its opposite end and providing an enlarged bearing for said union at the other end, said head and sleeve being of substantially the same diameter.

[Claims 6 and 7 not printed in the Gazette.]

1,134,506. LAST. GEORGE E. BELCHER, Stoughton, Mass. Filed Feb. 18, 1914. Serial No. 819,313. (Cl. 12—136.)



1. In a divided last including fore and heel parts, a link pivotally connecting said parts and terminating within the heel part and externally operable and detachable; means disposed beyond the plane of the last and connectible with said link for drawing up said last parts.

2. In a divided last including a fore part and a heel part having a spindle socket, a link pivotally connecting said parts, and terminating in the heel part forward of the spindle socket, said heel part having a longitudinal bore to receive an externally operable device for drawing up on said link, and a reinforcing plug in said heel part transverse of said bore and in vertical line with said socket and effective with the link to prevent splitting of the last.

3. A two part last comprising a fore part and a heel part having a spindle socket, a link pivotally connecting said parts and terminating forward of said heel socket and means for drawing up on said link.

4. A two part last comprising a fore part and a heel part and a union pivotally connecting said parts, said heel part having a spindle socket, a removable member extending longitudinally of the heel part below said socket and operatively connected with the union for drawing up on the same, and means projecting beyond the plane of the heel part and operable externally of the heel part for actuating said member.

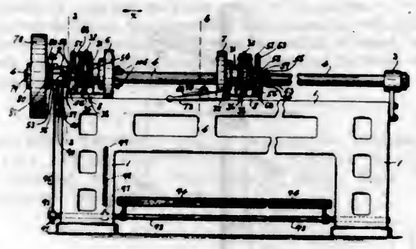
5. In a divided last including a fore part and a heel part; a union pivoted in the fore part, means fastening said union in the heel part and independent means operatively connectible with said union and effectively disposed to draw up said union.

[Claims 6 to 9 not printed in the Gazette.]

1,134,507. GROMET-INSERTING MACHINE. JOHN C. BLEVNEY, Newark, N. J. Filed Nov. 10, 1913. Serial No. 800,046. (Cl. 113—1.)

1. In a device of the class described, a die-head, a camring in said die-head, a die-carrier rotatably mounted in said die-head, a series of crimping die-members carried by said die-carrier in operative engagement with said camring, means for operating said die-carrier, a plunger mechanism associated with said die-carrier and die-head for inserting a gromet in a tube, means on the end of said plunger for supporting a gromet in operative relation thereto, and means for operating said plunger mechanism.

2. In a device of the class described, a die-head, a fixed cam-ring in said die head, said cam-ring having a series of cam-surfaces, a die-carrier mounted to oscillate in said die-head, a series of crimping die-members slidably mounted upon said die-carrier and disposed radially to the axis of said die-carrier and the tube to be operated upon, the outer ends of said die-members being slidably related to the cam-surfaces of said cam-rings, spring-means carried by said die-carrier and associated with said die-members to maintain said die-members in operative contact with said cam-ring, means for oscillating said die-carrier, a plunger-mechanism associated with said die-carrier and die-head for inserting gromets in a tube, and means for operating said plunger.



3. In a device of the class described, a pair of oppositely facing die-heads, a cam-ring in each die-head, a die-carrier rotatably mounted in each die-head, a series of crimping die-members carried by said die-carrier in operative engagement with said cam-ring, a lever-arm connected with each die-carrier, a driving shaft, cam-members provided with circumferential cam-portions mounted on said driving-shaft and operatively engaging said lever-arms, a plunger mechanism associated with each of said die-carriers and die-heads for inserting gromets in a tube, and means for operating said plunger mechanism.

4. In a device of the class described, a die-head, a crimping mechanism mounted in said die-head, a driving shaft, a cam-member provided with a circumferential cam-portion mounted on said driving-shaft adapted to operate said crimping die-mechanism, a plunger mechanism associated with said die-head for inserting gromets in a tube, and means for operating said plunger mechanism, comprising a pivotally mounted lever-member one end of which is operatively connected with said plunger-mechanism, and a lateral cam-portion connected with said cam-member of said driving-shaft and adapted to operatively engage the other end of said lever-member to oscillate the same whereby said plunger-mechanism is reciprocated.

5. In a device of the class described, a die-head, a crimping die mechanism mounted in said die-head, a driving shaft, transmission mechanism between said driving shaft and said crimping die-mechanism for operating the latter, means for inserting a gromet in a tube, and means for automatically limiting the driven rotation of said driving shaft to one revolution at a time.

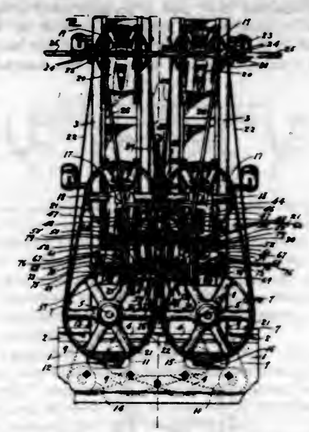
[Claims 6 to 23 not printed in the Gazette.]

1,134,508. GRINDING AND POLISHING MACHINE. JOHN C. BLEVNEY, Newark, N. J. Filed Mar. 26, 1914. Serial No. 827,284. (Cl. 51—12.)

1. In a device of the class described, an abrading means, means for feeding the work to be ground in contact therewith, means for pressing said abrading means to the work, and means for causing said pressing means to travel with the work while the latter moves in contact with said abrading means.

2. In a device of the class described, an abrading means, means for feeding the work to be ground in contact therewith, means for pressing said abrading means to the work, said pressing means having a pressing surface of substantially the same conformation and outline as the surface of the work to be ground, and means for producing simultaneous accompanying lateral movements of said pressing means and said work while respectively in contact with opposite sides of said abrading means.

3. In a device of the class described, an abrading means, means for pressing said abrading means to the work, and means for producing variable relative lateral movements of said pressing means and said work while respectively in contact with opposite sides of the abrading means.



4. In a device of the class described, an abrading means, means for feeding the work to be ground in contact therewith, means for pressing said abrading means yieldingly to the work, means for synchronously moving said pressing means into operative contact with said abrading means upon the introduction of the work to the latter, and means for producing variable relative lateral movements of said pressing means and said work while respectively in contact with opposite sides of said abrading means.

5. In a device of the kind described, abrading means adapted to engage opposite sides of a piece of work, a carrier table provided with work holding means, parallel lever members upon the free ends of which said carrier-table is suspended, means for swinging said parallel lever members toward and away from said abrading means to feed the work laterally across and in contact with said abrading means, movable means for pressing said abrading means to the work, means for holding said pressing means yieldingly against the backs of said abrading means, and means for adjustably connecting said pressing means with said parallel lever members whereby a greater or less proportional lateral movement of said pressing means relative to the lateral movement of said work is produced.

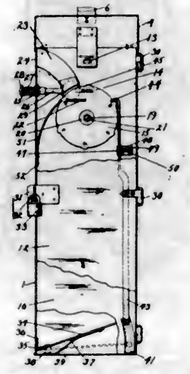
[Claims 6 to 26 not printed in the Gazette.]

1,134,509. COIN-CONTROLLED VENDING-CABINET. ELMER E. BOLING, Indianapolis, Ind. Filed May 5, 1913. Serial No. 765,659. (Cl. 194—59.)

1. In a vending cabinet, a spring-controlled ratchet-treadle adapted to be actuated by the articles to be vended as they are inserted into the cabinet; a hinged lid adapted to close said cabinet and provided with a spring locking-catch; a coin-controlled releasing mechanism comprising a ratchet-disk having teeth thereon and provided with a coin support; a coin chute to position a coin on said support; a locking lug on said ratchet-disk adjacent one of said teeth, adapted to engage said locking-catch to lock said lid; a spring-controlled plunger adapted to engage a coin on said support to actuate said ratchet-disk and thereby release said locking-catch; and a pawl-lever hingedly secured to said ratchet-treadle, adapted to actuate said ratchet-disk.

2. In a vending cabinet, a partition provided with an arc-shaped slot, dividing the cabinet into a mechanical compartment and a vending compartment adapted to hold the articles to be vended; a common lid normally closing said compartments and provided with a spring catch; means engaging said catch to lock said lid; coin-controlled means comprising a ratchet-wheel, adapted to release said lid-locking means; a hinged ratchet-treadle in said vend-

ing compartment, adapted to be actuated by the articles to be vended as they are inserted into the cabinet; a horizontal arm secured to said ratchet-treadle and operating in said arc-shaped slot; and a vertical pawl-lever in said mechanical compartment hingedly secured at its lower end to said arm and adapted to actuate said ratchet-disk when said ratchet-treadle is moved by the inserted article.

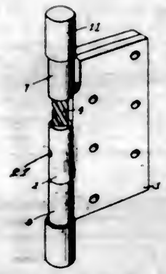


3. In a vending cabinet, a partition provided with an arc-shaped slot, dividing the cabinet into a mechanical compartment and a vending compartment adapted to hold the articles to be vended; a hinged, spring-controlled ratchet-treadle in said vending compartment adapted to be actuated by the articles to be vended as they are inserted into the cabinet; a common lid normally closing said compartments and provided with a spring catch; coin controlled releasing means comprising a ratchet-wheel adapted to engage said spring catch to lock said lid; an arm secured to said ratchet-treadle and operating in said arc-shaped slot; a pawl-lever provided with a slot near its upper end, hingedly secured to said arm and adapted to actuate said ratchet-wheel of said coin controlled releasing means; and a spring bolt secured to the cabinet adapted to guidingly engage said pawl-lever slot to cause continuous engagement of said pawl-lever with said ratchet-wheel, the arrangement of the parts being such that the article, when inserted into the vending compartment, actuates said ratchet-wheel through said ratchet-treadle and said pawl-lever.

4. In a vending cabinet, a vending compartment provided with a hinged ratchet-treadle and a laterally-contiguous mechanical compartment; a common lid provided with a spring locking-catch normally closing said two compartments; mechanism in said mechanical compartment comprising a flat ratchet-wheel provided with a locking-lug adapted to engage said locking-catch to lock said lid; a spring-controlled plunger adapted through an intervening coin, to actuate said ratchet-wheel to release said lid; a series of numerals on said ratchet-wheel and a reading slot in the side of the said mechanical compartment enabling the discernment from outside said cabinet by said numerals of the number of articles which has been vended from said cabinet from a series of articles being vended.

1,134,510. DOOR-CHECK HINGE. CHARLES H. BUSCH, New York, N. Y. Filed July 14, 1914. Serial No. 850,929. (Cl. 16—88.)

1. A device of the class described comprising a hinged plate having an outwardly extending tubular member, helical grooves within said member, a rod having helical projections thereon secured in said tubular member and projecting upwardly and downwardly therefrom, a second hinged plate having spaced tubular members mounted on said rod and having grooves therein engaging the projections thereon, a casing secured to the upper end of the uppermost of the tubular members on the second hinged plate, a spring within said casing bearing against the end of the rod, a casing secured to the lowermost of the tubular members on the second hinged plate, said rod extending into said casing and having a disk loosely mounted on the end thereof, said disk having a plurality of holes therein and a groove in its periphery, a guide extending into said groove, a tapered rod extending through one of said holes and adjustably mounted in the casing.



2. A device of the class described, a plate, a sleeve having an internal helical groove therein formed on said plate, a rod having a helical projection thereon arranged to engage the groove in the sleeve, a second plate mounted on the rod in hinged relation to the first mentioned plate, a casing on the lower end of the sleeve, means within the casing to retard the movement of the plates with relation to each other, and means for adjusting said first mentioned means.

3. A device of the class described, a plurality of hinge plates pivoted on a common rod, means on said rod for raising one plate with relation to the other during its pivotal movement, means to return the said plate to its initial position, and means for varying the stopping point of the last mentioned plate.

1,134,511. VALVE-GRINDER. GEORGE K. CARLSON, New York, N. Y. Filed Dec. 12, 1914. Serial No. 876,868. (Cl. 51—4.)

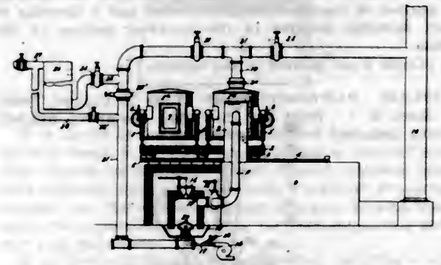


1. In a valve grinder, the combination of a frame, a spiral member mounted for oscillation therein and adapted to be operatively engaged with the valve to be ground, a reciprocating device engaging said spiral member, a hand lever pivoted at its inner end to the frame to swing up and down, and a link jointed at one end to the lever at a point between the ends of the latter, and jointed at its other end to said reciprocating device.

2. In a valve grinder, the combination of a stock, a spiral member mounted for oscillation therein and adapted to be operatively engaged with the valve to be ground, a reciprocating device engaging said spiral member, an operating lever provided at its inner end with forked parallel arms extending on opposite sides of the stock and pivoted thereto on a transverse axis, and links connecting said arms respectively with the opposite sides of the reciprocating device.

3. In a valve grinder, the combination of a tubular stock provided with longitudinal slots, upper and lower bearing blocks fixed therein, a spiral member journaled in bearings in said blocks for oscillation and adapted to be operatively engaged with the valve to be ground, a reciprocating device in the form of a slide engaging said spiral member and provided with lugs extending through said slots, and an operating member sustained by the stock and connected with said lugs.

1,134,512. PROCESS OF INCINERATING GARBAGE AND APPARATUS THEREFOR. WILLIAM M. CARR, Wheeling, W. Va. Filed Dec. 11, 1911. Serial No. 664,949. (Cl. 110—11.)



1. In the treatment of garbage, the process which comprises heating garbage in a closed receptacle to dry and distil it and to furnish a carbonized residue, gasifying the carbonized residue and burning the resulting gas in heating relationship to fresh garbage to dry and distil the same.

2. In the treatment of garbage, the process which comprises heating garbage in a closed receptacle to dry and distil it and to furnish a carbonized residue, gasifying the carbonized residue with the aid of steam evolved in the heating stage and burning the resulting gas in heating relationship to fresh garbage to dry and distil the same.

3. In the treatment of garbage, the process which comprises heating garbage in a closed receptacle to dry and distil it and to furnish a carbonized residue, gasifying the carbonized residue with the aid of steam evolved in the heating stage and burning the resulting gas in heating relationship to fresh garbage to dry and distil the same, gas resulting from the distillation being returned for admixture with gas formed in such gasifying operation.

4. In the treatment of garbage, the process which comprises drying garbage to furnish steam, passing the steam through a gas producer to furnish water gas and burning the water gas in heat-transmitting relationship to said garbage.

5. In the treatment of garbage, the process which comprises drying and heating garbage to furnish steam and combustible gas, passing the steam and gas through a producer and burning the gas from the producer in heat-transmitting relationship to said garbage.

[Claims 6 to 19 not printed in the Gazette.]

1,134,513. METAL FABRIC. NORRIS ELMORE CLARK, Plainville, Conn. Continuation of application Serial No. 480,976, filed Mar. 2, 1909. This application filed Apr. 1, 1912. Serial No. 687,596. (Cl. 72—117.)

1. An expanded metal fabric having parallel strips grooved longitudinally and forming beams, said beams having reinforcing bar portions at their apices of greater thickness than the sides of the beams and an expanded mesh-work connecting the sides of adjacent beams.

2. An expanded metal structure formed from a plate of a non-uniform section having bar portions, the sheet portions between the bars having expended sections and the bar portions being bent out of the flat plane of the sheet to form deep ribs along which the bars extend longitudinally to constitute reinforcements, substantially as described.

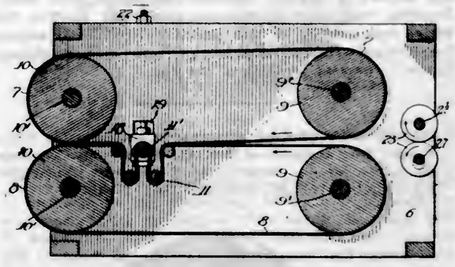


3. An expanded metal structure formed from a plate of non-uniform section having bar portions, the bar portions projecting at both sides of the flat plane of the sheet, the sheet portions between the bars having expanded sections, and the bar portions being bent out of the flat plane of the sheet to form deep ribs along which the bars extend longitudinally to form reinforcements substantially as described.

4. An expanded metal structure having expanded portions and non-expanded corrugated portions, the latter having solid longitudinally extending ribs, portions of which project at each side of the metal forming the corrugations substantially as described

5. A reinforcing fabric comprising the combination of a reticulated section of substantially uniform thickness and having comparatively small openings together with longitudinally corrugated beams integral with the reticulated section and projecting from the plane of the reticulated section, the sides of said beams adjacent their bases being spaced apart so as to form open grooves, the apices of said beams being narrower than their bases and provided with additioned reinforcing metal extending longitudinally along the apices of the beams at some distance from the plane of the reticulated section.

1,134,514. METHOD AND MEANS FOR STRIPPING FIBROUS PLANTS. JOHN P. CLULEY, Chicago, Ill. Filed May 22, 1911. Serial No. 628,882. (Cl. 13—16.)



1. In a machine for treating the stalks of fibrous plants to separate and remove the shive or woody pith from the fiber without injuring the fiber, the combination of a pair of crushing rolls to flatten the stalks, a pair of conveyer belts to receive and carry the flattened stalks therebetween, a plurality of bending rolls arranged in staggered position and adjacent relation over which the belts travel, said belts being arranged to engage the stalks as they emerge from between the flattening rolls but not to grip the stalks until after they have left the flattening rolls, and means for operating said belts at a higher rate of speed than the flattening rolls.

2. In a machine for treating the stalks of fibrous plants to separate and remove the shive or woody pith from the fiber without injuring the fiber, the combination of a pair of crushing rolls to flatten the stalks, one of said rolls being mounted to yield relative to the other roll, a pair of conveyer belts arranged to receive and carry the stalks therebetween, a plurality of bending rolls arranged in staggered position and adjacent relation over which the

belts travel in a tortuous path, said belts being separated from each other adjacent to the flattening rolls to engage the stalks while still gripped by the flattening rolls and exert a gentle pull thereon to straighten the stalks and said belts coming together to grip the stalks as they approach the first flattening roll over which they travel with the belts.

3. In a machine for treating the stalks of fibrous plants to separate and remove the shive or woody pith from the fiber without injuring the fiber, the combination of a pair of crushing rolls adapted to flatten the stalks, a pair of belts, a plurality of bending rolls over which said belts are arranged to travel in unison to bend the stalks, a pair of guiding rolls spaced apart over which said belts travel, said guiding rolls being arranged to separate the said belts adjacent the crushing rolls so that the said belts will engage the flattened stalks at their ends and draw them into straight parallel relation before the said stalks reach the bending rolls and become firmly grasped by the rolls.

4. In a machine for treating the stalks of fibrous plants to separate and remove the shive or woody pith from the fiber without injuring the fiber, the combination of a pair of crushing rolls adapted to flatten the stalks, a pair of belts, a plurality of bending rolls over which said belts are arranged to travel in unison to bend the stalks, a pair of guiding rolls spaced apart over which said belts travel, said guiding rolls being arranged to separate the said belts adjacent the crushing rolls so that the said belts will co-act with the crushing rolls by grasping the flattened stalks at their ends while the said stalks are still engaged with the crushing rolls to straighten the same and arrange them in parallel relation before they reach the bending rolls.

5. The hereindescribed method of stripping stalks of fibrous plants to separate and remove the shive or woody pith from the fiber without injuring the fiber which consists in subjecting the stalks to a flattening operation without bending the stalks, loosely engaging one end of each of the stalks while the other end is still undergoing the flattening operation, gradually gripping said loosely engaged ends and subjecting said stalks to an increasing tension whereby the stalks are straightened, arranging the stalks in separate parallel relation to each other, breaking the flattened pith by alternately bending the stalks continuously in both directions from their normal longitudinal axes, the bends being circular arcs of sufficient radius to prevent breaking of the fiber.

1,134,515. MOTOR-CAP. JAMES A. COHOON, Jr., Creve Coeur, Mo., assignor to AuToGo Motor Cap Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 30, 1913. Serial No. 809,502. (Cl. 2—106.)



1. A convertible cap including a crown and visor, the forward portion of the crown adjacent the visor having an opening, a transparent member covering the opening, portions of the visor and transparent member being cut-away, and a covering of soft material inserted in the cut-away portions of the transparent member and visor.

2. A convertible cap including a crown and visor, the crown being expansible whereby the cap may be drawn down over the wearer's face, the visor being cut-away to fit about the nose of the wearer when the cap is so worn, a nose covering inserted in the visor, the crown being provided with a sight opening, and a transparent member covering the sight opening.

3. A convertible cap including a crown having an opening in its lower forward portion and a series of ventilating openings at either side of the first opening, and a transparent member covering the first opening.

4. A convertible cap including a crown and visor, the crown being expansible, whereby the cap may be drawn down over the wearer's face, the visor being cut-away to fit about the nose of the wearer when the cap is so worn, and a nose covering inserted in the visor.

5. A convertible cap including a crown and visor, the forward portion of the crown adjacent the visor having an opening, a transparent member covering the opening, a portion of the visor being cut-away, and a covering of soft material inserted in the cut-away portion of the visor.

[Claim 6 not printed in the Gazette.]

1,134,516. PAWL-ACTUATOR. JOHN T. CORLEY, Providence, R. I. Filed Jan. 20, 1914. Serial No. 813,342. (Cl. 74—39.)



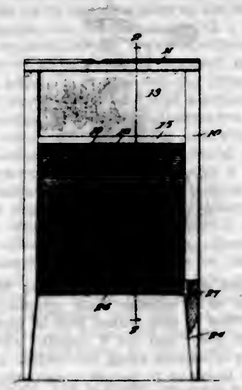
1. The combination with an operating lever of an upwardly extending actuating handle provided with a forked portion to straddle the lever and pivotally connected thereto, a spring-carrier connected with said forked portion, and a spring in said carrier, one end of said spring bearing against one edge of said lever, the other end bearing against an abutment in said carrier.

2. The combination with an operating lever of an upwardly extending actuating handle provided with a forked portion to straddle the lever and pivotally connected thereto, a spring-carrier connected with said forked portion, said carrier having longitudinal slots to receive said lever, and a spring in said carrier, one end of said spring bearing against one edge of said lever, the other end bearing against an abutment in said carrier.

3. The combination with an operating lever, of an upwardly extending actuating handle provided with a forked portion to straddle the lever and pivotally connected thereto, a spring carrier connected with said forked portion, said carrier being open at one end and closed at the other end, the open end portion being slotted to receive said lever, and a spring in said carrier, one end of the spring bearing against one edge of the lever, the other end bearing against the closed end of said carrier.

1,134,517. WASHBOARD. HAROLD T. DAHLY, Minneapolis, Minn., assignor to Severina Dahly, Minneapolis, Minn. Filed Dec. 17, 1914. Serial No. 877,774. (Cl. 68—29.)

1. A device of the character described including a supporting frame having side members channeled to receive a working element, a working element fitting in said channels, the said working element including truss members engaging the frame, and a resilient supporting member extending between said side members at one end of the working element and engaged by said truss members, the said supporting member being bowed to engage the working element.



2. A device of the character described including a supporting frame, a working element including channel members carried by the frame, said channel members being each provided with a concave seat, a resilient supporting member for the working element engaging in said seats, and a truss member connecting the said supporting member with the frame.

3. A device of the character described including a supporting frame, a working element carried thereby and including channel members, a resilient supporting member for the working element arranged at one end thereof at adjacent extremities of the channel members, and a truss member connected at one extremity to the frame and at its opposite extremity to said supporting member for maintaining the said supporting member flexed into engagement with the said channel members whereby said supporting member provides a yieldable abutment for the working element.

4. A device of the character described including a supporting frame, a working element carried thereby, a resilient supporting member for the working element, and a truss member connecting the supporting member with the frame whereby the supporting member is bowed intermediate its ends to engage the working element.

5. A device of the character described including a supporting frame, a working element carried thereby and including channel members, said channel members being each formed at one extremity with lugs bent to provide a concave sat, a resilient supporting member for the working element, and a truss member connecting the frame and supporting member whereby the supporting member is bowed to engage in said seats.

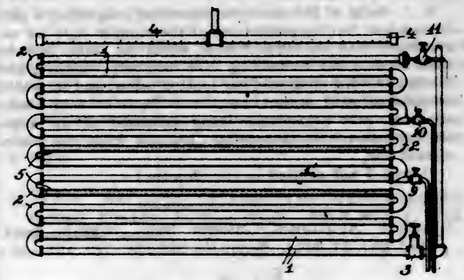
[Claim 6 not printed in the Gazette.]

1,134,518. CONDENSER. ABRAHAM DAY, Bloomfield, N. J., assignor of one-fourth to Alfred R. Hopkins, Montclair, N. J. Filed Feb. 3, 1914. Serial No. 816,205. (Cl. 257—40.)

1. In a condenser, an elongated heat conducting container, means for exteriorly cooling the same, and means in said container for directing the uncondensed gas toward the bottom thereof to bring it into intimate contact with any liquid present therein, substantially as set forth.

2. In a condenser, an elongated heat conducting container, a means for exteriorly cooling the same, and a plurality of means in said container spaced apart from one another for directing the uncondensed gas toward the bottom thereof to bring it into intimate contact with any liquid present therein, substantially as set forth.

3. In a condenser, an elongated heat conducting container comprising one or more upwardly directed portions past which material passing through said container must rise, and means adjacent to said upwardly directed portions for leading the uncondensed gas downward into contact with any liquid present therein, substantially as set forth.

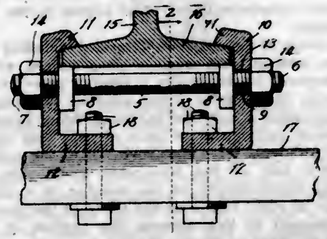


4. In a condenser, a pipe coil, cooling means therefor, and means at separated places in said coil for leading uncondensed gas downwardly to the neighborhood of the lower part of the pipe coil into intimate contact with the condensed liquid therein, substantially as set forth.

5. In a condenser, a pipe coil comprising return bends and intermediate pipe lengths placed one above another, and means in one or more of said pipe lengths for leading the uncondensed gas downwardly to the neighborhood of the lowest part of the pipe coil into intimate contact with the condensed liquid therein, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,134,519. SUSPENSION-CLAMP. CHARLES W. DIETRICH, Chicago, Ill. Filed Sept. 8, 1914. Serial No. 860,769. (Cl. 248—32.)



1. A clamp of the character described comprising a pair of members having projections at their upper ends for engagement with the support from which the clamp is to be suspended, a bar connecting said members together, and members on said bar located below, and spaced from said projections, said last-named members being adjustable about said bar for varying the distance between said last-named members and said projections.

2. A clamp of the character described comprising a pair of members having projections at their upper ends for engagement with a support from which the clamp is to be suspended, a bar connecting said members together, and blocks supported on said bar below said projections and in spaced relation thereto, said blocks being adjustable about said bar and provided with a plurality of surfaces at varying distances from the center of said bar.

3. A clamp of the character described comprising a pair of members having projections at their upper ends for engagement with the support from which the clamp is to be suspended, a bar connecting said members together, and blocks having sides disposed at angles to each other, located below, and in spaced relation to said projections, said sides being at varying distances from the center of said bar.

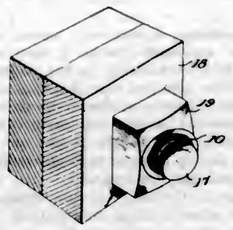
4. A clamp of the character described comprising a pair of members having projections at their upper ends for en-

gagement with the support from which the clamp is to be suspended, a bar connecting said members together, and blocks threaded on said bar located below, and spaced from, said projections, the surfaces on said blocks opposing said projections being arranged at varying distances from the center of said bar.

5. A clamp of the character described comprising a pair of members having projections at their upper ends for engagement with the support from which the clamp is to be suspended, a bar connecting said members together, and blocks threaded upon said bar located below, and in spaced relation to, said projections, the surfaces on said blocks opposing said projections being arranged at an angle to each other and at varying distances from the center of said bar.

[Claim 6 not printed in the Gazette.]

1,134,520. NUT-LOCK. MARTIN DYBA, Oakdale, Iowa. Filed Mar. 21, 1914. Serial No. 826,263. (Cl. 151—30.)



1. A device of the character described including a member formed with opposed wedging faces adapted to engage the threads of a bolt, said faces converging longitudinally of the member toward opposite ends thereof and in a plane with the member and diverging upon each side of the transverse medial line of the member longitudinally thereof in a plane substantially at right angles to the plane of the member.

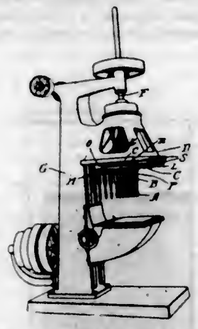
2. A device of the character described including a pliable elliptical member, said member being formed with oppositely disposed longitudinally extending transversely beveled faces, the member being adapted for longitudinal movement upon a bolt and having wedging faces formed at adjacent extremities of each of said first mentioned faces, the wedging faces upon each side of the member and upon each side of the transverse medial line thereof diverging longitudinally of the member in a plane substantially at right angles to the plane of the member and being disposed to lock between the threads of the bolt upon longitudinal movement of the member thereon.

3. A device of the character described including a ring member formed with opposed working faces adapted to engage the threads of a bolt, the angle between said working faces increasing from the medial point to the ends thereof and thus forming said working faces into a wedge longitudinally thereof at each side of said medial point.

1,134,521. MULTIPLE DRILL. JAMES A. EDEN, Jr., Springfield, Mass., assignor to Baush Machine Tool Company, a Corporation of Massachusetts. Filed Oct. 29, 1913. Serial No. 797,973. (Cl. 77—24.)

1. A multiple drill machine including in combination a head frame, drill spindles and spindle-carrying arms adjustably carried by said frame, each of said arms having a clamp at the inner end adapted to be released to permit longitudinal adjustment of the spindle and to be tightened to clamp the spindle in a desired longitudinal position, the center of the spindle being in the longitudinal central line of the arm, and means at the outer end of the arm for operating said clamp.

2. A multiple drill machine including in combination a head frame and spindle-carrying arms having one plane side and one side carying a laterally-projecting portion of a clamping device, said arms being reversible on said frame so as to permit the bringing together of the plane sides of two adjacent arms.

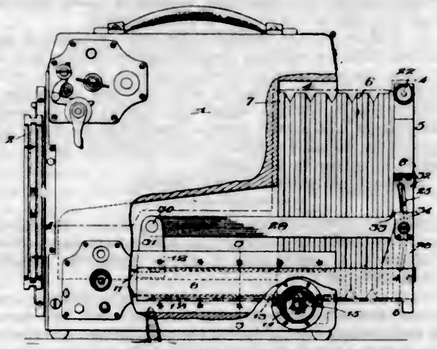


3. A multiple drill machine including in combination a head frame, drill spindles and spindle-carrying arms adjustably carried by said frame, each of said arms having a clamp at its inner end for a spindle, said clamp comprising a strap extending along the outside of the arm and adapted to be loosened to permit longitudinal adjustment of the spindle and to be tightened to clamp the spindle in a desired longitudinal position.

4. A multiple drill machine including a head frame, drill spindles and spindle-carrying arms adjustably carried by said frame, each of said arms having a clamp at its inner end comprising a strap O of thin flexible metal embracing the spindle and adjusting means at the outer end of the arm engaging a free end of said strap.

5. A multiple drill machine including a head frame, drill spindles and spindle-carrying arms adjustably carried by said frame, each of said arms having a clamp at its inner end comprising a strap O of thin flexible metal fastened at one end to one side of said arm and embracing said spindle and having a free end, an adjusting bolt P lying within a groove at the other side of the arm and attached to the free end of said strap and an adjusting nut on the outer end of said bolt.

1,134,522. CAMERA-FRONT. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 1, 1912. Serial No. 729,066. (Cl. 95—51.)



1. In a camera, the combination with a box or body, a front and an extensible support for the latter relatively to which the front is adapted to be raised and lowered, of a rearwardly extending radius arm connected to the front at one end and having its other end pivoted to a rearward extension of the support.

2. In a camera, the combination with a box or body, a front, a bellows connecting said parts, an extensible support for the front comprising a pair of laterally arranged rack bars between which the front is adapted to be adjusted vertically and driving means on the body coöperating with the rack bars to cause their projection or retraction, of a pair of radius arms connected to the front at their forward ends and having their rearward ends pivoted at rearward points to the respective rack bars so that said arms lie on opposite sides of the bellows.

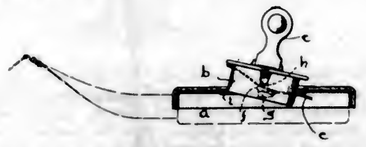
3. In a camera, the combination with a box or body, a front and a support for the latter relatively to which the front is adapted to be adjusted to raised or lowered positions, of an adjusting means for the front comprising a vertical lead screw on one part and a swiveled nut on the other coöperating therewith, and a rearwardly extending radius arm connected to the front and pivoted to one of said first mentioned parts at a rearward point.

4. In a camera, the combination with a box or body, a front comprising a frame having a hollow side rail provided with a segmental slot and a support for the front relatively to which the latter is adapted to be adjusted to raised or lowered positions, of an adjusting means for the front comprising a swiveled nut on the support projecting through the segmental slot into the hollow side rail of the front and a lead screw arranged in said hollow side rail and coöperating with the nut, and a rearwardly extending radius bar connected rigidly to the front and pivoted at a rearward point to one of said first mentioned parts.

5. In a camera, the combination with a support and a front adjustable vertically thereon and comprising a frame having a hollow side rail provided with a lateral slot, of an adjusting means for the front comprising a lead screw arranged in the hollow rail and a nut on the support projecting through the slot in said rail and coöperating with the lead screw.

[Claims 6 and 7 not printed in the Gazette.]

1,134,523. TAPE-MEASURE. FRANK F. FORSHEE, Flint, Mich., assignor of one-half to Alfred E. Shephard, Flint, Mich. Filed Apr. 9, 1914. Serial No. 830,639. (Cl. 242—84.8.)



1. In a measuring tape, the combination of a tape case provided with a side wall having a central opening, a tape drum journaled in said central opening, a bearing member in the form of a leaf spring, and a screw for holding the said bearing member to the tape drum and altering its relation therewith to vary the friction of the leaf spring where it wipes the side wall of the case.

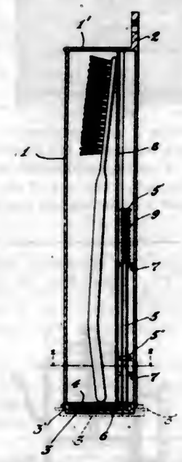
2. In a tape measure, the combination of a tape case provided with a side wall having a central opening, a drum journaled therein and provided with openings at each side, a bearing member in the form of a leaf spring that crosses said tape drum and has ends protruding through the openings in the sides of the drum and beyond the tape drum to wipe the interior of the side wall of the tape case, a nut held in non-rotative position upon said bearing member, and a screw passing through the end of the drum and through the nut for tightening the relation of the leaf spring to the side wall of the tape case.

3. In a tape measure, the combination of a tape case provided with a side wall having a central opening, a tape drum journaled therein, and provided with openings in the side thereof, a bowed leaf spring having its ends passing through the opening so as to wipe the inside of the side wall of the tape case, the said mid portion of the leaf spring having a pair of ears turned up and a nut held in non-rotative position between said ears, a screw passed through the end wall of the drum, the leaf spring and nut, the last of which is threaded upon the screw.

4. In a tape measure the combination of a tape case, a tape drum journaled therein, a spring attached to one of the first mentioned two members on the inside of the tape drum and adapted to wipe the other member continuously during the rotation of the drum and means for fixing the adjustment of the said spring to make it bear more tightly or less tightly against the member that it wipes.

5. In a tape measure, the combination of a tape case, a tape drum journaled therein, a leaf spring attached to one of said first-mentioned members on the inside of the tape case and wiping the other member continuously during the rotation of the drum, a screw for attaching said leaf spring to the member that holds it and for adjusting the bearing of the leaf spring against the member that it wipes.

1,134,524. RECEPTACLE AND CLOSURE THEREFOR. ERNEST FOWLER, Seattle, Wash. Filed May 1, 1913. Serial No. 764,887. (Cl. 220—15.)



As an article of manufacture, a receptacle body opened at its lower end and having a partition extending substantially the length of the body to provide a pair of compartments, ears struck from the partition thereby providing apertures in the latter establishing communication between the compartments of the receptacle body, a closure for the opened end of the body formed in its inner face with a recess adapted to hold a disinfectant and normally being in communication with both of the compartments of the receptacle body, a pivot pin slidable in the ears and connected to the closure for supporting the latter.

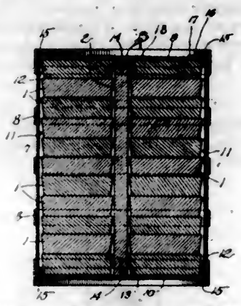
1,134,525. TRANSPORTATION-CASE. HUGH C. GALLAGHER, Milton, Mass. Filed June 10, 1914. Serial No. 844,373. (Cl. 206—65.)

1. In a case having a removable end; a standard fixed within the case and secured to the removable end, as by a nail; and a label pasted over the head of the nail, to prevent a removal of the end without an obvious mutilation of the label.

2. In a case with removable top and bottom; a standard removably secured, as by a nail, to the bottom of the case, in the longitudinal axis of the case; the top or cover being removably secured to the opposite end of the abutting standard, as by a nail; and a label pasted over the head of each nail securing the standard to the top or bottom of the case; to prevent a removal of the top or bottom of the case without an obvious mutilation of the label.

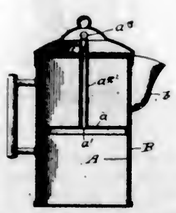
3. A case with removable top and bottom; a standard removably secured, as by a nail, to the bottom of the case in the longitudinal axis of the case; and designed to retain securely, a series of separate rings of chocolate, the

outside and the inside diameter of each ring being slightly less than that of the case, and greater than that of the standard, respectively; said rings to be stacked within the case, on the standard, and filling the case; a top or cover removably secured to the opposite end of the abutting standard, as by a nail; and a label pasted over the head of each nail securing the standard to the top or bottom of the case; to prevent a removal of the top or bottom of the case without an obvious mutilation of the label.



4. In a case having a removable end; a standard fixed within the case, and secured to the removable end, as by a nail; and a slip of suitable material covering the head of the nail, and secured to the end of the case; to prevent a removal of the end without an obvious mutilation of the slip.

1,134,526. DEVICE FOR MAKING COFFEE. HUBERT GALT, Chicago, Ill. Filed Dec. 6, 1913. Serial No. 804,983. (Cl. 53—3.)



1. In a device of the class described, a pot, a hollow barrel within said pot and having open upper and lower ends, the lower end terminating near the bottom of the pot, a sieve in said barrel dividing it into upper steeping and lower air chambers and having a vent opening, and means in the upper chamber of the barrel to control the vent opening in the sieve to allow the air to escape from the air chamber.

2. In a device of the class described, a pot, a hollow cylindrical barrel removably fitting within said pot and having open upper and lower ends, a sieve in said barrel dividing it into upper steeping and lower air chambers and having a vent opening, a vent pipe whose lower end is carried by the sieve and communicates with the vent opening and whose upper end terminates near the top line of the barrel, and a plug for the free end of said pipe.

3. In a device of the class described, a pot, an open-end barrel in the pot and having a sieve extending across its body between its ends to divide it into an upper steeping chamber and a lower air chamber, the barrel below the sieve extending to near the bottom of the pot to provide a liquid seal for the lower end of the barrel to prevent the escape of air from the air chamber when the sieve is covered with liquid, whereby the liquid contents of the upper portion of the barrel are sustained above the sieve.

4. In a device of the class described, a pot, a removable sieve dividing the interior of the pot into an upper steeping chamber and a lower air chamber, means to seal the lower chamber against the escape of air when the sieve is covered with liquid in the upper chamber, a vent pipe carried by the sieve and extending above it to near the top of the upper chamber, and means to open and close the vent pipe to allow the air in the air chamber to escape.

1,134,527. INDURATED ALBUMEN COMPOUND. BYRON B. GOLDSMITH, New York, N. Y. Original application filed Oct. 7, 1907, Serial No. 396,189. Divided and this application filed Mar. 2, 1912. Serial No. 681,306. (Cl. 106—38.)

1. The process of producing a thermoplastic compound which consists in subjecting blood and egg albumen to the combined action of a converting agent and an indurating agent, and mixing the mass while heated to a suitable temperature, substantially as described.

2. The process of producing a thermoplastic compound which consists in subjecting blood and egg albumen to the combined action of a normally solid, non-volatile converting agent and an indurating agent and heating and pressing the mass, substantially as described.

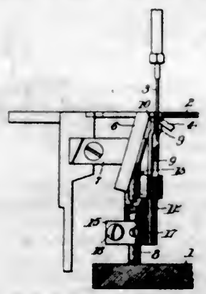
3. The process of producing a thermoplastic compound which consists in subjecting blood and egg albumen to the combined action of beta-naphthol and formaldehyde and heating and pressing the mass, substantially as described.

4. The process of producing a thermoplastic compound which consists in intimately mixing with blood and egg albumen a solid converting agent and an indurating agent, and subjecting the mixture to heat and pressure, substantially as described.

5. The process of producing a thermoplastic compound which consists in subjecting blood and egg albumen to the modifying action of a solid converting agent and of an indurating agent, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,134,528. SEWING-MACHINE. OSCAR F. HANSEN, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 14, 1907. Serial No. 373,536. (Cl. 112—29.)



1. A sewing machine including in combination a work support, a needle, a threaded looper coöperating with the needle beneath the work support, a thread-engaging implement coöperating with the looper and with the needle above the work support, and means for housing the needle point beneath the work support while passing the threaded looper, said means also serving to insure the shedding of the needle loop from the looper.

2. A sewing machine including in combination a work support, a needle, a threaded looper coöperating with said needle beneath the work support, a thread-engaging implement coöperating with said threaded looper, and with the needle above the work support, and a thread guard located beneath the work support and having a groove in line with the needle hole whereby said guard partially encircles said needle and protects the point of the needle from engaging the needle loop on the looper while the needle point is passing the looper, said guard also serving to insure the shedding of the needle from the looper.

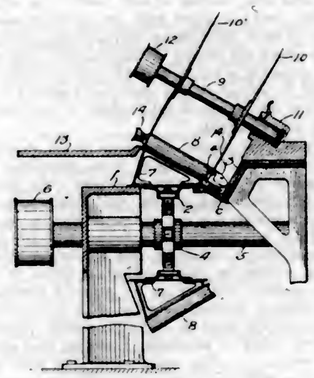
3. A sewing machine including in combination a work support, a needle, a threaded looper coöperating with said needle beneath the work support, a threaded looper adapted to enter the loop of the first named looper thread and coöperating with the needle above the work support, and means for housing the needle point beneath the work support while passing the threaded looper.

4. A sewing machine including in combination a work support, a needle, a looper coöperating therewith, a supporting member, a thread guard adjustably mounted on said supporting member and means for vertically adjusting said supporting member.

5. A sewing machine including in combination a bed plate, a work support, a supporting member carried by said bed-plate and a thread guard carried by said supporting member and engaging the work support at a point adjacent the needle opening.

[Claims 6 to 12 not printed in the Gazette.]

1,134,529. APPARATUS FOR CLEANING FISH. AUGUST HAUBER, Hayward, Cal., assignor to F. E. Booth, San Francisco, Cal. Filed July 14, 1914. Serial No. 850,853. (Cl. 17—10.)



1. An apparatus for the described purpose, the same comprising means for cutting the fish for obtaining access to the interior of the same, means for withdrawing the entrails through such cut portion of the fish, and mechanism for presenting the fish successively to said cutting and suction means.

2. An apparatus for the described purpose, the same comprising an endless carrier, spaced holders carried thereby of less length than the fish, means within the path of the carrier for severing the tail and head from the fish within the holder, and suction means within the line of travel of the carrier for withdrawing the entrails through the severed head portion of the fish.

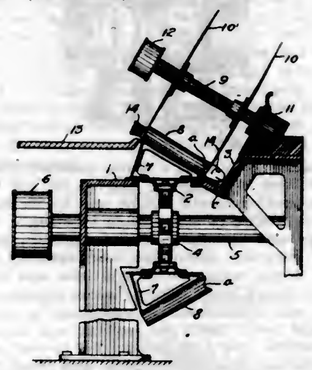
3. An apparatus for the described purpose, the same comprising a runway, an endless carrier working therein, a series of spaced fish holders secured to said carrier, cutting means within the path of the carrier for cutting the fish for obtaining access to the interior thereof, and suction means mounted adjacent to the carrier for withdrawing the entrails from the fish through the cut portion thereof.

4. An apparatus for the described purpose, the same comprising mechanism for the cutting of fish for obtaining access to the interior thereof, suction means for removing the entrails of the fish through the cut portion thereof, and continuously traveling means for successively presenting fish to the cutting mechanism and to the suction means.

5. An apparatus for the described purpose, the same comprising a runway provided with an upwardly inclined guard wall, an endless carrier provided with spaced fish holders working within said runway, cutting means within the runway for cutting the fish within the holders for obtaining access to the interior thereof, a suction outlet in the guard wall of the runway, an entrail container connected with said outlet, and suction means connected with said container.

[Claims 6 to 9 not printed in the Gazette.]

1,134,530. METHOD OF CLEANING FISH. AUGUST HAUBER, Hayward, Cal., assignor to F. E. Booth, San Francisco, Cal. Filed July 14, 1914. Serial No. 850,854. (Cl. 17—10.)



1. The method of cleaning fish which consists in first cutting the fish for obtaining access to the interior thereof and thence withdrawing the entrails through said cut portion of the fish by the application of suction thereto.

2. The method of cleaning fish which consists in first severing the head from the fish for obtaining access to the interior thereof, and thence withdrawing the entrails through said cut portion of the fish by the application of suction thereto.

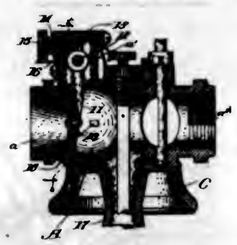
3. The method of cleaning fish which consists in first cutting the fish for obtaining access to the interior thereof and thence presenting said cut portion to a suction device for the withdrawing of the entrails therefrom.

1,134,531. CARBURETER. FRANK H. HEITGER, Indianapolis, Ind., assignor to Heitger Carburetor Company, Indianapolis, Ind., a Corporation of Indiana. Filed June 8, 1912. Serial No. 702,612. (Cl. 48—155.2.)



A carbureter comprising a mixing chamber having an auxiliary air inlet and a hollow lug extending outwardly at one side of said air inlet formed with bearings in its sides for a rock shaft, a rock shaft mounted in said bearings, a helical spring mounted around said rock shaft within said hollow lug with its inner end rigidly attached to said rock shaft and its other end projecting to a point beyond the center of the auxiliary air inlet, a valve composed of rigid material mounted on the extending end of said spring with its outer face adapted to bear against the inner edge of said auxiliary air inlet for closing the same, a crank arm mounted on one end of said rock shaft outside of said lug, and means for adjusting said crank arm and securing it in different adjusted positions, whereby the tension of said spring may be varied during operation to suit the requirements of the carbureter under varying conditions, substantially as set forth.

1,134,532. CARBURETER. FRANK H. HEITGER, Indianapolis, Ind., assignor to Heitger Carburetor Company, Indianapolis, Ind., a Corporation of Indiana. Filed June 8, 1912. Serial No. 702,613. (Cl. 48—155.2.)



A carbureter comprising a mixing chamber with an auxiliary air inlet and a hollow boss on the top thereof, a bearing supported in said hollow boss to one side of the auxiliary air inlet to said mixing chamber, a lever fulcrumed on said bearing and extending each way therefrom, a valve for controlling said auxiliary air inlet mounted on the lower end of said lever and adapted to cover said inlet, a screw-threaded socket adjustably mounted in the side of said hollow boss adjacent to the opposite end of said lever, means for securing said socket in adjusted position, and a spring mounted in said socket and adapted to bear against the end of said lever above said fulcrum, whereby said valve is normally held closed and under tension which may be readily varied or adjusted, substantially as set forth.

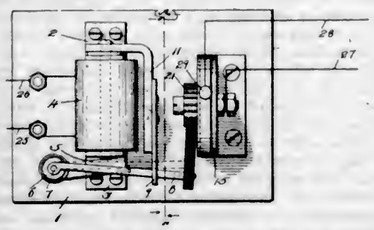
1,134,533. SHADE OR GLOBE HOLDER. EDWIN W. HENGER, Oak Park, Ill., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Nov. 11, 1914. Serial No. 871,485. (Cl. 240—115.)



1. A shade or globe holder comprising a shell formed with a flange, said flange formed at one side with clearance openings and at the opposite side with a slot, the metal below the slot divided forming spring-fingers, and a wire ring located within said shell the ends of the wires extending through said clearance openings and the wire formed with a T-shaped bend projecting outward through said slot.

2. A shade or globe holder comprising a shell formed with a flange, said flange formed at one side with clearance openings and at the opposite side with a slot, the metal below the slot divided, forming spring-fingers, and a wire ring located within said shell the ends of the wires extending through said clearance openings and the wire formed with a T-shaped bend longer than the length of the slot through which it extends.

1,134,534. AUTOMATIC ELECTRICAL SWITCH. WILLIAM H. HILL, Oakwood, Ohio. Filed Feb. 8, 1915. Serial No. 6,673. (Cl. 175—281.)



1. The described device consisting of an electromagnet and a pivoted armature adapted to be controlled thereby, means operable by said armature whereby the circuit may be alternately made and broken, said means consisting of a pivotally mounted dog on said armature in conjunction with a switch adapted to be operated by said dog, said switch comprising a rotatable and a fixed member, a resilient arm carried by said rotatable member, a series of teeth on said fixed member adapted to be engaged alternately by said arm, certain of said teeth being of conducting material, and connected with an electrical source, certain other of said teeth being of insulating material and adapted to break the circuit, a collar upon which said arm is fixedly mounted, a ratchet wheel integral with said collar adapted to be engaged by said dog, and means for preventing a reverse movement of said collar.

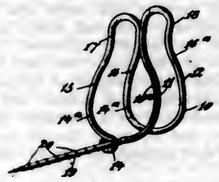
2. The described device consisting of an electromagnet and a pivoted armature adapted to be controlled thereby, means operable by said armature whereby the circuit may be alternately made and broken, said means consisting of a pivotally mounted dog on said armature in conjunction with a switch adapted to be operated by said dog, said switch comprising a rotatable and a fixed member, a resilient arm carried by said rotatable member, a series of teeth on said fixed member adapted to be engaged alternately by said arm, certain of said teeth being of conducting material, and connected with an electrical source, certain other of said teeth being of insulating material and adapted to break the circuit, a collar upon which said arm is fixedly mounted, a ratchet wheel integral with said collar adapted to be engaged by said dog, means for preventing a reverse movement of said collar, a ring upon which said teeth are mounted.

3. The described device consisting of an electromagnet and a pivoted armature adapted to be controlled thereby, means operable by said armature whereby the circuit may be alternately made and broken, said means consisting of a pivotally mounted dog on said armature in conjunction with a switch adapted to be operated by said dog, said switch comprising a rotatable and a fixed member, a resilient arm carried by said member, a series of teeth on said fixed member adapted to be engaged alternately by said arm, certain of said teeth being of conducting material, and connected with an electrical source, certain other of said teeth being of insulating material and adapted to break the circuit, a collar upon which said arm is fixedly mounted, a ratchet wheel integral with said collar adapted to be engaged by said dog, and means for preventing a reverse movement of said collar, a ring upon which said teeth are mounted, said teeth projecting inwardly from the inner surface of said ring.

4. The described device consisting of an electromagnet and a pivoted armature adapted to be controlled thereby, means operable by said armature whereby said circuit may be alternately made and broken, said means consisting of a pivotally mounted dog on said armature in conjunction with a switch adapted to be operated by said dog, said switch comprising a rotatable and a fixed member, a resilient arm carried by said member, a series of teeth on said fixed member adapted to be engaged alternately by said arm, certain of said teeth being of conducting material, and connected with an electrical source, certain other of said teeth being of insulating material and adapted to break the circuit, a collar upon which said arm is fixedly mounted, a ratchet wheel integral with said collar adapted to be engaged by said dog, and means for preventing a reverse movement of said collar, a ring upon which said teeth are mounted, said teeth projecting inwardly from the inner surface of said ring, said teeth being spaced apart.

5. The described device consisting of an electromagnet and a pivoted armature adapted to be controlled thereby, means operable by said armature whereby said circuit may be alternately made and broken, said means consisting of a pivotally mounted dog on said armature in conjunction with a switch adapted to be operated by said dog, said switch comprising a rotatable and a fixed member, a resilient arm carried by said member, a series of teeth on said fixed member adapted to be engaged alternately by said arm, certain of said teeth being of conducting material, and connected with an electrical source, certain other of said teeth being of insulating material and adapted to break the circuit, a collar upon which said arm is fixedly mounted, a ratchet wheel integral with said collar adapted to be engaged by said dog, means for preventing a reverse movement of said collar, a ring upon which said teeth are mounted, said teeth projecting inwardly from the inner surface of said ring, said teeth being spaced apart, said conducting and insulating teeth being mounted upon said ring.

1,134,535. DRAPERY-POLE SUPPORT. ANNA LE B. HOLLAND, New York, N. Y. Filed July 30, 1914. Serial No. 854,067. (Cl. 156—22.)



1. A drapery pole support integrally made of wire formed to provide a socket of the shape of the segment of a circle disposed so that the arms thereof will extend upwardly in spaced relation when the socket is applied to a support, and one end of the wire extending longitudinally from the bottom of the socket, the said extension being threaded to form a screw whereby the socket may be adjustably attached to the support, substantially as set forth and for the purpose specified.

2. A drapery pole support integrally made of wire formed to provide a socket composed of two spaced complemental members, each of the shape of the segment of a circle disposed so that the arms thereof will extend upwardly in spaced relation when the socket is applied to a support, and one end of the wire extending longitudinally from the bottom of the socket, the said extension being threaded to form a screw whereby the socket may be adjustably attached to the support, substantially as set forth and for the purpose specified.

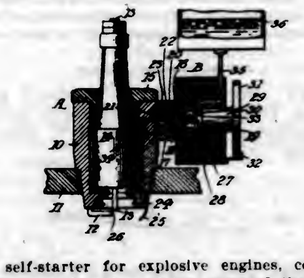
1,134,536. APPARATUS FOR DISPENSING LIQUIDS. JOHN HENRY HOLMES, Newcastle-upon-Tyne, England. Filed June 14, 1912. Serial No. 703,627. (Cl. 221—102.)



1. An apparatus for dispensing liquids comprising in combination, a container, a delivery valve seat rigidly mounted on the bottom of said container, a valve *h* adapted to open by a downward movement, a closed chamber of variable capacity rigidly attached to and below said container for receiving liquid from the said delivery valve *h*, externally operated means for varying the capacity of said closed chamber, an outlet valve *b* on said closed chamber mechanically connected with said delivery valve to prevent a continuous flow of liquid from said chamber; a movable seat for said outlet valve mounted on the said means for varying the capacity of the said closed chamber to forcibly eject the liquid from the said chamber, means for applying hand pressure to the said movable valve seat to cause the discharge of liquid past the same from the said chamber to the exterior of the apparatus, and means associated with said valves for at times counteracting the downward pressure of the liquid, substantially as described.

2. An apparatus for dispensing liquids comprising in combination, a container, a delivery valve seat rigidly mounted on the bottom of said container, a valve *h* adapted to open by a downward movement, a closed chamber of variable capacity rigidly attached to and below said container for receiving liquid from the said delivery valve *h*, externally operated means for varying the capacity of said closed chamber; and outlet valve *b* on said closed chamber mechanically connected with said delivery valve to prevent a continuous flow of liquid from said chamber; a movable seat for said outlet valve mounted on the said means for varying the capacity of the said closed chamber to allow the ejection of the liquid from the said chamber, means for applying hand pressure to the said movable valve seat to cause the discharge of liquid past the same from the said chamber to the exterior of the apparatus, and yielding means associated with said valves for counteracting the downward pressure of the liquid, substantially as described.

1,134,537. SELF-STARTER FOR EXPLOSIVE-ENGINES. BENJAMIN F. HUTCHES, Jr., Allendale, N. J. Filed Feb. 4, 1914. Serial No. 816,439. (Cl. 123—187.5.)



1. A self-starter for explosive engines, comprising a spark plug, a solenoid, a piston operated thereby, means for supplying a fuel to said piston, a rotary shaft, and starting contacts on said shaft for operating the spark plug and energizing the solenoid.

2. A self-starter for explosive engines, comprising a spark plug, a solenoid, a piston operated thereby, means for supplying a fuel to said piston, a rotary shaft, starting contacts on said shaft for operating spark plug, and for energizing the solenoid, thereby actuating the piston, and means for conducting the fuel discharge by the piston toward the spark gap of said plug.

3. A self-starter for explosive engines, comprising a spark plug, a solenoid carried thereby, a pump operated by said solenoid, means for supplying a fuel to said pump, and means for simultaneously actuating said spark plug and solenoid.

4. A self-starter for explosive engines, comprising a spark plug, a solenoid forming part thereof, a fuel supply pump operated by the solenoid, and means for conducting the fuel from said pump toward the spark gap of said spark plug.

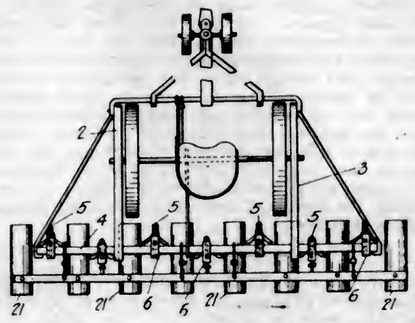
5. A self-starter for explosive engines, comprising a spark plug having a fuel duct, a solenoid secured to said plug and having a bore that communicates with said duct, and a piston reciprocatable in said bore and operated by the solenoid.

[Claims 6 to 20 not printed in the Gazette.]

1,134,538. CULTIVATING-TOOL. JOHN B. JOHNSON, Fort Collins, Colo. Original application filed July 7, 1914, Serial No. 849,379. Divided and this application filed Aug. 25, 1914. Serial No. 858,459. (Cl. 97—11.)

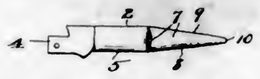
1. A cultivating tool comprising a shank, and at the lower end thereof, a blade composed of a forwardly projecting blade composed of a slender, pointed middle member and two sharp-edged members which extend divergently rearwardly from the rear end of the first-mentioned member.

2. A cultivating tool comprising a shank, and a blade composed of three elongate members which project outwardly from a common point at the end of the shank, one of said members being pointed and extending forwardly from the said point, and the two other members extending



rearwardly from the said point at equal angles with relation to the said forwardly extending member and having their forward edges sharpened for the purpose specified.

1,134,539. POCKET-KNIFE. AUGUSTUS KLOCKER, Thomaston, Conn., assignor to Thomaston Knife Company, Thomaston, Conn. Filed July 7, 1914. Serial No. 849,409. (Cl. 30—10.)

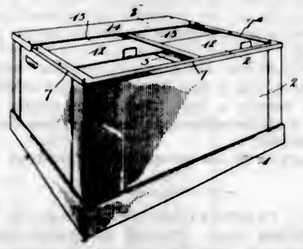


1. In a pocket knife, a blade having a straight cutting edge, a concave portion with a tapering cutting edge and a tapering rounded edge, substantially as described.

2. In a pocket knife, a blade having a tang, a straight cutting edge adjoining said tang and a triangular shaped concave portion adjoining the straight cutting edge provided with cutting and rounded edges, substantially as described.

3. In a pocket knife, a blade having a straight cutting edge, a tapering cutting edge, a tapering rounded edge and a concave portion extending from the tapering cutting edge to the tapered rounded edge, substantially as described.

1,134,540. CONTAINER CONSTRUCTION. CLAUDE W. KRESS, New York, N. Y. Filed Jan. 5, 1914. Serial No. 810,289. (Cl. 217—62.)

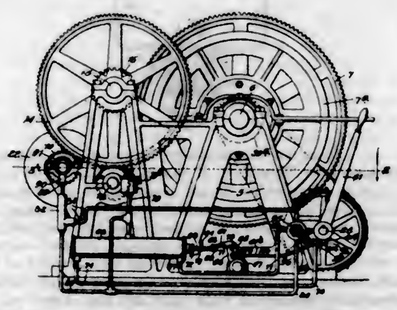


1. In a device of the character described, a casing having an opening therein and having its opposite side edges at said opening rabbeted, oppositely disposed channeled guides seated in the rabbets at said opposite side edges, means secured to said side edges and holding said guides in said rabbets, a sectional closure for said opening including a movable closure section supported by and sliding in said guide channels, and a fixed complemental closure section secured to said casing and positioned in a different plane from the movable section, with a flange portion extending into the plane of said movable section to retain the same in said guides.

2. In a device of the character described, a casing having an opening therein and having its opposite side edges at said opening rabbeted, a spacer bar spanning the front and back of said casing adjacent said opening, said bar being parallel substantially with the side edges of said casing, oppositely disposed channeled guide strips secured to said bar and extending longitudinally thereof, complemental and oppositely disposed channeled guide strips seated in said rabbets at said opposite side edges, strips secured to said opposite side edges and having flanged portions engaging said channeled guides to hold the same on said rabbets, and sectional closures for the openings at opposite sides of said spacer bar, each of said closures including a sliding section supported by and moving longitudinally in said channeled guides, and a coöperating fixed section positioned in a different plane from said movable section, and having a flanged portion extending in the plane of said movable section to retain the same in said guides.

3. In a device of the character described, a casing having an opening therein and having its opposite side edges at said opening rabbeted, a spacer bar spanning the front and back of said casing adjacent said opening, said bar being substantially parallel with said side edges, oppositely disposed guide strips secured to and extending longitudinally of said bar, said strips having therein a plurality of parallel longitudinally extending guide channels, complemental and oppositely disposed guide strips seated in the rabbets at said opposite side edges and having complemental guide channels therein, sheet metal strips secured to said opposite side edges and flanged to engage and hold said channeled guide strips on said rabbets, and sectional closures for said openings at opposite sides of said spacer bar, each of said closures including a plurality of movable sections supported by and movable longitudinally in said channeled guides, and a fixed section coöperating with said movable sections and secured to said casing at one end of said opening, said fixed section having a flange positioned in a line of movement of said movable sections to retain said sections on said casing and within said channeled guides.

1,134,541. GEARING. W BRITTON LANE, Chicago, Ill., assignor to T. W. Snow Construction Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 7, 1914. Serial No. 823,198. (Cl. 74—50.)



1. In mechanism of the character set forth, the combination of a rotary member adapted to be rotated in opposite directions, a drive-member, means for driving said rotary member in opposite directions from said drive-member, means for controlling the operation of said first-named means movable to neutral position in which said rotary member will be disengaged from said drive-member, means operating automatically to move said second-named means to neutral position, and fluid-pressure-operated means operating automatically after said second-named means occupy neutral position a predetermined length of time, to move the latter to a position in which said rotary member will be operated in a direction opposite to that in which it was rotating before said second-named means were moved to neutral position.

2. In mechanism of the character set forth, the combination of a rotary member adapted to be rotated in opposite directions, a drive-member, means for driving said rotary member in opposite directions from said drive-member, means for controlling the operation of said first-named means movable to neutral position in which said rotary member will be disengaged from said drive-member, means operating automatically to move said second-named means to neutral position, and means having lost-motion connection with said second-named means and operating automatically after the latter occupy neutral position a predetermined length of time, to move the latter to a position in which said rotary member will be operated in a direction opposite to that in which it was rotating before said second-named means were moved to neutral position.

3. In mechanism of the character set forth, the combination of a rotary member adapted to be rotated in opposite directions, a drive-shaft, gear mechanisms interposed between said drive-shaft and rotary member for driving the latter in opposite directions, clutch mechanism for controlling the driving of said rotary member through said gear mechanisms, and movable to neutral position, means operating automatically to move said clutch mechanism to neutral position, and fluid-pressure-operated means operatively connected with said clutch mechanism and operating automatically after the latter occupy neutral position a predetermined length of time, to move said clutch mechanism to a position in which said rotary member will be operated in a direction opposite to that in which it was rotating before said clutch mechanism was moved to neutral position.

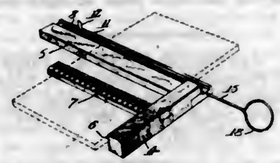
4. In mechanism of the character set forth, the combination of a rotary member adapted to be rotated in opposite directions, a drive-shaft, means for rotating said rotary member from said drive-shaft in opposite directions, means controlling the operation of said last-referred to means and movable to neutral position in which said rotary member is disengaged from said drive-shaft, said last-named means including a rotatable shaft, movable in the operation of said last-named means to neutral position, means operating automatically to move said second-named means to neutral position, and means operatively engaging said rotatable shaft and operating automatically after said second-named means occupy neutral position a predetermined length of time, to move said last referred to means to a position in which said rotary member will be operated in a direction opposite to that in which it was rotating before said second-named means were moved to neutral position.

5. In mechanism of the character set forth, the combination of a rotary member adapted to be rotated in opposite directions, a drive-shaft, means operated by said drive-shaft for driving said rotary member in opposite directions, means for controlling the operation of said first-named means movable to neutral position in which said rotary member will be disengaged from said drive-shaft, means operating automatically to move said second-named means to neutral position, a fluid-pressure-operated member connected with said second-named means, and valve-means controlling the supply of fluid-pressure to said fluid-pressure-operated member, operatively connected with said third-named means, for the purpose set forth.

[Claims 6 to 24 not printed in the Gazette.]

1,134,542. LEATHER-CUTTING TOOL. AMOS W. LARSON, Rockford, Ill. Filed Sept. 29, 1914. Serial No. 864,128. (Cl. 164—83.)

1. In a cutting-tool of the character described, the combination of a body provided with a side-guide and having a T-shaped slot extending transversely thereto, a block having a square portion and an enlarged head extending beyond the sides of said square portion, the block being slidably fitted in the slot whereby the block may be moved lengthwise of the slot, the block having an upstanding cutting-blade fixedly attached thereto, facing toward the said side-guide and arranged in a plane parallel with one of the sides of the block, whereby upon sliding the block in the slot toward the side-guide the blade will cut in a plane transverse to said side-guide, and means for holding the block slidably operative in the slot and for permitting the block to be removed from the slot and replaced therein with its cutting-blade faced parallel with the side-guide.



2. A cutting tool comprising a body having a guide against which the edge of material to be cut abuts, a slot in the body extending transversely to said guide and being T-shaped cross-sectionally, a T-shaped cutter block mounted to slide in the slot toward and away from said guide, the cutter block being provided with an integral upstanding cutting-blade arranged in a plane parallel with the slot, whereby to cut in a plane transversely to said guide, a screw-member disposed beneath the slot overreaching the edges thereof and being in threaded connection with the cutter block whereby to hold the same operatively mounted in the slot, and means for reciprocating said cutter block in the slot, the cutter block being removable from the slot, by removing said screw-member.

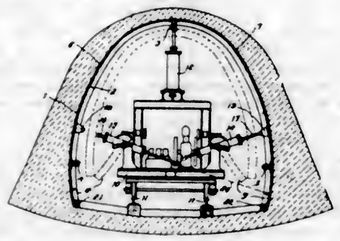
3. In a cutting-tool of the character described, a body having a slot T-shaped cross-sectionally, a cutter block mounted to slide in said slot, said cutter block being T-shaped longitudinally and square transversely and being provided with an upstanding cutting-blade integral therewith and arranged in a plane parallel with one of the slideway sides of the cutter-block, and a screw-member disposed below the slot extending beyond the edges thereof and being screw-threaded in connection with the cutter block, whereby the same is held slidably operative in the slot and whereby removal of the screw-member will permit the cutter block to be removed from the slot and replaced therein with its cutting-blade disposed in a plane at right angles to the slot, the screw member adapted to be reconnected with the cutter block to lock the same in a fixed position at any one of various points along the slot.

4. In a cutting-tool, the combination of a body having a surface upon which material to be cut rests on a flat side, the body having a side-guide against which the edge of the body abuts, an elongated slot in said material open at said surface and extending at right angles to said side-guide, a block slidably mounted in said slot below said surface to move in the slot toward and away from said side-guide, a cutting-blade fixedly connected to the block, extending above said surface and being faced toward the side-guide whereby to cut said material at right angles to the said guide when the block is moved toward the same, the cutting-blade being adjustable with respect to the side-guide by removal of the block from the slot and replacing the block so that the blade will be positioned to face parallel with said side-guide, a rod disposed longitudinally in the slot, being detachably connected with the block when the same is in its first mentioned position and being extended beyond the body at the side-guide portion thereof and provided at its extended end with a handle, whereby the cutting block may be drawn toward the side-guide to effect said right angle cut, and means for permitting the block to be removed from the slot after said rod has been detached and for locking the block from being moved in the slot.

5. In a cutting-tool of the character described, the combination of a body provided with an elongated slot T-shaped cross-sectionally, a cutter block shaped to fit in

said slot to slide longitudinally therein and being square transversely whereby the cutter block may be mounted with either of its opposite sides engaging those of the slot, the cutter block having an integral upstanding cutting-blade arranged parallel with one of the sides of the block, and means for holding the cutter block slidably operative in the slot with its blade parallel with the sides thereof whereby to cut in a plane parallel with said sides and for locking the cutter block in a fixed position at various points in the length of the slot after the cutter block has been removed therefrom and replaced therein with its cutting-blade at right angles to the sides of the slot whereby to cut in a plane at right angles to that aforesaid.

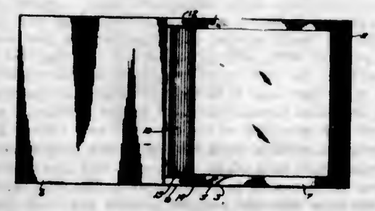
1,134,543. CENTERING DEVICE. CHARLES D. MCARTHUR, Pittsburgh, Pa., assignor to Blaw Collapsible Steel Centering Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 25, 1911. Serial No. 629,441. (Cl. 25—32.)



1. The combination with a collapsible mold open at the bottom and comprising a pair of top sections having a hinged connection at their upper edges, and a second pair of sections hinged to the lower edges of the first sections, the sections being stiffened by ribs and so arranged that the mold will maintain itself in expanded position and permit the passage therethrough of a truck carrying another mold, of a truck, and mechanism carried thereby whereby the top sections may be moved up and down and moved about their hinged connection to expanded or working position.

2. In combination in a conduit mold, open at the bottom and having curved sides, a pair of top sections having a hinge connection at their upper edges, and a second pair of sections hinged to the lower edges of the first sections, stiffening ribs carried by the sections, a truck, and mechanism carried by the truck and adapted to raise and lower the top sections and to swing such sections outward to expanded position, the connection at the hinged edges and the shape and curve of the sections being such that the mold is self supporting and unobstructed and permits the passage therethrough of a truck carrying another mold.

1,134,544. COMBINED COVER AND INDEX FOR BOUND BOOKS. EDWARD J. MILLS, San Francisco, Cal. Filed Mar. 9, 1914. Serial No. 823,469. (Cl. 129—15.)



1. A device of the class described, the same comprising a plurality of index sheets for insertion between the leaves of a book, and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of the book, a perforated extension projected from the upper and bottom edges of each sheet adjacent the rear edge thereof, and to extend a slight distance beyond said edges of the book, a book cover protector positioned around the binding of the book, and a split ring hingedly connected to said cover protector and for passing through the perforated extension of each index sheet for securing the index sheets together and to said cover protector.

2. A device of the class described, the same comprising a plurality of index sheets for insertion between the leaves of a book, and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of a book, a book cover protector positioned around the binding of the book, an inwardly projecting strengthening member carried on the inner surface of the back-bone of the cover protector, and means for hingedly and detachably connecting said index sheets to said strengthening member.

3. A device of the class described, the same comprising a plurality of index sheets for insertion between the leaves of a book and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of a book, an extension projected from the upper and lower edges of each sheet adjacent the rear edge thereof and to extend a slight distance beyond said edges of the book, a book cover protector positioned around the binding of the book, an inwardly projecting strengthening member carried on the inner surface of the back-bone of the cover protector and extending longitudinally thereof, projections extended from the exposed surface of said strengthening member adjacent its ends for limiting the movement of the book longitudinally thereof, and means for hingedly and detachably connecting the extension of each sheet with said strengthening member.

4. A device of the class described, the same comprising a plurality of index sheets for insertion between the leaves of a book and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of a book, a perforated extension projected from the upper end lower edges of each sheet adjacent the rear edge thereof and to extend a slight distance beyond said edges of the book, a book cover protector positioned around the binding of the book, an inwardly projecting strengthening member carried on the inner surface of the back-bone of the cover protector and extending longitudinally thereof, end plates carried by the ends of said strengthening member for contacting with the back-bone of the book to limit the movement of the book longitudinally of the strengthening member, and screw-eyes for attaching said plates to said strengthening member, and split-rings adapted for insertion through the perforated extensions on said sheets and said screw-eyes for hingedly and detachably connecting said sheets to said strengthening member.

1,134,545. CRANK CONNECTION FOR ENGINES. ROBERT S. MOORE and JAMES LEE SIMMONS, Washington, D. C., assignors to Gyro Motor Company, Washington, D. C., a Corporation of the District of Columbia. Filed Mar. 30, 1911. Serial No. 617,854. (Cl. 74—5.)

1. An engine including in combination, a crank shaft, a piston rod having laterally projecting shoulders, a pair of collars surrounding the crank shaft and engaging respectively the inner faces of said shoulders, friction balls between the collars and the crank shaft, a second pair of collars surrounding said crank shaft and engaging respectively the outer face of said shoulder, said piston rod having an inwardly projecting member provided with an opening to receive the crank shaft.

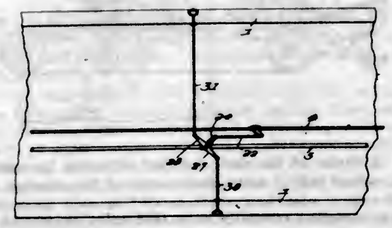
2. An engine including in combination a crank shaft, a plurality of piston rods each of which is provided with laterally projecting shoulders, a pair of collars surrounding the crank shaft and engaging respectively the inner face of each of said shoulders on one side of the piston rod, friction balls between the collars and the crank shaft, a second pair of collars surrounding the crank shaft, and engaging respectively the outer faces of each of said shoulders on one side of the piston rods, each of said piston rods having an inwardly projecting member provided with an opening to receive the crank shaft.



3. An engine including in combination, a plurality of piston rods each having laterally projecting shoulders, a pair of collars surrounding the crank shaft and engaging the inner faces of said shoulders, a second pair of collars mounted on the crank shaft and located within said first named collars, anti-friction balls between said collars on the crank shaft and said first named collars, a third pair of collars carried by the first named collars and engaging the outer face of said shoulders, each of said piston rods having an inwardly projecting part provided with an opening to receive the crank shaft, said inwardly projecting parts on the pistons being disposed side by side on the crank shaft.

4. An engine including in combination, a plurality of piston rods each having laterally projecting shoulders, a pair of collars surrounding the crank shaft and engaging the inner faces of said shoulders, a second pair of collars mounted on the crank shaft and located within said first named collars, anti-friction balls between said collars on the crank shaft and said first named collar, a third pair of collars carried by the first named collars and engaging the outer faces of said shoulders, each of said piston rods having an inwardly projecting part provided with an opening to receive the crank shaft, said inwardly projecting parts on the pistons being disposed side by side on the crank shaft, crank arms carrying said crank shaft, one of said crank arms being detachably connected with the crank shaft, whereby said collars may be assembled on the crank shaft and held thereon by the crank shaft.

1,134,546. OPERATING DEVICE FOR TRAIN-PIPE COCKS. CHARLES D. MORRIS, Norfolk, Va. Filed Apr. 15, 1914. Serial No. 831,983. (Cl. 188—8.)

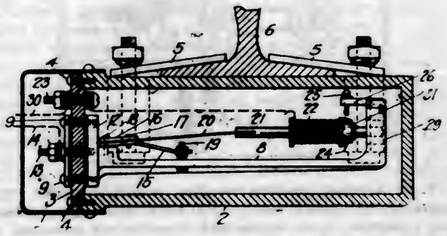


1. Means for simultaneously actuating the cocks of train-line and signal pipes, comprising stems attached to said cocks, oppositely disposed arms connected with one of said stems, an independent arm rigid with said stem extending at substantially right angles to the first-named arms, actuating means for said arms projecting to either side of the car, an arm rigid with the stem of the other valve, and a connection between the last-named arm and said right-angled arm and extending substantially parallel with said train-line and signal pipes.

2. Means for simultaneously actuating the cocks of train-line and signal pipes, comprising stems attached to said cocks, oppositely disposed arms connected with one of said stems, an independent arm rigid with said stem extending at substantially right angles to the first-named arms, actuating means for said arms projecting to either side of the car, an arm rigid with the stem of the other valve, a connection between the last-named arm and said right-angled arm and extending substantially parallel with said train-line and signal pipes, a stop on said right-angled arm and coöperating means on the valve casing to limit the movement of the operating lever.

3. Means for simultaneously actuating the cocks of train-line and signal pipes, comprising stems attached to said cocks, oppositely disposed arms connected with one of said stems, an independent arm rigid with said stem extending at substantially right angles to the first-named arms, actuating means for said arms projecting to either side of the car, an arm rigid with the stem of the other valve, a connection between the last-named arm and said right-angled arm and extending substantially parallel with said train-line and signal pipes, an angular integral vertically disposed stop on said right-angled arm and coöperating means on the valve casing to limit the movement of the operating lever, and an integral angular vertically disposed stop on the other stem coöperating with its casing.

1,134,547. CIRCUIT-CLOSER. WILL C. NEAHR, Denver, Colo., assignor to The Protective Signal Manufacturing Company, Denver, Colo., a Corporation. Filed July 31, 1912. Serial No. 712,511. (Cl. 246—35.)



1. In a circuit closing instrument, a support having at one of its ends, an integral stop, a vibrative element mounted at one of its ends on said support, its opposite end being disposed to approach said stop during its movement in one direction, an insulated contact and a magnetic coil on said element connected in one side of a normally open electric circuit the opposite side of which is connected with said support, and a contact in electrical connection with said support and disposed to be engaged by the first mentioned contact during movement of the said element in the said direction.

2. In a circuit closing instrument, a support having a fixed upturned, slotted terminal portion, a vibrative element mounted on said support and guided in said slot, a contact carried on said element and connected at one side of a break in an electric circuit, and a contact mounted on the said upturned portion to be engaged by the first-mentioned contact during movement of the said element in one direction, and connected at the opposite side of the break in the said circuit.

3. In a circuit closing instrument, a support having a fixed upturned, slotted terminal portion, a vibrative element mounted on said support and guided in said slot, a contact carried on said element and connected at one side

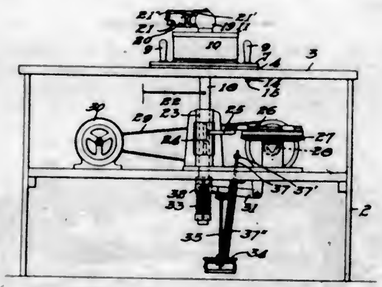
of a break in an electric circuit, and a contact resiliently mounted on the said upturned portion to be engaged by the first-mentioned contact during movement of the said element in one direction, and connected at the opposite side of the break in the said circuit.

4. In a circuit closing instrument, a support having a fixed upturned, slotted terminal portion, a vibrative element mounted on said support and guided in said slot, a contact carried on said element and connected at one side of a break in an electric circuit, an arm mounted on the said upturned portion and an adjustable contact screw on said arm disposed to be engaged by the said contact during movement of the said element in one direction and connected at the opposite side of the break in the said circuit.

5. In a circuit closing instrument, a vibrative element, a contact carried thereon, a second contact disposed to be engaged by the first-mentioned contact during movement of said element in one direction, said contacts being connected at opposite sides of a break in an electric circuit, and an electro-magnet the windings of which are connected in a side of said circuit and the core of which is carried on said element, a magnetic part of the instrument being disposed to be approached by the said core, during said movement of the element, for maintaining the latter in the position in which it closes the circuit by the engagement of the contacts.

[Claims 6 to 10 not printed in the Gazette.]

1,134,548. COLLAR-FINISHING MACHINE. FRANK W. NEVENS, Minneapolis, Minn. Filed May 4, 1914. Serial No. 836,158. (Cl. 68—9.)



1. In a collar finishing machine, a pair of collar supports having edges forming a seat for a collar placed thereon, a member upon which said supports are arranged, a finishing head adapted to engage the fold of a collar placed on said supports, said member being revoluble around the center of their supporting base, whereby one support may be positioned to receive a collar, while the other support is in the finishing position beneath said head.

2. The combination, with a collar support having an edge forming a seat for a collar, of a continuously oscillating finishing head and mechanism for moving said head into engagement with the fold of a collar on said support, said mechanism including a shaft having a longitudinal and rotary movement.

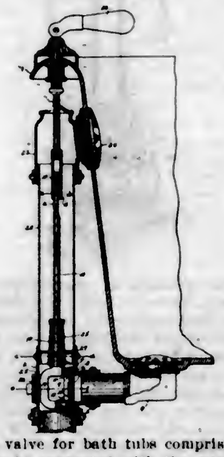
3. The combination, with a collar support, of an upright shaft, and means for rocking the same, a finishing head having a rocking movement on its support, means yieldingly resisting said rocking movement and means for moving said shaft lengthwise to engage said finishing head with the collar on said support or disengage it therefrom.

4. The combination, with a collar support, of a shaft, a finishing head carried by said shaft, and having a rocking movement, a spring device supported by said shaft and having a bearing on said head to yieldingly resist the tilting of said head, and means for moving said shaft lengthwise to seat said finishing head on a collar or remove it therefrom.

5. A collar finishing machine comprising a rotating member, a pair of collar supports thereon having curved rounded surfaces to receive the collars, and an oscillating finishing head mounted adjacent to said supports its axis of oscillation being in the path of movement of the axes of the supports.

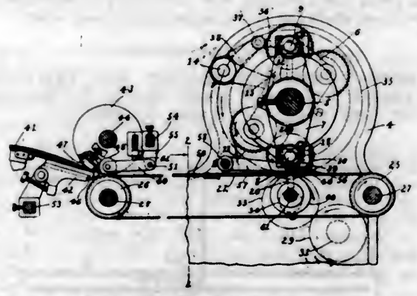
[Claims 6 to 9 not printed in the Gazette.]

1,134,549. WASTE-PIPE VALVE FOR BATH-TUBS. WILLIAM G. NEWTON, New Haven, Conn., assignor to The Peck Bros. & Co., New Haven, Conn., a Corporation. Filed Nov. 3, 1913. Serial No. 798,893. (Cl. 137—7.)



A waste pipe valve for bath tubs comprising a circular valve adapted to be connected with the waste at the bottom of the tub, said valve casing provided with a circular valve seat, a segmental valve in said casing bearing on said seat, said valve formed with two inwardly projecting sockets, a yoke provided with two studs entering said sockets, said yoke formed with an upwardly projecting arm, a guide sleeve through which said arm extends, a valve stem connected with said arm, an operating handle provided with a handle stem, and means for coupling the handle stem with the valve stem said coupling having sliding connections with one of said stems.

1,134,550. SHEET-FEEDING MECHANISM. ABRAHAM NOVICK, New York, N. Y., assignor to F. L. Schmidt Company, New York, N. Y., a Corporation of New York. Filed Apr. 24, 1913. Serial No. 763,250. (Cl. 101—38.)



1. A device of the class specified including in combination, a feed belt, a main shaft mounted for rotation on a fixed axis, a planetary shaft carried by said main shaft, a gear mounted coaxially with said main shaft and normally stationary, a gear fixed to said planetary shaft, an intermediate gear for driving said planetary shaft gear from the first mentioned gear, sheet engaging means carried by said planetary shaft, means for rotating at predetermined times said normally stationary gear, means for moving said feed belt, and means for rotating said main shaft.

2. A device of the class specified including in combination, a feed belt, a main shaft mounted for rotation on a fixed axis, a planetary shaft carried by said main shaft, a gear mounted coaxially with said main shaft and normally stationary, a gear fixed to said planetary shaft, an intermediate gear for driving said planetary shaft gear from the first mentioned gear, sheet engaging means carried by said planetary shaft, a modifying gear rotatably mounted on a fixed axis for engagement with said first mentioned gear, means for rotatably moving at predetermined times said modifying gear, means for moving said feed belt, and means for rotating said main shaft.

3. A device of the class specified including in combination, a feed belt, a main shaft mounted for rotation on a fixed axis, a plurality of planetary shafts carried by said main shaft, a gear mounted coaxially with said main shaft and normally stationary, a gear fixed to each planetary shaft, intermediate gears for driving said planetary shaft gears respectively from the first mentioned gear, sheet engaging means carried by each of said planetary shafts, a modifying gear rotatably mounted on a fixed axis for engagement with said first mentioned gear, means for rotatably moving at predetermined times said modifying gear, means for moving said feed belt, and means for rotating said main shaft.

4. A device of the class specified including in combination, a feed belt, a main shaft mounted for rotation on a fixed axis, a plurality of planetary shafts carried by said main shaft, a gear mounted coaxially with said main shaft and normally stationary, a gear fixed to each planetary shaft, intermediate gears for driving said planetary shaft gears respectively from the first mentioned gear, sheet engaging means carried by each of said planetary shafts, means for synchronously adjusting in equal amounts the sheet engaging means lengthwise said plurality of planetary shafts, a modifying gear rotatably mounted on a fixed axis for engagement with said first mentioned gear, means for rotatably moving at predetermined times said modifying gear, means for moving said feed belt, and means for rotating said main shaft.

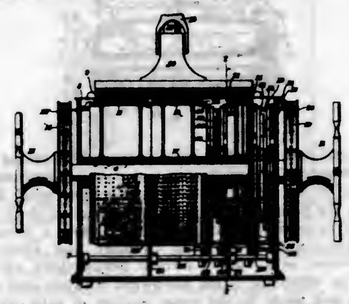
5. A device of the class specified including in combination, a feed belt, a main shaft mounted for rotation on a fixed axis, a plurality of planetary shafts carried by said main shaft, a gear mounted coaxially with said main shaft and normally stationary, a gear fixed to each planetary shaft, intermediate gears for driving said planetary shaft gears respectively from the first mentioned gear, sheet engaging means carried by each of said planetary shafts, means slidably mounted on said main shaft for synchronously adjusting in equal amounts the sheet engaging means lengthwise said plurality of planetary shafts, a modifying gear rotatably mounted on a fixed axis for engagement with said first mentioned gear, means for rotatably moving at predetermined times said modifying gear, means for moving said feed belt, and means for rotating said main shaft.

[Claim 6 not printed in the Gazette.]

1,134,551. ADDING ATTACHMENT FOR CHECK-PRINTERS. EDMUND OCUMPAUGH, 2d, Rochester, N. Y. Filed May 15, 1914. Serial No. 838,756. (Cl. 235—101.)

1. The combination, with a printing-machine comprising a type-carrier movable to bring various types selectively into operative position, and impressing-mechanism movable to cause an impression from said types, of adding-mechanism, means, actuated by connection with the impressing-mechanism, for moving the adding-mechanism, and means, actuated by the selective movement of the type-carrier, for determining the extent of movement imparted to the adding-mechanism.

2. The combination, with a printing-machine comprising a type-carrier manually movable to bring various types selectively into operative position, and impressing-mechanism manually movable to cause an impression from said types; of adding-mechanism, means, actuated by connection with the impressing-mechanism, for moving the adding-mechanism; and a series of graduated stops movable selectively into position by the selective movement of the type-carrier, and coöperating with the means for moving the adding-mechanism to determine the extent of movement imparted to said mechanism.



3. The combination, with a printing-machine comprising a manually-rotatable type-carrier provided with a peripheral series of types expressive of various amounts, a platen for pressing a blank into engagement with the types, and manually-operable means for actuating the platen; of a set of adding-wheels; means, connected with the platen-actuating mechanism and actuated thereby, for rotating the adding-wheels; and a graduated stop-plate rotatable with the type-carrier and adapted to arrest the movement of the means by which the type-wheels are rotated after varying degrees of movement corresponding with the respective amounts indicated by the types on the type-carrier.

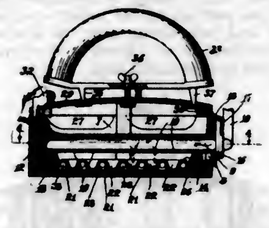
4. The combination, with a printing-machine comprising a type-carrier manually movable to bring various types selectively into operative position, and impressing-mechanism manually movable to cause an impression from said types; of adding-mechanism; means, including an actuating-spring, for actuating the adding-mechanism; means, actuated in connection with the type-carrier, for determining the degree of movement imparted to the adding-mechanism by its said actuating-means; a setting-spring; mechanism, connected with the impressing-mechanism and with the actuating-means of the adding-mechanism, for tensing the setting-spring and simultaneously releasing said actuating-means; and means for retarding the return-movement of the setting-spring and the connecting-mechanism while the actuating-spring is moving the counting-mechanism.

5. The combination, with a printing-machine comprising a type-carrier movable manually to bring a series of types selectively into operative position, and impressing-mechanism manually movable to cause an impression from said types; of adding-mechanism; spring-actuated means for moving the adding-mechanism; spring-actuated means, connected with and controlled by the impressing-mechanism, for releasing the adding-mechanism-actuating means upon an operative movement of the impressing-mechanism, and for resetting said means upon the return-movement of the impressing-mechanism; and means for retarding said return-movement during the operative movement of the adding-mechanism-actuating means.

1,134,552. SAD-IRON. HENRY W. O'DOWD, Jersey City, N. J., assignor to William M. Crane Company, a Corporation of New York. Filed Aug. 17, 1912. Serial No. 715,563. (Cl. 158—23.1.)

1. A sad iron including in combination, a casing forming a chamber, a base having transverse corrugations, a plurality of the ridges of said corrugations being hollow to form air passages and having openings in their upper portions to admit the air to said chamber, and a burner

located longitudinally of said chamber and above said corrugations, said burner having perforations arranged therein to direct the flame downward between said corrugations.



2. A sad iron including in combination, a casing forming a chamber, a base having transverse corrugations, a plurality of the ridges of said corrugations being hollow to form air passages and having openings in their upper portions to admit the air to said chamber, a burner located longitudinally in said chamber and above said corrugations, said burner having perforations arranged therein to direct the flame downward between said corrugations, and vents in the upper portion of said casing.

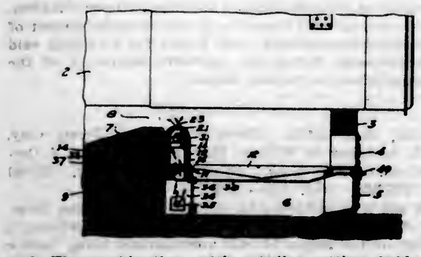
3. A sad iron including in combination, a casing forming a chamber, a base having transverse corrugations, a plurality of the ridges of said corrugations being hollow to form air passages and having openings in their upper portions to admit the air to said chamber, and a burner located longitudinally and midway transversely of said chamber and above said corrugations, said burner having perforations arranged therein to direct the flame downward between said corrugations.

4. A sad iron including in combination, a casing forming a chamber, a base having transverse corrugations, a plurality of the ridges of said corrugations being hollow to form air passages and having openings in their upper portions to admit the air to said chamber, and a burner located longitudinally of said chamber and above said corrugations, said burner having perforations disposed therein at points between the ridges of said corrugations to direct the flame downward between said ridges.

5. A sad iron including in combination, a casing forming a chamber, a base having transverse corrugations, a plurality of the ridges of said corrugations being hollow to form air passages and having openings in their upper portions to admit the air to said chamber, a burner located longitudinally in said chamber and above said corrugations, said burner having perforations arranged therein to direct the flame downward between said ridges, and vents in the upper portions of said casing, said vents having capacity equal to the capacity of the burner and air inlets.

[Claims 6 to 10 not printed in the Gazette.]

1,134,553. SMOKE-CONSUMER. OTTIN OLSON, Minneapolis, Minn. Filed Dec. 13, 1912, Serial No. 736,606. Renewed Feb. 26, 1915. Serial No. 10,869. (Cl. 110—60.)



1. The combination, with a boiler setting, bridge wall and grate, of inverted U-shaped members supported adjacent to said grate, an air passage being formed between the legs of said members and provided with an air inlet opening in said setting, independent of the inlet opening to said grate, the upper portions of said members having an unobstructed transverse gap or opening communicating with said air passage, a perforated steam pipe mounted in said gap, said unobstructed opening allowing an unimpeded flow of steam from said jets during the expansion and contraction of said pipe.

2. The combination, with a boiler setting and a bridge wall and grate, of a series of knees supported between said bridge wall and grate, each knee comprising upright legs and cross bars between them, the upper ends of the legs of each knee being spaced apart, forming, when the knees are arranged side by side, a continuous, comparatively narrow gap or opening, and a perforated steam pipe mounted in said gap and having freedom for expansion and contraction therein.

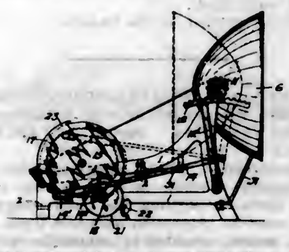
3. The combination, with a boiler setting, bridge wall and grate, of a series of knees supported between said bridge wall and grate, the upper portions of said knees having transverse openings therein forming, when the knees are placed side by side, a continuous, comparatively narrow gap or opening, said knees having bearings mounted therein near said opening, a steam pipe having an elongated loop therein fitting within said opening, the upper section or leg of said loop having perforations therein, the lower section of said loop resting upon said bearings and forming a superheating section, said loop having freedom of longitudinal expansion and contraction.

4. The combination, with a boiler setting, bridge wall and grate, of a series of knees supported between said bridge wall and grate, the upper portions of said knees having transverse openings therein forming, when the knees are placed side by side, a continuous, comparatively narrow gap or opening, a steam pipe having an elongated loop therein fitting loosely within the wall of said setting and capable of longitudinal movement therein and projecting into said continuous gap or opening, the upper portion or leg of said loop having perforations therein and provided with a draw-off valve on the outside of said boiler setting, the lower leg or section of said loop forming a superheater and having a coupling outside said setting connecting it with a source of steam supply, and a regulating valve adjacent to said coupling.

5. In a boiler, the combination, with a grate, of inverted U-shaped knees mounted adjacent thereto and having a transverse unobstructed opening between the upper portions of their legs, and a perforated steam pipe mounted in said transverse opening and having freedom for expansion and contraction therein, said opening allowing an unimpeded flow of steam from said pipe during said expansion and contraction.

[Claims 6 to 10 not printed in the Gazette.]

1,134,554. FOG-SIGNAL FOR VESSELS. FREDERICK E. PERNOT, Berkeley, Cal. Filed Aug. 24, 1914. Serial No. 858,242. (Cl. 116—13.)



1. A signal comprising an intermittently operated movable sound deflector, a sounding device associated therewith, and means for operating said sounding device on the operation of said deflector in one direction only.

2. A signal comprising a movable sound deflector, a sounding device associated therewith, and means for intermittently operating said deflector and said sounding device, said sounding device being operated immediately before, after, and during the operation of said deflector in one direction.

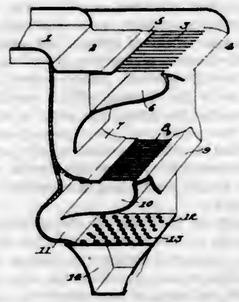
3. In combination with a moving structure, a signal comprising a sound deflector pivotally mounted on a horizontal axis, a sounding device associated therewith, means for intermittently oscillating said deflector, and means for operating said sounding device immediately before, after, and during the oscillation of said deflector in one direction.

4. In combination with a moving structure, a signal comprising a parabolic sound deflector pivotally mounted on a horizontal axis, a sounding device positioned therein, means for intermittently oscillating said deflector, and means for operating said sounding device immediately before, after, and during the oscillation of said deflector in one direction.

5. In combination with a moving structure, a signal comprising a parabolic sound deflector pivotally mounted on a horizontal axis, a pressure operated sounding device positioned therein, continuously operated means for intermittently oscillating said deflector, and means operated by said sounding device immediately before, after, and during the oscillation of said deflector in one direction.

[Claims 6 to 8 not printed in the Gazette.]

1,134,555. SEPARATOR FOR REMOVING VEGETABLE GROWTHS AND COARSE MATERIAL FROM GRAVEL AND THE LIKE. HENRY NOEL POTTER, Hollywood, Cal. Filed Mar. 22, 1913. Serial No. 756,251. (Cl. 83—56.)



1. In a separator of the class described, the combination of a comb and a screen arranged to act successively upon materials to be treated, said screen having apertures of a diameter greater than the interspaces of said comb.

2. In a separator of the class described, the combination of a comb and a screen, the screen having apertures of a diameter greater than the width of the interspaces of the comb, and located so as to receive the fines from said comb.

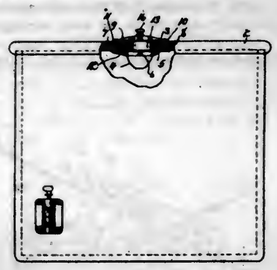
3. In a separator of the class described, the combination of a comb and a screen, the screen having apertures of a diameter greater than the width of the interspaces of the comb, and located so as to receive the fines from said comb, and means to remove oversize from said comb.

4. In a separator of the class described, the combination of a comb and screen placed in the line of travel of material to be treated, means to supply mixed materials to said comb, means to deliver the fines from said comb to said screen, and means to remove the rejected oversize from one side of said comb and screen.

5. In a separator of the class described, the combination of a succession of combs having different interspaces, and a screen, said combs and screen arranged to act successively upon materials to be treated, and said screen having apertures of a diameter greater than the smallest clearance space between adjacent comb teeth in any comb preceding the screen.

[Claims 6 to 12 not printed in the Gazette.]

1,134,556. WATER-CLOSET TANK. ADOLPH C. RECKER, Oakville, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed July 30, 1914. Serial No. 854,005. (Cl. 4—30.)

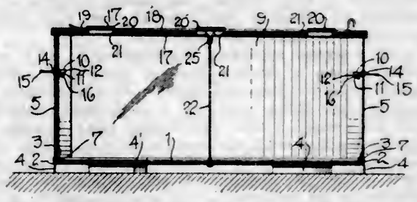


1. The combination with a water closet tank, of a cover provided with a disinfectant holding cup extending inward from its under face and formed with openings through which air may be drawn by the discharge of the water from the tank.

2. The combination with a water closet tank, of a cover formed with a central opening, a cup applied to the under face of the said cover, said cup formed with perforations near its upper end through which air may be drawn by the discharge of the water, and a cap applied to the outer face of the cover from said opening.

3. The combination with a water closet tank, of a cover formed with an opening, a disinfectant-holder secured beneath said opening, said holder formed with perforations near its upper end through which air may be drawn by the discharge of the water from the tank, a perforated cap located over the said opening in the cover, and means for closing the perforations in said cap.

1,134,557. FOLDING EGG-CRATE. FRANK W. ROBERTSON, Orosi, Cal. Filed June 29, 1914. Serial No. 848,004. (C. 220—17.)

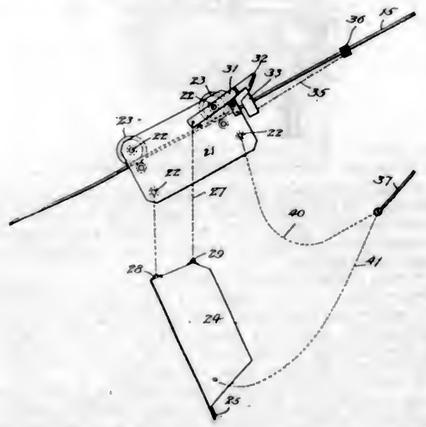


A device of the class described including a bottom member, side and end walls hingedly connected thereto, sleeves formed upon the side and end portions of said bottom member, the material arranged between said sleeves being bent outwardly to form supporting legs, movable rods carried by said end walls having U-shaped portions formed intermediate their ends to provide handles, hook portions formed upon the ends of said rods, said side walls having recesses formed in their ends to provide hooks adapted for engagement with the hooks on said rods, whereby to retain said side and end walls in their upright positions, and a sectional cover adapted to be arranged above said side and end walls, as and for the purpose set forth.

1,134,558. SCRAPER APPARATUS. HENRY B. SAUERMAN, Chicago, Ill. Filed Jan. 15, 1913. Serial No. 742,195. (Cl. 37—19.)

1. In a scraper apparatus having an inclined cable, a carriage movable thereon, and a dumping scraper on the carriage with a draft cable connected with the dumping scraper, locking means in advance of the limit of travel of the carriage and automatically engageable by said carriage, and means operating automatically to disengage said carriage from said locking means upon slackening said draft-cable.

2. In a scraper apparatus having an inclined cable, a carriage movable thereon, and a dumping scraper on the carriage with a draft-cable connected with the dumping scraper, locking means on said inclined cable extending above the point of support of the carriage on said cable and automatically engageable by said carriage, and means operating automatically to disengage said carriage from said locking means upon slackening said draft-cable.



3. In a scraper apparatus, the combination of a main inclined cable, a carriage movable thereon, a scraper bucket supported from and movable on said carriage to dumping and filling positions, a draft-cable connected with the scraper bucket, said bucket being movable to dumping position when said draft-cable is slackened, locking means extending above the point of support of the carriage on said cable and on said main cable automatically engageable by said carriage, and means operating automatically to disengage said carriage from said locking means upon slackening said draft-cable.

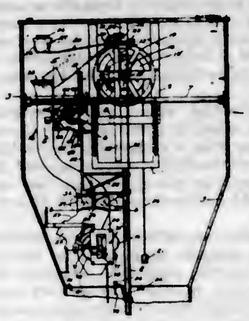
4. In a scraper apparatus, the combination of a main inclined cable, a carriage movable thereon, a scraper bucket supported from and movable on said carriage to dumping and filling positions, a draft-cable connected with the scraper bucket, said bucket being movable to dumping position when said draft-cable is slackened, locking means in advance of the limit of travel of said carriage automatically engageable by said carriage, and means operating by the movement of the scraper-bucket in dumping for automatically disengaging said carriage from said locking means.

5. In a scraper apparatus having a main cable, a carriage movable thereon, and a dumping scraper on the carriage with a draft-cable connected with the scraper, means extending in advance of the limit of travel of said carriage and into the path of and engageable by said movable carriage for determining the point of dumping and from which the carriage is automatically released to permit its return to scraping position by the movement of the scraper in dumping.

[Claims 6 to 17 not printed in the Gazette.]

1,134,559. COIN-CONTROLLED WEIGHING-SCALE. GUSTAV F. W. SCHULTZE, Oakland, Cal. Filed Nov. 26, 1913. Serial No. 803,284. (Cl. 194—47.)

1. In a weighing machine of the class described, the combination with a casing provided with a coin receiving opening and a coin discharge opening, coin operated weight indicating mechanism situated within the casing, a plurality of coin runways within the casing and communicating with said coin receiving and discharge openings, means for directing the deposited coin into one of said runways, and means whereby a guess may be registered as to the runway into which the coin will be directed, whereby the coin deposited within the machine is returned to the user thereof, provided the registered guess as to the runway into which the coin will be directed corresponds to the runway into which it is directed.



2. In a weighing machine of the class described, the combination with a casing, coin operated weight indicating mechanism situated within the casing, coin runways within the casing, means for directing the actuating coin relative to said runways, means whereby a guess may be registered as to the disposal of the coin by the directing means whereby the actuating coin is returned to the user thereof provided the registered guess as to the runway within which the coin is to be directed corresponds to the disposal of the coin by the directing means.

3. In a weighing machine of the class described, the combination with a casing, coin operated weight indicating mechanism situated within the casing, coin runways within the casing, means for directing the actuating coin relative to said runways, means whereby a guess may be registered as to the disposal of the coin by the directing means whereby the actuating coin is returned to the user provided the registered guess corresponds to the disposal of the coin by the directing means, and means for locking the guess registering means in its adjusted position until the weight indicating mechanism is relieved of the user's weight.

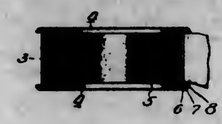
4. In a weighing machine of the class described, the combination with a casing, coin operated weight indicating mechanism situated within the casing, coin runways within the casing, means for directing the actuating coin relative to said runways, means whereby a guess may be registered as to the disposal of the coin by the directing means whereby the coin is returned to the user provided the registered guess corresponds to the disposal of the coin by the directing means, means for locking the guess registering means in its adjusted position on the machine being occupied by the user, and means for automatically restoring the guess registering means to its normal position on the machine being relieved of the user's weight.

5. In a weighing machine of the class described, the combination with a casing, coin operated weight indicating mechanism situated within the casing, means associated with said indicating mechanism for receiving the weight of the user, coin runways within the casing, means operated by the actuation of the weight receiving means for directing the coin relative to said runways, and means whereby a guess may be registered as to the disposal of the coin by the directing means, whereby the coin is returned to the user, provided the registered guess as to the runway within which the coin is to be directed corresponds to the disposal of the coin by the directing means.

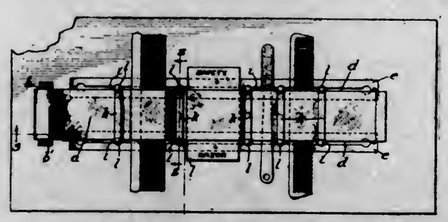
[Claims 6 to 13 not printed in the Gazette.]

1,134,560. CONTAINER FOR ADHESIVE-BANDAGE ROLLS. OTTO C. SCHULZ, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill. a Corporation of Illinois. Filed Jan. 27, 1913. Serial No. 744,379. (Cl. 220—80.)

A container for a bandage roll comprising a cylindrical wall, and a pair of flat circular end walls, the edges of said cylindrical wall being rolled outwardly to form beads extending beyond the periphery of said cylindrical wall, the edges of said circular end walls being rolled inwardly to form beads and bent inwardly to form an inclined portion, whereby the beads on said circular end walls are spaced from the flat portion thereof and adapted to engage beneath the beads on said cylindrical wall to force said last-mentioned beads into close engagement with the flat portion of said circular end walls.



1,134,561. POCKETED RECEIPTACLE. WILLIAM B. SMITH, Chicago, Ill. Filed June 4, 1914. Serial No. 842,844. (Cl. 190—41.)



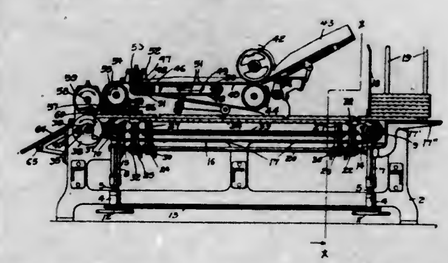
1. A pocketed receptacle including a backing; a longitudinally adjustable pocket forming strip acting in conjunction with the backing to form pockets; and a plurality of pressure exerting clamping members operable toward and from the backing and adjustable longitudinally of the backing for locking selected portions of the pocket forming strip and backing in fixed engagement to provide pockets of fixed sizes.

2. A pocketed receptacle including a backing board; a longitudinally adjustable pocket forming strip acting in conjunction with the board to form pockets; and a plurality of clamping members operable toward and from the board and adjustable longitudinally of the board and in engagement therewith to constitute the board a clamping member common to the aforesaid clamping members and complemental thereto, the aforesaid clamping members cooperating with the clamping member common thereto to lock selected portions of the pocket forming strip and board in fixed engagement to provide pockets of fixed sizes.

3. A pocketed receptacle including a backing board; a longitudinally adjustable pocket forming strip acting in conjunction with the board to form pockets, there being slots in the board which margin the longitudinal edges of said strip; bolts having threaded stems projecting upwardly through the slots and heads at the lower ends of said stems which underlie portions that margin the longitudinal edges of the slots, said bolts being adjustable longitudinally of the slots; clamping bars arranged transversely of the slots and each receiving the stem of a bolt in each slot, these clamping bars being adjustable longitudinally of the slots; and nuts in engagement with the upper ends of the bolt stems and operating to clamp said bars upon the strip which is interposed between the clamping bars and the board.

4. A pocketed receptacle including a backing board; a longitudinally adjustable pocket forming strip acting in conjunction with the board to form pockets, there being slots in the board which margin the longitudinal edges of said strip; bolts having threaded stems projecting upwardly through the slots and heads at the lower ends of said stems which underlie portions that margin the longitudinal edges of the slots, said bolt being adjustable longitudinally of the slots; clamping bars arranged transversely of the slots and each receiving the stem or a bolt in each slot, these clamping bars being adjustable longitudinally of the slots; nuts in engagement with the upper ends of the bolt stems and operating to clamp said bars upon the strip which is interposed between the clamping bars and the board; and a roller upon which said strip may be wound and from which it may be unwound.

1,134,562. AUTOMATIC PAPER-BOX-TOPPING MACHINE. EDWIN GUSTAVE STAUDE, Minneapolis, Minn., assignor to E. G. Staude Manufacturing Co., Minneapolis, Minn., a Corporation. Filed July 22, 1912. Serial No. 711,001. (Cl. 216—53.)



1. A box topping machine comprising a hopper to contain flanged covers, a traveling carrier provided with means to engage the inner face of the forward flange of the lowermost cover in the hopper and feed it forwardly, guides for the covers extending from the hopper to a point adjacent sheet affixing means and lying on opposite sides of the traveling carrier, sheet carrying means disposed above the cover carrier, adhesive applying means located adjacent to the sheet affixing means and the delivery points of the cover and sheet carrying means, and sheet affixing means including presser members located beyond the delivery points of the cover and sheet carrying means and adjacent to the adhesive applying means.

2. The combination, with a hopper adapted to receive flanged box covers placed one above another therein, of feeding means disposed in relation to the inner face of the forward flange of the cover and adapted to feed the cover outwardly from beneath the pile in said hopper, a sheet feeding means, a gumming device therefor, the feeding means for said cover and sheet being timed to register the sheet with the cover, and means for pressing the sheet on the top of the cover.

3. The combination, with a hopper adapted to receive a series of flanged covers placed one above another therein and having an upright wall and a space beneath said wall through which the bottom cover of the pile may be fed, means engaging the inner face of the forward flange of the bottom cover to feed it outwardly from said hopper, a sheet feeding means, a gumming device for said sheet, said feeding means being timed to register the sheet with the top of the cover at a predetermined point in the operation of the machine, and means for pressing the sheet on the top of the cover.

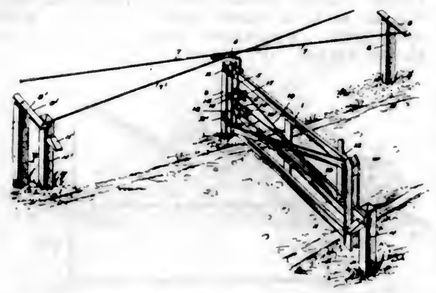
4. The combination, with a hopper adapted to receive a series of flanged box covers placed one above another therein, of a feed belt having lugs at intervals thereon and disposed in relation to the hopper to have the lugs engage the forward depending flange of the bottom cover of the pile and feed it outwardly from said hopper, means for feeding a sheet, means for gumming the sheet, the movement of said belt and said sheet feeding means being timed to register the sheet with the top of the cover, and means for pressing the sheet on the cover.

5. The combination, with a hopper adapted to receive flanged box covers placed one above another therein, of feeding means disposed in relation to the inner face of the forward flange of the bottom cover of the pile and adapted to feed said cover from said hopper, guides provided on each side of said cover extending from the hopper to a point adjacent to a label affixing means, a sheet feeding means, a gumming device therefor, said feeding means

being timed to register the sheet with the top of the cover, and means for pressing the sheet on the cover.

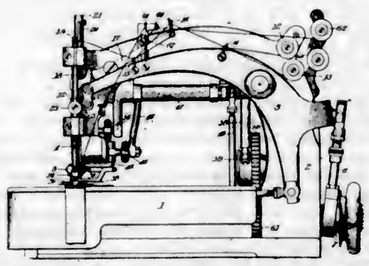
[Claims 6 to 22 not printed in the Gazette.]

1,134,563. GATE-OPERATING ATTACHMENT. JOHN N. TIDD, Carters Bridge, Va. Filed Oct. 20, 1914. Serial No. 867,596. (Cl. 39—14.)



The combination with a swinging gate, of a pivoted latch-bar therefor, a vertical rod mounted on said gate adjacent to its pivoted end, a crank arm on its upper end, a tongue rigidly carried on said vertical rod adjacent to its lower end, a keeper for said tongue rigidly carried on the gate within which the tongue is loosely carried to afford limited lateral motion, a cross-bar adjustably carried on said vertical rod intermediate its ends, connecting rods between the ends of said bar and the pivoted latch-bar for releasing the latch bar by the action of the vertical rod within the limits imposed by said keeper, and levers connected with the crank-arm offset from the gate for actuating said crank, substantially as described.

1,134,564. ORNAMENTAL-STITCH SEWING-MACHINE. VANDIVER J. VAN HORN, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 11, 1907. Serial No. 373,069. (Cl. 112—7.)



1. A sewing machine, including in combination a plurality of needles, a presser foot, having connected needle slots, forming a tongue extending between the needles, a thread carrying member, and loop forming devices cooperating with said thread carrying member for forming loops for the entrance of said needles, and spaced fabric guides for guiding strips of fabric with their edges separated, whereby the edges of fabric are engaged by the respective needles, and said edges joined by the connected loops.

2. A sewing machine including in combination, a plurality of needles, a presser foot having connected needle slots forming a tongue extending between said needles, fabric guides carried by said presser foot, a thread-carrying member and loop-forming devices coöperating with said thread-carrying member for forming loops for the entrance of said needles; substantially as described.

3. A sewing machine including in combination, a plurality of needles, a thread-carrying member, a bracket for supporting said thread-carrying member, means for adjusting said bracket and looping devices carried by said bracket and coöperating with said thread-carrying member for forming loops for the entrance of said needle; substantially as described.

4. A sewing machine including in combination, a plurality of needles, a thread-carrying member, a bracket for supporting said thread-carrying member, said bracket being curved in an arc the center of which is centrally between said needles, means for adjusting said bracket and looping devices coöperating with said thread finger for forming loops for the entrance of said needles; substantially as described.

5. A sewing machine including in combination, a plurality of needles, a thread-carrying member, an adjustable bracket on which a said thread-carrying member is pivoted, a loop-forming device pivoted upon said bracket, and means for positively operating said thread-carrying member and said loop-forming device; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,134,565. BOX-CONNECTOR FOR ELECTRIC INSTALLATION. WHEELER H. VIBBER, New London, Conn., assignor of one-half to The Gillette-Vibber Co., New London, Conn., a Corporation. Filed January 15, 1914. Serial No. 812,220. (Cl. 247—1.)



1. A box-connector for use in electric installation, consisting of a bushing having its inner or coupling-end provided with an abutment and with a lateral flange carrying a coupling-screw acting in opposition to the said abutment, the said abutment and screw being respectively located on opposite sides of the opening in the inner or coupling-end of the bushing and proportioned in their separation to the size of the hole or holes in the outlet box and the outer or clamping-end of the bushing being provided with a clamp for gripping the protecting envelop which is entered into, but does not itself pass through the bushing which serves to connect the said envelop to the outlet box while the conductor passes through the bushing.

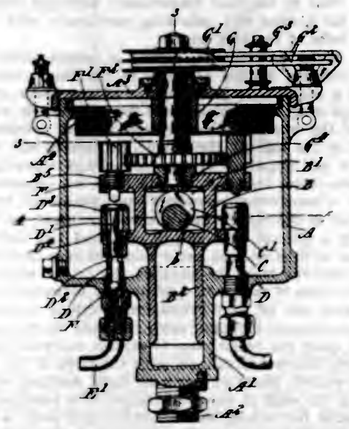
2. A box-connector for use in electric installation, consisting of a bushing having its inner or coupling-end provided with a lateral flange carrying a coupling-screw and having an annular abutment projecting beyond the face of the flange and beveled for the clearance of the head of the screw, the active point of the abutment and the shank of the screw being respectively located on opposite sides of the opening in the inner or coupling-end of the bushing and proportioned in their separation to the size of the hole or holes in the outlet box.

1,134,566. FORCE-FEED LUBRICATOR. CHARLES CHEERS WAKEFIELD, London, England. Filed May 13, 1914. Serial No. 838,274. (Cl. 184—27.)

1. In a force-feed lubricator the combination of, a plurality of delivery pumps, a separately adjustable member for controlling the delivery of each pump, and a single device for adjusting simultaneously the said adjustable members of all the pumps, substantially as set forth.

2. In a force-feed lubricator the combination of, a plurality of delivery pumps, a separately adjustable member for controlling the delivery of each pump, a single device for adjusting simultaneously the said adjustable members of all the pumps, an actuating-member situated at a distance from the lubricator, and means operatively connecting the said actuating-member with the single adjusting-device aforesaid, for the purpose set forth.

3. In a force-feed lubricator the combination of, a plurality of plunger-pumps, driving-means for moving the pump-plungers in one direction such means providing for lost-motion between it and the plungers, means for returning the plungers, said driving means including a screw-threaded stud for each pump-plunger operatively connected therewith in such manner as to take up more or less of the lost-motion as the stud is screwed further into or out from its support, and a single device which engages all of these studs in such manner that when moved it rotates them all simultaneously, for the purpose set forth.

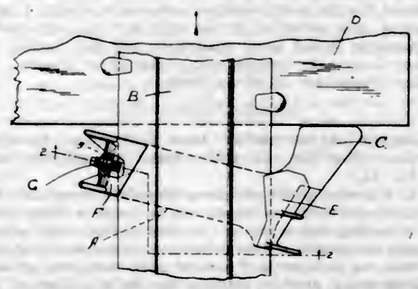


4. A force-feed lubricator, comprising a plurality of plunger pumps, means including a tappet carrying plate and tappets carried thereby for moving the plungers in one direction, means for adjusting said tappets relative to the plate and to each other, means for moving the plungers in the other direction, and an actuating device engaging all of the tappets to simultaneously adjust all of the tappets relative to the plate, for the purpose set forth.

5. A force-feed lubricator, comprising a plurality of plunger pumps, means including screw threaded studs for moving the pump plungers in one direction, a pinion on each stud, a single toothed wheel engaging all of the pinions of the studs to simultaneously rotate all of the studs, and means for moving the plungers in the other direction; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,134,567. RAIL-ANCHOR. WILLIAM A. WALKER, Racine, Wis., assignor to Otto R. Barnett, Chicago, Ill. Filed July 19, 1913. Serial No. 780,021. (Cl. 238—4.)



1. In a rail anchor comprising a jaw, the combination with a tie abutting member, of rail gripping means comprising a jaw engaging one of the base flanges of the rail, and a set screw in said jaw which is adapted to be driven into engagement with said base flange.

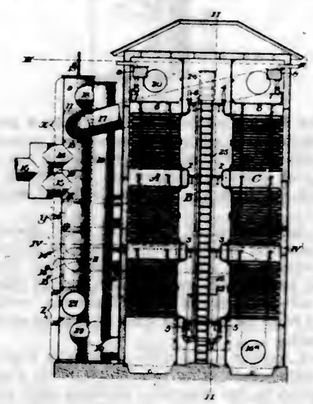
2. In a rail anchor, the combination with rail gripping means comprising a jaw in engagement with the upper surface of the base flange of the rail, of a set screw in said jaw which is adapted to be driven into engagement with said base flange.

3. In a rail anchor, the combination with a strap extending around the base of the rail which is adjusted to its operative position by having one end forced toward the tie against which said anchor abuts, of a set screw in the end of said strap adapted to be driven against said rail, for the purpose described.

4. In a rail anchor the combination with a strap extending around the base of the rail which is adjusted to its operative position by having one end forced toward the tie against which said anchor abuts, of a set screw which extends through said end of said strap and engages the edge of the rail base.

5. A rail anchor comprising an integral casting formed on one end with a tie abutting member and on each end with a jaw to engage opposite edges of the base of a rail, and a set screw extending through one of said jaws adapted to engage the base of said rail, for the purpose described.

1,134,568. DRY-BLAST SYSTEM. BRUCE WALTER, Pittsburgh, Pa., assignor to James Gayley, New York, N. Y. Filed July 22, 1912. Serial No. 710,877. (Cl. 34—24.)



1. In the drying of air for metallurgical purposes, the steps consisting of feeding the air successively through a plurality of compartments over pipes, the air being subjected to the direct action of a counter-current of previously cooled fluid in the first compartment, further cooled in the second compartment by conduction from the pipes, and periodically reversing the order of flow thorugh the compartments while always subjecting the air to a counter-current of previously cooled liquid in the one which it first enters; substantially as described.

2. In the drying of air for metallurgical purposes, the steps consisting in feeding the air upwardly through a succession of compartments and subjecting it to a cooling action in each compartment, and periodically reversing the order of flow through the compartments, thereby, at each reversal, causing the air entering the first compartment in its reversed order of flow to thaw off rime formed therein prior to the reversal, and also thereby utilizing such rime to increase the cooling action on the air, substantially as described.

3. In the drying of air for metallurgical purposes, the steps consisting of feeding the air successively through a plurality of compartments, subjecting the air to the direct action of a counter-current of cooling liquid in the first compartment, then further cooling the air in the second compartment, and periodically reversing the order of flow through the compartments; substantially as described.

4. In the drying of air for metallurgical purposes, the steps consisting of feeding the air successively through a plurality of compartments, subjecting the air to the direct

action of a counter-current spray of cooling liquid in the first compartment, then further cooling the air in the second compartment, and periodically reversing the order of flow through the compartments; substantially as described.

5. In the drying of air for metallurgical purposes, the steps consisting of feeding the air upwardly through a plurality of compartments, subjecting the air to the direct action of a counter-current spray of cooling liquid in the first compartment, then feeding the air through a pipe cooling compartment, periodically reversing the order of flow through said compartments, and subjecting the air to the direct action of a cooling fluid in the first compartment; substantially as described.

[Claim 6 not printed in the Gazette.]

1,134,569. BOX. ARTHUR G. WATKINS, Philadelphia, Pa., assignor of one-half to Charles L. Renz, Jr., and one-half to William N. Jarvis, Philadelphia, Pa. Filed May 11, 1914. Serial No. 837,622. (Cl. 229—47.)

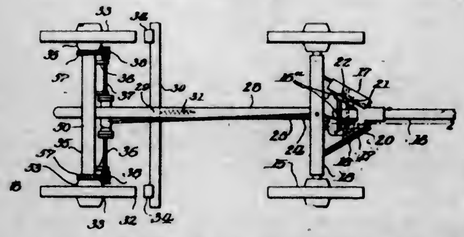


1. A box locking mechanism, comprising a pair of metallic members, each adapted to be secured to and doubled to surround one of two adjacent edges of a box and a lid therefor, and outwardly projecting, coöperating, resilient lugs struck out from the adjacent sides of each of said members.

2. The combination of a box and a lid therefor, with a pair of metallic members, one of which is secured to and doubled around an edge of said box, the other being secured to and doubled around the adjacent edge of said lid, and outwardly projecting, coöperating, resilient lugs struck out from the adjacent sides of each of said box and lid members.

3. A box locking mechanism, comprising a pair of metallic members, each lying in a single plane and adapted to be secured to the respective adjacent edge portions of a box and lid therefor, and outwardly projecting, substantially rectangular, coöperating, resilient lugs, struck out from the adjacent sides of each of said members.

1,134,570. BRAKE FOR VEHICLES. DAVID P. WEIR, Rathdrum, Idaho. Filed Oct. 28, 1913. Serial No. 797,915. (Cl. 21—9.)



1. A brake for vehicles, having a tongue slidably adjusted between hounds attached to the fore truck, comprising a brake beam suspended from the reach of a vehicle and carrying shoes adapted for engagement with the tires of the wheels of the vehicle, a block rotatably attached to the side of the tongue, an oblong slot in said block, a pin attached to the tongue and engaging said slot, two cables attached to said block on opposite sides thereof, a transversely arranged shaft suspended from the rear axle of the vehicle and adapted to rotate, said shaft carrying a gear at each end thereof, and two cylindrical portions secured thereto and a cam rotatable thereon, the cables reaching from the block on the tongue attached to opposite sides of said cam, a connection between the brake beam and one of said cylindrical portions attached to said transversely arranged shaft, whereby by the rotation of said shaft the brake beam is carried rearward to bring the shoes thereon in contact with the tires of the wheels of the vehicle, gears on the rear hubs meshing with the gears on the ends of the said transversely arranged shaft and means for locking and unlocking said gears with collars on the hubs of the rear wheels.

2. A brake for vehicles, having a tongue slidably adjusted between hounds attached to the fore truck, comprising a brake beam suspended from the reach of a vehicle and carrying shoes adapted for engagement with the tires of the wheels of the vehicle, a block rotatably attached to the side of the tongue, an oblong slot in said block, a pin attached to the tongue and engaging said slot, two cables attached to said block on opposite sides thereof, a transversely arranged shaft suspended from the rear axle of the vehicle and adapted to rotate, said shaft carrying a gear at each end thereof, and two cylindrical portions secured thereto and a cam rotatable thereon, the cables reaching from the block on the tongue attached to opposite sides of said cam, a connection between the brake beam and one of said cylindrical portions attached to said transversely arranged shaft, whereby by the rotation of said shaft the brake beam is carried rearward to bring the shoes thereon in contact with the tires of the wheels of the vehicle, gears on the rear hubs meshing with the gears on the ends of the said transversely arranged shaft and means for locking and unlocking said gears with the collars on the hubs of the rear wheels, together with means for returning the brake beam to normal position after the locking mechanism has been released, and means for manually reversing the action of the locking mechanism to automatically set the brakes on any movement of the wheels.

1,134,571. STENCIL. FRANCIS M. WEST, Yonkers, N. Y., assignor to Arthur B. Waring, Yonkers, N. Y. Filed July 12, 1912. Serial No. 709,055. (Cl. 101—134.)

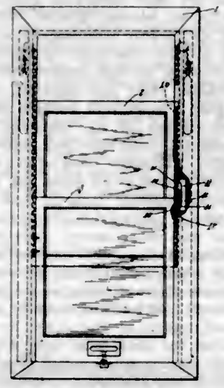


A stencil of the kind described comprising a hollow thin electro-deposited metal shell having reticulations formed therein to represent an ornamental design, a reinforcing wire embedded in the shell near its edge and a reinforcing flowed metal coating on one side having the form of mounds between said reticulations whereby the edges thereof are relatively sharp.

1,134,572. SASH-LOCK. JOHN O. YARDLEY, Stockton, Cal. Filed Aug. 17, 1914. Serial No. 857,139. (Cl. 16—18.)

1. A device of the character described comprising the combination with an upper and a lower window sash, of a locking means for one of said sashes, such locking means comprising a lever fulcrumed independently of said sashes, an arm on each end of said lever, one of said sashes being provided with a slot in a portion of its length, a means normally holding one of said arms in said slot to hold the other of said arms out of engagement with the other sash, said first named arm being engageable with one terminal of said slot to force the other arm into engagement with the other sash, as described.

2. A device of the character described comprising the combination with an upper and a lower window sash, of a lock for one of said sashes, such lock comprising a rack on one of said sashes, a lever fulcrumed independently of both sashes, an arm on one end of said lever engageable with said rack, an arm on the other end of said lever engageable with the other sash to cause said first named arm to engage said rack when the last named sash is in a predetermined position, as described.



3. A device of the character described comprising the combination with an upper and a lower sash, one of said sashes being provided with a slot, of a rack on the other sash, a lever fulcrumed independently of both sashes, an arm on each end if said lever, one of said arms projecting normally into said slot and the other of said arms being adapted to engage said rack when the first named arm engages the terminal of said slot, as described.

1,134,573. CEMENT-MAKING. HERBERT ABRAHAM, Bound Brook, N. J., and HAROLD W. HAINES, New York, N. Y., assignors to Impervious Products Company, a Corporation of New York. Filed Mar. 9, 1910. Serial No. 548,114. (Cl. 106—27.)

1. The process of making a paste miscible with water, adapted for use with the gaging water used in preparing hydraulic cement or the like, which consists in mixing a substantially insoluble inorganic substance capable of forming with water a viscous plastic mixture, water, and a viscous unsaponifiable bituminous liquid which will not materially lessen the strength of the cement in suitable proportions.

2. The process of making a paste adapted for use with the gaging water used in preparing hydraulic cement, or the like, which consists in mixing a substantially insoluble inorganic substance capable of forming with water a viscous plastic mixture, and water in suitable proportions, and adding to the paste thus formed a suitable proportion of a viscous unsaponifiable bituminous liquid which will increase the strength of the cement, the mixture being triturated or ground until of a uniform color and smooth texture, and then adding water during the triturating or grinding until the resulting paste becomes miscible with water without liberation of the bituminous liquid.

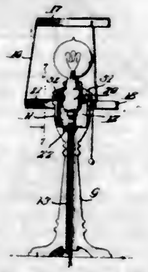
3. The process of making a paste adapted for use with the gaging water used in preparing hydraulic cement, or the like, which consists in mixing a paste of calcium hydroxid with a viscous unsaponifiable bituminous liquid which will not materially lessen the strength of the cement and water in suitable proportions so that the paste becomes miscible with water.

4. The process of making a paste adapted for use with the gaging water used in preparing hydraulic cement, or the like, which consists in mixing a paste of calcium hydroxid with a viscous unsaponifiable bituminous liquid which will increase the strength of the cement in suitable proportions, the said liquid being added in small quantities at a time, and the mixture being triturated or ground during such additions until of a uniform color and smooth texture, and then adding water and mixing the resulting product until the paste becomes miscible with water without liberation of the bituminous liquid.

5. The process of making a paste adapted for use with gaging water in preparing hydraulic cement, or the like, which consists in intimately mixing a viscous unsaponifiable bituminous liquid which will not materially weaken the cement, a suitable carrier therefor and water, the amount of bituminous liquid thus mixed being in excess of the amount of the carrier.

[Claims 6 to 23 not printed in the Gazette.]

1,134,574. LAMP. ALFRED C. ABRAMSON, Rockford, Ill. Filed June 6, 1914. Serial No. 843,538. (Cl. 240—52.)



1. The combination of a lamp body, a shade disposed about about the same and provided with a plurality of inwardly extending arms terminated short of the center of the shade to form a central opening and being adapted to engage the lamp body, and illuminating-member means extending through said central opening, being screw-threaded in connection with the lamp body and having means associated and movable therewith for engaging said arms to hold the same fixedly in connection with the lamp body.

2. The combination of a lamp, a shade comprising upper and lower frame members axially alined, and a plurality of support-members each connected to said frame members maintaining them positioned apart, said support-members being turned inwardly from the lower member and terminating short of the center of the shade so as to form a central opening, the inner ends of the inturned supporting-members resting upon the lamp, and a light-socket located in said central opening, being detachably mounted on the lamp and having means connected therewith for detachably connecting said inwardly extending members with the lamp.

3. A lamp comprising a base having a socket in its upper end, illuminating-member carrying-means located in said socket, and detachable means provided with an opening for access to said illuminating-member carrying-means said detachable means covering the top of said socket so as to close from view said illuminating-member carrying-means.

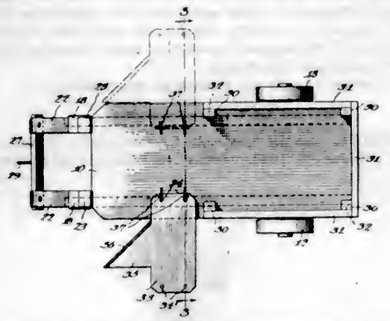
4. A lamp and shade comprising a body having a socket in its upper end, illuminating-member carrying-means located in said socket, a shade having inwardly extending supporting-means engaging the top of said body, and detachable means provided with an opening for access to the illuminating-member carrying-means and being shaped to close from view said illuminating-member carrying-means and to engage said shade supporting-means to hold the shade in fixed position.

5. A lamp and shade comprising a body formed with a socket in its upper end, illuminating-member carrying-means located in said socket screw-threaded in connection with the body, a shade provided with supporting-means engaging the top of the body, and detachable means covering the top of said socket, shaped to permit access to the illuminating-member carrying-means and to engage said

shade supporting-means for holding the same in a fixed position.

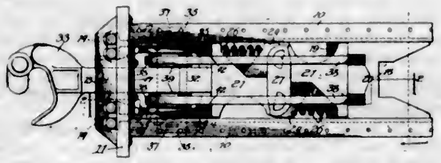
[Claims 6 to 18 not printed in the Gazette.]

1,134,575. CORN-HARVESTER. CHARLES M. ALT, Baltimore, Ohio. Filed Jan. 27, 1913. Serial No. 744,476. (Cl. 56—103.)



A device of the class described comprising a support, hooks secured to said support and extending upwardly from the upper face of said support, said hooks being spaced inwardly from the edge of said support, said hooks provided with over-turned ends spaced from the upper face of said support, a reversible cutting blade provided with projecting end portions having apertures formed therein, said apertures adapted to engage said hooks whereby said blade will be detachably held upon said support, a substantially V-shaped cutting point carried by said blade and projecting forwardly therefrom, and said end portions projecting inwardly from the sides of said support for constituting means for holding said cutting blade substantially parallel with the bottom of said support.

1,134,576. DRAFT-RIGGING. OLOF ANDERSON, Chicago, Ill., assignor, by mesne assignments, to D. E. Town, Chicago, Ill. Filed Nov. 9, 1911, Serial No. 659,277. Renewed Aug. 1, 1914. Serial No. 854,558. (Cl. 213—64.)



1. In a draft-rigging, the combination with the draft-sills and draw-bar, of forward, inwardly projecting stops on the draft-sills, a rear stop and platform carried by said sills, guide-slots in the draft-sills, a key-opening through the draw-bar, a removable key extending through said key-opening and resting and sliding in said guide-slots, a pair of yokes at their forward ends resting and sliding on said forward stops and having a sliding connection with said key and resting at their rear ends slidably on said shelf, and a draft-gear having forward and rear follower-blocks slidably supported in said yokes and confined between said forward and rear stops.

2. In a draft-rigging, the combination with the draft-sills and draw-bar, of a forward stop on the draft-sills, a rear stop and platform carried by said sills, guide-slots in the draft-sills, a key-opening through the draw-bar, a removable key extending through said key-opening and resting and sliding in said guide-slots, thimbles on the key at opposite sides of the draw-bar, a pair of yokes extending at their forward end-portions around and slidably engaging with said thimbles and resting at their rear end-portions slidably on said shelf, and a draft-gear having forward and rear follower-blocks supported by and slidable in said yokes and confined between said forward and rear stops.

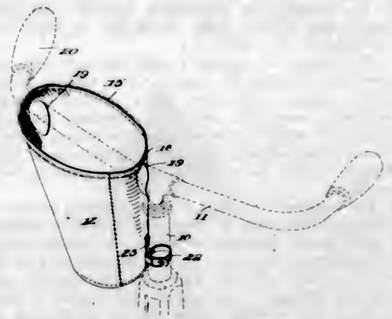
3. In a draft-rigging of the character set forth, the combination with the draft-sills and drawbar, of forward stops on the sills at opposite sides of the drawbar, a rear stop on the sills having a platform and guide-sockets, a draft-gear having opposed forward and rear follower-blocks, and a pair of yokes extending around the follower-blocks, at their rear ends resting slidably on said platform and working in said guide-sockets, at their forward ends engaging with the drawbar, and supporting the said draft-gear between said forward and rear stops.

4. In a draft-rigging of the character set forth, the combination with the draft-sills and drawbar, of forward stops on the sills at opposite sides of the drawbar, a rear stop on the sills having a platform and guide-sockets, a draft-gear having opposed forward and rear follower-blocks, and a pair of yokes extending around the follower-blocks, at their rear ends resting slidably on said platform and working in said guide-sockets, at their forward ends detachably engaging with the drawbar and slidably embracing the said forward stops, and supporting the said draft-gear between said forward and rear stops.

5. In a draft-rigging of the character set forth, the combination with the draft-sills, of a drawbar having a shank provided with a key-opening through it, forward and rear stops on the draft-sills, a draft-gear having opposed forward and rear follower-blocks between said stops, a pair of draft-yokes extending around the follower-blocks and slidably supported at their rear ends between said sills, thimbles slidably mounted in the forward ends of the draft-yokes, and a key passing through said key-opening and engaging said thimbles.

[Claim 6 not printed in the Gazette.]

1,134,577. PARCEL-CARRIER FOR BICYCLES. WILLIAM M. APPLE, San Antonio, Tex. Filed Apr. 8, 1914. Serial No. 830,467. (Cl. 224—36.)



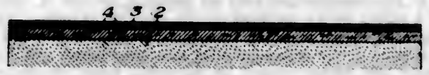
1. A device of the character described including a reversible receptacle having angularly disposed sides, a hem formed on the free edge of the side wall of the receptacle, said side wall having apertures formed therein adjacent the hem, said apertures being adapted to receive one arm of the handle bars of a bicycle, and means detachably engaging the receptacle and disposed to hold the receptacle against transverse movement.

2. A device of the character described adapted for attachment to the handle bars of a bicycle and including a reversible receptacle having angularly disposed sides, straps connected to the receptacle upon opposite sides thereof, said straps each providing vertically arranged loops, and a strap adapted to detachably engage one at a time the loops formed by each of said first mentioned straps, said last mentioned strap being arranged to connect the receptacle to the post of a bicycle.

3. A device of the character described including a receptacle having oppositely disposed apertures formed in the side walls thereof, said apertures being adapted to receive one arm of the handle bars of a bicycle to support the receptacle, said receptacle being adapted to be received between the adjacent arm of the handle bars and the steering post thereof, with the upper edge and one side thereof arranged substantially parallel with said arm of the handle bars and the steering post and the receptacle being reversible to fit handle bars extending at a different angle from the steering post.

4. A device of the character described including a receptacle having an inclined upper edge and provided with angularly disposed sides, said receptacle being adapted to be supported by one arm of the handle bars of a bicycle and being reversible to fit between one arm of the handle bars and the steering post of the bicycle, with one of its sides and the upper edge thereof arranged substantially parallel with the steering post and the said arm when used in connection with bicycles wherein the handle bars extend at different angles from the steering posts thereof.

1,134,578. FLOOR-COVERING. CHARLES D. ARMSTRONG, Pittsburgh, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 24, 1913. Serial No. 775,518. (Cl. 72—63.)

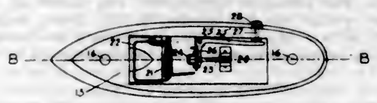


1. The combination with a rigid floor or base, of a yielding elastic floor covering, comprising a plurality of pieces or blocks of cork composition secured to the rigid floor, and linoleum tiles secured to and covering the upper faces of the composition blocks, said tiles and cushioning blocks being arranged to yield when pressure is exerted on the linoleum tiles, substantially as described.

2. The combination with a rigid floor or base, of a yielding elastic floor covering, comprising resilient linoleum tiles laid edge to edge and a cushioning layer of cork material secured to the floor and the lower faces of the linoleum tiles, said linoleum tiles being harder than the cushioning layer but adapted to yield under pressure, substantially as described.

3. As a new article of manufacture, a composite block for floor covering, comprising a block linoleum wearing portion and a resilient cork composition backing member secured thereto, substantially as described.

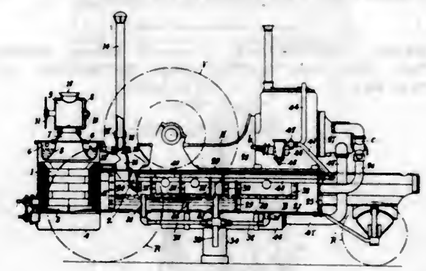
1,134,579. GAME. MAURICE A. AUDSLEY, Corona, N. Y. Filed Dec. 24, 1914. Serial No. 878,856. (Cl. 46—59.)



1. A game wherein a unit includes a projectile ejector having a manually operable trip, and a unit including a removable upper portion, a trip spring device to throw said upper portion upwardly, and an operating detent for said spring device serving as an exposed mark or target outside said second named unit to be actuated by impact from said projectile.

2. A naval game wherein a unit in the form of a torpedo boat includes a projectile ejector having a manually operable trip, and a unit in the form of a gun boat including a removable deck portion, a trip spring device to throw said deck portion upwardly, and an operating detent for said spring device serving as an exposed mark or target outside said gun boat to be actuated by impact from said projectile.

1,134,580. PORTABLE GAS-PRODUCER. FREDERICK BALASSA, Budapest, Austria-Hungary, assignor to Societe Anonyme Hongroise de Banque et de Commerce, Budapest, Austria-Hungary. Filed Jan. 28, 1913. Serial No. 744,685. (Cl. 48—118.5)



1. In a gas purifying device, the combination of a hollow body having an opening in the upper part of one end; means for maintaining a liquid in said body; a downwardly projecting internally air-cooled partition having a lower beveled edge near the level of said liquid and forming, with the end of the hollow body, a passage communicating with said opening; and a gas generator communicating with said opening.

2. In a gas purifying device, the combination of a hollow body having an opening in the upper part of one end; means dividing the body into a purifying compartment and a drying compartment; means for maintaining a liquid in said purifying chamber; a downwardly projecting, internally air-cooled partition having a lower beveled edge even with the level of said liquid, said partition and the end of said body forming an air-cooled passage leading into said purifying compartment; and a gas generator having an air-cooled outlet conduit leading into said passage.

3. In a gas purifying device, the combination of a hollow body having an opening in the upper part of one end; and provided with a bottom having two inclined parts meeting a central flat part furnishing practical means for fixing supporting means and tubular devices; means dividing the body into a purifying compartment and a drying compartment; means for maintaining a liquid in said purifying chamber; a downwardly projecting, internally air-cooled partition having a lower beveled edge even with the level of said liquid, said partition and the end of said body forming an air-cooled passage leading into said purifying compartment; and a gas generator having an air-cooled outlet conduit leading into said passage.

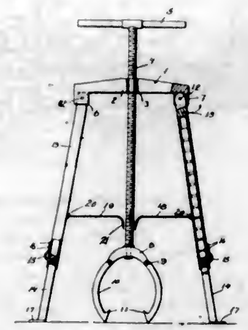
4. In a gas purifying device, the combination of a hollow prismatic body having a flat top provided with an opening at one end; a vertical partition in the lower part of said body dividing said body into a purifying compartment at the end having the opening; and a drying compartment at the other end; a pair of downwardly projecting transverse partitions near the opposite ends of said purifying chamber, the partition nearest to said opening being hollow and internally communicating with the atmosphere and having a lower beveled edge; over flow means for maintaining a liquid in said purifying chamber at a level with the lower edges of said downwardly projecting partitions; and a purifying rack at said level between said downwardly projecting partitions.

5. In a gas purifying device, the combination of a hollow prismatic body having a flat top provided with an opening at one end; a vertical partition in the lower part of said body dividing said body into a purifying compartment at the end having the opening, and a drying compartment at the other end; a pair of downwardly projecting transverse partitions near the opposite ends of said purifying chamber, the partition nearest said opening being hollow and internally communicating with the atmosphere and having a lower beveled edge, over flow means for maintaining a liquid in said purifying chamber at a

level with the lower edges of said downwardly projecting partitions; a purifying rack at said level between said downwardly projecting partitions; and a gas generator communicating with said opening and spaced from said body.

[Claims 6 and 7 not printed in the Gazette.]

1,134,581. TIMBER-JACK. JAMES H. BARRET, Melrose, Tex. Filed June 15, 1914. Serial No. 845,310. (Cl. 254—99.)



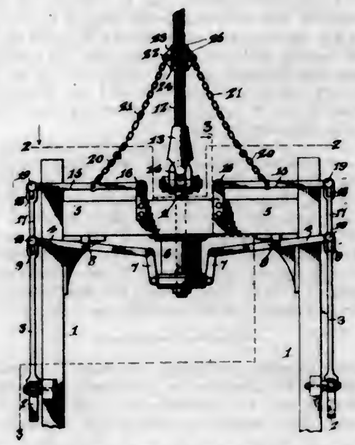
1. A timber jack including a body portion having an internally screw threaded aperture formed centrally thereof, a pair of legs hingedly secured to the ends of the body portion, means carried by the ends of the body portion to limit the movement of the legs, a threaded stem, extending through the threaded aperture in the body portion, a segmental body portion carried by the lower terminal of the threaded stem, a pair of tongs carried by the free terminal of the segmental body portion, teeth at the free ends of the tongs, and means to hold the legs in their proper position.

2. A timber jack including a body, legs pivotally secured to the ends of the body, a threaded stem extending centrally through the body, an arcuate member swivelly mounted on the lower end of the threaded stem, tongs pivotally mounted to said arcuate member and arranged to engage the underside of a log to lift the same, hooks pivotally connected to the legs intermediate their ends and down turned pointed extensions at the free ends of the hooks arranged to engage the upper side of a log to support the same in the tongs.

1,134,582. SAFETY DEVICE FOR ELEVATORS. MATTHEW M. BEAM, Old Forge, Pa. Filed Apr. 6, 1914. Serial No. 829,962. (Cl. 187—87.)

1. The combination with an elevator car, a cable connected therewith, and an automatic safety device including a clutch and automatic mechanism for moving the clutch to its engaging position, said automatic mechanism being normally held by the cable and adapted to be released by the parting of the same, of separate means including a lever arranged at the top of the car above the automatic mechanism and connected with the clutch, and a chain connecting the lever with the said cable, whereby the lever will be directly actuated in the event of the parting of the cable to positively move the clutch to its engaging position.

2. The combination with an elevator car, a cable connected therewith, and an automatic safety device comprising clutches located at opposite sides of the car, and automatic mechanism for moving the clutches to their engaging position, said mechanism being normally held by the cable and adapted to be released by the parting of the same, of separate clutch actuating means including levers mounted on the car at opposite sides thereof and connected with the clutches, and chains connected to the cable beyond the car and extending downwardly and outwardly and also connected at their lower ends to the said levers.



3. The combination with an elevator car and a cable, of a safety device mounted on the car and including dogs arranged in pairs, lower transverse levers, an automatic operating device connected with the lower levers and normally held under tension by the cable, upper transverse levers mounted on the car, flexible connections secured to the cable beyond the car and having branches connected to the upper levers, and means for connecting the upper and lower levers with the dogs.

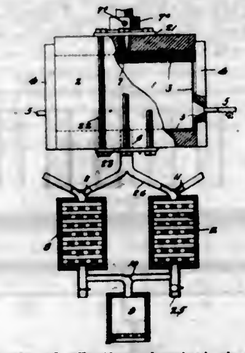
4. The combination with an elevator car and a cable, of a safety device mounted on the car and including spaced dogs, lower transverse levers, an automatic operating device connected with the inner ends of the lower levers and normally maintained under tension by the cable, upper levers mounted on the car and fulcrumed at their inner ends and arranged in pairs, flexible connections secured to the cable beyond the car and having branches connected directly to the upper levers, and upper and lower links connecting the dogs with the outer ends of the said levers.

5. The combination with an elevator car, a cable connected therewith, and an automatic safety device comprising dogs arranged in pairs at opposite sides of the car, and automatic mechanism for moving the dogs to their engaging position, said mechanism being normally held by the cable and adapted to be raised by the parting of the same, of separate actuating means including levers arranged in pairs at opposite sides of the car and connected with the dogs, and chains connected to the cable beyond the car and extending downwardly and outwardly, said chains having branches secured to the levers, whereby the chains are adapted to directly actuate the levers in the event of the parting of the cable from the car.

1,134,583. PROCESS AND APPARATUS FOR PRODUCING CHEMICAL ACTION IN GASES. CHARLES S. BRADLEY, New York, N. Y. Filed May 1, 1909. Serial No. 493,318. Renewed Sept. 2, 1914. Serial No. 859,916. (Cl. 204—31.)

1. The process of fixing the products of endo-thermic reactions in gases, which consists in heating a volume of the gas to reaction temperature, immediately discharging or removing the products from the area or zone of reaction and simultaneously expanding said products and imparting velocity thereto and thereby rapidly removing said products from the area or zone of reaction and reducing the temperature thereof below that at which they would tend to dissociate or revert to their components.

2. The process of effecting chemical changes in gases which consists in bringing the gases to reaction temperature and immediately imparting velocity to the product and discharging the same into an area of reduced pressure to cause an immediate fall in temperature below that at which the product formed by the reaction would tend to reverse.



3. The process of effecting chemical changes in gases, which consists in continuously charging the gases into an inclosed chamber, heating the charge in the chamber to the reaction temperature, and continuously imparting velocity to and discharging the products formed from said chamber immediately into an area of reduced pressure, to produce a sudden reduction of the temperature of said products below that at which dissociation thereof tends to occur.

4. The process for producing oxids of nitrogen, which consists in charging a mixture of oxygen and nitrogen gases into an inclosed chamber, heating said charge throughout to the combining temperature, immediately imparting velocity to and discharging the products from said chamber in an area of reduced pressure, whereby the temperature of the products is reduced below that at which dissociation tends to occur.

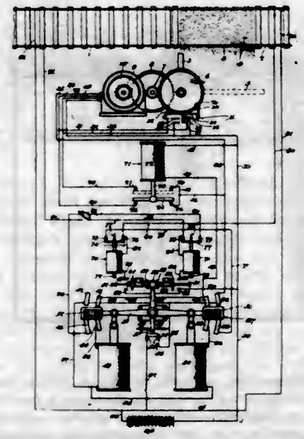
5. The process of producing oxids of nitrogen, which consists in introducing a mixture of nitrogen and oxygen into an inclosed chamber, striking electric arcs in said chamber, imparting velocity to the product to suddenly discharge the same into an area of reduced pressure to reduce the temperature of said product to a point where the product formed is fixed or permanent.

[Claims 6 to 14 not printed in the Gazette.]

1,134,584. AUTOMATIC ELECTRIC CROSSING-GATE. JAY BRIGGS, Los Angeles, Cal., assignor of one-half to W. T. Gunn, San Diego, Cal. Filed Apr. 15, 1914. Serial No. 831,986. (Cl. 39—38.)

1. In combination, a gate, a motor for operating the gate, a battery, a circuit through the armature of the motor, a circuit through the field of the motor, the field circuit being connected with separate track sections and adapted to be closed by a train on a track section, said battery being in the field circuit, a pole changing switch in the armature circuit, a solenoid for operating the pole changing switch, one pole of the solenoid being connected with the battery and the other pole being adapted to be connected with either of the track sections, a main switch means connected with the battery and with both track sections for connecting the solenoid of the pole changing switch with either of the track sections.

2. In combination, a gate, a motor for operating the gate, a battery, a circuit through the armature of the motor, a circuit through the field of the motor, the field circuit being connected with separate track sections and adapted to be closed by a train on a track section, said battery being in the field circuit, a pole changing switch in the armature circuit, a solenoid for operating the pole changing switch, one pole of the solenoid being connected with the battery and the other pole being adapted to be connected with either of the track sections, a main switch means connected with the battery and with both track sections for connecting the solenoid of the pole changing switch with either of the track sections, and means operated by the motor and acting in conjunction with the pole changing switch for breaking the armature circuit when the gate is moved into erect or horizontal position.



3. In combination, a gate, a motor for operating the gate, a battery, a circuit through the armature of the motor, a circuit through the field of the motor, the field circuit being connected with separate track sections and adapted to be closed by a train on a track section, said battery being in the field circuit, a pole changing switch in the armature circuit, a solenoid for operating the pole changing switch, one pole of the solenoid being connected with the battery and the other pole being adapted to be connected with either of the track sections, a main switch means connected with the battery and with both track sections for connecting the solenoid of the pole changing switch with either of the track sections, and means for maintaining the armature circuit through one of the track sections after the main switch means has been actuated by the train passing on to the adjacent track section.

4. In combination with two track sections and a crossing section, gates, means operated by a train passing onto either of said track sections for operating the gate to lower the same and for raising the gate when the train passes off of said section, and means operated by such train as it enters the second section in passing the crossing for preventing the operation of the gate by the gate operating means controlled by said second section.

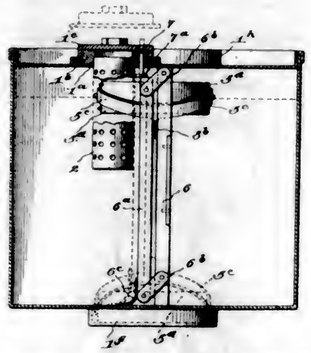
5. In combination with a crossing and two track sections at opposite sides thereof, a gate operating motor, a motor operating circuit including means controlled by the passing of a train onto the first of either of said sections in passing the crossing for operating the motor to lower the gate and means operated by passing of the train off of said first section for operating the motor to raise the gate, and means controlled by the passing of such train onto the second section as it passes the crossing to prevent operation of the motor operating circuit by said second section.

1,134,585. AUTOMOBILE LIQUID-FUEL-TANK REGISTER. CHARLES F. BROWN, New York, N. Y., assignor to Universal Liquid Register Company, New York, N. Y., a Corporation of New York. Filed Dec. 20, 1913. Serial No. 807,912. (Cl. 235—94.)

1. In combination, a tank having a filling opening, a closure for such opening; a register, means in the tank for actuating the register and means whereby the register actuating means is free when the filling opening is uncovered and by which the register actuating means is locked against any movement when the filling opening is closed.

2. In combination with a tank having a filling opening,

a closure for said opening, a registering mechanism, a float, means whereby the float controls the registering mechanism and means for locking said registering mechanism against any movement when the filling opening is closed.



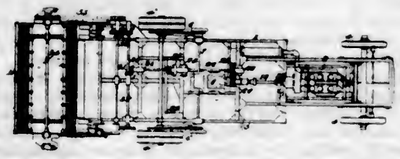
3. In combination, a tank having a filling opening, a closure therefor, a registering mechanism, a float for operating said mechanism, and means whereby the float and registering mechanism are automatically locked against operative movement in either direction by the closing of the filling opening.

4. In combination with a tank having a filling opening, a closure for said opening, a registering mechanism, a float, a lever connecting the float with the registering mechanism, and means for rigidly clamping said float lever when the closure is applied.

5. In combination, a tank having a filling opening, a closure therefor, a registering mechanism, a float, a lever connecting the float to said registering mechanism, and means whereby the lever is automatically locked against any movement upon the closing of the filling opening and released by the opening thereof.

[Claims 6 to 14 not printed in the Gazette.]

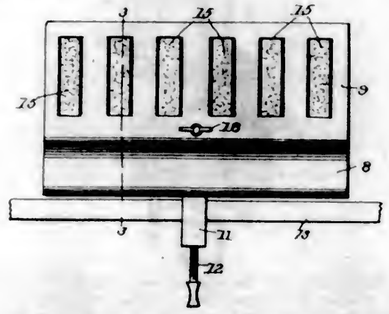
1,134,586. STREET-SWEEPER. CHARLES H. BUTLER, Oakland, Cal. Filed Aug. 25, 1914. Serial No. 858,540. (Cl. 15—17.)



1. In a machine of the type set forth, an engine having a driving shaft, a multi-speed transmission connected to the driving shaft, a gear on the driving shaft between the engine and transmission, a jack shaft connected to the transmission for driving the traction wheels of the machine, a sectional secondary shaft, a gear on one of the secondary shaft sections meshed with the driving shaft gear, a clutch for connecting the secondary shaft sections, a rotatable broom, a broom shaft, means to drive the broom from the broom shaft, and gearing between the broom shaft and the other secondary shaft section.

2. In a machine of the type set forth, a multi-speed transmission, an engine having a drive shaft which latter leads into the transmission at one end thereof, a shaft connected to the transmission to drive the traction wheels of the machine, a rotatable broom, a secondary sectional shaft, means to rotate the broom from one of said secondary shaft sections, means to couple and uncouple the sections of said secondary shaft, and means between the engine and transmission and directly connected to the drive shaft independent of the transmission for driving the other secondary shaft section from the drive shaft.

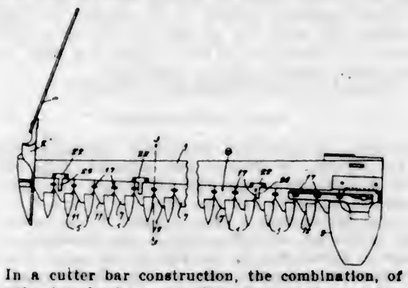
1,134,587. KNIFE-SHARPENER. PATRICK JAMES CALLAHAN, Spokane, Wash. Filed July 10, 1914. Serial No. 850,207. (Cl. 51—7.)



1. A sharpener including a spring frame, holders in the upper portion of said frame, upwardly diverging abrading blocks secured in said holders, and adjustable tensioning means for said holders.

2. A sharpener comprising a frame formed of resilient sheet metal including a base, upwardly converging arms and upwardly diverging holders, upwardly diverging rows of abrading blocks secured in said holders, a bolt positioned through said frame intermediate said holders and said upwardly converging arms, a nut on said bolt, and a spring interposed between said frame and said nut normally tending to move said holders together.

1,134,588. CUTTER-BAR CONSTRUCTION. AMBER R. CONNER, Meredith Center, N. H. Filed Apr. 23, 1914. Serial No. 833,954. (Cl. 56—44.)

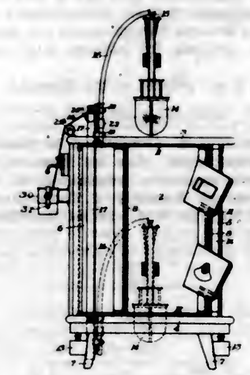


1. In a cutter bar construction, the combination, of a supporting bar, having a plurality of guards secured thereto, a bar slidably carried by said supporting bar, a plurality of cutting sections detachably attached to said slidable bar by bolts, nuts mounted upon the ends of said bolts for binding said sections in engagement with said sliding bar, and means formed upon said guards for preventing the loosening rotation of said nuts upon said bolts.

2. In a cutter bar construction, a supporting bar having a plurality of guards secured thereto, a bar slidably carried by said supporting bar, a plurality of cutting sections having rectangularly shaped cut-out portions formed in their opposite side edges, bolts having rectangular portions formed upon their shanks for insertion into said rectangularly cut-out portions, for preventing the rotation of said bolts, oblong nuts mounted upon the ends of said bolts for binding said sections in engagement with said sliding bar, and means formed upon said guards for preventing the loosening rotation of said nuts upon said bolts.

3. In a cutter bar construction, a supporting bar having a plurality of guards secured thereto, a bar slidably carried by said supporting bar, a plurality of cutting sections having rectangularly shaped cut-out portions formed in their opposite side edges, bolts having rectangular portions formed upon their shanks for insertion into said cut-out portions, for preventing the rotation of said bolts, oblong nuts mounted upon the ends of said bolts for binding said sections in engagement with said sliding bar, said guards being provided with recesses in which said nuts are slidable, said nuts having their corners rounded for engagement with the walls of said recesses for preventing the loosening rotation of said nuts.

1,134,589. BLUE-PRINTING MACHINE. EDGE T. COPE, Salem, Ohio, assignor to The Buckeye Engine Company, Salem, Ohio, a Corporation of Ohio. Filed May 29, 1914. Serial No. 841,799. (Cl. 95—77.5.)



1. In a blue printing machine, the combination with a blue priting cylinder, of a lamp adapted to pass within the cylinder, a support for the lamp, a movable carriage carrying the support, and means for controlling the motion of the carriage.

2. In a blue printing machine, the combination with a blue printing cylinder, of a lamp arranged to be lowered into and raised out of said cylinder, a support for the lamp, a carriage to which the support is secured, a vertical rail on which the carriage travels, and means for regulating the motion of the carriage.

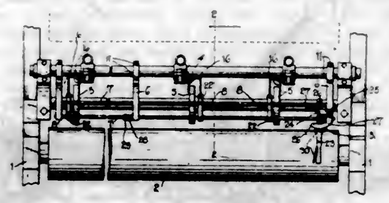
3. In a blue printing machine, the combination with a blue printing cylinder, of a lamp arranged to be lowered and raised out of said cylinder, a support for the lamp, a carriage to which the support is connected, a vertical rail on which the carriage travels, and a safety catch device on the carriage and arranged to coöperate with the rail.

4. In a blue printing machine, the combination with a blue printing cylinder, of a vertical rail attached to the cylinder, a lamp carriage mounted for vertical travel on said rail, said carriage having a spring-pressed member carrying a pulley, a lamp-feeding cord engaging the pulley, and a safety device connected to said spring-pressed member and arranged to engage said rail upon breakage or disconnection of said cord.

5. In a blue printing machine, the combination with a blue printing cylinder, of a lamp arranged for vertical movement within the cylinder, a vertically movable carriage having a support for the lamp, a cord or cable connected to said carriage, a winding drum for the cord or cable, and a governor for controlling the rotation of said drum in one direction.

[Claims 6 and 7 not printed in the Gazette.]

1,134,590. SLITTING MECHANISM. GEORGE L. COWAN, East Ryegate, Vt. Filed Apr. 18, 1914. Serial No. 832,873. (Cl. 164—60.)



1. A device of the character described comprising a lower holder shaft, an upper holder shaft, slitters carried by the lower shaft, hangers operatively connected with the upper shaft, parallel rods slidably supported by the hangers, supports depending from the top shaft, cutters yieldably supported by the hangers, shafts carried by the hangers and capable of endwise movement, cutter disks carried by the shaft and adapted to coact with the cutters of the lower solder shafts, means operatively engaged with each of the parallel rods to engage the shafts of the supports for imparting endwise movement to such shafts in one direction when movement is imparted to the rods, and means for imparting movement to the rods.

2. A device of the character described comprising a lower holder shaft, an upper holder shaft, slitters carried by the lower shaft, hangers operatively connected with the upper shaft, parallel rods slidably supported by the hangers, supports depending from the top shaft, cutters yieldably supported by the hangers, shafts carried by the hangers and capable of endwise movement, cutter disks carried by the shaft and adapted to coact with the cutters of the lower holder shaft, means operatively engaged with each of the parallel rods to engage the shafts of the supports for imparting endwise movement to such shafts in one direction when movement is imparted to the rods, and means for imparting simultaneously and reverse movement to the rods.

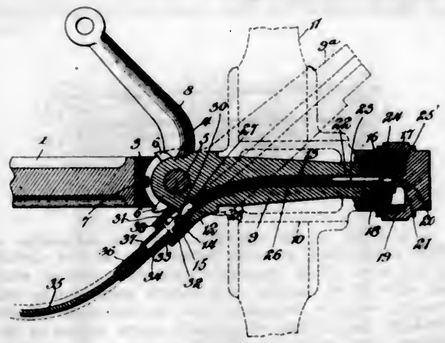
3. A device of the character described comprising a lower holder shaft, an upper holder shaft, slitters carried by the lower shaft, hangers operatively connected with the upper shaft, parallel rods slidably supported by the hangers, supports depending from the top shaft, cutters yieldably supported by hangers, shafts carried by the hangers and capable of endwise movement, cutter disks carried by the shaft and adapted to coact with the shutters of the lower holder shaft, means operatively engaged with each of the parallel rods to engage the shafts of the supports for imparting endwise movement to such shafts in one direction when movement is imparted to the rods, means for imparting movement to the rods, and automatic means for imparting movement to the shafts of the supports when the engaging means carried by the rods are moved away from the supports.

1,134,591. SPEEDOMETER-DRIVE FOR AUTOMOBILES. CLARENCE HORTON CRAFT, Uniontown, Pa., assignor of one-half to Fred A. Close. Filed Oct. 7, 1912. Serial No. 724,457. (Cl. 235—96.)

1. A gearless speedometer drive for automobiles comprising a steering wheel knuckle or support and a spindle provided with a passage extending from the outer end of the spindle through the same and through one side of the knuckle or support, a flexible shaft structure extending through the passageway in the spindle and knuckle or support, and means for connecting the flexible shaft to a steering wheel on the spidle.

2. A means for transmitting motion from a steering wheel of an automobile to a speedometer mounted on the automobile comprising a spindle for the steering wheel and a knuckle or support therefor, said spindle having a passage extending longitudinally therethrough and continued into the knuckle or support and out one side thereof, a flexible shaft extending through said passage, and a dust

cap for the steering wheel having a coupling member for connecting the wheel to the flexible shaft.



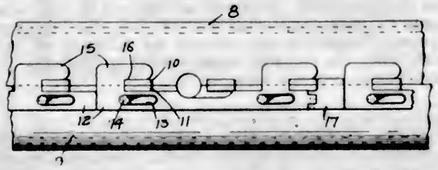
3. In means for transmitting motion from a steering wheel of an automobile to a speedometer, a wheel spindle and knuckle or support therefor provided with a passage extending through the spindle and out at one side through the knuckle or support between the ends thereof, and a flexible transmission shaft housed in said passage.

4. In a means for transmitting motion from a steering wheel of an automobile to a speedometer, a spindle for the wheel and a knuckle or support for said spindle having a curved passage extending through the spindle and out at one side of the knuckle or support, and a flexible shaft housed in said passage.

5. In a means for transmitting motion from a steering wheel of an automobile to a speedometer, a steering knuckle and wheel spindle carried thereby with a passage extending lengthwise through the spindle and out at one side of the knuckle, said passage having counterbored portions at the ends, a flexible shaft having a stem at one end provided with a head adapted to the counterbored portion of the passage at the same end and constructed for connection with an automobile wheel mounted on the spindle, and a coupling member seated in the counterbored portion of the passage at the other end thereof and provided with separable connections with the corresponding end of the flexible shaft.

[Claims 6 to 11 not printed in the Gazette.]

1,134,592. WHEEL-RIM. BENJAMIN DAHL, Minneapolis, Minn. Filed Jan. 29, 1912. Serial No. 674,094. (Cl. 152—7.)



1. A wheel rim composed of annular sections having inner abutting edges, a locking band composed of sections encircled by said rim sections and movable lengthwise independently of one another and having means for interlocking with said rim sections and securing them together, one of said band sections having a pivoted portion at one end that is adapted to contact with the end of the adjoining section and thereby lock all of the sections against longitudinal movement.

2. A demountable rim comprising annular rim sections having inner abutting edges and inwardly projecting lugs formed on said abutting edges and seated against one another, and a locking band divided transversely into a series of sections and mounted for endwise movement on one of said rim sections and having means to engage and clamp said abutting lugs together.

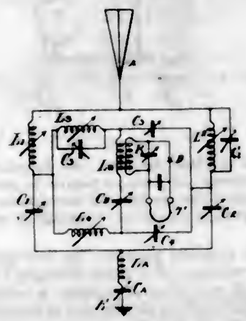
3. A demountable rim composed of annular sections having inner abutting edges, a locking band comprising a series of curved sections placed end to end within the circumference of said rim sections and having a limited circumferential movement, a gap being provided between two adjoining sections of said band, a locking means for closing said gap and holding said band sections temporarily against circumferential movement, said band sections having means for engaging said rim sections and locking them together.

4. A demountable rim comprising annular rim sections having inner abutting edges, a locking band divided transversely into a series of sections placed end to end within the circumference of said rim sections and having slot and pin connections with one of said rim sections for endwise movement thereon independently of one another, said band sections having means for engaging with the other rim section for locking said rim sections together.

5. A demountable rim comprising annular rim sections having inner abutting edges, a locking band divided transversely into a series of abutting sections placed end to end within the circumference of said rim sections and having slidable connections with one of said rim sections for endwise movement thereon, independently of one another, said band sections having means for engaging with the other rim sections for locking said rim sections together.

[Claims 6 to 8 not printed in the Gazette.]

1,134,593. RECEIVING SYSTEM FOR ELECTROMAGNETIC RADIATIONS. LEE DE FOREST, New York, N. Y., assignor, by mesne assignments, to Radio Telephone & Telegraph Company, a Corporation of Delaware. Filed May 5, 1910. Serial No. 559,525. (Cl. 250—20.)



1. In a receiving system for electro-magnetic radiations, an antenna system including branches in parallel each containing inductance and capacity, a bridging circuit between said branches and a receiver circuit associated with said brdging circuit.

2. In a receiving system for electro-magnetic radiations, an antenna system including branches in parallel, each containing inductance and capacity elements, one of said elements combining the characteristics of inductance and capacity, a bridging circuit for said branches, and a receiver circuit associated with said bridging circuit.

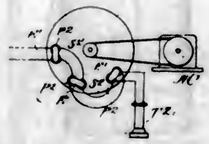
3. In a receiving system for electro-magnetic radiations, antenna system including branches arranged in parallel one of said branches having means to greatly vary its reactance to a received wave train with the frequency of such wave train, a bridging circuit for said branches, and a receiver circuit associated with said bridging circuit.

4. In a receiving system for electro-magnetic radiations, an antenna system, a circuit arrangement associated with the antenna system and including circuit elements in series parallel relation, a bridge connecting like terminals of said circuit, a receiving circuit connections in series parallel relation, a bridge connecting like terminals of said series parallel connections, a receiving circuit associated with the bridge, and means associated with the circuit arrangement for balancing out oscillations produced by received radiations of a given frequency.

5. In a receiving system for electro-magnetic radiations, an antenna system including branches arranged in parallel, a bridging circuit intermediate said branches, secondary branches arranged in parallel in said bridging circuit, a secondary bridging circuit intermediate said secondary branches, and a receiving circuit associated with said secondary bridging circuit.

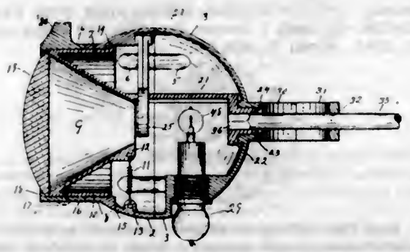
[Claims 6 to 12 not printed in the Gazette.]

1,134,594. MEANS FOR INCREASING THE STRENGTH OF ELECTRIC CURRENTS. LEE DE FOREST, Palo Alto, Cal., assignor to Radio Telephone & Telegraph Company, a Corporation of Delaware. Filed Apr. 11, 1912. Serial No. 690,113. (Cl. 179—171.)



In an apparatus for amplifying feeble electric currents or current impulses, a transformer having its primary coil in circuit with the source of current to be amplified, its secondary coil connected with the primary of a second transformer, the secondary of the second transformer connected with a signal indicating device, and a conductor disposed with relation to both of said transformers to cut the magnetic lines of force thereof, and means for relatively moving said conductor transversely to the magnetic lines of force.

1,134,595. DIRECTION-INDICATOR. HERMAN F. DELMANHORST, Louisville, Ky. Filed Apr. 20, 1914. Serial No. 833,033. (Cl. 240—23.)



1. A substantially spherical case having a frontal opening, a cone shaped member rotatably mounted in said opening and extending beyond the case, a retaining ring on the extended portion of said member, a bridge bar extending rearwardly from said member, a trunnion on said bar in axial alinement with said member and bearing in the rear wall of the case, a source of light within the case positioned in axial alinement with said member, color screens, means for moving said screens into axial line before said light, said color screens normally held out of the axial line by said bar and means for turning said member.

2. A case having a frontal opening, a reflector member rotatably mounted in said opening and extending beyond the case, a bridge bar extending rearwardly from said member, a trunnion on said bar in axial alinement with said member and bearing in the rear wall of the case, a source of light positioned within the case in axial alinement with said member, color screens, means for moving the screens into said axial line between the light and the reflector, said screens being held out of the axial line by said bar, and means for oscillating said member.

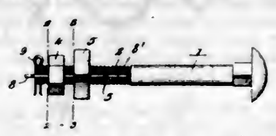
3. A case having a frontal opening, a reflector member rotatably mounted in said opening and extending beyond the case, a bridge bar extending rearwardly from said member, a trunnion on said bar in axial alinement with said member and bearing in the rear wall of the case, a source of light positioned within the case in axial alinement with said member, color screens pendent on each side of said bar, means for moving said screens into the axial line, said bar normally holding the screens out of said axial line but permitting one thereof to swing into said line when said member is turned, means for oscillating said member, and means for returning said member to a normal position.

4. A case having a frontal opening, a reflector member having a rear opening rotatably mounted in said opening and extending beyond the case, a retaining ring on the extended portion of said member, a bridge bar extending rearwardly from said member, a trunnion on said bar in axial alinement with said member and bearing in the rear wall of the case, a source of light positioned within the case in axial alinement with said reflector, pendent color screens bearing on each side of said bar, means for moving the screens into the axial line between the light and the reflector, said screens being normally held out of the axial line by said bar, means for oscillating said reflector, and means for returning the reflector to the normal position.

5. In combination, a case having a frontal opening, a lens bearing member rotatably mounted in said opening, a bridge bar extended rearwardly from said member, a trunnion on said bar in axial alinement with said member and bearing in the rear wall of the case, color screens pendent in said case and bearing respectively on each side of said bridge, a source of light positioned within the case in the rear of said screens and in axial alinement with said member, a spring connecting said screens, said bar adapted to permit a color screen to be interposed in said axial line when said bar is turned at an angle, means for oscillating said member and means for maintaining said member in a normal position.

[Claims 6 to 9 not printed in the Gazette.]

1,134,596. NUT-LOCK. ALBERT DILLON, Altch, Ohio. Filed July 23, 1913. Serial No. 780,802. (Cl. 151—8.)



In a nut lock, a grooved bolt, a grooved nut, said grooves forming key ways, a substantially flat locking key comprising a head portion having two openings formed therein, arms extending therefrom in parallel spaced relation, said arms fitting said ways, said head portion fitting a transverse groove connecting said bolt grooves, and a locking pin of the cotter type, one of the extensions of which is insertible within an opening of the bolt and one of the openings of said head, the other of the said extensions being insertible within the other of the said head openings exteriorly of the bolt, as and for the purpose set forth.

1,134,597. VEHICLE-BRAKE. JOSEPH A. DUKE, Togo, Ark., assignor of one-sixth to Mack Stacy, Wynne, Ark. Filed May 16, 1913. Serial No. 768,131. (Cl. 21—9.)

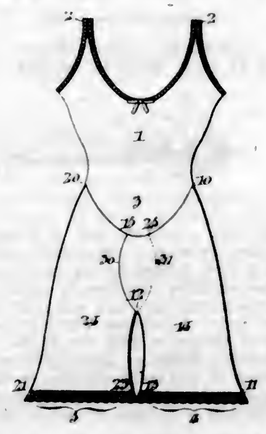
1. The combination of a running gear, a sliding reach therefor, a brake bar fulcrumed on the running gear and connected with the sliding reach, brake shoes carried by said bar, means normally tending to draw said brake shoes into braking relation with the rear wheels of the running gear, a tongue connected with the forward end of the reach and having a slot formed therein, a draft attachment pivoted to the rear of said tongue, a bolt passing through said slot, brace members connecting said bolt in supported relation with the body of the running gear, a toothed rack supported above the rear end of the tongue, a

lever fulcrumed on said tongue and a locking pawl for said lever adapted to engage with the teeth of the rack.



2. The combination with a running gear, of a brake bar fulcrumed on the running gear, brake shoes carried by said bar, spring extending between the brake bar and the rear axle of the running gear and normally drawing said shoes in braking relation to the rear wheels of the running gear, a sliding reach extending longitudinally of the running gear, a head block fastened to said reach, brace bars connecting the head block with the brake beam, a tongue, a draft attachment connected with the tongue, a swivel connection between the rear end of the tongue and the forward end of the sliding reach, said tongue having an elongated slot therein, a bolt sliding in said slot, brace bars connecting said bolt in supported relation with the body of the running gear, a cross strap connecting said brace bars, a toothed rack carried by said cross strap, a lever pivoted to the tongue at a point betwen the slot thereof and the connection of the tongue with the reach, and a locking pawl carried by the reach and adapted to engage with the rack.

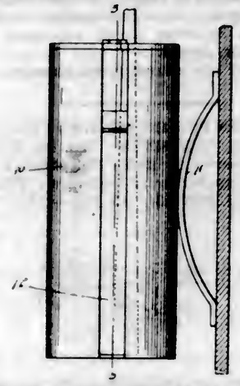
1,134,598. KNIT UNDERGARMENT. MAX ERSTLING, Philadelphia, Pa. Filed July 6, 1914. Serial No. 849,037. (Cl. 2—144.)



A three piece garment comprising a tubular body portion terminating at the front in a flap depending below the waist line and extending downwardly at the back and slit centrally at the waist line to form in part the leg portions, supplemental pieces seamed to each other and the body portion and its divided extension to complete the leg portions, with provision of an opening extending both back and front from the waist line to the crotch, and overlapping flaps secured to said supplemental pieces for closing the opening both back and front.

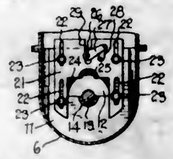
1,134,599. LOCK-SOCKET FOR WHIPS. ARTHUR JAMES EVANS, Beach, N. D. Filed July 7, 1914. Serial No. 849,591. (Cl. 21—130.)

1. A lock whip socket comprising a cylindrical casing having an open upper end and a longitudinal passage in its side wall opening through its upper end, a hinged lid for closing the upper end of the casing and provided with a recess in its peripheral portion communicating at one end with said passage, a disk rotatably mounted in the casing in a plane at right angles to the longitudinal axis thereof and having a plurality of peripheral recesses, and means for locking said disk against rotation.



2. A lock whip socket comprising a cylindrical casing having an open upper end and a longitudinal passage in its side wall opening through its upper end, a hinged lid for closing the upper end of the casing and provided with a recess in its peripheral portion communicating at one end with said passage, a standard rising from the bottom of the casing and having a threaded recess in its upper end, a binding screw engaged in said threaded recess, and a disk rotatable on the binding screw and having a plurality of recesses in its periphery, said disk being adapted to be locked against rotation by the operation of said binding screw into the threaded recess.

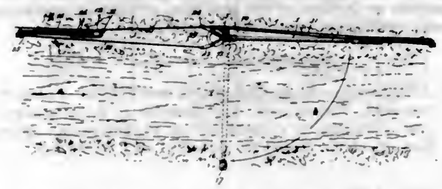
1,134,600. FUEL-FEEDING MECHANISM FOR FURNACES. CHARLES I. FILSON, Burnham, Pa. Filed Apr. 11, 1914. Serial No. 831,230. (Cl. 193—13.)



1. In a fuel feeding mechanism, a hopper, a casing on the lower end of said hopper, a shaft mounted in said casing, spaced conveyers on said shaft, a stationary plate arranged within the casing betwen the conveyers and provided with an opening above the conveyer shaft, a second plate slidably mounted upon the inner face of said stationary plate and also having an opening to coöperate with the opening in the stationary plate and determine the amount of fuel delivered by one conveyer to the other, said movable plate being also adapted for engagement upon the shaft to entirely cut off the feed of the fuel, a manually operable shaft mounted in the wall of said casing, and means located within the casing and connecting said shaft to the movable plate whereby the latter may be actuated to dispose the opening therein with respect to the opening in the stationary plate.

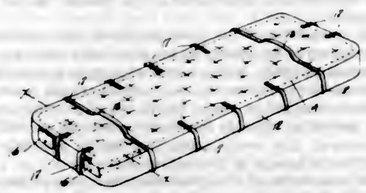
2. In a fuel feeding mechanism, a hopper, a casing on the lower end of said hopper, a shaft mounted in said casing, spaced conveyers on said shaft, a stationary plate mounted in the casing between said conveyers and provided with an opening, a plate slidably mounted upon the stationary plate and adjustable over said opening to regulate the quantity of fuel delivered by one conveyer to the other, a shaft mounted in the wall of said casing, an arm fixed on one end of said shaft, a link connecting said arm to the adjustable plate, and a lever fixed upon the other end of said shaft whereby the same may be actuated to adjust the plate.

1,134,601. FARM-GATE. JOHN FLINNER, Leavenworth, Kans. Filed Oct. 8, 1910. Serial No. 586,075. (Cl. 39—14.)



A gate comprising a tubular frame, a rod slidably mounted in the upper bar of the frame, a yoke comprising a horizontally disposed loop, the ends of which terminate in spaced arms for attachment to the opposite sides of the rear end of the upper bar, the inner end of said rod extending into the loop, levers pivotally connected, intermediate their ends to the loop and in oblique relation to the upper bar, links pivotally connecting the inner ends to the levers and inner end of the rod, said levers having their ends disposed in obtuse angular relation to their outer ends, whereby said inner ends are operable in the confines of the loop and in close parallel relation to the bar.

1,134,602. COMBINED MATTRESS AND LIFE-RAFT. CHARLES H. FRYE, South Bend, Ind. Filed Jan. 18, 1915. Serial No. 2,827. (Cl. 9—13.)



1. A mattress comprising a marginal frame having yielding end portions and rigid intermediate portions, a casing for the frame, and a filling for the casing of material not readily absorbent of water.

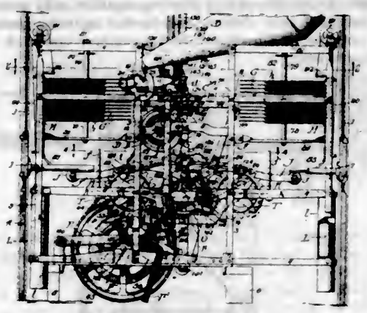
2. A mattress comprising a frame having rigid side bars and spaced flexible frame members secured to both edges of and extending beyond the ends of the bars, a casing for the frame, and a filling for the casing of resilient material not readily absorbent of water.

3. A mattress comprising a frame having rigid grooved side bars, and spaced flexible frame members seated in said grooves and extending beyond the ends of the bars, means for securing the frame members to the bars, a casing, and a filling for the casing.

4. A mattress comprising a frame having rigid side bars and spaced flexible frame members secured to and extending beyond the ends of the bars, a casing for the frame, a pocket extending inwardly of the casing, and a filling for the casing of material not readily absorbent of water.

5. A mattress comprising a frame having rigid grooved side bars, and spaced flexible frame members seated in said grooves and extending beyond the ends of the bars, a casing for the frame, a filling for the casing, and a marginal stitching through the casing and filling adjoining the inner surface of the frame, whereby the casing is drawn taut about the frame to hold the frame members seated in the grooves of the side bars.

1,134,603. AUTOMATIC TALKING-MACHINE. JOHN GABEL, Chicago, Ill. Filed Feb. 26, 1906. Serial No. 302,878. (Cl. 181—4.)



1. In talking machines, the combination with the horizontal turn-table for rotating the record disks and operating mechanism for said turn table, of a movable centering device coöperating with the turn-table to hold the records thereon and means for shifting the records to place between said turn-table and centering device and for removing the same therefrom.

2. In talking machines the combination with the turn-table for rotating the record disks and operating mechanism for said turn table, of a centering device above the turn-table shiftable to and from the same and arranged to coöperate therewith to hold the record disks in position, shifter mechanism for moving the records to and from said turn-table and means for operating said shifter mechanism and centering device.

3. In a talking machine, the combination with a rotatable record support and a traveling sound box, of a record holder or magazine, manually operable means for moving said record holder or magazine to select a record, shifter mechanism for automatically moving the selected records to and from said holder or magazine and into and out of operative position upon said record support, shifter mechanism for automatically raising and lowering said sound box and moving the same to starting position, driving means for said record support and said shifter mechanisms, means for initiating the operation of said driving means and means for automatically arresting the same.

4. In talking machines, the combination with the reproducer, a turn table for rotating the records and operating mechanism for said turn table, of a record holder or magazine bodily movable to bring any one of the records thereon into line with said turn table, a shifter for moving the records to and from said magazine and into and out of operative position with said turn table, a centering device movable to and from said turn table for positioning and holding the records thereon and means for successively operating said shifter and said centering device.

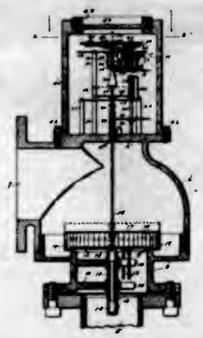
5. In a talking machine, the combination with a rotatable record support, driving means therefor and a suitable reproducer, of a record holder or magazine, means for shifting said magazine to select a record comprising a rotatable shaft and connections between said shaft and said magazine, shifter mechanism for automatically moving the selected record to and from said magazine and into and out of playing position on said record support, and means automatically controlled by said shifter mechanism for preventing the operation of said magazine shifting means when one of the records is removed therefrom.

[Claims 6 to 112 not printed in the Gazette.]

1,134,604. FLUID-METER. PAUL GAETH, Cleveland, Ohio, assignor of one-third to William F. Tausch and one-third to Thomas J. Jackman, Cleveland, Ohio. Filed Oct. 5, 1914. Serial No. 865,145. (Cl. 73—37.)

1. The combination of a driven spindle movable lengthwise, a motor spindle movable lengthwise and engaging

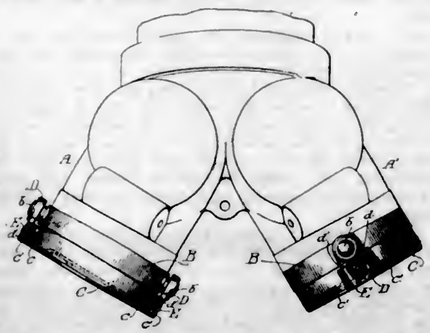
said driven spindle to shift the same, a pressure-opened valve bearing against said motor spindle and adapted to shift the same lengthwise, a cone on said driven spindle, a yielding friction wheel bearing against said cone, gearing between said driven and motor spindle, permitting said lengthwise movement, and a register operated by said friction wheel.



2. The combination of a vertically movable motor spindle, a pressure operated inlet valve bearing against said spindle and adapted to lift the same, a register, variable speed gear between said register and spindle operated by the latter according to the lift thereof, said gear including a shaft shiftable lengthwise by said spindle, and reducing gearing between said spindle and shaft.

3. The combination in a fluid meter, of driven and driving spindles located in alinement and shiftable lengthwise with each other and means operated by the fluid to rotate the driving spindle, a pressure-operated valve bearing against the driving spindle to shift said spindles lengthwise, reducing gearing between the spindles, and a variable speed gear operated by the driven spindle and adapted to drive a register.

1,134,605. CAP FOR WATER-PIPES. HENRY GIBBS, Chicago, Ill., assignor to W. D. Allen Manufacturing Company, Chicago, Ill., a Corporation. Filed Jan. 13, 1915. Serial No. 2,049. (Cl. 137—13.)



1. A cap for water pipes comprising a plate adapted to set over the end of the pipe, and arms extending inwardly from said plate and provided with holes to receive lateral projections at the end of the pipe, one at least of said arms being detachably connected to said plate.

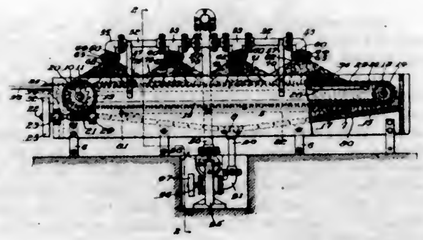
2. A cap for water pipes comprising a plate adapted to set over the pipe, lugs on said plate provided with ribs and inwardly projecting arms detachably connected to said lugs.

3. A cap for water pipes comprising a plate adapted to set over the end of the pipe, lugs on said plate and slotted arms projecting inwardly from said lugs, and screws connecting said arms and lugs.

4. A cap for water pipes comprising a plate adapted to set over the end of the pipe, lugs on said plate provided with threaded holes, inwardly projecting slotted arms, and screws passing through the slots of said arms and into the threaded holes of said lugs, the walls of the slots of said arms being inclined.

5. A cap for water pipes comprising a plate having an inwardly depressed central portion and adapted to set over the end of the pipe, and arms extending inwardly from said plate and provided with holes to receive lateral projections at the end of the pipe, one at least of said arms being detachably connected to said plate.

1,134,606. BLACKLEADING-MACHINE. JAMES F. GOUNLEY, Philadelphia, Pa., assignor to Royal Electrotype Company, a Corporation of Pennsylvania. Filed Nov. 18, 1911. Serial No. 660,978. (Cl. 91—7.5.)



1. In a machine of the class described, the combination with a conveyer, and a series of spraying nozzles having jet apertures arranged in radial relation to the nozzle axis at suitable intervals, the sprays of one nozzle being directed in alternate relation with the sprays of the adjacent nozzle.

2. In a machine of the class described, the combination with a conveyer, of means to progress said conveyer at a predetermined speed, and a series of spraying nozzles suitably disposed superjacent to said conveyer, and having jet apertures arranged in radial relation to the nozzle axis, in planes spaced at suitable intervals transverse to said axis, the sprays of one nozzle being directed in alternate relation with the sprays of the adjacent nozzle.

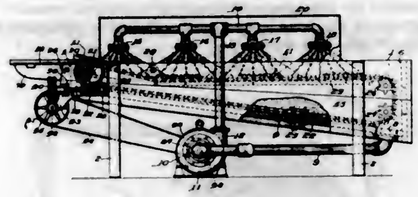
3. In a machine of the class described, the combination with a conveyer, of means to progress said conveyer, and a series of spraying nozzles operatively disposed with respect to said conveyer and having jet apertures arranged in radial relation to said nozzle axis and arranged to direct sprays in planes spaced at suitable intervals transverse to said axis, the sprays of one nozzle being directed in alternate relation with the sprays of the adjacent nozzle.

4. In a machine of the class described, the combination with a belt conveyer, of means to progress said conveyer at a predetermined speed, and a series of spraying nozzles comprising elongated transversely disposed casings, having jet outlet apertures directed radially in parallel planes, and disposed at suitable distances transverse to the axis of said nozzles, the jet outlets of adjacent nozzles being disposed in relatively staggered relation.

5. In a machine of the class described, the combination with a belt conveyer, of means to progress said conveyer at a predetermined speed, a series of parallel sprayers disposed superjacent to said belt, and having parallel series of jet apertures disposed radially in spaced parallel planes transverse to the axes of said sprayers and respectively directed at different angles to the plane of said conveyer, and means to force graphite laden liquid through said nozzles, upon articles carried by said conveyer, the sprays of adjacent nozzles being directed in staggered relation overlapping, to insure a continuous treatment of said articles.

[Claims 6 to 11 not printed in the Gazette.]

1,134,607. BLACKLEADING-MACHINE. JAMES F. GOUNLEY, Philadelphia, Pa., assignor to Royal Electrotype Company, a Corporation of Pennsylvania. Filed June 12, 1912. Serial No. 703,141. (Cl. 91—7.5.)



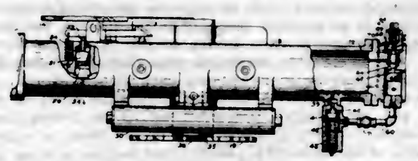
1. A spraying machine having a tank, provided with an inclined bottom, an outlet in said bottom at its lower end, and conveying and agitating means comprising a conveyer mounted to travel in said tank, and having a horizontal portion near the top of said tank to convey articles through said tank, and a lower portion extended along said inclined bottom, and means arranged to effect the movement of said conveyer in a direction to cause that portion of said conveyer which is in close proximity to said bottom to move in the direction of the declivity of said bottom.

2. A spraying machine having a tank for containing a spraying fluid and provided with an inclined bottom, agitating means comprising a conveyer for carrying articles through said machine and having a portion extending along said inclined bottom to prevent accumulation of precipitate, a horizontal portion extended below the top of said tank, and an inclined portion extending upwardly and arranged to direct articles carried by said conveyer over the edge of said tank, means arranged to receive said articles thus ejected from said tank, a plurality of spraying devices disposed superjacent to said conveyer, a pump arranged to draw fluid from said tank, and to force said fluid through said spraying devices, driving means for said pump, means connected with said driving means and comprising a chain or worm gears operatively connected to effect the rotative movement of said conveyer, and a cover for said spraying devices.

3. A spraying machine having a tank for containing spraying fluid, and provided with an inclined bottom, agitating means comprising a conveyer for carrying articles through said machine and having a portion extending along said inclined bottom to prevent an accumulation of precipitate, a horizontal portion extended below the top of said tank and an inclined portion extending upwardly and arranged to direct articles carried by said conveyer over the edge of said tank, a plurality of spraying devices for directing spray upon articles carried by said conveyer, a pump arranged to draw fluid from said tank and to force said fluid through said spraying device, driving means for said pump and means connected with said driving means operatively connected to actuate said conveyer.

4. In a spraying machine, the combination of a tank, the bottom of which is inclined continuously toward one end and provided with an outlet in the said bottom at its lowest point, a continuous belt-like conveyer extending longitudinally of said tank and having its upward course substantially horizontal and its lower course resting upon said bottom, means to move said conveyer so that the bottom course of said conveyer travels toward said outlet to agitate the liquid in said tank, to keep said bottom clear from deposited matter and to move the same toward said outlet, a plurality of spraying jets arranged superjacent the upper course of said conveyer, and a pump connected to said outlet and to said series of sprayers, a delivery table adjacent the shallow end of said tank, and means to deliver to said table articles from the upper course of said conveyer after the same have been subjected to the action of said sprayers.

1,134,608. FLUID-PRESSURE DOOR-OPERATING DEVICE. ALBERT GOTTSCHALK, New York, N. Y., assignor to National Pneumatic Company, Chicago, Ill., a Corporation of West Virginia. Filed July 20, 1911. Serial No. 639,611. (Cl. 39—94.)



1. In a door operating apparatus, the combination with a fluid pressure motor for actuating the door and a main valve for controlling the supply of fluid to the motor, of a separate valve device operating automatically upon the arrest of the door during its closing movement, to cut off the supply of fluid to the motor.

2. In a door operating apparatus, the combination with a fluid pressure motor for actuating the door and a main valve for controlling the supply of fluid to the motor, of a separate valve device operating automatically upon the arrest of the door during its closing movement, to cut off the supply of fluid to the motor, and exhaust the fluid therefrom.

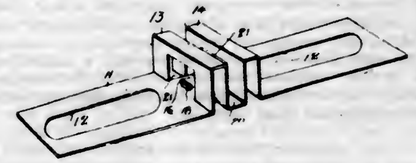
3. In a door operating apparatus, the combination with a fluid pressure motor for actuating the door and a main valve for controlling the supply of fluid to the motor, of a separate valve device operated by the increasing pressure in the main cylinder when the door is arrested during its closing movement, to cut off the supply of fluid to the motor.

4. In a door operating apparatus, the combination with a fluid pressure motor for actuating the door, of a valve device operated by a predetermined degree of pressure in the main motor to temporarily close the supply to and open an exhaust from the said motor.

5. In a door operating apparatus, the combination with a fluid pressure motor for actuating the door, of a valve device operated by a predetermined degree of pressure in the motor to temporarily cut off the supply of fluid and then automatically open the supply.

[Claims 6 to 10 not printed in the Gazette.]

1,134,609. BRAKE-SHOE. FREDERICK W. GRANT, Ridgewood, N. J. Filed June 17, 1914. Serial No. 845,559. (Cl. 188—82.)



1. A brake shoe consisting of a reinforcing back transversely bent or folded to form a fastening device integral therewith the side walls of the fastening device being cut out to form a key way, the cut out portions forming tongues which are lapped upon each other, in combination with a cast metal shoe body to which said reinforcing back and lapping tongues are secured.

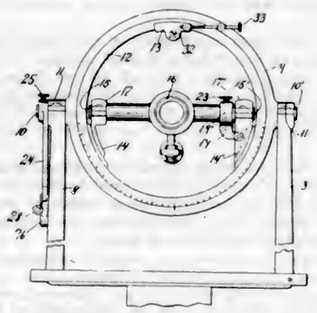
2. A brake shoe consisting of a shoe body of cast metal, and a reinforcing sheet metal back thereof, said reinforcing back having transverse bends or folds therein to form one or more channel shaped key lugs, the side walls of said lugs being cut out to form tongues, said tongues being perforated and bent down to lap the one upon the other and receiving through said perforations the metal of the cast shoe body.

3. A brake shoe consisting of a shoe body of cast metal and a reinforcing sheet metal back, said back being transversely channeled to form a key lug integral therewith the walls of the key lug channel being slitted to form tongues, said tongues bent down and lapped the one upon the other to form a strengthening connection for the portions of the back lying on opposite sides of said lug, and means to secure said back and tongues to the cast metal body and said tongues to each other.

4. A brake shoe consisting of a cast metal shoe body and a sheet metal reinforcing back secured thereto said back being channeled its entire transverse width to form a key lug integral therewith, and having strengthening tongues connecting the portions thereof lying on opposite sides of the transverse channel, said tongues lapping upon each other and secured together and to the shoe body.

5. A brake shoe consisting of a cast metal body and a sheet metal reinforcing back secured thereto, said back being formed with a plurality of transverse channels to form integral securing devices, said channels being connected by an intermediate web, said web being secured to the shoe body.

1,134,610. OBSERVATION INSTRUMENT. ANDREW P. HARTMANN, Yonkers, N. Y. Filed Apr. 1, 1913. Serial No. 758,141. (Cl. 33—46.)

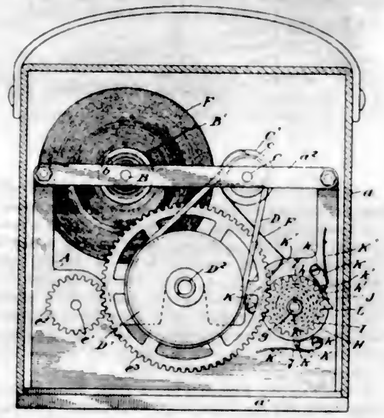


1. An observation instrument, comprising a pivotally mounted base, bearings carried thereby, a ring having trunnions pivoted in said bearings, a second ring slidable with respect to said first ring and having bearings, and a sighting device having trunnions pivoted in said bearings of said second ring, one of said rings having graduations, the other of said rings having indicators for coöperating with said graduations.

2. An observation instrument, comprising a base, bearings carried by said base, a ring having trunnions journaled in said bearings, a second ring slidably mounted within said first ring and having bearings, a sighting device having trunnions journaled in said last-mentioned bearings, said second-mentioned ring being split, and means for clamping said rings together.

1,134,611. MOTION-PICTURE MACHINE. ROBERT HEAD, New York, N. Y., assignor to Robert L. Watkins, New York, N. Y. Filed May 26, 1909. Serial No. 498,536. (Cl. 88—18.)

1. In a photographic apparatus, the combination of means for supporting a sensitized film, means for producing an image on the sensitized surface of the film, a fed roll, a take-up roll, a driving member, means coöperating with the feed roll and the driving member for actuating said feed roll at a constant speed, and means coöperating with the take-up roll for imparting intermittent rotation thereto, said means embodying a shouldered stop member mounted on the spindle of said take-up roll and rotatable with said roll, a plurality of pawls mounted independently of the stop member for engagement with the shoulders on said member, and a power receiving member loosely mounted on said spindle, and rotatable independently of the take-up roll, a tension member mounted intermediate the shouldered stop member and the power receiving member and coöperating with said members whereby the rotation of the power receiving member serves to place the spring under tension while the take-up roll is retained against rotation by the aforesaid circumferentially disposed pawls, and a trip on said power receiving member for engaging said pawls in succession whereby the tension of the tension member is allowed to intermittently revolve the take-up roll.



2. In a photographic apparatus, the combination of means for supporting a sensitized film, means for producing an image on the sensitized surface of the film, a feed roll, a take-up roll, a driving member, means coöperating with the feed roll and the driving member for actuating said feed roll at a constant speed, and means coöperating with the take-up roll for imparting intermittent rotation thereto, said means embodying a shouldered stop member mounted on the spindle of said take-up roll and rotatable with said roll, a plurality of pawls mounted independently of the stop member for engagement with the shoulders on said member, and a power receiving member loosely mounted on said spindle, and rotatable independently of the take-up roll, a tension member mounted intermediate the shouldered stop member and the power receiving member and coöperating with said members whereby the rotation of the power receiving member serves to place the spring under tension while the take-up roll is retained against rotation by the aforesaid circumferentially disposed pawls, and a trip rotatable with the power receiving member for engaging said pawls in succession, whereby the tension of the tension member is allowed to intermittently revolve the take-up roll.

3. In a photographic apparatus, the combination with means for imparting movement intermittently to a sensitized film, and means for projecting an image against the sensitized surface of said film, of a shutter and light-reflecting surface coöperating with the shutter and adapted to be interposed in the path of the projected image whereby the image may be viewed and the object kept in proper focus during the movement of the film.

4. In a photographic apparatus, the combination with means for imparting movement intermittently to a sensitized film, and means for projecting an image against the sensitized surface of said film, of a shutter provided with a light reflecting surface adapted to be interposed in the path of the projected image, and observation means whereby an operator may view the images reflected by said light-reflecting surface so as to enable the object to be kept in proper focus during the movement of the film.

5. In a photographic apparatus, the combination with means for imparting movement intermittently to a sensitized film, and means for projecting an image against the sensitized surface of said film, of a shutter operating to expose the film during the intervals of rest of the shutter, said shutter being provided with a surface adapted to reflect the light, and observation means coöperating with the shutter so that an operator may view the image reflected by said reflecting surface of the shutter and be thus enabled to keep the object in focus during the movement of the film.

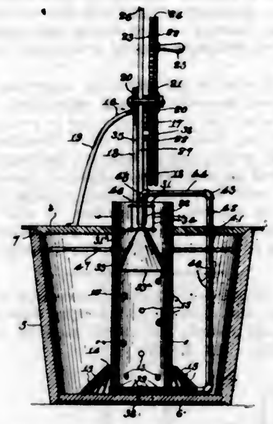
[Claim 6 not printed in the Gazette.]

1,134,612. SLED-RUNNER. FRANK HORNQUIST, Mount Jewett, Pa. Filed Apr. 19, 1913. Serial No. 762,354. (Cl. 21—94.)



A sled runner of substantially inverted T-shape in cross section having a tread surface composed of two lobes contiguous each other, said lobes defining a cusp in cross section, and a web merging into the lobes opposite the cusp.

1,134,613. WASHING-MACHINE. ADDIE H. HORNSBY, Omaha, Nebr. Filed Nov. 9, 1911, Serial No. 659,405. Renewed Aug. 17, 1914. Serial No. 857,431. (Cl. 68—37.)

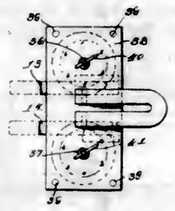


1. In a washing machine, a receptacle, a perforated cylinder within the receptacle, a plunger reciprocable within the cylinder and means associated with the plunger whereby downward movement thereof will introduce air in the bottom of the cylinder.

2. In a washing machine, a receptacle, a perforated cylinder within the receptacle, a plunger comprising an inverted funnel, a pipe disposed within the receptacle and having one end perforated and disposed in the bottom of the cylinder and having its other end projecting downwardly axially of the cylinder and telescopically slidably engaging the neck of the funnel and means for reciprocating the funnel.

1,134,614. LOCK. MANNING M. HUNT, Napa, Cal. Filed Mar. 17, 1914. Serial No. 825,308. (Cl. 70—55.)

1. A lock comprising a body portion provided with recesses forming pockets, strips slidably mounted in said recesses and extending beyond said body portion, means for limiting the outward movement of said strips, one of said strips being provided with a notch for registering with an opening formed in said body portion, the other of said strips being drawn toward the second opening formed in said body portion when in an extended position, a plate secured to said body portion and provided with openings registering with the openings of said body portion, locking disks rotatably carried by said plate and provided with notches for registering with the openings of said body portion, a cover plate secured upon said last mentioned plate and provided with openings for registering with the openings of said body portion, and a hasp provided with fingers extending through the notches of said body portion and plates and provided with notches for permitting said strips to be moved inwardly to pass through the notches and for permitting said disks to be turned to a locked position and extend through the notches of the fingers to releasably secure said hasp.



2. A lock comprising a body portion provided with seats and with openings communicating with said seats, strips slidably mounted in said seats, a plate placed upon said body portion and provided with circular openings cut to extend across said seats and being also provided with openings registering with the openings of said body portion, locking disks rotatably mounted in the circular openings of said plate and provided with notches for registering with the notches of said body portion and with the notches of said plate, a cover secured upon said plate and provided with openings registering with the openings of said plate and body portion, and a hasp provided with fingers extending through the registering openings of said body portion plate and cover and provided with notches through which said disks and strips are adapted to pass to removably secure said hasp to said body portion.

3. A lock comprising a body portion provided with openings, a plate secured upon said body portion and provided with openings registering with the openings of said body portion, locking strips slidably mounted between said body portion and plate and extending across the openings of said body portion when in a locked position, locking disks rotatably carried by said plate and provided with notches for registering with the openings of said body portion and plate when in a released position, a cover secured upon said plate for holding said disks in place and being provided with openings registering with the openings of said plate, and a hasp provided with fingers for extending through the registering openings of said cover plate and body portion and provided with notches through which said strips and disks are adapted to pass when in a locked position to releasably secure said hasp.

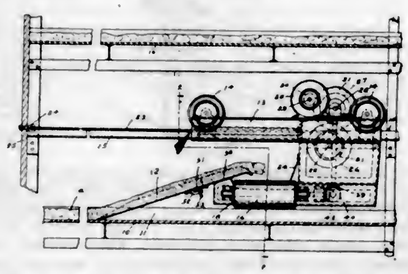
4. A lock comprising a body portion provided with openings, a plate secured upon said body portion and provided with openings registering with the openings of said body portion, locking means slidably mounted between said body portion and plate and extending partially across the openings of the same when in a locked position, means for limiting the outward movement of said locking means, locking means rotatably carried by said plate and extending partially across the openings of said plate and body portion and provided with notches for registering with the openings when in a releasing position, a cover secured upon said plate and provided with openings registering with the openings of said plate, and a hasp provided with fingers extending through the registering openings of said cover plate and body portion and provided with notches for releasing said sliding and rotatably mounted locking means whereby said hasp may be releasably secured.

5. A lock comprising a body portion, a plate fitting upon said body portion, a cover fitting upon said plate, said cover plate and body portion being provided with registering openings, a hasp, fingers extending from said hasp through the registering openings of said cover plate and body portion and provided with notches, rotatably mounted locking means for passing through the notches of said

fingers to lock said hasp and provided with notches for permitting said fingers to be withdrawn, and slidably mounted locking means for passing through said notches to lock said hasp.

[Claims 6 and 7 not printed in the Gazette.]

1,134,615. APPARATUS FOR REMOVING STARCH FROM SETTLING-TABLES. FREDRICK LESTER JEFFERIES, Summitt, Ill., assignor to Corn Products Refining Company, a Corporation of New Jersey. Filed Sept. 29, 1913. Serial No. 792,379. (Cl. 214—10.)



1. The combination with a starch table having sides which are inwardly inclined from top to bottom, of a starch stripping wedge, and means for moving the same from end to end of the table so as to strip and raise the starch therefrom in a continuous ribbon.

2. The combination with a starch table having sides which are inwardly inclined from top to bottom, of a starch stripping wedge, means for moving the same from end to end of the table so as to strip and raise the starch therefrom in a continuous ribbon, and a transversely arranged conveyer which receives the ribbon of starch from the wedge.

3. The combination with a plurality of starch tables in parallel arrangement having sides which are inwardly inclined from top to bottom, of a delivery chute at one side of the tables and parallel therewith, a carriage arranged so as to travel above and lengthwise of the tables, a conveyer on said carriage extending transversely of the tables and delivering into said chute, and a starch stripping wedge adjustably secured to the carriage so that it may operate upon any of said tables to strip and raise the starch therefrom and deliver the same to said conveyer.

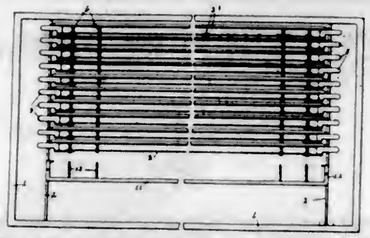
4. The combination with a starch table having sides which are inwardly inclined from top to bottom, of a carriage arranged to move lengthwise of the table above the same, a conveyer on said carriage, and a starch stripping wedge on the carriage disposed so as to strip and raise the starch from said table and deliver the same to the conveyer.

5. The combination with a plurality of starch tables in parallel arrangement having sides which are inwardly inclined from top to bottom, of a delivery chute at one side of the tables and parallel therewith, a carriage arranged so as to travel above and lengthwise of the tables, a receiving table at the forward edge of the carriage, a conveyer arranged back of and below said receiving table, and a starch stripping wedge adjustably secured to the forward edge of said receiving table so that it may operate upon any of said starch tables to strip and raise the starch therefrom and deliver the same to said conveyer.

1,134,616. FILING DEVICE FOR TRACINGS, MAPS, CHARTS, &c. GUSTAV H. JOHANSON, Junista, Pa. Filed Aug. 18, 1911. Serial No. 644,795. (Cl. 129—1.)

1. In a device of the character described, blocks, a carrier connected to said blocks, studs extending from said carrier, a clamping plate slidably mounted on said studs, and latches pivoted to said blocks and adapted to hold said clamping plate on said studs.

2. In a device of the character described, a carrier, studs extending from said carrier, a follower, pins extending from said follower corresponding in number and position to said studs, and means for yieldingly holding said pins in a projected position.



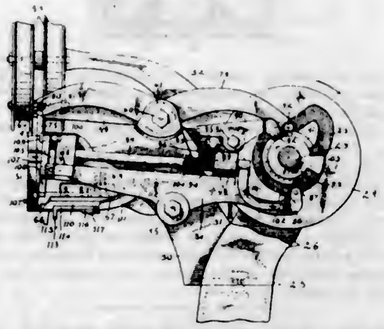
3. In a device of the character described, a carrier, studs extending therefrom, a follower, pins loosely mounted in said follower adapted to engage said studs, and springs carried by said follower whereby said pins are yieldingly held in a projected position.

4. In a device of the character described, supporting rods, a carrier mounted thereon, studs extending from said carrier, a follower slidable on said supporting rods, pins loosely mounted in said follower corresponding in number and position to said studs, and means whereby said pins are yieldingly held in a normally projected position.

5. In a device of the character described, supporting rods, a carrier mounted on said supporting rods, blocks connected to said carrier and adapted to rest on said rods, studs projecting from said carrier, a clamping plate slidable on said studs, means whereby said clamping plate may be locked on said studs, a follower mounted on said supporting rods, and pins carried by said follower corresponding in number and position to said studs, said clamping plate adapted to be moved over on said pins.

[Claims 6 to 14 not printed in the Gazette.]

1,134,617. STRING-NAILER. LAWRENCE E. JOHNSON, St. Joseph, Mo., assignor to Specialty Shoe Machinery & Tool Co., St. Joseph, Mo. Filed Aug. 20, 1910. Serial No. 578,191. (Cl. 1—30.)



1. In a shoe nailing machine, the combination with a frame, and means for supporting nail strings in roll form, of an adjustable nail guide having a plurality of differently formed nail conduits therein, nail feeding means comprising a reciprocating member, a dog yieldingly mounted on said member and adapted to successively engage the heads of the nails, a cam shaft, cam-disk mounted on the cam shaft, and an operative connection between said disk and the reciprocating member.

2. In a shoe nailing machine, the combination with a frame, a plurality of reels adapted to hold nail strings, means for feeding the nails, nail severing means, and a nail driver, of shoe feeding means, comprising a rock-lever, and a rock-shaft mounted on said lever, a cam-shaft, a disk on said shaft, an operative connection between said disk and the nail feeding means, the nail severing means and the nail driver, a cam-wheel on said cam-shaft and an operative connection between said wheel and the shoe feeding means.

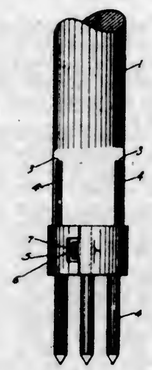
3. In a shoe nailing machine, the combination with a frame, a plurality of reels adapted to hold nail strings, a nail feed, a nail shear, and a nail driver, of shoe feeding means, comprising a rock-lever, a rock-shaft mounted on said lever, an awl operatively connected with said shaft, a cam shaft, a cam-wheel on said cam-shaft, cams on said wheel, and arms on said rock-shaft engaging said cams.

4. In a shoe nailing machine, the combination with a frame, a plurality of reels adapted to hold nail strings, nail feeding means, nail severing means, and nail driving means, of shoe feeding means, comprising a rock-lever, a rock-shaft mounted on said lever, a spring for the shaft, an awl operatively connected with said shaft, a cam-shaft, a cam-wheel on said cam-shaft, arms on said rock-lever engaging the periphery of said wheel at diametrically opposite points, and means for adjusting one of said arms.

5. In a shoe nailing machine, the combination with a frame, a plurality of reels adapted to hold strings of connected nails, nail feeding means, nail severing means, and nail driving means, of shoe feeding means, comprising a rock-lever, a rock-shaft mounted on said lever, a spring for the shaft, an awl pivoted on said lever, a crank arm on said shaft engaging said awl, a cam-shaft, a cam-wheel on the cam-shaft, a fixed arm on said rock-lever engaging said wheel, a movable arm on said lever also engaging said wheel, and means for adjusting said movable arm.

[Claims 6 and 7 not printed in the Gazette.]

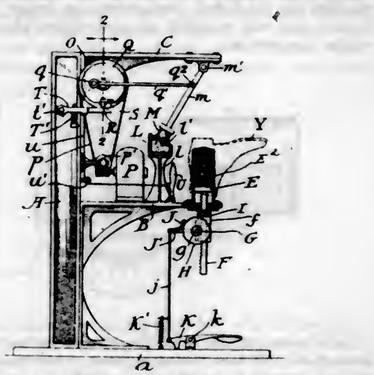
1,134,618. WEED-PULLER. SIEGMUND KAUFMAN, Birmingham, Ala. Filed Nov. 18, 1914. Serial No. 872,796. (Cl. 55—65.)



1. A weed pulling tool comprising a handle rounded at its lower end and having a series of parallel spaced side grooves which open out through its said lower end, straight prongs, the inner ends of which are adapted to seat in and bear against the upper ends of said grooves and to project slightly beyond the circumference of the handle, and a band surrounding the grooved end of the handle and adapted to engage and firmly clamp said marginal series of prongs in said grooves.

2. In a tool of the character described, a handle, axial grooves leading from one end of the handle and having square inner ends, prongs adapted to seat in said grooves and bear against said square inner ends while their sides project slightly above the handle surface, and a clasp band having a slot at one end and an inturned tongue at the other end which is adapted to be driven into the handle through said slot to hold the band about the prongs, as and for the purposes described.

1,134,619. MACHINE FOR AFFIXING LININGS TO SHOE-SOLES. JOHN A. KELLY, Philadelphia, Pa. Filed Mar. 17, 1914. Serial No. 825,214. (Cl. 12—39.)



1. In a machine of the class described, the combination of a combined magazine and shoe support for containing linings adapted to be affixed to a sole, said magazine being open at the top thereof, means for feeding said linings within said magazine and shoe support, and coating mechanism positioned to traverse the open end of said magazine and shoe support.

2. In a machine of the class described, the combination of a support over which shoes are adapted to be positioned for receiving a sole lining, means for feeding sole linings relatively to said support in such manner that each lining is positioned for contact with the face of a shoe sole, and means for applying an adhesive to said sole linings.

3. In a machine of the class described, the combination of a support over which shoes are adapted to be positioned for receiving a sole lining, and means for automatically feeding sole linings relatively to said support in such manner that each lining is positioned for contact with a face of a shoe sole.

4. In a machine of the class described, a combined support and magazine over which a shoe is adapted to be positioned for receiving a sole lining, combined with means for feeding the sole linings through the magazine and into position to be affixed to a face of the shoe sole.

5. In a machine of the class described, a combined support and magazine over which a shoe is adapted to be positioned for receiving a sole lining, combined with means for feeding the sole linings through the magazine and into position to be affixed to a face of the shoe sole, and means for applying an adhesive to the exposed face of the topmost lining within the magazine.

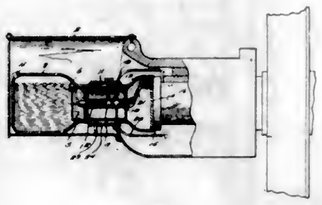
[Claims 6 to 14 not printed in the Gazette.]

1,134,620. AUTOMATIC CAR-JOURNAL COOLER. ROBERT S. KINNEAR, Laramie, Wyo., assignor of one-half to Arthur P. Higgins, Laramie, Wyo. Filed Mar. 19, 1914. Serial No. 825,777. (Cl. 64—28.)

1. A device of the type described including an attachment for a car-axle box equipped with a cooling agent containing means, comprising chambers, one having a reticulated wall, the other chamber having a nozzle provided with a spring-controlled valve, with its controlling spring connected to said reticulated wall, the third chamber adapted to be spaced from the intermediate chamber for seating said valve, and a pipe alining said nozzle and provided with branch pipes or tubes adapted to deliver or spray the cooling agent upon the car-axle.

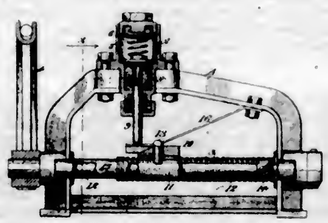
2. A device of the type described including an attachment for a car-axle box, and a cooling agent containing means comprising chambers, one chamber being provided with a nozzle having a spring-controlled valve, the third chamber being adjustable with respect to the second or intermediate chamber and adapted to retain said valve unseated when in contact with said intermediate cham-

ber, a delivery pipe arranged to receive the cooling agent from said nozzle, and a plurality of pipes arranged parallel with and continuous to said delivery pipe, and means adapted by frictional heat-generating action to deliver hot-air into said plurality of pipes during the prevalence of low temperature.



3. A device of the type described including an attachment for a car-axle or journal box, a cooling agent containing means, a sub-chamber within the cooling agent containing means proper having a reticulated wall in its otherwise open end through which the cooling agent enters said sub-chamber, the opposite wall of said sub-chamber having a valve-controlled nozzle extending therethrough, a third chamber having its casing adjustably connected to the casing of said sub-chamber, a fourth chamber having its casing connected to the casing of the third chamber and provided with a friction end-wall plate, the car-axle having a friction plate rotating in frictional contact with the aforesaid plate, a delivery pipe receiving the cooling agent from said nozzle, said delivery pipe having a plurality of branches adapted to spray or discharge the cooling agent upon the car-axle, and an additional plurality of pipes extending parallel and contiguous to said delivery pipe for a portion of their lengths, the remaining portions of said pipes extending upwardly into the upper portion of said fourth chamber and receiving the hot-air therefrom for heating by radiation, said delivery pipe during the prevalence of low temperature.

1,134,621. AUTOMATIC VALVE. HAROLD O. KNAPP, Crockett, Cal. Filed Aug. 3, 1914. Serial No. 854,705. (Cl. 137—4.)



1. In an automatic valve mechanism, the combination of a valve having a valve stem, a worm, a segmental traveling nut on the worm engageable with the valve stem to actuate the valve, a guide rod parallel with the worm on which the nut is adapted to slide, and a handle for shifting the nut along the worm.

2. In an automatic valve mechanism, the combination of a valve having a valve stem, a worm, a segmental traveling nut on the worm engageable with the valve stem to actuate the valve, said worm having an unthreaded portion at the limit of forward travel of the nut, and an adjustable guide for limiting the travel of the nut in the opposite direction.

3. In combination with a slidable valve, an actuator therefor to unseat same by wiping contact therewith, and constantly driven means to operate the actuator, said actuator being shiftable at will along the length of the operating means so as to predeterminately vary the length of time at which the valve will be unseated from the commencement of movement of the actuator.

4. In combination with a valve, an actuator therefor to unseat same, constantly driven means to operate the actuator, said actuator being shiftable at will along the length of the operating means, adjustable means adapted to be set at different positions adjacent the operating means to engage and limit the extent of movement of the actuator on the operating means, and means whereby the actuator is placed out of operative connection with the operating means subsequent to the actuator unseating the valve.

5. In combination with a valve, an actuator therefor to unseat same, constantly driven means to operate the actuator, said actuator being shiftable at will along the length of the operating means, and adjustable means adapted to be set at different positions adjacent the operating means to engage and limit the extent of movement of the actuator on the operating means.

[Claims 6 to 8 not printed in the Gazette.]

1,134,622. FISH-HOOK. WILLIAM L. C. KOCH, Dedham, Mass. Filed Feb. 17, 1914. Serial No. 819,195. (Cl. 43—31.)



1. A device of the character described, comprising a carrier having a laterally inclined slot, a hook having a fixed connection with the carrier, a second hook having a pivoted and sliding connection with the carrier, and a spring for normally holding the second hook with its shank extending through said slot.

2. A device of the character described, comprising a carrier, a hook having a fixed connection therewith, a second hook pivoted to the carrier, a spring for raising the pivoted hook, means for normally holding the hooks in relative position with the point of each hook guarded by a portion of the other hook, and a catch for holding the pivoted hook crossing the other hook with the points of both hooks exposed.

3. A device of the character described, comprising a carrier, a pair of fish hooks one of which is fixed to the carrier and the other movable relatively thereto, and a bait hook slidingly connected to the carrier, the end of the bait hook being in position to be closed by the edge of the carrier when the bait hook is slid rearwardly.

4. A device of the character described, comprising a carrier having a flat side and a rounded side, the latter having a slot with an inclined side, a hook fixedly secured to the carrier, a second hook pivotally connected with the carrier and having its shank extending through said slot, a spring for normally holding the shank of the pivoted hook against the inner end of the slot, and a bait holder between the hooks.

5. A device of the character described, comprising a carrier having a flat side and a rounded side, the latter having a slot with an inclined side, a hook fixedly secured to the carrier, a second hook pivotally connected with the carrier and having its shank extending through said slot, a spring for normally holding the shank of the pivoted hook against the inner end of the slot, and bait hooks movable relatively to the carrier, the ends of said bait hooks being in position to be normally guarded by an edge portion of the carrier.

[Claims 6 to 10 not printed in the Gazette.]

1,134,623. INTERNAL-COMBUSTION ENGINE. JOHN F. KYTLICA, Chicago, Ill. Filed Mar. 27, 1914. Serial No. 827,585. (Cl. 123—18.)



1. In an internal combustion engine, the combination with a stationary cylinder, of a rock-shaft extending therethrough, a pair of pistons rigidly connected to the said shaft and disposed radially of the cylinder; a pair of segmental members movably interposed between the said shaft and the walls of the cylinder; a crank-shaft carrying oppositely disposed cranks, a ring extending around said cylinder and rigidly connected to the segmental members, and pitmen connecting the oppositely disposed cranks respectively to the said rockshaft and the said ring.

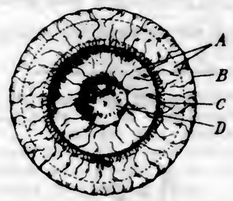
2. In an internal combustion engine, the combination with a stationary cylinder, of a rock-shaft extending therethrough, a pair of pistons rigid with respect to the said shaft and disposed radially of the cylinder; a pair of segmental members movably interposed between the said shaft and the walls of the cylinder, each of the said members presenting walls disposed close to and substantially parallel with one of the other of the pistons between which the said member is interposed, according as the said member and pistons are at one or the other extreme of their relative motion; a crank-shaft carrying oppositely disposed cranks, an annular ring extending around the said cylinder and rigidly connected to the segmental members, spacing blocks interposed between said ring and the segmental members and working in slots formed in said cylinder, and pitmen connecting the oppositely disposed cranks respectively to the said rock-shaft and the said ring.

3. In an internal combustion engine having a plurality of substantially radially disposed and relatively movable pistons housed between a cylinder and the shaft extending axially through the latter, and having ports for connecting intake and exhaust pipes to portions of the cylinder disposed between adjacent faces of the said relatively movable pistons, means for controlling the said ports comprising a normally closed valve controlling each port, the said valves disposed outwardly of a cylinder casing concentric with the said shaft, each of the said valves having a stem projecting radially into the said casing; a plurality of actuating levers mounted within the said casing and contacting respectively with the said stems of the valves; a rotating member loosely mounted upon the said shaft and adapted when rotated to successively engage the said actuating members to cause the latter successively to operate the said valves; and connections between the main shaft and the engine and the said rotating member for effecting rotation of the latter.

1,134,624. ADJUSTABLE HAT-LINING. WILLIAM LEE, Camberwell, London, England. Filed May 20, 1913. Serial No. 768,703. (Cl. 2—113.)

1. An adjustable hat lining composed of a flexible, fabric crown portion having a gathered top and a base adapted to be connected with a hat body adjacent the rim thereof, and means adapted to constrict said crown portion intermediate said top and said base whereby a supplemental rim adapted to rest upon the coiffure is formed.

2. An adjustable hat lining composed of a flexible, fabric crown portion having a gathered top, and a base adapted to be connected with a hat body adjacent the rim thereof, and adjustable, flexible means adapted to constrict said crown portion intermediate said top and said base, whereby a supplemental rim adapted to rest upon the coiffure is formed.

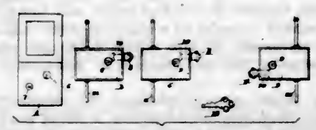


3. An adjustable hat lining composed of a flexible, fabric crown portion having a gathered top and a base adapted to be connected with a hat body adjacent the rim thereof, means whereby said base may be adjusted to vary the size thereof, and means adapted to constrict said crown portion intermediate said top and said base, whereby a supplemental rim adapted to rest upon the coiffure is formed.

4. An adjustable hat lining composed of a flexible fabric crown portion having a hem formed at the base thereof, and gathered and closed at the top thereof, a rim wire mounted in said hem, and a flexible non-elastic cord carried by said crown portion intermediate said hem and the top of said crown whereby a supplemental rim engaging the coiffure is formed.

5. An adjustable hat lining composed of a flexible fabric crown portion, having a hem formed at the base thereof, gathered and closed at the top thereof, and having a continuous tuck running about same intermediate said base and said top, a rim wire mounted in said hem, means whereby the length of said wire may be adjusted, and a flexible, drawing cord seated in said tuck whereby a supplemental, adjustable rim engaging the coiffure is formed.

1,134,625. CHAIN SYSTEM OF LOCK CONTROL. WILLIAM P. LOCKE, Chicago, Ill., assignor to Wallace G. Clark, Chicago, Ill. Filed Oct. 9, 1913. Serial No. 794,222. (Cl. 70—79.)



1. A locking system including a plurality of lock devices, each employing an operating and a release key, the operating key of one constituting the release key of the next succeeding one of the series, one of said keys being always retained in each of said devices, and means whereby when one of said keys is in operating position the other is released for removal.

2. A locking system including a master lock and series of secondary locks, operating keys for the master lock, an auxiliary key for the master lock, said auxiliary key being releasable only when the bolt of the master lock is drawn, an operating and a release key for each secondary lock, said auxiliary key being the release key for the first secondary lock of the series, the operating key of each secondary lock being the release key of the next succeeding secondary lock of the series.

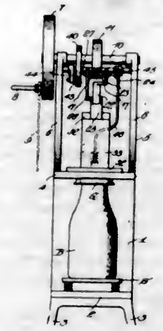
3. A locking system including a plurality of independent lock devices, and means whereby no lock of the system can be operated to locked condition until the succeeding lock of the system has first been operated to locked condition.

4. A locking system including a recording lock device and a plurality of independent secondary locking devices, and means whereby the recording lock device con not be operated to unlocked condition until all the secondary lock devices have been operated to locked condition.

5. A locking system including a recording lock device and a plurality of independent secondary lock devices, and means whereby the recording lock device cannot be operated either to locked or unlocked condition until all the secondary lock devices have been operated to locked condition.

[Claims 6 to 15 not printed in the Gazette.]

1,134,626. BOTTLE-CAPPING MACHINE. GUSTAV G. LOEHLER, Washington, D. C. Filed Aug. 19, 1913. Serial No. 785,588. (Cl. 226—5.)



1. In a bottle capping machine, the combination of a cylinder having a polygonal chamber, a piston head movable in said cylinder, and means for depressing said head across said chamber, then retracting it, and then depressing it on the next impulse to a lower point and spring pressed blank engaging means mounted to move in a plane at right angles to the plane of movement of said piston head and adapted to operate between the two depressing movements of said head.

2. In a bottle capping machine, the combination of a cylinder having a polygonal chamber, a piston head movable in said cylinder, means for depressing said head across said chamber, then retracting it, and then depressing it on the next impulse to a lower point, and blank engaging means mounted to move in a plane at right angles to the plane of movement of said piston head and adapted to operate between the two depressing movements of said head.

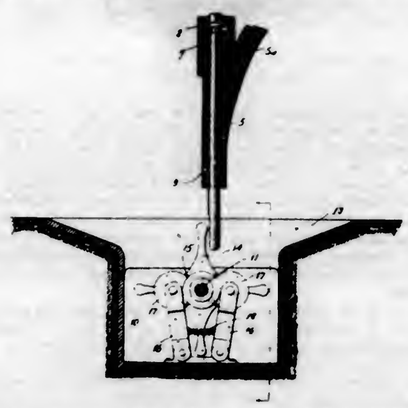
3. In a bottle capping machine, the combination of a cylinder having a polygonal chamber, a piston head movable in said cylinder, means for feeding a polygonal blank into said chamber, means for depressing said head across said chamber, then retracting it and then depressing it on the next impulse, and means mounted to move in a plane at right angles to the plane of movement of said piston head and adapted to operate between the two depressing movements of said head to engage the corners of said blank and force them inward into position to be engaged and depressed by the piston head on its second depressing movement.

4. In a bottle capping machine, the combination with an upright cylinder having a round bore and a polygonal chamber across said bore between its ends; of a round piston head within said bore, and means for depressing it across the chamber, then retracting it, and then depressing it on the next impulse to a lower point and means mounted to move in a plane at right angles to the plane of movement of said piston head and adapted to operate between the two depressing movements of said head.

5. In a bottle capping machine, the combination with an upright cylinder having a round bore and a square chamber across said bore between its ends; of a round piston head within and smaller than said bore, means for feeding a square blank into said chamber, means for depressing said head across the chamber, then retracting it, and then depressing it on the next impulse to a lower point so as to eject the blank, and means mounted to move in a plane at right angles to the plane of movement of said piston head and adapted to operate between the two depressing movements of said head, said means being positioned for engaging the corners of said blank on their inward movement.

[Claims 6 to 17 not printed in the Gazette.]

1,134,627. MECHANICAL RAILWAY-SWITCH-OPERATING MEANS. ADOLF LÖFFLER, Union Course, N. Y. Filed Jan. 11, 1915. Serial No. 1,576. (Cl. 104—24.)

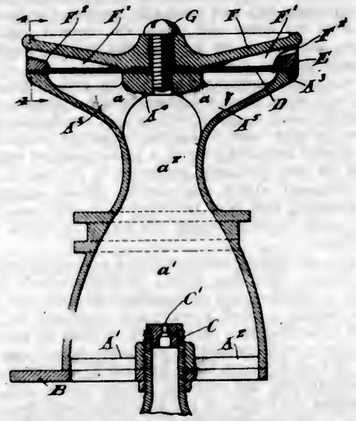


The combination with a switch point, of a pin connected thereto, means forming a chamber beneath said point into which said pin projects, a shaft journaled in said chamber, cam means carried by said shaft adapted to shift said pin to move said point from one of its normal positions to the other at each operation of the shaft, a star wheel fastened to said shaft and projecting upwardly therefrom toward the surface, a normally raised depressible rod carried by the car for operating said star wheel, said star wheel having four points or arms, a second star wheel carried by said shaft also having four points or arms but having its arms set intermediate those of the first mentioned star wheel, a pair of pivoted levers set on opposite sides of said second mentioned star wheel, rollers pivoted in the ends of said levers, and spring means for forcing said rollers against the face of said second mentioned star wheel.

1,134,628. GAS-BURNER. LUTHER D. LOVEKIN, Philadelphia, Pa. Filed July 11, 1914. Serial No. 850,398. (Cl. 158—112.)

1. In a gas burner, a casing formed with a chamber consisting of two portions extending from a central orifice at which they meet to the opposite ends of the chamber and each increasing in cross section from said orifice to the end of the chamber to which it extends, said casing being provided at one end with air inlets and with a central gas inlet opening within said casing adjacent said end toward, but at an appreciable distance from, said orifice, and said air inlets being large in transverse area as compared with said orifice, said casing having an end wall at its opposite end closing the latter except for burner outlets at its periphery and formed with a central barrier or baffle portion projecting into said chamber and a surrounding portion slightly flared outwardly.

2. In a gas burner, a casing formed with a chamber consisting of two portions extending from a central orifice at which they meet to the opposite ends of the chamber and each increasing in cross section from said orifice to the end of the chamber to which it extends, said casing being provided at one end with air inlets and with a central gas inlet opening within said casing toward said orifice, said air inlets being large in transverse area as compared with said orifice, said casing being formed at its opposite end with a central boss forming a barrier or baffle in front of said orifice and a removable cap covering said boss and extending from the latter to the periphery of the casing and being spaced away from the latter to provide burner outlets.



3. A gas burner comprising a casing body of hour glass form having air and gas inlets at one end and a central boss at its opposite end and a cap extending from said boss to the peripheral edge of said casing, said cap being outwardly flared and separated at its periphery from the adjacent peripheral edge of the casing body.

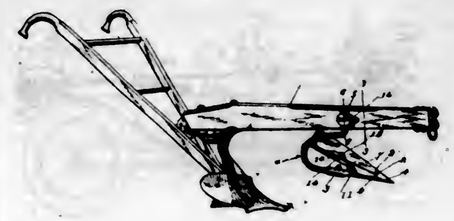
4. A gas burner comprising a casing body of hour glass form having air and gas inlets at one end and a central boss at its opposite end and an apertured screen extending from said boss to the pheripheral edge of the casing body, and a cap also extending from said boss to the edge of the casing body, said cap being outwardly flared and spaced away from said screen and the pheripheral edge of said casing body.

5. A gas burner comprising a casing body of hour glass form having air and gas inlets at one end and a central boss at its opposite end, an apertured screen extending across said opposite end of the casing body and engaging said boss and the peripheral edge of the casing body, a clamping ring holding the edge of said screen against the edge of the casing body, and a cap member clamping said screen against said boss and extending to the peripheral edge of said casing body, said cap member being outwardly flared and spaced away from said screen and ring to form an annular chamber on the outlet side of said screen which increases in thickness from said boss to the peripheral edge of the casing body and is partially restricted at its outer edge by said ring.

[Claim 6 not printed in the Gazette.]

1,134,629. POTATO-VINE CUTTER. GEORGE LEE MCCREADY, Parksley, Va. Filed Dec. 9, 1914. Serial No. 876,196. (Cl. 55—64.)

1. In a potato vine-cutter the combination of a plow-beam; a chambered dome-head having a circular wall provided with two notches diametrically opposite each other, and said dome having a cover provided with a center hole; a screw-threaded bolt projecting through said center-hole to the outer side and having an eye 33, within the dome chamber; a shank-end extending diametrically through the chamber of the dome-head and resting in said two notches and extending through the said eye of the bolt; a nut on the outer projecting end of said eye-bolt and serving to draw the shank-end tightly into said notches, and means to attach the dome-head to the plow-beam.



2. In a potato vine-cutter, the combination of a plow-beam; a circular plate secured to the side of the plow-beam and having two segment-shaped slots which form a center disk-like portion, and the rim-part of said circular plate provided with indentations; a partly-revoluble dome-head having a circular wall provided with teeth that engage the indentations on the said circular plate; a yoke whose center part is movable under said disk-like portion while the two prongs of the yoke have position in the segment slots and are secured to the partly-revoluble dome-head; a shank-end secured to said partly-revoluble dome-head and curved downward to the ground, and a vine-cutter blade attached to and carried by said shank.

1,134,630. LIFE-BOAT AND LAUNCHING MECHANISM THEREFOR. JOHN MCGOLDRICK, Baltimore, Md. Filed July 23, 1913. Serial No. 780,726. (Cl. 9—22.)

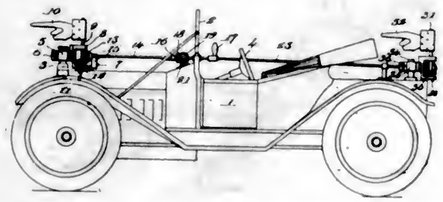
1. The combination with a main boat, of a cover-boat forming a cover therefor when in inverted position, means for locking the cover-boat and main boat together, means for releasing such locking means, and means for then lowering the main boat and the cover-boat.

2. The combination with a main boat, of a cover-boat forming a cover therefor when in inverted position, means for lowering the main boat and simultaneously suspending the cover boat, and for then turning over the cover-boat and lowering it.

3. The combination with a main-boat, of a cover-boat forming a cover therefor when in inverted position, a lock between the main boat and the cover boat, means for suspending the cover-boat in inverted position, means for lowering the main boat, and for then turning over the cover-boat and lowering it.

4. In a boat-securing device, the combination with pivoted chocks, a shaft having an eccentric thereon forming a lock for such chocks, an extensible lever integrally secured to such shaft having a pivoted extension, apertures in the boat gunwales receiving the pivoted extensions of the levers, and means located above the gunwales for engaging such pivoted extension.

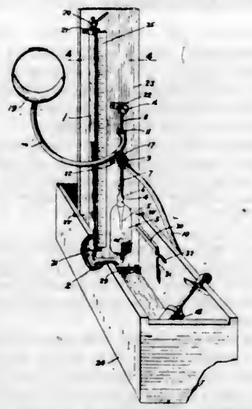
1,134,631. DEVICE FOR INDICATING THE MOVEMENT OF VEHICLES. EDWARD F. MARAS, San Diego, Cal. Filed Nov. 6, 1913. Serial No. 799,607. (Cl. 116—31.)



1. In an attachment for vehicles, a detachable clamp secured to the vehicle at the forward end thereof, support means movably connected to the said clamp, said support means being normally disposed directly over the hood of the vehicle, a shaft journaled within said support means, an indicator carried by said shaft, an operating shaft journaled within said support means, said operating shaft being journaled at its opposite end in a bearing adjacent the driver's seat, said operating shaft being divided intermediate its ends to form sections, one of the said shaft sections terminating in a sleeve like enlargement arranged to embrace the other of the shaft sections; one of said shaft sections being slidable within its bearing to permit detachment of said shaft sections, said support means with one of said shaft sections being movable with the indicator relatively to the clamp and to the hood to permit opening of the latter when desired, as and for the purpose set forth.

2. In an attachment for vehicles, support means for an indicator mounted on the vehicle directly over the hood, a sectional operating shaft for moving the indicator, said shaft being journaled at one end in said support means and at its opposite end in a bearing disposed adjacent the driver's seat, one of the shaft sections being slidable relatively to its bearing, a sleeve-like enlargement formed upon the slidable shaft section into which the other of the said shaft sections is fitted, said shaft sections when disengaged permitting pivotal movement of the support means laterally of the hood to provide for an opening thereof, as and for the purpose set forth.

1,134,632. SPHYGMOMANOMETER. PERCIVAL NICHOLSON, Ardmore, Pa. Filed Dec. 11, 1911. Serial No. 664,918. (Cl. 73—44.)



1. In a sphygmomanometer, a long tube of comparatively small diameter having means at the top to communicate with the air when in use and having a return bend near its lower end, a cistern of comparatively large cross-section having its bottom connected with said bend, a tube having a small bore nozzle extending into the top of said cistern, said nozzle being adapted for preventing flow therethrough of liquid from said cistern, a scale for reading the height of liquid in said first-named tube, and means for forcing air through said nozzle into said cistern.

2. In a sphygmomanometer, a long glass tube of comparatively small bore having a U bend at the bottom thereof, a glass cistern of comparatively large diameter integrally connected with said bend, a glass nozzle of small bore extending into and integrally connected with said cistern with its lower end above the normal liquid level therein, and means for forcing fluid through said nozzle into said cistern.

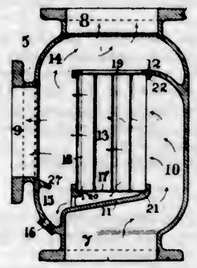
3. In a sphygmomanometer, a long glass tube of comparatively small bore, a cylindrical glass cistern of comparatively large diameter with a neck on the top thereof, a glass tubular bend integrally connected with the bottoms of said tube and cistern, a glass nozzle of small bore having its base integrally connected to the top of and its point disposed within said cistern, means comprising a tube engaging said neck for forcing air into said cistern, and a scale for determining the height of liquid in said glass tube.

4. In a sphygmomanometer, a long tube of comparatively small bore, a cylindrical cistern of comparatively large diameter, a tubular bend connecting said tube and cistern, a tube having a small passage and connected to the top of and extending into said cistern, a body of mercury in said cistern with its surface constantly below said second tube, said second tube being adapted for connection with a pneumatic cuff and with air forcing means, and a scale for reading the height of the mercury in said first tube.

5. In a sphygmomanometer, a long glass tube of comparatively small bore having a return bend near its lower end, a glass cistern of comparatively large diameter having its bottom integrally connected with said bend and having a neck on the top thereof, a tube having a small passage and connected with the top and extending into said cistern, a metal tube, a rubber tube connecting said neck and metal tube, said metal tube having means adapted to connect with the tube of a pneumatic cuff and with an air forcing device, and a needle valve for permitting the discharge of air from said metal tube.

[Claims 6 to 8 not printed in the Gazette.]

1,134,633. SEPARATOR FOR FEED-WATER HEATER. JACOB M. NOLL, Collingswood, N. J., and FRANK JOSEPH MILLER, Philadelphia, Pa., assignors to Warren Webster & Company, a Corporation of New Jersey. Filed Aug. 4, 1909. Serial No. 511,178. (Cl. 83—90.)



1. In an apparatus of the character stated, the combination of a body having an inlet for steam at the bottom and outlets for steam at the top and at one side and said outlets being formed of similar construction, baffle devices arranged within the body and opening at one side in communication with the inlet and at the other side in communication with the two outlets, and a valve shaped for interchangeable connection with the two outlets whereby it may be connected with either outlet for the purpose of regulating or controlling the flow therethrough.

2. In an apparatus of the character stated, the combination of a separator body having one inlet and two outlet apertures through its walls said outlet apertures being of substantially the same areas and of similar flanged construction as to their bounding walls at the outside, baffle devices within the body having one side in communication with the inlet aperture and the other side in communication with the two outlet apertures, a valve having a flanged inlet part adapted for connection to either of the flanged outlets so as to be interchangeable whereby the steam from one of said outlets may be controlled as predetermined.

3. In an apparajus of the character stated, a separator body having an inlet at the bottom and a vertical passage within the body in communication with the said inlet, outlets at the top and side of the body in communication with each other within a chamber in the body, and a receiving chamber for water and oil at a lower level than the side outlet, combined with an oil and water separating device comprising top and bottom plates, and baffle plates extending between the top and bottom plates and providing transverse passages, said baffle device arranged in the body between the vertical passage and the chamber in communication with the side and top outlets, whereby the general direction of the steam in passing through the separator is changed from a vertical to a substantially horizontal direction at the time of passing through the oil and water separating device and before escaping to the outlet.

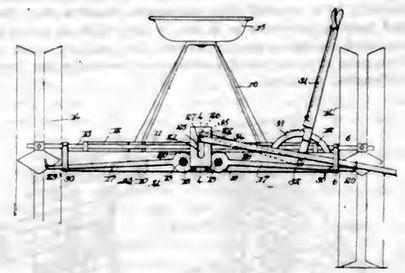
4. In an apparatus of the character stated, a separator body having an inlet at the bottom and a vertical passage within the body in communication with said inlet, outlets at the top and side in communication within the body and in which the top outlet and bottom inlet are arranged in vertical alinement, and a receiving chamber for water and oil at a lower level than the side outlet, combined with an oil and water separating device comprising horizontal top and bottom plates and intermediate baffle plates providing transverse passages opening at one side into the vertical passage of the body leading from the inlet and at the other side communicating with the outlets at the side and top, whereby the general direction of the steam in passing through the separator is changed from a vertical to a substantially horizontal direction in passing from the inlet to the outlet.

5. In an apparatus of the character stated, a separator body having an inlet at the bottom, a vertical passage within the body and in communication with the inlet, outlets at the top and side communicating within the body, and a receiving chamber for water and oil at a lower level than the side outlet and between said side outlet and the inlet and vertical passage, combined with an oil and water separating device arranged within the body and providing substantially horizontal passages for steam, said device interposed between the inlet and outlets and consisting of a solid top plate, a perforated bottom plate, and interposed vertical baffles extending between the plates said oil and water separating device in communication on one side with the vertical inlet passage and on the other side with the outlets, whereby the steam in passing through the separator is first caused to pass in a vertical and then in a horizontal direction before reaching the outlets.

[Claims 6 to 11 not printed in the Gazette.]

1,134,634. LIFTER FOR MARKER-BARS OF PLANTERS. FRANK F. NOLTE, Bedford, Iowa, assignor of one-half to James B. Windle, Bedford, Iowa. Filed Jan. 3, 1914. Serial No. 810,232. (Cl. 111—24.)

1. A marker comprising a base, supporting arms pivotally connected with said base and provided with teeth, a rack plate slidably connected with said base and engaging the teeth of said supporting arms, a marking element pivotally connected with said rack plate and having its free-end portion engaged by the outer end portion of one of said supporting arms, and means for moving said rack plate for swinging said supporting arms to raise and lower said marking element.



2. A marking device comprising a base, a housing carried by said base, a rack plate slidably mounted in said housing, supporting arms pivotally connected with said base and provided with enlarged heads at their inner ends provided with teeth engaging the teeth of said rack plate, and a marking bar pivotally connected with said rack plate and resting upon the outer end portion of one of said supporting arms, and means for moving said rack plate to swing said supporting arms.

3. A marking device comprising a base, a housing carried by said base and provided with inner and outer slots, supporting arms pivotally connected with said base and having their inner-end portions provided with gear-teeth, a rack plate slidably mounted in said housing and engaging the teeth of said arms, pins extending from said plate through the slots of said housing, a marking bar pivotally connected with one of said pins and resting upon the outer end portion of one of said arms, and means engaging the other of said pins for moving said rack plate in said housing.

4. A marking device comprising a base, supporting elements pivotally connected with said base, a marking element, slidably mounted means for pivotally mounting said marking element and swinging said supporting means, and means for actuating said last-mentioned means.

5. A marking device comprising a base, a supporting means pivotally connected with said base, slidably mounted operating means for swinging said supporting means, and a marking element supported by one of said supporting means pivotally connected with said operating means.

[Claims 6 to 8 not printed in the Gazette.]

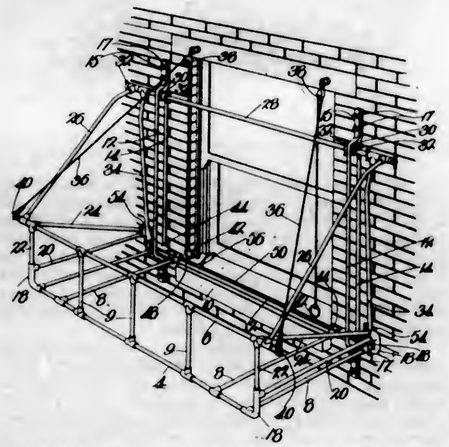
1,134,635. FOLDING WINDOW-BALCONY. ANDREW T. OSBORN, Kansas City, Mo. Filed Apr. 15, 1913. Serial No. 761,155. (Cl. 20—87.)

1. The combination with a window casing, of a balcony frame, means for pivotally supporting one side of said frame at the lower edge of said casing, a vertically adjustable bar extending horizontally across the window casing, connections between said bar and the other side of said frame, means connected to said frame and adapted to raise it from a vertically suspended position to a horizontal position whereby said bar is moved to elevated position, and means to hold said bar elevated and maintain the frame in horizontal position.

2. The combination with a window casing, of a balcony frame, means for pivotally supporting one side of said frame at the lower edge of said casing, a vertically adjustable bar extending horizontally across the window casing, connections between said bar and the other side of said frame, means connected to said frame and adapted to raise it from a vertically suspended position to a horizontal position whereby said bar is moved to elevated position, and means carried by said bar to support said bar in its elevated position and thereby maintain the frame in horizontal position.

3. The combination with a window casing, of a balcony frame, means for pivotally supporting one side of said

frame at the lower edge of said casing, a vertically adjustable bar extending horizontally across the window casing, connections between said bar and the other side of said frame, means connected to said frame and adapted to raise it from a vertically suspended position to a horizontal position whereby said bar is moved to elevated position, and means acting automatically to lock said bar and support it in elevated position to maintain the frame in horizontal position.



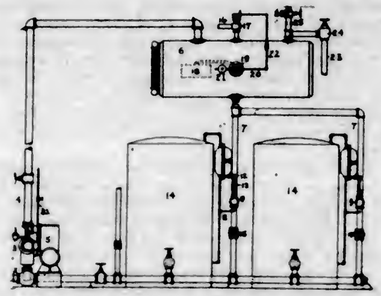
4. The combination with a window casing, of a balcony frame, means for pivotally supporting one side of said frame at the lower edge of said casing, a vertically adjustable bar extending horizontally across the window casing, connections between said bar and the other side of said frame, means connected to said frame and adapted to raise it from a vertically suspended position to a horizontal position whereby said bar is moved to elevated position, means carried by said bar and acting automatically to lock said bar and support it in elevated position and thereby maintain the frame in horizontal position, and means to trip said last means from locking position.

5. The combination with a window casing, of spaced uprights secured at each side of said casing and forming vertical guideways, a folding balcony frame having a side bar supported in the lower ends of said guideways, a second bar provided with antifriction rollers arranged to travel along said guideways and with connections secured to the other side bar of said frame, means connected to said frame and adapted to raise it from a vertically suspended position to a horizontal position, whereby said second bar is moved to the upper ends of said guideways, and vertically swinging struts carried by said second bar and having forked lower ends adapted to automatically engage said first side bar to support said second bar in raised position and thereby maintain the cot frame in horizontal position.

[Claims 6 and 7 not printed in the Gazette.]

1,134,636. AUTOMATIC BOILER-FEEDING DEVICE. MILLARD P. OSBOURN, Merchantville, N. J., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed June 16, 1908. Serial No. 438,711. (Cl. 137—101.)

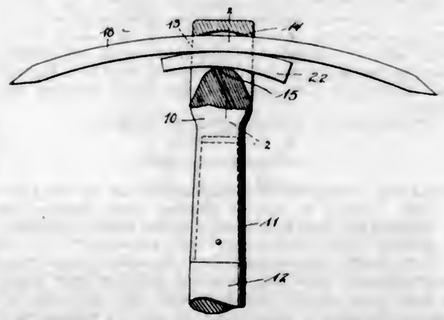
1. In a system for supplying feed water to boilers, the combination of the boiler, a closed receiving tank, a return pipe of a steam heating system, a pump for delivering the water of condensation and air from the return pipe into the closed tank under pressure, a pipe for supplying the water from the closed tank to the boiler, means controlled by the level of the water in the boiler to regulate the supply of water thereto, means for supplying water under pressure to the tank controlled by the level of the water in the tank, and an overflow pipe from the tank having a relief valve to permit the escape of excess of water and of air when the pressure within the tank becomes greater than required to deliver the water into the boiler.



2. In a feed water system, the combination of a return pipe of a heating system, a closed receiving tank at an elevation, a pump for sucking on the return pipe and discharging the water of condensation into the receiving tank, means for maintaining a pressure in the receiving tank, a chamber into which the water is delivered from the receiving tank arranged at a lower level than the tank, means for delivering water from the receiving tank into the chamber consisting of a pipe in which a static head provides a substantially constant pressure, means independent of the water supply in the receiving tank for maintaining a substantially constant level of water therein irrespective of the delivery from the pump, and separate means controlled by the level of the water in the chamber independently of the level of the water in the receiving tank to control the flow of the water under its static head.

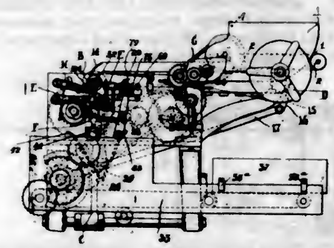
3. In a system for supplying feed water to boilers, the combination of the boiler, a closed tank containing air and water under pressure, a pipe for supplying water from the tank to the boiler, means controlled by the level of the water in the boiler for regulating the supply of water thereto, a water pipe for supplying water to the closed tank under pressure, means controlled by the level of the water in the tank for regulating the supply of water thereto from the water pipe, means independent of the water supply for maintaining the pressure within the closed tank, and a relief valve for relieving the tank of excessive pressure beyond that required for feeding the water to the boiler.

1,134,637. TOOL-HOLDER. LOUIS RADELLI, Beaver Falls, Pa. Filed Nov. 15, 1913. Serial No. 801,252. (Cl. 125—19.)



A device of the character described including a socket adapted to receive a handle and having a transversely extending opening formed therein adjacent one end to define oppositely disposed bearing walls, one of said walls being concave to provide at its extremities and at opposite sides of the socket, bearing edges and the other of said walls being convex and of less radius than said first mentioned wall, an arcuate tool of uniform thickness removably fitted in said opening and having one side face thereof seated against said bearing edges, and an arcuate wedge removably fitted in said opening between the tool and said last mentioned bearing wall with the convex face of the wedge seating against the adjacent concave face of the tool, said wedge being adapted to engage said last mentioned wall to force the tool into engagement with said bearing edges and to exert a lateral pressure upon the portion of the tool between said bearing edges toward the concave portion of said first mentioned bearing wall.

1,134,638. CIGARETTE-MACHINE. SALVADOR RAGONA, New York, N. Y. Filed Oct. 9, 1908. Serial No. 456,858. (Cl. 131—39.)



1. In a cigarette machine, the combination with a feeding mechanism for the tipping material, means whereby said material is made adhesive, and means applying a portion of adhesive strip to the end of a cigarette, including therein a holder, of a hopper adapted to store cigarettes to be tipped, a conveying belt having a plurality of compartments formed thereon, adapted to be successively alined with said holder, said belt extending from said hopper to said holder, means whereby the cigarettes are delivered one at a time from said hopper to said compartments successively, a delivery mechanism whereby cigarettes are transferred from the compartments of said belt to said holder successively, and means intermittently actuating said conveyer-belt whereby said belt is held stationary during the transfer of the cigarettes therefrom to said holder.

2. In a cigarette machine, the combination with a feeding mechanism for the tipping material, means whereby said material is made adhesive, and means applying a portion of adhesive strip to the end of a cigarette, including therein a holder, of an open bottom hopper adapted to store the cigarettes to be tipped, a conveying belt having a plurality of compartments formed thereon adapted to be successively alined with said holder, said belt extending from below said hopper to said holder, a conveyer belt closing a portion of the bottom of said hopper and leaving an outlet therefrom, a delivery mechanism arranged in said outlet whereby cigarettes will be properly positioned, and delivered one at a time to the compartments of said first mentioned belt, means intermittently and simultaneously actuating said conveyer belts, respectively, and said delivery mechanism whereby said first mentioned belt will be held stationary while cigarettes are being transferred therefrom to said holder, and said last mentioned belt and said delivery mechanism will deliver said cigarettes to said compartments one at a time, and a delivery mechanism for transferring cigarettes from the compartments of said belt to said hopper while said first mentioned belt is held stationary.

3. In a cigarette machine, the combination with a feeding mechanism for the tipping material, means whereby said material is made adhesive, and means applying a portion of adhesive strip to the end of a cigarette, including therein a holder, of an open bottom hopper adapted to store the cigarettes to be tipped, a conveying belt having a plurality of compartments formed thereon adapted to be successively alined with said holder, said belt extending from below said hopper to said holder, a conveyer belt closing a portion of the bottom of said hopper and leaving an outlet therefrom, an oscillating plate extending to a point adjacent to said belt within said hopper whereby the piling of cigarettes adjacent to said outlet is prevented, and a delivery mechanism adapted to receive cigarettes as they pass said plate, true them up, and drop them sucessively into said compartments of said first mentioned belt, means intermittently and simultaneously actuating said conveyer belts, respectively, and said delivery mechanism whereby said first mentioned belt will be held stationary while cigarettes are being transferred therefrom to said holder, and said last mentioned belt and said delivery mechanism will deliver said cigarettes to said compartments one at a time, and a delivery mechanism for transferring cigarettes from the compartments of said belt to said holder while said first mentioned belt is held stationary.

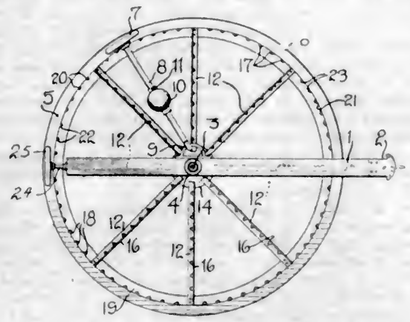
4. In a cigarette machine, the combination with a feeding mechanism for the tipping material, means whereby said material is made adhesive, and means applying a portion of adhesive strip to the end of a cigarette, including therein a holder, of an open bottom hopper adapted to store the cigarettes to be tipped, a conveying belt having a plurality of compartments formed thereon adapted to be successively alined with said holder, said belt extending from below said hopper to said holder, a conveyer belt closing a portion of the bottom of said hopper and leaving an outlet therefrom, an oscillating plate extending to a point adjacent to said belt within said hopper whereby the piling of cigarettes adjacent to said outlet is prevented, and a delivery mechanism comprising a cylinder having pockets therein adapted to receive cigarettes from the hopper belt, and deposit them in the compartments of said first mentioned conveyer belt, and means positioning and retaining the cigarettes in said pockets, preparatory to their discharge therefrom, means intermittently and simultaneously actuating said conveyer belts, respectively, and said delivery mechanism whereby said first mentioned belt will be held stationary while cigarettes are being transferred therefrom to said holder, and said last mentioned belt and said delivery mechanism will deliver said cigarettes to said compartments one at a time, and a delivery mechanism for transferring cigarettes from the compartments of said belt to said holder while said first mentioned belt is held stationary.

5. In a cigarette machine, the combination with a feeding mechanism for the tipping material, means whereby said material is made adhesive, and means applying a portion of adhesive strip to the end of a cigarette, including therein a holder, of an open bottom hopper adapted to store the cigarettes to be tipped, a conveying belt having a plurality of compartments formed thereon adapted to be successively alined with said holder, said belt extending from below said hopper to said holder, a conveyer belt closing a portion of the bottom of said hopper, and leaving an outlet therefrom, an oscillating plate extending to a point adjacent to said belt within said hopper whereby the piling of cigarettes adjacent to said outlet is prevented, and a delivery mechanism comprising a cylinder having pockets therein adapted to receive cigarettes from the hopper belt, and deposit them in the compartments of said first mentioned conveyer belt, a wheel having a plurality of curved vanes spaced above said hopper conveyer forwardly of said cylinder whereby more than one cigarette at a time is prevented from entering the pockets in said cylinder, and a plurality of weighted flaps disposed about the periphery of said cylinder whereby the cigarettes are accurately positioned in said pockets and retained therein to a point adjacent to the point of discharge of the cigarette from said pockets, means intermittently and simultaneously actuating said conveyer belts, respectively, and said delivery mechanism whereby said first mentioned belt will be held stationary while cigarettes are being transferred therefrom to said holder, and said last mentioned

belt and said delivery mechanism will deliver said cigarettes to said compartments one at a time, and a delivery mechanism for transferring cigarettes from the compartments of said belt to said holder while said first mentioned belt is held stationary.

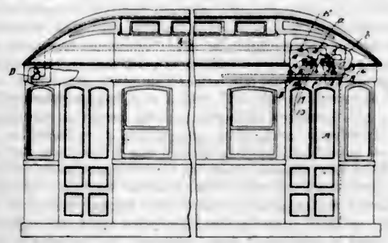
[Claims 6 to 18 not printed in the Gazette.]

1,134,639. HARROW. MARTIN J. RICHARD, Rayne, La. Filed Nov. 2, 1914. Serial No. 869,851. (Cl. 55—13.)



A harrow of the class described comprising a beam, a vertically disposed shaft carried thereby, a hub plate rotatably mounted upon the shaft, an annular member surrounding the hub plate and in spaced relation thereto, said annular member being substantially Z-shape in cross section, spokes radiating from the hub plate and operatively engaged with the base flange of the annular member, each of said spokes being substantially L-shape in cross section and provided with longitudinally spaced perforations in the base flange in close proximity to the upstanding flange, the base flange of the annular member being also provided with spaced perforations in close proximity to the vertical portion thereof, a wheel operatively supported by one extremity of the beam and adapted to contact with the upper flange of the annular member, an arm operatively engaged with the beam, a wheel mounted upon said arm and adapted to travel upon the upper flange of the annular member, a weighted member adjustably supported upon the arm, and ground engaging members engaged with the annular member and the spokes and disposed through the openings therein.

1,134,640. CAR SIGNALING DEVICE. HAROLD ROWNTREE, Chicago, Ill. Filed May 22, 1911. Serial No. 628,668. (Cl. 246—28.)



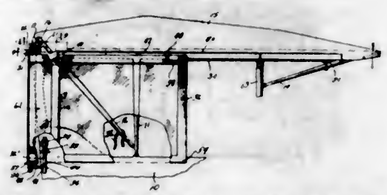
1. In a signaling mechanism for cars, a signal device located at the front end of the car, a plurality of means for controlling the same, a door located at the rear end of the car and adapted to open and close and means carried by the door to move therewith past said controlling means and operating to successively actuate said controlling means during a portion of the movement of the door.

2. In a signaling mechanism for cars, a signal device located at the front end of the car, a circuit therefor, a plurality of switches for controlling said circuit, a door located at the rear end of the car and means carried by the door to move therewith and operating past said switches for successively operating said switches during portions of the closing movement of the door.

3. In a signaling mechanism for cars, a signal device, independent controlling devices therefor, a door, means carried by said door to move past said controlling devices when the door is moved to engage the same, and operating to actuate the signal once during the opening movement of the door and a plurality of times during the closing movement of the door.

4. In a signaling mechanism for cars, a signal device independent controlling devices therefor, a door and means carried thereby and moving past said controlling devices when the door is moved, one of said controlling devices being operated to actuate the signal during the opening movement of the door, and both actuating the same successively during the closing movement of the door.

1,134,641. AUTOMOBILE-CURTAIN AND MOUNTING. GEORGE F. SEARS, JEHN H. PROSE, and ROSEMOND T. ANDERSON, Huntington, W. Va. Filed Jan. 9, 1914. Serial No. 811,225. (Cl. 21—62.)



1. The combination with a vehicle top of a revolubly mounted roller adjacent to the top, a winding drum carried by the roller, a curtain engaged with the drum and adapted to be wound thereupon or to be extended in operative relation to the top, a flexible member connected with the curtain, a rotatable mounting for the flexible member located at a point spaced from the roller, said flexible member being carried around and beyond the mounting to the roller and engaged therewith to be wound thereupon, a track, slidable connections between the curtain and the track, and an extensibly yieldable section in said flexible member.

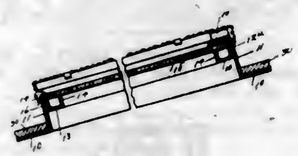
2. The combination with a vehicle having a foldable top of a revoluble roller connected at its upper end with the top for universal movement with respect to the top, said connection being adjustable to vary the distance between the roller and the top, a bow rest iron connected with the vehicle and including horizontally spaced portions, a bow rest connected with one of said portions, means for detachably connecting the lower end of the roller with the bow rest iron, a curtain carried by the roller and adapted to be extended therefrom through the space between the portions of the bow rest iron to lie at a side of the top, said roller being adapted for movement upon its universal connection to pass the bow rest iron and lie against the top when detached at its lower end from the bow rest iron.

3. The combination with a vehicle and a top therefor of a curtain roller connected at its upper end with the top for adjustment toward and away from the top, a plate pivotally connected with the vehicle for movement toward and away from the latter, said plate having a plurality of peripheral notches, means for holding the plate at different points of its pivotal movement, means carried by the roller for engagement in the different notches interchangeably and a curtain carried by the roller and adapted to be wound thereupon or extended therefrom.

4. The combination with a vehicle and a foldable top therefor of a curtain roller removably connected at its upper end with the top for adjustment toward and away from the top, a plate pivotally connected with the vehicle for movement toward and away from the latter, said plate having a plurality of peripheral notches, means for holding the plate at different points of its pivotal movement, means carried by the roller for removable engagement in the different notches interchangeably and a curtain carried by the roller and adapted to be wound thereupon or extended therefrom, said roller being movable upon its top connection when disengaged at its bottom to lie against the top to permit folding of the latter.

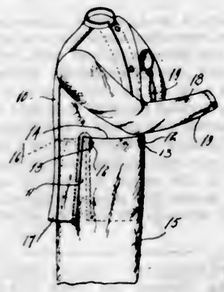
5. The combination with a vehicle having a foldable top of a revoluble roller connected at its upper end to the top and normally arranged vertically, a vertical drum secured to said roller, a curtain on said drum, a pulley attached to the top of the vehicle in advance of the roller and in spaced relation thereto, a flexible member surrounding and attached to the roller and passing forwardly over the pulley and thence backwardly and attached to the forward edge of the curtain, and a spring interposed in said flexible member to hold the said member taut, whereby the curtain on the drum may be opened any desired distance and maintained in such position.

1,134,642. METALLIC WINDOW-FRAME. DARIUS E. SHRAUGER, Atlantic, Iowa. Filed Aug. 25, 1913. Serial No. 786,596. (Cl. 108—16.)



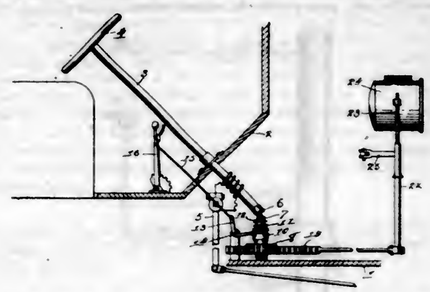
A frame comprising one piece frame members having flat portions, frame members having formed thereon upwardly extending supporting portions adapted to serve as a support for a cap and a screen, spaced downwardly extending portions formed on said supporting portions, said last described portions having upwardly opening channels formed at their lower ends, adapted to support a glass pane and carry water, a protecting screen supported on said upwardly extending portions, and clamping devices extended upwardly between said upwardly and downwardly extending portions and through said screen.

1,134,643. JACKET AND APRON. BERT L. SINCLAIR, Kansas City, Kans., assignor of one-half to John W. Jones, Kansas City, Kans. Filed Oct. 14, 1913, Serial No. 795,123. Renewed Jan. 19, 1915. Serial No. 3,172. (Cl. 2—61.)



An article of apparel comprising a coat which is slit at the side up to the waist line, the front portion of the coat having a series of fasteners arranged along the line of the waist line, and an apron having fasteners for engaging the coat fasteners, the said apron being arranged to be secured at the back of the waist of the wearer under the tail of the coat.

1,134,644. PIVOT-LIGHT FOR AUTOMOBILES. HUGH A. SISSON, Red Bluff, Cal. Filed July 6, 1914. Serial No. 849,226. (Cl. 240—62.)



1. Headlight operating mechanism including a bracket turnable relatively to the conveyance upon which it is arranged, a shaft connected to the steering mechanism of the said conveyance, an element loose upon said shaft, means to turn the bracket according to the rotation of said element, and means slidable relatively to the element, said means being movable upon the shaft into and out of engagement with the element to render it operative or inoperative for the purpose specified.

2. In combination with a lamp bracket turnable relatively to the conveyance upon which it is arranged, a shaft, a gear loose upon said shaft, a rack bar engageable with said gear and connected to said bracket for turning the latter according to the rotation of said gear, and means slidable relatively to the gear, said means being movable upon said shaft into and out of engagement with the gear to render it operative or inoperative.

3. In combination with a lamp bracket turnable relatively to the conveyance upon which it is arranged, a shaft connected to the steering mechanism of the said conveyance, a gear loose upon said shaft, a rack bar engageable with said gear and connected to said bracket for turning the latter according to the rotation of said gear, and means including a friction cone clutch slidable relatively to the gear, said cone clutch being movable upon the shaft into and out of engagement with the gear to render the gear operative or inoperative, as and for the purpose set forth.

4. In combination with a lamp bracket turnable relatively to the conveyance upon which it is arranged, a shaft connected to the steering mechanism of the said conveyance, a gear loose upon said shaft, a rack bar engageable with said gear and connected to said bracket, a friction cone clutch slidable upon said shaft into and out of engagement with said gear, and means actuatable to slide said clutch to render the bracket actuating mechanism operative or inoperative, as and for the purpose set forth.

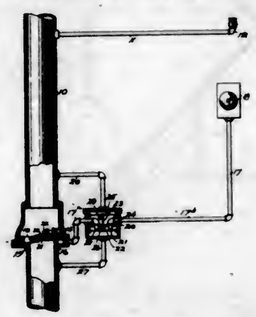
5. In combination with a lamp bracket turnable relatively to the conveyance upon which it is arranged, a shaft having universal connection with the steering mechanism of the said conveyance, a gear wheel loose upon said shaft, a rack bar engageable with said wheel and connected to said bracket, means engageable with said rack bar for holding the same in mesh with the gear, a spring actuated friction cone clutch slidable upon said shaft, and means including an operating lever actuatable to move said clutch into and out of frictional engagement with said wheel to render the bracket actuating means operative or inoperative, as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,134,645. ALARM CONTROL FOR SPRINKLER SYSTEMS. CHETWOOD SMITH, Worcester, Mass. Filed Dec. 19, 1914. Serial No. 878,182. (Cl. 169—23.)

1. In a sprinkler system, a supply pipe, a check valve in said supply pipe, an alarm pipe connected to said supply pipe and normally closed by said check valve, and a pressure-controlled auxiliary device connected to said sup-

ply pipe on both sides of said check valve, said device effective to close said alarm pipe whenever the pressure of the supply pipe below the check valve exceeds the pressure in said pipe above the check valve.



2. In a sprinkler system, a supply pipe, a check valve in said pipe, an alarm pipe connected to said supply pipe and normally closed by said check valve, and an auxiliary device in said alarm pipe connected to said supply pipe on each side of the check valve, said auxiliary device being effective to close the alarm pipe whenever excessive pressure occurs below the check valve.

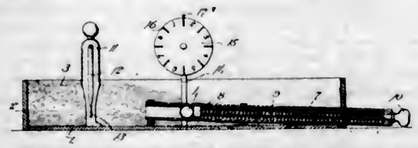
3. In a sprinkler system, a supply pipe, a check valve in said pipe, an alarm pipe normally closed by said check valve, and a cut-off device operative upon said alarm pipe, said cut-off device being controlled by the difference in relative pressure in said supply pipe, above and below said check valve.

4. In a sprinkler system a supply pipe, a check valve in said pipe, an alarm pipe normally closed by said check valve and having a control portion intermediate its ends, and controlling means connected to said supply pipe on each side of said check valve, each means comprising a movable member effective to prevent flow through the control portion and the alarm pipe whenever excessive pressure occurs below the check valve.

5. In a sprinkler system, a supply pipe, a check valve in said supply pipe, an alarm pipe connected to said supply pipe and normally closed by said check valve, a valve in said alarm pipe positioned intermediate its ends, and devices for opening and closing said valve, said devices being effective to close said valve whenever the pressure in the supply pipe below the check valve exceeds the pressure above the check valve and being effective to open said valve under all other pressure relations.

[Claims 6 to 8 not printed in the Gazette.]

1,134,646. GAME-BOARD. JACOB L. SNIDER, Harrod, Ohio. Filed July 30, 1914. Serial No. 854,160. (Cl. 46—59.)



1. A game board including a rotatable member, a disk positioned in the path of rotation of said member, said disk being rotatable by contact of the member therewith, and means to rotate the member.

2. A game board including a member rotatable in a vertical plane, a disk positioned in the path of said member, said disk being rotatable by contact of the member therewith, a projectile, and means directing the projectile against the said rotatable member to actuate the latter, as and for the purpose set forth.

3. A game board including a rotatable arm, a numbered disk positioned in the path of movement of said arm, an indicator stationary with respect to said disk, said disk being rotatable by contact with the arm therewith, and means to rotate the arm.

4. A game board including a spring actuated plunger, a projectile actuatable through manipulation of the plunger, a revoluble disk operating in a substantially vertical plane, a rotatable member positioned in the path of the projectile, said member being actuatable by reason of engagement of the projectile therewith, said member when actuated moving in the path of a circle and engaging said disk for rotating the latter, as and for the purpose set forth.

5. A game board including a spring actuated plunger, a projectile actuatable through manipulation of the plunger, a numbered revoluble disk operating with its axis of rotation extending across the board, a plurality of projections upon the numbered face of the disk, an indicator positioned to extend over the periphery of the disk, an arm positioned in the path of the projectile, said arm being rotatable through engagement of the projectile therewith, the said arm when rotated being engageable with the projections of the disk to actuate the latter to vary the position of the numbers thereon relatively to the indicator associated therewith, as and for the purpose set forth.

1,134,647. NON-REFILLABLE BOTTLE. MANUEL J. SOUZA, Selma, Cal. Filed Apr. 19, 1913. Serial No. 762,361. (Cl. 215—77.)



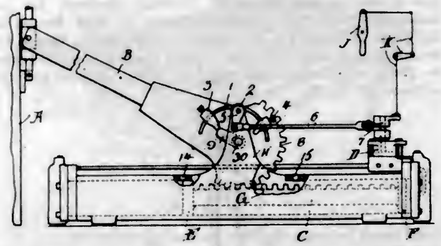
1. In a bottle, a neck portion, a member formed integral therewith and extending inwardly and partially forming a closure for the opening in said neck, said member bent downwardly and curved outwardly extending longitudinally into said neck, an air vent formed in said member adjacent the neck of said bottle, a tapering outlet member formed integral upon said neck adjacent the bottle portion and extending upwardly and under said first named member and spaced a short distance therefrom, said member forming a closure for said neck, a transverse portion adjacent the upper end thereof having an opening in one side thereof and an air vent formed in the upper portion of said last named member for the purpose set forth.

2. In a bottle, a neck portion, a member formed integral therewith extending inwardly and partially forming a closure for the opening in said neck, said member bent downwardly and curved outwardly extending longitudinally into said neck, an air-vent formed in said member, a second member formed integral with said neck below said first-named member and spaced a short distance therefrom, said member forming a closure for said neck and having an opening in one side thereof near its upper end, an air-vent formed in the upper portion of said last named member, and means for permanently closing said first-named air-vent whereby the refilling of said bottle will be prevented.

1,134,648. PNEUMATIC OPERATING MECHANISM FOR DOORS, STEPS, OR THE LIKE. GEORGE M. SPENCER, St. Louis, Mo., assignor, by mesne assignments, to National Pneumatic Company, a Corporation of West Virginia. Filed June 8, 1909. Serial No. 500,917. (Cl. 121—45.)

1. The combination with a device to be moved, of pressure actuated operating means therefor, including a cylinder and piston, a valve for controlling the supply and exhaust of pressure medium to both ends of the cylinder, and

operating when in centered position to open both ends of the cylinder to exhaust, and means for centering the valve as the device to be moved attains the limit of its movement.



2. The combination with a device to be moved, of pressure actuated operating means therefor, including a cylinder and piston, a valve to control the supply and exhaust of operating medium to and from the cylinder, and operating, when in centered position, to open both ends of the cylinder to exhaust, and automatically operated means for centering the valve as the device to be moved attains the limit of its movement.

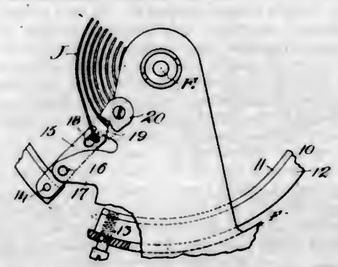
3. The combination with a device to be moved, of a cylinder and piston for operating the same, and automatic means for simultaneously exhausting the pressure on opposite sides of the piston as the device to be moved attains the limit of its movement.

4. The combination with a device to be moved, of an operating cylinder and piston, the pressure on both sides of the piston being equalized when said device attains the limit of its movement, manually operated means for admitting the pressure to one side of the piston and means for restricting the exhaust from the opposite side of the piston, means for cutting off the supply on the pressure side of the piston automatically before the device to be moved attains the limit of its movement and means for coincidently enlarging the area of the exhaust on the other side of the piston.

5. The combination with a device to be moved, of a double cylinder, connecting pistons operating therein, connections operated by the pistons for moving said device, and automatically operated means for simultaneously exhausting the pressures on opposite faces of the piston at the limit of their stroke.

[Claims 6 to 8 not printed in the Gazette.]

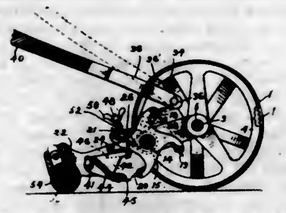
1,134,649. MEANS FOR COMPENSATING SPEEDOMETERS AND SIMILAR DEVICES FOR TEMPERATURE VARIATIONS. EDWARD M. THOMPSON, Beloit, Wis., assignor to Stewart-Warner Speedometer Corporation, a Corporation of Virginia. Filed Nov. 2, 1910. Serial No. 590,275. (Cl. 73—123.)



1. In a speed indicating device, a scale member, a pointer associated therewith, a spindle connected to one of these parts, a spring connected at one end of said spindle and carrying a pin at its other end, a pivotally mounted keeper arm for said pin, a pivoted lever engaging said pin, a thermostatic device connected to said lever for rocking the same, and means operated by the shaft, the speed of which is to be indicated, for rotatively moving said spindle against the action of said spring.

2. In a speed indicating device, a scale member, a pointer associated therewith, a spindle connected to one of these parts, a spring connected at one end to said spindle and carrying a pin at its other end, a pivotally mounted lever having loose connection at one end with said pin, a thermostatic device connected to the other end of said lever for rocking the same, and means operated by the shaft or part, the speed of which is to be indicated for rotatively displacing said spindle against the action of said spring.

1,134,650. LAWN-MOWER. JOHN DEO TILLMAN, Richmond, Ind. Filed Mar. 20, 1914. Serial No. 825,980. (Cl. 56—19.)



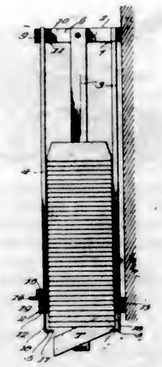
1. In a lawn mower comprising a frame carried by bull-wheels and including a pair of disks boxings carried by the outer portions of the disks, a revoluble shaft extending through said boxings, a cutting reel comprising blades carried by said shaft, a pair of frame plates, blocks extending back from the boxings and united with said frame plates, pivots 28 and 29 extending inward from the disks, a dog mounted on each of said pivots, a tongue integral with each dog, a hollow set-screw threaded in each of said blocks and with which said tongues are adapted to engage, a flange extending from each of the end members, a guide bolt extending through each flange and through its respective set-screw, thumb nuts threaded on said bolts, a coil spring disposed around each bolt and pressing against its nut and tongue to retain the blade of the cutter-bar upward to its limit which limit depends upon the position of said nuts, all substantially as shown and described and for the purposes set forth.

2. A lawn mower including a frame supported by bull wheels and including the frame plates located near the inner faces of the bull wheels, a rod extending between said plates, a cutter-bar pivoted on said rod, a blade carried by the cutter-bar, a pair of disks, boxings carried by the outer portions of the disks, a shaft revoluble in said boxings and geared to be revolved by the turning of the bull wheels, blades carried by said shaft and forming a reel, pivots extending inward from the disks and located above their respective boxings, a dog mounted on each of said pivots, a tongue integral with each dog, a block extending back from each boxing, a hollow set-screw threaded in each of said blocks, a flange extending from each of the frame plates, a guide bolt extending through each flange and through its respective set screw and tongue, nuts threaded on said bolts, springs located around each bolt and pressing against its nut and tongue to retain the blade of the cutter bar to its upward limit as determined by the position of said nuts, all substantially as shown and described.

3. In a lawn mower comprising a frame carried by bull-wheels and including a pair of disks, boxings integral with the disks, frame-plates integral with the respective disks and boxings, a reel-shaft extending through said boxings, blades carried by the reel-shaft, means for revolving the reel-shaft, blocks integral with said boxings and frame-plates, a dog pivoted to each of the disks, a tongue extending back from each dog and located above its respective block, a hollow set-screw threaded in each of said blocks with which the tongues are adapted to engage, a

cutter-bar pivoted between the disks, a flange located on each end of the cutter-bar and extending under the respective blocks, a guide-bolt extending up through each flange and through its respective set-screw and tongue, thumb nuts on the upper portions of said bolts, a coil spring disposed around each bolt and pressing against its thumb nut and tongue to retain the edge of the cutter-bar upward to its limit depending upon the position of the set-screws, a handle pivoted to the forward ends of the dogs and adapted to change the tension of said springs in order to vary the contact of the blade of the cutter-bar with relation to the blades of the reel depending upon the pressure exerted upon the handle in propelling the mower, all substantially as set forth.

1,134,651. HOLDER FOR LARD AND BUTTER TRAYS AND LIKE RECEPTACLES. CHARLES S. TRAMELL, Pruden, Tenn., assignor of one-half to Walter C. Seale, Pruden, Tenn. Filed Apr. 9, 1914. Serial No. 830,717. (Cl. 211—8.)



1. A holder for flexible trays comprising upper and lower rectangular frames, lying in lateral planes, upright strips connecting the frames, and a pair of rigid stops on the lower frame and adapted to underlie the edges of the trays, one of said strips being removable.

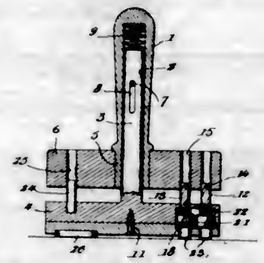
2. A holder for flexible trays comprising a pair of vertically spaced rectangular frames lying in lateral planes, a guide on one of the cross bars of each frame, an upright strip removably engaged with said guides, upright strips rigidly connecting said frames and rigid stops carried by the lower frame and adapted to underlie the edges of the trays.

3. A holder for flexible trays comprising a pair of vertically spaced rectangular frames lying in lateral planes, an upright guide on one of the cross bars of the upper frame, a pair of laterally spaced guides on the lower frame, an upright strip removably engaged with the guide on the upper frame and having a cross bar overlying the lower bar having the guides, studs depending from the cross bar on the strip and engaged with the guides on the lower frame, upright strips connecting said frames and rigid stops on the lower frame and adapted to underlie the edges of the trays.

4. A holder for flexible trays comprising an upright guideway, metal rods having their ends bent laterally in opposite directions, the upper ends constituting retaining studs embedded in the lower end of the guideway and the lower ends constituting stops disposed in the path of the edges of the trays.

1,134,652. STAMP-CANCELER. ROBERT E. WALL, Wilson, N. C. Filed July 1, 1913. Serial No. 776,824. (Cl. 101—60.)

1. In combination with a stamp for canceling purposes comprising a stationary section and a movable section, a perforator including a sleeve rotatable within said stationary section, a portion of said sleeve adapted to project into an opening provided therefor within said movable section, means carried by said movable section for imparting rotary movement to said sleeve, a bearing block stationary with respect to said stationary section through which the said sleeve extends, a flange formed integral with said sleeve intermediate its ends, bearings disposed for engagement with the respective faces of said flange to facilitate the rotation of said sleeve, and spring means arranged to embrace said sleeve, said means being disposed in engagement with said bearing block, as and for the purpose set forth.



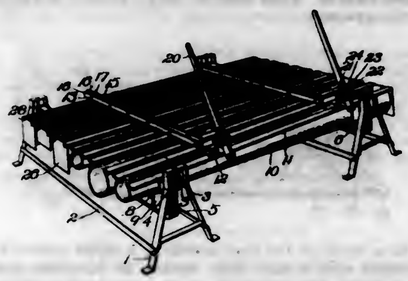
2. In combination with a canceling stamp comprising a stationary section and a movable section, a perforator therefor including a sleeve, means for rotating said sleeve by movement of said movable section, sectional bearing-blocks disposed within a recess formed in said stationary section, a flange formed upon said sleeve, said flange being seated within a recess formed within one of said bearing block sections, bearing-balls disposed in engagement with the respective faces of said flange, said balls being disposed within the said block recess, and a spring arranged to embrace the said sleeve, the said spring being adapted to respectively abut the said bearing-block and the wall of said stationary section-recess, as and for the purpose set forth.

3. A stamp for canceling purposes comprising a stationary section and a movable section, a perforator rotatable within said stationary section, a portion of the perforator projecting into an opening therefor within said movable section, means carried by said movable section for imparting rotary movement to said perforator, a bearing block, bearings within said block and engageable with the perforator to facilitate rotation therof, and spring means arranged to embrace the perforator, said means being engageable with the bearing block, as and for the purpose set forth.

4. A canceling stamp including a stationary section, a stem projecting from the upper face thereof, a movable section having a handle secured thereto, the said handle being provided with a vertically extending bore for the reception of the said stem, a pin extending transversely through an opening formed within the said stem for limiting the movement of the said movable section, perforators including spirally slotted sleeves carried by the said stationary section adapted to project into openings formed within the said movable section, pins extending transversely through the slots of the said sleeves for imparting rotary motion thereto during the movement of the said movable section, an annular flange formed integrally with the said sleeve near the base thereof, bearings arranged within the said stationary section adapted to engage one face of the said flange, springs embracing the said sleeves for forcing one extremity thereof beyond the lower face of the said stationary section, teeth formed upon the said sleeves at the lower end thereof, and means for locking the movable section against lateral movement independent of the said stationary section, as and for the purpose set forth.

1,134,653. POST-MOLD. OSCAR G. WEED, St. Joseph, Mo. Filed Nov. 25, 1913. Serial No. 803,029. (Cl. 25—121.)

1. A post mold having a longitudinal opening and having laterally directed lips at the edges of the opening, bars connected with said lips, and means for operating said bars to close the mold.



2. A post mold comprising a single piece of sheet metal having its free ends spaced to provide a longitudinal opening and having reinforcing lips at the opposite edges of the opening, brackets on said lips, separate bars connected with said brackets, and a single handle member for simultaneously reciprocating said bars in opposite directions, to close the mold opening.

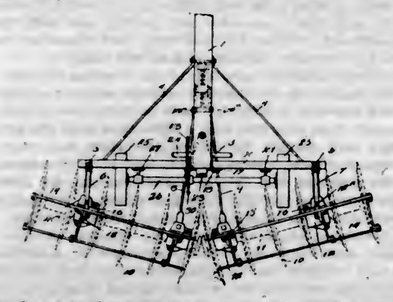
3. A post mold comprising a single piece of flexible sheet metal having its free ends spaced to provide a longitudinal opening and having reinforcing lips at opposite edges of the opening, brackets on said lips having oppositely directed pins, bars having apertures therein for receiving the pins, a handle on one of said bars, and a link connected with the other bar and with said handle, for the purpose set forth.

4. A post mold comprising a single piece of flexible sheet metal having its free ends spaced to provide a longitudinal opening and having lips at opposite edges of the opening, brackets on said lips having oppositely directed pins, bars having apertures therein for receiving the pins, a handle on one of said bars, and a link on the other bar adjustably connected with said handle, for the purpose set forth.

5. A post mold having a longitudinal opening, means connected with said mold at opposite edges of the opening for closing the same, and a clamp member having right angularly turned ends adapted for lateral application to the mold to retain the same in closed condition.

[Claims 6 to 10 not printed in the Gazette.]

1,134,654. HARROW. CHARLES E. WHITE, Moline, Ill., assignor to Deere & Mansur Company, a Corporation of Illinois. Filed May 29, 1908. Serial No. 435,831. (Cl. 55—73.)



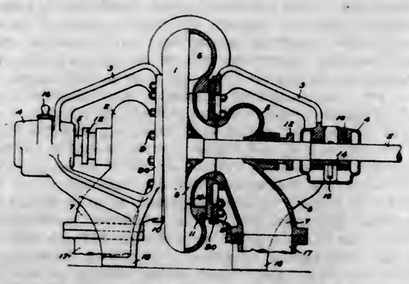
1. In an implement of the class set forth, the combination of a main frame, comprising a pole or tongue, a transverse beam secured to the rear end thereof and rearward extending vertically non-yieldable frame parts carried by the beam, one on each side of the pole, two gangs of toothed heads, each pivotally connected to one of said rearward extending frame parts, draft bars adjustably connected at their front ends to the main frame and connected at their rear ends to the inner ends of the respective tool gangs, means on the main frame for holding the draft bars against upward and downward movement, ground wheels mounted adjustably on the main frame, on an axis in front of the axes of the gangs, means for raising and lowering said wheels and means for holding them in either of several positions vertically whereby they can sustain the teeth either at differing working positions or hold them entirely above the ground, the axis of said wheels being movable longitudinally of the machine from one working position to another.

2. In an implement of the class set forth, the combination of a main frame comprising a pole or tongue, a transverse beam secured to the end thereof, rearward extending vertically non-yieldable frame parts carried by the beam, one on each side of the pole, two gangs of toothed heads, each connected to one of said rearward extending frame parts, draft bars adjustably connected at their front ends to the main frame and connected at their rear ends to the inner ends of the respective gangs, means on the main frame for holding the draft bars against upward and downward movement, an arched axle rotatably mounted on the transverse beam, an adjustable lock for the axle, ground wheels mounted on said axle, and adapted to be held by said lock in either of several working positions longitudinally of the machine, and means for turning the axle to swing the wheels downward or upward to raise or lower the frame, said axle and wheels being situated in front of the gangs and arranged to carry in either of several working positions substantially all of the weight of the frame and the gangs.

3. In an implement of the class set forth, the combination of the main frame comprising a pole and transverse bar or beam secured to the rear end thereof, the two gangs of toothed disks, each pivotally connected to the transverse bar or beam, the two draft bars each connected at its rear end to the inner end of one of the gangs, and means for adjustably connecting the front ends of said draft bars to the pole comprising a screw rotatably mounted beneath the pole and held against endwise movement, a nut on the screw to which the draft bars are directly secured and lugs 20^a receiving and bracing the said draft bars.

4. In a harrow of the class described, the combination of a main frame having a relatively elevated pole and a transverse bar or beam at the rear end thereof, the two gangs with toothed disks having their axes in relatively low planes and each having pivotal connection with the aforesaid transverse bar or beam, the drag bars 8, 9 each pivotally connected to the inner end of a gang and having the elongated forward part arranged to lie in horizontal planes between the gang axes and the tongue, guides or supports extending downward from the tongue for the said bars holding them against vertical movement but permitting longitudinal movement therein, the nut 21 pivotally connected to the said guide bars and the bodily stationary screw 18 underneath the pole engaging with the said nut.

1,134,655. CENTRIFUGAL PUMP. WILLIAM MONROE WHITE, Milwaukee, Wis. Filed May 1, 1913. Serial No. 765,401. (Cl. 103—43.)



1. In a centrifugal pump, a casing, an end cover in direct engagement with each side of said casing, each of

said end covers forming a suction passage to said casing, a detachable frame in direct engagement with each of said end covers, and common means on each side of said casing for connecting said casing with one set of end covers and frames.

2. In a centrifugal pump, a casing, an end cover in direct engagement with each side of said casing, each of said end covers forming a suction passage to said casing, a detachable frame in direct engagement with each of said end covers, and common means on each side of said casing for connecting said casing with one set of end covers and frames in various relative angular positions.

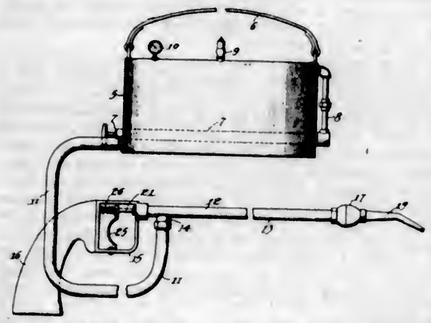
3. In a centrifugal pump, a casing, an end cover in direct engagement with each side of said casing, each of said end covers forming a suction passage to said casing, a detachable frame in direct engagement with each of said end covers for supporting said casing, and a series of equally spaced clamping devices on each side of said casing for connecting said casing with one set of end covers and frames.

4. In a centrifugal pump, a casing forming a discharge passage, an end cover forming a suction passage, a frame having supporting pads, and a series of equally spaced clamping devices for uniting said casing, end cover and frame in various relative angular positions.

5. In a centrifugal pump, a casing formed symmetrical about a plane, interchangeable end covers coacting directly with said casing and forming closures therefor, and interchangeable supporting frames coacting directly with said covers, both said end covers and said frames being secured to said casing on opposite sides of said plane of symmetry.

[Claim 6 not printed in the Gazette.]

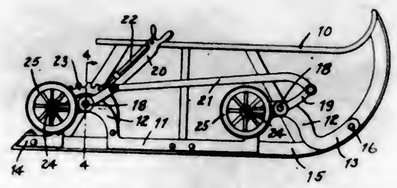
1,134,656. LUBRICATING APPARATUS. TREFLEY E. WILLET, Marseilles, Ill. Filed June 16, 1913, Serial No. 773,840. Renewed Aug. 31, 1914. Serial No. 859,576. (Cl. 221—46.)



1. An apparatus for lubricating overhead and remote bearings, comprising a tank adapted to contain oil under pressure, an oiling device comprising a relatively long barrel, a nozzle at the forward end of said barrel, a valve comprising a head adjacent to said nozzle and a stem extending rearwardly through said barrel, means at the rear end of said barrel for moving said valve stem to unseat said head and permit the flow of oil, and a flexible tube adapted to conduct oil from said tank to said barrel.

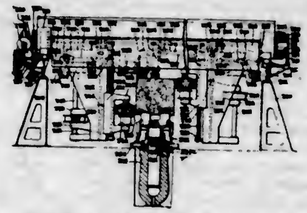
2. The combination of a portable tank adapted to contain oil under pressure, a gun comprising a barrel, a nozzle at the forward end of said barrel, a piston-like handle at the rear end of said barrel, a valve in said barrel adjacent to said nozzle, a valve-stem attached to said valve and extending rearwardly through said barrel to said handle, a trigger mounted adjacent to said handle and engaging said stem for moving the latter rearwardly to unseat said valve, a collar on said stem between said barrel and said handle, a spring on said stem between said collar and said handle, said spring tending to seat said valve, and a flexible tube connecting said tank with said barrel.

1,134,657. CONVERTIBLE SLEIGH AND WHEELED VEHICLE. JAMES WISTED, Myncaster, British Columbia, Canada. Filed Apr. 16, 1914. Serial No. 832,374. (Cl. 21—96.)



In a device of the kind described, a sleigh runner iron provided with a main body portion, an upwardly bowed portion at each end of the main body portion provided with a bearing opening, runner attaching portions at each end of said upwardly bowed portions, a stub shaft supported by each of said bearings, a runner attached to said iron, rock arms on said stub shafts, wheels on said arms, other rock arms on said shafts, one of said arms last mentioned constituting a lever, a link connecting the last mentioned arms, latch means on the lever arm, and a segment coöperating with said latch means carried by said iron.

1,134,658. MACHINE FOR DRESSING STONE. MICHAEL WOODS, GEORGE WASHINGTON GILBERT, and JOHN LITTLE, Melbourne, Victoria, Australia. Original application filed June 3, 1910, Serial No. 564,865. Divided and this application filed Feb. 6, 1912. Serial No. 675,760. (Cl. 125—6.)



1. In improvements relating to the dressing of stone, a slideway, means for reciprocating said slideway, brackets suspended from said slideway, a slide upon each bracket, a dressing tool carried by each slide, means for side feeding each slide along its bracket, means for infeeding each tool toward the stone, means for reversing the side feed of each slide, a slide upon said slideway, a dressing tool carried by said slide, means for side feeding said slide upon said slideway, means for infeeding said dressing tool, means for reversing the side feed of said slide.

2. In improvements relating to the dressing of stone, a traveler, means for driving said traveler, means for reversing said traveler, a slideway upon said traveler, brackets suspended from said slideway, a slide upon each bracket, a dressing tool carried by each slide, means for rotating said dressing tools, means for side feeding each said slide and the dressing tool carried thereby, means for infeeding each bracket and the slide and dressing tool carried thereby, means for reversing the side feed of each slide.

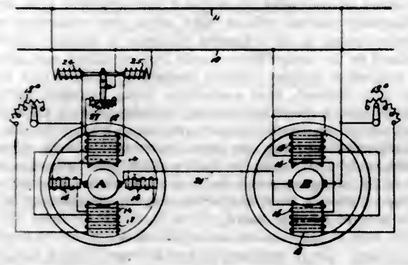
3. In improvements relating to the dressing of stone, a traveler, means for reciprocating said traveler, a slideway upon said traveler, brackets suspended from said slideway, a slide upon each bracket, a dressing tool carried by each slide, means for rotating each said dressing tool, means for side feeding each dressing tool, means for infeeding each said dressing tool, means for reversing the side feed of each slide and dressing tool, a former adjacent to each bracket, means for guiding each bracket as it reciprocates with the traveler by its respective former.

4. In improvements relating to the dressing of stone, a slideway, means for reciprocating said slideway, a bracket suspended to said slideway, a slide upon said bracket, a dressing tool carried by said slide, means for rotating said dressing tool, means for side feeding the slide along said bracket, means for infeeding said dressing tool by moving the bracket along the slideway, means for reversing the side feed of each slide as each infeeding movement takes place.

5. In improvements relating to the dressing of stone, a traveler, means for reciprocating said traveler a slideway upon said traveler, brackets suspended from said slideway, a slide upon each bracket, a dressing tool carried by each slide, means carried by said traveler and actuated by its reciprocation for side feeding each of said slides, means actuated by each slide for reversing its side feed and infeeding its respective bracket toward the stone.

[Claims 6 to 10 not printed in the Gazette.]

1,134,659. SYSTEM OF DISTRIBUTION. EDWIN C. WRIGHT, Newport, Ky., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Sept. 3, 1907. Serial No. 391,173. (Cl. 171—224.)



1. In combination, a plurality of dynamo-electric machines connected in parallel, at least one but less than all of said machines being provided with anti-sparking windings, and means for maintaining the proportionate division of current between said machines substantially constant and also maintaining the currents in the anti-sparking windings substantially proportional to those in the armatures with which they are respectively associated.

2. In combination, two dynamo-electric machines connected in parallel, one only of said machines being provided with a commutating winding, and means for maintaining the proportionate values of the currents in the armatures of said machines and in said commutating winding substantially constant.

3. In combination, two compound wound dynamo-electric machines connected in parallel, one only of said machines being provided with anti-sparking windings, and means for causing the variations of current in the armatures of the two machines and in said anti-sparking windings to be proportional.

4. In combination, a supply circuit, two compound wound dynamo-electric machines connected in parallel to said supply circuit, one only of said machines being provided with a commutating winding, and means for automatically regulating the strength of current in the shunt field winding of one of said machines to cause the ratio between the currents taken by the armatures of the two machines to remain substantially constant.

5. In combination, a supply circuit, two compound wound dynamo-electric machines connected in parallel to said supply circuit, one only of said machines being provided with a commutating winding, and means for automatically regulating the shunt field winding of one of said machines to cause the ratio between the currents in said commutating winding and in the armature with which it is associated to be maintained substantially constant.

[Claims 6 to 22 not printed in the Gazette.]

1,134,660. PNEUMATIC TIRE. ALBERT M. ALLEN, St. Louis, Mo. Filed Aug. 28, 1914. Serial No. 859,100. (Cl. 152—21.)



1. In combination with a wheel having a rim, an open casing having edges securable to the wheel, a web connecting the edges, a pair of movable rings enveloping the rim and supporting the web aforesaid, abutments on the rim for engaging the casing walls from one side, and means for forcing the rings against the opposite sides of the casing walls and the latter against the abutments whereby the casing becomes locked to the wheel.

2. In combination with a wheel rim, a pair of spring-controlled rings loosely enveloping the same and adjustable to and from one another across the plane of rotation of the wheel, means interposed between the rings for driving the same apart, the springs tending to draw them together, an open casing having its edges interposed between a stationary support on the rim and one side of a ring, a web connecting the edges of the casing and spanning the rings, means on the rings affording the web a substantially continuous support for the web, and means for maintaining the rings in their outwardly driven position whereby the casing becomes gripped between the rings and the stationary supports aforesaid.

3. In combination with a wheel having a rim, abutments on each side of the rim, a pair of rings encompassing the rim between the abutments, said rings being adjustable to and from one another across the plane of rotation of the wheel, a ledge on one of the rings overlapping the outer surface of the opposite ring and forming a substantially continuous supporting surface, an open casing having marginal beads insertible between the respective abutments and their adjacent rings, a web connecting the margins of the casing and spanning the rings and the ledge aforesaid, contracting springs disposed at intervals between the rings for drawing the rings away from the abutments, and means controllable from a point outside the rim for forcing the rings toward the abutments, and thereby locking the casing to the wheel.

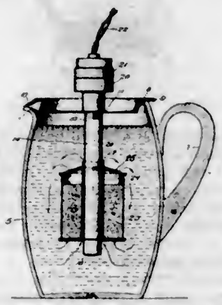
4. In combination with a wheel having a rim, flange abutments on each side of the rim, a pair of rings encompassing the rim between the abutments and adjustable to and from one another between the abutments, means for forming a permanent continuous surface between the peripheries of the rings, an open casing having its margins inserted between the rings and their respective abutments, a web connecting the margins of the casing and spanning the rings and supported at all points by the continuous surface formation aforesaid, springs interposed between and connected to the rings for drawing the rings together, pairs of wedges interposed between the rings for forcing the rings apart, a rotatable stem passed through the rim for actuating the wedges, and means for locking the stem against rotation, and the wedges against movement for any adjusted position of the wedges.

5. In combination with a wheel and rim thereof, a pair of rings enveloping the rim, pairs of wedges interposed between and mounted on the rings, rack surfaces being formed on the wedges, a rotatable stem on the rim terminating in a toothed formation engaging said rack surfaces, longitudinal peripheral grooves being disposed on the outer terminal of said stem, a hollow member traversed by said grooved portion of the stem and provided with corresponding grooves on its inner surface disposed opposite the path of rotation of the grooves on the stem, and a locking pin insertible into a groove of the stem and of the hollow

member when two of the grooves are brought into register, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,134,661. ELECTRIC HEATING DEVICE. McGERRY ALLMAYER, Chicago, Ill. Filed Oct. 9, 1911. Serial No. 653,496. (Cl. 219—38.)



1. In a heating device, the combination with a utensil of a relatively long, electrically heating, inclosed element, and a food containing cup surrounding a portion thereof and supported in said utensil.

2. In a heating device, the combination of a relatively long, electrically heating element, and a perforate food containing-cup overlying a central imperforate tube surrounding a portion of said heating element.

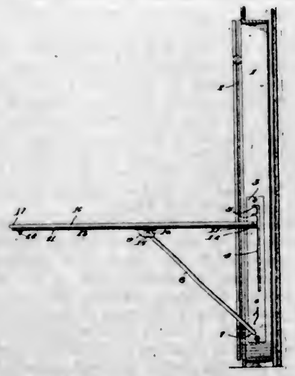
3. In a heating device, the combination of a relatively long, electrically heating element, a perforate food-containing removable cup surrounding a portion thereof, and means carried by said element for supporting said cup.

4. In a heating device, the combination of a relatively long, electrically heating element, a food-containing cup having perforate top and bottom walls surrounding said element, means for supporting said cup and said element in vertical positions.

5. In a heating device, the combination of an open-top liquid-containing vessel, a removable, perforate cover therefor, a relatively long, electrically heating element supported by said cover, a terminal socket secured to the upper end of said element, and a food cup removably supported about said heating element.

[Claims 6 and 7 not printed in the Gazette.]

1,134,662. IRONING-BOARD. AUSTIN W. BARBER, Everett, Wash. Filed Feb. 13, 1913. Serial No. 748,236. (Cl. 68—10.)

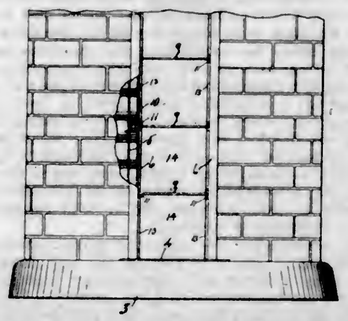


1. In an ironing board the combination with a cabinet having plates mounted therein provided with vertical slots and lateral slots communicant therewith, of an ironing board having means mounted thereon for adjustable engagement with said slots, a bracing member having its vertex removably connected to said ironing board and its end detachably connected to said metallic plates, and means provided in said plates for allowing vertical adjustment of said brace.

2. In an ironing board, the combination, with a cabinet having metallic plates mounted upon the interior of its sides, said plates provided with vertical slots and lateral slots communicating with said vertical slots, of an ironing board having pins mounted in the sides of one end thereof, said pins being adjustably seated in said slots for retaining said ironing board in adjusted position, a U-shaped bracing member having its vertex removably connected to the under surface of said ironing board and its free ends connected to said metallic plates, said free ends being vertically adjustable, by means of a plurality of openings formed in said plate for varying the horizontal elevation of said ironing board.

3. In an ironing board the combination with a cabinet having metallic plates mounted upon the interior of its sides, said plates being provided with vertical slots and lateral slots communicant with said vertical slots adjacent the upper end thereof, of an ironing board having pins mounted in the sides of one end thereof, said pins being adjustably seated within said slots for retaining said ironing board in an adjusted position, a bracket member secured to the under side of said ironing board and having an extension formed thereon projecting downwardly from one side thereof, said projection being provided with a lateral slot, a U-shaped bracing member having its vertex removably mounted within said lateral slot formed in said bracket and its free ends connected to said metallic plates, said ends being vertically adjustable by means of a plurality of openings formed in said plate adjacent the lower extremity thereof for varying the horizontal elevation of said ironing board.

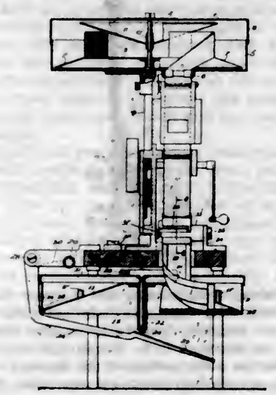
1,134,663. SILO CONSTRUCTION. WILLIAM LAWRENCE BELTZ, Mowrystown, Ohio. Filed Mar. 11, 1914. Serial No. 823,901. (Cl. 72—6.)



In a silo construction the combination with a wall composed of tiles, of channel plates adapted to form continuous door jambs for said wall, rods inside said wall adjacent said door jambs, said rods extending in substantially continuous parallel relation with said jambs, means secured to said rods and passing circumferentially around said wall between the courses of said tiles to reinforce said wall, bars extending between said channel plates across the doorway of said wall, and angle plates attached to said rods and the ends of said bars to secure the same together.

1,134,664. MOVING-PICTURE MACHINE. GEORGE W. BINGHAM, Brooklyn, N. Y., assignor to The Bingham Manufacturing Company, a Corporation of Maine. Filed Mar. 30, 1910. Serial No. 552,846. (Cl. 88—18.7.)

1. The combination of a horizontally disposed rotatable receiver having a bottom which slopes downward toward the outer periphery thereof, supporting means for the receiver, means for winding a roll of flexible material into the said receiver with the leading end out and from the outside progressively inward toward the center, and means for automatically lowering the receiver as the flexible material is wound in the receiver so that the flexible material will always be presented to the same point vertically in the receiver notwithstanding its sloping bottom.



2. In a moving picture machine, a freely rotatable film receiver adapted to receive its motion from the winding motion of the film therein and provided with means for holding the film during the winding thereof outward against the inner periphery of the receiver, and a stationary guide for directing the film into the edge portion of the receiver, the said receiver having a movement with respect to the guide to allow for the increase in size of the film roll as it is wound in the receiver.

3. In a moving picture machine, a film receiver having its bottom inclined from the center toward the periphery thereof so as to hold the film as it is coiled therein outward in close engagement with the inner periphery of the receiver, a supporting means for the receiver, a guide for directing the film into the edge portion of the receiver, the said guide and receiver having a relative movement one with respect to the other to allow for the increase in size of the film roll as it is wound in the receiver, and means for maintaining a constant relation between the mouth of the guide and the inclined bottom of the receiver during the relative movement of the guide and receiver.

4. In a moving picture machine, a film receiver freely rotatable to respond to the winding motion of a coil of film, a stationary rigid guide, means for directing the leading end of the film into the receiver, and means for holding the film as it is coiled in the receiver, outward toward the rim of the receiver.

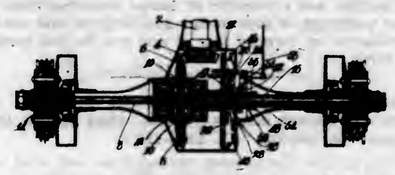
5. In a moving picture machine, feeding means for imparting motion to the film, a film receiver having an annular rim and freely rotatable to respond to the feeding motion of the film, a rigid guiding means for directing the leading end of the film against the rim of the receiver, whereby the film is coiled progressively inward, with the leading end on the outside, and means for holding the film as it is coiled in the receiver, outward against the rim of the receiver.

[Claims 6 to 39 not printed in the Gazette.]

1,134,665. COMPENSATING GEARING. JOSEPH F. BLAKEY and EDWARD B. BLAKEY, Kansas City, Mo. Filed Nov. 24, 1913. Serial No. 802,839. (Cl. 74—34.)

1. The combination with compensating gearing, of a pair of rotating members driven from said gearing, means for locking said members together for operation by said gearing without compensation, and means acting automatically to render said first means inoperative after said members have attained a given speed of rotation.

2. The combination with a rotating shaft, of a rotary sleeve journaled on said shaft, said sleeve and shaft being provided with an opening and socket respectively adapted to be brought into register, a compensating gearing operatively connected with said shaft and sleeve to drive the same, a locking pin carried by said sleeve in alinement with said sleeve opening, means for projecting said pin through said opening into said socket to lock said shaft and sleeve together for operation by said gearing without compensation, and means acting automatically to retract said pin and unlock said shaft and sleeve after the same have attained a predetermined speed of rotation.

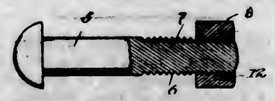


3. The combination with a rotating shaft, of a rotary sleeve journaled on said shaft, said sleeve and shaft being provided with an opening and socket respectively adapted to be brought into register, a compensating gearing operatively connected with said shaft and sleeve to drive the same, a locking pin carried by said sleeve in alinement with said sleeve opening, a guard slidably mounted on said rotary sleeve in position to close said sleeve opening and prevent said pin from entering the same, means for operating said guard to uncover said opening, means acting automatically when said guard is operated to project said pin through said opening into said socket to lock said shaft and rotary sleeve together for operation by said gearing without compensation, and means acting automatically to retract said pin and unlock said shaft and sleeve after the same have attained a given rotative speed.

4. The combination with a rotating shaft, of a rotary sleeve journaled on said shaft, said sleeve and shaft being provided with an opening and socket respectively adapted to be brought into register, a compensating gearing operatively connected with said shaft and sleeve to drive the same, a disk fixed to said sleeve, a locking pin carried by said disk in alinement with said sleeve opening, a guard for closing said sleeve opening and preventing said pin from entering the same, a yieldingly actuated lever connected with said pin and acting to project the same, when said guard is retracted, through said opening into said socket to lock said shaft and sleeve together for operation by said gearing without compensation, said lever being constructed and arranged to be centrifugally actuated to retract said pin and thereby unlock said shaft and sleeve after the same have attained a given speed of rotation.

5. In a self-propelled vehicle, a continuous axle for connecting the drive wheels, a sleeve axle mounted on said continuous axle for connection to one of said wheels, a compensating gearing mounted on said continuous axle and operatively connected with both of said axles, means whereby said axles may be locked together for rotation as one axle without compensation, and means acting automatically after a given rotative axle speed has been attained for rendering said first means inoperative.

1,134,666. NUT-LOCK. DANIEL J. BLOCHER, Pearl City, Ill. Filed Oct. 18, 1913. Serial No. 796,016. (Cl. 151—1.)

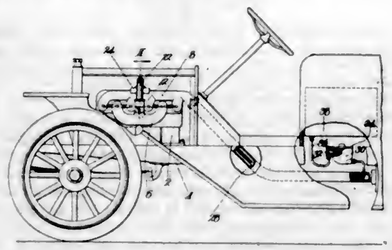


1. A nut lock including a bolt having a threaded shank and provided with a longitudinally extending groove, a nut threaded on the bolt and provided with an annular

depression in its outer face, and a soft washer mounted in said depressed portion having lugs formed thereon for engagement with complemental grooves in said nut for holding the washer in a fixed position, said washer adapted to be forced into the threads and groove of said bolt to prevent accidental displacement of the nut.

2. A nut lock, in combination with a bolt provided with a longitudinal groove, a nut having a portion of its outer face cut-out and a pair of cut-out portions formed at diametrically opposite points on the outer face of said nut communicating with the first mentioned cut-out portion, an inelastic washer arranged in said first mentioned cut-out portion, and a plurality of fingers extending from the outer periphery of said washer and lying in said cut-out portions in the forward face of said nut for the purpose set forth.

1,134,667. INTERNAL-COMBUSTION ENGINE. ARTHUR O. BROOKE, Kansas City, Mo. Filed Apr. 19, 1913. Serial No. 762,206. (Cl. 123—122.)



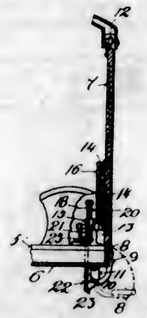
1. In an internal combustion engine, the combination with the intake manifold and the exhaust manifold, of a liquid fuel supply, and a fuel supply tube having a horizontal run beneath the level of said fuel supply and an upwardly inclined run leading from the horizontal run to the intake manifold, said runs passing through the exhaust manifold and the inclined run having the fuel standing therein normally at a height above the level of the horizontal run, whereby the fuel is vaporized by the heat from the exhaust and its lever varied in accordance with the speed of the engine.

2. In an internal combustion engine, the combination with the intake manifold and the exhaust manifold, of a liquid fuel supply, a fuel supply tube having a horizontal run beneath the level of said fuel supply and an upwardly inclined run leading from the horizontal run to the intake manifold, said runs passing through the exhaust manifold and the inclined run having the fuel standing therein normally at a height above the level of the horizontal run, whereby the fuel is vaporized by the heat from the exhaust and its level varied in accordance with the speed of the engine, and means for supplying air to said fuel after the latter is vaporized and before it reaches the intake manifold.

3. In an internal combustion engine the combination with an intake manifold, an exhaust manifold, means for obtaining heated air from around said exhaust manifold, a fuel supply tube within said exhaust manifold, and opening out of said manifold in a vertical direction and within said air heating means, an inverted U-shaped tube extending from said air heating means to said intake manifold, a throttle valve located near said intake manifold and an auxiliary air intake located at the end of said tube and near said intake manifold.

1,134,668. DIVIDED DOOR FOR STREET-CARS OR OTHER PURPOSES. JOHN B. BURDETT, Chicago, Ill., assignor, by mesne assignments, to National Pneumatic Company, a Corporation of West Virginia. Filed July 25, 1908. Serial No. 445,393. (Cl. 105—88.)

1. A car having a floor, a doorway, and a side pocket, in combination with a door section to close the upper portion of said doorway, and adapted to slide into said pocket in opening, and a member hinged beneath the floor at the doorway and adapted to rock into position to close the lower portion of the doorway when closed and to form a step below the doorway and floor when closed.



2. A car having a platform, a side doorway for the platform, a movable door section to open and close the upper portion of said doorway, a movable member hinged below the floor of the platform to be rocked into and out of position to close the lower portion of the doorway, said member when in open position forming a step below the level of the platform floor, and connections for coincidentally moving said door section and member into and out of closed position.

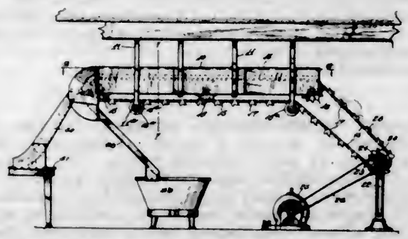
3. A car having an end platform and a side door therefor, said door made in sections, one section being mounted to rock in opening, into position below the level of the platform floor to form a step and the other section mounted to slide out of the entrance to and from the platform, said sections being connected together to move in unison.

4. A car having an end platform, and a divided door for the side of the platform, said door consisting of two portions mounted to move in transverse directions, one of said portions arranged to form a step when in open position and means for counterbalancing one of said portions.

5. A car having an end platform, said platform having a side doorway, a door composed of two sections, one section controlling the upper portion of the doorway and the other the lower portion of the doorway, said last mentioned section being hinged below the floor of the platform and rocking, when opened, into position to form a step below the level of the platform floor, and means whereby when the upper door section is moved into and out of closed position, said lower section is coincidently rocked respectively into position to close the lower portion of the doorway and into position to form a step below the floor of the platform.

[Claims 6 to 8 not printed in the Gazette.]

1,134,669. APPARATUS FOR DRYING HATS. WILLIAM F. CHINIQUY and WILLIAM O. WINCH, Chicago, Ill. Filed May 28, 1914. Serial No. 841,462. (Cl. 34—12.)



1. In an apparatus for drying hats, an endless conveyer consisting of parallel belts, rod-engaging means disposed in spaced relation upon said belts and transversely disposed hat carrying rods removably mounted on said means that are discharged from said means at one end of said conveyer into a cleaning receptacle and are fed to said means at the opposite end of said conveyer.

2. An apparatus for drying hats, comprising a heated compartment constructed of sectional flues, and an endless conveyer extending through said compartment, upon which the hats are placed at one end of said compartment and from which said hats are discharged at the opposite end thereof, said conveyer provided with hat carrying means that are released therefrom after each transit through said compartment, a chute at the discharge end of said conveyer adapted to receive the hats therefrom, and a separate chute upon which said hat carrying means are discharged.

3. An apparatus for drying hats, comprising a heated compartment constructed of sectional flues, and an endless conveyer extending through said compartment, upon which the hats are placed at one end of said compartment and from which said hats are discharged at the opposite end thereof, said conveyer provided with hat carrying means that are released therefrom after each transit through said compartment, and a device for feeding said hat carrying means to the opposite end of said conveyer.

4. An apparatus for drying hats, comprising a heated compartment constructed of sectional flues, and an endless conveyer extending through said compartment, upon which the hats are placed at one end of said compartment and from which said hats are discharged at the opposite end thereof, said conveyer provided with hat carrying means spaced at suitable intervals upon said conveyer that are released therefrom after each transit through said compartment, a chute at the discharge end of said conveyer adapted to receive the said hat carrying means, and a device for feeding said hat carrying means at suitable intervals to the end of said conveyer opposite said chute.

5. An apparatus for drying hats, comprising a heated compartment constructed of sectional flues, and an endless conveyer extending through said compartment, upon which the hats are placed at one end of said compartment and from which said hats are discharged at the opposite end thereof, said conveyer provided with hat carrying means that are released therefrom after each transit through said compartment, a chute at the discharge end of said conveyer adapted to receive the hats therefrom, a separate chute upon which said hat carrying means are discharged, and a device for feeding said hat carrying means to the end of said conveyer opposite said chute.

[Claims 6 to 14 not printed in the Gazette.]

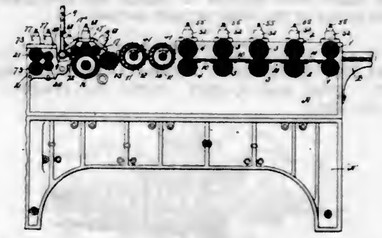
1,134,670. SHIP-PROPELLER. ALBERT F. CIZEK, Tacoma, Wash. Filed Aug. 18, 1914. Serial No. 857,430. (Cl. 115—38.)



In a ship propeller, the combination with a vessel; of a pair of screw propellers mounted on each side of the central axis thereof, each of said propellers extending substantially from end to end of the vessel, the axes thereof each equally and oppositely diverging from the said central axis from stem to stern, and each being of increasing diameter from stem to stern whereby their adjacent edges lie substantially parallel; and means for driving the propeller.

1,134,671. FLAX-MACHINE. CLAYTON G. COOKE, New Haven, Conn., assignor, by mesne assignments, to American Linen Fibre Company, a Corporation of Delaware. Filed Dec. 13, 1906. Serial No. 347,644. (Cl. 13—21.)

1. In a flax machine, the combination with a plurality of pairs of spirally fluted breaker rolls, the flutes of the succeeding pair being arranged at a different angle from the flutes of the preceding pair, and the succeeding pair having a relatively less surface speed than the preceding pair; of means acting upon the broken straw to separate the shives from the fiber, and driving mechanism for rotating said rolls continuously in one direction, substantially as and for the purposes described.



2. In a flax machine, the combination with a pair of spirally fluted breaker rolls; of a succeeding pair of straight fluted breaker rolls; and a heckling roll adapted to act upon the flax after said straight fluted breaker rolls, substantially as and for the purposes described.

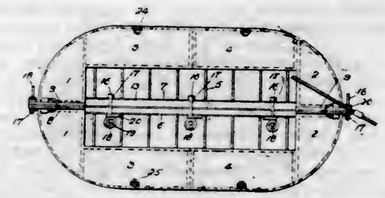
3. In a flax machine, the combination with a pair of straight fluted breaker rolls; of an auxiliary pair of straight fluted breaker rolls; and two pairs of spirally fluted breaker rolls arranged between said straight fluted breaker rolls, the flutes of one pair of spirally fluted rolls being arranged at a different angle from the flutes of the other pair, all arranged so that the material will be successively acted upon in a continuous movement from one part to the other, substantially as and for the purposes described.

4. In a flax machine, the combination with breaking rolls; of heckling devices, adjacent to and operating at a greater speed than said breaking rolls, for heckling the straw held by said rolls, means for stripping the heckled fiber from the teeth of said heckling devices; means for removing the heckled fiber from said stripping devices comprising a roll having a roughened surface, substantially as and for the purposes described.

5. In a flax machine, the combination with a pair of fluted breaker rolls; of a heckling device; means for stripping the heckled fiber from the teeth thereof; a second pair of rolls and a brush roll arranged in close association with said stripping device for carrying the fiber from the latter to said second pair of rolls, substantially as and for the purposes described.

[Claims 6 to 64 not printed in the Gazette.]

1,134,672. LIFE-BOAT CONVERTIBLE INTO DECK-SEATS. DAVID DAVIES, North Carlton, Victoria, Australia. Filed Oct. 15, 1913. Serial No. 795,304. (Cl. 9—2.)

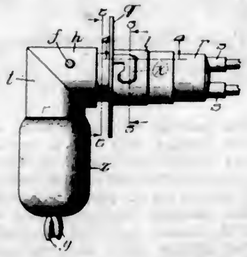


1. In a life boat, in combination, two longitudinal half sections adapted to be used separately as deck seats or to be fastened together to form a life boat, said sections being provided with keel plates and stem plates, said plates being provided with recesses, coupling bolts within said recesses to hold the sections together and water tight packing between the said plates of said half sections.

2. In a life boat, in combination, two longitudinal half sections adapted to be used separately as deck seats or to be fastened together to form a life boat, said sections be-

ing provided with keel plates and stem plates, said plates being provided with recesses, coupling bolts pivotally mounted upon one of said sections and adapted to extend within the recesses in said plates to hold the sections together, spaced angle irons secured to the keel plate and stem plates of one of said sections, and packing between said angle irons adapted to engage the keel plate and stem plates of the other of said sections.

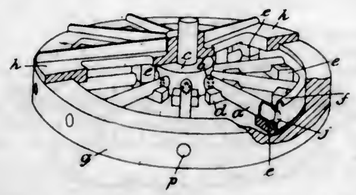
1,134,673. CONNECTOR. HARRY A. DOUGLAS, Chicago, Ill. Filed Aug. 9, 1912. Serial No. 714,207. (Cl. 175—283.)



1. An electrical connector including two alined contacts; a spring for pressing one contact against the other, the latter contact having a channel; a rod operating in said channel for engaging the spring pressed contact to move it out of electrical connection with the contact having the channel; and a second rod movable longitudinally of itself and transversely of the direction of movement of the first rod and having seats of differing depths, one for positioning the first rod to maintain the contacts in separation and the other to permit the first rod to be so positioned that said spring may effect engagement between the contacts.

2. An electrical connector including two alined contacts; a spring for pressing one contact against the other; a rod operating longitudinally of the contact for engaging the spring pressed contact to move it out of electrical connection with its companion; and a second rod movable longitudinally of itself and transversely of the direction of movement of the first rod and having seats of differing depths, one for positioning the first rod to maintain the contacts in separation and the other to permit the first rod to be so positioned that said spring may effect engagement between the contacts.

1,134,674. MANUFACTURE OF WHEELS. FREDERICK ARTHUR ELLIS, London, England. Filed Dec. 9, 1914. Serial No. 876,203. (Cl. 29—174.)



1. A method of manufacturing all-steel wheels which consists in assembling the spokes on the hub, placing the hub and spokes within the rim, and pressing spigots out of the material of the rim into the ends of the spokes.

2. A method of manufacturing all-steel wheels which consists in threading the spokes on projections on the hub, placing the hub and spokes within the rim, pressing spigots out of the material of the rim in a cold state into the ends of the spokes, and autogenously welding said projections and said spigots to the inner and outer ends of the said spokes.

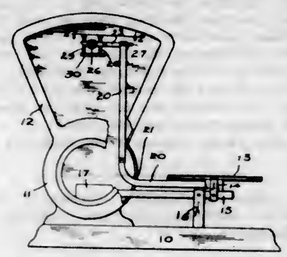
3. A method of manufacturing all-steel wheels which consists in threading the spokes on projections on the hub, placing the hub and spokes within the rim, the outer ends of the spokes extending to the inner circumference of the rim, supporting said spokes on die blocks within a mold, and pressing spigots out of the material of the rim into the outer ends of said spokes.

4. A method of manufacturing all-steel wheels which consists in threading the spokes on projections on the hub, placing the hub and spokes within the rim, the outer ends of the spokes extending to the inner circumference of the rim, assembling said hub, spokes and rim within a mold, supporting said spokes by die-blocks within said mold, clamping said hub, spokes and rim within said mold by means of a cover-plate furnished with die-blocks registering with said first-mentioned die-blocks, and pressing material out of the rim in a cold state so as to form spigots projecting into the outer ends of said spokes.

5. A method of manufacturing all-steel wheels which consists in threading the spokes on projections on the hub, placing the hub and spokes within the rim, the outer ends of the spokes extending to the inner circumference of the rim, assembling said hub, spokes and rim within a mold, supporting said spokes by die-blocks within said mold, clamping said hub, spokes and rim within said mold by means of a cover-plate furnished with die-blocks registering with said first-mentioned die-blocks, pressing material out of the rim in a cold state so as to form spigots projecting into the outer ends of said spokes, and autogenously welding the said projections and the said spigots to the inner and outer ends of said spokes.

[Claims 6 and 7 not printed in the Gazette.]

1,134,675. WEIGHING-SCALE. ROBERT A. FORBES, Hamilton, Ohio, assignor to The Anderson Tool Company, Hamilton, Ohio, a Corporation. Filed May 19, 1913. Serial No. 768,581. (Cl. 73—104.)



1. A weighing scale including a platform check bar, a plurality of parallel check links pivoted at one end thereof near each side of the bar, and fixed means to which the other ends of said links are pivoted, said check bar and fixed means being recessed to snugly receive the ends of the check links.

2. A weighing scale including a platform check bar, a plurality of parallel check links pivoted at one end thereof near each side of the bar, fixed means to which the other ends of said links are pivoted, said check bar and fixed means being recessed to snugly receive the ends of the chek links and the check links being provided with angular holes, and pivot pins with angular portions fitting in said holes.

3. A weighing scale including a platform check bar, a plurality of parallel check links pivoted at one end thereof near each side of the bar, a fulcrum lever with which each link is pivoted, means for fulcruming said fulcrum levers parallel and between their ends, a fixed plate, and set screws extending through each fulcrum lever on each side of the fulcrum thereof and engaging said plate for adjusting said levers.

1,134,676. BOTTLE-CAPPING MACHINE. JOHN J. GAYNOR and PETER CARL LIEBER, Indianapolis, Ind., assignors to Progress Machine Company, Indianapolis, Ind., a Corporation of Indiana. Filed Aug. 21, 1913. Serial No. 786,030. (Cl. 113—2.)



1. A bottle capping machine including a bottle support, a friction plate secured thereto, a coöperating friction plate, and means for forcing said last-mentioned friction plate against the first-mentioned friction plate and arranged at an inclination to the direction of movement of said first-mentioned friction plate.

2. A bottle capping machine including a bottle support, a vertically disposed friction plate connected therewith, another friction plate adjacent said first-mentioned friction plate, said two friction plates having interlocking surfaces inclined at the lower edges thereof, and means for forcing said friction plates against each other.

3. A bottle capping machine including a bottle support, a bar extending downwardly therefrom with a recess in one side thereof, a friction plate insertible in said recess, another friction plate adjacent said first-mentioned friction plate, said two friction plates having interlocking surfaces inclined at the lower edges thereof, and means for forcing said friction plates against each other.

4. A bottle capping machine including a tubular bottle support, a tube on which said bottle supporting tube telescopes, a bar secured to the bottle support and extending down into the lower tube and bearing against the inner surface thereof, a friction plate carried by said bar, another friction plate adapted to be engaged by the plate carried by said bar, and means acting between the wall of said lower tube and said last-mentioned friction plate for forcing it against the first-mentioned friction plate.

5. A bottle capping machine including a tubular bottle support, a tube on which said bottle supporting tube telescopes, a bar secured to the bottle support and extending down into the lower tube and bearing against the inner surface thereof, a friction plate carried by said bar, another friction plate adapted to be engaged by the plate carried by said bar, and a plate arranged at an inclination between and engaging the last-mentioned friction plate and the inner surface of the lower tube.

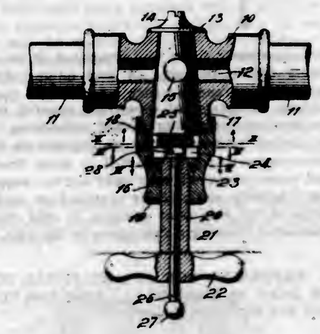
[Claims 6 to 9 not printed in the Gazette.]

1,134,677. PROCESS OF PRODUCING PROPYLENE FROM ACETYLENE AND METHANE. ARTHUR HEINEMANN, West Kensington, London, England. Filed May 27, 1913. Serial No. 770,221. (Cl. 23—24.)

1. An improvement in the production of propylene from acetylene and methane consisting in effecting the union of the acetylene and methane in the presence of an intimate mixture or association of catalytic metals of common occurrence and catalytic metals of rarer occurrence, substantially as described.

2. A process of producing propylene from acetylene and methane consisting in passing a mixture of acetylene and methane through heated vessels containing an intimate mixture or association of catalytic metals of common occurrence and catalytic metals of rarer occurrence, substantially as described.

1,134,678. STOP-COCK. MILES S. HOLLIS, New York, N. Y. Filed Jan. 31, 1913. Serial No. 745,411. (Cl. 137—7.)



1. A device of the character described, comprising a casing, a valve plug for controlling the medium passing through said casing, a gravity rotary operating device for the plug adapted to be moved therefrom, and a slidable rod mounted axially of the valve and somewhat longer than the operating device and freely slidable therein and having one end normally projecting beyond said operating device.

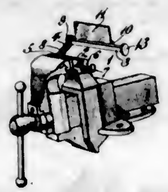
2. In a stop cock, the combination of a casing, a valve member arranged in said casing and adapted to control the medium passing therethrough and having an elongated projection at one end, a sleeve having a portion thereof forming an annular chamber, a rotary device having a slotted end adapted to engage the projection to rotate the same and adapted to move therefrom by gravity, and a rod somewhat longer than the rotary device and having one end normally projecting beyond the operating device and adapted to engage a part of the plug if moved lengthwise of the operating device.

3. In a stop cock, the combination of a casing, a valve member arranged in said casing and adapted to control the medium passing therethrough and having an elongated projection at one end, a sleeve, a rotary device adapted to rotate the valve member, and a slidable rod mounted axially of the valve and somewhat longer than the rotary device and having one end normally projecting beyond the rotary device.

4. In a stop cock, the combination of a casing, a valve member arranged in said casing and adapted to control the medium passing therethrough and having an elongated projection at one end, a sleeve, a rotary device having a part projecting beyond the sleeve to rotate said valve member, and slidable means mounted axially of the valve and freely slidable in the rotary device and somewhat longer than the rotary device and having a part normally projecting beyond the same.

5. In a stop cock, the combination of a casing, a valve member arranged in said casing and adapted to control the medium passing therethrough and having an elongated projection at one end, a sleeve, a rotary device passing through the sleeve and having a slotted end adapted to engage the projection to rotate the valve member, and a slidable rod mounted axially of the valve and freely slidable in and somewhat longer than the rotary device and having one end normally projecting beyond the same.

1,134,679. MIRROR ATTACHMENT FOR A VISE. JAMES W. IVORY, Philadelphia, Pa. Filed Nov. 20, 1913. Serial No. 802,046. (Cl. 88—1.)



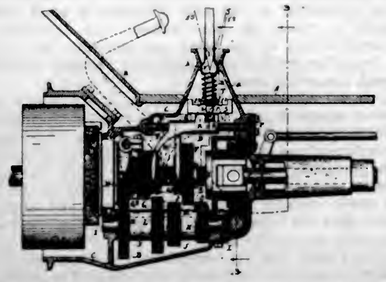
A mirror attachment for a vise composed of an arm, a mirror-holding device thereon, an arm having deflected limbs adapted to be connected with a jaw of the vise, said arms extending in horizontal directions parallel to each other, a transversely-extending slotted cross-piece having its ends connected with said arms, and means on the end of the mirror-supporting arm adapted to enter freely the slot of said cross piece, whereby said mirror supporting arm is both rotatably and slidably mounted on said cross bar, the ends of the two arms opposite to said cross bar being disconnected forming a free space to the vise.

1,134,680. FASTENING FOR AN ARTIFICIAL TOOTH. JAMES W. IVORY, Philadelphia, Pa. Filed June 11, 1914. Serial No. 844,405. (Cl. 32—9.)



A fastening for an artificial tooth with the mouth plate therefor composed of a double eye member, the eye of one member having flaring walls embedded solidly within the tooth in a direction perpendicularly to the base of the tooth and interlocked internally therewith by material of the tooth occupying the opening of said eye, and the eye of the other member being exterior of the eye member in the tooth and parallel therewith, the latter named eye member being adapted to be embedded solidly within said plate and interlocked internally therewith by the material of the plate occupying the opening of said last named eye.

1,134,681. CHANGE-SPEED GEARING. CHARLES B. KING, Detroit, Mich., assignor, by mesne assignments, to King Motor Car Company, a Corporation of Michigan. Filed Nov. 1, 1910. Serial No. 590,143. (Cl. 74—58.)



1. The combination of a change speed gearing of the selective type, a casing inclosing said gearing, a lever engaging the selective mechanism of said gearing, at its lower end and extending through said casing to a position at its upper end accessible to the operator, said lever being pivoted by a universal joint to said casing at the point at which it passes through said casing.

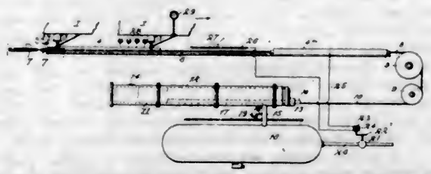
2. The combination of a change speed gearing of the selective type, a casing inclosing said gearing and provided with an upward extension, a lever engaging the selective part of said gearing in said casing and extending through said casing at the upper end of the projection from the same to a position at its upper end accessible to an operator, said lever being secured by a universal joint at the point where it passes through said casing at the upper end of said projection.

3. The combination of a change speed gearing of the selective type, a casing inclosing said gearing, a lever engaging the selective mechanism of said gearing in said casing at its lower end and extending through said casing to a position accessible to an operator at its upper end, and a ball-and-socket joint uniting said lever to said casing where the lever passes through said casing, the ball of said joint closing the opening in said casing through which said lever extends.

4. The combination with a change speed gearing of the selective type, a casing inclosing said gearing and engaging the selective mechanism of said gearing in said casing at its lower end and extending through said casing to a position accessible to an operator at its upper end, a socket formed in the wall of said casing around said lever with its cavity opened to the interior of said casing, a ball on said lever adapted to fit in said socket, and a spring within said casing pressing said ball against said socket.

5. The combination with a change speed gearing of the selective type, a casing inclosing said gearing and engaging the selective mechanism of said gearing in said casing at its lower end and extending through said casing to a position accessible to an operator at its upper end, a socket formed in the wall of said casing around said lever with its cavity opened to the interior of said casing, a ball on said lever adapted to fit in said socket, and a spring within said casing pressing said ball against said socket, a yielding engaging apparatus to mark the different positions of the gearing parts within said casing, said spring also acting to cause the engagement of the parts of said yielding engaging apparatus.

1,134,682. REGENERATIVE SYSTEM FOR STOPPING AND STARTING CARS AND TRAINS. WALTER H. KNIGHT, Providence, R. I. Filed June 30, 1906, Serial No. 324,222. Renewed Oct. 4, 1913. Serial No. 793,484. (Cl. 104—49.)



1. In apparatus of the character described, the combination of a grip bar connected with a piston operating in a cylinder against fluid pressure and located at a stopping point on a railway, a second grip bar connected to the first by a flexible connection passing around a pulley so that the bars approach and recede from each other, and grips on a car one or more adapted to engage with one grip bar to stop the car, and one or more adapted to engage with the other grip bar to start the car.

2. In apparatus of the character described, the combination of fluid pressure reservoirs located at intervals along the track, fluid pressure cylinders and pistons, the cylinders connected with said reservoirs to store fluid pressure therein, duplicate grip bars for stopping and starting arranged in pairs corresponding to said individual cylinders and connected to the pistons thereof, duplicate grips upon the car or train for engaging the respective grip bars, and means for causing engagement of said grips with said grip bars alternately.

3. In apparatus of the character described, the combination of fluid pressure reservoirs located at intervals along

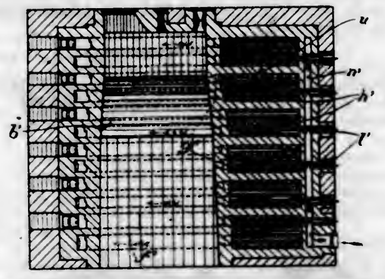
the track, fluid pressure cylinders and pistons, the cylinders connected with said reservoirs to store fluid pressure therein, duplicate grip bars for stopping and starting arranged in pairs corresponding to said individual cylinders and connected to the pistons thereof, duplicate grips upon the car or train for engaging the respective grip bars, and automatic means for causing engagement of said grips with said grip bars.

4. In apparatus of the character described, the combination of fluid pressure reservoirs located at intervals along the track, fluid pressure cylinders and pistons, the cylinders connected with said reservoirs to store fluid pressure therein, duplicate grip bars for stopping and starting arranged in pairs corresponding to said individual cylinders and connected to the pistons thereof and to each other so as to move in opposite directions at the same time, duplicate grips upon the car or train for engaging the respective grip bars, and means for causing engagement of said grips with said grip bars alternately.

5. In apparatus of the character described, the combination of fluid pressure reservoirs located at intervals along the track, fluid pressure cylinders and pistons, the cylinders connected with said reservoirs to store fluid pressure therein, duplicate grip bars for stopping and starting arranged in pairs corresponding to said individual cylinders and connected to the pistons thereof, duplicate grips upon the car or train for engaging the respective grip bars, and automatic means for disengaging the starting grips from the grip bars.

[Claims 6 to 69 not printed in the Gazette.]

1,134,683. OVEN FOR GENERATING GAS AND PRODUCING COKE. HEINRICH KOPPERS, Essen-on-the-Ruhr, Germany, assignor to H. Koppers Company, Chicago, Ill., a Corporation. Original application filed July 28, 1913, Serial No. 781,463. Divided and this application filed Oct. 21, 1914. Serial No. 867,875. (Cl. 202—9.)



1. In an oven for the generation of gas and production of coke, an upright coking chamber, a plurality of regenerators located above one another sidewise of the coking chamber, and a plurality of coking chamber-heating flues also located above one another and communicating with said regenerators.

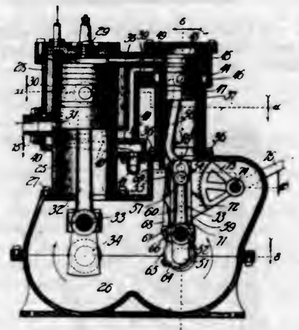
2. An oven for the generation of gas and production of coke, comprising a plurality of upright coking chambers, heating walls for said chambers, each of said walls being provided with a plurality of heating flues arranged above one another and extending in a substantially horizontal direction, and a plurality of zone regenerators arranged above one another and communicating with said heating flues.

3. An oven for the generation of gas and production of coke, comprising a plurality of upright coking chambers, heating walls for said chambers, each of said walls being provided with a plurality of heating flues arranged above one another and extending in a substantially horizontal direction, a plurality of zone regenerators also arranged above one another and communicating with said heating flues, and means independent of each other for regulating the admission of the heating media to the several regenerators.

4. An oven for the generation of gas and production of coke, comprising a plurality of upright coking chambers, heating walls for said chambers, and provided with a plurality of substantially U-shaped heating flues arranged above one another and extending in a substantially horizontal direction, a plurality of zone regenerators also arranged above one another and communicating with said heating flues, and means independent of each other for regulating the admission of the heating media to the several regenerators.

5. An oven for the generation of gas and production of coke, comprising a plurality of upright coking chambers arranged side by side, heating walls for said chambers, each of said walls being provided with a plurality of heating flues arranged above one another and extending in a substantially horizontal direction, a plurality of zone regenerators also arranged above one another and communicating with said heating flues, the zone regenerators being located at the same level with the coking chambers and distributed over substantially the entire height thereof, and means independent of each other for regulating the admission of the heating media to the several regenerators.

1,134,684. INTERNAL-COMBUSTION ENGINE. EMIL M. KRAMER, Paxton, Ill. Filed May 6, 1912. Serial No. 695,364. (Cl. 123—65.)



1. In an internal combustion engine having a driveshaft, the combination with its working-cylinder and the piston therein, of charge-compressing means coperating with said cylinder for intermittingly supplying thereto compressed charges of fuel, means for operating said charge-compressing means from the drive shaft of the engine including members pivotally connected together, and shiftable guiding means therefor, and means for shifting said guiding means, when said piston is at rest, for operating said charge-compressing means, for the purpose set forth.

2. In an internal combustion engine having a driveshaft, the combination with its working-cylinder and the piston therein, of charge-compressing means coöperating with said cylinder for intermittingly supplying thereto compressed charges of fuel, means for operating said charge-compressing means from the drive shaft of the engine including members pivotally connected together, a shiftable guide member, a block operatively connected with said pivotally connected members and movable on said guide member, and means for shifting said guide member when said piston is at rest for operating said charge-compressing means, for the purpose set forth.

3. In an internal combustion engine having a driveshaft, the combination with its working-cylinder and the piston therein, of charge-compressing means coöperating with said cylinder for intermittingly supplying thereto compressed charges of fuel, means for operating said charge-compressing means from the drive shaft of the engine including members pivotally connected together and pivotally supported guiding means therefor, and means for oscillating said guiding means when said piston is at

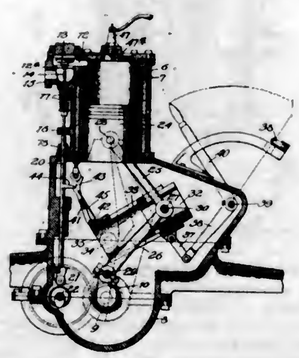
rest, for operating said charge-compressing means, for the purpose set forth.

4. In an internal combustion engine having a drive-shaft, the combination with its working-cylinder and the piston therein, of charge-compressing means coöperating with said cylinder for intermittingly supplying thereto compressed charges of fuel, means for operating said charge-compressing means from the drive shaft of the engine including members pivotally connected together, a pivoted guide member, and a block operatively connected with said pivotally connected members and movable on said guide member, and means for oscillating said guide member when said piston is at rest for operating said charge-compressing means, for the purpose set forth.

5. In an internal combustion engine, having a drive-shaft, the combination with its working-cylinder and the piston therein, of charge-compressing means coöperating with said cylinder for intermittingly supplying thereto compressed charges of fuel, means for operating said charge-compressing means from the drive shaft of the engine, including a crank, members pivotally connected together and operatively connected, respectively, with said crank and with said charge-compressing means, and shiftable guiding means therefor, and means for shifting said guiding means, when said piston is at rest, for operating said charge-compressing means, for the purpose set forth.

[Claims 6 to 17 not printed in the Gazette.]

1,134,685. INTERNAL-COMBUSTION ENGINE. EMIL M. KRAMER, Paxton, Ill. Filed Nov. 25, 1913. Serial No. 802,856. (Cl. 123—59.)



1. In an internal-combustion engine, the combination of cylinder and piston members, said cylinder-member being adapted to be connected with a fuel-supply, a rotatably mounted crank-shaft, means connecting said piston with the crank on said shaft for rotating the latter, means for moving one of said members longitudinally of the other thereof without moving said crank-shaft and thereby drawing into the cylinder-member and compressing therein a charge, and means for igniting the compressed charge in said cylinder-member.

2. In an internal-combustion engine, the combination of cylinder and piston members, said cylinder being adapted to be connected with a fuel-supply, a rotatably mounted crank-shaft, means connecting said piston with the crank on said shaft for rotating the latter, means for moving said piston longitudinally of said cylinder without moving said crank-shaft and thereby drawing into the cylinder and compressing therein a charge, and means for igniting the compressed charge in said cylinder.

3. In an internal-combustion engine, the combination of a crank-shaft, a cylinder adapted to be connected with a fuel-supply, a piston in said cylinder, a crank-shaft, a jointed connector connecting the crank on said shaft with said piston, means for flexing said connector at its joint to actuate said piston without moving said crank-shaft and thereby drawing into the cylinder and compressing therein a charge, and means for igniting the compressed charge in said cylinder.

4. In an internal-combustion engine, the combination of a crank-shaft, a cylinder adapted to be connected with a fuel-supply, a piston in said cylinder, a crank-shaft, a jointed connector connecting the crank on said shaft with said piston, a shiftable guide with which said connector engages and operating when shifted to move said piston in said cylinder, means for shifting said guide, and means for igniting the compressed charge in said cylinder.

5. In an internal-combustion engine, the combination of a crank-shaft, a cylinder adapted to be connected with a fuel-supply, a piston in said cylinder, a crank-shaft, a jointed connector connecting the crank on said shaft with said piston, a shiftable guide with which said connector engages at said joint, means for shifting said guide, and means for igniting the compressed charge in said cylinder.

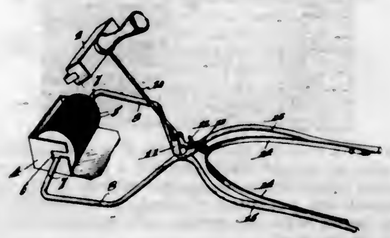
[Claims 6 to 26 not printed in the Gazette.]

1,134,686. BELT-BUCKLE. GEORGE HENRY LINE, Chicago, Ill. Filed May 20, 1914. Serial No. 839,708. (Cl. 24—163.)



The combination with a belt, of a buckle body; ears at one end of said body; a loop at the other end of said body; a tongue pivoted to said ears, one of the belt ends being inserted under said tongue and through said loop and the other end of the belt being inserted through said loop and disposed over said tongue; and a pin extending diagonally through and secured to said tongue and passing through said belt ends, said pin being arranged at such an inclination to said tongue that strain on the belt causes the ends thereof to crowd against said tongue, substantially as described.

1,134,687. COIN-WRAPPER. LEON LUKACHER, Chicago, Ill. Filed June 17, 1914. Serial No. 845,569. (Cl. 93—2.)



1. As a means for wrapping coins, a holder adapted to receive a stack of coins and adapted to permit of removal thereof, there being notches in the ends of said holder; and spring held tongs consisting of tong arms pivotally connected together and having inwardly turned ends adapted to be inserted through said notches to engage the ends of a stack of coins in said holder, substantially as described.

2. As a means for wrapping coins, a holder consisting of a sheet metal box open at the top and at the forward sides thereof so as to readily receive and permit the removal of a stack of coins, there being notches in the ends of said box; and spring held wire tongs consisting of tong arms pivotally connected together and having inwardly turned ends adapted to be inserted through said notches to engage the ends of a stack of coins in said holder, substantially as described.

1,134,688. FERTILIZER-DISTRIBUTER. ALLEN MCWHORTER, Riverton, N. J., assignor to McWhorter Manufacturing Company, Riverton, N. J., a Corporation of New Jersey. Filed May 1, 1914. Serial No. 835,752. (Cl. 193—4.)



1. In a fertilizer distributer, a feed belt, comprising a band, bars extending across said band at intervals and having flat faces against which said band is seated, means for securing said bars and band together, engaging means carried at each end of said bars, and a connecting link extending between adjacent bars with one of the engaging means of the adjacent bars movably embraced by and normally seated in the ends of the link, whereby free rotary movement at the engagement is insured.

2. In a fertilizer distributer, a feed belt, comprising a band, bars suitably connected therewith, spaced apart and having laterally projecting portions and flat engaging faces against which the belt is held, a series of spurs projecting from the flat faces and extending through said band, and means engaging the extending portions of the spurs at the enlargements of the bars for securing the bars and band together.

3. In a fertilizer distributer, the combination with a feed belt, comprising a band, bars extending across said band at intervals, and against which said band is seated, means for securing said bars and band together, of sprocket wheels, suitably supported, and having teeth at intervals, and supporting members secured to and extending between said wheels at points intermediate said teeth, and adapted to engage with and support the belt, intermediate the bars of the belt, when said belt is passing around the sprocket wheels.

4. In a fertilizer distributer, the combination with a feed belt, comprising a band, bars extending across said belt at intervals, against which said band is seated, means for securing said bars and belt together, of sprocket wheels, suitably supported, and having teeth at intervals, and supporting members spaced from each other secured to and extending between said wheels at points intermediate said teeth and adapted to engage with and support the belt intermediate the bars of the belt when said belt is passing around the sprocket wheels.

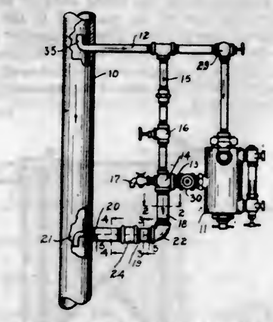
5. In a fertilizer distributer, the combination with a feed belt, comprising a band, bars extending across said belt at intervals, means for securing said bars and said belt together, engaging means carried at each end of said bars, of sprocket wheels, suitably supported and having teeth at intervals adapted to engage with said bars, and supporting members extending between said wheels at points intermediate said teeth and adapted to engage with and support the belt intermediate the bars when said belt is passing around the sprocket wheels.

[Claim 6 not printed in the Gazette.]

1,134,689. ATOMIZER. EDGAR R. MACBETH, Brazil, Ind. Filed Dec. 13, 1912. Serial No. 736,520. (Cl. 184—50.)

1. The combination with a steam supply pipe, a lubricant container, and a discharge therefrom communicating with said supply pipe, of a plurality of conduits in said discharge having the openings therethrough relatively staggered, and a connection to said supply pipe for supplying steam to said conduits for forcing lubricant from said container through said conduits into said supply pipe.

2. The combination with a steam supply pipe, a lubricant container, and a lubricant discharge therefrom, of a pipe, the bore of which is reduced, with one end connecting said steam pipe, a plurality of conduits connected to the other end of said pipe and having openings therethrough in staggered relation, said conduits being connected to said lubricant discharge, and a connection from said supply pipe for supplying steam to said conduits for forcing lubricant from said container through said conduits into said supply pipe.



3. The combination with a steam supply pipe, a lubricant container, and a lubricant discharge therefrom, of a pipe with one end connected with said steam supply pipe, a series of pipes connected with the other end of said supply pipe and having openings therethrough in staggered relation, said series of pipes being connected with said lubricant container discharge, and a connection from said steam supply pipe to said series of pipes, whereby the lubricant from said container will be forced through said staggered openings and will be finely divided and delivered within said steam pipe.

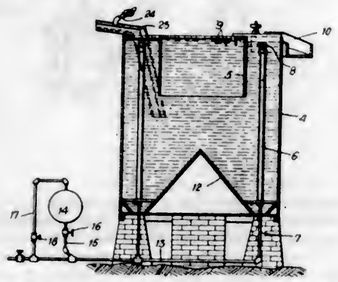
4. The combination with a pipe for conveying steam, a lubricator, a steam connection thereto, and a lubricant discharge therefrom, of a pipe with one end opening substantially within said steam pipe, a series of pipes connected to the other end of said pipe and having openings therethrough in staggered relation, said series of pipes being connected to said lubricator discharge, and a connection from said steam pipe to said series of pipes whereby the lubricant from said lubricator will be forced through said staggered openings for finely dividing the lubricant and delivering it within said steam pipe.

5. The combination with a pipe for conveying steam, a lubricator, a steam connection thereto, and a lubricant discharge therefrom, of a pipe with one end opening substantially within said steam pipe, a series of pipes connected to the other end of said pipe and having openings therethrough in staggered relation, said series of pipes being connected to said lubricator discharge, a connection from said steam pipe to said series of pipes whereby the lubricant from said lubricator will be forced through said staggered openings, finely dividing the same and delivering it within said steam pipe, and valves controlling said connections whereby the normal flow may be reversed and steam blown through said series of pipes for cleaning the openings therethrough.

1,134,690. APPARATUS FOR SEPARATING MINERALS BY FLOTATION. BERNARD MACDONALD, Los Angeles, Cal. Filed Oct. 9, 1914. Serial No. 865,786. (Cl. 83—85.)

1. Apparatus for separating metal minerals by flotation from associated gangue or rock comprising the combination of a receptacle, a transfer-pipe therein having a lower open intake end terminating within the lower portion of the receptacle and an upper discharge end, means for effecting the flow of the material in the receptacle upwardly through the transfer-pipe, a launder and a wall over which the surface material in the receptacle passes from the receptacle to the launder, the outlet from said pipe being located below the surface of the material in the receptacle and directed laterally so that the material issuing therefrom will cause movement of the material in the receptacle in a direction to carry the froth upon the material to said wall, substantially as described.

2. Apparatus for separating metal minerals by flotation from associated gangue or rock comprising the combination of a receptacle, a plurality of vertically disposed transfer-pipes therein having lower open intake ends and upper discharge ends directed horizontally and substantially parallel to the wall of the receptacle, means for admitting compressed air to the lower ends of the transfer-pipes to effect the flow of the material in the receptacle upwardly through the transfer pipes, a launder and a wall over which the surface material in the receptacle passes from the receptacle to the launder, which wall is located above the upper discharge ends of the transfer-pipes, substantially as described.



3. Apparatus for separating metal minerals by flotation from associated gangue or rock comprising the combination of a receptacle, a vertically disposed transfer-pipe therein having a lower open intake end terminating within the lower portion of the receptacle and an upper discharge end having an elongated discharge outlet which is directed laterally, means for effecting the flow of the material in the receptacle upwardly through the transfer-pipe, a launder and a wall over which the surface material in the receptacle passes from the receptacle to the launder, which wall is located above the discharge outlet of the transfer-pipe, substantially as described.

4. Apparatus for separating minerals by flotation comprising the combination of a cylindrical receptacle, a cylindrical diaphragm within the upper end of the receptacle, a transfer-pipe disposed vertically within the receptacle and having its upper discharge end located between said diaphragm and the wall of the receptacle, means for effecting the flow of the material in the receptacle upwardly through the transfer-pipe, a launder and a wall over which the material passes from the receptacle into the launder, substantially as described.

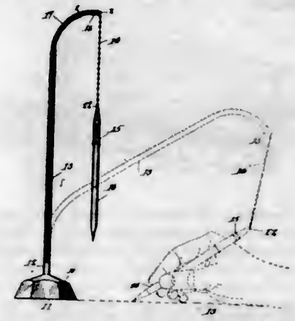
5. Apparatus for separating minerals by flotation comprising the combination of a cylindrical receptacle, a cylindrical diaphragm located concentrically within the upper end of the receptacle, a plurality of transfer-pipes disposed vertically within the receptacle and having upper discharge ends located between the diaphragm and the wall of the receptacle and arranged to discharge in a horizontal direction substantially parallel to the wall of the receptacle, means for effecting the flow of the material in the receptacle upwardly through the transfer-pipes, a launder and a wall over which the material passes from the receptacle into the launder, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,134,691. PENCIL-HOLDER. LILITH MARTIN and JESSIE L. JONES, Anderson, Ind., assignors to George S. Martin and Max Berger, Anderson, Ind. Filed Apr. 22, 1914. Serial No. 833,737. (Cl. 120—8.)

1. A pencil holder comprising a base, a normally erect flexible stem rising from the base, a sleeve fitting over the extremity of the stem and frictionally held thereon, a disk loosely rotatably mounted in the sleeve, a suspension device connected to the disk, and a pencil clasp carried by the suspension device.

2. A pencil holder comprising a base, a normally erect flexible stem rising from the base, a sleeve fitting over the extremity of the stem and frictionally held thereon, said sleeve having an internal annular flange at its outer end, which flange is spaced from the extremity of the stem, a disk loosely mounted in the sleeve between the flange and



the extremity of the stem, a suspension device connected to the disk, and a pencil clasp carried by the suspension device.

1,134,692. DENTAL MARKING AND SPACING TOOL. WALTER L. MASON, Red Bank, N. J., assignor to James W. Ivory, Philadelphia, Pa. Filed Nov. 22, 1913. Serial No. 802,416. (Cl. 33—158.)



1. A dental tool of the character described, comprising a pair of jaws, carriers therefor, said jaws being provided with means for receiving and holding the pins of an artificial tooth, and with means for marking a facing plate for said tooth, said means being spaced apart the same distance as said pins.

2. A dental tool of the character described, comprising a pair of jaws having recesses, adjustable carriers therefor, and markers on the jaws spaced apart the same as said recesses and the latter adapted to receive and hold the pins of an artificial tooth, said markers being adapted to make indentations on a facing plate for said tooth in register with said pins for subsequently piercing said plate at said indentations.

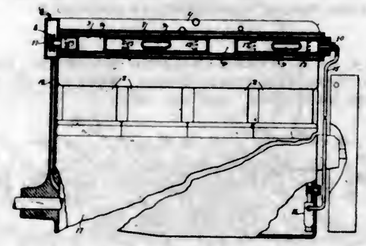
3. In a dental tool of the character described, movable jaws provided with recesses to receive and hold the pins of an artificial tooth and with prongs at an angle to said recesses for piercing a facing plate for said tool to register with said pins, said jaws having heads to receive blows for driving said prongs into said plate.

1,134,693. ROTARY VALVE FOR EXPLOSIVE-ENGINES. CYRUS E. MEAD, Dayton, Ohio, assignor to The Mead Engine Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 6, 1911. Serial No. 653,099. (Cl. 123—196.)

1. In an engine having a cylindrical valve chamber extending lengthwise thereof and having ports, of a valve rotatably mounted in said cylindrical valve chamber, having a longitudinal conduit and also having a transverse conduit extending through the longitudinal conduit and forming a through and through port to register with the ports of said valve chamber, said valve also having openings connecting said longitudinal conduit with the exterior bearing surface of said valve, and means to deliver oil to the interior of said valve.

2. In an engine having a cylindrical valve chamber extending lengthwise thereof and having ports, of a valve

rotatably mounted in said cylindrical valve chamber, having a longitudinal conduit and also having a transverse conduit extending through the longitudinal conduit and forming a through and through port to register with the ports of said valve chamber, said valve also having openings connecting said longitudinal conduit with the exterior bearing surface of said valve, said engine also comprising a crank casing having an oil reservoir, a pump communicating with said oil reservoir, a conduit leading from said pump to one end of the longitudinal conduit of said valve, and a second conduit leading from the other end of said longitudinal conduit to said oil reservoir, whereby a circulation of oil will be maintained through said valve.



3. In an engine having a cylindrical valve chamber extending lengthwise thereof and having ports, of a valve rotatably mounted in said cylindrical valve chamber, having a longitudinal conduit and also having a transverse conduit extending through the longitudinal conduit and forming a through and through port to register with the ports of said valve chamber, said valve also having openings connecting said longitudinal conduit with the exterior bearing surface of said valve, said valve also having an opening communicating with said longitudinal conduit and arranged to register with the port of said valve chamber when said through and through port is out of register therewith, and means to deliver oil to the interior of said valve.

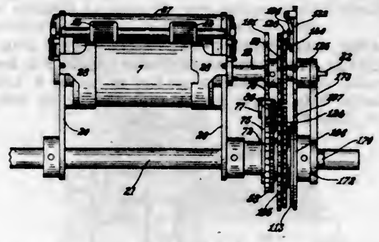
4. In an engine having a cylindrical valve chamber provided with ports, a hollow valve communicating with a source of oil supply and having openings connecting the interior thereof with the cylindrical bearing surface thereof, said valve also comprising transverse conduits extending through the hollow portion thereof and formed separately from and rigidly mounted in the cylindrical walls thereof to form a through-and-through port.

5. In an engine having a cylindrical valve chamber provided with a port, a valve rotatably mounted in said valve chamber having a port to register with the port of said chamber and also having an opening arranged to register with the port of said chamber when the valve port is out of alinement therewith.

[Claim 6 not printed in the Gazette.]

1,134,694. PAPER-FEED AND PLATEN-OPERATING MECHANISM FOR CALCULATING-MACHINES. ALBERT J. MEIER, Glendale, and WILLIAM L. SWIFT and EDWIN L. RELLER, St. Louis, Mo., assignors to The Duco Adding Machine Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Apr. 13, 1912, Serial No. 690,514. Divided and this application filed Mar. 26, 1914. Serial No. 827,439. (Cl. 235—60.)

1. In a calculating machine, the combination of printing means, a revoluble platen coöperative therewith, paper feeding devices for rotating said platen for each printing operation of the platen, a pinion operatively connected with said platen, a shaft, an arm loosely mounted on said shaft, a segmental rack pivoted to said arm and normally disengaged from said pinion, said rack containing a cam slot, an arm rigidly mounted on said shaft, a pin projecting from said last-mentioned arm into the slot in said rack for moving said rack into engagement with said pinion and subsequently causing said rack to rotate said pinion, thereby to rotate the platen to bring the printed matter thereon into view.



2. In a calculating machine, the combination of printing means, a revoluble platen coöperative therewith, paper feeding devices for rotating said platen for each printing operation of the platen, a pinion operatively connected with said platen, a shaft, an arm loosely mounted on said shaft, a segmental rack pivoted to said arm and normally disengaged from said pinion, an arm rigidly mounted on said shaft adapted for moving said rack into engagement with said pinion and subsequently causing said rack to rotate said pinion, thereby to rotate the platen to bring the printed matter on the paper into view, and means for preventing movement of said rack to rotate said pinion until same has been moved into engagement with said pinion.

3. In a calculating machine, the combination of printing means, a revoluble platen coöperative therewith, paper feeding devices for rotating said platen for each printing operation of the platen, a pinion operatively connected with said platen, a shaft, an arm loosely mounted on said shaft, a segmental rack pivoted to said arm and normally disengaged from said pinion, an arm rigidly mounted on said shaft adapted for moving said rack into engagement with said pinion and subsequently causing said rack to rotate said pinion, thereby to rotate the plataen to bring the printed matter on the paper into view, means for preventing movement of said rack to rotate said pinion until same has been moved into engagement with said pinion, and means for preventing said rack from disengaging said pinion until same is restored to normal position.

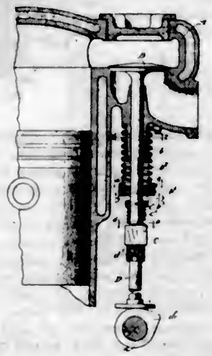
4. In a calculating machine, the combination of printing means, a revoluble platen coöperative therewith, paper feeding devices for rotating said platen for each printing operation of the platen, a pinion operatively connected with said platen, a shaft, an arm loosely mounted on said shaft, a segmental rack pivoted to said arm and normally disengaging said pinion, an arm rigidly mounted on said shaft adapted to raise the free end of said rack into engagement with said pinion and subsequently to cause said rack to rotate said pinion, thereby to rotate the platen to bring the printed matter on the paper into view, and a stationary member located in front of the free end of said rack for normally preventing said rack from being moved to rotate said pinion until the free end of said rack is raised into engagement with said pinion.

5. In a calculating machine, the combination of printing means, a revoluble platten coöperative therewith, paper feeding devices for rotating said platen for each printing operation of the platen, a pinion operatively connected with said platen, a shaft, an arm loosely mounted on said shaft, a segmental rack pivoted to said arm and normally disengaging said pinion, a stationary member located in front of the free end of said rack for preventing forward movement of said rack until same is moved into engagement with said pinion, an arcuate plate pivoted to said arm and having its free end normally located behind said stationary member, thereby to prevent forward movement of said rack until same is moved into engagement with said pinion, and an arm rigidly mounted on said shaft adapted successively to raise the free ends of said rack and said plate from behind said stationary member and subsequently to cause said rack

to rotate said pinion, thereby to rotate the platen to bring the printed matter on the paper into view.

[Claims 6 to 37 not printed in the Gazette.]

1,134,695. AUTOMATIC VALVE-ADJUSTER FOR INTERNAL-COMBUSTION ENGINES. HUBERT A. MYERS, Toledo, Ohio, assignor of one-half to Arthur S. Hickok, Toledo, Ohio. Filed Nov. 2, 1914. Serial No. 869,790. (Cl. 121—97.)



1. A valve mechanism for internal combustion engines, comprising a valve stem, a self adjusting engaging portion screwed on the lower end of said stem, a spring for closing said valve, and means for engaging said portion to open said valve against the tension of said spring, said portion being arranged to unscrew automatically to maintain the engagement thereof with said means.

2. A valve mechanism for internal combustion engines, comprising a valve stem, a movable element for operating said valve, a spring for closing said valve, and means subject to constant adjustment by the operation of said valve for automatically taking up lost motion between said stem and element.

3. A valve mechanism for internal combustion engines, comprising two members for actuating the valve, one said member having a self adjusting portion screwed thereon and arranged to automatically unscrew therefrom to engage the other member, and a spring for closing said valve.

4. A valve mechanism comprising a valve stem, a push rod for operating said stem, a spring for closing said valve, and means subject to constant adjustment by the operation of said valve for automatically taking up lost motion between said stem and rod, including a self adjusting engaging portion loosely screwed on the lower end of said stem, said rod having a bumper for engaging said portion.

5. A valve mechanism comprising a valve stem, a push rod for operating said stem, a spring for closing said valve, and means for automatically taking up lost motion between said stem and rod, including a self adjusting engaging portion loosely screwed on the lower end of said stem, said rod having a bumper for engaging said portion, and a spring tending constantly to unscrew said portion to take up wear, the loose screw threads insuring sufficient lost motion to prevent expansion of said stem from opening the valve.

[Claims 6 to 11 not printed in the Gazette.]

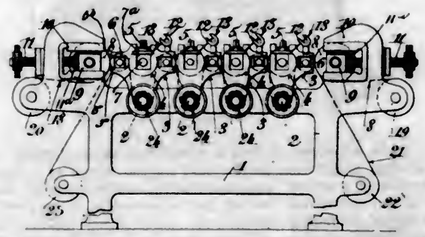
1,134,696. KITCHEN-SINK. MARY NEMEC, Chicago, Ill. Filed Aug. 8, 1914. Serial No. 855,756. (Cl. 4—36.)

The combination with a sink having a permanent shelf, of guide flanges at the under side of said permanent shelf; a supplemental shelf slidably supported by said flanges to permit of said supplemental shelf being slid forwardly to extend from said permanent shelf; and a downwardly offset flange at the rear end of said supplemental shelf, the lateral edges of said shelf at said flange being cut



away to permit of the ends of said flange engaging under said guide flanges, substantially as described.

1,134,697. COLOR-PRINTING MACHINE. HENRY PERVILHAC, Villeurbanne, France. Filed July 18, 1914. Serial No. 851,737. (Cl. 101—90.)



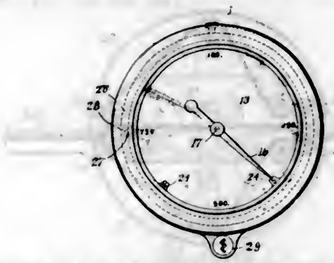
1. In a machine for printing a plurality of colors, the combination of a frame, a plurality of printing rollers arranged in the same horizontal plane and parallel to one another, pressing rollers disposed laterally of said printing rollers and lying in the same horizontal plane therewith, means for supporting said printing and pressing rollers, and means for simultaneously pressing said printing and pressing rollers together.

2. In a machine for printing a plurality of colors, the combination of a frame, a plurality of printing rollers arranged in the same horizontal plane and parallel to one another, pressing rollers disposed laterally of said printing rollers and lying in the same horizontal plane therewith, means for supporting said printing and pressing rollers, means for simultaneously pressing said printing and pressing rollers together, and means for axially and circumferentially adjusting said printing rollers for registering purposes.

3. In a machine for printing a plurality of colors, the combination of a frame, a plurality of shafts mounted in said frame in the same horizontal plane, guide rollers on said shafts, standards mounted on said shafts, a plurality of printing rollers arranged in the same horizontal plane and parallel to one another, removably mounted in said standards, pressing rollers slidably mounted in said standards on each side of said printing rollers, and in the same plane therewith, means for simultaneously pressing said printing rollers and pressing rollers together, means for axially and circumferentially adjusting said printing rollers for registration purposes, and means for distributing coloring matter to said printing rollers.

4. In a machine for printing a plurality of colors, the combination of a frame, a plurality of shafts mounted in said frame in the same horizontal plane, guide rollers on said shafts, standards mounted on said shafts, a plurality of printing rollers arranged in the same horizontal plane and parallel to one another removably mounted in said standards, pressing rollers slidably mounted in said standards on each side of said printing rollers, and in the same plane therewith, a guide disposed at each end of the series of printing and pressing rollers, horizontally movable bearings mounted in said guides, rollers mounted on said bearings, screws mounted in said guides adapted to move said bearings to cause said last mentioned rollers to press said printing and pressing rollers together, means for axially and circumferentially adjusting said printing rollers for registration purposes, a scraper for each printing cylinder and means for imparting reciprocating movement to said scrapers.

1,134,698. CAUTIONARY TELLTALE. CHARLES E. RENSHAW, East Orange, and CHARLES H. JENKINS, Belleville, N. J., assignors to Newman Clock Company, New York, N. Y., a Corporation of New York. Filed June 28, 1912. Serial No. 706,350. (Cl. 235—12.)



1. A tell tale comprising a body portion having an internal shoulder therein, an indicator located within said body portion, means therein for supporting said indicator, and adjustable member supported upon the said internal shoulder of said body portion having means thereon to indicate the attainment of a desired indication, and means connected to said body portion adapted to hold the said adjustable member in adjusted relation.

2. A tell tale comprising a body portion screw threaded at the upper side and having an internal shoulder therein, a movable indicating device supported in said body portion, an adjustable index located upon the internal shoulder of said body portion, a bezel for the said tell tale adapted to be screw threaded to said body portion and to hold the adjustable index in adjusted relation, and means for preventing movement of the ajustable index as the bezel is screwed on to said body portion.

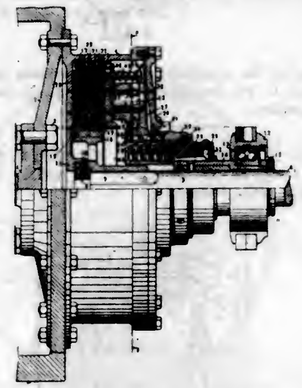
3. A tell-tale comprising, in combination, a movable indicating device, a closure therefor, and a plurality of independently adjustable rings in said closure, having indicia thereon for determining the attainment of desired indications.

4. A tell-tale comprising a movable indicating device, a body portion provided with an internal shoulder, a bezel connected to said body portion the interior end of said bezel and said shoulder defining an interior circumferential groove, and an index located in said groove and adjustable to different positions for determining the attainment of desired indications.

5. A tell-tale, comprising a body portion having a plurality of shoulders progressively arranged therein and interiorly screw-threaded at its upper portion, a supporting member adapted to be supported upon the bottom shoulder, a movable indicating device supported by said body portion, a plurality of revoluble rings having laterally extending lugs serving as indicators supported upon the upper shoulders in the body portion, a bezel for said tell-tale screw-threaded to said body portion and adapted to keep the revoluble rings in adjustment, a central opening in the supporting member, means passing through the said opening in said supporting member and engaging with the indicating device to operate the same, and means for preventing movement of the index as the bezel is screwed on to the said body portion.

1,134,699. CLUTCH. GILBERT J. SCOFIELD, Elmira, N. Y., assignor to The Hilliard Clutch & Machinery Co., Elmira, N. Y., a Corporation of New York. Filed Apr. 5, 1913. Serial No. 759,032. (Cl. 192—10.)

1. In a clutch mechanism, in combination, a driving member, a driven member, alternating coacting disks carried by said members, a dust-proof casing inclosing said disks and mounted upon one of said members, a rack and gear mechanism, means within said casing for actuating said rack and gear mechanism to urge said disks into compressed relation, and means without said casing adapted to be actuated to compress said last-mentioned means to permit the disks to move to separated position.



2. In a clutch mechanism, in combination, a driving member, a casing carried thereby, a driven member projecting within said casing, coacting friction members carried by the casing and the driven member respectively, and means within said casing adapted to cause the coacting friction members to move into clutched relation, said means comprising cam members reacting upon the casing and one of said friction members.

3. In a clutch mechanism, in combination, a driving member, a casing carried thereby, a driven mechanism projecting within said casing, coacting friction members carried by the casing and the driven member respectively, and means within said casing adapted to cause the coacting friction members to move into clutched relation, said means comprising a rack and gear mechanism and means for actuating said rack and gear mechanism for forcing said friction members into coacting relation.

4. In a clutch mechanism, in combination, a driving member, a driven member, a dust-proof casing carried by said driving member, a sleeve mounted on the driven member and closely fitting said casing and said driven member to form a dust-proof connection, coacting friction surfaces carried by the casing and the driven member respectively, means normally adapted to urge said friction surfaces into compressed relation, and means whereby said sleeve may be moved with respect to said driven member to separate said friction surfaces.

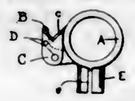
5. In a clutch mechanism, in combination, a driving member, a driven member, a dust-proof casing carried by said driving member, a sleeve mounted on the driven member and closely fitting said casing and said driven member to form a dust-proof connection, coacting friction surfaces carried by the casing and the driven member respectively, means normally urging said friction surfaces into compressed relation, means whereby said sleeve may be moved with respect to said driven member to separate said friction surfaces, a spring housed within said casing normally acting upon said friction surfaces adapted to be compressed to permit a separation of said surfaces, and auxiliary spring means coacting with the casing and one of said friction surfaces to aid in the separation of said surfaces as said spring is compressed.

[Claims 6 to 11 not printed in the Gazette.]

1,134,700. TWINE-CUTTER. BARNEY SEAMAN, New York, N. Y. Filed Oct. 3, 1913. Serial No. 793,200. (Cl. 30—14.)

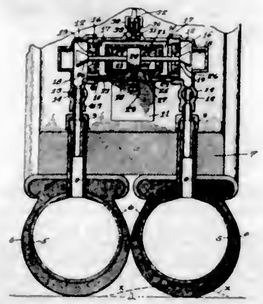
A device of the character described comprising a finger-ring having an integral arm projecting in the vertical

plane thereof, and a knife detachably secured to the lateral face of said arm, said blade having a V-shaped cutting



edge, one of the angularly arranged portions of which is tangential to the periphery of the ring, all for the purposes specified.

1,134,701. PNEUMATIC TIRE. CHARLES D. SEEBERGER, New York, N. Y. Filed Oct. 1, 1913. Serial No. 792,751. (Cl. 152—12.)



1. In a device of the class described, the combination of a pair of collapsible tubes arranged side by side to form a wheel-tire and containing fluid under pressure, a casing having a closed chamber normally communicating with each of the tubes, valve mechanism in the casing governing the communications of the tubes with the chamber, and means in the chamber to move the valve mechanism to seal either vessel when the pressure in the other tube is reduced.

2. In a device of the class described, the combination of a pair of collapsible tubes arranged side by side to form a wheel-tire and containing fluid under pressure, a casing having a closed chamber normally communicating with the tubes, valve mechanism governing the communications of the tubes with the chamber, a piston controlling said valves, and means to move the piston to seal either tube when the pressure in the other tube is reduced.

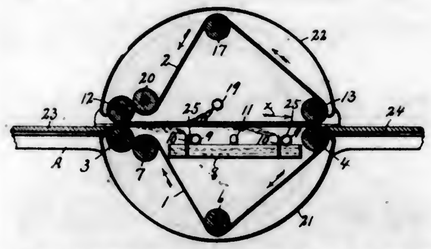
3. In a device of the class described, the combination of a pair of collapsible tubes arranged side by side to form a wheel-tire and containing fluid under pressure, a casing having a closed chamber normally communicating with the tubes, a pair of valves governing the communications of the tubes with the chamber, a piston-chamber in the casing, a piston in the piston-chamber controlling said valves, and a duct connecting the piston-chamber on each side of the piston with one of the tubes.

4. In a device of the class described, the combination of a pair of collapsible tubes arranged side by side to form a wheel-tire and containing fluid under pressure, a casing having a central chamber and end chambers communicating with the tubes, a pair of valves governing the communications of the end chambers with the central chamber, a piston-chamber in the central chamber, a piston in the piston-chamber having stems carrying valves, and a duct connecting the piston-chamber on each side of the piston with one of the tubes.

5. In a device of the class described, a pair of collapsible tubes arranged side by side and containing air under pressure to form the tire of an automobile wheel, a casing having a closed chamber and provided with an air passage and by-pass between each tube and the chamber, valve mechanism in the casing governing said air passages, and means in the chamber to move the valve mechanism to seal either tube when the pressure in the other tube is reduced.

[Claims 6 to 8 not printed in the Gazette.]

1,134,702. CLOTHES-DAMPENING MACHINE. JOHN J. SELTENREICH, Chicago, Ill., assignor to National Chemical Company, Syracuse, N. Y., a Corporation of New York. Filed Dec. 18, 1911. Serial No. 666,484. (Cl. 68—8.)



1. A dampening machine comprising a pair of coacting receiving rollers at the front end of the machine disposed one above the other, a pair of coacting delivery rollers at the rear of the machine also disposed one above the other, a foraminous belt passed around the upper rollers, a separate foraminous belt passed around the lower rollers, the adjacent sides of the belts being disposed in the same horizontal plane and in contact, means for applying moisture to contacting portions of the belts, and squeezing rollers coacting with the receiving rollers for expressing excess moisture from the belts.

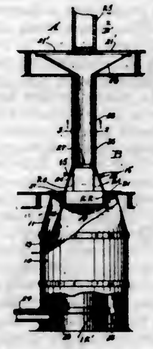
2. A dampening machine comprising a pair of receiving rollers one above the other, a pair of delivery rollers also one above the other, the meeting faces of the rollers of both pairs being disposed in substantially the same horizontal plane, a belt passed around the upper set of rollers, a separate belt passed around the lower set of rollers, the portions of the belts between the separate pairs of rollers being disposed in the same plane, squeezing rollers coöperating with the receiving rollers, and means for applying moisture to the portion of one of the belts between the separate pairs of rollers.

3. A dampening machine comprising a pair of coacting receiving rollers, a separate pair of coacting delivering rollers, a belt passed around one of the receiving rollers and corresponding delivering roller, a separate belt passed around the other receiving roller and its corresponding delivering roller, idler drums for holding the outer sides of the belt some distance apart from their adjacent sides to form intervening chambers, squeezing rolls coacting with the receiving rolls and engaged by said belt, and means within said chambers for applying moisture to the adjacent sides of the belts.

4. A dampening machine for starching articles comprising a feeding table and a delivery table disposed in the same horizontal plane, opposed sets of rollers located respectively in proximity to the feeding table and delivery table with their adjacent faces in approximately the same horizontal plane, squeezing rollers at the inner sides of and coacting with the receiving rollers, additional rollers between the receiving and delivery rollers and at opposite sides of said horizontal plane, separate belts passing around the rollers above and below said plane and having all portions thereof between the receiving and delivery rollers in contact in the same horizontal plane, and means for applying moisture to said contacting portions of the belts at points between the receiving and delivery rollers.

5. In a dampening machine for starching articles, a pair of receiving rollers one above the other, a pair of delivery rollers—one above the other and parallel with the receiving rollers but spaced some distance apart therefrom, squeezing rollers coacting with the receiving rollers, separate belts passed around the receiving and delivery rollers and also around the squeezing rollers and having all portions thereof between the receiving and delivery rollers in traveling contact, a water reservoir supported between the opposite sides of one of the belts, and means for forcing the water from the reservoir in the form of a spray against the contacting side of one of the belts.

1,134,703. HOT-AIR HEATING SYSTEM. JOHN E. SELTZER, Flint, Mich. Filed June 7, 1911. Serial No. 631,731. (Cl. 126—99.)



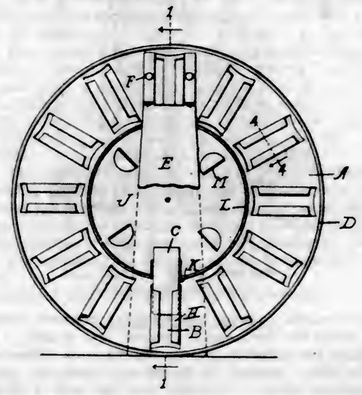
1. A hot air heating system including a furnace, an inner casing spaced therefrom and forming therewith a hot air chamber, an outer casing forming with the inner casing a cold air chamber, a vertically extending hot air drum mounted on the top of the inner casing and having apertured sides, a hot air flue extending from the drum to the floors of rooms of the upper story, a funnel mounted on the upper end of the flue, gratings mounted in the floors of rooms above the cold air chamber, the said hot air drum projecting between said gratings, and gratings mounted in the floors of the upper story rooms over the funnel.

2. In a hot air heating system, a furnace, an inner casing spaced from the furnace and forming therewith a hot air chamber, said casing extending to a point below the floors of adjacent rooms above the furnace, an outer casing forming with the inner casing a cold air chamber, said outer casing extending to the said floors, a vertical hot air drum mounted on the top of the inner casing and over the hot air chamber, said drum being provided with apertured sides, and disposed within the division wall of the rooms above the furnace, gratings mounted in the floors adjacent to the said drum, and over the cold air chamber, swinging damper plates in the said drum for the said apertured sides, a hot air flue extending from the drum to the floors of rooms to the upper story, a funnel mounted on the upper end of the flue, and gratings mounted in the floors of the upper story rooms over the funnel.

1,134,704. DISPLAY-STAND. THOMAS CORNELIUS SHEEHAN, Essex Fells, N. J. Filed Dec. 12, 1913. Serial No. 806,288. (Cl. 211—24.)

1. A display stand comprising a plate, pockets depressed therein to hold articles or packages and to display the same, said plate having a circular flange integral therewith for forming closed outer ends for said pockets and a revolving disk located on the back of said plate and having a laterally projecting flange for closing the inner ends of said pockets and an opening through said flange for opening the inner ends of said pockets.

2. A display stand comprising a plate, pockets depressed therein to hold articles or packages and to display the same, said pockets opening in a radial direction to permit the introduction and removal of the articles by a radial movement, a revolving disk located on the back of said plate and having a laterally projecting flange for closing said pockets and having an opening through said flange for opening said pockets, said flanged revolving disk having projecting members bent outward therefrom, said members being located near the flange of said revolving disk so as to easily turn the said revolving disk and being integral with said revolving disk.



3. A display stand comprising a plate having a circular flange, and pockets depressed in said plate to hold articles or packages, said pockets being formed by portions of said plate projecting backwardly and inwardly and by said flange, and a flanged revolving disk located on the back of said plate having an opening to register with any one of said pockets while its flange closes the remaining pockets.

4. A display stand comprising a plate, pockets carried by said plate for holding and displaying articles or packages, and a member having a flange adapted to close said pockets at one end, said flange having an opening as long as the end of one of said pockets, said member being attached to said plate and being movable to bring said opening in line with any one of said pockets to permit the insertion of an article into said pocket or the withdrawal of an article therefrom.

5. A display stand comprising a plate A, pockets B depressed therein, each having sides G and back H formed by integral portions of said plate, said plate having a circular flange D forming closed outer ends for said pockets, and a disk J mounted revolubly on the back of said plate and having a flange L adapted to close the inner ends of said pockets, said flange having an opening K as long as the end of one of said pockets, so that said disk may be turned to positions to open the inner ends of said pockets to permit the insertion and withdrawal of articles or packages.

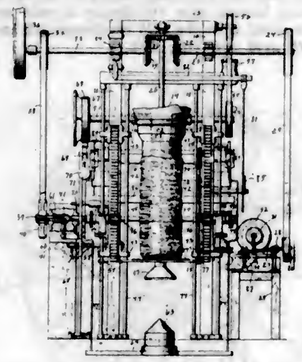
[Claim 6 not printed in the Gazette.]

1,134,705. MATERIAL PACKING AND WEIGHING MACHINE. WALTER S. SMITH, Chicago, Ill., and HENRY W. WELSH, North Milwaukee, Wis., assignors, by mesne assignments, to W. & T. Avery Ltd., Birmingham, England. Filed Mar. 24, 1913. Serial No. 756,358. (Cl. 73—183.)

1. A material packing and weighing machine, comprising a spout for discharging material into a sack, a movable table for suporting the sack while being partly filled, and a weighing platform positioned directly below the table to receive the partly filled sack and to support the same while it is receiving the balance of its charge of material.

2. A material packing and weighing machine, comprising a spout for discharging material into a sack, a movable table for yieldingly supporting the sack while being partly filled, means for packing the material while it is flowing into the sack, and a weighing platform positioned directly below the table to receive the partly filled sack

and to support and automatically stop the flow of material into the sack when the sack has received the balance of its charge of material.



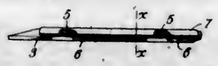
3. A material packing and weighing machine, comprising a spout for discharging material into a sack, a movable table for yieldingly supporting the sack while receiving the major portion of its charge, means for packing the material while it is flowing into the sack, a weighing platform positioned beneath the table for supporting the sack of material while it is receiving its minor charge of material, means for moving the partly filled sack of material to a position to be supported on the platform, and automatic means for stopping the flow of material into the sack when the material within the sack reaches a predetermined weight.

4. A material packing and weighing machine, comprising a spout for discharging material into a sack, means for feeding the material at different rates of speed, a movable table for yieldingly supporting the sack while receiving the major portion of its charge at a rapid speed rate, means for packing the material while it is flowing into the sack, a weighing platform positioned beneath the table for supporting the sack of material while it is receiving its minor charge of material at a reduced speed rate, means for moving the partly filled sack of material to a position to be supported on the platform, and automatic means for stopping the flow of material into the sack when the material within the sack reaches a predetermined weight.

5. A material packing and weighing machine, comprising a weighing mechanism, a spout for discharging material into a sack and having a variable feed, a table for holding the sack while it is receiving the major portion of its charge at a certain rate of feed, and means for moving the partly filled sack to a position to be supported on the weighing mechanism to receive the remaining portion of its charge at a slower rate of feed.

[Claims 6 to 10 not printed in the Gazette.]

1,134,706. SAFETY-RAZOR. WILLIAM A. SOMERS, New York, N. Y. Filed Mar. 2, 1908. Serial No. 418,728. (Cl. 30—12.)

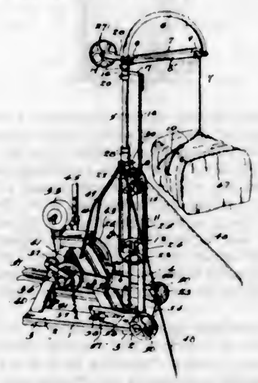


1. A safety razor having a concave sheet metal blade-holding part, inwardly extending, medially arranged, longitudinally positioned tongues, struck out from the body of said holder on the concave side thereof adapted to engage with corresponding openings of a resilient blade, and an integral handle forming a longitudinal extension of said blade-holding part.

2. A safety razor comprising in combination a concave sheet-metal blade holder provided with serrated edges, inwardly projecting tongues struck out from the body of the holder on the concave side thereof along its medial line and having their ends bent over in the same direction to extend longitudinally of and parallel with the face of the holder, and a resilient double-edged blade fitted to said holder and having openings therethrough adapted to cause engagement with said tongues by longitudinal movement upon the blade of said holder.

3. A safety razor comprising in combination a concave sheet metal blade holder provided with serrated edges hooked-shaped tongues struck out from the body of the holder on its medial line on the concave side thereof, the surface of said projections adjacent said holder lying within the plane of the longitudinal edges of said holder whereby a resilient blade carried by said holder between said projections and the concave face thereof will be maintained in concave configuration and held in place by its own resiliency, and a handle portion formed of an integral longitudinal extension of said blade holder and connected thereto by a weakened portion, whereby the handle may be bent to any desired angle relative to the blade-holding part.

1,134,707. HOISTING DEVICE. LESTER V. STONE and LLOYD J. STONE, Augusta, Ga. Filed Apr. 30, 1914. Serial No. 835,397. (Cl. 212—64.)



1. The combination with a tubular standard of a crane having a post telescoping therewith, a rack bar having a sleeve slidable on said post, adjustable collars for fixing said sleeve, and an adjustable supporting ring on the post for the purpose described.

2. The combination with a tubular standard of a crane having a post telescoping therewith, a rack bar and a tubular guiding member therefor, a rack wheel engaging the bar and actuating means therefor, a fixed sleeve on the bar slidably connected with the post, adjustable collars for fixing the sleeve on the post, and an adjustable supporting ring on the post for the purpose described.

3. In a hoist the combination of a platform, a tubular standard mounted thereon, a crane having its vertical portion fitting and adjustable in said standard, a hoisting rope guided in said crane, a bale hook secured to one end of said rope, a drum for winding said rope, a vertical tube mounted on the platform, a band connecting the tubular standard and vertical tube, a pinion mounted in said ring, a rack bar connected to said crane and fitting in the tube and meshing with said pinion, and sprocket wheels and chain for revolving said pinion to raise and lower said rack.

4. In a hoist, the combination of a platform, a tubular standard thereon, a tubular crane, consisting of an arched and vertical portion mounted in said standard, a hoisting rope passing through the vertical portion of said crane, guide pulleys for said rope mounted in the bend of the crane, a chain and bale hooks secured to the free end of said rope, a hoisting drum for the rope mounted on the platform, a vertical tube rising from the platform parallel

to said tubular standard, a rack rod guided in said tube and connected with the crane, a pair of bands connecting the standard and tube, a pair of shafts mounted in said bands, sprocket wheels on said shafts, a sprocket chain connecting said wheels, a crank on the lower of said shafts, and a pinion on the upper shaft meshing with the rack bar for raising and lowering the bar and crane.

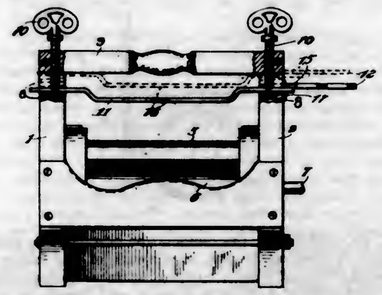
1,134,708. DREDGER. ALFRED WATKINS, London, England. Filed Dec. 16, 1912. Serial No. 737,021. (Cl. 115—9.)



1. In combination, in a dredger comprising a hull, the said hull being provided with a fixed positioned, vertical socket, a vertically movable spud positioned within the said socket for use as a pivot for the hull in oscillatory movement of the same, a propulsion member rotatably mounted within the hull upon a vertical axis and having an eccentrically disposed axial socket therein, a vertically movable spud mounted within the socket of the propulsion member, means for rotating the propulsion member and for securing the same in adjusted position with relation to the hull, and means for raising and lowering said spuds, substantially as herein shown and described and for the purpose stated.

2. In combination, in a dredger comprising a hull, the said hull being provided with a fixed positioned, vertical socket, a vertically movable spud positioned within the said socket for use as a pivot for the hull in oscillatory movement of the same, a propulsion member rotatably mounted within the hull upon a vertical axis and having an eccentrically disposed axial socket therein, a vertically movable spud mounted within the socket of the propulsion member, means for rotating the propulsion member and for securing the same in adjusted position with relation to the hull, and means carried by the rotatable propulsion member by which its socket may be adjusted radially with respect thereto.

1,134,709. ATTACHMENT FOR WRINGERS. ORLA H. WATKINS, Clinton, Iowa. Filed Oct. 30, 1913. Serial No. 798,166. (Cl. 68—32.)



1. The combination with a wringer and pressure means and pressure rolls therefor, of a single bar associated with said pressure rolls and means and means for laterally moving said bar whereby the pressure between the rolls will be released, at both ends thereof simultaneously.

2. The combination with a wringer comprising a pair of standards, wringer rolls journaled therein springs resting upon one of the said wringer rolls, thumb screws for adjusting the tension of said springs, a bar interposed between said springs and thumb screws, and means for operating said bar whereby the springs will be released from the thumb screws for the purpose specified.

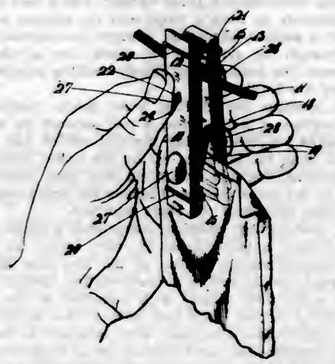
3. The combination with a wringer comprising standards, wringer rolls journaled therein, coil springs mounted within the standards and resting upon one of the wringer rolls, a rectangular plate resting upon the springs, adjustable thumb screws resting upon the said plate, the said plate having openings formed therein, means for shifting said plate whereby the thumb screws will register with the openings to permit the springs to be released.

4. The combination of a wringer having wringer rolls journaled therein, springs normally resting upon one of the said rolls, a bar resting upon the said springs, means for adjusting the tension of the said springs, a cam lever carried by the bar and means whereby upon the operation of said lever, springs may be released for the purpose specified.

5. The combination of a wringer having wringer rolls journaled therein, coil springs for increasing the tension between the wringer rolls, a bar resting upon said coil springs, means for adjusting said bar whereby the tension of the springs will be increased and means for shifting said bar whereby the tension of the springs will be released.

[Claims 6 to 11 not printed in the Gazette.]

1,134,710. CLOTHES-PIN. ADOLF WILD, Corona, N. Y. Filed June 12, 1914. Serial No. 844,608. (Cl. 24—137.)



1. A clamp comprising two co-acting rigid members having engaging surfaces at each end thereof adapted to engage a cord, means for maintaining said members in longitudinal adjustment and independent constraining means at each end, said constraining means being separately applied on opposite sides of the clamp.

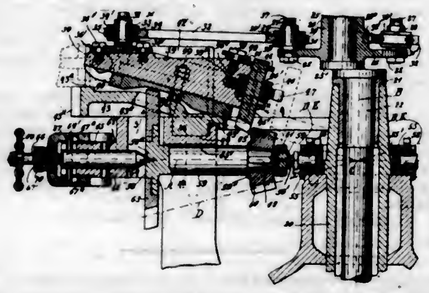
2. A clamp comprising two co-acting duplicate members each having a single tongue at one end and a corresponding slot at the other, said members being so engaged that the tongue of one member normally enters the slot of the other member, independent constraining means near the ends thereof, portions of said constraining means embracing both of said members, and pairs of opening means opposable to each of said constraining means also holding said members in register.

3. A clamp comprising a single pair of double ended co-acting members each having interior engaging surfaces, spring elements adapted to exert a compressive effect near each end of said members and arranged upon opposite sides thereof, and independent manually operated spreading means arranged in pairs, said spreading means also operating to retain said members in lateral and longitudinal adjustment.

4. A reversible clamp comprising two members of identical contour engaged in reverse relation, the adjacent surfaces near their ends being adapted to co-actingly engage with objects entered therebetween, a separate con-

straining means embracing said members at each end, upon all four sides and means for disengaging either end from an object without disengaging the other end.

1,134,711. GEAR-CUTTING MACHINE. HARVEY D. WILLIAMS, New York, N. Y., assignor to Gear Improvement Company, Inc., New York, N. Y., a Corporation of New York. Filed Jan. 24, 1914. Serial No. 814,035. (Cl. 90—9.)



1. A machine for cutting bevel gears, the axes of which intersect, comprising a blank carrier, and a tool arranged to reciprocate in such a path that its cutting edge will describe a surface having no straight-line elements which pass through the vertex of the pitch cone of the blank, and means for producing a relative rolling motion of the tool and the blank.

2. A machine for cutting bevel gears, comprising a blank carrier, a tool carrier, a tool secured on said carrier, means for reciprocating the tool carrier and the tool so as to cause the latter to cut on the blank, straight-line tooth-surface elements which do not pass through the vertex of the blank cone, and means for producing a relative rolling motion of the blank and tool.

3. A gear-cutting machine, comprising a blank carrier, a tool holder, a tool carried thereby, means for producing a relative rolling motion of the tool and the blank, and means for imparting a reciprocating motion to said tool in a direction oblique with reference to the axes of said rolling motion, said tool having two cutting edges out of longitudinal alinement with reference to the direction of reciprocation, said cutting edges being adapted to form on the blank simultaneously, tooth-surfaces having rectilinear elements lying out of axial planes of the blank.

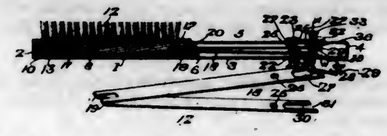
4. A gear-cutting machine, comprising a blank carrier, a tool carrier, a tool on the last-named carrier, means for producing a relative rolling motion of the tool and blank, said tool having two cutting edges in constant operative relation to each other and formed in counterpart to two adjacent tooth-surfaces, and means for reciprocating said tool in a direction oblique with reference to the axes of said rolling motion, to simultaneously cut two tooth-surfaces on the blank.

5. A machine for cutting bevel gears, comprising a blank carrier, a cutting tool having two cutting edges located symmetrically on opposite sides of a plane which contains the axis of the blank carrier, means for reciprocating said tool so that every point of said cutting edges will move in a path parallel to said plane, and means for producing a relative rolling motion of said tool and of the blank on the blank carrier.

[Claims 6 to 42 not printed in the Gazette.]

1,134,712. BRUSH OR MIRROR HOLDER OR BACK. STEPHEN G. WILSON, Philadelphia, Pa. Filed May 20, 1913. Serial No. 768,710. (Cl. 15—29.)

1. In a device of the character stated, a head portion adapted for the reception of a brush-head, a catch for engagement with said brush-head, a latch formed of leaves adapted for engagement with said brush-head, and means for spreading apart and drawing together said leaves, whereby said latch may be actuated to release or engage said brush-head.



2. In a device of the character stated, a head portion adapted for the reception of a brush-head, means on said head portion for engagement with said brush-head, a movable latch, and means normally locking said latch and adapted to be positioned in certain relation with respect to said latch for permitting the passage of the same for throwing said latch into and out of engagement with said brush-head.

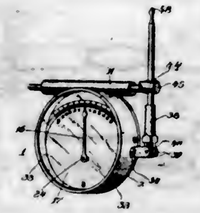
3. In a device of the character stated, a head portion adapted for the reception of a brush-head, means on said head-portion for engagement with said brush-head, a movable latch, means for actuating said latch to lock or release said brush-head, and resilient means for engagement with said brush-head.

4. In a device of the character stated, a head portion adapted for the reception of a brush-head and having a closed handle-portion, a catch in said portion adapted for engagement with the brush-head, a latch normally seated in said closed handle-portion and having a portion thereof adapted for engagement with said brush-head, means for moving said latch to cause the same to engage with or to be disengaged from said head, and spring tongues adapted to bear against said head when in position.

5. In a device of the character stated, a head-portion formed with a handle-portion, a brush-head adapted to fit in said head-portion, a handle-cover adapted to fit over said handle-portion and formed with an offset and with a shank provided with a catch engaging said brush-head, a latch longitudinally movable in the handle-portion and having one end engaging the brush-head, means for longitudinally moving said latch, and means for locking such latch against longitudinal movement.

[Claims 6 to 11 not printed in the Gazette.]

1,134,713. TEST-INDICATOR. JOSEPH L. WOLFE, Bridgeport, Conn. Filed July 24, 1908. Serial No. 445,239. (Cl. 33—172.)



1. In an indicator, the combination of a movable pointer, means to respond to the movements of the edges and other portions of plane or curved surfaces comprising the two free ends of a movable plunger, and means for transferring the motion of the plunger forwardly and rearwardly from its normal position to the pointer.

2. In an indicator, the combination of a movable pointer, means to respond to the movements of the edges and other portions of plane or curved surfaces, comprising the two free ends of a spring-pressed plunger, and means for transferring the motion of the plunger forwardly and rearwardly from its normal position to the pointer.

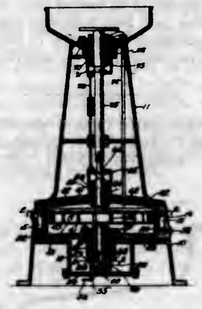
3. In an indicator, the combination of a movable pointer, a plunger having both ends free, said ends being adapted to respond to the movements of the work, means for transferring the motion of the plunger to the pointer, and means including a C-spring, for maintaining said pointer in its middle position.

4. In a device of the character described, the combination of means for indicating the movements of plane surfaces and an auxiliary arm attachable to the indicating means, and having a point for coöperating with a prick-punch point to indicate the movements of the work, said arm being slidably supported for movement in a longitudinal direction.

5. In a device of the character described, an indicating means, and an auxiliary arm for coöperating with said means to indicate the movements of the work, said arm having a jointed connection for securing it to the indicating means, and having a locking device for locking it to the indicating means.

[Claims 6 not printed in the Gazette.]

1,134,714. FORCE-FEED LUBRICATOR AND GOVERNOR FOR ROTATABLE SPINDLES. EDWARD C. WOOD, Somerville, Mass., assignor to John W. Davies, Reading, Mass. Filed Aug. 29, 1913. Serial No. 787,297. (Cl. 121—118.)



1. Apparatus of the nature described comprising a motor chamber having an oil reservoir, a fan chamber communicating with said reservoir, the walls of said chambers having ducts communicating with said fan chamber and with the bearings to be lubricated, a spindle rotatable in said bearings, a fluid driven motor on said spindle within said motor chamber, a fan on said spindle within said fan chamber, and means for directing fluid toward said motor.

2. Apparatus of the nature described comprising a base having a motor chamber, an oil reservoir and a fan chamber depending from said motor chamber into said reservoir and in communication therewith, bearings above and below said motor chamber, said latter chamber having in its walls ducts communicating with said fan chamber and with said bearings, a spindle journaled in said bearings and having a motor and a fan positioned in their respective casings, and means for supplying steam to said motor.

3. Apparatus of the nature described comprising a base having a motor chamber, a bearing above said chamber, an oil reservoir below said chamber, a step bearing depending into said oil reservoir and having a fan chamber in communication with said reservoir, said step bearing and said base having in their walls ducts communicating with said fan chamber and with said upper bearing, the wall of said base having a drain duct communicating with said upper bearing and with said reservoir, a spindle journaled in said bearings and having a motor and a fan positioned in their respective chambers, and means for supplying steam to said motor.

4. Apparatus of the nature described comprising a base having a motor chamber, an oil reservoir depending therefrom and a bearing located above said reservoir, the wall of said chamber having a steam channel, communicating by nozzles with said chamber, and oil ducts leading to and from said bearing, a bearing mounted in said chamber extending into said reservoir and having a fan chamber having openings through one wall and a duct communicating with one of the ducts of said motor chamber wall, a spindle journaled in said bearings, a motor on said spindle within said motor chamber, and a fan on said spindle within said fan chamber.

5. Apparatus of the nature described comprising a motor chamber having steam inlets and an outlet, a spindle journaled in bearings of said chamber and having a steam actuated motor and a fan, a fan chamber embracing said fan and adapted to contain oil, a lubricating duct leading from said fan chamber, a pressure oil duct also leading from said fan chamber, a steam supply pipe connected with said steam inlet, and a controlling valve for said steam pipe having pressure operated valve closing means in communication with said pressure oil duct.

[Claims 6 to 8 not printed in the Gazette.]

1,134,715. BRAKE-SHOE. JAMES EDWARD WORSWICK, Montgomery, Ala., assignor of one-half to William L. Allen, Montgomery, Ala. Filed Oct. 20, 1913. Serial No. 796,176. (Cl. 188—31.)



1. A car wheel brake shoe and dresser, comprising a body portion of a soft metal and having at one side a longitudinally extending grooved flange receiving portion, a sinuous web within the body portion at the said groove, a sinuous web within the body at the opposite side of the shoe, a back plate for each web, means for detachably connecting each back plate to the adjacent web, said means comprising pins having at one end a head and at the other end a laterally extending flange, the webs having slots extending longitudinally thereof at the edge adjacent to the back plate for receiving the flanges, and the back plates having transverse slots for permitting the passage of the flanges, said slots being enlarged intermediate their ends to receive the pins, the back plates having depressions or recesses on their outer face for receiving the heads, said flange having a slot and the slots of the web being of greater width than the thickness of the flange to permit the metal of the body to pass into the said slots, said pins being of a length to hold the web with its inner edge spaced away from the inner face of the base plate, said webs and back plates being of hard metal.

2. A car wheel brake shoe and dresser, comprising a body portion having at one side a longitudinally extending grooved flange receiving portion, a sinuous web within the body portion at the said groove, a sinuous web within the body at the opposite side of the shoe, a back plate for each web, means for detachably connecting each back plate to the adjacent web, said means comprising pins having at one end a head and at the other end a laterally extending flange, the web having slots extending longitudinally thereof at the edge adjacent to the back plate for receiving the flanges, and the back plates having transverse slots for permitting the passage of the flanges, said slots being enlarged intermediate their ends to receive the pins, the back plates having depressions or recesses on their outer faces for receiving the heads, said means spacing the inner edge of the web from the inner face of the flange.

3. A car wheel brake shoe and dresser, comprising a body portion of a soft metal and having at one side a longitudinally extending grooved flange receiving portion, a sinuous web within the body portion at the said groove, a

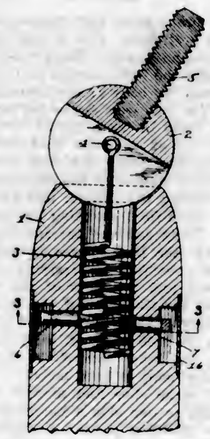
sinuous flange within the body at the opposite side of the shoe, a back plate for each web, means for detachably connecting each back plate to the adjacent web, said means comprising pins having at one end a head and at the other end a laterally extending flange, the web having slots extending longitudinally thereof at the edge adjacent to the back plate for receiving the flanges and the back plates having transverse slots for permitting the passage of the flanges, said slots being enlarged intermediate their ends to receive the pins, the back plates having depressions or recesses on their outer faces for receiving the heads, the webs being of hard metal.

4. A car wheel brake shoe and dresser, comprising a body portion having at one side a longitudinally extending grooved flange receiving portion, a sinuous web within the body portion at the said groove, a sinuous web within the body at the opposite side of the shoe, a back plate for each web, means for detachably connecting each back plate to the adjacent web, said means holding the web with their inner edges spaced apart from the inner faces of the back plates.

5. A car wheel brake shoe and dresser, comprising a body portion having at one side a longitudinally extending grooved flange receiving portion, a sinuous web within the body portion at the said groove, a sinuous web within the body at the opposite side of the shoe, a back plate for each web, and means for detachably connecting each back plate to the adjacent web.

[Claims 6 to 18 not printed in the Gazette.]

1,134,716. SEPARABLE JOINT FOR DISPLAY-FIGURES. LOUIS WULKAN, Cedarhurst, and KALLMANN GLASS, New York, N. Y. Filed Mar. 27, 1914. Serial No. 827,549. (Cl. 211—13.)

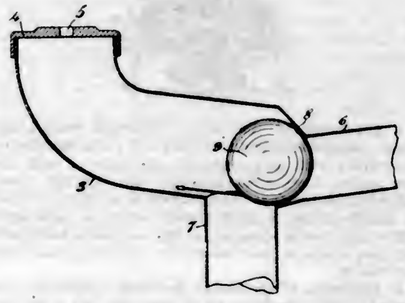


1. In a joint for artificial limbs, in combination, an arm member provided with a spherical portion at one end, an arm member provided with a socket adapted to receive said spherical portion, one of said arm members being provided with a longitudinal recess, and a transverse opening extending thereinto, a spring attached to the other of said arm members and extending into said recess, and a curved lever pivotally mounted on and extending around one of said arm members and having an engaging portion extending through said transverse opening into the said longitudinal recess therein adapted to be moved into engagement with said spring to hold said arm members together and to be moved out of engagement therewith to release said spring and permit the arm members to be separated.

2. In a joint for artificial limbs, in combination, an arm member provided with a spherical portion at one end, an arm member provided with a socket adapted to receive said spherical portion, one of said arm members being provided with a longitudinal recess, and an annular recess extending around the same and a portion extending into said longitudinal recess, a spring attached to the other of said arm members and extending into said longitudinal recess, and a curved lever pivotally mounted in said annular recess extending around one of said arm members and having an engaging portion extending into the said longitudinal recess therein adapted to be moved into engagement with said spring to hold said arm members together and to be moved out of engagement therewith to release said spring and permit the arm members to be separated.

3. In a joint for artificial limbs, in combination, an arm member provided with a spherical portion at one end, an arm member provided with a socket adapted to receive said spherical portion, one of said arm members being provided with a longitudinal recess and an annular recess extending around the same and having portions extending into said longitudinal recess, a spring attached to the other of said arm members and extending into said longitudinal recess, and a pair of curved levers pivotally mounted in said annular recess extending around one of said arm members on opposite sides thereof and each having an engaging portion extending into said longitudinal recess therein adapted to be moved into engagement with said spring to hold said arm members together and to be moved out of engagement therewith to release said spring and permit the arm members to be separated.

1,134,717. VALVE FOR DOWN-SPOUTS AND THE LIKE. CARTER C. ARMSTRONG, Cincinnati, Ohio. Filed Jan. 30, 1913. Serial No. 745,064. (Cl. 182—14.)

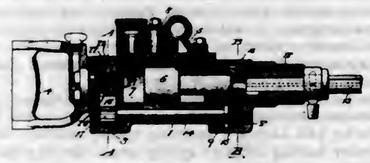


1. In a device of the character specified, a barrel, a down spout, and a sewer pipe connected thereto so as to form a T-joint of which the down spout and the barrel form the branches, the barrel turned up at its free end, with an opening in the free end thereof, a ball valve, a trackway over the sewer pipe connection with the barrel to prevent the ball from seating therein and a valve seat about the down spout connection with the barrel, for said ball.

2. In a device of the character specified, a barrel, a down spout, and a sewer pipe connected thereto so as to form a T-joint of which the down spout and the barrel form the branches, the barrel turned up at its free end, with an opening in the free end thereof, a ball valve, a trackway over the sewer pipe connection with the barrel to prevent the ball from seating therein and a valve seat about the down spout connection with the barrel and about the opening in the free end of the barrel, for said ball.

3. In a device of the character specified, a barrel portion, a down spout and a sewer pipe, said barrel being provided with openings for the spout and pipe, and having an opening to the outer air, a valve seat about the down spout opening, a ball valve to normally seat thereon, and means for preventing the ball valve from blocking the opening for the sewer pipe, whereby a free outlet is formed for sewer gas through the barrel without permitting the same to enter the down spout.

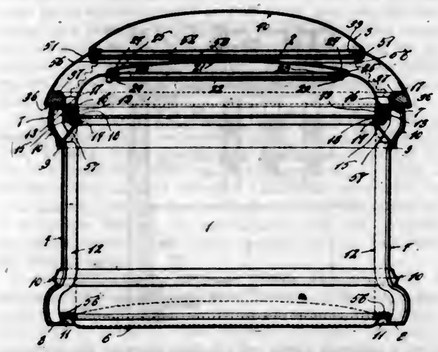
1,134,718. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 3, 1912. Serial No. 675,288. (Cl. 121—20.)



1. In a percussive tool, a cylinder, its front and back heads, a chuck rotatably mounted in said front head, a shaft extending from said front to said back head, gearing between said chuck and the front end of said shaft, an oscillating piston trunnioned on the rear end of said shaft, and having a driving wing projecting into said back head rearward of said cylinder and a pawl and ratchet connection between said piston and said shaft.

2. In a percussive tool, a cylinder, its front and back heads, a chuck rotatably mounted in said front head, a shaft extending from said front to said back head, having its forward end geared to said chuck, a ratchet on the rear end of said shaft, an oscillating piston trunnioned axially of said shaft, having a driving wing projecting into said back head rearward of said cylinder and a pawl in said wing engaging said ratchet.

1,134,719. COFFIN. ALFRED B. BENZING, St. Louis, Mo., assignor to St. Louis Coffin Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 28, 1914. Serial No. 869,082. (Cl. 27—7.)



1. A coffin comprising a body having an open top, a cover adapted to close said body substantially air tight, a second cover adapted to cover the first named cover, said first named cover having a glazed opening, a lid for said opening removably hinged to the first named cover, said second cover having an opening to permit the said lid to be swung open therethrough, and a lid for the opening in the second named cover.

2. A metallic coffin comprising a body portion the upper marginal edge portion of which is bent inwardly to form a flange, an approximately Z-shaped lip member secured to the flange of the body portion and extending around the mouth of the body portion, an inner cover adapted to close the mouth of the body portion, a marginal flange integral with said cover and secured to the lip member with an air tight joint, said cover also having a glazed opening, pockets depending from the under face of the inner cover open only at the top, a lid having inturned marginal edge portions, hinge members secured to and depending from said edge portions and extending into the said pockets, said cover being provided with a sight opening and an outer cover having an inwardly turned marginal portion constituting a flange adapted to rest upon the flange of the body portion, and a lid carried by said outer cover over the cover of the inner cover.

1,134,720. THERAPEUTICAL DEVICE. JOHN H. BRADLEY, Philadelphia, Pa. Filed May 28, 1914. Serial No. 841,623. (Cl. 5—41.)

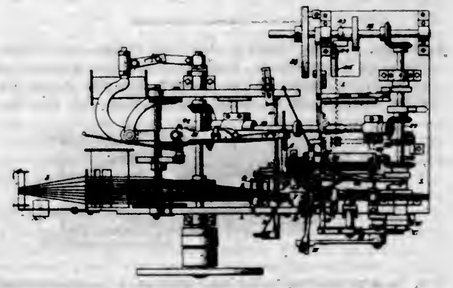


1. The combination with a bed frame, of laterally and vertically adjustable brackets carried by the side rails thereof, a detachable table adjustably supported by said brackets, said table forming an arm-rest, and a head-rest centrally disposed with respect to and detachably carried by said table.

2. A therapeutic device designed to induce sleep, comprising laterally and vertically adjustable supporting means, a table detachably connected thereto and forming an arm-rest, and an adjustable head-rest centrally disposed with respect to and detachably carried by said table.

3. The combination with a bed frame, of a table adjustably supported laterally and vertically by said bed frame, detachable hinge connections between said table and the bed frame, said table forming an arm-rest, means for locking said table in adjustable angular positions, and an adjustable head-rest centrally disposed with respect to and detachably carried by said table.

1,134,721. FRINGE-KNOTTING MACHINE. WILLIAM E. BRASSELL, Philadelphia, Pa., assignor to E. L. Mansure Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 3, 1911. Serial No. 606,342. (Cl. 139—41.)



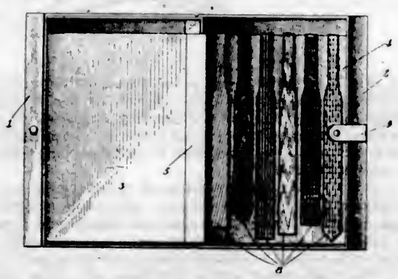
1. The combination in a machine for tying knots in fringe, of means for holding the heading; mechanism for forming a knot in the strands of the fringe including the placer pin which is inserted in the loop of the knot; a device bearing on the outside of the knot for stopping the longitudinal movement thereof as the strand is drawn to close the knot; and means for drawing the strand.

2. The combination in a machine for tying knots in

fringes, of means for holding a fringe heading, a knot tying mechanism for tying knots in the loose strands projecting from the heading, a forked device arranged to straddle the free ends of the strands and to engage the knot, and means for actuating the forked device to position it directly in front of the knot so as to limit the movement of the knot as the strands are drawn to complete the closing of the knot.

3. The combination in a machine for making a fringe, of means for feeding the warp into the machine, a rock shaft, reed mechanism thereon, a feed screw for carrying the loose strands forward with the heading, fingers on the red rock shaft for carrying the strands to the feed screw, a hook located between the reed and the screw for drawing the weft strands, means in the hook for cutting the strands, a brush and a platform located back of the feed screw for placing tension on the strands, knotting mechanism, means engaging the outside of the knot as it is formed so that all the knots will be the same distance from the heading, and mechanism for actuating the several means.

1,134,722. NECKTIE-PACKAGE. HARRY BROWN, New York, N. Y. Filed Oct. 7, 1912. Serial No. 724,279. (Cl. 206—44.)



1. A package for neckties consisting of a box and cover, a leaf hinged to the outer edge of the box, a leaf hinged to the outer edge of the cover, and a connection between said leaves, said connection being in the form of a strip narrow, but of substantial width and having each edge connected to one of said leaves.

2. A package for neckties consisting of a box and cover, a leaf hinged to the outer edge of said box, a leaf hinged to the outer edge of said cover, and a connection between tively, said leaves being of substantially the same size as away from the adjacent ends of the box and cover respectively, said leaves being of substantially the same size as the adjacent box section.

1,134,723. PERCUSSIVE BOILER-TUBE CLEANER. WILLIAM BURLINGHAM, Newport News, Va., assignor of one-half to Joseph Briggs Weaver, Newport News, Va. Filed Aug. 19, 1914. Serial No. 857,434. (Cl. 83—64.)



1. In a percussive boiler tube cleaner, a pneumatic tool cylinder, a hammering piston therein, an outer cylinder inclosing said tool cylinder and having a plurality of resilient arms extending longitudinally of said tool cylinder, said arms substantially surrounding said tool cylinder, and scale removing devices formed on the opposite terminals of said resilient arms, the inner walls of said terminals being impacted upon by said hammering piston.

2. In a percussive boiler tube cleaner, an inner pneumatic tool cylinder, a hammering piston therein, an outer cylinder in engagement with said inner tool cylinder and having spring arms integral therewith and engaging said tool cylinder for its entire length, and hammer blocks at the free outer terminals of said spring arms adapted to be engaged and moved outwardly by the impact of said piston therewith.

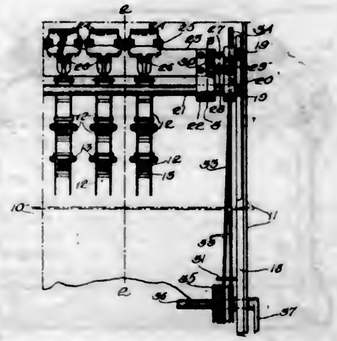
3. In a tool of the character stated, an inner cylinder having a motive fluid inlet, a piston reciprocable in said cylinder and having a tapering striker thereon, an outer cylinder engaging said inner cylinder, said outer cylinder having spring arms secured thereto and engaging the outer periphery of said inner cylinder for its entire length, and hammer blocks at the free outer terminals of said spring arms adapted to be engaged and moved outwardly by the tapering portion of said piston.

4. In a tool of the character stated, an inner cylinder having a motive fluid inlet, a plunger reciprocable in said cylinder and having a tapering striker thereon, an outer cylinder having integral spring arms engaging the outer periphery of said inner cylinder for its entire length, thickened wedge-shaped hammer blocks at the free outer terminals of said spring arms, said blocks being adapted to have radial movement and formed with oblique internal sides adapted to be engaged and radially moved by the tapering portion of said plunger.

5. In a percussive boiler tube cleaner, a pneumatic tool cylinder, a hammering piston therein, a closure for one end of said cylinder having a neck leading therefrom and provided with an inlet leading to said cylinder, a head engaging said neck, a cap engaging said head, means for securing said head and cap with respect to said cylinder, spring arms projecting from said head, longitudinally of said cylinder, and hammer blocks on the ends of said spring arms, the inner walls of said hammer blocks being impacted upon by said piston.

[Claim 6 not printed in the Gazette.]

1,134,724. VOTING-MACHINE. JAMES A. BUTLER, Wollaston, Mass., assignor to American Voting Machine Company, Boston, Mass., a Corporation of Maine. Filed Feb. 15, 1913. Serial No. 748,568. (Cl. 235—50.)



1. A printing device for a voting machine having printing vote registers arranged in columns, comprising a carriage mounted to travel with respect to said vote registers, a member movably mounted on said carriage, a series of independent pressure devices yieldably mounted on said member, and means for effecting the movement of said member to carry the pressure devices to printing position.

2. A printing device for voting machines having printing vote registers comprising a carrier movably mounted with respect to said vote registers, a series of independent pressure devices, and frames for said pressure devices mounted on said carrier to yield independently.

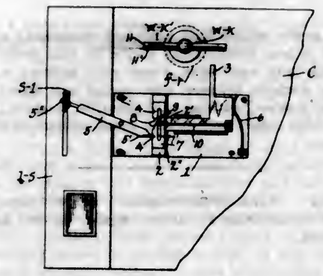
3. A printing device for voting machines having printing vote registers arranged in columns, comprising a carriage mounted to travel with respect to said registers, a rigid member mounted to swing on said carriage, and a series of independent pressure devices yieldably mounted on said member.

4. A printing device for voting machines having printing vote registers arranged in columns comprising a carriage mounted to travel with respect to said registers, a member movably mounted on said carriage, means on said carriage and engaged with said member for effecting the projection and retraction of said member, and a series of pressure rolls having frames yieldably mounted and carried by said member.

5. A printing device for voting machines having printing vote registers arranged in columns, comprising a carriage mounted to travel with respect to said registers, a member mounted to swing on said carriage, an actuator for said carriage rotatably mounted and having a pin eccentric to the axis of said actuator engaged with said swinging member, means for effecting a rotative motion of said actuator, and a series of pressure devices mounted on said carriage member.

[Claims 6 and 7 not printed in the Gazette.]

1,134,725. CAMERA. FRED W. CALDEN, Burlington, Vt. Filed Oct. 6, 1914. Serial No. 865,289. (Cl. 95—31.)



1. An apparatus to prevent double exposure with a photographic camera, comprising means to lock the shutter-lever in its extreme position of travel to snap the shutter, including a member, and another member associated therewith to maintain the shutter lever unlocked during its operation to snap the shutter, in combination with the winding-key of the camera, and a post operable thereby to unlock the shutter lever.

2. An apparatus to prevent double exposure with a photographic camera, comprising means to lock the shutter-lever against being operated in its extreme position of travel to snap the shutter in both directions, including a member, and another member associated therewith to maintain the shutter lever unlocked during its operation to snap the shutter, in combination with the winding key of the camera, and a post operable thereby to unlock the shutter lever.

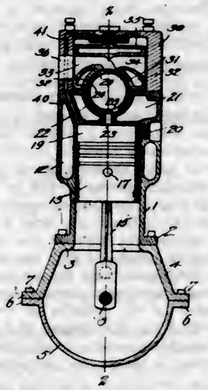
3. An apparatus to prevent double exposure with a photographic camera, comprising means to lock the shutter lever in its extreme position of travel to snap the shutter, including a member, and another member associated therewith, to maintain the shutter lever unlocked during its operation to snap the shutter, in combination with the winding-key of the camera, and a post operable thereby to unlock the shutter lever, the said post being pivotally rectractable.

4. An apparatus to prevent double exposure with a photographic camera, comprising means to lock the shutter-lever against being operated in its extreme position of travel to snap the shutter in both directions, including a member, and another member associated therewith to maintain the shutter lever unlocked during its operation to snap the shutter, in combination with the winding key of the camera, and a pivotally retractable post carried by the winding key and operable thereby to unlock the shutter lever.

5. An apparatus to prevent double exposure with a photographic camera, comprising means to lock the shutter-lever in its extreme position of travel to snap the shutter, including a member, and another member associated therewith, to maintain the shutter lever unlocked during its operation to snap the shutter.

[Claims 6 to 13 not printed in the Gazette.]

1,134,726. INTERNAL-COMBUSTION ENGINE. FRED D. CALKINS and ALFRED C. JOHNSON, Sunnyvale, Cal. Filed Sept. 3, 1912. Serial No. 718,247. (Cl. 123—80.)



1. An engine of the character specified, comprising a cylinder having one of its ends open and having at its opposite end a transverse approximately semi-circular recess and a diametrical port leading from the interior of the cylinder to the recess, a crank case at the open end of the cylinder, a crank shaft in the crank case, a piston in the cylinder, a rod connecting the piston with the crank of the crank shaft, said cylinder having a combustion chamber between its outer end and the outer end of the piston when farthest from the crank shaft, a cap seated on the outer end of the cylinder, a movable bearing section in the cap, said bearing section having on its inner face a transverse approximately semi-circular recess coöperating with the recess of the cylinder end to form a cylindrical bearing, a hollow rotating cylindrical valve in the bearing, said valve having a transverse central partition and having oppositely arranged ports on each side of the partition, a driving connection between the crank shaft and the valve for rotating the said valve, said movable bearing having passages adapted to register with the ports of the valves, springs between the cap and the movable bearing section, means for regulating the tension of the springs, said cap having an internally threaded approximately circular recess on its inner face, a diaphragm threaded into the recess, a set screw threaded through the diaphragm and engaging the movable bearing section, said cap and cylinder having registering passages for placing the combustion chamber in communication with the recess behind the diaphragm, the cap having an opening coaxial with the screw, and a plug threaded into the opening for closing the same.

2. An engine of the character specified, comprising a cylinder having one of its ends closed and provided with a transverse bearing section, a cap seated on the said end of the cylinder, a movable bearing section in the cap, a rotatable valve held between the bearing sections, springs between the cap and the movable bearing section, said cap having a central circular internally threaded recess, approximately co-axial with the cylinder, a diaphragm threaded into the recess, a screw threaded through the diaphragm and engaging the movable section, said cap and cylinder having registering passages for placing the combustion chamber of the engine in communication with the recess behind the diaphragm, the cap having an opening at the screw, and a plug normally closing the opening.

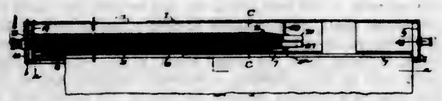
3. An engine comprising a cylinder having its outer end closed and transversely recessed to form the fixed inner half of a cylindrical valve chamber, a cap seated on the said outer end, a movable bearing section forming the outer half of the valve chamber in the cap, said bearing section having a transverse recess coöperating with the recess of the cylinder to form a cylindrical valve chamber, a cylindrical valve in the chamber, springs pressing the movable section of the chamber toward the cylinder, and means for regulating the tension of the springs.

4. An engine comprising a cylinder having its outer end closed and transversely recessed to form the fixed inner half of a cylindrical valve chamber, a cap seated on the outer end, a movable bearing section forming the outer half of the valve chamber in the cap, said bearing section having a transverse recess coöperating with the recess of the cylinder to form a cylindrical valve chamber, a cylindrical valve in the chamber, and yielding means pressing the sections of the chamber toward each other.

5. An engine comprising a cylinder having its outer end closed and transversely recessed to form the fixed section of a cylindrical valve chamber, a cap seated on the said outer end, a movable bearing section in the cap, said bearing section having a transverse recess coöperating with the recess of the cylinder to form a cylindrical valve chamber, a cylindrical valve in the chamber, said cap having a recess in alinement with the axis of the cylinder, a diaphragm detachably held in the recess, said cap and cylinder having registering passages for placing the combustion chamber of the cylinder in communication with the recess behind the diaphragm, and a screw threaded through the diaphragm and engaging the movable section, said cap having a means for permitting access to the screw.

[Claims 6 to 16 not printed in the Gazette.]

1,134,727. SHADE-ROLLER. CHARLES A. CARMANY, Coatesville, Pa. Filed May 29, 1914. Serial No. 841,952. (Cl. 156—36.)



1. The combination of a shade roller; and a folded shade-holding strip therein, the end of one of the folds of said strip projecting beyond the end of another to provide guiding means for a shade.

2. The combination of a shade roller; and a folded shade-holding strip, the end of one of the folds of said strip projecting beyond the end of another to provide guiding means for a shade, the corners of said ends being rounded to allow of the free passage of the shade thereover.

3. The combination of a grooved shade roller; and a folded shade-holding strip having a tongue projecting from one end for guiding said strip into the groove of said roller.

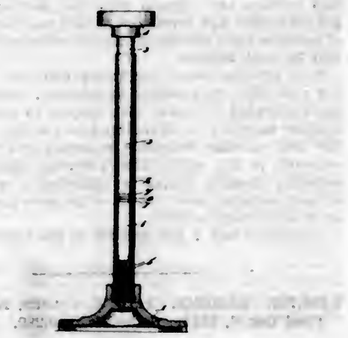
4. The combination of a grooved shade roller; and a plurality of folded shade-holding strips, each having a tongue projecting therefrom, the tongue of one of said strips being arranged to extend into another of the said strips to couple the same.

5. The combination of a grooved shade roller; and a plurality of folded shade-holding strips, each having a projecting tongue, the tongue of one of said strips being arranged to extend between the folds of another.

[Claims 6 to 11 not printed in the Gazette.]

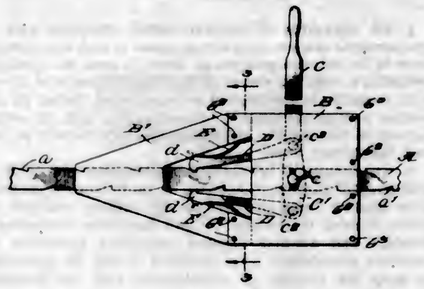
1,134,728. STAND FOR SWAGING-ANVILS. EDWARD L. CHOTT, Chicago, Ill., assignor of one-half to Hugo J. Chott, Chicago, Ill. Filed Dec. 12, 1913. Serial No. 806,187. (Cl. 78—5.)

1. A device of the class described comprising a base; a tubular post arising from said base; a stem loosely mounted in said post; a cushion arranged in said post for yieldingly supporting said stem; noise absorbing devices interposed between said cushion and said stem; and a swaging block provided at the upper end of said stem; substantially as described.



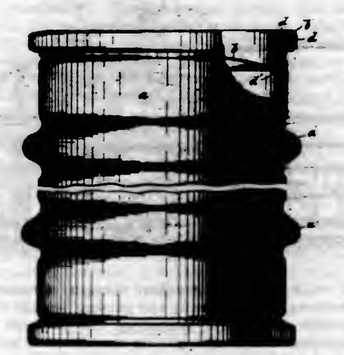
2. A device of the kind described comprising a tubular body; a helical compression spring in said body; a stem extending into said body above said spring; a pair of metallic washers between said spring and stem; a compressible washer between said metallic washers; and an anvil at the upper end of said stem, substantially as described.

1,134,729. WIRE-STRETCHER. AB B. DILL, Lakin, Kans. Filed May 27, 1914. Serial No. 841,222. (Cl. 254—72.)



A wire-stretcher comprising a pull-bar having staggered rows of notches in its upper and lower edges, a carrier comprising side plates tapered at their forward ends and body pieces disposed between the side plates, said side plates and said body pieces being spaced apart to receive the pull-bar therethrough in movable guided relation, a lever extending vertically between the rear portions of the side plates and provided with an enlargement adjacent its lower end having a vertically slotted opening through which the pull-bar also extends, said lever enlargement having laterally projecting trunnions and said side plates having apertures in which the trunnions are journaled, laterally projecting pivot bolts extending through the lever above and below its said enlargement, operating dogs journaled at their rear ends upon the said pivot bolts and having forward hooked ends for engagement within the notches of the pull-bar, and springs secured to the carrier and bearing upon the said operating dogs to hold the latter in engagement with the pull-bar at all times.

1,134,730. SHEET-METAL RECEPTACLE. CHARLES T. DRAPER, Cleveland, Ohio, assignor to The Draper Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 22, 1912. Serial No. 716,412. (Cl. 220—1.)



1. In a permanent closure for metallic receptacles, the combination with a substantially cylindrical body-portion formed of sheet-metal, of a disk-like sheet-metal closure-member inserted within the end of said body-portion; the same having an upturned rim with its edges united with the edges of the body-portion to form a double-locked joint, and a protective ring inserted within said closure-member having a down-turned flange covering the side of the double-locked joint, and a continuous annular recess wherein the rims of said closure-member and body-portion are forced, substantially as set forth.

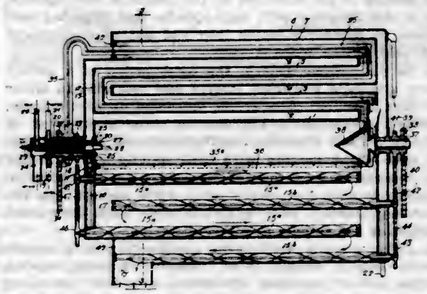
2. In a sheet-metal barrel, the combination with a substantially cylindrical body-portion formed of sheet-metal and centrally ribbed to provide a bilge, of disk-like sheet-metal heads inserted within the ends of said body-portion; the same having upturned rims with their edges united with the edges of the body-portion to form double-locked annular joints, and supporting rings inserted within the rims to bear annularly against the heads, each of said rings having a flange partially inclosing the corresponding double-locked joints and continuous annular recess wherein the rims of the head and barrel are rolled or depressed to lock the parts closely together, substantially as set forth.

3. In a permanent closure for metallic receptacles, the combination with a substantially cylindrical body-portion formed of sheet metal, of disk-like sheet metal closure-members inserted within the ends of said body-portion; the same having upturned rims united with the edges of the body-portion, and forming liquid-proof joints therewith, and protective rings inserted respectively within said closure-members, the same having down-turned exterior flanges, covering the sides of the liquid-proof joints, and annular recesses positioned beyond said down-turned flanges, wherein the rims of said closure-members and body portion are rolled to secure the part together, substantially as set forth.

1,134,731. DESICCATING APPARATUS. ELMER E. ELDREDGE, Chevy Chase, D. C. Filed Apr. 11, 1914. Serial No. 831,270. (Cl. 99—5.)

1. A desiccating apparatus comprising a series of concentric cylinders spaced apart, the spaces between adjacent cylinders being in communication, means for injecting an atomized fluid to be desiccated, into the interior of the inner cylinder, and means for causing the travel of the fluid between the walls of the concentric cylinders.

2. A desiccating apparatus comprising a series of concentric cylinders spaced apart, the spaces between adjacent cylinders being in communication, means for injecting an atomized fluid to be desiccated, into the interior of the inner cylinder, means for causing the travel of the fluid between the walls of the concentric cylinders, means for scraping the desiccated matter from the walls of the cylinders, and means for removing the desiccated matter from the device.



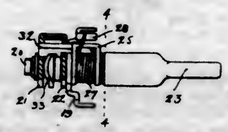
3. A desiccating apparatus comprising a series of concentric cylinders spaced apart, the spaces between adjacent cylinders being in communication, means for injecting an atomized fluid to be desiccated, into the interior of the inner cylinder, means for causing the travel of the fluid between the walls of the concentric cylinders, means for scraping the desiccated matter from the walls of the cylinders, and means for removing the desiccated matter from the device.

4. A desiccating apparatus comprising a series of concentric cylinders spaced apart, the spaces between adjacent cylinders being in communication, means for injecting an atomized fluid to be desiccated, into the interior of the inner cylinder, means for causing the travel of the fluid between the walls of the concentric cylinders, means for scraping the desiccated matter from the walls of the cylinders, and means for removing the desiccated matter from the device, said last-named means comprising a series of conveyers disposed in the walls of the concentric cylinders.

5. In a desiccating apparatus, a plurality of concentric cylinders, a common head for securing said cylinders together at one end, a second series of cylinders, concentric with the first series, a head for securing said second series of concentric cylinders together, the cylinders of one series alternating with the cylinders of the other series and the ends of the cylinders of each series being spaced apart from the common head of the other series.

[Claims 6 to 11 not printed in the Gazette.]

1,134,732. ELECTRIC SWITCH. FREDERIC P. GATES, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Sept. 23, 1913. Serial No. 791,311. (Cl. 175—290.)



1. In an electric switch, the combination of a rotatable spindle, a switch piece freely journaled thereon, a pair of detents normally engaging the same to temporarily restrain said switch piece upon the rotation of said spindle, cam means moving with the spindle and engaging said detents to move the latter longitudinally of the spindle, said cam means being of a contour such that it moves one of said detents out of engagement with the switch piece after partial rotation of the spindle, while maintaining the other in engaging position at the moment of the escape of the switch piece, a switch spring and means for placing the spring under tension on the rotation of the switch spindle.

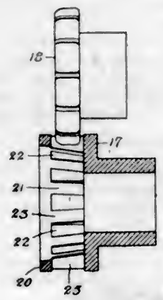
2. In an electric switch, the combination of a switch frame, a switch spindle journaled therein, a switch piece freely journaled on said spindle, a switch operating spring, detents slidably mounted in said frame and moving in the direction of the length of said spindle, and a cam rotating with said spindle and engaging said detents to move the latter into and out of engagement with said switch piece.

3. In an electric switch, the combination of a switch frame, a spindle journaled therein and rotatably in either direction, a switch piece freely journaled on said spindle, a switch operating spring detents slidably mounted in said frame and movable longitudinally of said spindle, and cam means moving with said spindle and engaging said detents to move one of the latter out of operative engagement with the switch piece while maintaining the other in position to halt the switch piece upon the partial rotation of the spindle in either direction.

4. In an electric switch, the combination of a switch spindle and a switch piece mounted thereon having arcuate detent engaging shoulders, a switch operating spring, a pair of detents movable longitudinally of the spindle and spaced apart to embrace one of said arcuate shoulders in one position of the switch and to engage circumferentially adjacent faces of said shoulders in the other position of the switch, together with cam means on the spindle for moving one of said detents out of engaging position while maintaining the other in stop position on the partial rotation of the spindle in either direction.

5. In an electric switch, the combination of a switch spindle rotatable in either direction and a switch piece mounted thereon having a pair of stops on opposite sides of its axis, and a pair of detents, means for operating the same to successively engage first on opposite sides of one stop and then between circumferentially adjacent faces of both stops on successive positions of the switch piece.

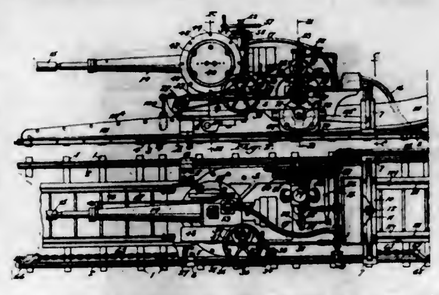
1,134,733. GEARING. GEORGE F. GEB, Franklin, Mass. Filed Jan. 9, 1913. Serial No. 740,989. (Cl. 74—41.)



1. In combination, a cup-shaper gear open at one end, the exterior thereof being cylindric and the interior being frusto-conical with the larger diameter at said open end, said gear having a circular series of tooth-receiving holes extending radially through its annular wall, and a spur-toothed gear arranged outside said cup-shaped gear so that its teeth coact with said holes in said cup-shaped gear, the axes of said gears being parallel.

2. A cup-shaped gear having an annular wall, the internal surface of which flares toward the open end, said annular wall having a circular series of holes extending radially therethrough to receive the teeth of a spur-toothed gear, said holes being separated from each other by bridge portions extending parallel to the axis of said wall and adapted to engage the teeth of such spur-toothed gear, said bridge portions tapering in cross-section toward the peripheral surface of said wall.

1,134,734. MINING-MACHINE. ARTHUR H. GIBSON, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 3, 1910. Serial No. 595,473. (Cl. 125—14.)



1. A track, a mining machine thereon, a conveyer located between the track rails and passing beneath the mining machine, means for connecting the conveyer to and disconnecting it from the mining machine and means for moving the mining machine back and forth along the track either with or without the conveyer.

2. A mining machine including a puncher, manually operated means for swinging the puncher into different vertical positions, means for holding the puncher yieldingly in such positions and means for locking said puncher swinging means against movement.

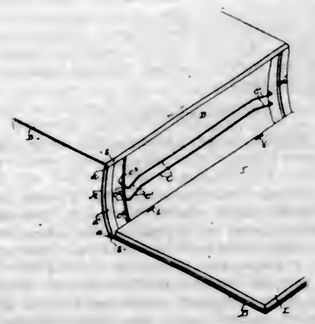
3. A mining machine including a puncher and manually operated means for swinging the puncher vertically comprising a worm gear carried by the puncher, a yielding worm meshing with said gear, a worm shaft and means for locking the shaft against movement.

4. A mining machine including a support, trunnions rotatably mounted in said support, each trunnion having a series of holes along the same, a puncher having a series of holes along its sides in register with the holes in the trunnions and bolts entering certain of said holes for locking the puncher to its trunnions in different longitudinal adjustments.

5. A track and a mining machine arranged to travel along the same comprising a platform having two front feet resting on the track and a yoke secured to the rear of the platform, said yoke having two feet resting on the track and side braces leading from the sides of the yoke to the platform for holding the yoke in a longitudinal direction.

[Claims 6 to 9 not printed in the Gazette.]

1,134,735. TEMPORARY BINDER. JOHN E. GILMER, Philadelphia, Pa. Filed Oct. 14, 1912. Serial No. 725,715. (Cl. 129—1.)

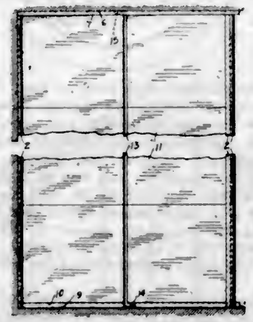


1. The combination, in a temporary binder, of a back; sides having hinged connections with the back; said back being made of a sheet of metal or other suitable material and having inturned flanges at its edges extending parallel with the hinge joint; a plate confined by said flanges; said plate being sprung into position whereby it is rigidly held to the back; and means for securing a magazine or other periodical to said holding plate.

2. The combination in a temporary binder, of a back; sides having hinged connections with the back; said back having an overhanging portion at each edge; a metallic plate arranged to engage the overhanging portion of the back and having rearwardly extending flanges at each end, which reinforce the plate; and wires, having hooked ends, engaging the flanges of the plate, said wires passing through the back of a magazine or other periodical.

3. The combination, in a temporary binder, of a metallic back having an inturned flange at each edge; a metallic plate of such a width as to be confined by the flanges of the back when sprung into position and to be held rigidly to the back; said plate having a flange at each end; with wires having hooked ends engaging the plate; said wires being bent adjacent their outer ends to cause the hooked portions to be drawn together when the magazine section is pulled away from the back.

1,134,736. FIREPROOF PARTITION. ISAAC E. GLEASON, Minneapolis, Minn., assignor of one-half to Fred W. Farrington, Minneapolis, Minn. Filed Apr. 25, 1911. Serial No. 623,304. (Cl. 72—46.)



1. A fire-proof partition comprising upright sheet metal studs having vertical grooves formed therein, a ceiling plate, channel-shaped in cross section, between said studs, a floor plate having a central, longitudinal rib and flanges on each side thereof, partition plates fitting within the grooves in said studs and the channel in said ceiling plate and resting upon the rib of said floor plate, angle bar studs provided at any suitable point between the upright studs and having their ends turned at right angles to their middle portion and secured respectively to the flanges of said floor plate upon opposite sides of the partition plates and to said ceiling plate, and means connecting the upper ends of said angle bar studs with one another across said ceiling plate.

2. A fire-proof partition comprising upright sheet metal studs having vertical grooves formed therein, a ceiling plate, channel-shaped in cross section, between said studs, a floor plate having a central longitudinal rib and flanges on each side thereof, partition plates fitting within the grooves in said studs and the channel in said ceiling plate and resting upon the rib of said floor plate, angle bar studs provided at any suitable point between the upright studs and having their ends turned at right angles to their middle portion and secured respectively to the flanges of said floor plate upon opposite sides of the partition plates and to said ceiling plate.

1,134,737. RAIL TIE AND FASTENER. WILLIAM ADAMS GUPTILL, Maidstone, Vt. Filed Aug. 1, 1914. Serial No. 854,486. (Cl. 238—4.)



1. A device of the class described including a cross tie of an inverted U-shape in cross section, a block disposed within the tie at each end thereof and secured thereto, a brace disposed on the cross tie and adapted to engage the outer side of a track rail, means for securing said brace to the tie, a clamp disposed in an opening provided in the tie and block on the opposite side of the rail from said brace, a binding wedge adapted to be disposed in said opening against the clamp, a binding plate adapted to be engaged over the clamp, the ends of the plate adapted to engage the base flange of the rail and the binding wedge respectively, and a locking wedge, adapted to engage said clamp and binding plate for locking the parts in position.

2. A device of the class described including a cross tie, a block secured thereto, a brace disposed on the tie and adapted to engage a track rail, said brace at its engaging ends being cup shape, a boss depending from the brace and adapted to extend through an opening in the tie, said block provided with a groove underlying the opening in the tie, said tie opening having oppositely disposed extensions alining with the groove, said brace provided with a transverse slot therein, bolts disposed in said slot and provided with headed ends, said headed ends adapted to be disposed in said groove in engagement with the tie adjacent the extensions of the opening in said tie, said bolts extending through said brace, a locking plate through which said bolts are adapted to be extended, said locking plate adapted to maintain said bolts in engagement with the tie.

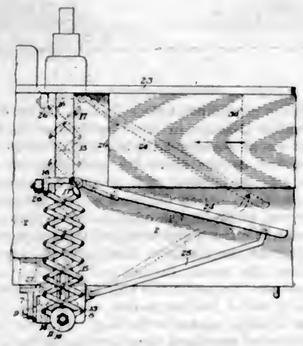
3. A device of the class described including a cross tie, a block secured thereto, a brace secured to the tie and adapted to engage one side of the track rail, said tie and block provided with an opening on the opposite side of the rail from the brace, said opening adjacent the rail having a vertical wall, and having an inclined wall opposite said vertical wall, a clamp disposed in said opening against the vertical wall, a binding wedge disposed in the opening in engagement with the clamp and with the inclined wall of the opening, said clamp provided with a hook portion adapted to overhang the base flange of the rail, a binding plate adapted to be engaged over said clamp with its ends overhanging the base flange and the binding wedge, and a locking wedge adapted to be engaged between said binding plate and hooked portion of the clamp whereby to lock said binding plate against said rail flange and against said wedge.

4. A device of the class described comprising a tie having a block secured thereto, a brace secured to the tie and adapted to engage one side of a track rail, a clamp disposed in an opening in the tie and block positioned on the opposite side of the rail from said brace, means for maintaining said clamp in position, a binding plate, and means adapted to engage said clamp and binding plate for locking the latter against the rail and against the clamp retaining means.

5. A device of the class described including a cross tie, a clamp disposed in an opening therein and having a hook at its upper end, a binding plate, means for engaging said hook and binding plate whereby to force the latter into locking position against the track rail, and a binding wedge for retaining said clamp in position, said wedge having a vertical edge disposed against said clamp, and having an inclined edge, adapted to co-uct with an inclined edge of the opening in the tie, for wedging said clamp in position, said wedge having a head formed on its upper end, said binding plate adapted to engage against said wedge to maintain the latter in position.

[Claims 6 to 9 not printed in the Gazette.]

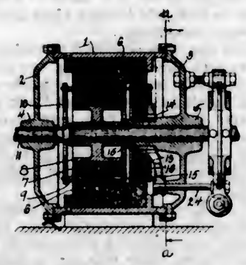
1,134,738. GUARD FOR WOODWORKING-MACHINES. LEROY J. HALVERSTADT, Leetonia, Ohio, assignor to The Crescent Machine Company, Leetonia, Ohio, a Corporation of Ohio. Filed Dec. 20, 1913. Serial No. 807,887. (Cl. 144—251.)



1. A knife guard for wood working machines, comprising a set of lazy tongs, a carriage connected to one end of the lazy tongs, a suport for the other end of the lazy tongs comprising a casing having two movable members, pivotal connections between the lazy tongs and said casing members, a spring in said casing for moving the casing members to extend the lazy tongs, and a cam plate connected to the carriage and arranged to be engaged by the work piece to move the guard over the knife; substantially as described.

2. A jointer having a frame, a work supporting table mounted on said frame, a rotary cutter below said table and extending through an opening in the table, a knife guard comprising a set of lazy tongs arranged to be moved back and forth over the opening in the table, a carriage connected to the movable end of the lazy tongs, a roller connected to said carriage and arranged to engage the top of the table, a support for the other end of the lazy tongs comprising a casing having two movable members, pivotal connections between the lazy tongs and said casing members, and a spring in said casing for moving the casing members to extend the lazy tongs; substantially as described.

1,134,739. ELECTRIC-MOTOR BRAKE. ARTHUR E. HANDY, Brooklyn, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 23, 1912. Serial No. 711,032. (Cl. 172—120.)



1. An electric motor comprising an armature and field magnet, a brake for the motor armature, a rotary member concentric with the armature in the path of the magnetic flux of the said field magnet, and an operative connection between said member and the brake.

2. An electric motor comprising an armature and field magnet, a brake for the motor armature, a rotary member concentric with the armature in the path of the magnetic flux of the said field magnet, an operative connection between said member and brake, and means for limiting the movement of said member.

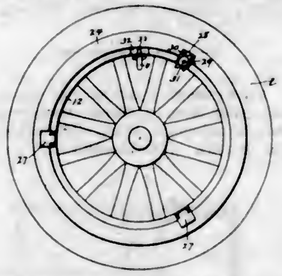
3. An electric motor comprising an armature and field magnet, a brake for the motor armature, a rotary member in the path of the magnetic flux of the said field magnet, an operative connection between said member and brake, and adjustable means for permitting a predetermined movement of said member.

4. An electric motor comprising a stator and a plurality of rotors, a brake for one of the rotors, and means controlled by another of the rotors for operating said brake.

5. An electric motor comprising a field magnet and armature, an armature shaft, a brake for the armature, a member adapted to rotate with respect to said shaft, and an opertive connection between said member and brake.

[Claims 6 to 12 not printed in the Gazette.]

1,134,740. DEMOUNTABLE WHEEL-RIM. PAUL D. HARROWER, Chelsea, Mass. Filed Sept. 15, 1914. Serial No. 861,777. (Cl. 152—21.)



1. The combination of a felly, a fixed rim having a flange at one edge adapted to prevent edgewise displacement in one direction of another rim mounted thereon, a demountable rim fitted to the fixed rim and having tire-confining flanges, a clamping ring confining the demountable rim on the fixed rim, and ring-securing means comprising fixed clips mounted on the felly and arranged to permit edge wise displacement of the clamping ring, and a removable clip detachably secured to the felly and cooperating with the fixed clips in securing the ring, said ring being removable edgewise when the removable clip is displaced.

2. The combination of a felly having an opening interrupting its continuity, a fixed rim thereon having an inwardly projecting reinforcing block occupying said opening and slotted to receive a tire valve, the slot being open at one side of the felly, a demountable rim fitted to the fixed rim and provided with a tire valve extending through said slot, a clamping ring bearing on one edge of the demountable rim and extending across the open end of said slot, and means for detachably securing said ring to the felly, the removal of the clamping ring permitting the removal of the demountable rim from the fixed rim, and the removal of the valve from the slot.

3. The combination of a felly having reinforcing blocks on one of its sides, a fixed rim wider than the felly and having a flange at one edge adapted to prevent edgewise displacement in one direction of another rim mounted thereon, the opposite edge of said fixed rim projecting over the outer ends said reinforcing blocks, a demountable rim fitted to the fixed rim and having tire-confining flanges, a clamping ring bearing on the outer faces of said reinforcing blocks and on one of the flanges of the demountable rim, and means for detachably securing said ring to the felly and reinforcing blocks.

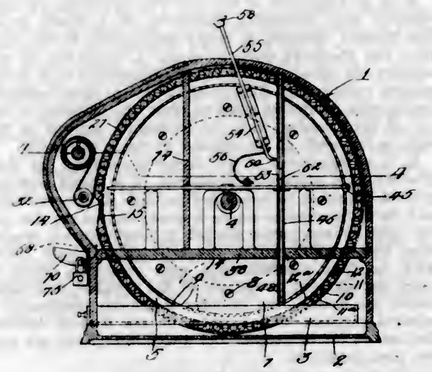
1,134,741. ARCHITECTURAL TERRA-COTTA CONSTRUCTION. ISAAC B. HILL, Plainfield, N. J. Filed July 7, 1914. Serial No. 849,436. (Cl. 72—19.)

1. A complex blank of terra cotta for architectural variformed terra cotta construction comprising a hollow block whose shell wall forms ornamental exterior facings and whose interior has longitudinal lugs uniting said facings, said lugs being provided respectively with lines of fracture whereby upon severance said blank is adapted to provide a plurality of facing plates, each having an ornamental facing at its front and a plurality of reëntrant angles on its rear.



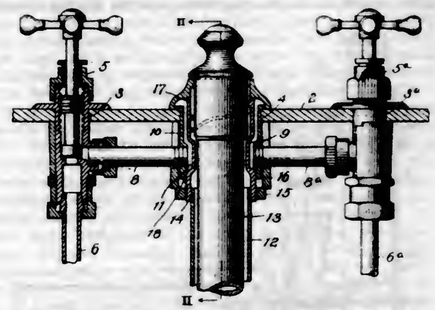
2. A complex blank of terra cotta for architectural variformed terra cotta construction, comprising a hollow block having opposite ornamental exterior facings, interior central lugs projecting from opposite side walls, oppositely inclined interior lugs disposed adjacent to diagonally opposite corners forming reëntrant angles, said blank being adapted on severance through said inclined lugs to form a plurality of terra cotta facing plates, each having two reëntrant recesses and a central stay on its rear.

1,134,742. CIGAR-VENDING MACHINE. ROBERT O. HOFFMAN, Pensacola, Fla., assignor of one-third to Alexander Lischkoff and one-third to Thos. E. Bird, Pensacola, Fla. Filed June 22, 1914. Serial No. 846,547. (Cl. 194—57.)



A coin controlled escapement device comprising in combination with a ratchet disk, spring tensioned means therefor, a spring tensioning lever having a tooth at each end, one of said teeth of the lever being normally in engagement with the teeth of the ratchet disk to hold the same against the action of the spring tensioned means, a coin chute, a supporting frame to which said lever is pivoted, a projection carried by the lever and extending laterally and partially transversely of the coin chute, said frame having guides, a reciprocating spring tensioned plunger in said guides and having its lower portion bent laterally, said plunger being arranged so that the lateral bent portion thereof assumes a position normally upon the exterior of the chute, said plunger adapted to be reciprocated causing the bent portion to extend into the chute to engage the coin to push the same past the nose of the projection of said lever, thereby permitting the teeth of the lever to intermittently coöperate with the teeth of the disk to allow the disk to make a partial revoluble movement under the action of the spring tensioned means.

1,134,743. LAVATORY-FITTING. WILLIAM W. JACKSON, Toronto, Ontario, Canada, assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed June 26, 1914. Serial No. 847,461. (Cl. 4—24.)



1. The combination of a basin with a horizontal flange having an opening therethrough, a valve stem casing extending vertically through said opening, an annular chamber surrounding said casing and extending through and below said basin flange opening, supply connections opening to said chamber beneath said flange, and a discharge spout leading from said chamber above the opening and into the basin.

2. The combination of a basin with a horizontal flange having an opening therethrough, a valve stem casing extending vertically through said opening, an annular chamber surrounding said casing and extending through and below said basin flange opening, supply connections opening to and at opposite sides of said chamber beneath said flange, and a discharge spout leading from said chamber above the opening and into the basin.

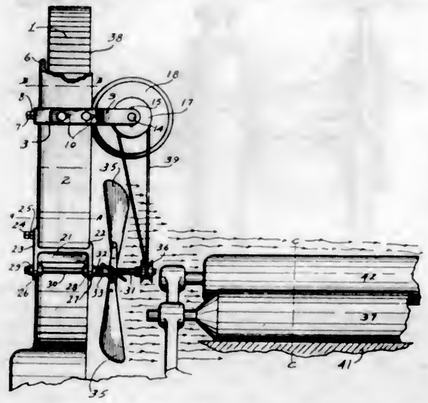
3. The combination of a basin with a horizontal flange having an opening therethrough, an annular fitting member extending vertically through said opening and comprising inner and outer cylindrical walls made of separate pieces and forming an annular chamber, said chamber extending through and below the basin flange-opening and communicating above said opening with a single discharge spout leading into the basin, supply connections opening into oppositely disposed sides of said chamber and adapted to discharge their contents against the inner wall thereof, a ring depending from said member and screw-threaded interiorly and exteriorly, a pipe attached to the interior threads of said ring and forming with the inner wall of said fitting member a valve stem casing, a locking nut engaging the outer threads of said ring, and a spacing sleeve between said nut and the lower surface of said flange.

4. The combination of a basin with a horizontal flange having an opening therethrough, an annular fitting member extending through said opening and comprising inner and outer walls made of separate pieces and forming an annular chamber, said chamber extending through and below the basin flange-opening and communicating above the opening with a discharge spout leading into the basin, supply connections opening into said annular chamber below the basin flange, and a valve stem extending through said opening and within the inner wall of said annular chamber.

1,134,744. COOLING AND AIR-CIRCULATING MEANS FOR PRINTING-PRESS INKING-ROLLS. JOSEPH F. JIROUSEK, Cleveland, Ohio, assignor of one-half to B. F. Corday, Cleveland, Ohio. Filed Aug. 10, 1914. Serial No. 855,996. (Cl. 101—71.)

1. In combination with a printing press having a frame and inking rolls which are arranged with a space between the frame and their ends adjacent said frame, a fan interposed between the frame and said roll ends and disposed in said space, means to connect the fan to the frame, and means to rotate the fan from a rotating part of the press.

2. In combination with a printing press having a frame and inking rolls which are arranged with a space between the frame and their ends adjacent said frame, a fan interposed between the frame and said roll ends and disposed in said space, means to adjustably connect the fan to said frame, means to drive the fan from a rotating part of the press, and means connecting the fan to the driving means.



3. In combination with a printing press having a frame and inking rolls which are arranged with a space between the frame and their ends adjacent said frame, a fan interposed between the frame and said roll ends and disposed in said space, means to rotate the fan, and means to adjustably mount the fan on the frame whereby the fan may be raised or lowered so as to regulate its sweep and bring the latter below the bottom roll to any desired extent.

4. In combination with the inking rolls of a printing press, a vertically adjustable fan arranged in close proximity to the inking rolls to force a current of air lengthwise of the rolls and completely around, over and under the peripheries thereof, a driving element engaged with a revolving part of the press so as to be rotated thereby, and a connection between the driving element and fan.

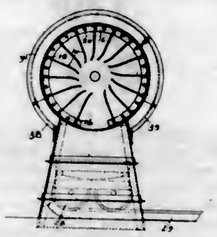
5. In combination with the inking rolls of a printing press, a fan arranged in close proximity to the inking rolls to force a current of air lengthwise of the rolls and completely around the peripheries thereof, a driving element engaged with a revolving part of the press so as to be rotated thereby, a belt connection between the fan and driving element, and means for vertically adjusting the fan whereby the relative distance between the fan and element may be adjusted so as to allow regulation of the tension on the belt connection and of the sweep of the fan to bring the latter below the bottom roll to any desired extent.

[Claims 6 to 8 not printed in the Gazette.]

1,134,745. APPARATUS FOR THE REDUCTION OF METALLIC OXIDS WITH HYDROGEN. EDWIN C. KAYSER, Cincinnati, Ohio, assignor, by mesne assignments, to The Hydrogenation Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 18, 1910. Serial No. 572,611. (Cl. 75—138.)

1. In an apparatus of the character described, the combination with supporting standards, of a closed seamless cylinder mounted to rotate horizontally therein, gas inlet and discharge pipes to supply a circulation of gas through the cylinder with the principal line of flow along the axis thereof, and numerous vanes secured in fixed position lengthwise the cylinder and projecting inwardly to a point relatively near the axial line of the cylinder, to form compartments with reëntering sides, and mouths at the principal point of flow of gas, for the purpose described.

2. In an apparatus of the character specified, the combination with supporting standards, of a closed seamless cylinder, provided with hollow trunnions mounted to rotate horizontally in the standards, gas inlet and discharge pipes connected with the hollow trunnions to supply a circulation of gas through the cylinder along the axial line thereof, and numerous vanes secured in fixed position lengthwise within the cylinder and projecting inwardly in radial planes to a point relatively near the axial line thereof to form compartments with reëntering sides and mouths at the principal point of flow of gas, for the purpose described.



3. In an apparatus of the character specified, the combination with supporting standards, of a closed seamless cylinder mounted to rotate horizontally therein, gas inlet and discharge pipes to supply a circulation of gas through the cylinder, and numerous vanes secured in fixed position lengthwise within the cylinder and extending inwardly in radial planes from the interior surface of the cylinder toward the center to leave a free open space around the axis of the cylinder, and to form compartments with reëntering sides and mouths at the principal point of flow of gas, for the purpose described.

4. In an apparatus of the character specified, the combination with supporting standards, of a closed seamless cylinder mounted to rotate horizontally therein, gas inlet and discharge pipes to supply a circulation of gas through the cylinder and a tubular framework with vanes secured radially and lengthwise thereto to form compartments with reëntering sides to carry the material to the top of the cylinder, with the framework secured at the ends to the heads of the cylinder to rotate therewith.

5. In an apparatus of the character specified, the combination with supporting standards, of a closed seamless cylinder mounted to rotate horizontally therein gas inlet and discharge pipes to supply a circulation of gas through the cylinder and vanes secured in fixed position lengthwise and radially within the cylinder to rotate therewith, to form compartments with reëntering sides to carry the material to the top of the cylinder, a portable heater for heating the cylinder lengthwise comprising a wheeled carriage with a series of gas burners thereon and means for connecting and disconnecting the gas supply pipe therefrom.

[Claim 6 not printed in the Gazette.]

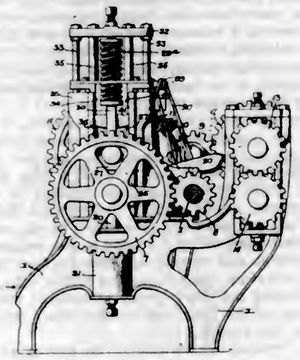
1,134,746. PROCESS FOR EFFECTING REDUCTION OF FATTY OR OTHER ORGANIC COMPOUNDS. EDWIN CUNO KAYSER, Beau Séjour, St. Brelade's Bay, Isle of Jersey, assignor, by mesne assignments, to The Hydrogenation Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 30, 1912. Serial No. 728,675. (Cl. 87—12.)

1. The process of hydrogenizing organic bodies, which consists in heating the same in presence of a metallic catalyzer, with due proportions of organic bodies capable of liberating hydrogen on contact with such catalyzer, under conditions to effect a transfer of hydrogen between said organic bodies.

2. The process of hydrogenizing unsaturated fatty-acid compounds in presence of a metallic catalyzer with an adequate amount of such other organic body as will be induced by said catalyzer to liberate hydrogen.

3. The process of hydrogenising unsaturated fatty-acid compounds, which consists in heating the fatty compounds in due proportion, and in presence of finely divided catalytic nickel, with a borneol.

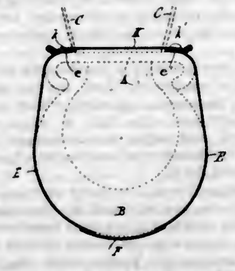
1,134,747. LEATHER-SPLITTING MACHINE. WILLIAM BOTTOMLEY KEIGHLEY, Vineland, N. J. Filed July 9, 1913. Serial No. 778,104. (Cl. 69—14.)



1. The combination of two sets of main feeding rolls; a knife mounted to partially split a flat piece of material presented to it by one pair of rolls; means for turning one of the layers of material formed through substantially 180 degrees before said material is engaged by the second pair of rolls; two pairs of conical feeding rolls adjacent the knife for moving the material between the two sets of main feeding rolls; and means for driving said conical rolls.

2. The combination of two sets of main feed rolls; a horizontal knife mounted adjacent said rolls in position to partially split a flat piece of material presented by one set of feed rolls; a vertical knife mounted to trim the edge of the material while it is being split by the first knife; means for turning one of the layers of material formed by the splitting through an angle of 180° so as to permit of the piece passing between the second set of the feed rolls; conical feed rolls for delivering the material to said second set of main feed rolls; and means for causing the main rolls of the first set to move through equal distances when they separate to permit the passage of the piece of material.

1,134,748. COVER FOR WHEEL-TIRES. VICTOR T. KELLAR, New York, N. Y., assignor to The Allen Auto Specialty Company, New York, N. Y., a Corporation of New York. Filed Feb. 9, 1914. Serial No. 817,627. (Cl. 150—54.)



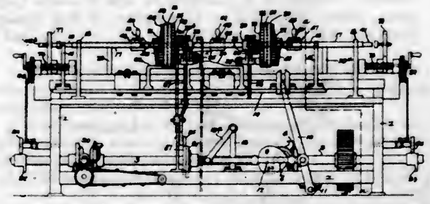
1. A tire cover for spare wheels comprising an annular trough-like casing with telescoped ends in adjusted position, said cover having a tread strip adapted to overlie the tire tread, side strips secured on both sides of the tread strip and adapted to embrace the sides of the tire, continuous marginal flanges attached to said side strips and extending the length of the cover and adapted to overlie the inner periphery of the wheel rim outside the spoke area, and means extending between the wheel spokes for drawing the free edges of said flanges into continuous and uninterrupted close engagement with the inner periphery of the wheel rim to exclude dirt and water from the tire.

2. A tire cover for spare wheels comprising an annular trough-like casing adapted to envelop the tread and sides of a wheel tire, the ends of the casing being telescoped in adjusted position, fastening means for securing said telescoped ends together, reëntrant marginal flaps on the inner peripheral edge of the opposite sides of said cover, and means passing between the spokes and spaced about the open inner periphery of the cover for drawing said marginal flaps in expanded position into close engagement with the wheel rim, substantially as described.

3. A tire cover for spare wheels comprising an annular trough-like casing adapted to envelop the tread and sides of a wheel tire, the ends of the casing being telescoped in adjusted position, fastening means for securing said telescoped ends together reëntrant marginal flaps on the inner peripheral edges of the opposite sides of said cover, and means passing between the spokes and spaced about the open inner periphery of the cover for drawing said marginal flaps in expanded position into close engagement with the wheel rim, together with resilient reinforced means in said flaps serving in the adjusted position of the cover to add pressure to the engagement between said flaps and the wheel rim, for the purpose described.

4. A tire cover for spare wheels comprising an annular, trough-like casing adapted to envelop the tread and sides of a wheel tire, the ends of the casing being telescoped in adjusted position, reëntrant marginal flaps on the inner peripheral edges of the opposite sides of the cover, and means secured to the outer faces of said marginal flaps and passing between the wheel spokes and spaced apart about the inner periphery of the cover and serving to draw the free edges of said marginal flaps into continuous close engagement with the inner periphery of the wheel rim.

1,134,749. KNITTING-MACHINE. GUSTAV A. LANDENBERGER, Philadelphia, Pa. Filed Nov. 16, 1912. Serial No. 731,820. (Cl. 66—12.)



1. A machine for knitting full fashioned stocking webs with selvage edges, including a series of needles; means for supplying the needles with yarn to be knitted into said webs; means for supplying reinforcing yarn to those needles which knit the selvage edges and the portions of the web adjacent thereto to form a heel reinforcement; and means for rendering said latter yarn-supplying means operative to feed the reinforcing warn to varying numbers of needles inwardly from the edge-producing needles during the knitting of successive courses to cause the inner ends of the courses of the heel reinforcement to define a line inclined to the wales and courses.

2. A machine for knitting full fashioned stocking webs with selvage edges, including a series of needles; a main yarn guide; means for moving said guide to supply yarn to the needles; a plurality of guides for supplying reinforcing yarn to the needles which knit the selvage edges and the portions of the web adjacent thereto near the ankle to form a heel reinforcement; and means for moving the reinforcing yarn guides different distances inwardly from the edge-producing needles in successive courses to cause the inner ends of the courses of the heel reinforcement to define a line inclined to the wales and courses.

3. A machine for knitting full fashioned stocking webs

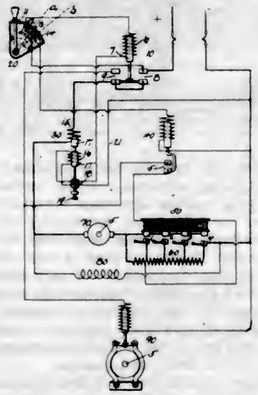
with selvage edges, including a series of needles; a main yarn guide; means for moving said guide to supply yarn to the needles; two guides for supplying reinforcing yarn to those of said needles which knit the selvage edges and portions adjacent thereto near the ankle to form a heel reinforcement; means for reciprocating the reinforcing yarn guides to also supply the reinforcing yarn to said latter needles; and means for stopping the reinforcing yarn guides at different points in successive courses to cause the inner ends of the courses of the heel reinforcement to define a line inclined to the wales and courses.

4. A machine for knitting full fashioned stocking webs with selvage edges, including a series of needles; a main yarn guide; means for moving said guide to supply yarn to the needles; two guides for supplying reinforcing yarn to those of said needles which knit the selvage edges and portions adjacent thereto near the ankle to form a heel reinforcement; means for reciprocating the reinforcing yarn guides to also supply the reinforcing yarn to said latter needles; and means for stopping the reinforcing yarn guides at points gradually increasing in distance inwardly from the selvage edges in successive courses to cause the inner ends of the courses of the heel reinforcement to define a line inclined to the wales and courses.

5. A machine for knitting full fashioned stocking webs with selvage edges, including a series of needles; a main yarn guide; means for moving said guide to supply yarn to the needles; two guides for supplying reinforcing yarn to those of said needles which knit the selvage edges and portions adjacent thereto near the ankle to form a heel reinforcement; means for reciprocating the reinforcing yarn guides to also supply the reinforcing yarn to said latter needles; and automatically operated graduated stops for arresting the reinforcing yarn guides on their inward movements to cause the inner ends of the courses of the heel reinforcement to define a line inclined to the wales and courses.

[Claims 6 to 12 not printed in the Gazette.]

1,134,750. OVERLOAD CIRCUIT-BREAKER. DAVID LARSON, Yonkers, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 14, 1911. Serial No. 654,651. (Cl. 175—294.)



1. The combination with a main line switch, an electromagnet for moving said switch to closed position, a relay having manually closed contacts in a circuit of said electromagnet, a magnet winding for said relay arranged to effect the operation of the same upon an overload, an additional magnet winding for the relay, normally short circuited by the relay contacts and adapted to assist in the operation of the relay upon the initial separation of the relay contacts, and a manual switch controlling a circuit through said additional magnet winding and the winding of the main line switch in series.

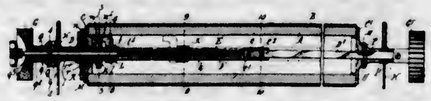
2. The combination with a main line switch, of an electromagnet for moving said switch to closed position, an overload relay having a low resistance winding in series with the main line switch contacts and a high resistance winding in series with the magnet winding of the said main line switch, a short circuit around said high resistance relay winding normally established by the relay contacts, and a hand switch controlling a circuit to the magnet winding of the main line switch in series with the contacts of the overload relay.

3. The combination with a main line switch, of an electromagnet for moving said switch to closed position, an overload relay having a low resistance winding in series with the main line switch contacts and a high resistance winding in series with the magnet winding of the said main line switch, a short circuit around said high resistance relay winding normally established by the relay contacts, a switch controlling a circuit to the magnet of the main line switch and thereby energize the low resistance winding of the relay, means operated by the relay upon an overload opening the short circuit around the high resistance winding of the relay and thereby effect the opening of the main line switch.

4. The combination with a main line switch, of an electromagnet for moving said switch to closed position, an overload relay having a series and shunt winding adapted to act cumulative, means operative upon an overload for placing said shunt winding and the magnet of the main line switch in series to effect the opening of the main line switch, and a hand switch controlling the circuit through the main line switch magnet.

5. The combination with a main line switch, of a magnet for closing said switch, an overload relay controlling the opening of said switch, a magnet winding associated with said relay adapted to be energized upon the operation of the latter to hold the same in operated position, and a controlling switch connecting said main line magnet and said relay holding magnet in series across the line.

1,134,751. PLATEN-OPERATING MECHANISM. EMMIT G. LATTA, Syracuse, N. Y., assignor to Harvey A. Moyer, Syracuse, N. Y. Filed Sept. 2, 1909. Serial No. 515,941. (Cl. 197—116.)



1. The combination with a paper carriage and a rotatable platen, of a platen shaft, means which turn the platen with the shaft when the shaft is turned and turn the platen about the shaft when the shaft is moved lengthwise, and means inclosed in the platen for resisting the lengthwise movement of the shaft, substantially as set forth.

2. The combination with a paper carriage and a rotatable platen, of a supporting shaft for the platen, connections between the platen and shaft which turn the platen about the shaft when the shaft is moved lengthwise in either direction, and spring means inclosed in the platen for resisting the lengthwise movement of the shaft, substantially as set forth.

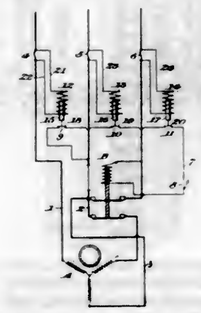
3. The combination with a paper carriage and a rotatable platen, of a supporting shaft for the platen consisting of sections, one of which is movable lengthwise, means operated by the lengthwise movement of said movable shaft section for turning the platen about the shaft, and a spring for resisting the outward movement of said movable shaft section, substantially as set forth.

4. The combination with a paper carriage and a rotatable platen, of a supporting shaft for the platen, connections between the platen and shaft which turn the platen about the shaft when the shaft is moved lengthwise in either direction, an adjustable stop for limiting the lengthwise movement of the shaft, and an adjusting handle for said stop located outside of the platen, substantially as set forth.

5. The combination with a paper carriage and a rotatable platen, of a supporting shaft for the platen consisting of sections, one of which is movable lengthwise, means operated by the lengthwise movement of said movable shaft section for turning the platen forwardly and backwardly about the shaft, an adjustable stop for limiting the lengthwise movement of said movable shaft section, and a spring for holding said movable shaft section in the normal position, substantially as set forth.

[Claims 6 to 28 not printed in the Gazette.]

1,134,752. MOTOR-PROTECTING CIRCUIT-BREAKER. JOHN T. LEONARD, Wichita, Kans. Filed Mar. 20, 1913. Serial No. 755,689. (Cl. 175—294.)



1. In combination with a multi-phase circuit having a fuse in each of the wires thereof, an electro-magnetic switch of the underload break type positioned to open and close said circuit wires, a switch circuit connected with said electro-magnetic switch, and with the main circuit, and means connected between the switch circuit and supply circuit whereby when one of the fuses burns out, the switch circuit will be broken and the switch permitted to open, consequently opening the main circuit.

2. The combination with a multi-phase circuit having a fuse in each of the wires thereof, an electro-magnetic switch of the under load break type, positioned to open and close said circuit wires, a switch circuit connected with said electro-magnetic switch and with the main circuit, and mechanical means operated by a circuit connected with the main circuit to come into action when one of the fuses burns out, and break the switch circuit, thereby permitting the switch to open and consequently opening the main circuit.

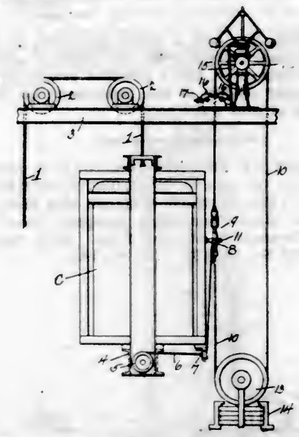
3. The combination with a multi-phase circuit having in each of the wires thereof an electro-magnetic switch of the under load break type positioned to open and close said circuit wires, a switch circuit connected with said electro-magnetic switch and with the main circuit, said switch circuit provided with a plurality of gaps and shunt circuits, around each of said fuses, mechanical means to normally close the gaps of said switch circuit, thereby holding the electro-magnetic switch normally in closed position, and means connected in the shunt circuit to be energized when one of the fuses burns out for opening one of the gaps in the switch circuit, thus permitting the switch to open and consequently opening the main circuit.

4. The combination with a multi-phase circuit having a fuse in each of the wires thereof, an electro-magnetic switch of the under load break type positioned to open and close said circuit, wires, a switch circuit connected with said electro-magnetic switch and with the main circuit, said switch circuit having a plurality of gaps, mechanical means to normally close said gaps whereby the connection through the switch circuit is completed, and the switch is held normally closed, a shunt circuit arranged around the fuse of each wire, a solenoid connected in each shunt circuit positioned to be removed, said mechanical means closing the gaps of the switch circuit when one of the fuses burns out, thus breaking the switch circuit and consequently opening the switch, and mechanical means to hold said gap-closing mechanism in its open position.

5. A controlling means for poly-phase motors comprising a fuse connected in each of the motor leads, a coil connected in shunt with each of said fuses, a switch controlled by each coil, a switch controlling the circuit through all of the motor leads, a normally energized coil connected to the supply circuit for the motor, and means for releasing and opening said last-named switch on de-energization of said normally energized coil, the connection for said coil including the aforesaid switches controlled by coils in shunt with the respective fuses.

[Claim 6 not printed in the Gazette.]

1,134,753. APPLIANCE FOR ELEVATOR SAFETY DEVICES. DAVID L. LINDQUIST, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 23, 1911. Serial No. 661,931. (Cl. 187—91.)



1. The combination with an elevator safety device, of a governor cable, a safety actuating cable, and a yielding connection therebetween.

2. The combination with an elevator safety device, of a governor cable, a safety actuating cable, and an adjustable yielding connection therebetween.

3. The combination with an elevator safety device, of a governor cable, a hitch yieldingly secured upon said cable, and a safety actuating cable fastened at one end to said hitch.

4. The combination with an elevator safety device, of gripping jaws adapted to engage the guide rails, a drum arranged to effect the operation of said jaws, a cable wound about said drum, means for effecting a pull on said cable, and a yielding connection between said cable and means.

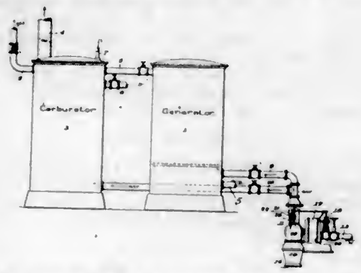
5. In an elevator, the combination of a car, a safety device carried upon the car, an actuating cable associated with said safety device, a governor cable connected to said actuating cable, and means for permitting a relative motion between said cables.

[Claims 6 to 15 not printed in the Gazette.]

1,134,754. MEANS FOR CONTROLLING THE AIR-SUPPLY TO WATER-GAS GENERATORS. LOUIS C. LOEWENSTEIN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 30, 1913. Serial No. 792,611. (Cl. 48—87.)

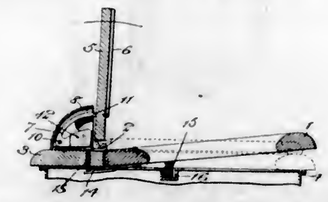
1. The combination with a water gas plant, of a compressor for supplying air thereto, a regulator for the compressor, and means responsive to the volume of air entering the suction side of the compressor for controlling the regulator.

2. The combination with a water gas plant of a centrifugal compressor for supplying air thereto, a motor for driving the compressor, and means controlled by the volume of air entering the suction side of the compressor for regulating the motor whereby a constant weight of air is delivered by the compressor.



3. The combination with a water gas plant, of a centrifugal compressor for supplying air thereto, a motor for driving said compressor, and a constant volume governor in the air supply conduit of said compressor for controlling the speed of said motor.

1,134,755. DEVICE FOR AUTOMATICALLY CLOSING THE COVER OF SEATS OF CLOSETS, COMMODES, AND THE LIKE. MOSES M. MARCUSE, New York, N. Y., assignor to West Disinfecting Company, New York, N. Y., a Corporation of New York. Filed Sept. 12, 1913. Serial No. 789,467. (Cl. 4—18.)



1. A device of the character described comprising a back member, a seat hinged thereto, a cover for said seat hinged to the back member, and a weighted push lever controlled by the upward movement of the seat and adapted to engage the cover for closing it.

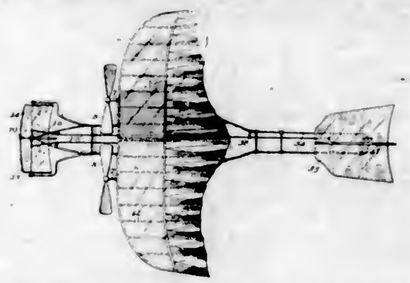
2. A device of the character described comprising a back member, a seat hinged thereto, a cover for said seat hinged to the back member, and means controlled by the upward movement of the seat for closing the cover, said means comprising a weighted push lever adapted to engage said cover and an arm carried by said seat for engaging said lever.

3. A device of the character described comprising a back member, a seat hinged thereto, a cover for said seat hinged to the back member, and means controlled by the upward movement of the seat for closing the cover, said means comprising a weighted push lever adapted to engage said cover, an arm carried by said seat and a plunger interposed between said lever and arm.

4. A device of the character described comprising a back member, a seat hinged thereto, means for holding the seat in a lifted position, a hinged cover for said seat, and means controlled by the upward movement of the seat for closing the cover, said means comprising a weighted push lever adapted to engage said cover, an arm carried by said seat and a plunger interposed between said lever and arm.

5. A device of the character described comprising a movable seat, a cover for closing and depressing the seat, said cover being fitted to open rearwardly past center, a stop for the cover, means for normally lifting the seat when the cover is open, and means controlled by the upward movement of the seat for throwing the cover forwardly past center to permit it to drop by gravity onto said seat, said means comprising a weighted push lever housed in said stop and adapted to engage said cover, an arm carried by the seat and a plunger interposed between said lever and arm.

1,134,756. HEAVIER-THAN-AIR FLYING-MACHINE. CHARLES B. NICHOLS, Washington, D. C., assignor, by direct and mesne assignments, to The Nichols Aeroplane Company, a Corporation of Arizona. Filed Sept. 25, 1909. Serial No. 519,592. (Cl. 244—14.)



1. In a flying machine, the combination with an aeroplane, a horizontal front rudder, a slidably mounted tail, and means for operatively connecting said front rudder with said tail.

2. In a flying machine, the combination of a horizontal front rudder, a tail, a curved frame upon which the tail is slidably mounted, means operatively connecting said horizontal rudder with said tail in such manner as to slide said tail upon the curved frame when said front rudder is operated.

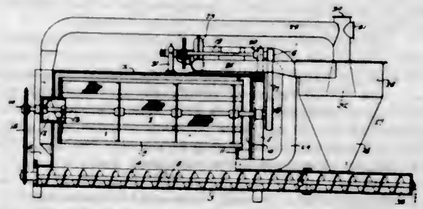
3. In a flying machine, the combination with a pivoted aeroplane, a front rudder, a rear horizontal tail, operative means connecting said pivoted aeroplane, said horizontal rudder and said tail in such manner that they all may be adjusted simultaneously.

4. In a flying machine, the combination of a framework, an aeroplane pivoted to said frame-work, a front horizontal rudder, a rear horizontal tail, and means operatively connecting the aeroplane, the horizontal rudder and the tail in such manner that they may all be adjusted simultaneously.

5. In a flying machine, the combination with a framework, an aeroplane pivoted to said frame-work, a horizontal rudder, a tail, operative means connecting said rudder and said tail, and means connecting said aeroplane with the operative means in such manner that the horizontal rudder, the aeroplane and the tail may be simultaneously adjusted to different angles of incidence.

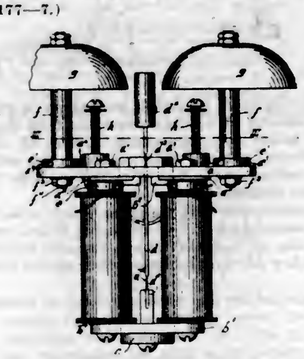
[Claims 6 to 14 not printed in the Gazette.]

1,134,757. APPARATUS FOR AERATING FLOUR. WILLIAM M. NISSLEY, Philadelphia, Pa. Filed Oct. 7, 1913. Serial No. 793,863. (Cl. 83—42.)



A flour aerating machine including a casing; a conveyer for removing flour from the bottom thereof; a reel in said casing; a fan having its intake connected to the lower part of one end of the casing; a separator connected to the outlet of said fan and discharging solid material into the conveyer; with an air conduit connecting the separator directly to the lower part of the second end of the casing.

1,134,758. ELECTROMAGNETIC SIGNALING APPARATUS. CHARLES H. NORTH, Cleveland, Ohio, assignor to The North Electric Company, Galion, Ohio, a Corporation of Ohio. Filed Feb. 9, 1907. Serial No. 356,567. (Cl. 177—7.)



1. In an electro-magnetic signaling device, the combination with an electro-magnet, of an armature positioned between and substantially parallel with the cores thereof, a polarizing magnet closing its circuit partially through said armature, and adjustable pole-pieces upon the electro-magnet between which said armature is adapted to vibrate, substantially as set forth.

2. In an electro-magnetic signaling device, the combination with an electro-magnet of a magnetic reed rigidly secured at its lower end between the cores thereof and in substantially the same plane, a polarizing magnet closing its circuit partially through said reed, and pole-pieces upon the electro-magnet between which said reed is adapted to vibrate, substantially as set forth.

3. In an electro-magnetic signaling device, the combination with a vibrating armature, of a polarizing magnet positioned substantially parallel therewith having extended inclosing poles, and partially closing its circuit through said armature, and an electro-magnet influencing the armature to vibrate when traversed by alternating currents, substantially as set forth.

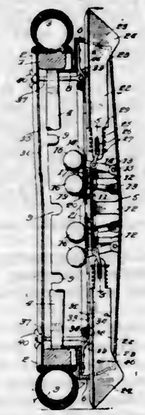
4. In an electro-magnetic signaling appliance, the combination with an electro-magnet, of an armature mounted to vibrate between the poles thereof and a U-shaped polarizing magnet positioned partially to inclose the armature and having its poles substantially bridged thereby, and means carried by the armature for effecting a signal, substantially as set forth.

5. In a device of the class described, the combination with an electro-magnet, of adjustable pole-pieces thereon, guides therefor, an eccentric-adjustment for said pole-pieces, a vibrating armature toward and from which said pole-pieces are adapted to be adjusted by said eccentric-adjustment, and a polarizing magnet having extended inclosing poles; said polarizing magnet being positioned substantially parallel with the armature, substantially as set forth.

[Claims 6 to 28 not printed in the Gazette.]

1,134,759. ATTACHMENT FOR AUTOMOBILES. FRANK RUDOLPH NYBERG, Lamar, Colo., assignor of one-half to George J. Garvin, Lamar, Colo. Filed Aug. 11, 1914. Serial No. 856,231. (Cl. 21—208.)

1. An attachment of the character specified, comprising a substantially cylindrical housing, dogs mounted for radial movement in the housing, said housing having openings in its periphery to permit the dogs to be extended, means for limiting the movement of the dogs in both directions, levers pivoted to the housing and extending inwardly, a lever being provided for each dog and the levers being arranged in annular series concentric with the housing, each lever having its outer end weighted, a lost motion connection between each lever and the adjacent dog, a spring arranged between the dog and the lever and normally holding the lever at the inner end of the connection, said housing having means for limiting the inward swinging movement of the levers, a spring normally pressing each lever inward, means for varying the tension of each of the last-named springs, and means for connecting the housing to a wheel, said means comprising a laterally extending annular rib on that face of the housing adjacent to the weighted ends of the levers, said rib being adapted to fit the rim of the wheel and having notches at the edge remote from the housing for receiving the spokes, a sectional ring adapted to fit the opposite face of the wheel from the housing, the sections being detachable to permit the ring to be placed over the axle, means for connecting the sections, and eye bolts pivoted to the housing and adapted to extend transversely of the wheel between the spokes, the ring having its inner edge provided with bayonet slots for receiving the eye bolts, and nuts threaded on to the bolts.



2. An attachment of the character specified, comprising a substantially cylindrical housing, dogs mounted for radial movement in the housing, said housing having openings in its periphery to permit the dogs to be extended, means for limiting the movement of the dogs in both directions, levers pivoted to the housing and extending inwardly, a lever being provided for each dog and the levers being arranged in annular series concentric with the housing, each lever having its outer end weighted, a lost motion connection between each lever and the adjacent dog, a spring arranged between the dog and the lever and normally holding the lever at the inner end of the connection, said housing having means for limiting the inward swinging movement of the levers, a spring normally pressing each lever inward, means for varying the tension of each of the last-named springs, and means for connecting the housing to a wheel.

3. An attachment of the character specified, comprising a housing of approximately cylindrical form, dogs movable radially of the housing, said housing having openings in its peripheral surface for permitting the ends of the dogs to be extended beyond the housing, means for limiting the movement of the dogs in both directions, a lever for each dog, said levers being arranged in an annular series concentric with the housing, each lever being pivoted to the housing and having a weight at its free end, resilient means normally pressing each lever inwardly, means for varying the tension of each of the said means, a connection between each lever and the adjacent dog for

moving the said dog when the lever is moved, means for limiting the inward movement of the levers, and means for detachably connecting the housing to a wheel, the connection between each lever and the adjacent dog being a lost motion connection, and a spring arranged between the dog and the lever for permitting the dog to move inwardly with respect to the lever but normally holding the dog in outward position.

4. An attachment of the character specified, comprising a housing of approximately cylindrical form, dogs movable radially of the housing, said housing having openings in its peripheral surface for permitting the ends of the dogs to be extended beyond the housing, means for limiting the movement of the dogs in both directions, a lever for each dog, said levers being arranged in an annular series concentric with the housing, each lever being pivoted to the housing and having a weight at its free end, resilient means normally pressing each lever inwardly, means for varying the tension of each of the said means, a connection between each lever and the adjacent dog for moving the said dog when the lever is moved, means for limiting the inward movement of the levers, and means for detachably connecting the housing to a wheel.

5. An attachment of the character specified, comprising a housing of approximately cylindrical form, dogs movable radially of the housing, said housing having openings in its peripheral surface for permitting the ends of the dogs to be extended beyond the housing, a lever for each dog, said levers being arranged in an annular series concentric with the housing, each lever being pivoted to the housing, and having a weight at its free end, resilient means normally pressing each lever inwardly, means for varying the tension of each of the said means, a connection between each lever and the adjacent dog for moving the said dog when the lever is moved, means for limiting the inward movement of the levers, and means for detachably connecting the housing to a wheel.

[Claims 6 to 10 not printed in the Gazette.]

1,134,760. METHOD OF CONVERTING MEADOW OR SWAMP LAND INTO FERTILIZER. BRUNO REICHELT, Newark, N. J. Filed May 2, 1913. Serial No. 765,049. (Cl. 71—6.)

1. The herein described method of converting meadow or swamp land material containing potash into fertilizer which consists in heating the same to dry it and to drive off the potash therefrom, then grinding the dried material and finally re-mixing the potash with the ground material.

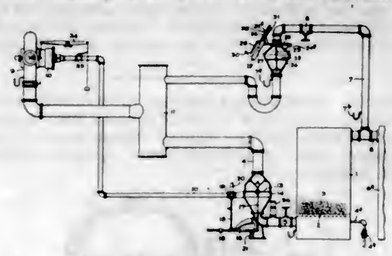
2. The herein described method which consists in converting meadow or swamp land containing potash into fertilizer by cutting the same and subjecting it to the indirect action of heat to dry it and to drive off the potash therefrom, then grinding the material and finally re-mixing with the ground material the potash previously driven off.

3. The herein described method which consists in converting meadow or swamp land containing potash into fertilizer which consists in heating the same to drive off the potash, collecting the material thus driven off to use as a fertilizer and mixing the potash previously drawn off with the body of the material from which said potash has been drawn.

4. The herein described method of converting meadow or swamp land containing potash into fertilizer, which consists in cutting the land into strips, placing said strips into a furnace out of the path of the flames thereof, and driving off the potash contained therein, then grinding said material and finally remixing the same with the potash previously driven off.

1,134,761. AUTOMATIC GOVERNING MECHANISM. RICHARD H. RICE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 10, 1914. Serial No. 817,810. (Cl. 48—87.)

1. In an automatic governing mechanism, a source of supply, a plurality of conduits conveying fluid therefrom, a constant volume governor in one of said conduits and a variable volume governor in another of said conduits.



2. In an automatic governing mechanism, a source of supply, a plurality of conduits conveying fluid therefrom, automatic means for maintaining a flow of constant volume through some of said conduits, and automatic means for maintaining a flow of variable volume through other of said conduits.

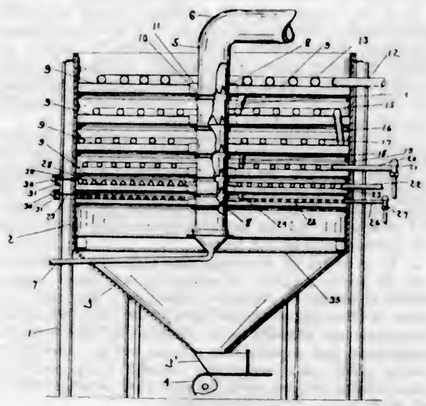
3. The combination with the primary and secondary air pipes of a water gas plant, of automatic means for maintaining a flow of constant volume through the primary pipe and a flow of variable volume through the secondary pipe.

4. The combination in a water gas plant, of primary and secondary air pipes, a variable volume governor in the secondary air pipe, an air compressor supplying air to both pipes, means for driving the compressor, and means for controlling the compressor whereby the same delivers constant volume through the primary air pipe.

5. The combination in a water gas plant, of primary and secondary air pipes, a turbine driven air compressor for supplying air, a volume governor for each of said air pipes, a main supplying steam to the turbine, and a throttle valve for the turbine controlled by the primary air governor.

[Claims 6 to 12 not printed in the Gazette.]

1,134,762. SAND-DRIER. JOHN C. SCHAFFER, Toledo, Ohio. Filed Apr. 29, 1912. Serial No. 693,783. (Cl. 34—34.)



1. A drier receptacle, heating coils therein, supporting means for the coils, coil spacing means engaging the coils, and an actuator for said spacing means vibrating said coils relatively to the supporting means.

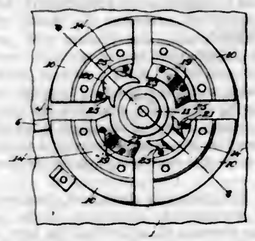
2. A drier provided with a plurality of superposed heating coils, and downwardly opening vents supporting the coils, said vents being spaced from the coil below to provide a space between the vent opening and the next lower coil for material being dried, thereby providing a free flow passage for the moisture arising from the material above the coil to enter the vent opening and be conducted away therethrough.

3. A cylindrical drier receptacle, converging downwardly opening vents therein, and a central downwardly discharging condensation duct to which said vents connect.

4. A cylindrical drier receptacle having therein an axial vent discharging upward and outward therefrom, and a condensation duct leading downward from said axial upwardly discharging vent.

5. A cylindrical drier receptacle, an axial main vent therein, radiating downwardly opening vents connected to said axial vent, and heating coils supported by said vents.

1,134,763. GLASS-SHEARING APPARATUS. CHARLES M. SCHAUB, Wheeling, W. Va., assignor to Central Glass Works, Wheeling, W. Va., a Corporation of West Virginia. Filed May 8, 1914. Serial No. 837,202. (Cl. 49—14.)



1. The combination with a chuck having two pairs of movable jaws, of a stationary ware-centering head occupying a central position with respect to said jaws, cutting blades carried by said jaws in oppositely disposed pairs, said blades and the under side of said head being correspondingly shaped and adapted to coöperate for shearing surplus metal from an interposed hollow glass article, the blades of one of said pairs having their edges advanced inward beyond those of the other pair and having their ends recessed to receive the ends of the other pair.

2. The combination with a chuck having two pairs of movable jaws, of a stationary ware-centering head occupying a central position with respect to said jaws, cutting blades having arcuately curved edges carried by said jaws in oppositely disposed pairs, said blades and the under side of said head being correspondingly shaped and adapted to coöperate for shearing surplus metal from an interposed hollow glass article, the blades of one pair having their edges advanced ahead of the edges of the other pair and describing an arc of more than 90°.

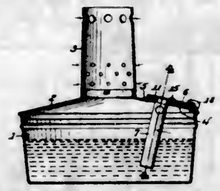
3. The combination with a chuck having two pairs of movable jaws, of a stationary ware-centering head occupying a central position with respect to said jaws, cutting blades having arcuately curved edges carried by said jaws in oppositely disposed pairs, said blades and the under side of said head being correspondingly shaped and adapted to coöperate for shearing surplus metal from an interposed hollow glass article, the blades of one pair having their edges advanced ahead of the edges of the other pair and describing an arc of more than 90°, the ends of the blades of said one pair being recessed to receive the ends of the blades of the other pair.

4. The combination with a chuck having two pairs of movable jaws, of a stationary ware-centering head occupying a central position with respect to said jaws, cutting blades having arcuately curved edges carried by said jaws in oppositely disposed pairs, said blades and the under side of said head being correspondingly shaped and adapted to coöperate for shearing surplus metal from an interposed hollow glass article, the blades of one pair having their edges advanced ahead of the edges of the other pair and describing an arc of more than 90°, and means for opening and closing said jaws.

5. The combination with a chuck having two pairs of movable jaws, of a stationary ware-centering head occupying a central position with respect to said jaws, cutting blades having arcuately curved edges carried by said jaws in oppositely disposed pairs, said blades and the under side of said head being correspondingly shaped and adapted to coöperate for shearing surplus metal from an interposed hollow glass article, the blades of one pair having their edges advanced ahead of the edges of the other pair and describing an arc of more than 90°, means for opening and closing said jaws, and means for gaging the article with respect to said blades.

[Claim 6 not printed in the Gazette.]

1,134,764. DRAFT-REGULATOR FOR ORCHARD-HEATERS. WILLIAM C. SCHEU, Grand Junction, Colo., assignor to Hamilton Orchard Heater Company, Wheeling W. Va., a Corporation of West Virginia. Filed Apr. 10, 1914. Serial No. 830,941. (Cl. 158—91.)



1. In an orchard heater, the combination with a fuel container, of a cover for said container, a plurality of tubes projected through said cover and depending within said container, and a disk mounted to rotate over said tubes, said disk having therein a plurality of apertures which are so located that one or more of said tubes may be opened for the admission of air therethrough, one of said apertures differing in size from the others.

2. In an orchard heater, the combination with a fuel container, of a cover for said container, two tubes projected through said cover and depending within said container, a disk mounted to rotate over said tubes, said disk having an aperture therein which is adapted upon rotation of said disk to assume registering relation with either of said tubes, and said disk having two relatively smaller apertures therein which are spaced from the first mentioned aperture and from each other so that either the large and a small aperture may simultaneously register with the two tubes or the two smaller apertures may simultaneously register with said tubes.

3. In an orchard heater, the combination with a fuel container, of a cover for said container, a draft tube and a blast tube projected through said cover and depending within said container, a disk mounted to rotate over said tubes, said disk having a large aperture and two smaller apertures therein, said apertures having their centers disposed at points substantially equidistant from the center of said disk, and adjacent apertures having their centers separated from each other a distance substantially equal to that between the axes of said tubes.

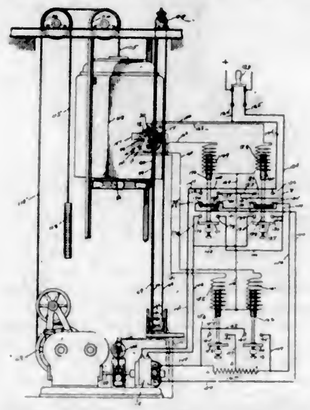
4. In an orchard heater, the combination with a fuel container, of a cover for said container, an upwardly dished flat platform formed on said cover, a draft tube and a blast tube projected through said platform and depending within said container, a disk mounted to rotate over said tubes, said disk having a large aperture and two smaller apertures therein, each of said apertures being adapted to register with each of said tubes at points in the rotation of said disk, adjacent apertures having their centers separated a distance substantially corresponding to that separating the axes of said tubes, so that in one position of said disk both of the said tubes are closed, in another position the blast tube is opened to its full capacity while the draft tube is maintained closed, in another position the draft tube is opened to its full capacity and the blast tube is opened to a part only of its capacity, and in another position both tubes are opened to a part only of their respective capacities.

5. In an orchard heater, the combination with a fuel container of a cover for said container, an upwardly-dished flat platform formed in said cover, a circular plate mounted in embracing relation to said platform, a draft

tube and a blast tube projected through said plate and said platform and suspended from the former within said container, a disk mounted to rotate over said tubes, said disk having a large aperture and two smaller apertures therein, said apertures having their centers located at points substantially equidistant from the center of said disk, and adjacent apertures having their centers separated from each other a distance substantially corresponding to that separating the axes of said tubes.

[Claims 6 and 7 not printed in the Gazette.]

1,134,765. ELEVATOR SAFETY OR EMERGENCY APPLIANCE. CAMPBELL SCOTT and AUGUST SUNDH, Yonkers, N. Y., assignors to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 22, 1908. Serial No. 468,826. (Cl. 187—91.)



1. The combination with an elevator car, of an electric motor and circuit connections therefor, car brake mechanism, a governor rope operatively connected thereto, a stationary rope a car switch, and means for operatively connecting the governor rope to the stationary rope, from the car switch.

2. The combination with an elevator car, of an electric motor and circuit connections therefor, car brake mechanism secured to the car, a bracket on the car, a member releasably held by the bracket, a governor rope secured to the releasable member, a stationary rope, means for operatively connecting the stationary rope to the car brake mechanism, a car switch, and mechanism for operating the last named means from the car switch.

3. The combination with an elevator car, of an electric motor, circuit connections therefor, car brake mechanism secured to the car, a bracket on the car, a member releasably held by the bracket, a governor rope secured to the releasable member, a fixed rope, means associated with the releasable member for gripping the fixed rope, a car switch, and mechanism for operating the last named means from the car switch.

4. The combination with an elevator car, of an electric motor, circuit connections therefor, car brake mechanism secured to the car, a governor rope, a bracket on the car, a member to which the governor rope is attached releasably secured on the bracket, said member being formed with an opening, a fixed rope passed through said opening, means associated with said member for gripping the fixed rope, a car switch, and means associated with said switch for controlling the operation of the said gripping means.

5. The combination with an elevator car, of an electric motor, circuit connections therefor, car brake mechanism, a governor rope, a bracket on the car, a member to which the governor rope is attached releasably held by the bracket, another member slidable in the first named member, a fixed rope extending through openings in the two members, jaws disposed in the said members for gripping the fixed rope, a car switch, and means for effecting the operation of said gripping means from the car switch to apply the brake mechanism.

[Claims 6 to 17 not printed in the Gazette.]

1,134,766. BLANK-FORM BOOK. ALEXANDER M. SINCLAIR, New York, N. Y., assignor to Hooper V. V. Sinclair, New York, N. Y. Filed May 20, 1914. Serial No. 839,703. (Cl. 11—11.)



1. A pad of the character described comprising a pile of superposed successively separable sheets, a binding for said sheets, and a supplementary protective device which permits the removal of successive top sheets with the formation of a mere closed slot therein and prevents the withdrawal of intermediate sheets without causing a tear or slit which extends to the margin thereof, said protective device comprising a thread passing through said sheets, said thread having means for engaging the successive top sheets, and a oneway clutch underneath said pile through which said thread is passed and whereby a taut connection of said thread with the successive top sheets may be maintained.

2. A pad of the character described composed of a pile of superposed successively separable sheets having two holes extending through it, a binding for said sheets, and a supplementary protective device which comprises a cord secured at one end, passed upward through one of said holes, over the top of said pile between said holes and downward through the other hole, and a oneway clutch which engages the other end of said cord below said pile and permits the tightening of the loop formed by said cord after successive detachments of successive top sheets.

3. A pad of the character described comprising a pile of superposed successively separable sheets having holes extending through it, a binding for said sheets, and a supplementary protective device which comprises a loop of flexible material passed through said holes and having its closed end spanning the space between them in direct contact with the top sheet, and means for locking the ends of said loop, said means permitting the tightening of said loop after successive removals of the top sheets.

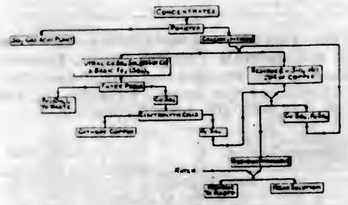
4. A pad of the character described comprising a pile of superposed successively separable sheets, a base provided with a recess and with a bore extending therefrom to the exterior, a thread passing through said sheets, through said recess and through said bore, said thread having means for engaging the successive top sheets, and means for holding said thread means in taut relation to said top sheets, said holding means including a oneway thread clutch disposed in said recess and engaging one end of said thread beneath said pile and operative to permit the tightening of said thread after detachments of successive top sheets.

5. A pad of the character described comprising a pile of superposed successively separable sheets having holes extending through it, a binding for said sheets, and a supplementary protective device composed of a cord passed twice through all the sheets and forming a loop exposed on the top sheet and free ends underneath said pile, oneway locking clutches on said free ends respectively, means for securing said clutches in place at the bottom of said pile, said clutches having limited longitudinal movement with the cord, and means for guiding said cord, the free ends of said cord extending to the exterior of the pad.

[Claim 6 not printed in the Gazette.]

1,134,767. METALLURGY OF COPPER. ELIAS A. C. SMITH, New York, N. Y. Filed Feb. 10, 1913. Serial No. 747,244. (Cl. 204—15.)

1. In the art of recovering copper from ore in which it is associated with iron, the method of procedure, which comprises the preliminary step of roasting the ore under such conditions as to convert the bulk of the iron present into ferric oxid, leaching the ore with acid whereupon the small quantity of ferric iron not converted into insoluble ferric oxid by the roasting operation goes into solution in the leaching acid, and then neutralizing the acid of the solution by means of a quantity of oxidized ore, thereby precipitating the ferric iron as a basic sulfate of iron and at the same time leaching out copper from the ore thus added to the solution; substantially as described.



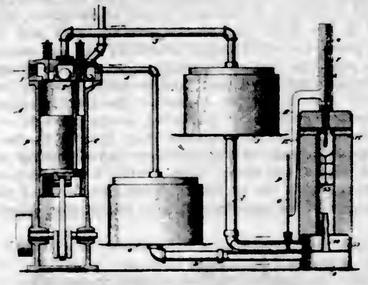
2. In the art of recovering copper from ore in which it is associated with iron, the method of procedure, which comprises the preliminary step of roasting the ore under such conditions as to convert the bulk of the iron present into ferric oxid, leaching the ore with acid whereupon the small quantity of ferric iron not converted into insoluble ferric oxid by the roasting operation goes into solution in the leaching acid, and then neutralizing the acid of the solution by means of a quantity of oxidized ore thereby precipitating the ferric iron as a basic sulfate of iron and at the same time leaching out copper from the ore thus added to the solution, and, after quick settling, promptly removing and filter-pressing the neutralized solution to remove from it the basic sulfate of iron suspended therein; substantially as described.

3. The method of recovering copper from sulfid ore in which it is associated with iron, which comprises roasting the ore under such conditions as to oxidize the copper and to produce ferric oxid, leaching a portion of the roasted ore with a dilute solution of sulfuric acid, thereby obtaining a copper solution low in iron, electrolyzing the solution thus obtained, thereby regenerating the acid in the spent electrolyte, leaching the said partially leached roasted ore with the spent electrolyte, thereby dissolving out the remainder of its copper and a small part of its iron, neutralizing the solution thus obtained by a fresh body of roasted ore, thereby precipitating the ferric iron of the solution as a basic sulfate of iron; quickly drawing off and filter-pressing the solution thus obtained, and electrolyzing it for the precipitation of its copper and the regeneration of its acid; substantially as described.

4. In the art of recovering copper from ores in which it is associated with iron, a cyclic operation which comprises electrolyzing a copper solution obtained from the ore, thereby regenerating the solution and making it acid leaching by means of said regenerated solution, a body of oxidized ore from which the major part of the copper has been removed thereby dissolving out of said partially leached ore the remainder of its copper and a small portion of its iron, neutralizing the free acid of the solution by means of a fresh batch of oxidized ore, thereby precipitating the ferric oxid as a basic sulfate of iron and dissolving out the major portion of the copper from the ore thus used for neutralization, withdrawing the solution thus obtained, filter-pressing it and completing the cycle by electrolyzing the clear solution thus obtained.

5. In the art of recovering copper from ore in which it is associated with iron, the method of maintaining current efficiency in the electrolysis of a solution obtained from lixiviation of the ore after previous roasting, which consists in avoiding the formation of ferrous iron during the latter part of the electrolysis by interrupting the electrolysis at a point where practically all of the iron present is in the form of ferric salts, and precipitating out the ferric salts by neutralizing the solution by means of a body of roasted ore; substantially as described.

1,134,768. METHOD IN THE CALORIMETRY OF GASEOUS FUELS. HARRY F. SMITH, Lexington, Ohio. Filed Feb. 5, 1910. Serial No. 542,279. (Cl. 73—184.)



1. A method in the calorimetry of gaseous fuels, consisting in burning in a combustion chamber which is at atmospheric pressure gaseous fuels to heat a gaseous heat absorbing agent, the gaseous fuel and gaseous heat absorbing agent being supplied at varying pressures at proportionate rates and under varying temperatures, so long as the gaseous fuel and heat absorbing agent are supplied at the same temperature and at the same pressure, and ascertaining the rise in temperature of the heat absorbing agent and the products of combustion.

2. A method in the calorimetry of gaseous fuels, consisting of burning gaseous fuel in and with air, the gaseous fuel and air being proportioned before delivery and supplied at varying pressures and varying temperatures at proportionate rates to the apparatus under the same conditions of pressure and temperature, and ascertaining the rise in temperature of the air and products of combustion.

3. A method in the calorimetry of gaseous fuels, consisting in burning gaseous fuel in and with air in a combustion chamber which is at atmospheric pressure, the gaseous fuel and air being proportioned before delivery and supplied at proportionate rates and under the same conditions of pressure and temperature, and ascertaining the rise in temperature of the air and products of combustion.

4. A method in the calorimetry of gaseous fuels, consisting in burning gaseous fuel in and with a gaseous heat absorbing agent in a combustion chamber which is at atmospheric pressure, the gaseous fuel and gaseous heat absorbing agent being supplied at varying pressure at proportionate rates and under varying temperature, so long as the gaseous fuel and heat absorbing agent are supplied at the same temperature and same pressure; and ascertaining the rise in temperature of the heat absorbing agent and the products of combustion.

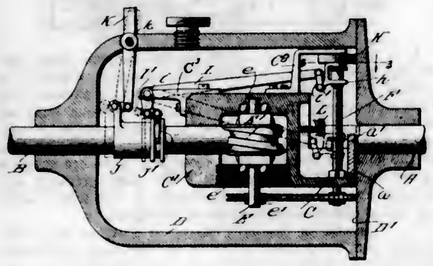
5. A method in the calorimetry of gaseous fuels, consisting in burning gaseous fuel in and with air in a combustion chamber, of an apparatus which is maintained at atmospheric pressure and maintains its contents at atmospheric pressure, gaseous fuel and air being supplied at varying pressures at proportionate rates and under varying temperatures, so long as the gaseous fuel and air are supplied at the same temperature and the same pressure, and ascertaining the rise in temperature of the air and the products of combustion.

[Claims 6 to 16 not printed in the Gazette.]

1,134,769. VARIABLE-SPEED GEARING. PUTNAM DAVID SMITH, Felton, Cal., assignor to Francis G. Wilson, Santa Cruz, Cal. Filed Mar. 7, 1914. Serial No. 823,222. (Cl. 74—34.)

1. In a transmission gearing, the combination of axially alined driving and driven shafts having their contiguous ends spaced apart, a casing through the ends of which the said spaced ends of the driving and driven shafts are journaled, said casing having the inner face of its end adjacent the driving member formed to provide a friction surface, a frame extending between the spaced ends of the shafts within the casing and rigidly connected to the

driving shaft, a worm wheel secured upon the driven shaft, a shaft mounted in the frame adjacent and at right angles to the driven shaft, a worm mounted upon the latter shaft and in engagement with the worm wheel, a shaft journaled in the said frame transversely with respect to the inner end of the driving shaft and in the axial plane thereof, gearing connecting the last mentioned shaft with the said worm shaft, a friction wheel splined on the last mentioned shaft and movable over the friction surface, and means for adjusting the friction wheel on its shaft, including an adjusting sleeve movable on the driven shaft, a lever intermediately pivoted in the wall of the casing and having its inner end connected to the sleeve, and a bell-crank lever having a yoke connection at one end with the adjusting sleeve and having a similar connection at its opposite end with the friction wheel.



2. In a transmission gearing, the combination of axially alined driving and driven shafts having their contiguous ends spaced apart, a casing through the ends of which the said spaced ends of the driving and driven shafts are journaled, said casing having the inner face of its end adjacent the driving member formed to provide a friction surface, a frame extending between the spaced ends of the shafts within the casing and rigidly connected to the driving shaft, a worm wheel secured upon the driven shaft, a shaft mounted in the frame adjacent and at right angles to the driven shaft, a worm mounted upon the latter shaft and in engagement with the worm wheel, a shaft journaled in the said frame transversely with respect to the inner end of the driving shaft and in the axial plane thereof, gearing connecting the last mentioned shaft with the said worm shaft, a friction wheel splined on the last mentioned shaft and movable over the friction surface, and means for adjusting the friction wheel on its shaft.

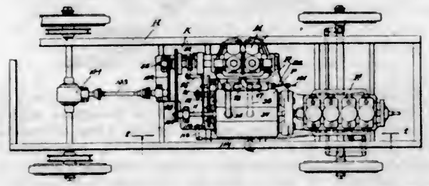
3. In a transmission gearing, the combination of axially alined driving and driven members having their adjacent ends spaced apart, a casing into which the inner ends of the said members extend, a frame within the casing rigidly connected to the driving member and into which the driven member is loosely extended, a friction surface formed upon the inner face of one end of the casing surrounding the driving member, a friction wheel adjustable across the said friction surface, a shaft upon which the friction wheel is splined, a worm shaft mounted in the frame adjacent and at right angles to the driven member, a worm wheel mounted on the driven member, a worm carried by the worm shaft and in engagement with the worm wheel, gearing connecting the friction wheel shaft and the worm shaft, and means for adjusting the friction wheels, all for the purpose described.

4. In a transmission gearing, the combination of driving and driven members, a frame secured to the driving member and in a portion of which the driven member is journaled, a pair of shafts mounted in the frame and connected to simultaneously rotate, interlocking gears connecting one of the said shafts with the driven member, a friction wheel splined on the other of said shafts, means for adjusting the friction wheel and a casing surrounding the said frame and through which the driving and driven members are journaled, having a flat friction surface with which the friction wheel coacts, all for the purpose described.

5. In a transmission gearing, the combination of axially alined driving and driven shafts, a frame rigidly connected to the driving member, a stationary friction surface, interlocking gears connecting the frame and driven member, an adjustable friction member engaging the friction surface and having connection with one of the said interlocking gears and means for adjusting the friction wheel, for the purpose described.

[Claim 6 not printed in the Gazette.]

1,134,770. POWER TRANSMITTING AND CONTROLLING MECHANISM. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 13, 1909. Serial No. 477,748. (Cl. 138—2.)



1. The combination with pumping mechanism, of a fluid motor, means for conveying fluid under pressure from the pumping mechanism to the motor, and means for varying the arrangement of the pumping mechanism as by series and parallel working to vary the volume and pressure of fluid delivered thereby, the pressure varying from a maximum to a minimum in a plurality of steps.

2. The combination with pumping mechanism comprising a plurality of pumps, of a fluid motor, means for conveying fluid under pressure from the pumps to the motor, and means to vary the connections among the pumps to effect a variation in the volume and pressure of fluid delivered to the motor, the pressure varying from a maximum to a minimum in a plurality of steps.

3. The combination with a fluid-motor, of a plurality of pumps, a plurality of passages connecting the several pumps with each other and with the motor, and means for varying the arrangement of said passages in successive steps to effect a gradual variation in the volume and pressure of fluid delivered from the pumps to the motor, the pressure varying from a maximum to a minimum in a plurality of steps.

4. The combination with a fluid motor, of a plurality of pumps, passages for conveying fluid between the several pumps and between the pumps and the motor, and valve mechanism operable to vary the arrangement of said passages and thereby vary the pressure and volume of liquid delivered to the motor, the pressure varying from a maximum to a minimum in a plurality of steps.

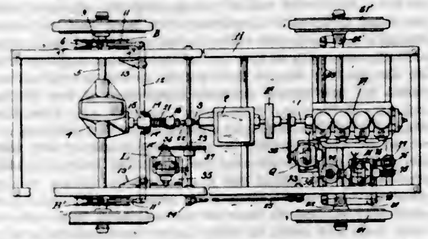
5. The combination with a fluid motor, of a plurality of pumps, means for conveying fluid from the pumps to the motor, and means for varying the communications between the pumps in successive steps from a parallel to a multiple series and series communication, or vice versa.

[Claims 6 to 45 not printed in the Gazette.]

1,134,771. MEANS FOR CONTROLLING VARIABLE MECHANISM. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 11, 1909. Serial No. 482,673. (Cl. 21—90.)

1. The combination with a power transmission mechanism, of a motor connected to operate said mechanism, a lever movable about horizontal and vertical axes, connections between the motor and lever for moving the lever about its vertical axis whenever the motor is operated, and means controlled by the tilting of the lever about its horizontal axis for operating the motor.

2. The combination with a power transmission mechanism, of a motor connected to operate said mechanism, a lever movable about horizontal and vertical axes, connections between the motor and lever for moving the lever about its vertical axis whenever the motor is operated, means controlled by the tilting of the lever about its horizontal axis for operating the motor, and means for normally maintaining said lever in a predetermined position with respect to its horizontal axis.



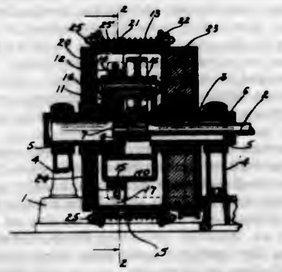
3. The combination with a power transmission mechanism, of a motor connected to operate said mechanism, a lever movable about horizontal and vertical axes, connections between the motor and lever for moving the lever about its vertical axis whenever the motor is operated, means controlled by the tilting of the lever about its horizontal axis for operating the motor, and a spring centering device adapted to maintain said lever in a predetermined position on its horizontal axis.

4. The combination with a power transmission mechanism, of an electric motor arranged to drive said mechanism, a wheel or lever movable about substantially horizontal and vertical axes, connections between the motor and lever for moving the lever about its vertical axis whenever the motor is operated, and means controlled by the tilting of the lever about its horizontal axis for closing a circuit to said electric motor.

5. The combination with a power transmission mechanism, of an electric motor arranged to drive said mechanism, a wheel or lever movable about substantially horizontal and vertical axes, connections between the motor and lever for moving the lever about its vertical axis whenever the motor is operated, and a switch controlled by the tilting of the lever about its horizontal axis for controlling a circuit to said electric motor.

[Claim 6 not printed in the Gazette.]

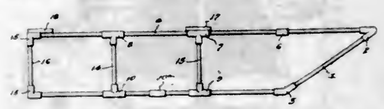
1,134,772. SPEED-CHANGING APPARATUS. AUGUST SUNDH, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 12, 1911. Serial No. 654,228. (Cl. 74—7.)



1. The combination of a driving sheave and spur gearing within the sheave and connected to drive the same, said sheave being formed with hollow walls which serve to deaden the noise generated by the spur gearing.

2. The combination of a driving sheave, and power transmitting mechanism within the sheave, said sheave being formed with hollow walls to muffle the sound produced by the driving mechanism, the said sheave comprising an independently removable ring extending around the sheave and forming a part of the said hollow wall.

1,134,773. FOLDABLE CANVAS BOAT. JENS S. SVENDSEN, Hammond, Ind. Filed Nov. 23, 1914. Serial No. 873,543. (Cl. 9—2.)



1. A collapsible water proof boat made up of rods connected together by couplings to form a boat shape frame and a water proof fabric cover for said frame provided with pockets for the rods, the couplings and other attachments for the boat, said cover being foldable to occupy but little space for carrying the same.

2. A collapsible boat made up of rods and couplings therefor to form a scow shape frame, a cover of water proof canvas adapted to be connected to said frame by tying the cover to the frame at the upper edge thereof, and pockets on said cover for the cross rods, seats and couplings.

1,134,774. PHONOGRAPH DISK RECORD. FREDERIC W. THOMAS, New City, N. Y. Filed July 28, 1914. Serial No. 853,607. (Cl. 181—17.)

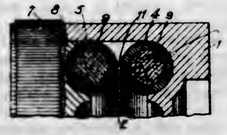


1. A sound record comprising a fibrous body, and a record material thereon, said body being impregnated with a non-hardening asphaltic material serving to render the body permanently non-sonorous and to cement the record material to the body.

2. A sound record comprising a fibrous body impregnated solely with asphalt, and record material applied to the impregnated body.

3. A sound record comprising a fibrous body impregnated with a non-hardening asphalt, and a surface layer of hard record material connected with said body.

1,134,775. DIAPHRAGM-SETTING FOR PHONOGRAPH-REPRODUCERS. FREDERIC W. THOMAS, New City, N. Y. Filed July 28, 1914. Serial No. 853,608. (Cl. 181—11.)



1. The combination of a diaphragm and a gasket comprising a tube of yielding material, and a core in the tube for preventing collapsing thereof, said core including a fibrous material.

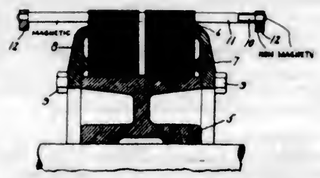
2. The combination of a sound box, a diaphragm therein, and gaskets between which the diaphragm is clamped each gasket comprising a tube of non-sonorous material and fibrous material within the tube and in direct contact with the inner surface of the latter.

3. The combination of a sound box, a diaphragm therein, and gaskets between which the diaphragm is clamped, said gaskets each comprising a tube of rubber and a filling of fibrous material therein.

4. The combination of a sound box, a diaphragm and a gasket comprising a flexible strip adapted to be curved into

circular form to have its ends meet, said strip consisting of a rubber tube, and a core preventing collapsing thereof, the core embodying fibrous material.

1,134,776. INDUCTION-MOTOR. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 11, 1913. Serial No. 806,091. (Cl. 172—120.)



1. A winding for the secondary member of induction motors including a plurality of low resistance conductors, sheaths of magnetic material therefor, said sheaths completely incasing said conductors and providing a current path of high resistance parallel to that of said conductors, and means electrically connecting the ends of said conductors.

2. In the rotor of an induction motor, a two-part squirrel cage winding, one part of said winding being electrically insulated from the other part but mechanically integral therewith.

3. In the rotor of an induction motor, a two-part squirrel cage winding, one part of said winding being electrically insulated from the other part but mechanically integral therewith, one part having a high inductance and a low resistance while the other part has a low inductance and a high resistance.

4. In the rotor of an induction motor, a squirrel cage winding having bars of low resistance, sheaths of magnetic material substantially incasing said bars and providing a current path of high resistance in parallel to that of said bars.

5. In the rotor of an induction motor, a squirrel cage winding having bars of low resistance sheaths of magnetic material substantially incasing said bars, the bars being insulated from the sheaths and both the bars and sheaths being connected by end rings.

[Claim 6 not printed in the Gazette.]

1,134,777. FROZEN CONFECTION AND PROCESS OF MAKING THE SAME. ALBERT TOCA, New Orleans, La. Filed May 28, 1914. Serial No. 841,579. (Cl. 99—11.)

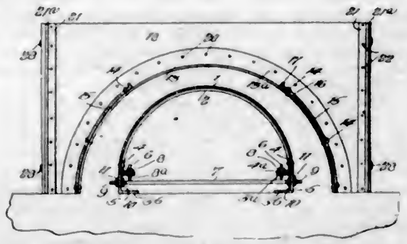
1. A frozen confection comprising a paste made from two ounces of rice, eight ounces of barley, eight ounces of hominy, three gallons of pure water, said materials being boiled and strained, reduced to a paste, and having added granulated sugar, fourteen pounds, and two gallons of milk, and the materials being flavored and frozen.

2. The process of preparing a frozen confection which consists in taking rice, barley, hominy, water, boiling said materials, straining said materials, adding cold water to the materials and cooling them, and adding granulated sugar, milk, eggs and a flavoring substance, and then freezing said materials and molding it in suitable receptacles.

3. A process of preparing a frozen confection which consists in boiling a quantity of rice, barley and hominy together, straining the materials, adding cold water to the materials, and mixing a quantity of granulated sugar and milk in the compound, and then freezing the same and molding it in suitable receptacles or cutting it in blocks.

1,134,778. CULVERT-FORM. LEROY HILLER TOWNER, Muskogee, Okla. Filed Mar. 3, 1914. Serial No. 822,148. (Cl. 25—131.5.)

1. A device of the character specified, comprising an inner form wall or arch support, said wall comprising a series of arched plates or sections, each plate having at one end a flange adapted to fit within the adjacent end of the adjacent section and each section having at each of its side edges an inwardly extending flange, channel bars for supporting the sections, said bars being arranged with their channels inwardly, one of the side flanges being adapted to rest upon the supporting surface for the form and the other being adapted to receive the inwardly extening flanges at the sides of the sections, means for detachably connecting the flanges to the flanges of the channel bars, releasable means for spacing the channel bars, and outer form wall comprising arch bars, each bar comprising a perpendicular body having at its inner side edge laterally extending flanges, arc-shaped plates supported by the flanges, the flanges and plates having interengaging means for preventing outward movement of the plates, arch bars at the ends of the outer form wall, said arch bars being of angle material and consisting of two portions arranged at approximately a right angle, one of the said portions being perpendicular and the other being provided with supporting means for supporting the plates of the outer wall, an inner head wall connected with the perpendicular portion on each of the said arch bars, and an outer head wall form at each end of the inner form wall and having means for detachably connecting the form wall, and end plates detachably connected with the inner and outer plates of each head wall.



2. A device of the character specified, comprising an inner form wall or arch support, said wall comprising a series of arched plates or sections, each plate having at one end a flange adapted to fit within the adjacent end of the adjacent section and each section having at each of its side edges an inwardly extending flange, channel bars for supporting the sections, said bars being arranged with their channels inwardly, one of the side flanges being adapted to rest upon the supporting surface for the form and the other being adapted to receive the inwardly extending flanges at the sides of the sections, means for detachably connecting the flanges to the flanges of the channel bars, releasable means for spacing the channel bars, an outer form wall comprising arch bars, each bar comprising a perpendicular body having at its inner side edge laterally extending flanges, arc-shaped plates supported by the flanges, the flanges and plates having interengaging means for preventing outward movement of the plates, arch bars at the ends of the outer form wall, said arch bars being of angle material and consisting of two portions arranged at approximately a right angle, one of the said portions being perpendicular and the other being provided with supporting means for supporting the plates of the outer wall.

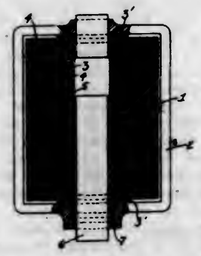
3. A device of the character specified, comprising an inner form wall or arch support, said wall comprising a series of arched plates or sections, each plate having at one end a flange adapted to fit within the adjacent end of the adjacent section and each section having at each of its side edges an inwardly extending flange, channel bars for supporting the sections, said bars being arranged with with their channels inwardly, one of the side flanges being adapted to rest upon the supporting surface for the form and the other being adapted to receive the inwardly extending flanges at the sides of the sections, means for detachably connecting the flanges to the flanges of the channel bars, releasable means for spacing the channel bars, a sectional retaining wall at each side of the inner form and spaced apart therefrom, and a common means for supporting the sections of each retaining wall.

4. A device of the character specified, comprising an inner form wall or arch support, said wall comprising a series of arched plates or sections, each plate having at one end a flange adapted to fit within the adjacent end of the adjacent section and each section having at each of its side edges an inwardly extending flange, channel bars for supporting the sections, said bars being arranged with their channels inwardly, one of the side flanges being adapted to rest upon the supporting surface for the form and the other being adapted to receive the inwardly extending flanges at the sides of the sections, means for detachably connecting the flanges to the flanges of the channel bars, and releasable means for spacing the channel bars.

5. A device of the character specified, comprising an inner form wall or arch support, said wall comprising a series of arched plates or sections, each plate having at one end a flange adapted to fit within the adjacent end of the adjacent section and each section having at each of its side edges an inwardly extending flange, channel bars for supporting the sections, said bars being arranged with their channels inwardly, one of the side flanges being adapted to rest upon the supporting surface for the form and the other being adapted to receive the inwardly extending flanges at the sides of the sections, means for detachably connecting the flanges to the flanges of the channel bars, said means comprising registering openings in the flanges of the plates and in the uppermost flanges of the channel bars, and pins for engaging the openings.

[Claims 6 to 10 not printed in the Gazette.]

1,134,779. ELECTROMAGNET. ARTHUR R. TREZISE, Sr., Brooklyn, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 5, 1913. Serial No. 783,136. (Cl. 175—21.)



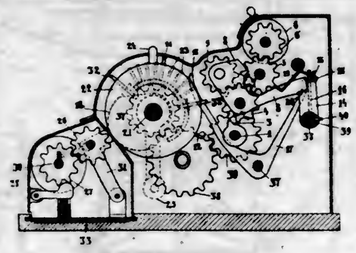
1. In combination, an electromagnet comprising a movable core in plunger form, a member composed of glass adapted to guide the core, and elastic members located at either end of the glass member.

2. In combination, an electromagnet comprising a magnet coil and spool therefor, a movable core in plunger form, a glass tube positioned inside of the spool to guide the core, elastic members located at each end of the glass tube, and means for exerting a pressure on said members to retain the glass tube in position.

3. An electromagnet comprising a magnet coil and spool therefor, a movable core in plunger form, a member composed of Scotch glass positioned in the hollow portion of the spool, the glass member formed to permit a free movement of the core therein, and elastic members located at each end of the glass tube.

4. An electromagnet comprising a magnet coil and spool therefor, a movable core in plunger form, a member composed of Scotch glass capable of insertion inside of the spool, said member formed to permit a free movement of the core therein, elastic members positioned on both ends of the glass member, and means to retain the latter in its proper position relative to the core.

1,134,780. CARRYING MECHANISM FOR CALCULATING-MACHINES. FRANZ TRINKS, Brunswick, Germany. Filed Apr. 23, 1914. Serial No. 833,985. (Cl. 235—139.)



1. In a calculating machine, the combination with at least two numeral wheels, of an operating member, a gear wheel, means controlled in accordance with the numeral wheel of lower order to throw said gear wheel into position for operation by said operating member, an operative connection between said gear wheel and the numeral wheel of the next higher order, and means to lock the gear wheel in position for operation by the operating member.

2. In a calculating machine, the combination with at least two numeral wheels, of an operating member, a rocking lever, a gear wheel attached to said lever for movement bodily therewith, means controlled in accordance with the numeral wheel of lower order to engage and rock the lever with the gear wheel into position for operation by said operating member, and an operative connection between said gear wheel and the numeral wheel of the next higher order.

3. In a calculating machine, the combination with at least two numeral wheels, of an operating member, a rocking lever, a gear wheel carried thereby, means controlled in accordance with the numeral wheel of lower order to rock the lever with the gear wheel into position for operation by said operating member, and an operative connection between said gear wheel and the numeral wheel of the next higher order, and means to lock the rocking lever with the gear wheel in position for operation by said operating member.

4. In a calculating machine, the combination with at least two numeral wheels, of an operating member, a rocking lever, a gear wheel carried thereby, means controlled in accordance with the numeral wheel of lower order to rock the lever with the gear wheel into position for operation by said operating member, an operative connection between said gear wheel and the numeral wheel of the next higher order, a spring actuated pawl adapted to lock said rocking lever with the gear wheel in position for operation by said operating member, and means movable with the operating member and operative after the same to throw said pawl out of locking engagement with the rocking lever.

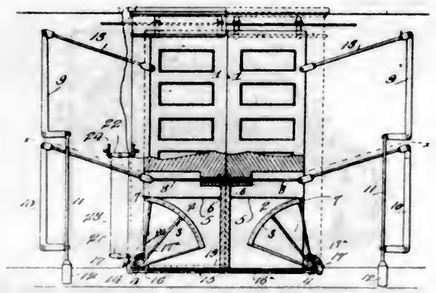
5. In a calculating machine, the combination with at least two numeral wheels, of an operating member, a gear wheel, means controlled in accordance with the numeral wheel of lower order to throw said gear wheel into position for operation by said operating member, an operative connection between said gear wheel and the numeral wheel of the next higher order, and means to lock the gear wheel in position for operation by the operating member, and means movable with the operating member and operative after the same to throw the locking means out of locking engagement with the gear wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,134,781. SLIDING DOOR. JOHN VAN KOLKEN, Great Falls, Mont. Filed June 10, 1914. Serial No. 844,278. (Cl. 39—94.)

1. In combination, a sliding door for controlling a doorway, platforms arranged upon opposite sides of the doorway, connecting means between the platforms and door

and leaves hinged to the ends of the platforms and extending outward therefrom.

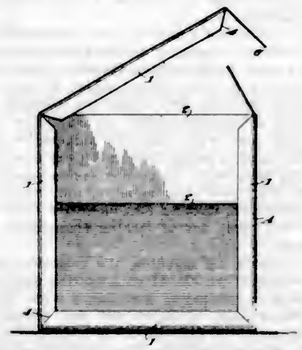


2. In combination, sliding doors having recesses, platforms arranged upon opposite sides of the doors, a pintle rod connecting the platforms, pivoted sectors operating in the recesses and having flexible connection with the doors, and connecting means between the ends of the pintle rod and the sectors.

3. In combination, sliding doors having recesses, platforms arranged upon opposite sides of the doors, sectors operating in the recesses, connecting means between the sectors and platforms, and flexible connecting means between the sectors and doors.

4. In combination, a sliding door having a recess in its lower portion, a depressible platform, a pivoted operating member arranged within the recess of the door, connecting means between such operating member and platform, and a flexible connection between the operating member and sliding door.

1,134,782. BOX. HARRISON B. WALTER, Danville, Ill., assignor to National Fibre Box Company, Danville, Ill., a Corporation of Illinois. Filed Jan. 8, 1910. Serial No. 537,029. Renewed Feb. 11, 1915. Serial No. 7,580. (Cl. 217—5.)



1. A knock-down box comprising a folding body, battens connected to the body and hinged end pieces connected to the body between the battens and body, said end pieces adapted to be moved to a position for closing the ends of the box.

2. A knock-down box comprising a folding body, battens connected thereto and hinged end pieces, one end of each end piece being received between a batten and the body of the box for fastening the end pieces to the body, said end pieces adapted to be moved to a position to engage the other battens for closing the ends of the box.

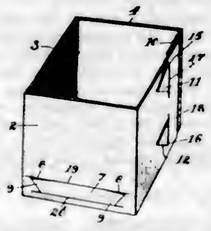
3. A knock-down box comprising a folding body, battens connected to the body, hinged end pieces connected along one edge thereof to the body between the body and battens and means connecting the end pieces to the remaining battens for closing the ends of the box and holding the box in shape during the filling operation.

4. A knockdown box comprising a body, bottom, and sides, battens upon the sides, bottom, and top, end-pieces, an end of each end piece adapted to be received between the bottom of the box and battens thereon, said end pieces adapted to be received against the battens on the sides, and means for connecting the end pieces to the battens on the sides.

5. A box comprising a body made from a single piece of material, adapted to be folded into shape, battens connected to the body, and hinged end pieces connected along one edge thereof to the body of the box between the body of the box and the battens thereon, said end pieces adapted to be moved to an upright position for closing the ends of the box.

[Claims 6 and 7 not printed in the Gazette.]

1,134,783. FOLDING BOX. GRACE WEDOO, Garner, Iowa. Filed Sept. 25, 1914. Serial No. 863,526. (Cl. 229—16.)



A collapsible berry box formed from a single piece of material comprising a front, a side, a back, a second side and a front extension all divided from each other by parallel fold lines, the front having spaced slots, the front extension having its edge formed with spear heads, the fins of which being spaced from the edge of said front extension, the second side member having a step divided by a fold line, a bottom connected with the step and divided therefrom by a fold line, a tongue upon the outer edge of the bottom divided therefrom by a fold line, the said tongue having its opposite end substantially V-shaped, the upper portions of which providing upwardly extending fins which are spaced from the bottom proper, the side adjacent its lower edge having spaced longitudinally extending slots, the upper slot being of a greater width than the lower slot, the spear heads adapted to be inserted through the slots in the front and their fins to contact with the outer faces of the ends, the tongue of the bottom adapted to be passed first through the upper slot in the side and to have its fins engaged with the upper wall provided by the said slot adjacent the ends of the slot, the lower and reduced portion of the tongue to enter the lower slot in the side, and the fins to extend above the upper slot when the device is in its set up position.

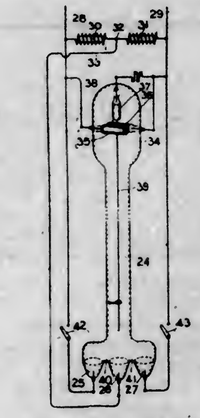
1,134,784. VAPOR ELECTRIC LAMP OR RECTIFIER. EZECHIEL WEINTRAUB, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 11, 1903, Serial No. 165,056. Renewed Feb. 5, 1915. Serial No. 6,370. (Cl. 176—49.)

1. The combination of an exhausted envelop, main electrodes therefor, and a starting electrode provided with a conductor of small cross-section extending a part only of the distance between two or more of said main electrodes.

2. The combination of an exhausted envelop, main electrodes therefor, and an additional electrode of absorbent material arranged to operate as a starting electrode and after the arc is starting between the main electrodes to operate as a gas-absorbing means.

3. The combination of a plurality of electrodes one at least of which is adapted to emit vapor, while at least two

others are formed of non-vaporizable material, an electrical connection between said two electrodes, and a resistance included in said connection.

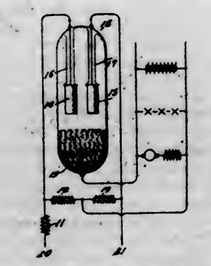


4. In a vapor electric lamp or the like, a main electrode, an auxiliary electrode connected through an external resistance to said main electrode and located in proximity to said main electrode, and a filament extending from said auxiliary electrode.

5. In a vapor electric apparatus, the combination of a vapor-emitting electrode, and a coöperating electrode formed of a conducting carbid.

[Claims 6 to 26 not printed in the Gazette.]

1,134,785. VAPOR ELECTRIC APPARATUS. EZECHIEL WEINTRAUB, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Mar. 23, 1903, Serial No. 149,084. Divided and this application filed June 30, 1905, Serial No. 267,720. Renewed Feb. 5, 1915. Serial No. 6,371. (Cl. 176—42.)



1. The combination of an exhausted receptacle, a plurality of positive electrodes therein, a negative electrode of vaporizable material therein, connections between the electrodes and a source of alternating current, and means for preventing arcing between the positive electrodes.

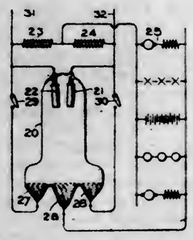
2. The combination of an exhausted receptacle, a plurality of positive electrodes therein, a negative electrode of vaporizable material therein, connections between the electrodes and a source of alternating current, and an impedance in the lead of one of the positive electrodes.

3. The combination of an exhausted receptacle, a plurality of positive electrodes therein, a negative electrode of vaporizable material therein, connections between the electrodes and a source of alternating current, and a device possessing ohmic resistance in the lead of one of the positive electrodes.

4. The combination of an exhausted receptacle, a plurality of positive electrodes therein, a negative electrode of vaporizable material therein, connections between the electrodes and a source of alternating current, one of the positive electrodes being connected directly to the source, and an impedance in the lead to every other positive electrode.

5. The combination of an exhausted receptacle, a plurality of positive electrodes therein, a negative electrode of vaporizable material therein, connections between the electrodes and a source of alternating current, and means external to the receptacle for preventing arcing between the positive electrodes.

1,134,786. RECTIFYING ALTERNATING CURRENT. EZECHIEL WEINTRAUB, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 23, 1903. Serial No. 149,084. (Cl. 171—253.)



1. The combination of an exhausted envelop, electrodes therefor, one at least of which is of vaporizable material, a source of singe-phase current connected to said electrodes, means for causing a continuous succession of current waves to flow from said source through said envelop, and a consumption circuit fed by the current passing through said envelop.

2. The combination of an exhausted receptacle, a plurality of electrodes of non-vaporizable material, a coöperating vaporizable electrode, means for impressing electro-motive forces of opposite polarities upon said non-vaporizable electrodes, a return circuit leading from the vaporizable electrode, a current consuming device or current-consuming devices in said circuit, and means for causing alternate pulsations of current to take place between said non-vaporizable electrodes and the vaporizable electrode.

3. The combination of an exhausted envelop, a source of single-phase alternating current, non-identical paths through said envelop for current from said source, and a current-consuming device or devices traversed by the current passing through said envelop.

4. The combination of an exhausted envelop or receptacle, a source of single-phase alternating current, separate paths through said receptacle for current from said source, means for causing current of the same polarity to flow alternately in said paths, and current-consuming means external to said receptacle for utilizing the energy of the current flowing through said receptacle.

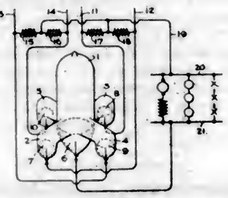
5. The combination of an exhausted envelop, electrodes therefor, a source of single-phase current connected to said electrodes, means for causing a continuous succession of unidirectional current waves to flow from said source through said envelop, and means external to the envelop for utilizing the unidirectional current.

[Claims 6 to 38 not printed in the Gazette.]

1,134,787. RECTIFYING ALTERNATING CURRENT. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Original application filed Mar. 23, 1903, Serial No. 149,084. Divided and this application filed Nov. 21, 1910. Serial No. 593,303. (Cl. 176—42.)

1. In a vapor electric apparatus for rectifying alternating current, a highly exhausted container provided with a condensing chamber, elbows opening out of said

condensing chamber, an anode in each elbow, and a coöperating vaporizable cathode.



2. In a vapor electric device for rectifying alternating current, a highly exhausted container provided with a condensing chamber, tubular arms extending outwardly and downwardly from said condensing chamber, electrodes in the downwardly extending parts of said tubular arms, and a coöperating vaporizable cathode.

3. In a vapor electric device for rectifying alternating current, the combination of an exhausted container having a condensing chamber and a plurality of outwardly projecting extensions opening into the lower part of said condensing chamber, electrodes in said extensions, and a coöperating vaporizable electrode.

4. In a vapor electric device for rectifying alternating current, the combination of an exhausted container having a condensing chamber and a plurality of arms projecting therefrom laterally and closed at their outer ends, each being out of alinement with the adjacent arms, anodes in said arms near the outer ends thereof, and a vaporizable cathode for coöperating with said anodes.

1,134,788. ELECTRIC TERMINAL. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 18, 1914. Serial No. 862,339. (Cl. 219—63.)



1. An electrical conductor consisting at least in part of elemental silicon and a current-conveying terminal therefor comprising a metal cap spaced apart from said conductor and a mass of a refractory alloy of silicon and a metal adhering to said silicon conductor.

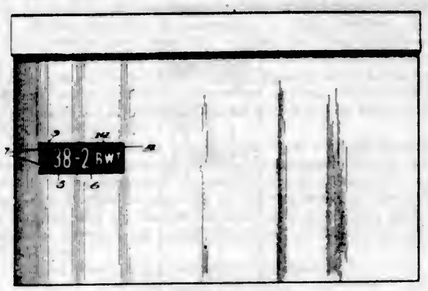
2. An electrical conductor consisting at least in part of elemental silicon and means for conducting current thereto comprising a conductive material containing aluminum and silicon as constituents.

3. An electrical conductor comprising elemental silicon, a metal cap spaced apart from said resistor and a filling of cast conducting material therein conforming closely with the surface configuration of the silicon to protect it from oxidation.

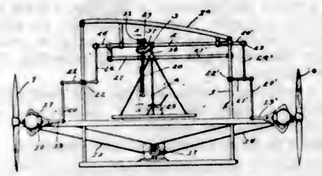
4. An electrical conductor comprising elemental silicon, a metal cap spaced apart from said resistor and a filling therein consisting of a refractory material containing silicon and aluminum as constituents.

1,134,789. DEVICE FOR MARKING SHOE-BOXES. GUSTAVUS V. WELLS, Des Moines, Iowa, assignor of one-half to W. S. Putnam, Des Moines, Iowa. Filed Oct. 28, 1913. Serial No. 797,731. (Cl. 11—15.)

A device for marking shoe boxes, comprising a body of suitable material forming a marker and having a field and bearing arbitrary indicia denoting the size and width of the shoes contained within the box to which the marker is applied, arbitrary symbols also carried by said body for denoting the color of the contents, said color indicating symbols being detachably carried by the marker to permit their individual or collective separation therefrom, and an indicator also carried by the marker and separable from the body of the latter to denote the style of the box contents.



1,134,790. PROPELLING AND BALANCING MECHANISM FOR AIR-CRAFT. ULYSSES G. WHITE, Boulder, Mont. Filed Mar. 25, 1914. Serial No. 827,165. (Cl. 244—25.)



1. In a combined propelling and stabilizing mechanism for aircraft, the combination of a body structure, propellers at the front and rear of the body structure, said propellers being arranged on opposite sides of the longitudinal center of the body structure and mounted to tilt in a vertical plane, a longitudinally and laterally movable gravity controlled element, and adjusting means controlled by said element in its longitudinal movements to adjust the propellers of one set in one direction and the propellers of the other set in the opposite direction, said adjusting means being controlled by the lateral movements of said gravity controlled element to adjust the propellers of each set in dissimilar directions.

2. In an aircraft, the combination of a body structure, a shaft extending longitudinally of and mounted to rock in a direction transversely of the body structure, a car mounted upon said shaft for longitudinal swinging movements, sets of transversely alined propellers at the front and rear of the body structure and on opposite sides of the longitudinal center thereof, said propellers being mounted to tilt vertically, sets of adjusting devices for independently controlling the respective propellers, means operated by the lateral movements of the shaft for controlling the adjusting connections to tilt the propellers of each set in opposite directions and the propellers on each side of the longitudinal center of the machine in like directions, and means controlled by the longitudinal swinging movements of the car for controlling the adjusting connections to tilt the propellers of each set in the same direction and the propellers of the two sets in opposite directions.

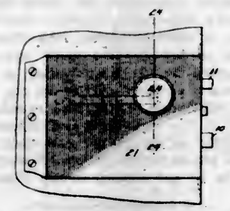
3. In an aircraft, the combination of a body structure, a shaft extending longitudinally of and mounted to rock in a direction transversely of the body structure, a gravity controlled car pivoted to swing laterally upon the shaft, propellers located at the front and rear of the body structure and on opposite sides of the longitudinal center thereof, said propellers being mounted to tilt vertically, a set of adjusting connections for each propeller, means whereby under the rock movements of the shaft the sets of connections will be actuated to tilt the propellers of each set in opposite directions and the propellers of the sets at opposite sides of the body in like directions, and a longitudinally movable member operable by the car for operating the sets of adjusting connections to tilt the propellers of each set in the same direction and to tilt one set of propellers in one direction and the other set of propellers in the reverse direction.

4. In an aircraft, the combination of a body structure, a shaft extending longitudinally of and mounted to rock in a direction transversely of the body structure, a gravity controlled car pivotally mounted to swing longitudinally from said shaft, sets of propellers at the front and rear of the machine on opposite sides of the longitudinal center thereof, said propellers being mounted to tilt vertically, a set of adjustable connections for each propeller, connecting means between the shaft and the adjusting connections at each end of the body for adjusting the propellers at each end simultaneously in opposite directions and adjusting the propellers at opposite ends and at the same side of the body in the same direction, and a longitudinally movable member operable by the car for controlling the said connecting means for imparting motion to the adjusting means to adjust the propellers of each set simultaneously in the same direction and to adjust the propellers of the different sets in opposite directions.

5. In an aircraft, the combination of a body structure, a shaft extending longitudinally of and mounted to rock in a direction transversely of the body structure, a gravity controlled car supported to swing longitudinally from the shaft, sets of propellers at the front and rear of the body structure and on opposite sides of the longitudinal center thereof, a set of adjusting connections for each propeller, and connecting means between the adjusting connections of each set of propellers and the shaft whereby in the rocking motions of the shaft the propellers of each set will be adjusted in opposite directions and the propellers at each side of the longitudinal center of the machine in the same direction, a longitudinally movable member coupled to the said connecting means and adapted to be adjusted by the longitudinal movements of the car to adjust the propellers of each set in the same directions and the propellers of the two sets in opposite directions, and a connecting means between the car and said longitudinally movable member and adjustable to set said longitudinally movable member at different predetermined positions.

[Claims 6 to 10 not printed in the Gazette.]

1,134,791. LOCK. GUST WIITALA, Ontonagon, Mich. Filed Dec. 13, 1913. Serial No. 806,572. (Cl. 70—14.)



1. In a lock, the combination of a lock bolt, a spindle for throwing the lock bolt, spindle operating means adapted to be moved outward or pressed inward, a spring normally exerting a pressure upon the spindle operating means to throw the same outward, a guard adapted to extend over the spindle operating means and hold the same pressed inward, and locking means for securing the guard.

2. In a lock, the combination of a lock bolt, a spindle for throwing such bolt, a finger piece for operating the spindle and adapted to be moved outward or pressed inward, a spring for pressing the finger piece outward, means for engaging the finger piece when pressed inward to prevent rotation thereof, a guard for holding the finger piece inward and means for securing such guard.

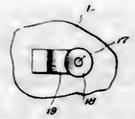
3. In a lock, the combination of a lock bolt, a toothed portion formed on said lock bolt, a spindle, a toothed portion formed on said spindle in mesh with the toothed portion of the lock bolt, actuating means for the spindle having a sliding connection therewith, a spring normally exerting a pressure to throw the spindle actuating means outward, and means engaging the spindle actuating means for sealing and holding the same pressed inward.

4. In a lock, the combination of a lock case comprising a plate having a slot comprising longitudinal portions, a guard plate slidable upon the lock case and having a vertically elongated opening, a lock pin passing through the opening of the guard plate and the slot in the plate of the lock case, a rotary tumbler mounted upon the guard plate and having an oblong opening to register with the opening of the guard plate, and the slot in the plate of the lock case and a lock pin passing through the openings of the tumbler and guard plate and slot in the plate of the lock case, said lock pin being held in locked engagement with the guard plate and plate of the lock case by means of the tumbler.

5. In a lock, the combination of a lock case embodying a plate having a groove therein, a projection, a cover plate having a slot which is provided at one end with a vertical portion and at its opposite end with an off-set portion into which extends said projection, said slot being arranged opposite the groove in the plate of the lock case, a guard plate slidable upon the cover plate and having a vertically elongated opening to register with the vertical portion of the slot in the cover plate, a lock pin passing through the opening of the guard plate and the slot of the cover plate and a rotary tumbler mounted upon the guard plate and having an elongated opening to receive the lock pin.

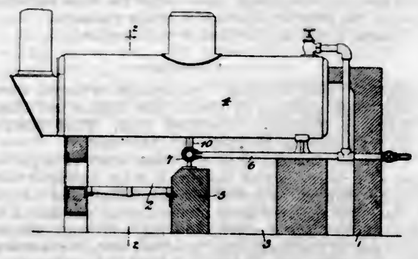
[Claims 6 and 7 not printed in the Gazette.]

1,134,792. HANDLE-LOCK. ARTHUR C. WILL, Salt Lake City, Utah. Filed May 26, 1914. Serial No. 841,136. (Cl. 151—59.)



The combination with a support having apertures therein, a bolt extending through one of the apertures and carrying a knob, a pin carried by the knob and engaged with the other of said apertures, a nut threaded upon the bolt and having a rectangular body, a U-shaped spring nut locking member engaged over the bolt and having a slot in one of the legs to engage the nut, and a lateral extension on the locking member entering the other of said apertures.

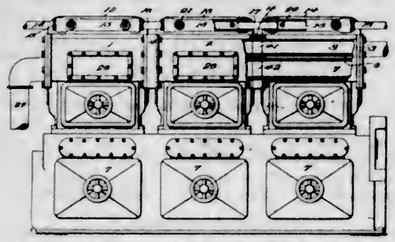
1,134,793. AIR-FEED FOR FURNACES. EDWIN WINANS, New York, N. Y., assignor to Clarke D. Lasher, North Germantown, N. Y. Filed Mar. 16, 1914. Serial No. 825,110. (Cl. 110—73.)



In an air feeding device for furnaces, an insertible air distributing member formed of a plurality of pipe sections,

a plurality of upright sections connected with certain of said first mentioned sections, a plurality of connecting ring members for said first mentioned sections, means extending from said ring members for supporting the same whereby a flame may pass over and under the air distributing members, all of said sections and said rings being perforated, and means for feeding air in a heated condition to said air distributing member, said air distributing member being in the direct path of the flame acting as a superheater for said air whereby the air is distributed in small jets at approximately the same temperature as the hot gases for more readily forming a chemical union therewith.

1,134,794. GAS-ENGINE. ALEXANDER WINTON, Cleveland, Ohio, assignor to Winton Gas Engine and Manufacturing Company, Cleveland, Ohio. Filed May 18, 1912. Serial No. 698,269. (Cl. 123—59.)



1. A gas engine, comprising cast cylinders joined together with blocks, and said castings having housings forming the exhausts and inlets and connected by said blocks.

2. A gas engine, comprising cast cylinders joined together with blocks and said castings having a housing forming exhausts and inlets with the water circulation of the cylinder separating the same, and said inlets and exhausts communicated by the blocks.

3. A gas engine, comprising cast cylinders joined together by blocks and said castings having housings formed integral therewith and between which the blocks extend, said housings having intake passages at their upper end and exhaust passages in their lower end communicating with the exhaust passages of the other cylinder through the blocks and the exhaust passages communicating with the ends of the cylinders.

4. A gas engine comprising cast cylinders having exhaust and intake manifolds formed integral therewith, and blocks between the cylinders and having passages communicating the exhaust and intake manifolds of the castings.

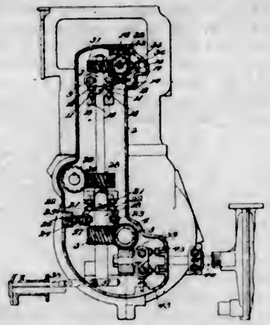
5. A gas engine comprising cast cylinders having housings formed integral therewith, said housings having exhaust manifolds adjacent their lower ends, and intake manifolds adjacent their upper end and separated from the exhaust manifold by the water cooling system of the cylinders, said manifolds being connected with the upper ends of the cylinders through separate passages.

[Claims 6 to 9 not printed in the Gazette.]

1,134,795. GAS-ENGINE. ALEXANDER WINTON, Cleveland, Ohio, assignor to Winton Gas Engine and Manufacturing Company, Cleveland, Ohio. Filed Sept. 8, 1913. Serial No. 788,655. (Cl. 123—195.)

1. The combination with the crank shaft of a gas engine, of a worm carried thereby, a shaft having a worm meshing with the worm of the crank-shaft and adapted to drive the operated parts of the engine, and means for vertically and horizontally adjusting said shaft whereby the worm of the shaft may be alined with the worm on the crank-shaft, substantially as shown and described.

2. The combination with a crank-shaft of a gas engine, of a worm gear carried by the crank shaft, a shaft adjacent the crank-shaft and having a worm meshing with the worm carried thereby, means carried by the shaft for operating the movable parts of the engine, and means for adjusting the shaft longitudinally and transversely, whereby the worm carried by the shaft may be alined with the worm carried by the crank-shaft.



3. The combination with a crank-shaft of a gas engine, of a worm carried by the said crank-shaft, a shaft adjacent the crank shaft, a worm carried by the shaft and meshing with the worm on the crank-shaft, worms carried by the shaft for driving the movable parts of the engine, bearings carried by the engine and in which the shaft is mounted and means for vertically and horizontally adjusting the said bearings whereby the worm carried by the shaft can be alined with the worm on the crank-shaft and the worm carried by the shafts for driving the movable parts of the engine, whereby the said worms can be alined for the purpose described.

4. The combination with a gas engine and its crank-shaft, a worm carried by the crank shaft, bearings vertically, and horizontally adjustably supported by the end of the engine, a shaft carried by the said bearing, a worm carried by said shaft and meshing with the worm carried by the crank shaft, a fan-shaft, a cam-shaft, and a water pump-shaft having worms, worms carried by the vertically and horizontally adjustable shaft meshing with the worms carried by the cam-shaft and water pump-shaft, whereby said worms may be alined for the purpose described.

5. The combination with a gas engine and its crank shaft, of a worm carried by the crank shaft, vertically and horizontally adjustable bearings carried by the ends of the engine, a shaft rotatably supported in said bearings, a worm carried by said shaft and meshing with the worm carried by the crank shaft, a worm carried by the cam-shaft, a worm carried by the vertically and horizontally adjustable shaft and meshing with the worm carried by the cam-shaft, and means for vertically and horizontally adjusting the cam-shaft, whereby the worms may be alined for the purpose described.

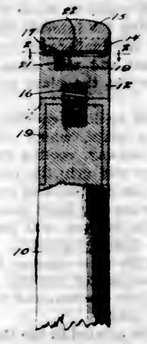
[Claims 6 to 10 not printed in the Gazette.]

1,134,796. CUE-TIP. EDWARD W. WOMACK, Welch, W. Va. Filed Aug. 8, 1914. Serial No. 855,818. (Cl. 46—9.)

1. In a device of the class described, a member having an internal screw thread at one end, a tip threaded into said chamber, said tip being provided with engaging devices, and a spring-pressed pawl adapted to contact successively with said engaging devices upon rotation of the tip in one direction and prevent the tip from being unscrewed by a reverse movement.

2. In a device of the class described, a member having an internal screw thread at one end, a tip for insertion in said member, spring pressed means for engaging the inner end of the tip, and a device for holding said means out of engagement until released by the rotary movement of the tip.

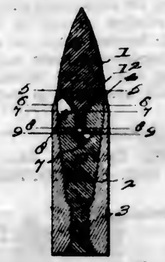
3. In a device of the class described, a member having an internal screw thread at one end, a tip for insertion in said member, spring pressed means for engaging the inner end of the tip, and a pivoted device for holding said means out of engagement until released by the rotary movement of the tip.



4. In a device of the class described, a member having internal screw threads, a tip engaged by the threads, a series of teeth formed on the inner end of the tip, a spring pressed pawl for engaging the teeth, a pivoted plate arranged to swing over one end of the pawl prior to the insertion of the tip, said pawl being released by the movement of the plate when the latter is engaged by the teeth.

5. In a device of the class described, a member having internal screw threads, a locking pawl, a spring for causing the pawl to normally project into the threaded bore of the member, a tip provided with radially extending ratchet teeth engaged by the pawl, and means operating between the tip and pawl and arranged to be moved by the tip when the latter is rotated for causing engagement between the pawl and teeth.

1,134,797. EXPANDING BULLET. MOSES L. WOOD, New York, N. Y. Filed Nov. 19, 1914. Serial No. 878,028. (Cl. 102—28.)



1. An expanding bullet of the character described comprising a head constructed of soft expansible material, a body of expansible material, a conical joint formed between said head and body for expanding the material of the latter by the momentum thereof when the velocity of the head is checked upon contact and penetration, and a barb for assisting to closely unite said head and body, substantially as described.

2. An expanding bullet of the character described comprising a head, a body formed of soft expansible material, a conical core molded between said head and body for uniting the same together and adapted to expand the material of the body upon contact and penetration of the bullet, and a barb connected to said core and molded in the material of said body, substantially as described.

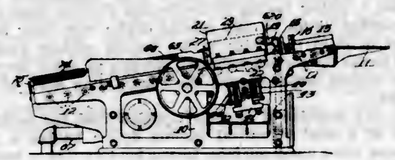
3. An expanding bullet of the character described comprising a head, a body of soft expansible material, a core located between said head and body for connecting the same together and adapted to expand the material of said body upon contact and penetration of the bullet, and ribs projecting from said core for severing and dividing the material of the body into segments as the same is expanded, substantially as described.

4. An expanding bullet of the character described comprising a head, a body of soft expansible material, a hollow core molded in said head and body for connecting the same together and adapted to expand the material of the body upon contact and penetration of the bullet, and fingers projecting into the interior of said hollow core whereby to afford a purchase for the material of said head, substantially as described.

5. An expanding bullet of the character described comprising a head of soft expansible material, a soft expansible body, a core molded between said head and body and adapted to expand the material of the latter upon contact and penetration of the bullet, and a plurality of spirally arranged ribs projecting from said core and provided with rear cutting edges for severing and dividing the material of said body during expansion of the same, substantially as described.

[Claim 6 not printed in the Gazette.]

1,134,798. MACHINE FOR FINISHING AND COOLING STEREOTYPE-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Sept. 28, 1908. Serial No. 454,972. (Cl. 29—21.)



1. In a machine for finishing curved stereotype printing plates, the combination of a frame having an inclined upper surface, anti-friction rollers located along said frame in an inclined series, and a receiving table carried by the upper end of said frame and extending horizontally therefrom for receiving plates in position to be transferred to the rollers.

2. In a machine for finishing curved stereotype printing plates, the combination of a saddle for receiving the plates, a longitudinal shaft, a shaving arch, means for arresting the plates before they enter the arch, and means on the shaft for operating said arresting means.

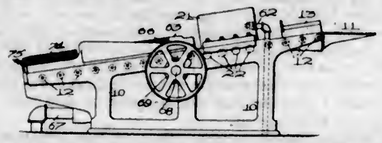
3. In a machine for finishing curved stereotype printing plates, the combination with an arch, of a longitudinal shaft, cams on said shaft, forked levers engaging said shaft, a roller on each of said forked levers adapted to be operated by one of the cams, a pair of rock shafts, means connected with said rock shafts for moving the plates upwardly in the arch, and means for connecting said rock shafts with the forked levers.

4. In a machine for finishing curved stereotype printing plates, the combination of a shaft, a cam on said shaft, a lever adapted to be operated by said cam, a rock shaft, means for adjustably connecting said lever with the rock shaft, and means operated by the rock shaft for raising the plates.

5. In a machine for finishing curved stereotype plates, the combination of a shaft, a pair of rock shafts, an arm connected with each rock shaft, a lever adapted to be operated by said first named shaft, means for adjustably connecting each lever with one of said arms, and connections from said rock shafts for raising the plates in the machine.

[Claims 6 to 22 not printed in the Gazette.]

1,134,799. MACHINE FOR COOLING STEREOTYPE-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Original application filed Sept. 28, 1908, Serial No. 454,972. Divided and this application filed Apr. 23, 1910. Serial No. 557,107. (Cl. 29—21.)



1. In a machine for finishing stereotype printing plates, the combination of a finishing means, and means supported adjacent thereto for directing water against the backs of the plates to cool them, and for preventing the passage of the water against the printing surfaces of the plates.

2. In a machine for finishing stereotype printing plates, the combination of a finishing means, and means supported adjacent thereto for directing water along the backs of the plates in unbroken streams to cool them, to prevent the passage of the water against the printing surfaces of the plates.

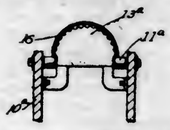
3. In a stereotype plate finishing machine, the combination of a frame, a hollow semi-cylindrical cooling device located thereon, along which plates can be fed with their inner sides in close proximity to the convex surface thereof, and means for forcing unbroken streams of water through said cooling device against the non-printing sides of the plates.

4. In a stereotype plate machine, the combination of a frame, a hollow cooling device located thereon, means for supporting plates on said cooling device with their inner sides in close proximity to the convex surface thereof, and means for forcing unbroken streams of water through said cooling device against the non-printing sides of the plates.

5. In a machine of the character described, the combination of a semi-cylindrical cooling device having a perforated rifled upper surface, means for directing a cooling fluid through said perforations and along the rifled surface, and means for supporting plates on the cooling device with their non-printing surfaces in close proximity thereto.

[Claims 6 to 13 not printed in the Gazette.]

1,134,800. METHOD OF SIZING CURVED STEREOTYPE PRINTING-PLATES AND APPARATUS THEREFOR. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Filed Dec. 10, 1914. Serial No. 876,497. (Cl. 29—21.)



1. A method of cooling a curved stereotype printing plate which consists in placing said plate on a support located between the interior surfaces of the straight edges thereof, applying a cooling fluid to the interior concave surface of the plate to cool the plate and contract it until its straight edges engage said support, whereby the interior of the plate will be contracted substantially to a fixed dimension.

2. A method of cooling a curved stereotype printing plate, which consists in applying said plate to a support located between the inner surfaces of the straight edges of the plate, applying a cooling fluid throughout the concave surface of the plate, and protecting the convex printing surface of the plate from contact with the cooling fluid, whereby the plate will contract substantially against said support.

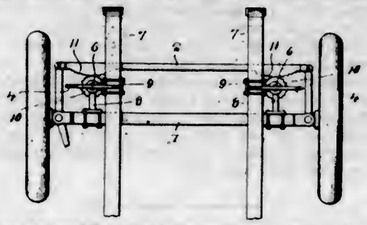
3. The method of cooling and sizing a curved stereotype printing plate, which consists in supporting the plate on its straight edges with opposite sizing surfaces inside the straight edges of the plate, cooling the interior concave surface of the plate to cause it to contract against said surfaces to bring the interior diameter to a predetermined length, and continuing said cooling until the plate is cooled throughout and relaxed so as to cease to grip said surfaces, whereby the plate will be free to be removed.

4. The method of feeding, cooling and sizing a curved stereotype printing plate, which consists in feeding it down an inclined runway, cooling its interior surface to cause it to contract and grip the runway so as to arrest its progress down the incline, and continuing the interior cooling, whereby when the plate becomes chilled throughout, its grip on the runway will ease up and leave the plate free to move down by gravity.

5. The combination of a runway for curved stereotype printing plates, means for cooling the concave surface of a plate while on the runway, and means for limiting the contraction of the plate.

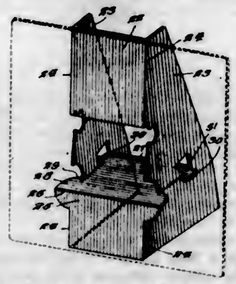
[Claims 6 to 8 not printed in the Gazette.]

1,134,801. AUTOMOBILE HEAD-LAMP CONTROL. GEORGE E. WOODS, Billings, Mont. Filed Oct. 14, 1913. Serial No. 795,161. (Cl. 240—62.)



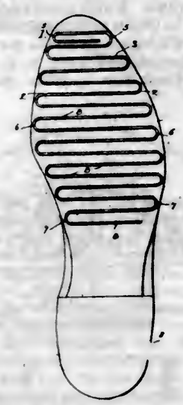
In an automobile headlight control, a telescopic lamp post socket embodying a lower tubular section and an upper tubular section slidable within said lower section, means for supporting said lower section in fixed relation to the axle, means for supporting the upper section of the socket in fixed relation to one of the body supporting springs, telescopic housing tubes for said telescopic posts attached to said upper and lower supporting means, and means connecting one of the socket sections with the steering mechanism whereby it is turned in unison therewith.

1,134,802. EASEL. CALVIN A. AGAR, East Orange, N. J. Filed Sept. 29, 1913. Serial No. 792,508. (Cl. 40—150.)



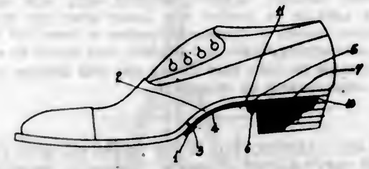
In an easel of the class described, a central portion, wings on the opposite side edges of said central portion, and bendable to extend rearwardly therefrom, a tongue having its body portion struck from said wings and central portion and bendable along a line transverse to the side edges of the central portion to extend between the rearwardly extending wings, the wings being recessed at their inner edges adjacent the line of bend of said tongue, said wings being also provided with openings spaced from said inner edges; heads on the said tongue adapted to engage in said openings and said tongue having shoulders formed thereon adapted to engage the edges of the recessed portions of said wings when said wings and tongue are bent rearwardly from said central portion.

1,134,803. PROTECTED FLEXIBLE SHOE-SOLE. ANDREW ANDERSON, Glenhazel, Pa. Filed Nov. 28, 1914. Serial No. 874,448. (Cl. 36—59.)



A shoe sole provided with a wire protector formed of steel and having prongs projecting into the tread surface of the sole to hold the protector in place, said wire being extended back and forth across the sole, said wire having calks or prongs extending downwardly from the protector to prevent slipping.

1,134,804. ARCH-SUPPORT FOR SHOES. JOHN P. ANDERSON, Denver, Colo., assignor of one-third to Emil Peterson, Denver, Colo. Filed Aug. 4, 1914. Serial No. 855,010. (Cl. 36—76.)



1. An arch support for shoes comprising a socket member secured beneath the arch near the front end of the latter, a spring support of normally greater curvature than the arch with its front end inserted in said member and its rear end spaced slightly below the arch, and a rear fastening device carried by the heel and with which the rear end of said spring support is detachably connected.

2. An arch support for shoes comprising a socket member secured beneath the arch near the frone end of the latter, a spring support of normally greater curvature than the arch with its front end inserted in said member and its rear end spaced slightly below the arch and bent downward into a hook, and a strip attached to the heel and having its front end bent upward into a hook adapted to removably engage the hook on the spring support.

3. An arch support for shoes comprising a socket member secured beneath the arch near the front end of the latter, a spring support of normally greater curvature than the arch with its front end inserted in said member and its rear end spaced slightly below the arch and bent downward into a hook-shaped rear end, the bill of the hook having a downwardly projecting lug, and a strip inserted in the heel and having its front end bent upward into a hook whose throat is disposed beneath the bill of the hook on the spring support and provided with an opening for the reception of said lug.

4. In a device of the class described, a spring support, a socket member for receiving one end of said spring support, and a second member for engaging the other end of said spring support, said spring support and second member being arranged to be held in such engagement normally by the tension of said spring support and to be disengaged by depression of its last-named end.

1,134,805. TOBACCO CURING AND YELLOWING PAN. JOHN H. ASHBURN, Ararat, N. C. Filed Mar. 11, 1913. Serial No. 753,548. (Cl. 131—6.)



As a new and improved article of manufacture, a tobacco curing pan comprising a body of substantially crescent form segmentally in cross section, said body consisting of a curved bottom and segmentally curved top walls, said top walls being integral with and curved on an arc of greater radius than the curved bottom and having their free longitudinal edges approximating to provide a medial longitudinally extending slot at the top of said body, and segmental end walls also integral with the bottom wall and having flanges bent inwardly therefrom and extending beneath and secured to the end edges of the top walls, whereby the pan as a whole is formed from a single piece of material, said bottom and top walls being curved so as to be devoid of sharp angles at their points of juncture.

1,134,806. CARPENTER'S TOOL. WILLIAM HENRY BARRON, Jr., Atlantic City, and CARL LESEMAN, Egg Harbor City, N. J. Filed May 21, 1914. Serial No. 839,991. (Cl. 33—27.)



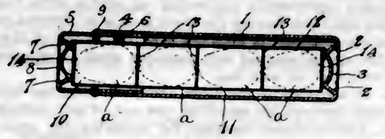
1. A tool of the class described, comprising a rod one end of which is forked, a shaft in said fork arranged in an axial plane of said rod, a roller carried by said shaft and arranged in an axial plane of said rod perpendicular to said first named plane, a block adjustable on said rod and a wheel on said block arranged transversely to the axis of said rod.

2. A tool of the class described, comprising a rod, one end of which is forked, a shaft in said fork arranged in an axial plane of said rod, a roller on said shaft arranged in an axial plane of said rod at right angles to said first named plane, a block adjustable on said rod, a wheel on said block and arranged transversely to the axis of said rod, and a gage-block adjustable on said rod, said gage-block being provided with a needle-point thereon.

1,134,807. EGG-CONVEYER. WILLIAM N. BAUER, Cincinnati, Ohio. Filed June 16, 1914. Serial No. 845,405. (Cl. 220—5.)

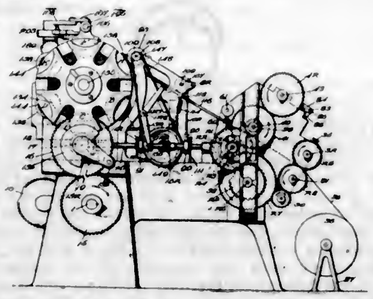
An egg conveyer comprising a tube of circular cross section, closed at one end and provided with a removable cover, said closed end and removable cover each having inwardly extending projections, and a rectangular egg cell

box inserted within the tube and provided with partitions to separate the box into a plurality of egg chambers, the



ends of said egg cell box bearing against the projections at the ends and cover of the tube.

1,134,808. MACHINE FOR MAKING PAPER CARTONS. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Original application filed Aug. 2, 1911, Serial No. 641,916. Divided and this application filed Jan. 24, 1912. Serial No. 673,084. (Cl. 93—39.)



1. In a paper tube machine, the combination of a plurality of mandrels; means for revolving said mandrels at predetermined intervals along a circular path; means for feeding, cutting, printing and gluing strips of paper and forcing them successively to said mandrels; means for correspondingly causing said mandrels to wind said paper into tubes and causing said printing to appear on the outside of said tube; and means located in said path for inserting a bottom in said tube, substantially as described.

2. In a paper tube machine, the combination of a plurality of mandrels; means for moving said mandrels to, and locking them in predetermined positions; means for successively feeding prepared paper strips to said mandrels when in one position; means for rotating said mandrels on their axes and winding said strips into tubes while in said positions; and means for forming and forcing end closures into said tubes when said mandrels reach another position, substantially as described.

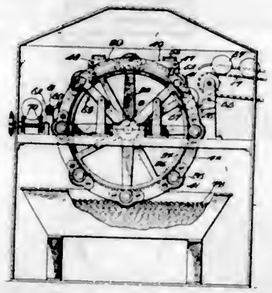
3. In a paper tube machine, the combination of a plurality of mandrels; means for moving said mandrels to, and locking them in predetermined positions; means comprising a movable roll for successively feeding prepared paper strips to said mandrels when in one position; means rigid with said roll for rotating said mandrels on their axes and winding said strips into tubes while in said positions; and means for forming and forcing end closures into said tubes when said mandrels reach another position, substantially as described.

4. In a paper tube machine, the combination of a plurality of mandrels; means for moving said mandrels to, and locking them in predetermined positions; means for successively feeding prepared paper strips to said mandrels when in one position; means for rotating said mandrels on their axes and winding said strips into tubes while in said positions; means for forming and forcing end closures into said tubes when said mandrels reach another position; and means for subjecting said tubes and closures to a spinning operation when said mandrels reach a still further position, substantially as described.

5. In a paper tube machine, the combination of a plurality of mandrels; means for moving said mandrels to, and locking them in predetermined positions; means comprising a movable roll for successively feeding prepared paper strips to said mandrels when in one position; means rigid with said roll for rotating said mandrels on their axes and winding said strips into tubes while in said positions; means for forming and forcing end closures into said tubes when said mandrels reach another position; and means for subjecting said tubes and closures to a spinning operation when said mandrels reach a still further position, substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,134,809. DRYING AND COOLING ATTACHMENT FOR PARAFFINING-MACHINES. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Nov. 9, 1912. Serial No. 730,530. (Cl. 91—55.)



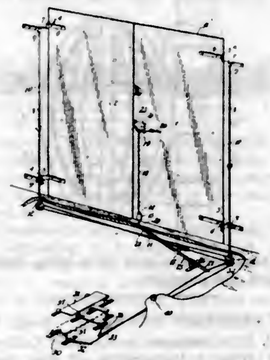
1. In a cooling means for coated cartons, the combination of a wheel provided with seizing means for the cartons; a water bath into which said means is adapted to dip said cartons; means associated with said seizing means adapted to retract the latter after the dipping operation; and means to rotate said cartons on their axes during the said dipping operation, substantially as described.

2. In a cooling means for coated cartons, the combination of a wheel provided with seizing means for the cartons; a water bath into which said means is adapted to dip said cartons; means associated with said seizing means adapted to retract the latter after the dipping operation; means to cause said cartons to leave the wheel after said seizing means is retracted; and means to rotate said cartons on their axes during the said dipping operation, substantially as described.

1,134,810. AUTOMATIC DOOR OPENING AND CLOSING APPARATUS. GEORGE MARSHALL BEERBOWER, New York, N. Y., assignor of one-half to William Foulke Johnes, Pelhamwood, N. Y. Filed Nov. 1, 1913. Serial No. 798,661. (Cl. 39—91.)

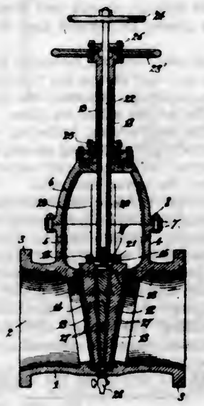
1. The combination of a door, a depressible platform, a door-operating means including a cable normally slack when the door is closed and connected with the platform and the door for throwing the latter open, a bolt normally locking the door in closed position, and bolt-operating means including a part normally supporting the bolt in locking position and taking up the slack of the cable while the platform is in raised position, whereby the cable operates the said part to release the bolt as the slackness of the cable is removed and before the cable throws the door open.

2. The combination of a door, a vehicle-depressed platform, a door-operating means including a cable normally slack when the door is closed and connected with the said platform and said door to throw the latter open, a bolt normally locking the door closed, and a lever engaging the cable and normally taking up the slack thereof while said platform is raised and moved by the cable when the platform is depressed for throwing the said bolt to unlocking position.



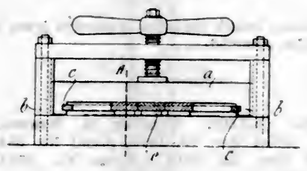
3. The combination of a pair of doors, hinges for the lower portions of the doors and vertically disposed shafts, cranks on the upper ends of the shafts, hinged connections between the cranks and doors respectively, said hinge connections being out of vertical alinement with the axis of the lower hinges, connections between the shafts for causing simultaneous movement, oppositely-movable vertically-depressed platforms, bell-crank levers actuated by the platforms, a cable connected with the bell-crank levers, a drum on one of the said shafts around which the cable winds, a locking bolt for the doors, and a lever arranged to release the bolt and operatively related with the said cable whereby the initial movement of the cable moves the lever to release the bolt preparatory to the turning of the said shafts.

1,134,811. GATE-VALVE. HOMER S. BRAGG, Muncy, Pa. Filed May 9, 1914. Serial No. 837,477. (Cl. 137—5.)



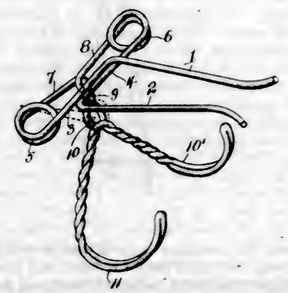
In a gate valve, a casing having a passage therethrough and formed with a valve seat transversely thereof and having vertical grooves formed in the opposite side walls thereof contiguous the valve seat, a gate movable into and out of said passage and seat and comprising two sections, a wedge between said sections and having the opposite ends thereof slidably disposed within said grooves, means for actuating said wedge independently of said sections to bind the latter against the adjacent walls of the seat, means for moving said sections and wedge simultaneously to open and close the valve, a lining of wear resisting material on the confronting faces of said valve and seat, and a bonnet surmounting said casing and having the opposite side walls thereof formed with grooves alining with the first-mentioned grooves to receive said gate when the latter is moved out of engagement with the valve seat.

1,134,812. MACHINE FOR MARKING SHOW-CARDS OR TICKETS. EDWARD ERNEST BERNHARD, St. Mary Cray, England. Filed Aug. 1, 1914. Serial No. 854,521. (Cl. 101—169.)



In a press adapted for making show cars and the like the combination of grooved stops at either end of the moving plate, a rectangular type holder adapted to slide in the grooves and spring clips adapted to embrace part of the holder and to support type of a size smaller than the largest which the holder can carry.

1,134,813. BROOM-HOLDER. CLARENCE A. BEST, Floyd Knobs, Ind. Filed Sept. 22, 1914. Serial No. 862,998. (Cl. 211—17.)

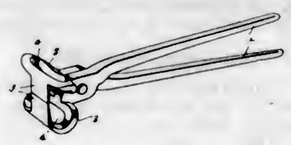


A device as described constructed of a single strand of wire comprising a longitudinally extending jaw formed from the end strands of the wire, the said jaw comprising two arms which are curved toward each other adjacent their ends and which have their ends curved outwardly in opposite directions, the inner ends of the arms being bent laterally in opposite directions one overlying the other, and the ends of the said lateral extensions being coiled, the end convolutions of the coils having end extensions which are arranged parallel with the first mentioned extensions, the said last mentioned extensions being coiled upon themselves in an angular direction and approximately at a right angle to the jaw, the last mentioned coils forming an eye and one of the said coils being bent upon itself to provide an angularly disposed hook, the end strand of the said jaw being arranged below the eye and coiled upon the second strand to provide a second angularly disposed hook.

1,134,814. SHEARS. JAMES FREDRICK BLACK, Prophetstown, Ill., assignor of one-half to Harry B. Richmond, Prophetstown, Ill. Filed Apr. 18, 1914. Serial No. 832,887. (Cl. 168—48.)

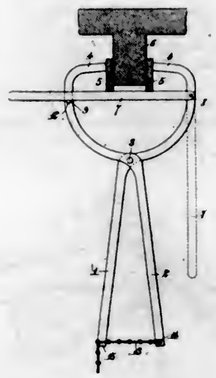
A hoof trimmer including companion pivotally connected skeleton jaws, each substantially U-shaped in cross-

section and having a cutting blade depending from one side thereof, the cutting blades on the jaws being alined



and of lesser length than the respective jaws, as and for the purpose specified.

1,134,815. CLAMP. WILLIAM H. BOWERS, Lincoln, Nebr. Filed Mar. 19, 1912, Serial No. 684,777. Renewed Nov. 23, 1914. Serial No. 873,645. (Cl. 144—289.)



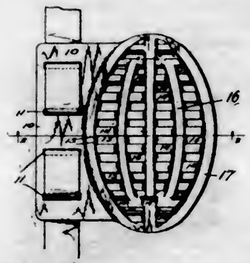
1. A clamp for securing gage strips to overhead bearers, comprising two hand levers crossed and pivotally connected and provided with inturned clamping jaws, means connecting the levers for holding the jaws set, and a gage strip sustaining bar terminally connected to one lever and means on the other lever to temporarily support the free end of the strip sustaining bar so that it may be moved out of the way after the strips have been clamped against the work.

2. A clamp for securing gage strips to over-head bearers, comprising two hand levers crossed and pivotally connected and provided with inwardly extending clamping jaws, means connecting the levers for holding the jaws set, a gage strip sustaining bar terminally connected to one lever and adapted to be swung into and out of operative position, and a push pin having a sliding relation to the other lever and forming a temporary support for the strip sustaining bar.

1,134,816. BRIDLE-BLIND. OSCAR BROCKMAN, Louisville, Ky. Filed Apr. 11, 1914. Serial No. 831,203. (Cl. 54—10.)

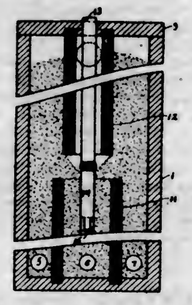
1. A bridle blind formed from a sheet of material provided with horizontal slits interrupted to leave upright unslitted paths and an unslitted margin, the bars between said slits being deflected alternately inward and outward.

2. A bridle blind formed from a sheet of material having a plain portion provided with means for attachment to the head stall, and a blind portion proper provided with horizontal slits interrupted to leave upright unslitted



paths, the bars between said slits being deflected alternately inward and outward.

1,134,817. ELECTRIC FURNACE. JOHN W. BROWN, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Jan. 8, 1912. Serial No. 670,070. (Cl. 204—64.)



1. In an electric arc furnace having stationary walls, electrodes for producing an electric arc one of which is insulated from the furnace charge and means whereby the furnace charge is caused to descend past the arc on all of its sides.

2. In an electric arc furnace, inclosing walls, electrodes for producing an arc, and means for removing the treated charge below the electrodes whereby the charge is caused to descend past the arc on all of its sides.

3. In an electric arc furnace, inclosing walls, an upper and a lower electrode for producing an arc one of which is substantially vertical, and means for removing the treated charge from below the lower electrode.

4. In an electric arc furnace, an upper and a lower electrode, a condensing chamber surrounding the upper electrode for condensing volatile matter arising from the heated charge and means whereby the charge is caused to descend around the chamber and the lower electrode.

5. In an electric arc furnace, an upper electrode insulated from the charge and a lower electrode, a condensing chamber surrounding the upper electrode and means whereby the charge is caused to descend around the chamber and the lower electrode.

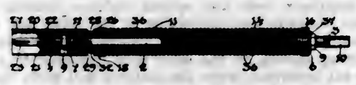
[Claims 6 to 13 not printed in the Gazette.]

1,134,818. ELECTRICAL HEATING UNIT AND RESISTANCE-COIL. LOUIS WILLIAM CAMPBELL, South Yarra, Victoria, Australia. Filed June 17, 1913. Serial No. 774,256. (Cl. 219—63.)

1. As an article of manufacture an insulator consisting of a series of mica disks having their edges percussively united and hardened.

2. As an article of manufacture, an insulating member consisting of a series of mica washers compressed together and having their edges percussively united and hardened.

3. In a device of the kind described, a supporting rod, a series of mica washers mounted on said rod, and means carried by the rod for compressing the washers thereon said washers having their edges percussively united and hardened.



4. Improvements in electrical heating units and resistance coils, consisting in a supporting rod, a series of washers carried by said rod, means for compressing said washers, and a terminal supported at one end of said rod and insulated therefrom.

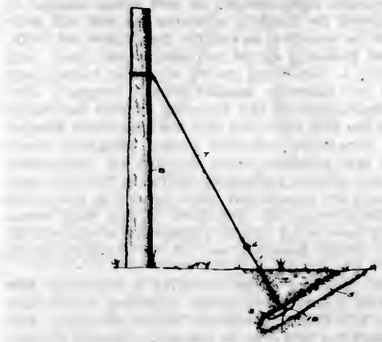
5. Improvements in electrical heating units and resistance coils consisting in a supporting rod, a series of washers mounted upon said rod, means for compressing said washers, a reduced extension at one end of said washers, and a terminal mounted upon said extension.

[Claims 6 to 14 not printed in the Gazette.]

1,134,819. PAINT. WILLIAM CHADD, Wilkes-Barre, Pa. Filed July 16, 1913. Serial No. 779,404. (Cl. 134—51.)

A paint composed of litharge approximately 6 parts, plaster of Paris approximately 6 parts, white rosin approximately 4 parts, and boiled linseed oil in a sufficient quantity to render the easy application of the paint by a brush.

1,134,820. LAND-ANCHOR. ALBERT B. CHANCE, Centralia, Mo. Filed Apr. 29, 1913, Serial No. 764,467. Renewed Jan. 5, 1915. Serial No. 671. (Cl. 189—92.)



A device of the type described including an anchor head having an upper convex surface, said anchor head being equipped upon its said convex surface with a transverse rib to prevent slipping action thereof, said anchor-head also having a central orifice, the walls of which taper upwardly and provided with a slot merging into said orifice, and a rod member itself having a head adapted to interlock with said orifice of the anchor head.

1,134,821. MOTOR-REGULATOR. WILLIAM F. COOPER, Norwalk, Ohio. Filed Aug. 12, 1912. Serial No. 714,606. (Cl. 230—36.)

1. In a motor regulator, a cover plate, a base carried by the cover plate and provided with inlet and outlet ports, a motor regulator diaphragm arranged within the cover plate, a motor regulator valve acted upon but movable independently of the diaphragm, means for varying the resistance to operation of the diaphragm, means for normally holding the controlling valve in an open position, and a pressure controlled balancing means for the valve acting thereon independently of the motor regulating means.

2. In a motor regulator, a cover plate, a base provided with inlet and outlet ports, a pivotally-mounted motor regulating valve; a motor regulator diaphragm arranged within the cover plate to act upon but free from connection with and movable independently of the valve, means for varying the resistance to operation of the diaphragm, means for normally holding the controlling valve in an open position, and a pressure-controlled valve balancing means acting on the valve independently of the motor regulating diaphragm.

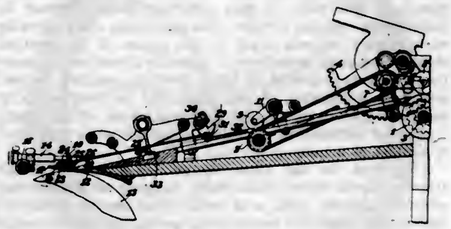


3. In a motor regulator, a motor regulator diaphragm, means for varying the resistance to operation of the diaphragm, a valve independently movable of and adapted to be acted upon by the diaphragm for controlling the pressure of air passing through the regulator, means for normally holding the controlling valve in an open position, and pressure-controlled means acting on the valve to balance the same against fluctuations of pressure thereon.

4. In a motor regulator, a motor regulator diaphragm, means for varying resistance to operation of the diaphragm, a valve independently movable of and arranged to be acted upon by the diaphragm for controlling the pressure of air through the regulator, means for normally holding the controlling valve in an open position, and a pressure controlled diaphragm acting on the valve to balance the same against fluctuations of pressure thereon.

5. In a motor regulator, a motor regulator diaphragm, means for varying the resistance to operation of the diaphragm, a valve independently movable of and adapted to be acted upon by the diaphragm for controlling the pressure of air passing through the regulator, a pressure-controlled balancing means for the valve, means for normally holding the controlling valve in an open position, and means for admitting the same pressure to the valve and the valve-balancing means.

1,134,822. FRONT-REGISTERING MECHANISM. FRANK L. CROSS, Port Washington, N. Y., assignor to Cross Paper Feeder Company, Portland, Me., a Corporation of Maine. Filed Apr. 17, 1914. Serial No. 832,446. (Cl. 101—88.)



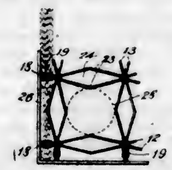
1. A front registering mechanism for sheet feeders, having, in combination, front guides movable into and out of the path of the sheet, registering grippers arranged to grip the front edge of the sheet adjacent to the front guides, means for actuating the grippers to grip the sheet, draw it forward against the front guides, and slide over the sheet after the forward movement of the sheet is arrested by the corresponding front guide and means for removing the grippers from the path of the sheet.

2. A front registering mechanism for sheet feeders, having, in combination, front guides movable into and out of the path of the sheet, sheet forwarding devices for forwarding the sheet to a position short of the front guides, registering grippers arranged to grip the front edge of the sheet adjacent to the front guides, means for actuating the grippers to grip the sheet, draw it forward against the front guides, and slide over the sheet after the forward movement of the sheet is arrested by the corresponding front guide and means for removing the grippers from the path of the sheet.

3. A front registering mechanism for sheet feeders, having, in combination, slotted front guides, a sheet gripper corresponding to each guide, mechanism for advancing and retracting each gripper through the slot of the corresponding guide, and means for moving the grippers and front guides into and out of the path of the sheet.

4. A front registering mechanism for sheet feeders, having, in combination, slotted front guides, coöperating slotted sheet supporting tongues, registering grippers arranged to pass through the slots in the guides and having their lower jaws arranged to enter the slots in the tongues, means for actuating the grippers to grip and draw the front edge of the sheets against the guides, and means for moving the grippers and front guides into and out of the path of the sheet.

1,134,823. FILLER FOR EGG-CASES. CHARLES P. DALY, New York, N. Y. Filed Mar. 17, 1914. Serial No. 825,263. (Cl. 217—34.)



1. The combination with a case; of a filler therefor, said filler comprising interlocking spaced parallel walls each embodying a pair of strips bent in angular form and disposed in contact at the points of connection of the walls and expanded to form diamond-shaped spaces at intermediate points between said points of contact and the walls of the cells produced thereby, said walls beyond their outer connections having extensions, and means for securing said extensions together, all of said walls being of a length greater than the interior dimension of the case in the direction in which they are extended, whereby engagement of the ends of the walls will positively hold the expanded parts in spaced relation, whereby breakage of articles carried in the cells is prevented.

2. In a filler for egg cases, comprising a double walled structure, the walls of said structure being disposed in intersecting relation to form cells, said walls being movable with respect to each other at the points of intersection thereof and open angularly in opposite directions between the intersecting points to form cushions adapted to permit total collapsing of the filler and to automatically cause the expansion thereof and separation of the angularly bent portions in opposite directions when the filler is applied to a case.

3. A filler for egg cases, comprising a double walled structure, said double walls being disposed in intersecting relation to form cells, said walls being scored vertically centrally between the intersecting parts to cause the walls of each cell to automatically bend inwardly when the filler is disposed in a box of smaller dimensions than the filler in plan, thus forming flexible cushions.

4. A filler comprising a double walled structure, each wall comprising a plurality of sections connected adjacent their ends, the sections of each of said walls having at spaced points an inclosed vertical opening, an opening vertically alined therewith and a notch in one edge in alinement with said openings and communicating with the second named opening through a severed portion, and other sections interlocking with said first named sections through the medium of said openings and notches, said sections which are connected being correspondingly formed transversely.

5. A filler comprising rows of walls movably secured together at right angles, each wall consisting of two sections with angularly bent and spaced cushion forming parts between the points of connection of the walls and means connecting the sections against vertical displacement and permitting folding of the filler thus produced to a relatively flat condition, when the sections will move together at said cushion forming parts.

[Claims 6 to 9 not printed in the Gazette.]

1,134,824. RAIL-FASTENING DEVICE. ROBERT A. DECKER and ERNEST F. FERGUSON, Wellsburg, N. Y. Filed Mar. 13, 1913. Serial No. 754,046. (Cl. 239—6.)



1. A rail fastening device including a rail chair, a pair of rail fastening members, one of the said members being formed integrally with the said chair, the other of the said members being detachably fastened to the said chair, said members being disposed to overlap the rail base upon the respective sides of the rail, and means carried by the said members disposed for engagement with the said rails to fasten the latter therebetween, the said means adapted to be manipulated for laterally adjusting the said rail independent of the members, as and for the purpose set forth.

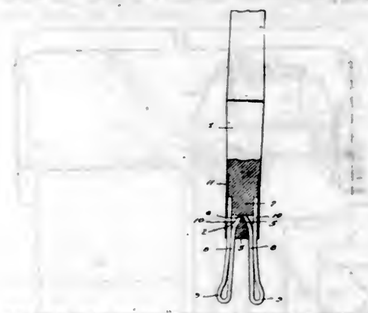
2. A rail fastening device including a rail chair, said chair having a dove-tailed groove extending transversely thereof, a rail fastening member formed integrally with the said chair, a second rail fastening member detachably secured to the said chair, the said last mentioned member having a dove-tailed extension formed integrally therewith, the said extension being disposed for engagement with the said groove, and means carried by the said members disposed for engagement with the rail to fasten the latter therebetween, the actuation of the said means adapted to provide for lateral adjustment of the rail independent of the members, as and for the purpose set forth.

3. A rail fastening device including a rail chair, said chair having a dove-tailed groove extending transversely thereof, a rail fastening member formed integrally with the rail chair, the said member adapted to overlap the base of the rail at one side of the web thereof, a removable rail fastening member carried by the said rail chair, the said removable member having a dove-tailed extension formed integrally therewith, the said extension adapted to fit the said groove, the last mentioned member adapted to overlap the base of the rail upon the opposite side of the rail web, and means including an adjustable bolt carried by each member and disposed for engagement with the web of the rail to fasten the rail therebetween, the actuation of the said bolt adapted to provide for the lateral adjustment of the rail independent of the members as and for the purpose set forth.

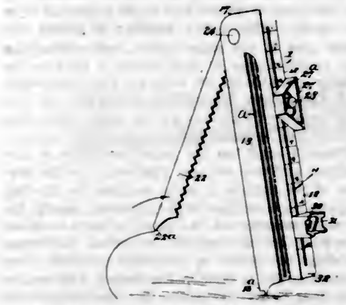
1,134,825. CLOTHES-LIFTER. JOHN E. DE NOON, Spokane, Wash. Filed Nov. 23, 1914. Serial No. 873,544. (Cl. 68—6.)

1. A clothes lifter comprising a stick having a recess in the end thereof, a supporting member, and oppositely disposed grooves, a wire lifter provided with a central bend engaging said support, outwardly diverging fingers, and the terminal ends of said strand engaging the side grooves of the handle, and a ferrule for holding the wire in place.

2. A clothes lifter comprising a stick or handle having a recess at the end thereof and groves on opposite sides of said handle, a wire lifter connected to said handle and bent around said support, said lifter having divergent fingers having curved ends, and the terminals of the wire strand forming a continuance to be seated in said grooves, and a ferrule for holding the parts in place.



1,134,826. CARPENTER'S COMBINATION-TOOL. OLOF A. ECKRE, Kindred, N. D. Filed Aug. 15, 1914. Serial No. 856,972. (Cl. 33—88.)



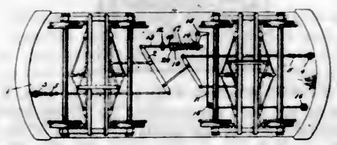
1. A tool comprising a base member and two parallel arms, one of said arms including a pair of parallelly disposed flanges spaced apart, one of said flanges terminating short of the other flange at the base member and extending at right angles to the other arm to form a gage stop and stiffening member, said other arm having additional gage stops and stiffening members paralleling said first mentioned gage stop and spaced apart substantially as shown and described.

2. A tool comprising a base member and two parallel arms, one of said arms including a pair of parallelly disposed flanges spaced apart, one of said flanges terminating short of the other flange at the base member and extending at right angles to the other arm to form a gage stop and stiffening member, said other arm having additional gage stops and stiffening members paralleling said first mentioned gage stop and spaced apart, said second mentioned arm having a longitudinal groove in its edge and a blade adapted to be folded into said groove, and an adjustable hinge connection between said blade and said base member, said hinge connection including a wing nut, said lateral flanges and stops terminating in a plane parallel to the plane containing said second mentioned arm and at a distance greater than the depth of said wing nut whereby when said tool is laid down on a support, with the wing nut side lowermost, said tool will lie without rocking and serve as a straight edge.

3. A tool of the character stated comprising a main or body portion having an arm composed of a pair of spaced members joined at one end, a base portion that projects laterally from the said arm, one member of the said arm being curved outwardly to form a vertical edge flange connected with the base portion, and an arm that extends from the base member and is disposed in parallelism with the other arm and spaced from said other arm.

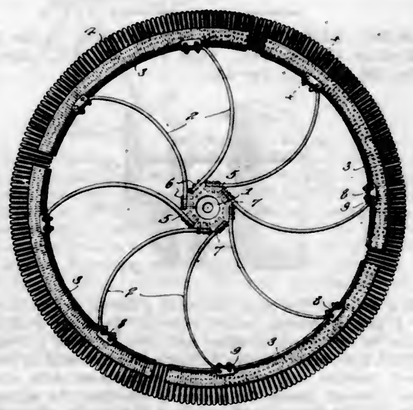
4. A tool of the character stated comprising a main or body portion having an arm composed of a pair of spaced members joined at one end, a base portion that projects laterally from the said arm, one member of the said arm being curved outwardly to form a vertical edge flange connected with the base member, an arm that extends from the base portion and is disposed in parallelism with the other arm, the said first mentioned arm having one of its members provided with a longitudinal slot, clamp screws slidably mounted in the said slot and gage members on said slotted member detachably connected with the said clamping screws.

1,134,827. CAR-SIGNAL. WILLIAM B. EICHHOLTZ and FERDINAND L. WINTERS, New Orleans, La. Filed June 19, 1912, Serial No. 704,674. Renewed Jan. 5, 1915. Serial No. 700. (Cl. 116—9.)



In a car signal, the combination with a brake mechanism of a car, including the usual brake lever, of a longitudinally slidable rod pivotally connected with said lever, a bell crank lever having a slotted arm through which the rod loosely extends whereby the said rod is both slidably and pivotally connected, an abutment on the rod, a coiled motion transmitting spring surrounding the rod between the bell crank lever and the abutment, whereby when the brake lever is actuated the rod will be moved to compress the spring and gradually transmit motion therethrough to the bell crank lever, a positively projected gravity retracted signal, adapted for positive projection to display position, and a flexible connection between the other arm of the bell crank lever and said signal, whereby when said bell crank lever is actuated by the pressure of the spring under the motion of the sliding rod said signal will be projected.

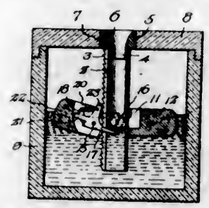
1,134,828. SPRING-WHEEL. CARL EKISS, Bethany, Ill. Filed Oct. 29, 1913. Serial No. 798,103. (Cl. 152—29.)



A vehicle wheel comprising a hub, a rim channeled in its outer side for its entire length and comprising a plurality of non-connected sections, spring spokes having integral heads at one end thereof, said heads being curved

longitudinally and transversely to conform to the curvature of the rim sections both transversely and circumferentially, the spokes being connected at one end with the hub while the heads of the spokes are connected with the rim sections at points adjacent the terminals thereof, a tire member holding the separated rim sections in assembled relation, and means for detachably securing the inner portion of the tire member to the rim sections and the integral heads of the spokes.

1,134,829. INK-WELL ATTACHMENT. ADELBERT D. EVANS, Aurora, Ill. Filed Nov. 29, 1913. Serial No. 803,750. (Cl. 120—71.)



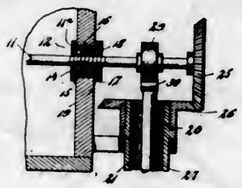
1. An ink well provided with a tube, a float, a valve supported by the float and mounted for tilting movement, and means for limiting the tilting movement of the valve therein.

2. An ink well provided with a tube, a float associated with the tube and movable thereon respectively on the rise and fall of liquid within the well, a valve mounted for tilting movements upon the float and disposed within the tube, means on the valve, and means on the tube, the later coacting with the first means to limit the tilting movement of the valve.

3. An ink well provided with a tube, a float associated with the tube and movable thereon respectively on the rise and fall of liquid within the well, a valve mounted for tilting movements upon the float and disposed within the tube, means on the valve, means on the tube, the latter coacting with the first means to limit the tilting movement of the valve, and means for holding the coacting first and second means normally inactive relatively.

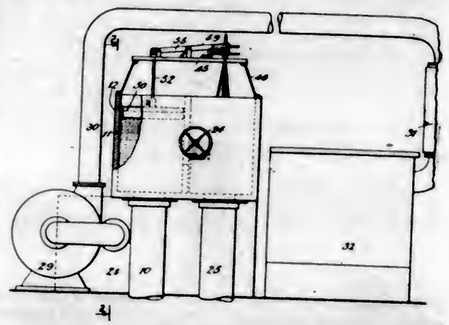
4. An ink well provided with a tube, a float movably supported upon the tube, a valve carried by the float and means to prevent the lowering of the float on the application of pressure of the pen against the valve and to also permit the valve to be tilted to a predetermined position.

1,134,830. FAN-ACTUATING MECHANISM. JAMES H. EVERITT, Canton, Tex. Filed June 29, 1912. Serial No. 706,690. (Cl. 74—45.)



In a device of the class described, a driven member having a slot, a driving motor therefor including a shaft geared to the driven member and provided with a brake element, a movable member having a slot mounted in said driven member and adapted for engagement with said brake element, means for manually affecting the adjustment of said last named member, and means pivotally connected to the driven member having a portion thereof protruding through the slot of the latter and through the movable member for automatically affecting the adjustment of said movable member.

1,134,831. AUTOMATIC STUFF-BOX FOR PAPER-MACHINES. WILLIAM P. FENNEY, Hudson Falls, N. Y., assignor of one-fourth to William Germain, Fort Edward, N. Y. Filed Dec. 31, 1913. Serial No. 809,769. (Cl. 92—46.)



1. In an automatic stuff box for paper machines, a casing having an inlet and two outlets, guideways in the casing adjacent the outlets, two valve members disposed in the guideways, one adjacent the top of one of the outlets and the other adjacent the bottom of the other outlet, a yoke to which the valve members are rigidly secured for raising one of the valve members to expose a greater area in one outlet as the other valve member is raised for closing a greater area in the other outlet, two valves, one disposed at the exposed area of each outlet, a float in the casing, and means operable by the float for simultaneously moving one of the valves for closing a portion of the exposed area of one of the outlets as the other valve uncovers a portion of the exposed area of the other outlet.

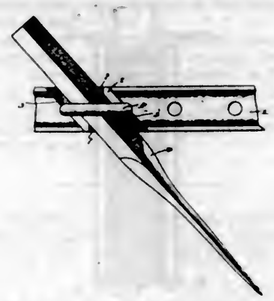
2. In an automatic stuff box for paper machines, a casing having an inlet and two outlets, guideways in the casing at the sides of the outlets, a valve member for moving in one of the guideways at one outlet, a yoke, means for adjusting the valve member on the yoke, a valve member secured to the yoke for moving in the other guideway, means for holding the yoke in adjusted position, two valves, one of each outlet, a float in the casing, and means connecting the float with the valve for simultaneously moving one of the valves for closing a portion of the exposed area of one of the outlets, as the other valve uncovers a portion of the exposed area of the other outlet.

3. An automatic stuff box for paper machines, a casing having two partitions dividing the casing into three compartments, there being an inlet into the first compartment and an outlet from an adjacent second compartment, the top of the partition between the said first and second compartments being lower than the top of the partition between the first and third compartment, an outlet from the second compartment to the third compartment, a float in the first compartment, two valves, one disposed at each outlet, means operable by the float for simultaneously moving one of the valves for partially closing one of the outlets, while the other valve is moved to uncover a greater area of the other outlet, there being in one of the partitions an opening between the first and third compartments, and a valve for closing the said opening.

1,134,832. CLIP FOR HARROW-TEETH. THOMAS M. FINE and LYMAN BURNAM, Walla Walla, Wash. Filed Apr. 18, 1914. Serial No. 832,798. (Cl. 55—94.)

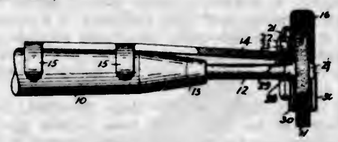
1. A harrow tooth clip comprising a block provided at one side with shoulders adapted to fit between the edge portions of a harrow bar, said block being rhomb-shaped in elevation and provided at its ends with recesses, a U-bolt adapted to enter the recesses, said block being provided at that side opposite the side thereof at which the shoulders are mounted with a channel adapted to receive a harrow tooth.

2. A harrow tooth clip comprising a block which is rhomb shaped in side elevation and provided at its ends with recesses, said block being provided at one side with channels which extend from edge to edge of the block and which are disposed at angles with relation to each other, said channels intersecting each other at points midway



between their ends one of said channels being deeper than the other, the said channels having converging side walls and a U-bolt having edge portions adapted to enter the recesses of the block.

1,134,833. DENTAL-ENGINE TOOL-GUARD. FRANK F. FISCHER and CORNELIUS MYRON KALETSKY, New York, N. Y., assignors to Kalfer Company, Inc., a Corporation of New York. Filed Aug. 1, 1914. Serial No. 854,519. (Cl. 32—10.)



1. The combination with a dental engine having a tool handle, a rotary spindle, and a grinding wheel, of a guard comprising a holder having a head provided with a perpendicular socket recess, said socket recess having at the inner end a chamfered surface; a shield having a pad to rest on said chamfered surface; and means mounted on said shield for holding said pad upon said chamfered surface.

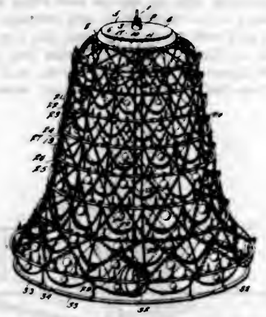
2. The combination with a dental engine having a tool handle, a rotary spindle, and a grinding wheel, of a guard comprising a holder having a head provided with a perpendicular socket recess, said socket recess having at the inner end a chamfered surface; a shield having a pad to rest on said chamfered surface; means mounted on said shield for holding said pad upon said chamfered surface; and means mounted on said holder, juxtaposed to said spindle in closer relation than said shield to said grinding wheel.

3. A guard as characterized, having a holder; a guard shield; a T-head rigidly mounted on said holder and having an upwardly-opening recess; a chamfered surface opening outward from the inner end of said recess; a button mounted on said shield, having a head, a base pad disposed on the surface of said shield, and a shank connecting said pad and said head; and a spring at the back of said head, adjacent said recess to extend below the head of said button, to force the same backward from said head.

4. A guard as characterized, comprising a holder having a T-head, both extensions whereof are provided with open-ended recesses, one of said extensions having a resilient back member; and a shield having a button rigidly attached thereto, the head of said button being adapted to override said resilient back member, to be engaged thereby to draw said shield into service relation to said T-head.

5. A guard as characterized, having a box-like shield provided with a radial segmental opening, the edges of said opening being outwardly flared.

1,134,834. DECORATIVE SUPPORT. THADDEUS C. FISHER, Sr., Plymouth, Pa., assignor of one-half to George W. Briggs, Pottsville, Pa. Filed Mar. 31, 1914. Serial No. 828,559. (Cl. 240—10.)



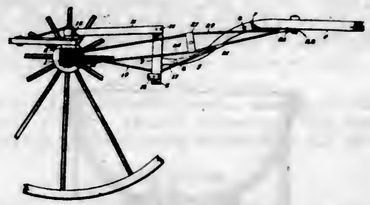
1. A structure of the class described comprising a disk having openings near its periphery, flexible rods having hooks at their upper ends detachably fitted in said openings, said rods being also provided with resilient outstanding loops, and rings engaged in said loops and detachably secured thereby to said rods.

2. A structure of the class described comprising a disk, a reflector, on the lower side of the disk, illuminating means below the reflector, rods detachably connected to their upper rods to the disk and rings detachably connected to said rods.

3. A structure of the class described comprising a disk, a reflector, on the lower side of the disk, illuminating means below the reflector, rods detachably connected to their upper ends to the disk and rings detachably connected to said rods.

4. A decorative support comprising a mirrored member, rods detachably connected with said member, and rings supported in a substantially superposed manner upon the rods.

1,134,835. TONGUE FOR VEHICLES. DOMENICO FORNIRASSO, Klamath Falls, Oreg. Filed July 25, 1914. Serial No. 853,133. (Cl. 21—63.)

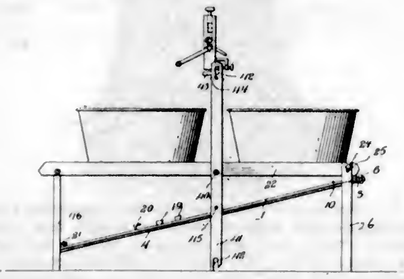


In combination with the front axle, front bolster or head-block and king-bolt of a vehicle a guide, a yoke extending rearwardly from the guide and having its rear end arranged on the bolster or head-block and engaged by a boss fastened immediately over and above the king-bolt which said boss is bolted and fastened to the head-block or bolster, forwardly converging brace rods attached to the axle, a tongue pivotally mounted between the front end of the brace-rods and having a member at its rear end arranged to operate vertically in the guide, braces attaching the lower portion of the guide to the axle and braces also connecting the guide to the first named braces.

1,134,836. FOLDABLE TUB-STAND AND WRINGER-SUPPORT. HUGH D. FORTNER, El Reno, Okla. Filed Nov. 13, 1912. Serial No. 731,132. (Cl. 68—10.)

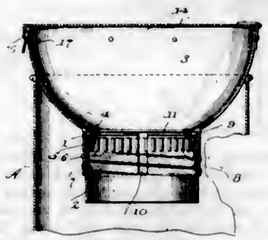
1. A foldable tub stand, and wringer support comprising a supporting member, end supporting legs pivotally se-

cured at their upper ends to the sides of said supporting member, intermediate supporting legs pivotally secured to and projecting above the sides of said supporting member, a cross bar formed with a socket carried by one of the end supporting legs, an eye on said cross bar, a downwardly inclined brace secured to and between the legs of the other of said end supporting legs, the free end of the brace resting in the socket of the cross bar, a hook connected to the brace for engagement with said eye for retaining the free end of said brace in said recess.



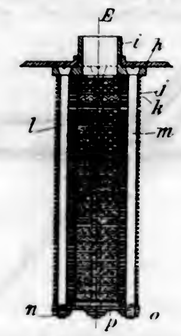
2. A foldable tub stand and wringer support comprising a supporting member, end supporting legs pivotally secured at their upper ends to the sides of said supporting member, intermediate apertured supporting legs pivotally secured to and projecting above the sides of said supporting member, a cross bar formed with a socket carried by one of the end supporting legs, an eye on said cross bar, a downwardly inclined brace pivotally secured to, and between the other of said supporting legs, the free end of the brace resting in the socket of the cross bar, means connected with the brace for engagement with said eye for retaining the free end of the brace in said recess, and means carried by the brace and adapted to be adjusted in the aperture of the intermediate supporting legs for retaining the latter in a vertical upright position.

1,134,837. COMBINED COLANDER, STRAINER, AND STEAMER. MAC L. FOX, Columbiaville, Mich., assignor of one-fourth to William B. Traver, Columbiaville, Mich. Filed June 2, 1914. Serial No. 842,461. (Cl. 210—16.)



The herein described combined colander, strainer and steamer comprising a vessel having an opening in its bottom, a collar depending from its lower side and concentric with said opening and also having an inwardly extending annular flange around said openings, in combination with a tubular member open at its ends and threaded in said collar and provided at its upper end with an inwardly extending annular flange, and a foraminus disk secured between the flanges of said vessel and said tubular member, the said tubular member being made of resilient material and being provided with a slot extending across its screw threads and also across its flange.

1,134,838. SAFETY DEVICE FOR INFLAMMABLE-MATERIAL CONTAINERS. VICTOR GAUMER, Paris, France. Filed Apr. 30, 1914. Serial No. 835,476. (Cl. 220—121.)



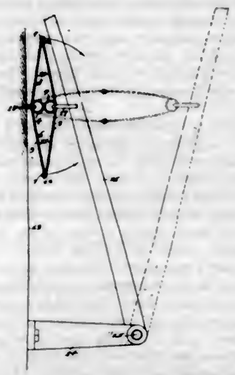
1. A device for the purpose substantially as set forth comprising, a series of superposed disks alternately smooth and undulated having their centers open, said superposed open centered disks forming a duct for the flow of the material through the center of said series of disks, a closure for one end of said duct, fastening means for said disks to hold same in superposition.

2. A device for the purpose substantially as set forth comprising, a cylindrical plug having radial passages through its walls, said plug composed of a series of flat disks, alternately smoothed faced and corrugated faced, arranged in superposition, means for fastening said disks in superposition and a closure for one end of said cylindrical plug.

3. A safety device of the class described, consisting of a series of flat disks, said disks having apertures in their centers and bolt receiving holes between their edges and center apertures, said series of disks alternately smooth and corrugated faced forming radial passages and a central duct when in superposition, a closure for one end of said ducts, bolts in said bolt receiving holes for holding said disks and said duct closure in position.

1,134,839. SPRING. FRANK C. GIVENS, Tuolumne, Cal. Filed Nov. 3, 1914. Serial No. 870,092. (Cl. 74—68.)

1. A spring comprising two members in pivotal con-



nection having arms thereon serving as means for preventing extension of said spring beyond a fixed point.

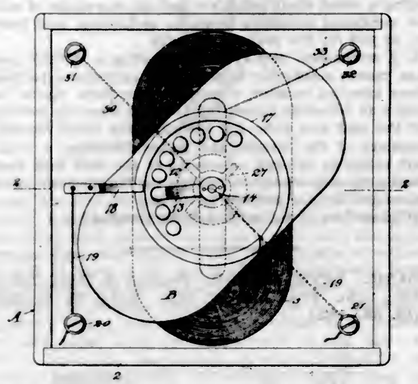
2. A spring comprising two members having, each, a coil therein forming arms on each side of said coil, said

arms being in pivotal connection, and serving as limiting means to the extension of said spring.

3. A spring comprising two members having, each, a coil formed centrally therein, to form oppositely directed arms, each of said arms being formed into an eye, and corresponding eyes being engaged to lock the respective arms together, said arms serving as limiting means for the extension of said spring.

4. A spring comprising two members having, each, a coil centrally thereof, oppositely directed arms having, each, an eye formed at the end thereof and the corresponding eyes being in engagement, and a ring in each of said coils, the line of extension of said spring being on a line bisecting and perpendicular to a line drawn through the connections of opposite arms.

1,134,840. TUNING-TRANSFORMER FOR WIRELESS SYSTEMS. ROBERT R. GOLDTHORP, Hartford, Conn. Filed Dec. 15, 1913. Serial No. 806,776. (Cl. 171—119.)



1. A tuning transformer comprising flat, elongated primary and secondary windings arranged co-axially and relatively adjustable from a position with the major axes parallel to a position with the said axes at right-angles to each other.

2. A tuning transformer comprising flat, elongated primary and secondary windings arranged co-axially and relatively adjustable from a position with the major axes parallel to a position with the said axes at right-angles to each other, and means for permitting movement of the coils toward and from each other.

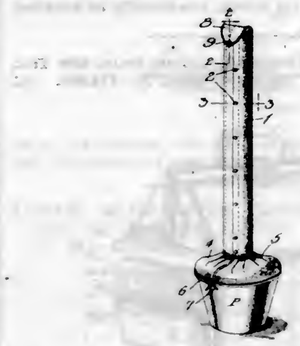
3. A tuning transformer comprising two flat, elongated parallel primary and secondary coils pivotally connected for rotation through an arc of ninety degrees, and means for varying the effective length of each coil.

4. A tuning transformer comprising two flat, elongated parallel primary and secondary coils pivotally connected for rotation through an arc of ninety degrees, and a multiple-point contact switch for changing the effective length of each coil.

5. A tuning transformer comprising a stationary coil, a movable coil, a tubular axle connected with the movable coil, said coils being flat and parallel and elongated, means for turning the axle to change the position of the coils, contact points connected with the movable coil for dividing the same into sections, a movable contact for engaging the contact points, a spindle journaled in the axle and connected with the movable contact for moving the same, means for connecting through the said contact and contact points the movable winding with a circuit, and a slip ring contact connection for connecting the movable winding in circuit.

[Claim 6 not printed in the Gazette.]

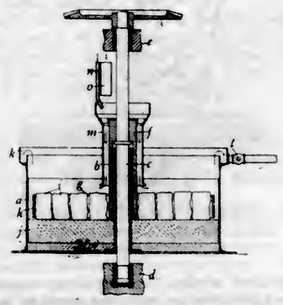
1,134,841. PLANT-PROTECTOR. FRANK GOMPF, Cleveland, Ohio. Filed Apr. 30, 1914. Serial No. 835,475. (Cl. 47—22.)



1. A plant protector of the character described, comprising a cylindrical member split longitudinally throughout its length, a plurality of coöperating fasteners relatively arranged upon the meeting edges of said member, a flexible skirt depending from the lower edge of the latter, said skirt having a tapered formation from its attached to its free end whereby when the latter is positioned upon the upper edge of a flower pot so as to circumscribe the same, said cylindrical member rising therefrom will be supported in a vertical position thereby, a draw string around the lower edge of said skirt for contracting the same, and a closer for the upper end of said cylindrical member substantially as and for the purpose set forth.

2. A plant protector of the character described comprising a cylindrical member, the latter being split longitudinally throughout its length and including two layers of flexible material with an insulator intermediate the same, a plurality of coöperating fasteners relatively arranged upon the meeting edges of said member, a flexible skirt depending from the lower edge of the latter, said skirt having a tapered formation from its attached to its free end whereby when the latter is positioned upon the upper edge of a flower pot so as to circumscribe the same, said cylindrical member rising therefrom will be supported in a vertical position thereby, a draw string around the lower edge of said skirt for contracting the same, and a closer for the upper end of said cylindrical member substantially as and for purpose set forth.

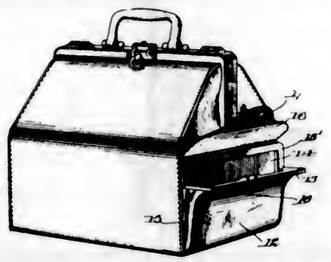
1,134,842. GRINDING-MILL. FREDERICK THOMAS HENRY GOODWIN, Longton, Stoke-upon-Trent, England. Filed Feb. 25, 1914. Serial No. 820,904. (Cl. 83—45.)



In means for grinding or milling potters' or like materials, the combination comprising a grinding pan, a vertical shaft in the pan, a hollow boss secured to the shaft, grinding means secured to the boss, a sleeve projecting upward from the bottom of the pan and passing between

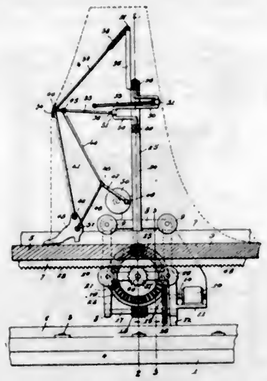
the shaft and the boss, a charging funnel secured to and rotating with the boss, an annular trough adapted to receive material by overflow from the pan, and a discharge pipe connected with the trough, substantially as described.

1,134,843. TRAVELING-BAG. ALFRED GRAY, New York, N. Y. Filed Jan. 29, 1913. Serial No. 744,999. (Cl. 190—52.)



In combination with a traveling bag having a rectangular body portion and hinged latching frames, a pocket forming piece secured to one of the end walls of the body portion and co-extensive in width thereof, a fixed latching frame secured to the end wall of the traveling bag at a point below and adjacent the hinged point of the latching frames of the traveling bag, a second latching frame pivoted to the fixed latching frame and secured to the upper edge of the pocket forming piece, and adapted to coact with the fixed latching frame for closing the pocket, a flap secured to the end wall of the traveling bag and having one end interposed between the fixed latching frame and the outer surface of the end wall, the free end of the flap being adapted to fold over the latching frames of the pocket when the said latching frames are in locking position, and means on the pocket adapted to engage means on the free end of the flap for holding the flap in its folded position.

1,134,844. MECHANICALLY-OPERATED DRESS-FORM. LUDWIG F. C. HAAS and ERNEST JEHEBER, Lancaster, Pa. Filed June 25, 1913. Serial No. 775,830. (Cl. 35—16.)



1. A mechanical display form including a movable carriage, means actuatable to move the carriage, a knee-cap member, a movable foot form, means including an eccentric operable to actuate the foot form, and means rotatable through movement of said first mentioned actuating means to reciprocate the knee-cap, as and for the purpose set forth.

2. A mechanical display form including a movable carriage, means actuatable to move the carriage in a definite path, a knee-cap member, a movable foot form, means operable through movement of the knee-cap member to actuate the foot form, means directing movement of the knee-cap member when actuated, and means including a crank shaft rotatable through movement of said first mentioned actuating means to move the knee-cap member, as and for the purpose set forth.

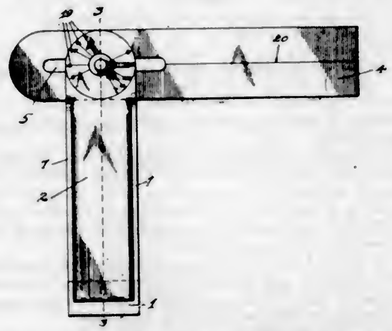
3. A mechanical display form including a movable carriage, means actuatable to move the carriage, a crank shaft rotatable through movement of said actuating means, a knee-cap member having connection with the crank shaft, means directing movement of the knee-cap member, a movable foot form, and means including an eccentric operable through movement of the knee-cap member to actuate the foot form simultaneously, as and for the purpose set forth.

4. A mechanical display form including a movable carriage, means actuatable to move said carriage, a reciprocatory knee-cap member, a movable foot form, means including an eccentric operable through movement of said knee-cap member to actuate said foot form, and means including a crank shaft rotatable through movement of said first mentioned actuating means to reciprocate said knee-cap, as and for the purpose set forth.

5. A mechanical display form including a movable carriage, means actuatable to move said carriage, a reciprocatory knee-cap member, a movable foot form, means including an eccentric connecting the said knee-cap member and the said foot form for operating the latter through movement of the former, and means including a crank shaft rotatable through movement of the said first mentioned actuating means to reciprocate the knee-cap member, as and for the purpose set forth.

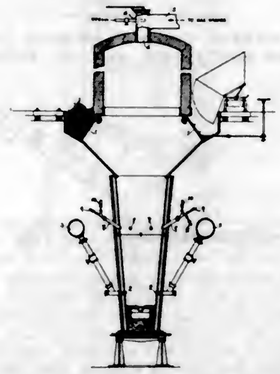
[Claims 6 to 11 not printed in the Gazette.]

1,134,845. BEVEL-SQUARE. FRANCIS O. HAGA, Zanesville, Ohio. Filed June 22, 1914. Serial No. 846,658. (Cl. 33—102.)



A device of the class described comprising a stock, said stock being bifurcated to form parallel side walls, said side walls provided with registering openings, a pivot bolt passing through said openings, a blade rotatably mounted upon said bolt, said blade being positioned between said side walls, lugs formed upon one of said walls, a series of interchangeable graduated plates, any one of which is adapted to be positioned upon last-mentioned side wall, each plate being provided with an opening registering with the first-mentioned openings of said walls, said bolt passing through said opening formed in said plate, each plate also being provided with alined apertures, said lugs fitting within said apertures, whereby said plate will be held against rotation upon said last-mentioned side wall, said lugs also holding said plate in its correct position, whereby the graduations of said plate will remain in position for allowing the easy adjustment of said blade relative to said stock, and means of engaging said bolt for holding said walls, said plate and said blade in an adjusted clamped engagement with each other.

1,134,846. PROCESS OF PREVENTING THE ESCAPE OF SULFUR DIOXID IN SMELTING SULFID ORES. WILLIAM A. HALL, New York, N. Y. Filed June 30, 1913, Serial No. 776,620. Renewed Mar. 1, 1915. Serial No. 11,328. (Cl. 23—10.)



1. A process of recovering elemental sulfur in smelting sulfid ore, and for preventing the escape of noxious gases, which comprises introducing a reducing gas flame, into the upper level of the furnace, at a point near the normal charge level therein, said flame being capable of reducing a part at least of the sulfur dioxid to elemental sulfur, while preventing the access of sufficient air to the gases leaving the smelting furnace to oxidize any considerable quantity of the elemental sulfur existing in, or produced in said gases, until the temperature of said gases has fallen below the temperature at which free sulfur will oxidize, and separating the elemental sulfur from said gases.

2. A process of recovering elemental sulfur in smelting pyritic ores, and for preventing the escape of noxious gases, which comprises introducing a reducing gas flame together with steam, into the upper level of the furnace, at a point near the normal charge level therein and under conditions capable of reducing a part at least of the SO_2 in the exit gases, and thereafter separating the elemental sulfur from the gases.

3. A process of preventing the escape of noxious gases in smelting, which comprises the subjecting an upper layer of the sulfid ore charge, to the action of a reducing gas, while at a high temperature, and avoiding the presence of sufficient free air at that point to reoxidize the elemental sulfur.

4. In smelting sulfid ores, the step of preventing the escape of sulfur dioxid which comprises reducing the same, by the introduction of reducing gases, into the upper part of furnace at a point materially above the focus, and while avoiding the presence at that point, of sufficient free oxygen to reoxidize said reduced sulfur.

5. In smelting sulfid ore, the step of introducing a reducing flame into the furnace, at a point near the normal charge level therein for reducing sulfur dioxid, and while avoiding the presence, at that point, of sufficient free oxygen to reoxidize said reduced sulfur.

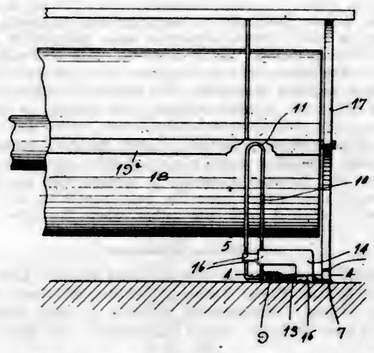
[Claims 6 to 9 not printed in the Gazette.]

1,134,847. BUTTON. LEROY J. HARE, Broughton, Kans. Filed June 13, 1914. Serial No. 844,924. (Cl. 24—222.)

The hereindescribed button head member comprising an outer disk having an inwardly bulged portion centrally thereof, a combined collet and shank, said shank having a key-hole slot therein and a contracted neck between the enlarged portion and the smaller portion of said slot, said shank having an outwardly turned flange to secure the button to the material, and said contracted neck adapted to hold the shank of a stud against accidental displacement.



1,134,848. PAPER-LIFTER. ERNEST M. HAUBER, Hammond, Ind. Filed Aug. 21, 1914. Serial No. 857,906. (Cl. 211—32.)



1. A paper lifter formed from a single piece of spring wire including a looped base portion, an upstanding looped portion having its upper edge beveled, and the intermediate portion coiled to increase the tension of the upstanding looped portion.

2. A paper lifter comprising a looped base portion, an upstanding looped roll-engaging portion, means for normally retaining said upstanding looped portion against a roll of paper, and an L-shaped member for bracing said upstanding looped portion.

3. A paper lifter comprising a looped base portion, an upstanding looped portion having its edge beveled and the intermediate portion coiled to increase the tension of the upstanding looped portion, and an L-shaped member for bracing said upstanding looped portion.

4. A paper lifter including a looped base portion, an upstanding looped roll-engaging portion having its edge beveled, and an L-shaped member for bracing said upstanding looped portion.

5. A paper lifter comprising a looped base portion, an upstanding looped roll-engaging portion, and an L-shaped member connecting the looped base portion with the upstanding looped portion to brace the latter.

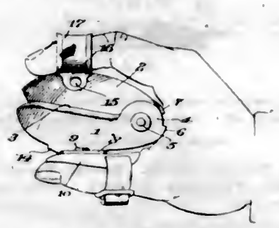
[Claim 6 not printed in the Gazette.]

1,134,849. FRUIT-PICKER. JAMES L. HAWKINS, Santa Barbara, Cal., assignor to Homer L. Hawkins, Santa Barbara, Cal. Filed Aug. 22, 1914. Serial No. 858,120. (Cl. 30—24.)

1. A fruit picker of the class described comprising an upper cutting member and a lower connecting member pivotally connected therewith, stops upon the said members for limiting the outward movement thereof, means whereby the fingers of an operator may be adjustably secured one to each of the members, a guard plate upon the lower member, the stop upon the upper member adapted to contact with the guard plate to limit the swinging of the said members to an open position.

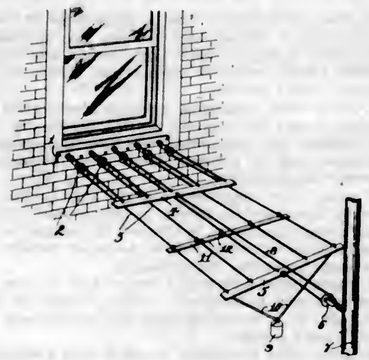
2. In a fruit picker of the class described, two cutting jaws pivotally secured, means upon the jaws for limiting

the opening thereof, means for limiting the closing of the jaws, a resilient ring pivotally secured to one of the jaws, a thumb plate arranged at an angle and pivotally secured to the second jaw, and an adjusting member upon the thumb plate.



3. In a fruit picker of the class described, an upper jaw having an inner cutting edge, its outer edge being provided with an angular flange, a thumb plate pivotally secured to the flange, said thumb plate having its longitudinal edges rounded outwardly, an adjustable element upon the thumb plate, a split resilient ring having an offset end pivotally secured to the second jaw, means arranged between both of the jaws for limiting the open swinging movement thereof, a guard plate arranged upon the second jaw and disposed below but in a plane with the first mentioned jaw, a stop upon the first mentioned jaw arranged to contact with the guard when the jaws are closed.

1,134,850. CLOTHES-DRIER. JOSEPH HÉBERT and JOSEPH SAMUEL HENRI GAGNON, Viauville, Montreal, Quebec, Canada; said Gagnon assignor to said Hébert. Filed June 29, 1914. Serial No. 848,087. (Cl. 68—12.)

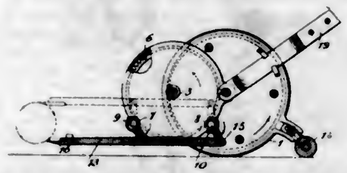


1. In a clothes drier, a plurality of parallel flexible clothes lines, a runner over which each of said clothes lines runs at one end, said runners being suitably supported side by side, a distancing member collectively connecting one end of said clothes lines at a distance apart, a distancing member collectively connecting the other end of said clothes lines at a distance apart, a flexible line connecting said distancing members and a single runner suitably supported over which said flexible line runs.

2. In a clothes drier, a supporting plate, a plurality of pulleys supported at distances apart on said plate, a plurality of clothes lines running one over each of said pulleys, a distancing member collectively connecting the inner ends of said clothes lines at distances apart, a distancing member collectively connecting the outer ends of said clothes lines at distances apart, a flexible line connecting said distancing members, a suitably supported pulley over which said flexible line runs, and a steadying weight rigidly suspended beneath said outer end distancing bar.

3. In a clothes drier, a supporting plate, a plurality of pulleys supported at distances apart on said plate, a plurality of clothes lines running one over each of said pulleys, a distancing member collectively connecting the inner ends of said clothes lines at distances apart, a distancing member collectively connecting the outer ends of said clothes lines at distances apart, a flexible line connecting said distancing members, a suitably supported pulley over which said flexible line runs, and a spreading member comprising a stiff bar with means for engaging and holding apart said clothes lines intermediate of their length.

1,134,851. MOWER. GUSTAV P. HELFRICH, New York, N. Y. Filed May 14, 1914. Serial No. 838,492. (Cl. 56—19.)



1. In a mower of the class described, a knife, a pair of supporting and operating bars rigidly connected with said knife, rotating arms connected to said bars for causing the same to move said knife in a circular path, a pinion rigidly connected with each of said arms, a gear wheel arranged between said pinions meshing with said pinions whereby the pinions turn in the same direction, a power pinion connected with said gear wheel, and a traction wheel provided with a gear meshing with said power pinion for rotating the power pinion when the traction wheel is moved.

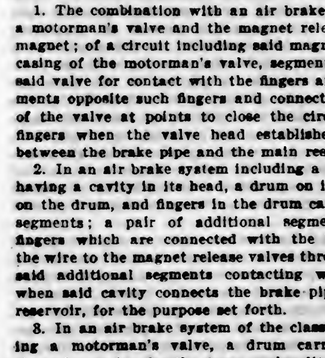
2. In a mower of the character described, a knife, a pair of bars for supporting said knife, a pair of arms pivotally connected with each of said bars, a counterweight arranged on each of said arms, a pinion rigidly secured to each of said arms for rotating the arms, whereby the bar will be moved so as to move said knife in a rotary path, and a traction wheel formed with a gear structure meshing with said pinions for rotating the pinions when the traction wheel is rotated.

3. In a mower of the class described, a cutter, a pair of bars connected with said cutter, means for moving said bars so as to move said cutter in a circular path, and means acting on the outer end of said bars for causing the cutter to move transversely in addition to moving in a circular path.

4. In a mower of the class described, a cutter, a pair of bars connected with said cutter, revolving means for moving said bars so that the cutter will move in a circular path, each of said bars having the outer part pivotally connected with the inner part, and a link connected with a fixed pivot at one end, and at the other end pivotally connected with one of said bars at the outer part, whereby said bars are moved laterally in addition to being moved in a circular path.

1,134,852. ADJUSTABLE SHADE-HANGER. ANNIE M. HILLMAN, Westhoff, Tex. Filed Feb. 25, 1914. Serial No. 820,982. (Cl. 156—27.)

1. A window shade attachment comprising parallel guides in the form of flat strips arranged so that their outer faces are in a common plane, supporting portions provided upon said guides, and a curtain shade bracket composed of duplicate flat members, each comprising extensions disposed at right angles to each other, each member being mounted with one extension extending longitudinally with respect to the adjacent guide for sliding movement past the same and with its outer face in the plane of the outer faces of both guides, the other extensions of said members being arranged parallel to each other and connected for lateral adjustment, and longitudinally spaced offset portions formed upon the outer edge of the longitudinal extension of each of said members for frictional engagement with the opposite broad faces of the corresponding guide.



2. A window shade attachment comprising parallel guides in the form of flat strips arranged so that their outer faces are in a common plane, supporting portions provided upon said guides, a curtain shade bracket composed of duplicate flat members, each comprising extensions disposed at right angles to each other, each member being mounted with one extension extending longitudinally with respect to the adjacent guide for sliding movement past the same and with its outer face in the plane of the outer faces of both guides, the other extensions of said members being arranged parallel to each other and connected for lateral adjustment, and longitudinally spaced off-set portions formed upon the outer edge of the longitudinal extension of each of said members for frictional engagement with the opposite broad faces of the corresponding guide and a securing member adjustably mounted within one of the guide fingers of each bracket member for engagement with the adjacent face of the corresponding guide.

1,134,853. ELECTROPNEUMATIC BRAKE. CLYDE N. HOLCOMBE, New Rochelle, N. Y.; Caroline Holcombe, administratrix of said Clyde N. Holcombe, deceased, assignor to Caroline Holcombe, New Rochelle, N. Y. Filed Jan. 22, 1914. Serial No. 813,760. (Cl. 188—4.)



1. The combination with an air brake system including a motorman's valve and the magnet release valve and its magnet; of a circuit including said magnet, fingers on the casing of the motorman's valve, segments on the stem of said valve for contact with the fingers and additional segments opposite such fingers and connected with the stem of the valve at points to close the circuit through said fingers when the valve head establishes communication between the brake pipe and the main reservoir.

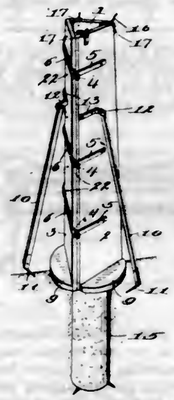
2. In an air brake system including a motorman's valve having a cavity in its head, a drum on its stem, segments on the drum, and fingers in the drum casing opposite said segments; a pair of additional segments opposite the fingers which are connected with the battery wire and the wire to the magnet release valves throughout the train, said additional segments contacting with their fingers when said cavity connects the brake pipe with the main reservoir, for the purpose set forth.

3. In an air brake system of the class described including a motorman's valve, a drum carried on the stem thereof, a casing for the drum, a plurality of electrical terminals mounted therein, a plurality of segments carried on the drum for engagement with said terminals at predetermined times and a pair of additional segments carried on the drum opposite a certain pair of the aforesaid segments and adapted for contact with a certain pair of terminals whereby to complete an electrical circuit when the valve establishes communication between the brake pipe and main reservoir of the system.

4. The combination with an air brake system including a main operating valve, the magnet release valve and its magnet; of a circuit including said magnet and a circuit closer carried by said valve and including means for completing the circuit in one position of the valve and segments on the valve stem coöperating with a portion of the last referred to means to complete the circuit in an additional position of said valve.

5. The combination with an air brake system, including a motorman's valve and the magnetic release valve and its magnet; of a circuit including said magnet, coöperating circuit closing means disposed upon the casing and stem of said motorman's valve, an auxiliary circuit closing means disposed upon said valve stem in pre-determined relation to certain of the circuit closing means on the casing whereby to close a circuit through certain of the latter, after the valve had established communication between the pipe and the main reservoir.

1,134,854. MOLD FOR CEMENT FENCE-POSTS. SIDNEY D. HOY, Sioux City, Iowa. Filed Mar. 28, 1913. Serial No. 757,463. (Cl. 25—118.)

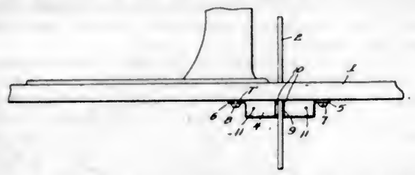


1. In a mold for concrete fence posts, a plurality of walls to form a vertical mold space, one of the walls being removable from its companion walls, horizontal base pieces provided at the lower end of said walls, braces associated with said walls and having ground engaging hooks at their lower ends, and brackets hinged for horizontal movement and to which the braces are pivoted for vertical movement.

2. In a mold for concrete fence posts, a plurality of walls to form a vertical mold space, one of the walls being removable from its companion walls, horizontal base pieces provided at the lower ends of said walls, braces associated with said walls and having ground engaging hooks at their lower ends and brackets hinged for horizontal movement and to which the braces are pivoted for vertical movement, the base pieces having end shoulders which form with the adjoining edge portions of the walls, angles to receive the lower ends of the braces when the latter are folded against the walls.

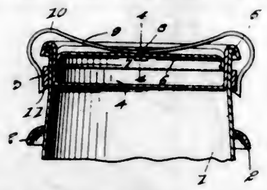
3. In combination, a mold for concrete fence posts having a vertical mold space, means for holding the mold in alinement with the opening for the base of the post, hangers at the upper end of the mold overhanging said mold space, wires connected to the hangers and depending through the mold space, and anchorage spikes at the lower ends of said wires for engagement in the earth at the bottom of the post hole.

1,134,855. BRAKE DEVICE FOR SEWING-MACHINES. JOHN HUNSINGER, Port Huron, Mich. Filed Apr. 14, 1914. Serial No. 831,765. (Cl. 74—13.)



In a device for controlling the drive belts of sewing machines, the combination with a work table having an opening therein, and a drive belt running through said opening, of a casing pivoted at one end to the underside of the work table and having an intermediate lateral slot to admit and release the belt, said casing being movable laterally with relation to the belt and also having a lateral slot at its free end, a fastening member on the work table adapted to be engaged by the slotted end of the casing for holding said casing in operative position, and gravity dogs within the casing having beveled surfaces and pointed end portions arranged in alinement with said opening and first-named lateral slot of the casing, said dogs being arranged to respectively permit running motion of the belt in a driving direction and to engage and lock the belt against the motion in the reverse direction.

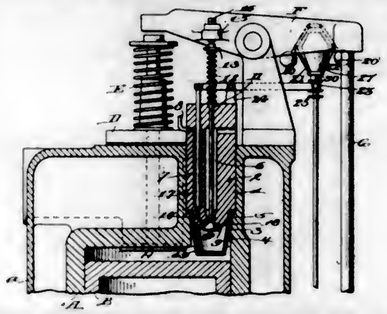
1,134,856. MILK-CAN AND COVER AND FASTENING MEANS FOR THE SAME. EUGENE W. HUSTED, LARS SORENSEN, and PHILIP MURPHY, Holton, Mich. Filed Aug. 3, 1914. Serial No. 854,755. (Cl. 31—78.)



A device of the class described comprising a milk can having an opening in one end, a band secured to said milk can adjacent the opening, of a cover formed of a single piece of metal having an upstanding portion formed on its outer periphery, the free ends of said upstanding portion being curved downwardly to engage the top edges of said milk can, said cover to seat within the opening of the milk can, a handle bar adapted to seat down within the cover, the edges engaging one face of said cover member and secured to said bar, a spring member secured to said bar, said spring member extending upwardly from its pivoted point and curved downwardly and inwardly, and its ends formed into hooks to engage the under surface of said band to hold the cover in place.

1,134,857. OIL-INJECTION DEVICE FOR OIL-ENGINES. RASMUS MARTIN HVID, Battle Creek, Mich., assignor to R. M. Hvid Company, Battle Creek, Mich., a Corporation of Michigan. Filed Feb. 2, 1912. Serial No. 675,028. (Cl. 123—33.)

1. The combination, with a cylinder and a piston of an oil burning engine, the cylinder having a combustion space, of an oil reservoir having an area exposed to the combustion space of said cylinder and having restricted communication with said combustion space, and a restricted chamber in open communication at one end thereof with the said combustion space and in restricted communication at its other end with the oil reservoir, a portion of the air admited to the cylinder becoming heated during compression in the chamber to a degree greater than that of the air remaining in the cylinder and sufficiently to act, through the restricted communication between the chamber and the reservoir, upon the particles of oil in said reservoir which have become vaporized during compression and to thereby cause an explosion thereof.



2. The combination with a cylinder and a piston of an oil burning engine, of a vaporizing oil reservoir having an area subject to the heat developed in the combustion space and having a restricted communication with said space, a small chamber in open communication at one end thereof with the combustion space and at its other end in restricted communication with the reservoir, a fuel passage and an air passage through which oil and air may pass to the reservoir, and means acting intermittently in conformity with the suction strokes of the piston to control the admission of the fuel charge and the air charge to said reservoir.

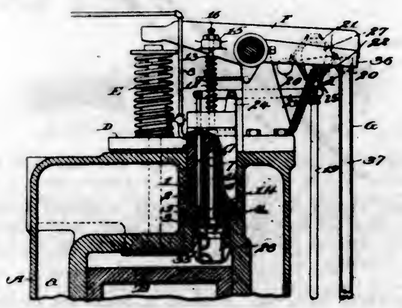
3. The combination with a cylinder and a piston of an oil burning engine, a wall of the cylinder adjacent the compression and combustion space thereof being fashioned to provide a restricted chamber leading from and in open communication with said combustion space, of a vaporizing oil reservoir which is disposed concentrically within said chamber in spaced relation to the annular wall of the latter, the reservoir having an area subject to the heat in the combustion space and having a restricted communication with said space and having also a restricted communication with said chamber somewhat adjacent the closed end of the latter, whereby a portion of the air admitted to the cylinder becomes heated during compression in the chamber sufficiently to act through the restricted communication between the chamber and the reservoir upon the particles of oil in said reservoir which have become vaporized during compression and to thereby cause an explosion thereof.

4. The combination with a cylinder and a piston of an oil burning engine, the cylinder having a combustion space, of an oil reservoir having an area exposed to the combustion space and having a fuel discharge opening communicating with said space and formed to completely atomize the fuel in connection with its discharge, and a restricted chamber in open communication with the combustion space and wherein a portion of the main air charge attains a degree of heat greater than that of the rest of the air charge in the cylinder, the restricted chamber being so related to the oil reservoir as to cause its highly heated air to set up an explosion within the reservoir of the particles of oil therein which have become vaporized during compression, the atomizing discharge of the fuel from the reservoir being consequent to said explosion.

5. In an internal combustion engine, a vaporizing fuel receptacle constructed and arranged to discharge its fuel content in a highly atomized condition into the combustion space of the engine, the engine having means for heating the receptacle to vaporize the more volatile constituents of the fuel content thereof, and means for conducting heated air from the combustion space into the receptacle to cause a preliminary explosion within the receptacle of the vaporized constituents of the fuel content thereof, the atomizing discharge of the fuel being consequent to such preliminary explosion.

[Claims 6 to 15 not printed in the Gazette.]

1,134,858. MEANS FOR DELIVERING OIL TO OIL-BURNING ENGINES. RASMUS MARTIN HVID, Battle Creek, Mich., assignor to R. M. Hvid Company, Battle Creek, Mich., a Corporation of Michigan. Filed Aug. 16, 1912, Serial No. 715,519. Renewed Nov. 30, 1914. Serial No. 874,906. (Cl. 123—30.)



1. The combination with a cylinder and a piston of an oil burning engine, of a cup which projects into the combustion space of the cylinder and to which a charge of fuel oil is supplied, the cup having openings through which the charge is expelled into the cylinder, and means for jogging the cup during the running of the engine.

2. The combination with a cylinder and a piston of an oil burning engine, of a cup which projects into the combustion space of the cylinder and to which a charge of fuel oil is supplied, the cup having openings through which the charge is expelled into the cylinder and having other openings for the purpose of igniting the vaporized constituents of the charge within the cup, the cylinder having a small chamber in open communication with the combustion space and in restricted communication, through said last named openings, with said cup and in which a portion of the main air charge becomes superheated during compression, and means for jogging the cup during the running of the engine.

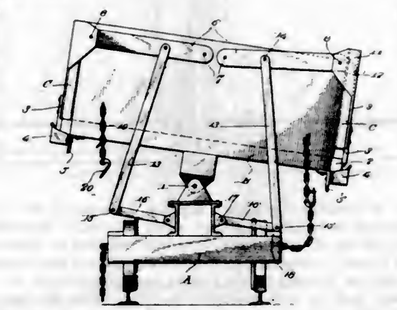
3. The combination with a cylinder and a piston of an oil burning engine, the upper head of the cylinder having an internal valve seat and having oil and air passages which open to said seat, of a valve movable toward and away from said seat, an oil cup connected to said valve to move therewith and provided with fuel discharge openings, passages through which the oil flowing from said valve seat passes into said cup, and means for moving the valve toward and away from its seat at definite periods in the running of the engine.

4. The combination with a cylinder and a piston of an oil burning engine, a well of the cylinder having passages for fuel oil and air, a movable valve to control the flow of oil and air from said passages, an oil cup connected to said valve to move therewith and provided with fuel discharge openings, other passages through which the oil passes into said cup in one position of the valve, and means for moving the valve toward and away from its seat at definite periods in the running of the engine.

5. The combination with a cylinder and a piston of an oil burning engine, the upper head of the cylinder having an internal valve seat and having oil and air passages which open to said seat, of a valve movable toward and away from said seat, an oil cup connected to said valve to move therewith and provided with fuel discharge openings, passages through which the oil flowing from said valve seat passes into said cup, and means for moving the valve toward and away from its seat at definite periods in the running of the engine, the cylinder having a small chamber in open communication with the combination space and in which a portion of the main air charge becomes superheated during compression and the oil cup having other openings of small diameter which afford communication between said chamber and the interior of the oil cup and provide for an explosion of the vaporized oil in the cup consequent to the maximum heat developed in the chamber.

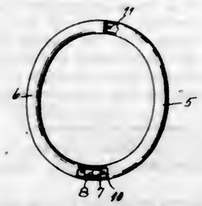
[Claims 6 to 12 not printed in the Gazette.]

1,134,859. DUMP-CAR. JOHN J. IRVIN, Bellwood, Pa. Filed June 17, 1913. Serial No. 774,168. (Cl. 105—191.)



In combination a truck, a dumping car trunnioned thereupon, a pair of arms fulcrumed upon the opposite sides of said car in proximity to each other, a saddle member pivotally mounted upon the outer end of each of said arms, a terminal nose formed upon each of said arms disposed within said saddle member, a back plate carried by said saddle member projecting therebeyond, an oblong door carried by said back plate and projecting in contacting relation with the projecting end thereof, a locking bolt projecting from said back plate, a keeper with which said bolt is adapted to engage, and means engaging the inner ends of said arms whereby to lift the latter when said car is dumped.

1,134,860. BRACELET. OLGER C. JACOBSEN, Brigham, Utah. Filed Aug. 29, 1914. Serial No. 859,200. (Cl. 63—10.)

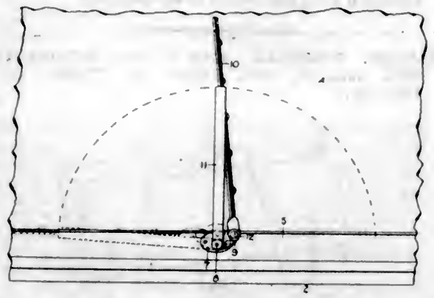


A bracelet including two parts, blocks secured in the adjacent ends of said parts and having threaded apertures therethrough, and a screw threaded from end to end adjustably fitted in said threaded apertures and greater in length than the thickness of both of said blocks, permitting the latter to be adjusted longitudinally thereon.

1,134,861. CAR-WINDOW CLEANER. ALBERT JOHNSON, New York, N. Y. Filed Dec. 30, 1914. Serial No. 879,648. (Cl. 15—59.)

1. In combination with a window, a socket made to project through the brace of the window-frame, said socket having an elliptic flange whereby the same can be secured to the brace, a handle mounted to turn in said socket, a link mounted to turn on the portion of the handle en-

gaged in the socket and positioned adjacent said flange, a squeegee, a pin connecting the squeegee to the link, and an arm attached to the handle adjacent the link and constrained to rotate with the handle, said arm engaging the squeegee, said pin adapted to engage the flange and form a stop for the movement of the link when the handle is rotated.



2. In combination with a window, a device of the class described comprising a socket made to project through a brace of the window frame, a handle mounted to rotate in said frame, a squeegee having an articulated end formed to turn on the end of the handle mounted to turn in the socket, and an arm mounted to rotate with the handle and engaging said squeegee, whereby the same is caused to turn when the handle is turned.

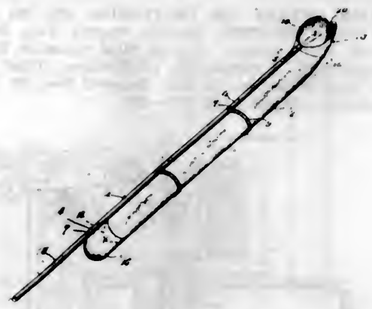
3. In combination with a window, a device of the class described comprising a socket made to project through a brace of the window frame, said socket having an elliptic flange whereby the flange may be secured to the outer face of the brace, a handle located on the inner side of the window and having a portion thereof mounted to rotate in said socket, a squeegee having an articulated portion engaging the end portion mounted to turn in the socket at the flange, an arm connected to the handle at the articulated portion so that the same is constrained to rotate with the handle, said arm straddling the squeegee so that the same is free to move longitudinally of said arm but is constrained to move laterally with said arm, said flange forming a stop for said articulated portion of the squeegee at predetermined points.

4. In combination with a window, a device of the class described comprising a handle mounted to turn in the brace of the window frame, a squeegee having an articulated portion mounted to turn on said handle, an arm constrained to rotate with the handle and engaging the squeegee above the articulated portion, said articulated point of said squeegee lying normally to one side of said arm and always on the side toward which the squeegee is to be rotated.

1,134,862. FRUIT-PICKER. ALFRED W. JOHNSON, Chicago, Ill. Filed Mar. 6, 1914. Serial No. 822,956. (Cl. 56—99.)

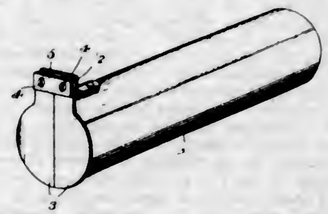
1. A fruit gatherer including a staff and a flexible chute connected with the staff, the staff being made of sections, each of the sections having one of its ends provided with a sleeve having a lateral opening, its opposite end provided with a spring pressed button adapted to be received within the opening and the said ends inserted within the sleeve of the adjacent section, the chute being also made of sections having both of its ends connected with a section of the staff, the lower portion of each of the sections of the chute being provided with a reinforcing band, and an apron extending beyond the band, said apron adapted to be received within the mouth of the adjacent section, a ball and socket clasp connection for the sections, the upper section having a rounded reinforced mouth arranged in a plane with and extending from the end of the upper staff section, the sides of the mouth converting inwardly at the top of said chute and contacts approximately centrally of the longitudinal axial plane of the section.

2. A fruit gatherer including a staff and a flexible chute secured upon the staff, a basket of flexible material connected with the handle and with the lower end of the chute, the said basket having opposite rounded sides, the



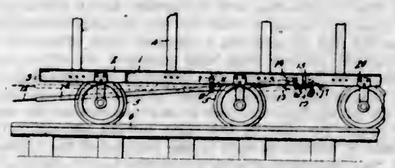
lower portion of the chute having extensions forming aprons which close the sides of the basket, and a metallic picker member secured to the staff and to the upper end of the chute.

1,134,863. BURNER. STEPHEN G. JOHNSTON, Barboursville, W. Va. Filed Sept. 2, 1914. Serial No. 859,881. (Cl. 158—118.)



A mixer comprising a tubiform body, an L-shaped bracket fixed exteriorly to the body at one end thereof, and a pair of shutters pivotally connected to the bracket and each including a semi-circular portion approximately one-half the area of the end of the body, and an extension for the pivotal connection thereof with the said bracket whereby on the closing of the shutters the edges adjacent to each other will contact throughout the extent thereof for completely closing the said body.

1,134,864. AUTOMATIC COUPLING. STEPHEN G. JOHNSTON, Barboursville, W. Va. Filed Oct. 30, 1914. Serial No. 869,444. (Cl. 213—44.)



1. A coupler for a drier car comprising a lever of a greater length than the car and pivoted beyond its center to the car, one end of the lever providing a handle, the second end of the lever being bent horisontally to provide a jaw and the said jaw resting upon the end connecting bar of the car and provided with an angular directing lip.

2. The combination with a drier car having a depending hanger adjacent one of its ends, a lever pivotally secured to the hanger, said lever being of a greater length than the body of the car, the end of the lever nearest the

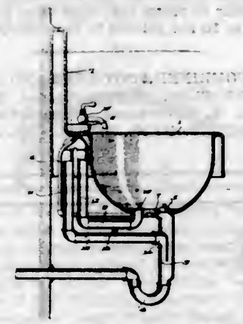
hanger being twisted to provide a right angular extension which is bent downwardly and continued horizontally over the end connecting bar of the car to provide a jaw which includes a downturned portion having a horisontal extension which terminates in an upwardly extending end and the said end having a downwardly projecting angular projection providing a directing lip.

1,134,865. MAGAZINE-BRUSH. CLARENCE WHEELER JONES, Norwalk, Conn. Filed Apr. 17, 1914. Serial No. 832,597. (Cl. 137—5.)



A magazine tooth brush of the class described comprising a barrel having a longitudinal bore with a reduced portion forming a stop wall at one end of said large portion of said bore, a reciprocating valve engaged against the said stop wall and having a transverse opening adapted to register with the smaller portion of said longitudinal bore, a stem engaging the upper portion of said valve and extending through the guide opening in the upper face of said barrel, a guide pin in the bottom of the barrel and extending upwardly and projecting into the socket formed in said valve, a leaf spring having one end secured against the outer face of said barrel, and the opposite end engaging the head of the stem above said barrel.

1,134,866. LAVATORY. JOSEPH A. KAVANAGH, Wichita Falls, Tex. Filed July 10, 1914. Serial No. 850,188. (Cl. 4—24.)

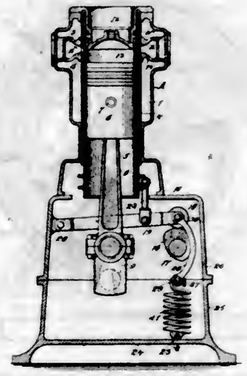


A basin or the like, a waste duct leading therefrom, a vent duct leading from the upper portion of the waste duct and an overflow duct leading from the basin and discharging into the waste duct at a point below the vent duct, said overflow duct forming a siphon, and being provided with a drainage duct connecting its arms.

1,134,867. INTERNAL-COMBUSTION ENGINE. JAMES KRISTER, Steubenville, Ohio. Filed Nov. 25, 1913. Serial No. 802,917. (Cl. 123—75.)

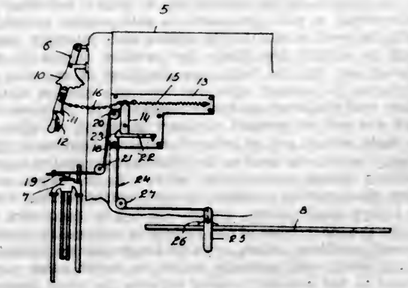
1. An engine comprising a cylinder having inlet and exhaust ports, a single tubular valve slidably mounted in the cylinder and having inlet and exhaust ports so related that the inlet ports register when the exhaust ports are out of registry, a piston mounted in the valve, and valve operating means for moving the valve in two steps in one direction to first bring the exhaust ports into registry and then the inlet ports, and for moving the valve in one step in the opposite direction.

2. An internal combustion engine comprising a cylinder having inlet and exhaust ports, a reciprocatory tubular valve slidably mounted in the cylinder and having inlet and exhaust ports, a piston mounted in the valve, and valve operating means actuated by the piston, said means comprising a cam having two concentric portions of different radii and eccentric portions so related to the concentric portion that the valve moves in two steps in one



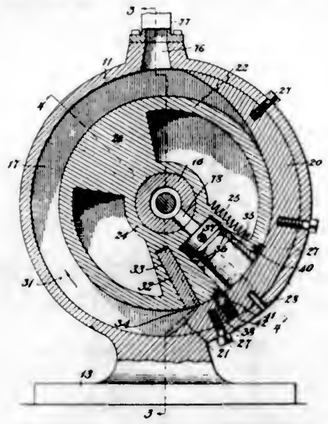
direction to first open the exhaust ports and then open the inlet ports while closing the exhaust ports, and for moving the valve in one step in the opposite direction to close both sets of ports, during compression and expansion strokes of the piston.

1,134,868. AUTOMATIC TRAIN-STOP MECHANISM. EDMON W. KELLER, Cripple Creek, Colo. Filed Aug. 11, 1913. Serial No. 784,198. (Cl. 246—59.)



In a train stopping mechanism of the character described, the combination with a locomotive having a boiler and a swinging throttle lever and an engineer's valve, a plate secured to the boiler adjacent the throttle, a second lever pivotally secured to said plate intermediate its ends, its upper end being reduced and having a flexible connection secured thereon, the free end of said flexible connection secured to the latch of the throttle lever, a latch secured to said plate adjacent the lever thereon, its free end to engage the lower end of said second lever and hold same in a vertical position, a coil spring attached to the upper end of said second lever and its opposite end secured to the plate, a flexible connection secured to the free end of said latch and extending downwardly and outwardly to a pivoted rod, said rod adapted to engage the object on the track whereby said latch will be released and the throttle operated.

1,134,869. ROTARY INTERNAL-COMBUSTION ENGINE. FRANK HERMAN KILWINSKI, San Francisco, Cal., assignor of one-half to William Heusser, San Francisco, Cal. Filed May 8, 1914. Serial No. 837,186. (Cl. 123—16.)



1. In a rotary motor, a cylindrical casing having an exhaust at the top, a rotor journaled in the casing and having a closed space at one side of the casing and an internal channel in the remaining portion, a combustion chamber in said piston, a sliding piston in front of the chamber and carried by the rotor to move outward in contact with the inner surface of the casing, means for supplying combustible gases to said chamber, means for igniting the same to exert force against the piston for imparting rotation to the rotor, said gases escaping through the exhause at the top, and a sleeve in the combustion chamber movable outward to form an air-tight joint between the rotor and the contacting part of the casing.

2. A rotary engine embodying a stator including a main casing, a rotor journaled in said casing, a hollow shaft disposed axially to the casing and rotatably journaled to support the piston for rotation therewith, an exhaust port for the casing, an abutment at one side of the casing for contact with the rotor at a portion of the latter, said abutment gradually increasing in thickness toward one end, an integral auxiliary casing at one side of the main casing and of reduced diameter relative to the latter, a rotor also fixed to the shaft and journaled in the auxiliary casing eccentrically relative to the same, said latter rotor having a radial passage communicating with the hollow shaft, sliding pistons carried by the rotors to engage the inner faces of the respective casings, an intake for said auxiliary casing, a valve longitudinally mounted in the shaft and normally seated to resist gases compressed in the auxiliary casing between the rotor thereof and casing and in front of the piston carried by the rotor last named, and means for unseating the valve at a predetermined time to discharge the gases thus compressed through the shaft and into the combustion chamber for explosion behind the piston of the main rotor of the main casing.

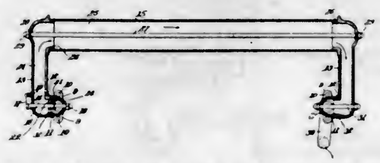
3. The combination with a casing and a rotor rotatably journaled therein and of reduced diameter relative thereto to provide a surrounding channel of means for intercepting the channel between the casing and rotor, an exhaust for the casing, an auxiliary casing eccentrically disposed relative to the first mentioned casing, a rotor journaled in the auxiliary casing concentrically relative to the first mentioned casing and rotor whereby an internal chamber tapering toward its ends is provided in the auxiliary casing, a sliding piston carried by the second-named rotor and adapted upon rotation of the latter to draw fluid supply into the chamber therebehind, an axial member having a passage leading from the second named rotor to the first-named rotor and having an internal seat, a valve coöperating with said seat and opening in the direction of the first-named rotor, spring means normally seating said valve, a cam at one end of the auxiliary casing, and an angular extension on the valve stem to contact with the cam for unseating the valve and supplying said fluid under pressure for driving the rotors.

4. A rotary internal combustion motor, the combination with a main casing, a shaft journaled in the casing and a rotor carried thereby to rotate therewith; of an auxiliary casing at one side of the main casing, a rotatable gas compressor in the auxiliary casing, a combustion chamber in the rotor and communicating with the gas compressor through said shaft, means in said chamber to form an air tight union with the interior of the casing, a normally seated valve controlling the supply of compressed gas to the combustion chamber, coöperative means carried by the valve and one casing for positively unseating the valve harmoniously with the compression of the gas in the auxiliary casing and a gas intake for the compressor, in which latter the gas is compressed and discharged into the combustion chamber to rotate the latter upon being ignited.

5. In a rotary internal combustion motor, the combustion with a main casing, a shaft journaled in the casing and a rotor carried thereby to rotate therewith; of an auxiliary casing at one side of the main casing, a rotatable gas compressor in the auxiliary casing a combustion chamber in the rotor and communicating with the gas compressor through said shaft, means movably mounted in the combustion chamber to contact with the interior of the main casing during the interval of rotation of the rotor therein to form an air tight union with the interior of the casing, a normally seated valve controlling the supply of compressed gas to the combustion chamber, cooperative means carried by the valve and auxiliary casing for positively unseating the valve independent of the gas pressure and a gas intake for the compressor, in which latter the gas is compressed and discharged into the combustion chamber to rotate the latter upon being ignited.

[Claims 6 to 10 not printed in the Gazette.]

1,134,870. COMBINED FOOT-REST AND HEATER FOR MOTOR-VEHICLES. EDWARD KNAUSS, Melrose, Mass., and FELIX H. PETITMAIRE, Philadelphia, Pa. Filed Dec. 29, 1913. Serial No. 809,386. (Cl. 237—21.)



1. In a combined heater and pivoted foot rest for automobiles, the combination of a hollow base support adapted to be secured to the floor of the machine; a hollow arm support pivotally secured at one end to said base support; a foot rest member secured at one end to the other end of said hollow arm support; a second hollow arm support to one end of which the other end of said foot rest member is secured; a rod passing through said foot rest member and each of said hollow arm supports, to hold the parts together; a second base support adapted to be secured to the floor of the machine to which the other end of said second hollow arm support is pivotally attached; and means for supplying hot gases to said parts, substantially as described.

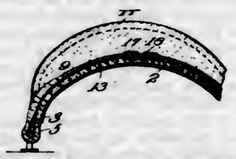
2. In a combined heater and pivoted foot rest for automobiles the combination of a hollow base support adapted to be secured to the floor of the machine; a hollow arm; a pivotal connection between said arm and said base support; a rod passing through said base support and arm at said connection and provided with a handle having a controlling catch; a valve carried by said rod and controlled by said handle adapted to govern the passage of hot gases through said base support and said arm; a hollow foot rest member associated with said arm; and means for leading hot gases to said base support, substantially as described.

3. In a combined heater and foot rest, the combination of a pair of hollow base supports adapted to be secured to the floor of an automobile; a supply pipe connected to one of said supports; an exhaust pipe connected to the other of said supports; a pair of hollow arms pivotally connected at one end with said base supports; a valve in the pivoted connection between one of said base supports and one of said arms; a hollow foot rest member connected to the other ends of said arms; and detachable means for holding said foot rest and arms together, substantially as described.

4. In a combined heater and foot rest the combination of a pair of hollow base supports connected to the floor of an automobile; a pair of hollow arms pivotally connected at one end to said base supports; a foot rest member having an enlarged hollow chamber to act as a muffler detachably attached to the other ends of said hollow arms; means for readily connecting one of said base supports to the exhaust pipe of the engine; means for leading off the exhaust gases from the other of said base supports; and a valve for controlling the passage of gases through said supports, substantially as described.

5. In a combined heater and foot rest the combination of a pair of hollow base supports adapted to be secured to the floor of an automobile; a pair of hollow arms; pivotal connections comprising rods passing through one end of said arms and the tops of said base supports; a valve carried by one of said rods; a foot rest member having an enlarged chamber acting as a muffler detachably connected to the other ends of said arms; and a rod passing through said foot rest member and arms, substantially as described.

1,134,871. HANDLE FOR SATCHELS AND THE LIKE. JOHN L. KRON, Kittanning, Pa. Filed Mar. 27, 1914. Serial No. 827,631. (Cl. 190—57.)



1. A handle of the character described, comprising a body-portion, a metal reinforcing plate embedded in the body-portion and having hooked lower ends and a covering for the lower hooked ends of the metal plate and secured to the plate within the body-portion.

2. A handle of the character described, comprising a curved body-portion, a longitudinally curved metal plate embedded in the body-portion and having hooks at its lower ends beyond the body-portion, leather strips secured to the lower ends of the body portion and extending around the hooked ends of the metal plate and secured to the metal plate within the body-portion.

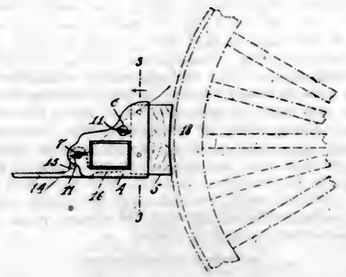
3. A handle of the character described, comprising a curved leather body-portion, a plate embedded in the body-portion and having hooked lower ends beyond the body-portion, leather coverings secured to the lower ends of the body-portion and extending around the hooked ends of the metal plate and extending within the handle, and a staple carried by the metal plate for securing the ends of said cover thereto.

4. A handle of the character described, comprising a leather curved body-portion, a metal plate embedded in the body-portion and having hooked lower ends beyond the body-portion, leather strips secured to the lower ends of the body-portion and extending around the hooked ends of the metal plate and having their free ends extending within the body-portion and hooks carried by the metal plate for fastening the ends of the leather strips thereto.

5. A handle of the character described, comprising a curved body-portion, a longitudinally curved metal plate embedded in the body-portion and having hooks at its lower ends beyond the body-portion, strips secured to the body-portion and extending down around the hooked ends of the metal plate and having their free ends extending beyond the body-portion and a staple for securing the ends of the strips to the metal plate, substantially as shown and described.

[Claims 6 to 9 not printed in the Gazette.]

1,134,872. BRAKE-BLOCK HOLDER. PAUL KRUEMLING, Maher, Colo. Filed Nov. 18, 1913. Serial No. 801,628. (Cl. 21—82.)



1. In an improvement of the kind described, the combination with a brake beam, of brake shoe holders each comprising a pair of plates having openings for mounting the same upon the ends of the beam, means for fastening one of the plates of each pair to the beam, means engaging each pair of plates near one end to draw the said ends of the plates toward each other, brake shoes held between said ends of the plates, a bolt engaging each pair of plates near the opposite ends thereof to force the said ends apart, and steps mounted on the said bolts.

2. In an improvement of the kind described, the combination of a pair of plates, a screw bolt passing loosely through one of said plates and having screw-threaded engagement with the other to draw one end of each of said plates together to grip a block between them, and an additional screw bolt having screw-threaded engagement with the first of said plates and abutting against the second of said plates to force the opposite ends of said plates apart, said plates having central apertures therethrough to enable the same to be mounted upon a support, and one of said plates having an apertured lug adapted to engage said support and to be secured thereto to enable the plates to be retained in position.

3. The combination of a brake shoe holder mounted upon a brake beam, and a step having perforated lugs arranged between the members of the holder and pivotally mounted thereon, the step having an arm to engage the under side of the beam to support the step in horizontal position.

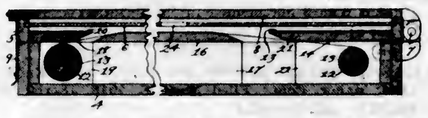
4. The combination of a plate having an opening therethrough and a perforated lug adjacent said opening to receive a fastening bolt, said plate also having a screw-threaded aperture and a recess, another plate likewise having an opening therethrough to be in alinement with the first-named opening in the first plate and also having a smooth opening to be in alinement with the threaded opening in the first plate, and a screw-threaded opening to be in alinement with the recess in the first plate, said plates having projections from their inner faces at one end to engage a brake shoe, and bolts having threaded portions to draw the ends of the plates having the barbs together and force the opposite ends of said plates apart.

5. The combination with a brake beam, a brake shoe holder comprising members mounted upon the end of the brake beam, and means for securing said members together, of a brake shoe held between said members at one end thereof, and a step pivotally mounted between

the said members of the brake shoe holder at the other end thereof.

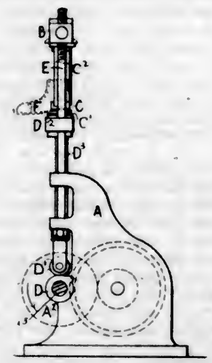
[Claim 6 not printed in the Gazette.]

1,134,873. DAIRY-REGISTER. RUDOLPH LEON LACHAPELLE, Altona, N. Y. Filed Aug. 5, 1914. Serial No. 855,123. (Cl. 11—22.)



A register, comprising a casing, two rollers therein, a strip of paper on said rollers, a chart at each end of said casing in the plane of said strip, a table for each of said charts and said strip, a transparent, slotted, cover for said charts and strip, a cover for said casing, means for securing the same in closed position, a chain limiting the movement of said cover on said casing, and means for suspending said casing cover in vertical position whereby said strip and charts will be in horizontal position when said casing cover is open to the limit of said chain to support said casing in horizontal position, said strip and charts being provided with vertical and horizontal rows of spaces, suitably designated, and the vertical rows of said strip and charts being in register.

1,134,874. SEAT-TRIMMER. ANDREW LAING, Dunedin, New Zealand. Filed Sept. 17, 1913. Serial No. 790,306. (Cl. 12—86.)



In a machine of the character specified, the combination of a main frame provided with a pair of vertical guide rods having their upper portions threaded; a vertically-adjustable thrust plate having its ends engaged with the threaded portions of said rods; a depending knife frame, carried by said plate; a U-shaped knife attached to the lower end of the knife frame and having out-turned ends; a platform disposed beneath said plate and slidably connected at its ends with said rods, for movement toward and from said knife; a cutting bed carried by said platform; a vertical rod having said platform fastened to its upper end and provided at its lower end with a roller; a horizontal shaft mounted in the lower portion of the main frame; means for driving said shaft; and a cam secured to said shaft and engaging said roller, for rising the last-named rod and permitting the same to fall by gravity.

1,134,875. COMBINED SCREEN AND INSECT-TRAP. EDWARD LAMPEL, San Francisco, Cal. Filed Sept. 10, 1914. Serial No. 861,112. (Cl. 43—22.)

1. A combined window screen and insect trap comprising a rectangular frame, a number of elongated rectangular receiving chambers therein and disposed side by side, each chamber having a longitudinal inlet slot and an outlet opening, an insect receptacle likewise carried by the frame, and a guide member establishing communication between the several outlet openings of said chambers and said receptacle.



2. A combined window screen and insect trap comprising a rectangular frame, a number of elongated rectangular receiving chambers therein and disposed side by side, each chamber having a longitudinal inlet slot and an outlet opening, flanges extending into the interior of each chamber from opposite sides of said slots, an insect receptacle likewise carried by the frame, and a guide member establishing communication between said outlet openings and said receptacle.

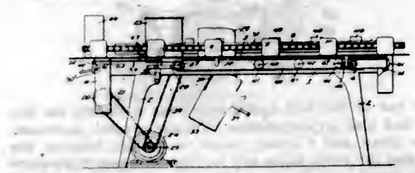
3. A device of the character described comprising a rectangular frame channeled on its inner edge, a number of elongated rectangular receiving chambers having their ends mounted in the channels of two of the parallel bars of said frame, the edge walls of said chambers being disposed contiguous to each other and each of said chambers having a longitudinal inlet slot and an outlet opening, an elongated rectangular insect receptacle having one edge located in the channel of one remaining side bar of the frame and having its opposite edge in contact with the outer edge wall of the receiving chamber adjacent thereto, and a guide member establishing communication between said outlet openings and said receptacle.

4. A device of the character described comprising a rectangular frame channeled on its inner edge, a pair of elongated rectangular receptacles having their outer edges located in the channels of two parallel sides of the frame, passageways located in the channels of the remaining sides of the frame and communicating with said receptacles, elongated rectangular receiving chambers having their ends located in the channels receiving the passageways and abutting the inner walls of said passageways, each of said chambers having a longitudinal inlet slot and an outlet opening, and a guide member positioned transversely of said chambers and establishing communication between said outlet openings and one of said receptacles, the outer edges of the outermost of said chambers contacting with said receptacles and the remaining edges of the chambers contacting one with the other.

5. A device of the character described comprising a rectangular frame channeled on its inner edge, a pair of elongated rectangular receptacles having their outer edges located in the channels of two parallel sides of the frame, passageways located in the channels of the remaining sides of the frame and communicating with said receptacles, elongated rectangular receiving chambers having their ends located in the channels receiving the passageways and abutting the inner walls of said passageways, each of said chambers having a longitudinal inlet slot and an outlet opening, longitudinal flanges projecting into the interior of said chambers from opposite sides of said slots, and a guide member positioned transversely of said chambers and establishing communication between said outlet openings and one of said receptacles, the outer edges of the outermost of said chambers contacting with said receptacles and the remaining edges of the chambers contacting one with the other.

[Claims 6 to 11 not printed in the Gazette.]

1,134,876. LABELING-MACHINE. JOHN C. LARSEN, Chicago, Ill. Filed May 23, 1913. Serial No. 769,483. (Cl. 216—46.)



1. A can labeling machine including a means for feeding the can lengthwise the machine, means for delivering the can body to a quantity of adhesive, a label box arranged in the path of travel of the adhesive covered portion of the can and having labels arranged on end, and means for distributing paste to the surface of the label as it is drawn from the box.

2. A can labeling machine including a means for feeding the can lengthwise the machine, means for delivering the can body to a quantity of adhesive, a label box arranged in the path of travel of the adhesive covered portion of the can and having labels arranged on end, means for distributing paste to the surface of the label as it is drawn from the box, and means for spreading the paste over the surface of the label prior to the engagement of the paste covered label surface with the can.

3. A can labeling machine including a means for feeding the can lengthwise the machine, means for delivering the can body to a quantity of adhesive, a label box arranged in the path of travel of the adhesive covered portion of the can and having labels arranged on end, means for distributing paste to the surface of the label as it is drawn from the box, means for spreading the paste over the surface of the label prior to the engagement of the paste covered label surface with the can, and means for applying pressure to the outer surface of the label subsequent to the label pasting operation.

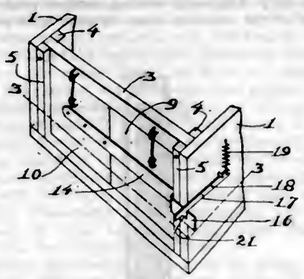
4. A can labeling machine including a means for feeding the can lengthwise the machine, means for delivering the can body to a quantity of adhesive, a label box arranged in the path of travel of the adhesive covered portion of the can and having labels arranged on end, means for distributing paste to the surface of the label as it is drawn from the box, means for spreading the paste over the surface of the label prior to the engagement of the paste covered label surface with the can, and brushes for applying pressure to the surface of the label subsequent to the application of the paste to the label.

5. A can labeling machine including a means for feeding the can lengthwise the machine, means for delivering the can body to a quantity of adhesive, a label box arranged in the path of travel of the adhesive covered portion of the can and having labels arranged on end, means for distributing paste to the surface of the label as it is drawn from the box, means for spreading the paste over the surface of the label prior to the engagement of the paste covered label surface with the can, brushes for applying pressure to the surface of the label subsequent to the application of the paste to the label and means for turning the can during the travel of pressure action of the brushes thereon.

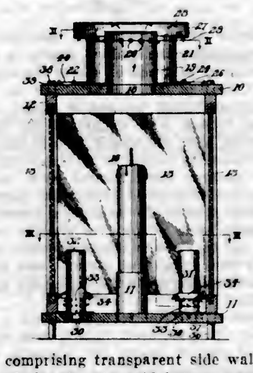
[Claims 6 to 12 not printed in the Gazette.]

1,134,877. END-GATE. CHRIS LARSON, Blairstown, Iowa. Filed Sept. 9, 1914. Serial No. 860,868. (Cl. 21—21.)

An end gate comprising a cross bar connected to the rear end of the wagon box, said end gate comprising two sections, links connected to the cross bar and said sections, the latter being hinged together centrally, a latch being secured to one of the sections and extending beyond the opposite side of the wagon box, and a lever or lock provided with lugs for holding the latch, and a spring for holding the lever in contact with the latch.



1,134,878. LANTERN. FRANK LASZCZAK, Kewanee, Ill. Filed Jan. 4, 1915. Serial No. 343. (Cl. 240—13.)



A lantern comprising transparent side walls a top and bottom secured thereto, the said bottom provided with a plurality of air inlets and the top being provided with a central outlet for the products of combustion, a light-giving member centrally mounted upon said bottom, elongated tubes with closed upper ends secured over the said air inlets, provided with rows of perforations adjacent their lower ends and having dead air spaces in their upper ends, downwardly curved deflectors carried by the said tubes above the perforations thereof, and perforated protecting means for the outlet of the top.

1,134,879. TOILET DISPENSING-CABINET. ALBERT F. LESLER, New York, N. Y. Filed Apr. 17, 1914. Serial No. 832,481. (Cl. 211—29.)

1. In a device of the character described, a casing provided with a substantially semi-cylindrical bulged portion near the lower end, a slot at the lower end and a pair of finger openings merging into said slot, means for supporting a pad of sheets in said casing, means for normally swinging said pad in a predetermined direction, a stop for limiting the swinging movement of said pad whereby the sheets thereof are held from said cylindrical portion of the casing, a rotatable feeding member arranged in said semi-cylindrical bulged portion, said feeding member having a flat face normally facing said pad but out of contact therewith with a flat portion extending at an angle to the first mentioned flat portion, and an arc-shaped roughened portion designed to be swung around into engagement with the top sheet of said pad, said second mentioned flat surface slightly compressing the sheets of said pad previous to the engagement of the top sheet by said

roughened surface, said stops holding said pad at such a distance from said feeding member as to allow the roughened surface of the feeding member to only remove one sheet at a time, said feeding member projecting the lower end of the removed sheet through said slot in the casing.



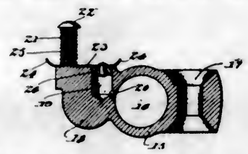
2. In a device of the character described, a casing, means for supporting the pad of sheets in said casing, means for swinging said pad of sheets toward one side of the casing, a feeding member arranged on the side of the casing toward which the pad is swung, said feeding member being formed with a pair of flat faces, one of which is parallel with the sheets of said pad and out of engagement therewith when in an inoperative position, said feeding member being formed with an arc-shaped roughened surface adapted to engage the uppermost sheet of said pad and remove the same, the second mentioned flattened surface being adapted to slightly compress the sheets of the pad previous to the engagement of the uppermost sheet by said roughened surface, and manually operated means extending from the casing for actuating the feeding member.

3. In a device of the character described, a case, means for supporting a pad of sheets in said case, spring means acting on said pad of sheets for normally holding the same in a predetermined position, a stop acting on said pad for limiting the swinging movement given thereto by said spring means, a feeding member arranged adjacent said pad and normally out of contact therewith, said feeding member having a flat portion normally facing said pad but out of contact therewith, and a rounded abrading surface designed to be swung around into engagement with the top sheet of said pad, whereby said top sheet is pulled from said support, and means for automatically returning said feeding member to its original position after said abrading member has moved out of contact with said pad.

4. In a device of the character described, a case, means for supporting a pad of sheets in said case, a feeding member for feeding the sheets from said pad successively, said feeding member being normally out of contact with said pad, said feeding member being formed with a pair of flat faces both of which are normally out of contact with said pad, and with a rounded roughened face designed to be swung into contact with said pad, said feeding member being also formed with an annular notch having a cam member at one end, and a spring rigidly mounted at one end and loosely engaging said cam member for normally holding the feeding member in a predetermined idle position.

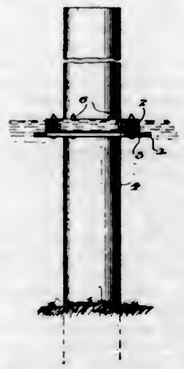
1,134,880. LUBRICATING DEVICE. HENNING LIND, Topeka, Kans. Filed June 23, 1914. Serial No. 846,838. (Cl. 184—93.)

A body member having a well formed therein and constituting an oil receptacle, a headed pin rising from the top face of said member in spaced relation to the well, a cover plate pivoted on said pin for vertical slidable movement thereon, said plate having upturned end flanges whereby it may be manipulated, one of said end flanges projecting beyond the body member to enable the cover plate to be tilted by downward pressure on said flange, a plug on the under face of the cover plate fitting the



upper end of the well and constituting a closure for the same and also an obstruction to resist pivotal movement of the plate, and a spring coiled on the pin between the head and the cover plate and exerting downward pressure on the latter.

1,134,881. PILE-PROTECTING DEVICE. CHARLES F. LOCKWOOD, San Francisco, Cal., assignor of one-third to Ernest B. Murphy and one-third to Jesse M. Thompson, San Francisco, Cal. Filed Mar. 14, 1914. Serial No. 824,771. (Cl. 20—100.)



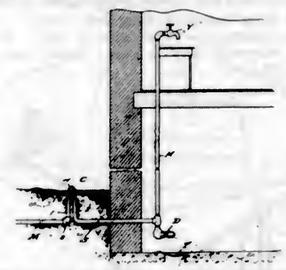
A pile protecting device comprising an annular float member, a weighted balancing member beneath the float member, said float member being of less diameter and greater depth than the balancing member and provided in its underside with an annular rabbet or recess, the openings in said member being in registry, brush material arranged within the recess of the float member and between said member and balancing member and projecting therefrom into the openings in the members, and fastening means extending through said members and holding the same assembled and the brush material clamped.

1,134,882. AUTOMATIC LOW-TEMPERATURE CUT-OFF FOR WATER-PIPES. WILLIAM C. LOWE, Atlanta, Ga. Filed Aug. 18, 1914. Serial No. 857,398. (Cl. 137—79.)

1. The herein described means for automatically cutting off the flow of water from one pipe to another in freezing weather, which comprises said pipes, both protected from the freezing of the water within them, and a coupling member constituting the sole connection between said pipes and having part of its length so shaped and exposed that the water therein may freeze solid at one point.

2. The herein described means for automatically cutting off the flow of water in freezing weather from a main to a service pipe, which comprises said main and pipe, both disposed underground beneath the freezing point, and a coupling member between them comprising upstanding legs respectively connected with the main and

the service pipe and a portion intervening between said legs and exposed above ground.

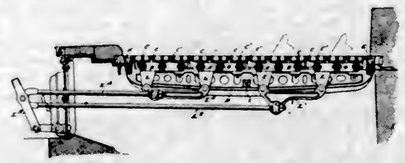


3. The herein described low temperature automatic cut-off for the purpose described, the same consisting of an inverted U-shaped member having one leg integrally connected with a pipe adapted to form a section of service pipe and the other leg adapted for connection with a main, said legs growing wider in one direction and more contracted in the other direction from said points of connection upward to the arch of the cut-off.

4. The herein described anti-freezing device comprising the main, the service pipe, the house water system, and an automatic vent at a high point and a drain valve at a low point in said system; combined with an automatic low temperature cut-off consisting of a pipe of inverted U-shape having its legs communicating respectively with said main and service pipe, said legs growing wider in one direction and more contracted in the other direction from their lower ends upward to the arch of the cut-off, the arch being of the same internal capacity as the legs.

5. The herein described anti-freezing device comprising the main, the service pipe, the house water system, and an automatic vent at a high point and a drain valve at a low point in said system; combined with a coupling member constituting the sole connection between the main and service pipe and having a part of its length exposed to the weather so that the water therein may freeze and shut off communication therethrough.

1,134,883. GRATE FOR BURNING FINE FUEL. WILLIAM MCCLAVE, Scranton, Pa., assignor to McClave-Brooks Company, Scranton, Pa., a Corporation of Pennsylvania. Filed Aug. 29, 1913. Serial No. 787,342. (Cl. 126—177.)



1. A grate comprising a plurality of tilting sections, each section embodying a rigid grid having parallel bars and a series of removable tops rigidly mounted on each bar, the removable tops on adjacent bars having their proximate ends overlapped below the general level of the fuel supporting surface and spaced to form air admission openings between them inclined to the general plane of the grate.

2. A grate comprising a plurality of tilting sections, each section embodying a rigid grid having parallel bars and a series of removable tops having air passages therethrough rigidly mounted on each bar, the removable tops on adjacent bars having their proximate ends overlapped below the general level of the fuel supporting surface and spaced to form air admission openings between them inclined to the general plane of the grate.

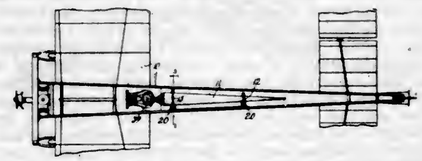
3. A grate comprising a plurality of tilting sections, each section embodying a rigid grid having bars parallel with the axis of the section and a series of removable tops having air passages therethrough rigidly mounted upon each bar, the front and rear edges of each top being beveled respectively upwardly and downwardly and the tops on adjacent bars having their oppositely beveled ends overlapped and spaced apart to form air openings inclined to the plane of the fuel supporting surface.

4. A grate comprising a plurality of tilting sections, each section embodying a rigid grid having a plurality of bars parallel with the axis of the section and said bars all having relatively small removable tops provided with air passages therethrough secured to corresponding sides thereof, said removable tops on adjacent bars being provided with overlapping and underlapping edge portions respectively at their adjacent edges below the general plane of the fuel supporting surface.

5. A grate comprising a plurality of tilting sections, each section embodying a rigid grid having a plurality of bars parallel with the axis of the section, all of said bars having seats on the same side, a series of removable tops having air passages therethrough carried by each bar and with the proxmiate ends of the tops on adjacent bars overlapped but not spaced to form air openings inclined to the plane of the grate and said tops having downwardly tapering shanks mounted in the seats on the bar, and clamps and bolts for holding the shanks and tops in place.

[Claims 6 to 11 not printed in the Gazette.]

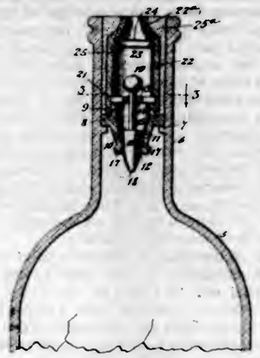
1,134,884. SAFETY DEVICE FOR AVIATORS. WILLIAM ALEXANDER MACKAY, North Sydney, Nova Scotia, Canada. Filed Aug. 21, 1912. Serial No. 716,173. (Cl. 244—21.)



1. The herein described means to secure a parachute detachably to an aeroplane comprising a casing having a side opening near one end, a strap adapted to surround the parachute, a catch connected to one end of the strap and including a rigid housing and a flexible tongue secured at one end of the housing, said catch being adapted to project into said opening and the tongue having a hook projecting laterally from the housing, a locking dog movable within the casing and coöperating with said hook, a trigger having a projection coöperating with the dog while the latter is moving to its locking position and whereby the trigger is moved to hold the dog normally in locking position, and means under the control of the aviator normally holding the trigger in said locking position, substantially as set forth.

2. The herein described means to secure a parachute detachably to an aeroplane comprising a lock casing of rectangular form and having a closed end with an opening in a side adjacent the end, a dog mounted within the casing and held normally in rigid position slightly spaced from said closed end and just within the opening aforesaid but movable away from the end when the lock is released, and a strap including a catch projectable through the said opening in the casing, said catch comprising a rigid housing having a back fitted slidably against said closed end of the casing and also having integral side flanges, said catch also including a flexible tongue secured rigidly to one end of the housing and extending thence between said side flanges and spaced normally from the back of the housing, said tongue carrying a head coöperating with the casing dog, substantially as and for the purpose set forth.

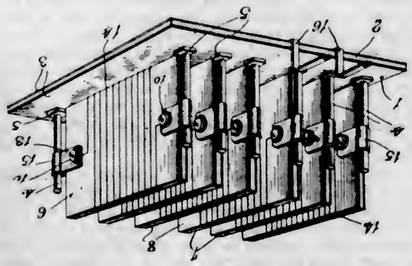
1,134,885. NON-REFILLABLE BOTTLE. JOHN A. MATSON, New York, N. Y. Filed Apr. 18, 1914. Serial No. 832,770. (Cl. 215—62.)



1. A bottle having an inner flange, a cup with a central opening and having a flange resting on the first mentioned flange, a guide disposed on the cup, a stopper lining spaced from the bottle wall and resting on the flange of the cup, the stopper lining being provided with a shoulder resting on the guide and having the upper portion of its side walls converging, and a sleeve disposed between the stopper lining and the bottle wall, the sleeve resting on the cup flange, and having a wedge portion normally pressing against the converging upper walls of the stopper lining.

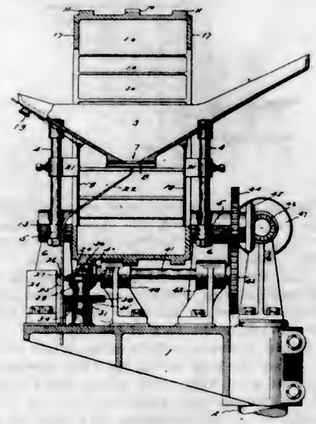
2. In a non-refillable bottle, a bottle having an internal flange in its neck, a cup having a central opening, the inner end of which is conical and provided with an external flange resting upon the flange of the bottle, a disk-like guide having a central opening and a plurality of openings around the central opening and resting upon the top of the cup, a lining of less diameter than the neck of the bottle and resting upon the flange of the cup, the lining being provided with an internal shoulder resting on the guide, a sleeve between the lining and the neck of the bottle, and a conical plunger in the cup and having a stem extending through the central opening of the guide.

1,134,886. ELECTRIC STOVE. WILLIAM FOSTER MERRILL, New York, N. Y. Filed July 10, 1914. Serial No. 850,277. (Cl. 219—63.)



An electric heater for stoves comprising a base plate, said base plate having a plurality of apertures in its sides adjacent to its marginal edge, a plurality of conducting pins extending through said apertures and secured therein, wire holding tablets disposed between said conducting pins, clamping plates secured centrally at each end of said tablets, their free ends bent to conform to the shape of the pin and clamped thereon, means for connecting the pin and tablets in series with an electric current, and a plurality of heating coils removably secured to the tablets and clamping plates.

1,134,887. MACHINE FOR FEEDING RINGS. JOSEPH MERRITT and CHARLES H. STOARS, Hartford, Conn., assignors, by direct and mesne assignments, to The Hartford Lock Ring Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 4, 1912, Serial No. 688,499. Renewed May 7, 1914. Serial No. 837,082. (Cl. 140—88.)



1. A ring feeding machine having a hopper with a discharge opening, a collector rod with its tip below the discharge opening, a guiding feather, and mechanism for turning the rings on the rod so that the openings between their ends will coincide with said feather.

2. A ring feeding machine having a hopper with a discharge opening, a collector rod with its tip below the discharge opening, a feather projecting from the collector rod, and means for lifting and turning the rings on the rod so that the openings between their ends will coincide with said feather.

3. A ring feeding machine having a hopper with a discharge opening, a collector rod with its tip below the discharge opening for catching rings that fall through said opening, a rotary elevator about the hopper for catching such rings as pass through the hopper discharge and are not caught by the collector rod, and mechanism for rotating the elevator and carrying the rings which it catches back to the hopper.

4. A ring feeding machine having a hopper with a discharge opening, a collector rod with its tip below the discharge opening for catching rings that fall through said opening, a feather projecting from the collector rod, a wiper for rotating the rings on the collector rod, mechanism for rotating the wiper, a rotary elevator for catching rings which pass through the opening and are not caught by the rod, and mechanism for rotating the elevator and returning the rings caught thereby.

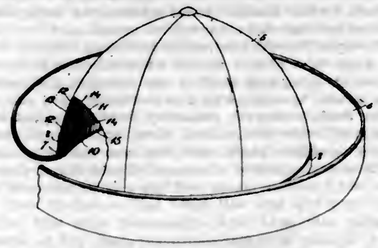
5. A ring feeding machine having a hopper with inclined walls and a discharge opening at the bottom, a rotary elevator with buckets for carrying rings up and depositing them in the hopper, mechanism for rotating the elevator, a collector rod with its tip below the hopper discharge opening, a feather projecting from the rod, a rotatory wiper movable toward and from the collector rod for turning rings on the rod that are caught by the feather, means for drawing the wiper toward the rod, and mechanism for rotating the wiper.

[Claims 6 to 12 not printed in the Gazette.]

1,134,888. SWEAT-BAND FOR HEAD-GEAR. PERCY MERTON and CHARLES S. MERTON, Park Ridge, N. J. Filed Oct. 15, 1913. Serial No. 795,263. (Cl. 2—32.)

1. A sweat band, comprising a lower narrow strip of relatively stiff material and a comparatively wide upper strip of flexible material secured to the upper edge of the lower strip.

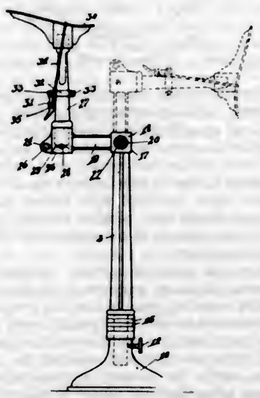
2. A sweat band, comprising a lower anchoring strip of leather and an upper cloth strip secured to the upper edge of the leather strip.



3. A sweat band, comprising a lower anchoring strip of leather, an upper cloth strip of greater width than the leather strips and secured to the upper edge of the leather strip and a backing of stiffening material secured to the said cloth strip.

4. The combination with an article of headgear, of a sweat band therefor including a lower strip of relatively smooth and stiff material adapted to contact with the head of the wearer, and an upper strip of flexible material adapted to match the headgear and having folded edge portions, said upper strip being secured to the outer face of the lower strip and adapted to permit the headgear to be blocked with the band therein.

1,134,889. SHOEMAKER'S JACK. JAMES A. MOGLE, Mishawaka, Ind. Filed July 20, 1910. Serial No. 572,815. (Cl. 12—123.)



In a shoemaker's jack, the combination of a last-supporting post adapted to have a last mounted upon one end thereof, a ring rotatably mounted upon the post, an arm projecting radially from said ring, a clamping lever pivotally connected at one end with the outer end of the arm, and a last-clamping strap connected medially with the lever and adapted to pass around a last mounted upon the post.

1,134,890. CAP FOR AUTOMOBILE-RADIATORS AND THE LIKE. HENRY S. MORGAN, Trenton, N. J., assignor to Essex Rubber Company, Inc., Trenton, N. J., a Corporation of New Jersey. Filed June 28, 1913. Serial No. 776,228. (Cl. 220—124.)

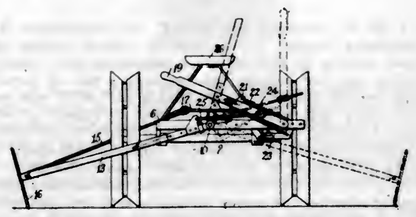
1. A cap for automobile radiators and the like, comprising a threaded metal bushing open at both ends and adapted to be screwed on to the end of a pipe, and a covering of hardened moldable material unaffected by the action of steam or hot water and having a relatively high elastic limit, the said covering surrounding the periphery and closing one end of the bushing.



2. A cap for automobile radiators and the like, comprising a bushing adapted to fit the part to which the cap is to be applied, a separate top piece upon the bushing projecting inwardly to a sufficient extent to form a shoulder for the said part to abut against and a covering of moldable material over the top and around the sides and hardened so as to hold the bushing and top piece in position and to form a rigid impervious cap.

3. A cap for automobile radiators and the like, comprising a bushing adapted to fit the part to which the cap is to be applied and open at both ends, a covering of hard moldable material unaffected by the action of steam or hot water and having a relatively high elastic limit, the said covering surrounding the periphery and closing one end of the bushing, and means to retain the cap on the part to which it is to be applied.

1,134,891. MARKER FOR CORN-PLANTERS. ROLLA EDWARD MUDD, Stronghurst, Ill. Filed Sept. 17, 1913. Serial No. 790,193. (Cl. 111—24.)



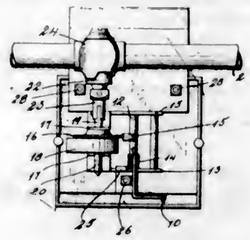
1. In a marker for corn planters, a support; a marker arm pivotally mounted on said support; means for swinging said support from one side to the other operable from the driver's seat and comprising a pivotally mounted lever, a pivotally mounted link on said lever, a second link connecting one end of said link to the support, a coil spring connecting the other end of the link to the support, a rod connecting said lever to the arm, the connection of the lever with the arm being eccentric of the pivot of said arm and adjacent the pivot, whereby to move the marker arm from one side to the other side of the planter, said lever must be moved from and back to its original position.

2. In a marker for corn planters,—a support; a member pivotally mounted in said support adapted to swing in a substantially vertical plane; a marker arm pivotally mounted in said member; a spring tending to move said arm on its pivot and thereby separate the arm from the member; a lever pivotally mounted on the support; a centrally pivoted link on said lever; a second link connecting one end of the first-mentioned link to the support; a coil spring connecting the other end of the link to the support; a connecting rod from the arm to the lever; and a clamp on said lever engaging said rod and whereby the distance between the lever and the arm can be varied, substantially as and for the purpose set forth.

3. In a marker for corn planters, a support; a marker arm pivotally mounted on said support; an operating lever connected to said support; an adjustable rod connection from said arm to said lever; the connection of the arm with the rod being eccentric to the pivot of the arm; a resilient member tending to move the lever in a predetermined direction, and a link from the support to the lever limiting the movement of the lever in said predetermined direction whereby the marker arm is adapted to be maintained in inoperative position.

4. In a marker for corn planters,—a support; a marker arm pivotally mounted on said support; an operative lever associated with said support; a rod connecting the arm to the lever, the connection of the arm with the rod being eccentric to the pivot of the arm; a link pivotally mounted on said lever; a second link connecting said link to the support; a resilient member also connecting the link to the support, said second link limiting the movement of said lever in a predetermined direction, and said resilient member being adapted to maintain the marker arm in inoperative position when said lever is moved to its limit position in said predetermined direction.

1,134,892. VALVE-OPERATING MECHANISM. MAXYMILIAN J. MYSZKIER, Buffalo, N. Y. Filed Oct. 16, 1913. Serial No. 795,607. (Cl. 137—7.)



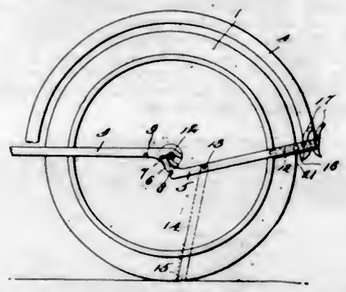
1. In an automatic gas shut-off, the combination of a supporting casing, electro-magnets carried within the lower portion of said casing, a supporting plate carried within said casing above said magnets, a pair of parallel arms carried upon said plate, a shaft carried by said parallel arms, said shaft being adapted to engage a valve cock, a ratchet wheel keyed to said shaft, a coil spring carried by one of said arms and engaging said shaft for urging said shaft in one direction, means releasably engaging said ratchet wheel for normally holding said wheel against rotation and means carried by said first-mentioned means and coöperating with said electro-magnets whereby said last-mentioned means will actuate said first-mentioned means when said magnets are energized.

2. In a device of the class described the combination of a supporting casing, electro-magnets carried within said casing, a pair of parallel arms carried within said casing, a rotatable shaft carried by said arms, said shaft being adapted to engage a gas-valve cock, a ratchet wheel keyed to said shaft, a coil spring engaging said shaft for urging the shaft in one direction, a secondary shaft journaled within said casing having an integral pawl, means for releasably holding said pawl in engagement with said ratchet wheel, an armature carried adjacent said magnets, and means engaging said secondary shaft and lying in the path of travel of said armature, whereby said armature may move said means and thereby cause said secondary shaft to be moved for swinging said pawl from engagement with said ratchet wheel, whereby said spring will move said first-mentioned shaft for operating the gas-valve cock.

3. In a device of the class described, the combination of a casing, electro-magnets carried within said casing, an armature carried adjacent said magnets, means for energizing said magnets whereby said armature may be moved, a shaft rotatably supported within said casing, said shaft being adapted to engage a gas-valve cock, a ratchet wheel keyed upon said shaft, means for urging said shaft in one direction, a secondary shaft carried within said casing and provided with an integral pawl, a coil spring carried by said secondary shaft for releasably holding said pawl in engagement with said ratchet wheel, a trip arm secured to said secondary shaft, a finger carried by said armature and adapted to engage said trip arm, whereby when said armature is actuated said trip arm will swing said pawl from engagement with said ratchet wheel and allow said first-mentioned shaft to rotate for turning the gas-valve cock.

4. In a device of the class described the combination of a casing, electro-magnets carried within said casing, an armature carried adjacent said magnets and provided with a finger, a plate fixedly carried within said casing above said magnets, parallel arms carried by said plate, a rotary shaft carried by said arms, said shaft being adapted to engage a gas-valve cock, a ratchet wheel keyed to said shaft, means for urging said shaft in one direction, a secondary shaft carried by said plate, a pawl formed upon said secondary shaft, means for releasably retaining said pawl in engagement with said ratchet wheel, a trip arm secured to said secondary shaft, said trip arm extending downwardly into the path of movement of said finger, whereby when said armature moves said trip arm by means of said finger said trip arm will move said secondary shaft for swinging said pawl from engagement with said ratchet wheel, whereby said first-mentioned shaft will be released for operating the valve.

1,134,893. MOTOR-CYCLE STAND. JOHN M. NELSON, Duluth, Minn. Filed Oct. 29, 1914. Serial No. 869,261. (Cl. 208—75.)



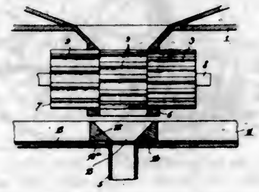
1. A motorcycle stand comprising an inner frame and an outer frame, said frames being pivotally connected together, and one of said frames being provided with angular arms at the upper ends, said arms being pivoted to the frame bars of the motorcycle, and provided with a notch to engage a pin on the frame bars, the other frame of said stand being provided with braces to prevent the first mentioned frame from passing through the same, and said frames when thrown down supporting the motorcycle in an upright position.

2. A motorcycle stand comprising an inner frame and an outer frame pivotally connected together, one of said frames having angular arms pivoted to the frame bars of the motorcycle and means for stopping said frames when in position to support the motorcycle, the outer frame of said stand being shorter and adapted to reach to the ground line, while the longer frame swings within the shorter frame when the rear wheel is pushed backward to support the motorcycle in vertical position, and means for preventing one frame from swinging through the other frame.

3. A motorcycle stand comprising an inner frame, and an outer frame pivoted thereto, one of said frames being longer than the other frame and provided with angular arms pivoted to the frame bars of the motorcycle, stops on said bars and notches in the longer frame, braces in both frames, a latch to prevent disconnection of the two frames, and means for holding said two frames in an upper inoperative position.

1,134,894. BEET AND GRAIN DRILL ATTACHMENT. BYRON NEWTON, Fort Collins, Colo. Filed Mar. 31, 1914. Serial No. 828,532. (Cl. 111—18.)

1. The combination with a seed drill including a main hopper, a seed box arranged in communication with the hopper, a grain spout disposed with its mouth directly beneath the discharge end of the said box, and regulable means for feeding grain through the said box during movement of the drill proper, of an attachment therefor comprising a trough-shaped member interposed between the discharge end of the seed box and the mouth of the spout and having an upwardly flared hopper opening in alinement with the mouth of the spout, the said trough-shaped member being provided with a longitudinal guide slot communicating with the hopper opening, a slide plate movably mounted within the guide slot and having a vertical opening adapted to register with the hopper opening when the slide plate is in its inoperative position, yieldable means for normally maintaining the slide plate in its operative position, and means for operating the said plate into its inoperative position.

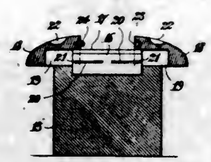


2. The combination with a seed drill including a main hopper, a seed box arranged in communication with the hopper, a grain spout disposed with its mouth directly beneath the discharge end of the said box, and regulable means for feeding grain through the said box during movement of the drill proper, of an attachment therefor comprising a trough-shaped member interposed between the discharge end of the seed box and the mouth of the spout and having an upwardly flared hopper opening in alinement with the mouth of the spout, the said trough-shaped member being provided with a longitudinal guide slot communicating with the hopper opening, a slide plate movably mounted within the guide slot and having a vertical opening adapted to register with the hopper opening when the slide plate is in its inoperative position, yieldable means for normally maintaining the slide plate in its operative position, and means associated with the feed-regulating means for causing successive movement of the said slide plate into its inoperative position, during operation of the feed-regulating means.

3. The combination with a seed drill including a main hopper, a seed box arranged in communication with the hopper, a grain spout disposed with its mouth directly beneath the discharge end of the said box, and regulable means for feeding grain through the said box during movement of the drill proper, including a rotatable operating shaft, of an attachment therefor comprising a trough-shaped member interposed between the discharge end of the seed box and the mouth of the spout and having an upwardly flared hopper opening in alinement with the mouth of the spout, the said trough-shaped member being provided with a longitudinal guide slot communicating with the hopper opening, a slide plate movably mounted within the guide slot and having a vertical opening adapted to register with the hopper opening when the slide plate is in its inoperative position, yieldable means for normally maintaining the slide plate in its operative position, a vertical pin provided upon the said slide plate, a cylindrical operating block mounted upon the shaft of the feed-regulating means for rotation therewith, and means provided upon the said block for engagement with the said pin to cause the slide plate to be thrown longitudinally into inoperative position at intervals during operation of the said shaft.

4. The combination with a seed drill including a main hopper, a seed box arranged in communication with the hopper, a grain spout disposed with its mouth directly beneath the discharge end of the said box, and regulable means for feeding grain through the said box during movement of the drill proper, of an attachment therefor comprising a trough-shaped member interposed between the discharge end of the seed box and the mouth of the spout and having an upwardly flared hopper opening in alinement with the mouth of the spout, the said trough-shaped member being provided with a longitudinal guide slot communicating with the hopper opening, a slide plate movably mounted within the guide slot and having a vertical opening adapted to register with the hopper opening when the slide plate is in its inoperative position, yieldable means for normally maintaining the slide plate in its operative position, a vertical pin provided upon the said slide plate, a cylindrical operating block mounted upon the shaft of the feed-regulating means for rotation therewith, and a diagonally extending cam member provided upon the outer periphery of the said block for engagement with the pin carried by the slide plate at intervals during operation of the said shaft.

1,134,895. THREAD-CUTTER. ALMA NIEBERG, Brooklyn, N. Y. Filed Oct. 1, 1913. Serial No. 792,832. (Cl. 30—14.)



1. A device of the class described comprising a relatively heavy base block, a sharp-edged blade projecting upwardly from the top face thereof, said blade having longitudinal slots, and cover members having blade engaging recesses, said cover members having pins extending transversely therethrough and slidably engaging the slots in the blade.

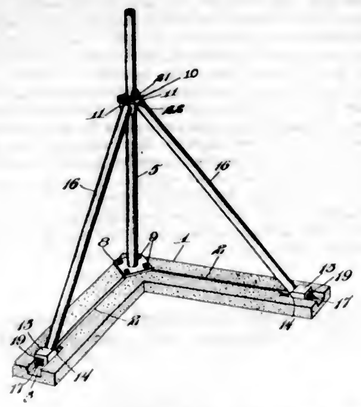
2. A device of the class described comprising a relatively heavy base block, a sharp-edged blade projecting upwardly from the top face thereof, said blade having longitudinal slots, and cover members having blade engaging recesses, said cover members having pins extending transversely therethrough and slidably engaging the slots in the blade, and said cover members being provided on their opposed faces with interengaging fastening members.

1,134,896. NUT-LOCK. JOHN E. NORTH, JAMES H. MCCAULEY, and JOHN G. BYTHEWAY, Ellsworth, Pa. Filed Dec. 27, 1913. Serial No. 809,074. (Cl. 151—40.)



In a nut lock, the combination with a bolt, of a nut provided upon its inner and outer faces with recesses, a longitudinal bore connecting the said recesses, a spring lock mounted in the inner recess, a pin extending through said bore and having one end thereof rotatably mounted in said spring lock, the opposite end terminating in a flattened head, said head being semi-circular in shape and having a transverse opening therein, the said nut being provided with a transverse slot formed in the lower end of the outer recess, the said head adapted to work within the slot, all substantially as and for the purpose set forth.

1,134,897. POST. FRANK NOVESS, Ypsilanti, Mich. Filed Aug. 26, 1913. Serial No. 786,771. (Cl. 20—99.)



A fence structure comprising an L-shaped base having grooves in its upper surface, a plate secured to the apex of said base by bolts, a post passing through said plate and having means connected with said plate to prevent the post from turning, abutments slidably mounted in the grooves in said base and adjustably connected by rods to said bolts, a vertically adjustable abutment mounted on the post, and braces extending between the sliding abutments in the base and the vertically adjustable abutment.

1,134,898. PIN-CATCH. MARGARET LOUISE NOXON, New York, N. Y. Filed June 2, 1913. Serial No. 771,204. (Cl. 24—156.)



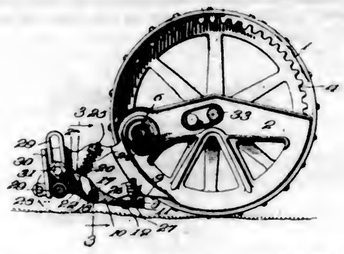
1. In a pin catch, a body, a pin tongue disposed at the rear of the body, means connecting the pin tongue with one end of the body, and an S-shaped fastener having one of its terminals secured to the rear of the body at the other end and with its central portion and its other terminal spaced from the body, the said other terminal being spaced a greater distance from the body than the said central portion for securing the pin tongue at different distances from the said other end of the body.

2. In a pin catch, a body, a pin tongue, means connecting the pin tongue with the body, and a resilient S-shaped fastener secured at one end to the body and extending therefrom for holding the pin tongue at either one of two predetermined positions relatively to the body.

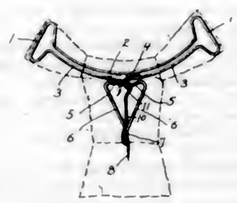
3. In a pin catch, a body, a pin tongue disposed at the rear of the body, means connecting the pin tongue with one end on the body, and a fastener secured to the body and having two members disposed transversely at the rear of the body at its other end and spaced from the body, one a greater distance than the other for securing the pin tongue at different distances from the other end of the body.

1,134,899. LAWN-MOWER. ROWLEY K. ORTT, Dixon, Ill. Filed Oct. 18, 1913. Serial No. 795,959. (Cl. 56—19.)

In a lawn mower, in combination, frame sides, a rotary cutting reel, operating means therefor, a frame-side spacing-and-clamping tie and axis-forming connection, a vertically rockable bed arranged between said frame sides over and supported by and rockable on said connection and having a front longitudinal cutting edge coöperating with said cutting reel, said sides provided with vertically adjustable stops engaging the lower front corners of said bed to limit the upward movement of the front edge of said bed, said bed formed with depending end flanges having aliner bearing openings for said connection and whereby said bed is held down on said connection, the under side of said bed between said depending flanges having a longitudinal depression for said connection and alined with said openings, said flanges being extended rearwardly and upwardly, and coiled compression springs arranged at the inner surfaces of said sides and bearing down on said extended portions of said flanges, said sides provided with rigid portions forming abutments for the upper ends of said springs.



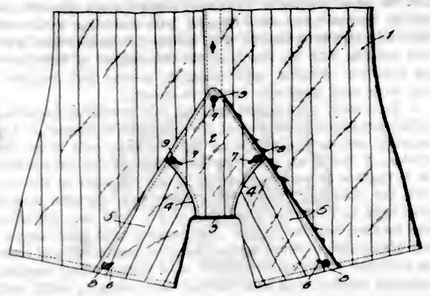
1,134,900. SCARF-HOLDER. CHARLES M. PAQUETTE, Newark, N. J. Filed Jan. 20, 1914. Serial No. 813,318. (Cl. 2—84.)



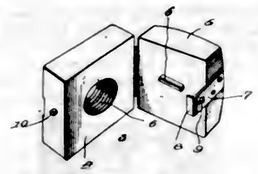
The hereindescribed scarf holder made from a single length of resilient wire comprising oppositely disposed loops to receive the neckband portion of a scarf, backwardly and downwardly curved parallel members extending inwardly from said loops, the wire from the center being bent outwardly and converging downwardly, one of the ends of said wire terminating in a prong to engage the back of the scarf, the other member being twisted around the shank of the prong and bent upwardly and bent into a hook at the terminal end for engaging the front collar button of a neckband of a shirt.

1,134,901. GARMENT. JOHN PARSONS, Westerly, R. I. Filed May 14, 1914. Serial No. 838,576. (Cl. 2—144.)

A garment comprising a coat shirt having a triangular flap formed integrally with the lower end of its back and connected thereto by a reduced neck, said lower back end having a pair of substantially ovate notches in its lower edge adjacent the opposite sides of the neck portion of the flap, substantially rectangular inserts having one corner rounded, said inserts being secured in said notches with the side edge and end edge connected by the rounded corner stitched to the material surrounding the notches, the remaining side and end edges of said inserts constituting continuations of the lower end of the garment and of the triangular flap, said inserts forming seamless inner leg-engaging portions, fastening elements on the shirt front and co-acting fastening elements on the free corners of the flap and on the free corners of the inserts.

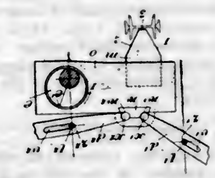


1,134,902. LOCK-NUT. EVALENA B. PAYNE, Union Level, Va. Filed Oct. 16, 1914. Serial No. 866,968. (Cl. 151—5.)



The combination with a spindle having its threaded end provided with slots or grooves, of a lock nut, said lock nut comprising an inner member having a threaded bore which engages with the threaded end of the spindle, and an outer member which is hingedly connected with the inner member, the said outer member having a projecting lug or tongue which is adapted to be received within the bore of the inner member and engaged between the walls of the slots of the groove of the spindle, a strap upon the outer member, said strap having a detent engaging with one of the faces of the inner member, said strap being further provided with an opening, and the inner member being formed with a lug which extends within the opening of the strap when the outer member is swung upon and locked to the inner member of the lock nut.

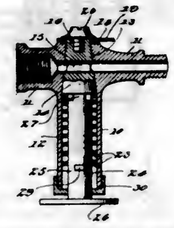
1,134,903. APPARATUS FOR CUTTING SECTIONAL IRON. HENRY PELS, Berlin, Germany. Filed May 6, 1914. Serial No. 836,738. (Cl. 164—58.)



1. In an apparatus of the type set forth, an upper cutter having a wedge-shaped cutting edge, a holder therefor, a rotating eccentric set into the holder and operating the same, pressure members pivotally connected at the upper side of said holder, and fixed pins forming the respective fulcra of said pressure members, the pressure members being slotted to accommodate said pins and being arranged whereby when one of them is operative to direct the movement of the holder the other is inoperative and vice-versa.

2. In an apparatus of the type set forth, an upper cutter having a wedge-shaped cutting edge, a holder therefor, a rotating eccentric set into the holder for driving the latter, and a pair of pressure members mounted for sliding and pivotal movement about fixed axes and pivotally connected to said holder, the pressure members being arranged whereby when one of them is operative to direct the movement of the holder the other is inoperative and vice-versa.

1,134,904. SAFETY-COCK. FRED WARNER PIPER, Waterville, Me. Filed June 6, 1914. Serial No. 843,474. (Cl. 137—7.)



In a safety cock, the combination with a valve body having communicating coupling members, of a valve interposed between the coupling members to interrupt communication therebetween, an operating member including a stem, a tubular shank on the valve body and into which the operating member extends, a spring in the shank and encircling the operating member, a key on the stem and adapted to extend into a cruciform groove in the valve to effect an operating connection between the stem and the valve, a pin projecting from the stem and engaged by the spring whereby said spring will normally hold said operating member out of engagement with the valve, said pin being adapted to abut against said tubular shank and limit the pressure of the spring upon the said operating member.

1,134,905. POT AND COVER LIFTER. KARL PROCHASKA, Vienna, Austria-Hungary. Filed May 8, 1914. Serial No. 837,142. (Cl. 65—32.)

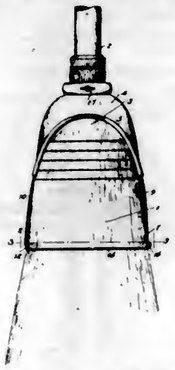


The herein described implement formed of sheet metal of uniform thickness and comprising a rigid handle, having at one end a head slitted to form a series of three fingers of uniform width, the two outer fingers being of the same length and bent laterally from the plane of the handle head and thence toward the handle forming parallel hooks, and the intermediate finger being longer than the other two, and being curved slightly from the plane of the handle and head on the side thereof opposite said hooks, substantially as set forth.

1,134,906. BROOM-PROTECTOR. JOSEPH RABASA, New York, N. Y. Filed June 12, 1914. Serial No. 844,682. (Cl. 15—23.)

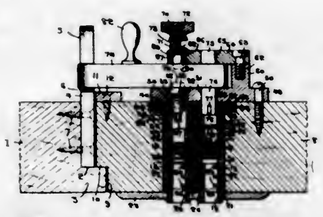
1. In a broom protector of the character described, a top portion, means for clamping the same to a broom, said top portion being provided with rolled edges, a pair of crossed wires on each edge of the top portion extending into said rolled edges for providing protecting members for the edges of a broom, and means extending from said crossed wires for providing end members and side members inclosing said broom, all of said members being resilient so as to resiliently hold the straws of a broom properly in position.

2. In a broom protector of the character described, a solid top portion adapted to conform to the shape of a broom, said top portion having hollow edges for producing sockets, a pair of crossed wires on each edge of said top portion, said wires extending into said sockets, end and



side wires projecting from said crossed wires, said end wires being formed into hooks for engaging said side wires and holding the same in position, said end and side wires presenting a frame surrounding the sides of a broom so as to prevent the spreading thereof.

1,134,907. DOUBLE-KEY LOCK. ALFRED RE, New York, N. Y. Filed June 11, 1914. Serial No. 844,436. (Cl. 70—72.)



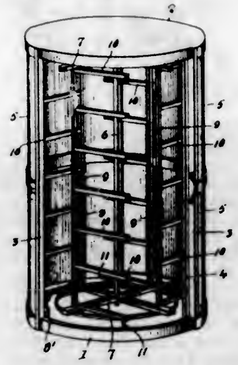
1. In a lock, a swinging locking bolt revolubly mounted within said lock upon a door for engaging a keeper, a key operated means for actuating said locking bolt from the outside of the door, a key operated means for preventing the actuation of said locking bolt until released by the key from the outside of the door, a manually operated means upon said lock at the inner side of the door for retaining said locking bolt in locked engagement with said keeper, and means for retaining said locking bolt out of engagement with said keeper when desired.

2. In a lock, a swinging locking bolt revolubly mounted within said lock upon a door for engaging a keeper, a key operated means for actuating said locking bolt from the outside of the door, a key operated means for preventing the actuation of said locking bolt until released by the key from the outside of the door, a manually operated means upon said lock at the inner side of the door for retaining said locking bolt in locked engagement with said keeper, said manually operated means also retaining said locking bolt out of engagement with said keeper when desired, and means for contacting with said locking bolt for limiting the manipulation of said locking bolt.

3. In a lock, a swinging locking bolt revolubly mounted within said lock upon a door for engaging a keeper, a key operated means for actuating said locking bolt from the outside of the door, a key operated means for preventing the actuation of said locking bolt until released by the key from the outside of the door, a manually operated means upon said lock at the inner side of the door for retaining said locking bolt in locked engagement with said keeper, said manually operated means also retaining said locking bolt out of engagement with said keeper when desired, engaging means upon said locking bolt coacting with said manually operated means, and means for contacting with said locking bolt for limiting the movement of said locking bolt for bringing said engaging means into registration with said manually operated means.

4. In a lock, a swinging locking bolt revolubly mounted within said lock upon a door for engaging a keeper, a key operated means for actuating said locking bolt from the outside of the door, a key operated means for preventing the actuation of said locking bolt until released by the key from the outside of the door, a manually operated means upon said lock at the inner side of the door for retaining said locking bolt in locked engagement with said keeper, said manually operated means for also retaining said locking bolt out of engagement with said keeper when desired, engaging means upon said locking bolt coacting with said manually operated means, means for contacting with said locking bolt for limiting the movement of said locking bolt for bringing said engaging means into registration with said manually operated means, and means within said lock for adjusting the same for readily securing the lock upon doors of various widths.

1,134,908. DISPLAY RACK OR CABINET. OLIVER T. ROMSOS, Sarles, N. D. Filed May 16, 1913. Serial No. 768,149. (Cl. 211—21.)

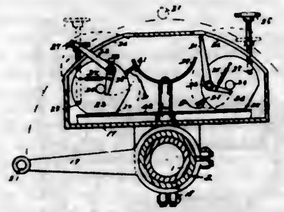


A cabinet comprising a casing having an opening a shaft journaled in the casing, arms radiating from the shaft, article supports pivoted in rows upon the arms, an arcuate strip located in the casing and concentric with the axis of the shaft and having end portions outwardly curved and terminating opposite the edges of the opening, the outermost article holder only of each set of article holders being provided with a pin which is engageable with the said strip as the shaft rotates, the outermost article holders being adapted to swing through the opening when the pin is between the ends of the strip and the edges of the opening.

1,134,909. WAY-SIGNAL. JOSEPH M. ROSSELOT, Cincinnati, Ohio, assignor of one-half to B. B. Quillen, Cincinnati, Ohio. Filed Jan. 20, 1914. Serial No. 813,174. (Cl. 177—339.)

1. A way signal for motor vehicles comprising a switch box mounted on the steering post, a rotatively adjustable cylinder therein, a push button for turning the cylinder to close the circuit, a lever for turning the cylinder in the opposite direction for opening the circuit, and an arm movable with the steering wheel for automatically actuating the lever.

2. A way signal for motor vehicles comprising a signal lamp, a switch box for controlling the electric circuit thereto, a push button for operating the switch within the box to close the circuit, a lever for actuating the switch to open the circuit and movable by the button to project beyond the cover of the box, and an arm secured on the steering wheel and movable thereby to automatically actuate the lever in one direction.



3. In a motor vehicle, the combination of a signal lamp mounted thereon, an arm adjustably secured on the steering wheel, a switch box mounted at a fixed point, and a lever projected therefrom in the path of the arm when the switch in the box is operated to close the circuit.

4. In a motor vehicle, the combination of a battery, a lamp in circuit therewith, an arm adjustably secured on the steering wheel, a switch lever movable into the path of the arm with the closing of the circuit, yielding connections with the lever to permit the passage of the arm thereover in one direction, and a stop for engaging the lever with the arm in its movement in the other direction for automatically opening the circuit.

1,134,910. TIE-FORM. KEITH H. ROUSE, San Francisco, Cal. Filed Aug. 27, 1912. Serial No. 717,357. (Cl. 2—84.)

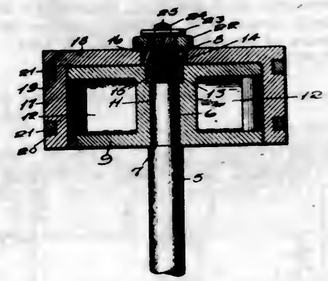


In a device of the character described comprising a wire strand, said wire strand being shaped to provide two equal side stems, said stems being crossed at one end, an integral inverted U-shaped loop projecting toward the point of intersection of said stems and formed integrally thereupon, each of said stems having a portion of its length forming an acute angle with said intersecting stems, said last mentioned portions arranged to intersect, a sleeve surrounding said last mentioned portions to hold them under tension therein, and oppositely arranged upwardly divergent and rearwardly curved terminals formed upon said stems and having rounded offsets upon their extreme ends.

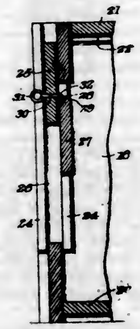
1,134,911. PISTON. PINKNEY LAFAYETTE SAMPLS, Mobile, Ala. Filed Aug. 5, 1914. Serial No. 855,225. (Cl. 121—104.)

1. The combination with a piston rod, having a reduced extension affording a stop-shoulder and provided with a screw-threaded portion, of an apertured inner head to be permanently mounted upon the reduced extension in engagement with the stop-shoulder with the screw-threaded portion of the extension extending outwardly beyond the same, an inner clamping nut engaging the screw-threaded portion of the extension and coöperating with the stop-shoulder to lock the head to the piston rod, an outer casing removably mounted upon the inner head, and an outer clamping nut engaging the screw threaded portion of the extension to hold the outer casing in place.

2. The combination with a piston rod, having a reduced extension affording a stop-shoulder and provided with a screw-threaded portion, of an apertured inner head to be permanently mounted upon the reduced extension in engagement with the stop-shoulder with the screw-threaded portion of the extension extending outwardly beyond the same, an inner clamping nut engaging the screw-threaded portion of the extension and coöperating with the stop-shoulder to lock the head to the piston rod, an outer casing removably mounted upon the inner head, an outer clamping nut engaging the screw-threaded portion of the extension to hold the outer casing in place, and means to prevent improper rotation of the outer clamping nut.



1,134,912. TRAP-NEST. EDWIN G. SCHILLER, Kokomo, Ind. Filed May 15, 1914. Serial No. 838,814. (Cl. 119—49.)



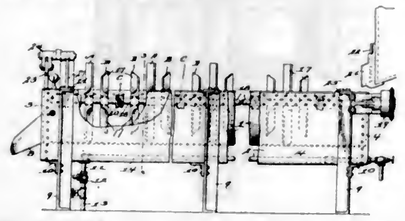
1. In a device of the class described, a box having front door posts and an opening therebetween, a trigger door supported swingingly between the posts, a trap door guided for vertical sliding movement between the posts, and a stud projecting from the trap door to engage the upper edge of the swinging trigger door.

2. In a device of the class described, a box having front posts and an opening therebetween, a trigger door having pivot members engaging the posts, said pivot members being positioned to leave between the extreme upper edge of the trigger door and the pivotal axis a less distance than between said pivotal axis and the front and rear faces of the door, a trap door guided for vertical sliding movement between the posts, and a stud projecting from the trap door and adapted to engage the upper edge of the trigger door to support the trap door in a raised position.

3. In a device of the class described, a box constituting a nest and having front corner posts, an intermediate corner post, and an exit door between the intermediate post and one corner post, a trigger door supported swingingly between the other corner post and the intermediate post, the pivotal axis of said door being nearer the upper edge than the distance between said pivotal axis and the front and rear faces of the door, a trap door guided for vertical slidable movement between the posts that support the

trigger door, and a pin extending through the trap door and having at its front end an eye constituting a handle, the rear end of said pin projecting to form a stud adapted to engage the upper edge of the trigger door.

1,134,913. GRAPE-POMACE HEATER. JULIUS O. SCHLOTTERBECK, Rochester, N. Y., assignor to J. Hungerford Smith Grape Juice Company, Lawton, Mich., a Corporation of Michigan. Filed Dec. 6, 1913. Serial No. 805,068. (Cl. 99—2.)



1. In a grape pomace heater, a pomace trough, a shaft extending lengthwise of the trough and a plurality of pomace agitating blades so arranged on the shaft as to cause a constant horizontal surging of the pomace to and fro lengthwise of the trough simultaneously with their rotary agitating action.

2. In a grape pomace heater, a pomace trough, a shaft extending lengthwise of the trough, and a plurality of pomace agitating blades projecting radially from the shaft, the blades facing alternately in opposite directions whereby to cause a constant horizontal surging of the pomace to and fro lengthwise of the trough.

3. In a grape pomace heater, a pomace trough, a shaft extending lengthwise of the trough, a plurality of pomace agitating blades projecting radially from the shaft and arranged in spiral formation, the blades facing alternately in opposite directions and the blades on any given straight line taken horizontally of the shaft facing in the same direction whereby to cause a constant horizontal surging of the pomace to and fro lengthwise of the trough.

4. In a grape pomace heater, a pomace trough, a shaft extending lengthwise of the trough, a plurality of cross bars bridging the trough and having bearings for said shaft, said bearings having removable cap pieces to provide for the removal of said shaft from said cross bars, and a plurality of pomace agitating blades arranged on said shaft.

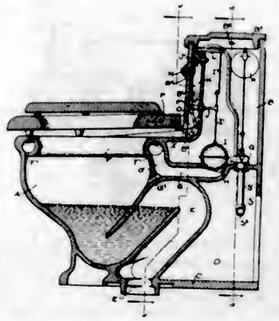
5. In a grape pomace container including a pomace heater, a pomace trough, a shaft extending lengthwise of the trough, uprights arranged in pairs at the sides of the container, cross bars connecting the uprights of each pair and forming direct supports for the container, other cross bars bridging the trough and connecting the uprights at their upper ends, said last named cross bars having bearings for said shaft, and a plurality of pomace agitating blades arranged on said shaft.

[Claims 6 to 19 not printed in the Gazette.]

1,134,914. WATER-CLOSET. FRANK SCHUH, Albany, N. Y. Filed Apr. 30, 1913. Serial No. 764,568. (Cl. 4—5.)

1. A water closet provided with a bowl and a water supply tank integral with the bowl, the bowl having an integral sealed outlet and an integral flushing rim, and the tank having its bottom below the rim of the bowl and provided with a valve seat therein, a channel being formed between the bottom of the tank and the outlet of the bowl, and having an upwardly projecting extension, said channel leading from the rim of the bowl to the valve seat and provided with an opening at the base of its extension leading into the bowl.

2. A water closet provided with a bowl and a water supply tank forming an integral part of the bowl, the bowl having an integral water-sealed outlet and an integral flushing rim connected with a channel, a valve seat in the bottom of the tank and leading to the said channel, a manually-controlled valve controlling the said valve seat, and an overflow integral with and at the front of the tank and discharging above the top of the bowl into the opening of the said bowl.



3. A water closet provided with a bowl, a water supply tank forming an integral part of the said bowl and in communication therewith, and an overflow integral within the tank at the front wall thereof, the said front wall having an opening leading to the bottom of the overflow, and the top of the said bowl being provided at the rear with a channel connecting with the said opening to conduct the overflow water into the top of the bowl.

4. A water closet, comprising a bowl, a water supply tank extending above the bowl and having an overflow on the inner face of the front wall of the tank, the said front wall having openings therein leading into the overflow, and a channel on the upper rear face of the bowl into which the said openings discharge.

1,134,915. HANDLE-ATTACHING MEANS FOR MOPS. WILLIAM SEVERNS, Chicago, Ill. Filed Oct. 22, 1913. Serial No. 796,601. (Cl. 15—24.)



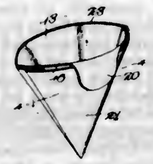
1. A device of the character described, comprising a plurality of inner apertured flat plates arranged side by side in engagement with each other, a reduced strip bent upon itself and formed integral with the upper ends of the inner plates to connect them and extending upwardly beyond the same for a substantial distance to serve as a stop shoulder, a plurality of co-acting apertured plates arranged upon the outer sides of the inner plates and provided with upwardly extending fingers to engage with the stop shoulder, a pivot element passing through the two sets of apertured plates, and spring means carried by the pivot element and forcing the two sets of plates toward each other, substantially as described.

2. A device of the character described, comprising a pair of apertured plates arranged side by side in engagement with each other with their lower transverse ends bent outwardly forming elements for engaging mop head attaching means, a supporting member, and yielding pivotal connecting means between the supporting member and the plates whereby the supporting member may be swung to different angular positions with relation to the plates and locked in a selected angular position with relation thereto.

3. A device of the character described, comprising a section of sheet metal bent upon itself between its ends providing integral flat plates arranged side by side in engagement with each other and having their lower ends bent outwardly for providing transverse flanges adapted to engage with mop head attaching means with outwardly bulging ribs stamped from the material of said plates, a corresponding number of co-acting plates arranged outwardly of and adjacent the inner plates and having recesses to receive the ribs and adapted to be connected with a handle, a pivot element passing through the plates to connect them, springs arranged upon the ends of the pivot element, and cups carried by the ends of the pivot element and completely inclosing the springs.

4. A device of the character described, comprising a normally upstanding apertured member provided with ribs, a mop head carrying frame secured to the member, a handle member carrying spaced apertured plates adapted to be arranged upon opposite sides of the upstanding apertured member and provided with recesses to receive the ribs, a transverse pivot element passing through the upstanding member and plates to connect them, coil springs surrounding the end portions of the pivot element and engaging the outer faces of the apertured plates, and cups carried by the outer ends of the pivot element and engaging and completely inclosing the springs.

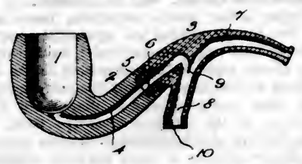
1,134,916. DRINKING-CUP. JAMES G. SHARON, Quincy, Fla. Filed Oct. 25, 1913, Serial No. 797,277. Renewed Dec. 12, 1914. Serial No. 876,935. (Cl. 229—3.)



A blank for making a paper drinking cup comprising a partially circular body having a series of radial scores on which the body can be folded to form slightly curved sides so that the body will be of a conical configuration, with a plurality of the sides lying adjacent and one of the sides overlapping the other, the third side being in opposed relation to the first mentioned sides, and a flap formed with one of the first mentioned sides and adapted to be bent across the edge of the overlapping side and secured to the outer face thereof to hold the said overlapping side and first mentioned side rigidly together.

1,134,917. PIPE. EDWIN J. SHEEHAN, Lynn, Mass. Filed May 27, 1914. Serial No. 841,326. (Cl. 131—12.)

A mouth piece for a pipe comprising a bit having at one side a downwardly disposed hollow trap, a detachable closure for the trap, said bit having an interiorly located depending portion disposed diametrically of the trap and entering the same but terminating short of the lower end thereof the sides of said depending portion converging toward each other and meeting each other at an edge which is spaced from the lower end of the trap for a distance greater than the internal diameter of the trap, said bit being provided with bores which enter the trap at the upper end thereof and at the opposite sides of the said depending portion and which extend to the opposite ends of the bit.



1,134,918. DOUBLE-ACTING FORCE-PUMP. ALBERT R. SHIPPEY, Los Angeles, Cal. Filed Mar. 17, 1914. Serial No. 825,329. (Cl. 103—76.)



1. A double acting pump comprising inner and outer cylinders the former having an upwardly opening valve in the bottom and said inner cylinder having openings in its wall, a piston arranged to reciprocate in the inner cylinder, a head at the upper end of the outer cylinder, the said head being provided with a diaphragm forming a valve chamber in the upper end of the head the said head being further provided with a central opening leading to the inner cylinder, a valve chamber in said head communicating with said opening, and said head also having a duct communicating with the outer cylinder and with one side of the diaphragm and out of direct communication with said opening, a pair of upwardly opening valves in the first-named valve chamber and coacting with openings and valve seats with which said diphragm is provided and an upwardly opening valve in the second named valve chamber and arranged to open and close the water inlet opening with which the wall of said valve chamber is provided.

2. A double acting pump comprising inner and outer cylinders the former having an upwardly opening valve in the bottom and said inner cylinder having openings in its wall, a piston arranged to reciprocate in the inner cylinder, a head at the upper end of the outer cylinder, the said head being provided with a diaphragm forming a valve chamber in the upper end of the head the said head being further provided with a central opening leading to the inner cylinder, said head also having a valve chamber communicating with said opening, and said head also having a duct communicating with the outer cylinder and with one side of the diaphragm and out of direct communication with said opening, a pair of upwardly opening valves in the first-named valve chamber and coacting with openings and valve seats with which said diaphragm is provided and an upwardly opening valve in the second named valve chamber and arranged to open and close the water inlet opening with which the wall of said valve chamber is provided, the said head being further pro-

vided with an annular wall forming said opening and the said inner cylinder having a head for a reducer in its inner end in which said annular wall is threaded.

3. A double acting pump comprising inner and outer cylinders the former having an upwardly opening valve in the bottom and said inner cylinder having opening in its wall, a piston arranged to reciprocate in the inner cylinder, a head at the upper end of the outer cylinder, the said head being provided with a diaphragm forming a valve chamber in the upper end of the head, the said head being further provided with a central opening leading to the inner cylinder, a valve chamber communicating with said opening and said head also having a duct communicating with the outer cylinder and with one side of the diaphragm and out of direct communication with said opening, a pair of upwardly opening valves in the first-named valve chamber and coacting with the openings and valve seats with which said diaphragm is provided and an upwardly opening valve in the second named valve chamber and arranged to open and close the water inlet opening with which the wall of said valve chamber is provided, the said head being further provided with an annular wall forming said opening and the said inner cylinder having a head for a reducer in its inner end in which said annular wall is threaded, a reducer threaded in the upper end of the head and forming the top of the first named valve chamber and a delivery pipe threaded in said reducer.

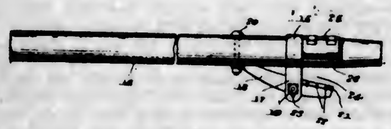
1,134,919. BOAT-MOTOR. GEORGE D. SICKLESTEEL, Roseburg, Oreg. Filed Aug. 29, 1914. Serial No. 859,175. (Cl. 115—24.)



1. A boat motor comprising a motor supporting frame, a pair of crank shafts arranged one in advance of the other and in different horizontal planes, the forward crank shaft being provided with a pair of oscillatory foot cranks and being connected to the rear crank shaft for simultaneous operation, hand controlling levers operatively associated with the rear crank shaft, a propeller shaft geared to one of said crank shafts, hand steering levers mounted on and carried by the hand controlling levers, and steering connections leading from said hand steering levers to the rudder.

2. A boat motor comprising a motor supporting frame, a pair of crank shafts arranged one in advance of the other and in different horizontal planes, the forward crank shaft being provided with a pair of oscillatory foot cranks and being connected to the rear crank shaft for simultaneous operation, hand controlling levers operatively associated with the rear crank shaft, a propeller shaft geared to one of said crank shafts, hand steering levers mounted on and carried by the hand controlling levers, steering connections leading from said hand steering levers to the rudder, and guiding sheaves around which the steering connections pass, said sheaves having their axes co-incident with the axes of movement of the hand propelling levers.

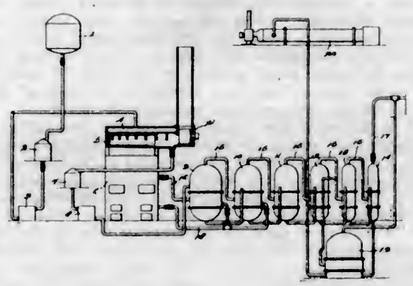
1,134,920. GRUBBER. JOHN M. SIDERS, Granite, Idaho. Filed Oct. 2, 1914. Serial No. 864,665. (Cl. 55—65.)



1. A grubbing device comprising a handle, a blade secured thereon in an inclined position to produce a wedge-shaped recess between said blade and handle, and an auxiliary blade secured on the handle and having a flange portion facing the first mentioned blade.

2. A grubbing device comprising a handle, a clip secured thereon and having laterally extending arms, a blade secured between said arms in an inclined position with respect to the handle, said blade having a beveled sharp-edged portion provided with struck-up teeth, and an auxiliary blade consisting of a plate secured on the handle and having a sharp-edged flange facing the edged portion of the first mentioned blade.

1,134,921. CONCENTRATED PRODUCT OF NITROGEN AND POTASH AND PROCESS OF RECOVERING AND SOLIDIFYING SAME. SIDNEY W. SINSHEIMER, Swink, Colo. Filed May 10, 1913. Serial No. 766,893. Renewed Jan. 23, 1915. Serial No. 4,073. (Cl. 71—6.)



1. A fertilizing agent comprising a combination of potash and nitrogen in solid form consisting of the residue of waste liquid after the separation of sugar from molasses, treated with CO_2 and evaporated at a low temperature to produce a concentrated compound.

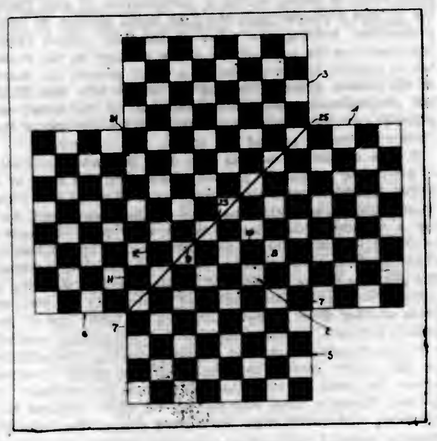
2. The herein described process for recovering potash and nitrogen compounds from the raw waste liquid remaining after the separation of sugar from molasses, which comprises treating said liquid at a high temperature with CO_2, then filtering the same, and finally drying the filtrate at a temperature low enough to prevent substantially the escape of nitrogen constituents.

3. The herein described process of recovering potash and nitrogen compounds from the raw waste liquid remaining in the separation of sugar from beet molasses, which consists in subjecting such liquid to a high temperature to precipitate sucrate of lime, then filtering the hot liquid, then treating the filtrate with CO_2, then filtering the liquid, and then evaporating the filtrate at a low temperature.

4. The herein described process for recovering potash and nitrogen compounds from the raw waste liquid remaining in the separation of sugar from molasses, which consists in subjecting such liquid to a high temperature, then filtering the hot liquid, then treating the filtrate with CO_2 in the presence of heat, then filtering the liquid, then concentrating the filtrate, and then drying the concentrate at a low temperature.

5. The herein described process for recovering potash and nitrogen compounds from the raw waste liquid remaining in the separation of sugar from molasses, which consists in subjecting such liquid to a temperature of approximately 100° C. to precipitate a portion of the lime and sugar therefrom, then filtering the hot liquid to remove such precipitate, then treating the filtrate with hot furnace gases to precipitate a portion of the salts in the form of carbonates, then filtering the liquid to remove such precipitate, then subjecting the filtrate to the combined action of a low temperature and a vacuum to concentrate such filtrate, and then drying the concentrate at a low temperature.

1,134,922. GAME. GEORGE B. SMITH, Waldwick, N. J. Filed Dec. 10, 1914. Serial No. 876,420. (Cl. 46—64.)



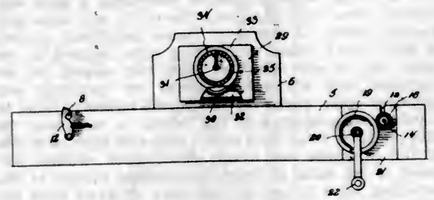
A game comprising a plurality of movable men, a central checkered section, a plurality of side checkered sections arranged so that men on the side sections may move on to the central section, and means arranged on the central section for dividing the same into as many parts as there are side sections so as to control or limit the amount of movement of the men from the side sections on the central section.

1,134,923. WATER-GATE. WILLIAM H. SMITH and GEORGE KAERICHER, West Salem, Ill. Filed Apr. 8, 1913. Serial No. 759,743. (Cl. 39—4.)



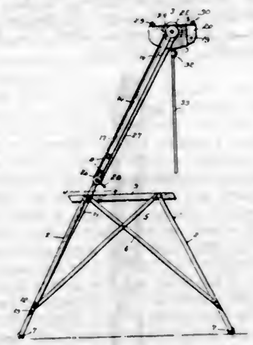
A water gate comprising a pair of separated posts, a shaft journaled in said posts adjacent the bases thereof, a gate mounted upon the shaft and adapted to aline with the posts vertically or extend at right angles to said post when depressed by the water and debris flowing over the same, a lever connected to the shaft and substantially alined with the gate, a cable connected to the lever, a weight upon the end of the cable for automatically returning the lever to normal position in alinement with the posts when relieved of the debris, the lever contacting with the post to prevent the gate from returning past the vertical post, an upwardly inclined arm carried by one of the posts adjacent the upper end of the post, and carrying a pulley to receive the cable, the pulley being disposed in a plane perpendicular to the plane of the gate, and a shield arranged between the gate and the lever and cable parallel to the plane of the pulley, for protecting the operating parts and having an aperture for the passage of the shaft, said shield extending on opposite sides of the gate above the top of the same, said arm projecting from the post in a direction opposite the movement of the gate when actuated by the water.

1,134,924. MACHINE FOR MEASURING AND ROLLING WALL-PAPER. LOUIS M. SNOW, Provincetown, Mass. Filed June 4, 1913. Serial No. 771,713. (Cl. 33—129.)



A machine of the class described comprising a box-like body formed near one end with notches opening through the upper edge thereof, a bearing mounted interiorly of the body at one side thereof near the other end of the same, the said body being formed with a notch arranged in alinement with the bearing, a paper roll support detachably engaged in the bearing in the said notch, spring-held means carried by the body and engageable with the support to lock the same in the notch, a frame superimposed upon the body medially thereof, parallel shafts journaled in the respective body and frame, rubber tired wheels fixed to said shafts and frictionally contacting with each other, measuring mechanism supported upon the frame and operated by one of the shafts, a winding roll having its journals engaged in the notches in the body, friction means supported by the body for driving the winding roll, a spring-held clamping jaw carried by the winding roll and having a releasing arm at one end, the said roll being cut away at the point of the releasing arm to permit free movement thereof, and guide devices on opposite sides of the parallel shafts journaled in the body and frame.

1,134,925. CEILING-WASHING MACHINE. NILS J. SODERLUND, Medford, Mass. Filed Dec. 13, 1913. Serial No. 806,532. (Cl. 15—14.)



1. A ceiling washing machine comprising a portable main supporting frame, a second frame pivoted to said main supporting frame, an extension frame detachably secured to said second frame, a receptacle pivotally mounted upon said extension frame, a scrubbing roller mounted within the receptacle, means for operating the scrubbing roller, means for preventing the splashing of water from the receptacle, and means for yieldingly holding the scrubbing roller in engagement with the ceiling.

2. A ceiling washing machine comprising a main supporting frame, a second frame pivoted to said main supporting frame, an extension frame detachably secured to said second frame, a receptacle pivoted to the upper end of said extension frame, a scrubbing roller mounted within the receptacle, means for operating the scrubbing

roller, means carried by the receptacle for preventing splashing of water therefrom, means for yieldingly holding the scrubbing roller in engagement with the ceiling, and a drain pipe connected with the receptacle.

3. A ceiling washing machine comprising a main supporting frame, a second frame pivoted to said main supporting frame, an extension frame detachably secured to said second frame, a scrubbing roller secured to the upper end of said extension frame and adapted for engagement with the ceiling, means for operating said scrubbing roller, means for holding the scrubbing roller in yielding engagement with the ceiling, a receptacle for said scrubbing roller, and rollers journaled upon each side of the receptacle and having their upper surfaces disposed in the same plane with the upper surface of the scrubbing roller to prevent splashing of water from the receptacle.

4. A ceiling washing machine comprising a main supporting frame, a second frame pivotally mounted upon said main frame, scrubbing means mounted upon said second frame, means for operating said scrubbing means and means for yieldingly holding said scrubbing means in engagement with the ceiling comprising a pair of retractile springs secured at their terminals to said main and second frames.

5. A ceiling washing machine comprising a main supporting frame, rollers journaled in the lower ends of said main supporting frame, a second frame pivoted to said main supporting frame, an extension frame detachably secured to said second frame, a receptacle secured to said extension frame, a scrubbing roller journaled in the receptacle, means for rotating the scrubbing roller, rollers journaled upon each side of the receptacle and having their upper surfaces disposed in the same plane with the upper surface of the scrubbing roller, a drain pipe for the receptacle, said second and extension frames adapted to be disposed in angular relation to the first frame when in operative position, and a pair of springs secured to the main and second frames for yieldingly holding the scrubbing roller in engagement with the ceiling.

1,134,926. METHOD OF MAKING WELL DRILL-JARS. WILLIAM A. SPARKS, Charleston, W. Va., assignor to Sparks Drilling Jar Company, Charleston, W. Va., a Corporation of West Virginia. Filed Feb. 4, 1914. Serial No. 816,497. (Cl. 76—101.)



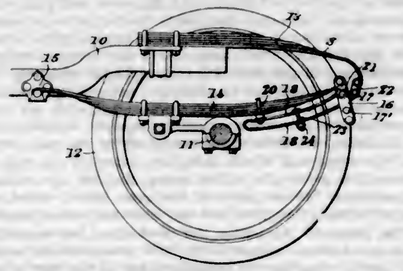
1. The method of making well drill jars which consists of producing a hammer portion, shank and head of a piston member from a single solid piece of metal free from welds, boring an elongated chamber into another single solid piece of metal, boring a continuation of said chamber of less diameter than the first bored portion to leave a shoulder, heating the walls of the first named chamber, inserting the head of the piston member in the chamber of smaller diameter, placing a collar around the shank of the piston member, and forcing the collar into the chamber of greater diameter until the end of the collar engages the shoulder.

2. The method of making well drill jars which consists of producing a hammer portion, shank and head of a piston member from a single solid piece of metal free from welds, boring an elongated chamber into another single solid piece of metal, boring a continuation of said chamber of less diameter than the first bored portion to leave a shoulder, heating the walls of the first named chamber, inserting the head of the piston member in the chamber of smaller diameter, placing a collar around the shank of the piston member, forcing the collar into the chamber of greater diameter until the end of the collar engages the shoulder, and contracting the heated end of the chamber member around the collar.

3. The method of making well drill jars which consists of producing a hammer portion, shank and the head of a piston member from a single solid piece of metal free from welds forming non-battering faces on the piston head, boring a chamber into another single solid piece of metal, boring a continuation of said chamber of less diameter than the first bored portion to leave a shoulder between the portions of the chamber of different widths, forming a substantially cylindrical collar of a plurality of sections from another piece of metal, heating the upper end of the socket member, inserting the head of the piston member into the chamber of smaller diameter, placing the sections of the collar around the shank of the piston member above the head, forcing the collar into the chamber of greater diameter until one end of the collar engages the shoulder, and contracting the heated end of the chamber member around said collar, thereby locking the piston member into permanent engagement with the socket member.

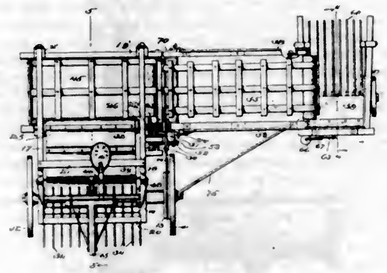
4. The method of making well drill jars which consists of producing a piston member from a single solid piece of metal comprising a hammer portion, a shank and a head, forming non-battering faces on the piston head, boring a chamber into another single solid piece of metal, and leaving a portion of the wall at the top of said chamber of greater thickness than an adjacent portion of said wall, boring a continuation of said chamber of less diameter than the first bored portion to leave a shoulder between the portions of the chamber of different widths, forming a substantially cylindrical collar of a plurality of sections from another piece of metal, cutting away a portion of the collar at the upper end thereof, heating the upper end of the socket member, inserting the head of the piston member into the chamber of smaller diameter, placing the sections of the collar around the shank of the piston member above the head, forcing the collar into the chamber of greater diameter until one end of the collar engages the shoulder, and contracting the heated end of the chamber member around said collar to compress the thickened portion of the wall at the top of the chamber against the cut away portion of the collar to prevent movement of the collar out of the chamber, thereby locking the piston member into permanent engagement with the socket member.

1,134,927. AUXILIARY SPRING. FRANK N. SPRAGUE, Sedgwick, Colo. Filed May 14, 1913. Serial No. 767,662. (Cl. 21—50.)



The combination with a two part vehicle spring, of an auxiliary spring fixed at one end and composed of superposed members, a connection between one end of said members and one part of said vehicle spring, whereby the main spring will supplement the auxiliary spring when the latter has yielded to its full capacity, and a tension adjuster connecting the members of said auxiliary spring whereby the relative movement thereof may be varied.

1,134,928. MACHINE FOR GATHERING AND BUNCHING HAY AND GRAIN. WILLIAM M. SQUIRE, Red Cloud, Nebr. Filed Dec. 20, 1910. Serial No. 598,381. (Cl. 56—61.)

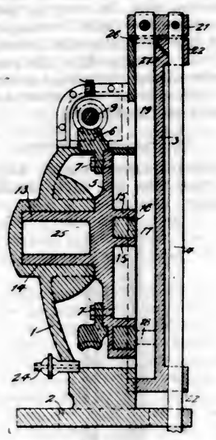


1. In a device of the class described, the combination with a supporting frame, rigid hangers depending from its side bars, cross bars connecting the hangers, a main axle connecting the front ends of the side bars, wheels on this axle, other wheels supporting the rear end of the frame work, and a laterally moving carrier within said frame work; of a supplemental frame hinged to certain of said hangers and including a cross bar located below said axle, a series of prongs carried by this cross bar, the endmost prongs being continued upward into loops struck on arcs around the hinges and loosely embracing said axle, the extremities of these endmost members being connected respectively with said supplemental frame and its cross bar, end plates covering these members and having their edges bent over the prongs thereof, links rising from said plates, and a manually controlled rock shaft on the main frame connected with said links.

2. In a machine of the class described, the combination with a main frame having a cross axle near its front end, main wheels mounted loosely on said axle and one of them having a driving pulley fast on its hub, the gathering devices at the front end of said frame, a carrier leading from said devices rearward, a transverse carrier mounted in the rear end of said frame, a laterally projecting carrier whose frame is hinged to the main frame, and bunching mechanism at the outer end of this carrier; of a beveled gear and a pulley on one end of the rear shaft of the first-named carrier, said pulley being connected with the drive pulley, a counter shaft having a beveled gear meshing with that named and also having a pulley, the contiguous shafts of the two last-named carriers having pulleys underlying that on the counter shaft, and a triangular belt connecting these three pulleys, for the purpose set forth.

3. In a machine of the class described, the combination with means for gathering the material and conveying it to the rear, said means including a main framework mounted on wheels, and transversely moving carriers mounted on said framework; of a bunching device including a framework mounted on its own wheels and connected with the outer end of one of said transverse carriers, a tie-rod connecting this framework with the main framework, a rocking plate forming the bottom of said bunching device and pivotally mounted over its axle, a series of prongs carried by said plate and projecting forward from said axle, pulleys on the framework of the bunching device, and a rope leading from the rear edge of said plate downward under one pulley and then upward over another pulley to a counterweight, for the purpose set forth.

1,134,929. SELF-OILING PUMP-HEAD. HENRY A. STENGER, Cowell, Cal. Filed Dec. 13, 1913. Serial No. 806,541. (Cl. 74—1.)



1. A pump head comprising a casing, a driving disk journaled in said casing and having an eccentric groove formed on one face of the same, a gear member removably secured to the periphery of said disk, driving means for rotating said disk, a lifting ring disposed in the groove of said disk and having a projection extending therefrom, an eccentric rod pivotally connected to the projection, and a cover for said casing having a groove formed therein in which said eccentric rod is adapted to reciprocate whereby to maintain the said rod in rigid operative position during actuation thereof.

2. The combination with a pump rod, of a pump head for operating the same, a casing, a cover for said casing, an eccentric rod in the casing and connected to the pump rod exteriorly thereof, said cover being formed interiorly with guide means for the eccentric rod and exteriorly with similar means for the pump rod, and driving mechanism disposed in said casing and connected to the eccentric rod whereby to impart reciprocatory motion to the eccentric pump rods.

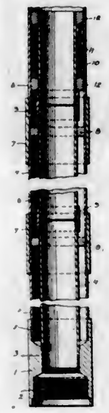
3. A pump head comprising a hollow casing for containing a lubricant, a cover therefor, a driving disk having a trunnion projecting laterally from one face of the same and having its bearing in said casing, a gear member secured to the disk, a driving shaft operatively connected to said gear member, the disk aforesaid being provided with spaced flanges on its face opposite the trunnion aforesaid whereby to form a groove eccentric to the axis of said disk, a lifting ring mounted for movement in said groove, a stud projecting from said ring, and an eccentric rod pivotally connected to the stud and coöperating with the cover for said casing whereby said rod is adapted to reciprocate upon actuation by the lifting ring.

4. The combination with a pump rod, of a pump head for operating the same comprising a casing, a driving member, journaled in said casing, a cover for closing said casing having guide members for the pump rod, a rod adapted to positively engage with the cover for reciprocal movement thereof and connected with the driving member, a shaft extending into said casing for operating the driving member, and a removable cap for said casing whereby to permit reversal of the driving shaft.

5. The combination with a pump rod, of a pump head comprising a hollow casing for containing a lubricant, a cover therefor, a driving disk having a trunnion projecting laterally from one face of the same and having its bearing in said casing, a rim gear member secured to the disk, a driving shaft operatively connected to said gear member, the disk aforesaid being provided with spaced flanges on its face opposite the trunnion aforesaid whereby to form

a groove eccentric to the axis of said disk, a lifting ring mounted for movement in said groove, a stud projecting from said ring, an eccentric rod pivotally connected to the stud and coöperating with the cover for said casing whereby said rod is adapted to reciprocate upon actuation by the lifting ring, the cover aforesaid having externally apertured projections through which the pump rod extends and internal spaced flanges forming a guide groove for the eccentric rod, and a connecting member connecting the eccentric rod with said pump rod.

1,134,930. WELL-DRILLING TOOL. JAMES C. THERIOT, Taft, Cal. Filed Mar. 27, 1914. Serial No. 827,688. (Cl. 255—28.)



A safety device for the purpose described comprising an inner casing and an outer casing, steel rings mounted to move upon the inner casing, a packing between the inner casing and outer casing and means for holding the packing in place.

1,134,931. SHOE-BOTTOM FILLER. ANDREW THOMA, Cambridge, Mass., assignor to North American Chemical Company, Boston, Mass., a Corporation of Maine. Filed Nov. 7, 1910. Serial No. 591,207. (Cl. 106—3.)

1. A shoe bottom filler, consisting of a permanently pliable and resilient filler mass which is quicksetting to a non-flowing, strongly adhesive and cohesive condition and thereafter continues slow drying, as described, and containing comminuted filler material, substantially as described.

2. A shoe bottom filler, consisting of a filler mass which is quick setting to a non-flowing, strongly adhesive and cohesive but moldable condition, and thereafter continues slow-drying and resilient, said filler mass comprising comminuted filler material, united by a binder, consisting at least in part of glue in a mucilaginous condition, and a sticky, tenacious, water repellent component, substantially as described.

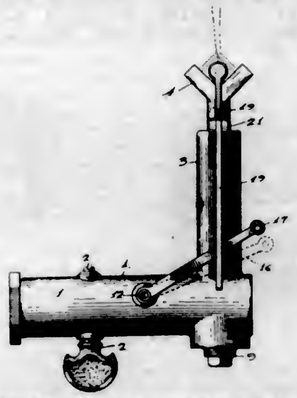
3. A shoe bottom filler, consisting of a filler mass which is quick setting to a non-flowing, strongly adhesive and cohesive but moldable condition, and thereafter continues slow drying and resilient, and comprising comminuted filler material and a binder, said binder consisting at least in part of a glue in a mucilaginous condition, and a sticky, tenacious, water repellent component in proportions to render the mass waterproof, substantially as described.

4. A shoe bottom filler, containing comminuted filler material admixed with a gelatinous body combined with a chemically coalescing or modifying means rendering the mixture slow drying and sticky, substantially as described.

5. A shoe bottom filler, containing comminuted filler material admixed with a gelatinous body combined with a chemically coalescing or modifying means and resinous matter, rendering the mixture slow drying and sticky, substantially as described.

[Claims 6 to 64 not printed in the Gazette.]

1,134,932. AUTOMATIC GAS-COCK. ALTON R. WEAVER, Alameda, Cal. Filed Mar. 30, 1914. Serial No. 828,397 (Cl. 67—117.)



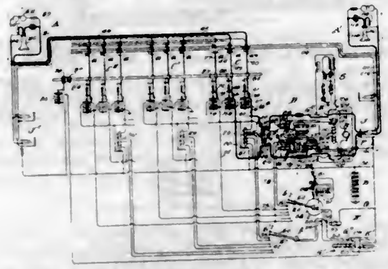
1. An automatic gas cock comprising a horizontal tubular member having a vertical extension thereto; a valve seat between the horizontal and the vertical members; a valve adapted to normally engage the valve seat; a lever rotatably mounted within the horizontal member and adapted to engage the valve and remove the same from the valve seat; a second lever secured to the lever within the horizontal member; a rib secured to the outer surface of the vertical extension; a retaining lever pivotally secured to the vertical extension and having a surface parallel with the rib on the extension; and adapted to engage the second lever between the said parallel surface and the said rib and an expansion rod secured above the gas jet and adapted to operate the retaining lever and rigidly secure the second mentioned lever when the said rod is expanded and to release the said lever when the rod is contracted.

2. In an automatic gas cock, the combination of a horizontal tubular member having a vertical extension with an arm integral therewith; a valve seat between the horizontal and vertical members; a valve adapted to engage the valve seat; means for normally retaining the valve on the seat; a counter shaft rotatably mounted within the horizontal member; an inner lever secured to the said shaft and adapted to engage the valve and retain the same from its seat; an outer valve secured to the said shaft; a rib secured to the outer surface of the vertical extension; a retaining lever pivotally secured to the vertical extension and parallel with the rib thereon, said lever being adapted to engage the outer lever between the said retaining lever and the rib on the vertical extension; and an expansion rod secured to the arm on the extension and adapted to engage the upper end of the retaining lever and cause the lower end of the said lever to securely engage the outer lever between the said retaining lever and the rib and hold the valve from its seat when the said rod is expanded and to release the retaining lever and the outer lever when the said rod is contracted.

3. In an automatic gas cock, the combination of a horizontal tubular member having a vertical extension with an arm integral therewith; a valve seat between the horizontal and vertical members; a valve adapted to engage the valve seat; means for normally retaining the valve on the seat; a counter shaft rotatably mounted within the horizontal member; an inner lever secured to the said shaft and adapted to engage the valve and retain the same from its seat; an outer valve secured to the said shaft; a rib secured to the outer surface of the vertical extension; a retaining lever pivotally secured to the vertical extension and parallel with the rib thereon, said lever being adapted to engage the outer lever between the said retaining lever and the rib on the vertical extension; and an expansion rod secured to the arm on the extension and adapted to engage the upper end of the retaining lever and cause the lower end of the said lever to securely engage the outer lever between the said retaining lever and the rib and hold the valve from its seat when the said rod is expanded and to release the retaining lever and the outer lever when the said rod is contracted; and means for regulating the pressure of the valve on its seat.

4. In an automatic gas cock, the combination of a horizontal tubular member having a vertical extension with an arm integral therewith; a valve seat between the horizontal and vertical members; a valve adapted to engage the valve seat; means for normally retaining the valve on the seat; a counter shaft rotatably mounted within the horizontal member; an inner lever secured to the said shaft and adapted to engage the valve and retain the same from its seat; an outer valve secured to the said shaft; a rib secured to the outer surface of the vertical extension; a retaining lever pivotally secured to the vertical extension and parallel with the rib thereon, said lever being adapted to engage the outer lever between the said retaining lever and the rib on the vertical extension; and an expansion rod secured to the arm on the extension and adapted to engage the upper end of the retaining lever and cause the lower end of the said lever to securely engage the outer lever between the said retaining lever and the rib and hold the valve from its seat when the said rod is expanded and to release the retaining lever and the outer lever when the said rod is contracted; means for regulating the pressure of the valve on its seat; and means for regulating the length of the expansion rod between the arm on the vertical extension and the upper end of the retaining lever.

1,134,933. TELEPHONE SWITCHING APPARATUS. BERNARD D. WILLIS, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 27, 1911. Serial No. 617,027. (Cl. 179—27.)



1. In a telephone system, telephone lines, a plurality of finder switches in which said lines have multiple contacts, devices for keeping said switches in motion, magnets for automatically stopping a switch on a calling line, mechanism for controlling said switches, and a pair of voice-current conductors for each switch adapted to be connected to calling lines by the said switches, said mechanism comprising a master switch operative to automatically select another finder switch each time a switch is taken by a calling subscriber.

2. In a telephone system, telephone lines, a plurality of finder switches in which said lines have multiple contacts, devices for keeping said switches in motion, magnets for automatically stopping a switch on a calling line, mechanism for controlling said switches, and a pair of voice-current conductors for each switch adapted to be connected to calling lines by the said switches, said mechanism comprising a master switch whereby only one switch at a time is in condition to stop on a calling line.

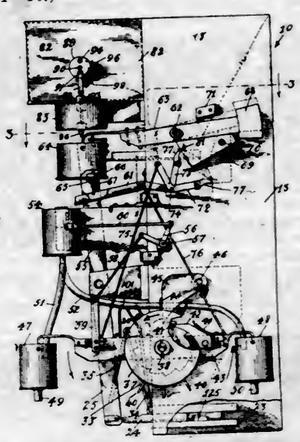
3. In a telephone system, telephone lines, a plurality of finder switches in which said lines have multiple contacts, devices for keeping said switches in motion, magnets for automatically stopping a switch on a calling line, mechanism for controlling said switches, a pair of voice current conductors for each switch adapted to be connected to calling lines by the said switches, a battery bridge for each pair of conductors, which bridges are successively closed by said mechanism, and relays in said bridges for controlling said magnets.

4. In a telephone system, telephone lines, a plurality of finder switches in which said lines have multiple contacts, devices for keeping said switches in motion, magnets for automatically stopping a switch on a calling line, mechanism for controlling said switches, a pair of voice-current conductors for each switch adapted to be connected to calling lines by the said switches, a battery bridge for each pair of conductors, which bridges are successively closed by said mechanism, and relays in said bridges for controlling said magnets, the battery of said bridges supplying current to calling lines for talking purposes.

5. In a telephone system, telephone lines, a plurality of finder switches in which said lines have multiple contacts, devices for keeping said switches in motion, magnets for automatically stopping a switch on a calling line, mechanism for controlling said switches, a pair of voice-current conductors for each switch adapted to be connected to calling lines by the said switches, multiple jacks for said lines, and cord plugs for said conductors, which plugs are insertible in multiple jacks of called lines.

[Claims 6 to 17 not printed in the Gazette.]

1,134,934. AUTOMATIC FEED AND WATER DISPENSER. KARL WOODIZKA and JULIA WOODIZKA, Los Angeles, Cal. Filed Sept. 14, 1914. Serial No. 861,516. (Cl. 161—10.)



1. In a feed and water dispenser, the combination of a feed dispensing device, and water controlled means for actuating said dispensing device at predetermined intervals, and means for regulating the water controlling means to determine the time of operation of the feed dispensing device.

2. In a feed and water dispenser, the combination of a feed dispensing device, water dispensing mechanism, means controlled by the water passing through the dispensing mechanism for operating the feed dispensing device, whereby the feed and water are caused to be delivered simultaneously.

3. In a feed and water dispenser, the combination of a feed dispensing device, water dispensing mechanism, means controlled by the water passing through the dispensing mechanism for operating the feed dispensing device, whereby the feed and water are caused to be delivered simultaneously, and whereby a measured quantity of water will

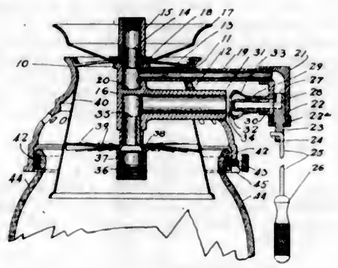
be delivered intermediate the combined delivery of feed and water.

4. In a feed and water dispensing apparatus, a feed dispensing mechanism, a rocker arm, means actuated by said rocker arm for operating the feed dispensing mechanism when the arm is rocked in one direction to discharge the feed, and water controlled means for operating said rocker arm in both directions.

5. In a feed and water dispenser, a feed dispensing mechanism, a rocker arm, means actuated by said rocker arm controlling the feed dispensing mechanism, buckets carried on the ends of said rocker arm having discharge outlets, and means for delivering measured quantities of water alternately to said buckets, whereby said rocker arm is operated.

[Claims 6 to 19 not printed in the Gazette.]

1,134,935. GAS-LAMP. CHARLES D. WRIGHT, Adrian, Mich. Filed Apr. 16, 1914. Serial No. 832,174. (Cl. 67—94.)



In a gas lamp, the combination with a pipe for the supply of gas, of a mixer communicating therewith and depending therefrom, said mixer having a pair of laterally disposed conduits extended therefrom, one above the other, a partition in the mixer between said conduits, a vertically disposed valve casing connected at its upper portion to the upper one of said conduits at the outer end thereof, a jet nozzle extended from said casing below the upper conduit and in alinement with the outer end of the lower conduit, an apertured guard surrounding the discharging end of said nozzle and spaced from the free end of the lower conduit, a rotary valve in the lower portion of said valve casing to control the flow of gas from said casing through said nozzle, and a depending rod connected to said valve to turn the same.

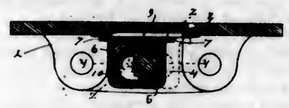
1,134,936. FOUNTAIN-PEN. JULIUS ABEGG, Hoboken, N. J., assignor to The Picard Importing Company, Inc., New York, N. Y., a Corporation of New York. Filed Mar. 28, 1914. Serial No. 827,806. (Cl. 120—46.)



A fountain pen comprising a nozzle, a shoulder on said nozzle, and a compressible ink sack attached to said nozzle by said shoulder, a recess on said nozzle, an inner barrel surrounding the sack and the inner end of which is depressed in to said recess the outer end being open, an outer barrel carried by said nozzle, a tube slidable between said barrels and having a cap at its rear end with an opening therein.

1,134,937. NUT FOR BENCH-VISES. OLA ANDERSON, Grand Rapids, Mich. Filed Nov. 17, 1913. Serial No. 801,553. (Cl. 81—36.)

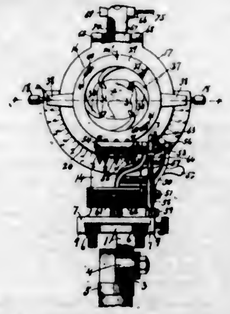
1. In combination with a bench vise screw, a supporting frame fitted to receive the vise screw, and prevent lateral movement thereof, a laterally movable nut frame supported on said screw and having an oblong opening for the reception of the screw, and a screw threaded segment anchored in one corner of the nut frame in position to be made to engage with, and to disengage from the threads of the screw as the screw is turned to the right or to the left respectively.



2. In combination with the screw of a bench vise, backwardly inclined threads formed thereon with the faces perpendicular and the backs inclined from the point of one perpendicular face to the base of the next perpendicular face, a supporting frame, a laterally movable nut frame supported on said screw in said supporting frame, said nut frame having an oblong opening through it longitudinally for the free passage of the screw therethrough, and a segment in the nut frame having screw threads formed thereon to mesh perfectly with the threads on the screw, forwardly inclined screw threads thereon, all so arranged that the revolving of the screw to the right or to the left will cause the nut frame to move to the right or to the left and engage or disengage the screw threads on the screw and the segment, respectively.

3. In combination with the screw of a bench vise, having a direct longitudinal movement only, a supporting frame having slideways thereon, a nut frame mounted in said supporting frame and supported on the screw, said nut frame having an oblong opening through it longitudinally to allow it to have free lateral movement, a segment made tapering and anchored in a groove in the upper left hand corner of the nut frame, said nut frame having bearings to engage with the bearings on the supporting frame and be made to move to the right or to the left as the screw is being correspondingly turned to engage and disengage the screw and segment.

1,134,938. LENS CENTERING, MARKING, AND TESTING INSTRUMENT. GUSTAV A. BADER, Rochester, and CHAUNCEY W. HOWLAND, Geneva, N. Y., assignors to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed Sept. 12, 1912. Serial No. 719,949. (Cl. 88—56.)



1. In an apparatus of the character described, a lens adjusting device comprising a ring adjustable rotarily about its axis and having an independent adjustment transversely of such axis, and lens clamping jaws movably mounted on the ring to close and open upon and from the lens.

2. In an apparatus of the character described, a lens adjusting device comprising a rotarily adjustable member, a support therefor, and a lens holder mounted on said member and adjustable radially in any direction relatively thereto.

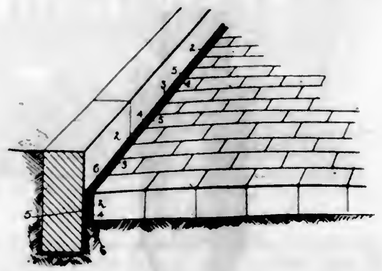
3. In an apparatus of the character described, a lens adjusting device comprising two rings one of which is rotatable, the other ring having an independent adjustment transversely of the axis of the rotary ring, and lens clamping jaws mounted on the transversely adjustable ring.

4. In an apparatus of the character described, a lens adjusting device comprising two rings one of which is adjustable rotarily, the other ring having in independent adjustment transversely of the axis of the rotary ring, lens clamping jaws mounted on the transversely adjustable ring, and means for frictionally holding the last named ring in its adjusted position.

5. In an apparatus of the character described, a lens adjusting device comprising two members, one of which is adjustable rotarily, the other member having an independent adjustment transversely of the axis of the rotary member, lens clamping jaws mounted on the transversely adjustable member, and spring clamping means on one of the members for holding the other member in its adjusted position.

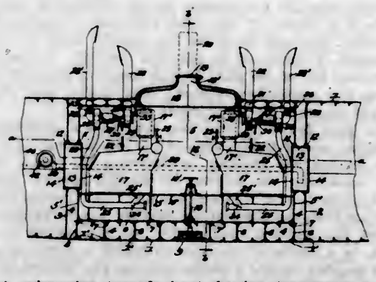
[Claims 6 to 14 not printed in the Gazette.]

1,134,939. PAVING-STRIP. JAMES BANWELL, Cleveland, Ohio, assignor of one-third to Robert L. Beck, Cleveland, Ohio. Filed Mar. 5, 1913. Serial No. 752,033. (Cl. 94—1.)



A paving strip adapted to be used between the paving blocks of a street and the curb to allow for expansion and contraction of the pavement and to maintain a sealed joint, and consisting of a solid flat sided body of asphaltic material having beveled ends, the sides of said body being faced with a granular material.

1,134,940. SUBMARINE TORPEDO-BOAT. JOSEPH BARRAJA-FRAUENFELDER, Bridgeport, Conn., assignor to The Lake Torpedo Boat Company of Maine, Bridgeport, Conn., a Corporation of Maine. Filed Aug. 12, 1914. Serial No. 856,361. (Cl. 114—16.)



1. A submarine torpedo boat, having transverse partitions therein providing a water compartment, a valve-controlled opening leading into the compartment from the surroundind body of water, a chamber providing a boiler room located within said compartment and communicating with the interior of the boat, and means for causing a circulation of water in said compartment.

2. A submarine torpedo boat, having transverse partitions in the main hull providing a water compartment, a valve-controlled opening in the main hull leading into said compartment from the surrounding body of water, a chamber of less diameter than the boat arranged within said compartment and communicating with the interior of the boat, said chamber providing a boiler-room, doors controlling the passage through the communications, means for circulating water through said water compartment, and means for ventilating said boiler-room.

3. A submarine torpedo boat, having transverse partitions in the main hull providing a water compartment which opens to the surrounding body of water, a valve controlling the opening leading into the compartment, a chamber located within said compartment providing a boiler-room, said chamber being of less diameter than the hull and of less length than said compartment whereby to provide a water holding space around and at the ends of said chamber, passage-ways leading into said chamber through said partitions, a door for closing each end of each passage-way whereby to provide air-locks for the purpose specified, means for causing circulation of water through said compartment, means to supply fresh air and means to ventilate said boiler-room.

4. A submarine torpedo boat, having a chamber providing a boiler-room arranged within the main hull and surrounded by a water-jacket, said water-jacket communicating with the surrounding body of water, means for controlling the admission of water to said water-jacket and means for causing a circulation of water through said water-jacket.

5. A submarine torpedo boat, having transverse partitions arranged in the main hull providing a water compartment which opens to the surrounding body of water, a valve controlling the opening, a chamber providing a boiler-room arranged in said compartment and communicating with the interior of the boat, doors controlling the communications, boilers arranged in said boiler-room, smoke-stacks leading from said boilers, a manifold extending from said chamber and opening through the hull of the boat and into which said smoke-stacks extend, a cover for the outlet from said manifold, covers for said smoke-stacks, means to supply fresh air to the fire boxes of the boilers and to said boiler-room, and means for carrying off the warm air from said boiler-room.

[Claims 6 to 10 not printed in the Gazette.]

1,134,941. CUTTING, COUNTING, AND PACKAGING MACHINE. GEORGE C. BAUMAN, Chicago, Ill. Filed Aug. 15, 1911. Serial No. 644,258. (Cl. 164—22.)

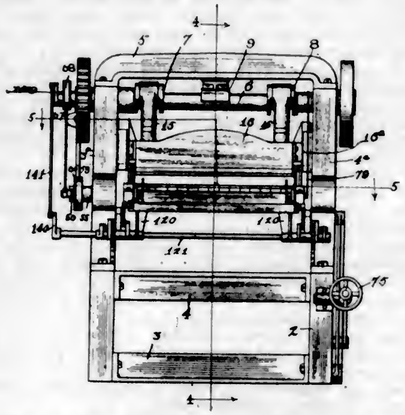
1. A machine of the class described embracing cutters, coacting means rotatably supporting a roll of stock adjacent thereto, continuously acting feed mechanism for drawing the stock from the roll for delivery to the cutters, and rotating reciprocating means for ejecting the cut stock.

2. A machine of the class described embracing coacting cutters, means rotatably supporting a roll of stock adjacent thereto, continuously acting mechanism for drawing the stock from the roll, intermittently acting feed mechanism for delivering the stock to the cutters, ejecting means, and intermittently driven reciprocating mechanism to move the cut stock in stacks of certain number.

3. A machine of the class described embracing a frame, a roll of stock journaled thereon, a gang of cutters arranged transversely the frame in advance of the stock roll, mechanism feeding the stock from the roll to the cutters, a receiving table, reciprocating ejecting and stacking means, the latter adapted to move the stacks to said receiving table.

4. A machine of the class described embracing a frame, a roll of stock journaled thereon, a gang of cutters arranged transversely the frame, in advance of the stock roll, mechanism, feeding the stock from the roll to the cutters, reciprocating means to eject the same therefrom,

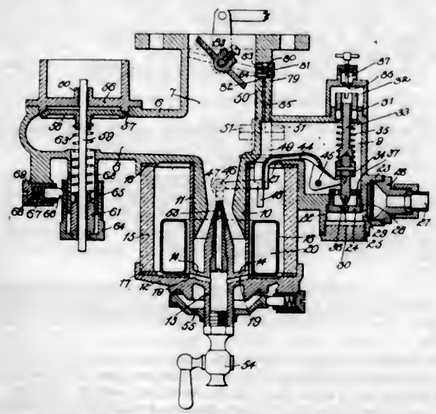
and a transverse bar adjustably supported adjacent the stock roll for straightening the stock thereover intermediate the stock roll and the cutters.



5. A machine of the class described embracing a frame, a roll of stock journaled thereon, a gang of cutters arranged transversely the frame, in advance of the stock roll, intermittently acting mechanism acting to feed the stock from the roll to the cutters, adjustable means for straightening the stock intermediate the stock roll and the cutters, and reciprocating conveying mechanism connected with the cutters for counting the cuts.

[Claims 6 to 42 not printed in the Gazette.]

1,134,942. CARBURETER. EARL A. BESSOM and RAYMOND M. ANDERSON, Chicago, Ill., assignors to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 14, 1912. Serial No. 677,514. (Cl. 48—155.1.)



1. In a carbureter adapted for connection with an engine, an air passage, a throttle in said air passage, a liquid fuel reservoir, a fuel nozzle in said passage and connected with said reservoir, and a connecting passageway confined alone to the zone of the air passage on the engine side of the throttle and the top of said reservoir, said connecting passageway at the passage end terminating in a rotatable plug and having its outlet eccentric therein, said throttle being so disposed in said passage that when closed it may mechanically and positively restrict or close said connecting passageway.

2. In a carbureter adapted for connection with an engine, an air passage, a throttle in said air passage, a liquid fuel reservoir, a fuel nozzle in said passage and connected with said reservoir, a connecting passageway confined alone to the zone of the air passage on the engine side of the throttle and the top of said reservoir, said connecting passageway at the passage end terminating in a rotatable plug and having its outlet eccentric therein, said throttle being so disposed in said passage that when closed it may mechanically and positively restrict or close said connecting passageway, and an adjustable atmosphere inlet for said reservoir.

3. In a carbureter adapted for connection with an engine, an air passage, a throttle in said air passage, a liquid fuel reservoir, a fuel nozzle in said passage and connected with said reservoir, and a connecting passageway confined alone to the zone of the air passage on the engine side of the throttle and the top of said reservoir, said throttle being so disposed in said passage that when closed it may mechanically and positively restrict or close said connecting passageway, the diameter of said passageway at the outlet being approximately the same as the thickness of the throttle.

1,134,943. FUEL-SAVING DEVICE. WILLIAM C. BLASKE, Chicago, Ill., assignor, by mesne assignments, to Heat Saver Company, Chicago, Ill., a Corporation. Filed Nov. 3, 1913. Serial No. 799,044. (Cl. 110—58.)



1. In a device of the class described, a smoke flue section, a flue communicating said flue section with the combustion chamber, a casing surrounding said section and forming an air chamber around the flue section, end portions for connecting said casing and flue section, one of said ends being perforated, an inverted frusto conical section connected at one end to said casing and connected at its opposite end to the flue leading to the combustion chamber and means whereby air may be permitted to enter the air chamber near one end and distributed through the opposite perforated end and frusto conical section into the flue leading to the combustion chamber.

2. In a device of the class described, a sectional flue member, the sections of the flue member being in communication by means of an enlarged chamber, a casing surrounding one of the sections and means of communication from the atmosphere through said casing into the enlarged chamber for the purpose set forth.

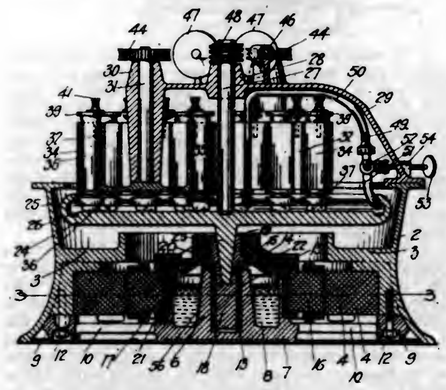
3. In a device of the class described a sectional flue member, one of the sections of the flue member having an air pre-heating chamber surrounding the same, means for connecting the sections of the flue member together and providing an enlarged chamber, and means whereby the air from the pre-heating chamber may be permitted to enter the enlarged chamber for the purpose set forth.

4. In a device of the class described, a sectional smoke flue member having a smoke passage way therethrough, a casing encircling one of the sections of the flue member forming an air pre-heating chamber, a frusto conical section connecting the other section of the flue member with the casing forming an enlarged chamber between the flue sections and means for permitting the pre-heated air to enter into the enlarged chamber for the purpose set forth.

5. In a device of the class described, a flue member comprising two sections, a casing connecting the flue sections, air pre-heating chambers inclosed by the casing and retained in position by means of the two sections of the flue, the lower ends of the air pre-heating chambers having openings therein leading within the flue member, baffled inlet openings formed within the upper ends of the air pre-heating chambers and the casing having openings registering with the baffled inlet openings for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,134,944. GRINDING AND POLISHING MACHINE. ALBERT C. BOYLE, Jr., Laramie, Wyo. Filed May 9, 1912. Serial No. 696,176. (Cl. 51—11.)



1. In a grinding and polishing machine, a rotary lap-wheel, a rotary carrier having a recess remote from its axis of rotation, a holder movable in said recess and having a chuck adapted to rigidly hold a specimen for engagement with the face of said wheel, a spring on said carrier, engaging said holder to maintain the said specimen in continuous engagement with the said face, by movement of said holder, and adjustable means for limiting the extent of said movement.

2. In a grinding and polishing machine, a rotary lap-wheel, a rotary carrier having a recess remote from its axis of rotation, a holder movable in said recess and having a chuck adapted to rigidly hold a specimen for engagement with the face of said wheel, and a spring on said carrier engaging said holder to maintain the said specimen in continuous engagement with the said face by movement of said holder.

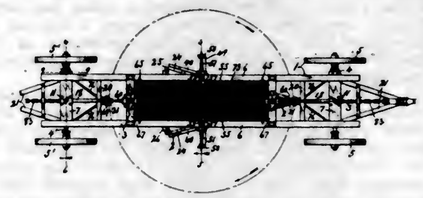
3. In a grinding and polishing machine, the combination with a grinding surface, of a movable holder adapted to hold a specimen in engagement therewith, and micrometrically adjustable means for determining the extent of the movement of said holder toward said surface.

4. In a grinding and polishing machine, the combination with a grinding surface, of a headed holder movable by gravity to hold a specimen in engagement therewith, a screw, and a nut on said screw to determine the extent of the movement of said holder toward said surface by engagement with its head.

5. In a grinding and polishing machine, the combination with a grinding surface, of a movable, headed holder adapted to hold a specimen for engagement therewith, a spring for moving said holder toward said surface, a screw, and a nut on said screw to determine the extent of the movement of said holder toward said surface by engagement with said head.

[Claims 6 to 11 not printed in the Gazette.]

1,134,945. SCARIFIER. DAVID B. COOK, Frankfort, N. Y., assignor to Acme Road Machinery Company, Frankfort, N. Y., a Corporation of New York. Filed Aug. 29, 1912. Serial No. 717,810. (Cl. 37—50.)



1. A road scarifier comprising a wheel truck having a scarifying implement rotatably mounted thereon for horizontal swinging adjustment end for end and means independent of the means by which the scarifying implement is mounted upon the trucks for holding said implement in its adjusted positions.

2. A road scarifier comprising a wheel truck, a bar running transversely under the truck a frame swivel connected to the bar to rock horizontally and vertically, separate devices connected to the frame at opposite sides of the swivel for tilting said bar and thereby the frame vertically, separate rows of teeth secured to the sides of the frame some distance apart, and an additional device connected to the apex of the frame for rocking said frame vertically independently of the first named device.

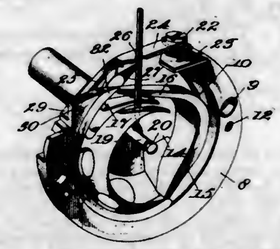
3. A road scarifier comprising a wheel truck, a frame pivotally mounted on the truck for horizontal rotary adjustment, supporting members for the apex of the frame located at opposite ends of the truck a distance from the pivot of the frame corresponding to the distance between said pivot and apex of said frame, and separate devices on opposite ends of the truck for raising and lowering said supporting members and thereby rocking the frame which may be attached to said members vertically.

4. A road scarifier comprising a wheeled truck, a frame mounted on the truck for horizontal rotary adjustment, supporting members for the front of the frame at opposite sides of its axis of movement, and means for raising and lowering said supporting members and thereby vertically rocking the frame.

5. A road scarifier comprising a wheel truck, a bar running transversely under the truck, a frame swivelly connected to the bar, separate devices connected to the bar at opposite sides of the swivel for tilting the bar and thereby the frame vertically, teeth secured to the frame and an additional device connected to the forward end of the frame for rocking said frame vertically.

[Claim 6 not printed in the Gazette.]

1,134,946. LOOP-FORMER FOR SEWING-MACHINES. JOHN W. DARLEY, Jr., Baltimore, Md. Filed Apr. 2, 1910. Serial No. 553,027. (Cl. 112—29.)

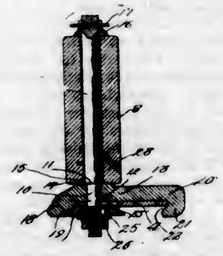


1. The combination of a needle adapted to carry a thread, a coöperating stitch forming mechanism, a toothed member adapted to press upon said thread on the side of the needle next to said coöperating stitch forming mechanism to form a loop therein, means for operating said needle and coöperating stitch forming mechanism.

2. In a sewing machine, the combination with a needle adapted to carry a thread and means for reciprocating said needle, with a loop former adapted, during the withdrawal of the needle, to hold said thread, thereby forming a loop, a shuttle, and shuttle-operating means, said parts being so constructed that the loop former is held out of engagement with said needle, except momentarily, at one time by the shuttle, and at another time by the shuttle operating means, substantially as described.

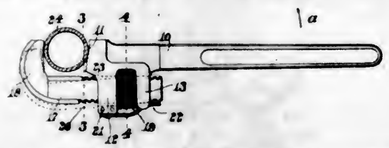
3. In a sewing machine, the combination of a needle adapted to carry a thread, means for reciprocating said needle, a spring-controlled loop former, adapted to press the thread against the needle during the withdrawal of the latter, thereby forming a loop, a shuttle, and shuttle operating means, said loop former being provided with a projection extending into the path of the shuttle and into the path of the shuttle operating means, whereby the loop former is held out of connection with said thread except momentarily, first by the shuttle and then by the shuttle operating means, substantially as described.

1,134,947. BELT-GUIDE. JOSEPH DICK, Canton, Ohio, assignor to The Joseph Dick Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed June 29, 1912. Serial No. 706,622. (Cl. 74—51.)



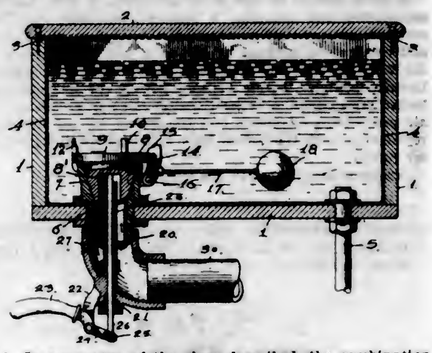
A belt guide support comprising a bar, a bracket having a beveled jaw on one end and a laterally-extended arm on the other end, the arm abutting one side of the bar, there being a hooked jaw on the arm engaging the outer edge of the bar and an aperture in the bracket adjacent to the beveled jaw, a spindle having a bolt on one end entered through the aperture and having a shoulder abutting the rim thereof, an apertured plate on the bolt having beveled ends for wedging against the beveled jaw and the inner edge of the bar, and means, as a nut, on the bolt, for clamping the parts together.

1,134,948. WRENCH. HARRY C. EARLE, Boston, Mass., assignor to Walworth Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 29, 1913. Serial No. 745,485. (Cl. 81—101.)



In a device of the class described, the combination of a body portion having an integral fixed jaw and two lateral projections slotted so as to form a curved surface at the bottom of the slots, a movable jaw having a threaded shank passing through said slots, an adjusting nut on the shank loosely engaged by said projections, a filling member to close the slot in the projection nearer the jaws and form a passage in which said shank is free to move toward and from said curved bottom, and a spring mounted on said member and constructed so that its free end will be positioned in the slot of the projection farther from the jaws and bear on the outer face of said threaded shank.

1,134,949. VALVE FOR FLUSHING-TANKS. ERNEST FERRAN, San Francisco, Cal. Filed Dec. 16, 1913. Serial No. 807,056. (Cl. 4—5.)



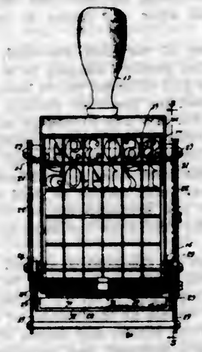
1. In apparatus of the class described, the combination with a valve seat, of vertical lugs upstanding from said seat, one of the lugs having a shoulder near the upper end thereof, a valve for coöperating with said seat and having an annular flange, means for lifting said valve, and a float operated latch pivoted at its lower end and having a shoulder near its upper end, the said latch being arranged to normally thrust against the side of the flange and to move the shoulder on the latch underneath said flange and to move the flange onto the seat on the lugs when the valve is raised.

2. In a valve for flushing tanks, the combination of a conical seat and vertical lugs on the top thereof, one of the lugs having a seat near the upper end thereof; a valve having an annular flange at the top and arranged to engage said valve seat; means for lifting the valve; and a float operated latch having a seat thereon, the said latch being arranged to normally press against the side of the flange on the valve when the same is seated and to move the seat on the said latch under the said flange and to move the flange onto the seat on the lug when the said valve is raised.

3. The combination with a flushing tank of a discharge valve having a conical seat therein and vertical lugs arranged around the seat, one of the lugs having a seat; a conical valve having an annular flange near the top; a rod slidably mounted and arranged to contact with the conical valve; means for operating the rod and lifting the valve from its seat; a latch pivotally secured to the side of the discharge pipe and having a seat thereon adapted to engage the annular flange of the valve; a rod secured to the latch and having a float on the outer end thereof, said float being adapted to be raised by water within the tank and press the latch against the side of the flange on the conical valve when the valve is seated and to cause the seat on the latch to engage the valve and move the flange thereof onto the seat on the lug and support the valve when the same is raised and to release the said valve when the level of the water in the tank falls below the top of the discharge pipe.

4. The combination with a flushing tank of a discharge valve having a conical seat and vertical lugs near the top thereof, one of the lugs having a seat thereon; a conical valve having an annular flange thereon and adapted to engage the seat within the discharge pipe; an upwardly extending slidably mounted rod, the upper end of the said rod resting against the bottom of the conical valve; means for raising the valve and the rod; a latch having a seat and pivotally secured at one side of the discharge valve; a rod secured to the latch and having a float on the outer end thereof, the said float being adapted to press the latch against the side of the annular flange when the valve is seated and to cause the valve to be engaged by the seat on one of the lugs when the said valve is raised and to release the said latch and allow the valve to drop when the water in the tank has been discharged.

1,134,950. SELF-INKING HAND-STAMP. HARRY S. FOLGER and CASPER L. REDFIELD, Chicago, Ill.; said Redfield assignor to said Folger. Filed June 13, 1913. Serial No. 773,393. (Cl. 101—161.)



1. A hand stamp of the type ordinarily inked by hand and having a frame of its own, a supplementary or outer frame in which the stamp frame is mounted, upper and lower shafts extending through the stamp frame and having their ends guided in the supplementary frame, band wheels mounted upon the upper shaft, an ink pad pivoted to the supplementary frame, and connections from the lower shaft to the pad support.

2. The combination with a hand stamp having type bands, band wheels and a shaft on which the wheels are supported and rotated for moving the bands, of a second shaft inserted in the stamp, a frame having guides engaging the ends of the shafts, a spring supporting the stamp in elevated position in the frame, an ink pad engaging the printing face of the stamp when in elevated position, and automatically operating means for removing the pad when the stamp is depressed.

3. The combination with a hand stamp having type bands, type wheels and a shaft for said wheels, of a second shaft inserted in the stamp, a frame having guides for the ends of said shafts, a spring supporting the stamp in an elevated position in said frame, an ink pad engaging the stamp when in elevated position, and connections from the second shaft to the pad for removing it when the stamp is depressed.

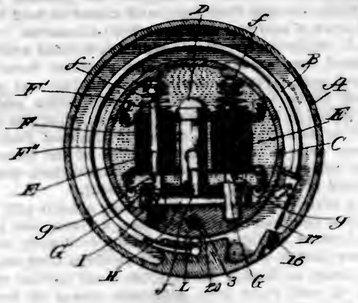
4. The combination with a hand stamp having type bands, band wheels and a shaft on which the wheels are supported and rotated for moving the bands, of a second shaft inserted in the stamp, a frame engaging the ends of said shafts to guide the stamp in printing movement, an ink pad supported by the frame and normally engaging the printing face of the stamp, a spring supporting the stamp in the frame, and automatically operating means for removing the pad from the stamp when the stamp is depressed to cause it to print.

5. The combination with a hand stamp having a frame, type bands and a handle by which it is normally used as a hand inker, of an outer frame, a shaft forming part of the hand stamp and having its end projecting into guiding slots in the outer frame, a second shaft extending through the stamp and having its ends projecting into other guiding slots in the outer frame, an ink pad pivoted to the outer frame, and a connection from the second shaft to the ink pad.

[Claims 6 to 11 not printed in the Gazette.]

1,134,951. TACHOMETER. THOMAS T. GAFF, Washington, D. C. Filed Apr. 20, 1914. Serial No. 833,290. (Cl. 73—123.)

1. A tachometer comprising fluid-pressure-operated indicating mechanism and electrically-operated mechanism for delivering equal quantities of fluid to said indicating-mechanism, and means operated by a moving object for successively opening and closing the circuit to said electrically-operated mechanism.



2. A tachometer comprising a reservoir for fluid, a Bourdon spring, a conduit connecting the reservoir and Bourdon spring, a return pipe connecting the conduit and reservoir, and means for successively forcing equal quantities of fluid from the reservoir into the conduit.

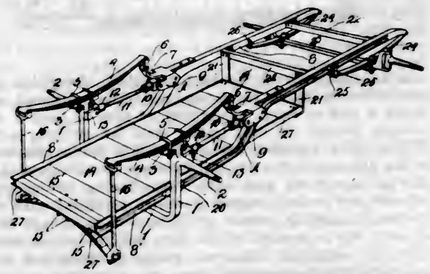
3. A tachometer, comprising a reservoir for fluid, a pressure-indicating mechanism, a conduit connecting the reservoir and pressure-indicating mechanism, means comprising an electrically actuated pump for successively forcing equal quantities of fluid from the reservoir into the conduit, and means operated by a moving object for successively opening and closing the circuit to said electrically operated mechanism.

4. A tachometer comprising a reservoir for fluid, a Bourdon spring, a conduit connecting the reservoir and Bourdon spring, a return pipe connecting the conduit and reservoir, and means comprising an electrically-actuated pump for successively forcing equal quantities of fluid from the reservoir into the conduit.

5. A tachometer comprising a reservoir for fluid, a Bourdon spring, a conduit connecting the reservoir and Bourdon spring, a return pipe connecting the conduit and reservoir, an adjustable valve controlling flow of fluid through said pipe, and means comprising an electrically-actuated pump for successively forcing equal quantities of fluid from the reservoir into the conduit.

[Claims 6 to 10 not printed in the Gazette.]

1,134,952. VEHICLE-FRAME. WALTER H. GAMBLE, Los Angeles, Cal. Filed Mar. 5, 1913. Serial No. 752,084. (Cl. 21—90.)



1. A vehicle construction comprising a frame whose rear portion is on a lower parallel plane than the forward portion, a U-shaped rear axle, springs on said axle and above said frame and connected with said frame forward of the axle, a spring below the lower portion of said frame and below the springs on said axle, and means connecting said last named spring with said first named springs.

2. A vehicle construction comprising a front axle, a U-shaped rear axle, a frame and platform forming an integral unit, a spring support for the rear of said frame

and platform, a spring suspension attached to said frame and supported on said rear axle and connected with said spring support, means to support the forward end of said frame on said front axle, and means to hold the upright arms of said rear axle in vertical alinement.

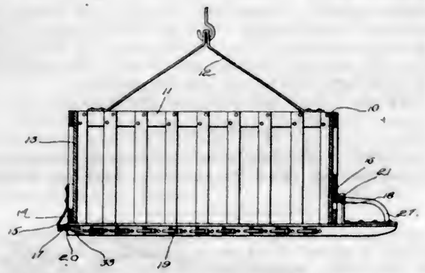
3. A vehicle construction comprising a front axle and a U-shaped rear axle, a frame and platform forming an integral unit, means to flexibly suspend the rear portion of said frame and platform from and above said rear axle, means to flexibly support the forward portion of said frame on said front axle, means to transmit force from the rear axle to the forward portions of the frame, and means coöperating with said force-transmitting means to hold said rear axle in vertical alinement.

4. A vehicle construction comprising a front axle and a U-shaped rear axle having spindles, a frame and a platform forming an integral unit, means to flexibly suspend the rear portion of said frame and platform from said rear axle, means to flexibly support the front portion of said frame on said front axle, adjustable means to transmit force from the rear axle to the frame, and means connected with the cross-member of said rear axle to hold the upright members thereof in vertical alinement with said spindles.

5. A vehicle construction comprising a U-shaped rear axle, a frame having its rear portion on a lower parallel plane than its forward portion and lying below the top of and between the upright arms of said axle, springs on the arms of said axle connected at their forward ends with the forward portion of said frame, and a transverse spring on the bottom of said rear portion of said frame and connected with the rear ends of said springs on said axle arms to flexibly suspend the rear of said frame.

[Claims 6 to 11 not printed in the Gazette.]

1,134,953. BRICK LIFTING AND TRANSFERRING MECHANISM. WILLIAM P. ISRAEL, New York, N. Y. assignor to Raymond C. Penfield, New York, N. Y. Filed July 17, 1911. Serial No. 638,969. (Cl. 57—9.)



1. An apparatus of the kind described, comprising an open-bottomed lifting frame adapted to be positioned adjacent a pile of brick, a plurality of bars to form a removable bottom for said frame, each bar carrying antifriction brick engaging devices to lift a foundation row of the pile and being adapted to support the superposed pile on top of the bars, said frame having on opposite sides thereof means integral therewith to engage with cooperating engaging devices on opposite ends of each bar, whereby the removable bottom bars and frame are automatically connected when the frame is lifted and are automatically disconnected when the apparatus is lowered to the ground.

2. An apparatus of the kind described, comprising an open-bottomed lifting frame adapted to be positioned adjacent a pile of brick, a plurality of bars to form a removable bottom for said frame, each bar carrying antifriction brick engaging devices to straddle a foundation row and adapted to support the superposed pile on top of the bars, in combination with automatically acting connections from the opposite ends of each bar with the adjacent opposite sides of the frame, to connect and lift said bars when the frame is lifted, each of said automatic connecting devices on the bars and frame being normally out of contact when said bars are positioned under the brick pile, whereby the frame may be lifted instantly after positioning the bars and the bars may be instantly removed after the frame is lowered to the ground.

3. An apparatus of the kind described, comprising a lifting frame having portions adapted to be let down over opposite sides of a pile of bricks to the lower part thereof, lifting bars adapted for insertion through spaces in the bottom of the brick pile and to engage said frame portions to be lifted thereby, and means fixedly mounted on said lifting bars for exerting a self-acting grip upon the sides of the bottom brick lines as said bars are inserted in place, said means being formed to yield on engagement with a brick line and arranged for an anti-friction engagement with the bricks as the bars are moved into place.

4. An apparatus of the kind described, comprising a lifting frame having portions adapted to be let down over opposite sides of a pile of bricks, lifting bars adapted for insertion through spaces at the bottom of the brick pile to engage said lifting frame, and means directly carried by said lifting bars mounted and arranged for a self-acting anti-friction engagement with the bottom brick lines as the bars are moved into place and then for a self-acting frictional grip upon the bricks to lift the same.

5. An apparatus of the kind described, comprising a frame adapted to be let down over opposite sides of a pile of bricks, lifting bars adapted for insertion through spaces in the bottom of the brick pile to engage said frame at opposite sides of the pile, and disks having spring mountings on vertical axes at intervals along said bars and arranged to be pressed by the bricks as the bars are inserted and to thereafter exert a friction grip thereon to lift the same.

[Claims 6 to 26 not printed in the Gazette.]

1,134,954. ELECTRIC FIXTURE. JAMES E. KEOUGH, Boston, Mass. Filed Apr. 19, 1913. Serial No. 762,255. (Cl. 173—344.)



1. An electric lamp socket comprising in combination a body provided with wire terminals, said body having also a hollow stud projecting therefrom with openings through the side thereof through which wires may pass from the interior of said stud to extend over said body and connect with the terminals thereof, a member fitting over said stud and presenting an edge binding the wires against said body, and an inclosing cover.

2. An electric lamp socket comprising in combination a body provided with wire terminals, said body having also a hollow stud projecting therefrom with openings through the side of said stud through which wires may pass from the interior of said stud to extend over said body and connect with the terminals thereof, a member fitting over said stud and providing an edge binding the wires against said body, a casing inclosing said body, and a cap inclosing said member and connecting with said casing.

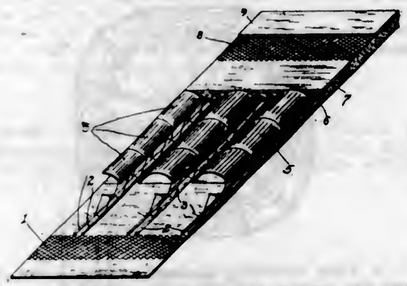
3. An electric lamp socket comprising in combination a body provided with wire terminals, said body having also a hollow stud projecting therefrom with openings through the side thereof through which wires may pass from the interior of said stud to extend over said body and connect with the terminals thereof, a member having a socket into which said stud extends, said member having an opening through which wires may pass to the interior of said stud, said member presenting also an edge binding the wires against said body, and a cover inclosing said member.

4. An electric lamp socket comprising in combination a body provided with wire terminals, said body having also a hollow stud projecting therefrom with openings through the side of said stud from which wires may pass to the interior of the stud to extend over said body and connect with the terminals thereof, an auxiliary body member cooperating with said stud and presenting an edge binding the wires against said body, and means for holding said member in an engaging position binding the wires as aforesaid.

5. An electric lamp socket comprising in combination a body provided with wire terminals, said body having also a hollow stud projecting therefrom with openings through the side of said stud from which wires may pass to the interior of the stud to extend over said body and connect with the terminals thereof, an auxiliary body member cooperating with said stud and presenting an edge binding the wires against said body, means whereby said member may be maintained in an engaging position binding and holding said wires as aforesaid, and a cover inclosing said member.

[Claims 6 and 7 not printed in the Gazette.]

1,134,955. BUILDING CONSTRUCTION. JEAN H. KNOX, Oakland, Cal. Filed Apr. 1, 1913. Serial No. 758,121. (Cl. 72—71.)



A floor construction comprising a plurality of longitudinally extending rods, a plurality of wire loops positioned upon said longitudinally extending rods, said loops bent acutely to form pockets at their upper portions, transverse wires passing through said loops and resting within said pockets for retaining said loops in a vertical position, said transverse wires being held against lateral movement within said loops by resting within said pockets, arched plates positioned between said longitudinally extending rods, said rods adapted to hold said plates in their correct position, and plastic material covering all of said beams and wires and supported upon said arched plates.

1,134,956. BAKING PREPARATION. EDWARD C. L. KRESSEL, Camden, N. J., assignor to Wilckes, Martin, Wilckes Co., New York, N. Y., a Corporation of New York. Filed Jan. 15, 1914. Serial No. 812,268. (Cl. 99—10.)

1. A baking powder comprising a carbonate of an alkali forming metal and an acid component containing the mellitic acid radical.

2. A baking preparation comprising a bicarbonate of an alkali forming metal and an acid component, said acid component comprising an acid material containing the mellitic radical.

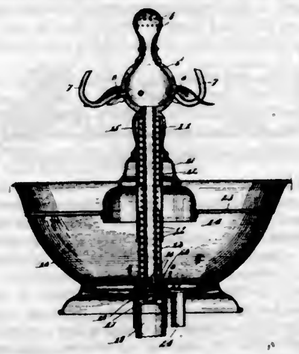
3. A baking preparation comprising a carbonate of an alkali forming metal and an acid mellitate.

4. A baking powder comprising equivalent quantities of an acid mellitate and of a carbonate of an alkali forming metal, and a filler.

5. A baking powder comprising equivalent quantities of dicalcium mellitate and of a bicarbonate of an alkali forming metal.

[Claims 6 to 8 not printed in the Gazette.]

1,134,957. GLASS-WASHER. HARRY H. KRONE, MAX RUBINSTEIN, and JACOB RUBINSTIEN, Chicago, Ill. Filed Aug. 31, 1914. Serial No. 859,485. (Cl. 141—3.)



1. A construction of the class described comprising a hollow depressible spring held head having spraying openings therein; a water supply tube connected with the bottom of said head depending therefrom closed at its lower end and provided with valve openings adjacent said lower end; a valve head on the lower end of said pipe coöperating with a valve seat to control the water supply; a valve head slidable on said water pipe above said first mentioned valve head but normally below said valve openings and coöperating with a valve seat; and a spring surrounding said pipe and interposed between said slidable valve head and said first mentioned head, substantially as described.

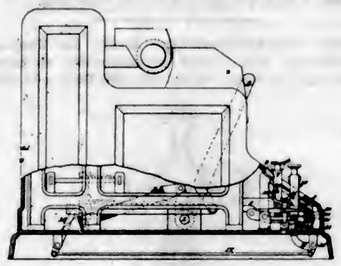
2. A construction of the class described comprising a hollow depressible spring held head having spraying openings therein; a water supply tube connected with the bottom of said head depending therefrom closed at its lower end and provided with valve openings adjacent said lower end; a valve head on the lower end of said pipe coöperating with a valve seat to control the water supply; a valve head slidable on said water pipe above said first mentioned valve head but normally below said valve openings and cooperating with a valve seat; a spring surrounding said pipe and interposed between said slidable valve head and said first mentioned head; a bowl surrounding said water pipe; a perforated supporting member in the upper portion of said bowl, and a drain pipe leading from the lower portion of said bowl, substantially as described.

1,134,958. ADDING AND RECORDING MACHINE. JOHN MAGNUS, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 20, 1909, Serial No. 523,630. Renewed Nov. 13, 1913. Serial No. 800,882. (Cl. 235—60.)

1. In an adding machine, a movable carriage, means for setting up numbers in said carriage, mechanism for recording the numbers set up in said carriage and for moving said carriage in one direction, connections adjustable to prevent movement of said carriage, means for latching said connections in position to prevent movement of said carriage, and separate means for releasing said connections, substantially as specified.

2. In an adding machine, a movable carriage, means for setting up numbers in said carriage, means for recording said numbers and moving said carriage to its idle position, connections adjustable to prevent movement of said

carriage when said recording mechanism is operated, means for latching said connections in position to prevent movement of said carriage when numbers are recorded, a lever, and means for operating said lever to release said connections, substantially as specified.



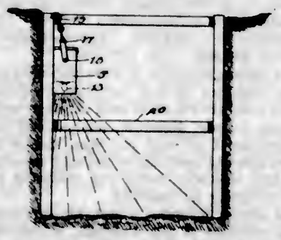
3. In an adding machine, a movable carriage, means for setting up numbers in said carriage and for moving said carriage, mechanism for adding the numbers set up in said carriage, means for operating said adding mechanism, means for restoring said carriage to idle position when said adding mechanism is operated, connections for preventing said carriage from being returned to idle position, means for latching said connections in position to prevent movement of said carriage, a key controlling said adding mechanism for clearing operations, and means controlled by said key for releasing said connections, substantially as specified.

4. In an adding machine, a movable carriage, pins in said carriage, means for adjusting said pins to represent numbers, means for moving said carriage during the setting of numbers, connections operable to restore said carriage to idle position, means for restoring said pins to idle position when said carriage is restored to its idle position, a repeat key coöperating with said carriage to prevent return of said carriage to idle position, means whereby said repeat key may be latched in operative position, and separate means operable to restore said carriage and said pins to idle position and to release said repeat key from said latching means, substantially as specified.

5. In an adding machine, the combination with a movable carriage, means for setting up numbers in said carriage and for moving said carriage, and mechanism for setting up numbers and restoring said carriage to idle position at each adding operation, of mechanism for recording the totals representing said adding mechanism, a key for holding said adding mechanism to said recording mechanism in coöperative relation, means for latching said key in operative adjustment, connections for restoring said carriage to idle position independently of adding operations, and means controlled by said connections for releasing said key, substantially as specified.

[Claims 6 to 11 not printed in the Gazette.]

1,134,959. LIGHT FOR WELLS OR CAISSONS. WILLIAM J. NEWMAN, Chicago, Ill. Filed Aug. 28, 1913. Serial No. 787,115. (Cl. 240—8.5.)

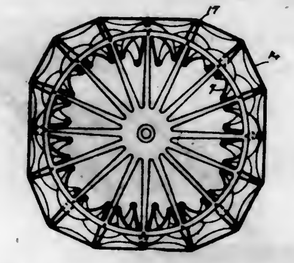


1. In a light for wells, the combination of a rectangular casing, a partition in said casing, dividing the same into upper and lower compartments, a cover for the upper compartment, a battery mounted in said upper compartment, one or more lamp sockets secured to the lower side of the partition, connections from said battery to said sockets, lamps for said sockets, said partition being arranged sufficiently above the lower edge of the casing so that the lamps do not extend to the lower edge, and a bail pivotally secured to the sides of said casing, substantially as described.

2. In a device of the character set forth, the combination of a box having its bottom located above the lower edges of the sides thereof, a cover, a battery mounted in said box, a tube extending from the top of the box to a point below the bottom, electric lamps secured to the lower side of the bottom member, connections from the battery extending through said tube to the lamps, and means for supporting said box.

3. In a device of the character set forth, the combination of a box having its bottom member located at some distance above the lower edges of the side members to form a lamp recess, a reflector arranged in said recess, a lamp mounted in said recess above the lower edges of the said members, a tube extending from said recess to approximately the top of the box, a battery in said box, electrical connections from the battery through said tube to the lamp, a hinged cover for said box, a bail pivoted to the sides of the box, and a hook secured to said bail.

1,134,960. TRACTION-WHEEL. ROYAL NEWTON RIBLET, Spokane, Wash. Filed June 16, 1913. Serial No. 773,932. (Cl. 21—150.)



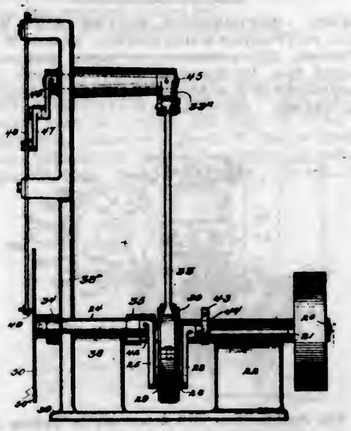
1. A wheel comprising in combination, at least one wheel like member disposed at the side of the traction wheel, rocker arms pivoted to said wheel like members, a set of bearing plates hinged together and describing a figure of greater periphery than said wheel like members, and links connecting said bearing plates and said rocker arms and being pivoted at each end.

2. A wheel structure comprising in combination, two wheel like members disposed one on each side of said structure and centrally thereof, rocker arms pivoted to said wheel like members, a bearing surface composed of a continuous series of pivoted bearing plates having its rim greater than the periphery of said wheel like members, and links connecting said bearing plates with said rocker arms, the points of connection between said links and said bearing plates being the same as the point of connection between the bearing plates and the points of connection between the links and the rocker arms being at the ends of the rocker arms.

3. A wheel structure comprising in combination, a pair of wheel like members disposed one on each side of the structure, rocker arms pivoted to said wheel like members at the rim thereof and at points centrally situated in said rocker arms, there being two sets of said rocker arms, one set pivoted to each of said wheel like members, the rocker arms in each set being arranged with their ends overlapping, said rocker arms being provided with bosses projecting centrally from one side thereof whereby alternate ones of each set of said rocker arms are spaced from said wheel like members in order to permit said overlapping arrangement and being assembled so that each alternate rocker arms is arranged with said lugs presented toward the wheel like member to which the rocker arm is pivoted, a bearing structure comprising a continuous series of pivoted bearing plates, links connected to the opposite ends of said rocker arms and connected also to the points of connection between said plates, there being two of said links pivoted to said bearing surface at each point of connection between the individual bearing plates, and the links connecting to any given point on the bearing structure being connected to adjacent ends of separate rocker arms.

4. A wheel structure comprising in combination, a pair of wheel like members disposed one on each side of the structure, crescent shaped rocker arms pivoted to said wheel like members at the rim thereof and at points centrally situated in said crescent shaped members, there being two sets of said crescent shaped members, one set pivoted to each of said wheel like members, the crescent shaped members in each set being arranged with their ends overlapping, said crescent shaped members being provided with bosses projecting centrally from one side thereof whereby alternate ones of each set of said crescent shaped members are spaced from said wheel like members in order to permit said overlapping arrangement and being assembled so that such alternate crescent shaped member is arranged with said lugs presented toward the wheel like member to which the crescent shaped member is pivoted, a bearing structure comprising a continuous series of pivoted bearing plates, links connected to the opposite ends of said crescent shaped members and connected also to the points of connection between said plates, there being two of said links pivoted to said bearing surface at each point of connection between the individual bearing plates, and the links connecting to any given point on the bearing structure being connected to adjacent ends of alternate rocker arms, and each of said links being connected to two of said crescent shaped members one on each side of the wheel structure.

1,134,961. MECHANICAL MOVEMENT. FRANCIS H. RICHARDS, Hartford, Conn. Filed Aug. 29, 1901, Serial No. 73,639. Renewed Jan. 20, 1909. Serial No. 473,298. (Cl. 74—14.)



1. The combination of two revoluble members positively connected by a linking member having a motion compounded of an angular and a translational motion; supports for said revoluble members; means for reciprocating one of said supports in such a manner as to cause the member mounted thereon to revolve in an elliptical orbit; and a transmission-bearing provided upon said linking member and movable in a prolate cordiform orbit.

2. The combination of a driving shaft having a fixed axis; an offset shaft placed tandem to said driving shaft; arms mounted upon the adjacent ends of said shafts; an angularly and translationally movable linking member inserted between said arms and journaled thereon, and provided with a pivotal transmission member eccentric to both of its journals; and means controlled by said driving-shaft for reciprocating the driven shaft automatically in a lateral direction.

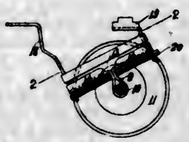
3. The combination of two horizontal shafts provided with crank-arms; an angularly and translationally movable coupler journaled upon said arms, and provided with a dissident pivotal transmission-bearing; a hinged device whereon one of said shafts is mounted; and an eccentric-cam rigid with one of said shafts and actuating said hinged device.

4. A differential crank comprising two revoluble members, whereof one moves about a laterally reciprocating axis which is always eccentric to the axis of revolution of the other member; and also comprising a biaxial eccentric-cam journaled at its eccentric axes upon said revoluble members and linking them together.

5. A differential crank comprising two revoluble members, whereof one turns about a laterally swinging axis, and a biaxial eccentric-cam journaled at its eccentric axes upon said revoluble members and linking them together.

[Claims 6 to 59 not printed in the Gazette.]

1,134,962. ROLLER-SKATE. GODFREY P. SCHMIDT, New York, N. Y. Filed Sept. 13, 1909. Serial No. 517,513. (Cl. 46—51.)



1. In a skate, a rocker-piece, cap and independent brackets, said rocker-piece and cap each having turned in sides and turned in ends, and said turned in ends adapted to engage said brackets, whereby resilient material may be retained between said cap and said rocker-piece and between the ends of said brackets.

2. In a skate, a pair of brackets secured beneath and at the front and rear of said skate, a rocker piece at the bottom of each of said pair of brackets adapted to provide support for a wheel axle, a pin through said rocker piece connecting said brackets, a cap above said rocker piece, and resilient material between said rocker piece and said cap.

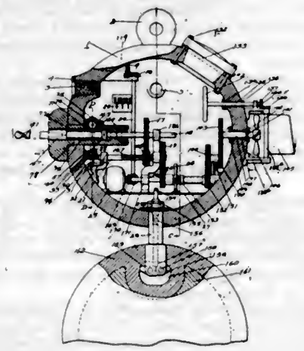
3. In a skate, a pair of brackets secured beneath and at the front and rear of said skate, a rocker piece at the bottom of each of said pair of brackets adapted to provide support for a wheel axle, a pin through said rocker piece connecting said brackets, a cap above said rocker piece, and resilient material between said rocker piece and said cap, said cap and rocker piece slidably engaging said brackets.

4. In a skate, a pair of brackets secured beneath and at the front and rear of said skate, a rocker piece at the bottom of each of said pair of brackets adapted to provide support for a wheel axle, a pin through said rocker piece connecting said brackets, a cap above said rocker piece, and resilient material between said rocker piece and said cap, said cap and rocker piece and brackets providing a housing for said resilient material.

1,134,963. DIVING-BELL. WILLIAM DAVID SISSON, Linnton, Oreg. Filed Oct. 26, 1912, Serial No. 727,936. Renewed June 22, 1914. Serial No. 846,700. (Cl. 61—7.)

1. A submarine vessel comprising a spherical shell having a man hole therein, a water tight door fitted in the man hole, observation lenses fixed in the wall of the shell, a tubular stem depending from the shell, pawls pivoted to

the lower end thereof adapted to engage an external body and means within the shell for releasing the pawls.



2. A submarine vessel comprising a shell, equipped with an electric system, slidable supports carried upon one side thereof, electromagnets fixed upon said supports for attaching the vessel to a metallic object, and means for operating said supports for changing the position of said vessel.

3. A submarine vessel comprising a shell equipped with an electric system, supporting beams arranged in the same plane upon one side of the shell, electromagnets fixed upon said beams for attaching the shell to a metallic object, means for independently energizing said magnets and means for manipulating the beams carrying the magnets for changing the position of the shell upon said object.

4. A submarine vessel comprising a shell equipped with an electric system, means for preserving it upright, a horizontal beam fixed upon the shell, a vertical beam fixed to the shell and to the horizontal beam, a horizontal and a vertical beam slidably secured to each other and to the first mentioned beams, magnets fixed upon each of said beams, and means for changing the relative positions of the slidable beams.

5. A submarine vessel comprising a shell equipped with an electric system, means for preserving it upright, a horizontal beam fixed upon the shell, a vertical beam fixed to the shell and to the horizontal beam, a horizontal and a vertical beam slidably secured to each other and to the first mentioned beams, magnets fixed upon each of said beams, means for independently energizing the magnets of each beam, and means for independently changing the relative positions of the slidable beams.

[Claim 6 not printed in the Gazette.]

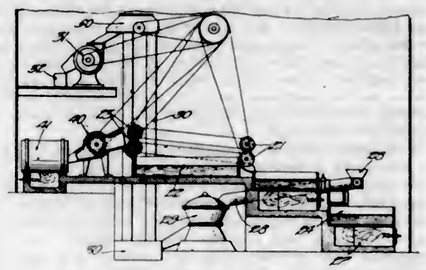
1,134,964. MANUFACTURE OF PLASTER-RETARDER FROM BEAN-VINES. DENNIS Y. STRAUSS, Artesia, Cal., assignor to California Retarder & Fibre Company, Los Angeles, Cal., a Corporation of California. Original application filed Nov. 11, 1913, Serial No. 800,269. Divided and this application filed Mar. 26, 1914. Serial No. 827,295. (Cl. 106—28.)

1. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of bean vines, and absorbing the extract in lime.

2. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of bean vines, partially evaporating the extract, and absorbing the residuum in lime.

3. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of Lima bean vines and absorbing the extract in lime.

4. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of Lima bean vines, partially evaporating the extract, and absorbing the residuum in lime.



5. As a retarder for plaster and the like, a substance composed of the evaporated liquid and soluble extract from bean vines absorbed in an earthy absorbent.

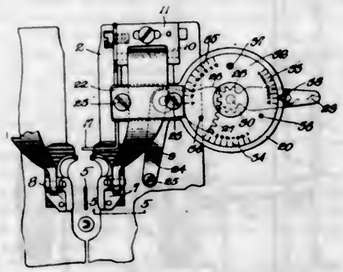
[Claims 6 to 9 not printed in the Gazette.]

1,134,965. ARTIFICIAL TOOTH. ALBERT H. TAYLOR, Liverpool, England, assignor to Western Dental Manufacturing Company (1914) Limited, Bristol, England. Filed Nov. 6, 1912. Serial No. 729,814. (Cl. 32—9.)



In an artificial tooth, the combination of a biting edge, an overhanging portion, a rear surface extending from the biting edge for a part of the length, an undercut V-shaped recess formed by the projection and rear surface and a single headed pin baked in the tooth substantially as described.

1,134,966. BUTTONHOLE SPACER AND MARKER FOR BUTTONHOLE-MACHINES. ALFRED B. WALES, Whitman, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 5, 1910. Serial No. 547,460. (Cl. 112—4.)



1. The combination with a buttonhole making machine including a work clamp, buttonhole cutting and sewing mechanisms and a moving part independent of the sewing mechanism, of means for designating locations on the work corresponding in position and number to the buttonholes to be sewed, said means having actuating connection from the said moving part of the machine for operating the same to make a designation for locating a succeeding buttonhole, the parts being arranged to permit movement of the work in a direction from said location designating means to said sewing mechanism between the sewing of successive button-holes and the designating of successive button-hole locations.

2. The combination with a buttonhole making machine including buttonhole cutting mechanism and buttonhole stitching mechanism and a moving part independent of the stitching mechanism, of means for locating designations corresponding in position and number to the button-holes to be produced, said means having provision to locate a succeeding hole and being connected to and operated by the said moving part of the machine as the same is moved in the making of each hole, the parts being arranged to permit movement of successive portions of the work from said location designating means to said hole cutting mechanism between operations.

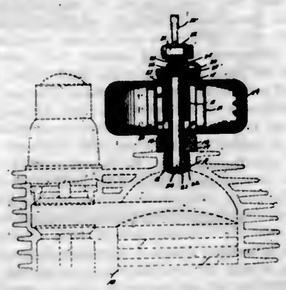
3. The combination with a buttonhole making machine, having buttonhole cutting and stitching mechanisms for cutting and sewing around a buttonhole, of a marker arranged and located to designate the location of a succeeding buttonhole, means not only to actuate said marker to designate such location of a succeeding buttonhole while the work is positioned for the cutting and stitching of the buttonhole immediately preceding but also to maintain said marker inoperative while the work is moved into position for the cutting and stitching of the succeeding buttonhole.

4. The combination with a buttonhole making machine, having buttonhole cutting mechanism and stitching mechanism to sew around a buttonhole, of a marker to mark the position of a succeeding buttonhole, automatic means to actuate said marker to mark the location of a succeeding buttonhole, including means for maintaining said marker stationary relatively to the work during said buttonhole cutting and stitching operations.

5. The combination with a buttonhole making machine, having stitching mechanism to sew around a buttonhole and a presser-foot movable toward and from the work and constructed and operated to clamp the work continuously during the operation of the stitching mechanism while sewing around a buttonhole, of means for making a mark for a succeeding button-hole as each button-hole is made, said means comprising a marker connected with said presser foot and arranged to be operated once and only once during each cycle of operations of the machine as the presser foot is moved down into clamping position to impress a mark on the work at a predetermined distance from the preceding button-hole.

[Claims 6 to 16 not printed in the Gazette.]

1,134,967. COMPRESSION-SPACE ANNEX FOR INTERNAL-COMBUSTION ENGINES. DALMAR T. BROWNLEE, FRED W. SPACKE, and JOHN D. LOWE, Indianapolis, Ind., assignors to The F. W. Spacke Machine Company, Indianapolis, Ind., a Corporation of Indiana. Filed Jan. 28, 1914. Serial No. 815,024. (Cl. 123—48.)



1. As an article of manufacture, a compression-space annex for internal combustion engines comprising a threaded stem having a valve seat formed at its lower end, a valve movably mounted in said stem and normally seated in said valve seat, a compression chamber carried by said stem and communicating with the bore thereof, a spring for normally holding said valve to its seat, and a cam arranged to operate upon said valve to open the same.

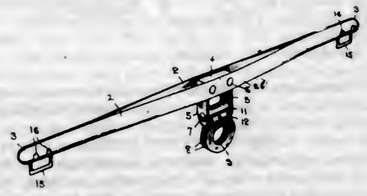
2. As an article of manufacture, a compression-space annex for internal combustion engines comprising a threaded stem having a valve seat formed at its lower end, a valve movably mounted in said stem and normally seated in said valve seat, a compression chamber carried by said stem and communicating with the bore thereof, a spring for normally holding said valve to its seat, and a cam arranged to operate upon said valve to open the same, and a support for said cam resilient in the line of movement of the valve.

3. As an article of manufacture, a compression-space annex for internal combustion engines comprising a main stem threaded at one end for attachment to an internal combustion engine and threaded at the other end for the reception of a clamping member and having a longitudinal bore provided with a valve seat at one end and opening laterally to an intermediate portion of the circumference of the stem, a valve associated with said valve seat and having its stem projected longitudinally through the main stem, a chamber sleeved upon the main stem and covering the said lateral opening, a clamping member attached to the main stem and holding said chamber in place, and a member associated with said parts by which the valve may be shifted inwardly from its seat.

4. As an article of manufacture, a compression-space annex for internal combustion engines comprising a threaded stem having a valve seat formed at its lower end, a valve movably mounted in said stem and normally seated in said valve seat, a compression chamber carried by said stem and communicating with the bore thereof, a cam arranged to operate upon said valve to open the same, and a support for said cam resilient in the line of movement of the valve.

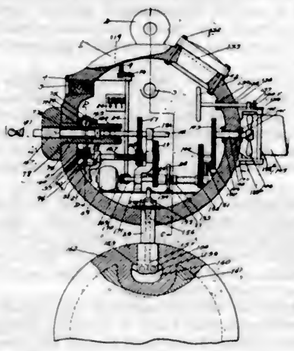
5. As an article of manufacture, a compression-space annex for internal combustion engines comprising a main stem threaded at one end for attachment to an engine cylinder and having a longitudinal bore laterally extended through the main stem at an intermediate point in its length, said bore being formed into a valve seat at its attaching end, a valve associated with said valve and having its stem extended through the longitudinal bore, and a chamber removably mounted upon said stem and covering the said lateral opening.

1,134,968. NECK-YOKE. BENNIE P. HANSON, Monticello, Iowa, assignor of one-half to Lone Grenard, Bancroft, Iowa. Filed Dec. 15, 1913. Serial No. 806,842. (Cl. 21—77.)



In a neck yoke comprising two bars, rectangular in form intermediate of their ends, said bars being swaged to form tubular ends terminating in a semi-circle, said bars being spaced apart at their rectangular portions intermediate of their ends; an inverted U-shaped hanger mounted between the two bars at the center thereof; a swivel bolt connecting the two ends of the said hanger, a tongue support surrounding the said swivel bolt and depending therefrom, having an aperture in the center thereof to receive the end of the tongue and a clamp plate surrounding the tongue support where said tongue support surrounds the said swivel bolt, and being securely riveted to the said tongue support.

the lower end thereof adapted to engage an external body and means within the shell for releasing the pawls.



2. A submarine vessel comprising a shell, equipped with an electric system, slidable supports carried upon one side thereof, electromagnets fixed upon said supports for attaching the vessel to a metallic object, and means for operating said supports for changing the position of said vessel.

3. A submarine vessel comprising a shell equipped with an electric system, supporting beams arranged in the same plane upon one side of the shell, electromagnets fixed upon said beams for attaching the shell to a metallic object, means for independently energizing said magnets and means for manipulating the beams carrying the magnets for changing the position of the shell upon said object.

4. A submarine vessel comprising a shell equipped with an electric system, means for preserving it upright, a horizontal beam fixed upon the shell, a vertical beam fixed to the shell and to the horizontal beam, a horizontal and a vertical beam slidably secured to each other and to the first mentioned beams, magnets fixed upon each of said beams, and means for changing the relative positions of the slidable beams.

5. A submarine vessel comprising a shell equipped with an electric system, means for preserving it upright, a horizontal beam fixed upon the shell, a vertical beam fixed to the shell and to the horizontal beam, a horizontal and a vertical beam slidably secured to each other and to the first mentioned beams, magnets fixed upon each of said beams, means for independently energizing the magnets of each beam, and means for independently changing the relative positions of the slidable beams.

[Claim 6 not printed in the Gazette.]

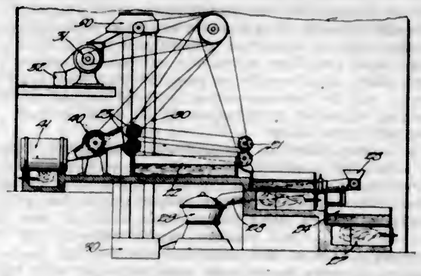
1,134,964. MANUFACTURE OF PLASTER-RETARDER FROM BEAN-VINES. DENNIS Y. STRAUSS, Artesia, Cal., assignor to California Retarder & Fibre Company, Los Angeles, Cal., a Corporation of California. Original application filed Nov. 11, 1913, Serial No. 800,269. Divided and this application filed Mar. 26, 1914. Serial No. 827,295. (Cl. 106—28.)

1. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of bean vines, and absorbing the extract in lime.

2. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of bean vines, partially evaporating the extract, and absorbing the residuum in lime.

3. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of Lima bean vines and absorbing the extract in lime.

4. The herein described method of making plaster retarder, comprising extracting the liquid and soluble constituents of Lima bean vines, partially evaporating the extract, and absorbing the residuum in lime.



5. As a retarder for plaster and the like, a substance composed of the evaporated liquid and soluble extract from bean vines absorbed in an earthy absorbent.

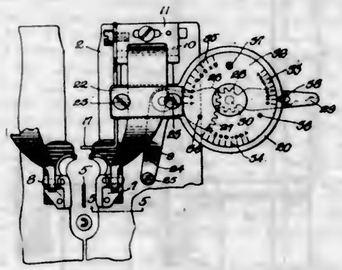
[Claims 6 to 9 not printed in the Gazette.]

1,134,965. ARTIFICIAL TOOTH. ALBERT H. TAYLOR, Liverpool, England, assignor to Western Dental Manufacturing Company (1914) Limited, Bristol, England. Filed Nov. 6, 1912. Serial No. 729,814. (Cl. 32—9.)



In an artificial tooth, the combination of a biting edge, an overhanging portion, a rear surface extending from the biting edge for a part of the length, an undercut V-shaped recess formed by the projection and rear surface and a single headed pin baked in the tooth substantially as described.

1,134,966. BUTTONHOLE SPACER AND MARKER FOR BUTTONHOLE-MACHINES. ALFRED B. WALES, Whitman, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 5, 1910. Serial No. 547,460. (Cl. 112—4.)



1. The combination with a buttonhole making machine including a work clamp, buttonhole cutting and sewing mechanisms and a moving part independent of the sewing mechanism, of means for designating locations on the work corresponding in position and number to the buttonholes to be sewed, said means having actuating connection from the said moving part of the machine for operating the same to make a designation for locating a succeeding buttonhole, the parts being arranged to permit movement of the work in a direction from said location designating means to said sewing mechanism between the sewing of successive button-holes and the designating of successive button-hole locations.

2. The combination with a buttonhole making machine including buttonhole cutting mechanism and buttonhole stitching mechanism and a moving part independent of the stitching mechanism, of means for locating designations corresponding in position and number to the button-holes to be produced, said means having provision to locate a succeeding hole and being connected to and operated by the said moving part of the machine as the same is moved in the making of each hole, the parts being arranged to permit movement of successive portions of the work from said location designating means to said hole cutting mechanism between operations.

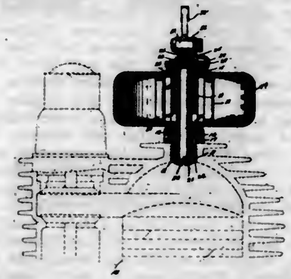
3. The combination with a buttonhole making machine, having buttonhole cutting and stitching mechanisms for cutting and sewing around a buttonhole, of a marker arranged and located to designate the location of a succeeding buttonhole, means not only to actuate said marker to designate such location of a succeeding buttonhole while the work is positioned for the cutting and stitching of the buttonhole immediately preceding but also to maintain said marker inoperative while the work is moved into position for the cutting and stitching of the succeeding buttonhole.

4. The combination with a buttonhole making machine, having buttonhole cutting mechanism and stitching mechanism to sew around a buttonhole, of a marker to mark the position of a succeeding buttonhole, automatic means to actuate said marker to mark the location of a succeeding buttonhole, including means for maintaining said marker stationary relatively to the work during said buttonhole cutting and stitching operations.

5. The combination with a buttonhole making machine, having stitching mechanism to sew around a buttonhole and a presser-foot movable toward and from the work and constructed and operated to clamp the work continuously during the operation of the stitching mechanism while sewing around a buttonhole, of means for making a mark for a succeeding button-hole as each button-hole is made, said means comprising a marker connected with said presser foot and arranged to be operated once and only once during each cycle of operations of the machine as the presser foot is moved down into clamping position to impress a mark on the work at a predetermined distance from the preceding button-hole.

[Claims 6 to 16 not printed in the Gazette.]

1,134,967. COMPRESSION-SPACE ANNEX FOR INTERNAL-COMBUSTION ENGINES. DALMAR T. BROWNLEE, FRED W. SPACKE, and JOHN D. LOWE, Indianapolis, Ind., assignors to The F. W. Spacke Machine Company, Indianapolis, Ind., a Corporation of Indiana. Filed Jan. 28, 1914. Serial No. 815,024. (Cl. 123—48.)



1. As an article of manufacture, a compression-space annex for internal combustion engines comprising a threaded stem having a valve seat formed at its lower end, a valve movably mounted in said stem and normally seated in said valve seat, a compression chamber carried by said stem and communicating with the bore thereof, a spring for normally holding said valve to its seat, and a cam arranged to operate upon said valve to open the same.

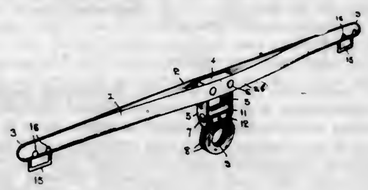
2. As an article of manufacture, a compression-space annex for internal combustion engines comprising a threaded stem having a valve seat formed at its lower end, a valve movably mounted in said stem and normally seated in said valve seat, a compression chamber carried by said stem and communicating with the bore thereof, a spring for normally holding said valve to its seat, and a cam arranged to operate upon said valve to open the same, and a support for said cam resilient in the line of movement of the valve.

3. As an article of manufacture, a compression-space annex for internal combustion engines comprising a main stem threaded at one end for attachment to an internal combustion engine and threaded at the other end for the reception of a clamping member and having a longitudinal bore provided with a valve seat at one end and opening laterally to an intermediate portion of the circumference of the stem, a valve associated with said valve seat and having its stem projected longitudinally through the main stem, a chamber sleeved upon the main stem and covering the said lateral opening, a clamping member attached to the main stem and holding said chamber in place, and a member associated with said parts by which the valve may be shifted inwardly from its seat.

4. As an article of manufacture, a compression-space annex for internal combustion engines comprising a threaded stem having a valve seat formed at its lower end, a valve movably mounted in said stem and normally seated in said valve seat, a compression chamber carried by said stem and communicating with the bore thereof, a cam arranged to operate upon said valve to open the same, and a support for said cam resilient in the line of movement of the valve.

5. As an article of manufacture, a compression-space annex for internal combustion engines comprising a main stem threaded at one end for attachment to an engine cylinder and having a longitudinal bore laterally extended through the main stem at an intermediate point in its length, said bore being formed into a valve seat at its attaching end, a valve associated with said valve and having its stem extended through the longitudinal bore, and a chamber removably mounted upon said stem and covering the said lateral opening.

1,134,968. NECK-YOKE. BENNIE P. HANSON, Monticello, Iowa, assignor of one-half to Lone Grenard, Bancroft, Iowa. Filed Dec. 15, 1913. Serial No. 806,842. (Cl. 21—77.)



In a neck yoke comprising two bars, rectangular in form intermediate of their ends, said bars being swaged to form tubular ends terminating in a semi-circle, said bars being spaced apart at their rectangular portions intermediate of their ends; an inverted U-shaped hanger mounted between the two bars at the center thereof; a swivel bolt connecting the two ends of the said hanger, a tongue support surrounding the said swivel bolt and depending therefrom, having an aperture in the center thereof to receive the end of the tongue and a clamp plate surrounding the tongue support where said tongue support surrounds the said swivel bolt, and being securely riveted to the said tongue support.

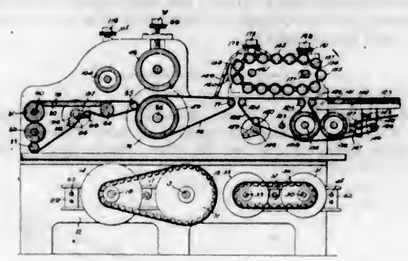
1,134,969. TONGUE CONSTRUCTION. BANNIR P. HANSON, Monticello, Iowa, assignor of one-half to Lone Grenard, Bancroft, Iowa. Filed Oct. 3, 1914. Serial No. 864,744. (Cl. 21—36.)



1. A wagon tongue-hound, comprising a pair of triangular plates; a pair of convergent bars having adjusting bars attached thereto and a plurality of openings through said adjusting bars; a bracket having latterally extending ends, said ends having a plurality of openings therethrough; two pairs of parallel bars, removably connected to said pair of plates and to the said bracket and the said adjusting bars, and a draft bolt, whereby the various parts of the tongue hound are connected with each other and also with the front hound of a wagon.

2. The combination with a wagon tongue, of a tongue-hound comprising a pair of triangular plates attached to the upper and under surfaces of the said tongue; a pair of convergent bars; a plurality of adjustment bars having a plurality of openings therethrough, said adjustment bars being connected to said convergent bars; two pairs of parallel bars held in spaced relation by the said adjustment bars, each pair of said bars having an eye secured thereon; a bracket embracing the rear end of the said tongue, the ends of the bars comprising said bracket being held in spaced relation by the pairs of parallel bars, and the said ends of the bars having a plurality of openings therethrough.

1,134,970. CONTINUOUS DOUGH-SHEETING MECHANISM. EDWARD E. LAWRENCE, Cambridge, Mass., assignor to Loose Wiles Biscuit Company, Kansas City, Mo., a Corporation of Missouri. Filed Apr. 16, 1914. Serial No. 832,397. (Cl. 107—12.)



1. Continuous dough sheeting mechanism comprising in combination, a pair of co-acting, spaced, traveling compressing surfaces between which a dough mass is adapted to be fed, means to drive said surfaces, a pair of bodily traveling compressing members spaced apart a less distance than said pair of compressing surfaces and prolonged in the direction of travel of the dough sheet, and driving means for said members.

2. Continuous dough sheeting mechanism comprising in combination, a pair of co-acting, spaced, traveling compressing surfaces between which a dough mass is adapted to be fed, means to drive said surfaces, a pair of bodily traveling compressing members spaced apart a less distance than the said pair of compressing surfaces and prolonged in the direction of travel of the dough sheet, and means to drive said pair of members at a greater speed than the said pair of compressing surfaces.

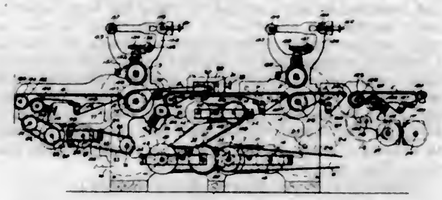
3. Continuous dough sheeting mechanism comprising in combination, a traveling support for a mass of dough, spaced means traveling at a highter rate of speed to reduce said mass to preliminary sheet form, and succeeding, spaced, bodily traveling means further to reduce the thickness of said sheet, said succeeding, spaced, traveling means comprising compressing members that are prolonged in the direction of travel of the dough sheet.

4. Continuous dough sheeting mechanism comprising in combination, a traveling support for a mass of dough, a mangle surface spaced from and coacting with said traveling support, spaced means traveling at a higher rate of speed than said support and mangle surface to reduce said mass issuing from said support and mangle surface to preliminary sheet form and succeeding, spaced, means, at least one member thereof being prolonged in the direction of travel of the dough sheet, and traveling at a higher rate of speed than said preliminary sheet forming means further to reduce the thickness of said sheet.

5. Continuous dough sheeting mechanism comprising in combination, a traveling support for a mass of dough, a mangle roll spaced from and coacting with said traveling support, a pair of rolls spaced sufficiently to reduce said mass issuing from said support and mangle roll to preliminary sheet form, means to drive said rolls at a speed exceeding that of said dough mass support and mangle roll, succeeding bodily traveling sheet reducing means, said sheet reducing means comprising coacting members at least one of which is prolonged in the direction of travel of the dough-sheet and means to drive the same at a speed in excess of said rolls.

[Claims 6 to 45 not printed in the Gazette.]

1,134,971. CONTINUOUS DOUGH SHEETING AND FEEDING MECHANISM. KENNETH D. LOOSE, Boston, Mass., assignor to Loose-Wiles Biscuit Company, New York, N. Y., a Corporation of New York. Filed Jan. 8, 1915. Serial No. 1,211. (Cl. 107—12.)



1. Continuous dough sheeting and feeding mechanism comprising in combination a mass-compressing traveling surface, a co-acting traveling belt opposed thereto and between which and said mass compressing surface the dough is compressed into continuous sheet form, a succeeding belt onto which said continuous dough sheet is directly delivered by said co-acting belt and on which succeeding belt the constituents of said continuous dough sheet are permitted freely to readjust themselves, another belt onto which the continuous, readjusted sheet is directly delivered by said second belt, and a bonding traveling surface co-acting with said third belt to compress said self-readjusted dough sheet thereon.

2. Continuous dough sheeting and feeding mechanism comprising in combination a mass-compressing traveling surface, a co-acting traveling belt opposed thereto and between which and said mass-compressing surface and dough is compressed into continuous sheet form, a succeeding belt onto which said continuous dough sheet is directly delivered by said co-acting belt and on which succeeding belt the constituents of said continuous dough sheet are permitted freely to readjust themselves, another belt onto which the continuous, readjusted sheet is directly delivered by said second belt, a bonding traveling surface co-acting with said third belt to compress said self-readjusted dough sheet thereon, and a fourth belt onto which the continuous sheet is directly delivered by said third belt and whereon said continuous sheet is again permitted to readjust itself.

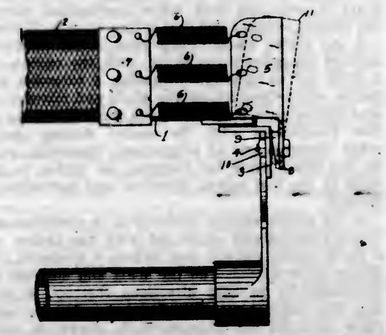
3. Continuous dough sheeting and feeding mechanism comprising in combination, a mass-compressing, traveling roll, a co-acting, traveling belt opposed thereto and between which and said mass-compressing roll the dough is compressed into sheet form, a succeeding belt onto which said continuous dough sheet is directly delivered by said co-acting belt and on which succeeding belt the constituents of said continuous dough sheet are permitted freely to readjust themselves, another belt onto which the continuous, readjusted sheet is directly delivered by said second belt, and a traveling, bonding, roll co-acting with said belt to compress said self-readjusted dough sheet.

4. Continuous dough sheeting and feeding mechanism comprising in combination, a mass-compressing, traveling roll, a co-acting, traveling belt opposed thereto and between which and said mass-compressing roll the dough is compressed into sheet form, a succeeding belt onto which said continuous dough sheet is directly delivered by said co-acting belt and on which succeeding belt the constituents of said continuous dough sheet are permitted freely to readjust themselves, another belt onto which the continuous, readjusted sheet is directly delivered by said second belt, a traveling, bonding roll co-acting with said belt to compress said self-adjusting dough sheet, and a fourth belt onto which the continuous sheet is directly delivered by said third belt and whereon said continuous sheet is again permitted to readjust itself.

5. Continuous dough sheeting and feeding mechanism comprising in combination, a mass-compressing, traveling surface, a co-acting, traveling belt opposed thereto, and between which and said mass-compressing surface the dough is compressed into sheet form, a compression roll supported within said belt and by which the same is driven, a succeeding belt onto which said continuous dough sheet is directly delivered by said co-acting belt and on which succeeding belt the constituents of said continuous dough sheet are permitted freely to readjust themselves, another belt onto which the continuous, readjusted sheet is directly delivered by said second belt, a compression roll supported within said belt and by which the same is driven, and a bonding, traveling surface co-acting with said third belt to compress said self-readjusted dough sheet.

[Claims 6 to 15 not printed in the Gazette.]

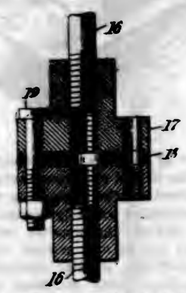
1,134,972. MATTRESS-SPRING. REINHOLD G. MARQUARDT, Milwaukee, Wis., assignor to Milwaukee Woven Wire Works, Milwaukee, Wis., a Corporation of Wisconsin. Filed June 19, 1914. Serial No. 846,020. (Cl. 5—64.)



1. The combination with a spring supporting frame for mattresses of an angular bracket, a bolt for pivotally supporting said bracket from said frame, an angular bearing interposed between said bracket and said frame, a mattress guard, means for connecting one end of said guard to said bracket, said angular bearing being adapted to serve as a fulcrum upon which said bracket is adapted to be inclined rearwardly as the nut is turned down on said bolt against said bracket and the tension of said mattress guard thereby increased.

2. The combination with the supporting frame of a mattress spring, of an angular bracket, a bolt for pivotally connecting said bracket to said frame, a mattress guard, means for connecting one side of said bracket to one end of said guard, an angular block interposed between said bracket and said mattress frame, said bracket being adapted to be turned down from a vertical to a horisontal position, whereby said guard is caused to bear upon the upper surface of said spring, said bracket being also adapted as the nut is turned down on said bolt to be inclined rearwardly over said angular bearing, whereby the tension of said mattress guard is increased.

1,134,973. CONNECTING-ROD. FREDERICK E. STANLEY, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Oct. 13, 1911. Serial No. 654,554. (Cl. 74—48.)



1. A connecting rod for use between an actuated mechanism and an actuating mechanism, comprising a divided rod, a coupling composed of similar flanged members adjustably secured to and carried by the respective parts of the rod, a pad of resilient material interposed between the flanges of the coupling members and adapted to absorb the shock of end thrust between the coupled ends of the rod, and bolts slidably engaging holes in one of said coupling members and rigidly secured to the other coupling member and passing through the resilient pad and serving to hold said coupling members in operative relation.

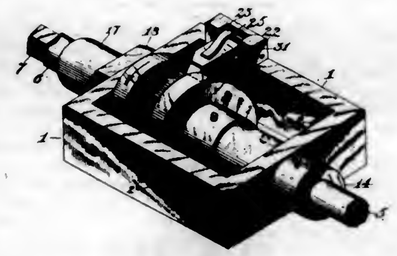
2. A connecting rod for use between an actuated mechanism and an actuating mechanism, comprising a divided rod, a coupling composed of similar flanged members adjustably secured to and carried by the respective parts of the rod, a resilient pad interposed and secured between the flanged members of the coupling to take up strains of end thrust incident to encountering work of greater thickness than that for which the rod is primarily adjusted, and bolts passing through and connecting said flanges and pad, said bolts slidably engaging holes in one of said flanges and screwthreaded into the other flange and fixedly held therein.

1,134,974. CRANKING DEVICE. DAVID STEWART, Bessemer, Ala., assignor of one-fourth to Howard Lamar, Birmingham, Ala., and one-fourth to Theodore Lamar and one-fourth to N. J. Stuart, Bessemer, Ala. Filed Jan. 26, 1914. Serial No. 814,478. (Cl. 123—185.)

1. In cranking devices for explosive engines, the combination with coöperating clutch members provided with opposing faces having radial teeth adapted to engage each other, one of said faces projecting beyond the other; of a pawl disposed at a tangent to said clutch members and adapted, when the clutch is turned in its forward direction, to ride up over the peripheral ends of the teeth of the projecting clutch member, and when it is turned in its backward direction, to engage the radial faces of the same teeth and force said clutch members apart.

2. In a device of the character described, the combination with coöperating clutch members having opposing

circular faces provided with radially disposed ratchet teeth adapted to interlock with each other when the clutch is rotated in its forward direction, one of said interlocking ratchet faces projecting radially beyond the other, of a stationary pawl having its free end resting upon the peripheral ends of said projecting ratchet teeth and adapted to ride up over said teeth when the clutch is rotated in its forward direction, and to directly engage their inclined radially disposed faces and force the one clutch member out of engagement with the other when the clutch is turned backward.



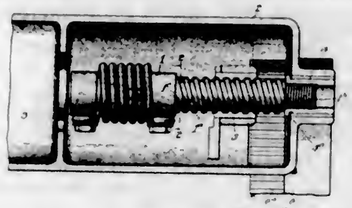
3. In a device of the character described, the combination of opposing clutch members having complementary ratchet faces formed on their opposing sides, one of said ratchet faces projecting radially beyond the other; the clutch member having the greater ratchet face being movable into and out of engagement with the coöperating member having the smaller ratchet face, and said latter clutch member being provided with an annular shoulder of greater diameter than the ratchet face and a stationary pawl having its free end resting upon the peripheral ends of said projecting ratchet teeth and adapted to ride up over said teeth when the clutch is rotated in its forward direction, and to drop in between the inclined sides of said projecting teeth and the said annular shoulder of the opposing clutch member to directly engage said projecting teeth and force the clutch members apart when the clutch is rotated backward.

4. In a device of the character described, the combination of opposing circular clutch members having complementary ratchet faces formed on their opposing sides, said members being of greater diameter than their ratchet faces to provide each clutch member with an annular shoulder, and one of said ratchet faces projecting radially beyond the other; a stationary pawl disposed at a tangent to the clutch and having its free end arranged to extend in between the annular shoulders of the two members thereof, and of a width to be received between said shoulders, and adapted to rest upon and ride up over the peripheral ends of said projecting ratchet teeth when the clutch is rotated forwardly, and to drop in between the inclined faces of said projecting teeth and the annular shoulder of the opposing clutch section when the clutch is rotated backwardly to force the clutch members out of engagement with each other; an annular bearing on said opposing clutch member to limit the downward movement of the free end of the pawl; and means for utilizing the action of the ratchet teeth upon the pawl to impart a downward tendency thereto, to hold the same in firm and steady engagement with its bearing during the backward rotation of the clutch.

5. In a device of the character described, the combination of two circular clutch members having opposing faces provided with coöperating ratchet teeth, said members also having annular shoulders of greater diameter than the clutch faces, one of said clutch faces extending radially beyond the other; a stationary pawl arranged at a tangent to the clutch and having its free end arranged to extend in between the shoulders of the clutch members to directly engage the teeth of the projecting ratchet face to force said clutch members apart; and a stop for the pawl to prevent the free end thereof from moving upwardly beyond the periphery of said annular shoulders of the opposing clutch members.

[Claim 6 not printed in the Gazette.]

1,134,975. ENGINE-STARTER. VINCENT BENDIX, Chicago, Ill. Filed Aug. 10, 1914. Serial No. 856,055. (Cl. 74—7.)



1. An engine starter comprising, in combination with a member operatively connected with the engine, a motor, a driving member adapted to coöperate with and drive said engine member but normally out of engagement therewith, a rotatable member which is driven by the motor and on which the driving member is mounted for rotary and also for longitudinal movement, whereby when said rotatable member is rotated the driving member is automatically moved longitudinally thereof in one direction into driving engagement with said engine member and whereby the difference in speed between the engine when started on its own power and said motor automatically moves the driving member longitudinally in the other direction and out of its said driving engagement, and means for stopping the longitudinal movement of said driving member in the latter direction and preventing binding thereof.

2. An engine starter comprising, in combination with a member operatively connected with the engine, a motor, a driving member adapted to coöperate with and drive said engine member but normally out of engagement therewith, a rotatable shaft which is driven by the motor and on which the driving member is screw-threaded for rotary movement therewith and also for longitudinal movement in one direction for engagement between the driving member and the engine member and in the other direction for disengagement between said parts, and a stop on the shaft for stopping such latter longitudinal movement of the driving member and preventing binding thereof.

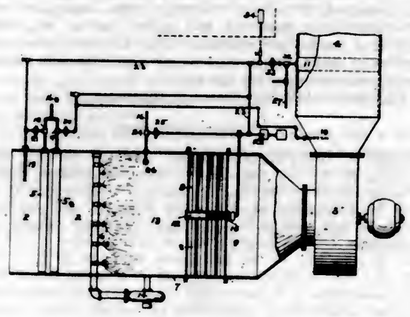
3. An engine starter comprising, in combination with a member operatively connected with the engine, a motor, a shaft driven thereby and having a threaded portion, a pinion screw-threaded on the shaft and adapted to travel longitudinally in both directions thereon, in one direction into engagement with the engine member and in the other direction out of engagement therewith, and means on the screw shaft for stopping the pinion in its movement in the last named direction and preventing binding thereof.

4. An engine starter comprising, in combination with a member operatively connected with the engine, a motor, a shaft driven thereby and having a threaded portion, a pinion screw-threaded on the shaft and adapted to travel longitudinally in both directions thereon, in one direction into engagement with the engine member and in the other direction out of engagement therewith, and a stop on the shaft adapted to be contacted by the pinion in its movement in the last named direction to stop it and prevent binding thereof.

5. An engine starter comprising, in combination with a member operatively connected with the engine, a motor, a shaft driven thereby and having a threaded portion, a pinion screw-threaded on the shaft and adapted to travel longitudinally in both directions thereon, in one direction into engagement with the engine member and in the other direction out of engagement therewith, and a stop for the pinion in its movement in the last named direction, acting at substantially right angles to a part of the pinion.

[Claims 6 to 13 not printed in the Gazette.]

1,134,976. MEANS FOR HUMIDIFYING AIR. WILLIAM G. R. BRAEMER and SAMUEL C. BLOOM, Camden, N. J., assignors to Warren Webster & Company, a Corporation of New Jersey. Filed May 14, 1914. Serial No. 838,415. (Cl. 98—42.)



1. A humidifying apparatus, comprising a tubular passage open at one end to the atmosphere, combined with a blower for sucking on the contents of the passage at the other end, means for supplying an aqueous vapor to the air passing through the passage, a tank for receiving the surplus water from the vapor, means for circulating the water from the tank to the means to supply the aqueous vapor, eliminators through which the air passes for removing the suspended moisture therefrom, means for supplying steam to the water in the tank, and a thermostat arranged to be acted upon by the eliminator water for controlling the supply of steam to the water in the tank.

2. A humidifying apparatus, comprising a tubular passage open at one end to the atmosphere, combined with a blower sucking on the contents of the passageway at the other end, means to supply an aqueous vapor to the air passing through the passageway, heating coils for tempering the fresh air on its way from the atmosphere to the means for supplying the aqueous vapor, an eliminator through which the humidified air passes for removing the suspended moisture therefrom and having a conduit for delivering the water from the eliminator, a thermostat operated by the condition of the eliminator water in the conduit for controlling the temperature of the aqueous vapor, and a thermostat operated by the temperature conditions of the air for controlling the heat of the tempering coils, whereby the inflowing fresh air is caused to become humidified to provide the absolute humidity required to the air.

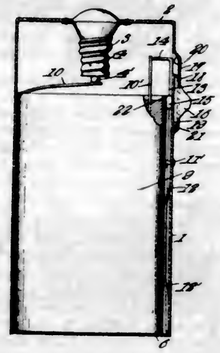
3. In a humidifying apparatus, a conduit through which air is caused to flow, combined with a blower for causing the air to flow through the conduit, means for tempering the inflowing air, means for supplying aqueous vapor to the tempered air whereby it is humidified, eliminators for removing the suspended water from the humidified air, means controlled by the temperature of the water separated by the eliminators for maintaining the temperature of the aqueous vapor according to the requirements, and means for increasing the temperature of the humidified air and lowering its relative humidity after it leaves the eliminators.

4. In a humidifying apparatus, a conduit through which air is caused to flow, combined with a blower for causing the air to flow through the conduit, means for supplying aqueous vapor to the air flowing through the conduit to increase its humidity, eliminators for removing the suspended water from the humidified air, means controlled by the temperature of the water separated by the eliminators for maintaining the temperature of the aqueous vapor to suit the requirements, and means for returning the eliminator water to the means for supplying the aqueous vapor to the air.

5. The combination of a conduit through which air passes and means for drawing the air through the conduit, with devices for supplying the air with an excess of moisture whereby it becomes humidified to the desired degree, eliminators for removing the suspended or excess moisture from the humidified air, a thermostat subjected to the eliminator water immediately after its separation, and means controlled by the thermostat for regulating the temperature of the aqueous vapor supplied to the air.

[Claim 6 not printed in the Gazette.]

1,134,977. POCKET FLASH-LIGHT. HARRY H. HIPWELL and HARRY T. HIPWELL, Pittsburgh, Pa. Filed Apr. 11, 1914. Serial No. 831,224. (Cl. 240—8.5.)



1. A pocket flash light, including a casing, an electric bulb carried by one end of the casing, a cell insertible within the casing and having two terminals one for engagement with the bulb, a combined resilient switch and cell holder mounted at one side within the casing for engagement with the cell, the switch being disposed adjacent to the other terminal of the cell, and means operable from the exterior of the casing for operating the switch to engage the respective terminal.

2. A pocket flash light, including a casing, an electric bulb carried by one end of the casing, a cell insertible within the casing and having two terminals, one for engagement with the bulb, a resilient strip of metal secured intermediate of its ends to the inner side of the casing, one portion thereof being bowed to constitute a cell holder and the other portion being free for disposition adjacent the other terminal of the cell, and means for actuating the free portion of the strip to engage the respective terminal of the cell.

3. A pocket flash light, including a casing, a contact strip secured to the inner side of the casing to coöperate with one terminal of the cell inserted within the casing, a slidable double cam member mounted upon the contact strip and operable exteriorly of the casing, the cam member being coöperable with the cell to lock the contact strip separated from the respective terminal and cooperating with the casing to lock the contact strip in contact with the terminal, and when in an intermediate position, allowing the contact strip to be out of contact with the terminal of the cell for depression manually.

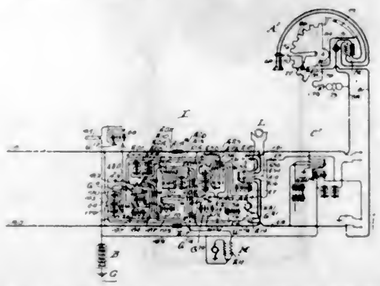
4. A pocket flash light, including a casing, a contact member carried thereby for coöperation with one terminal of a cell inserted within the casing, and actuating means for said contact member arranged when in one position to lock the contact member in engagement with said terminal, when at another position to allow the contact member to move out of engagement with said terminal and to be pressed into engagement therewith, and when in another position to lock the contact member out of engagement with the said terminal.

5. A pocket flash light, including a casing, a contact

strip secured thereto to coöperate with one terminal of a cell inserted within the casing, and an actuating member slidable along the contact strip and the casing, the actuating member and casing having coöperable means whereby when the actuating member is in one position it will hold the contact strip in engagement with said terminal, when the contact member is at another position it will allow the contact strip to move out of engagement with said terminal and permit the actuating member to be pressed for moving the contact strip into engagement with said terminal, and when the actuating member is in another position it will lock the contact strip out of engagement with said terminal.

[Claims 6 to 8 not printed in the Gazette.]

1,134,978. SEMI-AUTOMATIC TELEPHONE-EXCHANGE TRUNKING SYSTEM. EDWARD A. MELLINGER, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 5, 1910. Serial No. 542,804. (Cl. 179—27.)



1. In a telephone system, a talking circuit including a plurality of trunk lines, means for transmitting a supervisory signal over a portion of the talking circuit, a supervisory circuit associated with one of said trunk lines, and means for transferring the signal from the talking circuit to said supervisory circuit.

2. In a telephone system, a talking circuit including a plurality of trunk lines, means for transmitting a supervisory signal over a portion of said circuit, a supervisory circuit, associated with one of said trunk lines, all portions of which are excluded from the path of the voice-currents, and means for transferring said signal from the talking circuit to said supervisory circuit.

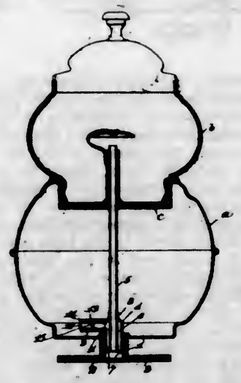
3. In a telephone system, a manual switchboard, a three-conductor trunk line extending therefrom, a connector, a two-conductor trunk line extending to said connector, means for connecting the three-conductor trunk line with the two-conductor trunk line, means at the connector responsive to the called subscriber for transmitting a supervisory signal over the two-conductor trunk line, means for transferring the signal from the two-conductor trunk line to the third conductor of the other trunk line, which third conductor is excluded from the path of voice-currents, and a supervisory device located at said switchboard and responsive to said signal.

4. In a telephone system, a manual switchboard, a three-conductor trunk line extending from said switchboard, an automatic connector switch, a two-conductor trunk line extending to said connector switch, means including first and second selectors for extending connection from the three-conductor trunk line to the two-conductor trunk line, a repeater for the two-conductor trunk line, said repeater provided with means for controlling the connector over the said two-conductor trunk line, means for transmitting a supervisory signal over the two-conductor trunk line, said repeater provided with means for then transferring said signal to the third conductor of the other trunk line, and a supervisory device located at said switchboard and responsive to said signal.

5. In a telephone system, a manual switchboard, a trunk leading to said board, a calling subscriber's line, means for automatically connecting the subscriber's line with said trunk, said trunk having only two conductors, a three-conductor trunk leading from said switchboard, means by which an operator connects the two-conductor trunk with the three-conductor trunk, a called subscriber's line, means including selectors and a connector for finding the called line, there being a two-conductor trunk leading to the said connector, means for transmitting a supervisory signal over the last-mentioned two-conductor trunk, means for then transferring the signal to the third conductor of the three-conductor trunk, means at said switchboard for receiving said signal, means for transmitting a supervisory signal over the first-mentioned two-conductor trunk, and a supervisory device at said switchboard responsive to this signal.

[Claims 6 to 33 not printed in the Gazette.]

1,134,979. COFFEE-MACHINE. CHARLES NELSON, New York, N. Y., and LEONARD H. DYER, Greenwich, Conn., assignors to S. Sternau & Company, New York, N. Y., a Copartnership composed of Sigmund Sternau and Lionel Strassburger. Filed Sept. 10, 1910. Serial No. 581,373. (Cl. 53—3.)



1. A coffee machine having a receptacle; a heating chamber of relatively small size depending from the center of the bottom of the receptacle and communicating with the interior thereof; a cap extending down into the heating chamber and closing the top thereof, said cap also extending up into the receptacle, a vertical tube connected to and communicating with the inside of the cap; a valve casing on one side of the upper part of the cap, above the heating chamber and lying within the receptacle, the walls of said casing being directly connected to the cap and with their interiors communicating by means of a horizontal passage, said valve casing lying off to one side of the cap, and also off to one side of the heating chamber, and a vertically moving gravity valve within the valve casing.

2. A coffee machine having a receptacle; a heating chamber of relatively small size, depending from the center of the bottom of the receptacle and communicating with the interior thereof; a cap resting in the heating chamber and extending up into the receptacle, said cap closing the top of the heating chamber, a vertical tube passing through the top of the cap and extending down into the heating chamber; a valve casing the wall of which is directly connected to the wall of the cap above the heating chamber and with their interiors communicating therewith by means of a horizontal passage and lying off to one side of the heating chamber, and a vertically moving gravity valve within said valve casing.

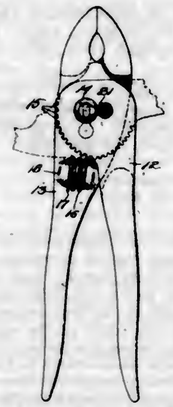
3. A coffee machine having a receptacle; a centrally located heating chamber depending from the bottom thereof, said heating chamber being of relatively small size; a centrally alined, vertical tube connecting with the heating chamber and extending up into the receptacle; a cylindrical cap resting in the heating chamber and extending up into the receptacle and closing the top of the heating chamber; a valve casing the wall of which is directly connected to the wall of the cylindrical cap to one side thereof, and above the heating chamber and off to one side thereof, and with their interiors communicating by means of a horizontal passage, said casing having an inlet at the bottom, and a disk valve in the valve casing.

4. A coffee machine having a main receptacle; a small heating chamber below and in communication with the said receptacle, said chamber being of cylindrical shape and open at the bottom; a flat plate larger than the perimeter of the chamber and relatively thick, said plate having a depression therein, extending only part way through, and screw threads on the sides of the depression, said threads engaging with the lower outer edge of the heating chamber.

5. In a coffee pot having a main receptacle, and a heating chamber at the base thereof, said heating chamber being of relatively small size, the combination with a percolator tube, and a cap, the said percolator tube extending into the main receptacle, and the said cap resting within the heating chamber and closing the top of the latter; a valve casing on one side of the cap, and above the heating chamber and lying off to one side of said heating chamber and directly connected to the cap and communicating therewith by means of a horizontal passage, a valve within the casing, and a connection between the percolator tube and the cap, the said connection consisting of screw threads on the percolator tube engaging with screw threads in an opening in the upper end of the cap.

[Claims 6 to 20 not printed in the Gazette.]

1,134,980. PINCERS. IMMANUEL PFEIFFER, Jr., Bedford, Mass. Filed Sept. 29, 1914. Serial No. 864,151. (Cl. 81—47.)

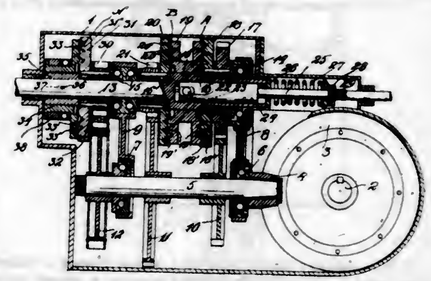


1. An implement of the character described, comprising two members, one member having a toothed segment and the other having a worm to coöperate with the segment, said members having a shiftable pivot connection to permit engagement or disengagement of the toothed segment and worm.

2. An implement of the character described, comprising two members, one member having a toothed segment and the other having a worm to coöperate with the segment, one of said members having a key-hole slot and the other having a pivot member shiftable along said slot to permit engagement or disengagement of the toothed segment and worm.

3. An implement of the character described, comprising two members, one member having a key-hole slot and a toothed segment adjacent said slot, the other member having a pivoted stud extending through said slot and having a worm to coöperate with the toothed segment.

1,134,981. TRANSMISSION MECHANISM. GEORGE W. TIBBITS, Los Angeles, Cal. Filed Oct. 4, 1913. Serial No. 793,456. (Cl. 74—59.)

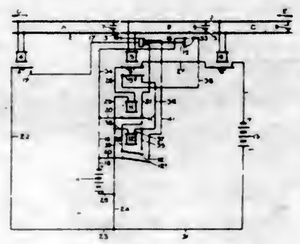


1. A driven shaft, variable speed gears keyed thereon, a driving shaft having an enlarged hollow portion, a high speed gear loose on said enlarged portion of said driving shaft and in mesh with one of the gears on said driven shaft, a clutch disk connected with said high speed gear, a low speed gear loose on said driving shaft in mesh with another of the gears on said driven shaft, a clutch disk connected with said low speed gear, a two faced clutch disk on said enlarged portion of said driving shaft and between the clutch disks of said high and low speed gears, a means extending through said hollow portion of said driving shaft and connected with said two faced clutch disk to shift same thereon, a toothed wheel keyed on said driven shaft, a toothed wheel loose on said driving shaft, a chain connecting said toothed wheels, a disk clutch connected with the toothed wheel on said driving shaft, a disk clutch keyed on said driving shaft and shiftable to engage the clutch on said toothed wheel, and means to operate said clutch.

2. A driven shaft, variable speed gears keyed thereon, a driving shaft having an enlarged hollow portion, a high speed gear loose on the enlarged portion of said shaft and in mesh with one of the gears on said driven shaft, a clutch disk connected with said high speed gear, a low speed gear loose on said driving shaft in mesh with another of the gears on said driven shaft, a clutch disk connected with said low speed gear, a two faced clutch disk on said enlarged portion of said shaft and between the clutch disks of said high and low speed gears, a plunger extending through said enlarged portion to move said two faced clutch thereon, a toothed wheel keyed on said driven shaft, a toothed wheel loose on said driving shaft, a chain connecting said toothed wheels, a disk clutch connected with the toothed wheel on said driving shaft, a disk keyed on said driving shaft to engage the clutch on said toothed wheel, and means to operate said disk.

3. A driven shaft, variable speed gears keyed thereon, a driving shaft having an enlarged hollow portion, a high speed gear loose on said driving shaft and in mesh with one of the gears on said driven shaft, a clutch disk connected with said high speed gear, a low speed gear loose on said driving shaft in mesh with another of said gears on said driven shaft, a clutch disk connected with said low speed gear, a two faced clutch disk on said enlarged portion of said shaft and between the clutch disks of said high and low speed gears, a plunger extending through said enlarged portion to move said two faced clutch thereon, a spring engaging said plunger to cause said two faced clutch to be held in engagement with the friction disk of said high speed gear, a toothed wheel keyed on said driven shaft, a toothed wheel loose on said driving shaft, a chain connecting said toothed wheels, a disk clutch connected with the toothed wheel on said driving shaft, a disk keyed on said driving shaft to engage the clutch on said toothed wheel, and means to operate said disk.

1,134,982. ABSOLUTE PERMISSIVE BLOCK-SIGNAL SYSTEM. SEDGWICK N. WIGHT, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed July 8, 1911. Serial No. 637,457. (Cl. 246—30.)



1. In a railway signal system, a signal having a biased aspect and a plurality of operated aspects, a closed track circuit, a relay controlled by said closed track circuit, a normally closed circuit containing a second relay controlled by the first relay, a circuit including said signal controlled by said second relay, a normally open circuit controlled by said first relay including a third relay and a circuit breaker adapted to be closed in an operated aspect of the signal, said third relay adapted to be energized by the shunting of the track circuit when said circuit breaker is closed, a further normally open circuit including said third relay and its armature adapted to be closed when the track circuit is shunted and said third relay is energized adapted to maintain said third relay energized after said circuit breaker is opened while said track circuit is shunted, and a normally open circuit including said signal controlled by said third relay, means to furnish electrical energy to each of said circuits.

2. In a railway signal system, a block, a signal governing the entrance to one end of said block and adapted to have a normal biased aspect and a plurality of operated aspects, a closed circuited track circuit of which the rails of said block form a part, a source of energy in said circuit and a translating mechanism in said circuit, means controlled by the translating mechanism adapted for causing an operated aspect of said signal, a second translating mechanism means controlled by the first mentioned translating mechanism and the aspect of the signal adapted for energizing the second translating mechanism and means actuated by the energization of said second translating mechanism to keep it energized while said first mentioned translating mechanism is deënergized, and means governed by said second translating mechanism adapted to cause another operated aspect of said signal.

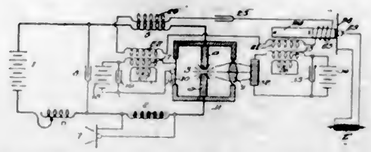
3. In a railway signal system, a signal having a biased aspect and an operated aspect, a closed track circuit, a translating device controlled by the closed track circuit, a normally closed circuit containing a second translating device controlled by the first mentioned translating device, a circuit for controlling the operated aspect of the signal controlled by the second mentioned translating device, a normally open circuit controlled by the first mentioned translating device including a third translating device and a circuit controller adapted to be closed in the operated aspect of the signal, the third mentioned translating device adapted to be energized by the shunting of the track circuit when the circuit controller is closed, a circuit controller controlled by the third mentioned translating device, a normally open circuit including said third mentioned translating device and the circuit controller controlled thereby adapted to be closed when the track circuit is shunted and said third mentioned translating device is energized adapted to maintain said third mentioned translating device energized after said first mentioned circuit controller is opened while said track circuit is shunted, a normally open circuit for signaling controlled by said third mentioned translating device, means to furnish electrical energy to each of said circuits.

4. In a railway signal system, a signal having a biased aspect and an operated aspect, a closed track circuit, another closed track circuit, a translating device controlled by the first mentioned track circuit, a translating device controlled by the second mentioned track circuit, a normally open circuit controlled by both of the translating devices, said normally open circuit adapted to govern the signal, a second normally open circuit controlled by the second mentioned translating device including a third translating device and a circuit controller controlled by the aspect of the signal, said third mentioned translating device adapted to be energized by the shunting of the second mentioned translatiag device when the circuit controller is closed, a second circuit controller controlled by the third mentioned translating device, a third normally open circuit including the third mentioned translating device and the second mentioned circuit controller adapted to be closed when the second mentioned translating device is shunted and said third mentioned translating device is energized and adapted to maintain the third mentioned translating device energized after the first mentioned circuit controller is opened while the second mentioned translating device is shunted, a fourth normally open circuit for signaling controlled by the third mentioned translating device and the first mentioned translating device, means to furnish electrical energy to each of said circuits.

5. In a railway signal system, a closed track circuit, a second closed track circuit, a normally closed circuit, means controlled by the said normally closed circuit for signaling, means controlled by said track circuits for governing said normally closed circuit, a normally open circuit including a relay, means for closing said normally open circuit controlled by said normally closed circuit, means including an armature of said relay to keep the relay energized, means controlled by said relay for signaling.

[Claims 6 to 10 not printed in the Gazette.]

1,134,983. SYSTEM OF ELECTRICAL TRANSMISSION. RICHARD A. ENGLER, Dubuque, Iowa. Filed July 13, 1914. Serial No. 850,627. (Cl. 179—1.)



1. A system of electrical transmission including a sound producing electric lamp and its operating circuit; means for impressing wave form current upon said circuit to cause varying sound waves and light rays to emanate from the lamp; circuit controlling responsive devices respectively subject to the action of the sound waves and ligth rays; a receiving responsive device; and a circuit for the receiving responsive device which is jointly controlled by said circuit controlling responsive devices.

2. A system of electrical transmission including a sound producing electric arc lamp and its operating circuit; means for impressing wave form current upon said circuit to cause varying sound waves and light rays to emanate from the arc lamp; circuit controlling responsive devices respectively subject to the action of the sound waves and light rays; a receiving responsive device; and a circuit for the receiving responsive device which is jointly controlled by said circuit controlling responsive devices.

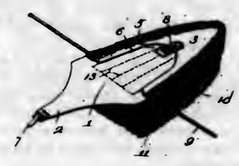
3. A system of electrical transmission including a sound producing electric lamp and its operating circuit; a telephone transmitter for impressing telephonic current upon said circuit to cause varying sound waves and light rays to emanate from the lamp; circuit controlling responsive devices respectively subject to the action of the sound waves and light rays; a receiving responsive device; and a circuit for the receiving responsive device which is jointly controlled by said circuit controlling responsive devices.

4. A system of electrical transmission including a sound producing electric arc lamp and its operating circuit; a telephone transmitter for impressing telephonic current upon said circuit to cause varying sound waves and light rays to emanate from the arc lamp; circuit controlling responsive devices respectively subject to the action of the sound waves and light rays; a receiving responsive device; and a circuit for the receiving responsive device which is jointly controlled by said circuit controlling responsive devices.

5. A system of electrical transmission including a sound producing electric lamp and its operating circuit; means for impressing wave form current upon said circuit to cause varying sound waves and light rays to emanate from the lamp; circuit controlling responsive devices respectively in the form of a transmitter operated by sound waves emanating from the lamp; a circuit resistance varying element operable by the varying rays of the lamp to effect changing resistance; a circuit controlled by said circuit controlling responsive devices; and a receiving responsive device controlled by said circuit.

[Claims 6 to 16 not printed in the Gazette.]

1,134,984. DUST-MOP. THEODORE G. JOHNSON, Kansas City, Mo. Filed June 1, 1914. Serial No. 842,077. (Cl. 15—13.)



1. A mop consisting of a main piece of fabric having a tongue extending rearwardly therefrom, a fastening device secured to said tongue, a top piece of fabric secured to said main piece of fabric to form a pocket, a fastening device on said top piece to coact with the first-mentioned fastening device in securing the mop to a mop holder head, and soft material secured to the main piece of fabric.

2. A mop consisting of a main piece of fabric, a top piece of fabric secured to said main piece of fabric to form a pocket for the reception of a mop holder head, a tape extending around the top piece near the margin thereof, cotton cord secured to the top piece by said tape and adapted to overhang the margin of said top piece, and soft material secured to the underside of the main piece of fabric.

3. A mop consisting of a main piece of fabric, a top piece of fabric secured to said main piece of fabric to form a pocket for the reception of a mop holder head, soft material secured to said top piece and adapted to overhang the margin thereof, and soft material depending from the underside of the main piece of fabric.

REISSUES.

13,896. CHANGEABLE SIGN. GEORGE F. FETSCHER, Chicago, Ill., assignor to Spengler Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 27, 1914. Serial No. 858,986. Original No. 1,058,739, dated Apr. 15, 1913, Serial No. 737,663. (Cl. 40—64.)

1. In a changeable sign, a frame the side walls whereof are provided with apertures and with slots communicating with said apertures, slides respectively provided with ribs fitting into said apertures, said ribs attached to said slides by additional ribs which fit in said slots, and said slides provided with grooves on the upper and lower edges thereof upon their front faces, in combination with strips, the upper and lower edges of said strips adapted to fit in said grooves.

2. In a changeable sign, a frame the side walls whereof are provided with apertures and with slots communicating with said apertures, in combination with slides made of sheet metal and bent up to obtain ribs fitting into said apertures, additional ribs joining said first named ribs to the body of said slides, and grooves on the upper and lower edges of said body part, said additional ribs fitting in said slots, and strips adapted to fit in said grooves.



3. In a changeable sign, a frame the side walls whereof are provided with apertures and with slots communicating with said apertures, slides respectively provided with ribs fitting into said apertures and additional ribs fitting in said slots, said additional ribs being deeper than said slots to position said slides a determined distance from said frame, and grooves on the upper and lower edges of the front of said slides, in combination with strips adapted to fit in said last named grooves and between said additional ribs of adjacent slides, and between the backs of said slides and the front of said frame.

4. In a changeable sign, the combination of a framework having a plurality of supporting surfaces, and a plurality of sign supports for carrying sign elements on their front faces and having projections for interchangeably engaging said supporting surfaces, said projections and framework constituting supports for sign elements on the back faces of said sign supports.

5. In a changeable sign, the combination of a framework having spaced apertures, and sign supports for carrying sign elements on their front faces and having projecting ribs for interchangeably engaging said apertures, said ribs constituting a support for sign elements on the rear face of said sign supports.

6. In a changeable sign, the combination of a framework having substantially parallel side bars provided with apertures extending through them and opening through the edges of said bars, and sign supports having ribs projecting from their back faces for interchangeable sliding engagement with said apertues.

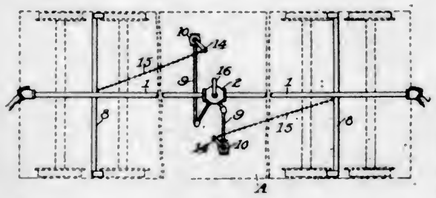
7. In a changeable sign, the combination of a framework having substantially parallel side bars provided with apertures extending through them and opening through the edges of said bars, and sign supports having ribs projecting from their back faces for interchangeable sliding engagement with said apertures, said ribs constituting supports for interchangeable sign elements on the rear face of said sign supports.

8. In a changeable sign, the combination of a framework having side bars provided with apertures having restricted openings through the edges of said bars, and sign supports provided with projecting ribs having enlarged heads for interchangeable sliding engagement with said apertures, said sign supports formed for interchangeable sliding engagement with sign elements.

9. In a changeable sign, the combination of a framework having side bars provided with apertures through the edges of said bars, and sign supports provided with projecting ribs for interchangeable sliding engagement with said apertures, said sign supports formed for interchangeable sliding engagement on their front faces with sign elements, said ribs being of sufficient length to provide a clearance between the rear face of said sign supports and

said framework to permit the insertion on the rear face of said sign supports between said ribs of desired sign elements.

18,897. SAFETY RAILROAD DEVICE. JAMES MARTIN GALLOWAY, Sunbright, Tenn. Filed Nov. 19, 1913. Serial No. 802,007. Original No. 1,029,437, dated June 11, 1912, Serial No. 676,708. (Cl. 188—2.)



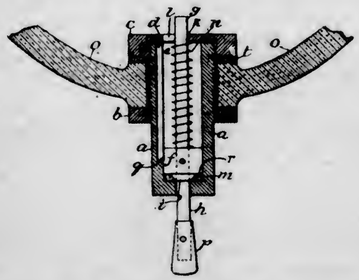
1. The combination with a car, of a train line air pipe, a branch leading from said pipe and normally stationary relative to said pipe, a three-way valve on said line pipe at the junction of said branch, and means on said branch pipe adapted to be actuated automatically for bleeding said branch pipe on derangement of a car supporting truck, substantially as described.

2. The combination with a car, of a train line air pipe, a branch leading from said pipe and normally stationary relative to said pipe, a three-way valve on said line pipe at the junction of said branch, and a bleeding valve located on said branch pipe and adapted to be actuated automatically on derangement of a car supporting truck, substantially as described.

3. In a safety appliance for cars, a car having a train line air pipe and a brake beam, a valve mounted in the train line pipe and provided with a main port way normally open to the train line and branch port ways normally open to the train line, conduits in open communication with the branch port ways, a bleeding valve located in each conduit and normally closed, and connections between the bleeding valve and the brake beam for opening the bleeding valve to the atmosphere on the fall of the beam from the car.

4. The combination with a car, of a train line air pipe, a branch leading from said pipe, a cut-off valve set into the train pipe to cut off both the train pipe and the branch, and bleeding mechanism in operative relation with said branch pipe and a car member movable during derangement relative to said branch pipe, substantially as described.

13,898. LIQUID-DISCHARGING DEVICE. WILLIAM C. MORRILL, New York, N. Y. Filed Dec. 17, 1910. Serial No. 597,961. Original No. 911,834, dated Feb. 9, 1909, Serial No. 444,710. (Cl. 221—102.)



1. In a liquid discharging device, the combination, consisting of a chambered body having a feed channel opening therein and a valve seat, said chambered body being provided with a liquid outlet, a piston yieldingly supported and capable of being operated reciprocally within the aforesaid chamber, said piston also forming a valve, and a chamfered rod depending from the aforesaid piston, said rod fitting the liquid outlet closely except at the chamfered portion, the latter serving to open the liquid outlet when the piston moves downwardly.

2. In a liquid discharging device, a dispensing chamber provided with a liquid outlet, a piston working within the chamber, and when lifted to a position above the normal operating as a valve to permit liquid to flow below it, and a rod for operating the piston, said rod extending below the piston and being provided with a chamfer, said rod fitting the liquid outlet closely when the rod and piston are raised so that the rod serves the function of a valve to control the liquid outlet, and said chamfered portion of the rod operating on the downward movement of the piston to open said liquid outlet.

3. In a liquid dispensing device, a dispensing chamber provided with a liquid outlet, a piston operable within said chamber for delivering a quantity of liquid, a rod for manually imparting movement in one direction to said piston, said rod being movable in the liquid outlet, and means for imparting movement to said piston upon the removal of hand pressure from said operating rod, said piston being free to move quickly in a direction to instantly and forcibly eject the liquid whereby a quantity of liquid is splattered upon the hand.

4. In a liquid dispensing device, the combination of a dispensing chamber provided with a liquid outlet, a piston operable within said chamber for feeding a definte quantity of liquid toward the liquid outlet, a rod attached to the piston and slidable in the liquid outlet, said rod being accessible outside of said chamber and being operable by hand for lifting the piston, and means for imparting movement to the piston upon the removal of hand pressure from said rod, said piston being free to move quickly in a downward direction and operating to forcibly and instantly eject the liquid so as to splatter the same upon the hand.

5. In a liquid discharging device, the combination with a dispensing chamber provided with a liquid outlet, of a piston within said chamber, manually operable means for moving the piston so as to control the flow of liquid into the path of the piston, and means for imparting a quick movement to the piston when the latter is free from manual control, said piston being free to move in a direction to forcibly and instantly eject a quantity of liquid, whereby the liquid is splattered upon the hand.

6. In a liquid discharging device, the combination of a dispensing chamber provided with a liquid outlet, of a piston positioned within the chamber, said piston and chamber coöperating to control the flow of a quantity of liquid into the path of the piston, hand-operated means for imparting movement to the piston, and impelling means for imparting a quick movement to said piston when free from manual control, said piston being free to move under the action of the impelling means so as to forcibly and instantly eject the liquid whereby the liquid is splattered upon the hand.

7. In a liquid discharging device, the combination with a dispensing chamber having a liquid outlet, of a piston operable within said chamber, means controllable by the movement of the piston for regulating the flow of liquid into the space below said piston, hand-operated means for moving the piston in one direction, and impelling means for moving the piston in the opposite direction, said piston being free to move under the impelling means in a direction for forcibly and instantly ejecting a quantity of liquid whereby the liquid is splattered upon the hand.

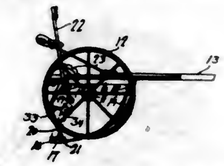
8. In a liquid dispensing device, the combination with a dispensing chamber having a liquid outlet, of a piston positioned within said chamber, a rod attached to the piston and slidable in the liquid outlet, said rod being accessible for manual outlet, said rod being accessible for manual control so as to impart movement to the piston and operating to close and open the liquid outlet, and impelling means coöperating with the piston for imparting quick movement thereto when hand pressure is removed from said rod, said piston being free to move under the action of the impelling means for forcibly and instantly ejecting a quantity of liquid, whereby the liquid is splattered upon the hand.

9. In a liquid soap device, the combination with a dispensing chamber, of a piston positioned therein, hand-operated means for moving the piston in a direction for feeding a definite quantity of liquid soap into the space below the piston, and a spring for imparting a quick movement to the piston when hand pressure is removed, said piston being free to move quickly under the action of said spring and in a direction for forcibly and instantly ejecting the liquid soap whereby the liquid soap is splattered upon the hand.

10. In a liquid soap device, the combination with a dispensing chamber, of a liquid ejecting member operable therein, and hand-operated means for lifting said liquid ejecting member to a position for controlling the flow of liquid soap into the dispensing chamber, said liquid ejecting member operating, upon the removal of hand pressure from said hand-operated means, to move quickly in a direction for forcibly and instantly ejecting a definite quantity of the liquid soap so as to splatter the same upon the hand.

13,899. WEEDER AND CULTIVATOR. GROVER C. WOLFE and HENRY K. WOLFE, Cheney, Wash., assignors, by direct and mesne assignments, to Rotary Rod Weeder & Manufacturing Company, Cheney, Wash., a Corporation of Washington. Filed Dec. 30, 1914. Serial No. 879,799. Original No. 981,512, dated Jan. 10, 1911, Serial No. 568,331. (Cl. 97—25.)

1. The combination of a frame, axle and supporting wheels, of arms pivoted to the frame in front of the axle and extending to the rear thereof, a shaft journaled at the rear of the frame, a hand lever for rotating such shaft, lever arms carried by the shaft, links connecting the lever



arms to the rear extremities of the first-mentioned arms, a rotating member journaled at the extremities of the first-mentioned arms, a sprocket chain conveying motion from the axle to the rotating member, and a chain tightener carried by the lever arm and moving with the shaft.

2. In a soil weeder and cultivator, a frame, an axle for the frame, supporting traction wheels upon the axle, arms pivoted to the frame in front of the axle and extending to the rear thereof, a shaft journaled at the extremities of the arms in parallelism with the axle, means to force and maintain the shaft and the extremities of the arms below the surface soil, and means to rotate the shaft from the axle.

3. In a soil weeder and cultivator, supporting wheels, an axle and frame thereon, arms pivoted to the frame in front of the axle and extending to the rear thereof, a shaft journaled at the extremities of the arms, another shaft mounted to rotate upon the rear of the frame, levers and links connecting the last-mentioned shaft with the extremities of and to force the arm extremities and shaft mounted therein below the surface soil, and means to drive the last-named shaft from the axle.

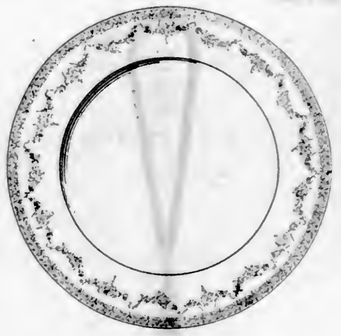
DESIGNS.

47,177. PENDANT, BAR-PIN, BRACELET, SCARF-PIN, OR SIMILAR ARTICLE. JOHN A. ABEL and EDWARD C. ABEL, Woodhaven, N. Y. Filed July 13, 1914. Serial No. 850,830. Term of patent 14 years.



The ornamental design for a pendant, bar pin, bracelet, scarf pin, or similar article, as shown.

47,178. PLATE. WILLIAM ABRAMS, Chicago, Ill. Filed Nov. 10, 1914. Serial No. 871,407. Term of patent 3½ years.



The ornamental design for a plate as shown.

47,179. PARASOL. OSCAR M. ARNOLD, New York, N. Y. Filed Jan. 6, 1915. Serial No. 875. Term of patent 3½ years.



The ornamental design for a parasol as shown.

47,180. DOLL. CLAIRE AVERY, New York, N. Y. Filed Dec. 9, 1914. Serial No. 876,376. Term of patent 7 years.



The ornamental design for a doll as shown.

47,181. NECKTIE. ADOLPH BENNETT, New York, N. Y. Filed Dec. 11, 1914. Serial No. 876,736. Term of patent 3½ years.



The ornamental design for a necktie, as shown.

47,182. BOX. ABRAHAM DANZIGER, New York, N. Y. Filed Jan. 6, 1915. Serial No. 877. Term of patent 7 years.



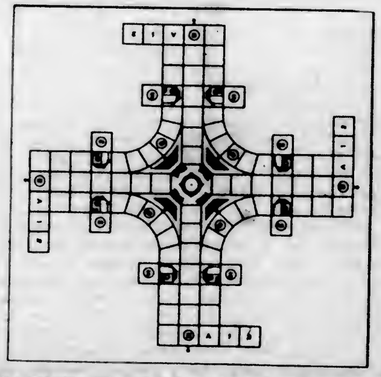
The ornamental design for a box, as shown.

47,183. TOY. HERBERT ELLIOTT, Toronto, Ontario, Canada. Filed Jan. 12, 1915. Serial No. 1,893. Term of patent 3½ years.



The ornamental design for a toy, as shown and described.

47,184. GAME-BOARD. JOSEPH OLIVER GENDRON, Provo, Utah. Filed Oct. 13, 1914. Serial No. 866,554. Term of patent 14 years.



The ornamental design for a game board, as shown.

47,185. VEHICLE-BODY. WILLIAM C. HEITKMANN, Union City, Ind., assignor to The Union City Carriage Manufacturing Company, Union City, Ind., a Corporation of Indiana. Filed Dec. 28, 1914. Serial No. 879,406. Term of patent 7 years.



The ornamental design for a vehicle body, as shown and described.

47,186. LAMP-SHADE. EUGENE C. HERRMANN, Los Angeles, Cal. Filed Oct. 10, 1914. Serial No. 866,147. Term of patent 7 years.



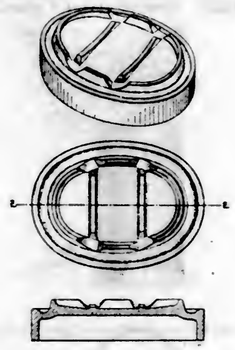
The ornamental design for a lamp shade as shown.

47,187. CLOCK-CASING. WALTER J. HERSCHEDE, Cincinnati, Ohio. Filed Jan. 8, 1915. Serial No. 1,248. Term of patent 7 years.



The ornamental design for a clock casing, as shown.

47,188. SOAP-DISH. STEPHEN HIPKINS, Martins Ferry, Ohio. Filed Dec. 31, 1914. Serial No. 879,978. Term of patent 7 years.



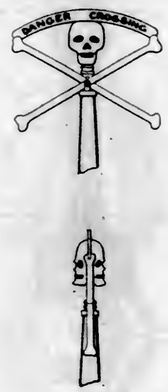
The ornamental design for a soap dish, as shown.

47,189. STATUETTE. WILLIAM F. HIRSCHMANN, New York, N. Y. Filed Jan. 21, 1915. Serial No. 3,644. Term of patent 14 years.



The ornamental design for a statute, substantially as shown.

47,190. RAILROAD-CROSSING SIGNAL. EDWARD D. MAYBERRY, Alta Vista, Va. Filed Jan. 11, 1915. Serial No. 1,699. Term of patent 3½ years.



The ornamental design for a railroad crossing signal, as shown.

47,191. DRUM FOR CONTAINING MATERIAL. DANIEL D. MCTAVISH, Montreal, Quebec, Canada, assignor to Canada Carbide Company, Limited, Montreal, Quebec, Canada, a Corporation. Filed Dec. 5, 1914. Serial No. 875,734. Term of patent 7 years.



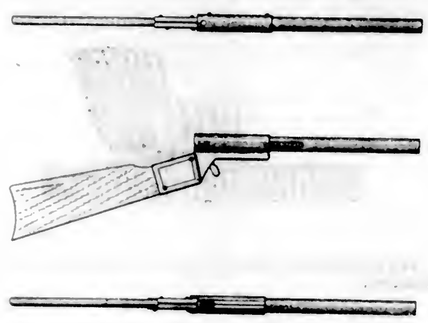
The ornamental design for a drum for containing material, as shown.

47,192. ELECTRIC SIGN. MORTIMER NORDEN, New York, N. Y., assignor to Joseph Norden, New York, N. Y. Filed Feb. 10, 1915. Serial No. 7,364. Term of patent 7 years.



The ornamental design for an electric sign, as shown.

47,193. TOY POP-GUN. FRANK L. ORDWAY, Salem, Mass. Filed Nov. 24, 1914. Serial No. 873,836. Term of patent 14 years.



The ornamental design for a toy pop-gun as shown.

47,194. DOOR-KNOCKER. ALFRED RICHARD PAGE, Birmingham, England. Filed Jan. 13, 1915. Serial No. 2,086. Term of patent 7 years.



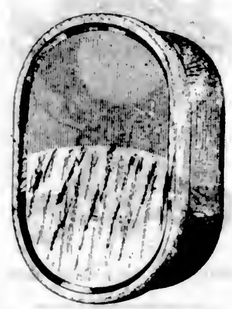
The ornamental design for a door knocker as shown.

47,195. DOOR-KNOCKER. ALFRED RICHARD PAGE, Birmingham, England. Filed Jan. 13, 1915. Serial No. 2,087. Term of patent 7 years.



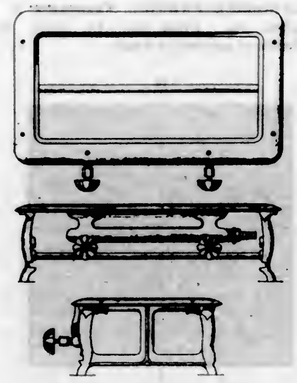
The ornamental design for a door knocker, as shown.

47,196. LAMP. JAMES R. PAGIN, Valparaiso, Ind. Filed Nov. 6, 1914. Serial No. 870,713. Term of patent 7 years.



The ornamental design of a lamp as shown and described.

47,197. FRAME FOR GAS-PLATES. GEORGE E. PICKUP, Newark, Ohio, assignor to The Wehrle Company, Newark, Ohio, a Corporation of Ohio. Filed Dec. 28, 1914. Serial No. 879,403. Term of patent 3½ years.



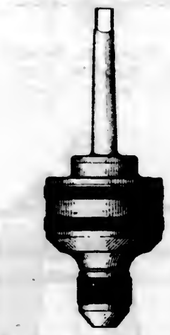
The ornamental design for the frame of a gas plate, as shown.

47,198. HAIR-ORNAMENT. ALSTON L. PRESTON, Leominster, Mass. Filed Dec. 28, 1914. Serial No. 879,402. Term of patent 14 years.



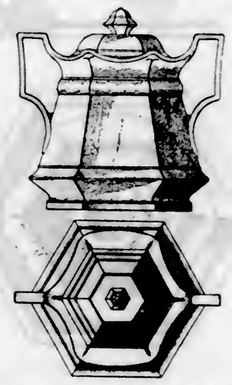
The ornamental design for a hair ornament, as shown.

47,199. TAP-CHUCK. WILLIAM L. PROCUNIER, Chicago, Ill. Filed Jan. 28, 1915. Serial No. 4,956. Term of patent 3½ years.



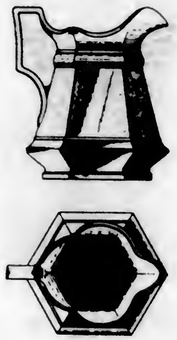
The ornamental design for a tap chuck, as shown.

47,200. SUGAR-BOWL OR SIMILAR ARTICLE. FRANK A. SEBRING, Sebring, Ohio. Filed Feb. 8, 1915. Serial No. 6,861. Term of patent 3½ years.



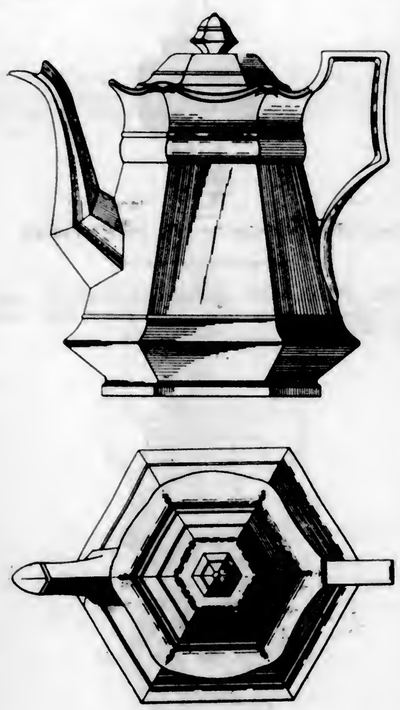
The ornamental design for a sugar bowl or similar article, substantially as shown.

47,201. PITCHER. FRANK A. SEBRING, Sebring, Ohio. Filed Feb. 11, 1915. Serial No. 7,604. Term of patent 3½ years.



The ornamental design for a pitcher, substantially as shown.

47,202. TEAPOT. FRANK A. SEBRING, Sebring, Ohio. Filed Feb. 17, 1915. Serial No. 8,926. Term of patent 3½ years.



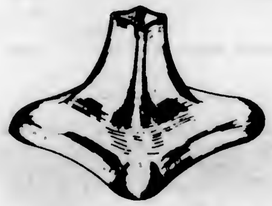
The ornamental design for a tea pot, substantially as shown.

47,203. CLOCK-FRAME. JOSEPH E. STEINMEIER, New York, N. Y., assignor to Western Clock Company, La Salle, Ill., a Corporation of Illinois. Filed Jan. 21, 1915. Serial No. 3,643. Term of patent 7 years.



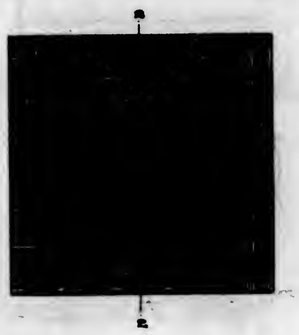
The ornamental design for a clock frame, as shown.

47,204. PEDESTAL FOR COFFEE-GRINDERS. WALTER F. STIMPSON, Detroit, Mich. Filed Sept. 24, 1914. Serial No. 863,407. Term of patent 14 years.



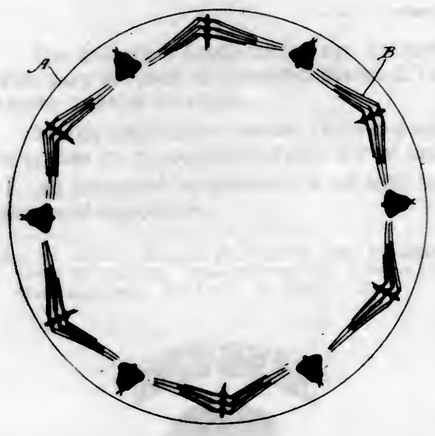
The ornamental design for a pedestal for coffee grinders, substantially as shown.

47,205. EMBOSSED FABRIC. FREDERICK H. WALKER, Philadelphia, Pa. Filed Jan. 18, 1915. Serial No. 2,996. Term of patent 3½ years.



The ornamental design for an embossed fabric, as shown.

47,206. ARTICLE OF MANUFACTURE. ELMER E. WALTER, Syracuse, N. Y., assignor to Onondaga Pottery Co., Syracuse, N. Y., a Corporation of New York. Filed Feb. 6, 1915. Serial No. 6,603. Term of patent 7 years.



The ornamental design for an article of manufacture as shown and described.

47,207. ARTICLE OF MANUFACTURE. JOHN T. WIGLEY, Syracuse, N. Y., assignor to Onondaga Pottery Co., Syracuse, N. Y., a Corporation of New York. Filed Feb. 6, 1915. Serial No. 6,602. Term of patent 7 years.



The ornamental design for an article of manufacture as shown and described.

TRADE-MARKS

PUBLISHED APRIL 6, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 59,643. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NEWTON TEA & SPICE CO., Cincinnati, Ohio. Filed Nov. 10, 1911.

RED SEAL

The words "Red Seal" and the representation of a red seal, no claim being made for the words "Very Newton Best."

Particular description of goods.—Flavoring Extracts for Foods.

Claims use since March, 1905.

Ser. No. 61,292. (CLASS 32. FURNITURE AND UPHOLSTERY.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.

N. Y.

Particular description of goods.—Card-Index Boxes Made of Wood.

Claims use since Mar. 1, 1908.

Ser. No. 63,865. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ST. IVEL, LIMITED, Yeovil, England. Filed May 29, 1912.

VISEM

Particular description of goods.—A Preparation for Use in the Practice of Medicine and Pharmacy Adapted for the Brain and Nerves.

Claims use since about October, 1911.

Ser. No. 66,616. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARRIE H. RUBEL, Philadelphia, Pa. Filed Oct. 30, 1912.

AGMEL

Particular description of goods.—Medicine for Internal Use for Diseases of the Kidneys, Bladder, and Urinary Organs.

Claims use since the 3d day of February, 1912.

Ser. No. 67,288. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE UNITED LACE & BRAID MANUFACTURING COMPANY, Cranston, R. I. Filed Dec. 7, 1912.

BEADED

Particular description of goods.—Braids, Shoe-Laces, Galloons, and Corset-Laces.

Claims use since November, 1905.

Ser. No. 72,989. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES H. MCCLANAHAN, Cowden, Ill. Filed Sept. 22, 1913.

NO-CAN-SO

Particular description of goods.—A Preparation for the Treatment of Cancer.

Claims use since Aug. 30, 1913.

Ser. No. 75,728. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MIDDLEBROOK WOOL COMBING COMPANY, East Boston, Mass. Filed Feb. 6, 1914.



The words "Middlebrooks" and "Spins the Best" are hereby disclaimed.

Particular description of goods.—Wool Tops.

Claims use since Nov. 1, 1913.

Ser. No. 76,418. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) J. H. WILLIAMS & CO., New York, N. Y. Filed Mar. 6, 1914.



Particular description of goods.—Steels and High-Speed Steels.

Claims use since the year 1883.

Ser. No. 76,874. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany. Filed Mar. 23, 1914.

PHENOVAL

Particular description of goods.—Sedative, Antipyretic, and Antimyalgic Compounds; Compounds for the Relief of Headache and Compounds for the Relief of Heart Disease.

Claims use since December, 1913.

Ser. No. 77,907. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ANGSTEN-KOCH COMPANY, Chicago, Ill. Filed May 1, 1914.



Particular description of goods.—Tandem Seats, Luggage and Parcel Carriers, Lamp-Brackets, Axle Extensions, and Auxiliary Air-Valves for Motor-Cycles and Bicycles.

Claims use since Aug. 1, 1912.

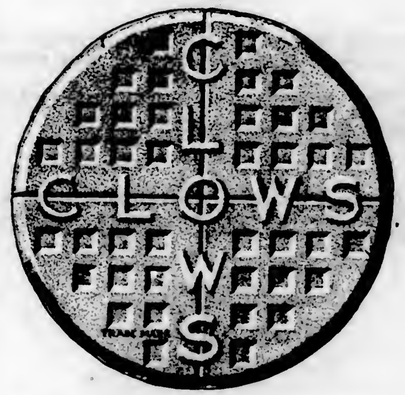
Ser. No. 78,730. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) GEO. BORGFELDT & CO., New York, N. Y. Filed June 2, 1914.



Particular description of goods.—Aluminum, Brass, Celluloid, and Steel Thimbles and Amber, Agate, Celluloid, Coral, Glass, Jet, Wood, Imitation Pearl, and Wax Necklaces, (Not Precious Metal.)

Claims use since about Jan. 1, 1912.

Ser. No. 78,938. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OSCAR BLAINE CLOW, Seattle, Wash. Filed June 10, 1914.



No claim being made for the words "Trade-Mark."

Particular description of goods.—Waffle Compounds.

Claims use since Nov. 1, 1913.

Ser. No. 78,969. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEORGE W. JEFFORDS, St. Louis, Mo. Filed June 10, 1914.

VITROX

Particular description of goods.—Enameled Household Utensils Known to the Trade as "Enameled Ware."

Claims use since March, 1913.

Ser. No. 79,418. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADIUM LIMITED, U. S. A., New York, N. Y. Filed June 27, 1914.



Particular description of goods.—Chemical Substances Adapted to Give Off Radio-Active Emanations—as, for Example, Radium and Compositions Containing the Same.

Claims use since June 22, 1914.

Ser. No. 80,772. (CLASS 38. PRINTS AND PUBLICATIONS.) TRADESMEN'S PUBLISHING CO., St. Louis, Mo. Filed Aug. 24, 1914.

The Drygoodsman and Southwestern Merchant

Particular description of goods.—A Magazine Issued Weekly.

Claims use since July 11, 1914.

Ser. No. 80,797. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HEINRICH LANZ, Mannheim, Germany. Filed Aug. 25, 1914.

SOLO

Particular description of goods.—Cream-Separators.

Claims use since September, 1908.

Ser. No. 80,798. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HEINRICH LANZ, Mannheim, Germany. Filed Aug. 25, 1914.



Particular description of goods.—Threshing-Machines, Straw-Presses, Chaff-Cutters, Kibbling-Mills, Cream-Separators, and Machines and Appliances for Making and Working Butter.

Claims use since August, 1907.

Ser. No. 82,164. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CURTIS OLIVE CORPORATION, Bloomington and Los Angeles, Cal. Filed Oct. 26, 1914.



Applicant disclaims all printed matter associated with said mark and makes no claim for the representation of an olive alone.

Particular description of goods.—Olives.

Claims use since Sept. 16, 1914.

Ser. No. 82,202. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) BRITISH AMERICAN MANUFACTURING COMPANY, Springdale, Conn. Filed Oct. 27, 1914.

ZAMA

Particular description of goods.—Waterproofed Fabric.

Claims use since Jan. 1, 1914.

Ser. No. 82,215. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN N. MACDONALD, Wethersfield, Conn. Filed Oct. 27, 1914.

Necessity

Particular description of goods.—Tools for the Opening and Closing of the Attaching-Hooks of Non-Skid Tire-Chains and Like Chain Structures.

Claims use since Oct. 1, 1910.

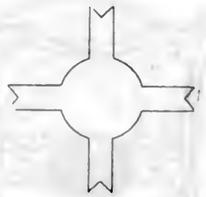
Ser. No. 82,277. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LESELIA REMEDIES COMPANY, Louisville, Ky. Filed Oct. 30, 1914.

LE-SE-LI-A
THE LIGHT OF LIFE

Particular description of goods.—Salves, Medicinal Tonics, Laxatives, Remedies for Coughs, Epilepsy, Piles, and Fevers.

Claims use since about Oct. 1, 1914.

Ser. No. 82,571. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) G. P. RAMSEY, Ada, Okla. Filed Nov. 13, 1914.



Particular description of goods.—A Preparation for Cancers and Tumors.
Claims use since Oct. 1, 1914.

Ser. No. 82,576. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HERMANN STOBWASSER, Berlin, Germany. Filed Nov. 13, 1914.

„Pilot"

Particular description of goods.—Semaphores and Visual Mechanical Signaling Apparatus, and Especially Signaling Apparatus of the Character Specified for Vehicles and Craft of All Kinds.
Claims use since May 5, 1913.

Ser. No. 82,583. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABENHEIM & BLESSING, INC., San Francisco, Cal. Filed Nov. 14, 1914.

AMBASSADOR

Particular description of goods.—Fresh Cabbage, Cauliflower, Lettuce, Celery, Garlic, Corn, Tomatoes, Beans, Peas, Cucumbers, Bananas, Apples, Lemons, Pears, Peaches, Plums, Prunes, Watermelons, Canteloups, Apricots, Grapes, Oranges, Spinach, Parsley, Onions, Nectarines, Asparagus, Summer-Squash, and Potatoes.
Claims use since Dec. 9, 1913.

Ser. No. 82,669. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PITINO BROTHERS, Los Angeles, Cal. Filed Nov. 18, 1914.



No claim being made to the word "Brand."
Particular description of goods.—Citrus Fruits.
Claims use since Oct. 28, 1914.

Ser. No. 82,895. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ODENWELLER MILLING CO., Ottoville, Ohio. Filed Nov. 24, 1914.

PREFER'ED

Particular description of goods.—Wheat-Flour, Pancake-Flour, Cornmeal, Buckwheat-Flour, Compound Buckwheat and Whole-Wheat Flour.
Claims use since May 1, 1913.

Ser. No. 83,011. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BEARINGS COMPANY OF AMERICA, Jersey City, N. J. Filed Dec. 2, 1914.



Particular description of goods.—Retainers for Ball-Bearings.
Claims use since about January, 1898.

Ser. No. 83,012. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BEARINGS COMPANY OF AMERICA, Jersey City, N. J. Filed Dec. 2, 1914.

STAR

Particular description of goods.—Retainers for Ball-Bearings.
Claims use since about January, 1898.

Ser. No. 83,125. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) ONONDAGA POTTERY COMPANY, Syracuse, N. Y. Filed Dec. 7, 1914. Under ten-year proviso.

SYRACUSE

Particular description of goods.—China Tableware and Ornamental Chinaware.
Claims use since the year 1892.

Ser. No. 83,126. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) ONONDAGA POTTERY COMPANY, Syracuse, N. Y. Filed Dec. 7, 1914. Under ten-year proviso.

O.P CO.

Particular description of goods.—China Tableware and Ornamental Chinaware.
Claims use since the year 1892.

Ser. No. 83,129. (CLASS 38. PRINTS AND PUBLICATIONS.) JEROME D. ROSENBERG, New York, N. Y. Filed Dec. 7, 1914.

Stampkraft

Particular description of goods.—A Book of Nursery-Rhymes, Issued in Series, and Adhesive Posters Illustrative Thereof.
Claims use since Dec. 1, 1914.

Ser. No. 83,186. (CLASS 38. PRINTS AND PUBLICATIONS.) ETTA E. REED, Detroit, Mich. Filed Dec. 9, 1914.



Particular description of goods.—Books for Teaching Proper Speech to Those Defective in Hearing or Speech.
Claims use since 1902.

Ser. No. 83,189. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM H. SCHLEIZER, Chicago, Ill. Filed Dec. 9, 1914.

EAT-ONE

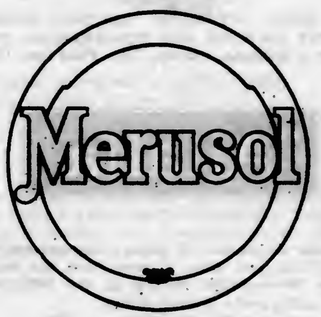
The word "Eat-One."
Particular description of goods.—Laxative Tablets.
Claims use since Apr. 10, 1913.

Ser. No. 83,223. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EDGAR PARR GABBOTT, Manchester, England. Filed Dec. 11, 1914.

CURNON

Particular description of goods.—Steam and Water Meters and Recorders for All Purposes and Indicating Apparatus.
Claims use since Mar. 18, 1911.

Ser. No. 83,231. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed Dec. 11, 1914.



Particular description of goods.—Petrolatum-Oil.
Claims use since on or about the 15th day of October, 1914.

Ser. No. 83,251. (CLASS 46. FOODS AND INGREDIENTS OF FOODS. LITTLE CROW MILLING CO., Warsaw, Ind. Filed Dec. 12, 1914.



Particular description of goods.—Wheat-Flour, Graham Flour, Buckwheat and Pancake Flours, Cornmeal, Scratch Feed, Mill Feeds, and Chop Feeds.
Claims use since May, 1903.

Ser. No. 83,265. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE AMERICAN PAPER GOODS COMPANY, Montclair, N. J., and Berlin, Conn. Filed Dec. 14, 1914.

ROTOPLANE

Particular description of goods.—Printing-Presses.
Claims use since Apr. 26, 1909.

Ser. No. 83,293. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich. Filed Dec. 15, 1914.

W. K. Kellogg

This trade-mark is a copy of the signature of Will K. Kellogg, who is president of this applicant corporation.
Particular description of goods.—Beverages Made Wholly or Partly of Cereals, Sold as Soft Drinks.
Claims use since about Apr. 1, 1906.

Ser. No. 83,341. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ERNEST L. BURRELL, Chicago, Ill. Filed Dec. 17, 1914.

"Alfalfa"

Particular description of goods.—Impregnated Woven-Fabric Belting and Hose Formed from the Same Impregnated Woven-Fabric Belting by the Addition of a Rubber Coating and a Rubber Lining.
Claims use since Nov. 16, 1913.

Ser. No. 83,347. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HOLT MANUFACTURING COMPANY, Stockton, Cal. Filed Dec. 17, 1914.

BABY

Particular description of goods.—Traction-Engines.
Claims use since July, 1908.

Ser. No. 83,348. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HOLT MANUFACTURING COMPANY, Stockton, Cal. Filed Dec. 17, 1914.

MIDGET

Particular description of goods.—Traction-Engines.
Claims use since July, 1911.

Ser. No. 83,380. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JACOB LUTTENBERGER, Easton, Pa. Filed Dec. 18, 1914.

Luttenbergers



EYE REMEDY

No claim being made to the representation of the eye and the words "Eye Remedy," the signature being the facsimile of the applicant's.
Particular description of goods.—A Remedy for the Eyes.
Claims use since Oct. 21, 1914.

Ser. No. 83,556. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RALSTON PURINA COMPANY, St. Louis, Mo. Filed Dec. 28, 1914.

FATENA

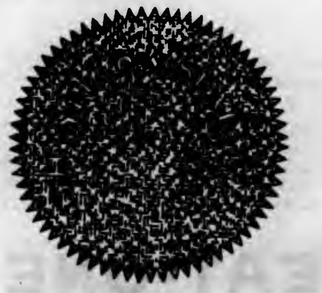
Particular description of goods.—A Prepared Mixed Feed for Stock, Dairy-Animals, and Poultry.
Claims use since the 11th day of November, 1914.

Ser. No. 83,577. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) DOEHLER DIE CASTING CO., New York, N. Y. Filed Dec. 30, 1914.

COMET WHITE BRONZE

No claim being made for the exclusive right to use the words "White Bronze" alone.
Particular description of goods.—A Metal Alloy and Castings Made Therefrom.
Claims use since about Nov. 12, 1914.

Ser. No. 83,591. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) EUGENE E. NICH, Philadelphia, Pa. Filed Dec. 30, 1914.



The drawing being shaded for yellow.
Particular description of goods.—Varnishes, Fillers, Japans, Paints, Both Ready-Mixed and Ground in Oil; Colors in Oil, Varnish-Stains, Enamels, and Putty.
Claims use since January, 1896.

Ser. No. 83,729. (CLASS 39. CLOTHING.) ALBERT L. HOWITZ & Co., New York, N. Y. Filed Jan. 8, 1915.

Marlborough

Comprising the word "Marlborough."
Particular description of goods.—Ladies' Hats.
Claims use since Dec. 1, 1914.

Ser. No. 83,731. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HOLBROOK GROCERY CO., Keene, Woodsville, and Nashua, N. H. Filed Jan. 8, 1915.

GOLDEN VALE

Particular description of goods.—Coffee and Tea.
Claims use since about Jan. 15, 1885.

Ser. No. 83,732. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HOLBROOK GROCERY CO., Keene, Woodsville, and Nashua, N. H. Filed Jan. 8, 1915.

Top-Notch

Particular description of goods.—Coffee and Tea.
Claims use since about Mar. 7, 1908.

Ser. No. 83,755. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FEDERAL COFFEE MILLS COMPANY, Cleveland, Ohio. Filed Jan. 9, 1915.

RED BELL



The bell being printed in red.
Particular description of goods.—Coffee.
Claims use since January, 1910.

Ser. No. 83,756. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FEDERAL COFFEE MILLS COMPANY, Cleveland, Ohio. Filed Jan. 9, 1915.



Particular description of goods.—Coffee.
Claims use since October, 1913.

Ser. No. 83,768. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CHARLES WILLIAM STORES, INC., Brooklyn, N. Y. Filed Jan. 9, 1915.

Rickland

Particular description of goods.—Walking-Plows, Riding-Plows, Sulky-Plows, Riding Attachment for Walking-Plows, Riding Attachments for Harrows, Disk Harrows, Reversible-Disk Cultivators, Walking-Cultivators, Riding-Cultivators, Tongueless Cultivators, Hill and Drill Garden-Seeders, Garden-Seeder and Combined Cultivators, Garden Plow and Cultivators, Garden-Cultivators, Riding Corn-Planters, Disk Grain-Drills, Mowers, Hay-Baling Presses, Sulky Hay-Rakers, Hay-Wagon Loaders, Manure-Spreaders.
Claims use since Oct. 25, 1914.

Ser. No. 83,788. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WOODARD, CLARKE & Co., Portland, Oreg. Filed Jan. 11, 1915.

VELTEX

Particular description of goods.—Optical Lenses for Spectacles and Eyeglasses.
Claims use since May, 1913.

Ser. No. 83,796. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE ELECTRIC CONTROLLER AND MANUFACTURING COMPANY, Cleveland, Ohio. Filed Jan. 12, 1915.

E&M

Particular description of goods.—Electric Controllers, Motor-Starters, Lifting-Magnets, Electric Brakes, Electric Crane-Fittings, Solenoids, Limit-Switches, Arc-Welders, Electrical Faultfinders, Electric Switches, Float-Switches, Switch-Frames, Switch-Arms, Switch-Contacts, Switch-Brushes, Switch-Magnets, Electromagnets, Magnet-Armatures, Switch Blow-Outs, Switch-Blow-Out Rarn, Rheostats, Resistance-Grids, Resistance-Coils, Master-Controllers, Electric Cut-Outs, and Spare Parts for the Above-Named Electrical Apparatus.
Claims use since July or August, 1908.

Ser. No. 83,802. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) NORTH AMERICAN MERCANTILE CO., San Francisco, Cal. Filed Jan. 12, 1915.

Namco

Particular description of goods.—Matches.
Claims use since June 10, 1912.

Ser. No. 83,840. (CLASS 15. OILS AND GREASES.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Jan. 13, 1915.

CrossCountry

Particular description of goods.—Automobile-Oil.
Claims use since Oct. 27, 1914.

Ser. No. 83,843. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALKER & TRACY, Canandaigua, N. Y. Filed Jan. 13, 1915. Under ten-year proviso.

W.M.SMITH&CO

Particular description of goods.—Crackers.
Claims use since January, 1877.

Ser. No. 83,848. (CLASS 38. PRINTS AND PUBLICATIONS.) BLACKSTONE INSTITUTE, Chicago, Ill. Filed Jan. 14, 1915.



The portrait being that of Sir William Blackstone, deceased.
Particular description of goods.—Printed Books, Booklets, Pamphlets, Circulars, Catalogues, "Guides," "Talks," "Problems," Circular-Letters.
Claims use since September, 1913.

Ser. No. 83,856. (CLASS 39. CLOTHING.) HYGIENIC FLEECED UNDERWEAR COMPANY, Philadelphia, Pa. Filed Jan. 14, 1915.



Particular description of goods.—Athletic Knit Goods.—Namely, Sweaters, Jerseys, Trunks, Bathing-Suits, and Hose.
Claims use since Jan. 1, 1904.

Ser. No. 83,872. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM H. DANIELS, Ogdensburg, N. Y. Filed Jan. 15, 1915.

X

The letter "X" is printed in red.
Particular description of goods.—Crackers.
Claims use since May 1, 1890.

Ser. No. 83,920. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE SHERWIN-WILLIAMS CO., Cleveland, Ohio. Filed Jan. 16, 1915.

COILLAC

Particular description of goods.—Insulating-Varnish.
Claims use since Oct. 15, 1913.

Ser. No. 83,965. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE C. B. WOODWORTH SONS CO., Rochester, N. Y. Filed Jan. 19, 1915.

LA DANSANTE

Comprising the word "La Dansante."
Particular description of goods.—Perfumes, Toilet Waters, Sachet-Powders, and Talcum Powders.
Claims use since Dec. 1, 1914.

Ser. No. 83,978. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) NAGLE RE-BLADE KNIFE COMPANY, INC., Poughkeepsie, N. Y. Filed Jan. 20, 1915.



Re Blade

The words "Re Blade" are hereby disclaimed.
Particular description of goods.—Knives and Knife-Blades.
Claims use since Dec. 8, 1914.

Ser. No. 83,999. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) FORD KNOCK DOWN WINTER TOP CO., Chicago, Ill. Filed Jan 21, 1915.

K. D.

Particular description of goods.—Automobile Tops or Covers.
Claims use since on or about the 1st day of October, 1914.

Ser. No. 84,010. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) PARKS BROS. & ROGERS, Providence, R. I. Filed Jan. 21, 1915.

PARKROGER

Particular description of goods.—Precious-Metal Cuff-Buttons.
Claims use since December, 1914.

Ser. No. 84,034. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE INTRAVENOUS PRODUCTS COMPANY, Denver, Colo. Filed Jan. 22, 1915.

VENODINE

Particular description of goods.—Intravenous Treatment of Tuberculosis, Asthma, and other Diseases of the Lungs, Also for Chronic and Acute Nephritis, (Bright's Disease.)
Claims use since Dec. 1, 1911.

Ser. No. 84,066. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. C. STAPLES CHEMICAL COMPANY, Fort Smith, Ark. Filed Jan. 23, 1915.



No exclusive claim is made for the words "Pure Best" outside of the environment in the accompanying drawing.
Particular description of goods.—Baking-Powder.
Claims use since Aug. 1, 1914.

Ser. No. 84,074. (CLASS 38. PRINTS AND PUBLICATIONS.) C. R. COOK PAINT COMPANY, Kansas City, Mo. Filed Jan. 25, 1915.

PAINT-OLOGY

Particular description of goods.—A Monthly Magazine.
Claims use since Dec. 15, 1913.

Ser. No. 84,096. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAGE & HILL CO., Minneapolis, Minn. Filed Jan. 25, 1915.

Toxisote

Particular description of goods.—A Wood-Preserving Oil.
Claims use since Jan. 18, 1915.

Ser. No. 84,114. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FREDERICK H. FRAYSER, Richmond, Va. Filed Jan. 26, 1915.

Syro

Particular description of goods.—Stock Food.
Claims use since Oct. 31, 1913.

Ser. No. 84,121. (CLASS 38. PRINTS AND PUBLICATIONS.) HAROLD W. PHILLIPS, Washington, D. C. Filed Jan. 26, 1915.

Farm Products

No claim being made to the words "Fruit and Vegetable Growing, General Crops, Soil Management and Improvement, Horse, Mule, Cattle, Sheep, Hog, and Poultry Raising" apart from the mark shown in the drawing.
Particular description of goods.—A Monthly Periodical.
Claims use since Jan. 1, 1915.

Ser. No. 84,123. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM SCHOTTEN COFFEE CO., St. Louis, Mo. Filed Jan. 26, 1915.

COF-E-LOG

Particular description of goods.—Roasted Coffee.
Claims use since about Jan. 1, 1915.

Ser. No. 84,125. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) JOHN SLADE, New York, N. Y. Filed Jan. 26, 1915.

Kidd-Kruser

Particular description of goods.—Boats.
Claims use since Jan. 7, 1915.

Ser. No. 84,145. (CLASS 39. CLOTHING.) RICE-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Jan. 27, 1915.

SHUR-ENUF

Particular description of goods.—Outer Shirts.
Claims use since Jan. 15, 1915.

Ser. No. 84,149. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WOOLSON SPICE COMPANY, Toledo, Ohio. Filed Jan. 27, 1915.

ZORA

Particular description of goods.—Tea.
Claims use since May 23, 1912.

Ser. No. 84,155. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) DU MOR SPECIALTY CO., Cincinnati, Ohio. Filed Jan. 28, 1915.

DU DUMOR OR

Particular description of goods.—Polish and Cleaner for Furniture, Pianos, Woodwork, Automobiles, and Carriages.
Claims use since July 10, 1914.

Ser. No. 84,170. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) C. CONRADTY, Nuremberg, Germany. Filed Jan. 28, 1915.

Noris-Chromo

The trade-mark consists of the word "Noris-Chromo."
Particular description of goods.—Electrical and Galvanic Carbons.
Claims use since July 7, 1904.

Ser. No. 84,171. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) C. CONRADTY, Nuremberg, Germany. Filed Jan. 28, 1915.

Noris

The trade-mark consists of the word "Noris."
Particular description of goods.—Electrical and Galvanic Carbons.
Claims use since Sept. 19, 1895.

Ser. No. 84,178. (CLASS 17. TOBACCO PRODUCTS.) MINER, READ & TULLOCK, New Haven, Conn. Filed Jan. 28, 1915.

YALE BOWL



Particular description of goods.—Cigars.
Claims use since Nov. 14, 1914.

Ser. No. 84,199. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. X. KUCHLER & SON, Brooklyn, N. Y. Filed Jan. 29, 1915.

TROCADEROS

Particular description of goods.—Candy.
Claims use since June, 1910.

Ser. No. 84,203. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHARLES B. PERIOLAT, Chicago, Ill. Filed Jan. 29, 1915.

HONE-A-RAZ

Particular description of goods.—Abrasive Compound to be Used on Razor-Strops.
Claims use since Dec. 1, 1914.

Ser. No. 84,205. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SWEET CANDY COMPANY, Salt Lake City, Utah. Filed Jan. 29, 1915.



PINK LADY

The picture being fanciful.
Particular description of goods.—Chocolates.
Claims use since April, 1912.

Ser. No. 84,206. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SWEET CANDY COMPANY, Salt Lake City, Utah. Filed Jan. 29, 1915.

ARISTOCRATIC

Particular description of goods.—Chocolates.
Claims use since May, 1911.

Ser. No. 84,207. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GEO. H. STRIETMANN'S SONS CO., Cincinnati, Ohio. Filed Jan. 29, 1915.

GO-TU-IT

Particular description of goods.—Oyster-Crackers.
Claims use since Nov. 21, 1914.

Ser. No. 84,208. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPARKS MILLING COMPANY, Alton, Ill., and Terre Haute, Ind. Filed Jan. 29, 1915.

PROSPERITY

Particular description of goods.—Wheat-Flour.
Claims use since Dec. 8, 1914.

Ser. No. 84,218. (CLASS 32. FURNITURE AND UPHOLSTERY.) FORT PITT BEDDING CO., Pittsburgh, Pa. Filed Jan. 30, 1915.

FLEX-O-REX

Particular description of goods.—Bed-Springs.
Claims use since Apr. 8, 1914.

Ser. No. 84,229. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) VALENTINE & COMPANY, New York, N. Y. Filed Jan. 30, 1915.

VALSEMENT

Particular description of goods.—Primers, Fillers, Surfacers, and Paints, Paste and Ready-Mixed.
Claims use since Jan. 9, 1915.

Ser. No. 84,236. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHILDS COMPANY, New York, N. Y. Filed Feb. 1, 1915.

BULGARZOON

Particular description of goods.—Whole Milk Scientifically Soured.
Claims use since May 18, 1912.

Ser. No. 84,265. (CLASS 48. MALT EXTRACTS AND LIQUORS.) HENRY ILSE, Bronxville, N. Y. Filed Feb. 2, 1915.

Inner Circle

Particular description of goods.—Beer.
Claims use since Sept. 5, 1914.

Ser. No. 84,275. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BIRD ARCHER COMPANY, New York, N. Y. Filed Feb. 3, 1915.

Polarized

Particular description of goods.—Substances for the Prevention of Incrustation in Boilers.
Claims use since November, 1910.

Ser. No. 84,280. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CACTUS CHEMICAL CO., Salt Lake City, Utah. Filed Feb. 3, 1915.

CACTUS

Particular description of goods.—Furniture-Polish and Varnish-Remover.
Claims use since May 1, 1913.

Ser. No. 84,287. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ADOLPH L. MOCK, New York, N. Y. Filed Feb. 3, 1915.



Comprising the word "Bell" and the representation of a bell, no claim being made to the word "Brand."
Particular description of goods.—Growing Plants and Flowers and Cut Flowers.
Claims use since the 1st day of February, 1915.

Ser. No. 84,298. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE E. INGRAHAM COMPANY, Bristol, Conn. Filed Feb. 4, 1915.

ACE

Particular description of goods.—Clocks.
Claims use since Jan. 1, 1915.

Ser. No. 84,299. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. LEECH, Mosman, near Sydney, New South Wales, Australia. Filed Feb. 4, 1915.

E. Leech. F.R.H.S

MUSTONIA

The signature shown being a facsimile of the applicant's. Applicant does not claim for this registration any right to the exclusive use of the letters "F. R. H. S." except as shown.
Particular description of goods.—Insecticide.
Claims use since Nov. 8, 1913.

Ser. No. 84,310. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. HUNGERFORD SMITH CO., Rochester, N. Y. Filed Feb. 5, 1915.

MALLOW-FLOAT

Particular description of goods.—Toppings for Beverages and Desserts.
Claims use since Dec. 18, 1913.

Ser. No. 84,318. (CLASS 39. CLOTHING.) RELIANCE MANUFACTURING COMPANY, Chicago, Ill. Filed Feb. 5, 1915.



Particular description of goods.—Boys' Blouses.
Claims use since Oct. 1, 1914.

Ser. No. 84,334. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CITY IRON WORKS & MACHINE CO., Philadelphia, Pa. Filed Feb. 6, 1915.

CIW&M

Particular description of goods.—Pressed-Metal Grease-Cups, Grease-Guns, and Fittings.
Claims use since Mar. 1, 1914.

Ser. No. 84,353. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARBOUR CHEMICAL WORKS, San Francisco, Cal. Filed Feb. 8, 1915.

"POPPY BRAND"

The word "Brand" being disclaimed.
Particular description of goods.—Barium Compounds, Including Barium Chlorid, Barium Nitrate, Barium Sulfid, Barium Benoxid, Barium Sulfate, Barium Citrate, and Barium Hydroxid.
Claims use since about July 18, 1914.

Ser. No. 84,363. (CLASS 38. PRINTS AND PUBLICATIONS.) ARTHUR J. FISCHER, Boston, Mass. Filed Feb. 8, 1915.

Personality

Comprising the word "Personality."
Particular description of goods.—A Monthly Magazine.
Claims use since August, 1910.

Ser. No. 84,381. (CLASS 12. CONSTRUCTION MATERIALS.) NORTH AMERICAN CONSTRUCTION CO., Bay City, Mich. Filed Feb. 8, 1915.

Sold by the *Golden Rule*

Particular description of goods.—Ready-Cut Buildings and Parts Thereof.
Claims use since Dec. 9, 1914.

Ser. No. 84,420. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT W. KNOX, Asbury Park, N. J. Filed Feb. 9, 1915.



Particular description of goods.—Dentifrices.
Claims use since Mar. 1, 1914.

Ser. No. 84,424. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) P. DE ROO SONS, Cincinnati, Ohio. Filed Feb. 10, 1915.

UTILITY

Particular description of goods.—Mops.
Claims use since Nov. 20, 1913.

Ser. No. 84,457. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) KANDEM ELECTRIC COMPANY INC., New York, N. Y. Filed Feb. 11, 1915.

KANDEM

Particular description of goods.—Arc-Lamps, Hangers and Carbons for the Same, and Projectors.
Claims use since 1904.

Ser. No. 84,463. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed Feb. 11, 1915.



Particular description of goods.—Toilet-Paper.
Claims use since Mar. 14, 1914.

Ser. No. 84,464. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed Feb. 11, 1915.



The picture shown thereon being fanciful, no claim being made to the words "Crepe Toilet Tissue."
Particular description of goods.—Toilet-Paper.
Claims use since Mar. 14, 1914.

Ser. No. 84,465. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed Feb. 11, 1915.



The picture shown thereon being fanciful. No claim is made to the words "Toilet Tissue."
Particular description of goods.—Toilet-Paper.
Claims use since Mar. 14, 1914.

Ser. No. 84,466. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed Feb. 11, 1915.



No claim being made to the words "Crepe Toilet Tissue."
Particular description of goods.—Toilet-Paper.
Claims use since Mar. 14, 1914.

Ser. No. 84,478. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELLA M. BENNETT, Boston, Mass. Filed Feb. 12, 1915.



The name "Bennett" being disclaimed.
Particular description of goods.—A Liquid for Restoring Gray Hair to its Former Color.
Claims use since July 15, 1914.

Ser. No. 84,495. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed Feb. 12, 1915.



Particular description of goods.—Toilet-Paper.
Claims use since Apr. 13, 1910.

Ser. No. 84,506. (CLASS 15. OILS AND GREASES.) BLAKE OIL CO., Liberal, Kans. Filed Feb. 13, 1915.



Particular description of goods.—A Lubricating-Oil Which is Particularly Adapted for Automobiles.
Claims use since March, 1914.

Ser. No. 84,509. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) JOHN W. DOUGLASS, Philadelphia, Pa. Filed Feb. 13, 1915.



Particular description of goods.—Porcelain, Glass, or Vitreous Ware and Metal Stopples for Bottles.
Claims use since on or about June 15, 1914.

Ser. No. 84,559. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PETROLIVE CO., San Francisco, Cal. Filed Feb. 16, 1915.



Particular description of goods.—A Medicinal Preparation Consisting of a Blend of Pure Olive and Refined Mineral Oils, a Tonic Laxative and Massage Preparation for Internal and External Use.
Claims use since about Jan. 19, 1915.

Ser. No. 84,563. (CLASS 39. CLOTHING.) AMAZON PRODUCTS CO., Muskegon, Mich. Filed Feb. 17, 1915.



Particular description of goods.—Children's Clothing-Supporting Waists.
Claims use since the 1st day of February, 1915.

Ser. No. 84,599. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY PRESCOTT SIMPSON, Cleveland, Ohio. Filed Feb. 18, 1915.



Particular description of goods.—Cathartic Pastils.
Claims use since Feb. 12, 1915.

Ser. No. 84,628. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SUSANNA KIDD, Minneapolis, Minn. Filed Feb. 19, 1915.



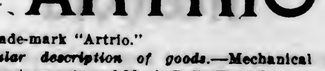
Consisting of the applicant's facsimile signature and portrait.
Particular description of goods.—An Insecticide.
Claims use since on or about Dec. 1, 1914.

Ser. No. 84,657. (CLASS 39. CLOTHING.) BENJAMIN L. HERMAN, Hackensack, N. J. Filed Feb. 20, 1915.



Particular description of goods.—Dress, Negligée, and Work Shirts, Men's and Women's Pajamas, Collars and Cuffs, Men's Flat Underwear—viz., Two-Piece and Union Suits.
Claims use since Feb. 6, 1915.

Ser. No. 84,672. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE WILCOX & WHITE COMPANY, Meriden, Conn. Filed Feb. 20, 1915.



The trade-mark "Artrio."
Particular description of goods.—Mechanical Music-Playing Instruments and Music-Rolls Therefor.
Claims use since about Feb. 17, 1915.

Ser. No. 84,673. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WECHSLER-BARBER SILK CO., Paterson, N. J. Filed Feb. 20, 1915.



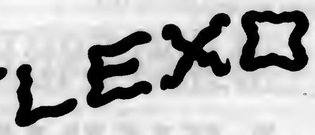
Particular description of goods.—Silk Piece Goods.
Claims use since Jan. 1, 1915.

Ser. No. 84,674. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WECHSLER-BARBER SILK CO., Paterson, N. J. Filed Feb. 20, 1915.



The word "Silks" being disclaimed.
Particular description of goods.—Silk Piece Goods.
Claims use since Jan. 1, 1911.

Ser. No. 84,679. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BIJUR MOTOR LIGHTING COMPANY, Hoboken, N. J. Filed Feb. 23, 1915.



Particular description of goods.—Electrical Apparatus for Vehicle Lighting and Starting.
Claims use since Dec. 19, 1914.

Ser. No. 84,730. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THADDEUS S. BULMER, Greenport, N. Y. Filed Feb. 24, 1915.



Comprising the words "Little Hercules."
Particular description of goods.—A Bilge-Pump.
Claims use since Feb. 8, 1915.

Ser. No. 84,731. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMECEUTICAL PREPARATIONS.) BRISTOL-MYERS COMPANY, New York, N. Y. Filed Feb. 24, 1915.



No claim is made to the exclusive use of the word "Pastillas."

Particular description of goods.—Digestants and Medicinal Preparations Adapted for the Treatment of Dyspepsia, Indigestion, or Similar Diseases.

Claims use since Jan. 1, 1909.

Ser. No. 84,767. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES E. MAHONEY, Chattanooga, Tenn. Filed Feb. 25, 1915.



Particular description of goods.—A Medicated Salve.

Claims use since Feb. 25, 1915.

Ser. No. 84,790. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SWEDISH SEPARATOR CO., Chicago, Ill. Filed Feb. 26, 1915.

VIKING

Particular description of goods.—Cream-Separators.

Claims use since Oct. 16, 1914.

Ser. No. 84,803. (CLASS 39. CLOTHING.) GEORGE H. NICHOLAS, New York, N. Y. Filed Feb. 26, 1915.



THE SHIRT THAT BREATHES

Particular description of goods.—Dress, Negligée, Work Shirts, Shirt-Waists, and Blouses.

Claims use since Feb. 19, 1915.

Ser. No. 84,804. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GENERAL CHEMICAL COMPANY, New York, N. Y. Filed Feb. 26, 1915.

Ryzon

Particular description of goods.—Baking-Powder.

Claims use since Feb. 6, 1915.

Ser. No. 84,809. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE CARL CO., Schenectady, N. Y. Filed Feb. 27, 1915.



Particular description of goods.—Cotton Piece Goods.

Claims use since Jan. 1, 1912.

Ser. No. 84,814. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDGAR V. JOHNSON, Lawrenceburg, Ky. Filed Feb. 27, 1915.

CRYSTAL

Particular description of goods.—A Powdered Form of Rheumatism Remedy.

Claims use since Nov. 1, 1914.

Ser. No. 84,834. (CLASS 39. CLOTHING.) JOSHUA B. MITCHELL, New York, N. Y. Filed Mar. 1, 1915.

JOTTIES

Particular description of goods.—Shoe Covering and Protectors.

Claims use since Apr. 11, 1914.

Ser. No. 84,844. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GLEE-COLA CO., Birmingham, Ala. Filed Mar. 1, 1915.

Glee-Cola

Particular description of goods.—A Non-Alcoholic and Carbonated Beverage.

Claims use since August of 1911.

Ser. No. 84,845. (CLASS 39. CLOTHING.) I. EDWIN GOLDMAN, New York, N. Y. Filed Mar. 1, 1915.

The Colony Club
Always on Broadway

Particular description of goods.—Women's and Misses' Cloaks, Coats, Suits, and Dresses.

Claims use since Jan. 15, 1915.

Ser. No. 84,900. (CLASS 39. CLOTHING.) F. FITZ GIBBON & Co., New York, N. Y. Filed Mar. 3, 1915.

CHATEAU

Particular description of goods.—Gloves.

Claims use since Oct. 25, 1907.

Ser. No. 84,901. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK W. DREFFEIN, Chicago, Ill. Filed Mar. 3, 1915.

NIFTY

Particular description of goods.—A Compound Adapted to be Added to Clothes-Starch to Perfume the Same and to Prevent Sticking of the Iron in the Ironing Operation.

Claims use since Aug. 3, 1914.

Ser. No. 84,945. (CLASS 39. CLOTHING.) JOSEPH P. VOORHEES, New York, N. Y. Filed Mar. 5, 1915.



Particular description of goods.—Hosiery.

Claims use since Jan. 25, 1915.

Ser. No. 84,946. (CLASS 39. CLOTHING.) JOSEPH P. VOORHEES, New York, N. Y. Filed Mar. 5, 1915.

Country Gentleman



Particular description of goods.—Hosiery.

Claims use since Jan. 5, 1915.

Ser. No. 84,947. (CLASS 39. CLOTHING.) JOSEPH P. VOORHEES, New York, N. Y. Filed Mar. 5, 1915.



Particular description of goods.—Hosiery.

Claims use since Jan. 9, 1915.

Ser. No. 85,015. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM J. MURRAY, Sausalito, Cal. Filed Mar. 8, 1915.

STOPO-CHILO.

Particular description of goods.—A Remedy for Chills and Fever.

Claims use since the 7th day of February, 1915.

Ser. No. 85,017. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM HENRY BLACK, New York, N. Y. Filed Mar. 8, 1915.

VONOLAX

Particular description of goods.—Laxative.

Claims use since July 25, 1914.

Ser. No. 85,048. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL L. STEFANSKI, Baltimore, Md. Filed Mar. 9, 1915.

Żywokostnik

Particular description of goods.—Liniment for the Treatment of Rheumatism, Croup, Stiff Neck, Pains in the Sides, Chest, and Back, Headache, Catarrh, Sore Throat, Coughs, Colds, and Insect-Stings.

Claims use since Oct. 1, 1912.

Ser. No. 85,050. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 9, 1915.

VELTEX

Particular description of goods.—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes, and Hats.
Claims use since about Dec. 1, 1914.

Ser. No. 85,052. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 9, 1915.

GOLF-TEX

Particular description of goods.—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
Claims use since about Jan. 15, 1915.

Ser. No. 85,053. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 9, 1915.

VEL-CORD

Particular description of goods.—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
Claims use since about Dec. 1, 1914.

Ser. No. 85,083. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) MILLER ORGAN & PIANO CO., Lebanon, Pa. Filed Mar. 11, 1915.

KEYSTONE

Particular description of goods.—Pianos.
Claims use since Jan. 1, 1900.

Ser. No. 85,112. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EISNER-MENDELSON CO., New York, N. Y. Filed Mar. 12, 1915.

EMCO

Particular description of goods.—Compound Syrup of Hypophosphites; Digestive Mixtures and Tablets; Corn and Bunion Remedy; Beef, Wine, and Iron; Liver-Pills; Cough-Drops; Throat-Gargle; Laxative Cold-Tablets; Cherry Cough-Balsam; Toothache Remedy; Compound Extract of Cod-Liver Oil; Cod-Liver-Oil Emulsion; Healing-Ointment; Cholera Mixture; Chilblain Remedy; Hepatic Salts; Kidney and Liver Remedy; Headache Powders and Tablets; Compound Syrup of Figs and Senna; Candy Laxative; Liquid Court-Plaster; Worm-Syrup; Baby Croup Remedy; Soothing-Syrup; Rheumatism Remedy, and Hair-Tonic.
Claims use since the year 1912.

Ser. No. 85,117. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ELI LILLY AND COMPANY, Indianapolis, Ind. Filed Mar. 12, 1915.

ALCRESTA

Particular description of goods.—A Pharmaceutical Preparation Consisting of a Compound of the Alkaloids of Ipecac with Hydrated Aluminum Silicate.
Claims use since Dec. 13, 1913.

Ser. No. 85,205. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) COLUMBIA TOOL STEEL COMPANY, Chicago Heights, Ill. Filed Mar. 17, 1915.

OILDIE

Consisting of the fanciful word "Oildie."
Particular description of goods.—A Special Grade of Steel.
Claims use since July 1, 1914.

TRADE-MARK REGISTRATIONS GRANTED

APRIL 6, 1915.

103,405. IDENTIFICATION-TAGS AND BAGGAGE-CHECKS MADE OF PAPER, CARDBOARD, AND THE LIKE. AMERICAN SALES AND SERVICE CO., Harrisburg, Pa.
Filed June 6, 1913. Serial No. 70,890. PUBLISHED JANUARY 19, 1915.

103,406. VARNISH. ATLANTIC VARNISH WORKS, INC., Richmond, Va.
Filed January 4, 1913. Serial No. 67,703. PUBLISHED JANUARY 19, 1915.

103,407. CANNED FRUITS, CANNED VEGETABLES, CANNED SALMON, CONDENSED MILK, COCOA, TEA, COFFEE, AND RICE. AUSTIN-NICHOLS & CO., INC., New York, N. Y.
Filed October 12, 1914. Serial No. 81,802. PUBLISHED JANUARY 19, 1915.

103,408. CALENDAR AND COLLECTION OF MOTTOES. BARSE & HOPKINS, New York, N. Y.
Filed August 12, 1914. Serial No. 80,476. PUBLISHED OCTOBER 20, 1914.

103,409. GINGER-ALE, POP, AND CARBONATED WATERS. BLACK DIAMOND PRODUCTS COMPANY, Fairmont and Watson, W. Va.
Filed August 21, 1914. Serial No. 80,718. PUBLISHED OCTOBER 20, 1914.

103,410. BOND AND WRITING PAPER. BLAKE, MOFFITT & TOWNE, San Francisco, Cal.
Filed August 10, 1914. Serial No. 80,421. PUBLISHED SEPTEMBER 29, 1914.

103,411. CIGARS, CIGARETTES, FINE-CUT TOBACCO, SNUFF, AND SMOKING-TOBACCO. JOHN BLAUL'S SONS CO., Burlington, Iowa.
Filed November 21, 1914. Serial No. 82,730. PUBLISHED JANUARY 19, 1915.

103,412. CERTAIN MEDICINE USED FOR CERTAIN NAMED DISEASES, AND SUITABLE FOR VETERINARY MEDICINE. THE BLUETTS COMPANY, Madison, Wis.
Filed September 11, 1914. Serial No. 81,182. PUBLISHED NOVEMBER 3, 1914.

103,413. STRAIGHT DRY GIN. BOOTH'S DISTILLERY LIMITED, London, England.
Filed April 9, 1908. Serial No. 33,979. PUBLISHED JANUARY 19, 1909.

103,414. PREPARATION TO EXTERMINATE RODENTS. THE BOTANICAL MANUFACTURING CO., Dover, Del., and Philadelphia, Pa.
Filed September 1, 1914. Serial No. 80,920. PUBLISHED OCTOBER 13, 1914.

103,415. PREPARATIONS IN CREAM FORM TO RELIEVE CONSTIPATION. BOTANICAL MANUFACTURING CO., Wilmington, Del., and Philadelphia, Pa.
Filed November 20, 1914. Serial No. 82,704. PUBLISHED JANUARY 5, 1915.

103,416. CERTAIN NAMED CLOTHING FOR INFANTS, LADIES, CHILDREN, AND MEN. CACHE KNITTING WORKS, Logan, Utah.
Filed November 11, 1914. Serial No. 82,515. PUBLISHED JANUARY 26, 1915.

103,417. RUGÆ-MOLDS. THE COLUMBUS DENTAL MANUFACTURING CO., Columbus, Ohio.
Filed November 27, 1914. Serial No. 82,928. PUBLISHED JANUARY 26, 1915.

103,418. LIQUID FURNITURE-POLISH. THOMAS C. DAWSON, Orange, N. J.
Filed November 23, 1914. Serial No. 82,781. PUBLISHED JANUARY 19, 1915.

103,419. FIBER SHEETS, RODS, TUBES, AND DISKS. DIAMOND STATE FIBRE CO., Elsmere, Del.
Filed July 28, 1914. Serial No. 80,120. PUBLISHED JANUARY 19, 1915.

103,420. INTERNAL-COMBUSTION MOTORS FOR BOATS AND CANOES. EVINRUDE MOTOR CO., Milwaukee, Wis.
Filed February 10, 1913. Serial No. 68,427. PUBLISHED JANUARY 19, 1915.

103,421. LEAD, COLORED, COPYING, INK, SCREW, AND RUBBER PENCILS, RUBBER ERASERS, PENHOLDERS. A. W. FABER, Stein, near Nuremberg, Germany.
Filed December 7, 1914. Serial No. 83,114. PUBLISHED JANUARY 12, 1915.

103,422. LEATHER BELTING. FABREEKA BELTING CO., Lawrence, Mass.
Filed November 12, 1914. Serial No. 82,539. PUBLISHED JANUARY 19, 1915.

103,423. MOPS AND BROOMS. GUSTAV FRANKLIN COMPANY, Chicago, Ill.
Filed December 14, 1914. Serial No. 83,272. PUBLISHED JANUARY 26, 1915.

103,424. CERTAIN NAMED MATERIALS AND PIECE GOODS OF COMBINATIONS OF SAME. GEORGE J. GEER, New York, N. Y.
Filed September 3, 1914. Serial No. 80,966. PUBLISHED OCTOBER 27, 1914.

103,425. CERTAIN NAMED MATERIALS AND PIECE GOODS OF COMBINATIONS OF SAME. GEORGE J. GEER, New York, N. Y.
Filed September 3, 1914. Serial No. 80,968. PUBLISHED OCTOBER 27, 1914.

103,426. WOOLEN, WORSTED, SILK, MOHAIR, AND COTTON PIECE GOODS AND COMBINATIONS THEREOF. GEORGE J. GEER, New York, N. Y.
Filed September 3, 1914. Serial No. 80,969. PUBLISHED OCTOBER 27, 1914.

103,427. A DENTAL CREAM, MOUTH-WASH, AND LAXATIVE TABLET. MAX GLUCK, New York, N. Y.
Filed August 10, 1914. Serial No. 80,431. PUBLISHED NOVEMBER 3, 1914.

103,428. CANDIES. E. GREENFIELD'S SONS, New York, N. Y.
Filed September 19, 1914. Serial No. 81,335. PUBLISHED JANUARY 19, 1915.

103,429. LENSES FOR SCIENTIFIC USE, OPHTHALMIC LENSES, GOGGLES, EYEGLASSES, SPECTACLES, AND MOUNTINGS. F. A. HARDY & CO., Chicago, Ill.
Filed November 16, 1914. Serial No. 82,618. PUBLISHED JANUARY 19, 1915.

103,430. CANNED PINEAPPLE. HAWAIIAN PINEAPPLE CO., LTD., Honolulu, Hawaii.
Filed May 1, 1914. Serial No. 77,921. PUBLISHED JANUARY 19, 1915.

103,431. PIANOS AND PLAYER-PIANOS. FREDERICK H. LEWIS, Stamford, Conn.
Filed August 11, 1914. Serial No. 80,460. PUBLISHED NOVEMBER 10, 1914.

103,432. SOAP. LAUTZ BROS. & Co., Buffalo, N. Y.
Filed July 10, 1914. Serial No. 79,712. PUBLISHED JANUARY 12, 1915.

103,433. WHEAT-FLOUR. LEXINGTON FLOURING MILLS, Lexington, Mo.
Filed March 9, 1914. Serial No. 76,471. PUBLISHED AUGUST 11, 1914.

103,434. CERTAIN NAMED FOODS. LIPPINCOTT & Co., Philadelphia and Altoona, Pa.
Filed October 1, 1914. Serial No. 81,596. PUBLISHED JANUARY 12, 1915.

103,435. CERTAIN NAMED FOODS. LIPPINCOTT & Co., Philadelphia and Altoona, Pa.
Filed October 1, 1914. Serial No. 81,598. PUBLISHED JANUARY 12, 1915.

103,436. CERTAIN NAMED FOODS. LIPPINCOTT & Co., Philadelphia and Altoona, Pa.
Filed October 1, 1914. Serial No. 81,599. PUBLISHED JANUARY 12, 1915.

103,437. CERTAIN NAMED FOODS. LIPPINCOTT & Co., Philadelphia and Altoona, Pa.
Filed October 1, 1914. Serial No. 81,600. PUBLISHED JANUARY 12, 1915.

103,438. PIECE GOODS OF SILK, COTTON, LINEN, WOOLEN, AND MIXTURES THEREOF. MANVILLE COMPANY, Providence, R. I.
Filed September 23, 1914. Serial No. 81,427. PUBLISHED NOVEMBER 10, 1914.

103,439. PRINTED BOOKS, PRINTED MAGAZINES PUBLISHED MONTHLY AND PRINTED BIBLE LESSONS PUBLISHED QUARTERLY. ARCHIBALD MCLELLAN, ALLISON V. STEWART, JOHN V. DITTEMORE, ADAM H. DICKEY, JAMES A. NEAL, Brookline, Mass., and JOSIAH E. FERNALD, Concord, N. H., trustees under the will of Mary Baker G. Eddy, deceased, doing business at Boston, Mass.
Filed October 26, 1914. Serial No. 82,168. PUBLISHED JANUARY 19, 1915.

103,440. CIGARS. OSCAR MINTZ, Newark, N. J.
Filed November 20, 1914. Serial No. 82,713. PUBLISHED JANUARY 19, 1915.

103,441. LUBRICATING-OIL, GASOLENE, AND AXLE-GREASE. THE NATIONAL REFINING COMPANY, Cleveland, Ohio.
Filed October 12, 1914. Serial No. 81,825. PUBLISHED NOVEMBER 17, 1914.

103,442. ROLLED OATS. PURITY OATS COMPANY, Keokuk, Iowa.
Filed January 8, 1914. Serial No. 75,038. PUBLISHED JANUARY 19, 1915.

103,443. PILE AND ECZEMA REMEDY. JOHN B. RICE, Spencer, Ind.
Filed August 19, 1914. Serial No. 80,683. PUBLISHED OCTOBER 13, 1914.

103,444. BEVERAGE OF THE SOFT-DRINK CLASS MADE FROM A BEER BASE CARBONATED. JACOB RIES BOTTLING WORKS, INC., Shakopee, Minn.
Filed October 26, 1914. Serial No. 82,190. PUBLISHED JANUARY 26, 1915.

103,445. CERTAIN NAMED FLOURS AND BREAKFAST FOODS. FRANK F. ROBY, Kearney, Nebr.
Filed March 6, 1914. Serial No. 76,412. PUBLISHED JANUARY 19, 1915.

103,446. CARTOONS AND DRAWINGS. ROBERT W. SATTERFIELD, Cleveland, Ohio.
Filed September 2, 1914. Serial No. 80,941. PUBLISHED DECEMBER 22, 1914.

103,447. LAXATIVE CANDY. JOSEPH SCHLIEN, New York, N. Y.
Filed September 11, 1914. Serial No. 81,203. PUBLISHED OCTOBER 20, 1914.

103,448. CANDY. SHOWLEY BROS., San Diego, Cal.
Filed October 3, 1914. Serial No. 81,652. PUBLISHED DECEMBER 15, 1914.

103,449. CERTAIN STYLE OF SOFT NEGLIGÉE SHIRT WITH COLLAR ATTACHED. FRANKLIN SIMON, New York, N. Y.
Filed October 28, 1914. Serial No. 82,242. PUBLISHED JANUARY 26, 1915.

103,450. TALCUM POWDER. JACOB SPOONER, New York, N. Y.
Filed September 19, 1914. Serial No. 81,352. PUBLISHED JANUARY 19, 1915.

103,451. GLOVES. STEINBERGER & KALISHER, New York, N. Y.
Filed October 15, 1914. Serial No. 81,916. PUBLISHED NOVEMBER 17, 1914.

103,452. RUBBER AUTOMOBILE-CASINGS, INNER TUBES, RELINERS FOR CASINGS, RADIATOR-HOSE, AND RUBBER FAN-BELTS. THERMOID RUBBER COMPANY, Hamilton township, Mercer county, N. J.
Filed August 19, 1914. Serial No. 80,689. PUBLISHED NOVEMBER 9, 1914.

103,453. HAMES. U. S. HAME COMPANY, Buffalo, N. Y.
Filed November 28, 1914. Serial No. 82,950. PUBLISHED JANUARY 26, 1915.

103,454. LIQUID CLEANING, DUSTING, AND POLISHING COMPOUND FOR VARNISHED SURFACES. VENEER MANUFACTURING CO., Warwood, W. Va.
Filed February 15, 1913. Serial No. 68,569. PUBLISHED FEBRUARY 17, 1914.

103,455. SCALE AND INSECT EXTERMINATOR. THE TREEVAX CHEMICAL CO., Hicksville, Ohio.
Filed December 10, 1914. Serial No. 83,214. PUBLISHED JANUARY 19, 1915.

103,456. CARBON-PAPER. EDWARD H. WALSH, New York, N. Y.
Filed October 23, 1914. Serial No. 82,110. PUBLISHED JANUARY 19, 1915.

103,457. CLOCKS. WESTERN CLOCK CO., Peru, Ill.
Filed August 20, 1914. Serial No. 80,715. PUBLISHED OCTOBER 13, 1914.

103,458. TEXTILE RUGS AND CARPETS. M. J. WHITTALL, Worcester, Mass.
Filed December 3, 1914. Serial No. 83,058. PUBLISHED JANUARY 26, 1915.

103,459. TEXTILE RUGS AND CARPETS. M. J. WHITTALL, Worcester, Mass.
Filed December 3, 1914. Serial No. 83,059. PUBLISHED JANUARY 26, 1915.

103,460. WHEAT-FLOUR. GEORGE A. ZABRISKIE, New York, N. Y.
Filed October 20, 1914. Serial No. 82,013. PUBLISHED JANUARY 12, 1915.

103,461. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,474. PUBLISHED JANUARY 26, 1915.

103,462. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,475. PUBLISHED JANUARY 26, 1915.

103,463. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,476. PUBLISHED JANUARY 26, 1915.

103,464. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,477. PUBLISHED JANUARY 26, 1915.

103,465. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,478. PUBLISHED JANUARY 26, 1915.

103,466. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,480. PUBLISHED JANUARY 26, 1915.

103,467. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,481. PUBLISHED JANUARY 26, 1915.

103,468. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,482. PUBLISHED JANUARY 26, 1915.

103,469. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,484. PUBLISHED JANUARY 26, 1915.

103,470. HOSIERY. S. H. KRESS AND COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,488. PUBLISHED JANUARY 26, 1915.

103,471. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,806. PUBLISHED JANUARY 26, 1915.

103,472. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,807. PUBLISHED JANUARY 26, 1915.

103,473. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,808. PUBLISHED JANUARY 26, 1915.

103,474. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,809. PUBLISHED JANUARY 26, 1915.

103,475. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,810. PUBLISHED JANUARY 26, 1915.

103,476. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,811. PUBLISHED JANUARY 26, 1915.

103,477. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,812. PUBLISHED JANUARY 26, 1915.

103,478. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,813. PUBLISHED JANUARY 26, 1915.

103,479. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,814. PUBLISHED JANUARY 26, 1915.

103,480. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,815. PUBLISHED JANUARY 26, 1915.

103,481. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,816. PUBLISHED JANUARY 26, 1915.

103,482. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 26, 1914. Serial No. 82,817. PUBLISHED JANUARY 26, 1915.

103,483. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,818. PUBLISHED JANUARY 26, 1915.

103,484. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,819. PUBLISHED JANUARY 26, 1915.

103,485. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,820. PUBLISHED JANUARY 26, 1915.

103,486. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,821. PUBLISHED JANUARY 26, 1915.

103,487. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,822. PUBLISHED JANUARY 26, 1915.

103,488. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,823. PUBLISHED JANUARY 26, 1915.

103,489. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,824. PUBLISHED JANUARY 26, 1915.

103,490. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,825. PUBLISHED JANUARY 26, 1915.

103,491. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,826. PUBLISHED JANUARY 26, 1915.

103,492. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,827. PUBLISHED JANUARY 26, 1915.

103,493. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,828. PUBLISHED JANUARY 26, 1915.

103,494. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,829. PUBLISHED JANUARY 26, 1915.

103,495. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,830. PUBLISHED JANUARY 26, 1915.

103,496. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,831. PUBLISHED JANUARY 26, 1915.

103,497. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,832. PUBLISHED JANUARY 26, 1915.

103,498. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,833. PUBLISHED JANUARY 26, 1915.

103,499. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,834. PUBLISHED JANUARY 26, 1915.

103,500. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,835. PUBLISHED JANUARY 26, 1915.

103,501. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,836. PUBLISHED JANUARY 26, 1915.

103,502. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,837. PUBLISHED JANUARY 26, 1915.

103,503. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,838. PUBLISHED JANUARY 26, 1915.

103,504. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,839. PUBLISHED JANUARY 26, 1915.

103,505. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,840. PUBLISHED JANUARY 26, 1915.

103,506. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,841. PUBLISHED JANUARY 26, 1915.

103,507. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,842. PUBLISHED JANUARY 26, 1915.

103,508. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,843. PUBLISHED JANUARY 26, 1915.

103,509. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,844. PUBLISHED JANUARY 26, 1915.

103,510. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,845. PUBLISHED JANUARY 26, 1915.

103,511. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,846. PUBLISHED JANUARY 26, 1915.

103,512. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,847. PUBLISHED JANUARY 26, 1915.

103,513. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,848. PUBLISHED JANUARY 26, 1915.

103,514. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,849. PUBLISHED JANUARY 26, 1915.

103,515. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,850. PUBLISHED JANUARY 26, 1915.

103,516. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,851. PUBLISHED JANUARY 26, 1915.

103,517. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,852. PUBLISHED JANUARY 26, 1915.

103,518. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,853. PUBLISHED JANUARY 26, 1915.

103,519. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,854. PUBLISHED JANUARY 26, 1915.

103,520. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,855. PUBLISHED JANUARY 26, 1915.

103,521. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,856. PUBLISHED JANUARY 26, 1915.

103,522. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,857. PUBLISHED JANUARY 26, 1915.

103,523. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,858. PUBLISHED JANUARY 26, 1915.

103,524. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,859. PUBLISHED JANUARY 26, 1915.

103,525. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,860. PUBLISHED JANUARY 26, 1915.

103,526. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,861. PUBLISHED JANUARY 26, 1915.

103,527. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,862. PUBLISHED JANUARY 26, 1915.

103,528. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,863. PUBLISHED JANUARY 26, 1915.

103,529. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,864. PUBLISHED JANUARY 26, 1915.

103,530. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,865. PUBLISHED JANUARY 26, 1915.

103,531. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,866. PUBLISHED JANUARY 26, 1915.

103,532. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,867. PUBLISHED JANUARY 26, 1915.

103,533. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,868. PUBLISHED JANUARY 26, 1915.

103,534. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,869. PUBLISHED JANUARY 26, 1915.

103,535. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,870. PUBLISHED JANUARY 26, 1915.

103,536. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,871. PUBLISHED JANUARY 26, 1915.

103,537. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,872. PUBLISHED JANUARY 26, 1915.

103,538. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,873. PUBLISHED JANUARY 26, 1915.

103,539. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,874. PUBLISHED JANUARY 26, 1915.

103,540. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,875. PUBLISHED JANUARY 26, 1915.

103,541. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,876. PUBLISHED JANUARY 26, 1915.

103,542. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,877. PUBLISHED JANUARY 26, 1915.

103,543. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,878. PUBLISHED JANUARY 26, 1915.

103,544. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,879. PUBLISHED JANUARY 26, 1915.

103,545. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,880. PUBLISHED JANUARY 26, 1915.

103,546. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,881. PUBLISHED JANUARY 26, 1915.

103,547. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,882. PUBLISHED JANUARY 26, 1915.

103,548. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,883. PUBLISHED JANUARY 26, 1915.

103,549. WASHBOARDS. NATIONAL WASHBOARD COMPANY, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn.
Filed November 24, 1914. Serial No. 82,884. PUBLISHED JANUARY 26, 1915.

103,550. MOUTH-WASH, TOOTH-PASTE, TOOTH-POWDER, TOOTH-CREAM. AKTIEBOLAGET GRUMME & SON, Stockholm, Sweden.
Filed March 26, 1914. Serial No. 76,954. PUBLISHED JANUARY 26, 1915.

103,551. A LIQUID CONDIMENT FOR SALADS. THE AMERICAN FOOD PRODUCTS COMPANY, Dayton, Ohio.
Filed October 8, 1914. Serial No. 81,739. PUBLISHED JANUARY 26, 1915.

103,552. VARNISHES. BERRY BROTHERS, (INC.,) Detroit, Mich.
Filed March 30, 1914. Serial No. 77,044. PUBLISHED JUNE 9, 1914.

103,553. SEWING-SILK, BUTTONHOLE-TWIST, AND MACHINE-TWIST. THE BRAINERD AND ARMSTRONG COMPANY, New London, Conn.
Filed August 5, 1914. Serial No. 80,344. PUBLISHED JANUARY 26, 1915.

103,554. EMBROIDERY SILK AND TWIST. THE BRAINERD AND ARMSTRONG COMPANY, New London, Conn.
Filed August 5, 1914. Serial No. 80,348. PUBLISHED JANUARY 26, 1915.

103,555. INCANDESCENT ELECTRIC LAMPS. BUCHSTABEN-LAMPEN-GESELLSCHAFT M. B. H., Berlin, Germany.
Filed March 27, 1914. Serial No. 76,987. PUBLISHED JANUARY 26, 1915.

103,556. TOY VEHICLES. THE CINCINNATI PUMP COMPANY, Cincinnati, Ohio.
Filed September 13, 1913. Serial No. 72,832. PUBLISHED OCTOBER 20, 1914.

103,557. SOLES AND HEELS OF SHOES. CLARK RUBBER MANUFACTURING CO., Franklin, Mass.
Filed December 12, 1914. Serial No. 83,241. PUBLISHED JANUARY 26, 1915.

103,558. REMEDY FOR DISEASES OF FEMALES. FREDERICK C. DILBERGER, Los Angeles, Cal.
Filed October 15, 1914. Serial No. 81,895. PUBLISHED JANUARY 26, 1915.

103,559. LINIMENT. STEPHEN FAROO, Cleveland, Ohio.
Filed November 25, 1914. Serial No. 82,902. PUBLISHED DECEMBER 22, 1914.

103,560. ENGLISH HOME-MADE FRUIT CAKE. EDWARD GILLESPIE, Los Angeles, Cal.
Filed September 30, 1914. Serial No. 81,571. PUBLISHED JANUARY 26, 1915.

103,561. CANDIES. JACOB GOLDEN, Newark, N. J.
Filed August 14, 1914. Serial No. 80,565. PUBLISHED JANUARY 26, 1915.

103,562. RAIN-COATS. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed January 2, 1915. Serial No. 83,636. PUBLISHED JANUARY 26, 1915.

103,563. LINENS, COTTON GOODS, AND FABRICS COMPOSED PARTIALLY OF LINEN AND PARTIALLY OF COTTON. HENRY R. HOPKINSON, New York, N. Y.
Filed December 11, 1914. Serial No. 83,225. PUBLISHED JANUARY 26, 1915.

103,564. MEDICINE FOR THE RELIEF OF CERTAIN NAMED AILMENTS. THE MAYFIELD CO., Binghamton, N. Y.
Filed July 21, 1914. Serial No. 80,155. PUBLISHED NOVEMBER 3, 1914.

103,565. TAPE. NATIONAL TAPE COMPANY, INC., New York, N. Y.
Filed December 15, 1914. Serial No. 83,300. PUBLISHED JANUARY 26, 1915.

103,566. CERTAIN NAMED MACHINERY AND TOOLS. THE NILES TOOL WORKS COMPANY, New York, N. Y.
Filed July 31, 1914. Serial No. 80,207. PUBLISHED JANUARY 26, 1915.

103,567. CANNED VEGETABLES. NORFOLK PACKING Co., Norfolk, Nebr.
Filed September 15, 1914. Serial No. 81,268. PUBLISHED JANUARY 26, 1915.

103,568. CANNED VEGETABLES. NORFOLK PACKING Co., Norfolk, Nebr.
Filed September 15, 1914. Serial No. 81,269. PUBLISHED JANUARY 26, 1915.

103,569. RECEIPTS FOR PREPARATION OF MEDICAL COMPOUNDS FOR TREATING CERTAIN DISEASES OF MAN AND BEAST. JEFF. DAVIS NORMAN, Loraine, Tex.
Filed July 14, 1914. Serial No. 79,781. PUBLISHED JANUARY 26, 1915.

103,570. VEGETABLE COMPOUND SPECIALLY TREATED AND TO BE MIXED WITH VEGETABLE PRODUCTS. ELLIS M. POTTER, New York, N. Y.
Filed July 7, 1914. Serial No. 79,609. PUBLISHED JANUARY 26, 1915.

103,571. TITLE OF CERTAIN BIOGRAPHICAL SKETCHES FOR PUBLICATIONS. JOHN J. RYAN, Albany, N. Y.
Filed September 11, 1914. Serial No. 81,198. PUBLISHED OCTOBER 27, 1914.

103,572. OYSTERS, CLAMS, AND THE LIKE. SMITH'S ISLAND OYSTER COMPANY, New York, N. Y.
Filed November 10, 1914. Serial No. 82,500. PUBLISHED JANUARY 26, 1915.

103,573. WATER. WILLIAM J. H. STRONG, Beloit, Wis.
Filed December 11, 1914. Serial No. 83,234. PUBLISHED JANUARY 26, 1915.

103,574. GREASES AND LUBRICANTS, (RUST-PREVENTIVE.) MORRIS ROBESON STROUD, Philadelphia, Pa.
Filed December 5, 1914. Serial No. 83,095. PUBLISHED JANUARY 26, 1915.

103,575. EXTERNAL APPLICATION FOR THE RELIEF OF CERTAIN NAMED AILMENTS. AUGUSTUS C. TRUMP, Columbus, Ohio.
Filed November 2, 1914. Serial No. 82,359. PUBLISHD JANUARY 26, 1915.

103,576. SEEDS. TUCSON SEED COMPANY, Tucson, Ariz.
Filed July 24, 1914. Serial No. 80,045. PUBLISHED OCTOBER 20, 1914.

103,577. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. THE VAUGHAN PAINT COMPANY, Cleveland, Ohio.
Filed September 30, 1914. Serial No. 81,584. PUBLISHED JANUARY 26, 1915.

103,578. FRESH FRUITS. WILLIAM S. WHITE, Beaumont, Cal.
Filed November 5, 1914. Serial No. 82,436. PUBLISHED JANUARY 26, 1915.

103,579. CERTAIN PHARMACEUTICAL PREPARATIONS AND PREPARATIONS FOR TREATING CERTAIN DISEASES OF LIVE STOCK AND POULTRY. WIN-NER STOCK REMEDIES CO., Kenton, Ohio.
Filed July 15, 1914. Serial No. 79,827. PUBLISHED JANUARY 26, 1915.

103,580. DISTRIBUTER-INSULATORS FOR MAGNETOS FOR IGNITION SYSTEMS. BOONTON RUBBER MANUFACTURING COMPANY, Boonton, N. J.
Filed June 20, 1914. Serial No. 79,239. PUBLISHED JANUARY 26, 1915.

103,581. FUEL-OILS AND LUBRICANTS. CALIFORNIA COMPOUNDING COMPANY, San Jose, Cal.
Filed November 16, 1914. Serial No. 82,613. PUBLISHED JANUARY 26, 1915.

103,582. GAS, COAL, WOOD, AND OIL STOVES. CHICAGO DRYER COMPANY, Chicago, Ill.
Filed November 12, 1914. Serial No. 82,537. PUBLISHED JANUARY 26, 1915.

103,583. WEEKLY PUBLICATION. O. F. DARLING, Portland, Oreg.
Filed November 7, 1914. Serial No. 82,460. PUBLISHED JANUARY 26, 1915.

103,584. CERTAIN NAMED ARTICLES MADE OF AN ALLOY OF METALS IN IMITATION OF SILVER. FISHEL & COMPANY, New York, N. Y.
Filed March 25, 1914. Serial No. 76,929. PUBLISHED JANUARY 26, 1915.

103,585. CERTAIN NAMED ARTICLES MADE OF AN ALLOY OF METALS IN IMITATION OF SILVER. FISHEL & COMPANY, New York, N. Y.
Filed March 25, 1914. Serial No. 76,930. PUBLISHED JANUARY 26, 1915.

103,586. CERTAIN NAMED IMITATION JEWELRY MADE FROM ALLOYS OF METAL TO IMITATE PLATINUM AND SILVER. FISHEL & COMPANY, New York, N. Y.
Filed March 25, 1914. Serial No. 76,931. PUBLISHED JANUARY 19, 1915.

103,587. AUTOMOBILE-CLOCKS. H. W. JOHNS-MANVILLE Co., New York, N. Y.
Filed December 9, 1914. Serial No. 83,175. PUBLISHED JANUARY 26, 1915.

103,588. MEDICINES FOR THE TREATMENT OF DROPSY. JESE D. KINNEY, Fort Meade, Fla.
Filed July 8, 1914. Serial No. 79,634. PUBLISHED JANUARY 26, 1915.

103,589. WATCHES. KNICKERBOCKER WATCH CO., New York, N. Y.
Filed December 14, 1914. Serial No. 83,277. PUBLISHED JANUARY 26, 1915.

103,590. MAGNESIUM-CHLORID FLOORING MATERIAL. THE LITOSILO CO. OF AMERICA, INCORPORATED, Easton, Pa.
Filed May 9, 1914. Serial No. 78,172. PUBLISHED JANUARY 26, 1915.

103,591. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS AND MEDICINES. MCCORMICK & Co., Baltimore, Md.
Filed August 18, 1913. Serial No. 72,401. PUBLISHED JANUARY 26, 1915.

103,592. TEA. J. MUSHER & Co., Washington, D. C.
Filed November 18, 1914. Serial No. 82,664. PUBLISHED JANUARY 26, 1915.

103,593. SOAPS AND CLEANSING-POWDERS. OKOMO SOAP COMPANY, INC., New York, N. Y.
Filed September 28, 1914. Serial No. 81,531. PUBLISHED DECEMBER 22, 1914.

103,594. CANOES. PETERBOROUGH CANOE COMPANY LIMITED, Peterborough, Ontario, Canada.
Filed November 23, 1914. Serial No. 82,792. PUBLISHED FEBRUARY 2, 1915.

103,595. PHOTO-ENGRAVINGS IN THE NATURE OF ENGRAVED PLATES. MARLEN E. PEW, New York, N. Y.
Filed September 29, 1914. Serial No. 81,554. PUBLISHED JANUARY 26, 1915.

103,596. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed November 3, 1913. Serial No. 73,772. PUBLISHED APRIL 28, 1914.

103,597. COMPOSITION OF ASBESTOS OR OTHER FIBROUS SUBSTANCES HELD TOGETHER WITH A SPECIAL FIRE-RESISTING BINDER. PRESSED ASBESTOS PRODUCTS CO., New York, N. Y.
Filed March 10, 1914. Serial No. 76,513. PUBLISHED JANUARY 26, 1915.

103,598. CHERRIES, PINEAPPLE, ASSORTED FRUITS, PEACHES, CITRON, GINGER, AND STRAWBERRIES. RHEINSTROM BROS., Cincinnati, Ohio.
Filed March 26, 1914. Serial No. 76,970. PUBLISHED SEPTEMBER 1, 1914.

103,599. COMPOUNDS OF WHISKY, GRENADINE-SYRUP, ROCK-CANDY SYRUP, AND LIME-JUICE. SANTA CLARA COMPANY, Boston, Mass.
Filed December 24, 1914. Serial No. 83,517. PUBLISHED FEBRUARY 2, 1915.

103,600. FOUNTAIN-PENS AND INK-PENCILS. JACOB ULLRICH, New York, N. Y.
Filed December 4, 1914. Serial No. 83,081. PUBLISHED JANUARY 26, 1915.

103,601. SALVE. THE VICK CHEMICAL CO., Greensboro, N. C.
Filed July 18, 1913. Serial No. 71,850. PUBLISHED MAY 26, 1914.

103,602. CIGAR AND CIGARETTE HOLDERS, PIPES, PIPE-CLEANERS, TOBACCO BOXES, BAGS, AND POUCHES. UNITED DRUG COMPANY, Boston, Mass.
Filed August 8, 1914. Serial No. 80,414. PUBLISHED FEBRUARY 2, 1915.

103,603. CERTAIN NAMED RUBBER GOODS. UNITED DRUG COMPANY, Boston, Mass.
Filed November 20, 1914. Serial No. 82,720. PUBLISHED FEBRUARY 2, 1915.

103,604. LADIES' AND CHILDREN'S TRIMMED AND UNTRIMMED HATS. GREENBERG & LAVE, New York, N. Y.
Filed December 28, 1914. Serial No. 83,550. PUBLISHED JANUARY 26, 1915.

103,605. CERTAIN NAMED LOCKS AND PARTS THEREOF AND SAFES. THE AMERICAN HARDWARE CORPORATION, New Britain, Conn.
Filed August 12, 1914. Serial No. 80,473. PUBLISHED DECEMBER 8, 1914.

103,606. CERTAIN NAMED LOCKS AND PARTS THEREOF AND SAFES. THE AMERICAN HARDWARE CORPORATION, New Britain, Conn.
Filed August 12, 1914. Serial No. 80,475. PUBLISHED December 8, 1914.

103,607. CERTAIN NAMED LOCKS AND PARTS THEREOF AND SAFES. THE AMERICAN HARDWARE CORPORATION, New Britain, Conn.
Filed September 24, 1914. Serial No. 81,437. PUBLISHED DECEMBER 8, 1914.

103,608. CERTAIN NAMED CUTLERY AND TOOLS. AMERICAN HARDWARE AND SUPPLY COMPANY, Pittsburgh, Pa.
Filed September 21, 1914. Serial No. 81,360. PUBLISHED DECEMBER 22, 1914.

103,609. TEA. CONSUMERS' IMPORTING COMPANY, Newark, N. J.
Filed May 20, 1913. Serial No. 70,504. PUBLISHED SEPTEMBER 1, 1914.

103,610. COOKING-GREASE COMPOSED OF COTTON-SEED OIL AND OLEO STEARIN. CORKRAN HILL & Co., Roland Park and Baltimore, Md.
Filed October 26, 1914. Serial No. 82,163. PUBLISHED DECEMBER 29, 1914.

103,611. CERTAIN NAMED HARDWARE, PLUMBING AND STEAM-FITTING SUPPLIES. DAIMLER-MOTOREN-GESELLSCHAFT, Untertürkheim, near Stuttgart, Germany.
Filed July 11, 1913. Serial No. 71,654. PUBLISHED JANUARY 26, 1915.

103,612. YARNS AND THREADS MADE OF COTTON, SILK, JUTE, FLAX, LINEN, WOOL, AND RAMIE. DEXTER YARN COMPANY, Pawtucket, R. I.
Filed December 30, 1914. Serial No. 83,578. PUBLISHED FEBRUARY 2, 1915.

103,613. DOLLS. ELEKTRA TOY & NOVELTY CO., New York, N. Y.
Filed December 5, 1914. Serial No. 83,112. PUBLISHED JANUARY 26, 1915.

103,614. CERTAIN NAMED TEXTILE FABRICS. THE ESMOND MILLS, Esmond, R. I.
Filed December 1, 1914. Serial No. 82,997. PUBLISHED JANUARY 26, 1915.

103,615. COTTON PIECE AND COTTON DRESS GOODS AND COTTON DRILLS. INDIAN HEAD MILLS OF ALABAMA, Cordova, Ala.
Filed December 16, 1914. Serial No. 83,326. PUBLISHED FEBRUARY 2, 1915.

103,616. COLOGNE. FRANCES BENJAMIN LACKLAND, New York, N. Y.
Filed December 15, 1914. Serial No. 83,297. PUBLISHED JANUARY 26, 1914.

103,617. CANNED FRUITS, CANNED VEGETABLES, AND CANNED FISH. THE H. LESINSKY COMPANY, El Paso, Tex.
Filed August 11, 1911. Serial No. 58,142. PUBLISHED NOVEMBER 3, 1914.

103,618. CIGARETTES. THE LONDON BLEND CIGARETTE CO., New York, N. Y.
Filed September 5, 1914. Serial No. 81,450 PUBLISHED JANUARY 19, 1915.

103,619. TEA AND COFFEE. THE MILNES SUPPLY COMPANY, Coldwater, Mich.
Filed October 27, 1914. Serial No. 82,216. PUBLISHED DECEMBER 29, 1914.

103,620. GAS TRACTION-ENGINES. MINNEAPOLIS STEEL & MACHINERY COMPANY, Minneapolis, Minn.
Filed December 7, 1914. Serial No. 83,121. PUBLISHED JANUARY 26, 1915.

103,621. AUTOMOBILE-ENGINES AND GASOLENE-ENGINES AND PARTS THEREOF. NATIONAL MOTOR VEHICLE CO., Indianapolis, Ind.
Filed November 30, 1914. Serial No. 82,983. PUBLISHED JANUARY 26, 1915.

103,622. SCHOOL-SLATES. NATIONAL SCHOOL SLATE COMPANY, Slatington, Pa.
Filed April 7, 1914. Serial No. 77,291. PUBLISHED NOVEMBER 17, 1914.

103,623. LADIES' DRESSES. CECILE NICOLAS, New York, N. Y.
Filed December 5, 1914. Serial No. 83,093. PUBLISHED FEBRUARY 2, 1915.

103,624. TEA. PEEK BROS. & WINCH (America), New York, N. Y.
Filed October 16, 1914. Serial No. 81,943. PUBLISHED JANUARY 26, 1915.

103,625. CERTAIN NAMED CLOTHING. PERROTTS LIMITED, Leeds, England.
Filed November 21, 1914. Serial No. 82,747. PUBLISHED JANUARY 26, 1915.

103,626. FOOT-POWDER. ARTHUR J. H. RIES, Alden, Iowa.
Filed November 21, 1914. Serial No. 82,764. PUBLISHED JANUARY 26, 1915.

103,627. STEAM-TURBINES AND PARTS THEREOF. WILLIAM J. H. STRONG, Beloit, Wis.
Filed December 11, 1914. Serial No. 83,233. PUBLISHED FEBRUARY 2, 1915.

103,628. MEN'S AND LADIES' HOSE. STUART, MILLIKEN & Co., New York, N. Y.
Filed September 8, 1914. Serial No. 81,104. PUBLISHED JANUARY 26, 1915.

103,629. BUTCHERS' SUPPLIES. TILDEN SAW CO., Wyandotte, Mich.
Filed December 26, 1914. Serial No. 83,541. PUBLISHED FEBRUARY 2, 1915.

103,630. HAIR-TONIC. H. L. TILLY, Memphis, Tenn.
Filed December 15, 1914. Serial No. 83,310. PUBLISHED JANUARY 26, 1915.

103,631. WOOLEN AND WORSTED PIECE GOODS. THE W & K COMPANY, Nasonville and Providence, R. I.
Filed December 15, 1914. Serial No. 83,311. PUBLISHED FEBRUARY 2, 1915.

103,632. WOOLEN AND WORSTED PIECE GOODS. THE W & K COMPANY, Nasonville and Providence, R. I.
Filed December 15, 1914. Serial No. 83,312. PUBLISHED FEBRUARY 2, 1915.

103,633. ROASTED COFFEE. THE WESTERN COFFEE CO., El Paso, Tex.
Filed November 12, 1914. Serial No. 82,549. PUBLISHED JANUARY 26, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,037. COMPOUND FOR REMOVING BLOTCHES AND FRECKLES FROM THE SKIN. JOSEPH B. GLENNY, deceased, New York, N. Y.; Walter M. Dressel, deceased, assignee, by mesne assignments; Florence L. N. Dressel, administratrix.
Registered March 24, 1885. Renewed March 24, 1915.

LABELS

REGISTERED APRIL 6, 1915.

18,316.—*Title:* "ANTISEPTIC DENTAL CREAM." (For Dentrifrice.) FRANK ANDREWS, deceased, late of Chicago, Ill., by Lorin A. Rawson, Administrator, Hinsdale, Ill. Filed January 14, 1915.

18,317.—*Title:* "WHITE STAR GRAPE JUICE." (For Unfermented Grape-Juice.) THE BASS ISLANDS' VINEYARDS COMPANY, Sandusky, Ohio. Filed February 10, 1915.

18,318.—*Title:* "M-B." (For Solder.) MAX BAZZANELLA, Baltimore, Md. Filed February 23, 1915.

18,319.—*Title:* "IRON CROSS." (For Flour.) BRUNO BLEUL, New York, N. Y. Filed December 31, 1914.

18,320.—*Title:* "PHOENIX KOMON BEER." (For Beer.) CENTRAL CONSUMERS COMPANY, Louisville, Ky. Filed March 8, 1915.

18,321.—*Title:* "BOY SCOUTS." (For Popcorn.) JOHN CATSIGIANIS, St. Louis, Mo. Filed February 23, 1915.

18,322.—*Title:* "CORBY CAKE." (For Lady-Cake.) CORBY BAKING COMPANY, Washington, D. C. Filed March 20, 1915.

18,323.—*Title:* "CORBY CAKE." (For Plain Pound-Cake.) CORBY BAKING COMPANY, Washington, D. C. Filed March 20, 1915.

18,324.—*Title:* "CORBY CAKE." (For Raisin-Cake.) CORBY BAKING COMPANY, Washington, D. C. Filed March 20, 1915.

18,325.—*Title:* "KELL-BELL BRAND." (For Neufchâtel Cheese.) HERBERT H. COVITZ, Boston, Mass. Filed February 16, 1915.

18,326.—*Title:* "ALFLAX." (For Sail-Twine.) GEO. H. DAVIS, Jr., Norfolk, Va. Filed February 27, 1915.

18,327.—*Title:* "DIXIE." (For Sail-Twine.) GEO. H. DAVIS, Jr., Norfolk, Va. Filed February 27, 1915.

18,328.—*Title:* "EXCELLENT." (For Sail-Twine.) GEO. H. DAVIS, Jr., Norfolk, Va. Filed February 27, 1915.

18,329.—*Title:* "SAMSON." (For Sail-Twine.) GEO. H. DAVIS, Jr., Norfolk, Va. Filed February 27, 1915.

18,330.—*Title:* "ROYALIST." (For Tea.) J. A. FOLGER & COMPANY, San Francisco, Cal. Filed March 1, 1915.

18,331.—*Title:* "SHASTA." (For Coffee.) J. A. FOLGER & COMPANY, San Francisco, Cal. Filed March 1, 1915.

18,332.—*Title:* "HILLSIDE." (For Coffee.) J. A. FOLGER & COMPANY, Kansas City, Mo. Filed March 4, 1915.

18,333.—*Title:* "BEECH-NUT CIGARS." (For Beech-Nut Cigars.) FRITSCH & SON, Lancaster, Pa. Filed December 29, 1914.

18,334.—*Title:* "108." (For Cigars.) GOLDSMITH, SILVER & Co., Boston, Mass. Filed February 20, 1915.

18,335.—*Title:* "HAIMER'S." (For Use on Boxes or Packages of Cigars.) LEON HAIMER, Tampa, Fla. Filed March 6, 1915.

18,336.—*Title:* "ROYAL BRAND SANDWICH PASTE." (For Paste.) EMIL HERBORG, New York, N. Y. Filed January 23, 1915.

18,337.—*Title:* "OLD COON." (For Cigars.) HUNTOON & GORHAM Co., Providence, R. I. Filed Feb. 20, 1915.

18,338.—*Title:* "UNIVERSAL." (For Hair-Nets.) HYMAN & OPPENHEIM, New York, N. Y. Filed March 6, 1915.

18,339.—*Title:* "STAY FAST." (For Hair-Nets.) HYMAN & OPPENHEIM, New York, N. Y. Filed March 6, 1915.

18,340.—*Title:* "OLD DUTCH." (For Beer.) THE KRANTZ BREWING CO., Findlay, Ohio. Filed February 5, 1915.

18,341.—*Title:* "B & G." (For Sauterne Wines.) E. LA MONTAGNE'S SONS, New York, N. Y. Filed January 29, 1915.

18,342.—*Title:* "B & G." (For Medoc Wines.) E. LA MONTAGNE'S SONS, New York, N. Y. Filed March 6, 1915.

18,343.—*Title:* "LIQUEUR SUPERIEURE." (For Liqueurs.) WILLIAM MICHELSON, New York, N. Y. Filed March 8, 1915.

18,344.—*Title:* "THE MILLER HOSE." (For Hose.) SOLOMON S. MILLER, Reading, Pa. Filed March 4, 1915.

18,345.—*Title:* "THE NEW ERA DOLL." (For Dolls and other Toys Made of Plastic Composition.) NEW ERA NOVELTY CO. INC., New York, N. Y. Filed February 2, 1915.

18,346.—*Title:* "CUPID." (For Packages Containing Pork and Beans.) OCEANA CANNING CO., Shelby, Mich. Filed January 29, 1915.

18,347.—*Title:* "VOTES FOR WOMEN." (For Chocolate and Confectionery.) PENNSYLVANIA CHOCOLATE COMPANY, Pittsburgh, Pa. Filed February 9, 1915.

18,348.—*Title:* "VERMO (COMPOUND) AN ANTISEPTIC GERMICIDE FOR THE TREATMENT OF SALT-RHEUM, SCROFULA, ECZEMA, AND BLOOD POISONING." (For Bottles, Boxes, and Packages of Medicine.) M. W. PETERS, Battle Creek, Mich. Filed December 26, 1914.

18,349.—*Title:* "MERRY MOMENT COCKTAIL." (For Cocktails.) RHEINSTROM BROS., Cincinnati, Ohio. Filed March 8, 1915.

18,350.—*Title:* "MANUEL RODRIGUEZ." (For Cigars.) MANUEL RODRIGUEZ, New York, N. Y. Filed March 11, 1915.

18,351.—*Title:* "BIG GAME HUNTER." (For Toys.) THE A. SCHOENHUT COMPANY, Philadelphia, Pa. Filed February 8, 1915.

18,352.—*Title:* "KEWPIE BLANKIES." (For Doll-Blankets.) STANTON BROTHERS, New York, N. Y. Filed January 26, 1915.

18,353.—*Title:* "BIAFOLD TIES." (For Neckwear.) STANTON BROTHERS, New York, N. Y. Filed January 26, 1915.

18,354.—*Title:* "ROYAL ARMS, RARE OLD SCOTCH WHISKY." (For Scotch Whisky.) J. G. THOMSON & CO. LTD., Leith, Scotland. Filed November 23, 1914.

18,355.—*Title:* "CLOSE FITTING." (For Underwear.) UNION MILLS INC., St. Johnsville and New York, N. Y. Filed March 4, 1915.

18,356.—*Title:* "LIQUID HORN." (For Varnish.) PER RICHARD WAGNER, Brooklyn, N. Y. Filed February 1, 1915.

18,357.—*Title:* "YE OLDE COLONIAL BEER." (For Beer.) ESTATE OF HENRY WEINHARD, deceased, by Paul Wessinger, Henry Wagner, Louise Weinhard, and Anna Wessinger, Executors, Portland, Oreg. Filed July 29, 1914.

PRINTS

REGISTERED APRIL 6, 1915.

3,853.—*Title:* "WHAT DO YOU CHARGE FOR BOARD, SIR?" (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed March 2, 1915.

3,854.—*Title:* "BOBS." (For Candy-Coated Chewing-Gum.) FRANK H. FLEER CORPORATION, Philadelphia, Pa. Filed January 30, 1915.

3,855.—*Title:* "PLAIN TALK, SQUARE DEALING, ALWAYS ON THE LEVEL." (For Hardware, Tools, and Paints.) HENRY OFFNER, New Orleans, La. Filed March 15, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

THE B. V. D. COMPANY *v.* POTTERF.

Decided January 4, 1915.

TRADE-MARKS—SIMILARITY—"P. C. G." AND "B. V. D." *Held* there is no such similarity between the trade-mark "P. C. G." of the applicant and the trade-mark "B. V. D." of the opposer as is likely to produce any confusion in the trade.

Mr. Hans V. Briesen for the appellant.
Mr. Eugene C. Brown for the appellee.

SHEPARD, *C. J.:*

On November 11, 1912, Potterf filed application for the registration of a trade-mark of a device consisting of letters P. C. G., alleging that the same had been used as a trade-mark for combination-garments, shirts, and drawers in commerce among the several States. The application having been allowed and published, the B. V. D. Company filed an opposition to the registration. The opposer alleged that it was incorporated in 1908 and is now, and has been for several years past engaged in the distribution and sale of articles of wearing-apparel among which are shirts, drawers, and union suits; that it has continuously since its organization applied to all articles marketed by it a certain arbitrary, distinctive and distinguishing trade-mark, to wit, the letters B. V. D., and has continuously throughout the years of its existence caused the said mark to be placed upon every article of merchandise sold by it; that it has expended large sums of money in popularizing said wearing-apparel and to make known the same as B. V. D. goods; that said company is the sole and exclusive owner of the said trade-mark for wearing-apparel; that said trade-mark B. V. D. was registered in the United States Patent Office February 27, 1906.

With respect to the applicant the opposer is informed and believes, and, therefore, avers that the applicant is not a manufacturer of garments or of the particular garments mentioned in his application; that the said applicant, not being a manufacturer does not employ any trade-mark and is not the owner of any trade-mark and does not affix any trade-mark and particularly not the trade-mark shown in the application to any garments of his manufacture, and is therefore not entitled to registration; that applicant on the 18th day of October, 1910, obtained United States Letters Patent for a certain combination-garment and said applicant is engaged in licensing to others to make and sell such of these said patented garments and that it is such licensees and not the applicant who make the specific garments set out in the particular description mentioned in applicant's application; that such licensed manufacturers have their own trade-marks which in no wise conflict with the opposer's trade-mark, but are obligated by their license contract with the applicant to make the garments with the letters P. C. G., and that the designation P. C. G. is therefore in no way a trade-mark either of the licensed manufacturers or of the patentee inasmuch as said letters do not designate or identify the origin or ownership of the goods and the opposer charges that the said letters P. C. G. were selected simply because the B. V. D. trade-mark had achieved such enormous popularity, and because he was desirous of imitating the B. V. D. trade-mark. That such letters P. C. G. are not essential or necessary but innumerable fair, non-imitative trade-marks were open to the applicant to be employed to designate the patented garments made by the licensee.

The opposer further showed that the specimens filed with the application of the applicant are specimens of labels used not by the applicant but by the Klaas Shirt Company and that applicant's oath to the effect that no other person, firm or corporation has the right to use the said trade-mark is a false oath and renders the entire application void

The opposer further says that garments marked P. C. G. give unscrupulous retailers opportunity and occasion to palm off merchandise so marked as and for the genuine B. V. D. product, and that unscrupulous retailers throughout the United States frequently assert with respect to competitive practice that they are made by the same people who make B. V. D. goods and that such retailers dealing in P. C. G garments will thus be enabled to make such statements more plausibly by saying that these garments are B. V. D. goods bearing their "perfect combination garments" label. That P. C. G. not being applicant's trade-mark is a mere trick and device and part of an unlawful scheme of unfair competition; that the said letters do not indicate origin or ownership but obscure the origin so as to make garments marked therewith capable of substitution for the genuine B. V. D. goods. That the opposer will be greatly damaged if the Government should give its sanction to the registration of trade-marks like the one herewith opposed; that such registration will give the applicant an apparent *prima facie* right to the sole and exclusive use of the said alleged trade-mark; that such a registration would be inter-

preted in the trade as governmental authority for the applicant and its customers and retailers to continue the practice in which they are engaged; that the registration of the trade-mark will give the applicant the *prima facie* right to the sole and exclusive use of the alleged trade-mark, and if registered would give the applicant an apparent or *prima facie* title to market underwear unnecessarily with three non-related capital letters, a mere equivalent of the opposer's mark under color of right; that such apparent right would enable applicant to palm off upon the public through his customers the applicant's underwear as and for the genuine underwear of the opposer.

Motion to dismiss the opposition was made on the following grounds:

1. That the trade-mark sought to be registered, namely: P. C. G., does not so closely resemble the trade-mark of the opposer—B. V. D.—as to cause confusion in the mind of the public or to deceive purchasers.

2. That said notice of opposition fails to set up any facts which tend to controvert the right of applicant to secure registration of the trade-mark sought to be registered, or any facts of which this tribunal is required to take cognizance or which require any answer or defense thereto.

This motion was sustained by the Examiner of Interferences who held that there was no resemblance between the two trade-marks.

On appeal to the Commissioner the decision of the Examiner of Interferences was sustained, the Commissioner saying that the—

> opposer contends that no one has the right to use three detached capital letters on this class of goods. This contention can not be sustained. It is well known that detached capital letters are used as trade-marks for many classes of goods. The only question to be considered, therefore, is whether the mark used by the applicant so nearly resembles that used by the opposer as to be likely to cause confusion in the trade and deceive purchasers. In my opinion it does not. * * * Opposer, however, having used neither the mark sought to be registered by the applicant nor one so similar thereto as to be likely to cause confusion in the minds of the public, has no standing in this opposition, and therefore no right to urge other grounds for the refusal of the registration.

The B. V. D. Company have appealed from that decision.

The Commissioner was clearly right. There is no such similarity between the trade-mark of the applicant and that of the opposer which is likely to produce any confusion in the trade. The opposer has not shown that he would sustain any possible damage by the registration of the trade-mark.

The second ground that is urged in the opposition to the effect that the P. C. G. trade-mark has not been is actual use by the applicant cannot be entertained. (*Hump Hairpin Co.* v. *De Long Hook and Eye Company*, 39 App. D. C., 484, 490; 190 O. G., 1032; 1913 C. D., 393.) In that case the same question was presented. It was said:

> The opponent also challenges the sufficiency of the evidence of the Hump Hairpin Company to show its actual use of the mark as a trade-mark for hairpins in commerce among the States, or with foreign nations. This is a question which the opponent cannot raise, having shown no interest that is not common to the general public. The Commissioner of Patents represents the public interest in trademark applications as he does in applications for patents. If satisfied with the showing made by an applicant, he passes it for publication, and no opposition can be entertained thereto save by one who can show an interest in the subject-matter entitling him to claim that he would be damaged by the registration of the trademark by another person. (*Battle Creek Sanitarium Co.* v. *Fuller*, 30 App. D. C., 411, 416; 134 O. G., 1299; 1908 C. D., 370.)

The decision is affirmed and the clerk will certify this decision to the Commissioner as required by law.

Affirmed.

Court of Appeals of the District of Columbia.

THE GOODYEAR TIRE AND RUBBER COMPANY *v.* THE REPUBLIC RUBBER COMPANY.

Decided March 1, 1915.

TRADE-MARKS—OPPOSITION—MARKS NOT SIMILAR.

Where The Goodyear Tire and Rubber Company obtained the registration of a trade-mark for elastic vehicle-tires, consisting of a blue band or stripe positioned circumferentially on the tire and centrally on the tread portion, and The Republic Rubber Company applied for the registration of a trade-mark for inner tubes of tires, comprising a black stripe of uniform width helically disposed and applied on the surface of the tube, *Held* that the difference in color of the respective bands is not important and that the helically-disposed or spiral stripe is so different from the circumferentially-disposed stripe that it is not likely to cause confusion in trade.

Mr. C. E. Humphrey and *Mr. Theo. K. Bryant* for the appellant.

Mr. Wm. E. Dyre and *Mr. H. D. Williams* for the appellee.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents dismissing appellant's opposition to the registration of a trade-mark.

The Republic Rubber Company applied for the registration of a trade-mark for inner tubes of tires, comprising a black stripe of uniform width helically disposed and applied on the surface of the tube.

The Goodyear Tire and Rubber Company in its opposition claims that it obtained the registration of a trade-mark for elastic vehicle-tires consisting of a blue band or stripe positioned circumferentially on the tire and centrally on the tread portion thereof. This registration was had February 20, 1912. It alleges that the mark of The Republic Rubber Company so nearly resembles its trade-mark and is so alike as to cause confusion in trade and result in damage to the opposer.

Both tribunals of the Patent Office held that there is no difference between inner and outer tubes of tires because both are component parts of automobile and motor-cycle tires and usually made by the same manufacturers. The evidence shows that a complete tire is made up of the outer tires and of the inner rubber one. This conclusion we think is correct. (See *Woven Steel Hose and Rubber Company* v. *Keasbey & Mattison Co.*, 41 App. D. C., 247.)

The Examiner of Interferences was of the opinion that the marks were so similar as to be likely to cause confusion in trade and sustained the opposition. This decision was reversed on appeal to the Commissioner.

It appears from the picture of the trade-mark filed by The Republic Rubber Company that the mark on its inner tubes is a black band helically disposed and

that it makes a number of turns in passing around the tube. It appears, however, that in actual use it makes only two turns in a circumference of ninety-six inches.

The registration of The Goodyear Rubber Company shows a distinct blue mark imposed circumferentially around the tire and located centrally of the tread portion thereof.

The difference in color of the respective bands is not important. It is the location of the band that makes the difference. (*A. Leschen & Sons Rope Co.* v. *Broderick & Bascom Rope Co.*, 36 App. D. C., 451, 455; 164 O. G., 977; 1911, C. D., 312.)

The helically-disposed or spiral stripe of The Republic Rubber Company is so different from the circumferentially-disposed stripe of The Goodyear Company that it is not likely to cause confusion in trade.

The decision appealed from is affirmed and the clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Van Kannel patent, No. 656,062, for a revolving door, *Held* valid and infringed. *Van Kannel Revolving Door Co.* v. *Revolving Door & Fixture Co.*, 219 Fed. Rep., 741.

(U. S. C. C. A.) The Vose patent, No. 717,641, for a weather-strip, *Held* not infringed. *Vose* v. *United States Metal Products Co.*, 219 Fed. Rep., 747.

(U. S. C. C. A.) The Gille patent, No. 794,296, for an electric display-lamp, *Held* not infringed. *Hengerer* v. *Reynolds Electric Flasher Mfg. Co.*, 219 Fed. Rep., 750.

(U. S. C. C. A.) The Jenner patent, No. 804,726, for a candy-pulling machine, *Held* valid; claims 7 and 8 also *Held* infringed. *Lauter & Suter Co.* v. *Hildreth*, 219 Fed. Rep., 753.

(U. S. C. C. A.) The Conrad patent, No. 822,723, for a ball-bearing, *Held* valid and infringed. *Hess-Bright Mfg. Co.* v. *Fichtel*, 219 Fed. Rep., 723.

(U. S. C. C. A.) The Dickinson patent, No. 831,501, for a candy-pulling machine, *Held* valid; claim 1 also *Held* infringed. *Lauter & Suter Co.* v. *Hildreth*, 219 Fed. Rep., 753.

(U. S. C. C. A.) The Van Kannel patent No. 836,843, for a collapsible revolving door, *Held* void for lack of invention. *Van Kannel Revolving Door Co.* v. *Revolving Door & Fixture Co.*, 219 Fed. Rep., 741.

(U. S. C. C. A.) The Baldwin reissue patent, No. 13,542, (original No. 821,580,) for a miner's acetylene-lamp, claim 4 *Held* void as broader than the original patent. *Grier Bros. Co.* v. *Baldwin*, 219 Fed. Rep., 735.

Foreign Patents, Trade-Marks, Etc.—Taxes, Fees, Etc

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D C., April 1, 1915.

This Office has received the following notice from the International Bureau of Industrial Property at Berne.

THOMAS EWING,
Commissioner.

[Translation.]

BUREAU INTERNATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE. CIRCULAR No. 162/262. SUBJECT: HUNGARY; MEASURES ADOPTED BY REASON OF THE PRESENT STATE OF WAR.

BERNE, *March 10, 1915.*

To the Offices of Industrial Property of the Countries of the Union.

GENTLEMEN: We have the honor to bring to your knowledge the following measures which have been adopted in Hungary by reason of the present state of war:

HUNGARY.

Ordinance of the Minister of Commerce concerning the extension of the terms fixed by Article II of the law of 1890 and Article XLI of the law of 1895 on trade-marks.

(Of December 31, 1914.)

By virtue of the power vested in me by section 16 of Article LXIII of the law of 1912 concerning the exceptional measures to be adopted in case of war, and in conformity with the provisions of the ordinance of the Royal Hungarian Ministry No. 6981/1914, I hereby order as follows:

SECTION 1. The extension granted by the ordinance of October 21, 1914, No. 76311 (see *Prop. Ind.*, 1914, p. 163), for the renewal of trade-marks the term of protection of which would expire between July 26, 1914, and December 31, 1914, and which was extended to February 1, 1915, is further extended to August 1, 1915.

SEC. 2. For the renewal of trade-marks the term of protection of which expires between January 1, 1915, and June 30, 1915, an extension is granted to August 1, 1915.

SEC. 3. Sections 2 to 6 of the ordinance of October 21, 1914, No. 76311, shall continue to be applicable with the modifications rendered necessary by the foregoing provisions.

SEC. 4. This ordinance shall go into force immediately.

Kindly acknowledge receipt of this circular and accept, gentlemen, etc.

BUREAU INTERNATIONAL, ETC.
COMTESSE,
Director.

[Translation.]

BUREAU INTERNATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE. CIRCULAR No. 160/124. SUBJECT: HUNGARY, NEW ZEALAND, SWEDEN; MEASURES ADOPTED BY REASON OF THE PRESENT STATE OF WAR.

BERNE, *March 5, 1915.*

To the Offices of Industrial Property of the Countries of the Union.

GENTLEMEN: We have the honor to bring to your knowledge the following measures which have been adopted in Hungary, New Zealand and Sweden by reason of the present state of war:

HUNGARY.

Ordinance of the Minister of Commerce concerning the application of the exceptional measures established by the ordinance No. 9146/1914 for the procedure to be followed with regard to subjects of foreign countries in contested and uncontested matters relating to patents, trade-marks and designs.

(No. 81586/1914, of January 13, 1915.)

By virtue of the power vested in me by section 16 of Article LXIII of the law of 1912 concerning the exceptional measures applicable in case of war, I decree as follows:

SECTION 1. The provisions of the ordinance No. 9146/1914 concerning the exceptional measures applicable to civil procedures in contested and uncontested cases, which measures have been rendered necessary by reason of the war, shall be applicable also to procedures in the matter of patents, trade-marks and designs.

Said provisions shall be applicable to subjects of foreign countries only when the country of origin of the foreigner

in question accords Hungarian subjects the same privileges and if such fact is announced by a notice published in the *Budapesti Közlöny*.

SEC. 2. This ordinance shall go into force immediately.

Oesterr. Patentblatt.

Ordinance permitting payments of taxes on industrial property to be made in France and Russia.

(Of January 13 and 15, 1915.)

By ordinance dated January 13, 1915, the Royal Hungarian Ministry of Commerce has, until further notice, exempted from the general prohibition of payments being made in France those payments the object of which is to secure, maintain or extend rights in the matter of patents, trade-marks or designs.

The same exemption has been decreed, by ordinance dated February 15, 1915, with regard to the prohibition of payments being made in Russia.

Oesterr. Patentblatt.

NEW ZEALAND.

Law concerning the annulment or suspension of patents or licenses and of designs and trade-marks granted to subjects of countries at war with Great Britain.

(No. 48, of November 2, 1914.)

The New Zealand Parliament, under date of November 2, 1914, and under the title of "Law modifying the law of 1911 on patents, designs and trade-marks," has adopted a law reproducing in substance the provisions of the laws of Great Britain of August 7 and 28, 1914, (see *Prop. Ind.*, 1914, pp. 126 and 127), which authorize the annulment or suspension of patents or licenses and of designs and trade-marks granted to subjects of the countries at present at war with Great Britain. The Governor may, by an ordinance to be issued in his council, formulate rules for the application of this law.

SWEDEN.

Law granting an extension for the payment of certain taxes on patents.

(No. 22, of February 20, 1915.)

We, Gustavus, by the grace of God King of Sweden, the Goths and Wends, give notice that, in accord with the Rigsdag, we have deemed it expedient to order as follows:

Non-resident holders of patents for which the taxes accrued thereon under section 11 of the ordinance of May 16, 1884, on patents are past due or will become due between December 23, 1914, and May 31, 1915, inclusive, shall be granted for the payment of such taxes an extension of three months from the last date on which such taxes should be paid under the terms of the section referred to above.

This law shall go into force on February 26, 1915, to which all whom it may concern shall conform.

By virtue whereof we have signed these presents with our own hand and caused our royal seal to be affixed thereto.

Castle of Stockholm, February 20, 1915.

[SEAL.] GUSTAVUS.

BERNDT HASSELROT,
Ministry of Justice.

Note.—The foregoing law modifies the ordinance of December 23, 1914, published in the *Propriété Industrielle*, 1915, page 14.

Kindly acknowledge receipt of this circular and accept, gentlemen, etc.

BUREAU INTERNATIONAL, ETC.
COMTESSE,
Director.

Witnesses to Specifications and Drawings.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 9, 1915.

An act to amend sections forty-eight hundred and eighty-eight and forty-eight hundred and eighty-nine of the Revised Statutes, relating to patents.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section forty-eight hundred and eighty-eight of the Revised Statutes of the United States be, and the same is hereby, amended by striking out from the last clause thereof the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4888. Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor."

SEC. 2. That section forty-eight hundred and eighty-nine of the Revised Statutes of the United States be, and the same is hereby, amended by striking out the words "and attested by two witnesses," so that the section so amended will read as follows:

"SEC. 4889. When the nature of the case admits of drawings, the applicant shall furnish one copy signed by the inventor or his attorney in fact, which shall be filed in the Patent Office; and a copy of the drawing to be furnished by the Patent Office, shall be attached to the patent as a part of the specification."

Approved, March 3, 1915.

Witnesses on the specification will not be objected to, and the draftsman may sign the drawing as a witness, as has been heretofore customary.

THOMAS EWING,
Commissioner of Patents.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 15, 1915.

William Endemann, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Gottschalk Co., of No. 108 Light street, Baltimore, Md., for registration of a trade-mark and trade-mark registered March 12, 1895, No. 26,217, to William Endemann, of New York, N. Y., and a notice of such declaration sent by registered mail to said William Endemann at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William Endemann, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF APRIL 13, 1915.

Patents	993—No.	1,134,985 to No. 1,135,977, inclusive.
Designs	33—No.	47,208 to No. 47,240, inclusive.
Trade-Marks	210—No.	103,634 to No. 103,843, inclusive.
Labels	25—No.	18,358 to No. 18,382, inclusive.
Prints	14—No.	3,856 to No. 3,869, inclusive.
Reissues	3—No.	13,900 to No. 13,902, inclusive.
Total	1278	

The patents of this issue were pending an average of 24.2 months.

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	1	North Carolina	5	2
Arizona	6	.....	North Dakota	6	.....
Arkansas	4	1	Ohio	48	17
California	53	9	Oklahoma	9	.....
Colorado	4	2	Oregon	10	3
Connecticut	30	4	Pennsylvania	91	15
Delaware	1	.....	Rhode Island	3	1
Florida	2	.....	South Carolina	1	1
Georgia	9	4	South Dakota	5	.....
Idaho	3	2	Tennessee	5	.....
Illinois	126	24	Texas	18	.....
Indiana	20	1	Utah	3	.....
Iowa	28	2	Vermont	1	.....
Kansas	14	2	Virginia	12	7
Kentucky	4	1	Washington	10	3
Louisiana	4	.....	West Virginia	2	.....
Maine	3	.....	Wisconsin	31	5
Maryland	18	1	Wyoming	.....	.....
Massachusetts	57	13			
Michigan	40	12	Alaska, District of	.....	.....
Minnesota	21	2	Canal Zone	.....	.....
Mississippi	2	1	District of Columbia	4	1
Missouri	20	8	Hawaii Territory	.....	.....
Montana	3	.....	Philippine Islands	1	.....
Nebraska	12	.....	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	3	1	U. S. Navy	1	.....
New Jersey	50	11			
New Mexico	1	.....	Total to residents of the United States	921	230
New York	113	73			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	.....	.....
Austria-Hungary	.....	.....	New South Wales	1	.....
Belgium	.....	.....	New Zealand	1	.....
British India	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Portugal	.....	.....
Canada	21	.....	Queensland	.....	.....
Cape Colony	.....	.....	Roumania	.....	.....
Chile	.....	.....	Russia	1	.....
Costa Rica	.....	.....	Scotland	3	.....
Cuba	.....	.....	South Australia	.....	.....
Denmark	.....	.....	Spain	.....	.....
England	34	6	Sweden	3	2
France	10	1	Switzerland	2	1
French Indo-China	1	.....	Transvaal, South Africa	1	.....
Germany	18	5	Victoria	1	.....
Guatemala	.....	.....	Wales	1	.....
India	.....	.....	Western Australia	1	.....
Ireland	.....	.....			
Italy	3	1	Total to residents of foreign countries	102	17
Mexico	.....	.....			
Japan	.....	1			

Internal Revenue-Stamp Act.

Department of the Interior,
United States Patent Office,
Washington, D. C., April 1, 1915.

This Office has been notified, under date of March 27, 1915, by the Commissioner of Internal Revenue, that a notarial certificate of the acknowledgment of an assignment of Letters Patent, in accordance with the provisions of section 4898 of the Revised Statutes, is not a certificate "required by law" within the meaning of the act of October 22, 1914, and is therefore not taxable under that act.

In view of this ruling the notice issued by this Office on November 14, 1914, (208 O. G., 661,) that an assignment so acknowledged requires a revenue stamp is hereby revoked.

THOMAS EWING,
Commissioner.

Adverse Decisions in Interference.

PATENT No. 706,144.

On January 15, 1915, a decision was rendered that McClintock Young was not the first inventor of the subject-matter covered by claim 3 of his Patent No. 706,144, subject, "Broom, etc.," and no appeal having been taken within the time allowed such decision has become final.

Amendments.

In order to insure the prompt delivery of amendments to the proper examining division, applicants are requested in their actions on applications to give the division number and the room number appearing on the last Office letter, as well as the date of such letter.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business April 10, 1915.

Room No.	Division and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Jan. 7	Jan. 7	483
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas and Canes; Tobacco.	Oct. 19	Feb. 3	707
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Mar. 25	Apr. 1	111
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Oct. 12	Mar. 26	612
167	5. Bookbinding; Harvesters; Jewelry; Music.	Nov. 9	Feb. 27	347
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Oct. 8	Mar. 20	490
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Feb. 11	Mar. 6	505
1311	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Oct. 8	Mar. 22	1218
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	July 21	Feb. 25	809
226	10. Carriages and Wagons	Dec. 2	Mar. 20	706
164	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 1	Mar. 22	139
222	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Dec. 1	Mar. 27	798
229	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Feb. 26	Mar. 3	446
207	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Nov. 19	Mar. 13	291
208	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 5	Mar 25	699
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Sept. 4	Jan. 8	496
308	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Jan. 25	Mar. 29	178
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 3	Mar. 6	296
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Feb. 9	Feb. 20	436
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking	Mar. 1	Mar. 5	236

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Dec. 10	Mar. 1	438
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Mar. 11	Mar. 17	222
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 17	Dec. 31	428
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Nov. 25	Mar. 24	431
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 19	Mar. 19	153
106	26. Electricity, Generation; Motive Power.	Sept. 2	Jan. 30	547
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Jan. 15	Mar. 27	291
65	28. Internal-Combustion Engines	Feb. 1	Mar. 8	441
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Feb. 23	Feb. 8	316
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Dec. 14	Mar. 18	301
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Dec. 17	Mar. 8	339
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Oct. 8	Apr. 1	658
71	33. Bridges; Hydraulic Engineering Masonry and Concrete Structures; Metallic Building Structures; Paving.	Dec. 8	Mar. 13	336
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 10	Mar. 24	184
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Dec. 17	Apr. 3	545
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Jan. 19	Mar. 30	576
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Sept. 11	Feb. 5	720
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Oct. 20	Mar. 8	556
321	39. Water Distribution	Jan. 8	Jan. 29	465
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 16	Feb. 18	978
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Feb. 12	Mar. 10	264
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Sept. 25	Jan. 29	668
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Nov. 2	Mar. 12	307

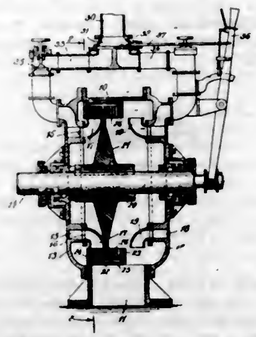
Oldest new case, July 21; oldest amended, Dec. 31.
Total number of applications awaiting action 19,967

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Feb. 19	Mar. 22	757
	Designs	Jan. 25	Mar. 2	480
	Labels and Prints	Mar 26	Mar. 25	54

PATENTS

GRANTED APRIL 13, 1915.

1,134,985. TURBINE. EMIL ANDERSON, New York, N. Y., assignor to The Universal Turbine Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 13, 1912. Serial No. 714,906. (Cl. 121—60.)



1. In a turbine, a rotor, a plurality of fixed nozzles in different positions in relation to the width of the rotor, connections from a motive fluid supply to said nozzles, means for moving the rotor longitudinally into operative relation with one or the other of said nozzles, and means interconnected with said rotor movement means for cutting off the motive fluid from the nozzle or nozzles which are not in operative relation with the rotor.

2. In a turbine, a rotor, a nozzle for causing the rotor to be impelled in one direction, another nozzle for causing the rotor to be impelled in the reverse direction, said nozzles being in different positions in relation to the width of the rotor, and means for changing the relative longitudinal positions of the rotor and the nozzles to bring the rotor into operative relation to one or the other of said nozzles.

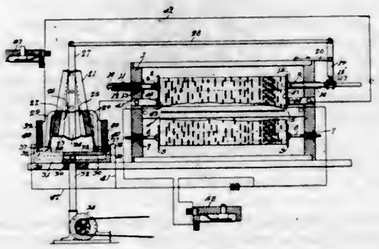
3. In a turbine, a rotor, a fluid nozzle for impelling the rotor in one direction, another fixed nozzle for impelling the rotor in the reverse direction, said nozzles being in different positions in relation to the width of the rotor, connections from a motive fluid supply to said nozzles, means for moving the rotor longitudinally into operative relation with one or the other of said nozzles, and means simultaneously actuated with the longitudinal movement of the rotor for cutting off the motive fluid from the nozzle which is not in operative relation with the rotor.

4. In a turbine, a rotor, a fixed nozzle for impelling the rotor in one direction, another fixed nozzle for impelling the rotor in the reverse direction, said nozzles being in different positions in relation to the width of the rotor, connections from a motive fluid supply to said nozzles, a regulating valve in each of said connections, manual means for moving the rotor longitudinally into operative relation with one or the other of said nozzles, and a valve simultaneously actuated with the longitudinal movement of the rotor for cutting off the motive fluid from the nozzle which is not in operative relation with the rotor.

5. In a turbine, a rotor, a set of circumferentially arranged nozzles positioned to cause the rotor to be impelled in one direction, another set of circumferentially arranged nozzles positioned to cause the rotor to be impelled in the reverse direction, each of said sets of nozzles being in different positions in relation to the width of the rotor, and means for changing the relative longitudinal positions of the rotor and the sets of nozzles to bring the rotor into operative relation to one or the other of said sets of nozzles.

[Claims 6 to 16 not printed in the Gazette.]

1,134,986. ADJUSTING DEVICE FOR THE NOTE-SHEETS OF SELF-PLAYING MUSICAL INSTRUMENTS. ERNST G. ANDERSON, Cranford, N. J. Filed May 9, 1910. Serial No. 560,189. (Cl. 84—161.)



1. In a device of the character described, the combination, with a traveling sheet, a supporting roller for said sheet, and a shifting device to impart lateral movement to said sheet, of controlling means for said shifting device curved about the periphery of said roller and controlled by the lateral displacement of said sheet.

2. In a device of the character described, the combination, with a traveling sheet, a supporting roller for said sheet, and a shifting device to impart lateral movement to said sheet, of controlling devices curved about the periphery of said roller near the respective ends thereof and controlled by the lateral displacement of said sheet.

3. In a device of the character described, the combination, with a traveling sheet, a supporting roller for said sheet, and a shifting device to impart lateral movement to said sheet, of controlling devices curved about the periphery of said roller near the respective ends thereof and controlled by the lateral displacement of said sheet, and means to simultaneously adjust said devices relatively one to the other.

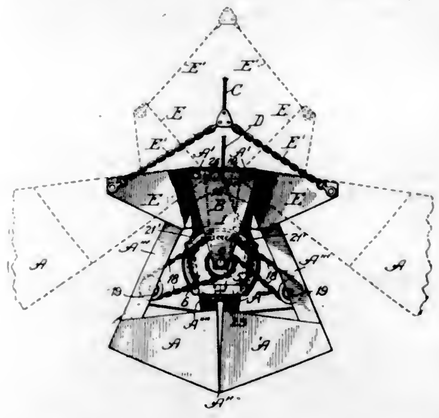
4. In a device of the character described, the combination, with a traveling sheet, a roller over which said sheet travels, and a shifting device operatively connected to said sheet to move the same laterally in either direction, of electro-magnets controlling said shifting device, circuit breakers and closers to close the circuit through the respective electro-magnets, mounted on opposite sides of said sheet, and curved about the periphery of said roller controlled by the lateral displacement of said sheet.

5. In a device of the character described, the combination, with a traveling sheet, and a shifting device therefor, of a casing, a diaphragm movably mounted in said casing and dividing the same into two chambers, means for operatively connecting said diaphragm to said shifting de-

vice, a suction pipe, conduits connecting each of said chambers with said suction pipe, valves controlling said conduits, electro-magnets for actuating said valves, circuits for said electro-magnets, and circuit breakers and closers in said circuits, said circuit breakers and closers being arranged on opposite sides of said traveling sheet and having parts in engagement with the respective edges of said sheet and adapted to be actuated by the lateral displacement thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,134,987. GRAB-BUCKET. HERMAN P. ANDRESEN, Chicago, Ill., assignor to David J. Evans, Chicago, Ill. Filed Apr. 12, 1911. Serial No. 620,635. (Cl. 37—30.)



1. In a grab bucket a frame and scoop members pivoted upon the upper portion of said frame, in combination with scoop operating mechanism comprising a chain drum rotatably mounted in the lower portion of said frame, a bridge member in said frame disposed above said drum, and operating chain loops extending from said scoops, codirectionally wound upon said drum and each having an end anchored to said bridge.

2. In a grab bucket a frame and shafts journaled in the upper portion thereof, in combination with scoops mounted upon said shafts and adapted to be closed together to form a receptacle for carrying material, a rotatable drum mounted in the lower portion of said frame between said scoops, sheaves mounted in said scoops, a bridge member in said frame above and parallel to said drum, closing chains secured to said drum passing from said drum around said sheaves and connected to said bridge, and means for rotating said drum to wind the chains codirectionally thereon for closing said scoops.

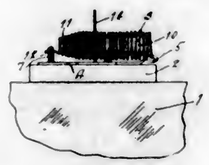
3. In a grab bucket a frame and scoops pivotally mounted at the upper end thereof on opposite sides and adapted to be brought together for digging and carrying material, a rotatable chain drum positioned in the lower portion of said frame and between said scoops, a bridge member forming a part of said frame and disposed above and adjacent to said drum, operating chains secured to said drum extending therefrom to said scoops and back to said bridge, said chains being connected to said bridge at points substantially corresponding to their position on the drum, and a cable drum for rotating said chain drum.

4. In a grab bucket a pair of scoops adapted to be closed together for carrying material, in combination with a frame positioned between said scoops and upon which said scoops are pivotally mounted, said frame comprising end plates and intermediate plates arranged parallel to one another, a bridge member firmly secured to the lower portion of said plates, a top plate connecting the upper ends of said plates, and broad plates extending along the sides of said frame and firmly secured to said end and intermediate plates for preventing distortion of said frame.

5. In a grab bucket a pair of scoops adapted to be closed together for carrying material, in combination with a frame positioned between said scoops and upon which said scoops are pivotally mounted, said frame comprising two ends plates and two intermediate plates arranged parallel, a beam firmly secured to and held by the lower ends of said plates, a top plate connecting the upper ends of said end and intermediate plates, broad strain plates extending along the side of said frame and firmly secured to said end and intermediate plates for preventing distortion of said frame, and parallel strengthening beams fastened to the upper portion of said intermediate plates and to said top plate.

[Claims 6 to 15 not printed in the Gazette.]

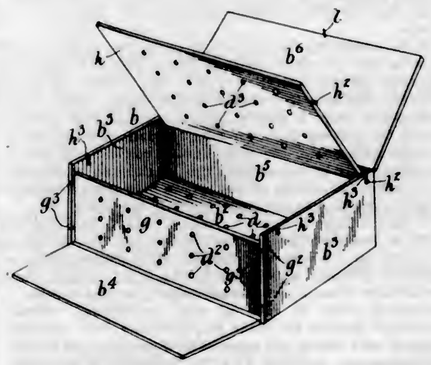
1,134,988. TICKET-HOLDER. ARTHUR F. BELLINGER, Mohawk, N. Y. Filed Apr. 24, 1914. Serial No. 834,211. (Cl. 40—11.)



A ticket holder of the character described including a base plate, a coil spring secured to one end of the base plate, a reduced extension formed on the opposite end of the coil spring, a post carried by the opposite end of the base plate, a loop on the reduced extension and arranged to surround the post to hold the coil spring slightly extended and in parallel relation with the base plate, the loop being arranged to be detached from the post to give access to the base of the plate.

1,134,989. [WITHDRAWN.]

1,134,990. CIGAR-BOX. JACOB BESSER, Jacksonville, Fla. Filed Apr. 18, 1914. Serial No. 832,681. (Cl. 131—30.)



1. A package box of the class described comprising a main outer box member open at the back and top, and a supplemental inner box member the back of which forms the back of the main outer box member and is hinged thereto at the bottom thereof, said supplemental inner box member being provided with a cover which is hinged at the back and which forms the cover of the main outer box, and with a supplemental inner movable cover which is perforated, said supplemental inner box member being also provided with an inner movable front board which is perforated, the bottom of the supplemental inner box member being also perforated.

2. A package box of the class described comprising a main outer box member open at the back and top, and a supplemental inner box member the back of which forms the back of the main outer box member and is hinged thereto at the bottom thereof, said supplemental inner box member being provided with a cover which is hinged at the back and which forms the cover of the main outer box, and with a supplemental inner movable cover which is perforated, said supplemental inner box member being also provided with an inner movable front board which is perforated, the bottom of the supplemental inner box member being also perforated, and moistening pads placed in the bottom of the main outer box member, between the front and inner perforated board of the supplemental box member, and between the main cover and supplemental inner cover of said supplemental box member.

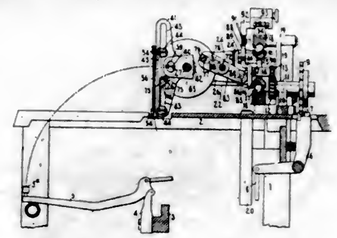
3. A package box of the class described comprising a main outer box member open at the back and at the top, a supplemental inner box member the back of which forms the back of the main outer box member and is hinged thereto at the bottom, said supplemental inner box member being also provided with a cover which is hinged at the back and which forms the cover of the main outer box member, and the front of the supplemental box member being also hinged at the bottom, and said supplemental inner box member being also provided with a movable inner top and a movable inner front which are perforated, and between which and the cover and the front thereof are moistening pad chambers.

4. In a package of the class described, a box comprising a bottom, a back and ends, and two movable front members, one of which is placed within the other, the outer front member being hinged to the bottom and the inner front member being perforated, said box being also provided with a main, outer cover, which is hinged to the back and a supplemental perforated and movable cover.

5. In a package of the class described, a box comprising a bottom, a back and ends, together with two movable front members, one of which is placed within the other, the outer front member being hinged to the bottom and the inner front member being perforated and forming in connection with the outer front member a space adapted to receive a moistening pad, said box being also provided with a main outer cover hinged to the back and with a supplemental inner cover which is movable and perforated and between which and the main outer cover is a space adapted to receive a moistening pad.

1,134,991. TYPE-WRITING MACHINE. GEORGE B. BRAND, Syracuse, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Dec. 6, 1909. Serial No. 531,566. (Cl. 197—135.)

1. In a front-strike stencil cutting machine, the combination of a carriage adapted to travel from side to side of the machine, escapement mechanism operative at each printing operation to afford a letter space movement of the carriage, a substantially vertically disposed flat platen carried by said carriage and mounted for substantially vertical line spacing movements on said carriage, means for holding a stencil sheet in a flattened condition on said platen for step-by-step letter space movements with the carriage and for line spacing movements with the platen, hand actuated means operable at will for effecting vertical line spacing movements of the platen in one direction, and automatically operating means controlled by the line spacing means for bringing about a movement of the platen in the opposite direction to normal or initial position.



2. The combination of a carriage adapted to travel from side to side of the machine, a substantially vertically disposed flat platen carried by said carriage and mounted for substantially vertical line spacing movements on said carriage, means for holding a work sheet in a flattened condition on said platen for letter space movements with the carriage and for line spacing movements with the platen, hand actuated means mounted on said carriage for effecting line spacing movements of the platen, and automatically actuated means for arresting the carriage at progresively different points in the return movements of the carriage to the right.

3. In a typewriting machine, the combination of a carriage, escapement mechanism for controlling the feed movement of the carriage from right to left, a platen, hand actuated line spacing mechanism mounted on said carriage, and carriage arresting means for limiting the movement of the carriage to the right, said carriage arresting means being under control of said line spacing mechanism.

4. In a typewriting machine, the combination of a carriage, escapement mechanism for controlling the feed movement of the carriage from right to left, a platen, hand actuated line spacing mechanism mounted on said carriage, and means for variably arresting the carriage in its movement to the right in accordance with the actuation of the line spacing mechanism.

5. In a typewriting machine, the combination of a carriage, escapement mechanism for controlling the feed movement of the carriage from right to left, a platen, hand actuated line spacing mechanism mounted on said carriage, and means for arresting the carriage in its movements to the right at points which are successively nearer the right-hand end of its travel, said last mentioned means being under the control of said line spacing mechanism to determine the point of arrest of the carriage in its movement to the right in accordance with the line to be written.

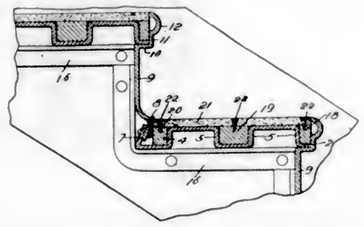
[Claims 6 to 65 not printed in the Gazette.]

1,134,992. METAL STAIR. GEORGE W. BROOKS, Topeka, Kans. Filed Aug. 17, 1914. Serial No. 857,196. (Cl. 72—96.)

1. A metallic riser having a nosing at its upper end and an inwardly and downwardly inclined flange at its lower end, and a separately formed tread having at its rear end an upwardly and forwardly inclined flange overlapping the flange of the riser, said riser having adjacent its nosing a horizontal flange to support the forward end of the tread, said riser being outwardly curved adjacent its inclined flange whereby said curve constitutes a tangent to the upper face of the filling employed.

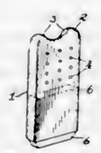
2. A metallic riser having a nosing at its upper end and an inwardly and downwardly inclined flange at its lower end, and a separately formed tread having at its rear end an upwardly and forwardly inclined flange overlapping the flange of the riser, said riser having adjacent its nosing a horizontal flange to support the forward end of the tread, said riser being outwardly curved adjacent

its inclined flange whereby said curve constitutes a tangent to the upper face of the filling employed, said tread having transverse alternating grooves for the reception of blocks.



3. A metallic riser having a nosing at its upper end and an inwardly and downwardly inclined flange at its lower end, and a separately formed tread having at its rear end an upwardly and forwardly inclined flange overlapping the flange of the riser, said riser having adjacent its nosing a horizontal flange to support the forward end of the tread, said riser being outwardly curved adjacent its inclined flange whereby said curve constitutes a tangent to the upper face of the filling employed, said tread having transverse alternating grooves for the reception of blocks, and wooden fillers in said grooves to receive securing means for a covering.

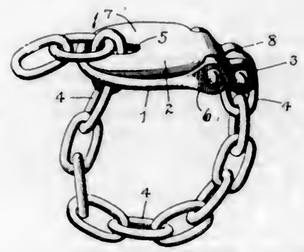
1,134,993. INHALER. MORTIMER BYE, Indianapolis, Ind., assignor to The Eli Lilly and Company, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 11, 1914. Serial No. 871,573. (Cl. 128—13.)



A medicament container comprising a hollow rectangular holder open at one end and having a solid cake of medicinal material inserted into the holder at said open end, the inner end of said cake being projected into the interior of the holder and forming a base for a supply of lumps of medicinal material, said holder having a closing wall at the other end provided with a pair of nostril engaging openings spaced apart longitudinally of said end wall and said holder having apertures in its side walls between the end of the cake and the closing wall for the purpose of admitting air to the lumps of material.

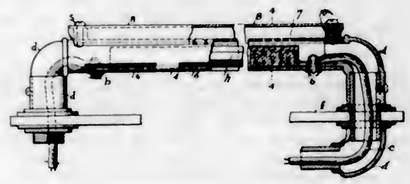
1,134,994. CHAIN-BUCKLE. LEONARD L. CONKEY, Grand Rapids, Mich., assignor to Thomas Olinger, Holland, Mich. Filed Mar. 8, 1913. Serial No. 752,882. (Cl. 24—116.)

In a chain buckle, a hasp member of U-shaped formation, the free ends of said hasp member being enlarged, a lever pivoted between the enlarged ends of said hasp member, said lever being reduced at its outer end and extending beyond the enlarged ends of the hasp member, said lever having a notch in its inner end, and a chain connected to the reduced end of the lever beyond the enlarged ends of the hasp member and adapted to engage the notch in said lever, the inner end of the lever being greater in width than the distance between the sides of the hasp member, and longer than the inner longitudinal dimensions of said hasp member, said lever being curved to con-



form to the curvature of the upper side of the hasp member whereby the inner end of the lever will engage the entire upper side of the hasp member and relieve the pivoted portion thereof from all strain substantially as and for the purposes set forth.

1,134,995. ELECTRICAL HEATER. FRANK J. COOK, Cleveland, Ohio, assignor to The Konsrv Electric Company, Cleveland, Ohio. Filed July 21, 1913. Serial No. 780,203. (Cl. 219—34.)



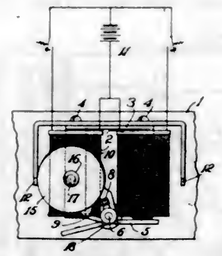
An electrical heater adapted to be used in a vehicle to warm the feet of the driver having a resistance coil embedded lengthwise through its center in a nonconducting material and having a series of flat sides lengthwise covered with a suitable insulation, and a tube of greater cross section than said heater carrying the same in the bottom thereof and spaced therefrom over its top and conducting cables connected with the ends of said heater and separably secured to said tube.

1,134,996. ANNUNCIATOR-DROP. SAMUEL HENRY COUCH and WILLIAM WEIR HENRY, Wollaston, and ALTON E. STEVENS, Atlantic, Mass., assignors to S. H. Couch Co. Inc., Atlantic, Mass. Filed July 28, 1911. Serial No. 641,167. (Cl. 177—324.)

1. An indicator adapted to be thrown from a position of rest, means for causing such throw, and a stop adapted to receive the impact of the blow; in combination with a drag loosely mounted on said indicator in such fashion that it will travel in unchanged relation with it until the stop checks the indicator movement, whereupon said drag is free to continue its bodily advance through the space permitted by the looae mounting.

2. An indicator adapted to be thrown from a position of rest, means for causing such throw, and a stop adapted to receive the impact of the blow; in combination with a drag mounted on said indicator and adapted to be moved therewith to the time of said impact, and thereafter to

be advanced by its momentum bodily with respect to said indicator, through a limited space.



3. An indicator adapted to be thrown from a position of rest, means for causing such throw and means for limiting the movement of said indicator; in combination with a drag so mounted in connection with said indicator that it shall be moved by the latter in unchanged relation therewith to the end of said movement, means whereby said drag shall thereafter be permitted a slight continued bodily advance with respect to said indicator, and means whereby said indicator shall limit this latter movement.

4. An indicator adapted to be thrown from a position of rest, means for causing such throw, and a stop adapted to receive the impact of the blow; in combination with a drag so mounted in connection with said indicator that it shall travel therewith in unchanged relation thereto to the time of impact and thereafter shall deliver its own impact to prevent rebound of said indicator.

1,134,997. DEFECATOR. MILTON B. CRESSWELL, Des Moines, Iowa. Filed Apr. 4, 1914. Serial No. 830,064. (Cl. 127—9.)



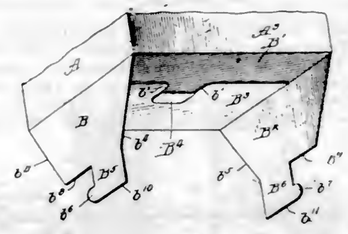
1. A defecator, comprising a tank, a steam coil in one end portion thereof, a plurality of relatively low partitions crossing said tank in the end opposite to said steam coil, and an inclined baffle plate crossing said tank beyond said partitions.

2. A defecator, comprising a tank, a steam coil in one end portion thereof, a plurality of relatively low partitions crossing said tank in the end opposite to said steam coil, and an inclined baffle plate crossing said tank beyond said partitions, said baffle plate being of greater height than said partitions and of less height than the walls of the tank.

3. A defecator, comprising a tank, a steam pipe entering said tank, a steam coil arranged in vertical position adjacent the forward end of said tank and communicating with said pipe, a steam coil arranged in horizontal position in said tank and extending approximately to the middle thereof, said latter steam coil communicating with the first steam coil, an inclined hood over the vertical steam coil, and skimming means in the opposite end portion of the tank from said coils.

4. A defecator, comprising a tank, steam coils in one end portion thereof, a plurality of partitions crossing the opposite end portion of said tank, said partitions rising to approximately one-third the height of the tank walls, an inclined baffle plate crossing the tank beyond said partitions and rising to approximately two-thirds the height of the tank walls, and drain pipes beyond said partitions and baffle plate.

1,134,998. CONTAINER OR CADDY. FRANK B. DAVIDSON, Marseilles, Ill., assignor to Howe and Davidson Company, Marseilles, Ill., a Corporation of New Jersey. Filed Nov. 16, 1912. Serial No. 731,694. (Cl. 229—39.)



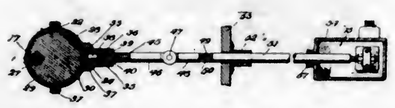
1. A container, make of heavy paper-board or the like and having connected side walls and a bottom wall, the latter comprising two inner flaps folded inwardly and adapted to overlap each other at their end margins, and two outer flaps folded inwardly against said inner flaps; said inner flaps being provided, one with a notch, and the other with a tongue, said tongue being made of the same width as and adapted to enter said notch, the tongue projecting past the inner margin of the notch and overlapping the body of the adjacent inner flap inside of the inner margin of said notch, with the end margin of the inner flap at the sides of the tongue in contact with the ends of the inner margin of said notch, when said inner flaps are interfolded, and said notch and tongue being provided with parallel, lateral margins forming shoulders adapted to engage each other to hold said inner flaps from relative lateral movement; said outer flaps being provided with interlocking parts adapted to hold said outer flaps against said inner flaps.

2. A container, made of heavy paper-board or the like and having connected side walls and a bottom wall, the latter comprising two inner flaps folded inwardly and adapted to overlap each other at their inner margins, and two outer flaps folded inwardly against said inner flaps, said inner flaps being provided, one with a notch, and the other with a tongue made of the same width as and adapted to enter said notch; the tongue projecting past the inner margin of the notch and overlapping the body of the adjacent inner flap inside of the inner margin of said notch, when said inner flaps are interlocked, said outer flaps being provided with oppositely disposed extensions, the lateral margins of which are parallel with each other, said extensions being provided with laterally disposed locking tongues separated from the end margins of said outer flaps by locking notches, the locking tongues being adapted to enter said locking notches and overlap the adjacent extensions, with the end margins of said extensions abutting against the end margins of said outer flaps, when said outer flaps are interlocked.

3. A container, made of heavy paper-board or the like having connected side walls and a bottom wall, the latter consisting of two inner flaps folded inwardly and adapted to overlap each other at their end margins, and two outer flaps folded inwardly against said inner flaps, said inner flaps being made of the full width of the side walls to which they are attached, and said inner flaps being provided, one with a notch, and the other with a tongue made of the same width as and adapted to enter said notch, said tongue projecting past the inner margin of the notch and overlapping the body of the adjacent flap inside of the inner margin of said notch, when the inner flaps are interfolded, said outer flaps having laterally inclined side edges, giving tapered form thereto, and being provided with oppositely disposed extensions, and on the adjacent side margins of said extensions with laterally disposed locking tongues, adapted to have endwise engagement with each other and to overlap the adjacent extensions on said outer

flaps, when said outer flaps are interfolded, and a strip of flexible material adhesively secured to the outer flaps and to those portions of the inner flaps exterior to the inclined side margins of said outer flaps, thereby connecting all of said flaps.

1,134,999. SAFETY APPLIANCE FOR TRAINS. JOHN J. DEGENHARDT, Elkville, Ill., assignor of one-sixteenth to Edward R. Aken, one-sixteenth to Chester R. Schwartz, one-sixteenth to Raleigh B. Aken, and one-sixteenth to Benjamin F. Parrish, Elkville, Ill. Filed June 14, 1913. Serial No. 773,646. (Cl. 246—59.)



1. In a semaphore arm actuated safety appliance for locomotives, the combination with an air brake line, of a vent valve in said line, a rotatable shaft, an arm carried by the shaft and extending in the path of a lowered semaphore arm, an eccentric disk mounted on the shaft, a strap for the disk, an operative connection between the strap and valve stem, and a brake carried by the strap and engaging the disk.

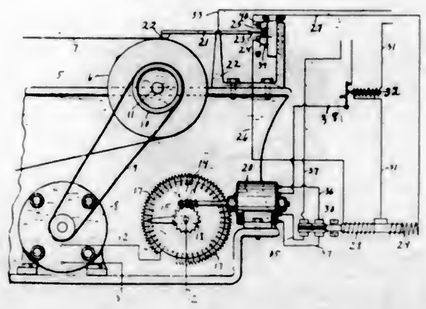
2. In safety appliances for locomotives, a shaft extending transversely of the locomotive and provided at its free end with upwardly directed arms adapted for engagement by obstacles located adjacent the track, a disk eccentrically keyed upon the shaft, a strap surrounding the disk, a spring pressed brake carried by the strap and frictionally engaging the disk, a valve adapted for connection with the air brake line of the locomotive and having a reciprocating valve stem, and a hinged connection between the strap and valve stem.

3. In safety appliances for locomotives, a shaft extending transversely of the locomotive and provided at its free ends with upwardly directed arms adapted for engagement by obstacles located adjacent the track, a disk eccentrically keyed upon the shaft, a strap surrounding the disk, a spring pressed brake carried by the strap and frictionally engaging the disk, a valve adapted for connection with the air brake line of the locomotive and having a reciprocating valve stem, a hinged connection between the strap and valve stem, and means in addition to the brake for normally holding the eccentric disk and strap against independent movement.

4. In safety appliances for locomotives, a shaft extending transversely of the locomotive and provided at its free ends with upwardly directed arms adapted for engagement by obstacles located adjacent the track, a disk eccentrically keyed upon the shaft, a strap surrounding the disk, a spring pressed brake carried by the strap and frictionally engaging the disk, a valve adapted for connection with the air brake line of the locomotive and having a reciprocating valve stem, a hinged connection between the strap and valve stem, and means in addition to the brake for normally holding the eccentric disk and strap against independent movement, said means including a resilient arm secured to the eccentric disk and having a laterally directed terminal seating in a groove formed in the strap.

5. In safety appliances for locomotives, a rotatable shaft having radial arms adapted for engagement by obstacles located adjacent the track, a disk eccentrically keyed upon the shaft, a strap surrounding the disk, said strap having a groove, a resilient member secured at one end centrally of the disk and provided at its opposite end with a laterally directed terminal seating in the groove of the strap, a valve adapted for connection with the air brake line of the locomotive, and operative connection between the strap and valve.

1,135,000. PAPER-THICKNESS REGULATOR. ORVILLE M. DONALDSON, West Allis, Wis., assignor of one-half to Benjamin F. Peisch, Milwaukee, Wis. Filed June 11, 1913. Serial No. 772,959. (Cl. 92—38.)



1. In a paper making machine, the combination of the paper carrying mechanism, a paper thickness regulator, comprising a gaging member in contact with the paper for gaging the thickness thereof, and means automatically actuated by a movement of the said member for increasing or diminishing the speed of movement of the paper carrying mechanism.

2. In a paper making machine, the combination of the paper carrying mechanism, a paper thickness regulator, comprising means in contact with the paper for gaging the thickness thereof, and means actuated by the gaging means for controlling the speed of movement of the paper carrying mechanism to regulate the thickness of the paper.

3. In a paper making machine, the combination of the paper carrying mechanism, a paper thickness regulator, comprising a gage lever in contact with the paper for gaging the thickness thereof, a motor for actuating the paper carrying mechanism, and means actuated by the gage for controlling the speed of the motor to control the speed of the paper carrying mechanism to regulate the thickness of the paper.

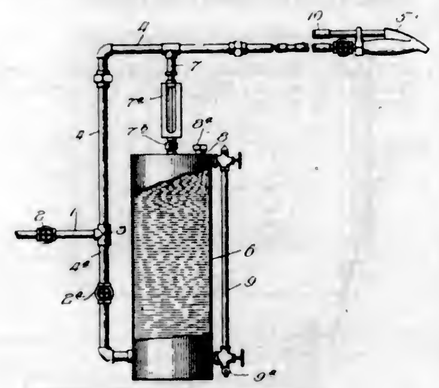
4. In a paper machine, the combination of the paper carrying mechanism, a paper thickness regulator, comprising a gage lever in contact with the paper for gaging the thickness thereof, a motor for actuating the paper carrying mechanism, and an electric connection between the gage lever and the motor for controlling the speed of the motor to control the speed of the paper carrying mechanism to regulate the thickness of the paper.

5. In a paper making machine, the combination of paper the paper carrying mechanism, a paper thickness regulator, comprising a paper thickness responsive device in contact with the paper, and means actuated by the responsive device for controlling the speed of movement of the paper carrying mechanism to regulate the thickness of the paper.

[Claims 6 to 8 not printed in the Gazette.]

1,135,001. APPARATUS FOR CLEANING SURFACES. GEORGE DURHAM and CHARLES W. MCGUIRK, Scranton, Pa. Original application filed Oct. 13, 1913, Serial No. 794,811. Divided and this application filed Oct. 22, 1914. Serial No. 867,985. (Cl. 137—14.)

1. In an apparatus of the class described, the combination of a storage tank for containing a cleansing liquid, a water supply pipe connected with said tank, means for admitting liquid from the storage tank to the water supply pipe, a nozzle receiving said water and liquid from the water supply pipe, said nozzle being provided with an air receiving extension on one side thereof, and means for delivering air under pressure to said air receiving extension.



2. In an apparatus of the class described, the combination of a nozzle, a liquid supply pipe connected to the nozzle, means for admitting to the liquid supply pipe oil in an excess of water, and means at or near the nozzle for breaking up the oil into extremely minute particles and for impinging these particles carried in the water against the surface to be cleaned.

3. In an apparatus of the class described, the combination of a water supply pipe, means for feeding a cleansing liquid in predetermined quantities to the water in said pipe, and means remote from said liquid feeding means for breaking up the cleansing liquid into extremely minute particles while said liquid is being carried in the water.

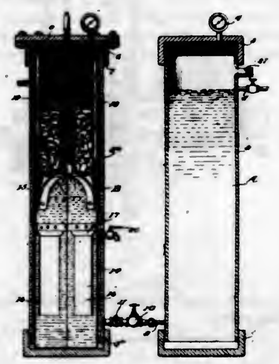
4. An apparatus of the class described, comprising, in combination, a nozzle provided with an enlarged chamber and a lateral extension having a discharge orifice, means for admitting to said chamber water containing oil with the water in excess of the oil, and means for admitting to said lateral extension air under sufficient pressure to break up the oil into extremely minute particles at or near the point of ejectment of the oil and water from the nozzle and to impinge these particles against the surface to be cleansed.

1,135,002. ACETYLENE-GAS GENERATOR. GEORGE M. ELLIS, Arthur, Iowa. Filed Mar. 3, 1914. Serial No. 822,188. (Cl. 48—19.)

1. An acetylene gas generator including a generating chamber, means for supporting carbid in the upper portion thereof, a water pipe entering the lower portion of the generating chamber, a check-valve in said pipe, said valve opening from the generating chamber and being provided with a perforation, said pipe being connected to a source of water under pressure, the check-valve permitting back flow of water when the gas pressure in the generating chamber is greater than the water pressure.

2. An acetylene gas generator including a tubular generating chamber closed at its opposite ends by caps, one of said caps being removable, a carbid holder disposed within the generating chamber and less in diameter than said chamber, said holder being formed of oppositely disposed semi-cylindrical sections hinged to each other, the bottom of the holder being closed and the top of the holder being open and the lower portion of the holder perforated for the admission of water, brackets disposed within the holder, and a carbid basket removably mounted upon said brackets and supported adjacent the upper end of the holder.

3. An acetylene gas generator including a generating chamber, having a water inlet pipe at its lower end, a cap closing the upper end of the chamber, a carbid holder removably mounted within the chamber and consisting of hinged sections, the lower portion of the holder being perforated for the admission of water, a sectional apron mounted in the interior of the holder and extending downward over said perforations but spaced from the wall of the holder, and a removable carbid basket disposed in the upper portion of the chamber.



4. An acetylene gas generator including a tubular generating chamber closed at its opposite ends by caps, one of the caps being removable, a carbid holder disposed within the generating chamber and less in diameter than said chamber, said holder being formed of oppositely disposed semi-cylindrical sections hinged to each other, the bottom of the holder being closed, the top of the holder being open, the lower portion of the holder being perforated for the admission of water, an apron extending over said perforations and spaced from the wall of the holder, brackets disposed within the holder, and a carbid basket removably mounted upon said brackets.

5. An acetylene gas generator including a generating chamber and a water chamber, a pipe connecting the lower ends of the two chambers, a check-valve in said pipe opening from the generating chamber and said check-valve being perforated, a carbid holder disposed in the upper portion of the generating chamber, and means whereby air may be compressed into the upper portion of the water chamber.

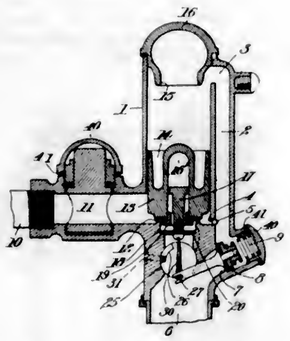
[Claim 6 not printed in the Gazette.]

1,135,003. FLUSH-VALVE. SILAS F. FAIRBANK, Ogden, Utah. Filed June 27, 1913. Serial No. 776,135. (Cl. 137—93.)

1. In a flush valve, the combination of a body having a main valve cylinder and a by-pass communicating with said cylinder at top and bottom, a main valve freely movable in said cylinder and having an annular top recess, an air-dome in the top of the cylinder and a flange adjacent thereto to coöperate with the recess in said valve, a main valve seat at the bottom of the cylinder, a shutter valve below said seat, a release valve at the bottom of said by-pass and a connection between said shutter valve and said release valve.

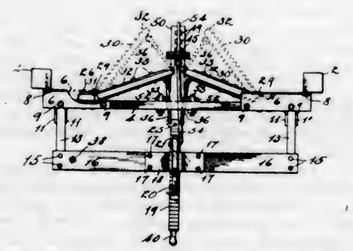
2. In a flush valve, the combination of a body having a main valve cylinder and a by-pass communicating with said cylinder at top and bottom, a main valve freely movable in said cylinder and having an annular top recess, an air-dome in the top of the cylinder and a flange adjacent thereto to coöperate with the recess in said valve, a main valve seat at the bottom of the cylinder, a shutter valve at the bottom of said by-pass and a connection between said shutter valve and said release valve, the main

valve being provided with a bottom central recess, a refill valve below the main valve mounted in said bottom recess,



and a refill valve seat between said main valve seat and said shutter valve.

1,135,004. HOG-TRAP. JOHN H. FLATLEY, Henderson county, near Little York, Ill. Filed July 16, 1914. Serial No. 851,313. (Cl. 119—98.)



1. In a hog-trap, the combination with a pair of doors adapted for alinement and for divergence, of a longitudinally movable rack connected to both doors and arranged at a right angle thereto when they are in alinement, and means for releasably holding said rack and thereby said doors in selective divergent positions.

2. In a hog trap, the combination with a pair of doors adapted for alinement and for divergence, of a rack connected with both of said doors, a spring adapted to draw rearwardly on said rack to bring the doors into alinement, and means whereby the spring is held tensioned and the doors held divergent.

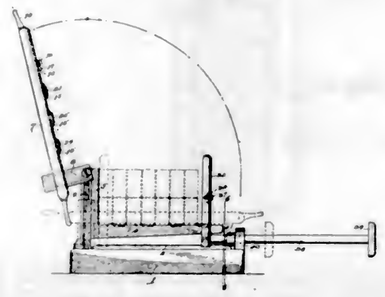
3. In a hog trap, the combination with a pair of doors adapted for alinement and for divergence, of a rack connected with both of said doors, a dog and a spring whereby said rack and doors may be held in set position, and a dog for holding said rack and doors from forward movement.

4. In a hog trap, the combination with a pair of doors adapted for alinement and for divergence, of a rack connected with both of said doors, means coöperating with said rack for holding said doors in set position and means for holding the rack in frictional contact with the last recited element.

5. In a hog trap, the combination with a pair of doors adapted for alinement and for divergence, of a rack connected with both of said doors, a setting dog adapted for selective engagement with the teeth of said rack, and a locking dog adapted to both ratchet over and lock against a tooth thereof.

[Claims 6 to 13 not printed in the Gazette.]

1,135,005. BUTTER-CUTTING MACHINE. EDWIN FRANKE, Chicago, Ill. Filed Aug. 25, 1913. Serial No. 786,535. (Cl. 31—65.)



1. In a butter cutting machine, a horizontal platform, vertical standards extending from said platform and having longitudinal grooves that terminate below the top thereof, a movable cutting frame, transverse channel shaped lugs extending from the cutter-frame in the channels of which the vertical standards project, and an element projecting from each of the channel lugs and slidably and rockably fitting in the groove of the standard.

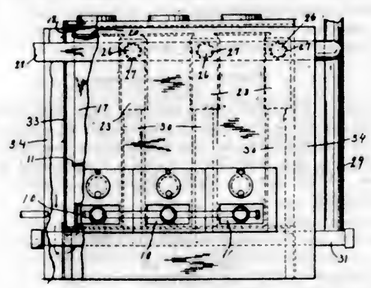
2. In a butter cutting machine, a horizontal platform, vertical standards extending from said platform and having longitudinal grooves that terminate below the top thereof, a movable cutting frame, transverse channel shaped lugs extending from the cutter-frame in the channels of which the vertical standards project, and a removable screw in each channel lug having a projecting end slidably and rockably fitting in the groove of the standard.

3. In a butter cutting machine, a horizontal platform, vertical standards extending from said platform and having longitudinal grooves that terminate below the top thereof, a movable cutting frame, transverse channel-shaped lugs extending from the cutter-frame in the channels of which the vertical standards project, a removable screw in each channel lug having a projecting end slidably and rockably fitting in the groove of the standard, and a portion of the side flange of the channel lug in the vicinity of said screw being suitably cut away to permit said cutting frame to be rocked on the axis of said screw at the limit of its upward movement.

1,135,006. GAS-FURNACE AND CONNECTIONS FOR PARTS THEREOF. LOUIS H. FREYMUTH, Los Angeles, Cal. Filed Sept. 25, 1913. Serial No. 791,747. (Cl. 126—116.)

1. In a hot air furnace the combination of sheet metal flues; cast iron tops for said flues, said tops having downwardly projecting flanges; a combustion chamber having a cast iron top with flue openings therein and upwardly projecting flanges around said openings and having the other walls of said chamber of metal; and S-shaped sheet metal connectors, the troughs of which on one side receive the flanges of the cast iron parts and on the other side the troughs receive the ends of the flues.

2. In a gas furnace a plurality of separated combustion flues, each connected to the top of a combustion chamber and having a port in its edge wall near the top thereof; a fume chamber connected to the combustion flues by the ports near the tops thereof; a transverse bottom conveyer pipe below the combustion chamber; a connection from said conveyer pipe to the bottom of said fume chamber; a



transverse top conveyer pipe connected to the fume chamber near the top; and a stack connected to said top and bottom conveyer pipes.

1,135,007. ARTIFICIAL TOOTH. GUSTAV E. FRITZ, Chicago, Ill., assignor of one-half to Thomas G. McMahon, Chicago, Ill. Filed Aug. 31, 1914. Serial No. 859,277. (Cl. 32—9.)



1. In an artificial tooth crown mounting, the combination with a crown having an opening entering the same from a point approximately centrally of its base, said opening being curved in its length, and substantially circular in cross section with its largest dimension at the mouth of the opening, and a pin adapted to fit within said opening and hold said crown in place, said pin having one portion thereof of substantially the same contour as the opening in said crown, and having its largest diameter substantially adjacent the mouth of said opening when said crown is in position upon said pin.

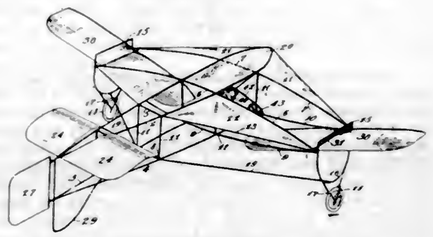
2. A fastening pin for an artificial crown tooth comprising, a tapering oval shaped lower portion adapted to be secured within a tooth, an upper portion of substantially circular cross section and formed with a reverse curve extending away from and then substantially parallel to the longitudinal axis of said lower portion, the largest diameter of said pin being at a cross section taken through the curve nearest the transverse middle of the pin.

1,135,008. RAZOR-BLADE. FRANZ A. FULLER, Newark, N. J. Filed Apr. 28, 1913. Serial No. 764,065. (Cl. 30—12.)



The combination of a razor blade made of sheet metal provided with a substantially plane longitudinal portion, and having a single longitudinal cutting edge, said cutting edge lying approximately in an extension of said plane portion, the blade intermediate of said portion and said edge having a portion uniformly inclined from said edge away from the central plane of said first mentioned portion and lying entirely on one side thereof, said plane having also an off-set portion connecting said inclined portion with said first mentioned portion, the lines of union between said offset portion and said other portion being straight lines approximately parallel to said cutting edge, and a reinforcing member for said blades comprising two plane portions arranged in parallel relation and spaced apart to form a groove adapted to receive the first mentioned portion of said blade, said member being extended in the same general direction as said blade and into contact therewith along one face of said inclined portion.

1,135,009. FLYING-MACHINE. HARRY C. GAMMETER, Bratenahl, Ohio. Filed Nov. 17, 1911. Serial No. 660,833. (Cl. 244—17.)



1. In a flying machine, the combination, with a frame, of two wings flexible at their rear and inner and outer edges and provided with valves opening downwardly and each pivotally mounted adjacent to the center of the wing, one of the wings being placed each side of the center of flight, and means for oscillating such wings about their axes.

2. In a flying machine, the combination, with a central frame, of two laterally extending frames on each side of the central frame, a pair of wings on opposite sides of the central frame between the lateral frames, each wing being upwardly bowed and having flexible edges and made valvular and pivotally mounted at its lateral center on a longitudinal axis adjacent to the outer ends of the corresponding lateral frames.

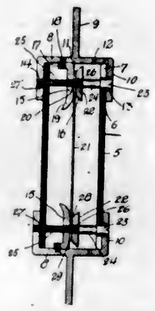
3. The combination of a central frame, a pair of lateral frames extending from each side of the central frame and spaced apart, a pair of wings swinging in such spaces and each pivoted adjacent to its center on a longitudinal axis carried at the outer ends of the lateral frames, cross connections between the outer ends of the lateral frames, and diagonal braces between the outer ends of each lateral frame and the longitudinal frame at parts forward of and at the rear of the lateral frames.

4. In a flying machine, the combination of a central frame, lateral frames extending on each side thereof and standing one at the rear of the other, diagonal braces extending from the outer ends of the lateral frames to the central frame, a pair of wings pivoted in the spaces between the pair of lateral frames respectively, each wing being mounted on a longitudinal rock shaft adjacent to the center of the wing and journaled in the lateral frames, a rock arm on each rock shaft, a driving mechanism mounted on the central frame, and pitmans connecting said mechanism with the respective rock arms.

5. The combination of a central frame, two laterally extending supports one on each side of the frame, a pair of wings each pivotally mounted on said supports intermediate of the inner and outer edges of the wings, a pair of driving wheels spaced apart, a central motor, a sprocket chain connecting the motor and the two driving wheels, whereby the wings are oscillated.

[Claims 6 to 17 not printed in the Gazette.]

1,135,010. CARTRIDGE-FUSE. WILLIAM THOMAS GARLITZ and WILLIAM ROWLES GARDNER, McKees Rocks, Pa. Filed Mar. 27, 1914. Serial No. 827,581. (Cl. 175—273.)



1. A cartridge fuse comprising a shell, caps mounted upon the ends thereof, guide members carried by the caps and projecting into the shell, transversely extending shouldered clamping screws engaging in the caps at two points and extending entirely through the shell for connecting the caps and shell together, and fuse clamping members having said screws extending therethrough and capable of being shifted by the shoulders of the screws for clamping the ends of the fuse to said guide members, said screws extending through and engaging with said members.

2. A cartridge fuse comprising a shell having its ends provided with openings and longitudinal slots of less diameter than said openings leading from some of said openings to the termini of the shells, caps mounted on the ends of the shell and having openings registering with the openings of the shell, transversely-extending shiftable elements provided with heads, the heads of said elements seated in the registering openings, one of which communicates with the slot and further extending through the shell and engaging in the other of said registering openings whereby the caps are connected to the shell, and means engaged by said headed elements for electrically connecting the ends of a fuse with said caps, said slots being of a diameter substantially equal to the diameter of the transversely-shiftable elements and providing for the removal of said caps from said shell without disconnecting said headed elements from said means when said heads are shifted exteriorly of the caps and free of the openings.

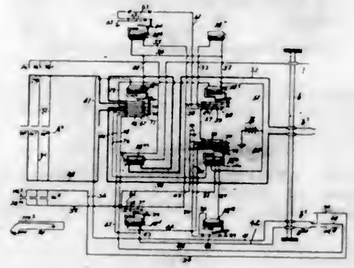
3. A cartridge fuse comprising a shell, a cap mounted on one end thereof, a guide member carried by the cap, a transverse clamping screw engaging in the cap at two points and extending entirely through the shell for connecting the cap thereto, said screw having a shoulder, a fuse clamping member having said screw extending therethrough and capable of being shifted by said shoulder for clamping the end of a fuse to said member, said screw extending through the latter, and means for clamping the other end of the fuse to the other end of the shell.

4. A cartridge fuse comprising a shell, a cap mounted on one end thereof, a member carried by the cap, a transverse clamping element engaging in the cap at two points and extending entirely through the shell for connecting the cap thereto, said element having a shoulder, a fuse clamp having said element extending therethrough and capable of being shifted by said shoulder for clamping the end of a fuse to said member said element extending through the latter, and means for clamping the other end of the fuse to the other end of the shell.

5. A cartridge fuse comprising a shell, a cap mounted on each end thereof and carrying an inwardly extending guide member, a clamping member associated with said guide member, a transverse element for supporting said clamping member, said transverse element having threaded engagement with said guide member and further engaging with said clamping member for clamping one end of a fuse to the cap, said transverse element extending completely through the cap and shell, and means for clamping the other end of the fuse to the other end of the shell.

[Claims 6 to 8 not printed in the Gazette.]

1,135,011. TELEPHONE SYSTEM AND APPARATUS. CHARLES LANE GOODRUM, Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill., and New York, N. Y., a Corporation of Illinois. Filed Apr. 1, 1905. Serial No. 253,227. (Cl. 179—18.)



1. In an automatic telephone system, the combination with the subscriber's instrument circuits having means for despatching impulses of current thereover and trunking and connector switches for interconnecting them, the trunking switches comprising terminals arranged in groups and the connector switches being tied to the separate terminals in said groups, of wipers coöperating with said terminals, electromagnetic operating mechanism for advancing said wipers adapted to respond to impulses of current in the instrument circuits to move the wipers into engagement with one terminal of a given group, and arresting them in such position and other operating devices automatically actuated when the switch connected to the selected terminal is busy to move said wipers within the group of terminals into engagement with a terminal connected to an idle switch.

2. In an automatic telephone system, the combination with the subscriber's instrument circuits having means for despatching impulses of current thereover and trunking and connector switches for interconnecting them, the trunking switches comprising terminals arranged in groups and the connector switches being tied to the separate terminals in said groups, of wipers coöperating with said terminals, electromagnetic operating mechanism for advancing said wipers adapted to respond to impulses of current in the instrument circuits to move the wipers into engagement with the last terminal of a given group and other devices for causing a retrograde movement of the wipers, which are actuated when the switch of said last group terminal is busy.

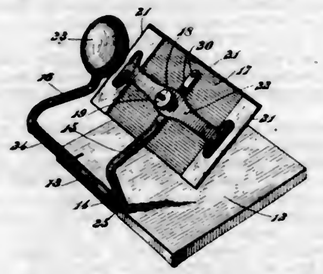
3. In an automatic telephone system, the combination with subscriber's instrument circuits having means for despatching impulses of current thereover and trunking and connector switches for interconnecting them, the trunking switches comprising terminals arranged in groups and the connector switches being tied to the separate terminals in said groups, of wipers coöperating with said terminals, mechanism for operating the wipers into engagement with a terminal of a given group in response to current impulses in the instrument circuits, and other mechanism controlling the subsequent movement of the wipers and adapted to cause them to engage each terminal in the selected group of terminals, said mechanism being normally inoperative and adapted to be actuated whenever the wipers engage a terminal connected to a busy switch.

4. In an automatic telephone system, the combination with subscriber's instrument circuits having means for despatching impulses of current thereover and trunking and connector switches for interconnecting them, the trunking switches comprising terminals arranged in groups and the connector switches being tied to the separate terminals in said groups, of wipers coöperating with said terminals, mechanism for operating the wipers progressively, each movement advancing the wipers over complete groups of terminals, and into engagement with the last terminal of each group and other mechanism for operating the wipers retrogressively into engagement with the other terminals of any group.

5. In an automatic telephone system, the combination with subscriber's instrument circuits having means for despatching impulses of current thereover and trunking and connector switches for interconnecting them, the trunking switches comprising terminals arranged in groups and the connector switches being tied to the separate terminals in said groups, of wipers coöperating with said terminals, mechanism for operating the wipers progressively in response to current impulses in the instrument circuits, each advance movement of the wipers carrying them over a complete group of terminals, and into engagement with the last terminal of each group and other mechanism for operating the wipers retrogressively into engagement with the other terminals of any group, said last mentioned mechanism being normally inoperative but adapted to be actuated to cause retrogression of the wipers each time they engage terminals of busy switches.

[Claims 6 to 15 not printed in the Gazette.]

1,135,012. BLOTTER. HUBERT MILTON GREIST, New Haven, Conn., assignor to The Greist Manufacturing Company, a Corporation of Connecticut. Filed Mar. 9, 1914. Serial No. 823,416. (Cl. 120—27.)



1. A blotting device consisting of a plate or table, a rod having a journaled connection with the rear part of said plate or table and provided with an arm extending forwardly over said plate or table, a blotting pad attached to said arm over said plate or table, a spring for lifting said blotting pad after the same has been depressed and means for limiting the lifting movement of the blotting pad by said spring.

2. A blotting device consisting of a plate or table, a rod having a journaled connection with the rear part of said plate or table and provided with an arm extending forwardly over said plate or table, a blotting pad adjustably attached to said arm over said plate or table, a spring for lifting said blotting pad after the same has been depressed and means for limiting the lifting movement of the blotting pad by said spring.

3. A blotting device consisting of a plate or table, a rod having a journaled connection with the rear part of said plate or table and provided with two arms extending forwardly over said plate or table, a blotting pad attached to one of said arms over said plate or table, a knob attached to the other of said arms, a spring for lifting said blotting pad after the same has been depressed, and means for limiting the lifting movement of the blotting pad by said spring.

4. A blotting device consisting of a plate or table, a sleeve attached to the rear part of said plate or table, a rod journaled in said sleeve and provided with an arm extending forwardly over said plate or table, a blotting pad attached to said arm over said plate or table, a torsional spring for lifting said blotting pad after the same has been depressed, said spring being coiled around a portion of said rod outside of said sleeve, and a stop on said rod for limiting the lifting movement of said pad by said spring.

5. A blotting device consisting of a plate or table, a sleeve attached to the rear part of said plate or table, a rod journaled in said sleeve and provided with an arm extending forwardly over said plate or table, a blotting pad pivotally and adjustably attached to said arm, a torsional spring coiled around said rod, for lifting said blotting pad after the same has been depressed, and a stop on said rod for limiting the lifting movement of said pad by said spring.

[Claim 6 not printed in the Gazette.]

1,135,013. DRIVER FOR ANCHOR-PLATES. WILLIAM L. HAAG, Lansing, Mich. Filed June 21, 1913. Serial No. 775,026. (Cl. 189—92.)



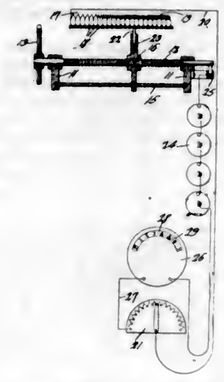
1. A driver for an anchor plate, comprising a bar having a flattened lower end portion to accommodate a plate, said flattened lower end portion being cut away to provide opposed seats for the lower end of said plate, said flattened lower end portion having the upper end thereof undercut to provide a groove to receive the upper end of said plate, and a lug on the flattened lower end portion of said bar adapted to engage the plate.

2. A driver for an anchor plate, comprising a bar having a flattened lower end portion terminating in a point, said flattened lower end portion adapted to accommodate a plate and provide a seat for the lower end thereof, said bar at a point where it merges into the flattened end portion having an undercut groove to accommodate the upper end of said anchor plate, and a lug on the flattened lower end portion of said bar adapted to engage in said plate, said lug having the upper end thereof tapered whereby it can be readily withdrawn from the plate.

1,135,014. POSITION-INDICATOR FOR ELEVATORS. GEORGE HARDING, Spokane, Wash. Filed Dec. 15, 1913. Serial No. 806,863. (Cl. 177—336.)

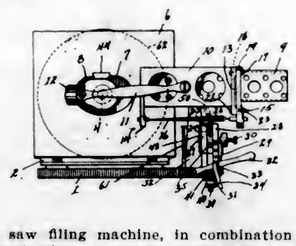
The combination with an elevator car, a hoisting cable, and a pulley wheel over which the cable runs; of an indicating circuit including a galvanometer graduated to indicate the altitude of the elevator car, a rheostat, and a resistance having a series of contacts cut in at various points thereof; and a controller coöperable with the resistance and embodying a screw operatively connected to the

pulley wheel, a nut carried by the screw, and a contact carried by the nut and interposed in the said circuit, the



last mentioned contact being movable along the said series of contacts.

1,135,015. SAW-FILING MACHINE. CHARLES F. HERTZ, Detroit, Mich. Filed Sept. 17, 1913. Serial No. 790,165. (Cl. 76—35.)

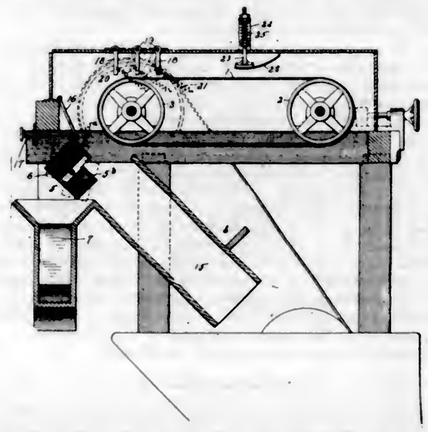


1. In a saw filing machine, in combination with file carrying mechanism, means for frictionally engaging the saw blade, vertically adjustable means to regulate the depth of the file-cut, said means being also adjustable at an angle to the horizontal whereby one side of the saw teeth stands substantially vertical, means for reciprocating the file carrying means, means for raising the file from engagement with a saw tooth during the movement of the file in one direction, and allowing it to fall by gravity into engagement with the saw tooth during its movement in the opposite direction, and means operable during the time the file is out of engagement with the saw for bringing consecutive saw teeth into position to be operated upon by the file.

2. In a saw filing machine, the combination of a reciprocable carriage provided with file holding devices, means for adjusting the file to bring the lower cutting edge into a horizontal plane and a side thereof into a substantially vertical plane, means whereby the file is raised from engagement with the saw during movement in one direction, and into engagement with the saw during movement in the opposite direction, the file carrying mechanism being so mounted as to draw away from the side of the saw tooth as the file is raised out of engagement therewith, means for frictionally holding the saw, means for adjusting the saw holder to vary the depth of the file cut, the holder being adjustable angularly relative to a horizontal plane to accommodate saws having teeth of various angles, and means for moving the saw longitudinally in the holder to bring consecutive teeth into filing position.

3. In a saw filing machine, in combination with file operating mechanism, a clamp for frictionally engaging the saw, a holder for supporting the saw comprising a vertically adjustable base member and a channeled guide member hinged thereto and adjustable in angular relation therewith whereby the angle at which the saw teeth are presented to the file may be adjusted, means for setting the file to engage the saw teeth at the proper angle during engagement therewith, means whereby the file draws away from the tooth as it is raised for successive strokes, and means for moving the saw blade to bring consecutive teeth into filing position.

1,135,016. MAGNETIC SEPARATOR. JOSEPH L. HILLER, Mattapoisett, Mass. Filed Dec. 24, 1909. Serial No. 534,816. (Cl. 83—71.)



1. In a magnetic separator, an electro-magnet a conveyer for delivering material to be separated directly on to the poles of said electro-magnet, means for moving said electro-magnet into the path of the material discharged from said conveyer to collect magnetic material therefrom, and out of said path to discharge the magnetic material from the poles to said magnet, and movable means for deflecting material delivered by said conveyer away from the electro-magnet when the latter is in its discharging position.

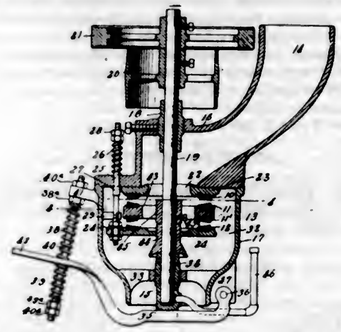
2. A magnetic separator comprising stationary magnets having upwardly disposed adjoining inclined magnetic collecting surfaces, means for directing material to be operated upon to the uppermost of said surfaces and permitting it to fall thereon by gravity, means for receiving such other material as passes over the collecting surfaces of said magnets, means for receiving the material collected on said surfaces, means for moving said magnets away from the flow of said material for discharging the magnetic substances collected thereon, and means for breaking the electric circuit through said magnets when moved to discharging position.

1,135,017. ROTARY CRUSHER. JOSEPH L. HILLER, Mattapoisett, Mass. Filed Jan. 25, 1911. Serial No. 604,620. (Cl. 83—7.)

1. A rotary crusher comprising two opposite non-rotary crushing members, an intermediate runner, means for supporting the runner in predetermined normal operative position yieldable from such normal position toward and from each of said non-rotary crushing members.

2. A rotary crusher comprising two opposed non-rotary crushing members, one of which is movable rectilinearly toward and from the other, means pressing that one of them toward the other yieldably, and an intermediate yieldably mounted runner movable toward and from each non-rotary member and bearing crushing surfaces opposed one to each non-rotary member.

3. A rotary crusher comprising two opposed non-rotating crushing members, one of which is movable toward and from the other rectilinearly, an intermediate yieldably mounted runner having crushing surfaces opposed to each of the said members, and movable toward and from each non-rotating member, and means yieldably holding said runner to a position approximately midway between the non-rotating members.

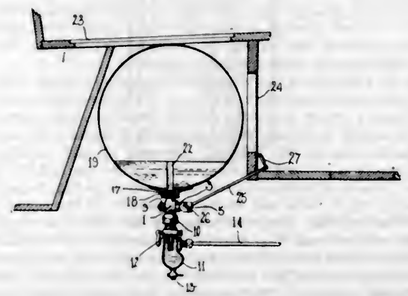


4. A rotary crusher comprising two opposed non-rotating crushing members, an intermediate runner movable toward and from each non-rotary member and carrying two crushing surfaces opposed one to each non-rotary member, a lever supporting said rotary member, a fixed part, and means on the fixed part engaging with the lever for yieldingly supporting the latter.

5. In a rotary crusher, a pair of opposed non-rotary crushing members, an intermediate runner having working faces opposed to the non-rotary members, a lever supporting the rotary member between the non-rotary members, and resilient means supporting opposite sides of the lever to permit the same and the rotary member yielding in either direction.

[Claims 6 to 16 not printed in the Gazette.]

1,135,018. FUEL-RESERVE ATTACHMENT FOR SUPPLY-TANKS. WILLIAM M. HOGLE, Detroit, Mich. Filed Oct. 21, 1914. Serial No. 867,853. (Cl. 158—46.5.)

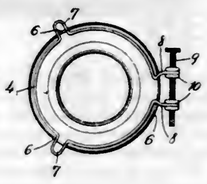


1. The combination with a gasolene supply tank and a sediment trap, of a fitting interposed between said tank and said trap, said fitting having a passage in communication with said tank, a valve normally closing said passage, and a conduit on said fitting extending around the valve into said tank and formed with an open outlet passage independent of said valve whereby the greater part of the contents of said tank may flow into said trap through said open passage.

2. A fitting comprising a body, an offset nipple carried thereby, said nipple having a port therein, a hollow stem carried by said nipple and having a flattened side whereby clearance is provided in the end of the nipple for the port alongside said stem, a connection carried by said body, said body having a by-pass therein establishing communication between said stem and said connection, and a ported plug rotatable in said body and normally closing said port in the nipple.

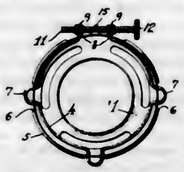
3. A fitting comprising a body, a nipple carried thereby, said nipple having a port therein, a hollow stem carried by said nipple, a connection carried by said body, a ported plug rotatable in said body and normally closing the port in said nipple, and a by-pass in said body establishing communication between said stem and said connection.

1,135,019. SHADE-HOLDER. HARVEY HUBBELL, Bridgeport, Conn. Filed Apr. 2, 1912. Serial No. 688,078. (Cl. 240—115.)



A shade holder comprising a tubular depending support, formed at its upper end to receive a lamp socket or the like, and enlarged at its lower end to receive the flange of a shade, said lower portion having a plurality of circumferentially extending slots, a shade gripping ring within said support having intermediate projections and its ends extending outwardly through said slots and movable therein to center the ring and shade in the support, and a screw carried by said ring ends outside the support and having opposite threaded engagement therewith for positively expanding and contracting the ring.

1,135,020. SHADE-HOLDER. HARVEY HUBBELL, Bridgeport, Conn. Filed Aug. 23, 1912. Serial No. 716,572. (Cl. 240—115.)

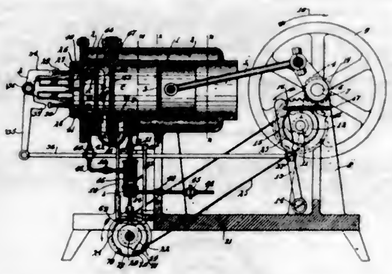


1. A shade holder comprising a body portion having a central aperture to receive a lamp socket, a slotted flange, a contractible ring within said flange having its ends and a plurality of intermediate portions loosely supported in said slots, and a screw connecting the ends of said ring, said screw interlocking with the body portion between the ends of said ring to limit movement thereof relatively to the body portion.

2. A shade holder comprising a body portion having a slotted flange, a contractible ring within said flange having its ends and a plurality of intermediate portions loosely supported in said slots, a screw connecting the ends of said ring, and a shoulder on the screw intermediate the ends having engagement with the body portion to prevent longitudinal displacement of the screw.

3. A shade holder comprising a body portion having a slotted flange, a contractile ring within said flange having its ends and a plurality of intermediate portions loosely supported in said slots, nuts linked to the respective ends of the ring, and a screw engaging said nuts and having an intermediate interlocking engagement with the body portion.

1,135,021. GAS-ENGINE. ERNST HUBER, Brooklyn, N. Y., assignor of one-half to William Meister, Brooklyn, N. Y. Filed Mar. 5, 1913, Serial No. 751,983. Renewed Aug. 19, 1914. Serial No. 857,608. (Cl. 123—1.)



1. An improved mode of operating reciprocating internal combustion engines having a power cylinder and auxiliary chambers connected therewith by a valve-controlled passage by the following sequence of actions, viz;—charging fuel into a primary-explosion chamber; admitting air thereto and to the cylinder; compressing it; exploding the charge in the primary-explosion chamber while it is in communication with the cylinder; admitting additional fuel to the cylinder; isolating the cylinder from the air reservoir, and primary explosion chamber; burning said charge therein; and exhausting the engine.

2. An improved mode of operating reciprocating, internal combustion engines having a power cylinder and auxiliary chambers connected therewith by the following sequence of actions; viz. charging fuel into a primary-explosion chamber; admitting air thereto and to the cylinder; compressing it; exploding the charge in the primary combustion chamber while it is in communication with the cylinder; forcing an additional charge of fuel into the cylinder by the pressure due to said explosion; isolating the cylinder; burning said charge therein; and exhausting the engine.

3. An improved mode of operating reciprocating, internal combustion engines having a power cylinder, and an air reservoir and a primary explosion chamber communicating therewith by a valve-controlled passage, substantially by the following sequence of actions, viz;—charging fuel into the primary explosion chamber; admitting a charge of air through said chamber into the air reservoir and cylinder; compressing said air charge; exploding the charge in the primary combustion chamber while it is still in communication with the air reservoir and cylinder; admitting additional fuel to the cylinder; isolating the cylinder from the air reservoir, and primary explosion chamber; burning said charge therein; and exhausting the engine.

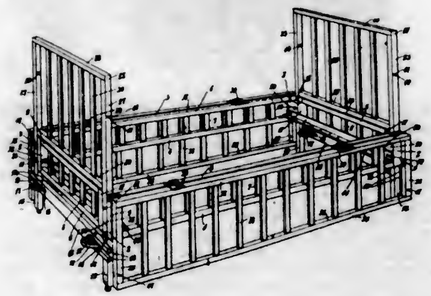
4. An improved mode of operating reciprocating, internal combustion engines having a power cylinder, and an air reservoir and a primary explosion chamber communicating therewith by a valve-controlled passage, substantially by the following sequence of actions, viz:—charging fuel into the primary explosion chamber; admitting a charge of air through said chamber into the air reservoir and cylinder; compressing said air charge; exploding the charge in the primary combustion chamber while it is still in communication with the air reservoir and cylinder; forcing an additional charge of fuel into the cylinder by the pressure due to said explosion; isolating the cylinder; burning said charge therein; and exhausting the engine.

5. An improved mode of operating reciprocating, internal combustion engines having a power cylinder, and an air reservoir and a primary explosion chamber communicating therewith by a valve-controlled passage, substantially by the following sequence of actions, viz; charging fuel into the primary explosion chamber; admitting a charge of air through said chamber into the air reservoir and cylinder; compressing said air charge; exploding the charge in the primary combustion chamber while it is in communication with the air reservoir and cylinder; forcing an additional charge of fuel into the cylinder by the pressure due to said explosion; isolating the cylinder; burning said charge therein; and exhausting the engine.

6. An improved mode of operating reciprocating, internal combustion engines having a power cylinder, and an air reservoir and a primary explosion chamber communicating therewith by a valve-controlled passage, substantially by the following sequence of actions, viz;—charging fuel into the primary explosion chamber; admitting air thereto and to the cylinder; compressing it; exploding the charge in the primary combustion chamber while it is still in communication with the air reservoir and cylinder; and thereby forcing air from the reservoir into the cylinder adjacent and substantially parallel with its head; forcing an additional charge of fuel into the cylinder, at some distance from and substantially parallel with its head, by the pressure due to said explosion; isolating the cylinder when the pressure therein substantially equals that in the reservoir and primary explosion chamber; firing the charge in the cylinder in such manner that its combustion will be initiated with the original air charge thereof and sustained and prolonged with the air from the reservoir; and exhausting the engine.

[Claims 6 and 7 not printed in the Gazette.]

1,135,022. FOLDING CRIB. AUGUST C. HUMMEL, Cincinnati, Ohio. Filed May 4, 1914. Serial No. 836,060. (Cl. 5—58.)



1. In a device of the character described, a main frame comprising a corner-block, an upper inwardly folding member and a lower inwardly folding member, said corner-block having a vertical channel, and said upper and lower member lying in the channel, the ends of said members meeting, and the end of one engaging over the end of the other, means pivoting each of the members in the channel, whereby their ends may swing outward from the channel, said corner-block being cut away at its lower and upper ends inward from the channel to permit said members to fold inward thereacross when their end parts swing outward, and means for securing the member with its end engaging over the other member.

2. In a device of the character described, a main frame comprising a corner-block, an upper inwardly folding member and a lower inwardly folding member, said corner-block having a vertical channel, and said upper and lower member lying in the channel, the ends of said members meeting, and the end of one engaging over the end of the other, means pivoting each of the members in the channel, whereby their ends may swing outward from the channel, said corner-block being cut away at its lower and upper ends inward from the channel to permit said members to fold inward thereacross when their end parts swing outward, and means for securing the member with its end engaging over the other member, said main frame also comprising transverse and longitudinal rails, and the pivoting means of said members engaging with said rails to hold the rails to the corner block.

3. In a device of the character described, a main frame comprising a corner-block, an upper inwardly folding member and a lower inwardly folding member, said corner-block having a vertical channel, and said upper and lower members lying in the channel, the ends of said members meeting, and the end of one engaging over the end of the other, means pivoting each of the members in the channel, whereby their ends may swing outward from the channel, said corner-block being cut away at its lower and upper ends inward from the channel to permit said members to fold inward thereacross when their end parts swing outward, and means for securing the member with its end engaging over the other member, said main frame comprising longitudinal rails joined to the corner-blocks above and below, and transverse beams extending across said main frame and secured to the corner-blocks and to the upper sides of the lower longitudinal rails, forming supporting means for bedding in the device and adapted to reinforce the connection of said rails to said corner-blocks.

4. In a device of the character described, a main frame, an upper inwardly folding member and a lower inwardly folding member, the ends of said members meeting and the end of one engaging over the end of the other, means pivoting each of the members to the main frame, and means for securing said member with its end engaging over the other member, this latter member being disengageable from the end which engages over it, and being adapted to be folded inwardly while leaving the other member to be secured in outwardly folded position.

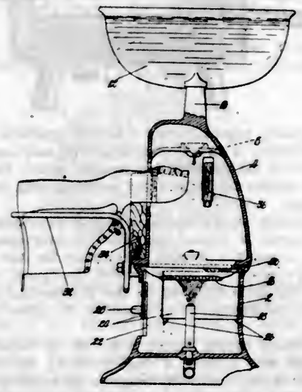
5. In a device of the character described, a main frame, an upper inwardly folding member and a lower inwardly folding member, the ends of said members meeting and the end of the upper member engaging over the end of the lower member when the members are folded outwardly, means pivoting each of the members to the main frame, and means for securing the upper member in outwardly folded position, said lower member being disengageable from the upper member, and adapted to be folded inwardly while leaving the upper member to be secured in outwardly folded position.

1,135,023. COMPRESSED-AIR AND SUCTION WATER-ELEVATOR. WILL L. JONES, Douglas, Ariz. Filed May 15, 1914. Serial No. 838,845. (Cl. 103—8.)

1. In a water elevator, a submerged water receiving and delivery chamber, a water inlet check valve for said chamber, an air compressor, air pressure and suction pipes connected with said air compressor, a slide valve controlling said pipes, a reciprocatory piston for actuating said valve, a cylinder in which said piston works and having its opposite ends in communication with said pipes, a float in said water chamber, and float operated valves controlling said pipes and arranged at the top and bottom of said water chamber.

2. In a water elevator, a submerged water receiving and delivery chamber, a water inlet check valve for said chamber, an air compressor, air pressure and suction pipes connected with said air compressor, a master valve controlling said pipes, a cylinder and piston for operating said master valve and having said pipes in communication therewith, a float in said water chamber, and float operated valves controlling said pipes and arranged within and adjacent to the top and bottom of said water chamber.

1,135,024. APPARATUS FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. JAMES ALFRED KRAY, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 16, 1912. Serial No. 709,714. (Cl. 12—1.)



1. An apparatus of the character described comprising a casing, means for supporting a shoe with a part thereof in said casing, a base supporting said casing, a burner in said base, a diaphragm positioned over said burner, said base having an opening in one side thereof, and a sliding shutter for said opening.

2. An apparatus of the character described comprising a casing having two apertures in one wall thereof, means for supporting two shoes with their toe portions in said apertures, the top of said casing being inclined upwardly from its ends to points substantially over the positions occupied by the shoes and thence sloping downwardly to the middle of the casing, and means for generating vapor in said casing.

3. In apparatus of the character described comprising a casing, means for supporting a shoe with a part thereof in said casing, a base for said casing, means for supplying vapor to said casing comprising a burner positioned in said base, said base having an opening in one side thereof, and a shutter for said opening.

4. An apparatus of the character described comprising a casing, means for supporting a shoe with a part thereof in said casing, means for supplying a series of small quantities of water to said casing, and means for vaporizing the water substantially as fast as it is supplied to the casing.

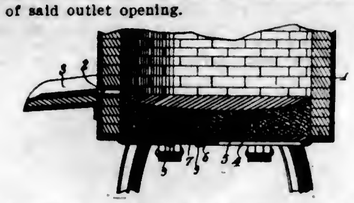
5. An apparatus of the character described comprising a base, a casing supported thereon, a receptacle for water mounted on said casing, a diaphragm positioned between said casing and base, said casing having an orifice in its top directly over said diaphragm, a cock positioned over said opening to control the flow of water from the receptacle, a burner in said base for heating said diaphragm, said base having an opening in one side thereof, and a cylindrical shutter slidingly mounted in said base having an opening therein which may be moved into or out of register with the opening in the base.

1,135,025. FOUNDRY-CUPOLA. GEORGE M. KLUG, Ionia, Mich. Filed May 18, 1914. Serial No. 839,337. (Cl. 75—192.)

1. A foundry cupola having a bottom and a vertical wall with an opening in the vertical wall providing an outlet for the removal of molten metal from the cupola, and means provided in the cupola for removal of the residue of molten material in the cupola below the level of said outlet opening.

2. A foundry cupola having a bottom and a vertical wall with an opening in the vertical wall providing an outlet for the removal of molten metal from the cupola, and means provided in the bottom of the cupola for removal

of the residue of molten material in the cupola below the level of said outlet opening.



3. A foundry cupola having a bottom provided with an opening therein, a funnel positioned in said opening, a plate covering the opening and against which the funnel rests, and means for detachably securing said plate over the opening.

4. A foundry cupola having a bottom provided with an opening therein, a funnel positioned in said opening and extending above the bottom, a closure for the opening comprising a plate and against which the funnel rests, and retaining members attached to the bottom and engaging said plate to retain it in position to close the said opening.

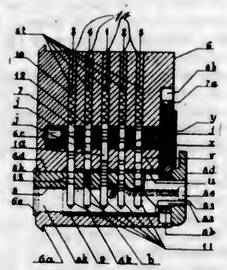
5. A foundry cupola having a bottom, a funnel extending through said bottom, a plate covering the lower end of the funnel, and retaining members attached to the bottom for retaining the plate in position to close the lower end of the funnel.

[Claims 6 and 7 not printed in the Gazette.]

1,135,026. PROCESS OF FORMING PYROXYLIN BODIES. FREDERICK KNIFFEN, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Apr. 12, 1913. Serial No. 760,579. (Cl. 134—79.)

The process of forming a body of pyroxylin, comprising dissolving pyroxylin in a mixture of ethylacetate and benzol, and then causing the said mixture to evaporate.

1,135,027. PIN-TUMBLER LOCK. CHARLES F. KOHLBERGER, New York, N. Y. Filed Aug. 15, 1913. Serial No. 784,848. (Cl. 70—93.)



1. A tumbler lock comprising a container adapted to contain locking members, a key-operable member adapted to be directly connected with a key, a combination-transformer operably connected with said key-operable member, a multiple-part tumbler including permuting sections of said tumbler adapted to be set in a plurality of orders by said combination-transformer when the lock is successively locked and unlocked or vice-versa.

2. A tumbler lock comprising a container adapted to contain locking members, a key-operable member adapted to be directly operated by a key, a combination-transformer operably connected with said key-operable member, a multiple-part tumbler including permuting sections of said tumbler adapted to be set in a plurality of orders by said combination-transformer when the lock is successively locked and unlocked or vice-versa, said orders forming different locking combinations.

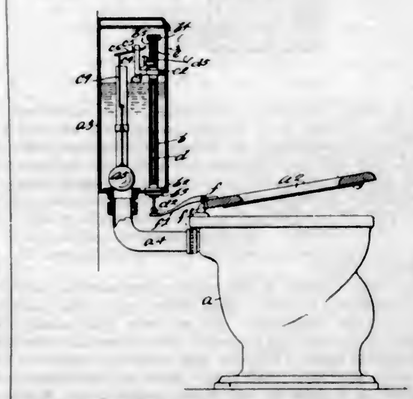
3. A tumbler lock adapted to be operable and to have its combination changed and set in successive orders by operating it successively with different keys of a key-series and comprising a container adapted to contain locking members, a key-operable member adapted to be directly operated with a key, a combination-transformer operably connected with said key operable member, a multiple-part tumbler including differing permuting sections of said tumbler adapted to be set in a plurality of orders by the combination-transformer when the lock is successively locked and unlocked or vice-versa, such orders comprising differing locking combinations severally adapted to be operable by a particular key and inoperable by other keys of said series.

4. A tumbler lock operable and adapted to be set in different locking combinations by the alternate use of a master key and change-keys of a key-series and comprising a container adapted to contain locking members, a key-operable member adapted to be directly operated with a key, a combination transformer operably connected with said key-operable member, a plurality of multiple-part tumblers including permuting sections comprised in each of said tumblers and adapted to be set in a series of orders, by said combination-transformer, when the lock is locked and unlocked and vice-versa, one of said orders adapted to be locked with the first change-key of the key series and thereby changed into a second order which can be unlocked by such change key and thereby restored to the first named order, and which can be unlocked with the master key.

5. A tumbler lock operable and adapted to be set in different locking combinations by the alternate use of a master key and change-keys of a key-series and comprising a container adapted to contain locking members, a key-operable member adapted to be directly operated with a key, a combination-transformer operably connected with said key-operable member, a plurality of multiple-part tumblers including permuting sections comprised in each of said tumblers and adapted to be set in a series of orders, by said combination-transformer, when the lock is locked and unlocked or vice-versa, one of said orders adapted to be locked with the first change-key of the key series and thereby changed into a second order which can be unlocked by such change key and thereby restored to the first named order, and which can be unlocked with the master key and thereby changed into a third order which can be locked with the second change key of the key-series and thereby changed into a fourth order which cannot be unlocked with the first change-key but can be unlocked with the second change-key and thereby restored to the third order and can be unlocked by the master key.

[Claims 6 to 57 not printed in the Gazette.]

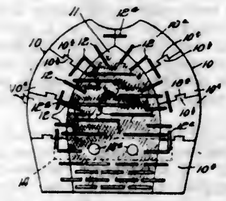
1,135,028. FLUSHING DEVICE. FRIEDRICH WILHELM OTTO KRETER, San Antonio, Tex. Filed May 27, 1914. Serial No. 841,259. (Cl. 4—5.)



The combination with a water-closet, of a hinged seat, a tank, a valve therein, a horizontal arm therein, a lever

in pivotal connection with said arm, a vertically movable rod, a pivot on said rod, and a dog on said pivot having a hooked upper end for engagement with said lever, and a horizontal extension at the lower end of said dog arranged in the plane of said lever whereby said dog is forced into vertical position, in its upper movement, by contact with said lever, to insure said hook engagement with said lever.

1,135,029. HOOF-PAD. ANDRU LARSEN, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,001. (Cl. 168—26.)



1. A hoof pad adapted to be interposed between the hoof of a horse and the shoe, said pad comprising a rim member made of flexible material and of the general contour of the shoe, a center member made of flexible material and having all portions thereof in the same plane with said rim member, the lateral edges of said center member abutting against the inner lateral edges of said rim member, and fastening members for securing said rim and center members together.

2. A hoof pad adapted to be interposed between the hoof of a horse and the shoe, said pad comprising a rim member made of flexible material and of the general contour of the shoe, a center member made of flexible material and having all portions thereof in the same plane with said rim member, the lateral edges of said center member abutting against the inner lateral edges of said rim member, and pronged metal fasteners or staples inserted through and joining said rim and center members together; the body portions of each metal fastener extending across the meeting edges of said members.

3. A hoof-pad adapted to be interposed between the hoof of a horse and the shoe, said pad comprising a rim member made of flexible material and of the general contour of the shoe, a transverse heel member made of flexible material and arranged in the same plane with said rim member and having the end portions of its inner longitudinal edge abutting against the end edges of said rim member, a center member made of flexible material and arranged in the same plane with said rim and heel members and having its edges abutting against the adjacent inner edges of said rim and heel members, and metal fasteners inserted through and joining said members together.

4. A hoof-pad adapted to be interposed between the hoof of a horse and the shoe, said pad comprising a rim member embracing two side portions of the general contour of the shoe, and each side portion constituting a half of the rim member, each side portion consisting of a plurality of pieces or sections which meet each other edge to edge and arranged in the same plane with each other, fastening members inserted through and joining the sections of each side portion together, a center member arranged in the same plane with said rim member with its lateral edges abutting against the inner lateral edges of said rim members, and fastening members joining said rim and center members together.

5. A hoof-pad adapted to be interposed between the hoof of a horse and the shoe, said pad comprising a rim member embracing two side members of the general contour of the shoe, and each side portion constituting a half of the rim member, each side portion consisting of a plurality of pieces of sections which meet each other edge to edge and arranged in the same plane with each other, a center member arranged in the same plane with said rim member and having its lateral edges abutting against the inner lateral edges of said rim members, metal staples inserted through and joining said sections, and means for joining said rim and center members together.

[Claims 6 to 9 not printed in the Gazette.]

1,135,030. HOOF-PAD. ANDRU LARSEN, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,003. (Cl. 168—26.)



1. A hoof pad adapted to be interposed between the hoof of a horse and the shoe, said pad comprising a curved rim member of the general contour of the shoe, said rim member consisting of a plurality of layers of cloth united to each other by an adhesive, water-proof material, a center member made of leather and having its lateral edges meeting and in abutting relation with the inner lateral edges of said rim member; all portions of said center member lying in the same plane with said rim member, and metal fasteners for securing said rim and center members together.

2. A hoof pad adapted to be interposed between the hoof of a horse and a shoe, said pad comprising a curved rim member of the general contour of the shoe, said rim member consisting of a plurality of layers of cloth united to each other by an adhesive, waterproof material, a center member having its lateral edges meeting and in abutting relation with the inner lateral edges of said rim member, a transverse heel member having its inner longitudinal edge meeting and in abutting relation with the adjacent edges of said rim and center members, said center and heel members, each being made of leather, all portions of said center and heel members lying in the same plane with said rim member, and metal fasteners for securing said rim, center and heel members together.

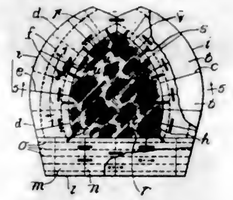
3. A hoof pad adapted to be interposed between the hoof of a horse and a shoe, said pad comprising a curved rim member of the general contour of the shoe, said rim member consisting of a plurality of layers of cloth united to each other by an adhesive, water-proof material, a center member having its lateral edges meeting and in abutting relation with the inner lateral edges of said rim member, a transverse heel member having its inner longitudinal edge meeting and in abutting relation with the adjacent edges of said rim and center members, said center and heel members each being made of leather; one of the last two mentioned members consisting of a plurality of pieces or sections which meet each other edge to edge, metal fasteners inserted through and uniting said pieces or sections and all portions of said center and heel members lying in the same plane with said rim member, and metal fasteners for securing said rim, center and heel members together.

1,135,031. HOOF-PAD. ANDRU LARSEN, Chicago, Ill. Filed Aug. 2, 1913. Serial No. 782,551. (Cl. 168—26.)

1. A hoof-pad, comprising a plurality of layers of flexible material, each layer consisting of a series of pieces or sections which meet each other edge to edge, each layer having a continuous integral portion extending across the meeting edges of a plurality of pieces or sections of the next adjacent layer, and said layers being permanently connected with each other.

2. A hoof-pad, comprising a plurality of layers of leather, each layer consisting of a series of pieces or sections which meet each other edge to edge, each layer having a continuous integral portion extending across the

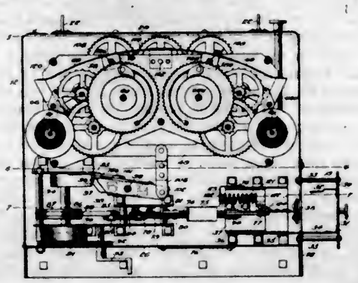
meeting edges of a plurality of pieces or sections of the next adjacent layer, said layers being permanently connected with each other, a center member, and means for connecting said center member with said layers.



3. A hoof-pad, comprising a plurality of layers of flexible material, each layer consisting of a series of pieces or sections which meet each other edge to edge, each layer having a continuous integral portion extending across the meeting edges of a plurality of pieces or sections of the next adjacent layer, and said layers being secured together by rows of stitching extending through the pieces or sections of said layers.

4. A hoof-pad, comprising two curved oppositely disposed rim members, a heel member extending between and connected with said rim members, each curved rim and heel member consisting of a plurality of layers of flexible material, each layer composed of a series of pieces or sections which meet each other edge to edge, each layer having a continuous integral portion extending across the meeting edges of a plurality of pieces or sections of the next adjacent layer, rows of stitching extending through and securing the pieces or sections of each layer together and securing the layers together, a shield member having its lateral edges abutting against the adjacent inner lateral edges of said rim members, and having its rear edge abutting against the adjacent inner edge of said heel member, and metal fasteners securing the shield member to said rim and heel members.

1,135,032. AUTOMATIC PHOTOGRAPHING APPARATUS. ARTHUR LATTAU, New York, N. Y. Filed Feb. 10, 1908. Serial No. 415,139. (Cl. 161—26.)



1. A device for automatically operating a photographic camera, comprising, in combination, means for compressing a shutter bulb, actuating means therefor adapted to cause said compressing means to impart to said bulb a plurality of successive compressions, and mechanism for controlling the time of said compression and the interval therebetween, thereby determining the time and duration of the exposure.

2. A device for automatically operating a photographic camera comprising, in combination, means for holding a flexible power transmitter, means for operating upon said transmitter to operate the camera shutter, actuating means adapted to cause said operating means to perform a plurality of successive operations for opening and closing said shutter, and clockwork mechanism for controlling the time of said operations and the interval therebetween, thereby determining the time and duration of the exposure.

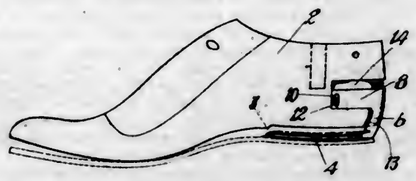
3. A device for automatically operating a photographic camera comprising, in combination, means for holding a shutter bulb, a member for compressing said bulb, actuating means adapted to cause said member to impart to said bulb a plurality of successive compressions, and mechanism for controlling the time of said compressions and the interval therebetween, thereby determining the time and duration of the exposure.

4. In a device of the character described, the combination with a member for operating the shutter of a photographic camera and means for actuating said member provided with a plurality of stops, of a restraining device, time controlling mechanism, automatic means controlled by said time controlling mechanism for moving said restraining device into positions to engage said stops successively, and locking mechanism for said time controlling mechanism.

5. In a device of the character described, the combination with means for operating the shutter of a photographic camera, of a plurality of time-controlling mechanisms each adapted to control the operation of said operating means, means for restraining the operation of said time-controlling mechanisms and means for simultaneously releasing said mechanisms.

[Claims 6 to 35 not printed in the Gazette.]

1,135,033. LAST. ANDREW MAURICE LUND, Auburn, Me., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 19, 1912. Serial No. 715,882. (Cl. 12—139.)



1. A last having an anvil plate permanently attached thereto and mounted to afford an unobstructed space between the tread face of the last and said plate for the application of an insole in its normal position on said face.

2. A last having an anvil plate permanently attached thereto and arranged to be positioned either in contact with the tread face of the last or at a distance therefrom to afford an unobstructed space between said face and said plate for the application to said face of an insole.

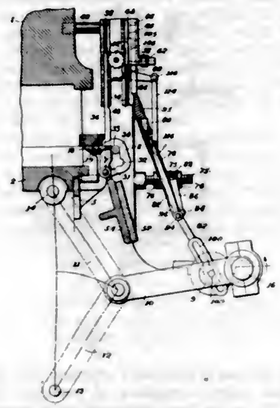
3. A last having a recessed heel seat, an anvil plate for said heel seat, and means permanently connecting said plate to said last and arranged to enable the plate to be moved into said recess or away from said recess to provide an unobstructed space for the application of an insole in its normal position on the bottom said last.

4. A last having an anvil plate for its heel part, and means for permanently connecting said plate to said last arranged to permit movement of the plate toward and from the tread face of said heel part, said means being so connected to said plate as to afford, when the plate is moved away from said face, an unobstructed space for the entrance, between said plate and the tread face of the heel part, of the heel seat part of an insole when placed in its normal position on the bottom of the last.

5. A last having recesses formed in opposite sides of its heel part, in combination with an anvil plate having extensions arranged to occupy said recesses and movable therein to permit the plate to be positioned in an offset relation to the tread face of the last or in engagement with said face.

[Claims 6 to 10 not printed in the Gazette.]

1,135,034. MACHINE FOR OPERATING UPON HEELS. THOMAS LUND, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 14, 1910. Serial No. 543,670. (Cl. 12—46.)



1. In a machine of the class described, the combination with a knife and actuating mechanism therefor, of a reciprocating member, and a heel blank carrier supported for movements with said member and also for additional movements, first into position for receiving a blank from said member and then into position for locating the blank in the path of the knife.

2. In a machine of the class described, the combination with a knife and actuating mechanism therefor, of a reciprocating member, and a heel blank carrier supported for movements with said member and additionally movable to one position for receiving a heel blank from said member and then to a different position for locating the blank in the path of movement of the knife.

3. In a machine of the class described, the combination with a knife and actuating mechanism therefor, of a reciprocating member, and a heel blank carrier movable therewith, and means to position the carrier for receiving a blank from said member and for locating the blank in the path of movement of said knife.

4. In a machine of the class described, the combination with a knife and actuating mechanism therefor, of a vertically reciprocating head, a heel blank carrier movable therewith, and means for locating the carrier in position to receive a blank upon one movement of said head and for turning the carrier to present the blank in a different angular position for action thereon by the knife upon another movement of the head.

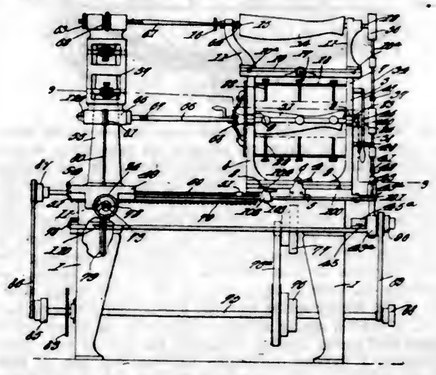
5. In a machine of the class described, the combination with a lip cutting knife, of a heel blank carrier arranged to receive a blank with its tread face in a substantially horizontal position, means for turning the carrier through an angular distance of substantially ninety degrees to locate the blank in the path of the knife, and means for actuating the knife to cut the blank operative when the blank reaches the last-named position.

[Claims 6 to 36 not printed in the Gazette.]

1,135,035. LATHE. WYLIE A. MCELROY, Atlanta, Ga. Filed June 22, 1914. Serial No. 846,628. (Cl. 142—7.)

1. In a device of the class described, superposed work and model carriages; a swinging frame embodying a model-engaging means and a work-engaging cutter; means for producing relative movement between the carriages upon the one hand and the frame upon the other hand in the direction of the length of the work; and means for producing relative movement between the carriages in a direction transverse to the work.

2. In a device of the class described, superposed work and model carriages; a swinging frame embodying a model-engaging means and work-engaging cutter; means for producing relative movement between the carriages upon the one hand and the frame upon the other hand in the direction of the length of the work; and means for moving one carriage transversely of the work.



3. In a device of the class described, a supporting structure; a frame and a bed-member mounted to swing thereon in substantially parallel planes, the frame comprising a model-engaging means and a work-engaging cutter; means for holding the bed-member in adjusted positions; superposed work and model carriages mounted to move with respect to each other transversely of the work, one carriage being mounted to move on the bed member transversely of the work; and means for moving the frame toward and away from the carriages longitudinally of the work.

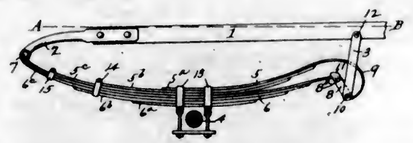
4. In a device of the class described, a frame; a basket support on the frame; a model support on the basket support; a basket journaled in the basket support; a center journaled in the basket; means for connecting the center with the basket and for disconnecting the center from the basket; means for driving the center; a spider detachably secured to the basket and including a work holding center; a tool carriage on the frame; a cutter coöperating with the basket; a guide coöperating with the model support; means for operatively connecting the cutter and the guide, said means being pivotally mounted on the tool carriage; and means for producing relative movement between the tool carriage on the one hand and the supports upon the other hand; and work-holding means on the basket, the work-holding means being operative when the spider is removed.

5. In a device of the class described, a basket-carriage; a basket journaled in the carriage; a work-holding device upon the basket; a pair of centers upon the basket, one of which centers is detachable; means for connecting the other center and the basket-carriage for simultaneous rotation; means for rotating said other center; a model-holding means; a cutter operating within the contour of the basket; a cutter-directing element coöperating with the model-holding means; and means for connecting the cutter and the cutter-directing element for simultaneous swinging movement.

1,135,036. VEHICLE-SPRING. MICHAEL M. MCINTYRE, Cleveland, Ohio, assignor to The Perfection Spring Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 29, 1906. Serial No. 340,938. (Cl. 21—97.)

1. A compound vehicle spring comprising a spring both ends of which are adapted for connection with a vehicle frame and a spring having an end flexibly connected to an end of the former spring, the ends of the leaves of the latter spring projecting beyond the central portion of the former spring at varying distances therefrom, the leaf

of the latter spring which is adjacent the former spring projecting the greatest distance beyond the center of the former spring, and means for securing the spring members together at the central portion of the former spring, substantially as specified.



2. A compound vehicle spring comprising a spring member both ends of which are adapted for connection with a vehicle frame and a spring member having an end flexibly connected to an end of the former spring, the leaves of the latter spring member extending beyond the center of the former spring member at varying distances therefrom and being staggered with respect to the corresponding ends of the leaves of the former member, means for securing the body portions of said members together, and means for securing the ends of the leaves of the latter spring member to the former spring member, substantially as specified.

3. A vehicle spring member comprising an upper and a lower leaf spring member connected together at their body portions, a flexible connection between one end of said upper spring member and the adjacent end of the lower spring member, the ends of the leaves of the other end of the upper spring member being staggered with respect to the subjacent ends of the leaves of the lower spring member, and means for securing such ends of the upper spring member to the lower spring member, substantially as specified.

4. A vehicle spring comprising two individual spring members, one of said members being a semi-elliptic spring and the other a spring having a scroll end extending around and flexibly connected to one end of the former spring and having its other end terminating short of the corresponding end of the semi-elliptic spring and secured to said semi-elliptic spring, substantially as specified.

5. The combination with a vehicle axle of a compound spring, one end portion of which is constructed as a semi-elliptic spring and the other end portion of which consists of a semi-elliptic spring member and a scroll spring member, the end of the latter member extending around and being flexibly connected to the adjacent end of the former member and means mounted upon the axle for securing the body portions of the spring thereto, substantially as specified.

[Claims 6 to 12 not printed in the Gazette.]

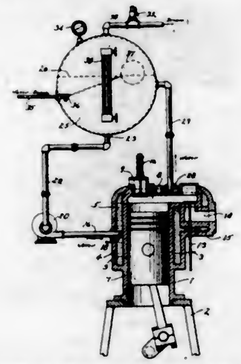
1,135,037. PROCESS OF WATER-JACKETING. JOSEPH B. MERIAM, Cleveland, Ohio. Filed Jan. 21, 1914. Serial No. 813,570. (Cl. 123—170.)

1. The process of efficiently utilizing fuel in an internal combustion engine consisting of maintaining water in the water jacket at a temperature high enough to form steam while preventing the adherence of steam bubbles to the outer surface of the inner wall of the jacket.

2. The process of efficiently utilizing fuel in an internal combustion engine consisting of maintaining the water in the water jacket at a temperature high enough to form steam while running such water through the jacket with sufficient rapidity to prevent the formation and adherence of steam bubbles to the outer surface of the inner wall of the jacket.

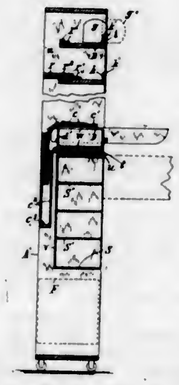
3. The process of efficiently utilizing fuel in an internal combustion engine consisting of maintaining the water in the water jacket at a temperature high enough to form steam, running such water through the jacket with comparative rapidity to prevent the formation and adherence of steam bubbles to the inner wall of the jacket and allowing steam to form outside of the jacket.

4. The process of efficiently utilizing fuel in an internal combustion engine consisting of maintaining in the water jacket water at a temperature high enough to form steam, forcing the same through the jacket rapidly enough to prevent steam bubbles forming on and adhering to the inner wall of the jacket and then conducting such heated water to a reservoir.



5. The process of efficiently utilizing fuel in an internal combustion engine consisting of pumping water rapidly through the jacket from and back to a reservoir, rapidly enough to allow the water in the jacket and reservoir to be maintained at a temperature above 212°, by preventing the formation and adherence of steam bubbles to the inner wall of the jacket, while allowing the steam to separate from the water within the jacket.

1,135,038. CLASSIFYING-CABINET. CARLISLE H. MIDDAUGH, Lawrenceville, Pa. Filed Sept. 27, 1912. Serial No. 722,675. (Cl. 211—36.)



1. In a classifying cabinet, the combination, with a casing, of horizontal shelves fitted therein, partitions dividing the space upon the shelves, and a series of adjustable cleats projected upwardly from the shelf at varying heights to stop letters of various lengths when inserted between the partitions.

2. In a classifying cabinet, the combination, with an upright casing, of a series of shelves arranged closely one above another to support mail matter thereon, a rod extended rotatably over the front portion of each shelf, a series of blocks fitted adjustably upon each rod with a partition attached to each block and the partitions rotatable with the rod between the shelves and proportioned to clear the under sides of the shelves when rotated outwardly therefrom.

3. In a classifying cabinet, the combination, with an upright casing, of means in the upper part for classifying

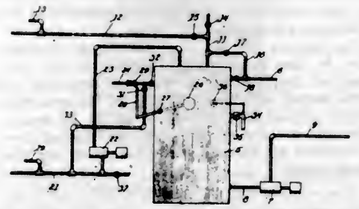
papers, and having a space below the same with rods fitted removably between the sides of the casing at the top of such space and adapted to receive and support bags, by sliding upon the said rods, for receiving letters or papers.

4. In a classifying cabinet, the combination, with an upright casing having means in the bottom for receiving letters and papers in bulk, of brackets upon the inner sides of the casing above the said letter-receiving means and projecting outward from either side of the casing, and a slatted flexible table or disk-top supported movably upon the brackets and adapted to slide in and out of the casing upon the brackets.

5. In a classifying cabinet, the combination, with an upright casing having means in the bottom for receiving letters and papers in bulk, of bracket-bars pivoted upon the inner sides of the casing above the said letter-receiving means and projecting outward from the front side thereof, and a slatted flexible table-top adapted to slide in and out of the casing upon the said brackets.

[Claim 6 not printed in the Gazette.]

1,135,039. HEATING APPARATUS. FRANK W. MILLER, Chicago, Ill., assignor of one-half to Clarence D. Bauers, Chicago, Ill. Filed June 14, 1911. Serial No. 633,016. (Cl. 261—4.)



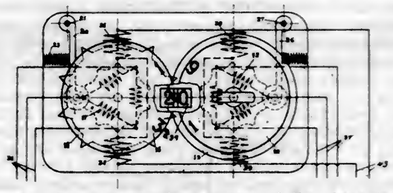
1. In a heating apparatus, the combination of an exhaust steam pipe, a feed water heater, a pump having its intake connected with said exhaust pipe and having its discharge arranged to empty into said feed water heater, a fresh water supply pipe connected with said feed water heater, a shut-off valve in said pipe, a float in said heater controlling said valve, a branch pipe connected with said fresh water pipe between said valve and the heater, said branch pipe being connected at its other end to said exhaust pipe, and means for directing the flow of water from said fresh water pipe directly to the feed water heater or through said branch pipe to the exhaust pipe.

2. In a heating apparatus, the combination of an exhaust steam pipe, a feed water heater, a fresh water supply pipe connected therewith, a branch pipe connecting the water supply pipe with said exhaust pipe, a float located in said heater for controlling the supply of fresh water, valves whereby the water may be directed to the heater directly or to the exhaust pipe, and an exhaust pump connected to discharge the fresh water and the steam in the exhaust pipe condensed thereby into the feed water heater.

3. In a heating apparatus, the combination of an exhaust steam pipe, an exhaust pump, a water supply pipe connected with the exhaust pipe, a connection from said pump to the feed water heater whereby the water and the exhaust steam condensed thereby may be discharged by the pump into the feed water heater, and a pipe whereby the supply of water may be delivered directly to the heater.

4. In a heating apparatus, the combination of an exhaust steam pipe, a receptacle, a pump having its intake connected with said exhaust pipe and having its discharge arranged to empty into said receptacle, a fresh water supply pipe connected with said receptacle, a shut-off valve in said pipe, a float in said receptacle controlling said valve, a branch pipe connected with said fresh water pipe between said valve and the receptacle, said branch pipe being connected at its other end to said exhaust pipe, and means for directing the flow of water from said fresh water pipe directly to the receptacle or through said branch pipe to the exhaust pipe.

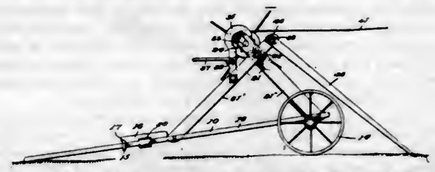
1,135,040. ELECTRIC SIGNALING APPARATUS. ERNST GEORG MISSBACH, New York, N. Y., assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany, a Corporation of Germany. Filed June 28, 1912. Serial No. 706,368. (Cl. 177—337.)



1. An electrical signaling system of the character described, comprising a plurality of sending elements, a like plurality of receiving elements, electrical connections between each of said sending elements and its corresponding receiving element and auxiliary mechanical means for fixing the relative movements of said sending elements and the relative movements of said receiving elements in a desired ratio.

2. An electrical signaling system of the character described, comprising a sending and a receiving element for smaller units, a sending and a receiving element for greater units, and mechanical devices for operating said elements for the greater units from said elements for the smaller units, electrical connections between said element for the greater units at the sending station and said element for the greater units at the receiving station, and electrical connections between said element for the smaller units at the sending station and said element for the smaller units at the receiving station.

1,135,041. COMBINED REEL-CARRIAGE AND WIRE-STRETCHER. GEORGE MORTON, West Grove, Iowa. Filed Feb. 12, 1914. Serial No. 818,330. (Cl. 242—90.)



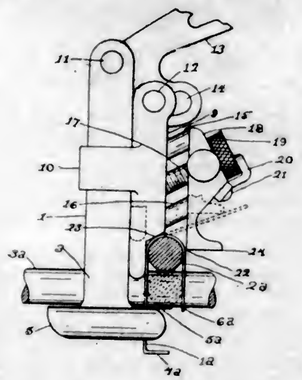
1. A device of the character described including a frame having supporting wheels operatively connected thereto adjacent one extremity, supporting members carried by the frame adjacent said supporting wheels, each of said members including arms converging above the frame and secured together adjacent their upper extremities, the arms of the said members being arranged in pairs, a reel carried by said members and operatively connected with one pair of oppositely disposed arms thereof, and ground engaging arms pivotally connected to the opposite pair of oppositely disposed arms of said members in advance of the horizontal axis of the reel and rearwardly of the pivotal axis of the supporting wheels.

2. A device of the character described including a frame having supporting wheels operatively connected thereto, supporting members carried by the frame, each of said members including arms converging above the frame and disposed to cross each other adjacent their upper extremities, the arms of the said members being arranged in pairs, a reel carried by said members and operatively connected to one pair of oppositely disposed arms of said members at the upper extremities thereof, and ground engaging arms pivotally connected to the upper extremities of the opposite pair of oppositely disposed arms of said members in advance of the horizontal axis of the reel and rearwardly of the pivotal axis of the supporting wheels.

3. In a device of the character described, a frame including supporting wheels, a reel mounted upon the frame, ground engaging arms pivotally mounted upon the frame,

and a platform mounted in front of the reel on the supporting frame, said platform including a bracket engaging the frame and projecting laterally beyond the sides thereof to engage said ground engaging arms when swung to inoperative position.

1,135,042. APPLYING-TOOL FOR CONCRETE-REINFORCING TIES. JACOB B. NEEVEL, Kansas City, Mo. Filed June 26, 1913. Serial No. 775,894. (Cl. 81—15.)



1. In a tool for applying ties to concrete reinforcing bars, the combination of a body portion, a foot projecting laterally from said body portion, a jaw slidably attached to said body portion, a second jaw whose distance from said first jaw and said foot is adjustable, and a handle by which said jaws may be pressed toward said foot and withdrawn.

2. In a tool for applying ties to concrete reinforcing bars, the combination of a body portion, a foot projecting laterally from said body portion, said foot provided with a second projecting point, a jaw slidably attached to said first jaw and said foot portion, a jaw whose distance from said body is adjustable, and a handle by which said jaws may be pressed toward said foot and withdrawn.

3. In a tool for applying ties to concrete reinforcing, the combination of a body portion, one end of said body portion provided with a foot projecting laterally therefrom, a handle pivoted to the opposite end of said body portion, a jaw adjacent said body portion and slidably connected thereto, a jaw adjacent said slidably connected jaw whose distance from said body is adjustable, said slidably connected jaw provided with a pin, and a cam slot in said handle connecting with said pin whereby the oscillation of said handle may press said jaws toward said foot and withdraw them.

4. In a tool for applying ties to concrete reinforcing, the combination of a body portion, one end of which is a bifurcated jaw, a pin in said jaw, a handle pivoted on said pin, the opposite end of said body portion provided with a foot, a jaw adjacent said body portion and slidably connected thereto, a jaw adjacent said slidably connected jaw whose distance from said body portion is adjustable, one end of said adjustable jaw provided with a bifurcated jaw, a pin in said bifurcated jaw, and a cam slot in said handle connecting with said pin whereby the oscillation of said handle may press said jaws toward said foot and withdraw them.

5. In a tool for applying ties to concrete reinforcing, the combination of a body portion with a foot, a jaw slidably connected to said body portion, a handle constructed and arranged to slide said jaw to and fro along said body portion, and an angularly adjustable jaw whose distance from said body portion is adjustable, the adjustable angle of said angularly adjustable jaw being acute to the face of said foot and so arranged that the applying corner of said jaw will approximately span one half of the diameter of the bar nearest to said handle.

1,135,043. PROCESS OF OBTAINING PRINTS ON FABRICS. OTTO NEUBERGER, Frankfort-on-the-Main, Germany. Filed Feb. 27, 1914. Serial No. 821,557. (Cl. 8—5.)

1. The process of obtaining designs on fabrics, which consists in applying on the fabric reduction dyestuffs finely ground with varnish or an oil by means of the lithographic printing process and developing the prints thus obtained by steaming in presence of an alkali and reducing agents.

2. The process of obtaining designs on fabrics, which consists in applying on the fabric reduction dyestuffs in the form of leuco compounds finely ground with varnish or an oil by means of the lithographic printing process, and developing the prints thus obtained by steaming in presence of an alkali and reducing agents.

3. The process of obtaining designs on fabrics, which consists in first impregnating the fabric with a solution of an alkali and reducing agents, then applying reduction dyestuffs finely ground with varnish or an oil by means of the lithographic printing process, and developing the prints thus obtained by steaming in presence of an alkali and reducing agents.

4. The process of obtaining designs on fabrics, which consists in first impregnating the fabric with an alkali, then applying reduction dyestuffs mixed with a reducing agent and finely ground with varnish or an oil, by means of the lithographic printing process, and developing the prints thus obtained by steaming in presence of an alkali and reducing agents.

5. The process of obtaining designs on fabrics, which consists in first impregnating the fabric with an alkali and part of the reducing agents, then applying reduction dyestuffs mixed with the other part of the reducing agents and finely ground with varnish or an oil, by means of the lithographic printing process, and developing the prints thus obtained by steaming in presence of an alkali and reducing agents.

1,135,044. BALL-RETAINER FOR BALL-BEARINGS SUBJECTED TO AXIAL PRESSURE. HENNING ADOLF OLSSON, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden, a Corporation of Sweden. Filed Aug. 16, 1911. Serial No. 644,366. (Cl. 64—49.)



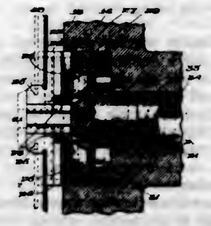
1. A ball retainer for ball bearings subjected to axial pressure, consisting of a yielding ring of sheet metal inverted U-shape in cross section, the said ring being provided with shanks projecting inwardly from its opposite edges substantially parallel with the plane of the ring, the said shanks being located at a distance from each other less than the diameter of the balls, and provided with recesses for the balls, the said recesses being smaller than the balls and open at the edges of the shanks to permit the balls to be snapped into the recesses in the shanks by the yielding of the metal.

2. A ball retainer for ball bearings subjected to axial pressure, consisting of a yielding ring of sheet metal inverted U-shape in cross section and provided with shanks projecting inwardly from the opposite edges of the ring substantially parallel with the plane of the ring, the said shanks being provided with recesses open in one of the

shanks at the edge of the same, the size of the said recesses and the distance between the shanks being so related to the balls that the latter will be retained in position after having been snapped in place by the yielding of the metal.

3. A ball retainer for ball bearings subjected to axial pressure, consisting of a yielding ring of sheet metal inverted U-shape in cross section, the said ring being provided with shanks projecting therefrom parallel with the plane of the ring and directed inwardly toward the center of the ring, the said shanks being provided with recesses for the balls, the recesses being open at the edges of the shanks, the size of the recesses being less than the size of the balls and the shanks being so spaced with reference to the size of the balls that the latter will be retained in position when snapped in place by the yielding of the metal.

1,135,045. CHUCK. WILLIAM C. OSTERHOLM, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed July 20, 1912, Serial No. 710,544. Renewed Aug. 23, 1913. Serial No. 786,349. (Cl. 29—113.)



1. A chuck including, in combination, a rotatable head, a jaw carrying member slidable axially within said head and rotatable therewith, radially movable jaws slidably mounted upon said jaw carrying member, said jaws being provided with laterally inclined tail members, a jaw controlling plate slidably mounted upon said jaw carrying member, rotatable therewith and provided with an annular race concentric with the axis thereof and adapted to receive said tail members, and means whereby said jaw carrying member may be moved axially to a limited extent independent of said jaw controlling plate.

2. A chuck including, in combination, a rotatable head having an axial counterbore, a bar slidable axially within said head and provided with a jaw carrying member integral therewith and received by said counterbore, radially movable jaws mounted in said head, said jaws being provided with laterally inclined tail members, a jaw controlling plate slidably mounted upon said bar, rotatable therewith and provided with an annular race concentric with the axis thereof and adapted to receive said tail members, means carried by said rotatable head and operative to limit a sliding movement of said jaw controlling plate relative to said head, and a hand lever mounted upon a fixed part of the mechanism and operative to move said bar in opposite directions.

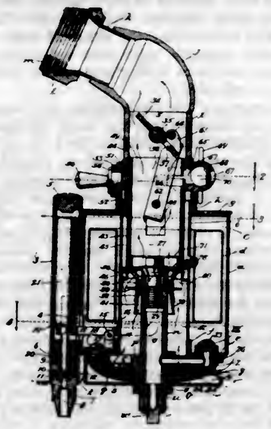
3. A chuck including, in combination, a carrying frame, a rotatable hollow head journaled in said frame and having an axial counterbore upon the face thereof, a bar slidable axially within the hollow of said head and provided with a jaw carrying member at one end thereof that is slidably received within said counterbore and rotatable with said head, radially movable jaws mounted in said head, said jaws being provided with laterally inclined tail members, a jaw controlling plate slidably mounted upon said bar, rotatable therewith and provided with an annular race concentric with the axis thereof and adapted to receive said tail members, set screws received by openings in said plate, secured to said head and operative to limit a sliding movement of said plate relative to said head, a hand lever mounted upon said frame, a toggle connection between said hand lever and the opposite end of said bar and operative to control a sliding movement thereof in opposite directions.

4. A chuck including, in combination, a carrying frame, a rotatable hollow head journaled in said frame and having an axial counterbore upon the face thereof, a bar slidable axially within the hollow of said head, rotatable therewith and provided with a jaw carrying member at one end thereof that is slidably received within said counterbore, radially movable jaws mounted in said head, said jaws being provided with laterally inclined tail members, a jaw controlling plate slidably mounted upon said bar, rotatable therewith and provided with an annular race concentric with the axis thereof and adapted to receive said tail members, means for limiting a sliding movement of said plate relative to said head, a compression spring within the hollow of said head and operative to yieldingly resist a sliding movement of said plate in one direction, a collar secured to said bar and operative to limit a longitudinal movement thereof in one direction relative to said head, a hand lever pivotally mounted upon said frame and including arms upon opposite sides thereof, a cross head slidably mounted upon said bar and having opposite ends thereof pivotally connected with said arms by means of toggle members, and a compression spring carried by said bar and operative to resist the movement of said cross head thereon.

5. A chuck including, in combination, a head, a jaw carrying member movable within said head, jaws movably mounted on said jaw carrying member, a jaw controlling member, and means for causing a relative actuation of said jaw carrying and controlling members to actuate said jaws.

[Claims 6 to 9 not printed in the Gazette.]

1,135,046. CARBURETER. WILLIAM OTTAWAY, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 31, 1913. Serial No. 745,318. (Cl. 48—155.1.)



1. In a carbureter, the combination of a casing provided with a mixing chamber having main air-inlet and mixture-outlet openings and provided with auxiliary inlet passages adapted to communicate with the mixing chamber, independently adjustable valve members for each of said auxiliary inlet passages acting to control the effective areas of said auxiliary air-inlet passages, a reciprocating valve member adapted to simultaneously open one and close the other of said auxiliary inlet passages, with said separately adjustable valve members in any desired adjusted position, a movable valve member in engagement with the mixture-outlet port, and an operating lever operatively connected with the valve member for the mixture-outlet port and with said reciprocating valve member.

2. In a carbureter, the combination of a casing provided with a mixing chamber having main air-inlet and

mixture-outlet openings and provided with an auxiliary inlet passage for high-speed air and a separate auxiliary inlet passage for low-speed air, each of said auxiliary inlet passages being adapted to communicate with the mixing chamber, and a reciprocating valve member adapted to simultaneously open one and close the other of said auxiliary air passages.

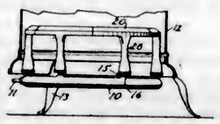
3. In a carbureter, the combination of a casing provided with a mixing chamber having main air-inlet and mixture-outlet openings and provided with independent auxiliary air inlet passages adapted to communicate with the mixing chamber, independently adjustable valve members mounted in the casing and adapted to vary the effective areas of said auxiliary inlet passages, a throttle-valve mounted in said casing adapted to control the discharge of the mixture from said mixing chamber, and a valve member movable with said throttle-valve and independently of said valve members for opening and closing said auxiliary air-inlet passages, and adapted to simultaneously diminish the passage of air through one and increase the passage of air through the other of said auxiliary passages, as the discharge of mixture through the outlet port is decreased or increased.

4. In a carbureter, the combination of a casing provided with a mixing chamber having main air-inlet and mixture-outlet openings and provided with an auxiliary inlet passage for high-speed air and a separate auxiliary inlet passage for low-speed air, each of said auxiliary passages being adapted to communicate with the mixing chamber when the other of said passages is closed, separately adjustable rotative valve members mounted in the casing, one of said rotative valve members being adapted to vary the effectual area of the auxiliary inlet passage for high-speed air, and the other of said rotative valve members being mounted in position to vary the effectual area of the auxiliary inlet passage for low-speed air, an endwise movable tubular valve member mounted in sliding engagement with one of said rotative valve members, and means for reciprocating said endwise movable valve member, for increasing and diminishing the effectual area of said auxiliary air-inlet passages, with said separately adjustable rotative valve members in any position to which they are adapted to be adjusted.

5. In a carbureter, the combination of a casing provided with a mixing chamber having main air-inlet and mixture-outlet openings and provided with an auxiliary inlet passage for low-speed air adapted to communicate with the mixing chamber, a rotative valve member mounted in the casing in position to coact with the auxiliary inlet passage for low-speed air for varying the effectual area of said passage, a rotative tubular valve member, and an endwise movable tubular valve member mounted in sliding engagement with each other and provided with coacting auxiliary inlet ports adapted to form an auxiliary inlet opening for high-speed air, means for adjusting the rotative tubular valve member, for varying the effectual area of the passage formed by said coacting ports for the admission of high-speed air, and means for reciprocating the endwise movable tubular valve member, for varying the effectual area of all of said auxiliary inlet openings.

[Claims 6 to 23 not printed in the Gazette.]

1,135,047. GAS-BURNER. BERT R. PARROTT, Jackson, Mich., assignor to The Parrott Heater Company, Jackson, Mich., a Corporation of Michigan. Filed Oct. 4, 1912. Serial No. 723,987. (Cl. 158—112.)



1. In a gas burner, the combination of a series of burner sections arranged annularly and each consisting of a hollow segmental head and a hollow leg extending therefrom, a series of nipples for conveying gas to the lower portions of said legs, there being an air opening into the leg about the gas inlet, the inner face of the head having an opening, a screen arranged vertically on said opening, a perforated facing strip, and means for securing the facing strip and screen together across the opening in the inner face of the head, the head having an overhanging top portion which extends inwardly beyond the screen and facing strip.

2. In a gas burner, the combination of a series of burner sections arranged annularly and each consisting of a hollow segmental head and a hollow leg extending therefrom, and means for conveying gas to the lower portion of said leg, there being an air opening into the leg, the inner face of the head having an opening which is covered by a perforated facing having narrow horizontal openings.

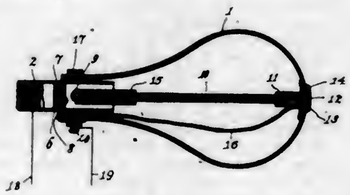
3. A burner section made of approximately T-shape consisting of a hollow segmental head and a hollow leg, the leg communicating with the head, the inner curved face of the head having an opening, a screen over said opening having narrow horizontal perforations, and a burner facing extending over it and having larger openings, the screen and facing being secured to the inner face of the head.

4. A gas burner section consisting of a hollow segmental head and a hollow leg extending therefrom and having gas and air openings at its lower end, the inner face of the head having an opening, a screen strip across said opening having narrow horizontal perforations, a facing strip surmounting said screen and having larger openings than those of the screen, and an inwardly projecting flange carried by the head and overhanging the screen and facing strip.

5. A gas burner section of approximately T-shape, the head of which is segmental having an opening on its inner face, a flat screen strip having narrow horizontal burner openings and secured across said opening in the head, a surmounting strip having a series of larger openings, inwardly extending ears at each end of the burner openings, and screws extending through said ears.

[Claim 6 not printed in the Gazette.]

1,135,048. WARNING-SIGNAL. ALEXANDER N. PIERMAN, Newark, N. J. Filed Dec. 2, 1912. Serial No. 734,472. (Cl. 177—10.)



1. In combination, a compressible bulb, a metallic eduction tube therefor, a fixed switch member within said tube and a movable switch member within said bulb and secured thereto at the end opposite said tube and projecting within the said tube, substantially as set forth.

2. In combination, a hollow bulb, a metallic eduction tube therefor, a fixed switch member in said tube, a movable switch member within said bulb, a flexible connection between said switch member and said bulb, the point of connection being at the end opposite said tube, substantially as set forth.

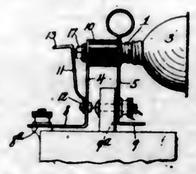
3. In combination, a signaling device operated by fluid pressure and comprising a compressible bulb, and an electrically operated signaling device, and a switch comprising two normally separated members both contained within the said bulb, the movable member being attached to the said bulb at the extreme end thereof opposite the tube, substantially as set forth.

4. In combination, a hollow bulb, a metallic eduction tube, a fixed switch member therein, a movable switch member, means for flexibly connecting said movable switch member to the end of said bulb opposite said tube, and an insulating sleeve upon said flexible connecting means, substantially as set forth.

5. In combination, a hollow bulb, a fixed switch member therein, and a movable switch member in said bulb and flexibly connected thereto, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,135,049. ELECTRIC-LANTERN ATTACHMENT. NORMAN S. RICHMOND, Chicago, Ill. Filed Mar. 30, 1914. Serial No. 828,114. (Cl. 240—8.5.)



1. An electric lantern attachment comprising a lamp socket, a support therefor having two supporting elements adapted to be electrically connected with the terminals of the battery, a piece of insulating material connecting them together, one element connected with one terminal of the lamp socket, a switch electrically connected with the other supporting element for alternately connecting and disconnecting it from the other terminal of the socket.

2. An electric lantern attachment comprising a lamp socket, a support therefor having two supporting elements adapted to be electrically connected with the terminals of the battery, a piece of insulating material connecting them together, one element connected with one terminal of the lamp socket, a switch electrically connected with the other supporting element for alternately connecting and disconnecting it from the other terminal of the socket and a handle connected with said support so as to project from a point near the center of the battery and acting as a support for the battery when the attachment is attached thereto.

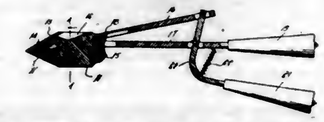
3. An electric lantern attachment comprising a lamp socket, two stiff supporting elements connected therewith said supporting elements adapted to be connected with the terminals of the battery, an insulating piece between said elements, a contact piece extending through said supporting elements and insulating piece, one end thereof forming one contact for the lamp socket, the other end thereof forming a switch contact and a movable switch connected with one of said supporting elements coöperating with said switch contact, the other terminal of the lamp socket electrically connected with the other supporting element.

4. An electric lantern attachment comprising a lamp socket, two stiff supporting elements connected therewith said supporting elements adapted to be connected with the terminals of the battery, an insulating piece between said elements, a screw extending through said supporting elements and binding them together, one end thereof forming one contact for the lamp socket, the other end thereof forming a switch contact and a movable switch connected with one of said supporting elements coöperating with said switch contact, the other terminal of the lamp socket electrically connected with the other supporting element.

5. An electric lantern attachment comprising a lamp socket, two stiff supporting elements connected therewith said supporting elements adapted to be connected with the terminals of the battery, an insulating piece between said elements, a contact piece extending through said supporting elements and insulating piece, one end thereof forming one contact for the lamp socket, the other end thereof forming a switch and a movable switch connected with one of said supporting elements coöperating with said switch contact and the other terminal of the lamp socket electrically connected with the other supporting element, a loop connected with one of said supporting elements and a handle attached to said loop.

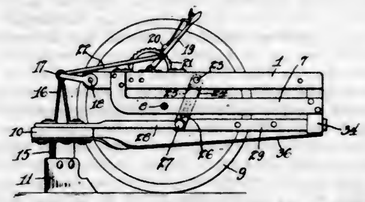
[Claims 6 to 8 not printed in the Gazette.]

1,135,050. SOLDERING-IRON. DON E. RODGERS, Gorman, Tex. Filed Aug. 19, 1913. Serial No. 785,528. (Cl. 113—109.)



In a soldering iron, the combination with a head having a solder recess, a channel leading from the recess to the point of the head, a shank pivotally connected with the head and extending rearwardly therefrom, a link pivotally connected with the head and extending upwardly and rearwardly therefrom, a bent lever having one of its arms pivoted centrally on the intermediate portion of the first named shank, the pivoted arm of the bent lever being pivotally connected with the rear end of the said link, handle members carried by the rear end of the said shank, and the other arm of the bent lever end disposed in position to be grasped by the hand, and a spring between the shank and the bent lever for holding the handles separated and the head in alinement with the shank, whereby when the handles are moved toward each other, the bent lever and link will tilt the head so as to cause the solder to run from the recess through the channel.

1,135,051. ALFALFA-CULTIVATOR. CHARLES ROSEMAN, Cecil, Ohio. Filed Apr. 1, 1914. Serial No. 828,872. (Cl. 55—19.)



1. An apparatus of the class described including a frame, a beam, a plurality of shares detachably secured thereto, a plurality of parallel bars secured at their outer ends to the beam, hanger arms pivotally connected to the frame and provided with a plurality of alined openings, the inner ends of the bars being pivotally connected in one of the openings in the hanger arms, and means connected with the beam to raise and lower the same.

2. An apparatus of the class described including a frame, a beam, a plurality of shares carried thereby, the center shares being arranged to form a V and one share projecting beyond the other, the remaining shares being arranged in parallel relation to the center shares, a plurality of parallel bars secured at their outer ends to the beam, hanger arms pivotally connected to the frame, the inner ends of the bars being pivotally connected to the hanger arms, and means connected with the beam to raise and lower the same.

1,135,052. MOLE-TRAP. MANNING W. RUSSELL, Keithville, La. Filed Jan. 21, 1914. Serial No. 813,423. (Cl. 43—23.)

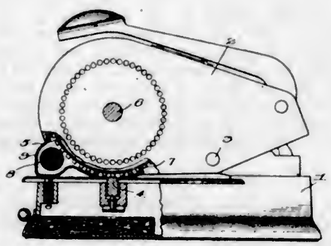
A mole trap comprising a single piece of resilient wire provided with a plurality of coils and said trap having crossed members formed into curved jaws, means for normally holding said jaws separated, a trigger pivoted to

one of the said jaws, said trigger having a wedge-shaped finger to separate the jaws, and a flexible con-



nection attached to one of the jaws and to said trigger to be operated by the mole for springing the trap.

1,135,053. PRINTING-DIE. CHARLES H. SAMPSON, Rochester, N. Y., assignor to Peerless Check Protecting Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 18, 1913. Serial No. 761,886. (Cl. 101—57.)



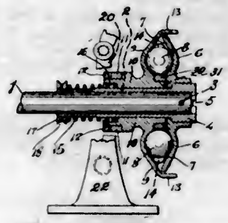
1. The combination with a character die formed with projecting printing characters having flat ink-receiving faces and grooves, of a platen die having rupturing projections entering said grooves and entirely filling the same in order to force the ink into the ruptured edges of the paper and also having flattened portions coöperating with flattened ink-receiving faces on the character die.

2. The combination with a platen die formed with projecting printing characters having flattened ink-receiving faces and parallel grooves extending from one side of each character to the other, of a platen die having flattened faces for coöperation with the flattened faces of the character die and also having parallel rupturing projections adapted to be received within and to entirely fill the grooves of the character die in order to force the ink into the ruptured edges of the paper.

3. The combination with a printing member having a plurality of character dies thereon, each character die having its characters formed with flat ink receiving faces and with grooves extending from one side of the character to the other between the flat ink receiving faces and at an oblique angle to the height of the character, of inking mechanism for the character dies, and a platen die having transversely extending projections adapted to be received within, and to fill entirely, the grooves of the characters and having also flattened faces between the projections to coöperate with the flattened faces on the character dies.

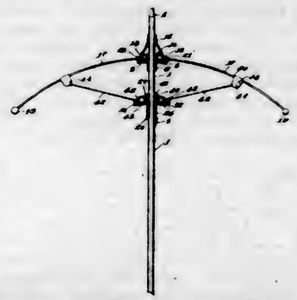
4. The combination with a printing member having a character projecting from the face thereof and formed with parallel V-shaped grooves extending from one edge of the character to another and flat ink receiving faces between said grooves, of a platen die having parallel projections with V-shaped cross sections arranged to be received within said grooves and entirely fill the same in order to force the ink into the ruptured edges of the paper and having flattened faces between the projections for cooperating with the flattened faces of the character, and inking means for inking the characters.

1,135,054. CENTRIFUGAL GOVERNOR. GUSTAVE A. SCHACHT, Cincinnati, Ohio. Filed Sept. 2, 1913. Serial No. 787,599. (Cl. 121—112.)



In combination, a shaft, an explosive-engine, a sleeve attached to said shaft to rotate therewith, a disk secured to said sleeve, another disk slidably-mounted on said sleeve, each of said disks being inclined or flared toward each other and each having a concave surface that faces the other, a ball retaining-collar between said disks and carrying a plurality of balls or spheres, a hub on said slidable disk, a slip-ring on said hub, an intake-pipe for said explosive-engine, a valve in said intake-pipe and a suitable connection between said slip-ring and said valve whereby the latter is operated when said slidable disk and slip-ring are reciprocated on said sleeve.

1,135,055. UMBRELLA. MARTIN R. SCHAFFER, Reading, Pa., assignor of one-fourth to William S. Yocom and one-fourth to Ferdinando Colletti, Reading, Pa. Filed Mar. 29, 1913. Serial No. 757,645. (Cl. 135—28.)



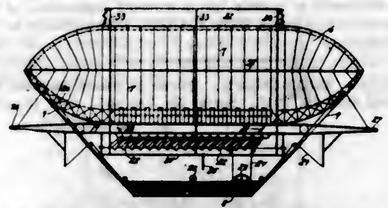
1. An umbrella frame comprising a staff, ribs, stretchers connected with said ribs, and means for connecting said ribs and stretchers with said staff, each of said connecting means being formed of resilient material and comprising a sleeve, a cup extending from said sleeve, a depending outwardly flared flange extending from the outer edge portion of said cup, and a cap formed of resilient material fitting upon said cup and provided with a depending collar inclosing said flange and terminating in an inwardly extending flange extending beneath the flange of said cup, said cup and cap being provided with alined openings for permitting the inner ends of said ribs and stretchers to pass into their respective cups.

2. An umbrella comprising a staff, ribs, stretchers connected with said ribs, and means for connecting said ribs and stretchers with said staff, one of said means comprising a sleeve having its upper end portion provided with an annular external shoulder, a cup formed of resilient material placed upon said sleeve and fitting above said shoulder, the outer edge portion of said cup being provided with a depending flange, and a cap fitting upon said cup and shoulder and having the outer edge portion provided with a depending collar inclosing said flange and terminating in a flange extending beneath the same.

3. An attachment for an umbrella formed of resilient material and comprising a sleeve, a cup extending from

one end portion of said sleeve and having its outer edge portion bent to form a depending outwardly flared flange and a cap formed of resilient material fitting upon said cup and having its outer edge portion provided with a collar inclosing said flange and provided with a flange extending beneath the same, the collar of said cap comprising the flange of said cup to hold said cup and cap in tight engagement, said cap and cup being provided with alined openings.

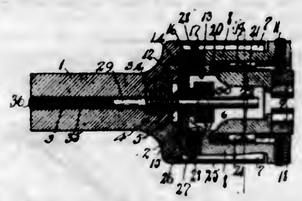
1,135,056. AERONAUTICAL APPARATUS. HENRY W. SCHMIDT, Edgewater, N. J. Filed June 6, 1913. Serial No. 772,025. (Cl. 244—10.)



1. In combination with the supporting bag of a dirigible balloon, a jacket covering the lower portion thereof, propellers within said jacket and deflecting surfaces adjacent to said propellers, and means for adjusting said surfaces so as to receive the air from said propellers upon either of the sides of the same.

2. In combination with the supporting bag of a dirigible balloon, a jacket covering the lower portion thereof, propellers within said jacket and deflecting surfaces adjacent to said propellers, and means for adjusting said surfaces so as to receive the air from said propellers upon either of the sides of the same, a duct through which said air passes extending longitudinally beneath said bag and opened at opposite ends, and means for shifting the end of said duct.

1,135,057. THREADING DEVICE. CHARLES F. SCHULTIS, Cleveland, Ohio, assignor to Christian Girl, Cleveland, Ohio. Filed Dec. 8, 1910. Serial No. 596,199. (Cl. 10—97.)



1. In a device of the character set forth, the combination of a shank, a slotted head carried by said shank and having a chamber therein, die-carrying levers pivotally mounted in the slots in said head, springs tending to force the rear ends of said levers inwardly, a rod slidably mounted in said shank and projecting into said chamber, an abutment adjustably-mounted on said rod, and means yieldingly projecting said rod and abutment forwardly in to said chamber, the abutment and the portions of said levers which are at the rear of their pivotal connection having coöperating abrupt portions adapted to be moved past each other when the abutment is moved rearwardly, so as to permit the abrupt inward movement of the rear ends of said levers.

2. In a device of the character set forth, the combination of die-carrying levers, means pivotally supporting said levers intermediate of their ends, springs forcing the rear ends of said levers inwardly, an abutment projecting between said levers and adjacent to the rear ends thereof, and a spring resisting the rearward movement of said abutment, there being a guideway for the abutment and said abutment being provided with abrupt notches for the rear ends of said levers and with supporting surfaces for such ends at the rear of said notches, and said levers having inwardly projecting end portions adapted to engage said surfaces and to enter said notches.

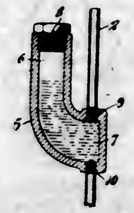
3. In a device of the character set forth, the combination of die-carrying levers, means pivotally supporting said levers intermediate of their ends, springs forcing the rear ends of said levers inwardly, an abutment projecting between said levers adjacent to the rear ends thereof and slidably mounted within a guide-way provided therefor, a spring resisting the rearward movement of said abutment, said abutment being provided with notches for the rear end portions of said levers and with supporting surfaces for such ends at the rear of said notches, and said levers having inwardly projecting portions adapted to engage said surfaces and enter said notches, and means whereby the inwardly projecting end potrions of the levers may be adjusted toward the abutment, independently of the bodies of the levers, to compensate for wear.

4. In a device of the character specified, the combination, with a supporting member, of die-carrying levers pivoted transversely thereof, means for permitting a limited longitudinal movement of said levers relative to said supporting members, dies carried by the front portions of said levers and means carried by said supporting member and movable relatively thereto for governing the position of said levers, said means and levers being so arranged that upon relative movement either caused by contact of the means with the end of the work or the forward movement of the dies along the thread of the work, the levers will swing upon their pivots and cause the dies to release the work.

5. In a device of the character specified, the combination of a pair of die-carrying members, supports therefor, a pivotal connection between each member and its support allowing said member to be moved forwardly with respect to said support, and means operating to automatically separate the die-carrying portions of said members when the latter are moved forwardly with respect to their supports.

[Claims 6 to 9 not printed in the Gazette.]

1,135,058. DEVICE FOR CLEANING PIPES OF CORROSIVE SEDIMENTS AND THE LIKE. ARTHUR A. SCHUMACHER, Norwood, Ohio. Filed Apr. 11, 1914. Serial No. 831,331. (Cl. 210—19.)



The combination with a water heater having an inlet and outlet pipe, of a receptacle permanently connected to one of said pipes, said receptacle substantially L shaped in construction, the horizontal portion thereof being connected at the top and bottom to one of said pipes, and means for closing the opening at the top of said vertical portion.

1,135,059. HOSE-CLAMP. FREDERICK CHARLES SCOTT, Detroit, Mich. Filed July 20, 1914. Serial No. 852,078. (Cl. 137—28.)

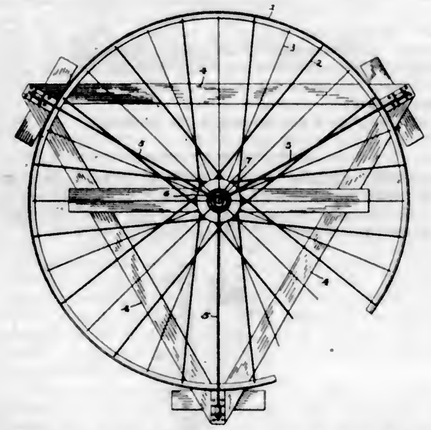
1. A clamp of the class described consisting of a single strip of metal provided with a longitudinal slot of a size to permit one end of the strip to pass through it without twisting, the end of the strip which is passed through the slot being provided with a lateral enlargement forming a

stop and adapted to be bent inwardly so as to pass through the said slot, said enlargement, when bent outward, forming a stop for engaging the slotted portion of the strip to limit the opening movement of the clamp, and means for adjustably connecting the terminals of the strip.



2. A clamp of the class described consisting of a single strip of metal provided with a longitudinal slot of a size to permit one end of the strip to pass through it without twisting, the end of the strip which is passed through the slot being provided with a pair of laterally projecting lugs adapted to be bent inwardly so as to pass through the slot, said lugs, when bent outwardly, forming stops for limiting the opening movement of the clamp, and means for adjustably connecting the terminals of the strip.

1,135,060. PUMP TRANSMISSION MECHANISM. JESSE O. SHAFER, Bluffton, Ind., assignor to The Geo. W. Grimes Company, Bluffton, Ind., a Corporation of Indiana. Filed May 29, 1914. Serial No. 841,828. (Cl. 64—17.)

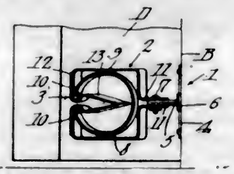


1. A band wheel for transmission mechanisms, having a rim, a vertically elongated rotating hub, a series of radial tension spokes between said rim and hub, a series of non-radial larger driver spokes between said rim and hub, said hub having integral therewith annular radial horizontal upper and lower flanges, said flanges being provided with vertically extending flanges to which separate groups of said tension spokes are respectively connected, said upper radial flange having a series of separated downwardly projected vertical lugs, said lugs provided with apertures adapted to receive a number of said driver spokes, said lower radial flange being provided with upwardly projected separated vertical lugs, said latter lugs being provided with apertures to receive the remaining driver spokes, substantially as described.

2. In combination with a band wheel for transmission mechanisms, a rotating supporting member upon which said band wheel is mounted, a power transmitting member mounted on said rotating member, a fixed post on which said rotating member is mounted, a horizontal key accessible for removal to detachably connect said band wheel and transmitting members to said rotating member and separable means supporting one of said transmitting members on said rotating member and permitting the separation of the former from the latter in a downward direction, substantially as described.

3. In combination with a band wheel, a rotating member to which said band wheel is fixed, a fixed post supporting said rotating member, a transmitting member detachably secured to said rotating member, a supporting ring surrounding said rotating member and on which said transmitting member is adapted to rest, said ring being divided into a plurality of parts whereby the support may be withdrawn to permit the downward separation of the transmitting member from the post, substantially as described.

1,135,061. DOOR-CHECK. ELVER H. SHAW, Sedalia, Mo. Filed July 26, 1913. Serial No. 781,447. (Cl. 16—78.)



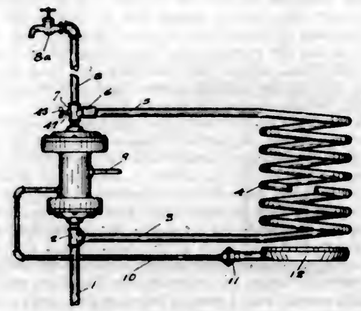
In a door check, a buffer and catch fashioned from a resilient metallic strip, the intermediate portion of which is bent to form a yieldable circular inner loop, the portions of the strip intermediate the said loop and ends being bent to form a yieldable rectangular outer loop loosely surrounding the inner loop, and to form a mouth, the ends of the outer loop meeting and being bent to form ears, the ears being in alinement with the said mouth, a supporting member to which the ears are secured, and a door-carried member fashioned from a metallic strip having its intermediate portion doubled and bent to form a yieldable cuneiform head of a length slightly less than the diameter of the inner loop, and designed to forcibly enter the aforesaid mouth whereby the outer loop will yield first to enable the inner loop to contact therewith and yield under greater pressure, and whereby the said head will then contact with the inner loop and yield under still greater pressure.

1,135,062. HAND-CULTIVATOR. JOHN SHECKLER, Washington, Kans. Filed Dec. 15, 1914. Serial No. 877,400. (Cl. 97—42.)



In combination with an implement of the class described including a supporting wheel and an axle, of a tubular stem disposed longitudinally of the implement and provided at its front end with forwardly extending side plates, said plates being spaced apart to form a fork to straddle the wheel and having downwardly extending curved terminals mounted on the said axle, said tubular stem being also provided at its upper portion with a longitudinal slot, a rear tube slidable on the rear portion of the said stem and having a fastening device operating in the said slot to limit the relative sliding movement of the same and the tube, a padded body plate mounted on and carried by the rear end of the tube, and a coiled spring housed within the stem and the tube and arranged to cushion the latter and the body plate, the pad on the latter covering the entire rear face thereof.

1,135,063. AUTOMATIC VALVE DEVICE. CHARLES N. SHEPARD, Erie, Pa. Filed Apr. 10, 1913. Serial No. 760,246. (Cl. 126—351.)



1. In an automatic valve device, the combination of a gas valve; a gas burner controlled by the gas valve; opposing diaphragms of differing areas for actuating the gas valve, the diaphragm of smaller area being toward the inlet; and means delivering liquid to the smaller diaphragm and conveying the liquid to the larger diaphragm and to a point of discharge, said means comprising devices offering resistance to the flow of liquid between the diaphragms and subjecting the liquid passing between the diaphragms to the gas burner.

2. In an automatic valve device, the combination of a gas valve; a gas burner controlled by the gas valve; opposing diaphragms of differing areas for actuating the gas valve, the diaphragm of smaller area being toward the inlet; and means delivering liquid to the smaller diaphragm and conveying the liquid to the larger diaphragm and to a point of discharge, said means comprising a coil offering resistance to the flow of liquid between the diaphragms, said coil being subjected to the action of the burner for heating the liquid.

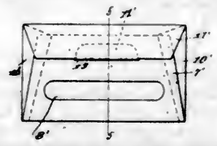
3. In an automatic valve device, the combination of a gas valve; a gas burner controlled by the gas valve; opposing diaphragms of differing areas for actuating the gas valve, the diaphragm of smaller area being toward the inlet; means delivering liquid to the smaller diaphragm and conveying the liquid to the larger diaphragm and to a point of discharge, said means comprising devices offering resistance to the flow of liquid between the diaphragms and subjecting the liquid passing between the diaphragms to the action of the burner for heating the liquid; and a check valve arranged between the diaphragms and closing through the action of the flow of liquid toward the inlet.

4. In an automatic valve device, the combination of a gas valve; a gas burner controlled by the gas valve; opposing diaphragms of differing areas for actuating the gas valve, the diaphragm of smaller area being toward the inlet; means delivering liquid to the smaller diaphragm and conveying the liquid to the larger diaphragm and to a point of discharge, said means comprising a check valve offering resistance to the flow of liquid between the diaphragms and subjecting the liquid to the action of the burner in its passage between the diaphragms for heating the liquid; and mechanism for adjusting the check valve to vary the resistance.

5. In an automatic valve device, the combination of a gas valve of sufficient weight to close against the normal gas pressure; a gas burner controlled by the gas valve; opposing diaphragms of differing areas for actuating the gas valve, the diaphragm of smaller area being toward the inlet; and means delivering liquid to the smaller diaphragm and conveying the liquid to the larger diaphragm and to a point of discharge, said means comprising devices offering resistance to the flow of liquid between the diaphragms and subjecting the liquid in its passage between the diaphragms to the action of the burner for heating said liquid.

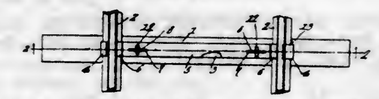
[Claim 6 not printed in the Gazette.]

1,135,064. ENVELOP. GEORGE WILBUR SHIPLEY, Albemarle, N. C. Filed May 2, 1914. Serial No. 835,963. (Cl. 229—82.)



An envelop including a blank comprising a main and an auxiliary section, an end and side flap extending from said main section, a pocket formed in the auxiliary section by extending one of the ends thereof and folding it upon itself, a slit formed in the body of said auxiliary section, and a tongue extending from said end flap for engagement through said flap and into said pocket, adapted for movement therein, whereby the removal of the contents of the envelop, without detection, is prevented.

1,135,065. RAIL TIE AND FASTENER. HERMAN W. SHIPLEY, Center Junction, Iowa. Filed Nov. 20, 1914. Serial No. 873,174. (Cl. 238—5.)



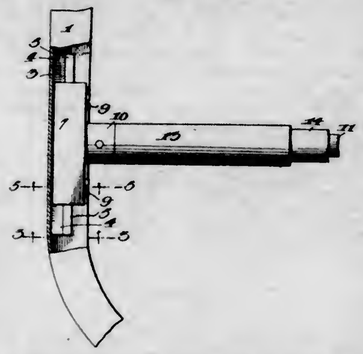
1. In a device of the character described, keeper plates engageable upwardly through a tie and having openings at their upper ends, a strip engageable over the upper ends of the keeper plates and having means at its ends for engaging the outer edges of the base flanges of a pair of rails, a second strip engageable over the upper ends of the keeper plates to seat upon the first mentioned strip and having means at its ends for engaging the inner edges of the base flanges of the rails, and wedges insertible through the said openings of the keeper plates to bear upon the second mentioned strip for clamping the parts together.

2. In a device of the character described, upper and lower strips having their ends formed to receive and hold the base flanges of a pair of rails, and having registering slots adjacent their end portions, upright keeper plates insertible upwardly through a tie and having their lower ends formed to engage under the tie, the keeper plates having openings at their upper ends to be disposed above the strips, the keeper plates being adapted to be received by the slots of the strips, and wedges insertible through the openings of the keeper plates to bear upon the upper strip for clamping the parts together.

1,135,066. AUTOMOBILE-BUFFER. ANDREAS M. SONNICHSEN, Milwaukee, Wis., assignor to The Anto Parts Mfg. Co., Milwaukee, Wis. Filed June 15, 1914. Serial No. 845,291. (Cl. 213—39.)

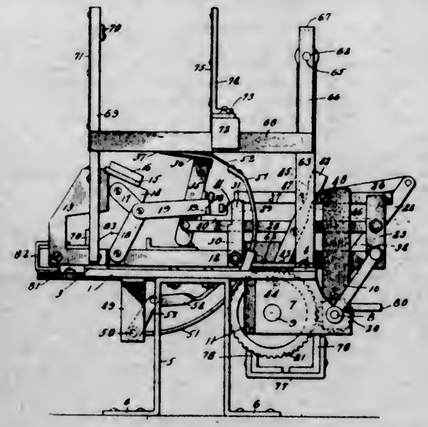
1. An automobile buffer comprising a buffer bar composed of an angle iron substantially U-shaped in cross sec-

tion with the flanges thereof extending inwardly, longitudinally spaced coupling elements mounted therein and having undercut sides, cushioning means for connecting said bar with an automobile frame, and having coupling elements provided with inturned flanges for slidably engaging the undercut sides of the coupling elements within said bar, and means for fastening said elements in adjusted position.



2. An automobile buffer comprising a buffer bar composed of angle iron substantially U-shaped in cross section with the flanges thereof extending inwardly, longitudinally spaced coupling elements mounted therein, said elements being substantially T-shaped in cross section with the heads thereof extending rearwardly, cushioning means for connecting said bar with an automobile frame having coupling elements at their outer ends in the form of angle irons substantially U-shaped in cross section, their flanges extending outwardly and with inturned flanges at the free edges thereof for sliding engagement beneath the heads of the coupling elements within the bar, and set screws for locking said coöperating elements in adjusted position.

1,135,067. ENVELOP HOLDER AND FEEDER. FOSTER M. SPURR, Boston, Mass. Filed Jan. 10, 1914. Serial No. 811,367. (Cl. 101—39.)



1. A machine of the character described comprising a supporting frame, a hopper pivotally mounted above the supporting frame for holding a stack of envelops, means for engaging the flap of the undermost envelop of the stack retained within the hopper, means for moving the hopper to release therefrom the flap end of the envelop, means for releasing the flap from said flap-engaging means, and a second flap engaging means for delivering the envelop from the bottom of the hopper.

2. A machine of the character described comprising a supporting frame, standards rising from the rear portion of said frame, a hopper pivotally supported at one edge of said standards and overlying the supporting frame and adapted to contain a stack of envelops, means for engaging the flap of the undermost envelop of said stack, means for raising said hopper to release therefrom the flap end of the envelop, means for releasing the flap from said flap-engaging means, and a second flap-engaging means for delivering the envelop from the bottom of the hopper.

3. A machine of the character described comprising a supporting frame, oppositely disposed standards rising from the rear portion of the supporting frame, an adjustable hopper pivotally supported at one edge from the standards and overlying the supporting frame, means for engaging the flap of the undermost envelop of a stack of envelops retained within the hopper, means for raising the forward edge of the hopper out of engagement with the front edge of the envelop, a second flap-engaging means for delivering the envelop from the bottom of the hopper, and connecting means for operating the flap-engaging means, the hopper raising means and the second flap-engaging means, in one continuous movement.

4. A machine of the character described comprising a supporting frame, oppositely disposed standards rising from the rear portion of said frame, a shaft journaled on the upper ends of the standards, a hopper for holding a stack of envelops dependingly supported at one edge from the projecting ends of said shaft and overlying the supporting frame, means for engaging the flap of the undermost envelop of said stack of envelops, means for raising said hopper to release therefrom the flap end of the undermost envelop, means for releasing the flap from said flap-engaging means, and a second flap-engaging means for delivering the envelop from the bottom of the hopper.

5. A machine of the character described comprising a supporting frame, standards rising from the rear portion of the supporting frame, a shaft journaled in the upper ends of the standards, an adjustable hopper dependingly supported from the projecting ends of the shaft and overlying the supporting frame, means for engaging the flap of the undermost envelop of a stack of envelops retained within the hopper, a cushioning pad coöperative with the flap-engaging means, means for raising the hopper out of engagement with the front edge of the envelop, a second flap-engaging means for delivering the envelop from the bottom of the hopper, and connecting means for operating the flap-engaging means, the cushioning pad, the hopper raising means, and the second flap-engaging means, in one continuous movement.

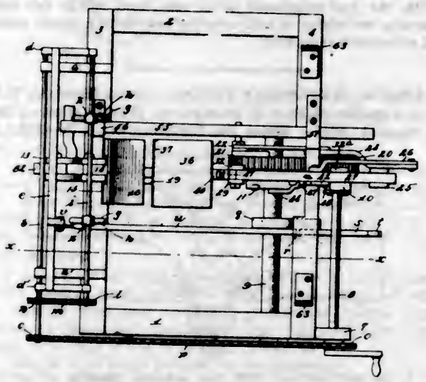
[Claims 6 to 17 not printed in the Gazette.]

1,135,068. DELIVERY MECHANISM. FOSTER M. SPURR, Boston, Mass. Filed Apr. 14, 1914. Serial No. 831,774. (Cl. 101—39.)

1. The combination with a positively operated separating blade for detaching one edge of an article from the bottom of a stack of such articles, means coöperating therewith for clamping the detached edge and holding the same, means for elevating the stack of articles to separate the clamped article therefrom, and an oscillating delivering mechanism carrying revolving gripping rollers movable into engagement with the clamped edge of the detached article for conveying the same to the point of delivery.

2. The combination with a positively operated separating blade for detaching one edge of an article from the bottom of a stack of such articles, swinging means coöperating therewith for clamping and holding said edge, means for raising the stack of articles bodily above the clamped article to separate the latter from the stack, and an oscillating delivering mechanism carrying revolving gripping rollers movable toward said stack when elevated to enable said rollers engaging the detached article and conveying the same on the return movement to the point of delivery.

3. The combination in a separating mechanism, of a reciprocating bar, a swinging separating blade pivotally mounted thereon and movable bodily therewith for engaging one edge of an article and detaching the same from the bottom of a stack of such articles, a swinging plate movable by said bar and coöperating with said blade for clamping and holding the detached edge of said article, means for elevating the stack of articles to fully remove the partly detached article from said stack, a second reciprocating bar movable simultaneously with the first bar for holding the separating blade in clamping engagement with said plate, and a delivering apparatus carrying continuously rotating rollers movable into engagement with the detached article to grip the same and remove it from the mechanism.

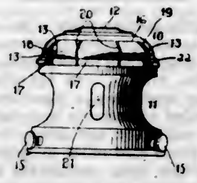


4. In an automatic separating mechanism, the combination with a hopper for supporting a stack of articles to be separated, of means for detaching one edge of the undermost article of said stack, means for elevating said stack to wholly separate the partly detached article therefrom, means for clamping the free edge of said article during the elevation of the stack, and an oscillating delivery for removing the separated article from the mechanism.

5. In an automatic separating mechanism, the combination with a hopper mounted for vertical movement, means for detaching one edge of the undermost article of a stack of articles held within said hopper, means coöperating with the detaching means to hold the partly separated article and remove the same wholly from the hopper when the latter is elevated, and an oscillating delivery movable toward said detached article for engaging the same and withdrawing it from the mechanism.

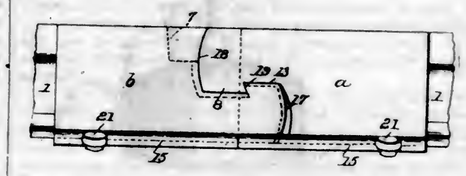
[Claims 6 to 11 not printed in the Gazette.]

1,135,069. ELECTRIC-SOCKET COVER AND SHADE-HOLDER. GEORGE A. SPURWAY, Waterbury, Conn., assignor to Steele and Johnson Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Aug. 14, 1914. Serial No. 856,818. (Cl. 240—114.)



A separable socket cover and shade holder comprising a shell provided with a shoulder and a slotted spring retaining flange, said flange having a circular groove above the shoulder, a rounded circular retaining projection above the groove, and a cap having a central hole to receive a fixture and at its lower edge a rounded retaining rib of smaller diameter than the retaining projection and extending inward and upward a substantial distance to engage the rounded edge of the retaining projection at a point between its greatest diameter and the groove, whereby the edge of the cap is pressed firmly against the shoulder.

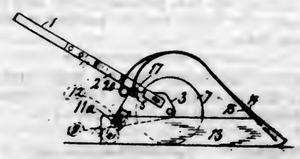
1,135,070. RAIL-JOINT. WILEY M. STUART, Perryville, Ark. Filed June 11, 1913. Serial No. 773,093. Cl. 239—8.)



1. A rail coupling comprising two members each having a rail chair member to inclose the base flanges of a rail at their meeting ends, said members each having a projecting portion provided with interlocking lugs, said lugs having rounded ends to permit the joining of the said members, one of said members having a tongue projecting therefrom and the other having a groove or recess to receive said tongue.

2. A rail joint including in combination, two members each provided with a socket to receive the base of a rail end, a vertical flange extending from each member, one of said members having an extending portion ending in a tongue, a locking lug being formed below said portion and a recess being formed between said lug and the end of the member, said other member having a projecting lug and a recess shoulder ending in a seat, said seat arranged to receive said locking lug, said projecting lug adapted to seat within said recess, and said tongue arranged for coaction with the recess within said shoulder, as and for the purpose set forth.

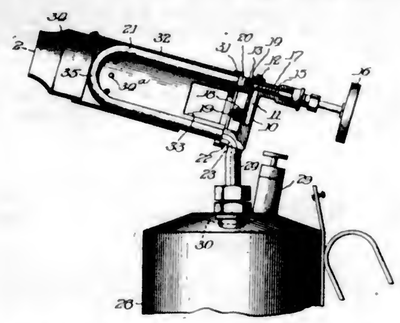
1,135,071. LAWN-MOWER ATTACHMENT. CHARLES SWANSON, San Jose, Cal. Filed Feb. 20, 1914. Serial No. 820,062. (Cl. 56—19.)



1. A lawn mower attachment extending in advance of the lawn mower and comprising a runner, means for pivotally attaching its rear portion to the side of the lawn mower frame, so the front end of the runner may vibrate up and down, an inclined arched guard bar secured with its front end to the front end of the runner and means for securing its rear end to the mower frame above the runner.

2. A lawn mower attachment extending in advance of the lawn mower and comprising a runner, means for pivotally attaching its rear portion to the side of a lawn mower frame, so the front end of the runner may vibrate up and down, an inclined arched guard bar secured with its front end to the front end of the runner and means for securing its rear end to the mower frame above the runner, and a second inclined arched guard bar having its front end secured to the front end of the runner and extending diagonally toward the middle of the mower frame, and means carried by said second bar for engaging the mower frame in a vertically yieldable manner.

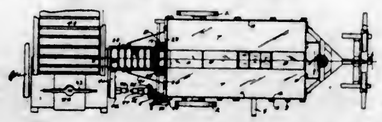
1,135,072. LIQUID-FUEL BURNER. CHARLES H. SWANSON, Chicago, Ill., assignor to The A & A Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 26, 1913. Serial No. 781,301. (Cl. 158—33.)



1. In a liquid fuel burner, the combination of a preheating tube adapted for connection with a source of fuel, of a head having a passage therein communicating with said preheating tube and having a portion at substantially a right-angle thereto, said passage provided with a valve seat adjacent to said preheating tube, a valve adapted to engage said seat and to interrupt the flow of fuel through said passage, and a nozzle communicating with said passage in said portion of the latter at substantially a right-angle to said preheating tube, said nozzle adapted to direct the ignited fuel into proximity with said preheating tube, whereby the liquid fuel is gasified in its passage through said tube.

2. In a liquid fuel burner, the combination with a U-shaped preheating tube, of a head having an outlet passage therein communicating with one end of said preheating tube and an inlet passage communicating with the opposite end of said preheating tube, said outlet passage provided with a valve seat near one end thereof, a valve adapted to engage said seat and to interrupt the flow of fuel through said passage, and a nozzle communicating with said passage near the opposite end thereof and located substantially midway between the points of communication of said outlet passage with one end of said preheating tube and of said inlet passage with the opposite end of said preheating tube, said nozzle adapted to direct the ignited fuel into proximity with said preheating tube, whereby the liquid fuel is gasified in its passage through said tube.

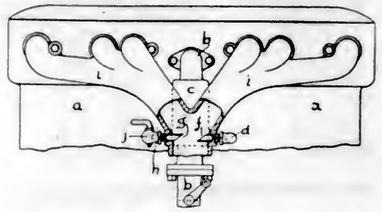
1,135,073. BUNDLE-WAGON FOR THRESHERS. CHARLES H. SWARNER, Omaha, Nebr. Filed Mar. 2, 1914. Serial No. 822,085. (Cl. 214—1.)



1. A vehicle of the specified class, comprising a transverse shaft, journaled in bearings at the rear end of the vehicle, an endless conveyer running in a longitudinally disposed trough under the floor of the vehicle, and having its driving roller keyed on said shaft, a pair of sprocket wheels and a bevel gear wheel which are keyed on said shaft, a pair of pivoted hangers dependent from said shaft, a swinging countershaft journaled in the hangers, a pair of sprocket wheels keyed on the countershaft, sprocket chains connecting said pairs of sprocket wheels, an elevator frame terminally pivoted on the countershaft, means for raising and lowering the free end of the elevator frame, an endless carrier working in the elevator frame and having its actuating roller keyed on the countershaft, a bevel gear meshing with the first-mentioned bevel gear, and a sleeve on the pinion of said meshing gear for engaging an alining shaft of a threshing machine.

2. A vehicle of the specified class, comprising a shaft journaled in bearings at one end of the vehicle, an endless conveyer running in the bottom of the vehicle, and having one of its rollers keyed on said shaft, a pair of sprocket wheels and a bevel gear which are keyed on said shaft, a pair of dependent hangers pivoted on said shaft, a swinging countershaft journaled in the hangers, a pair of sprocket wheels keyed on the countershaft, chains connecting the pairs of sprocket wheels, an elevator frame pivoted on the countershaft, an endless carrier working in the frame and having its actuating roller keyed on the countershaft, a bevel gear meshing with the first-mentioned bevel gear, and means for connecting the pinion of said meshing gear with a power shaft in alinement therewith.

1,135,074. EXPLOSION-ENGINE. CECIL HAMELIN TAYLOR and BOUDEWIJN B. NEUTEBOOM, Detroit, Mich. Filed May 21, 1913. Serial No. 768,929. (Cl. 123—122.)



1. In combination with the exhaust passage of an engine, a heating jacket, a conduit communicating with the said exheaust passage and said jacket, a second conduit communicating with said jacket and said exhaust passage, the end of one of said conduits opening against a current of moving gases in said exhaust passage so that a portion of said gases shall be projected into said conduit, the second of said conduits opening into said exhaust passage in such a relative position that the gases shall not be projected into said second conduit.

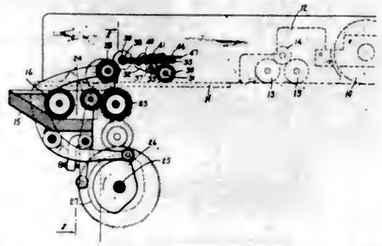
2. In combination with the exhaust passage of an engine, a heating jacket, a conduit communicating with said exhaust passage and said jacket, a second conduit communicating with said jacket and said exhaust passage, the ends of said conduits being arranged adjacent to each other in said exhaust passage, the end of one of said conduits opening against the current of moving gases in said exhaust passage and the end of the other conduit opening away from said current of gases.

3. In combination with an exhaust passage of an engine, a heating jacket, a pipe communicating with said exhaust passage and said packet, a second pipe communicating with said jacket and said exhaust passage, the ends of said pipes extending through the wall of said exhaust passage approximately at right angles thereto and having their ends chamfered in opposite directions, substantially as and for the purpose described.

1,135,075. INKING MECHANISM. FRANK W. THOMAS, Toledo, Ohio, assignor to The Autopress Company, New York, N. Y., a Corporation of New York. Filed July 15, 1913. Serial No. 779,075. (Cl. 101—78.)

1. In an inking mechanism, a distributer roller and an ink carrying member arranged to be brought into and out of contact with each other, and means, including a yielding member, to cause said roller to move longitudinally, said yielding member being constructed and arranged to yield when said member and said roller are in contact and to resume normal position when they are out of contact.

2. In an inking mechanism, a distributer roller and an ink carrying member arranged to be brought into and out of contact with each other, and means, including a yielding member, to cause said roller to move longitudinally to and fro, said yielding member being constructed and arranged to yield when said member and said roller are in contact and to resume normal position when they are out of contact.



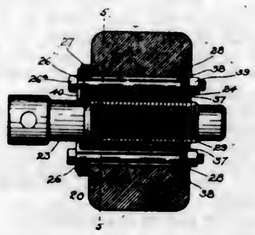
3. In an inking mechanism, a distributer roller and an ink carrying member arranged to be brought into and out of contact with each other, and means to give a step by step, longitudinal motion to and fro to said roller.

4. In an inking mechanism, a distributer roller and an ink-carrying member arranged to be brought into and out of contact with each other, and means to traverse said roller longitudinally in a series of steps each step occurring between successive contacts between said roller and said member.

5. In an inking mechanism, form rollers, a distributer roller, an ink plate arranged to be moved into and out of contact with said form and distributer rollers, and means to move said distributer roller longitudinally only when said plate is out of contact therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,135,076. REMOVABLE-NUT CONSTRUCTION FOR ROLL-ADJUSTING DEVICES AND THE LIKE. PHILIP VIVIAN TIPPET, Ansonia, Conn., assignor to Farrel Foundry & Machine Co., Ansonia, Conn., a Corporation of Connecticut. Filed May 13, 1914. Serial No. 838,383. (Cl. 64—52.)



1. In a removable nut construction for roll adjusting devices and the like, the combination of a frame having a socket, a nut in said socket, a roll adjusting screw having a threaded engagement with said nut and projecting beyond the rear surface thereof to engage a roll support, and means to engage the nut and frame for locking the nut in place in the frame, said means being releasable whereby to permit the nut and screw to be removed by an endwise movement toward the front of the frame, substantially as described.

2. In a removable nut construction for roll adjusting devices and the like, the combination of a frame having a socket open at the front of the frame, a nut in said socket, a roll adjusting screw carried by said nut, and releasable means for locking said nut against endwise displacement in said socket, said means being constructed and arranged whereby the nut may be moved from its socket by an endwise movement toward the front of the frame, and without disturbing the adjusted position of the screw in the nut, substantially as described.

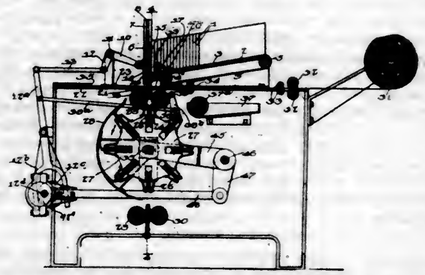
3. In a removable nut construction for roll adjusting devices and the like, the combination of a frame having a socket, a nut in said socket, a roll adjusting screw having a threaded engagement with said nut and projecting beyond the rear surface thereof to engage a roll support, releasable means for holding the nut in place, said means being constructed and arranged to permit the nut and screw to be removed by an endwise movement toward the front of the frame while said roll support acts as an abutment for the connected screw and nut to prevent endwise movement thereof in an opposite direction.

4. In a removable nut construction for roll adjusting devices, and the like, the combination of a frame having a socket, a nut to fit within said socket adapted to carry a roll adjusting screw, and locking means associated with the nut for preventing turning movement thereof, and endwise movement toward the roll; substantially as described.

5. In a removable nut construction, the combination of a frame having a socket or opening extending therethrough, said socket or opening having inwardly projecting lugs at the front portion thereof, a nut insertible into said socket and having laterally projecting lugs to interlock with said first named lugs, the lugs of the frame and nut respectively having coöperating bearing surfaces, and clamping means acting on the nut to hold said bearing surfaces in tight contact with each other; substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,135,077. WRAPPING-MACHINE. JOSEPH TOMLINSON, New York, N. Y., assignor to Cox Multi-Mailer Company, Augusta, Me., a Corporation of Maine. Filed Sept. 30, 1907. Serial No. 395,119. (Cl. 101—46.)



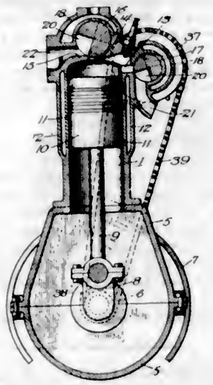
The combination with a hopper having a narrow opening in its bottom adjacent one of its terminals; a spring pressed stop pivoted to said hopper fitting said narrow opening and having its upper surface coplaner with the upper surface of the bottom of the hopper; and an ejector operating across one terminal of said hopper, there being a portion of said ejector adapted to move by one edge of said stop and coöperate therewith to guide an article from said hopper and another portion of said ejector disposed above said stop and adapted upon movement toward the latter to move an article in said hopper through said narrow opening and swing said stop out of the latter.

1,135,078. ROTARY VALVE MECHANISM FOR GAS-ENGINES. JAMES M. TRINER, Chicago, Ill. Filed Feb. 26, 1912. Serial No. 679,972. (Cl. 123—80.)

1. In an internal combustion engine, the combination of a cylinder having a port therein and a valve seat at said port; a rotary valve mounted in said valve seat and having one end extending therefrom; a supply pipe having its discharge end enlarged and said enlarged end embracing the extending end of said valve; and means carried by said supply pipe locking the latter and said valve against relative movement.

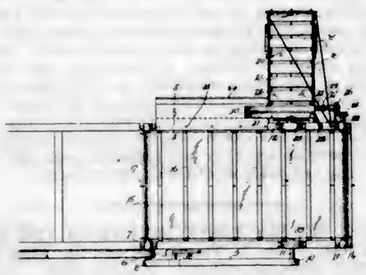
2. In an internal combustion engine, the combination of a cylinder having a port therein and a valve seat at

said port; a rotary valve mounted in said valve seat and having one end extending therefrom; a V-shaped peripheral flange on the extending end of said valve; a supply pipe having its discharge end enlarged and embracing the extending end of said valve, there being a seat in the enlarged end of said pipe engaging one side of said V-shaped flange; and a collar threaded in the enlarged end of said pipe, engaging the other side of said V-shaped flange and locking said supply pipe and valve against relative movement.



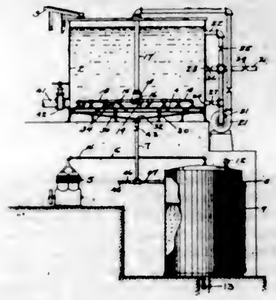
3. In an internal combustion engine, the combination of a cylinder having a port therein and a valve seat at said port; a rotary valve mounted in said valve seat and having one end extending therefrom; a V-shaped peripheral flange on the extending end of said valve; a supply pipe having its discharge end enlarged and embracing the extending end of said valve, there being a seat in the enlarged end of said pipe engaging one side of said V-shaped flange; a collar threaded in the enlarged end of said pipe, engaging the other side of said V-shaped flange, locking said supply pipe and valve against relative movement and sealing the joint between the supply pipe and valve; and a lock nut threaded in the enlarged end of said pipe and locking said collar against movement in said pipe.

1,135,079. CORN-TOPPING MACHINE. ARTHUR F. TUCKER, Williamsburg, Kans. Filed May 24, 1913. Serial No. 769,775. (Cl. 146—11.)



In a cutting machine, the combination with an endless conveyer, of a rotary cutting blade, a substantially horizontally flat plate member supported at one side of the said conveyer, an auxiliary plate member carried by the said first mentioned plate, said auxiliary plate having a plurality of slots formed therein, means extending through said slots and engaging the said plate member for supporting the said auxiliary member in adjusted position, and a guide member arranged over the said first mentioned plate member for forcing the material to be cut into engagement with the said blade, as and for the purpose set forth.

1,135,080. APPARATUS FOR TREATING MIXTURES OF LIQUIDS AND SOLIDS. ALBERT E. VANDERCOOK, Alameda, Cal., assignor to California Macvan Co., San Francisco, Cal., a Corporation of California. Filed Mar. 9, 1914. Serial No. 823,507. (Cl. 75—86.)



1. A filter comprising a vessel, a filtering medium arranged in said vessel, means for forcing the liquid being filtered through said medium and means for circulating the unfiltered material and projecting it directly against the surface of the filtering medium.

2. A filter comprising a vessel, a filtering medium arranged in said vessel, means for forcing the liquid being filtered through said medium and rotatable means for simultaneously directing a plurality of streams of liquid directly against the surface of said medium.

3. A filter comprising a vessel, a filtering medium arranged in said vessel, a hollow armed rotatable structure arranged adjacent the surface of said medium provided with discharge apertures, and means for forcing liquid through said arms and apertures and directly against the surface of said medium.

4. A filter comprising a vessel adapted to contain a quantity of pulp, a filtering medium arranged in said vessel below the level of the pulp, means for forcing the liquid being filtered through said medium, and rotatable means arranged in close relation to the surface of said medium adapted to project a plurality of streams of pulp directly against the surface of said medium.

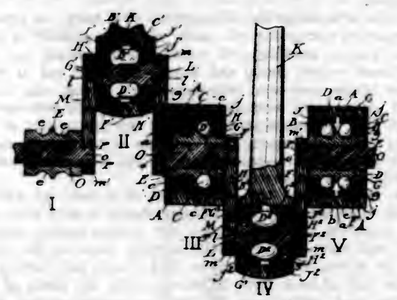
5. A filter comprising a vessel, a filtering medium arranged in said vessel, a hollow armed rotatable structure arranged in close relation to the surface of said medium, a plurality of nozzles on said structure directed toward said surface, and means for forcibly discharging liquid through said nozzles.

[Claims 6 to 17 not printed in the Gazette.]

1,135,081. ANTIFRICTION-BEARING. EDWARD H. WAHRHEIT, New York, N. Y. Filed Mar. 5, 1913. Serial No. 752,098. (Cl. 64—62.)

1. In an anti-friction device, a casing, an annular series of main anti-friction units annularly disposed therein in such manner that each unit thereof will contact with its adjacent units, a plurality of annularly disposed secondary anti-friction units co-axially arranged with respect to the main units in such manner that each secondary unit will contact with its adjacent secondary unit and with at least one of the main units, and inner and outer bearing elements between which the anti-friction units travel.

2. In an anti-friction device, a series of annularly disposed main anti-friction units, twice as many secondary anti-friction units arranged in an annular ring co-axial with respect to the main series and on at least one side thereof, said secondary units being so proportioned and arranged that each successive secondary unit will contact with its adjacent units and with at least one of the main units, and inner and outer bearing elements between which the anti-friction units travel.



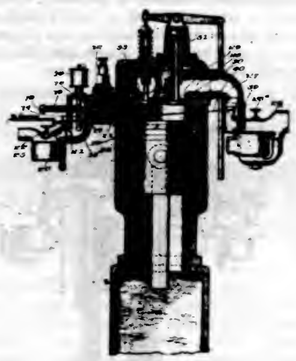
3. In an anti-friction device, a series of annularly disposed main anti-friction units, a series of annularly disposed secondary anti-friction units of substantially one-half the size of the main units, said secondary units being so arranged that each secondary unit contacts with its two adjacent secondary units and being so formed that every alternate secondary unit extends for a short distance between each adjacent pair of main units, and the remaining alternate secondary units being shaped to conform to the contour of the main unit, whereby they fit over the ends thereof, and inner and outer bearing elements between which the anti-friction units travel.

4. In an anti-friction bearing, the combination of a housing, a pair of exteriorly threaded rings adapted to screw into said housing from the opposite sides thereof, complementary runs in the inner faces of said rings, a bearing core, a run in said core, a series of main anti-friction units coöperating with the runs in the aforesaid rings and core, an annular series of secondary units equal in number to double that of the main series positioned co-axial therewith, such a series being on either side of the main units in such manner that each secondary unit will contact with its two adjacent secondary units and with at least one of the main units, and means whereby said series of secondary units are held in intimate contact with said main units.

5. In an anti-friction device, an interiorly threaded housing, a pair of exteriorly threaded main bearing rings adapted to be screwed into the housing from the opposite sides thereof, complementary runs in the interior faces of said rings, a core for the bearing, a run in said core, a series of main anti-friction units coöperating with the runs in said rings and core, in combination with an annularly disposed series of secondary anti-friction units arranged at either side of said main series, said secondary units being so shaped that the alternate secondary units of each series extend in between the successive main units, and the remaining secondary units of each series conform to the contour, and fit over the ends, of their adjacent main bearing units, a pair of secondary bearing rings, of smaller diameter than the aforesaid main bearing rings, adapted to be inserted into the housing from the opposite sides thereof, said secondary bearing rings having runs in their inner faces for the secondary bearing units, exteriorly threaded adjusting rings adapted to thread into the main bearing rings from either side of the bearing for the purpose of retaining the secondary bearing units in engagement with the main series, and means for locking the main bearing rings and adjusting rings against working loose.

1,135,082. INTERNAL-COMBUSTION ENGINE. HARRY C. WAITE, Chicago, Ill., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed June 8, 1914. Serial No. 843,853. (Cl. 123—1.)

1. In an internal combustion engine, the combination of a cylinder having a combustion chamber, an auxiliary ignition chamber, means for supplying independent charges of fuel to said combustion chamber and auxiliary ignition chamber, and governor controlled means for controlling the volume of charge to each of said chambers, and means for automatically controlling the volume of charge to each of said chambers.



2. In an internal combustion engine, the combination of a cylinder having a combustion chamber, an auxiliary ignition chamber, means for supplying independent charges of fuel to said combustion chamber and auxiliary ignition chamber, and governor controlled means for controlling the volume of charge to each of said chambers.

3. In an internal combustion engine, the combination of a cylinder having a combustion chamber, an auxiliary ignition chamber, means for supplying independent charges of fuel to said combustion chamber and auxiliary ignition chamber, and simultaneously controlled means for controlling the volume of charge to each of said chambers.

4. In an internal combustion engine, the combination of a cylinder having a combustion chamber, an auxiliary ignition chamber, means for supplying independent charges of fuel to said combustion chamber and auxiliary ignition chamber, and means for controlling the quantity and quality of charges to said chambers.

5. In an internal combustion engine, the combination of a cylinder having a combustion chamber, a main fuel inlet and an auxiliary fuel inlet, means for igniting a charge of fuel in said auxiliary inlet for igniting a main charge of fuel in said combustion chamber, and governor controlled means for controlling the quantity of each of the fuel charges.

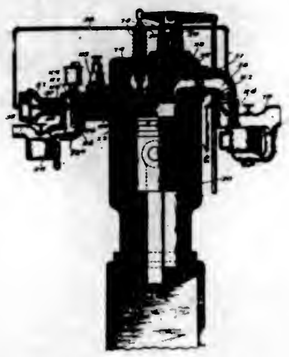
[Claims 6 to 13 not printed in the Gazette.]

1,135,083. INTERNAL-COMBUSTION ENGINE. HARRY C. WAITE, Chicago, Ill., assignor to International Harvester Corporation, a Corporation of New Jersey. Filed June 8, 1914. Serial No. 843,854. (Cl. 123—1.)

1. In an internal combustion engine, a cylinder having a combustion chamber, an auxiliary ignition chamber associated therewith, means through which main charges of fuel to said combustion chamber are supplied, means for supplying auxiliary charges of fuel to said auxiliary ignition chamber, means for igniting the fuel in said auxiliary ignition chamber to ignite the main charge of fuel in said combustion chamber, and means controlled by the pressure in said first mentioned means for controlling the supply to said ignition chamber.

2. In an internal combustion engine, a cylinder having a combustion chamber, an auxiliary ignition chamber associated therewith, means through which main charges of fuel to said combustion chamber are supplied, means for supplying auxiliary charges of fuel to said auxiliary ignition chamber, means for igniting the fuel in said auxiliary ignition chamber to ignite the main charge of fuel in the combustion chamber, means controlled by the pressure in said first mentioned means for controlling the fuel supply to said ignition chamber, and a governor controlled throttle valve for controlling the main fuel supply.

3. In an internal combustion engine, a cylinder having a combustion chamber, an auxiliary ignition chamber, a passageway through which main charges of fuel are passed to said combustion chamber, a pressure actuated valve controlling the supply of fuel to said auxiliary ignition chamber, and means for transmitting the pressure in said passageway to said valve for controlling the quantity of supply to said auxiliary ignition chamber.

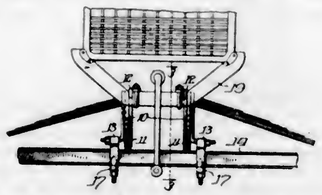


4. In an internal combustion engine, the combination of a cylinder having a combustion chamber, an auxiliary ignition chamber associated therewith, main fuel supply means for said combustion chamber, auxiliary fuel supply means for said auxiliary ignition chamber, and a pressure connection associated with said main and auxiliary supply means for controlling the quantity of fuel supply to said auxiliary ignition chamber in accordance with pressure conditions of the main fuel supply.

5. In an internal combustion engine, the combination of a cylinder having a combustion chamber, an auxiliary ignition chamber associated therewith, main fuel supply means for said combustion chamber, auxiliary fuel supply means for said auxiliary ignition chamber, and means whereby the supply from one of said means is controlled by the pressure conditions of fluid supply of the other of said means.

[Claims 6 and 7 not printed in the Gazette.]

1,135,084. SHOCK-ABSORBER. WILLARD T. WALKER, Racine, Wis., assignor to Walker-Moore Manufacturing Company, Racine, Wis., a Corporation of Wisconsin. Filed Apr. 1, 1914. Serial No. 828,714. (Cl. 21—105.)



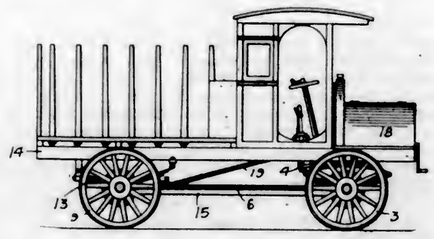
1. In a shock-absorber of the character described, the combination of a clamp equipped with means for securing it to a vehicle axle, and a coil torsion spring having one end fastened to said clamp and having its other end of hook form adapted to take over one of the body supporting-springs of the vehicle, substantially as described.

2. In a shock-absorber of the character described, the combination of a clamp equipped with means for securing it to a vehicle axle, a coil torsion spring having one end bent at right-angles to the plane of the spring and fastened to said clamp, the other end of the spring being in substantially the plane of the spring and bent to hook form, the hook being adapted to take over one of the body supporting-springs of the vehicle, substantially as described.

3. In a vehicle, the combination of a body, an axle, a supporting-spring for the body, a clamp secured to said axle, and an auxiliary coil torsion-spring, having one end fastened to said clamp and having its other end of hook form taking over said body supporting-spring, said auxiliary spring being normally under slight strain whereby its hook end will automatically follow the movements of the body supporting-spring and will be active substantially only to restrain reverse flexure of the supporting-spring, substantially as described.

4. In a vehicle, the combination of a body, an axle, a body supporting-spring, a clamp fastened to said axle, and an auxiliary shock-absorbing coil torsion-spring, having one end bent at substantially a right angle to the plane of the spring and fastened to said clamp, and having its other end of hook form in substantially the plane of the spring and taking over the body supporting-spring, said auxiliary spring being normally under slight strain whereby its hook end will automatically follow the movements of the body supporting-spring, and the auxiliary spring will be active substantially only to restrain reverse flexure of the supporting spring, substantially as described.

1,135,085. FOUR-WHEEL DRIVE. JOSEPH L. WARB, St. Paul, Minn. Filed Oct. 16, 1911. Serial No. 655,037. (Cl. 21—90.)



1. A four-wheel drive comprising forward and rear axle sections, a single differential gearing, and a shaft driving means operating directly through and by means of said gearing for driving all of said axle sections the sections of one axle being geared directly to said differential.

2. A four-wheel drive comprising forward and rear axle sections, a differential gearing interposed between the sections of one axle, driven shafts geared to said differential gearing and to the sections of the other axle, and a driving shaft geared to said differential gearing, power being applied to said driven shafts and axle sections directly through and by means of said differential.

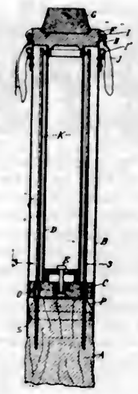
3. A four-wheel drive comprising rear axle sections and means for driving the same, including a differential gearing, located between said rear axle sections and geared thereto, front axle sections, and shafts for driving the same, said shafts and said rear axle sections being directly driven by the said driving means through and by means of the said differential gearing.

4. A four-wheel drive comprising rear axle sections and means for driving the same, including a differential gearing, front axle sections, and shafts for driving the same, said shafts being directly driven by said driving means through and by means of the said differential gearing, and flexible and extensible bearings in said shafts.

5. A four-wheel drive comprising rear axle sections, a differential gearing having direct driving connections with said sections, said differential gearing including a pair of outer beveled gears, a driving shaft geared to said differential between said outer gears, front axle sections, and shafts directly geared to said beveled gears and to said front axle sections for driving the latter.

[Claims 6 to 18 not printed in the Gazette.]

1,135,086. APPARATUS FOR ERECTING COMPOSITE PILES. ELIHU D. WATT, La Grange, Ill., assignor to Raymond Concrete Pile Company, New York, N. Y., a Corporation of New Jersey. Filed May 10, 1912. Serial No. 696,299. (Cl. 61—37.)



1. In an apparatus for erecting piles, the combination of a cylinder, a head for each end thereof, the lower head being provided with perforations, lag-screws projecting through said perforations and adapted for permanent engagement with a pile-head, an outer cylinder and means for withdrawing said lower head through said outer cylinder upon the lifting of the upper head, substantially as and for the purposes described.

2. In an appartus for erecting piles, a follower comprising means for detachable engagement with a wooden pile-head, an anvil for receiving force from a pile-driver, means for transmitting such force to the wooden-pile head, lag-screws permanently attached to said pile head, a perforated block within said follower through which said lag-screws project, and means for permitting withdrawing of said follower from said wooden pile-head, substantially as and for the purposes described.

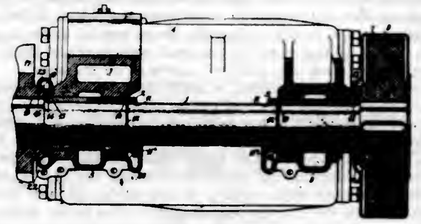
3. In an apparatus for erecting piles composed of a wooden shaft surmounted by a concrete shaft, the combination of a series of lag screws driven into said wooden shaft and upstanding from the same, a driving member mounted upon said lag screws comprising a lower head to slide upon said lag screws and to be in contact with the head of the wooden shaft, an outer cylinder, an inner cylinder permanently attached to said lower head, an upper head attached in fixed relation to said inner cylinder and detachably secured to said outer cylinder, substantially as and for the purpose set forth.

4. In an apparatus for erecting composite piles composed of a wooden shaft and a series of metallic reinforcing rods permanently affixed to and projecting upwardly from the upper end of the wooden shaft, comprising means slidably mounted upon said metallic rods and operatively connected to said wooden shaft and a member supported by the wooden shaft adapted to receive cementitious material for forming a concrete shaft upon said wooden shaft, substantially as and for the purposes set forth.

5. In an apparatus for erecting composite piles composed of a wooden shaft and a series of metallic reinforcing rods permanently affixed to and projecting upwardly from the upper end of the wooden shaft, comprising means slidably mounted upon said metallic rods and operatively connected to said wooden shaft, means adapted to transmit driving force to said wooden pile, and a member supported by the wooden shaft adapted to receive cementitious material for forming a concrete shaft upon said wooden shaft, substantially as and for the purposes set forth.

[Claim 6 not printed in the Gazette.]

1,135,087. OIL-GUARD FOR DYNAMO-ELECTRIC MACHINES. JOHN E. WEBSTER, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 3, 1906. Serial No. 346,082. (Cl. 64—22.)



The combination with a rotatable axle, of a bearing bushing having an external integral grooved flange at its outer end, a rotatable member having an annular projection adjacent to and at one side of the bushing flange, and a stationary guard having an annular groove to receive lubricating fluid which may be thrown from said annular projection, the groove in said flange being located radially within the inside edge of said stationary guard to prevent the return of said fluid beyond said flange.

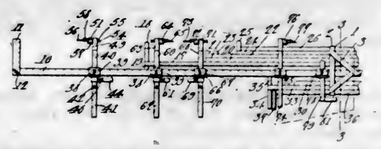
1,135,088. TRAY. SAMUEL WEINSTEIN, Chicago, Ill. Filed May 26, 1913. Serial No. 770,075. (Cl. 211—28.)



1. A device of the class described, embracing a channel member having its walls curved and turned inwardly and spaced apart, a resilient member inserted within said channel member and shaped to afford a recess closed at its inner end and with an open front registering with the opening in said channel, a strip of fabric stretched across said channel member, and means inserted into the recess in said resilient member to retain the edges of the fabric tightly engaged in the channel member.

2. In a device of the class described, hollow members affording a frame, the walls of said members curved and turned inwardly affording a continuous slot therein, resilient members engaged within said hollow members and arched to afford a closed recess and having an open front in register with the slot in said hollow members and with the walls of said resilient member shaped to fit closely within the inturned walls of said hollow member, and means engaging the edges of a strip of fabric stretched across the frame to press said edges into said closed recess to hold the fabric securely in place.

1,135,089. TEMPLET. CHARLEY H. WILKS, Argenta, Ark. Filed Mar. 29, 1913. Serial No. 757,725. (Cl. 33—174.)



1. A templet compriaing a pair of parallel rods mounted for relative sliding movement in the direction of their lengths and provided with straight, angularly disposed arms, projecting in a common direction and adapted to

define the ends of a notch in a stick of timber; a second pair of parallel rods mounted to slide between the rods of the first specified pair, the rods of the second pair having angularly disposed arms projecting in the same direction as the first specified arms, and located between said arms and shorter than said arms, the inner edges of the arms of the second pair of rods being beveled to define a sloping walled recess in the base of the notch; and means for securing the rods in adjusted positions, to permit changes between the relative positions of the arms.

2. A templet comprising a main rod; a guide mounted to slide along the main rod in the direction of the length of the main rod; a bar mounted to slide in the guide transversely of the length of the main rod and held by the guide in a position at right angles to the main rod; clamping means in the guide for holding the bar in adjusted positions with respect to the guide; an arm projecting from the bar at right angles to the plane defined by the rod and the bar; and a gage adjustable along the arm; the movement of the guide along the rod serving to adjust the position of the gage longitudinally of the stick of timber, the movement of the bar in the guide serving to permit the gage to lie flat upon the stick, the movement of the gage along the arm serving to adjust the position of the gage with respect to the face of the stick; and the arm being pivoted to the bar to permit the gage to lie upon either side of the plane defined by the rod and the bar.

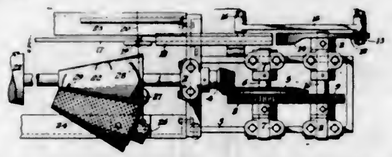
3. A templet comprising a pair of parallel rods mounted for relative sliding movement in the direction of their lengths and provided with angularly disposed arms projecting in a common direction and adapted to define the ends of a notch in a stick of timber; a second pair of rods mounted to slide between the rods of the first specified pair, the rods of the second pair having angularly disposed arms projecting in the same direction as the first specified arms and located between said arms, the arms of the second pair of rods being adapted to define the end walls of a recess in the base of the notch, each rod being movable independently of the other rods; and a means for holding all of the rods in adjusted positions.

4. A templet comprising a clamping frame; parallel main and auxiliary rods longitudinally adjustable in the clamping frame, the main and auxiliary rods having angularly disposed arms projecting in a common direction; a clamp located between the arms and adjustable along the main rod toward and away from either arm; a bar in the clamp and disposed transversely of the main rod, the bar being adjustable with the clamp longitudinally of the main rod and being adjustable in the clamp transversely of the main rod; a gage projecting from the bar and extended longitudinally of the main rod, the gage being adjustable upon the bar longitudinally of the bar and transversely of the main rod.

5. A templet comprising a main rod; a transverse arm on the main rod; supplemental rods disposed on opposite sides of the main rod; a clamping frame in which the rods are longitudinally adjustable; transverse arms at the ends of the respective supplemental rods, the arms being located on opposite sides of the main rod, one of said supplemental rods being movable to position its arm intermediate the arm of the other supplemental rod and the arm of the main rod; a clamp adjustable longitudinally of the main rod; a bar adjustable with the clamp longitudinally of the main rod and adjustable in the clamp transversely of the main rod; and a gage on the bar and extended longitudinally of the main rod, the gage being adjustable longitudinally of the bar and transversely of the main rod.

1,135,090. PACKAGE-WINDING MACHINE. GEORGE E. ALLEN, Philadelphia, Pa. Filed Nov. 22, 1913. Serial No. 802,381. (Cl. 242—43.)

1. In a device of the character stated, the combination of a rotatable form, a rotatable thread laying member having surface contact with said form and provided with an angular groove adjacent each end, the portion of said member between said grooves being a smooth uninterrupted surface, a reciprocable thread guide operatively positioned with respect to said rotatable laying member, means to reciprocate said thread guide and means to impart a quick return movement to said thread guide when the thread is within one or the other of said angular grooves.



2. In a device of the character stated, the combination of a rotatable package form or holder, a rotatable thread laying member having surface contact with said form and provided with an angular groove adjacent each end thereof, the apices of said grooves being oppositely disposed with respect to each other, and spaced a distance substantially equal to the length of the package to be wound, while the juxtaposed ends of said grooves are spaced apart to leave an uninterrupted surface there-between, means to reciprocate said reciprocable thread guide, and means timed to impart a quick return movement to said reciprocable thread guide substantially simultaneously with the arrival of the thread at one or the other of said groove apices.

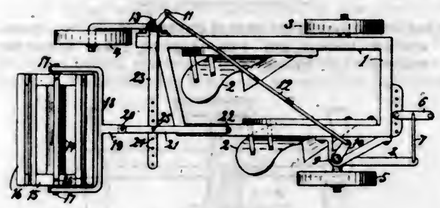
3. In a device of the character stated, the combination of a rotatable package form or holder, a rotatable thread laying member having surface contact with said form and provided with an angular groove adjacent each end thereof, a reciprocable thread guide operatively positioned with respect to said rotatable laying member, means to reciprocate said reciprocable thread guide, means comprising a pair of substantially elliptical gears in mesh with each other, one of said gears being eccentric to its long diameter and the other of said gears being eccentric to its short diameter for carrying the speed of said reciprocating means as the thread approaches the apex of one or the other of said grooves, and means to drive said gears.

4. In a device of the character stated, the combination of a rotatable package form or holder, a rotatable thread laying member having surface contact with said form and provided with a reciprocable thread guide operatively positioned with respect to said rotatable laying member, means to reciprocate said reciprocable thread guide, means comprising a pair of substantially elliptical gears in mesh with each other for increasing the speed of said reciprocating means at each end of the stroke of said reciprocable thread guide, one of said gears being eccentrically mounted with respect to its long diameter and the other of said gears being eccentrically mounted with respect to its short diameter, whereby the acceleration of said reciprocable thread guide is greater at one end of its stroke than at the other.

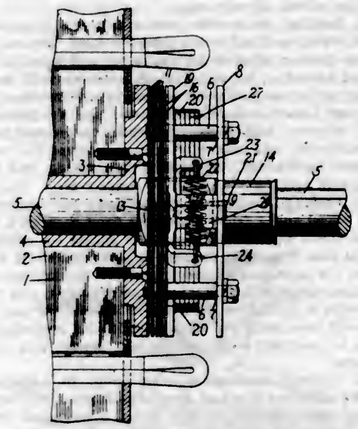
5. In a device of the character stated, the combination of a rotatable package holder, a rotatable thread laying member adjacent thereto having an angular groove adjacent each end thereof, while the intermediate length of the surface of said member is uninterrupted, the respective sides of each groove forming a portion of a helix developed about said laying member, the apices of said grooves being operatively disposed with respect to each other and located out of axial alinement, a reciprocable thread guide operatively positioned with respect to said rotatable laying member, means to reciprocate said reciprocable thread guide, and means timed to impart a quick return movement to said reciprocable thread guide when the thread is within one or the other of said angular grooves.

1,135,091. LAND-PACKER. CARL J. ANDERSON, Sanborn, N. D. Filed Dec. 15, 1913. Serial No. 806,713. (Cl. 97—44.)

The combination with a frame having supporting wheels, the rearmost one of which is of the caster type having a vertical journaled stem, of plows secured to and drawn by the frame, a land-packing roller having a frame arranged to move in rear of the plows and to roll upon the furrows as fast as they are plowed; a draft bar pivoted with its rear end to the roller frame and its front end to the plow frame and having an aperture intermediate said pivots, a transversely arranged brace bar having one end pivoted on the journaled stem of the caster-wheel and its body perforated and crossing the draft-bar, and a pin adapted to be inserted in the aperture in the draft-bar and into either one of the apertures or perforations in the brace bar.



1,135,092. CENTRIFUGAL CLUTCH. ANDREW H. BAKKEN, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial No. 752,615. (Cl. 192—10.)



1. In a centrifugal clutch, the combination with a driving member and a driven member, of a plurality of co-acting clutch members on each of said driving and driven members, and a plurality of centrifugally actuated members having a combined radial and axial movement.

2. In a centrifugal clutch, the combination with two rotatable members, of a plurality of friction disks on each of said members, said disks being alternately disposed, and means for effecting frictional engagement of said disks, said means comprising centrifugally actuated members having a combined radial and axial movement.

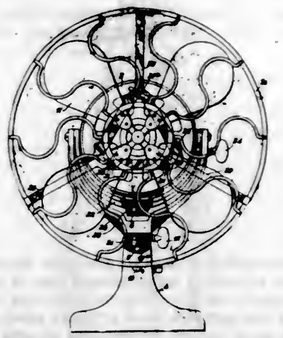
3. In a centrifugal clutch, the combination with two rotatable members, of a plurality of alternately disposed friction disks carried by each of said members, and a plurality of centrifugally actuated levers having a combined radial and axial movement.

4. In a centrifugal clutch, the combination with a rotatable driven member, and a rotatable driving member rotatably mounted on said driven member, of a plurality of alternately disposed friction elements carried by each of said members, and means for compressing said elements, said means comprising centrifugally actuated levers having a combined radial and axial movement.

5. In a centrifugal clutch, the combination with a rotatable driving member, and a rotatable driven member, of a plurality of clutch elements carried by each of said members, and a plurality of centrifugally actuated members carried by said driving member pivotally and slidably mounted, and means for shifting said last named members axially, when actuated by centrifugal force, to effect engagement of said clutch members.

[Claims 6 to 8 not printed in the Gazette.]

1,135,093. ELECTRIC MOTOR. WILFRED BARNES, Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 29, 1909. Serial No. 535,404. (Cl. 248—21.)

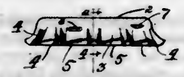


1. In an electric motor, the combination with a stationary base having a recess and a locking screw, of a frame or body having a downwardly extending projection adapted to engage the recess in the base and having a circumferential recess to receive the end of said locking screw, and a double trunnion comprising two yokes one of which has a cylindrical projection provided with a circumferential recess and the other of which has a cylindrical recess and a locking screw.

2. In a portable electric motor, the combination with a frame having a cylindrical projection provided with a circumferential groove containing accentuating indentations, a base having a cylindrical recess and a locking screw, of an interposed double trunnion comprising two yokes one of which has a cylindrical projection provided with a circumferential recess containing accentuating indentations and the other of which has a cylindrical recess and a locking screw.

3. In an electric motor, the combination with a stationary base having a vertical recess and a transverse recess, a frame or body having a downwardly extending projection adapted to engage the vertical recess of the base, of a double trunnion which may be interposed for providing a universal joint connection between the motor and the base, and a rest or guide adjustably supported in the transverse recess of the base.

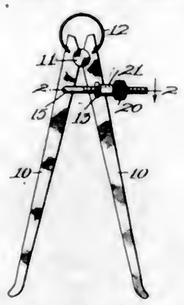
1,135,094. BOTTLE CAP OR SEAL. LEONARD BARTLETT, Chicago, Ill., assignor of one-half to Matthew J. Lynch, Chicago, Ill. Filed July 18, 1913. Serial No. 779,660. (Cl. 215—10.)



1. A bottle seal, embodying a top, and a wall extending annularly from the edge of said top and formed integral therewith, said wall being fluted at intervals, and said fluted portions being united by flanges whose line of connection with said wall is at an angle to the lower edges of said flanges.

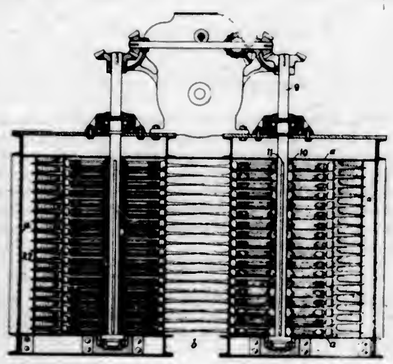
2. A bottle seal fluted outwardly around the periphery thereof, and retaining flanges adapted to be engaged beneath the bead of a bottle, the line of fold of said retaining flanges extending from near the lower end of one of the flutings to near the upper end of an adjacent one, affording a varied distance between the retaining flanges and the top of the bottle seal.

1,135,095. CALIPERS OR DIVIDERS. FREDERICK I. BLAKE and MICHAEL D. REIDY, Worcester, Mass. Filed Aug. 8, 1912, Serial No. 713,954. Renewed Feb. 12, 1915. Serial No. 7,812. (Cl. 33—154.)



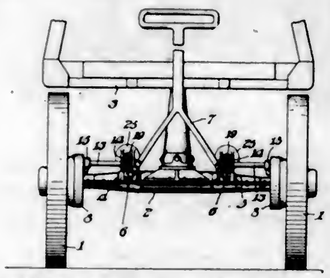
In an instrument of the class described, the combination with a pair of pivoted spring-pressed legs, of an eye having an integral neck extending therefrom and mounted on one of said legs and capable of swinging about the axis of its neck, a screw passing through said eye and having one end bent at right angles to the screw body and parallel with said neck, and passing freely through the other leg so as to be capable of swinging thereon, and headed over on the rear side, and a nut on the screw.

1,135,096. COTTON-HARVESTER. EDWARD S. BEACH, Ridgefield, Conn., assignor to Price-Campbell Cotton Picker Corporation, Wilmington, Del., a Corporation of Delaware. Filed Aug. 20, 1912. Serial No. 715,985. (Cl. 56—118.)



In a cotton-picking machine organized with a central, lengthwise-extending passageway for the plants, the combination of a pair of vertical sprocket-carrying shafts spaced apart in the direction of the length of the machine; for each shaft a series of sprocket-chains alternating with a series of plates; and on each sprocket-chain a series of fixed horizontally-projecting rotatable cups each carrying a therein-demountably-fixed and therefrom-projecting picker-finger; each cup having an annular roll-forming wall which is adapted to contact with the inward margin of a plate adjacent said passageway to rotate the finger during its picking movement, and the opposite outward margin of the plate being out of the path of said roller when its course is adjacent to such outward margin; and finger-stripping devices.

1,135,097. BRAKING MECHANISM. TRACY V. BUCKWALTER, Altoona, Pa. Filed Aug. 18, 1914. Serial No. 857,304. (Cl. 21—8.)



1. A braking mechanism comprising members adapted for frictional engagement, a journaled shaft having an arm for turning it and a cam for operating one of said members, means comprising a spring for turning said arm, and a draw bar connected with said means and adapted to effect the release of said arm.

2. A braking mechanism comprising the combination with a wheel and a friction member fixed thereto, of a friction member adapted for engaging said friction member first named, a journaled shaft provided with an arm for turning it and a cam for operating said friction member second named, a lever mechanism, means comprising a spring whereby said lever mechanism is caused to act upon said arm, and manually operated means for rocking said lever mechanism, contracting said spring, and disengaging said arm.

3. A braking mechanism comprising the combination with a wheel and a friction member fixed thereto, a brake shoe disposed within said member, a spring for withdrawing said shoe from said member, a journaled shaft having an arm for operating it and a cam for moving said shoe into engagement with said member, a draw bar, and means comprising a spring for elevating said draw bar and actuating said arm, said bar being adapted for operating said means to contract said spring last named and release said arm.

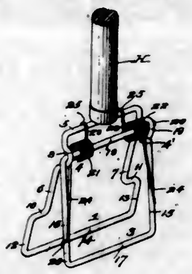
4. A braking mechanism comprising, in combination with an axle and a wheel revoluble thereon, a frictional braking device carried by said wheel, a frictional braking device carried by said axle, a fulcrumed draw-bar, means comprising a spring and a tension member for automatically elevating said drawbar and engaging said braking device second named with said braking device first named, and means, released by moving said draw-bar to operative position, for disengaging said braking device second named from said braking device first named.

5. A braking mechanism comprising, in combination with an axle and a wheel revoluble relatively thereto, a drum fixed to said wheel, a brake shoe adapted for engaging said drum, a cam for spreading said shoe, a journaled shaft to which said cam is fixed, a lever fulcrumed on said axle, a spring for operating said lever, and means whereby said lever operates said shaft.

[Claims 6 and 7 not printed in the Gazette.]

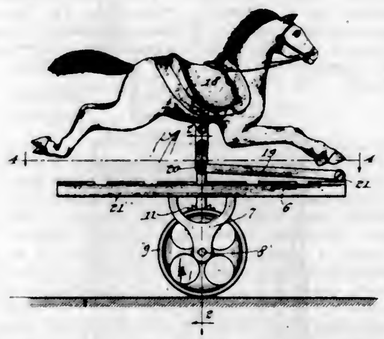
1,135,098. MOP-HEAD. HENRY I. DAVIS, Ann Arbor, Mich. Filed Feb. 12, 1914. Serial No. 818,291. (Cl. 15—56.)

A mop head comprising a stationary jaw composed of a single strand of wire designed to form substantially a rectangular member, the side arms of said member being offset rearwardly adjacent the upper ends thereof to form loop-like bearings, the lower portions of said side arms being offset laterally in the plane of the member to form a broadened lower end on the stationary jaw, a movable jaw composed of a single strand of wire bent to form substantially a rectangular member, the inner cross bar thereof being mounted for oscillation in the aforesaid bearings of the stationary jaw and the side arms of the same projecting a slight distance beyond said bearings to limit the lateral movement of the movable jaw with respect to the stationary jaw, said movable jaw spanning



the broadened lower portion of the stationary jaw and having its outer cross bar extended beyond the outer cross bar of the stationary jaw, and coil springs loosely mounted on the inner cross bar of the movable jaw, the inner opposed end coils of said springs being extended and engaged detachably with the inner cross bar of the stationary jaw and the outer opposed end coils of said springs being extended a considerable distance and engaged with the side bars of the movable jaw adjacent the outer end of the latter, whereby to retain said movable jaw in the bearings and yieldingly retain the same in contact with the broadened outer portion of the stationary jaw.

1,135,099. AMUSEMENT DEVICE. THOMAS O. DECKER, Chicago, Ill. Filed Apr. 3, 1914. Serial No. 829,211. (Cl. 46—27.)



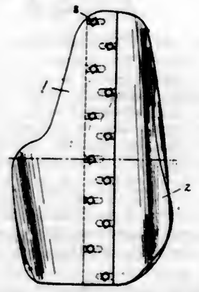
1. In an amusement device a platform, a wheel support therefor, a wheel mounted thereon, a gear wheel adapted to be operated by the revolution of said wheel, a carrying device, a connecting bar connecting said carrying device to said gear wheel, and a link pivotally secured to said bar and said platform.

2. In an amusement device platform, a wheel support attached thereto, a wheel mounted thereon, a gear wheel mounted on the shaft of said wheel, a second gear wheel in mesh therewith, a carrying device, a rigid connecting bar connecting said carrying device to said second gear wheel, and a link pivotally secured to said carrying bar and said platform.

3. In an amusement device a platform, a wheel support attached thereto, a wheel mounted thereon, a gear wheel mounted on the shaft of said wheel, a second gear wheel in mesh therewith, a carrying device, a rigid connecting bar connecting said carrying device to said second gear wheel, and a link pivotally secured to said carrying bar and said platform in front of said carrier.

4. In a device of the class described, the combination with a plurality of carrying members, means for securing said carrying members to a traveling cable, said means comprising a rigid connection securing one end of each of said carrying members to the cable and a swinging link connection carrying the opposite end of said carrying members, whereby said members may travel through a curved path without affecting the position of said cable.

1,135,100. ARCH-SUPPORTER. EPHRAIM DRENSHTEIN, New York, N. Y. Filed Nov. 11, 1913. Serial No. 800,298. (Cl. 36—71.)



1. An arch supporter comprising solid permanently formed overlapping metallic members substantially of the same length along their overlapping edges, each of said members being shaped to fit and support one side and part of the bottom of the individual foot to be supported, said members being arranged for lateral adjustment, and means for longitudinally securing said members in their adjusted position, the bottom of said supporter being primarily dependent for its rigidity on the overlapping of said members.

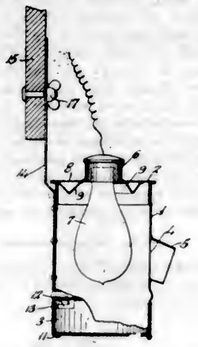
2. An arch supporter comprising solid permanently formed uniformly overlapping metallic members substantially of the same length along their overlapping edges, each of said members being shaped to fit and support one side and part of the bottom of the individual foot to be supported, said members being arranged for lateral adjustment, the overlapping edges of said members remaining substantially parallel during and after adjustment, and means for longitudinally securing said members in their adjusted position.

3. An arch supporter comprising solid permanently formed uniformly overlapping metallic members substantially of the same length along their overlapping edges, each of said members being shaped to fit and support one side and part of the bottom of the individual foot to be supported, said members being arranged for lateral adjustment, the overlapping edges of said members remaining substantially parallel during and after adjustment, and means for longitudinally securing said members in their adjusted position, the bottom of said supporter being primarily dependent for its rigidity on said overlapping.

1,135,101. EGG-TESTER. SAMUEL A. EBERLE, Cincinnati, Ohio. Filed Aug. 17, 1914. Serial No. 857,010. (Cl. 99—6.)

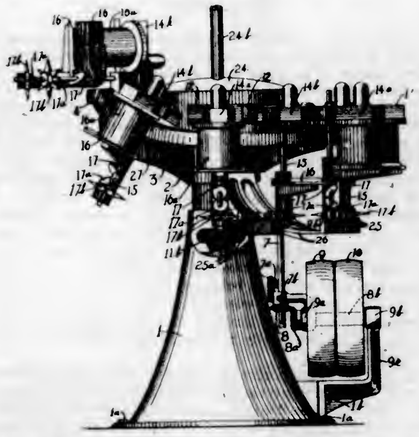
1. In an egg tester, the combination of a casing provided with a top and a bottom cover to inclose the casing, and having a tubular opening at its middle portion, with the tube extending downwardly, an electric light bulb secured in said casing, the top cover having ventilator openings with V-shaped guards therefor, and with the

bottom cover cut away at its middle portion and a slide plate to close the opening.



2. In an egg tester, the combination of a casing provided with a top and a bottom cover to inclose the casing, and having a tubular opening at its middle portion, with the tube extending downwardly, an electric light bulb secured in said casing, with the bottom cover cut away at its middle portion, with a pivoted slide to close the opening and a bayonet-lock device for locking the bottom cover on the casing.

1,135,102. MACHINE FOR SYRUPING FRUIT IN CANS. EDWARD JOSEPH ENGELHARDT, San Jose, Cal. Filed Dec. 23, 1913. Serial No. 808,435. (Cl. 226—9.)

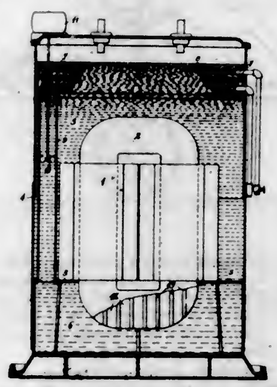


1. In a machine for syruping fruit in cans, the combination of an endless track in which the wearing surface alternately assumes a horizontal and vertical position with means for supporting the same, a reservoir concentrically and revolubly mounted in said track with driving mechanism operatively connected thereto, a plurality of hollow arms radially positioned about the perimeter thereof and communicating therewith, a hollow arm pivotally attached to each of said last mentioned hollow arms and communicating therewith, said pivotally attached hollow arms being provided with filling nozzles and with rollers adapted to travel on said track when said reservoir is set in motion and having vertically movable can supports depending therefrom.

2. In a machine for syruping fruit in cans, the combination of an endless track in which the wearing surface alternately assumes a horizontal and vertical position with means for supporting the same, a reservoir concentrically and revolubly mounted in said track with driving mechanism operatively connected thereto, a plurality of hollow arms radially positioned about the perimeter thereof and communicating therewith, a hollow arm pivotally attached to each of said last mentioned hollow arms and communicating therewith, said pivotally attached hollow arms being provided with filling nozzles and with rollers adapted to travel on said track when said reservoir is set in motion and having vertically movable can supports depending therefrom, valves operatively positioned therein adapted to open and close when cans are moved into and out of engagement with said filling nozzles, means for raising and lowering said can supports a distance at predetermined intervals and holding the same in said raised or lowered position, substantially as shown and described.

3. In a machine for syruping fruit in cans, the combination of an endless track in which the wearing surface alternately assumes a horizontal and vertical position with means for supporting the same, a reservoir concentrically and revolubly mounted in said track with driving mechanism operatively connected thereto, a plurality of hollow arms radially positioned about the perimeter thereof and communicating therewith, a hollow arm pivotally attached to each of said last mentioned hollow arms and communicating therewith, said pivotally attached hollow arms being provided with filling nozzles and with rollers adapted to travel on said track when said reservoir is set in motion and having vertically movable can supports depending therefrom, valves operatively positioned therein adapted to open and close when cans are moved into and out of engagement with said filling nozzles, means for raising and lowering said can supports a distance at predetermined intervals and holding the same in said raised or lowered positions, a supply pipe discharging into said reservoir having a float controlled valve positioned therein, means for automatically interrupting the communication between said reservoir and each of said radially positioned hollow arms during the period in which the can being filled passes from the draining position to its discharge, means for positioning cans the desired distance on said can supports, and means for removing said cans from said can supports after draining and releasing the same, substantially as shown and described.

1,135,103. COOLING SYSTEM FOR TRANSFORMERS. CHARLES LE G. FORTESCUE, Wilkinsburg, Pa., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 6, 1908. Serial No. 461,339. (Cl. 171—124.)



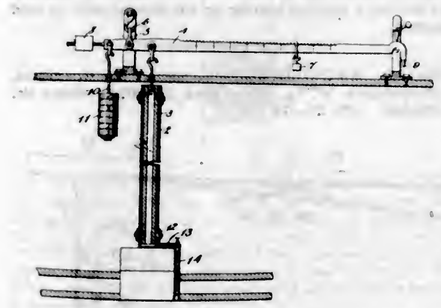
1. The combination with a fluid-containing tank having a horizontal partition near one end which provides an upper and a lower chamber in said tank, a cooling coil immersed in the fluid within the upper end of the upper chamber, and a conduit connecting the fluid in the vicinity of the cooling coil with the fluid in the lower chamber, of an electric transformer supported upon said partition and disposed mainly in the upper chamber, and means located within said conduit for producing a circulation of the fluid through it and the upper and lower chambers.

2. The combination with a fluid-containing tank having a horizontal partition which divides said tank into an upper and a lower chamber and provided with a passage between the upper ends of said chambers, and an oil-cooling means disposed in the upper end of the upper chamber, of an electric transformer resting upon said partition and disposed mainly in the upper chamber, and means for forcing oil from the vicinity of the cooling means through said passage to the lower chamber.

3. The combination with a liquid-containing tank having a partition provided with two apertures, of a transformer projecting into one of said apertures, a pipe projecting from the other aperture, and a cooling coil located adjacent to the end of the pipe which is remote from the partition, and a propeller for producing a circulation of liquid through said pipe and said transformer and through spaces between the convolutions of said cooling coil.

4. The combination with a liquid-containing tank having a horizontal partition near one end provided with two apertures, of a transformer resting upon said partition and projecting into one of said apertures, a pipe projecting upwardly from the other aperture, a baffle plate near the upper end of the tank, a cooling coil between the baffle plate and the tank wall, and a propeller for forcing liquid through said pipe and said transformer and through the spaces between the convolutions of the cooling coil.

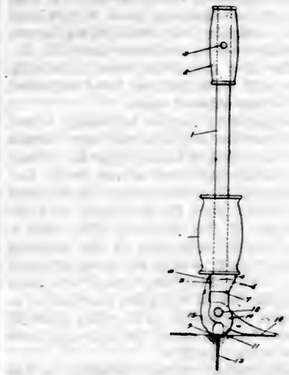
1,135,104. SHIP-SCALE. JOHN FRAME, Searsport, Me. Filed Feb. 27, 1914. Serial No. 821,486. (Cl. 73—23.)



In a scale of the class described, the combination with a ship, of a tube arranged in said ship extending from the bottom thereof to near the top, an inlet member in free communication with the exterior of said ship and also with said tube, said inlet member being provided with staggered baffles for preventing temporary fluctuations of the height of water in said tube, a valve for controlling the flow of water through said inlet member, an iron weight arranged in said tube, a pivotally mounted beam connected with said iron weight, and a counterbalancing weight connected with said beam, said counterbalancing weight acting against said first mentioned weight.

1,135,105. NAIL-PULLER. CHARLES E. GLAFKE, Portland, Oreg. Filed Apr. 13, 1914. Serial No. 831,415. (Cl. 254—19.)

1. A nail puller comprising a shank having an annular shoulder near its lower end which portion terminates in a nail-gripping jaw, a coacting jaw having a laterally projecting fulcrum-piece pivotally secured thereto, an arm rising from the pivoted jaw above said shoulder, a driving member slidably mounted on said shank, an extension leading therefrom adapted to engage said shoulder and to sustain the driver above said arm, and an upwardly beveled eccentric portion formed on the extension from said driver, which, by manipulation of the driver, will engage said arm to rock the jaws on their pivot to cause them to bite together.



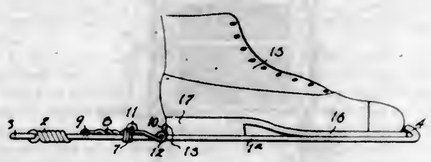
2. A nail puller comprising a shank having a lower end which terminates in a nail-gripping jaw, a coacting jaw pivotally secured thereto, an arm rising from the pivoted jaw, a driving member slidably mounted on said shank, an extension leading therefrom and having an upwardly beveled portion, which, by manipulation of the driver will engage said arm to rock the jaws on their pivot to cause them to bite together.

3. A nail puller comprising a shank having a lower end which terminates in a nail-gripping jaw, a coacting jaw pivotally secured thereto, an arm rising from the pivoted jaw, a driving member slidably mounted on said shank, an extension leading downwardly therefrom and having an upwardly beveled portion, which, by manipulation of the driver will engage said arm to rock the jaws on their pivot to cause them to bite together.

4. A nail puller comprising a shank having a lower end which terminates in a nail-gripping jaw, a coacting jaw pivotally secured thereto, an arm rising from the pivoted jaw, a driving member slidably mounted on said shank, an extension leading therefrom and having an upwardly beveled eccentric portion, which, by manipulation of the driver will engage said arm to rock the jaws on their pivot to cause them to bite together.

5. A nail puller comprising a shank having a lower end which terminates in a nail-gripping jaw, a coacting jaw pivotally secured thereto, an arm rising from the pivoted jaw, a driving member slidably mounted on said shank, an extension leading downwardly therefrom and having an upwardly beveled eccentric portion, which, by manipulation of the driver will engage said arm to rock the jaws on their pivot to cause them to bite together.

1,135,106. SOLE-STRAIGHTENING MEANS. JOHN J. GRUENIG, Miles City, Mont. Filed Dec. 24, 1914. Serial No. 878,943. (Cl. 12—128.)



1. A shoe sole straightening device including a flat frame arranged to fit under the sole of a shoe, toe engaging means upon the frame, a slide mounted upon the frame, a clamping lever mounted upon the slide, heel clamping means carried by the clamping lever, and locking means for holding the clamping lever in operative position.

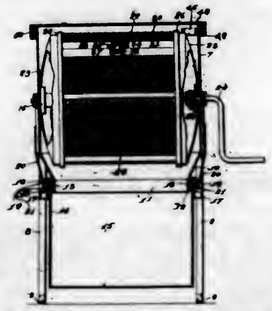
2. A shoe sole straightening device including a flat frame arranged to fit under the sole of a shoe, toe engaging means upon the frame, a slide mounted upon the frame, a clamping lever mounted upon the slide, a heel clamping bar carried by the clamping lever, a yieldable mounting for the heel clamping bar, and locking means for holding the clamping lever in operative position, the movements of the slide upon the main frame admitting of the position of the heel clamping bar being adjusted for engagement with various sizes of shoes.

3. A shoe sole straightening device including a flat frame arranged to fit under the sole of a shoe and formed with spaced side bars, toe engaging means upon the frame, a slide connecting the spaced side bars of the frame and mounted thereon, a clamping lever pivotally mounted upon the slide at an intermediate point in its length, heel engaging means at one end of the clamping lever, and a transverse locking bar loosely connected to the opposite end of the clamping lever, said locking bar being adapted to extend across and fit against the side bars of the main frame to hold the clamping bar in operative position or to be turned into an upright position so as to swing between the side bars of the frame and admit of the clamping lever being swung into inoperative position.

4. A shoe sole straightening device including a flat frame arranged to fit under the sole of a shoe and formed with spaced side bars, toe engaging means upon the frame, a slide connecting the side bars and formed with guide sleeves loosely engaging the same, a spring clamping lever pivotally mounted upon the slide at an intermediate point in its length, a heel clamping bar carried by one end of the clamping lever, and a transverse locking bar swiveled upon the opposite end of the clamping lever, said locking bar being arranged to extend across and rest upon the side bars of the frame to hold the clamping lever in operative position or to be swung into an upright position so as to clear the side bars when the clamping lever is swung into inoperative position.

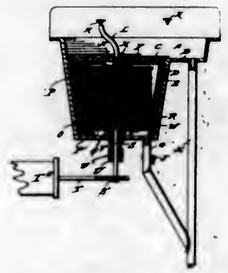
5. A shoe sole straightening device including a flat frame arranged to fit under the sole of a shoe and formed with spaced side bars, toe engaging means upon the frame, a slide connecting the side bars and mounted thereon, a spring lever pivotally mounted at an intermediate point in its length upon the slide, one end of the lever being bifurcated, a heel engaging bar carried by the bifurcated arms of the lever, a yieldable mounting for the heel engaging bar, and a transverse locking bar swiveled upon the opposite end of the lever and arranged to extend across and rest upon the side bars of the frame to hold the lever in operative position or to be swung into an upright position so as to clear the said side bars when the lever is swung into an inoperative position, the back and forth movement of the slide upon the side bars admitting of the lever being adjusted for proper engagement of the heel engaging bar with various sizes of shoes.

1,135,107. ASH-SIFTER. JOHN W. GRUNDORF, St. Louis, Mo. Filed May 5, 1913. Serial No. 765,649. (Cl. 83—60.)



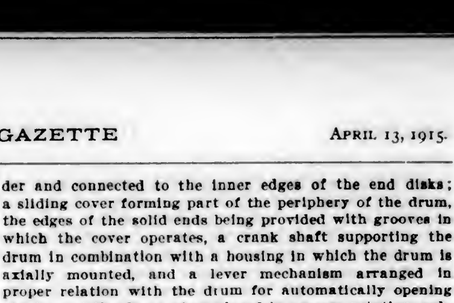
An ash sifter comprising a rotating drum consisting of solid end disks, reticulated material forming a cylinder and connected to the inner edges of the end disks; a sliding cover forming part of the periphery of the drum, the edges of the solid ends being provided with grooves in which the cover operates, a crank shaft supporting the drum in combination with a housing in which the drum is axially mounted, and a lever mechanism arranged in proper relation with the drum for automatically opening the door of the drum when placed in reverse rotation, substantially as specified.

1,135,108. DISH-WASHING APPARATUS. LEON GSCHWIND, Youngstown, Ohio. Filed June 26, 1913. Serial No. 775,863. (Cl. 141—9.)



In a dish washing apparatus, the combination with a sink having a discharge pipe and an auxiliary chamber of reduced size depending from said sink and having a discharge pipe leading to the discharge pipe of the sink, of a washing mechanism arranged in said auxiliary chamber and having a journal bearing in the bottom wall of said chamber.

1,135,109. SWINGLETREE. ANGELO R. GUARIGLIA, Morgantown, W. Va. Filed Sept. 21, 1914. Serial No. 862,761. (Cl. 21—75.)

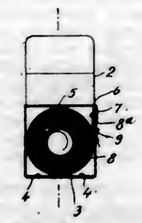


1. A device of the class described including pivotally connected sections normally disposed in longitudinal alinement, a plate secured to one of the longitudinal edges of of one of the sections and projecting beyond the inner end thereof, the projecting end of said plate being provided with an opening, a lug formed upon the longitudinal edge of the other section and normally disposed within said opening to normally retain the sections in longitudinal alinement, an upwardly projecting flange formed upon said plate having spaced perforated lugs formed integral therewith, a locking member having perforated lugs adapted to be arranged in alinement with the first lugs, a pivot pin extending through said lugs to mount the locking member, and means whereby to manually actuate the locking member, the inner end thereof bearing against the lug to release the sections.

2. A device of the class described including pivotally connected sections normally disposed in longitudinal alinement, removable pins arranged in the outer ends of the sections, a plate secured to one of the longitudinal edges of one of the sections and projecting at its inner end beyond the end of the section, said plate being provided with an opening at its inner end, a lug formed on the other section at its longitudinal edge and adapted to be disposed within said opening, a second lug formed upon the upper face of the second section, a pivoted locking member carried by said plate and having a down-turned end adapted to engage the lug, said locking member having a V-shaped notch in its other end to engage the second lug and lock said plate, and means connected with the upper end of the plate and adapted to be manually operated to actuate the plate and engage one end thereof with the first lug to release the sections.

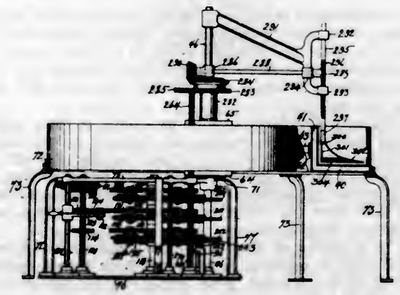
3. A swingletree including pivotally connected sections normally disposed in longitudinal alinement, a plate secured to one of the longitudinal edges of one section and projecting beyond the inner end of the other section, the projecting end of said plate having an opening, a lug formed upon the longitudinal edge of the other section and normally disposed within said opening, an upwardly projecting flange formed upon said plate, a locking member mounted upon said flange, a lug upon the upper face of the second mentioned section, said locking member having a recess to receive the second said lug, and means whereby to manually actuate the locking member, the lower end of the locking member bearing against the first mentioned lug to disengage the locking plate from the lug and release the sections.

1,135,110. TAPE-PACKAGE. THOMAS SHAW HALL, Mount Vernon, N. Y. Filed Apr. 12, 1913. Serial No. 760,685. (Cl. 206—52.)



A carton for the purpose described comprising a side flap extending from one side of the carton across the carton approximately to the opposite side of the carton, and there terminating, whereby an open space is provided between the end of that flap and the adjacent side of the carton for the drawing out of tape or the like within the carton, said carton further comprising an end flap adapted to cover said side flap.

1,135,111. APPARATUS FOR TREATING PHOTOGRAPHIC PLATES. AUGUST C. HANSCH, Jersey City, N. J. Filed Jan. 10, 1914. Serial No. 811,288. (Cl. 95—93.)



1. In an apparatus of the character described the combination of a tank having a plurality of compartments for liquids, and means to force air through the liquids in said compartments consecutively one after the other.

2. The combination of a plate rack, means to swing said rack in one direction, other means to swing said rack in a reverse direction and means to move the plate rack in a plane perpendicular to which it swings.

3. In an apparatus of the character described the combination of a tank having a plurality of compartments, means to force air through the liquid of one of said compartments during a predetermined interval of time and means to begin forcing air through the liquid of a second compartment before the termination of forcing the air through the liquid of the first compartment.

4. In an apparatus of the character described the combination of a tank having a plurality of compartments, a movable plate rack for said compartments, means to raise or lower the plate rack into or out of any of the compartments, means to move the said plate rack in one direction from one compartment to another and means to move the plate rack in an opposite direction.

5. In an apparatus of the character described the combination of a tank having a plurality of compartments for liquids, a movable plate rack for said compartments, means to raise or lower the plate rack into or out of any of said compartments, said means being adjustable to vary the time of immersion of said rack in said liquids and means to move the plate rack when raised or being raised to a second compartment to be lowered into the latter.

[Claims 6 to 19 not printed in the Gazette.]

1,135,112. FABRIC CONNECTION. CHARLES A. HANSEN, Elizabeth, N. J., assignor to Alfred H. Bamberger, New York, N. Y. Filed June 8, 1911. Serial No. 631,899. (Cl. 112—34.)



1. The combination of a plurality of fabrics, their edge-portions being substantially parallel to and spaced from each other and the edge-portion of at least one of said fabrics comprising a plurality of layers of fabric, and a single thread piercing said edge-portions and constituting the means both to secure said fabrics together and to hold said layers in place, said thread passing through a single longitudinal series of needle perforations through the edge of each fabric.

2. The combination of a plurality of fabrics, their edge portions being substantially parallel to and spaced from each other and the edge portion of each comprising three folds, two of which face in one direction, the third facing in the opposite direction, and stitching piercing said edge portions and serving both to secure said fabrics together and to hold said folds in place.

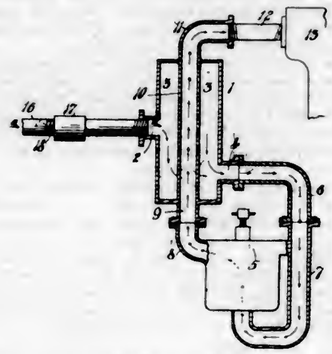
3. The combination of a plurality of fabric portions, their contiguous marginal edges being spaced apart and inturned to form folds located on the under side of each fabric portion and a single thread holding said folds in place and also uniting said fabric portions, said thread passing through a single longitudinal series of needle perforations through the folds of the edge of each fabric portion.

4. The combination of a plurality of fabrics, their edge portions being substantially parallel and spaced from each other and the edge portion of each comprising three folds, two of which face in one direction, the third facing in the opposite direction and the edges of two of said folds forming the edge of each fabric and stitching piercing said edge portions and serving both to secure said fabrics together and to hold said folds in place.

5. The combination of a plurality of fabrics, their edge portions being substantially parallel to and spaced from each other and the edge portion of each being inturned to form folds located on one side of the fabric, the visible surfaces of the folds being the same as the surface of

that side of the fabric on which said folds are located, and stitching piercing said edge portions and securing said fabrics together.

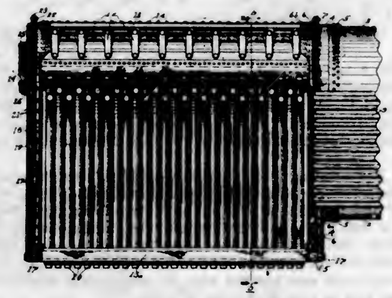
1,135,113. VAPOR-HEATER FOR INTERNAL-COMBUSTION ENGINES. FRANK I. HITCHCOCK, Bridgeport, Conn. Filed May 8, 1913. Serial No. 766,352. (Cl. 123—122.)



1. The combination with an engine and carbureter of an interposed vapor heater having a hot air chamber and a hot air inlet, a manually operated controller for regulating the temperature of the heated air entering said chamber, a hot air outlet from said chamber to the carbureter, and an inclosed passage in the chamber directly connnecting the carbureter with the engine.

2. The combination with an engine and carbureter of an interposed vapor or gas heater connecting the carbureter with the engine, said heater having a chamber and a hot air receiving port through which air enters the chamber at a higher temperature than required for the engine, a manually operated controller for regulating the temperature of the heated air entering said chamber, an outlet port leading from said chamber to the carbureter, an inclosed passage in the chamber having communication with the carbureter and engine, all combined and arranged so that a mean uniform temperature is maintained in said chamber and outlet connections between said carbureter and engine.

1,135,114. FIRE-BOX FOR BOILERS. FRANK M. JACOBS, deceased, Atchison, Kans., by Henry Jacobs, administrator, Atchison, Kans. Filed May 20, 1914. Serial No. 839,698. (Cl. 122—94.)



1. A fire-box provided with top and bottom fluid-containing headers or members, the top header or member being composed of a series of concavo-convex sheets constituting the lower wall thereof while the outer shell of the fire-box constitutes the upper wall of said header or member, and water tubes arranged intermediate of the top and bottom headers or members so as to constitute the inner side walls of the fire-box and establish communication between said headers or members.

2. A fire-box, provided with top and bottom fluid-containing headers or members, the upper wall of the top header or member being formed by the outer shell of the fire-box while the bottom wall of said header is suspended from said outer shell so as to form a fluid-tight compartment, and water tubes vertically disposed intermediate of the top and bottom headers or members so as to establish communication between said headers or members at various points substantially throughout the entire length thereof.

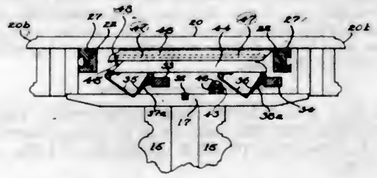
3. A fire-box, comprising fluid-containing means longitudinally disposed in the upper and lower parts of the fire-box, the fluid-containing means in the upper part of the fire-box being formed by the outer shell of the fire-box and a lower wall suspended from said shell, and water tubes arranged intermediate of the top and bottom fluid-containing means so as to establish communication between said means, with the upper ends of the water tubes disposed to one side of the axes of said tubes and arranged in a criss-cross manner.

4. A fire-box, comprising top and bottom fluid-containing means arranged lengthwise of the fire-box, the top means being formed by the outer shell of the fire-box and transversely bent sheet of sheets having the sides secured to said outer shell, and water tubes vertically disposed between the top and bottom means so as to establish communication between said means.

5. A fire-box, provided with top and bottom fluid-containing headers or members, the top header or member being composed of a series of concavo-convex sheets constituting the lower wall thereof while the outer shell of the fire-box constitutes the upper wall of said header or member, means whereby the lower wall is yieldingly suspended from said shell, and water tubes arranged intermediate of the top and bottom headers or members so as to constitute the inner side walls of the fire-box and establish communication between said headers or members.

[Claims 6 to 18 not printed in the Gazette.]

1,135,115. EXTENSION-TABLE. ISAAC KARISH, Chicago, Ill., assignor of one-half to Todress Naktin, Chicago, Ill. Filed July 13, 1912. Serial No. 709,278. (Cl. 45—9.)



1. An extension table, comprising a series of table leaves formed transversely in section and normally concealed beneath the table top when the latter is in closed position, the sections of said leaves being slidable longitudinally one upon another, and means for elevating said leaves into position for use.

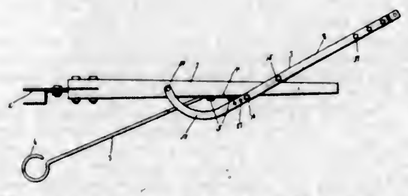
2. An extension table, comprising a series of table leaves formed transversely in section and normally concealed beneath the table top when the latter is in closed position, the sections of said leaves being hinged to each other in such manner as to permit a relative longitudinal adjustment one upon the other, and means for elevating said leaves into position for use.

3. In a device of the class described a centrally supported table, a sectional table top forming a part thereof adapted to be extended, table leaves suitably mounted in horizontal position beneath said table top sections, mechanisms operating to move said leaves automatically upwardly between the table top sections and maintained in a horizontal plane as said sections are moved apart, and connections between the sections of said table leaves to permit extension of the leaves to position without inverting of any of the parts thereof.

4. In a device of the class described a sectional table top, a central support therefor comprising a divided leg, each section of which is adapted to move with a respective section of the table top, a sectional table leaf with the sections resting horizontally one upon another face upwardly and normally retained in position beneath the table top sections when the same are closed, and mechanism for elevating said sectional leaf into position to permit positioning of the same between the table top sections when the same are moved apart without inverting the leaf sections and maintaining the same in a horizontal plane in all positions of adjustment.

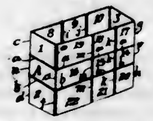
5. In a device of the class described a centrally supported table, sectional leaves contained beneath the top thereof when the same is in closed position, one supporting the other thereupon when in position out of use, the sections of said leaves slidable one upon another, to permit extension thereof without rotation of the sections, hinges connected to the lowermost of said leaf sections and to the table and means connected to the table top to project said leaves upwardly into position to permit extension of the same when the device is opened.

1,135,116. DRAFT DEVICE. PAUL R. KUSSKE, Sibley, Minn. Filed Aug. 24, 1914. Serial No. 858,367. (Cl. 21—114.)



In a device for coupling a binder to a tractor, the combination of a draft tongue or pole adapted to be connected with the binder, and a draft device comprising spaced members having portions contacting with the upper and under surface of the pole, said members having a pair of their adjacent end portions curved and pivotally connected to said pole and a pair of spaced bolts passing through the intermediate portion of said members and engaging spaced portions of said pole.

1,135,117. BOX CONSTRUCTION. JOHN A. LAFORE, Ardmore, Pa. Filed Sept. 29, 1914. Serial No. 864,013. (Cl. 229—41.)



1. A box structure comprising a plurality of faces hinged to each other, one or more of said faces being divided into a plurality of panels, a plurality of hinges joining said panels, said neighboring hinges movable in opposite directions, whereby said panels may be folded with respect to each other and with respect to another face of said box.

2. A box construction comprising end and side faces hinged to each other, opposite faces each having a flap hinged thereto, each of said opposite faces and its flap being divided by a plurality of parallel hinges into a plurality of panels, whereby said end and side faces and flaps may be folded in double layer zig-zag relation.

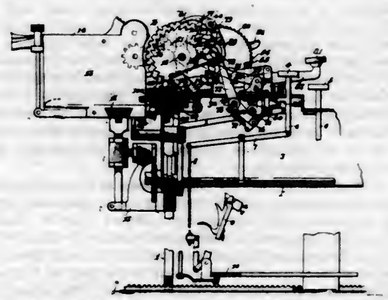
3. A box structure comprising side and end faces hinged to each other, one or more of said faces having a plurality of scores parallel with the hinged joint between said faces dividing said face into a plurality of panels, the outer of said panels folding with respect to their adjacent faces in directions opposite to their folding with respect to an intermediate panel, whereby said panels and adjacent face may be folded in zig-zag relation with respect to each other.

4. A box structure comprising side and end faces hinged to each other, one or more of said faces having a plurality of scores parallel with the hinged joint between said faces dividing said face into a plurality of panels, neighboring scores allowing folding in opposite directions, whereby said panels may be folded with respect to each other and with respect to another face of said box.

5. A box construction comprising end and side faces hinged to each other, opposite side faces divided into at least three panels hinged with respect to each other, whereby said end and side faces may be folded in double layer zig-zag relation with a pair of panels of a side face embraced by an end face and a panel of the other side face.

[Claim 6 not printed in the Gazette.]

1,135,118. MOTOR-OPERATED ADDING MECHANISM. CHARLES F. LAGANKE and JOHN ASBURY SMITH, Harrisburg, Pa., assignors to Elliott-Fisher Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 30, 1905. Serial No. 293,953. (Cl. 235—59.)



1. The combination with a computing device, of a motor and a numeral key, both arranged to transmit motion to the computing device.

2. The combination with a motor and a numeral key, of a computing device arranged to be operated by either the motor or the key.

3. The combination with a computing device, of an actuator therefor, a series of keys for operating the actuator, and an actuator driving motor.

4. The combination with a computing device, of an actuator therefor, a series of keys for operating the actuator, a motor disconnected from the actuator, and means for establishing a coöperative relation between the motor and actuator when desired.

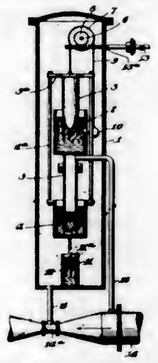
5. The combination with a computing device, of an actuator therefor, a series of keys of different values, means for effecting a driving connection between any one of said keys and the actuator, a motor connected to the actuator, and means for limiting the movement of the actuator in accordance with the value of the particular key connected thereto.

[Claims 6 to 55 not printed in the Gazette.]

1,135,119. FLUID-METER. JOHN W. LEDOUX, Swarthmore, Pa. Filed June 26, 1912. Serial No. 705,909. (Cl. 73—167.)

1. In a fluid meter, the combination of a casing, a vessel movable in said casing, said vessel containing a liquid, a displacing device of variable cross section fixed to said vessel, said casing containing a liquid in which said device

is movable, a tube sealed by the liquid in said vessel, and means comprising a conduit having a Venturi section whereby differential pressures are communicated to the surface of the liquid in said vessel within and without said tube.



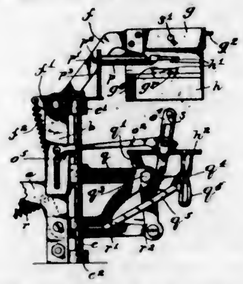
2. In a fluid meter, the combination of a casing containing a stationary upright receptacle for holding a liquid heavier than the fluid to be measured, a movable upright vessel containing a liquid heavier than the fluid to be measured, a device fixed to said movable vessel and movable in said liquid first named, a stationary duct having an opening in an end thereof sealed by said liquid in said vessel, a conduit for conveying the fluid to be measured, and means whereby the pressures of fluid flowing in said conduit are differentiated and the differential pressures communicated to the surface of the liquid in said vessel within and exterior to said duct, said device being tapered so as to be movable in a simple ratio to changes in the flow to be measured.

3. In a fluid meter, the combination of a casing containing a liquid heavier than the fluid to be measured, a movable upright vessel containing a liquid heavier than the fluid to be measured, a displacing device of variable cross section fixed to said vessel and movable in said liquid first named, a duct having an opening sealed by said liquid in said vessel, a conduit and means whereby the pressures of fluid flowing in said conduit are differentiated and the differentiated pressures communicated to the surface of said liquid in said vessel interior and exterior to said duct, said displacing device being shaped so as to regulate the movement of said vessel to a simple proportion to changes in the flow in said conduit.

4. In a fluid meter, a casing containing a receptacle having therein a liquid heavier than the fluid to be measured, a displacing device of variable cross section movable in said liquid, a movable upright vessel containing a liquid heavier than the fluid to be measured, means comprising a rod connecting said displacing device and vessel whereby they are movable as a unit, a stationary tube having an opening sealed by said liquid in said vessel, a conduit having a contracted section for carrying a fluid to be measured and pipes connecting said contracted section and a different section of said conduit with the interior of said casing within and without said tube, said displacing device being shaped so that the movement of said vessel is regulated to a constant relation to changes of flow in said conduit.

1,135,120. MOLDING-MACHINE. ARCHIBALD M. LOUDON, Elmira, and JOHN GOW, deceased, Schenectady, N. Y., by Archibald M. Loudon, Elmira, N. Y., and Horace W. Philbrook, Schenectady, N. Y., administrators. Filed Jan. 13, 1913. Serial No. 741,608. (Cl. 22—33.)

1. A molding machine embodying therein a mold, flask or core box carrying frame, oppositely disposed jaws thereon adapted to have movement toward and from each other, automatically acting means adapted to simultaneously move said jaws in opposite directions to set them upon coöperating members on a mold, flask or core box, rigid links connected with said jaws respectively, and a manually operative crank shaft connected with the said links whereby said jaws may be simultaneously actuated in opposition to said automatically acting means to permit the mounting of a mold, flask or core box, upon or its removal from, said carrying frame.



2. A molding machine embodying therein an invertible mold, flask or core box carrying frame, oppositely disposed oscillatory jaws thereon adapted to have movement toward and from each other, automatically acting means adapted to simultaneously move said jaws in opposite directions, to set them upon coöperating members on a mold, flask or core box, rigid links connected with said oscillatory jaws respectively and a manually operative crank shaft connected with the said links whereby said jaws may be simultaneously reciprocated in opposition to said automatically acting means to permit the mounting of a mold, flask or core box upon, or its removal from, said frame.

3. A molding machine embodying therein a mold, flask or core box, carrying frame, oppositely disposed jaws thereon adapted to have movement toward and from each other, a spring acting on each of said jaws to normally move said jaws into engagement with coöperating members on a mold, flask or core box, a rigid link connected with each of said jaws, and a manually operative crank shaft connected with said links whereby said jaws may be simultaneously actuated against the spring tension tending to set said jaws to permit the mounting of a mold, flask or core box upon, or its removal from, said frame.

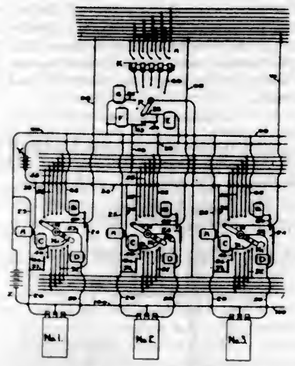
4. A molding machine embodying therein a mold, flask or core box carrying frame, oppositely disposed oscillatory jaws thereon adapted to have movement toward and from each other, a spring connecting said jaws acting to impart simultaneously movement thereto to bring them into engagement with coöperating members on a mold, flask or core box, rigid links connected with each of said jaws and a manually operative crank shaft connected with said links whereby said jaws may be simultaneously actuated against the tension of said spring to permit the mounting of a mold, flask or core box upon, or its removal from, said frame.

5. A molding machine embodying therein a mold, flask or core box carrying frame, oscillatory, parallel shafts mounted thereon adjacent opposite sides thereof, jaws carried by said shafts respectively, a spring acting on said shafts to normally oscillate them in opposite directions, a manually operative shaft having oppositely set cranks intermediate said shafts, and links pivotally connected respectively to said cranks and said jaws, whereby said jaws may be opened against the tension of said spring.

[Claims 6 to 16 not printed in the Gazette.]

1,135,121. TELEPHONE-EXCHANGE. FRANK A. LUNDQUIST, Chicago, Ill., assignor, by mesne assignments, to Western Electric Company, a Corporation of Illinois. Filed May 23, 1903. Serial No. 158,443. (Cl. 179—18.)

1. A series of contact points arranged in rows, a series of separate strips adapted to come into electrical contact with the contact points of successive rows by successive steps, a dial, electrical connections from the several strips to a corresponding series of other contact points on the dial, a pointer and devices for moving it into successive contact with the contact points on the dial, a switch, connections from said pointer to the switch and from the switch to a telephone station, and means for operating the devices for moving the pointer through the connections between said pointer and said station.



2. A series of contact points arranged in rows, a series of separate contact devices adapted to be moved into contact with successive rows of contact points, a dial provided with a series of other contact points, a separate connection from each contact device to a separate contact point on the dial, a pointer adapted to be moved over the contact points on the dial, separate propelling mechanisms for moving the contact devices and the pointer, a switch and a telephone station, connections from said pointer to said switch and from the switch to said station, and means for operating said propelling mechanisms from said station so as to place the station in electrical connection with any one of the first mentioned contact points.

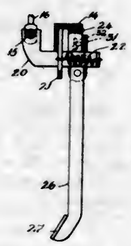
3. In an automatic telephone exchange, a series of main switches each consisting of series of contact points, a contact maker and a magnet for moving the contact maker step by step over said contact points, said main switches being greater in number than the number of contact points on any one of them, a series of auxiliary switches equal in number to the number of contact points on one main switch and each auxiliary switch having as many contact points as there are main switches, connections from corresponding contact points on the main switches to corresponding auxiliary switches, and return connections from the contact points of the auxiliary switches to normal contact points on all of the main switches.

4. A series of contact points arranged in rows, a series of switches each one of which has a normal contact point, a separate connection from each contact point to the normal contact point of a different switch, a series of contact devices and means for moving them into successive contact with the rows of contact points, a dial, a series of other contact points located in said dial, a pointer and devices for moving it over the contact points on the dial, separate connections from the contact devices to corresponding contact points on the dial, other contact points on each switch adjacent to the said normal contact point thereon, a connection from each of the other contact points on any one of said switches to the said pointer and other similar pointers, a telephone station for each switch, connections between each station and its corresponding switch, and means for operating the said devices from any station so as to make electrical connections therefrom to any other station.

5. A switch having a frame, a pointer having one end in electrical connection with said frame and the other end insulated therefrom, a dial having a series of insulated contact points for each end of said pointer, means for moving said pointer from normal position to successive contact points, an auxiliary switch having a pointer adapted to sweep over one set of contact points and a series of contact devices adapted to be moved over a second series of contact points, devices for moving the pointer and contact devices on the auxiliary switch, a telephone station and connections to said switches, and means for controlling the moving devices from the station so as to establish an electrical connection from said station through both pointers and one contact device to any required contact point in the said second series.

[Claims 6 to 72 not printed in the Gazette.]

1,135,122. CRIB. BURTNETT MCINTOSH, New York, N. Y. Filed Dec. 12, 1912. Serial No. 736,242. (Cl. 5—58.)



1. A crib provided with a vertically movable side railing, a supporting dog therefor mounted to move in and out horizontally on the crib, a spring tending to move the dog outward, a member mounted to swing on the crib and having the dog pivotally connected to its lower portion and a pedal arm joined to said swinging member and extending downward in position to be engaged by the foot of the operator whereby to move the dog inward, said pedal arm being pivoted to the swinging member intermediate its end and the swinging member having a part movable thereon in and out of engagement with the upper end of the pedal arm whereby the pedal arm may be folded in under the spring of the crib to facilitate transportation.

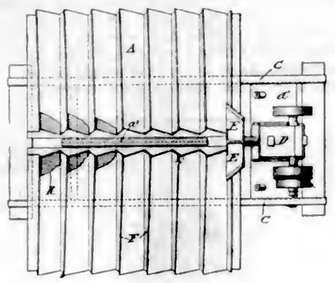
2. A crib having a vertically movable side railing for the purpose specified, a rocker bar mounted on the side adjacent to said side railing, dogs to support the side railing, the dogs pivotally connected with the rocker bar and mounted to move horizontally in and out of engagement with the side railing, a spring tending to move the dogs outward and a pedal arm connected to the rocker bar and projecting downward in position to be engaged by the foot of the operator to move the dogs inward, the said pedal arm being pivotally mounted intermediate its ends and a pin to engage the upper end of the pedal arm, the pin movably supported from the rocker bar whereby the pedal arm may be folded under the spring of the crib for transportation.

1,135,123. APPARATUS FOR SIZING OR VOLUMETRIC GRADING OF MATERIALS. CHARLES L. MCKESSON, Colorado Springs, and BENJAMIN F. RICE, Denver, Colo. Filed Mar. 10, 1914. Serial No. 823,738. (Cl. 83—54.)

1. In a machine for sizing solid materials, a laterally inclined separating deck having a plurality of adjacent inclined surfaces each being inclined upwardly from the front end of the machine toward the rear or discharge end thereof and adapted to discharge material over its higher edge on to the succeeding surface and each of said surfaces gradually decreasing in inclination from the top edge to the bottom edge of the deck, and means to feed material to the deck.

2. In a machine for sizing solid materials, a laterally inclined separating deck, a plurality of adjacent deflectors associated therewith, said deflectors comprising inclined surfaces disposed transversely of the deck and being in-

clined upwardly from the front to the rear of the machine and each of which is adapted to discharge over its higher edge on to the succeeding deflector, said deflectors being of greater inclination at the top edge of the deck than at the bottom edge thereof, and means to feed material to the deck.



3. In a machine for sizing solid materials, a laterally inclined separating deck having a plurality of adjacent inclined surfaces, each being inclined upwardly from the front end of the machine toward the rear or discharge end thereof and adapted to discharge material over its higher edge on to the succeeding surface and each of said surfaces gradually decreasing in inclination from the top edge to the bottom edge of the deck, means to feed material to the deck, and means to change the lateral inclination of the deck.

4. In a machine for sizing solid materials, a pair of laterally inclined separating decks mounted in hinged relation at their upper edges, said decks having a plurality of adjacent inclined surfaces, each being inclined upwardly from the front end of the machine toward the rear or discharge end thereof and adapted to discharge material over its higher edge on to the succeeding surface, and each of said surfaces gradually decreasing in inclination from the top edge to the bottom edge of the deck, means to feed material to the decks, and means to adjust the lateral inclination of the decks.

1,135,124. MOISTENER FOR CIGARS AND THE LIKE. GEORGE H. MAAS, Milwaukee, Wis. Filed Aug. 28, 1911. Serial No. 646,473. (Cl. 131—30.)

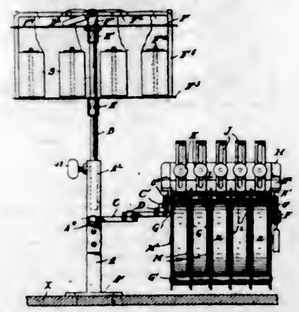


1. In a device of the described class, the combination of a liquid reservoir, an asbestos moistening pad inclosing said reservoir, a perforated sheet of metal for retaining said pad in place around said reservoir, caps adapted to inclose the ends of said reservoir, pad and shield, a nozzle communicating from the interior of said reservoir through said moistening pad and shield, a water tight cap inclosing the mouth of said nozzle, a vertical duct centrally suspended in said reservoir, one end of said duct being connected with the walls of and communicating through an aperture formed in one side of said reservoir, and its opposite end terminating in said nozzle, a wick located in said nozzle and vertical duct and adapted, when said moistener is inverted, to conduct by capillary attraction, the water from the interior of said reservoir to the moistening pad located upon its exterior surface, and means for suspending said moistener in an inverted position, all substantially as and for the purpose specified.

2. A cylindrical moistener comprising a reservoir, a cap-closed filling neck depending from the bottom wall of the reservoir, a vertically disposed open ended nozzle in communication with the top wall of the reservoir and extending into the filling neck, absorbent material incasing the reservoir walls and extending into the nozzle to constitute a wick, and a perforated retaining jacket fitted about the absorbent material.

3. A moistener comprising a reservoir having a neck extending from its bottom face, a nozzle depending from the upper wall of the reservoir and terminating below the plane of the bottom wall thereof within the neck, and absorbent material incasing the reservoir and extending into the nozzle.

1,135,125. COMBINED TAPE AND THREAD HOLDER. ABRAHAM MASLER, New York, N. Y. Filed Feb. 6, 1913. Serial No. 746,455. (Cl. 242—75.)

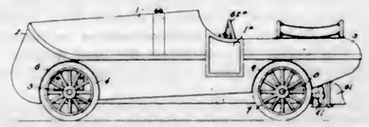


1. A device for holding thread, tape or the like comprising a slide, a frame, means for slidably supporting said slide in the frame and permitting it to be inserted in and withdrawn from the frame, a member mounted upon said slide adapted to receive and hold in position said material, and a device for holding and retarding the movement of said material mounted on said frame.

2. A device for holding thread, tape or the like comprising a slide, a frame, means for slidably supporting said slide in the frame and permiting it to be inserted in and withdrawn from the frame, a member mounted upon said slide adapted to receive and hold in position said material, and a device for holding and retarding the movement of said material mounted on said frame, comprising a slotted plate, a support and a movable member extending through the slot of said plate and means for causing said member to press against the plate and hold it in different positions thereon.

3. A device of the character described, comprising a plurality of slides adapted to carry thread, tape or the like, a frame in which the said slides are mounted to have independent movement, and a locking bar secured to said frame and adapted to be interposed in the path of the said slides and means for securing the same in that position.

1,135,126. AUTOMOBILE BOAT. WILLIAM C. MAZZEI, Los Angeles, Cal. Filed Feb. 28, 1914. Serial No. 821,778. (Cl. 115—1.)



1. A device of the character described including a buoyant body, means for carrying said body on land, means

for propelling the device on both land and water, means for steering the device on land and water from the same steering wheel including a rudder, a rod, a steering wheel rotatably mounted on said rod, a pair of sleeves rotatably mounted on said rod, one of which is also slidable on said rod, one of said sleeves being connected to the land traveling means, while the other is connected to the rudder and the steering wheel, and means for engaging and disengaging said sleeves.

2. A device of the character described including a buoyant body, wheels for carrying said body on land, means for propelling the device on both land and water, means for steering the device on both land and water from the same steering wheel including a rudder, rudder controlling ropes, a rod mounted on the body, a steering wheel rotatably mounted on said rod, a pair of sleeves rotatably mounted on said rod, one of which is also slidable on said rod, said sleeves having coöperating enlarged toothed ends, one of said sleeves being connected to the wheels carrying the body on land, while the other sleeve is connected to the rudder controlling ropes and the steering wheel, and means for engaging and disengaging said sleeves.

3. A device of the character described including a buoyant body, means for propelling the device on both land and water, wheels for carrying said body on land, means for steering the device on both land and water from the same steering wheel including a rudder, rudder controlling ropes, a rod mounted on the body, a steering wheel rotatably mounted on said rod, a pair of sleeves rotatably mounted on the said rod, one of which is also slidable upon said rod, said sleeves having coöperating enlarged toothed ends, one of said sleeves being connected to the wheels carrying the body on land, while one end of said other sleeve is connected to the steering wheel, the other end being provided with a drum around which are adapted to be wound the rudder controlling ropes, and cam means for engaging and disengaging the said sleeves.

4. A device of the character described including a buoyant body provided with recesses in the sides thereof, axles situated in said recesses, springs connected to said axles, means for adjustably mounting the body upon said springs, wheels mounted on the axles and situated in the recesses in the sides of the body, and means for propelling the device on both land and water.

5. A device of the character described including a buoyant body provided with recesses in the sides thereof, tubular members slidably mounted in said recesses, springs mounted in said tubular members, axles connected to said tubular members and situated in said recesses, means for adjustably mounting the body on said springs, wheels mounted on the axles and situated in the recesses in the sides of the body, and means for propelling the device on land and water.

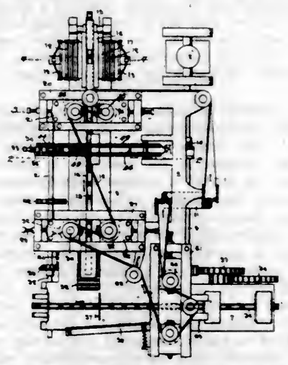
[Claims 6 and 7 not printed in the Gazette.]

1,135,127. BRICK CLEANING AND REFACING MACHINE. OSCAR VAN DER MEERSCH, Richmond, Va. Filed June 7, 1913. Serial No. 772,280. (Cl. 125—6.)

1. In combination with a brick cleaning machine having a table and an endless conveyer working in said table, blades upon said conveyer for advancing the bricks, brick receiving members arranged on opposite sides of the blades of said conveyer, and resilient means normally tending to move said receiving members together for centering the bricks upon said conveyer.

2. In combination with a brick cleaning machine having a table and endless conveyers working thereon, and a spring actuated bar on said table adapted to stop bricks leaving one of said conveyers and guide them upon the other conveyer.

3. In a machine of the character described comprising a frame, a table therein, a plurality of vertically disposed rotatable cleaning devices arranged in pairs above said table, endless conveyers working in said table, blades upon said conveyers traveling between the respective pairs of cleaning devices, brick receiving members arranged upon said table on opposite sides of said conveyer blades and movable transversely and inwardly toward the latter, resilient means normally tending to move said receiving members together for retaining the bricks upon the table in the path of movement of said blades until removed by the latter, and a spring actuated bar on said table coöperating with said conveyers adapted to stop bricks leaving one of said conveyers and guide them upon the other conveyer for directing the bricks to the final pair of cleaning devices.

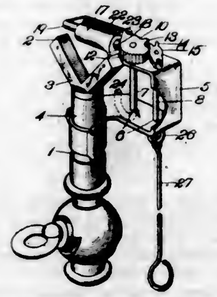


4. In a machine of the character described, a table, an endless conveyer working in said table, a chain traveling above and at right angles to said conveyer and means carried by said chain adapted to engage and overturn objects carried by said conveyer.

5. In a machine of the character described, a table, a conveyer working therein, a chain traveling above and at right angles to said conveyer, means carried by said chain for engaging and overturning objects carried by said conveyer, and means adapted to center an object upon the conveyer, subsequently to overturning the same.

[Claim 6 not printed in the Gazette.]

1,135,128. FRICTION-IGNITER FOR GAS-LAMPS. EDWARD C. MEISSNER, Kansas City, Mo. Filed July 21, 1913. Serial No. 780,198. (Cl. 67—20.1.)



1. The combination with a burner comprising a supporting standard and tip, of a bracket mounted on the standard, striker and actuating shafts revolubly mounted in the bracket, a striker fixed on its shaft, a sparker adapted for coöperation with the striker, an actuating member fixed on its shaft and adapted for coöperation with the striker, and a handle loosely connected with and depending from the actuating shaft.

2. The combination with a burner comprising a supporting standard and tip, of a bracket fixed on the standard, a post pivotally mounted on the bracket and having a stop at one end and a striker at the opposite end, a sparker, yielding means for revolving the striker in con-

tact with the sparker, and a second shaft revolubly mounted in the bracket and having an actuating member at one end adapted for setting the striker against the tension of said yielding means.

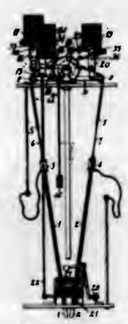
3. The combination with a burner comprising a supporting standard and tip, of a bracket fixed on the standard and comprising spaced members, a shaft revolubly mounted in said spaced members and having an upturned lower end adapted for stopping engagement with the lower member, a sparker mounted on the upper member, a sparker mounted on the upper member, a striker fixed on the upper end of said shaft, an actuating member adapted for moving the striker at set position and for automatically releasing the same at such position, and a spring for yieldingly returning the striker in contact with the sparker.

4. The combination with a burner, of a bracket fixed on said burner and comprising a barrel, a striker revolubly mounted on the bracket adjacent the barrel, means for turning the striker to set position, a sparker slidably mounted in the barrel, a plunger slidably mounted in the barrel back of the sparker, and common means for yieldingly forwarding the plunger and returning the striker.

5. The combination with a burner, of a bracket fixed on the burner, a sparker mounted on the bracket, a shaft revolubly mounted in the bracket, a striker fixed on the shaft and having a serrated section for engaging the sparker and a tooth opposite the serrated section, a second shaft revolubly mounted in the bracket, an actuating member fixed on the second shaft and having toothed portions at opposite sides for intermittently engaging the toothed portion of the striker, and yielding means for returning the striker in contact with the sparker.

[Claims 6 and 7 not printed in the Gazette.]

1,135,129. ARC-LAMP. HERBERT EDMUND MOUL, London, England, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 21, 1909. Serial No. 473,604. (Cl. 176—64.)



1. In an arc lamp, a pair of inclined converging electrodes, means for causing the electrodes to approach each other transversely, and means simultaneously actuated therewith for moving one electrode longitudinally with reference to the other electrode.

2. In an arc lamp, a pair of inclined converging electrodes, means for causing the electrodes to approach each other transversely, and simultaneously actuated means for effecting relative longitudinal movement of the electrodes.

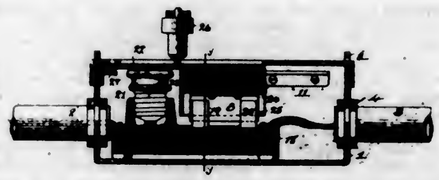
3. In an arc lamp, a pair of inclined converging electrodes, means for causing the electrodes to approach each other transversely, and simultaneously actuated means for effecting relative longitudinal movement of the electrodes, said means comprising a ratchet and pawl mechanism for feeding the electrodes axially.

4. In an arc lamp, a pair of inclined converging electrodes, means for causing the electrodes to approach each other transversely, and simultaneously actuated means for effecting relative longitudinal movement of the electrodes, said means also feeding the electrodes axially independent of said first means.

5. In an arc lamp, a pair of inclined converging electrodes, means for causing the electrodes to approach each other transversely, and simultaneously actuated means for effecting relative longitudinal movement of the electrodes, said means comprising a rocker arm, a pawl mounted thereon, and a ratchet wheel which engages said pawl in order to feed the electrodes axially.

[Claims 6 to 9 not printed in the Gazette.]

1,135,130. PROTECTIVE SWITCH-BOX. THOMAS E. MURRAY, New York, N. Y. Filed Jan. 13, 1914. Serial No. 811,821. (Cl. 175—292.)



1. A box, having two compartments, a sliding lid normally closing both compartments and movable to open one of them without opening the other, a switch in said last-named compartment, and means connected to said switch for actuating the same to break circuit upon the movement of said lid to open said first-named compartment.

2. A box having two compartments, containing respectively a fuse and a pair of contacts in circuit with said fuse, a sliding lid for said fuse compartment, and a longitudinally movable switch bar in said contact compartment and actuated by said lid to coöperate with said contacts.

3. A box having two compartments, a sliding lid closing one of said compartments and entering the other compartment, and in said last-named compartment, circuit terminal contacts, and a switch bar carried by said lid and coöperating with said contacts.

4. A box having two compartments, a fuse in one of said compartments, a sliding lid closing said compartment and entering the other compartment, and in said last-named compartment, circuit terminal contacts in circuit with said fuse, and a switch bar carried by said lid and coöperating with said contacts.

5. A box, a partition therein dividing the same into two compartments, a cover having an opening communicating with one of said compartments, a lid slidably supported in said box and adapted to close said cover opening, and in the other compartment, circuit terminal contacts, and a longitudinally movable switch bar carried by said lid: the aforesaid parts being constructed so that when said lid is moved to open said cover opening said switch bar shall be moved out of coöperation with said contacts.

[Claims 6 to 9 not printed in the Gazette.]

1,135,131. AEROPLANE FLYING-MACHINE. JAMES H. OSTRANDER, Chicago, Ill. Filed Aug. 15, 1912. Serial No. 715,153. (Cl. 244—14.)



1. In a device of the class described a longitudinally extended frame comprising continuous, connected lower longitudinal members and upper longitudinal members, a plurality of groups of aeroplanes arranged respectively at each end of the frame and intermediate the ends of the frame and affording a broad interval between the groups, each group comprising a series of upper and lower planes

arranged in staggered relation, elevating and guiding mechanism, a motor supported below the lower longitudinal frame members, and a propeller driven thereby.

2. A longitudinally extended frame comprising lower parallel longitudinal members, and upper parallel longitudinal members arranged above and outwardly from the lower, longitudinal frame members arranged between the lower longitudinal members and the upper longitudinal members, struts rigidly connecting all said longitudinal members, a plurality of independent motors supported on the lower frame members, a propeller driven by each, a plurality of groups of aeroplanes secured on the upper longitudinal members, a plurality of groups of lower aeroplanes secured on the intermediate longitudinal members and out of vertical alinement with the upper planes, an operator's station near the front end of said frame, elevating and guiding mechanisms for the machine, and connections therewith leading to the operator's station.

3. A machine of the class described embracing a longitudinally extended frame, a group of aeroplanes secured at each end of said frame, and extending laterally on each side thereof, an open space in each areoplane at the middle of each plane, groups of lower aeroplanes secured on the frame below and out of alinement with the upper groups, a plurality of independent motors and propellers for driving the machine, an operator's station, elevating and guiding planes, one at each end of frame, and operative connections therewith leading therefrom to the operator's station.

4. In a machine of the class described a plurality of groups of planes, the upper planes of each group being centrally and longitudinally slotted and offset relative the lower planes, a longitudinally extended frame rigidly connecting the planes at suitable intervals apart, and an independent motor and propeller for each group of planes.

5. A machine of the class described embracing a longitudinal frame, a plurality of groups of aeroplanes secured at each end of the frame and intermediate the ends of the frame and affording a broad interval therebetween, a plurality of groups of lower planes supported below the upper and out of vertical alinement therewith, elevating and guiding mechanism on the frame, motors supported below the planes, a propeller driven by each, an operator's station on the machine, elevating and guiding mechanisms, operative connections leading therefrom to the operator's station, and means yieldingly supporting the machine upon the ground to afford a greater evelation at the front end of the machine than at the rear end thereof.

[Claims 6 to 11 not printed in the Gazette.]

1,135,132. GONDOLA CAR. SPENCER OTIS, Chicago, Ill., assignor to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed Feb. 1, 1907. Serial No. 355,260. (Cl. 105—15.)



1. A car, comprising a side sill adjacent the top of the car side, side stakes, and a truss rod secured at the ends to the side sill and adjacent its center to the lower end of one of the side stakes, the side stakes serving as a strut.

2. A wooden car, comprising a side sill adjacent the top of the car side, side stakes, and a truss rod secured at the ends to the side sill and adjacent its center to the lower end of one of the side stakes, the side stake serving as a strut.

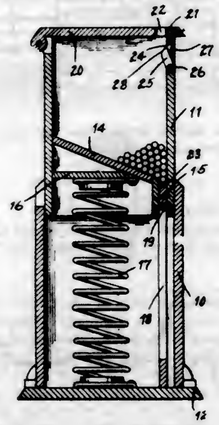
3. In a car, a trussed side comprising a side sill adjacent the top of the side, a truss rod, a side stake serving as a strut between the said sill and the said truss rod, and transverse members supported by said trussed side.

4. In a wooden car, a trussed side comprising a side sill adjacent the top of the side, a truss rod, a side stake serving as a strut between the said sill and the said truss rod, and transverse members supported by the trussed side.

5. In a car a trussed side, comprising a side sill adjacent the top of the side, a truss rod, a side stake serving as a strut between the said sill and the said truss rod, transverse members supported by said trussed side, and center sills secured to said transverse members.

[Claims 6 to 24 not printed in the Gazette.]

1,135,133. SINGLE-DELIVERY MATCH-BOX. WILLIAM PACHECO, Chicago, Ill. Filed Apr. 22, 1914. Serial No. 833,711. (Cl. 206—23.)



1. A single delivery match box including a stand, a resiliently held receptacle telescopically disposed for depression into the stand and provided with a delivery opening, means carried by the stand for supporting a match to a point of delivery, and means carried by the depressible receptacle adjacent the delivery opening for knocking off superfluous matches from the carrier, whereby only a single match will be carried to the point of delivery.

2. In a single delivery match box, a magazine, a delivering slide movable through the magazine, and means carried by the magazine and normally arranged in position to engage and brush off the excess matches carried by the slide, and subsequently to be engaged and moved out of normal position by the slide.

3. In a single delivery match box, a magazine, a delivering slide movable through the magazine, and yieldably held means normally projecting into the path of the slide for brushing excess matches from the slide, said yieldable means being subsequently engaged and moved out of normal position by the slide.

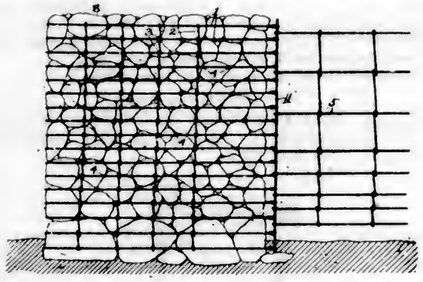
4. In a single delivery match box, a magazine, a delivering slide movable through the magazine, and a resiliently held pivoted finger normally projecting into the path of the slide for brushing excess matches from the slide, said finger being subsequently engaged and moved out of normal position by the slide.

1,135,134. WIRE CRIB FOR FORMING POSTS OF STONE. JOHN WALLACE PAGE, Adrian, Mich. Filed Jan. 17, 1910. Serial No. 538,362. (Cl. 72—82.)

1. A stone fence post comprising a crib of wire fabric formed of independent horizontally disposed sections joined together vertically, a filling of loose stones within the crib forming a column, an exterior vertical bar, means connecting said bar to the wire fabric of the crib, said vertical bar providing means for connection of the longitudinal fence wires to the post.

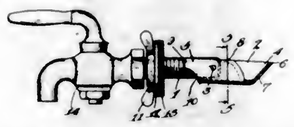
2. A fence post of masonry comprising a crib of flexible wire fabric consisting of embracing horizontal wires connected by vertical stays and transverse tie wires crossing

between and connected to the sides of the embracing wires as to give an oval shape to the post in cross section, and



a filling of loose stones within the crib confined in place thereby to assume an erect column.

1,135,135. PIPE-CONNECTOR. JOHN L. PARKES, Chicago, Ill., assignor of one-half to Albert C. Brown, Chicago, Ill. Filed Nov. 4, 1912. Serial No. 729,193. (Cl. 137—27.)



1. In a device of the class described a faucet, a threaded nipple forming a part thereof, a pivot pin extending through the end of said nipple transversely thereof, and an insertible cross bar member of U-section engaged on said pivot pin normally coaxial with said nipple and acting after insertion through a container to swing transversely over the end of the nipple, acting when the nipple is drawn up to hold the same securely within the container.

2. In a device of the class described the combination with a faucet and threaded nipple thereof, of a nut and washer adjustable on said nipple, a pivot pin extending transversely through the end of said nipple, and a cross-bar member pivotally engaged thereon near its middle with said pivot pin extending through the sides of said cross bar member near the edges thereof, said cross bar member normally coaxial with said nipple and acting to swing transversely and at right angles thereto after insertion into a container to resist removal of the nipple as said nut is taken up.

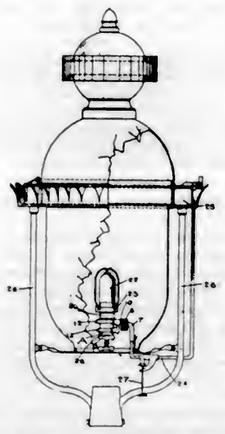
3. In a device of the class described the combination with a faucet and threaded nipple forming a part thereof, of a nut and washer adjustable on said nipple, a cross bar member of U-section associated with said nipple and a pivot pin extending through the walls of said cross bar member near the upper edges thereof and through the end transversely of said nipple, whereby after insertion into a container said member swings transversely of said nipple extending at right angles thereto on each side thereof affording a passage for the fluid to the nipple at each end of the cross bar member.

4. In a device of the class described the combination with a faucet and threaded nipple forming a part thereof, of a pivot pin extending transversely through the end of said nipple, a cross bar member of U-section pivotally mounted on said pin, one side of said cross bar member at one end extending beyond the other and provided with a cutting edge, the sides of said cross bar member at the other end cut away to near the bottom of said member, and mechanism adjustable on said nipple to draw the same outwardly after insertion through the wall of a container to tighten the nipple in position with said cross bar member swung into a position transversely of the nipple and extending on each side thereof and held from movement by said pivot pin.

5. In a device of the class described a crosa bar member of U-section adapted for coonection on the nipple of a faucet, one end of said cross bar member cut away to form a helix, the edge thereof sharpened and terminating at a cutting point, the sides of the other end of said member recessed and the upper edge of the sides of said member substantially flat to afford a bearing surface.

[Claims 6 to 9 not printed in the Gazette.]

1,135,136. LIQUID-HYDROCARBON GENERATOR. SIMEON F. PIERCE, St. Paul, Minn. Filed July 5, 1913. Serial No. 777,542. (Cl. 67—43.)



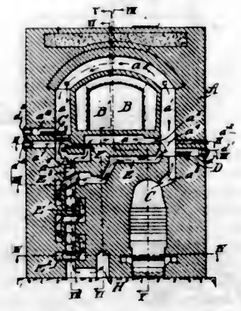
1. A burner of the class described comprising a central mixing tube, a gallery surrounding the upper portion of said mixing tube and spaced therefrom, said burner being formed with downwardly directed sub-flame orifices intermediate of the gallery and mixing tube, a generator chamber surrounding the lower end of the gallery, a connected generator chamber surrounding the lower end of the mixing tube below said orifices whereby to deflect the sub-flame from said orifices upwardly against the opposed generator chamber, said lower generator connecting with a main jet orifice opening into the lower end of said mixing tube.

2. A burner of the class described comprising a central mixing tube, a gallery surrounding the upper end of said mixing tube and having an opening registering with the open top of said tube, the wall connecting the lower end of said gallery and mixing tube being formed with downwardly directed sub-flame orifices, a generator chamber surrounding the lower end of said gallery, a connected generator chamber surrounding said mixing tube below said sub-flame orifices whereby the sub-flames will strike against the lower generator and be deflected against the upper generator, the lower end of said mixing tube having lateral openings to the outer air and said lower generator being connected with a main jet orifice alining with the bottom of said mixing tube below said lateral openings.

3. A burner of the class described comprising a central mixing tube, a gallery surrounding the upper portion of said mixing tube and spaced therefrom, said burner being formed with downwardly directed sub-flame orifices intermediate of the gallery and mixing tube, a generator chamber surrounding the lower end of the gallery, and an outwardly directed portion surrounding the lower end of the mixing tube below said orifices whereby to deflect the sub-flame from said orifices upwardly against the opposed generator chamber, said generator chamber connecting with a main jet orifice opening into the lower end of said mixing tube.

4. A burner of the class described comprising a central mixing tube, a gallery surrounding the upper end of said mixing tube, the top of said mixing tube and gallery being formed with corresponding openings and said burner being formed with downwardly directed sub-flame orifices between said gallery and mixing tube and a main jet orifice below the lower end of said mixing tube, and means for progressively vaporizing hydrocarbon by sub-flames comprising a generator chamber surrounding the lower end of said gallery, a connected generator chamber surrounding the mixing tube below and inside said outer generator chamber, said lower generator chamber being connected with the main jet orifice and an initial vaporizer supported at the inlet side of the upper generator and projecting below the same to be exposed to the heat of the sub-flame.

1,135,137. APPARATUS FOR DISTRIBUTING HEAT PRODUCED BY COMBUSTION. PIERRE PLANTINGA, Cleveland, Ohio. Filed Apr. 27, 1912. Serial No. 693,613. (Cl. 148—16.)



1. In apparatus for distributing heat, the combination of an inclosed heating-chamber; a combustion-chamber in proximity to the latter; a fuel-supply duct communicating with said combustion-chamber, and means for controlling such communication; a duct passing from said combustion-chamber beneath said heating-chamber; a duct passing upwardly from said combustion-chamber over the heating chamber and downwardly upon its opposite side; an outlet-duct with which each of said last two named ducts communicates; and means for controlling communication through each of said latter two ducts.

2. In apparatus for distributing heat, the combination of an inclosed heating-chamber; a combustion-chamber in proximity to the latter; an outlet-duct; a plurality of ducts passing from said combustion-chamber respectively above and beneath said heating-chamber and discharging into said outlet-duct; and valves for controlling communication through said plurality of ducts.

3. In apparatus for distributing heat, the combination of an inclosed heating chamber; a combustion chamber in proximity to the bottom and laterally of said heating chamber, and a duct passing from such combustion chamber in proximity to the said heating chamber and communicating with an outlet duct; a second duct passing from said combustion chamber in a different direction, also in proximity to said heating chamber and communicating with said outlet duct; and means located in proximity to the lower portion of said heating chamber and also laterally thereof for controlling communication through each of the ducts which are in proximity to said heating chamber.

4. In apparatus for distributing heat, the combination of an inclosed heating chamber; a combustion chamber located near the bottom and at one side of the outside of the latter; a duct passing from said combustion chamber in proximity to the heating chamber upwardly, then over and then downwardly; a second duct passing from said combustion chamber beneath said heating chamber and in proximity thereto; an outlet duct with which each of said first named ducts communicates; and a valve located in each of the said two first named ducts for controlling communication therethrough and located in proximity to the point of communication therewith with said outlet duct.

5. In apparatus for distributing heat, the combination of a completely inclosed heating-chamber; a plurality of separated combustion-chambers in proximity to the lower part of said heating-chamber; outlet means, a separate duct passing from each combustion-chamber and in communication with said outlet duct; and means for controlling such communication.

[Claims 6 to 9 not printed in the Gazette.]

1,135,138. SNAP-SWITCH BASE. WILLIS H. PRATT, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Oct. 28, 1914. Serial No. 869,031. (Cl. 175—290.)



1. A snap switch base having a recess in its upper face and a central opening, with depressions in the bottom of the recess extending tangentially with relation to the central opening, a lock plate with outwardly extending arms and up-turned lugs located in the recess with the arms lying in the said depressions, a washer arranged on the underside of the base, a hub extending through the lock plate and the washer and having an angular head lying in a correspondingly shaped depression in the lock plate, and a nut screwed on the hub against the underside of the washer.

2. A snap switch base having a recess in its upper face and a central opening, with depressions in the bottom of the recess extending outwardly from said opening, a lock plate with outwardly extending arms and up-turned ends in the recess with the arms lying in said depressions, a reëntrant washer on the underside of the base, a hub extending through the lock plate and washer, said hub having an angular head lying in a correspondingly shaped depression in the lock plate, and a nut screwed on the end of the hub and lying within the reëtrant washer.

3. A snap switch base having a recess in its upper face and a central opening with depressions in the bottom of the recess extending outwardly from said opening, said base in its bottom face having a recess with a depression around the central opening, a lock plate having outwardly extending arms with up-turned ends located in the recess in the upper face of the base with the arms occupying the depressions, said lock plate having a central opening and an angular depression around said opening, a reëntrant washer with its edge occupying the depression in the underside of the base and its body extending into the central opening, a hub extending through the lock plate and the washer and having an angular head occupying the angular depression in the lock plate, and a nut turned on the threaded end of the hub and bearing against the underside of the washer in the reëntrant portion.

4. A snap switch base having a recess in its upper face, a recess in its lower face and a central opening, a lock plate having outwardly extending arms with up-turned ends located in the recess in the upper face of the base, said lock plate having a central opening, a reëntrant washer located in the recess in the lower face of the base and having its reëntrant portion extending into the central opening, a hub extending through the lock plate and the washer, and a nut turned on the threaded end of the hub and bearing against the underside of the washer in the reëntrant portion.

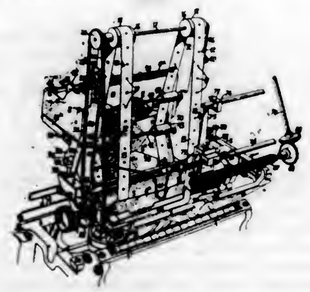
1,135,139. BOILER-CLEANER. EDMUND RANKIN, Lincoln, Ill. Filed May 28, 1914. Serial No. 841,528. (Cl. 122—389.)



1. The combination with a steam boiler of a blow-off pipe, a skimmer, pivoted floats carried by the skimmer, means for locking the floats in fixed position relative to the skimmer, and a flexible connection between the skimmer and the blow-off pipe.

2. The combination with a steam boiler, of a blow-off pipe, a skimmer flexibly connected to said blow-off pipe, a float carried by the outer end of the skimmer, floats carried by the inner end of the skimmer on opposite sides thereof, said floats being pivoted, and means for locking the floats in fixed position relative to the skimmer.

1,135,140. TYPE-WRITING MACHINE. LYMAN R. ROBERTS, Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 23, 1909. Serial No. 534,579. (Cl. 197—130.)



1. The combination with a typewriter having a carriage, a platen and keys to feed said carriage, of an envelop feeding device comprising a framework secured to said carriage, and having a receptacle for the envelops, toothed pulleys journaled in said framework, perforated endless feeding means comprising two separated strips each having fingers or hooks to engage the flaps of the envelops, said strips passing under the platen and over said pulleys, the teeth of the latter entering the perforations in the strips to cause them to travel in unison, and a sprocket wheel and chain connection between the said pulleys and the platen.

2. The combination with a carriage and a platen thereon, of an envelop receptacle, toothed pulleys, perforated endless feeding means comprising two strips separated and each having fingers or hooks to engage the flaps of the envelops, said strips passing under the platen and over said pulleys, the teeth of the latter entering the perforations in the strips to cause them to travel in unison, a connection between said pulleys and the platen, and means for permitting adjustment to take up slack in either strip independently of the other.

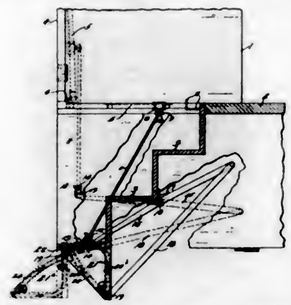
3. A device for feeding envelops to the platens of typewriting machines, comprising a receptacle for the envelops, a conveyer comprising separated strips each having prongs or hooks for engaging the flaps of the envelops, pulleys interlocking with said strips, and mechanism driven by the typewriter for imparting rotation to said pulleys, whereby the conveyer strips are moved in unison to bring the envelops successively into position to be addressed.

4. The combination with a typewriter carriage having line-spacing devices, and typewriter-operating mechanism including means connected to said line-spacing devices for operating the same, of envelop-feeding devices connected to the platen and including an envelop-conveying belt having hooks to catch the envelops; said hooks at intervals equal to multiples of the line-spacing movements of the platen, for the purpose specified.

5. In a typewriting machine, the combination with a platen, of an envelop-feeding mechanism including an envelop receptacle containing envelops and having a delivery opening, and a conveyer comprising a plurality of separated belts and means to cause them to move at equal speeds, hooks on the belts, the hooks on one belt maintained in horizontal alinement with those on the remaining belt and passing close to the envelop receptacle to simultaneously grip and remove the envelops successively from the receptacle and feed them to the platen.

[Claims 6 to 72 not printed in the Gazette.]

1,135,141. FOLDING CAR-STEP. HERMAN F. SCHRAGE, Palatine, Ill. Filed Dec. 24, 1914. Serial No. 878,912. (Cl. 105—86.)



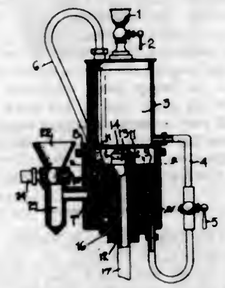
1. The combination with the stepway and door of a vestibuled railway coach, of a trap door hinged to said door and adapted when closed to close said stepway, an auxiliary step hinged to the lower step of said stepway and connection between said door, stepway and auxiliary step whereby movement of said door will operate to move said auxiliary step and to position it operatively as said door is opened.

2. The combination with the stepway and door of a vestibuled railway coach, of a trap door hinged to said door and adapted when closed to close said stepway, a pitman connected to said door, a goose neck lever swiveled to said pitman and pivotally connected to said stepway, another pitman pivotally connected to said gooseneck lever, an auxiliary step hinged to the last step in said stepway, a slotted plate secured to said auxiliary step and a pivot carried by said last named pitman and disposed in the slotted portion of said plate whereby the same may be moved into and out of operative position.

3. The combination with the stepway and door of a vestibuled railway coach, of a trap door hinged to said door and adapted when closed to close said stepway, a pitman connected to said door, a gooseneck lever swiveled to said pitman and pivotally connected to said stepway, another pitman pivotally connected to said gooseneck lever, an auxiliary step hinged to the last step in said stepway, a plate formed with a slightly curved slot and with a greatly curved slot merging into the first named slot, a pivot carried by said last named pitman and disposed in the slotted portion of said plate and springs secured to said plate and extending across one end of each of said slots to deflect said pivot into the opposite slot.

1,135,142. GASOLENE-MOTOR RESPIRATOR. CYRUS H. SMITH, Tonica, Ill. Filed Oct. 5, 1914. Serial No. 865,165. (Cl. 123—198.)

1. A respirator for gasolene motors and adapted to be connected between the carbureter and manifold and comprising a font for a compound; a mixing chamber below the font; a supply tube leading from the font to the mixing chamber; a vent tube leading from the top of the font to the mixing chamber; a valve controlled air receiver communicating with the mixing chamber, and a conduit leading from the interior of the mixing chamber to suitable means for connection between the carbureter and the manifold.



2. In a respirator such as described, and comprising a font for containing a suitable compound, and a mixing chamber, said font and mixing chamber connected with supply and vent tubes, and an air receiver communicating with the mixing chamber, asbestos packing in the mixing chamber and over the terminals of the supply and vent tubes; a screen confined between thin metal perforated plates secured near the top of the mixing chamber; and a vapor delivery tube having a perforated top above the diaphragms and screen, and means intermediate the vapor delivery tube and the motor and adapted to be secured in position between the carbureter and the manifold.

3. In a respirator such as described, and comprising a font and mixing chamber with supply and vent tubes between them, and means for delivering vapor from the mixing chamber, and air receiver communicating with the mixing chamber and provided with a butterfly valve, and means for controlling the butterfly valve.

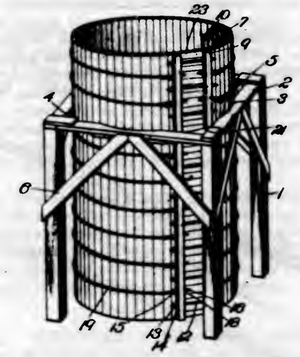
4. A respirator for gasolene motors, and adapted to be secured in position between the carbureter and manifold, and comprising a filling cup controlled by a cock; a font for containing a moisture producing compound and into which the filling cup opens; a mixing chamber located below the font; a supply tube leading from the bottom of the font to the bottom of the mixing chamber and constricted at its terminal; a screen located between thin metal diaphragms having orifices therein, said diaphragms and screens located near the top of the mixing chamber; a tube having a perforated top and screen therein passing through the diaphragms and screens and bottom of mixing chamber; a flexible tube leading from said tube and communicating with a block through minute orifices in said block; a vent tube leading from the top of the font to the bottom of the mixing chamber; asbestos packing in the mixing chamber and an air receiver having a butterfly valve therein and communicating with the mixing chamber, substantially as and for the purpose set forth.

5. A respirator for explosive engines adapted to be secured in position between the carbureter and the cylinder of the engine, including a font, a mixing chamber into which the fluid from the font is allowed to pass, said mixing chamber having an air inlet, and a conductor leading from the mixing chamber and adapted to be connected to a fuel pipe leading to said engine.

[Claims 6 to 10 not printed in the Gazette.]

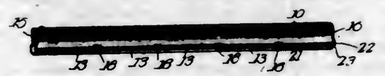
1,135,143. SILO. FRED W. SMITH, Raymore, Mo. Filed Nov. 25, 1913. Serial No. 803,034. (Cl. 217—4.)

1. A silo comprising a rectangular brace having a circular opening, a post at each corner of said rectangular frame for supporting said frame from the ground, a plurality of abutting vertical staves permanently secured to the inner face of said circular opening to form a cylindrical inclosure, and a plurality of hoops encircling said cylindrical inclosure on each side of said rectangular frame.



2. In a silo, a plurality of flat members secured at the ends to form a rectangular frame, and having a segment cut from the inner edges thereof, a corner member secured across each corner of said frame, and having a segment cut from the inner edge and adapted to register with the frame members to form a circular opening, a plurality of abutting staves permanently secured to the face of said circular opening to form a cylindrical inclosure, and hoops encircling said cylindrical inclosure on each side of said frame.

1,135,144. PLATE-RETAINING DEVICE. FREDRICK S. STAFFORD, Chicago, Ill., assignor to Stafford Auto Lamp & Number Company, Chicago, Ill., a Corporation of Texas. Filed July 10, 1914. Serial No. 850,083. (Cl. 40—140.)



1. In a plate retaining device, the combination of a frame having parallel guideways thereon, a plurality of plates engaging said guideways, abutment means at the ends of said series of plates, and resilient separators between adjacent plates, each of said separators comprising a front portion and spaced side members adapted to be forced toward each other by lateral pressure, substantially as described.

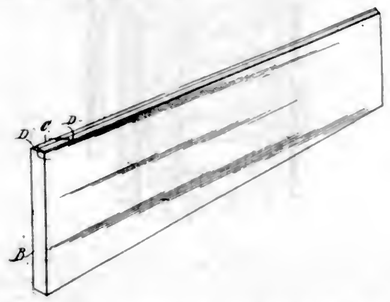
2. In a plate retaining device, the combination of a frame having parallel guideways thereon, a plurality of plates engaging said guideways, abutment means at the ends of said series of plates, and resilient separators between adjacent plates, each of said separators comprising a front portion and channel-shaped side members normally separated from each other, but adapted to be forced toward each other by lateral pressure, substantially as described.

3. In a plate retaining device, the combination of a frame having parallel guideways thereon, a plurality of plates engaging said guideways, abutment means at the ends of said series of plates, and resilient separators between adjacent plates, each of said separators comprising a front portion and channel-shaped side members normally separated from each other, but adapted to be forced toward each other under lateral pressure, the front portion of said separator being removed at the ends of the latter, whereby the said ends may be inserted in said guideways, substantially as described.

4. In a plate retaining device, the combination of a frame having parallel guideways thereon, a plurality of plates engaging said guideways, a resilient abutment mem

ber at one end of said series of plates, resilient separators between said plates, and a removable abutment member at the opposite end of said series of plates, substantially as described.

1,135,145. SUBSTITUTE FOR PRINTERS' BRASS RULES. ASHTON G. STEVENSON, Chicago, Ill., assignor to Chicago Lino-Tabler Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 9, 1910. Serial No. 581,325. (Cl. 101—179.)



1. A two-part composite rule for printers' use of dimensions adapting it to be included in a body of composed type and comprising a major portion of softer metal and a minor portion of harder metal, and of substantially triangular cross section, said minor portion resting upon the top edge of the major portion and presenting one of its flat sides thereto, said major portion being substantially slug-high and having bendable lugs upon its top edge within its side planes, said lugs being bent over and against the opposite inclined sides of said minor portion to hold said minor portion to and upon said top edge, substantially as described.

2. A two-part composite rule for printers' use of dimensions adapting it to be included in a body of composed type and comprising a major portion of relatively cheap metal and a minor portion of relatively more expensive metal, said minor portion being substantially triangular in cross section and having an upper printing edge and an opposed relatively broad flat base and resting upon the top edge of the major portion with its base contacting with the upper edge thereof, the combined height of the two portions being substantially equal to the height of the type with which the rule is adapted to be associated, said major portion being substantially slug-high and having oppositely disposed relatively small lugs upon its upper edge easily bendable for engagement with and over the opposite inclined sides of said minor portion, and said lugs being of less height than said minor portion, substantially as described.

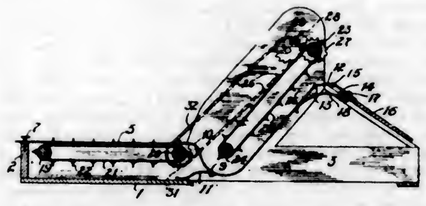
3. A two-part composite rule for printers' use of dimensions adapting it to be included in a body of composed type and comprising a major type metal base portion and a minor upper portion, the minor portion having a narrow printing edge and flaring sides and presenting a relatively wide flat base to the major portion, said major portion being substantially slug-high and having integrally formed securing lugs upon its top edge with its side planes of such relative size that they are easily bendable to engage the flaring sides of the minor portion and to prevent the vertical separation of the two parts, substantially as described.

4. As a new article of manufacture, a composite printer's rule for association and use with ordinary printers' type and comprising a base portion of relatively soft metal of rule form and of substantially slug-height, and an upper portion of harder metal substantially equal in length with said base portion and substantially triangular in cross section, said upper portion resting throughout its length on said base portion and secured thereto by and between relatively small bendable lugs carried by said base portion, which are adapted to be bent or battered down upon the oppositely inclined sides of the upper portion, and said upper portion having a printing edge on its upper surface, the combined height of the two parts being equal to the height of the associated type.

5. As a new article of manufacture a composite printer's rule for association and use with ordinary printers' type and comprising a lower part of relatively soft metal of rule form and substantially slug-height, and an upper relatively small wire-like part of harder metal, the upper part having a relatively narrow printing edge outwardly flaring sides and a relatively broad base, the two parts being arranged with the broad base of the upper part resting on the top edge of the lower part, relatively thin integral bendable lugs on the upper edge of the lower part between which the upper part is held, said lugs being bent or battered down upon the flaring sides of the upper part to retain it in position.

[Claims 6 to 9 not printed in the Gazette.]

1,135,146. CONVEYER FOR BINDING-MACHINES. GEORGE K. STRICKLAND, Chicago, Ill., assignor of one-half to W. W. Wagg, Moose Jaw, Saskatchewan, Canada. Filed Apr. 13, 1914. Serial No. 831,387. (Cl. 193—8.)



1. In a device of the class described a slotted apron, conveying mechanism projecting therethrough adapted to move grain therealong, an inclined apron hingedly connected to said slotted apron, elevating mechanism associated therewith to move grain therealong and upwardly to a point of discharge, and a resilient support for said connected aprons.

2. In a device of the class described hingedly connected aprons, one having slots therein and the other inclined therefrom, conveying mechanism projecting through the slots in the one adapted to move grain therealong, elevating mechanism mounted above the other inclined apron to move the grain upwardly thereon, a plurality of sections connected at the upper end of said inclined apron and capable of movement therewith, and a resilient support for said aprons, permitting the same to yield with a jamming of grain thereon.

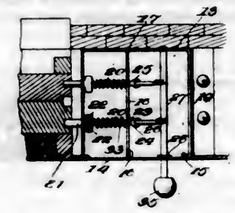
3. In a device of the class described hingedly connected and resiliently supported aprons to receive material thereon, and conveying and elevating mechanisms associated therewith to transfer and elevate the material to a point of discharge.

4. In a device of the class described conveying mechanism, elevating mechanism, driving connections therebetween, a slotted apron mounted above said conveying mechanism adapted to support grain thereon with parts of the conveying mechanism projecting therethrough to move the grain therealong, and a curved and inclined hingedly connected sectional apron mounted beneath said elevating mechanism to receive the grain moved thereto by said conveying mechanism to support the grain while it is elevated to a point of discharge.

5. In a device of the class described hingedly connected and resiliently mounted aprons, and conveying and elevating mechanisms associated therewith to receive and transfer the material and elevate the same to a point of discharge.

[Claims 6 to 10 not printed in the Gazette.]

1,135,147. AUTOMATIC WINDOW-CATCH. IRA R. WILLIAMS, Portland, Oreg. Filed July 20, 1914. Serial No. 852,029. (Cl. 16—119.)

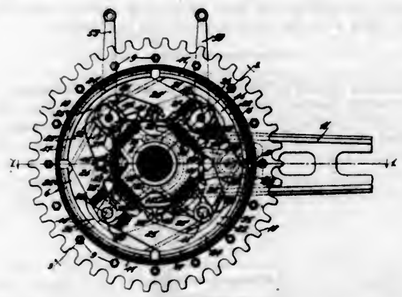


1. A device of the character described including a supporting frame, a supporting strip carried thereby, bolts slidably mounted upon the frame and supported by said strip, said bolts being adapted to engage a window casing and being provided with heads forming shoulders arranged to limit the bolts in their movement upon the frame in one direction, an operating rod mounted for rotation upon the frame, crank arms formed on said operating rod, links pivotally connected to said connecting rods, the said links being slotted adjacent one extremity, pins arranged upon said crank arms and engaging in said slots, the links being mounted for sliding movement upon said pins, and springs surrounding the connecting rods and interposed between the heads of the bolts and said supporting strip, said springs being disposed to normally maintain the shoulders formed by the heads of the bolts in engagement with the adjacent portion of the supporting frame.

2. A device of the character described including a support, resiliently actuated bolts carried thereby and normally disposed to engage a window sash, a rotatably mounted operating rod carried by the support, and connecting means operatively and slidably connected to said rod and having operative connection with the bolts.

3. A device of the character described including a supporting frame, bolts slidably mounted upon the frame and adapted to engage a window casing, an operating rod mounted for rotation upon the frame, links having slidable connection with said rod and being operatively connected to said bolts, and resilient means engaging the bolts for normally maintaining the said bolts in engagement with the window casing.

1,135,148. VEHICLE-BRAKE. HERBERT W. ALDEN, Detroit, Mich., assignor to The Timken-Detroit Axle Company, Detroit, Mich., a Corporation of Ohio. Filed Jan. 16, 1914. Serial No. 812,466. (Cl. 21—8.)



1. The combination of a brake drum, brake members operating along substantially the same circumferential path on said brake drum, and means for selectively operating said brake members.

2. In a vehicle brake, a hollow brake drum, two pairs of brake members, each of said brake members having a segmental brake shoe, each of said shoes extending substantially one-fourth of the distance around the inside circumferential surface of said brake drum, said brake shoes lying in substantially the same plane, and means for independently operating said pairs of brake members.

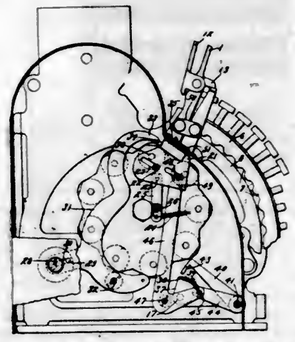
3. In a vehicle brake, a hollow brake drum, two pairs of brake members, each of said brake members having a segmental brake shoe extending substantially one-fourth of the distance around the inside circumferential surface of said brake drum and spaced between the ends of the other brake members, and means for independently operating said pairs of brake members.

4. In a vehicle brake, a hollow brake drum, brake members operating along substantially the same path on the inside circumferential surface of said brake drum, and means for operating said brake members separately in pairs.

5. In a vehicle brake, a brake drum and brake members arranged to coöperate therewith, the paths of movement of said brake members on said brake drum overlapping, means for operating some of said members and separate means for operating other members independently.

[Claims 6 to 15 not printed in the Gazette.]

1,135,149. REGISTER-CONCEALING MECHANISM. ERNEST MONTAGUE BATES and FREDERICK PHILLIPS, London, England, assignors to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed Apr. 23, 1913. Serial No. 762,980. (Cl. 235—6.)



1. In a machine of the class described, the combination of a member having a plurality of divisions; means through which the divisions of the member are selectively accessible; mechanism for selecting said divisions; and devices, controlled by the selecting mechanism, for preventing access to certain divisions when they have been brought into accessible relationship with said means.

2. In a machine of the class described, the combination with an accounting machine having a plurality of totalizers; of manipulative devices for positioning said totalizers either in operative relation to their actuators or opposite a common reading opening; devices normally concealing said totalizers from view; independent manipulative devices for disabling said concealing means; and devices making one of said disabling devices operable only when a certain one of said totalizers is at the reading position, the other disabling means being operable when any one of the totalizers is at the reading position.

3. In a machine of the class described, the combination with a carrier containing a plurality of totalizers; of means for bringing any desired totalizer to a common reading position; means normally concealing said totalizers from view; a manipulative device for disabling said concealing means when certain totalizers are opposite the reading position; and devices for preventing the operation of said disabling means when others of the totalizers are opposite the reading position.

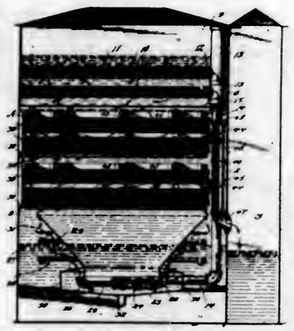
4. In a machine of the class described, the combination with a plurality of totalizers; of means for bringing any

desired totalizer to a common reading position; means normally concealing said totalizers from view; and a manipulative device for disabling said concealing means when a certain one of said totalizers is opposite the reading position, said disabling device being rendered inoperable when others of said totalizers are in the reading position.

5. In a machine of the class described, the combination with a plurality of totalizers; a cover therefor having an opening common to all through which they may be selectively read; means normally concealing said totalizers from view; independent manipulative devices for disabling said concealing means and exposing the totalizers to view; and devices making one of said manipulative devices inoperable when certain totalizers are at the reading opening, the other of said devices being operable when any one of the totalizers is at the reading opening.

[Claims 6 to 23 not printed in the Gazette.]

1,135,150. OIL-FILTER. EDWIN PRESTON BAUM, Keokuk, Iowa. Filed Oct. 28, 1913. Serial No. 797,765. (Cl. 210—10.)



1. A filter comprising a chamber for containing oil to be filtered, a plurality of horizontally disposed filtering elements arranged within the chamber, interfitting couplings on the elements forming together an outlet for the filtered oil, and means within the couplings for securing the same together.

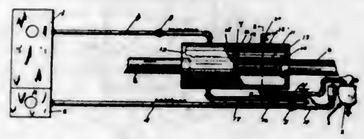
2. In a filter, the combination of a chamber for containing oil to be filtered, a filtering element therein, and means for conveying away the filtered oil from the element, said filtering element comprising a box, sheets of screen material disposed within the box and spaced apart to form a chamber for receiving the filtered oil, filtering material covering the said sheets, frames disposed at opposite sides of the filtering material, and means for drawing the frames together for holding the filtering material compressed in the box.

3. A filtering element for filters, comprising a frame, trussed bars disposed therein, sheets of screen material laid on the opposite faces of the bars to form a chamber for receiving filtered oil, the filtering material covering the said sheets, and open-work frames clamped in the box for holding the filtering material compressed on the said sheets.

4. A filtering element for filters, comprising a box open at its top and bottom, foraminous sheets spaced apart in the box to form a chamber for receiving the filtered oil, filtering material covering the foraminous sheet, frames fitted in the top and bottom of the box and having foraminous sheets, and screw means for clamping the said frames in the boxes and compressing the filtering material therein.

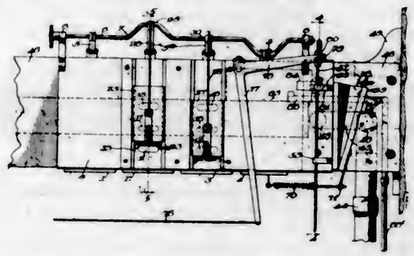
1,135,151. VAPORIZER. FREDERICK G. BEE, Columbus, Ohio. Filed Dec. 31, 1913. Serial No. 809,614. (Cl. 48—107.)

The combination with the exhaust pipe of an internal combustion engine, and a carbureter, of a vaporizer, said vaporizer comprising an element closed at its ends and having a longitudinal passage therethrough for the exhaust gases, said element being formed of concentric inner and outer walls thereby forming a chamber therebetween, said inner wall forming the longitudinal passage, a solid spacing



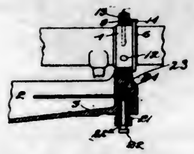
wall parallel with the closed ends of said element between said two first named walls dividing said chamber into non-communicating oil and air compartments, separate inlet pipes leading to each of said compartments, and separate outlet pipes for each of said compartments connected to the air and fuel supply openings of said carbureter.

1,135,152. PNEUMATIC AUTOMATIC MUSICAL INSTRUMENT. ROBERT J. BENNETT, Moline, Ill., assignor to Artista Piano Player Company, Milan, Ill., a Corporation of Illinois. Filed May 3, 1910. Serial No. 559,182. (Cl. 230—36.)



In an apparatus for the purpose described, the combination of a pneumatic motor, means whereby the air may be exhausted therefrom including a passage, a valve or reducer for controlling said passage, a longitudinally sliding rod connected with said valve, manually operated means connected with said rod for controlling said valve at will, a pin provided on said rod, a pivoted bell crank lever engaging said pin by one of its arms, an index indicating the position of said valve, and means connecting said index with the other arm of said bell crank.

1,135,153. SURVEYOR'S INSTRUMENT. CHRISTIAN L. BERGER, Boston, Mass. Original application filed Mar. 4, 1912, Serial No. 681,547. Divided and this application filed May 7, 1913. Serial No. 766,107. (Cl. 33—73.)



1. In a surveyor's instrument, a cross-bar to hold a telescope, said cross-bar having one end portion formed in two parts, the upper part carrying supporting means for the telescope, and the lower part being of greater rigidity than said upper part, and means to move the upper part relatively with said lower part to effect an adjustment of the telescope support.

2. In a surveyor's instrument, a cross-bar having a Y-support arranged near its end to hold a telescope, one end portion of said cross-bar being formed in two horizontal sections, the upper section carrying a Y-support and the lower section being of relatively greater rigidity than the upper section, and tightening and bearing screws arranged through said lower parts to effect a relative adjustment of the upper part and the Y-support thereon.

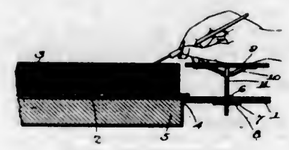
1,135,154. PROCESS OF REMOVING CARBON FROM PRESSED BODIES OF TUNGSTEN. FRITZ BLAU, Berlin, Germany, assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Aug. 3, 1906. Serial No. 329,026. (Cl. 176—132.)

1. The process of removing carbon constituents from pressed bodies of tungsten containing carbon which consists in heating said body in an atmosphere composed essentially of nitrogen and hydrogen and in removing the carbon from said body in an unoxidized gaseous form by the agency of the nitrogen contained in said atmosphere.

2. The process of removing carbon constituents from pressed bodies of tungsten containing carbon which consists in heating said body in an atmosphere composed essentially of hydrogen gas and a relatively large quantity of nitrogen and in removing the carbon from said body in an unoxidized gaseous form by the agency of the nitrogen contained in said atmosphere.

3. The process of removing carbon constituents from pressed bodies of tungsten containing carbon which consists in heating said body in an atmosphere composed essentially of hydrogen gas and gaseous ammonia and in removing the carbon from said body in an unoxidized gaseous form by the agency of the nitrogen contained in said atmosphere.

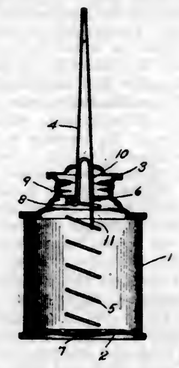
1,135,155. ARM-REST. GEORGE BLUNDELL, Los Angeles, Cal. Filed Jan. 6, 1914. Serial No. 810,566. (Cl. 120—56.)



An arm rest comprising a lower board having a blade, adapted to rest upon a desk beneath a book and to be retained by the book, and a shoulder which is adapted to bear against the desk to hold the rest in proper relation to the book, a nut in the lower board, a screw threaded stem supported in the nut, a pair of brackets fixed to the upper end of the screw threaded stem and an upper board seated upon the upper end of the screw threaded stem and secured to the brackets so as to provide a rotatable vertically adjustable rest for the writing head of the user.

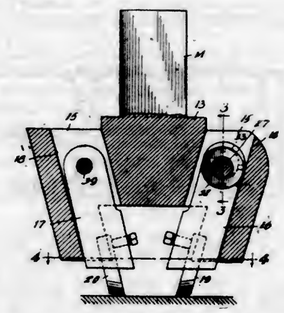
1,135,156. OIL-CAN. HORACE CARR, Jr., Kansas City, Mo., assignor to The Carr Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Jan. 6, 1913. Serial No. 740,435. (Cl. 221—34.)

The combination with a can comprising a flexible bottom, a nozzle cap, and a nozzle supported in said cap and having its end projected into the interior of the can, of a spring seated on the flexible bottom of the can, and having a neck on its upper end projecting into said nozzle, the portion of the spring connecting the neck with the body of the spring having a downturned portion forming



a socket adjacent the base of the neck for receiving the projected end of the nozzle.

1,135,157. DOUBLE-CUT TOOL. EDWARD S. CLARKE, Richmond, Va.; Virginia Trust Company, executor of said Clarke, deceased, assignor of one-half to Isaac J. Marcuse, Richmond, Va. Filed June 3, 1914. Serial No. 842,564. (Cl. 90—53.)



1. A double cut shaper or planer tool comprising, in combination: a tool head; a tool holder mounted therein and adapted to hold a cutting tool; a shaft mounted in the said head; means for adjusting the said shaft longitudinally and means for adjusting it around its axis, said two adjusting means being independent of each other so that each permits the operation of the other; an eccentric fixed on the shaft; and a second tool holder adapted to hold a cutting tool and mounted on the said eccentric; whereby the second tool may be adjusted relative to the first tool.

2. A shaper or planer tool comprising a head, a pivot shaft mounted in the head and having an eccentric, a tool holder mounted on the said eccentric and held from movement longitudinally of the shaft, means connecting the said head with the shaft for adjusting the shaft longitudinally without interfering with the turning of the shaft, and means connecting the said head with the shaft for adjusting the shaft and eccentric around their axis without interfering with the longitudinal movement of the shaft.

3. A shaper or planer tool comprising a head, a pivot shaft mounted in the head and having an eccentric, a tool holder mounted on the said eccentric and held from movement longitudinally of the shaft, means connecting the said head with the shaft for adjusting the shaft lon-

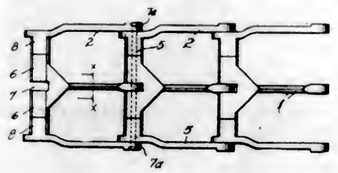
gitudinally without interfering with the turning of the shaft, and means connecting the said head with the shaft for adjusting the shaft and eccentric around their axis without interfering with the longitudinal movement of the shaft, combined with another tool holder mounted in the said head and relative to which the first tool holder is adjusted by the said movements of the shaft.

4. A shaper or planer tool comprising a head having alined externally screw-threaded tubular bearing shoulders extending outwardly from opposite sides of the head, a pivot shaft mounted in the bearings formed by the said shoulders and having an eccentric, a tool holder mounted on the said eccentric and held thereon from movement longitudinally of the shaft, means connecting one of the said shoulders with one end of the shaft for adjusting the shaft longitudinally without interfering with the turning of the shaft, and means connecting the other of the said shoulders with the other end of the shaft for adjusting the shaft around its axis without interfering with the longitudinal movement of the shaft.

5. A shaper or planer tool comprising a tool head, a longitudinally movable pivot shaft secured thereto, a cutting element, a holder for said cutting element pivotally mounted on said pivot shaft and held against movement longitudinally thereof, and means for moving said pivot shaft longitudinally to adjust the position of said element in the head, combined with another cutting element relative to which the said shaft and its suspended cutting element is adjusted.

[Claims 6 to 12 not printed in the Gazette.]

1,135,158. CONVEYER-CHAIN. WILLIAM W. CONNOR, De Ridder, La., assignor to C. H. Helder, Oberlin, La. Filed Aug. 9, 1913. Serial No. 783,916. (Cl. 74—32.)



1. A link comprising three longitudinal sections, each section having a sleeve fixed to one end, said sleeves being alined and constructed to be united by a rivet, the central section having an enlarged portion at the intersection of its sleeve and body, and its sleeve having a cut away portion for receiving the central section of the next adjacent link.

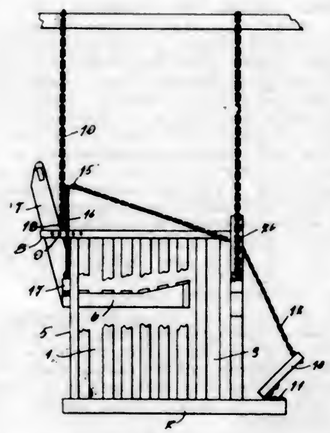
2. A chain comprising a plurality of links and rivets connecting the extremities of the links, each link being formed of three spaced parallel sections which are formed with sleeves at one extremity of the link to receive the rivet correlated with said extremity, the center section with its integral sleeve being T-shaped and the two lateral sections with their integral sleeves being L-shaped.

1,135,159. ANT-TRAP. SAMUEL L. COX, Wolfe City, Tex. Filed Apr. 21, 1913. Serial No. 762,675. (Cl. 43—22.)



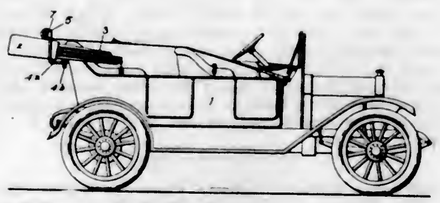
In an insect trap, a bottom having a central opening and depending marginal flanges, an outer inclined member attached to the marginal portion of the bottom, an inner inclined member attached to the bottom around the said opening, the free portions of the outer and inner members coöperating to provide a continuous slot therebetween, and a rigid bail-shaped handle bent from a strip and having its ends rigidly secured to the said inner member at opposite sides of the said opening, the handle spanning the opening and having its upper portion spaced below the plane of the upper edges of the said inclined members.

1,135,160. SWING. DAVID CRAWFORD, Atlanta, Ga. Filed June 30, 1914. Serial No. 848,230. (Cl. 155—35.)



In a swing structure, a swing comprising a base platform, vertically extending sides and back secured to said base platform, a transversely extending seat supported within said sides, flexible cables for swingably suspending said swing structure, a foot treadle hingedly connected to the forward marginal edge of said base platform, a plurality of levers swivelly connected to the back of said swing structure adjacent the sides thereof, said levers being connected to said swing suspending cables, and flexible members connecting said foot treadle and said levers whereby said levers will be oscillated upon oscillatory movement of said foot treadle for imparting swinging motion to said swing.

1,135,161. SPRING-ROLLER SHADE FOR VEHICLES. WILLIAM A. DANIELS, Dermott, Ark. Filed Feb. 14, 1914. Serial No. 818,722. (Cl. 21—62.)



In a device of the character described, the combination with an automobile, of a pair of brackets mounted at the rear end of the car at each side thereof, a pair of angular arms respectively mounted upon said brackets, each arm being extended rearwardly and then upwardly, a spring roller mounted in said brackets, a shade mounted on said roller, and means for securing the free extremity of said shade to the forward portion of an automobile.

1,135,162. FURNITURE. ARTHUR J. DAVIS, Kingston, Pa. Filed July 3, 1913. Serial No. 777,159. (Cl. 45—70.)



1. The combination with a drawer; of a support or shelf hinged to cover and uncover the open top of the drawer, said shelf, when raised to afford access to the drawer, assuming an incline, and resting at a point above its lower edge against the adjacent side wall of the drawer to arrest further travel of the shelf and support it in its inclined position; and a stop on the shelf to support and aline the edges of sheets dropped or laid on the shelf.

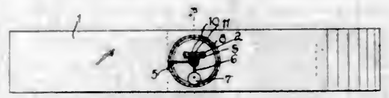
2. The combination with a drawer; of a lid or shelf hinged thereto and shiftable to cover or uncover the opening in the drawer; and a stop on the lid or shelf located below the upper edges of the end walls of the drawer, and inside the drawer opening, to coact with the inner face of either end wall of the drawer, when the shelf is raised to uncover the drawer, to arrest and aline the edges of sheets laid or dropped on the shelf.

3. A paper container and alining device comprising a drawer; a shelf or support pivoted to the drawer and adapted to lie at an incline, to afford complete access to the drawer; and a stop thereon, located below the upper edge of the drawer to coact with one end wall of the drawer, to arrest and square the edges of sheets dropped or laid on the shelf when the shelf is in raised position.

4. The combination with a drawer; of a support or shelf shiftable to cover and uncover the drawer, said shelf adapted to lie at an incline when raised to afford access to the drawer, with its lower edge slightly below the upper edge of an end wall of the drawer; and a bead along the lower edge of the shelf to coact with said end wall to arrest and square the edges of sheets laid or dropped on the shelf.

5. The combination with a drawer; of a lid pivoted to the end walls of the drawer opening and shiftable to cover and uncover the drawer opening, said lid when raised to afford access to the drawer, lying parallel with the direction of travel of the drawer and supported at an incline by the outer side wall of the drawer against which the lid rests and which limits the swing of the lid in one direction; and a stop brought to effective position when the lid is raised, to aline the edges of sheets laid or dropped thereon.

1,135,163. LEVEL. JOHN W. DENNEY, Ray, Ariz. Filed Oct. 8, 1913. Serial No. 794,071. (Cl. 33—210.)



A device of the class described including a level having a transverse pivot pin, a sleeve rotatably mounted thereon, an indicating arm formed on the sleeve, a weight supporting arm formed on the sleeve and disposed at right angles to the indicating arm, whereby to retain said indicating arm in the same general plane irrespective of the position of the level, a supporting bracket formed on the sleeve in direct opposition to the weight, a spirit tube supported within said bracket and a ring arranged around the pivot pin in spaced relation therewith and provided with a plurality of graduations, as and for the purpose set forth.

1,135,164. LUBRICATOR FOR STEAM-ENGINES. JOSEPH F. DERHAMMER, Detroit, Mich. Filed Apr. 13, 1914. Serial No. 831,439. (Cl. 184—56.)



1. A lubricator, comprising a tube laterally insertible in a steam conduit and adapted for connection with a lubricant supply, the lower portion of said tube being provided with fine jet apertures and the upper portion with an aperture for admission of steam pressure to operate on the surface of the lubricant within said tube, said portions extending transversely of the steam conduit.

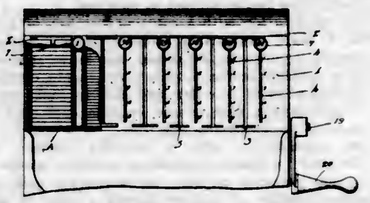
2. In a lubricator, a tube adapted for insertion laterally in a steam conduit and adapted for connection with an external source of lubricant supply, the lower portion of said tube being provided with a series of fine perforations distributed along the length thereof, and the upper portion being provided with a central aperture for the admission of steam pressure to operate on the surface of the lubricant in said tube.

3. A lubricator, comprising a tube having a closed inner end adapted for insertion laterally in a steam conduit and having a threaded portion for engagement with the wall of said conduit and an external portion for connection with a source of lubricant supply, the inner portion of said tube being provided with a series of fine perforations distributed along its under side and having a central aperture on its upper side for admission of steam pressure.

4. A lubricator, comprising an attachment having a polygonal head and a tubular shank closed at its inner end, said shank being provided with a threaded portion for engagement with a threaded aperture in the wall of the steam conduit and having a series of fine perforations on its under side, with a central aperture on its upper side, for the purpose described.

5. A lubricating attachment for steam conduits, comprising a tubular member closed at one end having a threaded portion adjacent to the opposite end, an enlarged and polygonal head recessed and threaded for connection with a source of lubricant supply, said tubular portion being provided with a series of fine perforations on its under side and a larger aperture on its upper side for the purpose described.

1,135,165. CHANGE-MAKING MACHINE. LAWRENCE J. DESENBERG, Los Angeles, Cal. Filed Mar. 23, 1914. Serial No. 826,589. (Cl. 133—4.)



1. In a change making machine, a plurality of coin holders, ejectors for the respective coin holders, means for operating said ejectors comprising a gear, a pinion for each ejector, a connecting rod between each pinion and its associated ejector, selecting means for moving the

pinion into mesh with the gear, and means operating automatically to disconnect the pinion from the gear after the desired number of ejections have been performed.

2. In a change making machine, a plurality of coin holders, ejectors comprising slides in the lower ends of the holders, a bodily movable pinion for each slide connected to reciprocate the slide when the pinion is rotated, a pivoted arm carrying each pinion, an operating fear with which the pinion is adapted to mesh, a plurality of selecting levers, means operated by the respective selecting levers for moving the respective arms and the pinions carried thereby into mesh with the respective gears.

3. In a change making machine, a plurality of coin holders, ejectors comprising slides in the lower ends of the holders, a bodily movable pinion for each slide connected to reciprocate the slide when the pinion is rotated, a pivoted arm carrying each pinion, an operating gear with which the pinion is adapted to mesh, a plurality of selecting levers, means operated by the respective selecting levers for moving the respective arms and the pinions carried thereby into mesh with the respective gears upon a downward movement of the selecting levers, and means operating to automatically restore a selecting lever and disengage its associated pinion after its desired number of ejections have been performed.

4. In a change making machine, a plurality of coin holders, ejectors comprising slides in the lower ends of the holders, a bodily movable pinion for each slide connected to reciprocate the slide when the pinion is rotated, a pivoted arm carrying each pinion, an operating gear with which the pinion is adapted to mesh, a plurality of selecting levers, means operated by the respective selecting levers for moving the respective arms and the pinions carried thereby into mesh with the respective gears, and audible signal means operated by the movement of a gear.

5. In a change making machine, a series of coin holders, each having a slot at the top thereof for the insertion of coins, a slot at the bottom for the ejection of coins, an ejector slide in the bottom of each holder, a plurality of pinions, a connection for each pinion to a slide, a pivoted arm supporting each pinion, a shaft, a crank for operating the shaft, a plurality of gears rigidly secured to the shaft and adapted to drive the respective pinions when the latter are in mesh with any of the gears, a plurality of selecting levers extending between the coin holders, means operated by the selecting levers for moving the associated pinions into mesh with the corresponding gears, and means for automatically restoring a selecting lever and disengaging its associated pinion from its gear when the desired number of ejections has been made.

1,135,166. AUTOMATIC STOP FOR PHONOGRAPHS. FRANCIS W. D'OLIER, Moorestown, N. J. Filed Jan. 14, 1913. Serial No. 741,955. (Cl. 74—46.)

1. The combination with a rotating member, of an arm having an inclined surface, a rod having pivotal movement in different directions with respect to said arm, a member movable over said rotating member and adapted to actuate said rod, said rod when actuated being deflected by said surface, a brake for said rotating member, and brake controlling means carried by said rod.

2. The combination with a rotating member, of a brake therefor, a brake controlling member, means carried by said rotating member for actuating said brake controlling member, a member having a hole, a rod, a pin carried by said rod and adapted to enter said hole to come into the path of said means, and means movable over said rotatable member for actuating said rod.

3. The combination with a rotating member, of a brake therefor, a brake controlling member, means carried by said rotating member for actuating said brake controlling member, a member having a hole, a rod, a pin carried by said rod and adapted to enter said hole to come into the path of said means, means movable over said rotating member for actuating said rod, and means to which said rod is pivoted adjustable with respect to said rotating member.

4. The combination with a rotating member, of a brake setting lever, of a second member movable with said rotating member and adapted to actuate said lever, an arm extending in proximity to said rotating member, a rod pivoted thereon, and a member controlled by said rod and brought into the path of travel of said second member.



5. The combination with a rotating member, of an arm adjustable with respect to and extending in proximity to said rotating member, a rod pivoted to said arm for movement parallel with the face of said rotating member and to and away from the face of said rotating member, and brake setting means actuated by said rod.

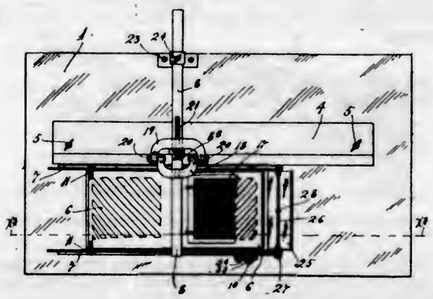
[Claims 6 and 7 not printed in the Gazette.]

1,135,167. METHOD OF COLORING WOOD. LOUIS DOYEN, Paris, France. Filed Jan. 17, 1913. Serial No. 742,689. (Cl. 99—12.)

1. The herein described process of treating wood, which process consists in subjecting wood containing its natural sap and resin to the action of nitrogen peroxid.

2. The herein described process of treating wood, which process consists in subjecting wood, containing its natural sap and resin, in an air tight chamber to the action of nitrogen peroxid generated within said chamber.

1,135,168. GUARD FOR CIRCULAR SAWS. JOHN EDMAN, Minneapolis, Minn., assignor of one-half to the Firm of Williamson & Merchant, James F. Williamson and Frank D. Merchant, Minneapolis, Minn., Copartners. Filed Feb. 19, 1913. Serial No. 749,379. (Cl. 143—159.)



1. A guard of the kind described, comprising a pair of pivotally connected cage sections, extending one in front and one in the rear of the tool, and a side plate mounted for bodily movement with said cage sections and permitting independent vertical movements thereof.

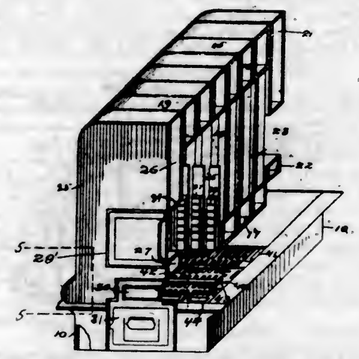
2. A guard of the kind described, comprising a pair of pivotally connected cage sections, extending one in front and one in the rear of the tool, and a side plate, pivotally connected to the forward end of said front cage section, for vertical swinging movement, and connected to said rear cage section for pivotal and sliding movements, with respect thereto.

3. A guard of the kind described, comprising a pair of pivotally connected cage sections, extending one in front and one in the rear of the tool, and a side plate, pivotally connected to the forward end of said front cage section, for vertical swinging movement, intermediately connected to the rear end portion thereof and to said rear cage section, for pivotal and sliding movements, with respect thereto.

4. A guard of the kind described, comprising a pair of pivotally connected cage sections, extending one in front and one in the rear of the tool, a side plate, pivotally connected to the forward end of said front cage section, for vertical swinging movement, intermediately connected to the rear end portion thereof and to said rear cage section, for pivotal and sliding movements, with respect thereto, and means for variably limiting the sliding movement of said side plate, with respect to said front cage section.

5. A guard of the kind described, comprising a pair of pivotally connected cage sections, extending one in front and one in the rear of the tool, a side plate, pivotally connected to the forward end of said front cage section, for vertical swinging movement, intermediately connected to the rear end portion thereof and to said rear cage section, for pivotal and sliding movements, with respect thereto, and means including a stepped device for variably limiting the sliding movement of said side plate, with respect to said front cage section.

1,135,169. FURNACE. JOHN G. ENGELHART, Atlanta, Ga. Filed Aug. 4, 1911. Serial No. 642,359. (Cl. 110—75.)



In a device of the class described, a furnace structure including a fire box, one wall of which comprises an upper hollow portion and a lower hollow portion of less thickness than the upper portion, a stationary grate member having an air conducting space connected with the lower portion of the furnace structure and including a member located below the thinner portion of the wall and substantially coincident with the inner face thereof, and a member located beneath the thicker portion of the wall, an apertured plate extending from the member last mentioned and substantially in line with the inner surface of the aforesaid thicker portion, said apertured plate defining with the remainder of the wall an air space partly inclosed by the upper and lower hollow portions.

1,135,170. NECKTIE. SIDNEY FRANC, New York, N. Y. Filed Nov. 18, 1913. Serial No. 801,673. (Cl. 2—11.)



A necktie comprising tying members, each composed of comparatively light-weight material, an intermediate neckband member composed of woven material made in the form of a flat tube, the ends of said tube receiving and secured to the respective tying members, and a strip passing freely through said tubular member and entering the tying members.

1,135,171. METALLIC RAILWAY-TIE. WILLIAM C. FRANK, Johnstown, Pa. Filed June 6, 1914. Serial No. 843,368. (Cl. 238—5.)



1. A metallic railway tie provided with openings in the upright web portions below the track rails the parts above said openings being expanded upwardly to form raised rail seats.

2. A railway tie with upright web portions, laterally extending base flanges and an upper laterally extending face or seat portion, the web portions below the rails being provided with openings and the upper portion above said opening being expanded upwardly to form deeper rail seat portions.

3. A metallic cross tie of inverted channel section with laterally extending base flanges, the upright web portions below the rails being provided with openings extending longitudinally of the tie, the portions above the openings being pressed upwardly to form deeper trussed rail seats.

4. A metallic cross tie of inverted channel form, elongated openings in the web portions thereof below the rails and intermediate of the upper and lower surfaces of the tie, the portions above said openings being expanded upwardly to form deeper rail seats.

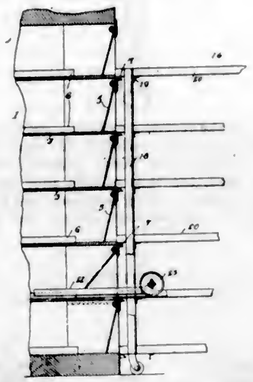
5. A metallic railway tie of inverted trough section, the rail seat portions of which are of channel form in cross section pressed upwardly and separated from the other portions of the tie except at the ends thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,135,172. BAKING APPARATUS. JOHANNUS M. GANTVOORT, Fishkill Landing, N. Y. Filed June 12, 1912. Serial No. 703,278. (Cl. 107—56.)

1. A baker's installation for baking panned bread comprising a transportable rack having a series of vertically superposed and spaced baking shelves freely supported thereon, to permit of their substantially horizontal re-

moval from the rack, a proofing chamber adapted to bodily receive the rack with loaded shelves during the proofing of the panned dough thereon, a multiple chambered oven having a capacity corresponding to the capacity of the rack, said oven having fixed, stationary means for supporting the loaded baking shelves of the rack in superposed relation substantially corresponding to that occupied by the same on the rack, said rack being readily transportable from the proofing chamber to position in front of the oven and in said position having its shelves substantially at the level of and in register with the supports therefor in the oven, whereby the shelves may be shoved substantially horizontally from the rack into the oven to permit the dough to be baked thereon and then withdrawn so that the dough pans thereon remain undisturbed from the time the rack enters the proofing room to the discharge of the baked bread therefrom after it has left the oven, substantially as described.



2. A baker's installation for baking panned bread comprising a transportable rack having a series of superposed, spaced pairs of substantially horizontal track rails, a corresponding series of independent removable baking shelves freely supported thereon to permit of their substantially horizontal serial removal from the rack, a proofing chamber adapted to bodily receive the rack with loaded shelves during the proofing of the panned dough, a multiple chambered oven having a number of superposed baking chambers corresponding to the shelves of the rack and comprising for each chamber a pair of substantially horizontal receiving rails spaced the same extent apart and corresponding in position to those on the rack when the latter is arranged in juxtaposed position before the oven, whereby the movable shelves on the rack may be shoved from the latter into the oven and again withdrawn from the latter to the rack without disturbing the panned dough thereon, substantially as described.

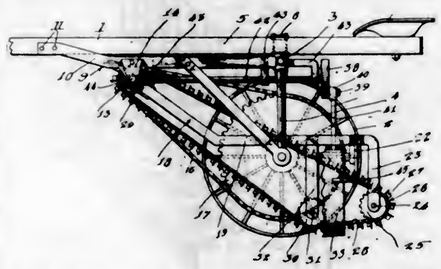
3. A baker's installation for baking panned bread comprising a transportable rack having a series of superposed, spaced pairs of substantially horizontal track rails, a corresponding series of independent removable baking shelves freely supported thereon to permit of their substantially horizontal serial removal from the rack, a proofing chamber adapted to bodily receive the rack with loaded shelves during the proofing of the panned dough, a multiple chambered oven having a number of superposed baking chambers corresponding to the shelves of the rack and comprising for each chamber a pair of substantially horizontal receiving rails spaced the same extent apart and corresponding in position to those on the rack when the latter is arranged in juxtaposed position before the oven, whereby the movable shelves on the rack may be shoved from the latter into the oven and again withdrawn from the latter to the rack without disturbing the panned dough thereon, the ends of the oven rails projecting beyond the face of the oven to meet the rails on the rack and guide the baking shelves from the rack into the oven.

4. A baker's installation for baking panned bread comprising a transportable rack having a series of superposed, spaced pairs of substantially horizontal track rails, a corresponding series of independent removable baking shelves freely supported thereon to permit of their substantially horizontal serial removal from the rack, a proofing chamber adapted to bodily receive the rack with loaded shelves during the proofing of the panned dough, a multiple chambered oven having a number of superposed baking chambers corresponding to the shelves of the rack and comprising for each chamber a pair of substantially horizontal receiving rails spaced the same extent apart and corresponding in position to those on the rack when the latter is arranged in juxtaposed position before the oven, whereby the movable shelves on the rack may be shoved from the latter into the oven and again withdrawn from the latter to the rack without disturbing the panned dough thereon, the ends of the rails in the oven projecting beyond the face of the latter and being flared to form guide ways, and the ends of the rails on the rack extending beyond the ends of the latter to engage said guide ends of the rails in the oven to bring the rack and oven rails into substantial alinement, for the purpose described.

5. A baker's installation for baking panned bread comprising a transportable rack having a series of superposed, spaced pairs of substantially horizontal track rails, a corresponding series of independent removable skeleton shelves freely supported thereon, a proofing chamber adapted to bodily receive the rack with loaded shelves during the proofing of the panned dough thereon, an oven having a series of superposed fixed floors dividing the oven into multiple baking chambers corresponding in number to the baking shelves on the rack, heating pipes in each chamber overlying said fixed floors, track rails at the opposite sides of each baking chamber spaced laterally apart and arranged to substantially register with a corresponding pair of rails on the rack when the latter is in juxtaposed position before the oven, and serving to receive the skeleton shelves from the rack and support them above the heating pipes during baking, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,135,173. BEET-TOPPER. WILLIAM R. GARDNER, Los Angeles, Cal., assignor to American Beet Topper Company, Los Angeles, Cal., a Corporation of California. Filed Nov. 21, 1914. Serial No. 873,397. (Cl. 55—107.)



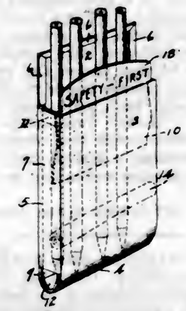
1. In a beet topper, an arcuate cutter having its axis in a substantially horizontal plane, means for oscillating said cutter, and means passing across the cutter to force the beet tops thereagainst.

2. In a beet topper, an arcuate cutting blade having its axis in a substantially horizontal plane, means for oscillating the cutter as the topper moves forwardly, and an endless belt traveling across the cutter blade to force the beet tops thereagainst.

3. A beet topper including a wheeled truck, a frame pivotally connected at one end to said truck, an endless belt carried by the frame having its lower lead movable rearwardly and contacting at one point with the ground, an arcuate blade extending under the lower lead of the belt to the rear of the point of contact with the ground, and means for oscillating said blade.

4. A beet topper comprising a wheeled truck, a frame pivotally supported at one end by said truck, an endless belt, means carried by the frame to support the belt, said belt having a point of contact with the ground, a semicircular knife blade passing under the belt to the rear of its point of contact with the ground, and wheels for driving the belt and oscillating the belt.

1,135,174. PEN AND PENCIL HOLDER. BRYCE P. GIBBS, Long Beach, Cal. Filed May 2, 1914. Serial No. 835,925. (Cl. 34—12.)



1. A pen and pencil holder including a container body formed of a single piece of sheet metal doubled upon itself to form a pocket and having lining clamping edge portions and oppositely disposed side walls and securing flanges, said side walls and flanges being arranged in spaced apart pairs on opposite sides of the bend of the blank and disposed in overlapping relation, and pencil gripping means within said pocket.

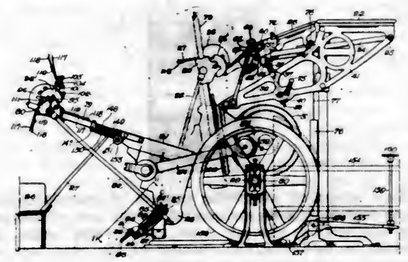
2. A pen and pencil holder including a container body formed of a single piece of sheet metal having front and rear walls initially in longitudinal alinement and in the same plane, side walls formed from said front wall, attaching flanges stamped with said back wall and spaced from said side walls, lining clamping ears projecting from the body in the space between the said oppositely disposed flanges and side walls, said single piece of metal adapted to be doubled upon itself and having its side walls and flanges bent into overlapping relation to form a pocket open at its bottom corners, and pencil gripping means within the pocket formed by the double piece of metal.

3. A pen and pencil holder including a pocket member formed of a single stamping of sheet metal doubled upon itself to provide a back wall portion and a front wall portion of less height than said back wall, side wall portions integral with the front wall and secured to the back wall portion, said side wall terminating short of the bottom of the pocket, a resilient deflecting leaf having laterally extending attaching arms adapted to be secured within the mouth of the pocket to the side walls so that the body of the leaf is spaced from the front wall, and yielding pencil gripping means within the pocket.

4. A pen and pencil holder comprising a container body having a resilient deflecting leaf secured within the mouth thereof and spaced from the front wall to form a slot, a yielding pencil gripping element arranged within the container across the lower portion of the front wall of said body, said yielding element and slot formed by the deflecting leaf and front wall of the body forming a card receiving pocket.

1,135,175. SHEET-FEEDING MECHANISM. WILLIAM C. GLASS, Boston, Mass., assignor to United Printing Machinery Company, Boston, Mass., a Corporation of Maine. Filed Oct. 18, 1909. Serial No. 523,235. (Cl. 101—36.)

1. The combination with a press and feed table, of means carried by the movable press member for taking a sheet from the table and holding it in the press, a pivot, and means connecting said pivot and said sheet-carrying means for moving the latter relatively to the movable press member for the purpose specified, said pivot being adjustable for varying the carrying movement of said carrying means.



2. The combination with a press and feed table, of means carried by the movable press member for taking a sheet from the table and holding it in the press; operating means including a stationary pivot and means connecting said pivot and said carrying means for moving the latter relatively to the movable press member for the purpose specified; said pivot being adjustable for varying the carrying movement of said carrying means, and an adjustable stop for limiting the movement of said carrying means toward the press to determine the operative position of the sheet in the press, said operating means having yielding provision for enabling said sheet-carrying means to continue moving with the movable press member when the carrying means is against said adjustable stop.

3. The combination with a press having a swinging press member, of grippers carried by said member, said grippers being rotated with relation to said member and movable toward and from said member, yielding means for reciprocating the grippers toward and from said member, and adjustable stops carried by said member for limiting and varying the movement of the grippers toward said member.

4. The combination with a press having a swinging press member and a feed table, of successively operative sets of grippers carried by said member whereby one set is movable toward and from said member while a succeeding set is movable toward and from the feed table, means for effecting the closing of the grippers at said feed table, and means for positioning each successive set of grippers with relation to said member, said means also serving to time the closing of each successive set of grippers at the feed table.

5. The combination with a press having a swinging press member, of rotatable carriers supported by said press member, grippers movably mounted in said carriers, means for rotating the carriers, and means for moving the grippers relatively to the carriers to cause the grippers to turn in a non-circular path about the axis of the carriers.

[Claims 6 to 33 not printed in the Gazette.]

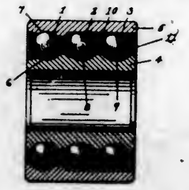
1,135,176. ARTIFICIAL STONE. ELWOOD GOSSETT, Los Angeles, Cal. Filed Jan. 5, 1914. Serial No. 810,425. (Cl. 106—24.)

An artificial stone consisting of the following ingredients in substantially the proportions given: rock salt 16 pounds, iron rust 6 pounds, volcanic ash 10 pounds, silica sand 20 pounds, ground asbestos 4 pounds, powdered rock 10 pounds, green vitrol 1 pound.

1,135,177. BALL-BEARING. DAVID F. GRAHAM, Bristol, Conn., assignor to The New Departure Manufacturing Company, Bristol, Conn., a Corporation of Connecticut. Filed Oct. 21, 1909. Serial No. 523,824. (Cl. 64—59.)

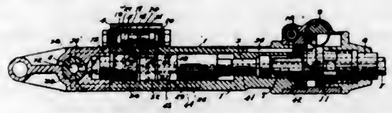
1. In an antifriction bearing, the combination with race-members, and a plurality of rows of antifriction

members, of a separator having seats formed in and surrounded by the web of its body for the antifriction members of one row and seats also formed in said web but opening at the edge of said separator for another row of antifriction members; substantially as described.



2. A separator comprising a piece of material having seats formed in and surrounded by the web of its body for antifriction members and also having seats also formed in said web but opening at its edge for such members; substantially as described.

1,135,178. FLUID-OPERATED TOOL. LOUIS W. GREVE, Cleveland, Ohio, assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 19, 1913. Serial No. 801,780. (Cl. 121—20.)



1. In combination in a fluid actuated machine provided with a cylinder, a hammer piston in the cylinder, means for securing the automatic reciprocation of the piston with the alternate application of fluid pressure to the opposite ends of the hammer piston, exhaust passage means through which substantially all of the exhaust from the rear side of the piston hammer passes, an exhaust passage directed to the front of the machine and leading from the front side of the piston hammer, and a throttle valve which in one position blanks the said exhaust passage means leading from the rear side of the piston hammer and thus stops the movement of the piston hammer and at the same time admits fluid pressure to the front side of the piston hammer.

2. In combination in a fluid operated drilling machine provided with a cylinder and a drill steel with a passage therethrough, a hammer piston in the cylinder, means for securing the automatic alternate application of fluid pressure to the opposite ends of the hammer piston, exhaust passage means through which substantially all of the exhaust from one side of the hammer piston passes, a communication from the other side of the hammer piston to the passage through the drill steel, and a throttle valve which in one position blanks the said exhaust passage means and at the same time admits fluid pressure continuously to the other side of the hammer piston and through the drill steel.

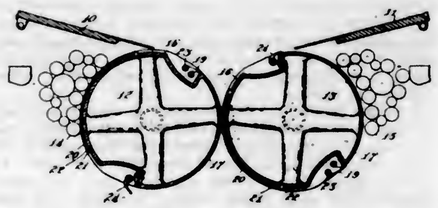
3. In combination in a fluid operated drilling machine provided with a cylinder, a drill steel and fluid operated means for rotating the drill steel, a hammer piston in the cylinder, means for securing the automatic alternate application of fluid pressure to the opposite ends of the hammer piston, exhaust passage means through which substantially all of the exhaust from one side of the hammer piston passes, a supply passage leading to the said fluid operated means for rotating the drill steel, and means whereby the said exhaust passage means may be blanked, thus stopping the hammer piston, while still permitting a flow of fluid pressure through said supply passage to the drill rotating means.

4. In combination in a fluid operated drilling machine provided with a cylinder, a drill steel and fluid operated means for rotating the drill steel, a hammer piston in the cylinder, means for securing the automatic alternate application of fluid pressure to the opposite ends of the hammer piston, exhaust passage means through which substantially all of the exhaust from one side of the hammer piston passes, a supply passage leading to the said fluid operated means for rotating the drill steel, and a throttle valve arranged so that in one of its positions the said exhaust passage means are blocked, stopping the hammer piston, while fluid pressure is supplied through the said supply passage to the drill rotating means.

5. In combination in a fluid operated drilling machine provided with a cylinder, a drill steel with a passage therethrough, a hammer piston, and a main valve controlling the alternate application of fluid pressure to the opposite sides of the hammer piston and the exhaust from such sides, exhaust passage means receiving exhaust escaping past the said main valve from one side of the said piston, and a throttle valve adapted to blank the said exhaust passage means thus stopping the hammer piston while permitting a flow of fluid pressure to the other side of the hammer piston and thence through the drill steel.

[Claims 6 to 8 not printed in the Gazette.]

1,135,179. CYLINDER FOR ROTARY PRINTING-PRESSES. WILLIAM L. HAMILTON, Chicago, Ill., assignor of one-third to Louis K. Gillson, Wilmette, Ill., and one-sixth to Charles B. Gillson, Chicago, Ill. Filed Dec. 23, 1912. Serial No. 738,259. (Cl. 101—126.)



1. A printing device comprising a cylindrical body having a surface of uniform radius throughout and a part of such surface being constructed for the reception of a printing plate and a different part of such surface being constructed for the reception of a tympan, the said printing plate and the tympan to be superposed upon the respective portions of the cylindrical body and each increasing the effective radius of the said part of the body to which it is applied but in different amounts.

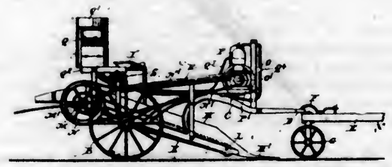
2. A printing device comprising a cylindrical body having a surface of uniform radius throughout, and a printing plate and tympan of different thickness superposed upon different parts of the cylindrical surface of the said body.

3. In a rotary printing press, in combination, a pair of equal parallel cylinders each having its surface conforming to a true circle, a printing plate superposed upon a part of each cylinder, a tympan superposed upon a different part of each cylinder, the two printing plates and the two tympans being each of like thickness but the thickness of the tympans and printing plates being unequal, and means for rotating the cylinders at relatively variable angular velocity whereby the surface speeds of the printing plate and tympan on each cylinder will alternately be uniform with the surface speeds of the tympan and printing plate on the other cylinder respectively.

4. In combination, a pair of oppositely rotating cylinders each having a surface of uniform radius throughout, a part of the surface of each cylinder being constructed for the reception of a printing plate and a different part of the surface of each cylinder being adapted to serve as a tympan, the printing plates to be superposed upon the said parts of the two cylinders for increasing the effective radii of the surfaces to which they are respectively applied beyond the effective radii of the said parts which are adapted to serve as tympans, and the printing plate which is applied to each cylinder coacting with the said part of the other cylinder which is adapted to serve as a tympan.

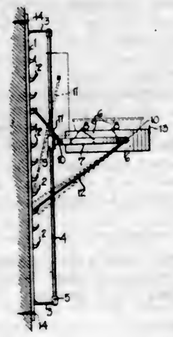
5. A printing device comprising a cylindrical body having a surface of uniform radius throughout, and a part of such surface being constructed for the reception of a printing plate and a different part of such surface being constructed for the reception of a tympan, the said printing plate and tympan to be superposed upon the respective portions of the cylindrical body and each increasing the effective radius of the said part of the body to which it is applied but in different amounts, and means for rotating the cylindrical body at different speeds which are relatively in the same proportion as the effective radii of the said two parts of the body.

1,135,180. POTATO-DIGGER. ISAAC HARRISON, Cream Ridge, N. J. Filed Jan. 8, 1912. Serial No. 669,991. (Cl. 55—137.)



In a traveling potato digger the combination of a frame, rear wheels for supporting said frame, a plow share carried by said frame, a driving engine mounted on said frame in front of said wheels and approximately over said plow share, said engine being arranged to drive the potato digger mechanism independently of the draft means and to hold down the plow share, a fuel tank and a cooling agent tank connected with said engine and located on said frame to the rear of said wheels.

1,135,181. ADJUSTABLE WASHSTAND. MICKE HASTREITER, near Bertha, Minn. Filed July 6, 1914. Serial No. 849,336. (Cl. 45—38.)



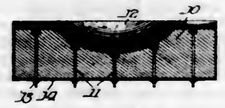
1. In an article of the character described, a vertically disposed supporting base having a vertical series of hook-shaped seats, a rod mounted in spaced relation to the base, a slide on the rod, a shelf pivoted to the side for movement into angular position relative to the rod, a hanger operatively connected to the shelf and pivoted for angular movement and adapted to engage any one of the hook-shaped seats, and a brace operatively connected to the shelf for pivotal movement and adapted to engage any one of said hook-shaped seats.

2. In an article of the character described, a vertically disposed base member having a vertical series of hook-shaped seats, a guide rod mounted in spaced parallel relation thereto, a slide on the rod, a shelf pivotally connected with the slide, a hanger operatively connected to the slide for pivotal movement and adapted to engage any one of said seats, and a brace operatively connected to the shelf adjacent its outer end for pivotal movement and adapted to engage any one of said hook-shaped seats.

3. In an article of the character described, a vertically disposed base member having a vertical series of hook-shaped seats, and formed at opposite ends with outwardly projecting arms, a guide rod mounted in said arms and extending parallel to the base member, a slide mounted on the guide rod for free movement thereon, a shelf, supporting members attached thereto and formed at opposite ends with outwardly projecting trunnions, one of said trunnions pivotally engaging said slide, a brace pivotally connected to the other trunnion and adapted to engage any one of said hooks, and a hanger pivotally engaged with the first named trunnion and adapted to engage any one of said hook-shaped seats.

4. In an article of the character described, a pair of vertically disposed members having each a vertical series of hook-shaped seats, a guide rod mounted on each of said members in spaced relation thereto, a slide mounted on each rod, a shelf, supporting members attached to the shelf and having trunnions at their inner ends pivotally engaging said slides and having trunnions at their outer ends, a U-shaped hanger having its legs pivotally engaged with the first named trunnions and adapted to engage over any one of said seats, and a U-shaped brace having its legs pivotally engaged with the outer trunnions and engaging with any one of the said seats.

1,135,182. METHOD OF PRODUCING HEAT-RESISTING BODIES. PAUL RALPH HERSHMAN, Chicago, Ill., assignor to Armour Fertilizer Works, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 12, 1914. Serial No. 866,291. (Cl. 204—64.)



1. The method consisting of mixing with carbonaceous material a body of particles capable of reacting with carbon, and heating such mixture at a sufficient temperature and for a sufficient length of time to effect such reaction without liquefaction, producing a solid mass of heat resisting material suitable for use as a furnace lining, substantially as described.

2. The method consisting of forming a plastic mass by mixing a carbonaceous binder with a body of particles capable of reacting with carbon, and heating such mass to effect the reaction without liquefaction, producing a solid body of heat resisting material suitable for use as a furnace lining, substantially as described.

3. The method of producing a solid mass of heat-resisting material which consists in mixing a body of aluminum particles with carbonaceous material, and heating the mixture to effect the reaction between the ingredients, substantially as described.

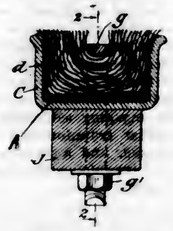
4. The method of producing a solid body of heat-resisting material which consists in forming a plastic mass by mixing a body of aluminum particles with a carbonaceous binder, and heating the mass at a sufficient temperature and for a sufficient length of time to effect the reaction between the ingredients, substantially as described.

5. The method consisting of forming a plastic mass by mixing with a carbonaceous binder a body of particles capable of reacting with carbon, and heating the mass first at a moderate temperature and then at a higher temperature to effect the reaction between the ingredients without

liquefaction, producing a solid mass of heat resisting material suitable for use as a furnace lining, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,135,183. TIRE. EDWARD R. HEWITT, Midvale, N. J. Original application filed Mar. 6, 1908, Serial No. 419,444. Divided and this application filed Jan. 20, 1915. Serial No. 3,250. (Cl. 152—9.)



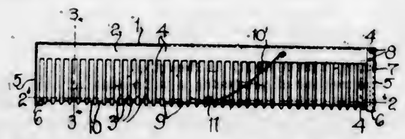
1. A tire having a mass of wires reversely bent on themselves and closely compacted for a portion of their length adjacent their mid-sections to form a continuous and practically solid base portion and free at their extremities to form a tread portion.

2. A tire formed of pads, each composed of a mass of wires reversely bent on themselves and closely compacted and united each with each for a portion of their length adjacent their mid-sections to form a continuous and practically solid base portion and free at their extremities to form a tread portion integral with the base.

3. A tire composed of a series of pads formed of a mass of wires each reversely bent on itself into a substantially U-shaped outline, retainers for the pads each disposed between branches of the wires, and means engaging said retainers for maintaining them in position on the felly.

4. A tire composed of a series of pads each formed of a mass of wires bent into U-shaped outline and having the free ends thereof exposed to engage the road surface, retainers for said pads each formed of U-shaped outline and of semi-cylindrical cross-section and having the base of the U extending longitudinally of the tread portion of its respective pad and disposed between the branches of the wires in said pad and having the branches of the U extending through the felly in contact with the proximate branches of the adjacent retainers, and nuts in threaded engagement with the free ends of the retainers.

1,135,184. SELF-CLEANING COMB. EUGENE HIBBS, Beaver Dam, Ky. Filed Sept. 2, 1914. Serial No. 859,883. (Cl. 132—17.)

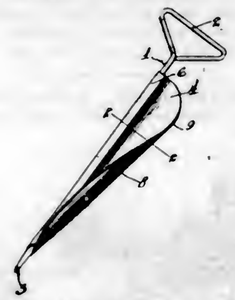


1. The combination with a comb, of a casing inclosing the back of the comb and extending down at the ends to form guides the casing being detachable from the comb, a cleaner bar slidably mounted upon the comb teeth and engaging the guides, means urging the bar toward the outer end of the teeth, and stops carried by the guides to limit the outward movement of the cleaner bar.

2. The combination with a comb, of a casing inclosing the back of the comb and extending down at the ends to form guides, said casing being deatchable from the comb, inwardly turned flanges formed at the extremities of the guides adapted to engage under the end teeth to support the comb, a cleaner bar slidably arranged upon the comb teeth and having its ends extended within the guides, and a spring urging the cleaner bar toward the inwardly turned flanges.

3. The combination with a comb, of a casing inclosing the back of the comb and extending down at the ends to form guides, the side and end walls of one of the guides being detachably conected with the casing, a cleaner bar slidably mounted upon the teeth, and a spring urging the cleaner bar toward the outer end of the teeth.

1,135,185. CORER. IDA C. HUNT, Wooldridge, Mont. Filed Mar. 4, 1914, Serial No. 822,393. Renewed Feb. 12, 1915. Serial No. 7,811. (Cl. 146—6.)



1. In a device of the character described, a shank, a blade carried by said shank, and said blade being curved spirally about said shank, substantially as described and for the purpose set forth.

2. In a device of the character described, a shank, a semicircular blade secured to said shank, said blade being curved spirally about said shank, and a cutting edge formed upon said shank.

3. In a device of the character described, a shank, a handle formed upon said shank, the opposite end of said shank being pointed, a semicircular shaped blade secured to said shank between said handle and the pointed end of said shank, said blade being curved about said shank and tapering toward the pointed end of said shank, and the outer edge of said shank being arranged in spiral relation with said shank.

4. In a device of the character described, a shank, a handle formed upon one end of said shank, the opposite end of said shank being pointed, and a blade carried by said shank, the outer edge of said blade being bent in a substantial spiral shaped form.

5. In a device of the character described, a single piece of wire comprising a shank, a handle formed upon one end of said shank, the opposite end of said shank being pointed, a substantially semicircle blade, the curved edge of said blade being sharpened, the longitudinal edge of said blade being wrapped about said shank and flattened, and said blade being arranged in a substantial spiral shaped form about said shank.

1,135,186. CASING FOR VEHICLE-SPRINGS. ALBERT N. JEAVONS, Cleveland, Ohio. Filed Feb. 27, 1914. Serial No. 821,374. (Cl. 21—50.)



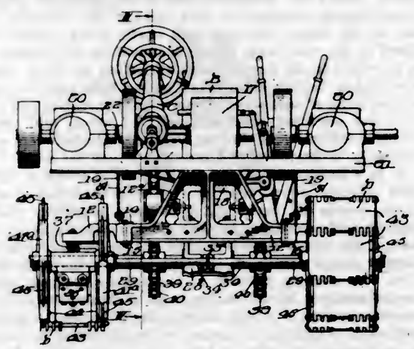
1. The combination, with a casing for vehicle springs comprising a flexible member conforming in configuration with the spring and adapted to be fitted thereto, and a stay for holding said member extended in the direction of the length of the spring, of a pad of absorbent material which is substantially coextensive with said stay and which is secured thereto, the casing and the stay having alining openings through which a lubricant may be applied to said pad, and a cover for said openings.

2. The combination, with a casing for vehicle springs comprising a flexible member conforming in configuration with the spring and adapted to be fitted thereto, of a pad of absorbent material within said casing which is arranged to rest upon the upper surface of the spring and having extensions which contact with the sides of the spring.

3. The combination, with a casing for vehicle springs comprising a flexible member conforming in configuration with the spring and adapted to be fitted thereto, and a stay for holding said member extended in the direction of the length of the spring, of a pad of absorbent material which is substantially coextensive with said stay and which is adapted to be secured thereto by having its ends embraced by the turned over ends of said stay, the stay and the casing having alining openings through which a lubricant may be applied to the pad, and a cover for said openings.

4. The combination, with a casing for vehicle springs comprising a flexible member conforming in configuration with the spring and adapted to be fitted thereto, and a stay for holding said member extended in the direction of the length of the spring, of a pad of absorbent material within the casing, the casing and the pad having alining openings, a thimble extending through said openings and having an annular flange which is adapted to engage the stay adjacent its openings, and a cap for said thimble.

1,135,187. TRACTOR. GEORGE C. JETT, Gary, Ind. Original application filed Mar. 2, 1912, Serial No. 681,237. Divided and this application filed Jan. 30, 1913. Serial No. 745,107. (Cl. 21—114.)



1. A traction mechanism comprising a main frame, traction wheels carried by said frame, a traction girder intermediate the wheels, an endless belt passed aronnd said wheels composed of pivoted tread members, and means for preventing buckling of the tread members on their pivots in the travel of the belt comprising a plurality of inter-related bearing wheels mounted in the girder and so arranged therein with reference to the tread members that the wheels severally contact with adjacent underlying tread members comprised within the lower stretch of belt, the distance between the contact points of adjacent wheels being slightly less than the length of a tread member.

2. A traction mechanism comprising a main frame, traction wheels carried by said frame, at least one of which has a periphery composed of a series of sprocketed chords, a traction girder intermediate said wheels, an endless traction belt passed around said wheels composed of pivoted tread members adapted to engage said chords, and means mounted in said girder for preventing buckling of the tread members on their pivots in the travel of the belt comprising a group of alternate overlapping and interfitting bearing wheels arranged in said girder with reference to said chords and tread members whereby wheels of the group severally bear upon adjacent underlying tread members comprised within the lower stretch of belt to maintain the alinement of the belt.

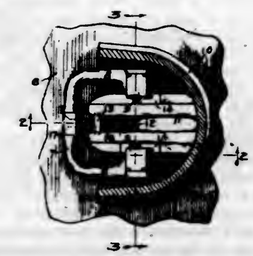
3. A traction mechanism comprising a main frame, traction wheels carried by said frame and comprising associated pairs of spaced driving and idler wheels, an endless belt passed around said wheels composed of broad pivoted tread members adapted to bridge the wheels of each pair in the travel of the belt and each having a breadth greater than their length, a traction girder intermediate each pair of wheels, and a plurality of bearing wheels mounted in the girder and arranged therein in a staggered inter-relation with one another to bear upon tread members in the lower stretch of belt in such a manner that the distance between the points of contact is less than the length of a tread member.

4. A traction mechanism comprising a main frame, traction wheels carried by said frame, a traction girder extending longitudinally between the wheels, an endless belt passed around said wheels and composed of pivoted tread members, and means mounted in said girder for preventing buckling of the tread members in the travel of the belt comprising a plurality of bearing wheels arranged in a staggered inter-relation with each other and with the traction wheels, said wheels severally bearing on adjacent tread members composing the lower stretch of belt with the distance between points of contact slightly less than the length of a tread member.

5. In a tractor, the combination of a frame, a driving wheel journaled in said frame, an idler wheel, a traction belt passing around said wheels, a traction girder pivotally mounted on the driving wheel with its forward end in supporting relation with the idler wheel and provided with bearing wheels adapted to bear on the lower stretch of belt, and a spring connection interposed between the girder and frame and at a point adjacent the idler wheel.

[Claims 6 to 12 not printed in the Gazette.]

1,135,188. BOLTED BATH-TUB-FOOT FASTENER. JOHN S. JORE, Noblesville, Ind. Filed June 8, 1914. Serial No. 843,733. (Cl. 4—27.)

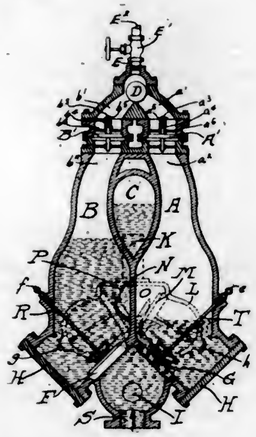


1. The combination with a body having a pair of adjacent recessed lugs, of a foot having an upper end fitting against the bottom of the body, said foot having a tongue with parallel edges the outer portions of which make a loose sliding fit in the recesses of and between said pair of lugs, said edges having wedge-shaped inner portions to engage the overhanging portions of said lugs and force the upper end of the foot against the body, and means to move the foot longitudinally of the tongue to tighten the oblique edges of the tongue under the overhanging portions of the lugs.

2. The combination with a body having a perforated flange and a pair of adjacent recessed lugs, of a foot having an upper end fitting against the bottom of the body, said foot having a tongue with parallel edges the outer portions of which make a loose sliding fit in the recesses of

and between said pairs of lugs, said edges having wedge-shaped inner portions to engage the overhanging portions of said lugs and force the upper end of the foot against the body, and a screwthreaded bolt passing through said perforated flange into a screwthreaded opening in the foot.

1,135,189. PULSOMETER. AUGUSTUS H. W. JOHNSON, deceased, Larchmont, N. Y., by Louise H. Johnson, executrix, Larchmont, N. Y. Filed June 23, 1914. Serial No. 846,748. (Cl. 160—1.)



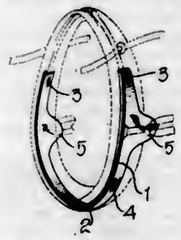
1. In a pulsometer, pumping chambers, air inlet valves in said chambers, a steam valve, passages leading from said steam valve to said chambers, and valves in said passages to permit the passage of steam therethrough to the pumping chambers, but to close said passages to the flow therethrough of the contents of the pumping chambers to prevent premature unseating of the steam valve by dynamic thrust against it of the contents of said pumping chambers.

2. In a pulsometer, pumping chambers, air inlet valves in said chambers, a steam valve, passages leading from said steam valve to said chambers, and automatically operable valves in said passages to permit the passage of steam therethrough to the pumping chambers but to close the said passages to the flow therethrough of the contents of the pumping chambers to prevent premature unseating of the steam valve by the dynamic thrust against it of the contents of the pumping chambers.

3. In a pulsometer, pumping chambers, air inlet valves in said chambers, a steam valve, passages leading from said steam valve to said chambers, and spring returnable inverted check valves in said passages, to permit the passage therethrough of steam to the pumping chambers, but to close the said passages to the flow therethrough of the contents of the pumping chambers to prevent premature unseating of the steam valve by the dynamic thrust against it of the contents of the pumping chambers.

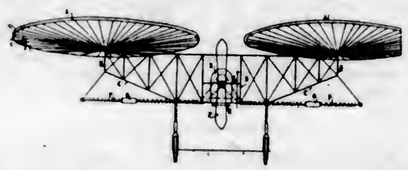
1,135,190. STIFFENER FOR HORSE-COLLARS. THOMAS Q. JONES, Tullahoma, Tenn. Filed Sept. 17, 1914. Serial No. 862,225. (Cl. 54—19.)

A stiffener for horse collars comprising a spring metal plate curved intermediate its ends to conform to the contour of a horse collar, the intermediate portion of the plate being arranged to be secured to the throat portion of the collar, the end portions of the plate having longitudinal slots formed therein and for receiving fastening means to be extended through the slots and through the adjacent portion of the collar to loosely connect the end portions of the plate to the collar, the forward edge of the plate having an inturned flange formed thereon adapted to receive the hames of the collar, said flange extending the entire length of the plate and the end portions of the plate being



enlarged at their inner edge to provide wearing surfaces for the trace chains connected to the hames.

1,135,191. FLYING-MACHINE. MARIE FRANÇOIS JOSEPH LEONCE JUMEAU, Pnom-Penh, Cambodia, French Indo-China. Filed Jan. 16, 1912. Serial No. 671,496. (Cl. 244—14.)



1. In a flying machine, in combination, a frame, a vertically rotating screw propeller at the forward end of said frame, means for actuating said screw propeller, shafts symmetrically arranged on both sides of the frame at the rear of the screw propeller, said shafts being slightly inclined to the rear, hubs loosely mounted on said shafts so as to rotate freely thereon, rims encircling the hubs, wires stretched in radial planes betweeen the hubs and the rims so that pairs of said wires define warped surfaces, and fabric vanes stretched over said pairs of wires, said vanes having relatively long narrow channels therebetween, substantially as described and for the purpose set forth.

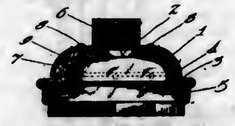
2. In a flying machine, in combination, a frame, a vertically rotating screw propeller at the forward end of said frame, means for actuating said screw propeller, shafts symmetrically arranged on both sides of the frame at the rear of the screw propeller, said shafts being located in vertical planes parallel to the longitudinal axis of the machine and slightly inclined at the top to the rear, hubs loosely mounted on said shafts so as to rotate freely thereon, rims having a width shorter than the length of the hubs and encircling the same; wires stretched in radial planes between the hubs and the rims so that pairs of said wires define warped surfaces, and fabric vanes stretched over said pairs of wires, said vanes having relatively long narrow channels therebetween, substantially as described and for the purpose set forth.

1,135,192. [WITHDRAWN.]

1,135,193. CAP FOR LAMP-SOCKETS AND THE LIKE. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Apr. 8, 1912. Serial No. 689,288. (Cl. 173—362.)

1. A cap for lamp sockets and the like, comprising a metallic dome member, an insulating lining member secured therein and an annular metallic shell engaging member fixed to said insulating lining member.

2. A cap for lamp sockets and the like comprising a metallic dome member, an insulating lining member secured therein and a metallic shell engaging member fixed to said insulating lining member, said lining member insulating said metallic dome member from said metallic shell engaging member.



3. A casing cap comprising a body part of insulating material, a metal ring rigidly fixed in the margin of said body part, and a metal shell engaging rim rigidly fixed to said ring, said rim having thereon integral locking shoulders.

4. In combination, a dome member of rigid insulation having an opening for conductors, a metal bushing alined with said opening and rigidly fixed to said member for attaching the same to a suitable support, and a metal rim rigidly and permanently fixed to said member and spaced from said bushing, said rim being adapted to receive a metal shell member and having thereon integral shoulders for releasably locking with such shell member.

5. In combination, an insulating member, a threaded metal bushing fixed thereto for attachment to a suitable support, and an annular metal rim permanently secured to said member and spaced from said bushing, said rim being adapted to receive a metal shell and said member serving to insulate said rim and the shell received thereby from said bushing and the attached support.

1,135,194. INSULATING MEANS FOR LAMP-SOCKETS AND THE LIKE. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 17, 1913. Serial No. 754,807. (Cl. 173—346.)



1. An insulating cap for lamp sockets comprising a cup-shaped insulating disk provided with inwardly bent marginal portions and with openings in its top to afford access to said portions.

2. In a device of the character set forth, in combination, a casing including a metallic cap having a conductor opening, an insulating base underlying said cap and having terminals for connection with conductors entering said opening and a fibrous lining for said cap attached to said base and forming therewith a removable unit.

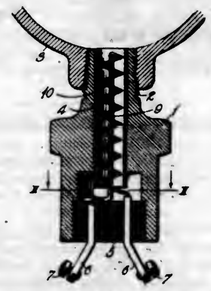
3. In a device of the character set forth, in combination, a casing including a metallic cap having a conductor opening, a base having terminals for conductors entering said casing through said opening, a fibrous member for inclosing such conductors and for insulating said cap therefrom, and means independent of said cap for attaching said member to said base.

4. In a device of the character set forth, in combination, a casing comprising a separable cap and shell, a base supported in said shell and having terminals for conductors entering said casing through said cap, a member for inclosing said conductors and for insulating said cap therefrom, and means for attaching said member to said base, said means being independent of the means for supporting said base in said shell.

5. In combination, a lamp socket base carrying oppositely disposed terminals accessible from the sides thereof, and an insulating cap fixed to said base at oppositely disposed points substantially at right angles to said terminals, said cap having a central opening for receiving line wires adapted to be connected to said terminals without removal of said cap.

[Claims 6 to 10 not printed in the Gazette.]

1,135,195. DEVICE FOR PREHEATING HYDROCARBONS IN CARBURETERS. RICHARD E. KRAUSE, Detroit, Mich., assignor to Krause Manufacturing Co., Detroit, Mich., a Corporation of Michigan. Filed Jan. 4, 1913, Serial No. 740,110. Renewed Jan. 25, 1915. Serial No. 4,405. (Cl. 219—38.)



1. Heating means for a carbureter comprising a casing with an axially apertured nipple fitted for insertion in the apertured wall of the carbureter, a plug of insulating material seated in the counterbored outer portion of the casing, an insulating bushing in the casing extending through the nipple, a pair of terminals extending through the plug, a stem connected to one of the terminals in axial alinement to the bushing, and a helical member of high resistance connecting the outer end of the stem with the other terminal member, the bushing being adapted to support the turns of the helix when the latter is expanded by heat.

2. Heating means for a carbureter comprising a hollow casing adapted to be secured in an opening in the wall of a carbureter, a terminal member axially secured in the casing in insulated relation, a conductor of high resistance in the interior of the casing connected with the terminal, and a tubular insulating member adapted to engage and form a support for the conductor when the latter is expanded by heat.

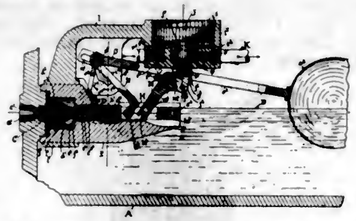
3. The combination with the wall of a carbureter, of a casing, a screwthreaded nipple on the casing adapted to engage an opening in the carbureter wall, an insulating bushing in the bore of the nipple, an insulating plug secured in an outer counterbored recess in the casing, a terminal member mounted in the plug, and a helical member of high resistance forming an electric connection with the member and lying in the bushing, the latter being adapted to be engaged by and to support the turns of the helix when the latter is heated.

1,135,196. AUTOMATIC REGULATOR FOR REFRIGERATING-MACHINES. WALTER F. KRIEGER, Milwaukee, Wis. Filed Apr. 4, 1914. Serial No. 829,410. (Cl. 62—8.)

1. In a closed-circuit refrigerating system, the combination of a tank adapted to contain liquefied refrigerant, means for delivering liquefied refrigerant into the tank, a valve opening out of said tank, means located in said tank for opening said valve when the level of liquid therein rises above a predetermined height and closing it again as the liquid level returns to said height, and a second valve in series with the first and adapted to be opened whenever the liquefied refrigerant is flowing into said tank and closed when it is not flowing in.

2. In a closed-circuit refrigerating system containing an evaporator and a condenser, and means for withdrawing the refrigerant from the refrigerator and delivering it into said condenser, in combination with a tank adapted

to receive the condensed refrigerant from the condenser, a valve through which the condensed refrigerant passes from said tank into the refrigerator, a float located in said tank and resting on the liquid therein and governing said valve and having a disconnectible engagement therewith, and a device adapted to hold said float normally out of engagement with said valve and cause it to become engaged therewith whenever liquid refrigerant from the condenser flows into said tank.



3. In a closed-circuit refrigerating system containing an evaporator and a condenser and means for withdrawing the refrigerant from the refrigerator and delivering it into said condenser, in combination with a tank adapted to receive the condensed refrigerant from the condenser, a valve through which the condensed refrigerant passes from said tank into the refrigerator, a float located in said tank and resting on the liquid therein and governing said valve, a second valve in series with the first, said second valve being kept normally closed so as to shut off connection between the liquid in the tank and the first valve, and a mechanism operated to open said second valve whenever liquid flows from said condenser into the tank.

4. In a refrigerating system, the combination of a tank adapted to contain liquefied refrigerant, a conduit through which liquefied refrigerant is delivered into the tank, a valve opening out of the tank and adapted to allow the liquid contents thereof to flow out, means governing the said valve by the level of liquid in the tank a second valve intercalated between the first valve and the tank, adapted when closed to shut off access of the liquid refrigerant to the first valve, and a device operated by the flow of liquid from said conduit to open and close said second valve.

5. In a refrigerating system, the combination of a tank adapted to contain liquefied refrigerant, a conduit through which liquefied refrigerant is delivered into the tank, a valve opening out of the tank and adapted to allow the liquid contents thereof to flow out, means governing the said valve by the level of liquid in the tank, a second valve intercalated between the first valve and the tank, a weight-operated device causing said second valve to close when not held open, and means caused by the flow of liquid into the tank to open said second valve.

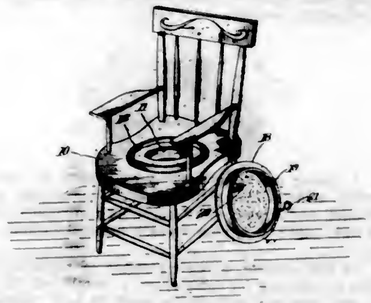
[Claims 6 to 10 not printed in the Gazette.]

1,135,197. CHAIR-SEAT. SIMEON LANGFORD, Evansville, Ind. Filed Sept. 4, 1914. Serial No. 860,271. (Cl. 4—32.)

1. A chair seat comprising a member having an opening therethrough and a groove surrounding said opening, said groove having holes therein, a cover part for said opening, a piece on said cover part and fitting said groove, and devices fitting in said holes and adjustable to lock said cover part in place on said member.

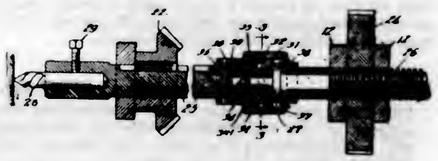
2. A chair seat comprising a member having an opening therethrough and an annular groove surrounding said opening, said groove having holes extending from the bottom thereof through to the bottom surface of said member, a cover member for said opening, an annular part on said cover member and fitting said groove, and devices on said annular part and fitting in said holes and readily adjustable to lock said annular part and cover member in place over the opening.

3. A chair seat comprising a member having an opening therein and a groove surrounding said opening, a cover part for said opening, means for securing the cover part in place over said opening comprising devices which extend through said groove and engage the under side of



said member, and means for holding a vessel in place against the under side of said member in register with said opening.

1,135,198. THRUST-BEARING FOR DRILL-SPINDLES. THOMAS H. LOVEJOY, Chicago, Ill. Filed Sept. 15, 1911. Serial No. 649,508. (Cl. 64—49.)



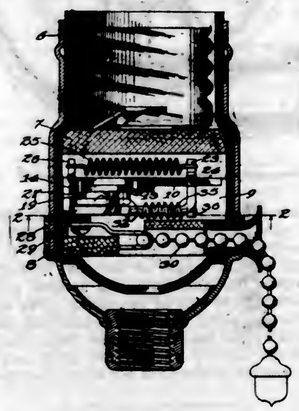
1. In a device of the class described, the combination of a pressure supplying member having a reduced cylindrical end and an enlarged cylindrical collar adjacent thereto, a pressure receiving member having a socket in an end adapted to loosely fit the reduced end of said first-named member, anti-friction devices interposed between the collar and the end of said pressure receiving member, a two piece sleeve embracing the connecting portions of said members, said pieces being provided with coöperating interengaging threaded portions adapted to permit independent rotation of said members and to retain them in position to transfer the pressure from the pressure supplying member to the pressure receiving member, substantially as specified.

2. In a device of the class described, in combination, two members having a swiveled connection therebetween, one of said members having an enlarged collar and a reduced cylindrical end portion adapted to fit in a correspondingly shaped socket in the adjacent end of the other member, bearing balls and bearing plates surrounding the cylindrical portion and interposed between the collar and the end of the second named member, a sleeve portion pinned to the second named member and having a shoulder contacting one of the ball bearing plates and having also a threaded end, and a second sleeve portion fitting the first named member adjacent the collar thereon and having a threaded part coacting with the threaded end of the first named sleeve portion, substantially as specified.

3. In a device of the character described, the combination of a pressure-supplying member and a pressure-receiving member having a ball-bearing swivel connection therebetween and a sleeve embracing said swivel connection, said sleeve comprising two pieces provided with cooperating interengaging threaded portions, one of said portions being pinned to the pressure-receiving member and having an abutment shoulder against which some of the pressure is received from the pressure supplying member to aid in transmitting pressure from the pressure supplying member to the pressure-receiving member.

4. In a device of the character described, the combination of a screw threaded member having an integral collar formed thereon and constituting a pressure-supplying member, a pressure-receiving member having a bearing shoulder thereon and a ball-bearing swivel connection between said members and a sleeve engaging behind said shoulder and said collar and adapted to aid in the transmission of pressure from the pressure-supplying member to the pressure-receiving member and to prevent the entrance of dust and other foreign matter to the connection between said members.

1,135,199. ELECTRIC SWITCH. ALFRED E. J. MAAGE, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 24, 1910. Serial No. 551,287. (Cl. 175—287.)



1. In an electric switch, in combination, an oscillating contact member, a reciprocating operating member therefor and a device bodily movable to directly engage said contact member on successive reciprocations of said operating member in the same direction to oscillate said contact member in opposite directions, said device having a lost motion and energy storing connection with said operating member.

2. In an electric switch, in combination, an oscillating contact member, a reciprocating operating member therefor a device directly engaging said contact member upon successive reciprocations of said operating member in the same direction to oscillate said contact member in opposite directions, energy storing means connecting said device to said operating member, and means carried by said operating member engaging said contact member during a partial movement of the former to hold the latter against movement until energy is stored in said energy storing means.

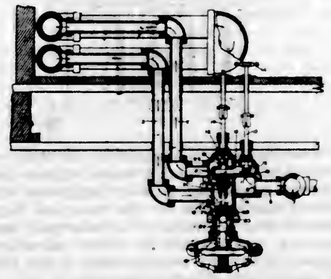
3. In an electric switch, in combination an oscillating contact member, a reciprocating operating member therefor, an operative connection between said members comprising a pawl and a straight helical spring connecting said pawl to said operating member, and means for effecting an engagement of said pawl with said contact member to oscillate the latter in opposite directions upon successive reciprocations of said operating member in the same direction.

4. In an electric switch, in combination, an oscillating contact member, a reciprocating operating member therefor, an operative connection between said members comprising a pawl and a single helical spring connecting said pawl to said operating member, means for effecting an engagement of said pawl with said contact member upon opposite sides of the pivot of the latter to oscillate the same in opposite directions upon successive reciprocations of said operating member in the same direction, and means carried by said operating member to hold said contact member against movement during a predetermined initial movement of the former to insure a snap movement of the latter during the influence of said pawl.

5. In an electric switch, in combination, an oscillating contact member, a reciprocating operating member therefor, a pawl having a pivotal lost motion connection with said operating member, a spring connecting said pawl to said operating member, means for alternately effecting an engagement of said pawl with said contact member on opposite sides of the pivot of the latter to oscillate the same in opposite directions upon successive reciprocations of said operating member in the same direction, and means holding said contact member against movement until said spring has been tensioned to impart a snap movement to said contact member.

[Claims 6 to 12 not printed in the Gazette.]

1,135,200. THERMOSTATIC CONTROLLER FOR HEATING SYSTEMS. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car Heating Company, Albany, N. Y., a Corporation of West Virginia. Filed Apr. 24, 1909. Serial No. 492,069. (Cl. 236—19.)



1. A controlling valve for heating systems comprising a casing having a steam supply passage and a return passage for the used steam, said passages being separated by a partition provided with an opening, a thermostatically controlled valve working in said opening and arranged to control the steam supply passage, and a normally closed restricted opening being formed between said passages adapted to be opened by the thermostatically controlled valve when the system is not in operation.

2. A controlling apparatus for heating systems comprising a casing having a steam supply passage and a return passage for the used steam, means for establishing restricted communication between said steam supply passage and said steam return passage, and a thermostatic valve controlling said steam supply passage and the communication between the supply and return passages.

3. A controlling apparatus for heating systems comprising a casing having a steam supply passage and a return passage for the used steam, means for establishing restricted communication between said steam supply passage and said steam return passage, a thermostat, and means operated by said thermostat for controlling said steam supply passage and the communication between said supply and return passages.

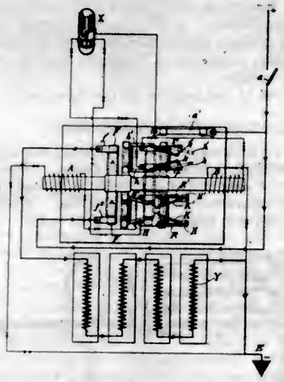
4. A controlling apparatus for a steam heating system, comprising a casing having a supply passage leading to the heating system, an outlet passage leading from said heating system, and a restricted passage between said supply and outlet passages, and thermostatic means communicating with said outlet passage and controlling both said restricted passage and said supply passage.

5. A controlling apparatus for heating system comprising a casing having inlet and outlet passages for the steam supply, and an outlet passage for the return steam, means being provided for establishing restricted communication between said steam supply outlet passage and said steam return passage, and a thermostatically controlled valve

controlling communication between the inlet and outlet passages of the steam supply and also controling the communication between the steam supply outlet passage and the return steam passage.

[Claims 6 to 12 not printed in the Gazette.]

1,135,201. MAGNETIC SWITCH. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car-Heating Company, a Corporation of West Virginia. Filed Nov. 14, 1911. Serial No. 660,271. (Cl. 175—282.)



1. An electrical switch comprising relatively reciprocable contact arms and contact blocks, means connected with said arms for holding them in engagement with said blocks during movement in one direction, and trap members connected with said blocks to automatically disengage said arms and blocks during the return movement, said trap members permitting reëngagement of the arms and blocks at the end of the return movement.

2. An electrical switch comprising relatively reciprocable contact arms and contact blocks, means connected with said arms for holding them in engagement with said blocks during movement in one direction, and resilient trap members connected at one end to said blocks and having their other ends bearing against the blocks to automatically disengage said arms and blocks during the return movement, said trap members permitting reëngagement of the arms and blocks at the end of the return movement.

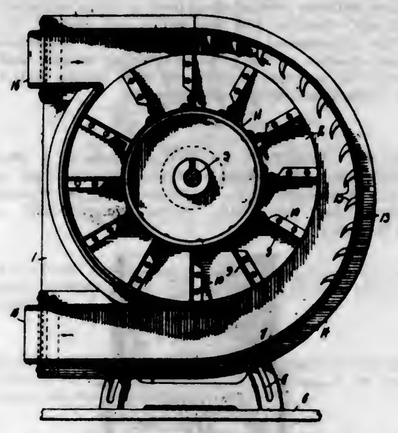
3. An electrical switch comprising contact blocks, contact arms mounted on a reciprocable support and having traveling contact with said blocks when moving in one direction, said contact arms being movable relative to each other, and contact means coöperating with said contact blocks for disengaging said contact arms from said blocks during the return movement of said arms, and permitting reëngagement at the end of said return movement.

4. An electrical switch comprising contact blocks, a reciprocable support, contact arms pivotally connected at one end to said support, the other ends of said arms having traveling contact with said blocks when the support moves in one direction, said contact arms being movable relative to each other, and contact means coöperating with said contact blocks for disengaging said contact arms from said blocks during the return movement of said arms and permitting reëngagement at the end of said return movement, and a spring connecting said contact arms.

5. An electrical switch comprising a base having spaced apart stationary contact blocks, a reciprocable support provided with contact arms having traveling contact with said blocks when moving in one direction, trap contacts secured to said base for disengaging the contact arms from said contact blocks, and permitting reëngagement at the end of the return movement, and means for relatively positioning the contact arms to engage the contact blocks and the trap contacts respectively.

[Claims 6 to 9 not printed in the Gazette.]

1,135,202. COTTON-PICKING MACHINE. JOHN MEIER, Dallas, Tex., assignor of one-twentieth to Frank Richard and one-twentieth to Frank Peyrot, Chicago, Ill. Filed May 9, 1914. Serial No. 837,496. (Cl. 13—12.)



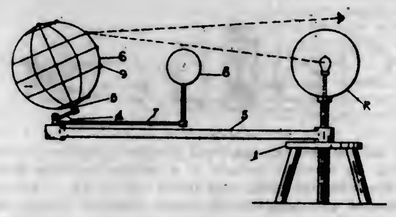
A cotton boll opener and picker comprising a casing having a free inlet opening and a free outlet opening, one vertically above the other, a cylinder mounted to rotate in said casing, having flanges at the ends thereof and fan blades between the flanges forming pockets, a detachable concave forming one side of the casing, teeth on the concave against and along which the cotton bolls are adapted to be forced by the fan, the cylinder being located eccentrically to the concave whereby the teeth near the inlet are nearer the fan blades than the teeth near the outlet.

1,135,203. NON-REFILLABLE BOTTLE. MICHAL MORAWIECKI, Pittsburgh, Pa. Filed Aug. 7, 1913. Serial No. 783,577. (Cl. 215—68.)



In a non-refillable bottle, in combination, a bottle neck having an annular shoulder formed within and adjacent the top thereof, a resilient bushing snugly fitting in said neck and engaging upwardly against said shoulder, said bushing being free to move downwardly, a metallic bushing snugly fitting in said resilient bushing and having outwardly projecting lugs for engaging upwardly against said resilient bushing, a pair of superposed, upwardly opening, hinged valves fixedly mounted in said metallic bushing, the hinges of said valves being diametrically opposed to each other, and a cap covering the top of said neck and protecting said valves.

1,135,204. TELLURIAN. WILLIAM PARK, Brantford, Ontario, Canada. Filed Apr. 24, 1914. Serial No. 834,149. (Cl. 35—3.)



1. In a tellurian, the combination of a sun globe; an earth globe; an inclined axis on which the earth globe is journaled; and a small hemispherical convex mirror applied to the surface of the earth globe.

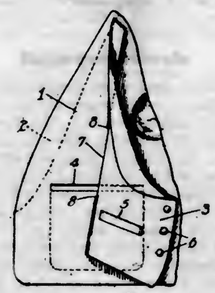
2. In a tellurian, the combination of a sun globe; an earth globe; an inclined axis on which the earth globe is journaled; a small hemispherical convex mirror applied to the surface of the earth globe; and means whereby the earth's axis may be given varying positions relative to the sun corresponding to the seasonal changes.

3. In a tellurian, the combination of a sun globe; an earth globe; an inclined axis on which the earth globe is journaled; and a plurality of small hemispherical convex mirrors applied to the surface of the earth globe at different latitudes.

4. In a tellurian, the combination of an earth globe; an inclined axis on which the earth globe is journaled; a moon globe; means for carrying the moon globe about the earth globe; and a small hemispherical convex mirror applied to the surface of the earth globe.

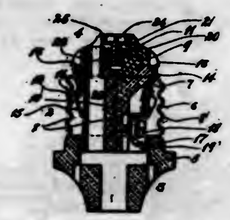
5. In a tellurian, the combination of a sun globe; an earth globe; an inclined axis on which the earth globe is journaled; a moon globe; means for carrying the moon globe about the earth globe; means whereby the earth's axis may be given varying positions relative to the sun corresponding to seasonal changes; and a plurality of small hemispherical mirrors applied to the surface of the earth globe at different latitudes.

1,135,205. COMBINATION COAT AND VEST. JACOB PHILLIPSON, Chicago, Ill. Filed Dec. 1, 1913. Serial No. 803,965. (Cl. 2—61.)



In a device of the class described, a coat flap in combination with a vest flap attached thereto at points spaced apart on its rear edge, said coat flap having an inner pocket, part of which is disposed in front of the rear edge of the vest flap and part to the rear thereof and with its opening between said points, the space between said points of attachment being open and adapted to facilitate access to the rear portion of said pocket when the garment is worn.

1,135,206. PLUG-AND-SOCKET CONNECTOR. JOSEPH SACHS, Hartford, Conn., assignor, by mesne assignments, to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Aug. 30, 1912. Serial No. 717,942. (Cl. 173—360.)



1. As an article of manufacture, an electrical plug comprising a core member having a longitudinal recess, a sleeve embracing the core member, a connector fastened within and to said sleeve and disposed in the recess, and a screw shell surrounding the sleeve provided with an expansible portion, said sleeve having means for expanding said expansible portion into contact with the wall of a socket on the movement of said plug in said pocket.

2. As an article of manufacture, an electrical connecting plug comprising an insulating core member, a sleeve surrounding the core member having a cone portion, and a screw shell surrounding the sleeve and split to provide an expansible portion, the expansible portion having an inturned flange having a cone portion to coöperate with the cone portion of the sleeve, to secure expansion of said screw shell on the movement of the plug in a socket.

3. As an article of manufacture, an electric plug comprising a core member having an external recess, a sleeve embracing the core member, a connector in the recess and electrically connected with said sleeve, and a screw shell surrounding the sleeve, provided with an expansible portion, said sleeve having means for expanding said expansible portion into contact with the wall of the socket on the movement of said plug in said socket.

4. As an article of manufacture, an electric plug comprising a core member and a sleeve embracing the core member, one of the parts having a projecting portion and the other a recessed portion to receive the projecting portion and thereby interlock the sleeve and the core member, a connector connected electrically with said sleeve, and a screw shell surrounding the sleeve provided with an expansible portion, said sleeve having means for expanding said expansible portion into contact with the wall of a socket on the movement of said plug in said socket.

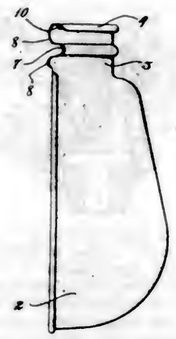
1,135,207. ATTACHMENT FOR INCANDESCENT-LAMP SOCKETS. JOSEPH SACHS and CHARLES A. FRANCIS, Hartford, Conn., assignors, by mesne assignment, to The Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 8, 1913. Serial No. 746,995. (Cl. 240—105.)

1. An attachment for incandescent-lamp sockets comprising a body provided with an integral resilient neck having a lateral mouth to adapt said neck to be laterally applied to and removed from a socket, said neck having integral means for positively interlocking the same with said socket and said neck and interlocking means constituting the only means for holding the attachment in operative relation with said socket.

2. An attachment for incandescent-lamp sockets comprising a body provided with an integral resilient neck having a lateral mouth to adapt said neck to be laterally applied to and removed from a socket, said neck having between its ends an interior channel extending approximately uninterruptedly from side to side thereof to interlock with the bead of a socket, and the neck and the wall of the channel constituting the only means for holding the attachment in operative relation with said socket.

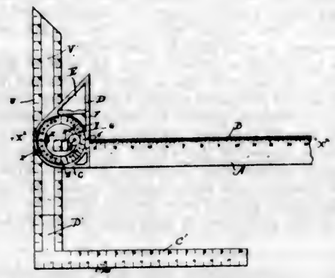
3. An attachment for incandescent lamp sockets com-

prising a body provided with a resilient neck having a lateral mouth to adapt said neck to be laterally applied to and removed from a socket, said neck having between its ends integral means for positively interlocking the same with said socket, the body being shaped to be free of the



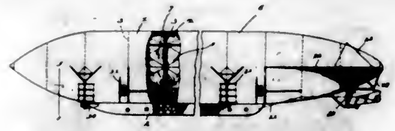
bulb of the lamp to the socket of which said neck is connected and the said neck and interlocking means constituting the only means for holding the attachment in operative relation with the socket.

1,135,208. MEASURING INSTRUMENT, BENJAMIN F. SASSAMAN, West Chester, Pa. Filed Mar. 30, 1911. Serial No. 617,848. (Cl. 33—94.)



A measuring instrument comprising a blade having a head provided with annular grooves, an angular projection formed integral with said head, said projection having an aperture formed therein, a spirit level mounted on said projection within said aperture, a circular plate having a flange adapted to rest within one of the annular grooves in the head and provided with a rectangular aperture for observation purposes, a screw having a head formed therewith said screw passing through the circular plate, a portion of its head resting within the other annular groove, a circular nut threaded on said screw for fixing the circular plate with respect to the blade, a bridge formed integral with the under side of the circular plate, a tightening member dove-tailed in said bridge, said tightening member having a beveled edge and provided with an opening, its side walls being beveled, a screw passing through the circular plate having a beveled end adapted to engage the opening in the tightening member, a head blade provided with a groove having beveled side walls, said head blade slidably mounted upon the bridge, a projecting blade, and an arm formed with said blade adapted to engage the groove in the head blade.

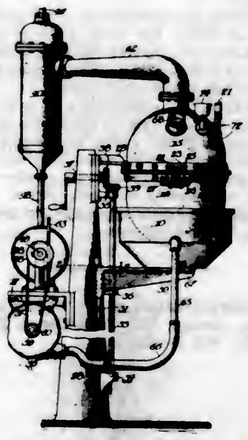
1,135,209. AIRSHIP. ADOLF SCHAD and EMIL SEIDEL, Brooklyn, N. Y. Filed Oct. 7, 1913. Serial No. 793,844. (Cl. 244—6.)



1. An air ship of the rigid dirigible balloon type including an aerostat formed of a balloon-inclosing frame and an outer covering, said frame consisting of annular transverse and longitudinal frame elements rigidly tied and braced, each of said frame elements consisting of spaced frame members having reinforcing crimps, said frame members being connected by an interposed diagonal bracing.

2. In an air ship of the character described, a transverse frame element for an aerostat comprising inner and outer rings each having a reinforcing bead, diagonal braces between said rings, and sets of crossed vertical, horizontal and diagonal reinforcing rods connecting portions of the inner ring at points around the periphery thereof.

1,135,210. COOKING VESSEL. PETER H. SCHLUETER, Chicago, Ill. Filed Sept. 5, 1913. Serial No. 788,256. (Cl. 127—4.)



1. In a cooking device, in combination, a vertically movable furnace, a kettle supported by the furnace, a hood stationarily mounted above the furnace, the rims of the hood and kettle being constructed for sealed engagement when the furnace is in elevated position and vacuum creating means connected with the hood.

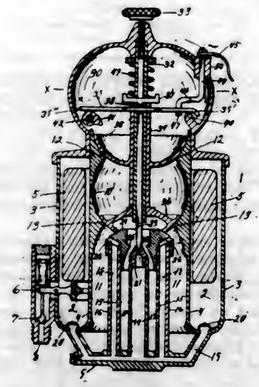
2. In a cooking device, in combination, a furnace, a hood supported over the furnace, one of said parts being vertically movable, a kettle removably seated on the furnace, the rims of the kettle and hood being constructed for sealed engagement when the kettle is seated on the furnace and the furnace and hood are positioned relatively near each other and vacuum creating means connected with the hood.

3. In a cooking device, in combination, a standard, a pair of vertically separated brackets mounted on the standard, one thereof being vertically movable, a furnace carried by the lower one of said brackets, a hood carried by the upper one of said brackets, a kettle removably seated on the furnace, the rims of the kettle and hood being constructed for sealed engagement when the movable bracket is located in its nearest position to the other bracket and vacuum creating means connected with the hood.

4. In a cooking device, in combination, a standard, three brackets mounted on the standard, two of the brackets being in vertical alinement and the lower one of said two brackets being vertically movable, a furnace carried by the said movable bracket, a hood carried by the said bracket which is above the movable bracket, a pump mounted on the other bracket, a condenser communicating with the pump and supported thereby, connection between the condenser and the hood, and a kettle removably seated on the furnace, the rims of the kettle and hood being constructed for sealed engagement when the movable bracket is elevated.

5. In a cooking device, in combination, a frame, a kettle and a hood therefor, the rims of said parts being constructed for sealed engagement, the kettle and hood being independently supported by the frame and one of said parts being vertically movable for separating it from the other, means for creating a vacuum in the chamber of the kettle when covered by the hood and means for heating the kettle.

1,135,211. CARBURETER. VICTOR E. SCHMIEDEKNECHT, Chicago, Ill. Filed Feb. 7, 1914. Serial No. 817,095. (Cl. 48—150.3.)



1. In a carbureter, a fuel chamber, a double Venturi tube concentric therein, valves seated on the contractions of said tube, means for operating said valves and means operable to predetermine the amount of said valves may be opened, or for varying the opening after the valves are opened.

2. In a carbureter, a fuel chamber, a double Venturi tube concentric within said chamber, a fuel jet centrally positioned within said tube, a concentric multiple jet spaced from said central jet, said jets having air passages surrounding them, a valve controlling said passages, means for operating said valve and means for predetermining the amount said valve may be opened.

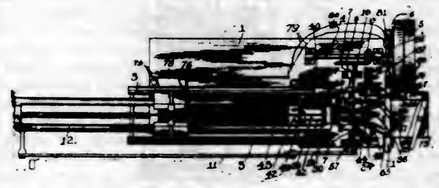
3. A carbureter having a vertical passage, valves seated in said passage, means for operating said valves, and means operable either previous to said first named means to predetermine the amount said valves may be opened or to vary the opening thereof after the operation of said first named means.

4. In a carbureter, a fuel chamber having a centrally positioned vertical passage therethrough open at its lower end to the atmosphere, a plurality of contractions within said passage, a bridge secured to the lower end of the chamber and having a longitudinal fuel passage connecting with the interior of the chamber, a plurality of concentric tubes supported within said vertical passage by said bridge, certain of said tubes communicating with said fuel passage.

5. In a carbureter, a fuel chamber having a centrally positioned vertical passage therethrough open at its lower end to the atmosphere, a plurality of contractions within said passage, valves seated on said contractions, and means for operating said valves.

[Claims 6 to 19 not printed in the Gazette.]

1,135,212. POWER ATTACHMENT FOR KNITTING-MACHINES. CARL F. SCHUESSLER, Montague, Mich. Filed Nov. 15, 1909. Serial No. 527,997. (Cl. 66—28.)

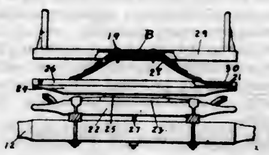


1. In a machine of the class described, a driven shaft, a reciprocating operating means actuated thereby, a ratchet and gear wheels driven thereby, a reciprocatable needle bar, adjustable connections between said gear wheels and needle bar for varying the reciprocation thereof with each actuation of the reciprocating operating means, means for preventing reciprocation of said reciprocating operating means in accordance with a predetermined pattern.

2. In a device of the class described, a reciprocating knitting bar, a plurality of reciprocating mechanisms adapted to coöperate to actuate the knitting bar for one style of stitch, and separate means for adjusting either of the mechanisms out of operation for varying the stitch, one of said means embodying a stop lever for preventing the reciprocation of the mechanism with which it coöperates.

3. In a device of the class described, a reciprocating knitting bar, a plurality of reciprocating mechanisms adapted to coöperate to actuate the knitting bar for one style of stitch, separate means for adjusting either of the mechanisms out of operation for varying the stitch, one of said means embodying a stop lever for preventing the reciprocation of the mechanism with which it cooperates, and variable master chains for controlling the operation of said means.

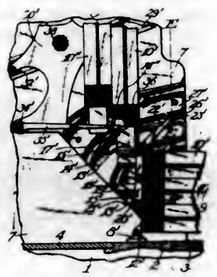
1,135,213. BOLSTER-SPRING FOR VEHICLES. WILLIAM T. SHAVER, Des Moines, Iowa. Filed Nov. 18, 1912. Serial No. 732,171. (Cl. 21—102.)



1. In a vehicle, the combination with a front axle, of a sand-board mounted thereon, a bar carried above said sand-board, a bolt passing through said members intermediate of their ends, a leaf bow spring having its ends extending downwardly and outwardly from its center and having its outer and lower ends slidably attached to said bar adjacent to the outer ends thereof, and a vehicle body carried on said spring intermediate of its ends, substantially as described.

2. In a vehicle, the combination with an axle, of a sand-board mounted thereon, a bar mounted on said sand-board, a channel bar mounted on said last named bar having its side flanges extending upwardly, a leaf bow spring having its ends extending outwardly and downwardly and resting upon and slidably carried on said channel bar adjacent to its outer ends, and a vehicle body carried on said spring intermediate of its ends, substantially as described.

1,135,214. CREDIT-ACCOUNTING REGISTER. ELLIS T. SILVIUS, Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed July 3, 1911. Serial No. 636,718. (Cl. 45—2.)



1. A credit accounting register including a frame provided with a plurality of rack-bars, a plurality of hinge-bars movably connected with the frame, and a plurality of gear segments pivoted to the hinge-bars and engaging the rack-bars.

2. A credit accounting register including a frame provided with a plurality of fixed bars having gear-teeth, a plurality of hinging devices movably connected with the frame adjacent the fixed bars, and a plurality of segments pivoted to the hinging devices and having gear teeth thereon engaging the gear teeth of the fixed bars, each segment having a controlling arm thereon.

3. A credit accounting register including a case, a plurality of normally upright leaves, hinging devices connecting the leaves together and permitting relative vertical movement of the leaves, pivots supporting the foremost one and thereby the remaining ones of the leaves in the case, and a plurality of coöperating series of toothed gearing, each series conected with two adjacent leaves for normally supporting the rearward one on the forward one of the two leaves in echelon and preventing their relative vertical movement.

4. A credit accounting register including a plurality of leaves provided each with a plurality of toothed bars, a plurality of hinging devices movably connected with the leaves and pivotally connected with adjacent leaves, and a plurality of toothed segments pivotally connected with the hinging devices and meshing with the toothed bars, each segment having a controlling arm thereon.

5. A credit accounting register including a plurality of leaves, one leaf of each two adjacent leaves having a toothed rack-bar thereon, the other one of the two adjacent leaves having a toothed gear segment pivotally connected thereto and meshing with the next adjacent rack-bar, the segment being provided with a controlling arm, and adjustably movable means connecting the adjacent leaves together.

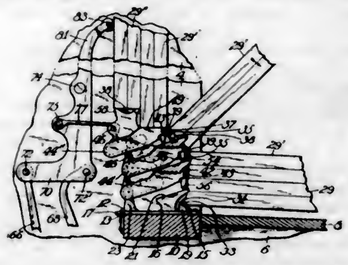
[Claims 6 to 12 not printed in the Gazette.]

1,135,215. CREDIT-ACCOUNT REGISTER. ELLIS T. SILVIUS, Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Filed July 22, 1912. Serial No. 710,905. (Cl. 45—2.)

1. A filing leaf having a supporting echelon block provided with an approximately horizontal leaf seat for bodily supporting a leaf and pivotally connected thereto, and having also a relatively adjustable pivot for connection with another leaf.

2. A filing leaf provided with a supporting block pivoted thereto, the block having an approximately horizontal leaf seat for bodily supporting a leaf in upright position and being provided with means for its support.

3. A filing leaf provided with a supporting block pivoted thereto, the block having a seat normally supporting the leaf bodily in upright position and having also another seat for uprightly and bodily supporting another leaf.



4. A filing leaf having an echelon block pivotally connected thereto and having also a pivot for connection with another leaf, the block having an approximately horizontal seat thereon for bodily supporting the leaf in upright position.

5. A filing appliance including a plurality of echelon blocks movably guided, and a plurality of leaves pivoted respectively to a block and to an adjacent one of the leaves on a common axis, the pivotal connections between the leaves being relatively adjustable.

[Claims 6 to 23 not printed in the Gazette.]

1,135,216. PROCESS FOR MAKING A DECOLORIZER. FREDERICK W. SPANUTIUS, Hastings-upon-Hudson, N. Y., assignor to Pan Chemical Company, Hastings-upon-Hudson, N. Y., a Corporation of New York. Filed Feb. 7, 1912. Serial No. 675,926. (Cl. 127—2.)

1. The method of making a decolorizer consisting in treating argols with an alkali, separating the residue from the solution and heating the residue until carbonization is complete.

2. The method of making a decolorizer consiting in dissolving argols in caustic soda, adding potassium chlorid, separating the residue from the solution and heating the residue until carbonization is complete.

3. The method of making a decolorizer consisting in treating argol residue with hot water, separating the solution from the residue which remains after said treatment and heating said last-mentioned residue until carbonization is complete.

4. The method of making a decolorizer consiting in first placing in a retort a residue consisting of about 50% moisture and the remainder being crude fiber of argols, lime salts and sand, then heating until carbonization is complete, allowing the vapor formed to pass off during the heating.

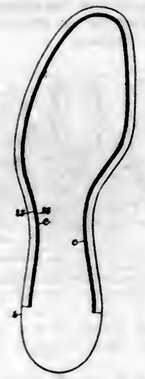
5. The method of making a decolorizer consisting in dissolving argols in caustic soda to decompose the coloring matter, or to render it insoluble, adding a compound of potassium, and finally heating the residue until carbonization is complete.

[Claims 6 and 7 not printed in the Gazette.]

1,135,217. INSOLE. HUNTLEY N. SPAULDING, Rochester, N. H., assignor to J. Spaulding & Sons Co., Rochester, N. H., a Copartnership comprising Emma C. Spaulding and Marion L. Spaulding, Boston, Mass., Roland H. Spaulding and Huntley N. Spaulding, Rochester, N. H., and Leon C. Spaulding, Buffalo, N. Y. Filed May 12, 1914. Serial No. 838,164. (Cl. 36—22.)

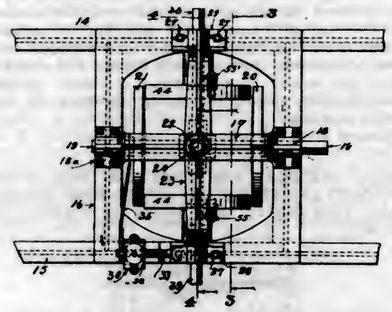
1. An inner sole of flexible, substantially non-stretchable chemically treated fiber in which the fibers of the inner sole are bonded together by a partial solution of the fibers themselves.

2. An inner sole of flexible, substantially non-stretchable and non-compressible chemically treated fiber in which the fibers of the inner sole are bonded together by a partial solution of the fibers themselves, said inner sole having a lip extended at an angle thereto within the outer edge of the inner sole and provided with corrugations to take care of the surplus material of the substantially non-



compressible lip and enable the inner sole to be used in a welted boot or shoe, substantially as described.

1,135,218. FRICTION DRIVING AND STEERING MECHANISM. WILLIAM O. STARK, Chicago, Ill., assignor to Bullock Tractor Company, a Corporation of Illinois. Filed Aug. 20, 1913. Serial No. 785,674. (Cl. 74—26.)



1. Friction driven propelling and steering mechanism for self-propelled vehicles, including, in combination, a pair of rotatable driving disks, a pair of co-acting driven disks located between said driving disks and constructed to contact, one with one of said driving disks and the other with the opposing driving disk, means for changing the relation of the said driving disks with respect to said driven disks to change the direction of rotation of the latter disks, and means for changing the positions of said driven disks with respect to said driving disks, independently of each other.

2. In friction driving mechanism for auto vehicles, a main shaft, an arcuate standard, bearings on said standard constructed to receive said main shaft, a pair of oppositely facing friction disks secured to said main shaft, an arcuate standard pivotally connected to, and within the first said arcuate standard, shafts in the latter, pivoted standard, driven friction disks mounted on said shafts, and mechanism for oscillating said pivoted arcuate standard.

3. In friction driving mechanism for auto vehicles, in combination, a main shaft, an arcuate standard, bearings on said standard constructed to receive said main shaft, a pair of oppositely facing friction disks secured to said main shaft, an arcuate standard pivotally connected to, and within the first-mentioned standard, shafts in the latter standard, driven friction disks mounted on said shafts between the said driving disks and means for moving each of said driven disks laterally on its shaft to change its speed of rotation independently of the other of said driven disks.

4. In friction driving mechanism for auto vehicles means for changing the direction of movement of said vehicle, including an arcuate standard, a main driving shaft, bearings in said standard for said main driving shaft, two oppositely facing driving disks mounted on said main driving shaft, a further standard pivotally mounted in said arcuate standard, a further standard, a rotatable pivoted nut located in said standard, a screw-threaded shaft connected at one end to said pivoted standard and constructed to engage said pivoted nut, and a handlebar on said nut constructed to rotate said nut.

5. In friction driving mechanism for auto vehicles, means for changing the speed of said vehicle, including, in combination, an arcuate standard, a main driving shaft, bearings on said standard for said main shaft, two oppositely facing friction driving disks mounted on said main driving shaft, a further standard at right angles to said arcuate standard, bearings in said second standard, shafts in said bearings, a driven friction disk on each of these latter shafts, said disks having each a shouldered hub, a rack located on said hub between said shoulders, a pinion constructed to engage said rack and worm gearing constructed to rotate said pinion.

[Claim 6 not printed in the Gazette.]

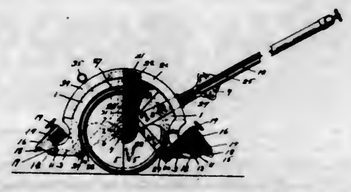
1,135,219. EYEGLASS-STUD. CHARLES S. STEELMAN, Glendale, Cal., assignor to Nellie Constance Steelman, Glendale, Cal. Filed June 24, 1914. Serial No. 846,909. (Cl. 88—47.)



1. In an eyeglass stud, a base; straps extending rigidly from the base and adapted to receive a lens; a pivot inserted through the straps and through the lens; a shoe loosely mounted between the straps; and a screw mounted in the base and supporting the shoe, for adjusting the shoe against the edge of the lens.

2. In an eyeglass stud, a base; straps extending rigidly from the base and adapted to receive a lens between the straps; a pivot inserted through the straps and adapted for insertion through the lens; a shoe loosely mounted between the straps against the base; and a screw screw-seated through the base and having a pintle extending through the shoe and upset so as to hold the shoe in place and so as to adjust the shoe against the edge of a lens.

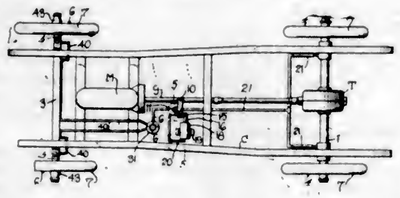
1,135,220. FLOOR-SCRAPER. WALTER F. STERN, Lancaster, Pa., assignor, by direct and mesne assignments, to John A. Shank, Lancaster, Pa. Filed Sept. 4, 1913. Serial No. 788,065. (Cl. 145—47.)



In a floor scraper of the class described, the combination with a frame mounted on wheels, an adjustable handle for operating the same, and blade-blocks pivoted to said frame, of a slide vertically mounted in said frame,

links connecting said slide to the blade-blocks, and a screw threaded into said slide and frame for the purpose of raising or lowering said slide to adjust the cutting angle of the blade-blocks.

1,135,221. AUTOMATICALLY-CONTROLLED PUMP. WILLIAM R. STUTEVILLE, Vesta, Nebr. Filed Oct. 29, 1914. Serial No. 869,303. (Cl. 230—24.)



1. In combination with a receiving member, a driven friction member, a cylinder, a piston within the cylinder and provided with a rod projecting exteriorly of the cylinder, a friction disk carried by the rod and adapted to engage the friction member, an air compressor, an operative connection between the disk and compressor, a conduit leading from the air compressor to the cylinder and in communication with the cylinder at a point below the piston, and a conduit leading from the cylinder to the receiving member.

2. In combination with a receiving member a driven friction member, a cylinder, a piston within the cylinder and provided with a rod projecting exteriorly of the cylinder, a friction disk carried by the rod and adapted to engage the friction member, an air compressor, an operative connection between the disk and compressor, a conduit leading from the air compressor to the cylinder and in communication with the cylinder at a point below the piston, a conduit leading from the cylinder to the receiving member, and a normally open valve interposed in the last named conduit, the excess pressure within the receiving member serving to adjust the valve into a closed position.

3. In combination with a receiving member, a driven friction member, a cylinder, a piston within the cylinder and provided with a rod projecting exteriorly of the cylinder, a friction disk carried by the rod and adapted to engage the friction member, an air compressor, an operative connection between the disk and compressor, a conduit leading from the air compressor to the cylinder and in communication with the cylinder at a point below the piston, a conduit leading from the cylinder to the receiving member, and means for normally maintaining the friction disk in engagement with the friction member.

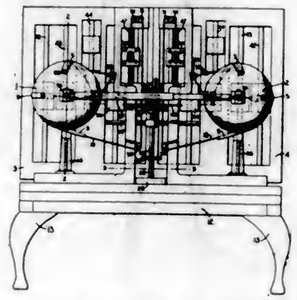
4. In combination with a plurality of receiving members, an air compressor, conduits leading from the compressor to the several receiving members, and means for controlling the flow through certain of the conduits independent of the remainder whereby said first named conduits may be automatically closed without interfering with the operation of the compressor.

1,135,222. OPHTHALMOTROPE. GEORGE A. SUFFA, Boston, Mass. Filed July 10, 1914. Serial No. 850,081. (Cl. 35—12.)

1. In a device of the character described, in combination, a movable member arranged to represent the eye, flexible members connected thereto and arranged to represent the muscles of the eye and means to indicate which flexible members are concerned in a given movement of the movable member and to what extent.

2. In a device of the character described, in combination, a pivoted member to represent the eye, flexible members connected thereto in a manner to represent the muscles of the eyes, slides connected to said flexible members to be moved thereby as the pivoted member moves and scales arranged to indicate the extent of movement of said slides.

3. In a device of the character described, in combination, a pair of pivoted members to represent a pair of eyes, flexible members connected to said pivoted members in a manner to represent the muscles of the eyes and means to indicate the direction of the axes of the pivoted members and means to indicate the effect of the position there of upon the flexible members.

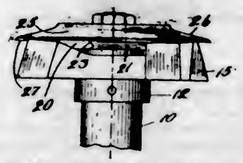


4. In a device of the character described, in combination, a pair of pivoted members to represent a pair of eyes, means for indicating the direction of the primary axes thereof, means for changing the relative angular positions of said axes, flexible members connected to said pivoted members and representing the muscles of the eye and means for indicating the extent of longitudinal movement of said flexible members due to given changes of position of said pivoted members.

5. In a device of the character described, in combination, relatively movable carriages, spherical members pivotally mounted on said carriages said spherical members being arranged to represent the eyes flexible members attached to each spherical member and arranged in a manner to represent the muscles of the eye and means to indicate the extent of longitudinal movement of said flexible members upon given pivotal movement of said spherical members.

[Claims 6 to 13 not printed in the Gazette.]

1,135,223. MACHINE FOR TRIMMING THE RANDS OF BOOTS AND SHOES. LOUIS S. SWEENEY, Abington, Mass. Filed Dec. 21, 1914. Serial No. 878,221. (Cl. 12—93.)

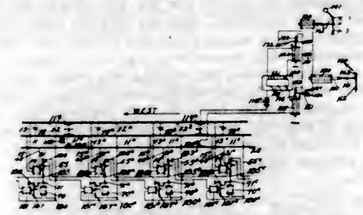


A trimming-device for boots and shoes, comprising a cutter adapted to be arranged on a rotatable spindle having radially extended blades with cutting edges formed on one side of each blade, and a shield adapted to be arranged on said spindle having a plurality of lips projecting from that surface adjacent the blades and in a direction to cover the ends of the blades, said cutter and shield being rotarily adjustable with respect to each other to bring the cutting edge of each blade opposite that part of a lip having the desired height.

1,135,224. [WITHDRAWN.]

1,135,225. RAILWAY BLOCK SYSTEM. ROY E. THOMPSON, New York, N. Y., assignor, by mesne assignments, of one-half to Alfred Victor Beer, New Orleans, La. Filed Feb. 7, 1912. Serial No. 675,968. (Cl. 246—26.)

1. In a railway block system, a track and third-rail divided into corresponding blocks, a partially closed circuit associated with the track and third-rail of a block, an interrupter in said circuit, and electrically operating means associated with another block for controlling the circuit of said interrupter.



2. In a railway block system, a track and third-rail divided into corresponding blocks, a partially closed circuit associated with the track and third rail of a block, an interrupter in said circuit, a relay to control the circuit of said interrupter, and a circuit for said relay associated with a block different from the block of said interrupter.

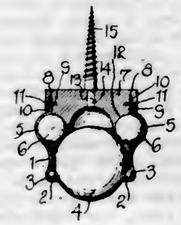
3. In a railway block system, a track and third rail divided into corresponding blocks, a partially-closed circuit associated with the track and third-rail of a block, an interrupter in said circuit, a relay to control the circuit of said interrupter, and a circuit for said relay associated with the rails of a block different from the block of said interrupter, and a battery bridged across said rails.

4. In a railway block system, a track divided into blocks, a partially closed circuit associated with each block and containing means for producing current pulsations in the circuit, electrically operating means associated with another block for controlling said circuit, a safety device, electrically operating means operative by pulsating current to control said safety device, and means for completing said circuit through said electrically operating means.

5. In a railway block system, a track divided into blocks, a partially-closed circuit associated with each block and containing means for producing pulsations in the circuit, electrically operating means associated with another block for controlling said circuit, an induction coil, means for completing the circuit of the primary of said induction coil through the first named circuit, a safety device, and means controlled by the secondary of said induction coil for controlling said safety device.

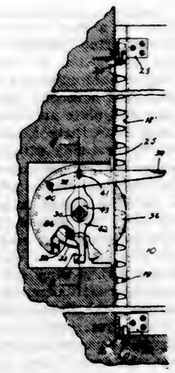
[Claims 6 to 49 not printed in the Gazette.]

1,135,226. CASTER. RICHARD EUGENE TOMPKINS, Danbury, Conn. Filed Sept. 4, 1914. Serial No. 860,277. (Cl. 16—151.)



A caster comprising a casing having its lower edge bent upon itself to form a race-way, a series of bearing balls arranged within the race-way, a caster ball arranged in the casing and adapted to rest upon said bearing balls, a portion of the caster ball being extended through the lower end of the casing, said casing being provided adjacent its upper end with an outwardly projecting bulged portion, a series of relatively larger bearing balls arranged within the bulged portion of the casing to engage against the caster ball at a point above its horizontal axis of rotation, a cap having a groove formed in its under face adjacent its marginal edge, whereby to receive the upper end of the casing, screw members extending through the other wall of the cap and the upper end of the casing, for detachably securing the cap to the casing, and the under face of said cap within the casing having a groove formed therein, said groove in conjunction with the bulged portion of the casing forming a race-way for the larger bearing balls, to hold the same in engagement with the caster balls.

1,135,227. SASH-COUNTERBALANCE. DIONYSIUS W. TREMBATH, New York, N. Y. Filed May 15, 1912. Serial No. 697,484. (Cl. 16—150.)



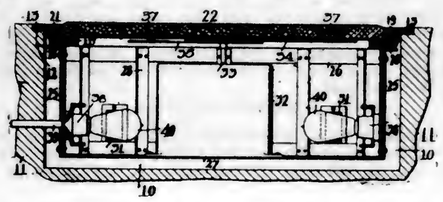
1. In combination with a window sash and frame, a metal plate secured to the side of said window sash, said plate being formed at an angle so as to present two surfaces facing outwardly, one in advance of the other and toward the front of said sash, said plate being provided with a series of uniformly spaced openings, the openings being in the outer corner portion of the plate, a spring drum mounted at the side of said sash, in the frame thereof, a housing therefor, a disk secured to said drum and so disposed that its periphery contacts with the inner face of said disk, and a plurality of pins set in the side of said disk adapted to engage with the openings in said plate.

2. In combination with a window sash and frame, a metal plate secured to the side of said window sash, said plate being formed at an angle so as to present two surfaces facing outwardly, one in advance of the other and toward the front of said sash, said plates being provided with a series of uniformly spaced openings, the openings being in the outer corner portion of the plate, a spring drum mounted at the side of said sash, in the frame thereof, a housing therefor, a disk secured to said drum and so disposed that its periphery contacts with the inner face of said plate, and a plurality of pins set in the side of said disk adapted to engage with the openings in said plate, a lever secured to said drum housing and a link attached to said lever the upturned portion of said lever being adapted to engage with said pins thereby preventing rotation of the disk when the lever is raised.

1,135,228. CLOCK. LEVERETT F. VINER, Worcester, Mass. Filed Dec. 31, 1913. Serial No. 809,724. (Cl. 58—50.)

1. As an article of manufacture, a clock having a horizontal top plate of translucent material having a dial on

the bottom and adapted to be set into a recess in a horizontal surface and provided with means accessible from the top of said plate and located beyond its periphery for lifting it out of the recess, and a pair of clock hands under said plate and independent thereof, whereby when the plate is lifted off the hands will be left in the recess.



2. The combination of a ring adapted to be set into a floor or the like, said ring having a horizontal inner flange at the bottom upturned at its inner edge and having a packing on the top of said edge, a glass dial plate resting on said packing, and a second ring extending below the edge of the glass dial plate and located on said flange outside the upturned edge thereof, said second ring being removable from the first ring with the dial plate.

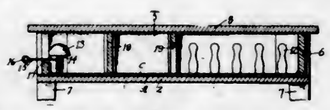
3. The combination with a horizontal ring set into a floor and having an internal flange, of a second ring removably mounted on said flange, a glass plate carried by, and removable with, the second ring and having a clock dial on the bottom thereof, and clock mechanism below the dial.

4. The combination with a ring set permanently in a floor and having an internal flange, of a second ring removably supported on said flange, means for securing the second ring to the first ring, a glass plate mounted on the second ring and removable therewith and having a clock dial thereon, the second ring being provided with means by which it, with the plate, can be lifted out of the first ring from above.

5. The combination with a ring adapted to be set into a floor, said ring having a horizontal inner flange at the bottom upturned at its inner edge and having drainage passages therethrough, and a glass plate carried on said upturned flange, and removable therefrom, said plate having a clock dial thereon.

[Claim 6 not printed in the Gazette.]

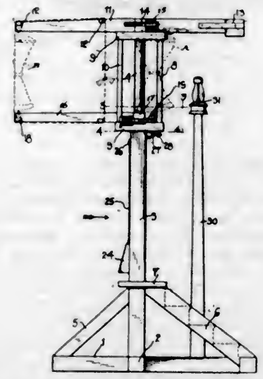
1,135,229. GAME-BOARD. FRANK WAGNER, St. Louis, Mo. Filed Apr. 12, 1913. Serial No. 760,775. (Cl. 46—61.)



A game apparatus including a box member consisting of a bottom, side and end walls, the side and end walls being mounted upon the bottom, a fabric carpet mounted upon the bottom wall of the box member and having its edges disposed between the bottom wall and lower edges of the side and end walls of the box member and in engagement with said walls, a transparent plate having a smooth surface mounted upon said carpet, characters mounted upon the carpet and to have game members placed thereover upon said transparent plate, and partition walls mounted in said box member and engaging said transparent plate.

1,135,230. RECEIVING AND DELIVERING APPARATUS. CLYDE D. WATSON, Hartford City, Ind. Filed Apr. 29, 1914. Serial No. 835,236. (Cl. 258—23.)

1. A device of the class described including a supporting pole, a frame rotatably mounted thereon, upper and lower supporting arms hingedly mounted upon the frame and adapted to be arranged in pairs, each pair extending at right angles to the other, a lug formed integral with the supporting pole, one of said supporting arms having a recess adapted to receive the lug and retain the frame against rotary movement, each set of arms being disposed in parallel relation, means supported by said arms whereby the removal of said means from one set of arms will release the frame, means for rotating the frame upon being released, whereby to dispose the second set of supporting arms at right angles to their first position, and means whereby to limit the rotary movement of said frame after being arranged in such position, and further means adapted to prevent backward movement of the frame.

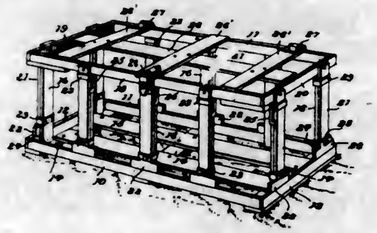


2. A device of the class described including a supporting pole, a rotatable frame mounted thereon, upper and lower supporting arms hingedly connected to the frame and adapted to be arranged in pairs extending at right angles to one another, means carried by said arms for normally retaining them in parallel relation, locking means for retaining the frame against movement, means whereby to release said locking means upon the removal of the means supported by one set of arms, means for rotating said frame upon the release of the locking means to bring the second set of arms into the position vacated by the first set of arms, means for limiting the rotary movement of said frame, and further means for preventing backward movement of the frame, as and for the purpose set forth.

3. A device of the class described including a supporting pole, a frame rotatably mounted thereon, supporting arms hingedly connected to the lower end of said frame and extending at right angles to each other, a fork hingedly connected to the upper end of the frame, the arms thereof being adapted to be disposed in parallel relation with the lower set of arms, a weight connected to the inner end of said fork to normally dispose the same in an inoperative position, a lug formed on the pole, the inner end of one of the lower arms having a recess to receive said lug and retain the frame against rotation when said supporting arms are in an operative position, means carried by said arms whereby to retain them in an operative position, the removal of said means from one pair of arms releasing the locking means, means whereby to rotate said frame and dispose the second pair of arms in the position vacated by the first pair, means for limiting the rotary movement of said frame, and a spring catch carried by the frame and adapted to engage behind the lug on the pole to prevent backward movement of the frame.

1,135,231. EXTENSION-CRATE. WALTER M. WAY, Tacoma, Wash. Filed Nov. 3, 1913. Serial No. 798,968. (Cl. 217—43.)

1. A device of the class described comprising a base, a plurality of standards spaced apart and rising from said base, an upper member, a plurality of standards connected to said upper member and slidably engaging respectively with the standards of the base, means adapted to couple the standards for slidable movement, fastening devices operating to limit the upward movement of the standards on the upper member, and means operating to hold the standards in collapsed position.



2. A device of the class described comprising a base, a plurality of standards spaced apart and rising from said base, an upper member, a plurality of standards connected to said upper member and slidably engaging respectively with the standards of the base, each of the standards of the upper member having lateral stops at their lower ends, clips coupling the standards for slidable movement, fastening devices carried by the base and engaging over the stops when the upper member and its standards are in their lower position, and other fastening devices carried by the standards of the lower member for engaging the stops when the upper member and its stop are in their upper position.

3. A device of the class described comprising a base, a plurality of standards spaced apart and rising from said base, an upper member, a plurality of standards connected to said upper member and slidably engaging respectively with the standards of the base, each of the standards of the upper member having lateral stops at their lower ends, clips coupling the standards for slidable movement, fastening devices engaging over the stops when the upper member and its standards are in their lower position, and other fastening devices engaging the stops when the upper member and its stops are in their upper position.

1,135,232. PROCESS OF MAKING BORON NITRID. GEORGE WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 3, 1913. Serial No. 745,820. (Cl. 204—64.)

1. The process of making boron nitrid which consists in heating a mixture of boron-containing material and a cyanid to a temperature at which reaction occurs and the products other than boron nitrid are volatilized.

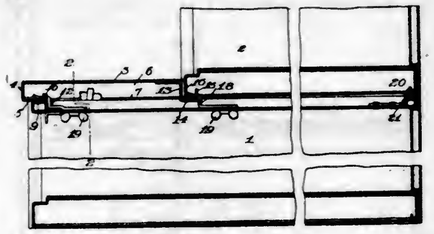
2. The process of making boron nitrid which consists in heating a mixture of boron compound and a cyanogen compound to a temperature at which reaction occurs and substantially all by-products are volatilized.

3. The process of making pure, stable boron nitrid which consists in heating a mixture of boric anhydrid and a cyanid to a temperature of about 2000° C. until no more fumes are evolved.

4. A process of making pure stable boron nitrid which consists in heating a mixture comprising about one part of boric anhydrid and about one to two parts of potassium cyanid rapidly up to a temperature of about 2000° C. until no fumes are given off under conditions allowing the free escape of the fumes.

1,135,233. SHELF-SECTION FOR METALLIC FURNITURE. ALBERT T. WEISS, Rochester, N. Y., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1913. Serial No. 798,230. (Cl. 45—2.)

1. In metallic sectional furniture, the combination with a supporting section, of a detachable shelf section located in a forward position on the latter, said shelf section being narrower from front to rear than the supporting section, means for releasably securing the front of the shelf section to the supporting section and a detachable upper section located in a rearward position on the supporting section to rest directly thereon in rear of the shelf section and beneath the forward portion of which upper section the rear of the shelf section is confined.



2. In metallic sectional furniture, the combination with a supporting section, of a detachable shelf section located in a forward position on the latter, means for releasably securing the front of the shelf section to the supporting section, a detachable upper section located in a rearward position on the supporting section and having its forward portion resting upon a rearward portion of the shelf section and a common releasable securing means for the rear of the shelf section and the front of the upper section.

3. In metallic sectional furniture, the combination with a supporting section, of a detachable shelf section located in a forward position on the latter, and having a depressed seat at its rear, means for releasably securing the front of the shelf section to the supporting section, and a detachable upper section located in a rearward position on the supporting section and having its forward portion resting in the seat on the shelf section.

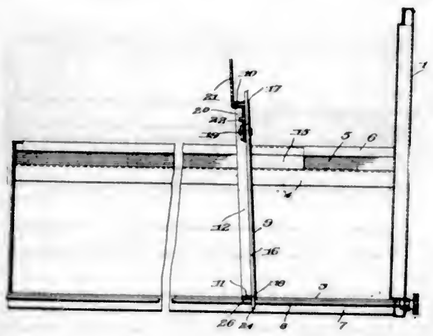
4. In metallic sectional furniture, the combination with a supporting section, of a detachable shelf section located in a forward position on the latter and comprising a downwardly and thence rearwardly turned flange at the rear thereof, means for releasably securing the front of the shelf section to the supporting section, a detachable upper section located in a rearward position on the supporting section and having a downwardly and thence rearwardly turned flange at the front thereof resting on the similarly formed flange of the shelf section and a releasable securing means engaging on the rearwardly turned portion of the flange on the upper section.

5. In metallic sectional furniture, the combination with a supporting section, of a detachable shelf section located in a forward position on the latter and comprising a downwardly, rearwardly and thence upwardly turned flange at the rear thereof, the upwardly turned portion being provided with an opening, means for releasably securing the front of the shelf section to the supporting section, a detachable upper section located in a rearward position on the supporting section and having a downwardly and thence rearwardly turned flange at the front thereof resting on the similarly formed flange of the shelf section and forwardly of its upwardly turned portion and a releasable horizontally movable securing means engaging on the rearwardly turned portion of the flange on the upper section and projecting through the opening in the upwardly turned portion of the shelf section flange.

1,135,234. FOLLOWER FOR FILING-RECEPTACLES. ALBERT T. WEISS, Rochester, N. Y., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1913. Serial No. 798,234. (Cl. 129—29.)

1. The combination with a filing receptacle and a follower retaining device located in the bottom thereof, of a follower movable in the receptacle and having rearwardly

turned slotted flanges at the top and bottom thereof, a draw bar movable vertically in the slots of said flanges as guides and having gripping means at its lower projecting end coöperating with the retaining device and operating means for the draw bar mounted on the follower.



2. The combination with a filing receptacle having a channel in its bottom and a follower retaining rod located in the said channel, of a follower movable in the receptacle and having a rearwardly turned slotted flange at the bottom thereof, a draw bar on the follower guided in the slot in the flange and having an opening in its lower projecting end through which the retaining rod passes, a friction plate on the under side of the flange accommodated within the channel above the rod and means on the follower for operating the draw bar to clamp it against the rod, and the latter against the friction plate.

1,135,235. ROLLER EXTENSION-DRAWER. ALBERT T. WEISS, Rochester, N. Y., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y., a Corporation of New York. Filed Jan. 26, 1914. Serial No. 814,410. (Cl. 45—77.)



1. The combination with a casing and an extension drawer support guided therein, of a drawer hanger movably supported on the extension support and provided with a laterally extending projection and a drawer detachably supported on the hanger and having a lateral flange extending outwardly and thence downwardly and by means of which the drawer is supported on the hanger, the said downwardly extending portion of the flange being provided with a recess adapted to be engaged with and disengaged from the projection on the hanger by a vertical movement of the drawer and to interlock therewith to prevent relative longitudinal movement of the drawer and hanger.

2. The combination with a casing and an extension drawer support guided therein, of a drawer hanger movably supported on the extension support and provided with a laterally extending projection and a drawer detachably supported on the hanger having a laterally offset portion forming a follower guideway within the drawer and at the same time a supporting shoulder engaging over the hanger and further provided with a downwardly extending flange on the outside of the guideway, said flange being provided with a recess adapted to be engaged with and disengaged from the projection on the hanger by a vertical movement of the drawer and to interlock therewith to prevent relative longitudinal movement of the drawer and hanger.

3. The combination with a casing aud a guide thereon embodying upper and lower inside tracks respectively provided with downwardly and upwardly extending lateral retaining flanges, of upper and lower sets of rollers coöperating with the respective tracks and engaging the retaining flanges on one side, an extension support comprising a plate having opposite edges bent at right angles to form an upper outside track coöperating with the upper set of rollers and a lower outside track coöperating with the lower set of rollers and further comprising a flat superposed plate secured to the outer face of the first mentioned plate with its edges projecting beyond the tracks formed by the latter and constituting, in each instance, a lateral retaining flange engaging upon the other side of the rollers from that on the casing guide, and a drawer supported on the extension support.

1,135,236. RECLAIMING RUBBER. ORRIN A. WHEELER, Chicago, Ill., assignor of one-third to Edward D. Loewenthal and one-third to B. Loewenthal, Chicago, Ill. Filed Oct. 30, 1912. Serial No. 728,633. (Cl. 18—52.)

1. That improvement in reclaiming vulcanized rubber scrap containing cellulose, which consists in subjecting it to the action of an alkali solution and carbon disulfid.

2. That improvement in reclaiming vulcanized rubber scrap containing cellulose, which consists in first treating the scrap with an alkali solution and then with carbon disulfid in a closed receptacle.

3. That improvement in reclaiming vulcanized rubber scrap containing cellulose, which consists in first treating the scrap with an alkali solution, then with carbon disulfid in a closed receptacle, then adding water to the mass, and then heating the same.

4. That improvement in reclaiming vulcanized rubber scrap containing cellulose, which consists, in pulverizing the scrap, treating it with a solution of alkali at normal temperature for approximately an hour or more, then adding carbon disulfid, then permitting chemical reaction to occur, and then heating the mass.

5. That improvement in reclaiming vulcanized rubber scrap containing cellulose, which consists in treating pulverized scrap with an alkali solution and carbon disulfid in the presence of heat.

[Claims 6 to 12 not printed in the Gazette.]

1,135,237. DRAG-LINK DEVICE. FREDERICK H. WHITMAN, Detroit, Mich., assignor to Dodge Brothers, Detroit, Mich., a Corporation of Michigan. Filed Aug. 11, 1914. Serial No. 856,225. (Cl. 74—17.)

1. A dust guard, comprising a flexible clasp of spring sheet metal provided with overlapping edges, one of said edges being permanently set out of the plane of the other edge.

2. A dust guard, comprising a flexible clasp of spring sheet metal of which its edge portions are recessed to provide an opening with a surrounding wall.



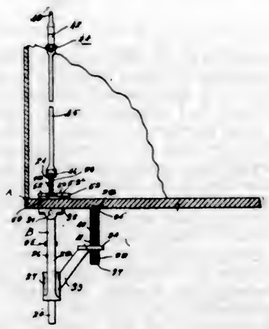
3. A dust guard, comprising a flexible clasp of spring sheet metal provided with edge portions which are recessed to provide an opening with a surrounding wall, and the said wall being turned out from the clasp to provide permanently set flanges.

4. In a drag link device, the combination with a housing, and an arm extending thereinto and jointed therewith, of a flexible self-acting clasp of spring sheet metal applied around said housing and having overlapping edges, and being free from any means for fastening it onto said housing, other than itself.

5. In a drag link device, the combination with a housing, and an arm extending thereinto and jointed therewith, of a flexible self-acting clasp of spring sheet metal applied around said housing and having an opening at its edges through which said arm passes.

[Claims 6 to 12 not printed in the Gazette.]

1,135,238. SWITCH-THROWING DEVICE. JOSEPH WIENER, Baltimore, Md. Filed Sept. 1, 1914. Serial No. 859,665. (Cl. 104—171.)

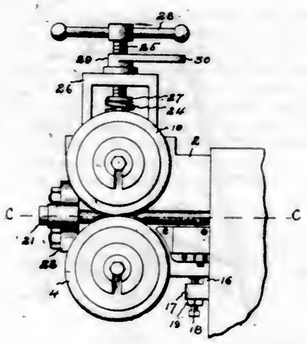


1. In switch throwing mechanism, the combination with a switch point and mechanism carried thereby for causing the point to be moved into different position of a car, a depending rod slidably and rotatably carried by the car and arranged to coöperate with said track mechanism, means to operate said bar, a frame for supporting said bar pivotally mounted upon the car and means to yieldingly hold said frame normally in vertical position.

2. In switch throwing mechanism, the combination with a car, of a depending rod slidably and rotatably carried by the car, a frame pivoted to the car and supporting said rod, spring means for normally holding said rod in up position, means for sliding and rotating said rod operatively connected and being operable from the interior of the car and spring means to yieldingly hold said frame and rod in normal vertical position.

3. In switch throwing mechanism, the combination with a vehicle of a rod slidably and rotatably carried by the vehicle, a frame pivoted to the vehicle and supporting the rod, an arm extending rearwardly of and carried by the frame, a second frame carried by the car, springs arranged within said second frame, said arm being connected with said springs whereby the first frame is normally held yieldingly in vertical position.

1,135,239. FEED MECHANISM. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed Apr. 6, 1914. Serial No. 829,749. (Cl. 140—125.)



1. In a feed mechanism, the combination with a machine body having a substantially fixed line of wire feed; of a bracket; means for adjustably securing said bracket to said machine body; a shaft journaled in said bracket; a roll frame pivotally connected with said bracket; a shaft journaled in said roll frame; a feed roll for each of said shafts; and means for applying an adjustable, yielding pressure to the free end of said roll frame.

2. In a feed mechanism, the combination with a machine body having a substantially fixed line of wire feed; of a bracket connected with said machine body; companion feed rolls, one above the other, rotatably connected with said bracket; means for adjusting the relative position of said bracket whereby the lower of said rolls is moved toward and away from said line of wire feed; and means connected with said bracket for maintaining the upper of said rolls in contact with the lower roll in any of its adjusted positions.

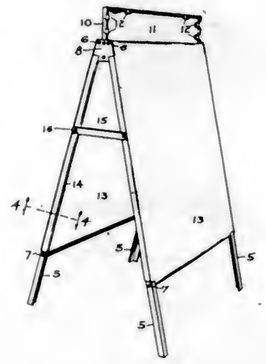
1,135,240. [WITHDRAWN.]

1,135,241. PORTABLE BLACKBOARD AND ADVERTISER. HOMER A. WOODS, Indianapolis, Ind. Filed Sept. 3, 1914. Serial No. 860,023. (Cl. 40—125.)

1. In a display device, angle bar legs arranged in pairs, spaced rods connecting the legs of each pair, a sheet also connecting the legs of each pair, said sheet having certain of its edge portions in contact with the outer faces of said angle bars, and hooked over one of the edges thereof, other edge portions of said sheet being bent into engagement with said rods, plates to which the two pairs of legs are hinged at their upper ends and spacing means connected with and separating said plates.

2. In a display device, a pair of top plates having leg-stops, a frame secured to said plates and acting as a spreader to keep them separated, a pair of rods journaled in the plates, a pair of legs secured to each rod and swingingly adjustable therewith, material having writing surfaces supported by the legs, and tie-bars connecting the two pairs of legs when the legs are in contact with the stops on said top plates.

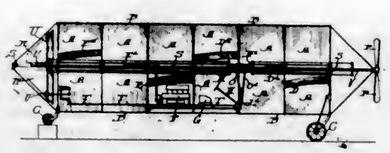
3. In a display device, angle-bar legs in pairs, each pair being joined together by a pair of spaced-apart rods, a pair of top plates between which said pairs of legs are swingingly secured by the projection of the ends of one of each pair of rods through said plates, a frame connecting and spacing said plates, means on said plates for limiting the approach of the two pairs of legs toward each other, tie-bars to hold said legs in contact with said last means, plates adapted to stiffen and brace the frame mounted in said frame, and sheets connecting each pair of legs.



4. In a display device, a pair of top plates having leg-stops, an inverted U-shaped bar-frame secured to said plates and forming a spreader to keep them separated, a pair of rods journaled in the plates, a pair of legs secured to each rod, plates removably secured in said frame, and a sheet secured to each pair of legs.

5. In a display device, a pair of top plates having leg-stops, an inverted U-shaped bar frame secured to said plates and spacing them, said frame having stiffening plates with surfaces adapted to receive advertising matter, a pair of rods journaled in the plates, angle-bar legs in pairs secured to each rod, a sheet having a writing surface.

1,135,242. FLYING-MACHINE. CHARLES CAMPBELL WORTHINGTON, Shawnee, Pa. Filed Sept. 3, 1910. Serial No. 580,398. (Cl. 244—12.)



1. In a flying machine, the combination with a longitudinal vertical plane having a substantially continuous surface, and a stepped series of lifting planes extending laterally from said vertical plane, the forward plane of each stepped series being inclined downwardly, the rear planes being inclined upwardly and the central planes extending horizontally, each of said lifting planes being connected to the longitudinal axis between the upper and lower edges of the longitudinal vertical plane.

2. A flying machine comprising a vertical plane, and lateral planes arranged in series longitudinally of the vertical plane and each plane extending from the central portion of said vertical plane.

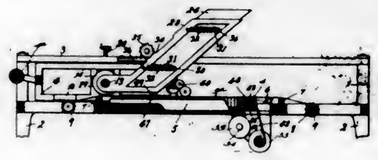
3. A flying machine comprising a central longitudinal vertical plane, series of planes extending laterally from the central portion of said vertical planes, one series on each side thereof, said lateral planes being stepped successively from the front toward the rear.

4. A flying machine, comprising a plurality of lifting planes, a vertical plane separating pairs of said lifting planes, said lifting planes extending from the central longitudinal portion of said vertical plane in different directions and arranged in series stepped upwardly from the front toward the rear.

5. A flying machine comprising a vertical longitudinal plane, of a plurality of lateral planes arranged in progression longitudinally of the vertical plane and extending from the central portion of said vertical plane, each of the progressive lateral planes located above the immediately preceding plane, and extending in directions at angles to each other.

[Claims 6 to 32 not printed in the Gazette.]

1,135,243. INDIVIDUAL-LETTER-PRINTING APPARATUS. WALTER WRIGHT, San Francisco, Cal. Filed Jan. 9, 1906. Serial No. 295,289. (Cl. 101—11.)



1. An apparatus of the character described, comprising a frame, type-surfaced means thereon, a carriage reciprocating thereover, a feed box and pressure roller carried by said carriage, and automatic means operated by the movement of the carriage for feeding in succession sheets of paper from the feed box between the pressure roller and the type-surfaced means, substantially as described.

2. An apparatus of the character described, comprising a frame, type-surfaced means thereon, a carriage reciprocating thereover, a feed box and a pressure roller carried by said carriage, transfer material over said means, and automatic means operated by the movement of the carriage for feeding in succession sheets of paper from the feed box between the pressure roller and the transfer material, substantially as described.

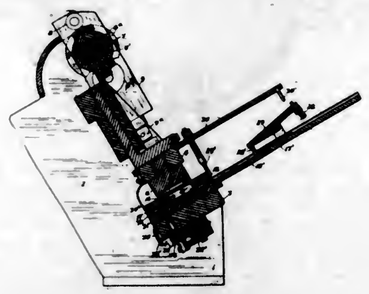
3. In an apparatus of the character described, the combination of a frame, a carriage, an eccentrically mounted shaft, a pressure roller on said shaft, means for reciprocating said carriage over said frame, means for giving a partial rotation to the eccentric shaft to raise and lower the roller alternately to a non-printing or a printing position, a plurality of individually type-surfaced means for printing changeable matter, type-surfaced means on said frame for printing permanent matter, an inking ribbon over both of said type-surfaced means and beneath the pressure roller, and means automatically actuated by the movement of the carriage for intermittently advancing said first named type-surfaced means in succession into the same plane as the second, substantially as described.

4. In a printing machine, the combination of a support, a form of type thereon, a rotatable pressure roller, means for moving the pressure roller bodily over the form of type and in coaction with the printing faces thereof, a plurality of address plates, and means for moving said address plates successively in a direction transverse to the direction of movement of the pressure roller and into printing position.

5. In an addressing machine, the combination of a bed, an impression roller adapted to bodily travel thereover, and feeding mechanism adapted successively to advance address slugs into printing position thereon in a direction transverse to the path of travel of said impression roller.

[Claims 6 to 27 not printed in the Gazette.]

1,135,244. APPARATUS FOR CUTTING AND DEPOSITING RING-LINERS ONTO THE FLANGE OF CAN-COVERS. JOHN M. YOUNG, San Francisco, Cal., assignor to American Can Company, San Francisco, Cal., a Corporation of New Jersey. Filed Oct. 31, 1912. Serial No. 728,929. (Cl. 113—80.)



1. An apparatus for cutting paper ring liners and applying the same to the flange of a can cover, the same comprising a reciprocating die punch, means for positioning a web of paper in advance of the die punch, a can cover seat situated beneath the die punch for receiving can covers, devices for seating a can cover within said seat and beneath the web and in line with the punch, devices for retaining the can cover within said seat against movement, mechanism for operating said punch to cut a ring liner from the web and place the same onto the flange of the held can cover, and means thrown into action by the movement of the said punch for controlling the release of the held can cover.

2. An apparatus for cutting paper ring liners and applying the same to the flange of a can cover, the same comprising a vertically movable reciprocating die punch, means for positioning a web of paper in advance of the die punch, a can cover seat situated beneath the said punch, locking devices for holding a can cover in said seat against movement and beneath the web and in line with the die punch, and mechanism for actuating the said die punch to cut a ring liner from the web and apply the same to the flange of a can cover, and means thrown into action by the movement of the said punch for actuating the lock devices for releasing the can cover with its applied liner to permit the discharge thereof from within its seat.

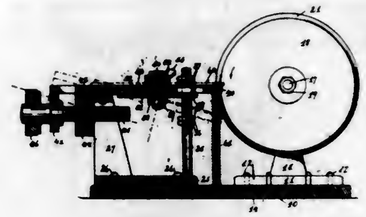
3. An apparatus for cutting and applying paper ring liners to the flange of can covers, the combination with a reciprocating die punch, of means for feeding a web of paper in advance of the die punch, a can cover seat situated beneath said punch, lock-devices for holding a can cover in said seat against movement and beneath the web and in line with the die punch, mechanism for actuating the die punch to cut a ring liner from the web and apply the same to the flange of a held can cover and to return the die punch to normal position, and devices thrown into action during the movement of the die punch for actuating the feed means for the web for advancing the same through the machine.

4. In an apparatus for the described purpose, the same comprising a plurality of vertically movable die punches of different diameters, devices for positioning a web in advance of said punches, means for receiving and locking against movement a can cover beneath said web and in line with the punch of larger diameter, mechanism for actuating said punches to cause the punch of smaller diameter to perforate the web and the punch of larger diameter to cut a ring liner from a perforated section of the web and applying the same onto the flange of the held can cover, and devices thrown into action by the movement of said punch for controlling the locking means for the can cover.

5. In an apparatus for the described purpose, the combination with a reciprocating die punch for cutting a ring liner from a positioned web and applying the same as a single operation to the flange of a held can cover, means for receiving and locking a can cover against movement during such operation of the die punch, mechanism for imparting reciprocating movement to said punch, and devices operated by the movement of the punch for controlling the release of the held can cover.

[Claims 6 to 11 not printed in the Gazette.]

1,135,245. SAW-SHARPENER. JOSEPH ZULEG, Hoboken, N. J., assignor to The Button Machinery Company, New York, N. Y., a Corporation of New York. Filed Jan. 9, 1914. Serial No. 811,178. (Cl. 76—42.)



1. A saw cutting device comprising a saw carriage and a saw mounted thereon, a grinding wheel placed so as to overlap the periphery of the saw while the latter is in one position and means for tilting the saw in and out of such position and intermittently rotating it while out of such position.

2. A saw cutting device comprising a saw carriage and a saw mounted thereon, a grinding wheel placed so as to overlap the periphery of the saw while the latter is in one position and means for automatically tilting the saw in and out of such position and intermittently rotating it while out of such position.

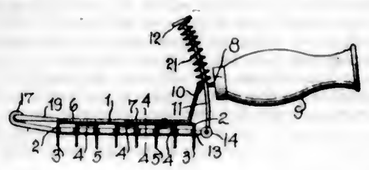
3. A saw cutting device comprising a saw carriage and a saw mounted thereon, a grinding wheel placed so as to overlap the periphery of the saw while the latter is in one position and means for tilting the saw in and out of such position and automatically intermittently rotating it while out of such position.

4. A saw cutting device comprising a saw carriage and a saw mounted thereon, a grinding wheel placed so as to overlap the periphery of the saw while the latter is in one position and means for automatically tilting the saw in and out of such position and automatically intermittently rotating it while out of such position.

5. A saw cutting apparatus comprising a tiltable table, a saw carriage mounted thereon and adjustable on the table in one direction, a device for restoring the table to position after it has been tilted, means for rotating the saw carriage while tilted, and a grinding wheel out of contact with a saw on the table when the table is in tilted position and in contact therewith when in normal position.

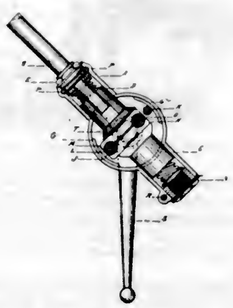
[Claims 6 to 14 not printed in the Gazette.]

1,135,246. CURRYCOMB. HARTVIG E. ANDERSON, Foley, Minn. Filed Sept. 4, 1914. Serial No. 860,267. (Cl. 119—88.)



A curry comb comprising a toothed plate and a handle connected with the plate by an angular shank, the edge of the plate opposite the handle being provided with supporting members projecting outward from the plate and outwardly turned at their ends, a U-shaped frame having eyes in which said supporting members engage, a cleaning plate having its ends engaging around the side members of the U-shaped frame, said cleaning plate being slotted to permit the passage of the teeth of the first named plate, a rod pivotally connected to the rear member of the U-shaped frame and extending up through a perforation in the shank and provided with a button at its upper end, and a spring surrounding the rod and disposed between the shank and button.

1,135,247. DEVICE FOR STEERING VEHICLES. WILLIAM H. APPLEMAN, Belmont, N. Y. Filed Aug. 10, 1912. Serial No. 714,484. (Cl. 74—79.)



1. The combination of a housing having a longitudinal and transverse chamber therein, a rotatable steering post entering said longitudinal chamber, a rocker journaled in said transverse chamber comprising two external circular plates having extension thereon which extend within and are journaled upon the walls of said transverse chamber, and means for imparting motion from said steering post to said rocker.

2. The combination of a housing having a longitudinal and a transverse chamber therein, a rotatable steering post entering said longitudinal chamber, a rocker journaled in said transverse chamber comprising two circular flanged plates, having both an internal and also an external bearing against the walls of said transverse chamber, and means for imparting motion from said steering post to said rocker.

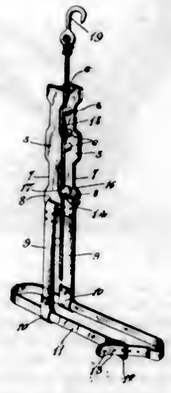
3. The combination of a housing, a rotatable steering post entering therein, a rocker journaled in said housing comprising two circular plates, spacers located between said plates for spacing them definitely apart, bolts binding said plates against said spacers, each of which pass between one of said spacers and said steering post, and a means for transmitting motion from said steering post to said rocker.

4. The combination of a housing, a rotatable steering post entering therein, a rocker journaled in said housing comprising two circular plates, spacers located between said plates for spacing them definitely apart, bolts binding said plates against said spacers which are applicable and removable externally from said rocker and means for transmitting motion from said steering post to said rocker.

5. The combination of a housing, a rotatable steering post entering therein, a rocker journaled in said housing comprising two circular plates, spacers located between said plates which fix said plates definitely apart, said spacers having a journaled bearing against the inner walls of said housing, and means for transmitting motion from said steering post to said rocker.

[Claims 6 to 19 not printed in the Gazette.]

1,135,248. FIRE-ESCAPE. RALPH L. BALL, South Berwick, Me. Filed July 20, 1914. Serial No. 851,992. (Cl. 227—29.)

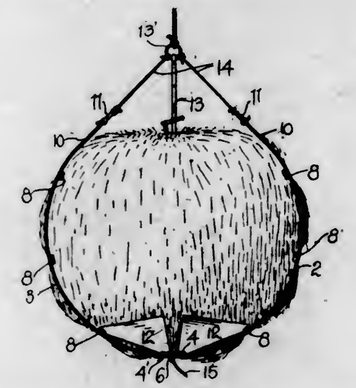


1. A fire escape comprising a frame structure including spaced side members, bolts connecting the upper portions of said side members, a cable extending between said side members and over said bolts, the lower portions of said side members being reduced in width to provide a hand hold, telescoping members secured to the lower extremities of said side members, one of said telescoping members having an opening therethrough receiving said cable, whereby when the other telescoping member is moved inwardly the cable is forcibly gripped, and means for attaching said frame to the body.

2. A fire escape comprising a frame structure including spaced side members, bolts connecting the upper portions of said side members, a cable extending between said side members and over said bolts, telescoping members secured to the lower extremities of said side members, the outer telescoping member having openings therethrough receiving said cable, and the inner telescoping member having a recess therein receiving said cable, whereby when the telescoping members are moved inwardly the cable is forcibly gripped.

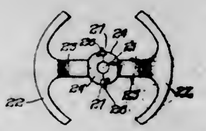
1,135,249. HAY-SLING. LEAVI S. BALLARD, Holstein, Iowa. Filed Aug. 13, 1914. Serial No. 856,639. (Cl. 57—11.)

1. A device of the class described including two pivotally connected sections, said sections each including transverse bars, longitudinally extending cables connecting said bars, the outer cables extending beyond the outer ends of the sections, a ring connecting said cables, removable means adapted to normally connect the inner ends of said sections, means whereby to actuate said connecting means and release the sections, and plates extending perpendicularly from each of said sections and arranged at each side thereof, as and for the purpose set forth.



2. A device of the class described including two pivotally connected sections, said sections each including transverse bars, longitudinally extending cables connecting said bars, eyes arranged upon the inner edges of the innermost bars of each section, a movable rod slidably mounted within the eyes at the inner ends of one of said sections, hook portions formed upon said rod and removably engaged within the eyes of the opposite section, a trip cord connected with one end of the rod, whereby to move the same longitudinally within the eyes and disengage the sections, and pyramidal-shaped plates arranged at the inner ends of each of the sections upon opposite sides thereof, whereby to prevent longitudinal movement of an object arranged upon opposite sides of the sections, as and for the purpose set forth.

1,135,250. SHADE-HOLDER FOR LAMPS. HENRY E. BANDLOW, Chicago, Ill., assignor to National Stamping & Electric Works, Chicago, Ill., a Corporation of Illinois. Filed Feb. 24, 1914. Serial No. 820,401. (Cl. 240—115.)



1. Means for supporting glass and like rigid lamp shades of that kind composed of a lower curtain portion to surround the lamp burner and an upper restricted neck portion formed with an internal shoulder, comprising, in combination with such shade and a lamp frame within the shade and provided below the plane of said shoulder with a holder seat, of a holder contained wholly within the shade and supported on said seat and provided with arms which extend outwardly therefrom and formed at their outer ends with supporting segments to engage said shoulder to support the shade symmetrically of the lamp frame.

2. A holder for glass and like rigid lamp shades of that kind composed of a lower curtain portion to surround the lamp burner and an upper restricted neck portion formed with an internal shoulder, comprising, in combination with a lamp frame, a holder member seated on the lamp frame within said neck portion, consisting of hinged portions provided with peripheral shade supporting rim segments to loosely engage and support the lamp shade.

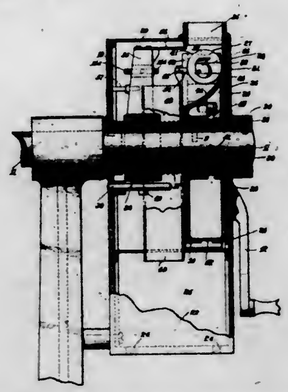
3. A holder for lamp shades comprising two hinged members each consisting of a horizontally curved shade supporting segment and an inwardly extending arm, with the hinge constituting integral portions of said arms.

4. A holder for lamp shades comprising two members, each consisting of a shade supporting rim segment and an inwardly extending arm, said arms being cut away at their inner ends to receive a fastening pin or screw and a hinge for connecting the arms together.

5. A holder for lamp shades comprising two members, each consisting of a shade supporting rim segment and an inwardly extending arm, said arms being cut away at their inner ends to receive a fastening pin or screw and a hinge for connecting the arms together, said arms inclining inwardly and downwardly toward said hinge, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,135,251. CHECK-CONTROLLED LIQUID-DISPENSING APPARATUS. CHARLES S. BATDORF, Brooklyn, N. Y. Filed Dec. 4, 1913. Serial No. 804,560. (Cl. 194—87.)



1. Apparatus of the character described comprising a shaft, mechanism to be operated therefrom, a crank for the manual operation of said shaft and normally free thereof, and check or key control means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and to be temporarily connected with said primary member by the introduction of a key or check between them so that the motion of one may be communicated to the other and to said shaft, means for supporting said check or key in operative position, means for releasing said check or key after said members and shaft have completed their movement and means for preventing said members and shaft after starting on their said movement from being reversed in rotation while the check or key is in operative position, and said means comprising a series of inclined spring dogs extending in the path of the check or key and yieldable to the same on its forward travel but not on any attempted reverse movement thereof.

2. Apparatus of the character described comprising a shaft, mechanism to be operated therefrom, a crank for the manual operation of said shaft and normally free thereof, and check or key control means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and to be temporarily connected with said primary member by the introduction of a key or check between them so that the motion of one may be communicated to the other and to said shaft, means for

supporting said check or key in operative position, and means for releasing said check or key after said members and shaft have completed their movement, said releasing means comprising a threaded sleeve rigid on said shaft, an internally threaded non-rotary frame on said sleeve and a part carried by said frame to engage and move the check supporting means from the check on the completion of said movement of said members.

3. Apparatus of the character described comprising a shaft, mechanism to be operated therefrom, a crank for the manual operation of said shaft and normally free thereof, and check or key control means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and to be temporarily connected with said primary member by the introduction of a key or check between them so that the motion of one may be communicated to the other and to said shaft, means for supporting said check or key in operative position, and means for releasing said check or key after said members and shaft have completed their movement, combined with an inclosing casing for said control means having an entrance slot for the check or key, and means operable by the rotation of one of said members for closing said slot during the operation of the machine and comprising a threaded sleeve rigid with said member, an internally threaded non-rotary frame on said sleeve and a laterally projecting plate carried by said frame to travel into the plane of said slot during the operation of the machine.

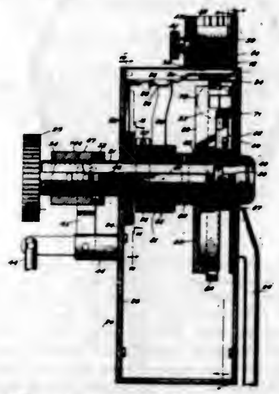
4. Apparatus of the character described comprising a shaft, mechanism to be operated therefrom, and a crank for the manual operation of said shaft in both directions and normally free thereof, associated with check or key control means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft in either direction and connected with said crank, a second rotary member rigid with said shaft and to be temporarily connected with said primary member by the introduction of a check or key between them, means for supporting said check or key in operative position, means for releasing said check or key after said members and shaft have completed their movement in one direction, and means for connecting said members on the reverse motion of said crank for restoring the mechanism to its initial position.

5. Apparatus of the character described comprising a shaft, mechanism to be operated therefrom and a crank for the manual operation of said shaft in both directions and normally free thereof with check or key control means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft in either direction and connected with said crank, a second rotary member rigid with said shaft and to be temporarily connected with said primary member by the introduction of a check or key between them, means for supporting said check or key in operative position, means for releasing said check or key after said members and shaft have completed their movement in one direction, and means for connecting said members on the reverse motion of said crank for restoring the mechanism to its initial position, one of said members being a disk having a laterally extending arm to engage the check or key, and the other of said members having two lateral walls with a slot between them to snugly receive the check or key and a slot through them in the plane of said arm.

[Claims 6 to 11 not printed in the Gazette.]

1,135,252. CHECK-CONTROLLED DISPENSING APPARATUS. CHARLES S. BATDORF, Brooklyn, N. Y. Filed Apr. 25, 1914. Serial No. 834,313. (Cl. 194—87.)

1. A shaft, mechanism to be operated therefrom, a crank for the manual operation of said shaft and normally free thereof, check or key controlled means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and to be temporarily connected with said primary member by the introduction of a check or key between them so that the motion of one may be communicated to the other and to said shaft, means for supporting said check or key in operative position, means for releasing said check or key after said members and shaft have completed their movement for the discharge, a casing inclosing said control means having an entrance slot for the key or check, and a band encompassing the periphery of said second rotary member to engage the edge of the check or key introduced through said slot and held by said rotary member.



2. A shaft, mechanism to be operated therefrom, a crank for the manual operation of said shaft and normally free thereof, check or key controlled means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and having a slot or pocket to receive the check or key and a yielding support for the check or key in said pocket, means carried by said primary member to engage the face of said key or check for connecting said primary member and said second rotary member so that the motion of one may be communicated to the other and to said shaft, means coöperating with said yielding support carried by the second rotary member form maintaining said check or key in the slot or pocket of said member, means for tripping said last-mentioned means to release the check or key after said members and shaft have completed their movement in one direction, a casing inclosing said control means having an entrance slot for the check or key, and a band encompassing the periphery of said second rotary member to engage the edge of the check or key introduced through said slot during the movement of said rotary member, said band having a cam end for pressing the check or key against said yielding support and placing the latter under tension during the initial movement of said second rotary member.

3. A shaft, mechanism to be operated therefrom, a crank for the manual operation of said shaft and normally free thereof, check or key controlled means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and having a slot or pocket to receive said check or key and a spring-pressed dog for aiding in supporting the check or key in said pocket, a pivoted spring-pressed dog carried by said primary member to engage the face of said check or key for connecting said primary member and said second rotary member so that the motion of one may be communicated to the other and to said shaft, means coöperating with said spring-pressed dog carried by the second rotary member for maintaining said check or key in the slot or pocket of said member, means for tripping said last-mentioned means to release said check or key after said members and shaft have completed their movement in one direction, a casing inclosing said control means having an entrance slot for the check or key, and a band encompassing the periphery of said second rotary member to engage the edge of the check or key introduced through said slot during the movement of said rotary member, said band having a cam end for pressing the check or key against said spring-pressed dog during the initial movement of said second rotary member.

4. A shaft, mechanism to be operated therefrom, a crank for operating said shaft and normally free thereof, check or key control means interposed between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and having a slot or pocket to receive a check or key and a spring-pressed dog for aiding at one end in supporting the check or key in said pocket, means carried by said primary member to engage the face of said check or key for connecting said primary member and said second rotary member, means coöperating with said spring-pressed dog carried by the second rotary member for maintaining said check or key in the slot or pocket of said member, means for tripping said last-mentioned means to release said check or key after said members and shaft have completed their movement in one direction, a casing inclosing said control means having an entrance slot for the check or key, and a band encompassing the periphery of said second rotary member to engage the edge of the check or key introduced through said slot during the movement of said rotary member, said band having a cam end for pressing the check or key against said spring-pressed dog during the initial movement of said second rotary member so as to turn said dog to a limited extent and thereby set its shank end in a free path, combined with means on the release of the check or key and the automatic return to its initial position of said spring-pressed dog to engage the shank end of said dog on the reverse movement of the crank for resetting the mechanism of the machine to its initial position ready for a subsequent operation on the introduction of another check or key.

5. A shaft, mechanism to be operated therefrom, a crank for the operation of said shaft normally free thereof, check or key controlled means between said crank and shaft and comprising a primary member normally free to rotate independently of said shaft and connected with said crank, a second rotary member rigid on said shaft and to be temporarily connected with said primary member by the introduction of a check or key connecting them so that the motion of one may be communicated to the other and to said shaft, means for supporting said check or key in operative position in a pocket in said second rotary member and comprising a slide having an end to cross said pocket and said check or key, a lever spring-pressed in its initial position holding said slide and a cam connected with said lever, and means for tripping said check supporting means after said members and shaft have completed their movement in one direction comprising a frame mounted to travel toward and from said second rotary member and to be actuated therefrom and a pin carried by said frame and which during the rotation of said crank to effect the operation of the discharging mechanism, moves toward said cam and arrives in the path thereof on the completion of said rotation to thereby trip said lever and withdraw said slide so as to permit the release of the check or key.

[Claims 6 to 9 not printed in the Gazette.]

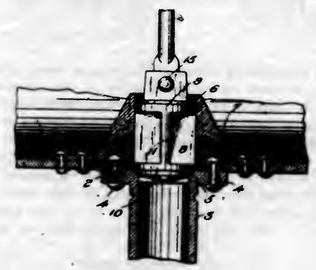
1,135,253. UNION SUIT. CHARLES E. WAGSTAFFE BATESON, New York, N. Y., assignor to Standard Knitting Mills Company, a Corporation of New York. Filed Apr. 25, 1913. Serial No. 763,477. (Cl. 2—144.)

A reversible union suit having its body and leg portions united by a single seam having a horizontal portion and two oppositely disposed inclined portions at both the front and back of the garment, said leg portions overlapping each other both in front and in back throughout



the horizontal portion of the seam which secures both overlapping portions to the body portion.

1,135,254. DISCHARGE APPLIANCE FOR RAILWAY TANK-CARS. CHARLES M. BLOXHAM, Verona, N. J., assignor to Union Tank Line Company, Bayonne, N. J., a Corporation of New Jersey. Filed June 3, 1908. Serial No. 436,439. (Cl. 220—120.)

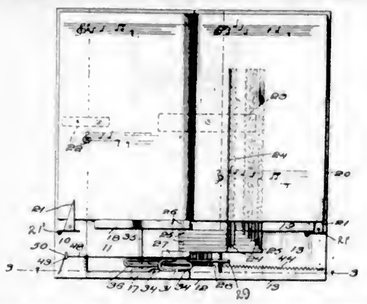


In combination with a tank of a tank car, a discharge opening at the bottom of the tank, a valve seat secured to the outside of the tank and adjacent said discharge opening, a nozzle registering with the opening and valve seat, a valve within the tank comprising two disks joined together by webs, and having no portion projecting into the tubular portion of the nozzle, means within the tank coacting with one of said disks and webs for guiding the valve in its movements, and means for moving the valve torsionally and to and from its seat.

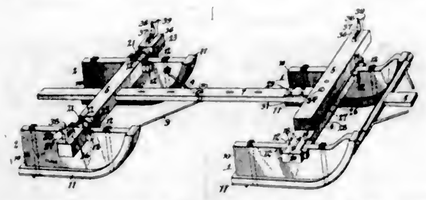
1,135,255. MUSIC-LEAF TURNER. LEWIS A. BOWER, Sigourney, Iowa. Filed May 10, 1913. Serial No. 766,788. (Cl. 84—17.)

In a music leaf turner, a body, shelves secured thereto and adapted to support a folio of music, a plurality of arms pivotally secured on said body, fingers on the ends of said arms arranged to be secured to the leaves of the folio, an actuating arm pivotally secured to the body, a turner hook pivotally secured to said actuating arm, a return arm pivotally secured to said actuating arm and having one end thereof contacting with the body, an actuating element secured to said actuating arm, the turner hook being constructed and arranged to successively engage the aforementioned pivotally supported arms, and move the same in one direction, the turner

hook being adapted to engage one of the said last mentioned arms and to turn all of the said arms simultaneously to their initial positions, and resilient means for actuating said turner hook.

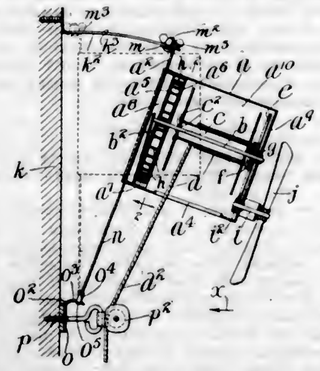


1,135,256. SLED. ERNEST L. CAFLISCH, Clymer, N. Y. Filed July 17, 1913. Serial No. 779,490. (Cl. 21—48.)



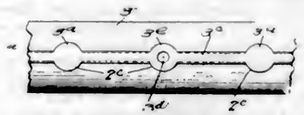
A sled comprising a runner having a knee, two cheeks or blocks secured to opposite sides of the knee and constructed to form a half-round bearing in the upper edges of said knee and cheeks, a cross piece having a rounded journal which turns in said bearing and means for connecting said runner and cross piece comprising two tie bolts arranged in said cheeks and in segmental slots in cross piece and provided with eyes in line with the axis of said bearing and journal, and a pivot pin arranged in the eyes of both tie bolts and supported on said cross piece.

1,135,257. MECHANICAL FAN. ARVID F. CARLIN, New York, N. Y. Original application filed Dec. 26, 1912, Serial No. 738,539. Divided and this application filed Dec. 9, 1913. Serial No. 805,491. (Cl. 230—7.)



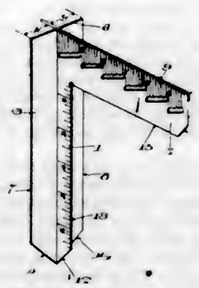
In an apparatus of the class described, a support, a slotted arm connected with said support and projecting therefrom, a bracket secured to said support below said arm, and a fan casing the back of which is provided with a top attaching member slidably and rotatably connected with said arm and the bottom of which is provided with an attaching member rotatably connected with said bracket.

1,135,258. PNEUMATIC-TIRED VEHICLE-WHEEL. MELVILLE CLARK, Chicago, Ill. Filed Aug. 16, 1912. Serial No. 715,397. (Cl. 152—10.)



In a vehicle wheel, in combination with the felly, a pneumatic tube having formed integrally with it a plurality of radially projecting bosses distributed at intervals in its inner circumference and a rib integrally connecting the bosses, and lateral metal guards bound on to the opposite sides of the felly for inclosing the pneumatic tube having flanges which encompass the felly and projecting toward each other embracing said rib of the pneumatic tube between their proximate edges, said proximate edges having oppositely positioned notches which receive and fit the bosses of the tube.

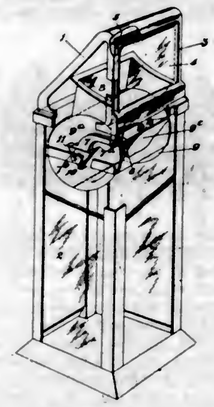
1,135,259. TRY-SQUARE. ELMER W. COKELY, Los Angeles, Cal. Filed Mar. 21, 1914. Serial No. 826,230. (Cl. 33—90.)



A try square comprising a main blade, a tongue in the same plane with the main blade and projected at right angles to said main blade from one end thereof, the tongue being provided with a series of inclined openings, an edge of each opening having a series of deep and shallow notches for the reception of a marking instrument, a back blade secured directly to and extending along the back edge of the main blade beyond both sides thereof, and the plane of the back blade being at right angles to the plane of the main blade and tongue, the end of the back blade being beveled at each side of the main blade, the end of the main blade adjacent the beveled end of the back blade being beveled and the nearest corner of the tongue being beveled in line with the bevel of the main blade, said blades being thin and flat with the faces of the main blade and tongue and the back face of the back blade unobstructed.

1,135,260. FARE-BOX. WILLIAM COX, Toronto, Ontario, Canada. Filed June 1, 1914. Serial No. 842,289. (Cl. 232—61.)

In a fare box comprising an examining chamber having a fare-receiving entrance, the combination of an intermittently-rotating trap within the examining chamber, a multi-laterally-sided ratchet member for the trap with a projecting lip for each side, a cover for the fare-receiving entrance displaceable for the admission of the fare, and a pawl connected with the cover having a reciprocatingly sliding engagement with each side of the ratchet member, the pawl as it moves in one direction engaging the projecting lip and causing the intermittent rotation of the trap



during the closing movement of the cover, and then engaging the adjacent side of the ratchet member to arrest the forward rotation of the trap until the cover is again moved to an open position.

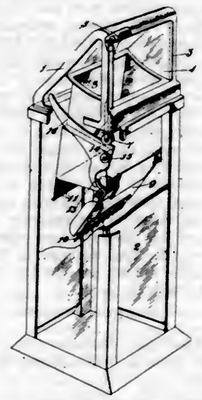
1,135,261. FARE-BOX. WILLIAM COX, Toronto, Ontario, Canada. Filed June 1, 1914. Serial No. 842,290. (Cl. 232—61.)



In a fare box comprising an examining chamber having a fare-receiving entrance, the combination of an intermittently-rotating trap, a ratchet wheel causing its rotation, a lever, a pawl pivoted to the lever and engaging with the ratchet wheel, a pin projecting from said lever, a swinging arm, having an elongated slot therein to receive said pin and cause the movement of the lever during the swinging movement of the arm, a displaceable cover hinged to the fare box to close said entrance, a link pivotally connected to said cover and arm whereby the displacement of the cover will set the pawl for the rotation of the trap, and a spring to reverse the movement of the cover and its related parts.

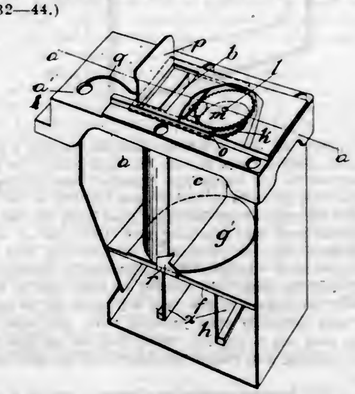
1,135,262. FARE-BOX. WILLIAM COX, Toronto, Ontario, Canada. Filed June 1, 1914. Serial No. 842,291. (Cl. 232—58.)

1. In a fare box comprising an examining chamber having a fare receiving entrance, the combination of a trap hinged within the examining chamber to close the passage therethrough, a bell crank lever, one arm of which is in operative relation with the trap, a movable cover for closing said entrance, and means carried by the cover engaging the other arm and actuating the lever for the movements of the trap.



2. In a fare box comprising an examining chamber having a fare receiving entrance, the combination of a trap hinged within the examining chamber to close the passage therethrough, said trap having a crank arm, a bell crank lever fulcrumed within the examining chamber, one arm of which is continually in engagement with the crank arm of the trap, a movable cover for closing said entrance, and means carried by the cover engaging the other arm of the bell crank lever and actuating it to close the trap during the opening movement of the cover, the trap opening by gravity during the closing movement of the cover and automatically restoring the bell crank lever to an inoperative position.

1,135,263. FARE-BOX. WILLIAM COX, Toronto, Ontario, Canada. Filed June 1, 1914. Serial No. 842,292. (Cl. 232—44.)



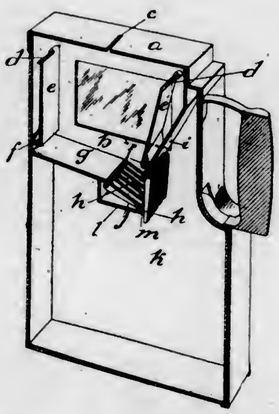
1. A fare box comprising an examining chamber having a fare receiving slot and a sliding cover closing the outer end of said slot, in combination with an oscillating tubular trap mounted within the examining chamber and having a cover to close the inner end of said slot, and means actuated by the sliding cover to cause the oscillation of the trap, the cover for the trap having an opening into the trap which is brought into line with the fare receiving slot at each oscillation of the trap.

2. A fare box comprising an examining chamber having a fare receiving slot and a sliding cover closing the outer end of said slot, in combination with an oscillating tubular

trap mounted within the examining chamber at one side of the fare receiving slot, and having a cover to close the inner end of said slot, the cover for the trap having an opening therethrough, a pinion fixedly connected to said trap, a rack actuated by said sliding cover, and gear wheels transmitting motion from said rack to said pinion whereby the trap is oscillated to respectively bring said opening into and out of line with the fare receiving slot.

3. A fare box comprising an examining chamber having a fare receiving slot and a sliding cover closing the outer end of said slot, in combination with an oscillating tubular trap mounted within the examining chamber at one side of the fare receiving slot, and having a cover to close the inner end of said slot, the cover for the trap having an opening therethrough, a pinion fixedly connected to said trap, a rack actuated by said sliding cover, gear wheels transmitting motion from said cover to said pinion whereby the trap is oscillated to respectively bring said opening into and out of line with the fare receiving slot, and a baffle within the examining chamber at the lower end of the trap, said baffle having an opening therethrough for the emptying of the trap.

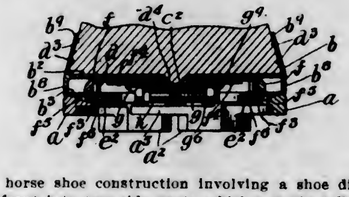
1,135,264. FARE-BOX. WILLIAM COX, Toronto, Ontario, Canada. Filed June 1, 1914. Serial No. 842,293. (Cl. 232—62.)



1. In a fare box, an examining chamber, having a cover with a fare receiving slot therein, through which the fares are admitted to the examining chamber, and having an opening at the junction of the bottom and one of the vertical sides through which the fares pass from the examining chamber into the fare magazine, two sets of segregated fingers, one set pivoted to the bottom and supported to extend substantially horizontally across said opening, and the other set pivoted to said side to intermesh with the fingers of the first set, each set of fingers moving into normally open relation with the other set, when the fare box is slightly tilted from an upright position, and moving into closed relation when the fare box is inverted.

2. In a fare box, an examining chamber, having a cover with a fare receiving slot therein, through which the fares are admitted to the examining chamber, and having an opening at the junction of the bottom and one of the vertical sides through which the fares pass from the examining chamber into the fare magazine, two sets of segregated fingers, one set pivoted to the bottom and supported to extend substantially horizontally across said opening, and the other set pivoted to said side to intermesh with the fingers of the first set, each set of fingers moving into normally open relation with the other set, when the fare box is slightly tilted from an upright position, and moving into closed relation when the fare box is inverted, and two shutters within the examining chamber at opposite sides of the fare receiving slot and pivoted to swing across it when the examining chamber is inverted.

1,135,265. HORSESHOE. GEZA DANY, New Brunswick, N. J. Filed Feb. 12, 1914. Serial No. 818,200. (Cl. 168—20.)



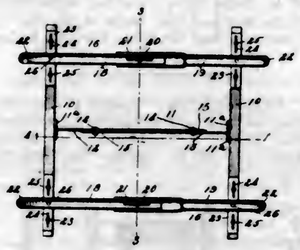
1. A horse shoe construction involving a shoe divided at the front into two side parts which are pivotally and movably connected at the toe, corresponding shoe plate members composed of top and bottom portions and placed on said shoe members, said shoe plate members being pivotally and adjustably connected at the toe and being provided with upwardly directed flanges adapted to engage the hoof of a horse's foot, the top portions of the shoe plate members being extended inwardly of the bottom portions, clamp and lock plates detachably pivoted to the heel portions of the top part of the shoe plate members and ranging forwardly and having a loose and pivotal connection with the top part of one of the shoe plate members, lock arms placed between the top part of the shoe plate members and the clamp and lock plates and provided at their inner ends with hooks which engage said clamp and lock plates, and at their outer ends with hooks which engage the shoe members, said clamp and lock plates being also provided centrally with bearings through which are passed a screw-bolt.

2. A horse shoe construction of the class described comprising a shoe divided centrally a the toe into separate parts pivotally connected, shoe plate members mounted on said shoe and divided at the toe into separate pivotally and adjustably connected parts, said shoe plate members being composed of top and bottom portions and provided with upwardly and inwardly curved flanges which are adapted to grasp and hold the hoof of a horse's foot, the top portions of said shoe plate members being extended inwardly of the bottom portions, and the bottom portions being adapted to engage said shoe members, clamp and lock plates placed between the top and bottom portions of the shoe plate members and adapted to bear on the top portions thereof, radial lock arms placed between the clamp and lock plates, and the top portions of the top shoe plate members, and provided at their inner ends with hooks adapted to engage the clamp and lock plates, and at their outer ends with hooks which engage the shoe members, said clamp and lock plates being also provided with bearings through which a transverse screw is passed, and said screw being provided with a nut whereby the clamp and lock plate members, the lock arms, the side shoe members and the side shoe plate members may be drawn together.

3. A horse shoe comprising separate side shoe members pivotally and slidably connected at the toe thereof, side shoe plates placed on said shoe members and pivotally and adjustably connected at the toe, said shoe plates comprising top and bottom parts, side clamp plates placed between the top and bottom parts of the shoe plates, lock arms placed between the top parts of the shoe plates and the bottom parts thereof and engaging said clamp plates and adapted to engage the side shoe members, and means for drawing said clamp plates together.

1,135,266. ROCKER ATTACHMENT FOR PERAMBULATORS. THOMAS H. DESPER, Newport News, Va. Filed June 29, 1914. Serial No. 848,046. (Cl. 21—12.)

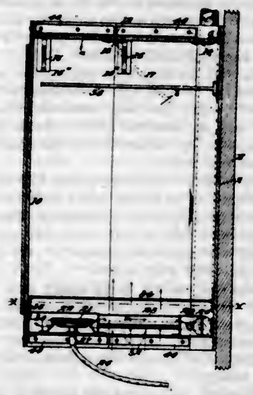
1. In a rocker attachment for children's carriages, a pair of rockers, a pair of channeled vehicle supporting arms connecting the ends of said rockers and having upturned ends, and an adjustable reach between the supporting bars attached at its ends to the rockers, said bars and said reach each being formed of two sections adjustably connected together to provide for carriages of different wheel bases and whereby said upturned ends may closely embrace the wheels to lock and hold the carriage in position.



2. In a rocker attachment for children's carriages, a pair of rockers, a pair of vehicle supporting bars having upturned ends, and connecting means between the rockers and the bars, said means being adjustable whereby to vary the distance between the bars, said bars being formed of two overlapping members adjustably connected together to adapt the bars to carriages of different wheel bases, and whereby said upturned ends may be brought into engagement with the vehicle wheels to lock and hold the carriage in position.

3. A rocker attachment for children's carriages, comprising a pair of rockers, a reach formed of two overlapping members adjustably connected together and secured to said rockers, a pair of vehicle supporting bars longitudinally adjustable mounted on the top of the rockers and having upturned ends to embrace the vehicle wheels, a plate on each end of each supporting bar having slotted openings therein through which fastening bolts pass to hold the bars to the rockers, and a seat on each plate fitted to the end of the supporting bar and fastened thereto.

1,135,267. FOLDABLE DRYING-CABINET. GUSTAV DIECKMANN, San Francisco, Cal. Filed June 2, 1914. Serial No. 842,354. (Cl. 34—19.)



1. A folding cabinet comprising a stationary rear section having top and side extensions rigidly secured thereto, foldable side panels hingedly supported on said side extensions, a front panel hingedly supported by the side panels, a foldable top hingedly secured to the top extension, means carried by the side panels to support the foldable top, hollow pivot members mounted in the lower ends of the side extensions, a pan carried by said pivot members, said pan being adapted to fold up between the side extensions or fold down to form a bottom for the cabinet, a heater mounted on said pan, a hood inclosing the heater, and discharge flues connecting the hood with the hollow pivot members.

2. A folding cabinet comprising a stationary rear section having top and side extensions rigidly secured thereto, foldable side panels hingedly supported on said side extensions, a front panel hingedly supported by the side panels, a foldable top hingedly secured to the top extension, means carried by the side panels to support the foldable top, hollow pivot members mounted in the lower ends of the side extensions, a pan carried by said pivot members, said pan being adapted to fold up between the side extensions or fold down to form a bottom for the cabinet, a heater mounted on said pan, a hood inclosing the heater, perforations formed in the bottom of the pan for the admission of fresh dry air, and means for conveying moist air from within the cabinet to the heater.

3. A drying cabinet of the character described having a pair of hollow pivot members mounted therein, a pan carried by said pivot members, said pan forming a foldable bottom for the cabinet, a gas burner secured on the pan, a hood inclosing said burner, discharge flues connecting said hood with the hollow pivot connections, perforations formed in the pan under the discharge flue through which fresh air is admitted to the cabinet and heated, inlet flues connected with the hood, and baffle plates connected with said inlet flues to gather and direct moist air formed within the cabinet to the burner and also to direct a portion of the moist air out through the hollow pivot members.

4. A folding cabinet comprising a stationary rear section having top and side extensions rigidly secured thereto, foldable side panels hingedly supported on said side extensions, a front panel hingedly supported by the side panels, a foldable top hingedly secured to the top extension, means carried by the side panels to support the foldable top, hollow pivot members mounted in the lower ends of the side extensions, a pan carried by said pivot members, said pan being adapted to fold up between the side extensions or fold down to form a bottom for the cabinet, a heater mounted on said pan, a hood inclosing said heater, and discharge flues connected with said hood at one end and extending into the hollow pivot connections at their other ends.

5. A folding cabinet comprising a stationary rear section having top and side extensions rigidly secured thereto, foldable side panels hingedly supported on said side extensions, a front panel hingedly supported by the side panels, a foldable top hingedly secured to the top extension, means carried by the side panel to support the foldable top, hollow pivot members mounted in the lower ends of the side extensions, a pan carried by said pivot members, said pan being adapted to fold up between the side extensions or fold down to form a bottom for the cabinet, a heater mounted on said pan, a hood inclosing said heater, discharge flues connected with said hood at one end and extending into the hollow pivot connections at their other ends, means for admitting cool air to the cabinet and heating same, and means for conveying air from within the cabinet to the heater.

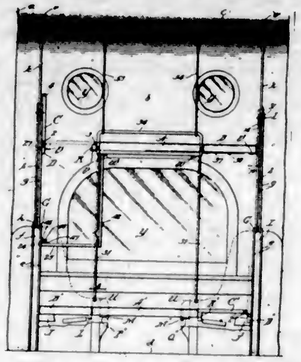
[Claims 6 and 7 not printed in the Gazette.]

1,135,268. SLEEPING-CAR. OREEN M. DONALDSON, River Forest, Ill. Filed May 2, 1912. Serial No. 694,702. (Cl. 105—23.)

1. In a sleeping car the combination of a lower berth, and an upper berth located directly over the lower berth, the upper berth having a movable berth member at one end and a platform below said movable berth member and above the end of the lower berth.

2. In a sleeping car the combination of a lower berth, an upper berth directly above the lower berth, and a platform located below the level of the upper berth, the lower

berth having a movable berth member at one end, and having its opposite end extending beneath said platform.



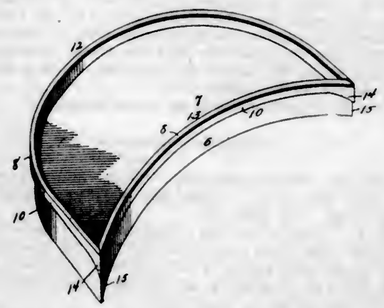
3. In a sleeping car, an upper berth comprising in its construction a plurality of convertible car seat members, a supporting foldable metallic frame having a foldable berth guard rail hinged at the edge of said frame farthest from the car wall, and a swinging arm pivoted to said edge of the frame and adapted to be turned horizontally into position to extend beyond either end of said foldable frame and form a support for one side of an end member of the berth.

4. In a sleeping car, an upper berth comprising in its construction a plurality of convertible car seat members, a platform normally located below the level of the upper berth, a partition member hinged to a convertible seat member and in hinged engagement with one edge of the platform, and means for supporting the opposite edge of the platform, said platform and partition being adapted to be folded into position to extend along the bottom of the convertible seat member with which the partition member is connected.

5. In a sleeping car, an upper berth comprising in its construction a plurality of removable berth members, a metallic foldable frame in supporting engagement with at least one of said members, and a platform connected with a berth member which is supported by said frame, the berth member with which said platform is connected being reversible on said frame, and adapted to permit the platform to be supported in operative position at either end of the berth, as desired.

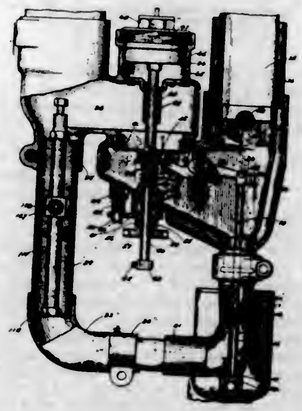
[Claims 6 to 14 not printed in the Gazette.]

1,135,269. COVER FOR TRAYS. CAROL DUDLEY, San Diego, Cal. Filed Oct. 20, 1913. Serial No. 796,250. (Cl. 65—53.)



In a device of the character described, the combination with a tray having a plane upper face, a convex front wall comprising substantially a semi-circle, a concave rear wall, an upstanding flange extending entirely around said tray, a one piece metallic cover conforming to the shape of said tray said cover comprising a plane bottom portion adapted to rest upon the upper face of said tray, a flange of inverted U shape integral therewith to thereby constitute an underside recess within which the upstanding flange of the tray is received, the outer side of said flange of inverted U shape being extended downwardly at the juncture of the side and rear walls of the tray to thereby constitute centering and retaining portions for said cover.

1,135,270. CARBURETER. JAMES F. DURYEA, Springfield, Mass., assignor to Stevens-Duryea Company, Chicopee Falls, Mass., a Corporation of Massachusetts Filed Mar. 12, 1912. Serial No. 683,218. (Cl 48—154.1.)



1. In a carbureter provided with a mixing chamber and an air supply pipe, a spray nozzle, a fuel valve coacting therewith to regulate the flow of liquid through said spray nozzle, a valve controlling a supply of air to said mixing chamber, means operatively connecting said air valve and said needle valve, whereby upon movement of said air valve proportional movement will be transmitted to said needle valve, and thermostatically actuated means adapted to vary the position of said means operatively connecting said air valve and said needle valve.

2. In a carbureter, an air valve and a fuel valve, a lever operatively secured to said air valve and to said needle valve, said lever being pivotally mounted, and means to automatically vary the position of the pivotal point of said lever, said means being responsive to the condition of air supplied to said carbureter.

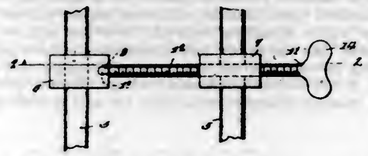
3. In a carbureter, an air valve and a fuel valve, a lever operatively secured to said air valve and to said needle valve, said lever being pivotally mounted, whereby movement of one of said valves will move the other thereof, and thermostatically operated means to vary the position of the pivotal point of said lever.

4. In a carbureter, an air valve and a fuel valve, a lever operatively secured to said valve and to said needle valve, said lever being pivotally mounted, and means actuated by the temperature of the air supplied to said carbureter to automatically vary the position of the pivotal point of said lever.

5. In a carbureter, an air valve and a needle valve, a lever connected at one extremity to said air valve and at the other extremity to said needle valve, a supporting rod journaled in said carbureter, a pivot pin eccentrically carried by said rod, said lever being pivotally mounted intermediate its extremities on said pivot pin, and means to rotate said rod to vary the position of said pin.

[Claims 6 to 14 not printed in the Gazette.]

1,135,271. FORK-SPREADER FOR BICYCLES. WILLIAM JOHN EDWARDS, Vulcan, Mich. Filed Sept. 23, 1913. Serial No. 791,365. (Cl. 29—84.)



1. A spreader for bicycle forks including a pair of U-shaped blocks, the closed ends of the U being arranged in proximity and in parallelism to each other, the parallel arms of each of said blocks adapted to embrace one of the bicycle forks, and means associated with said blocks for moving the same toward or from each other.

2. A spreader for bicycle forks including a pair of U-shaped blocks, the closed ends of the U being arranged in proximity and in parallelism to each other, the parallel arms of each of the blocks adapted to embrace the bicycle forks, one of the arms of each of said blocks being enlarged, and a screw-bolt threaded through the enlarged arm of one of said blocks and rotatably mounted in the enlarged arm of the opposite block, whereby movement of said bolt actuates said block.

1,135,272. GUARD-RAIL. HENRY G. ELFBORG, Chicago, Ill. Filed Apr. 6, 1911. Serial No. 619,296. (Cl. 239—17.)



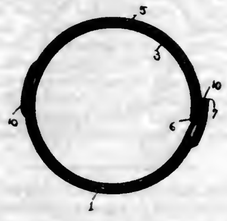
1. In combination a guard rail structure and a traffic rail, said guard rail structure comprising a guard wall and a clamp integral therewith and extending beneath the traffic rail and having an upwardly extending projection adjacent the outer side of the traffic rail, a wedge between said projection and said traffic rail, said wedge having a projecting fin engaging a notch in said upwardly extending projection, a cotter-pin adapted to engage any one of a series of perforations in said fin, and an adjustable spacer between the inner side of said traffic rail and said guard wall.

2. A guard rail structure comprising a base flange, a guard wall comprising substantially vertical parts rising from the outer edge thereof and inclined parts rising from the inner edge thereof and inclining outwardly, said vertical and inclined parts being joined by transverse webs, and clamps integral with said guard wall.

3. In combination a guard rail structure and a traffic rail, said guard rail structure comprising a guard wall and a clamp integral therewith and extending beneath the traffic rail and having an upwardly extending projection adjacent the outer side of the traffic rail, said guard rail being provided with opposed inclined surfaces upon the inner side of said projection and upon the outer side of said guard wall respectively, wedges between said inclined surfaces and the web of the traffic rail and in contact with said web, and means for securing said wedges against displacement.

4. In combination a guard rail structure and a traffic rail, said guard rail structure comprising a guard wall and a clamp integral therewith and extending beneath the traffic rail and having an upwardly extending projection adjacent the outer side of the traffic rail, said guard rail being provided with opposed inclined surfaces upon the inner side of said projection and upon the outer side of said guard wall respectively, wedges between said inclined surfaces and the web of the traffic rail and contact with said web, one of said wedges and the coacting inclined surface being corrugated and the other wedge and incline having coacting substantially plane surfaces, and means for securing the latter wedge against displacement.

1,135,273. PNEUMATIC TUBE. CLARK FRANCIS FISK, Allentown, N. J., assignor of one-half to Robert C. Dunham, Trenton, N. J. Filed Feb. 6, 1913. Serial No. 746,609. (Cl. 152—13.)



1. A pneumatic tire tube comprising a body of rubber, a strip of fabric carried by the tread portion of said rubber body, and a strip of expanded bias fabric carried by the rim portion of said body.

2. A pneumatic tire tube comprising a body of rubber, a fabric strip carried by the tread portion of said body, a second strip of bias fabric carried by the rim portion of said body and expanded circumferentially, the edges of said strips being spaced at one side of the tube leaving an expansion band of rubber.

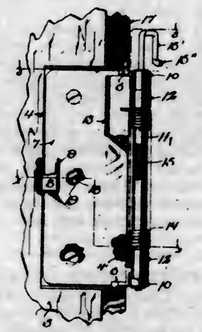
3. A tube for pneumatic tires comprising an elastic body having a strip of fabric carried by the tread portion thereof, a second strip of longitudinally expanded bias fabric carried by the rim portion of the body, the edges of said fabric strips on one side of the tube being spaced to leave an expansion band at said side of the tube and a strip of rubber overlapping said spaced edges and extending across the expansion band.

4. A pneumatic tire tube comprising a rubber body, and a strip of expanded fabric embedded in said body along its rim side.

5. A pneumatic tire tube comprising a rubber body, and a strip of expanded bias fabric embedded in said body along its rim side.

[Claims 6 to 9 not printed in the Gazette.]

1,135,274. SPRING-HINGE. HARRISON D. FLEGEL, Racine, Wis., assignor to Edward J. Schowalter, Racine, Wis. Filed May 8, 1914. Serial No. 837,116. (Cl. 16—25.)

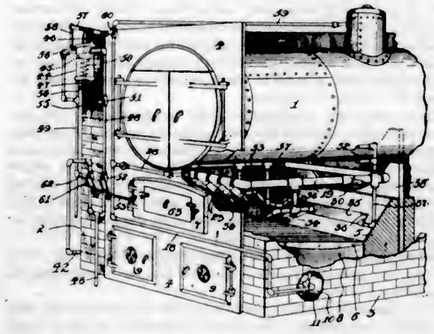


1. A hinge comprising a tubular pintle, a pair of leaves having knuckles thereof engaged by the pintle, a spring under compression on the pintle and opposed at its ends to the leaves, a rod slidable in the pintle and fashioned

at one end for interposition between the leaves, and a plate having guides with which one of the leaves has detachable sliding engagement, the other leaf being attachable to a swing-part and said plate attachable to a stationary support to constitute a fixture thereon.

2. A hinge comprising a plate attachable to a stationary support and provided with end guides, as well as with a hook-lug projecting outwardly from its inner edge, the plate constituting a fixture attachable to a stationary support; a tubular pintle, a pair of leaves having knuckles thereof engaged by the pintle, one of the leaves being slidable in said guides and provided with a slot registrable with said hook-lug, as well as with an opening through which an attaching screw of said plate may be run out to effect an engagement of the leaf-slot with the aforesaid hook-lug; the other leaf being attachable to a swing-part; a spring under tension on the pintle and opposed at its ends to the leaves, and a rod slidable in the pintle and fashioned at one end for interposition between said leaves.

1,135,275. SMOKE-CONSUMING APPARATUS FOR BOILER-FURNACES. FARDINAND GAREAU, Montreal, Quebec, Canada, assignor of one-half to Simeon Proulx, Montreal, Quebec, Canada. Filed Mar. 5, 1914. Serial No. 822,657. (Cl. 110—80.)

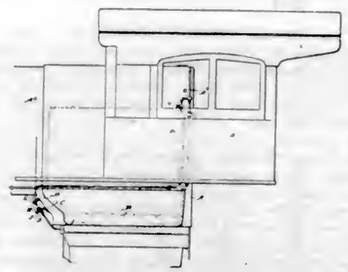


1. In a smoke consuming apparatus for boiler furnaces, the combination with the furnace walls, fire box and bridge, the latter having a hole therethrough, of a rising and falling damper adapted to open and close the space between the boiler and top of the bridge, said damper having a hole therein adapted to coincide with the aforesaid bridge hole when in the raised position and means for simultaneously supplying steam into the fire box and into said bridge wall hole.

2. In a smoke consuming apparatus for boiler furnaces, the combination with the furnace walls, fire box and bridge the latter having a hole therethrough, of a steam ring within the fire box adapted to throw jets of steam on to the fire, means for supplying steam to said ring, a rising and falling damper adapted to open and close the space between the boiler and the top of the bridge and means for raising and lowering said damper, said damper having a hole therein adapted to coincide with the aforesaid hole through the bridge wall when the damper is raised and jets forming extensions from the steam ring adapted to throw steam into said bridge wall hole.

1,135,276. COMBINED STEAM AND AIR FEEDER FOR FIRE-BOXES. CHARLES FREDRIC GREGORY, St. Louis, Mo., assignor to The Gregory Supply and Manufacturing Company, a Corporation of Missouri. Filed Sept. 3, 1914. Serial No. 859,985. (Cl. 110—61.)

1. In an apparatus for the purpose set forth, a mixer comprising a single piece casting having a main tubular portion affording a central longitudinal steam passage, the ends of said tubular portion being constructed for connection with a steam pipe, a hollow enlargement intermediate the ends of the main tubular portion providing an interior chamber extending completely around the central longitudinal steam passage, said main tubular portion having a nipple extending laterally into the said interior chamber, and the hollow enlargement having a nipple extending in line with the first mentioned nipple, the outer wall of the hollow enlargement being provided with air inlet openings communicating with the said interior chamber.



2. In an apparatus for the purpose set forth, a mixer comprising a single piece casting having a central longitudinal bore providing a steam passage, and an interiorly chambered portion extending completely around the said steam passage and having a laterally extending nipple, said casting also having a steam nipple extending laterally from the steam passage into the chamber surrounding the same and in line with the first mentioned nipple, the outer wall of the said interiorly chambered portion being perforated opposite said nipple to provide a direct communication between the interior chamber and the atmosphere.

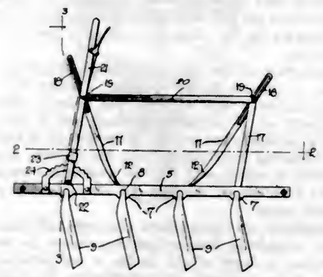
3. In an apparatus for the purpose set forth, a mixer comprising a single piece casting having a central longitudinal bore providing a steam passage, and an interiorly chambered portion extending completely around the steam passage and provided with a laterally extending nipple, the casting having a steam nipple extending laterally from the steam passage into the chamber surrounding the same and in line with the first mentioned nipple, said steam nipple terminating at a point at substantially the inner end of the other nipple, the outer wall of the said interiorly chambered portion being perforated opposite the said nipple to provide a direct communication between the interior chamber and the atmosphere.

4. In an apparatus for the purpose set forth, a mixer comprising a main tubular portion affording a central longitudinal steam passage and having a laterally extending steam nipple, a surrounding perforated jacket formed integral with said tubular portion and provided with a threaded nipple, extending laterally in line with the first mentioned steam nipple, and a nozzle in adjustable threaded engagement with said threaded nipple, said nozzle member being provided with a tapered outer end adapted to fit against the wall of an opening in the fire box.

5. In an apparatus for the purpose set forth, the combination of a plurality of independent mixers, each mixer comprising a main tubular portion affording a central longitudinal steam passage and having a laterally extending steam nipple, a surrounding perforated jacket integral with said tubular portion and provided with a laterally extending nipple in line with said first mentioned steam nipple, and a steam supply conduit common to all of said mixers, said steam supply conduit having sections coupled to and connecting the mixers with each other.

1,135,277. SOIL-PULVERIZER. CARL GRIFFITH, Lamoille, Ill. Filed Aug. 17, 1914. Serial No. 857,206. (Cl. 55—7.)

1. In a soil pulverizing machine, a plurality of pulverizing blades each provided with a rotatably mounted cylindrical shank, levers connected to the shanks of the contiguous blades and extending in relatively opposite directions therefrom, said levers being provided with longitudinally extending slots, bars connected to the shanks of the other blades, parallel bars connecting said latter bars, bolts extending through said bars and the slots in said levers, and an operating lever connected to said parallel bars by one of said bolts and adapted to be manipulated to simultaneously position the pulverizing blades at various angles.



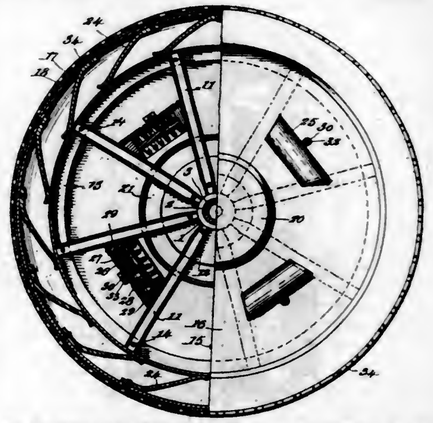
2. In a soil pulverizing machine, a plurality of pulverizing blades each provided upon its end with a rotatably mounted shank, levers removably clamped upon the shanks of contiguous blades and extending in relatively opposite directions therefrom, each of said levers being provided with a longitudinal slot, bars clamped at one of their ends upon the shanks of the other pulverizing blades, a connecting bar loosely bolted at its ends to said first named bars, bolts extending through the slots in said levers, and an operating lever connected to one of said bolts and adapted to be manipulated to move the pulverizing blades in unison to various angular positions with respect to the machine frame.

3. In a soil pulverizing machine, spaced parallel bars, a plurality of pulverizing blades each provided upon one end with a cylindrical shank rotatably mounted in said bars, said shank having a series of longitudinal peripheral ribs, oppositely inclined levers provided with clamping sleeves upon the lower ends having corrugations to cooperate with said ribs, means for securely clamping said sleeves upon the shanks of the blades, bars similarly connected to the shanks of the other blades and slidably connected to said levers, and means for simultaneously shifting said levers and bars to move the pulverizing blades in unison to various angular positions with respect to the machine frame.

1,135,278. RESILIENT WHEEL. LEWIS H. GULBRANDSON, Hayward, Minn. Filed Dec. 27, 1913. Serial No. 809,041. (Cl. 152—28.)

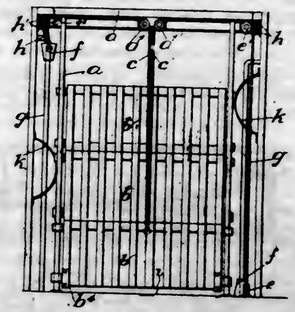
1. In a spring wheel, an outer wheel structure, an inner wheel structure movable radially relatively thereto, radial spokes forming a part of said inner wheel structure, abutment blocks arranged in pairs, the several blocks engaging the spokes aforesaid, a spring interposed between the blocks constituting the respective pairs, means to preclude radial movement of said blocks relatively to the outer structure, said blocks being relatively movable against tension of said springs to cushion the radial movement of said inner wheel structure, and means to prevent distortion of the several springs.

2. In a spring wheel, an outer wheel structure, an inner wheel structure movable relatively to the outer structure, said inner wheel structure comprising a hub, radial spokes, and an inner rim, spring devices interposed between the inner rim and the outer structure, abutment blocks arranged in pairs and disposed for engagement with the spokes, a spring interposed between the blocks constituting the respective pairs, means precluding radial movement of the several blocks relatively to the outer wheel structure, said blocks being relatively movable against tension of the associated springs incident to yielding radial movement of the hub, spokes and inner rim.



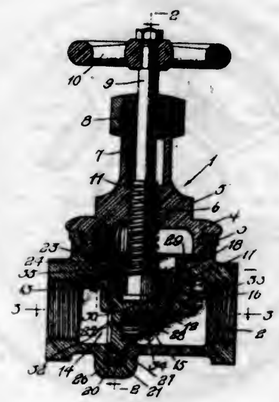
3. A spring wheel including a two-part casing, a peripheral flange formed integrally with each part of said casing, said flanges being disposed to overlap each other and to provide the tread portion of the wheel, a hub, spokes rigid with said hub and radiating therefrom, a channel-like rim rigid with said spokes, said hub, spokes and rim being bodily movable within said casing, spring means interposed between said rim and said tread portion of the wheel to provide a yieldable support for said hub, spring means interposed between said spokes, said means being incapable of lateral movement independent of said casing, and friction blocks engageable with said spokes and said last mentioned spring means, said spokes being slidable to compress said blocks to provide, with said first mentioned spring means, a yieldable support for said hub.

1,135,279. ELEVATOR-GATE AND GATE-OPERATING MECHANISM. AUGUST EDWARD HAGER, Toronto, Ontario, Canada. Filed Sept. 22, 1913. Serial No. 791,043. (Cl. 187—60.)



In the herein described device, an elevator gate comprising a plurality of gate sections, individual guide rods for each gate section, and a lifting element attached to the lowermost gate section to successively engage the superposed ones whereby it raises them first individually and then collectively to the open position of the gate, in combination with an elevator, traveling ropes connected to the lowermost gate section and automatically actuated by the elevator as it approaches the landing stage to raise the lowermost gate section to its elevated position and automatically released by the elevator as it departs from the landing stage, whereby said gate section may return to its normal position.

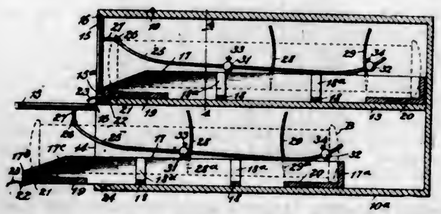
1,135,280. GATE-VALVE. DAVID HAMILTON, Greensburg, Pa. Filed Sept. 10, 1914. Serial No. 861,099. (Cl. 137—5.)



1. The combination with a valve casing having an opening in one side, an annular internally threaded flange surrounding said opening, and a pair of partitions within the casing, said partitions being located on opposite sides of the opening and converging toward the opposite sides of the casing, a nut having a threaded engagement with the internally threaded annular flange, and a valve located between said partitions; of a removable valve seat interposed between the valve and the partitions, said valve seat being formed of a single plate bent substantially upon itself to form a pair of converging plates, said plates contacting with the converging partitions and having their free ends passed through the opening in the casing and bent laterally; said laterally bent ends contacting with the inner side of the nut, the converging plates and the converging partitions having alined openings.

2. The combination with a valve casing having an opening in one side, an annular internally threaded flange surrounding said opening, a valve in the casing, and a nut having a threaded engagement with said flange, of a removable valve seat in said casing and having a retaining member projecting through said opening and bearing against the inner ends of the nut.

1,135,281. MUSIC-CABINET. MASON ALBERT HAWKINS, Baltimore, Md. Filed May 14, 1914. Serial No. 838,494. (Cl. 211—16.)



1. A structure of the character described having a compartment, a holder slidable in the compartment, a swinging door for closing the compartment, a door opening and closing member in the compartment, a connection between said member and the door, and trip means on the holder to actuate said member in opposite directions by the movements of the holder.

2. A structure of the character described having a compartment, a holder slidable longitudinally in the compartment, a door for closing the compartment in front of the holder, a door opening and closing member connected with the door, said holder having a limited sliding movement relatively to the said opening and closing member, and trips on the holder to actuate the said member after a limited movement of the holder in either direction.

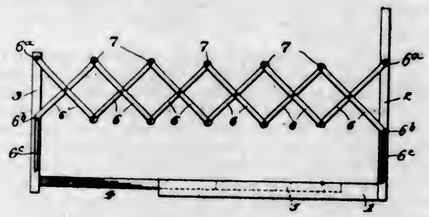
3. A structure of the character described having a compartment, a slidable holder therein, a door for closing the compartment, a door opening and closing device ranging longitudinally of the holder and connected with the door, trip means carried by the holder and embracing the said door opening and closing device to guide the same, and spaced elements on the said door opening and closing device engageable by the said trip means in the movements of the holder.

4. A structure of the character described having a compartment, a slidable holder therein, a door for closing the compartment, a door opening and closing rod ranging longitudinally of the compartment adjacent to the holder, spaced trip members carried by the holder at a side thereof and extending upwardly above the holder, said trips having slots in which said rod has guided movement, and adjustable members on the said rod adapted to be engaged by the said trips.

5. A structure of the character described having a compartment, a slidable holder therein, a door to close the compartment in front of the holder, a rod ranging longitudinally of the compartment adjacent to the holder and having an articulated connection with the door, said holder and rod having co-acting members to actuate the one by a movement of the other.

[Claims 6 to 8 not printed in the Gazette.]

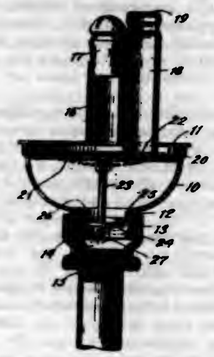
1,135,282. FILE-BOX. JULIO P. HERNANDEZ, Iloilo, Philippine Islands. Filed June 10, 1914. Serial No. 844,268. (Cl. 129—1.)



A file box including relatively movable front and rear walls, a bottom composed of slidably connected guide members carried by the respective walls, sets of lazy-tong levers extending between the said front and rear walls at each side of the box, said levers having upper and lower pivotal connections, the terminal upper connections forming fixed pivots between said levers and the front and rear walls, and the lower connections having terminal pivot members slidably engaging the front and rear walls, and the intermediate upper pivot members comprising rods extending across the box and forming common pivotal connections for the upper ends of the sets of levers and serving also to provide a series of transverse partitions.

1,135,283. SAFETY GAS-BURNER. GEORGE F. HERRMANN, Jersey City, N. J. Filed Oct. 8, 1914. Serial No. 865,723. (Cl. 67—116.)

A device of the character described, comprising a chambered body having a burner tube at one end and means at its other end for connection to a gas supply pipe, a valve seat in said body near its gas intake end, an air tube arranged close to the burner tube and extending into the body, a rigid plate secured to the inner end of the air tube and spaced away both from the sides of the body and from the end of said body carrying the burner tube, a diaphragm having its peripheral edge secured to said plate to form an air chamber between them communicating through an opening in said rigid plate with the air tube, a stem secured to said diaphragm and carrying a valve



adapted to engage said valve seat for cutting off the supply of gas when the diaphragm is collapsed.

1,135,284. NUT-LOCK. JOHN H. HORN, Paterson, N. J., assignor to The National Lock Washer Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 30, 1914. Serial No. 874,709. (Cl. 151—36.)



1. A nut-lock, consisting in general form of a segment of a helix, having certain portions twisted about an axis extending lengthwise of the helical segment.

2. A nut-lock of helical form, each end of the nut-lock being twisted or tilted, in the direction of its width, out of line with the normal surface of the helix.

3. A nut-lock of helical form, each end being twisted transversely, in the direction of its width, out of line with the normal helical surface and having a pitch different from that of the adjacent body portion.

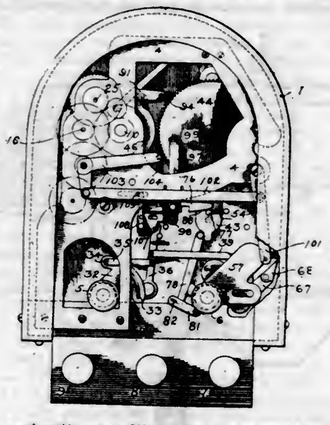
4. A nut-lock of helical form, having that portion of the body adjacent each end twisted transversely, in the direction of its width, out of line with the normal surface of the helix, the twist in one end being in a direction the reverse of that in the other.

5. A nut-lock of helical form, having a portion of the body twisted or tilted, in the direction of its width, out of line with the normal surface of the helix.

1,135,285. CIRCUIT-CONTROLLER. FRANCIS R. HOYT, Indianapolis, Ind., assignor, by mesne assignments, to Arthur F. Eickhoff, Indianapolis, Ind. Filed Oct. 24, 1910. Serial No. 588,848. (Cl. 171—314.)

1. In a controlling device for electric circuits, a generator, a battery, a main circuit, a movable contact whereby either the battery or the generator may be made the source of electrical supply of the main circuit, a regulator for determining operative periods of charge and discharge; means set in operative condition by manual effort controlled by the regulator for automatically shifting the contact to alternate the source of electrical supply at the termination of predetermined operative periods as determined by the regulator.

2. In a controlling device for electric circuits, a generator, a battery, a main circuit, a movable contact adapted to alternately connect the main circuit with the generator and battery, a regulator for determining operative periods of charge and discharge; controlling the movement of the movable contact, a switch in the main circuit, actuating means for the movable contact set in operating condition by the operation of said switch said actuating means being adapted to move the contact when the regulator has registered a predetermined period of operation.



3. In a circuit controlling device, a generator, a battery, a main circuit, a movable contact in said circuit, a traveling control member normally locking the movable contact against motion, means for shifting the movable contact when the control member has reached a predetermined point in its path of travel whereupon the contact is released thereby causing the generator and the battery to alternately become the source of electrical supply.

4. In a circuit controlling device, a generator, a battery, a main circuit, a movable contact in said circuit, a traveling control member normally preventing the movement of the contact, means for shifting the movable terminal when the control member has reached a predetermined point in its path of travel, means for reversing the direction of travel of the control member when the generator is at rest, thereby delaying the movement of the contact.

5. In a circuit controlling device, a generator, a battery, a main circuit, the said battery being bridged across the main circuit, a movable contact connecting the circuit with the generator whereby the generator will simultaneously supply the main circuit and the battery, a manually operated switch controlling the main circuit, means placed under tension by the manual manipulation of the switch for automatically disconnecting the generator at the termination of a predetermined total period of generation, and means to automatically reëstablish the connection at the termination of a predetermined total period of operation of the main circuit.

[Claims 6 to 62 not printed in the Gazette.]

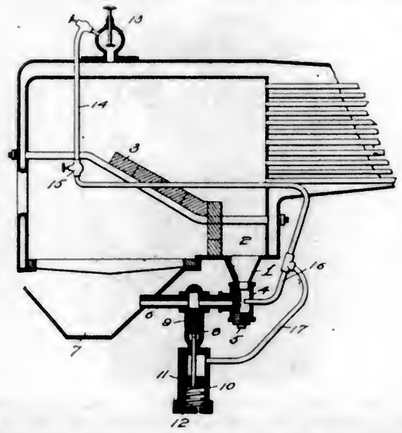
1,135,286. FIRE-BOX. ROBERT E. JACKSON, Victoria, and FRANK E. BELL, Norfolk, Va. Filed June 16, 1914. Serial No. 845,390. (Cl. 110—171.)

1. The combination of a fire-box having an arch and a cinder-receiver in front of said arch, an ash pan, a cinder conduit connected with and arranged between the cinder-receiver and the ash pan, a rectilinearly-movable gate-valve normally intersecting and closing the cinder conduit, a piston cylinder, a piston in said cylinder and connected with said valve, a spring backing said piston, a source of fluid-pressure supply, a valved conduit leading therefrom, and conduits communicating with said valved conduit and connected with the cinder conduit and the piston cylinder, respectively.

2. The combination of a fire box having an arch and a cinder-receiver in front of said arch, an ash pan, a cinder conduit intermediate the cinder-receiver and the ash pan, a valve normally held under yielding pressure in position to close said cinder-conduit, and fluid-pressure means for synchronously opening the valve and displacing cinders in the cinder conduit.

3. The combination of a fire box having an arch and a

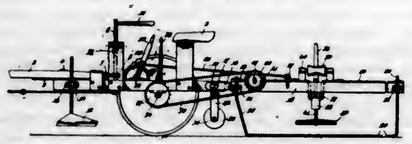
cinder-receiver in front of said arch, a cinder conduit leading from the cinder-receiver, a valve normally held under yielding pressure in position to close said cinder-



conduit, and fluid-pressure means for synchronously opening the valve and displacing cinders in the cinder conduit.

4. The combination of a cinder-receiver, a cinder conduit leading from said receiver, a valve normally closing said conduit, and fluid-pressure means for synchronously opening the valve and displacing cinders in the cinder conduit.

1,135,287. COTTON-CHOPPING MACHINE. HUGH V. JOBE, Roll, Okla. Filed Mar. 17, 1913. Serial No. 754,879. (Cl. 97—45.)



1. A cotton chopping machine including a main frame, a supplementary frame, brackets secured thereto, the said brackets each being provided with an elongated slot, means carried by the said main frame adapted to extend through the said slots to provide for pivotal movement of the said supplementary frame and for slight longitudinal movement thereof independent of the said main frame, and means including a pair of vertically adjustable runners detachably secured to the said supplementary frame whereby the said frame may be adjusted vertically independent of the said main frame.

2. In combination with a cotton chopping machine, an operating crank shaft, a reciprocatory arm loosely connected to the offset in the said crank shaft, a bracket mounted upon one end of the said arm, a vertically adjustable blade supporting member carried by the said bracket, and guide means including an independently mounted roller arranged over the said arm to normally maintain the said arm at an inclination with respect to the machine, as and for the purpose set forth.

3. A cotton chopping machine including a wheeled main frame, a sprocket wheel loosely mounted upon the main shaft of the said wheel frame, clutch mechanism carried by the main frame for rotating the said sprocket wheel according to the rotation of the said shaft, a rear supplementary frame pivotally and detachably secured to the said main frame, a shaft journaled within bearings secured to the said supplementary frame, means connecting the said sprocket wheel to the said last mentioned shaft for imparting movement thereto according to the rotation of the said sprocket, a reciprocatory cutting blade carried by the said supplementary frame, means including a plurality of gears and shafts for operating the said blade, and means carried by the main frame for elevating the rear frame and lifting the said blade out of operative position.

4. A cotton chopping machine including a wheeled main frame, a sprocket wheel loosely mounted upon one end of the main shaft of said frame, clutch mechanism carried by said frame for rotating the said wheel according to the rotation of the said shaft, a second shaft mounted upon the rear frame and extending parallel with the main shaft of the machine, means for connecting the said second mentioned shaft to the said wheel for operating the former according to the rotation of the main shaft, a crank shaft carried by the said supplementary frame, the rotation of which is controlled by the movement of the said second mentioned shaft, and means including a crank shaft carried by the main frame and connected to the supplementary frame for elevating the latter and lifting the reciprocatory blade out of operative position.

5. In combination with a cotton chopping machine comprising a main frame, a supplementary frame, and means for swinging the said supplementary frame into and out of operative position, of an operating crank shaft carried by the said supplementary frame, means for driving the said crank shaft during the forward movement of the said main frame, an operating arm loosely connected to the offset in the said crank shaft, a bracket at one end of the said arm, a vertically adjustable blade carrying member supported by the said bracket, and a roller disposed at one side of the said supplementary frame and over the said arm to provide a stop therefor and to maintain the said arm normally at an inclination with respect to the said supplementary frame, as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,135,288. DUST-SPRAYING MACHINE. CHARLES E. JOHNSON, Kansas City, Mo., assignor to Dust Sprayer Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Oct. 17, 1913. Serial No. 795,683. (Cl. 43—14.)



1. A dust spraying machine comprising a dust receptacle, a distributer conduit connected with the receptacle, a plurality of nozzles, and a plurality of connections graduated in length from the inner part of the distributer conduit for connecting said nozzles to said conduit.

2. A dust spraying machine comprising a dust receptacle, a distributer conduit connected with the receptacle, a plurality of nozzles, and a plurality of connections increasing in length by a predetermined amount from the inner part of the conduit, and adapted to connect said nozzles with said conduit.

3. A dust spraying machine comprising a dust receptacle, a distributer conduit connected with the receptacle, spaced tubes projecting from and communicating with said conduit, nozzle tubes on said spaced tubes increasing in length by a predetermined amount from the inner part of the conduit, and projecting at right angles therefrom, and nozzles losely pivoted on said nozzle tubes.

4. A dust spraying machine comprising a dust receptacle a distributer conduit connected with the receptacle, spaced tubes projecting at right angles from and communicating with the conduit, a plurality of nozzles, and nozzle tubes on said spaced tubes increasing in length by a predetermined amount from the inner part of the conduit and adapted to lie parallel to said conduit; the said nozzle tubes being adapted for projection on either side of said conduit tubes to uniformly vary the distance between said nozzles.

5. In a dust spraying machine, a dust receptacle, a distributer conduit connected with the receptacle, tubes fixedly mounted on and communicating with the conduit in spaced relation to each other, nozzle tubes pivotally mounted at right angles to and communicating with the conduit tubes, whereby the said nozzle tubes may be projected from opposite sides of the conduit tubes, and nozzles mounted on the nozzle tubes.

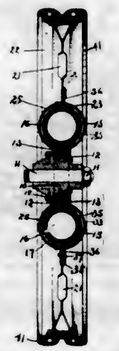
[Claims 6 to 14 not printed in the Gazette.]

1,135,289. METALLIC HOOP. THORWALD JOHNSON, Chicago, Ill. Filed Oct. 18, 1911. Serial No. 655,412. (Cl. 217—91.)



As a new and useful article of manufacture, a hoop for wooden barrels, formed of a single strip of thin sheet-metal with a thickened driving portion on its edge of lesser diameter formed by folding over that edge of the metal until it engages the opposing surface and forms a flattened fold, and with its plain edge of greater diameter adapted to engage the staves, an angle being formed along the central line of said hoop so that the stave-engaging face is slightly concaved as shown so that it engages the staves at its edges only and any pressure applied to the angle at the central line of the hoop tends to cause the hoop to flatten and its edges to engage the staves more firmly.

1,135,290. VEHICLE-WHEEL. WILLIAM KINGSLEY, Seattle, Wash., assignor of one-half to Albert C. Phillips, Seattle, Wash. Filed Jan. 29 1914. Serial No. 815,109. (Cl. 152—41.)



1. In a vehicle wheel, in combination, a wheel-hub, a wheel felly, an integral metal plate connecting said hub and felly, said plate including an annular channel in proximity of said hub having a resilient action about its outer portion, and an annular cushion adapted to support the resilient action of said plate.

2. In a vehicle-wheel, the combination with a wheel-hub, a wheel-felly, and a spring metal plate comprising radiationg integral spoke connections between said hub and felly, said connections being resiliently yielding in directions toward the axis of rotation of the wheel, of a pneumatic casing coöperating with said connections and affording a cushion to limit the extent of their action.

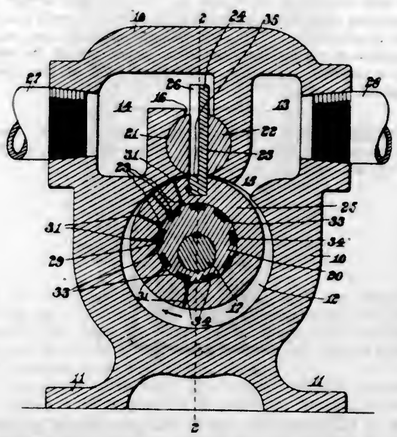
3. In a vehicle wheel, the combination with a wheel-hub, and a wheel-felly spaced concentrically therefrom, an integral metal plate connecting said hub and felly including radiating spokes and having a resilient portion adjacent said hub, and an annular cushion associated with said hub and adapted to support the resilient action of said plate.

4. In a vehicle wheel, the combination with a wheel-hub, and a wheel-felly spaced concentrically therefrom, an integral metal plate connecting said hub and felly including radiating spokes and having a resilient portion adjacent said hub, and an annular cushion associated with said hub and adapted to support the resilient action of said plate, and a disk secured to said hub oppositely to said plate and slidably engaged at its periphery with said plate.

5. In a vehicle wheel, the combination with a wheel-hub, and a wheel-felly, a metal plate connecting said hub and felly, said plate being formed with radiating spokes and in proximity of said hub with an annular channel having a resilient action toward the wheel axle, and an annular cushion positioned in said channel and adapted to resist the inward flexure of said resilient portion.

[Claims 6 to 8 not printed in the Gazette.]

1,135,291. ROTARY PUMP. JUSTUS ROYAL KINNEY, Boston, Mass., assignor to The Kinney Manufacturing Company, Boston, Mass, a Corporation of Massachusetts. Filed May 1, 1913. Serial No. 764,951. (Cl. 103—44.)



1. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber; a revoluble shaft centrally disposed therein; an eccentric thereon; and an annular piston on said eccentric having an unbroken inner cylindrical wall on its inlet side and provided on the outlet side of said inner cylindrical wall with grooves extending transversely thereof, each groove communicating with a radial passage extending from the outer wall of said piston and adapted to admit fluid under pressure successively to said transverse grooves.

2. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber; a revoluble shaft centrally disposed therein; an eccentric thereon; and an annular piston on said eccentric

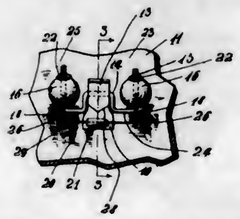
having an unbroken inner cylindrical wall on its inlet side and contacting with the periphery of said eccentric provided on its discharge side with grooves extending transversely of said inner cylindrical wall and terminating within the side walls of said piston each groove having a radial passage extending therefrom to the outer wall of said piston whereby fluid under pressure may be admitted successively to said transverse grooves.

3. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber; a revoluble eccentric piston member in said chamber; an annular piston member surrounding said eccentric piston member and having an unbroken inner cylindrical wall on its inlet side contacting with the periphery of said eccentric; and means for successively producing a hydraulic cushion between said piston members in advance of the various points of contact of the outer piston member with the cylindrical wall of the piston chamber on the outlet side thereof.

4. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber; a revoluble eccentric piston member in said chamber; an annular piston member surrounding said eccentric piston member and having an unbroken inner cylindrical wall on its inlet side contacting with the periphery of said eccentric; inclosed chambers in one of said piston members on the outlet side of said device; and means for admitting material under pressure successively to said chambers in advance of the point of contact of the outer piston member with the wall of said piston chamber to produce a hydraulic cushion between said piston members.

5. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber; a revoluble eccentric piston member in said chamber; an annular piston member surrounding said piston member and having an unbroken inner wall on the inlet side of said device contacting with the periphery of said eccentric and a plurality of transverse grooves on the outlet side the ends of which are closed; and means for supplying fluid under pressure successively to said grooves and producing a hydraulic cushion between the piston members in advance of the point of contact of the outer piston member with the cylindrical wall of the piston chamber.

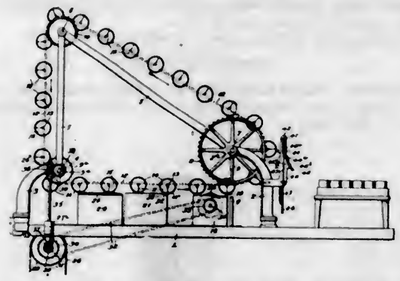
1,135,292. DOLL-HEAD. HUGO KLAGSBRUNN, Mount Vernon, N. Y. Filed Nov. 14, 1914. Serial No. 872,148. (Cl. 46—40.)



1. A mechanism for dolls' eyes comprising, in combination, a bearing at the inside of a doll's head, a cranked shaft having a central, horizontal part rotatably carried by said bearing, and two vertical ends each carrying, rotatably thereon, a globe representing an eyeball and provided with pupils and iris at their part normally appearing in the eyeholes of said doll's head, and weight-controlled means for turning said eyes in respect to said eyeholes so as to produce the effect of open or closed eyes and of eyes looking straight forward or sidewise, respectively, substantially as set forth.

2. A mechanism for dolls' eyes comprising, in combination, a bearing at the inside of a doll's head, a cranked shaft having a central, horizontal part rotatably mounted in said bearing and two vertical ends carrying, rotatably thereon, a pair of globes representing eyeballs and provided with pupils and iris at their part normally appearing in the eyeholes of said doll's head, weight controlled means for turning said eyeballs in respect to said eye-holes and means for limiting said turning movement in both directions to the required extent, substantially as and for the purpose set forth.

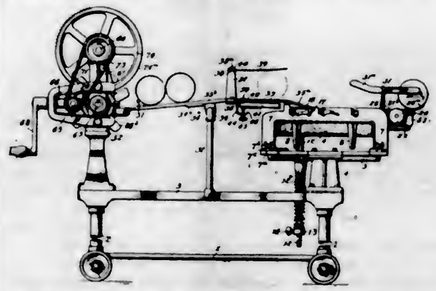
1,135,293. METHOD OF TREATING LABELS AND APPLYING THE SAME TO CANS. FREDERICK H. KNAPP, Westminster, Md., assignor to The Fred H. Knapp Company, Westminster, Md., a Corporation of Maryland. Filed Nov. 4, 1910. Serial No. 590,747. (Cl. 216—62.)



1. The method of treating labels prior to their application to cans or the like, consisting in applying a coating of paste to the surface of the label causing the pasted label to adhere to a conforming body of substantially the size of a can to be labeled, allowing the label to remain on the body until the same has become properly tempered and conformed, and finally removing the label and applying the same to a can or the like.

2. The method of treating labels which consists in applying paste to the periphery of a cylindrical conforming member, moving said conforming member over a supply of labels, whereby the upper label is separated from the supply and wound upon the periphery of the conforming member, subjecting said conforming member with the applied label to movement, while maintaining the label in contact therewith a sufficient interval of time to become fully stretched, and subsequently removing the label from the conforming member and applying the same to a can.

1,135,294. CAN-WRAPPING MACHINE. FREDERICK H. KNAPP and WILLIAM H. LEISTER, Westminster, Md., assignors to Fred H. Knapp Company, Westminster, Md., a Corporation of Maryland. Filed May 6, 1912. Serial No. 695,430. (Cl. 93—5.)



1. In a can wrapping machine, the combination of a support adapted to support labels or wrappers of a width to overlie the ends of a can, label pick up pasting means, lap end pasting means to paste the lap end of the label substantially from edge to edge thereof, means for holding the can with the applied label whereby the projecting edges of the label may be pasted together at their lapped ends, and mechanism for folding said projecting edges against the ends of the can.

2. In a can wrapping machine, the combination of a support adapted to support labels or wrappers of a width to overlie the ends of a can, label pick up pasting means, lap end pasting means, means for engaging the can at a point where the lapped ends of the applied labels are in uppermost position whereby the projecting edges of said lapped end may be pasted together, and means for simultaneously folding both of said projecting edges against the ends of the can after said pasting operation.

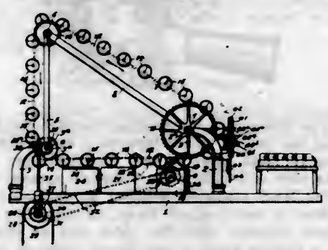
3. In a can wrapping machine, the combination of a support adapted to support labels or wrappers of a width to overlie the end of a can, label pick up pasting means, lap end pasting means, means for holding the can with the applied label whereby the projecting edges of the label may be pasted together at their lapped ends, mechanism for folding said projecting pasted edges against the ends of the cam, and a can stop projecting upwardly from the runway at a point between said can holding means and folding mechanism.

4. In a machine of the character described, the combination of a runway, labeling and pasting instrumentalities to apply a label about the can with the edges of the label projecting beyond the ends of the can, folding mechanism adjacent the rear end of the runway, a can rest arranged to support the can when acted upon by the folding mechanism, and a can stop projecting upwardly from the runway at a point adjacent said folding mechanism.

5. In a machine of the character described, the combination of a runway, labeling and pasting instrumentalities to apply a label about the can with the edges of the label projecting beyond the ends of the can, folding mechanism adjacent the rear end of the runway, and a can stop projecting upwardly from the runway at a point between said instrumentalities and folding mechanism, the said runway having an inclined portion between said instrumentalities and can stop.

[Claims 6 to 79 not printed in the Gazette.]

1,135,295. MACHINE FOR TREATING LABELS AND APPLYING THE SAME TO CANS. FREDERICK H. KNAPP, Westminster, Md., assignor to The Fred H. Knapp Company, Westminster, Md., a Corporation of Maryland. Original application filed Nov. 4, 1910, Serial No. 590,747. Divided and this application filed Nov. 8, 1912. Serial No. 730,297. (Cl. 216—54.)



1. In a can labeling machine, the combination of a pasting member, an endless traveling member having a plurality of label conforming rolls adapted in the movement of the traveling member to receive a supply of paste from the pasting member, and a label receptacle arranged in the path of the conforming rolls and adapted to contain superimposed labels to be picked up by said conforming rolls.

2. In a can labeling machine, the combination of a paste applying member, a label receptacle, a presser member and a rotary member adapted to receive a supply of paste from the pasting member and to move in contact with a label in the label receptacle to pick up the same and by its rotation to wind the label thereabout, said presser member being arranged in the path of the paste applying member after the application of the label thereto, and means for subsequently applying the pasted label to a can or the like.

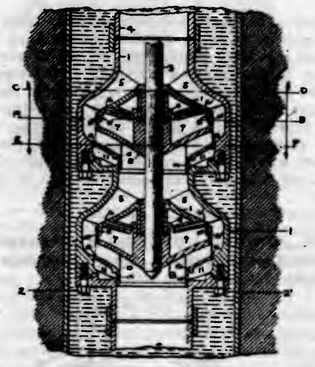
3. In a can labeling machine, the combination of a paste applying member, a label receptacle and a plurality of rotary members adapted to successively move into operative position relative to the paste applying member to receive a supply of paste from the same and to move in contact with the labels in the label receptacle to pick up the same and by their rotation to wind the labels thereabout, and a common drive means for said rotary members.

4. In a can labeling machine, the combination of a paste applying member, a label receptacle and a plurality of connected rotary members adapted to receive a supply of paste from the pasting member and to move in contact with the labels in the label receptacle to pick up the same and by their rotation to wind the labels thereabout, and means for applying the pasted labels to cans.

5. In a can labeling machine, the combination of a paste applying member, a label receptacle and a rotary member having a curved periphery adapted to receive a supply of paste from the pasting member and to move in contact with a label in the label receptacle to pick up the same and by its rotation to wind the label thereabout, a presser member in the path of the applied label and means spaced from the last mentioned means to apply the pasted label to a can or the like.

[Claims 6 to 31 not printed in the Gazette.]

1,135,296. TURBINE-PUMP. FERDINAND W. KROGH, San Francisco, Cal. Filed July 6, 1911. Serial No. 637,165. (Cl. 103—43.)



1. In combination with the casing and the impeller therein of a turbine pump, a pressure chamber in said impeller, an inlet in said casing above said chamber adapted to create a downward pressure in said chamber and means to close said inlet.

2. In combination with the casing and the impeller therein of a turbine pump, a pressure chamber in said impeller, an inlet in said casing, and an outlet in said chamber communicating with said inlet, means on said casing to close or open said outlet, and means on said impeller to close or open said inlet.

3. In combination with the casing and the impeller therein of a turbine pump, longitudinal passages in said casing adjacent to said impeller, a downward pressure chamber in said impeller, an inlet in said casing communicating with said chamber adapted to be closed by said impeller, an outlet in said chamber communicating with said passages and an inwardly circular extension on said casing projecting in said chamber adapted to close said outlet when said impeller moves upward.

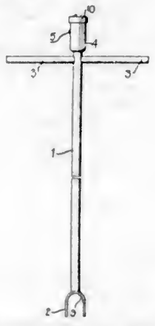
4. In combination with the movable and stationary parts of a turbine pump, a chamber in the movable part having an outlet, and an inlet in the stationary part projecting inwardly in said chamber and adapted to create a downward pressure therein and automatic means to close and

open said outlet and inlet alternately and thereby regulating the pressure in the chamber.

3. In combination with the casing and the impeller of a turbine pump, a receiving chamber in said casing provided with an inlet, a pressure chamber in said impeller provided with an outlet communicating with said inlet and automatic means to close or open said inlet and outlet.

[Claims 6 and 7 not printed in the Gazette.]

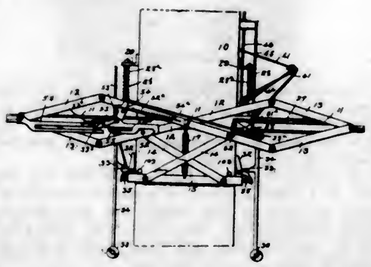
1,135,297. KEY FOR STOP-BOXES. ORAL J. LA COMBE, Jr., Negaunee, Mich. Filed May 8, 1914. Serial No. 837,275. (Cl. 240—8.4.)



1. A key of the character described comprising a tubular member provided with an engaging extremity, an illuminating means positioned within such tubular member in close proximity to the engaging extremity of the member, and means for closing such engaging extremity of the member.

2. A key of the character described comprising a tubular member provided with a crutch, an illuminating means positioned within said tubular member in close proximity to the crutch, and a slide operatively engaged with the crutch and adapted to close the adjacent extremity of the tubular member.

1,135,298. BINDING AND TYING MECHANISM. JAMES LEONARD LAMB, Woodburn, Iowa. Filed Sept. 7, 1912. Serial No. 719,143. (Cl. 100—20.)



1. In a device of the class described, a baling chamber, a pair of binding needles and a pair of threading needles adapted to cross said baling chamber simultaneously from opposite sides, and means for driving said needles across said baling chamber.

2. In a device of the class described, a baling chamber, a frame mounted on said chamber, a pair of binding needles and a pair of threading needles mounted on said frame and adapted to cross said baling chamber simultaneously from opposite sides, and means for driving said needles across said baling chamber.

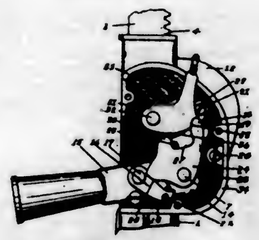
3. The combination of a baling press, a baling chamber, a main frame mounted on said baling chamber, needles mounted at the side of said baling chamber, a reciprocatory plunger in said baling chamber, a head block provided with pins designed to travel in said baling chamber, means mounted on said main frame and adapted to be engaged by the pins on said head block by means of which said main frame is moved longitudinally of the baling chamber a short distance, means adapted to connect with said plunger when said frame has been moved for driving said needles across said baling chamber, and means for actuating said plunger.

4. The combination of a baling press, a baling chamber, a main frame mounted on said baling chamber, needles mounted at the side of said baling chamber, a reciprocatory plunger in said baling chamber, a head block provided with pins designed to travel in said baling chamber, means mounted on said main frame and adapted to be engaged by the pins on said head block by means of which said main frame is moved longitudinally of the baling chamber a short distance, means adapted to connect with said plunger when said frame has been moved for driving said needles across said baling chamber, a twister mounted in said frame, means for operating said twister, and means for automatically returning said needles to their normal position and for operating said twister.

5. The combination of a baling press provided with a baling chamber, a reciprocatory plunger in said baling chamber, a main frame mounted on said baling chamber, a threading needle mounted at one side of said baling chamber for carrying a wire across said baling chamber, a binding needle for carrying a binding wire across said baling chamber mounted on the opposite side of said baling chamber, and means connecting with said needles and adapted to connect with said plunger for driving said needles across said baling chamber.

[Claims 6 to 31 not printed in the Gazette.]

1,135,299. LIFTING-JACK. BERTINIUS LARSEN, Niles, Mich., assignor to National Standard Company, Niles, Mich. Filed Oct. 26, 1914. Serial No. 868,624. (Cl. 254—95.)



1. In a lifting jack the combination with the frame, of a lifting bar having a rack thereon, a shaft, driving connections for said shaft to said rack including a pinion meshing with said rack, a ratchet wheel on said shaft, an actuating lever pivotally mounted on said shaft on the inner side of said ratchet wheel, an actuating pawl on said lever coacting with the under side of said ratchet wheel, a holding pawl on said frame disposed above and coacting with the upper side of said ratchet wheel, said pawls having outwardly projecting pins thereon, springs for said pawls, a reversing member pivotally mounted on said shaft on the outer side of said ratchet wheel and having a pair of spaced fingers on its upper edge with a cam between coacting with the pin on said holding pawl, and a cam on its under edge coacting with said pin on said actuating pawl, a spring acting on said reversing member, and a cam lever for shifting said reversing member to and retaining it in its inoperative position, said lever having a notch therein adapted to receive one of the fingers of said reversing member when shifted to inoperative position by said cam lever.

2. In a lifting jack the combination with the frame, of a lifting bar having a rack thereon, a shaft, driving connections for said shaft to said rack including a pinion meshing with said rack, a ratchet wheel on said shaft, an actuating lever pivotally mounted on said shaft on the inner side of said ratchet wheel, an actuating pawl on said lever coacting with the under side of said ratchet wheel, a holding pawl on said frame disposed above and coacting with the upper side of said ratchet wheel, said pawls having outwardly projecting pins thereon, springs for said pawls, a reversing member pivotally mounted on said shaft on the outer side of said ratchet wheel and having a cam on its upper edge coacting with the pin on said holding pawl, and a cam on its under edge coacting with said pin on said actuating pawl, a spring acting on said reversing member, and means for holding said reversing member in its inoperative position.

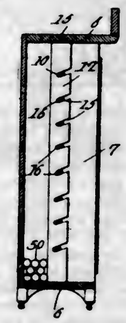
3. In a lifting jack the combination with the frame, of a lifting bar having a rack thereon, a shaft, driving connections for said shaft to said rack including a pinion meshing with said rack, a ratchet wheel on said shaft, an actuating lever pivotally mounted on said shaft on the inner side of said ratchet wheel, an actuating pawl on said lever coacting with said ratchet wheel, a holding pawl disposed oppositely to said actuating pawl, springs for said pawls, a reversing member pivotally mounted on said shaft on the outer side of said ratchet wheel to coact with both of said pawls whereby they are alternately engaged and disengaged, a spring action on said reversing member, and means for retaining said reversing member in its inoperative position.

4. In a lifting jack, the combination of an actuating shaft, a ratchet wheel on said shaft, an actuating lever pivotally mounted on said shaft, an actuating pawl on said lever coacting with the under side of said ratchet wheel, a holding pawl disposed above and coacting with the upper side of said ratchet wheel, said pawls having outwardly projecting pins thereon, springs for said pawls, a reversing member pivotally mounted on said shaft and having a cam on its upper edge and stops at the end of said cam coacting with the pin on said holding pawl, and a cam on its under edge coacting with said pin on said actuating pawl, a spring acting on said reversing member, and means for shifting said reversing member to and retaining it in its inoperative position.

5. In a lifting jack, the combination of an actuating shaft, a ratchet wheel on said shaft, an actuating lever pivotally mounted on said shaft, an actuating pawl on said lever coacting with said ratchet wheel, a holding pawl disposed oppositely to said actuating pawl, springs for said pawls, a spring actuated reversing member pivotally mounted on said shaft to coact with both of said pawls, and means for retaining said actuating member in its inoperative position.

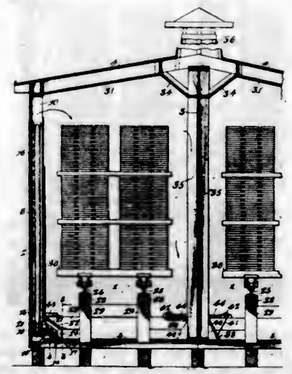
[Claims 6 to 8 not printed in the Gazette.]

1,135,300. CABINET. MYRTLE L. LAURETTE, Barlow, Ky. Filed Jan. 17, 1914. Serial No. 812,770. (Cl. 211—16.)



In a device of the class described, a cabinet comprising a bottom, a back and side walls; a primary upright and a secondary upright upstanding from the bottom of the cabinet, the primary upright being provided in its side face with circular recesses and the secondary upright being provided in its outer edge with inclined notches; and circular rods, one end of each rod being mounted in one recess, the other end of each rod being flattened and being received in one notch to hold the rod against rotating, the flattened end of each rod terminating in an enlarged knob located between the secondary upright and one side wall of the cabinet and coöperating with said side wall and with the secondary upright to prevent the rod from moving endwise, the secondary upright being spaced from said side wall to permit a removal of the rod by means of the knob when an article is suspended on the rod; both uprights being spaced from the rear wall to define a compartment, and constituting stops adapted to receive the ends of the rods when the latter are stored in the compartment.

1,135,301. DRY-KILN FOR LUMBER, &c. JAMES M. LEAVER, Long Beach, Cal. Filed Apr. 4, 1914. Serial No. 829,593. (Cl. 34—46.)



1. A dry kiln including a drying chamber, a chimney or stack, an outlet duct or passage communicating with the drying chamber and with the chimney or stack, an inlet duct or passage connecting the drying chamber with the outside atmosphere, and a recirculating duct or passage having heating means and extending from the lower to the upper portion of the drying chamber.

2. A dry kiln including a drying chamber, a chimney or stack, a damper controlled outlet duct or passage communicating with the drying chamber and with the chimney or stack, an air inlet passage or duct communicating with the outside atmosphere and with the drying chamber and automatically controlled by the escape of heated moist air through the outlet or passage, and a recirculating duct or passage having heating means and extending from the upper to the lower portion of the drying chamber and communicating therewith.

3. A dry kiln including a drying chamber, a cold air duct or passage communicating with the outside atmosphere and with the drying chamber, and a recirculating duct or passage having heating means for creating an upward circulation of air through it, said recirculating duct or passage communicating at its ends with the drying chamber and arranged to discharge into the same adjoining the cold air inlet duct or passage, whereby a commingling or mixing of the outside air and the heated moist air is effected.

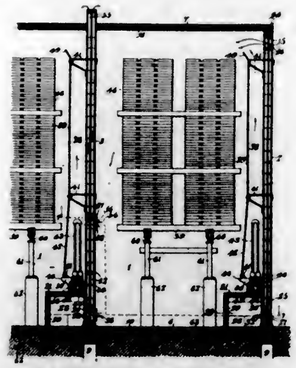
4. A dry kiln including a drying chamber, a recirculating duct or passage extending from the bottom to the top of the drying chamber and communicating at each end therewith and provided with heating means for creating an upward circulation of air through it, and a cold air duct or passage communicating with the outside atmosphere and arranged to discharge into the drying chamber at a point adjacent to the upper end of the recirculating duct or passage to effect a mixture or commingling of out-

side air and the reheated air before the outside air impinges against the material to be dried.

5. A dry kiln including a drying chamber, a vertical cold air duct or passage extending from the top to the bottom of the drying chamber and communicating at its lower ends with the outside atmosphere and at its upper end with the interior of the drying chamber, and a vertical recirculating duct or passage also extending from the bottom to the top of the drying chamber and communicating at each end with the same, said recirculating duct or passage being provided with heating means for causing an upward circulation of air through it.

[Claims 6 to 19 not printed in the Gazette.]

1,135,302. DRY-KILN FOR LUMBER, &c. JAMES M. LEAVER, Long Beach, Cal. Filed Apr. 4, 1914. Serial No. 829,594. (Cl. 34—47.)



1. A dry kiln including a drying chamber, a plurality of cold air ducts located at one side of the drying chamber and extending from the bottom to the top thereof and communicating at their lower ends with the outside atmosphere and at their upper ends with the drying chamber, and a continuous reheating and recirculating duct located at such side of the drying chamber and communicating at the top and bottom with the same and having its top portion arranged adjacent to the upper ends of the cold air ducts to cause a commingling of the hot moist air with the cold air as the latter enters the drying chamber, and heating means arranged to produce a positive upward draft through the reheating and recirculating duct.

2. A dry kiln including a drying chamber provided within one of its walls with a cold air duct or passage extending from the bottom portion to the top portion of the drying chamber and communicating at its lower end with the outside atmosphere and at the upper end with the drying chamber, a reheating and recirculating duct or passage located at the inner face of such wall and communicating at the top and bottom of the drying chamber and having its top located adjacent to the upper end of the cold air duct or passage to cause a commingling of hot moist air with the cold air as the latter enters the drying chamber, and heating means arranged to produce a positive upward draft through the reheating and recirculating duct.

3. A dry kiln including a drying chamber, a cold air intake box arranged within the drying chamber at the bottom thereof and communicating with the outside atmosphere, a cold air duct or passage located within one of the side walls of the kiln and communicating at its lower end with the cold air intake box and at its upper end with the drying chamber, a partition located above and in spaced relation with the cold air intake box and spaced from the adjacent wall of the kiln to form a reheating and recirculating duct or passage having its top arranged adjacent to the upper end of the cold air duct or passage to cause a commingling of hot moist air with the cold air as the latter enters the drying chamber, and heating means arranged to produce a positive upward draft through the reheating and recirculating duct.

4. A dry kiln including a drying chamber provided within one of its side walls with cold air ducts or passages arranged at intervals and communicating at its upper end with the drying chamber, a cold air intake box arranged at the bottom of the drying chamber and extending along the said wall and communicating with the lower ends of the cold air ducts or passages and with the outside atmosphere, a partition spaced from and extending along the said wall and forming a reheating and recirculating duct or passage communicating at the top and bottom with the drying chamber and having its top arranged adjacent to the upper ends of the cold air ducts or passages, and heating means supported by the cold air intake box and extending into the reheating and recirculating duct or passage to produce a positive upward draft through the same.

5. A dry kiln including a drying chamber, cold air ducts or passages arranged within the side wall of the said chamber and communicating at their upper ends with the same, a cold air intake box extending along the bottom of the drying chamber and communicating with the outside atmosphere and connected with the lower ends of the said cold air ducts or passages, a partition spaced from the said side wall and forming a reheating and recirculating duct or passage communicating at the top and bottom with the drying chamber, a radiator located within the lower portion of the reheating and recirculating duct or passage, and radiator stands mounted on the cold air intake box and supporting the radiator and connected with the lower edge of the said partition.

[Claims 6 to 24 not printed in the Gazette.]

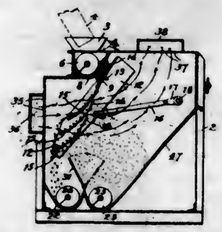
1,135,303. BLEACHING SOLUTION. ARNO LEHMANN, Rheydt, Germany. Filed Nov. 3, 1914. Serial No. 870,087. (Cl. 8—2.)

1. A bleaching solution containing kromocon.

2. A bleaching solution comprising chlorid of lime and malt.

3. A bleaching solution comprising chlorid of lime and kromocon.

1,135,304. SEPARATOR. WILLIAM K. LIGGETT and WALTER J. ARMSTRONG, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Oct. 4, 1909. Serial No. 520,839. (Cl. 83—54.)



1. The combination in a separator, of a plate inclined at an angle to the horizontal of at least 60° and adapted to receive the material to be treated, a device for feeding the material in a broad uniformly thin stream to the plate along a horizontal line remote from the lower edge thereof, a material-separating screen at its upper part tangential to the plane of the plate and at its lower part curving upward away from the said plane to retard the flow of material, and two receptacles below the screen one for material passing through it and the other for material discharged from the lower edge thereof.

2. The combination in a separator, of a plate inclined at an angle to the horizontal of at least 60° and adapted to receive the material to be treated, a device for feeding the material in a broad uniformly thin stream to the plate along a horizontal line remote from the lower edge thereof, a material-separating screen immediately below and substantially parallel to the first and similarly curved, and two receptacles below the screens one for material passing through them and the other for material discharged from the lower edges thereof.

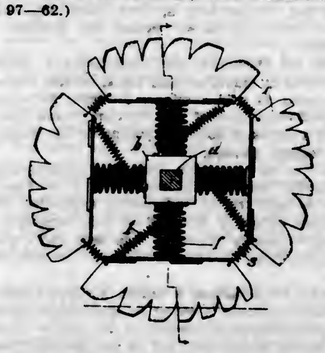
3. The combination in a separator, of a plate inclined at an angle to the horizontal of at least 60° and adapted to receive the material to be treated, a device for feeding the material in a broad uniformly thin stream to the plate along a horizontal line remote from the lower edge thereof, a material-separating screen at its upper part tangential to the plane of the plate and at its lower part curving upward away from the said plane to retard the flow of material, means for adjusting the plate and screen together to change the angle of inclination, and two receptacles below the screen one for material passing through it and the other for material discharged from the lower edge thereof.

4. The combination in a separator, of a plate inclined at an angle to the horizontal of at least 60° and adapted to receive the material to be treated, a device for feeding the material in a broad uniformly thin stream to the plate along a horizontal line remote from the lower edge thereof, a material-separating screen at its upper part tangential to the plane of the plate and at its lower part curving upward away from the said plane to retard the flow of material, means for adjusting the plate and screen together about a horizontal axis near the line of delivery of material to the screen to change the angle of inclination, and two receptacles below the screen one for material passing through it and the other for material discharged from the lower edge thereof.

5. The combination in a separator, of a plate inclined at an angle to the horizontal of at least 60° and adapted to receive the material to be treated, a device for feeding the material in a broad uniformly thin stream to the plate along a horizontal line remote from the lower edge thereof, a material-separating screen at its upper part tangential to the plane of the plate and at its lower part curving upward away from the said plane to retard the flow of material, means for adjusting the plate and screen together about a horizontal axis near the line of delivery of material to the screen to change the angle of inclination, two receptacles below the screen one for material passing through it and the other for material discharged from the lower edge thereof, and a division plate between the two receptacles adjustable in accordance with the position of the lower edge of the screen.

[Claims 6 to 8 not printed in the Gazette.]

1,135,305. CULTIVATOR. VICTOR LINDERBLAD, Stockholm, Sweden. Filed Nov. 21, 1914. Serial No. 873,307. (Cl. 97—62.)



1. A wheel-like element for cultivating the soil comprising at least one series of teeth, the first tooth in each series being straight and the other teeth in the series being bent toward the side, some to one side and the rest to the other side, in such a manner that every bent tooth will reach to a point more distant from the vertical plane of the wheel than the foregoing teeth of the same series.

2. A wheel-like member for cultivating the soil comprising at least one series of teeth, the first tooth of each series being straight and the others bent more or less to the side, some to one side and the rest to the other, in such a manner that the distance from the axis of rotation of the wheel to the outermost portion of the teeth decreases from the first tooth to the last one in each series.

3. A wheel-like element for cultivating the soil comprising in combination a hub, a plurality of peripheral segments, resilient connections between said segments and said hubs, and connections between said segments permitting relative motion thereof.

4. A wheel-like element for cultivating the soil comprising in combination a hub, a plurality of peripheral segments, resilient connections between said segments and said hubs, and resilient connections between said segments.

5. A wheel-like element for cultivating the soil comprising at least one series of teeth, the first tooth in each series being straight and the other teeth being bent some to one side and the rest to the other side, the ends of the bent teeth being turned inwardly so as to project in the direction of the axis of rotation of the wheel.

1,135,306. SANDING DEVICE. GEORGE H. LYNE, East Orange, N. J. Filed Jan. 28, 1915. Serial No. 4,904. (Cl. 105—177.)



1. In a sanding device for railway traction devices, in combination, a sand box, a spout therefor, a tiltable bucket mounted upon the end of said spout, means to keep said spout normally elevated, sand stirring means and means whereby said bucket may be tilted so as to actuate said stirring means and to bring the mouth of said spout near a surface to be sanded.

2. In a sanding device for railway traction device, in combination, a sand box, a spout therefor, a bucket mounted upon the end of said spout to tilt in a vertical plane, a spout for said bucket at one side of the tilting line, a counter weight at the other side of said tilting line adapted to keep the end of said spout elevated, and means whereby said counter weight may be elevated to depress said spout near a surface to be sanded.

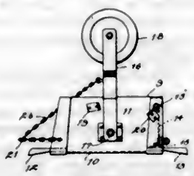
3. In a sanding device for railway traction devices, in combination, a sand box, a spout therefor, a tiltable bucket mounted upon the end of said spout, means to keep said spout normally elevated, means whereby said bucket may be tilted so as to bring the mouth of said spout near a rail, a lid for closing the mouth of said spout when elevated, and means whereby said lid is lifted when the spout is depressed.

4. In a sanding device for railway traction devices, in combination, a sand box, a spout therefor, a tiltable bucket mounted upon the end of said spout, means to keep said spout normally elevated, means whereby said bucket may be tilted so as to bring the mouth of said spout near a rail, a lid for closing the mouth of said spout when it is elevated, a spring rod connected to the underside of said lid at one end and to the sand box spout at the other, below the pivot line, whereby when the tiltable spout is elevated the spring of the rod will hold the lid in closed position, and when the said spout is depressed, the thrust of the rod will push the lid to open position.

5. In a device for discharging granular material, a tiltable bucket therefor having means for keeping said spout raised, a lid closing the mouth of said spout when raised, means for depressing said spout, and means for holding said lid in closed position when the spout is raised and also holding the lid in open position when the spout is depressed.

[Claims 6 to 12 not printed in the Gazette.]

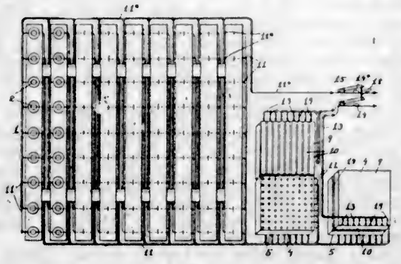
1,135,307. BALLAST-BURNING MACHINE. LAWRENCE L. MCCULLOUGH, Kansas City, Kans. Filed Jan. 20, 1913. Serial No. 743,055. (Cl. 37—54.)



1. An implement for working ballast fires comprising an open ended bucket, a swinging door for one end of said bucket, means for preventing the door from swinging outwardly, teeth at either end of said bucket, a bail pivoted to said bucket and means for limiting the swinging movement of the bail with respect to the bucket.

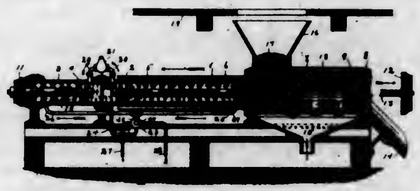
2. In an apparatus for burning ballast fires, the combination of a pan comprising bottom side members, a door pivoted to the tops of the sides adjacent to one end, a stop for preventing the door from swinging outwardly, plows at either end of said pan, a bail pivoted to the sides, stops for limiting the swinging movement of the bail, a chain or pulling member fastened to the front end of said pan, and connections between said chain and the upper portion of the bail.

1,135,308. ILLUMINATED SIGN. CHARLES A. MCNEAL, Columbus, Ohio. Filed May 17, 1911. Serial No. 627,829. (Cl. 177—350.)



In a sign adapted for electrical illumination, a controller member having a series of parallel circuit bars, a display board having a similar series of parallel frame bars corresponding respectively to said parallel circuit bars, a second member having a plurality of contact points arranged in rows opposite said circuit bars and capable of contact therewith, a similar plurality of lamps upon said display board arranged in rows along said frame bars and having respectively position thereon corresponding to said contact points, wiring connections between each of said contact points and a similarly located lamp, wiring connections for establishing a separate electric circuit through the lamps of each frame bar and through the corresponding circuit bar, a fuse in each such circuit adjacent to and in connection with its respective circuit bar, and a removable perforated sheet between the controller members adapted to allow certain selected points only to contact.

1,135,309. PRESS. EDGAR T. MEAKIN, Oakland, Cal. Filed Apr. 27, 1908, Serial No. 429,565. Renewed Aug. 25, 1914. Serial No. 858,519. (Cl. 100—50.)



1. A press comprising in combination, a pressure cylinder, a hollow pressure plunger operating therein, two directly connected power cylinders extending into the plunger, one to operate said pressure plunger and one to operate the closure of the pressure cylinder, and a resistance in the connection of said power cylinders, whereby they have different periods of action.

2. A press comprising in combination, a pressure cylinder, a pressure plunger operating therein, two directly connected power cylinders, one to operate said pressure plunger and one to move the head of the pressure cylinder, and a resistance in the connection of said power cylinders, whereby they have different periods of action.

3. A press comprising in combination a perforated pressure cylinder, a compressive plunger operating therein, a power cylinder for actuating said plunger, an axially movable head for closing the end of the pressure cylinder, a power cylinder, and means coacting with the power cylinder and moving in the direction of motion of said compressive plunger for moving said head.

4. A press comprising in combination a pressure cylinder, a compressive plunger operating therein, an automatic means for actuating said plunger, a part of said means being movable with the plunger, an axially movable head for closing the end of the pressure cylinder and automatic means embodying a valve shifter and a member on said compressive plunger engaging said valve shifter for moving said head.

5. The combination in a press, of a pressure-cylinder, a pressure plunger adapted to travel in said cylinder, means comprising a power cylinder for actuating said plunger, a cylinder head for closing an end of said pressure cylinder, and means controlled by the power cylinder for moving said cylinder-head in the direction of travel of the pressure plunger into and out of contact with said pressure-cylinder.

[Claims 6 to 14 not printed in the Gazette.]

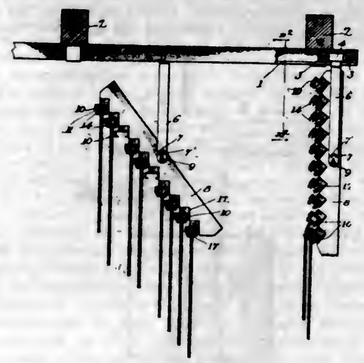
1,135,310. DRAWING-FILE. ARTHUR H. MEMMLER, San Gabriel, Cal. Filed May 8, 1911, Serial No. 625,873. Renewed Nov. 14, 1914. Serial No. 872,235. (Cl. 211—22.)

1. A file for drawings, etc., comprising a track, carriages mounted to travel on said track, carrier frames pivotally mounted on said carriages to swing to vertical or inclined positions, each of said carrier frames being provided with a series of drawing holding devices disposed at different heights thereon.

2. In a file for drawings, etc., the combination of a track, a trolley traveling on said track, a carriage frame connected to said trolley and having depending arms, a carrier frame pivotally mounted on said depending arms and having vertically extending side bars and a plurality of drawing holding devices at different heights on said side bars.

3. In a file for drawings, a hanger, a support therefor, a carrier frame mounted to swing on said hanger, means for limiting the swinging movement of the carrier frame and drawing holder means mounted on the carrier frame.

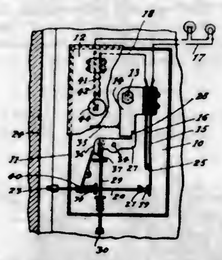
4. A file for drawings comprising a track, a trolley traveling on said track, a carrier frame supported by said trolley and having vertically extending side bars and drawing holding devices arranged at different heights on said side bars.



5. In a file for drawings comprising a track, a trolley traveling on said track, a carriage frame connected to said trolley and having depending arms, a rectangular carrier frame having vertically extending side bars pivotally connected to said depending arms of the carriage frame and a plurality of drawing holding devices arranged at different heights on said side bars of the carriage frame.

[Claim 6 not printed in the Gazette.]

1,135,311. AUTOMATIC SWITCH FOR CONTROLLING LIGHTS. LOUIS A. MEYERS, Sauk Center, Minn. Filed Mar. 14, 1914. Serial No. 824,636. (Cl. 177—202.)



1. An electric switch comprising circuit breaking members, means controlled by the opening and closing of the door for operating said members to break the circuit when the door is closed and to open the circuit when the door is opened, means for rendering said operating means inoperative when the door is closed, and means for thereafter causing said operating means to become operative when the door is again opened.

2. An electric switch comprising circuit breaking members, a pusher having one end engaging one of said members and the other end positioned to be engaged by the door, means supporting said members and capable of movement therewith when the pusher is actuated by closing of the door, said circuit breaking members being held in contact to keep the circuit closed when the supporting member is free to move therewith, and controllable means for restraining said supporting member from such movement.

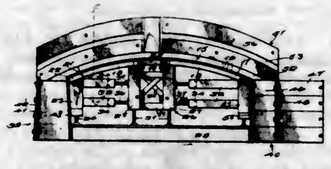
3. An electric switch comprising circuit breaking members, a pusher having one end engaging one of said members and the other end positioned to be engaged by the door, means supporting said members and capable of movement therewith when the pusher is actuated by closing of the door, said circuit breaking members being held in contact to keep the circuit closed when the supporting member is free to move therewith, controllable means for restaining said supporting member from such movement, means for rendering said restraining means inoperative, and means controlled by closing of the door for causing said restraining means to become operative when the door is again opened.

4. An electric switch comprising a pair of spring members normally in contact to close an electric circuit, a pusher having one end engaging one of said members and the other end positioned to be engaged by the door when the same is closed, a pivoted piece supporting said members and adapted to be oscillated therewith when the pusher is actuated by closing of the door, and hand-controlled means for restraining said piece from such oscillation.

5. An electric switch comprising a pair of spring members normally in contact to close an electric circuit, a pusher having one end engaging one of said members and the other end positioned to be engaged by the door when the same is closed, a pivoted piece supporting said members and adapted to be controlled therewith when the pusher is actuated by closing of the door, a latch for restraining said piece from oscillation, a thumb piece to actuate said latch for withdrawing the same, and means controlled by movement of the pusher for holding the latch inoperative.

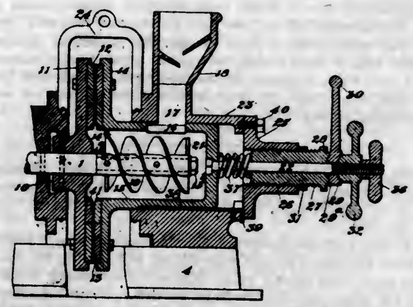
[Claim 6 not printed in the Gazette.]

1,135,312. BRIDGE-MOLD. JOHN G. MILLER, Oblong, Ill. Filed July 13, 1914. Serial No. 850,825. (Cl. 25—131.5.)



A single span bridge mold, comprising a floor mold-portion extending longitudinally of the bridge mold and substantially transversely flat; separate spaced abutment mold-portions arranged beneath the ends of the floor mold-portion and extending transversely thereof; and side mold-portions extending longitudinally of and above the floor mold-portion and projecting above and across the tops of the abutment mold-portions for substantial distances, whereby the floor, abutments and sides of the bridge are formed integral.

1,135,313. GRAIN-GRINDING MACHINE. WILLIAM FORRESTER MOORE and GEORGE JAMES MOORE, Toronto, Ontario, Canada. Filed Oct. 27, 1913. Serial No. 797,443. (Cl. 83—8.)



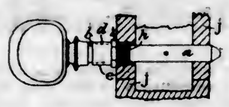
1. A grain grinding machine comprising, a non-rotatable grinding head having an elongated hollow hub with a grain receiving opening in it, a rotatable grinding head

opposed to the non-rotatable grinding head, a shaft for the rotatable grinding head projecting into the elongated hollow hub of the non-rotatable grinding head, a spiral conveyer on the shaft within the elongated hollow hub, a casing inclosing the elongated hollow hub having a grain receiving opening registering with the opening in the elongated hollow hub, a hopper mounted on said casing and registering with said openings, a removable key within the said casing to prevent the revolution of said elongated hollow hub and non-rotatable grinding head, and a removable cap for the end of said casing whereby access may be had to said key without disturbing the fixed relation of the other parts.

2. A grain grinding machine comprising, a non-rotatable grinding head having an elongated hollow hub, a rotatable grinding head, a removable key to prevent the rotation of the non-rotatable grinding head, a removable cap for the end of said casing whereby convenient access can be had to said key, a hollow tension screw adjustable through said cap and unitedly movable with it, an adjusting bolt connected with the elongated hollow hub and extending through the adjusting screw, a tension spring bearing against the elongated hollow hub and tension screw, and means for causing the united movement of the tension screw and adjusting bolt independently of said cap.

3. A grain grinding machine comprising a rotatable grinding head, a non-rotatable grinding head opposed to the rotatable grinding head, a casing inclosing the grinding heads, a removable cap for the end of said casing, and means for adjusting the non-rotatable grinding head removable with the cap.

1,135,314. TUNING-PEG OF VIOLINS OR LIKE INSTRUMENTS. ROBERT WERNER OBERHOFFER, York, England. Filed Aug. 31, 1914. Serial No. 859,342. (Cl. 84—78.)

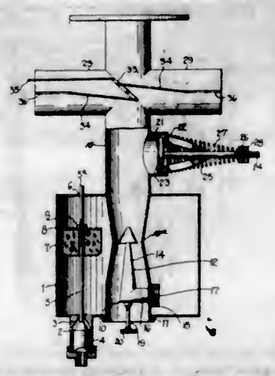


1. A violin tuning-peg having a shank, in combination with a sleeve fixed on said shank and slightly tapered externally, a brake tube having a recess formed by an enlargement of its bore, an annular shoulder at the inner end of said recess and an internal bead at the outer end of said recess, and a brake ring consisting of a tapering helix of wire fitted in said recess between said brake tube and said sleeve to act frictionally on said peg, said helix bearing at its inner end against said shoulder and fastened to the said tube in proximity to said shoulder, also having its outer end held by said bead against expansion substantially as set forth.

2. A violin tuning-peg having a shank provided with a tapering surface, a brake tube having a recess formed by an enlargement of its bore and an internal annular bead at the outer end of said recess, and a helical tapered brake ring in said recess interposed between said surface and said tube, fastened to the latter at one end and held at the other end by said bead against expansion substantially as set forth.

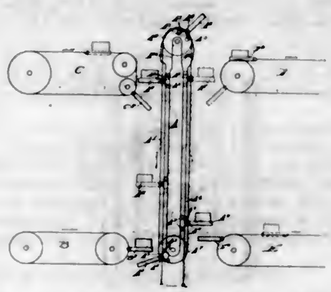
1,135,315. CARBURETER. JOHN H. ODELL, Kinzua, Pa., assignor of one-third to George A. Odell, Salamanca, N. Y. Filed Apr. 11, 1914. Serial No. 831,219. (Cl. 48—155.1.)

A device of the character described comprising a casing, a pipe disposed through said casing and having its lower end open, said casing being capable of movement relative to the pipe, an intermediate portion of the pipe being annularly reduced, means for locking the casing against movement upon the pipe in one direction, a nozzle insertible within the pipe through the open end thereof, said nozzle comprising a substantially L-shaped tubular member, the foot whereof being disposed through and projecting exteriorly of a side of the pipe within the casing while the stem of the member is disposed on a taper, oppositely disposed segmental flanges carried by the free extremity of the stem and overlying the upper end thereof,



said flanges being disposed on downwardly diverging planes, and detachable means engageable with the projected portion of the foot of the member for maintaining said member in operative position.

1,135,316. CONVEYER SYSTEM. SAMUEL OLSON, Chicago, Ill. Filed Apr. 4, 1913. Serial No. 758,759 (Cl. 193—8.)



1. The combination, a continuously traveling vertical conveyer comprising a belt, trays extending horizontally and outwardly from both its ascending and descending plies, and guide devices for maintaining such horizontal position of such trays; and two horizontal conveyers associated with such vertical conveyer at each side thereof, and each comprising a belt traveling over a pulley adjacent to the vertical conveyer together with a tray engaged by said belt, and guide devices for maintaining such tray in horizontal position as it passes around said pulley adjacent to the vertical conveyer; the two horizontal conveyers at each side of the vertical conveyer being adapted to travel in opposite directions with respect to each other, and the trays of the vertical conveyer being formed to intermember with those of the horizontal conveyers for transferring loads from one to the other of them at either side of said vertical conveyer.

2. In combination, a continuously traveling vertical conveyer comprising a belt, and trays extending horizontally and outwardly from both its ascending and descending plies, guide devices for maintaining such horizontal position of said trays, and a plurality of horizontal conveyers associated with such vertical conveyer, and each comprising a belt traveling over pulleys which rotate about horizontal axes, a tray engaged by said belt, a track for supporting said tray in horizontal position

at the upper ply of the belt, guide devices for maintaining such horizontal position of the tray as it passes vertically around the pulley adjacent to the vertical conveyer, all the trays of said conveyers being of fingered construction, and the trays of the horizontal conveyers being adapted to intermember with those of the vertical conveyer for automatic interchange of loads.

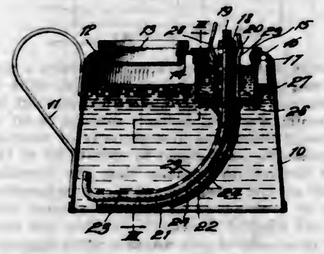
3. In combination, a conveyer comprising a belt mounted for vertical travel, a tray engaged by said belt and extending horizontally to one side of the point of engagement, and guide devices for maintaining such horizontal position of said tray, and a second conveyer, comprising a belt mounted for horizontal travel and passing around a pulley adjacent to the vertical conveyer, a tray engaged by said belt, and guide devices for maintaining said tray in a horizontal position as it passes adjacent to the vertical conveyer, the trays of both conveyers being of fingered construction adapted to intermember one with the other for transferring a load from one to the other.

4. In combination, two conveyers, each comprising a continuously traveling belt, said belt being mounted to pass adjacent to each other in opposite directions, a tray carried by each belt extending horizontally therefrom, and guide devices for maintaining such horizontal position at the adjacent portions of the belts, said trays being of fingered construction adapted to intermember with each other for transferring a load from the descending to the ascending tray.

5. In combination, two conveyers, each comprising a continuously traveling belt, said belts being mounted to pass adjacent to each other in opposite directions, a tray carried by each belt extending horizontally therefrom, and guide devices for maintaining such horizontal position at the adjacent portions of the belt, said trays being of fingered construction adapted to intermember with each other for transferring a load from the descending to the ascending tray, and a stationary landing comprising a series of upstanding flat-ended fingers positioned to intermember with the fingers of both conveyer trays at the plane of transfer of the load for momentarily supporting said load to reduce the shock thereto resulting from the reversal of its direction of motion.

[Claims 6 to 12 not printed in the Gazette.]

1,135,317. LAMP. GILBERT PATTERSON, Duluth, Minn. Filed Sept. 30, 1913. Serial No. 792,618. (Cl. 67—21.)



1. A device of the character described, comprising a body for holding the main fuel supply, a cup adapted to hold priming fuel, a tubular burner in said cup, a wick extending through said burner, and heat-conducting means engaging the wick and held to the bottom of said cup.

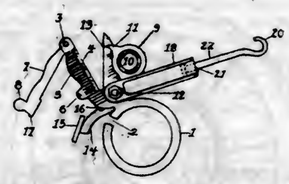
2. A device of the character described, comprising a body for holding the main fuel supply, a cup detachably held to said body and adapted to hold priming fuel, a tubular burner in said cup, a wick extending through said burner, and heat-conducting means engaging the wick and said cup.

3. A device of the character described, comprising a body for holding the main fuel supply, a cup held to said body and adapted to hold priming fuel, a perforated burner tube in said cup, a wick extending through the burner tube, and a heat conductor held to said cup.

4. A device of the character described, comprising a receptacle having a filling opening, a cover for said opening, a cup extending into said receptacle, and adapted to hold priming fuel, a burner having openings therein and arranged in said cup, a wick in said burner, and conducting means held to said cup and extending into the receptacle.

5. A device of the character described, comprising a body for holding the main fuel supply, a cup detachably held to said body and adapted to hold priming fuel, a burner arranged in said cup and having means for passage of the priming fuel, a wick extending in said burner and conducting means forming substantially a continuation of said burner and extending into the body.

1,135,318. COMPOSITE UTENSIL. STEPHEN PETER, Omaha, Nebr. Filed Apr. 15, 1914. Serial No. 831,946. (Cl. 7—6.)



1. A utensil of the specified class, comprising two shearing blades pivoted together, a slotted key ring forming the lever handle of one blade, a slot-closing member forming the lever handle of the other blade, and a latch for holding the blades and the handles closed.

2. A utensil of the specified class, comprising two pivoted shear blades, a slotted key ring forming the lever handle of one blade, a slot-closing member forming the lever handle of the other blade, and a spring latch for holding the blades and shanks immovable.

3. A utensil of the specified class, comprising a shear blade, a slotted key ring forming the lever handle of said blade, a coacting shear blade pivoted to the first mentioned blade, a slot-closing member forming the lever handle of the coacting blade, and a guard and latch member pivoted to one blade and engaging the handle of the other.

1,135,319. SPRING. HERMAN A. POPPENHUSEN, Chicago, Ill. Filed Apr. 8, 1914. Serial No. 830,554. (Cl. 21—103.)



1. A spring, comprising a plurality of superimposed flexible plates, a roller interposed between two of said plates and provided with a radially extending projection, one of said plates being provided with a recess adapted to be engaged by said projection.

2. A spring comprising a plurality of superimposed flexible plates, a roller interposed between the plates and provided with a radial projection, one of said plates being provided with stop shoulders, between which said projection is adapted to extend.

3. A spring, comprising a plurality of superimposed flexible plates, a plurality of rollers interposed between said plates, each of said rollers being provided with a radially extending projection, and one of said plates in contact with each of said rollers being provided with a recess adapted to be engaged by said projection.

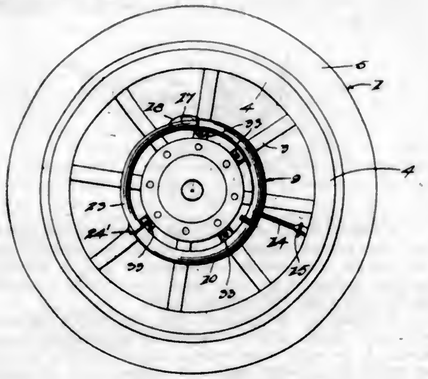
4. A spring, comprising a plurality of superimposed flexible plates, a plurality of transversely extending rollers interposed between said plates, each of said rollers being provided with a radially extending projection, and one of said plates in contact with each of said rollers being

provided with a longitudinally exteding recess adapted to be engaged by said projection.

5. A spring, comprising a plurality of superimposed flexible plates, a plurality of rollers interposed between said plates, each of said rollers being provided with a flange extending radially from the rollers, substantially throughout one-half of the circumference of said roller, and one of the plates in contact with each roller being provided with a longitudinal recess adapted to be engaged by said flange.

[Claims 6 to 10 not printed in the Gazette.]

1,135,320. PUMP. EDWARD P. PORCHER, Charleston, S. C. Filed June 26, 1914. Serial No. 847,535. (Cl. 152—11.)



1. A pump including a cylinder, a piston slidable in the cylinder, a piston rod operatively connected to the piston, a lateral projection on the piston rod, a lever arranged to engage the piston rod and hold the same against movement while the cylinder is moved in the direction of the piston and a cam carried by the cylinder, said cam being arranged to engage the lever and raise the same clear of the lateral projection on the piston rod to permit said rod to return to its normal position.

2. A pump including an arcuate cylinder arranged to be secured to the spoke of a motor vehicle wheel, a piston slidable in the cylinder, an arcuate piston rod connected to the piston, inlet and outlet valves communicating with the cylinder, a lug on the piston rod, a pivoted lever carried by the vehicle on which the device is used, said lever being arranged to engage the lug on the piston rod to hold the rod against movement and allow the cylinder to slide on the piston and means carrieid by the cylinder to raise the lever clear of the lug on the piston rod to permit the piston to return to its normal position.

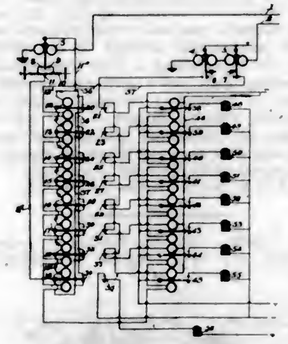
3. The combination with a motor vehicle having a plurality of wheels, of a pump cylinder, secured to one of the wheels, said pump cylinder being arcuate, a pump piston slidable in the cylinder, a plunger rod connected to the pump piston, said plunger rod being arcuate and substantially twice the length of the length of the piston, a guide connected to the cylinder, a spring within the guide and arranged to normally throw the pump piston into operative position, a lug carried by the piston rod, means carried by the knuckle joint of the vehicle to engage the lug to hold the piston rod against movement while the piston revolves, thus compressing the air within the cylinder, and means carried by the cylinder to release the piston to permit the spring to throw the same to its normal position.

4. The combination with a motor vehicle provided with a plurality of wheels, of a pump cylinder secured to each of the wheels, said pump cylinder being arcuate and surrounding the hub of the wheel, a pump piston operative within the cylinder, a plunger rod secured to the piston, said plunger rod being arcuate to conform to the shape of the cylinder, a lug carried by the plunger rod, means carried by the vehicle axles to engage the lug, means operatively connected therewith to throw the same out of engagement, and a cam carried by the pump cylinder to throw the lever free of the dog on the plunger rod to permit the same to return to its normal position.

5. A pump including an arcuate cylinder arranged to be secured to the wheel of a motor vehicle, a flexible tube connecting the pump cylinder with the tire of the vehicle, a piston slidable in the cylinder, an arcuate piston rod connected to the piston and arranged to operate the same within the cylinder, a lug carried by the piston rod near the end opposite the piston, a spring to normally force the piston rod outwardly, a lever secured to the frame of the motor vehicle upon which the device is used, said lever being arranged to engage the lug to hold the piston rod against movement, means carried by the cylinder to raise the lever clear of the lug to permit the piston to return to its normal position and means connected to the lever to manually control the same to throw the pump into or out of operation at the desire of the user.

[Claim 6 not printed in the Gazette.]

1,135,321. SELECTIVE ELECTRICAL SIGNALING. LOUIS MAXWELL POTTS, Baltimore, Md., assignor, by mesne assignments, to Austin McLanahan, Baltimore, Md. Filed May 7, 1910, Serial No. 559,967. Renewed Apr. 13, 1912. Serial No. 690,659. (Cl. 178—33.)



1. Selective signaling apparatus, comprising a plurality of electro-magnets, a plurality of circuits on which the respective magnets are operated, electrical contacts in each of said circuits, electrical contacts common to all of said circuits, means responsive to a plurality of received electrical impulses for each signal to operate all of the first mentioned contacts to partially close the operating circuits of all of said magnets, and means responsive to a given one or combination of received selected electrical impulses and adapted thereby to complete the operating circuit of those only of said magnets which correspond to that one or combination of signaling impulses selected.

2. Selective signaling apparatus, comprising a plurality of selecting relays, a plurality of local circuits each of which includes a forward coil of one of said selecting relays, electrical contacts in each of said circuits, electrical contacts common to all of said circuits, means responsive to a plurality of received electrical impulses for each signal to operate all of the first mentioned contacts to partially close the operating circuits of all of said selecting relays, and means responsive to a given one or combination of received electrical impulses and adapted thereby to complete the operating circuit of those only of said selecting relays which correspond to that one or combination of signaling-impulses selected.

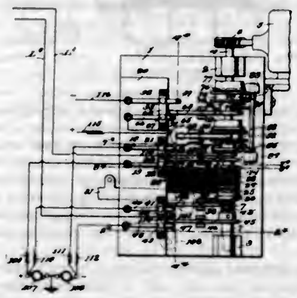
3. In a selective signaling system, the combination with a signaling circuit of means to send a plurality of electrical impulses over said circuit for each signal, a plurality of relays the forward coils of which are connected in series in said circuit, a plurality of said relays in the series being normally short circuited, electrical connections whereby the operation of said relays by said impulses causes said relays successively to short circuit their own coils and nullify the short circuit around the forward coils of succeeding relays.

4. In a selective signaling system, the combination with a signaling circuit, of means to send electrical impulses over said circuit, a plurality of relays the forward coils of which are connected in series in said circuit, a plurality of said relays being normally short circuited, electrical connections whereby the operation of said relays by said impulses causes each of said relays successively to short circuit its own coil and nullify the short circuit around the forward coil of a succeeding relay, a second signaling circuit, receiving apparatuses controlled by current in said second circuit conjointly with contacts of said relays, and means to impress selected impulses on said second circuit.

5. In a selective signaling system, the combination with a signaling circuit, of means to send electrical impulses over said circuit, a plurality of relays the forward coils of which are connected in series in said circuit, each of said relays except the first of the series being normally short circuited, electrical connections whereby the operation of said relays by said impulses causes each of said relays successively to short circuit its own coil and nullify the short circuit around the forward coil of the next succeeding relay, a second signaling circuit, receiving apparatuses controlled by current in said second circuit conjointly with contacts of said relays, operated by said circuits, means to impress selected impulses on said second circuit, and means to restore all of said parts to normal after each signal.

[Claims 6 to 24 not printed in the Gazette.]

1,135,322. TRANSMITTING APPARATUS FOR ELECTRICAL SIGNALING. LOUIS M. POTTS, Baltimore, Md., assignor, by mesne assignments, to Austin McLanahan, Baltimore, Md. Original application filed May 7, 1910, Serial No. 559,967. Renewed Apr. 13, 1912, Serial No. 690,659. Divided and this application filed May 20, 1913. Serial No. 768,773. (Cl. 177—380.)



1. Apparatus for transmitting electrical signals, comprising a signal transmitting contact, means entirely mechanical to operate said contact variably according to the signal to be transmitted, and means to allot equal time intervals to all the signals.

2. Apparatus for transmitting electrical signals, comprising a signal transmitting contact, a series of members, means to select said members in combinations, operative connection entirely mechanical between said members and said contact to operate the said contact variably according to the members selected, and means to start the contact operating means into operation at the commencement of each signal and to automatically stop the same at the end of each signal.

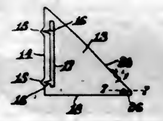
3. Transmitting apparatus for electric telegraphs of the kind in which there is allotted to each signal transmission the same number of equal impulse periods and the signals formed by the transmission of electrical impulses corresponding to combinations of such periods, comprising a plurality of mechanical elements corresponding in number to said impulse periods, means to selectively operate said elements in combinations, and a signal transmitting switch common to all said elements and mechanically controlled thereby to operate at different times according to the elements selected.

4. Transmitting apparatus for electric telegraphs, comprising a signal transmitting switch, a rotary power member, a member slidable on said rotary member, means operated by said slidable member to operate said switch, a series of elements selectively operated, and means controlled by said elements to operate said slidable member variably according to the elements selected.

5. Transmitting apparatus for electrical signaling, comprising a plurality of mechanical elements, means to selectively operate the same, a single contact transmitting switch common to all said elements and variably mechanically controlled thereby, to transmit variable signals, and means to allot equal time intervals to all the signals.

[Claims 6 to 12 not printed in the Gazette.]

1,135,323. CARD-HOLDER FOR CIGAR-BOXES. IVAR REENSTIERNA, Boston, Mass. Filed Apr. 24, 1914. Serial No. 834,533. (Cl. 40—10.)



1. A ticket holder for boxes consisting of a plate having projecting prongs adapted to be forced into two walls of a box and provided with ticket retaining means, one of said prongs extending outwardly from one edge of said plate and in the same plane therewith and the other prong extending downwardly adjacent another edge of said plate and perpendicular thereto.

2. A ticket holder for boxes consisting of a plate having two edges at right angles one of which edges is provided with an outwardly extending prong in the same plane with said plate, a downwardly extending prong adjacent to and parallel with the other edge and perpendicular to said plate, and means for retaining a ticket on its upper face.

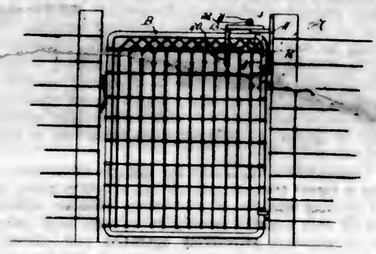
3. A ticket holder for boxes consisting of a triangular plate having two edges perpendicular to each other and provided with inturned ticket retaining lips along one of said perpendicular edges and its inclined edge and provided with a downwardly extending prong adjacent one of said perpendicular edges and a prong extending outwardly from the other perpendicular edge.

4. A ticket holder for boxes consisting of a triangular plate having two edges perpendicular to each other and provided with inturned ticket retaining lips along its forward edge and its inclined edge and provided with a downwardly extending prong adjacent one of said edges and a prong extending outwardly from the edge perpendicular to said edge, said plate having a stiffening shoulder parallel to said pronged edge.

1,135,324. SPRING-ACTUATED GATE-CLOSER. HARVEY E. ROBIESON, Freeport, Ill. Filed June 10, 1914. Serial No. 844,322. (Cl. 16—96.)

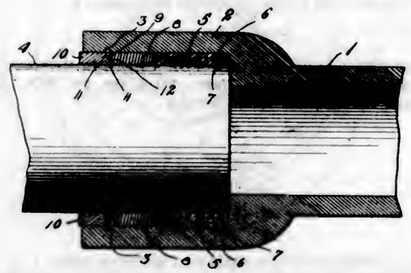
A gate closer comprising a bracket adapted for attachment to a gate post and provided with a top on its upper face, oppositely sprung angular arms each pivoted at one end to the upper face of the bracket at oposite sides of the

stop and having depending free end portions spaced apart to receive therebetween a gate, and a helical spring con-



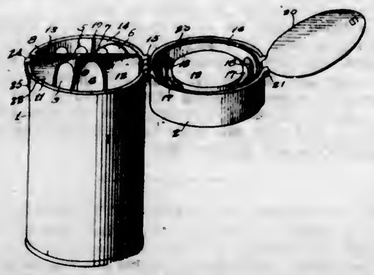
necting the remote points of the angular arms and arranged to hold both arms yieldably against the stop.

1,135,325. PIPE-JOINT. GEORGE W. ROBNETT, Chicago, Ill. Filed Apr. 1, 1913. Serial No. 758,223. (Cl. 137—29.)



In a pipe joint, the combination with the meeting ends of the pipe sections, one of which is formed with an enlargement, an annular groove formed interiorly of said enlargement, of a lead strip inserted between the meeting ends of the sections and having its outer edge beveled, a second lead strip having inclined furcations formed upon its inner edge for engagement with the beveled end of the first named strip, whereby when pressure is applied to the second named strip the outermost furcation will be deflected into the annular groove and simultaneous therewith the innermost furcation is deflected into binding engagement with one of the pipe sections, and a packing disposed between the pipe ends for limiting the movement of the second named strip in one direction.

1,135,326. POLISHING OUTFIT. TERUO SAKATA, Los Angeles, Cal. Filed Aug. 12, 1914. Serial No. 856,496. (Cl. 15—1.)



1. A polishing outfit comprising two receptacles hinged together, an annular band inside of one of said receptacles, and a lid hinged to one of said receptacles, said lid being of a smaller diameter than the receptacles and designed to fit over the edge of the band to tightly close the same.

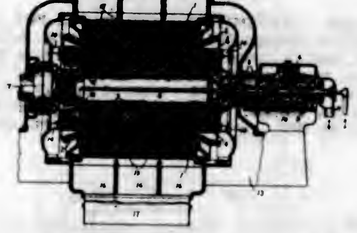
2. A polishing outfit comprising two receptacles hinged together, an annular band inside of and shorter than one of the receptacles, means inside of the annular band to securely hold a box of polish, and a lid hinged to one of said receptacles and designed to close down tightly over the edge of the annular band.

3. A polishing outfit comprising two receptacles hinged together, an annular band inside of and shorter than one of said receptacles, a longitudinally extending partition in the other receptacle, and a lid hinged to the annular band and designed to close down and designed to rest against the outer edge of the annular band and against the outer edge of said partition when said receptacles are closed together.

4. A polishing outfit comprising an implement receptacle provided with longitudinally extending partitions, a second receptacle hinged to said implement receptacle, an annular band inside of and shorter than the second receptacle, and a lid designed to close between the outer ends of the partitions and the rim of the annular band.

5. A polishing outfit comprising two tubular receptacles of like diameter hinged together and designed to close together so that their rims abut one another, means forming an annular shoulder inside of one of said receptacles, and a lid hinged to one of the receptacles and designed to rest against the shoulder and have its edge engage the inside of the rim of said receptacle.

1,135,327. DYNAMO-ELECTRIC MACHINE. MARION A. SAVAGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 24, 1913. Serial No. 775,480. (Cl. 171—252.)



1. In a dynamo electric machine, a rotatable member having windings thereon, said member being formed with a cooling duct extending axially from one end of said member into but not through the same, a pipe of smaller diameter than the duct at its open end extending through substantially the center of the opening, whereby a cooling fluid supplied to said pipe will flow through the same into said duct and out again through the opening about said pipe.

2. In a dynamo electric machine, a rotatable member having windings thereon, said member being formed with a cooling duct extending axially from one end of said member into but not through the same, a pipe of smaller diameter than the duct at its open end extending through substantially the center of the opening, and a discharge pipe for the open end of the duct, whereby a cooling fluid supplied to said pipe will flow through the same into said duct and out again through the opening about said first mentioned pipe and then through said discharge pipe.

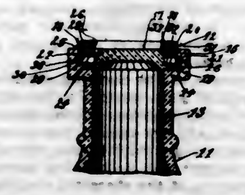
3. In a dynamo electric machine, a rotatable member comprising a core and windings thereon, said core having a cavity therein and an opening to the cavity from one end of said core, said opening being concentric with the axis of rotation of said core, and a pipe extending through substantially the center of said opening and into said cavity for conveying cooling fluid into said cavity, said fluid after cooling said core flowing off through said opening in said core about said pipe.

4. In a dynamo electric machine, a rotatable member comprising a core and windings thereon, said core having a cavity therein and an opening to the cavity from one end of said core, said opening being concentric with the axis of rotation of said core, and a pipe extending through substantially the center of said opening and into said cavity substantially to the closed end thereof for conveying cooling fluid into said cavity, said fluid after cooling said core flowing off through said opening in said core about said pipe.

5. In a dynamo electric machine, a rotatable member comprising a core and windings thereon, said core having a cavity therein and an opening to the cavity from one end of said core, said opening being concentric with the axis of said core, a pipe extending through substantially the center of said opening and into said cavity for conveying cooling fluid into said cavity, and a discharge pipe for said opening in the core, said fluid after cooling said core flowing off through said opening in said core and then through said discharge pipe.

[Claim 6 not printed in the Gazette.]

1,135,328. BOTTLE OR JAR CLOSURE. JOHN SCHIES, Anderson, Ind. Filed Apr. 18, 1912. Serial No. 691,592. (Cl. 215—80.)



1. In combination, a stopper, and an annular closure-member for a container, the said closure-member having a central space in which said stopper is releasably received and connected annular walls of different diameters about said central space forming an annular space between said walls, and a sealing means in said annular space.

2. In combination, with a container and a stopper, of a closure-member therefor having inner and outer lateral walls and a connecting web between said walls at one end thereof for forming a space between said walls, a sealing means in said space, and a reinforcing lifting ring in said space.

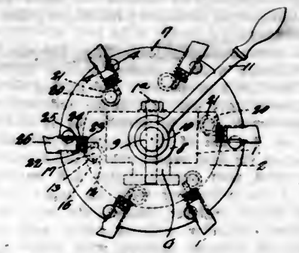
3. In combination, with a container of the character described provided with a mouth having an inwardly projecting lip, and a stopper, of a closure-member therefor struck up from metal with two depending annular walls of different diameters having a connecting top and forming an annular channel, a flaccid sealing means in said space, and the bottom edge of the outer one of said walls flared outwardly under said inwardly projecting lip, substantially as described.

4. In combination, with a container of the character described provided with a mouth having an inwardly projecting lip, a stopper received in said mouth, and a sealing closure therefor comprising a channeled ring-structure between said lip and stopper and a sealing means in the channel of said structure.

5. In combination, a container of the character described provided with a mouth, a stopper therefor, there being a joint between said mouth and stopper, said mouth having an outer wall and a sealing closure for said joint located between said outer wall and stopper and comprising a double walled structure having a channel between the walls thereof opening at said joint, and a flaccid sealing means in said channel and extending into said joint.

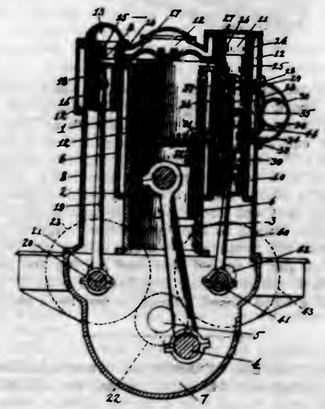
[Claims 6 to 13 not printed in the Gazette.]

1,135,329. TURRET ATTACHMENT FOR LATHES. GEORGE T. SHEARER, Augusta, Ga., assignor of one-half to Joseph S. Reynolds, Augusta, Ga. Filed Oct. 25, 1912. Serial No. 727,811. (Cl. 29—48.)



In a tool carrier for a lathe, a block provided at one end and adjacent its geometrical center with a stud; a vertical turret disk journaled adjustably on the stud; means for holding the turret disk against rotation; cutting tools removably carried by the periphery of the disk; securing elements carried by the disk and engaging the tools, the securing elements projecting from the rear face of the disk; the block being provided with a depending foot extended at right angles to the axis of the block and independent of the stud, the foot bearing against the rear face of the disk, the foot corresponding in peripheral outline to the disk but being cut away flush with the upper surface of the block to give ready access to the securing elements, the block being provided upon its lower face with a depending guide rib forming a brace for the foot, the foot being thickened adjacent the inner edge of the block to form a reinforcement for the disk when one tool thereon is in operation; and a disk-engaging means movably mounted in the thickened portion of the foot.

1,135,330. INTERNAL-COMBUSTION ENGINE. JOHN P. SIMMONS, San Francisco, Cal. Filed Feb. 7, 1912. Serial No. 675,954. (Cl. 123—75.)

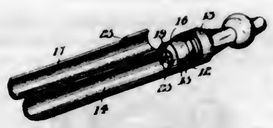


1. In an internal-combustion engine, the shell thereof having a cylinder with a piston therein, said cylinder having an inlet port on one side and having on its other side an exhaust port near its upper end and a second exhaust port lower down in position to be uncovered by the piston at the end of its downward movement, said shell having on its first named side a valve chamber with which the inlet port communicates, and having on its other side a valve chamber with which the exhaust ports communicate, and having also an exhaust passage with which the last named valve chamber communicates through an

upper and a lower port; a reciprocative piston valve seated in the first named valve chamber to control the inlet port; and a reciprocative piston-valve seated in the second named valve chamber and provided with upper and lower ports to respectively control the upper and lower communications of its chamber with the cylinder and the exhaust passage.

2. In an internal-combustion engine, the shell thereof having a cylinder with a piston therein, said cylinder having an inlet port on one side and having on its other side an exhaust port near its upper end and a second exhaust port lower down in position to be uncovered by the piston at the end of its downward movement, said shell having on its first named side a valve-chamber with which the inlet port communicates and having on its other side a valve-chamber with an upper port and a lower port which register respectively with the upper and the lower cylinder exhaust ports, and said shell having also an exhaust passage with which the valve chamber communicates through an upper port and a lower port, said last named upper port coacting with but disposed in a lower horizontal plane than the upper registering ports of the chamber and cylinder and said last named lower port coacting with the lower registering ports of the chamber and cylinder; a reciprocative piston-valve seated in the first named valve-chamber to control the inlet port; and a reciprocative piston-valve seated in the second named valve-chamber and provided with an internal chamber having ports on different horizontal planes to control the upper ports of the valve-chamber whereby a closing rim is formed in the valve-chamber, said piston-valve being also formed with a port to control the lower ports of the valve-chamber.

1,135,331. COMBINED SHADE-HOLDER AND POLE. PETER STAREK, Chrome, N. J. Filed Mar. 26, 1914. Serial No. 827,341. (Cl. 156—23.)

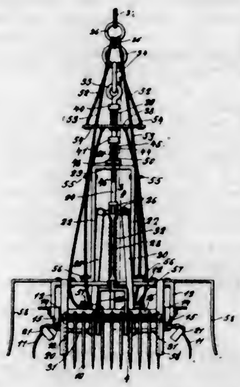


In a device of the kind described, a shade roller support and guard comprising spaced end knobs, one of said knobs being provided at its inner end with an axial recess, the other end of said knobs being provided at its inner end with a T-shaped slot extending radially therein, said recess and slot being adapted to removably receive the pinties of a shade roller, a semi-cylindrical pole section connecting said end knobs, and a second semi-cylindrical pole section hinged to one longitudinal edge of the first pole section and arranged when closed to cover the lateral opening of the T-shaped slot and having its free edge spaced from the remaining longitudinal edge of the first pole section when closed thereon to provide a shade opening.

1,135,332. TONGS. EVERETT A. STEARMAN, Goodnight, Okla. Filed Oct. 14, 1914. Serial No. 866,619. (Cl. 43—12.)

1. An apparatus of the character described comprising a support, pivoted jaws carried by the support, a rod carrying the support and slidable relative thereto, a connection between the rod and the jaws for opening and closing the same, a latch for locking the rod when the jaws are open, a spring for moving the rod in a direction to close the jaws, and a suspension and hoisting means connected to the rod.

2. An apparatus of the character described comprising a support having feet for holding the same in upright position, pivoted jaws carried by the support, a rod carrying the support and slidable relative thereto, a connection between the rod and the jaws for opening and closing the same, a latch for locking the rod when the jaws are open, a spring for moving the rod in a direction to close the jaws, and a suspension and hoisting means connected to the rod.



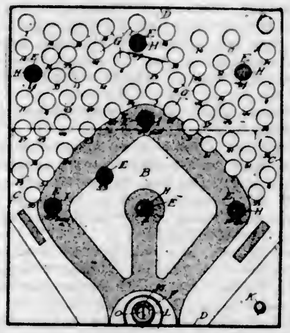
3. An apparatus of the character described comprising a support, pivoted jaws carried by the support, hoisting means connected to the support, and jaw opening means connected to the hoisting means for opening the jaws when the connection between the support and the hoisting means is broken.

4. An apparatus of the character described comprising a support, pivoted jaws carried by the support, hoisting means, a breakable connection between the hoisting means and the support, and jaw opening means connected to the hoisting means for opening the jaws when the connection between the support and the hoisting means is broken.

5. An apparatus of the character described comprising a support, pivoted jaws carried by the support, a rod carrying the support, and slidable relative thereto, pivoted links carried by the rod and connected to the jaws for opening and closing the same, a latch for locking the rod when the jaws are open, a spring for moving the rod in a direction to close the jaws, and a suspension and hoisting means connected to the rod.

[Claims 6 and 7 not printed in the Gazette.]

1,135,333. BASE-BALL-GAME APPARATUS. OSCAR J. STREETZ, River Grove, Ill. Filed Sept. 23, 1914. Serial No. 863,060. (Cl. 46—61.)



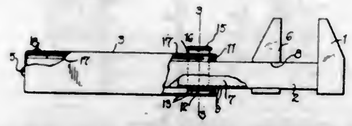
1. A mechanical batter for a base-ball game apparatus, consisting of a hollow block having a hole to receive the ball, a hole in its side to discharge the ball, and a spring adapted to project the ball through the latter hole.

2. A mechanical batter for a base-ball game apparatus, consisting of a hollow block having a hole in its upper end to receive the ball, a hole in its side to discharge the ball, and a spring adapted to project the ball through the latter hole.

3. A mechanical batter for a base-ball game apparatus, consisting of a hollow block having a hole in its upper end to receive the ball, a hole in its side to discharge the ball, and an obliquely disposed spring adapted to be tensioned by the insertion of the ball into the block and by its reaction to shoot the ball through the side hole when the ball comes into register with the latter.

4. A mechanical batter for a base-ball game apparatus, consisting of a hollow block having a hole in its upper end to receive the ball, a hole in its side to discharge the ball, and an obliquely disposed wire spring secured to the block at its upper end and free at its lower end adapted to be tensioned by the insertion of the ball into the block and by its reaction to shoot the ball through the side hole when the ball comes into register with the latter.

1,135,334. WRENCH. GEORGE S. TAPPAN, Diamond Spring, Cal. Filed Aug. 13, 1914. Serial No. 856,656. (Cl. 81—145.)



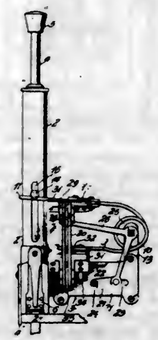
1. A device of the class described including spaced stationary shank members, a jaw at the outer end thereof, a movable jaw having a shank formed integral therewith and movable between the rigid shanks, serrations formed upon one face of the movable shank, serrations formed upon a portion of each of the rigid members, a handle adapted to inclose the inner ends of said stationary and movable shanks, a movable block having teeth adapted to normally engage the serrations, a finger piece connected with the block whereby to disengage the teeth from the serrations, and spring means for normally retaining the teeth of said block in engagement with the serrations.

2. A device of the class described including a rigid jaw, spaced bars formed integral therewith, a movable jaw having recesses in the side faces thereof, whereby to receive said bars, a shank formed integral with the movable jaw and disposed between said bars, serrations formed upon one of the longitudinal edges of said bars and shank, a handle, a movable block supported by the handle and having teeth for engagement with the serrations, plates secured to opposite sides of the block and extending through the handle, a thumb piece connected to the other ends of said plates, a bolt extending through the plates adjacent one end, and a leaf spring engaging said bolt whereby to yieldably retain the block in engagement with the serrations as and for the purpose set forth.

1,135,335. NAILING-MACHINE. EUGENE TOMPKINS, Addison, N. Y. Filed Aug. 20, 1914. Serial No. 857,716. (Cl. 1—46.)

1. A nailing machine comprising an upright barrel, a spring raised plunger therein, a housing extending laterally from and communicating with the lower end of said barrel, said housing having a slot in one side, means for delivering nails to said slot, a feeding plate and a delivering plate mounted side by side in the housing and movable toward and away from the barrel, a spring tongue carried by the feeding plate and adapted to feed nails one at a time through the slot into the housing in advance of the delivering plate, and means operated by reciprocation of the plunger for reciprocating the two plates in the same direction.

2. A nailing machine comprising an upright barrel, a spring raised plunger therein, a housing extending laterally from and communicating with the lower end of said barrel, said housing having a slot in one side, means for delivering nails to said slot, a feeding plate and a delivering plate mounted side by side in the housing and movable toward and away from the barrel, a tongue carried by the feeding plate and facing away from the barrel, said tongue being adapted to feed nails one at a time through the slot into the housing, when the delivering plate is retracted, means operable by actuation of the plunger for projecting and retracting the delivering plate, and additional means for simultaneously projecting and retracting the feeding plate, but for retracting the latter to less extent than the delivering plate.



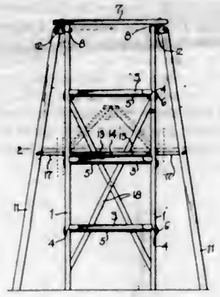
3. A nailing machine comprising an upright barrel, a spring raised plunger therein, a housing extending laterally from and communicating with the lower end of said barrel, said housing having a slot in one side, means for delivering nails to said slot, a feeding plate and a delivering plate mounted side by side in the housing and movable toward and away from the barrel, a tongue carried by the feeding plate and facing away from the barrel, said tongue being adapted to feed nails one at a time through the slot into the housing when the delivering plate is retracted, means operable by actuation of the plunger for projecting and retracting one of the plates, and coacting stops on said plates, whereby actuation of one will simultaneously actuate the other in the same direction.

4. A nailing machine comprising an upright barrel, a spring raised plunger therein, a housing extending laterally from and communicating with the lower end of said barrel, said housing having a slot in one side, means for delivering nails to said slot, a feeding plate and a delivering plate mounted side by side in the housing and movable toward and away from the barrel, a tongue carried by the feeding plate and facing away from the barrel, said tongue being adapted to feed nails one at a time through the slot into the housing when the delivering plate is retracted, means operable by actuation of the plunger for projecting and retracting one of said plates, and a pick up mechanism for actuating the other plate from the plate operated by the plunger.

5. A nailing machine comprising an upright barrel, a spring raised plunger therein, a housing extending laterally from and communicating with the lower end of said barrel, said housing having a slot in one side, means for delivering nails to said slot, a feeding plate and a delivering plate mounted side by side in the housing and movable toward and away from the barrel, a tongue carried by the feeding plate and facing away from the barrel, said tongue being adapted to feed nails one at a time through the slot into the housing when the delivering plate is retracted, means operable by actuation of the plunger for projecting and retracting one of said plates, a pair of spaced stops on one plate, and a single stop on the other plate and spaced between the pair of stops, whereby movement of one plate will pick up and move the other plate.

[Claim 6 not printed in the Gazette.]

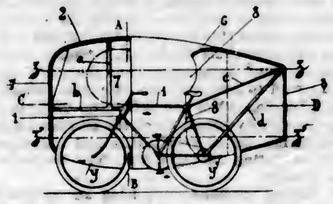
1,135,336. STEP-LADDER. FRED E. VAN HOUTEN, Kalamazoo, Mich. Filed June 6, 1914. Serial No. 843,491. (Cl. 228—15.)



1. A step ladder including front and rear legs, and means to connect said legs at their tops, side braces, means to pivotally connect the side braces to the top, brace members having their outer ends pivotally connected to the front and rear supporting legs, angular connecting members having one of their ends disposed between the inner ends of said brace members, a link member arranged between the angular members and pivotally connected to the other ends thereof, and further brace members having their outer ends pivotally connected to the side braces and their inner ends pivotally connected to opposed ends of the link member.

2. A step ladder including front and rear legs, a top, means to connect the legs to the top, side braces having their ends pivotally connected to the front and rear legs, angular connecting members arranged between the inner ends of said brace members and pivotally connected thereto, a link member arranged parallel with the inner ends of the connecting members, said connecting members being disposed upon opposite sides of the link at each end thereof and further brace members having their outer ends connected to the side braces and their inner ends arranged parallel with the link upon the sides opposite the connecting members, whereby to fold into compact form, as and for the purpose set forth.

1,135,337. WIND-DIVIDING APPARATUS FOR TRANSPORT-VEHICLES WITH KINEMATIC EQUILIBRIUM. ETIENNE BUNAU-VARILLA, Paris, France. Filed Oct. 23, 1913. Serial No. 796,958. (Cl. 208—150.)



1. In combination, a vehicle having kinematic equilibrium and a wind-dividing apparatus secured thereto, said apparatus consisting of a front part and a rear part, a space being left between said parts to permit the rider to mount the machine.

2. In combination, a vehicle having kinematic equilibrium and a wind-dividing apparatus secured thereto, said apparatus consisting of a front part which tapers toward the front and a rear part which tapers toward the rear, a space being left between said parts to permit the rider to mount the machine.

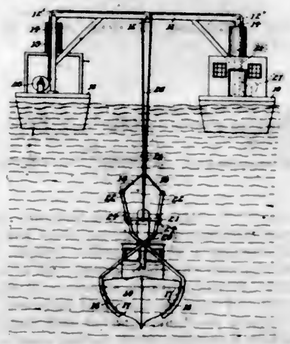
3. In combination, a vehicle having kinematic equilibrium and a wind-dividing apparatus secured thereto, said apparatus consisting of a front penetration cone and a rear recovery cone, a space being left between said parts to permit the rider to mount the machine.

4. In combination, a vehicle having kinematic equilibrium and a wind-dividing apparatus secured thereto, said apparatus consisting of a front part and a rear part, a space being left between said parts to permit the rider to mount the machine, and members spanning said space to guide the air streams which are divided by said front part.

5. In combination, a vehicle having kinematic equilibrium and a wind-dividing apparatus secured thereto, said apparatus consisting of a front part which tapers toward the front and a rear part which tapers toward the rear, a space being left between said parts to permit the rider to mount the machine, and members spanning said space to guide the air streams which are divided by said front part.

[Claims 6 to 22 not printed in the Gazette.]

1,135,338. SHIP-RAISING APPARATUS. MIKE VECSEY, Allouez, Mich., assignor of one-fourth to Imre Kaszo, Wooster, Ohio. Filed Sept. 9, 1914. Serial No. 860,928. (Cl. 57—9.)



1. A ship raising tongs comprising arms pivoted together, curved inwardly projecting jaw portions at the lower ends of said arms, inwardly positioned teeth upon said jaws, outwardly positioned teeth upon the upper portions of said arms, an elevating cable secured to the upper ends of said arms, a link encircling the upper ends of said arms and having sharpened inner portions engaging said outwardly projecting teeth, and an elevating cable attached to said link adapted upon upward movement for lockingly positioning said link when the jaw teeth are in engagement with the work.

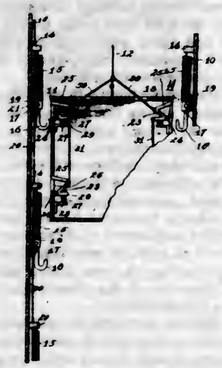
2. A ship raising tongs comprising arms pivoted together, gripping jaws at the lower ends of said arms, an elevating cable secured to the upper ends of said arms, a link encircling the upper ends of said arms, and an elevating cable attached to said link, the opposed faces of the link and upper ends of the arms adapted to co-act to be held in substantially rigid condition.

1,135,339. SAFETY ELEVATOR DEVICE. HENRIK WERNIGG, Akron, Ohio. Filed Mar. 14, 1914. Serial No. 824,723. (Cl. 187—82.)

1. A safety device comprising in combination with a shaft and an elevator cage positioned therein, a hoisting cable secured to the elevator cage, springs rigidly secured within the elevator shaft, hooks hinged to the lower ends of said springs, tracks carried by the elevator shaft walls, rollers carried by said springs and engaging said tracks, pivoted hooks carried by the elevator cage, springs engaging said hooks normally tending to position the same in the path of the spring-carried hooks, and means carried by said elevator cage for normally restraining said elevator cage-carried springs and adapted for release upon the severing of the elevator cage-supporting cable.

2. A safety device comprising in combination with an

elevator shaft, an elevator cage within the shaft, and a hoisting cable secured to the cage, of stationary studs oppositely arranged upon the walls of said shaft, springs suspended from said studs, straps at the bottoms of said springs, hooks hingedly suspended from said straps, brackets extending from said straps, grooved rollers journaled in said brackets, Z-rails spaced apart upon the walls of said shaft and positioning said rollers therebetween, and spring-impelled pivoted hooks carried by said elevator cage and adapted to engage said hinged hooks upon the severance of the elevator-supporting cable.



3. A safety device comprising in combination with an elevator shaft, an elevator cage within the shaft, and a hoisting cable secured to the cage, of stationary studs oppositely arranged upon the walls of said shaft, springs suspended from said studs, straps at the bottoms of said springs, hooks hingedly suspended from said straps, brackets extending from said straps, grooved rollers journaled in said brackets, Z-rails spaced apart upon the walls of said shaft and positioning said rollers therebetween, Z-shaped engaging means pivoted to said elevator cage, brackets carried by said elevator cage, springs mounted between said brackets and engaging means and normally tending to project said engaging means within the path of said hinged hooks, and cords between said engaging means and the elevator supporting cable.

4. A safety elevator device comprising in combination with a shaft, and an elevator cage suspended therein, a cable secured to said cage, resiliently mounted hooks secured within said shaft, rollers carried by said hooks, a track carried by the shaft walls on which said rollers travel, pivoted hooks carried by the elevator cage, connecting cords between said hooks and the cable, holding the hooks in normally retracted position, and springs normally exerting their tension against said hooks and adapted upon severance of said cords to release said pivoted hooks, and project same within the path of said resiliently-mounted hooks.

1,135,340. PLASTIC MATERIAL. FERDINAND GERHARD WIECHMANN, New York, N. Y., assignor to Fenoform Corporation, Hastings-upon-Hudson, N. Y., a Corporation of New York. Filed Nov. 12, 1909. Serial No. 527,585. (Cl. 106—22.)

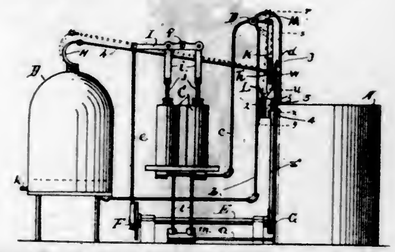
1. As a new product of manufacture, a body containing an insoluble, infusible, condensation product of phenol and formaldehyde, in conjunction with a vegetable protein.

2. As a new product of manufacture, a body having a base of vegetable protein transformed into a practically insoluble and infusible body by the action of a condensation product derived from phenol and combining bodies, and the action of heat.

3. As a new product of manufacture, a body containing an infusible condensation product of phenol and formaldehyde, in conjunction with vegetable ivory.

4. As a new product of manufacture, a body having a base of vegetable ivory transformed into a practically insoluble and infusible body by the action of a condensation product of phenol and condensing agents.

1,135,341. TREE-SPRAYER. JAY WILCOX, Rothbury, Mich. Filed June 16, 1913. Serial No. 774,066. (Cl. 103—89.)



1. In combination with the storage tank, compression tank, pumps and connecting pipes of a power spraying machine, a three-way valve, a pipe from the pump to the three-way valve, a pipe from the three-way valve to the compression tank, and a pipe from the three-way valve to the supply tank, a hook connected with the three-way valve, a vertically reciprocating slide having a hook to engage the hook on the three-way valve to open and close the valve, and means for causing the hooks to engage and disengage to actuate the three way valve and to hold the pressure constant in the compression chamber.

2. In combination with a supply tank, compression tank, force pump and supply pipes of a spraying machine, a three-way valve in the line of the supply pipe, an overflow pipe from the valve, an actuating hook connected with the valve, a vertically recirocating slide in position to engage and actuate said hook, means connected with the compression tank and with the actuating hook to engage and disengage said hooks and hold the pressure constant in the compresion chamber.

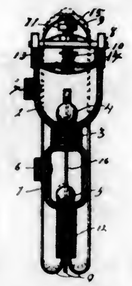
3. In combination with the storage tank, compression tank, force pump and connecting pipes of a power sprinkling machine, a three-way valve in the line of the supply pipe, an overflow pipe from said valve to the supply tank, an actuating arm on the valve, an actuating hook on said arm, a vertically reciprocating slide arranged to actuate the actuating hook, said slide having an opening in the top into which the actuating hook may pass when actuated by the slide on its downward stroke, a solid surface on the slide adjacent to said opening to engage the actuating hook upon the upward stroke of the slide, and means connected with the compression tank and actuated by the pressure in the said tank to swing the actuating hook to position to pass into the opening in the slide or be engaged by the solid portion of the slide according to the degree of pressure in the compresion tank.

4. In combination with the storage tank, compression tank, pumps, and connecting pipes of a spraying machine, a three-way valve in the line of the supply pipe, an overflow pipe connected with the supply pipe, a vertically reciprocating slide having a hook thereon, an arm on the valve, an actuating hook pivotally secured to said arm, a hollow spring connected with the compression tank in a manner to be actuated by the pressure from the tank passing into it, a connecting rod from the spring to the actuating hook so connected as to cause the actuating hook to engage with, or disengage from the sliding hook to hold the pressure in the compression chamber constant.

1,135,342. VALVE FOR SPRAYING-MACHINES. JAY WILCOX, Grand Rapids, Mich. Filed Mar. 27, 1914. Serial No. 827,752. (Cl. 103—89.)

1. In a valve for spraying machines, a receiving barrel and a discharge barrel, a check valve in each barrel, and

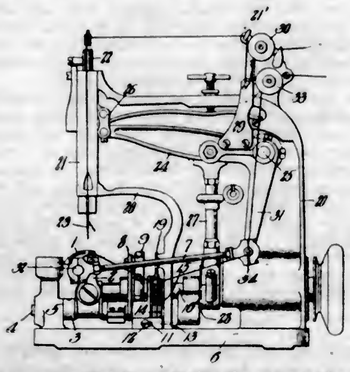
a diaphragm in the discharge barrel, with a regulating device connected with the diaphragm, rods arranged to be actuated by the diaphragm, and extending downward outside of the valve barrels with the ends extending upward to be made to raise the check valve in the receiving barrel as the center of the diaphragm is forced upward.



2. In combination with a receiving barrel, the discharge barrel, the diaphragm and check valves of a valve for spraying machines, a girder above the diaphragm, a hollow bolt passing through said girder, a standard passing through said bolt and resting on the diaphragm, a spring around said standard between the lower end of the hollow bolt and the surface of the diaphragm, a pipe extending downward from the receiving barrel, rods supported on the standard and extending downward outside of the barrel and then bent upward to pass up into the pipe and actuate the valve from the movements of the diaphragm.

3. In combination with the receiving barrel, the discharge barrel, a check valve in each barrel, the diaphragm, and a regulating device for the diaphragm with a pipe extending downward from the receiving barrel, rods supported to be actuated by the movements of the diaphragm and extending downward outside of the barrels with the lower ends bent and extending upward to position to actuate the valve in the receiving barrel with the movements of the diaphragm and a rod extending loosely into the ball in the receiving barrel and extending upward and into a hole in the valve in the discharge barrel so that both volves may be raised simultaneously with the actuating rods.

1,135,343. THREAD-CONTROLLING MECHANISM FOR SEWING-MACHINES. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1906. Serial No. 340,896. (Cl. 112—26.)



1. A looper, means for operating the same, and a rotary take-up for the looper thread, including a thread-controlling element, means for operating said element, and means to retain the thread against the face of the thread-controlling element, said thread-controlling element having means to successively take up the looper thread and give slack thread on the forward movement of the looper, and to take up thread and again give up slack thread to the looper on its backward movement.

2. A looper, means for operating the same, and a rotary take-up for the looper thread including a rotating thread-controlling element, means for operating the same, and means for retaining the thread against the face of said thread-controlling element, said thread-controlling element being shaped so as to take up the thread, give slack to the thread on the forward movement of the looper, and control the slack as it is given to the looper, and to take up thread and again give slack thread to the looper on its backward movement, and control the slack given to the looper in its backward movement.

3. A rotary take-up including in combination, a thread-controlling member, means for rotating said member, and means to retain the thread against the operative face of said thread-controlling member, said retaining means having its thread-engaging surface extending from a point within to a point without the largest radius of said thread-controlling member; substantially as described.

4. A rotary take-up including in combination, a thread-controlling member and means to retain the thread against the operative face of said thread-controlling member, said retaining means having an open mouth extending beyond the maximum diameter of the thread-controlling member for convenience in threading.

5. A rotary take-up including in combination, a thread-controlling member, and means to retain the thread against the operative face of said thread-controlling member, said retaining means having an open mouth extending beyond the maximum diameter of the thread-controlling member for convenience in threading and a support for said retaining means located in advance of the center of the thread-controlling member; substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

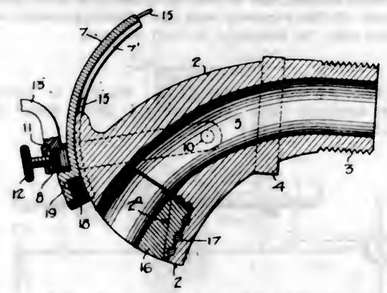
1,135,344. PRINTING-TELEGRAPH ALPHABET. CHARLES G. ASHLEY, Chicago, Ill., assignor to General Engineering and Construction Company, Limited, Toronto, Canada, a Corporation of Ontario, Canada. Filed June 20, 1911. Serial No. 634,199. (Cl. 178—30.)



In a Roman alphabet for printing telegraph systems, a recurrent combination of elemental lines composed of lower horizontal and lower half vertical abutting at the right end of the said horizontal, said two elemental lines appearing always in combination and appearing in the letter "E"; a full vertical occurring in many characters and appearing in the letter "E" in registry with the left end of the lower horizontal; a top horizontal and a middle horizontal, the middle horizontal having a length less than said bottom horizontal and registering at its left end with the full vertical of the letter "E" and extending at its right end to a point at the left of the half vertical of the letter "E" whereby said half vertical and said middle horizontal are disjoined and said letter "E" is rendered legible as such.

1,135,345. MINERAL-FAUCET. RUFUS E. BALL, Webb City, Mo. Filed Aug. 27, 1914. Serial No. 858,881. (Cl. 137—5.)

1. A faucet of the character described comprising a body having a central passage therethrough and a segmental socket formed around the lower side of the outlet end of the central passage; a segmental wear-piece inserted in the said socket and spaced therefrom and held therein by fused metal which fills the space, said wear-piece forming an armored lip to the faucet; and a gate for controlling the discharge end of said faucet, said gate having on its inside face at its lower edge a socket, and a removable wear-piece filling said socket.



2. A faucet-body having an arcuate armored discharge end, in combination with an arcuate gate working in contact therewith and provided on its side with a plurality of outwardly-projecting lugs, and a yoke pivotally connected with the faucet-body and set between said lugs, the arms of the yoke embracing the gate and holding the latter in firm engagement with the faucet.

3. A faucet of the character described having an arcuate armored discharge end, in combination with an arcuate gate provided with an armored lip working in contact therewith, a pivoted yoke independent of the gate which holds the gate against the arcuate face of the faucet, the cross-bar of the said yoke having its inside face in contact with the outside of the said gate to hold the same positively against the face of the faucet at the discharge end, and a spring attached to the cross-bar bearing against the gate to force it inward against the face of the discharge end of the faucet.

4. A faucet-body provided with an arcuate armored discharge end, an arcuate gate having an armored lip working in sliding contact with the discharge end thereof and having arms embracing the gate and pivotally connected to the body of the faucet; a channeled cross-bar connecting said arms at the outer end of the said gate; a bow-spring mounted on the said channeled cross-bar and bearing against the outer side of the gate, and means for adjusting the tension of said spring.

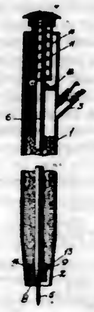
5. A faucetlbody having an arcuate discharge armored end, in combination with an arcuate gate working in contact therewith and provided on its side with a plurality of outwardly-projecting lugs, and a yoke pivotally connected with the faucet-body, the arms of said yoke engaging between the said lugs whereby the gate may be moved by said yoke.

[Claims 6 to 8 not printed in the Gazette.]

1,135,346. WEED-DESTROYER. HARVEY P. BARNHART, Portland, Oreg. Filed Nov. 17, 1914. Serial No. 872,599. (Cl. 47—37.)

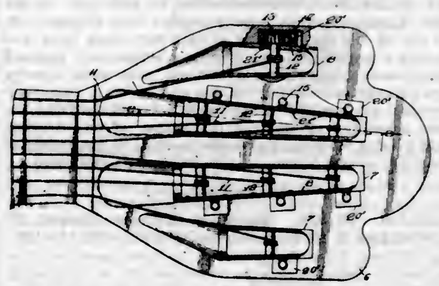
1. A weed destroying device embodying a fluid receptacle, an incising instrument for cutting the weed associated with and adapted to have vertical movement therein, a pair of guide walls provided in said fluid receptacle, a spring for compelling the return movement of the incising instrument after it has been pressed downward and released, and a housing for said spring, one of said guide walls performing the combined purpose of positioning the incising instrument and supporting the said spring, and the other of said guide walls performing the combined purpose of positioning the incising instrument and providing a discharge duct for the delivery of the fluid to the weed to be destroyed, and means carried by the incising instrument for controlling the delivery of the fluid through said duct.

2. A weed destroyer embodying the fluid receptacle, an incising instrument for cutting the weed, associated with and adapted to have vertical movement therein, a discharge duct in said receptacle for delivering the fluid to the weed to be destroyed, means carried by said incising instrument for controlling the flow of fluid through said discharge duct, a knob provided on the incising instrument, a spring for compelling the return movement of the incising instrument after it has been actuated by



pressing on said knob, and a handle on the fluid receptacle for raising the discharge duct out of engagement with the controlling means carried by the incising instrument, to allow delivery of the fluid to the weed.

1,135,347. TUNING-PEG FOR MUSICAL INSTRUMENTS. JOSEPH BOHMANN, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,431. (Cl. 84—78.)



1. In a musical instrument, the combination of a head piece having an opening therethrough, a frame fitting in said opening, a tuning peg having its bearings in the sides of said frame, a gear for turning said peg, a worm and worm shaft for turning said gear, and a cap piece fitting over said worm and gear and secured to said frame for holding the turning parts in position.

2. The combination with the head of a musical instrument, having an opening therethrough, of an elongated frame fitting in said opening, means for holding said frame in position, a winding peg having its bearings in the sides of said frame, a gear on said peg, a worm engaging with said gear, a shouldered shaft for turning said worm, a bearing member fitting over said gear and worm and having bearings therein for said shaft, the shoulders being arranged to engage with the sides of said member, and means for securing said member to the side of the frame.

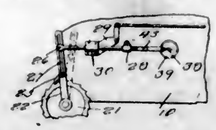
3. In a tuning peg, the combination of a peg support, a peg rotatably mounted in said support, a gear on said peg, a shouldered shaft, a worm on said shaft engaging with said gear, a cap piece fitting over said gear and worm, said piece having slotted sides for engagement with the shoulders on the worm shaft, and means for securing said cap piece to the side of the peg support to hold said worm and gear in position.

4. The combination of a rectangular frame having a flange around one side thereof, a tuning peg rotatably mounted in said frame, a gear on said peg, a worm mesh-

ing with said gear, a shaft carrying said worm and having grooves therein at each end of the worm, a cap having slotted sides engaging with said grooves, and means for fastening said cap to the frame whereby it will lock the worm in operative relation with the gear, and will hold said gear and worm shaft in proper position.

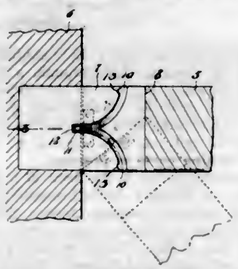
5. The combination of a tuning peg, a plate having a hole therethrough for said peg and having a plurality of slots therein, a gear on said peg, a worm engaging with said gear, a shaft for said worm, and a gear-casing over said gears and worm, said casing being formed of bent sheet metal, and having tongues engaging with said slots and bent to hold the casing in position, said casing also having bearings therein for the worm shaft.

1,135,348. DISCHARGE-FEED FOR UNLOADERS. JAMES P. BOSHELL, Coldwater, Kans. Filed Aug. 7, 1912. Serial No. 713,873. (Cl. 74—54.)



The combination of a supporting wall, a bell crank lever pivoted on a horizontal pivot on said well, and including a substantially vertically disposed leg and substantially horizontally disposed leg, a tubular bearing extending horizontally on said horizontal leg, a guide bearing pivoted on a horizontal pivot on said wall on one side of said bell crank lever, a ratchet lever disposed vertically on the opposite side of said bell crank lever and having a longitudinal slot therein, a horizontally disposed reciprocatory link engaged through said guide bearing and through said tubular bearing and having a transverse terminal pin engaged through said slot, and a driving pitman connected to said rod in advance of said bearing, said bearing receiving the shocks incident to the change of direction of said pitman at each limit of its movement.

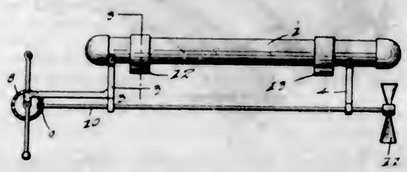
1,135,349. HINGE. WALTER S. BRIDGES, Chicago, Ill. Filed May 4, 1914. Serial No. 836,243. (Cl. 16—163.)



1. The combination with a jamb and a door, the door having a recess in its hinge edge, a plate fixed to the jamb and projecting therefrom into the edge recess of the door, the face of the projecting end of the plate having grooves which are connected at their inner ends and extend divergingly therefrom, said grooves sloping downward toward their meeting ends, and a pivot carried by the door in the edge recess thereof and extending normally into the meeting ends of the grooves, and movable therefrom into either one of said grooves when the door is swung.

2. The combination with a jamb and a door, the door having a recess in its hinge edge, a plate fixed to the jamb and projecting therefrom into the edge recess of the door, said plate having recesses which are connected at their inner ends and extend divergingly therefrom, and said member also having inclined surfaces following the direction of the recesses, and a pivot carried by the door in the edge recess thereof, and extending normally into the meeting ends of the recesses, said pivot having means engageable with the aforesaid inclined surfaces.

1,135,350. SWIMMING-MACHINE. WALTER D. BROSSMAN, Berthoud, Colo. Filed May 14, 1914. Serial No. 838,535. (Cl. 9—18.)



In a swimming device, a plurality of floats, brackets connecting said floats, a substantially U-shaped bracket connected centrally to the under surface of one of said first mentioned brackets, a plurality of oppositely disposed crank handles journaled in said U-shaped bracket, a gear wheel mounted on said crank and disposed between said U-shaped bracket, a shaft extending longitudinally of said floats and rotatably supported by said first and second mentioned brackets, a propeller at one end of said shaft and a gear wheel on the opposite end, said gear wheel to mesh with the gear carried by the crank for rotating said shaft, and a flexible strap adjustably secured around said floats.

1,135,351. FOOD PRODUCT. JOHN J. BURCHENAL, Cincinnati, Ohio, assignor to The Procter and Gamble Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 10, 1910. Serial No. 591,726. (Cl. 99—13.)

1. A homogeneous lard-like food product consisting of an incompletely hydrogenized vegetable oil.

2. A homogeneous lard-like food product consisting of incompletely hydrogenized cottonseed oil.

3. A homogeneous lard-like food product consisting of an incompletely hydrogenized vegetable oil, said product being a semi-solid having an iodin value ranging from about 55 to about 80.

4. A homogeneous lard-like food product consisting of incompletely hydrogenized cottonseed oil, said product being a white or yellowish semi-solid having, approximately, an iodin value of 55 to 80, a melting-point of 40 to 33° C., a titer of 42 to 35° C., and giving no reaction for cottonseed oil under the Halphen test.

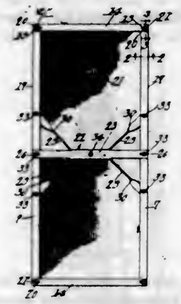
5. A food product, composed of glycerids of saturated and unsaturated fatty acids in substantially the proportions of from twenty to twenty-five per cent. of saturated fats, five to ten per cent. of fats of lesser saturation than olein, and sixty-five to seventy-five per cent. of fats of a saturation corresponding to that of olein.

[Claims 6 and 7 not printed in the Gazette.]

1,135,352. SCREEN-FRAME. GEORGE G. BUNGER, Eskridge, Kans. Filed May 20, 1914. Serial No. 839,869. (Cl. 156—14.)

1. An article of the class described, comprising hollow side bars, and upper and lower cross bars, said cross bars being provided with end walls spaced between the side walls of the cross bars, said end walls fitting within the side bars, the side bars and cross bars being provided with overlapping inner edges, the inner of the overlapped edges being provided with serrations adapted to grip a foraminous material.

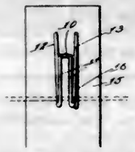
2. An article of the class described, comprising hollow side bars, upper and lower cross bars, said cross bars being provided with end walls spaced between the side walls of the cross bars, said end walls being positioned within the side bars, the side bars and cross bars being provided with overlapping inner edges, the inner of the overlapped edges being provided with serrations adapted to grip a foraminous material, and means engaging the cross and side bars adjustably holding the same together.



3. An article of the class described, comprising hollow side bars, upper and lower cross bars, said cross bars being provided with end walls spaced between the side walls of the cross bars, said end walls being positioned within the side bars, the side bars and cross bars being provided with overlapping inner edges, the inner of the overlapped edges provided with serrations adapted to grip a foraminous material, said side and cross bars provided with axial slots, and means extending through said slots for holding the cross and side bars together and providing for the longitudinal and transverse extension of the frame.

4. A screen frame comprising side and upper and lower cross bars, each cross bar substantially box-like in cross section and provided with overlapped edges upon the inner side walls, said overlapping edges being provided with serrations extending therealong and adapted to grip the ends of a screen and house the same therein, the upper and lower cross bars being provided with tongue like end walls extending within the side bars, means for locking the side and upper and lower cross bars in adjusted positions, and a central cross bar provided with outlying angle braces formed integral therewith and provided with means for gripping the wire screen throughout substantially the entire length.

1,135,353. CLIP. WILLIAM CALLAWAY, Wichita, Kans. Filed Feb. 25, 1914. Serial No. 821,033. (Cl. 256—48.)



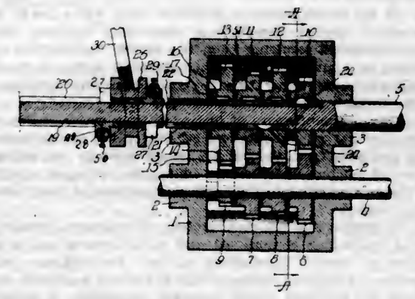
1. A clip formed from a strand of resilient wire double intermediate its length to form a bill and being then bent to form supporting arms extending from the outer end of the bill and sloping in the direction of the inner end of the bill, the arms being then bent upwardly to extend adjacent the inner end of the bill with the bill extending between the arms, the end portion of one of said arms being then bent to form a securing element and the end portion of the remtaining arm being bent back upon itself to a point adjacent the lower end of the clip and then bent to form a second securing element.

2. A clip formed from a strand of wire bent intermediate its length to form a bill and being bent to form arms extending from the outer end of the bill, said arms being then bent to extend upon opposite sides of the inner end of said bill, the end portion of one of said arms being then bent to form a securing element and the other of said arms being bent back upon itself and then bent to form a securing element.

3. A clip formed from a strip of wire bent back upon itself to form a bill and being then bent to form arms leading from said bill and bent to extend upon opposite sides of the inner end of the bill, the end portion of one of said arms being bent to form a penetrating pin provided with a sharpened point, the other of said arms being bent back upon itself and having its end portion bent to form a penerating prong extending parallel to said first-mentioned prong and having its point sharpened.

4. A clip formed from a strand of wire bent back upon itself to form a bill having arms extending therefrom, said arms being bent to extend upon opposite sides of the inner end of said bill, the end portion of one of said arms being bent to form a securing element extending away from said bill the other of said arms being bent back upon itself and having its end portion bent to form a securing element extending away from said bill.

1,135,354. TRANSMISSION-GEARING. LEON J. CAMPBELL, Chicago, Ill. Filed Jan. 9, 1911. Serial No. 601,509. (Cl. 74—59.)



1. A transmission gearing, comprising a shaft, a plurality of gears loosely mounted on the shaft, a key movable longitudinally of the shaft, and means adapted when the key is moved longitudinally to rock the key into and out of engagement with the gears.

2. A transmission gearing, comprising a shaft, a plurality of loose gears on the shaft, and a key movable longitudinally of the shaft and adapted to engage a part on said gears and lock them to the shaft, there being coacting means on the shaft and key adapted to rock the key into and out of engagement with the gears.

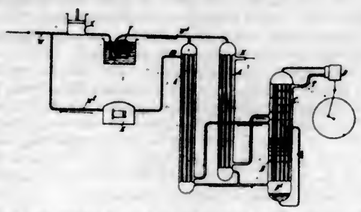
3. A transmission gearing, comprising a shaft, a plurality of gears loosely mountel on the shaft and each having a locking recess therein, a longitudinally movable key on the shaft and having a lug thereon adapted to engage in said recesses and lock the gears to the shaft, there being coacting parts on said lug and recesses adapted when the key is moved longitudinally to rotate the key and withdraw the lug from the recesses, means for moving the key longitudinally, and means for rotating said gears.

4. A transmission gearing, comprising a shaft, a plurality of gears loosely mounted on the shaft and having beveled recesses opening toward the shaft, a key longitudinally movable on the shaft, and having a lug adapted to engage in said recesses when the key is rotated to one position, said lug having beveled ends adapted to engage the beveled portions of the recesses, means adapted to move the key longitudinally and cause the beveled portions of the lug and recess to rock the key and withdraw the lug from the recess, and means for rotating the gears.

5. A transmission gearing, comprising a shaft, a plurality of internally recessed gears loosely mounted on the shaft, a key movable longitudinally of the shaft and adapted to lock the gears to the shaft, there being coacting means on the keys and recesses adapted when the key is moved longitudinally to rock the key on the shaft and release the gears, and means for rotating said gears.

[Claim 6 to 16 not printed in the Gazette.]

1,135,355. MANUFACTURE OF HYDROGEN. GEORGES CLAUDE, Paris, France, assignor to Société L'Air Liquide (Societe Anonyme pour L'Etude et L'Exploitation des Procedes Georges Claude), Paris, France. Filed Mar. 25, 1913. Serial No. 756,806. (Cl. 48—198.)



1. In the manufacture of hydrogen from water gas by a process of partial liquefaction, utilizing the carbon monoxid resulting from the partial liquefaction to liberate hydrogen from a substance containing the same, and adding the hydrogen so produced to the further quantities of water gas to be treated.

2. In the manufacture of hydrogen from water gas by a process of partial liquefaction, chemically utilizing the carbon monoxid resulting from the partial liquefaction to liberate an approximately equal volume of hydrogen from a substance containing the same, and adding this hydrogen to the further quantities of water gas to be treated.

3. In the manufacture of hydrogen from water gas by a process of partial liquefaction, subjecting the carbon monoxid resulting from the partial liquefaction to the action of heated calcium hydrate, and adding the hydrogen resulting from this action to the further quantities of water gas to be treated.

4. A process for the manufacture of hydrogen, consisting in subjecting compressed and cooled water gas to a process of partial liquefaction whereby the hydrogen escapes as gas and the carbon monoxid collects as liquid, removing the liquefied carbon monoxid, vaporizing it, utilizing the vapor to liberate hydrogen from a substance containing the same, and adding the liberated hydrogen to the further quantities of water gas to be treated.

1,135,356. PROCESS OF TREATING PAPER TUBES. ROBERT G. CLYNE, Alton, Ill. Filed May 26, 1913. Serial No. 770,064. (Cl. 91—70.)

1. The process of treating paper-tubes, consisting in (1) impregnating the same in a volatile liquid and (2) then volatilizing the latter by impregnating the tubes with a hot water and fire-proofing liquid.

2. The process of treating paper-tubes, consisting in (1) giving the same a preliminary softening and saturating bath in a volatile liquid, and (2) subjecting the same to a hot liquid of water and fire-proofing material until the latter has volatilized said volatile liquid and impregnated the walls of the tube being treated.

3. The process of treating paper-tubes for making paper shot-shells, consisting in (1) saturating the same with a volatile liquid, until the latter has reduced the sizing and adhesive material to a softened state, and (2) subjecting to a moisture and flame resisting liquid material at a high temperature whereby the first liquid is volatilized and the second enters and fills the space occupied by the first.

4. The process of treating paper-tubes, consisting in (1) submerging the same in a volatile liquid until thoroughly impregnated thereby, and the hardened adhesive material softened, and (2) then submerging the same in a hot liquid whereby the first liquid is volatilized and passes out into the second in the form of a gas and the second enters and impregnates the walls of the tubes through capillary attraction.

5. The process of treating paper-tubes, consisting in (1) submerging the same in and impregnating the same by a volatile liquid, and (2) immediately submerging the same in a hot liquid until said volatile liquid is volatilized and driven from the walls of said tubes, said hot liquid comprising a liquid wax adapted when cooled and set in the walls of said tube to resist moisture and combustion.

[Claims 6 and 7 not printed in the Gazette.]

1,135,357. MUSHROOM-BULLET. ROBERT G. CLYNE, Alton, Ill. Filed Feb. 11, 1914. Serial No. 817,973. (Cl. 102—28.)



1. A mushroom bullet, comprising a soft metal core, a solid tip having a pointed spheroidal spreader member embedded within said core, and a jacket normally interlocking with said tip and having interior grooves forming a weakened section surrounding said core and spreader member,

2. A mushroom bullet, comprising a soft metal core, a jacket having a weakened open end extending over and beyond the forward end of said core, and a solid tip normally interlocking with the open end of said jacket and having a pointed spheroidal spreader head extending in and surrounded by the forward end of said core and jacket.

3. A mushroom bullet having a soft metal core, a jacket having a weakened open ended forward section, and a solid tip normally engaging and interlocking with said open ended forward section and provided with an enlarged spheroidal shaped anchor spreader head surrounded by said core and said weakened sectiton.

4. In a mushroom bullet, the combination with a soft metal core, and a conical tip having a reduced neck terminating in a pointed spheroidal spreader head embedded in said core; of a jacket having a longitudinally weakened section surrounding said core about said spreader head and terminating in beveled edges normally interlocking with the base portion of said conical tip.

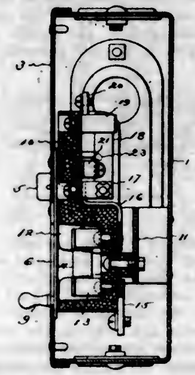
5. A mushroom bullet, comprising a soft metal core, a conical tip having an annular inset groove about its base, said base terminating in a reduced neck portion having a pointed spheroidal spreader head interlocking with said core, and a jacket having a weakened open ended section surrounding said core about said spreader head and having its open end beveled and interlocking with said annular inset groove of said conical tip.

1,135,358. CUT-OUT BOX. ROBERT C. COLE, Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Mar. 17, 1914. Serial No. 825,204. (Cl. 175—292.)

1. The combination with an inclosing case having a cover with a window therein, of a switch mounted in the case, a shutter movable on the cover for opening and closing said window, means on the outside of the cover for moving the shutter, and means so connecting the shutter with the switch that closing the shutter closes the switch and opening the shutter opens the switch.

2. The combination with an inclosing case having a cover with a window therein, of a switch mounted in the case, fuses arranged in the case and electrically connected with the switch, a shutter movable on the cover for opening and closing said window, means on the outside of the cover for moving the shutter, and means so connecting the shutter with the switch that closing the shutter closes the switch and the circuit through the fuses and opening the shutter opens the switch and the circuit through the fuses.

3. The combination with an inclosing case having a cover with a window therein, of an insulating block having fuse terminals on one face, a switch on the other face, electrical connections between the fuse terminals and, the switch, a shutter movable on the cover for opening and closing said window, means on the outside of the cover for moving the shutter, and means so connecting the shutter with the switch that closing the shutter closes the switch and opening the shutter opens the switch.

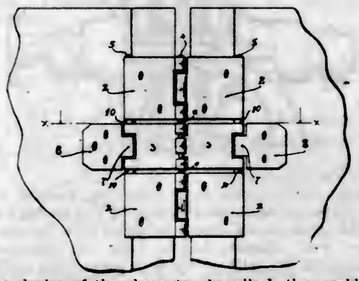


4. The combination with an inclosing case having a cover with a window therein, of an insulating block having a pocket in its front face opposite the window in the cover, fuse terminals arranged in said pocket, a switch on the back face of said block, connections between the fuse terminals and the switch, a shutter adapted to open and close the window in the cover, means on the outside of the cover for moving the shutter, and means so connecting the shutter with the switch that the movement of the former will move the latter.

5. The combination of an inclosing case having a removable cover, said cover having a window with a shutter adapted to open and close said window, means on the outside of the cover for moving the shutter, an insulating block having a slot in one edge mounted in the case, fuse terminals on the front of the block opposite the window, a switch mounted on the back of the block, electrical connections between the fuse terminals and the switch, and means projecting from the shutter through said slot in the block into such engagement with a part of the switch that that the movement of the shutter throws the switch and that the cover cannot be removed until after the movement of the shutter has fully opened the switch.

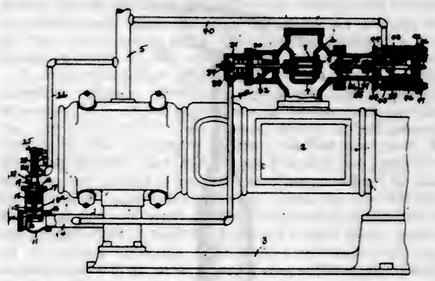
[Claims 6 and 7 not printed in the Gazette.]

1,135,359. HINGED CONNECTION. PAUL H. COLEMAN, Bonham, Tex. Filed June 5, 1914. Serial No. 843,146. (Cl. 16—106.)



In a device of the character described, the combination with a swinging member and a stationary member supporting the same, two spaced pairs of pivotally connected hinge plates respectively secured to the adjacent edge faces of the swinging and tationary members, a third pair of hinge plates interposed between the other two pairs and pivotally connected, and pintles upon which the plates comprising the third pair are respectively hung, the end portions of said pintles being engaged by the spaced hinge-plates.

1,135,360. PUMP-REGULATING MECHANISM. RUDOLPH CONRADER, Erie, Pa. Filed Apr. 9, 1913. Serial No. 760,016. (Cl. 230—24.)



1. In a pump regulating mechanism, the combination of a relief device; a controlling valve for the pump motor; and controlling means for said valve opening and closing said valve as the relief device operates, said means being subjected to pressures varying as the discharge pressure varies and varying the opening of the valve as the discharge pressure varies.

2. In a pump regulating mechanism, the combination of an intake relief device; a controlling valve for the pump motor; and controlling means for said valve opening and closing said valve as the relief device operates, said means being subjected to pressures varying as the discharge pressure varies to vary the opening of the valve as the discharge pressure varies.

3. In a pump regulating mechanism, the combination of an intake relief device; means controlled by discharge pressure for actuating said relief device; a controlling valve for the pump motor; a valve motor subjected to intake pressure actuating the valve as the relief device is actuated; and a retarding motor subjected to pressures varying as the discharge pressure varies for retarding the opening of the valve with low discharge pressures.

4. In a pump regulating mechanism, the combination of an intake relief device; means controlled by discharge pressure for actuating said relief device; a controlling valve for the pump motor; a valve motor subjected to intake pressure actuating the valve as the relief device is actuated; and a retarding motor subjected to pressures varying as the discharge pressure varies for retarding the valve to open the valve gradually as the discharge pressure rises from low pressures to normal pressures.

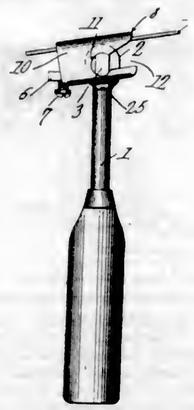
5. In a pump regulating mechanism, the combination of an intake relief device; a motor controlling valve; a motor actuating the valve, said motor being connected to the intake side of the device and operating to close the valve as the intake pressure decreases; a retarding mechanism comprising a cylinder; a stem extending from said cylinder into the path of said valve; a piston operating on the stem; a pump discharge connection for said cylinder, said connection delivering fluid under pressure to actuate the piston to carry the stem out of the path of the valve; and springs opposing the action of the piston.

[Claims 6 to 9 not printed in the Gazette.]

1,135,361. CABINET SCRAPER-HOLDER. THOMAS WEBBER COTTLE, Topeka, Kans. Filed Mar. 24, 1914. Serial No. 826,982. (Cl. 145—47.)

1. A scraper embodying an arched head comprising side arms having journal apertures, the side arms being provided in their edges with reduced slots which open into the journal apertures; and a handle including a cam co-

operating with the head to form a blade holding means, the cam having oblong trunnions insertible into the journal apertures through the slots when the handle is swung to move the cam out of coöperative relation with respect to the head, the trunnions bringing the inner ends of the slots to hold the handle and the head assembled when the handle is swung to bring the cam into coöperating relation with respect to the head.



2. A scraper embodying an arched head; a handle including as a rigid structure, a grip and a transverse cam, the cam being terminally journaled in the head and coöperating with the head to form a blade holding means, the handle including an ear; a movable element in the ear and forming a stop for the head; and movable means in the cam adjacent its ends for varying the eccentricity of the cam, the said movable means being adjustable independently of the grip portion of the handle.

1,135,362. SAFETY-RAZOR. JAMES F. CRAVEN, Crafton, Pa. Filed Oct. 23, 1914. Serial No. 868,316. (Cl. 30—12.)



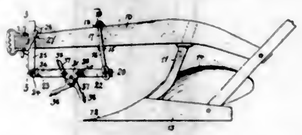
1. A safety razor, comprising a handle and a toothed guard connected thereto, said guard having its outer face provided with a recess or seat for a blade, the edges of said recess being undercut and diverging toward the toothed portion of the guard.

2. A safety razor, comprising a handle and a toothed guard connected thereto, said guard having its outer face provided with a recess or seat for a blade, the edges of said recess diverging toward the toothed portion of the guard, and a blade lying within said recess and having its end edges inclined to each other.

3. A safety razor, comprising a handle and a toothed guard connected thereto, said guard having its outer face provided with a recess or seat for a blade, the edges of said recess being undercut and diverging toward the toothed portion of the guard, and a blade lying within said recess and having its end edges inclined to each other.

1,135,363. STALK-CUTTER. JOSEPH S. CURRIE, Ginsite, Tex. Filed July 21, 1913. Serial No. 780,235. (Cl. 55—61.)

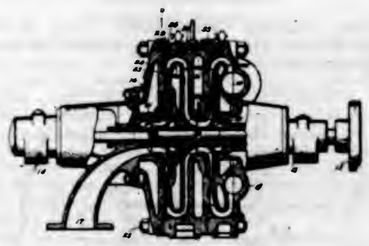
1. In combination, a support, a fastening extending across the support and adjustable lengthwise thereof and having an eye at its lower end, a yoke having its horizontal member fitted in the eye of the fastening and adapted to engage the support and assist in securing both the fastening and yoke in the required adjusted position, a supporting frame provided with chopping mechanism having both pivotal and adjustable connection at one end with the upright members of the said yoke, a standard having the opposite end of the supporting frame pivotally connected thereto, and means adjustably connecting the standard to the said support.



2. In combination, a support, eye-bolts at the sides of the support, a yoke having its horizontal member mounted in the eyes of the eye-bolts, and adapted to engage the support, means connecting the eye-bolts and acting in conjunction with the horizontal member of the yoke to secure the eye-bolts and yoke in the required adjusted position, a U-shaped supporting frame provided with chopping mechanism having its side members pivotally connected with the upright members of the said yoke, a standard having pivotal connection with the supporting frame at the end remote from the pivotal connection of such frame with the yoke, and means adjustably connecting the standard with the support.

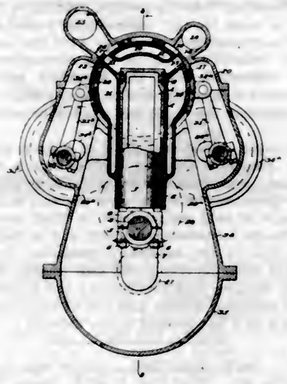
3. In combination, a beam, eye-bolts arranged on opposite sides of the beam, a yoke having its horizontal member mounted in the eyes of the eye-bolts, and engaging the under side of the beam, means connecting the upper ends of the eye-bolts and acting jointly with the horizontal member of the bolt to secure the eye bolts and the yoke to the beam in the required adjusted position, a U-shaped supporting frame provided with chopping mechanism having its side members pivotally and adjustably connected at one end with the upright members of the yoke, a standard pivotally connected with the opposite end of the yoke, and means adjustably connecting such standard with the beam.

1,135,364. TURBINE-PUMP. WILLIAM A. DOBLE, San Francisco, Cal., assignor to The Pelton Water Wheel Company, San Francisco, Cal., a Corporation of California. Filed June 2, 1913. Serial No. 771,306. (Cl. 103—43.)



A multi-stage turbine pump comprising a shaft, a plurality of runners mounted on said shaft and having axially arranged inlets, and a casing inclosing said runners and provided with passages leading from the periphery of one runner to the inlet of the next runner and including a return bend adjacent the periphery of the casing, said casing being formed in sections which are separable on planes through said water passages and having rings arranged between the sections and adapted to form one side of said return bends.

1,135,365. INTERNAL-COMBUSTION ENGINE. HERMAN DOCK, Westerly, R. I. Filed Aug. 23, 1912. Serial No. 716,722. (Cl. 123—42.)



1. In an internal-combustion engine, the combination of an oscillating cylinder having a portion thereof journaled within an oscillating valve, a piston, and a shaft having a crank to which said piston is connected, said cylinder oscillating about an axis parallel to the axis of the shaft.

2. In an internal-combustion engine, the combination of an oscillating cylinder having a portion thereof journaled within independently oscillating intake and exhaust valves.

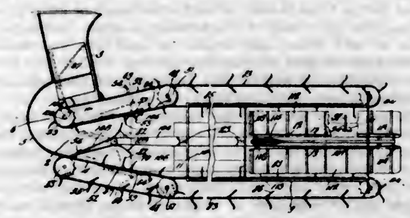
3. In an internal-combustion engine, the combination of a casing having intake and exhaust openings, a cylinder, an oscillating valve between the casing and cylinder, adapted to open and close said openings, a piston, and a shaft having a crank to which said piston is connected, said cylinder oscillating about an axis parallel to the axis of the shaft.

4. In an internal-combustion engine, the combination of a casing serving as a journal, a valve adapted to oscillate about the common axis within said journal, and an oscillating cylinder having a transverse cylindrical head within the valve and oscillating upon the axis of said oscillating valve said valve being journaled between the casing and cylinder head.

5. In an internal-combustion engine, the combination of independently oscillating valves journaled within a casing, and oscillating cylinder and piston, said valves serving as a journal for said cylinder, means to oscillate the valves, and means to supply fuel to and exhaust gases from said cylinder.

[Claims 6 to 27 not printed in the Gazette.]

1,135,366. GRAIN-SHOCKER. DAVID DORN, St. Cloud, Minn. Filed Oct. 2, 1913. Serial No. 793,042. (Cl. 56—121.)



1. The combination with a shock former having separate chambers, throats opening into the respective chambers, and a bundle actuated switch for closing the inlet end of either throat, of endless conveyers for directing bundles against and past the switch and into the respective throats to shift the switch, one of said conveyers constituting means for directing bundles to the switch, a shaft rotated by one of said conveyers, and means operated by said shaft for elevating a bundle against said bundle directing means.

2. The combination with a shock former having separate chambers, a throat discharging into each chamber, and a bundle actuated switch for closing the inlet ends of the chambers successively, of separate endless conveyers for directing bundles past the switch and into the respective throats, means for continuously actuating said conveyers during the forward movement of the shock former, a bundle placer mounted to swing upwardly toward one of the conveyers to direct the bundles thereonto, and means operated by said conveyer for actuating the placer.

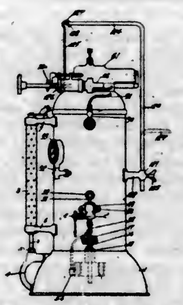
3. The combination with a shock former having separate chambers therein, throats opening into the respective chambers, a bundle actuated switch for successively closing the inlet ends of the throats, and a curved passage leading to the throats, of separate endless conveyers for directing bundles past the switch and into the respective throats, one of said conveyers constituting means for carrying bundles along the passage, means for continuously actuating the conveyers during the forward movement of the shock former, a movably mounted bundle placer mounted to swing upwardly toward the adjacent conveyer, means operated by said conveyer for shifting the bundle placer to direct the bundle against the conveyer.

4. The combination with a shock former having separate chambers therein, throats opening into the respective chambers, a bundle actuated switch for successively closing the inlet ends of the throats, and a curved passage leading to the throats, of separate endless conveyers for directing bundles past the switch and into the respective throats, one of said conveyers constituting means for carrying bundles along the passage, means for continuously actuating the conveyers during the forward movement of the shock former, a movably mounted bundle placer mounted to swing upwardly toward the adjacent conveyer, actuating mechanism driven by said conveyer, and means operated by the weight of a bundle placed upon the placer for coupling said actuating means to the placer to elevate said bundle against the conveyer.

5. The combination with a shock former and a conveyer for directing bundles thereto, of a bundle placer mounted to swing upwardly toward the conveyer, an actuating element mounted to swing relative to and connected to said placer, means operated by the conveyer for shifting said actuating means, and means operated by a bundle when mounted on the placer for coupling said placer to the actuating means to shift the bundle against the conveyer.

[Claims 6 to 18 not printed in the Gazette.]

1,135,367. BLOW-TORCH. CHRISTIAN G. FILZER, Erie, Pa. Filed Nov. 19, 1913. Serial No. 801,816. (Cl. 158—33.)



1. In a blow torch, the combination of an annular fuel reservoir; a generator in the chamber formed within the inner walls of the reservoir; a main burner connected with the generator; an auxiliary burner for heating the generator connected with the generator; and a mixer for said

auxiliary burner, said mixer being concentric with the annular chamber.

2. In a blow torch, the combination of an annular fuel reservoir; a generator in the chamber formed within the inner walls of the reservoir; a main burner connected with the generator; an auxiliary burner for heating the generator connected with the generator; a mixer for said auxiliary burner, said mixer being concentric with the annular chamber; and a starting cup below the auxiliary burner and mixer.

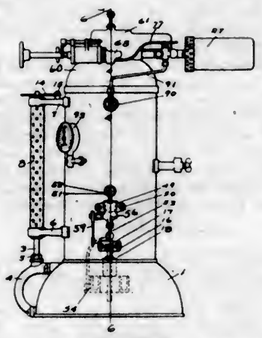
3. In a blow torch, the combination of an annular fuel reservoir; a generator in the chamber formed within the inner walls of the reservoir; a main burner connected with the generator; an auxiliary burner for heating the generator connected with the generator; a starting cup below the auxiliary burner; and a base on which the fuel reservoir and generator are mounted, said base forming a housing for the starting cup.

4. In a blow torch, the combination of a fuel reservoir; a generator connected with the fuel reservoir; a main burner connected with the generator; an auxiliary burner for heating the generator and reservoir connected with the generator; and a starting cup for initially heating the device, said starting cup having outer and inner walls with air openings therein.

5. In a blow torch, the combination of a fuel reservoir; a generator connected with the fuel reservoir; a main burner connected with the generator; an auxiliary burner for heating the generator and reservoir connected with the generator; said burner having a perforated base; and a starting cup secured below the burner and leading to the perforations in the base, said starting cup having outer and inner walls with air openings therein.

[Claims 6 to 27 not printed in the Gazette.]

1,135,368. TORCH. CHRISTIAN G. FILZER, Erie, Pa. Filed Mar. 17, 1914. Serial No. 825,253. (Cl. 158—33.)



1. In a torch, the combination of two vapor generators; a connection between the generators through which one feeds fuel to the other by its pressure; a burner; burner connections from each generator to the burner; and means for controlling each burner connection.

2. In a torch, the combination of a main vapor generator; a secondary vapor generator; a connection between the main generator and the secondary generator through which the secondary generator feeds fuel to the main generator by its pressure; an auxiliary burner for heating said generators; a connection from one of the generators to said auxiliary burner; a main burner; a connection from each generator to the main burner; and means for controlling each connection leading to the main burner.

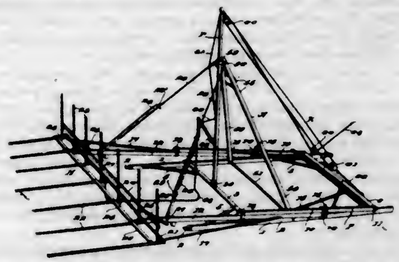
3. In a torch, the combination of a main vapor generator; a secondary vapor generator; a connection between the main generator and the secondary generator, the main generator being supplied with fuel from the secondary generator through this connection; an auxiliary burner supplied with fuel from the main generator; a main burner; connections from each of said generators to said main burner; and means for controlling said connections leading to said main burner.

4. In a torch, the combination of a main vapor generator; a secondary vapor generator forming a fuel supply chamber; a main burner; connections between the main generator and secondary generator with the main burner; means for controlling each of said connections; a third generator connected with the secondary generator and having means for supplying fuel to the secondary generator; and a connection between the third generator and said means.

5. In a torch, the combination of a main generator; a secondary generator forming a fuel supply chamber; a main burner; connections between the main generator and secondary generator with the main burner; means for controlling each of said connections; a third generator connected with the secondary generator and having means for supplying fuel to the secondary generator; a connection between the third generator and said means; an auxiliary burner for heating said generators; and a connection between the auxiliary burner and one of said generators.

[Claims 6 to 8 not printed in the Gazette.]

1,135,369. HAY-STACKER. CLIFFORD A. FLEMING, Huntsville, Mo. Filed Nov. 3, 1913. Serial No. 799,017. (Cl. 57—53.)

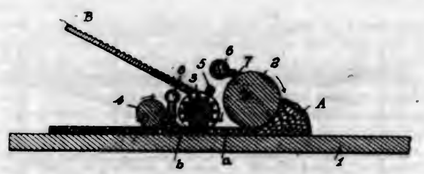


1. In a hay stacker, the combination with a base, a stacker frame pivoted at one end thereto, and a head carried on the other end of the frame; of a cross bar near the forward end of the base, a pole pivotally mounted at its lower end on said cross bar, rope mechanism connected with the upper end of said pole, an A-shaped frame pivoted on the base in rear of said cross bar and pole, a roller carried on the front face of said frame and over which the rear edge of the pole travels, means for holding said pole in engagement with said roller and permitting it to slide freely relative to said frame and connections between the upper end of said A-shaped frame and the stacker head.

2. In a hay stacker, the combination with a base, a stacker frame pivoted at one end thereto, and a head carried on the other end of the frame; of a cross bar near the forward end of the base, a pole pivotally mounted at its lowerend on said cross bar, rope mechanism connected with the upper end of said pole, an A-shaped frame pivoted on the base in rear of said cross bar and pole, a bolt across the upper end of the A-frame, a guide on the front face of said frame and carried by said bolt and loosely embracing the pole, a roller journaled on the bolt and bearing continuously against the rear edge of the pole, and rods connecting said bolt with the stacker head.

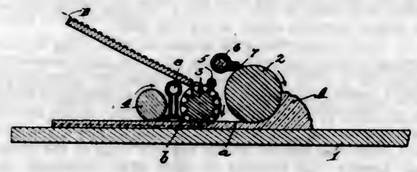
3. In a hay stacker, the combination with a base, a stacker frame pivoted at one end of said base, and a head carried by said frame; of a cross bar near the forward end of the base, a pole pivotally mounted at its lower end on said cross bar, rope mechanism connected with the upper end of said pole, an A-shaped frame pivoted on the base in rear of said cross bar and pole, the upper end of said A frame and pole being held in close proximity with the A frame always at the rear of the pole, a guide carried by said frame and loosely embracing the pole, a roller journaled in said guard and bearing against the rear edge of the pole, and means connecting said bolt with said head.

1,135,370. MACHINE FOR MAKING WIRE-GLASS. NICKLAS FRANZEN, Walton, Pa., assignor of one-half to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 8, 1909. Serial No. 494,858. (Cl. 49—32.)



In a machine for making wire-glass, the combination of a forming surface, a roll coöperating therewith to incorporate an inlay of wire in a layer of glass, a smoothing roll coöperating with said forming surface, arranged adjacent the roll first named and forming a pocket of which the layer of glass in the course of formation is the bottom and a gas nozzle directed into such pocket.

1,135,371. METHOD OF MAKING WIRE-GLASS. NICKLAS FRANZEN, Walton, Pa., assignor of one-half to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 23, 1913. Serial No. 796,937. (Cl. 49—86.)



1. The method of making wire-glass herein described which consists in forming a single batch of molten glass into a layer with wire incompletely buried beneath one uneven surface, maintaining a non-oxidizing atmosphere over that surface in which the wire is incompletely buried, and spreading the unevenness of surface to bury the wire completely.

2. The method of making wire-glass herein described which consists in spreading a batch of molten glass to layer form, sinking wire into one surface of the layer so spread, maintaining a non-oxidizing atmosphere over that surface into which the wire has been sunk, and smoothing the said surface.

1,135,372. FLAGSTAFF FOR GOLF-LINKS AND THE LIKE. CHARLES GIBSON, Northam, England. Filed Mar. 27, 1914. Serial No. 827,547. (Cl. 74—75.)

1. A tension device for flag-staffs comprising a pair of members having adjacent ends disposed in abutting relation, one of said members being tubular and the abutting end of the other member being entirely closed, yieldable means constantly tending to draw said adjacent ends into engagement, and a projection on the closed end of the last named member extending a predetermined distance into the tubular member to prevent bodily lateral movement thereof and permitting same to tilt laterally against the influence of said yieldable means.

2. A tension device for flag-staffs comprising a pair of members having adjacent ends disposed in abutting relation, one of said members being tubular and the abutting end of the other member being entirely closed, a spring within the tubular member having the end thereof adjacent the other member in engagement with a fixed portion of the tubular member, a follower element engaging the other end of the spring, and a ring link loosely connected



with the follower element and with the member having the closed abutting end.

1,135,373. TEMPORARY BINDER. WILLIAM F. GILBERT, Derby, Conn. Filed Oct. 5, 1914. Serial No. 865,096. (Cl. 129—38.)



1. A temporary binder comprising a back including a handle portion, a hook mounted in the said handle portion, a rod connected with the outer end of the back and adapted at its opposite end to engage with said hook, and means for drawing the hook rearward.

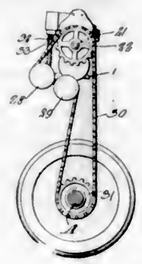
2. A temporary binder comprising a back including a handle portion, the face of the back formed with a longitudinal groove, a hook mounted in said handle portion and longitudinally movable therein, a binding rod extending through said groove and having one end connected to the forward end of the back and adapted at its opposite end to engage with said hook, and means for moving said hook rearward.

3. A binder comprising a back including a handle portion the face of said back formed with a longitudinal groove, a recess in the base of said groove forward of said handle, a hook extending into said handle, a block practically filling said recess, a binding rod connected with the forward end of the back and extending into engagement with said hook, and means for moving said hook rearward.

4. A temporary binder comprising a back including a handle portion, a longitudinal groove in the face of said back, a recess in the base of said groove forward of the handle portion, a chamber in the outer end of the handle, a channel extending from said chamber into said recess, a screw hook extending through said channel and into said chamber, a socket nut on the rear end of said hook, an eye at the forward end of the back and a binding rod connected with said eye and adapted to be engaged by said hook.

5. A temporary binder consisting of a back including a handle section, a longitudinal groove in the face of said back, a hook longitudinally movable in said handle, a binding rod extending through said groove and connected with the back at the forward end and adapted to engage with said hook, and pins in said groove on opposite sides of said binding rod.

1,135,374. MECHANISM FOR TRAIN-CONTROL SYSTEMS. GARDNER B. GRAY, Pittsburgh, Pa., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa., a Corporation of Delaware. Filed May 16, 1912. Serial No. 697,726. (Cl. 246—25.)



1. A polarity reversing device for train control systems comprising: a normally closed charged car circuit, polarity reversing means in said circuit, and means for automatically operating said reversing means when the direction of movement of the car is reversed, and automatic means for rupturing the car circuit when the automatic reversing means fail to operate.

2. The combination with a car carried normally closed signal circuit, of a reversing switch therein, and means for operating the switch from the running gear of the car, said means having a rotor casing, a paddle casing in communication therewith, a paddle mounted in the casing for oscillatory movement, said paddle being connected to the reversing switch, and a rotor mounted in the rotor casing and operably connected to the running gear of the car.

3. The combination with a car carried normally closed signal circuit, of a reversing switch therein, and means for operating the switch from the running gear of the car, said means having a rotor casing a paddle casing in communication therewith, a paddle mounted in the casing for oscillatory movement, said paddle being connected to the reversing switch, and a rotor mounted in the rotor casing and operably connected to the running gear of the car, whereby the direction of travel of the car regulates the position of the reversing switch and the consequent polarity of the current.

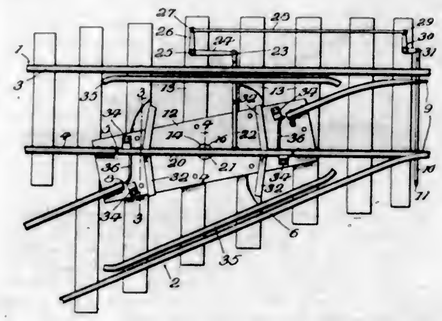
4. The combination with a car, a car carried normally closed signal circuit therein, a reversing switch in said circuit, and a jaw switch in said circuit, and means for controlling said switches, comprising a casing, means mounted therein for controlling the direction of movement of the reversing switch, means for operating the last mentioned means, a chain connecting the last means to the axle, and means actuated by the abnormal stretching or the breakage of the chain for opening the jaw switch.

5. The combination with a car, a car carried normally closed signal circuit therein, a reversing switch in said circuit, and a jaw switch in said circuit, and means for controlling both switches, comprising a casing, a fluid actuated means mounted in the casing and connected to the reversing switch, means for agitating the fluid within the casing to move said fluid actuated means, a chain connected to said agitating means and to the axle of the car, and means controlled by the chain for actuating the jaw switch due to the breakage of the chain.

[Claims 6 to 12 not printed in the Gazette.]

1,135,375. RAILWAY-SWITCH. JAMES T. HAMILTON and CHARLES C. MCMULLEN, Ellisville, Miss. Filed July 6, 1914. Serial No. 849,131. (Cl. 104—119.)

1. The combination with a pair of rails lying in intersecting planes and having gaps at their point of intersection, of a pivoted rail section pivoted at the intersecting point of said planes and designed to bridge the gaps in said rails, hook-shaped stop members projecting laterally from the opposite ends of said pivoted rail section and means coacting with said hook-shaped stop members for limiting the swinging movement of said pivoted rail section.

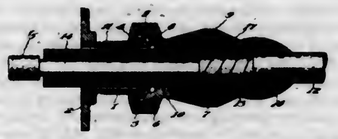


2. The combination with a pair of rails lying in intersecting planes and having gaps adjacent their intersecting point, of a rigid bed plate underlying the ends of said rails adjacent the gaps, a rail section pivoted upon the top of the plate to swing in a horizontal plane, means whereby said rail section may be swung around its pivot, and laterally extending bars rigidly secured to the opposite end portions of the pivoted rail section and having their outer ends formed into inwardly opening hooks adapted to engage opposite edges of the bed plate.

3. The combination with a pair of rails lying in intersecting planes and having gaps adjacent their intersecting point, of a rigid bed plate underlying the ends of said rails adjacent the gaps, a rail section pivoted upon the top of the plate to swing in a horizontal plane, means whereby said rail section may be swung around its pivot, and laterally projecting guards on the opposite ends of the pivoted rail section and adapted to have their terminals positioned adjacent the ends of said rails when said pivoted section is in operative position.

4. The combination with a pair of rails lying in intersecting planes and having gaps adjacent their intersecting point, of a rigid bed plate underlying the ends of said rails adjacent the gaps, a rail section pivoted upon the top of the plate to swing in a horizontal plane, means whereby said rail section may be swung around its pivot, and laterally projecting guard rods on the pivoted rail section and having their outer ends deflected upwardly and outwardly, for the purpose set forth.

1,135,376. UNION FOR CONNECTING ELECTRIC CABLES TO SUBWAY OR JUNCTION BOXES. DUNCAN C. HOOKER, Farmington, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed June 20, 1914. Serial No. 846,271. (Cl. 247—1.)



1. A cable union bell having a circular hollow shell that is conical at one end and at the other end has an exterior thread and an internal flange, said circular shell having an interior diameter that is larger at the middle than at each end and having an opening through its wall from the exterior to the interior at the largest diameter.

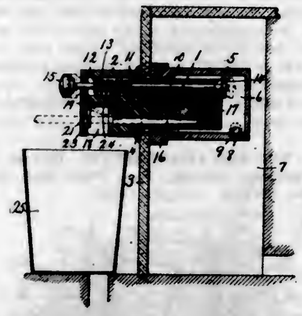
2. A cable union consisting of a nipple having an exterior thread at one end and a shouldered head at the other end, a flanged union nut turning on the nipple, a hollow bell, the interior diameter of which is larger at the middle than at each end and that has a filling opening at its largest diameter, fastened to the nipple by said nut, and an insulating tube carried by and projecting within the bell.

3. A cable union consisting of a nipple, a union nut turning on the nipple, a circular hollow bell that has a conical outer end which can be cut off as desired to increase the size of the opening through that end, said circular shell having an interior diameter that is larger at the middle than at each end with a filling opening through the wall at its largest diameter, said shell being detachably connected with the nipple by said nut.

4. A cable union consisting of a nipple having a thread at one end and a shouldered head at the other end, a flanged union nut turning on the nipple, a hollow bell, the interior diameter of which is larger at the middle than at each end and that has a filling opening at the largest diameter, connected with the nipple by the union nut, an insulating tube carried by and projecting within the bell, and a hardened insulating compound filling the bell about the end of said tube.

5. The combination with the wall of a junction or subway box, of a nipple screwed therein, the outer end of said nipple having an exteriorly shouldered and tapered head, a flanged union nut turning on said nipple, a hollow bell having an inwardly tapering outer end with its inner end drawn against the tapering end of the nipple by said nut, an insulating tube carried by and projecting into said bell, a cable entering said bell, means on the exterior uniting said cable and the bell, and an insulating compound filling the space between the cable and the insulating tube and bell.

1,135,377. FAUCET FOR LIQUID-DISPENSING FOUNTAINS. MERRITT J. HOPKINS, Seymour, Conn. Filed Oct. 1, 1913. Serial No. 792,894. (Cl. 225—23.)



1. In a faucet for liquid dispensing fountains, a body portion having a conduit therethrough, a cap secured thereto having an opening alined with said conduit, a valve controlling the conduit, and a closure adapted to close the opening through the cap.

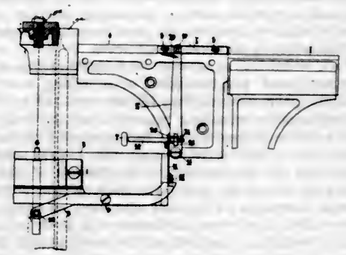
2. In a faucet for liquid dispensing fountains, a body portion having a conduit therethrough, a cap secured thereto having an opening alined with said conduit, a valve controlling the conduit, and a gravity-operated swinging closure adapted to normally close the opening through the cap.

3. In a faucet for liquid dispensing fountains, a body portion having a notch in its front face and opening to one side, a cap attached to said body portion and extending across the front of the notch portion, an opening through said cap communicating with said notched portion, a conduit leading from said notched portion through the body portion and alined for a portion of its length with the opening through the cap, and a valve controlling the conduit.

4. In a faucet for liquid dispensing fountains, a body portion exteriorly threaded for a portion of its length, a casing having a closed end and internally threaded for a portion of its length for engagement with the threaded portion of the body, said body notched at its front face, said notch opening to one side of the body, a conduit leading from said notched portion to the interior of the casing, and a valve controlling said conduit.

5. In a faucet for liquid dispensing fountains, a body portion, a casing secured thereto to form a reservoir, said casing provided with an inlet opening through a wall thereof, means for preventing fluid from leaving the reservoir through said opening, a conduit through the body portion and communicating with the reservoir, and a valve controlling said conduit.

1,135,378. TYPE-BAR-MAKING MACHINE. WILLIAM INGLE and WILLIAM EVA, Edinburgh, Scotland, assignors to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 12, 1914. Serial No. 866,251. (Cl. 199—7.)



1. In a typographical machine, the combination of an automatic machine-stop-device, and means whereby the abnormal operation of said device will prevent the starting of the machine.

2. In a typographical casting machine, the combination of a carrier to present the composed line to the casting mechanism, a machine stop device adapted to be moved to inactive position by the carrier, and means to prevent the presenting movement of the carrier unless said stop device is in active position.

3. In a typographical machine, the combination of a movable assembler wherein the line is composed, an automatic machine stop device, and means controlled by the machine stop device for arresting the movement of the assembler.

4. In a typographical casting machine, the combination of a pump stop movable automatically to and from its normal position, and means for preventing the starting of the machine when said device is in abnormal position.

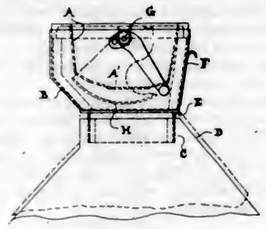
5. In a typographical casting machine, the combination of a carrier to present the composed line to the casting mechanism, a pump stop device adapted to be moved from its normal position by the justification of the line, and means to prevent the presenting movement of the carrier unless said device is in its normal position.

[Claims 6 to 10 not printed in the Gazette.]

1,135,379. AUTOMATIC WEIGHING APPARATUS. SIDNEY H. JOHNSON, Soho Foundry, near Birmingham, England, assignor to The Avery Scale Company, North Milwaukee, Wis. Filed Nov. 13, 1913. Serial No. 800,799. (Cl. 73—177.)

1. In a weighing apparatus, the combination with the supply gate and weigh hopper, of a casing surrounding the supply gate, said casing, in the elevated position of the weigh hopper, extending below the mouth of the weigh-hopper a distance greater than the movement of the weigh-hopper, said extended portion of the casing conforming substantially to the contour of the mouth of the weigh-hopper and located in proximity thereto, and an abutment

adapted to close the mouth of the weigh-hopper when the latter is in elevated position.

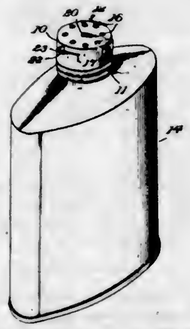


2. In a weighing apparatus, the combination with the supply gate and weigh hopper, of a casing surrounding the supply gate, said casing, in the elevated position of the weigh-hopper, extending within the mouth of the weigh-hopper a distance greater than the movement of the weigh-hopper, said extended portion of the casing conforming substantially to the contour of the mouth of the weigh-hopper and located in proximity thereto, and an abutment adapted to close the mouth of the weigh-hopper when the latter is in elevated position.

3. In a weighing apparatus, the combination with the supply gate and weigh-hopper, of a casing surrounding the supply gate, said casing, in the elevated position of the weigh hopper, extending below the mouth of the weigh-hopper a distance greater than the movement of the weigh-hopper, said extended portion of the casing conforming substantially to the contour of the mouth of the weigh-hopper and located in proximity thereto, and a flange on the casing forming an abutment adapted to close the mouth of the weigh-hopper when the latter is in elevated position.

4. In a weighing apparatus, the combination with the supply gate and weigh hopper, of a casing surrounding the supply gate and extending beyond the mouth of the weigh hopper, and with respect to which the weigh hopper is freely movable, and means for closing the opening between the casing and the sides of the weigh hopper while the material is being supplied, said casing provided with a vent and closure therefor, for the purpose described.

1,135,380. TOP FOR RECEPTACLES. WILLIAM G. KENDALL, Newark, N. J. Filed Nov. 15, 1913. Serial No. 801,234. (Cl. 221—64.)



1. A sifter cap for cans including a perforated top and an integral collar for attachment to the can, a plate mounted for turning movement in the cap and provided with perforations movable into and out of alinement with the perforations of the cap, the collar being provided with a plurality of spaced seats, a tongue carried by the plate and extending through a slot in the collar to provide means for turning the plate and also to limit the amount of such turning, and a spring carried by the plate and engaging by one end in one of the seats.

2. A sifter cap for cans including a perforated stop and an integral collar for attachment to the can, a plate mounted for turning movement in the cap and provided with perforations movable into and out of alinement with the perforations of the cap, the collar being provided with a plurality of spaced seats, a tongue carried by the plate and extending through a slot in the collar to provide means for turning the plate and also to limit the amount of such turning, and a U-shaped leaf spring carried by the plate and engaging by one end in one of said seats, said spring engaging throughout its entire length by one edge against the plate.

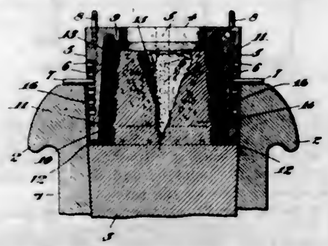
3. A sifter cap for cans including a perforated top and an integral collar for attachment to the can, the collar being provided with outstruck portions forming interior seats and with a slot, a plate mounted for turning movement in the cap and provided with perforations movable into and out of alinement with the perforations of the cap, a downbent extension carried by the plate and bearing against the collar to cover the slot therein, an outstruck tongue formed from the extension and projecting through the slot, and a U-shaped leaf spring detachably engaging by one end with the extension and at its other end in one of the seats.

4. A sifter cap for cans including a perforated top and an integral collar for attachment to the can, said collar being formed with a slot and with an outstruck seat spaced from the slot, a perforated plate mounted for turning movement in the cap and having a tongue extending through the slot, shield flanges carried by the plate and bearing against the collar to close the slot, one of said shield flanges having a free terminal bent inwardly over the lower face of the plate and rebent upon itself to provide a spring engaging member, and a U-shaped leaf spring having one end rebent to detachably engage the spring retaining member and having its opposite end bent outwardly to engage in one of the seats.

5. A sifter cap for cans including a top provided with a concentric series of perforations, a plate mounted for turning movement in the cap and provided with a concentric series of perforations, each corresponding to one of the perforations of the top and movable into alinement therewith, the perforations of the plate being so formed and spaced that during movement of the plate such perforations will be brought successively into alinement with their corresponding perforation of the top.

[Claims 6 and 7 not printed in the Gazette.]

1,135,381. TOP FOR INGOT-MOLDS. EDWARD F. KENNEY, Westmont borough, Pa. Filed Mar. 25, 1914. Serial No. 827,013. (Cl. 22—147.)



1. An ingot mold top comprising a casing adjustably fitted within the upper part of a mold to predetermine the length of the cast ingot, said casing being provided with openings at the top and bottom portions thereof, and a non-conducting lining temporarily secured within said casing.

2. An ingot mold top comprising a casing adjustably fitted within the upper portion of an ingot mold to predetermine the length of the cast ingot, said casing being open at the upper and lower portions thereof, and a comparatively thick non-conducting lining extending around the innerside of the said casing.

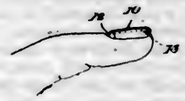
3. An ingot mold top comprising a casing, the lower portion of which is adjustably fitted within the upper portion of a mold adjacent to the inner side surfaces thereof to predetermine the length of the cast ingot, and a comparatively thick non-conducting lining temporarily secured within said casing.

4. An ingot mold top comprising a casing adapted to fit within the upper portion of the mold adjacent to the inner side surfaces thereof, a plurality of supports adapted to be previously arranged at different elevations on the outer sides of said casing prior to pouring the metal into the mold, whereby it may be held at various predetermined heights to provide ingots of different lengths, and a non-conducting lining extending around the inner sides of said casing.

5. An ingot mold top comprising a casing adapted to fit within the upper portion of a metal mold adjacent to the inner side surfaces thereof, and a comparatively thick non-conducting lining within said casing temporarily secured thereto by means destructible by heat.

[Claims 6 to 10 not printed in the Gazette.]

1,135,382. FINGER-NAIL SHIELD. ANNA D. KINDRED, Fargo, N. D. Filed July 31, 1914. Serial No. 854,339. (Cl. 2—104.)



An article of the class described including a relatively thin flexible translucent body portion adapted to simulate the appearance of a human finger nail, the said body portion being adapted to fit within the confines of the nail upon the exposed upper face thereof and being provided with means for adhesively engaging the nail, there being a transversely extending lip formed on the body portion at one end adapted to inclose the free end of the nail to fit beneath the under side thereof.

1,135,383. PERAMBULATOR. JOHN L. KNUDSEN, Menominee, Mich., assignor of one-third to Nels Peterson, Menominee, Mich., and one-third to Arthur W. Nelson, Chicago, Ill. Filed Feb. 1, 1911. Serial No. 606,015. (Cl. 21—83.)



1. In a folding perambulator, a running-gear frame having side members, in combination with a wheel frame pivotally secured to each side member, deflectable braces having one end secured to the wheel frame and the other end secured to supports at points adjacent respective wheel frames and in the central transverse plane of the running gear frame, a handle pivotally connected to the running gear frame, means for folding said wheel frames beneath the running gear frame by movement of the handle and means operated by the handle for locking said deflectable braces against collapse when in operative condition, substantially as described.

2. In a folding perambulator, a running-gear frame having side members, in combination with a wheel frame pivotally secured to each side member, deflectable braces having one end secured to the wheel frame and the other end secured to supports at points adjacent respective wheel frames and in the central transverse plane of the running-gear frame, a handle pivotally connected to the running-gear frame, means for folding said wheel frames beneath the running-gear frame by movement of the handle, means operated by the handle for locking said deflectable braces against collapse when in operative condition and means for automatically "breaking" said deflectable braces by movement of the handle, substantially as described.

3. In a collapsible go-cart, the combination with a running-gear frame, of a pair of wheel frames pivotally secured thereto and depending therefrom, toggle braces for bracing said wheel frames when in operative position, said toggle braces extending between supports adjacent respective wheel frames and in the central transverse plane of the running gear frame, a handle pivotally secured to said running gear frame, levers pivotally secured to said running-gear frame and operable by movement of the handle to fold the wheel frames inwardly beneath the running gear frame, said levers locking the toggle braces against collapse when the go-cart is in operative condition, substantially as described.

4. In a folding perambulator, the combination of a running gear frame having side members, hinge members secured near the forward and rearward ends of the running-gear frame, wheel frames secured to said hinge members, toggle braces connecting said wheel frames at the forward end with the inner side of the forward hinge members, a cross tie connecting the sides of the wheel frame near the rear end thereof, toggle braces connecting the rear end of the wheel frames with the said cross tie, a connecting rod connecting the forward toggle braces with the rearward toggle braces, a handle pivotally connected to the running gear frame, an arm pivotally connected to the running gear frame, means for swinging said arm by movement of the handle and means connecting said arm with the wheel frames whereby movement of the said arm folds the wheel frames beneath the running gear frame, substantially as described.

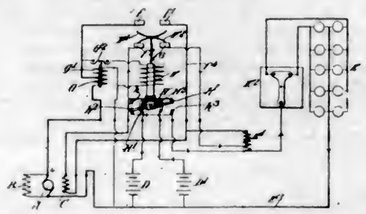
5. In a folding perambulator, the combination of a running-gear frame, members secured to the forward end of the runnin-gear frame and members rigidly secured to the running-gear frame near the rear end thereof, depending portions on said members, wheel frames secured to said depending portions by means of horizontal pivots, toggle braces connecting the front end of the wheel frames with the said members secured to the front of the running-gear frame, a cross member connecting the sides of the running-gear frame adjacent the rear end thereof, toggle braces connecting the rear end of the wheel frames with said cross member, a connecting rod connecting the forward and rearward toggle braces of respective wheel frames, a handle pivotally connected to the running gear frame, arms pivotally connected to the running-gear frame, links connecting said arms to the wheel frame, means for moving said arms by movement of the handle, the movement of said arms in one direction causing the folding of the wheel frames beneath the running-gear frames, the movement of the arms in the opposite direction causing the folding of the wheel frames into operative position, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,135,384. CIRCUIT-CONTROLLING APPARATUS FOR TRAIN-LIGHTING SYSTEMS. EDWARD HERBERT MANN LANGLEY and ERNEST WALTER PRICE, Aston, Birmingham, England, assignors to The Electric & Ordnance Accessories Company, Limited, Birmingham, England. Filed May 6, 1911. Serial No. 625,518. (Cl. 171—313.)

1. In a train-lighting or similar system employing a dynamo driven by the train, two sets of secondary batteries, and a battery change-over switch; a single solenoid

main switch, a relay switch for bringing the main switch into action, and clutch mechanism whereby the main switch actuates the battery change-over switch once for each separate excitation of the main switch.

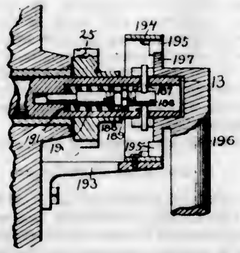


2. For use in a train lighting or similar system employing a dynamo driven by the train, two sets of secondary batteries, a battery change-over switch, and a single solenoid main switch; clutch mechanism connecting the two switches; said mechanism comprising a pair of pawls pivoted to the main switch plunger, and means whereby the pawls operate alternately to actuate the battery change-over switch during successive excitations of the main switch.

3. For use in a train lighting or similar system employing a dynamo driven by the train, two sets of secondary batteries, a battery change-over switch and a single solenoid main plunger; clutch mechanism connecting the two switches, said mechanism comprising a plate secured to a rocking switch arm forming part of the battery change-over switch, said plate having two notches in it situated on opposite sides of the axis of movement of the switch arm, two pawls pivoted to the lower end of the main switch plunger and situated for engagement in the respective notches, and means whereby only one pawl can engage with its corresponding notch at each raising of the said plunger, the engagement of the pawls with their notches being alternate.

4. For use in a train lighting or similar system employing a dynamo driven by the train, two sets of secondary batteries, a battery change-over switch and a single solenoid main plunger; clutch mechanism connecting the two switches, said mechanism comprising a plate secured to a rocking switch arm forming part of the battery change-over switch, said plate having two notches in it situated on opposite sides of the axis of movement of the switch arm, two pawls pivoted to the lower end of the main switch plunger and situated for engagement in the respective notches, and means for shrouding one notch as soon as the other is engaged by its corresponding pawl.

1,135,385. SAFETY STARTING MECHANISM. CHARLES MCCLAIR, Schenectady, N. Y. Filed Jan. 6, 1906. Serial No. 294,889. (Cl. 123—185.)



1. In an internal combustion engine, the combination with a starting crank having a handle, of a safety device for preventing reverse movement of said crank by the engine, and means for rendering said safety device inoperative when pressure is exerted to turn the handle in the reverse direction.

2. A starting device comprising a sleeve for engaging the device to be started, an operating member for rotating the sleeve, a safety device normally operative to prevent reverse movement of the sleeve, and means for rendering said device inoperative when pressure is exerted to turn the handle in the reverse direction.

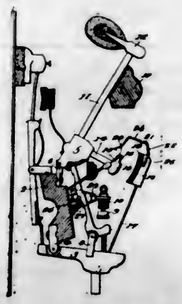
3. In an internal combustion engine, the combination with a starting crank comprising a sleeve for engaging the engine shaft and an actuating handle movable relatively to the sleeve, of a safety device normally operative to prevent reverse movement of the sleeve, and means actuated by a reverse movement of the handle relatively to the sleeve to render the device inoperative.

4. In an internal combustion engine, a starting means comprising a shaft having a spiral slot therein, a pin in said slot with which a starting handle engages, and a spring which holds said pin in normal position at one end of the slot when subjected to normal strain in starting, but yields and permits the pin to travel along the slot when the strain is abnormal.

5. A starting device for internal combustion engines comprising a sleeve carrying two lugs, a second sleeve mounted concentric with the first and having a spiral slot for engaging a pin in the first sleeve, a spring between the sleeves tending to hold the second sleeve with the end of the slot against the pin, a crank loosely connected to the first sleeve and having a projection thereon which extends between the lugs, a pawl mounted on one of the lugs, a fixed rack to coöperate with said pawl, and connections between the crank and the pawl to cause the pawl to engage the rack when the crank is turned to start the engine and to disengage the pawl from the rack when the crank is turned in the reverse direction, whereby the engine may be turned in either direction by means of the crank.

[Claims 6 to 20 not printed in the Gazette.]

1,135,386. PIANO-ACTION. ENOCH A. MAYOR, San Antonio, Tex. Filed Oct. 7, 1912. Serial No. 724,414. (Cl. 84—26.)



1. In an upright piano action, the combination with a wippen, a hammer-butt, a back stop carried by the butt and a back check carried by the wippen, said back stop having a rounded upward extension, of a hammer retracting hook carried on the upper end of the back check and projecting above the same, said hook being rigid and comprising an upwardly extending shank, an inwardly extending body portion and a downwardly projecting bill adapted to engage behind the rounded extension of the back stop when the hammer is raised.

2. In an upright piano action, the combination with a wippen, a hammer-butt, a back stop carried by the butt and a back check carried by the wippen, said back stop having an upward extension having a beveled inner face, of a hammer-retracting hook of wire formed with a shank extending parallel with the outer face of the back check having screw threaded engagement with the back check and projecting above the same, an inwardly bent body portion at an angle to the shank, and a downwardly bent bill at an angle to the body portion, said bill being flattened and outwardly curved.

3. In an upright piano action, the combination with a wippen, hammer-butt, a shank projecting from the hammer-butt, a back stop carried on the end of the shank and a back check carried by the wippen and opposed to the stop, said back stop having an upward extension, the outer face of which is offset from the outer face of the body of the stop and the inner face of which is beveled, of a hammer retracting hook comprising a screw threaded shank, a body portion inwardly projecting from the shank and having an angular relation thereto, and a bill having an angular relation to the body portion, said hook extending inward toward the hammer-butt and having its bill normally lying in a plane inward of the apex of the extension of the back stop, the shank of said hook being screwed into the upper end of the back check.

4. An upright piano action including in combination an action rail, having a member projecting from the face thereof, a wippen, a jack and a hammer butt, the inside face of the jack adjacent the action rail being cut away to provide a shoulder at the upper end of the cutaway portion adapted to engage with said projecting member when the wippen is down.

5. An upright piano action including in combination an action rail having a member projecting from its outer face, a wippen, a hammer butt, a jack mounted upon the wippen and engaging the hammer butt, said jack having an outwardly projecting arm at its base, and a regulating button engaging said outwardly projecting arm, the inner face of the jack being cut away to provide a shoulder at the upper end of the cutaway portion adapted to engage with said projecting member when the wippen is dropped.

[Claim 6 not printed in the Gazette.]

1,135,387. NITRATE FERTILIZER AND PROCESS OF MAKING THE SAME. ANTON MESSERSCHMITT, Stolberg, Germany. Filed Oct. 5, 1912. Serial No. 724,198. (Cl. 71—9.)

1. The herein described process of producing a soluble nitrate fertilizer containing a potassium compound and silicic acid, which comprises decomposing a rock containing potassium compounds with a calcium compound to form bisilicates and treating the resultant product with nitrous gases in the presence of water to form nitrates.

2. The herein described process of producing a soluble nitrate fertilizer containing a potassium compound and silicic acid, which comprises decomposing a rock containing potassium compounds with lime and treating the resultant product with nitrous gases in the presence of water to form nitrates.

3. The herein described process of producing a soluble nitrate fertilizer containing a potassium compound and silicic acid, which comprises decomposing a rock containing potassium compounds with calcium carbonate by means of heat and treating the resultant product with nitrous gases in the presence of water to form nitrates.

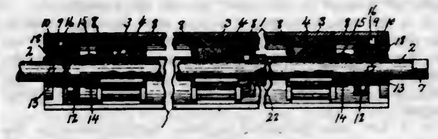
4. The herein described process of producing a soluble nitrate fertilizer containing a potassium compound and silicic acid, which comprises decomposing a rock containing potassium compounds by means of heat with calcium carbonate sufficient to produce alkali-metal bisilicates and treating the resultant product with nitrous gases in the presence of water to form nitrates.

5. The herein described process of producing a soluble nitrate fertilizer containing a potassium compound and silicic acid, which comprises decomposing a rock containing potassium compounds with a calcium compound to form bisilicates, treating the resultant product with nitrous gases in the presence of water to form nitrates, and interrupting the process before all the basic compounds are transformed into nitrates.

[Claims 6 to 8 not printed in the Gazette.]

1,135,388. EXPANSIBLE AND CONTRACTILE CORE FOR PAPER AND SIMILAR ROLLS. CHARLES E. MISER, Watertown, N. Y. Filed Jan. 30, 1914. Serial No. 815,416. (Cl. 242—72.)

1. An expansible and contractile core for paper and similar rolls comprising a shaft, radially movable segments of a cylinder surrounding the shaft and having inwardly projecting members, means actuated by the turning of the shaft for operating said segments, and collars slidable on the shaft across the inner ends of said members for holding the segments in their expanded relation irrespective of the cams.

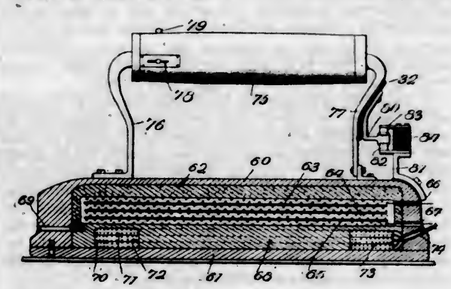


2. An expansible and contractile core for paper and similar rolls, comprising a shaft, cams tight on the shaft, radially movable segments of a cylinder surrounding the shaft and provided with bearings resting on the cams, guide rings loosely mounted on the shaft independently of the cams, but adjacent thereto, coöperative guide members on the segments and rings, respectively, for guiding the segments in their radial movement and holding them in concentric relation to the axis of the shaft, and coöperative stops on the guide members on the segments and rings, respectively, for limiting the outward movement of the segments.

3. An expansible and contractile core for paper and similar rolls, comprising a shaft, cams tight on the shaft, radially movable segments of a cylinder surrounding the shaft and provided with bearings resting on the cams, guide rings loosely mounted on the shaft independently of the cams, but adjacent thereto, coöperative guide members on the segments and rings, respectively, for guiding the segments in their radial movement and holding them in concentric relation to the axis of the shaft, coöperative stops on the guide members on the segments and rings, respectively, for limiting the outward movement of the segments, and locking collars slidable on the shaft across the inner ends of the guide members on the segments for holding said segments in their expanded relation.

4. An expansible and contractile core for paper and similar rolls comprising a shaft, a plurality of segments of a cylinder of uniform size arranged about the axis of the shaft, cam bearings on the inner faces of the segments, cams secured to the shafts and engaging said bearings for moving the segments radially as the shaft is rotated relatively to the segments, guide flanges for keeping the cams and bearings in registration, stop collars adjustably secured to the shaft near the ends of the segments, rings abutting against said collars, radially sliding interlocking connections between the segments and sleeves, and means for locking the segments in their outermost positions.

1,135,389. MAGNETIC FLAT-IRON. J WALTER MOORE, Fort Edward, N. Y. Filed Sept. 23, 1913. Serial No. 791,429. (Cl. 219—25.)



1. A flat iron including a shell, electric heating coils in the shell, an electro-magnet in the shell, and means for supplying current to the coils and magnet, the supply

of current to the heating coils being independent of the supply of current to the magnet.

2. A flat iron including a hollow shell, a lining of refractory material, heating coils positioned in the shell, an iron closure for the shell provided with an endless channel, coils disposed in said channel and forming with the closure an electro-magnet, and a face plate of non-magnetic material secured to the outer face of the closure.

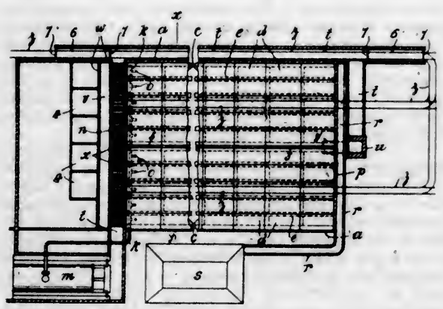
3. A flat iron including a hollow shell, heating coils in the shell, an electro-magnet in the shell, a handle carried by the shell, and a double knife switch carried by the handle adapted for connection with the heating coils and with the electro-magnet and with a source of electrical energy.

4. A flat iron including a shell, heating coils in the shell, an electro-magnet in the shell, a handle carried by the shell, and a double knife switch carried by the handle adapted for connection with the heating coils and with the electro-magnet and with a source of electrical energy, said handle being adjustable to selectively open and close the switch.

5. A flat iron including a hollow shell closed at its lower end by a face plate of nonmagnetic material, a plurality of heating coils in said shell, a core in said shell, and a plurality of magnet forming coils about said core.

[Claims 6 to 9 not printed in the Gazette.]

1,135,390. APPARATUS FOR DRYING THE SLUDGE OR SOLID MATTER RECOVERED FROM SEWAGE. ABRAHAM BUCKLEY OGDEN, Urmston, Manchester, England. Filed July 13, 1914. Serial No. 850,678. (Cl. 34—19.)

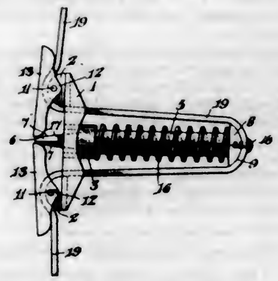


1. In a kiln or apparatus for drying the sludge or solid sewage matter recovered from sewage, the combination of a drying chamber, a sloping floor in said chamber, a second or false floor above said sloping floor, a steam pipe extending across one end of the space between said floors and provided with nozzles opening to said space, a condensation collecting conduit at the other end of said space, a furnace flue extending across one end of said drying chamber, an air chamber alongside said flue, means for admitting air to said air chamber, and air pipes extending across said flue from said air chamber to said drying chamber above the second or false floor therein.

2. In a kiln or apparatus for drying the sludge or solid sewage matter recovered from sewage, the combination of a drying chamber, a floor in said chamber, a second or false floor in said chamber above said floor constituted by metal plates supported by rows of spaced bricks, which divide the space between the two floors into inter-communicating passages, and each of said metal plates being provided with a joggled edge to receive the adjacent edge of the next plate, means for admitting steam to said space between the floors, and means for admitting hot air to said chamber above said second or false floor.

3. In a kiln or apparatus for drying the sludge or solid sewage matter recovered from sewage, the combination of a drying chamber, a sloping floor in said chamber, a second or false floor above said sloping floor, a steam pipe extending across one end of the space between said floors and provided with nozzles opening to said space, a condensation collecting conduit at the other end of said space, a furnace flue extending across one end of said drying chamber, an air chamber alongside said flue, means for admitting air to said air chamber, air pipes extending across said flue from said air chamber to said drying chamber above said second or false floor, an extension of said flue extending along one side of the drying chamber, a track in said flue extension for the trucks conveying the material to be dried and ingress and egress locks at the ends of said flue extension.

1,135,391. SHOCK-ABSORBER. CHRISTIAN ALFRED PETERSEN, Beverly, Mass. Filed Dec. 31, 1913. Serial No. 809,789. (Cl. 21—105.)



1. A shock absorber for vehicles, comprising a flexible member adapted to be attached at the ends to the parts of the vehicle to be controlled, and means resistant to separating movements of the said parts of the vehicle and carried wholly by the flexible member.

2. A shock absorber for vehicles, comprising a flexible member adapted to be connected at opposite ends to relatively movable parts of a vehicle, and brake means in position to engage the flexible member to retard its movement, said brake means being connected to and wholly sustained by the flexible member.

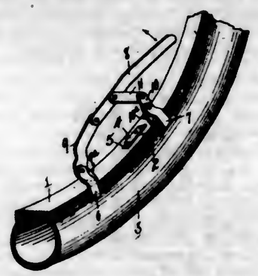
3. A shock absorber for vehicles, comprising an elongated flexible member, a rod connected to said flexible member intermediate of its ends, a frame through which the rod extends, a spring on the rod between the ends thereof and in position to engage the frame, and brake members carried by the frame in coactive relation to the flexible member and to the rod.

4. A shock absorber for vehicles comprising an elongated flexible member, a rod connected at one end to an intermediate part of the flexible member and at the other end tapering, a frame traversed by the rod adjacent to the tapered end of the latter, a spring mounted on the rod between the frame and the end of the rod fast to the flexible member, brake members mounted on the frame on opposite sides of the rod and having adjacent ends in coactive relation to the tapered portion of the rod and at the other ends arranged to engage the flexible member.

5. A shock absorber for vehicles comprising an elongated flexible member, a rod connected at one end to an intermediate part of the flexible member and at the other end tapering, a frame traversed by the rod adjacent to the tapered end of the latter, a spring mounted on the rod between the frame and the end of the rod fast to the flexible member, brake members mounted on the frame on opposite sides of the rod and having adjacent ends in coactive relation to the tapered portion of the rod and at the other ends arranged to engage the flexible member, the frame and those ends of the brake members remote from the rod being coactively shaped to there engage the flexible member on respectively opposite faces thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,135,392. TIRE-TOOL. LAWRENCE M. RAKESTRAW, Toledo, Ohio, assignor to The Toledo Auto Tool Company, Toledo, Ohio, a Corporation of Ohio. Filed Nov. 6, 1914. Serial No. 870,641. (Cl. 29—84.)



1. A tool of the class described having rim edge engaging hooks, an operating lever, and link connection between each hook and the lever, each of said link connections being operable in conjunction with its hook to firmly grip a rim when the lever is moved to effect a collapsing of an engaged rim.

2. A tool of the class described having a pair of rim engaging members, an operating lever, and link connection between each of said members and the lever operable by a movement of the lever to effect relative to and fro movements of said members, said link connections each having a part for gripping engagement with the rim in coaction with the associated rim engaging member when the lever is operated in one direction.

3. A tool of the class described having a pair of rim engaging members, an operating lever, a link pivotally connecting one of said members to the fulcrum end of the lever and a link pivotally connected to the other one of said members and having connection with said lever in spaced relation to its fulcrum end, each of said links having its member carrying end provided with a jaw for gripping coaction with a rim in opposition to the respective rim engaging member when the lever is moved in one direction.

4. In a tool of the class described, a pair of rim edge engaging members, an operating lever, a single link pivotally connecting one of said members to the fulcrum end of said lever and having a jaw at one end for gripping engagement with the rim in conjunction with one of said members, and a plurality of links pivotally connecting the other of said members to said lever a distance from its fulcrum end, one of said latter links being provided at one end with a jaw for gripping engagement with the rim in conjunction with the other of said members.

5. A tool of the class described having spaced rim edge engaging members and a plurality of links movably connecting said members, one of said links being extended and serving as a control lever and others of said links having jaw parts which coöperate with said members to grip a rim when the link serving as a lever is moved in one direction.

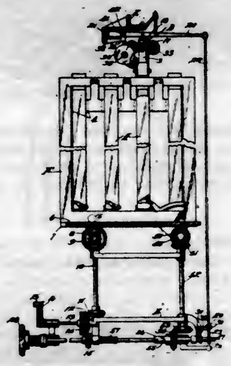
[Claims 6 and 7 not printed in the Gazette.]

1,135,393. TRANSMITTER FOR WRITING-TELEGRAPHS AND THE LIKE. ALPHONS RAPPENECKER, Bremen, Germany. Filed Oct. 27, 1913. Serial No. 797,688. (Cl. 178—18.)



In a transmitter for copying and like telegraphic apparatus, the combination with a movable carriage, a pivotally mounted pencil lever, an electric resistance varied by unitary movements of the pencil lever and carriage in the direction of the abscissæ, and a second electric resistance associated with the pencil lever and carriage disposed substantially at right angles to the first-named resistance and varied by movements of the pencil in the direction of the ordinates, of a link pivotally associated with the pencil lever near its axis of oscillation and pivotally connected with the carriage, for the purpose described.

1,135,394. TYPE-CASTING MACHINE. KIRBY S. REIST and STERLING B. BATSFORD, Berkeley, Cal., assignors, by direct and mesne assignments, to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 28, 1911. Serial No. 611,319. (Cl. 199—7.)



1. In a linotype machine, a carriage, interchangeable matrix magazines on the carriage, and a series of rotary escapements and supports therefor with which each magazine is adapted to be registered, said escapements and supports being bodily movable to permit shifting of the carriage.

2. In a linotype machine, interchangeable magazines for matrices, a series of matrix-actuated rotary escapements, and a means for moving any one of the magazines into coöperative relation with the series of escapements, and for releasing said escapements after said movement of a magazine.

3. In a linotype machine, a series of magazines for matrices, a set of rotary wheel escapements with which each of the said magazines may be registered, and a means for shifting said magazines for carrying the escapements into juxtaposition with the matrices in the magazine.

4. In a linotype machine, matrix magazines, a shiftable carriage supporting said magazines, a matrix-actuated, rotary escapement mechanism with which each magazine may be registered, means for shifting the carriage and subsequently moving the mechanism into register with a magazine, and a distributer bar whereby matrices may be distributed to a magazine registered with the escapement mechanism.

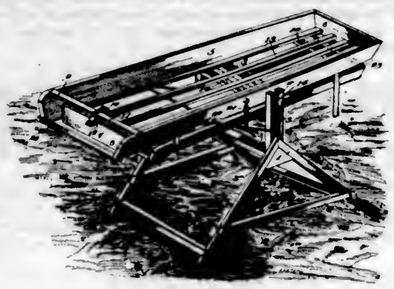
5. In a linotype machine, a plurality of removable magazines, a shiftable support therefor, a series of rotary, matrix-actuated escapements with which each of the magazines may be registered, a latch for the escapements, keys for supporting the matrices in the magazines when the latter are not in registration with the escapements, and a device for releasing the latch and operating a key of a registered magazine.

[Claims 6 to 67 not printed in the Gazette.]

1,135,395. POTATO-SORTER. SAMUEL E. RHODES, Greenville, Mich. Filed Dec. 14, 1912. Serial No. 736,806. (Cl. 130—32.)

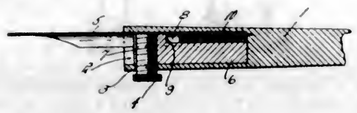
In a device of the class described, a support, a sorting tray mounted for oscillatory movement upon the support, the axis of oscillation of the tray being located rear-

wardly of the transverse middle thereof, whereby the tray will be normally overbalanced, a supporting frame including side members pivotally mounted upon the support and a connecting portion extending between the side members, the tray being provided with a series of seats se-



lectively engageable by the said connecting portion of the frame, and a spring connected to the said sorting tray and to one of the side members of the frame and yieldably supporting the said frame in position to engage in the said seats.

1,135,396. PENHOLDER. DEWEY F. RICHARDSON, Scappoose, Oreg. Filed May 13, 1914. Serial No. 838,323. (Cl. 120—101.)



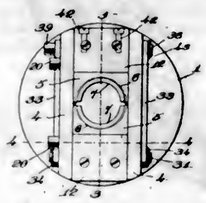
1. In a device of the class described, a body member of conical formation having a hole in one end thereof extending longitudinally and a hole arranged transversely in the member communicating with the first mentioned hole and internally threaded, a set screw engaging said threads adapted to secure a pen point within the first mentioned hole, a plug detachably arranged between the said set screw and the inner end of the hole, a groove in said plug, a spring arranged in said groove and adapted to bear against the end of the slot and to engage the pen point at its forward end.

2. In a device of the class described, a body portion, a hole formed longitudinally and in one end thereof, a second hole formed transversely of the hole and in communication with the first mentioned hole, a thumb screw extending through said last mentioned hole and transversely across the first mentioned hole, a plug arranged between the said screw and the rear end of the first mentioned hole, said plug having outwardly extending shoulders thereon adapted to straddle the said screw to maintain the plug in a predetermined position, a spring arranged on the upper face of said plug to automatically eject the pen point when the screw is loosened.

1,135,397. SELF-CENTERING CHUCK. EDWARD RIVETT, Brighton, Mass., assignor, by mesne assignments, to Rivett Lathe and Grinder Company, a Corporation of Massachusetts. Filed Mar. 9, 1912. Serial No. 682,584. (Cl. 29—124.)

1. In a chuck, a base having a guideway on its face, two jaws slidable longitudinally in said guideway and at opposite sides of the axial center of the chuck, and actuating means coöperating with said jaws to effect positive simultaneous and equal movement thereof toward and from the center of the chuck, said means including an actuator rotatably mounted in the side walls of the guideway.

2. In a chuck, a rotatable base having rigid cheeks projecting from its face parallel to each other and to a diameter of the base, to constitute a guideway, two jaws slidable longitudinally therein and located at opposite sides of the axial center of the chuck, and actuating means coöperating with both jaws to effect positive simultaneous and equal opening and closing movement thereof, said means including a member mounted rotatably in the cheeks and directly engaging one of the jaws.



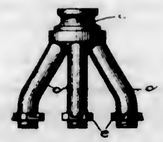
3. In a chuck, a rotatable, rigid base having a guideway on its face, two jaws slidable longitudinally in the guideway toward and from the center of the chuck, and means to actuate the jaws and move them simultaneously and equally in the guideway toward and from each other, said means including an actuator rotatably mounted in the side walls of and crossing the guideway and in direct engagement with one jaw, and an indirect, positive connection between said member and the other jaw.

4. In a chuck, a rotatable base having an elongated guideway on its face intersected centrally by the axis of rotation of the chuck, oppositely movable jaws slidable longitudinally in the guideway at opposite sides of the axis of the chuck, and actuating means for the jaws mounted in the walls of said guideway above the plane of the basce of said jaws, to effect positive, equal and simultaneous opening and closing movement thereof in the guideway, said means including a member extended transversely through and in direct engagement with one jaw and connected indirectly and positively with the other jaw.

5. The combination with the base of a chuck having a deep guideway on its face symmetrical with relation to the axis of rotation of the chuck, and oppositely movable jaws slidably mounted in the guideway, of self-locking jaw actuating means including a rotatable actuator mounted transversely of the guideway above the plane of the base of said jaws and coöperating indirectly and positively with the other jaw, to impart equal and simultaneous movements to the jaws in opposite directions.

[Claims 6 to 25 not printed in the Gazette.]

1,135,398. ADAPTER FOR BUNSEN BURNERS. JACOB IGNOT ROBIN, London, England, assignor to Strand Mantle and Machine Company, Limited, London, England. Filed June 4, 1913. Serial No. 771,630. (Cl. 67—94.)



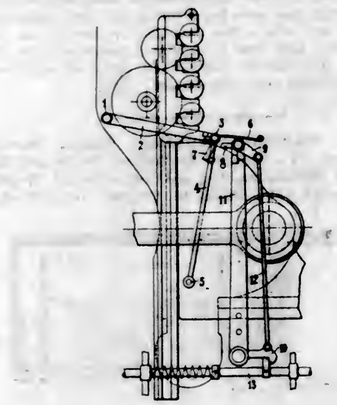
1. In an attachment for Bunsen burners, a plug adapted to be fitted to a suitable burner and a plurality of pipes fitting into said plug and arranged in an inclined manner, the bores of said pipes being continued within the plug so that the part of the plug between the pipes takes the form of a sharp edge or point, said edge or point being situated centrally in the path of the entering stream of gas or gaseous mixture, and means for cutting off the gas supply from one or more of the tubes.

2. In an attachment for Bunsen burners, a plug adapted to be fitted to a burner fixture, a recess within said plug, a plurality of tubes fitting into said plug and arranged in an inclined manner, a sharp edge or point formed within said plug by the continuation of the bores of the pipes, said edge or point being situated centrally in the path of the entering stream of gas or gaseous mixture, a plurality of radial slots in said plug, and means moving in said slots adapted to open or close the respective tubes.

3. An attachment for Bunsen burners, comprising a plug or fitting adapted to be fitted to any suitable burner and a plurality of tubes fitting in said plug and arranged in an inclined manner, said plug having separate passages alining with the bores of the tubes to form a sharp edge or point at the meeting portion of the tubes whereby the gas is uniformly divided and deflected directly through the tubes with a minimum resistance.

4. An adapter of the class described, comprising a fitting adapted for attachment to a standard burner, a plurality of tubes detachably secured in said fitting, said fitting having a central portion and apertures producing a sharp central edge and recesses in the interior wall thereof communicating with the bores of the tubes, means carried by the fitting adapted to cut off the gas supply from the tubes as desired, and means carried by the tubes for supporting gas mantles.

1,135,399. GUARD FOR PLATEN PRINTING-PRESSES. MAX ROCKSTROH, Klein Sedlitz, near Pirna, Germany. Filed Dec. 16, 1912. Serial No. 737,048. (Cl. 101—13.)



In a platen printing press, levers pivotally mounted at the sides of the press, a transverse spindle journaled in the front ends of said levers, two rods pivoted with their lower ends to the platen their upper ends being pivotally connected to said spindle, a cover plate mounted on said spindle to rock over the gap between the platen and the bed, and a stop secured to said spindle adapted to operate the stop motion mechanism of the press when said cover plate is displaced.

1,135,400. TYPOGRAPHICAL COMPOSING-MACHINE. KARL RÖGER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 23, 1914. Serial No. 840,437. (Cl. 199—7.)

1. In a typographical composing machine, the combination with a stationary assembler entrance, a plurality comprising more than two magazines movable to bring one or another thereof into operative relation to the assembler entrance and arranged in groups, and a corresponding plurality of distributers, of a separate pivotal axis about which each group of magazines can turn independently of magazines of other than that group.

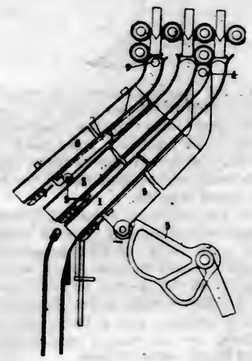
2. In a typographical composing machine, the combination with a stationary assembler entrance, a plurality comprising more than two magazines movable to bring one or another thereof into operative relation to the assembler entrance and arranged in groups, and a corresponding plurality of distributers, of a separate magazine frame for each group, and a separate pivotal axis about which each such frame and group of magazines can turn independently of magazines of other than that group.

3. In a typographical composing machine, the combination with a stationary assembler entrance, a plurality comprising more than two magazines movable to bring one or another thereof into operative relation to the assembler entrance and arranged in groups, and a corresponding plurality of distributers, of a separate magazine frame for each group, and a separate pivotal axis about which each such frame and group of magazines can turn independently of magazines of other than that group.

4. In a typographical composing machine, the combination with a stationary assembler entrance, a plurality comprising more than two magazines movable to bring one or another thereof into operative relation to the assembler entrance and arranged in groups, a corresponding plurality of distributers, a separate magazine frame for each group, and a separate pivotal axis about which each such frame and group of magazines can turn independently of magazines of other than that group, of links operatively connecting the magazine frames of an upper and a lower group.

5. In a typographical composing machine, the combination with a stationary assembler entrance, a plurality comprising more than two magazines movable to bring one or another thereof into operative relation to the assembler entrance and arranged in groups, a corresponding plurality of distributers, a separate magazine frame for each group, and a separate pivotal axis about which each such frame and group of magazines can turn independently of magazines of other than that group, of links operatively connecting the magazine frames of an upper and a lower group, and means operative to make and break the link-connection between the magazine frames.

[Claims 6 and 7 not printed in the Gazette.]



1,135,401. FLOWER-HOLDER. ANTONIO SALABI, Bisbee, Ariz., assignor of one-half to William Ledgerwood, Bisbee, Ariz. Filed July 20, 1914. Serial No. 852,033. (Cl. 24—6.)

1. A device of the character described comprising a receptacle provided with a tubular neck in communication therewith, said neck being divided longitudinally into hingedly connected sections, and means for holding said sections in closed relation.

2. A device of the character described comprising a receptacle provided with a tubular neck in communication therewith, said neck being divided longitudinally into hingedly connected sections, means for holding said sec-

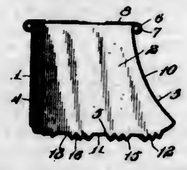
tions in closed relation, and a lining of yieldable material for each of said sections.



3. A device of the character described comprising a receptacle provided with a tubular neck in communication therewith, said neck being divided longitudinally into two sections, one of said sections being fixedly secured to the receptacle and the second section being hingedly connected with the first section, and means for maintaining the sections in closed relation.

4. A device of the character described comprising a receptacle provided with a tubular neck in communication therewith, said neck being divided longitudinally into two sections, one of said sections being fixedly secured to the receptacle and the second section being hingedly connected with the first section, means for maintaining the sections in closed relation, and a lining for each of the sections, the lining for the hinged section overlying the lower and longitudinal edges thereof.

1,135,402. HAND-WASHER. EUGENE WATSON SALKELD, Washington, D. C. Filed Dec. 1, 1914. Serial No. 875,031. (Cl. 68—8.)



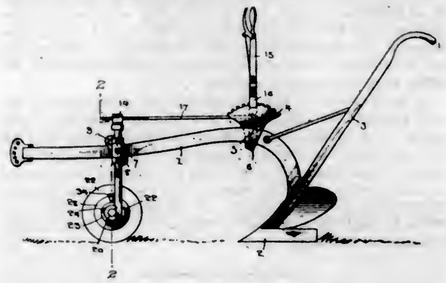
1. A hand washer comprising a body of oblong rectangular form and having a bottom rubbing surface of corresponding form, said surface being of convex contour from front to rear and provided with longitudinally-extending corrugations formed in the upstanding portions thereof with perforations, the said body being opened at its top and having an upwardly and rearwardly sloping front wall, said front wall being provided with a longitudinally-extending water inlet slot, and a closure for **the open top of said body.**

2. A hand washer comprising a body of oblong rectangular form and having a sloping front wall provided with a water inlet slot, said body being open at the top and formed with longitudinal guide flanges, and having a corrugated rubbing surface provided with perforations communicating with the soap compartment, and a sliding cover for the open top of said compartment adapted to engage said guide flanges and when applied to form front and rear projecting surfaces in conjunction with said flanges by which the device may be gripped.

1,135,403. ADJUSTABLE COLTER FOR PLOWS. JOSEPH F. SCHAINOST, Bloomfield, Nebr. Filed Aug. 20, 1913. Serial No. 785,776. (Cl. 97—43.)

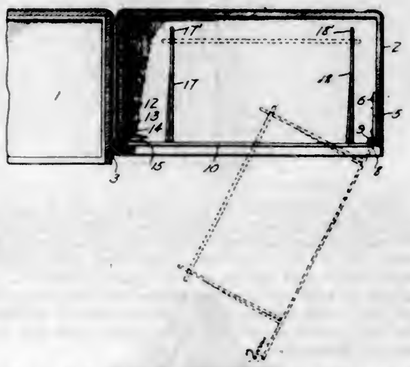
1. In combination with a plow, a segment secured to the beam thereof, a lever pivoted on said segment, a bar rotatably connected with said beam, connecting means between said bar and lever, an axle carried by said bar, a disk rotatable on said axle, and an eye-bolt upon said bar and embracing said axle for holding said axle in both lateral and angular adjusted position relative to said bar.

2. In combination with a plow, a segment secured to the beam thereof, a lever pivoted on said segment, a journal block secured to said beam, a supporting member rotatably mounted and vertically adjusted within said block, a lateral extending arm fixedly secured to the upper end of said supporting bar, a swivel arranged in one end of said arm, a reach rod pivotally connected to said lever at one end thereof and adjustably connected to said swivel at the opposite end thereof for operating said arm,



bearings adjustably secured upon said bar for retaining said bar in predetermined vertical adjustment within said journal, an axle arranged at the lower end of said supporting bar, an eye bolt arranged upon the said bar and embracing said axle for securing said axle upon said supporting bar, and a disk rotatably mounted upon said axle, whereby said disk is oscillated longitudinally with respect to the vertical longitudinal plane of said beam by said lever and said connections.

1,135,404. WARDROBE-TRUNK. HARVEY SEWARD, Petersburg, Va., assignor to Seward Trunk and Bag Company, Petersburg, Va., a Corporation of Virginia. Filed Dec. 29, 1914. Serial No. 879,500. (Cl. 190—13.)



1. In a wardrobe trunk, the combination with a body portion and a cover portion pivotally connected together, said cover portion having a hanging compartment, of a gate hanger pivotally mounted within the cover portion, brackets extending laterally from said gate hanger, and garment hangers having a two-point suspension mounted upon said brackets.

2. In a wardrobe trunk, the combination with a hanging compartment, of a plate secured within said compartment to one side thereof, said plate having a vertically disposed eye, a gate hanger formed of a single piece of metal having parallel bars terminating in eyes adapted to register with the eye of said plate, a pintle extending through said eyes, means for fastening said gate hanger in closed position within said compartment, and laterally

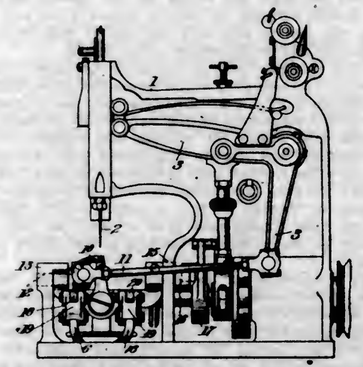
projecting spaced brackets carried by said hanger having upwardly projecting end portions.

3. A wardrobe trunk, comprising a body portion and a cover portion pivotally connected together, a gate hanger pivotally mounted within the cover portion and capable of swinging outwardly and away from the body portion, said gate hanger having spaced laterally projecting brackets connected thereto.

4. A wardrobe trunk, comprising a body portion and a cover portion pivotally connected together, a gate hanger pivotally mounted within the cover portion on the side opposite to its connection with the body portion, said gate hanger being capable of swinging outwardly at right angles to the cover portion, and brackets carried by said hanger having upwardly projecting end portions.

5. A wardrobe trunk, comprising a body portion and a cover portion pivotally connected together, said cover portion having a hanging compartment, a swinging frame pivotally connected to the free side of said cover portion within said hanging compartment, and brackets formed of single pieces of wire connected to the parallel bars of said frame having laterally projecting portions terminating in upwardly projecting portions forming two-point suspension means for garment hangers.

1,135,405. LOOPER-ROCKER FOR SEWING-MACHINES. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Original application filed Aug. 8, 1908, Serial No. 447,536. Divided and this application filed Nov. 26, 1909. Serial No. 530,015. (Cl. 112—5.)



1. A looper rocker comprising an offset body portion for supporting the looper, means whereby the looper rocker may be supported, and a laterally projecting arm carried by the offset body portion, which arm is adapted to impart the lateral movements of the looper rocker to a moving part of the machine.

2. A looper rocker comprising a yoke-shaped body portion, means whereby the looper rocker may be supported, means whereby a looper may be supported on said rocker, and a laterally projecting arm carried by the body portion which arm is adapted to impart the lateral movements of the looper rocker to a moving part of the machine.

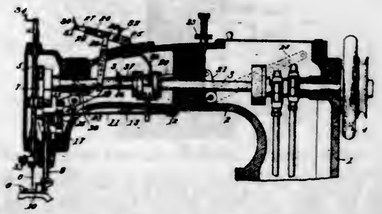
3. A looper rocker comprising a yoke-shaped body portion, means whereby said looper rocker may be supported, a bearing intermediate the ends of the rocker on which a looper may be pivoted, a laterally projecting arm carried by the body portion of the rocker and adapted to impart the lateral movements of the rocker to a moving part of the machine.

4. A looper rocker comprising a yoke-shaped body portion, means whereby said looper rocker may be supported, a bearing intermediate the ends of the looper rocker on which the looper may be pivoted, said looper rocker having an integrally formed arm projecting laterally therefrom, said arm being located in a plane substantially at right angles to the looper rocker and the longitudinal axis of said arm being eccentric to the axis of said looper rocker, whereby as said looper rocker is oscillated, said arm will move bodily about the axis of the looper rocker, said arm having means for connection with a moving part of the machine.

5. A looper support adapted to oscillate about an axis, a member carried by said support and oscillating therewith, said member being disposed in a plane substantially at right angles to the axis of the looper support and eccentrically located relative thereto, and adapted to be connected to a movable part of the machine.

[Claim 6 not printed in the Gazette.]

1,135,406. THREAD-CONTROLLING MECHANISM FOR SEWING-MACHINES. DUDLEY S. SEYMOUR, Oak Park, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 5, 1910. Serial No. 590,917. (Cl. 112—26.)



1. The combination of a presser foot, of a rocking member connected to said presser foot for lifting the same, a thread controller mounted on a stationary pivot independently of said rocking member, and a link connecting said thread controller to said rocking member, whereby the movements of the presser foot are imparted to the thread controller and the latter is inactive except during the movement of the presser foot.

2. The combination of a presser foot, a presser bar, a rocking member, a link connecting said rocking member to said presser bar, a thread controller mounted on a stationary pivot and a link connecting said thread controller to said rocking member.

3. The combination of a presser bar, a slack thread controller, means for connecting the slack thread controller to the presser bar whereby the movements of the presser bar are imparted to the slack thread controller, said slack thread controller being formed in sections, means for connecting said sections, said outer section having a thread guide carried thereby.

4. The combination of a presser bar, a pivoted slack thread controller, means for connecting said slack thread controller to the presser bar whereby the movements of the presser bar are imparted to the slack thread controller, a thread guide mounted on the free end of the slack thread controller, and means for permitting the adjustment of the thread guide bodily to and from the pivotal connection of the thread controller.

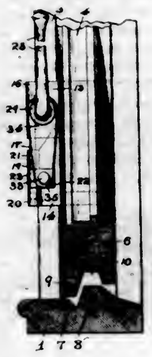
5. The combination of a presser bar, a pivoted slack thread controller, means for connecting said slack thread controller to the presser bar, whereby the movements of the presser bar are imparted to the slack thread controller, a thread guide mounted on the free end of the slack thread controller, means for permitting adjustment of the thread guide to and from the pivotal connection of the thread controller, and means whereby the angular position of the thread guide may be varied.

[Claims 6 to 12 not printed in the Gazette.]

1,135,407. SASH-HINGE FIXTURE. CEPHAS I. SHIRLEY, Glen Ridge, and FREDERICK WALTER MUELLER, Newark, N. J., assignors to Tabor Sash Fixture Co., a Corporation of New Jersey. Filed Oct. 1, 1913. Serial No. 792,728. (Cl. 16—106.)

1. A fixture for windows having a sash which is mounted in the frame to move vertically and also swing hori-

zontally comprising a hinge having a leaf adapted to be secured to the frame and a leaf adapted to be connected with the sash, said leaves being pivotally connected by means of a pivot-pin, and one of said leaves being slidably mounted upon said pin, a stud-carrying block also mounted upon said pivot-pin, and means interposed between said slidably mounted leaf and said stud-carrying block for producing the sliding relation of said leaves.



2. A fixture for windows having a sash which is mounted in the frame to move vertically and also swing horizontally comprising a hinge having a leaf adapted to be secured to the frame and a leaf adapted to be connected with the sash, said leaves being pivotally connected by means of a pivot-pin, and one of said leaves being slidably mounted upon said pin, a stud-carrying block also mounted upon said pivot-pin, a cam-lever pivotally connected with said slidably mounted hinge-leaf, and means interposed between said cam-lever and said stud-carrying block for producing the sliding relation of said leaves.

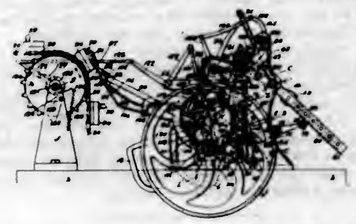
3. A fixture for windows having a sash which is mounted in the frame to move vertically and also swing horizontally comprising a hinge having a leaf adapted to be secured to the frame and a leaf adapted to be connected with the sash, said leaves being pivotally connected by means of a pivot-pin, and one of said leaves being slidably mounted upon said pin, a stud-carrying block also mounted upon said pivot-pin, a lever pivotally connected with said slidably mounted hinge-leaf, an eccentric or cam-shaped member connected with said lever, and a link interposed between said eccentric or cam-shaped member and said stud-carrying block for producing the sliding relation of said leaves.

4. A fixture for windows having a sash which is mounted in the frame to move vertically and swing horizontally comprising a hinge having a fixed leaf adapted to be secured to the frame and a movable leaf adapted to be connected with the sash, said movable leaf being provided with a pintle-receiving knuckle, and said fixed leaf being provided with a pair of pintle-receiving knuckles having a stud-clock receiving space between them, a pintle in the pintle-receiving knuckles of said leaves, said pintle extending across said stud-block receiving space, a stud-block, said block having a pintle-receiving knuckle extending into said stud-block receiving space and mounted upon said pintle, and means interposed between said movable hinge-leaf and said stud-block for producing the sliding relation of said leaves.

5. A fixture for windows having a sash which is mounted in the frame to move vertically and also swing horizontally comprising a hinge having a fixed leaf adapted to be secured to the frame and a movable leaf adapted to be connected with the sash, said movable leaf being provided with a pintle-receiving knuckle, and said fixed leaf being provided with a pair of pintle-receiving knuckles having a stud-block receiving space between them, a pintle in the pintle-receiving knuckles of said leaves, said pintle extending across said stud-block receiving space, a stud-block, said block having a pintle-receiving knuckle extending into said stud-block receiving space and mounted upon said pintle, a cam-lever pivotally connected with said slidably mounted hinge-leaf, and means interposed between said cam-lever and said stud-carrying block for producing the sliding relation of said lever.

[Claim 6 not printed in the Gazette.]

1,135,408. RUG AND CARPET MAKING MACHINE. ROBERT WILLIAM SILVERSIDES, Malton, England. Filed Jan. 25, 1913. Serial No. 744,217. (Cl. 112—42.)



1. In a machine of the character described, folding mechanism for producing a fold in the foundation of a rug, carpet, or the like, a single gripping needle having a point in the form of a separable jaw, means for causing said needle to pass emptily and in closed position in a transverse direction through both thicknesses of said fold and to return the same, and means for first opening said jaw after passing through the fold to receive a tab and then closing the jaw to grip said tab that it may be drawn through the fold on the return of the needle.

2. In a machine of the character described, folding mechanism for producing a fold across the entire width of the foundation of a rug, carpet, or the like, a plurality of gripping needles each having its point in the form of a separable jaw, means for causing said needles to pass simultaneously and emptily with closed jaws in a transverse direction through both thicknesses of said fold and to return the same, and means for first opening said jaws after passing through the fold to permit each to receive a tab, and then closing said jaws to grip the tabs that they may be drawn through the fold on the return of the needles.

3. In a machine of the character described, folding mechanism for producing a fold across the entire width of the foundation of a rug, carpet or the like, a plurality of gripping needles each having its point in the form of a separable jaw, means for causing said needles to pass simultaneously and emptily with closed jaws in a transverse direction through both thicknesses of said fold and to return the same, means for first opening said jaws after passing through the fold to permit each to receive a tab, and then closing the jaws to grip the tabs that they may be drawn through the fold on the return of the needles, and a plurality of devices for conveying individual tabs in said needles.

4. In a machine of the character described, folding mechanism for producing a fold in the foundation of a rug, carpet or the like, a plurality of gripping needles each having its point in the form of a separable jaw, means for causing said needles to pass simultaneously and emptily with closed jaws in a transverse direction through both thicknesses of said fold and to return the same, means for first opening said jaws after passing through the fold to permit each to receive a tab and then closing said jaws to grip the tabs that they may be drawn through the fold on the return of the needles, a plurality of devices for conveying individual tabs to said needles, and means for causing said devices to move laterally from one another when traveling from the needles, and toward one another when approaching the needles.

5. In a machine of the character described, folding mechanism for producing a fold in the foundation of a rug, carpet or the like, a plurality of gripping needles each having its point in the form of a separable jaw, means for causing said needles to pass simultaneously and emptily with closed jaws in a transverse direction through both thicknesses of said fold and to return the same, means for first opening said jaws after passing through the fold to permit each to receive a tab, and then closing the jaws to grip the tabs that they may be drawn through the fold on the return of the needles, a plurality of devices for conveying individual tabs to said needles, and other means for delivering tabs one at a time to said devices.

[Claims 6 to 17 not printed in the Gazette.]

1,135,409. WATCH-WRISTLET, BRACELET, GLOVE AND SLEEVE HOLDER, AND THE LIKE. BERNARD RINTEL SIMMONS, Birmingham, England. Filed July 9, 1914. Serial No. 849,995. (Cl. 224—4.)



1. Watch wristlets, bracelets, glove and sleeve holders and the like in which the extremities of a coiled and expansible wire band are secured to a watch, miniature or other article of ornament to be incorporated therewith by means of separate hinge connection members or elements which are adapted to be connected on the one hand with the end coils or convolutions of the wire band and on the other hand with suitable members or parts furnished on the watch or ornament.

2. Watch wristlets, bracelets, glove and sleeve holders and the like in which the extremities of a coiled and expansible wire band are secured to a watch, miniature or other article or ornament by means of separate hinge connection elements each consisting of a small metallic strip or plate portion, one part of which is adapted to be pivotally connected with a suitable projection or part upon the watch or ornament while the other half or part is adapted to engage with or encircle an end coil or convolution of the wire band.

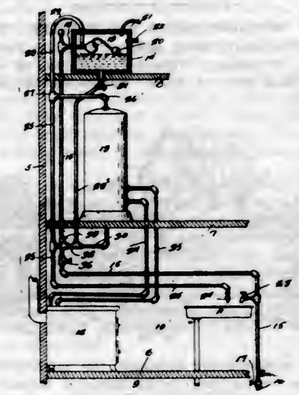
3. Watch wristlets, bracelets, glove and sleeve holders and the like in which a watch, ornament or the like is secured to a coiled and expansible wire band by hinge connection elements each of which comprises a separate metallic strip or plate portion having a tubular portion formed or provided thereon, the strip portion being adapted to engage with or encircle an end coil or convolution of the wire band while the tubular part is adapted to be hinged to suitable projections on the watch or ornament.

4. Watch wristlets, bracelets, glove and sleeve holders and the like in which the extremities of a coiled and expansible wire band are secured to a watch, miniature or other article or ornament by means of separate hinge connection elements, each comprising a metallic strip portion bent over centrally so as to furnish two halves or parts integrated at their one extremity and disposed close together face to face, one half or part being pivotally connected to a suitable projection or projections upon the watch or ornament and the other half or part being connected to an end coil of the wire band.

5. Watch wristlets, bracelets, glove and sleeve holders and the like in which the extremities of a coiled and expansible wire band are secured to a watch, miniature, or other article or ornament by means of separate hinge connection elements, each comprising a metallic strip portion bent over centrally so as to furnish two halves or parts integrated at their one extremity and disposed close together face to face, one half or part being pivotally connected to a suitable projection or projections on the watch or ornament and the other half or part being connected to an end coil of the wire band, the two halves or parts of the connecting element being retained close together one upon the other by means of a tongue portion formed on one half engaging in an aperture in the other half.

[Claim 6 not printed in the Gazette.]

1,135,410. WATER-HEATING SYSTEM FOR DWELLINGS, HOTELS, AND THE LIKE. SMITH SMITH, Marcus Hook, Pa. Filed May 29, 1914. Serial No. 841,859. (Cl. 126—362.)



1. In a system such as described, a boiler, a feed pipe leading into the lower portion of said boiler, a hot water supply pipe leading from said boiler and discharging below the same, a discharge pipe leading from said hot water supply-pipe and a valve controlled communication between said feed pipe and hot water pipe for draining said boiler.

2. In a system such as described, a boiler, a reservoir, means for supplying water to said reservoir, a feed pipe connecting said reservoir and the lower portion of the boiler, a hot water supply pipe leading from said boiler and discharging below the same, a valve controlled connection between said hot water supply pipe and feed pipe and an exhaust pipe leading from the hot water supply pipe into said reservoir.

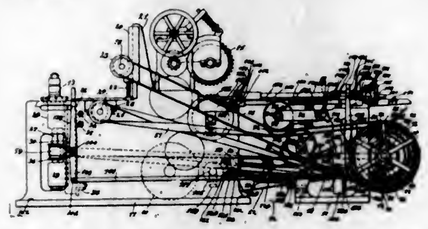
3. In a system such as described, a boiler, a reservoir, a feed pipe for supplying cold water to said reservoir, means for feeding cold water from said reservoir into said boiler at the lower end thereof, means for heating water within said boiler, a hot water pipe leading from the boiler and discharging below the same, a valve controlled connection between said hot water pipe and feed pipe, an exhaust pipe leading from the hot water pipe, and valves for controlling the passage of water to the reservoir and between said reservoir and boiler.

4. In a system such as described, a boiler, a reservoir mounted above said boiler, a cold water supply pipe leading to said reservoir, means for automatically controlling the supply of water to the reservoir from said cold water supply pipe, a feed pipe connecting the reservoir with the lower portion of the boiler, a hot water supply pipe leading from the top of the boiler and discharging below the same, an exhaust pipe connecting the said hot water pipe with said reservoir, and a valve controlled communication between said hot water pipe and the feed pipe.

5. The combination in a system such as described with hot and cold water faucets, and a range hot water back, of a boiler, a reservoir located above said boiler, a cold water supply pipe leading to the reservoir and in communication with the cold water faucet, a valve in communication with the cold water supply pipe for controlling the supply of cold water to the reservoir, said valve being interposed between said reservoir and cold water faucet, means for automatically controlling the supply of water to the reservoir from said cold water supply pipe, a feed pipe leading from the reservoir into the bottom of said boiler, a valve controlling the passage of water through said feed pipe, circulating pipes connecting the boiler with the range water back, a hot water supply pipe leading from the boiler and discharging below the same, said hot water faucet being connected to the hot water supply pipe, an exhaust

pipe leading from the hot water supply pipe into the reservoir, a drain pipe connecting the hot water supply pipe with the feed pipe, and a valve controlling the passage of water through said drain pipe.

1,135,411. WOODWORKING MACHINERY. PETER A. SOLEM, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed May 24, 1913. Serial No. 769,652. (Cl. 144—36.)



1. In a wood-planing machine, the combination of a main frame, cutter-head shafts mounted thereon, cutter-heads on said shafts, pulleys on said shafts, an independent countershaft spaced from said main frame, a countershaft thereon, pulleys on said countershaft coöperating with said first-named pulleys, bearings for said countershaft, slide-pieces on which said bearings are mounted, slides in said countershaft frame for said slide-pieces, said slides and slide-pieces having slide-faces extending in directions toward and from said main frame, and adjusting means for adjusting said slide-pieces projecting toward said main frame into said space between said countershaft frame and said main frame.

2. In a wood-planing machine, the combination of a main frame, cutter-head shafts mounted thereon, cutter-heads on said shafts, pulleys on said shafts, an independent countershaft frame selectively spaced from said main frame, a countershaft thereon, pulleys on said countershaft coöperating with said first-named pulleys, bearings for said countershaft, slide-pieces on which said bearings are mounted, slides in said countershaft frame about said slide-pieces, said slides and slide-pieces having slide-faces extending in directions toward and from said main frame, and adjusting means for adjusting said slide-pieces, whereby said countershaft and said countershaft frame are capable of independent adjustment toward and from said main frame.

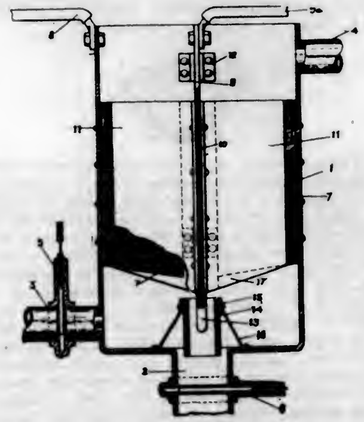
3. In a wood-planing machine, the combination of a main frame, cutter-head shafts mounted thereon, cutter-heads on said shafts, pulleys on said shafts, an independent countershaft frame spaced from said main frame and arranged to be placed selective distances from said main frame, a countershaft on said countershaft frame, pulleys on said countershaft coöperating with said first-named pulleys, and an adjustable feeding-in table which bridges the selective space between said main frame and countershaft frame and is supported on both said frames.

4. In a wood-planing machine, the combination of a main frame, cutter-head shafts mounted thereon, cutter-heads on said shafts, an independent countershaft frame spaced from said main frame, a countershaft thereon, pulleys on said countershaft coöperating with said first-named pulleys, a feeding-in table which bridges the space between said main frame and countershaft frame and is supported on both said frames, and a spring arm pivoted above said countershaft frame and extending over said feeding-in table and provided with a contact-part above said main frame for the material fed by said feeding means.

5. In a wood-planing machine, the combination of a main frame, cutter-head shafts mounted thereon, cutter-heads on said shafts, material feeding means on said main frame, said feeding means comprising a feed-shaft, pulleys on said shafts, an independent countershaft frame spaced from said main frame, a countershaft thereon, pulleys on said countershaft coöperating with said first-named pulleys, a feeding-in table which bridges the space between said main frame and countershaft frame and is supported on both said frames, and a spring-arm pivoted above said countershaft frame and extending over said feeding-in table and provided with a contact-part above said main frame for the material fed by said feeding means.

[Claims 6 to 8 not printed in the Gazette.]

1,135,412. CONTROL APPARATUS. NORMAN W. STORER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 4, 1913. Serial No. 788,109. (Cl. 219—57.)



1. A control apparatus comprising a tank, a body of liquid contained therein, means for permitting the discharge of said liquid therefrom, coöperating electrodes normally immersed in said liquid, and means for restricting the active volume of said liquid at a predetermined point during its discharge whereby the final break is confined to a relatively small body of liquid.

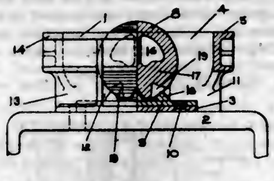
2. In a control apparatus, the combination with a tank, a body of liquid contained therein, coöperating electrodes adapted to be immersed in said liquid, and means for discharging said liquid, of means for restricting the active volume of said liquid at a predetermined point during its discharge whereby a high resistance is inserted into circuit prior to the interruption thereof.

3. In a liquid rheostat, the combination with a tank having a discharge opening therein, a body of liquid normally contained in said tank, and coöperating electrodes suspended therein, of a downwardly projecting portion constituting a part of one of said electrodes, and a sleeve of insulating material surrounding said projecting portion.

4. A liquid rheostat comprising a tank having a bottom discharge opening, a body of liquid contained in said tank, a plurality of vertically disposed plates secured to opposite sides of said tank, an electrode insulated from said tank and having a plurality of plates projecting from each side thereof between said first named plates, a projecting portion constituting a part of one of said electrodes, and a tube of insulating material surrounding said projecting portion and located above said discharge opening.

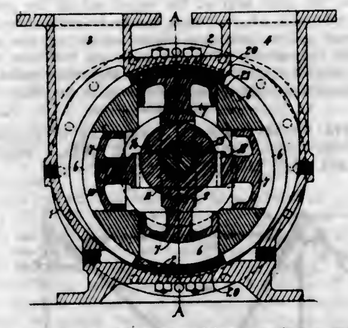
5. A liquid rheostat comprising a tank having a bottom discharge opening, a body of liquid contained in said tank, a plurality of coöperating electrodes having interleaved contact plates normally immersed in said liquid, one of said electrodes having a downwardly projecting lower portion, and a tube of insulating material partially surrounding said lower portion and partially projecting into said discharge opening.

1,135,413. ROLLER SIDE BEARING. ARNOLD STUCKI, Pittsburgh, Pa. Original application filed July 25, 1912, Serial No. 711,456. Divided and this application filed May 19, 1913. Serial No. 768,519. (Cl. 64—64.)



A side bearing for railway cars, comprising a housing for the lower bolster having its bottom forming a bearing surface and provided with side and end walls or barriers having flat upper surfaces and provided with openings at the level of the bottom bearing surface, and a cylindrical eccentrically loaded roller in said housing and traveling on the bottom bearing surface thereof, said bottom bearing surface and the roller being provided with interengaging teeth, whereby when the upper bolster member rises the roller returns to central position in the housing.

1,135,414. ROTARY PUMP AND MOTOR. WILLIAM JOHN VINCENT, Cardiff, Wales. Filed Mar. 7, 1914. Serial No. 823,166. (Cl. 103—44.)



1. A hydraulic machine comprising a casing, a rotatable cylinder body within the casing, radial cylinders formed in said body, piston structures operating in the cylinders, one of said structures consisting of a transversely slotted trunk portion having integrally formed piston heads at its ends, another of said structures having a trunk portion adapted to pass through the slot in said first mentioned trunk portion and being provided with an integral piston head at one end and a detachable piston at the other end thereof, a pin on the casing, eccentric to the axis of the cylinder body, an inner and an outer roller on said pin, the inner of said rollers being provided with a sleeve upon which said outer roller rotates, said piston structures coöperating respectively with the said rollers whereby opposing piston heads are caused to reciprocate in unison.

2. A hydraulic machine comprising a casing, a rotatable cylinder body within the casing, an even number of diametrically opposed radial cylinders formed in said body, an even number of piston heads operating in said cylinders and being connected together in pairs, a support projecting from the casing into the rotatable cylinder body, said support being eccentric to the axis of rotation of the cylinder body, an inner and an outer roller on said support, said inner roller adapted to engage the connecting means between one of said pairs of piston heads and the outer roller adapted to engage the connecting means between another of said pairs of piston heads whereby the piston heads of a pair are caused to operate in unison.

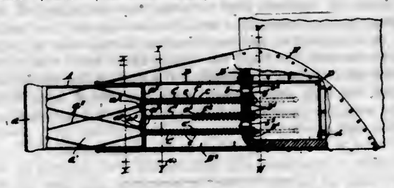
3. A hydraulic machine comprising a casing, a rotatable cylinder body within the casing, said cylinder body being formed with radial cylinders, pistons operating in said cylinders, removable bridges dividing said casing into suction and delivery chambers, and interchangeable metallic, lining members between said bridges and the casing.

4. A hydraulic machine comprising a casing, a rotatable cylinder body within said casing, said body being provided with radial cylinders, pistons operating in said cylinders substantially oppositely disposed segmental bridges dividing said casing into suction and delivery chambers, one of said bridges being of greater circumferential length than the other of said bridges whereby the shock due to liquid pressure upon one side of the machine precedes the shock due to vacuum on the other side of the machine.

5. A hydraulic machine comprising a casing, a rotatable cylinder body within the casing, radial cylinders formed in said body, piston structures operating in the cylinders each having opposing piston heads, a pin on said casing, eccentric to the axis of the cylinder body, an inner and an outer roller on said pin, one of said rollers being provided with a sleeve upon which the other roller rotates, said piston structures coöperating respectively with the said rollers whereby opposing piston heads are caused to reciprocate in unison.

[Claims 6 to 10 not printed in the Gazette.]

1,135,415. FENDER FOR SHIPS. ANDREW VON FORSMAN, Iron River, Mich. Filed Feb. 10, 1915. Serial No. 7,416. (Cl. 114—219.)



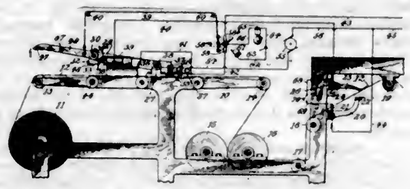
1. A bow fender for ships adapted to be submerged below the water-line consisting of a cut-water terminating in a hollow body-portion forming an auxiliary air-chamber, a casing adapted to receive said body-portion telescopically form an air-cushion therefor and communicate with said air-chamber through air-ports, plunger-rods having coiled springs adapted to form an auxiliary cushion, and a water-tight compartment within the ship's bow in alinement with said casing adapted to house the free ends of said rods and also form an auxiliary air chamber for said casing.

2. A ship's fender having a hollow body portion forming an auxiliary air chamber its aft end terminating in a movable bulk-head having air-ports therein and its forward end terminating in a cutwater adapted to project in front of the ship's bow, a casing secured to and projecting in front of the bow of the ship comprising an air-chamber within which is telescopically mounted said body portion said casing terminating in a fixed bulkhead provided with air ports, a water-tight compartment forming a continuation of said casing and communicating with said air-chamber through air-ports, plunger-rods carrying coiled springs said rods being rigidly mounted to said movable bulkhead and movably mounted in said fixed bulkhead, and a frame secured to the ship's hull adapted to inclose said casing and brace the same.

1,135,416. CONTROLLER FOR POWER-OPERATED MECHANISM. SAMUEL THOMAS WALKUP, New York, N. Y. Filed Mar. 27, 1908. Serial No. 423,675. (Cl. 101—42.)

1. In a controller for web feeding mechanism of printing presses and the like, means for severing the web before it reaches the printing devices, and electrically controlled means adapted to cause the severing means to cut the web when the web breaks beyond said severing means.

2. In a controller for web feeding mechanism of printing presses and the like, means for severing the web before it reaches the printing devices, and electrically controlled means adapted to cause the severing means to cut the web, and to stop the operation of the feeding means, when the web breaks beyond said severing means.



3. In a controller for web feeding mechanism of printing presses and the like, means for severing the web before it reaches the printing devices, electric means for causing the operation of said severing means, and a circuit breaker connected with said electrical means for causing the same to operate when the web breaks beyond the latter.

4. In a controller for web feeding mechanism of printing presses and the like, means for severing the web before it reaches the printing devices, electric means for causing the operation of said severing means, and a circuit breaker connected with said electrical means for causig the same to operate and to stop the operation of the feeding means, when the web breaks beyond the latter.

5. In a controller for web feeding mechanism of printing presses and the like, the combination with web severing means, of means for holding the end of the uncut portion of the web, and electric means actuated by a break in the web, for causing the operation of the severing and holding means.

[Claims 6 to 17 not printed in the Gazette.]

1,135,417. COMPOSITION OF MATTER TO BE USED FOR FEEDING LIVE STOCK. JOHN FRANK WEAVER, Lancaster, Pa. Filed Apr. 9, 1914. Serial No. 830,618. (Cl. 99—11.)

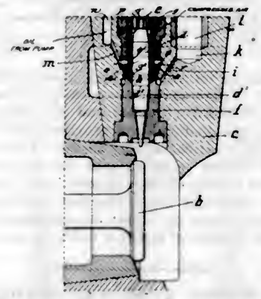
1. A composition of matter, comprising a dry mixture, being composed of flax seed meal, cotton seed meal, extracted dried sugar-cane, and a suitable binder, substantially as specified.

2. A composition of matter comprising the herein described dried mixture composed of about twenty-five per cent. flax seed meal; about twenty per cent. cotton seed meal; about fifty per cent. dried sugar-cane; and about five per cent. molasses to bind the whole, substantially as specified.

1,135,418. GAS-MOTOR. SVEN WIGELIUS, Stockholm, Sweden, assignor to Aktiebolaget Wigelius Motorer, Stockholm, Sweden. Filed Apr. 26, 1910. Serial No. 557,780. (Cl. 123—131.)

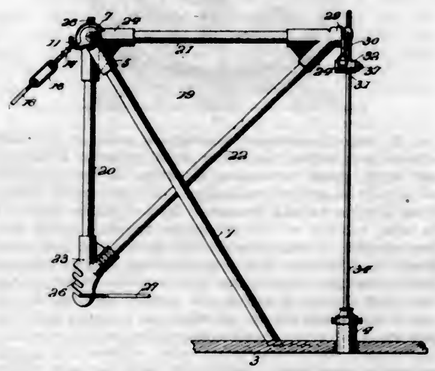
1. A device for supplying air and fuel to explosive engines comprising in combination, a plug having a bore delivering to the cylinder of the engine and provided on its intake end with a valve seat, a movable sleeve having a valve for engagement with said seat and communicating with the source of supply of air under pressure and adapted to deliver to said plug, a spindle movable in said sleeve and plug for controlling the supply of compressed air to said sleeve and the supply of oil between said sleeve seat and valve to said plug, a casing surrounding said plug and sleeve and having a chamber back of said sleeve valve, a main pump provided with a passage leading to said chamber, and an auxiliary pump communicating with said chamber, said sleeve having a valve portion closing ingress of fuel from the main pump to said chamber when the sleeve valve is free from engagement with said plug sleeve, substantially as described.

2. The combination with a casing provided with a bore having an annular groove extending there around, said casing further having a chamber communicating with said groove and a second chamber opening into the bore below the groove a fixed sleeve held in said bore and provided with ports opening into said groove, a plug screwed into the lower end of the bore and provided with an opening extending therethrough having a valve seat located therein, said plug further having a valve seat at the upper end, the fixed sleeve being provided with a valve



seat at the lower end, a reciprocable sleeve provided with a pair of oppositely disposed valve surfaces adapted to seat on the valve seat at the upper end of the plug and the lower end of the fixed sleeve selectively, said reciprocable sleeve having a groove extending therearound adapted to register with the ports in the fixed sleeve, and a spindle valve movable within the reciprocable sleeve and adapted to seat on the valve seat in the plug.

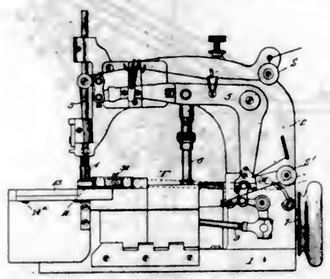
1,135,419. PUMPING-JACK. ABRAHAM T. WOLFE, Coffeyville, Kans. Filed June 10, 1914. Serial No. 844,311. (Cl. 74—5.)



1. A pumping jack, comprising a pair of spaced obliquely arranged legs, castings provided with sockets permanently mounted upon the upper ends of said legs, one of said castings being provided with an opening and the other casting with a stud extending into said opening and secured therein by a bolt for spacing said castings apart, said castings having integral rearwardly projecting hook portions, tie rods connected to said hook portions, a jack frame pivotally mounted between said castings upon said stud, said frame being formed of substantially triangular-shaped castings connected together by bars, one of said castings being provided with an opening to receive said stud, another of said castings being provided with a series of notches forming an adjustable connection for a pull rod, and a seat formed on the other one of said castings for a stirrup.

2. A pump jack, comprising a substantially triangular-shaped frame formed of rods having their ends permanently secured in sockets of castings, said castings being substantially triangular in shape, one of said castings being recessed to provide a seat for a stirrup, a series of downwardly inclined notches formed in another one of said castings forming an adjustable connection for a pull rod, the other casting being provided with a bearing.

1,135,420. SEWING-MACHINE. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 5, 1908. Serial No. 430,897. (Cl. 112—1.)



1. A sewing machine including in combination, a work support, stitch forming mechanism for forming overedge stitches, a stitch finger over which the stitches are laid, a tape guide located in front of the stitch finger, the longitudinal axis of said stitch finger being positioned in a horizontal plane passing between the ends of the tape guide, whereby said tape may be guided between the stitch finger and the edge of the fabric, and said tape folded around the edge of the fabric and secured by the overedge stitches.

2. A sewing machine including in combination, a work support, stitch forming mechanism for forming overedge stitches, a presser foot, a stitch finger, a tape guide carried by the presser foot, said tape guide being located in front of the stitch finger, and the longitudinal axis of said stitch finger being positioned in a horizontal plane passing between the ends of the tape guide, whereby the tape may be guided between the stitch finger and the edge of the fabric, and the tape secured to the fabric by the overedge stitches.

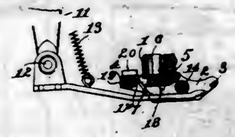
3. A sewing machine including in combination, a work support, stitch forming mechanism for forming overedge stitches, a tape guide located in front of the stitch forming mechanism, said tape guide being positioned relative to the work support so that the ends of the tape guide extend above and below the plane of the work support, whereby the tape may be guided between the overedge stitches as they are formed and the edge of the fabric, and whereby the threads of the overedge stitches are caused to fold the edges of the tape on to the upper and lower faces of the fabric, and secure the same thereto.

4. A sewing machine including in combination, a work support, stitch forming mechanism for forming overedge stitches, a stitch finger over which the stitches are laid, a tape guide located in front of the stitch finger, said tape guide being disposed relative to the stitch finger and the work support so that the ends of the tape guide extend above and below the plane of the work support, whereby a tape may be guided between the overedge stitches and the edge of the fabric as the stitches are formed, and whereby the overedge stitches are caused to fold the edges of the tape on to the upper and lower faces of the fabric, and secure the same thereto.

5. A sewing machine including in combination, a work support, stitch-forming mechanism for forming overedge stitches, a presser foot, a stitch finger carried by said presser foot, and a tape guide carried by said presser foot and located in front of said stitch finger, said tape guide extending above and below the under face of the presser foot, whereby the tape may be folded around the edge of the fabric and covered with the stitches extending around the edge of said fabric.

[Claims 6 to 14 not printed in the Gazette.]

1,135,421. PRESSER-FOOT. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 18, 1909. Serial No. 518,333. (Cl. 112—13.)



1. A presser foot comprising a shank, a foot portion pivoted to said shank, said foot portion including spaced side members adapted to receive therebetween an upper feed dog, and means carried by said side members in advance of the pivot thereof adapted to engage the upper face of the feed dog and hold the same from vertical movement relative to the presser foot portion.

2. A presser foot comprising side members, a roller located intermediate said side members, and a central rib spaced from said side members, and located centrally of the foot and beneath said roller.

3. A presser foot comprising side members, a bar at the front end thereof connecting said side members, a plate at the rear end of the foot connecting said side members, and a rib located centrally of the foot, and connected to said bar and said plate said rib having a needle slot formed therein and means carried by the presser foot for holding the upper feed dog from vertical movement relative to the presser foot, said means being disposed above the central rib of the foot.

4. A presser foot comprising side members, a yoke pivoted to said side members, a roller carried by said yoke, and means for adjusting the position of said yoke about its pivot.

5. A presser foot comprising side members, a yoke pivoted to said side members, a cross plate connecting said side members and having an opening formed therein, said yoke extending underneath said cross plate and carrying a stop screw extending up through said opening and a roller carried by said yoke.

[Claims 6 to 12 not printed in the Gazette.]

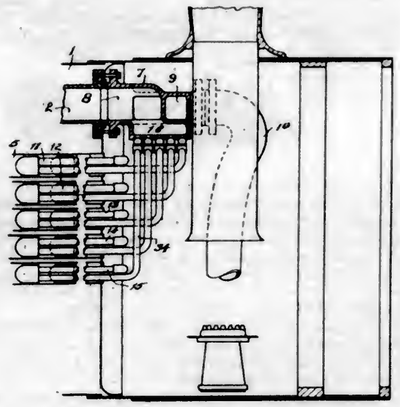
1,135,422. SUPERHEATER. CHARLES D. YOUNG, Altoona, Pa. Filed Dec. 13, 1913. Serial No. 806,382. (Cl. 122—462.)

1. The combination in a boiler having fire tubes, of a superheater having a pair of headers, a superheater tube having its ends connected to the headers and comprising four lengths of tube lying in a fire tube, and a band of strap metal encircling the two upper lengths of tube and the lower lengths of tube with the exception of the inner sides thereto which are left free, and also engaging the wall of the fire tube on opposite sides of its vertical center line whereby the vertical space between the tubes and below the tubes is left unobstructed for the passage of a cleaning tool.

2. The combination in a boiler having fire tubes, of a superheater having a pair of headers, a superheater tube having its ends connected to the headers and comprising four lengths of tube lying in a fire tube, a band of strap metal encircling the outer sides of all four lengths of tube and engaging the wall of the fire tube, leaving the inner sides free, another band encircling the inner sides of the said lengths but with its ends engaging the lower lengths of tubes spaced apart to permit the passage of a cleaning tool, and means connecting the two bands.

3. The combination in a boiler having fire tubes, a pair of superheater headers above one of the fire tubes and hav-

ing passages through their lower walls, a superheater tube lying in the fire tube and having its two ends upturned, a clamping block carried by each tube end, means whereby the two blocks are secured detachably together, and means for clamping the blocks against the bottoms of the said headers with one tube end in communication with one header and the other tube end in communication with the other header.



4. The combination in a boiler having fire tubes, a pair of superheater headers above one of the fire tubes and having passages through their lower walls, a superheater tube lying in the fire tube and having its two ends upturned, a clamping block carried by each tube end, means whereby the two blocks are secured detachably together, and a bolt lying between the tubes for clamping both blocks against the bottoms of the said headers with one tube end in communication with one header and the other tube end in communication with the other header.

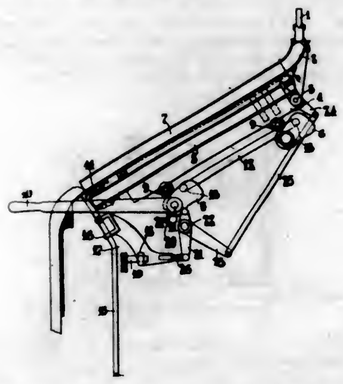
5. The combination in a boiler having fire tubes, a pair of superheater headers above one of the fire tubes and having passages through their lower walls, a superheater tube lying in the fire tube and having its two ends upturned, a clamping block carried by each tube end, interlocking means on the blocks for preventing their relative movement away from each other, but permitting their disengagement by a relative backward or forward movement, and means for clamping the blocks against the bottoms of the said headers with one tube end in communication with one header and the other tube end in communication with the other header.

[Claims 6 to 9 not printed in the Gazette.]

1,135,423. TYPOGRAPHICAL MACHINE. CHRISTIAN AUGUSTUS ALBRECHT, Berlin, Germany, assignor to The Mergenthaler Linotype Company, a Corporation of New York. Filed May 23, 1914. Serial No. 840,459. (Cl. 199—7.)

1. The combination in means for quick changing one of a plurality of magazines in a typographical composing and distributing machine, with a magazine supporting frame, series of cams for raising and lowering it and antifriction devices between the said frame and cams, of links connecting the front series of cams with the back series, and a manual lever fast to the front series for working both series.

2. The combination in means for quick-changing one of a plurality of magazines in a typographical composing and distributing machine, with a magazine-supporting frame, series of cams for raising and lowering it, and antifriction devices between the said frame and cams, of links connecting the front series of cams with the back series, a manual lever fast to the front series for working both, a second rise positioned on each cam of the front series to anticipate the magazine-frame raising function of the two series, a yoke embracing the magazine escapement rods, the said escapement rods, a movable frame carrying that yoke, a magazine entrance coöperating with the magazine in operative position, and means actuated by the said second rise to make the said frame put the escapement rods out of working connection with the escapement of, and to also rock the magazine entrance out of working connection with, the operative magazine.



3. The combination in means for quick-changing one of a plurality of magazines in a typographical composing and distributing machine, with a magazine-supporting frame, series of cams for raising and lowering it, and antifriction devices between the said frame and cams, of links connecting the front series of cams with the back series, a manual lever fast to the front series for working both, a second rise positioned on each cam of the front series to anticipate the magazine-frame raising function of the two series, a yoke embracing the magazine escapement rods, the said escapement rods, a movable frame carrying that yoke, a magazine entrance coöperating with the operative magazine, means actuated by the said second rise to make the said frame put the escapement rods out of working connection with the escapements of, and to also rock the magazine entrance out of working connection with, the operative magazine, and means for locking the escapement rods in working connection with any coöperating set of escapements.

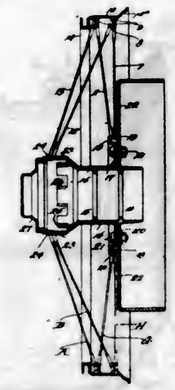
4. In a typographical machine, the combination of a fixed assembling throat, a magazine movable into and out of registration therewith and provided with a series of escapements, a series of actuating devices connected to the escapements, and means whereby the movement of the magazine out of registration with the assembling throat will effect the disconnection of the escapements and their actuating devices.

5. In a typographical machine, the combination of a magazine provided with a series of escapements, means for moving the magazine, a series of actuating devices for the escapements, means for moving the actuating devices out of operative relation to the escapements, and a common operating device connected directly to both said means.

[Claims 6 to 13 not printed in the Gazette.]

1,135,424. WIRE WHEEL. ROBERT W. ASHLEY and FRANK OBERKIRCH, New York, N. Y., assignors to General Rim Company, a Corporation of New York. Filed Aug. 1, 1913. Serial No. 782,396. (Cl. 21—69.)

1. A device of the character described including a vehicle wheel comprising a rim provided with nonbolted-on locking means for an auxiliary or demountable rim, a hub and four series of spokes connecting said rim and hub, one series extending from the back of the hub to the back of the rim, another series extending from the back of the hub to the front of the rim, another series extending from the front of the hub to the back of the rim, and a fourth series extending from the front of the hub to the front of the rim, three of said series being angularly disposed relative to the central plane of the wheel and the other series being approximately parallel with said plane, the central plane of the rim and the central plane of rotation of the hub being removed from one another.

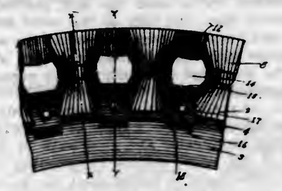


2. A device of the character described including a vehicle wheel comprising a rim provided with nonbolted-on locking means for an auxiliary or demountable rim, a hub and four series of spokes connecting said rim and hub, one series extending from the back of the hub to the back of the rim, another series extending from the back of the hub to the front of the rim, another series extending from the front of the hub to the back of the rim, and a fourth series extending from the front of the hub to the front of the rim, three of said series being angularly disposed relative to the central plane of the wheel and the other series being approximately parallel with said plane, the central plane of the rim and the central plane of rotation of the hub being removed from one another, two of said series of spokes being arranged so as to cross one another on the plane of the tread center of the wheel.

3. A device of the character described including a vehicle wheel comprising a rim provided with nonbolted-on locking means for an auxiliary or demountable rim, a hub and four series of spokes connecting said rim and hub, one series extending from the back of the hub to the back of the rim, another series extending from the back of the hub to the front of the rim, another series extending from the front of the hub to the back of the rim, and a fourth series extending from the front of the hub to the front of the rim, three of said series being angularly disposed relative to the central plane of the wheel and the other series being approximately parallel with said plane, the central plane of the rim and the central plane of rotation of the hub being removed from one another, two of said series of spokes being arranged so as to cross one another on the plane of the tread center of the wheel, said four series of spokes being mounted in two separate lines of contact in said rim and four separate lines of contact in said hub.

4. A device of the character described comprising an integral shell hub having formed therewith a supporting flange at its inner end, and at its outer end an enlarged shell and driving head, and four series of spokes connecting said rim and hub, two of said series being mounted in said supporting flange and two of said series being mounted in said enlarged supporting shell, all of said series of spokes being mounted in two lines of contact on said rim and four lines of contact on said hub, two of said series of spokes crossing each other at or near the plane or tread center of the wheel.

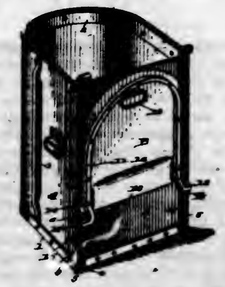
1,135,425. AUTOMATIC AIR AND ELASTIC CUSHION TIRE. CHARLES W. BARRETT, San Jose, Cal. Filed Feb. 16, 1914. Serial No. 818,884. (Cl. 152—1.)



1. A device of the character described comprising the combination with a wheel having a felly, of a tire adapted to be secured to said felly, such tire comprising a single annular member, such member being composed of a plurality of body elements, each body element having a cone shaped member above and below the same, one series of said cone shaped members being adapted to contact with the road, the other series of said cone shaped members being adapted to be seated adjacent said felly, all of said cones being bridged together adjacent their outer ends by means of bridges formed integral therewith, as described.

2. A device of the character described comprising the combination with a wheel having a felly, of a rim thereon, such rim having a plurality of seates, said rim being provided with cut in recesses between said seats, a tire comprising a continuous integral member made up of primary body elements, each of said body elements having a cone projecting above and below the same and all of said cones being bridged together at their outer ends by means of integral members, one set of said cones resting on said seats and clamp members secured over the bridges between said last named cones and secured in said cut in recesses in said rim, as described.

1,135,426. ASH AND GARBAGE CAN. HERMAN BAUMAN, New York, N. Y. Filed May 12, 1913. Serial No. 766,982. (Cl. 220—13.)



1. A can comprising a body having a flat back wall, reinforcing angle bars disposed at the edges between the back and side walls of the body and having flanges secured to the side walls and flanges spaced behind the back wall to form vertically disposed guideways, a single piece cover for the can and of such width as to extend between the bars with the opposite edges engaging in the guideways, stops at the upper ends of the bars, and means on the cover coöperating with the stops when the cover is out of the guideways to form a hinged connection between the cover and body of the can.

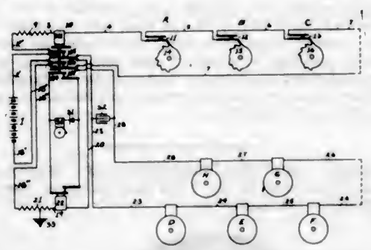
2. A can comprising a body, a cover, oppositely extending lugs on the cover and projecting from the rear edge thereof, stops on the body under which the lugs engage for connecting the cover to the body, and relatively disposed guideways on the body into which the side edges of the cover slide when the cover moves to closed position, said side edges of the cover being disposed wholly out of the guideways when in closed position.

3. An ash or garbage can comprising a body, reinforcing elements secured to the body and forming therewith guideways, stops on the upper ends of the elements, a cover of such dimensions as to enter the said guideways as the cover is moved open, and lugs on the cover extending between the said stops and engaging behind the same to connect the cover with the said body, the edge of the cover adjacent the said lugs being adapted to engage in front of said stops.

4. An ash or garbage can comprising a body, vertically disposed guideways thereon, a cover of such width that its opposite edges will enter the guideways in the opening movement of the cover, devices for limiting the opening movement of the cover, a spring catch on the body for engaging the cover to hold the same releasably in open position, and means for retaining the cover on the body and permitting the cover to have a swinging movement when the cover is out of said guideways.

5. An ash or garbage can comprising a body, upwardly-extending stops thereon, a cover, and reinforcing elements on the cover having their ends extending rearwardly from the edge of the cover and then laterally, said elements being so arranged as to extend between the said stops and behind the latter with the rear edge of the cover in front of the said stops.

1,135,427. SIGNALING SYSTEM. CLARENCE E. BEACH, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed May 18, 1914. Serial No. 839,349. (Cl. 177—367.)



1. In a signaling circuit, a plurality of transmitting devices in one loop thereof, a plurality of receiving devices in a second loop thereof, said loops being normally connected in series with each other, and means controlled by each and every one of said transmitting devices for connecting said loops in multiple with each other.

2. A signaling system comprising a circuit having in series therein a source of current, a plurality of transmitting devices each adapted to break the current flow therethrough, a magnet responsive to such breaks of said current flow, and a plurality of receiving devices, in combination with means controlled by said magnet for causing an operatively abnormal current flow through said receiving devices during each of said interruptions in the current flow through said transmitting devices.

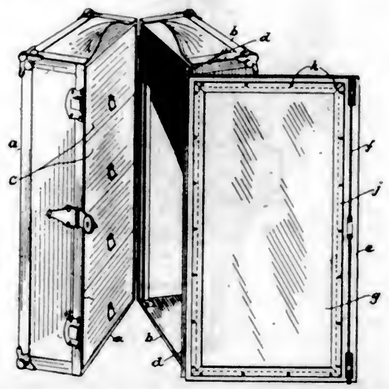
3. In a signaling circuit, a plurality of transmitting devices in one loop thereof, a plurality of receiving devices in a second loop thereof, said loops being normally connected in series with each other, and means controlled by any transmitting device for connecting said loops in multiple with each other, and for reversing the current through the loop including said receiving devices.

4. In a signaling circuit, a plurality of transmitting devices and a relay in one loop thereof, said relay being responsive to the signals of said transmitting devices, a plurality of receiving devices in a second loop thereof, said loops being normally connected in series with each other, and means controlled by said relay for connecting the ends of said loops in multiple with each other to the current source.

5. In a signaling circuit, a plurality of transmitting devices and a relay in one loop thereof, said relay being responsive to the operation of said transmitting devices, a plurality of receiving devices in a second loop thereof, said loops being normally connected in series with each other, and means controlled by said relay for reversing the current through the loop including said receiving devices.

[Claims 6 to 25 not printed in the Gazette.]

1,135,428. WARDROBE-TRUNK. MINNIE BELBER, Philadelphia, Pa. Filed Aug. 4, 1914. Serial No. 854,913. (Cl. 190—13.)



1. A wardrobe trunk comprising compartments hinged one to the other, a door hinged to and adapted to close one of said compartments, a metal reinforcing plate secured to one face of the door and spaced from the edges thereof, a frame surrounding and overlapping the edges of the plate and secured to the door, and a fastening device mounted on the door between one edge thereof and the adjacent edge of the frame.

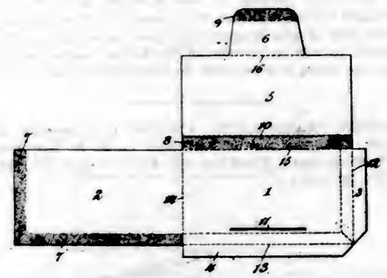
2. A wardrobe trunk comprising compartments hinged one to the other, a door hinged to and adapted to close one of said compartments, a metal plate extending throughout the major part of the height of the door, the edges of said plate being spaced from the edges of the door, a frame concealing the edges of the plate and overlying portions of the door outside of and adjacent to the edges of the plate, and securing devices connecting the frame and door outside the edges of the plate.

3. A wardrobe trunk comprising compartments hinged one to the other, a door hinged to and adapted to close one of said compartments, a metal plate applied to one face of the door, the edges of said plate being spaced from the edges of the door, means fastening the plate near its edges to the door, a frame applied to the plate and door and overlapping the edges of the plate, said fastening means and portions of the door outside of and adjacent to the edges of the plate, and securing devices connecting the frame and door outside the edges of the plate.

4. A wardrobe trunk comprising compartments hinged one to the other, a door hinged to and adapted to close one of said compartments, a metal plate applied to one face of the door, fastening devices securing the plate to the door, a cover on the side of the door opposite the plate, a frame applied to the plate and overlapping both the edges thereof and portions of the door outside of and adjacent to the plate, said cover and door both acting to conceal said fastening devices, and securing devices connecting the frame and door outside the edges of the plate.

1,135,429. ENVELOP. EDWARD F. BERGSTROM, Waltham, Mass., assignor to William T. Gill and Fred L. Butman, Waltham, Mass. Filed Jan. 17, 1914. Serial No. 812,691. (Cl. 229—73.)

1. A return envelop comprising a body portion provided with folded-over joined parts defining a receptacle having an outside return-address receiving portion and a flap joined to the body portion along the edge thereof adjacent to the mouth of the receptacle, said flap being of an area to cover return-address portion of the envelop and in turn providing a primary-address receiving portion and also provided with means for connecting that edge of the flap remote from its junction to the body portion to said body portion at a point remote from the mouth of the receptacle.



2. A return envelop comprising a body portion with folded-over joined parts defining a receptacle open along one edge of the body portion and there having a flap joined to it, said flap being of substantially the same area as the body of the envelop and having a tongue extension on the side of the flap remote from its junction with the envelop and of a length for connection to that face of the envelop remote from the face covered by said flap.

3. A return envelop comprising a body portion having folded-over joined parts defining a receptacle open adjacent to one edge of the body portion and also provided with an outside return-address receiving portion, and a flap of an area substantially that of the body portion and connected to said body portion along the edge coinciding with the article receiving opening of the receptacle, said flap being readily removable from the envelop and provided with an exterior return-address receiving portion and also having a tongue extension on the side remote from that joined to the envelop and the body of the envelop having a slot in the face remote from that primarily covered by the flap and near the edge remote from the mouth of the receptacle for the reception of the tongue extension.

4. A return envelop comprising a body portion having folded-over joined parts defining a receptacle open adjacent to one edge of the body portion, said receptacle having an outside return-address receiving portion, and a flap joined to the body portion along the edge coinciding with the mouth of the receptacle, the flap being of an area substantially that of the body portion of the envelop to cover the folded-over parts including the return-address receiving portion thereof and provided with a primary address receiving portion, said flap having a tear off portion adjacent to but spaced from its junction with the body portion for the removal of the major portion of the flap from the body portion with that part of the flap remaining attached to the body portion constituting a sealing member for the receptacle when the envelop is used for return purposes.

5. An envelop comprising a body portion with flaps extending from opposite ends and folded on to the body portion in overlapping relation one to the other and joined together where overlapping, and other flaps extending from the top and bottom edges of the body portion and foldable one on the other in covering relation to the first-named flaps, both of the second-named flaps being constructed and located to serve as closure flaps for the envelop and each having a surface adapted to receive an address.

[Claims 6 to 13 not printed in the Gazette.]

1,135,430. DISTRIBUTER FOR TYPOGRAPHICAL MACHINES. BRUNO BLOCH, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 30, 1913. Serial No. 809,476. (Cl. 199—7.)



1. A distributer bar having guides of different lengths for the coöperating teeth of the matrices to be distributed and tooth combinations arranged in groups in each of which the same combination is repeated.

2. A distributer bar having on one side of it, guides of different lengths for the coöperating teeth of the matrices to be distributed and on the other side of it, tooth combinations arranged in groups in each of which the same tooth combination is repeated.

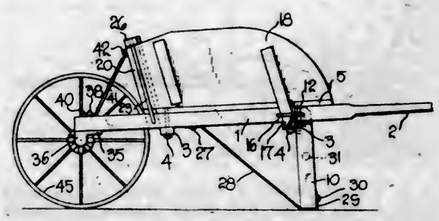
3. A distributer bar having on one side of it, toothed combinations arranged in groups in each of which the same tooth combination is repeated and having on the other side of it, guides for the coöperatiog teeth of the matrices to be distributed, each guide above extending through one more group than the adjacent one below and none of them extending through one of the groups.

4. A distributer bar having on one side of it toothed combinations arranged in groups in each of which the same tooth combination is repeated and having on its other side, guides for the coöperating teeth of the matrices to be distributed, the relationship of guides and tooth combinations on the distributer bar adapted to provide that the tooth combination on a matrix shall engage with the corresponding tooth combination on the bar only when the matrix has reached the respective group on the latter.

5. A distributer bar having on one side of it tooth combinations arranged in groups in each of which the same tooth combination is repeated and on the other side of it, guides for the coöperating teeth of the matrices to be distributed, said guides located on the said bar at a higher level than the respective tooth combination.

[Claims 6 to 10 not printed in the Gazette.]

1,135,431. WHEELBARROW. WILLIAM W. BORIGHT, South Framingham, Mass. Filed Sept. 28, 1914. Serial No. 863,915. (Cl. 21—68.)

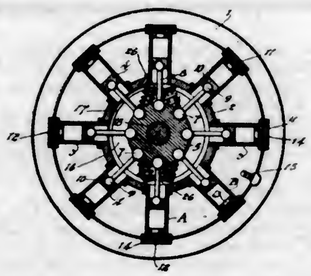


1. A device of the character described comprising a wheel supported base, a back pivotally engaged with the base, supporting legs for the base, members for pivotally engaging the supporting legs with the base, each of such members having its outer extremity angularly disposed and overlying the adjacent edge of the base to afford a loop, and side members coacting with the base provided with depending lugs adapted to be received within the loops of the pivot members.

2. A device of the character described comprising a wheel supported base, a back, members for pivotally engaging the back with the base, said members having their outer extremities perpendicularly directed and secured at their outer extremities to the back and disposed in spaced relation with the side edges proper of the back, and side members detachably engaged with the supporting base

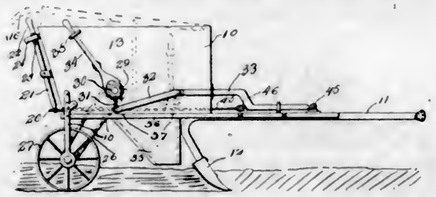
and adapted to be disposed between the side edges of the back and the perpendicular extremities of the pivot members.

1,135,432. WHEEL. JOHN BROTHERS, Grand View, Manitoba, Canada. Filed July 27, 1914. Serial No. 853,566. (Cl. 152—28.)



A wheel comprising a metallic tubular rim, an outer open centered hub contained within the rim, radiating spokes in the nature of cylinders connecting the outer hub permanently to the rim, the interior of the cylinders opening to the interior of the rim, an inner spindle receiving hub contained within the open center of the outer hub, facing plates secured to the ends of the outer hub and bearing against the ends of the inner hub, pistons slidably contained within the cylinders, connecting rods having their inner and outer ends fastened by means of ball and socket joints to the pistons and the inner hub, controlling valves located at the juncture of the cylinder like spokes with the rim, means for admitting air under pressure to the rim and spring means interposed between the inner and outer hubs, said spring means being arranged to counteract the turning movement of the outer hub, in respect to the inner hub, as and for the purpose specified.

1,135,433. CORN-PLANTER AND FERTILIZER-DISTRIBUTER. JESSE M. BRYANT, Ararat, N. C. Filed Apr. 9, 1914. Serial No. 830,678. (Cl. 111—15.)

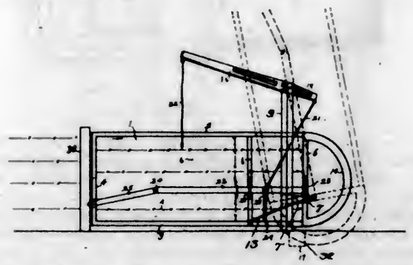


1. In a grain planter, a hopper having an apertured bottom, a feed shuttle reciprocable thereon and having apertures adapted to register with that in the bottom, a housing over the aperture in the bottom an opening being formed through the side of the hopper, the housing being fitted thereto and open in registry therewith, for the purpose described, and a spring element in the housing having a portion tending to bear into the aperture of the bottom and shaped to be engaged by the block and fended upwardly, as described.

2. In a grain planter, a hopper having a discharge opening, and a lateral opening thereadjacent, a housing over the discharge opening, said housing being open in registry with said lateral opening an element movable over the opening and through the housing, said shuttle having longitudinally-spaced openings arranged to lie one without the housing and the other in registration with the discharge opening at each limit of the movement of the shuttle, a spring comprising a piece of wire bent to form a V-shaped bight presented downwardly within the housing in line with the shuttle opening, the ends of the wire disposed adjacent the sides of the housing and being secured without the hopper adjacent the said lateral opening.

3. A hopper having a discharge opening in its bottom, an element movable thereover for the function described, a housing over the discharge opening and shuttle opening through the side of the hopper, a spring comprising a wire having a V-shaped bight presented downwardly over the discharge opening, the end portions of the wire being extended outwardly, and then laterally close against the outer side of the hopper, and then vertically, and being secured to the outer side of the hopper under tension to bear the bight downwardly into said described opening.

1,135,434. FARM-GATE. CHARLES E. CARDWELL, Houston, Tex., assignor of one-third to R. E. Lee Jenkins, Houston, Tex. Filed Dec. 30, 1913. Serial No. 809,452. (Cl. 39—13.)



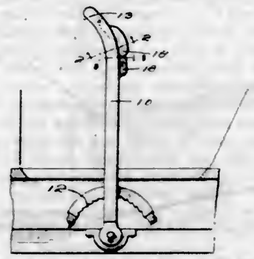
1. A device of the character described consisting of a cross beam having a centrally located transverse slot in the upper side thereof, two posts, upstanding from said cross beam, one at each end, a bearing carried by each post, a gate, an axle upon which the gate is fixed at one end, the terminals of said axle being pivoted in said bearings and said axle being arranged below the longitudinal center of the gate, a semicircular weight bar connected to and carried by the pivoted end of said gate and alined above said slot and resting therein when the gate is open, and a latch mechanism for securing the gate in a close position.

2. A device of the character described consisting of a cross beam, two posts upstanding from said cross beam, one at each end, a bearing carried by each post, a gate, an axle upon which the gate is fixed at one end, the terminals of said axle being pivoted in said bearings and said axle being arranged below the longitudinal center of the gate, a weight bar connected to and carried by the pivoted end of said gate and resting against the cross beam when the gate is open, a stationary post alined with the gate, when the gate is closed, and a latch mechanism engaging with the post when the gate is in closed position and securing said gate closed.

1,135,435. BRAKE AND LEVER LOCK. PURVA V. CARPENTER, Worth, N. C. Filed Dec. 27, 1913. Serial No. 808,944. (Cl. 70—90.)

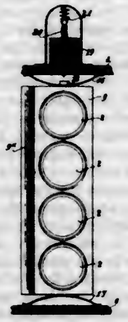
1. A lever having a latch device thereon, a pivoted latch releasing member on the lever and having a lock casing forming a fixed part of the lever, and having a bolt arranged, disposed and operative to project into the path of oscillation of the pivoted member at times, the pivoted member having a part constructed and arranged to engage the projected bolt whereby releasing movement of the pivoted member will be prevented.

2. A lever comprising a hollow body having a handle and a pivot portion, the handle being open at one side, the opening stopping short of the outer end of the handle, a latch releasing member pivoted in the handle longitudinally outward of the opening, whereby it will engage the outer wall of the opening under outward movement and having a portion projected outwardly through the opening and extended to be clasped with the handle, a lock fixed on the lever immediately adjacent the oscillatory extremity of the pivoted member when at the outer limit of its movement, the lock including a bolt to be shot into the path of the pivoted member, a latch slidable on the lever, and means within the body of the lever operative under pivotal movement of the pivoted member to operate the latch.



3. A lever of the class described comprising a hollow body and handle constructed for pivotal mounting, a notched segment, a latch slidable in the lever constructed to engage the notched part of the segment at one limit of its movement, the handle having an opening at one side, a sliding bolt in the body of the lever having an outer end beveled on the side toward the opening and projected thereunder, resilient means holding the bolt at this limit of its movement, a release member pivoted in the outer part of the handle and having its inner part disposed adjacent the inner edge of the bevel of the bolt and being movable inwardly to bear the bolt downwardly under sliding engagement therewith, the release member having an extension projected outwardly through said opening, and a lock on the lever at the inner side of the opening including a locking member movable into the path of the release member.

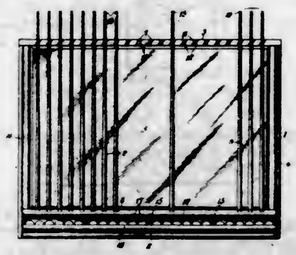
1,135,436. TELEPHONOGRAPH. EMILE CHABEAULT, Marseille, France. Filed Feb. 10, 1913. Serial No. 747,423. (Cl. 179—123.)



A listening device for telephonographic apparatus, consisting in a box open upon one side, a series of partitions arranged parallel in said box, all having one edge toward the open side of said box, spring cushions between the walls of said box and said partitions, and automatic means for setting each partition in vibration independently.

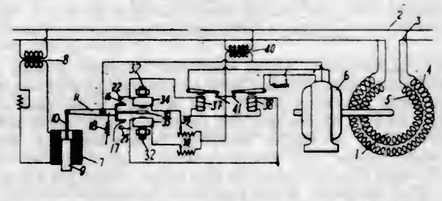
1,135,437. BALL AND CUE RACK. WILLIAM FRANCIS CLEGG, Greensboro, N. C. Filed May 25, 1914. Serial No. 840,876. (Cl. 46—6.)

A cue rack comprising a rigid frame including a fixed base having seats to receive the butts of cues, and a relatively fixed horizontal top rail or member provided with vertical openings presenting smooth walls to the upper portions of the cues and provided at the front with inclined entrance slots extending diagonally across the openings from top to bottom and forming spaced projecting portions at the openings to confine the cues therein when



the cues are in a vertical position, said entrance slots permitting an intermediate portion of the cues, when the latter are in an inclined position, to pass through them, whereby the cues may be placed in and removed from the rack without their tips coming in contact with the same.

1,135,438. ELECTRICAL RELAY. ALMON W. COPLEY, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 24, 1912. Serial No. 711,206. (Cl. 171—229.)



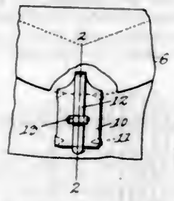
1. The combination with regulating means having controlling windings, of a relay comprising relatively movable contact members for controlling the circuits of the said windings, an armature resiliently connected to one of the contact members, means for actuating the contact members, electromagnets coöperating with said armature having windings the circuits of which are also controlled by the contact members, the latter windings being connected in parallel with the controlling windings for the regulating means.

2. The combination with regulating means having controlling windings, of a relay comprising relatively movable contact members for controlling the circuits of the said windings, an armature connected to one of the contact members, means for actuating the contact members, electromagnets coöperating with said armature having windings the circuits of which are also controlled by the contact members, the latter windings being connected in parallel with the controlling windings for the regulating means.

1,135,439. FASTENER. CHARLES A. COURTOIS, New York, N. Y., assignor of one-half to Emil G. Zaug, New York, N. Y. Filed Jan. 28, 1913. Serial No. 744,707. (Cl. 229—78.)

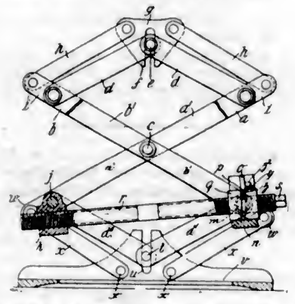
An envelop fastener comprising a substantially rectangular body portion, transversely extending triangular extensions formed at the corners of said body portion and adapted for insertion through the envelop for attaching said body portion to an envelop, a tongue formed upon one end of said body, an upstanding loop formed con-

trally upon said body and in alinement with said tongue, said tongue adapted for insertion through an envelop



sealing flap and for bending for insertion at its end beneath said loop for sealing an envelop.

1,135,440. COLLAPSIBLE LIFTING APPARATUS. EDGARD CRÉMIEU-JAVAL, London, England. Filed June 3, 1913. Serial No. 771,493. (Cl. 254—122.)



1. A collapsible lifting apparatus including a base, a supporting table, crossed weight sustaining levers pivoted in axial alinement, lifting links connecting the ends of said levers with the base and supporting table, upper and lower sets of jointed elevating links connecting the crossed levers, and means connecting the lower set of elevating links for operating said weight sustaining levers.

2. A collapsible lifting apparatus including a base having guides, a supporting table also having guides, crossed weight sustaining levers pivoted in axial alinement, lifting links connecting the ends of said levers with the base and supporting table, jointed elevating links connecting the crossed levers and movable at their joints in the guides in the base and supporting table, and means for actuating said elevating links.

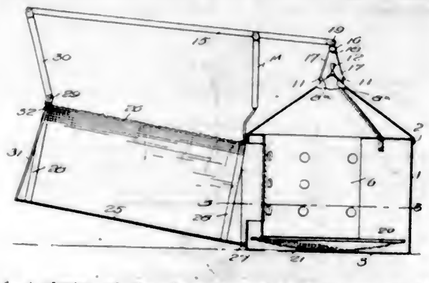
3. A collapsible lifting apparatus including a base, a supporting table, crossed weight sustaining levers pivoted in axial alinement, lifting links connecting the ends of said levers with the base and supporting table, jointed elevating links connecting the cross levers, threaded bridge pieces pivotally connected to the crossed levers and elevating links, and a screw rod threaded into one of said bridge pieces and detachably threaded into the other.

4. A collapsible lifting apparatus including a base, a supporting table, crossed weight sustaining levers pivoted in axial alinement, lifting links connecting the ends of said levers with the base and supporting table, jointed elevating links pivotally connecting the crossed levers, threaded bridge pieces connected to the crossed levers and elevating links, a removable element in one of said bridge pieces, and a screw rod in threaded engagement with one of said bridge pieces and the removable element in the other.

5. A collapsible lifting device including a base, a supporting table, main weight sustaining levers pivotally connected at their crossing points and arranged in pairs opposite each other, lifting links pivotally connecting the ends of said levers with the base and supporting table, upper and lower jointed elevating links respectively connecting the crossed levers of each pair at their upper and lower ends, and releasable elevating and retaining means connected to the lower elevating links.

[Claims 6 to 11 not printed in the Gazette.]

1,135,441. TRAP-NEST. MYRT FLORIN DONAHAB, Providence, R. I. Filed Mar. 6, 1914. Serial No. 822,995. (Cl. 119—50.)



1. A device of the character specified, comprising an outer casing having an open top and having door openings arranged at a right angle with respect to each other, a door support mounted for vertical and for rotating movement in the onter casing and provided with depending doors at opposite sides of the support, a runway having an open end next the casing hinged to the outer casing at one of the door openings, a bracket extending upwardly from the outer casing at the door opening adjacent to the runway, a lever pivoted to the bracket intermediate its ends, a connection between the outer end of the runway and the adjacent end of the lever, a connection between the opposite end of the lever and the door support for constraining the door support to move with the lever and for permitting the door support to rotate on a vertical axis with respect to the lever, a nest within the outer casing, said nest being mounted to swing on an axis transverse to the nest and to the outer casing, the nest having means for engaging one of the depending doors when the door is over the opening adjacent to the runway to hold the door over the said opening and to prevent the door support from rotation, means for normally holding the nest in the said position, the nest being arranged to release the door by the weight of the fowl, and a connection between the door support and the outer casing for constraining the support to rotate when it moves vertically, the runway being mounted to normally overbalance the door support.

2. A device of the character specified, comprising an outer casing having door openings at right angles to each other, a door support mounted to rotate and to move vertically in the casing, a runway hinged to the outer casing at one door opening, a lever pivoted at one end to the door support and at the other to the outer end of the runway, and supported intermediate its ends for rocking movement, the runway normally overbalancing the door support, said door support having depending oppositely arranged doors to alternately close the door openings, a nest supported in the outer casing and mounted to swing on an axis transverse to the nest, a weight connected with the nest at the door opening remote from the runway and normally depressing the edge of the nest adjacent to the last-named door opening, said nest having means for engaging one of the depending doors and for holding the door support with the one door over the opening adjacent to the runway, the nest being adapted to release the door when the fowl steps thereon, and a connection between the door support and the outer casing for constraining the door support to rotate in a direction to open the door opening at the runway and to close the door remote therefrom when the door support is moved upwardly by the runway, said connection comprising a spiral cam supported above the upper casing, the door support having a slot through which the cam extends, and a gravity closed door at the outer end of the runway.

3. A device of the character specified, comprising an outer casing having door openings at right angles to each other, a door support mounted to rotate and move vertically in the casing, a runway hinged to the outer casing at one door opening, a lever pivoted at one end to the door support and at the other to the outer end of the runway, and supported intermediarte its ends for rocking movement, the runway normally overbalancing the door support, said door support having depending oppositely arranged doors to alternately close the door openings, a nest supported in the outer casing and mounted to swing on an axis transverse to the nest, a weight connected with the nest at the door opening remote from the runway, and normally depressing the edge of the nest adjacent to the last-named door opening, said nest having means for engaging one of the depending doors and for holding the door support with the one door over the opening adjacent to the runway, the nest being adapted to release the door when the fowl steps thereon, and a connection between the door support, said door support having depending oppositely arranged doors to alternately close the door openings, a nest supported in the outer casing and mounted to swing on an axis transverse to the nest, a weight connected with the nest at the door opening remote from the runway, and normally depressing the edge of the nest adjacent to the last-named door opening, said nest having means for engaging one of the depending doors and for holding the door support with the said door over the opening adjacent to the runway, the nest being adapted to release the door when the fowl steps thereon, and a connection between the door support and the outer casing for constraining the door support to rotate in a direction to open the door opening at the runway and to close the door remote therefrom when the door support is moved upwardly by the runway.

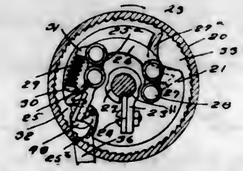
4. A device of the character specified, comprising an outer casing having door openings at right angles to each other, a door support mounted to rotate and to move vertically in the casing, a runway hinged to the outer casing at one door opening, a lever pivoted at one end to the door support and at the other to the outer end of the runway, and supported intermediate its ends for rocking movement, the runway normally overbalancing the door support, said door support having depending oppositely arranged doors to alternately close the door openings, a nest supported in the outer casing and mounted to swing on an axis transverse to the nest, a weight connected with the nest at the door opening remote from the runway, and normally depressing the edge of the nest adjacent to the last-named door opening, said nest having means for engaging one of the depending doors and for holding the door support with the said door over the opening adjacent to the runway, the nest being adapted to release the door when the fowl steps thereon, and a connection between the door support and the outer casing for constraining the door support to rotate in a direction to open the door opening at the runway and to close the door remote therefrom when the door support is moved upwardly by the runway.

5. A device of the character specified, comprising an outer casing having door openings at right angles to each other, a door support mounted to rotate in the casing and to move vertically with respect thereto and having oppositely arranged depending doors for alternately closing the door openings, a runway hinged to the casing at one door opening and extending radially therefrom, a connection between the outer end of the runway and the door support for constraining the door support to move upwardly when the outer end of the runway moves downwardly, the runway normally holding the door support lifted, a connection between the door support and the casing for constraining the support to rotate when it moves vertically, and a nest mounted for rocking movement in the outer casing and normally holding the door support with the door over the opening at the runway and adapted to release the said door when rocked by the weight of the fowl, and means for preventing the return of the fowl through the runway.

[Claims 6 to 10 not printed in the Gazette.]

1,135,442. CLUTCH MECHANISM FOR PLANTERS. HARRY L. DOOLEY, Rock Island, Ill. Filed Mar. 24, 1910. Serial No. 551,233. (Cl. 192—6.)

1. In a clutch mechanism for planters, the combination of a shaft adapted to be driven, a continuously driven drum rotatably mounted on said shaft, said drum having internal radially extending teeth and being open on one side, a disk keyed on the shaft and disposed so as to close the open side of the drum, a spring pressed pawl pivoted on the inner side of the said disk, a spring tending normally to press the pawl into operative engagement with the teeth of the drum, a flange on the pawl extending through an opening of the disk, a movable spring pressed device disposed normally in the path of the pawl flange and adapted to hold the pawl out of engagement with the drum teeth, and a cam on the outer side of the disk adjacent the pawl flange adapted when the disk is turned to engage and retract the said movable device.



2. In a clutch mechanism for planters, the combination of a shaft adapted to be driven, a continuously driven drum rotatably mounted on said shaft, said drum having internal radially extending teeth and being open on one side, a disk keyed on the shaft and disposed so as to close the open side of the drum, a spring pressed pawl pivoted on the inner side of the said disk, a spring tending normally to press the pawl into operative engagement with the teeth of the drum, a flange on the pawl extending through an opening of the disk, a second flange connected to said pawl and extending through an opening in the disk, a movable spring pressed device disposed normally in the path of the pawl flanges and adapted when in engagement with one or the other of said flanges to hold the pawl out of engagement with the drum teeth, and cams on the outer side of the disk, one adjacent each of the pawl flanges, adapted when the disk is turned to engage and retract the said movable device.

3. In a clutch mechanism for planters, the combination of a shaft adapted to be driven, a continuously driven drum rotatably mounted on said shaft, said drum having internal radially extending teeth and being open on one side, a disk keyed on the shaft and disposed so as to close the open side of the drum, a spring pressed pawl pivoted on the inner side of the said disk, a spring tending normally to press the pawl into operative engagement with the teeth of the drum, a flange on the pawl extending through an opening of the disk, a lever pivoted on the inner side of the disk, a link connecting the lever and the pawl, a flange on said lever extending through an opening of the disk, a movable spring pressed device disposed normally in the path of said pawl and lever flanges and adapted when in engagement with one or the other of said flanges to hold the pawl out of engagement with the drum teeth, and cams on the outer side of the disk, one adjacent each of the said flanges, adapted when the disk is turned to engage and retract the said movable device.

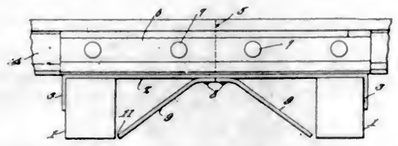
4. In a clutch mechanism for planters, the combination of a longitudinally movable rotatable shaft, a continuously rotating element mounted on the shaft and adapted to permit relative longitudinal and rotative movement of the shaft, a pawl carrier on the shaft, a pawl on the carrier adapted to operatively engage the said rotating part, and means for connecting the said carrier to the shaft comprising a lateral radially extending flange on the carrier and a key plate secured to said flange with its inner edge engaging a slot in the shaft.

5. In a clutch mechanism for planters, the combination of a shaft adapted to be driven, a continuously rotating driver on the said shaft, a carrier element on the shaft, an automatically acting spring pressed pawl mounted on the carrier in position to engage the driver, a plurality of arms equally spaced circumferentially, each arm being pivoted to the carrier separately from any other arm and connected with the pawl, a movable trip device mounted to normally engage one or another of the arms to hold the pawl out of engagement with the driver, means for moving the trip device to momentarily disengage it from the

arm, and a plurality of cams on the carrier respectively in advance of the arms, each cam as it moves serving to engage the trip device and momentarily hold it out of engagement with the corresponding arm.

[Claims 6 to 8 not printed in the Gazette.]

1,135,443. RAIL-JOINT. SAMUEL DU RALL, Cobden, Ill. Filed Sept. 16, 1914. Serial No. 862,043. (Cl. 104—173.)



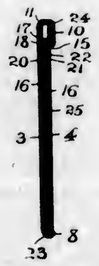
1. In a device of the class described, a tie; a rail thereon; an inclined ballast directing chute extended downwardly from the rail toward the lower edge of the tie; and means for supporting the chute.

2. In a device of the class described, a tie; a rail thereon; and an inclined ballast directing chute extended downwardly from the rail toward the lower edge of the tie, the chute being responsive to the vertical springing movement of the rail, to constitute a tamper for forcing the ballast beneath the tie.

3. In a device of the class described, a pair of ties; a bridge resting thereon; and a tamper secured to the bridge, the tamper being downwardly extended toward the lower edge of one tie.

4. In a device of the class described, a pair of ties; a bridge resting upon the ties and provided at its ends with flanges engaged with the edges of the ties; and an arched member, the crown of which is secured to the bridge, the lower ends of which are disposed adjacent the lower edges of the ties.

1,135,444. ENVELOP. MORRIS S. ELKES, Newark, N. J. Filed Oct. 21, 1914. Serial No. 867,707. (Cl. 229—81.)



1. An envelop having an open portion and a closing flap adapted to be folded over said open portion, said envelop being also provided with a slit in its folded-over portion, and an extractor consisting of a doubled-over strip secured at one end-portion within said envelop and at a point at the upper edge of the inner surface of the rear face-portion of the envelop, said strip having its other portion extending along the inner surface of the front face-portion of the envelop and having its end-portion extending through said slit to the outside of the envelop, said end-portion serving as a pull-piece for the withdrawal of the contents from within the envelop.

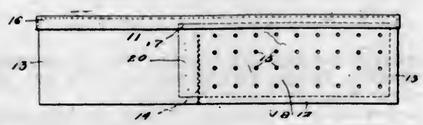
2. An envelop having an open portion and a closing flap adapted to be folded over said open portion, said envelop being also provided with a slit in its folded-over portion, and an extractor consisting of a doubled-over strip secured at one end-portion within said envelop and at a point at the upper edge of the inner surface of the rear face-portion of the envelop, said strip having its other portion extending along the inner surface of the front face-portion of the envelop and having its end-portion extending through said slit to the outside of the envelop and folded so as to extend over the outer surface of the said closing flap, and means connected with the said end-portion of the strip for sealing said end-portion with relation to the envelop.

3. An envelop having an open portion and a closing flap adapted to be folded over said open portion, said envelop being also provided with a slit in its folded-over portion, and an extractor consisting of a doubled-over strip secured at one end-portion within said envelop and at a point at the upper edge of the inner surface of the rear face-portion of the envelop, said strip having its other portion extending along the inner surface of the front face-portion of the envelop and having its end-portion extending through said slit to the outside of the envelop and folded so as to extend over the outer surface of the said closing flap, and means connected with the said end-portion of the strip for sealing said end-portion with relation to the envelop, the said end-portion of the strip being provided also with a series of perforations for severing said sealed end-portion to provide a pull-piece for the withdrawal of the contents from within the envelop.

4. An envelop comprising a blank folded so as to form a front face-member and a rear-member, sealing flaps connected with said face-member and sealed upon said rear-member to provide an envelop-body having an open portion, and a closing flap connected with said front face-member adapted to be folded over said open portion, said front face-member having a receiving slit, and the said rear-member also having a receiving slit, and an extractor consisting of a doubled-over strip secured at one end-portion upon the inner face of said rear-member, said end-portion of the strip having a slit in registration with the slit in said rear-member, said strip having its other end-portion extending through the slit in the front face-member and folded so as to extend over the outer surface of the said closing flap, said end-portion of the strip being adapted to be inserted through the said registering slits, and means connected with said end-portion of the strip for sealing said end-portion within the envelop.

5. An envelop comprising a blank folded so as to form a front face-member and a rear-member, sealing flaps connected with said face-member and sealed upon said rear-member to provide an envelop-body having an open portion, and a closing flap connected with said front face-member adapted to be folded over said open portion, said front face-member having a receiving slit, and the said rear-member also having a receiving slit, and an extractor consisting of a doubled-over strip secured at one end-portion upon the inner face of said rear-member, said end-portion of the strip having a slit in registration with the slit in said rear-member, said strip having its other end-portion extending through the slit in the front face-member and folded so as to extend over the outer surface of the said closing flap, said end-portion of the strip being adapted to be inserted through the said registering slits, and means connected with said end-portions of the strip for sealing said end-portion within the envelop, the said end-portion of the strip being provided also with a series of perforations for severing said sealed end-portion to provide a pull-piece for the withdrawal of the contents from within the envelop.

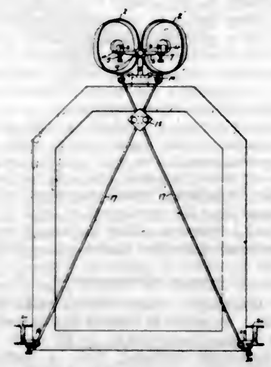
1,135,445. HUMIDIFIER. PETER A. FAIR, Helena, Mont. Filed May 22, 1914. Serial No. 840,292. (Cl. 131—30.)



1. In a humidor, a humidifying element comprising closely spaced side walls, a bottom and ends, a vertical transverse water-tight partition therein nearer one end than the other and stopping short of the upper edges, at least one side being foraminate throughout its longer part to one side of the partition, a removable lid snugly engageable over the device throughout its length, a distributer in the larger compartment, and a wick in the smaller connected to the distributer over said partition.

2. In a device of the class described, a container, a transverse partition therein stopping short of the access side, a rectangular absorbent sheet corresponding in dimension one way to the container in the plane of the partition, said sheet having a slit cut therein in the direction of said dimension extending from one edge but stopping short of the opposite edge, said sheet being disposed in the container, the partition being engaged in the slit, and a closure for the container.

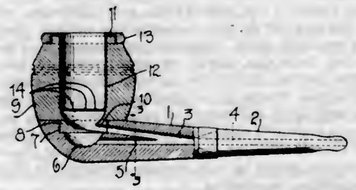
1,135,446. REFLECTING DEVICE FOR MOTOR-VEHICLES. WILLIAM EDMUND FELLOWES, Swansea, England. Filed Dec. 8, 1914. Serial No. 876,129. (Cl. 88—67.)



1. In a reflecting device for motorcars, two mirrors, supports holding said mirrors, means for adjusting said mirrors about a horizontal axis, means for adjusting said mirrors individually about a vertical axis, means for securing said supports to the front of the motorcar.

2. In a reflecting device for motorcars, two mirrors placed approximately at right angles the one to the other as regards their horizontal axes, a cross piece supporting said mirrors one toward each end, adjustable means permitting of turning said mirrors about a vertical axis connected to said cross piece, a post carrying said cross piece, means for permitting said cross piece to be turned about a horizontal axis in said post, means for securing said post to the front portion of a motorcar.

1,135,447. SMOKING-PIPE. HARRY H. FERRIS, Huntington Beach, Cal. Filed Apr. 29, 1914. Serial No. 835,194. (Cl. 131—12.)



A tobacco pipe comprising a stem having a threaded recess formed therein at its forward end, the base of the recess being dished to provide a saliva cup, the stem having a smoke passage extending therethrough communicating at its forward end with the recess, the stem also having a saliva passage formed therein below the smoke passage and communicating at its forward end with the saliva cup, a bowl having a threaded extension mounted in the threaded recess in said stem, said extension having an opening therein which when the bowl is in operative position communicates with the smoke passage in the stem, and the base of the extension inclosing said saliva cup.

1,135,448. GUIDE FOR SHEET-METAL PILING. CLAUDE SYDNEY FRIDDLE, Dayton, Ala. Filed May 1, 1914. Serial No. 835,654. (Cl. 61—13.)



1. A sheet piling guide having a longitudinal opening provided with interior guiding and supporting faces, said guide including separable sections detachably supported in a vertical position one upon another, whereby they are adapted to be assembled around the sheet piling member and successively removed during the driving of the said piling member.

2. A vertical sheet piling guide composed of separable sections detachably supported one upon another and provided with registering longitudinal openings to receive a sheet piling member, said sections being provided with faces and arranged to guide and support the said piling member.

3. A guide for sheet metal piling including a plurality of separable sections arranged vertically one upon the other and detachably secured together and forming a continuous guide opening adapted to receive a sheet metal piling member.

4. A guide for sheet metal piling including a plurality of separable sections detachably secured together one upon the other and composed of separable side pieces adapted to be assembled around a sheet metal piling member and forming a continuous guide opening for the same.

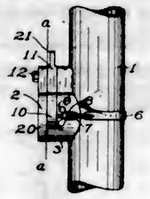
5. A guide for sheet metal piling including a plurality of separable sections having longitudinal openings and arranged one upon the other to form a continuous guide and provided at their contiguous ends with attaching flanges, said sections being also composed of separable side pieces and adapted to be assembled around a sheet metal piling member, and fastening means for securing the attaching flanges together.

[Claims 6 to 10 not printed in the Gazette.]

1,135,449. AIR-VENT. ALVIN LEAMON GADSBY, Toronto, Ontario, Canada. Filed Apr. 10, 1914. Serial No. 831,095. (Cl. 137—26.)

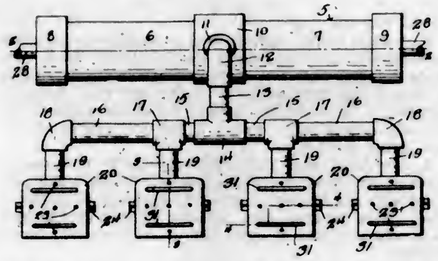
1. An apparatus for controlling an air inlet, comprising in combination, a substantially solid block having an inlet therethrough and slotted substantially at right angles to said inlet, a valve plate pivotally mounted in said block and working in said slot, and a spring having one end

secured to the said solid block and the other end secured to said valve plate and adapted to normally retain said valve plate in the closed position and press the same against the solid block whereby a tight joint therebetween is obtained.



2. An apparatus for controlling an air inlet, comprising in combination, a substantially solid block having an inlet therethrough and slotted substantially at right angles to said inlet, said block also being provided with a recess, a valve plate pivotally mounted in said block and working in said slot, a spring disposed in said recess and having one end secured to the said block and the other to said valve plate to keep said plate normally in position over said inlet and serving to maintain a tight joint between said valve plate and block, and means for detachably securing said block in position.

1,135,450. STEAMING APPARATUS FOR VAMPS. JOSEPH W. GORE, Cape Girardeau, Mo. Filed Jan. 27, 1914. Serial No. 814,742. (Cl. 12—1.)



1. In an apparatus such as described, a tank, said tank having openings formed in the opposite edges thereof, pipes disposed within these openings, one pipe having its end bent toward one side of the tank and terminating therein, and a plurality of steamers in communication with the tank.

2. In a device such as described, a tank, a plurality of steamers in communication with the tank, said steamers having ports in one side thereof, said steamers having bores therein in communication with the exterior of the steamers through the ports, and adjustable supporting means upon the steamers.

3. In a device such as described, a plurality of steamers, means for supplying steam thereto, said steamers each having openings therein, and a plurality of U-shaped supporting rods adjustable within the openings.

4. In an apparatus of the class described, in combination, a tank, said tank having openings therein in its opposite ends, the openings being arranged one near the lower side of the tank and the other near the opposite side of the tank, pipes within these openings, one pipe being bent toward the opposite side of the tank, a plurality of steamers in communication with the tank, said steamers each having a longitudinal and transverse bore, said steamers being further provided with ports in communication with the bores, plugs closing certain of the bores, the said steamers having openings located therein, and supporting rods adjustable in said openings.

1,135,451. ROTATABLE-FAN MEMBER. FORREST A. HEATH, Jersey City, N. J., assignor, by mesne assignments, to New Jersey Carbureter Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 29, 1910. Serial No. 569,523. (Cl. 170—168.)

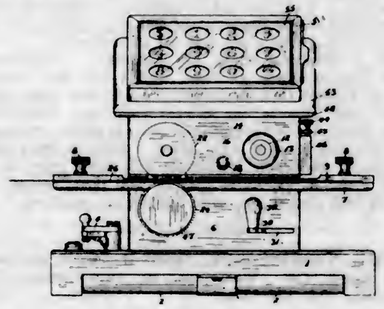


1. A rotary fan having a central member, a rim, fan blades connected to said member and rim and stress members engaging the central member and connected to a rim, the rim to which the fan blades are connected and the rim to which the stress members are connected being of such sizes that one fits within the other.

2. In a mixing device a rotary member comprising a central member, a cylindrical rim, fan blades extending between the central member and a cylindrical rim member, and stress members engaging the central member and integral with a cylindrical rim member which is bent angularly relative to the stress members.

3. In a mixing device, a rotatable mixing member comprising a cylindrical rim within which there is located radially extending fan blades that are integral with one edge portion of the cylindrical rim, the rotatable mixing member also comprising stress members extending between opposite portions of the other edge of the cylindrical rim, and a shaft to which the stress members and the inner portions of the fan blades are connected.

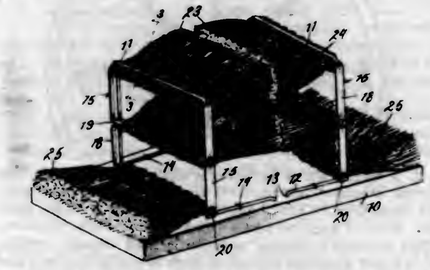
1,135,452. MACHINE FOR INTERPRETING CODE-MESSAGES. EDWARD H. HEBERN, Oakland, Cal., assignor, by mesne assignments, to H. & H. Patent-Developing Company, Oakland, Cal., a Corporation of California. Filed Mar. 11, 1912. Serial No. 682,932. (Cl. 35—13.)



1. A machine for interpreting code messages, comprising a lower roller having a conducting surface, steel balls rolling on said roller, arms having recesses in which the said steel balls are upheld, an upper roller of insulating material having transverse grooves in which said arms are retained, means for advancing a perforated sheet between said balls and roller, circuits arranged to be closed by the passage of the perforated portions of the sheets between the lower roller and the respective balls, characters and electric lamps in said circuits arranged to illuminate the respective characters.

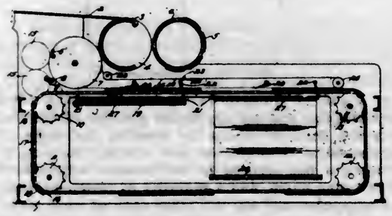
2. A machine for interpreting code messages, comprising a series of electrical contacts, means for advancing a perforated sheet between said contacts, circuits arranged to be closed by the passage of the perforated portions of the sheets between the respective contacts, a source of electricity, electric lamps in the respective circuits, two sheets of transparent celluloid, and a removable intermediate transparent sheet having formed thereon, in locations corresponding to the locations of the lamps, characters to be illuminated by said lamps.

1,135,453. SHOE AND PANTS DUSTER. MARCELLUS M. HITT, Luray, Va., assignor to Dorie L. Kauffman, Luray, Va. Filed Oct. 3, 1914. Serial No. 864,850. (Cl. 15—2.)



Apparatus for cleaning shoes and the lower portions of the trousers; comprising a base; oppositely arranged spaced upstanding supporting frames connected with the base; brush carrying frames attached to the supporting frame, each of which comprises a relatively wide strip of sheet metal apertured at points spaced substantial distances from the ends thereof to receive portions of the supporting frame, bent at substantially a right angle adjacent the apertures, and carrying laterally extending slitted end portions receiving portions of the supporting frame; and brushes having the strands thereof bent upon themselves about the horizontal portions of the brush carrying frames and secured thereto.

1,135,454. SHEET CARRYING AND PILING MECHANISM FOR PRINTING-PRESSES. WILLIS K. HODGMAN, Taunton, Mass., assignor, by mesne assignments, to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 15, 1909. Serial No. 489,983. (Cl. 101—31.)



1. Sheet carrying and piling mechanism comprising in combination sheet conveying means, a depository cooperating therewith, a sheet stop to engage the front edge of the sheet, means to render it inactive and a sheet clamp to engage the tail end of the sheet.

2. Sheet carrying and piling mechanism comprising in combination sheet conveying means, a roller carried thereby and a stationary yielding clamp above and cooperating with said roller to stop the sheet by engagement with its tail end.

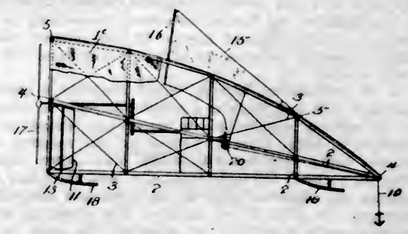
3. In a cylinder printing press in combination an impression cylinder and an endless, gapped, traveling apron acting as a sheet conveyer and piling mechanism and having means selective at the will of the operator to pile the sheets in at least two piles.

4. In a cylinder printing press in combination an impression cylinder, an endless, gapped, traveling sheet conveying and piling mechanism and cooperating means to make a full pile of sheets at any selected one of at least two piling stations, thereby permitting removal of the previous pile of sheets bodily from another station without stoppage.

5. Single, flat, sheet carrying and piling mechanism comprising in combination a plurality of sheet depositories arranged along a single path, endless traveling means to convey sheets flat and singly along said single path and provided with transverse gaps, and means selective at the will of the operator to strip off and drop sheets one by one through said gaps into any of the said depositories.

[Claims 6 to 54 not printed in the Gazette.]

1,135,455. FLYING-MACHINE. WILLARD S. ISHAM, Washington, D. C. Filed Mar. 3, 1910. Serial No. 547,038. (Cl. 244—14.)



1. In an aeroplane, the combination, with a power-driven propeller, of a plane curving rearwardly and comprising a substantially continuous surface extending backward and downward and arranged to react against substantially the propeller's entire blast.

2. In an aeroplane, the combination, with a power-driven propeller, of a plane curving rearwardly and comprising a substantially continuous surface extending backward and downward and arranged to react against substantially the propeller's entire blast, said reacting surface terminating near the base line of the machine.

3. In an aeroplane, the combination, with a power-driven propeller, of a plane comprising a substantially continuous surface extending backward and downward and arranged to react against substantially the propeller's entire blast, the rear portion making an angle with the base of the machine the tangent of which is substantially equal to the quotient obtained by dividing twice the height of the point of blast entrance above that of discharge, by the horizontal length of the plane.

4. In an aeroplane, the combination, with a power-driven propeller, of a plane comprising a substantially continuous surface extending backward and downward and arranged to react against substantially the propeller's entire blast, said plane being formed as a parabolic surface which increases in degree of curvature to the rear.

5. In an aeroplane, the combination, with a motor-driven propeller, of a longitudinally curved plane wholly to the rear of the propeller and arranged to resist the escape of substantially the entire blast of the propeller in every direction save toward the earth, the height of said plane decreasing toward the rear of the machine.

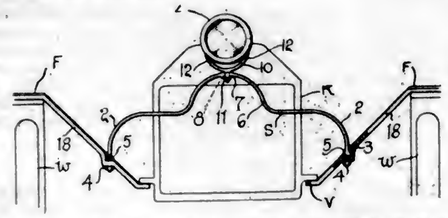
[Claims 6 to 18 not printed in the Gazette.]

1,135,456. HEADLIGHT. EDWARD K. KING, Hamill, S. D. Filed Nov. 23, 1914. Serial No. 873,554. (Cl. 240—57.)

1. In combination with a vehicle including fenders, a support disposed across the vehicle in advance thereof and having its extremities secured to the fenders, and a lamp bracket operatively engaged with the support intermediate the length thereof.

2. In combination with a vehicle including fenders, a support disposed across the vehicle in advance thereof and having its extremities secured to the fenders, a

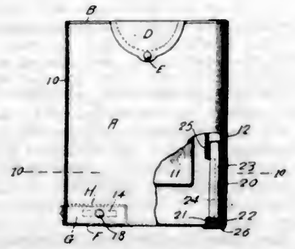
lamp bracket operatively engaged with the support intermediate the length thereof, and brace means interposed between the lamp bracket and the vehicle for further supporting the lamp bracket.



3. In combination with a vehicle including a radiator having a neck and fenders, a support disposed in advance of the radiator and having its extremities secured to the fenders, a lamp bracket carried by the support, and a brace interposed between the neck of the radiator and the lamp bracket.

4. In combination with a vehicle including a radiator having a neck and fenders, a support disposed in advance of the radiator and having its extremities secured to the fenders, a lamp bracket carried by the support, said bracket being provided with forks, brace arms engaged with the forks of the lamp bracket, a band integrally connecting the adjacent ends of the arms and adapted to surround the neck of the radiator, and clamping means coacting with said band for securing the arms to the neck.

1,135,457. SMOKER'S KIT. JOSÉ LOMBARDERO, San Francisco, Cal. Filed July 22, 1913. Serial No. 780,536. (Cl. 131—5.)

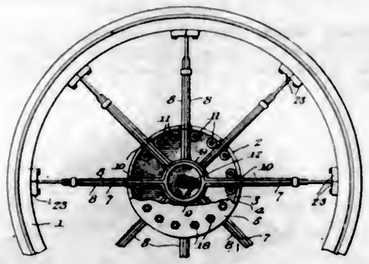


1. A smoker's kit comprising a box-like body forming a tobacco receiver, one wall of the body being cut and inwardly bent for a portion of its length to form a channeled opening through one end of the body, a cigarette former removably fitted within the channel and having an opening therein, the said body being formed with an opening communicating with the channel and adapted for alinement with the opening in the cigarette former, and a plunger detachably mounted within the said former.

2. A smoker's kit comprising a box-like body forming a tobacco receiver, one wall of the body being cut and inwardly bent for a portion of its length to form a channeled opening through one end of the body, a cigarette former removably fitted within the channel and having an opening therein, the said body being formed with an opening communicating with the channel and adapted for alinement with the opening in the cigarette former, and a plunger detachably mounted within the said former, the said cigarette former being longitudinally slitted from the opening through the opposite open end thereof.

1,135,458. SPRING-WHEEL. JOSEPH H. LYSINGER, Aurora, Nebr. Filed June 1, 1914. Serial No. 842,042. (Cl. 152—50.)

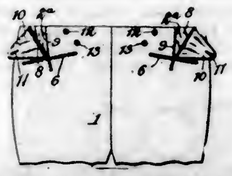
1. A spring wheel including a felly, a hub member, and spokes arranged intermediate the hub member and felly, the diametrically alined spokes constituting a single member, each of said members being arranged in superimposed relation axially of the hub member, and being each mounted for free and independent movement at right angles to the axial line of said hub member.



2. A spring wheel including a felly, a hub member, and spokes arranged intermediate the hub member and felly, the diametrically alined spokes constituting a single member, each of said members being formed with relatively offset sections arranged in superimposed relation axially of the hub member, and being each mounted for free and independent movement at right angles to the axial line of said hub member.

3. A spring wheel including a felly, a hub member, and spokes arranged intermediate the hub member and felly, the diametrically alined spokes constituting a single member, each of said members being arranged in superimposed relation axially of the hub member, and being each mounted for free and independent movement at right angles to the axial line of said hub member, and means for connecting the outer ends of the spoke members to the wheel rim to permit a slight radial independent movement of said members.

1,135,459. GARMENT. FREDERICK LEWIS MCMULLEN, Norfolk, Va. Filed Oct. 18, 1913. Serial No. 795,950. (Cl. 2—143.)



1. A pair of trousers having tapering notches between the waist line and the hip pocket portions of the trousers, with the fullness caused by drawing the edges of the notches together scattered into the hip portions of the trousers, a flap secured to the trousers adjacent to one side of each notch, and a plurality of fastening means for the respective flap on the other side of each notch and placed at substantially equal distances from the apex of the notch and each notch being also provided with filling means for preventing spread of the notch beyond a predetermined extent.

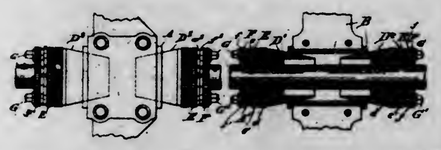
2. A pair of trousers having V-shaped notches extending from the waist line toward the hip pockets with said V-shaped notches closed by a lining and with the fullness caused by drawing the edges of the notch together scattered into the hip portion of the trousers, a flap attached to one edge of each notch and of a length to extend beyond the other edge thereof, and a plurality of fastening means in coactive relation to the flap and located on the other side of the notch in substantially equi-distant relation to the closed end of the notch.

3. A pair of trousers having V-shaped notches extending from the waist line toward the hip pockets with said V-shaped notches closed by a lining, a flap attached to one edge of each notch and of a length to extend beyond the other edge thereof, and a plurality of fastening means in coactive relation to the flap and located on the other side of the notch in substantially equi-distant relation to the closed end of the notch, the material of the trousers having the fullness produced by the closing together of the walls of the notch predistributed toward the hip portion of the trousers.

4. A pair of trousers having tapering notches extending from the waist line toward and below the hip-pocket openings with the fullness caused by drawing the edges of the notches together scattered into the hip portions of the trousers, and those portions of the notches below the hip pocket openings permanently closed, filling means for the notches above the hip pocket openings for preventing spread of the notches beyond a predetermined extent, and means for taking up or reducing the width of the notches to correspondingly reduce the waist of the trousers.

5. A pair of trousers having tapering notches extending from the waist line toward and below the hip pocket openings, with the fullness caused by drawing the edges of the notches together scattered into the hip portions of the trousers, and with those portions of the notches below the hip pocket openings permanently closed and the portions above the hip pocket openings provided with means for preventing spread thereof beyond a predetermined extent, and a flap of triangular shape for each notch with the base of the triangle extending along one long edge of the notch, said flap and the portion of the trousers on the other side of the notch having coating means for securing the apex of the flap to the trousers at different points substantially equi-distant from the apex of the notch.

1,135,460. TOOL FOR ALINING AND FINISHING SHAFT-BEARINGS AND THE LIKE. ALBERT A. MARTELL, Boston, Mass. Filed Sept. 8, 1913. Serial No. 788,536. (Cl. 77—72.)



1. A temporary bearing comprising an exteriorly conical bushing, a sleeve rotatably mounted within the conical bushing, and a second sleeve rotatably mounted within the first sleeve and having a bore concentrically disposed with relation to the exterior on said second sleeve.

2. A device of the character described comprising a shaft adapted to carry a tool; a plurality of temporary bearings for said shaft, each comprising an exteriorly conical bushing, a sleeve rotatably mounted within the conical bushing, and a second sleeve rotatably mounted within the first sleeve and made with a shaft receiving bore eccentrically disposed with relation to the exterior of said second sleeve.

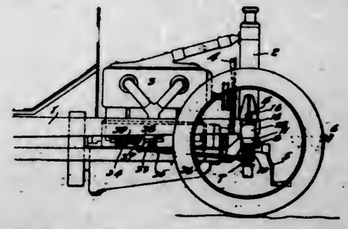
3. A device of the character described comprising a shaft adapted to carry a tool; a plurality of temporary bearings for said shaft, each comprising an exteriorly conical bushing, a sleeve rotatably mounted within the conical bushing, and a second sleeve rotatably mounted within the first sleeve and made with a shaft receiving bore eccentrically disposed with relation to the exterior of said second sleeve, and a tool for said shaft for operating upon the bearing to be finished.

4. A device of the character described comprising a shaft adapted to carry a tool; a plurality of temporary bearings for said shaft, each comprising an exteriorly conical bushing, a sleeve rotatably mounted within the conical bushing, and a second sleeve rotatably mounted within the first sleeve and made with a shaft receiving bore eccentrically disposed with relation to the exterior of said second sleeve and means for fastening the two sleeves together and to the bushing in their adjusted relative positions.

5. A device of the character described comprising a shaft adapted to carry a tool; a plurality of temporary bearings for said shaft, each comprising an exteriorly conical bushing, a sleeve rotatably mounted within the conical bushing, and a second sleeve rotatably mounted within the first sleeve and made with a shaft receiving bore eccentrically disposed with relation to the exterior of said second sleeve, said exterior being eccentric to the exterior of the first sleeve.

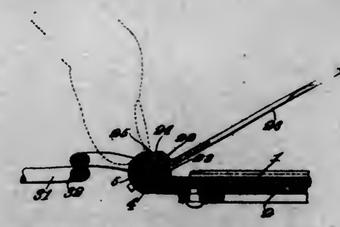
[Claims 6 not printed in the Gazette.]

1,135,461. ROAD-VEHICLE. WILLIAM EDWARD MERCHAM, Winnipeg, Manitoba, Canada. Filed Apr. 11, 1913, Serial No. 760,460. Renewed Aug. 6, 1914. Serial No. 855,514. (Cl. 21—50.)



The combination with the chassis and axle of an automobile or other such like vehicle, of a hanger secured to the chassis and overhanging the axle, a top piece mounted on the hanger and provided with an air inlet duct having a spring pressed valve, a base piece permanently secured to the axle and alined with the top piece, inner and outer cylinders mounted in the top piece, a central cylinder mounted in the base piece and extending upwardly between the former cylinders, bearing rings carried by the lower end of the inner cylinder and the upper end of the central cylinder, packing strips mounted on the bearing rings and contacting respectively with the inner face of the central cylinder and the outer face of the inner cylinder, adjustable jam nuts carried by the rings and engaging with the packing strips and a spiral spring encircling the inner cylinder and having the ends thereof bearing against the bearing rings, as and for the purpose specified.

1,135,462. FINGER-NAIL CLIPPER. RAYMOND C. MINER, Faith, S. D., assignor of one-half to Hans P. Hanson, Faith, S. D. Filed Aug. 5, 1913. Serial No. 783,168. (Cl. 30—23.)



1. In a fingernail clipper, a member having a round enlarged portion at one end provided with a cutter, and a yoke pivoted to the said enlarged portion to swing snugly around the same and having a handle, the yoke having a cutter adjacent the said enlarged portion, arranged to shear over the aforesaid cutter.

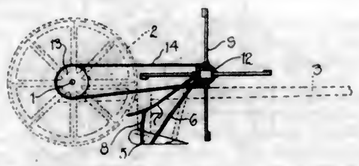
2. In a fingernail clipper, a member having a round butt at one end, the butt having a shoulder forming a cutter, a pin engaged through the butt, and a yoke termi-

nally engaged over the ends of the said pin to swing snugly around the butt, one edge of the yoke having a cutter adjacent the butt to shear over the aforesaid cutter, and the yoke having a handle.

3. In a fingernail clipper, a member having a cutter at one end, a member pivoted to the said end of the said member and having a cutter to swing around and shear over the aforesaid cutter, and a handle pivoted to the said end of the first mentioned member to swing around the said end.

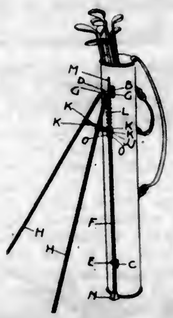
4. In a fingernail clipper, a member having a butt at one end, the butt having a shoulder forming a cutter, a pin engaged through the butt, a yoke terminally engaged over the ends of the said pin to swing around the butt, the yoke having a cutter to shear over the aforesaid cutter, and a handle having a yoke portion pivoted to the ends of the said pin.

1,135,463. ATTACHMENT FOR MOWERS. JIMMIE W. MOSELY, Austin, Tex. Filed June 13, 1914. Serial No. 844,961. (Cl. 56—30.)



In combination with a mower including a cutter bar and a foot connected to the outer end of the cutter bar, of a divider bar connected at one end to the foot, said divider bar being extended upwardly and forwardly of the foot to extend to a point above the cutter bar in advance of the same, said divider bar being then directed rearwardly and inwardly and terminating rearwardly of the cutter bar and inwardly of its outer end, and the divider bar at the juncture of its forwardly and rearwardly extending portions being formed with a shaft bearing.

1,135,464. STAND FOR GOLF CADDIE-BAGS AND THE LIKE. GEORGE GEACH PARNALL, Bristol, England. Filed June 18, 1914. Serial No. 845,872. (Cl. 224—45.)



1. A tripod caddie bag stand comprising a bag, brackets fixed to said bag, a rear leg adapted to slide in said brackets and normally projecting below the bottom of the bag, a plurality of legs hinged to the top bracket, a crosshead slidingly mounted on said rear leg, links connecting said crosshead with said hinged legs, and means for holding said crosshead in a fixed position relatively to the rear leg and adapted to be moved into a position in which said crosshead can slide over said rear leg and the stand put out of action.

2. A tripod caddie bag stand comprising a bag, brackets fixed to said bag, a rear leg adapted to slide in said brackets, and normally projecting below the bottom of the bag, a plurality of legs hinged to the top bracket, a crosshead slidingly mounted on said rear leg, links connecting said crosshead with said hinged legs and spring means for holding said crosshead in a fixed position relatively to the rear leg and adapted to be moved into a position in which said crosshead can slide over said rear leg.

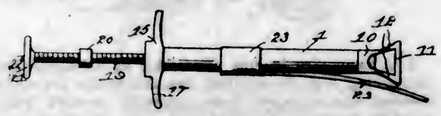
3. A tripod caddie bag stand comprising a bag, brackets fixed to said bag, a rear leg adapted to slide in said brackets and normally projecting below the bottom of the bag, a plurality of legs hinged to the top bracket, a crosshead slidingly mounted on said rear leg, links connecting said crosshead with said hinged legs, and a plurality of springs mounted in recesses in the rear leg adapted to project from said rear leg and to hold said crosshead in a fixed position relatively to said rear leg and to be pressed into their recesses to allow said crosshead to slide over said rear leg.

4. A tripod caddie bag stand comprising a bag, brackets fixed to said bag, a rear leg adapted to slide in said brackets and normally projecting below the bottom of the bag, a plurality of legs hinged to the top bracket, a crosshead slidingly mounted on said rear leg, a spring member arranged between one of said brackets and said crosshead tending to press said croshead downward, links connecting said crosshead with said hinged legs, and means for holding said crosshead in a fixed position relatively to the rear leg and adapted to be moved into a position in which said croshhead can slide over said rear leg.

5. A tripod caddie bag stand comprising a bag, brackets fixed to said bag, a rear leg adapted to slide in said brackets and normally projecting below the bottom of the bag, a plurality of legs hinged to the top bracket, a crosshead slidingly mounted on said rear leg, a spiral spring encircling said rear leg between the top bracket and said crosshead and tending to press said crosshead with said hinged legs, and means for holding said crosshead in a fixed position relatively to the rear leg and adapted to be moved into a position in which said crosshead can slide over said rear leg.

[Claims 6 and 7 not printed in the Gazette.]

1,135,465. LANCET. WILLIAM M. POLLOCK, Forest Grove, Oreg. Filed July 1, 1914. Serial No. 848,413. (Cl. 128—23.)



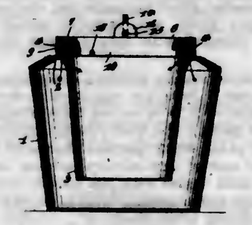
1. The combination with a lance and taper end thereof, of a removable guide comprising a circular end, metallic legs secured to the outer extremities of said guide, and curved to conform to the tapered end of the lance.

2. The combination with a lance and taper end thereof, of a removable guide comprising a substantially circular end, upper surface of said guide roughened to engage with the flesh and prevent movement of the same, resilient legs secured to the outer edges of said guide and bent to conform with the tapered end of the lance.

3. The combination with a lance and tapered end thereof, of a removable guide comprising a circular end having its upper surface roughened to prevent slipping upon the flesh when engaging the same, metallic legs secured to said guide at its outer extremities, said legs bent to fit the tapered end of said lance and hold the guide against further movement upon said lance.

1,135,466. GLUE OR LIKE POT. WENTWORTH RICE, Salt Lake City, Utah. Filed Nov. 19, 1913. Serial No. 801,981. (Cl. 126—284.)

1. In a glue-pot structure, an outer water pot and an inner glue pot, said pots having portions for supporting the glue pot in exteriorly spaced relation inside of the water pot for egress of steam from the latter, and means for directing the steam discharging from the water pot over the margin of and downwardly into the glue pot, substantially as described.



2. In a glue-pot structure, an outer water pot and an inner glue pot, said pots having coacting portions for supporting the glue pot in exteriorly spaced relation inside of the water pot, and an annular shield for directing the steam from the water pot over the margin of and downwardly adjacent the inside of the wall of the glue pot, substantially as described.

3. In a glue pot structure, an outer water pot and an inner glue pot, said pots having coacting portions for supporting the glue pot in exterior annular spaced relation inside of the water pot for egress of the steam from the latter, and an annular shield having one wall portion engaging the water pot outside of the space therebetween and the glue pot and another wall portion overhanging and extending downwardly inside of the glue pot for deflecting the steam from the water pot over into and downwardly inside of the margin of the glue pot, substantially as described.

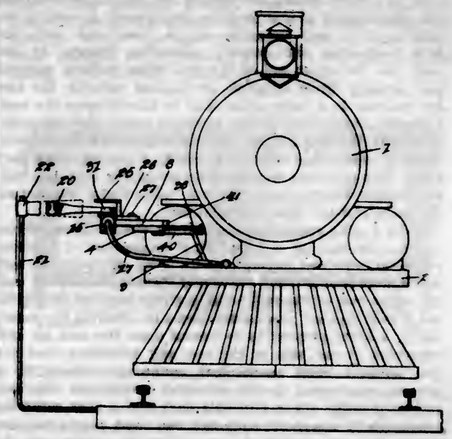
4. In a glue-pot structure, a water pot having an open top and an overhanging supporting rim, a glue pot proportioned to fit in said water pot in exterior spaced relation with respect to said rim and provided with bail ears having shoulders engaging said rim and supporting said glue pot in said water pot, an annular shield overhanging said pot to direct the steam from said water pot into said glue pot and having openings for protection of said ears through said shield, and a bail for said glue pot having end portions connected with said ears to retain said shield in place on said glue pot, substantially as described.

5. In a glue-pot structure, a water pot having an open top and an overhanging supporting rim, a glue pot proportioned to fit in said water pot in exterior spaced relation with respect to said rim and provided with bail ears having shoulders engaging said rim and supporting said glue pot in said water pot, an annular shield overhanging said pot to direct the steam from said water pot into said glue pot and provided with openings for projection of said ears through said shield, a bail having end portion connected with said ear and retaining said shield upon said glue pot, and said glue pot having enlargements engaging said shield to support the same on said glue pot, substantially as described.

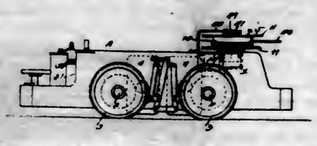
[Claim 6 not printed in the Gazette.]

1,135,467. AUTOMATIC TRAIN-STOP. WILLIAM G. SCHOLOSKE, Baltimore, Md. Filed Apr. 15, 1914. Serial No. 832,031. (Cl. 246—69.)

In an automatic train stop, the combination with a train embodying a prime mover, and an air brake system for said train, of a plate yieldable horizontally carried by said prime mover forwardly and to one side thereof, a valve supported by said plate and interposed in said air brake system, a finger operatively connected to said valve and normally extending laterally of said prime mover, a guarding guide carried by said plate and positioned above said valve, and means for operating said finger for operating said valve for bleeding said air system.



1,135,468. CABLE-REELING MECHANISM. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed May 12, 1911. Serial No. 626,657. (Cl. 191—12.)



1. In a cable reeling mechanism for electric locomotives, the combination of a supporting framework, a rotatable cable reel engaging at one end with the said frame-work and entirely supported thereby at the said end, the other end of the reel being entirely exposed and without direct support, mechanism at the first said end of the reel for rotating it, a cable adapted to be wound upon the reel, a current conductor mounted at the exposed end of the reel independently thereof and of the said supporting framework, and means rotatable with the reel and mounted independently thereof for electrically connecting the said conductor with the cable.

2. In a cable reeling mechanism for electric locomotives, the combination of a supporting framework, a vertical rotatable cable reel engaging at its lower end with the said framework and entirely supported thereby at the said end, the upper end of the reel being entirely exposed and without direct support, mechanism beneath the reel for rotating it, a cable adapted to be wound upon the reel, a current conductor mounted above the reel independently thereof and of the said supporting framework, and means rotatable with the reel and mounted independently thereof for electrically connecting the said conductor with the cable.

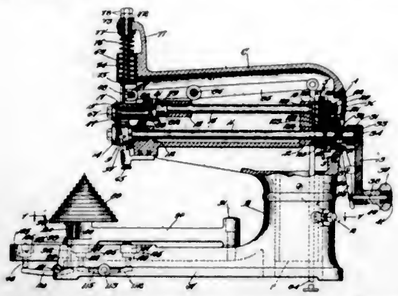
3. In a cable reeling mechanism for electric locomotives, the combination of a supporting framework, a rotatable cable reel engaging at one end with the said framework and entirely supported thereby at the said end, the other end of the reel being entirely exposed and without direct support, mechanism at the first said end of the reel for rotating it, a cable adapted to be wound upon the reel, a current conducting device mounted at the exposed end of the reel independently thereof and of the said supporting framework, the said conducting device comprising a non-rotatable part and a part rotatable substantially coaxially

with the reel, and means for mechanically and electrically connecting the cable and the said rotatable part.

4. In a cable reeling mechanism for electric locomotives, the combination of a supporting framework, a vertical rotatable cable reed engaging at its lower end with the said framework and entirely supported thereby at the said end, the upper end of the heel being entirely exposed and without direct support, mechanism beneath the reel for rotating it, a cable adapted to be wound upon the reel, a current conducting device mounted above the reel independently thereof and of the said supporting framework, the said conducting device comprising a non-rotatable part and a part rotatable substantially co-axially with the reel, and means for mechanically and electrically connecting the cable and the said rotatable part.

5. In a cable reeling mechanism for electric locomotives, the combination of a supporting framework, a vertical rotatable cable reel engaging at its lower end with the said frame work and entirely supported thereby at the said end, the upper end of the reel being entirely exposed and without direct support, mechanism beneath the reel for rotating it, a cable adapted to be wound upon the reel, an arm supported at one side of the reel and extending over the reel without rigid mechanical connection therewith, a current conducting device mounted entirely on the arm and comprising a non-rotatable part and a part rotatable substantially coaxially with the reel, and means for mechanically and electrically connecting the cable and the said rotatable part.

1,135,469. PATTERN-BINDING MACHINE. HOLTON J. SUTHERLAND, Swampscott, and JOHN H. SUTHERLAND, Lynn, Mass. Filed June 23, 1914. Serial No. 846,785. (Cl. 153—1.)



1. The improved pattern binding machine comprising coöperating clamping wheels, rotatable shafts parallel with each other on which said clamping wheels are mounted, one portion of one of said shafts being fixed with relation to the other shaft, and the other portion being laterally movable relatively thereto but being always parallel therewith, means for rotating said shafts, a movable coupling member which connects the two members of the two-part shaft, the axis of said coupling member being in all of its positions parallel with both sections of said two-part shaft, and means for giving movement to said movable portion.

2. In a pattern binding machine, a pair of rotatable shafts, one of which is a sectional shaft having a portion fixedly mounted relative to said other shaft and a portion movably mounted relatively thereto, the adjacent ends of the portions of said sectional shaft being mounted closely together, and a key member connecting said closely adjacent ends to permit a transverse relative movement of the same.

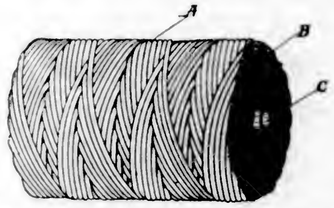
3. In a pattern binding machine, two clamping wheel shafts one of which is a sectional shaft, a portion of said sectional shaft being fixedly mounted relatively to said other shaft and a portion being movably mounted relatively thereto, the adjacent ends of the portions of said sectional shaft having oppositely disposed slots therein, and a key member having correspondingly oppositely disposed feathers to engage said slots.

4. The improved pattern binding machine, comprising coöperating clamping wheels, rotatable shafts mounted parallel with each other on which said clamping wheels are mounted, one of said shafts being a sectional shaft, one portion of which is movable laterally with relation to both said other sections and said other shaft and always parallel therewith to vary the distance between said movable section and said other shaft, a laterally movable coupling member which connects the two members of the said two-part shaft, said coupling being in all of its movements parallel with both sections of said two-part shaft.

5. A pattern binding machine comprising a pair of rotatable shafts, a joint for one of said shafts which permits a portion of it to be moved transversely with relation to its other portion and with relation to the other of said shafts and at all times parallel therewith the movement of the joint and of said movable section being always in a path at right angles with the axis of both sections and of the joint, and clamping wheels on said movable portion and on said other shaft.

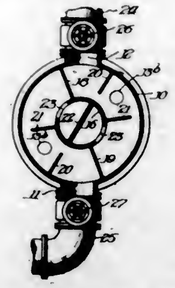
[Claims 6 to 24 not printed in the Gazette.]

1,135,470. TWINE-PACKAGE. JAMES P. TOLMAN, Newton, Mass., assignor to Samson Cordage Works, Boston, Mass., a Corporation of Massachusetts. Filed July 15, 1912. Serial No. 709,360. (Cl. 242—161.)



A cross-wound package of non-cohering or glazed twine the several turns of layers of which are caught together at separated points by a superficial coating of adhesive material applied to one or both ends of said package.

1,135,471. ACID-SPRAY CATCHER. FREDERICK TSCHUDY, Fairfield, Ala. Filed Sept. 21, 1914. Serial No. 862,832. (Cl. 83—90.)

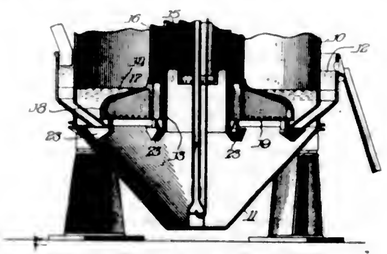


1. In an acid spray catcher, the combination of a shell divided into a plurality of compartments, an outlet conduit within said shell, said conduit likewise being provided with a plurality of compartments, each thereof communicating with a compartment of said shell, a seal pot beneath said shell, and means for directing gas to one of said compartments and shutting off another of said compartments whereby said last named compartment may be washed without interrupting the flow of gas, substantially as described.

2. An acid spray catcher, comprising an outside and inside shell, provided with two division walls, forming two compartments, and a series of baffle plates placed alternately on the outside and inside walls, substantially as described.

3. An acid spray catcher, comprising an outside and inside shell, divided by division walls into two compartments, each with inlet nozzle and outlet ports, and alternately arranged baffle plates, and a diaphragm placed in the inside shell dividing same into two separate chambers each communicating with one compartment previously referred to, substantially as described.

1,135,472. CRACKER-PIPE FOR SATURATING APPARATUS. FREDERICK TSCHUDY, Birmingham, Ala. Filed Sept. 21, 1914. Serial No. 862,834. (Cl. 23—21.)



1. In a cracker pipe, the combination of a cover, substantially radial walls extending downward from said cover, said cover having a downwardly projecting outer edge whereby a plurality of chambers is formed, one series of chambers being open to the axial center of the device but closed at the periphery thereof whereby gases are compelled to pass beneath two walls, substantially as described.

2. In a gas cracker pipe, a cover having a downwardly projecting outer edge, radial walls forming chambers open at the bottom one series of chambers being open to the axial center of the device, another series of chambers being closed to said center, substantially as described.

3. In a cracker pipe, the combination of a cover having a down-turned peripheral flange, substantially radial walls extending downward from said cover and forming a series of substantially triangular chambers open to the bottom, substantially as described.

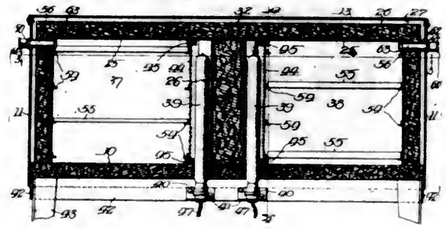
4. A cracker pipe, consisting of walls forming a series of chambers radiating from a central supply pipe, and provided with serrated edges for the purpose of splitting up the gases, the ends of the radiating chambers being closed to prevent the passage of gas, substantially as described.

5. A cracker pipe, consisting of walls forming a series of chambers radiating from a central supply pipe, a wall connecting the ends of the radial chambers, serrated at the bottom edge and forming a series of outside chambers for the purpose of resplitting the gases escaping from the radial chambers, substantially as described.

1,135,473. COOKING APPARATUS. FRANK A. VATH, Chicago, Ill. Filed Aug. 4, 1913. Serial No. 782,770. (Cl. 219—35.)

1. A domestic cooking apparatus of the character described, embodying a heat insulated casing having a compartment therein opening through one of the walls of the casing, a closure for the opening, a radiator lamp within the compartment for cooking food therein, and means outside of the casing for controlling the lamp, the said lamp being adapted to be removed from and inserted into the compartment while the said closure is closed.

2. A domestic cooking apparatus embodying a heat insulated casing, having a compartment provided with an entrance opening, a closure for the entrance opening, one or more electric radiator lamps in the casing for cooking food therein, said lamps being arranged in multiple, and means for cutting in or out one or more of the lamps, there being openings through the wall of the compartment for admitting outside air into the compartment and through which openings the lamps extend, said lamps being adapted to be removed from and inserted into the casing when the said closure is closed.



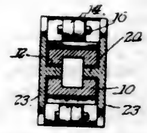
3. A domestic cooking apparatus of the character described, embodying a heat insulated compartment having an entrance opening, a closure for the opening, one or more electric vacuum heating elements arranged adjacent and extending along one side of the compartment, a shiftable aperture partition disposed adjacent the elements for protecting them and coöperating with the wall of the compartment to form a chamber for the elements having communication with the compartment, means exterior of the compartment for controlling the elements, supports within the compartment, and heat retaining elements within the compartment and supported by said supports.

4. A domestic cooking apparatus of the character described, embodying a heat insulated compartment having an entrance opening, an apertured partition dividing the compartment into two communicating chambers, one of which is somewhat smaller than the other, said entrance opening communicating only with the larger chamber, a closure for the opening and one or more electric vacuum heating elements arranged in the smaller chamber, said elements being accessible from the outside of the compartment.

5. A domestic cooking apparatus of the character described, embodying a heat insulated compartment having an entrance opening, an apertured partition dividing the compartment into two communicating chambers, one of which is somewhat smaller than the other, said entrance opening communicating only with the larger chamber, a closure for the opening, one or more electric vacuum heating elements arranged in the smaller chamber, said elements being accessible from the outside of the compartment, a vent tube leading from the larger chamber through the wall of the compartment, and means for varying the size of the opening of the tube.

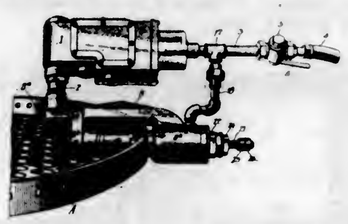
[Claims 6 to 10 not printed in the Gazette.]

1,135,474. YOKE FOR DRAW-BARS. EDWARD WALTERS, Chicago, Ill. Filed Mar. 14, 1912. Serial No. 683,677. (Cl. 213—42.)



A yoke having a spring-receiving loop and means for attachment to a draw-bar, said yoke being formed in two parts by means of a longitudinal, vertical division, said draw-bar attaching means including a divided key, one part of the key being rigid with each of the two parts of the yoke, substantially as described.

1,135,475. DRILLING-MACHINE. HENRY WANAMAKER and JOSEPH MCALLISTER, Albany, N. Y., assignors to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed Mar. 31, 1913. Serial No. 757,819. (Cl. 77—6.)



1. In combination with a prime mover having a rotatable driving member, a frame arranged in a line parallel to the axis of the prime mover and at an angle to said driving member, said frame having a bearing for said driving member, a cutting tool in such frame, and driving connections between said member and tool.

2. In combination with a prime mover having a rotatable driving member, a frame arranged in a line parallel to the axis of the prime mover and at an angle to said driving member, said frame having a bearing for said driving member, a cutting tool in such frame, driving connections between said member and tool, and fluid pressure operated means for feeding the tool to the work.

3. In combination with a prime mover having a rotatable driving member, a frame arranged in a line parallel to the axis of the prime mover and at an angle to said driving member, said frame having a bearing for said driving member, a cutting tool in such frame, driving connections between said member and tool, said prime mover being actuated by fluid pressure, and means operated by the same fluid pressure as supplied to the prime mover for feeding the tool to the work.

4. In combination with a prime mover having a rotatable driving member, a frame arranged in a line parallel to the axis of the prime mover and at an angle to said driving member, a cutting tool in such frame, driving connections between said member and tool, and fluid pressure operated means mounted in said frame for feeding the tool to the work.

5. In combination with a prime mover having a rotatable driving member, a frame arranged in a line parallel to the axis of the prime mover and at an angle to said driving member, a cutting tool in such frame, driving connections between said member and tool, and fluid pressure operated means mounted in said frame for feeding the work to the tool comprising a cylinder in said frame, a piston therein having a plunger adapted to press against the work to bring the tool against the work, and means for supplying fluid under pressure to the cylinder.

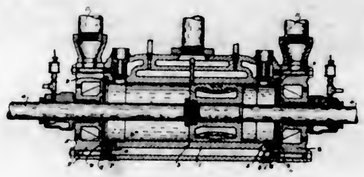
[Claims 6 to 13 not printed in the Gazette.]

1,135,476. VALVE FOR AIR-COMPRESSORS. ELMER A. WATTS, Springfield, Ohio, assignor to The Miller Improved Gas Engine Company, Springfield, Ohio, a Corporation of Ohio. Filed July 8, 1914. Serial No. 849,704. (Cl. 230—34.)

1. In an air pump or compressor, the combination of a piston and cylinder, a valve of greater circumference than the bore of the cylinder and located at the extreme end of the cylinder with port openings for the air at both the outer and inner periphery of the valve, substantially as specified.

2. In an air pump or compressor, the combination of a piston and cylinder, an annular valve of greater circumference than the inner bore of the cylinder having inlets for the air arranged around the outer periphery and also within the inner periphery of the valve, and means for holding the valve in position whereby the air enters around both the outer and inner periphery thereof.

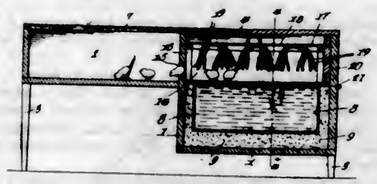
3. In an air pump or compressor, the combination of a piston and cylinder, an annular valve of a flat ring type located at the extreme end of the cylinder, and means for holding the valve in open position such that the air can enter around the outer periphery as well as within the inner periphery.



4. In an air pump or compressor, the combination of a cylinder and piston, an annular flat valve ring of greater circumference than the bore of the cylinder, plungers for the valve and guides formed in the cylinder for such plungers, and ports about the outer periphery of the valve, the plungers and guides being so arranged that the valve will be held in position such that the air will enter through the peripheral ports and also through the inner periphery of the valve.

5. The combination of a cylinder and piston, heads inclosing the ends of the cylinder, each end of the cylinder adjacent the head being counter-bored to form a recess, a valve ring located in each of said recesses, together with springs for holding said valve in closed position against its corresponding head, each of said valve rings being formed with peripheral ports and also with an open center, means for limiting the movement of said ring in opening so as to cause said ring to stand intermediate the ends of said recess when in open position, and ports in said head.

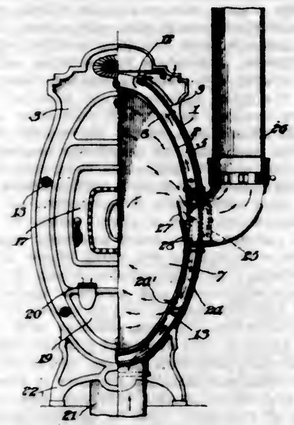
1,135,477. BROODER. FREDERICK L. WESTCOTT, Orlando, Nebr. Filed Apr. 19, 1913. Serial No. 762,435. (Cl. 119—33.)



1. A brooder including a hover comprising a slidable tray, an independently removable cover arranged within the tray, said cover being disposed in a plane below the top of the tray to be removed therewith, support means for the cover rigid with the tray, heat retaining elements secured to the cover and depending into the tray, and a door affixed to the brooder, said door acting as a retaining means for maintaining the tray against removal, as and for the purpose set forth.

2. A brooder including a hover comprising a removable tray, one of the four sides of the tray being omitted, uprights positioned upon the interior of the tray at the respective corners thereof, the said uprights adapted to extend to a point slightly in spaced relation to the top of the said tray, an imperforate cover for and removable with the said tray, the said cover adapted to rest upon the said uprights and to lie in a plane below the top of the tray, and a plurality of fabric strips secured to the under face of the cover and depending within the tray, the longitudinal edges of the said strips being slit to provide a multiplicity of depending heat retaining elements.

1,135,478. STOVE. HARVEY D. WOOD, Fayetteville, Ark. Filed Nov. 1, 1912. Serial No. 729,061. (Cl. 126—60.)



1. A stove comprising an oval shell forming a combustion chamber, a concentric oval shell forming a heating chamber around said combustion chamber, a discharge pipe with which said combustion chamber communicates through a curved side thereof, twyers on opposite sides of said discharge pipe and delivering air to said combustion chamber through said curved side and below the inlet to said discharge pipe, a baffle controlling said inlet to said discharge pipe so as to prevent the admission of air at the bottom thereof, whereby air admitted to said combustion chamber is swirled before being discharged through said discharge pipe, and means for passing air between said shells.

2. A stove of the character described, comprising spaced inner and outer shells curved in vertical cross-section, providing therebetween an air heating chamber having a lower air inlet and an upper air outlet, the inner shell forming a combustion chamber; an outlet conduit for products of combustion passing through the corresponding curved side walls of the shells at a point spaced substantial distances from the top and bottom thereof and leading from the combustion chamber without communicating with the air heating chamber; downwardly discharging air supply ducts arranged between the inner and outer shells and communicating with the lower portion of the combustion chamber upon the same side thereof with the outlet conduit; and an inclined deflector closing the lower end of the outlet conduit and spaced from the upper end thereof.

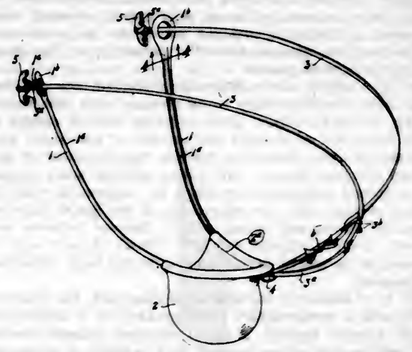
1,135,479. SUSPENSORY. WILLIAM S. WOOTTON, Roanoke, Va. Filed Aug. 4, 1913. Serial No. 782,828. (Cl. 128—38.)

1. In a suspensory adapted to be attached to a shirt, a pair of curved suspensory bows arranged in V-shaped form and pivotally connected at their apex portion, a suspensory-bag carried within said apex portion, and attaching cords detachably connected to the opposite ends of said bows.

2. In a suspensory adapted to be attached to a shirt, curved suspensory bows hingedly connected to each other in V-shaped form and provided with a suspensory-bag at the apex portion thereof, and means for detachably supporting and connecting the opposite ends of said bows to said shirt.

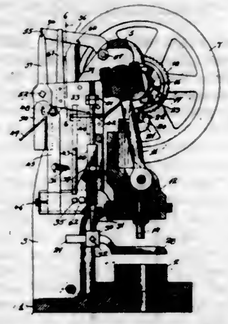
3. In a suspensory adapted to be attached to a shirt, curved suspensory bows pivotally connected to each other and arranged in V-shaped form, a suspensory-bag carried by said bows, and attaching cord members arranged in similar form and detachably connected to the opposite ends of said bows.

4. A suspensory adapted to be attached to a shirt, comprising a pair of flexible suspensory bows arranged in V-shaped form and pivotally connected at their apex portion, a suspensory-bag carried at the apex portions of said bows, and attaching cords detachably connected to the free ends of said bows and to said shirt and the apex portion of said bows.



5. In a suspensory adapted to be attached to a shirt, a pair of pivotally connected suspensory bows arranged in V-shaped form, a suspensory-bag within the apex portion thereof, and attaching straps detachably connected to said apex portion and provided with attaching members detachably connected to said shirt and the free ends of said bows.

1,135,480. SAFETY-GUARD FOR POWER-PRESSES. JAMES WRIGHT, Hamilton, Ontario, Canada. Filed Oct. 6, 1913. Serial No. 793,747. (Cl. 164—107.)



1. In a device of the character described, the combination with the press plunger, of a tiltable element pivoted thereon, a guard carrying element mounted to reciprocate in said tiltable element, spring means resisting such reciprocatory movement in one direction, a brake mechanism, means controllable by the tilting of said tiltable element from normal position for throwing said brake mechanism into action to arrest the movement of the plunger, and means for tilting said tiltable member from normal position when the press plunger reaches its upper limit of movement.

2. In a device of the character described, the combination with the press plunger, of a tiltable element pivoted thereon, a guard carrying element mounted to reciprocate in said tiltable element, spring means resisting such reciprocatory movement in one direction, a brake mechanism, means controllable by the tilting of said tiltable element from normal position for throwing said brake mechanism into action to arrest the movement of the plunger, means for tilting said tiltable member from nor-

mal position when the press plunger reaches its upper limit of movement, and means for adjusting said last named means.

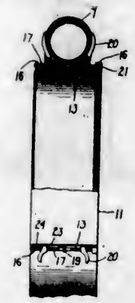
3. In a device of the character described, the combination with a reciprocatory press plunger, of a tiltable element carried thereby, a guard carrying element carried by said reciprocatory element and capable of movement with relation thereto, and means for limiting the movement of said guard carrying element, said tiltable element being capable of limited additional movement in conjunction with the press plunger after the movement of the guard carrying element ceases.

4. In a device of the character described, the combination with a reciprocatory press plunger, of a tiltable element carried thereby, a guard carrying element carried by said reciprocatory element and capable of movement with relation thereto, means for limiting the movement of said guard carrying element, said tilting element being capable of a limited additional movement in conjunction with the press plunger after the movement of the guard carrying element ceases, and spring means disposed between said guard carrying element and said tiltable element and arranged to be placed under tension during such additional movement.

5. In a device of the character described, the combination with a reciprocatory press plunger, of a tiltable element carried thereby, a guard carrying element carried by said reciprocatory element and capable of movement with relation thereto, means for limiting the movement of said guard carrying element, said tilting element being capable of a limited additional movement in conjunction with the press plunger after the movement of the guard carrying element ceases, spring means disposed between said guard carrying element and said tiltable element and arranged to be placed under tension during such additional movement, and a stop element arranged to engage a portion of the tiltable element and tilt the same out of normal position when the press plunger reaches its upper limit of movement.

[Claims 6 to 24 not printed in the Gazette.]

1,135,481. CLAMPING OR LOCKING DEVICE. ABRAHAM ZIEVE, Bathbeach, N. Y., assignor to The Auto Trunk and Acme Suit Case Mfg. Co., Inc., New York, N. Y., a Corporation. Filed Nov. 17, 1913. Serial No. 801,433. (Cl. 224—29.)



1. A clamping device, comprising a rotatable member, clamping members mounted thereon and arranged to swivel on said member on reaching their outer limits of movement and means independent of said rotatable member to rotate the same and actuate said clamping members.

2. In combination with a tire trunk and a spare shoe, said trunk being positioned within said shoe, a clamping device mounted on said trunk, said clamping device comprising a rotatable member, clamping members mounted thereon and means for rotating said rotatable member to actuate said clamping members to engage with and grip the wall of said shoe, said clamping members being adapted to swivel on said rotatable member on reaching a predetermined limit of movement.

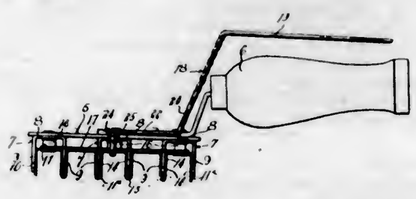
3. The combination with a tire trunk adapted to be positioned within a spare shoe on a motor vehicle, of means for locking said trunk to said shoe, said means comprising a rotatable guide member, clamping members oppositely positioned thereon, and means for rotating said guide member to actuate said clamping members thereon, the rotation of the guide member in one direction causing said clamping members to approach each other and grip the side walls of said shoe, and in the opposite direction to recede from each other, to permit the removal of the trunk from its position within the shoe, said clamping members being adapted to swivel on said rotatable member on reaching their outer limits of movement.

4. The combination with a motor vehicle of a spare shoe carried thereby, a tire trunk positioned within said shoe, and means for locking said trunk to said shoe; said means comprising a rotatable member, a pair of clamping members mounted thereon and removable means for operating said rotatable member, the movement of said operating means in one direction causing said clamping members to approach each other and grip the wall of said shoe to firmly lock said trunk thereto, and in the reverse direction to cause said clamping members to recede from each other and out of contact with said shoe to permit the removal of the trunk from its position within said shoe, said clamping members being adapted to swivel on said rotatable member on reaching their outer limits of movement.

5. A locking device comprising a plate having upturned ears at each of its opposite ends, said ears being apertured to provide bearing surfaces, a right and left threaded guide member rotatably mounted within said bearings, clamping members oppositely positioned on said guide member and threaded for actuation thereby, means detachable from said guide member for rotating the same and actuating said clamping members, and means for maintaining said clamping members in clamping position during the actuation thereof, said means becoming ineffective when the clamping members reach the limit of their outward movement, to permit said clamping members to swivel on said guide member.

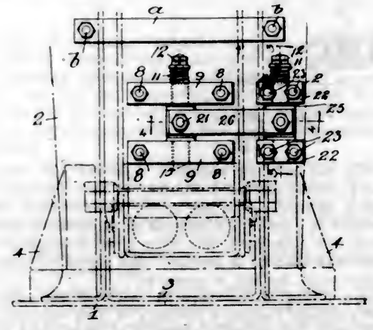
[Claims 6 to 8 not printed in the Gazette.]

1,135,482. CURRYCOMB. ELMER L. ADAMS, Granite, Okla. Filed Mar. 8, 1912. Serial No. 682,416. (Cl. 119—88.)



In a curry comb, the combination with a back plate, provided with a handle of a plurality of spaced comb plates secured thereto, a cleaner plate engageable with the comb plates said cleaner plate being corrugated to form resultant ribs and channels said channels respectively fitting between adjacent comb plates and the ribs, said channels being formed with openings for receiving the outer ends of the comb-plates, the channel portions bearing against the comb plates for the greater portion of their length whereby said plates are supported from bending, springs disposed between the back plate and the cleaner plate for yieldingly holding the latter outwardly to guard said comb plates, said cleaner plate projecting beyond the respective ends of the comb plates, a strengthening bar secured to each end of the cleaner plate beyond the comb plates and a rearwardly projecting forked lever normally in contact with the top of said back plate engaging oppositely disposed notches midway of said plate, fingers formed with the extremities of said forks engaging the central channel of the cleaner plate, a rearwardly projecting angular arm formed with said lever upwardly parallel with the handle, adapted on the depression of said arm to rock said lever on said back plate and to actuate the cleaner plate against the tension of the spring for removing waste matter from the comb plate.

1,135,483. BOLSTER GUIDE AND DAMPER. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 2, 1914. Serial No. 842,399. (Cl. 105—103.)



1. In a car truck, a bolster, a bearing thereon, a truck frame, a bearing thereon, a bar extending between the said bearings and having pivotal connection therewith, a spring extending between the pivotal connections, and means combined with said pivotal connections for varying the tension of said spring.

2. In a truck, a bolster, bearing blocks on the bolster, a truck frame and bearing blocks thereon, cross-bars having bearings engaging the bearing blocks, means for imposing frictional resistance on said bearings, a bar extending between said cross bars, pivots connecting the latter bar and said cross-bars, a spring extending between said pivots, and means for regulating the resistance of said springs.

3. In a car truck, a frame and bolster movably mounted within said frame, bearing blocks on said bolster, a pin in said bearing blocks, a spring on said pin, a link on said pin, a second pin connected to said link, blocks on said frame carrying said last mentioned pin, a spring on said last mentioned pin and a spring adjacent to said link, and means for holding said spring adjacent to said link.

4. In a truck, a frame, with a bolster mounted therein, blocks secured to said frame, a pin extending through said blocks, a spring on said pin, bearing brackets secured to the bolster, a pin in said bearing brackets, a spring on said pin, upright bolts on said pin and a spring extending from said bolt to an upright bolt on the pin in blocks secured to the frame.

5. In a car truck, a frame, a bolster within said frame, bearing blocks on said bolster, a pivotal bar connecting said bearing blocks, bearing blocks on the truck frame, a bar connecting said bearing blocks, a bar extending from said bar and the bar connecting the bearing blocks on the bolster, upright bolts extending through said bars having heads on their lower ends, reduced portions on their upper ends, a spring extending between said upright bolts and nuts for adjusting the tension of said spring.

1,135,484. DISPLAY DEVICE. SIGFRIED ADLER, Chicago, Ill., assignor to Common Sense Novelty Company, Chicago, Ill., a Corporation. Filed Oct. 10, 1913. Serial No. 794,380. (Cl. 40—125.)

1. A device of the character described comprising a frame having a rectangular central opening, a plaque for exposure through said opening, and marginal flaps on said plaque, said frame having recesses adjacent to certain of the sides of said opening for receiving the outer edges of the flaps, the overall dimension from the outer edge of one flap to the outer edge of the opposite flap when the flaps are in the plane of the plaque being greater than the corresponding distance between the recesses which receive the outer edges of said flaps, and the dimension of the plaque from the point where one of said flaps is pointed to it to the point where the opposite one of said flaps is joined to it being less than the corresponding distance between the recesses which receive the edges of said flaps, whereby when the edges of said flaps are in place in said recesses, the flaps are thrown at an angle to the plane of the frame.



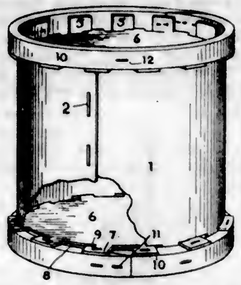
2. A collapsible sign, comprising a frame having a rectangular central opening with recesses along three sides of the internal margin thereof, a rectangular plaque bearing the sign matter, three marginal flaps on said plaque adapted to enter into said recesses, the overall dimension from the edge of one of said flaps to the edge of the opposite flap when the flaps are in the plane of the plaque being greater than the corresponding distance between the two recesses which receive the edges of said flaps, and an additional marginal flap on said plaque permanently secured to the back of the frame, all of said flaps being hinged to the plaque independently of each other, and the flaps being beveled at the ends substantially as described.

3. A collapsible sign comprising a flat frame having a rectangular central opening, a plaque slightly smaller than the opening in the frame, side walls adapted to hold the plaque parallel to and behind the plane of the frame, said walls being flexibly connected to the edges of the plaque and beveled at the ends whereby they may touch end to end when the sign is set up, said frame having pockets at the internal marginal edges for removably holding the margins of the side walls.

1,135,485. SHIPPING-CRATE. JOHN M. ALDERFER, Sharon Center, Ohio. Filed Jan. 11, 1915. Serial No. 1,647. (Cl. 229—45.)

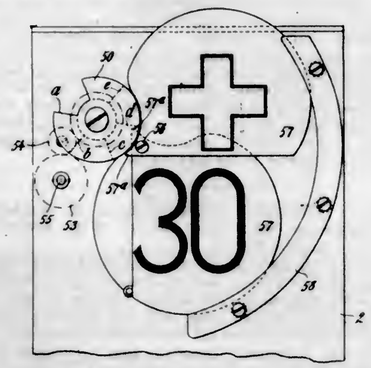
1. A shipping package or crate comprising a cylindrical body member provided at one end thereof with a plurality of upwardly-projecting lugs spaced from each other to provide notches between them, said lugs further provided with slots extending from the intervening notches and positioned near the places where the lugs are united with the body member, said notches extending in a plane parallel with the outer ends of said body member, a head comprising a piece of sheeted material provided with radially-extending lugs spaced apart to provide intervening notches, slots in said lugs extending from the intervening notches part way through said lugs, the lugs in the head adapted to register the notches in the body

member so that the latter may be passed therethrough and interlock with the lugs on the heads, a strengthening ring secured to the lugs on said head and coöperating with the walls of the notches therein to form concentric slots spaced apart and adapted to receive the lugs on the body member whereby the lugs on the heads and the lugs in the body member may interlock when one of the members is circumferentially shifted with respect to the other member.



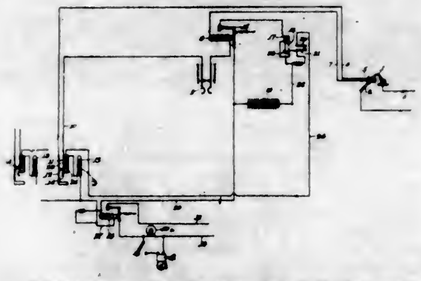
2. A shipping package or crate comprising a cylindrical body member, the upper edge of which is provided with a plurality of spaced notches providing lugs between them, said lugs provided with transverse slots, a head-forming member provided at its marginal portion with a plurality of radially-extending notches positioned to register with the lugs of the body member, said notches providing lugs between them, said lugs provided with transverse slots, an annular stiffening member secured to said lugs and positioned with the inner face thereof in approximate registration with the outer wall of the transverse slots in the lugs on said head and to form in connection with the inner walls of the notches thereof openings to receive the lugs of the body member, the slots in the two members permitting circumferential shifting of one member with respect to the other to permit the overhanging portions of the lugs of the two members to interlock for holding the two in assembled relation.

1,135,486. TACHOMETER. ARNOLD ALLEMANN, Berne, Switzerland, assignor to Firma Schweiz. Kommissions- und Aufbewahrungs-Haus für Das In- und Ausland Tomaschpolsky & Weidenfeld, Berne, Switzerland, a Corporation of Switzerland. Filed June 10, 1913. Serial No. 772,745. (Cl. 116—31.)



In combination with a tachometer a mechanism for indicating the momentary speed of vehicles and the like, comprising a rotated plural cam-disk, a pivot, and a plurality of indicating disks loosely mounted on said pivot, each indicating disk having a projection adapted to be engaged by one of the cam-faces of said cam-disk to be moved thereby out of its normal position, said cam disk being able to hold the indicating disks in their relative positions.

1,135,487. SIGNALING SYSTEM. EDWARD E. BACKUS, Chicago, Ill., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Filed Apr. 28, 1913. Serial No. 764,199. (Cl. 179—72.)



1. In a system of the character described, the combination of a central station, a plurality of lines entering said station, a signal for each line at the central station under the control of a selector, a selector at said central station for each line responsive only to a given arrangement of impulses and adapted to maintain said signal in operative condition until the call is answered.

2. In a system of the character described, the combination of a central station, a plurality of lines entering said station, each line having a plurality of substations thereon, a signal for each line, a selector at the said central station for each line controlling said signal and responsive to a call from any substation on the corresponding line and adapted to maintain said signal in its actuated condition until the call is answered and means to restore said selector and signal to normal.

3. In a system of the character described, the combination of a central station, a plurality of lines entering said station, a selector at said central station for each line responsive only to a given arrangement of impulses, a signal controlled by each selector and means operated with each signal for keeping the signal in operative condition until the call is answered.

4. In a system of the character described, the combination of a central station, a plurality of lines entering said station, each line having a plurality of substations thereon, a selector at the said central station for each line responsive to a call from any substation on the corresponding line, a signal under the control of said selector, means operable upon circuit controlling actuation of said selector to maintain said signal in its actuated position, and means to restore said selector signal to normal.

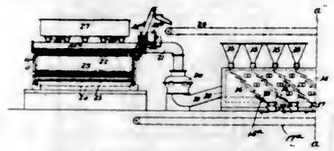
5. In a system of the character described, the combination of a central station, a plurality of lines entering said staotion, each line having a plurality of substations thereon, a selector at the said central station for each line responsive to a call from any substation on the corresponding line, a signal under the control of said selector, a locking coil operable upon circuit controlling actuation of said selector to maintain said signal in its actuated position, and means to restore said signal to normal.

[Claims 6 to 10 not printed in the Gazette.]

1,135,488. METHOD OF TREATING ORES. RALPH BAGGALEY, Pittsburgh, Pa. Filed June 17, 1913. Serial No. 774,113. (Cl. 75—30.)

1. In the smelting of copper, gold and silver ores, the method of preventing the escape into the atmosphere of injurious fumes and dust from a furnace, which consists in delivering them in relatively small streams into a bath of neutralizing liquid at a considerable distance below the surface thereof and permitting them to pass upwardly through such bath, substantially as described.

2. In the smelting of sulfid ores, the method which consists in conveying the sulfur-bearing fumes resulting from the smelting and reducing operation and conducting them in relatively small streams into a bath containing milk of lime at a point considerably below its surface, thereby causing the fumes to bubble upwardly through the bath; substantially as described.



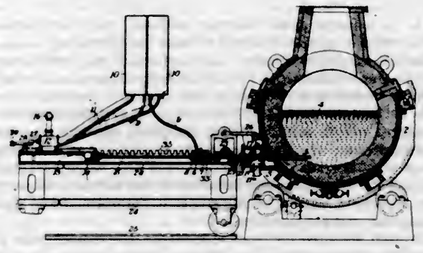
3. In the smelting of sulfid ores, the method which consists in confining the fumes and dust resulting from the smelting operations, and bringing them in contact with fresh ore, and thereafter forcing the gases in small streams into a liquid bath containing a neutralizing agent for the sulfur compounds in the gases; substantially as described.

4. In the smelting of copper, gold and silver ores, the method which consists in the smelting of the ores in a closed furnace, conveying the fumes and dust from the furnace through a closed passage and into contact with value-bearing material, and thereafter forcing the gases into a liquid bath containing a neutralizing agent, substantially as described.

5. In the smelting of copper, gold and silver ores, the method which consists in smelting and converting the ores confining the fumes resulting from the smelting operation and bringing them into contact with value-bearing material to preheat the same for use in the smelting and converting operations, and causing said value-bearing material to receive a deposit of the ore and fuel values contained in the fumes and reducing the temperature of said gases before bringing them in contact with such material to a temperature below that at which the gases will cause fusion of the sulfur contained in said material, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,135,489. MEANS FOR INCREASING THE AIR-BLAST OF CONVERTERS AND FURNACES. RALPH BAGGALEY, Pittsburgh, Pa. Filed July 14, 1913. Serial No. 778,871. (Cl. 75—3.)



1. Apparatus for punching twyers, comprising a hollow twyer-punching bar having separate inlet and outlet passages for a cooling medium, a motive device connected to the bar for the purpose of reciprocating the same within the twyer, and means for supplying a cooling medium to the inlet passage of said bar during its reciprocation, substantially as described.

2. In an apparatus of the character described, the combination of a furnace or converter having a twyer, of a punching bar adapted for reciprocation through the twyer, a motive device for reciprocating said bar, together with means for cleaning the exterior of the bar as it is reciprocated; substantially as described.

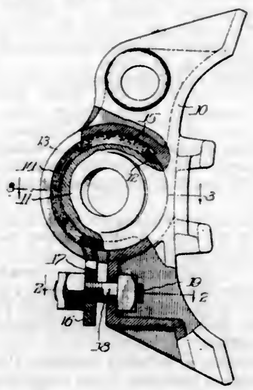
3. Apparatus of the character described, comprising a plurality of hollow reciprocating twyer-punching bars arranged side by side, a separate motor for reciprocating each bar, and means for maintaining a separate circulation of a cooling fluid within the interior of each bar; substantially as described.

4. Apparatus of the character described, comprising a movable car or carriage, a plurality of hollow twyer-punching bars mounted thereon, a separate actuating motor for reciprocating said bar, said motors being also mounted on the carriage, and means for effecting the circulation of a cooling fluid within the interior of each bar; substantially as described.

5. Apparatus of the character described, comprising a series of hollow twyer punching bars arranged side by side, a separate motor for reciprocating each bar, valve means for controlling the motors, and devices for successively actuating the valves of the different motors; substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,135,490. BRAKE-HEAD. CARL E. BAUER, Hammond, Ind., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed June 5, 1914. Serial No. 843,149. (Cl. 188—28.)



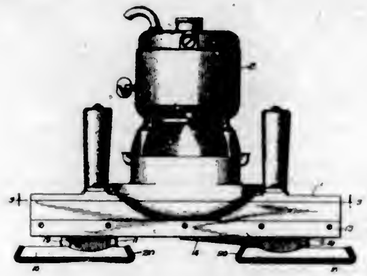
1. In a device of the class described, the combination of a peripherally recessed sleeve, a head mounted thereon, said head having an opening registering with the recess in the sleeve, a spring strap having a portion thereof curved and having straight ends, one end of which is adapted to be bent by being forced into a curved space in said head, and means for clamping the free end of said strap, whereby to hold said head against rotation, substantially as described.

2. In a device of the class described, the combination of a sleeve, a head mounted thereon, a space being left between said sleeve and head at a point in the periphery of the sleeve, a spring having a straight portion adapted to be forced into the curved space between said head and sleeve, and means for clamping the free end of said spring whereby to hold said head against rotation on the sleeve, substantially as described.

3. In a device of the class described, the combination of a sleeve, a head and a spring locking device for preventing relative rotation between said head and sleeve, said locking device consisting in a curved plate having straight ends, the ends of said plate being held by engagement with the head, the curved portion of the plate bearing against said sleeve, substantially as described.

4. In a device of the class described, the combination of a recessed sleeve, a head rotatably mounted thereon, said head being cast in a single piece and being provided with an opening in its back, a flat spring having straight end portions for engagement with said head and with a curved portion engaging said sleeve and a bolt for forcing said spring against said sleeve, substantially as described.

1,135,491. RUBBING OR POLISHING MACHINE. PETER BAUKIN, Beloit, Wis., assignor to C. Mattison Machine Works, Beloit, Wis., a Corporation of Wisconsin. Filed Dec. 8, 1913, Serial No. 805,206. Renewed Dec. 23, 1914. Serial No. 878,823. (Cl. 51—13.)



1. In a rubbing or polishing machine, a structure having a guideway opening upon its lower side; two slides in said guideway; means for moving said slides; guards connected to said slides and extending below and closing said guideway against the entrance of liquid from below; and pads attached to the slides.

2. In a rubbing or polishing machine, a structure having a guideway in its lower side; slides movable in said guideway; means for moving said slides toward and away from each other; a guard extension connected to each slide, said extensions extending toward each other and overlapping each other in all positions of said slides to close the lower side of the guideway; and pads attached to the slides.

3. In a rubbing or polishing machine, a structure having a guideway in its lower side; two slides movable in said guideway; means for moving said slides; a member fixed to each slide; a guard extension on each member, said guard extensions extending toward each other and overlapping each other in all positions of the slides; pad-holders detachably connected to said members; and pads attached to the pad-holders.

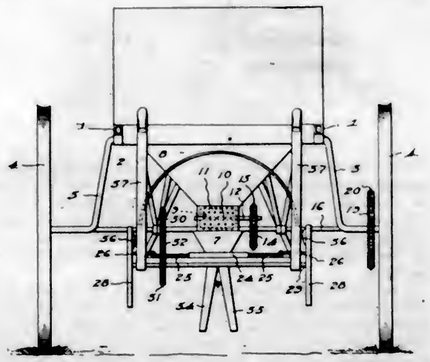
4. In a rubbing or polishing machine, a structure having a longitudinal guideway in its lower side, said guideway stopping short of the ends of the structure; two slides in said guideway; means for moving said slides; a guard extension connected to and extending outwardly from each slide and underlying said structure, said extensions being of sufficient length to extend beyond the ends of the guideway when said slides are in their innermost position; and rubbing pads connected to said slides.

5. In a rubbing or polishing machine, a structure having a guideway in its lower side, said guideway stopping short of the ends of the structure; two slides movable in said guideway; means for reciprocating said slides; a member fixed to each slide; a guard extension on each member, said guard extensions extending toward each other and overlapping each other in all positions of the slides; a guard extension extending outwardly from each member and underlying said structure, said last mentioned extensions being of sufficient length to extend beyond the ends of the guideway in all positions of the slides; a guard flange extending downwardly from the structure at each side of the path of movement of the members; pad-holders detachably connected to the members; and pads attached to the pad-holders.

[Claims 6 to 10 not printed in the Gazette.]

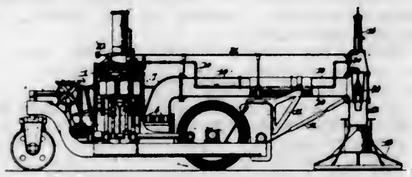
1,135,492. FERTILIZER-DISTRIBUTER. ERNEST L. BEEZLEY and FRANK LANE, Mount Pleasant, Iowa. Filed Oct. 15, 1914. Serial No. 866,836. (Cl. 111—15.)

In a fertiliser distributer, a supporting frame, a fertilizer retaining box, a detached dispensing spout, at platform suspended beneath said supporting frame, a pair of slidable doors carried by said platform, arms connected to said doors, levers connected to said arms, disks carried by said platform, means for rotating said disks by the traction of said frame, enlargements formed upon one face of said disks, said levers engaging said disks and operable by said enlargements for moving said doors from each other for permitting of the passage of fertilizer



through said dispensing spouts, and means for moving said doors toward each other for cutting off the passage of fertilizer through said dispensing spouts.

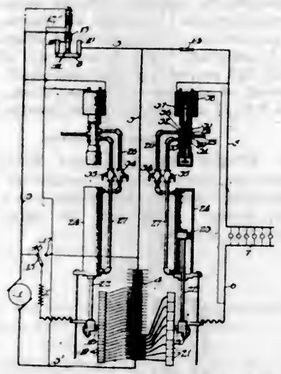
1,135,493. SURFACE-HEATER. GEORGE R. BIRNEY, Philadelphia, Pa., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa., a Corporation of West Virginia. Filed Mar. 15, 1912. Serial No. 683,974. (Cl. 126—271.3.)



1. In a machine for heating surfaces, the combination of a vehicle; means mounted thereon for producing heated products of combustion; a long horizontal flue, with a depending end fitted with a hood, whereby these heated products of combustion are led to and caused to impinge upon the surface to be heated; a steam blast apparatus discharging within said flue, near the hood, and inducing the required down draft within the flue; a steam pipe leading from a boiler to said blast, said steam pipe being arranged to pass for a considerable distance within the flue, whereby the high temperature of the steam is maintained and condensation thereof prevented.

2. In a machine for heating surfaces, the combination of a vehicle; means mounted thereon for producing heated products of combustion; a long horizontal flue, with a depending end fitted with a hood, whereby these heated products of combustion are led to and caused to impinge upon the surface to be heated; a steam blast apparatus discharging within said flue, near the hood, and inducing the required down draft within the flue; a steam pipe leading from a boiler to said blast, said steam pipe being arranged to pass for a considerable distance within the flue, whereby the high temperature of the steam is maintained and condensation thereof prevented, said steam pipe being caused to emerge from the flue for a sufficient distance before reaching the stem blast apparatus for purposes of regulation.

1,135,494. END-CELL REGULATOR. WILLIAM LORD BLISS, Brooklyn, N. Y., assignor, by mesne assignments, to Central Trust Company of New York, a Corporation of New York. Filed May 9, 1907. Serial No. 372,741. (Cl. 171—314.)



1. In combination, a generator having a field circuit, a load circuit supplied by said generator, an electroresponsive device for each circuit and a switch controlled by each device, each switch adapted to introduce a counter E. M. F. into the circuit which it controls, by varying the number of battery cells therein, the same battery serving both circuits.

2. In a system of electrical distribution, the combination of a generator having a shunt field coil, a translating circuit, a storage battery consisting of a plurality of cells arranged to have a greater or lesser number thereof oppose both the current in said shunt field coil and in said translating circuit, a plurality of end cell switches, one for controlling the field coil circuit and the other for controlling the translating circuit, and electroresponsive means for independently operating said switches.

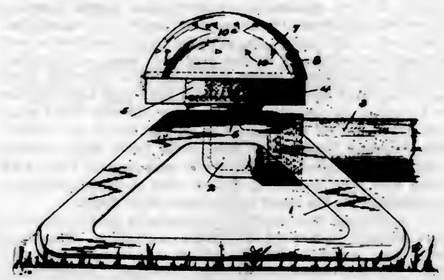
3. In a system of electrical distribution, the combination of a generator having a shunt field coil, a translating circuit, a storage battery consisting of a plurality of cells arranged to have a greater or lesser number thereof oppose both the current in said shunt field coil and in said translating circuit, two end cells switches, one for controlling the field coil circuit and the other for controlling the translating circuit, motive power devices for controlling said switches independently, and electroresponsive means for operating said motive power devices.

4. In a system of electrical distribution, a generator, translating devices, a storage bottery connected to said generator, means including an electroresponsive device and a motive power device controlled thereby for varying the number of battery cells in series with said translating devices to thereby introduce more or less counter electromotive force into circuit with them, said electroresponsive device being subject to variations in the voltage impressed upon said translating devices, a shunt field coil in circuit with said generator and means including an electroresponsive device and a motive power devices controlled thereby for varying the number of battery cells in series with said field coil to thereby introduce more or less counter electromotive force into circuit with said field coil.

5. In combination, a generator, a storage battery, translating devices, said generator being adapted to supply current to said storage battery and also to said translating devices when running under certain conditions, and said storage battery being adapted to supply current to said translating devices under other conditions, a switch adapted to connect more or less cells of said battery in the field circuit of said generator to vary the counter electromotive force introduced into said circuit, a motive power device for operating said switch and an electroresponsive device adapted to respond to variations in the electrical conditions produced by said generator to control the operation of said motive power device.

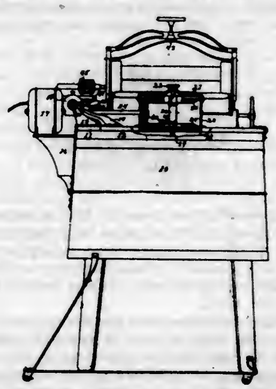
[Claims 6 and 7 not printed in the Gazette.]

1,135,495. LAWN-SPRINKLER. WELLS UMBERGER BRIGGS and HARRY MORRIS MICHAEL, Alamosa, Colo. Filed July 27, 1914. Serial No. 853,387. (Cl. 137—87.)



A lawn sprinkler embodying an approximately semi-spherical head having its interior wholly devoid of obstructive parts, and its exterior provided with a plurality of rows of substantially semi-cone shaped nozzles communicating directly with the interior of the head, the adjacent rows of nozzles discharging in opposite directions.

1,135,496. DRIVING MECHANISM. LEVI BROWN, Clarinda, Iowa, assignor to Clarinda Lawn Mower Company, Clarinda, Iowa, a Corporation of Iowa. Filed May 13, 1914. Serial No. 838,265. (Cl. 74—50.)



1. A driving mechanism, comprising a power shaft, a countershaft, releasable gear connections between said shafts, a dolly shaft mounted for rotary oscillation, a bevel gear on said countershaft, bevel gears mounted for rotation on opposite sides of the first bevel gear and arranged eccentrically relative to said dolly shaft, and means for alternately connecting said latter bevel gears to the dolly shaft.

2. A driving mechanism, comprising a power shaft, a countershaft geared to said power shaft and adapted to be disconnected therefrom at times, a cylindrical gear case, a dolly shaft mounted for rotary oscillation through and eccentrically of said gear case, a bevel gear on said countershaft within said gear case, opposing bevel gears mounted for rotation and adapted to be driven by the first bevel gear, and means for alternately connecting said latter bevel gears to the dolly shaft.

3. A driving mechanism, comprising a power shaft, a countershaft releasably connected thereto, a cylindrical

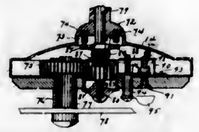
gear case, a dolly shaft mounted for rotary oscillation and arranged eccentrically relative to said gear case, a bevel gear on said countershaft within said gear case, opposing bevel gears mounted for rotation in said gear case and adapted to be driven in opposite directions by the first bevel gear, and arms on said dolly shaft in the planes of the opposing bevel gears, said bevel gears being formed with lugs adapted to be engaged by said arms alternately.

4. A driving mechanism, comprising a power shaft, a countershaft releasably connected thereto, a cylindrical gear case, a dolly shaft mounted for rotary oscillation and arranged eccentrically within said gear case, a bevel gear on said countershaft within said gear case, opposing bevel gears mounted for rotation in said gear case and adapted to be driven in opposite directions by the first bevel gear, and arms on said dolly shaft in the planes of the respective opposing bevel gears, said bevel gears being formed with lugs adapted for alternate engagement with said arms, said gear case being formed with stops for alternate engagement by the lower arm of said dolly shaft.

5. A driving mechanism, comprising a power shaft, a countershaft releasably connected thereto, a cylindrical gear case, a dolly shaft mounted for rotary oscillation and vertical adjustment and arranged eccentrically through said gear case, a bevel gear on said countershaft within said gear case, opposing bevel gears mounted for rotation in opposite directions within said gear case and in mesh with the first bevel gear, and a sleeve mounted on and for rotation with said dolly shaft, radial arms on one side of said sleeve and vertically spaced, the opposing bevel gears being formed with radial lugs adapted for alternate engagement with said radial arms.

[Claims 6 to 8 not printed in the Gazette.]

1,135,497. THROW-OFF MECHANISM FOR FISHING-REELS. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, a Corporation of New Jersey. Filed Feb. 26, 1914. Serial No. 821,179. (Cl. 242—84.7.)



1. In a throw-off mechanism for fishing reels, the combination of a spool, a train of gears for rotating said spool, means for locking said gear train in engagement with said spool, and manually released spring mechanism for unlocking said means and for disengaging said train of gears from said spool.

2. In a throw-off mechanism for fishing reels, the combination of a line spool, a train of gears for rotating said spool, means for engaging and disengaging said spool from said train of gears, comprising a spring actuated oscillating reciprocating shaft, and manually operated means for oscillating said shaft to effect said disengagement and for reciprocating said shaft to effect said disengagement.

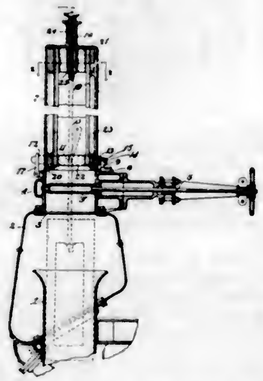
3. In a throw-off mechanism for fishing reels, the combination of a line spool, and a manually driven train of gears for rotating said spool, means for retaining the engagement of said spool and train of gears, comprising a spring pressed reciprocating shaft, means for manually depressing said shaft to effect said engagement, and automatic locking mechanism for locking said shaft against a reverse reciprocation.

4. In a throw-off mechanism for fishing reels, the combination of a line spool, and a manually driven train of gears in normal engagement with said spool for rotating the same, a shaft mounted for limited oscillation upon, and for limited reciprocation in the direction of its axis, a double acting spring connected with said shaft for yieldingly holding the same against oscillation in one direction, and against reciprocation in one direction, and means connecting said shaft with an element of said gear train for engaging the same with and disengaging the same from said spool.

5. In a throw-off mechanism for fishing reels, the combination of a line spool, and a manually driven gear train in normal engagement with said spool to rotate the same, a shaft mounted for limited oscillation upon and reciprocation in the direction of, its axis, an arm upon said shaft engaging an element of said gear train whereby the reciprocation of said shaft in one direction will effect a locked engagement and an oscillation of said shaft will effect a disengagement of said gear train and spool.

[Claims 6 to 17 not printed in the Gazette.]

1,135,498. STAND-PIPE-CLEANING MEANS. HENRY A. CARPENTER, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 25, 1914. Serial No. 834,429. (Cl. 83—64.)



1. The combination with a gas retort stand-pipe, of cleaning means therefor including a detachable casing and a tool, means for entering the tool into the stand-pipe, and means constituting a gas-tight connection between the stand-pipe and said casing.

2. The combination with a gas retort stand-pipe, and closure means therefor, of cleaning means for the stand-pipe including a casing and a tool, the latter adapted to be entered in the stand-pipe, said casing and closure having coöperating means to prevent communication between the gas and atmosphere during the cleaning operation.

3. The combination with a stand-pipe, a cleaning tool therefor, a valve passage through which the tool is adapted to be entered and withdrawn, and a tool inclosing casing having a removable gas-tight connection with said passage outwardly from the valve.

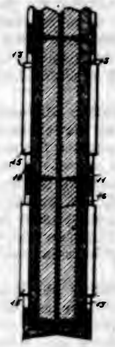
4. The combination with a gas retort stand-pipe, of means effective to clean the stand-pipe during the passage of gas therethrough including a casing in communication with the stand-pipe and a tool having an opening to permit of the passage of gas through the tool, and means for lowering the tool from the casing into the stand-pipe.

5. The combination with a gas-retort stand-pipe and closure means therefor, of a stand-pipe cleaning means including a tool, and means for lowering the tool through the closure means into the stand-pipe.

[Claims 6 to 13 not printed in the Gazette.]

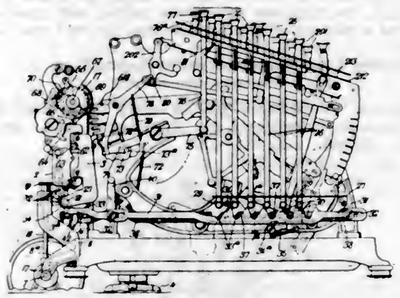
1,135,499. STORAGE-BATTERY PLATE. ALBERT L. CHAMBERLIN, Des Moines, Iowa. Filed May 31, 1911. Serial No. 630,442. (Cl. 204—29.)

An improved battery plate, comprising two frames or grids, made of conducting material, a series of porous plates made of nonconducting material fitted within the frames or grids and a layer of active material between the frames or grids in electric contact with both frames or grids, said frames or grids being in electric contact with each other and a thin layer of electric conducting material



arranged in the center of the active material and in electric contact with both frames or grids.

1,135,500. TABULATING MECHANISM FOR ADDING-MACHINES. JOHN J. CHAPIN, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed June 9, 1910. Serial No. 566,022. (Cl. 197—177.)



1. The combination with a laterally shiftable paper carriage capable of occupying any one of a plurality of columnar positions, and automatically reversing means for propelling it in both directions; of column-determining and propelling-means-controlling devices including provisions for effecting automatic shift of the carriage from an advanced columnar position to any precedent columnar position by continuous motor action.

2. The combination with a laterally shiftable paper carriage capable of occupying any one of a plurality of columnar positions, and a unitary motor means for propelling it in both directions; of column-determining and motor-means-controlling devices including double-acting column-stops for variously limiting movement of the carriage in either direction, and provisions for automatically reversing the movement of the carriage.

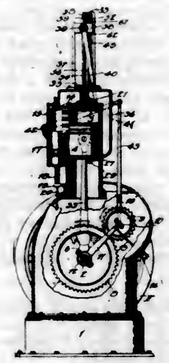
3. The combination with a laterally shiftable paper carriage capable of occupying any one of a plurality of columnar positions, motor means for driving the same, reversible clutch mechanism intermediate the motor means and the carriage, and column-determining and clutch-controlling devices for effecting the shift of the carriage from an advanced to a preceding columnar position.

4. The combination with a laterally shiftable paper carriage capable of occupying any one of a plurality of columnar positions, motor means for driving the same, automatically reversing clutch mechanism intermediate the motor means and the carriage, and column-determining and clutch-controlling devices for effecting shift of the carriage from an advanced to a preceding columnar position.

5. The combination with a laterally shiftable paper carriage capable of occupying any one of a plurality of columnar positions, motor means for driving the same, reversible clutch mechanism intermediate the motor means and the carriage for engaging the same to drive the carriage, manually operable means for engaging the clutch mechanism to shift the carriage in one direction, automatic means for reversing the clutch to drive the carriage in the opposite direction, and means for arresting the carriage at any desired columnar position.

[Claims 6 to 25 not printed in the Gazette.]

1,135,501. EXPLOSIVE-ENGINE. WALTER W. CONNERS, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,433. (Cl. 123—66.)



1. In an internal combustion engine a cylinder, a crank shaft, a power piston mounted for reciprocation within said cylinder and connected with said crank shaft, supplemental piston within said cylinder between the head thereof and said power piston and means operated by said crank shaft for locking said supplemental piston against reciprocation until said power piston has neared the end of a working stroke, mechanism for then releasing said locking means, means for rapidly moving said supplemental piston toward said power piston to expel the burnt gases and to simultaneously draw in a fresh charge of gas between said supplemental piston and the cylinder head and for returning said supplemental piston at a speed more rapid than the return travel of said power piston, means for conducting the fresh charge of gas into the space between said power and supplemental pistons, and mechanism for releasing the operating means for said supplemental piston and for actuating the locking means therefor.

2. In an explosive engine, a cylinder, a crank shaft, a power piston mounted for reciprocation within said cylinder and connected to said crank shaft, a supplemental piston mounted for reciprocation within said cylinder, a clutch reciprocated by the crank shaft, means for alternately connecting said supplemental piston with said reciprocating clutch and for locking said piston against reciprocation.

3. In an explosive engine, a cylinder, a crank shaft, a power piston mounted for reciprocation within said cylinder, a supplemental piston mounted for reciprocation within said cylinder between the head thereof and said power piston, said head having an opening, a piston rod slidable through said opening and connected to said supplemental piston, a cross head slidable upon said piston rod and reciprocated by said crank shaft, shoulders on said piston rod, a hook on said cross head, a hook supported by said cylinder and means for simultaneously engaging one of said hooks with and for disengaging the other hook from said shoulders.

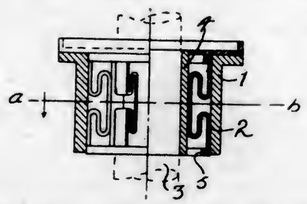
4. In an explosive engine, a cylinder, a crank shaft, a power piston mounted for reciprocation within said cylinder, a supplemental piston mounted for reciprocation within said cylinder between the head thereof and said power piston, said head having an opening, a piston rod

slidable through said opening and connected to said supplemental piston, a cross head slidable upon said piston rod and reciprocated by said crank shaft, shoulders on said piston rod, a hook on said cross head, a hook supported by said cylinder, a bell crank lever pivotally supported by said cylinder and formed with an eye, an eccentric on the crank shaft, a rod reciprocated by said eccentric and passing loosely within said eye, shoulders on said rod and adapted to engage said eye and thereby rock said bell crank and connections between said hooks and said bell crank for simultaneously engaging one of said hooks with and disengaging the other hook from the shoulders on said piston rod, when said bell crank is rocked.

5. In an internal combustion engine, a main cylinder, a power and a supplemental piston mounted for reciprocation therein, a supplemental cylinder, vertically spaced ports establishing communication between said supplemental and main cylinders at a point directly inside the latter and at a point spaced outwardly therefrom, a plunger in said supplemental cylinder, a stem depending from the lower end of said plunger, a guide secured to and offset from said cylinder to slidably receive said stem, and a spring interposed between the plunger and said guide, said plunger acting to close the port disposed contiguous to the head of said main cylinder on an intake stroke of the supplemental piston and to automatically open said communication against the tension of its spring on a compression stroke of said supplemental piston substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,135,502. RESILIENT NECK-BEARING. JOHN R. COX, Waterloo, Iowa, assignor to The William Galloway Company, Waterloo, Iowa. Filed Nov. 12, 1912. Serial No. 730,959. (Cl. 64—48.)



A resilient neck bearing, comprising a neck-bearing body, a concentric inclosing casing-body, a plurality of parallel vertical spaced resilient bars located about the neck-bearing body and between said bearing and the concentric inclosing casing-body and each formed and adapted to bear against both said bearing and casing yieldably, each bar having its end portions in the same plane vertically, the bar being bent near each extremity into an outwardly-directed loop and again bent into a reversely-directed loop, the medial part of the bar between the reversely-directed loops lying in a plane parallel to that of the ends of the bar, and providing flat contacting-means adapted to bear yieldingly upon the one of said bodies opposite the other body upon which the ends of the bar are in contact.

1,135,503. DEVELOPING-TRAY. GEORGE M. CRAWFORD, Pittsburgh, Pa. Filed June 6, 1914. Serial No. 843,400. (Cl. 95—89.)



1. A device for treating photographic plates and the like, comprising a tray for containing a plate-affecting fluid, said tray being adapted for the reception of a plate horizontally therein so as to be immersed in the fluid, and means for withdrawing the fluid at one part of said tray and re-introducing it at another part, whereby a continuous circulation of the fluid is maintained about the plate immersed therein.

2. A device for treating photographic plates and the like, comprising a tray for containing a plate-affecting fluid, said tray being adapted for the reception of a plate horizontally therein so as to be immersed in the fluid, and a pump having its inlet and outlet connected with said tray, whereby, when said pump is operated, a continuous circulation of the fluid is maintained about the plate immersed therein.

3. A device for treating photographic plates and the like, comprising a tray for containing a plate-affecting fluid, said tray being adapted for the reception of a plate horizontally therein so as to be immersed in the fluid, and said tray having a reservoir therein communicating with the remainder thereof, and means for withdrawing the fluid from said tray outside said reservoir and re-introducing the fluid into said reservoir, whereby a continuous circulation of the fluid is maintained about the plate immersed therein.

4. A device for treating photographic plates and the like, comprising a tray for containing a plate-affecting fluid, said tray having means therein for supporting plates horizontally above the bottom thereof and immersed in the fluid, and means for withdrawing the fluid at one part of said tray and introducing it at another part, whereby a continuous circulation of the fluid is maintained about the plate immersed therein.

5. A developing device comprising a tray for the developing fluid, a reservoir at one end of said tray, means for holding the plates to be developed within the tray and fluid, and pumping means for discharging said fluid into said reservoir to circulate the developing fluid therefrom through the tray and around the plates, said reservoir having a perforated wall to discharge the fluid into said tray.

[Claims 6 to 9 not printed in the Gazette.]

1,135,504. SANITARY CIGAR-CAP. GARIBALDI DE FERNANZO, Philadelphia, Pa. Filed Apr. 6, 1914. Serial No. 829,885. (Cl. 131—52.)



1. A sanitary cigar cap having at its open larger end, a circular series of inwardly projecting movable devices adapted to lock with the cigar, substantially as described.

2. A sanitary cigar cap of general conical form having at its larger end a series of inwardly and rearwardly projecting tongues, substantially as described.

3. A sanitary cigar cap of general conical form having at its larger end a circular series of inwardly and rearwardly projecting tongues, and having its smaller end closed by a series of overlapping tongues, substantially as described.

4. The combination with a cigar, of a sanitary cap positioned on the end of the cigar conforming in shape to the shape of the end of the cigar, and having at its larger end rearwardly projecting tongues interlocking with the cigar, substantially as described.

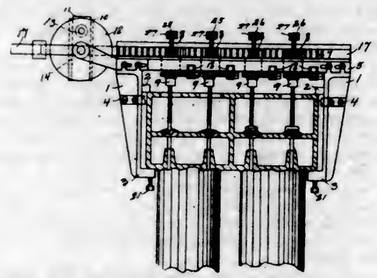
5. The combination with a cigar, of a sanitary cap positioned on the end of the cigar conforming in shape to the shape of the end of the cigar, said cap having at its larger end a circular series of inwardly and rearwardly projecting tongues forming an annular groove in the cigar, substantially as described.

[Claim 6 not printed in the Gazette.]

1,135,505. VALVE-GRINDING MACHINE. FORREST E. DEVINE, Madison, Wis. Filed July 6, 1914. Serial No. 849,368. (Cl. 51—4.)

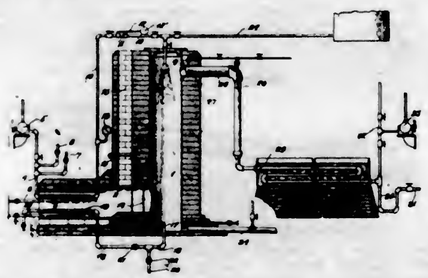
In a device of the kind described, two brackets extending downward and hooking under the chest of an engine,

ledges on the inner faces of said brackets resting upon the top edges of said chest, set screws through the bottom lugs, a bar secured to the front side of said brackets fastening the two together, a frame adjustably secured to the top of the said brackets, a bracket secured to the front and left end of said frame, a bearing through said bracket, a shaft journaled in said bearing, a crank handle attached to the outer end of said shaft, a crank disk attached to the inner end of said shaft, a crank pin in said crank disk, a sliding block revolubly disposed on said



crank pin, said block slidably disposed within a link, said link secured to a bar, the bar slidably disposed in the rear bar of the frame, a toothed rack secured to the face of said sliding bar, said rack in mesh with a plurality of pinions, said pinions operatively carrying vertical spindles, said spindles adapted to engage the valves of an automobile engine, means for adjusting said pinions longitudinally of a frame, means for adjusting the frame laterally on the brackets, weights attached to the top of the aforesaid spindles, as described and set forth.

1,135,506. TREATMENT OF PETROLEUM. JESSE A. DUBBS, Santa Monica, Cal., assignor to National Hydrocarbon Company, Chicago, Ill., a Corporation of South Dakota. Filed June 3, 1911. Serial No. 631,189. (Cl. 196—25.)



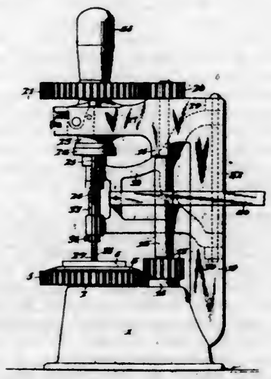
1. The process of treating petroleum which consists in mixing with petroleum water, under pressure, then subjecting the mixture to a vaporizing temperature and a pressure of from 50 to 600 pounds per square inch, and thereupon allowing the vaporized mixture to escape in a vaporizing chamber.

2. The process of treating or vaporizing petroleum which consists in intimately mixing with the petroleum, under pressure, a quantity of water determinable by the gravity of the petraleum, then subjecting the mixture to heat sufficient to vaporize the same and to pressure above atmospheric pressure, then allowing the vaporized mixture to expand in a heated chamber, and finally separating and condensing the vapors.

3. The process of treating petroleum or its derivatives which consists in mixing water with the petroleum or its derivatives, heating the mixtures, subjecting the mixture to pressure above atmospheric pressure, and then relieving the pressure and collecting the products.

4. The described process for effecting a maximum vaporization of hydrocarbon oil by the expansible action of steam generated from water mixed therewith, comprising confining a mixture of oil and water, heating the same under pressure, said pressure in part being produced by the volatilization of the mixture, the steam generating from the water interacting in confinement with the oil and increasing the volatilization thereof, and thereafter relieving the pressure and discharging the mixture into a vaporizing chamber in the form of a finely divided spray, the steam thereupon, by its expansive energy, acting to additionally break up the oil into vapors.

1,135,507. LENS-CUTTING MACHINE. WALTER S. ESSICK, Reading, Pa., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed Sept. 29, 1914. Serial No. 864,032. (Cl. 33—28.)



1. In a machine of the class described, the combination of mechanism for relatively moving a blank and a cutter in coöperative relation, with a movable detent, and a handle adapted to engage the detent for arresting their relative movement at the completion of the cycle of coöperative actuation.

2. In a machine of the class described, the combination of means for relatively moving a blank and a cutter, in coöperative relation, comprising a handle adapted to be projected by the operator, and a detent in the path of the handle when projected, to arrest the relative movement of said blank and cutter at the termination of each cycle of operation.

3. In a machine of the class described, the combination of mechanism for relatively moving a blank and a cutter in coöperative relation, with means for insuring only a complete cycle of movement of such mechanism, comprising a plunger, arranged to traverse a circular path, a detent having a limited range of movement, against which said plunger is stopped in its rotary movement, and means for forcing said detent into the path of said plunger.

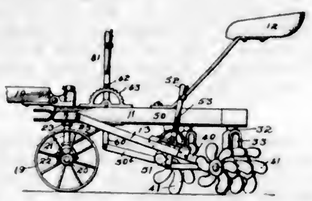
4. In a machine of the class described, the combination of a rotatable blank carrier, a cutter arranged to engage a blank on said carrier, a movable support for said cutter, means connected to rotate said blank carrier in operative engagement with said cutter and to simultaneously move said cutter laterally with respect to the axis of rotation of said blank carrier, a projectable handle and a movable detent adapted to engage the projectable handle to stop said carrier upon the complete rotation of said blank.

5. In a machine of the class described, the combination of a rotatable blank carrier, a cutter arranged to engage a blank on said carrier, a pivoted support for said cutter, a former operative to move said cutter over the surface of said blank, means connected to simultaneously rotate said former and carrier, a detent and a projectable handle

adapted to engage the detent to stop said carrier upon the completion of each rotation.

[Claims 6 to 12 not printed in the Gazette.]

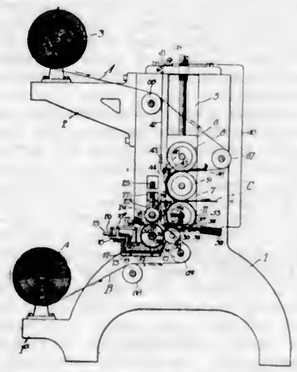
1,135,508. DISK HARROW. CHARLES A. FARNHAM, Ross, Iowa. Filed Oct. 7, 1912. Serial No. 724,447. (Cl. 55—73.)



1. In a device of the class described, a frame, a pair of shafts pivotally mounted thereon to swing in a horizontal plane, said shafts being inclined from their adjacent rear ends forwardly and laterally, means for simultaneously swinging said shafts on their pivotal points, two pairs of shafts mounted rearwardly on the frame from said first shafts, and on opposite sides thereof in the frame, the members of the other pairs of shafts being inclined from their adjacent rearward ends forwardly and laterally, separate means whereby each of said other pairs of shafts may be simultaneously swung on their pivotal points, and disks on said shafts.

2. In a device of the class described, a frame, a plurality of downwardly extending shafts mounted on said frame, a pair of shafts pivotally mounted on two of said downwardly extending shafts to swing in a horizontal plane, means for simultaneously moving said pair of shafts on their pivotal points, a pair of shafts on each side of said first pair and mounted rearwardly in the frame with relation to said first pair, said rearward pair of shafts being pivotally mounted on some of said downwardly extending shafts, separate means whereby either of said rearward pair of shafts may be simultaneously moved upon their pivotal points, and disks on said shafts.

1,135,509. MACHINE FOR MAKING CORRUGATED PAPER. JEFFREY T. FERRES, Los Angeles, Cal. Filed Nov. 19, 1912. Serial No. 732,287. (Cl. 154—31.)



1. In a machine of the class described, the combination of means for corrguating a sheet of paper, mechanism for applying strips of adhesive to a facing sheet including a longitudinally-toothed adhesive applying roll adapted to receive adhesive on the outer faces of its teeth, said teeth being so spaced that the adhesive strips may register with the corrugations of the corrugated sheet, means for applying the facing sheet to the toothed roll to receive the strips of adhesive and means for applying the facing sheet to the corrugated sheet.

2. In a machine of the class described, the combination of corrugating rolls for corrugating a sheet of paper, mechanism for applying strips of adhesive to a facing strip including a doctor roll and a longitudinally-toothed adhesive applying roll adapted to substantially contact with the doctor roll to thereby receive adhesive on the outer faces of its teeth from such roll, said teeth being so spaced that the adhesive strips may register with the corrugations of the corrugated sheet, means for applying the facing strip to the toothed roll, and means for applying the facing sheet to the corrugated sheet.

3. In a machine of the class described, the combination of means for corrugating a sheet of paper, mechanism for applying strips of adhesive to a facing sheet including a longitudinally-toothed adhesive applying roll adapted to receive adhesive on the outer faces of its teeth, said teeth being so spaced that the adhesive strips may register with the corrugations of the corrugated sheet, an adjustable plate over whose surface the facing sheet passes and which presents such facing sheet to a free side of the adhesive applying roll to receive said strips of adhesive, and means for applying the facing sheet to the corrugated sheet.

4. In a machine of the class described, the combination of rolls for corrugating a sheet of paper, means for applying a facing sheet thereto, a toothed roll for applying to the facing sheet strips of adhesive, the teeth of such roll being so spaced that the adhesive strips may register with the corrugations of the corrugated sheet, and means for yieldingly presenting the facing strip to the toothed roll to receive said strips of adhesive.

5. In a machine of the class described, the combination of corrugating rolls for corrugating a sheet of paper, and means for applying to the facing sheet of paper strips of adhesive adapted to register with the crowns of the corrugations of the corrugated sheet, means whereby the time of so applying the strips may be changed and means for applying the facing sheet to the corrugated sheet.

[Claims 6 to 25 not printed in the Gazette.]

1,135,510. UNIVERSAL COUPLING FOR SHAFTS. PAUL FILIPIETZ, Pittsburgh, Pa., assignor to Mesta Machine Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 31, 1914. Serial No. 828,498. (Cl. 74—19.)



1. A universal shaft coupling, comprising an end member having an opening therein formed with opposite concave bearing surfaces, bearing members having a movable bearing on said concave surface, a coupling member having an end portion extending between the bearing members and connected thereto by pivotal connections which are carried wholly by the coupling member and the bearing members, and opposite transversely movable wedge members seated in the end member and having bearing surfaces which engage the outer bearing surfaces of the bearing members; substantially as described.

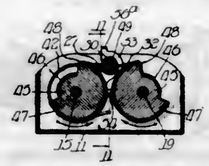
2. A universal shaft coupling, comprising an end member having an opening therein formed with opposite concave bearing balls, bearing members having convex outer bearing surfaces which have a movable outer bearing on said walls, a coupling member having an end portion which extends between and is pivotally connected to said bearing members, and crescent-shaped wedge members seated in the end member and having inner concave bearing surfaces which form a continuation of the concave bearing surfaces of said opening; substantially as described.

3. A universal shaft coupling, comprising an end member having a socket therein formed with opposite concave bearing surfaces, and having an inner portion which is of a diameter at least as great as the maximum diameter of said bearing surfaces, opposite bearing members each having a movable bearing on one of said concave surfaces, a coupling member extending between the two bearing members and connected thereto by pivotal connections which are carried wholly by the coupling member and the bearing members, and laterally movable wedge members in the inner portion of said socket, said wedge members having each a curved bearing surface which forms a continuation of the adjacent concave bearing surface of the socket, together with means for tightening and releasing said wedge members; substantially as described.

4. A universal shaft coupling, comprising an end member having a socket therein formed with opposite concave bearing surfaces, and having an inner portion which is of a diameter at least as great as the maximum diameter of said bearing surfaces, opposite bearing members each having a movable bearing on one of said concave surfaces, a coupling member extending between the two bearing members and connected thereto by pivotal connections which are carried wholly by the coupling member and the bearing members, and laterally movable wedge members in the inner portion of said socket, said wedge members having each a curved bearing surface which forms a continuation of the adjacent concave bearing surface of the socket, said wedge members being inserted and movable from opposite sides of the end member; substantially as described.

5. A universal shaft coupling, comprising an end member having a socket therein formed with opposite concave bearing surfaces, and having an inner portion which is of a diameter at least as great as the maximum diameter of said bearing surfaces, opposite bearing members each having a movable bearing on one of said concave surfaces, a coupling member extending between the two bearing members and connected thereto by pivotal connections which are carried wholly by the coupling member and the bearing members, and laterally movable wedge members in the inner portion of said socket, said wedge members having each a curved bearing surface which forms a continuation of the adjacent concave surface of the socket, and being of crescent shape in cross-section; substantially as described.

1,135,511. RAZOR-BLADE SHARPENER. GEORGE G. FLOYD, Granite City, Ill., assignor to Twinplex Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed June 8, 1910. Serial No. 565,843. (Cl. 51—16.)



1. A sharpening device of the character described, the combination of a pair of rotatable sharpening-elements, means to revolve said elements, and a holder adapted to hold resilient blade-means with two cutting edges in flexed concave condition with the same sides of both cutting edges in coöperative relation with said sharpening elements, the axis of said holder being immovable away from the axes of the sharpening elements during the sharpening operation, whereby the degree of flexure is constant for all blade-means, substantially as described.

2. In a sharpening device of the character described, the combination of a pair of rotatable sharpening-elements, means to revolve said elements, and a holder adapted to hold resilient blade-means with two cutting-edges in flexed concave condition with the same sides of both cutting-edges in coöperative relation with said sharpening-elements, the axis of said holder being immovable away from the axes of the sharpening elements during the sharpening operation, the yielding-pressure of the blade-edges on the sharpening-elements residing solely in the resiliency of said blade-means, substantially as described.

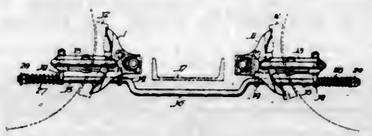
3. In a sharpening-device of the character described, the combination of a frame or casing, a pair of sharpening elements having interrupted cylindrical operative faces revolubly mounted in said frame or casing, means to rotate said elements, and a blade-holder having an axis fixed during the sharpening operation and adapted to unyieldingly hold resilient razor-blade means with two cutting-edges in flexed engagement with the operative faces of said elements during their rotation, the yielding pressure of the blade-means on the sharpening-elements residing solely in the resiliency of said blade-means, substantially as described.

4. In a sharpening-device of the character described, the combination of a pair of rotatable sharpening elements having interrupted operative faces, a rotatable blade-holder having an axis of rotation immovable away from the axes of rotation of the sharpening elements during the sharpening operation to unyieldingly hold yielding razor-blade means with two cutting-edges in flexed engagement with the operative faces of said elements, and means for periodically rotating the blade-holder when the interruptions in the operative faces of the sharpening-elements come opposite the blade-edges, substantially as described.

5. In a sharpening-device of the character described, the combination of a pair of rotatable sharpening elements having operative faces interrupted by recesses and also having fixed axes of rotation, a rotatable blade-holder having an axis of rotation immovable away from the axes of rotation of the sharpening-elements during the sharpening operation whereby to unyieldingly hold a double-edged resilient blade in flexed concave engagement with the operative faces of said elements, and means for rotating said blade-holder when the face interruptions of the sharpening-elements come opposite the blade-edges, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,135,512. BRAKE. GEORGE G. FLOYD, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed June 11, 1914. Serial No. 844,435. (Cl. 188—24.)



1. In a railway brake, the combination of adjacent brake beams, and a leveling device extending between said beams and having an inclosing bearing at two points on each beam, substantially as described.

2. In a railway brake, the combination of two beams, each thereof having a thimble, and a rod extending between the beams and bodily movable with the same, said rod acting to maintain the beams in parallelism, substantially as described.

3. In a railway brake, the combination of adjacent brake beams, a pair of thimbles carried by each beam, said pair of thihmbles being substantially in horizontal alinement and a rod extending between the beams and having its ends seated in said thimbles, substantially as described.

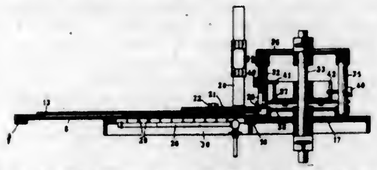
4. In a railway brake, the combination of a pair of brake beams, each thereof having a plurality of depending eyes, and a rigid rod extending between the beams and having its ends seated in said eyes, substantially as described.

5. In a railway brake, the combination of a wheel having beams mounted on both sides thereof, and a rod extending between said beams and having a bearing at at

least two points on each beam whereby said beams are maintained in parallel relation, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,135,513. BOTTLE-CAP-ASSEMBLING MACHINE. JAMES C. FORRESTER, New York, N. Y. Filed Jan. 23, 1913. Serial No. 743,749. (Cl. 113—80.)



1. In a cap assembling machine, a movable support, means for heating and feeding heated tins periodically to said support, means for supporting sealing disks above the heated tins on said support, means for feeding sealing disks to the said disk-supporting means in position above the heated tins on said support, means movable with said support for driving the disks thus supported into said tins and means for retracting said driving means.

2. In a cap assembling machine, a tin feeding chute, means for heating said chute and means located at the end of said chute for forcing a cork into a heated tin issuing from the chute.

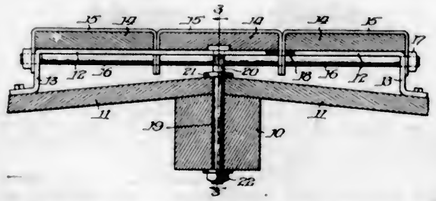
3. In a cap assembling machine, means for heating a tin, means for moving the heated tin away from the heating means and means for assembling a cork into the heated tin and squeezing said cork therein.

4. In a cap assembling machine, means for heating a tin, means for positioning a cork above the heated tin, a plunger and means operating the same to drive the cork thus positioned into the heated tin.

5. In a cap assembling machine, means for heating a tin, a plunger and means operating the same to drive a cork into the heated tin and means for forcing the plunger to squeeze the cork momentarily in the tin after the driving blow.

[Claims 6 to 28 not printed in the Gazette.]

1,135,514. RUNNING-BOARD SADDLE. WILLIAM E. FOWLER, Sr., Chicago, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 20, 1914. Serial No. 873,143. (Cl. 105—194.)



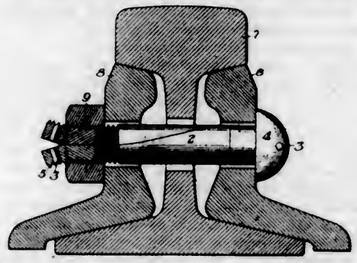
1. In a device of the class described, the combination of a saddle, a plurality of boards laid thereon, a strap passing around each board, and a single horizontal bolt engaging and securing all said straps to said saddle, substantially as described.

2. In a device of the class described, the combination of a saddle, a plurality of boards laid thereon, a strap passing around each board, said straps having apertured ends, and a bolt passing through the apertures in said straps and securing said straps to said saddle, substantially as described.

3. In a device of the class described, the combination of a saddle contacting the car roof at its ends only, a bolt for securing and supporting said saddle at its middle portion, a running board, clips securing said board to the saddle, and a horizontal bolt for securing said clips to the saddle, substantially as described.

4. In a device of the class described, the combination of a saddle, a bolt for securing and supporting said saddle at its middle portion, said bolt having an apertured shank, a running board, a strap engaging said board, and a horizontal bolt extending through the shank of said bolt and securing said strap to said saddle, substantially as described.

1,135,515. COMPOUND BOLT. JOSEPH A. FRAUENHEIM, Zelienople, Pa., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 27, 1914. Serial No. 814,702. (Cl. 85—1.)



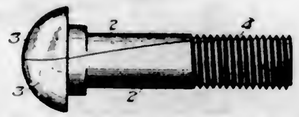
1. A bolt having a plurality of members which are separate throughout the entire length of the bolt, said members being twisted about the longitudinal axis of the bolt, and screw threads on one end of said bolt.

2. A bolt having a plurality of members which are separate throughout the entire length of the bolt, said members being twisted about the longitudinal axis of the bolt, screw threads on one end of said bolt, and a head on the other end of said bolt.

3. A bolt having a plurality of separate members threaded at one end, said members being twisted about the longitudinal axis of the bolt, the spiral of the twist extending the reverse direction to the spiral of the thread.

4. A bolt having a plurality of separate members threaded at one end, said members being twisted about the longitudinal axis of the bolt, the spiral of the twist extending the reverse direction to the spiral of the thread, and a head on the other end of said bolt.

1,135,516. METHOD OF MAKING COMPOUND BOLTS. JOSEPH A. FRAUENHEIM, Zelienople, Pa., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 27, 1914. Serial No. 858,810. (Cl. 10—27.)

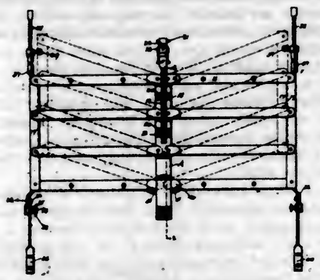


1. The method of manufacturing bolts having a plurality of separate members, comprising the step of twisting the separate members about the longitudinal axis of the bolt, and then simultaneously forming securing means on the ends of the separate members at one end of the bolt.

2. The method of manufacturing bolts having two separate members, comprising the step of twisting the two members about the longitudinal axis of the bolt, then simultaneously upsetting head portions on the ends of said members at one end of the bolt, and then simultaneously forming screw threads on the other ends of the separate members.

3. The method of manufacturing bolts having a plurality of separate members, comprising the step of heating said members, then twisting said members about the longitudinal axis of the bolt, and then forming securing devices on the ends of said members.

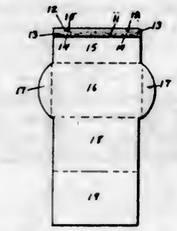
1,135,517. FOLDING PACKAGE-CARRIER FOR VEHICLES. SAMUEL F. GOSS, Atlantic, Iowa. Filed Mar. 16, 1914. Serial No. 825,148. (Cl. 224—29.)



1. In a device of the class described, a bar having parts successively arranged in different parallel planes, a plurality of members pivoted to the respective parts of the bar in different parallel planes to swing in said planes, to permit said members to swing to collapsed position, resting in substantially superposed position over said bar.

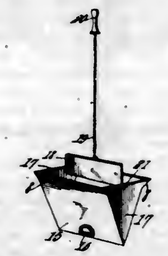
2. In a device of the class described, a bar having parts successively formed in different parallel planes, and a plurality of members pivoted to the respective parts of the bar in different parallel planes to swing in said planes, means for pivotally mounting two corners of said device on a support, and means for mounting the other two corners of the device on a support, said last named means being adjustable for varying the tilted position of the device.

1,135,518. COMBINED LETTER-SHEET AND ENVELOP. CLAYTON W. GRAHAM, Des Moines Iowa. Filed Oct. 11, 1912. Serial No. 725,310. (Cl. 120—74.)



A combined letter sheet and envelop formed of a single piece of paper, flaps on the side edges of the part that forms the back of the envelop, said side flaps being folded inwardly, one end of the sheet being designed to fold forwardly over the envelop back to form the envelop front or addressing member, said part being of such length that when folded over the envelop back it will come to a point near the central portion of the envelop back, and whereby the said part when thus folded may be placed in a typewriting machine and the address may be printed on said part and the letter commenced on the inner face of the said back, without removing the letter sheet from the typewriting machine, there being at the end of this envelop front or addressing member a folded sealing strip gummed at one side and provided with two rows of perforations, the said sealing strip being designed to be sealed to the said side flaps and also to the back of the hereinafter named letter portion between said flaps the said parts being so arranged that after being thus sealed the sealing strip may be severed from the envelop front or addressing member, and then it may be conveniently and easily torn along the rows of perforations so that parts of the sealing strip will adhere to said flaps and the remainder to the back of the letter sheet, the other end of the letter sheet being designed to be used for the body of the letter, and being designed to fold over that part of the envelop back on which the first part of that part of the letter back which is designed to receive the first part of the letter, the said parts being so arranged that when sealed as before mentioned the central portions of said sealing flaps will be tightly held to the addressing member and to the back of the letter sheet below, to thereby prevent the possibility of folding the flaps outwardly and obtaining access to the contents of the envelop without tearing some part of the envelop and letter sheet, said rows of perforations being so arranged that when the gummed strip is severed from the envelop front or addressing member the flaps may be readily and easily folded outwardly to thereby sever the gummed strips at the rows of perforations.

1,135,519. DUST-PAN. RICHARD HALDENWANG, Jr., Brooklyn, N. Y. Filed Apr. 21, 1913. Serial No. 762,703. (Cl. 65—20.)



1. A dust pan, comprising a V shaped receptacle including a pair of side walls having converging bottom edges, end walls formed therewith, said end walls being crimped inwardly, and a handle pivotally engaging with said end walls.

2. A dust pan, comprising a V shaped receptacle including a pair of side walls having recesses formed outwardly therein above their converging bottom edges, angularly flanged, upper edges combined with said walls, end members crimped inwardly along their center line, and a handle pivotally united to said end members.

3. A dust pan, comprising a V shaped receptacle including a pair of converging side walls having their lower portions pressed together, and a hand opening formed therein, inturned end members partially dividing said receptacle longitudinally, and a bifurcated handle having its forked ends pivotally engaged with said end members.

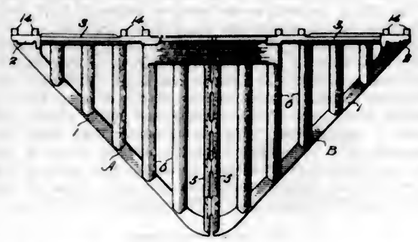
4. A dust pan, comprising a V shaped receptacle including a pair of side walls having convergent lower edges, a reinforcement attached to said lower edges, said reinforcement and walls having a hand hole formed therethrough, angular end members formed with said side walls, and having the angle extending inwardly therewith, and a handle having a single stem, and a bifurcated lower end, the forked extremities of which pivotally engage with said end members.

5. A dust pan comprising a V shaped receptacle, having its end walls crimped inwardly, an inverted T shaped handle having its end members pivotally engaged at the angle formed by the said end members, means for strengthening the side walls of said receptacle, said side walls being flanged downwardly at the upper edge thereof to provide oppositely positioned supporting lips.

1,135,520. LOCOMOTIVE-PILOT. FREDERICK J. HARRISON and WILLIAM J. KNOX, Dubois, Pa., assignors to Cast Steel Pilot Company, a Corporation of Delaware. Filed Mar. 7, 1914. Serial No. 823,141. (Cl. 105—254.)

1. A locomotive pilot comprising two separately formed skeleton members, a flange projecting from the inner edge of one of said members, which flange underlies the corre-

sponding edge of the opposite member, and which members are rigidly fixed to each other.



2. A locomotive pilot comprising a pair of skeleton members each being integrally cast and comprising a base, an end upright, a horizontally disposed top member, a series of inclined slats between the base and top member, and a flange on one of said slats, which flange projects beneath the corresponding slat of the opposite member.

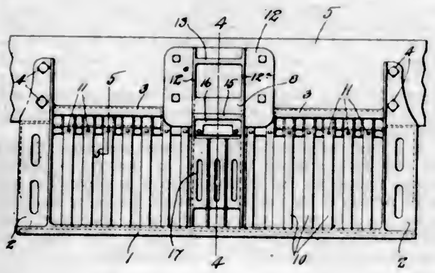
3. A locomotive pilot comprising a pair of members, each cast integral and comprising a base, an end upright, a horizontally disposed top member, a bearing plate which is provided with a vertical slot having notched sides adapted to receive fastening devices and a series of inclined slats between the base and top member.

4. A locomotive pilot comprising a plurality of skeleton sections, each section cast integral and comprising a base member, an end upright provided with a vertically disposed slot having notched sides adapted to receive fastening devices, a horizontally disposed top member, and a series of inclined slats between said base member and the top member.

5. A locomotive pilot comprising a plurality of skeleton sections, each section comprising a base member, an end upright provided with a vertically disposed slot having notched sides adapted to receive fastening devices, a horizontally disposed top member, a series of inclined slats between said base member and the top member, a supporting flange on the side of one member for the opposite member and means whereby said skeleton members are rigidly fixed to each other.

[Claims 6 to 19 not printed in the Gazette.]

1,135,521. LOCOMOTIVE-PILOT. FREDERICK J. HARRISON and WILLIAM J. KNOX, Dubois, Pa., assignors to Cast Steel Pilot Company, a Corporation of Delaware. Filed Mar. 7, 1914. Serial No. 823,142. (Cl. 105—254.)



1. In a locomotive pilot structure, an integrally formed skeleton frame comprising a triangular base, end uprights, and a top rail, a series of separate inclined slats arranged between the side portions of the triangular base and the side portions of the top rail, and a separate center section which comprises a coupler pocket and the center slats for the pilot.

2. In a locomotive pilot structure, an integrally formed skeleton frame comprising a triangular base, end uprights, and a top rail, a series of separate inclined slats arranged between the side portions of the triangular base and the side portions of the top rail, and an integrally formed separate center section which comprises a coupler pocket and the center slats for the pilot, which center section is rigidly fixed to the main frame of the pilot.

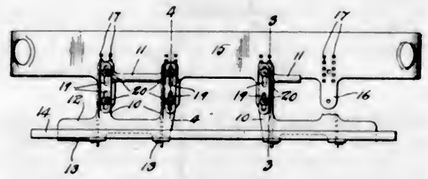
3. In a locomotive pilot structure, a skeleton frame comprising a triangular base, end uprights, and a top rail, all of which parts are integrally formed, and a separate center section which comprises a coupler shank pocket a coupler head supporting plate and the center slats for the pilot.

4. In a locomotive pilot structure, a skeleton frame comprising a triangular base, end uprights, and a top rail, all of which parts are integrally formed, a series of separate slats arranged between the end portions of the base and the end portions of the top rail, a separate center section comprising a coupler shank pocket a coupler head supporting plate and the center slats for the pilot, which center section is formed in one piece.

5. In a locomotive pilot structure, an integrally formed skeleton frame comprising a triangular base, end uprights, a top rail and a rearwardly projecting pilot beam engaging flange, a series of separate inclined slats arranged between the end portions of the triangular base and the end portions of the top rail, and a separate integrally formed center section, comprising a coupler pocket, a coupler head support, and center slats for the pilot.

[Claims 6 to 20 not printed in the Gazette.]

1,135,522. BUMPER-BEAM STEP-BRACKET. FREDERICK J. HARRISON and WILLIAM J. KNOX, Dubois, Pa., assignors to Cast Steel Pilot Company, a Corporation of Delaware. Filed Mar. 7, 1914. Serial No. 823,143. (Cl. 105—195.)



1. The combination with a support of a series of brackets fixed to said support interengaging means between the brackets and supports, and a step board carried by the lower portions of said brackets.

2. The combination with a support, of a series of substantially L-shaped brackets fixed to said support interengaging means between the upper portions of said brackets and the support, and a step board carried by the lower ends of said brackets.

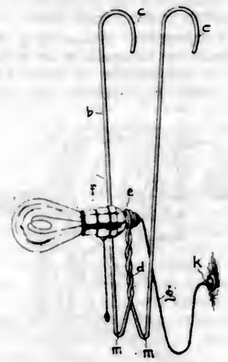
3. The combination with a support, of a series of step board carrying brackets adapted to be applied to said support, interengaging means between the brackets and support, and means for rigidly fixing the brackets to the support.

4. The combination with a support, of a series of step board carrying brackets adapted to be applied to said support, means for rigidly fixing the brackets to the support, and means for relieving the bracket fixing means of strains due to the weight of the step board and its load.

5. The combination with a support provided with recessed bearing faces, of step board carrying brackets, portions of which are applied to the bearing faces of the support, and projections on said brackets which are adapted to enter the recessed portions of said bearing faces.

[Claims 6 to 14 not printed in the Gazette.]

1,135,523. ELECTRIC-LIGHT ATTACHMENT FOR BEDSTEADS. CLARENCE W. HENDERSON, St. Lambert, Quebec, Canada, assignor, by direct and mesne assignments, to Henderson Specialty Manufacturing Company, Limited, Montreal, Quebec, Canada, a Corporation. Filed Dec. 23, 1913. Serial No. 808,414. (Cl. 248—20.)

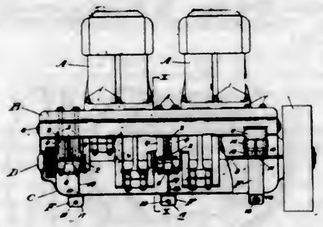


1. A portable fixture for hanging electric lamp from a bedstead consisting of a single piece of wire bent to the form of a W with the middle member of the W reinforced and presenting a seat constructed and arranged to inclose and retain the lamp socket.

2. A portable fixture for detachably connecting an electric lamp to a bedstead consisting of a single piece of wire bent to the form of a W with elongated ends such ends being of hook form and the middle member being twisted for reinforcement purposes while its upper end is made in the form of a loop forming a seat for the lamp.

3. A portable fixture for detachably connecting an electric lamp to a bedstead consisting of wire bent to the form of a W with elongated ends such ends being of hook form and the middle member being twisted for reinforcement purposes while its upper end is made in the form of a loop forming a seat for the lamp.

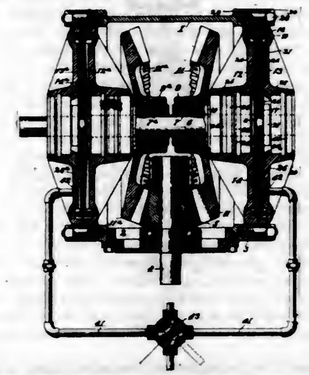
1,135,524. ENGINE-CRANK CASING. EDWARD R. HEWITT, Ringwood, N. J., assignor to Hewitt Motor Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1910. Serial No. 600,027. (Cl. 121—105.)



1. In combination in an engine crank casing, an upper or main section having means for supporting the entire engine, a removable sub-section, and straps supported by the main section and embracing the sub-section whereby the sub-section may be drawn into contact with the main section uniformly throughout the length of their contacting edges and the weight of the sub-section is supported by the straps.

2. In combination in an engine crank casing, an upper or main section having means for supporting the entire engine, a removable sub-section having its upper edges adapted to fit the lower edges of the upper section and having webs formed in it, and straps supported by the upper section and each embracing the sub-section under a web whereby the clamping strain is distributed to bring the sub-section edges in uniform contact with the edges of the upper section.

1,135,525. FLUID-ACTUATED CLUTCH. ROBERT L. HIBBARD, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 27, 1912. Serial No. 699,876. (Cl. 192—18.)



1. In a clutch, the combination with a rotary shaft, of a driven element loosely mounted on the shaft, a clutch element rigid with the shaft, a diaphragm connected with the driven element and coöperating with the clutch element, and means for supplying fluid under pressure to the diaphragm, said shaft and driven element being held against relative endwise movements.

2. In a clutch, the combination with a rotary shaft, of a fixed casing having a fluid chamber, a driven element loosely mounted on the shaft, a clutch element rigid with the shaft located in the fluid chamber, a diaphragm connected with the driven element located in the fluid chamber and coöperating with the clutch element, and means for supplying fluid under pressure to the fluid chamber.

3. In a clutch, the combination with a rotary shaft, of a driven element loosely mounted on the shaft, a clutch element rigid with the shaft, a fixed casing having a fluid chamber, said clutch element located in the fluid chamber, flexible diaphragms within the fluid chamber and located on opposite sides of the clutch element, said diaphragms coöperating with the clutch element, and means for supplying fluid under pressure to the fluid chamber.

4. In a clutch, the combination with a rotary shaft, of a driven element loosely mounted on the shaft, a clutch element rigid with the shaft, a fixed casing having a fluid chamber, said clutch element located in the fluid chamber, flexible diaphragms within the fluid chamber and located on opposite sides of the clutch element, said diaphragms movable with the driven element and coöperating with the clutch element, and means for supplying fluid under pressure to the fluid chamber.

5. In a clutch, the combination with a rotary shaft, of a sleeve loosely mounted on and held against endwise movement relative to the shaft, a driven gear rigid with the sleeve, operable means for driving the gear, a clutch element rigid with the shaft, a diaphragm connected with the sleeve and coöperating with the clutch element, and means for supplying fluid under pressure to the diaphragm.

[Claims 6 to 11 not printed in the Gazette.]

1,135,526. STANCHION. WILLIAM F. JACOBS, Ottawa, Ill., assignor to J. E. Porter Co., Ottawa, Ill., a Corporation of Illinois. Filed Nov. 10, 1913. Serial No. 800,070. (Cl. 119—149.)

1. A stanchion, comprising two side bars, a pair of members located at each end of each of said bars and

having endwise sliding engagement with each other, and clamping means adjustably clamping the members of each pair together; one of the members of each pair being secured to the end of the adjacent bar and the other of the members of each pair having pivotal connection with each other at one end of the stanchion and detachable connection with each other at the opposite end of the stanchion.



2. A stanchion, comprising two side bars, a pair of members located at each end of each said bars; one of the members of each pair being provided with a longitudinal recess, and the other of said members of each pair being provided with a tongue adapted to enter and slide endwise in said recess, and means adjustably connecting the members of each pair together; one of the members of each pair being connected with the adjacent bar, and the other of the members of each pair at each end of the stanchion being connected, when the stanchion is closed, by means independent of the means adjustably connecting the members of each pair together.

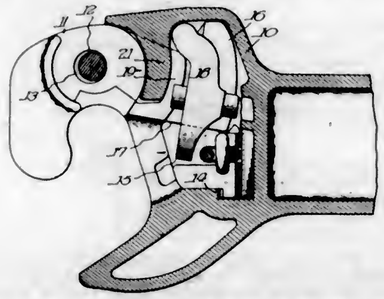
3. A stanchion comprising two side bars, a pair of members located at each end of each of said bars, one of said members of each pair being hollow and having top, bottom and side walls forming therebetween a longitudinal chamber opening through one end of said hollow member, and the other of said members of each pair being secured to the adjacent bar and provided with a tongue adapted to enter and slide endwise in said chamber, and means adjustably connecting the members of ech pair together; the hollow members at each end of the stanchion being connected, when the stanchion is closed, by means independent of the means adjustably connecting the members of each pair together.

4. A stanchion, comprising two side bars, a pair of members located at each end of each of said bars and having telescopic engagement with each other, one of the members of each pair being provided with a longitudinal slot, and the other of the members of each pair being provided with an aperture, and a fastening bolt adapted to be inserted through said slot and aperture for adjustably connecting the members of each pair together; one of said members of each pair being secured to the adjacent bar, and the other of the members of each pair having pivotal connection with each other at one end of the stanchion and detachable connection with each other at the opposite end of said stanchion.

5. A stanchion, comprising two vertically arranged side bars, a pair of members located at each end of each of said bars, one of the members of each pair being provided with a longitudinal recess, one of the walls of which is provided with a longitudinal slot having notched edges, the other of the members of each pair being provided with a part adapted to enter and slide endwise in said recess, said part being provided with an aperture, a clamping bolt for the members of each pair adapted to be inserted through said slot and aperture for detachably clamping the members of each pair together, said bolt being provided with a squared member adapted to engage the notched edges of said slot; one of the members of each pair being secured to the adjacent bar, the other of the members of each pair at each end of the stanchion being connected when the stanchion is closed.

[Claim 6 not printed in the Gazette.]

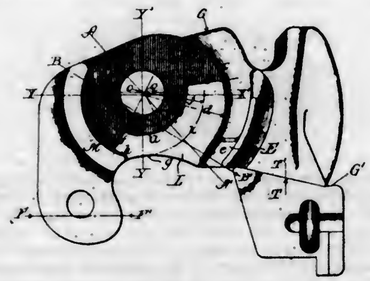
1,135,527. CAR-COUPLING. ROBERT E. L. JANNEY, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Apr. 3, 1913. Serial No. 758,601. (Cl. 213—65.)



1. In a car coupler, the combination of a head, a pivoted knuckle having a tail, a wedge lock for said knuckle, and coöperating abutments on said head and tail, said abutments being curved, the curve being substantially concentric with the knuckle pivot, whereby pulling force is taken up by the abutments when said lock is partially seated, substantially as described.

2. In a car coupler, the combination of a head, a knuckle pivoted in said head there being substantial clearance between the pivot pin and the knuckle, a wedge lock, a pulling lug having a surface substantially concentric with the pivot pin, said pulling lug coöperating with a similarly curved abutment on said knuckle tail whereby pulling strains are taken up by said lug when said lock is partially seated, substantially as described.

1,135,528. COUPLING-KNUCKLE REINFORCEMENT. ROBERT E. L. JANNEY, Chicago, Ill., and EDMUND P. KINNE, Alliance, Ohio, assignors to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Oct. 25, 1912. Serial No. 727,640. (Cl. 213—65.)



1. In a car coupler, the combination of a head having lugs, and a knuckle provided with reinforcements extending above and below the hub thereof, said reinforcements consisting of integral lugs, an outer boundary line c of which is located outside of the normal hub contour and a radial boundary line b of which is located outside of a longitudinal line passed through the pivotal axis of the knuckle, substantially as described.

2. In a car coupler, the combination of a head having ears provided with recesses, a knuckle interfitting with said head and having lugs adapted to coöperate with the recesses in said ears, said lugs extending above and below the knuckle hub and providing a substantial mass of metal outside the normal hub diameter which is intersected by lines indicating the resultants of forces applied in pulling or buffing, substantially as described.

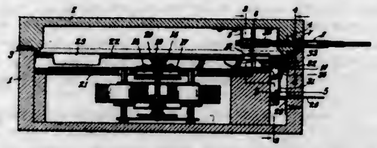
3. In a car coupler, the combination of a head having ears provided with recesses, a knuckle, substantially arc-shaped lugs on said knuckle above and below the hub thereof, said lugs coöperating with the recesses in said ears, the arcuate extremities of said lugs forming stops, and being limited by radial lines extending from a point substantially coincident with the pivot pin center, the arc extending over more than 90° of the hub circumference, substantially as described.

4. In a car coupler, the combination of a head having ears provided with recesses, a knuckle interfitting with said head, lugs in said knuckle extending above and below the knuckle hub and adapted to coöperate with the recesses in said ears, said lugs providing a substantial mass of metal outside of the normal hub diameter, said mass of metal being so located as to be intersected by lines passing through the pivot pin opening at an angle of 45 and 30° respectively from the longitudinal center line of the coupler, substantially as described.

5. In a car coupler, the combination of a head having ears provided with recesses, said recesses forming abutments of substantial area, a knuckle provided with integral reinforcing lugs above and below the hub thereof, said lugs including a mass of metal outside the normal hub diameter, the bounding edges of said lugs being fixed by radial lines extending from the axis of the knuckle pivot and constituting stops of substantial area, said stops being adapted to contact said abutments and relieve the knuckle pivot pin of strains, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,135,529. WATCHMAN'S TIME-REGISTER. CHARLES H. JENKINS, Belleville, N. J., assignor to Newman Clock Co., New York, N. Y., a Corporation of New York. Filed Jan. 13, 1912. Serial No. 671,138. (Cl. 234—40.)



1. A time register comprising, in combination, a clock casing, a closure therefor, a record dial and recording means in said casing, a rock shaft secured in the inside of said closure and extending longitudinally thereof, a cam secured upon the rock shaft and adapted to engage with the said recording means to cause the latter to make an impression upon the dial when the rock shaft is actuated in the operation of unlocking the closure and means on the rock shaft adapted to engage with the closure to secure the closure and cover in locked position.

2. A time register comprising, in combination, a clock casing, a closure secured to the said casing, a recording dial, recording means in said casing, a rock shaft secured in the inside of said closure and extending longitudinally thereof, a cam secured upon the said rock shaft near the inner end thereof and adapted to actuate said recording means when the rock shaft is rotated during the operation of unlocking the said closure, and means on the rock shaft near its outer end to engage with means upon the closure whereby to lock the said closure and cover.

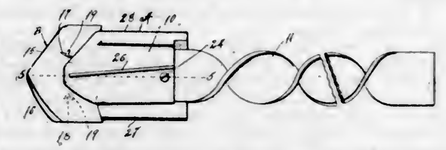
3. A time register comprising, in combination, a clock casing, a closure secured to the said casing, a record dial, recording means in said casing, a rock shaft secured to the inside of said closure and extending longitudinally thereof, a cam secured upon the said rock shaft near the inner end thereof and adapted to actuate said recording means when the rock shaft is rotated during the operation of locking the said closure, and means on the rock shaft near its outer end to engage with means upon the closure whereby to lock the said closure and cover.

4. A time register comprising, in combination, a clock casing, a closure therefor, a record dial and recording means in said casing, a rock shaft secured in said closure and extending longitudinally thereof, a cam secured to said rock shaft and adapted to engage with the said recording means to cause the same to make an impression upon the dial when the rock shaft is actuated to lock or unlock the casing, a spring upon said rock shaft adapted to hold the cam out of contact with the recording means when the casing is in locked or unlocked positions and means on the rock shaft adapted to engage with means upon the closure whereby to lock the said closure and cover.

5. A time register comprising, in combination, a clock casing, a closure therefor, a record dial in said casing, a member pivotally secured to the said casing comprising oppositely extending arms, one of which extends inwardly over the dial and the other downwardly, a recording member upon the inwardly extending arm, a member pivotally mounted in the casing and extending outwardly through the same, against which the downwardly extending arm abuts, and upwardly extending lugs upon the said pivotal member adapted to engage with the said downwardly extending arm when the pivotal arm is actuated whereby the recording means is actuated to make an impression upon the dial.

[Claim 6 not printed in the Gazette.]

1,135,530. COAL AND ROCK DRILL. PEARSON JOPLING, Rock Island, Ill., assignor of one-half to Marguerite Hoffman, Rock Island, Ill. Filed Jan. 5, 1911. Serial No. 600,889. (Cl. 255—61.)



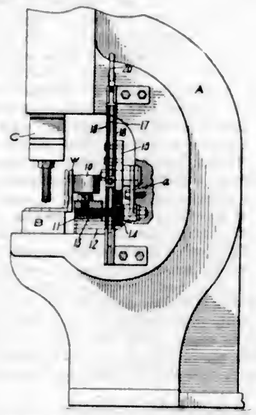
A drill comprising a head of elliptical cross-section provided with a recess in one end for receiving a drill bar and a transverse groove in its opposite end having its inner walls formed of portions diverging from the center of the head in the direction of the opposite end of said head, a pair of oppositely disposed guide wings formed with said head oppositely inclined to and crossing the lateral axis thereof and having corresponding ends terminating at the ends of said cutter receiving grooves, a second pair of oppositely disposed guide wings formed at each side of said head in the plane of its longitudinal axis and projecting outwardly from said recess, the several guide wings comprising a plurality of radial arms disposed about the longitudinal axis of the drill bar.

1,135,531. GAGE DEVICE FOR PUNCHING-MACHINES. LOUIS C. KOEHL, Pittsburgh, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 28, 1912. Serial No. 728,121. (Cl. 164—86.)

1. In a metal punching machine, the combination with a punching mechanism, of operable means including a transversely movable rotary member for moving the work back and forth transversely of the punching mechanism.

2. In a metal punching machine, the combination with a punching mechanism, of operable means for moving the work back and forth transversely of the punching mechanism including a rest against which the work is adapted to bear, a rotary screw for moving the rest, and a rocking lever for rotating the screw.

3. In a metal punching machine, the combination with a punching mechanism, of operable means for moving the work back and forth transversely of the punching mechanism including a rest against which the work is adapted to bear, a rotary screw for moving the rest, means for rotating the screw, and means for limiting the movement of the second mentioned means.

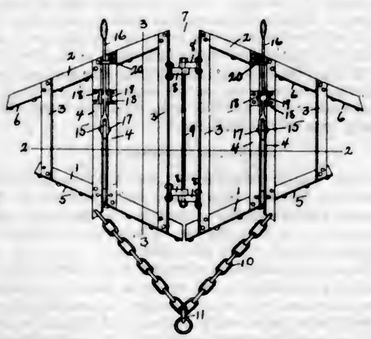


4. In a metal punching machine, the combination with a punching mechanism, a rest against which the work is adapted to bear, a base supporting said rest, and gearing for sliding said base transversely of the punching mechanism, whereby the work may be moved back and forth to position the holes in staggered relation in longitudinal lines.

5. In a metal punching machine, the combination with a punching mechanism, a work rest or support mounted on a base, said base formed with a transverse screw threaded perforation, a screw mounted in said perforation and provided with a pinion, a gear connected with said pinion for operating the same, a lever for operating said gear, and a stop for limiting the movement of said lever at a predetermined point, whereby the movement of said work may be regulated to position the lines of holes the distance apart desired.

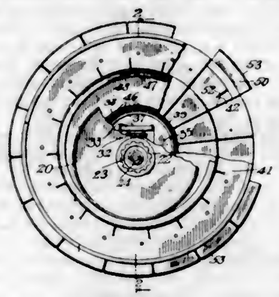
[Claims 6 and 7 not printed in the Gazette.]

1,135,532. ROAD-HONE. JOHN H. KOLPIEN, Westfield, N. Y. Filed Feb. 15, 1913. Serial No. 748,546. (Cl. 37—5.)



In a road hone, the combination of a frame formed of two parts hinged together, each part having front and rear rails with cutting blades, the rear rails overlapping the front rails, the front and rear rails having a slant to the line of the draft, the rear rails having an opposite slant to that of the front rail with which it is associated; a runner in each part arranged between the front and rear rails and adapted to lift said rails from cutting position; and means for adjusting said runners relatively to the frame.

1,135,533. TRACTOR-WHEEL. MARIUS C. KRARUP, New York, N. Y. Filed Jan. 29, 1914. Serial No. 815,106. (Cl. 21—151.)



1. A vehicle wheel comprising an inner driving wheel and an outer driven wheel, said outer wheel having a circular central portion, and an up-standing member within said central portion adjustably supported by said inner driving wheel arranged to prevent the separation of said wheels from driving engagement.

2. A vehicle wheel comprising an inner driving wheel and an outer driven wheel, said outer wheel having a circular central portion, a member within said central portion arranged to prevent the separation of said wheels from driving engagement, means for maintaining the upper portion of said member above the center of the inner wheel and means for adjusting the position of said member.

3. The combination of an axle, a driving wheel supported thereon, a driven wheel having a portion upon which said driving wheel rests in driving engagement, and a circular central portion, a circular member within said central portion of the driven wheel arranged to prevent the separation of said wheels from driving engagement, said circular member being constructed with an opening to receive said axle below the center of the member, a stud freely supported at a fixed distance from the axle and a device upon the stud for adjusting the position of said member relative to the axle.

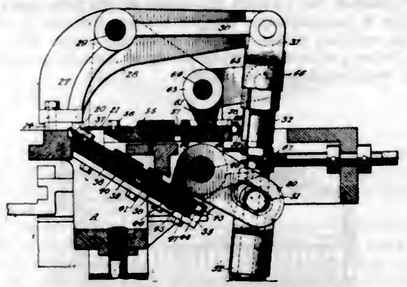
4. The combination of an axle, a driving wheel supported thereon, a driven wheel having a portion upon which said driving wheel rests in driving engagement and a circular central portion, a ring rotatable in the central portion of the driven wheel, a second ring supported at a fixed distance from the axle, and means for keeping said rings spaced apart eccentrically.

5. The combination of an axle, a driving wheel supported thereon, a driven wheel having a portion upon which said driving wheel rests in driving engagement and a circular central portion, a ring rotatable in the central portion of the driven wheel, a second ring supported at a fixed distance from the axle, the center of said second ring being above the center of the axle, and means for keeping the second ring pressed upward against said central portion of the driven wheel.

[Claims 6 to 11 not printed in the Gazette.]

1,135,534. FLANGING DEVICE FOR SHEET-METAL BLANKS. PETER KRUSE, Brooklyn, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y. Filed Dec. 31, 1914. Serial No. 879,812. (Cl. 153—13.)

1. A flanging device for sheet metal blanks comprising means for clamping a blank in position, means for forming on said blank a substantially U-shaped flange having a pair of opposed shanks and for subsequently withdrawing a portion of said flange-forming means from the blank, and means for converging said shanks subsequently to the withdrawal of said portion of the flange-forming means from the blank and while the blank is still engaged by the clamping means.



2. A flanging device for sheet metal blanks comprising means for clamping a blank in position, means for forming on said blank a substantially U-shaped flange having a pair of opposed shanks and for subsequently withdrawing a portion of said flange-forming means from the blank, and means for turning one of said shanks toward the other shank subsequently to the withdrawal of said portion of the flange-forming means from the blank and while said blank is still engaged by the clamping means.

3. A flanging device for sheet metal blanks comprising means for clamping a blank in position, means for forming a substantially U-shaped flange along one edge of said blank and for subsequently withdrawing a portion of said flange-forming means from the blank, said flange comprising a web, a first shank connecting said web to the unbent blank-portion, and a second shank extending in substantial parallelism with the first shank, and means for turning said said second shank toward the first shank subsequently to the withdrawal of said portion of the flange-forming means from the blank and while the blank is still engaged by said clamping means.

4. A flanging device for sheet metal blanks comprising means for clamping a blank in position, means for forming a substantially U-shaped flange along one edge of said blank and for subsequently withdrawing a portion of said flange-forming means from the blank, said flange comprising a web that extends at an angle to the plane of the blank, a first shank connecting said web to the unbent blank-portion, and a second shank extending in substantial parallelism with the first shank, and means for turning said second shank toward the first shank subsequently to the withdrawal of said portion of the flange-forming means from the blank and while said blank is still engaged by said clamping means.

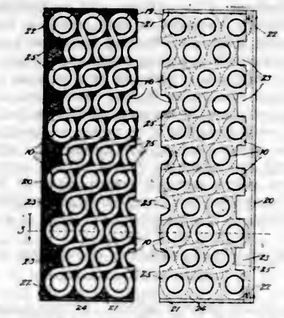
5. A flanging device for sheet metal blanks comprising a die provided with a groove, means for clamping a blank to said die, means for forcing part of said blank into the die-groove to form a substantially U-shaped flange that extends along one edge of the blank and for subsequently withdrawing said last named means from the blank, said flange comprising a web, a first shank connecting said web to the unbent blank-portion, and a second shank that extends in substantial parallelism with the first shank, and means for turning said second shank toward the first shank subsequently to the withdrawal of said blank-forcing means from the blank and while the blank is still clamped to the die.

[Claims 6 to 14 not printed in the Gazette.]

1,135,535. BAFFLE FOR WATER-TUBE BOILERS. GEORGE KUHNNE, Chicago, Ill. Filed Apr. 9, 1914. Serial No. 830,590. (Cl. 110—98.)

1. The combination with the tubes of a water-tube boiler, of a baffle therefor formed of suitable cement reinforced by ropes of fire resisting material wound about the tubes.

2. The combination with the bank of tubes of a water-tube boiler, of a baffle therefor comprising asbestos rope wound about the tubes and embedded in a body of suitable cement.



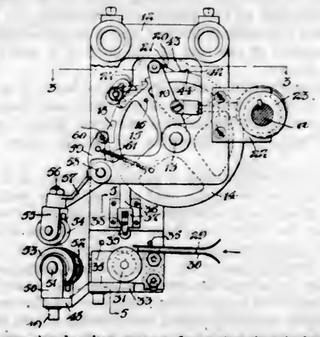
3. The combination with the rows of tubes of a water-tube boiler, of a baffle therefor, comprising a body of cement reinforced by asbestos ropes wound back and forth over the rows of tubes.

4. The combination with the rows of tubes of a water-tube boiler, of a baffle therefor comprising ropes of fire resisting material wound back and forth over the diagonal rows of tubes and embedded in a body of suitable cement.

5. The combination with the bank of tubes of a water tube boiler, of a baffle therefor comprising a metal frame surrounding said bank of tubes, a body of cement within said frame, and asbestos ropes wound back and forth over the diagonal rows of tubes and embedded in said cement body.

[Claim 6 not printed in the Gazette.]

1,135,536. POWER-COUNTER. LEON E. LABOMBARDE and MELVIN H. SIDEBOTHAM, Nashua, N. H. Filed Jan. 31, 1914. Serial No. 815,650. (Cl. 93—93.)



1. A counter having means for actuating it by power, a guideway for the edgewise travel of the articles to be counted, a controller movable transversely of the path of travel of the articles, and connections whereby the extent of movement of the controller determines the effectiveness or ineffectiveness of the actuating means.

2. A counter having means for actuating it by power, a guideway for the edgewise travel of the articles to be counted, a controller movable transversely of the path of travel of the articles, connections whereby the extent of movement of the controller determines the effectiveness or ineffectiveness of the actuating means, and means for automatically varying the positions of delivery of some of the articles at predetermined intervals.

3. A counter having a continuously operating power-actuated member, a guideway for the edgewise travel of the articles to be counted, and a controller movable transversely of the path of travel of the articles for determining the effectiveness of said member.

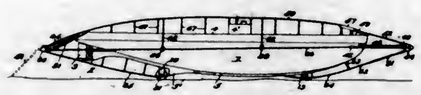
4. A counter having a continuously operating power-actuator normally disconnected from the counting mecha-

nism, a guideway for the edgewise travel of the articles to be counted, a controller movable transversely of the path of movement of the articles, and connections whereby said controller is operated by said actuator, said connections including means for effecting an operative connection of the actuator and counting mechanism when the movement of the controller is arrested by a passing article.

5. A counter comprising in its construction a ratchet, a pawl for actuating said ratchet, said pawl having means for continuously operating it by power, a shield adapted to prevent the engagement of the ratchet by said pawl, a guideway for the edgewise travel of the articles to be counted, and means movable transversely of the path of travel of the articles for controlling the position of said shield according to the presence or absence of an article to be counted.

[Claims 6 to 10 not printed in the Gazette.]

1,135,537. SUBMARINE BOAT. SIMON LAKE, Milford, Conn., assignor to The Lake Torpedo Boat Company of Maine, Bridgeport, Conn., a Corporation of Maine. Filed Dec. 5, 1914. Serial No. 875,636. (Cl. 114—16.)



1. The combination with a submarine boat provided with bottom wheels for navigating over the water-bed and movable for steering purposes and for short radius turning, of fenders connected to the vessel and extending out beyond the line and appendages thereof overhead, under the keel and at the sides, and adapted for the purpose specified.

2. The combination with a submarine boat provided with bottom wheels for navigating over the water-bed, of fenders connected to the vessel and extending out beyond the line and appendages thereof and also extending from a point forward of the bow of the boat to a point aft of the stern thereof.

3. The combination with a submarine boat, of a fender journaled to the forward end of the boat, and fender-rails extending from said fender over the deck, along the sides, under the keel and terminating aft of the stern of the boat.

4. The combination with a submarine boat, of a fender journaled at the bow of the boat and having a conical forward end, fender-rails extending from said fender over the deck, along the sides and under the keel of the boat, and means for controlling the position of said fender.

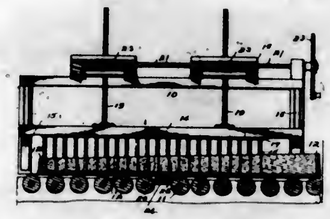
5. The combination with a submarine boat, provided with wheels for propelling the boat over the water-bed, of a fender journaled in the sides of the bow of the boat, said fender having a conical outer end, fender guard rails extending from said fender over the deck, along the sides, under the keel of the boat, and terminating aft of the stern of the boat, means for controlling the position of the fender, substantially for the purpose specified, and sweep-line guard arms connected to said fender guard rails.

[Claims 6 to 18 not printed in the Gazette.]

1,135,538. MACHINE FOR MAKING FENCE-POSTS. EDGAR E. MCCORD, Newton, Iowa. Filed June 24, 1912. Serial No. 705,633. (Cl. 25—34.)

1. In a fence post machine, the combination of a platform comprising rollers designed to receive and support a post mold and mold, a pin bar, a series of pins therein, guide members, means for raising and lowering the pin bar between said guide members, a stop device for limiting the forward movement of the post mold to center it longitudinally beneath the pin bar, and a post mold centering device designed to engage a post mold on the roller platform and to move it transversely to a position centered below the pin bar.

2. In a fence post machine, the combination of a platform, comprising rollers, designed to receive and support a post mold and mold, a pin bar, a series of pins therein, means for raising and lowering the pin bar, a stop device for limiting the forward movement of the post mold to center it longitudinally beneath the pin bar, and a post mold centering device, designed to engage a post mold on the roller platform and transversely to move it to a position centered below the pin bar.



3. In a fence post machine, the combination of a supporting platform, comprising transversely arranged rollers, designed to receive and support a post mold and mold, a pin bar, a series of pins fixed to the pin bar and extending downwardly therefrom, a stop device for limiting the forward movement of the post mold to center it longitudinally beneath the pin bar, a post mold centering device designed to engage the post mold on the roller platform and to move it transversely to a position centered beneath the pin bar, two upright screw threaded shafts connected with the pin bar, two cog wheels internally screw threaded mounted on said shaft, means for supporting said cog wheels against upward and downward movement, a shaft arranged horizontally, two worm gears thereon in mesh with said cog wheels, and means for rotating the latter shaft.

4. In a fence post machine, the combination of a platform, comprising rollers, designed to receive and support a post mold and mold, a pin bar, a series of pins therein, means for raising and lowering the pin bar, a stop device for limiting the forward movement of the post mold to center it longitudinally beneath the pin bar, a post mold centering device, designed to engage the post mold on the roller platform and to move it transversely to a position centered below the pin bar, the said post mold centering means comprising a transverse shaft, having its end portions provided with oppositely arranged screw threads, two slide bars on opposite sides of said shaft, a lug on each slide bar, having a screw threaded opening through which the shaft is extended, said lugs being arranged at the opposite ends of the shaft, and a post mold engaging device on each slide bar.

5. In a fence post machine, the combination of a supporting platform, comprising transversely arranged rollers, designed to receive and support a post mold and mold, a pin bar, a series of pins fixed to the pin bar and extending downwardly therefrom, a stop device for limiting the forward movement of the post mold to center it longitudinally beneath the pin bar, a post mold centering device designed to engage the post mold on the roller platform and to move it transversely to a position centered beneath the pin bar, two upright screw threaded shafts connected with the pin bar, two cog wheels internally screw threaded mounted on said shaft, means for supporting said cog wheels against upward and downward movement, a shaft arranged horizontally, two worm gears thereon in mesh with said cog wheels, means for rotating the latter shaft, the said post mold centering means comprising a transverse shaft having its end portion provided with oppositely arranged screw threads, two slide bars on opposite sides of said shaft, a lug on each slide bar having a screw threaded opening through which the shaft is extended, said lugs being arranged at the opposite ends of the shaft, and a post mold engaging device on each slide bar.

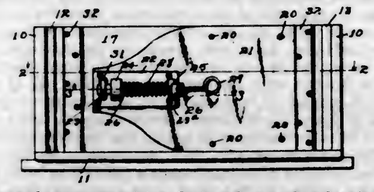
1,135,539. ELECTRIC SEAM-WELDING APPARATUS. RICHARD MACK, Berlin, Germany, assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Sept. 17, 1912. Serial No. 720,714. (Cl. 219—6.)



1. In an electric seam welding apparatus, the combination of current supplying electrodes making a wiping contact with the work and non-conducting pressure rollers located between said electrodes.

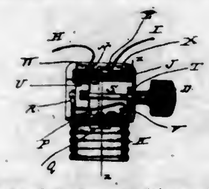
2. In an electric seam welding apparatus the combination of brushes adapted to supply current to the work by direct wiping contact with the surface at opposite sides of the seam and a pair of non-conducting pressure rollers adapted to apply pressure to the work at each side of the seam.

1,135,540. END-GATE. AUGUSTUS A. MERRILL, Sioux Rapids, Iowa. Filed May 31, 1911. Serial No. 630,450. (Cl. 21—21.)



An end gate comprising first and second end gate members hinged to each other to fold rearwardly a third member secured to the first end gate member and overlapping the second end gate member, a keeper on said second end gate member, a plate on said third end gate member, having bearing loops, a bolt slidingly but non-rotatably mounted in said loops designed to be received in said keeper when the end gate is in position for use, the end of said bolt which coacts with said latch device being beveled at its outer and inner edges, a fulcrum member secured to one of said loops and inclined away therefrom, and a handle connected to one end of said bolt with a universal connection, said handle being designed to engage said fulcrum member when moved in a horizontal plane for withdrawing said bolt from the keeper.

1,135,541. GLOW-LAMP FIXTURE. THOMAS E. MURRAY and GEORGE K. JESSUP, New York, N. Y.; said Jessup assignor to said Murray. Filed Mar. 28, 1914. Serial No. 827,859. (Cl. 173—351.)



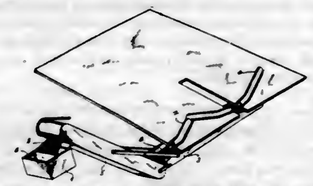
1. A glow-lamp fixture, comprising a block of insulating material having a transverse recess, a threaded shell lamp socket secured upon one end of said block, a central contact in said threaded shell, circuit terminals on the opposite end of said block circuit connections between said circuit terminals respectively and said shell and said central contact therein, and a switch mechanism in said recess and interposed in the connection between a circuit terminal and said central contact.

2. A glow-lamp fixture, comprising a block of insulating material, having a transverse recess extending through it, a threaded shell lamp socket secured upon one end of said block, a central contact in said shell, circuit terminals on the opposite end of said block, a connection extending from one of said terminals through the material of said block to said threaded shell, a connection extending from the other of said terminals to a contact plate in said recess, a second contact in said recess, a connection between said second contact and the central contact in said shell, and a rotary switch key in said recess coöperating with the contacts therein.

3. A glow-lamp fixture, comprising a block of insulating material, having a transverse recess extending through it, two circuit terminals on one end of said block, one of said terminals entering said recess, a threaded shell lamp socket on the opposite end of said block, a central contact in said shell, a conducting rod extending through the material of said block and connecting the other of said terminals to the shell of said socket, a metal bracket seated in said recess and connected to the center terminal of said socket, a leaf spring in said bracket, a connection between said leaf spring and the central contact of said shell, and a rotatable switch key journaled in said bracket and coöperating with said first-named circuit terminal and said leaf spring

4. A glow-lamp fixture, comprising a block of insulating material, having a transverse opening extending through it, two circuit terminals on one end of said block, one of said circuit terminals being a bifurcated plate having its loop received in a notch in one side of said block above said recess, a metal bracket in the bottom of said recess, a threaded shell lamp socket, a central contact in said shell, a connection extending through the material of said block from said central contact to said bracket, a spring contact on said bracket, a connection extending through the material of said block from said shell to the other of said circuit terminals, and a switch mechanism disposed in said recess and interposed between said spring and said bifurcated plate.

1,135,542. GRAIN-SAVING DEVICE. BAUCE G. NELSON, Grand Forks, N. D. Filed May 27, 1914. Serial No. 841,305. (Cl. 56—126.)



1. In combination with an inclined deck, a grain saving device comprising a tubular member applied to the upper side of the deck near the lower edge thereof and provided at its upper side with openings.

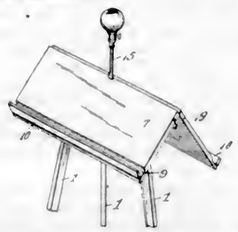
2. In combination with an inclined deck, a grain saving device comprising a tubular member applied to the deck and upon the upper side thereof near the lower edge thereof said tubular member having angularly disposed end portions and being provided at its upper side with openings.

3. In combination with an inclined deck, a grain saving device comprising a tubular member applied to the upper side of the deck near the lower edge thereof, said tubular member being provided in its upper side with openings, a chute applied to the deck at the lower side thereof and adapted to receive grain from the tubular member, an elevator supported from the deck and leading from said chute and a receptacle located at the delivery end of the elevator.

4. In combination with an inclined deck, a grain saving device comprising a tubular member applied to the upper side of the deck near the lower edge thereof and provided at its upper side with openings, a chute applied to the lower side of the deck and adapted to receive grain from the tubular member, a detachable screen located in the chute, an elevator pivotally connected with the deck

and arranged to receive grain from the chute, means for operating the elevator, a receptacle carried at the delivery end of the elevator and having a partition which divides the same into compartments and a screen leading from the elevator over one compartment and having its delivery end disposed above an adjacent compartment.

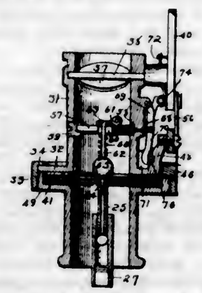
1,135,543. COMBINATION MUSIC-DESK AND TABLE. LOUIS E. NEWHALL, South Framingham, Mass., assignor of one-half to Clayton E. Varney, South Framingham, Mass.; Mildred A. Varney administratrix of said Louis E. Newhall, deceased. Filed Nov. 20, 1911. Serial No. 661,374. (Cl. 45—62.)



1. A combination music desk and table including supporting legs, plates provided with transverse grooves carried by said legs, leaves hingedly connected together, straps pivotally engaged with the inner faces of said leaves and having sliding engagement in said grooves, and a rod centrally mounted in said cable and extending upwardly through said leaves substantially as specified.

2. In a device of the character described, uprights, means connecting said uprights near their lower ends, means connecting the tops of said uprights, said last named means being provided with transverse grooves, a tubular member extending through said first and second named means, leaves hingedly connected together and in slidable engagement with said tubular member, arms pivotally connected to each of said leaves, said arms adapted to be seated in said grooves, a plate adapted to be secured to said last mentioned connecting means, said plate provided with grooves, said arms adapted to slide within said grooves whereby said leaves may be adjusted for the purpose specified.

1,135,544. CARBURETER. RAYMOND P. NORTON, Marshalltown, Iowa, assignor of one-third to W. A. Norton, Marshalltown, Iowa. Filed July 22, 1912. Serial No. 711,013. (Cl. 48—155.1.)



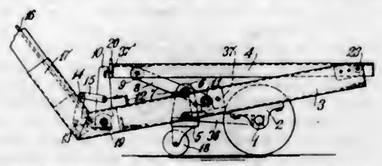
1. In a carbureter, a shell having an air inlet opening and a discharge passage, a fuel feed nozzle extending into said shell to a point between said opening and passage and forming a valve seat at its discharge end, an adjustable closure device surrounding said nozzle near its discharge end and adapted to vary the size of the opening in the shell around the nozzle, a needle valve arranged to coact with said seat, and provided with an upwardly extending stem, a valve raising device slidably mounted on the said stem, a deflector device on said stem above said valve, and a yielding device arranged between said deflector and said valve raising device.

2. In a carbureter, a shell having an air inlet opening and a discharge passage, a fuel feed nozzle extending into said shell to a point between said opening and passage and forming a valve seat at its discharge end, an adjustable closure device surrounding said nozzle near its discharge end and adapted to vary the size of the opening in the shell around the nozzle, a needle valve arranged to coact with said seat, and provided with an upwardly extending stem, a valve raising device on the said stem, slidably mounted, a deflector device on said stem above said valve, a yielding device arranged between said deflector and said valve raising device, a throttle valve in said discharge passage, and means for simultaneously controlling said throttle valve, said closure device and said needle valve controlling means.

3. In a device of the class described, a carbureting chamber having a discharge outlet, a throttle valve in said discharge outlet, a stem thereon extending outside said chamber, a fuel inlet tube extending into said chamber, the upper end of said tube forming a valve seat, a valve arranged to coact with said seat, an upwardly extending stem thereon, a centrally pivoted bell crank lever having one end pivoted to said last named stem, a rod, slidably mounted in the wall of said chamber and designed in one position to engage the free end of said bell crank lever for opening said second valve, an arm centrally pivoted to the outer end of said rod, adjustable means for limiting the outward movement of one end of said arm, means mounted on said throttle stem for engaging the other end of said arm and moving it inwardly when said throttle stem is moved to a certain position of its movement, and a link pivoted to said chamber and to said arm for supporting it.

4. In a device of the class described a carbureting chamber having a discharge outlet, a throttle valve in said discharge outlet, a fuel inlet tube extending into said chamber, the upper end of said tube forming a valve seat, the valve arranged to coact with said seat, a rod slidably mounted in the wall of said chamber and operatively connected with said valve, said valve being arranged so that it is normally seated and is raised by the inward movement of said rod, an arm pivoted to the outside of said shell, and extending from position above to position below the outer end of said rod, means whereby said arm and said throttle valve may be operated in unison, and means whereby the limit of the outward movement of the lower end of said arm may be regulated, said means comprising a rod rotatably mounted, and having a flat side adjacent to the lower end of said arm.

1,135,545. ELEVATING-TRUCK. WALTER J. OLDROYD, Hartford, Conn., assignor to George F. Clark Company, Windsor Locks, Conn., a Corporation of Connecticut. Filed Mar. 16, 1914. Serial No. 824,854. (Cl. 21—118.)



1. An elevating truck, comprising, in combination, supporting wheels, a frame pivotally mounted thereon intermediate its ends, a handle operably connected with the frame, a load supporting member operably connected with said frame at the rear thereof to be lifted thereby, and mechanism associated with the said member and frame for lifting the forward end of said member as the rear end is lifted, all constructed and arranged so that the load supporting member will be lifted at both ends by the pivotal movement of the frame without substantially shifting said member longitudinally with relation to said wheels.

2. An elevating truck, comprising, in combination, supporting wheels and a frame pivotally mounted thereon intermediate its ends, a load supporting member operably connected with said frame at the rear thereof to be lifted thereby, and mechanism associated with the said member and frame for lifting the forward end of said member as the rear end is lifted, all constructed and arranged so that the load supporting member will be lifted at both ends by the pivotal movement of the frame without materially shifting said member longitudinally with relation to said wheels.

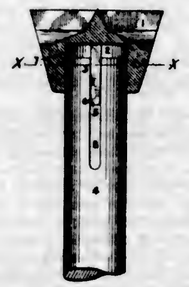
3. An elevating truck, comprising, in combination, an axle with supporting wheels thereon, a caster frame having a supplementary supporting wheel swiveled thereon, distance bars fastened to said axle and to the caster frame, a main frame pivoted for vertical rocking movement on said axle, a load supporting member operably associated at one side of said axle with the frame to be lifted thereby, lifting means pivoted on the caster frame and operably associated with said frame and member at the other side of said axle, all constructed and arranged so that a rocking movement of the main frame in one direction will lift said load supporting member.

4. An elevating truck, comprising, in combination, an axle with supporting wheels thereon, a caster frame having a supplementary supporting wheel swiveled thereon, distance bars fastened to said axle and to the caster frame, a main frame pivoted for vertical rocking movement on said axle, a load supporting member operably associated at one side of said axle with the frame to be lifted thereby, lifting means pivoted on the caster frame and operably associated with said frame and member at the other side of said axle, means to hold the load supporting member in lifted position, all constructed and arranged so that a rocking movement of the main frame in one direction will lift said load supporting member.

5. An elevating truck, comprising, in combination, an axle with supporting wheels thereon, a frame pivoted intermediate its ends to said axle, comprising side and cross-bars having upturned handle extensions to rock the frame, a load suporting member connected to the rear end of said frame for movement therewith, mechanism arranged in front of said axle and operably connected to the frame and load supporting member, whereby when the handle extensions are lowered, the rear end of the frame and member will be raised and said mechanism will be operated to likewise lift the front end of said member, means to hold the front end of said member in elevated position together with mechanism to release said means.

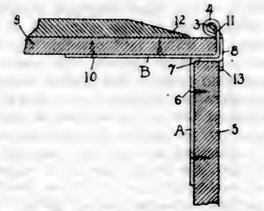
[Claim 6 not printed in the Gazette.]

1,135,546. PERCUSSIVE TOOL WITH DETACHABLE CUTTER. FRANK ONDRA, Johannesburg, Transvaal, South Africa, assignor of one-half to Max Pollak, Johannesburg, Transvaal, South Africa. Filed Aug. 13, 1913. Serial No. 784,482. (Cl. 255—63.)



In a percussive tool, a detachable cutter formed with a socket, a shank having an end slotted longitudinally for a distance considerably greater than the depth of the socket, and a wedge between the divisions of the end of the shank and adapted to be driven home by contact with the cutter, said wedge being longer than the depth of the socket.

1,135,547. HINGE. RUDOLPH C. PLEINS, St. Paul, Minn., assignor to Pleins Seal Lock Company, St. Paul, Minn., a Corporation of Minnesota. Filed Feb. 27, 1914. Serial No. 821,389. (Cl. 16—104.)



1. In combination with a box and cover, a strap hinge of the class described, comprising a flat knuckle member secured to the under side of the box cover and formed with an upwardly extending outer end supporting a knuckle above the box cover, and a pintle member secured to the inner face of the adjacent side wall of the box and bent outwardly across the top of the side wall, thence upwardly past the adjacent outer edge of the cover and thence inwardly over the top of the cover, the pintle member carrying a pintle at its upper free edge secured within the knuckle.

2. The combination with a box and cover, of a strap hinge of the class described, comprising a flat knuckle member secured to the under side of the box cover, and formed with an upwardly extending outer end supporting a knuckle above the box cover, said knuckle being bent inwardly over the cover, and a pintle member secured to the inner face of the adjacent side of the wall of the box and bent outwardly across the top of the side wall, thence upwardly past the adjacent outer edge of the cover, and thence inwardly over the cover, the pintle member carrying a pintle at its upper free edge secured within the knuckle, and a lug projecting downwardly from the pintle member of the hinge for engagement with the outer face of the box wall to prevent twisting of said hinge.

1,135,548. FUSE DEVICE. EDMUND O. SCHWEITZER and NICHOLAS J. CONRAD, Chicago, Ill., assignors to Schweitzer & Conrad, a Corporation of Illinois. Filed Apr. 18, 1912. Serial No. 691,718. (Cl. 175—273.)



1. In a fuse device in combination, a pair of terminals, a fuse intermediate of said terminals, and means for projecting a stream of liquid into the space occupied by the arc formed upon the melting of said fuse.

2. In a device of the class described in combination, a pair of tips connected by a fuse, at least one of said tips being movable, and means for projecting a stream of liquid into the path of movement of said movable tip.

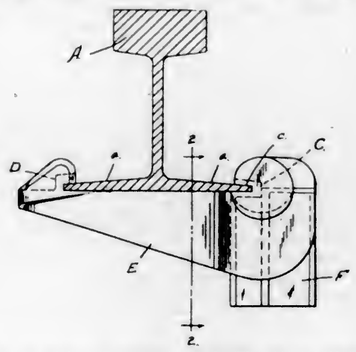
3. In a device of the class described in combination, a fixed tip, a movable tip, a fuse connecting said tips, a spring for operating said movable tip, and means for projecting a stream of liquid into the path of movement of said movable tip.

4. In a device of the class described in combination, a fixed tip, a movable tip, a fuse connected to said tips, a movable member to which said movable tip is connected provided with an aperture therein, said aperture being in alinement with said movable tip, and a spring connected to said tip for operating it upon the melting of the fuse.

5. In a device of the class described in combination, a tube containing an insulating liquid, fixed and movable tips, a fuse connecting said tips, a resilient shield surrounding said fuse, a movable member to which said movable tip is connected having an aperture therein in which said tip is partially situated and a spring for operating said movable member.

[Claims 6 to 14 not printed in the Gazette.]

1,135,549. RAIL-ANCHOR. JOHN M. SCOTT, Racine, Wis., assignor to Otto R. Barnett, Chicago, Ill. Filed Aug. 26, 1913. Serial No. 786,646. (Cl. 238—4.)



1. A rail anchor comprising a connecting bar adapted to extend under a rail and provided at opposite ends with rail engaging jaws and at one end with a tie engaging abutment, all so arranged that the jaw on the end of the bar farthest away from the abutment will be held out of engagement with the tie, the connecting bar being bendable lengthwise of the rail to a permanent set to bring the jaws into operative engagement with the rail.

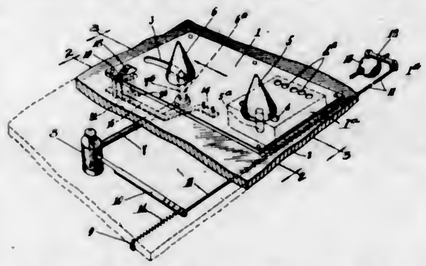
2. A rail anchor consisting of a single malleable casting formed with means adapted to engage opposite sides of a railroad rail, and a connecting member for said means extending under the base of said rail, said connecting member adapted to be bent after being applied to the rail so as to cause said rail-engaging means to grip the rail, said casting being also formed with a tie-engaging abutment at one end thereof arranged to hold the rail-engaging member at the other end thereof away from the tie.

3. A rail anchor comprising a pair of rail engaging members adapted to engage opposite sides of a railroad rail and a connecting member which is adapted to be bent by the creeping of the rail so as to bring said rail engaging members into tighter operative relation with said rail.

4. A one-piece rail anchor comprising a jaw adapted to engage one edge of the base flange of a railroad rail and provided with a tie abutting member, a cross bar which extends under the rail out of contact with said tie and terminating in a jaw adapted to engage the opposite edge of the base flange of said rail, said bar being bendable to receive a permanent set so that after the device has been applied to the rail the jaws may be brought into operative relationship with said base flange.

5. A rail anchor consisting of a single integral casting formed to provide a jaw adapted to engage one edge of the base flange of a railroad rail having a tie abutting member, and a cross bar which extends under the rail out of contact with said tie and terminating in a jaw adapted to engage the opposite edge of the base flange of said rail, said bar being bendable to a permanent set so that after the device has been applied to the rail the jaws may be brought into operative relationship with said base flange.

1,135,550. CONTROL DEVICE FOR AUTOMOBILES. JOHN ATKINSON STAPLES, Newburgh, N. Y. Filed Nov. 7, 1914. Serial No. 870,732. (Cl. 74—81.)



1. A control device for automobiles, comprising among its members a movable member, means adapted to connect it to the part to be controlled, retracting means for said movable member, a locking member, independent of said retracting means for securing said movable member and connected parts in adjusted position, said locking member being normally in inoperative position and means independent of the normal operation of the movable member for throwing said locking means into and out of operative position, whereby said movable member may be locked and permitted to remain in position out of control of the retracting means.

2. A control device for automobiles, comprising among its members a movable member, means adapted to connect it to the part to be controlled, retracting means for said movable member, a locking member normally out of operative position for securing said movable member and connected parts in adjusted position, and means separate from and independent of the movable member for throwing said locking member into and out of operative position.

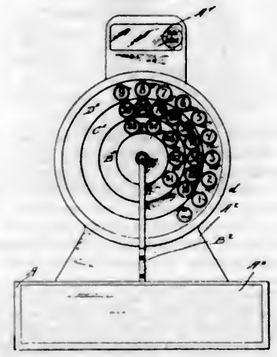
3. A control device for automobiles, comprising among its members a movable member, means adapted to connect it to the part to be controlled, retracting means for said movable member, a locking member adapted to engage a part connected with the movable member, in any position to which it may be moved, for holding said movable member and connected parts in adjusted position, said locking member being normally in inoperative position, and means independent of said movable member for moving said locking member into and holding it in operative position.

4. A control device for automobiles, comprising among its members a movable member, means adapted to connect it to the part to be controlled, retracting means for said movable member, a spring actuated locking member independent of said movable member adapted to engage a part connected with the movable member in any position to which it may be moved, for holding said movable member and connected parts in adjusted position, said locking member being held by its actuating spring normally in inoperative position, and means independent of said movable member for moving said locking member into and holding it in operative position.

5. A control device for automobiles, comprising among its members a movable member, means adapted to connect it to the part to be controlled, retracting means for said movable member, a locking member for frictionally engaging a part connected with said movable member and holding it in adjusted position, said locking member being normally out of operative relation with said parts, and means independent of the movable member for moving said locking member into and holding it in position to engage said part and lock said movable member and the parts connected therewith.

[Claims 6 to 23 not printed in the Gazette.]

1,135,551. TOTAL-ADDING CASH-REGISTER. CHARLES SULFER, Chicago, Ill., assignor to Dial Cash Register Company, Milwaukee, Wis., a Corporation of Arizona. Filed Dec. 29, 1906. Serial No. 350,057. (Cl. 235—20.)



1. A machine of the class described embracing a suitable frame, a plurality of shafts journaled therein, a dial secured on each and appropriated to dollars, dimes and pennies, respectively, and marked on the face with successively arranged significant digits to register the transaction, said dials having their faces in the same vertical plane and normally closed sockets therein to receive the fingers for rotating the dials, and mechanism acting to display as a visible signal, the amount of the transaction when any of said dials are actuated.

2. A machine of the class described embracing a suitable frame, concentrically arranged interfitting dials having their exposed faces approximately flush, each secured on an independent shaft journaled in the frame, and appropriated to dollars, dimes and pennies respectively, and marked on the face with successively arranged significant digits, mechanism acting to display as a visible signal the amount of the transaction, when any of said dials are actuated and a stop for said dials at both limits of movement.

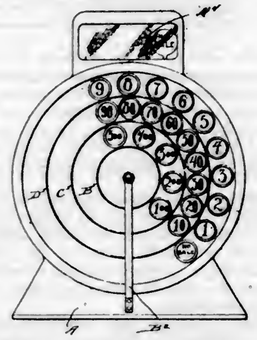
3. A machine of the class described embracing a suitable frame concentrically arranged dials, each secured on an independent shaft journaled in the frame, and appropriated to dollars, dimes and pennies respectively, and marked on the face with successively arranged numerals counting from one to nine, mechanism acting to display as a visible signal, the amount of the transaction, when any of said dials are actuated, a stop for said dials at both limits of movement, and means locking the dials from movement.

4. A machine of the class described embracing a suitable frame, concentrically arranged dials, each secured on an independent shaft journaled in the frame and appropriate to dollars, dimes and pennies, respectively, and marked on the face with successively arranged numerals counting from one to nine, mechanism acting to display as a visible signal the amount of the transaction when any of said dials are actuated, a stop for said dials at both limits of movement, and a sliding bolt locking all said dials from movement.

5. A machine of the class described embracing a suitable frame, concentrically arranged dials having their outer faces in the same plane, each independently journaled in the frame and appropriated to dollars, dimes, and pennies, respectively, and marked on the face with successively arranged numerals counting from one to nine, mechanism acting to display as a visible signal, the amount of the transaction when any of said dials are actuated and a rigid stop for said dials at both limits of movement, said numerals being all arranged in a semi-circle on the same side of each dial.

[Claims 6 to 325 not printed in the Gazette.]

1,135,552. REGISTERING MECHANISM. CHARLES SULFER, Chicago, Ill., assignor to Dial Cash Register Company, Milwaukee, Wis., a Corporation of Arizona. Original application filed Dec. 29, 1906, Serial No. 350,057. Divided and this application filed Feb. 24, 1908. Serial No. 417,530. (Cl. 235—20.)



1. A registering device comprising rotative registering members each adapted to register only when rotating oppositely from the adjacent members and mechanism for transferring a count from all the lower denomination registering members acting conjointly to the highest denomination register.

2. A registering device comprising rotative registering members each adapted to register only when rotating oppositely from an adjacent member and mechanisms for transferring a count from each lower registering member to the next higher registering member and to transfer a count from a combination of the lower registering mechanisms to the highest registering mechanism.

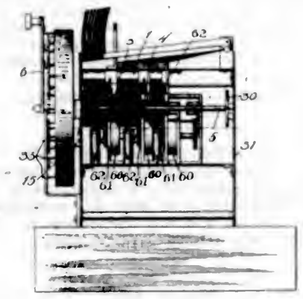
3. A registering mechanism embracing registering devices each operating in an opposite direction from the adjacent lower denomination device, a shaft and independent mechanisms on said shaft all rotatable independently and one for actuating each registering device to register the proper amount.

4. A registering mechanism embracing registering devices each operating in an opposite direction from the adjacent lower denomination device, independent mechanisms, one for actuating each registering device to register the proper amount, means for locking each registering device from movement in a direction reverse to its registering movement and means normally locking part of the registering devices from registering movement.

5. A registering mechanism embracing registering devices each operating in an opposite direction from the adjacent lower denomination device, independent mechanisms, one for actuating each registering device to register the proper amount, independent means for normally locking all registering devices except the lowest denomination from registering movement, independent means for permanently locking each registering device from movement reverse to registering movement and an independent mechanism for adjusting each normally locking mechanism out of locking engagement.

[Claims 6 to 215 not printed in the Gazette.]

1,135,553. KEYBOARD. CHARLES SULFER, Milwaukee, Wis., assignor to Dial Cash Register Company, Milwaukee, Wis., a Corporation of Arizona. Filed Aug. 2, 1909. Serial No. 510,850. (Cl. 235—21.)



1. A rotating dial for cash registers having keys arranged thereon in sequence and each appropriated to a number to be registered, movable means acting to hold any key in adjusted position when actuated and adapted to release a previously actuated key when a second key is actuated and dial actuating means mounted concentrically with the dial and adapted to engage only an actuated key.

2. In a machine of the class described a rotating dial marked consecutively with the significant digits in sequence, an inwardly adjustable key for each digit, rotative means journaled concentric with the dial and coacting with the actuated key to rotate the dial in registering, and release mechanism acting to return the key to normal after the registering movement.

3. The combination with cash registering mechanism of a key board comprising a plurality of concentric dials, movable keys thereon arranged in sequence on the respective dials to indicate dollars, dimes and cents respectively, means acting to hold said keys when actuated, a lever concentrically fulcrumed with the dials and adapted to actuate the dials in registering by engagement with the keys shifted to indicate the amount and means returning the dials to normal after each count.

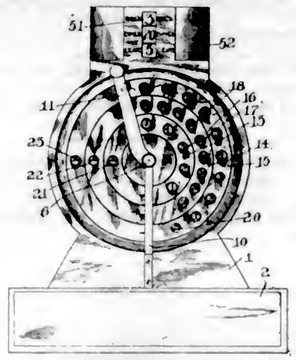
4. In a device of the class described a key board embracing a plurality of concentrically arranged dials each affording an interior chamber, a movably supported shifting ring in each chamber, keys slidably engaged in the dial and adapted to engage the shifting ring when pressed inwardly, springs for returning said keys to normal and a trip mechanism adapted to release the shifting ring from the key after each actuation.

5. In a device of the class described a plurality of concentric dials, each affording a peripheral chamber, a shifting ring movably supported therein, keys arranged on each dial and each embracing a stem having an inclined inner end and a shoulder, apertures in said shifting ring corresponding approximately in position with the ends of the key stems, springs acting to retract the shifting rings after each actuation whereby the key depressed engages the shifting ring and is held inwardly thereby, and mechanism for releasing the key at the end of each count or register.

[Claims 6 to 142 not printed in the Gazette.]

1,135,554. SALES-INDICATOR FOR CASH-REGISTERS. CHARLES SULFER, Milwaukee, Wis., assignor to Dial Cash Register Company, Milwaukee, Wis., a Corporation of Arizona. Filed Aug. 21, 1909. Serial No. 514,048. (Cl. 235—21.)

1. In a cash register the combination with interfitting, concentric rotating actuating dials marked to denote different money denominations of rotating indicating dials marked to correspond with the actuating dials and to indicate the sum or sums to be registered and operative connections to actuate the indicating dials from the actuating dials to correspond with the amounts to be registered.



2. In a machine of the class described a key board, comprising interfitting rotatable dials, keys secured thereto, a lever for operating all of the dials by engaging the proper keys, rotative indicating dials marked to indicate each a separate money denomination, and operative connections actuated with the keyboard to rotate said dials.

3. A machine of the class described embracing a plurality of substantially horizontally journaled indicating dials, concentric interfitting actuating dials and geared connections operated by the actuating dials for actuating the indicating dials to indicate the amounts registered.

4. An indicator for cash register embracing rotative indicating dials, numerals consecutively marked on each semi-circumference thereof, and rotatable means operated in registering for rotating the dials to bring the amounts registered and idicated on such dials into vertical alinement.

5. A machine of the class described embracing a plurality of concentric interfitting master rotating elements, each adapted to move in registering a distance proportionate to the amount to be registered thereby, a single lever for selectively rotating one of said elements or any combination of said elements, shafts actuated therefrom and indicating wheels on said shafts each marked to represent a particular denomination and rotated correspondingly in return direction with the respective master elements to indicate the individual sale.

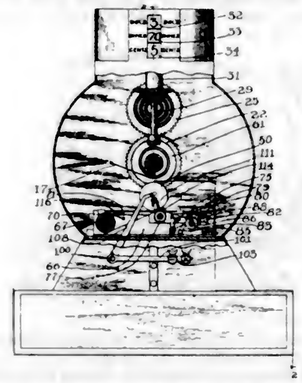
[Claims 6 to 72 not printed in the Gazette.]

1,135,555. RECORDING MECHANISM. CHARLES SULFER, Milwaukee, Wis., assignor to Dial Cash Register Company, Milwaukee, Wis., a Corporation of Arizona. Filed Sept. 13, 1909. Serial No. 517,473. (Cl. 235—2.)

1. In a cash register, concentric actuating dials, concentric dial shafts connected thereto, printing means embracing a plurality of coaxial shafts, appropriated to different money denominations, gears connecting the same and said dial shafts, a printing wheel on each having numerals upon the face, rotative means for bringing the numerals on the respective wheels, into alinement for printing to correspond with the transaction to be recorded, and an impression roll acting to project the paper or tape against the printing face of the wheels.

2. In a cash register, printing means embracing a plurality of concentric shafts appropriated to different money denominations, a printing wheel on each, having numerals upon the face, rotative means for bringing the numerals on the respective wheels into alinement for printing to correspond with the transaction to be recorded, means acting to feed a strip to receive the impression, an impression roll acting to press the strip against the printing face of the wheels, and printing type adapted to print upon the strip before it is pressed against the printing wheels.

3. In a cash register, printing means embracing a plurality of printing wheels, each appropriated to a different money denomination and having numerals upon its face, means for bringing the numerals on the respective wheels into alinement for printing to correspond with the transaction to be recorded, means for feeding a recording strip an impression roll acting to project the strip against the printing face of the printing wheels and to assist in shifting or feeding the strip, printing type adapted to print upon the strip before the strip is pressed against the printing wheels, and means for actuating said printing type.

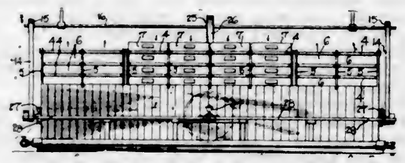


4. In a cash register, concentric interfitting rotatable key boards, concentric shafts connected thereto, printing means embracing a plurality of printing wheels, each appropriated to a different money denomination and having numerals upon its face, gears connecting the same and said concentric shafts, means for bringing the numerals on the respective wheels into alinement for printing to correspond with the transaction to be recorded, means for feeding a recording strip, an impression roll acting to project the strip or tape against the printing face of the wheels and to assist in shifting or feeding the strip, and means maintaining tension on the strip.

5. A machine of the class described embracing concentric interfitting rotatable keyboards, concentric rotative shafts actuated therefrom, rotative indicators actuated from said shafts, and a printing mechanism also operated from and by said shafts.

[Claims 6 to 76 not printed in the Gazette.]

1,135,556. DRYING APPARATUS. AUGUST TEGOLI, Santa Rosa, Cal., assignor of one-third to Charles R. Bertoli and on-third to Libro Tantimonaco, Santa Rosa, Cal. Filed Sept. 15, 1914. Serial No. 861,815. (Cl. 94—39.)



1. A drier having a middle and lateral chambers, the former provided with an exhaust fan, and the latter with blast fans, a series of drawers having bottoms adapted for the passage of air, arranged in drawer spaces over the several compartments, and means for operating the several fans, subetantially as and for the purpose set forth.

2. In a drying apparatus such as described and comprising a middle and lateral chambers provided respectively with an exhaust, and blast fans and means for rotating the fans, perforate drawers, said drawers having perforate bottoms and being arranged in drawer spaces over the respective fan equipped chambers, said chambers provided with means for heating the air therein, substantially as and for the purpose set forth.

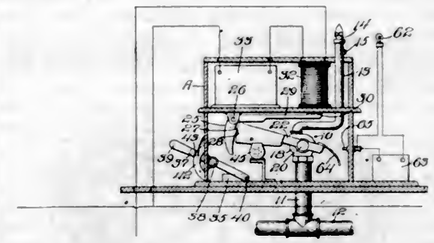
3. In a drying apparatus such as described, comprising a plurality of closed chambers, with a series of perforate bottom drawers arranged in drawer spaces over the said chambers, means for producing upward air blast currents in certain chambers and downward exhaust currents through certain other chambers substantially as and for the purpose set forth.

4. In a drying apparatus such as described, comprising a multiplicity of chambers provided with fans for producing wind currents, and a series of drawers removably arranged in drawer spaces over the said chambers, a foot board arranged in front of the apparatus substantially as and for the purpose set forth.

5. A drying apparatus such as described comprising two end chambers and one middle chamber, with fans mounted therein upon rotary shafts having belt pulleys at the outer extremities, a longitudinal power shaft having pulleys thereon, and belts leading from said pulleys to the pulleys upon the fan shafts, substantially as shown and described.

[Claims 6 to 10 not printed in the Gazette.]

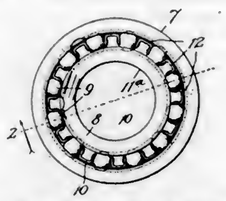
1,135,557. TRAIN CONTROL AND SIGNAL SYSTEM. JAMES T. THOMPSON, Chicago, Ill., assignor to The Thompson Automatic Signal Company, Chicago, Ill., a Corporation of South Dakota. Original application filed Jan. 5, 1912, Serial No. 669,556. Divided and this application filed June 5, 1912. Serial No. 701,744. (Cl. 246—58.)



1. A signal or control mechanism for railway trains embracing a signal or control device carried by the locomotive, a vertically swinging weighted arm arranged when in its upper position to maintain said device inoperative, and when in its lower position to render the device operative, and having a notch at its heel end, a swinging mechanical latch of general L-shape pivoted at the angle between its arms and having on its shorter arm a tooth to engage the notch of the lever to hold the latter in its upper position and provided at the end of its longer arm, which normally lies horizontally over the weighted arm, with an armature, an electro-magnet carried by the locomotive and acting on the said armature and said latch to normally hold the arm in its upper position, and electrically actuated means for controlling said electro-magnet.

2. A control mechanism for railway trains embracing, in combination with the air brake train pipe and its release valve, a gravity actuated arm connected to and operating said valve to release air from the pipe, a holding magnet operating to normally hold the arm in position to render the valve inoperative to release air from the pipe, a controlling circuit for said magnet with means to open and close the same, embracing means to automatically open the said circuit to deënergize said magnet and release said arm to open the valve, a lamp circuit embracing a lamp and a battery and two separated contacts, and means on the valve actuating arm to bridge between said contacts to close the lamp circuit when the arm drops to open the valve

1,135,558. BALL-BEARING. WALTER H. STROM, Oak Park, Ill. Filed July 22, 1914. Serial No. 852,333. (Cl. 64—39.)

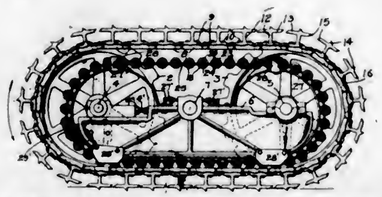


1. A ball-bearing ball-retainer, comprising a sheet-metal ring having ball-spacers at intervals about its outer edge, comprising flexible necks extending at substantial right-angles to the ring and terminating in members having sides folded toward each other to extend toward the inner peripheral edge of the ring.

2. A ball-bearing ball-retainer, comprising a sheet-metal ring having ball-spacers at intervals about its outer edge, comprising flexible necks extending at substantial right-angles to the ring and terminating in members having sides folded toward each other to extend to the inner peripheral edge of the ring, and provided with depressions in their outer faces.

3. A ball-bearing ball-retainer, comprising a sheet-metal ring having ball-spacers at intervals about its outer edge, comprising flexible necks extending at substantial right-angles to the ring and terminating in members having sides folded convergingly toward each other to extend toward the inner peripheral edge of the ring, and provided with depressions in their outer faces.

1,135,559. TRACTION-BELT. CHARLES L. TOLLES, Eau Claire, Wis. Filed May 14, 1912. Serial No. 697,265. (Cl. 21—114.)



1. A traction belt composed of links, each comprising an inner and outer flattened plate, and a continuous flexible means passing between said plates and connecting adjacent links, the outer plates of said links having traction shoes formed thereon, and means securing the plates of each link together and to said flexible means.

2. A traction belt composed of links, each having a transverse web extending outwardly at right angles substantially to the plane of the link and terminating in an elongated shoe which lies in a plane parallel, substantially, with the plane of the link and provided with a tooth or spur on its outer face, and flexible means passing through said links and connecting adjacent links.

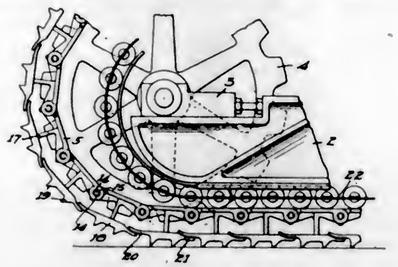
3. A traction belt comprising links having centrally arranged sockets therein adapted to receive the teeth of a sprocket wheel, the outer faces of said lings having traction surfaces and an endless flexible means included between the inner and outer faces of said links and secured thereto upon each side of said sprocket wheel teeth sockets.

4. A traction belt composed of links, each comprising inner and outer plates having longitudinal grooves therein, cables fitting within said grooves and connecting said links with one another, means for drawing said plates together to clamp them on said cables, and traction shoes carried by said links.

5. A traction belt comprising links, each composed of inner and outer plates, said outer plates having webs formed thereon and traction shoes at the outer portions of said webs, said plates having grooves formed in their opposing faces, cables fitting within said grooves, bolts passing through said plates and clamping them on said cables, said plates having slots or recesses to receive the teeth of a sprocket wheel.

[Claims 6 to 16 not printed in the Gazette.]

1,135,560. TRACTOR-BELT. CHARLES LYMAN TOLLES, Eau Claire, Wis. Filed Dec. 6, 1913. Serial No. 805,150. (Cl. 21—150.)



1. A tractor belt composed of a series of links, each having a central opening to receive the teeth of a sprocket wheel, and a transverse, centrally arranged hub at the end of said opening, said links also having alternating recesses and hubs upon opposite sides of said central hub, the recesses of one link being adapted to receive the opposite hubs of the adjacent link, a series of bushings fitting within said hubs and having abutting end surfaces forming dust-proof joints between said hubs, and pins fitting within said bushings, means for securing said pins to a hub of each link, and traction shoes mounted on said links.

2. A tractor belt comprising a series of links, each having a central opening therein to receive the teeth of a sprocket wheel and a central hub at the end of said openings extending transversely of said link, each link having at one end a hub upon opposite sides of said central hub and at the opposite end a pair of recesses on each side of the central hub to receive a pair of hubs of the adjacent link, a series of bushings fitting end to end within openings in said hubs and having their abutting ends bearing upon one another and forming a dust-proof joint, and pins fitting within said bushings and secured at one end to a hub of a link and rotating with said hub and its link in the other bushings, and traction shoes carried by said links.

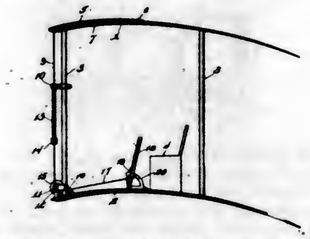
3. A tractor belt composed of a series of links, and having a central longitudinal opening, to receive the teeth of a sprocket wheel, a series of hubs at each end of each link and a series of recesses between said hubs, pins passing through openings in said hubs and hinging said links together, each link being also provided upon its under surface with a transverse web extending outwardly at right angles substantially to the plane of the links and terminating in an elongated shoe which lies in a plane parallel, substantially, with the plane of the link.

4. A tractor belt composed of links each having a transverse web extending outwardly at right angles substantially to the plane of the link and terminating in an elongated shoe which lies in a plane parallel, substantially, with the plane of the link, each link being provided also at each end with a series of hubs having transverse openings with recesses between said hubs, the position of the hubs at one end corresponding with the position of the recesses at the other end whereby the hubs upon the link extend into the recesses in the adjacent link, and transverse pins extending through said hubs forming therewith hinged connections between said links.

5. A tractor belt composed of links having their ends connected by a hinged joint and each link having a transverse web extending outwardly at right angles substantially to the plane of the link and terminating in an elongated shoe which lies in a plane parallel substantially with the plane of the link, the adjacent ends of the shoes overlapping and formed on the arc of a circle whose center coincides with the axis of the hinge between two adjacent links.

[Claim 6 not printed in the Gazette.]

1,135,561. SAFETY DEVICE FOR AEROPLANES. BEHREND ULFERTS, Lakefield, Minn. Filed June 10, 1914. Serial No. 844,280. (Cl. 244—29.)



1. A flying machine having a supporting surface, a safety vane pivoted at its rear edge upon the upper side of said surface for upward and rearward movement to an angle of incidence, means for releasing the holding means, and means for establishing a yielding resistance through said holding means to the movement of the vane to an acting position.

2. A flying machine having a supporting surface, a safety vane pivoted at its rear edge to the forward portion of said surface to fold down upon said surface and to swing upwardly and rearwardly to an angle of incidence, means for holding the vane inactive, springs upon said supporting surface for throwing the same into action when released, means for releasing the holding means, and means for establishing a yielding resistance through said holding means to the movement of the vane to an acting position.

3. A flying machine having a supporting surface, a safety vane pivotally mounted upon said surface to fold downwardly thereon and to swing upwardly and rearwardly to an acting angle of incidence, means for normally holding said vane folded and inactive, means for releasing the holding means, and means for establishing a yielding resistance through said holding means to the movement of the vane to an acting position.

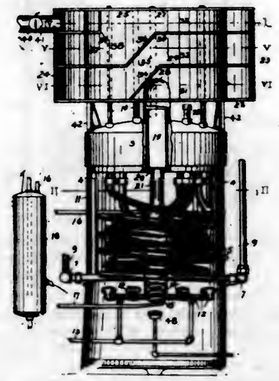
4. A flying machine having a supporting surface, a pivoted safety vane arranged to fold downwardly thereon to an inoperative position and to swing upwardly and rearwardly to an active angle of incidence, springs for projecting said vane, cables for normally holding said vane inactive and for releasing it for action, retaining and releasing means associated with said cables, and cushioning means associated with said cables, to retard the opening movement of the vane.

5. A flying machine having a supporting surface, a pivoted safety vane, a shaft, drums upon said shaft, cables connecting the drums with the vane, whereby said vane may be held inactive and released for action, means for locking and releasing the said shaft, and means associated with the cables for opposing a yielding resistance to the opening movement of the vane.

[Claims 6 and 7 not printed in the Gazette.]

1,135,562. HEATING APPARATUS. THOMAS H. WARD and RUFUS K. SEALS, California, Pa. Filed Apr. 13, 1914. Serial No. 831,381. (Cl. 126—101.)

1. In a heating apparatus, vertical water-heating coils, a dome located above the coils and having a central vertical flue through the same, the said coils being connected to the dome, a jacket constituting a combustion chamber and surrounding the coils and having its upper end closed by the steam dome, burners beneath the coils, an air heating drum above the steam dome provided with a substantially spiral passage therein, flue connections from the said flue to one end of the said passage, an outlet pipe connected to the other end of the said passage, steam and water outlet pipes leading from the dome, and a jacket inclosing the first named jacket, the dome, and the drum, and provided with hot-air outlet connections.



2. In a heating apparatus, vertical water-heating coils, a hollow annular dome located above the coils and having a central vertical flue through the same forming the inner annular wall of the dome, the said coils being connected to the dome, a jacket surrounding the coils and having its upper end closed by the steam dome, burners beneath the coils, an air heating drum above the steam dome provided with a substantially spiral passage therein, flue connections from the said flue to one end of the said passage, an outlet pipe connected to the other end of the said passage, steam and water outlet pipes leading from the dome, and a jacket inclosing the first named jacket, the dome, and the drum, and provided with hot-air outlet connections.

3. In a heating apparatus, vertical water-heating coils, a dome located above the coils and connected to the coils, a jacket surrounding the coils and having its upper end closed by the dome, a vertical tube in the axis of the coils, a vertical water-heating coil therein, a burner beneath the said coil, a boiler to which the said coil is connected, a vertical flue through the dome for the products of combustion, and burners beneath the first named water heating coils.

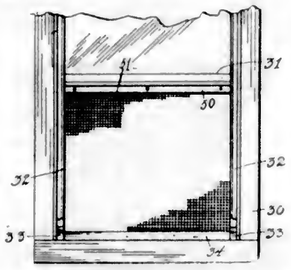
4. In a heating apparatus, vertical water-heating coils, a vertical tube in the axis thereof, provided with a flaring upper end, burners beneath said coils, a dome above the coils having a vertical flue through the same, a jacket surrounding the coils and closed at the top by the dome, and a flue extending below the dome and into the flaring end of the said vertical tube and communicating with the said vertical flue.

5. In a heating apparatus, a hollow dome, water-heating coils connected to the same, and a jacket constituting a combustion chamber and surrounding the coils and capped by the dome, a vertical flue through the dome, and a flue to receive the products of combustion from the said vertical flue.

1,135,563. KNOCKDOWN ROLLER-SCREEN. WILLIAM W. WATSON, Jamestown, N. Y. Filed Aug. 10, 1914. Serial No. 856,073. (Cl. 156—39.)

1. A screen of the class described comprising side cases having open lengthwise channels therein on the opposite inner sides of the window casing, said side cases having open ended sidewise housings on their lower ends with a screw hole in the rear side of each of said housings, one of the walls of said lengthwise channels extending down inside of said housings to receive the inner end of a screw, a crosswise roll case insertable into said sidewise housings, said roll-case having a slotted opening near each end

in the rear wall to receive a screw therethrough and adjustably attach said crosswise roll case within said sidewise housings.



2. A screen of the class described comprising side cases having open lengthwise channels therein on the opposite inner sides of the window casing, said side cases having open ended sidewise housings on their lower ends, a crosswise roll case insertable into said sidewise housings and adjustably attached thereto, a spring roller in said crosswise case, screen fabric attached to said roller at one end to be rolled thereon, a cross bar attached to the other end of said screen fabric and slidably mounted in said open lengthwise channels, mechanism in said side cases for operating said spring roller screen fabric and cross bar, said top cross bar detachably attached to the operating mechanism in said side cases at each end of said bar.

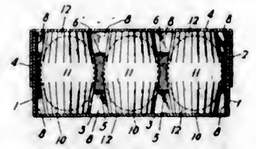
3. A screen of the class described comprising side cases each consisting of a channel strip and a removable cover therefor providing an open lengthwise channel therebetween, said side cases having a channel or chute therein opposite said open lengthwise channel, a guide piece slidably mounted in said chute, a leaf spring on said guide piece having a sidewise bend to hold said guide piece in line, a pulley revolubly mounted at the top of said side case in line with said chute, a second pulley revolubly mounted near the bottom of said side case, and a tape attached to said guide piece at one end and passing over the top pulley and attached to the bottom pulley to be wound around the same.

4. A screen of the class described comprising side cases each consisting of a channel strip and a cover attachable thereto with a lengthwise channel therebetween for the edge of the screen fabric, and open ended sidewise housing on the lower end of each side case cover, a pulley revolubly mounted on said channel strip opposite said open ended housing and a shaft on said pulley, a second pulley revolubly mounted on said channel strip near its upper end, a tape attached to said lower pulley winding around same and passing over said second pulley, a guide piece attached to the upper end of said tape and slidably mounted in said case opposite said lengthwise channel, a spring to hold said guide piece in line, a connecting pin removably insertible in said guide piece and having a slot in the outer end thereof, a spring roller detachably attached on said shaft on the lower pulley, screen fabric attached to said spring roller, a cross bar on the upper end of said screen fabric, and a screw on said cross bar insertible through the slotted end of said connecting pin to hold the parts together.

5. A screen of the class described comprising side cases having open lengthwise channels therein on the opposite inner sides of the window casing, said side cases having open ended sidewise housings on their lower ends, a crosswise roll case insertible in said sidewise housings, attaching screws in said sidewise housings engaging slotted openings in said crosswise roll case to adjustably connect said parts, a spring roller in said roll case, screen fabric attached to said spring roller at one end and slidably engaging in said open lengthwise channels on the opposite inner sides of the window casing, a cross bar attached to the other end of the screen fabric, operating mechanism in said side cases for said spring roller and screen fabric and said top cross bar to roll and unroll said screen fabric upon said spring roller, and screws in said top cross bar engaging said operating mechanism with adjustable compensation between said parts to permit adjustment of said top cross bar to said operating mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,135,564. EGG-CASE. EDWARD S. WETSEL, Binghamton, N. Y. Filed Jan. 31, 1914. Serial No. 815,644. (Cl. 217—27.)



1. In an egg-case the combination of a box, a set of egg-holding devices, and a pair of diaphragms which closely surround each egg-holding device when those devices are arranged side by side in the box, said devices extending above and below the spaces which the eggs occupy, and the diaphragms and said devices forming a box-reinforcing structure which fits snugly in the box and on which stress is imposed when any face of the box is subjected to external pressure.

2. In an egg-case the combination of a box, a pair of perforated and flanged diampragms, and a set of egg-holding devices, the diaphragms fitting in the box and each having as many perferations as there are egg-holding devices and the perforations of each diaphragm being directly opposite those of the other, and each egg-holding device fitting in and extending through both diaphragms, its middle portion being between the diaphragms, and the flanges of the diaphragms constituting means that co-act with the egg-holding devices to keep the diaphragms at proper distances from the ends of those devices, they being stiff enough to enable them to support eggs as described.

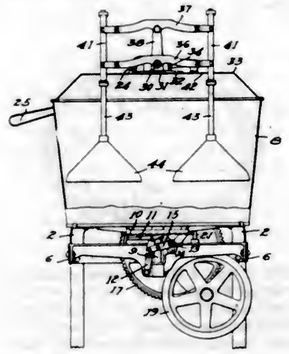
3. In an egg-case the combination of a box, a set of egg-wrappers, a pair of diaphragms fitting in the box, each having as many perforations as there are wrappers and the perforations of each diaphragm being directly opposite those of the other, and each wrapper fitting in and extending through both diaphragms, its middle portion being between the diaphragms and being distended, when the wrapper contains an egg, and then fitting snugly around the egg and being larger than those portions that fit in the diaphragms, and means that coact with the wrappers to keep the diaphragms at proper distances from the ends of the wrappers, they being stiff enough to enable them to support eggs as described.

4. In an egg-case the combination of a box, a set of egg-wrappers, a pair of diaphragms fitting in the box, each having as many perforations as there are wrappers and the perforations of each diaphragm being directly opposite those of the other, and the egg-wrappers being composed of corrugated paper rolls and each wrapper fitting in and extending through both diaphragms and from the top to the bottom of the case, and the middle portions of the wrappers being between the diaphragms and being distended, when the wrappers contain eggs, and then fitting snugly around the eggs and being larger than the perforations in the diaphragms, and means that co-act with the wrappers to keep the diaphragms at proper distances from the ends of the wrappers.

5. In an egg-case the combination of a box, a set of egg-wrappers, and a pair of diaphragms which closely surround each wrapper when the wrappers are arranged side by side in the box, the wrappers being corrugated paper rolls having egg-supporting walls which extend above and below the spaces occupied by the eggs, and the diaphragms and wrappers forming a box-reinforcing structure which fits snugly in the box and on which stress is imposed when any face of the box is subjected to external pressure.

[Claims 6 to 12 not printed in the Gazette.]

1,135,565. WASHING-MACHINE. EUGENE F. BEEBE, Minneapolis, Minn. Filed Feb. 3, 1913. Serial No. 746,085. (Cl. 68—19.)



1. A washing machine comprising a frame, a tub mounted therein, a casting secured to said frame near the top of said tub and having an inwardly projecting bracket formed thereon, a plate hinged on said bracket and projecting inwardly over said tub, a cover secured to said plate, a rocker arm centrally pivoted on said plate, means for rocking said arm, and clothes pounders and plunger arms therefor operatively connected with said rocker arm, said plate swinging upwardly and outwardly on its pivot to raise said cover and pounders.

2. A washing machine comprising a frame, a tub mounted therein, a cover for said tub, a plate mounted on said frame and secured to said cover, a rock shaft journaled in said plate, clothes pounders operatively connected with said rock shaft, a spindle journaled in said frame and having its inner end pivotally connected with said rock shaft, and a pitman-rod operatively connected with said spindle.

3. In a washing machine, a tub, a plate overhanging said tub and provided with an upwardly extending arm, a rock shaft journaled in said plate, rocker arms centrally mounted on said rock shaft and on said upwardly extending arm, and pounders having plunger rods operatively connected with said rocker arms.

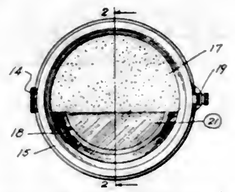
4. A washing machine comprising a frame, a tub mounted therein and a cover for said tub, a plate hinged on said frame and secured to said cover, a rock shaft journaled in said plate, a rocker centrally mounted on said shaft, guides mounted on the ends of said rocker, and clothes pounders having plunger rods slidable in said guides.

5. A washing machine comprising a frame, a tub mounted therein and a cover for said tub, a plate mounted on said frame adjacent to said cover and projecting inwardly over said cover and secured to the middle portion thereof, rocker arms centrally pivoted and arranged one above another, yokes pivotally connected with the corresponding ends of said arms and depending through openings in said cover, plunger rods vertically slidable in said yokes, pounders connected to the lower ends of said plunger rods, stop pins mounted in said plunger rods between the ends of said yokes and compression springs carried by said plungers between said stop pins and the ends of said yokes.

[Claim 6 not printed in the Gazette.]

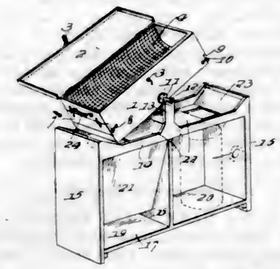
1,135,566. HEADLIGHT-LAMP FOR AUTOMOBILES. STANISLAUS BERENS, Chicago, Ill. Filed July 6, 1914. Serial No. 849,091. (Cl. 240—41.)

1. In a headlight-lamp, the combination with a casing having at its rear inner portion a reflector, of a light producer within the casing, a cover transversely mounted on the front of the casing and having an upper translucent portion and a lower transparent portion, and a translucent plate located transversely of the casing inwardly of the transparent portion of the cover and in front of said light producer.



2. In a headlight-lamp, the combination with a casing having at its rear inner portion a reflector, of a light producer within the casing, a cover plate transversely and removably mounted on the front of the casing and having its upper portion translucent and its lower portion transparent, and a translucent plate removably located transversely of the casing inwardly of the transparent portion of the cover plate.

1,135,567. ASH-SIFTER. WILLIAM A. BEVARD, Washington, D. C. Filed Jan. 4, 1913. Serial No. 740,150. (Cl. 83—60.)



In an ash sifter, a supporting frame having a downwardly and inwardly inclined deflector plate at each end thereof, stops arranged adjacent and in spaced relation to the deflector plates, a sifter box pivoted between its ends so that the latter will engage the stops to limit the extent of downward movement of the box, said box having upper and lower compartments and having an outlet at each end for the respective compartments, and a door for each outlet hingedly connected at its top side to the box adjacent the top side of the outlet whereby when the box ends are engaged with either stop and the door adjacent the box end which engages the stop is opened the door will overhang the adjacent deflector plate so as to coöperate therewith in directing the material from the box into the space between the stops and plates.

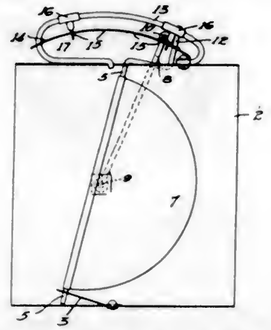
1,135,568. AUTOMATIC DAMPER. JOSEPH W. BLOOD, Minneapolis, Minn. Filed Mar. 11, 1914. Serial No. 823,904. (Cl. 236—2.)

1. The combination, with a horizontal flue, of blades having parallel spindles mounted diagonally within said flue and normally gravity held by said diagonal mounting in an open position, and means connecting said blades with one another for simultaneous movement.

2. The combination, with a flue, of spindles mounted in parallel relation therein, damper blades carried by said spindles and normally held by gravity in an open position within said flue and adapted to swing transversely of said flue and close the draft therethrough, and a pivoted bail connecting said spindles with one another for simultaneous movement.

3. The combination, with a flue, of damper blades mounted therein and having parallel axes, a pivoted bail straddling said flue and having sliding connections with said blades for simultaneous movement thereof, the move-

ment of said blades under the pressure of the currents in the flue swinging said bail on its pivots.

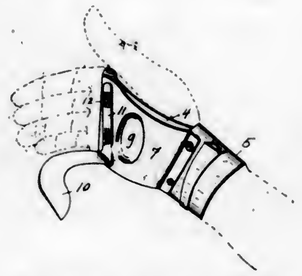


4. The combination, with a flue, of parallel spindles journaled therein, blades mounted thereon, said spindles having crank arms at one end, a pivoted bail straddling said flue and having slides thereon loosely connected with said crank arms, and stop devices in the path of said bail for regulating its travel in both directions.

5. The combination, with a flue, of parallel spindles journaled therein, damper blades carried by said spindles and normally held by gravity in an open position, said spindles having crank arms thereon, a pivoted bail connecting said crank arms with one another for simultaneous movement, a guide, stops adjustably mounted on said guide in the path of said bail for regulating its stroke in both directions, and the movement of said damped blades.

[Claims 6 to 8 not printed in the Gazette.]

1,135,569. HAND HARVESTING DEVICE. LOUIS T. BURNHAM, Hinton, Okla., assignor of one-half to Norton A. Simmons, Hinton, Okla. Filed Jan. 17, 1913. Serial No. 742,632. (Cl. 30—9.)



1. A hand harvesting device comprising a hand shield of pliable material, means to secure the same to the hand, a metal shield adapted to be carried thereby and having a dished position for the ends of the fingers while gripping a stalk, and a knife for cutting said stalk.

2. A hand harvesting implement, comprising a pliable hand-shield, means to secure the same to the hand, a dished metal palm shield, adapted to be carried by the pliable shield, a knife, a shank therefor, and means to adjust the shank on the metal shield.

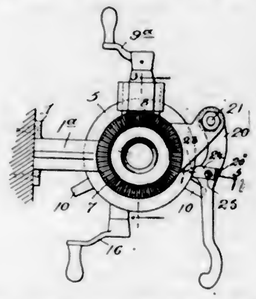
1,135,570. BITLESS BRIDLE. NICHOLAS J. H. DUEHR, Osmond, Nebr. Filed Jan. 30, 1914. Serial No. 815,470. (Cl. 54—6.)

1. A bitless bridle comprising a nose strap formed of upper and lower semi-circular sections, a frame pivotally carried by the ends of the upper section, the ends of the lower section being secured to said frame and swinging therewith, rollers carried by said frame and within said lower section, means for connecting reins to the frame, and means for connecting the headgear of the bridle to the nose strap.



2. A device of the kind described comprising a metal strap adapted to fit the upper portion of the nose of a horse, sleeves carried at the ends of said strap, eye bolts carried by said sleeves, frames rigid with said eye bolts, rollers carried by the lower ends of the frames, pivoted half rings carried by the opposite ends of the frames, and a strap running through said frame adapted to pass around the lower jaw of the horse, said nose strap being connected to the head gear of a bridle by means of said eye bolts and to the reins by means of said pivoted half-rings, as and for the purpose set forth.

1,135,571. CAN-OPENER. WILLIAM EDGE, Newark, and ALLAN H. JONES, East Orange, N. J. Filed June 9, 1914. Serial No. 843,953. (Cl. 30—3.)



1. A can opener comprising a frame, a can support, means upon the frame for raising and lowering said support and holding it in set position, a gear rotatively carried by the frame above said support, projections depending from the gear to enter a can top, means to rotate said gear, an arm carried by the frame at one side of the projections adapted to move toward and from the side of the can, and a cutter carried by said arm adapted to enter the side of the can.

2. A can opener comprising a frame, a can support, means upon the frame for raising and lowering said support and holding it in set position, a gear rotatively carried by the frame above said support, projections depending from the gear to enter a can top, means to rotate said gear, an arm carried by the frame at one side of the projections adapted to move toward and from the side of the can, and a cutter carried by said arm adapted to enter the side of the can, said arm having an abutment adjacent to said cutter to engage the side of the can to regulate the entry of the cutter into the can.

3. A can opener comprising a frame, a can support, means upon the frame for raising and lowering said support and holding it in set position, a gear rotatively carried by the frame above said support, projections depending from the gear to enter a can top, means to rotate said gear, an arm carried by the frame at one side of the projections adapted to move toward and from the side of a can, a cutter seated upon and extending transversely of the arm toward the can, an abutment located against and above the cutter to engage the can side, the cutter extending farther from the arm than the abutment and means securing said cutter and abutment together upon said arm.

4. A can opener comprising a frame, a can support, means upon the frame for raising and lowering said support and holding it in set position, a gear rotatively carried by the frame above said support, projections depending from the gear to enter a can top, means to rotate said gear, an arm carried by the frame at one side of the projections adapted to move toward and from the side of a can, said arm having a recess, a cutter and an abutment in said recess, the abutment extending toward the can beyond the arm, and the cutter extending beyond the abutment toward the can, and means securing the cutter and abutment in said recess.

5. A can opener comprising a frame having an upper laterally disposed arm, a gear journaled upon said arm, projections depending from the gear to enter a can top, means upon the arm to rotate said gear, a horizontal arm pivotally supported from the first named arm to swing laterally relatively to the can, a cutter carried by the second named arm and projecting laterally therefrom toward the can, said frame having a bearing axially disposed beneath the cutter, a rod guided in said bearing, a can support swivelled upon said rod, and means to retain said rod in set positions of elevation.

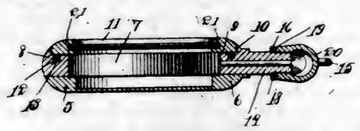
[Claim 6 not printed in the Gazette.]

1,135,572. PLATFORM ADJUSTMENT. JAMES CHARLES FLIGHT, Swan Hill, Victoria, Australia. Filed Aug. 20, 1913. Serial No. 785,766. (Cl. 56—32.)

1. In a raising and lowering device for the combs of agricultural machines combination with a curved rack fitted to a movable part of the machine, of a pinion fitted to a transverse spindle, a worm wheel on said spindle meshing with a worm on a longitudinal shaft, a gear wheel on the end of said longitudinal shaft, bevel pinions engaging said gear wheel and mounted on a transverse shaft, a double clutch to engage said pinions, a lever for operating said clutch, gearing for transmitting motion from the main wheel or axle to the said shaft, and means for throwing said clutch out of gear automatically when the curved rack has reached the limit of its travel, said means comprising an arm rigidly connected to the operating lever, a jaw on the outer end of said arm, a rod fitted to the movable part of the machine frame and engaged by said jaw, and stops on said rod for engaging said jaw, substantially as described.

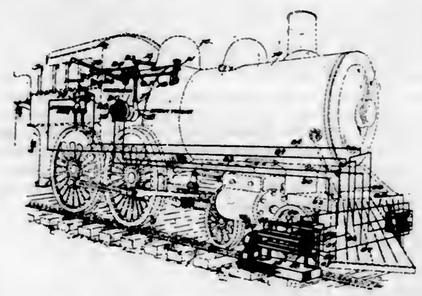
2. In a raising and lowering device for the comb of agricultural machines combination with a curved rack fitted to a movable part of the machine, of a pinion fitted to a transverse spindle, a worm wheel on said spindle meshing with a worm on a longitudinal shaft, a gear wheel on the end of said longitudinal shaft, bevel pinions engaging said gear wheel and mounted on a transverse shaft, a double clutch to engage said pinions, a lever for operating said clutch, gearing for transmitting motion from the main wheel or axle to the said shaft, an arm fitted to the operating lever or shaft carrying the same, a jaw or the like on the outer end of said arm, a rod fitted to the movable part of the machine frame and engaged by said jaw, and stops on said rods, substantially as described and for the purposes set forth.

1,135,573. WATCHCASE. JOHN WM. FORSMAN, Deep River, Wash. Filed Aug. 17, 1911. Serial No. 644,592. (Cl. 58—90.)



The combination of a watch case having a tubular pendant provided with exterior threads at its outer end a ring adjustable on said thread and provided with a circular groove on its outer end, a gasket in said groove normally projecting beyond the outer face of the ring, and a cap adjustable on the threads of the stem whereby the adjustment of the ring and cap toward each other will engage the gasket with the cap while the ring will serve as a lock nut.

1,135,574. BLOCK-SIGNAL CONTROL SAFETY APPLIANCE FOR LOCOMOTIVES. GEORGE W. GERLACH, Cumberland, Iowa. Filed May 6, 1913. Serial No. 765,860. (Cl. 246—59.)



1. In an appliance of the character described, the combination with an engineer's valve, of a normally open circuit, means in the circuit adapted when the latter is closed to operate the engineer's valve, and circuit closers in the circuit adapted for engagement with track contacts when the said contacts are moved to active position, said circuit closers each including a housing electrically connected in the circuit and a brush mounted within the housing, electrically connected in the circuit and adapted upon engagement with a contact to move into electrical engagement with the housing.

2. In an appliance of the character described, the combination with an engine having an engineer's valve, of a hanger carried by the engine, conduits carried by the hanger and extending laterally from the engine, a housing slidable upon the conduits and having its outer wall formed with pockets through which the conduits extend, a brush housing mounted upon the free end of each conduit, a brush mounted in each brush housing and insulated therefrom but adapted upon engagement with track contacts to move into contact with the brush housing, means for normally holding the housing mounted upon the conduits in extended position to seat the brush housings and brushes in their pockets, a circuit including both brush housings and both brushes, and means operable by the closing of the circuit for operating the engineer's valve.

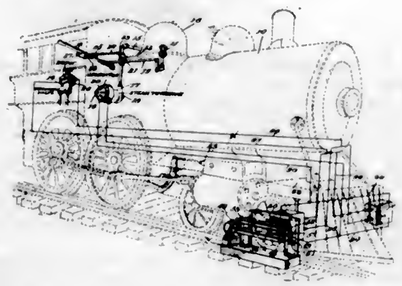
3. In an appliance of the character described, the combination with an engine having an engineer's valve, of a hanger carried by the engine, conduits carried by the hanger and extending laterally from the engine, a housing slidable upon the conduits and having its outer wall formed with pockets through which the conduits extend, a brush housing mounted upon the free end of each conduit, a brush mounted in each brush housing and insulated therefrom but adapted upon engagement with track contacts to move into contact with the brush housing, means for normally holding the housing mounted upon the conduits in extended position to seat the brush housings and brushes in their pockets, said means including collars mounted about the conduits and within the housing and springs surrounding the conduits and engaging between the collars and the inner face of the outer wall of the housing, a circuit including both brush housings and both brushes, and means operable by the closing of the circuit for operating the engineer's valve.

4. In an appliance of the character described, the combination with swingingly mounted track contacts and arcuate plates positioned adjacent the contacts, of a locomotive having an engineer's valve, circuit closers carried by the locomotive and adapted for engagement with the contacts, a housing normally inclosing the circuit closers and adapted for engagement with the plates for movement away from the circuit closers, a circuit through said circuit closers, and means operable by the closing of said circuit closers by engagement with the contacts for operating the engineer's valve.

5. In an appliance of the character described, the combination with an engineer's valve, of a normally open circuit, means in the circuit adapted, when the latter is closed, to operate the engineer's valve, a fixed contact in the circuit, a movable contact in the circuit adapted for engagement with the fixed contact by engagement with a track contact, and a housing normally surrounding the contacts and movable to expose the same.

[Claim 6 not printed in the Gazette.]

1,135,575. BLOCK-SIGNAL CONTROL SAFETY APPLIANCE FOR LOCOMOTIVES. GEORGE W. GERLACH, Cumberland, Iowa. Original application filed May 6, 1913, Serial No. 765,860. Divided and this application filed May 29, 1914. Serial No. 841,848. (Cl. 246—59.)

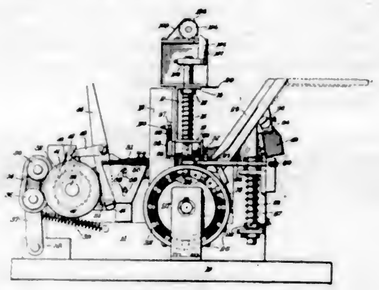


1. In an appliance of the character described, the combination with an engineer's valve, of a circuit closer, a motor, a circuit through the motor and circuit closer, the motor being operatively connected to the engineer's valve to open the latter when the motor is energized, current generating means including a steam motor, means for suplying steam to the motor, a valve in said supply means, and a connecting link secured to the valve and adapted for operative connection to the throttle valve lever.

2. In an appliance of the character described, the combination with an engineer's valve and a throttle valve lever, of a steam turbine, means including a valve for supplying steam to the turbine, a motor operatively connected to the engineer's valve, a circuit closer, a circuit through the motor and circuit closer, means operable by the turbine for generating current for such circuit, and a link connecting the valve and throttle valve lever, the connection between the link and lever being such that movement of the throttle valve lever, to open the throttle valve, will cause opening of the steam valve although movement of the throttle valve lever to close the throttle valve will not affect the steam valve.

3. In an appliance of the character described, the combination with an engineer's valve, of a circuit closer, a motor, a circuit through the motor and circuit closer, the motor being operatively connected to the engineer's valve, current generating means, and means for actuating the current generating means, said latter means being adapted to be thrown into operation by opening of the throttle valve of the engine.

1,135,576. GEM-SETTING MACHINE. HANS E. GRABAU, New York, N. Y. Filed Mar. 7, 1914. Serial No. 823,197. (Cl. 29—10.)



1. In a machine of the class described, the combination of means for feeding settings having prongs to a position on one side of the material to which they are to be attached, means for feeding gems to a position on the opposite side of the material, means for bringing the gems, material and settings together with the prongs of the settings inclosing the gems, and means for bending said prongs agninst the faces of the gems.

2. In a machine of the class described, the combination of means for feeding settings having prongs to a position adjacent the material to which they are to be attached, means for feeding gems, means for attaching the settings to the material and positioning the gems between the prongs of the settings, and means for bending said prongs against the faces of the gems.

3. In a machine of the class described, the combination of means for feeding settings having prongs, gem holding means, means for forcing the settings and material, to which they are to be attached, together with the prongs on the opposite side of the material from the body of the settings, and means for bending said prongs against the faces of the gems.

4. In a machine of the class described, the combination of means for holding a setting having prongs on one side of the material to which it is to be attached, means for forcing a gem and the setting together, with the material between them and the prongs of the setting inclosing the gem, and means for bending the prongs against the faces of the gem.

5. In a machine of the class described, the combination of means for holding a setting having prongs on one side of the material to which it is to be attached, and a pair of telescopically arranged plungers, the inner of which is adapted to force a gem and the material into the setting and the outer of which is adapted to bend the prongs of the setting against the faces of the gem.

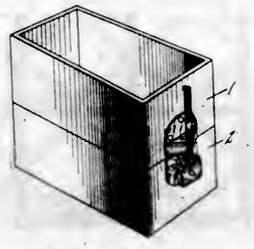
[Claims 6 to 28 not printed in the Gazette.]

1,135,577. VEHICLE-SPRING. JOHN O. HAGUE, Brookston, Ind. Filed Sept. 8, 1913. Serial No. 788,578. (Cl. 21—101.)



A shock absorber for vehicles, in combination with a pair of oblong frames, a spring encircled rod carried by each of said frames, a plurality of arcuate bars each of which is pivotally mounted in the frame one end of each of which is provided with an enlarged slot adapted for sliding engagement with said elongated rods, a plurality of levers the one end of each of which is connected to said axle, the opposite end of each having connection with said arcuate levers and braces securing said oblong frames to said second mentioned levers for the purpose set forth.

1,135,578. MOLDER'S FLASK. FRANK HAETTEL, Columbus, Ohio. Filed Dec. 26, 1914. Serial No. 879,080. (Cl. 22—110.)



1. A flask guide and pin construction comprising a cope plate, a pin guide formation carried by said plate, a drag plate, a guide pin, and a pair of outwardly projecting jaws on said drag plate, said jaws being inclined toward each other in spaced relation to form a seat, and means for supporting said pin in an upright position.

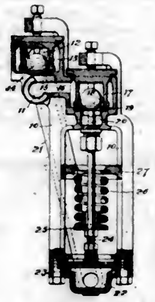
2. A flask guide and pin construction comprising a cope plate, a pin guide formation carried by said plate, a drag plate, an outwardly projecting stud on said drag plate, a guide pin the lower portion of which is apertured to fit said stud, jaws on said drag plate, and means arranged to seat itself in said jaws for locking said guide pin in any adjusted position on said stud.

3. A flask guide and pin construction comprising a cope plate, a pin guide formation carried by said plate, a drag plate, and an outwardly projecting stud on said drag plate, a guide pin having a slot therein and having its lower portion apertured to fit said stud, jaws on said drag plate, and an adjusting bolt structure arranged to pass through said slot and formed to seat itself between said jaws for locking said guide pin on said stud.

4. A flask guide and pin construction comprising a cope plate, a pin guide formation carried by said plate, a drag plate, an outwardly projecting stud of polygonal shape in cross section on said drag plate, a guide pin, the lower portion of which is provided with a polygonal aperture to snugly fit said stud, and means for locking said guide pin in any adjusted position on said stud.

5. A flask guide and pin construction comprising a cope plate, a pin guide formationtion carried by said plate, a drag plate, an outwardly projecting stud of polygonal shape in cross section on said drag plate, a guide pin having a slot therein, outwardly projecting jaws on said drag plate inclined toward each other, an adjusting bolt passing through the slot in said pin, means for locking said pin in any adjusted position on said bolt, and a formation carried by one end of said bolt arranged to seat itself between said jaws.

1,135,579. PRESSURE-RELIEVING DEVICE FOR PUMPS, &c. HARVEY FRANK HANSEN, San Jose, Cal., assignor to Bean Spray Pump Company, San Jose, Cal. Filed Aug. 31, 1911. Serial No. 646,992. (Cl. 103—89.)



1. As an improvement in chemical spraying apparatus, the combination of a casing having a pump connection, two passages branching from said pump connection, each leading to a port for delivering the pumped liquid from the casing, a valve in the form of a loose freely movable body situated in one of said passages between the pump connection and its eduction port and normally closing the same so as to prevent the passage of liquid out of its eduction port and exposed to pressure from the pump connection which holds it to its seat, and means to lift said valve from its seat against such pump pressure, comprising a motor in a chamber that receives pump pressure from the pump side of said valve.

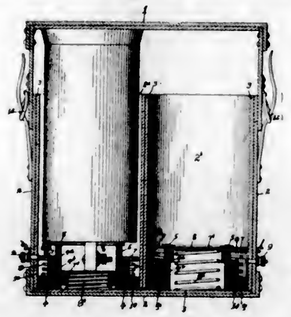
2. As an improvement in chemical spraying apparatus, the combination of a casing having a pump connection, two passages branching from said pump connection, each leading to a port for delivering the pumped liquid from the casing, a valve in the form of a loose freely movable body situated in one of said passages between the pump connection and its eduction port and normally closing the same so as to prevent the passage of liquid out of its eduction port and exposed to pressure from the pump connection which holds it to its seat, and means to lift said valve from its seat comprising a chamber having a diaphragm, a passage for fluid being provided to said chamber from a point between the pump connection and said valve, a rod extending from the diaphragm to said valve, a spring for moving the diaphragm against pressure within its chamber, and means for adjusting the tension of the spring, the spring and its adjusting means being wholly external to the casing, and said diaphragm chamber being provided with a drain opening.

1,135,580. BATTERY CONNECTOR AND RECEPTACLE. CHARLES H. HARRIS, Keokuk, Iowa. Filed Apr. 15, 1914. Serial No. 832,004. (Cl. 204—52.)

1. A combined connector and receptacle for batteries comprising a pair of telescoping members providing a cover and holder for the battery, a plurality of cells provided in the holder, a connection block located in each cell, contact plates surrounded by and surrounding each of said connection blocks, a conductor connecting a contact plate of one cell with a contact plate of the adjacent cell, means provided on said cover and said holder for holding the battery terminals in contact with said contact plates and means carried by the connection blocks to coöperate with said contact plates to complete the circuit when the battery is withdrawn.

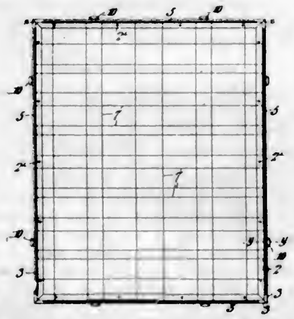
2. A combined receptacle and holder for batteries comprising a plurality of cells, connection blocks located in all of said cells and contact plates surrounded by and surrounding said connection blocks, conductors connecting a contact plate of one cell with a contact plate of the adjacent cell, and means carried by said connection blocks to coöperate with said contact plates to close the circuit when one or more of the batteries are withdrawn.

3. A combined connector and receptacle for batteries comprising a pair of telescoping members providing a cover and holder for the battery, a plurality of cells provided in the holder, and connection blocks located in said cells, spring supported contact plates surrounded by and surrounding each of said connection blocks and a conductor connecting a contact plate of one cell with a contact plate of the adjacent cell, means provided on said cover and said holder for holding the battery terminals in contact with said contact plates and means carried by the connection blocks to coöperate with said contact plates to complete the circuit when the battery is withdrawn.



4. A combined receptacle and connector for batteries comprising a pair of telescoping members providing a cover and a holder for the battery, a plurality of cells constructed in said holder providing an independent compartment for each battery, connection blocks located in each cell and spring supported contact plates surrounded by and surrounding each connection block, a circuit connecting all of said cells, means provided on said cover and said holder for holding the battery in contact with said contact plates, and means provided on the side of each connection block affording a rest for one of the contact plates when the battery is inserted in the holder, and a circular flange carried by each connection block adapted to coöperate with said contact plates to close the circuit when the battery is withdrawn.

1,135,581. LINE-UP AND REGISTERING DEVICE. RAY L. HENDRICK, Takoma Park, Md. Filed Dec. 15, 1914. Serial No. 877,354. (Cl. 101—166.)



1. An imposing stone in combination with means for securely holding a string in position slightly more than type height above said stone, substantially as described.

2. A line up and registering device for imposing stones comprising members rigidly secured in position adjacent the edges of the stone upon opposite sides thereof and means on said members adapted to hold a string in position slightly more than type height above the stone, substantially as described.

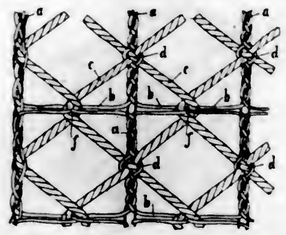
3. An imposing stone in combination with a line up and registering device comprising members fixed upon opposite sides of said stone with their upper edges slightly more than type height above the face of said stone and said upper edges being provided with a plurality of transverse notches, as and for the purpose specified.

4. An imposing stone in combination with a line up and registering device comprising elongated members detachably secured upon opposite sides of said stone, means on the upper edges of said members for accurately positioning a string slightly more than type height above the face of the stone, and means for securing the string in position substantially as described.

5. An imposing stone, there being sockets arranged adjacent the sides and ends of said stone, elongated members removably resting in said sockets and said members being provided on their upper edges with means for accurately positioning a string slightly more than type height above the face of the stone, and means for securing the string in position substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,135,582. LACE WITH GAUZELIKE FOUNDATION. ALBERT HENKELS, Langerfeld, near Barmen, Germany. Filed Sept. 3, 1914. Serial No. 859,980. (Cl. 66—4.)



1. Lace comprising groups of threads running lengthwise thereof, the threads of each group being plaited together, and threads running transversely thereof and connecting said longitudinal groups, these transverse threads being provided by the interchange of threads between adjacent longitudinal groups; and pairs of zig-zag threads interbraided both with the longitudinal and transverse threads, the threads of each pair crossing each other in the longitudinal groups, and each pair looping the next pair among the transverse threads.

2. Lace comprising groups of threads running lengthwise thereof, the threads of each group being plaited together, and threads running transversely thereof and connecting said longitudinal groups, these transverse threads being provided by the interchange of threads between adjacent longitudinal groups, the longitudinal and transverse threads forming together a fabric with rectangular meshes; and pairs of zig-zag threads interbraided both with the longitudinal and transverse threads, the threads of each pair crossing each other in the longitudinal groups at places half way along the meshes, and each pair looping the next pair among the transverse threads, at places half way across the meshes.

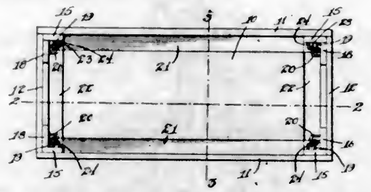
3. Lace comprising groups running lengthwise thereof and each composed of four threads plaited together, whereof two are thicker than the other two, the thicker threads being diverted at intervals from one to the other of the longitudinal groups to form threads connecting said groups together transversely of the lace, while the thinner threads run continuously through the corresponding group; and pairs of zig-zag threads interbraided both with the longitudinal and transverse threads, the threads of each pair crossing each other in the longitudinal groups, and each pair looping the next pair among the transverse threads.

4. Lace comprising groups running lengthwise thereof and each composed of four threads plaited together, whereof two are thicker than the other two, the thicker threads

being diverted at intervals from one to the other of the longitudinal groups to form threads connecting said groups together transversely of the lace, while the thinner threads run continuously through the corresponding group; and pairs of zig-zag threads interbraided both with the longitudinal and transverse threads, the threads of each pair crossing each other in the longitudinal groups and being each substantially the size of one of said groups, and each pair looping the next pair among the transverse threads.

5. Lace comprising groups running lengthwise thereof and each composed of four threads plaited together, whereof two are thicker than the other two, the thicker threads being diverted at intervals from one to the other of the longitudinal groups to form threads connecting said goups together transversely of the lace, while the thinner threads run continuously through the corresponding group, and the transverse threads and longitudinal threads forming together a fabric with rectangular meshes; and pairs of zig-zag threads interbraided both with the longitudinal and transverse threads, the threads of each pair crossing each other in the longitudinal groups at places half way along the meshes, and each pair looping the next pair among the transverse threads at places half way across the meshes.

1,135,583. COOP. HENRY C. HETTESHEIMER, Steeleville, Ill. Filed May 9, 1914. Serial No. 837,467. (Cl. 217—43.)



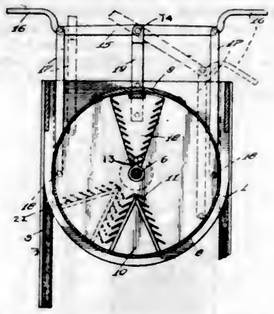
1. In a coop a flooring including side strips and end strips, eyes carried by said flooring, end walls resting upon said flooring and engaging the end strips thereof, side walls resting upon said flooring and engaging the side strips thereof, eyes carried by one set of walls, and hooks carried by the second set of walls and engaging the eyes of said flooring and first mentioned set of walls to releasably connect the walls and flooring.

2. A coop comprising a flooring, strips carried by said flooring and meeting at the corners of the flooring to form pockets, eyes in said pockets, end walls resting upon said flooring outside the end strips thereof, side walls resting upon said flooring outside the side strips thereof, eyes carried by one set of walls, and hooks carried by the second set of walls and engaging the eyes of said flooring and first mentioned set of walls to releasably hold said coop in a set-up position, said hooks also serving to releasably hold said coop in a collapsed position.

3. A coop comprising a flooring, side walls carried by said flooring, end walls carried by said flooring, means releasably connecting one set of walls with said flooring when in a set-up position, means releasably connecting said set of walls with the remaining set of walls in a set-up position, said coop being adapted to fold with said flooring and second set of walls placed between said first mentioned set of walls and the securing means of said first mentioned set of walls being connected to releasably hold said coop in a collapsed position.

4. A coop comprising a flooring, end walls, side walls, eyes carried by said end walls, hooks rotatably carried by said side walls for engaging said eyes when said coop is in a set up position, means carried by said side walls for releasably connecting said side walls with said flooring when in a set-up position, said coop being adapted to collapse with said end walls resting upon one of said side walls, said flooring resting upon said end walls intermediate the length of said side wall, the second side wall resting upon said flooring to permit said flooring to constitute a fulcrum for the second side wall, and the hooks of said side walls being interlocked to releasably hold said coop in the collapsed position, the resiliency of said second side wall holding said hooks in interlocked engagement.

1,135,584. WASHING-MACHINE. JOHAN HUEBNER, Chicago, Ill. Filed July 24, 1914. Serial No. 852,813. (Cl. 68—18.)



1. In a washing machine, the combination with a supporting member, of a shaft rigid therewith, a pair of latticed vanes mounted on said shaft and extending therefrom along planes diverging from each other radially upward from said shaft, a drum housing said vanes and pivoted on said shaft, a second pair of latticed vanes carried by said drum and normally extending in diverging directions radially downward from the axis of the shaft, and operating means for oscillating said drum to cause the last-named vanes respectively to approach one or the other of the first-named vanes, the lattices upon each vane angularly disposed to the lattices of the vanes approached thereby.

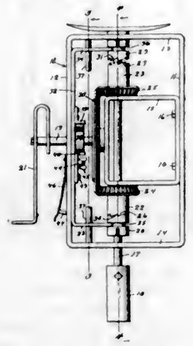
2. In a washing machine, the combination with a supporting member, of a shaft rigid therewith, a drum rotatably mounted on said shaft, two pairs of fan-shaped members housed by said drum and normally diametrically opposite each other with respect to said shaft, the members of each pair respectively adjacent to opposite ends of said shaft, said pairs respectively secured to said drum and said shaft, and a plurality of relatively spaced lattice strips secured at opposite ends respectively to the edge portions of the fan-shaped members comprising each of said pairs, the faces of lattice strips upon the opposed faces of the fan-shaped members diverging downwardly from each other and presenting downward passages for the passage of liquid between consecutive lattice strips.

3. In a washing machine, the combination with a supporting member, of a shaft rigid therewith, a drum rotatably mounted on said shaft; and two wedge-shaped dasher members carried respectively by said shaft and said drum and normally diametrically opposite each other with respect to the axis of said shaft, each of said members including a pair of substantially fan-shaped elements respectively adjacent to opposite ends of said drum and a pair of foraminous members respectively connecting the lateral edges of said fan-shaped elements; there being slidably coöperating formations upon one of said members and said shaft for securing said last-named member to said shaft, said formations permitting a manual detachment of said last-named member from said shaft.

1,135,585. GAS-ENGINE-VALVE-GRINDING TOOL. HENRY P. JOHNSON, Columbus, Ga., assignor of one-half to George Gunby Jordan, Columbus, Ga. Filed July 9, 1914. Serial No. 849,979. (Cl. 51—12.)

1. A device of the character described comprising a frame, a shaft journaled therethrough and carrying means for holding a tool, and means for rotating said shaft first in one direction and then in the opposite direction, said means comprising a shaft operating with a handle, a gear carried by said second named shaft, a pair of pinions

loosely mounted on said first named shaft and engaging said gear, clutch members formed on said pinions, other clutch members splined upon said first named shaft, a yoke slidable within said frame and engaging said second named clutch members, projections on said yoke adjacent said second named shaft, a cam on said second named shaft and adapted to engage said projections for moving said yoke within said frame, whereby the corresponding pairs of said first and second named clutch members will be alternately engaged and disengaged, and means for locking said yoke at one extremity of its movement whereby one pair of clutch members will be held in engagement, one of said projections being then disposed out of and the other projection being movable out of the path of travel of said cam.



2. A device of the character described comprising a frame, a shaft journaled therethrough and provided with means for carrying a tool, pinions loosely mounted upon said shaft and carrying clutch members, a second shaft journaled in said frame, an operating handle on said second named shaft, a gear on said second named shaft and meshing with said pinions, clutch members splined upon said first named shaft, a yoke slidable in said frame and engaging said second named clutch members, and means on said second named shaft for moving said yoke back and forth within said frame whereby the corresponding clutch members will be alternately engaged and disengaged.

3. A device of the character described comprising a frame, a shaft journaled therein and carrying tool holding means, and means for rotating said shaft in opposite directions alternately, said means comprising a shaft journaled in said frame and provided with an operating handle, a gear on said second named shaft, a cam on said second named shaft, a pair of pinions loosely mounted on said first named shaft and meshing with said gear, clutch members on said pinions, other clutch members splined upon said first named shaft, a yoke slidable within said frame and engaging said second named clutch members, a projection secured on said yoke at one side of said cam, a second projection slidable upon said yoke at the other side of said cam, means for securing said second named projection in its adjusted positions, and a catch for holding said yoke at one extremity of its movement with said first named projection out of the path of movement of said cam, said second named projection being moved into its position out of the path of travel of said cam, whereby one pair of said clutch members may be held in engagement for imparting continuous rotation to said first named shaft.

1,135,586. TOOL FOR COMPRESSING TAPPET-VALVE SPRINGS. HENRY P. JOHNSON, Columbus, Ga. assignor of one-half to George Gunby Jordan, Columbus, Ga. Filed Sept. 2, 1914. Serial No. 859,860. (Cl. 29—87.1.)

A tool for facilitating the removal of the spring of an engine tappet valve comprising a base member having an upturned end provided with a plurality of openings, a yoke adjustably pivoted on the upturned portion, link members pivotally connected to the arms of the yoke, and a plate pivotally connected to the outer ends of said links, said

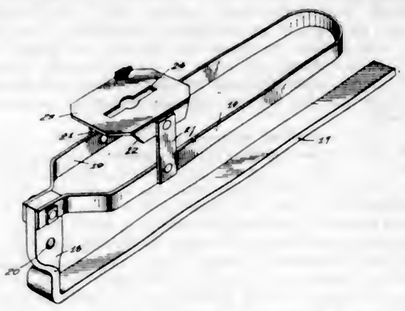
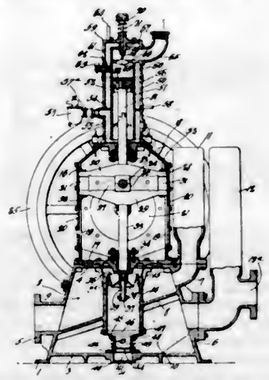


plate having an elongated slot formed with a central circular portion.

1,135,587. INTERNAL-COMBUSTION PUMPING-ENGINE. GEORGE A. JONES, Seattle, Wash. Filed Aug. 24, 1912, Serial No. 716,855. Renewed Feb. 9, 1915. Serial No. 7,117. (Cl. 103—67.)

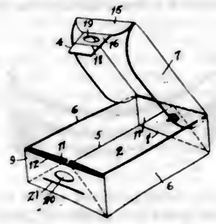


In a device of the class described, a casing having an inlet and an outlet; an air chamber communicating with the casing above the outlet; a partition extended across the casing from a point below the inlet to a point between the outlet and air chamber, the partition being inclined throughout its entire extent thereby to definie a tapered suction chamber, the smaller end of which is adjacent the air chamber, and to define a tapered discharge chamber, the enlarged end of which is adjacent the outlet; a pump cylinder mounted in the partition and opening into the suction chamber and the discharge chamber; a valve supported in the outlet chamber and yieldingly constrained to bear upon one end of the cylinder; a piston slidable in the cylinder; and a valve supported by the piston and adapted to close in the same direction as the first specified valve.

1,135,588. PAPER BOX. KARL A. KENDRICK, Detroit, Mich., assignor of one-half to Clarence Blakely, Boston, Mass., and one-half to Frank T. Lodge, Detroit, Mich. Filed July 20, 1914. Serial No. 851,871. (Cl. 229—45.)

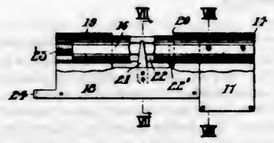
1. A paper box comprising in an integral structure, a blank formed and scored to provide a body portion having foldable side and end members connected by foldable corner portions, a slot in one of said end members, a cover member hinged to the other of said end members and having foldable side and end wings adapted to lie within the side and end members respectively of said body portion, a tongue extending from said foldable end wing

adapted to pass through the slot of said end member and to fold over the free edge of said end member onto the face of said end wing.



2. A paper box comprising an integral structure, a blank formed and scored to provide a body portion having foldable side and end members connected at their adjoining ends by diagonally foldable corner portions, a cover portion hinged to one of the end members of said body portion and having foldable side and end wings, a slot in the other end member of said body portion, the side wings of said cover portion adapted to lie within the side members of said body portion and the end wings of said cover portion adapted to lie within and between the end member of said body portion and the foldable corner portions thereof, and a tongue on said wing for detachable engagement with said slot.

1,135,589. SAFETY DEVICE FOR LOCKS. GEORGE KOMARCSEVITS and GREGOR TRAIBER, Lorain, Ohio. Filed Oct. 7, 1914. Serial No. 865,488. (Cl. 70—8.)



1. A lock device comprising in combination with a lock having opposite key-hole slots therethrough, an obstruction member comprising a shank having a reduced cylindrical end and an intermediate hexagonal portion, a lateral ward upon said shank at the end thereof opposite to the cylindrical end thereof, a plate at the side of said shank and revolubly journaled thereon and having a cut-away portion adjacent the hexagonal portion of the shank and a resilient finger carried by said plate engaging the said hexagonal portion.

2. A lock guard comprising an obstruction means consisting of a shank having a reduced portion at one end, a lateral ward rigidly secured to the other end of said shank, a plate journaled upon said shank and having a middle cut-away portion, a pin carried by said shank and engaging within the cut-away portion of said plate, flattened surfaces upon said shank, a resilient finger carried by said plate and engaging the said surfaces, an end hook provided upon said plate, a positioning member having a shank provided with an end bore adapted for turning upon the said reduced portion of the obstruction means shank, and a perforated side ward carried by said positioning means engageable with the said hook during the turning movement of the plate.

1,135,590. BRUSH. MOSES M. LAHUE, Lowell, Mass. Filed May 16, 1910. Serial No. 561,533. (Cl. 15—28.)

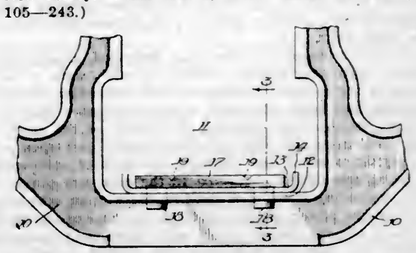
1. A brush comprising a handle having a bore extending longitudinally therethrough, a stem composed of a plurality of lengths of wire having bristles clamped between them adjacent one end of the said lengths, said stem extending through said bore and having its end opposite said bristles projecting therefrom, said projecting end being bent upon itself against one end of the handle for securing said stem in said handle, holding the handle immovably upon the stem and the bent portion constituting a suspension eye or loop, substantially as described.

2. A brush comprising a handle having a bore extending longitudinally therethrough and a counter-bore at one end thereof, a stem formed of a plurality of wires intertwisted throughout their length, and bristles clamped between said wires adjacent one end of said stem, with the head of the brush seated in said counter-bore and said stem extending through said bore and having its opposite end projecting therefrom, said projecting end being bent against one end of the handle and thereby locking the handle and stem against endwise movement, substantially as described.



3. A brush comprising a handle having a bore extending longitudinally therethrough and provided further with a counter-bore in one of its ends, a stem having bristles secured thereto adjacent one end thereof, said stem extending through said bore with said bristles adjacent the counter-bored end of said handle, means located at the opposite end of said stem for securing the stem and handle immovably together, and a trough-shaped back inclosing the bristle-holding portion of said stem and portions of said bristles, said back having a portion seated in said counter-bore, substantially as described.

1,135,591. SPRING-PLANK-LOCKING DEVICE. JOHN A. LAMONT, Granite City, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Jan. 2, 1915. Serial No. 30. (Cl. 105—243.)



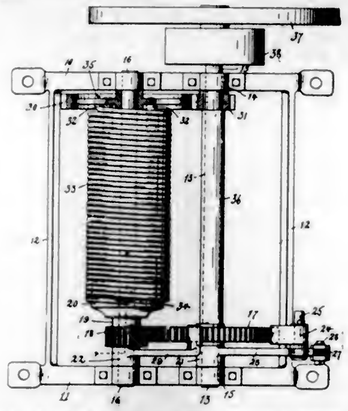
1. In a car truck, a side frame having an apertured seat, a spring plank, and a block provided with bosses, said block resting upon said plank and said bosses serving to lock said spring plank and side frame together.

2. In a car truck, the combination of a side frame having an apertured seat, a spring plank having apertures registering with those in said seat, and a block having bosses registering with the apertures in said plank and seat and adapted to removably lock the parts together.

3. In a car truck, the combination of a side frame member having an apertured seat, a plate extending between adjacent side frames, said plate being provided with apertures in its ends registering with the apertures in said side

frame member, a spring-supporting block, and lugs on said block, said lugs being adapted to enter apertures in said plate and side frame member and lock said parts together.

1,135,592. WINDMILL ATTACHMENT. THEODORE A. LIBKE, Wilton, Wis. Filed Nov. 25, 1913. Serial No. 802,961. (Cl. 74—54.)

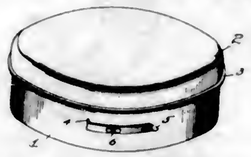


1. In an apparatus of the class described, a supporting frame including member spaced apart, a supporting member carried by said frame members, a shaft mounted for rotation relative to said frame members, a pinion fast upon said shaft and bearing by its hub against the adjacent frame member, a gear loose upon said supporting member and engaging the pinion of the shaft and bearing by its hub against the adjacent frame member, a gear loose upon said shaft, another pinion loose upon said supporting member and engaging the gear of said shaft, a spring connected at its ends respectively relative to the gear and pinion of said supporting member, a spacing sleeve upon said shaft between the pinion and gear thereof, a spacing sleeve upon said shaft between the gear thereof and the adjacent frame member and thereby maintaining the gear of the shaft in position, an arm extending from said last-mentioned spacing sleeve, a pawl carried by said arm and engaging the teeth of the gear of the shaft, means for applying reciprocal movement to said arm, another spacing sleeve between the pinion of the supporting member and the adjacent frame member, and an arm extending from said last-mentioned spacing sleeve and carrying a backing pawl which engages the teeth of the shaft gear.

2. In an apparatus of the class described, a supporting frame, supporting member carried by said frame, a shaft mounted for rotation relative to said supporting member, a pinion fast upon said shaft, a gear loose upon said supporting member and engaging the pinion of the shaft, a gear loose upon said shaft, another pinion loose upon said supporting member and engaging the gear of said shaft, a spring operatively connected to the gear and pinion of said supporting member, a spacing sleeve upon said shaft between the pinion of the shaft and the gear of the shaft, another spacing sleeve upon said shaft and engaging against the gear, an operating arm carried by said last mentioned spacing sleeve, a pawl carried by said operating arm and engaging the teeth of the gear of the shaft, another spacing sleeve between the pinion of the supporting member and the adjacent frame member, and an arm exteiding from said last mentioned spacing sleeve and carrying a backing pawl which engages the teeth of the shaft gear.

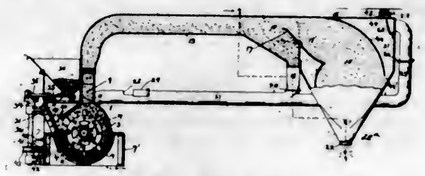
1,135,593. BOX-OPENER. PHILIP LIBONATI, New York, N. Y. Filed Nov. 10, 1913. Serial No. 800,102. (Cl. 220—6.)

In combination with a round box and its cover, a spring lever connected underneath the cover to the side of the box, by a pivot pin, said lever being curved to conform to the contour of the side of the box, said lever having an angular lip at one end to engage the box cover when the lever is operated, and a finger-hold at the opposite end of



the lever, said lever being provided with a longitudinal slot through which the pivot pin passes to permit the lever to move lengthwise to engage the cover and loosen the same from the box when turned in operable position.

1,135,594. SEPARATOR. WILLIAM K. LIGGETT, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 18, 1907. Serial No. 357,914. (Cl. 83—11.)



1. The combination of a pulverizing apparatus, an air duct leading from the pulverizing apparatus through which material may be carried along by the action of air currents, a casing inclosing a settling chamber into which the said air duct leads and an air space separate from the settling chamber but communicating therewith at points out of alinement with the air duct, the said casing having a single opening arranged for the gravity discharge of materials both from the settling chamber and from the air space, and a return air duct from the said air space to the pulverizing apparatus.

2. The combination of a pulverizing apparatus, a duct leading from the pulverizing apparatus to which the pulverized material may be carried by means of air currents, a settling chamber into which the said duct leads, an air chamber into which the air passes after leaving the settling chamber, the air chamber being provided with a valve controlled passage communicating with the external air, a screen positioned across the said passage, a return air conduit from the said air chamber to the pulverizing apparatus, the said conduit being independent of the said passage, and a controlling valve in the said conduit, substantially as set forth.

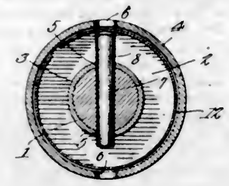
3. The combination of a pulverizing apparatus, a duct leading from the apparatus through which the pulverized material may be carried by means of air currents, a settling chamber into which the said duct leads, a passageway additional to the said duct being provided between the said chamber and the external air, and a screen positioned across the said passageway.

4. The combination of a pulverizing apparatus, a conduit through which the pulverized material is delivered from the pulverizing apparatus by means of air currents, two settling and grading chambers arranged to effect a separation of the pulverized material according to the size of its particles, a duct leading from one of the settling chambers back to the pulverizing apparatus and arranged to return the air therefrom after it has been separated from the pulverized material, a duct leading from the other settling chamber, arranged to permit the free flow of air and the material that settles in the said chamber back to the pulverizing apparatus, and means for controlling the passage of air through the said ducts, substantially as set forth.

5. In a pulverizing apparatus, the combination of a pulverizing mill, a delivery duct through which the pulverized material is passed from the mill by means of air currents, a casing to which said duct leads divided into two settling chambers, a return air duct leading to the pulverizing mill, such return air duct being connected with the lower part of the settling chamber for the coarser grades of material, and being also connected with the settling chamber for the finer grades of material at a point to take the air therefrom after the pulverized material has been separated, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,135,595. PULLEY-WHEEL. WALTER LIVINGSTON, Hastings, Nebr. Filed Nov. 4, 1914. Serial No. 870,230. (Cl. 64—17.)



1. A pulley wheel embodying a rim and hub apertured for the insertion of a locking pin through the rim and into the hub, and a band within the rim for holding the pin in place.

2. A pulley wheel embodying a rim and hub apertured for the insertion of a locking pin through the rim and into the hub, and a resilient expansible band fitting within the rim to hold the pin in place.

3. A pulley wheel embodying an annular channel whose inner and outer flanges provide a hub and rim, respectively, the rim and hub being apertured for the insertion of a locking pin, and a band fitting in the rim for holding the pin in place.

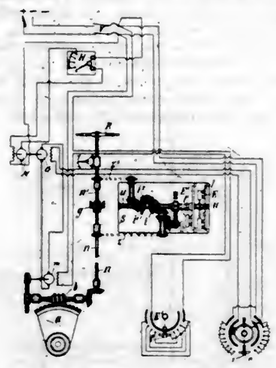
4. A pulley wheel embodying an annular channel whose inner and outer flanges provide a hub and rim, respectively, the rim and hub being apertured for the insertion of a locking pin, and a resilient expansible band fitting within the rim to hold the pin in place.

5. A pulley wheel embodying an annular channel whose inner and outer flanges provide a hub and rim, respectively, the rim and hub being apertured for the insertion of a locking pin, a ring engaged within the edge of the rim, and a band fitting within the rim between the ring and back of the channel.

[Claims 6 to 9 not printed in the Gazette.]

1,135,596. DOUBLE GEAR FOR CONTROLLING ELECTRICALLY AND BY HAND DEVICES PLACED AT A DISTANCE. VITTORIO LOCARNI, Cornigliano Ligure, Italy. Filed Feb. 14, 1913. Serial No. 748,377. (Cl. 172—8.)

In a double-acting steering gear of the class described the combination of a steering wheel, a shaft formed in two portions, that is a driving and a driven portion, a steering wheel connected to the driving portion, a steering gear driven by an electric motor connected to the driven portion of the shaft, a mechanical coupling between the two portions of the shaft allowing a limited amount of relative rotation of the one in respect of the other, controlling electrical devices for starting, stopping, and reversing the motor, and connections on both sides of the clutch with said controlling electrical devices in such a manner that on rotating the steering wheel the motor is started and the rudder gear thus actuated rotates also the driven part of the shaft, and thereby the controlling devices are caused to stop the motor as soon as the rudder has taken the position shown by the steering wheel, while, if the motor fails to operate, the mechanical coupling transmits directly to



the rudder gear the hand-power acting on the steering wheel.

1,135,597. NUT-LOCK. CYRUS H. LOUTREL, South Orange, N. J., assignor to The National Lock Washer Company, Newark, N. J., a Corporation of New Jersey. Filed Nov. 30, 1914. Serial No. 874,745. (Cl. 151—36.)



1. A nut-lock consisting in general form of a segment of a helix, having intermediate its ends a portion or portions bent on lines substantially at right angles to a radius of the helix.

2. A nut-lock of helical form, with diametrically opposed portions adjacent the outer edges of the nut-lock bodily thrown out of line with the helical surface of the body of the nut-lock.

3. A nut-lock of helical form, with diametrically opposed segmental portions thrown out of line with the helical surface of the body of the nut-lock, one of said portions inclining upwardly and the other downwardly.

4. A nut-lock of helical form, with portions of the body intermediate its ends and at its outer edge bent out of line with the helical surface of the body of the nut-lock.

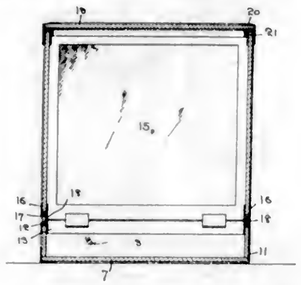
5. A nut-lock having the form of a helix, the inner edge whereof is truly helical, while the outer portion presents surfaces generally helical but having a deflected portion, or portions, intermediate the ends of the body.

1,135,598. COLLAPSIBLE CRATE. FINIS H. MCLAIN, University Place, Nebr., assignor of one-half to William A. Selleck, Lincoln, Nebr. Filed Aug. 3, 1912. Serial No. 713,098. (Cl. 217—15.)

1. A collapsible crate including a shallow box like base, side walls hinged to the corresponding sides of said base, end walls hinged to the corresponding ends of said base, all of said walls being adapted to fold into the space inclosed by said base portion and all of said hinges being of such construction as to space the pivoted ends of the movable walls from the upper ends of the vertical base walls when the former are moved into their substantially horizontal position, a top, a short inner guide strip secured to the under face of said top, a longer outer guide strip likewise secured thereto in order to secure the top upon the end walls and side walls, said inner guide strips being adapted to be above the space between said movable walls and said base walls when the former are folded down and to rest upon said hinges, and the outer strips being adapted to embrace the walls of said box like base.

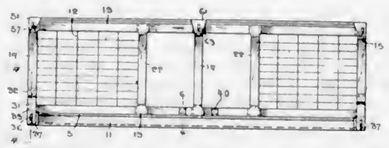
2. In a collapsible crate, the combination with a shallow

box like base, of foldable walls connected to the corresponding sides of said base, said walls being adapted to fold in the space inclosed by said base portion, hinges including channel strips inclosing the upper edges of said base walls, further channel strips inclosing the lower edges of said foldable walls, wire disposed between said edges and said channel strips for each set of walls, and endless bands linking the wires of one set to the wires of the other in such manner that when said movable walls are folded into their substantially horizontal position, a



space will be left therebetween and said base walls, a top, a short inner guide strip secured to said top, a longer outer guide strip similarly secured and spaced from said first strip, to embrace the upper edges of said foldable walls when the crate is assembled, said shorter strips being further adapted to lie above in said space between the foldable walls and the base walls upon said hinges, and said base walls when the crate is collapsed.

1,135,599. SHIPPING-CRATE. FINIS H. MCLAIN, University Place, Nebr., assignor of one-half to William A. Selleck, Lincoln, Nebr. Filed Aug. 29, 1913. Serial No. 787,330. (Cl. 217—47.)



1. In a folding crate, comprising a base frame having side sills and end sills, a longitudinal reinforcing bar arranged centrally between said side sills, a transverse sill arranged centrally between said end sills, a bottom secured to the under side of said frame, an angle-iron embracing the lower edges of said frame and said bottom, corner clips embracing the meeting ends of said angle irons, said end sills and said transverse sill being in the same plane but below that of said side sills, said reinforcing bar being lower than said end and said transverse sills, a partition hingedly connected to said transverse sill and adapted to lie upon said reinforcing bar and below the plane of said transverse sill when in folded position, end frames hingedly connected to said end sills and adapted to lie below the plane of said end sills when in folded position, side frames hingedly connected to said side sills and adapted to lie over said end frames below the plane of said side sills when in folded position, turn buttons arranged at each of the ends of said side sills, and a top having corner hasps arranged thereon for engaging said turn buttons upon said side sills for securing said top to said base frame for retaining said crate in folded position.

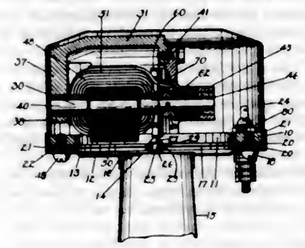
2. In a folding crate, comprising a base frame having side sills, and end sills, a longitudinal reinforcing bar arranged centrally between said side sills, a transverse sill arranged centrally between said end sills, a bottom secured to the under side of said frame, an angle-iron embracing the lower edges of said frame and said bottom, corner clips embracing the meeting ends of said angle irons, said end sills and said transverse sill being in the same plane but below that of said side sills, said reinforcing bar being lower than said end and said transverse sills, a partition hingedly connected to said transverse sill and adapted to lie upon said reinforcing bar and below the plane of said transverse sill when in folded position, end frames hingedly connected to said end sills and adapted to lie below the plane of said end sills when in folded position, side frames hingedly connected to said side sills and adapted to lie over said end frames below the plane of said side sills when in folded position, turn buttons arranged at each of the ends of said side sills, hinged hasps secured to the outer side of the end rails of said side frames for engaging the turn buttons of said side sills for retaining said side frames in vertical position when setting up said crate, turn buttons arranged upon the outer sides of the upper rails of said side frames and in vertical alinement with the turn buttons of said side sills, turn buttons arranged upon the inner side of said upper rails adjacent the ends and also intermediate of the ends thereof, hinged hasps secured to the inner sides of the upper rails of said end frames and also upon said partition for engaging the turn buttons of said upper rails of said side frames for retaining said end frames and said partition in vertical set up position, and a top having corner hasps arranged thereon for engaging the turn buttons of said side sills when said crate is in folded position and for engaging the turn buttons upon the outer sides of the upper rails of said side frames when the crate is in set up position.

3. In a folding crate, comprising a base frame having side sills and end sills, a longitudinal reinforcing bar arranged centrally between said side sills, a transverse sill arranged centrally between said ends sills, a bottom secured to the under side of said frame, an angle-iron embracing the lower edges of said frame and said bottom, corner clips embracing the meeting ends of said angle irons, said end sills and said transverse sill being in the same plane but below that of said side sills, said reinforcing bar being lower than said end and said transverse sills, a partition hingedly connected to said transverse sill and adapted to lie upon said reinforcing bar and below the plane of said transverse sill when in folded position, end frames hingedly connected to said end sills and adapted to lie below the plane of said end sills when in folded position, side frames hingedly connected to said side sills and adapted to lie over said end frames below the plane of said side sills when in folded position, turn buttons arranged at each of the ends of said side sills, hinged hasps secured to the outer side of the end rails of said side frames for engaging the turn buttons of said side sills for retaining said side frames in vertical position when setting up said crate, turn buttons arranged upon the outer sides of the upper rails of said side frames and in vertical alinement with the turn buttons of said side sills, turn buttons arranged upon the inner side of said upper rails adjacent the ends and also intermediate of the ends thereof, hinged hasps secured to the inner sides of the upper rails of said end frames and also upon said partition for engaging the turn buttons of said upper rails of said side frames for retaining said end frames and said partition in vertical set up position, a top having corner hasps arranged thereon, for engaging the turn buttons upon the outer sides of the upper rails of said side frames when the crate is in set nup position.

1,135,600. WARNING-SIGNAL DEVICE. RAY H. MANSON, Elyria, Ohio, assignor to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed July 30, 1914. Serial No. 854,045. (Cl. 177—7.)

1. In an automobile horn, the combination of a flat frame piece having an opening therein, a casing front, a diaphragm mounted between the casing front and the frame piece, an electric motor on the back of the frame piece having an armature shaft substantially parallel to the diaphragm, an armature on said shaft, a commutator on said shaft and roughened wheel on said shaft between the armature and the commutator adapted to be rotated when the armature shaft is rotated, and means through which said roughened wheel vibrates said diaphragm when the motor is operated.

2. In an automobile horn, the combination of a vibratile diaphragm, supporting means therefor, an elector motor, an armature shaft for said motor mounted substantially parallel to the diaphragm, an armature and a commutator on said shaft, and a roughened wheel between the armature and commutator adapted to be rotated when the armature is rotated and to cause the actuation of the diaphragm.



3. In an automobile horn, the combination of a flat frame piece having an opening therein, a casing front, a vibratile diaphragm clamped between said front and frame piece, said diaphragm being exposed at the rear through the opening, an electric motor mounted on the back side of the frame piece, a rotary armature for said motor mounted on one side of the center of the diaphragm, a commutator for said motor on the other side of the center of the diaphragm, an armature shaft carrying said armature and commutator, and a roughened wheel mounted upon said shaft between the armature and commutator and adapted to be rotated when the armature is rotated to cause the actuation of the diaphragm.

4. In an automobile horn, the combination of a diaphragm, supporting means therefor, a rotary electric motor having an armature and armature shaft, a roughened wheel for operating the diaphragm, a commutator and a supporting member for said commutator and roughened wheel, said roughened wheel, commutator and supporting member being mounted upon the armature shaft and removable therefrom as a unitary structure.

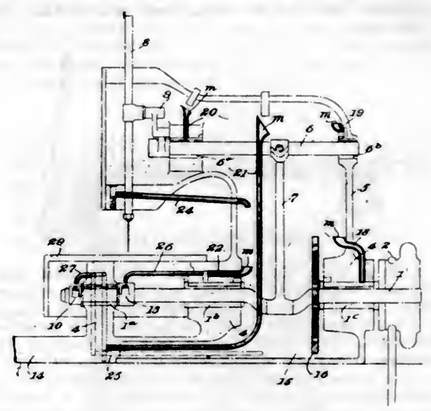
5. In an automobile horn, the combination of a bibratile diaphragm, supporting means therefor, an electric motor including an armature shaft normally mounted substantially parallel to the diaphragm, an armature and a commutator on said shaft, a roughened wheel on said shaft between the commutator and armature adapted to cause the actuation of the diaphragm when the armature is operated, said wheel being provided with openings and conductors connecting the commutator and armature passing through said openings.

[Claims 6 to 10 not printed in the Gazette.]

1,135,601. SELF-LUBRICATING SEWING-MACHINE. JOHN P. MARSHALL, St. Louis, Mo. Filed Mar. 17, 1913. Serial No. 754,772. (Cl. 184—6.)

1. In a machine having a housing for inclosing working parts, and bearings disposed externally thereof, an oil-collecting device disposed within said housing above the level of said bearings, an oil well formed in said housing, an oil conduit communicating with said oil-collecting device and said oil well, discharge conduits leading from said oil conduit to said bearings, and means operable within said housing for distributing oil from said oil well to said collecting device.

2. In a machine having a housing for inclosing working parts, and a bearing exterior thereof, a collecting receptacle disposed within said housing above the level of the said bearing, an oil well formed within said housing, an oil conduit leading from said receptacle through the base of the machine below said bearing, and through the base of the machine to said oil well, said conduit having communication with said bearing, and means operable within



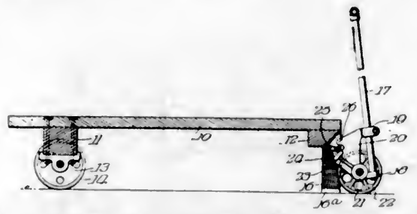
said housing for distributing oil from said oil well to said receptacle.

1,135,602. GARBAGE-WAGON. LAWRENCE F. MARTIN, Kenosha, Wis. Filed July 18, 1913. Serial No. 779,714. (Cl. 21—21.)

1. In a garbage wagon, a compartment having sides and a bottom, an end gate pivotally secured to said sides and having reinforcing members secured thereto, a locking member disposed adjacent the bottom of said compartment, locking means passing through said reinforcing members and connected to said locking member to lock said gate to the bottom of said compartment, locking members disposed adjacent the sides of the compartment and secured to the bottom locking member, and locking means passing through said reinforcing members and connected to said side locking members to lock said gate to the sides of said compartment.

2. In a garbage wagon, the combination with a compartment having sides and a bottom, of an end gate pivotally secured to said sides, means for locking said gate to the sides of the compartment comprising a brace bar adjacent one side of the compartment and transversely extending bolts passing through the sides of the compartment and said gate and having threaded engagement with said brace bar, and means for locking the gate to the bottom of the compartment comprising a bar disposed adjacent said bottom and a plurality of rods passing through said gate and bottom and having threaded engagement with said bar.

1,135,603. HAND-TRUCK. ELLIS H. MEAD, Western Springs, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 22, 1914. Serial No. 813,642. (Cl. 21—65.)



1. In a truck, the combination of a platform, non-rotatable supports at its front end, a separate wheeled lifting lever to coöperate with said platform and adapted to lift the same at its front end, and means to permit of the lifting lever being engaged with the front of the platform at any one of a plurality of positions thereon.

2. In a truck the combination of a platform, non-rotatable supports for the front end thereof, and a separate wheeled lifting lever to coöperate with said platform and adapted to lift the same, and means to permit of the lifting lever being engaged with the platform at any one of a plurality of positions including recesses disposed in a row transversely on the bottom of said platform.

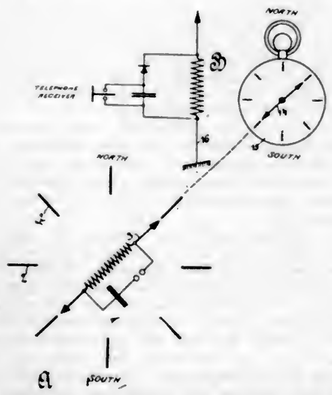
3. In a truck, the combination of a platform, non-rotatable supports comprising a bar secured to the bottom of said platform and terminating in downwardly projecting legs, said bar being provided with a plurality of transverse holes, and a separate wheeled lifting lever having an element for engaging any one of the holes in said bar and adapted to lift said truck.

4. In a wheeled lifting lever for trucks, a casting, a handle, a socket on the side of said casting to receive an end of said handle and a clamp extending from said casting to secure said handle in position.

5. In a wheeled lifting lever for trucks, a casting having a truck engaging element, a lip on said casting extending over said engaging member to guide the same when applying the lifting lever to a truck and a handle for the casting.

[Claims 6 to 8 not printed in the Gazette.]

1,135,604. PROCESS AND APPARATUS FOR DETERMINING THE POSITION OF RADIOTELEGRAPHIC RECEIVERS. ALEXANDER MEISSNER, Berlin, Germany. Filed Aug. 2, 1912. Serial No. 712,913. (Cl. 250—11.)



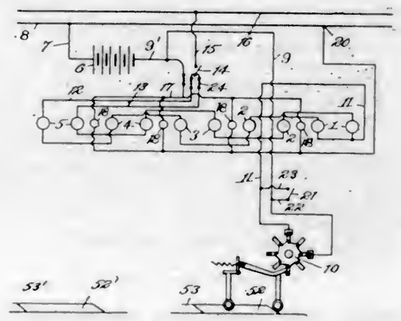
1. A process of determining the compass direction of a given location by means of electromagnetic waves, consisting in emitting at the transmitting station first a non-directive signal, and then a directive signal rotating from a predetermined starting point on the compass in a predetermined direction and with a predetermined speed, and in determining at the place of observation the time-difference between the non-directive signal and the maximum or minimum intensity of radiant energy produced by the directive signal.

2. A process of determining the compass direction of a given location by means of electromagnetic waves, consisting in emitting at the transmitting station first a non-directive signal, and then a directive signal continuously rotating from a predetermined starting point on the compass in a predetermined direction and with a predetermined speed, and in determining at the place of observation the time-difference between the non-directive signal and the maximum or minimum intensity of radiant energy produced by the directive signal.

3. In aparatus for determining the compass direction of location of wireless telegraphic stations, the combination of a rotating sender, a non-directive antenna and a plurality of directive antennæ, means for coupling said sender to the antennæ so that first a non-directive signal is given and then a rotating directed signal, and means for determining at the receiving station the position of the plane of rotation of said directive signal.

4. In apparatus for determining the compass direction of location of wireless telegraphic stations, the combination of a rotating sender, a central undirected antenna and a plurality of directive antennæ arranged in a circle about the same, means for coupling said sender to the antennæ so that first a non-directive signal is given and then a rotating directive signal, and means for determining at the receiving station the position of the plane of rotation of said directive signal.

1,135,605. MEANS FOR CONTROLLING THE ILLUMINATION OF VEHICLES. WILLIAM S. MENDEN, Brooklyn, N. Y., assignor to Megosin Company, Inc., a Corporation of New York. Filed Dec. 2, 1913. Serial No. 804,224. (Cl. 171—313.)



1. The combination with a vehicle, of a trolley line wire, a storage battery carried by said vehicle, a system of lights, another system of lights, suitable connections for including said systems of lights in circuit with said trolley line wire, means operated at predetermined points along the route of said vehicle for successively making and breaking said circuit connections, and means for connecting said other system of lights in circuit with said storage battery.

2. The combination with a vehicle, of means carried thereby for illuminating the same, said means being capable of successive energization and deënergization, and means automatically operated at predetermined points of travel for energizing said illuminating means on entering a predetermined zone of travel and for deënergizing the illuminating means on leaving said zone of travel.

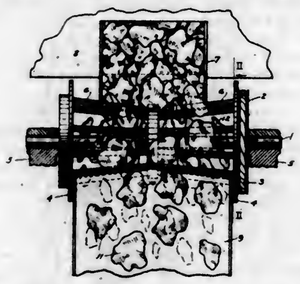
3. The combination with a vehicle, of a trolley line wire, a storage battery carried by said vehicle, a system of lights, another system of lights, suitable connections for including said systems of lights in circuit with said trolley line wire, means operated at predetermined points along the route of said vehicle for successively making and breaking said circuit connections, and means for connecting said other system of lights in circuit with said storage battery, said means for connecting said other system with said storage battery being provided with a branch having a manually operated switch for cutting out of circuit the make and break means operated at predetermined points along the route of the vehicle.

4. The combination with a vehicle, of illuminating means carried thereby, means for deriving power from without said vehicle for energizing said illuminating means, other means carried by said vehicle for energizing said illuminating means, and means depending upon the movement of said vehicle for controlling the energization of said illuminating means, said controlling means being rendered operable at predetermined points along the route of said vehicle.

5. The combination with a vehicle, of illuminating means carried thereby, means depending upon the movement of said vehicle for energizing said illuminating means, and means depending upon the movement of said vehicle for deënergizing said illuminating means, said energizing and deënergizing means including interengaging elements arranged along the route of the vehicle and carried by said vehicle respectively.

[Claims 6 to 15 not printed in the Gazette.]

1,135,606. REVOLVING GRIZZLY. RAY C. NEWHOUSE, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed July 6, 1914. Serial No. 849,860. (Cl. 83—56.)



1. In a grizzly, a feeding means for material combined with a drum for separating from the material the fines for entry through said drum, said drum being formed to permit passage of material therefrom more freely for exit than for entry thereof into said drum.

2. In a grizzly, a feeding means for material combined with a drum for separating from the material the fines for entry through said drum, said drum being formed to permit passage of material therethrough more freely for exit than for entry thereof into said drum.

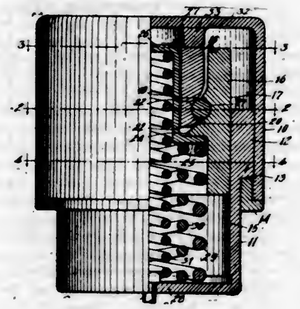
3. In a grizzly, a feeding means for material combined with a drum for separating from the material the fines for entry through said drum, said drum being formed to permit passage of material therethrough more freely for exit than for entry thereof, into said drum, and means for rotating said drum.

4. In a grizzly, a plurality of spaced bars arranged to form a drum, and feeding means for material combined with said drum for separating from the material the fines for entry to said drum through the spaces between said bars, said spaces being formed to permit passage of material therethrough more freely for exit than for entry thereof into said drum.

5. In a grizzly, a plurality of spaced bars arranged to form a drum, feeding means for material combined with said drum for separating from the material the fines for entry to said drum through the spaces between said bars, said spaces being formed to permit passage of material therethrough more freely for exit than for entry thereof into said drum, and means for rotating said drum.

[Claims 6 to 11 not printed in the Gazette.]

1,135,607. SHOCK-ABSORBER. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Jan. 21, 1914. Serial No. 813,355. (Cl. 21—105.)



1. A shock absorber comprising, in combination, two casings, one of said casings having a friction shell movable therewith, a wedge and friction shoes coöperable with said shell, a main spring located within said casing with the friction shell, and a preliminary spring interposed between the other shell and said friction elements whereby to provide an easy initial movement.

2. A shock absorber, comprising two telescoped casings, one of said casings having an integral internal friction shell, friction shoes and a spreader therefor coöperable with said shell, main springs within said casing having the friction shell and arranged to resist movement of the friction shoes, and a preliminary compression spring interposed between the other casing and the friction elements, said spreader being normally out of engagement with the last named casing and adapted to be operated by the latter after the preliminary compression spring has been compressed.

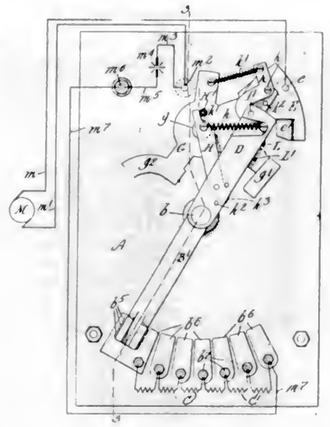
3. A shock absorber comprising two casings, one of which is provided with an internal friction shell, friction shoes coöperable with said shell, each of said shoes having an inwardly extending shoulder, a hollow spreader cooperable with said shoes, a spring cap disposed within said spreader and having a flange engaging said shoulders and springs normally resisting movement of said friction shoes, one of said springs extending within said spring cap.

1,135,608. CURRENT-CONTROLLING DEVICE. HARVEY N. OTT, Buffalo, N. Y., assignor to Spencer Lens Company, Buffalo, N. Y. Filed May 24, 1913. Serial No. 769,643. (Cl. 175—287.)

1. The combination with a movable member, of a stationary switch member, a connecting member adapted to be moved into and out of engagement with said stationary switch member by said movable member, a detent pivoted on said connecting member and adapted to prevent the movement of the connecting member out of its engaging position, and means on said movable member for swinging the detent on its pivot for permitting the connecting member to move out of its engaging position, substantially as set forth.

2. The combination with a movable member, of a stationary switch member, a connecting member adapted to be moved into and out of engagement with said stationary

switch member, a detent mounted on said movable member and adapted to engage said connecting member to prevent the movement of the same into its engaging position and adapted to be moved out of engagement with said connecting member by the movement of said movable member to permit the connecting member to move into its engaging position, substantially as set forth.

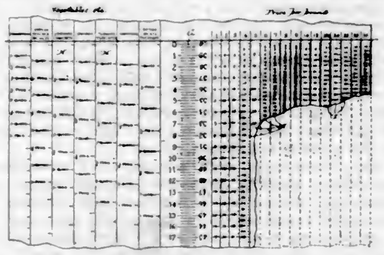


3. The combination with a movable member, of a stationary switch member, a connecting member adapted to engage said stationary switch member, an arm pivoted at one end on said movable member and yieldingly connected thereto at its free end, said arm being adapted to engage said connecting member for moving the same out of its engaging position, a detent pivoted on said connecting member for holding said connecting member from moving out of its engaging position, and means on the movable member for actuating said detent to permit said pivoted arm to swing said connecting member out of its engaging position; substantially as set forth.

4. The combination with a movable member, of a stationary switch member, a connecting member adapted to be moved into and out of engagement with said stationary switch member, a lever pivoted on said connecting member, resilient means for resisting the swinging of said lever on its pivot, means on said movable member which are adapted to engage said lever to swing the connecting member into its engaging position, means for holding the connecting member against movement into its engaging position, and means actuated by said movable member for releasing said holding means of the connecting member to permit said connecting member to be swung into its engaging position by the engagement of said lever with said movable member, substantially as set forth.

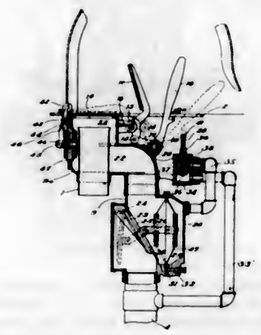
5. The combination with a movable member, of a stationary switch member, a connecting member adapted to engage said stationary switch member, an arm pivoted at one end on said movable member and yieldingly connected thereto at its free end, said arm being adapted to engage said connecting member for moving the same out of its engaging position, a detent pivoted on said connecting member for holding said connecting member from moving out of its engaging position and adapted to be actuated by said movable member for releasing said connecting member, a lever pivoted on said connecting member, resilient means for resisting the swinging of said lever on its pivot, means on said movable member for engaging said lever to swing the connecting member into its engaging position, and means pivoted on said movable member for holding the connecting member against movement into its engaging position, said holding means being adapted to be actuated by said movable member for releasing said connecting member, substantially as set forth.

1,135,609. AUTOMATIC WEIGHING DEVICE. ORANGE O. OZIAS, Dayton, Ohio. Filed May 28, 1910. Serial No. 563,948. (Cl. 235—89.)



In a scale for simultaneously determining the weight, price and volumetric quantity of the goods being weighted, a chart having columns of graduations thereon extending parallel with the plane of its movement, and indicating respectively volumetric quantities, weight and values corresponding to volumetric quantities and weight, a fixed indicator with which all of said sets of graduations register, and fixed indices of the character of goods located in line with the columns of volumetric quantities and fixed indices of price located in line with the columns of value indications, the arrangement being such that corresponding volumetric, weight and value indications will simultaneously register with the fixed indicator.

1,135,610. PNEUMATIC-DESPATCH-TUBE APPARATUS. ALBERT W. PEARSALL and FRED R. TAISEY, Lowell, Mass., assignors to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Sept. 14, 1908. Serial No. 452,807. (Cl. 243—11.)

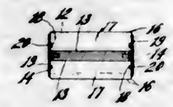


1. In a pneumatic despatch tube apparatus, a single tube for transmitting carriers, a source of air pressure connected with said tube, a normally open valve located at the despatching terminal of said tube and adapted to close the opening thereof, a normally closed air valve located adjacent to said terminal and adapted to control the admission of said air pressure thereto for driving carriers, mechanism operated by the pressure from said source for controlling the opening of said normally closed valve to control the admission of said air pressure, means for locking the normally open valve closed against said air pressure, and means for releasing said normally open valve upon the delivery of the carrier at the opposite terminal of said tube.

2. In a pneumatic despatch tube apparatus, a tube for transmitting carriers, a source of air pressure connected with said tube, a normally open valve located at the despatching terminal of said tube and adapted to close the opening thereof, a normally closed air valve located adjacent to said terminal and adapted to control the admission of said air pressure thereto for driving carriers, mechanism adapted upon the closing of said normally open valve to be operated by the pressure from said source for controlling the admission of said air pressure to said tube for driving carriers, means for holding the normally open valve at said terminal closed against said air pressure, means for releasing said normally open valve upon the delivery of the carrier at the opposite terminal of the tube, and means for then automatically cutting off said air pressure.

3. In a pneumatic despatch tube apparatus, a tube for transmitting carriers, a source of air pressure connected with said tube, a normally open valve located at the despatching terminal of said tube and adapted to close the opening thereof, a normally closed air valve located adjacent to said terminal and adapted to control the admission of said air pressure thereto for driving carriers, mechanism adapted upon the closing of said normally open valve to be operated by the pressure from said source for controlling the admission of said air pressure to said tube for driving carriers, means for holding the normally open valve at said terminal closed against said air pressure, means for automatically releasing said normally open valve upon the delivery of the carrier at the opposite terminal of the tube, and means for independently and automatically cutting off said air pressure.

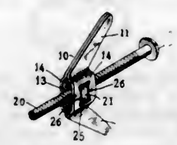
1,135,611. SAFETY-RAZOR. CHARLES W. PETOSKY, Milwaukee, Wis., assignor to Badger Safety Razor Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed July 3, 1911. Serial No. 636,620. (Cl. 30—12.)



1. A safety razor, comprising a holder provided with elongated recesses, removable plates connected to the holder and covering the ends of the recesses, a blade extending into th recess and engaged at each end by the end plates to lock the blade in the recess a guard positioned adjacent to the blade, and a handle removably extending through the guard and connected to the holder.

2. A safety razor, comprising a holder provided with an elongated recess open at one side and both end edges, a blade extending into the recess and having notched ends which project beyond the recess, end plates removably connected to the holder and covering the ends of the recess and provided with recesses into which the projecting ends of the blade extend to lock said blade in the recess, a guard resting against the holder, and a handle extending through the guard and threaded into the holder.

1,135,612. CLAMP. CLARENCE D. PLATT, Bridgeport, Conn. Filed Jan. 4, 1915. Serial No. 478. (Cl. 85—1.)



1. In a clamp, a clamp bar comprising a pair of plates secured together in flat engagement at their end portions and spaced apart at their intermediate portions, a screw bolt disposed in the space thus provided between the intermediate portions of said plates and a nut on the said bolt having a bearing in the aforesaid spaced apart portions of the clamp bar plates.

2. In a clamp, a clamp bar comprising a pair of plates secured together in flat engagement at their end portions and spaced apart at their intermediate portions, a screw bolt disposed in the space thus provided between the intermediate portions of said plates, the said spaced apart portions of the clamp plates having seats formed therein and a nut on the bolt having portions bearing in the said seats.

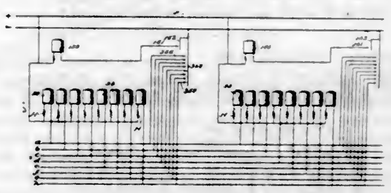
3. In a clamp, a clamp bar comprising a pair of plates secured together in flat engagement at their end portions and spaced apart at their intermediate portions a screw bolt disposed in the space thus provided between the intermediate portions of said plates, the said spaced apart portions of the clamp plates having oppositely disposed openings therein provided with convexed bearing edges and a nut on the bolt engaged in the said openings and having a bearing on the convexed edges thereof.

4. In a clamp, a clamp bar comprising a pair of plates secured together in flat engagement at their end portions and spaced apart at their intermediate portions, the said spaced apart portions of the clamp plates having oppositely disposed openings formed therein, a nut rockably engaged in the said openings and a screw bolt engaging the said nut.

5. In a clamp, a clamp bar comprising a pair of complementary plates each having relatively flat end portions united by an intermediate bowed portion laterally offset from the planes of such end portions and the said two plates being secured together with their end portions in flat engagement and their intermediate bowed portions providing a space between the plates intermediate their length, the said intermediate bowed portions having oppositely disposed openings therein, a screw bolt disposed in the space provided between the intermediate bowed portions of the plates and a nut on the bolt engaged in th oppositely disposed openings in the aforesaid bowed portions of the clamp plates.

[Claims 6 to 9 not printed in the Gazette.]

1,135,613. SYSTEM OF OPERATING TYPE-WRITERS AND THE LIKE. LOUIS M. POTTS, Baltimore, Md., assignor to Austin McLanahan, Baltimore, Md. Filed Jan. 16, 1911. Serial No. 602,965. (Cl. 178—31.)



1. A plurality of recording machines each comprising in a unitary device electrical means to operate the machine from a distance, a keyboard for controlling the machine locally, and transmitting mechanism operated by the keyboard for controlling the operation of one or more of the other machines, in combination with a group of electrical conductors of lesser number than the characters recordable by the individual machines, forming portions of a plurality of electric circuits extending from the transmitting mechanism of one machine to the electrical operating means of another machine, substantially as described.

2. Two or more typewriters each comprising in a unitary device printer controlling selecting mechanism, a group of primary controlling devices for operating said selecting mechanism electrically, said devices being of lesser number than the characters which the machine is adapted to print, in combination with a cable forming an electrical connection from one machine to another and comprising a group of conductors of lesser number than said characters, and means to operate the selecting mechanism of one machine from the keyboard of another machine through said cable.

3. Two or more typewriters each comprising in a uni-

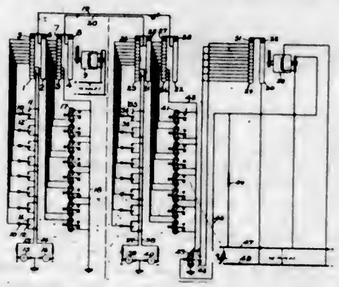
tary device printer controlling selecting mechanism, a group of primary controlling devices for operating said selecting mechanism electrically, said devices being of lesser number than the characters which the machine is adapted to print, in combination with a cable forming an electrical connection from one machine to another and comprising a group of conductors as great in number as said controlling devices but of lesser number than said characters, and means to operate the selecting mechanism of one machine from the keyboard of another machine through said cable.

4. Two or more machines, each comprising in a unitary device character recording mechanism, selecting mechanism adapted to control the operation of said recording mechanism, said selecting mechanism having a plurality of elements the combining of which determines the character to be recorded, electrical means operatively connected to said elements for distant control, a keyboard operatively connected to said elements for local control, and transmitting means also operated by said keyboard, in combination with means forming operative connection between said machines and comprising a group of electrical conductors in number as many as said elements but of lesser number than the characters the machine is adapted to record, to which the said electrical operating means and the transmitting means of each machine are electrically connected.

5. Two or more typewriting machines each comprising in a unitary device selecting mechanism to control the operation of the recording mechanism, a plurality of magnets of lesser number than the recordable characters, adapted to operate said selecting mechanism by distant control, keyboard-operated mechanism to operate the said selecting mechanism locally, and transmitting mechanism controlled by said keyboard mechanism, in combination with operative electrical connection between the several machines comprising a cable having a group of insulated conductors to which the said magnets of the several machines are connected and to which the keyboard transmitting means of the said machines are also connected, whereby the operation of the keyboard transmitting mechanism of one machine operates the selecting mechanism of another machine, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,135,614. TELEGRAPHY. LOUIS M. POTTS, Baltimore, Md., assignor to Austin McLanahan, Baltimore, Md. Filed Aug. 6, 1912. Serial No. 713,558. (Cl. 178—53.)



1. An electric telegraph, comprising two separate transmission lines connecting two stations, a separate source of signaling current for each of said lines, transmitting and receiving apparatus for each of said lines, the transmitting apparatus of each of said lines comprising mechanism to time the transmission of impulses to said lines from said sources, and means at one of said stations governing the speed of operation of the impulse timing apparatus at both stations.

2. An electric telegraph, comprising two separate transmission lines connecting two stations, a separate source of signaling current for each of said lines, a transmitting and a receiving sunflower for each of said lines, means common to both the transmitting and receiving sunflowers at one station to drive the same, and common driving means for the transmitting and receiving sunflowers at the other station on said lines, the driving means for the sunflowers at one station setting the pace and timing the duration of the impulses transmitted to line at both stations.

3. An electric telegraph, comprising tyransmitting and receiving sunflowers at each of two stations, two separate lines connecting respectively the transmitting sunflowers at said stations with the receiving sunflowers at the distant stations, an independent source of signaling current at each of said stations from which impulses are transmitted to said lines respectively through the transmitting sunflowers connected thereto, and means at each of said stations common to both sunflowers at said stations for driving the same.

4. An electric telegraph comprising transmitting and receiving sunflowers at each of two stations, two separate lines connecting respectively the transmitting sunflowers at said stations with the receiving sunflowers at the distant station, an independent source of signaling current at each of said stations from which impulses are transmitted to said lines respectively through the transmitting sunflowers connected thereto, and means at each of said stations for driving the same, means at one of said stations to set the pace for all said sunflowers, and means at the other of said stations to regulate the speed of the sunflowers at that station to synchronism with the sunflowers at the other station.

5. An electric telegraph comprising transmitting and receiving sunflowers at each of two stations, two separate lines connecting respectively the transmitting sunflowers at each of said stations to the receiving sunflowers at the distant station, an independent source of signaling current at each of said stations from which impulses are transmitted to said lines respectively through the transmitting sunflowers connected thereto, an electric motor at one of said stations driving both the transmitting and receiving sunflowers at that station, an electric motor at the other of said stations driving both said sunflowers at that station, and means at the latter station governed by the signaling current from the distant station to regulate the speed of the second named motor to synchronism with that of the first named motor.

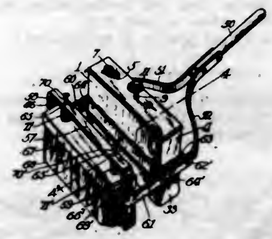
1,135,615. HANDLE ATTACHMENT FOR AUTOMOBILES. EDWARD G. RATHMANN, Delta, Ohio. Filed Feb. 19, 1914. Serial No. 819,687. (Cl. 74—33.)



1. The herein described detachable handle for steering wheels, including a handle member formed with a longitudinal opening extending entirely through the same and having a tapered formation, a correspondingly tapered shank extending through the opening of the handle member and divided longitudinally to form a pair of complemental wedge sections adapted to be assembled from opposite sides and forced tightly together when drawn into the tapered opening of the handle member, coöperating steering wheel engaging claws integral with the larger ends of the wedge sections and projecting beyond one end of the handle member, and a nut engaging the smaller end of the tapered shank for forcibly drawing the same through the tapered opening of the handle member to hold the claws in operative engagement with a portion of the steering wheel placed between the same.

2. The herein described detachable handle for steering wheels or like members of a flattened cross section, including a handle member formed with a tapered opening, a correspondingly tapered shank fitted within the opening and divided longitudinally to form a pair of complemental wedge sections, coöperating claws formed in connection with the wedge sections and shaped to engage the edges of a member of flattened cross section when it is desired to apply the handle thereto in one position, the adjacent corners of the claw ends of the wedge sections being correspondingly cut away to provide a seat for engagement with an edge of the member of flattened cross section when it is desired to apply the handle thereto in another position, and means for drawing the tapered shank forcibly within the tapered opening to move the wedge sections and coöperating claws toward each other.

1,135,616. FLOOR BRUSHER AND OILER. JOSEPH E. RELLER, Indianapolis, Ind. Filed Nov. 18, 1912. Serial No. 732,123. (Cl. 15—51.)



1. A floor oiler including means for feeding and spreading oil provided with an operating-handle, and means detachably connected substantially with the handle for carrying a weight in advance of the feeding and spreading means.

2. A floor oiler including a main frame, an oil-reservoir secured to the frame, a swab secured to the oil-reservoir, a frame detachably secured to the main frame and a weighting device mounted in the latter frame.

3. A floor oiler including a main frame and an operating handle thereon, an oil-reservoir secured to the frame, a swab secured to the reservoir and adapted to retain and gradually feed oil from the reservoir, a weight frame pivotally connected to the main frame to be moved to or from the handle and having a weighting device thereon, and means for fixedly securing the weight frame to the main frame when moved from the handle.

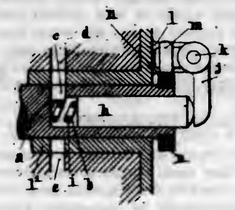
4. A floor oiler including a reservoir having a bottom provided with a feed-port, a swab holder secured to the bottom and oil-retaining swab sections secured thereto, the holder having also feed-channels in the top thereof connected with the feed-port and also feed-holes extending therethrough from the feed-channels in planes between the swab sections.

5. A floor oiler including a swab holder having a feed-channel in the normal upper side and grooves in the under side thereof, the holder having also feed-holes extending therethrough from the feed-channel on either side of the grooves, swab sections compressed and secured in the grooves, and a binder extending about the swab sections and secured to the swab holder.

[Claims 6 to 11 not printed in the Gazette.]

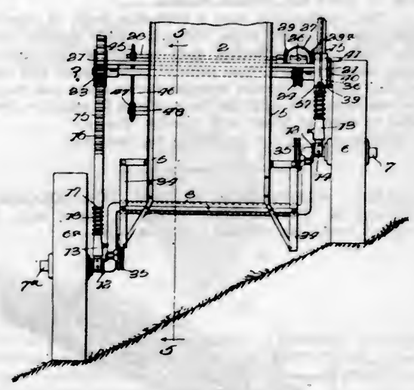
1,135,617. OIL-PUMP. EMILE VICTOR RENO and JOSEPH ALFRED CHAYSOSTOME BOIS, Somme, France. Filed Feb. 2, 1914. Serial No. 816,022. (Cl. 103—75.)

In combination, a member having a bore therein and a pair of orifices communicating with the bore; a rotary shaft in said bore and having longitudinally in its end a hole having a lateral orifice adapted to register with either one of the orifices of said member; a piston in said hole; an eccentric on said shaft; and an elbow lever adapted to



engage and be oscillated by said eccentric and to engage and reciprocate said piston.

1,135,618. LEVELING MECHANISM FOR HARVESTERS. WILLIS M. RHODES, Moscow, Idaho. Filed Nov. 15, 1913. Serial No. 801,247. (Cl. 56—29.)



1. In mechanism of the character described, the combination with a harvester body, of opposed independently movable cranked axles, traction wheels thereon, vertically disposed rack bars pivotally connected at their lower ends to the free ends of the cranked axles, an actuating shaft having pinions thereon engaging said rack bars and disposed above the cranked axles, clips, through which the rack bars slide, pivotally connected to said shaft, a worm wheel on the shaft, and a driving worm engaging said worm wheel.

2. In mechanism of the character described, the combination with a harvester body, of opposed independently movable cranked axles, traction wheels thereon, vertically disposed rack bars pivotally connected at their lower ends to the free ends of the cranked axles, an actuating shaft having pinions thereon engaging said rack bars and disposed above the cranked axles, clips, through which the rack bars slide, pivotally connected to said shaft, a worm wheel on the shaft, a driving worm engaging said worm wheel, means for driving said driving worm, and means for disconnecting the driving worm from the driving means when the rack bars have been shifted to the limit of their movement in one or the other direction.

3. In mechanism of the character described, the combination with a harvester body, of opposed independently movable crank axles, traction wheels carried upon the crank arms thereof, vertically disposed rack bars extending upward from the arms of the cranked axles and pivotally connected to said arms, said rack bars having their racks disposed upon opposite sides relatively to each other, an actuating shaft for both of said rack bars having pinions thereon engaging said racks, a worm wheel on the

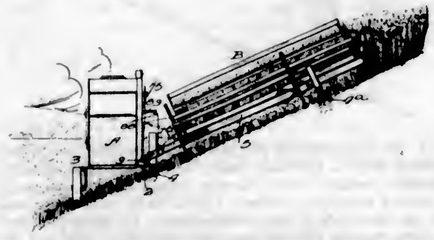
shaft, a driving worm engaging the worm wheel, a driving shaft, oppositely disposed driving gears adapted to operatively engage said worm shaft, said driving gears being loose upon the driving shaft, clutch mechanism adapted to engage either of said driving gears with the driving shaft to thereby rotate the worm shaft in one or the other direction, means for shifting said clutch, and means actuated upon a movement of the rack bars to their full extent in either direction for shifting said clutch to a median position.

4. The combination with a harvester body, of a tubular member attached rigidly to the harvester body and extending transversely thereof and formed with transverse openings, cranked axles, each having one end thereof inserted in said tubular member, formed with transverse openings which flare transversely in opposition from a central point, the openings of the tubular member registering with the openings of the end portions of the cranked axles inserted in the tubular member, and fastenings passing through the registering openings of the tubular member and the end portions of the cranked axles to prevent longitudinal movement of the cranked axles but permit of a limited rotary movement thereof, traction wheels carried by the axles, and means for rotatably shifting the axles to raise or lower the traction wheels.

5. The combination with a harvester body, of opposed independent cranked axles, traction wheels thereon, rack bars operatively connected each to one of the cranked axles, said bars each being made in two sections, and compression springs disposed between the sections, and means for simultaneously shifting the rack bars in opposite directions to raise or lower said traction wheels.

[Claims 6 to 19 not printed in the Gazette.]

1,135,619. SUSPENSION SYSTEM FOR HEADERS. WILLIS M. RHODES, Moscow, Idaho. Filed Nov. 15, 1913. Serial No. 801,248. (Cl. 56—100.)



1. In a harvester body, an axle having the body mounted thereon and having a projecting crank portion which is vertically adjustable, a traction wheel mounted upon the crank portion of the axle, a header carrying frame supported at its inner end upon the crank portion of the axle and movable vertically therewith and pivotally connected to the harvester body, said frame extending laterally from the harvester body, and means supporting the outer end of the said frame to admit of its vertical adjustment.

2. In a harvester, a body, a vertically adjustable cranked axle supporting the body, a crank wheel mounted on the cranked portion of the axle, and a header supporting frame extending laterally from the body and pivotally connected thereto at its inner end and having direct engagement with and supported upon the cranked axle and movable therewith and having vertical movement at its outer end.

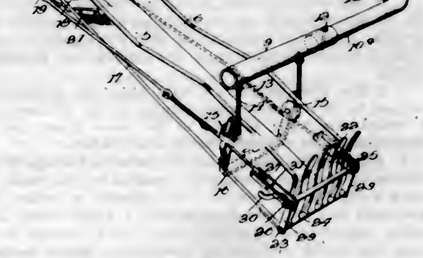
3. In a harvester, a body, a cranked axle thereon having an outwardly extending axle stub, a traction wheel mounted on the axle stub, a grooved wheel on the stub, and a header supporting frame extending laterally from the body, pivotally connected to the body at one point, and having a member extending parallel to the body and at the base of the frame and resting upon said grooved wheel.

4. In a harvester, a transversely extending header supporting frame, oppositely disposed vertical members rigidly mounted on the frame, a rotatable member mounted in bearings on and extending between said vertical members, forwardly projecting arms rigidly mounted on said rotatable member, links pivotally connected to the lower ends of the vertical members and extending forward beneath said arms, vertical members operatively connected to the forward ends of said arms and operatively connected to said links, a bracket connected to each of the last named vertical members and adapted to support a header platform, frames each having approximately the form of a diamond and rigidly connected to the first-named vertical members and to said supporting frame, upwardly extending arms rigidly mounted upon the first-named arms at the middle thereof, and springs connected at their lower ends to the lower ends of said diamond-shaped braces extending upward and connected to the upper ends of the said last-named arms.

5. In a harvester, a body, a cranked axle thereon having an outwardly extending axle stub, a traction wheel mounted on the axle stub, a grooved wheel carried by said stub, and a substantially triangular header supporting frame extending laterally from the body, pivotally connected directly to the body at one point, and having link connection to the body at the opposite end of its base, the base of the frame resting upon and having rolling engagement with the grooved wheel on said stub.

[Claims 6 to 21 not printed in the Gazette.]

1,135,620. GRAIN-BAG CHUTE FOR HARVESTERS. WILLIS M. RHODES, Moscow, Idaho. Filed Nov. 15, 1913. Serial No. 801,249. (Cl. 193—46.)



1. The combination with a wheeled body, of a chute pivotally supported at one end, a pivoted gate closing the lower end of the chute, and means for lowering or raising the free end of the chute and simultaneously opening or closing the gate.

2. The combination with a cranked axle, of a chute pivotally supported at one end and at its other end flexibly connected to said cranked axle, and manually operable means for raising or lowering the lower end of the chute, with relation to the cranked axle.

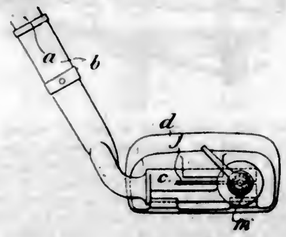
3. In a harvester, the combination with a supporting frame and an axle, of a chute having at one end a transversely extending rod insertible through an opening into said frame, a tubular supporting member slidable upon said axle, means for suspending the lower end of the chute from said tubular supporting member, and independent means for raising or lowering the chute.

4. The combination with a chute pivotally supported at its upper end, of a pivoted gate adapted to close the lower end of the chute, a supporting member disposed above the lower end of the chute, flexible connections attached to said supporting member engaging the chute adjacent its lower end and then extending longitudinally of the chute, branch connections leading from said flexible connections to the gate, and means at the upper end of the chute for slackening said flexible connections to lower the chute and open the gate, or tightening said connections to raise the chute and close the gate.

5. In a harvester, the combination with a chute pivotally supported at its upper end, a gate pivoted to the lower end of the chute, a supporting member extending across the lower end of the chute above the same, pulleys mounted on the sides of the chute, crank arms mounted on the upper end of the chute, connections from said crank arms to the supporting member passing beneath said pulleys, and manual means for operating said crank arms.

[Claims 6 to 9 not printed in the Gazette.]

1,135,621. GOLF AND LIKE CLUB. DAVID ROBERTS and KENNETH ROBERTS, Grantham, Lincoln, England. Filed May 7, 1914. Serial No. 836,990. (Cl. 46—4.)



1. In a golf or like club, the combination with a stick or shaft, of a detachable reversible head having a single driving face and means connecting said stick or shaft and said head in either of two relatively reversed positions, whereby the single face will be presented at different angles relative to the stick.

2. In a golf or like club, the combination with a stick or shaft, of a detachable reversible head having a single driving face, means connecting said stick or shaft and said head, whereby the single face will be presented at different angles when said head is placed upon said stick in either of two relatively reversed positions, and means for locking said connecting means.

3. In a golf or like club, the combination with a stick or shaft, of a detachable reversible head having a single driving face, means connecting said stick or shaft and said head, whereby the single face will be presented at different angles when said head is placed upon said stick in either of two relatively reversed positions, means for locking said connecting means, and means for compensating for wear in said locking means.

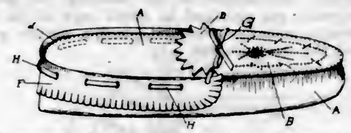
4. In a golf or like club, the combination with a stick or shaft, of a detachable reversible head having a groove at its rear, the driving face of said head being formed at an angle to the rear face for the purpose of presenting the driving face at different angles for driving, an extension on the stick or shaft which engages the groove in said head in either of two reversed positions of the latter, and means for locking the said extension in the groove.

5. A golf or like club, comprising two members consisting of a stick, and a detachable reversible head having a single driving face formed at an angle to its rear face, one of said members being provided with a groove and the other of said members being provided with a dovetail extension, and means connecting said grooved member and said dovetail member, whereby the single face of the head will be presented at different angles when said head is placed upon said stick in either of two relatively reversed positions.

[Claims 6 to 11 not printed in the Gazette.]

1,135,622. MOCCASIN. GEORGE W. ROBINSON, Camden, N. Y. Filed May 2, 1914. Serial No. 836,001. (Cl. 36—11.)

1. In a moccasin, the combination with a side portion, of an overhanging member and a gathering thong passing in and out through said member only, the ends of which are adapted to form a tie over the instep.



2. A moccasin having its opening surrounded by an overhanging portion, and a thong passing in and out through said overhanging portion only and at the heel lying next to the body of the moccasin, the ends of the thong coming together over the instep and adapted to form a tie.

3. A moccasin having its opening surrounded by an overhanging portion, and a thong passing in and out through said overhanging portion only and at the heel lying next to the body of the moccasin, the ends of the thong coming together through the toe piece of the moccasin and forming a tie.

1,135,623. BEEHIVE. SECONDO ROSATO, Sant' Agostino Di Cavour, Italy. Filed Sept. 20, 1913. Serial No. 790,859. (Cl. 6—2.)



1. A hive comprising a casing; a plurality of frames forming a brood chamber; and a plurality of frames forming a honey chamber surrounding the brood chamber on all sides and disposed within the casing.

2. A hive comprising a plurality of frames forming the brood chamber; a plurality of frames forming the honey chamber, certain of the honey chamber frames surrounding the frames of the brood chamber, and certain of the honey chamber frames being centrally continuous and forming the front of the brood chamber; and a casing inclosing the frames.

3. A hive comprising a casing; a plurality of frames forming a brood chamber decreasing in cross-section away from the central section; and a plurality of frames within the casing and forming the honey chamber, some of the frames surrounding the respective frames of the brood chamber and others forming the fronts thereof.

4. A hive comprising a casing of oval section; a plurality of oval frames forming a brood chamber; and a plurality of oval frames in the casing and forming the honey chamber and each having toward their center an oval opening in which is received a frame of the brood chamber.

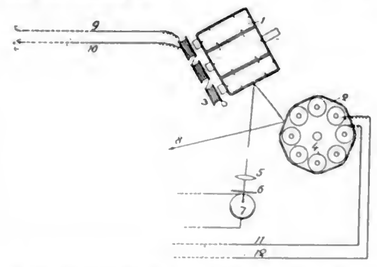
5. A hive comprising an ovoidal casing; a plurality of oval frames forming the brood chamber, the frames presenting a section decreasing from the central section; and a plurality of oval frames within the casing and forming the honey chamber and decreasing in size from the central frame, the inner frames provided with an opening for the reception of the brood chamber, the outer frames of the brood chamber forming the fronts of the brood chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,135,624. ELECTRICAL TELESCOPY. BORIS ROSING, St. Petersburg, Russia. Filed Apr. 5, 1911. Serial No. 619,165. (Cl. 178—6.)

1. In an apparatus of the class described, the combination, with revolving sets of mirrors, one set arranged to

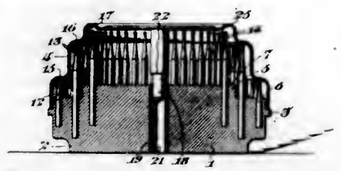
reflect rays to the other set, of electric generators arranged to be moved simultaneously with the corresponding sets of mirrors, oscillographs at the receiving end provided with mirrors, one arranged to reflect rays to the other, and circuits including the corresponding electric generators and the oscillographs.



2. In an apparatus of the class described, the combination, with revolving sets of mirrors at the transmitting end, one set being arranged to reflect rays to another set, of oscillographs at the receiving end provided with mirrors, one mirror being arranged to reflect rays to another, and suitable energizing circuits operatively connecting the revolving sets of mirrors with the oscillographs in pairs.

3. In an apparatus of the class described, the combination, with revolving mirrors, one set being arranged to reflect rays to another set of oscillographs at the receiving end provided with mirrors arranged to reflect rays one to another, circuits operatively connecting corresponding sets of mirrors and the oscillographs, and means for supplying current to said circuits to operate the connected sets of mirrors and oscillographs in synchronism.

1,135,625. BUR-STAND. RALPH B. SAVIN, Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 5, 1914. Serial No. 860,348. (Cl. 206—17.)



1. A bur container comprising a body having sockets to hold the burs, and a closure for covering said burs, having means forming a rotatable support for said body when inverted and placed beneath said body.

2. A bur container comprising a body having means for supporting the burs in spaced relation, a closure normally covering said burs and having means for centering it with respect to the body, said centering means providing a rotatable support for the body, when inverted and placed beneath said body.

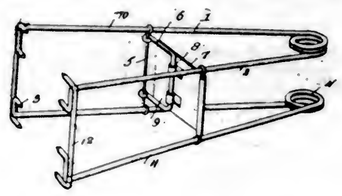
3. A bur container comprising a body for carrying a plurality of burs relatively spaced, a closure arranged to cover the burs and be supported on said body in spaced adjacent relation to the points of said burs, and having means to rotatably support the body, when inverted and placed beneath said body.

4. A bur container comprising a body arranged to carry a plurality of burs in upright position and having a central aperture therein, and a closure for covering said burs and having a central stem projecting into the aperture in said body, and forming a rotatable support therefor.

5. A bur container comprising a body arranged to carry a plurality of burs and having a central aperture therein, and a closure for normally covering said burs and having a central stem arranged to enter said aperture from the top to center said closure with respect to said body, and arranged to enter from the bottom of said body when inverted, to rotatably support the body.

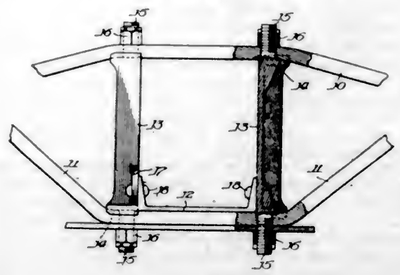
[Claim 6 not printed in the Gazette.]

1,135,626. GOPHER-TRAP. ADOLPH SCHRECK, Phoenix, Ariz. Filed Nov. 29, 1913. Serial No. 803,779. (Cl. 43—23.)



A gopher trap comprising a pair of spring jaws, each embodying a pair of superposed arms, rods connecting said arms, a U-shaped setting and releasing member having its arms hinged at their free ends to one of said rods, and a second setting and releasing member comprising a plate hinged at one of its end edges to the other rod and intermediate of its length to the cross portion of said U-shaped setting and releasing member, the free end of said plate being adapted to abut against the arms of the U-shaped member when said members are disposed in alinement to lock the jaws in spread position.

1,135,627. CAR-TRUCK. GEORGE E. SCOTT, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Jan. 11, 1915. Serial No. 1,522. (Cl. 105—243.)



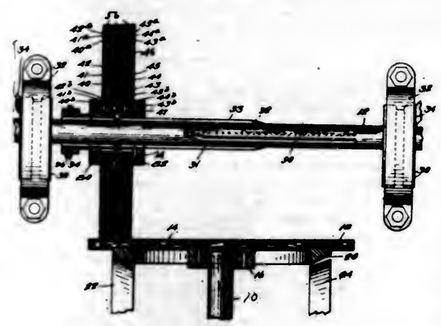
1. In an arch bar truck the combination of top and bottom bars having spaced apertures, columns, and studs formed integral with said columns and adapted to enter the apertures in said bars, said studs being threaded and provided with nuts, substantially as described.

2. A column for arch bar trucks consisting in a casting, and integral studs projecting from each end of said casting, said studs being threaded to accommodate a fastening nut, substantially as described.

3. A column for arch bar trucks consisting in a channel-shaped member having integral studs projecting from each end thereof, said studs being threaded on their peripheries to accommodate a fastening nut, substantially as described.

4. A column for arch bar trucks consisting in a casting having seats at each end for top and bottom arch bars, integral studs projecting from said seats, and fastening nuts engaging said studs, substantially as described.

1,135,628. FRICTION DRIVING MECHANISM. MELVIN L. SEVERY, Arlington Heights, Mass., assignor to Severy Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed June 25, 1913. Serial No. 775,677. (Cl. 74—26.)



1. A friction driving mechanism comprising in combination a rotary friction element; a shaft; a second friction element composed of a plurality of independently rotatable sections mounted on said shaft and adapted frictionally to engage said first named friction element; and means for automatically putting said sections into and out of driving relation with said shaft.

2. A friction driving mechanism comprising in combination a rotary friction element; a shaft; a second friction element composed of a plurality of independently rotatable sections mounted on said shaft and adapted frictionally to engage said first named friction element; and means controlled by the speed of any section for placing said section in driving relation with said shaft.

3. A friction driving mechanism, comprising rotary driving means, a driven shaft, and a driven member composed of independently rotatable sections adapted to be brought into driving relation with said driven shaft.

4. A friction driving mechanism, comprising rotary driving means, a driven shaft, and a driven member composed of independently rotatable sections adapted to be brought into driving relation with said driving means and adapted to be automatically brought into driving relation with said shaft when their speed is sufficient.

5. A friction driving mechanism comprising in combination a rotary friction element; a shaft; a second friction element composed of a plurality of independently rotatable sections mounted on said shaft and adapted frictionally to engage said first named friction element; and rolling clutch members interposed between each of said sections and said shaft.

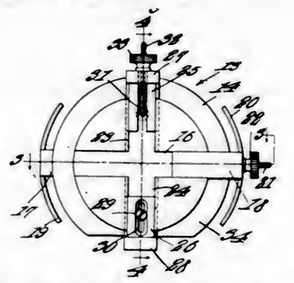
[Claims 6 to 19 not printed in the Gazette.]

1,135,629. DENTAL ARTICULATOR. HORACE F. SMITH and HARRY S. DANO, Los Angeles, Cal. Filed Nov. 16, 1914. Serial No. 872,418. (Cl. 32—1.)

1. An articulator attachment embodying a plate, a pair of jaws having shanks slidably engaging the plate, the jaws being adapted to receive a cast or mold, one of the shanks having an extension engaged through the opposite jaw, a nut threaded upon the said extension and bearing against the said jaw, and means for attaching the plate to an articulator jaw.

2. An articulator attachment embodying a plate, means carried by the plate for holding a cast or mold, and means for attaching the plate to an articulator jaw embodying strips slidably engaging the plate and having hooks engageable with the articulator jaw.

3. An articulator attachment embodying a plate, means carried by the plate for holding a cast or mold, means for attaching the plate to an articulator jaw embodying strips slidably engaging the plate and having hooks engageable with the articulator jaw, and means for holding the said strips at various adjustments.

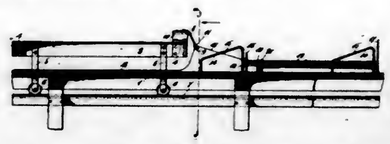


4. An articulator attachment embodying a plate having dove-tailed grooves in its back and face, strips of dove-tailed cross section slidable in said grooves and having jaws at their remote ends, the jaws being adapted to receive and hold a cast or mold against the face of the plate, and means for adjusting said jaws to clamp the cast or mold.

5. An articulator attachment embodying a plate having dove-tailed grooves in its back and face, strips of dove-tailed cross section slidable in said grooves and having jaws at their remote ends, the jaws being adapted to receive and hold a cast or mold against the face of the plate, the other end of the strip which is slidable in the groove in the face of the plate having an extension engaged through the jaw of the other strip, and a nut threaded upon the said extension and bearing against the last mentioned jaw.

[Claim 6 not printed in the Gazette.]

1,135,630. CLOTH-FOLDING MACHINE. CHARLES A. STEWART, Rollinsford, N. H. Filed July 13, 1912. Serial No. 709,138. (Cl. 26—3.)



1. In a folding machine, the combination with a table, of a carrier mounted to run lengthwise over and above said table, said carrier being adapted in part to loosely carry any one of a number of rods, a set of posts over which said carrier is adapted to pass, said posts presenting parts engaged by the rods carried by said carrrier whereby said rods may be lifted to ride over said posts as said carrier is moved in one direction or said rods engage said posts and become displaced from said carrier to fall alongside said posts as said carrier is moved in a reverse direction.

2. In a folding machine, the combination with a table, of a carrier mounted to run lengthwise over and above said table, said carrier being adapted in part to loosely carry any one of a number of rods, separate sets of posts arranged forward of said carrier when in a retracted position and over which said carrier is adapted to pass, said posts being constructed and arranged to the end that as said carrier passes forward over the same from a retracted position the rod carried thereby will become lifted by said posts to pass over the same or said rod engage said posts and become dislodged from said carrier to fall alongside said posts as the carrier is moved in a reverse direction, and means for holding the rod dislodged from said carrier to fall alongside that set of posts nearest said carrier when in a retracted position.

3. In a folding machine, the combination with a table and sets of spaced posts thereon, of a carrier mounted to

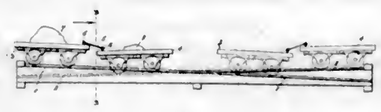
run over and above said table with a forward and reverse movement, said carrier being adapted in part to loosely carry any one of a number of rods to lie in a position on said carrier below the tops of said posts, said posts having associated therewith means for lifting the rod borne by the carrier whereby it may ride over said posts as said carrier is moved in one direction and said rod engage said posts and become displaced from said carrier to fall alongside said posts as said carrier is moved in a reverse direction.

4. In a folding machine, the combination with a table and sets of spaced posts, of a carrier mounted to run over and above said table, said carrier being provided at the forward end thereof with forwardly and downwardly-projecting arms with turned ends adapted to receive and loosely bear a rod laid therein transverse said table, said rod lying in a position below the tops of said posts, said posts having associated therewith means for lifting the rod borne by the carrier whereby it may ride over said posts as said carrier is moved in one direction and said rod engage said posts and become displaced from said carrier to fall alongside said posts as said carrier is moved in a reverse direction.

5. In a folding machine, the combination with a table, of a carrier mounted to run over and above said table with a forward and reverse movement, releasable means borne by said carrier adapted to carry the material to be folded and make a fold therein as said carrier is moved in one direction or become released from said carrier and hold said fold at the end thereof.

[Claims 6 to 13 not printed in the Gazette.]

1,135,631. CONVEYER. CHARLES A. STEWART, Andover, Mass. Filed Dec. 11, 1913. Serial No. 806,075. (Cl. 104—113.)



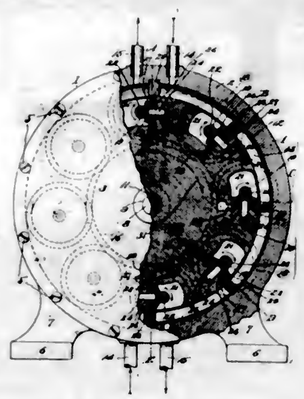
1. A conveyer comprising in combination separate tracks paralleling one another to extend over substantially the same space in the same general direction but oppositely inclined with relation to one another, members mounted to run respectively thereon and coöperating with one another whereby the energy of one during the downward movement thereof on one of said tracks may operate to exert force on the other of said members tending to raise the same on the other of said tracks.

2. A conveyer comprising in combination separate tracks paralleling one another to extend over substantially the same space in the same general direction but oppositely inclined with relation to one another, members mounted to run respectively thereon whereby said members when coupled may coöperate with one another and the energy of one of said members during the downward movement thereof on one of said tracks be transferred to the other of said members for elevating the same on the other of said tracks, and means for coupling said members.

3. A conveyer comprising in combination separate tracks paralleling one another to extend over substantially the same space in the same general direction but oppositely inclined with relation to one another, said tracks being otherwise arranged whereby the inclined planes occupied by said respective tracks may intersect one another within the extension of said tracks, members mounted to run on said respective tracks and coöperating with one another whereby the energy of one during the downward movement thereof on one of said tracks may operate to exert force on the other of said members tending to raise the same on the other of said tracks.

4. A conveyer comprising in combination separate double tracks each having double lines of rails, said respective tracks paralleling one another to extend over substantially the same space in the same general direction but the rails thereof being oppositely inclined and alternately arranged with relation to one another, members in substantial alinement with one another mounted to run upon said respective tracks and coöperating with one another whereby the energy of one during the downward movement thereof on one of said tracks may operate to exert force on the other of said members tending to raise the same on the other of said tracks.

1,135,632. ROTARY ENGINE. ARTHUR STIEB, East St. Louis, Ill. Filed Nov. 16, 1914. Serial No. 872,306. (Cl. 121—54.)



1. In a rotary engine, a casing adapted to inclose said engine, a rotatable piston in said casing, there being a pressure-fluid channel within said casing adjacent the peripheral face of said piston, said channel having a concave wall facing said peripheral face, barrier-blocks depending from said wall, said blocks being adapted to divide said channel across its length into equal non-communicating parts, each of said parts of said channel having a pressure-fluid inlet and a pressure-fluid outlet communicating therewith from without said casing, and a plurality of rotatable pressure-surface members peripherally borne by and adapted to rotate in radial planes in said piston, and mechanism adapted to rotate said pressure members.

2. In a rotary engine, a casing adapted to inclose said engine, a rotatable piston in said casing, there being a pressure-fluid channel within said casing adjacent the peripheral face of said piston, said channel having a concave wall facing said peripheral face, barrier-blocks depending from said wall, said blocks being adapted to divide said channel across its length into equal non-communicating parts, each of said channel-parts having a pressure-fluid inlet and a pressure-fluid outlet adjacent opposite ends adapted to establish communication from without said casing with said channel-parts, and a plurality of rotatable pressure-surface members peripherally borne by and adapted to rotate in radial planes in said piston, and mechanism adapted to rotate said pressure members.

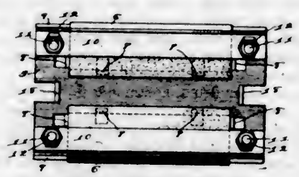
3. In a rotary engine, a casing adapted to inclose said engine, a rotatable piston in said casing, there being a pressure-fluid channel within said casing adjacent the peripheral face of said piston, said channel having a concave wall formed in an adjacent part of said casing, said concave wall facing said peripheral face, barrier-blocks depending from said wall and extending across said channel, said blocks being adapted to divide the length of said channel into equal non-communicating parts, each of said parts having a pressure-fluid inlet and a pressure-fluid outlet communicating therewith from without said casing, and a plurality of rotatable pressure-surface members peripherally borne by and adapted to rotate in radial planes in said piston, and mechanism adapted to rotate said pressure members.

4. In a rotary engine, a casing adapted to inclose said engine, a rotatable piston in said casing, there being a pressure-fluid channel within said casing adjacent the peripheral face of said piston, said channel having a concave wall opposite said peripheral face, barrier-blocks borne by said wall, said blocks being adapted to divide said channel across its length into equal non-communicating parts, means borne by said blocks adapted yieldingly to press a face of each block against an adjacent portion of said peripheral face, each of said channel-parts having a pressure-fluid inlet and a pressure-fluid outlet communicating therewith from without said casing, and a plurality of rotatable pressure-surface members peripherally borne by and adapted to rotate in radial planes in said piston, and mechanism adapted to rotate said pressure members.

5. In a rotary engine, a casing adapted to inclose said engine, a pair of opposite bearings in said casing, a driving shaft rotatably supported in said bearings, a rotatable piston secured to said shaft within said casing, there being a pressure-fluid channel within said casing adjacent the peripheral face of said piston, said channel having a concave wall opposite said peripheral face, barrier blocks yieldingly supported across said channel between said wall and said peripheral face, said blocks being adapted to divide said channel across its length into equal non-communicating parts, each of said channel-parts having a pressure-fluid inlet and a pressure-fluid outlet communicating with the outside through said casing, and a plurality of rotatable pressure-surface members peripherally borne by and adapted to rotate in radial planes in said piston, and mechanism adapted to rotate said pressure members.

[Claims 6 to 19 not printed in the Gazette.]

1,135,633. SHARPENER FOR RAZOR-BLADES. JAKE M. STIVERS and ANDREW C. ENOCHS, Oklahoma, Okla. Filed Jan. 18, 1915. Serial No. 2,954. (Cl. 51—16.)



1. In a device of the class described, a base, hones supported on the base side by side and tilted toward each other thereon, and means for guiding a blade in its sliding movement on said hones.

2. In a device of the class described, a base, hones mounted on the base and spaced apart thereon, bars resting on the hones to hold them in place, bolts passing up through the base and through said bars to hold said bars to the hones, and means for guiding a blade in a sliding movement on said hones.

3. In a device of the class described, a base, hones mounted on the base and spaced apart thereon, bars resting on the hones to clamp them in place, bolts passing up through the base and through said bars to hold the bars to the hones, a clamping device comprising two bars adapted to engage opposite faces of a blade, said device being adapted to project down between the edges of the hones and be guided thereby during sliding movements of the blade on said hones.

1,135,634. BREAD BOARD OR PEEL. ANTONI F. SZCZEPANSKI, Detroit, Mich. Filed Aug. 31, 1914. Serial No. 859,270. (Cl. 107—67.)

1. A bread board or peel comprising a body and a handle by which the body may be wholly supported and with reference to the axis of which the body is substantially symmetrical, said body having a slot formed in one edge and said slot merging into a depression in the lower side of the body, means on the handle conforming to the depression in the body and extending through the slot to interlock with a part of the body, whereby relative angular movement of the body in respect to the handle in one direction is prevented.



2. A bread board or peel comprising a body, means whereby a socket is formed in the upper part of the body near one edge thereof, a detachable handle having an end portion arranged to engage with the lower side of the body at a point inwardly beyond the socket, said handle also having means thereon arranged to enter the socket from below and serving to prevent the handle from being accidentally detached from the body by being swung downwardly about its own inner end as a fulcrum.

3. A bread board or peel comprising a body and a detachable handle by which the body may be wholly supported and with reference to the axis of which the body is symmetrical, means whereby a socket is formed in the body near one edge thereof, said handle having an end portion arranged to engage with the lower portion of the body at a point inwardly beyond the socket, said handle also having means thereon arranged to enter the socket from below and serving to prevent the handle from being accidentally detached from the body by being swung downwardly about its own inner end as a fulcrum.

4. A bread board or peel comprising two members, one a body and the other a detachable handle by which the body may be wholly supported and with reference to the axis of which the body is symmetrical, said handle having an end portion arranged to engage with one face of the body, one of the members having a socket therein, and the other member having a projection thereon received in said socket, said socket and said projection being located outside of the point at which the end of the handle engages with the body, and means for normally preventing the projection from being withdrawn from the socket either by a swinging movement of the handle in one direction about its inner end or by a swinging movement in the opposite direction about the point of connection of the socket and projection.

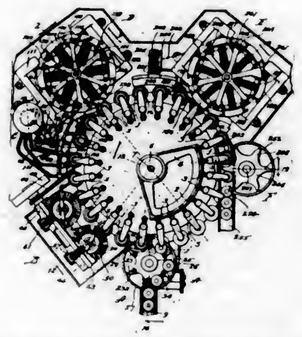
5. A bread board or peel comprising two members, one a body and the other a detachable handle by which the body may be wholly supported and with reference to the axis of which the body is symmetrical, said handle having an end portion arranged to engage with one face of the body, one of the members having a socket therein, and the other member having a projection thereon received in said socket, said socket and said projection being located outside of the point at which the end of the handle engages with the body, said socket and said projection being proportioned to allow limited longitudinal movement of the handle in respect to the body when the projection is received in the socket, and means whereby, when the handle is at one limit of its longitudinal movement, swinging movement of the handle about its inner end is prevented and whereby, when the handle is at the other limit of its longitudinal movement, such swinging movement of the handle about its inner end is allowed.

[Claim 6 not printed in the Gazette.]

1,135,635. LABELING-MACHINE. AUGUST TIESSE, Chicago, Ill. Filed Apr. 10, 1913. Serial No. 760,279. (Cl. 216—13.)

1. In a labeling machine, the combination of a main rotary supporting member, an auxiliary member rotatably mounted on the same and adapted to form a rotative support for an article to be labeled, a supporting frame rotatably mounted adjacent to said main rotary support.

ing member, a label-containing receptacle pivotally mounted on said frame and adapted to support a label in position to engage the surface of said article, means for rotating the main rotary supporting member, means for rotating the auxiliary supporting member simultaneously with the main rotary supporting member, and means for rotating said frame.



2. In a labeling machine, the combination of a main rotary supporting member, a spindle rotatably mounted on the same and adapted to support the article to be labeled, a supporting frame rotatably mounted adjacent to the main rotary supporting member, a plurality of label-containing receptacles yieldably mounted on said supporting frame, means for rotating the main rotary supporting member, means for rotating the supporting frame, and means for rotating the spindle.

3. In a labeling machine, the combination of a main rotary supporting member, a series of auxiliary supporting members rotatably mounted on the same and adapted to form supports for articles to be labeled, means for applying adhesive material to the surface of the articles, a supporting frame rotatably mounted adjacent to the main rotary supporting member, a plurality of label-containing boxes pivotally and yieldably mounted on said frame, means for rotating the main rotary supporting member, means for rotating the auxiliary supporting members, and means for rotating said supporting frame.

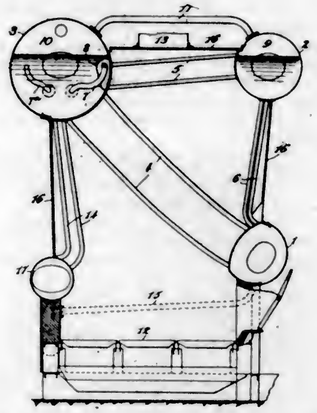
4. In a labeling machine, the combination of a main rotary supporting member, a series of spindles rotatably mounted on the same and adapted to support articles to be labeled, a supporting frame rotatably mounted adjacent to the main rotary supporting member, a plurality of label-containing boxes yieldably mounted on said supporting frame, means for rotating the main rotary supporting member, means for rotating said spindles, and means for rotating said supporting frame simultaneously with the main supporting member.

5. In a labeling machine, the combination of a main rotary supporting member, a vertical spindle rotatively mounted on the same and adapted to support an article to be labeled, means for applying adhesive material to the surface of the article, embracing a nozzle adapted to yieldingly engage said article, a label receptacle mounted adjacent to the main rotary supporting member and adapted to support a label in position to engage the surface of the article, means for rotating the main rotary supporting member, and means for rotating the spindle.

[Claims 6 to 28 not printed in the Gazette.]

1,135,636. WATER-TUBE MARINE BOILER. MARIO VALLINO, Genoa, Italy, assignor to Società Anonima Italiana Gio. Ansaldo & Co., Genoa, Italy. Filed May 27, 1913. Serial No. 770,197. (Cl. 122—301.)

1. In a water tube steam boiler of the type hereinbefore specified, the combination with a rear transverse upper steam and water drum, and a front transverse upper steam and water drum of connecting tubes exposed to the hot furnace gases, connecting the water space of said rear upper drum with the water space of said front upper drum, a chamber in the water space of said rear upper drum inclosing the orifices of said connecting tubes, and feed water supply pipes for delivering into or outside the said chamber, whereby said connecting tubes are enabled to operate if desired, as the tubes of an economizer for heating the feed water before delivering same into said front upper drum.



2. In a water tube steam boiler of the type hereinbefore specified, the combination with a rear transverse upper steam and water drum, and a front transverse upper steam and water drum, a lower water drum, water tubes located directly over the fire, extending diagonally from the water space of said rear upper drum to said lower water drum, pipes connecting the steam space of said rear upper drum with the steam space of said front upper drum and down tubes connecting the water space of said front upper drum with said lower drum, of connecting tubes exposed to the hot furnace gases, connecting the water space of said rear upper drum with the water space of said front upper drum, a chamber in the water space of said rear upper drum inclosing the orifices of said connecting tubes, and feed water supply pipes for delivering into or outside the said chamber, whereby said connecting tubes are enabled to operate if desired as the tubes of an economizer for heating the feed water before delivering same into said front upper drum.

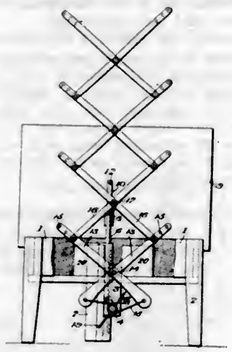
1,135,637. COMBINED TABLE AND CLOTHES-DRIER. HENRY C. VOGEL, Philadelphia, Pa.; Caroline Vogel administratrix of said Henry C. Vogel, deceased. Filed Nov. 14, 1907. Serial No. 402,065. (Cl. 68—10.)

1. In a device of the character described, a table, a clothes rack foldable therein, and means for elevating the table top and opening the clothes rack simultaneously into operative position.

2. In a device of the character described, a table, having a top hinged thereto, a clothes rack foldable in said table, and means for simultaneously raising said top and opening said clothes rack and for locking said top in its elevated position.

3. In a device of the character described, a table, a top, a clothes rack foldable in said table, a rack bar suitably supported, means engaging said rack bar for raising and lowering the same, and a roller on said rack bar engaging with the table top to elevate the same and hold it in elevated position, and means for elevating said clothes rack.

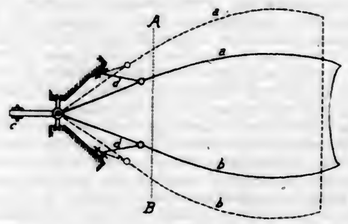
4. In a device of the character described, a table, a top hinged thereto, a clothes rack foldable in said table, a shaft suitably supported and having a gear, a rack bar suitably supported and engaged by said gear, a roller on said rack bar, a track on said top with which said roller is adapted to contact when the top is in elevated position, and means for elevating said clothes rack.



5. In a device of the character described, a table, a top hinged thereto, a clothes rack foldable in said table, a shaft journaled in said table, a gear on said shaft, a rack bar with which said gear meshes, a roller on said rack bar, a track on said table having an inclined face leading thereto and with which track and face the roller contacts, and means connected with said clothes rack and adapted to be suitably actuated by the rotation of said shaft for elevating or lowering said clothes rack.

[Claims 6 to 9 not printed in the Gazette.]

1,135,638. FLYING-MACHINE. GEORG VORNDRAN, Stuttgart, Germany. Filed May 31, 1913. Serial No. 771,056. (Cl. 244—27.)



1. In a flying machine the combination with flapping wings having relatively movable arms and intermediate stretched fabric, of means for moving the arms relatively nearer to each other during the first half of the downward stroke and relatively farther from each other during the second half of the downward stroke.

2. In a flying machine the combination with flapping wings having relatively movable arms and intermediate stretched fabric, of means for moving the arms relatively nearer to each other during the first half of the downward stroke and relatively farther from each other during the second half of the downward stroke comprising two rods each movably connected to said arms and to a fixed point in the plane of the mean position of the wing.

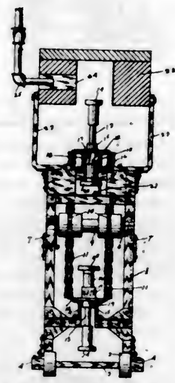
3. In a flying machine the combination with flapping wings having relatively movable arms and intermediate stretched fabric, of means for moving the arms relatively nearer each other during the first half of the downward stroke and relatively farther from each other during the second half of the downward stroke while one of the said arms is in a stationary position relatively to the flying machine body.

1,135,639. FERTILIZER CONTAINING LIME NITROGEN AND TANKAGE MATERIAL. FRANK S. WASHBURN, Nashville, Tenn. Filed Nov. 17, 1914. Serial No. 872,627. (Cl. 21—9.)

1. The process of completing the drying of a tankage fertilizer material, while at the same time increasing its nitrogen content and fixing a portion of its contained moisture, which consists in intimately mixing commercial calcium cyanamid, or lime nitrogen, in predetermined proportions to said material, substantially as described.

2. The herein described dust free fertilizer consisting of dried tankage material containing phosphoric material and fixed moisture, and sufficient crude cyanamid to have fixed said moisture, substantially as described.

1,135,640. GLASS-GLAZING MACHINE. HARRY C. WATSON, Lancaster, Ohio. Filed May 15, 1914. Serial No. 838,875. (Cl. 49—58.)



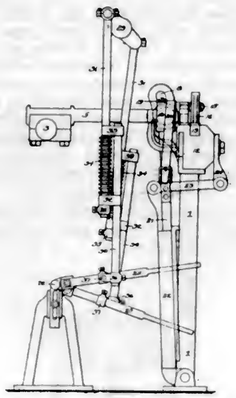
1. An apparatus of the character described comprising a suitable frame, an endless chain conveyer mounted on said frame, vertical ware supporting standards supported from said conveyer at approximately their center, ware supporting cups on the outside ends of said standards, spaced guide members extending the length of the conveyer between the chains thereof, square collars on said standards slidingly fitting between said guide members to maintain said standards in true vertical position, friction wheels on the inside ends of said standards adjacent said collars, and a track member carried by said framework against which said friction wheels are adapted to bear to rotate said standards as the conveyer moves.

2. An apparatus of the character described comprising a suitable frame, a conveyer formed of a pair of spaced endless chains mounted in said frame, flat base plates spanning the distance between and secured to said chains, vertical ware supporting standards supported from said plates at approximately their center, ware supporting cups on the outside ends of said standards, spaced guide members extending the length of the conveyer between the chains thereof against which said base plates rest, square collars on said standards slidingly fitting between said guide members to maintain said standards in true vertical position, friction wheels on the inside ends of said standards adjacent said collars, and a track member carried by said framework against which said friction wheels are arranged to bear to rotate said standards as the conveyer moves.

1,135,641. NARROW-WARE LOOM. ANDREW WEIMAR, Philadelphia, Pa., assignor to Andrew Weimar and William D. Weimar, Philadelphia, Pa., trading as Firm of Weimar Brothers. Original application filed Dec. 30, 1911, Serial No. 668,784. Divided and this application filed June 12, 1912. Serial No. 703,289. (Cl. 139—49.)

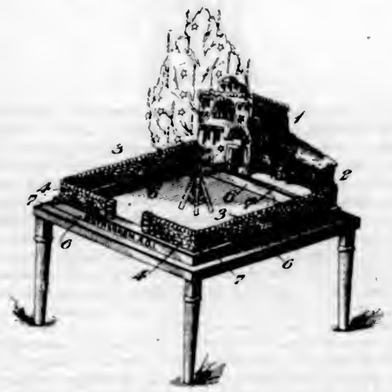
The combination of the shuttle actuating drum, the reversely disposed straps thereon, slides connected to said

straps, picker levers for reciprocating said slides, means for actuating said picker levers, and a frame in which said slides are guided in their reciprocation, said frame being



separate from the lay but pivoted concentrically therewith, and means for actuating said frame so as to vibrate it in unison with the lay.

1,135,642. CHRISTMAS-TREE GARDEN. JOHN A. WIEDERSHEIM, Philadelphia, Pa. Filed Apr. 17, 1914. Serial No. 832,424. (Cl. 46—37.)



1. A Christmas tree garden composed of a scenic-wall simulating a stable and the event of the birth of the Christ-child therein, other walls flexibly connected to each other and with said scenic-wall simulating a fence forming with said wall an inclosure for a Christmas tree, and a base of separable sections adapted to support said walls in upright position with said sections in connected condition.

2. In a Christmas tree garden, an inclosure formed of side walls hingedly united to be folded on each other, and means for supporting said walls in upright position, said means being formed of members that may be folded on each other.

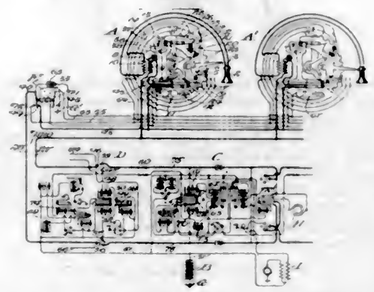
3. In a Christmas tree garden, an inclosure formed of side-walls flexibly connected at their meeting ends, and base blocks having grooves in their upper faces for the reception of the lower edges of said side-walls and having the terminals of said grooves at the contiguous ends of said blocks registering.

4. In a Christmas tree garden, an inclosure formed of a side-wall representing a building structure and other walls extending from the ends of such structure, said walls being flexibly connected at their meeting ends, and base-blocks formed with grooves in their upper faces into which the lower edges of said side-walls fit and having the terminals of said grooves at the contiguous ends of said blocks registering and communicating.

5. In a Christmas tree garden, a base-structure of separate blocks formed in its upper face with grooves circumscribing the outline of an inclosure, and side walls of flexibly connected sections forming such inclosure and having their lower edges inserted into said grooves and having their outlines shaped to represent a building structure and side walls extending from such structure.

[Claims 6 and 7 not printed in the Gazette.]

1,135,643. PARTY-LINE TELEPHONE SYSTEM. BERNARD D. WILLIS, Chicago, Ill., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Filed Nov. 13, 1906. Serial No. 343,218. (Cl. 179—17.)



1. In a telephone exchange system, the combination of automatic means for trunking between calling and called subscribers, a telephone line, a plurality of substations on said line, subscribers' switch-hooks, telephones on said switch-hooks, a ground connection common to all of said substations, substation calling devices for utilizing said ground connection in sending ground impulses over the line to operate said automatic trunking means, a relay for severing the ground connection, and means for energizing said relay by the taking down of any telephone.

2. In a telephone exchange system, the combination of automatic means for trunking between calling and called subscribers, a telephone line, a plurality of substations on said line, subscribers' switch-hooks, telephones on said switch-hooks, a ground connection common to all of said substations, substation calling devices for utilizing said ground connection in sending ground impulses over the line to operate said automatic trunking means, a relay for severing the ground connection, means for energizing said relay by the taking down of any telephone, and common battery means for supplying current to the said line for both trunking and talking purposes.

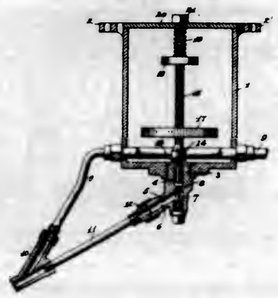
3. In a telephone exchange system, the combination of a telephone line, a plurality of grounded substations on said line, switch-hooks at said substations, telephones on said switch-hooks, and automatic means for disconnecting all substations from ground by the taking down of any telephone.

4. In a telephone exchange system, the combination of a telephone line, a plurality of grounded substations on said line, switch-hooks at said substations, telephones on said switch-hooks, automatic means for disconnecting all substations from ground by the taking down of any telephone, and a central battery or source for supplying current to the said line for talking purposes.

5. In a telephone exchange system, the combination of a telephone line, a plurality of grounded substations on said line, switch-hooks at said substations, telephones on said switch-hooks, automatic means for disconnecting all substations from ground by the taking down of any telephone, and a central battery or source for supplying current to the said line for talking purposes, said automatic means including a ground-controlling relay common to all of said substations.

[Claims 6 to 11 not printed in the Gazette.]

1,135,644. LUBRICATOR. ROBERT WOOD, Brooklyn, N. Y., assignor to The Nathan Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Aug. 15, 1914. Serial No. 856,928. (Cl. 184—60.)



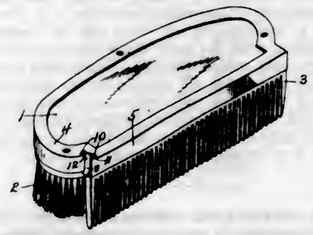
1. In a device of the kind described, a reservoir subject to vibration, a steam pipe extending therethrough, an outlet for the reservoir, a wabbling valve controlling the outlet, and a connection between the outlet and the steam pipe.

2. In a device of the kind described, a reservoir subject to vibration, an outlet for the reservoir, a discharge pipe connected to the outlet, a wabbling valve controlling the outlet, a steam pipe arranged around the outlet, and a connection between the discharge pipe and the steam pipe.

3. In a device of the kind described, a reservoir subject to vibration, a steam pipe extending therethrough, an outlet for the reservoir, a valve controlling the outlet, a connection between the outlet and the steam pipe, and a check valve arranged beneath the valve for preventing the backward movement of the fluid to the reservoir.

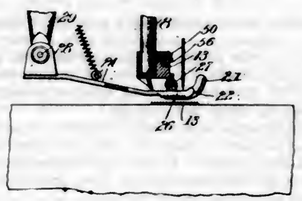
4. In a device of the kind described, a reservoir subject to vibration, a steam pipe extending therethrough, an outlet for the reservoir, a wabbling valve controlling the outlet, said valve including a threaded rod, a weight arranged for adjustment thereon, an adjustable disk on the rod arranged above the weight, a spring on the end of the rod, means for tensioning the spring, and a connection between the outlet and the steam pipe.

1,135,645. COMBINED BRUSH AND COMB. WILLIAM E. WOODALL, Nashville, Tenn. Filed May 12, 1913. Serial No. 766,991. (Cl. 132—3.)



A brush having a body provided with a straight edge, and a band encircling said body and secured thereto and spaced apart from the straight edge to form a socket adapted to receive a comb, the band at one end of the socket having means for engaging releasably a comb, the other end of the socket being open, and a spring actuated locking device pivoted to the body and adapted to close the open end of the socket and having means for releasably engaging a comb.

1,135,646. FEEDING MECHANISM FOR SEWING-MACHINES. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 18, 1909. Serial No. 518,332. (Cl. 112—8.)



1. The combination with a presser foot, a feeding mechanism including an upper feed dog, means for supporting and moving said upper feed dog back and forth with the fabric engaging surface thereof above the fabric engaging surface of the presser foot, a lower feed dog, means for raising said lower feed dog into contact with the material and for raising the material into contact with the upper feed dog, and means for moving said lower feed dog back and forth whereby the material is gripped and fed by said feed dogs.

2. The combination with a presser foot, a feeding mechanism including an upper feed dog, means for supporting and moving said upper feed dog back and forth with the fabric engaging surface thereof above the fabric engaging surface of the presser foot, a lower feed dog, means for raising said lower feed dog into contact with the material and for raising the material into contact with the upper feed dog, means for moving said lower feed dog back and forth whereby the material is gripped and fed by said feed dogs, and said means for moving the upper feed dog back and forth being adjustable, whereby said upper feed dog may be given a differential movement relative to the lower feed dog.

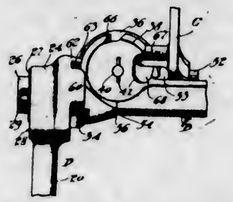
3. The combination with a presser foot and a feeding mechanism including an upper feed dog having fabric engaging teeth, a bearing carried by said presser foot on which said feed dog slides, means for holding said feed dog in engagement with said bearing, means for moving the feed dog back and forth in contact with said bearing, the feed engaging surface of said feed dog being at all times slightly above the fabric engaging surface of said presser foot, and a lower feed dog coöperating with said upper feed dog for raising the fabric into engagement with said upper feed dog.

4. The combination with a work support, of a presser foot, and feeding mechanism including an upper feed dog, means for normally holding said feed dog so that it moves back and forth in fixed vertical relation to the presser foot, and with its fabric engaging surface above the lower surface of the presser foot, means for moving the material into engagement with said upper feed dog, and means for moving the upper feed dog to feed the material.

5. A feeding mechanism including in combination, an upper feed dog, a rock shaft to which said feed dog is pivotally connected, yielding means for swinging said feed dog upward about its pivotal connection, means for oscillating said rock shaft, and means for limiting the upward movement of said feed dog about its pivotal connection with the rock shaft.

[Claims 6 to 23 not printed in the Gazette.]

1,135,647. FOLDING CHAIR. BROR A. ADLER, Chicago, Ill., assignor of one-half to Peter A. Lorens, Chicago, Ill. Filed Feb. 19, 1914. Serial No. 819,708. (Cl. 155—22.)



1. A folding chair comprising a support, a bracket pivoted to the support on a horizontal axis, a seat carrying arm pivoted to the bracket on an axis at right angles to the first mentioned axis, a seat carried thereby and means for locking the said seat carrying arm and bracket to prevent movements about their pivots.

2. A folding chair comprising a support, a bracket pivoted to the support, a seat carrying arm pivoted to the bracket, a back pivoted to the seat carrying arm, and means whereby said bracket and seat carrying arm are locked from movement about their axes when said back is elevated into position for use.

3. A folding chair comprising a support, a bracket pivoted to the said support, means for limiting the movement of said bracket upon its pivot, a seat carrying arm pivoted to the bracket on an axis at right angles to the first mentioned axis, a seat carried thereby, a back pivoted to the said seat carrying arm, and means carried by the said back for locking the said parts to prevent movement of the seat carrying arm or the bracket about their pivots.

4. In a folding chair the combination of a support, a bracket pivoted therein, stops for limiting the movement of said bracket support to approximately 90 degrees from a horizontal to a vertical position, a seat carrying arm pivoted in the bracket, stop for limiting the movement of the said arm to approximately 90 degrees from a horizontal to a vertical position, a lock carried by said seat carrying arm to prevent the movement of said bracket upon its pivotal support when the arm is in horizontal position and a lock carried by the seat carrying arm to lock the same in a horizontal position.

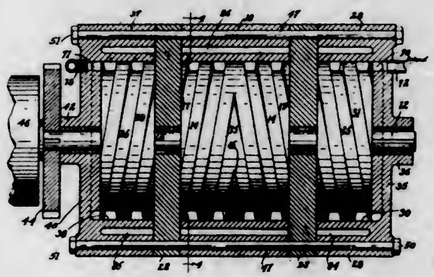
5. In a folding chair the combination of a vertical support terminating at its upper end in a cylindrical head having an opening therein, a bracket journaled in the said opening and having a disk-like extension thereon, a lug extending from the said bracket into an arcuate slot in the support thereby limiting the pivotal movement of the bracket, a seat carrying arm having disk-like projections extending on each side of the disk portion of the bracket and pivoted thereto, the said disk-like projections on the seat carrying arm engaging with slots in the cylindrical head of the support, a stop on the said arm engaging with a shoulder on the bracket when the arm is in horizontal position, said disk like extensions of the seat carrying arm having slots formed therein to permit the disk moving out of the slots in the support when the arm is in a vertical position.

[Claims 6 to 12 not printed in the Gazette.]

1,135,648. INTERNAL-COMBUSTION TURBINE. CHARLES E. F. AHLM and CLYDE E. COCHRAN, Cleveland, Ohio. Filed Nov. 28, 1913. Serial No. 803,372. (Cl. 123—12.)

1. In a turbine engine, the combination of a pair of rotary members each having ribs and grooves on its periphery, the ribs of one member adapted to enter the grooves of another, a casing surrounding said rotary members having bores fitting the periphery of the ribs, an inlet port, rotary members for compressing a charge of air and discharging it through said inlet port thereafter closing the same, and an exhaust passage leading from the rotary members.

2. In a turbine engine, the combination of a pair of rotary members each having ribs and grooves on its periphery, a casing surrounding said members having an inlet port, a second pair of rotary members in axial alinement with the first pair and connected therewith and having coacting ribs and grooves, a passage for air leading from the first mentioned pair of members to the second mentioned pair, said first mentioned pair of members being adapted to compress a charge of air and force the same through said passage, said members thereafter successively closing said passage.



3. A turbine engine comprising a combination of a pair of rotary members each having helical ribs and grooves on its periphery, a casing in which said members are mounted so that the ribs of one enter the grooves of another, communicating bores in the casing surrounding the members, a passage for bringing the charge of fuel to the grooves of a member on one side of the center, means operated by the rotary members for thereafter closing the passage, means for igniting the charge to rotate the member by its expansion in the groove, and an exhaust port through which the charge escapes after rotating the member.

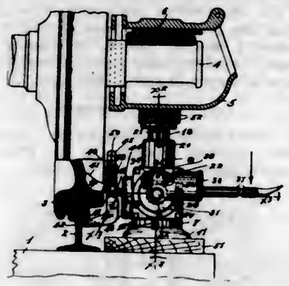
4. A turbine engine comprising the combination of a cylindrical rotary member having helical ribs and grooves on its periphery, a casing surrounding said member having bores into which the ribs fit, means adapted to fit into the grooves at one side of the mounting of the rotary member while allowing the member to rotate, an inlet passage in the casing communicating with these grooves at one end of the rotary member adjacent said means, rotary compressors adapted to alternately force fluid through the passage and close the same, and an exhaust port communicating with the grooves at the outer end of the rotary member.

5. A turbine engine, comprising a pair of cylindrical rotary members each having helical ribs and grooves on its periphery, ribs on one member adapted to fit grooves of the other member, a second similar pair of rotary members in axial alinement with the first pair, a casing having two cylindrical bores fitting the ribs of each member and communicating at a point where the ribs mesh with the grooves, an inlet passage adjacent the point of meshing communicating with the grooves of the first mentioned rotary members, a passage leading from below the point of meshing of one pair of members to a point above the point of meshing on the other pair of members and communicating with the ends of the grooves of each pair of members, said second-named members being adapted to compress air and force the same from the last mentioned passage and thereafter close the same, a fuel inlet in this passage, and an exhaust port communicating with the ends of the grooves in the first mentioned pair of members.

[Claims 6 to 15 not printed in the Gazette.]

1,135,649. OPERATING MECHANISM FOR LIFTING-JACKS. EMERY T. ALYEA, Minneapolis, Minn. Filed Jan. 30, 1914. Serial No. 815,357. (Cl. 74—54.)

1. The combination with a shaft, of two ratchet wheels, one loose and the other fixed, on said shaft, and motion-reversing gears connecting said loose ratchet wheel with said shaft.



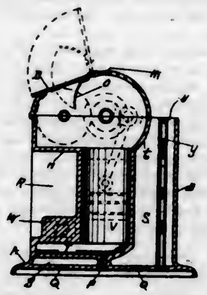
2. The combination with a shaft, of two ratchet wheels, one loose and the other fixed, on said shaft, motion-reversing gears connecting said loose ratchet wheel with said shaft, a lever-actuated driving head journaled on said shaft, and a pair of driving dogs pivotally mounted on said driving head for coöperation, one with each of said ratchet wheels.

3. The combination with a shaft, of two ratchet wheels, one loose and the other fixed, on said shaft, motion-reversing gears connecting said loose ratchet wheel with said shaft, a lever-actuated driving head journaled on said shaft, a pair of driving dogs pivotally mounted on said driving head for coöperation, one with each of said ratchet wheels, and means for independently holding said driving dogs in inoperative positions.

4. The combination with a shaft, of two ratchet wheels, one loose and the other fixed, on said shaft, motion-reversing gears connecting said loose ratchet wheel with said shaft, a driving head journaled on said shaft, a lever secured to said head by a bayonet joint, a pair of driving dogs pivotally mounted on said head for coöperation, one with each of said ratchet wheels, and means for independently holding said driving dogs in inoperative positions.

5. The combination with a shaft, of two ratchet wheels, one loose and the other fixed, on said shaft, and a motion-reversing device connecting said loose ratchet wheel with said shaft and comprising a pair of bevel gears, placed face to face and rigidly secured, one to said loose ratchet wheel and the other to said shaft, and a bevel pinion journaled on a fixed support and meshing with said two bevel gears.

1,135,650. GAS-ENGINE. FREDERICK C. AVERY, Chicago, Ill. Filed Nov. 10, 1910. Serial No. 591,729. (Cl. 123—173.)



1. A gas engine comprising an exterior casing the exterior walls whereof are adapted to form a water-chamber, a flange extending from the inner face of said casing, a cylinder pendent from said flange, inlet and outlet ports in the bottom of said cylinder, passage-ways extending from said ports to the walls of said casing, valve compartments extending from said ports and said flange, a crank-shaft and cam-shaft journaled in said casing above said flange, valves operable by said cam-shaft, and means connecting said valves with said cam-shaft through said passage-ways.

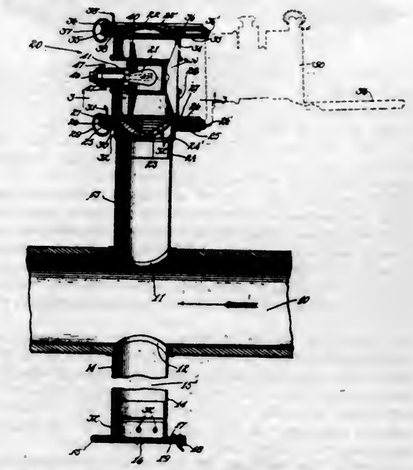
2. A gas engine comprising an exterior casing the exterior walls whereof are adapted to form a water-chamber, a flange extending from the inner face of said casing, a cylinder pendent from said flange, inlet and outlet ports in the bottom of said cylinder, passage-ways extending from said ports to the walls of said casing, valve compartments extending from said ports and said flange, the walls of said casing, cylinder and ports being integral, a crank-shaft and cam-shaft journaled in said casing above said flange, valves operable by said cam-shaft, and means connecting said valves with said cam-shaft through said passage-ways.

3. In a gas engine, a hollow body open at the top, a cylinder, an inlet chest, an exhaust chest, all cast in one integral whole, a crank shaft and a cam shaft mounted on the upper edge of said body and above the cylinder, a cover for said body adapted to hold the crank and cam shaft in place, said cover having an opening therein, a lid covering said opening, said lid when closed forming a part of the cover, and a shield or splasher attached to said lid.

4. In a gas engine, a hollow body adapted to form a water chamber, a cylinder, an inlet chest, an exhaust chest, all cast in one piece, a crank shaft and a cam shaft having bearings on said body above the cylinder, a cover for said body, geared connection between the crank shaft and the cam shaft and a pulley on said cam shaft outside of the said body and cover.

5. In a gas engine, a hollow body adapted to form an open water chamber, a cylinder, an inlet chest, an exhaust chest, all cast in one integral whole, a crank shaft and a cam shaft mounted on said base and operatively connected, a cover on said body adapted to form a housing for the shafts and the gears connecting said shafts, and a driving pulley mounted on said cam shaft.

1,135,651. SMOKE-INDICATOR. IRA J. BABCOCK, Chicago, Ill. Filed July 8, 1914. Serial No. 849,682. (Cl. 240—44.)



1. In a device of the character described, the combination of two tubular, axially alining, spaced apart sections, a lens carried by one section, a reflector carried by the other section and a lamp carrier positioned intermediate said sections and having projecting parts telescopically engaging therewith.

2. In a device of the character described, the combination of two tubular, spaced apart, axially alining sections, a lens carried by one of said sections, a reflector carried by the other section, a lamp carrier positioned intermediate the sections and having projecting parts slidably engaging therewith and means independent of the inter-engaging parts for supporting one only of said sections.

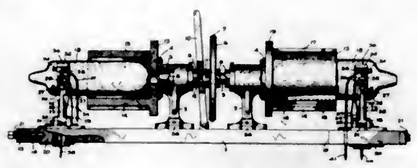
3. In a device of the character described, the combination of two tubular, spaced apart, axially alining sections, a lens carried by one of said sections, a reflector carried by the other section, a lamp carrier positioned intermediate the sections and having projecting parts slidably and rotatably engaging therewith and means independent of the inter-engaging parts for supporting one of said sections.

4. In a device of the character described, the combination of a lamp structure comprising two tubular, spaced apart, axially alining sections, a lens carried by one section, a reflector carried by the other and a source of light carrier intermediate said sections and telescopically engaging therewith; a tubular support in axial alinement with said tubular sections and hinge connections between said lamp structure and said support.

5. In a device of the character described, the combination of a lamp structure comprising two tubular, spaced apart axially alining sections, a reflector carried by one section and a source of light support intermediate said sections and forming a connection therebetween; a tubular support in axial alinement with said tubular sections, a hinge connection between said support and the section not carrying the reflector and a lens-carrying annular ring adapted to be clamped between the last mentioned section and said support.

[Claims 6 and 7 not printed in the Gazette.]

1,135,652. CRACKING-OFF MACHINE. FREDERICK W. BARTLETT, Caldwell borough, N. J. Filed Sept. 27, 1913. Serial No. 792,205. (Cl. 49—50.)



1. Means for cracking off a hollow cylindrical glass blank, comprising a rotatable chuck, a glass cutting tool mounted to move in a direction perpendicular to the axis of said blank, a resistance wire adapted to come in contact with the opposite side of said blank in the same plane of movement as said tool and a source of electric current in circuit with said wire.

2. Means for cracking off a hollow cylindrical glass blank, comprising a rotatable chuck having a body made in halves hinged together, a glass cutting tool, an arm carrying said tool and movable in a plane perpendicular to the axis of said blank, a pair of terminals in the same plane as the tool, a resistance wire connected to said terminals, and a source of electric current in circuit with said terminals.

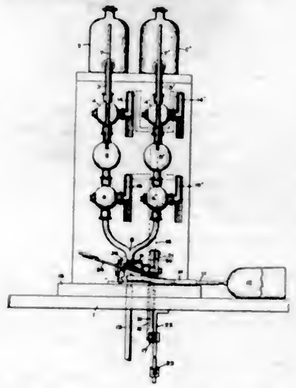
3. Means for cracking off a hollow cylindrical glass blank, comprising a rotatable sleeve, a driving shaft, a clutch for connecting said shaft and sleeve, a chuck secured to said sleeve, a scoring tool movable toward and away from the blank, a resistance wire lying in the same plane of movement as the tool, and means for applying the same to the score made by the tool.

4. Means for cracking off a hollow cylindrical glass blank, comprising a rotatable chuck, an arm hinged to swing in a plane perpendicular to the axis of the blank, a scoring tool adjustably mounted on said arm, a spring biasing said arm away from said blank, a resistance wire and means for applying the same to the score made by said tool.

5. Means for cracking off a hollow cylindrical glass blank, comprising a rotatable chuck, two arms hinged to swing in planes perpendicular to the axis of said blank, a scoring tool mounted on one arm, a terminal mounted on the other arm in the same plane as that in which the tool operates, a binding post in said plane, and a resistance wire connecting said terminal and post.

[Claims 6 to 9 not printed in the Gazette.]

1,135,653. SILVERING APPARATUS. FREDERICK W. BARTLETT, Caldwell borough, N. J. Filed Sept. 27, 1913. Serial No. 792,207. (Cl. 91—12.4.)



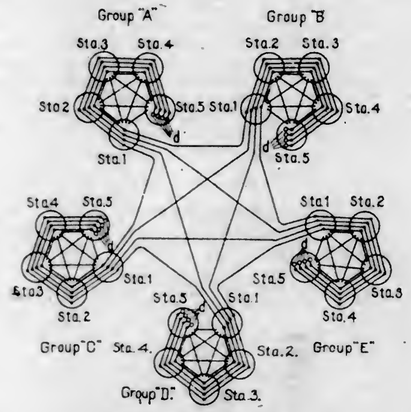
1. Apparatus for silvering vacuum bottles, comprising reservoirs for silvering and reducing solutions, measuring bulbs connected with said reservoirs, flow-controlling devices between said reservoirs and bulbs, a mixing tube connected with said bulbs, flow-controlling devices between said bulbs and tube, means for connecting said tube with the bottles to be silvered, said means being provided with flow-controlling devices, and operative connections between all of said flow-controlling devices whereby the continuous operation of said connections will first admit both solutions into their measuring bulbs, then shut off the flow from the reservoir and admit the measured quantities of both solutions to the mixing tube.

2. Apparatus for silvering vacuum bottles, comprising reservoirs for the silvering and reducing solutions, measuring bulbs connected with said reservoirs and provided with vent pipes, stop cocks between said reservoirs and bulbs, a mixing tube connected with said bulbs, discharge cocks between said bulbs and said mixing tube, and means for simultaneously opening said stop cocks and then closing them and subsequently opening said discharge cocks.

3. Apparatus for silvering vacuum bottles, comprising reservoirs for the silvering and reducing solutions, measuring bulbs connected with said reservoirs, stop cocks between said reservoirs and bulbs, a mixing tube connected with said bulbs, discharge cocks between said bulbs and mixing tube, a three-way cock connected to said mixing tube, a vacuum pipe connected to said three-way cock, a flexible pipe connected to said three-way cock, and a single means for opening and closing all of said cocks in the proper order to first create a vacuum in the interwall space of the bottle, then measure out a definite quantity of each solution, then cut off the solutions and admit them to the mixing tube and the bottle.

1,135,654. INTERCOMMUNICATING TRUNK-LINE TELEPHONE SYSTEM. RICHARD M. BEARD, New York, N. Y. Filed Mar. 1, 1907, Serial No. 360,006. Renewed Aug. 25, 1914. Serial No. 858,520. (Cl. 179—39.)

1. In a telephone system, a plurality of groups of stations every group of which is connected to every other group by separate line wires constituting trunk connections, and a plurality of stations in each group every station of which is connected to every other station by separate local line wires, said trunk line wires being extended through all of the stations of their respective groups, and means whereby both battery and voice currents are impressed upon the trunk lines during telephonic communication.



2. In a telephone system, a plurality of groups of stations every group of which is connected to every other group by separate line wires constituting trunk connections, and a plurality of stations in each group every station of which is connected to every other station by separate local line wires, said trunk line wires being extended through all of the stations of their respective groups and terminating in a station having signals different from the other stations and constituting a monitor's station for each group, and means for impressing a battery current on said trunk line wires when they are transmitting messages, to operate the said signals.

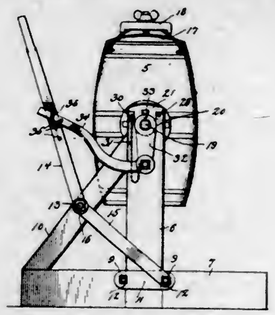
3. In a telephone system, a plurality of groups of stations every group of which is connected to every other group by separate line wires constituting trunk connections, and a plurality of stations in each group every station of which is connected to every other station by separate local line wires, said trunk line wires being extended through all of the stations of their respective groups, busy signals connected to said trunk line wires, and means for impressing a battery current on said trunk line wires when they are transmitting messages, to operate the said signals.

4. In a telephone system, a plurality of groups of stations each group of which is connected to every other group by separate line wires constituting trunk connections and a plurality of stations in each group every station of which is connected to every other station by separate local line wires, said trunk line wires being extended through all the stations of the respective groups, and means for interrupting said trunk line wires beyond any station of a group when such station is in telephonic communication over said trunk line wires.

5. In a telephone system, a plurality of groups of stations each group of which is connected to every other group by separate line wires constituting trunk connections and a plurality of stations in each group every station of which is connected to every other station by separate local line wires, said trunk line wires being extended through all the stations of the respective groups, means whereby induced currents alone are impressed on the local line wires during telephonic communication, and means whereby both battery current and voice currents are impressed on the trunk lines during telephonic communication.

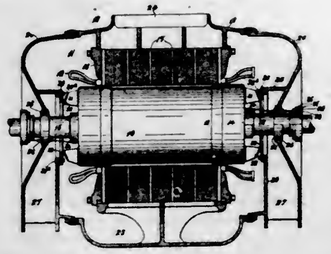
[Claims 6 to 18 not printed in the Gazette.]

1,135,655. CHURN-OPERATING MEANS. GEORGE S. BEEMER, Meeker, Colo. Filed Oct. 21, 1912. Serial No. 726,991. (Cl. 248—16.)



The combination of a stand comprising sills and standards rising therefrom, a brace extending between one of the standards and sills, a fulcrum bolt passing through the brace and projecting from one side thereof, and a rigid bar fastened at one end to the last-mentioned sill and having its other end connected to the projecting end of the bolt in spaced relation with the brace from which the bolt projects.

1,135,656. DYNAMO-ELECTRIC MACHINE. BERNARD A. BEHREND, Norwood, Ohio, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed June 25, 1906. Serial No. 323,224. (Cl. 171—252.)



1. In a dynamo-electric machine, a stator, a rotor having fans or blowers at the ends thereof, a housing or casing surrounding the stator and rotor and having end walls extending toward the shaft, said housing having air inlet openings around the rotor shaft and an air outlet opening at the top, and removable members within the housing each having a circular opening, adjustably secured to the end walls of the housing over the air inlet openings, and fitting closely around the fan-blades.

2. In a dynamo-electric machine, a stator, a rotor having a fan or blower secured to each end thereof, a housing or casing surrounding the stator and rotor and open at the top for the escape of air, said housing having end walls extending toward the shaft and providing air inlet openings around the rotor shaft, and a removable member having a circular opening concentric with the shaft, secured in position over each inlet opening and fitting closely arounnd the fan or blower.

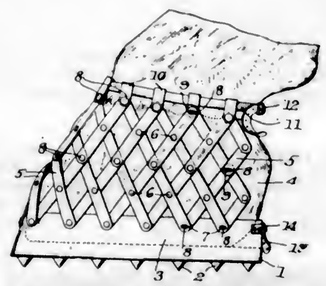
3. In a dynamo-electric machine, a stator, a rotor having a fan or blower at each end thereof, a housing inclosing the stator and rotor and having an air inlet chamber at each end thereof and an air outlet opening at the top, each chamber having an opening around the rotor shaft, and a removable plate having a circular opening and secured to the wall of the chamber around the shaft adjacent the fan.

4. In a dynamo-electric machine, a stator, a rotor having a fan or blower at each end thereof, a housing inclosing the stator and rotor, and having an air inlet chamber at each end and an air outlet opening at the top, each chamber having an opening around the rotor shaft, and a removable plate covering the opening, said plate extending inward toward the shaft and having a circular opening adjacent the fan or blower.

5. In a dynamo-electric machine, a stator, a rotor having a fan or blower at its end, a housing or casing for the machine, and an air admission chamber on the inner side of an end of the housing comprising a flange extending inward axially from the end of the housing toward the fan, over the shaft, and downward on each side thereof, and a wall or partition between the axially inner edges of the lower portions of the flange below the shaft.

[Claim 6 not printed in the Gazette.]

1,135,657. HORSESHOE. BELLA B. BRENNER, New York, N. Y. Filed Feb. 15, 1915. Serial No. 8,229. (Cl. 168—1.)



1. A shoe of the character described, comprising a tread portion, and a hoof-fastening device comprising a plurality of interconnected pairs of medially pivoted, intersecting levers, the meeting ends of the said levers being loosely connected to permit relative movement of the same, the lever ends at the lower edge of the fastening device being loosely connected with the said tread portion, and means by which the fastening device may be contracted and secured in contracted operative form.

2. A shoe of the character described, comprising a tread portion, and a hoof-fastening device comprising a plurality of interconnected pairs of medially pivoted, intersecting levers, the meeting ends of the said levers being loosely connected to permit relative movement of the same, the lever ends at the lower edge of the fastening device being loosely connected with the said tread portion, a plurality of loops secured to the lever ends at the upper ends of the fastening device, and a flexible member threaded through the said loops and adapted to be tightened to bind the fastening device in contracted form.

3. A shoe of the character described comprising a tread portion, and a hoof-fastening device comprising a plurality of interconnected pairs of medially pivoted, intersecting levers, the meeting ends of the said levers being loosely connected with the said tread portion, a plurality of loops secured to the lever ends at the upper edge of the fastening device, a flexible member threaded through said loops, and a securing member for connecting the ends of the said flexible member.

4. A shoe of the character described comprising a tread portion, and a hoof-fastening device comprising a plurality of simple imposed sets of interconnected pairs of medially pivoted, intersecting levers, the meeting ends of the said levers being loosely connected to permit relative movement of the same, the lower ends of the levers of the lowermost set being loosely connected with the said tread portion, and means connected with the upper ends of the levers of the uppermost set for drawing the same toward each other and for securing the same in contracted position.

5. A shoe of the character described comprising a tread portion, and a hoof-fastening device comprising a plurality of superimposed sets of interconnected pairs of medially pivoted, intersecting levers, the meeting ends of the said levers being loosely connected to permit relative movement of the same, the lower ends of the levers of the lowermost sets being loosely connected with the said tread portion, and means connected with the upper ends of the levers of the uppermost sets for drawing the same toward each other and for securing the same in contracted position, the levers of the uppermost set being connected more loosely to the levers of the next succeeding set than the levers of the latter set are connected with parts of the fastening device disposed lower in position than the same to permit a greater degree of relative movement of the levers at the upper portion of the fastening device.

1,135,658. LOOSE-LEAF-DISPENSING DEVICE. HORACE P. BROWN and CLARENCE L. JOHNSTON, Emeryville, Cal. Filed Apr. 13, 1914. Serial No. 831,429. (Cl. 211—29.)



1. A container arranged to receive a stack of leaves, and having an outlet at a distance above its bottom for the withdrawal of the leaves, and means for causing the leaves gradually to change from a rearwardly and downwardly inclined position to a substantially vertical position as the towels approach the outlet so that the upper ends of the towels may be withdrawn through said outlet.

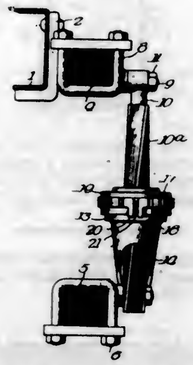
2. A dispensing device for paper towels consisting of a container of less depth than the length of the towels so as to cause the latter to be diagonally arranged in the container having a substantially vertical front wall formed with a discharge mouth above the lower end of said wall, and having a downwardly and forwardly inclined bottom whereby towels stacked within the container will have their lower ends successively engaged with said bottom and will be engaged with the front wall and held vertical thereagainst by the pressure of the remaining towels.

3. A dispensing device for paper towels consisting of a container of less depth than the length of the towels so as to cause the latter to be diagonally arranged in the container having a discharge mouth, and means arranged adjacent to said mouth to engage the lower ends of the towels so as to present the towels vertically and with their upper ends adjacent to said mouth.

4. In a paper towel dispensing device, a container having an open back hinged to a suitable support and having a discharge mouth in its front and between its ends, and a back for the container having an inclined lower end which is hinged at its free extremity to the container adjacent to the front of the container and below said discharge mouth to allow towels to be diagonally placed within the container with the upper ends of the innermost towels adjacent to said mouth by moving said back on its hinge away from the container front and then moving the back to engage with the towels.

5. In a paper towel dispensing device, a container of less depth than the length of the towels so as to cause the latter to be diagonally arranged in the container having an open back, means to hinge the container to a support, and a back for the container having an inclined lower end to engage the lower ends of the towels, said back being movable with relation to the container so as to allow the towels to be placed in the container and to then allow the back to be engaged with the towels, said container having a discharge through which the upper ends of the towels may be withdrawn which is disposed to aline with the upper ends of the lowermost towels when the lower ends of said towels are engaged with said lower end of the container back.

1,135,659. SHOCK-ABSORBER. WILLIAM J. CASEY, Chicago, Ill. Filed Nov. 27, 1914. Serial No. 874,120. (Cl. 21—105.)



1. A shock absorber comprising a shaft or plunger of spiral formation at its end portions and of straight formation at its middle portion, and a frictionally held member through which such plunger works.

2. A shock absorber comprising a shaft or plunger angular in cross section and having its ends helically twisted and its middle portion straight, and a frictionally held member through which such plunger works.

3. A shock absorber comprising a shaft or plunger of spiral formation at its end portions and of straight formation at its middle portion, a casing, a nut which is frictionally held in the casing and through which the plunger works, and means in the casing for imparting frictional resistance to the nut.

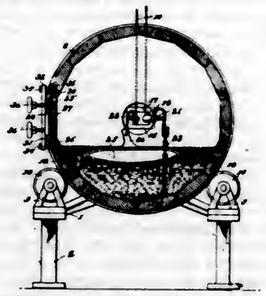
4. A shock absorber comprising a shaft or plunger of spiral formation at its end portions and of straight formation at its middle portion, a casing, a nut which is frictionally held in the casing and through which the plunger works, and means in the casing for imparting frictional resistance to the nut consisting of washers on opposite sides of the nut.

5. A shock absorber comprising a shaft or plunger of spiral formation at its end portions and of straight formation at its middle portion, a casing, a nut which is arranged within the casing and through which the plunger works, and means on the casing for regulating the degree of frictional resistance of the nut.

[Claims 6 to 8 not printed in the Gazette.]

1,135,660. PLATING-BARREL. FRANK S. CHASE and JAMES H. GRAHAM, Torrington, Conn., assignors to The Standard Company, Torrington, Conn., a Corporation of Connecticut. Filed Aug. 10, 1911. Serial No. 643,347. (Cl. 204—11.)

1. In an electro-plating device, the combination with a rotatable tank arranged on a horizontal axis, conducting rods, said tank having an opening in one end thereof, and means for supporting said conducting rods whereby the same may extend through said opening into said tank, said supporting means for the rods including an insulating block, anodes supported by one of said rods and cathodes suspended from said other rod.

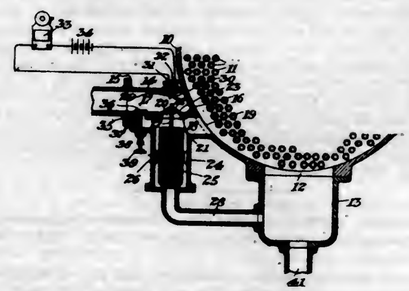


2. In an electro-plating device, the combination with a barrel or tank, and means for rotating it, a framework on which the barrel is supported and rotated, a standard projecting upwardly from said framework adjacent to one end of said barrel having a recessed block, a similar block secured thereto, and an insulation block clamped in said recess between said first named blocks and electrode-supporting rods, carried by said insulation block, and extending into said barrel.

3. In an electro-plating device, the combination with a barrel or tank, and means for rotating it, a framework on which the barrel is supported and rotated, a standard projecting upwardly from said framework adjacent to one end of said barrel, an insulation block clamped thereto, and electrode-supporting rods, carried by said insulation block and extending into said barrel, standards at the opposite end of the framework, a shaft supported thereon, and means for driving the shaft, and reducing gear and clutch connections between the shaft and the barrel.

4. An anode having a supporting arm or shank projecting from the upper surface at an inclination, the part of the anode on one side of the shank being of greater vertical thickness than the part on the other side.

1,135,661. CONDENSING APPARATUS. EVI WILLSON CHRISTIE, Sewaren, N. J., assignor to Wheeler Condenser and Engineering Company, Carteret, N. J., a Corporation of New Jersey. Filed Apr. 10, 1914. Serial No. 830,856. (Cl. 257—24.)



1. In a condensing apparatus and in combination, a condenser having an opening therein for the discharge of the condensate, a connection attached thereto and having two compartments therein, one adapted to be connected to an air pump and the other leading to the interior of the condenser, there being provided a port in the wall separating the said compartments, a float valve in the compartment leading to the interior of the condenser, and a valve seat fixed in the said port in the wall between the said compartments.

2. In a condensing apparatus and in combination, a condenser having an outlet for the condensate and a connection leading from the said outlet to a hotwell pump, a connection secured to the body of the condenser and having two compartments therein, one adapted to be connected to an air pump and the other leading directly into the interior of the condenser with a port in the wall dividing the one compartment from the other, a flat valve in the compartment leading directly to the condenser, a valve seat fixed in the said port and against which, when raised, the said float valve bears, and a pipe extending between the said compartment leading to the interior of the condenser and the said connection to the hotwell.

3. In a condensing apparatus and in combination, a condenser having an outlet for the condensate and a connection leading from the said outlet to the hotwell pump, a connection secured to the body of the condenser and having two compartments therein, one adapted to be connected to an air pump and the other leading directly into the interior of the condenser with a port in the wall dividing the one compartment from the other, a float valve in the compartment leading directly to the condenser, a valve seat fixed in the said port and against which, when raised, the said float valve bears, a pipe extending between the said compartment leading to the interior of the condenser and the said connection to the hot-well, and means in the said wall dividing the said compartments and operative exteriorly of the said connection for equalizing the vacuum in the said compartments.

4. In a condensing apparatus and in combination, a condenser having an outlet for the condensate and a connection leading from the said outlet to the hot-well pump, a connection secured to the body of the condenser and having two compartments therein, one adapted to be connected to an air pump and the other leading directly into the interior of the condenser with a port in the wall dividing the one compartment from the other, a float valve in the compartment leading directly to the condenser, a valve seat fixed in the said port and against which, when raised, the said float valve bears, a pipe extending between the said compartment leading to the interior of the condenser and the said connection to the hot-well, and means in the said wall dividing the said compartments and operative exteriorly of the said connection for equalizing the vacuum in the said compartments, and means for operating an audible alarm when the float is in position against the said valve seat.

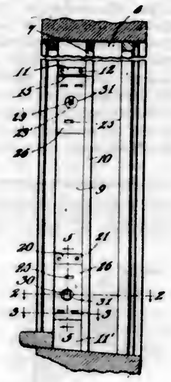
5. In a condensing apparatus and in combination, a condenser having an outlet for the condensate and a connection leading from the said outlet to the hot-well pump, a connection secured to the body of the condenser and having two compartments therein, one adapted to be connected to an air pump and the other leading directly into the interior of the condenser with a port in the wall dividing the one compartment from the other, a float valve in the compartment leading directly to the condenser, a valve seat fixed in the said port and against which, when raised, the said float valve bears, a pipe extending between the said compartment leading to the interior of the condenser and the said connection to the hot-well, and means in the said wall dividing the said compartments and operative exteriorly of the said connection for equalizing the vacuum in the said compartments, and means for operating an audible alarm when the float is in position against the said valve seat.

1,135,662. WINDOW-FRAME. THOMAS CHRISTOFFEL, Menomonie, Wis. Filed June 30, 1914. Serial No. 848,242. (Cl. 20—11.)

1. A window frame including a side and a detached strip, and means engaging the said detached strip and adjacent portions of the frame side mounting said strip for lateral translatory and rotary movements.

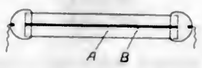
2. A window frame including a side and a detached strip, means engaging the said detached strip and adjacent portions of the frame side and mounting said strip for lateral translatory and rotary movements, and means for locking said detached strip in position with its front surface substantially coplanar with the adjacent surfaces of the frame side.

3. An apparatus of the class described comprising an angle attaching member, a headed pin carried thereby, a slotted link detachably secured to said headed pin by means of said slot, and a latch member including an out-



standing foot pivoted to the remote end of said link, said latch member including a bed and a slidable plate carried thereby and means coacting with said bed and plate to lock the same against relative movement.

1,135,663. ELECTRIC LIGHTING. WILLIAM WEBER COBLENTZ, Poland, Ohio. Filed July 7, 1908. Serial No. 442,404. (Cl. 176—130.)



1. The process for the manufacture of glowers for incandescent lamps, which consists in providing a rod of aluminum oxid with terminals of aluminum silicate and allowing an electrical spark discharge to take place between the terminals.

2. The process for the manufacture of glowers for incandescent lamps, which consists in providing a rod of aluminum oxid with terminals of an alkali metal aluminum silicate and allowing an electrical discharge to pass between them.

3. The process for the manufacture of glowers for incandescent lamps, which consists in attaching terminals of sodium aluminum silicate to a rod of aluminum oxid and passing an electrical discharge between them.

4. The process for the manufacture of complex aluminum silicates, which consists in providing a rod of aluminum oxid with terminals of aluminum silicate and allowing an electrical discharge to take place between said terminals for the purpose of forming a layer of the new compound substantially as described.

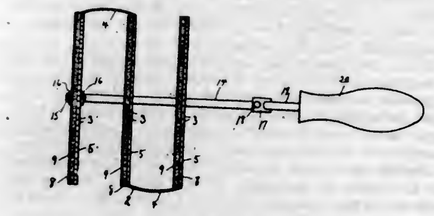
5. The process for the manufacture of complex aluminum silicates by passing an electric discharge over the rod of aluminum oxid, in a vapor of aluminum silicate for the purpose of forming a layer of the new compound upon the rod of aluminum oxid.

[Claims 6 to 12 not printed in the Gazette.]

1,135,664. DOUBLE CURRYCOMB AND BRUSH. HENRY COLE, Lancaster, Ohio. Filed Apr. 14, 1914. Serial No. 831,708. (Cl. 119—85.)

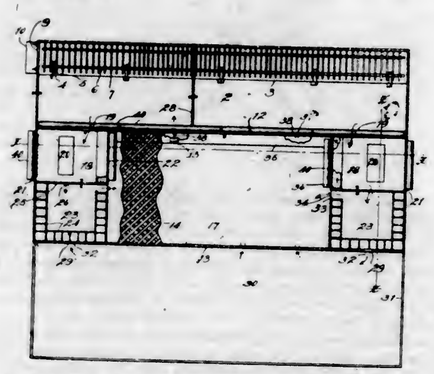
1. A double curry comb and brush, comprising a plurality of comb sections, and alternate integral end members, brush sections mounted upon one face of each comb section and projecting beyond each edge thereof, a handle rod passing through the comb sections and a handle rotatably mounted upon the free end of said rod.

2. In a device of the character described, a plurality of parallel comb sections and integral alternate end members formed from a single strip of spring steel, each of said comb sections having a central opening therein, teeth formed on both edges of the comb sections, a brush section mounted upon one face of each of the comb sections, said brush sections projecting beyond each set of teeth, a plate lying against each brush section and riveted to the comb sections, each of said plates being provided



with a central opening, a handle rod passing through the central opening in the plates and comb sections, one end of said rod being secured to one of the comb sections, the opposite end of said rod projecting beyond the comb sections, a socket rotatably mounted upon the free end of the handle rod, an integral stem formed with said socket, a handle carried by said stem and a set screw carried by the socket for securing the handle in different adjustments upon the handle rod.

1,135,665. POULTRY SYSTEM. JOSEPH A. CONBOIE, Pittsburg, Cal. Filed Feb. 18, 1913. Serial No. 749,158. (Cl. 119—21.)



1. A system for the protection and feeding of fowl which comprises a roosting room having three weather-tight walls, a roof, and a reticulated wall at one side, with roosts along the wall opposite to the reticulated side, a wind-break or shelter structure forming a compartment along the reticulated dividing wall for preventing drafts in the roosting room and permitting free ventilation thereof, feed rooms at the ends of the roosting room to which fowl have free access, and nest rooms beyond the feed rooms and communicating therewith.

2. A system for the protection and feeding of fowl which comprises a roosting room having three weather-tight walls, a roof, and a reticulated wall at one side, with roosts along the wall opposite to the reticulated side, a wind-break or shelter structure forming a compartment along the reticulated dividing wall for preventing drafts in the roosting room and permitting free ventilation thereof, feed rooms at the ends of the roosting room to which fowl have free access, and nest rooms beyond the feed rooms and communicating therewith through a reticulated dividing wall, said feed and nest rooms flanking the shelter and communicating therewith.

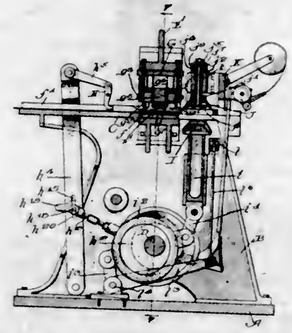
3. A system for the protection and feeding of fowl which comprises a roosting room, a wind break compartment and a runway, said roosting room having three weather tight walls and a roof, said wind break compartment having reticulated walls and adapted to form a fourth wall for the roosting room, and said runway having communication at its opposite ends with the wind break compartment.

4. A system for the protection and feeding of fowl which comprises a roosting room, a wind break compartment and a runway, said wind break compartment having inter-communicating feeding and nesting rooms at each end thereof, said feeding rooms having free communication with the roosting room, and said nesting rooms having trap door communication with said runway.

5. A system for the protection and feeding of fowl which comprises a partitioned roosting room, a wind break compartment forming one wall of the roosting room, and a runway joining said compartment, intercommunicating feeding and nesting rooms at each end of said compartment, said feeding rooms having free communication with one end of the roosting room, and said nesting rooms having trap door communication with the runway, and an inclosed communicating passage leading to the roosting room.

[Claim 6 not printed in the Gazette.]

1,135,666. MACHINE FOR MAKING BUTTER-DISHES OR OTHER RECEPTACLES. EDWARD CRAIG, St. Joseph, Mich., assignor, by mesne assignments, to Saranac Machine Co., St. Joseph, Mich., a Corporation of Michigan. Filed Mar. 30, 1908. Serial No. 424,087. (Cl. 93—42.)



1. In a butter dish machine, suitable forming and stapling mechanism for operating on sheet material, means for engaging the sheet of material to feed the same to said mechanism, an arm for actuating said means, having a slot therein, a pin at the lower end of the slot, a connection for operating said arm, and a cam engaging said pin to raise and lower the connection in said slot, for the purpose set forth.

2. In a butter dish machine, suitable forming and stapling mechanism for operating on sheet material, means for feeding the sheet of material to said mechanism, comprising a sliding bar, a friction device engaging said bar, a threaded stem and a nut thereon for adjusting said device to vary the friction, a spring handle for said nut, and a rack for releasably holding said spring handle in different positions, for the purpose set forth.

3. In a butter dish machine, mechanism for forming the dish, an automatic device for feeding the sheet of material to said mechanism, a swinging spring pressed arm, and a roller carried by the arm and bearing on the sheet of material, said device including a feed finger having a plurality of axes of movement which are parallel

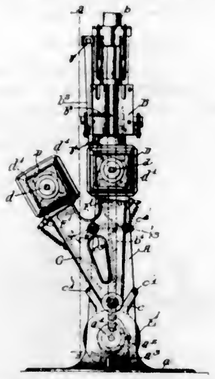
with the axes of the said arm and roller for the purpose set forth.

4. In a butter dish machine, a form, an obliquely arranged stapler, a bell crank associated with said stapler to operate the same, a pull rod for actuating said bell crank, by a downward pull on the latter, to drive a staple, cam mechanism for operating said rod, and another rod connecting the bell crank with the stapler, said rods disposed at an angle to each other, said mechanism including a pivoted lever having a distal end to which said first mentioned rod is secured.

5. In a butter dish machine, a die for making the blank, comprising a set of creasers, a set of scoring knives, a set of cutting knives, clamping blocks having flanges for engaging the backs of said scoring knives and creasers, means for engaging the backs of said cutting knives to accurately adjust the same, and means engaging said blocks to accurately adjust the scoring knives and creasers.

[Claims 6 to 52 not printed in the Gazette.]

1,135,667. BERRY-BASKET MACHINE. EDWARD CRAIG, St. Joseph, Mich., assignor to Saranac Machine Co., St. Joseph, Mich., a Corporation of Michigan. Filed Dec. 20, 1909. Serial No. 534,106. (Cl. 1—11.)



1. In a machine of the class disclosed, a plurality of forms, a pivoted member upon which said forms are mounted, means for limiting the swing of said member, by engagement therewith, to determine the extent of back and forth movement of said forms, means for rotating the forms one at a time, about axes approximately parallel with the axis of said member, means for yieldingly holding said forms against rotation, mounted on said member and mechanism operating at an angle to said axes for inserting fastening devices in the materials on the forms.

2. In a machine of the class disclosed, an upright pedestal, a horizontal shaft at the bottom thereof, a stapling mechanism at the top of said pedestal, operated by said shaft, an upright member pivoted at its lower end upon said pedestal, to swing back and forth at its upper end about a horizontally disposed axis at its lower end, means for limiting the swing of said member in both directions, a pair of rotary forms on the upper end of said member, each form rotatable about a horizontally disposed axis, and means operating upon the up-stroke of the said mechanism to rotate the form which is at such time in position for rotation.

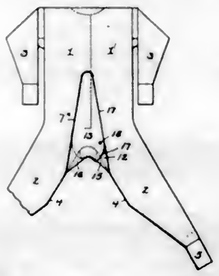
3. In a machine of the class diclosed, a plurality of forms, means for moving the forms bodily, about a horizontal axis, means for limiting said movement of the forms, means for automatically rotating the forms, one at a time, the said forms all having the same rotating position, but the idle position of the forms being different, and vertically reciprocating means for applying fastening devices to the materials on said forms, said means for rotating the forms consisting of teeth rigid with the forms and a reciprocating hook for engaging said teeth.

4. In a machine of the class disclosed, a plurality of forms, means for swinging said forms back and forth about a horizontal axis, the said forms all having the same rotating position, but the idle position of the forms being different, mechanism for locking the forms against bodily movement, engaging said means, other means for automatically rotating said forms, one at a time, and mechanism above said forms for inserting fastening devices in the materials thereon, said means for rotating the forms consisting of teeth rigid with the forms and a reciprocating hook for engaging said teeth.

5. In a machine of the class disclosed, a pair of forms, a swinging member upon the upper end of which said forms are mounted for rotation about horizontally disposed axes, said member mounted to swing about a horizontal axis the said forms all having the same rotating position, but the idle position of the forms being different, a stapling mechanism to which said forms are presented one at a time, by movement of said member, and means operated by the back stroke of said mechanism to rotate the forms, said means for rotating the forms consisting of teeth rigid with the forms and a reciprocating hook for engaging said teeth.

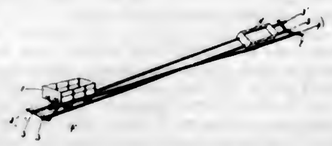
[Claims 6 to 17 not printed in the Gazette.]

1,135,668. UNION SUIT. BEECHER M. CROUSE, Utica, N. Y. Filed July 9, 1914. Serial No. 849,922. (Cl. 2—144.)



A union suit having incisions between the front and rear portions of the tops of the legs, said rear incision running up into the rear portion of the body of the garment, and overlapping right and left hand crotch closing gussets, each comprising an upper web with vertical wales and a lower web with transverse wales at right angles to those of the upper web, and each having a rear member and an upturned front member, united respectively to the corresponding sides of the incisions, and each having a free edge the lower web with transverse wales comprising both the upturned front member and the corresponding portion of the rear member.

1,135,669. DEVICE FOR UNLOADING TRUCKS OR FREIGHT-CARS BY TILTING THEM. HANS CULEMEYER, Peine, Germany. Filed May 13, 1914. Serial No. 838,290. (Cl. 214—1.)



1. Two pairs of rails used in coöperation for tilting cars sidewise to discharge them, one pair of said rails constituting a main track and the other pair constituting a branch track, which leaves the former, runs parallel thereto and then rejoins the main track, the arrangement of said parts being such that a car or train may by a locomotive engine on the main track be drawn first upon and along the parallel part of the branch track, this part of said track being adapted to tilt the car or train laterally more and more as it advances, for discharging it, then by further advance to restore it gradually to its normal position as the said car or train is drawn upon the main track.

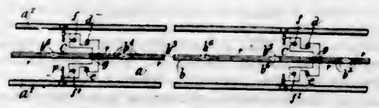
2. Two pairs of rails used in coöperation for tilting cars sidewise to discharge them, in combintaion with supplemental means of support for a car while in tilted position, one of said pairs of rails constituting a main track and the other pair constituting a branch track, which leaves the former, runs parallel thereto with increasing lateral inclination and then rejoins the said main track, the arrangement of said parts being such that a car or train may, by a locomotive engine on the main track, be drawn first upon and along the parallel part of the branch track, with progressive lateral tilting for discharge, then by further advance restored gradually to its normal position on the main track and drawn away by said engine.

3. Two pairs of rails used in coöperation for tilting cars sidewise to discharge them, in combination with a roller carried by a car at one side of the bottom thereof, one of said pairs of rails constituting a main track and the other pair constituting a branch track, which leaves the former, runs parallel thereto with increasing lateral inclination and then rejoins the main track, means being provided for said roller to run on while the car is in tilted position, and the arrangement of the foregoing parts being such that a car or train may, by a locomotive engine on the main track, be drawn first upon and along the parallel part of the branch track with progressive lateral tilting for discharge, then by further advance restored gradually to its normal position on the main track and drawn away by said engine.

4. Two pairs of rails used in coöperation for tilting cars sidewise to discharge them, in combination with a roller carried in an inclined position by a car at one side of the bottom thereof, a rail for said roller to run on when said car is in tilted position, one of said pairs of rails constituting a main track and the other pair constituting a branch track which leaves the former, runs parallel thereto with increasing lateral inclination and then rejoins the said main track, the arrangement of the foregonig parts being such that a car or train may, by a locomotive engine on the main track, be drawn first upon and along the parallel part of the branch track, with progressive lateral tilting for discharge, then by further advance restored gradually to its normal position on the main track and drawn away by said engine.

5. Two pairs of rails used in coöperation for tilting cars sidewise to discharge them, one of said pairs constituting a main track and the other a branch track, which leaves the former, runs parallel thereto with increasing lateral inclination and then rejoins the said main track, the arrangement of such parts being such that a car or train may, by a locomotive engine on the main track, be drawn first upon and along the parallel part of the branch track with progressive lateral tilting for discharge, then by further advance restored gradually to its normal position on the main track and drawn away by said engine.

1,135,670. SAFETY STOP APPARATUS FOR RAILWAYS. IGNATI CZAVRA, Brooklyn, N. Y. Filed Sept. 15, 1914. Serial No. 861,760. (Cl. 246—26.)



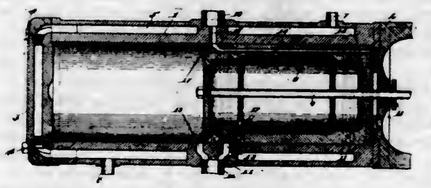
1. In a safety stop apparatus for railways, a third rail provided with parallel and insulated contact strips divided at intervals into separate parts, the separate parts of one strip being connected by transverse wires with the separate parts of the other strip, motors and generators mounted on separate locomotives or cars, and contact devices coöperating with said contact strips and in electrical connection with the motors and generators on the separate locomotives or cars whereby the generator on one locomotive or car will start the motor on the other locomotive or car when said locomotives or cars are in a common circuit.

2. In a safety stop apparatus for railways, a third rail provided with parallel and insulated contact strips divided at intervals into separate parts, the separate parts of one strip being connected by transverse wires with the separate parts of the other strip, motors and generators mounted on separate locomotives or cars, and contact devices coöperating with said contact strips and in electrical connection with the motors and generators on the separate locomotives or cars whereby the generator on one locomotive or car will start the motor on the other locomotive or car when said locomotives or cars are in a common circuit, and means whereby the operation of the motors in said locomotives or cars will operate the brake apparatus and stop said locomotives or cars.

3. In a safety stop apparatus for railways, a third rail provided with parallel and insulated contact strips divided at intervals into separate parts, the separate parts of one strip being connected by transverse wires with the separate parts of the other strip, motors and generators mounted on the separate locomotives or cars, contact devices coöperating with said contact strips and in electrical connection with the motors and generators on the separate locomotives or cars, means for insuring a positive contact between said contact devices and said motors and generators, means whereby the generator in one locomotive or car will start the motor in the other locomotive or car when said locomotives or cars are in a common circuit, and means whereby the operation of the motor in each of said locomotives or cars will operate the brake apparatus and stop said locomotives or cars.

4. In a safety stop apparatus for railways, a third rail provided with parallel and insulated contact strips divided at intervals into separate parts, the separate parts of one strip being connected by transverse wires with the separate parts of the other strip, motors and generators mounted on separate locomotives or cars and contact devices coöperating with said contact strips and in electrical connection with the motors and generators on the separate locomotives or cars, said motors and generators being in electrical connection with voltmeters having ground wires, and means whereby the generator in one locomotive or car will start the motor in another locomotive or car, when said locomotives or cars are in a common circuit.

1,135,671. FLUID-COMPRESSOR. ELMER E. DAVIS, West Chicago, Ill. Filed Feb. 17, 1912. Serial No. 678,335. Renewed Dec. 14, 1914. Serial No. 877,222. (Cl. 230—27.)



1. A fluid compressor comprising a cylinder, and an elongated piston mounted for reciprocation therein, said cylinder being provided with means for admitting fluid thereto at the end of each stroke and a single exhaust port substantially mid-way of the length thereof, said piston having a pair of parallel ducts extending longitudinally thereof, and opening at one end through the respective ends of said piston and the opposite ends opening through

the side of said piston and arranged in longitudinal alinement whereby the last said ends register with said discharge port at the end of the strokes respectively, substantially as described.

2. A fluid compressor comprising a cylinder, and a piston mounted for reciprocation therein, said cylinder being provided with a pair of valveless inlet ports adapted to admit fluid thereto at the end of each stroke and a single valveless exhaust port substantially mid-way of the length thereof, said piston having a pair of parallel ducts extending longitudinally thereof and opening at one end through the respective ends of said piston and the opposite ends opening through the side of said piston and arranged in longitudinal alinement whereby the last mentioned ends register with said discharge port at the end of the strokes respectively, substantially as described.

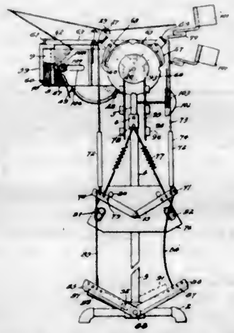
3. A fluid compressor comprising a cylinder, and a piston mounted for reciprocation therein, said cylinder being provided with means for admitting fluid thereto at the end of each stroke and a single exhaust port substantially mid-way of the length thereof, said piston having a pair of parallel valveless ducts extending longitudinally thereof and opening at one end through the respective ends of said piston and the opposite ends opening through the side of said piston and arranged in longitudinal alinement whereby the last said ends register with said discharge port at the end of the strokes respectively, substantially as described.

1,135,672. HAIR-PIN. PHILLIP J. DECKER, San Francisco, Cal. Filed Aug. 24, 1914. Serial No. 858,171. (Cl. 132—22.)



A hair pin consisting of a length of resilient wire bent so as to provide a pair of convergingly arranged side pieces, connected at one of their ends by a cross bar formed integrally therewith and at their other ends by a loop which forms a rounded nose, and a spring finger having one end rigidly connected centrally of the cross bar and extending between the side pieces, said nose and the free end of the tongue being curved in opposite directions to provide a flared mouth for the entry of hair between the tongue and side pieces.

1,135,673. REEDING-MACHINE. JOSEPH DEMYEN, Philadelphia, Pa. Filed July 29, 1913. Serial No. 781,734. (Cl. 139—94.)



1. In a device of the character stated the combination of a frame, a carriage movable thereon, a threading hook to draw threads through a reed, a spiral body formed therewith adapted to register with the reed-dents for effecting a relatively lateral movement between the reed and carriage, a drag hook for withdrawing the threads from the threading hook and means for transmitting motion to the threading hook and drag hook.

2. In a device of the character stated the combination of a frame, a carriage movable thereon, a threading hook to draw threads through a reed, a spiral body formed therewith adapted to register with the reed-dents for effecting a relatively lateral movement between the reed and carriage, a drag hook for withdrawing the threads from the threading hook, a ram, means for transmitting motion to and timing the movements of the threading hook and ram.

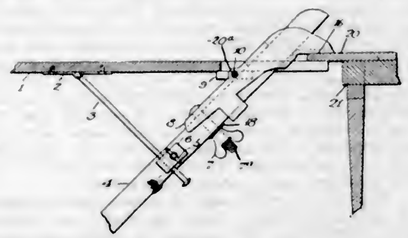
3. In a device of the character stated the combination of a frame, a carriage movable thereon, a threading hook to draw threads through a reed, a spiral body formed therewith adapted to register with the reed-dents for effecting a relatively lateral movement between the reed and carriage, a drag hook for withdrawing the threads from the threading hook, a ram, means for transmitting motion to and timing the movements of the threading hook, the drag hook and ram, and brushes carried by the frame against which the ram places the threads.

4. In a device of the character stated a threading element comprising a spider, a single piece of wire coiled upon said spider to form a spiral body, one end of which is bent to produce a hook.

5. In a device of the character stated the combination of a frame, a carriage provided with reed threading means for operating the reed threading device, sprocket wheels connected with said means, a counter running over said sprocket wheels, visual signals operated by said counting means, a bell, a pivot hammer and an arm carried by said hammer and operated by the counter to produce an audible signal.

[Claim 6 not printed in the Gazette.]

1,135,674. IRONING-BOARD. JOSEPH DIONNE, Fall River, Mass. Filed Feb. 3, 1913. Serial No. 746,001. (Cl. 68—10.)



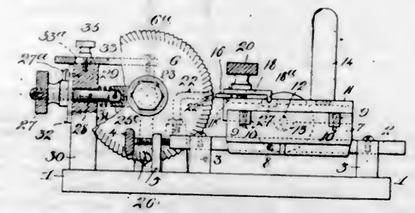
An ironing board comprising a board proper having a slot disposed adjacent one edge thereof, plates secured to the under side of the board, a leg for supporting the board, said leg being held between the walls of the slot, a jaw having a hollow portion, pivoted to the plates, said hollow portion adapted to receive one end of the leg for providing an adjustable connection therebetween, means carried by the hollow portion of the jaw for rigidly securing the leg in its positions of adjustment, a brace having one end pivotally secured to the under side of the board, and a clamp on the leg for receiving the opposite end of the brace for rigidly securing the same to the leg, for supporting the outer end of the board proper.

1,135,675. NOSTRIL-DILATING DEVICE. GEORGE EDWIN DIXON, London, England. Filed May 17, 1913. Serial No. 768,261. (Cl. 128—13.)

A nostril dilating device comprising a plurality of wire members connected by a member straddling the lower end of the septum of the nose, each having a member engaging the cavity at the tip of the nostril and a second member engaging the cavity at the rear end of the opening of the nostril, knobs at the points where the members engage the cavities, and a connection between said members contacting throughout its length with the inner surface of the nostril adjacent the opening therein.



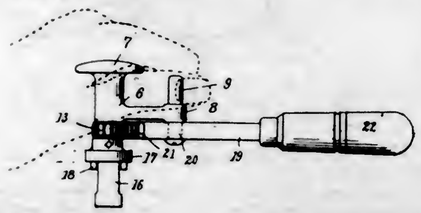
1,135,676. KEY-CUTTING MACHINE. OSCAR M. ENGLEBERT, New York, N. Y. Filed Oct. 20, 1911. Serial No. 655,782. (Cl. 90—13.)



1. The combination of a base, a cutter rotatively mounted thereon, means for feeding a key toward and from the cutter and transversely to the plane of the latter, a bearing supporting the cutter and movably carried by the base, a threaded rod extending from said bearing, a standard receiving said rod, a nut upon the rod, and a spring coacting with the bearing and the standard.

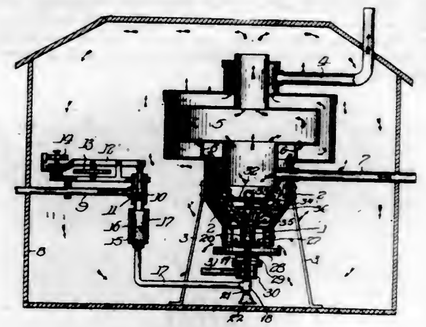
2. The combination of a base, a cutter rotatively mounted thereon, means for feeding a key toward and from the cutter and transversely to the plane of the latter, a bearing supporting the cutter and movably carried by the base, a threaded rod extending from said bearing, a standard receiving said rod, a nut upon the rod, a spring coacting with the bearing and the standard, a bar secured to the bearing and having a slot, said bar extending over the standard, and a screw carried by the standard and passing through said slot to rigidly hold the bearing in set position.

1,135,677. VALVE-GRINDER. JOHN FEKETE, Bridgeport, Conn. Filed Jan. 19, 1915. Serial No. 3,037. (Cl. 51—4.)



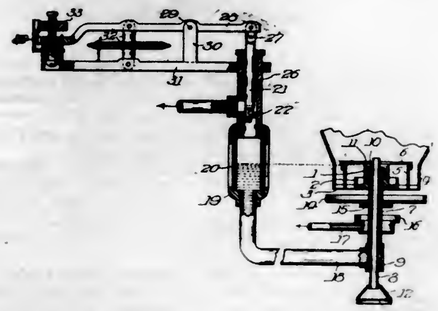
In a valve grinder of the class described, the combination of a body portion including an upwardly extended handle and lug, a spindle having a pinion formed intermediate of its length one portion of the said spindle being journaled in the said handle, a head detachably secured to the other end of the spindle and having a transverse blade-slot formed therein, extended pins seated in the under face of the outer portion of the head, a lever pivoted to the lug end of the body and having a segment upon its short end to engage the pinion and a handle upon its longer end to operate the lever, pinion and head.

1,135,678. FURNACE. WILLIAM N. FURTHMANN, Chicago, Ill., assignor to Thomas H. Tapley, Grand Rapids, Mich. Filed July 30, 1913. Serial No. 782,009. (Cl. 126—116.)



In a heating device, a cylindrical chamber open at the top, and having a central enlargement, and a removable bottom comprising a pair of disks spaced apart by a central pedestal, one of said disks acting as a heat deflector.

1,135,679. LIQUID-FUEL BURNER. WILLIAM N. FURTHMANN, Chicago, Ill., assignor to Thomas H. Tapley, Grand Rapids, Mich. Filed July 30, 1913. Serial No. 782,010. (Cl. 158—28.)



1. In a device of the class described, a burner having a conical recess adapted to contain liquid-fuel, a pair of concentric tubes projecting into said recess from beneath, one terminating below the top of said recess and the other terminating above said top, a flanged rim around the outside of said burner to catch the overflow, and means for varying the level of the liquid fuel within said conical recess to change the exposed area thereof.

2. In a device of the class described, a burner having a flanged rim, a supply tube extending into said burner, a tray adjustably mounted on said tube, and an overflow cup also carried by said tube and arranged beneath said tray.

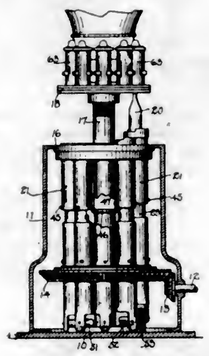
3. In combination, a burner having a recess for liquid-fuel, two tubes projecting centrally into said recess, one of said tubes surrounding the other and spaced therefrom, and provided with an outlet whereby liquid-fuel supplied therethrough may be delivered to said recess, the other of said tubes being provided at its lower end with an air strainer.

4. In combination, a supporting frame, a cylindrical partition thereon provided with a cap having an opening therein, a burner also carried by said frame and terminat-

ing near said opening, an air supply tube and a fuel supply tube projecting into said burner, one of said tubes terminating below the level of the liquid therein and the other projecting above said level.

5. In combination, a burner having a fuel recess, a supply tube entering said recess, means for connecting said tube with a fuel supply, means for indicating the level of the liquid in said burner, and means for automatically varying the flow of liquid-fuel to maintain a predetermined temperature.

1,135,680. BOTTLE-CAPPING MACHINE. JOHN J. GAYNOR and PETER CARL LIEBER, Indianapolis, Ind., assignors to Progress Machine Company, Indianapolis, Ind., a Corporation of Indiana. Filed Oct. 27, 1913. Serial No. 797,554. (Cl. 113—2.)



1. A bottle capping machine including a bottle support, a dog for supporting said bottle support, and yielding means for resisting the downward movement of the lower end of said dog and having an inclined surface engaging said dog so that the dog will be self-sharpening.

2. A bottle capping machine including a bottle support having a vertical recess therein with a pocket in its upper end, a dog for supporting the bottle support with its upper end located in said pocket, and yielding means for resisting the downward movement of the lower end of the dog.

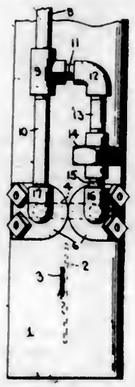
3. A bottle capping machine including a bottle support, a relatively stationary tube within which the lower portion of said bottle support is reciprocated, a dog for supporting said bottle support, means on said stationary tube for frictionally resisting the downward movement of the lower end of the dog, and yielding means for resisting such movement of the dog.

4. A bottle capping machine including a bottle support, a relatively stationary tube within which the lower portion of said bottle support is reciprocated, a dog for supporting said bottle support, means on said stationary tube for frictionally resisting the downward movement of the lower end of the dog, and yielding means tending to hold the dog in frictional engagement with said fixed means and resisting the downward movement of the dog after it has escaped from said fixed means.

5. A bottle capping machine including a bottle support, a tube in which the lower part of the bottle support telescopes, a plate secured to the inner wall of said tube with the upper edge thereof beveled downwardly, a dog for supporting said bottle support having an inclined shoulder adapted to rest upon the inclined upper surface of said plate, and yielding means for holding the lower end of said dog on the upper end of said fixed plate until the strain forces the dog off of said plate and thereafter resisting the downward movement of the dog.

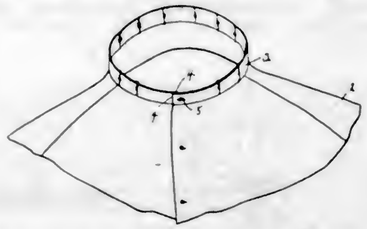
[Claim 6 not printed in the Gazette.]

1,135,681. SPARK-ARRESTER. CHARLES H. GEORGY and MILLARD FILLMORE HAMILTON, Lebanon, Pa. Filed July 29, 1914. Serial No. 853,829. (Cl. 110—142.)



The combination, with a stack having a pair of juxtaposed openings, and a pair of plates secured to the exterior of the stack and having openings registering with the first-named openings; of a loop-shaped, perforated pipe arranged horizontally within said pipe and having its terminals projecting outwardly through said registering openings; and a pipe system for supplying steam to the perforated pipe embodying a pair of superposed vertical sections, a T-coupling connecting the confronting ends thereof, an elbow connecting one end of one of said sections and the adjacent projecting terminal of said perforated pipe, a lateral section connected to the stem of said coupling, an elbow connected to the outer end of said lateral section, a pair of superposed sections arranged opposite and in spaced, parallel relation to the first-named vertical section aforesaid, one of the second-named vertical sections being connected to the last-named elbow and the other of such section to the other projecting terminal of the perforated pipe, and a sleeve connecting the confronting ends of the second-named pair of vertical sections.

1,135,682. ADJUSTABLE NECKBAND FOR WEARING-APPAREL. ISADOR M. GOULD, Philadelphia, Pa. Filed Dec. 23, 1913. Serial No. 808,495. (Cl. 2—41.)

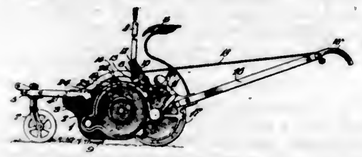


A garment including a neck band in the form of a hem, adapted to receive a detachable collar, said neck band having button holes at the meeting ends thereof and provided with a slot leading to the interior and a sizing strip provided with button holes adjacent its ends, removably contained within the neck band, as shown and for the purpose specified.

1,135,683. LAWN-MOWER. WALTER E. GRAHAM, Philadelphia, Pa. Filed July 21, 1914. Serial No. 852,184. (Cl. 56—19.)

1. In a lawn mower, a frame, a cutting member thereon, an arm pivotally connected with said frame, a rotatable

member on which the front of said arm is adapted to be run, sustained and fulcrumed, the rear of said arm being entirely disconnected from said frame and an abutment on said frame in the path of said rear of said arm to limit the downward movement thereof whereby the arm is permitted to oscillate freely on said frame due to the irregularities of the ground on which said rotatable member is adapted to run without disturbing the vertical adjustment of said cutting member.



2. In a lawn mower, a frame, a cutting member thereon, an arm pivotally connected with said frame, a rotatable device on which the front of said arm is adapted to be run, sustained and fulcrumed, the rear of said arm being entirely disconnected from said frame, whereby said arm is adapted to oscillate freely on said frame due to the irregularities of the ground, and a member adapted to adjust the cutting cylinder to the height or length of the grass to be cut, the same being adjustably mounted on said frame, and adapted to have the rear of said arm freely supported thereon.

3. In a lawn mower, a frame, a cutting member thereon, an arm pivotally connected with said frame, a rotatable device on which the front of said arm is adapted to be sustained, run and fulcrumed, a member on said frame in the path of said arm to support the latter at its lower limit of movement, and a latch member pivotally mounted on said frame and adapted to engage means on the rear of said arm in the elevated position of the latter to control the same when elevated.

4. In a lawn mower, a frame, a cutting member thereon, an arm pivotally connected with said frame, a rotatable device on which the front of said arm is adapted to be sustained, run and fulcrumed, a latch member pivotally mounted on said frame and adapted to engage the rear of said arm in the elevated position of the latter to control the same when in said elevated position, and a limb on said latch member adapted to be engaged by a foot of the driver as a kick-off for said latch member to disconnect it from said arm and permit the latter to drop to normal inoperative position.

5. In a mower, a frame, a cutting member thereon, an oscillating arm mounted on said frame, a rotatable device on one end of which said arm is adapted to be sustained, run, and fulcrumed, means on the free end of said arm for raising the same, and consequently said cutting member, a device to hold said arm in raised position, and a member on said device to throw it off from said arm.

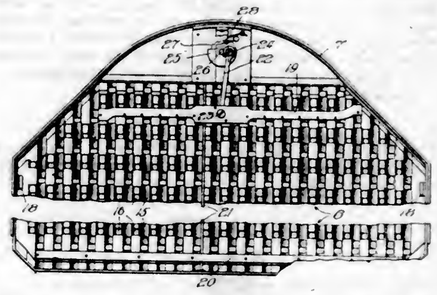
[Claims 6 to 10 not printed in the Gazette.]

1,135,684. PROCESS FOR REMOVING SCALE FROM INCRUSTED SURFACES. THOMAS RITCHIE GREENHORNE, Glasgow, Scotland. Filed Sept. 26, 1913. Serial No. 791,959. (Cl. 210—22.)

The hereindescribed process of removing scale from the incrusted internal surface of a boiler, consisting in filling the boiler with cold water, passing directly into the cold water in the boiler a charge of carbonic acid gas under pressure to form a supersaturated solution of carbonic acid gas in water, and allowing the supersaturated solution of carbonic acid gas in water to act on the incrusted surface.

1,135,685. VENTILATING DEVICE. FRANCIS M. GUNN, OTTO BARK, and WALTER SCOWCROFT, Chicago, Ill.; said Bark and said Scowcroft assignors to said Gunn. Filed Feb. 7, 1914. Serial No. 817,161. (Cl. 98—49.)

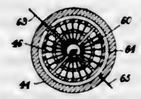
1. A ventilator embodying in combination a member having a corrugated cross section and provided with a plurality of openings therein, a second member operatively positioned adjacent said first member having a similar cross section and provided with openings therein corresponding to those in said first member, and means for effecting a relative sliding movement between said members to vary the total area of openings therebetween.



2. A ventilator embodying a plate-like member having a straight line corrugated cross section provided with a plurality of openings therein arranged in each of the planes thereof, said openings being proportioned with respect to the plate-like member to provide a sum total free area not less than the area bounded by the outside edges of said plate-like member, and means for controlling the passage of air through the openings of said plate-like member.

3. A ventilator embodying a plate-like member having a straight line corrugated cross section provided with a plurality of openings therein arranged in each of the planes thereof, each of said openings having adjacent thereto an angularly disposed blank space which serves as a baffle therefor, said openings being proportioned with respect to the plate-like member to provide a sum total free area not less than the area bounded by the outside edges of said plate-like member, and means for controlling the passage of air through the openings of said plate-like member.

1,135,686. THERMO-TELEPHONE. BRONISŁAW GWÓŹDŹ, Schlachtensee, near Berlin, Germany. Filed Aug. 15, 1911. Serial No. 644,243. (Cl. 179—101.)



1. In a thermo-telephone, an integral cast-body, a Wollaston wire embedded in and held by said cast body, and partially lying free in it in a protected position, the ends of said wire projecting out of said integral cast-body, and the protected portion of the wire being free from its coating.

2. In a thermo-telephone, an integral cast-body, a Wollaston wire embedded in and held by said cast-body, said wire passing through a recess in the said cast-body, the ends of the said wire projecting out of the cast-body, and the portion of the wire traversing the recess being free from its coating.

3. In a thermo-telephone, the combination with a frame-like cast having an aperture therein, of a Wollaston wire traversing the said aperture and having limbs projecting out of the cast, the portion of the wire traversing the aperture being free from its coating, and the said aperture being traversed by ribs for supporting the said wire.

4. In a thermo-telephone, the combination with a frame-like cast having an aperture therein, of a Wollaston wire traversing the said aperture and having limbs projecting out of the cast, the portion of the wire traversing the aperture being free from its coating, and the said aper-

ture being traversed by ribs for supporting the said wire, both the said wire and the said rib being disposed transversely of the longitudinal axis of the cast.

5. In a thermo-telephone, the combination with a frame-like cast having an aperture therein, of a Wollaston wire traversing the said aperture and having limbs projecting out of the cast, the portion of the wire traversing the aperture being free from its coating, and the said aperture being traversed by ribs for supporting the said wire, both the said wire and the said ribs being disposed transversely of the longitudinal axis of the cast, the ribs dividing the aperture into a plurality of compartments.

[Claims 6 to 21 not printed in the Gazette.]

1,135,687. THERMIC TELEPHONE. BRONISŁAW GWÓŹDŹ, Schoneiche, near Berlin, Germany. Filed Sept. 14, 1911. Serial No. 649,388. (Cl. 179—101.)



1. In a thermic telephone, the combination, with a casing, of contact means for connection to an electric circuit therein, an axially displaceable hot-wire device having contact members adapted to contact with the said contact means, and a body for holding the said hot-wire device in the contact position.

2. In a thermic telephone, the combination with a casing, of contact means for connection to an electric circuit therein, an axially displaceable hot-wire device having contact members adapted to contact with and be held in the casing by friction with said contact means and a member having a sound-chamber, secured detachably to the casing and holding the hot-wire device therein.

3. In a thermic telephone, the combination with a casing, of contact means for connection to an electric circuit therein, an axially displaceable hot-wire device, the ends of the said wire being connected to contact members adapted to contact with and be held in the casing by friction with the said contact means and a member having a sound-chamber, secured detachably to the casing and holding the hot-wire device therein.

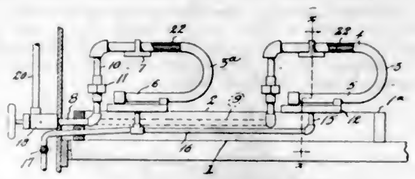
4. In a thermic telephone, the combination with a casing, of an axially displaceable hot-wire device therein, an insulator between the bottom of the casing and the hot-wire device, the said insulator being provided with contact means for connection to an electric circuit therein, the said hot-wire device being provided with contact members adapted to contact with and be held in the casing by friction with said contact means and a member having a sound-chamber, secured detachably to the casing and holding the hot-wire device therein.

5. In a thermic telephone, the combination with a casing, of an axially displaceable hot-wire device therein, an insulator between the bottom of the casing and the hot-wire device, the said insulator being provided with contact sockets connected with the conductors of the outer circuit, the said hot-wire device having projecting limbs adapted to engage the said sockets for connection to an electric circuit and a member having a sound-chamber, secured detachably to the casing and holding the hot-wire device therein.

[Claims 6 to 9 not printed in the Gazette.]

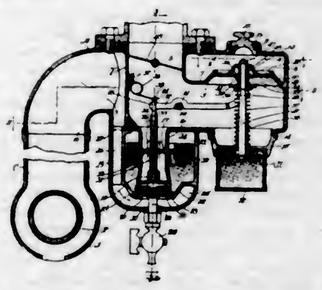
1,135,688. COMBUSTION DEVICE. ORVILLE G. HALLIBURTON, Dallas, Tex. Filed Sept. 8, 1914. Serial No. 860,775. (Cl. 158—63.)

1. The combination in a combustion device, of a supporting base having an elongated central web, feed pipes disposed on each side of the web and mounted in the base, a pair of burner members mounted on the same side of the base web above the same and each connected to a feed pipe, valves connected to each feed pipe, and heating pans mounted on the base web under the burner members.



2. In a combustion device, the combination with a supporting base, a pair of retort burner members mounted on the base, and pipes for feeding fuel oil to the members, of heating pans mounted on the base under the burner members and each having a dished bottom, a drain pipe extending under the pans, pipes connecting the pans with the drain pipe, and a valve located in the drain pipe.

1,135,689. CARBURETER. RAY W. HARROUN, Indianapolis, Ind., assignor, by mesne assignments, to Invincible Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 8, 1912. Serial No. 714,065. (Cl. 48—149.)



1. In a carbureter, a casing providing a mixing chamber and a fuel chamber, said casing being shaped to provide a primary air inlet passing around the fuel chamber in contact with the wall thereof to a space below said fuel chamber and a carbureting tube communicating between said space below the fuel chamber and said mixing chamber.

2. In a carbureter, the combination of a casing providing a mixing chamber, said casing having a tubular member extending therefrom constituting a carbureting tube leading to the mixing chamber, a second casing member providing with said first casing a fuel chamber surrounding said tubular extension, a nozzle, means at the end of said tubular member for supporting the nozzle therein having communication with the fuel chamber, means on said tubular member for engaging a part carried by a pet cock, and a pet cock provided with a part engaged by said means on the tubular member in communication with the nozzle and fuel chamber, said pet cock providing a part for abutment against said second casing to retain it and the first mentioned casing assembled.

3. In a carbureter, the combination of a casing providing a mixing chamber and a fuel chamber, said mixing chamber provided with a carbureting tube and an auxiliary air inlet, a nozzle in the carbureting tube, a valve for the nozzle, a valve for the auxiliary inlet, and means for operation of the nozzle valve by the auxiliary valve comprising lost-motion connections therebetween, and a pressure-responsive part for movement of said lost-motion connections before movement of the auxiliary valve.

4. In a carbureter, the casing providing a mixing chamber having a carbureting tube and an auxiliary air inlet, carbureting means in the tube, a valve for the auxiliary inlet, connections between said carbureting means and valve, and retard means for said valve, said connections including a movable part having lost-motion connection with said valve, and a pressure-responsive part, operable independently of said retard means, for moving said connections.

5. In a carbureter, a casing providing a mixing chamber having a carbureting tube and an auxiliary air inlet, carbureting means in the carbureting tube, a closure for said auxiliary inlet including a diaphragm, a diaphragm-carried part, and a valve, connections between said diaphragm-carried part and said carbureting means, means for holding said inlet valve closed controlled by the diaphragm, and retard means for said valve.

[Claims 6 to 10 not printed in the Gazette.]

1,135,690. DRINKING-FOUNTAIN. RALPH W. E. HAYES, Galva, Ill., assignor to Hayes Pump & Planter Company, Galva, Ill., a Corporation of Illinois. Filed Sept. 12, 1911. Serial No. 648,823. (Cl. 103—61.)

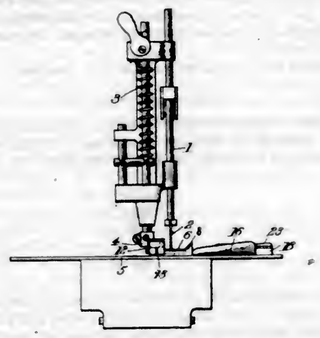


1. In a device of the class described, the combination of a hand operated pump, an air reservoir in the same for accumulating a supply of water under air pressure, a discharge spout in communication with said reservoir, a vertically extending drinking fountain adapted to communicate with the passage in said spout, and a valve for closing the passage in said spout, or for directing a flow of water either from the spout or from the drinking fountain as desired, whereby when said valve closes the passage in the spout the pump may be operated to accumulate a supply of water in the reservoir under air pressure, and whereby the valve may be subsequently turned to direct a flow of water under such pressure from the drinking fountain.

2. In a device of the class described, the combination of a hand operated pump, an air reservoir in the upper portion of the same for accumulating a supply of water under air pressure, a discharge spout in communication with the lower portion of said reservoir, whereby substantially the entire amount of water within the reservoir may be discharged through said spout, a vertically extending drinking fountain adapted to communicate with the passage in said spout and located to one side of the spout, the pump having an operating handle located to the other side of the spout, and a valve for closing the passage in the spout to prevent the discharge of water from the reservoir, or for directing a stream of water either from the spout or from the drinking fountain.

1,135,691. SEWING-MACHINE. OTTO A. HINDERER, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 16, 1908. Serial No. 467,860. (Cl. 112—9.)

1. A sewing machine including in combination, spaced needles, a presser foot having a guiding recess on its under face for a folded strip of fabric, and a folder for folding the edges of said strip underneath the body portion of the strip so that said edges substantially meet centrally of the folded strip, said folder comprising a tongue around which the strip is folded, said tongue at the forward end thereof being supported by a rib extending longitudinally of the folder, and side portions which extend around the outer edges of the tongue for folding the edges of the strip around the said tongue.



2. A sewing machine including in combination, spaced needles, a presser foot having a guiding recess on its under face for a folded strip of fabric, and a folder for folding the edges of said strip underneath the body portion of the strip so that said edges substantially meet centrally of the folded strip, said folder comprising a tongue around which the strip is folded, said tongue at the forward end thereof being supported by a rib extending longitudinally of the folder, and side portions which extend around the outer edges of the tongue for folding the edges of the strip around the said tongue, said side portions being supported beneath said tongue and having their upper edges spaced throughout the greater portion of the length of the folder a considerable distance to facilitate the feeding of the strip through the folder by the hand of the operator.

3. A sewing machine including in combination, spaced needles, a presser foot having a guiding recess on its under face for a folded strip of fabric, and a folder for folding the edges of said strip underneath the body portion of the strip so that said edges substantially meet centrally of the folded strip, said folder comprising a tongue around which the strip is folded, said tongue at the forward end thereof being supported by a rib extending longitudinally of the folder, side portions which extend around the outer edges of the tongue for folding the edges of the strip around the said tongue, and means located in front of the folder for engaging each edge of the strip for positioning the same relative to the folder, so that the edges will be symmetrically disposed relative to the folded strip.

4. A sewing machine including in combination, spaced needles, a presser foot having a central portion through which said needles pass, independent yielding portions at each side of said central portion of the presser foot and carried thereby, said yielding portions being adapted to extend below the central portion to form edge guides for a folded strip at each side of said strip, and a folder for folding the edges of a strip underneath the body of the strip so that said edges substantially meet centrally of the strip, said folder including a flat tongue underneath which the edges of the strip are folded, means for supporting the tongue, side portions supported beneath the tongue and extending around the edges thereof and over the tongue for folding the edges of the strip, said side portions above the folder being spaced a considerable distance to facilitate the insertion of the strips into the folder by the operator, and means located in advance of the folder for guiding the strips so that the folded edges will be symmetrically disposed relative to the strip.

5. A sewing machine including in combination spaced needles, a presser foot having a central portion through which said needles pass, independent yielding portions at each side of said central portion of the presser foot and carried thereby, a folder independent of said presser foot and located in advance thereof, said folder having means for folding a strip of fabric with its edges substantially

meeting underneath the strip at the center thereof, said folder having its upper face cut away forming a recess extending to a point adjacent the delivery end thereof, whereby short pieces of strips may be led through the folder, and means for guiding the folded edges of a strip underneath the presser foot and between the yielding portions thereof.

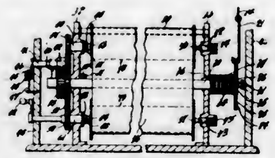
[Claims 6 to 11 not printed in the Gazette.]

1,135,692. SAFETY-PIN. NEVILLE HUNSBERGER, Aldan, Pa., assignor to Samuel Sternberger, Philadelphia, Pa. Filed Sept. 12, 1914. Serial No. 861,352. (Cl. 24—156.)



In a safety pin, a pin proper having in the side of its point portion a groove and a neck, and a pin point shield bent upon itself to form a back and side walls and having on the inner ends of its side walls inwardly extending lips entirely separated from each other and tapered from their outer ends inwardly, said lips having inwardly extended shoulders adjacent to the back of the shield whereby said neck is seated on the shoulders of said end lips while being held tightly against the back of the shield and so interlocked by said shoulders and back.

1,135,693. STREET AND STATION INDICATOR. WILLIAM JACOBSEN, JAMES DUNCAN CAMERON, and FREDERIC JOSEPH LOUGH, Dunedin, New Zealand, assignors to The Jacobsen Destination Indicator Company Limited, Dunedin, New Zealand, a Corporation of New Zealand. Filed Dec. 20, 1912. Serial No. 737,773. (Cl. 40—47.)



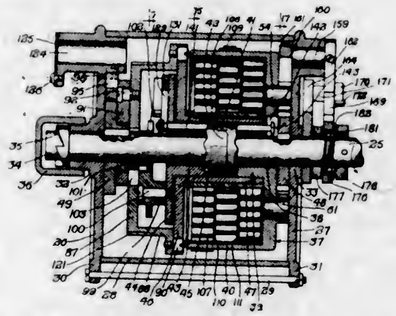
1. In an apparatus of the kind described, the combination with an over head wire having a striking plate secured thereto, of a vehicle, a striking finger mounted upon the vehicle adapted to strike against said plate, a quadrant rotatable with the finger, a cord operable by the action of the quadrant, a casing, a main spindle disposed within said casing and rotatable by the pull of the cord, an arm fixed to the spindle, a pin pivoted in the arm, a pawl fixed to the pin, a spring, an arm fixed to the pin and connected to the casing by said spring, a spur wheel, a ratchet wheel operable by said pawl and integral with said spur wheel, pinions gearing with said spur wheel, a pair of rollers, spindles upon which the pinions are fixed and adapted to operate said rollers, and a station indicating band mounted upon said rollers.

2. In an apparatus of the kind described, the combination with an over head wire having a striking plate secured thereto, of a vehicle, a striking finger mounted upon the vehicle and adapted to contact with said plate, a quadrant rotatable with the finger, a cord operable by the action of the quadrant, a casing, a main spindle disposed within said casing, a disk having a plurality of holes and fixed to the main spindle, a hook upon said cord adapted to engage one of said holes, an arm fixed to the spindle, a pin pivoted in said arm, a pawl fixed to the pin, a spring, an arm fixed to the pin and connected to the casing by said spring, a spur wheel, a ratchet wheel operable by the pawl and integral with said spur wheel, pinions gearing with said spur wheel, a pair of rollers, spindles upon which said pinions are fixed and adapted to operate said rollers, and a station indicating band mounted upon said rollers.

3. In an aparatus of the type described, the combination with an overhead wire having a striking plate secured thereto, of a vehicle, a striking finger mounted upon the vehicle and adapted to contact with said plate, a quadrant rotatable with the finger, a pinion, said quadrant having teeth gearing with the pinion, an arm fixed to said pinion, a tension cord attached to the arm, a hook upon the end of the cord, a casing, a main spindle disposed within said casing, an operating disk, attached to said spindle, said disk having a plurality of holes within which said hook is adapted to engage, an arm fixed to said spindle, a pin pivoted in the arm, a pawl fixed to the pin, a spring, an arm fixed to said pin and connected to the casing by said spring, a spur wheel, a ratchet wheel operable by said pawl and integral with said spur wheel, pinions gearing with the spur wheel, a pair of rollers, spindles upon which the pinions are fixed and adapted to operate said rollers, and a station indicating band mounted upon said rollers, as and for the purpose specified.

4. In an apparatus of the type described, the combination with an over head wire suporting a striking plate secured thereto, of a vehicle, a striking finger mounted upon the vehicle adapted to strike against said plate, a quadrant rotatable with the finger, a cord operable by the action of the quadrant, a casing, a main spindle disposed within said casing and rotatable by the pull of the cord, an end plate and a disk spaced therefrom secured to said main spindle, an arm fixed to the spindle, a pin pivoted in the arm, a pawl fixed to the pin, a spring, an arm fixed to the pin and connected to the casing by said spring, a spur wheel, a ratchet wheel operable by the pawl and integral with said spur wheel, pinions gearing with said spur wheel, a pair of rollers, spindles upon which the pinions are fixed and adapted to operate said rollers, a station indicating band mounted upon said rollers, a spring surrounding the end of the main spindle and connected at one end to said end plate of the apparatus and at the other end to the disk, a pin projecting from the main spindle, and stops limiting the movement of said pin.

1,135,694. STARTING MECHANISM FOR MOTORS. JEREMIAH KELLER, Chicago, Ill. Filed Nov. 24, 1912. Serial No. 731,457. (Cl. 123—187.)



1. In a starter the combination of a driving or driven shaft, a power spring, a pair of abutments, means for connecting both ends of the power spring to the abutments when the power spring is wound, means for connecting one end of the power spring to the shaft for starting purposes, means for connecting the other end of the power spring to the shaft and the first end of the power spring to an abutment for winding purposes, and means for connecting the last mentioned end of the power spring back to an abutment after the winding is completed, substantially as described.

2. In a starter, the combination of a driving or driven shaft, a power spring, a pair of abutments, means for connecting one end of the power spring to the shaft for

starting purposes, means for connecting said end of the power spring to an abutment for winding purposes, means for connecting the other end of the power spring to an abutment for starting purposes, means for connecting said end of the power spring to the shaft for winding purposes, and a star wheel for controlling said end of the spring to determine the number of revolutions effected by the shaft in starting and winding, substantially as described.

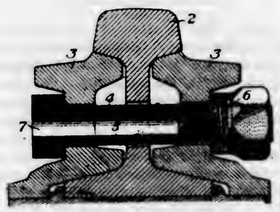
3. In a starter, the combination of a driven or driving shaft, a power spring, a pair of abutments, means for connecting one end of said power spring to the shaft for starting purposes, means for connecting said end of the power spring to an abutment, for winding purposes, the other end of the power spring being free for connection either to an abutment for starting purposes or to the shaft for winding purposes, and a star wheel for effecting the connection of said end of the power spring to the shaft after a predetermined number of revolution in starting, and for connecting said end of the power spring to an abutment after a predetermined number of revolutions are performed in winding, substantially as described.

4. In a starter, the combination of a driving or driven shaft, a power spring, a pair of abutments, means for connecting one end of said power spring to the shaft for starting purposes, a brake for retarding the movement of said end of the power spring after a predetermined number of revolutions, means for connecting said end of the power spring to an abutment after the brake has retarded the movement thereof, means for connecting the other end of the power spring to an abutment for starting purposes, and means for connecting said end of the power spring to the shaft for winding purposes, substantially as described.

5. In a starter, the combination of a driving or driven shaft, a power spring, a pair of abutments, means for connecting one end of the power spring to the shaft for starting purposes, a brake for retarding the movement of said end of the power spring after a predetermined number of revolutions have been effected, means for connecting said end of the power spring to an abutment after its movement has been retarded, means for connecting the other end of the power spring to an abutment for starting purposes, means for connecting said end of the power spring to the shaft for winding purposes, and means for controlling the number of revolutions effected by the shaft in starting and in winding, substantially as described.

[Claims 6 to 70 not printed in the Gazette.]

1,135,695. RAIL-JOINT. JULIAN KENNEDY, Pittsburgh, Pa. Filed Sept. 22, 1913. Serial No. 790,971. (Cl. 85—1.)



1. In a rail joint, the combination with a rail and joint members, of track bolts extending through the rail and the joint members, said bolts having an intermediate unthreaded portion of an external diameter at least as great as the external diameter of its threaded end portion, said intermediate portion being weakened relatively to the threaded end portion to cause the major part of the stretching of the bolt to occur in said intermediate portion, substantially as described.

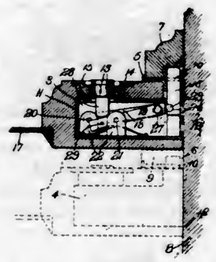
2. In a rail joint, the combination with a rail and joint members, of track bolts extending through the rail and the joint members, said bolts having an intermediate unthreaded portion of an external diameter at least as great as the external diameter of its threaded end portion, said intermediate portion being internally weakened relatively to the threaded end portion to cause the major part of the stretching of the bolt to occur in said intermediate portion, substantially as described.

3. In a rail joint, the combination with a rail and joint members, of track bolts extending through the rail and the joint members, said bolts having an intermediate unthreaded portion of an external diameter at least as great as the external diameter of its threaded end portion, said intermediate portion being internally weakened by the removal of a portion of the metal from the interior thereof relatively to the threaded end portion said weakened portion terminating short of the threaded portion of the bolt, substantially as described.

4. A rail joint having a joint bolt formed with a threaded end portion and an unthreaded intermediate portion, the intermediate portion being of an external diameter substantially as great as the maximum diameter of the threaded end portion, but having a portion of the metal removed from the interior thereof, with its threaded portion solid substantially as described.

5. A joint bolt, having a head at one end and an externally threaded portion at the opposite end, and a cavity extending longitudinally into the bolt through the headed end thereof, said cavity terminating short of the threaded portion of the bolt; substantially as described.

1,135,696. WINDOW-FASTENING. WILLIAM C. KENTZER, New Rochelle, N. Y. Filed Sept. 26, 1913. Serial No. 791,889. (Cl. 16—18.)



1. A window fastening consisting of a bolt, two levers each being pivotally mounted and connected to the bolt at one end and means engaging each lever for actuating the bolt, one for advancing it and the other for retracting it, one said means engaging one lever between the pivot and the bolt, the other said means engaging the other lever at its extremity beyond the pivot and remote from the bolt.

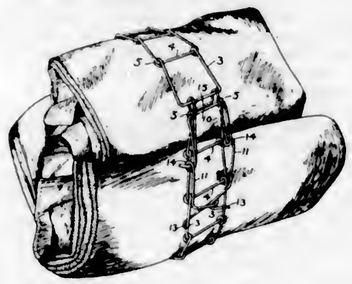
2. A window fastening consisting of a bolt, two levers each pivotally mounted to swing in the plane of the bolt and connected to the bolt at one end, two push buttons, one for each lever, one for advancing and the other for retracting it, one said button being connected to the one lever between the pivot and the bolt, the other button engaging the other lever at its extremity beyond the pivot and remote from the bolt.

3. A window fastening consisting of a bolt, two levers each pivotally mounted to swing in the plane of the bolt and connected to the bolt at one end, two push buttons, one for each lever, one for advancing and the other for retracting it, one said button being connected to the one lever between the pivot and the bolt, the other button engaging the other lever at its extremity beyond the pivot and remote from the bolt, the connection between the levers and the bolt consisting of a pivotal connection between the end of one lever and the bolt, and a slot and pin connection between the end of the said lever adjacent the bolt and the other lever.

4. A window sash suitably mounted to move in ways in combination with a window fastening device mounted on the inside face of the sash comprising a bolt suitably mounted to move at right angles to the plane of the win-

dow glass and means to operate said bolt from the inside of the window, a keeper for said bolt provided in the inside wall of the window sash way, said bolt coöperating with said keeper.

1,135,697. BINDER. LEO P. KEVENEY and CARL F. COLLINGE, Toledo, Ohio. Filed Nov. 8, 1913. Serial No. 799,881. (Cl. 24—19.)



1. The combination of a chain having rectangular wire links, each link having an end cross-bar, a clasp secured to one end of the chain and having a rectangular hook for engaging any one of the cross-bars of the links, the hook being connected to the central portion of the clasp, the clasp having elastic upwardly and outwardly turned side members which engage with the side bars of one of the links by closing movements of the clasp.

2. The combination of a chain having rectangular wire links, each link having an end cross-bar, a clasp secured to one end of the chain, a rectangular hook pivoted centrally to the clasp for engaging any one of the cross-bars of the links, the hook having a downwardly and rearwardly turned lip extending to a point close to the cross-bar of the clasp when the binder is in binding position.

1,135,698. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed June 6, 1914. Serial No. 843,323. (Cl. 2—73.)



1. An apparel corset comprising a corset body half, a skirt attached to each corset body half, extending forwardly from the rear medial line thereof, a skirt extension member completing the continuity of each skirt to substantially the front medial line of the corset and connected along one side edge to its skirt and a portion of the corset body half, and at its upper edge free from the corset body half, devices for adjustably attaching the upper front portion of the skirt extension to the lower front portion of the corset body half, a hose supporter by which, in use of the garment, a longitudinal tension is placed upon the skirt extension and the attaching device, and means for relieving the longitudinal tension placed on the said attaching device, and simultaneously forcing inwardly the lower front portion of the corset body half and forcing outwardly the upper front portion of the corset body half at the bust line.

2. An apparel corset comprising corset body halves, a skirt attached to each corset body half, extending forwardly from the rear medial line thereof, a skirt extension member completing the continuity of each skirt to substantially the front medial line of the corset and connected along one side edge to its skirt and a portion of the corset body half, and at its upper edge free from the corset body half, devices for adjustably attaching the upper front portion of the skirt extension to the lower front portion of the corset body half, a hose supporter attached to the lower edge of the skirt extension adjacent the corner thereof, and a tension strap fixed at its upper end to the lower portion of the corresponding corset body half, adjacent the line of the free upper edge of the skirt extension and at its lower end to the lower edge of the skirt extension adjacent the front corner thereof.

1,135,699. ADJUSTABLE FIXTURE STUD AND SUPPORT. ALEXANDER M. KNAUBER, Oak Park, Ill., assignor to Margaret Knauber, Oak Park, Ill. Filed Oct. 1, 1914. Serial No. 864,479. (Cl. 248—30.)



1. As an article of manufacture, a stud provided with a slot extending inwardly from one end thereof and having laterally projecting shoulders at the inner end of said slot, the slotted portion of the stud being exteriorly screw threaded.

2. As an article of manufacture, a stud exteriorly screw threaded and having laterally projecting shoulders between its ends, there being a slot extending inwardly from one end of the stud to said shoulders.

3. An article of manufacture, a section of pipe screw threaded exteriorly, diametrically opposed portions of the pipe being partially severed and bent outwardly.

4. An article of manufacture, a section of pipe screw threaded exteriorly, diametrically opposed portions of the pipe being partially severed and bent outwardly at an angle of less than ninety degrees with the axis of the pipe.

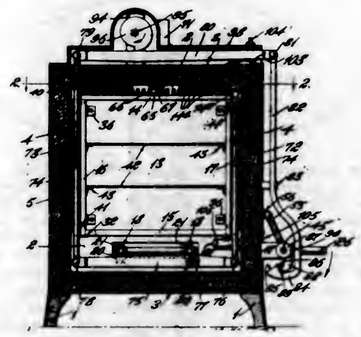
5. A fastening device comprising a stud screw threaded at one end and having a slot extending inwardly from said end, said stud being provided with laterally projecting shoulders at the inner end of the slot, and a nut fitting on said screw threaded end.

[Claims 6 to 10 not printed in the Gazette.]

1,135,700. GAS-OVEN. AUGUST H. KOHLMEYER, St. Louis, Mo., assignor to Thermo Automatic Stove Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 30, 1914. Serial No. 815,390. (Cl. 126—39.)

1. In an oven, a chamber having double walls filled with a heat insulating material, a cooking chamber in said chamber having metal walls spaced from the inner walls of said chamber, said first mentioned chamber completely surrounding said cooking chamber, a burner below said cooking chamber and heating the bottom, top and side walls thereof, a valve for controlling the supply of heating medium to said burner, a vent opening in said first mentioned chamber, a damper for closing said vent opening, a member mounted in said chamber and capable of expanding when heated, means controlled by said member for closing said valve and said damper, and means for varying the amount of movement of said member necessary to set said last mentioned means into operation.

2. In an oven, a chamber having double walls filled with a heat insulating material, a cooking chamber within said chamber and having metal top, bottom and two side walls spaced from the inner walls of said chamber, said side walls and said top of said cooking chamber having a plurality of integral pins arranged in staggered relation, said pins extending out into the space between the top and two side walls of said cooking chamber and the inner walls of said first mentioned chamber, a vent opening in said first mentioned chamber located in the rear wall thereof and above the top of said cooking chamber, and a plurality of baffle plates on the upper surface of the top of said cooking chamber, said baffle plates extending at an angle to said walls of said cooking chamber.



3. In an oven, a chamber, a burner within said chamber, a cooking chamber within said chamber having its top, bottom and two side walls spaced from the inner walls of said chamber, said bottom being disposed above said burner and comprising a metal plate having a series of holes therein arranged in transverse and longitudinal rows and in staggered relation to one another, the top face of said plate being formed with transverse and longitudinal grooves intersecting said holes, and the bottom face of said plate being formed with transverse and longitudinal grooves lying between said holes and intersecting one another.

4. In an oven, a chamber, a cooking chamber within said chamber and having its top, bottom and two side walls spaced from the inner walls of said chamber, said top, and side walls being of a material capable of absorbing heat and having on their faces a plurality of integral pins arranged in staggered relation and extending out into the space between the inner walls of said chamber and said top, and two side walls, the under face of the bottom of said cooking chamber having a number of intersecting grooves therein.

5. In an oven, a chamber having walls of a material capable of absorbing heat, heat insulated walls completely surrounding said chamber, there being a space between the top, bottom and walls of said cooking chamber and said heat insulated walls, a gas burner for heating said chamber, an opening for supplying air to said burner, a vent opening, dampers for closing said opening and said vent opening, a valve controlling the supply of gas to said burner, means for closing said valve and for shutting said dampers, said means being controlled by the temperature in said chamber, said means being adjustable whereby the amount of heat supplied to said cooking chamber necessary to set said means into operation can be varied.

[Claims 6 to 19 not printed in the Gazette.]

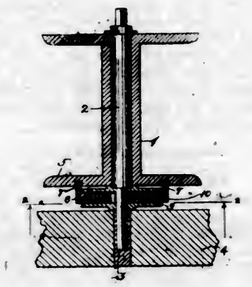
1,135,701. LOOM. HENRY LANGER, Middletown Conn. Filed Apr. 3, 1912. Serial No. 688,156. (Cl. 139—77.)



1. In a loom having a reed and a take up roll, the said reed being a differential reed having different effective widths for different positions of elevation, the said take-up roll being a differential roll having different dimensions of cross-section for different positions along the axis, and having an eccentric form of cross-section at the middle, means for effecting a periodic vertical movement of the said reed between determined limits, and means for rotating the said take up roll, and the said several means being inter-connected so that the periodic movements of the said reed will be related in a predetermined manner to the periodic movements of the said take up roll.

2. A loom comprising a reed having different effective widths in different positions and means for periodically varying the positions thereof, a differential take up roll rotatively mounted and having means for varying the amount of take up in different positions, means for coöperatively operating the said reed and take up roll whereby the periodicity of the said reed will correspond to the rotative motion of the said take up roll and operative to weave equal lengths of warp in the entire width of the goods with varying widths of the same goods.

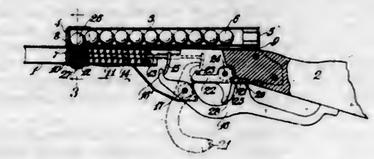
1,135,702. TENSION DEVICE FOR SPOOLS. JOHN LARSON, New Britain, Conn. Filed Dec. 2, 1912. Serial No. 734,587. (Cl. 242—156.)



1. In combination, a creel having a stationary shaft secured at one end thereto, a spool rotatable on the shaft, an annular member having interlocking engagement with the spool and provided with internal rack teeth, and a volute spring secured at its inner end to said shaft and having its outer end bent outwardly and adapted to have a positive step-by-step engagement with the teeth of the rack.

2. In combination, a creel having a shaft secured at one end thereto, a spool rotatable on the shaft and provided with sockets in one end thereof, a bearing disk secured to the shaft, an annular member resting on the bearing disk and formed with internal rack teeth and upstanding prongs adapted to fit in the sockets of the spool a spring secured at one end to the shaft and having a deflective free end adapted to have a step-by-step engagement with the rack teeth and a second disk resting on said annular member and adapted to confine the spring within the rack teeth.

1,135,703. TOY GUN OF THE MAGAZINE TYPE. GEORGE C. LASARES, Springfield, Mass. Filed Apr. 9, 1914. Serial No. 830,658. (Cl. 124—13.)

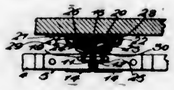


1. In a toy gun designed to expel spherical projectiles and comprising, in combination, a barrel member, a magazine for containing said projectiles, and located above the

barrel-member, registering openings between the barrel and magazine to permit the foremost projectile to fall by gravity from the magazine into the barrel, an elastic receptacle located on the lower external side of the barrel and arranged in an opening thereof to temporarily retain a projectile in place prior to its expulsion, means comprising a pivotally mounted handle having an upwardly extending end for engaging a single downwardly extending projection on the end of the expelling means for forcing the expelling means rearwardly a trigger engaging the projection to lock and release the expelling means whereby said projectile will be driven from the barrel as described.

2. In a toy gun of the magazine type and designed to expel spherical projectiles, a barrel, a stock secured to the barrel, a magazine secured to the stock and barrel in an inclined position and located above the barrel, registering openings between the forward portion of the magazine and the rearward portion of the barrel to permit the foremost projectile to pass from the magazine into the barrel by gravity, an elastic tongue formed with a curved portion to receive and temporarily retain said projectile in position prior to its expulsion from the barrel, and located within an opening of the barrel, expelling means comprising a piston, a rod secured thereto, stops located near the rear end of the barrel, a compression spring located between the piston and said stops, the rear portion of the rod being formed with a downwardly projecting portion, a trigger, a setting lever for the piston designed to move the downwardly projecting portion of the rod to engage the trigger, means for locking the setting lever to the stock portion of the gun, whereby when the trigger is released said projectile will be expelled.

1,135,704. REINFORCED EXTENSION DRAWER-SLIDE. ALONZO K. LOFTIN and CHARLES S. MURPHY, Altavista, Va., assignors of one-third to W. G. Lane, E. B. Harris, and W. G. Lane, Jr., trading under the firm name of Lane-Harris & Company, Altavista, Va. Filed Mar. 26, 1914. Serial No. 827,412. (Cl. 45—77.)

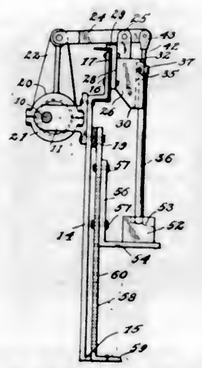


1. A drawer slide comprising a base member composed of angle irons having their webs connected together and their flanges extending in opposite directions and in the same plane, an extension member slidable on said base member and composed of a metal strip folded longitudinally on laterally spaced lines to form inturned guides for sliding engagement with the flanges of said base member, the edges of said guides being bent outwardly to form auxiliary guides, and a drawer attaching member slidable on said extension member and having flanges for engagement with said auxiliary guides.

2. A drawer slide comprising a base member composed of angle irons having their webs connected together and their flanges extending in opposite directions and in the same plane, an extension member slidable on said base member and composed of a metal strip folded longitudinally on laterally spaced lines to form inturned guides for sliding engagement with the flanges of said base member, the edges of said guides being bent outwardly to form auxiliary guides, and a drawer attaching member slidable on said extension member and having flanges for engagement with said auxiliary guides, said auxiliary guides being bent downwardly at their rear ends to form stops, and a stop on said base member for coöperation with the stops on said extension member for limiting the outward movement of said member.

3. A drawer slide comprising an extensible base member composed of telescopically engaged sections, one of which has a web with flanges extending laterally on opposite sides at its top and bottom and the other having hollow laterally extending bottom flanges to receive the bottom flanges of the other section and laterally spaced upwardly extending flanges to receive the web of said first mentioned section, and a drawer attaching member slidably carried by said base member.

1,135,705. APPARATUS FOR REMOVING BURS. WILLIS MCKEE, Elyria, Ohio, assignor to The Elyria Iron & Steel Company, Elyria, Ohio, a Corporation of Ohio. Filed Dec. 6, 1913. Serial No. 804,985. (Cl. 90—44.)



1. In an apparatus of the character described, the combination of a reciprocable plunger adapted to enter a pipe-like tube, a tool carried by the plunger and adapted to bear against the inner surface of the tube, an abutment against which an end of the tube may bear when the plunger and tool are within the tube, and an abutment against which the opposite end of the tube may simultaneously bear.

2. In an apparatus of the character described, the combination of a tool, a reciprocating member pivotally carrying the tool, and a guide for the end of a pipe-like tube adjacent the tool, means for moving said tool into and out of the end of the tube, said tool being adapted to press outwardly against the inner surface of the tube, whereby an inwardly turned bur at the end of the inside surface may be broken off by the tool.

3. The combination of a means for holding a pipe-like tube in a removable manner, a plunger, means for reciprocating the plunger within the end of the tube, a tool pivoted to the plunger and extending alongside of it whereby it may engage inwardly turned burs at the end of the tube, and means for limiting the movement of the tool away from the plunger.

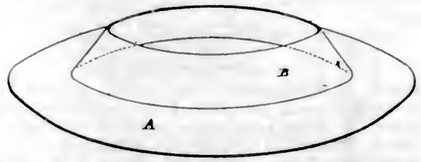
4. The combination of a guide for the end of a round pipe-like tube, a plunger adapted to enter the end of the tube, and a tool having a partially cylindrical outside surface of substantially the same radius as the inner surface of the tube, the inside surface of the tool being adapted to substantially fit around the plunger, said tool being pivoted to the end of the plunger and adapted to swing outwardly, and means for reciprocating the plunger.

5. The combination of a reciprocating tool adapted to enter the end portion of a pipe-like tube and engage an inwardly turned bur at the end thereof, a guide adjacent the tool for loosely embracing the outside of the tube near that end, allowing the tube to be turned while in the guide, and an abutment adapted to extend over and engage that end of the tube.

[Claims 6 to 18 not printed in the Gazette.]

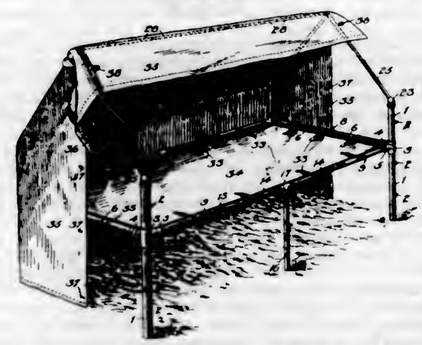
1,135,706. DEVICE FOR PLAYING AND PRACTISING GOLF, PUTTING, AND OTHER GAMES. DANIEL MAHER, Liverpool, England. Filed Mar. 28, 1914. Serial No. 827,970. (Cl. 46—4.)

1. An appliance for catching balls in playing or practising golf, putting or other games, comprising an annular base piece, and a flange or rim formed of a single thickness of thin pliable but resilient material extending upward from the inner edge of the base piece, the flange having insufficient rigidity to support the ball, whereby when a golf ball rolls over the external base, the portion of the flange against which the ball impacts, will be depressed or flattened inward, the resiliency of the flange causing it to resume its normal shape as soon as the ball has passed off therefrom.



2. An appliance for catching balls in playing or practising golf, putting or other games, comprising an annular base piece resting flat upon the ground or other surface and having a thin pliable and resilient upwardly and inwardly extending flange formed of a single piece of material within the outer edge of said base piece, said flange having insufficient rigidity to support the ball, whereby when a golf ball rolls over the external base, the portion of the flange against which the ball impacts will be depressed or flattened inward, the resiliency of the flange causing it to resume its normal shape as soon as the ball has passed off therefrom.

1,135,707. PORTABLE KNOCKDOWN SHELTERED COT. HENRY MATTES, New York, N. Y., assignor of one-half to George E. Poehn, New York, N. Y. Filed Feb. 14, 1914. Serial No. 818,778. (Cl. 5—5.)



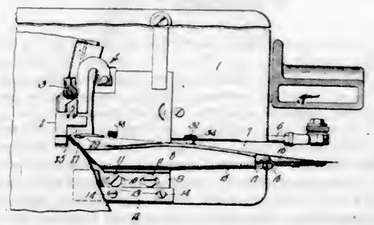
1. A knockdown cot of the class described including in combination a frame having corner posts of enlarged tubular formation, tubular end rails formed of separable sections of less diameter than the corner posts and detachably supported therein, tubular side rails formed of separable sections of less diameter than the end rails also detachably supported in said corner posts, and means including a flexible cot bottom in a plane with said end and side rails and connected therewith for securing and retaining them in assembled relation and having along at least one of its four edges detachable connections.

2. A knockdown cot of the class described including in combination a frame having corner posts of enlarged formation, tubular end rails formed of uniform separable sections of less diameter than the corner posts and detachably supported therein, tubular side rails each formed of separable sections of varying cross sectional area and of less diameter than the end rails also detachably supported in said corner posts, a tubular supporting leg detachably secured to each side rail intermediate of its corner posts, and means including a removable flexible cot bottom, in a plane with said end and side rails and connected therewith for securing and retaining all of said rails in assembled relation and having along at least one of its four edges detachable connections.

3. A knockdown cot of the class described including in combination a frame having corner posts of enlarged tubular formation, tubular end rails formed of separable sections of less diameter than the corner posts and detachably supported therein, tubular side rails formed of separable sections of less diameter than the end rails also detachably supported in said corner posts, a superimposed cover-supporting frame composed of tubular sections of less diameter than the separable sections of the side rails, including a sectional ridge member, and means including a flexible cot bottom in a plane common to said end and side rails and connected therewith for securing and retaining all parts in operative assembled relation and having along at least one of its four edges detachable connections.

4. A knockdown cot of the class described including in combination a frame having corner posts of enlarged tubular formation, tubular, end rails formed of separable sections of less diameter than the corner posts and detachably supported therein, tubular side rails formed of separable sections of less diameter than the end rails also detachably supported in said corner posts, a tubular intermediate supporting leg detachably secured to each side rail by means of a surrounding T-head, a spring-pressed bolt normally protruding from each of said tubular legs into its T-head and adapted to interlock with its adjacent side rail, and means including a detachable flexible cot bottom in a plane common to said end and side rails and connected therewith for securing and retaining them in operative assembled relation and having along at least one of its four edges detachable connections.

1,135,708. FOLDER FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 22, 1906. Serial No. 349,061. (Cl. 112—1.)



1. A sewing machine, comprising in combination stitch-forming mechanism, feeding mechanism and a folder including in combination, a main folding member and an auxiliary folding member coöperating therewith, said auxiliary folding member being adjustable at its delivery end both laterally and longitudinally of said main folder, and means for holding the same in its adjusted positions, said folder being located substantially at right angles to the line of feed; substantially as described.

2. A sewing machine, comprising in combination stitch-forming mechanism, feeding mechanism and a folder including in combination, a main folding member and an auxiliary folding member for engaging the binding strip at the fold therein and over which said binding strip is inverted, said auxiliary folding member being adjustable longitudinally of said main folder, and means for holding the same in its adjusted positions, said folder being located substantially at right angles to the line of feed; substantially as described.

3. A folder including in combination, a main folding member and an auxiliary folding member coöperating therewith, means for yieldingly and adjustably supporting the delivering end of said auxiliary folder and means for

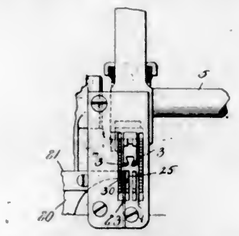
adjusting the same bodily longitudinally of the main folding member; substantially as described.

4. A sewing machine, comprising in combination stitch-forming mechanism, feeding mechanism and a folder including in combination, a main folding member and an auxiliary folding member coöperating therewith, means whereby said auxiliary folding member may be bodily adjusted relative to said main folder, and means whereby the delivery end of said auxiliary folder may be laterally adjusted relative to the main folder, said folder being located substantially at right angles to the line of feed; substantially as described.

5. A sewing machine comprising feeding mechanism, and a folder including in combination, a main folding member having means for folding the edge of a strip to be folded, and an auxiliary member located within said main folder and engaging and folding said strip between its edges, and means for adjusting said auxiliary member longitudinally of said main folder, said folder being located substantially at right angles to the line of feed; substantially as described.

[Claims 6 to 26 not printed in the Gazette.]

1,135,709. TRIMMING MECHANISM FOR SEWING-MACHINES. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 11, 1907. Serial No. 361,697. (Cl. 112—6.)



1. A sewing machine comprising in combination stitch-forming mechanism, including two spaced needles and a trimming mechanism including a trimmer blade arranged in advance of said needles, said trimming blade having its cutting edge at one face thereof and lying in a line passing outside of said needles whereby one of the cut edges will be directed outside of said needles and means for directing the other cut edge between said needles.

2. A sewing machine including in combination, stitch-forming mechanism comprising spaced needles and a trimming mechanism, including a trimming member arranged in front of said needles and having a tapered shank for deflecting one of the cut edges between the said spaced needles; substantially as described.

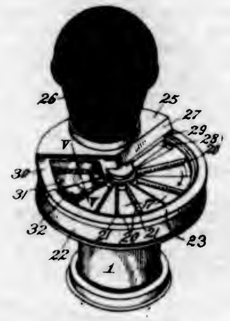
3. A sewing machine including in combination, stitch-forming mechanism, comprising spaced needles and a trimming mechanism including an overhanging trimming blade, a tapered shank for supporting the same, one face of said shank lying in a vertical plane extending outside of said needles, and the other face of said tapered shank lying in a vertical plane passing between said needles; substantially as described.

4. A sewing machine including in combination, stitch-forming mechanism comprising spaced needles and a trimming mechanism arranged in front of said needles, comprising upper and lower trimming members, said upper trimming member having a pointed overhanging cutting blade, and a tapered shank for supporting said cutting blade, said tapered shank having one face thereof lying in the plane of the cutting edge, and the other face thereof extending at an angle thereto, whereby one of the cut edges is deflected between said spaced needles; substantially as described.

5. A sewing machine including in combination, stitch-forming mechanism comprising spaced needles and a trimming mechanism, including a lower stationary member, an upper movable cutting member, said upper movable cutting member having a pointed forward end and an overhanging cutting edge, and a shank for supporting the same having a tapered face, whereby one of the cut edges is deflected from the other cut edge, said trimming mechanism being so located relative to said needles that one of said needles operates in the space between the separated cut edges; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,135,710. INSECT-TRAP. WILLIAM M. MURPHY and JOHN J. REDNER, New York, N. Y.; said Murphy assignor, by mesne assignments, to The U. S. Manufacturers' Distributing Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 23, 1913. Serial No. 762,996. (Cl. 43—32.)



1. In an insect trap, a rotatable disk, means for rotating the same, a housing inclosing a segment of said disk and having a portion extending entirely under the lower surface thereof, and an annular flange on said housing overlapping the exposed portion of said disk and in close proximity thereto.

2. In an insect trap, a rotatable member comprising a plurality of superposed disks adapted to form a plurality of compartments for insect enticing substance, said compartments communicating with the exposed surface thereof, and means for rotating said member and a housing inclosing a segment of said member.

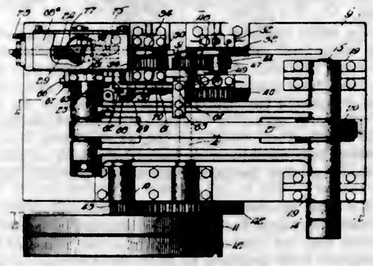
3. In an insect trap, a rotatable member comprising a plurality of superposed disks, one of said disks having depressed portions engaging the other disk and forming a plurality of compartments therewith, means of communication of said compartments with the atmosphere, and means for rotating said member and a housing inclosing a segment of said member.

4. In an insect trap, a rotatable disk, a receiving chamber mounted adjacent to a portion of said disk, means for rotating said disk, a compartment for insect enticing substance mounted on said disk, and an additional container for said substance extending under the lower surface of said disk.

5. In an insect trap, a rotatable disk, a receiving chamber mounted adjacent to a portion of said disk, means for rotating said disk, a compartment for insect enticing substance mounted on said disk, a container for semi-liquid odoriferous material extending under the lower surface of said disk, and means for preventing the flow of said liquid.

1,135,711. STAY-GRINDER. UGO MURTERA, Chicago, Ill., assignor to Kabo Corset Co., Chicago, Ill., a Corporation of West Virginia. Filed Sept. 8, 1914. Serial No. 860,634. (Cl. 51—12.)

1. In a machine of the class described, the combination of grinding means, means for bringing the grinding means into and out of grinding engagement with the work for predetermined periods, members producing a slow feed of the work, members for producing a fast feed of the work, means for bringing the slow feed members into action during the grinding operation, and means for bringing the fast feed members into action during the periods of non-grinding, substantially as described.



2. In a machine of the class described, the combination of grinding means, means for bringing the grinding means into and out of grinding engagement with the work for predetermined periods, a set of feed rolls of relatively small diameter, a set of feed rolls of relatively large diameter, and means operatively connected whereby the small feed rolls operate upon the work during the periods of grinding and the large feed rolls operate upon the work during the periods of non-grinding, substantially as described.

3. In a machine of the class described, the combination of grinding means, means operatively connected for moving the grinding means into and out of grinding engagement with the work for predetermined periods, means for producing a fast feed of the work, means for producing a slow feed of the work, said fast feeding means being in continuous engagement with the work but arranged to exert no feeding when the slow feeding means are acting and means operatively connected whereby the slow feeding means is brought into action during the periods of grinding and out of action during the periods of non-grinding, substantially as described.

4. In a machine of the class described, the combination of grinding means, feed rolls for producing a slow feed, feed rolls for producing a fast feed, means operatively connected for simultaneously rendering inactive said grinding means and slow feed rolls and keeping them inactive for a predetermined length of time, whereby the work during such period of inaction is fed by the fast feed rolls, substantially as described.

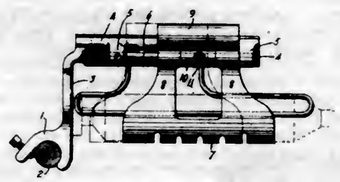
5. In a machine of the class described, the combination of upper and lower grinder members, a set of feed rolls for producing a slow feed, a set of feed rolls for producing a fast feed, means operatively connected for simultaneously moving said grinder members and slow acting feed rolls out of active engagement with the work and maintaining them inactive for a predetermined length of time whereby the work is fed forward during the such period of inaction by the operation of the fast feed-rolls, substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,135,712. BOBBIN-HOLDER. OSCAR L. OWEN, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Apr. 18, 1913. Serial No. 761,871. (Cl. 242—132.)

1. A bobbin holder for spoolers comprising a frame having a bobbin abutment, a counterbalanced bobbin-cradle pivotally suspended in front of the abutment and means for shifting the cradle relatively toward and from the abutment, to centralize the same relatively to bobbins of different size.

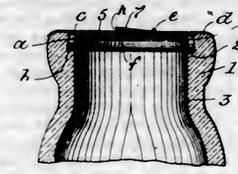
2. A bobbin holder for spoolers comprising a frame having a slotted overhang, a bobbin-cradle pivotally suspended on an axis at one side of the said overhang and movable in the direction of said axis, and a fixed abutment on the frame adapted for engagement by the bobbin in the cradle.



3. A bobbin holder for spoolers comprising a frame having an overhanging arm and a bobbin abutment, a bobbin-cradle pivotally suspended at one side of the arm and capable of adjustment toward the abutment, and a guard member pivotally suspended on the opposite side of the slot adapted to engage the bobbin, the said member extending in both directions beyond the extreme positions of the cradle.

4. A bobbin holder for spoolers comprising a frame adapted for support on a holder-rod and having a bobbin abutment and an overhanging arm, a counterbalanced bobbin-cradle pivotally suspended from the said arm and adjustable thereon toward or from the bobbin abutment, and means for securing the cradle in its adjusted position.

1,135,713. JAR-CLOSURE. CHARLES C. PARKER, Baltimore, Md. Filed May 8, 1914. Serial No. 837,109. (Cl. 215—14.)



1. A jar closure comprising an inverted cup-shaped plug or stopper having the skirt thereof provided with an outwardly and upwardly extending flange, adapted for insertion in the throat of the jar, combined with a cap adapted to cover the exterior lip of the jar, and a flanged reinforce which is secured between the crown of the stopper and the cap, with its flange in contact with the exterior surface of the skirt of the stopper.

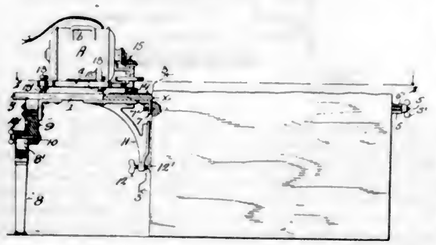
2. A jar closure comprising an inverted cup-shaped plug or stopper having the skirt thereof provided with an outwardly and upwardly extending flange adapted for insertion in the throat of the jar, combined with a cap adapted to cover the exterior lip of the jar, and a flanged reinforce which is secured between the crown of the stopper and the cap with its flange terminating between the said upward flange of the stopper and its skirt.

3. A jar closure which consists of an inverted cup-shaped plug or stopper having the skirt thereof provided with an outwardly and upwardly extending continuous or unbroken flange which produces a contractible circular edge adapted to come in contact with the inner surface of the throat of a jar, combined with a cap adapted to cover the exterior lip of the jar, and to which the stopper is secured, a reinforce interposed between the cap and the plug, and a tongue formed in the cap, by cutting through the same down to the surface of the reinforce beneath.

4. A jar closure which consists of an inverted cup-shaped plug or stopper having the skirt thereof provided with an outwardly and upwardly extending continuous or unbroken flange which produces a contractible circular edge adapted to come in contact with the inner surface of the throat of a jar, combined with a cap adapted to cover the exterior lip of the jar, and to which the stopper is se-

cured, an imperforate reinforce interposed between the cap and the plug, and a tongue formed in the cap, by cutting through the same down to the surface of the reinforce.

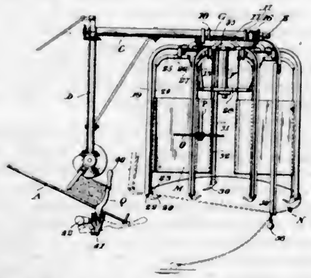
1,135,714. BLOCK-REFINISHER. FRANK J. PAVELSKE and FELIX F. MALODZIK, Cudahy, Wis. Filed July 20, 1914. Serial No. 851,895. (Cl. 144—119.)



1. A block refinishing apparatus comprising a horizontally disposed table, means for attaching the same to one edge of the block, means for adjusting the table relative to the face of the block for gaging the depth of cut in a refinishing operation, a floating motor having supporting feet adapted to initially rest upon the table, a cutting tool carried by the motor, the cutting face of which is disposed upon the same plane as the upper surface of the table, whereby the block is initially resurfaced to form a continuation of the table surface to permit the motor to travel from said table onto the block.

2. A block refinishing apparatus comprising a horizontally disposed table, means for attaching the same to one edge of the block, means for adjusting the table relative to the face of the block for gaging the depth of cut in a refinishing operation, a floating motor having supporting feet adapted to initially rest upon the table, means for adjusting the feet, a cutting tool carried by the motor, the cutting face of which is disposed upon the same plane as the upper surface of the table, whereby the block is initially resurfaced to form a continuation of the table surface to permit the motor to travel from said table onto the block.

1,135,715. SHEAF-SHOCKER. WILLIAM HUMPHRY PEARIN, New Liskeard, Ontario, Canada, assignor to Perrin Shocker Manufacturing Company Limited, New Liskeard, Ontario, Canada. Filed Nov. 15, 1913. Serial No. 801,163. (Cl. 56—121.)



1. In a sheaf shocker and in combination, sheaf supporting mechanism located stubbleward of the binder deck comprising a plurality of hook members arranged in a circle, a center hook member, said center hook member being adapted to receive the first sheaf to form a core for the shock, and means for actuating the hook members to discharge the sheaves simultaneously.

2. In a sheaf shocker and in combination, sheaf supporting mechanism located stubbleward of the binder deck comprising a plurality of hook members arranged in a circle, a center hook member, said center hook member being adapted to receive the first sheaf to form a core for the shock, and means for actuating the hook members to discharge the sheaves simultaneously, and canvas partitions extending substantially radially from each of the hook members.

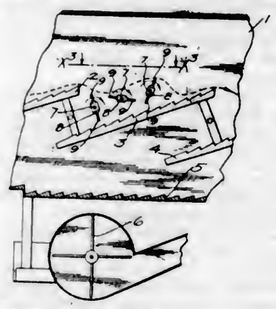
3. In a sheaf shocker and in combination, sheaf supporting mechanism located stubbleward of the binder deck comprising a plurality of hook members arranged in a circle, a center hook member, said center hook member being adapted to receive the first sheaf to form a core for the shock, means for actuating the hook members to discharge the sheaves simultaneously, and canvas partitions extending substantially radially from each of the hook members, and rods supporting the inner ends of the partition members.

4. In a sheaf shocker and in combination, a plurality of peripherally arranged hook members adapted to catch the sheaves as they are discharged from the binder, means for actuating the hook members to discharge the sheaves and a flexible member below the lower extremities of the hook members and coöperating therewith, as an for the purpose specified.

5. In a sheaf shocker and in combination, a plurality of peripherally arranged hook members adapted to catch the sheaves as they are discharged from the binder, means for actuating the hook members to discharge the sheaves and a flexible member connecting the lower extremities of the hook members, and having its free end lying on the ground and a weight connected to the free end of the flexible member.

[Claim 6 not printed in the Gazette.]

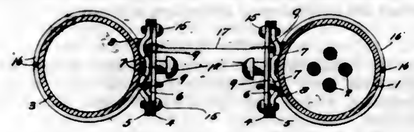
1,135,716. THRESHING-MACHINE. THEOFIL POMIJE, Lesueur Center, and JOSEPH STASKA, Montgomery, Minn. Filed Aug. 21, 1914. Serial No. 857,844. (Cl. 130—23.)



1. In a threshing machine, the combination with vibratory straw racks, adapted to deliver one to the other, of a plurality of flat, rotary beaters, arranged for action on the straw at a point where it passes from one straw rack to the other, said beaters being arranged to deliver one to the other and set for rotation on their own axes progressively one ahead of the other, whereby the straw is carried on said beaters, from one of said racks to the other, in a wave-like course.

2. In a threshing machine, the combination with vibratory straw racks, adapted to deliver one to the other, of a plurality of flat, rotary beaters, arranged for action on the straw at a point where it passes from one straw rack to the other, said beaters being arranged to deliver one to the other, and set for rotation on their own axes progressively one ahead of the other, whereby the straw is carried on said beaters, from one of said racks to the other, in a wave-like course and means for rotating said beaters, whereby, under their rotary speed, they are kept in the same relative angular positions in which they were initially set.

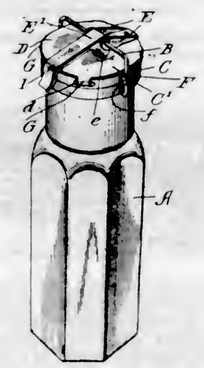
1,135,717. GROUND-CLAMP. WALTER H. PRICE, Moores, Pa. Filed July 15, 1913. Serial No. 779,141. (Cl. (173—273.)



1. In a ground wire clamp, separable plates having opposing faces of which one is flat and the other is provided with spaced concavo-convex parts for conduit clamping wire reception and for conduit periphery engagement respectively, a wire passing through one of said grooves and looped around a conduit for at least two turns and the free end thereof passed through the other of said grooves, a central screw passing through said plates for securing the same with respect to a conduit and other screws at the plate ends for independently securing the wire ends between said plates.

2. A device of the class described comprising a pair of separable thin metallic rectangular plates of the same thickness of metal having opposing faces of which one plate is flat and of which the other plate has formed thereon concaved conduit clamping wire receiving portions upon the face adjacent said flat plate and convexed portions upon the opposite face thereof for conduit periphery engagement said so formed portions being arranged centrally of the plate and disposed transversely thereof, a screw passing through said plate and between said concavo-convex parts for securing the plates to desired position and other screws passing through the extreme ends of said plates for independently retaining the clamping wire ends between said plates.

1,135,718. BOTTLE-STOPPER. WILLIAM H. RANAGAN, Vineland, N. J. Filed Feb. 11, 1914. Serial No. 817,972. (Cl. 215—88.)



1. In combination with a jar having a collar at its mouth, a glass cover adjustable over the mouth of the jar, a metallic disk having clips clamping the glass cover, a spring bail, the ends of which hook under the collar, bearings therefor on the metallic cover, and a bell crank and eccentric upon said spring bail.

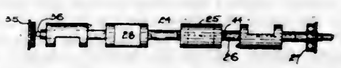
2. In combination with a jar having a collar at its mouth, a cover adjustable over the mouth of the jar, a disk having clips clamping the cover, a bail the ends of which hook over the collar, bearings therefor on the disk, and an eccentric upon the bail adapted to tighten and loosen the cover against the mouth of the jar.

3. In combination with a jar having bail-holding means, a flat-disk vitreous cover adjustable over the mouth of the jar, and having bearings for the bail, a bail the ends of which hook the jar, and on the bail an eccentric bearing against the cover and having a handle.

4. In combination with a jar having bail-holding means, a ground glass flat-disk cover adjustable over the ground glass mouth of the jar and having bearings for the bail, a bail the ends of which hook the jar, and on the bail an eccentric bearing against the cover and having a handle.

5. In combination with a jar having bail-holding means, a cover adjustable over the mouth of the jar and having bearings for the bail, a stop adapted to adjust the cover to the nozzle of the jar on one side, a bail the ends of which hook the jar, and on the bail an eccentric bearing against the cover and having a handle, the outer bend of which acts as a stop when the eccentric is in its tightening position.

1,135,719. VALVE-GEAR FOR INTERNAL-COMBUSTION ENGINES. RUDOLPH RITTER, Chicago, Ill., assignor of one-half to William Buckingham Gray and Ralph Buckingham Gray, Chicago, Ill. Filed Mar. 21, 1912. Serial No. 685,193. (Cl. 123—59.)



1. In an internal combustion engine, the combination of a plurality of cylinders, each having an inlet and an outlet port, a shaft rotatably mounted adjacent to said inlet ports, another shaft rotatably mounted adjacent to said outlet ports, enlargements on said shafts opposite said ports, the number of said enlargements being equal to the number of cylinders each of said enlargements being provided with a recess having straight end walls and a straight bottom wall, the bottom walls of the different recesses being angularly offset with respect to each otuer, the recesses on one shaft being adapted to close and open said inlet ports, the recesses on the other shaft being adapted to close and open said outlet ports, and means for rotating said shafts, to close and open said ports intermittently.

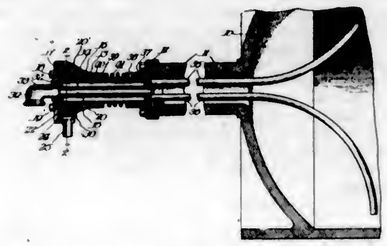
2. In an internal combustion engine the combination of a cylinder having an inlet and an outlet port, valve shafts rotatably mounted adjacent to said ports, bearing portions for said shafts, enlargements on said shafts engaging said bearing portions, said enlargements being provided with longitudinal passages and radial passages extending from said first named passages toward the walls of said bearing portions, means for conveying oil through said passages, and driving means for said shafts.

3. In an internal combustion engine the combination of a cylinder having inlet and outlet ports, valve shafts rotatably mounted adjacent to said ports, bearing portions for said shafts, enlargements on said shafts engaging said bearing portions, said enlargements being provided with longitudinal passages and radial passages communicating therewith, vanes on said enlargements, means for conveying oil into said bearing portions and driving means for said shafts.

1,135,720. STEAM-JOINT. MICHAEL J. ROACH, Anderson, Ind., assignor of one-half to James Furlong, Anderson, Ind. Filed Oct. 16, 1913. Serial No. 795,417. (Cl. 137—34.)

1. The combination of a rotary steam chamber, a cylindrical member at the axis of said chamber and adapted to be rotated therewith, there being a steam supply passage and an exhaust passage extending through said cylindrical member, said exhaust passage having its outlet opening radially of the cylindrical member and its inlet opening adjacent the lateral wall of the chamber, a head in which said cylindrical member is mounted, said head being provided with a plurality of passages arranged close together and adapted to communicate successively with the outlet end of said exhaust passage when the inlet end of

the exhaust passage is in its lowermost position, and means varying the time during which the outlet end of the exhaust passage remains open.

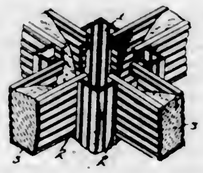


2. The combination of a rotary steam chamber, a cylindrical member at the axis of said chamber and adapted to be rotated therewith, there being a steam supply passage and an exhaust passage extending through said cylindrical member, said exhaust passage having its outlet opening radially of the cylindrical member and its inlet opening adjacent the lateral wall of the chamber, a head in which said cylindrical member is mounted, said head being provided with a plurality of passages arranged close together and adapted to communicate successively with the outlet end of said exhaust passage when the inlet end of the exhaust passage is in its lowermost position, and a valve in said head and adapted to close certain of the passages in the head and shorten the time the outlet of the exhaust passage is open.

3. The combination of a steam chamber, rotatable about an approximately horizontal axis, and a device for connecting the interior of the chamber with the source of steam supply and with the exhaust, comprising a cylindrical member co-axially secured to the end of the steam chamber, provided with an axial inlet for live steam communicating with the source of steam supply and having exhaust passageways separate from the live steam passageway, an annular head formed upon the outer end of the cylindrical member and provided with radial exhaust passageways communicating with the exhaust passageways of the cylindrical member, a stationary head in which the outer end of the cylindrical member and the annular head are journaled and provided with a passageway which communicates with the exhaust and lies in the path of rotation of the exhaust passageways of the annular head, valved means of control for the passage of fluid through the stationary head exhaust passageway, means for holding the stationary head against the outer surface of the annular head of the cylindrical member to prevent escape of steam, and water papes secured to the inner ends of the exhaust passageways of the cylindrical member protruding within the steam chamber and terminating adjacent the outer wall thereof, the exhaust passageway in said stationary head being so positioned as to communicate successively with the individual water pipes only as each water pipe traverses the lower portion of its path of travel.

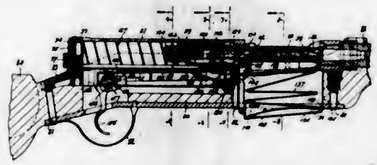
4. The combination of a steam chamber rotatable about an approximately horizontal axis, a source of steam supply, an exhaust, and a device for connecting the interior of the steam chamber with the source of steam supply and with the exhaust, comprising a rotatable member coaxially secured to the end of the steam chamber and rotatable therewith, provided with an axial inlet passage for live steam and having exhaust passageways separate from the steam inlet passageway, a stationary head in which the cylindrical member is journaled and having a plurality of exhaust passageways communicating with the exhaust disposed adjacent each other and in the path of travel of the radial ends of the exhaust passageways of the cylindrical member, valved means of control for the exhaust passageways of the stationary head, and pipes connected to the inner ends of the exhaust passageways of the cylindrical member protruding within the steam chamber and terminating adjacent its outer wall, said exhaust passageways in the stationary head being positioned to afford communication between each individual pipe and the exhaust only during the travel of the individual pipe through the lower portion of its path of rotation.

1,135,721. METHOD OF CONSTRUCTING BUILDING-FRAMES AND ANALOGOUS FRAMES. ROY HENRY ROBINSON, Chicago, Ill. Filed Feb. 3, 1908. Serial No. 413,947. (Cl. 72—15.)



The herein described method of making and erecting frame structures formed of reinforced concrete, which consists in providing separate metal reinforcing form giving container elements with open ends for the several upright pillars and horizontal beams or girders, filling said upright container elements *in situ* with plastic concrete to approximately the level of the bottom of said girders when in position, filling said container elements for the girders with plastic concrete with the exception of the ends while they are horizontally supported and before said containers are placed in assembled position, allowing the concrete to harden sufficiently to give the girders the necessary rigidity to permit handling, then assembling said partially complete girder members with their open ends in proper relation to the unfilled upper ends of the pillars, and completely filling the ends of the pillar and girder containers before the concrete therein has set to such an extent as to make a union with fresh plastic concrete impossible thereby joining the parts in a monolithic structure.

1,135,722. FIREARM. RUDOLF RYCHIGER, Thun, Switzerland. Filed Dec. 9, 1914. Serial No. 876,242. (Cl. 42—4.)



1. In a recoil operated firearm, the combination with a stock, of a raceway fixedly attached thereto, a recoilable receiver upon said raceway, a breech-bolt carrier rotatably and slidably disposed within said receiver, a breech-bolt upon said carrier adapted to rotate in a direction opposite to the direction of rotation of said carrier, and means carried by said raceway and actuated by said receiver for causing upon recoiling of the latter a sliding and rotating motion of said carrier and bolt within said receiver.

2. In a recoil operated firearm, the combination with a stock, of a raceway fixedly attached thereto, a recoilable receiver upon said raceway, a breech-bolt carrier rotatably and slidably disposed within said receiver, a breech-bolt upon said carrier adapted to rotate in a direction opposite to the direction of rotation of said carrier, and a lever pivoted to said raceway and actuated by said receiver for causing upon recoiling of the latter a sliding and rotating motion of said carrier and bolt within said receiver.

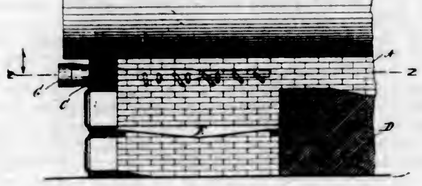
3. In a recoil operated firearm, the combination with a stock, of a raceway fixedly attached thereto, a recoilable receiver upon said raceway, a breech-bolt carrier rotatably and slidably disposed within said receiver, a breech-bolt upon said carrier adapted to rotate in a direction opposite to the direction of rotation of said carrier, and means carried by said raceway acting upon said carrier and operated by said receiver for causing upon recoiling of the latter a sliding and rotating motion of said carrier within said receiver and a corresponding motion of said bolt.

4. In a recoil operated firearm, the combination with a stock, of a raceway fixedly attached thereto, a recoilable receiver upon said raceway, a breech-bolt carrier rotatably and slidably disposed within said receiver, a breech-bolt upon said carrier adapted to rotate in a direction opposite to the direction of rotation of said carrier, and a lever pivoted to said raceway acting upon said carrier and operated by said receiver for causing upon recoiling of the latter a sliding and rotating motion of said carrier within said receiver and a corresponding motion of said bolt.

5. In a recoil operated firearm, the combination with a stock, of a raceway fixedly attached thereto, a recoilable receiver upon said raceway having an interior groove comprising a spiral portion and a straight portion running in the direction parallel to the longitudinal axis of said receiver, said receiver being furthermore provided with interior mutilated screw threads, the direction of which runs opposite to that of the spiral portion of said groove, a breech-bolt carrier having a fixed projection seated in said groove, a breech-bolt upon said carrier provided with exterior screw threads in mesh with the threads of said receiver, and means carried by said raceway in engagement with said carrier and actuated by said receiver for causing upon recoiling of the latter the projection of said carrier to move along the spiral portion of said groove and a disengagement of said bolt from said receiver.

[Claims 6 to 10 not printed in the Gazette.]

1,135,723. FURNACE. EDWARD J. SAMPSON, Somerville, Mass. Filed May 9, 1914. Serial No. 837,451. (Cl. 110—75.)

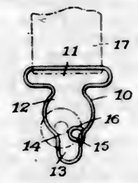


1. In a furnace, a combustion chamber and a plurality of air ducts entering said chamber, said air ducts being arranged in pairs, one duct converging toward another, and both slanting downwardly toward the fire-bed at different angles in a manner whereby jets of air therefrom may cross passing one over the other in close proximity.

2. In a furnace, a combustion chamber and groups of air ducts entering said chamber on each side thereof, air ducts on one side being located opposite air ducts on the other side, said air ducts being slanted downwardly at different angles in a manner whereby an air jet from one side may cross and pass over the air jet from the opposite air duct in close proximity thereto.

3. In a furnace, a combustion chamber and a plurality of air ducts entering said chamber on opposite sides thereof, said ducts being slanted downwardly at different angles so that the air jet from one duct may cross above or below the air jets from ducts on either side of the combustion chamber in close proximity thereto.

1,135,724. LOOP. HENRY D. SARGENT, Worcester, Mass., assignor, by mesne assignments, to Clark S. Comstock, New York, N. Y. Filed May 10, 1913. Serial No. 766,662. (Cl. 24—224.)



1. In a device of the class described, a single piece of spring wire bent to form a button receiving loop having the lower portion thereof constricted to form substantially a smaller loop and the two ends of the wire formed into eyelets which interlock adjacent to the junction of these two loops, one of these interlocking eyelets projecting inwardly to form a yielding neck.

2. In a device of the class described, a single piece of spring wire bent to form a button receiving loop having its lower portion constricted to form a smaller loop connected to the larger loop by a throat, and the two ends of the wire formed into interlocking eyelets adjacent to said throat and one of said eyelets extending yieldingly inwardly into said throat.

3. In a device of the class described, a single piece of spring wire bent to form a button receiving loop having its lower portion constricted to form a smaller loop connected by a throat with the larger loop, and the two ends of the wire formed into eyelets which interlock adjacent to said throat, one of said eyelets being elongated to normally project inwardly into said throat but being adapted to be yieldingly pressed out of said throat.

4. In a device of the class described, a single piece of spring wire bent to form a loop, the upper portion thereof being adapted to have a garment strap secured thereto, the middle portion forming a button receiving mouth, the lower portion being constricted to form a small socket connected by a throat with the button receiving mouth, and the ends of the wire being formed into eyelets which interlock adjacent to said throat and one of said eyelets projects yieldingly into said throat.

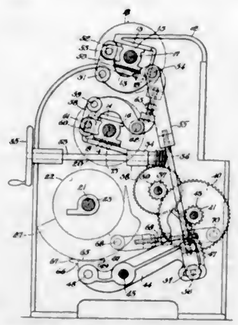
5. In a device of the class described, a single piece of spring wire bent to form a button receiving loop having its lower portion constricted to form a smaller loop connected by a throat with the larger loop, and one end of said wire being bent inwardly and upwardly in the plane of the loop to form an enlarged eyelet projecting into said throat to act as a button retaining lock, and having the opposite extremity of the wire formed into an eyelet interlocking with the first eyelet.

1,135,725. MANGLE. WILLIAM ALVIN SAUNDERS, Boston, Mass., assignor, by mesne assignments, to Emily M. Saunders, Jamaica Plain, Boston, Mass. Filed Feb. 2, 1914. Serial No. 815,881. (Cl. 68—9.)

1. A mangle comprising an upper roll, a lower roll and an intermediate roll arranged in a substantially vertical series, movable bearings for the upper and intermediate rolls, substantially horizontal guides for said bearings, fixed bearings for the lower roll, upper, lower and intermediate ironing chambers coöperating respectively with said upper, lower and intermediate rolls, the upper and intermediate chambers being fixed and facing in opposite directions, movable supports for the lower chamber, and mechanism for simultaneously moving the bearing of the upper and intermediate rolls and the supports of the lower chamber, said mechanism having provisions for moving the upper and intermediate rolls simultaneously in opposite substantially horizontal directions on said guides, and for moving the lower chamber supports in substantially vertical directions.

2. A mangle comprising an upper roll, a lower roll and an intermediate roll arranged in a substantially vertical

series, movable bearings for the upper and intermediate rolls, substantially horizontal guides for said bearings, fixed bearings for the lower roll, upper, lower and intermediate ironing chambers coöperating respectively with said upper, lower and intermediate rolls, the upper and intermediate chambers being fixed and facing in opposite directions, chamber-adjusting levers fulcrumed to the supporting frame, lower chamber supports mounted on said levers and vertically movable thereby, means for moving said levers to raise and lower the lower chamber, bearing-adjusting levers fulcrumed on the supporting frame and engaged with the said movable bearings to move the latter horizontally on said guides, connections between the said bearing-adjusting levers whereby they are caused to move in unison, and connections between the bearing-adjusting levers and the chamber-adjusting levers whereby movement is imparted from the latter to the bearing-adjusting levers.



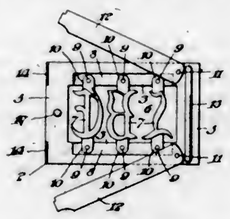
3. A mangle comprising an upper roll, a lower roll and an intermediate roll arranged in a substantially vertical series, movable bearings for the upper and intermediate rolls, substantially horizontal guides for said bearings, fixed bearings for the lower roll, upper, lower and intermediate ironing chambers coöperating respectively with said upper, lower and intermediate rolls, the upper and intermediate chambers being fixed and facing in opposite directions, chamber-adjusting levers fulcrumed to the supporting frame, lower chamber supports mounted on said levers and vertically movable thereby, means for moving said levers to raise and lower the lower chamber, bearing-adjusting levers fulcrumed on the supporting frame and engaged with the said movable bearings to move the latter horizontally on said guides, connections between the said bearing-adjusting levers whereby they are caused to move in unison, and connections between the bearing-adjusting levers and the chamber-adjusting levers whereby movement is imparted from the latter to the bearing-adjusting levers, the said connections being variable in length to vary the initial positions of the upper and intermediate rolls and the initial position of the lower ironing chamber.

4. A mangle comprising an upper roll, a lower roll and an intermediate roll arranged in a substantially vertical series, movable bearings for the upper and intermediate rolls, substantially horizontal guides for said bearings, fixed bearings for the lower roll, upper, lower and intermediate ironing chambers coöperating respectively with said upper, lower and intermediate rolls, the upper and intermediate chambers being fixed and facing in opposite directions, chamber-adjusting levers fulcrumed to the supporting frame, lower chamber supports mounted on said levers and vertically movable thereby, means for moving said levers to raise and lower the lower chamber, bearing-adjusting levers fulcrumed on the supporting frame and engaged with the said movable bearings to move the latter horizontally on said guides, connections between the said bearing-adjusting levers whereby they are caused to move in unison, connections between the bearing-adjusting levers and the chamber-adjusting levers whereby movement is imparted from the latter to the bearing-adjusting levers, the lower chamber being loosely mounted and laterally adjustable on its supports, and links pivoted to the lower chamber and to the supporting frame, and adapted to prevent the chamber from tipping on said supports.

5. A mangle comprising a series of rolls comprising upper, intermediate and lower rolls arranged in a substantially vertical series, a series of ironing chambers coöperating with said rolls, the upper and intermediate chambers facing in opposite directions and the lower chamber facing upwardly and extending under the lower roll and being adapted to elevate goods passing between the lower roll and the lower chamber, and a folding table arranged to receive the goods from the lower roll and lower chamber, said table being located below the axis of the lower roll, whereby goods delivered by the lower roll are caused to gravitate outwardly upon said table.

[Claim 6 not printed in the Gazette.]

1,135,726. MEANS FOR HOLDING SYMBOLS IN FRAMES. MAXIMILIAN SCHILLER, Philadelphia, Pa., assignor to Edward Oppenheimer, Sr., Philadelphia, Pa. Filed Aug. 8, 1914. Serial No. 855,716. (Cl. 40—142.)



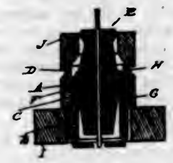
1. In a device of the character described, a frame having a depression in the back thereof; a symbol having a part extending into said depression; an arm pivoted to the back of said frame and movable on its pivot into an operative position, retaining said part in said depression, and movable into an inoperative position, permitting the removal of said part from said depression, and a lug on said frame having a slot therein into which said arm moves when moved to its operative position, said lug having a part arranged to be bent into the path of movement of said arm and prevent its movement from the operative position.

2. In a device of the character described, a frame having a depression in the back thereof; a symbol having a part extending into said depression; a flat arm having a broad forward face adjacent the back face of said frame and pivoted to said frame on a pin extending substantially at right angles to said faces; said arm being movable edgewise on its pivot into an operative position, retaining said part in said depression, and movable into an inoperative position, permitting the removal of said part from said depression, and a lug on said frame having a slot therein into which said arm moves when moved to its operative position, said lug having a part arranged to be bent into the path of movement of said arm and prevent its movement from the operative position.

1,135,727. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed May 29, 1914. Serial No. 841,744. (Cl. 123—169.)

1. The method of uniting metallic bushings and insulators of spark plugs, comprising the placing of the insulator in the bushing, the heating of the metal of the bushing to a temperature equal to or in excess of that to which it will be subsequently subjected in use, and the compression of the metal to form the sealing joint while thus heated.

2. The method of uniting the metallic bushings and insulators of spark plugs, comprising the heating of the metal and the forcible fashioning of the same while hot into conformity to the insulator to form a gas-tight seal therewith.



3. The method of uniting metallic bushings and insulators of spark plugs, comprising the heating of the metal to a temperature at which it is plastic, and the application of pressure thereto to conform to the shape of the insulator and to form a sealing joint therewith.

4. The method of uniting metallic bushings and insulators of spark plugs, comprising the placing of the insulator in the bushing, placing a compressible gasket upon said insulator, heating the bushing to a temperature at which the metal is plastic, and compressing the metal while hot to conform the same to said gasket and the insulator.

5. The method of uniting metallic bushings and insulators of spark plugs, comprising the formation of the bushing with a thin flange, the engagement of the insulator with said bushing, the engagement of the bushing with an electric welder to heat the metal, and the application of pressure while the metal is hot to conform the thin flange to the contour of the insulator.

[Claims 6 to 10 not printed in the Gazette.]

1,135,728. BOX-LID. AUGUST C. SCHOEN, Philadelphia, Pa. Filed May 29, 1914. Serial No. 841,768. (Cl. 217—69.)

1. A box lid and a channeled stay embracing the outer and inner faces of said lid within the edge thereof, said stay being composed of flanges which are connected with said faces of the lid by a dove-tail joint.

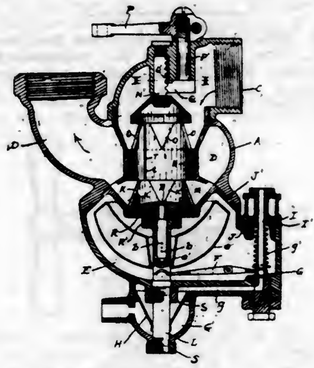
2. A box lid formed of wood, and a channeled stay embracing the edge portion of the same at an angle to the direction of the grain of the wood, said stay being formed of opposite flanges, and a bend joining the same, said flanges and the embraced portions of the lid formed into a dove-tail joint for said stay on said lid.

3. A box lid formed of wood primarily curved and flattened, and a channeled stay embracing the edge portion of the same transversely to the grain of the wood, said stay being formed of convergent flanges, and the portion of the lid embraced by the same having divergent faces forming together a dove-tail joint for said stay on said lid.

4. A box lid formed of wood, and a stay on the end thereof in a direction transverse to the grain of the wood, said stay being formed of separate flanges, and a bend connecting the same, said flanges being convergent from said bend, and the portions of the outer and inner faces of the lid within the edges of the latter embraced by said flanges divergent to said edges, said flanges and portions forming dove-tailed joints connecting the same.

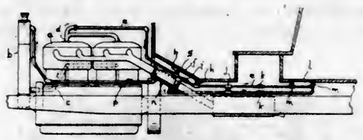
1,135,729. CARBURETER. WILLIAM SCHOOF, Jr., Milwaukee, Wis. Filed Jan. 28, 1909. Serial No. 474,753. (Cl. 48—155.1.)

1. A carbureter comprising the combination of a walled passage, provided with triangular air admission and mixture outlet ports and an intermediate inlet for liquid hydro-carbon, of means for closing said ports simultaneously from the bases of the triangular mixture outlet ports toward their apexes, and from the apexes of the triangular air ports toward their bases, said port closing means traveling an equal distance across the respective ports.



2. A carbureter comprising the combination of a walled passage, provided with triangular air admission and mixture outlet ports and an intermediate inlet for liquid hydro-carbon, of means for closing said ports simultaneously from the bases of the triangular mixture outlet ports toward their apexes, and from the apexes of the triangular air ports toward their bases, said port closing means traveling an equal distance across the respective ports, said air ports, when fully open, being of sufficiently less capacity than the mixture outlet ports, to secure the described suction at the outlet.

1,135,730. HEATING SYSTEM. THOMAS W. SMITH, Detroit, Mich. Filed July 25, 1914. Serial No. 853,226. (Cl. 121—122.)



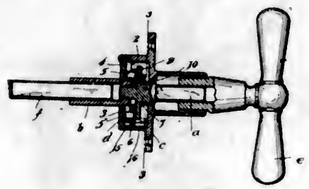
1. A heating system of the class described, having in combination with a vehicle provided with a water-jacketed internal combustion engine having an exhaust pipe, of piping extending from the water jacket into the body of the vehicle and provided with a radiator, thence passing in adjacency to the exhaust pipe at a proximity and for a distance calculated to substantially restore the heat lost in the radiator, thence returning from the exhaust pipe to the engine jacket.

2. The combination of a vehicle provided with an internal combustion engine having an exhaust line and water jacket, of piping leading from the water jacket to the vehicle body and provided with one or more heating radiators in the body, the said exhaust line being provided with a pipe section having a spiral passageway of a length calculated to substantially restore the heat lost in the heating radiator, and the said piping leading from the said heating radiator into one end of said spiral passageway, and means for returning the water from the opposite end of said spiral passageway to the engine jacket.

3. A heating system of the class described, having in combination with a vehicle provided with a water-jacketed internal combustion engine having an exhaust pipe and provided with a radiator for cooling the circulating water, of piping extending from the water jacket into the body of the vehicle and provided with a radiator for heating the body, thence returning from the body and passing about the exhaust pipe a distance calculated to substantially restore the heat lost in the radiator in the

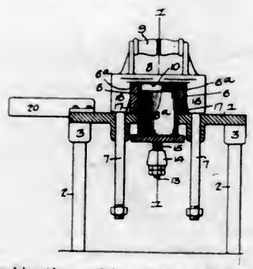
body, and thence leading into the radiator intended for cooling the circulating water from whence the water is led to the water jacket.

1,135,731. SHAFT-OPERATOR. LOUIS B. SMYSER, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 4, 1913. Serial No. 804,701. (Cl. 74—39.)



In a device of the character described, a housing, a driving member having a bearing support in a wall thereof, a cap plate for said housing, a driven member arranged in axial alinement with said driving member and having a bearing supported in said cap plate, a connector located between the ends of said driving and driven members within said housing, diametrically opposite pins projecting from one face of said connector and adapted to fit and move in radial slots in the end of said driven member, diametrically opposite studs projecting from the other face of said connector fitting within slots on said driving member, said connector being movable laterally within said housing, a locking recess in the wall of the housing, a coöperating locking lug projecting from the edge of said connector, and a spring engaging said studs to move or hold said connector in locking position.

1,135,732. CAN-STRAIGHTENING MEANS. FRANK P. SOUDER, Bridgeton, N. J. Filed Oct. 28, 1913. Serial No. 797,805. (Cl. 153—48.)



1. The combination, with a table, of a vertically movable can support, a pair of clamping members embracing the can and forming positioning means, the upper edges of said clamping members forming an anvil, a shaping device adapted to engage the top of a can and press its rim or flange against the clamping members, guiding rods for said shaping device, and cams carried by said shaping device to engage the clamping members and press them against the wall of the can to insure the position of the latter when the shaping device contacts with said rim or flange.

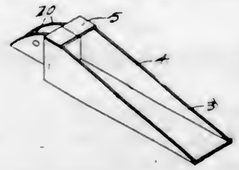
2. The combination, with a table, of a vertically movable can support, a pair of clamping members to embrace the can, the upper edges of said clamping members forming an anvil, a shaping device adapted to engage the top of a can and press its rim or flange against the clamping members, guiding rods for said shaping device passing through the table, and cams carried by said rods to press the clamping members against the wall of the can before the shaping device comes into contact with its rim or flange.

3. The combination, with a table, of a cushioned can support, said table being apertured in line with said support for the reception of a can, can centering means mounted independently of the can support, said centering means forming an anvil, a shaping device adapted to engage the top of a can and press the rim flange of the same against the anvil of the centering means, and fixed engaging means carried by said shping device to close and hold the centering means around a can when the shaping device contacts with the same.

4. The combination, with an apertured table of an adjustable spring-supported can holder centrally mounted below said aperture, centering means for said can pivotally mounted on top of the table and forming an anvil, a vertically movable shaping device adapted to engage the top of a can and press the rim flange of the same against said anvil, and means for tightly closing the centering means around the cam just before the shaping device is brought into contact with said can.

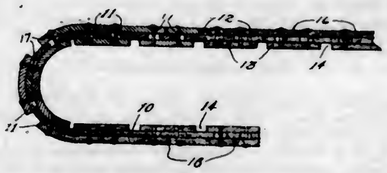
5. The combination of an apertured table, an adjustable can support mounted below said table in line with the aperture, depending rods carrying said can support, springs carried by said depending rods below said can support, can positioning means pivotally mounted on top of the table and forming an anvil, a shaping device adapted to engage the top of the cam and press the flanges of the same against the anvil, guiding rods for said shaping device passing through the table, means at the upper ends of said guiding rods for closing the positioning means around a can just before the shaping device is brought into contact with the can, and a manipulating handle carried by said shaping device.

1,135,733. WHIFFLETREE-HOOK. WILLIAM HARRISON SPEAR, Bismarck, N. D. Filed July 25, 1914. Serial No. 853,218. (Cl. 21—79.)



A whiffletree hook holder formed of a single sheet of metal bent to form a body portion having a socket at one end, lateral spaced extensions at its opposite end, said lateral extensions being bent inwardly at their point of connection with the body forming a pair of shoulders limiting the inward movement of said body on a whiffletree, a pivot pin extending transversely through the extensions adapted to hold a hook thereon, and means for connecting the body portion on the whiffletree and preventing any outward movement of the same.

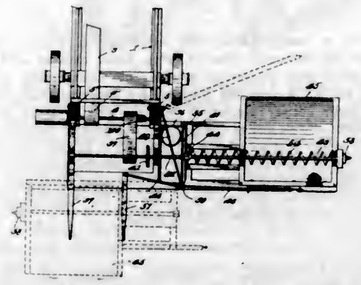
1,135,734. BELT. WILLIAM STARRETT, Minneapolis, Minn. Filed Apr. 18, 1913. Serial No. 761,960. (Cl. 74—62.)



1. A belt comprising three independent strands or plies, of which the center strand or ply is continuous while the outer strands or plies are each formed of a series of short sections spaced apart at the ends, longitudinally alined slots being formed in the continuous strand or ply, and rivets fixedly secured in the outer sectional strands or plies and extending through the slots to permit differential relative movement of the strands or plies as the belt is curved in passing around a pulley.

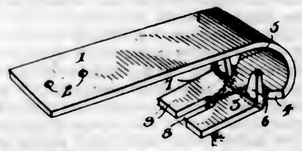
2. A belt comprising three independent strands or plies, of which the center strands or ply is continuous while the outer strands or plies are each formed of a series of short sections spaced apart at the ends, longitudinally alined slots being formed in the continuous strand of ply, there being two such slots for each section of the sectional strands or plies, and rivets fixedly secured in the sectional strands or plies and extending through the slots in such position that the shanks of the rivets will engage the end walls of the slots adjacent the ends of the upper sections of the belt to hold the strands or plies together and permit differential relative movement of said strands or plies, said differential movement taking place only when the belt is inwardly curved.

1,135,735. PORTABLE GRAIN-ELEVATOR. HENRY W. STEEGE, Westgate, Iowa. Filed June 4, 1913. Serial No. 771,727. (Cl. 193—14.)



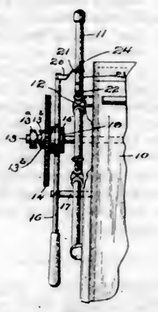
The combination with a portable grain elevator, of a portable frame, a prime mover, two superposed operably connected shafts journaled at the rear of the frame, one of said shafts being operably connected to the prime mover, an elevating mechanism operably connected to the lower shaft, a hopper hingedly connected to the rear of the frame for movement to one side of, or to the rear of the frame, a cradle for receiving the hopper when the same is at the rear of the frame, a shaft journaled longitudinally of the hopper for alinement with and connection to the upper shaft of the superposed shafts when the hopper is at one side of the frame, and a screw conveyer disposed in the hopper and operably connected to the longitudinal shaft.

1,135,736. LINE-FASTENER. PHILIPP STEULER, Pittsburgh, Pa. Filed July 19, 1912. Serial No. 710,436. (Cl. 24—129.)



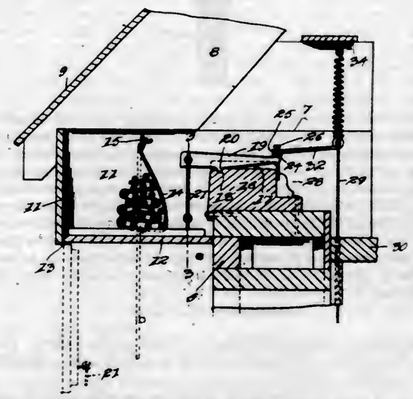
A line fastener comprising a hook-shaped member including a shank and a bill, said bill disposed forwardly of and spaced from the lower portion of the shank, said shank constituting means for securing the bill forwardly or rearwardly of and depending from a support and the space between the bill and the shank providing a passage for a line, said shank provided with means for the passage of holdfast devices to fixedly secure the shank to the support, said bill including inwardly extending means around which is adapted to pass the line and further provided with a centrally disposed longitudinally extending slot having its outer end opening at the free edge of the bill said means positioned in proximity to the bottom of said slot and said slot of less length than the length of said bill.

1,135,737. OPERATING-LEVER. WILLIAM B. STEVENS, Trappe, Md. Filed Feb. 12, 1912. Serial No. 677,165. (Cl. 74—39.)



The hereindescribed compound operating lever consisting of an elongated bar having a curved offset portion, a sliding clutch member engaged by said offset portion, a handle on one end of said lever, and said lever being pivoted between the handle and said offset portion, an angular arm connected to the end of said lever opposite the handle, said arm having an offset and apertured portion, and a valve stem to which said offset and apertured portion is pivoted, whereby said clutch and valve are operated simultaneously by the movement of said lever.

1,135,738. FIRE-ESCAPE. ALFRED A. STINCHCOMB, Annapolis, Md. Filed Jan. 5, 1914. Serial No. 810,400. (Cl. 228—6.)



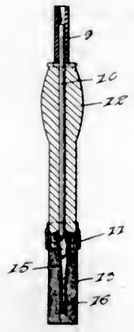
1. In combination with a building, a trap door arranged adjacent the top thereof, a flexible ladder secured at one end to the building near the top thereof and resting on the trap door, a trigger, a connection between said trigger and the trap door, a supporting element for the trigger, a locking bar extending over and in engagement with the trigger to hold the latter in an operative position, and means for swinging the locking bar from engagement with the trigger, to release the ladder whereby the trap door may drop and release the ladder.

2. In combination with a building, a compartment formed exteriorly thereof near the top, a trap door clos

ing the bottom of said compartment, a flexible ladder secured at one end within the compartment and resting upon the trap door, a supporting block, a trigger arranged on the top of said block projecting forwardly beyond one end thereof, means for holding the trigger in a horizontal plane, a connection between the trigger and the trap door, whereby when the trigger is held in a horizontal plane, the trap door is held to close the compartment, and means for actuating said holding means, whereby the trap door swings downwardly and drops the ladder.

3. In combination with a building, a fire escape including an exterior compartment formed adjacent the top of the building, a trap door closing the bottom of said compartment, a ladder secured at one end within the compartment and resting in a folded position on the trap door, a trigger block supported on the wall of the building, a trigger resting on said block and projecting beyond one end thereof, a connection between the projecting end of the trigger and the trap door, a swinging locking bar extending across the other end of the trigger to hold the latter in engagement with the block, a pull rod and arm connecting the pull rod with the swinging locking bar, and a spring connected to the arm to hold the locking bar normally in operative position.

1,135,739. FOUNTAIN-BRUSH. WALTER H. STOEHR, Cheney, Kans. Filed June 15, 1914. Serial No. 845,222. (Cl. 15—49.)

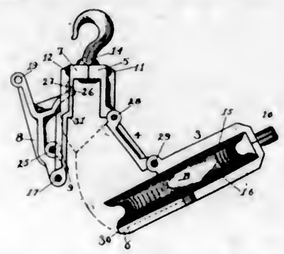


A fountain brush comprising a handle having a longitudinal opening therethrough and an integral head having a transversely extending seat communicating with said opening, a feed-pipe positioned within said longitudinal opening, a nozzle positioned within said seat and communicating with said feed-pipe, bristles secured in said head, and a fabric covering positioned within said seat under said nozzle, extending to a point nearly adjacent the free ends of the bristles and having the edges thereof frayed to provide a plurality of threads extending parallel with the bristles.

1,135,740. SNATCH-BLOCK. VERNOR E. THORP, Alameda, Cal. Filed Oct. 21, 1911. Serial No. 655,905. (Cl. 254—193.)

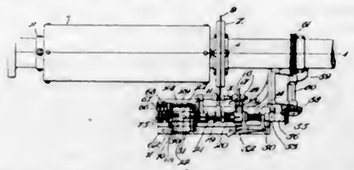
1. In a snatch-block, the combination with an axle and sheave of a hand locking and automatic releasing mechanism, comprising a frame hinged on one side and adapted to open on the opposite side, the upper portion of said open side having downwardly projecting forks, a lever pivotally-jointed between said forks at the lower end and bent at the upper end to project within the frame, a pawl toggle-jointed to said lever and arranged to engage a keeper lug on the lower abutting portion of said open side, said mechanism adapted to automatically open the block, with a buckling non-sliding movement of the locking parts, by projections on the rope while said rope is traveling under strain.

2. In a snatch-block, the combination with an axle and sheave of a hand locking and releasing mechanism, comprising a frame hinged on one side and adapted to open on the opposite side, the upper portion of said open side having downwardly projecting forks, a lever fulcrumed between said forks, a pawl toggle-jointed to said lever and arranged to engage a keeper lug on the lower abutting portion of said open side, said mechanism adapted to be hand operated to open the block with a buckling and non-sliding movement of the locking parts and while the rope is under strain.



3. In a snatch-block, the combination with a hinged frame, an axle and sheave, of a hand locking and hand and automatic releasing mechanism, comprising a hand lever having a trip lug forming an integral part thereof, said lever being fulcrumed between downwardly projecting forks of the upper frame portion, a pawl toggle-jointed to the lever and arranged to engage a keeper lug on the lower abutting frame portion, said mechanism adapted to hold the frame in a locked position, and to release automatically by means of projections on the rope or by hand, without sliding of the locking parts.

1,135,741. TORSION-METER. ERNEST G. TURNER, Philadelphia, Pa. Filed Feb. 7, 1914. Serial No. 817,282. (Cl. 234—16.)



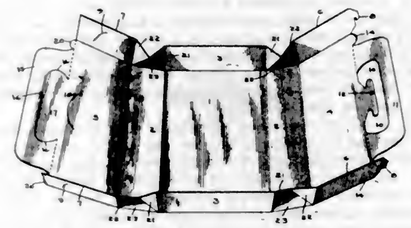
1. In a torsion meter the combination of a tube adapted to be fixed at one end to the shaft whose torsion is to be measured; a bearing surrounding said shaft associated with the other end of said tube; a whel fixed on said shaft adapted to rotate in a plane inclined to the axis of the shaft; a connection between said wheel and bearing; and means associated with said wheel for indicating the torsion of said shaft between said wheel and fixed end of said tube, substantially as described.

2. In a torsion meter the combination of a tube adapted to be fixed at one end to a rotating shaft and provided with a bearing through which said shaft passes at its other end; a sleeve secured to said shaft; a wheel pivoted to said sleeve; a connection between said bearing and wheel adapted to cause said wheel to assume a position inclined to the axis of said shaft when the latter is subjected to torsion; a lever coacting with said wheel; and means associated with said lever for indicating the torsion of said shaft, substantially as described.

3. In a torsion meter the combination of a tube adapted to be fixed to a rotating shaft at one end and provided with a bearing at its other end; the pivoted wheel associated with said shaft; a connection between said wheel and bearing; a lever associated with said wheel; and a recording means controlled by said lever; substantially as described.

4. In a torsion meter the combination of a collar adapted to be secured to a shaft; a tube rigid with said collar at one end; a bearing rigid with said tube at its other end; a rod having a universal joint connection with said bearing; a collar adapted to be secured to said shaft; a wheel pivoted to said collar; and an adjustable connection between said wheel and said rod, substantially as described.

1,135,742. FOLDING PAPER BOX. GEORGE M. VORIS, San Francisco, Cal. Filed May 4, 1914. Serial No. 836,555. (Cl. 229—52.)



1. A folding paper box comprising a bottom having ends and sides integral therewith, top pieces integral with the sides of the bottom piece and having handles integral therewith and adapted to coincide when the box is closed, and end pieces integral with the top pieces, the said end pieces being arranged to engage each other when the said box is folded; and folding gores integral with the ends of the top pieces and the bottom piece.

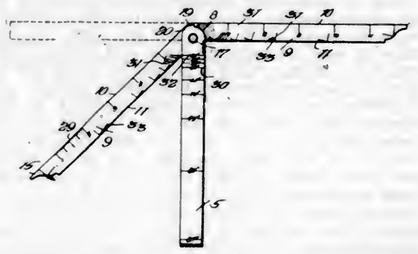
2. A folding paper box comprising a bottom piece having sides and ends integral therewith, a top piece integral with one side of the bottom piece and having a handle and an arcuate slot therein and end pieces having arcuate slots therein integral therewith, a top piece integral with the other side of the bottom piece and having a handle and a locking tab integral therewith, said locking tab being adapted to engage the arcuate slot in the other top piece, end pieces integral with the second top piece and having hooks thereon adapted to engage the arcuate slots in the end pieces of the other top piece.

3. A folding paper box comprising a bottom piece having sides and ends integral therewith, a top piece integral with one side of the bottom piece and having a handle and an arcuate slot therein and end pieces having arcuate slots therein integral therewith, a top piece integral with the other side of the bottom piece and having a handle and a locking tab integral therewith, said locking tab being adapted to engage the arcuate slot in the other top piece, end pieces integral with the second top piece and having hooks thereon adapted to engage the arcuate slots in the end pieces of the other top piece; and folding gores integral with the end pieces of the top and the bottom pieces.

4. A folding paper box comprising a bottom piece having sides and ends integral therewith, a top piece integral with one side of the bottom piece and having a handle and an arcuate slot therein and end pieces having arcuate slots therein integral therewith, a top piece integral with the other side of the bottom piece and having a handle and a locking tab integral therewith, said locking tab being adapted to engage the arcuate slot in the other top piece, end pieces integral with the second top piece and having hooks thereon adapted to engage the arcuate slots in the end pieces of the other top piece, and folding gores composed of three integral triangular pieces integral with the ends of the bottom and the top pieces.

5. A folding paper box comprising a bottom piece having sides and ends integral therewith, a top piece integral with one side of the bottom piece and having a handle and an arcuate slot therein and end pieces having arcuate slots therein integral therewith, a top piece integral with the other side of the bottom piece and having a handle and a locking tab integral therewith, said locking tab being adapted to engage the arcuate slot in the other top piece, end pieces integral with the second top piece and having hooks thereon adapted to engage the arcuate slots in the end pieces of the other top piece, and folding gores composed of three integral triangular pieces integral with the ends and sides of the bottom piece and the ends of the top pieces.

1,135,743. COMBINATION-TOOL. JOHN H. WALKER, Lexington, Ky. Filed Feb. 24, 1914. Serial No. 820,610. (Cl. 33—98.)



1. A combination tool comprising a stock formed of a strip of metal bent into U-shape to provide parallel spaced arms, a rivet connecting said arms at their free ends, blades pivoted at one end on said rivet between said arms, a washer disposed on the rivet between the blades, and a washer disposed on the rivet between each blade and the adjacent arm, the free ends of said arms being provided with oppositely disposed curved portions concentric with the center of said rivet, said rivet being disposed centrally between the edges of the arms, said blades provided at their inner ends with arcuate ears, and openings with which the curve of the ears is concentric and through which said rivet extends, the lower edges of the blades being tangent with respect to said openings, oppositely disposed shoulders formed on said arms and lying in the medial longitudinal plane of the stock, at the inner ends of the curved portions of the arms, lugs formed on said blades adapted to engage said shoulders for limiting the movement of the blades when the latter are at right angles to the stock, said blades being graduated on their upper edges on both faces thereof to form a ruler, said arms on their outer faces being provided with transversely disposed scores at right angles to the edges of the arms, and said blades on their lower edges on both faces provided with scores adapted to co-act with first said scores in determining at what positions said blades should remain relative to the stock to form various angles with said stock, said blades being further provided with other scores at right angles to the second scores and adapted to co-act with the second scores so as to lie in parallel relation with the edges of the stock in determining at what points the blades should remain to form certain angles with the stock.

2. A tool of the class described including a stock comprising a pair of spaced parallel arms, said arms provided at one end with alining openings, said openings being conically rimmed from the outer faces of the arms to about their center, a rivet connecting said arms and extending through said openings, said rivet formed at one end with a head having a conical portion adapted to engage the conical portion of one of the openings and with a second conical portion disposed oppositely to the first said portion, so as to form a substantially V-shaped annular groove around the head of the rivet, the opposite end of said rivet extending through the opposite opening, and adapted to be meshed so as to form a substantially V-shaped groove extending around said opposite end of the rivet, metal welded into the annular V-shaped grooves surrounding the ends of the rivet, a pair of blades pivoted

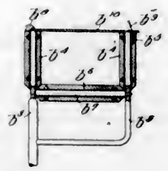
on said rivet between the said arms, a washer between said blades, and a washer between each blade and the adjacent arm, said arms, blades and washers adapted to be held in close contact with each other for providing a stiff movement of the blades.

3. A tool of the class described comprising a stock having spaced parallel arms, a pair of blades pivotally connected at one end to said stock, oppositely disposed shoulders formed on said arms and lying in the medial longitudinal plane of the arms, and lugs projecting laterally from said blades and adapted to coöperate with the shoulders to limit the movement of the blades relative to the stock when said blades are at a predetermined angle with the stock.

4. A tool of the class described, comprising a stock having straight parallel edges, a pair of blades pivoted to one end thereof, said stock provided with transverse scores at right angles to the stock, said blades provided with scores each of which is adapted to co-act with one of said transverse scores in determining at what point the blades should be moved to be positioned at a predetermined angle relative to the stock, each of last said scores adapted to fall in alinement with its coöperating score on the stock when the blade is in proper position, said blades further provided with scores at right angles to the second said scores, and connected with the latter at the inner edges of the blades, each of the last said scores adapted when the score with which it lies at right angles is in alinement with its coöperating score on the stock, to lie in parallel relation with the adjacent edge of the stock.

5. In a tool of the class described, the combination with a stock having arms spaced apart at one end and a pair of blades pivoted at one end between the spaced arm ends, of shoulders formed one on each stock arm in the medial line thereof, said shoulders being disposed oppositely to each other, and lugs projecting laterally and in opposite directions from the blades and adapted to co-act with the shoulders in limiting the movement of said blades.

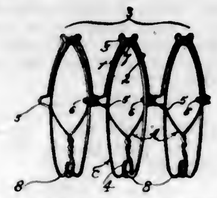
1,135,744. BELT-GUIDING DEVICE. ROBERT H. WEATHERSBY and WILLIE B. CLARK, Mammoth, Ariz. Filed Feb. 6, 1913. Serial No. 746,509. (Cl. 74—51.)



1. In a device of the character described, belt tightening means comprising a bracket having vertical and horizontal arms, each of which arms is provided with U-shaped outer extensions, a roller journaled horizontally between the extensions of each arm and rollers journaled vertically on the extensions and at the opposite ends of the horizontal roller and forming therebetween a belt receiving guide space, said horizontal and vertical rollers having relatively engaging conical ends, all substantially as and for the purpose set forth.

2. In a device of the character described, belt tightening means comprising a bracket having vertical and horizontal arms, each of which arms is provided with U-shaped outer extensions, a roller journaled horizontally between the extensions of each arm and rollers journaled vertically on the extensions and at the opposite ends of the horizontal rollers and forming therebetween a belt receiving guide space, and a latch member engageable with the said extensions at the outer ends of the vertical rollers to close the said guide space in use, said horizontal and vertical rollers having relatively engaging conical ends, all substantially as and for the purpose set forth.

1,135,745. HAIR-HOLDER. CHARLOTTE WENZLICK, Milwaukee, Wis. Filed Oct. 13, 1914. Serial No. 866,480. (Cl. 132—23.)



1. A holder comprising a strand of wire bent upon itself at one end to form substantially a U portion, the other ends of said wire being twisted together and terminating in a hook, one branch of said strand having an eyelet and the other branch having a hook, and a hair holding member hingedly connected with said U portion and engaging the hook of said strand.

2. A holder comprising a strand of wire bent upon itself at one end to form a U portion and at the other end to form a hook, one branch of said strand having intermediate its length an eyelet and at the other branch having intermediate its length a hook, and a bowed member hingedly connected with the U portion of said first named member and arranged to be held in place by the hook of said strand.

3. A holder comprising a hair engaging member having intermediate its length an eyelet and a hook, and on one end thereof a hook, and a bowed member hingedly connected with one end of said member and arranged to be held in place by the hook on said first named member.

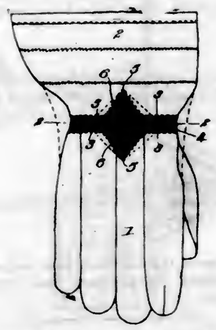
1,135,746. PRINTED SHEET FOR MAKING UP STUFFED DOLLS OR THE LIKE. ARTHUR LEONARD WHEELDON, London, England, assignor to Dean's Rag Book Company, Limited, London, England. Filed Sept. 4, 1913. Serial No. 788,167. (Cl. 46—40.)



1. As a new article of manufacture and sale a sheet of textile fabric on which is printed the various parts of a doll or the like in such manner that the portion of the sheet containing the outline of the doll or like printed figure may be cut out from the rest of the sheet along lines conforming to said outline, the said fabric sheet having applied to its back or a part of its back a sheet or sheets of buckram, calico or other material having a stiffening and adhesive substance incorporated therein, the whole being pressed and molded to the contour of the part or whole of the body to which the buckram, calico or the like is applied, substantially as and for the purpose set forth.

2. As a new article of manufacture and sale a sheet of textile fabric on which is printed the various parts of a doll or the like in such manner that the portion of the sheet containing the outline of the doll or like printed figure may be cut out from the rest of the sheet along lines conforming to said outline, the said fabric sheet having a stiffening substance applied to its back or a part of its back and being pressed and molded to the contour of the part or whole of the body to which the said stiffening substance is applied, substantially as and for the purpose set forth.

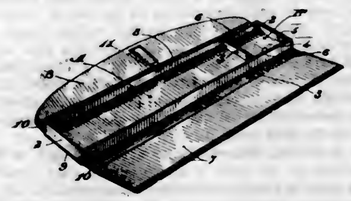
1,135,747. GLOVE OR GAUNTLET. DORSEY M. WIRTH, Bucyrus, Ohio. Filed Nov. 30, 1912. Serial No. 734,357. (Cl. 2—9.)



1. A glove comprising a hand portion and a wristband connected therewith, said hand and wristband portions shaped at their point of juncture to fit the wrist and each provided with proximate notches in the shaped portions thereof formed to leave a diamond-shaped opening, and a flexible member received within said opening and connected to the hand portion and wristband to permit expansion of the shaped portion of the glove as the hand is inserted therethrough and to retract the hand and wristband portions to their normal relation upon the passing of the hand.

2. A glove having a hand-covering portion, a wristband portion constructed separately from the hand-covering portion, an elastic insert connecting said portions and holding the parts contracted on their proximate edges to fit the wrist, and said hand portion and wristband portion provided with adjacent notches disposed to form a diamond shape and having the elastic insert extended thereinto, all of said parts being so arranged that the glove may be drawn over the hand and the parts thereof will again return to the normal position to fit the wrist of the wearer.

1,135,748. ASSORTMENT-BOX FOR LEAD-PENCILS AND SIMILAR ARTICLES. GEORGE WOLF, West New York, N. J., assignor to Niagara Box Factory, Inc., New York, N. Y. Filed Jan. 15, 1914. Serial No. 812,245. (Cl. 229—14.)



An assortment box for lead pencils and the like consisting of a box proper, and an envelop or inclosing cover composed of a stiff reinforced central section to which the box is applied and secured by its bottom, intermediate pliable sections of width equal to the height of the side walls of the box, and adapted to fit snugly against said side walls when the cover is wrapped around the box, and two stiff reinforced side flaps connected to the central portion by said pliable intermediate sections and adapted to fold over the top of the box when closed upon the same, one of the side flaps consisting of two plies separate from one another except at their ends and inner longer edges to form a flat pocket extending the length of said flap to receive and house the other flap, substantially as and for the purposes hereinbefore set forth.

1,135,749. LITHOGRAPHIC PROCESS. MILTON RUSLING WOOD, East Orange, N. J. Filed Aug. 22, 1914. Serial No. 858,091. (Cl. 101—182.)

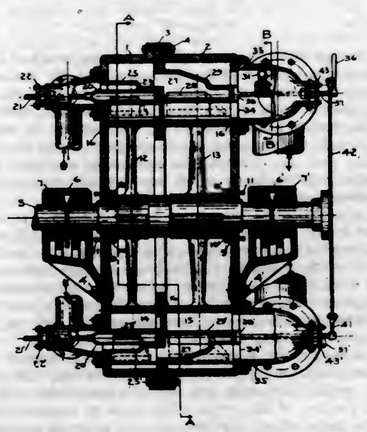
1. The herein described process of producing a printing plate, consisting of impressing a design thereon with oil pigments, immediately subjecting the plate to the action of an etching medium, and thoroughly cleansing the plate.

2. The herein described process of producing a printing plate, consisting of impressing a design thereon of relatively heavy density by means of a printing element having the design thereon of relatively light density, immediately subjecting the plate to the action of an etching medium, and thoroughly cleansing the plate.

3. The herein described process of reproducing, with ink, designs printed with oil pigments, consisting of printing upon a plate with said oil pigments, immediately subjecting the printed plate to the action of a corrosive, thoroughly cleansing said plate, applying printing ink to the plate, and impressing the same upon the object to carry the reproduction.

4. The herein described process of producing, on one object, the effect of a design on another object, consisting of impressing the design of a relatively heavy density upon a plate by means of a printing element having the design thereon of relatively light density, immediately subjecting the plate to the action of an etching medium, thoroughly cleansing the plate, applying ink thereto, and impressing the same upon said first named object.

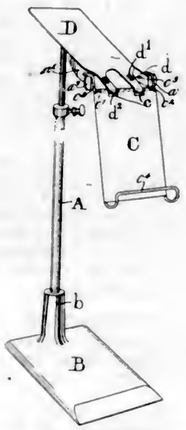
1,135,750. ROTARY ENGINE. ERNEST C. ALLEN and FELIX J. MUELLER, West Allis, Wis. Filed Feb. 24, 1914. Serial No. 820,690. (Cl. 121—83.)



In a compound rotary engine; a casing divided into high and low pressure rotor receiving compartments and having subatantially diametrically oppositely arranged abutment receiving chambers disposed adjacent the compartments; high and low pressure rotors arranged within the high and low pressure compartments respectively; swinging hollow abutments arranged within the abutment receiving chambers, each abutment comprising a high pressure abutment-section discharging into the high pressure

compartment and a low pressure abutment-section receiving the exhaust from the high pressure compartment and discharging into the low pressure compartment, each abutment-section having its opposite ends open and adapted to be brought to covered and uncovered positions whereby the direction of rotation of the rotors may be reversed; mechanical connections between the abutments whereby they may be simultaneously turned in reversing the rotors; spring operated means to automatically return the discharging end of each abutment-section to the operative position when moved therefrom by the corresponding rotor during the operation of the rotor; a tubular valve arranged within each high pressure abutment-section to be turned therein for regulating the passage of fluid pressure through the same; and means for simultaneously supplying fluid pressure to the high pressure abutment-sections.

1,135,751. COPY-HOLDER FOR TYPE-WRITING MACHINES. MARCAR BALABAN, West Didsbury, Manchester, England. Filed June 28, 1913. Serial No. 776,366. (Cl. 120—28.)



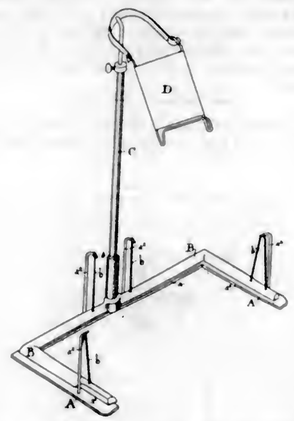
1. A copyholder embodying a supporting arm and a pair of copy-supporting members having means for connecting them at their adjacent ends to said arm, and means slidably connecting said members to one another, said connecting means being slidable into a position to support one of said members in the same plane with the other member and also slidable into disengaged relation to permit one member to be tilted into inclined relation with the other member.

2. A copyholder comprising a base adapted to be inserted freely beneath a typewriting machine and having a supporting arm provided with copyholding members, one of which is provided with hooks slidable into engagement with the other member for setting the members in substantial alinement with one another and also slidable into disengaged relation to permit one of said members to be adjusted at an angle to the other member.

3. A copyholder comprising a supporting arm, a copyholding plate, and an extension plate having lugs on its lower end slidable into and out of engagement with the upper portion of the copyholding plate to support the extension plate either in alinement with or at an inclination to the copyholding plate.

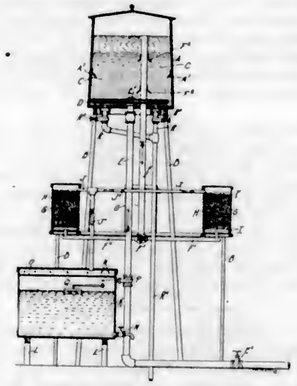
1,135,752. COPY-HOLDER FOR TYPE-WRITING MACHINES. MARCAR BALABAN, West Didsbury, Manchester, England. Filed Sept. 17, 1913. Serial No. 790,277. (Cl. 120—28.)

In a copyholder for typewriting machines, the combination with a relatively fixed base to rest upon a table, and a plurality of pillars fixed to said base and projecting upwardly therefrom, of an auxiliary base, an upright fixed thereto, a copy support fixed to said upright, and flexible



connections between the auxiliary base and said pillars for movably suspending the auxiliary base, the upright and the copy support.

1,135,753. FILTERING APPARATUS. ARTHUR H. BALDWIN, Norwalk, Conn. Filed July 22, 1914. Serial No. 852,354. (Cl. 210—8.)



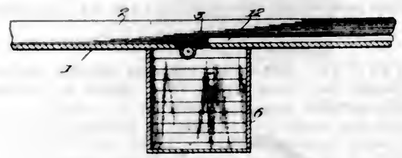
1. In a filtering apparatus, an overhead tank, a filtering material in the tank, a water supply pipe extending into the tank through the bottom at the center thereof, a ring-shaped distributing pipe having radial pipes connected with the supply pipe, said distributing pipe having openings in its under side and arranged a short distance above the bottom of the tank, an overflow pipe extending into the tank through the bottom thereof above the filtering material, and a discharge pipe leading from the bottom of the said tank.

2. In a filtering apparatus, an overhead tank, a filtering material in the tank, a water supply pipe extending into the tank, a water distributer connected with the supply pipe and arranged in the tank a short distance above the bottom thereof, said distributer being circular and having discharge openings in its under side, an overflow pipe extending through the bottom of the tank above the filtering material, and valved discharge pipes connnected with the bottom of the tank.

3. In a filtering apparatus, a receiving tank containing a filtering material, a water supply pipe extending into the tank through the bottom thereof, and a water distributer in the form of a ring-shaped pipe having perforations in its under side and provided with radial pipes connected with the supply pipe, said distributer being arranged a short distance above the bottom of the tank.

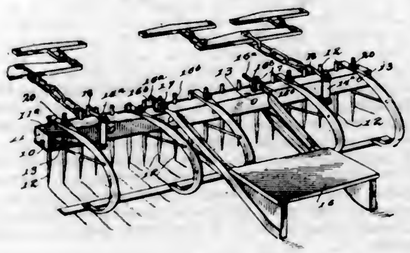
4. In a filtering apparatus, a receiving tank containing a filtering material, a water supply pipe extending into the tank through the bottom thereof, and a water distributer arranged in the tank a short distance above the bottom of the tank, said distributing consisting of a ring-shaped pipe having openings in its under side, radial pipes connecting the ring-shaped pipe with the supply pipe, and a covering of open mesh fabric for the ring-shaped pipe.

1,135,754. FINE-ORE SEPARATOR. CHARLIE WILBUR BELL, Rickey, Ala. Filed Nov. 17, 1914. Serial No. 872,541. (Cl. 83—89.)



An ore separator, comprising an inclined trough having a transverse slot in the bottom thereof, a wall of the slot being inclined reversely to the direction of flow through the trough, an adjustable plate at the other side of the slot having the edge adjacent to the slot inclined in parallelism with the inclined wall of the slot, and a receptacle below and in communication with the said slot and adapted to maintain a water level higher than the slot inlet.

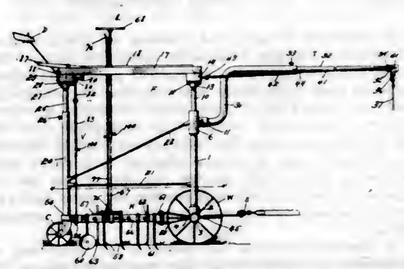
1,135,755. WEEDER. RALPH L. BENGE, Lexington, Oreg. Filed May 8, 1914. Serial No. 837,177. (Cl. 55—3.)



1. In a weeder, a tooth-bar, a cutter-bar secured thereto, and a platform support carried by said tooth-bar and adjustable to vary the inclination of the bar, said bar being adapted to form a support for runners and raking teeth, the teeth coöperating with the adjustability of the platform supports to control the line of draft of the weeder.

2. In a weeder, a tooth-bar formed of an angle member and a filling member removably secured together, said members coöperating to provide a clamping action on rake teeth when the latter are in position, a cutter-bar carried by the tooth-bar, a platform support also carried by the tooth-bar and being adjustable to vary the inclination of the bar, rake teeth adapted to be removably and adjustably clamped to the bar, said teeth coöperating with the platform support in controlling the line of draft.

1,135,756. CULTIVATOR. JOHN H. BERRY, Owensboro, Ky. Filed May 18, 1914. Serial No. 839,424. (Cl. 97—35.)



1. In a cultivator, the combination with a superstructure including cross beams; of a series of units independently and adjustably disposed beneath said cross beams and each carrying its cultivating element, a tongue projecting forward from each unit, means for adjusting the height of the super-structure, and adjustable braces between the front end of the tongue and the front beam of the super-structure.

2. In a cultivstor, the combination with a superstructure; of a series of units independently disposed beneath said superstructure and each carrying its cultivating element, a tongue projecting forward from each unit and having a T-coupling at its rear end and a shoulder near its front end, a cross pin in the unit on which said T-coupling is rotatably mounted, a ring embracing the tongue forward of said shoulder, means for vertically adjusting the superstructure with respect to the unit, and adjustable braces connecting the superstructure with said ring.

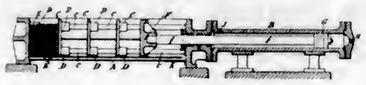
3. In a cultivator, the combination with a plurality of members whereof each includes a pair of front tubular posts, a single rear tubular post, braces connecting the posts, wheels supporting said posts, a cultivating element trailing from the front posts, rods adjustable vertically in the upper ends of all posts, and plates on said rods; of a superstructure including a cross beam overlying all of the front posts, a second cross beam overlying all of the rear posts, said plates being respectively attached to said beams, longitudinal beams connecting the cross beams, and tongues for the individual units braced from the front cross beams.

4. In a cultivator of the class described, the combination with a plurality of units whereof each comprises a pair of longitudinally adjustable front posts, a single longitudinally adjustable rear post, T-couplings at the lower ends of the front posts, an axle through said couplings, a main wheel mounted on the axle, straps leading to the rear from said main wheel, cross plates connecting said straps in the rear of said wheel, and a cultivating element trailing from said cross plates; of a super-structure including cross beams overlying and secured to the upper members of the front posts and rear posts respectively, rigid means for connecting said cross beams in spaced relation to each other, and means for adding additional units.

5. In a straddle-row cultivator, the combination with a plurality of units whereof each includes a main axle at its front end, and a super-structure connecting said units; of a cultivating element for each unit, connections between the main axle and the element permitting the rise and fall of the latter, a crank shaft rotatably mounted in the superstructure and having a pedal, and connections between its crank and the rear end of the element.

[Claims 6 to 8 not printed in the Gazette.]

1,135,757. PRESS-VAT. EMILE BLOCH-PIMENTEL, Paris, France. Filed Apr. 1, 1912. Serial No. 687,893. (Cl. 18—1.)



1. A combined steeping and pressing vat comprising a substantially horizontal trough-like receptacle open at its top and adapted to receive in vertical position cellulose material in sheet form, guide rods extending longitudinally of the vat, a plurality of press plates vertically arranged in the vat and slidably mounted on said guide rods between which press plates the cellulose material is adapted to be arranged, and a presser adapted to advance said press plates horizontally toward one end of the vat to compress the material arranged between the same, said vat having a drainage aperture in its bottom, for the purpose described.

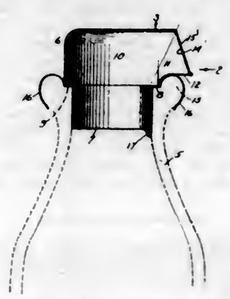
2. A combined steeping and pressing vat comprising a substantially horizontal trough-like receptacle open at its top and adapted to receive in vertical position cellulose material in sheet form, guide rods extending longitudinally of the vat, a plurality of reticulated press plates vertically arranged in the vat and slidably mounted on said guide rods between which press plates the cellulose material is adapted to be arranged, and a presser adapted to advance said press plates horizontally toward one end of the vat to compress the material arranged between the same, said vat having a drainage aperture in its bottom, for the purpose described.

3. A combined steeping and pressing vat comprising a substantially horizontal trough-like receptacle open at its top and adapted to receive in vertical position cellulose material in sheet form, guide rods extending longitudinally of the vat, a plurality of press plates vertically arranged in the vat and slidably mounted on said guide rods between which press plates the cellulose material is adapted to be arranged, relatively light reticulated plates adapted to be supported in vertical position on the bottom of the trough between adjacent presser plates and serving to subdivide the cellulose material between said plates into smaller units for the purpose described, and a presser adapted to advance said press plates horizontally toward one end of the vat to compress the material arranged between the same, said vat having a drainage aperture in its bottom.

4. A combined steeping and pressing vat comprising a substantially horizontal trough-like receptacle open at its top and adapted to receive in vertical position cellulose material in sheet form, guide rods extending longitudinally of the vat, a plurality of press plates vertically arranged in the vat and slidably mounted on said guide rods between which press plates the cellulose material is adapted to be arranged, bosses on the rear faces of said plates surrounding the guide rods and serving to space said plates apart, relatively light reticulated plates adapted to be vertically arranged in the vat to subdivide the cellulose sheet groups between adjacent press plates, said reticulated sheets being of such width only that they may be laterally confined between the said bosses on the press plates, and a presser adapted to advance said press plates horizontally toward one end of the vat to compress the material arranged between the same, said vat having a drainage aperture in its bottom, for the purpose described.

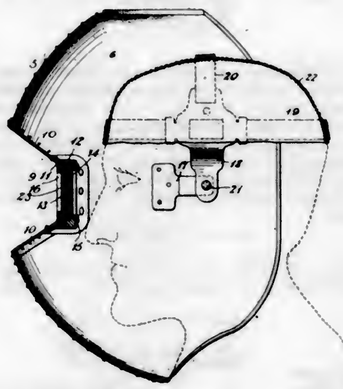
1,135,758. RECEPTACLE COVER AND SPOUT. MICHAEL BLUME, New York, N. Y. Filed July 2, 1914. Serial No. 848,585. (Cl. 215—34.)

In a receptacle cover and spout combined, a sleeve adapted to fit into the mouth of the receptacle, a cap associated with said sleeve forming a cover for the receptacle, means associated with the cap adjacent the sleeve for removably securing the combined cover and spout to the receptacle, said cap having a lateral extension forming a spout, and a trap for said spout hinged to the top of the cap, the bottom of said lateral extension extending beyond the point where the trap is hinged, whereby under



the action of gravity said trap is normally maintained against said bottom substantially as and for the purpose set forth.

1,135,759. HELMET. FREDRICK MENGLE BOWERS, Chester, Pa. Filed Jan. 7, 1914. Serial No. 810,898. (Cl. 2—117.)



1. In a helmet, a mask having a visual opening of two differently colored glasses and a colorless glass in front thereof forming a shield protecting the colored glasses, and means for securing the mask to the head.

2. In a helmet, a mask having a visual opening formed of two colored glasses and a plain glass in front thereof forming a shield for protecting said colored glasses, a support for said mask, and means whereby said mask can be placed in operative or in inoperative position on said support.

3. In a helmet, a mask having a visual opening; glasses screening said opening; and means for securing the mask to the head, said glass screening the opening being of red and blue color of the proper density, with a plain glass in the front thereof shielding said colored glasses from injury.

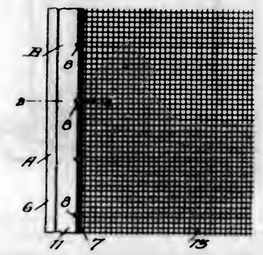
4. In a helmet, a mask having a visual opening; a series of contacting glasses screening said opening and consisting of plain window glass and red and blue glasses of proper density in the order stated from the front to the rear of the mask; a support for said mask; and means whereby said mask can be placed in operative or in inoperative position on said support.

5. In a helmet, a mask having the shape of a flattened semi-ovoid, the flattened portion forming the front of said mask, said mask having an opening, a frame in said

opening; colored and plain glasses removably carried by said frame and forming a visual opening for said mask; a skeleton band adapted to encircle the head; a skull cap carried by said band; members carried by said band; and means connecting pivotally said mask to said members whereby said mask can be rotated on said support.

[Claims 6 to 9 not printed in the Gazette.]

1,135,760. MOLD FOR SECURING SCREEN-WIRE. CLAUDE C. BROOKS, Kansas City, Mo. Filed May 15, 1914. Serial No. 838,710. (Cl. 156—14.)



1. A device of the class described including a base molding adapted to be secured to an object, said molding comprising a flat bottom, a rear wall formed on one edge of said bottom and overhanging the same at an angle of about 45°, a flange formed on the opposite edge of the bottom and doubled thereupon, prongs struck up at intervals from said flange, said prongs adapted to engage the edge portions of a screen wire, and a top mold comprising a body portion, having one edge bent at right angles to provide a base flange, and having its opposite edge bent at an acute angle and oppositely to the base flange to provide an inclined front wall, said top mold adapted to be disposed upon the base mold with the base flange upon the edge of the wire at the junction of the rear wall and the bottom of the base mold, and with the upper edge of the rear wall abutting against the body portion of the top mold, and with the front edge of the front wall engaging over the wire along the line of the junction points of the prongs with said flange, said prongs adapted to be bent upon said front wall for clamping the molds together.

2. A device of the class described comprising a base mold adapted to be secured to an object, said mold including a bottom, having its rear edge bent upwardly at an angle to form a rear wall inclined relatively to the bottom and overhanging the latter, the opposite edge of the bottom being returned thereupon to form a flange, prongs struck up at intervals from said flange, said prongs adapted to be engaged by a wire screen, and a top mold adapted to co-act with the base mold for clamping the said wire screen, said prongs adapted to be bent upon the top mold for clamping the molds together.

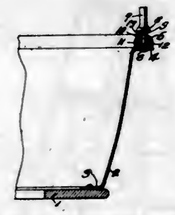
3. A device of the class described comprising a base mold including a rear wall formed along one edge, prongs provided on the opposite edge of the base mold, said prongs adapted to be engaged by a wire screen, and a top mold adapted to engage the wire screen against the base mold, said prongs adapted to co-act with said rear wall for clamping the molds together.

4. A device of the class described including a bottom and a top mold adapted to clamp material therebetween, said top mold comprising a flat body portion having one edge bent substantially at right angles to form a base flange, and having its opposite edge bent in opposite direction to the base flange and at an inclination thereto to provide an inclined front wall, said base mold provided with means for clamping the top mold thereagainst.

5. A device of the class described including a base and a top mold adapted to clamp material therebetween, said base mold including a bottom provided with a rear wall and with prongs, said top mold provided with portions adapted to engage the material against the bottom at a plurality of points, said prongs and rear wall adapted to co-act for clamping the molds together.

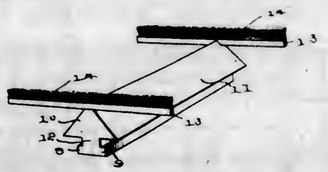
[Claims 6 to 8 not printed in the Gazette.]

1,135,761. RUNABOUT-SEAT. WILBERT A. BURKET, Sidney, Ohio, assignor to The Sidney Manufacturing Company, Sidney, Ohio, a Corporation of Ohio. Filed Nov. 25, 1913. Serial No. 803,021. (Cl. 21—42.)



A seat whose body has an outwardly projecting flange around its upper edge, a rod overlying said flange, and a sheet metal covering inclosing said rod; combined with rivets passing through the flange, the lower side of the cover, and the rod and having their heads countersunk in the upper side of the latter, and rail braces whereof each is enlarged near its lower end, has a shoulder beneath the enlargement, and has a reduced shank extending from the shoulder downward through the upper side of the covering and completely through the rod, with a head at its lower extremity countersunk in the lower side of the rod.

1,135,762. BRUSH FOR BOLTING-MACHINES. NEWTON M. BUTTS and CHARLES L. HAWORTH, Wilmington, Ohio. Filed Aug. 4, 1914. Serial No. 854,941. (Cl. 83—38.)



1. In combination, a reciprocatory bolting machine including a body and a cloth secured therein, a pair of beams arranged in spaced relation in said body, a brush holder slidable longitudinally between said beams having oppositely inclined top faces, brushes secured at the opposite ends of said holder, and means for controlling the direction of travel of said brush holder including a gravity actuated pawl and a plurality of spaced rods secured in said beams.

2. In combination, a bolting machine including a body and a cloth secured therein, a pair of beams secured in spaced relation in said body and having longitudinal recesses in the adjacent faces thereof, a brush holder having oppositely inclined top faces slidable longitudinally between said beams, base flanges formed integral with said brush holder slidably mounted in the recesses in said beams, a plurality of rods secured between said beams below said brush holder, a pair of brushes secured to the opposite ends of said holder engaged with the underside of said cloth, and a double toothed pawl pivoted in the lower portion of said brush holder to control the direction of travel of said holder.

1,135,763. STEP-LADDER. FRANK JOSEPH CARONIA, New York, N. Y. Filed Mar. 17, 1914. Serial No. 825,294. (Cl. 228—15.)

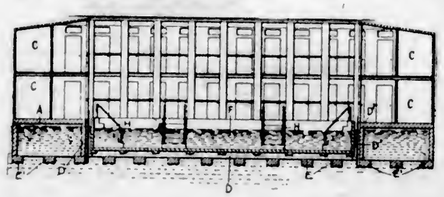
1. In a step ladder, the combination of a ladder, a leg frame pivotally connected with the upper portion of the

ladder to swing rearwardly into supporting position or forwardly into folded position, a sectional connecting brace connecting the said ladder with the said leg frame, a side brace pivotally connected at its upper end with the upper portion of the said ladder, a link pivotally connecting the said side brace with one member of the said connecting brace nearest the ladder, and a stop on the said link engaging the latter brace member to limit the swinging motion of the said link.



2. A step ladder attachment, comprising a side brace, a hinge at the upper end of the said brace and adapted to be attached to the upper part of the step ladder, a link pivotally connected with the said side brace to swing up and down, and a hinge on the said brace and adapted to be attached to one of the members of the connecting brace of the step ladder.

1,135,764. BATH-HOUSE. RICHARD F. CASEY, New York, N. Y. Filed Feb. 6, 1915. Serial No. 6,500. (Cl. 4—2.)



1. A bathhouse, comprising a well surrounded by a platform and having a skeleton bottom, and a basin freely floatable in the said well and access to which is had over the said platform.

2. A bathhouse, comprising a bathhouse structure floatable in a waterway and provided with a well having a slatted bottom for the entrance of the water from the waterway, and a basin fitting into and floatable in the said well independent of the said bathhouse structure.

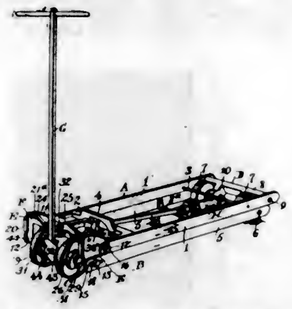
3. In a bathhouse, the combination of a bathhouse structure floatable in a waterway and provided with a well having a slatted bottom, a platform surrounding the said well, and a basin fitting into the said well and having a depth corresponding approximately to that of the said well.

4. In a bathhouse, the combination of a bathhouse structure floatable in a waterway and provided with a well having a slatted bottom, a platform surrounding the said well, a basin fitting into the said well and having a depth corresponding approximately to that of the said well, and steps in the said basin and leading to the said platform.

5. A bathhouse, comprising a bathhouse structure floatable in a waterway and provided with a well having a slatted bottom for the entrance of the water from the waterway, a basin fitting into and floatable in the said well independent of the said bathhouse structure, and means mounted on the said structure for filling and emptying the said basin.

[Claims 6 to 9 not printed in the Gazette.]

1,135,765. ELEVATING-TRUCK. EUGENE M. CHAPMAN and CHARLES E. COWAN, Holyoke, Mass. Filed Mar. 17, 1914. Serial No. 825,256. (Cl. 21—118.)



1. An elevating truck comprising a platform, an under supporting structure, links connecting the platform with the under structure and permitting the platform to be raised and lowered, a swinging elevating device, means for detachably connecting the device with the links to raise the platform, a wheeled steering fore carriage connected with the said device, and a handle connected with the forecarriage to guide the movement of the truck and to swing the elevating device.

2. An elevating truck comprising a platform an under supporting structure including rear wheels, an elevating device connected with the under structure and mounted to swing on a horizontal axis, members pivotally connected with the device and the platform, a fore carriage pivotally connected with the elevating device, a steering handle connected with the forecarriage and serving to swing the said elevating device, and means carried by the elevating device for operatively connecting the same with the said members for raising the platform and releasable to permit the platform to lower independently of the elevating device.

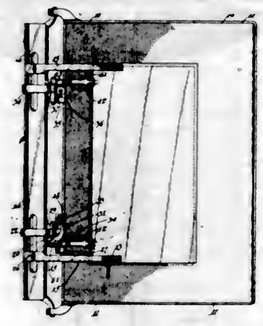
3. An elevating truck comprising a wheel-supported under structure, a platform, links connecting the platform with the under structure, an elevating device connected with the under structure and detachably connected with the links for raising the platform, a handle pivotally connected with the elevating device for guiding the truck, and means for rigidly connecting the handle with the elevating device, whereby the handle operates through the latter to elevate the platform.

4. An elevating truck comprising a wheel-supported under structure, a platform movably mounted on the under structure, an elevating device connected with the under structure to swing on a horizontal axis, members pivotally connected with the device and platform, locking means for connecting the elevating device with the members to raise the platform, and locking means on the ele vating device for automatically engaging and holding the platform in raised position.

5. An elevating truck comprising a wheel-supported under structure, a platform movably mounted on the under structure, an elevating device connected with the under structure to swing on a horizontal axis, members pivotally connected with device and platform, locking means for connecting the elevating device with the members to raise the platform, locking means on the elevating device for automatically engaging and holding the platform in raised position, and a foot-operated means for simultaneously releasing all of said locking means to permit the platform to be lowered.

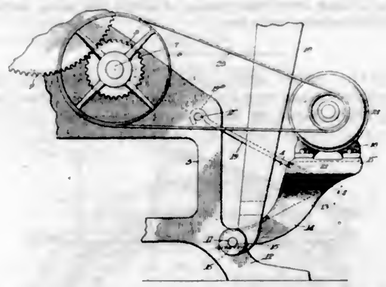
[Claims 6 to 14 not printed in the Gazette.]

1,135,766. SHEET-REGISTERING DEVICE. EDWARD CHESHIRE, Pittsburgh, Pa., assignor to Miller Saw Trimmer Company of Michigan, Pittsburgh, Pa., a Corporation of Michigan. Filed Sept. 18, 1913. Serial No. 790,527. (Cl. 101—22.)



The combination with a platen having an end stop and a side stop thereon, of a pair of sheet-receiving registering arms, means for imparting to one of said registering arms a reciprocating movement solely toward and away from the end stop; and means for imparting to the other registering arm a movement first toward the end stop and then toward the side stop and return.

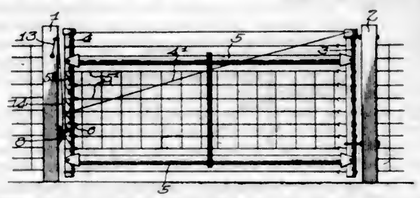
1,135,767. DRIVING-MOTOR SUPPORT. EDWARD CHESHIRE, Pittsburgh, Pa., assignor to Miller Saw Trimmer Company of Michigan, Pittsburgh, Pa., a Corporation of Michigan. Filed Sept. 18, 1913. Serial No. 790,528. (Cl. 64—52.)



1. The combination with a machine including a frame, a bar associated therewith, and a driven pulley carried by said frame, of a support adapted for receiving a driving motor for belt connection with said driven pulley, an arm extending downwardly from said support and formed with a hook for engaging said bar, and an adjustable link connected between said support and a part of the frame above said bar, whereby said motor exercises a tension on the belt, such tension being variable by adjusting said link.

2. The combination with a machine including a frame, an upper and a lower cross bar connected with said frame, and a driven pulley carried by said frame, of a support adapted for receiving a driving motor for belt connection with said driven pulley, an arm extending downwardly from said support and formed with a hook for engaging the lower of said cross bars, and a rod formed with a hook for engaging the upper of said cross bars, said rod passing through said support and having an adjusting nut beyond the latter, whereby said motor exercises a tension on the belt, such tension being variable by adjusting said link.

1,135,768. GATE-LATCH OR THE LIKE. JOSEPH B. CLAY, Cedar Falls, Iowa. Filed July 11, 1912. Serial No. 708,780. (Cl. 70—28.)



1. In a device of the kind described and in combination, a suitable plate, a pair of oppositely formed latch arms, each arm consisting of a gate engaging part curved to normally extend upwardly and inwardly when secured in position on the plate, and a cylindrical bearing portion arranged at the pivoted end of said arm and provided at the free end thereof with an extended portion arranged to coöperate with the plate to form a stop, and means for pivotally securing said arms on said plate with said bearing portions downwardly inclined toward each other.

2. In a device of the kind described and in combination, a suitable plate, a pair of oppositely formed latch arms, each arm consisting of a gate engaging part curved to extend upwardly and inwardly when secured in position on the plate, and a cylindrical bearing portion arranged at the pivoted end of said arm and provided with an extended portion arranged when the arms are in normally operative position to coöperate with the plate to form a supporting stop, a lifting arm, and means for securing said gate engaging arms to said plate with their axis of rotation inclined downwardly toward each other.

3. In a gate latch, the combination of a plate provided with a pair of gate engaging members, each member upwardly and inwardly inclined from the plate and provided with a transversely extending shank, means for securing said shanks to said plate with their axis of rotation downwardly inclined toward each other, each of said shanks provided with a supporting stop on its inner end and having an extended lifting arm thereon and a lifting member secured to said arm, and extending to the opposite side of the device.

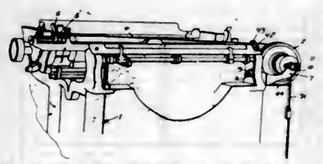
4. In a gate latch, the combination of a plate provided with a pair of gate engaging members, each member upwardly and inwardly inclined from the plate and provided with a transversely extending shank, means for securing said shanks to said plate with their axis of rotation downwardly inclined toward each other, each of said shanks provided with a downwardly extended stop, and with a lifting arm extending therefrom substantially in alinement with the latch member, and means extending to the opposite side of the device for raising said lifting arms as desired.

5. In a device of the kind described and in combination, a suitable plate, a pair of oppositely formed latch members, each member consisting of a cylindrical shank having an upwardly and inwardly inclined extending end for coöperation with the gate frame, and the opposite or inner end downwardly extended to form a stop, and thence extended forward to form a lifting arm, and means for pivotally securing said shanks to the plate with their axis of rotation inclined downwardly toward each other.

1,135,769. TYPE-WRITER ATTACHMENT. HENRIETTA C. CLINTON, San Francisco, Cal. Filed Apr. 29, 1914. Serial No. 835,239. (Cl. 197—68.)

1. An attachment for typewriters comprising a bracket, a shaft mounted in the bracket, a pulley rotatably mounted upon said shaft, a flexible element secured to said pulley and to the carriage of said typewriter arranged to wind on said pulley, an internally screw threaded cylindrical clutch member carried by said pulley, a second clutch member rotatably journaled upon said shaft, a screw threaded por-

tion on said second clutch member coöperating with the first clutch member, and means for moving said second clutch member into inoperative position whereby said pulley is free to rotate.



2. A typewriter attachment comprising a supporting bracket, a shaft mounted in said bracket, a pulley rotatably mounted upon said shaft and operatively connected with the carriage of said typewriter, said pulley having an enlarged hub portion arranged upon one side thereof, said hub portion being recessed to provide a spring chamber, a spring mounted within said chamber and arranged above said shaft, a sleeve mounted upon said shaft and extending into said chamber, said sleeve having a recess adjacent one end, a lug formed on said shaft and extending into said recess, said spring being secured at its terminals to said hub and the sleeve, said pulley being provided upon its face opposite to the hub portion with a recess, a cylindrical internally screw threaded clutch member carried centrally within the recess, a stop pin arranged within the recess, a clutch member rotatably mounted upon said shaft coöperating with said first named clutch member and stop pins to rotate said pulley to return said carriage and means for automatically moving said second clutch means into inoperative position whereby the pulley is free to rotate in either direction.

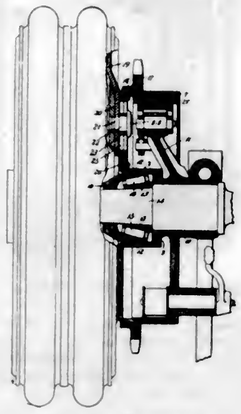
3. A typewriter attachment consisting of a shaft, means to support the shaft, a pulley mounted upon said shaft and operatively connected with the carriage of said typewriter, said pulley having a hub portion arranged thereon, said hub portion being formed with a spring chamber, a spring mounted within said chamber, a sleeve mounted on said shaft and extending into said chamber, said sleeve having a recess adjacent to one end, means carried on said shaft to extend into the recess, said spring being secured at its terminals to the hub and sleeve, said pulley being provided upon its face opposite to the hub portion with a recess, a cylindrical clutch member carried within the recess, a stop pin within the recess, a clutch member mounted upon said shaft rotatably and coöperating with said first named clutch member and stop pin to rotate said pulley to return said carriage and means for automatically moving the clutch member into inoperative position whereby the pulley is free to rotate in either direction.

1,135,770. BRAKE-DRUM FOR VEHICLE-WHEELS. NOAH CORNFIELD, New York, N. Y. Filed Mar. 9, 1914. Serial No. 823,537. (Cl. 21—8.)

1. In combination; a carrying wheel having a hub and flexible connections therewith; an axle held against rotation; a brake drum continuously concentric with and rotatively mounted on said axle an operative connection for said drum and said wheel, embodying a driving pin rigidly mounted in one of said members, and a slot to receive said pin, formed in the other of said members, said slot being radial to said members.

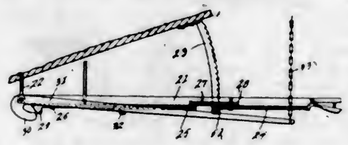
2. In combination; a carrying wheel having a hub and flexible connections therewith; an axle held against rotation; a brake drum continuously concentric with and rotatively mounted on said axle an operative connection for said drum and said wheel, embodying a driving pin rigidly mounted in one of said members, and a slot to receive said pin, formed in the other of said members, said slot being radial to said members; and a head mounted on said pin to overlie the sides of said slot, to retain said wheel and drum in service relation.

3. In combination; a carrying wheel having a hub and flexible connections therewith; an axle held against rotation; a brake drum continuously concentric with and rotatively mounted on said axle an operative connection for said drum and said wheel, embodying a driving pin rigidly mounted in one of said members, and a slot to receive said pin, formed in the other of said members, said slot being radial to said members; a head mounted on said pin to overlie the sides of said slot, to retain said wheel and drum in service relation; and a power transmission wheel mounted on said drum.



4. In combination; a traction wheel having a hub and resilient connections therewith; an axle mounted in said hub; a facing for said wheel; a reinforcement for said facing; a pin rigidly mounted in said facing and reinforcement to extend outward from said wheel; and a brake drum rotatively mounted on said axle, said drum having a facing adapted for disposition in service parallel to the facing of said wheel, the facing of said drum being radially slotted to receive said pin.

1,135,771. STOP MECHANISM FOR LOCOMOTIVES. WILLIAM WHEATLEY DARKE, Everett, Mass. Filed Mar. 26, 1913. Serial No. 757,040. (Cl. 246—59.)



In a device of the character described, the combination with a pivoted throttle lever, a rack, and a spring-pressed latch rod carried by the throttle lever for engagement with said rack; of a push rod slidable upon the throttle lever to move the latch rod from engagement with the rack, said latch rod being provided upon one end with a head having a beveled face, a swinging weight actuated lever pivotally mounted on the same axis as said throttle lever, said lever being formed with a curved portion adapted to engage said beveled face, and a lug formed upon the second mentioned lever for engagement with the push rod, whereby the two levers will move together.

1,135,772. CONTOUR-CAP FOR PROJECTILES. CLELAND DAVIS, U. S. Navy, assignor to Ordnance Development Company of America, Wilmington, Del., a Corporation of Delaware. Filed Jan. 18, 1915. Serial No. 2,932. (Cl. 102—28.)

1. A contour cap for projectiles, comprising a solid yielding rubber cap secured to the nose of the projectile, substantially as described.

2. A contour cap for projectiles, comprising a solid yielding rubber cap vulcanized to the nose of the projectile, substantially as described.



3. A contour cap for projectiles, comprising a rubber cap secured to the nose of the projectile, and provided with a reinforcing winding thereon, substantially as described.

4. A contour cap for projectiles, comprising a rubber cap vulcanized to the nose of the projectile, and provided with a reinforcing winding thereon, substantially as described.

5. A contour cap for projectiles, comprising a rubber cap secured to the nose of the projectile, and provided with a metallic winding on the exterior thereof, substantially as described.

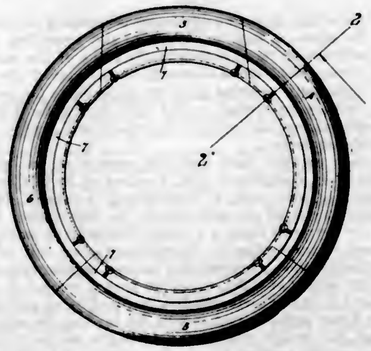
[Claim 6 not printed in the Gazette.]

1,135,773. HAY-TRACK FOR HAY-FORK CARRIERS. DENIS J. DELANEY, Avoca, Wis. Filed Nov. 16, 1914. Serial No. 872,494. (Cl. 104—181.)



The combination with a track supported by a series of slotted links and having a link supported spring at one end, whereby the track is adapted to be depressed under the influence of a traveling load.

1,135,774. COLLAPSIBLE CORE FOR VEHICLE-TIRES. PETER DE MATTIA and BARTHOLD DE MATTIA, Garfield, N. J. Filed Jan. 15, 1914. Serial No. 812,342. (Cl. 18—45.)



1. In a collapsible core for vehicle tires, a circular core member formed of segments, each of said segments having on the inner periphery thereof a lateral projection, said projections of said segments forming together an annular lateral projection on said circular core member, each of said segments having on the inner periphery of said projections a beveled surface; a single annular member having an annular recess on the outer periphery thereof at one side of said member, said recess having a beveled bottom therein adapted to co-act with the beveled surface of said segments; and locking means carried by said annular member for securing said segments to said annular member, said locking means being disposed at substantially right angles to the beveled bottom of said recess of said annular member whereby they draw said segments into said recess angularly and toward the axis of said annular member.

2. In a collapsible core for vehicle tires, a circular core member formed of segments, each of said segments having a lateral projection at the inner periphery thereof, said segments with the projections thereon forming together an annular flange portion with the lateral projection on said circular core member, each of said segments at the lateral projection having at its inner periphery a beveled surface; a single annular member having an annular recess at one of its outer edges, said recess having at beveled bottom and the sides of said recess being adapted to engage the inner periphery of the lateral projection of each of said segments and a portion of a side of each of said flanges of said segments; bolts carried by said annular member, the threaded end of said bolts projecting into said recess of said annular member substantially at right angles to the beveled bottom of said recess, said segments having threaded openings in the lateral projection adapted to be engaged by the threaded ends of said bolts, whereby said segments are wedged in said recess of said annular member by the drawing action of said bolts on said segments, said drawing action being angular and toward the axis of the annular member, substantially as and for the purpose set forth.

3. In a collapsible core for tires, a circular core formed of arcuated segments, each segment having a bevel surface at the inner periphery, an annular member forming a support for said segments, and bolts mounted to rotate in said annular member and engaging said segments at the bevel side and at right angles to said side, said annular member having means adapted to guide each of the segments normally to the axis of the core and parallel thereto.

1,135,775. SAFETY-RAZOR. JULIUS BUENO DE MESQUITA, London, England. Filed Dec. 3, 1909. Serial No. 531,199. (Cl. 30—12.)



1. In a safety razor, the combination with a blade support, of a cap pivoted thereto on an axis extending substantially along the front of the blade support and having a top plate with its front edge in rear of the pivot of the cap turned downwardly to a line below the under face of the cap sufficiently for contacting with the upper face of a blade sustained by the support prior to a complete closing of the cap, whereby the complete closing of the cap causes the downwardly turned edge to clamp the blade against the support under spring pressure, the said downwardly turned edge engaging the blade adjacent the cutting edge thereof.

2. In a safety razor, the combination with a blade support, of a cap therefor, a spring carried by the cap and having free ends disposed in position for engaging and pressing forwardly a blade sustained by said support, means for preventing forward movement of said blade, and a pivotal connection between the cap and support, the blade-engaging portion of the spring having a transversely arcuate form.

3. In a safety razor, the combination with a blade support, a cap therefor adapted to be moved relative to a blade sustained by the support, a spring carried by the cap in position for engaging and pressing forwardly a

blade sustained by said support, means for preventing forward movement of the blade, and a pivotal connection between the cap and support forward of the spring.

4. In a safety razor, the combination with a blade support, of a cap therefor, and a spring carried by the cap and having free ends positioned, when the cap is being moved to a closed position, to approach and engage, with an edgewise movement, the rear edge of a blade sustained by said support, and to be compressed thereby for exerting a forward pressure to the blade, and means for retaining said blade against forward movement, the spring being of transversely arcuate form at the place of engagement with the blade.

5. In a safety razor, the combination with a blade support, of a cap therefor, and a spring carried by the cap, said spring having rounded portions extending longitudinally of and adapted to engage edgewise the rear edge of a blade sustained on the support, the rounded portions of the spring being tensioned to be sprung rearwardly in rear of such blade when caused to engage the same as the cap approaches its closed position for exerting spring pressure forwardly on the blade.

[Claims 6 to 9 not printed in the Gazette.]

1,135,776. SAFETY-RAZOR. JULIUS B. DE MESQUITA, Brooklyn, N. Y. Original application filed Dec. 3, 1909, Serial No. 531,199. Divided and this application filed July 28, 1914. Serial No. 853,570. (Cl. 30—12.)



1. In a safety razor, the combination with a blade support, of a cap pivoted thereto and having a catch hook, and a plate fixed to the support and having a spring strip bent into a depending fold, the outer free end portion of said strip extending upwardly and being formed with a catch hook adapted to coöperate with the hook of the cap for detachably locking the cap in a closed position.

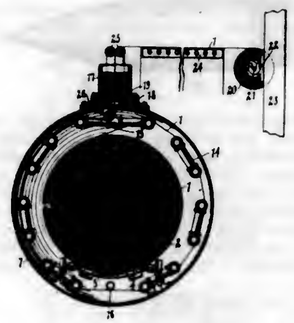
2. In a safety razor, the combination with a blade support, of a cap pivoted thereto and formed with a catch hook, a handle depending from said support, and a spring fixed at one end to the support and depending in a fold in rear of said handle and having its free end portion extending upwardly and formed with a catch hook adapted to coöperate with the hook of the cap for detachably locking the cap in a closed position.

3. A cap retaining spring for a safety razor frame, comprising an anchoring plate and a spring strip bent at an angle to the plate of substantially ninety degrees, the strip being bent back upon itself to form a fold, the return portion being bent into sinuous form and terminating in a hook.

4. In a safety razor, the combination with a frame and a cap hinged to the frame and having a catch, of a plate anchored in the frame and tapered to form a spring strip, the strip being bent into a depending fold with the members of the fold spaced apart, the free end of the strip being formed with a catch disposed and adapted to interlock with the catch of cap, that lap of the fold having the catch being exposed for access for manual depression and formed with means to facilitate such depression.

5. In a safety razor, the combination, of a plate, a cap hinged thereto and having a catch, a plate fixed to the first-mentioned plate and having a recess, a plate in the recess and fixed to the first-mentioned plate, and a folded spring strip carried by the third mentioned plate and extending downwardly past a portion of the second-mentioned plate and then upwardly to a position beneath the cap, said strip terminating in a catch disposed and adapted to engage the first-mentioned catch for detachably locking the cap in its closed position.

1,135,777. METHOD OF IMPREGNATING AND COATING MATERIALS. LOUIS P. DESTRIBATS, Trenton, N. J. Filed July 26, 1910. Serial No. 573,831. (Cl. 91—70.)



The method of impregnating and coating fabrics consisting in first, confining a roll of the fabric in a vessel; second, heating the vessel and exhausting the air therefrom; third, unwinding the fabric from the roll and passing it, in the form of a single layer, about in the vessel so that the vacuum will affect all sides of the fabric; and fourth, passing the fabric in the form of a single layer out of said vessel and through another vessel containing a liquid bath before exposing the material to external atmosphere.

1,135,778. MILITARY SIGNALING APPARATUS. BERNARD RUSSEL DIETZ, Canterbury, England. Original application filed Apr. 17, 1908, Serial No. 427,743. Divided and this application filed Dec. 28, 1908. Serial No. 469,618. (Cl. 116—22.)



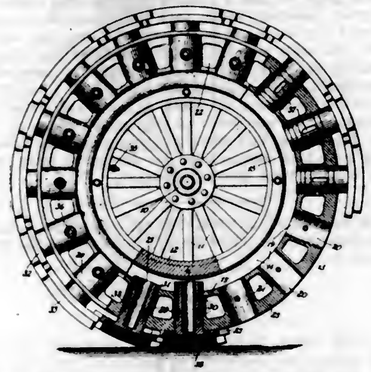
1. A portable signaling apparatus comprising an opaque disk-like device, a handle secured to and projecting from the periphery of the disk and in the plane of the same, a light giving device fitted centrally in one face of the said disk, a pivotally mounted segment on the same face of the disk, and means carried by the said handle for turning the said segment on its pivot to expose and obscure said light giving device.

2. In a portable light signaling apparatus, the combination of an imperforate disk, a source of light arranged centrally of said disk, a diametrically arranged spindle rotatably mounted on said disk on the side thereof adjacent the source of light, a segment arranged on said spindle and corresponding in dimensions to one half of the imperforate disk, a central loop on said spindle extending over the source of light, a flexible pocket secured to said loop and to the imperforate disk on one side of said spindle, a finger piece on said spindle for turning the segment so that the flexible pocket may cover the source of light, and a handle secured to the said device and projecting from the same in the plane thereof.

1,135,779. PNEUMATIC WHEEL. JOSEPH DOVE-SMITH, Niagara Falls, N. Y. Filed Dec. 3, 1913. Serial No. 804,390. (Cl. 152—31.)

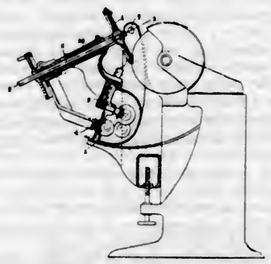
In a pneumatic wheel, the combination with a wheel structure including a solid rim, of a casing fitted to said rim and including an annular air chamber and a circular

series of plungers slidably fitted in the respective cylinders and maintained normally pressed outwardly by the air within the cylinder, each of the plungers including a stem extending through its cylinder, a sleeve fitted to the stem, a plurality of expansible packing members adjacent



the ends of said sleeve and serving to make the plunger airtight, means acting between the casing and the sleeve to prevent rotation of the sleeve while permitting reciprocation of the same with the other parts of the plunger, and means to prevent rotation of the stem within the sleeve.

1,135,780. MEANS FOR PRODUCING TEETH ON GEAR-WHEELS. CHARLES EDWARD DRUMMOND and CHARLES RIDLEY, Coventry, England. Filed July 25, 1913. Serial No. 781,183. (Cl. 51—4.)



1. Means for generating involute teeth by rolling on a base circle, comprising in combination a grinding wheel, a blank carrying slide, a shaft carried by said slide, a rolling drum on said shaft, means for carrying said blank on said shaft, means for oscillating said drum on said shaft, means for traversing said grinding wheel to and from the plane of rolling of said drum, whereby the circular line of contact of the grinding wheel with the blank is moved to and fro in a radial direction, as set forth.

2. Means for generating involute teeth by rolling on a base circle, comprising in combination, a grinding wheel, a blank carrying slide, a shaft carried by said slide, a rolling drum on said shaft, means for carrying said blank on said shaft, a second slide, bands attached to said second slide and to said rolling drum, a pivoted cross bar adapted to connect said slides, the pivot of said bar being adjustable, as and for the purpose described.

1,135,781. EMBLEMATIC PIN. MICHAEL EITEL, Dubuque, Iowa. Filed July 9, 1914. Serial No. 850,041. (Cl. 40—1.6.)

1. A device of the character described comprising a face plate, a split ring having one of its ends united to the rear side of said plate near one of its ends, a revolubly mounted shaft having one of its ends located in said split ring, a spring for rotating said shaft in one direction, an emblem wound upon said shaft, and means whereby said split ring may be forced out of contact with said shaft, said ring normally contacting therewith.



2. A device of the character described comprising a face plate, a normally contracted split ring secured to the rear face thereof near one end, a revolubly mounted shaft having one of its ends projecting into said split ring and normally engaged thereby, a spring for rotating said shaft in one direction, an emblem wound upon said shaft, and a pin projecting through said face plate and connected to the free end of said split ring whereby the same may be expanded to allow said shaft to rotate.

3. A device of the character described comprising a face plate, a normally contracted split ring formed of a single piece of resilient metal and having one of its ends secured to the rear side of said face plate, the opposite end of said split ring being provided with an integral ear, a longitudinal revolubly mounted shaft having one of its ends projecting into said split ring and normally engaged thereby, a spring for rotating said shaft in one direction, an emblem wound upon said shaft and a pin projecting through said face plate and having its inner end secured to said ear.

4. A device of the character described comprising a face plate, a casing secured to the rear side thereof and having a longitudinal slot, a normally contracted split ring within said casing and having one of its ends rigidly anchored, its opposite end being provided with an integral ear, a longitudinal shaft having one of its ends projected in said split ring and normally engaged thereby, a spiral spring attached to the casing and to the opposite end of said shaft, an emblem wound upon said shaft and depending through said slot in the case, and a pin projecting through said face plate and bearing against said ear, whereby said split ring may be expanded to allow said spring to rotate the shaft for the purpose of winding the emblem thereon.

5. A device of the character described comprising a face plate, a longitudinal shaft journaled in rear thereof, a spring for rotating said shaft in one direction, an emblem wound upon said shaft, and a manually released friction brake band revolubly supporting one end of said shaft and designed for controlling the rotation thereof.

1,135,782. LOOM FOR THE MECHANICAL MANUFACTURE OF LACE. JEAN FARIGOULE, Paris, France. Filed July 1, 1913. Serial No. 776,790. (Cl. 66—6.)



1. In a loom for the mechanical manufacture of lace of the type described, carriages, selecting levers coöperating with said carriages, a notch provided on the lower edge of each carriage and into which the corresponding selecting lever projects when it is operated, a plate arranged on each side of said notch, the lower edge of each of these plates conforming to the lower edge of the carriage.

2. In a loom for the mechanical manufacture of lace of the type described, carriages, selecting levers coöperating with said carriages, a notch provided on the lower edge of each carriage and into which the corresponding selecting leve rprojects when it is operated, a plate arranged on each side of said notch, the lower edge of each of these plates conforming to the lower edge of the carriage, a

comb bar guiding the carriages in their transverse movements, small longitudinal grooves in the blades of said comb bar, the depth and width of said grooves being slightly greater than the thickness and width of the plates of the carriages.

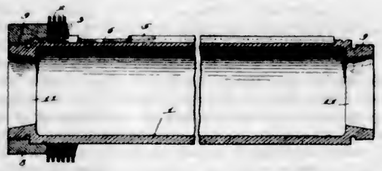
3. In a loom for the mechanical manufacture of lace of the type described, carriages, selecting levers coöperating with said carriages, pull rods hinged with said selecting levers, a notch provided on the lower edge of each carriage and into which the corresponding selecting lever projects when it is operated, a plate arranged on each side of said notch, the lower edge of each of the plates conforming to the lower edge of the carriage, a comb bar guiding the carriages in their transverse movements, small longitudinal grooves in the blades of said comb bar, the depth and width of said grooves being slightly greater than the thickness and width of the plates of the carriages, a comb with curved blades arranged on a level with the joints of the levers and pull rods, and means for spacing the selecting levers at the end opposite that engaging the carriages.

4. In a loom for the mechanical manufacture of lace of the type described, carriages, selecting levers coöperating with said carriages, pull rods hinged with said selecting levers, a notch provided on the lower edge of each carriage and into which the corresponding selecting lever projects when it is operated, a plate arranged on each side of said notch, the lower edge of each of these plates conforming to the lower edge of the carriage, a comb bar guiding the carriages in their transverse movements, small longitudinal grooves in the blades of said comb bar, the depth and width of said grooves being slightly greater than the thickness and width of the plates of the carriages, a comb with curved blades arranged on a level with the joints of the levers and pull rods, means for spacing the selecting levers at the end opposite that engaging the carriages, combs adapted to guide in their median part the pull rods controlling the selecting levers, vertical extensions on said combs, and a comb adapted to guide the back part of the pull rods.

5. In a loom for the mechanical manufacture of lace of the type described, carriages, selecting levers coöperating with said carriages, pull rods hinged with said selecting levers, a notch provided on the lower edge of each carriage and into which the corresponding selecting lever projects when it is operated, a plate arranged on each side of said notch, the lower edge of each of these plates conforming to the lower edge of the carriages, a comb bar guiding the carriages in their transverse movements, small longitudinal grooves in the blades of said comb bar, the depth and width of said grooves being slightly greater than the thickness and width of the plates of the carriages, a comb with curved blades, arranged on a level with the joints of the levers and pull rods, means for spacing the selecting levers at the end opposite that engaging the carriages, combs adapted to guide in their median part the pull rods controlling the selecting levers, vertical extensions on said combs, a comb adapted to guide the back part of the pull rods, and two fixed locking bars adapted to lock the heels of the pull rods when in their position of rest.

[Claim 6 not printed in the Gazette.]

1,135,783. PRINTING-ROLLER. CHARLES M. FAUERBACH, Hudson Falls, N. Y. Filed Feb. 23, 1912. Serial No. 679,264. (Cl. 101—178.)



A printing roller for producing straight-line background and overline effects on wall paper comprising a hollow cylindrical shell having reduced exteriorly-threaded ends; a series of thin, flat metal printing disks fitted axially on said shell and having their peripheral portions notched to produce teeth, the teeth of said disks having a predetermined position relative to each other and to those of adjacent disks, to form a given design; spacing disks of less diameter externally than said printing disks interposed between the latter and in contact with the same upon said shell, the shell and the printing and spacing disks constituting companion parts, one of which is provided with a longitudinal groove and the other with a longitudinal projection extending thereinto, to lock said disks against circumferential movement on said shell; and caps removably fitted upon said shell ends and projecting across the shell body into contact with the outermost disks, to hold said disks against lateral movement.

1,135,784. MAGAZINE-HAMMER. HUGH A. FAULKNER, Burkmere, S. D. Filed May 9, 1914. Serial No. 837,479. (Cl. 1—45.)

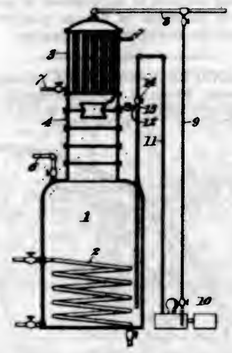


1. In a magazine hammer, a hammer head, a handle therefor, a delivery frame pivoted to the hammer head, an extension mounted on the frame, spring fingers carried by the frame, said extension and said fingers being engageable with the tacks acted upon one at a time, means operable from a point on the hammer handle to oscillate the delivery frame, said extension and the said fingers adapted to carry the tacks one at a time into a position to be struck by the hammer head, spring means operating automatically to return the frame into engagement with the successive tacks acted upon, and means comprising an oscillatable plate movable to successively position the tacks acted upon, for engagement with said extension and said fingers, as and for the purpose set forth.

2. In a magazine hammer, a hammer head, a handle therefor, feeding mechanism comprising an oscillatable plate, means operating to move the tacks one at a time into engagement with said plate, said plate being oscillatable to move the tacks one at a time out of engagement therewith, a delivery frame pivoted to the hammer head, an extension mounted on the said frame, spring fingers disposed adjacent the said extension, spring means affixed to the delivery frame, said spring means operating automatically to force said extension and said spring fingers into engagement with the tacks moved beyond said plate, and means actuatable from a point upon the hammer handle to move the said delivery frame upon its pivot point and to position the tacks one at a time into engagement with the striking surface of the hammer head, the spring fingers providing for a release of the tacks, the spring means aforesaid providing for a return of the extension and said fingers into engagement with the next tack acted upon, as and for the purpose set forth.

1,135,785. PROCESS AND APPARATUS FOR PRODUCING HYDROXIDS OF METALS BY MEANS OF AMMONIA. HANS A. FRASCH, New York, N. Y. Filed Apr. 10, 1913. Serial No. 760,302. (Cl. 23—13.)

1. The method of precipitating hydrated oxids of metals from solutions of their salts by ammonia, by boiling in presence of an ammonium salt until the oxids are precipitated while maintaining the solution alkaline with ammonia, substantially as described.



2. The method of precipitating oxid of nickel from a solution of a salt of nickel by ammonia, by boiling in presence of an ammonium salt until the nickel oxid is precipitated while maintaining the solution alkaline with ammonia.

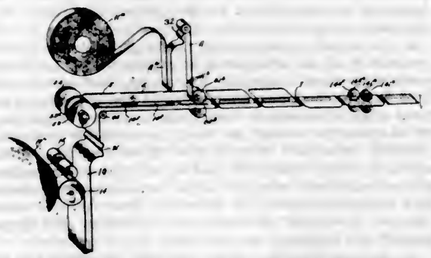
3. The method of precipitating nickel oxid from a solution of nickel ammonium chlorid, by boiling in presence of a solution of ammonium chlorid until the nickel oxid is precipitated while maintaining the solution alkaline with ammonia.

4. In the process of producing hydrated oxids of metals by means of ammonia, boiling a solution of the salt of a desired metal in presence of a salt of ammonia and free ammonia, condensing the aqueous ammoniacal vapor evaporated during boiling and returning sufficient of the condensate to keep the boiling solution alkaline while the oxid is being precipitated.

5. In the process of producing hydrated oxids of metals by means of ammonia, boiling a solution of the salt of a metal in presence of ammonium chlorid and free ammonia, concentrating the vaporized ammonia by means of dephlegmation, and returning part of the dehydrated ammonia to keep the boiling solution alkaline while the oxid is precipitating.

[Claims 6 to 9 not printed in the Gazette.]

1,135,786. PROCESS OF MAKING ENVELOPS. NELSON E. FUNK, Montclair, N. J. Filed Nov. 4, 1913. Serial No. 799,222. (Cl. 93—61.)



1. The herein described process for the manufacture of envelops, having a window aperture and a covering of transparent material therefor, which consists in supporting a blank provided with a window aperture, applying adhesive material to a portion of said blank of less width than said blank, and including the edges of said aperture and the portions of the blank, which are to form the end sealing flaps of the envelop and applying a transparent strip of less width than said blank upon the gummed portions thereof, whereby when the end flaps of the envelop are folded and sealed, portions of the transparent strip will be interfolded therewith.

2. The herein described process for the manufacture of envelops having a window aperture, and a covering of transparent material therefor, which consists in forming a blank with a window aperture in that portion which is to form the front body portion of the envelop, adhesively applying a portion of a continuous transparent strip of less width than the blank thereupon and over said window aperture, without severing said transparent strip, severing said transparent strip after the applied portion has been adhesively attached to the body portion of the envelop, and folding other portions of the blank over upon the portion having the transparent strip secured thereto.

3. The herein described process for the manufacture of envelops having a window aperture and a covering of transparent material therefor, which consists in feeding an envelop blank provided with a window aperture, applying gum to a narrow portion of the envelop blank extending longitudinally thereof, around the edges of the window aperture and upon portions of the blank which are to form the end flaps of the envelop, and feeding a transparent strip of less width than said blank and applying the same progressively to the gummed portions thereof longitudinally of the blank, over the window opening and upon said end flap portions, whereby when the end flaps are folded, portions of the transparent strip will be folded therewith.

4. The herein described process for the manufacture of envelops having a window aperture and a covering of transparent material therefor, which consists in feeding a continuous envelop blank strip, forming address viewing window apertures therein at intervals, adhesively applying a continuous strip of transparent material of less width than the blank strip to the blank strip progressively, over said window apertures, and severing said transparent strip, blanking the envelop blank strip to define the body portions, end flaps, and sealing flap, and folding said body portions together severing the individual envelop blanks from the blank strip, and sealing the end flaps.

5. The herein described process for the manufacture of envelops having a window aperture and a covering of transparent material therefor, which consists in feeding a plurality of contiguous envelop blanks end to end, provided each with a window aperture disposed longitudinally with respect to the line of feed, applying gum to narrow portions of the envelop blanks successively adjacent to the edges of the window apertures and upon portions between the apertures of adjacent envelop blanks which are to form the end sealing flaps of the envelops, applying a continuous transparent strip of less transverse width than the envelop blank to the gummed portions of said envelop blanks whereby when the end flaps of the envelop are folded, portions of the transparent strip will be interfolded therewith and severing said transparent strip between adjacent envelop blanks.

[Claims 6 to 27 not printed in the Gazette.]

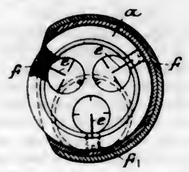
1,135,787. TELESCOPIC SIGHT PROVIDED WITH VARIABLE SIGHTING-POINTS. OSKAR GRAUHEDING, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Oct. 19, 1914. Serial No. 867,417. (Cl. 33—54.)

1. A sight comprising a telescope, a series of sighting marks, separate supports for said marks, and a main frame carrying said supports mounted in said telescope eccentrically to the optic axis thereof.

2. A sight comprising a telescope, a series of sighting marks, a separate frame for each mark, and a main frame in which the mark-carrying frames are mounted, said main frame being mounted in said telescope eccentrically to the optic axis thereof.

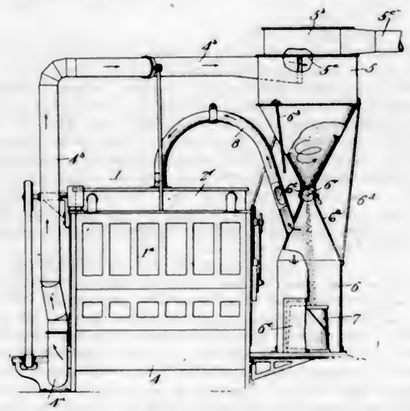
3. A sight comprising a telescope, a series of sighting marks, a separate frame for each mark, a main frame in

which the mark-carrying frames are mounted, said frame being mounted in the telescope eccentrically to the optic axis thereof, and means for separately adjusting the mark-carrying frames.



4. A sight comprising a telescope, a series of sighting marks, a separate frame for each mark, a main frame in which the mark-carrying frames are mounted, said main frame being mounted in the telescope eccentrically to the optic axis thereof, and adjusting screws mounted in said main frame and engaging the separate frames.

1,135,788. BRONZING-MACHINE. GEORGE J. HAFNER, Rochester, N. Y., assignor to United Printing Machinery Company, Jamaica Plain, Mass., a Corporation of Massachusetts. Filed June 17, 1912. Serial No. 704,093. (Cl. 91—59.)

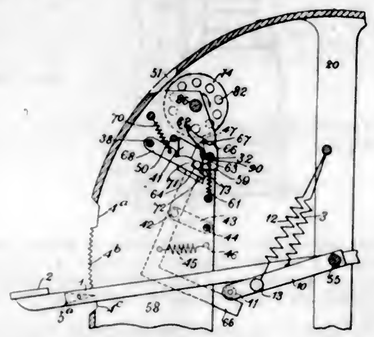


1. In combination, a bronzing machine having a bronze hopper, a bronzing chamber and bronzing devices therein; means for withdrawing bronze laden air from said chamber; and a cyclone separator into which the bronze laden air is discharged and the bronze separated from the air; with a depositing chamber into which the powders precipitated in the separator are discharged, and a return pipe connecting said chamber with the bronzing hopper, substantially as described.

2. In combination, a bronzing machine having a bronze hopper, a bronzing chamber and bronzing devices in said chamber; means adapted to withdraw bronze laden air from said chamber; and a cyclone separator into which the bronze laden air is discharged and separated from the bronze; with a depositing chamber into which the precipitated bronze is discharged from said separator; and a suction pipe leading from said depositing chamber to the bronzing hopper; whereby while wet particles of powder are trapped in said depositing chamber the light dry particles may be returned to the bronzing hopper.

3. In a bronzing machine, the combination of a chamber communicating with the atmosphere; means for applying bronze to sheets of paper passing through said chamber; a fountain for supplying bronze to said chamber; a suction fan or pump for withdrawing the bronze laden air from said chamber; and a separator into which said air is discharged; with a depositing chamber into which bronze precipitated in the separator is discharged, and a suction pipe communicating with the upper part of said depositing chamber and with the bronzing chamber whereby a partial vacuum is maintained in said depositing chamber and dry particles of bronze powder may be returned therefrom to the bronzing chamber.

1,135,789. TRANSFER MECHANISM. CHARLES GILBERT HALL, Haslemere, England. Filed Feb. 16, 1914. Serial No. 819,009. (Cl. 235—137.)



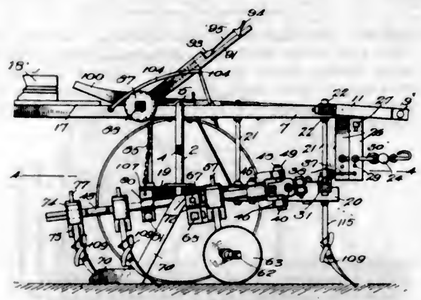
1. In a mechanical adding machine, a device for the transfer from one of a series of registering drums to the next, comprising in combination a lever comprising a substantially vertical arm and a lower arm at substantially right angles to said vertical arm, a frame, a link for said lever and pivoted to said frame at one end, a pivot pin connecting the other end of said link to said vertical arm of the lever, a stop on said frame adapted to arrest the forward movement of the upper end of said lever, a spring tending to press said upper end against said stop and to raise said vertical arm, a pivoted yoke adapted when depressed to engage the horizontal arm of said lever, a spring tending to raise said yoke, and a key lever adapted when depressed to lower said yoke whereby as the lever is lowered by said yoke the upper end of the lever moves at first radially with respect to said registering drum and then rearwardly with respect to the direction of rotation of said drums.

2. In a mechanical adding machine, a device for the transfer from one of a series of registering drums to the next, comprising in combination a compound spring-actuated transfer lever, a spring-actuated pivoted yoke, a key lever adapted to actuate said yoke against the influence of its spring to retract said lever, an abutment projecting laterally from said lever, and of pivoted bar and cooperating spring-actuated detent adapted to embrace said abutment to hold said lever when retracted.

3. In a mechanical adding machine, a device for the transfer from one of a series of registering drums to the next, comprising in combination a compound spring-actuated transfer lever, a spring-actuated pivoted yoke, a key lever adapted to actuate said yoke, against the influence of its spring to retract said lever, an abutment projecting laterally from said lever, a pivoted bar and coöperating spring-actuated detent adapted to embrace said abutment to hold said lever when retracted, an arm on said detent, and an abutment on the preceding drum of said series adapted to engage with said arm to release said detent against the influence of its spring.

4. In a mechanical adding machine, a device for the transfer from one of a series of registering drums to the next, comprising in combination a compound spring-actuated transfer lever, a spring-actuated pivoted yoke, a key lever adapted to actuate said yoke against the influence of its spring to retract said lever, an abutment projecting laterally from said lever, and a spring actuated pivoted bar and coöperating spring-actuated detent adapted to embrace said abutment to hold said lever when retracted.

1,135,790. COTTON-CHOPPER. ROBERT HAMILTON, Commerce, Tex. Filed Aug. 11, 1914. Serial No. 856,245. (Cl. 97—48.)



1. A cotton chopper, comprising a main wheel supported frame, a pair of shafts journaled in alinement at opposite sides of the frame and at the front thereof, a shaft journaled between and in rear of the first-named shafts, a plow beam pivoted at its front end on each of the said shafts, a series of supporting brackets on each plow beam and movable longitudinally thereof, means in connection with each bracket for holding the bracket in adjusted position, a pair of uprights or standards adjustable vertically with respect to the front bracket of each beam, a concavo-convex cutting disk journaled at the lower end of each standard or upright, the disks of each bracket being arranged with their convex surfaces adjacent and being spaced apart and being inclined away from each other toward the rear, a pair of fenders connected with each of the intermediate brackets of the beams and extending rearwardly in parallel relation, a pair of cultivating plows connected with the rear bracket of each beam and adjustable vertically with respect thereto and arranged to cultivate on each side of the fenders, a common means connected with the rear end of the beams for adjusting the beams vertically, and means in connection with the said means for holding the beams in adjusted position, said adjusting means comprising a shaft journaled transversely of the frame and provided with pulleys at the beams, and a flexible member slidably connected with each beam at one end and winding over the pulley at the other end.

2. A cotton chopper, comprising a main wheel supported frame, a pair of shafts journaled in alinement at opposite sides of the frame and at the front thereof, a shaft journaled between and in rear of the first-named shafts, a plow beam pivoted at its front end on each of the said shafts, a series of supporting brackets on each plow beam and movable longitudinally thereof, means in connection with each bracket for holding the bracket in adjusted position, a pair of uprights or standards adjustable vertically with respect to the front bracket on each beam, a concavo-convex cutting disk journaled at the lower end of each standard or upright, the disks of each bracket being arranged with their convex surfaces adjacent and being spaced apart and being inclined away from each other toward the rear, a pair of fenders connected with each of the intermediate brackets of the beams and extending rearwardly in parallel relation, a pair of cultivating plows connected with the rear bracket of each beam and adjustable vertically with respect thereto and arranged to cultivate on each side of the fenders, a common means connected with the rear ends of the beams for adjusting the beams vertically, and means in connection with the said means for holding the beams in adjusted position.

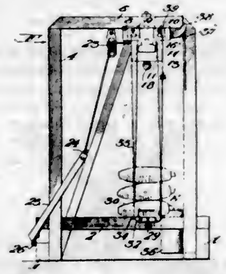
3. A cotton chopper, comprising a main wheel supported frame, plow beams connected with the frame at their front end and adjustable laterally with respect to the frame, each beam being mounted to swing at its rear end vertically with respect to the frame, a common means for simultaneously raising and lowering the beams, and a series of three brackets slidable longitudinally of each beam, a pair of uprights or standards connected with the front bracket of each beam and adjustable vertically with respect to the bracket, a pair of fenders connected to the intermediate bracket of each beam and extending rearwardly in parallel relation, and a pair of cultivating plows connected with the rear bracket of each beam.

4. A cotton chopper, comprising a main wheel supported frame, beams pivoted to the frame at their front ends to swing vertically at their rear ends, the front ends of the beams being adjustable laterally with respect to the frame, a common means for simultaneously raising and lowering the rear ends of the beams, chopping mechanism, cultivating mechanism, and fender supporting mechanism mounted on each beam and adjustable longitudinally thereof, the chopping mechanism being at the front of the beam and cultivating mechanism at the rear of the beam, and the fenders extending approximately parallel on each side of the beams.

5. In a cotton chopper, a main frame, a beam mounted to swing on the frame, and mechanism supported by the beam for chopping out plants not needed, for leveling the ridges formed by the chopping mechanism, and having fenders for preventing the covering of the plants, the chopping mechanism comprising concavo-convex disks arranged in spaced relation and converging toward their front edges, each of the said mechanisms being supported by a bracket adjustable longitudinally of the beam.

[Claims 6 and 7 not printed in the Gazette.]

1,135,791. DEVICE FOR STRINGING CORN. RAY HARDEN, Lane, S. D. Filed Jan. 29, 1914. Serial No. 815,240. (Cl. 139—32.)



1. A seed corn stringer comprising a relatively fixed supporting member having a pair of twine supporting hooks adjustable one toward the other, and a relatively movable supporting member likewise having a pair of twine supporting hooks adjustable one toward the other.

2. A seed corn stringer comprising a relatively fixed support, a relatively movable support, guides carried by said fixed and movable supports, plates slidable in said guides and having twine supporting hooks, and means whereby said plates may be locked against movement in said guides.

3. A seed corn stringer comprising mechanism for supporting a plurality of strands of twine in variable spaced relation and for intermittently crossing said strands, a number of downwardly pressed fingers engaged with said strands below said supporting mechanism said fingers being mounted for variable spaced relation, and means for retaining them in adjusted position.

4. A seed corn stringer comprising mechanism for supporting a plurality of strands of twine in variable spaced relation and for intermittently crossing said strands, a number of downwardly pressed fingers engaged with said strands below said supporting mechanism, said fingers being mounted for variable spaced relation, means for retaining them in adjusted position, a support below said twine supporting and crossing mechanism, a guide on said support, a pair of twine engaging fingers mounted in said guide and projecting forwardly and rearwardly there-

from and a spring for holding said fingers in contact with the sides of said guide and for retaining said fingers in variable spaced relation.

5. A seed corn stringer comprising mechanism for supporting a plurality of strands of twine in variable spaced relation and for intermittently crossing said strands, a number of downwardly pressed fingers engaged with said strands below said supporting mechanism, said fingers being mounted for variable spaced relation, means for retaining said finger in adjusted position, a support below said twine supporting and crossing mechanism, a yoke on said support, a pair of twine engaging fingers mounted in said yoke and projecting forwardly and rearwardly therefrom and a spring for normally holding the rear ends of said fingers in contact with each other and for holding said fingers in contact with the sides of said yoke.

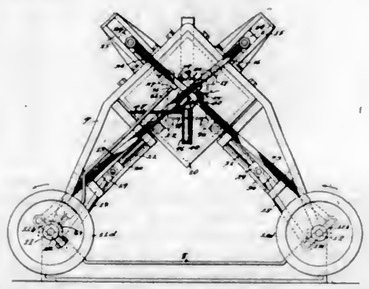
[Claim 6 not printed in the Gazette.]

1,135,792. PROCESS FOR MANUFACTURING EXPLOSIVES. CARL HARTMANN, Schlebusch, near Cologne, Germany, assignor to the Firm of Sprengstoff A.-G. Carbonit, Hamburg, Germany. Filed Aug. 20, 1913. Serial No. 785,779. (Cl. 23—24.)

1. A process for the manufacture of 2.4.6.2'.4'.6'.-hexanitro-diphenyl-sulfid, which consists in heating two molecules of 1-chloro-2.4.6-trinitro-benzol with one molecule of a thio-sulfate in the presence of an appropriate solvent and an acid neutralizing means.

2. A process for the manufacture of 2.4.6.2'.4'.6'-hexanitro-diphenyl-sulfid, which consists in reacting upon a mixture of 1-chloro-2.4.6.-trinitro-benzol, magnesium carbonate and alcohol with sodium thiosulfate while constantly agitating and heating.

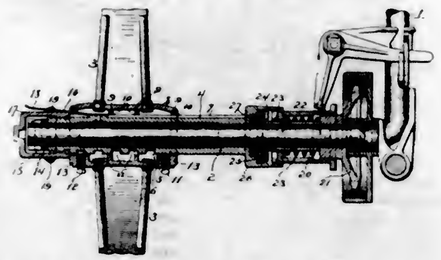
1,135,793. INTERNAL-COMBUSTION ENGINE. OTIS HEATON, White Owl, S. D. Filed Sept. 3, 1914. Serial No. 859,981. (Cl. 121—44.)



1. An engine, comprising a frame, two crank-shafts rotatable therein, a fluid expansion chamber comprising fixed heads carried by said frame, two knuckle-plates arranged in one plane and provided, each, with two parallel, semi-circular, grooves, two supplemental knuckle-plates arranged in a plane at right angles to said first named plane and similarly grooved, and a wall plate connecting adjacent knuckle-plates and provided each with cylindrical end members resting in the respective grooves of said knuckle-plates, means connecting each knuckle-plate with a corresponding crank-shaft, an inlet valve, and an exhaust valve, said wall plates serving to maintain said knuckle-plates in their respective planes at all times.

2. An engine, comprising a frame, two crank-shafts rotatable therein, a fluid expansion chamber comprising fixed heads carried by said frame, two oppositely disposed knuckle-plates provided, each, with two parallel, semi-circular, grooves, two supplemental, oppositely disposed, knuckle-plates similarly grooved and arranged in a plane at right angles to the plane of said first named knuckle-plates, and a wall plate connecting adjacent knuckle-plates and provided, each, with cylindrical end members resting in the respective grooves of said knuckle-plates, an inlet valve, and an outlet valve, and means for actuating said valves.

1,135,794. DRIVE-WHEEL MOUNTING. EDWARD M. HEYLMAN, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Original application filed July 3, 1914, Serial No. 848,827. Divided and this application filed Nov. 2, 1914. Serial No. 869,922. (Cl. 21—31.)



1. The combination with a spindle, of an axle box having a plurality of notches, a wheel hub adjustable on the axle box longitudinally thereof, a set screw passing through the wall of the hub and adapted to enter any one of said notches, and a longitudinal rib on the axle box, said hub being recessed to receive said longitudinal rib.

2. The combination with an axle, of an axle box rotatable on the axle, a wheel hub rotatable with and slidable on said axle box, said axle box having a plurality of notches and a flat face, and two set screws passing through the wall of the hub, one of said set screws engaging the flat face of the axle box and the other set screw entering one of the notches therein.

3. The combination with an axle, of an axle box rotatable thereon, said axle box having parallel longitudinal ribs, a wheel hub slidable on said axle box and having notches to receive said parallel ribs, and means carried by said hub and engaging the axle box diametrically opposite said ribs to secure the wheel hub at different adjustments on the axle box.

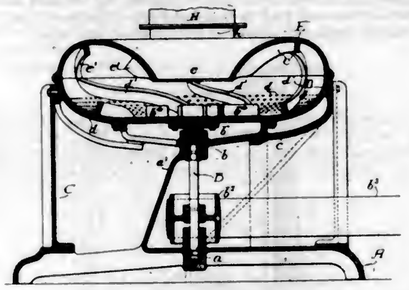
4. The combination with an axle, of an axle box rotatable thereon and having two longitudinal parallel ribs, a wheel hub mounted on said axle box and notched to receive said ribs, a lubricant cap screwed on the outer end of the axle box and having pairs of cam lugs thereon, and a spring secured to the axle box between the parallel ribs thereon and adapted to engage the lubricant cap between the cam lugs of any pair of said lugs.

1,135,795. PULVERIZER. JOSEPH L. HILLER, Mattapoisett, Mass. Filed Apr. 29, 1908. Serial No. 429,834. (Cl. 83—46.)

1. The combination of a plate; means for supporting said plate in a substantially horizontal plane; means for rotating the plate; a stationary annular screen in the form of a structure having its interior surface curved continuously with and surrounding said plate; vanes on said screen for directing and delivering the material thrown off from the plate; with a cover projecting downwardly over the plate for returning thereto material thrown off the same.

2. The combination of a casing having a portion of its interior formed by a movable plate; means for turning said plate relatively to the casing; said casing having its interior curved continuously with the plate and terminating in a portion directed downwardly toward and extended over the latter in position to return to the plate the material thrown off therefrom; with means for permitting the escape of pulverized material; and spiral vanes projecting from the inner surface of the casing.

3. The combination of a stationary casing having its top portion constructed to exteriorly form a hopper for the reception of material to be pulverized; with a device placed to receive material from said hopper and throw it forcibly against the walls of the casing, the upper interior portion of said casing being formed by the exterior of the hopper and shaped to return to said device the material thrown off by it.

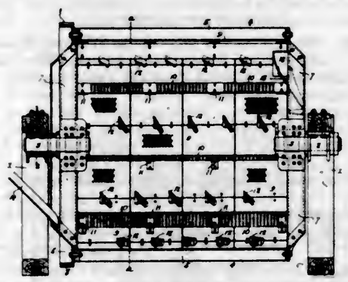


4. The combination of a casing having a central revoluble plate continuous with the adjacent portions of the casing, a cover having its interior surface continuous with the side portions of the casing and interiorly curved to return to the plate material thrown off from it, with spirally curved vanes on the body of the casing and on the top thereof; and means for rotating the plate.

5. The combination of a revoluble plate having vanes, means for driving said plate, a casing inclosing said plate and constructed continuously with the plate to return thereto material thrown off from it, a screen for permitting escape of fine material, and vanes on the screen and the inside of the casing.

[Claims 6 and 7 not printed in the Gazette.]

1,135,796. COAL BREAKING AND SCREENING MACHINE. JOSEPH L. HILLER, Mattapoisett, Mass., assignor to Pennsylvania Crusher Company, New York, N. Y., a Corporation of New York. Filed May 1, 1911. Serial No. 624,291. (Cl. 83—56.)

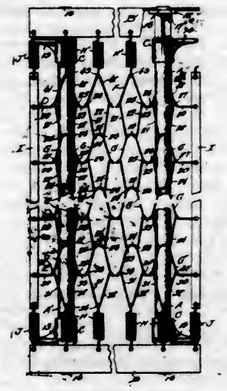


1. The combination of a rotatably mounted screen drum consisting of a frame and a continuous cylinder of perforated sheet metal mounted thereon; said cylinder having an unobstructed opening in its cylindrical surface; with a perforated shelf mounted within the drum adjacent the opening in position to discharge material passing through its perforations out of said opening.

2. The combination of a rotatably mounted screen drum having an opening in its cylindrical body; with a shelf having a perforated portion inclined toward one end of the drum; and mounted adjacent said opening so as to discharge therethrough the material passing through its perforations.

3. The combination of a rotatably mounted screen drum with a series of perforated shelves mounted in the same, the perforations in said shelves decreasing in size from those in the first shelves of the series to those of the last shelf; and the perforations in certain of the shelves increasing in size from one end of the shelf to the other.

1,135,797. SPRING BED-BOTTOM. JACOB H. HIRSCH, Atlanta, Ga., assignor to Hirsch & Spitz Manufacturing Co., Atlanta, Ga., a Corporation of Georgia. Filed Nov. 10, 1913. Serial No. 800,144. (Cl. 5—39.)



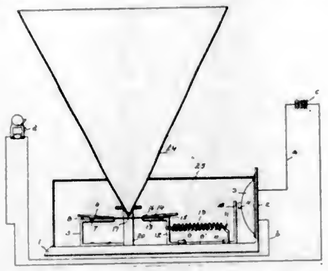
1. In a spring bed bottom, a fabric having longitudinal edging members, a series of spaced transverse members each extending continuously across the fabric and having its ends secured to the edging members and being bent between its ends to form a series of spaced diagonal arms extending alternately toward opposite edges of the fabric with lateral sections connecting said arms with each other, and diagonally arranged links connecting the transverse members with each other, said links extending alternately toward opposite edges of the fabric and being so arranged with relation to the transverse members that the meshes formed by the links and transverse members will be approximately diamond-shaped.

2. In a spring bed bottom, a fabric comprising a mesh portion having a series of transverse members each of which extends continuously across the fabric and is formed with outwardly extending arms at its ends and between said arms with a series of spaced diagonal arms extending alternately toward opposite edges of the fabric and lateral sections connecting the diagonal arms with each other, the mesh portion also comprising diagonally-arranged links whose ends are connected to the transverse members adjacent to the junctions of the lateral sections and outwardly extending arms respectively with the diagonal arms, the said links extending alternately toward opposite edges of the fabric and being so arranged with relation to the transverse members that the meshes formed by the links and transverse members will be approximately diamond-shaped; and longitudinal edging members connected to the outwardly extending arms at the ends of the transverse members.

3. In a spring bed bottom, a fabric having a series of transverse members each of which extends continuously across the fabric and is bent to provide laterally extending arms at the ends thereof, spaced diagonal arms extending alternately toward opposite edges of the fabric and laterally extending connecting elements between said diagonal arms, said transverse members being spaced apart; links connecting them to each other and correlated therewith so as to form meshes which are approximately diamond-shaped: the fabric also having one of its ends formed of separate approximately V-shaped links, the free ends of whose arms are connected to the adjacent transverse member and are correlated therewith to form diamond-shaped meshes, the fabric, further, having at its other end a transverse member extending continuously

across the fabric and bent to form a series of approximately V-shaped sections with lateral connecting elements between said sections and laterally extending arms at the ends, diagonally arranged links connecting the last named transverse member with the adjacent transverse member and said members and links being correlated to form meshes of approximate diamond shape: longitudinal edging members connected to the outwardly extending arms at the ends of the transverse members: springs arranged to connect the ends of said edging members with the ends of the frame of the bottom and other springs arranged to connect the end meshes of the fabric to said frame.

1,135,798. ELECTRIC RAIN-ALARM. HARRY JOHN HIRSCHMANN, St. Louis, Mo. Filed Apr. 25, 1914. Serial No. 834,506. (Cl. 177—10.)



1. A rain annunciator comprising a casing supported upon a base, a sliding member mounted on the base, a spring for holding said member in one position, a contact arm carried by the sliding member, a bell contact on the casing, means for holding a strip of paper against the tension of said spring, and means for receiving and conveying a rain drop or drops upon said paper to permit the latter to break and to sound an alarm.

2. An electric rain annunciator comprising a base, a bracket connected to said base and provided with a spring clasp member, a sliding member mounted on the base and provided with a clasp member, a spring for moving said clasp members away, one from the other, a contact arm carried by the slide member, a contact on the base member in line with said arm, and means for supporting a funnel above a paper strip connected by said clasp members.

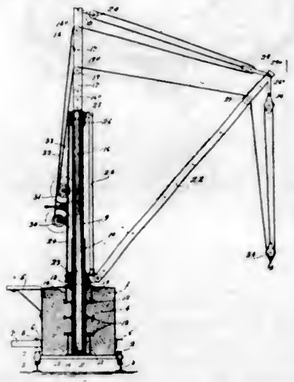
3. An electric rain alarm comprising a base, a bracket rigidly connected to the base, and provided with a clasp member, a sliding member provided with a contact arm, and a clasp member connected to said slide, a contact point on said base, said clasp members adapted to support a strip of paper, and means for collecting rain drops to be deposited on said paper and to break the same and to make an electrical contact for ringing a bell.

4. An electrical rain annunciator comprising means for supporting a strip of paper immediately under a funnel or rain collector, and means whereby when said paper is separated by the moisture an electrical contact will be completed to ring a bell.

1,135,799. DERRICK. DENIS F. HOGAN, St. Paul, Minn. Filed Mar. 16, 1914. Serial No. 824,989. (Cl. 212—59.)

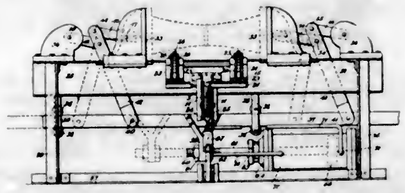
1. In a derrick, the combination with a relatively fixed mast casing and a mast rotatably mounted therein and projecting above the same, of lower and upper bearing rings, the former being pivotally mounted on said mast casing and the latter being secured to said mast, connections between the said upper and lower bearing rings for causing the same to rotate therewith and with the mast stem, a boom pivotally connected to said lower bearing ring at its lower end, cable guides on said boom and mast stem, and cables and operating devices for lifting the load and for raising and lowering said boom.

2. The combination with a relatively fixed mast casing and a mast rotatably mounted therein, said mast having a bifurcated upper end portion and cable guiding sheaves journaled therein, of a lower bearing ring rotatably mounted on said mast casing and connected to rotate with said mast, a boom pivotally connected to said lower bearing ring at its lower end, cable operating drums and a support therefor connected for rotary movements with said mast and lower bearing ring, and operating cables extending from said drums over the guide sheaves on the upper end of said mast and connected to the said boom, the one cable serving to raise and lower the boom and the other to raise and lower the load from the boom.



3. The combination with a body of concrete, of a step bearing embedded in the lower portion thereof and an annular bearing set into the upper portion thereof, a mast casing embedded in said concrete and extending from said step bearing through said annular bearing, a mast rotatably mounted in said casing with its lower end resting on said step bearing, a lower bearing ring rotatably mounted on said casing and resting on said annular bearing, a boom pivotally connected at its lower end to said lower bearing ring, connections for causing said lower bearing ring to rotate with said mast, and cables and cable operating drums and guides, one of said cables serving to raise and lower said boom and the other to raise and lower the load from said boom.

1,135,800. SHINGLE-PRESS. OSCAR HORNBY, Hoquiam, Wash., assignor of one-half to Thomas Hutchinson, Hoquiam, Wash. Filed May 8, 1914. Serial No. 837,175. (Cl. 100—32.)



1. In a machine of the class described, a press, a conduit leading to the press, a conduit leading from the press and means operable by the conduits for operating the press.

2. In a machine of the class described, a press, a conduit adjacent the press, and means operable by the conduit for actuating the press.

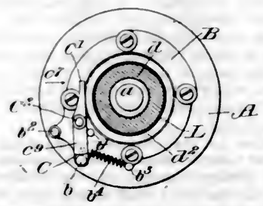
3. In a machine of the class described, a press, a conduit leading to the press and adapted to move vertically relatively to the press, a second conduit leading from the press and adapted to move vertically relatively to the press, and means for actuating the press operable by the movement of the conduits.

4. In a machine of the class described, a press, a lever, a conduit leading to the press and engaging one arm of the lever, a conduit leading from the press and engaging the other arm of the lever, and means for actuating the press operable by the lever.

5. In a machine of the class described, a press, a conduit hinged at one end, adjacent the press, a second conduit having an end adjacent the press and movable relatively thereto, a lever having an arm under the other end of the first conduit, and the said end of the second mentioned conduit, and means for actuating the press operable by the lever.

[Claims 6 to 17 not printed in the Gazette.]

1,135,801. CENTRIFUGAL CUT-OUT. LEVI W. HORTING, Lancaster, Pa., assignor of one-third to Charles F. Stauffer and one-third to B. Grant Stauffer, Lancaster, Pa. Filed Jan. 10, 1913. Serial No. 741,290. (Cl. 175—310.)



1. A centrifugal starting switch for electric motors including in combination a fixed contact, a movable contact mounted on a movable pivot arranged intermediate of the ends of said movable contact, resilient means for normally keeping the movable contact in engagement with the fixed contact while the pivot is moved outward to a certain point by centrifugal force, and a stop adapted to engage the tail end of the movable contact when said certain point is reached in the outward movement of said pivot, said stop serving as a fulcrum for removing the head end of said movable contact from the fixed contact as the pivot of said movable contact is thrown farther out by increasing centrifugal force.

2. A centrifugal starting switch for electric motors including in combination a fixed contact, a movable contact mounted on a movable pivot arranged intermediate of the ends of said movable contact, resilient means for normally keeping the movable contact in engagement with the fixed contact while the pivot is moved outward to a certain point by centrifugal force, and a stop adapted to engage the tail end of the movable contact when said certain point is reached in the outward movement of said pivot, said stop serving as a fulcrum for removing the head end of said movable contact from the fixed contact as the pivot of said movable contact is thrown farther out by increasing centrifugal force, the stop engaging point on the tail end of said movable contact being much nearer the pivot thereof than the point on the tail end of said movable contact which engages the fixed contact just before said contacts are separated.

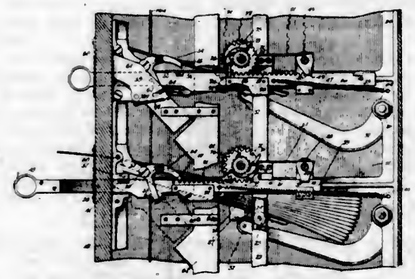
3. The combination in a centrifugal starting switch, of a stationary and a rotatable member, a contact on said stationary member, an arm pivoted on said rotatable member, stops at either side of the free end of said arm, resilient means tending to hold said arm against the inner stop, a movable contact pivoted intermediate of its ends on the free end of said arm, and resilient means for holding the head end of said movable contact in engagement with the fixed contact while the pivot of the movable contact is moved outward by centrifugal force, against the influence of said resilient means acting on the arm, until the tail end of said movable contact engages the outer stop, whereupon further outward movement of said pivot due to increasing centrifugal force will cause the head end of the movable contact to be removed from the fixed contact.

4. The combination in a centrifugal starting switch, of a stationary and a rotatable member, a contact on said stationary member, an arm pivoted on said rotatable member, stops at either side of the free end of said arm, resilient means tending to hold said arm against the inner stop, a movable contact pivoted intermediate of its ends on the free end of said arm, and resilient means for holding the head end of said movable contact in engagement with the fixed contact while the pivot of the movable contact is moved outward by centrifugal force, against the influence of said resilient means acting on the arm, until the tail end of said movable contact engages the outer stop, whereupon further outward movement of said pivot due to increasing centrifugal force will cause the head end of the movable contact to be removed from the fixed contact, the point on the tail end of said movable contact engaged by said outer stop being much nearer the movable pivot than the point of the head end which engages the fixed contact just before said contacts are separated.

5. The combination with stationary collector rings insulated from each other, a rotor, brushes carried thereby and mounted on a movable pivot arranged intermediate of their ends, resilient means for holding the head ends of said brushes in engagement with the respective collector rings while the pivot is moved outward to a certain point by centrifugal force, and a stop adapted to engage the tail ends of the brushes when said certain point is reached in the outward movement of said pivot, said stop serving as a fulcrum for removing the head ends of the brushes from the collector rings as the pivot of said brushes is thrown farther out by increasing centrifugal force.

[Claims 6 to 10 not printed in the Gazette.]

1,135,802. VENDING-MACHINE. OMAR J. HOTALING, Rutherford, N. J. Filed Nov. 13, 1913. Serial No. 800,762. (Cl. 211—8.)



1. A vending machine having a delivery opening, an article-support, a dispensing mechanism engaging the articles on the support, means to move said support toward said dispensing mechanism, a member adapted to reciprocate, engaging said dispensing mechanism, means normally locking said member, means associated with said reciprocating member, whereby the same cannot be retracted until it moves a predetermined distance, and means for restoring said reciprocating member to its normal position.

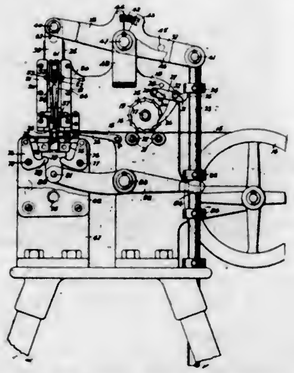
2. A vending machine having a delivery opening, an article-support, a dispensing mechanism engaging the uppermost article on said support, means automatically moving said support toward said article-dispensing mechanism, and means for operating said dispensing mechanism, comprising a slide, means normally locking the movement of said slide, a connection operable only in one direction from said slide to said dispensing mechanism, means for rendering said connection operative or inoperative, means preventing the reversal of the movement of said slide before the same has reached a predetermined position, and resilient means for restoring said slide to its normal position.

3. A vending machine having a delivery opening, a member normally closing said opening, an article-support, a

rotatably mounted dispensing mechanism adapted to engage the uppermost article on said support, means tending to move said support toward said dispensing mechanism, a slide mounted to reciprocate, a mechanism normally locking the movement of said slide, means associated with said slide, whereby the same cannot be retracted until said slide moves through a predetermined distance, means transmitting the movement of said slide to said dispensing mechanism, means associated with said transmitting means, whereby the said dispensing mechanism is rotated only in a predetermined direction, and means connecting said slide to said member closing the opening, whereby when said slide is operated to operate said dispensing mechanism, said member is displaced to permit the delivery of an article through said opening.

4. A vending machine having a delivery opening, a member pivotally mounted in said opening and normally closing the same, an article-support, a rotatably mounted dispensing mechanism normally engaging the uppermost article on said support, means for moving said support toward said dispensing mechanism, a rack mounted to slide, means locking said slide in a predetermined position, a gear engaging said rack and said dispensing mechanism, means connecting said gear to said dispensing mechanism when the same is rotated in a predetermined direction by said rack, means for restoring said rack to its normal position, means controlling the movement of said rack, whereby said rack must reach predetermined positions before it can be reversed in its movement, and means connecting said pivotally mounted member in said delivery opening, with said rack, whereby said member is operated when said rack is moved, substantially as and for the purpose set forth.

1,135,803. UMBRELLA-COVERING MACHINE. KATHERINE CANFIELD HOUT, Albany, and CHARLES T. HENTSCHEL, Schenectady, N. Y. Filed June 30, 1914. Serial No. 848,189. (Cl. 153—1.)



1. A machine as characterized, comprising a guiding mechanism for umbrella frames, for successively disposing in operative position the tips of ribs of said frames; a shaping die for bending a holding clip over each of said ribs; means for feeding said clips between said die and said ribs; means for folding the edge of an umbrella cover on said clips to extend between said clips and said ribs; and means for depressing said die on said clips and ribs, for clamping said clips about said ribs.

2. A machine as characterized, comprising a guiding mechanism for umbrella frames, for successively disposing in operative position the tips of ribs of said frames; a shaping die for bending a holding clip over each of said ribs; means for feeding said clips between said die and said ribs; means for folding the edge of an umbrella cover on said clips to extend between said clips and said ribs; and manually controlled mechanism for depressing said die on said clips and said ribs, for turning said clips under said ribs.

3. A machine as characterized, comprising a guiding mechanism for umbrella frames, for successively disposing in operative position the tips of ribs of said frames; a shaping die for bending a holding clip over each of said ribs; means for feeding said clips between said die and said ribs; a folding mechanism adapted to engage and fold the cover between said clips and said ribs, said means being operable in advance of said shaping die; and a driving mechanism for operating said folding mechanism and said shaping die in timed relation.

4. A machne as characterized, comprising a guiding mechanism for umbrella frames, for successively disposing in operative position the tips of ribs of said frames; a shaping die for bending a holding-clip over each of said ribs; means for feeding said clips between said die and said ribs; a folding mechanism for turning the cloth of a cover resting between said clips and said ribs, and embodying a sliding plate and arms pivotally mounted thereon, adapted to fold the cloth in advance of the engagement thereof by said die; means for moving said arms to encircle said ribs preliminary to the engagement of said ribs and cloth resting thereon, by said die; means for swinging said arms to and from the operating path of said die and in timed relation thereto, for removing said arms from the path of the clips as turned by said die; and a cutting member for said clips to separate the same from a continuous supply thereof preliminary to being shaped by said die.

5. A machine as characterized, comprising a guiding mechanism for umbrella frames, for successively disposing in operative position the tips of ribs of said frames; a shaping die for bending a holding clip over each of said ribs; means for feeding said clips between said die and said ribs; a folding mechanism for turning the cloth of a cover resting between said clips and said ribs, and embodying a sliding plate and arms pivotally mounted thereon, adapted to fold the cloth in advance of the engagement thereof by said die; means for moving said arms to encircle said ribs preliminary to the engagement of said ribs and cloth resting thereon, by said die; means for swinging said arms to and from the operating path of said die and in timed relation thereto, for removing said arms from the path of the clips as turned by said die; a cutting member for said clips to separate the same from a continuous supply thereof preliminary to being shaped by said die; and a yielding support for said clips, to hold the same in position to be engaged by said die and while being moved to the cutting position thereof.

[Claims 6 to 12 not printed in the Gazette.]

1,135,804. VEHICLE-WHEEL. WILLIAM LEWIS HOWARD, Trenton, N. J. Filed May 21, 1914. Serial No. 839,998. (Cl. 152—21.)

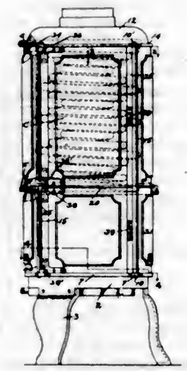


A fixed channel wheel rim provided with blocks a^2 constructed with an exterior central longitudinal projection or rib and a demountable rim, a pair of gripping members arranged opposite each other and having internal tapered projections d^2 provided with a central longitudinal groove conforming to and adapted to receive the aforesaid blocks, and a rotary screw having reversely threaded ends which connect said gripping members, as described.

1,135,805. INSTANTANEOUS-WATER-HEATER CASING. HERBERT S. HUMPHREY, Kalamazoo, Mich., assignor to Ruud Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed June 2, 1914. Serial No. 842,382. (Cl. 122—494.)

1. A knockdown water heater casing comprising a base, a crown, crown supporting uprights detachably secured to the latter and to the base, and removable upright wall-forming sections.

2. A water heater casing comprising a base, posts rising therefrom, a horizontal reinforcement support by the posts between the upper and lower ends of the latter, wall-forming panels inclosing the spaces above and below the reinforcement, and a crown.



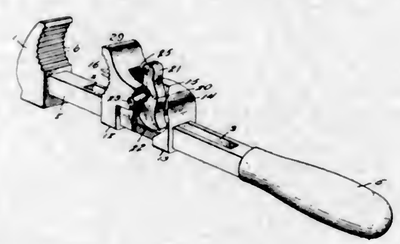
3. A water heater casing comprising a base, posts rising therefrom, a horizontal ring supported by the posts between the upper and lower ends of the latter, wall-forming panels above and below the ring, and a crown.

4. A water heater casing comprising a base, posts rising therefrom, a horizontal ring supported by the posts between the upper and lower ends of the latter, wall-forming panels above the ring and extending from post to post, similarly arranged panels beneath the ring, and a crown.

5. A water heater casing comprising a base, posts rising therefrom with lugs projecting from the posts, a horizontal reinforcement adapted to rest on said lugs, wall-forming panels fitting the posts above and below the reinforcement, and a crown.

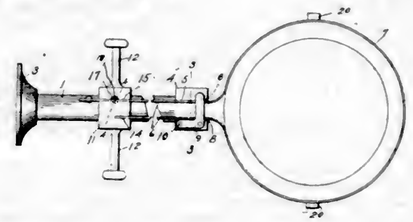
[Claims 6 to 23 not printed in the Gazette.]

1,135,806. WRENCH. WILLIAM A. JACKSON, Altoona, Pa. Filed Jan. 20, 1915. Serial No. 3,320. (Cl. 81—150.)



In a wrench, the combination with a shank of rectangular cross section longitudinally grooved in its upper edge and reduced at its inner end, and a fixed jaw carried by the outer end of the shank; of a movable jaw having two loops slidably engaging said shank and spaced from each other and a body connecting the upper ends of said loops and rounded where it merges into the rear loop, the body also having a chamber and its forward upstanding portion constituting the movable jaw-face, a pin extending through the body and across its chamber, a rock-lever mounted at mid-length on said pin with its lower end rounded and eccentric to the pin and adapted to rest in the bottom of said groove and its upper end projecting above the jaw-body and carrying a thumb piece, and an expansive spring between said upper end and the upstanding portion of this jaw, the whole for use substantially as described.

1,135,807. RING-HOLDING DEVICE. WILFRID JACQUES, Woonsocket, R. I. Filed Nov. 12, 1914. Serial No. 871,786. (Cl. 29—84.)

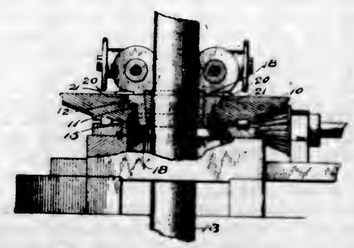


1. A tool for the purpose described, comprising a body having a longitudinally-disposed channel in its forward portion, a slide movable on said body in the direction of the length thereof, and a flexible strap having longitudinally-disposed portions arranged and movable in said channel of the body and also having end portions connected to and movable with the slide.

2. A tool for the purpose described, comprising a body having a longitudinal forward channel, a slide movable lengthwise of the body and on the same, said slide having a chanel and a socket in communication with the channel, and a flexible strap having longitudinal portions arranged and movable in the channel of the body, and also having one of its ends connected to the slide and its other end removably arranged in the channel of the slide and provided with an enlargement disposed in the socket of the slide.

3. A tool for the purpose described, comprising a body having a longitudinal channel in its forward portion, the forward corners of which channel are rounded, an enlargement on the rear portion of the body, a keeper pivoted on the body and movable to and from a position above the channel, a slide movable on the body and lengthwise thereof and having lateral finger pieces, and a flexible strap having portions disposed in said channel, and connected at its ends with the slide.

1,135,808. ROTARY ATTACHMENT. HORACE G. JOHNSTON, Corsicana, Tex. Filed Dec. 6, 1912. Serial No. 735,297. (Cl. 24—263.)



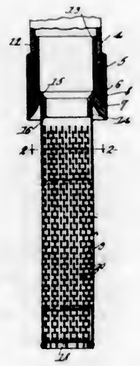
1. The combination with a crosshead having an upright pipe opening, an inwardly extending ledge on the wall of said opening below the top of the crosshead, and buttons pivoted on the latter and capable of being turned over the opening; of a ring having a downwardly tapered bore, a flange around the ring adapted to rest upon said ledge when the upper end of the ring is flush with the top of the crosshead, and a series of segmental wedges having serrated inner faces and tapering outer faces adapted to fit within the bore of said ring, as and for the purpose set forth.

2. The combination with a crosshead having an upright pipe opening, an inwardly extending ledge on the wall of said opening having notches at intervals, and buttons on the crosshead capable of being turned over the opening; of a ring having a downwardly tapered bore, a flange around the ring adapted to rest upon said ledge when the upper end of the ring is flush with the top of the crosshead, lugs depending from the flange and removably engaging said notches in the ledge, and a series of segmental wedges having serrated inner faces and tapering outer faces adapted to fit within the bore of said ring, as and for the purpose set forth.

3. In an appliance of the class described, the combination of a crosshead, a clutch carried thereby and consisting of a conical ring loosely seated in the crosshead and removable upwardly therefrom, means on the crosshead for holding the ring seated, and wedge-shaped clutch elements disposed within the ring.

4. In an appliance of the class described, the combination of a crosshead having an opening provided with an open bottom and formed with an internal ledge, a conical ring loosely fitting in the opening and resting on the said ledge, devices mounted on the crosshead and engageable with the ring to hold the same in place, and wedge-shaped clutch elements disposed within the ring and removable upwardly therefrom.

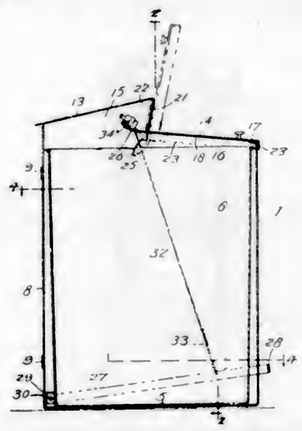
1,135,809. WELL-STRAINER. ELI JONES, Lexington, Tenn. Filed Jan. 21, 1914. Serial No. 813,554. (Cl. 166—5.)



1. The combination with a pipe with an externally threaded end, of a strainer retaining member threadedly engaging the same and provided with an inwardly extending annular beveled shoulder, a strainer attaching member including an upper cylindrical sleeve slidably contacting with the inner surface of said pipe, a lower restricted sleeve carried by said upper sleeve and joined thereto by a conical portion, said conical portion seating upon the annular beveled shoulder and guided into such relation by the sliding contact between the upper sleeve and the inner surface of said pipe, and a strainer tube carried by said lower sleeve.

2. The combination with a pipe with an externally threaded end, of a strainer retaining member threadedly engaging the same and provided with an inwardly extending annular beveled shoulder, a strainer attaching member including an upper cylindrical sleeve slidably contacting with the inner surface of said pipe, a lower restricted sleeve carried by said upper sleeve and joined thereto by a conical portion, said conical portion seating upon the annular beveled shoulder and guided into such relation by the sliding contact between the upper sleeve and the inner surface of said pipe, and a strainer tube disposed upon and exteriorly of the lower sleeve, whereby the lower edge of the sleeve defines a ledge to be engaged by a strainer withdrawing means.

1,135,810. GARBAGE-CAN. JOHN A. JONES, Palestine, Tex. Filed Sept. 2, 1914. Serial No. 859,834. (Cl. 220—115.)



1. A receptacle comprising a bottom, side walls, and a front wall, a container adapted to be positioned within the receptacle, said side walls at the rear portion of the receptacle being extended, the upper edges of the extensions being inclined toward the rear of the receptacle, the front portions of said side walls having their upper edges inclined toward the front of the receptacle and being turned inwardly to provide flanges, the upper edge of said front wall being also turned inwardly to provide a coöperating flange, a lid resting upon said flanges and having a peripheral and downwardly extending flange engaging the receptacle along the outer edges thereof, said side walls at the forward ends of the extensions being provided with inwardly extended substantially vertical flanges, depending ears provided on the lid adjacent to and spaced from the ends of said depending lid flange, said ears depending within the receptacle, said lid extending below the said substantially vertical flanges, a foot lever carried by the receptacle, and connecting means between said lever and lid for raising the latter upon operation of the foot lever.

2. A receptacle containing a bottom, side walls, and a front wall, said side walls at their rear portions being extended upwardly, a removable cover disposed upon the extensions of the side walls, and having a front portion depending from the cover, a lid disposed upon the forward portions of the side walls and having a depending flange engaging without the receptacle, said cover and lid being normally inclined from the center toward the rear and front respectively of the receptacle, said lid at its rear portion extending beneath the depending portion of the cover and being inclined upwardly, a foot-operable lever carried within the receptacle, connecting means between said lever and lid for raising the same upon operation of the lever, a container adapted to be positioned within the receptacle, and a closure for said receptacle whereby to maintain the container within the same.

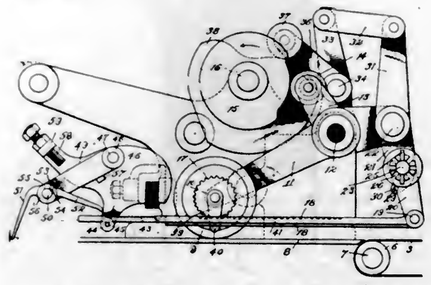
3. A receptacle including side walls and a front wall, said side walls provided with substantially vertical flanges, and with inwardly disposed flanges, said front wall provided at its upper edge with an inwardly disposed flange to operate with the inwardly disposed flange of the side wall, a lid positioned upon the inwardly disposed flanges of the side and front walls, said lid having a depending flange engaging the outer sides of the front and side walls, said lid projecting within the receptacle beneath said substantially vertical flanges, ears depending from said lid at points occurring beneath said substantially vertical flanges, and means for operating the lid.

4. A receptacle comprising a bottom, side walls, and a front wall, an inclined removable cover connected to the side walls at the upper edges thereof, said cover being positioned over the rear portion of the receptacle, a lid disposed upon the upper edges of the side and front walls, said lid being positioned over the forward portion of the receptacle, means carried by said cover for preventing the entrance of rain between the same and the lid, a container disposed within the receptacle, means for operating the lid whereby to give access to the container, and closure means for the receptacle.

5. A receptacle including a bottom, side walls, and a front wall, said side walls provided with extended portions, said extended portions having their upper edges bent outwardly to provide guide flanges, a cover, said cover having its edges bent into substantially U-shaped channels adapted to engage said guide flanges, a movable lid disposed upon the receptacle, and means carried by the cover for limiting the movement of said lid in one direction.

[Claims 6 to 8 not printed in the Gazette.]

1,135,811. SLOW-DOWN AND SHEET-STRAIGHTENING DEVICE. RICHARD E. JONES and GEORGE A. MARTIN, Pearl River, N. Y., assignors to Dexter Folder Company, Pearl River, N. Y., a Corporation of New York. Filed Mar. 25, 1914. Serial No. 827,179. (Cl. 101—36.)



1. In a combined slow down and sheet straightener for sheet feeding machines, a surface over which paper is fed at relatively high speed, an instrumentality having a surface adapted to engage a sheet traveling over the first said surface, means for operating said instrumentality to impart a movement to the second mentioned surface of less velocity than the velocity of said sheet, said means including a lever comprising relatively movable parts and a yieldable connection between said parts, and means for blocking the movement of said operating means.

2. In a combined slow down and sheet straightener for sheet feeding machines, a surface over which paper is fed at relatively high speed, a slow down roller having its peripheral surface moving in the same direction as the paper is fed over the first said surface, a rack bar geared to said slow down roller, means for reciprocating said rack bar, and sheet actuated means for interrupting the reciprocating movements of said rack bar.

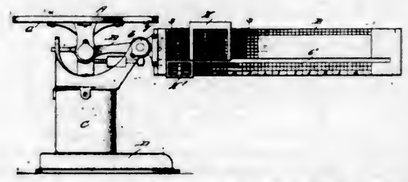
3. In a combined slow down and sheet straightening mechanism for sheet feeding machines, a surface over which the sheets are fed, a roller suitably mounted to cooperate with said surface in retarding the movement of a sheet, an oscillatory arm, a rack bar geared to said roller, said rack bar being also pivotally connected to said oscillatory arm, and sheet actuated means for interrupting the reciprocatory movements of said rack bar.

4. In a combined slow down and sheet straightening mechanism for sheet feeding machines, a surface over which the sheets are fed, a roller suitably mounted to cooperate with said surface in retarding the movement of a sheet, an oscillatory arm, a rack bar geared to said roller, said rack bar being also pivotally connected to said oscillatory arm, and sheet actuated means for interrupting the reciprocatory movements of said rack bar, said means including a sheet actuated pendulum, a pawl moved thereby, and a rack bar pivotally connected to said oscillatory arm and adapted to be engaged by said pawl.

5. In a combined slow down and sheet straightening mechanism for sheet feeding machines, a surface over which the sheets are fed, a roller suitably mounted to cooperate with said surface in retarding the movement of a sheet, an oscillatory arm, a rack bar geared to said roller, said rack bar being also pivotally connected to said oscillatory arm, and sheet actuated means for interrupting the reciprocatory movements of said rack bar, said oscillatory arm comprising relatively movable parts and yieldable means for normally retaining said parts in fixed relation to each other.

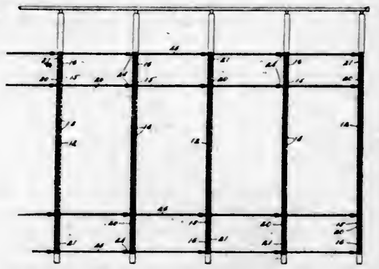
[Claims 6 to 24 not printed in the Gazette.]

1,135,812. PARCEL-POST WEIGHING-SCALE. GEORGE B. JUSTICE, Raleigh, N. C. Filed July 10, 1914. Serial No. 850,205. (Cl. 73—104.)



In a weighing scale of the type indicated, a pan or package-support having a shiftable map of the United States supported thereon, and a transparent guard plate superimposed, and inscribed with concentric circles indicating parcel-post zones, and a flanged rim applied to and upon the edges of the pan, the map, and the guard plate, and detachably secured to the pan, as described.

1,135,813. ADJUSTABLE SINGEING-BURNER. WILLIAM WALLACE KEMP and WILLIAM H. VAN HORN, Baltimore, Md. Filed Jan. 13, 1915. Serial No. 1,951. (Cl. 158—105.)



1. A gas burner comprising a central section, a plurality of units arranged at the opposite ends of the central section, a supply pipe feeding gas to the central section, and independent means for each of said units communicating with the supply pipe for controlling the flow of gas to said units.

2. A gas burner comprising a gas supply pipe, a plurality of units mounted on said supply pipe, caps on the opposite ends of said supply pipe engaging the sections to hold the same together, branch pipes between the supply pipe and the units to feed gas independently to the units, and partitions arranged between the units to close communication therebetween.

3. A gas burner comprising a supply pipe, a plurality of burner units mounted upon the pipe, partitions sur-

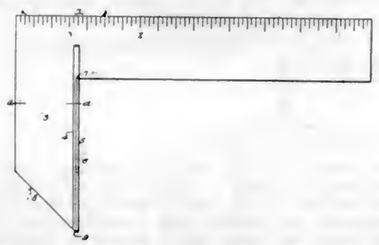
rounding the supply pipe and arranged between the abutting ends of the units, caps on the supply pipe engaging the outermost units to bind the units together on the supply pipe, branch pipes extending from the supply pipe to the units to independently supply gas to the units, and valves in said branch pipes controlling the flow of gas therethrough.

4. A gas burner comprising a plurality of rows of units, means for admitting gas separately into the units, and a connection between the corresponding units of each row whereby to control the respective units of the rows in groups.

5. A gas burner comprising a plurality of rows of units, a valve for each unit independently controlling the flow of gas thereto, and operating means connected to the corresponding valves in each row to simultaneously control the flow of gas to the corresponding units.

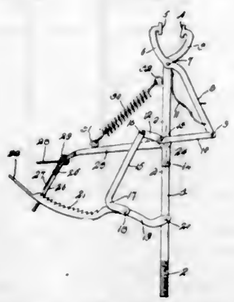
[Claims 6 to 10 not printed in the Gazette.]

1,135,814. SQUARE. ERNEST A. KING, Philadelphia, Pa., assignor to Henry Disston & Sons Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 10, 1914. Serial No. 861,126. (Cl. 33—112.)



The combination in a square, of a body portion consisting of a blade and a shank made integral therewith and of the same thickness; a bearing strip having a shallow groove therein to accommodate the edge of the shank of the square and permanently attached to said shank, one end of the bearing strip being slotted to allow the strip to extend on each side of the blade.

1,135,815. VISE AND SAW-CLAMP. WILLIAM T. KING, Rosanky, Tex. Filed July 29, 1914. Serial No. 853,874. (Cl. 81—21.)

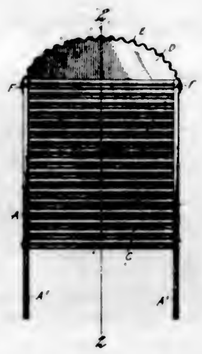


1. A vise comprising a standard having a jaw formed thereon, a lever pivoted to the standard and provided with a jaw, a link connected to said lever, a curved member to which said link is pivoted, said curved member being pivoted to the standard and provided with a link connected to the opposite end thereof, said link being pivoted at its lower end to a foot lever, said foot lever being pivoted to the standard, and provided with a series of ratchet teeth thereon and a foot rest, an arm pivoted to the standard and provided with a pawl connected thereto and an aperture through which the foot lever extends, and a spring for holding the jaws open.

2. A vise and saw clamp comprising a standard, a jaw member connected thereto, a companion jaw pivoted to the standard, and provided with a link and a curved member to which said link is connected pivotally, a foot lever connected to said curved member by a lever, said foot lever having a series of ratchet teeth thereon, and an arm pivoted to the standard and provided with an aperture through which the foot lever extends, a pawl connected to said arm, a spring connected to said arm and to said standard for raising said arm and a spring for opening the jaws of the vise.

3. A vise and saw clamp comprising a standard, provided with a jaw, a member provided with a jaw and pivoted to the standard, a link, a curved member, a foot lever, and connections between the curved member and foot lever, said foot lever being provided with ratchet teeth, and means for holding the jaws closed and springs for holding the jaws opened.

1,135,816. WASHBOARD. MARY S. KJELLSTROM, New York, N. Y. Filed Mar. 21, 1914. Serial No. 826,227. (Cl. 68—29.)



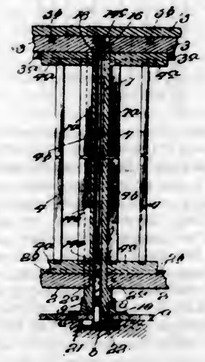
1. In a device of the character described, the combination with a frame, the upper edge of the frame being curved and corrugated, of a pounding and rocking member secured to the corrugated edge of the frame projecting beyond the front and rear faces of the frame and tapering inwardly and downwardly to its ends and secured to the sides of the frame.

2. In a device of the character described the combination with a frame, the upper edge of the frame being curved and corrugated, of a pounding and rocking member, secured to the corrugated edge of the frame projecting beyond the front and rear faces of the frame and tapering inwardly and downwardly to its ends and secured to the sides of the frame, said pounding and rocking member having rows of perforations arranged adjacent to each edge and alternately arranged.

1,135,817. POST FOR OFFICE-RAILINGS AND THE LIKE. HENRY KLEIN, New York, N. Y., and LAWRENCE J. MEAD, Darien, Conn.; said Mead assignor to said Klein. Filed Nov. 20, 1913. Serial No. 802,097. (Cl. 20—99.)

1. A railing comprising posts, rising from and abutting a floor, said floor having undercut cavities formed therein, rods rising from the floor and receiving said posts and embodying means for forcing said posts downwardly to clamp the same to the floor, each rod at its lower end having a transversely arranged anchor in said cavity and projecting into the undercut portions thereof and embedded and locked therein by a filling of cement or the like.

2. An office railing, or the like, comprising a post, at its lower end resting on the floor, a rod rising from the floor and extending longitudinally of the post and embodying means to exert downward strain on the post to rigidly clamp the same to the floor, the lower end of said rod extending into the floor and provided with a lateral head below the surface of the floor and bearing up against a portion of the floor below the post to resist the upward strain on the rod when holding the post clamped to the floor, said floor formed with an elongated hole for the insertion and removal of said head, said head after insertion through said hole adapted to be turned to project under the floor at opposite edges of the hole, the lower end of the post covering said hole.



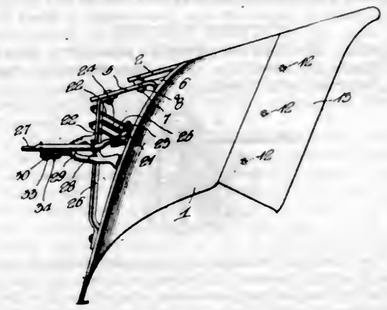
3. An office railing comprising a post having a bore extending longitudinally therethrough, a foot having a laterally-enlarged flat base removably resting on the floor, said foot having a vertical socket extending therethrough, the lower end of the post being tightly secured in said socket, and a rod at its lower end having anchoring means arranged to be secured in the floor to resist upward pull on said rod, said rod formed to extend vertically through said foot and post and provided with means for forcing the post down to hold the base of its foot tightly to the floor, said base formed to bear down on an extended area of the floor around said rod and over the portion of the floor in or under which said anchoring means is located.

4. A removable office railing post having opposite side faces and at its edges formed to receiving railing panels, the upper end of said post formed to receive rails, said post formed with a bore extending longitudinally therethrough, the lower end of said post being tapered, a foot for said post having a tapered socket extending vertically therethrough, said tapered end of the post being tightly fitted and secured in said socket, said foot having a laterally enlarged flat base to rest on the floor, and a tie rod adapted to extend through the floor and be secured therein and pass upwardly through said socket and bore and provided with means to hold the post and foot tightly to the floor.

5. An office railing post having a longitudinal bore extending therethrough and at its lower end provided with and fixed in a foot having a laterally enlarged base resting on the floor, and a rod rising from the floor and extending vertically through said foot and said bore and at its upper end provided with means to exert downward strain on the post to hold said base tightly to the floor, the lower end of said rod provided with a lateral head arranged under the portion of the floor on which said base is located so that said portion of the floor is clamped between said base and said head, said base covering the portion of the floor through which said rod extends.

[Claim 6 not printed in the Gazette.]

1,135,818. DETACHABLE SHARE. WILLIAM KLUG, Plaza, N. D. Filed Jan. 26, 1914. Serial No. 814,379. (Cl. 97—18.)



1. A device of the character described comprising a plow share, a series of laterally projecting studs thereon, a frog and a mold board disposed upon the latter and having therein notches to receive said studs, a finger supporting member movably mounted upon said mold board, fingers carried by said member to engage said studs and means cooperating with said member to actuate the latter and retain the same in adjusted position.

2. A device of the character specified comprising a plow share, a mold board, a frog mounted upon the latter and having therein a plurality of notches, a guide plate disposed contiguous to said frog, said plate having therein a notch, a series of laterally projecting studs carried by said plow share, one of said studs being adapted to project into the notch formed in said guide plate, the remaining studs being adapted to project within the notches formed in said frog, a finger supporting member movably mounted upon said mold board, fingers carried by said member to engage said studs, and means coöperating with said member to actuate the latter and retain the same in adjusted position substantially as and for the purpose set forth.

3. A device of the character described comprising a plow share, a series of studs thereon, a mold board, a land side arranged in divergent relation thereto, a frog interposed between the mold board and landside, said frog having its lower edge notched, to receive said studs, spacers intermediate one side of said frog and said landside, a finger supporting member movably mounted upon said mold board, fingers carried by said member to engage said studs, and means coöperating with said member to actuate the latter and retain the same in adjusted position.

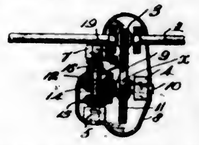
4. A device of the character described comprising a plow share, a series of studs thereon, a mold board, a landside disposed in divergent relation to the mold board, a frog carried by said mold board and having therein notches to receive said studs, said frog having a landside arranged in angular relation thereto and disposed contiguous to the mold-board landside, a bracing bar connected at its extremities to said frog landside and mold board, a segmental rack having one end secured to said bracing bar and the opposite end thereof to said mold board, a finger supporting member movably mounted upon said mold board, fingers carried by said member to engage said studs, and a handle operatively connected with said member, and coacting with said segmental rack to adjust and retain said member in adjusted position.

5. A device of the character described comprising a mold board, a frog on the latter, said frog projecting beyond the lower edge of said mold board, the projecting portion thereof having therein notches, a plow share, having its upper edge in contact with the lower edge of said mold board, and overlying the projecting portion of said frog, studs to project within said notches in the latter, a finger supporting member movably mounted upon the mold

board, fingers carried by said member to engage said studs and means coöperating with said member to adjust the latter and retain the same in adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

1,135,819. ENGINE-STARTING DEVICE. EDWARD KNEEZELL, El Paso, Tex. Filed Dec. 30, 1913. Serial No. 809,528. (Cl. 74—54.)



1. The combination with an engine-driven shaft, of a starting device therefor comprising a pinion mounted on the shaft; a segmental gear wheel adapted to have intermittent engagement with said pinion to rotate the shaft; driving gearing for said segmental gear wheel; and a lever for actuating said driving gearing, substantially as described.

2. The combination with an engine-driven shaft, of a starting device therefor comprising a pinion mounted on the shaft; a segmental gear wheel adapted to have intermittent engagement with said pinion to rotate the shaft; a lever, gearing connections between said lever and the segmental pinion; devices associated with the respective engaging segments of said segmental gear wheel; and a member carried by the lever for engaging with either of said devices to positively hold said segmental gear wheel in engaging relation with the shaft pinion, substantially as described.

3. The combination with an engine-driven shaft, of a starting device therefor comprising a pinion mounted on the shaft; a segmental gear wheel adapted to have intermittent engagement with said pinion to rotate the shaft; a lever; gearing connections between said lever and the segmental pinion; and means associated with said lever and segmental pinion for positively holding the latter in engaging relation with said shaft pinion, substantially as described.

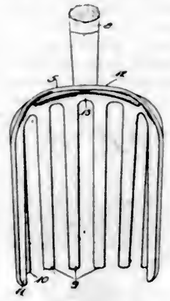
4. The combination with an engine-driven shaft, of a starting device therefor comprising a pinion mounted on the shaft; a segmental gear wheel adapted to have intermittent engagement with said pinion to rotate the shaft; a lever gearing connections between said lever and the segmental pinion; devices associated with the respective engaging segments of said segmental gear wheel, and a member carried by the lever for engaging with said devices to positively hold said segmental gear wheel in engaging relation with said shaft, substantially as described.

5. The combination with an engine-driven shaft, of a starting device therefor comprising a pinion mounted on the shaft; a segmental gear wheel adapted to have intermittent engagement with said pinion to rotate th shaft; a bevel pinion connected with said segmental gear wheel; a countershaft; a bevel pinion on said countershaft and meshing with the first named bevel pinion; a lever fulcrumed on said countershaft; and a pawl and ratchet driving connection between said lever and the countershaft, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,135,820. POTATO-FORK. ANTON H. KORTEUM and FLOYD BAUS, Long Prairie, Minn. Filed Oct. 27, 1914. Serial No. 868,810. (Cl. 55—28.)

1. A fork having a concavo-convex head; a stem for a handle adjacent the lower portion thereof, the convex side of said head facing the stem and projecting above the same; concavo-convex prongs extending from the lower portion of said head and having a common cylindrical surface disposed transversely of the head; and a pair of substantially superimposed concavo-convex prongs extending from each side of the head, the lower of each of said pair of superimposed prongs having its extremity in alinement with the extremities of the prongs from the lower portion of the head, the upper of each of said pair of superimposed prongs extending beyond and above the extremities of the other of said prongs.



2. A fork having a concavo-convex head, the upper edge of which is convex; a stem for a handle adjacent the lower edge of the head and central therewith, the convex side of said head facing the stem, with the convex edge of the same lying above said stem; concavo-convex prings extending from the lower portion of said head, said prongs lying in a common cylindrical surface disposed transversely of the head; and a pair of substantially superimposed concavo-convex prongs extending from each side of the head, the lower of said pairs of superimposed prongs being of less curvature than the prongs extending from the lower portion of the head and having its extremity in alinement with the extremity of said prongs, the upper of each of said prongs being of less curvature than the lower prongs and having their extremities extending beyond and above the other prongs.

1,135,821. PUMP. OLIVER A. KRAEER, Bartlesville, Okla. Filed Aug. 1, 1913. Serial No. 782,509. (Cl. 103—64.)



1. A combination in a pump consisting of: a pump-barrel containing a solid piston; a piston-rod extending from the pump-barrel to the top of the well, to the bottom of which the solid piston is attached; a sand-protector composed of two members, through which the piston rod passes, the upper member being a pipe around the piston-rod, closed and attached to the piston-rod at the top, open at the bottom and telescoping over the lower member of the sand-protector, and the lower member being a pipe around the piston-rod, having a base with a beveled lower surface; a beveled seat in the top of the pump-barrel upon which the base of the lower member of the sand-protector rests; with space between the piston-rod and the two members of the sand-protector and between the two members of the sand-protector; a side-pipe or tube opening into the lower part of the pump-barrel and into the main pipe above the same; a valve opening upward in the bottom of the pump-barrel; a perforated intake pipe below the pump-barrel; and a valve opening upward in the side-pipe or tube.

2. A combination in a pump consisting of: a pump-barrel, containing a solid piston; a piston-rod extending from the pump-barrel to the top of the well to the bottom of which the solid piston is attached; a sand-protector, composed of two members, through which the piston-rod passes, the upper member being a pipe around the piston-rod, closed at the top, open at the bottom, attached to the piston-rod at the top, and telescoping over the lower member of the sand-protector; and the lower member being a pipe around the piston-rod attached to a base with a beveled lower surface, with space between the piston-rod and the two members of the sand-protector and between the two members of the sand-protector; a beveled seat in the top of the pump-barrel on which the base of the lower member of the sand-protector rests; with a convenient distance between the bottom of the upper member of the sand-protector and the base of the lower member of the sand-protector; the diameter of the piston and sand-protector being such as to permit their removal from the tubing with the piston-rod; a side-pipe or tube opening into the lower part of the pump-barrel at a convenient distance below the lowest point of the downward stroke of the piston and above the valve in the bottom of the pump-barrel, and into the main pipe above the pump-barrel a convenient distance above the base of the lower member of the sand-protector and above the bottom of the upper member of the sand-protector; a valve opening upward in the bottom of the pump-barrel, below the lower opening of the side-pipe or tube into the pump-barrel; a perforated intake pipe below the pump-barrel; and a valve opening upward at a convenient point in the side-pipe or tube.

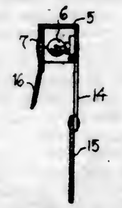
3. A combination in a pump consisting of: a pump-barrel containing a solid piston, composed of two series of reversed valve-cups, the upper series facing upward and the lower series facing downward, its head being an enlargement of the piston-rod fitting into the top valve-cup, washers between the valve-cups, a washer between the two series of reversed valve-cups, a washer fitting into the bottom valve-cup, and lock-nuts screwed on the bottom of the piston-rod tight against the washer fitting into the bottom valve-cup; a piston-rod extending from the pump-barrel to the top of the well, to the bottom of which the solid piston is attached; a sand-protector composed of two members through which the piston-rod passes, the lower member being a pipe around the piston-rod, having a base with a beveled lower surface, with one or more springs attached in a collar around the main pipe and fitting into a horizontal groove around the outer surface of the base of the lower member of the sand-protector; and the upper member of the sand-protector being a pipe around the piston-rod, closed at the top, open at the bottom, attached to the piston-rod at the top, and telescoping over the lower member of the sand-protector, with space between the piston-rod and the two members of the sand-protector, and between the two members of the sand-protector; a beveled seat in the top of the pump-barrel on which the base of the lower member of the sand-protector rests; with a convenient distance between the base of the lower member of the sand-protector and the bottom of the upper member of the sand-protector; a side-pipe or tube opening into the lower part of the pump-barrel a convenient distance below the lowest point of the downward strike of the piston and above the valve in the bottom of the pump-barrel, and into the main pipe above the pump-barrel a convenient distance above the base of the lower member of the sand-protector and above the bottom of the lower member of the sand-protector; a valve opening upward in the bottom of the pump-barrel below the lower opening of the side-pipe into the pump-barrel; a perforated intake-pipe below the pump-barrel; and a valve opening upward at a convenient point in the side-pipe or tube, substantially as described.

4. A sand-protector for the piston of a pump, consisting of two members through which the piston-rod passes, the lower member being a pipe around the piston-rod, attached to a base with a beveled lower surface; a beveled seat in the top of the pump-barrel, on which the base of the lower member rests, and the upper member being a pipe around the piston-rod, closed at the top, open at the bottom, attached to the piston-rod at the top and telescoping over the lower member of the sand-protector, with space between the piston-rod and the two members of the sand-protector, and between the two members of the sand-protector.

5. A sand-protector for the piston of a pump, composed of two members through which the piston-rod passes, the lower member being a pipe around the piston-rod, having a base with a beveled lower surface, with one or more springs attached in a collar around the main pipe, fitting into a horizontal groove around the outer surface of the base of the lower member of the sand-protector; and the upper member being a pipe around the piston-rod, closed at the top, open at the bottom, attached to the piston-rod at the top and telescoping over the lower member of the sand-protector, with space between the piston-rod and the two members of the sand-protector, and between the two members of the sand-protector; a beveled seat in the top of the working-barrel on which the base of the lower member of the sand-protector rests; in combination with a pump-barrel containing a solid piston; a piston-rod extending from the pump-barrel to the top of the well, to the bottom of which a solid piston is attached; a side-pipe or tube opening into the lower part of the pump-barrel a convenient distance below the lowest point of the downward stroke of the piston and into the main pipe a convenient distance above the base of the lower member of the sand-protector; a valve opening upward in the bottom of the pump-barrel; a perforated intake-pipe below; and a valve opening upward in the side-pipe or tube.

[Claim 6 not printed in the Gazette.]

1,135,822. ILLUMINATING DEVICE FOR LICENSE-PLATES. GEORGE LAUB, Cleveland, Ohio. Filed Mar. 14, 1914. Serial No. 824,743. (Cl. 40—131.)

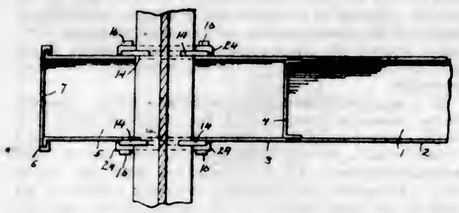


In a vehicle, the combination with a lamp casing having an open bottom, of a lens mounted in the front wall of the casing, supporting arms extending downward and outward from the rear end of the casing, a license plate carried upon the lower ends of the arms, a downwardly extending forwardly inclined reflector depending from the front end of the lamp casing and entirely below the lateral wall of the casing and adapted to reflect rays from a lamp disposed within the casing downward upon said license plate, without in any way obstructing the passage of other rays through the lens, said reflector being transversely flat and gradually increasing in width from its upper to its lower end, the lower edge of the reflector extending in a horizontal plane parallel to but above the upper edge of the license plate.

1,135,823. RAILROAD-TIE. WILLIAM LAWLESS, Quenemo, Kans. Filed Aug. 21, 1914. Serial No. 857,907. (Cl. 238—5.)

1. The combination with a railroad tie, of a rail clamp arranged to be secured to each end of the tie, said rail clamp comprising a pair of U shaped members, angular extensions at the free ends of the arms of the U shaped

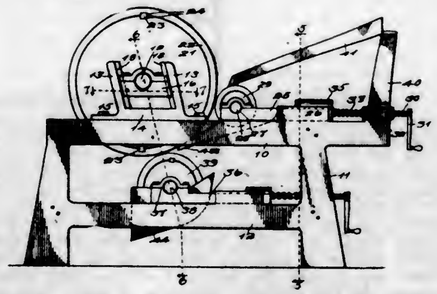
members, said extensions being arranged to engage the flanges of the railroad rail, clamping elements coöperating with the U shaped members and holding the same in proper position and locking keys coöperating with the U shaped members and the clamping elements to lock the whole together.



2. The combination with a railroad tie having chambers formed at each end and bearing blocks arranged to be inserted in the chambers, of a rail securing means, said rail securing means comprising a pair of U shaped members, angular extensions formed at the free ends of the arms of the U shaped members, said angular extensions being arranged to engage the flanges of railroad rails when the same are in place, bars secured exteriorly of the arms of the U shaped members, said bars being spaced therefrom, clamping elements arranged to hold the U shaped members in spaced relation and locking keys arranged to pass between the U shaped members and the bars and engage the clamping element to firmly lock the whole together.

3. The combination with a railroad tie including a body provided with chambers at each end and bearing blocks arranged to be inserted in the chambers, of a railroad rail securing element including a pair of U shaped members, angular extensions formed at the free ends of the arms of the U shaped members, said angular extensions being arranged to engage the flanges or railroad rails when the device is in use, clamping elements arranged to hold the U shaped members in spaced relation and secure the same on the tie and locking keys coöperating with the U shaped members and the clamping elements to hold the whole in a railroad tie and secure a rail thereto.

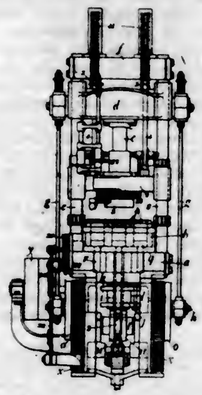
1,135,824. CRUSHER. EDWARD P. LE COMPTE and RUBIN COLVIN, Park City, Utah. Filed Apr. 4, 1914. Serial No. 829,532. (Cl. 83—12.)



1. A machine of the character described, comprising a supporting structure, an upper driven roll, a lower driven roll arranged to one side of the upper driven roll, a common driving roll disposed above the lower driven roll and upon one side of the upper driven roll and engaging both of them to rotate the same, a shaft carrying the driving roll, bearings for the shaft, and guides for the bearings which are vertically inclined away from the two driven rolls whereby the common driving roll when rising and falling will simultaneously move out of and into engagement with both of the driven rolls.

2. A machine of the character described, comprising a supporting structure, an upper driven roll, a lower driven roll arranged to one side of the upper driven roll, a common driving roll disposed above the lower driven roll and upon one side of the upper driven roll and engaging both of them to rotate the same, a shaft carrying the driving roll, bearings for the shaft, guides for the bearings which are vertically inclined away from the two driven rolls whereby the common driving roll when rising and falling will simultaneously move out of and into engagement with both of the driven rolls, and means to horizontally adjust each driven roll with respect to the driving roll.

1,135,825. MANUFACTURE OF HOLLOW OR LIKE EARTHENWARE. EDMUND WILLIAM LEIGH, Burton-upon-Trent, England, assignor to John Smith Hall, Ashby-de-la-Zouch, England. Filed June 27, 1914. Serial No. 847,710. (Cl. 25—27.)



1. In a machine for manufacturing jam pots and like earthenware receptacles, the combination comprising a die, a die cover which closes the die throughout the pressing operation, and a pressing ram having a locally contracted operative surface whereby the ram is adapted to be withdrawn from the die without distorting the molded article, substantially as described.

2. In a machine for manufacturing jam pots and like earthenware receptacles, the combination comprising a die, a die cover, a pair of parts forming a pressing ram which parts are relatively movable in an axial direction and are adapted to permit the passage of air through the same, the outer part being formed with a locally contracted operative surface, substantially as described.

3. In a machine for manufacturing jam pots and like earthenware receptacles, the combination comprising a die, a die cover, and a pressing ram having a locally contracted operative surface, the said ram and cover being adapted to provide a clearance between them when the ram is at the end of its operative stroke through which clearance superfluous material can escape, substantially as described.

4. In a machine for manufacturing jam pots and like earthenware receptacles, the combination comprising a die, a die cover, a ram having a locally contracted operative surface, and a shearing edge on the ram adapted by its coöperation with the edge of the aperture in the cover through which the ram passes to separate the molded article from the superfluous material, substantially as described.

5. In a machine for manufacturing jam pots and like earthenware receptacles, the combination comprising a die, a die cover formed with apertures for the escape of superfluous material, a ram having a locally contracted operative surface, and a tool rotatably mounted on the die cover and adapted to detach the extruded material, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,135,826. WAGON-BODY. JAMES MCDERMOTT, New York, N. Y. Filed Mar. 9, 1914. Serial No. 823,355. (Cl. 21—7.)



1. In a wagon-body, a bottom comprising a plurality of longitudinal boards, spaced bars disposed transversely of said longitudinal boards, a metallic strip associated with each of said bars and positioned between said bars and boards, said bars projecting from the sides of the bottom; sides adapted to rest on the projecting ends of said bars; and retaining clamps for securing said sides to the bottom, each of said retaining clamps comprising an apertured head adapted to receive a projecting end of the bar and an extension adapted to engage the side, each of said clamps having means whereby the same can be rigidly secured to the bar and side, substantially as and for the purpose set forth.

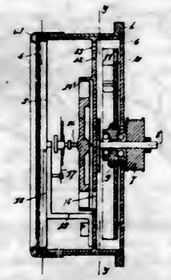
2. In a wagon-body, a bottom and sides forming independent units, said bottom having transverse bars projecting from the sides thereof and forming a support for said sides; retaining clamps removably associated with the bottom and sides whereby said sides are maintained in proper position on the bars, each of said clamps comprising an apertured head portion adapted to receive a projecting end of the bar and an extension U-shaped in cross section adapted to engage the side, said head portion having means whereby said clamp can be rigidly secured to said bars, and said extension having means in the bottom of the U portion whereby the same can be rigidly secured to the side, substantially as and for the purpose set forth.

3. In a wagon-body, a bottom and sides forming independent units, said bottom having transverse bars projecting from the sides thereof and forming a support for said sides; retaining clamps removably associated with the bottom and sides whereby said sides are maintained in proper position on the bottom, each of said retaining clamps comprising a main body and an apertured head pivotally connected, said apertured head being adapted to engage a projecting end of the bar and having means for securing said head rigidly to the bar, said main body having means whereby the same can be secured to the sides; and wedges of different sizes adapted to be fitted between the main body and the head of the clamp, whereby the inclination of the sides with reference to the body can be varied substantially as and for the purpose set forth.

4. In a wagon-body, a bottom and sides forming independent units, said bottom having transverse bars projecting from the sides thereof and forming a support for said sides, and retaining clamps removably associated with the bottom and sides whereby said sides are maintained in proper position on the bottom, each of said retaining clamps comprising a main body and an apertured head pivotally connected thereto, said head being adapted to engage a projecting end of the bar; means whereby said head can be rigidly secured to the bar, said main body having means whereby the same can be secured rigidly to the sides, said head having a recessed portion; and wedges adapted to be fitted into said recessed portion of the head and to engage said main body, whereby the inclination of the sides with reference to the bottom of the wagon can be varied.

5. In a wagon-body, a bottom and sides forming independent units; retaining clamps removably associated with the bottom and sides whereby said sides are maintained in proper position on the bottom, each of said clamps comprising an extension at the upper end thereof, said extension having a U-shaped portion at one end adapted to engage the upper edge of the sides, and a lateral extension at the lower end, said clamp having a projection; and a screw engaging the lateral projection of the extension and the projection of the clamp, whereby the length of the clamp by means of said extension can be varied, said extension having a longitudinal slot whereby the same can be adjusted and rigidly secured to the clamp.

1,135,827. INDICATOR OF SPEEDS OF ROTATION. JULES MASSON, Paris, France, assignor to Société Anonyme des Telegraphes Edouard Belin, Paris, France. Filed May 6, 1913. Serial No. 765,926. (Cl. 73—123.)



1. A speed indicator comprising a casing, a partition therein dividing the casing into compartments, a flange extending laterally from the partition, apertures being formed in the partition at opposite sides of the flange, circulating means forcing air through the aperture at one side of the flange about the flange and through the aperture at the other side thereof, and indicator actuating means adapted to be operated by the current of air and disposed in the path of the current adjacent the flange.

2. In a speed indicator, the combination with a casing and a partition dividing the same into compartments, of a rotary vane in one compartments adapted to be rotated for creating circulation of air in the casing, the partition being formed with apertures enabling circulatory movement of air from one compartment into and through the other, a rotatably mounted vane at the opposite side of the partition of the first mentioned vane and having blades disposed in the line of circulation, and an annular guard flange outstanding from the partition and surrounding the last-named vane for preventing radial access of air currents to the blades of the last-named vane.

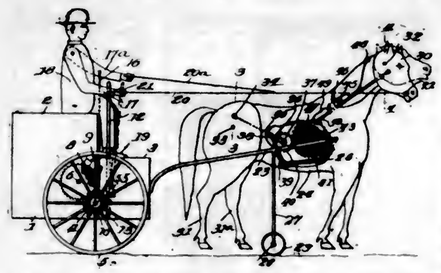
3. A speed indicator comprising an annular casing, a disk-shaped partition in said casing dividing the casing between its ends into compartments and having openings therein, a fluid circulating member revolubly mounted in one compartment, and indicating means disposed in the other compartment adjacent the openings and adapted to be actuated by the circulating fluid as it passes through the openings.

4. A speed indicator comprising a casing divided into communicating compartments, a rotatable member mounted in one of said compartments for exhausting air therefrom and driving the same into the other of said compartments, indicating mechanism disposed in the last mentioned compartment and comprising a vaned wheel adapted to be operated by the air driven into its compartment, means normally tending to resist movement of the vaned wheel, and an indicator connected to said wheel for registering the extent of movement of the latter.

5. A speed indicator comprising a casing, a partition therein having concentrically arranged series of openings therethrough, a suction creating member disposed in one of said compartments and adapted to exhaust air therefrom through one series of the openings aforesaid into the other compartment, indicator mechanism disposed in the last mentioned compartment and comprising a wheel formed with vanes, said wheel being arranged with its vanes adjacent the other series of openings aforesaid whereby to be actuated by the circulation of air as it passes from the compartment in which the indicator

mechanism is disposed to the compartment containing the suction creating member, a spring normally connected with ment of the vaned wheel, and an indicator connected with said wheel for indicating the movements of the same.

1,135,828. TOY. JOHN TEAGUE MILLER, Clovis, N. Mex. Filed June 12, 1914. Serial No. 844,687. (Cl. 46—45.)



1. A toy comprising the figures of a cart, a man seated in the cart, and a horse in front of the cart, the cart having rigid shafts extending forwardly on opposite sides of the horse, each shaft having at its front end an inwardly extending lug, and the figure of the horse being pivoted on the lugs near the front end of the said figure, each shaft having a depending arm, a supporting shaft journaled transversely of the arms at the lower ends thereof, a wheel on the shaft for supporting the shafts and the figure of the horse, a spring motor shaft journaled transversely of the cart, an axle journaled on the cart, wheels secured to the axle for supporting the cart, a driving connection between the spring motor shaft and the axle for moving the cart forwardly, a brake for restraining the forward rotation of the axle, a lever for operating the brake and extending upwardly to the figure of the man, said figure having pivotally connected arms, the figure of the horse having a pivotally mounted head and pivotally mounted hind legs, a connection between the brake lever and the head of the horse and passing through the right hand of the figure of the man, the axle having a crank, and a link connecting the crank with the left arm of the figure of the man, said arm carrying the representation of a whip, a spring motor shaft journaled transversely of the horse, a countershaft arranged parallel therewith, and having a crank arm, a driving connection between the motor shaft and the countershaft, a link connecting the crank with the hind legs of the horse above their pivotal connection, the lateral lug of one of the shafts having a rearward extension, and a link connecting the rearward extension to the last-named crank, a rod movable longitudinally of the neck of the figure of the horse, means for guiding the rod, one end of the rod engaging the head of the horse to swing the same when the rod is moved longitudinally, means operated by the motor shaft for moving the rod, and a spring for returning the rod.

2. A toy comprising the figures of a cart, a man in the cart, and a horse in front of the cart, the figure of the man having pivotally mounted arms, and the figure of the horse having a pivotally mounted head and pivotally mounted hind legs, shafts extending forwardly from the cart on opposite sides of the figure of the horse, said figure being pivoted to the shafts near its front end, a wheeled support for the shafts intermediate their ends, wheels for supporting the cart, a normally active motor for driving the wheels, a brake for restraining the action of the motor, a connection between the brake and the horse's head for releasing the brake when the head swings forwardly, said connection having a slidable connection with one of the arms of the figure of the man, normally active means for swinging the hind legs of the horse, and for swinging the head of the horse, means in connection with the said means for lifting the rear end of the horse's figure at regular intervals, a representation of a whip in the other arm of the figure of the man, and a connection between the said arm and the wheels of the cart for lifting and for lowering the arm.

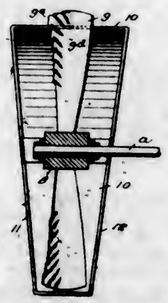
3. A toy comprising the figures of a cart, a man on the cart, and of a horse in front of the cart, wheels for supporting the cart, a normally active means for moving the wheels forwardly, a brake for restraining the operation of the said means, the horse having a pivotal head, a connection between the head and the brake, the figure of the man having a pivotally mounted arm, and a sliding connection between the flexible member and the arm, and means within the figure of the horse for moving the head at predetermined intervals.

4. A toy comprising the figures of a cart, a man in the cart, and a horse in front of the cart, wheels for supporting the cart, normally active means for moving the cart forwardly, the figure of the man having a pivotally mounted right arm and the figure of the horse a pivotally mounted head, means within the figure of the horse for swinging the head at predetermined intervals, a brake for controlling the normally active means for driving the wheels, and a connection between the brake and the head of the horse and having a slidable connection with the pivoted right arm of the man, the left arm of the figure of the man being pivotally mounted and carrying the representation of a whip, and a connection between the wheels and the arm for raising and lowering the same.

5. A toy comprising the figures of a cart, a man in the cart, and a horse in front of the cart, wheels for supporting the cart, normally active means for moving the cart forwardly, the figure of the man having a pivotally mounted arm and the figure of the horse a pivotally mounted head, means within the figure of the horse for swinging the head at predetermined intervals, a brake for controlling the normally active means for driving the wheels, and a connection between the brake and the head of the horse and having a slidable connection with the pivoted arm of the man.

[Claims 6 to 9 not printed in the Gazette.]

1,135,829. PROPELLER. THOMAS A. MACDONALD, Paterson, N. J. Filed Feb. 16, 1914. Serial No. 818,943. (Cl. 170—172.)



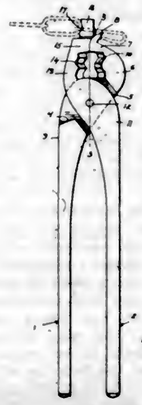
1. In a propelling device for aeroplanes, a shaft, a plurality of curved blades rigidly secured to said shaft, and a series of integral segments carried by each of said blades on the rear edge thereof, the adjacent edges of the segments overlapping one another, and the overlapping edges being spaced apart to permit the passage of air.

2. In a propelling device for aeroplanes, a shaft, a plurality of blades rigidly secured to said shaft, each of said blades being curved in the direction of its length and also being curved in a direction at right angles thereto, and a series of integral segments carried by each of said blades on the rear edge thereof, the adjacent edges of the segments overlapping one another.

3. In a propelling device for aeroplanes, a shaft, a plurality of blades rigidly secured to said shaft, each of said blades being curved in the direction of its length and also being curved in a direction at right angles thereto, and a series of integral segments carried by each of said blades on the rear edge thereof, the adjacent edges of the segments overlapping one another and being spaced apart to permit the passage of air.

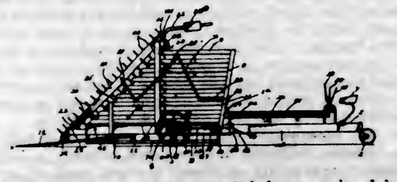
4. In a propelling device for aeroplanes, a shaft, a plurality of blades rigidly secured to said shaft, each of said blades being curved in the direction of its length and also being curved in a direction at right angles thereto, and a series of integral segments carried by each of said blades on the rear edge thereof, the adjacent edges of the segments overlapping one another and being spaced apart to permit the passage of air, each of said segments being fluted or corrugated in a direction substantially parallel with the length of the blade.

1,135,830. PLIERS. CHARLES F. MENZEL and GUY C. CARPENTER, Roxbury, Mass. Filed June 8, 1914. Serial No. 843,838. (Cl. 81—15.)



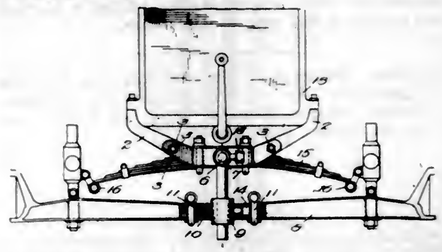
A pair of pliers comprising handle portions, enlargements formed on the handle portions, said enlargements being offset with relation to the handle portions and being hinged together near the point where they join the handle portions, jaws formed by the enlargements, a longitudinal extension at the free end of one of the jaws, said extension being of less width than the jaw and being provided with a notch in its outer face, the inner face of the jaw being concave, a longitudinal extension on the coöperating jaw, said extension being provided with a convex inner face arranged to coöperate with the concave face of the coöperating jaw and an inclined outer face formed on the extension, said inclined outer face forming an edge at the terminal of the extension which is arranged to engage between the bent over portions of the links of a wire chain to force the same outwardly and thereby open the link.

1,135,831. GRAIN-RAKE. HENRY MONROE, Jr., Fairview, Kans. Filed June 3, 1913. Serial No. 771,395. (Cl. 56—61.)



In combination, a wheel mounted frame, a hand lever pivoted to said frame, a shaft rotatably mounted in said frame, an arm on said shaft, a rod connecting one end of said hand lever with said arm, tines pivoted in said frame, connections between said shaft and said tines for raising and lowering the latter when said shaft is rotated, a loader supported on said frame, a rod slidable longitudinally of said frame and connected at one end with said shaft, a short shaft rotatably mounted in the opposite end of said rod, a gear wheel secured to one of the wheels of said frame, a gear wheel secured to said short shaft and movable into and out of mesh with the first-mentioned gear wheel, and driving connections between said short shaft and said loader.

1,135,832. GUIDE FOR VEHICLE-SPRINGS. MILO WARD MORRIS, Olympia, Wash. Filed July 31, 1914. Serial No. 854,297. (Cl. 21—105.)



1. The combination with a vehicle having an axle and springs disposed in substantially the same plane with the axle, of a guide member secured to said axle and having a bore, a plate secured to the frame of the vehicle above the guide member, a pivot bolt secured to said plate, and a cylindrical guide pin or rod pivotally carried by said pivot bolt, one end of the pin being arranged to slide in the bore in said guide member.

2. The combination with a vehicle having an axle, and springs disposed in substantially the same plane with the axle, of a guide member secured to the axle and having a bore, a plate secured to the frame of the vehicle above the guide member, a central pivot bolt secured to said plate, and a cylindrical guide pin or rod having an opening in one end arranged to fit over said pivot bolt, the opposite end of said guide pin or rod being arranged to slide in the bore in said guide member, and a nut for retaining the guide pin upon the pivot bolt.

1,135,833. PULLMAN AND SHAMPOO APRON. LEO MORSE, New York, N. Y. Filed July 22, 1914. Serial No. 852,361. (Cl. 2—54.)

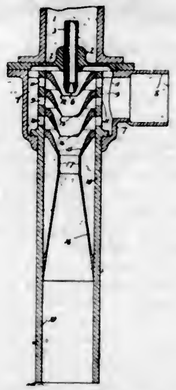


1. The herein described toilet apron comprising a back portion or apron proper faced with waterproof material and having supporting means attached to the upper end

thereof, a front portion of the same size and form as the main portion of the apron, said front portion having a plurality of pockets or receptacles for various toilet articles, each of the pockets being separated from the others and lined with waterproof material, and fastening devices arranged between the meeting edges of the apron and front members whereby the two members may be detachably connected, substantially as set forth.

2. The herein described toilet apron comprising a back member or apron proper having a front facing of waterproof material, a pair of strings connected to the upper end of the apron, a front member of the same size and form as the main portion of the apron, said front member comprising a plurality of individual pockets for various toilet articles, and a series of separable fasteners carried by the adjacent edges of the respective back and front member, said device as a whole being adapted to be rolled and secured in such form by said strings.

1,135,834. HYDRAULIC AIR-EJECTOR FOR VACUUM CLEANING AND OTHER PURPOSES. CAMPBELL MORTON, Glasgow, Scotland. Filed Jan. 9, 1913. Serial No. 741,011. (Cl. 230—13.)



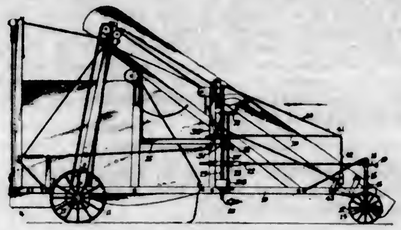
1. The combination, in an ejector, of a casing; a plurality of nozzles mounted therein in axial alinement; an air conduit communicating with said nozzles; and a jet tube for delivering water through the nozzles to suck air through said conduit, said tube being adjustable to cause movement of the discharge end thereof successively through the nozzles to vary the intensity of the air suction.

2. The combination in an ejector of a casing; a plurality of nozzles in axial alinement mounted therein; an air conduit communicating with said nozzles; and a jet tube for delivering water through the nozzles to suck air through said conduit, said tube being adjustable to cause movement of its discharge end successively through the nozzles to vary the intensity of the air suction, and having a divergent outlet for directing the liquid through the nozzles.

1,135,835. DRAFT APPLIANCE FOR SELF-LOADING GRAIN-CARRIERS. JAMES EDWARD MOSCRIP, Derrick, Saskatchewan, Canada. Filed July 17, 1913. Serial No. 779,424. (Cl. 21—189.)

1. In a machine of the class set forth, the combination of a frame, a pair of turntables pivoted upon opposite sides of the frame, draft means connected to the turntables for operating the machine in one direction, and means for swinging the turntables simultaneously in opposite directions through angles of substantially 180 degrees for operating the machine in the opposite direction.

2. In a machine of the class set forth, the combination of a frame, supporting means for the frame adapting it to operate in either a forward or a rearward direction, a pair of pivoted members upon opposite sides of the frame, draft means connected to the several pivoted members for operating the machine in one direction, and means for swinging the pivoted members simultaneously in opposite directions through angles of substantially 180 degrees for operating the machine in the opposite direction.



3. In a machine of the class set forth, the combination of a frame, supporting and steering devices for the frame, a pair of rock shafts pivoted vertically on opposite sides of the frame, traction means connected to the lower ends of said rock shafts, a leading bar 43 supported from the upper portion of each rock shaft and in front of the traction means associated therewith, and means operated from the frame to cause the leading bars and traction means to be swung outwardly from the frame and around through angles of substantially 180 degrees, substantially as set forth.

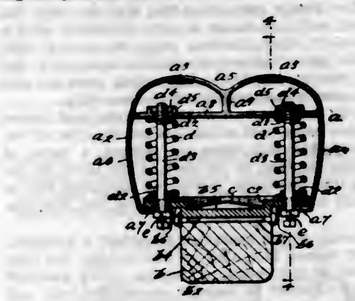
4. In a device of the character set forth, the combination of a main frame, supporting and steering devices therefor, traction means connected on vertical pivots on opposite sides of the frame, a turntable above each traction means, a leading bar in front of each traction means, a cable operating around said turntables and extending across the main frame, and means operated from the main frame to actuate the cable to cause the traction means and leading bars to be swung simultaneously around so as to reverse the direction of movement of the machine.

5. The combination with a main frame and supporting and guiding means therefor, of traction devices on each side of the machine, each of said traction devices including a vertical shaft pivoted to the main frame, a turntable secured to said shaft in a horizontal plane, an evener secured to the lower end of the shaft, a supporting frame comprising a pair of bars leading forwardly from the turntable and an inclined bar leading forwardly from the top of the shaft and all of said bars converging at their front ends into a vertical bar, and a leading bar carried by said vertical bar, an endless cable extending across the main frame and extending in a horizontal plane around said turntables, and a friction drum engaging said cable to cause simultaneous rotation of the turntables substantially as set forth.

1,135,836. TIRE. CLARENCE LESLIE NEELY and FLOYD KIRK NEELY, Corydon, Iowa. Filed June 4, 1914. Serial No. 842,894. (Cl. 152—8.)

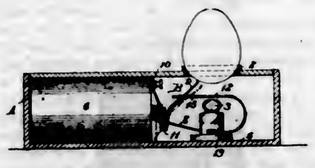
1. The combination of a vehicle wheel, of a felly, a rim thereon projected on each side of said felly, a casing formed of a plurality of sections collectively forming a tread and in hinged connection, each of said sections having an inwardly directed flange, on each side of the wheel, bearing on the inner surface of said rim, a partition in each section, a bolt on each side of each section passed through said rim and section flange and partition, to guide said section, and a spring on each bolt maintaining said rim and partition apart.

2. The combination of a vehicle wheel, of a felly, a rim thereon projected on each side thereof, a casing formed of a plurality of hinged sections, each of which comprises two outwardly convex portions, a transverse partition, a central partition joining said transverse partition and the tread portion between said convex portions, and an inwardly directed flange being on the under side of said rim, on each side of said felly, a bolt connecting each section flange with said transverse partition and passed through said rim, and a spring on each bolt resisting compression of said tread portion of said casing.



3. The combination of a vehicle wheel, of a felly, a rim thereon projected from each side thereof, a casing formed of a plurality of hinged sections collectively forming a tread, each of said sections having an inwardly directed flange on each side of the wheel bearing on the inner surface of said rim, a movable plate in each section and seated in said rim, a partition in each section, a bolt connecting each section flange with said partition and passed through said rim and said plate, and a spring on each bolt resisting compression of said tread.

1,135,837. EGG-TESTER. HENRY NIEHOFF, Bayonne, N. J. Filed Jan. 21, 1914. Serial No. 813,485. (Cl. 99—6.)

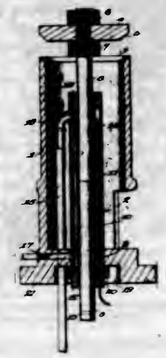


1. An egg tester comprising a box provided with an opening forming an egg seat, a lamp disposed under the seat, a cell in the box, a resilient wire connected with one terminal of the cell and extending under the seat to form a contact adapted to be engaged by an egg placed on the seat and moved thereby to closed-circuit position, a connection between the cell and lamp, and a resilient wire connected with the lamp and having a free yielding extremity disposed to be engaged by the first-mentioned wire when the latter is depressed by an egg, said resilient wires forming the sole connecting means between one side of the lamp and one terminal of the cell.

2. An egg tester comprising an egg seat, a lamp, a circuit therefor, and means for closing the lamp circuit by the placing of an egg on the seat, said means consisting of two crossed spring contacts normally separated with one contact arranged to be engaged by an egg in being seated and pressed against one side of the other contact, one contact being movable out of its normal position and by its resiliency maintained in engagement with opposite side of the other contact for continuous burning of the lamp independently of seating and unseating of an egg.

3. An egg tester comprising a box having an opening forming an egg seat, a lamp under the seat, a cell in the box, a connection between one terminal of the cell and one terminal of the lamp, a contact connected with the other terminal of the lamp, and a contact connected with the other terminal of the cell, one contact being resilient and normally separated from the other and engageable on top or under the same and the resilient contact being arranged adjacent the egg seat to move into engagement with the other contact by the placing of an egg on the seat, both contacts being wholly within and protected by the box.

1,135,838. VALVE. CARL OSCAR NILSSON, Ravenswood, W. Va. Filed July 10, 1914. Serial No. 850,154. (Cl. 123—177.)



1. In combination with the valve casing and the valve coöperating with the outer end thereof, the stem to which the valve is connected, the casing having an opening at its lower end through which the stem extends, and a guide for the stem, said guide comprising a tube fitting the stem, a second tube encircling the first tube and of greater diameter, bushings arranged between the tubes at the ends thereof, each bushing having a threaded engagement with the inner tube and having an annular marginal rib fitting the end of the outer tube, an oil tube extending through the innermost bushing and passing between the tubes to a point near the outermost bushing, said oil tube communicating with the space between the stem and the inner tube near the outermost bushing, the casing having a radial inlet leading to the space at the lower end of the casing, and a pipe leading through the space between the casing the outer tube near the outermost bushing and extending longitudinally of the casing through the inner end thereof.

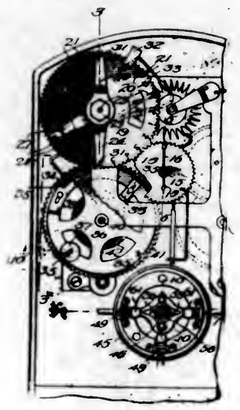
2. The combination with the valve casing and the valve coöperating therewith, the stem to which the valve is connected, said casing having an opening at its lower end through which the stem passes, and a guide for the stem, said guide comprising a pair of co-axial tubes spaced apart from each other, the inner tube fitting the stem, means at the ends of the tubes for connecting the same and for closing the space between the tubes, inlet and outlet pipes for supplying a cooling fluid to the space between the tubes, and an oil tube between the tubes and communicating with the space between the stem and the inner tube near the outer ends of the tubes.

3. The combination with the valve casing and the valve coöperating therewith, the stem to which the valve is connected, said casing having an opening at its lower end through which the stem passes, and a guide for the stem, said guide comprising a pair of co-axial tubes spaced apart from each other, the inner tube fitting the stem, means at the ends of the tubes for connecting the same and for closing the space between the tubes, means for permitting the circulation of a cooling fluid through the space between the tubes, and means for supplying oil to the inner tube near the upper end thereof.

1,135,839. TIME-SWITCH. HARVEY C. NUTTING, Oelwein, Iowa. Filed May 18, 1914. Serial No. 839,307. (Cl. 161—27.)

1. A switch operating train provided with a check wheel having check notches in its periphery, and means carried by said wheel to close said notches selectively.

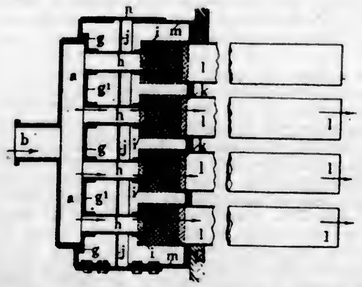
2. In a switch controlling device, a check wheel provided with a plurality of check slots, and means to open and close said slots selectively.



3. In a circuit controlling device, a switch arranged to control a plurality of circuits, and a timer mechanism arranged to operate the switch, said mechanism being provided with means whereby a selected number of said circuits may be closed and thereafter a selected number of circuits be opened.

4. A time switch operating mechanism including a wheel having a projecting spindle provided with a reduced and threaded end, a tripping hand revolubly mounted on said spindle, a spring mounted on the reduced end and bearing against said tripping hand, a collar on said end bearing against the center of the spring, a second tripping hand revolubly mounted on said collar, a second spring on said end bearing against the collar and second tripping hand, a nut having a reduced end bearing against the second spring, and a third tripping hand bearing against the second spring and revoluble on the reduced end of the nut.

1,135,840. GAS-BURNER. FRANÇOIS OUDEVILLE, Paris, France, assignor to Société Universelle des Appareils Controleurs, Paris, France. Filed Sept. 29, 1913. Serial No. 792,346. (Cl. 158—106.)



1. An apparatus for heating baking furnaces by gas, comprising a gas collector-distributer, injector-tubes mounted on the collector-distributer and provided at their free ends with perforated caps, an air chamber in which enter the injector-tubes, mixing burner tubes fixed in said air chamber opposite the injector tubes, metallic sleeves connecting the injector-tubes and the mixing burner-tubes and preventing a dangerous back firing at the exterior, and a metallic screen the position of which is adjustable relatively to the entrance of the air chamber, for suitably modifying the admission of the air into said chamber.

2. In a gas burner for furnaces, a series of mixing and burner tubes adapted to enter the furnace, and exterior means for supplying air to said tubes and comprising an air box arranged in connection with the inlet ends of the several tubes and open to the atmosphere, at its rear end, a series of fuel supply pipes extending into the open end of the air box, each pipe being in axial alinement with a tube, a manifold communicating with the several fuel pipes, a fender plate disposed between the open end of the air box and the manifold, through which platethe fuel pipes extend, and a fuel supply for the manifold.

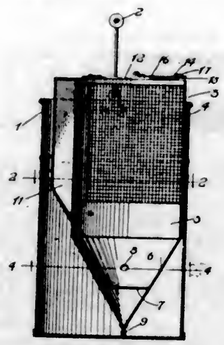
3. In a liquid fuel burner, a series of mixing and burner tubes, the tubes being open at one end for the inlet of air, a box in which the said tubes are secured, a series of fuel conductors disposed in the rear of the inlets to the tubes and in line therewith, means for supplying fuel to the tubes, and a fender plate movable on the fuel conductors.

4. In a burner of the character described, a manifold, a mixing and burner tube open at one end for the inlet of air and fuel, a fuel conductor leading to the manifold and delivering adjacent to the said end of the tube, and a fender plate mounted to slide on said fuel conductor toward or from the outlet end thereof.

5. In a burner of the character described, a manifold, a mixing and burner tube open at one end for the admission of air and fuel, a reticulated element extending around said inlet end, and a fuel conductor leading to the manifold and having a delivery end in axial alinement with the tube and extending into the said reticulated element, the fuel conductor being of considerably less diameter than the reticulated member.

[Claims 6 and 7 not printed in the Gazette.]

1,135,841. BAIT-BUCKET. CLIFFORD WILLIARD PATTERSON, Waukesha, Wis. Filed June 8, 1914. Serial No. 843,721. (Cl. 43—28.)

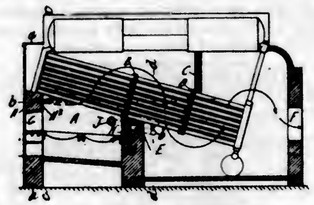


1. A bait receptacle comprising a cylindrical member having one end and the side walls thereof perforated, an opening in said perforated end provided with a closure, a cone-shaped member at the other end of said cylinder communicating with the interior thereof and provided at its apex with an air chamber, and an air chamber secured to said cylinder along one side wall thereof, said air chamber projecting beyond the cylinder and the inner wall thereof conforming to the contour of the side wall of the cylinder the front end of said air chamber being inclined downwardly and forwardly.

2. A bait receptacle comprising a tubular member having perforated side walls, a cone shaped member at one end of said cylinder communicating with the interior thereof and provided at its apex with an air chamber with a bait protecting chamber at the rear thereof, and an air chamber secured to said tubular member along one side wall thereof, said air chamber being disposed entirely outside said member and having its inner wall shaped to conform to the contour of the side wall of the member to which it is applied, said air chamber projecting beyond said tubular member and being adapted to hold said member in a predetermined position.

3. The combination with a vessel open at its top, of a receptacle comprising a perforated cylinder closed at one end and having a bait protecting chamber at the other end, the side walls of said chamber having oppositely disposed apertures therein and being otherwise imperforate, said apertures serving to prevent eddies in said bait chamber when said receptacle is drawn through the water and to supply air to said receptacle when it is placed endwise in said vessel.

1,135,842. SMOKE-CONSUMING FURNACE. HARRY LOWELL PRICE and GEORGE JOSEPH CARTWRIGHT, Sydney, New South Wales, Australia. Filed Dec. 11, 1913. Serial No. 805,959. (Cl. 110—73.)

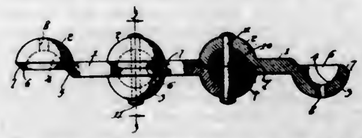


1. A steam-boiler furnace having a combustion chamber and provided with a flame tube extending from the furnace proper to the said combustion chamber and a transverse ignition tube supplied by said flame tube within said combustion chamber, this ignition tube being provided with a longitudinal series of discharge holes increasing successively in area in the direction of flow and equaling in total area that of a cross-section of said ignition tube substantially as set forth.

2. A steam boiler furnace having a combustion chamber and a bridge wall and provided with a flame tube extending from the furnace proper to the said combustion chamber, and a transvers ignition tube within said chamber having a series of discharge holes increasing in area in the direction of flow and equaling in total area that of a cross-section of said ignition tube, the said bridge wall being provided with a longitudinal air flue and with a series of discharge outlets feeding air to the combustion chamber adjacent to the ignition tube.

3. A steam boiler furnace having a combustion chamber and a bridge wall and provided with a flame tube extending from the furnace proper to the said combustion chamber, and a transverse ignition tube within said chamber having a series of discharge holes, the said bridge wall being provided with a longitudinal air flue and with a series of discharge outlets feeding air to the combustion chamber adjacent to the ignition tube.

1,135,843. CHAIN. CHARLES A. PRINDLE, Chicago, Ill. Filed June 21, 1913. Serial No. 774,983. (Cl. 74—32.)



1. In a chain, the combination of a plurality of links, each of said links consisting of a shank provided with a semi-spherical recess therein at each end, said links arranged with a recess in one link opposite a recess of an adjacent link, a coöperating ball arranged in said adjacent recesses, and means for securing said links together.

2. In a chain, a plurality of links, each consisting of a single shank provided at each end at opposite sides tehreof, with a suitably formed recess, said links arranged end to end with the recess of one link opposite the recess of an adjacent link, a coöperating part arranged in said adjacent recesses, and means for pivotally securing said links together.

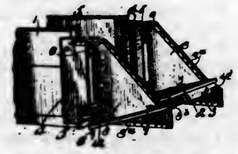
3. The combination in a chain, of a plurality of links, each link consisting of a single shank provided with substantially semi-spherical ends on opposite sides thereof, a recess in each semi-spherical end, said links arranged end to end with the semi-spherical end on one link mating with the semi-spherical end on the adjacent link, and a ball arranged in and corresponding in contour to said adjacent recesses, and means extending through the ends and ball for securing the links together.

4. A chain link, comprising a single shank provided with an enlargement on one side at one end thereof, and with a similarly formed enlargement at the opposite end on the opposite side thereof, each enlargement provided with a recess therein, said link cut away at each end to the center line of the link, and beveled about the enlarged end at said cut away portion.

5. In a chain, the combination of a plurality of links, each of said links consisting of a shank of substantially rectangular cross sectional shape and provided with a recess therein at each end, said links arranged with the recess in one link opposite a recess of an adjacent link, a coöperating part arranged in said adjacent recesses, and means for securing the links together.

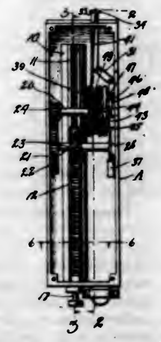
[Claim 6 not printed in the Gazette.]

1,135,844. VEHICLE END-GATE. JOSEPH A. RAMSEY, Beatrice, Nebr. Filed May 13, 1912. Serial No. 697,027. (Cl. 21—21.)



The combination with a wagon body having side extensions, an end-gate, and triangular closures hinged to the side extensions of the wagon body—of U-shaped guards secured to and projecting laterally from the side edges of the end-gate and adapted to embrace the side extensions of the wagon-body when the end-gate is closed, and to embrace and rest on the triangular closures when the end-gate is opened.

1,135,845. TROLLEY-RETRIEVER. GEORGE B. REABEN, Hattiesburg, Miss. Filed Jan. 30, 1914. Serial No. 815,456. (Cl. 191—91.)



1. In a trolley retriever the combination of a support, a shaft rotatably mounted on said support, a drum loosely mounted on said shaft, a trolley rope wound upon said drum, means for locking the shaft to the drum for rotation

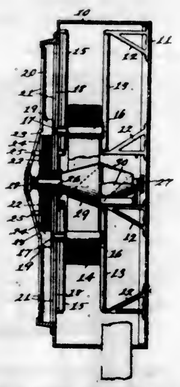
therewith when said shaft is rotated in one direction, and means operable upon a predetermined unwinding movement of the trolley rope for rotating the shaft in a direction to operate the drum and wind the trolley rope thereon.

2. In a trolley retriever, the combination of a support, a shaft rotatably mounted on said support, a drum loosely mounted on said shaft, a trolley rope wound upon said drum, means for limiting the rotation of the drum on said shaft under the influence of unwinding movement of the trolley rope, automatic means for rotating the drum to take up slack in the trolley rope, means for locking the shaft to the drum for rotation therewith when said shaft is rotated in one direction, and means operable upon a predetermined unwinding movement of the trolley rope for rotating the shaft in a direction to operate the drum and wind the trolley rope thereon.

3. In a trolley retriever, the combination of a support, a shaft rotatably mounted on said support, a drum loosely mounted on the shaft, a trolley rope wound upon said drum, means for locking the drum to the shaft for rotation with the latter when said shaft is rotated in one direction, a rack bar slidably mounted on said support, connections between the rack bar and the shaft whereby the movement of the rack bar in one direction will operate the shaft to rotate the drum and wind the trolley rope thereon, and means operable upon a predetermined unwinding movement of the trolley rope to move the rack bar.

4. In a trolley retriever, the combination of a support, a shaft rotatably mounted on said support, a drum loosely mounted on said shaft, a trolley rope wound upon said drum, means for locking the drum to the shaft for rotation with the latter when said shaft is rotated in one direction, a rack bar slidably mounted upon said support, connections between the rack bar and the shaft whereby movement of the rack bar in one direction will operate the shaft to rotate the drum and wind the trolley rope thereon, spring means constantly tending to move the rack bar to operate the shaft, means for locking the rack bar against movement under the influence of said spring means, and a tripping mechanism operable upon a predetermined unwinding movement of the trolley rope for releasing said rack bar to the influence of said spring means.

1,135,846. FILM-REEL. HAROLD J. RICKON, San Francisco, Cal., assignor of one-half to Edward H. Kemp, San Francisco, Cal. Filed July 8, 1914. Serial No. 849,732. (Cl. 88—18.7.)



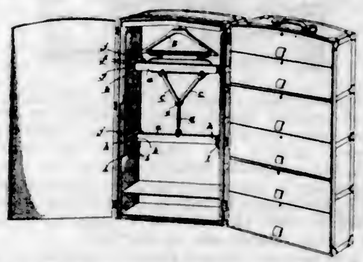
1. In a moving picture projector; a feed reel, having a roll of film thereon, a plurality of radially movable posts for maintaining said roll in position, a casing for said reel provided with a cover and having a film outlet slot arranged adjacent said cover, said reel being arranged adjacent the rear of said casing, and a double cone for guiding said film from said roll to said outlet.

2. In a moving picture projector; a feed reel, having a roll of film thereon, a plurality of spring-actuated, radially movable posts thereon for maintaining said roll in position, means for locking said posts in their innermost positions, and means for guiding said film from the interior of said roll.

3. In a moving picture projector; a feed reel having a roll of films thereon, a plurality of spring-actuated, radially movable posts thereon for maintaining said roll in position, means for locking said posts in innermost positions, means for releasing said lock, and means for guiding said film from the interior of said reel.

4. In a moving picture projector; a feed reel, comprising a central shaft, a plurality of radially movable posts adapted to receive a roll of film, a cone on said shaft, within said roll of film, inwardly tapered toward the support for said posts, and a cone on said shaft inwardly tapered in a reverse direction to said first named cone, said film being led from the interior of said roll partially around said first named cone to direct the same from said roll of film, and partially around said last named cone to direct said film into a path parallel to but at a distance from the roll of film.

1,135,847. WARDROBE-TRUNK. HENRY W. ROUNTREE, Richmond, Va. Filed Jan. 28, 1915. Serial No. 4,845. (Cl. 190—13.)



1. A wardrobe trunk provided on the interior of its walls with two pairs of separated flanges, the upper pair being provided with upwardly opening notches and the lower pair with downwardly opening notches, a pressure bar provided with laterally projecting pins adapted to rest in the upper notches and another pressure bar provided with similar pins adapted to engage up into the lower notches, and spring connecting means normally tending to draw said bars together.

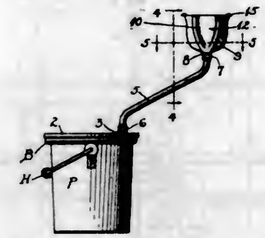
2. A wardrobe trunk provided on the interior of its walls with two pairs of separated flanges, the upper pair being provided with upwardly opening notches and the lower pair with downwardly opening notches, a pressure bar provided with laterally projecting pins adapted to rest in the upper notches and another pressure bar provided with similar pins adapted to engage up into the lower notches, spring connecting means normally tending to draw said bars together, and a pair of guide flanges arranged below the lower pair of notched flanges, for the purpose set forth.

3. A wardrobe trunk provided on the interior of its walls with two pairs of separated flanges, the upper pair being provided with upwardly opening notches and the lower pair with downwardly opening notches, a pressure bar provided with laterally projecting pins adapted to rest in the upper notches and another pressure bar provided with similar pins adapted to engage up into the lower notches, spring connecting means normally tending to draw said bars together, said connecting device consisting of a tensile spring attached to the lower bar and a pair of upwardly diverging straps to connect the upper end of the spring to the upper bar.

1,135,848. ATTACHMENT FOR MILK-PAILS. ALBERT O. ROW, Grand Island, Nebr. Filed July 6, 1914. Serial No. 849,141. (Cl. 31—70.)

1. In a device of the character described, a receiving bowl having knee engaging portions on its opposite sides and an outlet tube leading from said bowl.

2. In a device of the character described, a receiving bowl, recessed knee receiving extensions on opposite sides thereof and a tube leading from said bowl.



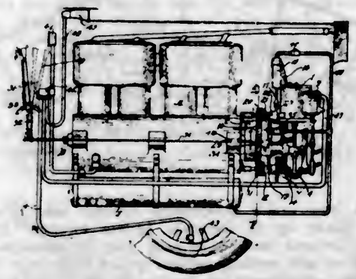
3. In a device of the character described, a receiving bowl, extensions on opposite sides thereof and each formed of single pieces of sheet metal bent into substantially U-shape in horizontal section, the upright body portion of said extensions being bulged inwardly to provide knee receiving recesses, and a discharge tube leading from said bowl.

4. An attachment for milk pails comprising a circular cover plate having an opening, a flexible tube rising from said plate and communicating with the opening, a receiving bowl communicating with the opposite end of said flexible tube and knee engaging portions on opposite sides of said bowl.

5. An attachment for milk pails comprising a cover plate designed to be positioned upon a milk pail, said plate having an opening, a rigid receiving bowl spaced from said cover plate and having knee receiving portions on opposite sides, and a flexible tube leading from the receiving bowl to said inlet opening.

[Claim 6 not printed in the Gazette.]

1,135,849. MOTOR-STARTING MECHANISM. WILLIAM P. RUDKIN, Britton, Okla. Filed June 2, 1914. Serial No. 842,540. (Cl. 123—179.)



1. The combination with a primary motor including a main shaft therefor, of a starting mechanism comprising a fluid pressure auxiliary motor, means for supplying fluid pressure for said auxiliary motor, independent clutch mechanisms intermediate the auxiliary motor and the shaft, the pressure supply means and said shaft, and a common controlling member for said clutch mechanisms, whereby to permit of independent actuation of the shaft by the auxiliary motor to start the primary motor and actuation of the pressure supply means from said shaft.

2. The combination with a primary motor including a main shaft therefor, of a starting mechanism comprising a fluid pressure auxiliary motor, means for supplying fluid pressure for said auxiliary motor, clutch mechanisms intermediate the auxiliary motor and the shaft, the pressure supply means and said shaft, means connecting the clutch mechanism for the pressure supply means with the clutch mechanism of the auxiliary motor, and a controlling member for operating the connecting means to engage and disengage the clutch mechanisms independently of each other.

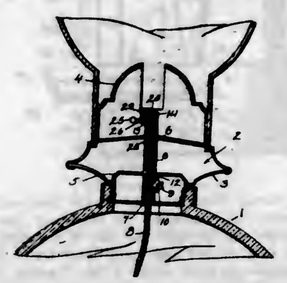
3. The combination with a primary motor including a main shaft therefor, of a starting mechanism comprising a fluid pressure auxiliary motor, means for supplying fluid pressure for said auxiliary motor, clutch mechanisms intermediate the auxiliary motor and the shaft, the pressure supply means and said shaft, and a controlling member for disengaging one or the other of said clutch mechanisms and maintaining both of said mechanisms out of engaging relations.

4. The combination with a primary motor including a main shaft therefor, of a starting motor, connecting means intermediate the starting motor and the main shaft operable to transmit motion to the latter to start the primary motor, a fluid pressure supply for actuating said starting motor, manually operable means for operating the connecting means aforesaid, a pump for said pressure supply adapted for operable connection to the main shaft and controlled by the manual means aforesaid, and automatic means connected to the manual means for controlling engagement of the pump.

5. The combination with a primary motor including a main shaft therefor, of a starting motor, connecting means intermediate the starting motor and the main shaft operable to transmit motion to the latter to start the primary motor, a fluid pressure supply for actuating said starting motor, manually operable means for operating the connecting means aforesaid a pump for said pressure supply adapted for operable connection to the main shaft and controlled by the manual means aforesaid, and means connected to the manual means for automatically causing disengagement of the pump when the pressure supply has reached a predetermined amount.

[Claims 6 to 17 not printed in the Gazette.]

1,135,850. SELF-EXTINGUISHING LAMP-BURNER. WHITNEY W. SAUNDERS, Red Deer, Alberta, Canada. Filed Dec. 10, 1914. Serial No. 876,518. (Cl. 67—78.)



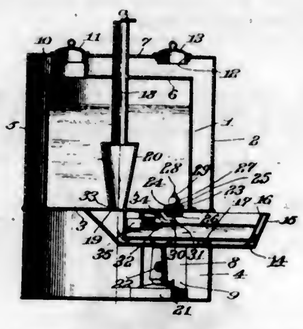
1. In a lamp burner, a substantially rectangular sleeve, a wick carrying sleeve mounted within said rectangular sleeve and having the upper ends of its sides free from connection to each other, one of said sides of said wick carrying sleeve being corrugated, a pinion for engaging said corrugation for moving said wick carrying sleeve vertically within said rectangular sleeve, and means carried by the upper end of said rectangular sleeve for engaging the upper end of a wick and extinguishing the same upon downward vertical movement of said wick carrying sleeve within said rectangular sleeve.

2. In a lamp burner structure, a substantially rectangular sleeve, a wick carrying sleeve slidably mounted within said sleeve, said sleeve having projections formed upon the upper end of one side thereof, said projections bent downwardly and outwardly and having said terminal ends rolled upon themselves, a wire bent to assume substantially a rectangular shape having one side rockably mounted within said rolled ends, the other side of said wire rectangle being positioned for engagement with the upper end of a wick upon downward sliding movement of said wick carrying sleeve within said rectangular sleeve, and

means for automatically moving said wick engaging side of said wire rectangle out of wick engaging position upon upward sliding movement of said wick carrying sleeve within said first named sleeve.

3. In a lamp burner structure, a substantially rectangular shaped sleeve, a wick carrying sleeve slidably mounted within said sleeve, said wick carrying sleeve having one side corrugated, a pinion for engaging said corrugations for moving said wick carrying sleeve vertically within said rectangular sleeve, said first named sleeve having projections formed upon the upper end of one side thereof, said projections being bent outwardly and downwardly and having their terminal ends rolled, a wire bent to assume substantially a rectangle having one side rotatably mounted within said rolled end, the other side of said wire rectangle being positioned for engagement with the upper end of a wick upon downward movement of said wick carrying sleeve within said first named sleeve, a loop formed upon the side of said wire rectangle which is mounted within said rolled end, a lug carried by said wick carrying sleeve for engaging said loop for moving said wick engaging end over the upper end of said wick carrying sleeve, and a weight connected to said wire rectangle for moving said wick engaging end away from the upper end of said wick carrying sleeve upon upward movement of said wick carrying sleeve.

1,135,851. WATERING-TANK AND HEATER. SAMUEL B. SCHEPPMANN, St. Paul, Minn. Filed July 28, 1914. Serial No. 853,775. (Cl. 119—73.)



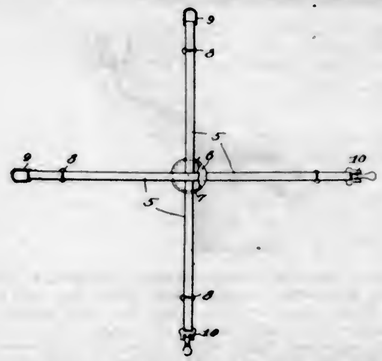
A tank, a trough below and fed by the tank said trough extending under the bottom of the tank and also projecting, at its outer end, beyond one side of the tank and being provided with spaced inner and outer walls forming a heating chamber between them, a flue leading from the rear portion of said heating chamber and extending through the tank, a casing in which the tank and inner portion of the trough are located and a heater also in the casing and below the tank, said heater having a chimney arranged to discharge heated air into the heating chamber of the trough.

1,135,852. POWDER-PUFF. ALBRECHT SCHWARZHAUPT, Paris, France. Filed July 31, 1912. Serial No. 712,481. (Cl. 132—28.)



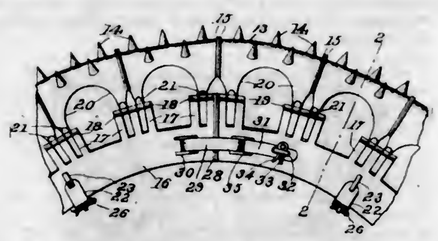
The herein described method of making powder puffs, which consists in securing one end of a bundle of filaments held under compression in a destructible tube to a handle, and then destroying the tube, and thereby permitting the filaments to expand and form a puff.

1,135,853. BUNDLE-TIER. GEORGE SEACH, Dubois Pa. Filed Dec. 20, 1913. Serial No. 807,804. (Cl. 24—17.)



A bundle tying device, comprising two straps crossing each other at right angles, in combination with means for permanently securing the crossed straps together centrally, consisting of superposed disks, one resting upon the upper surfaces, and the other upon the lower surfaces of said straps, and secured to the straps and to each other around their circular meeting edges, whereby connecting and reinforcing webs quadrantal in shape are provided between the adjacent legs of the straps, to permanently connect the same and hold them in fixed radial position, and means for securing the free ends of each strap together.

1,135,854. ANTISKID DEVICE. GEORGE SEACH, Dubois, Pa. Filed Feb. 13, 1914. Serial No. 818,510. (Cl. 152—16.)



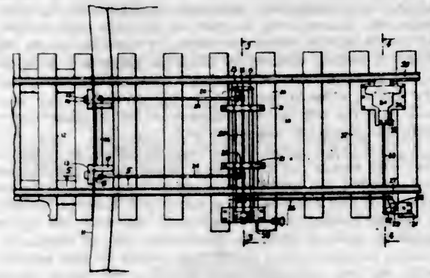
1. A tire armor comprising circular side retaining bands made up of segments having terminal flanges, armor sections secured to each pair of segments, and flanges on said sections radially alined with those of the segments, and means for forcing the flanges of the segments into abutting relation.

2. A tire armor comprising circular side-retaining bands made up of segments having terminal flanges, armor sections secured to each pair of segments by a connection flexible only in the plane of the wheel, and means for forcing the flanges of the segments into abutting relation.

3. A tire armor comprising circular side-retaining bands made up of segments having terminal flanges, armor sections secured to each pair of segments having radial bearing faces alined with the flanges, and means for forcing the flanges of the segments into abutting relation.

1,135,855. SAFETY DEVICE FOR RAILROAD TURNTABLES. JOHN TOMAS SHERIDAN, Bowling Green, Mo. Filed Nov. 20, 1914. Serial No. 873,189. (Cl. 104—227.)

1. In combination with a turntable and a track leading thereto, locking means for securing the turntable against movement relatively to the track, a stop block movable relatively to the track for disposal against a track rail, and connecting means for moving the locking means and stop block simultaneously.



2. In combination with a turntable and a track leading thereto, locking means for securing the turntable against movement relatively to the track, a stop block movable relatively to the track, and automatic means for moving the stop block to operative position when the locking means is unlocked.

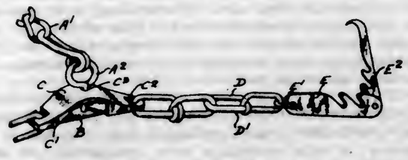
3. In combination with a turntable and a track leading thereto, locking means for securing the turntable against movement relatively to the track, a transverse guideway, a stop block disposed in the transverse guideway for movement against a track rail, and connecting means for moving the locking means and the stop block simultaneously.

4. In combination with a turntable and a track leading thereto, a dog on the track for engaging the turntable, a link connected with the dog for operating the latter, a stop block movable relatively to the track for disposal against a track rail, and operating means connected with the link and with the stop block for the purpose specified.

5. In combination with a turntable and a track leading thereto, a transverse shaft having two crank arms, a dog on the track for engaging the turntable, a link connecting one of the cranks with the dog for operating the latter, a guideway leading to a track rail, a stop block movably disposed in the guideway, and means connecting the other crank with the stop block for operating the latter.

[Claims 6 to 9 not printed in the Gazette.]

1,135,856. GRIP-TREAD FOR WHEEL-TIRES. BERTON HERBERT SILLS, Toronto, Ontario, Canada. Filed Feb. 10, 1914. Serial No. 817,831. (Cl. 152—14.)



1. An anti-slipping device for which wheels comprising a plurality of chain sections on either side of the wheel, arched rigid plates to which the ends of the chain sections are detachably connected to form annular retaining members, flat spring plates bearing at their ends against the ends of the rigid plates, eye-bolts journaled centrally in the rigid and spring plates, and transverse chains connected to said eye-bolts and extending across the tread of the wheels.

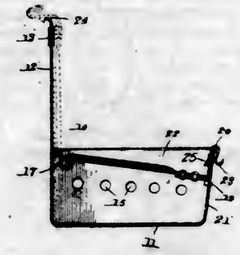
2. An anti-slipping device for which wheels comprising a plurality of chain sections on either side of the wheel, arched plates having bayonet slots at either end extending inwardly from the edge thereof and with which the end links of adjacent chain sections engaged to form annular retaining members, spring members bearing at their ends against the ends of the plate for holding said end links in place, eye bolts journaled within the arched plates and spring members and transverse chains connected to the eye-bolts and extending across the tread of the wheel.

3. In a device of the class described, the combination of a series of transverse chains, arched rigid plates provided at either end with bayonet slots extending inwardly from an edge thereof and chain sections the end links of which engage said slots connecting said plates to form retaining members, spring plates having longitudinal notches at their ends extending to each side of the bayonet slots to engage the inserted links, and eye-bolts journaled in the rigid plates and to which the transverse chains are connected.

4. In a device of the class described, the combination of a series of transverse chains, rigid arched plates and chain sections the end links of which are detachably connected thereto to form retaining members, spring plates bearing at their ends against the ends of the arched plates and eye-bolts revoluibly journaled in the rigid and spring plates to which the transverse chains are connected.

5. In a device of the class described, the combination with a pair of annular retainers composed of chain sections and of arched rigid plates provided at either ends with bayonet slots in which the end links of adjacent sections engage, spring plates having longitudinal notches at their ends extending to each side of the bayonet slots for holding said end links in place, eye-bolts having threaded ends journaled within the arched and spring plates, transverse chains connected to the eye-bolts and extending across the tread of the wheel, and nuts working on the threaded ends of said eye-bolts and bearing against the face of the spring plates for adjusting the tension thereof.

1,135,857. SOAP-HOLDER. LYNN H. SMITH, Escanaba, Mich. Filed Apr. 28, 1914. Serial No. 835,017. (Cl. 45—28.)



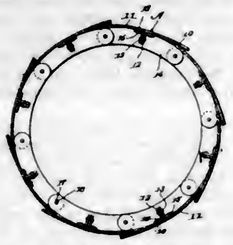
As a new article of manufacture, a soap holder consisting of a single piece of material formed to provide a receptacle and an upstanding back, a portion of which forms a wall of the receptacle, a tray mounted to swing on the body and normally lying wholly within the receptacle, a projection engaged by the free end of the tray to hold the free end of the tray against downward movement in the receptacle, and a spring-like latch engaging the front edge of the receptacle to secure the tray in locked position therein, said latch being adapted to engage the upper end of the back when the tray is swung upwardly to lie against the back.

1,135,858. CONCRETE-FORM. WILLIAM M. SMITH, Woodward, Okla. Filed July 25, 1914. Serial No. 853,106. (Cl. 25—131.5.)

1. A form of the class described comprising a plurality of arcuate shaped sections disposed in overlapping relation to each other, a plurality of pivotally connected links mounted at the ends of the sections, each section being formed from two strips, in-turned flanges formed on the respective strips and abutting each other, and rivets uniting the abutting flanges.

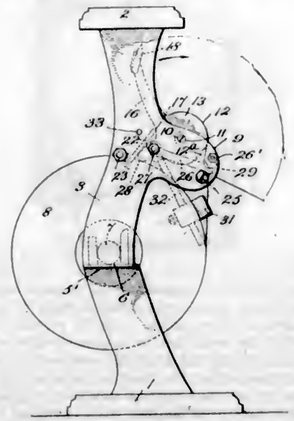
2. A form of the class described comprising a plurality of arcuate shaped sections disposed in overlapping relation

to each other, a plurality of pivotally connected links mounted at the ends of the sections, each section being formed from two strips, in-turned flanges formed on the respective strips and abutting each other, rivets uniting the abutting flanges, and ears formed on the respective links and rivets to the strips of each section.



3. A form of the class described comprising a plurality of arcuate shaped sections disposed in overlapping relation to each other, a plurality of pivotally connected links mounted at the ends of the sections, each section being formed from two strips, in-turned flanges formed on the respective strips and abutting each other, rivets uniting the abutting flanges, ears formed on the respective links and riveted to the strips of each section, and means for detachably connecting the end links together to hold the sections in cylindrical contour.

1,135,859. WRAPPING-PAPER CUTTER. STEFAN STAMIROWSKI, New York, N. Y., assignor of one-half to Thomas J. Fruin, New York, N. Y. Filed Nov. 4, 1914. Serial No. 870,275. (Cl. 211—32.)



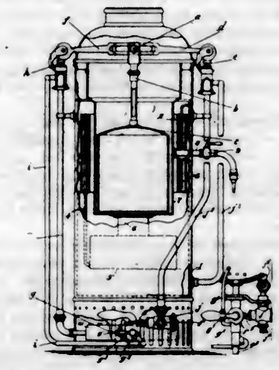
1. A paper cutter of the class described, a guide roll mounted for oscillating movement, a cutter blade carried by the said guide roll, means to normally turn the guide roll in one direction to raise the cutter blade, a locking element to hold the guide roll with the cutter blade in lowered position, a trip for the locking element, and a paper guide bar for engagement by the paper drawn from a paper roll and to actuate the trip to cause the latter to move the locking element to releasing position.

2. In a paper cutter of the class described, a stand having bearings for the core of a paper roll, a guide roll mounted on the stand for oscillating movement, a cutter blade carried by the guide roll, means to normally turn the guide roll in one direction to raise the cutter blade, a locking element to hold the guide roll with the cutter blade in lowered position, a movable guide bar for engagement by the paper drawn from the paper roll and over the guide roll, and a trip for the locking element actuated by the said guide bar to move the locking element to releasing position when the tension of the paper against the guide bar relaxes.

3. In a paper cutter of the class described, in combination with means for mounting a paper roll, a paper guide roll mounted for oscillation, a cutter blade carried by the guide roll, means to normally turn the guide roll blade, a locking element to hold the guide roll with the cutter blade in lowered position, a movable trip to release the locking element, and a guide bar carried by and movable with the trip and for engagement by the paper drawn from the paper roll and guide roll.

4. In a paper cutter of the class described, in combination with means for mounting a paper roll, a paper guide roll mounted for oscillation, a cutter blade carried by the guide roll and adapted to be raised and lowered thereby, a locking element to hold the guide roll with the cutter blade in lowered position, a movable trip to release the locking element, and a guide bar carried by and movable with the trip and for engagement by the paper drawn from the paper roll and guide roll.

1,135,860. WATER-HEATER. JAMES STOTT, Oldham, England. Filed Nov. 18, 1912. Serial No. 732,114. (Cl. 126—351.)



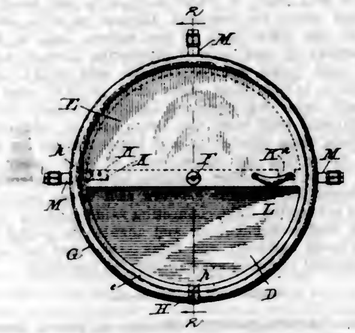
1. In a water heater, the combination, with a boiler, main gas and water supply means having connected controlling valves, and a burner to which the gas supply means is directly connected; of a by-pass connection between said burner and said gas supply means for supplying gas to the former from the latter independently of the gas-controlling valve; a controlling valve arranged in said by-pass connection; and a float arranged in said boiler and connected with the by-pass valve for automatically operating the same in accordance with the steam pressure under the float.

2. In a water heater, the combination, with a boiler, and a valve-controlled water supply pipe connected thereto; of a burner; a main gas supply pipe connected to the burner; a main controlling valve arranged in the main gas pipe; a by-pass connection between said burner and said main gas pipe behind the main gas valve; a controlling valve arranged in said by-pass connection; and means for automatically operating the by-pass valve in accordance with the steam pressure under the float.

3. In a water heater, the combination, with a boiler, and a valve-controlled water supply pipe connected thereto; of a burner; a main gas supply pipe connected to the burner; a main controlling valve arranged in the main gas pipe; a by-pass connection between said burner and said main gas pipe behind the main gas valve; a controlling valve arranged in said by-pass connection; an operating lever connected with the by-pass valve; and a float within said boiler and connected to said lever, for automatically operating said by-pass valve in accordance with the steam pressure under the float.

4. In a heater, the combination, with a boiler, and a valve-controlled water supply pipe leading thereto; of a main heating-medium supply pipe; a main controlling valve arranged in the last-named pipe; a by-pass pipe connected to said second-named pipe behind said controlling valve at one end and in front of the same at the other end; a controlling valve arranged in the by-pass pipe; and means for automatically operating the by-pass valve in accordance with the steam pressure acting thereon.

1,135,861. AUTOMOBILE-TRUNK. LLOYD B. TAYLOR, Chicago, Ill. Filed Mar. 14, 1912. Serial No. 683,808. (Cl. 190—20.)



1. A cylindrical automobile trunk having a cover forming one end thereof and comprising circular relatively rotatable sections, each section having an opening therethrough adapted to be brought into or out of register with the opening in the other section, and a keeper secured around the periphery of the cylindrical wall of the trunk and overlapping the circular edge of the outer section of the cover.

2. A cylindrical automobile trunk having a cover forming one end thereof and comprising circular relatively rotatable sections, each section having an opening therethrough adapted to be brought into or out of register with the opening in the other section, a circular keeper secured around the periphery of the cylindrical wall of the trunk and overlapping the circular edge of the outer rotatable section of the cover, and a strip of flexible material between the radial overlapping edges of said circular sections when in closed position.

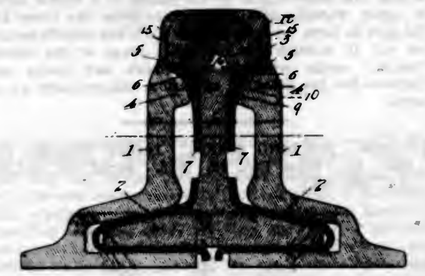
3. A cylindrical automobile trunk having a cover forming one end thereof and comprising circular relatively rotatable sections, each section having an opening therethrough adapted to be brought into or out of register with the opening in the other section, and a circular resilient keeper secured around the periphery of the cylindrical wall of the trunk overlapping and closely engaging the surface of the outer rotatable section of the cover adjacent its periphery.

4. In a cylindrical automobile trunk having a circular cover forming one end thereof and comprising relatively movable circular sections, said sections in different positions adapted to completely close the trunk or to uncover a portion of said end thereof, and a circular resilient keeper secured around the periphery of said end of the trunk and surrounding the outer edge of the rotatable section of the cover.

5. In a cylindrical automobile trunk having a circular cover forming one end thereof and comprising relatively movable circular sections, said sections in different positions adapted to completely close the trunk or to uncover a portion of said end thereof, and a circular resilient keeper surrounding the outer edge of the cover and having a curved cross section, one edge of said keeper being secured around the cylindrical wall of the trunk and the other edge thereof closely engaging the outer surface of the rotatable section of the cover adjacent its periphery.

[Claims 6 and 7 not printed in the Gazette.]

1,135,862. INSULATED RAIL-JOINT. WILLIAM P. THOMSON, New York, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Dec. 23, 1914. Serial No. 878,713. (Cl. 239—5.)



1. A rail-head insulating unit comprising an insulation plate of transversely crescent form.

2. A rail-head insulating unit comprising an insulation plate having a thickened middle portion of crescent formation in cross section.

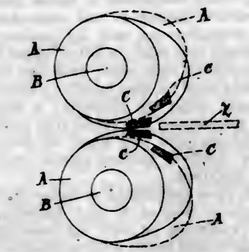
3. A rail-head insulating unit comprising an insulation plate having a middle portion of greater thickness than its edge portions and having a concave arcuate face.

4. An insulated rail joint including an insulation plate crescent shaped in cross section, a rail having a bearing to coincide with the convex of the crescent and a joint bar head to correspond with the concave of the crescent.

5. An insulated rail joint including a rail having a concaved insulation bearing surface, insulation, and a splice bar having a convexed insulation bearing surface of greater convexity than the concavity of the rail.

[Claims 6 and 7 not printed in the Gazette.]

1,135,863. METHOD FOR FORMING METAL BLANKS OR THE LIKE FOR CUTLERY ARTICLES, TOOLS, AND OTHER INSTRUMENTS OR PURPOSES. HERBERT TOLPUTT, Sheffield, England. Filed Nov. 18, 1912. Serial No. 732,081. (Cl. 76—104.)

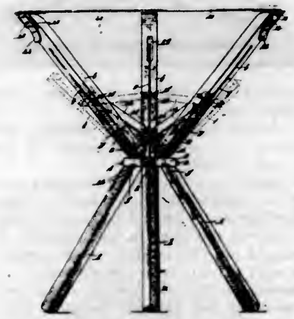


1. The herein described process of manufacturing in only two operations shaped and completed metal blanks or the like for the purposes specified, direct from a sheet or strip of metal such as sheet steel, the first operation consisting in subjecting such metal sheet or strip to the squeezing action of recessed dies to thereby press a part of said sheet or strip into the desired shape or form of the article to be made and the second operation consisting in subjecting this pressed part to the action of cutting dies or tools, such as a hollow punch or cutter, having the desired shape in outline of the completed blank by which last-named operation the said article or blank is

cut out of and entirely removed from said sheet or strip of metal substantially as set forth.

2. The herein described process of manufacturing in only two operations shaped and completed metal blanks, to form the blades of pocket knives or the like, direct from a sheet or strip of metal such as sheet steel, which consists firstly in subjecting a sheet or strip of metal, such as sheet steel, or a part thereof to a squeesing operation between specially shaped dies to thereby form the tapering shape of the blade part of said "blank" and put in the nail mark and center hole and thereafter subjecting this pressed part to the action of a hollow punch or cutter whereby both the part to form the blade and the part to form the tang of said blade are simultaneously cut out all around into the exact shape of the desired "blank" ready—with the nail mark and center hole therein—for the finishing operation, substantially as set forth.

1,135,864. FOLDING STOOL. JOSEPH TOMASSI, Chicago, Ill. Filed Dec. 12, 1913. Serial No. 806,222. (Cl. 155—32.)



1. A folding stool comprising a frame band; a set of lower leg members pivoted to and depended from said frame band; extensions on said leg members extending through and above said band; a set of upper leg members pivotally connected at their lower ends and extending upwardly from said band; a seat at the tops of said upper leg members; a socket member engaging said extensions of said lower leg members; and connecting links connecting said socket member with said upper leg members locking all of said leg members against pivotal movement, substantially as described.

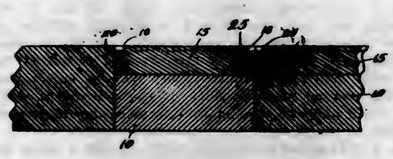
2. A folding stool comprising a frame band; a set of lower leg members pivoted to and depended from said frame band; extensions on said leg members extending through and above said band; a set of upper leg members pivotally connected at their lower ends and extending upwardly from said band; a seat member connecting the upper ends of said upper leg members; a socket member engaging said extensions; and connecting links connecting said socket members with said upper leg members locking all of said leg members against pivotal movement, substantially as described.

3. A folding stool comprising a frame band; a set of lower leg members pivoted to and depended from said frame band; extensions on said leg members extending through and above said band; a frame member mounted in said band and having portions engaging the lower edge of said band; a set of upper leg members pivoted to said frame member and extending upwardly from said band; a seat member connecting the upper ends of said upper leg members; a socket member fitted over the extensions of said lower leg members; and connecting links connecting said upper leg members with said socket members, substantially as described.

4. A folding stool comprising a frame band having notches in its lower edge; a set of lower leg members disposed in and depended from said band; extensions on said leg members extending through and above said band; a frame member disposed between said lower leg members in said band and having portions engaging the notches of the latter; upper leg members extending above said band; a seat member connecting the upper ends of said upper leg members; a plate secured in each of said leg members and pivoted to said frame member; a socket member engaging over said extensions and binding the upper ends of said lower leg members together; and a connecting link connecting each of said upper leg members with said socket member, substantially as described.

5. A folding stool comprising a substantially triangular band having a notch in the lower edge of each side thereof; lower leg members having their upper ends disposed in and pivoted to the angular portions of said band; extensions on said leg members extending through and above said band; a frame member in said band between said lower leg members adapted to slide downwardly to the lower ends of the latter; lugs on said frame member in said notches preventing upward movement of said frame member through said band; upper leg members having their lower ends in said band between said lower leg members adapted to slide downwardly through said band, the lower ends of said upper leg members being pivoted to said frame member; a seat member connecting the upper ends of said upper leg members; a socket member engaging over said extensions of said lower leg members between said upper leg members; and connecting links connecting said upper leg members with said socket member and adapted to permit the latter to move upwardly and bring said upper leg members in parallel relation, substantially as described.

1,135,865. PAVING-BLOCK. EDWARD A. TRACY, Boston, Mass. Filed June 7, 1912. Serial No. 702,181. (Cl. 94—1.)



1. A paving block having a kerf throughout its length, a metallic grid arranged in said kerf and having its ends forming inclined portions extending forwardly toward the bottom of the kerf, whereby to form spaces adapted to aline with similar spaces of adjacent blocks to form cement-receiving spaces wider at top than at the bottom, the said block being formed with additional openings to communicate with said spaces for cement receiving purposes.

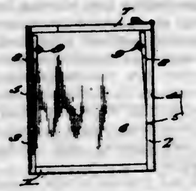
2. As a new article of manufacture, the paving-block herein described composed of a block having a kerf throughout its length with lateral recesses at each end of the block opening out of the kerf, a metallic grid arranged in said kerf having inclined portions at its ends, arranged to form spaces at the ends of the groove for a locking-key, said spaces being wider at the top than at the bottom and being in open communication with said lateral recesses.

3. A paving block having a kerf throughout its length, a metallic grid arranged in said kerf, the grid being of less length than the kerf, and wedge-shaped retainers engaging the kerfs of adjacent paving blocks and overlying the ends of the grids of said adjacent blocks and holding said grids against upward movement, said retainers being formed with projections to engage the block to prevent relative upward movement of the retainers.

4. A paving block having a kerf throughout its length, a metallic grid arranged in said kerf, retainers arranged at the ends of the grids of adjacent blocks for holding said grids in place, said retainers having lateral projections for locking engagement with the respective blocks.

5. A paving block formed with a kerf extending longitudinally thereof, the ends of the block being formed with a recess communicating with the kerf and of greater width than the kerf.

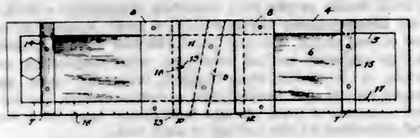
1,135,866. CRATE OR BOX. GEORGE F. TURNER, Mahoningtown, Pa. Filed Sept. 3, 1913. Serial No. 787,953. (Cl. 217—15.)



1. A crate comprising a bottom member, end members hinged thereto and adapted to fold upon the bottom member, hinge pieces secured to the side edges of the bottom member and provided with an inclined top edge, side members hinged to the hinge pieces and provided with an inclined longitudinal edge arranged in opposed relation with the inclined top edge of the hinge pieces, a top hinged to one of the side members and adapted to fold thereon, said side members arranged to fold upon the end members, and tapering flange pieces carried by the side members and adapted to engage on opposite sides of the end members.

2. A crate comprising a bottom member, end members hinged thereto adapted to fold upon the bottom member, hinge pieces secured to the side edges of the bottom member and provided with an inclined top edge, said members hinged to the hinge pieces and provided with an inclined longitudinal edge arranged in opposed relation with the edge of the hinge pieces, a top hinged to one of the side members and adapted to fold thereon, said side members arranged to fold upon the end members, means for preventing disconnection of the end members from the side members which comprises channel members substantially U-shaped in cross section and which taper from the upper end to the lower end, and bolts carried by the side members and engaged with the end members.

1,135,867. TOOL. FREDERICK P. VAUGHAN, Chicago, Ill., assignor to Charles E. Still, Kirksville, Mo. Filed June 13, 1913. Serial No. 773,374. (Cl. 81—77.)

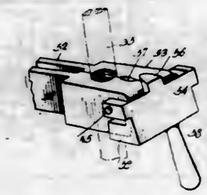


1. In a wrench or the like, the combination of a frame, a slidable plate mounted in said frame, a slide mounted cross-wise of said frame and having a diagonal groove therein, guides on the frame for said slide and a tongue on said plate fitting within said groove, said slide and tongue serving to move the plate longitudinally of the frame and lock it in adjusted position.

2. In a wrench, the combination of a rectangular frame, a plate slidably mounted in said frame, the ends of said plate serving to co-act with the ends of the frame for engagement with nuts or the like, guide-ways secured to said frame, a slide mounted in said guide-ways and having a diagonal groove therein, a tongue on said plate fitting within said groove, and guides for holding said plate in position in the frame.

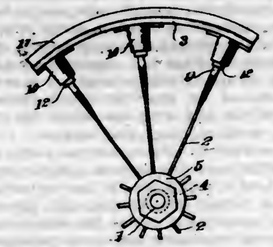
1,135,868. FEED MECHANISM. ROY M. VINYARD, Bend, Oreg. Filed Sept. 24, 1912. Serial No. 722,091. (Cl. 74—40.)

1. The combination with a feed screw, of a movable element comprising outwardly convergent resilient arms, a split feed nut having its respective parts integral with the arms and engageable with the feed screw, and a spreading head pivotally connected to the split nut and having a spreading blade engageable between the parts of the said nut for separating the same, and also having a lever, the meeting walls of the parts of the split nut being formed with beveled portions to provide a gap for the introduction of the spreading blade between the parts of the nut.



2. The combination with a feed screw, of a movable element comprising outwardly convergent resilient arms, a split feed nut having its respective parts integral with the arms and engageable with the feed screw, a spreading head pivotally connected to the split nut and having a spreading blade engageable between the parts of the said nut for separating the same, and also having a lever, the meeting walls of the parts of the split nut being formed with beveled portions to provide a gap for the introduction of the spreading blade between the parts of the nut, said spreading head being formed with folding lugs engageable with the outer faces of the parts of the nut to lock the same against spreading on the engagement thereof with the screw.

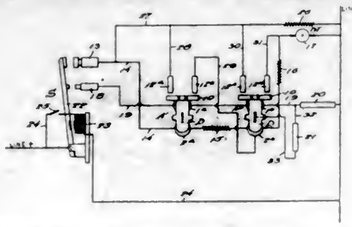
1,135,869. SPRING-WHEEL. HAYES WEIDNER, Cliffs, Ariz. Filed Oct. 28, 1913. Serial No. 797,839. (Cl. 152—28.)



1. A wheel comprising a hub, a rim, tubular casings carried by the rim and extending inwardly therefrom, and a series of substantially straight spokes each comprising a longitudinally non-extensible transversely flexible spring body disposed edgewise transversely of the wheel, the inner end of said spoke being attached to the hub and the outer end of said spoke being slidable in one of said casings, a bushing fitted in said casing and having an opening through which the spoke is slidable, a collar on the outer extremity of said spoke, and a suspension spring interposed between said collar and bushing.

2. A wheel comprising a hub embodying separable sections, a rim, tubular casings carried by the rim and extending inwardly therefrom, and a series of substantially straight spokes each comprising a longitudinally non-extensible transversely flexible spring body disposed edgewise transversely of the wheel and having an expanded inner end which is detachably held between the sections of the hub, the outer end of said spoke being slidable in said casing, a bushing removably fitted in the inner end of said casing and having an opening through which the outer end of the spoke slides, a collar on the outer extremity of said spoke, and a suspension spring interposed between said collar and bushing.

1,135,870. MOTOR-STARTER. GEORGE H. WHITTINGHAM, Pikesville, Md., assignor to Monitor Manufacturing Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Sept. 29, 1911. Serial No. 652,019. (Cl. 172—288.)



1. The combination with an electric motor and its circuits, including a starting resistance in the armature circuit thereof, of a switch for cutting out said resistance comprising a rocking magnetizable arm, pivoted between its ends, for opening and closing the switch contacts, two magnets having stationary pole pieces arranged adjacent said rocking arm on opposite sides of its pivotal axis and adapted to oppositely attract the arm, one of said magnets having low resistance windings in series with the motor armature and the starting resistance and the other having high resistance windings in a separate circuit, said arm being biased toward the former magnet, and means for opening and closing the circuits through said magnets.

2. The combination with an electric motor and its circuits, including a starting resistance in the armature circuit thereof, of a switch for cutting out said resistance comprising a rocking magnetizable arm, pivoted between its ends, for opening and closing the switch contacts, two magnets having stationary pole pieces arranged adjacent said rocking arm on opposite sides of its pivotal axis and adapted to oppositely attract the arm, one of said magnets having low resistance windings in series with the motor armature and the starting resistance and the other having high resistance windings in a separate circuit, said arm being biased toward the former magnet, means for varying the reluctance of the magnetic circuit through one of said magnets and said arm, and means for opening and closing the circuits through said magnets.

3. The combination with an electric motor and its circuits, including a starting resistance in the armature circuit thereof, of a switch for cutting out said resistance comprising a rocking magnetizable arm, pivoted between its ends, for opening and closing the switch contacts, two magnets having stationary pole pieces arranged adjacent said rocking arm on opposite sides of its pivotal axis and adapted to oppositely attract the arm, one of said magnets having low resistance windings in series with the motor armature and the starting resistance and the other having high resistance windings in a separate circuit, said arm being biased toward the former magnet, means for varying the reluctance of the magnetic circuit through the core of the magnet having low resistance windings and said arm, and means for opening and closing the circuits through said magnets.

4. The combination with an electric motor and its circuits, including a starting resistance in the armature circuit thereof, of a switch for cutting out said resistance comprising a rocking magnetizable arm, pivoted between its ends, for opening and closing the switch contacts, two magnets having stationary pole pieces arranged adjacent said rocking arm on opposite sides of its pivotal axis and adapted to oppositely attract the arm, one of said magnets having low resistance windings in series with the motor armature and the starting resistance and the other having high resistance windings in a separate circuit, the core of the magnet having low resistance windings being adjustable in length and said arm being biased toward said magnet, a stop for limiting the movement of the arm toward the latter core, and means for opening and closing the circuits through said magnets.

5. The combination with an electric motor and its circuits, including a starting resistance in the armature circuit thereof, of a switch for cutting out said resistance comprising a magnetizable arm pivoted between its ends to rock in a vertical plane, two magnets having stationary pole pieces arranged respectively above and below the axis of said arm and adapted to oppositely attract the arm, the lower magnet having low resistance windings in series with the motor armature and starting resistance, and the upper magnet having high resistance windings in a separate circuit, said arm being biased toward the lower magnet, and means for opening and closing the circuits through said magnets.

[Claims 6 to 11 not printed in the Gazette.]

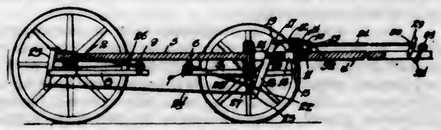
1,135,871. SHOE-POLISHER. ROSALIE DELPHIN BALTHAZAR, Pawnee, La. Filed July 11, 1914. Serial No. 850,371. (Cl. 91—67.2.)



1. In combination a cork, a wire shank extending therethrough, a brush mounted at one end of said shank, a handle formed upon said shank, an extension of said handle passing through said cork, and means whereby the terminal of shank may hold said cork against movement.

2. A device of the kind described comprising a cork, a wire shank passing therethrough, a brush secured at one end of said shank, a looped handle formed upon said shank at the opposite end of said cork with respect to said brush, a shortened stem formed integrally upon said looped handle and passing downwardly through the cork, and a returned stem formed terminally upon said stem and embedded at the bottom of said cork.

1,135,872. BRAKE. WILLIAM H. BENJAMIN, Roseburg, Oreg. Filed June 25, 1913. Serial No. 775,801. (Cl. 21—9.)



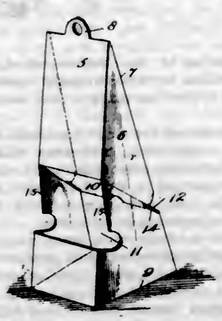
In a vehicle, in combination with a front axle, a rear axle and a reach connecting them, rearwardly extending guide bars secured to the front axle, forwardly extending guide bars secured to the rear axle, brake beams movable longitudinally on said guide bars, hounds attached to the front axle, a tongue attached to the hounds, a rocking lever pivotally mounted at the rear end of the tongue, rods connecting the lower portion of the rocking lever to the front brake beam, a whiffletree supporting element mounted on the tongue for longitudinal movement and connected to the upper end of said rocking lever, a neck yoke connected to the tongue for movement longitudinally thereof, a lever mounted on the tongue and actuated by the neck yoke, a rod connecting said lever to the whiffle tree support, a rear rocking lever mounted on a support with which the rear axle is provided, rods connecting the upper end of the last named rocking lever to the rear brake beam, and a rod connecting the lower ends of said rocking lever.

1,135,873. LUBRICATING DEVICE. LEROY A. BIGGAR and RUTHFORD H. BIGGAR, Oneida, N. Y. Filed Apr. 25, 1914. Serial No. 834,427. (Cl. 184—43.)



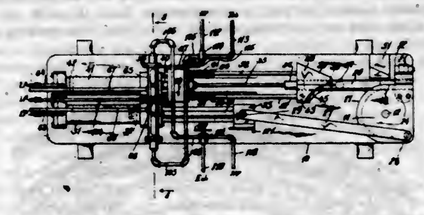
A lubricating device for loose pulleys comprising a reservoir secured to the hub and projecting radially therefrom and opening onto the shaft of said hub, a feed tube within said reservoir, a plunger within the reservoir concentrically of the feed tube therein and movable under the action of centrifugal force to feed the lubricant through said tube to the shaft in the initial movement of the hub, a second tube placed end to end with the first tube and having the remaining end thereof in contact with the pulley shaft, and a spring interposed between the confronting ends of said tubes and holding the last-mentioned tube against the shaft.

1,135,874. CARD-SUPPORT. THEODORE O. BITTNER, Brooklyn, N. Y. Filed July 13, 1912. Serial No. 709,287. (Cl. 40—150.)



A support having an intermediate portion provided with angularly disposed wing portions located at the side edges thereof, said intermediate portion being provided between its ends with an opening, the wing portions having recesses communicating with the opening in the intermediate portion, the uppermost edges of said recesses being straight and disposed approximately at right angles to the lower edges of the wing portions the lower edges of said recesses being disposed approximately at right angles to the plane in which the intermediate portion lies, the spaces between the straight edges forming openings in which articles may be received and supported.

1,135,875. TUBE-BENDING MACHINE. LOUIS H. BRINKMAN, Glen Ridge, N. J., assignor to Baltimore Tube Company, Baltimore, Md., a Corporation of Maryland. Filed Sept. 12, 1912. Serial No. 719,947. (Cl. 153—40.)



1. In a tube bending machine, the combination of a former on which the tube is to be bent, a mandrel for the tube, a swiping block and a wedge one on either side of the mandrel adapted to be moved adjacent the former, means for producing relative angular movement between the mandrel, swiping block and wedge on the one hand, and the former on the other hand, to bend the tube, and means for partly withdrawing the mandrel from the tube while the swiping block and wedge remain in position adjacent the former.

2. In a tube bending machine, the combination of a former on which the tube is to be bent, a mandrel for the tube adapted to be moved into position adjacent the former, a swiping block and wedge one on either side of the mandrel adapted to be moved into position adjacent the former, means for swinging the former to draw the tubt over the mandrel, and means for partly withdrawing the mandrel from the tube while the swiping block and wedge remain in position adjacent the former.

3. In a tube bending machine, the combination of a pivoted former on which the tube is to be bent, a mandrel for the tube adapted to be moved into position adjacent the former and having a ball loosely connected to the end thereof, a swiping block adapted to fit in between the front end of the former and the mandrel, a wedge on the other side of the mandrel, and means for holding the block and wedge in position until the mandrel has been withdrawn from the former far enough to draw the ball past the bend of the tube when bent so as to prevent the bend of the tube being flattened in withdrawing the ball.

4. In a tube bending machine, the combination of a pivoted former, with means for securing a tube thereto, a mandrel for the tube adapted to be moved into position adjacent the former and having a ball loosely connected to the end thereof, a swiping block adapted to fit in between the front end of the former and the mandrel, a wedge on the other side of the mandrel, a support against which the wedge is adapted to be moved to hold the wedge from lateral movement away from the mandrel, and means for holding the block and wedge in position until the mandrel has been withdrawn far enough to draw the ball past the bend in the tube when bent so as to prevent the bend of the tube being flattened in withdrawing the ball.

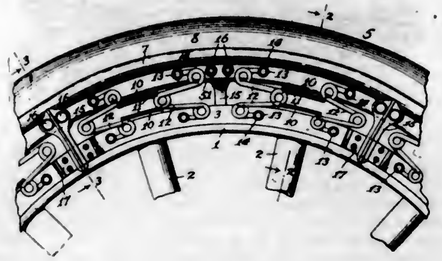
5. In a tube bending machine, the combination of a mandrel for a tube, a former on which the tube is to be bent, a swiping block adapted to fit between the mandrel and the former, a wedge on the other side of the mandrel, means for producing relative movement between the former on one hand and the block, wedge and mandrel on the other, in the general direction of the mandrel, and means for producing relative angular movement between the block, wedge and mandrel on the one hand, and the former on the other, to bend the tube.

[Claims 6 to 35 not printed in the Gazette.]

1,135,876. TIRE FOR VEHICLES. THOMAS CAPPARELLA and NATHAN MALLONE, New York, N. Y. Filed Feb. 13, 1913. Serial No. 748,266. (Cl. 152—32.)

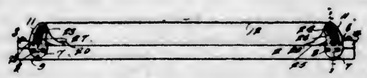
The combination of a wheel felly and a tire-carrying rim arranged in spaced and normally concentric relation

to each other and of equal width, a circular series of bolts passing transversely through said felly, and a similar series of bolts bearing the same relation to said rim, all of said bolts having end portions non-circular in cross section, two circular series of springs located at opposite sides of said felly and rim and connecting the same, each of said springs having a non-circular hole in each extremity thereof receiving one of said bolts and embody-



ing a plurality of arms in zigzag relation to each other and lying in different planes, and helical coils connecting the convergent extremities of said arms, radial positioning arms forming driving connections between said rim and felly, and pairs of striking blocks secured to the opposing faces of said felly and rim, and arranged in opposing relation to one another.

1,135,877. BED-SPRING. CHARLES A. CHALKER, Traverse City, Mich. Filed June 5, 1914. Serial No. 843,251. (Cl. 5—68.)



1. A bed spring comprising a frame, standards carried thereby, a spring fabric, means connected to the spring fabric and slidably mounted in the standards, and means for automatically actuating said last-named means to tighten the spring when weight is applied to the spring fabric.

2. In a bed spring, a frame, standards carried thereby and having inclined slots, a spring fabric, means connected to opposite ends of the spring fabric and slidably mounted in the slots, and means for automatically operating said last-named means to tighten the spring when weight is applied to the spring fabric.

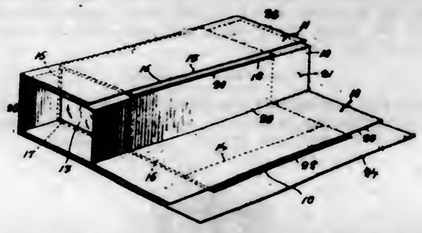
3. In a bed spring, a frame, slotted standards carried by the frame, rollers slidably and rotatably mounted in the standards, a spring fabric connected to the rollers, and means for automatically turning the rollers to tighten the spring when weight is applied to the fabric.

4. In a bed spring, a frame, standards carried by the frame and having inwardly inclined slots, rollers rotatably and slidably mounted in the slots, a spring fabric connected to the rollers and adapted to be wound thereon, said spring fabric holding the rollers in the upper end of the slots, said slots adapted to stretch the fabric when the rollers are depressed therein by weight upon the fabric, and means for winding the fabric on the rollers when weight is applied to the fabric.

5. In a bed spring, a frame, slotted standards mounted upon the frame, rollers slidably and rotatably mounted in the standards, spring fabric connected to the rollers, and levers operatively connected to the rollers and engaged with the frame for turning the rollers in the standards and winding fabric on said rollers when weight is applied to the fabric.

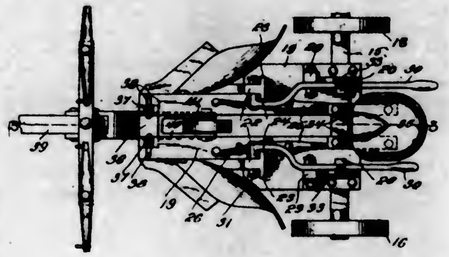
[Claim 6 not printed in the Gazette.]

1,135,878. PACKAGE. HENRY A. CHRISTENSEN, Chattanooga, Tenn., assignor to Mountain City Mill Co., Chattanooga, Tenn., a Corporation of Tennessee. Filed Sept. 5, 1914. Serial No. 860,360. (Cl. 229—87.)



A package for wrapping an article comprising an inner thin paraffined wrapper, an outer thin paraffined wrapper and an intermediate thick opaque wrapper, with an edge of the intermediate wrapper lying between adjacent edges of the inner and outer wrappers and the inner wrapper inclosing the article with the said intermediate wrapper encircling the article and of a width equivalent to the length of the article and not projecting beyond the edges thereof, the said outer wrapper having a portion constituting a sealing flap and projecting beyond adjacent edges of the inner and intermediate wrappers, with the outer wrapper inclosing the article and the inner and intermediate wrappers.

1,135,879. PLOW. FLORAMAN T. CHURCHILL, East Peacham, Vt. Filed Feb. 7, 1914. Serial No. 817,225. (Cl. 97—27.)



1. In a device of the class described, an axle having guideways, slides movable laterally therein lengthwise of the axle, and plow carrying beams associated with the slides.

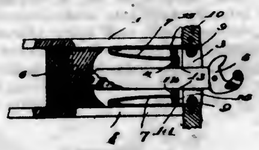
2. In a device of the class described, a wheel carrying axle having longitudinal guideways, slides adjustable in said ways, forwardly extending beams connected with the slides and supported on top of the axle, said beams being provided with slots, and plow carrying standards guided for vertical adjustment in said slots.

3. In a device of the class described, a wheel carrying axle, a forwardly extending beam connected therewith and having a T-slot, and a plow carrying standard guided in said slot and having laterally extending flanges engaging the wide portion thereof, one of said flanges being interrupted at the lower end of the standard, the latter constituting the landside of the plow.

1,135,880. DRAW-BAR ATTACHMENT. ERNEST P. CLARK, Morriston, Fla. Filed Sept. 11, 1914. Serial No. 861,259. (Cl. 213—42.)

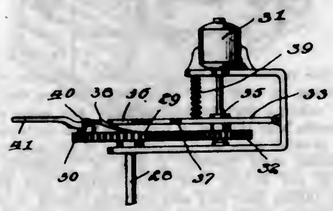
1. A draw bar attachment for railway cars having spaced center sills, U-shaped springs secured to the sills on opposite sides of the draw bar, lateral ears formed on one leg of the U-shaped springs, and rollers journaled in said lateral ears and arranged to engage the draw bar.

2. A draw bar attachment for railway cars having spaced center sills, U-shaped spring secured to the sills on opposite sides of the draw bar, lateral ears formed on one leg of the U-shaped springs, rollers journaled in said lateral ears and arranged to engage the draw bar, and auxiliary springs arranged between the legs of the U-shaped springs.



3. In a draw bar attachment for cars having spaced center sills and a draw bar carry iron, U-shaped springs arranged between the center sills and the draw bar on opposite sides of the latter, lateral ears on one leg of each spring for connecting said spring to one of the sills, an eye formed on the same leg of said springs, means engaged with the carry iron and with the eyes for securing the springs to the carry iron, auxiliary springs arranged between the legs of the U-shaped springs, and rollers journaled in the terminal of the other leg of said springs and arranged to engage upon opposite sides of the draw bar.

1,135,881. TRAIN-STOPPING APPARATUS. CHARLES C. COX, Pulaski, Va., assignor of one-half to Franklin M. Thompson, Pulaski, Va. Filed May 26, 1914. Serial No. 841,113. (Cl. 246—58.)



1. In apparatus of the class described, the combination with the throttle valve lever and quadrant plate of a steam locomotive, of an arm movable over said quadrant plate and adapted to unlock and swing said throttle valve lever to valve closing position, a motor for operating said arm, mechanism holding said motor normally in driving engagement with said arm, and means operable to render said mechanism inactive succeeding the movement of said arm to valve closing position.

2. In apparatus of the class described, the combination with the throttle valve lever and quadrant plate of a steam locomotive, of an arm movable over said quadrant plate and adapted to unlock and swing said throttle valve lever to valve closing position, a motor for operating said arm, mechanism holding said motor normally in driving engagement with said arm, and means operable from said arm to render said mechanism inactive succeeding the movement of said lever to valve closing position.

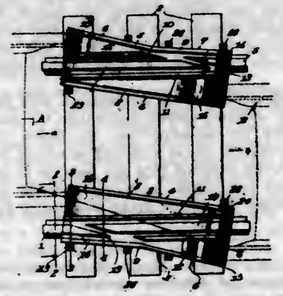
3. In apparatus of the class described, the combination with the throttle valve lever and quadrant plate of a steam locomotive, of an arm movable over said quadrant plate and having the outer end thereof beveled and formed with a lug, a lug on the latching dog of said lever disposed in the path of movement of the beveled end and lug on said arm, and means for swinging said arm whereby the beveled end thereof will engage the lug on said dog and disengage the latter from the quadrant in the initial movement of the arm and the lug on the arm engage the lug on the dog in the continued movement of the arm to swing the lever to valve closing position.

4. In apparatus of the class described, the combination with the throttle valve lever and quadrant plate of a steam locomotive, of an arm movable over said quadrant plate and having the outer end thereof beveled and formed with a lug, a lug on the latching dog of said lever disposed in the path of movement of the beveled end and lug on said arm, means for swinging said arm whereby the beveled end thereof will engage the lug on said dog and disengage the latter from the quadrant in the initial movement of the arm and the lug on the arm engage the lug on the dog in the continued movement of the arm to swing the lever to valve closing position, and means for disconnecting said arm from the operating means thereof succeeding the closing of the throttle valve.

5. In apparatus of the class described, the combination with the throttle valve lever and quadrant plate of a steam locomotive, of an arm movable over said quadrant plate and having the outer end thereof beveled and formed with a lug, a lug on the latching dog of said lever disposed in the path of movement of the beveled end and lug on said arm, means for swinging said arm whereby the beveled end thereof will engage the lug on said dog and disengage the latter from the quadrant in the initial movement of the arm and the lug on the arm engage the lug on the dog in the continued movement of the arm to swing the lever to valve closing position, and means operable from said arm to disconnect the same from the driving means thereof succeeding the closing of the throttle valve.

[Claim 6 not printed in the Gazette.]

1,135,882. CAR-REPLACER. ALLEN DUVAL, Bastrop, Tex., assignor of one-fifth to H. B. Combs, one-fifth to J. E. Olive, and one-fifth to Paul D. Page, Bastrop county, Tex. Filed Aug. 18, 1914. Serial No. 857,394. (Cl. 104—163.)



1. A re-railing frog comprising a substantially rectangular member having an arched top, the said top being formed with a tread portion which is elevated thereabove and which is of a width equaling the thickness of a rail, and means for securing the frog upon a rail to sustain its tread above but in alinement with the rail.

2. A re-railing frog comprising a substantially rectangular member having an arched top and its sides provided with flanges projecting above the top, the said top being provided with a diagonally disposed tread member which projects above the tie, and means for securing the frog to a rail to sustain the tread member thereof in alinement with the rail.

3. A re-railing frog comprising a substantially rectangular block, said block having an arched top, the sides of the block being formed with flanges which project above its top, a tread member formed on the top and arranged diagonally thereof, and said tread member having an angularly disposed depression arranged adjacent one of its ends.

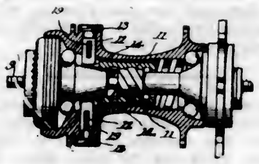
4. A re-railing frog comprising a substantially rectangular member, one of the sides of which being arranged at a right angle to its ends and the top of said member

being arched, the second side having inwardly inclined portions which are provided with flanges that project above the top, the said top having a diagonally disposed elevated tread and the said trend having a depressed portion arranged parallel with one of the angular flanges of said angular side.

5. A re-railing frog comprising a substantially rectangular hollow member having an arched top, one of the sides of the frog having arranged at a right angle to the ends thereof, the second side of the frog extending inwardly from the opposite ends thereof, both of the sides being provided with flanges which extend above the top, the frog having its upper face formed with a diagonally disposed tread which is elevated above the said top, ribs arranged upon the top and spaced from but extending parallel with the tread, said tread and one of the ribs being provided with a depression which is arranged in a line with one of the angular portions of one of the sides of the frog.

[Claims 6 and 7 not printed in the Gazette.]

1,135,883. COASTER-BRAKE. ABRAHAM ELKIN, Brooklyn, N. Y. Filed Aug. 27, 1913. Serial No. 786,971. (Cl. 208—57.)



1. In the coaster-brake the combination with the barrel and the pedal operated clutch mechanism for operatively connecting and for disconnecting the barrel with the pedals; of means arranged on the barrel and adapted for positively locking the clutch mechanism and the barrel together whereby to render the coaster-brake inoperative as such.

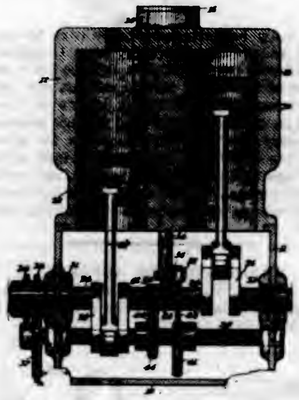
2. In the coaster-brake the combination with the barrel and the pedal operated clutch mechanism for operatively connecting and for disconnecting the barrel with the pedals; of detachable means arranged on one of the parts, and adapted when adjusted into one position to positively lock the barrel and clutch mechanism one to the other whereby to render the coaster-brake inoperative as such.

1,135,884. GAS-ENGINE. HARRY B. EMBLER, New York, N. Y., assignor of fifty-one one-hundredths to David Kraus, New York, N. Y. Filed Jan. 19, 1915. Serial No. 3,005. (Cl. 123—59.)

1. A gas engine comprising a plurality of cylinders, each having an inlet port on one side adjacent one end thereof and an exhaust port in substantially the same plane on the opposite side thereof, a piston in each cylinder, a set of intake valves lying parallel with said cylinder and having a common intake port and other ports making communication with each cylinder and a set of exhaust valves also lying parallel with said cylinder and having a common exhaust port and other exhaust ports making communication from the said cylinders.

2. A gas engine comprising a plurality of cylinders, each having an inlet port on one side, adjacent one end thereof and an exhaust port in substantially the same plane on the opposite side thereof, a piston in each cylinder, a set of intake valves lying parallel with said cylinders and having a common intake port and other ports making communication with each cylinder, and a set of exhaust valves also lying parallel with said cylinders and having a common exhaust port and other exhaust ports making communication from the said cylinders, all of said ports being disposed in substantially the same plane, and means for actuating the said sets of intake and exhaust valves.

3. A gas engine comprising a plurality of cylinders, each having an inlet port in one side at one end thereof and an exhaust port in substantially the same plane in the other side thereof, a piston in each cylinder, a drive shaft, a connection between each piston and the drive shaft, a set of concentric intake valves lying parallel with said cylinders and having a common intake port and ports therein to each cylinder, a set of concentric exhaust valves also lying parallel with said cylinders and having a common exhaust port and ports therein from each cylinder, valve shafts, connections between the said set of intake valves and one valve shaft, connections between the said set of exhaust valves and the other valve shaft, and means for turning the said valve shafts from the said drive shaft.



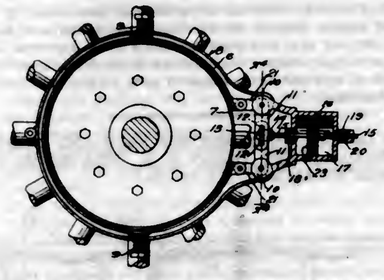
4. A gas engine comprising a pair of adjacent cylinders each having an inlet port in one side at one end thereof and an exhaust port in substantially the same plane in the opposite side thereof, a piston in each cylinder, valve casings parallel with an intermediate of the said cylinders on opposite sides thereof, a pair of concentric intake valves in one of the said valve casings, and having a common intake port and sets of intake ports to said cylinders, and a pair of concentric exhaust valves in the other valve casing and having a common exhaust port through the said valve casing and sets of ports making communication from the said cylinders through the aforesaid exhaust ports therein in substantially the same means, and means for actuating said pairs of intake and exhaust valves.

5. A gas engine comprising a pair of adjacently placed cylinders, each having an inlet port in one side at one end thereof and an exhaust port in substantially the same plane on the opposite side thereof, a piston in each cylinder, a drive shaft, connections between the said pistons and drive shaft, a pair of concentric intake valves lying parallel with said cylinders and having a common intake port and sets of ports making communication with the said cylinders respectively through the said intake ports therein, a pair of concentric exhaust valves lying parallel with said cylinders and having a common exhaust port and sets of ports making communication from the said cylinders through the aforesaid exhaust ports therein, valve shafts, connections between the said pair of intake valves and one valve shaft, connections between the said pair of exhaust valves and the other valve shaft, and means for turning the said valve shafts from the said drive shaft.

[Claims 6 to 8 not printed in the Gazette.]

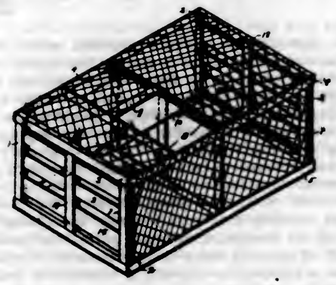
1,135,885. BRAKE. FRANK FAWVER, Los Angeles, Cal. Filed Oct. 7, 1913. Serial No. 793,975. (Cl. 188—8.)

In combination, a brake-drum, a housing enveloping the brake-drum, a brake band between the housing and the drum, a piston chamber attached to the housing, bent levers between the piston chamber and housing pivoted at their bends to the housing and each connected at one end to an end of the brake band, a piston in the piston chamber extending radially with respect to the drum and



connected to the other ends of the bent levers respectively, and means to supply compressed fluid to the piston chamber.

1,135,886. COOP. CHARLES W. FERGUSON, Houston, Tex. Filed July 9, 1914. Serial No. 849,944. (Cl. 119—17.)

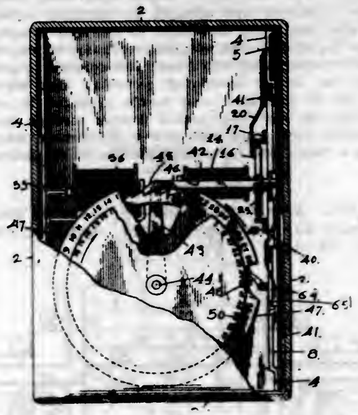


In a housing device for animals, suitable corner posts and cross slats forming the side walls thereof, one of the cross slats of one wall being vertically movable, stops carried by the corresponding corner posts against which the respective ends of the movable slat engage for restricting its movement in one direction and flexible hooks secured to the inner sides of said corner posts and engaging with said movable slat and holding it against said stops, said hooks being capable of disengagement from said slat so as to permit its vertical movement.

1,135,887. CALL-REGISTERING DEVICE FOR TELEPHONES. ERNEST FERRAN and FRANCIS D. TWEEDDALE, San Francisco, Cal. Filed Mar. 16, 1914. Serial No. 825,406. (Cl. 235—92.)

1. In a call registering device for telephones, the combination with a token collecting box and the mechanism therefor, of a frame having a suitable slot therein arranged to receive a suitable token; an armature pivotally mounted upon the frame and insulated therefrom; pins secure to the said armature and projecting into the slot within the frame, one of the said pins being insulated from the armature; means operatively connected to the armature and arranged to display successive numerals when the said armature is attracted by either coils.

2. In a call registering device for telephones, the combination with a token collecting box and the mechanism therefor, of a frame having a token slot with a refund portion and a collecting portion therein; an armature pivotally mounted upon the frame and insulated therefrom; a pin secured to each end of the armature and projecting into the slot within the frame, one of the said pins being insulated from the said armature; suitable coils arranged to attract the armature and to withdraw one of the pins; and registering means operatively connected to the said armature and arranged to register each movement of the said armature.



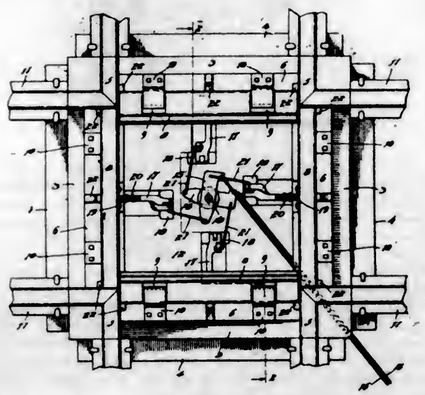
3. In a call registering device for telephones, the combination with a token collecting box and the mechanism therefor, of a frame having a token slot with a refund portion and a collecting portion therein; an armature pivotally mounted upon the frame and insulated therefrom; a pin secured to each end of the armature and projecting into the slot within the frame, one of the said pins being insulated from the said armature; suitable coils arranged to attract either end of the armature and to withdraw one of the pins thereon; registering means operatively connected to one end of the said armature and arranged to register each movement of the said armature; and means for registering the passage of a token through the refund portion of the token slot.

4. In a call registering device for telephones, the combination with a token collecting box and the mechanism therefor, of a frame having a token slot with a refund portion and a collecting portion therein; a centrally pivoted armature mounted upon the frame and insulated therefrom; a pin secured to each end of the armature and projecting into the slot within the frame, one of the said pins being insulated from the said armature and arranged to release a token into the refund portion of the slot, the other pin being arranged to release a token into the collecting portion of the said slot; a disk rotatably mounted on the frame and having numerals successively arranged near the periphery thereof; a second disk rotatably mounted within the first mentioned disk and having successive numerals arranged near the periphery thereof; suitable coils arranged to attract one end of the armature and the pin thereon and release a token into the collecting portion of the token slot and partially rotate the first mentioned disk when a current is passed through the said coils in one direction and to withdraw the insulated pin and release a token into the refund portion of the token slot and to partially rotate the first mentioned disk when a current is passed through the coils in the opposite direction; and a coil arranged to be electrically connected with the current flowing through the first mentioned coils, by the passage of a token through the refund portion of the slot, and to partially rotate the second mentioned disk.

5. In a call registering device for telephones, the combination with a token collecting box and the mechanism therefor, of a frame having a token slot with a refund portion and a collecting portion therein; a centrally pivoted armature mounted on the frame and insulated therefrom; a pin secured to each end of the armature and projecting into the slot within the frame, one of the said pins being insulated from the armature; suitable coils arranged to attract one end of the armature when a cur-

rent is passed through the said coils in one direction and to attract the other end of the said armature when the said current is reversed; a registering disk rotatably mounted upon the frame; means operatively connected to the armature and adapted to partially rotate the said disk with each movement of the said armature; a second registering disk rotatably mounted to the frame; a coil secured within the frame and adapted to partially rotate the second mentioned recording disk when the said coil is energized; and means arranged to connect the said coil with the current flowing through the first mentioned coils when that pin is withdrawn which releases a token into the refund portion of the token slot.

1,135,888. RAILWAY-CROSSING. JOHN V. FOGERTY, Chicago, Ill. Filed May 23, 1914. Serial No. 840,523. (Cl. 104—116.)



1. A railway crossing comprising a base; rail corner portions rigidly secured to said base; two pairs of parallel rail sections pivoted to said base between said corner portions for movement about horizontal axes; and means for rocking one pair of said rail sections between the other pair thereof and locking the latter against inward rocking, substantially as described.

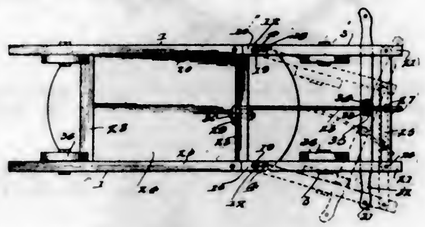
2. A railway crossing comprising a base; rail corner portions rigidly secured to said base; two pairs of rail sections pivoted to said base between said corner portions; stops on said base limiting the swinging of the rail sections in each pair thereof away from each other; and means for rocking the rail sections of each pair thereof between the rails of the other pair of such sections and locking the latter against rocking, substantially as described.

3. A railway crossing comprising a base having recesses therein; rail corner portions at the ends of said recesses; rail sections having substantially semi-cylindrical lower edges mounted in said recesses; hinged members secured to said base and engaging said rail sections pivotally securing the latter to said base; and means for rocking said rail sections on their pivotal joints, substantially as described.

4. A railway crossing comprising a base; rail corner portions secured to said base; two pairs of rail sections pivoted to said base and mounted between said corner portions; a vertical post positioned centrally between said rail sections; two levers pivoted on said post; a bent lever pivoted to said base adjacent each of said rail sections and having one end thereof operatively connected with such rail section; a connecting link connecting the other end of each bent lever with one end of one of said first mentioned levers thereby connecting each of the latter with one pair of said rail sections; and an operating rod connected with each of said first mentioned levers and adapted, through their connecting mechaniam, to swing its corresponding pair of rail sections on their pivotal points to inoperative condition and lock the other pair of said rail sections in operative condition, substantially as described.

5. A railway crossing comprising a base made up of a rigid square frame; rail sections mounted in said frame, the ends of said rail portions being flush with the outer edges of said frame; and railway rails abutting said rail portions and the outer edges of said frame, substantially as described.

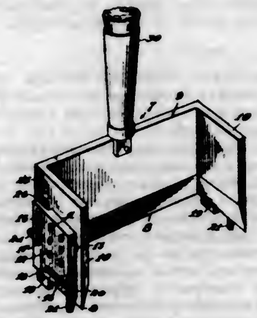
1,135,889. CONVERTIBLE SLED AND COASTER. WILLIAM H. FOX, Yonkers, N. Y. Filed July 31, 1914. Serial No. 854,326. (Cl. 21—94.)



1. A sled having runners provided with pivotally mounted steering members, a spacing bar having its ends pivotally connected to the front portions of said steering members, a spring connected to said steering members, and acting to normally hold them in line with the runners and a steering bar extending across and bearing on the steering members attached at its center directly to the spring and adapted to be used to flex the spring to turn the steering members in any direction desired.

2. A sled having runners provided with pivotally mounted steering members, a guide bar pivotally connected to the steering members, a spring bar attached to the body of the sled and slidably connected to said guide bar and a steering bar extending across and bearing on the steering members attached at its center directly to the spring bar and adapted to be used to flex the spring bar and cause the steering members to be turned as desired.

1,135,890. RECESS-CUTTING TOOL. TENNYSON I. GIBSON, Los Angeles, Cal. Filed Oct. 20, 1913. Serial No. 796,199. (Cl. 145—26.)



1. In a recess cutting tool, the combination with a U-shaped body member, of a pair of plates mounted on the outer faces of the side portions of the body member, vertically slidable members carried by said plates with their lower ends normally projecting below the cutting edges of the side members having projecting portions extending beyond the rear vertical edge of the side members, means for limiting the downward movement of the slidable members, and adjustable means for limiting the upward movement of the slidable members.

2. In a recess cutting tool, the combination with a U-shaped body member, of a pair of plates mounted on the outer faces of the side portions of the body member, vertically slidable members carried by said plates with their lower ends normally projecting below the cutting edges of the side members having projecting portions extending beyond the rear vertical edge of the side members, means for limiting the downward movement of the slidable members, adjustable means for limiting the upward movement of the slidable members, and means for permitting adjustment of the plates diagonally on the side side members and securing them against movement in relation thereto.

3. In a recess cutting tool, having a front wall and side walls on the ends thereof disposed at right angles thereto, a pair of diagonally adjustable plates mounted on the exterior faces of the side walls, gage members reciprocally mounted on said plate normally gravitated to their lowermost position with their lower ends projecting below the lower edges of the side walls, means for limiting the downward movement of said members, and adjustable means for limiting the upward movement of said members, and projections on said members adapted to be engaged by the body being channeled during the cutting operation to shift the gage members in relation to the plates and end walls.

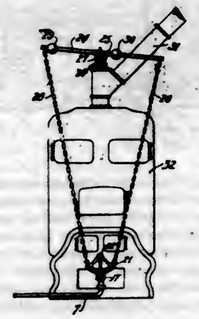
4. In a recess cutting tool having a front wall and side walls projecting therefrom at right angles thereto, a pair of plates mounted for diagonal adjustment on the outer faces of the side walls having vertically extending channels on their inner faces and slots opening to said channels, gage members slidably mounted in said channels, screws passing through said slots and engaging said gage members to limit the downward movement of the latter so that their lower ends will normally extend below the lower edges of the side walls, projections on said gage members extending beyond the outer face of the front wall adapted to be engaged by the edge of the material being recessed on the advance movement of the front wall thereinto to cause a movement of the gage members in relation to the tool as the latter is advanced, and adjustable means for limiting the movement of the gage members to regulate the depth of the cut made by the tool.

5. In a recess cutting tool having a front wall and side walls projecting therefrom at right angles thereto, a pair of plates mounted for diagonal adjustment on the outer faces of the side walls having vertically extending channels on their inner faces and slots opening to said channels, gage members slidably mounted in said channels, screws passing through said slots and engaging said gage members to limit the downward movement of the latter so that their lower ends will normally extend below the lower edges of the side walls, projections on said gage members extending beyond the outer face of the front wall adapted to be engaged by the edge of the material being recessed on the advance movement of the front wall thereinto to cause a movement of the gage members in relation to the tool as the latter is advanced, and adjustable means for limiting the movement of the gage member to regulate the depth of the cut made by the tool, said means comprising pins adapted to be inserted in any one of a number of openings in the side walls.

1,135,891. AUTOMATIC CONTROL FOR BURNER-VALVES. CHARLES W. GOULD, Los Angeles, Cal. Filed Jan. 14, 1914. Serial No. 812,004. (Cl. 236—6.)

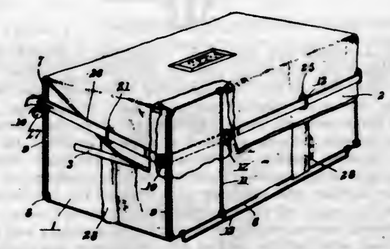
1. In an automatic control for burner valves, the combination with a needle valve stem of a hand-wheel on said stem a pinion revolubly mounted on the stem, means for detachably connecting the pinion to the hand-wheel on the stem, a toothed segment meshing with said pinion, and thermostatic controlled means operating on said segment for automatically rotating the valve stem.

2. In a device for automatically operating needle valves, the combination with a needle valve stem of a pinion revolubly mounted on said valve stem, a hand wheel on said valve stem turnable therewith, and slidably longitudinally thereon, means for detachably connecting the hand wheel to the pinion, a toothed segment meshing with said pinion, and thermostatic controlled means for rocking the segment to revolve the valve stem through the hand wheel.



3. In a thermostatic control for needle valves, a pivoted toothed segment, a pinion engaged by said segment, a valve stem on which said pinion is revolubly mounted, a hand wheel slidably mounted on the valve stem and revoluble therewith, means for connecting the pinion to the hand wheel whereby rotation of the pinion will rotate the valve stem, said means adapted to be disengaged to permit manual operation of the valve stem independent of the pinion, means for locking the hand wheel and pinion in engagement with each other, and thermostatic controlled means for rocking the segment to rotate the valve stem through the hand wheel and pinion.

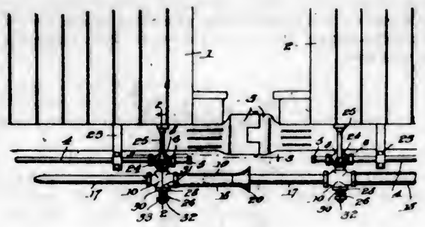
1,135,892. KNOCKDOWN MAIL-CONTAINER. LOUIS F. GROSENBECK, Poughkeepsie, N. Y. Filed May 19, 1914. Serial No. 839,557. (Cl. 150—49.)



1. In combination with a flexible receptacle having a flap provided with openings, a frame comprising front and rear sections and end sections hingedly connected therewith the said sections being provided with loops adapted to pass through the openings and a securing device passing through the loops

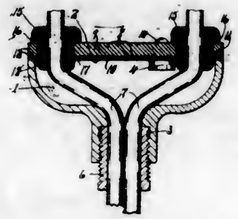
2. In combination with a flexible receptacle having a flap, a frame comprising front and rear sections and end sections hingedly connected thereto the said frame having loops, the receptacle having openings through which the loops may pass, a securing device adapted to pass through the loops, the end sections of the frame consisting of members hingedly connected together one of the said members having hook extremities provided with bumps adapted to frictionally engage the other of the said end members.

1,135,893. PIPE-COUPLING. WILLIAM H. HALLER, Cumberland, Md., assignor of one-third to Perry A. Nicklin, Cumberland, Md. Filed Dec. 31, 1913. Serial No. 809,694. (Cl. 188—13.)



In combination, conductor elements arranged to be secured to the cars to be connected and adapted to carry a source of energy, angular controlling members having one leg pivoted in the conductor elements, coupler elements pivoted for horizontal movement upon the other leg of said angular controlling members, and means for holding the controlling members and the coupling elements in operative coupling position, said means arranged to permit relative lateral and vertical movement between the cars and to hold the coupling elements in inactive position when necessary thereby cutting off the source of energy to the coupling elements.

1,135,894. BRANCH BOX. MORTON HAVENS, Jr., Albany, N. Y. Filed May 20, 1911. Serial No. 628,408. (Cl. 247—12.)



1. A branch box for wires comprising a hollow body formed with a passage and an open side, a closure for the open side of the body including outer and inner members, the outer member having a pair of openings and the inner member having slots alined with the openings and opening through edges of such inner member, the inner member resting on the margin of the body around the open side, bushings inserted in the openings of the outer member and provided with grooves for interlocking with the edges of the inner member along the slots, and fastening means extending through both members and into the box, substantially as and for the purpose described.

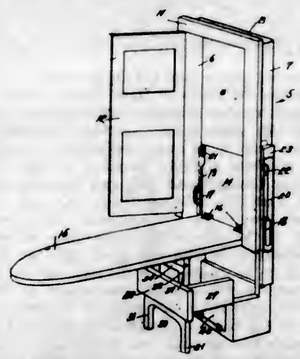
2. A branch box for wires comprising a hollow body formed with a passage and an open side, a closure for the open side of the body, said closure including outer and inner members, the outer member having a pair of perforations and the inner member having a pair of slots alined with the perforations and formed of less width than the same, one slot extending through one of the side edges of the inner member and the other slot opening through the opposite side edge thereof, each slot being arranged concentric with the axis of the perforations alined with the other slot, and bushings inserted in the perforations and having grooves arranged to receive the edges of the walls of the slots, substantially as and for the purpose specified.

3. A branch box for wires comprising a hollow body formed with a passage and an open side, a closure for the open side of the body, said closure including outer and inner members, the outer member having a pair of perforations and the inner member having a pair of slots alined with the perforations and formed of less width than the same, one slot extending through one of the side edges of the inner member and the other slot opening through the opposite side edge thereof, each slot being arranged concentric with the axis of the perforation alined with the other slot, bushings inserted in the perforations and having grooves arranged to receive the edges of the walls of the slots, and fastening means extending through the members of the closure and into the box, substantially as and for the purpose set forth.

4. A cover member for an outlet box comprising a plate having a pair of openings extending therethrough, bushings inserted in said openings, and a second plate having slots corresponding in position to the openings in the first plate and having walls for engaging the bushings, the second plate being designed to turn on one of said bushings as a pivot in being engaged with and disengaged from the other bushing, substantially as and for the purpose described.

5. The combination with an outlet box having a passageway leading thereinto and having an open side, of means for closing the open side of said box and providing for the passage of wires therefrom in spaced relation, comprising two plates having their opposing faces in contact, the outermost of the plates having spaced apart openings extending therethrough, a bushing located in each of said openings, the other plate having slots alining with the openings in the first-named plate, the mouths of the slots opening out through opposite edges of the second plate, and said plates having screw receiving openings, and screws passing through said openings and engaging the body of the box for retaining the two plates against relative movement and for connecting the same to the box, substantially as and for the purpose specified.

1,135,895. FOLDABLE IRONING-BOARD. ISOM P. HAWORTH, Los Angeles, Cal. Filed Oct. 19, 1914. Serial No. 867,364. (Cl. 68—10.)



1. In a folding ironing board, the combination of a cabinet, a reciprocal panel therein normally disposed in its lowermost position, counterweights connected to said panel, an ironing board hinged to said panel to swing downwardly to a horizontal position, a stop for limiting the upward movement of the panel, and means engageable with the ironing board remote from the stop coöperating with said stop, whereby the board may be maintained in a horizontal position.

2. A folding ironing board, comprising a cabinet, a vertically reciprocal panel therein, a counterweight attached to said panel, a stop for limiting the upward movement of the panel, an ironing board hinged to said panel to swing in and out of the cabinet, a hinged panel on said cabinet beneath the ironing board, and means on said panel adapted to engage the ironing board when said panel is in its horizontal position engageable with the ironing board coöperating with the stop to support the ironing board in its horizontal position.

3. A folding ironing board, comprising a cabinet, a vertically reciprocal panel therein, a counterweight attached to said panel, a stop for limiting the upward movement of the panel, an ironing board hinged to said panel to swing in and out of the cabinet, a hinged panel on said cabinet beneath the ironing board, means for supporting said hinged panel in a horizontal position, a member on said panel adapted to engage the ironing board and coöperate with the stop to support the ironing board in a horizontal position, and a filler block adapted to be interchangeably mounted on said member and said reciprocal panel, whereby the ironing board may be adjusted at different levels.

1,135,896. WRENCH. FRANKLIN S. HAY, Elton, Wis. Filed Feb. 4, 1914. Serial No. 816,411. (Cl. 81—130.)



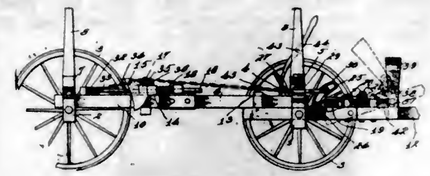
1. In a wrench, a stationary jaw provided with a channeled shank, the side walls of the channel having their edges formed of transverse teeth, a movable jaw including a head and a carriage arranged upon the shank, said carriage having teeth which co-act with the teeth of the shank, a member upon the carriage arranged within the channel, a helical spring connected with the said member, adjustable means arranged upon the head of the stationary jaw and connected with the spring and adapted to regulate the tension of the spring, a cam lock upon the carriage of the movable jaw adapted to co-act with the stem of the stationary jaw to hold the movable jaw against movement.

2. A wrench including a head having a shank which is channeled throughout its entire length, the sides provided by the channel being formed with teeth, a handle made up of two sections secured to the shank and closing the channel thereof, a longitudinally disposed spring member having an enlarged end arranged between the opposite walls of the channel and secured thereto, the said member having a finger projecting through an opening in one of the side walls of the channel and one of the members of the handle, said spring being further provided with a stud which extends through an opening in one of the side walls of the channel, a movable jaw including a carriage mounted upon the shank, one of the said members of the carriage having an opening adapted to receive the stud of the spring when the carriage is arranged adjacent the handle, and a spring within the channel and secured between the stationary head and the carriage of the movable jaw for sliding the movable jaw toward the head.

3. A wrench including a stationary jaw having a shank and a handle connected with the shank, the said shank being provided with teeth, a movable jaw upon the shank, said movable jaw including a shank which is provided with teeth which co-act with the teeth of the shank, spring means for sliding the head of the movable jaw toward the head of the stationary jaw, and means arranged within the handle and co-acting with the carriage of the movable jaw for locking the said jaw, and means arranged upon the carriage and co-acting with the handle for elevating the carriage to bring the teeth of the said carriage out of engagement with the teeth of the shank when the carriage is moved into locking position.

1,135,897. VEHICLE-BRAKE. EDWARD HAYS, Muldrow, Okla. Filed Mar. 27, 1912. Serial No. 686,574. Renewed May 2, 1914. Serial No. 835,988. (Cl. 21—9.)

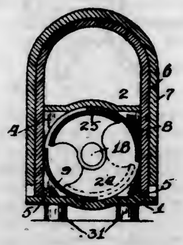
1. In a vehicle brake, a mechanism operable automatically to apply the brake upon the cessation of the draft, and means operable to release the brake in the rearward movement of the vehicle under the action of the draft animals, including a weighted lever connected to the first-named mechanism and adapted to operate upon the rising of the tongue in the backing of the vehicle.



2. In a vehicle brake, a mechanism operable automatically to apply the brake upon the cessation of the draft, and means operable automatically to release the brake in the rearward movement of the vehicle under the action of the draft animals, said last-named means including a weighted lever connected to the first mechanism and adapted to operate the same in the raising of the vehicle tongue to relieve the vehicle wheels of the influence of the brake, and a coupling between said mechanism and said means comprising relatively movable members adapted to accommodate the relative positions of the mechanism and means.

3. In a vehicle brake, the combination with the running gear, of a brake beam slidable relatively to said running gear and equipped with brake shoes, a lever fulcrumed at one side of the longitudinal center line of the running gear and extending to the opposite side of such center line, a sliding rod having one extremity pivotally connected to said lever between the ends of the latter, said rod being also connected to said brake beam, a spring encircling said rod and acting to hold said brake beam in braking position, a bar mounted for sliding movement upon the vehicle tongue and adapted to be moved under the action of the draft animal, a second lever pivoted to said brake beam, a connection between said sliding bar and the last-named lever, and a connection between the last-named lever and the first-named lever whereby in the movement of said sliding bar motion will be transmitted to the first-named lever to slide the brake beam against the action of the spring and to non-braking position.

1,135,898. MAGNETO-ELECTRICAL GENERATOR. ALEXANDER L. HEIZER, Anderson, Ind., assignor to Vesta Accumulator Company, a Corporation of Illinois. Filed Apr. 22, 1909. Serial No. 491,420. (Cl. 171—209.)

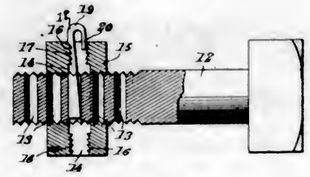


1. A magneto electrical generator including a solid frame open at the ends and partially open at the sides with upwardly projecting ribs on the base of the frame on each side, pole pieces insertable in said frame, and magnets overlaping the frame and resting upon the base and against said ribs.

2. In a magneto, a frame comprising integral bottom and end walls, said end walls apertured, a top wall integral with the end walls, and of less width than the bottom wall, said bottom and top wall concaved, ribs integral with the bottom wall having their outer sides in alinement

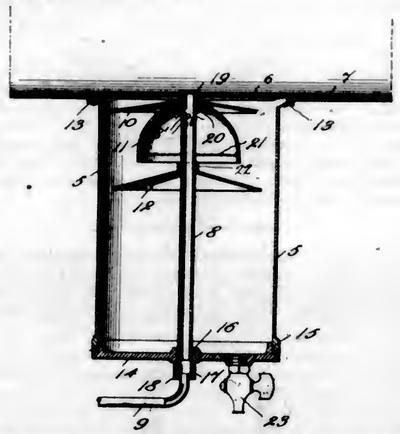
with the edges of the top wall, and permanent magnets having parallel sides to fit tightly against the edges of the top wall and against the outside of the ribs.

1,135,899. NUT-LOCK. DOCK HILL, Rome, Ga. Filed Jan. 17, 1912, Serial No. 671,629. Renewed Sept. 2, 1914. Serial No. 859,903. (Cl. 151—5.)



A nut lock comprising a bolt, a nut adjustable thereon and provided with an opening, the walls of the opening having a toothed portion, a key extending through the opening and adapted for locking engagement with the bolt, the said key having a movable toothed portion adapted for engagement with the toothed portion of the opening in the nut, and foldable means on the key removably extended into the opening in the nut and adapted to hold the toothed portion of the key positively engaged with the toothed portion of the nut.

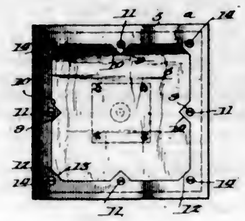
1,135,900. GASOLENE-TANK ATTACHMENT. EDWIN B. HUGHSON, Branch, N. Y. Filed May 19, 1914. Serial No. 839,601. (Cl. 210—16.)



The combination with a tank having an opening at the lower portion thereof, of a cup arranged to register with the opening and secured to the tank, the said cup including a body and a detachable end portion carried by the body, a discharge pipe carried by the end portion and located within the body, and provided with openings in the vicinity of its upper end, a series of deflectors carried by the discharge pipe at the upper portion thereof, one of said deflectors closing the upper end of the pipe, another of said deflectors being secured to the pipe above the openings therein, and a screen carried by the last mentioned deflector and connected with the pipe below the opening therein.

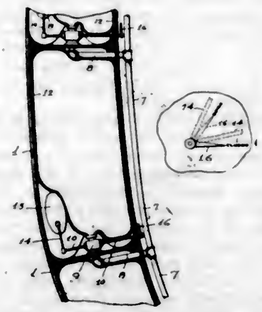
1,135,901. PLASTERER'S TOOL. WILLIAM R. HUNTER, Cleveland, Ohio. Filed June 27, 1911. Serial No. 635,612. (Cl. 72—136.)

A plasterer's hawk comprising a substantially rectangular plate, the plate being formed of wood, said plate being formed with a mortise extending around all of its side, whereby to form a tenon, said tenon having its corners beveled and being formed intermediate the ends of its edges with a substantially V-shaped notch, a metal setting being of an equal thickness with said tenon and adapted to snugly fit said mortise, said setting being formed with a mortise providing a shoulder adapted to bear against



the outer edges of said plates, said setting having its inner corners beveled to be in contact with the beveled corners of said tenon, and V-shaped projections formed integrally upon the inner edges of said setting and arranged to fit into said V-shaped notches.

1,135,902. AUTOMATIC COMPARTMENT-INFLATER FOR SHIPS. JOSEPH B. KASSER and MORRIS KASSER, San Francisco, Cal. Filed June 8, 1914. Serial No. 843,894. (Cl. 114—68.)



1. An automatic compartment inflater comprising a compressed air pipe connected to the compartment; a bag secured within the compartment and to the pipe; and means secured to the pipe and adapted to automatically cause compressed air from the pipe to inflate the bag when the said compartment is flooded.

2. An automatic compartment inflater comprising a compressed air pipe connected to the compartment; a valve secured to the end of the compressed air pipe; a bag secured within the compartment and to the valve on the compressed air pipe; and means adapted to be operated by water within the compartment and to open the valve and inflate the bag in the said compartment.

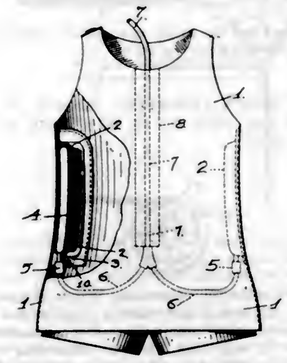
3. An automatic compartment inflater comprising a compressed air pipe connected with the compartment; a valve secured to the end of the compressed air pipe; a bag secured to the valve; and means adapted to be operated by the entrance of water within the compartment for the purpose of inflating the bag from the compressed air pipe.

4. An automatic compartment inflater comprising a compressed air pipe connected with the compartment; a valve secured to the end of the compressed air pipe; a bag secured to the valve; means adapted to be operated by the entrance of water within the compartment for the purpose of inflating the bag from the compressed air pipe; and means for indicating that the bag within the compartment is being inflated.

5. An automatic compartment inflater comprising a compressed air pipe connected with the compartment; a valve secured to the end of the compressed air pipe; a bag secured to the valve; means adapted to be operated by the entrance of water within the compartment for the purpose of inflating the bag from the compressed air pipe; and means secured to the valve and adapted to indicate that the said valve is open.

[Claims 6 and 7 not printed in the Gazette.]

1,135,903. BATHING-SUIT. MORRIS KASSER and JOSEPH B. KASSER, San Francisco, Cal. Original application filed June 8, 1914, Serial No. 843,893. Divided and this application filed Oct. 13, 1914. Serial No. 866,865. (Cl. 9—20.)



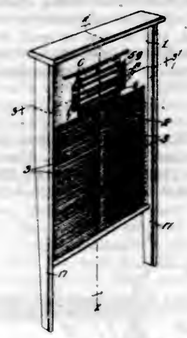
1. A bathing suit having inner inverted pockets on each side and a central inner channel in the front thereof; an inflatable bag detachably secured within each pocket; a tube extending from the top of the garment through the central channel and to each bag; and a suitable valve in each bag adapted to normally retain the air therein.

2. A bathing suit having inner inverted pockets on each side and a central inner channel in the front thereof; an inflatable bag detachably secured within each pocket; a tube extending from the top of the garment through the central channel and to each bag; a suitable valve in each bag adapted to normally retain the air therein; and means adapted to retain the bags within the pockets.

3. A bathing suit having inner inverted pockets in each side and a central channel in the front thereof; an inflatable bag detachably secured within each pocket; a tube extending from the top of the garment through the central channel and to each bag; a suitable valve within each bag adapted to normally retain the air therein; and suitable clasp buttons adapted to secure the lower sides of the pockets and to retain the bags therein.

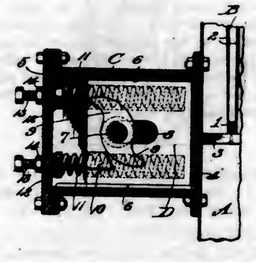
1,135,904. SELF-SOAPING WASHBOARD. WILLIAM J. KENNEDY, Greenville, Tex. Filed May 24, 1912. Serial No. 699,454. (Cl. 68—29.)

In a wash board, in combination with the body portion thereof, said body portion being formed with a substantially rectangular opening, the housing arranged to fit snugly into said opening, flanges formed upon each of the sides of said housing, and being inset in said body portion so as to be flush therewith, a wire extending over the effective surface of two of said flanges, eyes carried at the ends of said wire, securing elements fastened through said eyes and securing said flanges to said body portion, a plurality of wires bridging the open end of said housing, terminal eyes formed upon said last mentioned wires overlying the remaining flanges, and securing elements



fastened through said last mentioned eyes and securing the remaining flanges to said body portion.

1,135,905. JARRING DEVICE FOR DUST-COLLECTORS. HENRY LECHTENBERG, Quincy, Ill., assignor to W. T. Lechtenberg. Filed Apr. 29, 1914. Serial No. 835,120. (Cl. 83—47.)



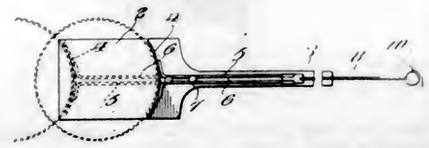
1. A jarring device comprising a casing having an opening at one end and a spring seat near its opposite end, the said casing being provided with guides for the reception of a hammer block, a hammer block arranged within said casing and slidably fitted to said guides, said hammer block being interposed between said spring seat and said opening, a spring interposed between an end of said hammer block and said spring seat, a rotatable drive shaft extending through said casing, and a cam on said drive shaft arranged alongside of said hammer block and located directly between said hammer block and a side wall of said casing, said hammer block being provided with a lug extending from one of its side faces toward the last mentioned side wall of said casing and located in the path of said cam.

2. A jarring device comprising a casing having an opening at one end for the reception of a shaker bar and provided with guides for the reception of a hammer block, a slotted hammer block arranged within said casing and fitted to the opposing walls thereof, said hammer block being slidably fitted to said guides, a rotatable drive shaft extending into said casing and passing through the slot in said hammer block, a cam on said drive shaft arranged alongside of said hammer block, the hammer block being provided with a lateral projection adapted to be engaged by said cam, and a spring for sliding said hammer block toward said opening.

3. A jarring device comprising a casing having an opening for the reception of a shaker bar, a hammer block fitted to opposing walls of said casing, said hammer block being provided with a pair of spring pockets, a pair of compression springs arranged in said spring pockets tending to force said hammer block toward said opening,

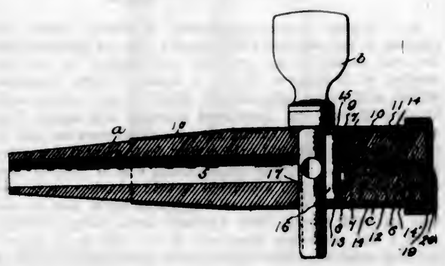
screws extending into said casing, spring caps located at the inner ends of said screws and fitted to the outer ends of said springs, said screws being operable from the exterior of said casing, a rotatable drive shaft extending into said casing, and a cam on said drive shaft located alongside said hammer block, the said hammer block provided with a lateral projection adapted to be engaged by said cam.

1,135,906. PEEL. JAMES G. LUDWIG, Millersville, Pa., assignor of one-half to Josiah J. Markle, Hanover, Pa. Filed Feb. 10, 1912. Serial No. 676,729. Renewed Jan. 12, 1915. Serial No. 1,884. (Cl. 107—67.)



In combination with a peel comprising a blade and a handle lying in a common plane, a movable ejector or pusher element arranged for movement on the blade and toward and from the outer end thereof and provided with an elastic arm having a longitudinal slot, studs projecting from the upper side of the peel arranged in the slot and having heads bearing on the upper side of the said arm, the pusher being thereby arranged for longitudinal movement on the peel guided by the slot and studs and held by the elastic arm on the upper side of the peel, an operating rod connected to the arm and extending outwardly from the end of the handle, and guides on the handle for the operating rod.

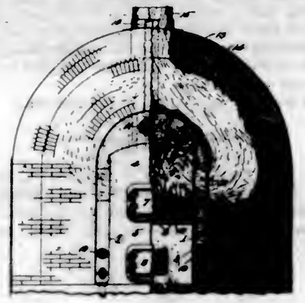
1,135,907. FAUCET. HENRY LUFT, New York, N. Y. Filed Jan. 14, 1914. Serial No. 812,089. Renewed Feb. 16, 1915. Serial No. 8,616. (Cl. 137—7.)



A faucet comprising a shank portion and a cock, a roller vertically mounted in the shank and adapted to bear against the cock, a ball positioned within the shank, a spring causing the ball to bear the roller against the cock, a casing surrounding the faucet, and a cap for securing the casing in position.

1,135,908. STEAM-BOILER. PATRICK MCLOON, Glencoe, Mo., assignor of one-half to Philip J. Dauernheim, St. Louis, Mo. Filed Jan. 22, 1912. Serial No. 672,738. (Cl. 122—135.)

In combination with a furnace setting having a centrally located stack opening in its top, a boiler extending throughout the length of the setting and spaced therefrom at its sides and top and comprising an arch and water legs constructed as a unit, each of the water legs having openings at intervals therethrough, placing the fire zone of the boiler in communication with both sides of



the space between the boiler and setting, substantially as shown and for the purposes stated.

1,135,909. SHOCK-ABSORBER. MICHAEL E. MALLOY, Pasadena, Cal. Filed Feb. 18, 1914. Serial No. 819,400. (Cl. 21—105.)



1. A shock absorber, comprising a pair of spaced disks, a pivot pin connecting said disks, a ring on said pivot pin intermediate the disk, radial webs on the diametrically opposite sides of said ring, an arm connecting with said webs, arms on said disks adapted to be connected together at their outer ends, a pair of spaced friction disks on the opposite sides of the ring, and members interposed between and connected to said friction disks on opposite sides of the ring spaced from the sides of the webs, whereby the arm connecting with the webs may have a limited movement relative to the arms on the disks without operating the friction disks.

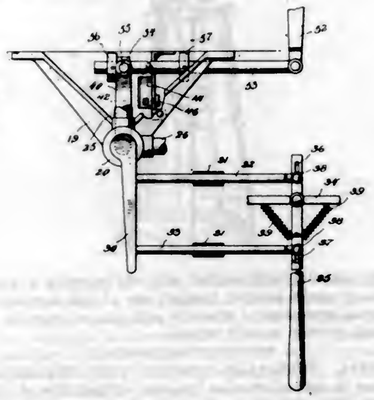
2. A shock absorber, comprising a pair of spaced disks, connected arms on said disks, a pivot pin extending between said disks axially thereof, a ring on said pivot pin intermediate said disks, a pair of connected friction disks on the opposite sides of said ring, webs extending from the diametrically opposite sides of said ring between the friction disks, and plates attached to said friction disks intermediate thereof on the opposite sides of the ring arranged with their ends spaced from the sides of the webs, whereby said ring and webs may have a limited movement without engaging said plates.

3. A shock absorber, comprising a pair of spaced disks, connected arms attached to said disks, a pivot pin extending axially through said disks, a ring loosely mounted on said pivot pin intermediate said disks, webs on said ring extending on the diametrically opposite sides thereof, an arm connected to said webs, a pair of friction disks extending on opposite sides of the ring, complementary friction disks interposed between said friction disks and the arm carrying disk, and plates interposed between and connected to the first-named friction disks arranged on the diametrically opposite sides of the ring with their ends spaced from the webs, whereby a limited movement of the webs and rings may be had without effecting an engagement therebetween.

4. A shock absorber comprising, a pair of spaced disks, a pivot pin connecting said disks, a ring on said pivot pin intermediate the disks, a web on said ring, an arm connecting with said web, arms on said disks, a pair of friction disks arranged on opposite sides of the ring, and members interposed between and connected to said friction disks and spaced from the sides of the web, whereby

the arm connecting with the web may have a limited movement relative to the arms on the disks without operating the friction disks.

1,135,910. TRAIN-STOPPING APPARATUS. GIRARD GRANVILLE NAUGLE, York, Pa. Filed May 26, 1914. Serial No. 841,123. (Cl. 246—59.)



1. In train stopping apparatus, a motor adapted to cut off the propelling power of the train, a source of supply for said motor, means controlling communication between said motor and source, and means for actuating said first means to establish communication between said motor and source, said last means comprising horizontal rods movable in relatively opposite directions simultaneously, a lever fulcrumed between its ends, and connections between said rods and lever at the opposite sides of the fulcrum thereof.

2. In train stopping apparatus, a motor adapted to cut off the propelling power of the train, a source of supply for said motor, means controlling communication between said motor and source, and means for actuating said first means to establish communication between said motor and source, said last means comprising horizontal rods movable in relatively opposite directions simultaneously, a lever fulcrumed between its ends, connections between said rods and lever at the opposite sides of the fulcrum thereof, a latch for holding said first means in actuated position, and means for operating said latch to release said first means.

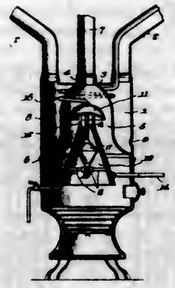
3. In train stopping apparatus, a fluid motor adapted to cut off the propelling power of the car, a source of supply for said motor, a valve controlling communication between said motor and source, a handle depending from said valve, horizontal rods disposed one above the other and movable in relatively opposite directions simultaneously, said rods being disposed upon one side of said handle and each having one end in engagement with the adjacent edge of the handle, a lever fulcrumed between its ends and capable of swinging movement, and connections between the free ends of said rods and said lever at the opposite sides of the fulcrum of the latter whereby when the lever is swung in one direction or the other the rods will be actuated to open said valve.

4. In train stopping apparatus, a fluid motor adapted to cut off the propelling power of the car, a source of supply for said motor, a valve controlling communication between said motor and source, a handle depending from said valve, horizontal rods disposed one above the other and movable in relatively opposite directions simultaneously, said rods being disposed upon one side of said handle and each having one end in engagement with the adjacent edge of the handle, a lever fulcrumed between its ends and capable of swinging movement, connections between the free ends of said rods and said lever at the opposite sides of the fulcrum of the latter whereby when the lever is swung in one direction or the other the rods will be actuated to open said valve, and means for restoring said lever to normal position and adapted to maintain the same in such position.

5. In train stopping apparatus, a fluid motor adapted to cut off the propelling power of the car, a source of supply for said motor, a valve controlling communication between said motor and source, a handle depending from said valve, horizontal rods disposed one above the other and movable in relatively opposite directions simultaneously, said rods being disposed upon one side of said handle and each having one end in engagement with the adjacent edge of the handle, a lever fulcrumed between its ends and capable of swinging movement, connections between the free ends of said rods and said lever at the opposite side of the fulcrum of the latter whereby when the lever is swung in one direction or the other the rods will be actuated to open said valve, and springs for restoring said lever to normal position and maintaining the same in such position.

[Claim 6 not printed in the Gazette.]

1,135,911. COMBINED WATER AND AIR HEATER. JAMES S. NICHOLS, Atlanta, Ga. Filed Sept. 5, 1914. Serial No. 860,373. (Cl. 126—101.)



1. A heater comprising a body formed with a fire chamber near its bottom and also having outlet flues rising from its top at diametrically opposite points thereof, a dome located interiorly of the body in the upper portion thereof to provide a hot air chamber between the said dome and the body, a smoke flue rising centrally from the dome through the top of the body, a conical shaped drum with the body above the fire chamber and extended for a distance within the dome, a hollow hood above the smaller end of the drum and having depending pipes communicating therewith, a water pipe communicating with the drum, means for admitting air to the chamber and a coiled feed pipe disposed concentrically about the dome and having one end centrally connected to the hood and also having said pipe extended through one of the outlet flues.

2. A heater comprising a body formed with a fire chamber near its bottom and also having outlet flues rising from its top at diametrically opposite points thereof, a dome located interiorly of the body in the upper portion thereof to provide a hot air chamber between the said dome and the body, a smoke flue rising centrally from the dome through the top of the body, a conical shaped drum within the body above the fire chamber and extended for a distance within the dome, a hollow hood above the smaller end of the drum and having depending pipes communicating therewith, a water pipe communicating with the drum, means for admitting air to the chamber, a coiled feed pipe disposed concentrically about the dome and having one end centrally connected to the hood and also having said pipe extended through one of the outlet flues, a hollow spider located within the drum and having its arms tapped therein, and a hollow core connected centrally to the spider and having communication with the hood.

3. A heater comprising a body formed with a fire cham-

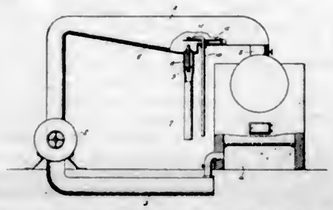
ber near its bottom and also having outlet flues rising from its top at diametrically opposite points thereof, a dome located interiorly of the body in the upper portion thereof to provide a hot air chamber between the said dome and the body, a smoke flue rising centrally from the dome through the top of the body, a conical shaped drum within the body above the fire chamber and extended for a distance within the dome, a hollow hood above the smaller end of the drum and having depending pipes communicating therewith, a water pipe communicating with the drum, a coiled feed pipe disposed concentrically about the dome and having one end centrally connected to the hood and also having said pipe extended through one of the outlet flues, a hollow spider located within the drum and having its arms tapped therein, and a hollow core connected centrally to the spider and having communication with the hood, the said body being formed with an air inlet for the admission of air about the dome.

1,135,912. CONVERTIBLE SAW. JAMES M. NUGENT, East Quogue, N. Y., assignor of one-half to Frederick Seeber, New York, N. Y. Filed Mar. 24, 1914. Serial No. 826,992. (Cl. 33—93.)



A tool having a blade provided with an arcuate slot, a gage comprising plate portions arranged on opposite sides of the blade, means extending into the slot from the gage for guiding the same along the slot, a screw-threaded pin spaced from said guarding means and passed through the slot and gage, and thumb nuts on the opposite ends of said pin for clamping the gage to the blade at either side thereof.

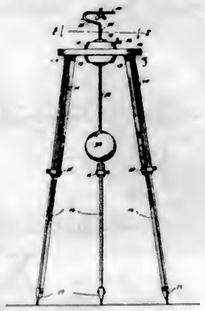
1,135,913. SMOKE AND GAS RETURNING MEANS. JAMES MONTFORD NYE, Kansas City, Kans. Filed June 2, 1914. Serial No. 842,429. (Cl. 110—49.)



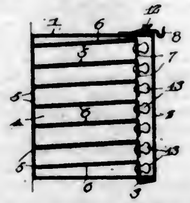
The combination with a furnace embodying a combustion chamber, stack, and ash pit, of means for returning smoke and other products of combustion to the furnace, comprising a flue having a portion thereof depressed to form a trap, means in the length of the flue for creating a positive draft therethrough, a spray pipe for injecting water into the flue, a downwardly extending water outlet pipe connected with the lowest part of the trap, a tube located in the upper part of said pipe and extending vertically upward above the top of said pipe to receive the carbon dioxid which is carried off with the water through said pipe, and a horizontal separator plate arranged within the flue and having a portion thereof overhanging the trap and interposed between the discharge end of the spray pipe and the receiving ends of said tube and water outlet pipe for dividing the carbon dioxid from the lighter products.

1,135,914. AUTOMATIC LEVELING DEVICE FOR TRIPODS. ALBERT H. OLESBERG, Bawlf, Canada. Filed Feb. 7, 1913. Serial No. 746,910. (Cl. 248—47.)

In a device of the character described, a tripod, vertical, adjustable means supporting said tripod, a sectional bearing carried thereby, said bearing having races provided upon its inner face, said races receiving bearing balls, a ball-shaped supporting element carried by said bearing, a flange projecting upwardly from said element, a rod depending from said element, said rod being arranged diametrically opposite said bracket, said rod carrying a weight, and a set screw passing through one of said sections and engaging said element whereby said element may be held in rigid relation to said tripod.

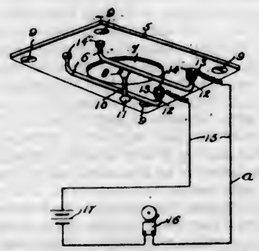


1,135,915. SIGNALING DEVICE FOR TRADESMEN. OTTO J. ORSER, Gordon, Canada. Filed Nov. 8, 1913. Serial No. 800,005. (Cl. 40—28.)



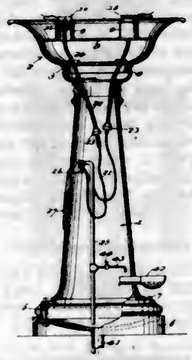
In combination with a casing having interior and exterior supporting means, of signal plates adapted to be supported by said means, each of said plates being provided with a body portion having indicia thereon and a right angularly disposed flange having indicia thereon agreeing with the indicia on the body portion, said flange adapted to throw the center of gravity of the plate to one side of a vertical line when in display position.

1,135,916. FIRE-ALARM. JAMES H. OWEN, Newburgh, N. Y. Filed Mar. 20, 1914. Serial No. 826,086. (Cl. 177—308.)



A circuit closer comprising a support, metallic arms mounted on the support and insulated one from the other, a stud attached to the support and disposed between the arms and transversely thereof, a plate slidably mounted on the stud between the arms and the support and being greater in diameter than the space between the arms, and fusible material applied to the stud and holding the plate spaced from the arms.

1,135,917. SANITARY DRINKING-FOUNTAIN. FREDERICK G. PARTINGTON, Spokane, Wash. Filed Oct. 14, 1913. Serial No. 795,083. (Cl. 137—109.)



1. In a sanitary drinking fountain, the combination, with a stand, and a bowl mounted thereon and provided with a hollow, upstanding projection, of a liftable drinking cup adapted to normally rest upon said projection and provided with depending inner and outer concentric necks, the latter of which is adapted to fit in the upper end of said projection, a nozzle fitted in the inner neck, a flexible water supply pipe connected to said nozzle, and a cut-off valve associated with said nozzle for controlling the passage of water therethrough.

2. In a sanitary drinking fountain, the combination of a support provided at its upper end with a seat, a liftable drinking cup adapted to normally rest upon said support and provided with depending, concentric inner and outer necks, the latter of which is adapted to fit in said seat, a nozzle fitted in the inner neck, a flexible water supply pipe connected to said nozzle, and a cut-off valve associated with said nozzle for controlling the passage of water therethrough.

3. In a sanitary drinking fountain, the combination of a hollow support provided at its upper end with a seat, a liftable drinking cup adapted to normally rest upon said support and provided with depending, concentric inner and outer necks, the latter of which is adapted to fit in said seat, a nozzle fitted in the inner neck, a flexible water supply pipe extending through said support and into said inner neck and attached to said nozzle, and a cut-off valve associated with said nozzle for controlling the passage of water therethrough.

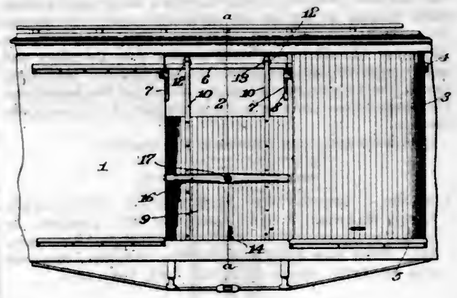
4. In a sanitary drinking fountain the combination of a support provided at its upper end with a seat, a liftable drinking cup adapted to normally rest upon said support and provided with depending inner and outer concentric necks, the latter of which is adapted to fit in said seat, a nozzle fitted in the inner neck, a flexible water supply pipe connected to said nozzle, and means carried by said cup for controlling the passage of water through said nozzle.

5. In a sanitary drinking fountain, the combination with a support, of a liftable drinking cup adapted to normally rest thereon, the bottom of said cup being provided with a bubble nozzle through which water is adapted to flow during drinking, when the cup is lifted, a flexible water supply pipe connected with said nozzle, and a valve engaged with said nozzle for controlling the passage of water therethrough.

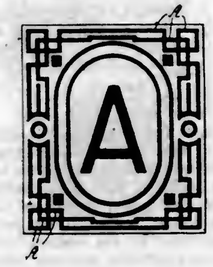
[Claims 6 to 8 not printed in the Gazette.]

1,135,918. GRAIN-DOOR FOR RAILWAYS. ANDREW R. PETERSON, Clarkfield, Minn., assignor of one-half to Alfred Hulteen, Clarkfield, Minn. Filed July 29, 1914. Serial No. 853,913. (Cl. 20—31.)

In combination with a car wall having a door opening, a track rail in the upper portion of the door opening and having depending arms at its ends, said depending arms being at their lower ends pivotally mounted, in opposite sides of the door opening on horizontal pivots, so that said track rail may be shifted laterally into and out of the door opening, a grain door having hangers engaging and slidable on said shiftable track and means to secure the grain door in closed position in the opening.



1,135,919. PROCESS OF FORGERY DETECTION. HERBERT MORRIS PILKINGTON, Arverne, N. Y., assignor, by mesne assignments, to Lithotex Corporation, New York, N. Y., a Corporation of New York. Filed Mar. 5, 1913. Serial No. 752,233. (Cl. 88—14.)



1. The improved process of detecting forged prints, engravings and the like, which consists in making a copy of the original photographically through a lens, making a copy of the supposed forgery or the like photographically through a lens, and then comparing by projecting by means of a lens, the image of one copy upon the other copy of the same size thereas.

2. The improved process of detecting forged prints, engravings and the like, which consists in making a copy of the original photographically through a lens, making a copy of the supposed forgery or the like photographically through the same lens, and then comparing by projecting by means of the same lens, the image of one copy upon the other copy and of the same size thereas.

3. The improved process of detecting forged prints, engravings and the like, which consists in making a copy of the original photographically through a lens, making a copy of the supposed forgery or the like photographically through the same lens, both of said copies being transparent, and then comparing by superimposing by means of the same lens, the image of one copy upon the other and of the same size thereas.

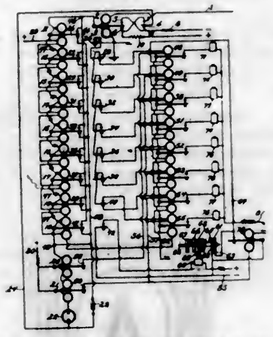
4. The improved process of detecting forged prints, engravings and the like, which consists in making a copy of the original photographically through a lens upon a plate which will not warp or stretch, making a copy of the supposed forgery or the like photographically through the same lens upon a plate which will not warp or stretch, one of said copies being transparent and one smaller than the other, and then comparing the two by projecting by

means of the same lens, the image of one copy onto the other and of the same size thereas.

5. The improved process of detecting forged prints, engravings and the like, which consists in making a copy of the original photographically though a lens, upon a glass plate, making a copy of the supposed forgery or the like photographically through the same lens upon a glass plate, one of said copies being smaller than the other and one a positive and the other a negative, and then comparing the two by projecting by means of the same lens, the image of one copy onto the other and of the same size thereas.

[Claims 6 and 7 not printed in the Gazette.]

1,135,920. SELECTIVE ELECTRICAL SIGNALING. LOUIS MAXWELL POTTS, Baltimore, Md., assignor, by mesne assignments, to Austin McLanahan, Baltimore, Md. Filed May 7, 1910, Serial No. 559,968. Renewed Feb. 19, 1915. Serial No. 9,416. (Cl. 178—33.)



1. Selective signaling apparatus comprising, in combination, means to send groups of signal impulses over a line, receiving relays responsive to all the impulses in each signal group, a series of auxiliary switches operated by said relays, receiving means responsive only to selected impulses of said groups, and a series of local circuits each of which is controlled by the conjoint action of one of said first relays and auxiliary switches with said receiving means.

2. Selective signaling apparatus, comprising, in combination, means to send groups of signal impulses over a line, of receiving relays responsive to all the impulses in each signal group, and slow acting receiving relays responsive only to selected prolonged impulses of said groups, a series of local circuits each of which is controlled by the conjoint action of said first relays with said slow acting relays, and a plurality of translating devices operated respectively by said circuits.

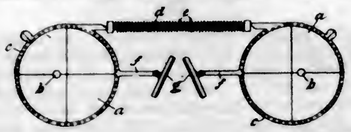
3. Selective signaling apparatus comprising, in combination, means to send groups of signal impulses over a line, a main line relay responsive to all the impulses of each group, local receiving relays responsive to all the impulses of each signal group, and local receiving relays responsive only to selected impulses of said groups, a series of local circuits each of which is controlled by the conjoint action of said first named local relays and said second named local relays, and a selecting relay operated by each of said circuits.

4. Selective signaling apparatus, comprising a plurality of electro-magnets, a plurality of local circuits on which the respective magnets are operated, electrical contacts in each of said circuits, electrical contacts common respectively to separate sets of said circuits, means responsive to a plurality of received electrical impulses for each signal to operate all of the first mentioned contacts to partially close the operating circuits of all of said magnets, and means responsive to a given one or combination of received selected electrical impulses only, and adapted thereby to complete the operating circuit of those only of said magnets which correspond to that one or combination of signaling impulses selected.

5. Selective signaling apparatus, comprising a plurality of selecting relays, a plurality of local circuits each of which includes a magnet coil of one of said selecting relays, electrical contacts in each of said circuits, electrical contacts connected respectively in alternate one's of said circuits, means responsive to a plurality of received electrical impulses for each signal to operate all of the first mentioned contacts to partially close the operating circuits of all of said selecting relays, and means responsive to a given one or combination of received electrical impulses and adapted thereby to complete the operating circuit of those only of said selecting relays which correspond to that one or combination of signaling impulses selected.

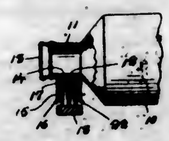
[Claims 6 to 11 not printed in the Gazette.]

1,135,921. OPTICAL INSTRUMENT FOR USE IN PLAYING THE GAME OF GOLF OR LIKE BALL GAMES. CHARLES THEOPHILUS RAMSAY, Liverpool, England. Filed Feb. 19, 1915. Serial No. 9,384. (Cl. 88—1.)



An optical instrument for the purpose described, comprising a framework, circularly adjustable opaque disks carried thereby, each disk having in it a small hole or transparent area, disposed eccentrically in it or on it for the purpose described.

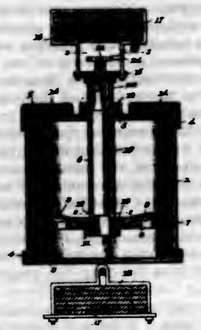
1,135,922. BRUSH-GUIDE FOR DENTIFRICE-CONTAINERS. JOHN REBROVICH, Pittsburgh, Pa. Filed Dec. 13, 1913. Serial No. 806,585. (Cl. 221—64.)



The combination, with a dentifrice container having a neck provided with an opening, of a revoluble closure for the neck, said closure having an opening adapted to register with the opening in the neck, and a U-shaped member formed of a single piece of material and rigidly secured to the side of the closure to rotate therewith upon the neck and being horisontally disposed to extend laterally of said closure and spaced from the bottom of the container and by its formation including a bottom and sides, the bottom being provided with a transverse aperture adapted to register with the opening in the neck of the container and the opening in the neck of the closure, whereby the brush can be received between the sides to abut against the bottom and aline with the opening therein, said U-shaped member having its longitudinal edges flared in opposite directions to form a guide for the brush.

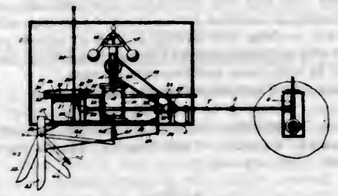
1,135,923. SHOCK-ABSORBER. FLOYD L. REYNOLDS, Middleton, Mich. Filed Mar. 17, 1914. Serial No. 825,295. (Cl. 21—105.)

A shock absorber comprising a cylinder provided with attaching means, a piston in said cylinder provided with a port, a tubular plunger having a port in its side and passing through said piston and one head of said cylinder and provided with attaching means and also having a reduced and threaded bore at its outer extremity, a check valve for the port in said piston, a valve consisting of a rod having its outer end portion reduced in diameter and threaded and extended through said reduced bore of the plunger, the inner extremity of said rod being adjustable across the side port of the plunger, a notched head on



one end of said valve, and a detent mounted on the attaching means of the plunger and adapted to engage and prevent said head from turning.

1,135,924. TRAIN CONTROL. JOHN L. RICHARDSON, Philadelphia, Pa. Filed Dec. 19, 1913. Serial No. 807,728. (Cl. 246—59.)



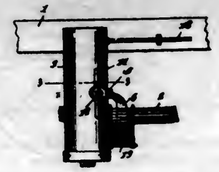
1. A train control mechanism including an operating valve for controlling the pressure of the train line, a cam for inducing a service operation of the valve, a shaft for operating the cam, train operated driving means for the shaft, a clutch between the shaft and driving means, a service lever for actuating the clutch, a track carried trip to actuate the service lever, a cylinder open to train line pressure, a piston within the cylinder, a connection between the piston and service lever whereby the latter may be thrown into a position to be engaged by said trip, and means controlled by the speed of the train for governing the admission of the train line pressure to the cylinder.

2. A train control mechanism including an operating valve for controlling the pressure of the train line, a cam for inducing a service operation of the valve, a shaft for operating the cam, train operated driving means for the shaft, a clutch between the shaft and driving means, a service lever for actuating the clutch, a track carried trip to actuate the service lever, a cylinder open to train line pressure, a piston within the cylinder, a connection between the piston and service lever whereby the latter may be thrown into a position to be engaged by said trip, and a governor actuated in the travel of the train for controlling the admission of the train line pressure to the cylinder.

3. A train control mechanism including an operating valve for controlling the pressure of the train line, a power cut-off, a cam for operating the valve, a shaft for operating the cam, train operated driving means for the shaft, a clutch between the shaft and driving means, a rod for simultaneously operating the clutch and cut-off, a resetting lever for the clutch, a service lever for operating the rod, and means controlled by the speed of the train for moving the resetting lever into operative position.

4. A train control mechanism including an operating valve for controlling the pressure of the train line, a cam for operating the valve, power means for the cam, a service lever controlling the application of the power means to the cam, a resetting lever for interrupting the application of the power means to the cam, and an emergency lever for controlling an application of the power means to the cam.

1,135,925. PNEUMATIC CUSHION AND SHOCK-ABSORBER. FRED R. F. RICHTER, Niverville, N. Y. Filed Feb. 13, 1913. Serial No. 748,207. (Cl. 21—105.)



In a shock absorber, the combination with a vehicle frame, of a spring, a cylinder having diametrically disposed longitudinal slots formed therein, a piston operative within said cylinder, an axle, a yoke having one end thereof secured to said axle and a portion thereof bridging over said spring and the opposite end thereof directly connected to said piston and an air supply pipe connected to said cylinder and carried by said vehicle frame.

1,135,926. PUSH-BUTTON. GORDON E. ROEDDING and EDWARD B. ROEDDING, Detroit, Mich. Filed Feb. 6, 1914. Serial No. 816,916. (Cl. 177—10.)



1. A push button comprising a casing, a plurality of sets of electrical contacts within said casing, and means shiftable radially of said casing for independently establishing electrical circuits through said contacts.

2. A push button comprising a casing, a plurality of independent sets of electrical contacts within said casing, a slide button adapted to be shifted radially of said casing to establish independent electrical circuits through said contacts, and means carried by said slide button and operatable independent thereof for establishing a circuit independent of the first mentioned circuits.

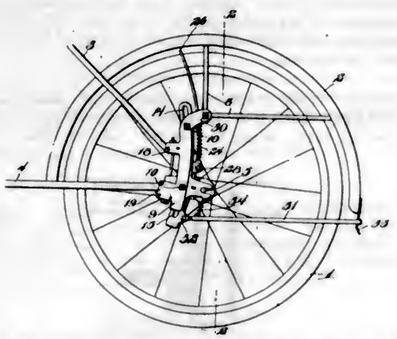
3. A push button comprising a casing, independent sets of contacts arranged within said casing around the center thereof, and a slide member shiftable radially of said casing to establish independent circuits through said contacts.

4. In a push button, the combination with a casing having axial means for establishing an electrical circuit, of a plurality of sets of contacts arranged within said casing, and meaus shiftable radially upon said casing for establishing independent circuits through said contacts independent of said axial means.

5. In a push button, the combination with a casing, and push button actuated contacts within said casing for completing an electrical circuit, of independent sets of contacts arranged within said casing, and means normally held in position to actuate said push button contacts and shiftable radially in said casing to actuate either set of contacts within said casing to complete an electrical circuit.

[Claims 6 to 12 not printed in the Gazette.]

1,135,927. MOTOR-CYCLE SPRING. CARL M. A. ROSENDAHL, Kindred, N. D. Filed May 22, 1914. Serial No. 840,321. (Cl. 208—94.)

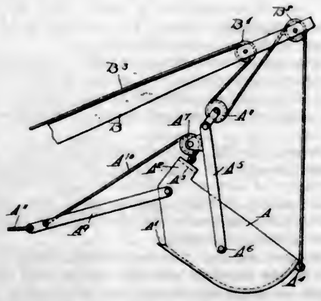


1. Rear spring construction for motorcycles, comprising upright curvilinear guides carried by the driving wheel axle at opposite sides of the driving wheel, yokes slidingly attached to opposite sides of each of said guides and having the rear fork arms and braces fastened thereto, and cushioning springs for supporting and resisting the up and down movements of said yokes relatively to said guides.

2. Rear spring construction for motorcycles, comprising upright curvilinear guides carried by the driving wheel axle at opposite sides of the driving wheel, yokes slidingly attached to opposite sides of each of said guides and having the rear fork arms and braces fastened thereto, an equalizing connection fastened to both guides and extending over the wheel, and cushioning springs for supporting and resisting the up and down movements of said yokes relatively to said guides.

3. Rear spring construction for motorcycles, comprising upright curvilinear guides carried by the driving wheel axle at opposite sides of the driving wheel, yokes slidingly attached to opposite sides of each of said guides and having the rear fork arms and braces fastened thereto, an equalizing connection fastened to both guides and extending over the wheel, and cushioning springs for supporting and resisting the up and down movements of said yokes relatively to said guides, certain of said springs being coiled around said equalizing connection.

1,135,928. DRAG-LINE EXCAVATOR. LAWRENCE ROYS, South Milwaukee, Wis., assignor to Bucyrus Company, South Milwaukee, Wis., a Corporation of Wisconsin. Filed May 3, 1913. Serial No. 765,230. (Cl. 37—54.)



1. In a drag line excavator the combination of an excavating bucket with a hoisting line having a downwardly depending loop and end, the latter attached near the rear of the bucket, a hoisting yoke attached near the middle of the bucket and having a movable connection with the loop of the line, a drag line having a loop attached near the forward end of the bucket and a connection between and movable on the two loops.

2. In a drag line excavator the combination of an excavating bucket with a hoisting line having a downwardly depending loop and end, the latter attached near the rear of the bucket, a hoisting yoke attached near the middle of the bucket, a sheave in the loop of the line attached to the end of the hoisting yoke, a drag line having a loop attached near the forward end of the bucket and a sheave in such loop attached to the yoke.

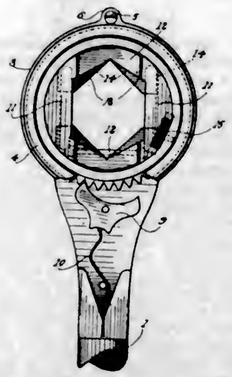
3. In a drag line excavator the combination of an excavating bucket with a hoisting line having a downwardly depending loop and end, the latter attached near the rear of the bucket, a hoisting yoke attached near the middle of the bucket and having a movable connection with the loop of the line, a drag line having a loop attached near the forward end of the bucket and a connection between and movable on the two loops, the drag line loop being formed in part of a bail from the drag line proper to the forward end of the bucket.

4. In a drag line excavator the combination of an excavating bucket with a hoisting line having a downwardly depending loop and end, the latter attached near the rear of the bucket, a hoisting yoke attached near the middle of the bucket, a sheave in the loop of the line attached to the end of the yoke, a drag line having a loop attached near the forward end of the bucket and a sheave in such loop attached to the yoke, the drag line loop being formed in part of a bail from the drag line proper to the forward end of the bucket.

5. In a drag line excavator the combination of an excavating bucket with a hoisting line having a downwardly depending loop and end, the latter attached near the rear of the bucket, a hoisting yoke attached near the middle of the bucket, a drag line having a loop attached near the forward end of the bucket and connections from the hoisting yoke to both loops and movable thereon.

[Claims 6 to 9 not printed in the Gazette.]

1,135,929. WRENCH. JOHN J. SANDS, Stanley, New Brunswick, Canada. Filed Dec. 8, 1913. Serial No. 805,273. (Cl. 81—63.)

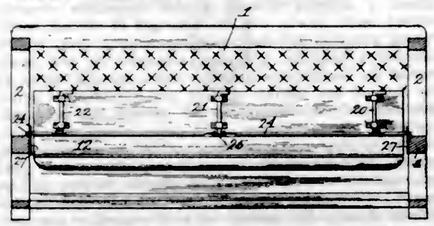


1. In a device of the character described; inwardly flanged rings, secured together; a ratchet ring mounted therebetween; means for revolving the rings in one direction, independently of the ratchet ring; means for revolving the ratchet ring; pieces secured at each side of the ratchet ring, at the top and bottom thereof; gripping blocks slidably mounted therebetween; and screw means for adjusting the gripping blocks.

2. In a device of the character described, inwardly flanged rings secured together in such a manner as to form an inner annular chamber; a handle; tapered pieces integral with said rings and secured to the inner end of said handle; a ratchet ring loosely mounted in the chamber between the said rings; a catch pivotally mounted between the said tapered pieces and adapted to engage the said ratchet ring; means for retaining said catch in engagement with the said ratchet ring; front and rear pieces secured on the front and rear of the said ratchet ring, the front ones of which are adapted to form the diametrically opposite sides of a hexagonal gripping form, and the rear ones of which are adapted to form the two opposite corners of a square gripping form; blocks slidably adjustable between the said front and rear pieces and adapted to coöperate with the said front pieces to form a hexagonal gripping form, and with the rear pieces to form a square gripping form; and means for adjusting said blocks.

3. In a device of the character described, adjusting means, comprising; slidably mounted blocks, screws threaded therein and having their ends oppositely threaded, the ends of the said screws being tapered and toothed, a rotatably mounted toothed wheel in mesh with one end of one of the screws, and a rotatably mounted spindle having one end in mesh with the other end of the same screw and the other end in mesh with one end of the other screw.

1,135,930. REVOLVING-SEAT DAVENPORT. WENDELIN P. SENG and JOSEF KALTCOK, Chicago, Ill., assignors to Julius Kramer, Chicago, Ill. Filed Aug. 15, 1910. Serial No. 577,269. (Cl. 5—50.)



1. In a device of the class described, the combination with a back and side members, of a seat pivotally connected to the side members, a folding bed-frame section pivoted to said seat, oppositely movable locking bolts secured to said seat, a link pivotally connecting the inner ends of said locking bolts, a rod rigidly secured to said link for operating the latter to project or retract said bolts with respect to said side members respectively, and rods connected to said locking bolts and having angled ends adapted to engage and bind together the sections of the bed-frame when folded, said rods being adapted to shift said bolts to locking or retracted position, and said side members and locking bolts being formed and arranged for mutual engagement when said bolts are projected for locking the seat.

2. A device of the class described comprising a stationary frame having side members, a seat pivotally connected to said side members, and a folding bed bottom carried on the reverse side of said seat, in combination with a locking bolt secured to said seat and movable outwardly to engage one of said side members, and a plurality of spaced rods disposed transversely of said seat and connected turnably to said locking bolt and having shouldered ends adapted to engage and lock together the sections of the bed bottom when folded, said rods being formed and adapted for shifting said bolt to locking or retracted position in releasing and locking the bed bottom respectively.

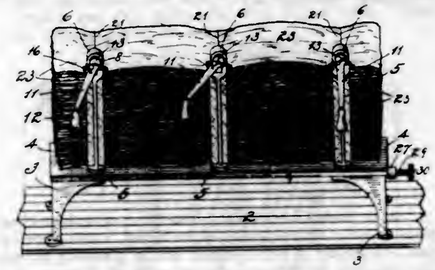
1,135,931. SACK-BALER. WILLIAM A. WEBSTER, Galesburg, Ill., assignor of one-half to John Hulse, Galesburg, Ill. Filed Aug. 18, 1914. Serial No. 857,392. (Cl. 100—31.)

1. In a baler, a table, and a plurality of wire-twisting and tightening devices mounted thereon, a portion of said devices arranged at right angles to each other.

2. In a device of the character described, a standard, a head pivoted thereon, and wire-twisting means working in said head.

3. In a device of the character described, a standard having ears at its upper end, a slotted ring-head pivoted between said ears, and a slotted wire-twisting hub rotatably mounted in said hub.

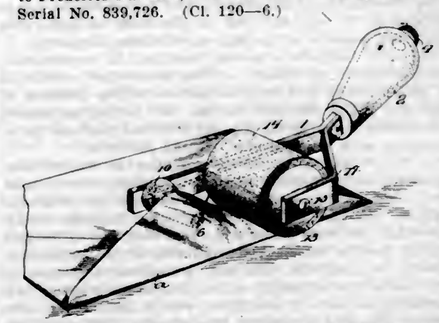
4. In a device of the character described, a standard having ears at its upper end, a slotted ring-head pivoted between said ears, and a slotted wire-twisting hub rotatably mounted in said head and removable therefrom.



5. In a device of the character described, a standard having ears at its upper end, a slotted ring-head pivoted between said ears and adapted to tilt from its normal vertical position to one side only, and a wire-twisting hub working in said head and removable therefrom.

[Claims 6 and 7 not printed in the Gazette.]

1,135,932. DEVICE FOR SEALING ENVELOPS. MICHAEL V. AHERN, Norfolk, Va., assignor of one-half to Frederick Dawkins, Norfolk, Va. Filed May 20, 1914. Serial No. 839,726. (Cl. 120—6.)



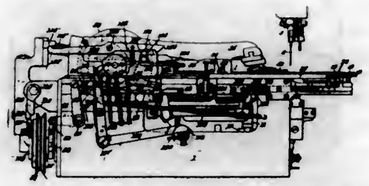
1. The combination of a support, a handle attached thereto and constituting a fluid reservoir, a cone shape wetting roller journaled near the forward end of the support, a follower or sealing roller, and a fluid supply connection between the reservoir and the wetting roller.

2. The combination with a support equipped with laterally projecting journals and with a handle constituting a fluid reservoir, a cone shape roller mounted on the forward journal and equipped with a wetting surface designed to moisten the flap, a weighted cylindrical roller mounted on the other journal and designed to compress the moistened flap and equipped with means for removing excess moisture, and a fluid supply connection intermediate the reservoir and wetting roller.

3. The combination with a support equipped with laterally projecting journals and with a handle constituting a fluid reservoir, a cone shape roller mounted on the forward journal and equipped with a wetting surface designed to moisten the flap, a weighted cylindrical roller mounted on the other journal and designed to compress the moistened flap and equipped with means for removing excess moisture, flap guiding and holding means intermediate the rollers, and a fluid supply connection intermediate the reservoir and the wetting roller.

4. The combination of a support equipped with laterally projecting journals and with a suitable handle, a hollow cone shape wetting roller mounted on the forward journal with its smaller diameter at the support end of the journal, a complemental compression or sealing roller mounted on the other journal, and means for supplying fluid to the wetting roller.

1,135,933. BUTTONHOLE CUTTING AND STITCHING MACHINE. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 30, 1913. Serial No. 776,505. (Cl. 112—4.)



1. In a buttonhole sewing machine, in combination, stitch-forming mechanism, a work-holder, cutting mechanism comprising a cutter-carrier and a plurality of cutting elements of different shapes mounted thereon, and feeding mechanism for producing between the stitch-forming mechanism and the work holder relative traveling or feeding movements and side-shift movements, and comprising adjustable means whereby the relative movements between the stitch-forming mechanism and the work-holder are caused to conform with the contours of said cutting elements.

2. In a buttonhole sewing machine, in combination, stitch-forming and feeding mechanisms, cutting mechanism comprising a cutter-carrier and interchangeable cutting elements mounted thereon, and feed-changing means adjustable to vary the feed of the work in conformity with the contours of the respective cutting elements.

3. In a buttonhole sewing machine, in combination, stitch-forming mechanism, cutting mechanism comprising a cutter-carrier and interchangeable cutting elements of different shapes mounted thereon, and feeding mechanism comprising an actuating member different positions corresponding with the respective cutting elements.

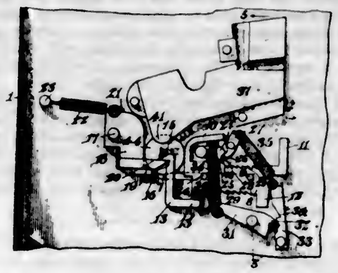
4. In a buttonhole sewing machine, in combination, overseam stitch-forming mechanism turning means therefor, a work-holder, and feeding mechanism for producing relative movements between the stitch-forming mechanism and the work-holder and comprising means for producing feeding movements lengthwise of the buttonhole, means for producing side-shift movements crosswise of the buttonhole, actuating means, and means whereby said actuating means are maintained wholly ineffective in producing side-shift movements throughout a complete stitching cycle.

5. In a buttonhole sewing machine, in combination, overseam stitch-forming mechanism, a work-holder, means connected with the stitch-forming mechanism and acting at intervals embracing a plurality of overseam-stitch forming cycles whereby the working position of the stitch-forming mechanism is shifted relatively to the work-holder from one to the other side of a median line parallel with the direction of feed, and feeding mechanism for producing feeding movements lengthwise of the buttonhole, means for producing side-shift movements crosswise of the buttonhole and including a laterally movable element, actuating means from which exclusively said side-shift movements are derived, and means carried by said element whereby it is caused to remain disconnected from its actuating means for interruption of the side-shift movements throughout a complete stitching cycle.

[Claims 6 to 11 not printed in the Gazette.]

1,135,934. COIN-CONTROLLED MECHANISM FOR VENDING APPARATUS. ORIN LORIN BRISTOL and ALBERT FRANK VORCE, Grand Rapids, Mich.; said Bristol assignor, by mesne assignments, to Sparta Mfg. Co., Grand Rapids, Mich. Filed July 15, 1914. Serial No. 851,147. (Cl. 194—55.)

1. In a coin controlled mechanism for vending machines, a reciprocable slidable member provided with accessible means for its manipulation, a separate oppositely acting locking means for the slidable member, holding means for the locking means arranged in the path of the slidable member at the ends of its travel for operation thereby, and another locking means for the slidable member active thereto in the absence of a proper coin and yieldable on the insertion of a proper coin to a manipulating force applied to the slidable member.



2. In a coin controlled mechanism for vending machines, a slidable member having oppositely directed ratchet teeth, pawls, one for each set of ratchet teeth, locking members for the pawls for holding them in the inoperative position, actuating members for the pawls carried by the slidable member, and a locking device in the path of the slidable member and yieldable to active movement of the slidable member through the intermediary of an inserted coin.

3. In a coin controlled mechanism for vending machines, a slidable member, separate oppositely-acting pawl and ratchet means for locking the slidable member against movement in either direction, means controlled by the slidable member for locking one or the other of the pawl and ratchet locking means in the inactive position, and means for locking the slidable member against active movement, said last-named means being yieldable to a force applied thereto by the slidable member through an inserted coin.

4. In a coin controlled mechanism for vending machines, a slidable plate provided with oppositely directed ratchet teeth, pawls in operative relation to the ratchet teeth, locking devices, one for each pawl, for holding them in the inoperative position, said locking devices being located in the path of the slidable member at respective limits of its movement in opposite directions, and a pawl device normally in the path of the slidable member in the direction of its active movement for preventing such active movement, said last-named pawl device being yieldable to the slidable member through the intermediary of an inserted coin.

5. In a coin controlled mechanism for vending machines, a slidable plate provided at the corners with projecting fingers and along opposite sides with oppositely directed ratchet teeth, pawls, one for each set of ratchet teeth, locking members individual to the pawls and in the path of certain of the fingers of the slidable member, spring connections between the pawls, spring connections between the locking members, another pivoted pawl in the path of another of the fingers of the slidable member on its active movement, said pawl and finger having coacting locking means, and a spring for the last-named pawl tending to move it into locking engagement with the respective finger of the slidable member.

[Claims 6 to 14 not printed in the Gazette.]

1,135,935. FOOD PRODUCT. JOHN J. BURCHENAL, Cincinnati, Ohio, assignor to The Procter and Gamble Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 10, 1910. Serial No. 591,727. (Cl. 99—13.)

1. A lard-like composition comprising edible hydrogenized fatty oil.

2. A lard-like composition comprising edible hydrogenized vegetable oil.

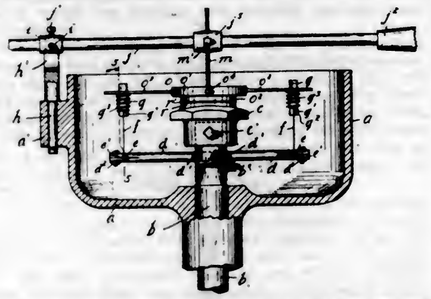
3. An edible oil product comprising hydrogenized cottonseed oil and edible oily material blending therewith.

4. An edible oil product of lard-like consistency, comprising edible hydrogenized oil and edible oily material blending therewith.

5. An edible fatty product of substantially lard-like consistency, comprising edible hydrogenized-oil material and edible fatty material blending therewith.

[Claims 6 to 14 not printed in the Gazette.]

1,135,936. LENS-GRINDING MACHINE. ARTHUR L. EDMONDSON, Seattle, Wash., assignor to Ronald M. Sherman, Portland, Oreg. Filed June 6, 1914. Serial No. 843,573. (Cl. 51—3.)



1. In a lens grinder, the combination of a spindle, provided with lateral arms, a lap mounted on the spindle, a gimbal also provided with lateral arms, yielding connections between the extremities of the arms of the spindle and the gimbal adapted to permit the latter to be moved in horizontal and vertical planes, a lever supported at one end by a universal joint, a pendent bearing pin carried by such lever, and means for connecting the latter with the gimbal.

2. In a lens grinder, the combination of a spindle, provided with lateral arms, a lap mounted on the spindle, a gimbal also provided with lateral arms, yielding connections between the extremities of the arms of the spindle and the gimbal adapted to permit the latter to be moved in horizontal and vertical planes, a lever supported at one end by a universal joint, a pendent bearing-pin carried by such lever, and means for variably connecting the latter with the gimbal whereby to apply pressure to the latter centrally and eccentrically.

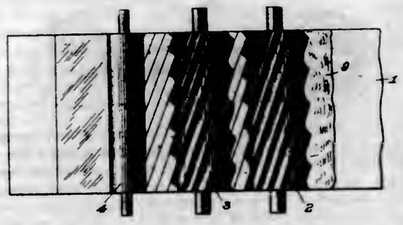
3. In a lens grinder, the combination of a spindle provided with lateral arms, a lap mounted on the spindle, a gimbal also provided with lateral arms, yielding connections between the extremities of the arms of the spindle and the gimbal adapted to permit the latter to be moved in horizontal and vertical planes, a lever supported at one end by a universal joint, a pendent bearing pin carried by such lever, means for connecting the latter with the gimbal, and means normally holding the gimbal from the lap.

4. In a lens grinder, the combination of a spindle provided with lateral arms, a lap mounted on the spindle, a gimbal also provided with lateral arms, yielding connections between the extremities of the arms of the spindle and the gimbal, adapted to permit the latter to be moved in horizontal and vertical planes, a lever supported at one end by a universal joint, a pendent bearing-pin carried by such lever, means for connecting the latter with the gimbal, and spring elements normally holding the gimbal from the lap.

5. In a lens grinder, the combination of a spindle, provided with lateral arms, a lap mounted on the spindle, a gimbal also provided with lateral arms, yielding connections between the extremities of the arms of the spindle and the gimbal adapted to permit the latter to be moved in horizontal and vertical planes, a lever supported at one end by a universal joint, a pendent bearing-pin carried by such lever, and means for variably connecting the latter with the gimbal whereby to apply pressure to the latter centrally and eccentrically, and means normally holding the gimbal from the lap.

[Claims 6 to 12 not printed in the Gazette.]

1,135,937. MACHINE AND METHOD FOR MAKING WIRE-GLASS. NICKLAS FRANZEN, Floreffe, Pa., assignor of one-half to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed May 8, 1909, Serial No. 494,858. Divided and this application filed Dec. 5, 1912. Serial No. 735,126. (Cl. 49—86.)



1. The method herein described of making wire-glass which consists in, first, spreading a batch of molten glass to layer form with protrusions upon its surface, second, while maintaining such protrusions free from chilling contact with any instrumentality, sinking a web of wire through such protrusions by pressure localized and concentrated upon the web at intervals corresponding to the intervals between the successive protrusions, and, third, surfacing the layer.

2. In a machine for making wire-glass, the combination of a forming surface, means for spreading thereon a layer of glass with protrusions upon its surface, means for engaging a web of wire at intervals corresponding to the intervals between successive protrusions on such layer and, without chilling contact with said protrusions, pressing such web into such layer causing the wire to cut into the body of said protrusions, and means for surfacing the layer, substantially as described.

3. In a machine for making wire glass, the combination of a forming surface, a roll provided with corrugations extending continuously thereon from end to end, such roll arranged to coöperate with said forming surface and to spread thereon a layer of glass with ridges extending upon its surface continuously from edge to edge, a second corrugated roll whose corrugations correspond in space, width, and direction with the corrugations of said first named roll, said second corrugated roll also arranged to coöperate with said forming surface and to sink a web of wire through the ridges upon the surface of a layer of glass formed beneath said first named roll.

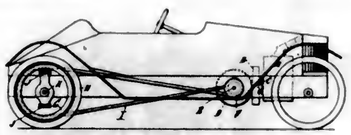
4. In a machine for making wire glass, the combination with a glass-sustaining surface, of a roll provided with continuous spiral corrugations coöperating with said surface to sink a web of wire into soft glass, and means for gradually closing from one end to the other the grooves formed in such surface, and covering the wire contained therein, substantially as described.

5. In a machine for making wire-glass, the combination with a forming surface, of two rolls arranged parallel one with the other and with the forming surface and spaced at intervals from the forming surface, the said surface on the one hand and the said rolls on the other being mounted and adapted for relative movement, the leading roll being spirally grooved and the following roll being ungrooved and spaced at a greater interval from the table than the outermost periphery of the leading roll, substantially as described.

1,135,938. MOTOR-VEHICLE. THOMAS HEDGES, Palmers Green, England. Filed Oct. 19, 1914. Serial No. 867,506. (Cl. 21—90.)

1. In a motor vehicle, the combination of leaf springs, supports for stub-axles held between the ends of the springs one on each side of the vehicle, a pulley on each rear road wheel arranged substantially in the same plane as the hinge joint between the stub-axle supports and the spring ends, a laterally arranged countershaft, a

pulley on each end of said countershaft, belts connecting the pulleys on the countershaft and the rear road wheel respectively, a friction wheel laterally adjustable on said countershaft, a friction disk on the motor and means for moving said friction wheel into or out of contact with said friction disk.

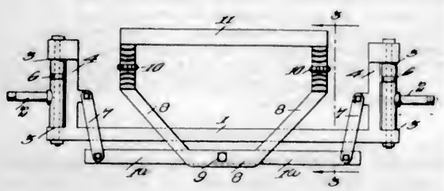


2. In a motor vehicle the combination of leaf springs, supports for stub axles held between the springs one on each side of the vehicle, a countershaft extending transversely of the vehicle, a friction wheel on said countershaft adapted to move longitudinally thereon and to engage the driving disk of the engine, a pulley on either end of said countershaft on the exterior of the vehicle frame, a pulley on each of said rear road wheels mounted in substantially the same plane at the hinge joint between the stub axle supports and the spring ends, and crossed belts on each side of the vehicle connecting said pulleys whereby the movement of the countershaft is transmitted to the rear road wheels, and a differential effect is produced by said belts and wheels when turning corners.

3. In a motor vehicle the combination of leaf springs, stub axles supported by said springs one on each side of the vehicle, an engine arranged with its crank shaft longitudinally of the vehicle, a friction disk driven by said engine, a countershaft arranged transversely of the vehicle, a friction wheel mounted on said countershaft the inner bearing of which is movable and the other two bearings being self alining, a lever operated by the driver for operating said inner bearing to throw the friction wheel into or out of engagement with the friction disk of the engine, said lever being arranged to put a certain amount of spring pressure on the countershaft disk in the one position yet hold it firmly out of gear in the other position, a pulley on each end of said countershaft on the exterior of the vehicle frame, a pulley on each of the rear road wheels and belts connecting the pulleys on the countershaft with the pulleys on said stub axles.

4. In a motor vehicle a pair of horizontal parallel leaf springs arranged transversely of the vehicle in the rear thereof and of different lengths, eyes in the ends of each spring, stub axles on either side of the vehicle, a vertical link member connected with each of said stub axles provided with eyes on opposite sides and at its ends, and hinge pins passing through the eyes in said link members and said spring connecting same together and preventing relative movement thereof, and a pulley on each rear road wheel mounted in substantially the same plane at the hinge pins.

1,135,939. FRONT RUNNING-GEAR FOR VEHICLES. MADISON LESLIE JOHNSON, Galena, Ill. Filed Dec. 27, 1912. Serial No. 738,871. (Cl. 21—90.)



1. The combination with a frame, a main axle and a sub-axle whose ends are jointed together, of a head block interposed between the frame and sub-axle and pivoted on the latter, and springs arranged between the head block and frame, as described.

2. The combination with a frame and a main and sub-axles, one arranged over the other and both flexibly connected, of a head block interposed between the sub-axle and frame and pivoted to the center of the former, and springs interposed between the upper ends of the head block and the frame, the latter being secured on the springs, as described.

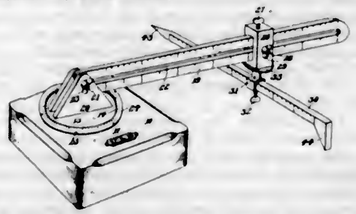
1,135,940. LIGHTNING-ROD CABLE. PETER J. JUEL, Council Bluffs, Iowa, assignor to H. S. Rottenborg, Atlantic, Iowa, and H. C. Hansen, Brayton, Iowa. Filed Apr. 5, 1912. Serial No. 688,819. (Cl. 173—31.)



1. In a lightning-rod cable, a core comprising a central strand, and a plurality of concentric layers of wires twisted around said central strand, each layer comprising a plurality of helically-extending wires spaced apart laterally so that no two wires of the same layer are in contact with each other, the direction of the helices being opposite in adjoining layers, and a sheath comprising a plurality of helical multiple-wire strands twisted about the core in a direction opposite to that of the wires in the outer layer of the core, and each strand contacting laterally with the strands adjoining it.

2. In a lightning-rod cable, a core comprising a central strand consisting of two wires twisted together to form contacting helices, and a plurality of concentric layers of wires twisted around said central strand, each layer comprising a plurality of helically-extending wires spaced apart laterally so that no two wires of the same layer are in contact with each other, the direction of the helices being opposite in adjoining layers, and a sheath comprising a plurality of helical strands twisted about the core in a direction opposite to that of the wires in the outer layer of the core, each strand of the sheath consisting of two wires twisted together, and each strand of the sheath being in contact with the strands at each side thereof.

1,135,941. SURFACE-GAGE. THOMAS KOPINSKI, Rochester, N. Y. Filed Nov. 25, 1914. Serial No. 874,007. (Cl. 33—169.)



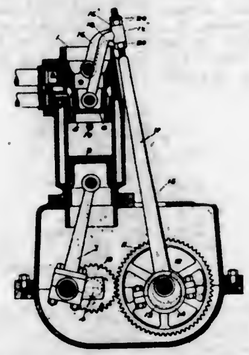
1. A surface gage comprising a base block having an opening therethrough and an annular socket concentric with said opening at the upper end thereof, a disk revolubly mounted within said socket and having a central perforation in alinement with said opening, spaced ears upon said disk at opposite sides of said perforation, a longitudinally slotted standard pivotally and slidably mounted between said ears at a point above the perforation of said disk, and a needle bar adjustably positioned upon said standard.

2. A gage comprising a base having an opening therethrough, a disk revolubly mounted upon said base and having a perforation in alinement with the said opening, spaced ears upon said disk adjacent the said opening, a bolt spanning the space between the said ears, a standard having a longitudinal slot therethrough slidably and rotatably mounted upon the said bolt, a set nut upon said bolt, a slider adjustably positioned upon the said standard and a needle bar slidably and revolubly mounted upon said slider.

3. A gage comprising a base having an opening therethrough, a disk anti-frictionally mounted for rotation upon said base and having a perforation concentric with the said opening, a standard having a longitudinal slot therethrough pivotally and slidably mounted upon the said disk, a slider frame adjustably positioned upon the said standard, a bracket rotatably mounted upon one side face of said bracket, a needle bar slidably mounted within said bracket, and a retaining set screw for said bar.

4. A gage comprising a base block having an opening therethrough and an annular socket concentric with said opening, a graduated disk mounted rotatably within the said socket, a graduated ring upon said block, overlapping the said disk, a standard pivotally and slidably mounted upon the said disk, said disk having a perforation therein alining with the said opening, said standard provided with a longitudinal slot forming opposite side portions provided with graduations, a frame slidably mounted upon the said standard, a needle bar pointed at one end and headed at the other, said needle bar being slidably and rotarily mounted upon the said frame and having graduations upon one side thereof.

1,135,942. INTERNAL-COMBUSTION MOTOR. SYLVESTER LOGAN, Franklin, Pa., assignor, by direct and mesne assignments, of one-half to Lowe E. Simpson and one-half to Orville Simpson, Cincinnati, Ohio. Filed May 25, 1911. Serial No. 629,490. (Cl. 123—75.)



1. In an internal combustion motor, the combination with a cylinder and means for converting pressure therein into available power, of three pistons operable within said cylinder, and arranged to form the primary elements of said converting means, two of said pistons being arranged as coöperative unsupplemented or direct controlling means for the fuel-inlet ports and the exhaust-outlet ports in said cylinder.

2. In an internal combustion motor, in combination, a cylinder for such motor having inlet ports and exhaust ports through the walls thereof, and means for converting the pressure within said cylinder into available power, said converting means comprising among the elements thereof, a main piston operative within said cylinder, a secondary cylindrical piston also operative within said cylinder, said secondary piston having ports passing through its walls and arranged to communicate directly with both the inlet ports and the exhaust ports in the wall of said cylinder, a tertiary piston operable within said secondary piston and arranged to directly control the inner or adjacent ends of the openings of the ports within said secondary piston, for the purpose set forth.

3. In an internal combustion motor having a single cylinder, in combination, means for converting the pressure generated within said cylinder into available power, the primary elements of said converting means consisting of three pistons, a primary piston, and a secondary piston operative within said cylinder, and a tertiary piston operative within said secondary piston, there being inlet ports and exhaust ports through the wall of said cylinder, also ports through the wall of said secondary piston adapted to communicate directly with said cylinder ports respectively at different and proper intervals in harmony with a four-stroke cycle, said tertiary piston being arranged to directly control the adjacent ends of the ports in said secondary piston in like manner, for the purpose set forth.

4. In an internal combustion motor, a cylinder, a primary piston operative in said cylinder at one end thereof, a secondary cylindrical piston operative in the other end of said cylinder, a tertiary piston operative in said secondary piston, inlet ports in said cylinder, exhaust ports in said cylinder, said secondary and tertiary pistons being arranged for the coöperative, unsupplemented or direct control of said ports for the inlet of fuel to and the outlet of the products of combustion from said cylinder; all three of said pistons being adapted to co-act in the communication of the explosive force within the cylinder to the crank-shaft of the motor.

5. In an internal combustion motor, a cylinder, there being inlet ports and exhaust ports in the walls of said cylinder, a primary piston operative in one end of said cylinder, a crankshaft, a pinion upon said shaft, a connecting rod connecting said piston to said shaft, a secondary, cylindrical piston operative in the other end of said cylinder and within the same chamber in which said primary piston is located, there being ports through the walls of said secondary piston arranged to communicate directly with the ports in said cylinder, a tertiary piston operative within said secondary piston and arranged to directly control the ports in said secondary piston, a secondary shaft, a gear upon said secondary shaft arranged to mesh with said pinion, said gear and said pinion being of the relative ratio of two to one, two eccentrics upon said secondary shaft and adjustable means connecting said secondary and said tertiary pistons to said eccentrics respectively.

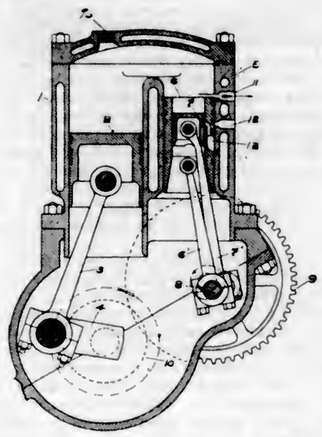
[Claims 6 to 13 not printed in the Gazette.]

1,135,943. INTERNAL-COMBUSTION MOTOR. SYLVESTER LOGAN, Franklin, Pa., assignor, by direct and mesne assignments, of one-half to Lowe E. Simpson and one-half to Orville Simpson, Cincinnati, Ohio. Filed Aug. 7, 1911. Serial No. 642,697. (Cl. 123—75.)

1. In a motor, the combination of a chamber adapted to contain an expansive fluid, a first cylinder having communication with said chamber, a second cylinder offset from said first cylinder and having communication at one end with said chamber, a piston operative in said first cylinder, two pistons operative in said second cylinder, said two pistons being arranged as controlling means for the inlet port and for the exhaust port which extend through the wall of said second cylinder, all three of said pistons being adapted to be actuated by the expansive force of the fluid within said chamber, and means for converting said actuation into available power.

2. A four-cycle gas engine comprising a valve-casing having one end constantly in communication with the combustion chamber of the engine and provided with a fuel inlet port and provided with an exhaust port nearer said combustion chamber, a first valve member working in said valve casing and adapted to have its end coöperate

with the before mentioned exhaust port and provided with an inlet port to coöperate with the first mentioned inlet port, a second valve member having its end adapted to coöperate with the inlet port of the first valve member, and valve moving mechanism actuated by the engine and adapted to move the two valve members differentially and to give the two valve members one impulse for each two impulses of the engine.



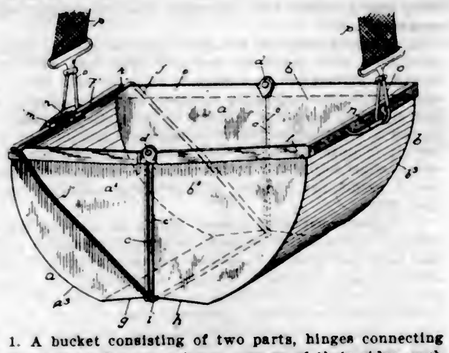
3. A four-cycle gas engine comprising a valve casing having one end constantly in communication with the combustion chamber of the engine and provided with a fuel inlet port and provided with an exhaust port nearer said combustion chamber, a first valve member working in said valve casing and adapted to have its end coöperate with the before mentioned exhaust port and provided with an inlet port to coöperate with the first mentioned inlet port, a second valve member having its end adapted to coöperate with the inlet port of the first valve member, and valve moving mechanism actuated by the engine at half the speed of the engine and adapted to move the two valve members differentially so that the movement of the first valve member effects the opening of the inlet port to the valve casing, and the movement of the second valve member closes the inlet to the valve casing.

4. A four-cycle gas engine comprising a cylindrical valve casing having one end constantly in communication with the combustion chamber of the engine and provided with a fuel inlet port and provided with an exhaust port nearer said combustion chamber, a first cylindrical valve member working in said valve casing and adapted to have its end coöperate with the before mentioned exhaust port and provided with an inlet port to coöperate with the first mentioned inlet port, a cylindrical second valve member having its end adapted to coöperate with the inlet port of the first valve member, and valve moving mechanism actuated by the engine and adapted to move the two valve members differentially and to give the two valve members one impulse for each two impulses of the engine.

5. A four-cycle gas engine comprising a valve casing disposed substantially parallel with and having one end constantly in communication with the combustion chamber of the engine and provided with an inlet port and provided with an exhaust port nearer said combustion chamber, a first valve member working in said valve casing and adapted to have its end coöperate with the before mentioned exhaust port and provided with in inlet port to coöperate with the first mentioned inlet port, a second valve member having its end adapted to coöperate with the inlet port of the first valve member, and valve moving mechanism actuated by the engine and adapted to move the two valve members differentially and to give the two valve members one impulse for each two impulses of the engine.

[Claims 6 to 9 not printed in the Gazette.]

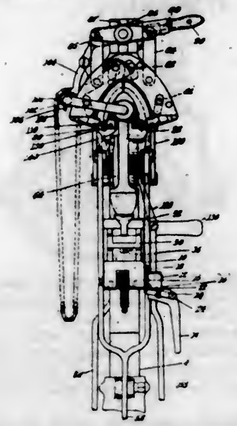
1,135,944. FRUIT-BUCKET. WALTER G. PALMER, Hood River, Oreg. Filed Mar. 25, 1911. Serial No. 616,989. (Cl. 56—99.)



1. A bucket consisting of two parts, hinges connecting such parts at the upper inner corners of their sides, such hinges being adapted to permit the two parts to be lifted on their hinges and thus place the top rims of the two parts in abutment, the related side portions of one side of the bucket being formed with an outward slope toward the hinge axis of that side, a bail hinged to one of the parts of the bucket at the bottom, and means on the cross bar of such bail for locking the same to the top rim of the other part of the bucket.

2. A bucket consisting of two parts, hinges connecting such parts at the upper inner corners of their sides, such hinges being adapted to permit the two parts to be lifted on their hinges and thus place the top rims of the two parts in abutment, the related side portions of one side of the bucket being formed with an outward slope toward the hinge axis of that side, a bail hinged to one of the parts of the bucket at the bottom, and a latch on the cross bar of the bail engaging with the top rim of the other part of the bucket.

1,135,945. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ELI BROTHERS, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Continuation of application Serial No. 320,610, filed June 7, 1906. This application filed June 30, 1908. Serial No. 441,126. (Cl. 12—4.)



1. A machine for working an upper over a last having in combination, means for pulling-over the shoe including means permitting relative adjustment of the upper and last, and means for lasting the shoe while the shoe remains the same side up in the machine as at the end of the pulling-over operation.

2. A machine for working an upper over a last having, in combination, mechanism for gripping the upper of the forward portion of the shoe and pulling-over the shoe, including means permitting relative adjustment of the upper and last, means for lasting the upper from a point on one side of the toe around the toe to a point on the other side of the toe, and means for inserting fastenings to secure the upper in pulled and lasted position.

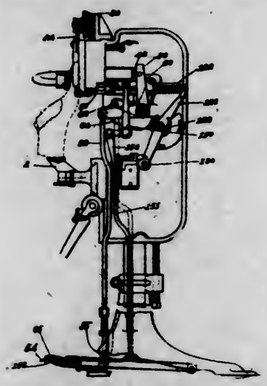
3. A machine for working an upper over a last with an innersole on its bottom face having, in combination, means for pulling-over the shoe, including means permitting relative adjustment of the upper and last, means for lasting a continuous section of the fore part of the shoe, and means for securing the lasted upper to the innersole.

4. A machine for working an upper over a last having, in combination, means for pulling-over the shoe including means permitting relative adjustment of the upper and last, and means for lasting a continuous section of the upper extending completely around the toe of the shoe, said machine being constructed and arranged to permit the operator to have a substantially unobstructed view of the top face of the shoe during the operation of the pulling and lasting means thereon.

5. A machine for working an upper over a last arranged to support the shoe in upright position with the top face of the shoe toward the operator and having, in combination, means for pulling-over the shoe, and wipers arranged to act upon the pulled upper while the upper is held under tension by the pulling-over means to force the upper into lasted position upon the last bottom.

[Claims 6 to 248 not printed in the Gazette.]

1,135,946. METHOD OF MAKING SHOES. ELI BROTHERS, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed June 7, 1906, Serial No. 320,610. Divided and this application filed July 15, 1914. Serial No. 851,194. (Cl. 12—145.)



1. That improvement in methods of making shoes which consists in arranging an innersole and upper materials upon a last with the forepart portion of the upper movable relatively to the last; positioning the shoe with the portion of the upper which extends over the forepart of the last visible to the operative standing in working relation to the shoe; pulling-over the shoe including the steps of engaging the margin of the upper at the end and opposite sides of the forepart of the last and tensioning the upper about the last, inspecting the tensioned upper and if necessary adjusting the upper and the last relatively to position the upper correctly; and then lasting the toe portion of the shoe by engaging the upper on a substantially continuous line extending from one side of the toe around the end of the toe to the other side and working the marginal portion of the tensioned upper inwardly to lasted position over the innersole; and securing the overworked upper at the end and opposite sides of the toe in lasted position; all while the shoe remains in substantially the same position with its forepart visible to the operative.

2. That improvement in methods of making shoes which consists in arranging an innersole and upper materials upon a last with the forepart portion of the upper movable relatively to the last; pulling-over the shoe including the steps of engaging the margin of the upper on a substantially continuous line extending from one side of the toe around the end of the toe to the other side and relatively moving the last and the engaged portion of the upper to pull and, if necessary, to adjust the upper about the sides and end of the toe portion of the last; and then lasting the toe portion of the shoe by engaging the upper below said line around the end and sides of the toe and working it, still under tension, over the edge of the innersole, and then relaxing the tension to permit the margin of the upper to be wiped into lasted position upon the shoe bottom and secured.

3. That improvement in methods of making shoes which consists in arranging an upper with its forepart movable on its last and pulling-over the shoe by engaging in its normal outwardly flared position the toe portion of the upper on a substantially continuous line extending around the toe of the last and holding the upper outwardly away from the edge of the innersole and tensioning it over the toe portion of the last and then, while continuing the tension, lasting the toe portion of the shoe by embracing the toe below the said line and wiping into lasted position a continuous section of said upper extending around the toe.

4. That improvement in methods of making shoes which consists in arranging an innersole and upper materials upon a last; pulling-over the shoe, including the establishing of correct lines for the upper with relation to the last while the upper is under tension; interrupting the pulling-over operation when the upper has been tensioned and the correct lines of the upper have been obtained, and at once beginning the lasting operation at the end and corners of the toe.

5. That improvement in methods of making shoes which consists in arranging an innersole and upper materials upon a last, with the forepart of the upper movable on the last, and pulling-over the upper by engaging its margin on a substantially continuous line around the toe of the last in such manner as to hold it substantially free from wrinkles in that portion of the toe of the shoe which is exposed to view in the completed shoe, and then lasting the toe portion of the shoe by working the upper over the edge of the shoe bottom into lasted position at the end and corners of the toe.

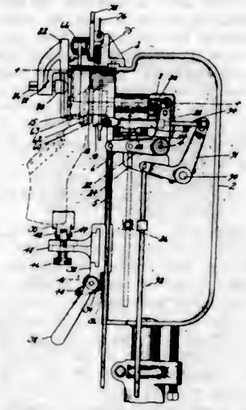
[Claims 6 and 7 not printed in the Gazette.]

1,135,947. PULLING-OVER AND LASTING MACHINE. ELI BROTHERS, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 7, 1906. Serial No. 320,610. (Cl. 12—4.)

1. In a machine for working an upper over a last in which the last is positioned with its toe end uppermost, the combination with means for pulling the upper over the toe portion of the last, and wipers for laying the upper over the last bottom, of a rest arranged to engage the top face of the shoe, a carrier by which said rest can slide by gravity from a position above the toe of the shoe downwardly toward the instep of the shoe for the purpose described, and means for locking it in its elevated position, substantially as described.

2. A pulling-over machine having, in combination, means for working an upper over a last, means for supporting the shoe with its toe end uppermost and the top face of the shoe observable by the workman; a vertically movable slide, a toe rest on the slide, means for securing the slide in upraised inoperative position, and means for guiding the slide to position the rest in operative relation to the top face of the shoe when the slide is released.

3. A pulling-over machine having, in combination, mechanisms for working upon a shoe, means for supporting the shoe for an initial operation upon it, a rest occupying normally a position forwardly beyond the toe of the shoe, and means for directing movement of said rest lengthwise of the shoe into operative engagement therewith for supporting the shoe for a later operation upon it.



4. A pulling-over machine having, in combination, pulling-over means, means to support the last against the action of the pulling-over means, means to drive tacks into the shoe bottom, a rest occupying normally a position forwardly beyond the toe where it is out of the way of inspection of the shoe during the pulling-over operation, and guides for directing movement of the rest lengthwise of the shoe into engagement with an inclined portion of the top face of the shoe whereby it is self-adapting for supporting shoes of different thickness against the operation of the tacking means.

5. A pulling-over machine comprising shoe supporting means, pulling-over means, and means arranged for movement in a plane substantially parallel with the shoe bottom, after the upper has been pulled, into and out of contact with the top face of the shoe in the region of the tip seam.

[Claims 6 to 10 not printed in the Gazette.]

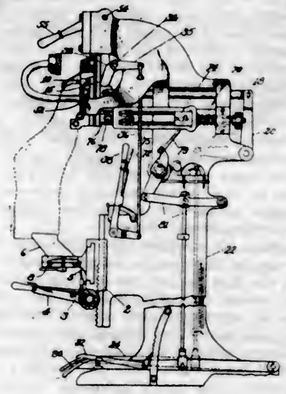
1,135,948. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ELI BROTHERS, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 7, 1908, Serial No. 447,398. Renewed June 29, 1914. Serial No. 848,065. (Cl. 12—4.)

1. A machine for working an upper over a last having, in combination, grippers comprising jaws curved to adapt them to operate at the curved toe portion of the shoe, and means for actuating the grippers and the last relatively to pull the upper and then actuating the grippers by a movement of said two jaws together to wipe the marginal portion of the upper into lasted position.

2. A machine for working an upper over a last having, in combination, grippers comprising coöperating jaws curved to embrace the toe portion of the shoe upper, and means for actuating the grippers and the last relatively to effect pulling of the upper, and means connected with the gripper jaws to actuate them to wipe the marginal portion of the upper into lasted position.

3. A machine for working an upper over a last having, in combination, grippers constructed and arranged to receive in its normal outwardly flared position and marginal portion of the upper at the toe end and opposite sides of the last, means to actuate said grippers and last relatively for pulling the upper, and operating means connected with said grippers to actuate them longitudinally of the shoe with an inward closing movement for wiping the upper into lasted position.

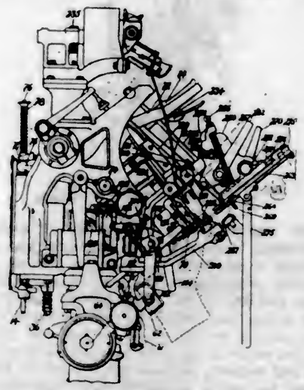
4. A machine for working an upper over a last having, in combination, grippers constructed and arranged to receive in its normal outwardly flared position the marginal portion of the upper at the toe end and opposite sides of the last, means for actuating said grippers and last relatively in a direction substantially perpendicularly to the last bottom, and means for actuating said grippers inwardly over the last bottom from the end and the opposite lateral sides of the toe of the last.



5. A machine for working an upper over a last having, in combination, sectional grippers constructed and arranged to receive the upper at the toe end and at opposite sides of the fore part of the last, means for actuating the grippers to seize and to pull the upper, and means for actuating the grippers lengthwise of the last and for relatively actuating the gripper sections transversely of the last for laying the marginal portion of the upper upon the fore part of the last bottom.

[Claims 6 to 27 not printed in the Gazette.]

1,135,949. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 6, 1907. Serial No. 372,055. (Cl. 12—4.)



1. A machine to perform successively the operations of pulling-over a shoe and lasting the forepart of the shoe having, in combination, pulling-over means, lasting means, and operating mechanism organized to cause the pulling-over means to seize the upper and stretch it and present the shoe with its sole face in a predetermined plane to receive the operation of the lasting means.

2. A pulling-over and lasting machine having, in combination, toe lasting means, and connected power-operated mechanism organized to pull over a shoe and come to rest holding the shoe with the upper under tension and in position for the action of the lasting means and to release the shoe after said mechanism is restarted.

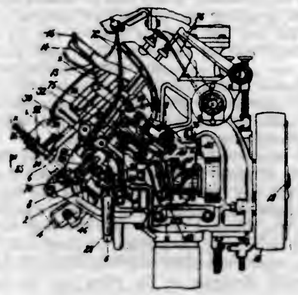
3. In a machine of the class described, the combination with operating mechanism and means actuated thereby for gripping an upper substantially simultaneously at a plurality of points around the forepart of a last and pulling the upper, of means to rub the pulled upper upwardly along the side faces of the toe portion of the last and then wipe it inwardly to lasted position over the edge and bottom of the last.

4. In a machine of the class described, the combination with means for gripping and pulling an upper substantially simultaneously at a plurality of points, of means for wiping into lasted position the portion of the upper pulled by the grippers while the shoe remains in substantially the same position occupied by it during the pulling-over operation, said pulling means including grippers which are arranged to permit manual manipulation for changing the tension on the pulled upper independently of the pulling operation to assist in the lasting operation.

5. In a pulling-over and lasting machine, the combination with power operated means for gripping an upper and pulling it on a last, said pulling means being arranged for manual movement to manipulate the upper after the power operation of the pulling means, of wipers, and means for actuating the wipers to work into lasted position a continuous section of the pulled upper.

[Claims 6 to 228 not printed in the Gazette.]

1,135,950. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 25, 1907. Serial No. 375,669. (Cl. 12—4.)



1. In a machine of the class described, the combination with means for pulling-over a shoe, said means being constructed and arranged to permit relative movement of the upper and the last to stretch the upper and additional movement of the upper and the last relatively to position the upper in proper relation to the last for lasting, of power operated means for lasting the toe portion of the shoe.

2. In a machine of the class described, the combination with means for pulling-over a shoe including provision for adjusting the upper and the last relatively, of power operated means for lasting the entire toe portion of the shoe in a single operation.

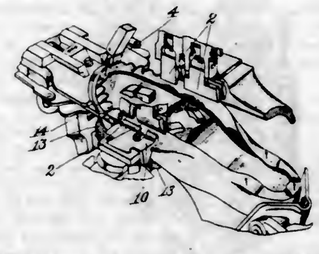
3. In a machine of the class described, the combination with means for pulling-over a shoe, of power operated means for working the upper into lasted position at a plurality of points in the same operation of the machine and means adjustable laterally of the shoe to afford support for the heel and faces of right and left shoes on crooked lasts the forepart of which are similarly positioned relatively to the lasting means.

4. In a machine of the class described, the combination with means for pulling-over a shoe, said means being constructed and arranged to permit relative movement of the upper and the last to stretch the upper and additional movement of the upper and the last relatively to position the upper in proper relation to the last for lasting, of power operated means for lasting the toe portion of the shoe into lasted position, and means for securing the upper in lasted position.

5. In a machine of the class described, the combination with means for pulling-over a shoe, of power operated mechanism for lasting and securing the toe portion of the upper and a heel rest adjustable transversely of the machine to support right and left crooked shoes the forepart of which are similarly positioned relatively to the lasting and securing mechanism.

[Claims 6 to 112 not printed in the Gazette.]

1,135,951. METHOD OF MAKING SHOES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 1, 1907. Serial No. 386,572. (Cl. 12—145.)



1. That improvement in methods of making shoes which consists in pulling the upper at the toe and at the opposite sides, adjusting the pulled upper about the last, securing the upper at the sides of the shoe, then while it is under the pulling strain working the toe portion of the upper into lasted position over the innersole and finally securing the upper at the toe.

2. That improvement in methods of making shoes which consists in pulling an upper on a last at the toe and at the opposite sides of the last, adjusting the upper about the last, forcing the marginal portion of the upper inwardly over the last bottom at the corners of the toe portion of the last first, and then at the middle of the toe portion of the last.

3. That improvement in methods of making shoes which consists in pulling the upper on a last at the opposite sides of the forepart and at the end of the toe in directions to hold it away from the edge of the bottom of the last around the toe, and then pulling upon the margin of the upper to draw the upper inward toward said edge and working a continuous section of the upper into lasted position over the bottom of the last from one side of the forepart around the toe to the other side.

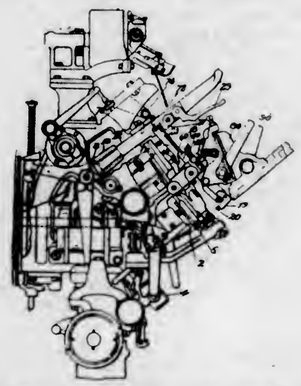
4. That improvement in methods of making shoes which consists in pulling the upper on a last at the opposite sides of the forepart and at the end of the toe, pressing upon a substantially continuous section of the upper at the toe end of the last from one side of the forepart around the toe to the other side to retain the upper under tension, releasing the tension on the margin of the upper at the toe end, and then wiping the upper into lasted position from said line of pressure over the bottom of the last.

5. That improvement in methods of making shoes which consists in pulling the forward portion of an upper or vamp at the end and sides of the toe to stretch it first longitudinally forward over the toe end of the last and then transversely across the forepart of the last in such directions relative to the plane of the last bottom as to hold the margin of the vamp away from the edge of the innersole on the last bottom, holding the vamp under tension and free from wrinkles over the upper portion of the

toe of the last, engaging a continuous line of such unwrinkled portion of the vamp extending from one side of the forepart around the toe to the other side and located below the plane of the last bottom, rubbing upwardly while maintaining said continuous line of engagement unbroken to mold the upper free from wrinkles up the side faces of the last to the edge of the shoe bottom and then gathering the margin of the upper over the edge of the innersole into lasted position.

[Claim 6 not printed in the Gazette.]

1,135,952. APPARATUS FOR MAKING BOOTS AND SHOES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 29, 1908, Serial No. 445,929. Renewed Oct. 26, 1914. Serial No. 868,762. (Cl. 12—4.)



1. A machine of the class described, having, in combination, grippers comprising curved jaws arranged to engage the upper in a substantially uninterrupted line extending around the toe of the last and means for adjusting said grippers as a unit transversely of the last.

2. A machine of the class described, having, in combination, grippers comprising curved jaws arranged to engage the upper in a substantially uninterrupted line extending around the toe end of the last, and means for supporting the grippers constructed and arranged to permit them to be adjusted as a unit transversely of the last.

3. A machine of the class described, having, in combination, grippers comprising curved jaws formed in relatively turning sections for engaging the upper around the toe of the last, and means for supporting the grippers.

4. A machine of the class described, having, in combination, grippers comprising curved jaws for engaging the upper around the toe of the last, and means for supporting the grippers constructed and arranged to permit them to be shifted transversely of the last and to turn whereby they may be adapted to the position and shape of the toe end of the last.

5. A machine of the class described, having, in combination, grippers comprising curved sectional jaws freely movable relatively while the upper is under tension to adapt the grippers to the shape and size of the last.

[Claims 6 to 74 not printed in the Gazette.]

1,135,953. METHOD OF MAKING SHOES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed July 29, 1908, Serial No. 445,929. Divided and this application filed Dec. 27, 1910, Serial No. 599,337. Renewed Oct. 26, 1914. Serial No. 868,741. (Cl. 12—145.)

1. That improvement in methods of making shoes which consists in initially pulling an upper forwardly down an inclined face on the top of a last and holding the upper outwardly away from the side faces of the last during the forward pull, and then pulling the upper inwardly against the side faces of the last.



2. That improvement in methods of making shoes which consists in pulling an upper first outwardly in a direction lengthwise of the last and upwardly from the opposite sides of the last to straighten it over the top face of the last, and then continuing the pull upwardly and inwardly to wrap it about the side faces of the last.

3. That improvement in methods of making shoes which consists in pulling an upper lengthwise of the last forwardly and upwardly at the two opposite sides of the forepart of the last while holding it outwardly from the side faces of the last and then permitting it to approach the side faces of the last during a later portion of the pulling movement.

4. That improvement in methods of making shoes which consists in gripping the curved end portion of a shoe upper at the end and opposite sides of the toe of a last, and relatively moving the gripped portions and the last to strain the upper upwardly and longitudinally of the last in a forward direction at the sides and the end of the toe while holding the sides of the toe outwardly away from the sides of the last and thereafter wrapping the upper inwardly over the edges of the last.

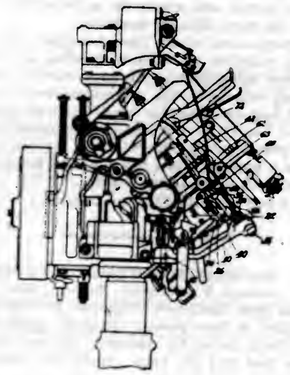
5. That improvement in methods of making shoes which consists in gripping the curved end portion of a shoe upper at the end and opposite sides of the toe of a last along a substantially continuous gripping line around the toe while the forepart of the upper is free to be pulled and relatively moving the gripped portions and the last to strain the upper upwardly and longitudinally of the last in a forward direction at the sides and the end of the last.

[Claims 6 to 14 not printed in the Gazette.]

1,135,954. PULLING-OVER MACHINE. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 19, 1909. Serial No. 490,848. (Cl. 12—4.)

1. A machine of the class described having, in combination, means for pulling an upper over a last, means to fasten the upper, and means to hold the upper while the pulling means gives place to the fastening means, said holding means comprising connected upper clamping devices arranged one above the other in position for the upper one of the devices to engage the shoe first, and actuating mechanism for forcing the lower member obliquely upwardly to press against the upper in the direction in which it is pulled.

2. A machine of the class described having, in combination, side clamps comprising a horizontally sliding member and an obliquely movable member connected therewith and connecting mechanism for causing the horizontally sliding member to engage the shoe first and thereafter to actuate the other member upwardly and inwardly in the direction to press the upper toward the edge of the last as the shoe is clamped.



3. A machine of the class described having, in combination, a carrier movable horizontally toward the shoe, a contact member arranged to yield backwardly in the carrier after it engages the shoe, and a second member arranged to engage the shoe later and to be actuated upwardly by such backward movement of the contact member to press the upper upwardly toward the edge of the shoe.

4. A machine of the class described having, in combination, means for positioning a shoe bottom upwardly, a last supporter, means for actuating the supporter laterally toward the shoe, means becoming operative automatically during said movement laterally toward the shoe for actuating the supporter obliquely upwardly into contact with the upper on the side of the shoe, and means for acting on the shoe with a tendency to depress the shoe against the supporter.

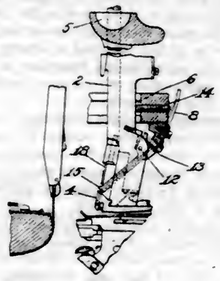
5. A machine of the class described having, in combination, a shoe bottom rest, grippers to pull the upper, means to tack the upper, and means arranged to engage under the side of the shoe to support the shoe while the grippers release the upper and give place to the tacker, comprising a member for clamping the upper against the side of the last, and means for imparting to said member an operative movement into clamping position in a direction inclined upwardly and inwardly to force the upper in the direction that it is tensioned by the pulling means.

[Claims 6 to 57 not printed in the Gazette.]

1,135,955. MECHANISM FOR USE IN INSERTING FASTENINGS. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Apr. 19, 1909, Serial No. 490,848. Divided and this application filed Sept. 29, 1909, Serial No. 520,149. Renewed Apr. 2, 1914. Serial No. 829,136. (Cl. 1—18.)

1. A machine of the class described having tack inserting mechanism including a driver, tack supplying means, a tack block adapted to hold a tack for the inserting action of the driver thereon and movable from receiving relation to the supplying means into delivering relation to the driver, and additional means for covering the tack contained in the holder during such movement.

2. A machine of the class described having, in combination, a tack driver, a tack holder movable between tack receiving and tack driving positions and having a tack pocket, and additional means presenting a cover over the tack pocket at the termination of the movement of the holder into tack-driving position to prevent the tack from being thrown from the pocket and having a movement independent of the movement of the holder to uncover the pocket for the action of the driver on the tack.



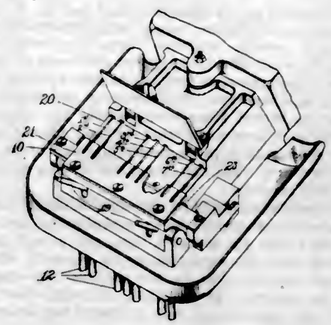
3. A machine of the class described having, in combination, a tack holder movable between tack receiving and tack delivering positions and having a tack pocket, a driver, a tack conductor section movable with the tack holder and means for shifting said conductor section automatically from a position with its channel in delivering relation to the tack pocket to a position in which an end face of the conductor covers the mouth of the tack pocket to prevent the escape of the delivered tack.

4. A machine of the class described having, in combination, a tack holder movable between tack receiving and tack delivering positions and having a tack pocket, a driver, a tack conductor having a member to cover the tack pocket and movable automatically to a central position to deliver tacks to the pocket and from said central position to one side of such central position to cause the cover to overlie the pocket and having an additional movement to permit the driver to operate.

5. A machine of the class described having, in combination, a tack holder having a tack pocket, a driver, a conductor, means to hold the conductor in delivering relation to the pocket, yielding means to move the conductor into position to prevent the tack being thrown out of the pocket and arranged to permit the driver to move the conductor aside to allow the driver to enter the tack pocket.

[Claims 6 to 9 not printed in the Gazette.]

1,135,956. TACKING MECHANISM. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 3, 1910. Serial No. 585,069. (Cl. 12—4.)



1. A pulling-over machine having, in combination, means for positioning a shoe, gang means for inserting a plurality of tacks into each side of the shoe, and means which can be set to locate the tacks that are to be driven on the same side of the shoe in one or another of certain definite spaced relations to each other, said relative loca-

tions being predetermined by the construction of the machine.

2. A pulling-over machine having, in combination, means for positioning a shoe, means for inserting a tack at the toe of the shoe, means for inserting a plurality of tacks at each side of the toe, and a single means adapted for adjustment to suppress the insertion of certain of the side tacks at both sides of the shoe without similarly affecting the remaining tacks.

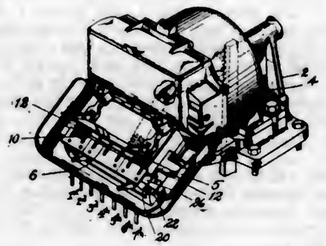
3. A pulling-over machine having, in combination, means for positioning a shoe, means for inserting a tack at the toe of the shoe, means for inserting a plurality of tacks at each side of the toe, and a single means arranged for adjustments by which to suppress alternatively one or another of two of the side tacks.

4. A pulling-over machine having, in combination, means for positioning a shoe, means for inserting a tack at the toe of the shoe, means for inserting a plurality of tacks at each side of the toe, including mechanism for supplying tacks to said tacking means, and a single means adjustable to control the delivery of specified tacks of a plurality of the series without similarly affecting the delivery of other tacks of the series.

5. A machine of the class described having, in combination, means for driving tacks at the opposite sides and at the toe end of a shoe, and means adapted by a single adjustment to suspend the insertion of one of the tacks at each side of the shoe.

[Claims 6 to 33 not printed in the Gazette.]

1,135,957. TACKING MECHANISM FOR PULLING-OVER MACHINES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 16, 1912. Serial No. 709,704. (Cl. 1—6.)



1. A machine of the class described having, in combination, gang mechanism for supplying and distributing tacks including a raceway structure having a plurality of tack grooves the walls of which support the heads of the tacks and are spaced apart to receive the stems of the tacks, a multiple tack separator, independently adjustable devices arranged to extend transversely across the tack grooves below the tack head supporting surfaces thereof for withholding the supply of tacks down a plurality of the grooves to the separator slide and means for sliding said devices across said grooves.

2. A machine of the class described having, in combination, means for supplying tacks for driving at the opposite sides and at the toe end of a shoe, and a tack controller associated with the supplying means for each side of the shoe and each adapted by independent adjusting movements to suspend the insertion of tacks from one or another of a plurality of tack raceways for the same side of the machine.

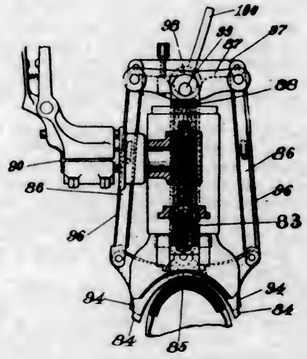
3. A machine of the class described having, in combination, gang mechanism for supplying and distributing tacks including a raceway structure having a plurality of tack grooves and a tack controller 10 located with clearance between two grooves and movable to stop progress of tacks down either groove.

4. A machine of the class described having, in combination, gang mechanism for supplying and distributing tacks including a raceway structure having a plurality of tack grooves and a tack controller 10 located with clearance between two grooves and movable to stop progress of tacks down either groove, and means for securing the controller in either of its three adjusted positions.

5. In a mechanism of the class described, the combination with a plurality of raceway grooves, and nail separating devices coöperating with each raceway groove, of an end block common to the several raceway grooves and constructed and arranged for ready removal whereby access may be had to all the separating devices, means arranged to prevent such removal when the separating devices are in a predetermined relation, and means for locking the end block in operative position.

[Claims 6 to 9 not printed in the Gazette.]

1,135,958. MACHINE FOR WORKING UPPERS OVER LASTS. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Apr. 19, 1909, Serial No. 490,848. Divided and this application filed May 28, 1910. Serial No. 563,907. (Cl. 12—4.)



1. A machine of the class described having, in combination, two wipers arranged one above the other, means for moving the wipers together, and means for moving the lower wiper independently.

2. In a machine of the class described, end lasting mechanism comprising two sets of connected wiper plates arranged one above the other and having different edge contours for working uppers over the toe end portions of lasts varying in edge contour, and means for actuating said wiper plates independently to do their work.

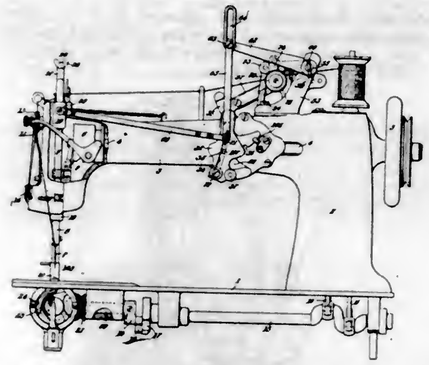
3. In a machine of the class described, an end lasting mechanism comprising two pairs of wiper plates arranged for wiping an upper inwardly over the edge of a last, said plates having different edge contours and being superposed one on the other, and means for actuating said plates.

4. In a machine of the class described, end lasting mechanism comprising two pairs of wiper plates having different edge contours arranged for use together on the same end of a shoe, and actuating devices arranged to permit said pairs of plates to be operated independently.

5. In a machine of the class described, end lasting mechanism comprising two sets of connected toe embracing wiper plates arranged one above the other, and suitable operating means for said plates, said plates being arranged to permit the upper one to be used for wiping the upper over the last and for holding down a binding wire while the lower one is actuated under the upper one for forcing the wire into holding position.

[Claims 6 to 26 not printed in the Gazette.]

1,135,959. ORNAMENTAL-STITCH SEWING-MACHINE. WALTER MYERS, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Apr. 6, 1914. Serial No. 829,798. (Cl. 112—4.)



1. In a machine for ornamental stitching, the combination with a stitch-forming mechanism including a laterally movable needle-carrying bar, of a manually controlled rock-shaft, a yoke carried thereby and provided with means for controlling the relative arrangement of the successively formed stitches, said rock-shaft being provided with means for controlling the amplitude of the lateral movements of said needle-bar independently of the means for controlling the relative arrangement of the successively formed stitches.

2. In a machine for ornamental stitching, the combination with a stitch-forming mechanism including a laterally movable needle-carrying bar, a stationary cloth-plate into which is removably secured a plate provided with an elongated needle opening, of a manually controlled rock-shaft, a yoke carried thereby and provided with means for controlling the relative arrangement of the successively formed stitches, said rock-shaft being provided with means for controlling the amplitude of the lateral movements of said needle-bar independently of the means for controlling the relative arrangement of the successively formed stitches.

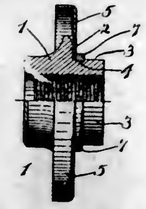
3. In a machine for ornamental stitching, the combination with a stitch-forming mechanism including a laterally movable needle-carrying bar, and a cloth-presser mechanism including a cloth-presser and a tubular cloth-presser bar into which is slidably mounted a holding bar provided at its lower end with gripping jaws, its opposite end being threaded and provided with a nut acting to force said jaws toward the lower end of said cloth-presser bar and hold said cloth-presser against accidental displacement, of a manually controlled rock-shaft, a yoke carried thereby and provided with means for controlling the relative arrangement of the successively formed stitches, said rock-shaft being provided with means for controlling the amplitude of the lateral movements of said needle-bar independently of the means for controlling the relative arrangement of the successively formed stitches.

4. In a machine for ornamental stitching, the combination with a stitch-forming mechanism including a laterally movable needle-carrying bar and a cloth-plate provided with a removable plate for supporting the fabric directly about the lines of needle actuation, of an manually controlled rock-shaft, a yoke carried thereby and provided with means for controlling the relative arrangement of the successively formed stitches, said rock-shaft being provided with means for controlling the amplitude of the lateral movements of said needle-bar independently of the means for controlling the relative arrangement of the successively formed stitches.

5. In a machine for ornamental stitching, the combination with a stitch-forming mechanism including a laterally movable needle-carrying bar and a cloth-plate into which is removably mounted a plate provided with a fabric spur, of a manually controlled rock-shaft, a yoke carried thereby and provided with means for controlling the relative arrangement of the successively formed stitches, said rock-shaft being provided with means for controlling the amplitude of the lateral movements of said needle-bar independently of the means for controlling the relative arrangement of the successively formed stitches.

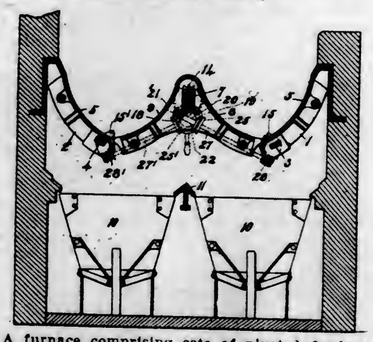
[Claims 6 to 9 not printed in the Gazette.]

1,135,960. DUST-CAP FOR WHEEL-HUBS AND THE LIKE. CHARLES WALFRID STENSON, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 9, 1914. Serial No. 817,450. (Cl. 21—40.)



In a device of the character described, a circular sleeve having an external shouldered portion thereon extending radially outward therefrom and having an annular groove therein adjacent said shoulder and of less diameter than said sleeve, said groove providing opposite side walls, and a closure element seated on said sleeve against said shouldered portion, with a solid circular ring member on said sleeve and extending partially within and uniformly around said groove engaging the opposite side walls thereof to retain said closure element on said sleeve between said ring and said shoulder.

1,135,961. REFUSE-DESTRUCTOR OR OTHER FURNACE. JOHN HUBERT THWAITES, Bedford, and JAMES TETLEY CRAVEN, Brixton, England. Filed Jan. 11, 1913. Serial No. 741,540. (Cl. 126—176.)



1. A furnace comprising sets of pivoted fire-bars constituting a grate, the ends of one set of bars being movable across the working or supporting surfaces of the bars of the adjacent set to serve as clinkering members therefor.

2. In a furnace the combination of pivoted firebars with curved fuel supporting surfaces constituting a grate and a pivoted clinkering member movable concentrically over the curved supporting surfaces of said fire-bars.

3. A furnace comprising sets of fire-bars constituting a grate, and means for causing the sets of bars to successively clinker the top fuel supporting surfaces of adjacent sets of said bars.

4. A furnace having a grate comprising sets of pivoted

fire-bars having curved fuel supporting surfaces, the ends of one set of bars being movable across the supporting surfaces of the bars of the adjacent set to serve as clinkering members therefor.

5. In a furnace the combination of sets of firebars with curved fuel supporting surfaces pivotally mounted upon supports arranged in such positions that the extremities of each set can be moved across the supporting surface of an adjacent set of firebars to remove the clinker therefrom.

[Claims 6 to 10 not printed in the Gazette.]

1,135,962. METHOD OF MOLDING HOLLOW OBJECTS OF REFRACTORY CONDENSATION PRODUCTS. JONAS WALTER AYLSWORTH, East Orange, N. J., assignor to Condensite Company of America, Glen Ridge, N. J., a Corporation of New Jersey. Filed Mar. 10, 1911. Serial No. 613,576. (Cl. 18—55.)



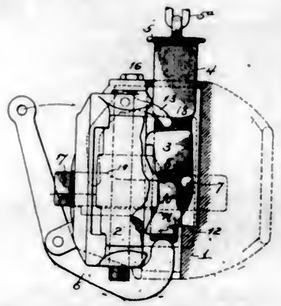
1. The method of forming hollow objects of infusible phenolic condensation products, which consists in the use of a core of a material having a melting point higher than the reaction temperature of the ingredients of the condensation product, shaping the object to be formed around the said core, of substances which upon application of sufficient heat, react to harden and form an infusible phenolic condensation product, heating the object sufficiently to cause the desired reaction, raising the temperature sufficiently to melt the core, and removing the melted core through a suitable opening or openings, substantially as described.

2. The method of forming hollow objects of phenolic condensation products, which consists in the use of a core of a material having a melting point higher than the reaction temperature of the ingredients of the condensation product, and lower than the temperature at which the product would be deformed or injured, forming the object in a suitable mold around the said core, of substances which upon application of sufficient heat, react to harden and form an infusible phenolic condensation product, heating the object sufficiently to cause the desired reaction, raising the temperature sufficiently to melt the core, and removing the melted core through a suitable opening or openings, substantially as described.

3. The method of forming hollow objects of phenolic condensation products, which consists in the use of a core of a material having a melting point higher than the reaction temperature of the ingredients of the condensation product, and lower than the temperature at which the product would be deformed or injured, placing the core within a suitable mold, pouring within the mold around the core a liquid substance which upon application of sufficient heat reacts to harden and form an infusible phenolic condensation product, heating the object sufficiently to cause the desired reaction, raising the temperature sufficiently to melt the core, and removing the melted core through a suitable opening or openings, substantially as described.

4. The method of forming hollow objects of phenolic condensation products, which consists in the use of a core of a material having a melting point higher than the reaction temperature of the ingredients of the condensation product, shaping the object to be formed around the said core, of a plastic mass comprising a fusible phenol resin and a methylene-containing hardening agent, heating the mass sufficiently to cause a hardening reaction to take place between the ingredients thereof, raising the temperature sufficiently to melt the core and removing the melted core through a suitable opening or openings, substantially as described.

1,135,963. CAR-COUPLING. SAMUEL P. BUSH, Columbus, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio. Filed Feb. 25, 1913. Serial No. 750,687. (Cl. 213—10.)



1. In a car coupling, the combination of a coupling head having a seat for supporting the locking block in its lock set position, a pivoted knuckle in said head, a locking block having an extension projecting below the knuckle locking portion thereof and a lifting link having a loose engagement with the locking block adjacent the lower end of the knuckle locking portion of the latter and at one side of its center of gravity for lifting and tilting the lock, and also adapted to be moved into contact with the depending extension of the block, whereby the latter may be forcibly pushed from its lock set position by tilting the link.

2. In a car coupling, the combination of a coupling head having a seat for supporting the locking block in its lock set position, a knuckle, a locking block having a knuckle locking portion and a part depending below said portion and provided with a shoulder to engage the seat on the coupling head, and a lifting link having movement independent of the locking block and adapted to engage the latter adjacent the lower end of the knuckle locking portion and to one side of its center of gravity, so that when the link is lifted the block will tilt in a direction to engage the seat on the coupling head and when the link is released it will engage the depending portion of the locking block intermediate its lock set shoulder and knuckle locking portion, the said link adapted when the block is lock set to rest on the top of the locking block and project slightly above the coupling head.

3. In a car coupling, the combination of a coupling head having a seat therein, a pivotal knuckle, a locking block provided adjacent the lower end of the knuckle locking portion thereof, and at one side of its center of gravity, with a shoulder, and a lifting link having a shoulder adapted to normally rest on the top of the block and also having a lug adapted when the link is elevated to engage the shoulder on the block for lifting and tilting the block, and also adapted when the link is supported on the top of the block to rest below said shoulder on the block and in a position to engage the block and forcibly push it from its lock set seat when the link is tilted.

4. In a car coupling, the combination of a head having a seat, a pivoted knuckle, a locking block provided adjacent its lower end with a shoulder adapted to engage the seat in the head, and also provided at a point above said shoulder, and adjacent the lower end of the knuckle locking portion of the block, with a shoulder, and a lifting link having a projection to engage said last mentioned shoulder when link is lifted and in a position to engage the block at a point below and shoulder when the link is in its lowered position.

5. In a car coupling, the combination of a head, a locking block therein, the said head having a seat on its side wall for supporting the locking block in its lock set position, a knuckle the tail of which engages the block and dislodges it from its seat during the closing movement of the knuckle, and a lifting link having a lug to engage the underside of a shoulder on the block for lifting the latter, and also to engage the outer side of the block below said shoulder whereby the block may be dislodged from its lock set position by tilting the link.

[Claims 6 to 8 not printed in the Gazette.]

1,135,964. APPARATUS FOR DISPLAYING AND VENDING CIGARS AND OTHER ARTICLES. WILLIAM G. J. COLLINS, Chicago, Ill., assignor to United Cigar Manufacturers Company, New York, N. Y., a Corporation of New York. Filed Jan. 6, 1913. Serial No. 740,384. (Cl. 211—6.)



1. In an apparatus of the character described, the combination with a can support having a base the upper surface of which is inclined downwardly and forwardly, of a can having a locking device bent outwardly from one of its walls and means on the support for engaging said locking device.

2. An apparatus of the character described comprising the combination with a can and a support for said can comprising a base and an upright frame, of a hook and slot connection between the can and the frame of said support whereby said can is detachably interlocked with said support.

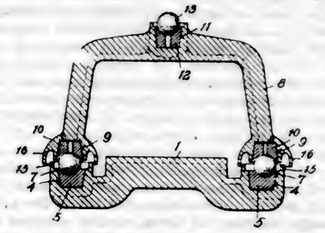
3. In an apparatus of the character described, the combination with a can and a support comprising a base and an upright frame for said can, of a hook projecting from one of said parts, the other of said parts being provided with a slot whereby said can and upright frame are detachably secured together.

4. In an apparatus of the character described, the combination with a can support comprising a base, uprights extending from said base and cross pieces extending between said uprights, cans supported upon said base, and means for attaching said cross pieces and said cans.

5. In an apparatus of the character described, the combination with packing cans, of a support comprising a base, apparatus extending from said base, a lid pivotally supported between said uprights, cross pieces extending between said uprights, cans supported upon said base, and means for attaching said cans and said cross pieces.

1,135,965. ROCKING SUPPORT FOR CONCENTRATING-TABLES. EMIL DEISTER, Fort Wayne, Ind., assignor to Deister Machine Company, Fort Wayne, Ind., a Corporation of Indiana. Filed May 15, 1914. Serial No. 838,788. (Cl. 83—88.)

1. A rocking support for concentrating tables having in combination a base provided with a plurality of circular seats, one of said seats being adjustable horizontally with reference to the other seat, balls arranged in said seats, a rocking member provided with seats for said balls, and having a bearing for the table.



2. A rocking support for concentrating tables having in combination a base provided with sockets, blocks adapted to fit in said sockets and provided with circular seats, the seat in one of the blocks being eccentric, balls arranged in seats, and a rocking member provided with seats for said balls and with a bearing for the table.

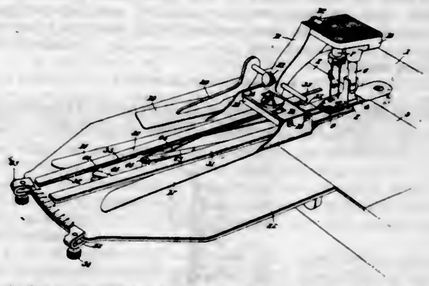
3. A concentrating table having in combination therewith sockets arranged in pairs at right angles to the direction of vibration of the table and provided with circular seats, U-shaped rocking supports provided at the ends of the legs with circular seats and having a bearing for the table midway of its horizontal portions, balls arranged in the seats of the sockets and legs, and means for shifting the point of support of one of the legs of the U-shaped part horizontally with reference to the points of support of the other leg.

4. A concentrating table having in combination therewith a central supporting frame, pairs of sockets secured to the frame at right angles to the direction of the table, said sockets being provided with circular seats, U-shaped rocking supports arranged astride of the central frame and provided at the ends of their legs with circular seats and having a bearing for the table midway of their horizontal portions, balls arranged in the seats in the sockets and legs, and means for shifting horizontally a ball of each pair with reference to the other ball thereof.

5. A concentrating table having in combination therewith an inverted U-shaped rocking support provided on its upper end with a bearing for the table, bearings on which the ends of the legs of the U-shaped member have a rocking movement, and means for shifting the bearing point of one of the legs horizontally.

[Claims 6 and 7 not printed in the Gazette.]

1,135,966. PLAIT-FOLDER FOR SEWING-MACHINES. ALBERT H. DE VOE, Westfield, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 6, 1914. Serial No. 822,815. (Cl. 112—12.)



1. In a box-plait folder for sewing-machines, an attachment base-plate, complemental folding and guiding fingers mounted thereon, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine, of independently mounted adjusting

levers located below said base-plate and operatively connected with said folding and guiding fingers to effect the adjustments of the latter for varying widths of plaits.

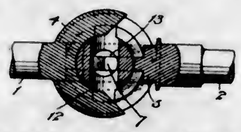
2. In a box-plait folder for sewing machines, an attachment base-plate, complemental folding and guiding fingers mounted thereon, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine, of adjusting levers pivotally mounted on a stud-bearing depending from said base-plate and operatively connected through forked connections with said folding and guiding fingers to effect adjustments of the latter for varying widths of plaits.

3. In a box-plait folder for sewing machines, an attachment base-plate, complemental folding and guiding fingers mounted thereon, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine, of independently mounted adjusting levers located below said base-plate and provided with index blades overlying the upper surface of said attachment base-plate and operatively connected with said folding and guiding finger to effect adjustments of the latter for varying widths of plaits.

4. In a box-plait folder for sewing machines, an attachment base-plate, complemental folding and guiding fingers comprising integrally formed superposed plies, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine, of independently mounted adjusting levers located below said base-plate and operatively connected with said folding and guiding fingers to effect the adjustments of the latter for varying widths of plaits.

5. In a box-plait folder for sewing machines, an attachment base-plate, complemental folding and guiding fingers mounted thereon, and a bracket provided with oppositely arranged folding blades suspended above the bed-plate of the sewing machine, of independently mounted adjusting levers located below said base-plate and operatively connected with said folding and guiding fingers to give the latter adjustments at one angle to each other and to the line of seam formation.

1,135,967. UNIVERSAL JOINT. WILLIAM H. DOUGLAS, Belleville, N. J., assignor to Healey & Company, New York, N. Y., a Corporation of New York. Filed Oct. 16, 1911. Serial No. 654,995. (Cl. 74—19.)



A universal joint, consisting of a block member having two concentric surface grooves of different widths, one within the other, and two more similar grooves arranged at right angles to the first-named grooves, and two inwardly stepped yoke members adapted to coact with said grooves, each member being removably held in sliding engagement with its two concentric grooves of the block member.

1,135,968. CLASP. JOSEPH C. HITCHNER, Philadelphia, Pa. Filed May 14, 1913. Serial No. 767,498. (Cl. 24—248.)



1. A clasp comprising a spring wire frame, a plate secured to the frame and having a hook thereon, a plate pivotally connected at one end to the spring wire frame, and a bail adapted to engage under said hook, said bail pivotally connected to the last-mentioned plate and adapted to contract the length of said frame as said plate is moved into alinement with said frame, substantially as described.

2. A clasp comprising a spring wire frame, a plate secured to the frame and having a hook thereon, a plate pivotally connected at one end to the spring wire frame, a bail adapted to engage under said hook and pivotally connected to the last-mentioned plate, said pivotal connection between the bail and the last-mentioned plate located on the last-mentioned plate at the side thereof opposite the pivotal connection of said plate with the frame, and at a point farther removed from the hook, and said bail being adapted to contract the length of said frame as said plate is moved into alinement with said frame, substantially as described.

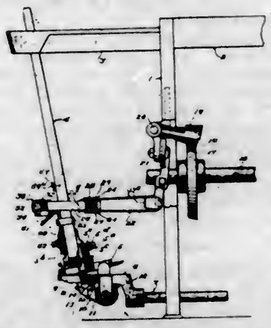
3. A clasp comprising a spring wire frame, a plate secured to said frame and having a hook thereon, a pivot plate pivotally connected to the frame, a bail pivotally connected to said pivot plate and adapted to be positioned over the hook, said bail wider at its free end than at its pivotal end, and at its wider end projecting beyond both ends of the hook and at such projecting portions curved, substantially as described.

4. A clasp comprising a spring wire frame, a plate secured to the frame and having a hook thereon, a plate pivotally connected at one end to the spring wire frame, a bail adapted to engage over said hook, and pivotally connected to the last-mentioned plate, said bail being adapted to contract the length of said frame as said plate is moved into alinement with said frame, said pivotal connection between the bail and the last-mentioned plate located on the last-mentioned plate at the side thereof opposite the pivotal connection of said plate with the frame, and at a point farther removed from the hook, and fingers on said pivot plate adapted to engage the wire frame and limit the pivotal movement of the pivot plate in one direction, substantially as described.

5. A clasp comprising a spring wire frame, a plate secured to said frame and having a hook thereon, a pivot plate pivotally connected to the frame, a bail pivotally connected to said pivot plate and adapted to be positioned under the hook, said bail being adapted to contract the length of said frame as said plate is moved into locking position, and fingers on said pivot plate adapted to engage the wire frame and limit the pivotal movement of the pivot plate in one direction, substantially as described.

[Claim 6 not printed in the Gazette.]

1,135,969. LOOM. CHARLES A. LITTLEFIELD, Lowell, Mass.; Arthur Littlefield, administrator of said Charles A. Littlefield, deceased, assignor of one-half to Ephraim H. Spedding, Lowell, Mass. Filed Sept. 6, 1910. Serial No. 580,559. (Cl. 139—48.)



1. The improved lug-strap comprising opposite loops disposed in planes at right angles to each other, and clamp-members receiving on four sides thereof the said free ends and coupling the loops together.

2. The improved lug-strap comprising opposite loops disposed in planes at right angles to each other, clamp-members receiving between them the ends of one of said loops, and means for clamping the ends of the other loop to the backs of the said clamp-members and closing the latter together upon the ends first named.

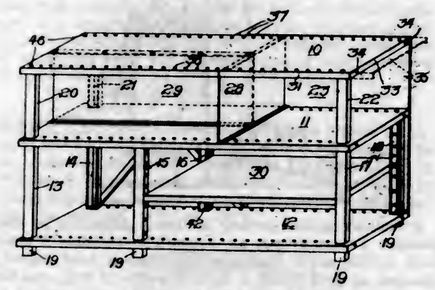
3. The improved lug-strap comprising opposite loops of strip-material disposed in planes at right angles to each other, a pair of clamp-members clasping the ends of one of the said loops edgewise, and means for securing the ends of the other loop flatwise to the said clamp-members and for holding the latter together.

4. The improved lug-strap comprising opposite loops of strip-material disposed in planes at right angles to each other with their free ends juxtaposed, and clamping devices holding the ends of one of the said loops edgewise and those of the other loop flatwise.

5. The improved lug-strap comprising opposite loops of strip-material disposed in planes at right angles to each other, a pair of clamp-members receiving the ends of one of the said loops edgewise between them, and a bolt holding the ends of the other loop flatwise to the said clamp-members and clasping the latter against said edges.

[Claims 6 to 26 not printed in the Gazette.]

1,135,970. STEEL SHELVING. THOMAS M. LOTHROP, Glencoe, Ill., assignor to Thomas M. Lothrop & Co., Chicago, Ill., a Copartnership. Filed Jan. 19, 1914. Serial No. 812,888. (Cl. 211—27.)



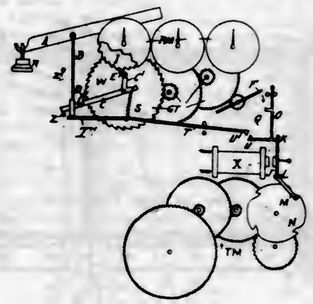
1. Shelving comprising continuous sheet-metal shelves each composed of one or more sections having one or more longitudinal flanges for giving supporting strength and rigidity to said shelves and each having holes positioned at intervals along its length, sheet-metal posts having a plurality of vertical webs each web operating as a thrust member when the shelves are loaded and each post being of a length such as to fit between adjacent shelves at any desired point throughout their length, and devices separate from said posts coöperating with the holes in said shelves to fasten the ends of said posts to said shelves at different positions whereby the position of any post may be shifted as desired without moving any of the other parts.

2. Shelving comprising continuous sheet-metal shelves each composed of one or more sections having one or more longitudinal flanges for giving supporting strength and rigidity to said shelves and each having holes positioned at intervals along its length, sheet-metal posts having a plurality of vertical webs each web operating as a thrust member when the shelves are loaded and each post having a horizontal flange at each end adapted to bear against the adjacent shelf and provided with a hole for coöperating with the holes in the adjacent shelf and each post being of a length such as to fit between adjacent shelves at any point throughout their length, and bolts and nuts for coöperation with the registering holes in said flanges and shelves for securing the posts in desired positions between said shelves.

3. Shelving comprising continuous sheet-metal shelves and sheet-metal posts for supporting and spacing said shelves, each post comprising a plurality of substantially vertical webs meeting along one or more substantially vertical lines and extending from shelf to shelf and each post having a horizontal flange at each end secured to the ends of one or more of said webs and extending at right angles thereto in position to bear against the surfaces of the coöperating shelves.

4. Shelving comprising continuous sheet-metal shelves, sheet-metal posts for supporting and spacing said shelves, each post including a plurality of substantially vertical webs meeting along one or more substantially vertical lines and extending from shelf to shelf and each post having a horizontal flange at each end secured to the ends of one or more of said webs and extending at right angles thereto in position to bear against the surfaces of the coöperating shelves, and a short bolt passing through a hole in each said horizontal flange and through a coöperating hole in the associated shelf and provided with a nut for securing the parts together.

1,135,971. TELEPHONE-CALL RECORDER. DUNCAN JAMES MCGAURAN, Geraldton, Western Australia, Australia. Filed Dec. 15, 1914. Serial No. 877,348. (Cl. 179—7.)



1. In telephone call recorders, the combination with the subscriber's switch of a gear train controlled by a movement of said switch and adapted to run for a predetermined time when subscriber switches in, a recording mechanism operated through the medium of said gear train after the said predetermined time has expired, and a timing mechanism operated by a call from the exchange for rendering inoperative the recording mechanisms.

2. In telephone call recorders, the combination with the subscriber's switch of a gear train a spring controlled lever for operating the same, said lever being released when said switch rises and a recording mechanism operated also by said lever after it has reached its limit of movement, and a timing mechanism operated by a call from the exchange for rendering inoperative the recording mechanisms.

3. In telephone call recorders, the combination with the subscriber's switch of a gear train a spring controlled lever arranged to operate it for a predetermined time, an arm attached to said switch and normally holding said lever in inoperative position, said lever being released by the rising of said arm, stops governing the movements of the lever, an arm on said lever provided with a pawl engaging a ratchet wheel in the gear of the recording mechanism, and a timing mechanism operated by a call from the exchange for rendering inoperative the recording mechanisms.

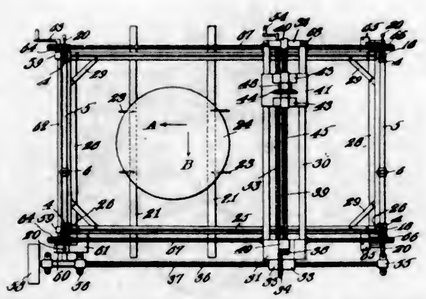
4. In telephone call recorders, the combination with the subscriber's switch of a gear train controlled by the movement of said switch and adapted to run for a predetermined time when said switch rises, a recording mechanism operated through the medium of said gear train after the said predetermined time has expired, a timing mechanism operated by the exchange, controlling means

for stopping the gear train, and a lever operated by the telephone switch for releasing said controlling means.

5. In telephone call recorders, the combination with the subscriber's switch of a gear train controlled by the movement of said switch and adapted to run for a predetermined time when said switch rises, a recording mechanism operated through the medium of said gear train after the said predetermined time has expired, an electromagnet in the calling circuit, a timing mechanism adapted to be released for a predetermined time by said electromagnet, a wheel in said timing mechanism having notches at predetermined intervals, a lever attached to the armature of said electromagnet adapted to engage with the notches in said wheel, an arm operated by said lever, a stud on said arm adapted to arrest the gear train another stud on said arm adapted to engage with a stud on a lever controlled by said switch, and an arm connected with said switch adapted to bear upon said lever.

[Claims 6 to 10 not printed in the Gazette.]

1,135,972. BLOCK-SURFACING MACHINE. ALEXANDER CARPENTER, Prairie Depot, Ohio, assignor of one-half to Fredrick K. Gelwix, Findlay, Ohio. Filed July 24, 1913. Serial No. 781,016. (Cl. 144—2.)

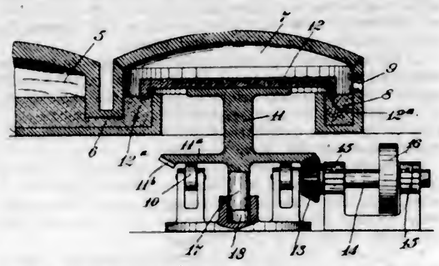


In a machine for surfacing butchers blocks, a frame embodying pairs of legs; connections between the legs of the respective pairs; upper tracks uniting the legs of the different pairs longitudinally of the frame; lower tracks uniting the legs of the different pairs longitudinally of the frame, the upper and lower tracks being spaced vertically to define a transverse opening through the frame; a removable block supporting platform terminally insertible into the frame through the opening and adapted to rest upon the lower tracks; a carriage mounted to move upon the upper tracks; means for moving the carriage along the upper tracks; a tool holder mounted to move on the carriage transversely of the direction of movement of the carriage; a block-engaging tool carried by the tool holder; means for moving the tool holder on the carriage; and means for operating the tool.

1,135,973. GLASS-FURNACE. EDWARD MILLER, Columbus, Ohio. Filed Feb. 19, 1912. Serial No. 678,484. (Cl. 49—56.)

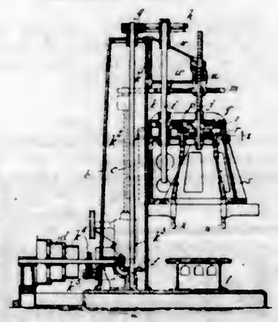
1. In a glass apparatus, the combination with a working chamber for containing the molten glass and from which chamber the glass is directly removed for blowing or molding, a stirring device having a rim dipping into the surface of the glass, said chamber having a working hole beyond and in proximity to the rim of the stirring device, said working hole located to permit the removal of the glass from the surface thereof radially beyond the outermost rim of the stirring device and in proximity thereto.

2. In a glass apparatus, means for imparting a circular motion to a mass of molten glass past a point of its removal consisting of, in combination, a circular receptacle open at its center, a support in said open center, a flanged device mounted on said support dipping into said glass



receptacle and means for imparting rotary motion to said flanged device.

1,135,974. MULTIPLE-SPINDLE DRILLING-MACHINE. CLARENCE J. WETSEL, Chicopee, Mass. Filed Mar. 27, 1912. Serial No. 686,595. (Cl. 77—23.)



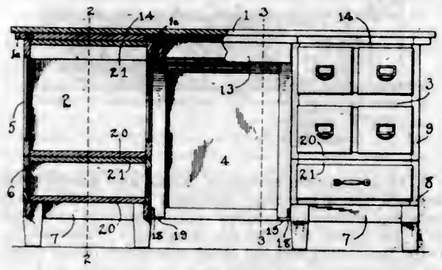
A multiple spindle-drilling machine, comprising in combination a fixed frame, an outwardly extending bracket fixed to the upper end thereof, a feeding head slidably mounted on said frame, a circular series of drill spindles rotatably mounted in said head, a feed-screw mounted in said bracket and said head, said feed screw being attached to said head at the center of said series of drill spindles, a drive shaft rotatably mounted in said bracket and slidably and rotatably mounted in said head, said drive shaft being located between said frame and said feed screw and in parallel relation thereto, means to cause said feed screw to move said head downwardly to simultaneously transmit an equal pressure simultaneously on each one of the drill spindles, and operative connections between said drive shaft and said drill spindles, said connections comprising spur gears, whereby each drill spindle is driven with uniform torque.

1,135,975. KNOCKDOWN DESK. RICHARD H. BROWNE, Muskegon, Mich. Substitute for application No. 662,981, filed Nov. 29, 1911. This application filed Apr. 7, 1913. Serial No. 759,367. (Cl. 45—93.)

1. As a new article of manufacture, a knockdown sectional desk comprising spaced pedestals, each formed on a series of interchangeable units, a top, the top depending solely for its support upon said pedestals, means for detachably fastening the top to the pedestals, the top having a rail along its rear edge provided with holes, a rear panel between the pedestals provided in its upper edge with dowel pins to fit in said holes, and means to fasten the panel between the pedestals with the dowel pins in the holes of said strip.

2. As a new article of manufacture, a knockdown sectional desk comprising spaced pedestals, each formed of a series of interchangeable units, a top, means for fastening

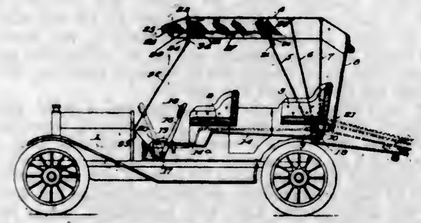
the top to the pedestals, the top having holes on its underside at the rear thereof, a rear panel board arranged between the pedestals and having dowel pins in its upper edge to fit in said holes of the top, and apertured members supported between the pedestals, the said rear panel having dowel pins in its lower edge to fit in the apertures of said members, whereby the rear panel is supported between the pedestals.



3. As a new article of manufacture a knock down sectional desk comprising spaced pedestals, each formed of a series of interchangeable units, a top, the top depending solely for support upon said pedestals, and means for fastening the top to the pedestals.

4. As a new article of manufacture, a knock down sectional desk comprising two pedestals each of which is composed of a series of interchangeable units, coacting fastening means between the units of each pedestal, a top, the top depending solely for its support upon said pedestals, and means for fastening the top to the pedestals.

1,135,976. AUTOMOBILE TOP-LIFTER. LEWIS JOHNSON, Monroe, La., assignor of thirty-four one-hundredths to John P. Kennedy, thirty-three one-hundredths to Walter S. Leyens, and thirty-three one-hundredths to Charles Schulze, Monroe, La. Filed June 30, 1914. Serial No. 848,246. (Cl. 21—62.)



1. The combination with the vehicle having an extension top, comprising a covering and bows, of a shaft journaled transversely of the body of the vehicle near the rear end thereof and having a radial arm, a lever pivoted to the front of the vehicle and having means for holding it in adjusted position, a link connecting the lever to the radial arm of the shaft, a plate rigidly secured to each end of the shaft outside the body, the rear bow of the top having at the lower end of each arm a rigid forward extension rigidly connected to the adjacent plate, the intermediate bows being pivoted to the plate, one of the front bows having eyes for engagement by holding means to hold the top extended and a hinged connection between the front bows and one of the rear bows for permitting the front bows to fold upon the rear bows.

2. The combination with the vehicle having an extension top, said top comprising a covering, and bows for supporting the covering, each bow comprising a body and arms, of a shaft journaled transversely of the body of the vehicle near the rear end thereof, a plate rigidly secured to each end of the shaft outside of the body of the vehicle, the rear bow of the top having at the lower end of each arm a rigid forward extension rigidly connected to the adjacent plate, means connected with the shaft for oscillating the same to raise and lower the top, and a hinged connection between the front bows and one of the rear bows for permitting the front bows to fold upon the rear bows.

3. The combination with the vehicle having an extension top, said top comprising a covering, a series of rear bows, and a series of front bows, a plate at each side, the rearmost bow of the rear bows being rigidly connected with the plates, and the front bows of the rear bows being pivoted to the plates, a shaft rigidly connected with the plates and journaled in the vehicle body, means for oscillating the shaft, means for holding the shaft in adjusted position, said front bows being hinged to the rear bows, to fold upon the said rear bows, and means in connection with the front bows for engaging the rear bows to hold the front bows in extended position.

4. The combination with the vehicle having an extension top, said top comprising a covering and a series of bows, a plate at each side of the top, the rearmost bow being rigidly connected with the plates and the other bows being pivoted to the plates, a shaft connecting the plates and rigid therewith and journaled in the vehicle body, means for oscillating the shaft to raise or lower the top, releasable means for holding the shaft in adjusted position, said means comprising a lever pivoted to the vehicle body adjacent to one of the seats, a radial arm on the shaft, and a link connecting the lever to the arm.

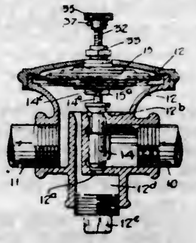
1,135,977. PROCESS OF TAWING AND TANNING. LOUIS E. LEVI, Milwaukee, Wis., assignor to Pfister & Vogel Leather Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 29, 1913. Serial No. 809,221. (Cl. 149—5.)

1. The process of tanning consisting of immersing hides in a solution of a non-acid ferric chromate.

2. The process of tanning consisting of immersing hides in a solution of a non-acid substituted ferric chromate.

REISSUES.

13,900. THERMOSTATIC CONTROLLER. CLAYTON AUBRA DUNHAM, Marshalltown, Iowa, assignor to C. A. Dunham Co., Inc., Marshalltown, Iowa. Filed Dec. 11, 1914. Serial No. 876,753. Original No. 865,171, dated Sept. 3, 1907, Serial No. 264,535. (Cl. 236—10.)



1. An expansion member for thermostatic controllers, said member having sheet metal walls, of which the one has its edge lapped over the edge of the other, said walls being soldered together at their engaging inner surfaces, and the lapping edge of the first wall being soldered to the outer surface of the second wall.

2. In a thermostatic controller, a chambered expansion member, and a brace located in said member and extending across the interior thereof to engage the walls of said member at various points along the length of the brace, whereby to prevent collapse of said member.

3. The combination with a casing, having an inlet port, an outlet port and a valve opening, of a chambered member expansible bodily along its axial line, and having

upper and lower oppositely disposed walls, a brace set edgewise within said member to bear against said walls between the center and periphery thereof, and a valve connected with one of the walls of said expansible member.

4. The combination with a casing, having an inlet port, an outlet port and a valve opening, of a chambered member expansible bodily along its axial line and having upper and lower oppositely disposed walls, a radially disposed brace set edgewise between said walls to bear against said walls between the center and periphery thereof, and a valve connected with said expansible member.

5. In a thermostatic controller, a chambered expansion member, and a radial brace within said member to resist the collapse thereof, said brace being joined in pairs by reduced connecting portions and said reduced connecting portions lying against each other.

6. In a thermostatic controller, a chambered expansion member with an interiorly projecting plug at approximately the center thereof, and radial braces joined in pairs by curved and reduced portions lying against each other and surrounding the inner portion of the plug.

7. In a thermostatic controller, a chambered expansion member with interiorly projecting plugs in its sides, said plugs being juxtaposed to limit the contracting action of said member, and radial projecting braces contained within said member, also to limit the contracting action thereof.

8. In a thermostatic controller, a chambered expansion member with interiorly projecting plugs in its sides, said plugs being juxtaposed to limit the contracting action of said member, and radially projecting braces contained within said member and also to limit the contracting action thereof, said braces being joined in pairs by reduced connecting portions lying against each other and embracing the inner portions of the plugs.

9. In a thermostatic controller, a casing, an expansion member therein, said member being provided with a part having a filling opening, a threaded pin adapted to close said opening, the pin screwing into the casing, and a combined stuffing box and lock nut screwing on the threaded pin and adapted to engage the casing.

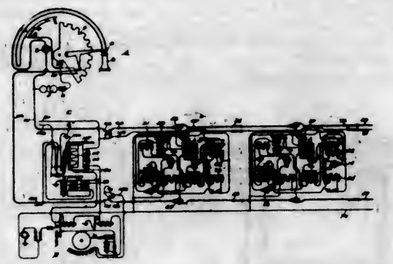
10. In a thermostatic controller, a casing, an expansion member, an orifice plug secured in the wall of said member, a threaded rod screwed in the plug to close the orifice thereof, and a combined stuffing box and lock nut screwing on the rod and adapted to engage the casing.

11. In a thermostatic controller, a casing, an expansion member therein, said member being provided with a part having a filling opening, a threaded pin screwing into the casing and adapted to close said filling opening, a combined stuffing box and lock nut screwing on the pin and adapted to engage the casing, a thumb wheel, and means for removably connecting the same with the outer end of the pin.

13,901. AUTOMATIC TELEPHONE SYSTEM. FRANK NEWFORTH, Jr., Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 24, 1914. Serial No. 858,364. Original No. 1,078,690, dated Nov. 18, 1913, Serial No. 671,692. (Cl. 179—18.)

1. In a telephone system, a calling and a called subscriber's line, a line relay individual to each line, means for extending a connection between the calling and the called subscribers' lines, means for disconnecting said relay from the called line, and means whereby the connection between the calling and the called lines is not completed until a predetermined interval after the line relay has been disconnected from the called line.

2. In a telephone system, a calling and a called subscriber's line, a non-numerical line switch individual to each subscriber's line, a line relay for each switch normally connected with the subscriber's line, means for disconnecting said relay from the line when said line is a called line, means for extending a connection between the calling and the called subscribers' lines, and means whereby the connection is not completed until a predetermined interval after the line relay has been disconnected from the called line.



3. In a telephone system, a calling and a called subscriber's line, a line relay individual to each line, means including automatic switches controllable over two sides of a line circuit in series for extending a connection between the calling and the called subscribers' lines, means for disconnecting said relay from its line when said line is a called line, and means whereby the connection between the calling and the called lines is not completed until a predetermined interval after the line relay has been disconnected from the called line.

4. In a telephone system, a calling and a called subscriber's line, a non-numerical line switch individual to each subscriber's line, a line relay for each switch normally connected with the subscriber's line, means for disconnecting said relay from the line when said line is a called line, means including automatic switches controllable over two sides of a line circuit in series for extending a connection between the calling and the called subscribers' lines, and means whereby the connection is not completed until a predetermined interval after the line relay has been disconnected from the called line.

5. In a telephone system, a calling and a called subscriber's line, means including an automatic connector switch for establishing a connection between said lines, a side switch in said connector switch having a plurality of operative positions, means for moving said side switch into its final position after the impulses for the last digit of the called number have been transmitted, and means for completing the connection between the calling and the called lines at a predetermined interval after the side switch has passed to its final position.

6. In a telephone system, a calling and a called subscriber's line, means including an automatic connector switch for establishing a connection between said lines, a side switch in said connector switch having a plurality of operative positions, means for moving said side switch into its final position after the impulses for the last digit of the called number have been transmitted, means for completing the connection between the calling and the called lines at a predetermined interval after the side switch has passed to its final position, and means for controlling the operation of said connector switch over two sides of the line circuit in series.

7. In a telephone system, a calling and a called subscriber's line, means including a connector switch for establishing a connection between said lines, a side switch for said connector switch having a plurality of operative positions, a private magnet for controlling the operation of said side switch, a relay connected in parallel with said private magnet, and means controlled by said relay for completing the connection with the called line.

8. In a telephone system, a calling and a called subscriber's line, means including a connector switch for establishing a connection between said lines, a side switch for said connector switch having a plurality of operating positions, a private magnet for controlling the operation of said side switch, a slow acting relay connected in parallel with said private magnet, means controlled by said slow acting relay for completing the connection with the called line at a predetermined interval after the side switch has moved to its final position, and means for controlling the operation of said connector switch over two sides of the line circuit in series.

9. In a telephone system, subscribers' lines divided into groups, a line relay individual to each line, means for extending a connection between the calling and the called subscribers' lines, said means including an automatic switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, means for disconnecting said relay from the called line, and means whereby the connection between the calling and the called lines is not completed until a predetermined interval after the line relay has been disconnected from the called line.

10. In a telephone system, subscribers' lines divided into groups, a non-numerical line switch individual to each subscriber's line, a line relay for each switch normally connected with the subscriber's line, means for disconnecting said relay from the line when said line is a called line, means for extending a connection between the calling and the called subscribers' lines, said means including an automatic switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in the selected group, and means whereby the connection is not completed until a predetermined interval after the line relay has been disconnected from the called line.

11. In a telephone system, subscribers' lines divided into groups, a line relay individual to each line, means including automatic switches controllable over two sides of a line circuit in series for extending a connection between the calling and the called subscribers' lines, said automatic switches having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, means for disconnecting said relay from its line when said line is a called line, and means whereby the connection between the calling and the called lines is not completed until a predetermined interval after the line relay has been disconnected from the called line.

12. In a telephone system, subscribers' lines divided into groups, a non-numerical line switch individual to each subscriber's line, a line relay for each switch normally connected with the subscriber's line, means for disconnecting said relay from the line when said line is a called line, means including automatic switches controllable over two sides of a line circuit in series for extending a connection between the calling and the called subscribers' lines, said automatic switches having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, and means whereby the connection is not completed until a predetermined interval after the line relay has been disconnected from the called line.

13. In a telephone system, subscribers' lines divided into groups, means including an automatic connector switch for establishing a connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a side switch in said connector switch having a plurality of operative positions, means for moving said side switch into its final position after the impulses for the last digit of the called number have been transmitted, and means for completing the connection between the calling and the called lines at a predetermined interval after the side switch has passed to its final position.

14. In a telephone system, subscribers' lines divided into groups, means including an automatic connector switch for establishing a connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a side switch in said connector switch having a plurality of operative positions, means for moving said side switch into its final position after the impulses for the last digit of the called number have been transmitted, means for completing the connection between the calling and the called lines at a predetermined interval after the side switch has passed to its final position, and means for controlling the operation of said connector switch over two sides of the line circuit in series.

15. In a telephone system, subscribers' lines divided into groups, means including a connector switch for establishing a connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a side switch for said connector switch having a plurality of operative positions, a private magnet for controlling the operation of said side switch, a relay connected in parallel with said private magnet, and means controlled by said relay for completing the connection with the called line.

16. In a telephone system, subscribers' lines divided into groups, means including a connector switch for establishing a connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a side switch for said connector switch having a plurality of operative positions, a private magnet for controlling the operation of said side switch, a slow acting relay connected in parallel with said private magnet, means controlled by said slow acting relay for completing the connection with the called line at a predetermined interval after the side switch has moved to its final position, and means for controlling the operation of said connector switch over two sides of the line circuit in series.

17. In a telephone system, a calling and a called subscriber's line, means including an automatic switch for establishing a connection between said lines, a back-bridge relay for said switch, means for deënergizing said relay by hanging up the receiver at the calling substation, and means controlled by the deënergization of said relay for reversing the battery connection to the calling line.

18. In a telephone system, a calling and a called subscriber's line, means including a connector switch for establishing a connection between said lines, means for controlling the operation of said switch over two sides of a line circuit in series, a back-bridge relay for said connector, and means for deënergizing said back-bridge relay upon hanging up the receiver at the calling station.

19. In a telephone system, subscribers' lines divided into groups, means including an automatic switch for establishing a connection between said lines, said automatic switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a back-bridge relay for said switch, means for deënergizing said relay by hanging up the receiver at the calling substation, and means controlled by the deënergization of said relay for reversing the battery connection to the calling line.

20. In a telephone system, subscribers' lines divided into groups, means including a connector switch for establishing a connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, means for controlling the operation of said switch over two sides of a line circuit in series, a back-bridge relay for said connector, and means for deënergizing said back-bridge relay upon hanging up the receiver at the calling station.

21. In a telephone system, a calling and a called subscriber's line, means including a connector switch for establishing a connection between said lines, means for controlling the operation of said switch over two sides of a line circuit in series, a back-bridge relay for said connector, means for deënergizing said back-bridge relay upon hanging up the receiver at the calling station, and means controlled by the deënergization of said relay for reversing the battery connection to the calling line.

22. In a telephone system, a calling and a called subscriber's line, means including an automatic switch for establishing a connection between said lines, a release relay, a back-bridge relay connected to ground through springs controlled by said release relay, means for deënergizing said back-bridge relay by hanging up the receiver at the calling substation, and means controlled by

said deënergization for reversing the battery connection to the calling line.

23. In a telephone system, a calling and a called subscriber's line, means including an automatic connector switch for establishing a talking connection between said lines, a pair of condensers in the talking conductors, a relay bridged across the talking conductors on the called side of said condensers, a release relay for said connector, means controlled by said release relay for controlling the circuit of the bridged relay, and means for deënergizing said bridged relay when the calling subscriber replaces his receiver upon the book.

24. In a telephone system, a calling and a called subscriber's line, means including an automatic connector switch for establishing a connection between said lines, a pair of condensers in opposite sides of said talking connection, a back-bridge relay bridged across the talking conductors at the called side of said condensers, a release relay, means controlled by said release relay for controlling the circuit of said back-bridge relay, means controlled by the calling subscriber for deënergizing said release relay to thereby deënergize said back-bridge relay, and means controlled by the deënergization of said back-bridge relay for reversing the battery connection to the calling line.

25. In a telephone system, a calling and a called subscriber's line, a line switch for said calling line, a line relay for said switch normally connected with said line and with battery, a cut-off relay for cutting off said line relay during a connection, means including a connector switch for extending a connection from said line switch to a called subscriber's line, means controlled by the calling subscriber in releasing for deënergizing said cut-off relay to again connect said line relay and battery to the calling line, and means operated at the same time for reversing the battery connections to the calling line at the connector and thereby prevent said line relay from energizing.

26. In a telephone system, a calling and a called subscriber's line, a line switch for said calling line including a line relay normally connected with the line and a cut-off relay for disconnecting said line relay during the time a connection is established with the called line, means including a connector switch for extending a connection from said line switch to the called line, a relay bridge across the called end of said connector, a release relay controlling the circuit of said bridged relay, means controlled by the calling subscriber in releasing for deënergizing said release relay, circuit connections whereby the deënergization of said release relay deënergizes said cut-off relay and said bridged relay, and means controlled by the deënergization of said bridged relay for reversing the battery connections to the calling line to thereby prevent said line relay from energizing.

27. In a telephone system, subscribers' lines divided into groups, means including a connector switch for establishing a connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, means for controlling the operation of said switch over two sides of a line circuit in series, a back-bridge relay for said connector, means for deënergizing said back-bridge relay upon hanging up the receiver at the calling station, and means controlled by the deënergization of said relay for reversing the battery connection to the calling line.

28. In a telephone system, subscribers' lines divided into groups, means including an automatic switch for establishing a connection between said lines, said automatic switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a release relay, a back-bridge relay connected to ground through springs controlled by said release relay, means for deënergizing said back-bridge relay by hanging up the receiver at the calling substation, and means controlled by said deënergization for reversing the battery connection to the calling line.

29. In a telephone system, subscribers' lines divided into groups, means including an automatic connector switch for establishing a talking connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a pair of condensers in the talking conductors, a relay bridged across the talking conductors on the called side of said condensers, a release relay for said connector, means controlled by said release relay for controlling the circuit of the bridged relay, and means for deënergizing said bridge relay when the calling subscriber replaces his receiver upon the hook.

30. In a telephone system, subscribers' lines divided into groups, means including an automatic connector switch for establishing a connection between said lines, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a pair of condensers in opposite sides of said talking connection, a back-bridge relay bridged across the talking conductors at the called side of said condensers, a release relay, means controlled by said release relay for controlling the circuit of said back-bridge relay, means controlled by the calling subscriber for deënergizing said release relay to thereby deënergize said back-bridge relay, and means controlled by the deënergization of said back-bridge relay for reversing the battery connection to the calling line.

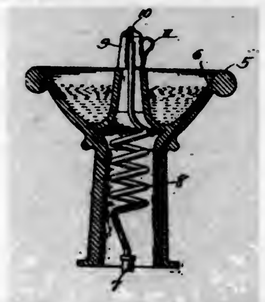
31. In a telephone system, subscribers' lines divided into groups, a line switch for said calling line, a line relay for said switch normally connected with said line and with battery, a cut-off relay for cutting off said line relay during a connection, means including a connector switch for extending a connection from said line switch to a called subscriber's line, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, means controlled by the calling subscriber in releasing for deënergizing said cut-off relay to again connect said line relay and battery to the calling line, and means operated at the same time for reversing the battery connections to the calling line at the connector and thereby prevent said line relay from energizing.

32. In a telephone system, subscribers' lines divided into groups, a line switch for said calling line including a line relay normally connected with the line and a cut-off relay for disconnecting said line relay during the time a connection is established with the called line, means including a connector switch for extending a connection from said line switch to the called line, said connector switch having motion in one plane to select groups and motion in a plane at right-angles thereto to find a line in a selected group, a relay bridged across the called end of said connector, a release relay controlling the circuit of said bridged relay, means controlled by the calling subscriber in releasing for deënergizing said release relay, circuit connections whereby the deënergization of said release relay deënergizes said cut-off relay and said bridged relay, and means controlled by the deënergization of said bridged relay for reversing the battery connections to the calling line to thereby prevent said line relay from energizing.

33. In a telephone system, a line, normal conductors permanently connected therewith, a connector switch for connecting with said line through said normal conductors, means including a line relay for said line for extending a connection therefrom, means for disconnecting said relay from said line when said line is called, means for applying ringing current to said line, and means for preventing ringing current being projected over said line before said relay has been disconnected.

34. In a telephone system, a line, normal conductors permanently connected therewith, a connector switch for connecting with said line through said normal conductors, a line switch individual to said line for extending a connection therefrom and having a line relay normally connected to said line, means for disconnecting said relay from said line when said line is called, means for applying ringing current to said line, and means for preventing ringing current being projected over said line before said relay has been disconnected.

18,902. DRINKING-CUP FOUNTAIN. FREDERICK GEORGE PARTINGTON, Spokane, Wash. Filed Dec. 23, 1913. Serial No. 808,510. Original No. 1,011,264, dated Dec. 12, 1911, Serial No. 613,335. (Cl. 137—11.)



1. In a sanitary drinking fountain, the combination with a hollow stand, a bowl and an upstanding projection in said bowl, of a source of water supply, a flexible tube located in said stand, and extending upwardly through said projection, a liftable cup adapted to normally rest on said projection, a nozzle carried by said cup with which said tube is connected, and a handle carried by said cup.

2. In a public drinking fountain, the combination with a hollow stand, a bowl and an upstanding central projection in said bowl, of a source of water supply, a coiled flexible tube located in said stand and extending upwardly through said central projection, a cup adapted to be seated upon said central projection, a nozzle carried by said cup with which said flexible tubing is connected, and a handle carried by said cup.

3. In a public drinking fountain, the combination with a hollow stand, a bowl and an upstanding central projection in said bowl, of a source of water supply, a coiled flexible tube located in said stand and extending upwardly through said central projection, a cup adapted to be seated upon said central projection, and a nozzle carried by said cup with which said flexible tubing is connected.

4. In a public drinking fountain, the combination with a hollow stand, a bowl, an overflow channel leading from said bowl, an upstanding central hollow projection in said bowl having a flat upper face and projecting above the entrance to the overflow channel, a source of water supply, a flexible tube coiled within said hollow stand, a cup adapted to have a seating upon the flat upper face of the upstanding projection to which cup one end of the tube is connected, the other end of said tube being connected to the source of water supply.

DESIGNS.

47,208. **INSULATOR.** ARTHUR O. AUSTIN, Barberton, Ohio. Filed Dec. 31, 1914. Serial No. 879,976. Term of patent 7 years.



The ornamental design for an insulator, as shown.

47,209. **FONT OF TYPE.** MORRIS FULLER BENTON, Plainfield, N. J., assignor to American Type Founders Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 24, 1914. Serial No. 820,754. Term of patent 14 years.

ABCDEFGHIJKLMNOPQRS
TUVWXYZ& $1234567890£
abcdefghijklmnopqrstuvw
xyz ,;:.-'!?'"" fiffffffffl

The ornamental design for a font of type shown in the accompanying drawing.

47,210. **FONT OF TYPE.** MORRIS FULLER BENTON, Plainfield, N. J., assignor to American Type Founders Company, Jersey City, N. J., a Corporartion of New Jersey. Filed Feb. 26, 1914. Serial No. 821,308. Term of patent 14 years.

ABCDEFGHIJKLMNOPQRST
UVWXYZ& $1234567890£
abcdefghijklmnopqrstuvwxyz
,;:.-'!?'"" fiffffffffl

The ornamental design for a font of type shown in the accompanying drawing.

47,211. **MOTOR-BUS.** CHARLES BERG, New York, N. Y. Filed Dec. 19, 1913. Serial No. 807,795. Term of patent 7 years.



The ornamental design for a motor bus as shown.

47,212. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Feb. 17, 1915. Serial No. 8,930. Term of patent 3½ years.



The ornamental design for Levers lace, as shown.

47,213. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Feb. 17, 1915. Serial No. 8,931. Term of patent 3½ years.



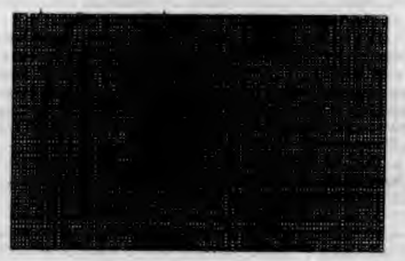
The ornamental design for Levers lace, as shown.

47,214. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Feb. 17, 1915. Serial No. 8,932. Term of patent 3½ years.



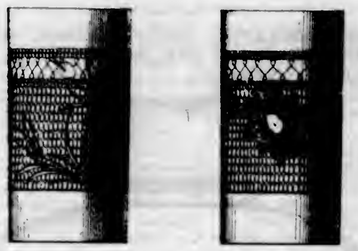
The ornamental design for Levers lace, as shown.

47,215. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Feb. 17, 1915. Serial No. 8,933. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

47,216. TUMBLER OR SIMILAR ARTICLE. GEORGE L. BORDEN, Groveville, N. J. Filed Jan. 30, 1915. Serial No. 5,330. Term of patent 7 years.



The ornamental design for a tumbler or similar article, as shown.

47,217. INCANDESCENT ELECTRIC LAMP. AUGUST BOUCHERY, New York, N. Y., assignor to Wallace Novelty Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1914. Serial No. 879,810. Term of patent 14 years.



The ornamental design for an incandescent electric lamp as shown.

47,218. LIGHTING FIXTURE. AUGUST BOUCHERY, New York, N. Y., assignor to Wallace Novelty Company, New York, N. Y., a Corporation of New York, Filed Dec. 30, 1914. Serial No. 879,811. Term of patent 14 years.



The ornamental design for a lighting fixture as shown.

47,219. STATUE. HOWARD W. CASS, San Diego, Cal. Filed Feb. 17, 1915. Serial No. 8,924. Term of patent 3½ years.



The ornamental design for a statue, as shown.

47,220. LAMP-SHADE. ROBERT G. DICKSON, Pittsburgh, Pa., assignor to Jefferson Glass Company, Follansbee, W. Va., a Corporation. Filed Feb. 15, 1915. Serial No. 8,379. Term of patent 7 years.



The ornamental design for a lamp shade as shown.

47,221. TOY BANK OR SIMILAR ARTICLE. GRACE G. DRAYTON, New York, N. Y. Filed Dec. 31, 1914. Serial No. 879,972. Term of patent 3½ years.



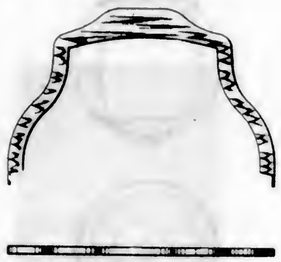
The ornamental design for a toy bank or similar article as shown.

47,222. STATUETTE. GEORGE E. ERICKSON, Kansas City, Mo., assignor to Charles S. Van Noy, Kansas City, Mo. Filed Nov. 30, 1914. Serial No. 874,946. Term of patent 3½ years.



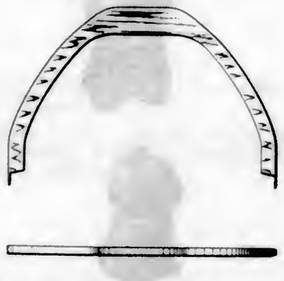
The ornamental design for a statuette, as shown.

47,223. BAG-FRAME MEMBER. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 4, 1915. Serial No. 538. Term of patent 3½ years.



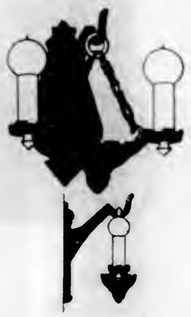
The ornamental design for a bag frame member, as shown and described.

47,224. BAG-FRAME MEMBER. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 4, 1915. Serial No. 539. Term of patent 3½ years.



The ornamental design for a bag frame member, as shown and described.

47,225. LIGHTING-FIXTURE. HOMER E. GLEASON, Seattle, Wash. Filed Nov. 16, 1914. Serial No. 872,483. Term of patent 3½ years.



The ornamental design for a lighting fixture substantially as shown.

47,226. FABRIC. ROBERT B. GRIFFIN, New York, N. Y. Filed Feb. 7, 1914. Serial No. 817,357. Term of patent 3½ years.



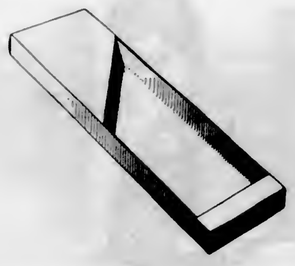
The ornamental design for a fabric as shown and described.

47,227. LAMP-BOWL. WILLIAM FRANK M. HAWE, Pittsburgh, Pa., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 31, 1913. Serial No. 809,755. Term of patent 14 years.



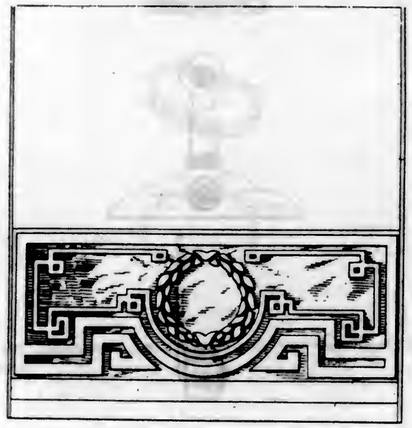
The ornamental design for a lamp bowl, as shown.

47,228. PAPER DISPLAY-BOX. LEO HIRSCHFELD, New York, N. Y., assignor to Stern & Saalberg Company, New York, N. Y. Filed Sept. 29, 1914. Serial No. 864,170. Term of patent 14 years.



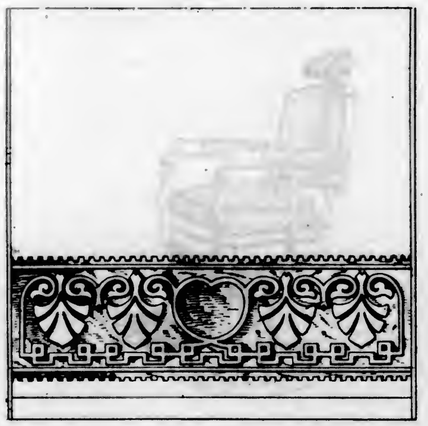
The ornamental design for a paper display box, as shown.

47,229. TURKISH TOWEL OR MAT. HERMAN L. HOHLFELD, Philadelphia, Pa. Filed Oct. 17, 1914. Serial No. 867,257. Term of patent 14 years.



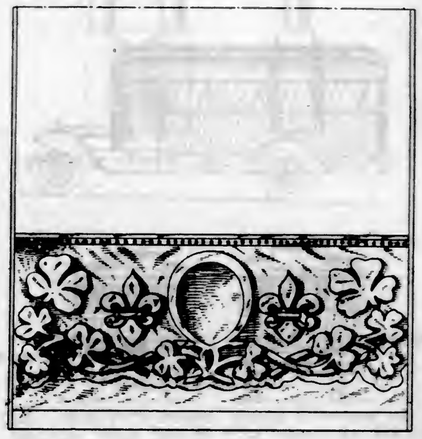
The ornamental design for a Turkish towel or mat, as shown.

47,230. TURKISH TOWEL OR MAT. HERMAN L. HOHLFELD, Philadelphia, Pa. Filed Oct. 17, 1914. Serial No. 867,258. Term of patent 14 years.



The ornamental design for a Turkish towel or mat, as shown.

47,231. TURKISH TOWEL OR MAT. HERMAN L. HOHLFELD, Philadelphia, Pa. Filed Oct. 17, 1914. Serial No. 867,259. Term of patent 7 years.



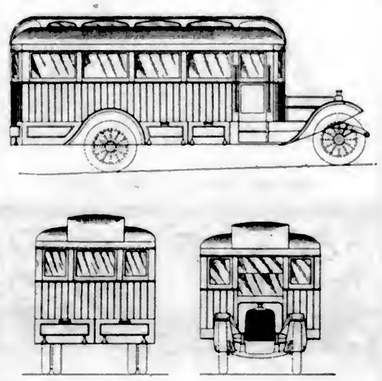
The ornamental design for a Turkish towel or mat, as shown.

47,232. TURKISH TOWEL OR MAT. HERMAN L. HOHLFELD, Philadelphia, Pa. Filed Oct. 17, 1914. Serial No. 867,260. Term of patent 7 years.



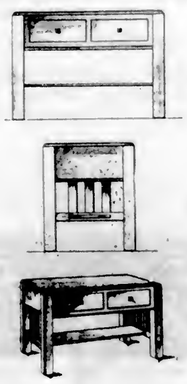
The ornamental design for a Turkish towel or mat, as shown.

47,233. MOTOR-CAR BODY. ELZA N. HOWE and HATTIE C. ARCHAMBEAU, Portland, Oreg. Filed Dec. 8, 1914. Serial No. 876,150. Term of patent 14 years.



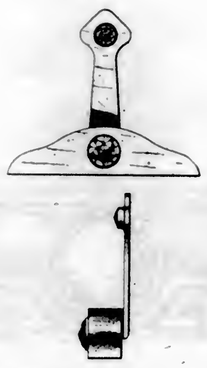
The ornamental design for a motor car body, as shown.

47,234. TABLE-BED. JOHN KEKKONEN, Chicago, Ill., assignor, by mesne assignments, to Charles P. Monasch, Chicago, Ill. Filed Oct. 3, 1914. Serial No. 864,959. Term of patent 14 years.



The ornamental design for a table-bed, as shown.

47,235. VEHICLE-SIGNAL. HERBERT R. KELLS, Los Angeles, Cal. Filed Apr. 30, 1914. Serial No. 835,571. Term of patent 7 years.



The ornamental design for a vehicle signal, as shown.

47,236. BARBER'S CHAIR. WALTER F. KOKEN, St. Louis, Mo. Filed Jan. 18, 1915. Serial No. 2,986. Term of patent 14 years.



The ornamental design for a barber's chair, as shown.

47,237. POCKET SAVINGS-BANK. ISIDOR J. KUSEL, Chicago, Ill. Filed Nov. 5, 1914. Serial No. 870,519. Term of patent 7 years.



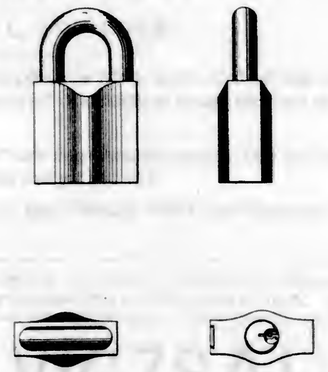
The ornamental design for a pocket savings bank, as shown.

47,238. ATHLETIC SHOE. EDWARD F. MILLER, Washington, D. C. Filed Dec. 14, 1912. Serial No. 736,853. Term of patent 3½ years.



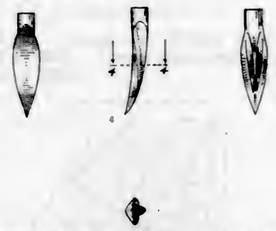
The ornamental design for an athletic shoe, as shown.

47,239. PADLOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Feb. 18, 1914. Serial No. 819,582. Term of patent 14 years.



The ornamental design for a padlock substantially as shown and described.

47,240. BEET-PICK POINT. ALFRED L. WILKES, Santa Ana, Cal. Filed July 28, 1914. Serial No. 853,718. Term of patent 14 years.



The ornamental design for a beet pick point, as shown.

TRADE-MARKS

PUBLISHED APRIL 13, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 50,498. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHANNON & MOTT COMPANY, Des Moines, Iowa. Filed June 22, 1910.

PRAIRIE KING

Particular description of goods.—Wheat-Flour.
Claims use since Aug. 1, 1908.

Ser. No. 62,575. CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & Co., Prague-Wrschowitz, Austria-Hungary. Filed Apr. 1, 1912.

LE ROYAL

Particular description of goods.—Snap-Buttons Used as Garment-Fasteners.
Claims use since Nov. 26, 1906.

Ser. No. 63,202. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THOMAS MADDOCK'S SONS COMPANY, Trenton, N. J. Filed Apr. 29, 1912.



Particular description of goods.—Vitreous-China Water-Closets, Urinals, Lavatories, Public Drinking-Fountains, Sinks, and Bidet-Pans.
Claims use since 1877.

Ser. No. 68,719. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) QUIRIN FÖRSTER, Brussels, Belgium. Filed Feb. 25, 1913.

VICZSAL

Particular description of goods.—Products for Conserving Wood, Rendering it Incombustible, Impermeable, and Resisting to Water and Inattackable to the Action of Destructive Agents.
Claims use since January, 1912.

Ser. No. 68,873. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PEORIA CREAMERY CO., Peoria, Ill. Filed Mar. 6, 1913.



Which includes an irregular polysided figure having substantially five sides and the appearance of an Indian-arrow head, with a plurality of lines radiating from a small star in the center.
Particular description of goods.—Butter.
Claims use since Jan. 1, 1912.

Ser. No. 72,987. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE M. JACKMAN, Columbus, Ohio. Filed Sept. 22, 1913.

K. B. S.

Particular description of goods.—A Preparation for the Treatment of Kidney and Liver Troubles, Nervous Diseases, Lung and Blood Troubles, Rheumatism, Catarrh.
Claims use since May 1, 1913.

Ser. No. 76,011. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JACOB PETRY SUCTION RETAINER COMPANY, Charleston, W. Va., and Pittsburgh, Pa. Filed Feb. 18, 1914.



A portrait of Jacob Petry.
Particular description of goods.—Dentist-Plates.
Claims use since Aug. 7, 1913.

Ser. No. 76,281. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) S. M. HEXTER & COMPANY, Cleveland, Ohio. Filed Mar. 2, 1914.



The word "Satin" is hereby disclaimed.
Particular description of goods.—Lining Fabrics.
Claims use since on or about Apr. 15, 1913.

Ser. No. 76,697. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) LEE TIRE & RUBBER CO., Whitemarsh township, Montgomery county, Pa. Filed Mar. 16, 1914.

"VANADIUM"

Particular description of goods.—Rubber Water-Bottles, Fountain-Syringes, Combination Water-Bottles and Fountain-Syringes, Nipples, Finger-Cots, Ice-Bags, Ice-Caps, Operating-Cushions, Invalid-Rings, Catheters, Rectal Tubes, and Stomach-Tubes.
Claims use since Feb. 20, 1914.

Ser. No. 76,773. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FERDINAND NEUMER, INC., New York, N. Y. Filed Mar. 19, 1914.



Particular description of goods.—Beer.
Claims use since Mar. 10, 1901.

Ser. No. 78,937. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE WALTER BREWING CO., Pueblo, Colo. Filed June 9, 1914.



No claim is made to the right to the exclusive use of the label colored gold, nor to the representation of a still, except in association with the words "Gold Label."
Particular description of goods.—Beer.
Claims use since Jan. 1, 1906.

Ser. No. 79,168. (CLASS 37. PAPER AND STATIONERY.) GEO. BORGFELDT & CO., New York, N. Y. Filed June 17, 1914.



Particular description of goods.—Thumb-Tacks, Paper-Clips, Tissue-Paper, Blank Books, Book-Marks, Paper-Weights, Memorandum-Books, Lead and Novelty Pencils, Steel Pens, Fountain-Pens, Stylographic Pens, Penholders, Pencil-Boxes, Pencil-Sharpeners, Gummed Paper Tape, Blotters, Rubber and Composition Ink-Erasers, Ink-Wells, Moisteners, Paper-Knives, and Common School-Rulers.
Claims use since May 1, 1914.

Ser. No. 79,437. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE READ STONE CO., LTD., Stonehaven, New Brunswick, Canada. Filed June 29, 1914.



The annulus or ring being red in color, though the wording "Never Glazes," "Use Wet or Dry," "Scythe Stone," "Medium Blue Grit," "The Read Stone Co. Ltd. Stonehaven N. B. Canada," and "Bay Chaleur" are not claimed in this mark for exclusive use.
Particular description of goods.—Grindstones, Scythe, Oil, and Whet Stones.
Claims use since the 17th day of August, 1889.

Ser. No. 79,985. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOLMES & SON, Washington, D. C. Filed July 22, 1914. Under ten-year proviso.

HOLMES

Particular description of goods.—Bread, Cake, and Pies.
Claims use since February, 1894.

Ser. No. 80,377. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STANARD-TILTON MILLING CO., St. Louis, Mo. Filed Aug. 6, 1914.

EAGLE 1 BEAM

The figure "1" being printed in green.
Particular description of goods.—Wheat-Flour.
Claims use since 1866.

Ser. No. 81,846. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) DE TREY BROS., Zurich, Switzerland. Filed Oct. 13, 1914.

PROTESYN

Particular description of goods.—Dental Supplies—Namely, Filling Materials, Porcelain Bodies, and Cement for Prosthetic Work in Odontology.
Claims use since July 13, 1914.

Ser. No. 82,060. (CLASS 39. CLOTHING.) JALKOFF BROS., New York, N. Y. Filed Oct. 21, 1914.

Aboralyx

Particular description of goods.—Fur Scarfs and Muffs.
Claims use since Dec. 1, 1913.

Ser. No. 82,061. (CLASS 39. CLOTHING.) JALKOFF BROS., New York, N. Y. Filed Oct. 21, 1914.

MOROLINX

Particular description of goods.—Fur Scarfs and Muffs.
Claims use since Dec. 1, 1913.

Ser. No. 82,062. (CLASS 39. CLOTHING.) JALKOFF BROS., New York, N. Y. Filed Oct. 21, 1914.

LUSTROLNX

Particular description of goods.—Fur Scarfs and Muffs.
Claims use since Dec. 1, 1913.

Ser. No. 82,066. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OLDS PRODUCTS CO., Chicago, Ill. Filed Oct. 21, 1914.

RED BRAND

The heart-shaped figures being printed in solid red, no claim being made to the word "Brand."
Particular description of goods.—Mustard, Mustard Catsup, Salad-Dressing, Prepared Corn, Beef Hash, Horse-Radish, and Pickles.
Claims use since Aug. 15, 1914.

Ser. No. 82,282. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE STERRICK SALES CORPORATION, Wilmington, Del., and Pittsburgh, Pa. Filed Oct. 30, 1914.

MASSO

Particular description of goods.—A Shaving Massage-Brush and Casing.
Claims use since **Aug. 20, 1914.**

Ser. No. 82,368. (CLASS 3. BAGGAGE, HORSE EQUIPMENT, PORTFOLIOS, AND POCKET-BOOKS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Nov. 3, 1914.

SCOUT

Particular description of goods.—Portfolios, Pocket-Books, Hand-Bags, Campers' and Trampers' Outfit Bags, School-Bags, Purses, Baggage and Vehicle Straps, Wallets, and Toilet-Cases.
Claims use since Oct. 21, 1914.

Ser. No. 82,506. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CHARLES A. DANIEL, Philadelphia, Pa. Filed Nov. 10, 1914.

T. T. T.

Particular description of goods.—Rubber Tires and Pneumatic Tires.
Claims use since Jan. 16, 1913.

Ser. No. 82,511. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEO. BORGFELDT & CO., New York, N. Y. Filed Nov. 10, 1914.

AJAX

Particular description of goods.—Hollow Aluminum Ware.
Claims use since about Oct. 15, 1914.

Ser. No. 82,640. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THOMAS A. FAULDS, Boston, Mass. Filed Nov. 17, 1914.

FLAVOR-OIL

Particular description of goods.—Flavoring Compound for Imparting the Flavor of Butter to Certain Products.
Claims use since **June 7, 1911.**

Ser. No. 82,963. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BELLE PAYNE ELWOOD, Gouverneur, N. Y. Filed Nov. 28, 1914.



Particular description of goods.—A Preparation for the Treatment of Scours in All Live Stock and Poultry.
Claims use since about Apr. 1, 1914.

Ser. No. 82,967. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) BARBARESSOS BROS., Piraeus, Greece. Filed Nov. 30, 1914.



Particular description of goods.—Cognacs and Brandies.
Claims use since the year 1840.

Ser. No. 82,992. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARD L. WOODLEY, Shamrock, Tex. Filed Nov. 30, 1914.

Woodley's Mate

I disclaim as part of my trade-mark the words "Woodley's" and "Mate."
Particular description of goods.—Liquid Foods Consisting of Brazilian and Paraguay Tea.
Claims use since **Sept. 15, 1914.**

Ser. No. 83,074. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR O. MOJO, New York, N. Y. Filed Dec. 4, 1914.

Yow-caw

Particular description of goods.—Coffee, Tea, Cocoa, Chocolate, Sugar, Cane-Syrup, Spices, Figs, Dates, and Citrus Fruits.
Claims use since **Nov. 26, 1914.**

Ser. No. 83,076. (CLASS 47. WINES.) THE SCHUSTER COMPANY, Cleveland, Ohio. Filed Dec. 4, 1914.

Fleur-de-lis

Particular description of goods.—Wines: White Wines, Still Wines, Claret, Sauterne, Burgundy, Port, Sherry, Champagne, Fruit Wines, Medicinal and Medicated Wines, Compound Bitter Wines, Alcoholic Cider, Sparkling Wines, Sparkling-Wine Cocktail.
Claims use since **July 30, 1906.**

Ser. No. 83,082. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OTTO WEISS ALFALFA STOCK FOOD CO., Wichita, Kans. Filed Dec. 4, 1914.

KAFERITA



Particular description of goods.—Pancake-Flour.
Claims use since Oct. 30, 1914.

Ser. No. 83,142. (CLASS 32. FURNITURE AND UPHOLSTERY.) YAWMAN & ERBE MFG. CO., Rochester, N. Y. Filed Dec. 7, 1914.

"Y and E"

Particular description of goods.—Filing-Cabinets; Sectional Furniture; Record-Keeping Desks; Office Stands and Reference-Shelves, and Record-Safes.
Claims use since July 1, 1901.

Ser. No. 83,357. (CLASS 5. ADHESIVES.) WOODBRIDGE CHEMICAL CO., Inc., Woodbridge, N. J., and New York, N. Y. Filed Dec. 17, 1914.

AIR-IN-AL

Particular description of goods.—Preparation for Preventing the Puncture of Automobile-Tires.
Claims use since Feb. 23, 1914.

Ser. No. 83,414. (CLASS 12. CONSTRUCTION MATERIALS.) NEW YORK CLAY PRODUCTS COMPANY, Van Deventers, N. J., and New York, N. Y. Filed Dec. 19, 1914.

NUYOCO

Consisting of the word "Nuyoco."
Particular description of goods.—Hollow-Tile Building-Blocks.
Claims use since Apr. 1, 1914.

Ser. No. 83,594. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ANNA C. RENWICK, Flushing, N. Y. Filed Dec. 30, 1914.

CORKER

Particular description of goods.—Dolls.
Claims use since Dec. 18, 1914.

Ser. No. 83,602. (CLASS 39. CLOTHING.) THE HELLER LEATHER COMPANY, Milwaukee, Wis. Filed Dec. 31, 1914.

Wash-Rite

Particular description of goods.—Fine Leather Gloves.
Claims use since in October, 1913.

Ser. No. 83,724. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. A. COOMBS MILLING COMPANY, Coldwater, Mich. Filed Jan. 8, 1915.



Particular description of goods.—Self-Rising Wheat-Flour.
Claims use since November, 1913.

Ser. No. 83,726. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. A. COOMBS MILLING COMPANY, Coldwater, Mich. Filed Jan. 8, 1915.

SPRING BEAUTY

Particular description of goods.—Wheat-Flour.
Claims use since June, 1912.

Ser. No. 83,763. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MATHIAS J. LAUX, St. Louis, Mo. Filed Jan. 9, 1915.

ARMY AND NAVY
POP CORN

The words "Pop Corn" appearing on the drawing are hereby disclaimed.
Particular description of goods.—Chocolate-Flavored Popcorn.
Claims use since Jan. 2, 1915.

Ser. No. 83,770. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK W. SCHOONMAKER, New York, N. Y. Filed Jan. 9, 1915.

V.E.M.

Particular description of goods.—An Ointment to be Used in the Treatment of Irritation or Inflammation of the Mucous Membrane.
Claims use since about Dec. 1, 1914.

Ser. No. 83,771. (CLASS 39. CLOTHING.) H. TEMPLE TUCKER, Fort Smith, Ark. Filed Jan. 9, 1915.



Particular description of goods.—Rubber Boots and Shoes, Waterproof Coats, Capes, and Caps.
Claims use since January, 1914.

Ser. No. 83,852. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HARRY J. FERER, Falls City, Nebr. Filed Jan. 14, 1915.

LITTLE WONDER

Particular description of goods.—Electric Egg-Testers.
Claims use since Dec. 1, 1914.

Ser. No. 83,861. (CLASS 38. PRINTS AND PUBLICATIONS.) STANDARD CORPORATION, Philadelphia, Pa. Filed Jan. 14, 1915.

LEFAX

Particular description of goods.—Technical, Engineering, and Scientific Periodical Bulletins.
Claims use since about the 29th day of October, 1910.

Ser. No. 83,942. (CLASS 27. HOROLOGICAL INSTRUMENTS.) SENTINEL CLOCK CO., Chicago, Ill. Filed Jan. 18, 1915.

SENTINOLA

Particular description of goods.—Horological Indicators.
Claims use since Dec. 30, 1914.

Ser. No. 83,954. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W W CHILL KILL CO., Douglas, Ga. Filed Jan. 19, 1915.



No claim being made to the words "Chill-Kill."
Particular description of goods.—A Preparation for Chills and Fever.
Claims use since October, 1914.

Ser. No. 84,052. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHICAGO GERMICIDE CO., Chicago, Ill. Filed Jan. 23, 1915.

BLACK CROSS
TABLOID PRODUCTS

The use of the words "Trade-Mark" in connection with the mark shown is disclaimed.
Particular description of goods.—Germicides.
Claims use since July, 1911.

Ser. No. 84,069. (CLASS 43. THREAD AND YARN.) H. E. VERRAN COMPANY, INCORPORATED, New York, N. Y. Filed Jan. 23, 1915.

CORDICHET

Particular description of goods.—Silk, Cotton, and Artificial-Silk Thread and Yarn and Thread and Yarn Made of a Combination of Two or More of Those Fibers.
Claims use since Dec. 1, 1914.

Ser. No. 84,079. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) EMPIRE ALUMINUM MANUFACTURING CO., Sag Harbor, N. Y. Filed Jan. 25, 1915.



No claim being made to the words "Wear Proof."
Particular description of goods.—Saucepans, Coffee-Pots, Water-Kettles, Percolators, Preserving-Kettles, Frying-Pans, Pie-Plates, Stew-Pans, Roasting-Pans, and Rice-Boilers.
Claims use since Nov. 29, 1914.

Ser. No. 84,095. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE F. E. PAWLAS, Cleveland, Ohio. Filed Jan. 25, 1915.



Particular description of goods.—Salves, Face-Lotion, Mouth-Wash, Dental Cream, Vermifuge, Sarsaparilla Extract, Hair-Pomade, and Preparations for the Treatment of Coughs, Lungs, Rheumatism, Headache, Corns, and Diseases of the Blood, Liver, Kidneys, and Stomach.
Claims use since Dec. 1, 1914.

Ser. No. 84,112. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARK & HOST CO., Milwaukee, Wis. Filed Jan. 26, 1915. Under ten-year proviso.

Morning Tonic

Particular description of goods.—Coffee.
Claims use since Jan. 1, 1895.

Ser. No. 84,150. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WOOLSON SPICE COMPANY, Toledo, Ohio. Filed Jan. 27, 1915.

LION



Particular description of goods.—Coffee.
Claims use since 1864.

Ser. No. 84,240. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE FOWLER NAIL CO., Seymour, Conn. Filed Feb. 1, 1915.

MA[illegible]AF



Particular description of goods.—Horseshoe-Nails.
Claims use since July 15, 1914.

Ser. No. 84,256. (CLASS 12. CONSTRUCTION MATERIALS.) JAMES H. CAVANAUGH, Anacortes, Wash. Filed Feb. 2, 1915.



The words "Premium," "J. H. Cavanaugh & Sons, Anacortes, Wash," and "Extra" not being claimed.
Particular description of goods.—Shingles.
Claims use since Jan. 1, 1915.

Ser. No. 84,302. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NAMAN SAFAH, Brooklyn, N. Y. Filed Feb. 4, 1915.



The right to exclusive use of the word "Oil" being disclaimed.
Particular description of goods.—A Remedial Oil for Topical Use.
Claims use since about the 15th day of December, 1914.

Ser. No. 84,307. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CROUCH BROTHERS COMPANY, Erie, Pa. Filed Feb. 5, 1915.

TURKEY TALK

"Turkey Talk."
Particular description of goods.—Wheat-Flour.
Claims use since October, 1914.

Ser. No. 84,372. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ALFRED CHARLES LEVY, New York, N. Y. Filed Feb. 8, 1915.



The words "Arches," "Bunions," "Corns," and "Fut Pad" being disclaimed.
Particular description of goods.—Corn-Pads, Bunion Pads; Pads for the Relief of Enlarged Joints; Pads for the Relief of Callosities; Pads for the Relief of Pains in the Ball of the Foot; and Pads for Supporting the Arches of the Foot.
Claims use since Jan. 1, 1915.

Ser. No. 84,389. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. A. THOMPSON & CO., Detroit, Mich. Filed Feb. 8, 1915.

FAMO

Particular description of goods.—Hair-Tonics.
Claims use since Sept. 1, 1912.

Ser. No. 84,451. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DEKOTA MAY TETZLOFF, Independence, Iowa. Filed Feb. 11, 1915.



Particular description of goods.—Metal-Polishes.
Claims use since Dec. 1, 1914.

Ser. No. 84,479. (CLASS 7. CORDAGE.) GEO. B. CARPENTER & CO., Chicago, Ill. Filed Feb. 12, 1915.

RAINBOW

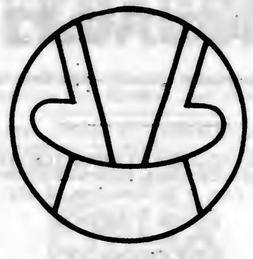
Particular description of goods.—Sash-Cord.
Claims use since Jan 1, 1915.

Ser. No. 84,493. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MALCOLM ROBERTSON WHITE, Detroit, Mich. Filed Feb. 12, 1915.

PeP

Comprising the letters "Pep."
Particular description of goods.—A Cathartic.
Claims use since Jan. 26, 1915.

Ser. No. 84,523. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CLINCHER AUTOMOBILE TIRE MANUFACTURERS' ASSOCIATION, Cleveland, Ohio. Filed Feb. 15, 1915.



Particular description of goods.—Vehicle Wheel-Rims.
Claims use since Jan. 15, 1915.

Ser. No. 84,530. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) MAX KLAAS, New York, N. Y. Filed Feb. 15, 1915.

4 IN 1

Particular description of goods.—Manicure Instruments.
Claims use since Jan. 1, 1915.

Ser. No. 84,535. (CLASS 39. CLOTHING.) NATIONAL DOLLAR SHIRT SHOPS, INC., New York, N. Y., and Los Angeles, Cal. Filed Feb. 15, 1915.

NATIONAL

Particular description of goods.—Dress, Negligée, Work, and Under Shirts for Men.
Claims use since June 11, 1914.

Ser. No. 84,537. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PACIFIC COAST RATTAN CO., Oakland, Cal. Filed Feb. 15, 1915.

ICCOTAN



No claim being made to the word "Handcraft."
Particular description of goods.—Rugs and Carpets Manufactured of Woven Grass.
Claims use since about 1906.

Ser. No. 84,554. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HAAS BROTHERS, New York, N. Y. Filed Feb. 16, 1915.

Samovari

Particular description of goods.—Silk Dress Goods.
Claims use since Nov. 1, 1914.

Ser. No. 84,565. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RALPH BROWN, New York, N. Y. Filed Feb. 17, 1915.

Brown's RED ROSE

Particular description of goods.—A Liniment for External Use.
Claims use since July, 1914.

Ser. No. 84,566. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELLIS E. BROWN, Reading, Pa. Filed Feb. 17, 1915.

MULE-PULL CLUTCHES TRADE MARK

The exclusive use of the words "Clutches" and "Trade Mark" is disclaimed.
Particular description of goods.—Clutches.
Claims use since Dec. 10, 1914.

Ser. No. 84,573. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CYCLONE CO., New York, N. Y. Filed Feb. 17, 1915.

Cyclone

Particular description of goods.—A Carbon-Remover.
Claims use since Feb. 3, 1915.

Ser. No. 84,579. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE H. L. HURST MFG. CO., Canton, Ohio. Filed Feb. 17, 1915.

HURST HURST

Particular description of goods.—Hand and Power Sprayers.
Claims use since about the year 1909.

Ser. No. 84,682. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE CUSSINS & FEARN CO., Columbus, Ohio. Filed Feb. 23, 1915.

Brookwood

Particular description of goods.—Pianos, Organs, Player-Pianos, Horns, Trombones, Guitars, Mandolins, and Violins.
Claims use since August, 1912.

Ser. No. 84,702. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NATIONAL TUBE COMPANY, Pittsburgh, Pa. Filed Feb. 23, 1915.





Particular description of goods.—Metal Pipes, Tubes, and Casings.
Claims use since June 29, 1910.

Ser. No. 84,703. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NATIONAL TUBE COMPANY, Pittsburgh, Pa. Filed Feb. 23, 1915.



Particular description of goods.—Metal Pipes, Tubes, and Casings.
Claims use since Apr. 15, 1909.

Ser. No. 84,715. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) SIEBE, GORMAN & CO. LTD., London, England. Filed Feb. 23, 1915.

VIVATOR

Particular description of goods.—Apparatus for Reviving or Resuscitating Persons Asphyxiated or Apparently Drowned.
Claims use since 1913.

Ser. No. 84,720. (CLASS 7. CORDAGE.) UNITED DRUG COMPANY, Boston, Mass. Filed Feb. 23, 1915.

The Rexall Store

"The" and "Store" are disclaimed.
Particular description of goods.—Twine, Cord, and String.
Claims use since prior to February, 1913.

Ser. No. 84,724. (CLASS 47. WINES.) VOLA IMPORTING COMPANY, New York, N. Y. Filed Feb. 23, 1915.

VOLA

Particular description of goods.—Red and White Chianti.
Claims use since Sept. 8, 1913.

Ser. No. 84,792. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE BETZ-PIERCE COMPANY, Cleveland, Ohio. Filed Feb. 26, 1915.

STAROH

Particular description of goods.—Steel Bars.
Claims use since Dec. 1, 1914.

Ser. No. 84,793. (CLASS 11. INKS AND INKING MATERIALS.) TAYLOR CHEMICAL CO., Boston, Mass. Filed Feb. 26, 1915.



Particular description of goods.—Writing-Ink.
Claims use since on or about Feb. 15, 1915.

Ser. No. 84,794. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) H. W. CLARK CO., Mattoon, Ill. Filed Feb. 26, 1915.

TEKSAGON

Particular description of goods.—Pipe-Couplings.
Claims use since the year 1905.

Ser. No. 84,810. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CINCINNATI SOAP CO., Cincinnati, Ohio. Filed Feb. 27, 1915.



The picture shown being fanciful.
Particular description of goods.—Toilet Soap.
Claims use since Jan. 1, 1915.

Ser. No. 84,878. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHEMISCHE FABRIK DÜSSELDORF AKTIENGESELLSCHAFT, Leipsig, Germany. Filed Mar. 2, 1915.

Geolin

Particular description of goods.—Cleaning and Polishing Preparations for Metal, Leather, Glass, Porcelain, Enamel, Wood, Straw, Iron, Bone, Horn, and Stone.
Claims use since the 1st of April, 1900.

Ser. No. 84,896. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MORTON SALT COMPANY, Chicago, Ill. Filed Mar. 3, 1915.

SEAL BRAND

The word "Brand" being disclaimed.
Particular description of goods.—Salt.
Claims use since the 20th day of January, 1915.

Ser. No. 84,897. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MORTON SALT COMPANY, Chicago, Ill. Filed Mar. 3, 1915.

TRIANGLE
BRAND



The word "Brand" being disclaimed.
Particular description of goods.—Salt.
Claims use since the 20th day of March, 1901.

Ser. No. 84,917. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HANS W. EGLI, Zurich, Switzerland. Filed Mar. 3, 1915.

Madas

Particular description of goods.—Adding and Calculating Machines.
Claims use since Oct. 1, 1914.

Ser. No. 84,936. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE LIMOL CHEMICAL CO., Alexandria, Va. Filed Mar. 4, 1915.

LIMOL

Particular description of goods.—An Antiseptic Powder.
Claims use since Jan. 1, 1915.

Ser. No. 84,937. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) KARL R. PETERS, Philadelphia, Pa. Filed Mar. 4, 1915.

So-Luminum
The Aluminum Solder

No claim being made to the words "The Aluminum Solder."
Particular description of goods.—An Aluminum Solder.
Claims use since Sept. 1, 1914.

Ser. No. 84,974. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM FRITZ COMPANY, Lester, Pa. Filed Mar. 6, 1915.



Particular description of goods.—Cough-Drops and Catarrh-Bonbons.
Claims use since Jan. 25, 1915.

Ser. No. 84,977. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) CROWN SMELTING COMPANY, Chester, Pa. Filed Mar. 6, 1915.

CROWN

Particular description of goods.—Compositions Consisting of Phosphor-Copper, Phosphor-Bronze, Babbitt Metal, Manganese Bronze, Brass, Bronze, Phosphor-Tin, Manganese Copper, Nickel-Copper, and Silicon-Copper.
Claims use since 1887.

Ser. No. 84,984. (CLASS 20. LINOLEUM AND OILED CLOTH.) THE NAIRN LINOLEUM CO., Kearney, N. J. Filed Mar. 6, 1915. Under ten-year proviso.

NAIRN'S

Particular description of goods.—Linoleums.
Claims use since the year 1889.

Ser. No. 84,990. (CLASS 12. CONSTRUCTION MATERIALS. HANNAH A. SMITH, Philadelphia, Pa. Filed Mar. 6, 1915.

HANDLIME

No claim being made for the exclusive right to the use of the word "Lime."
Particular description of goods.—Lime.
Claims use since about July 20, 1909.

Ser. No. 85,019. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HEALINE MANUFACTURING CO., Elmira, N. Y. Filed Mar. 8, 1915. Under ten-year proviso.



Particular description of goods.—A Salve and Ointment for Catarrh, Neuralgia, Quinsy, Cankers, Sore Throat, Rheumatism, Polypus, Coughs, Sore Lungs, Tonsilitis, Salt-Rheum, Colds, Headache, Pneumonia, Croup, Caked Breast, Toothache, Eczema, Cuts, Earache, Sprains, Piles, Scalds, Poison-Ivy, Chafe Surface, Sore Feet, and Running Sores.
Claims use since Nov. 8, 1894.

Ser. No. 85,021. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HYMAN & OPPENHEIM, New York, N. Y. Filed Mar. 8, 1915.



Particular description of goods.—Hair-Nets.
Claims use since 1885.

Ser. No. 85,039. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) PAUL GARRETT, Norfolk, Va. Filed Mar. 9, 1915.

SATAN-ET

Particular description of goods.—Carbonated Non-Alcoholic Beverages.
Claims use since Dec. 1, 1914.

Ser. No. 85,051. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 9, 1915.

VELTEX

Particular description of goods.—Velvets and Plushes in the Piece.
Claims use since about Dec. 1, 1914.

Ser. No. 85,128. (CLASS 2. RECEPTACLES.) WILLIAM J. BRETT, New York, N. Y. Filed Mar. 13, 1915.

HIKE

Particular description of goods.—Canteens.
Claims use since Apr. 15, 1914.

Ser. No. 85,136. (CLASS 39. CLOTHING.) HOLEPROOF HOSIERY CO., Milwaukee, Wis. Filed Mar. 13, 1915.

Fibertex

Particular description of goods.—Hosiery.
Claims use since Feb. 15, 1915.

Ser. No. 85,206. (CLASS 43. THREAD AND YARN.) DEXTER YARN COMPANY, Pawtucket, R. I. Filed Mar. 17, 1915.

CORDEX

Said trade-mark consists of the word "Cordex."
Particular description of goods.—Yarns and Threads Made of Cotton, Silk, Jute, Flax, Linen, Wool, and Ramie.
Claims use since Mar. 8, 1915.

Ser. No. 85,209. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 17, 1915.

BALSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since the 3d day of March, 1915.

Ser. No. 85,213. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) LACKAWANNA STEEL COMPANY, Lackawanna and New York, N. Y. Filed Mar. 17, 1915. Under ten-year proviso.

LACKAWANNA

Particular description of goods.—Rolled-Steel Bars and Shapes.
Claims use since Dec. 1, 1853.

Ser. No. 85,239. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) M. M. V. Co., Huntsville, Ala. Filed Mar. 18, 1915.

UWEARA

Comprising the word "Uweara."
Particular description of goods.—Cotton Piece Goods.
Claims use since Mar. 1, 1915.

Ser. No. 85,273. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 20, 1915.

HUDSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since the 3d day of March, 1905.

TRADE-MARK REGISTRATIONS GRANTED

APRIL 13, 1915.

103,634. CERTAIN NAMED MACHINERY AND TOOLS AND PARTS THEREOF. AKTIEBOLAGET SVENSKA KULLAGERFABRIKEN, Gottenborg, Sweden.
Filed March 5, 1914. Serial No. 76,340. PUBLISHED FEBRUARY 2, 1915.

103,635. CERTAIN NAMED MACHINERY AND TOOLS AND PARTS THEREOF. AKTIEBOLAGET SVENSKA KULLAGERFABRIKEN, Gottenborg, Sweden.
Filed March 5, 1914. Serial No. 76,341. PUBLISHED FEBRUARY 2, 1915.

103,636. NON-METALLIC FLEXIBLE ELECTRICAL CONDUITS. ALPHADUCT COMPANY, Jersey City, N. J.
Filed November 16, 1914. Serial No. 82,606. PUBLISHED FEBRUARY 2, 1915.

103,637. CHEESE. ALPINE DAIRY CO., Algoma, Wis.
Filed October 8, 1914. Serial No. 81,740. PUBLISHED JANUARY 26, 1915.

103,638. COFFEE. ARBUCKLE BROTHERS, New York, N. Y., and Chicago, Ill.
Filed March 18, 1914. Serial No. 76,722. PUBLISHED JUNE 30, 1914.

103,639. CERTAIN NAMED FOODS. ARKANSAS GROCER CO., Blytheville, Ark.
Filed June 2, 1914. Serial No. 78,723. PUBLISHED NOVEMBER 3, 1914.

103,640. CERTAIN PHARMACEUTICAL PREPARATIONS FOR TOILET PURPOSES AND A MEDICINAL PREPARATION FOR TREATING CERTAIN AILMENTS. BARCLAY & BARCLAY, New York, N. Y.
Filed May 28, 1913. Serial No. 70,708. PUBLISHED JANUARY 26, 1915.

103,641. GLASS BOTTLES FOR HOLDING MILK. THE BELLE VERNON MAPES DAIRY CO., Cleveland, Ohio.
Filed September 28, 1914. Serial No. 81,507. PUBLISHED DECEMBER 22, 1914.

103,642. CERTAIN SILKS DYED SO COLOR WILL NOT CHANGE WHEN WASHED, SEWING AND KNITTING SILK. THE BRAINERD AND ARMSTRONG COMPANY, New London, Conn.
Filed August 5, 1914. Serial No. 80,345. PUBLISHED FEBRUARY 2, 1915.

103,643. MACHINE-TWIST, KNITTING AND CROCHET SILK, AND EMBROIDERY-SILK. THE BRAINERD AND ARMSTRONG COMPANY, New London, Conn.
Filed August 5, 1914. Serial No. 80,347. PUBLISHED FEBRUARY 2, 1915.

103,644. TRENCHING MACHINERY. THE BUCKEYE TRACTION DITCHER COMPANY, Findlay, Ohio.
Filed November 14, 1914. Serial No. 82,588. PUBLISHED FEBRUARY 2, 1915.

103,645. COFFEE, TEA, AND COCOA. CEYLANA TEA COMPANY, New York, N. Y.
Filed November 3, 1914. Serial No. 82,369. PUBLISHED JANUARY 26, 1915.

103,646. COAL. CITY FUEL COMPANY, Chicago, Ill.
Filed February 23, 1911. Serial No. 54,666. PUBLISHED FEBRUARY 2, 1915.

103,647. POCKET AND PEN KNIVES. DWIGHT DIVINE & SONS, Ellenville, N. Y.
Filed November 16, 1914. Serial No. 82,615. PUBLISHED FEBRUARY 2, 1915.

103,648. COAL. EASTERN KENTUCKY COAL COMPANY, Mount Vernon, Ohio.
Filed December 3, 1914. Serial No. 83,044. PUBLISHED FEBRUARY 2, 1915.

103,649. COTTON PIECE GOODS. N. FLUEGELMAN & Co., New York, N. Y.
Filed December 12, 1914. Serial No. 83,245. PUBLISHED JANUARY 26, 1915.

103,650. RAZORS. HERBERT S. GARDNER, St. Louis, Mo.
Filed November 19, 1914. Serial No. 82,698. PUBLISHED FEBRUARY 2, 1915.

103,651. DOLLS. GERMAN NOVELTY CO., New York, N. Y.
Filed December 1, 1914. Serial No. 82,999. PUBLISHED JANUARY 26, 1915.

103,652. DOLLS. GERMAN NOVELTY CO., New York, N. Y.
Filed December 1, 1914. Serial No. 83,000. PUBLISHED JANUARY 26, 1915.

103,653. SALAD-OIL PRESSED FROM SELECT COTTON-SEED, WHITE VINEGAR, AND CIDER VINEGAR. GLANTZ & SALKIND, New York, N. Y.
Filed October 17, 1913. Serial No. 73,450. PUBLISHED MAY 26, 1914.

103,654. OIL-CLOTH. T. R. GOODLATTE & SONS, New York, N. Y.
Filed November 18, 1914. Serial No. 82,657. PUBLISHED JANUARY 26, 1915.

103,655. BOYS' SWEATERS, STOCKINGS, SUITS, PARTS OF SUITS, HATS, OVERCOATS, CAPS, KATHERINE K. GRANT, New York, N. Y.
Filed March 11, 1914. Serial No. 76,546. PUBLISHED FEBRUARY 2, 1915.

103,656. CANNED AND FRESH PINEAPPLES. GRIFFITH-DURNEY CO., San Francisco, Cal.
Filed October 28, 1914. Serial No. 82,227. PUBLISHED DECEMBER 29, 1914.

103,657. COLLARS MADE OF TEXTILE MATERIAL. HALL, HARTWELL & CO., Troy, N. Y.
Filed December 22, 1914. Serial No. 83,460. PUBLISHED JANUARY 26, 1915.

103,658. PETTICOATS, PRINCESS-SLIPS, AND LADIES' MUSLIN AND SILK UNDERWEAR. HARRIS BROS. & BARNETT, New York, N. Y.
Filed December 30, 1914. Serial No. 83,587. PUBLISHED JANUARY 26, 1915.

103,659. CANDIES OF ALL KINDS AND COCOA AND CHOCOLATE. HENRY HEIDE, New York, N. Y.
Filed November 5, 1914. Serial No. 82,419. PUBLISHED JANUARY 26, 1915.

103,660. LUBRICANT. HISGEN BROTHERS, Albany, N. Y.
Filed June 10, 1914. Serial No. 79,023. PUBLISHED FEBRUARY 2, 1915.

103,661. WASHING-MACHINES. THE HOME WASHING MACH. CO., INC., New York, N. Y.
Filed November 2, 1914. Serial No. 82,348. PUBLISHED FEBRUARY 2, 1915.

103,662. SHIRTS, COLLARS, AND CUFFS MADE OF TEXTILE MATERIAL. GEO. P. IDE & CO., Troy, N. Y.
Filed December 19, 1914. Serial No. 83,412. PUBLISHED JANUARY 26, 1915.

103,663. COMPOSITE MACHINE-PACKING MADE OF TWO OR MORE CERTAIN NAMED MATERIALS. PHILIP W. KOEBIG, New York, N. Y.
Filed November 14, 1914. Serial No. 82,594. PUBLISHED FEBRUARY 2, 1915.

103,664. CINEMATOGRAPH-FILMS. SOCIETÀ ANONIMA LEONARDO FILM, Turin, Italy.
Filed June 5, 1914. Serial No. 78,839. PUBLISHED FEBRUARY 2, 1915.

103,665. CERTAIN MUSICAL INSTRUMENTS AND APPARATUS AND PARTS THEREOF. LUDWIG HUPFELD AKTIENGESELLSCHAFT, Böhlitz-Ehrenberg, near Leipzig, Germany.
Filed July 30, 1914. Serial No. 80,172. PUBLISHED JANUARY 26, 1915.

103,666. COTTON PIECE GOODS—VIZ., WIDE DRILLS, TWILLS, DUCKS, SHEETINGS, AND MOLESKINS. MANCHESTER COTTON MILLS, Lagrange and Manchester, Ga.
Filed September 17, 1914. Serial No. 81,306. PUBLISHED JANUARY 26, 1915.

103,667. SHEET-PACKING COMPOSED OF RUBBER AND RUBBER COMBINED WITH FIBROUS MATERIAL. THE MECHANICAL RUBBER COMPANY, Jersey City, N. J.; New York, N. Y., and Cleveland, Ohio.
Filed June 25, 1914. Serial No. 79,366. PUBLISHED DECEMBER 1, 1914.

103,668. FLAVORED AND UNFLAVORED POPCORN AND FLAVORED AND UNFLAVORED POPCORN CONFECTIONS. DAVID MILLAR, St. Louis, Mo.
Filed September 21, 1914. Serial No. 81,360. PUBLISHED DECEMBER 1, 1914.

103,669. STANCHIONS AND METAL FARM-GATES. MOYER MANUFACTURING COMPANY, Montevideo, Minn.
Filed September 3, 1914. Serial No. 80,971. PUBLISHED FEBRUARY 2, 1915.

103,670. ELECTRICAL CONDUITS. THE NATIONAL ENAMELING & MANUFACTURING COMPANY, Youngstown, Ohio.
Filed October 20, 1914. Serial No. 82,030. PUBLISHED FEBRUARY 2, 1915.

103,671. AUTOMOBILE TIRE-CASINGS AND TIRE-TUBES. THE NATIONAL TIRE AND RUBBER COMPANY, East Palestine, Ohio.
Filed November 14, 1914. Serial No. 82,600. PUBLISHED FEBRUARY 2, 1915.

103,672. FISH-HOOKS AND FISHING-TACKLE. ROBERT OGILVY CO., New York, N. Y.
Filed November 24, 1914. Serial No. 82,885. PUBLISHED JANUARY 26, 1915.

103,673. FISH-HOOKS AND FISHING-TACKLE. ROBERT OGILVY CO., New York, N. Y.
Filed November 24, 1914. Serial No. 82,886. PUBLISHED JANUARY 26, 1915.

103,674. PREPARATION FOR THE SKIN IN THE NATURE OF A TOILET POWDER. PAPIER POUDRÉ LIMITED, London, W., England; Paris, France, and New York, N. Y.
Filed October 21, 1914. Serial No. 82,067. PUBLISHED JANUARY 26, 1915.

103,675. WRITING AND PRINTING PAPER. PARSONS PAPER COMPANY, Holyoke, Mass.
Filed December 8, 1914. Serial No. 83,161. PUBLISHED JANUARY 26, 1915.

103,676. FARM AND FIELD SEEDS. PEDIGREED SEED CO., Hartsville, S. C.
Filed November 25, 1914. Serial No. 82,917. PUBLISHED FEBRUARY 2, 1915.

103,677. LEATHER, CANVAS, AND FABRIC BOOTS, SHOES, AND SLIPPERS, AND RUBBERS. POWELL & CAMPBELL, New York, N. Y.
Filed December 30, 1914. Serial No. 83,592. PUBLISHED JANUARY 26, 1915.

103,678. CHEWING-GUM. JOSEPH A. RIGGI, Brooklyn, N. Y.
Filed November 6, 1914. Serial No. 82,440. PUBLISHED JANUARY 26, 1915.

103,679. TYPE-WRITING MACHINES AND PARTS THEREOF. ROYAL TYPEWRITER CO., INC., New York, N. Y.
Filed November 21, 1914. Serial No. 82,748. PUBLISHED FEBRUARY 2, 1915.

103,680. CUT BELT-LACING. CHAS. A. SCHIEREN COMPANY, New York, N. Y.
Filed October 20, 1914. Serial No. 82,035. PUBLISHED FEBRUARY 2, 1915.

103,681. FRESH FRUITS AND VEGETABLES, CONSISTING OF APPLES, PEARS, PLUMS, APRICOTS, NECTARINES, LETTUCE, MELONS, TOMATOES, &c. WILLIAM S. SHEARER, near Lewiston, Idaho.
Filed September 14, 1914. Serial No. 81,248. PUBLISHED JANUARY 5, 1915.

103,682. COCKTAILS AND BRANDY. SINGER BROS., New York, N. Y.
Filed December 8, 1914. Serial No. 83,166. PUBLISHED JANUARY 26, 1915.

103,683. PACKING, HOSE, BELTING, AND WASHERS MADE OF CERTAIN MATERIALS AND COMBINATIONS OF MATERIALS. SMALL & PARKES, LIMITED, Manchester, England.
Filed February 27, 1914. Serial No. 76,223. PUBLISHED JANUARY 26, 1915.

103,684. BREAD. ADELINE C. SPENGLER, Lewiston, Idaho.
Filed August 25, 1914. Serial No. 80,779. PUBLISHED JANUARY 19, 1915.

103,685. CHEWING-GUM. THE STERLING GUM COMPANY, INC., New York, N. Y.
Filed November 5, 1914. Serial No. 82,431. PUBLISHED JANUARY 26, 1915.

103,686. TOOTH-PASTE, TALCUM POWDER, AND TOILET WATER. ROGER S. ALLAN, Louisville, Ky.
Filed September 22, 1914. Serial No. 81,400. PUBLISHED OCTOBER 27, 1914.

103,687. WHEAT-FLOUR. WM. ALTEN CO., INC., New York, N. Y.
Filed October 12, 1914. Serial No. 81,801. PUBLISHED JANUARY 26, 1915.

103,688. REMEDY FOR THE TREATMENT OF NERVOUS DISORDERS. HERMAN A. BRÜCKNER, Jersey City, N. J.
Filed August 11, 1914. Serial No. 80,456. PUBLISHED JANUARY 26, 1915.

103,689. ANCHOVIES, PIES, AND CERTAIN NAMED PATTIES AND POTTED AND PRESERVED MEAT. CROSSE & BLACKWELL LIMITED, London, England.
Filed September 4, 1913. Serial No. 72,672. PUBLISHED JANUARY 26, 1915.

103,690. OLEOMARGARIN. ECKERSON COMPANY, Jersey City, N. J.
Filed October 20, 1914. Serial No. 82,021. PUBLISHED FEBRUARY 2, 1915.

103,691. WHEAT-FLOUR. EISENMAYER MILLING COMPANY, Springfield, Mo.
Filed March 4, 1914. Serial No. 76,316. PUBLISHED JANUARY 26, 1915.

103,692. GLASS SHADES AND REFLECTORS FOR ARTIFICIAL LIGHT. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed July 24, 1913. Serial No. 71,941. PUBLISHED JANUARY 26, 1915.

103,693. GLASS SHADES AND REFLECTORS FOR ILLUMINATING PURPOSES. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed July 24, 1913. Serial No. 71,943. PUBLISHED JANUARY 26, 1915.

103,694. GLASS SHADES, GLASS GLOBES, AND GLASS REFLECTORS FOR ARTIFICIAL ILLUMINATION. GLEASON-TIEBOUT GLASS COMPANY, New York, N. Y.
Filed January 10, 1914. Serial No. 75,290. PUBLISHED FEBRUARY 24, 1914.

103,695. HEAT-INSULATING MATERIAL FOR REFRIGERATORS. GRAND RAPIDS REFRIGERATOR COMPANY, Grand Rapids, Mich.
Filed March 23, 1914. Serial No. 76,851. PUBLISHED OCTOBER 27, 1914.

103,696. SALAD-DRESSING, CHILLI SAUCE, MUSTARD, TOMATO CATSUP, MINT, TABASCO, TARTAR, AND WORCESTERSHIRE SAUCE. THE HORTON CATO MFG. CO., Detroit, Mich.
Filed August 26, 1914. Serial No. 80,819. PUBLISHED FEBRUARY 2, 1915.

103,697. GINGER-ALE AND ROOT-BEER. FRANKLIN MACVEAGH & COMPANY, Chicago, Ill.
Filed December 24, 1914. Serial No. 83,516. PUBLISHED JANUARY 26, 1915.

103,698. BUTTER AND CHEESE. MCCANNA & FRASER CO., INC., Philadelphia, Pa.
Filed October 15, 1914. Serial No. 81,909. PUBLISHED JANUARY 26, 1915.

103,699. ICE-CREAM SANDWICHES. CHARLES R. MCDONALD, East Liverpool, Ohio, assignor to The Sanitary Ice Cream Sandwich Company, Cleveland, Ohio, a Corporation of Ohio.
Filed November 11, 1914. Serial No. 82,523. PUBLISHED JANUARY 26, 1915.

103,700. [WITHDRAWN.]

103,701. GLASS DRINKING-CUP. MARY PAULINE OFFUTT, New York, N. Y.
Filed November 20, 1914. Serial No. 82,715. PUBLISHED JANUARY 26, 1915.

103,702. PHARMACEUTICAL AND CHEMICAL PREPARATIONS FOR MEDICINAL PURPOSES AND MEDICINAL COMPOUNDS IN LIQUID AND SOLID FORM. PARKE, DAVIS & COMPANY, Detroit, Mich.
Filed October 6, 1914. Serial No. 81,695. PUBLISHED JANUARY 26, 1915.

103,703. PHARMACEUTICAL AND CHEMICAL PREPARATIONS FOR MEDICINAL PURPOSES AND MEDICINAL COMPOUNDS IN LIQUID AND SOLID FORM. PARKE, DAVIS & COMPANY, Detroit, Mich.
Filed October 6, 1914. Serial No. 81,696. PUBLISHED JANUARY 26, 1915.

103,704. ORANGES. PLACENTIA MUTUAL ORANGE ASSOCIATION, Placentia, Cal.
Filed August 12, 1914. Serial No. 80,515. PUBLISHED FEBRUARY 2, 1915.

103,705. HAIR-POMADE OR DRESSING FOR HAIR. THE RELIABLE HAIR STORE, INC., Norfolk, Va.
Filed April 2, 1914. Serial No. 77,160. PUBLISHED FEBRUARY 2, 1915.

103,706. CERTAIN NAMED FOODS. SOCIÉTÉ DE CONSERVES ALIMENTAIRES DE LA VALLÉE DU RHÔNE, Saxon, Switzerland.
Filed August 5, 1914. Serial No. 80,337. PUBLISHED FEBRUARY 2, 1915.

103,707. COTTON-SEED MEAL COMPRISING CERTAIN NAMED INGREDIENTS. J. E. SOPER CO., Boston, Mass.
Filed July 14, 1913. Serial No. 71,693. PUBLISHED FEBRUARY 2, 1915.

103,708. CERTAIN NAMED MACHINERY. WHITMAN AGRICULTURAL COMPANY, St. Louis, Mo.
Filed November 20, 1914. Serial No. 82,723. PUBLISHED FEBRUARY 2, 1915.

103,709. CIGARS. BUSEKLE CIGAR COMPANY, Warren, Pa.
Filed December 7, 1914. Serial No. 83,104. PUBLISHED FEBRUARY 2, 1915.

103,710. KNITTED UNDERWEAR—VIZ., COMBINATIONS, TWO-PIECE SUITS, AND SEPARATE PIECES. UNION MILLS, INC., Hudson and New York, N. Y.
Filed December 16, 1914. Serial No. 83,334. PUBLISHED FEBRUARY 2, 1915.

103,711. KNITTED UNDERWEAR—VIZ., COMBINATIONS, TWO-PIECE SUITS, AND SEPARATE PIECES. UNION MILLS, INC., Hudson and New York, N. Y.
Filed December 16, 1914. Serial No. 83,335. PUBLISHED FEBRUARY 2, 1915.

103,712. KNITTED UNDERWEAR—VIZ., COMBINATIONS, TWO-PIECE SUITS, AND SEPARATE PIECES. UNION MILLS, INC., Hudson and New York, N. Y.
Filed December 16, 1914. Serial No. 83,336. PUBLISHED FEBRUARY 2, 1915.

103,713. KNITTED UNDERWEAR—VIZ., COMBINATIONS, TWO-PIECE SUITS, AND SEPARATE PIECES. UNION MILLS, INC., Hudson and New York, N. Y.
Filed December 16, 1914. Serial No. 83,337. PUBLISHED FEBRUARY 2, 1915.

103,714. BREAD. WARD BROS. CO., INC., Buffalo, N. Y.
Filed November 20, 1914. Serial No. 82,722. PUBLISHED FEBRUARY 2, 1915.

103,715. COTTON PIECE AND DRESS GOODS. NASHUA MANUFACTURING COMPANY, Nashua, N. H.
Filed January 4, 1915. Serial No. 83,665. PUBLISHED FEBRUARY 2, 1915.

103,716. POPCORN. POPCORN PRODUCTS CO., New York, N. Y.
Filed October 24, 1914. Serial No. 82,148. PUBLISHED JANUARY 26, 1915.

103,717. PIANOS AND PIANO-PLAYERS AND PIANO-PLAYER ACTIONS. THE SCHUBERT PIANO CO., New York, N. Y.
Filed January 5, 1915. Serial No. 83,690. PUBLISHED FEBRUARY 2, 1915.

103,718. TALKING-MACHINE RECORDS. HENRY WATERSON, New York, N. Y.
Filed December 5, 1915. Serial No. 83,103. PUBLISHED FEBRUARY 2, 1915.

103,719. FLY-CATCHERS. BACHENHEIMER BROS. & CO., INC., New York, N. Y.
Filed July 6, 1914. Serial No. 79,552. PUBLISHED JANUARY 26, 1915.

103,720. GLOVES. THE BOSS MANUFACTURING COMPANY, Kewanee, Ill.
Filed December 18, 1914. Serial No. 83,389. PUBLISHED FEBRUARY 2, 1915.

103,721. GLOVES. THE BOSS MANUFACTURING COMPANY, Kewanee, Ill.
Filed December 18, 1914. Serial No. 83,391. PUBLISHED FEBRUARY 2, 1915.

103,722. GLOVES. THE BOSS MANUFACTURING COMPANY, Kewanee, Ill.
Filed December 18, 1914. Serial No. 83,392. PUBLISHED FEBRUARY 2, 1915.

103,723. BREAD, CAKE, PIES, PASTRY, ROLLS, AND CANDY. CAROLINA BAKING COMPANY, Charlotte, N. C.
Filed November 6, 1914. Serial No. 82,440. PUBLISHED JANUARY 26, 1915.

103,724. FILES, RASPS, SAWS, AUGERS, SCREW-KEYS, DRILLS, PINCERS, SCREW-STOCKS, AND LIFTING-JACKS. GOTTLIEB CORTS, GESELLSCHAFT MIT BESCHRANKTER HAFTUNG, Remscheid-Berghausen, Germany.
Filed March 23, 1914. Serial No. 76,844. PUBLISHED NOVEMBER 17, 1914.

103,725. SALVE FOR THE TREATMENT OF EXTERNAL SORES AND BURNS. CHRISTINA FINK, West New York, N. J.
Filed December 12, 1914. Serial No. 83,244. PUBLISHED JANUARY 26, 1915.

103,726. LASTS. THE FORBUSH SHOE COMPANY, North Grafton, Mass.
Filed December 14, 1914. Serial No. 83,273. PUBLISHED JANUARY 26, 1915.

103,727. INTERNAL-COMBUSTION ENGINES. HENDEE MANUFACTURING COMPANY, Springfield, Mass.
Filed December 30, 1914. Serial No. 83,585. PUBLISHED FEBRUARY 2, 1915.

103,728. INTERNAL-COMBUSTION ENGINES. HENDEE MANUFACTURING COMPANY, Springfield, Mass.
Filed December 30, 1914. Serial No. 83,586. PUBLISHED FEBRUARY 2, 1915.

103,729. PLUG, TWIST, CUT PLUG, SMOKING-TOBACCO, AND LEAF-TOBACCO. MACLIN-ZIMMER-McGILL TOBACCO CO. INCORPORATED, Petersburg, Va.
Filed October 26, 1914. Serial No. 82,178. PUBLISHED JANUARY 26, 1915.

103,730. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed June 21, 1913. Serial No. 71,255. PUBLISHED DECEMBER 30, 1913.

103,731. TOILET SOAPS. THE REMMERS SOAP COMPANY, Cincinnati, Ohio.
Filed December 7, 1914. Serial No. 83,132. PUBLISHED JANUARY 26, 1915.

103,732. HEATERS, BOILERS, RANGES, STOVES, FURNACES, PARTS AND APPURTENANCES THEREOF, EXCLUSIVE OF THOSE CLASSED AS ELECTRICAL. RICHARDSON & BOYNTON COMPANY, New York, N. Y.; Chicago, Ill.; Boston, Mass.; Philadelphia, Pa.; Kansas City, Mo.; Minneapolis, Minn., and Providence, R. I.
Filed October 14, 1914. Serial No. 81,879. PUBLISHED JANUARY 26, 1915.

103,733. LARD. ROHE & BAOTHER, New York, N. Y.
Filed May 9, 1914. Serial No. 78,174. PUBLISHED OCTOBER 20, 1914.

103,734. PASTEURIZERS. SAMUEL SHAPIRO, Philadelphia, Pa.
Filed November 30, 1914. Serial No. 82,989. PUBLISHED FEBRUARY 2, 1915.

103,735. GAMES. HENRY SIEBEN, Kansas City, Mo.
Filed December 16, 1914. Serial No. 83,333. PUBLISHED JANUARY 26, 1915.

103,736. LIQUID PARAFFIN. STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill.
Filed December 11, 1914. Serial No. 83,232. PUBLISHED FEBRUARY 2, 1915.

103,737. FUEL-OILS. UNION OIL COMPANY OF CALIFORNIA, Los Angeles, Cal.
Filed December 23, 1914. Serial No. 83,506. PUBLISHED FEBRUARY 2, 1915.

103,738. SEWING-MACHINES AND PARTS THEREOF. UNION SPECIAL MACHINE COMPANY, Chicago, Ill.
Filed October 23, 1914. Serial No. 82,106. PUBLISHED FEBRUARY 2, 1915.

103,739. SOLE-LEATHER. GEORGE C. VAUGHAN, Salem, Mass.
Filed October 11, 1913. Serial No. 73,321. PURLISHED JANUARY 26, 1915.

103,740. BABBITT METALS. VIRGINIA IRON & METAL COMPANY, INCORPORATED, Richmond, Va.
Filed October 12, 1914. Serial No. 81,836. PUBLISHED DECEMBER 29, 1914.

103,741. BABBITT METALS. VIRGINIA IRON & METAL COMPANY, INCORPORATED, Richmond, Va.
Filed October 12, 1914. Serial No. 81,837. PUBLISHED DECEMBER 29, 1914.

103,742. CAKES. WARD BAKING COMPANY, New York, N. Y.
Filed September 16, 1914. Serial No. 81,294. PUBLISHED JANUARY 26, 1915.

103,743. FERTILIZERS. AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.
Filed September 8, 1914. Serial No. 81,021. PUBLISHED FEBRUARY 2, 1915.

103,744. LIQUID PROTECTIVE COATING OR PAINT. BAYWAY CHEMICAL COMPANY, Elizabeth, N. J.
Filed December 5, 1914. Serial No. 83,085. PUBLISHED FEBRUARY 2, 1915.

103,745. CANNED SARDINES. CHR. BJELLAND & CO., INC., New York, N. Y.
Filed October 23, 1914. Serial No. 82,092. PUBLISHED FEBRUARY 2, 1915.

103,746. CANNED SARDINES. CHR. BJELLAND & CO., INC., New York, N. Y.
Filed October 23, 1914. Serial No. 82,094. PUBLISHED FEBRUARY 2, 1915.

103,747. BUTTER. BLUE VALLEY CREAMERY COMPANY, Chicago, Ill.
Filed August 20, 1914. Serial No. 80,694. PUBLISHED JANUARY 26, 1915.

103,748. PIECE GOODS MADE FROM CELLULOSE YARNS. COURTAULDS, LIMITED, London, England.
Filed January 5, 1915. Serial No. 83,680. PUBLISHED FEBRUARY 2, 1915.

103,749. YARNS MADE OF CELLULOSE. COURTAULDS, LIMITED, London, England.
Filed January 5, 1915. Serial No. 83,681. PUBLISHED FEBRUARY 2, 1915.

103,750. SOAP. D. A. B. SOAP COMPANY, Newton, Mass.
Filed November 4, 1914. Serial No. 82,408. PUBLISHED JANUARY 26, 1915.

103,751. CERTAIN NAMED COPPER, BRASS, AND NICKEL HOLLOW METAL WARE. SIMON W. FARBER, New York, N. Y.
Filed June 2, 1914. Serial No. 78,740. PUBLISHED FEBRUARY 2, 1915.

103,752. CANDY. WALTER T. HALL & CO., Ottumwa, Iowa.
Filed October 7, 1914. Serial No. 81,711. PUBLISHED JANUARY 26, 1915.

103,753. BAKING-POWDER. MARTIN HENTGES, Buffalo, N. Y.
Filed December 2, 1914. Serial No. 83,018. PUBLISHED FEBRUARY 2, 1915.

103,754. BUTCHERS' STEELS. C. & A. HOFFMAN, Philadelphia, Pa.
Filed June 12, 1914. Serial No. 79,035. PUBLISHED NOVEMBER 3, 1914.

103,755. HUMAN HAIR. HUMAN HAIR GOODS INDUSTRY, New York, N. Y.
Filed June 20, 1914. Serial No. 79,241. PUBLISHED OCTOBER 6, 1914.

103,756. WHEAT-FLOUR. THE LARABEE FLOUR MILLS COMPANY, Hutchinson, Kans.
Filed November 25, 1913. Serial No. 74,191. PUBLISHED FEBRUARY 2, 1915.

103,757. CAKES. LOOSE-WILES BISCUIT COMPANY, New York, N. Y.
Filed November 14, 1914. Serial No. 82,595. PUBLISHED JANUARY 26, 1915.

103,758. HYDROGEN PEROXID IN SOLID FORM AND RENDERED STABLE, PREPARED FOR PHARMACEUTICAL USE. E. MERCK, Darmstadt, Germany.
Filed July 10, 1914. Serial No. 79,718. PUBLISHED FEBRUARY 2, 1915.

103,759. CERTAIN NAMED LACE-PAPER PRODUCTS, PAPER EXCELSIOR, AND CONFETTI. MILWAUKEE LACE PAPER COMPANY, Milwaukee, Wis.
Filed October 24, 1914. Serial No. 82,146. PUBLISHED JANUARY 26, 1915.

103,760. FRENCH SPUN WORSTED AND MERINO YARNS. MONOMAC SPINNING COMPANY, Lawrence and Boston, Mass.
Filed May 16, 1914. Serial No. 78,331. PUBLISHED OCTOBER 20, 1914.

103,761. PREVENTIVES OF GONORRHEA, SYPHILIS, AND CHANCROID. LEO T. PARKER, Lynchburg, Ohio.
Filed August 4, 1914. Serial No. 80,300. PUBLISHED OCTOBER 13, 1914.

103,762. ANIMAL-TRAPS. ELIPHALET REMINGTON, Cazenovia, N. Y.
Filed December 21, 1914. Serial No. 83,437. PUBLISHED JANUARY 26, 1915.

103,763. LINEN AND COTTON WHITE-DUCK SUITS. THE ROEHM-RICHARDS CO., Dayton, Ohio.
Filed January 22, 1914. Serial No. 75,370. PUBLISHED NOVEMBER 3, 1914.

103,764. LINEN AND COTTON WHITE-DUCK SUITS. THE ROEHM-RICHARDS CO., Dayton, Ohio.
Filed January 22, 1914. Serial No. 75,371. PUBLISHED NOVEMBER 3, 1914.

103,765. LUBRICATING-OILS. SCHLIEMANN'S OIL & CERESINE COMPANY, INC., New York, N. Y.
Filed September 5, 1914. Serial No. 81,006. PUBLISHED FEBRUARY 2, 1915.

103,766. LUBRICATING-OILS. SCHLIEMANN'S OIL & CERESINE COMPANY, INC., New York, N. Y.
Filed September 5, 1914. Serial No. 81,007. PUBLISHED FEBRUARY 2, 1915.

103,767. WHEAT-FLOUR. SHEFFIELD-KING MILLING CO., Minneapolis, Minn.
Filed November 2, 1914. Serial No. 82,355. PUBLISHED JANUARY 26, 1915.

103,768. WASHING-POWDER. SIERRA CHEMICAL COMPANY, Los Angeles, Cal.
Filed October 27, 1913. Serial No. 73,631. PUBLISHED OCTOBER 13, 1914.

103,769. CANNED SALMON. J. L. SMILEY & COMPANY, Blaine, Wash.
Filed September 8, 1914. Serial No. 81,095. PUBLISHED JANUARY 26, 1915.

103,770. PATTERNS. THE VOGUE COMPANY, New York, N. Y.
Filed October 17, 1914. Serial No. 81,968. PUBLISHED FEBRUARY 2, 1915.

103,771. BEER. WACKER & BIRK BREWING CO., Chicago, Ill.
Filed January 4, 1915. Serial No. 83,672. PUBLISHED JANUARY 26, 1915.

103,772. PROCESSED FLOUR AND BREAKFAST FOOD, BREAD FOR TREATING DIABETES, AND OLIVE-OIL. WAUKESHA HEALTH PRODUCTS CO., Waukesha, Wis.
Filed December 5, 1913. Serial No. 74,397. PUBLISHED FEBRUARY 2, 1915.

103,773. MUSTARD RELISH. THE WIDLAR CO., Cleveland, Ohio.
Filed November 18, 1914. Serial No. 82,680. PUBLISHED JANUARY 26, 1915.

103,774. MEDICINAL FOODS FOR INVALIDS AND PERSONS OF WEAK DIGESTION OR IN BAD HEALTH. THE ARLINGTON CHEMICAL CO., Yonkers, N. Y.
Filed January 15, 1915. Serial No. 83,869. PUBLISHED FEBRUARY 9, 1915.

103,775. DISINFECTANT. BAYWAY CHEMICAL COMPANY, Elizabeth, N. J.
Filed December 5, 1914. Serial No. 83,084. PUBLISHED FEBRUARY 2, 1915.

103,776. SURGICAL AND MEDICAL PLASTERS. P. BEIERSDORF & CO., Hamburg, Germany.
Filed July 7, 1914. Serial No. 79,596. PUBLISHED FEBRUARY 2, 1915.

103,777. COMPOSITION OF CERTAIN NAMED INGREDIENTS. E. A. BULLIS & CO., San Francisco, Cal.
Filed September 24, 1914. Serial No. 81,439. PUBLISHED FEBRUARY 9, 1915.

103,778. NATURAL MINERAL WATERS. COMPAGNIE FERMIÈRE DE L'ETABLISSEMENT THERMAL DE VICHY, Paris, France.
Filed June 6, 1911. Serial No. 56,861. PUBLISHED FEBRUARY 2, 1915.

103,779. AUTOMOBILES. DODGE BROTHERS, Detroit, Mich.
Filed November 24, 1914. Serial No. 82,801. PUBLISHED FEBRUARY 9, 1915.

103,780. CERTAIN PHARMACEUTICAL PREPARATIONS FOR TOILET USE. MARIE EARLE, New York, N. Y., and Paris, France.
Filed December 12, 1914. Serial No. 83,242. PUBLISHED FEBRUARY 9, 1915.

103,781. CERTAIN NAMED CONSTRUCTION MATERIALS. GENERAL ROOFING MANUFACTURING COMPANY, East St. Louis, Ill.
Filed November 7, 1914. Serial No. 82,462. PUBLISHED FEBRUARY 9, 1915.

103,782. DECOLORIZING-CARBON, DEODORIZING MATERIAL, AND CATALYTIC OXIDIZING MATERIAL. INDUSTRIAL CHEMICAL COMPANY, New York, N. Y.
Filed January 4, 1915. Serial No. 83,657. PUBLISHED FEBRUARY 9, 1915.

103,783. PREPARATION FOR APPLICATION IN THE MOUTH, THROAT, AND NASAL PASSAGES. WILLIAM T. JAMES, Chicago, Ill.
Filed December 18, 1914. Serial No. 83,378. PUBLISHED FEBRUARY 9, 1915.

103,784. EXPLOSIVES, PRIMING MATERIALS, MATCHES, PYROTECHNIC ARTICLES, PROJECTILES, AMMUNITION, FUSES, AND QUICK MATCHES. KABELWERK DUISBURG, AKTIEN-GESELLSCHAFT, Duisburg, Germany.
Filed February 16, 1914. Serial No. 75,938. PUBLISHED FEBRUARY 9, 1915.

103,785. CANNED SALMON. LINDENBERGER PACKING CO., Seattle, Wash.
Filed July 2, 1912. Serial No. 64,528. PUBLISHED FEBRUARY 2, 1915.

103,786. FIRE-EXTINGUISHING COMPOSITIONS AND INGREDIENTS. MACANDREWS AND FORBES COMPANY, Camden, N. J., and New York, N. Y.
Filed December 30, 1914. Serial No. 83,590. PUBLISHED FEBRUARY 9, 1915.

103,787. ALUMINUM WARE. THE MASSILLON ALUMINUM CO., Massillon, Ohio.
Filed November 28, 1914. Serial No. 82,964. PUBLISHED FEBRUARY 9, 1915.

103,788. HAIR-TONICS. MEYERS AND THEINER, Detroit, Mich.
Filed December 22, 1914. Serial No. 83,463. PUBLISHED FEBRUARY 9, 1915.

103,789. COATS, SWEATERS, SHIRTS, UNDERWEAR, CAPS, AND HATS. THE NEW YORK ATHLETIC CLUB OF THE CITY OF NEW YORK, New York, N. Y.
Filed April 25, 1914. Serial No. 77,754. PUBLISHED JUNE 23, 1914.

103,790. CERTAIN NAMED MEDICAL AND SURGICAL APPLIANCES. NYAL COMPANY, Detroit, Mich.
Filed November 21, 1914. Serial No. 82,744. PUBLISHED FEBRUARY 9, 1915.

103,791. EGG-PRESERVERS. PHILADELPHIA QUARTZ COMPANY, Philadelphia, Pa.
Filed November 6, 1914. Serial No. 82,448. PUBLISHED FEBRUARY 9, 1915.

103,792. CHILDREN'S VEHICLES. THE RATTAN MFG. CO., New Haven, Conn.
Filed December 7, 1914. Serial No. 83,134. PUBLISHED FEBRUARY 9, 1915.

103,793. PASTE FOR USE IN THE ART OF PLUMBING IN THE MAKING OF JOINTS. CARL RODENHAUSEN, Chicago, Ill.
Filed June 10, 1914. Serial No. 78,961. PUBLISHED OCTOBER 20, 1914.

103,794. MALT TONIC. THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill.
Filed January 8, 1915. Serial No. 83,737. PUBLISHED FEBRUARY 9, 1915.

103,795. MOUTH-WASH AND TOOTH-POWDER. HARRY B. SHUMAN, Boston, Mass.
Filed May 9, 1914. Serial No. 78,177. PUBLISHED FEBRUARY 9, 1915.

103,796. RUPTURE-TRUSSES. CHARLES DAVID SPEAGH, Dayton, Ohio.
Filed November 16, 1914. Serial No. 82,630. PUBLISHED FEBRUARY 2, 1915.

103,797. LINIMENT. SMITH, KLINE & FRENCH CO., Philadelphia, Pa.
Filed December 31, 1914. Serial No. 83,611. PUBLISHED FEBRUARY 9, 1915.

103,798. VERMIFUGE. SMITH, KLINE & FRENCH CO., Philadelphia, Pa.
Filed December 31, 1914. Serial No. 83,612. PUBLISHED FEBRUARY 9, 1915.

103,799. VERMIFUGE. SMITH, KLINE & FRENCH CO., Philadelphia, Pa.
Filed December 31, 1914. Serial No. 83,613. PUBLISHED FEBRUARY 9, 1915.

103,800. LINIMENT. SMITH, KLINE & FRENCH CO., Philadelphia, Pa.
Filed December 31, 1914. Serial No. 83,614. PUBLISHED FEBRUARY 9, 1915.

103,801. INSECTICIDE. SMITH, KLINE & FRENCH CO., Philadelphia, Pa.
Filed December 31, 1914. Serial No. 83,615. PUBLISHED FEBRUARY 9, 1915.

103,802. LIQUID ANTISEPTIC. STEENOL LABORATORIES, New York, N. Y.
Filed January 11, 1915. Serial No. 83,783. PUBLISHED FEBRUARY 9, 1915.

103,803. HARNESS OR SADDLERY HARDWARE AND HAMES. THE STEFFENS-AMBERG CO., Newark, N. J.
Filed October 16, 1913. Serial No. 73,429. PUBLISHED FEBRUARY 9, 1915.

103,804. PERFUMED SOAPS FOR WASHING AND SHAVING. J. & E. ATKINSON, LIMITED, London, England.
Filed October 22, 1914. Serial No. 82,070. PUBLISHED FEBRUARY 9, 1915.

103,805. PLOWS, (OTHER THAN CULTIVATORS AND HARROWS,) MOLDBOARDS, LANDSIDES, PLOW-POINTS, PLOW-BEAMS, AND PARTS OF PLOWS. CECIL BILLUPS, Norfolk, Va.
Filed November 18, 1913. Serial No. 74,048. PUBLISHED MARCH 10, 1914.

103,806. PLOWS, (OTHER THAN CULTIVATORS AND HARROWS,) MOLDBOARDS, LANDSIDES, PLOW-POINTS, PLOW-BEAMS, AND PARTS OF PLOWS. CECIL BILLUPS, Norfolk, Va.
Filed December 11, 1913. Serial No. 74,507. PUBLISHED FEBRUARY 10, 1914.

103,807. TONIC FOR NERVOUS DISORDERS AND GENERAL DEBILITY. CELRO-KOLA COMPANY, Portland, Oreg.
Filed December 11, 1914. Serial No. 83,219. PUBLISHED JANUARY 19, 1915.

103,808. FERTILIZER. THE CUMBERLAND FERTILIZER CO., Cartersville, Ga.
Filed October 5, 1914. Serial No. 81,660. PUBLISHED DECEMBER 8, 1914.

103,809. WHEAT-FLOUR. FEDERAL MILLING COMPANY, Lockport, N. Y.
Filed November 4, 1912. Serial No. 66,680. PUBLISHED JANUARY 26, 1915.

103,810. CUSHION RAZOR-STROPS. HERBERT S. GARDNER, St. Louis, Mo.
Filed November 19, 1914. Serial No. 82,699. PUBLISHED FEBRUARY 9, 1915.

103,811. [WITHDRAWN.]

103,812. LUMBER FOR CONSTRUCTION PURPOSES. HEWITT-LEA-FUNCK CO., Seattle, Wash.
Filed August 13, 1914. Serial No. 80,530. PUBLISHED NOVEMBER 24, 1914.

103,813. HAIR-TONIC. MARY HICKEY, Oelwein, Iowa.
Filed January 2, 1915. Serial No. 83,629. PUBLISHED FEBRUARY 9, 1915.

103,814. DRESS AND NEGLIGÉE SHIRTS. HILKER-WIECHERS MFG. CO., Racine, Wis.
Filed November 3, 1914. Serial No. 82,375. PUBLISHED FEBRUARY 9, 1915.

103,815. MEDICINAL REMEDIES FOR CERTAIN NAMED AILMENTS AND DISEASES. GEORGE F. JOHNSTONE, Washington, D. C.
Filed September 28, 1914. Serial No. 81,519. PUBLISHED NOVEMBER 17, 1914.

103,816. WHEAT-FLOUR AND ANIMAL AND POULTRY FEED. K. B. R. MILLING COMPANY, Marquette, Kans.
Filed July 16, 1914. Serial No. 79,857. PUBLISHED NOVEMBER 3, 1914.

103,817. BRASS AND METAL POLISH, AUTOMOBILE AND BODY POLISH, SILVER-POLISH, AND SOAP. KEEP-NU CO., Chicago, Ill.
Filed November 19, 1914. Serial No. 82,685. PUBLISHED FEBRUARY 2, 1915.

103,818. FLAVORING EXTRACTS FOR FOODS. H. KOHNSTAMM & CO., New York, N. Y.
Filed November 21, 1914. Serial No. 82,739. PUBLISHED FEBRUARY 2, 1915.

103,819. GINGHAMS. LANCASTER MILLS, Clinton, Mass.
Filed December 15, 1914. Serial No. 83,296. PUBLISHED FEBRUARY 9, 1915.

103,820. MEDICATED SALVE FOR THE TREATMENT OF NASAL AFFECTIONS. RUSSELL LAW, New York, N. Y., assignor to Vecto Chemical Co. Inc., New York, N. Y., a Corporation of New York.
Filed October 2, 1914. Serial No. 81,619. PUBLISHED FEBRUARY 2, 1915.

103,821. LIQUID PREPARATION FOR USE ON GLASS TO PREVENT ACCUMULATION OF MOISTURE AND DUST. MAT-MACALD CO., Bristol, R. I.
Filed January 9, 1915. Serial No. 83,764. PUBLISHED FEBRUARY 9, 1915.

103,822. SOAP. ZENBEI MIWA, Tokyo, Japan.
Filed August 12,1914. Serial No. 80,523. PUBLISHED OCTOBER 13, 1914.

103,823. MOTION-PICTURE-PROJECTION MACHINES AND PARTS THEREOF. NICHOLAS POWER COMPANY, New York, N. Y.
Filed July 25, 1913. Serial No. 71,977. PUBLISHED FEBRUARY 2, 1915.

103,824. BLOUSES, TOP SKIRTS, UNDERSKIRTS, DRESSES, SACKS, KIMONOS, AND APRONS. CHARLES PESTCOE, Philadelphia, Pa.
Filed October 6, 1914. Serial No. 81,693. PUBLISHED FEBRUARY 9, 1915.

103,825. METAL-POLISH. ALBERT PICK & CO., Chicago, Ill.
Filed November 28, 1914. Serial No. 82,946. PUBLISHED FEBRUARY 9, 1915.

103,826. BLOOD-PURIFIERS AND REMEDIES FOR RHEUMATISM. AMELIA H. REED, Chicago, Ill.
Filed October 22, 1913. Serial No. 73,558. PUBLISHED FEBRUARY 2, 1915.

103,827. RAIN-COATS, CRAVENETTED COATS, AND RUBBER COATS. DAVID H. ROBINSON, New York, N. Y.
Filed May 21, 1914. Serial No. 78,444. PUBLISHED FEBRUARY 9, 1915.

103,828. MUSIC-ROLLS FOR PLAYER-PIANOS AND LIKE MUSICAL INSTRUMENTS. CHARLES T. SCHOEN, Media, Pa.
Filed December 22, 1914. Serial No. 83,466. PUBLISHED FEBRUARY 2, 1915.

103,829. CHILD'S UNDERGARMENT. FREDERICK H. SPRAGUE CO., Orange, Mass.
Filed January 18, 1915. Serial No. 83,941. PUBLISHED FEBRUARY 9, 1915.

103,830. SHOES MADE OF LEATHER AND OF LEATHER AND CLOTH. STONEFIELD-EVANS SHOE CO., Rockford, Ill.
Filed December 3, 1914. Serial No. 83,051. PUBLISHED JANUARY 26, 1915.

103,831. WHITE LAUNDRY SOAP. SWIFT AND COMPANY, Chicago, Ill.
Filed November 5, 1914. Serial No. 82,430. PUBLISHED FEBRUARY 9, 1915.

103,832. COTTON DUCK, COTTON PIECE AND DRESS GOODS. J. SPENCER TURNER COMPANY, New York, N. Y.
Filed July 31, 1914. Serial No. 80,216. PUBLISHED FEBRUARY 9, 1915.

103,833. CHOCOLATES. WADSWORTH CHOCOLATE CO., Newark, N. J.
Filed October 12, 1914. Serial No. 81,839. PUBLISHED FEBRUARY 2, 1915.

103,834. HOSE-SUPPORTERS. THE WARNER BROTHERS COMPANY, Bridgeport, Conn.
Filed December 18, 1914. Serial No. 83,385. PUBLISHED FEBRUARY 9, 1915.

103,835. CORSET-LACINGS. WEINGARTEN BROS. INC., New York, N. Y.
Filed December 17, 1914. Serial No. 83,356. PUBLISHED FEBRUARY 9, 1915.

103,836. PREPARATION USED IN MAKING AND SERVING CERTAIN NAMED FOODS. WHITE-STOKES COMPANY, Chicago, Ill.
Filed July 14, 1914. Serial No. 79,791. PUBLISHED JANUARY 5, 1915.

103,837. CERTAIN PHARMACEUTICAL PREPARATIONS AND REMEDIES FOR CERTAIN DISEASES. SAMUEL MOSES HELDFOND, Portland, Oreg.
Filed May 16, 1914. Serial No. 78,326. PUBLISHED FEBRUARY 9, 1915.

103,838. ORANGES. PLACENTIA MUTUAL ORANGE ASSOCIATION, Placentia, Cal.
Filed August 12, 1914. Serial No. 80,514. PUBLISHED FEBRUARY 9, 1915.

103,839. ORANGES. PLACENTIA MUTUAL ORANGE ASSOCIATION, Placentia, Cal.
Filed August 12, 1914. Serial No. 80,516. PUBLISHED FEBRUARY 9, 1915.

103,840. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed November 18, 1913. Serial No. 74,051. PUBLISHED FEBRUARY 10, 1914.

103,841. STAIN-REMOVER. THOMAS J. DUFFY, New York, N. Y.
Filed April 15, 1914. Serial No. 77,486. PUBLISHED JANUARY 26, 1915.

103,842. REMEDY FOR CATARRH. ROBERT M. SMITH, Hattiesburg, Miss.
Filed January 4, 1915. Serial No. 83,670. PUBLISHED FEBRUARY 9, 1915.

103,843. MEDICINAL PREPARATION TO BE USED AS A TREATMENT FOR GOITER. THE AUNT EMMA'S CO., Waukegan, Ill.
Filed December 26, 1914. Serial No. 83,531. PUBLISHED FEBRUARY 9, 1915.

TRADE-MARK REGISTRATIONS RENEWED.

12,014. PLOWS AND PLOW CASTINGS. WRENN, WHITEHURST & CO., Norfolk, Virginia.
Registered March 10, 1885. Renewed March 10, 1915.

12,056. PERFUMERY. F. R. ARNOLD & CO., New York, N. Y.
Registered March 31, 1885. Renewed March 31, 1915.

LABELS

REGISTERED APRIL 13, 1915.

18,358.—*Title:* "AICKELIN SALAD DRESSING." (For a Salad-Dressing.) H. A. AICKELIN & Co., Pittsburgh, Pa. Filed November 11, 1914.

18,359.—*Title:* "COMPOUND ALVINE WATER CARBONATED." (For Containers Filled with Carbonated Water.) THE ALVINE WATER CO., Brooklyn, N. Y. Filed December 28, 1914.

18,360.—*Title:* "PAN-PAC." (For Confections.) AMALGAMATED CONCESSIONS CO., San Francisco, Cal. Filed March 9, 1915.

18,361.—*Title:* "BAUGHN'S PELLAGRA REMEDY—PRESCRIPTION NO. 1—FOR INTERNAL USE." (For a Pellagra Remedy.) AMERICAN COMPOUNDING CO., Jasper, Ala. Filed May 7, 1913.

18,362.—*Title:* "HOUSEHOLD PACKAGE." (For Abrasive Paper and Cloth.) BARDER, ADAMSON & CO., New York, N. Y. Filed February 5, 1914.

18,363.—*Title:* "ROUND OAK MOISTAIR HEATING SYSTEM." (For Heating Systems.) ESTATE P D BECKWITH INC., Dowagiac, Mich. Filed October 26, 1914.

18,364.—*Title:* "RAT SWAT." (For Rodent-Exterminators.) V. B. CUNNINGHAM, Portland, Oreg. Filed February 18, 1915.

18,365.—*Title:* "SULFOX." (For Medicinal Waters.) THE EMAN MANUFACTURING COMPANY, Denver, Colo. Filed February 27, 1915.

18,366.—*Title:* "FRENCH'S." (For Cement.) HOWARD B. FRENCH, Philadelphia, Pa. Filed February 4, 1915.

18,367.—*Title:* "RED MIXTURE." (For a Medicinal Preparation.) F. C. GALEHOUSE, Taft, Cal. Filed October 20, 1914.

18,368.—*Title:* "PLOWMAN OVERALL." (For Overalls.) HAPP BROTHERS CO., Macon, Ga. Filed March 12, 1915.

18,369.—*Title:* "HEWETT'S HERBAL REMEDIES." (For Medicines.) CHARLES F. HEWETT, Boston, Mass. Filed November 13, 1914.

18,370.—*Title:* "KAFFEE HAG." (For Coffee.) KAFFEE HAG CORPORATION, New York, N. Y. Filed December 24, 1914.

18,371.—*Title:* "KING RICHARD'S." (For Cigars.) THE RICHARD A. KELLER CIGAR CO., Chicago, Ill., Filed December 23, 1914.

18,372.—*Title:* "HOME-WOOD." (For Coffee.) C. D. KENNY CO., Baltimore, Md. Filed March 26, 1914.

18,373.—*Title:* "CHERRY BLOSSOM NAINSOOK." (For Nainsook.) KING PHILIP MILLS, Fall River, Mass. Filed December 8, 1914.

18,374.—*Title:* "LINCOLN HIGHWAY SIGN." (For Signs.) THE LINCOLN HIGHWAY ASSOCIATION, Detroit, Mich. Filed January 27, 1915.

18,375.—*Title:* "CLEAN-O." (For a Cleaning Compound.) JAMES R. MILNES, Denver, Colo. Filed June 29, 1914.

18,376.—*Title:* "PERFECT VENTILATING SHIRT." (For Shirts.) GEORGE H. NICHOLAS, New York, N. Y. Filed January 26, 1915.

18,377.—*Title:* "PEPTO-PRUNE-LAX." (For a Laxative.) PEPTO-PRUNE-LAX CO., Chicago, Ill. Filed December 14, 1914.

18,378.—*Title:* "MONTCLAIR." (For Baking-Powder.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed March 22, 1915.

18,379.—*Title:* "KINGSTON." (For Peaches.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed March 22, 1915.

18,380.—*Title:* "JITNEY." (For Cigars.) SQUIRES & GARNER, Mexico, Mo. Filed March 3, 1915.

18,381.—*Title:* "REX X-E-MA PASTE FOR ECZEMA AND OTHER SKIN DISEASES." (For a Medicinal Preparation.) D. J. VAN FOSSEN, Kansas City, Mo. Filed September 5, 1914.

18,382.—*Title:* "VENUS LAVENDER CREAM." (For Massage-Cream.) VENUS COMPANY, Brooklyn, N. Y. Filed March 20, 1915.

PRINTS

REGISTERED APRIL 13, 1915.

3,856.—*Title:* "ROUND OAK MOISTAIR HEATING SYSTEM." (For Heating Systems.) ESTATE P D BECKWITH INC., Dowagiac, Mich. Filed October 26, 1914.

3,857.—*Title:* "CHERO-COLA, THERE'S NONE SO GOOD." (For Chero-Cola.) CHERO-COLA CO., Columbus, Ga. Filed February 20, 1915.

3,858.—*Title:* "UNDER DAILY GOVERNMENT INSPECTION!" (For Margarin.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 13, 1915.

3,859.—*Title:* "BUY FERRY'S SEEDS HERE." (For Ferry's Seeds.) D. M. FERRY & CO., Detroit, Mich. Filed February 19, 1915.

3,860.—*Title:* "THE 'INSPIRATION DRESS.'" (For Dresses.) GOLDBERG-GOLDSCHMIDT COSTUME CO., INC., New York, N. Y. Filed December 8, 1914.

3,861.—*Title:* "LEHIGH PORTLAND CEMENT." (For Lehigh Portland Cement.) LEHIGH PORTLAND CEMENT CO., Allentown, Pa. Filed February 27, 1915.

3,862.—*Title:* "DRINK PEPSI-COLA." (For Pepsi-Cola.) THE PEPSI-COLA CO., Newbern, N. C. Filed March 11, 1915.

3,863.—*Title:* "BUILD FOR THE AGES." (For Tile, Lining, Brick, Stucco, Roofing, Cement, Plaster, Lime, Stone, Gravel, Sand, and Pipe.) UNITED FUEL & SUPPLY CO. INC., Detroit, Mich. Filed January 2, 1915.

3,864.—*Title:* "THE IRON CROSS CIGAR, PALMER E. VOGEL." (For Cigars.) PALMER E. VOGEL, Milwaukee, Wis. Filed March 17, 1915.

3,865.—*Title:* "WELCH'S—'THE NATIONAL DRINK.'" (For Welch's Grape-Juice.) THE WELCH GRAPE JUICE COMPANY, Westfield, N. Y. Filed March 2, 1915.

3,866.—*Title:* "THE LATEST WHITE SIX-SIXTY LIMOUSINE." (For White Limousine-Cars.) THE WHITE COMPANY, Cleveland, Ohio. Filed March 16, 1915.

3,867.—*Title:* "THE LATEST WHITE FOUR-FORTY-FIVE TOURING." (For White Touring-Cars.) THE WHITE COMPANY, Cleveland, Ohio. Filed March 16, 1915.

3,868.—*Title:* "THE LATEST WHITE FOUR-THIRTY TOWN CAR." (For White Town-Cars.) THE WHITE COMPANY, Cleveland, Ohio. Filed March 16, 1915.

3,869.—*Title:* "THE LATEST WHITE 'SIX-SIXTY TOURING.'" (For White Touring-Cars.) THE WHITE COMPANY, Cleveland, Ohio. Filed March 16, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

UNITED STATES, *ex rel.* LINCOLN HIGHWAY ASSOCIATION, *v.* EWING.

Decided December 7, 1914.

42 APP. D. C., 508.

MANDAMUS—LABEL—REGISTRATION.

A decision by the Commissioner of Patents that a highway is not an article of manufacture for which a label may be registered under section 3 of the act of Congress of June 18, 1874, (18 Stat. at L., 79, chap. 301,) cannot, even though erroneous, be reviewed by mandamus, (citing *Allen* v. *United States*, 115 O. G., 747, 22 App. D. C., 271.)

Mr. John M. Coit for the appellant.

Mr. R. F. Whitehead for the appellee.

VAN ORSDEL, J.:

This appeal is from a decision of the Supreme Court of the District of Columbia denying relator's petition for a writ of mandamus to compel the Commissioner of Patents to register a label.

The label consists of a strip divided into three parts, colored, respectively, red, white, and blue, the white portion containing the inscription "Lincoln Highway" and the letter "L." Registration is sought under section 3 of the act of Congress of June 18, 1874, (18 Stat. at L., 79, chap. 301,) which provides as follows:

That in the construction of this act, the words, "engraving," "cut," and "print" shall be applied only to pictorial illustrations or works connected with the fine arts, and no prints or labels designed to be used for any other articles of manufacture shall be entered under the copyright law, but may be registered in the Patent Office. And the Commissioner of Patents is hereby charged with the supervision and control of the entry or register of such prints or labels, in conformity with the regulations provided by law as to copyright of prints, except that there shall be paid for recording the title of any print or label not a trademark, $6, which shall cover the expense of furnishing a copy of the record under the seal of the Commissioner of Patents, to the party entering the same.

Registration was refused on the ground that a highway is not an article of manufacture. The writ is sought on the ground that this ruling of the Commissioner was a clear abuse of discretion. No appeal is provided from a decision of the Commissioner of Patents refusing to register a label. In *Allen* v. *United States* (115 O. G., 747, 22 App. D. C., 271) this court held that the duties imposed upon the Commissioner of Patents under the act of 1874 are not merely ministerial, but call for a decision as to whether or not the thing presented is entitled to registration, or is, in fact, a label within the definition of the statute. In that case, the court refused to interfere with the decision of the Commissioner by writ of mandamus.

The contention of relator is, not that the Commissioner was without jurisdiction to act, or that he refused to act, or that the statute peremptorily required him to act in a certain manner, but that he erred in his decision. We are therefore called upon to substitute the writ of mandamus for a writ of error. This cannot be done. It may well be that the Commissioner erred in his opinion, but we are powerless in this proceeding to review his decision. The mere fact that he may have erred will not justify the issuance of the writ.

Whether he decided right or wrong is not the question. Having jurisdiction to decide at all, he had necessarily jurisdiction, and it was his duty to decide as he thought the law was, and the courts have no power whatever under those circumstances to review his determination by mandamus or injunction. (*United States, ex rel. Riverside Oil Co.*, v. *Hitchcock*, 190 U. S., 316; 47 L. Ed., 1047; 23 Sup. Ct. Rep., 698.)

The judgment is affirmed with costs. Affirmed.

Court of Appeals of the District of Columbia.

BLAW *v.* WHITALL AND MCARTHUR. WHITALL *v.* BLAW AND MCARTHUR.

Decided January 4, 1915.

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* that priority was properly awarded to McArthur.

Mr. Paul Synnestvedt for the appellant.

Mr. J. C. Bradley and *Mr. Isaac B. Owens* for the appellees.

Mr. Isaac B. Owens for the appellant.

Mr. J. C. Bradley and *Mr. Paul Synnestvedt* for the appellees.

SHEPARD, *C. J.*:

This is an interference proceeding to which Blaw, Whitall, McArthur and Gillespie were original parties. Gillespie has dropped out.

The invention in controversy relates to steel forms of centering devices for concrete tubes and aqueducts to retain the concrete in position until it sets or hardens and becomes self-supporting. The steel form or centering device is then removed by collapsing the same and carried through the conduit already formed and other forms on a carriage to be set up for the next section of construction. To

accomplish this the form is made in four sections hinged together so that when collapsed it occupies a less cross-section area than the formed conduit and can thus be readily transferred through the same on a truck to be set up in an advance position when desired.

The issue is contained in the following counts:

1. The combination with a collapsible mold open at the bottom and comprising a pair of top sections having a hinged connection at their upper edges, and a second pair of sections hinged to the lower edges of the first sections, the sections being stiffened by ribs and so arranged that the mold will maintain itself in expanded position and permit the passage therethrough of a truck carrying another mold, of a truck, and mechanism carried thereby whereby the top sections may be moved up and down and moved about their hinged connection to expanded or working position.

2. In combination in a conduit mold, open at the bottom and having curved sides, a pair of top sections having a hinged connection at their upper edges, and a second pair of sections hinged to the lower edges of the first sections, stiffening ribs carried by the sections, a truck, and mechanism carried by the truck and adapted to raise and lower the top sections and to swing such sections outward to expanded position, the connection at the hinged edges and the shape and curve of the sections being such that the mold is self supporting and unobstructed and permits the passage therethrough of a truck carrying another mold.

3. The combination of a collapsible mold open at the bottom and comprising a pair of top sections hinged together at substantially the center of the mold, and a second pair of sections hinged to the lower edges of such first sections, the sections being stiffened by ribs and hinged so that the mold will maintain itself in expanded position, of a truck provided with means for raising and lowering the mold bodily and with contracting and expanding struts detachably secured to the lower portion of each section.

Blaw filed January 18, 1909. McArthur and Gillespie filed applications on May 25, 1911. Whitall filed June 8, 1910. Blaw's preliminary statement alleged conception July 8, 1908, disclosure to others December 1, 1908, and reduction to practice March 1, 1909. McArthur alleged conception August 10, 1908, drawings and disclosure August 20, and reduction to practice January 20, 1909. Whitall alleged conception July 15, 1908, drawings on the same date, disclosure December 1, 1908, and reduction to practice in 1909.

The Blaw Collapsible Steel Centering Company is the assignee of Blaw and McArthur. The Ransome International Conduit Company is the assignee of Whitall. Ernest L. Ransome, the president of that company, filed an application for the same invention and was in the original interference, but his application has been abandoned. Afterward the application of Whitall was filed. The interference before McArthur filed was that of *Hermann* v. *Gillespie* v. *Ransome* v. *Blaw*. Judgment had been given to Blaw against Ransome on the record.

Whitall was in the employ of the Ransome Company and filed his application after the defeat of Ransome. McArthur was then in the employ of the Blaw Company, in which he entered about January 27, 1909, after negotiations of some days. His filing was after the Commissioner had refused leave to Blaw to amend his preliminary statement showing disclosure of his invention at a date several months earlier than December 1, 1908, by which ruling it had become possible for Blaw to be defeated.

At the time of McArthur's employment with the Blaw Company, which owned Blaw's application, and to which he was under obligation to assign his own invention, the Blaw application had been filed. McArthur so understood and believed from representations made to him that Blaw's conception of the invention antedated his own.

Before the Examiner of Interferences, Gillespie having fallen out through failure to take testimony in support of his claim, the controversy was confined to Blaw, Whitall and McArthur.

As between Whitall and McArthur the question was one of originality. Each claimed the invention and his testimony was in direct conflict with the other. The Examiner decided in favor of McArthur on the weight of certain circumstances. It appears that Whitall was in the summer of 1908 the seller of mineral paint. McArthur was a mechanical engineer and expert draftsman. Whitall claimed to have described the invention to McArthur, and he made the drawings, illustrating it by his direction. McArthur claims to have made the invention himself. Each made claim to it but has no witness to corroborate him.

On September 19, 1908, Whitall and McArthur entered into the following contract:

NEW YORK, *Sept. 19, 1908.*

The subscribers agree as follows:

1st. W. V. R. Whitall, agrees to pay all expense in securing certain Letters Patent for sewer molds invented by C. D. McArthur.

2nd. C. D. McArthur agrees to assign to W. V. R. Whitall one half interest in all Letters Patent issued to C. D. McArthur for said molds.

3rd. C. D. McArthur agrees to perform all mechanical work necessary for completion of said invention.

4th. W. V. R. Whitall and C. D. McArthur both jointly agree to surrender fifty-one per cent., if necessary of their interest in said Letters Patent for purpose of organizing company to manufacture and market said molds.

5th. W. V. R. Whitall and C. D. McArthur both jointly agree not to dispose of any part of their interest without consent of the other.

W. V. R. WHITALL.
C. D. MCARTHUR.

Having been unable to agree as to the development and manufacture under the foregoing agreement, on December 17, 1908, McArthur wrote to Whitall submitting another proposition to him to the effect that if he would pay all expenses in securing Letters Patent on the trolley system of sewer-molds, an application for which had been filed, and also all expenses of procuring Letters Patent on the curved molds, a caveat for which is now on file under date of November 23, 1908, subject Collapsing form and carriage for molding concrete, sewers, aqueducts, etc., that he would grant Whitall the right to manufacture and sell forms under these patents, and also the privilege to enter into manufacturing and selling agreements under these patents with any firm or person which Whitall may become identified with; also permission to dispose of the rights as desired. No reply was received to this letter. It also appears that the caveat referred to describes the invention of the issue except the reinforced ribs. But it shows the several hinges with the means for collapsing and expanding them, and the means to transport the frames when collapsed. This caveat was shown to Whitall, who signed it as a witness.

These facts were held by the Examiner of Interferences to turn the scale in favor of McArthur. Having disposed of Whitall he took up the case as between McArthur and Blaw and awarded priority to Blaw. It appears also that this evidence of McArthur was given in the interference case of Blaw prior to McArthur's application and his entry into the interference. It was then inadmissible but after his entry into the interference it was adopted by him as evidence in support of his own claim.

The decision was appealed by both Whitall and McArthur to the Examiners-in-Chief, who affirmed it as to Whitall and reversed it as to McArthur and Blaw and awarded priority to McArthur. On appeal to the Commissioner that decision was affirmed.

Without reviewing the evidence at length as was done by the several tribunals of the Patent Office we agree that, as between McArthur and Whitall the decision is correct.

On this appeal Whitall contends that McArthur is concluded by the case of *Lloyd* v. *Antisdel*, (17 App. D. C., 490; 95 O. G., 1645; 1901, C. D., 371.) If the question of originality had been between Blaw and McArthur, the latter might be estopped, but that is not the case and it does not appear how Whitall can avail himself of the estoppel. Whitall also seeks to escape the effect of his signature to the caveat on the ground that the same did not disclose the ribs of the issue. It appears that these were well known to both McArthur and Whitall at the time and that it was understood to be part of the construction. Moreover the ribs had been used in other construction well known and were at the time public property. It is clear that when Whitall signed the caveat he knew that it contained substantially all of the design work which Whitall and McArthur had presented to the attention of the contractors engaged in the construction of the New York aqueduct.

The Examiners-in-Chief noted the limitation put upon Blaw by his preliminary statement, and it is said that this point might be waived by McArthur.

Holding that Blaw was limited by that statement, McArthur was awarded priority over Blaw.

The Examiner of Interferences had decided in favor of Blaw on the ground that McArthur could not claim the reduction to practice that was made by the Blaw Company at the time of his employment and that he was not diligent in reducing to practice, wherefore Blaw was awarded priority.

The Examiner held that McArthur's employment was by Blaw and that the reduction to practice could not redound to his benefit as Blaw was his employer. The Examiners-in-Chief found that both Blaw and McArthur were employees of the Blaw Company; that McArthur had only recognized Blaw's claim of priority to the extent that he took the word of Blaw and the word of the executive officers of the company to the effect that Blaw conceived the invention at a date before he did, and that this was not the recognition of an adverse right of an employer and does not, therefore, constitute an estoppel against McArthur. They further held that the Blaw Company was in effect from the beginning the assignee of McArthur, and any reduction to practice by the Blaw Company in which McArthur had a part should accrue to the benefit of McArthur. The Blaw Company reduced the invention to practice. The record shows that the reduction to practice did not commence until after McArthur came into the employment of the company and that without question it shows that McArthur was the moving spirit and designer in this reduction to practice. Therefore, it was held that he was entitled to the reduction to practice, whereupon they reversed the Examiner of Interferences and awarded priority to McArthur.

Afterward McArthur waived the protection afforded to him by Blaw's preliminary statement with respect to his date of disclosure and agreed that, in so far as McArthur is concerned, Blaw should be entitled to any date of disclosure which the Commissioner of Patents should find has been adequately proved by Blaw's record. On appeal to the Commissioner, he affirmed the finding as between McArthur and Whitall and refused to consider the waiver of McArthur of the date of the preliminary statement of Blaw and affirmed the decision awarding priority to McArthur.

The matter of permitting an amendment to a preliminary statement is one that is in the discretion of the Commissioner of Patents and there seems to be no abuse of it in this instance. The Commissioner was also right in not entertaining the waiver of McArthur because Whitall was still a party and was also affected by that waiver notwithstanding the finding of the Examiner of Interferences and the Examiners-in-Chief.

With that statement in the way, Blaw's evidence of an earlier conception was not entitled to consideration, and, therefore, the award to McArthur was right.

The decision is affirmed and the clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Thacher patent, No. 617,615, for a reinforced-concrete arch, *Held* valid and infringed. *Thacher* v. *City of Baltimore*, 219 Fed. Rep., 909.

(U. S. C. C. A.) The Edison patent, No. 802,631, for an apparatus for burning Portland-cement clinker, *Held* void for lack of invention. *Edison* v. *Alsen's American Portland Cement Works*, 219 Fed. Rep., 895.

(U. S. D. C.) The McIntosh patent, No. 813,815, for a rotary engine, *Held* void for anticipation and prior use. *Elliott Co.* v. *Robertson*, 219 Fed. Rep., 899.

(U. S. C. C. A.) The Ernst patents, No. 896,365, for a gas-cleaner apparatus, and No. 900,062, for a

process for cleaning gases, *Held* infringed. *Roessing-Ernst Co.* v. *Coal & Coke By-Products Co.*, 219 Fed. Rep., 898.

(U. S. D. C.) The Van Ormer patent, No. 969,010, for a rotary motor, *Held* void for anticipation and prior use. *Elliott Co.* v. *Robertson*, 219 Fed. Rep., 899.

(U. S. D. C.) The Elliott, Mills, and Holt patent, No. 1,019,771, for a rotary motor, as to certain features *Held* void for anticipation and not infringed. *Elliott Co.* v. *Robertson*, 219 Fed. Rep., 899.

(U. S. C. C. A.) The Boss patent, No. 1,039,355, for a grass-collector for lawn-mowers, *Held* void for anticipation. *Zittlosen Mfg. Co.* v. *Boss*, 219 Fed. Rep., 887.

(U. S. D. C.) The Elliott patent, No. 1,045,134, for a rotary motor, as to certain features *Held* void for anticipation and not infringed. *Elliott Co.* v. *Robertson*, 219 Fed. Rep., 899.

(U. S. D. C.) The Mills and Conn patent, No. 1,053,055, for a rotary motor, claim 10 *Held* void for anticipation. *Elliott Co.* v. *Robertson*, 899.

Citation of Decisions.

Citation of decisions of the Court of Appeals of the District of Columbia, rendered between March 2, 1914, and January 4, 1915, published in the OFFICIAL GAZETTE and in volume 42, Appeal Cases of the District of Columbia.

	O. G.		App. D. C.	
	Vol.	Page.	Vol.	Page.
Astrom v. Weimer	210	401	42	550
B. Fischer & Company v. Knickerbocker Mills Company	211	955	42	570
Bender v. Engel	211	285	42	574
Bissell v. Fottinger	212	689	42	597
Cross v. Rusby	204	321	42	341
Ewing, Commissioner of Patents, v. Standard Oil Company	209	1556	42	321
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Changes in Classification.

(ORDER No. 2,196.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., March 31, 1915.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 127, Sugar and Salt, (Division VI,) abolish subclasses—

3. **Centrifugal machines—**
21. Honey-extractors,
20. Liquid-separators,
22. Testers.

The patents formerly contained in these subclasses have been placed in class 210, Water Purification, subclass 25, Filters, Centrifugal, and the subclasses thereunder, hereinafter established, and class 233, Centrifugal Bowl Separators, hereinafter established.

In class 210, Water Purification, (Division XLIII,) establish subclasses—

Filters—	**Filters—**
25. Centrifugal—	Centrifugal—
29. Agitating or conveying—	27. Fluid treatment—
30. Rotary stirrer,	28. Liquid,
31. Stationary stirrer,	26. Honey-extractors,
34. Discharging residue—	36. Receiving filtrate.
35. Bottom discharge,	
32. Driving mechanism—	
33. Motor,	

The patents contained in these subclasses have been taken for the most part from class 127, Sugar and Salt, subclass 3, Centrifugal machines, and the subclasses thereunder, hereinbefore abolished.

Establish in Division XXV—

CLASS 233.—CENTRIFUGAL BOWL SEPARATORS,

with the following subclasses and definitions, the patents contained in this class having been taken for the most part from class 127, Sugar and Salt, subclasses 3, Centrifugal machines; 20, Centrifugal machines, Liquid-separators, and 22, Centrifugal machines, Testers, hereinbefore abolished, and class 83, Mills, subclasses 86, Ore and coal, Separators, Washers, Rotary drums, horizontal axis, and 87 Ore and coal, Separators, Washers, Rotary pans and stirrers, vertical axis:

CLASS 233.—CENTRIFUGAL BOWL SEPARATORS.
(XXV.)

Subclasses.

1. **Miscellaneous.**	3. **With agitating or conveying—**
27. **Separators—**	4. Outside of bowl,
46. Discharging—	6. Rotary and reciprocating stirrer,
47. Exits,	7. Rotary stirrer—
40. Distributing—	8. Current actuated,
41. Non-radial distributing plate—	9. Expansible,
42. Longitudinal—	10. Stationary stirrer,
43. Concentric,	5. Vibratable shell.
44. Radial distributing plate,	2. **With filtering.**
38. Distributing and discharging—	16. **With fluid distribution—**
39. Non-radial distributing plate,	21. Conducting or receiving—
45. Receiving,	22. Movable receiver,
34. Receiving and distributing—	19. Controlling—
35. Non-radial distributing plate—	20. Bowl valve,
36. Longitudinal—	17. Multiple separator—
37. Concentric,	18. Successive.
28. Receiving, distributing, and discharging—	12. **With fluid treatment—**
29. Non-radial distributing plate—	13. Gas,
30. Longitudinal—	14. Liquid—
31. Concentric,	15. Opposed flow.
32. Radial distributing plate—	11. **With heat exchange.**
33. Longitudinal.	23. **With power transmission—**
	24. **Motor,**
	25. Planetary movement,
	26. Test-tube and bottle holding.

THOMAS EWING,
Commissioner.

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 213—No. 3. TUESDAY, APRIL 20, 1915. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF APRIL 20, 1915.

Patents	937	No. 1,135,978 to No. 1,136,914, inclusive.
Designs	13	No. 47,241 to No. 47,253, inclusive.
Trade-Marks	144	No. 103,844 to No. 103,987, inclusive.
Labels	9	No. 18,283 to No. 18,291, inclusive.
Prints	1	No. 3,570.
Reissues	1	No. 13,903.
Total	1105	

The patents of this issue were pending an average of 23.8 months.

TO RESIDENTS OF THE UNITED STATES.

States	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	7	.....	North Carolina	7	.....
Arizona	2	.....	North Dakota	6	.....
Arkansas	4	.....	Ohio	61	11
California	47	6	Oklahoma	5	1
Colorado	15	1	Oregon	2	.....
Connecticut	24	2	Pennsylvania	69	8
Delaware	.....	.....	Rhode Island	5	.....
Florida	5	2	South Carolina	2	.....
Georgia	4	2	South Dakota	3	.....
Idaho	4	.....	Tennessee	4	.....
Illinois	95	10	Texas	14	1
Indiana	26	4	Utah	2	.....
Iowa	17	2	Vermont	1	.....
Kansas	10	.....	Virginia	11	3
Kentucky	4	1	Washington	24	3
Louisiana	5	3	West Virginia	3	.....
Maine	3	.....	Wisconsin	26	2
Maryland	7	3	Wyoming	.....	1
Massachusetts	64	7			
Michigan	28	3	Alaska, District of	.....	.....
Minnesota	22	1	Canal Zone	.....	.....
Mississippi	2	2	District of Columbia	10	1
Missouri	20	6	Hawaii Territory	.....	.....
Montana	4	.....	Philippine Islands	.....	.....
Nebraska	4	1	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	.....	.....	U. S. Navy	.....	.....
New Jersey	34	9			
New Mexico	2	.....	Total to residents of the United States	862	143
New York	127	38			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Natal	.....	.....
Austria-Hungary	6	1	Netherlands	1	1
Belgium	1	.....	New South Wales	1	.....
British India	.....	.....	New Zealand	3	.....
British West Indies	.....	.....	Norway	1	1
Canada	19	1	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Chile	1	.....	Roumania	.....	.....
Costa Rica	.....	.....	Russia	.....	.....
Cuba	.....	.....	Scotland	.....	.....
Denmark	2	.....	South Australia	.....	.....
England	17	4	Spain	.....	.....
Finland	.....	.....	Sweden	2	.....
France	7	.....	Switzerland	4	.....
Germany	24	2	Transvaal, South Africa	.....	.....
Guatemala	.....	.....	Victoria	.....	.....
India	.....	.....	Western Australia	4	.....
Ireland	1	1	Total to residents of foreign countries	97	11
Isle of Jersey	1	.....			
Italy	1	.....			
Japan	1	.....			

Internal Revenue-Stamp Act.

Department of the Interior,
United States Patent Office,
Washington, D. C., April 1, 1915.

This Office has been notified, under date of March 27, 1915, by the Commissioner of Internal Revenue, that a notarial certificate of the acknowledgment of an assignment of Letters Patent, in accordance with the provisions of section 4898 of the Revised Statutes, is not a certificate "required by law" within the meaning of the act of October 22, 1914, and is therefore not taxable under that act.

In view of this ruling the notice issued by this Office on November 14, 1914, (208 O. G., 661,) that an assignment so acknowledged requires a revenue stamp is hereby revoked.

THOMAS EWING,
Commissioner.

Access to Pending Applications.

Hereafter no person except the applicant, the assignee whose assignment is of record, or the attorney of record will be permitted to have access to the file of any application, except as provided for under the interference rules, unless written authority from the applicant, assignee, or attorney, identifying the application to be inspected, is filed in the case to become a part of the record thereof, or upon the written order of the Commissioner, which will also become a part of the record of the case.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business April 17, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Jan. 7	Jan. 7	478
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Oct. 19	Feb. 3	727
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Mar. 31	Apr. 5	131
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Oct. 24	Apr. 5	608
167	5. Bookbinding; Harvesters; Jewelry; Music.	Nov. 16	Mar. 9	343
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Oct. 8	Apr. 9	500
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Feb. 11	Mar. 13	439
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Oct. 17	Mar. 27	1242
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	July 22	Mar. 8	811
235	10. Carriages and Wagons	Dec. 5	Mar. 25	703
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 12	Apr. 2	147
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Dec. 17	Apr. 3	821
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Mar. 2	Mar. 6	432
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Nov. 30	Mar. 18	310
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 13	Apr. 2	691
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Sept. 18	Jan. 16	508
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Feb. 4	Apr. 5	176
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 3	Mar. 6	312
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Feb. 23	Feb. 20	238
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Mar. 17	Mar. 17	248

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Dec. 12	Mar. 8	412
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Mar. 19	Mar. 17	237
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 17	Dec. 31	445
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Nov. 3	Mar. 24	461
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Oct. 19	Mar. 23	171
106	26. Electricity, Generation; Motive Power.	Sept. 16	Jan. 30	544
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Jan. 26	Mar. 24	282
65	28. Internal-Combustion Engines	Feb. 17	Mar. 11	457
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 3	Feb. 8	312
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Dec. 14	Mar. 20	295
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Dec. 23	Mar. 8	335
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Oct. 17	Apr. 1	677
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Jan. 2	Mar. 13	367
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 10	Mar. 26	196
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Jan. 9	Apr. 10	536
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Jan. 27	Mar. 31	613
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Sept. 21	Feb. 12	733
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Nov. 17	Mar. 8	566
321	39. Water Distribution	Jan. 18	Feb. 4	459
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Oct. 21	Mar. 11	1057
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Feb. 15	Mar. 17	255
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Sept. 29	Jan. 29	690
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Nov. 2	Mar. 16	303

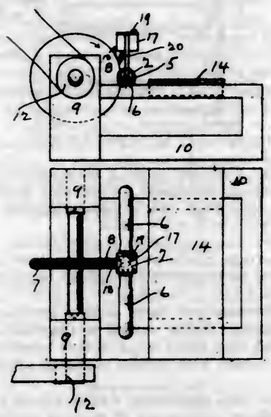
Oldest new case, July 22; oldest amended, Dec. 31.
Total number of applications awaiting action..... 20,328

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Feb. 25	Mar. 24	863
	Designs	Jan. 25	Mar. 2	512
	Labels and Prints	Apr. 3	Apr. 8	56

PATENTS

GRANTED APRIL 20, 1915.

1,135,978. PROCESS FOR CUTTING SURFACES ON CARBORUNDUM OR EMERY WHEELS. THURE W. ALM, Brooklyn, N. Y. Filed Sept. 8, 1914. Serial No. 860,598. (Cl. 125—6.)



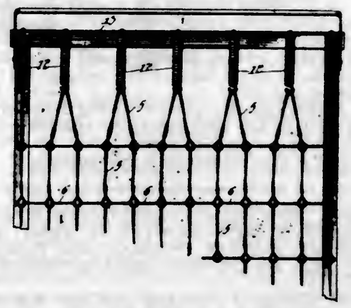
1. The herein described process of forming parallel, continuous, smooth grooves and ridges on the face of an emery wheel consisting in rotating the emery wheel to be grooved, forcing a hard forming wheel against the face of said emery wheel, said wheel being provided with a plurality of parallel, circumferential, continuous, smooth, sharp ridges, and delivering a cutting mixture of a finely powdered abradant and a liquid between the forming wheel and the face of the emery wheel to be grooved, whereby the continuous smooth ridges on the forming wheel will force the abradant against the emery wheel and cause it to cut the grooves therein.

2. The herein described process of cutting parallel grooves and ridges on the face of an emery wheel consisting in rapidly rotating the emery wheel to be dressed, forcing a metallic forming wheel against the face of said emery wheel, said forming wheel being provided with a plurality of parallel circumferential smooth, continuous forming ridges, and delivering a cutting mixture of fine powdered emery and water between the forming wheel and the face of the emery wheel to be dressed.

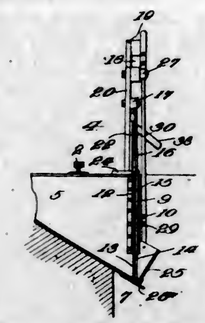
3. The herein described process of cutting parallel grooves and ridges on the face of an emery wheel consisting in rapidly rotating the emery wheel to be dressed, forcing a metallic forming wheel against the face of said emery wheel, said forming wheel being provided with a plurality of parallel circumferential continuous forming ridges, and delivering a cutting mixture of fine powdered abrading material and a liquid between the forming wheel and the face of the emery wheel to be dressed.

1,135,979. WIRE LINK FABRIC. WILLIAM B. ANDERSON, Chicago, Ill., assignor to Haggard and Marcusson Company, Chicago, Ill., a Corporation of Illinois. Filed July 11, 1914. Serial No. 850,286. (Cl. 245—5.)

A resilient wire fabric composed of similar link members arranged in a plurality of parallel chains, each said link comprising a wire bent back upon itself to form two limbs and an eye at the limb juncture, each limb being spirally contorted by twisting throughout substantially its entire longitudinal extent, the spiral convolutions of both limbs of a link intermeshing but normally transversely separated one from the other, said link having its free ends looped back to form eyes for engagement with the closed eye of the next link, the pitch length of the twist increasing toward the free ends, and means for transversely connecting the parallel chains.



1,135,980. CUT-OFF GATE AND SPOUT FOR DISCHARGE-CHUTES. FRANKLIN E. ARNDT, Galion, Ohio, assignor to The Galion Iron Works and Manufacturing Company, Galion, Ohio. Filed Apr. 8, 1914. Serial No. 830,469. (Cl. 193—45.)



1. The combination with a discharge chute, of a spout pivotally connected to the discharge end of the chute and rotatable in a vertical plane, spaced guide plates disposed at the discharge end of the chute and closing the upper portion of the same, a sliding cut-off disposed between said plates, and means for independently operating the cut-off and the spout.

2. The combination with a discharge chute, of a vertically sliding cut-off therefor disposed at the discharge end of the chute, said cut-off consisting of a vertically corrugated plate.

3. The combination with a discharge chute, of vertically disposed spaced plates located at the discharge end

of the chute, and a cut-off disposed and movable between said plates, the cut-off being vertically corrugated, the depth of the corrugations being approximately equal to the space between said plates.

4. The combination with a discharge chute, of transversely extending spaced plates disposed vertically across its discharge end, the lower edges of the plates being spaced above the bottom of the chute, a spout pivoted to the chute at the discharge end thereof outward of said plates, a vertically corrugated cut-off plate disposed between the spaced plates and movable vertically therein, the depth of the corrugations of said cut-off being approximately equal to the space between the plates, and means for independently operating either the spout or the cut-off.

5. The combination with a discharge chute, of a frame supported above the discharge end of the chute comprising a basal portion and upright posts, transversely extending spaced guide plates disposed at the discharge end of the chute below said frame, a vertically corrugated cut-off movable between said plates and guided thereby, a spout pivoted to the chute at the discharge end thereof outward of said cut-off, levers mounted upon one of said posts, supports on the posts for holding the levers in a raised position, and links connecting said levers respectively with the cut-off and spout.

[Claims 6 to 10 not printed in the Gazette.]

1,135,981. PROCESS OF MAKING PURE ZINC OXID AND RECOVERING SUBSTANCES FROM WASTE AND LIKE LIQUORS. WALDEMAR ASEF, Philadelphia, Pa. Filed July 19, 1913. Serial No. 780,015. (Cl. 23—18.)

1. The process of recovering pure zinc oxid from a zincate solution which consists in decomposing the solution by the addition of a solution of a salt or salts thereby precipitating pure zinc oxid and forming a caustic alkali solution in which said salt or salts are inert, recovering the pure zinc oxid, and evaporating the mother liquor to recover the caustic and the salt or salts.

2. The process of recovering pure zinc oxid which consists in precipitating it from a zincate solution by the addition of a solution of sodium chlorid, thereby forming a caustic alkali solution, and evaporating the mother liquor to recover the caustic which was combined with the zinc oxid and the sodium chlorid which was in the added solution.

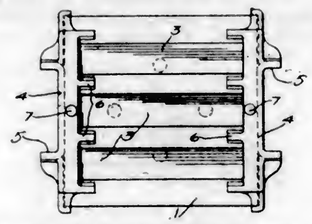
3. The process of recovering pure zinc oxid which consists in precipitating it from a zincate solution by the addition of a solution of sodium chlorid and sodium sulfate thus forming a caustic alkali solution, and evaporating the mother liquor to recover the caustic alkali which was combined with the zinc oxid and the sodium chlorid or sodium sulfate which were in the added solution.

4. The process of making pure zinc oxid which consists in making a zincate solution and diluting it with a solution of a salt or salts which is inert in the caustic solution hereinafter referred to, filtering the same to remove impurities, additionally diluting the solution with more of the saline solution, and boiling and stirring it to precipitate pure zinc oxid and form a solution of caustic alkali, recovering the pure zinc oxid, and evaporating the mother liquor to recover the salts and the caustic.

5. The process of recovering pure zinc oxid and other substances from waste and like liquors containing zinc, sodium and iron salts which consists in treating the liquor with an alkali metal compound adapted to precipitate zinc and iron compounds, subjecting the liquor and precipitate to an oxidizing agent and diluting it with more of the original liquor to convert the precipitated iron compounds to the ferric state and to dissolve the precipitated zinc compounds, separating the liquor from the precipitated ferric compounds, treating the liquor with an alkali metal compound adapted to precipitate zinc compounds and obtain a filtrate containing sodium salts, separating the liquor from the zinc compounds and saving some of the liquor, adding to the liquor previously precipitated zinc compound dissolved in caustic alkali and purified as described by dilution with previously saved filtrate containing sodium salts, and boiling and agitating the mass thereby precipitating pure zinc oxid, separating the liquor from the zinc oxid precipitate, and evaporating the liquor for the recovery of caustic alkali and salts.

[Claims 6 to 8 not printed in the Gazette.]

1,135,982. ROLLER-BEARING DEVICE. JOHN C. BARBER, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed July 13, 1914. Serial No. 850,669. (Cl. 64—64.)



1. A roller base comprising a plate having roller seats thereon, and independently formed end members rigidly secured to said plate and having projecting roller stops located between said roller seats.

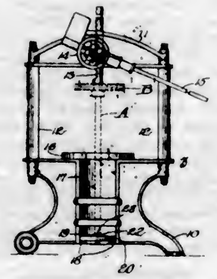
2. A roller base comprising a plate having roller seats, and end castings rigidly secured to the ends of said plate and provided with roller stops located between said roller seats.

3. A roller base comprising a plate having roller seats, and end castings rigidly secured to the ends of said plate and provided with roller stops located between said roller seats, and formed with column engaging notches on their edges.

4. A roller base comprising a plate having raised transversely extended roller seats, of castings rigidly secured to the ends of said plate and provided with roller stops projecting over the end portions of said plate between the roller engaging seats thereof.

5. A combined spring cap and roller base comprising a steel plate having raised self-centering roller seats, and end castings riveted to said plate and having roller stops projecting over the end portions of said plate between the raised roller seats thereof, said castings, on their outer edges having large guide notches adapted to engage with truck columns.

1,135,983. ARBOR-PRESS. EDWIN E. BARTLETT, Hyde Park, Mass. Filed Dec. 11, 1913. Serial No. 805,940. (Cl. 29—85.)



1. In an arbor press the combination of a plunger, a base, said plunger adapted to be reciprocated to operate on work placed upon said base, a mandrel receiving channel in said base and a mandrel support near the lower end of said channel.

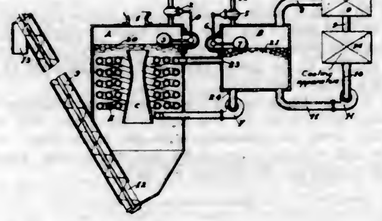
2. In an arbor press the combination of a plunger, a supporting member for supporting a mandrel or other machine part, said plunger adapted to be reciprocated to operate on work placed upon said base, said supporting member adapted to adjust itself to move its supporting face into the plane of the lower end surface of the said machine part when the latter is placed on said supporting member preparatory to the operation of said plunger.

3. A centering and supporting device adapted to be applied to an arbor press comprising a base plate, a semi-spherical member with its face normally horizontal extending into a socket bearing in said base plate and provided with an aperture at right angles to said face, and a spring actuated detent in said aperture with its upper end normally projecting above said face.

4. A centering and supporting device comprising a base plate, a semi-spherical member extending through a socket bearing in said base plate, and a disk of greater diameter than that of the lower end opening in said socket bearing tangentially secured to the spherical surface of said semi-spherical member below said socket bearing.

5. A centering and supporting device adapted to be applied to an arbor press comprising a base plate, a semi-spherical member extend through a socket bearing in said base plate and provided with an aperture at right angles to its face, a spring actuated detent in said aperture with its upper end normally projecting above said face, a disk of greater diameter than that of the lower end opening in said socket bearing tangentially secured to the spherical surface of said semi-spherical member below said socket bearing by a screw threaded into the lower end of said aperture.

1,135,984. SLAG STEAM-GENERATOR. LEONCE L. BATTU, New York, N. Y., assignor to Slag Steam Generator Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 9, 1915. Serial No. 1,300. (Cl. 122—28.)



1. In a slag steam generator means to transfer the heat contained in the slag to a primary fluid, means to transfer the heat absorbed from the slag by the primary fluid to a secondary fluid and means to coil the secondary fluid.

2. In a slag steam generator means to transfer the heat contained in the slag to a primary fluid through mixing the slag and the primary fluid, means to transfer heat from the primary fluid into the secondary fluid and means to cool the secondary fluid.

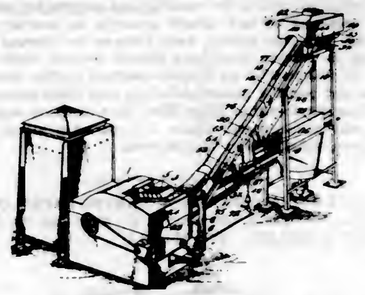
3. In a slag steam generator means to transfer the heat contained in the slag to a primary fluid, means to circulate a secondary fluid through the primary fluid and means to cool the secondary fluid.

4. In a slag steam generator means to mix slag and a primary fluid, means to circulate the primary fluid, means to circulate a secondary fluid through the primary fluid and means to cool the secondary fluid.

5. In a slag steam generator a container for a primary fluid, means to circulate the primary fluid in said container, means to separate the slag from the primary fluid, and a duct or piping to circulate a secondary fluid through the primary fluid.

[Claims 6 to 12 not printed in the Gazette.]

1,135,985. MACHINE FOR DRYING CARTONS. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Oct. 24, 1911. Serial No. 656,436. (Cl. 91—55.)



1. In a carton drying machine, the combination of an inclined conveyer; rotary means for feeding wet cartons on to said conveyer so their bottoms will point upwardly; means for catching the drippings from said wet cartons while on said inclined conveyer; a second conveyer associated with said inclined conveyer; means for delivering said cartons from the first to said second conveyer and reversing said cartons during the delivering operation so that their bottoms will be down on said second conveyer; a third conveyer; and means to deliver said cartons from the second to said third conveyer and causing said cartons to assume a vertical position with their bottoms down on said third conveyer, substantially as described.

2. In a carton drying machine, the combination of a pair of upwardly inclined conveyers; means for delivering wet cartons bottom up to the first of said conveyers; means to then deliver said cartons bottom down from said first to the second of said conveyers; means to catch the drip from each of said conveyers; a drying chamber associated with each of said conveyers; a horizontal conveyer adapted to receive said cartons from said second conveyer; and means adapted to cause said cartons to pass from an inclined position bottom down on said second conveyer to an upright position bottom down on said horizontal conveyer, substantially as described.

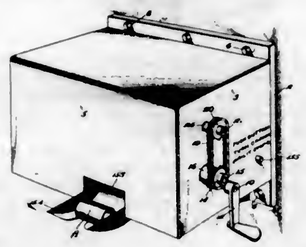
3. In a carton drying machine, the combination of a first upwardly inclined conveyer; a second upwardly inclined conveyer adapted to receive cartons from said first conveyer; a third horizontally extending conveyer adapted to receive cartons from said second conveyer; means for so delivering wet cartons to said first conveyer that they will occupy an inclined position bottom up while on said first conveyer; means for causing said cartons in passing from said first to said second conveyer to reverse their positions and ride bottom down; and means for causing said cartons in passing from said second to said third conveyer to change from an inclined position bottom down to an upright position bottom down on said third conveyer, substantially as described.

4. In a carton drying machine, the combination of a first upwardly inclined conveyer; a second upwardly inclined conveyer adapted to receive cartons from said first conveyer; a third horizontally extending conveyer adapted to receive cartons from said second conveyer; means for so delivering wet cartons to said first conveyer that they will occupy an inclined position bottom up while on said first conveyer; means for causing said cartons in passing from said first to said second conveyer to reverse their positions and ride bottom down; means for causing said cartons in passing from said second to said third conveyer to change from an inclined position bottom down to an upright position bottom down on said third conveyer; and means for operating each of said conveyers from a common source of power, substantially as described.

5. In a carton drying machine, the combination of a first upwardly inclined conveyer; a second upwardly in-

clined conveyer adapted to receive cartons from said first conveyer; a third horizontally extending conveyer adapted to receive cartons from said second conveyer; means for so delivering wet cartons to said first conveyer that they will occupy an inclined position bottom up while on said first conveyer; means for causing said cartons in passing from said first to said second conveyer to reverse their positions and ride bottom down; means for causing said cartons in passing from said second to said third conveyer to change from an inclined position bottom down to an upright position bottom down on said third conveyer; a cooling chamber into which said third conveyer may deliver said cartons; and means for operating all of said conveyers, substantially as described.

1,135,986. MACHINE FOR MAKING PAPER CUPS. GEORGE W. BEADLE, Bayonne, N. J. Filed Jan. 30, 1912. Serial No. 674,333. (Cl. 93—36.)



1. In a machine for making paper cups, the combination of a power shaft; a mandrel shaft parallel to said power shaft; connections between said shafts; a mandrel parallel to said power shaft adapted to wind paper into a tube on said mandrel shaft; a roll carrying paper; means to feed the paper to said mandrel; connections between said mandrel shaft and said feeding means; means to sever the paper from said roll into predetermined lengths before it is wound on said mandrel; means associated with said mandrel adapted to form a bottom from an integral portion of said tube; manually operable means for actuating said parts; an automatic means for stopping the operation after a cup has been finished, substantially as described.

2. In a machine for making paper cups, the combination of a power shaft; a cam shaft; a mandrel shaft; connections between said shafts; a mandrel adapted to wind paper into a tube on said mandrel shaft; a roll carrying said paper; means to feed said paper intermittently to said mandrel; connections between said mandrel shaft and said paper feeding means; means actuated from said cam shaft to sever the paper into predetermined lengths before it is wound on said mandrel; means connected with said cam shaft adapted to form a bottom from an integral portion of said tube while the latter is on said mandrel; a hand operated lever for actuating said power shaft; and automatic means for stopping the operation after a cup has been finished, substantially as described.

3. In a machine for making paper cups, the combination of a power shaft; manually operated means for actuating said shaft; a cam shaft; a mandrel shaft; driving connections between said shafts; a roll carrying paper; a mandrel adapted to wind said paper into a tube on said mandrel shaft; means to feed said paper to said mandrel; a cam on said cam shaft; a connection between said paper feeding means and said cam; means to sever the paper into predetermined lengths before it is wound on said mandrel; means associated with said mandrel adapted to form a bottom from an integral portion of said tube; connections between said cam shaft and said last mentioned means, and means rendering the mechanism inoperative after a single cup has been formed, substantially as described.

4. In a machine for making paper cups, the combination of a power shaft; a mandrel shaft carrying a mandrel adapted to wind the paper into a tube; a feed roll shaft carrying a paper feed roll; a cam shaft carrying a cam; connections between said shafts by which they may be each operated from said power shaft; a movable roll on which the paper to be operated upon is passed; a connection between said movable roll and said cam; a severing mechanism; means associated with said mandrel for forming a bottom for the cup out of an integral portion of said tube, connections between said cam shaft and said last mentioned means; and means rendering the machine inoperative after a single cup has been formed, substantially as described.

5. In a machine for making paper cups, the combination of a power shaft; a mandrel shaft carrying a mandrel adapted to wind the paper into a tube; a feed roll shaft carrying a paper feed roll; a cam shaft carrying a cam; connections between said shafts by which they may be each operated from said power shaft; a movable roll over which the paper to be operated upon is passed; a connection comprising a pivoted lever between said movable roll and said cam; a severing mechanism; a guide for said paper adjacent said severing mechanism for delivering the same to said mandrel; means associated with said mandrel for forming a bottom for the cup out of an integral portion of said tube, connections between said cam shaft and said last mentioned means; and means rendering the machine inoperative after a single cup has been formed, substantially as described.

[Claims 6 to 25 not printed in the Gazette.]

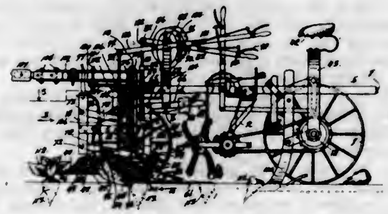
1,135,987. KNIFE-BLADE. TITUS ANDREW BEECHER, Taft, Cal. Filed Aug. 4, 1914. Serial No. 854,921. (Cl. 30—23.)



1. In a knife blade, a cutting edge and a guard at the non-secured end of the blade, said guard projecting beyond the cutting edge and in alinement therewith, said projecting portion of the guard being dull substantially as and for the purpose set forth.

2. A knife blade having a cutting edge terminating with a blunt portion at the free end of the blade, said blunt portion being in alinement with the sharp edge of the knife and forming a guard for said sharp edge, substantially as and for the purpose set forth.

1,135,988. BEET-TOPPER. DAVID T. BLEVINS and ALFRED B. RANDALL, Windsor, Colo., assignors to The Acme Patent and Development Company, Windsor, Colo., a Corporation of Colorado. Filed Dec. 2, 1913. Serial No. 804,155. (Cl. 55—107.)



1. In a topper for beets and similar vegetables, the combination with a main frame, supported upon ground wheels, a depending transversely arranged vertically movable frame carried by the main frame, an auxiliary knife mounted on the depending frame, fingers connected with said knife and extending rearwardly therefrom, and a second knife also attached to the depending frame and located in the rear of and in proximity to the rear extremities of the fingers.

2. In a machine of the class described, the combination with a main frame, of a depending, vertically disposed, transversely arranged, vertically movable frame carried by the main frame, an auxiliary knife mounted on the depending frame, fingers connected with said knife and extending rearwardly therefrom, a second knife also attached to the depending frame and located in the rear of and in proximity to the rear extremities of the fingers, the two knives and the rear extremities of the fingers being diagonally arranged with reference to the direction of travel.

3. In a machine of the class described, the combination with a main frame, of a depending, vertically disposed, transversely arranged, vertically movable frame carried by the main frame, an auxiliary knife mounted on the depending frame, fingers connected with said knife and extending rearwardly therefrom, a second knife also attached to the depending frame and located in the rear of and in proximity to the rear extremities of the fingers, the two knives and the rear extremities of the fingers being diagonally arranged with reference to the direction of travel, the forward edges of the knives and the line of the rear extremities of the finger being approximately parallel.

4. In a machine of the class described, the combination with a main frame, of a depending frame vertically movable, two knives mounted thereon, one in advance of the other and spaced, means for engaging the beet tops leading rearwardly from the foremost knife and terminating in a diagonal line at the rear and in proximity to the rear knife, the rear edge of the said means occupying a somewhat higher plane than the rearwardly located knife.

5. The combination with a main frame, of a depending vertically movable frame mounted on the main frame and carrying two knives, one located in advance of the other and spaced, the forward edge of the forward knife occupying a higher plane than the corresponding edge of the rear knife, means for engaging the beet tops attached to the forward knife and extending rearwardly therefrom, the rear edge of the said means being located forward of the forward edge of the rear knife and occupying a plane somewhat above that of the rear knife, the latter being vertically adjustable to regulate its position with reference to that of the rear extremity of the said means

[Claims 6 to 16 not printed in the Gazette.]

1,135,989. LAWN-EDGE TRIMMER. JAMES J. BREACH, South Weymouth, Mass., assignor to Edward B. Merriman, Boston, Mass., and Frank W. Merriman, Cambridge, Mass., Copartners under the firm-name of Merriman Brothers, Boston, Mass. Filed Nov. 29, 1911. Serial No. 663,148. (Cl. 30—11.)

1. A lawn edge trimmer comprising a pair of shear blades, an upwardly-extending staff connected at its lower end to one of the blades and adjustable with respect to the same on an axis extending lengthwise of said blade, a hand grip mounted to reciprocate on the upper portion of said staff, connections extending from the hand grip to the other blade for drawing the blades together, and a spring for separating the blades.

2. A lawn edge trimmer comprising a pair of shear blades, an upwardly-extending staff connected at its lower end to one of the blades and adjustable with respect to the same on an axis extending lengthwise of said blade, a hand grip mounted to reciprocate on the upper portion of the staff, means for adjusting the hand grip lengthwise of said staff, longitudinally-adjustable connections between the hand grip and the other blade for drawing the blades together, and a spring for separating the blades.

3. A lawn edge trimmer comprising a pair of shear blades, an upwardly-extending staff connected to one of the blades and adjustable with respect to the same on an axis extending lengthwise of the blades, a movable hand grip carried by the upper portion of the staff and adjustable upward and downward thereon, and blade-operating connections between the hand grip and the blades comprising two rods and a take-up member connecting the same, said take-up member having a series of perforations each adapted to receive the bent-over end of one of the rods and also having a sliding sleeve to engage the latter rod and hold it in place.

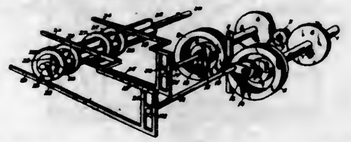


4. A lawn trimmer, comprising a pair of spring shears; a frame secured to one blade thereof; a bearing member on said frame; an anchor upon the other blade; a flexible member movably engaging said bearing member; one end of said flexible member being secured to said anchor; a staff pivotally connected to said frame; and manually operated means connected with the other free end of said flexible member; all designed to operate said shears.

5. A lawn trimmer, comprising a pair of spring shears; a frame secured to one blade thereof; a segmental member pivoted to the frame; an anchor upon the other blade; a flexible member engaging the said segment member, one end of said flexible member being secured to said anchor; a staff pivotally connected to said frame; and manually operated means connected with the other free end of said flexible member; all designed to operate said shears.

[Claims 6 to 9 not printed in the Gazette.]

1,135,990. VARIABLE-SPEED DRIVING-GEAR. BERTIL W. BRONANDER, New York, N. Y. Filed July 2, 1913. Serial No. 776,932. (Cl. 74—53.)

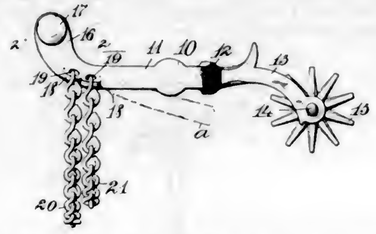


In a variable speed driving gear, the combination of a driving means, a driven part operated thereby, reciprocating means for transmitting the motion of the driving to the driven part, consisting of a crank-arm, a slide and crank pin, and means for changing the extent of reciprocation of said slide including a crank gear on the crank arm, a rotatable internal toothed gear meshing therewith and a device to rotate the internal gear so that the crank pin maintains a uniform extent of throw while the extent of reciprocating movement of said slide is varied.

1,135,991. SPUR. GEORGE BUERMANN, Newark, N. J., assignor to August Buermann Manufacturing Company, Newark, N. J. Filed May 21, 1913. Serial No. 768,964. (Cl. 54—83.)

1. A spur comprising a U-shaped body portion comprising arms joined at the rear, the arms of the body portion

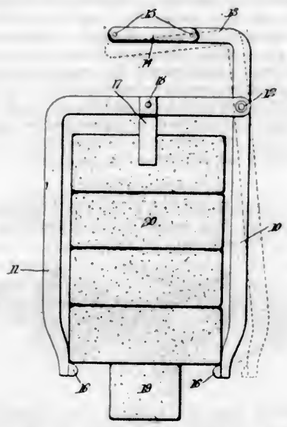
having rigid outwardly projecting lugs, the lugs having holes at their outer edges, and two chains, each chain having its ends caught in oppositely arranged holes.



2. A spur comprising a U-shaped body portion comprising arms joined at the rear, the arms of the body portion having rigid outwardly extending lugs, and two chains, the chains being secured to the outer edges of the lugs so that they are disposed transversely of the spur body portion, each chain being thus capable of independent use on footwear without affecting the tension on the other.

3. A spur comprising a U-shaped body portion, the body portion comprising arms joined and having an extension at the rear and having upwardly projecting ends at the front, the arms at their juncture with the ends being provided with horizontal integral lugs on their outer sides, the lugs having holes therein, and a pair of chains, said chains being substantially parallel and disposed transversely of the spur and being secured independently of each other in the holes of the lugs.

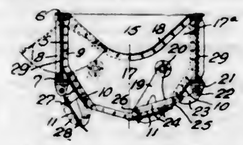
1,135,992. BRICK-TONGS. LEO F. CAHILL, Elmira, N. Y. Filed July 3, 1914. Serial No. 848,849. (Cl. 57—9.)



1. A tongs for carrying bricks plied one upon another in a vertical row, comprising two members pivotally connected together, one of said members having a projection at its lower end arranged to extend under the lowermost brick in the row to positively support the row, and one of said members being angular and having a handle arranged over the middle of the tongs, said tongs having guards arranged to engage the uppermost brick to prevent the row of bricks from tipping, whereby the entire row of bricks may be positively lifted and held by the tongs.

2. A tongs for carrying bricks plied one upon another in a vertical row, comprising two members pivotally connected together and each having a projection at its lower end arranged to extend under the lowermost brick in the row to positively support all of the bricks, one of said members being angular and having a handle arranged over the middle of the tongs and the other of said members having guards for engaging opposite sides of the uppermost brick in the row to prevent the bricks from tipping sideways in the tongs.

1,135,993. ORE DUMP-CAR. ALLISON R. CHAMBERS, New Glasgow, Nova Scotia, Canada. Filed Aug. 11, 1913. Serial No. 784,250. (Cl. 105—185.)



1. A car body having the sides thereof stiffened to form longitudinal body supporting members, and transverse members connecting adjacent ends of the sides and forming combined end sills and body bolsters.

2. In a car, strengthened body side members forming body supports, floor members secured to the lower edges of said side members, transverse plates arranged in pairs between the side members, forming pockets, longitudinal floor doors, and door supporting and operating mechanism located in said pockets.

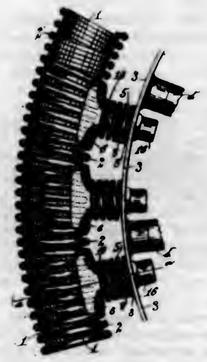
3. In a car, strengthened body side members forming body supports, sloping ends connecting the side members, transverse plates arranged in pairs between the side members and forming pockets, floor plates extending between each pair of transverse plates, floor doors extending from end to end of the car, and door supporting means pivoted between each pair of transverse plates.

4. In a car, the combination with the side and end plates of floor plates sloping from the side plates toward the longitudinal axis of the car, floor doors normally occupying the space between the floor plates and laterally movable to a position below the floor plates and outside of the floor opening.

5. A car comprising side members, fixed floor members secured to the side members, hollow transverse members connecting the side members and floor members, laterally movable floor members, and supporting means therefor located in and supported by said hollow transverse members.

[Claim 6 not printed in the Gazette.]

1,135,994. RESILIENT WHEEL. JOHN B. DAVIS, Toledo, Ohio. Filed Apr. 11, 1914. Serial No. 831,307. (Cl. 152—8.)



In a wheel of the character specified, a tread comprising two endless telescoped coil springs, the convolutions of the outer spring being open, and the inner spring being constructed of wire which is rectangular in cross-section and the convolutions of which are closed, substantially as specified.

1,135,995. GOLF-BALL-MARKING DEVICE. MARSHALL H. DEAN, Harrisburg, Pa. Filed Dec. 19, 1914. Serial No. 878,112. (Cl. 101—36.)



1. In a device of the character set forth, a contractile ball-encircling member having a portion for bearing against a ball, a marking element-carrying portion spaced therefrom and a portion connecting the two first-mentioned portions, and means other than said connecting portion for contracting the member to cause the portion that bears against the ball and marking element carrying portion to be relatively moved toward each other.

2. In a device of the character set forth, a contractile ball-encircling ring, a marking element therein, and means for contracting the ring, to mark a ball encircled by said ring.

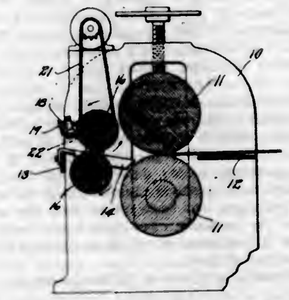
3. In a device of the character set forth, a contractile ball-encircling member having separate end portions, a marking element carried by the member, and means engaging the end portions for contracting the member, to mark a ball encircled thereby.

4. In a device of the character set forth, a contractile ball-encircling ring having separate ends, a marking element carried on the inside of the ring, and means engaged with the end portions of the ring for contracting the same, to cause the marking element to mark a ball encircled by said ring.

5. In a device of the character set forth, a contractile ball-encircling member having separate overlapping ends, a marking element located within the member, and means for relatively moving the ends to contract the member and cause the marking element to mark a ball placed within said member.

[Claims 6 to 8 not printed in the Gazette.]

1,135,996. PLATE-ROLLING-MILL ATTACHMENT. GEORGE DIEFENBACH and HARRY WALDORF, Granite City, Ill. Filed Feb. 20, 1914. Serial No. 819,944. (Cl. 29—81.)



1. The combination with a plate rolling mill, of rotary brushes located on the discharge side of the rolls of said mill for engaging the plates or sheets discharged from between said rolls, which brushes are geared to each other and driving means connected to one of said brushes.

2. The combination with a plate rolling mill, of rotary brushes arranged near the discharge side of the mill adjacent to the rolls thereof for engaging the plates discharged from between said rolls, which brushes are geared together and are adapted to rotate in a direction opposite to that of the travel of the plate and driving means connected to one of said brushes.

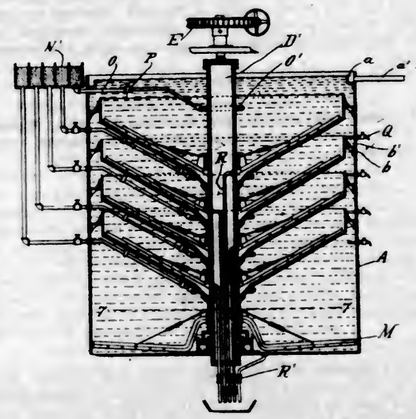
3. The combination with a plate rolling mill, of rotary brushes arranged near the discharge side of the mill adjacent to the rolls thereof for engaging the plates discharged from between said rolls, which brushes are adapted to rotate in a direction opposite to that of the travel of the plate, driving means connected to one of said brushes and means for adjusting the angularity of said brushes with respect to the path of travel of the plates through the mill so as to compensate for the wear upon the bristles of said brushes.

4. The combination with a plate rolling mill, of rotary brushes positioned adjacent the rolls of the mill on the discharge side thereof for engaging the plates emerging from between the rolls, and means directly connected to one of the brushes for driving said brushes in the direction opposite to that of the travel of the plates from between the rolls.

5. The combination with a plate rolling mill, of rotary brushes positioned adjacent the rolls of the mill on the discharge side thereof for engaging the plates emerging from between the rolls, means directly connected to one of the brushes for driving said brushes in the direction opposite to that of the travel of the plate from between the rolls, and means for adjusting the angularity of the brushes with respect to the path of travel of the plates through the mill so as to compensate for the wear of the bristles of said brushes.

[Claims 6 to 11 not printed in the Gazette.]

1,135,997. APPARATUS FOR THE SEPARATION OF FINELY-DIVIDED SOLIDS FROM LIQUIDS. JOHN V. N. DORR, Denver, Colo. Filed June 5, 1913. Serial No. 771,917. (Cl. 210—5.)



1. A separating unit for the purpose described, comprising a plurality of superposed settling trays, a plurality of superposed sweeps positioned respectively immediately above the bottoms of the several trays and having a common support, mechanism for moving the support to impart a slow sweeping movement to the several sweeps, an inlet header and an overflow outlet at the upper part of each tray, individually controllable connections for supplying pulp to each of the headers, and a discharge outlet for the thickened pulp at the bottom of each tray.

2. A separating unit for the purpose described, comprising a plurality of superposed circular settling trays, a vertical shaft extending centrally through said trays, a plurality of sweeps carried by said shaft and positioned respectively immediately above the bottoms of said trays.

mechanism for rotating said shaft to impart a slow sweeping movement to the several sweeps, an inlet and an overflow outlet at the upper part of each tray, a discharge outlet for the thickened material at the bottom of each tray, and means for preventing the downward flow of material from tray to tray along the shaft.

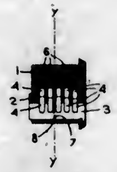
3. A separating unit for the purpose described, comprising a plurality of superposed circular settling trays, a hollow vertical shaft extending centrally through said trays, a plurality of sweeps carried by said shaft and positioned respectively immediately above the bottoms of said trays, mechanism for rotating said shaft to impart a slow sweeping movement to the several sweeps, an inlet and an overflow outlet at the upper part of each tray, connections for discharging the thickened material from the bottom of each of the several trays through the hollow shaft, and means for preventing the downward flow of material from tray to tray along the shaft.

4. A separating unit for the purpose described, comprising a tank containing a plurality of superposed sweeps having a common support, mechanism for moving the support to impart a slow sweeping movement to the several sweeps, the lowermost sweep being immediately above the bottom of the tank, a settling tray immediately beneath each sweep above the lowermost and inclosed by and overflowing into the tank, an inlet header at the upper part of each tray, and a discharge outlet for the thickened material at the bottom of each tray and at the bottom of the tank.

5. A separating unit for the purpose described, comprising a tank containing a plurality of superposed sweeps having a common support, mechanism for moving the support to impart a slow sweeping movement to the several sweeps, the lowermost sweep being immediately above the bottom of the tank, a settling tray immediately beneath each sweep above the lowermost and inclosed by and overflowing into the tank, an inlet header at the upper part of each tray, a discharge outlet for the thickened material at the bottom of each tray and at the bottom of the tank, and connections for leading the discharge from the several trays into the lower portion of the tank, whereby the said lower portion serves as a final thickening receptacle for the preliminarily thickened discharge from the several trays.

[Claims 6 to 13 not printed in the Gazette.]

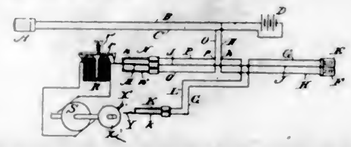
1,135,998. CYLINDER-LOCK. ELI EPSTEIN, Boston, Mass. Filed Nov. 5, 1914. Serial No. 870,337. (Cl. 70—46.)



In a cylinder lock, the combination with a barrel having a bore provided with an annular groove intermediate of its ends, of a cylinder operating in said bore and provided with a key slot and a peripheral groove in alinement with the groove in said bore, tumbler pins carried by the cylinder and barrel, and a split locking ring received in said grooves and locking the cylinder in position, the space or gap between the ends of the split ring being in alinement with the key slot of the cylinder.

1,135,999. AUTOMATIC LIGHTING CONTROL FOR VEHICLES. JOHN GEORGE EGERTON, Memphis, Tenn., assignor of one-third to Graham Egerton, Washington, D. C. Filed Mar. 16, 1914. Serial No. 825,072. (Cl. 177—337.)

1. In apparatus of the character described, the combination with two tail lights of different colors, of a normally open circuit to one of the tail lights, a normally closed circuit to the other tail light, means for breaking the normally closed tail light circuit and closing the normally open tail light circuit when a vehicle equipped with the apparatus is moved forward, whereby differently colored tail lights will be displayed when the vehicle is running in a forward direction and when it is still, and means operated by the vehicle only when the latter is in motion for periodically interrupting the normally closed circuit when the vehicle is moved rearwardly, thereby causing at such times a flashing of the tail light which normally burns when the vehicle is still.



2. In apparatus of the character described, the combination with a circuit including a generator and a lamp, of another circuit including another lamp, one circuit being normally closed and the other normally open, and electrical means depending for its operation upon the motion of a vehicle equipped with the apparatus for breaking the normally closed circuit and closing the normally open circuit when a vehicle equipped with the apparatus is set in motion.

3. In apparatus of the character described, the combination with a circuit including a generator and a danger signal, of another circuit including a safety signal light, the former circuit being normally closed and the latter normally open, and means for breaking the normally closed circuit and closing the normally open circuit when a vehicle equipped with the apparatus is moved forward, and means operated by the vehicle only when the latter is in motion for periodically interrupting the danger lamp circuit when the vehicle is moved rearward.

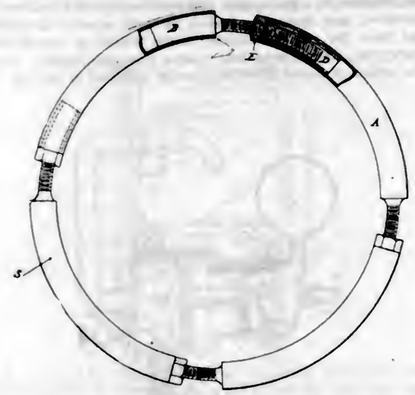
4. In apparatus of the character described, the combination with a pair of differently colored tail lights, of a normally closed circuit to one of said lights, a normally open circuit to the other light, spaced contacts in different circuits, a movable arm included in both circuits, an electric magnet, an armature adapted to contact with said arm and shift it from one of said spaced contacts to the other, a dynamo for energizing said magnet, driving connection from the running gear of the vehicle for actuating said dynamo when the vehicle is moved forward, whereby differently colored lights will be displayed when the vehicle is moving forward and is still, means for periodically interrupting the normally closed circuit when the vehicle is moved rearwardly, and means for automatically throwing out the driving connection from the running gear to the dynamo when the vehicle is running rearwardly, whereby at such times a flashing is caused of the tail light which normally burns when the vehicle is still.

5. In apparatus of the character described, the combination with a circuit including a generator and a lamp, of another circuit including another lamp, a circuit maker and breaker having two contacts and a common switch arm, the latter being included in both circuits and each circuit including a different one of said contacts, said arm being normally held in contact with one of said contacts to close one circuit while the other circuit is normally open, and electrical means depending for its operation upon the motion of a vehicle equipped with the apparatus for moving said arm into engagement with the other contact to close the normally open circuit and open the normally closed circuit when a vehicle equipped with the apparatus is set in motion.

[Claims 6 and 7 not printed in the Gazette.]

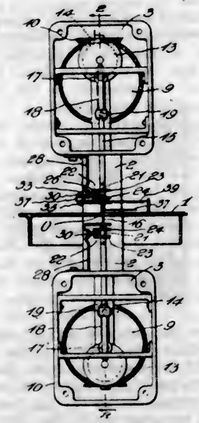
1,136,000. EXPANSION-RING. SAMUEL M. FOREMAN, Hutchinson, Kans. Filed Aug. 12, 1913. Serial No. 784,452. (Cl. 217—95.)

An expansion ring, for the interior of silos and the like, comprising a plurality of similar, curved, tubular sections, each section having a threaded extension secured in one end thereof and an axial opening in its opposite end adapted to receive the threaded extension on the adjoining



section, and a nut on the threaded extension adapted to engage the end of the adjoining section and whereby the ring may be expanded and the sections relatively adjusted.

1,136,001. SEWING-MACHINE. JOSEPH FORMAN, Walbrook, Md. Filed May 4, 1914. Serial No. 836,263. (Cl. 112—21.)

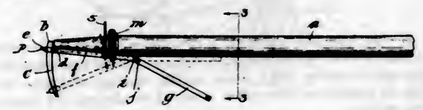


1. In a sewing machine the combination of two alined needle bars having needle receiving sockets and between which bars the material is fed, a double pointed needle adapted to be carried alternately in said sockets, a laterally movable needle clamping jaw carried by each bar, a spring pressed yoke encircling said jaw, and means arranged in the path of said yoke for engaging it at predetermined intervals to release the needle.

2. In a sewing machine, the combination of two alined needle bars having needle receiving sockets and between which bars the material is fed, a double pointed needle adapted to be carried alternately in said sockets, a laterally movable needle clamping jaw carried by each bar, a spring pressed yoke encircling said bar and jaw, a stud extending laterally from said bar at a point opposite said clamping jaw, a spring on said stud between said bar and said yoke for yieldably holding said jaw in closed position, and means in the path of said yoke for releasing said jaw.

3. In a sewing machine, the combination of two alined needle bars having needle receiving sockets and between which bars the material is fed, a double pointed needle adapted to be carried alternately in said sockets, a laterally movable needle clamping jaw carried by each bar, a spring pressed yoke encircling said bar and jaw, a stud extending laterally from said bar at a point opposite said clamping jaw, a spring on said stud between said bar and said yoke for yieldably holding said jaw in closed position, a slotted member arranged with the head of said stud extending through the slot in said member and said member having a laterally extending projection arranged in the path of said yoke to release said jaw at predetermined intervals.

1,136,002. RAKE-CLEANING ATTACHMENT. GEORGE B. GARDNER, Haverhill, Mass. Filed Jan. 9, 1915. Serial No. 1,296. (Cl. 55—146.)



1. A rake-tooth-cleaning attachment, comprising a cleaning bar adapted to extend transversely of the rake teeth, an arm extending therefrom, having a fulcrum portion arranged to engage the under side of the rake handle, an operating handle for said arm extending therefrom beyond said fulcrum portion, at an angle thereto, and a spring for connecting said arm and the rake handle between said fulcrum portion and said bar, yieldingly to hold said fulcrum portion in engagement with the rake handle and said bar in proximity to the rake-head.

2. A rake-tooth-cleaning attachment, comprising a cleaning bar adapted to extend transversely of the rake teeth, an arm extending therefrom, having a curved fulcrum portion arranged in rolling engagement with the under side of the rake handle, an operating handle continuous with said arm and extending obliquely therefrom beyond said fulcrum portion, and a spring for connecting said arm and the rake handle between said bar and said fulcrum portion, and arranged to yield to permit said bar to be swung transversely toward the ends of the rake teeth, and to permit longitudinal actuation of said arm by the engagement of the bar with the teeth.

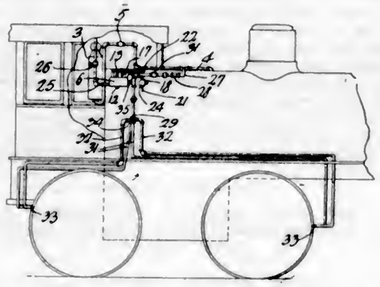
3. A rake-tooth-cleaning attachment, comprising a cleaning bar adapted to extend transversely of the rake teeth, an arm extending therefrom, having a fulcrum portion arranged to engage the under side of the rake handle, an operating handle continuous with said arm and extending at an angle, therefrom, to permit it to swing with relation to the rake handle and permit said fulcrum portion to rock thereon, and a coil spring connected to said arm and adapted to be extended about the rake handle, to hold said fulcrum portion in engagement with the rake handle, and said bar in proximity to the head of the rake.

4. A rake-tooth-cleaning attachment comprising a cleaning bar adapted to extend transversely of the rake teeth, a pair of arms extending convergently from said bar at points disposed approximately equidistant from the middle of the bar and extending into proximity to each other in position to provide engaging portions for the under side of the rake-handle, an operating handle extending obliquely from said arms to permit the latter to swing on said engaging portion, and a coil spring adapted to be connected at its ends to said arms, respectively, between said engaging portions and said bar, and to extend over the rake handle.

5. In combination with a rake, a tooth-cleaning bar extending transversely of the rake teeth, an operating lever extending from said bar and having a fulcrum portion arranged to engage the under side of the rake handle, at opposite sides of the middle thereof, and a spring arranged normally to hold said fulcrum portion in engagement with the handle and said bar in an inoperative position.

[Claims 6 to 10 not printed in the Gazette.]

1,136,003. WHEEL-FLANGE LUBRICATOR. BEN H. GRAY, Mobile, Ala. Filed June 15, 1914. Serial No. 845,209. (Cl. 184—3.)



1. The combination with a lubricant container, a valve casing, means for directing lubricant under pressure into the valve casing, said valve casing having separate outlets, of pendulum controlled means for opening the respective outlets.

2. The combination with a valve casing having separate outlets, valves normally closing the respective outlets, and means for directing lubricant under pressure into the casing, of pendulum controlled means for opening the respective valves.

3. The combination with a vehicle having flanged wheels, a valve casing having separate outlets, nozzles for directing jets against the wheels at each side of the vehicle, and means for maintaining communication between the nozzles at one side of the vehicle and one of the outlets, and the nozzles at the other side of the vehicle and the other outlet, of valves normally closing the outlets, means for directing lubricant under pressure into the casing, and pendulum controlled means for opening the valves.

4. The combination with a vehicle having flanged wheels, and nozzles for directing jets against the flanges, of means for directing fluid under pressure into the nozzles and against the flanges, a valve casing having separate outlets, a pipe connection between one of the outlets and the nozzles at one side of the vehicle, a pipe connection between the other outlet and the nozzles at the other side of the vehicle, valves normally closing said outlets, means for directing lubricant under pressure into the casing, and pendulum controlled means for opening the valves.

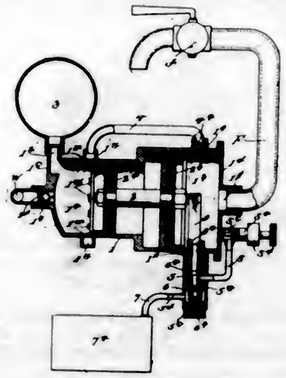
5. The combination with a vehicle having flanged wheels, nozzles for directing jets of fluid under pressure against the flanges of the wheels, and separate means for directing a fluid under pressure into the nozzles at the respective sides of the vehicle, of a valve casing having separate outlets, said outlets communicating with the respective fluid directing means, separate valves normally closing the respective outlets, means for directing lubricant under pressure into the valve casing, a pendulum mounted for oscillation in a plane extending transversely of the vehicle, means operated by the pendulum for opening the respective valves.

[Claims 6 to 8 not printed in the Gazette.]

1,136,004. APPARATUS FOR CARBONATING LIQUIDS. ANGUS R. GROSS, Catonsville, Md., assignor to Joshua T. GILLELAN, Baltimore, Md. Filed Feb. 19, 1914. Serial No. 819,807. (Cl. 209—1.)

1. An apparatus for carbonating liquids having an inlet and an outlet chamber, a passage for admitting liquid from the inlet chamber into the outlet chamber, a valve for closing said passage, a gas supply communicating with the outlet chamber, and means to automatically admit gas into said outlet chamber when water is withdrawn therefrom, and means for automatically closing the gas supply when the escape of liquid from said outlet chamber is cut off.

2. An apparatus for carbonating liquids having an inlet and an outlet chamber, a passage for admitting liquid from the inlet chamber into the outlet chamber, a valve for closing said passage, a movable member separating said chambers, a gas supply communicating with the outlet chamber, and means controlled by said member to admit gas into the outlet chamber when water is withdrawn therefrom, and means for closing the gas supply when the escape of liquid from said outlet chamber is cut off.



3. An apparatus for charging liquids having an inlet and an outlet chamber and a communication therebetween, a movable member separating said chambers, means for admitting liquid to the inlet chamber, means for withdrawing liquid from the outlet chamber, a gas supply connected with the outlet chamber, and means controlled by said movable member whereby gas is admitted to the outlet chamber when the liquid is withdrawn therefrom, and means whereby when the escape of liquid from the outlet chamber is cut off the pressure in the outlet chamber causes the closing of the gas supply.

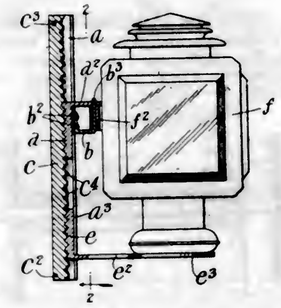
4. An apparatus for charging liquids, having an inlet and outlet chamber and a communication therebetween, a movable member separating said chambers, means for admitting liquid to the inlet chamber, means for withdrawing liquid from the outlet chamber, a gas supply connected with the outlet chamber, and means controlled by said movable member whereby gas is admitted to the outlet chamber when liquid is withdrawn therefrom, and means whereby when the escape of liquid from the outlet chamber is cut off the pressure in the outlet chamber causes the closing of the communication between the inlet and outlet chambers, and also the closing of the gas supply.

5. An apparatus for charging liquids comprising inlet and outlet chambers, a liquid supply to the inlet chamber, and means for withdrawing liquid from the outlet chamber; a movable member intermediate said inlet and outlet chambers, and a passage for conducting the liquid around said member from one chamber to the other; with means for supplying gas to the outlet chamber, and means controlled by said movable member whereby when the liquid outlet means is opened the said passage and said gas passage are opened; and when the outlet means is closed the passage and the gas supply are closed.

[Claims 6 to 11 not printed in the Gazette.]

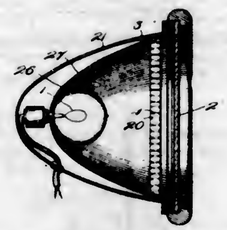
1,136,005. LAMP-BRACKET. GEORGE H. GUMBEL, Brooklyn, N. Y. Filed July 16, 1914. Serial No. 851,248. (Cl. 248—3.)

1. A lamp bracket, comprising a body part having a straight front face provided with transverse serrations, side plates pivoted to one end of said body part and projecting forwardly of said face and having inwardly directed flanges, said side plates being adapted to be secured to the other end of said body, two blocks mounted between said side plates and provided on their back surfaces with transverse serrations corresponding with the serrations on the body part, said blocks being provided with forwardly directed arms, and an angular arm secured to the flanges of said side plates and having an upwardly directed member in connection with which the arm of one of said blocks operates.



2. A lamp bracket, comprising an oblong body part one side of which is provided with an outwardly directed arm which is secured thereto, two vertically adjustable devices mounted in the body part one above the other and provided with outwardly directed arms, the arm which is connected with the bottom device being adapted to support a lamp having a member adapted to engage the arm which is secured to the body part and the arm of the upper vertically adjustable device being also adapted to engage the arm secured to the body part.

1,136,006. DIMMER FOR AUTOMOBILE-HEADLIGHTS. HERBERT CHAMPION HARRISON, Lockport, N. Y. Filed Dec. 22, 1913. Serial No. 808,257. (Cl. 240—45.)

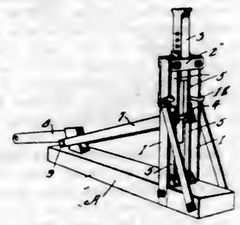


1. In a vehicle light the combination of a source of light, a transparent member associated with said source of light; and a screen located between said transparent member and said source of light comprising a plurality of polygonal cells with parallel walls forming direct passages for light between said source and said transparent member, substantially as described.

2. In a vehicle head light the combination of a lamp; an inclosure for said lamp comprising a transparent member; and a screen located between said lamp and a transparent member composed of polygonal cells whose depths are greater than their diameters, substantially as described.

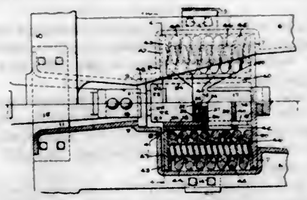
1,136,007. AUTOMOBILE-JACK. CHARLES A. HART, Findlay, Ohio. Filed Sept. 10, 1913. Serial No. 789,116. (Cl. 254—116.)

1. In a lifting jack, the combination of a base, standards projecting upwardly therefrom in spaced relation, plates detachably applied to said standards at opposite sides of the same and connecting the standards together, a lifting head arranged between the standards and movable vertically in the space between said plates so as to be guided by the latter, toggle levers pivoted at one end to the base and having adjustable pivotal connection at their other end of the said head, stop means for limiting movement of the toggle levers, an operating lever, a connecting link having connection with the toggle levers at the joint intermediate said levers, a connection between said link and the operating lever movable from one side to the other of the axis of said lever for the purpose described, and brace members connecting the standards with the base and arranged on the opposite side of the standards to the operating lever.



2. In a lifting jack, the combination of a base, spaced standards carried by said base, upper and lower pairs of toggle levers, pivotal connections between the lower toggle levers and the base located between the standards, a lifting head, a pivotal connection between the upper toggle levers and said lifting head adjustable in respect to the latter, the head having axially alined openings to receive said connection, a pair of actuating links operable longitudinally between the spaced standards, a pivotal connection between the pairs of toggle levers also forming a connection intermediate said toggle levers and said links, an operating lever arranged at a distance from the standards and connected to the links for moving the links into a vertically alined position in alinement with and between the standards whereby to raise the lifting head, a pivotal connection between the base and said operating lever, a pivotal connection between said actuating links and said operating levers located intermediate the ends of the latter and at one side of the longitudinal axis of the lever and movable above and below the pivot of said operating lever, and a stop plate detachably secured to the standards at the sides thereof adjacent to the operating lever and limiting the alining movement of the toggle levers in the operation of raising the head connected thereto.

1,136,008. DRAFT-RIGGING FOR RAILWAY-CARS. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed June 12, 1913. Serial No. 773,333. Renewed Aug. 12, 1914. Serial No. 856,485. (Cl. 213—64.)



1. In a draft gear, an inner shell, friction mechanism in said shell, an outer shell inclosing the inner shell, front and rear followers, a key and main springs, the outer shell being provided with laterally extended wings, the main springa being seated between said wings and the rear follower, and the key connecting the outer shell to the mechanism in the inner shell.

2. In a draft gear, outer and inner reciprocating shells, wings laterally extended from each of said shells, main

springs seated between the wings of the outer shell and the wings of the inner shell, friction mechanism within the inner shell, and a key connecting the outer shell to the mechanism in the inner shell.

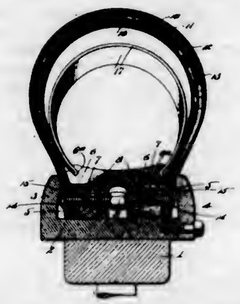
3. In a draft gear, in combination, outer and inner reciprocating shells, wings laterally extended from each of said shells, main springs seated between the wings of the outer shell and the wings of the inner shell, friction mechanism and an internal follower within the inner shell, and a key engaging the internal follower to the outer shell.

4. In a draft gear, in combination, an outer shell and an inner shell reciprocating therein, each of said shelves being provided with laterally extended wings, main springs seated between the wings of the outer shell and the wings of the inner shell, a wedge, friction shoes and an internal follower within the inner shell, a preliminary spring seated between the internal follower and the friction shoes, and a key engaging the internal follower to the outer shell.

5. In a draft gear, in combination, an outer shell provided with lateral wings, an inner shell reciprocating therein provided with lateral wings, main springs at either side of the outer shell seated between the wings of the outer shell and the wings of the inner shell, friction shoes, a wedge and an internal follower within the inner shell, a key engaging the internal follower to the outer shell, the inner shell being provided with slots for the passage of said key.

[Claims 6 to 11 not printed in the Gazette.]

1,136,009. CUSHION-TIRE. HENRY N. HEILMAN, St. Louis, Mo. Filed Mar. 22, 1913. Serial No. 756,175. (Cl. 152—8.)



1. In a tire, a casing, rings connected to the edges thereof, overlying fingers on said rings, and an expansible resilient support connected to said fingers within the casing.

2. In a tire, a casing, rings having overlying fingers, to which rings the edges of the casing are connected, and an expansible resilient support coöperating with said fingers, and arranged within the casing.

3. In a tire, a casing, transversely disposed inextensible bands in said casing, rings having overlying fingers, to which rings the edges of the casing are connected, and an expansible resilient support connected to said fingers within the casing.

4. In a tire, a casing, transversely disposed inextensible bands within said casing, rings having overlying fingers to which rings the edges of the outer casing are connected, an expansible resilient support within the casing, and cooperating with the fingers on the rings, and means for imparting lateral movement to said rings, the resilient support, and the casing.

5. In a tire, a casing, transversely disposed inextensible bands embedded in said casing, an annular supporting means comprising a pair of rings adapted to move toward and away from each other, parts of which rings overlie each other, and a series of internally arranged transversely disposed resilient supporting members connected to the overlying parts of the rings, which rings and resilient supports are contained within the casing.

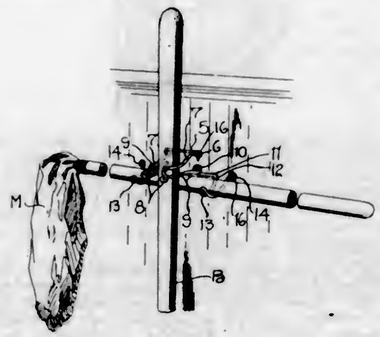
[Claims 6 to 10 not printed in the Gazette.]

1,136,010. JOINT FOR TUBULAR STRUCTURES. AUGUSTIN HENDRICKS and WILLIAM P. BROCKSCHMIDT, Grand Rapids, Mich.; said Brockschmidt assignor to said Hendricks. Filed Nov. 21, 1910. Serial No. 593,501. (Cl. 5—4.)



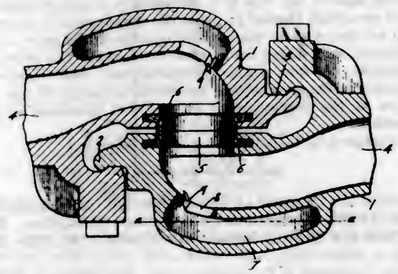
In a device such as described, spaced tubular uprights formed with alining openings, saddles engaging the inner sides of said uprights, the faces of said saddles conforming to the shape of the uprights, bosses having openings therein registering with the openings of the tubular uprights, washers disposed upon the uprights on opposite sides thereof to the saddles, said washers having openings formed therein and alining with the openings in the uprights and saddles, a tubular connecting member disposed with its ends engaging the bosses of the saddles, a tie rod having threaded ends passing through the openings in the bosses, uprights and washers, the diameter of the said tie rod being less than the diameter of the openings in the washers, uprights and saddles and the openings in the bosses being flared to guide the tie rod through said alining openings.

1,136,011. HOLDER FOR HOUSEHOLD ARTICLES. ALBIN L. HULSTEDT, Bishop Hill, Ill. Filed Nov 7, 1914. Serial No. 870,874. (Cl. 248—49.)



A holder of the character described formed from a single length of wire bent upon itself at its ends to form vertically disposed supporting hooks therein designed to receive and support a horizontally disposed article, the intermediate portion of said wire being bent to form upper and lower pairs of laterally yieldable clamping arms, said clamping arms being disposed out of the plane of said hooks and designed to receive and clampingly hold a second vertically disposed article in contact with the first article, and means for securing the wire holder upon a suitable support.

1,136,012. HOSE-COUPLING. JOHN HUME, Houston, Tex., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 31, 1911. Serial No. 657,772. (Cl. 137—89.)

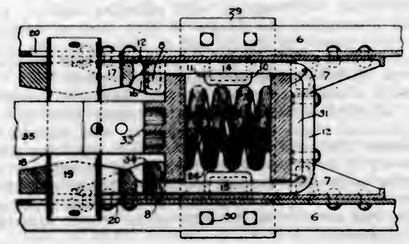


1. In a coupling for train pipes, a coupling head having a fluid conduit and provided with a chamber having a restricted opening leading to said conduit for receiving water and sediment from fluid passing through the conduit, and a restricted passage for draining the chamber when the coupling head hangs uncoupled.

2. A coupling for train pipes comprising two heads having lateral communicating openings and means for locking said heads together to provide a conduit for fluid, each head having a side pocket opposite the lateral opening and opening only into said conduit for trapping foreign matter contained in fluid passing through the conduit, said chamber having its lowermost portion free to drain the corresponding lateral opening when the coupling head hangs uncoupled.

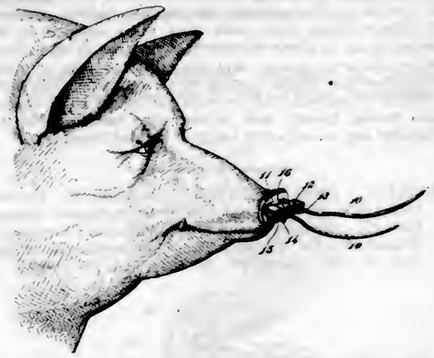
3. A coupling for train pipes comprising two heads having lateral communicating openings and means for locking said heads together to provide a conduit for fluid, each head having a chamber opening into said conduit for trapping foreign matter contained in fluid passing through the conduit, and a restricted passage for draining the chamber through the lateral opening when a coupling head hangs uncoupled.

1,136,013. DRAFT-RIGGING FOR RAILWAY-CARS. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 11, 1914. Serial No. 831,146. (Cl. 213—42.)



In a draft rigging for railway cars, the combination with stop members having upper and lower front stop shoulders for a front follower and provided also with separate yoke stop shoulders located in front of the follower stop shoulders, of followers, shock absorbing mechanism intermediate the followers, and a horizontal yoke slidably mounted between said front stop shoulders, said horizontal yoke having upwardly and downwardly extending shoulders near the front end thereof arranged to engage said yoke stop shoulders in buffing.

1,136,014. ANIMAL-POKE. EDWARD D. KEMPER, Stanton, Nebr. Filed Dec. 12, 1914. Serial No. 876,873. (Cl. 119—135.)



1. A device of the character described comprising a member adapted to engage and be attached to the nose of an animal, a pair of arms or prongs extending forwardly from said member, and a clamp secured to and connecting said arms or prongs in advance of said member.

2. A device of the character described comprising a member adapted to engage and be attached to the nose of an animal, a pair of arms or prongs extending forwardly from said member, and a clamp secured to and connecting said arms or prongs in advance of said member, said clamp being adapted to engage the animal's nose and hold said device in a predetermined elevated position.

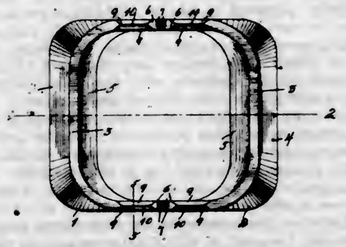
3. A device of the character described comprising a member adapted to engage and be attached to the nose of an animal, a pair of arms or prongs extending forwardly from said member, and a clamp secured to and connecting said arms or prongs in advance of said member, said clamp being provided with a depending bib adapted to engage the animal's nose and hold said device in a predetermined elevated position.

4. A device of the character described comprising a member adapted to engage and be attached to the nose of an animal, a pair of upwardly curved arms or prongs extending forwardly from said member, and a clamp secured to and connecting said arms or prongs in advance of said member and adapted to engage the animal's nose and hold said device in a predetermined elevated position.

5. A device of the character described comprising a member adapted to engage and be attached to the nose of an animal, a pair of arms or prongs extending forwardly from said member, and an adjustable clamp secured to and connecting said arms or prongs in advance of said member.

[Claims 6 to 14 not printed in the Gazette.]

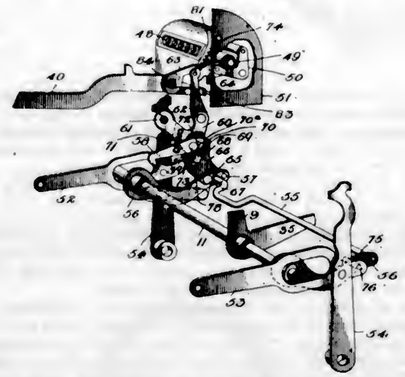
1,136,015. JAWS FOR ANIMAL-TRAPS. WYLIE D. KING, Medina, Tex. Filed May 16, 1914. Serial No. 839,077. (Cl. 43—23.)



A device of the class described comprising a plurality of jaws, each jaw comprising a plurality of slanting sides,

said sides converging toward their inner edges and terminating evenly to form a substantially wide, flat rib, said sides and rib extending to form angularly extending necks, terminnating in bearing portions, each neck provided with a beveled portion adjacent the bearing portion, thereby forming cutting edges, said jaws being adapted to be swung so as to allow the ribs to swing toward each other for catching an animal, said slanting sides being adapted to protect the caught portion of an animal, thereby preventing the animal from severing the leg which is caught and freeing himself, said cutting edges being adapted to dislodge any refuse which might be carried thereby.

1,136,016. ITEM-INDICATOR. CHARLES E. KLINK, CHARLES V. WILGUS, and FRANK H. BICKFORD, Kingston, Pa., assignors to The Adder Machine Company, Wilkesbarre, Pa., a Corporation of Pennsylvania. Filed July 12, 1913. Serial No. 778,690. (Cl. 235—60.)



1. Means for registering the effective operations of a machine comprising an item indicator; indicator operating mechanism including a normally idle shiftable member; an adjuster actuated by one of the driven parts of the machine at each effective operation thereof; and a trip device shifted by the adjuster to throw the shiftable member into the path of another driven part of the machine and hold it against displacement.

2. Means for registering the effective operations of a machine comprising an item indicator; indicator operating mechanism including a normally idle shiftable member having a cam; an adjuster actuated by one of the driven parts of the machine at each effective operation thereof and a locking trip shifted by the adjuster to co-act with the cam and throw the shiftable member into the path of another driven part of the machine, said trip being effective to hold said shiftable member against displacement.
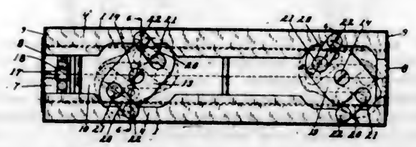
3. Means for registering the effective operations of a machine comprising an item indicator; indicator operating mechanism including a normally idle shiftable member; an adjuster actuated by one of the driven parts of the machine at each effective operation thereof; and a locking trip pressed against the shiftable member by the adjuster to throw said member into the path of another driven part of the machine, said trip being effective to hold said shiftable member against displacement.

4. Means for registering effective operations of a machine comprising an item indicator; indicator operating mechanism including a shiftable member, a spring to return the member to and hold it in idle position; an adjuster actuated by one of the driven parts of the machine at each effective operation thereof and a locking trip pressed against the member by the adjuster to throw the member into the path of another driven part of the machine, said trip being effective to hold said member against displacement until released.

5. Means to register the effective operations of a machine comprising an item indicator; indicator operating mechanism including a catch having a cam thereon; means to restore the catch to and hold it in idle position; a trip having a finger to contact said cam; an adjuster driven against the trip by a driven part of the machine at each operation thereof to press the finger against the cam and set the catch in the path of another driven part of the machine, said finger being effective to hold the catch in operative position against displacement; and means to release the finger to enable the catch to return to idle position at the conclusion of an effective operation of the machine.

[Claims 6 to 17 not printed in the Gazette.]

1,136,017. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. REINHOLD KRUMMING, Milwaukee, Wis. Filed Jan. 6, 1913. Serial No. 740,449. (Cl. 129—13.)



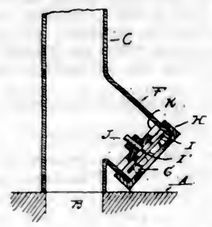
1. In a temporary binder, the combination with the binding members provided with inturned flanges at their rear edges, a back plate having forwardly projecting flanges at its ends embracing the ends of said binding members, levers pivotally mounted on said back plate, the flanges of said binding members being adapted to close over said levers, and links connecting said levers to said binding members, said links being offset forwardly to overlap the binding member flanges and being pivotally connected thereto.

2. In a temporary binder, the combination with the binding members provided with inturned flanges at their rear edges, a back plate having forwardly projecting flanges, at its ends embracing the ends of said binding members, an adjusting member having longitudinal slots therein and trarsverse slots, said transverse slots being on opposite sides of the longitudinal slots, supports on said back plates engaging the longitudinal slots of said adjusting member whereby it is supported for longitudinal movement, levers pivotally mounted on said supports above said adjusting member, the flanges of said binding members being adapted to close over said levers, pins on said levers engaging said transverse slots whereby the levers are actuated in opposite directions by the longitudinal adjustment of said adjusting member, and links overlapping the flanges of said binding members pivotally connected thereto and to said levers, the links being pivoted to the levers on opposite sides of the lever pivots, all coacting substantially as described.

3. In a temporary binder, the combination of the binding members, a back plate, an adjusting plate having longitudinal slots therein, supports on said back plates engaging the longitudinal slots of said adjusting plate whereby it is supported for longitudinal movement, operating connections for said adjusting plate to said binding members, and an adjusting screw for said adjusting plate, said screw being journaled in one of said adjusting plate supports.

1,136,018. FOUNT FOR PERCOLATORS. FRANK KUHN and FRANK E. SHAILOR, Detroit, Mich.; said Shailor assignor to said Kuhn. Filed May 16, 1914. Serial No. 839,086. (Cl. 53—3.)

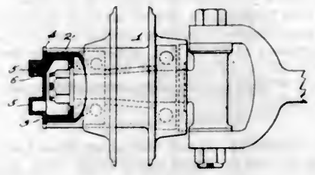
1. In a percolator, the combination with a receptacle provided with a hot well, of a fount, comprising a tube having a cylindrical lower portion of a diameter corresponding to the diameter of the hot well and registerable therewith, said tube having also a tapering portion for connecting said cylindrical portion to an upper portion of smaller diameter, a laterally and downwardly inclined branch connecting with said tube, a disk valve in the lower end of said inclined tube, and a seat for said valve secured to the lower end of said tube.



2. In a percolator, the combination with a receptacle provided with a hot well, of a fount, comprising a tube having a cylindrical lower portion of a diameter corresponding with the diameter of the hot well and registerable therewith, a tapering portion above said cylindrical portion and an upper portion of lesser diameter, an inclined branch tube having a threaded and notched lower end, a threaded cap for engaging said lower end centrally apertured to form an inlet port, and a disk for closing said port arranged within the notched portion of said tube.

3. A fount for percolators, comprising a tube having a cylindrical lower portion, a tapering portion above the same and a straight portion of smaller diameter above said tapering portion, a laterally and downwardly inclined branch tube having a threaded and notched lower end, a spider forming a central bearing within said tube, a valve disk provided with a stem engaging the bearing in said spider, and a cap member threaded to engage the threaded end of said tube and apertured to form a port with a surrounding annular seat for said valve disk.

1,136,019. VEHICLE-HUB AND CAP. JOHN M. LANSDEN, Jr., Newark, N. J. Filed June 9, 1914. Serial No. 843,979. (Cl. 21—40.)



1. In a wheel, a hub barrel and a hub cap, connected by means of screw threads, in combination with a set screw passing through the cap and engaging with the barrel, said screw lying at an angle to the plane of the face of the cap.

2. In a wheel, a hub barrel and a hub cap, connected by means of screw threads, in combination with a set screw passing through the cap and engaging with the barrel, said screw lying at an angle to the radius of the cap.

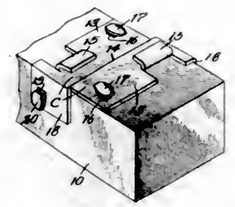
3. In a wheel, a hub barrel and a hub cap, connected by means of screw threads, in combination with a set screw passing through the cap and engaging with the barrel, said screw lying at an angle to the plane of the face of the cap and also lying at an angle to the radius of the cap.

4. In a wheel, a hub barrel and a hub cap, connected by means of screw threads, there being a plurality of bosses in the face of the cap, in combination with a set screw passing through one of the bosses and engaging with the barrel, said screw lying at an angle to the plane of the face of the cap.

5. In a wheel, a hub barrel and a hub cap, connected by means of screw threads, there being a plurality of bosses in the face of the cap, in combination with a set screw passing through one of the bosses and engaging with the barrel, said screw lying at an angle to the radius of the cap.

[Claim 6 not printed in the Gazette.]

1,136,020. RAIL-FASTENING. FREDERICK A. LESTER, Chicago, Ill. Filed Aug. 10, 1914. Serial No. 856,001. (Cl. 238—2.)



1. A tie plate section formed from a single substantially rectangular blank and comprising a web portion and an attachable side flange bent down from said web portion, the inner edges of said web portion and flange lying in approximately the same vertical plane, said web portion being formed with a rail base engaging lug and a spike receiving aperture disposed to one side of the lug and with reference thereto so that the spike engages the base of the rail at an appreciable distance from the point of lug engagement, substantially as described.

2. A tie plate embodying two substantially counterpart and separable sections reversely positioned on the face of the tie and having their meeting edges located centrally in the rail seat and longitudinally of the rail, each section comprising a web portion provided with a rail engaging lug and having a side flange disposed transversely and to one side of its meeting edge, the lug and the flange of the one section being diagonally disposed with reference to the lug and flange of the other, and horizontal and vertical fastenings for the side flange and web portion respectively, said sections being capable of slight angular movement when being brought together in the plane of the rail seat, substantially as described.

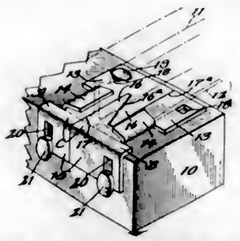
3. A rail fastening comprising two separable sections adapted to be reversely positioned on the face of the tie to have their meeting edges located in the rail seat longitudinally of the rail, the sections being formed from counterpart metal blanks of rectangular conformation and each having a rail engaging lug and a side flange disposed transversely of and to one side of its meeting edge, and formed with spike receiving holes in its side flange and in its web adjacent the lug, the flanges, lugs and holes in one section being diagonally disposed with reference to the flanges, lugs and holes in the other when the sections are brought together in the plane of the rail seat, substantially as described.

1,136,021. METALLIC RAIL-FASTENER. FREDERICK A. LESTER, Chicago, Ill. Filed Aug. 10, 1914. Serial No. 856,002. (Cl. 238—2.)

1. A metallic rail fastener comprising a horizontal web portion and a vertical side flange formed with a slot and provided with an inner toothed surface adjacent said slot.

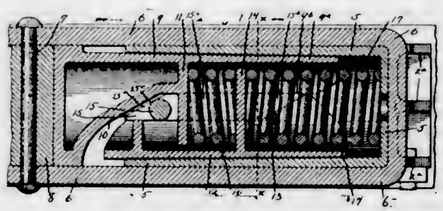
2. A tie plate embodying interlocking sections, one of said sections being formed with a tapering groove located in the rail seat and having its end portion adjacent the spread end of the groove depressed to provide a transversely disposed side flange, and the other of the sections being provided with a substantially wedge-shaped tongue to lock in said groove and a depending side flange forming an extension of the tongue and adapted to coincide with the other side flange when the sections are brought together in the plane of the rail seat, and separate clamping elements for securing the sections to the tie.

3. A tie plate embodying interlocking sections adapted to interlock in the rail seat and each having depending side flanges whose inner marginal edges coincide when the sections are interlocked, said depending flanges being formed with vertically elongated slots for the reception of separate clamping elements, all constructed and arranged so as to permit the side flanges to move vertically upon each other under relative movement of the sections and guide the interlocked sections to their normal position.



4. A tie plate embodying interlocking sections formed from a single metal blank of substantially rectangular shape, one of said sections being formed with a groove in the rail seat and having a depressed side flange located to one side of the groove and the other section being provided with a locking tongue for said groove and a side flange extending downwardly from said tongue to coincide with the other side flange when the sections are brought together in the plane of the rail seat, said sections being provided with rail engaging elements extending inwardly toward the rail seat to hold the rail on its seat, and means for clamping said tie plate to the top and side of the tie.

1,136,022. FRICTION DRAFT AND BUFFING APPARATUS. JOHN H. MCCORMICK, Columbus, Ohio. Filed Dec. 7, 1907. Serial No. 405,491. (Cl. 213—64.)



1. In a friction draft and buffing apparatus, the combination with two members having friction faces and parallel wedging faces, of a casing having friction faces contacting with the friction faces of the friction members, a spring bearing directly against one end of the casing at one end and against one of the friction members at its opposite end, and means for imparting motion to the parts and means for limiting the movement of the parts.

2. In a friction draft and buffing apparatus, the combination with two friction members having wedging faces parallel with each other, of a spring resisting the movement of the friction members toward each other, a casing against which the friction members bear, and a spring resisting the movement of the casing and the friction elements.

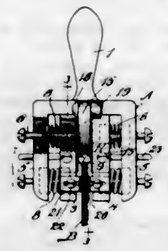
3. In a friction draft and buffing apparatus, the combination with an inner follower element having friction and wedging faces, of a second friction element having a parallel wedging face, a casing, and a double ended wedge having wedging contact with both of the friction members at each end of said wedge.

4. In a friction draft and buffing apparatus, the combination with two friction elements having parallel wedging faces, of a casing against which the friction elements bear, a resisting spring, and a double ended wedge having wedging contact with both of the friction members at each end of said wedge.

5. In a friction draft and buffing apparatus, the combination with two friction elements having parallel wedging faces normally separated, of an intermediate spring, a casing against which the friction elements bear, and a spring resisting the movement of the parts under buffing and draft.

[Claims 6 to 9 not printed in the Gazette.]

1,136,023. SAW-JOINTER. EUGENIO CHOUTEAU MANTEROLA, Rancagua, Chile. Filed June 17, 1914. Serial No. 845,616. (Cl. 76—47.)



1. A saw jointer comprising a pair of end yokes of U-shaped form, file carriers disposed parallel to each other and arranged between the side members of the yokes, members fastened to the carriers and extending laterally therefrom and slidable in the side members of the yokes, springs on the last-mentioned members and disposed between the yokes and carriers for pressing the latter toward each other, and a bar rigidly secured to the yokes to hold the same spaced apart in parallel relation and forming the sole connecting means between the yokes.

2. A saw jointer comprising a pair of end yokes, file carriers extending between the yokes, a pair of springs acting between each end of each carrier and the adjacent yokes for urging the carriers toward each other, a guide carried by and forming the sole connecting means between the yokes and disposed between the carriers to limit the inward movement of the latter, and adjustable devices on the carriers for engaging a saw below the teeth thereof, to coöperate with the guide and govern the action of the file on the teeth.

1,136,024. CORSET. LOUIS MARGOLIS, New York, N. Y. Filed Oct. 27, 1911. Serial No. 657,038. (Cl. 2—73.)



1. The combination in a corset of a corset body, stays fastened therein and terminating at a distance from the bottom thereof, and a reinforcing strip covering the lower ends of said stays at the outside thereof, and encircling the portions of the corset body surrounding the hips, substantially as described.

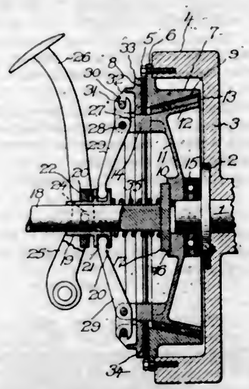
2. The combination in a skirted corset of a corset body, stays fastened therein and terminating at a distance from the bottom thereof, and a reinforcing strip covering the lower ends of said stays at the outside thereof and encircling the portions of the corset body surrounding the hips, and stocking supporters, substantially as described.

3. The combination in a skirted corset of a corset body, stays fastened therein and terminating at a distance from the bottom thereof, and a reinforcing strip covering the lower ends of said stays at the outside thereof, the reinforcing strip being provided with means for lacing in conjunction with the lacing means at the back of the corset, substantially as described.

4. The combination in a corset of a corset body, stays fastened therein and terminating at a distance from the bottom thereof, and a reinforcing strip covering the lower ends of said stays at the outside thereof, the reinforcing strip encircling the portions of the corset body surrounding the hips and being provided with a plurality of eyelets arranged longitudinally therein, substantially as described.

5. The combination in a skirted corset of a corset body, stays fastened therein and terminating at a distance from the bottom thereof, and a reinforcing strip covering the lower ends of said stays at the outside thereof, the reinforcing strip encircling the portions of the corset body surrounding the hips, being expanded at the back and provided with a plurality of eyelets arranged longitudinally therein, substantially as described.

1,136,025. CLUTCH. HENRY H. MARKER, Mount Clemens, Mich., assignor of three-fourths to Frank G. Krueger, Marvin A. Smith, and Ralph S. Moore, Detroit, Mich. Filed Dec. 8, 1913. Serial No. 805,236. (Cl. 192—7.)



1. In a clutch, a driving element, a main clutch member adapted to engage said driving element, an auxiliary clutch member slidable upon said main clutch member and adapted to engage said driving element, and means pivotally connected to and supported by said members for moving the same into contact with the driving element whereby said members alternately serve as fulcrums for said means to move the auxiliary clutch mechanism in advance of the main clutch member.

2. The combination with a movable main clutch member and a driving member, of an auxiliary clutch member adapted to engage said driving member, and means connecting and pivotally attached to said main and auxiliary members for moving the same into contact with the driving member and adapted to first move the auxiliary member into contact with the driving member, said auxiliary member then serving as a fulcrum for said means in moving the main member into contact with the driving member.

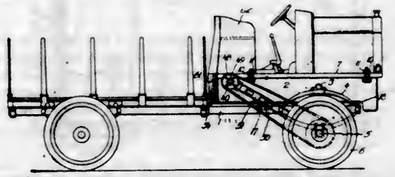
3. In a clutch, the combination with a cone member and a cup member, one of which members is fixed and the other movable into contact therewith, of an auxiliary member carried by the movable clutch member to engage the fixed member, and actuating means adapted to alternately use said members as fulcrums for moving one member in advance of the other.

4. The combination with a cone clutch having relatively fixed and movable clutch members, of an auxiliary clutch member mounted upon said movable clutch member to move longitudinally thereon into contact with the fixed member, and actuating levers carried by said movable clutch member and pivotally attached thereto and to the auxiliary clutch member for first bringing said auxiliary clutch member into action by turning the levers upon the movable member and then bringing the movable member into action by turning the levers upon the auxiliary member.

5. In a clutch, a member having an internal conical contact surface and an annular end face, a cone member adapted to engage the conical face of said member, an annular auxiliary member shiftable upon said cone member into contact with said end face of the first mentioned member, and means adapted to shift said auxiliary member in advance of said cone member.

[Claims 6 to 12 not printed in the Gazette.]

1,136,026. MOTOR-VEHICLE. HENRY H. MARKER, Mount Clemens, Mich., assignor to Pull-More Motor-Truck Company, Detroit, Mich., a Corporation of Maine. Filed Apr. 4, 1914. Serial No. 829,430. (Cl. 21—90.)



1. In a machine of the character described, the combination of a lower casing member forming a fixed support, an upper casing member pivotally connected to the lower member at one side, a cylinder secured to the upper member, bearings on the upper member, a crank shaft in said bearings, a piston in the cylinder connected to the crank shaft, and means for detachably securing the upper member to the lower member at the side thereof opposite that at which said upper member is pivotally connected to the lower member, whereby the upper member may be turned upon the lower member to expose the working parts of the motor.

2. In a machine of the character described, the combination of an upper casing member, a motor secured to and supported by said member, means carried by said member for transmitting motion from the motor, a lower casing member forming a fixed support for the upper casing member, means for detachably connecting the casing members, and means carried by the lower casing member for transmitting motion adapted to be connected to and disconnected from the motion transmitting means carried by the upper casing member.

3. In a machine of the character described, the combination of a lower casing member forming a fixed support, a cover member detachably connected to the lower member and having an extended upper surface forming a motor support, a motor secured to said cover member, power transmitting mechanism carried by said cover, means carried by the lower member for transmitting motion, said lower casing member and cover together forming a crank case for the motor and a casing for the power transmitting mechanism, and means for detachably connecting said mechanism and the motion transmitting means carried by the lower member.

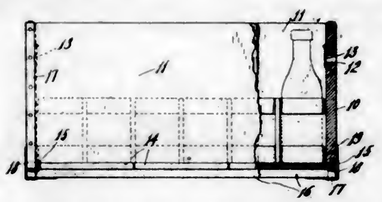
4. In a machine of the character described, the combination of a supporting casing, a cover pivotally connected

at one side to the casing, and having an extended upper surface forming a platform and a surface upon which engine cylinders are adapted to be secured, bearings upon the cover extending downward into the casing, a crank shaft in said bearings, cylinders secured to the cover, pistons in the cylinders connected to the crank shaft, power transmitting mechanism carried by the cover and connected to the crank shaft, a shaft transversely arranged in bearings upon the casing, and connecting and disconnecting means for transmitting motion from the power transmitting means on the cover to said transverse shaft on the casing.

5. In a tractor, the combination with traction wheels, of a casing body supported by said wheels, a jack shaft carried by the casing body, means for transmitting motion from the jack shaft to the traction wheels, a cover upon the casing body having an extended upper surface forming a platform, a motor carried by the cover, change speed power transmitting mechanism carried by the cover adjacent to the platform portion thereof, a differential mechanism carried by the cover to transmit motion from the change speed mechanism to the jack shaft, said jack shaft being adapted to be disconnected from said mechanism to permit the cover to be raised.

[Claims 6 to 15 not printed in the Gazette.]

1,136,027. SHIPPING-CRATE. FREDERICK MARQUARDT, Milwaukee, Wis. Filed Dec. 17, 1913. Serial No. 807,228. (Cl. 217—5.)

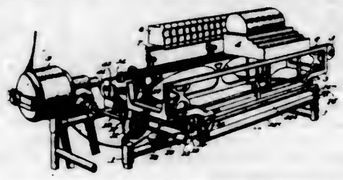


1. A shipping crate with renewable bottom, comprising a body formed of sides and ends, end strips secured to the lower edge of the body in the plane of the ends of the body and of a width approximating the thickness of the ends of the body, cleats extending longitudinally of the body and connected at their ends to the end strips and spaced inwardly from the sides of the crate, and bottom boards extending transversely of the body and positioned between the cleats and the edges of the sides of the body and filling the space between the end strips and provided with connecting means at their ends for engaging the sides of the body, such connecting means being accessible for the removal of the bottom boards for replacing the same when damaged.

2. A crate, comprising a body formed of sides and ends, cleats secured to the body lengthwise thereof and spaced beneath the edges of the body and also spaced inwardly from the sides of the body to form parallel skids, and removable transverse bottom boards fitting between the cleats and the lower edge of the body and attached to the edges of the sides of the body.

3. A crate, comprising a body formed of sides and ends, end strips secured to the lower edge of the body at the ends thereof, bottom boards extending transversely of the body and connected with the lower edge thereof and lying between the end strips, cleats extending longitudinally of the body and connected at their ends to the end strips and spaced from the sides of the crate to permit access to the connecting means of the bottom boards, binding straps at each corner of the crate secured at one end to the upper edge of the end of the crate, then passing along the edge of the side of the crate, and then passing along the end of the end strip and around the cleat, and a second binding strap at each corner of the crate connected with the end of the crate and passing around the end of the cleat and crossing the first mentioned binding strap and secured to the cleat.

1,136,028. TYPE-WRITING MACHINE. OLAF O. MARTIN, Portland, Oreg., assignor to Elliott-Fisher Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 1, 1911. Serial No. 618,264. (Cl. 197—65.)



1. The combination with a stationary motor and a stationary support, of a typewriter including a machine frame movable in one direction on the support and a carriage movable on the frame in a direction at right angles to the movement of said frame, of carriage retracting connections between the carriage and motor, said connections being constructed and arranged to permit the movement of the machine frame relative to the motor.

2. The combination with a support and a machine frame movable thereon, of a carriage movable on the machine frame, a stationary motor, a shaft extended therefrom, and carriage retracting connections between the carriage and the shaft, certain elements of said connection being movable longitudinally of the shaft with the machine frame.

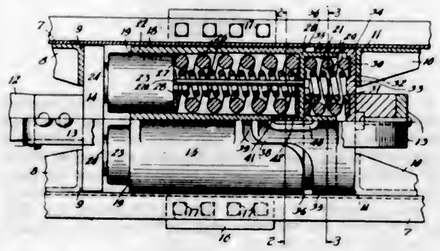
3. The combination with a support and a machine frame movable thereon, of a carriage movable on the frame, a stationary retracting motor, a motor shaft, and carriage retracting connections between the carriage and the motor shaft, said connections including a clutch associated with the motor shaft, one member of said clutch being movable longitudinally of the shaft with the machine frame.

4. The combination with the frame and carriage of a typewriter, of a spring drum, carriage retracting connections between the drum and carriage, a motor, and means for connecting the motor to the drum to retract the carriage.

5. The combination with the frame and carriage of a typewriting machine, of carriage propelling mechanism including a spring drum, a motor, and a variable connection between the motor and the drum.

[Claims 6 to 16 not printed in the Gazette.]

1,136,029. RAILWAY DRAFT-RIGGING. WILLIAM H. MINER, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,491. (Cl. 213—64.)



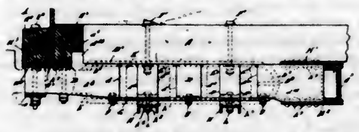
1. In a draft rigging for railway cars, the combination with draft-members, stop-members and draw-bar, of a shell, friction elements and spring elements within the shell, a rear follower, a key and preliminary springs between the shell and rear follower, the key slidably engaging the rear follower to the shell.

2. In a draft rigging for railway cars, the combination with draft-members, stop-members and draw-bar, of a shell, friction elements and spring elements within the shell, a rear follower, a key and preliminary springs between the shell and rear follower, the key passing through the shell and rear follower to hold the preliminary springs under initial compression.

3. In a draft rigging for railway cars, the combination with draft-members, stop-members, draw-bar and yoke, of a shell having forwardly opening chambers in horizontal twin arrangement, a rear follower, preliminary springs between the shell and rear follower, and a key, each chamber of the shell containing friction elements and spring elements, the follower being provided with forwardly extending wings slidingly connected to the shell by means of the key.

4. In a draft gear for railway cars, a shell, forwardly opening chambers in said shell in twin arrangement, compression resisting elements in each of said chambers, rearwardly opening chambers in said shell, preliminary springs in each of said chambers, a follower and a key, the follower being provided with forwardly extending wings, the shell being provided with grooves in which said wings are adapted to reciprocate, the key passing through the shell and slidingly engaging the follower, the preliminary springs being seated against the follower and being held under initial compression by the key and follower.

1,136,030. TANDEM-SPRING DRAFT-RIGGING FOR RAILWAY-CARS. WILLIAM H. MINER and JOHN F. O'CONNOR, Chicago, Ill., assignors, by mesne assignments, to William H. Miner, Chicago, Ill. Filed Apr. 19, 1909. Serial No. 490,828. (Cl. 213—42.)

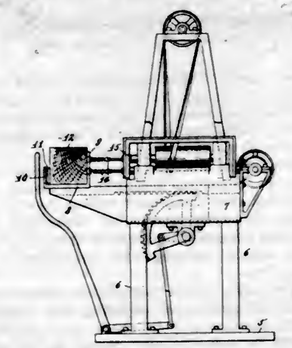


1. In a tandem spring draft rigging, the combination with the draw-bar, draw-bar yoke, tandem arranged springs and followers, of outwardly turned, channel shaped stop castings, each furnished with transverse bends in the main, upright web thereof forming stops for the followers to abut against, said web being also provided with further transverse bends forming intermediate stops for the followers to abut against to limit the compression of the springs, the vertical faces of all the bent out portions of the web and of the intervening portions between the bent out portions being flat and unbroken, and the upright recesses intervening between the stops extending entirely across the stop casting from the upper to the lower face thereof and adapted to receive the followers, the castings being secured to the under side of the draft sills of the car by bolts extending through the upper flanges only of the castings, substantially as specified.

2. As an article of manufacture, a stop casting for railway draft rigging, the said stop casting comprising a channel-shaped member, the flanges of which are arranged to be turned outwardly when applied in position, said channel-shaped member being furnished with transverse bends in the main upright web thereof forming stops for the followers to abut against with intervening upright recesses extending across said member from the upper to the lower face thereof, said recesses being arranged to receive the followers, and the flanges of said channel-shaped member being entirely to one side of the main web thereof and the stop portions to the other side of the main web, substantially as specified.

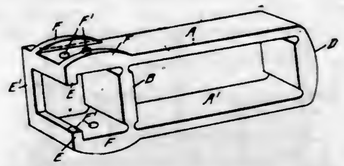
3. As an article of manufacture, a stop casting for railway draft riggings which comprises a channel-shaped member, the flanges of which are arranged to be turned outwardly when said member is applied in position, said member being furnished with transverse bends in the main upright web thereof forming stops for the followers to abut against with intervening upright recesses extending across said member from the upper to the lower faces thereof, said recesses being adapted to receive the followers, the flanges of said member being located entirely to one side of the main web and the stop portions to the other side of the main web, said member being provided with a forward extension having a laterally extending flange adapted to lie flush with the front face of the car-frame work, said member being also provided with a rearward extension adapted to abut against the transverse member of the car-frame at the rear of the draft rigging, substantially as specified.

1,136,031. MACHINE FOR BORING WOOD. ALBERT E. MITCHELL, Stamford, Conn. Filed May 26, 1914. Serial No. 840,993. (Cl. 77—62.)



A machine of the class described, comprising a frame, an elongated trough-shaped tie support thereon, said support including horizontal and vertical plates, and a front flange, said vertical plate provided with spaced openings therein, guide sleeves disposed within said opening and extending flush with the inner face of said plate, a plurality of wood bits carried by said frame in axial alinement with said guide sleeves and adapted to be fed forward and rotate therein, and a wedge block fitting between said tie and the front vertical flange of said support adapted to force the said tie into fixed contact with the rear face of said vertical plate.

1,136,032. DRAFT-YOKE FOR RAILWAY-CAR DRAFT-RIGGING. WILLIAM A. MITCHELL, Sedalia, Mo. Filed Apr. 9, 1913. Serial No. 759,867. (Cl. 213—42.)

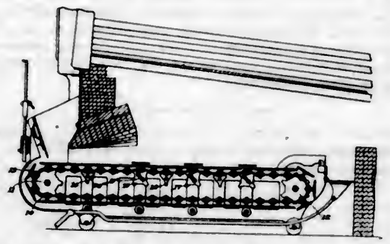


A draft yoke for railway car draft rigging comprising top and bottom members connected at their rear ends, a spacing block connecting said members near their free ends, said members being provided at their forward ends with in-turned flanges adapted to engage the usual shoulders of a draw-bar, said flanges being connected by a web at one end thereof, the yoke being open on both sides between the spacing block and the connecting web.

1,136,033. GRATE-VIBRATING DEVICE FOR CHAIN-GRATE STOKERS. BARTHOLOMEW J. MORRISON, New York, N. Y., assignor to Edward R. Dunham, New York, N. Y. Filed Mar. 10, 1914. Serial No. 823,662. (Cl. 110—40.)

1. A chain grate stoker comprising chains, grate bars carried thereby, means for actuating the chains, and

means driven by the chains independently of the actuating means for imparting a substantially vertical vibratory motion to the grate bars.



2. A chain grate stoker comprising chains, grate bars carried thereby, means for actuating the chains, and sprocket wheels actuated by the chains independently of the actuating means for imparting a substantially vertical vibratory motion to the grate bars.

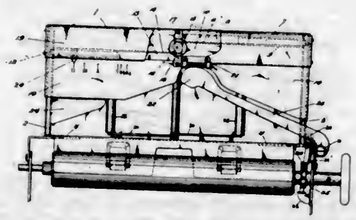
3. A chain grate stoker comprising chains, grate bars carried thereby, means for actuating the chains, a sprocket wheel engaging each chain and driven thereby independently of the actuating means for imparting a substantially vertical vibratory motion to the grate bars, and means for rigidly coupling the corresponding sprocket wheels together.

4. A chain grate stoker comprising chains, grate bars carried thereby, means for actuating the chains, rotary means positively driven by the chains only for imparting a substantially vertical vibratory motion to the grate bars, and means for varying the extent of the vibratory motion.

5. A chain grate stoker comprising chains, grate bars carried thereby, means for actuating the chains, sprocket wheels actuated by the chains but otherwise independent of said actuating means for imparting a substantially vertical vibratory motion to the grate bars, and means for adjusting the sprocket wheels to vary the extent of the vibratory motion of grate bars.

[Claims 6 to 9 not printed in the Gazette.]

1,136,034. ENVELOP AND CARD FEED DEVICE FOR TYPE-WRITING MACHINES. LEWIS C. MYERS, New York, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed June 21, 1912. Serial No. 704,964. (Cl. 197—130.)



1. An envelop receptacle having means for attachment to a typewriting machine, a spring follower for pressing contained envelops toward the front of the receptacle, movable end plates and means for simultaneously adjusting the end plates toward and from the center of the receptacle to change its effective length to adapt it to envelops of different sizes.

2. An envelop receptacle having means for attachment to a typewriting machine, a spring follower for pressing contained envelops toward the front of the receptacle, movable end plates and rack and pinion means, means for simultaneously adjusting the end plates toward and from the center of the receptacle to change its effective length to adapt it to envelops of different sizes.

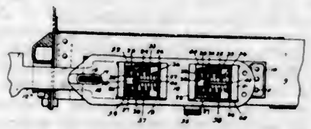
3. An envelop receptacle for a typewriting machine adapted to be mounted on the machine and having movable end plates each having a projection at the rear edge guided in a slot in the rear wall of the receptacle, a projection at the front edge guided in a slot in front wall of the receptacle, a horizontal strap projection or part extending horizontally across the front face of the receptacle such strap projections of the respective plates being arranged in different horizontal planes overlapping one another, and provided on adjacent edges with rack teeth, and a rotatable pinion located between and gearing with the sets of rack teeth, whereby the end plates may be adjusted to adapt the receptacle to envelops of different sizes.

4. An envelop receptacle for a typewriting machine adapted to be mounted on the machine and having movable end plates each having a projection at the rear edge guided in a slot in the rear wall of the receptacle, a projection at the front edge guided in a slot in front wall of the receptacle, a horizontal strap projection or part extending horizontally across the front face of the receptacle such strap projections of the respective plates being arranged in different horizontal planes overlapping one another, and provided on adjacent edges with rack teeth, a rotatable pinion located between and gearing with the sets of rack teeth, whereby the end plates may be adjusted to adapt the receptacle to envelopes of different sizes, and an indicating device movable with one of the strap projections and coöperating indicating devices on the front of the box.

5. An envelop receptacle for a typewriting machine having means for attachment to the machine, a spring follower for pressing contained envelops toward the front of the receptacle, end pieces movable toward and from the center of the receptacle, means for adjusting the end pieces to vary the effective length of the receptacle and a front plate against which the envelops are pressed movable with one of the end plates and forming a partial closure for the front of the receptacle,

[Claims 6 to 8 not printed in the Gazette.]

1,136,035. FRICTION DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Dec. 26, 1911, Serial No. 667,593. Renewed Aug. 12, 1914. Serial No. 856,490. (Cl. 213—64.)



1. In a railway draft rigging the combination of a draw bar, stop members, followers and yoke, of a friction shell, friction shoes, a spring cup and spring within the shell, the said spring being seated at one end within the spring cup and at the other end against the friction shell, and capable of being compressed within the spring cup on full compression of the cushioning devices.

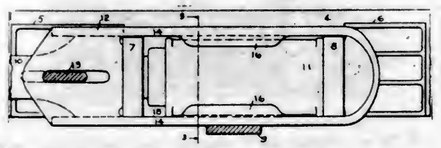
2. In a railway draft rigging the combination with a draw bar, stop members, followers and yoke, of a friction shell, friction shoes, spring cup and spring within the shell, the said friction shoes being provided on their inner faces with a pin or teat, and the spring cup being provided with annularly arranged perforations for the reception of said pins.

3. In a draft gear, a shell, two sets of oppositely arranged friction shoes, a spring cup and spring within the shell, the said friction shoes being annularly arranged around the said spring cup.

4. In a draft gear, a shell, a spring cup, springs and two sets of oppositely arranged friction shoes within the shell, the said shoes being arranged around said spring cup, the said spring cup being provided at one end with an outwardly turned flange adapted to engage one set of friction shoes.

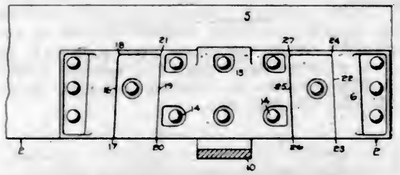
5. In a draft gear, a shell, friction shoes, a spring cup and a spring within the shell, the friction shoes being oppositely arranged about the spring cup, the said shoes being provided with means connecting them to the spring cup.

1,136,036. DRAFT-YOKE FOR RAILWAY-CAR DRAFT-RIGGING, JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Feb. 24, 1913, Serial No. 750,125. Renewed Aug. 12, 1914. Serial No. 856,491. (Cl. 213—42.)



In a draft rigging for railway cars, in combination, a shell, a draw bar, a draft yoke secured to said draw bar, the draft yoke comprising a pair of independent substantially parallel loops, each of said loops being provided at its outer edges with inwardly turned flanges adapted to engage the shell, said flanges being adapted to limit the movement of said loops toward each other through the engagement thereof with the shell.

1,136,037. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 20, 1913, Serial No. 755,630. Renewed Aug. 12, 1914. Serial No. 856,492. (Cl. 213—42.)



1. In a draft rigging, in combination, stop members and followers, the stop members being provided with stop shoulders converging upwardly toward each other, and the followers being provided with angular members adapted to engage the said stop shoulders.

2. In a draft rigging, in combination, draft members, stop members secured thereto, the stop members on each draft member being provided with stop shoulders, said stop shoulders converging upwardly toward each other.

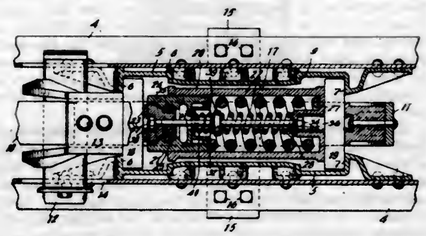
3. In a draft rigging, in combination, stop members and followers, the stop members being each provided with shoulders adapted to engage the followers, the said followers being each provided with marginal edges converging upwardly toward each other.

4. In a draft rigging, in combination, stop members, followers and a draft gear, the followers being each provided with a face adapted to engage one end of the draft gear, and each having marginal edges whose plane is oblique to the face engaging the draft gear, the said stop members being provided with shoulders adapted to engage the followers.

5. In a draft rigging, in combination, stop members, front and rear followers and a draft gear, the stop members being each provided with front and rear stop shoulders, said stop shoulders converging upwardly toward each other, the followers being each provided with a face adapted to engage an end of the draft gear, and each having a marginal edge at either side thereof, adapted to engage one of the stop shoulders, the said marginal edges of the front follower converging toward the marginal edges of the rear follower.

[Claims 6 to 9 not printed in the Gazette.]

1,136,038. RAILWAY DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,276. (Cl. 213—64.)

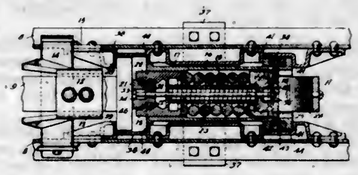


1. In a draft gear for railway cars, the combination with a shell, of friction shoes, a wedge and springs within the shell, a connecting rod engaging the shell at one end and the wedge at the other end, the connecting rod being provided intermediate its ends with a shoulder, and one of the springs being seated between said shoulder and the friction shoes.

2. In a draft gear for railway cars, the combination with a friction shell, of friction shoes and a wedge within the shell, a spring seated between the shell and friction shoes, a connecting rod engaging the wedge at one end, and the shell at the other end, a shoulder upon said connecting rod, a spring seated between said shoulder and the shell, and a further spring seated between said shoulder and the friction shoes.

3. In a draft gear for railway cars, the combination with a friction shell, friction shoes and a wedge within the shell, of a connecting rod engaging the shell at one end and the wedge at the other end, said connecting rod being provided with a seat intermediate its ends and rigid thereon, and a spring interposed between said seat and the friction shoes and held under initial compression.

1,136,039. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 11, 1914. Serial No. 831,285. (Cl. 213—64.)



1. In a draft rigging for railway cars, in combination, draft members, a shell secured against longitudinal movement between the draft members, friction elements and spring elements within the shell, a rear follower engaging the compression resisting elements within the shell, the shell being rearwardly provided with a recess for the entry of the draft yoke on forward movement thereof, the draft yoke being in engagement with the rear follower.

2. In a draft rigging for railway cars, in combination, draft members, a draw-bar, a yoke connected to the draw-bar, a shell open at both ends and secured against longitudinal movement between the draft members, compression resisting elements within the shell, a rear follower adapted to enter the shell and to be engaged by the draft yoke, the

shell being rearwardly provided with a recess to receive the end of the draft yoke in its forward movement.

3. In a draft rigging for railway cars, in combination, draft members, a draw-bar, a draft yoke, a shell open at its ends, friction elements and spring elements within the shell, a follower engaging the spring elements and slidingly operating in the shell, stop members, the shell being provided with shoulders, and the stop members being provided with slots to receive said shoulders to hold the shell against longitudinal movement, the draft yoke engaging the follower on forward movement of the draw-bar, and compressing the spring elements against the friction elements without frictional movement of said friction elements, said follower serving as an abutment for the spring elements upon rearward movement of the draw-bar whereby both the friction elements and the spring elements are brought into play upon rearward movement of the draw-bar.

4. In a draft rigging for railway cars, in combination, draft members, draw-bar, a yoke secured thereto, a shell, friction elements and spring elements within the shell, stop members and followers, the shell being provided with outwardly extended shoulders, the stop members having recesses to receive said shoulders to secure the shell against longitudinal movement, one of the followers entering one end of the shell and engaging the spring elements, the said follower being provided with means passing through the shell to limit the outward movement of said follower.

1,136,040. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 11, 1914. Serial No. 831,291. (Cl. 213—42.)



1. In a draft rigging for railway cars, the combination with the draw-bar and car-frame, of a bar secured to the car-frame, a crank thereon, and means for securing said crank to the inner end of the draw-bar to thereby cushion the movement of the draw-bar.

2. In a draft rigging for railway cars, the combination with the car-frame and draw-bar, of means for resisting the longitudinal movement of the draw-bar, comprising a bar secured to the car underframe and means for applying torsional force thereto when the draw-bar moves longitudinally.

3. In a draft rigging for railway cars, the combination with the car underframe and draw-bar, of a bar secured at its ends to the car underframe and having a crank intermediate its ends, the said crank being connected to the inner end of the draw-bar.

4. In a draft gear for railway cars, the combination with the car underframe, of a draw-bar, a bar secured at its ends to the car underframe, and having intermediate its ends a double crank connected to the inner end of the draw-bar.

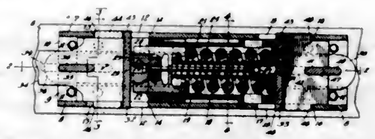
5. In a draft gear for railway cars, the combination with the car underframe, of a draw-bar, a bar secured at its ends to the car underframe, and having intermediate its ends a double integral crank connected to the inner end of the draw-bar.

[Claims 6 to 17 not printed in the Gazette.]

1,136,041. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 25, 1914. Serial No. 834,290. (Cl. 213—42.)

1. In a draft rigging for railway cars, in combination, a draft yoke having a cross connecting member and a follower having longitudinally extending flanges, the flanges of said follower being provided with outwardly opening slots to receive the cross connecting member of the yoke.

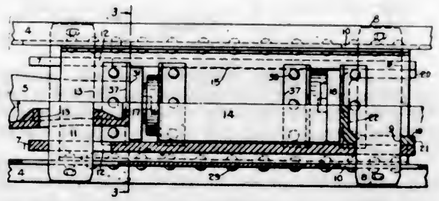
2. In a draft rigging for railway cars, in combination, draft members, upper and lower stop members secured thereto, a draw-bar, a draft yoke connected to the draw-bar, a draft gear mounted between the draft members, followers for the ends of the draft gear, the draft yoke comprising draft links and front and rear keys connecting said links, each follower having longitudinally extending flanges provided with outwardly opening slots to receive a key, the stop members having vertical openings to receive the upper and lower ends of the followers, the ends of said openings forming stop shoulders, the followers having shoulders coacting therewith.



3. In a railway draft rigging, the combination with draft members, upper and lower stop members secured to the draft members, said stop members being provided with slots near the ends thereof, a draw-bar, a draft yoke and a draft gear, of followers at the ends of the draft gear, each follower having longitudinally extended flanges notched at their upper and lower ends to thereby form shoulders cooperating with said stop members.

4. In a draft rigging for railway cars, in combination, draft members, upper and lower stop members secured thereto, said stop members comprising substantially horizontal plates extending between and connected to the draft members and provided with slots intermediate their ends, a draw-bar, a draft yoke, a draft gear, and followers at the ends of the year, each of said followers having longitudinally extending side flanges slidable between said upper and lower stop members, each of said followers having also extended upper and lower ends extending into said slots.

1,136,042. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Apr. 18, 1914. Serial No. 832,695. (Cl. 213—42.)

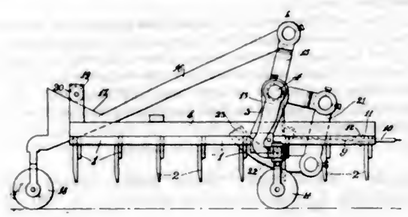


1. In a draft rigging for railway cars, in combination, draft members, a draw bar, a draft yoke connected to the draw bar, a draft gear, followers and upper and lower plates associated therewith, the said plates being each provided with front and rear registering vertical slots, forming front and rear stop shoulders and front and rear limiting stop shoulders for the followers.

2. In a draft rigging for railway cars, the combination with draft members, a draw bar, a draft yoke, followers and a draft gear, of upper and lower plates secured to the draft members and spaced apart to receive the draft gear between them, the draft gear being receivable therein through the forward opening between said plates.

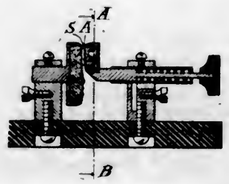
3. In a draft rigging for railway cars, in combination, draft members, a draw-bar, a draft yoke connected to the draw bar, upper and lower substantially horizontally extending plates extending between and connected to said members, said plates being each provided with front and rear registering vertical slots intermediate their ends and thereby forming stop shoulders, a draft gear mounted between said upper and lower horizontal plates and supported by the latter plate, and followers at the ends of said gear extending above and below the same and into said slots.

1,136,043. HARROW. EDWARD OLSON, Pencer, Minn. Filed Mar. 18, 1914. Serial No. 825,524. (Cl. 55—34.)



In a harrow comprising a frame provided with teeth, a rotary shaft extending transversely of said frame and disposed thereabove, a sleeve disposed upon said shaft, a spring connecting said sleeve and harrow frame and wound about said rotary shaft, a cable connecting said sleeve and the draw bar of the harrow frame, castings made fast to said rotary shaft and provided with wheels, a bell crank made fast to said rotary shaft, a wheeled shaft connected to said bell crank to support one end of the harrow frame and a stay pin for said draw bar whereby the same may be locked in adjusted position with relation to the harrow frame.

1,136,044. OSCILLATION-RECEIVING DEVICE. GREENLEAF WHITTIER PICKARD, Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, New York, N. Y., a Corporation of New York. Filed July 24, 1911. Serial No. 640,106. (Cl. 250—31.)



1. As a receiving device for wireless telegraphy oscillations, the combination with a member containing silicon, of a contacting member containing the metal antimony.

2. As a receiving device for wireless telegraphy oscillations, the combination with a member consisting of the element silicon, of a contacting member which contains the metal antimony.

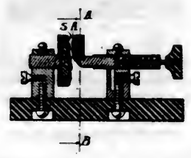
3. As a receiving device for wireless telegraphy oscillations, the combination with a member consisting of the element silicon, of a contacting member consisting of the metal antimony.

4. As a contacting member for a receiving device for wireless telegraphy oscillations, one member of which contains the element silicon, a member containing the metal antimony.

5. As a receiving device for wireless telegraphy oscillations, the combination with a silicon member, of an antimony member having a rough surface in contact with said silicon member.

[Claims 6 and 7 not printed in the Gazette.]

1,136,045. OSCILLATION-RECEIVING DEVICE. GREENLEAF WHITTIER PICKARD, Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, Boston, Mass., a Corporation of New York. Original application filed July 24, 1911, Serial No. 640,106. Divided and this application filed Dec. 8, 1913. Serial No. 805,238. (Cl. 250—31.)

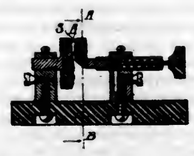


1. As an oscillation receiver, the combination with a rectifying member, of a member contacting therewith and containing arsenic and antimony.

2. As an oscillation receiver, the combination with a member containing the element silicon, of a member contacting therewith and containing arsenic and antimony.

3. As an oscillation receiver, the combination with a member consisting of the element silicon, of a member contacting therewith and containing arsenic and antimony.

1,136,046. OSCILLATION-RECEIVING DEVICE. GREENLEAF WHITTIER PICKARD, Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, Boston, Mass., a Corporation of New York. Original application filed July 24, 1911, Serial No. 640,106. Divided and this application filed Dec. 8, 1913. Serial No. 805,239. (Cl. 250—31.)



1. As a receiving device for wireless telegraphy oscillations, the combination with a member containing silicon, of a contacting member containing the metal bismuth.

2. As a receiving device for wireless telegraphy oscillations, the combination with a member consisting of the element silicon, of a contacting member consisting of the metal bismuth.

3. As a receiving device for wireless telegraphy oscillations, the combination with a silicon member, of a bismuth member having a rough surface in contact with said silicon member.

4. As a receiving device for wireless telegraphy oscillations, the combination with a silicon member having a rough surface, of a bismuth member in contact with such surface.

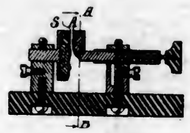
5. As a receiving device for wireless telegraphy oscillations, the combination with silicon and bismuth members having rough surfaces respectively in contact with each other.

1,136,047. OSCILLATION-RECEIVING DEVICE. GREENLEAF WHITTIER PICKARD, Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, Boston, Mass., a Corporation of New York. Original application filed July 24, 1911, Serial No. 640,106. Divided and this application filed Dec. 8, 1913. Serial No. 805,240. (Cl. 250—31.)

1. As a receiving device for wireless telegraphy oscillations, the combination with a member containing silicon, of a contacting member containing the metal arsenic.

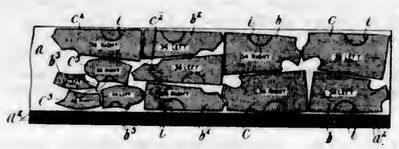
2. As a receiving device for wireless telegraphy oscillations, the combination with a member consisting of the

element silicon, of a contacting member consisting of the metal arsenic.



3. As a receiving device for wireless telegraphy oscillations, the combination with a silicon member, of an arsenic member having a rough surface in contact with said silicon member.

1,136,048. METHOD OF CUTTING AND ASSEMBLING GARMENTS BY WHOLESALE. FRANK A. PLATZ, Brooklyn, N. Y. Filed Nov. 4, 1913. Serial No. 799,060. (Cl. 223—59.)

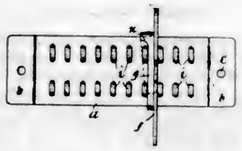


1. The herein described method of cutting and assembling the parts of garments which consists in placing a number of strips of cloth in a pile with all of said strips facing in one direction, marking on said pile the outline of the parts of the patterns of different garments and cutting through the pile to form bundles of parts or pieces corresponding with the parts of the patterns, marking the parts or pieces of all of said bundles for identification and marking one of the parts or pieces of each garment with the garment size number, the lot number, the bundle number and the manufacturing number.

2. The herein described method of cutting and assembling the parts of garments which consists in placing a number of strips of cloth in a pile with all of said strips facing in one direction and marking on said pile the outline of parts of patterns of different garments and cutting through the pile to form bundles of parts or pieces corresponding with the parts of the patterns, and marking the parts or pieces of said bundles for identification.

3. In the manufacture of garments, the method which consists of placing goods in a pile, arranging distinctly designated parts of patterns on said pile and marking the outline of the same on the top ply of said pile, cutting through the pile to form bundles of parts or pieces corresponding to the parts of the patterns, and consecutively numbering all of the parts of said bundles so as to facilitate the correct assembling of the corresponding parts of each garment.

1,136,049. SHADE-ROLLER BRACKET. EMMET PROBST, Paterson, N. J. Filed Dec. 19, 1914. Serial No. 878,039. (Cl. 156—24.)

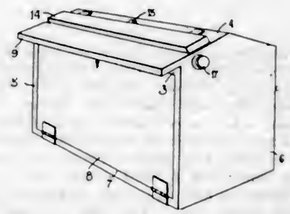


1. The combination of an elongated supporting member formed of sheet material having parallel ribs punched up from the material so as to project from one face of said member and having their sides severed from the flanking portions of the material, and a bracket proper having an elastic inverted U-shaped clip straddling the supporting member and having one of the legs of said clip fitting between two such ribs.

2. The combination of an elongated supporting member formed of sheet material having a series of projections on one face thereof, and a bracket proper having an elastic inverted U-shaped clip straddling the supporting member and having one leg of its clip fitted between two of the projections, the top or arched portion of the clip being wider than said leg.

3. The combination of an elongated supporting member formed of sheet material having a series of projections on one face thereof, and a bracket proper having an elastic inverted U-shaped clip straddling the supporting member and having one leg of its clip fitted between two of the projections, the top or arched portion of the clip having a reinforcing bend.

1,136,050. MAIL-BOX. HENRY RAZNY, Detroit, Mich. Filed Sept. 2, 1914. Serial No. 859,730. (Cl. 232—47.)



1. A mail box comprising a receptacle provided with an opening adapted to receive mail, inner and outer closures for the opening of said receptacle, an angularly disposed deflector arranged in said receptacle, a tiltable angle guard arranged in said receptacle and adapted to engage said deflector, a connection between said guard and said inner closure, means connected to said inner closure for maintaining said tiltable guard normally out of engagement with said deflector, and means at an end wall of said receptacle for simultaneously moving said inner closure and said guard.

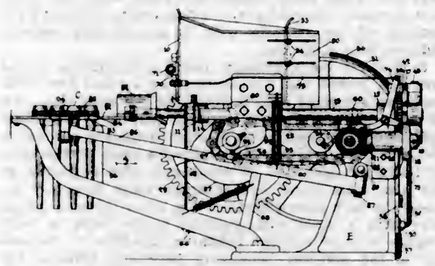
2. A mail box comprising a receptacle provided with an opening adapted to receive mail matter, inner and outer closures for the opening of said receptacle, an angularly disposed deflector within said receptacle, a tiltable angle guard connected to said inner closure and adapted to engage said deflector, means connected to said inner closure for normally maintaining said guard out of engagement with said deflector, means at an end wall of said receptacle for swinging said inner closure to an open position, means actuated by a movement of said inner closure for opening said outer closure.

3. A mail box comprising a receptacle having the top thereof provided with an opening adapted to receive mail matter, an outer closure upon the top of said receptacle for the opening thereof, an inner closure within said receptacle for the opening thereof, a tiltable guard within said receptacle and connected to said inner closure, means at an end wall of said receptacle for moving said inner closure, and means including a pivoted arm actuated by a movement of said inner closure for swinging said outer closure to an open position.

4. A mail box comprising a receptacle having the top thereof provided with an opening adapted to receive mail matter, an outer closure upon the top of said receptacle and adapted to normally close the opening thereof, an inner closure within said receptacle and adapted to normally close the opening thereof, an angularly disposed deflector arranged within said receptacle, a tiltable angle guard arranged within said receptacle and connected to said inner closure and adapted to engage said deflector, means connected to said inner closure for normally maintaining said guard out of engagement with said deflector, means at an end wall of said receptacle for moving said inner closure, and means actuated by said inner closure for opening said outer closure.

5. A mail box comprising a bottom plate, a front wall, a rear wall, end walls, a gable roof, said gable roof having the front side thereof provided with an opening adapted to receive mail matter, an outer closure arranged upon said gable roof for the opening thereof, a rock shaft journaled in the end walls of said box, an inner closure mounted upon said rock shaft and held normally against the inner side of the gable roof to close the opening thereof, an angularly disposed deflector connecting the end walls of said box, a tiltable angle guard between the end walls of said box and connected to said inner closure and adapted to engage said deflector, means connected to said inner closure for retaining said closure normally against said roof and said tiltable guard out of engagement with said deflector and means including an arm actuated by said inner closure for simultaneously opening said outer closure.

1,136,051. BOBBIN-STRIPPER. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a Corporation of Massachusetts. Filed May 28, 1914. Serial No. 841,638. (Cl. 118—26.)



1. A bobbin stripper having, in combination, a hopper, a pair of coöperating rotating gripping devices, additional mechanical means for engaging a bobbin within the hopper during the feeding operation and forcing the bobbin downwardly out of said hopper to said gripping devices, and means to thereafter force the bobbins longitudinally through the gripping devices.

2. A bobbin stripper, having in combination a hopper, gripping devices, means for feeding a bobbin from said hopper to said gripping devices, and bobbin-actuating means moving continuously in a closed path and having a plurality of projecting portions effective to engage successive bobbins and force them longitudinally through the gripping devices.

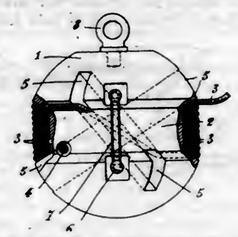
3. A bobbin stripper, having in combination a pair of gripping devices, means to feed a bobbin to said gripping devices, a flexible member moving continuously in one direction, said member at all times having a portion thereof movable along a line parallel to the axis of the bobbin held by said gripping devices and having lugs thereon positioned to contact with the tip of said bobbin and effective to force the bobbin longitudinally through the gripping devices.

4. A bobbin stripper, having in combination a hopper, a pair of intermittently rotating gripping devices, a feed lever coöperating with said gripping devices to feed a bobbin from said hopper to said devices, a link chain having a path of travel parallel to the axis of a bobbin held by said gripping devices, and lugs on said chain for moving said bobbin longitudinally through said gripping devices.

5. A bobbin stripper, having in combination, means to strip yarn from a bobbin, a support for the stripped bobbins, and means to separate and remove from said support a bobbin having yarn remaining thereon.

[Claims 6 to 16 not printed in the Gazette.]

1,136,052. SUBMARINE MINE. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Dec. 19, 1914. Serial No. 878,080. (Cl. 102—3.)



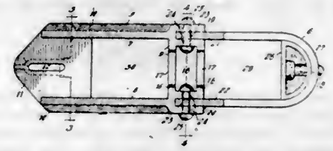
1. For use with submarine mines, a device consisting of a sounding-lead having a plurality of preferably diametral ducts formed in and extending through the body thereof and a cable wound on said sounding-lead for connecting the latter with the mine, adjustment of the length of said cable being effected by unwinding a length of the cable corresponding to the depth of immersion increased by the length of the said ducts, the unwinding action being stopped by passing the free end of the unwound length into the duct nearest thereto.

2. In combination, a submarine mine, a lead having a plurality of passages therein, and a cable carried by said lead for anchoring the mine at variable depths, the free end of which cable passes through the passage nearest thereto and is connected to said mine.

3. In combination, a submarine mine, a lead having a plurality of passages therein, and a cable carried by said lead for anchoring the mine at variable depths, the free end of which cable passes through the passage nearest thereto and is connected to said mine, said cable engaging said passage at two points and holding the mine at a predetermined depth.

4. In combination, a submarine mine, a lead having a plurality of passages passing through the body thereof, and a cable carried by said lead for anchoring the mine at variable depth, the free end of which cable passes through the passage nearest thereto and is attached to said mine to hold the same at a predetermined depth.

1,136,053. DRAFT-YOKE FOR RAILWAY-CARS. HARRY F. SCHWARTZENBERG, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 9, 1914. Serial No. 823,283. (Cl. 213—42.)

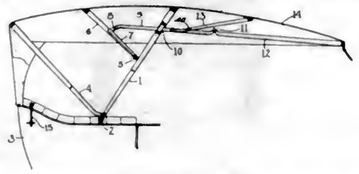


A tandem draft yoke for railway draft riggings comprising two members the front one of which is provided with upper and lower limbs connected by an integral hollow post open on the sides thereof, said member being horizontally slotted at the ends of said post, the other of said members comprising a U-shaped strap having the free ends thereof secured in said slots, and short rivets extending through said members to hold the strap connected with the first named member.

1,136,054. VEHICLE-TOP. LEWIS C. SHIPLEY, Detroit, Mich. Filed Mar. 20, 1914. Serial No. 825,985. (Cl. 21—62.)

1. A vehicle top comprising a front bow, a rear bow pivotally connected thereto, channel members pivotally connected to said front bow by the same pivotal means as said rear bow and engaging said rear bow, long mem-

bers pivotally connected to outer ends of said channel members and movably supported by said front bow whereby pivoted ends of said long members can be moved toward said front bow independent of said rear bow, and an over-hanging bow pivotally connected to said long members.



2. A vehicle top comprising a front bow, an auxiliary rear bow pivotally connected to said front bow, channel members pivotally connected to said front bow and normally engaging said auxiliary rear bow, long members connected to said channel members and movably supported by said front bow, and an over-hanging bow supported by said long members.

3. A vehicle top comprising a front bow, guide rests carried thereby, long members extending through said guide rests, an auxiliary rear bow, an over-hanging bow supported by said long members, and movable means supported by said front bow connecting said long members and said front bow, whereby the rear ends of said long members can be moved toward said front bow independent of said auxiliary rear bow.

4. A vehicle top comprising a front bow, guide rests carried thereby, members movably supported by said guide rests, channel members pivotally connected to said front bow and connecting said members and said front bow, an over-hanging bow supported by said members, and means coöperating with said front bow in supporting said channel members when said top is extended.

5. A vehicle top comprising a front bow, guide rests carried thereby, long members supported by said guide rests, channel members connecting said long members and said front bow, an over-hanging bow supported by said long members, an auxiliary over-hanging bow supported by said long members, and means coöperating with said front bow in supporting said channel members when said top is extended.

[Claim 6 not printed in the Gazette.]

1,136,055. CHART FOR GARMENT-PATTERNS. ANNESLEY DE LOS SMITH, Mount Vernon, N. Y. Filed Feb. 15, 1909. Serial No. 478,039. (Cl. 33—13.)



1. A chart for a garment pattern having the upper edge curved and with neck measures laid off on the curve, having another adjoining edge corresponding with the center line of the back with a scale of length of back from neck to waist laid off along said edge measured from the neck curve with the zero point at the neck and different waist measures opposite the back points, another edge below the back edge with a scale spaced below the scale of back lengths and having figures corresponding to the back length figures to provide points indicating the hip lines for corresponding lengths of back and different hip measures opposite the hip points so provided, another edge adjoining said upper edge representing the average shoulder seam curve, another edge adjoining said shoulder seam edge representing the average arm seam curve and the next edge curved and representing the average seam curve from arm to waist line, said chart having points indicating the junction of the shoulder seam with the arm seam for different bust measures and other points indicating the junction of the arm seam with the arm-to-waist seam at corresponding bust measures.

2. A chart for a garment side pattern having one edge curved and representing the average arm seam curve, an adjoining edge curved and representing the seam from arm to waistline and having the measures of length of back laid off along said latter edge beginning at the arm seam curve and a scale of different waist measures opposite the back points, another edge below said back length edge with a scale corresponding to the scale of back lengths to provide points indicating hip lines for the different lengths of back and different hip measures opposite the hip points, an edge adjoining the arm seam edge curved and representing the average seam curve from arm to waist line, said chart having points indicating the junction of the arm seam with the arm to waist seam at different bust measures.

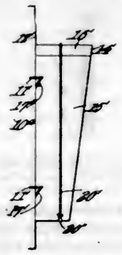
3. A chart for a garment under arm pattern having one edge curved and representing the average arm seam curve, an adjoining edge representing the seam from arm to waist line having bust measures laid off at the upper end thereof for locating the junction of the arm seam with the arm to waist seam and having a scale of measures of length of back laid off along said edge beginning at the arm seam curve and different waist measures opposite the back points, another edge below the back length edge with a scale corresponding to the scale of back lengths to provide points indicating hip lines corresponding to the different lengths of back and different hip measures opposite the different hip points, an end edge adjoining the arm seam edge representing the average seam curve from under arm to waist line and having marks laid off along said edge indicating the distance from the waist line to the under arm seam, said chart having points indicating the junction of the arm seam with the under arm to waist seam at different bust measures.

4. A chart for a garment pattern having a scale of length of back measures along one side edge and waist line measures opposite thereto for determining the waist line and another scale of the same measures along an edge parallel to the lower end of the back measure scale and offset therefrom, hip line measures opposite thereto for determining the hip line, whereby upon connecting the waist and hip line points the required flare is given to the pattern, and points indicating the arm seam corners at different bust measures.

5. A chart for a garment front pattern having a vertical front seam line and a pivotal point at the top thereof, a series of lines of measures on arcs concentric with each other and having their common center at said pivotal point and laid off at different distances corresponding with diagonal measurements from neck to waist at the side, a series of rows of points indicating the positions of the tops of one or more darts for different bust measures at different distances from the neck, a series of scales of fractional waist measures laid off along said concentric lines, a series of observation points such as *s* to register with the points on said waist measure scale, when the chart is swung, a series of scales laid off on said concentric lines beginning with said observation points and representing fractions of the difference between the bust and waist measures and other fractional waist measures laid off on said concentric lines for determining the under arm side of the pattern.

[Claims 6 to 11 not printed in the Gazette.]

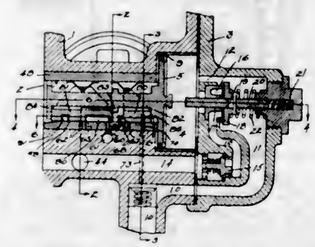
1,136,056. PHOTOGRAPH-HOLDER. GEORGE HENDERSON SMITH, Webster, W. Va. Filed Feb. 24, 1914. Serial No. 820,707. (Cl. 40—124.5.)



1. A holder of the character described, comprising a frame, strands threaded through the frame and arranged to be wrapped around an object, an inverted U-shaped hood straddling the frame, the rear edges of the sides of the hood having inclined slots engaging the said strands, and means for locking the hood upon the frame.

2. A holder of the character described, comprising a frame, strands threaded through the frame and arranged to be wrapped around an object, an inverted U-shaped hood straddling the frame, the rear edges of the sides of the hood having inclined slots engaging the said strands, and means embracing the hood and engaging the lower end of the frame to lock the hood in place.

1,136,057. TRIPLE VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed Oct. 24, 1912. Serial No. 727,542. (Cl. 188—15.)



1. In a fluid pressure brake, the combination of a train pipe, brake cylinder, a reservoir on a car, a pressure chamber, means arranged upon reduction of train pipe pressure to establish communication between said reservoir and said pressure chamber, and means actuated by pressure in said pressure chamber for establishing communication between said reservoir and the brake cylinder and upon increase in train pipe pressure to establish communication between said reservoir and the train pipe.

2. In a fluid pressure brake, the combination of a train pipe, brake cylinder, auxiliary reservoir and supplementary reservoir, of a pressure chamber, means actuated upon reduction of train pipe pressure to establish communication between the auxiliary reservoir and said pressure chamber, and means actuated by pressure in said pressure chamber and arranged to establish communication between the supplementary reservoir and the brake cylinder and upon increase in train pipe pressure to establish communication between a supplementary reservoir and the train pipe.

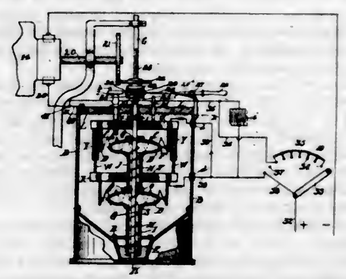
3. In a fluid pressure brake, the combination of a train pipe, brake cylinder, auxiliary reservoir and a supplementary reservoir, of a pressure chamber, means actuated upon service reductions of train pipe pressure to establish communication between the auxiliary reservoir and said pressure chamber, upon reduction of train pipe pressure after full service application to establish communication between the supplementary reservoir and said pressure chamber, and means actuated by pressure in said pressure chamber arranged upon admission of pressure thereto to connect the supplementary reservoir to the brake cylinder and upon release of pressure therefrom to establish communication between the supplementary reservoir and the train pipe.

4. In a fluid pressure brake, the combination of a train pipe, brake cylinder, a reservoir on a car, and an additional source of pressure, of a pressure chamber, means arranged upon reduction in train pipe pressure to connect the reservoir to said pressure chamber and upon increase in train pipe pressure to connect said pressure chamber to the atmosphere, and means actuated by pressure in said pressure chamber and arranged upon the admission of pressure thereinto to connect the additional source of pressure to the brake cylinder and upon the exhaustion of pressure therefrom to connect the additional source of pressure to the train pipe.

5. In a fluid pressure brake, the combination of a train pipe, brake cylinder, a reservoir on a car, and an additional source of pressure, of a pressure chamber, means arranged upon reduction in train pipe pressure to connect the reservoir to said pressure chamber and upon increase in train pipe pressure to connect said pressure chamber to the atmosphere, and means actuated by pressure in said pressure chamber and arranged upon the admission of pressure thereinto to connect the additional source of pressure to the brake cylinder and upon the exhaustion of pressure therefrom to connect the additional source of pressure to the train pipe and connect the brake cylinder to the atmosphere.

[Claims 6 to 11 not printed in the Gazette.]

1,136,058. SYSTEM OF POWER TRANSMISSION. ELMER A. SPERRY, Cleveland, Ohio, assignor, by mesne assignments, to American Electric and Controller Company, a Corporation of Delaware. Filed Mar. 9, 1903. Serial No. 147,028. (Cl. 171—222.)



1. The combination with a motor, of an interrupter connected in circuit with the armature only of the motor for rapidly and continuously making and breaking the circuit thereof while said interrupter is active and operated by said motor, means for increasing and decreasing the duration of the make relative to the break in the circuit of said armature, and a capacity connected to counteract the effects of the inductance of the circuit, substantially as set forth.

2. The combination of a motor, an interrupter constructed to be connected in circuit therewith, a starting rheostat, and circuits and connections for starting the motor with the rheostat in circuit and for then excluding the rheostat from the circuit and operatively placing the interrupter in circuit, and means for reducing sparking at the interrupter, substantially as set forth.

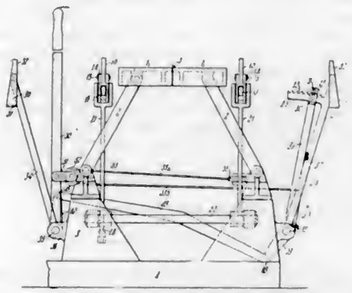
3. The combination of a motor, a device constructed to rapidly make and break the armature circuit without breaking the field circuit, and means for starting the motor without including the make and break device in circuit and for then operatively placing the same in circuit, substantially as set forth.

4. The combination with a motor, of a device connected to rapidly make and break the armature circuit of said motor at all times during the operation of said motor, means for driving said make and break device from the motor, and means for increasing and decreasing the periodicity of the make and break device without change in the speed of the motor, substantially as set forth.

5. The combination of a variable speed motor, a rotary make and break device included in circuit therewith and connected to be driven by the motor, a capacity connected to reduce sparking at the make and break device, and means for varying the periodicity of said device independently of the speed of the motor, substantially as set forth.

[Claims 6 to 19 not printed in the Gazette.]

1,136,059. SHEET-ALINING MECHANISM. LAWRENCE C. STEELE, Pittsburgh, Pa. Filed Nov. 1, 1913. Serial No. 798,744. (Cl. 153—12.)



1. In a machine for operating upon sheets, the combination with a table, of two sets of matching devices arranged to straighten a sheet upon the table in two directions, each set comprising members movable toward and from each other, and a single flexible means for operating all of said members, the members of one set being adjustable with reference to each other.

2. In a machine for operating upon sheets, the combination with a table, of two sets of matching devices arranged to straighten a sheet upon the table in two directions, each set comprising interconnected members movable toward and from each other, and flexible means having portions connected to both sets of members and arranged when operated to simultaneously move all of said members toward the center of the table.

3. In a machine for operating upon sheets, the combination with a table, of two sets of matching devices arranged to straighten a sheet upon the table in two directions, each set comprising interconnected members movable toward and from each other, a movable operating member carrying a sheave, and a flexible member passing over said sheave and having portions connected to both of said sets of devices for adjusting the same.

4. In a machine for operating upon sheets, the combination with a table, of matching devices movable toward and from each other for adjusting the sheet upon the table, pivoted levers carrying said members, and connections between said levers arranged so that they oscillate toward and from each other, one of said levers being adjustable around its pivot for adjusting the matching devices with reference to each other.

5. In a machine for operating upon sheets, the combination with a table, of a plurality of sets of matching devices arranged to straighten a sheet upon the table in different directions, each set comprising interconnected members movable toward and from each other, a movable operating member, and a flexible member having a loop or fold connected to said operating member, portions thereof being connected to said sets of matching devices operating the same.

[Claims 6 to 10 not printed in the Gazette.]

1,136,060. BIFOCAL LENS. EDWIN R. TALLEY, Algona, Iowa. Filed Aug. 28, 1914. Serial No. 859,043. (Cl. 88—54.)



1. In a bifocal lens, a main lens and an auxiliary lens removably applied centrally adjacent the lower edge thereof.

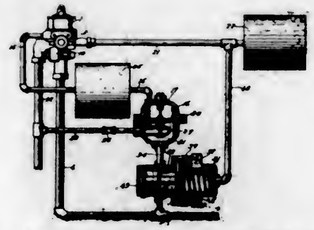
2. In a bifocal lens, a main lens, and an auxiliary lens of circular design removably applied thereto.

3. In a bifocal lens, a main lens, and an auxiliary lens of circular design removably applied thereto, the edge of said latter lens being beveled inwardly.

4. In a bifocal lens, a main lens having a threaded seat therein and an auxiliary lens engaged with said seat.

5. In a bifocal lens, a main lens having a seat therein, the wall of which is beveled inwardly and threaded, and an auxiliary lens having its peripheral edge beveled and threaded for engagement with said seat.

1,136,061. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 2, 1911. Serial No. 652,326. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a train pipe, of a valve mechanism for normally maintaining the train pipe pressure at a predetermined degree, and means directly controlling the flow of fluid from said valve mechanism to the train pipe and operated upon an increase in train pipe pressure for cutting off the flow of fluid from said valve mechanism to the train pipe.

2. In a fluid pressure brake, the combination with a train pipe, of a valve mechanism for normally maintaining the train pipe pressure at a predetermined degree, a pipe leading from said valve mechanism to the train pipe and a valve device in said pipe operated by an increase in train pipe pressure to a predetermined degree for closing communication through said pipe.

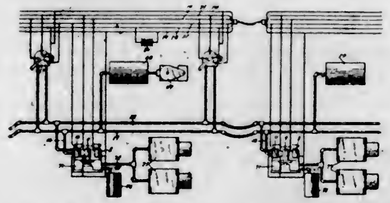
3. In a fluid pressure brake, the combination with a train pipe, of a regulating valve mechanism for maintaining the train pipe pressure at a predetermined degree while the brakes are applied and a valve device operated upon an increase in train pipe pressure above said predetermined degree for closing communication through which fluid is supplied by the regulating valve mechanism to the train pipe.

4. In a fluid pressure brake, the combination with a train pipe, of a regulating valve mechanism for maintaining the train pipe pressure at a predetermined degree while the brakes are applied and a valve device comprising a piston subject to train pipe pressure and a valve operated by said piston for controlling communication through which air is supplied by the regulating valve mechanism to the train pipe, said valve device being operated by an increase in train pipe pressure above the predetermined degree for closing said communication.

5. In a fluid pressure brake, the combination with a train pipe, of a regulating valve mechanism comprising a valve for controlling the supply of fluid to the train pipe, a regulating chamber, and a movable abutment subject to the opposing pressures of the regulating chamber and the train pipe for operating said valve to maintain the train pipe pressure at a predetermined degree, and means subject to the opposing pressures of the train pipe and fluid at the pressure of the regulating chamber for controlling communication through which air is supplied by said regulating valve mechanism to the train pipe.

[Claims 6 to 9 not printed in the Gazette.]

1,136,062. ELECTROPNEUMATIC BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Aug. 26, 1912. Serial No. 716,962. (Cl. 188—4.)



1. In a fluid pressure brake, the combination with an application valve device having a differential piston subject to the opposing pressures of an application chamber and the brake cylinder for controlling the admission of fluid to the brake cylinder and an automatic valve device subject to variations in train pipe pressure for controlling the pressure in said application chamber, of an emergency valve mechanism operating upon a sudden reduction in train pipe pressure for effecting an emergency application of the brakes and a passage-way controlled by the movement of both the automatic valve device and the emergency valve mechanism to emergency position for venting fluid from one side of said differential piston to assist in holding the application valve device in emergency position.

2. In a fluid pressure brake, the combination with an application chamber, an application valve device comprising a valve for supplying fluid to the brake cylinder, a differential piston having one head subject to the pressure of an application chamber and the other head subject to brake cylinder pressure, and an equalizing port around the second head for normally equalizing the fluid pressures on opposite sides thereof, and an automatic valve device operated by variations in train pipe pressure for controlling the pressure in said application chamber, of an emergency valve mechanism operating upon a sudden reduction in train pipe pressure for effecting an emergency application of the brakes and a passageway controlled by the movement of the automatic valve device and the emergency valve mechanism to emergency position for venting fluid from the brake cylinder side of said differential piston to thereby assist in holding the application valve device in emergency position.

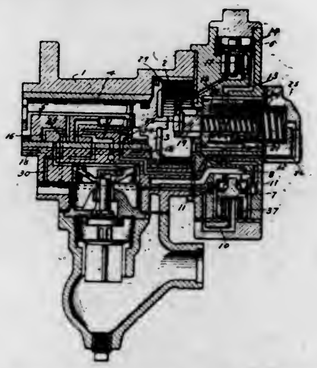
3. In a fluid pressure brake, the combination with an application chamber and a valve device operated by the pressure in the application chamber for supplying fluid to the brake cylinder, of a valve mechanism controlled by said application valve device for venting fluid from a source of pressure to the brake cylinder in an emergency application of the brakes.

4. In a fluid pressure brake, the combination with an application chamber and a valve device operated by the pressure in the application chamber for supplying fluid to the brake cylinder, of a valve mechanism for controlling the direct supply of fluid to the brake cylinder and a port controlled by said application valve device for normally supplying fluid to one side of said valve mechanism, said application valve device being adapted in emergency position to connect said port to the atmosphere.

5. In a fluid pressure brake, the combination with an application chamber and a valve device operated by the pressure in the application chamber for supplying fluid to the brake cylinder, of an automatic valve device subject to the opposing pressures of the train pipe and a pressure chamber for controlling the admission of fluid from the pressure chamber to the application chamber and an additional application chamber adapted to be connected to the regular application chamber.

[Claims 6 to 15 not printed in the Gazette.]

1,136,063. TRIPLE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Dec. 28, 1912. Serial No. 739,013. (Cl. 188—15.)



1. The combination with a valve device operated upon a reduction in train pipe pressure for effecting an application of the brakes, of means for controlling communication from the train pipe to said valve device and operated upon movement of said valve device from release position for closing said communication.

2. In a fluid pressure brake, the combination with a train pipe and a valve device for controlling the application and release of the brakes comprising valve means, and a piston operated upon a reduction in train pipe pressure for actuating said valve means to effect an application of the brakes, of valve means for controlling communication through which fluid from the train pipe is admitted to said piston and operated by the movement of said valve device to apply the brakes for closing said communication.

3. In a fluid pressure brake, the combination with a train pipe and a valve device operated upon a reduction in train pipe pressure to effect an application of the brakes, of a valve piston subject on one side to train pipe pressure for controlling communication through which fluid from the train pipe is supplied to said valve device to effect the release of the brakes, and means for equalizing the fluid pressures on opposite sides of said valve piston upon applying the brakes to close said communication, said valve piston being operated upon a predetermined increase in train pipe pressure to open said communication.

4. In a fluid pressure brake, the combination with a train pipe and a valve device operated upon a reduction in train pipe pressure to effect an application of the brakes, of a valve piston subject on one side to train pipe pressure for controlling communication through which fluid from the train pipe is supplied to said valve device to effect the release of the brakes, means controlled by said valve device for equalizing the fluid pressures on opposite sides of said valve piston in brake application position, and a spring for actuating said valve piston to

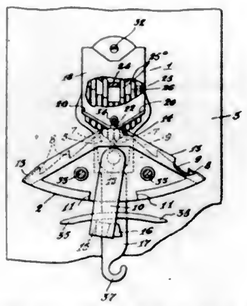
close said communication upon equalization of fluid pressures, said valve piston being operated upon a predetermined increase in train pipe pressure to open said communication.

5. In a fluid pressure brake, the combination with a train pipe and a valve device operating upon a reduction in train pipe pressure to effect a service application of the brakes, of a stop device for checking the movement of said valve device to service application position and movable upon a predetermined reduction in train pipe pressure to permit free movement of the valve device to service position.

[Claims 6 to 17 not printed in the Gazette.]

1,136,064. [WITHDRAWN.]

1,136,065. LATCHING DEVICE. EUGENE W. VEST, Tacoma, Wash. Filed Feb. 4, 1913. Serial No. 746,193. (Cl. 70—28.)



1. A latching device comprising a latch, a housing in which said latch is mounted for vertical sliding, a vertically movable actuator slidably mounted in said housing and freely engaged with said latch, whereby said latch can be lifted independently of said actuator, and a keeper provided with a series of stops arranged for successive engagement with said latch.

2. A latching device comprising coöperating parts, one consisting of a latch and a bearing member, the other consisting of a keeper provided with reversely inclined guides for the bearing member of said first named part and with series of stops for said latch, the said series of stops of said last named part each being arranged adjacent one of the guides thereof and extending in stepped relation in the direction of its inclination.

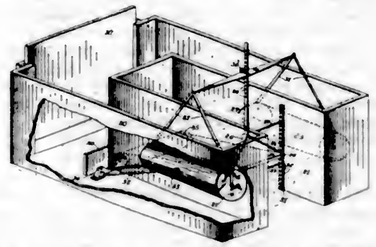
3. A latching device comprising coöperating parts, one consisting of a latch and a bearing member, the other consisting of a keeper and inclined guides, said keeper having side stops and an intermediate seat for engagement with the latch of said first named part, the guides of said last named part being inclined upwardly to the seat of the keeper and adapted for engagement with the bearing member of said first named part.

4. A latching device consisting of coöperating parts, one comprising a bearing member and a relatively vertically movable latch, the other part comprising upper and lower stops having upwardly inclined approaching surfaces for riding engagement of the latch of said first named part, and guides for engagement by the bearing member of said first named part inclined upwardly to the upper stops of said last named part.

5. In combination with a latching device comprising a keeper part and a latch part adapted for locking engagement with said keeper part, one of which parts is adapted to be carried by the gate and the other by a post, a pivoted mounted stop, and an engaging member associated with said stop for swinging the same during movement of the gate and limiting movement of the latter to insure proper engagement of the latch part with said keeper part.

[Claims 6 to 17 not printed in the Gazette.]

1,136,066. AUTOMATIC HEAD-GATE. GEORGE L. WALKER and WALTER W. BOUGHTON, Pueblo, Colo. Filed May 27, 1913. Serial No. 770,209. (Cl. 61—47.)



1. In combination, a source of water supply, a float therein, a discharge pipe for delivering water from said source, said pipe being mounted to swing in a vertical direction, and means connecting the discharge end of said pipe with said float, whereby said discharge end will be maintained with a constant relation to the level of the water in said source irrespective of fluctuations in said level.

2. In combination, a source of water supply, a float therein, a discharge pipe exterior to said source for delivering water therefrom, said pipe being mounted to swing in a vertical direction, and means for connecting the discharge end of said pipe with said float.

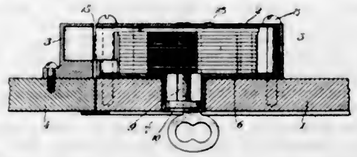
3. In combination, a head-gate box, a float therein, a discharge pipe for delivering water from said head-gate box, said pipe being mounted to swing in a vertical direction, and means for connecting the discharge end of said pipe with said float.

4. In combination, a head-gate box, a float therein, a discharge pipe exterior to said head-gate box for delivering water therefrom, said pipe being mounted to swing in a vertical direction, and means for connecting the discharge end of said pipe with said float.

5. In combination, a head-gate box, a float therein, a discharge pipe exterior to said head-gate box for delivering water therefrom, said pipe being mounted to swing in a vertical direction, means for connecting the discharge end of said pipe with said float, and means for admitting water to said box in excess of the capacity of said discharge pipe.

[Claims 6 to 26 not printed in the Gazette.]

1,136,067. INTERCHANGEABLE-KEY LOCK. ELMER E. WATSON, Hamilton, Ohio. Filed Nov. 8, 1909. Serial No. 526,704. (Cl. 70—70.)



1. In a device of the character described, the combination of a locking member and means to permit the insertion of any one of a series of keys and the locking of the locking member thereby, said means comprising a member movable as a whole longitudinally of the lock and coöperating with the locking member, said movable member in one position preventing the locking and unlocking of the locking member with any other than a certain key.

2. In a device of the character described, the combination of a locking member, and means permitting the insertion of any one of a series of keys and the locking of the locking member thereby, said means comprising a member movable as a whole longitudinally of the lock and coöperating with the end of the locking member, said movable member in one position preventing the locking and unlocking of the locking member with any other than a certain key.

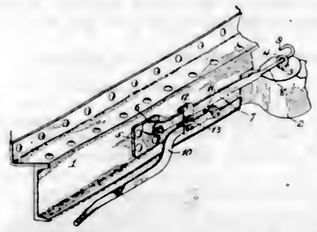
3. In a device of the character described, the combination of a locking member, a tumbler for controlling the movement of the locking member, a stump coöperating with the tumbler at each end thereof, and a slidable plate for preventing, when in one position, the insertion of a key for locking the locking member, and when in another position, permitting said insertion.

4. In a device of the character described, the combination of a locking member, a tumbler for controlling the movement of the locking member, said tumbler having an operative slot on each end, and a slidable plate for preventing, when in one position, the insertion of a key for locking the locking member, and when in another position, permitting said insertion.

5. In a device of the character described, the combination of a locking member, a plurality of tumblers for controlling the movement of the locking member, a stump cooperating with the tumblers at each end of each of the tumblers and a slidable plate for preventing, when in one position, the insertion of a key for locking the locking member, and when in another position, permitting said insertion.

[Claims 6 to 23 not printed in the Gazette.]

1,136,068. UNCOUPLING DEVICE FOR CAR-COUPLINGS. ROBERT R. WEAVER, Columbus, Ohio. Filed Feb. 16, 1914. Serial No. 819,051. (Cl. 213—59.)



In uncoupling devices for car couplings, the combination with an end sill, and a car coupling provided with a locking pin, of a pin-raising lever pivoted at one end to the end sill, an operating lever pivoted to the end sill between the ends of said pin-raising lever and extending laterally past the pivoted end of the latter, a clip secured to the operating lever and embracing the pin-raising lever between the pivotal connections of said levers to the end sill, and a part carried by said clip and engaging the pin-raising lever to raise the latter when the operating lever is raised.

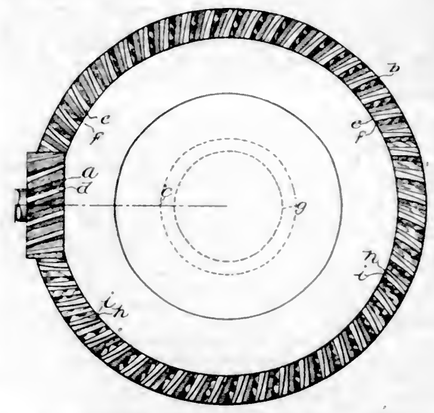
1,136,069. GEARING. ROBERT B. WEAVER, Detroit, Mich., assignor to Timken-Detroit Axle Company, Detroit, Mich., a Corporation of Ohio. Filed June 15, 1914. Serial No. 845,037. (Cl. 74—41.)

1. A gear couple comprising a pinion and a crown gear arranged with their axes in the same plane and approximately perpendicular to one another, and with their teeth inclined.

2. Gearing comprising a pinion having helically inclined teeth and a gear having a circular line of teeth arranged in a plane parallel to the axis of the pinion, such gear being arranged with its axis intersecting the axis of the pinion.

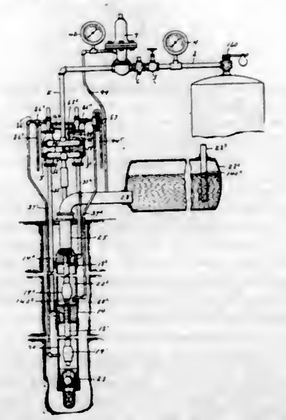
3. Gearing consisting of a pinion having inclined teeth and a crown gear arranged with its axis in the same plane with and intersecting the axis of the pinion, and its teeth spirally inclined.

4. A crown gear having teeth so formed that the spaces between the teeth are approximately straight, approximately uniform in width, and arranged in lines tangent to a circle concentric with the gear, and the sides of the teeth having gradually increasing divergence from the vertical at successive points from their inner to their outer ends.



5. A gear having teeth arranged in a plane perpendicular to the axis of the gear and spirally disposed with respect to the said axis, said teeth being approximately straight from inner to outer ends at their bases and being curved from their inner to their outer ends at the edges of their top faces, the curvature of one edge being convex and of the opposite edge being concave.

1,136,070. PUMPING SYSTEM. FREDERICK C. WEBER, New York, N. Y. Filed Feb. 29, 1912. Serial No. 680,684. (Cl. 103—8.)



1. In a pumping system, the combination of a source of fluid pressure supply, a liquid chamber having inlet and discharge valves, a reversing valve for admitting fluid pressure from said supply to said chamber, and for exhausting said pressure therefrom, and means for throttling the exhaust from said liquid chamber.

2. In a pumping system, the combination of a source of fluid pressure, a liquid chamber, inlet and discharge valves for said chamber, a reversing valve for admitting pressure from said supply to and exhausting the same from said liquid chamber, and a differential pressure operated means actuated by the lowering of the liquid in said liquid chamber to admit said fluid pressure to and for

actuating said reversing valve to exhaust the pressure from said liquid chamber.

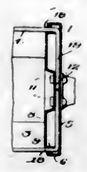
3. In a pumping system, the combination of a source of fluid pressure supply and a source of liquid supply, a liquid chamber, a valve inlet connection between said chamber and said liquid supply, a normally closed discharge pipe leading from said chamber, a reversing valve for admitting fluid pressure from said fluid supply to said liquid chamber, said reversing valve having an exhaust passage therein, with a throttling valve in said exhaust passage.

4. In a pumping system, the combination of a source of fluid pressure supply, a source of liquid supply, a liquid chamber, a valve inlet connection from said liquid supply to said chamber, a valved and normally closed discharge pipe leading from said chamber to a level higher than that of said liquid supply, a reversing valve for admitting pressure supply to said liquid chamber, said valve actuated by differential pressure from said fluid pressure supply to exhaust said fluid pressure from said liquid chamber, and means for creating said differential of pressure for actuating said reversing valve.

5. In a pumping system, the combination of a liquid chamber having a valved inlet and a valved discharge pipe, a reversing valve for introducing air pressure to and exhausting the same from said chamber, and means for actuating said valve operated by a differential of pressure between said discharge pipe and said liquid chamber.

[Claims 6 to 49 not printed in the Gazette.]

1,136,071. METALLIC-FURNITURE DRAWER. ALBERT T. WEISS, Rochester, N. Y., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 18, 1913. Serial No. 807,488. (Cl. 45—7.)



1. In a drawer, the combination with a front plate, and a lining plate disposed against the inner side thereof, of side rails for the drawer relatively heavier material having their forward ends turned inwardly to extend across the face of the front plate and secured between the latter and the lining plate.

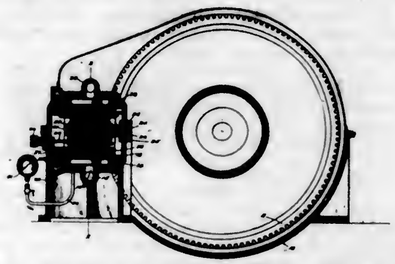
2. In a drawer, the combination with a front plate, a lining plate disposed against the inner side thereof and a handle on the outside of the front plate, of side rails for the darwer having their forward ends turned inwardly between the front plate and the lining plate and securing devices for the handle extending through the front and lining plates to hold them together and also acting as securing means for the side rails.

1,136,072. REDUCTION-GEARING. GEORGE WESTINGHOUSE, Pittsburgh, Pa., assignor to The Westinghouse Gear and Dynamometer Company, a Corporation of Pennsylvania. Filed Apr. 18, 1910. Serial No. 556,149. (Cl. 74—7.)

1. In a gearing device, a gear, a pinion meshing therewith, and a fluid actuated supporting means for the pinion constructed so as to allow relative angular motion between the gear and the pinion in a plane substantially at right angles to the plane defined by the normal positions of the axes of the gear and pinion.

2. In a gearing device, a gear, a pinion meshing therewith, and fluid actuated supporting means for the pinion constructed so as to allow relative angular motion between said gear and pinion in a plane perpendicular to the plane defined by the normal positions of the axes of the gear and pinion.

3. In a gearing device, a gear, a pinion meshing therewith and fluid actuated supporting means for said pinion constructed and arranged so that said pinion is capable of being moved by the tooth pressure encountered during an operation of the gearing to permit of the automatic distribution of such pressure.

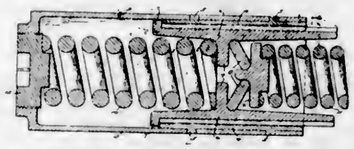


4. In a gearing device, a gear, a pinion meshing therewith, and fluid actuated supporting means for the pinion constructed so as to allow relative angular motion between said gear and said pinion in a plane perpendicular to the plane defined by the normal positions of the axis of the gear and the axis of the pinion.

5. In a gearing device, a gear, a pinion meshing therewith, a frame carrying the pinion, fluid actuated supporting means for the frame, constructed so as to allow relative angular motion between said gear and said pinion in a plane defined by the normal positions perpendicular to the plane of the axis of the gear and the axis of the pinion.

[Claims 6 to 34 not printed in the Gazette.]

1,136,073. FRICTION DRAFT-GEAR. HENRY HERMAN WESTINGHOUSE, New York, N. Y. Filed Mar. 25, 1907. Serial No. 364,350. (Cl. 213—64.)



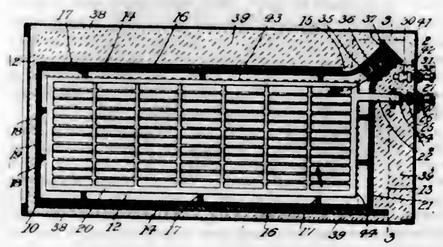
In a yielding resistance mechanism, the combination with a casing having friction surfaces, friction members in said casing, and an expanding device for the friction members, of a preliminary resistance spring acting on said expanding device, stops for limiting the movement of the friction members in one direction, a main resistance spring free to expand against the friction members to thereby exert a pressure tending to hold the friction members against said stops, and an adjustable nut bearing against the outer end of the spring, and adapted to be screwed up to place the spring under initial compression.

1,136,074. MANUFACTURE OF CONFECTIONS. FRANK WHITE, St. John, New Brunswick, Canada. Filed Dec. 9, 1912. Serial No. 735,796. (Cl. 107—54.)



The method of molding confections, consisting in first partially filling a matrix with a molten substance, then pressing the article to be coated into and below the surface of the fluid substance thus completely submerging the article, placing the matrix with the confection therein to one side until set, and finally removing the coated confections from the mold.

1,136,075. STORAGE BATTERY. PERRIN B. WHITNEY, New York, N. Y., assignor to Mesinger-Whitney Electric Company, Inc., New York, N. Y. Filed Jan. 21, 1915. Serial No. 3,519. (Cl. 204—29.)



1. A storage battery comprising an oblong box adapted to contain active plates and an electrolyte, and a nipple protruding at one of the box-edges and deflected at an obtuse angle to each of the two sides of the box forming said edge.

2. A storage battery comprising an oblong box adapted to contain active plates and an electrolyte, a nipple protruding at one of the box-edges and deflected at an obtuse angle to each of the two sides of the box forming said edge, and an apertured plug fitted into said nipple.

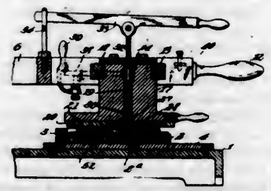
3. A storage battery comprising an oblong box, that has an open end, partitions dividing the box into a plurality of cells, covers for closing said cells, and nipples protruding at the cover-edges and deflected at an obtuse angle to each of the two cover sides.

4. A storage battery comprising an oblong box that has an open end, partitions dividing the box into a plurality of cells, a cover provided for each cell, an interiorly threaded nipple extending obliquely outward from one edge of said cover, and a plug tapped into said nipple and having a tortuous vapor passage.

5. A storage battery comprising an oblong box that has an open end, partitions dividing the box into a plurality of cells, lead plates accommodated within said cells and having outwardly projecting lugs, a cover provided for each cell and having perforations that accommodate the lugs, a nipple extending obliquely outward from one edge of said cover, and a plug removably fitted into said nipple and having a tortuous vapor passage.

[Claims 6 to 8 not printed in the Gazette.]

1,136,076. PROCESS OF PRODUCING ELECTRICAL HEATING DEVICES. EDWIN L. WIEGAND, Canal Dover, Ohio. Original application filed Jan. 9, 1914, Serial No. 811,262. Divided and this application filed July 13, 1914. Serial No. 850,746. (Cl. 219—64.)



1. The process of making electrical heating devices which comprises providing a suitable base with a bed of cementitious material having its lower part of greater hardness and dryness than its upper part; inserting a heat producing element into such upper part; covering said element with cementitious material; partially drying the whole mass; compacting the entire mass by the application of pressure and vitrifying the same by the application of heat.

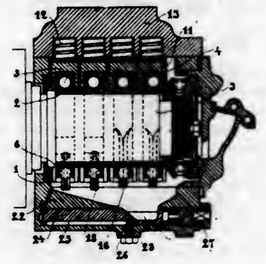
2. In a process of making electrical heating devices, the steps which consist of providing a suitable base with a bed of plastic cementitious material, inserting into said bed a previously formed conducting coil, covering said coil with plastic material, abstracting moisture from said material, compacting said material, and vitrifying said material.

3. The process of manufacturing electrical heating devices which comprises providing a suitable base with a mass of cementitious material whose outer part is softer and more plastic than its inner part; embedding an electric conductor in such softer part; applying a covering of cementitious material to said conductor; drying the mass; subjecting the mass to high pressure; and drying and burning the mass.

4. The process of making electrical heating devices which comprises applying to a suitable base a mass of plastic cementitious material; drying the same; softening the topmost parts thereof for the reception and retention of an electric conductor; applying a covering mass of plastic cementitious material; drying the whole mass; compacting the entire mass by the application of pressure; and finally vitrifying the same by the application of heat.

5. The process of producing electrical heaters which consist in applying a mass of cementitious material to a suitable base; partially drying the mass; inserting a heat-producing element into the mass; drying the second mass; applying a covering of cementitious material thereto; partially drying the covering; subjecting the mass thus formed to high pressure; heating the mass to drive out the moisture; and finally baking or firing the mass to vitrify the same.

1,136,077. BALL-BEARING. HENRIK WIKING and CARL GUSTAF SÖDERLUND, Gottenborg, Sweden. Filed Dec. 31, 1913. Serial No. 809,750. (Cl. 64—59.)



1. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, means in the box and bearing on the upper balls of the series and constructed and arranged to enable said balls to support the box, a ball cage surrounding the journal and containing the balls, means opposed to the lower balls of the series and constructed and arranged to prevent intact balls from dropping from the cage and to allow broken balls to fall therefrom, a slide having a limited movement in the lower portion of the box and also having a receptacle arranged to receive broken balls and pieces of balls, and means detachably connected with the box for normally holding the slide against outward movement.

2. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, means in the box and bearing on the upper balls of the series and constructed and arranged to enable said balls to support the box, a ball cage surrounding the journal and containing the balls, means opposed to the lower balls of the series and constructed and arranged to prevent intact balls from dropping from the cage and to allow broken balls to fall therefrom, a slide arranged in the lower portion of the

box and having a longitudinal groove and also having a receptacle arranged to receive broken balls and pieces of balls, and a screw connection threaded in the box and connected in swiveled manner with the outer end of the slide.

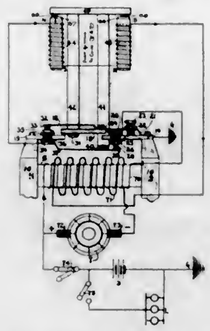
3. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, means in the box and bearing on the upper balls of the series and constructed and arranged to enable said balls to support the box, a ball cage surrounding the journal and containing the balls, a curvilinear ball-support having a narrow edge opposed to the lower balls of the series, and means in the lower portion of the box constructed and arranged to receive broken balls or ball pieces.

4. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, a ball cage surrounding the journal and containing the balls, a ring surrounding the balls and opposed thereto; the lower portion of the ring being wedge-shaped in cross-section and having a sharp edge opposed to the lower balls, and means in the lower portion of the box arranged to receive broken balls and pieces of balls.

5. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, a ball cage surrounding the journal and containing the balls, means in the box and bearing on the upper balls and constructed and arranged to enable said balls to support the box, a curvilinear, yieldingly-supported ball-support having a narrow edge opposed to the lower balls, and means in the lower portion of the box arranged to receive broken balls or ball pieces.

[Claims 6 to 10 not printed in the Gazette.]

1,136,078. ELECTRIC-CURRENT GENERATOR. JAMES M. WILSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Nov. 11, 1912. Serial No. 730,567. (Cl. 171—313.)



1. In an electric generator the combination of an armature, a source of magnetic flux, pole pieces attached thereto, said pole pieces having extensions inclined away from said source of flux and extending above said armature, electromagnetic windings on said extensions, said windings being in series relation with the armature circuit and adapted to generate a flux through the armature in opposition to the first said source of flux, substantially as described.

2. In an electric generator, the combination of an armature and a working circuit therefor, a plurality of sets of pole pieces carrying flux on opposite sides of said armature, one set of pole pieces having pole shoes attached thereto, said pole shoes carrying a yoke, a plurality of windings on said yoke, one of said windings being in series with the armature in the working circuit, the other winding being in shunt to the armature and out of the working circuit, another set of pole pieces carrying extensions, said extensions having windings in series with the working circuit, but adapted to generate a flux through the armature in an opposite direction to the first mentioned series winding, substantially as described.

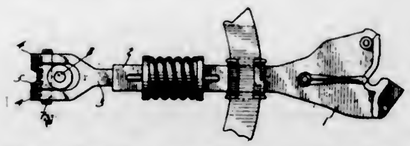
3. In an electric generator, the combination of an armature and a working circuit therefor, a source of magnetic flux, a plurality of sets of pole pieces, one pair of said pole pieces provided with pole shoes carrying a yoke, a plurality of windings on said yoke, one of said windings being in series with the working circuit through the armature, the other winding being in shunt to the armature and out of the working circuit, a keeper carrying contacts included in the working circuit, said contacts being open at a speed of rotation of the armature below a substantially predetermined point, said other mentioned pair of pole pieces having shoes and a keeper, said keeper being attracted when the armature speeds above a predetermined point, and said last mentioned keeper controlling said first keeper whereby the first mentioned regulator is held in its operated position as long as said second keeper is operated, substantially as described.

4. In an electric generator, the combination of a rotatable armature, a source of magnetic flux, a working circuit for said armature including a plurality of series windings, a winding in shunt to said armature, a yoke for said shunt winding and one of the series windings, a keeper for the working circuit controlled by the current through the shunt winding and a second keeper for the working circuit controlled by the balance of the series windings in the working circuit.

5. An electric generator comprising a field magnet for the magnetic flux, windings thereon, an armature disposed within the field magnet, a working circuit for the armature current, a plurality of keepers subject to the action of the field fluxes to govern the current in the working circuit, the field fluxes operating said keepers being each independent of the other.

[Claims 6 to 27 not printed in the Gazette.]

1,136,079. DRAFT-GEAR ATTACHMENT. HARRY F. WOERNLEY, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Dec. 28, 1912. Serial No. 739,021. (Cl. 213—42.)



In a draft gear appliance, the combination with a draw-bar, of a swivel connection mounted on a horizontal pivot pin carried by the end of the draw-bar, a supporting member secured to the car, and a vertical pin carried by said member and forming a pivot for the swivel connection at a point intermediate the horizontal pivot pin and the outer end of the draw-bar.

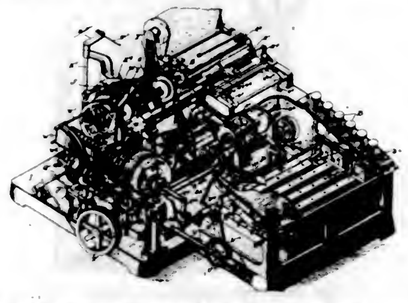
1,136,080. MACHINE FOR MAKING CONTROLLERS OR COMPOSING-RIBBONS. GEORGE R. CORNWALL, Mount Vernon, N. Y., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Aug. 30, 1901, Serial No. 73,824. Renewed Sept. 12, 1914. Serial No. 861,470. (Cl. 164—112.)

1. In a machine for making composing ribbons, a set of keys and means operated thereby for making a plurality of different character-representing perforations along a single transverse line of the ribbon.

2. In a composing-strip perforating machine, the combination of a set of keys, a perforating device, means to move said perforating device transversely across the strip, and means selectively controlled by the keys to arrest said transverse movement of the perforating device at various points in its path.

3. In a machine for making composing ribbons, a set of keys and means operated thereby to make shift perforations in the ribbon whereby said ribbon is adapted to select characters from different cases or faces of type.

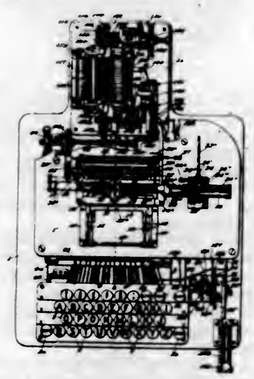
4. In a composing-strip perforating machine, a key-board, a shift key in said key-board, connections between said shift key and the perforating device whereby the perforating device is actuated by said shift-key.



5. In a composing-strip perforating machine, the combination of a perforating device and strip-feeding means, means actuated by the key levers to move the perforating device transversely across the strip, and means interposed in the path of the perforating device to arrest its movement at points which correspond to the characters to be represented on the strip.

[Claims 6 to 85 not printed in the Gazette.]

1,136,081. MACHINE FOR MAKING COMPOSING-RIBBONS FOR AUTOMATIC TYPOGRAPHIC MACHINES. CHARLES T. MOORE, Washington, D. C., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Nov. 7, 1902. Serial No. 130,459. (Cl. 164—112.)



1. A machine for producing controllers for typographic machines including in combination a series of keys, a plurality of series of stops, means traveling along said stops for making character representations in the controller and adapted to be positioned by selected stops when traveling in one direction but not when traveling in the other direction.

2. In a machine auxiliary to a typographic machine, a series of keys, intermediate mechanism, stops corresponding to the keys, a traveling punch and die carrier and means for bringing the carrier to rest at a stop determined by the depression of a key, substantially as set forth.

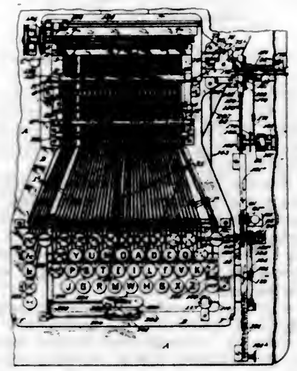
3. A machine for producing controllers for typographic machines including in combination a series of finger keys, a plurality of rows of stops, a controller perforating device traveling along said stops and being positioned by a selected stop from either row of stops when traveling in one direction.

4. A machine for producing controllers for typographic machines including in combination a series of finger keys, a plurality or rows of stops actuated by said keys, a controller marker traveling along said stops and adapted to be positioned by a selected stop when traveling in one direction and means for retaining a stop in operative position after its key has been released.

5. In a machine auxiliary to a typographic machine, a series of finger keys, a series of coöperating stops, and intermediate mechanism to operate the stops upon the depression of the keys, a traveling punch and die carrier controlled by said stops, and means for restoring the stops to normal position and to release the carrier from their control, substantially as set forth.

[Claims 6 to 67 not printed in the Gazette.]

1,136,082. MACHINE FOR MAKING A COMPOSING-RIBBON OR CONTROLLER FOR AUTOMATIC TYPOGRAPHIC MACHINES. FRANK E. DRISCOLE, Jersey City, N. J., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Mar. 13, 1903. Serial No. 147,585. (Cl. 164—112.)



1. A key action comprising a hammer pivotally supported at one end with its center of gravity outside the vertical line passing through its point of support, means to keep the hammer normally in substantially vertical position and key operated means to drop said hammer.

2. A key-action comprising a hammer pivotally supported at its lower end with its center of graviey outside the vertical line passing through its point of support and means normally holding said hammer in substantially vertical position, said means arranged to be operated by the keys to release the same and allow the hammer to drop.

3. A key-action comprising a hammer pivotally supported at one end with its center of gravity outside the vertical line passing through its point of support, a pawl engaging said hammer to prevent the same from falling, and a key to disengage the pawl.

4. A key-action comprising a hammer pivoted near its lower end, a notch in the hammer near its pivot, a pawl normally engaging said notch and retaining the hammer in raised position with its center of gravity outside the vertical line through its pivotal support, and a key to disengage said pawl and allow the same to drop under the influence of gravity, and a spring engaging said hammer tending to accelerate its drop.

5. A key-action comprising a hammer pivoted near its lower end, a notch near the lower end of the hammer, a spring-pressed pawl engaging said notch and retaining the hammer in said position with its center of gravity outside the vertical line through its pivotal support, a key, spring engagement between said key and pawl whereby the latter is disengaged from the hammer and allows the same to drop under the influence of gravity.

[Claims 6 to 124 not printed in the Gazette.]

box and having a longitudinal groove and also having a receptacle arranged to receive broken balls and pieces of balls, and a screw connection threaded in the box and connected in swiveled manner with the outer end of the slide.

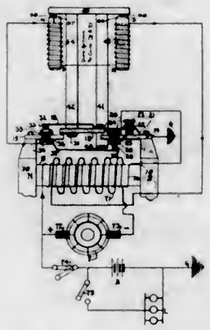
3. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, means in the box and bearing on the upper balls of the series and constructed and arranged to enable said balls to support the box, a ball cage surrounding the journal and containing the balls, a curvilinear ball-support having a narrow edge opposed to the lower balls of the series, and means in the lower portion of the box constructed and arranged to receive broken balls or ball pieces.

4. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, a ball cage surrounding the journal and containing the balls, a ring surrounding the balls and opposed thereto; the lower portion of the ring being wedge-shaped in cross-section and having a sharp edge opposed to the lower balls, and means in the lower portion of the box arranged to receive broken balls and pieces of balls.

5. In a ball bearing, the combination of a box, a journal arranged therein, a circular series of balls, a ball cage surrounding the journal and containing the balls, means in the box and bearing on the upper balls and constructed and arranged to enable said balls to support the box, a curvilinear, yieldingly-supported ball-support having a narrow edge opposed to the lower balls, and means in the lower portion of the box arranged to receive broken balls or ball pieces.

[Claims 6 to 10 not printed in the Gazette.]

1,136,078. ELECTRIC-CURRENT GENERATOR. JAMES M. WILSON, Newark, N. J., assignor to Splitdorf Electrical Company, Newark, N. J. Filed Nov. 11, 1912. Serial No. 730,567. (Cl. 171—313.)



1. In an electric generator the combination of an armature, a source of magnetic flux, pole pieces attached thereto, said pole pieces having extensions inclined away from said source of flux and extending above said armature, electromagnetic windings on said extensions, said windings being in series relation with the armature circuit and adapted to generate a flux through the armature in opposition to the first said source of flux, substantially as described.

2. In an electric generator, the combination of an armature and a working circuit therefor, a plurality of sets of pole pieces carrying flux on opposite sides of said armature, one set of pole pieces having pole shoes attached thereto, said pole shoes carrying a yoke, a plurality of windings on said yoke, one of said windings being in series with the armature in the working circuit, the other winding being in shunt to the armature and out of the working circuit, another set of pole pieces carrying extensions, said extensions having windings in series with the working circuit, but adapted to generate a flux through the armature in an opposite direction to the first mentioned series winding, substantially as described.

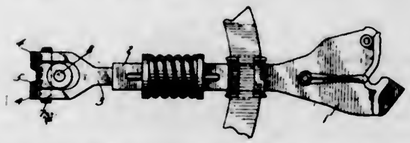
3. In an electric generator, the combination of an armature and a working circuit therefor, a source of magnetic flux, a plurality of sets of pole pieces, one pair of said pole pieces provided with pole shoes carrying a yoke, a plurality of windings on said yoke, one of said windings being in series with the working circuit through the armature, the other winding being in shunt to the armature and out of the working circuit, a keeper carrying contacts included in the working circuit, said contacts being open at a speed of rotation of the armature below a substantially predetermined point, said other mentioned pair of pole pieces having shoes and a keeper, said keeper being attracted when the armature speeds above a predetermined point, and said last mentioned keeper controlling said first keeper whereby the first mentioned regulator is held in its operated position as long as said second keeper is operated, substantially as described.

4. In an electric generator, the combination of a rotatable armature, a source of magnetic flux, a working circuit for said armature including a plurality of series windings, a winding in shunt to said armature, a yoke for said shunt winding and one of the series windings, a keeper for the working circuit controlled by the current through the shunt winding and a second keeper for the working circuit controlled by the balance of the series windings in the working circuit.

5. An electric generator comprising a field magnet for the magnetic flux, windings thereon, an armature disposed within the field magnet, a working circuit for the armature current, a plurality of keepers subject to the action of the field fluxes to govern the current in the working circuit, the field fluxes operating said keepers being each independent of the other.

[Claims 6 to 27 not printed in the Gazette.]

1,136,079. DRAFT-GEAR ATTACHMENT. HARRY F. WOERNLEY, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed Dec. 28, 1912. Serial No. 739,021. (Cl. 213—42.)



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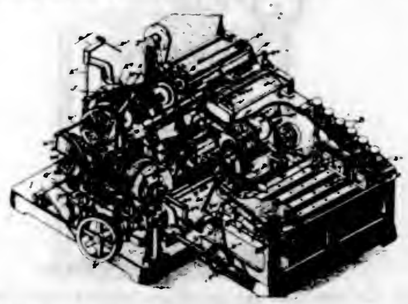
1,136,080. MACHINE FOR MAKING CONTROLLERS OR COMPOSING-RIBBONS. GEORGE R. CORNWALL, Mount Vernon, N. Y., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Aug. 30, 1901, Serial No. 73,824. Renewed Sept. 12, 1914. Serial No. 861,470. (Cl. 164—112.)

1. In a machine for making composing ribbons, a set of keys and means operated thereby for making a plurality of different character-representing perforations along a single transverse line of the ribbon.

2. In a composing-strip perforating machine, the combination of a set of keys, a perforating device, means to move said perforating device transversely across the strip, and means selectively controlled by the keys to arrest said transverse movement of the perforating device at various points in its path.

3. In a machine for making composing ribbons, a set of keys and means operated thereby to make shift perforations in the ribbon whereby said ribbon is adapted to select characters from different cases or faces of type.

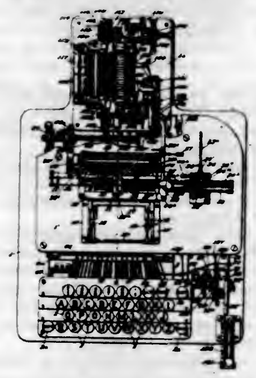
4. In a composing-strip perforating machine, a key-board, a shift key in said key-board, connections between said shift key and the perforating device whereby the perforating device is actuated by said shift-key.



5. In a composing-strip perforating machine, the combination of a perforating device and strip-feeding means, means actuated by the key levers to move the perforating device transversely across the strip, and means interposed in the path of the perforating device to arrest its movement at points which correspond to the characters to be represented on the strip.

[Claims 6 to 85 not printed in the Gazette.]

1,136,081. MACHINE FOR MAKING COMPOSING-RIBBONS FOR AUTOMATIC TYPOGRAPHIC MACHINES. CHARLES T. MOORE, Washington, D. C., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Nov. 7, 1902. Serial No. 130,459. (Cl. 164—112.)



1. A machine for producing controllers for typographic machines including in combination a series of keys, a plurality of series of stops, means traveling along said stops for making character representations in the controller and adapted to be positioned by selected stops when traveling in one direction but not when traveling in the other direction.

2. In a machine auxiliary to a typographic machine, a series of keys, intermediate mechanism, stops corresponding to the keys, a traveling punch and die carrier and means for bringing the carrier to rest at a stop determined by the depression of a key, substantially as set forth.

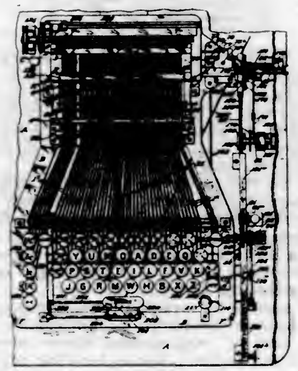
3. A machine for producing controllers for typographic machines including in combination a series of finger keys, a plurality of rows of stops, a controller perforating device traveling along said stops and being positioned by a selected stop from either row of stops when traveling in one direction.

4. A machine for producing controllers for typographic machines including in combination a series of finger keys, a plurality or rows of stops actuated by said keys, a controller marker traveling along said stops and adapted to be positioned by a selected stop when traveling in one direction and means for retaining a stop in operative position after its key has been released.

5. In a machine auxiliary to a typographic machine, a series of finger keys, a series of coöperating stops, and intermediate mechanism to operate the stops upon the depression of the keys, a traveling punch and die carrier controlled by said stops, and means for restoring the stops to normal position and to release the carrier from their control, substantially as set forth.

[Claims 6 to 67 not printed in the Gazette.]

1,136,082. MACHINE FOR MAKING A COMPOSING-RIBBON OR CONTROLLER FOR AUTOMATIC TYPOGRAPHIC MACHINES. FRANK E. DRISCOLE, Jersey City, N. J., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Mar. 13, 1903. Serial No. 147,585. (Cl. 164—112.)



1. A key action comprising a hammer pivotally supported at one end with its center of gravity outside the vertical line passing through its point of support, means to keep the hammer normally in substantially vertical position and key operated means to drop said hammer.

2. A key-action comprising a hammer pivotally supported at its lower end with its center of gravley outside the vertical line passing through its point of support and means normally holding said hammer in substantially vertical position, said means arranged to be operated by the keys to release the same and allow the hammer to drop.

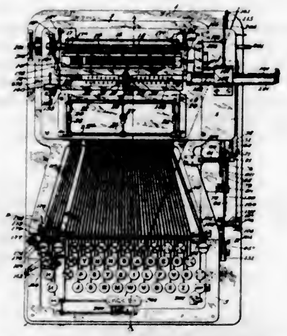
3. A key-action comprising a hammer pivotally supported at one end with its center of gravity outside the vertical line passing through its point of support, a pawl engaging said hammer to prevent the same from falling, and a key to disengage the pawl.

4. A key-action comprising a hammer pivoted near its lower end, a notch in the hammer near its pivot, a pawl normally engaging said notch and retaining the hammer in raised position with its center of gravity outside the vertical line through its pivotal support, and a key to disengage said pawl and allow the same to drop under the influence of gravity, and a spring engaging said hammer tending to accelerate its drop.

5. A key-action comprising a hammer pivoted near its lower end, a notch near the lower end of the hammer, a spring-pressed pawl engaging said notch and retaining the hammer in said position with its center of gravity outside the vertical line through its pivotal support, a key, spring engagement between said key and pawl whereby the latter is disengaged from the hammer and allows the same to drop under the influence of gravity.

[Claims 6 to 124 not printed in the Gazette.]

1,136,083. MACHINE FOR MAKING COMPOSING-STRIPS FOR AUTOMATIC TYPOGRAPHIC APPARATUS. AUGUSTE L. SALTZMAN, New York, N. Y., assignor, by mesne assignments, to James G. Coffin, trustee. Filed Mar. 13, 1903. Serial No. 147,616. (Cl. 164—112.)



1. In a machine for making a composing strip for automatic typographic apparatus, the combination of a keyboard, a series of strip-marking devices severally corresponding to keys in the keyboard, key-actuated mechanism to select the strip-marking device corresponding to the actuated key, and automatic means to operate the selected strip-marking device only.

2. In a machine for making a composing strip for automatic typographic apparatus, the combination of a keyboard, a series of perforating devices corresponding to keys in the keyboard, key-controlled mechanism to select the perforating device corresponding to the actuated key, and means actuated by the key next depressed to operate the selected perforating device.

3. In a machine for making a composing strip for automatic typographic apparatus, the combination of a keyboard, a series of strip-marking devices corresponding to keys in the keyboard, means traveling adjacent said strip-marking devices for actuating the same, key-operated means to arrest said actuating means at a point corresponding to the operated key, and mechanism to cause said traveling means to actuate the strip-marking devices.

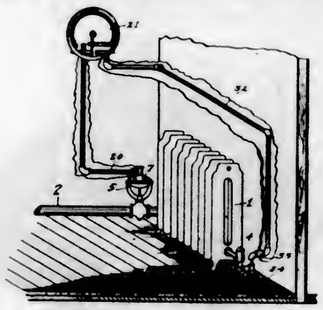
4. In a machine for making a composing strip for automatic typographic apparatus, the combination of a keyboard, a series of strip-marking devices corresponding to keys in the keyboard, a traveling interponent moving adjacent the strip-marking devices, key-operated means for selecting the marking devices and arresting said traveling interponent, and means controlled by the key action to cause said interponent to actuate the marking devices.

5. In a machine for making a composing strip for automatic typographic apparatus, the combination of a keyboard, a series of strip-marking devices corresponding to keys in the keyboard, a traveling interponent moving adjacent the strip-marking devices, key-operated means for selecting the marking devices and arresting said traveling interponent, and means controlled by the key-action to actuate the selected marking device and to release said interponent from its arrest.

[Claims 6 to 66 not printed in the Gazette.]

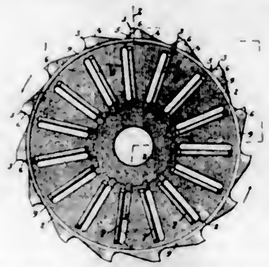
1,136,084. HEAT-REGULATOR. LAWRENCE A. ABBOTT, Chicago, Ill. Filed Mar. 31, 1908. Serial No. 424,352. (Cl. 236—8.)

In a heat regulator for vacuum systems, the combination with a radiator, of a supply pipe on one side thereof, a single vacuum return pipe on the opposite side in constant communication with said radiator and through which the air and water of condensation pass, a valve in said supply pipe, a fluid pressure motor for controlling said valve operated through the vacuum, and thermostatically operated means for controlling the communication of the vacuum pipe with said motor, said means operating, as it opens said motor to the action of the vacuum pipe, to



seal said pipe from the atmosphere without interrupting the communication of said vacuum pipe with the radiator.

1,136,085. CUTTER. JOHN C. BACKERT, New York, N. Y. Filed Dec. 24, 1914. Serial No. 878,877. (Cl. 29—103.)



1. A disk cutter having its peripheral surface provided with a transverse cutting edge and with an adjacent inwardly curving shaving pocket of substantially the same width as said cutting edge.

2. A disk cutter having its peripheral surface provided with alternating transverse cutting edges and inwardly curved shaving receiving pockets of substantially the same width as said cutting edges.

3. A disk cutter having its peripheral surface provided with transverse cutting edges, said surface rearwardly of each cutting edge extending inwardly therefrom and thence curved outwardly to the next adjacent cutting edge to form a curved shaving pocket inwardly and forwardly of each cutting edge and of substantially the same width as its cutting edge.

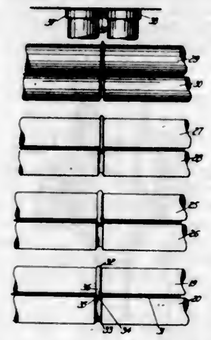
4. A disk cutter having its peripheral surface provided with a transverse cutting edge and with a shaving pocket extending inwardly and forwardly therefrom, the inner or work face of said disk having a packing surface thereon inwardly of said pocket and having a trimming edge inwardly of said packing surface.

5. A disk cutter having its peripheral surface provided with a plurality of transverse cutting edges with shaving pockets extending inwardly and forwardly therefrom, the inner or work face of said disk having an annular packing surface inwardly of said pockets and having also trimming edges inwardly of said annular packing surface.

[Claims 6 to 20 not printed in the Gazette.]

1,136,086. MACHINE FOR CRIMPING PAPER AND THE LIKE. HARRY C. BASTER, Benton Harbor, Mich. Filed June 26, 1913. Serial No. 775,895. (Cl. 92—70.)

1. In a machine for crimping paper and the like, roller means for forming a progressively deepening fold in said paper, means for creasing said fold, means for progressively unflexing said fold, and means for advancing said paper continuously for said operations.



2. In a machine for crimping paper and the like, rollers arranged in a series of coacting pairs for forming a progressively deepening fold in said paper, a co-acting pair of wheels for creasing said fold, and means for progressively unflexing said crease and reducing the same to a flattened form.

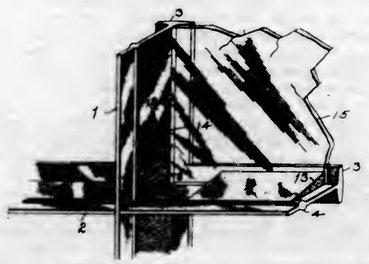
3. In a machine for crimping paper and the like, a series of pairs of engaging rollers for forming a progressively deepening fold in said paper, means for advancing said paper, and means for preserving said fold as said paper is advanced from one pair of rollers to the succeeding pair.

4. In a machine for crimping paper and the like, a series of pairs of engaging rollers for forming a progressively deepening fold in said paper, means for advancing said paper, means for preserving said fold as said paper is advanced from one pair of rollers to the succeeding pair, and means for creasing said fold.

5. In a machine for crimping paper and the like, a series of pairs of engaging rollers for forming a progressively deepening fold in said paper, means for advancing said paper, means for preserving said fold as said paper is advanced from one pair of rollers to the succeeding pair, and adjustable means for creasing said fold.

[Claims 6 and 7 not printed in the Gazette.]

1,136,087. INTERLOCKING JOINT FOR SASH-BARS. WILLIAM BAYLEY, Springfield, Ohio. Filed Oct. 23, 1913. Serial No. 796,813. (Cl. 189—36.)



1. In an interlocking joint for bars, two bars arranged angularly one with the other, a deltoidal aperture in one of the bars, the second bar having oppositely disposed marginal recesses and inserted through the aperture of the first bar and engaged therewith by a partial rotation, and a separate wedge shaped insert filling the remaining portion of the aperture after the insertion of the second bar.

2. In an interlocking joint for bars, two bars arranged angularly one with the other, a deltoidal aperture in one of the bars, the second bar having oppositely disposed marginal recesses and inserted through the aperture of the first bar and engaged therewith by a partial rotation, and a separate truncated insert forced into the aperture remaining after the insertion of the second bar.

3. In an interlocking joint for bars, two bars arranged angularly one with the other, one of the bars having a longitudinally disposed aperture formed therein by the removal of a section of material, the second bar having oppositely disposed marginal notches therein thrust through the aperture of the first bar and engaged therewith by a partial rotation, and a separate insert of greater extent than the aperture remaining after the insertion of the second bar forced into the remaining aperture to secure the second bar against removal.

4. In an interlocking joint for bars, two bars arranged angularly one with the other, one of the bars being provided with a deltoidal aperture having an enlargement of the opening at its apex, the second bar having oppositely disposed marginal notches being thrust through the aperture of the first bar and engaged therewith by a partial rotation, and a separate deltoidal insert of greater proportions than the aperture remaining after the insertion of the second bar forced into the said remaining aperture for the apex of which the enlargement of the aperture affords clearance.

5. In an interlocking joint for bars, two bars arranged angularly one with the other, one of the bars having an aperture therein, the second bar having oppositely disposed marginal notches, said second bar being thrust through the aperture of the first bar and engaged by a partial rotation, a separate insert filling the aperture remaining after the insertion of the second bar, and a shouldered retaining member overhanging simultaneously the margins of the insert and aperture.

[Claims 6 to 9 not printed in the Gazette.]

1,136,088. FENCE-STAY. AUTHA C. BENSON, Rosenburg, Tex. Filed May 25, 1914. Serial No. 840,825. (Cl. 256—35.)

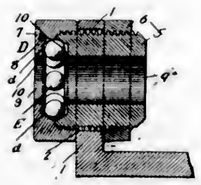


The combination with a plurality of fence wire arranged in spaced relation, of a coil having its convolutions arranged in alinement and adapted to be engaged with the wires of the fence, a stay member adapted to be inserted down through the coil between certain of the convolutions thereof and the fence wires to engage the fence wires with the convolutions and retain said wires against lateral movement, the upper extremity of the stay being reversely directed to a hook portion, the upper end of said coil being extended over the hook portion and thence downwardly through the hook portion and through one of the convolutions whereby to entirely encircle the hook portion at the upper end of the stay and retain the same against any longitudinal movement with respect to the coils.

1,136,089. FRICTION-REDUCING BEARING. MORRIS U. BERNHEIM, Louisville, Ky., assignor, by mesne assignments, to The Alvey-Ferguson Company, Oakley, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 31, 1908. Serial No. 460,386. (Cl. 64—36.)

1. A bearing for a roller, comprising a member adapted to extend through an aperture in a support and having an axial bore to receive a shaft of said roller, said member

also having one of its ends formed with a recess which extends around the axial bore and has communication with the latter, the circumferential wall of said recess extending longitudinally outward beyond the wall of the recess which is adjacent to the bore, the latter wall forming a lip surrounding the bore; and a pair of clamping elements relatively adjustable on said member and disposed in a spaced relation to receive the support between them, one of said clamping elements projecting outward beyond the end of the bored-member and having an end flange spaced from the latter, said flange having its inner surface formed with a recess, said recess having a lip around the bore and an outer circumferential wall projecting inwardly beyond the vertical plane of the lip, the recesses of the bored-member and clamping element forming around said bore a race having a reduced mouth open to the bore, and anti-friction devices mounted in said race and having surfaces that are exposed between said lips, said devices being of greater diameter than the distance between the lips whereby the anti-friction devices are retained in position when the bearing is disconnected from the roller shaft.

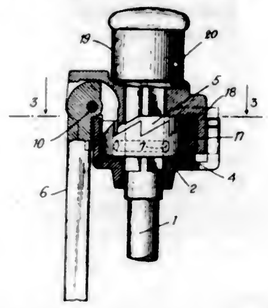


2. A bearing for a roller, comprising a hollow externally threaded member adapted to extend through an aperture in a support and having one end formed with a recess having a lip adjacent to its bore, and a pair of nuts threaded on said member and mounted in a spaced relation so as to receive the support between them and to clamp the bearing upon the support, one of said nuts having a flange formed with an opening which is alined with the bore of said member, the flange having a recess and a lip which together with the recess and lip in the end of said member form a race which extends around the bore and has a restricted opening to the latter, and anti-friction devices in said race, said lips being arranged to retain the anti-friction devices in place when the bearing is disconnected from the part which it sustains.

3. A bearing for a roller, comprising a member adapted to extend through an aperture in a support and having an axial bore to receive a shaft of said roller, said member also having at one end an externally-threaded shoulder, a nut threaded upon said shoulder and having a flange at its outer end, and a second nut threaded upon said hollow member and arranged in a spaced relation from the shoulder of the latter; the end of said hollow member and the flange of the first-mentioned nut having their confronting surfaces around the axial opening of the bore formed with complementary recesses whose walls adjacent to said bore form lips which are spaced apart, whereby a race having communication with said bore through a mouth of lesser diameter than the main portion of the race is formed around said bore, and anti-friction devices in said race, said anti-friction devices having greater diameter than the mouth of the race and having their surfaces arranged to be exposed through the space between said lips.

4. A bearing for a roller, comprising a member adapted to extend through an aperture in a support and having an axial bore to receive a shaft of said roller, relatively adjustable clamping elements arranged in a spaced relation upon the circumferential surface of said member so as to receive the support between them and to clamp the bearing to said support, one of said clamping elements having an end flange, said flange and the confronting end of said member being formed with complementary recesses forming a race arranged to extend around said axial bore of the bearing and open thereto, and anti-friction devices in said race.

1,136,090. RATCHET-BRAKE MECHANISM. ROBERT H. BLACKALL, Pittsburgh, Pa., assignor to Ratchet Brake Company, New York, N. Y., a Corporation of Delaware. Original application filed Apr. 22, 1913, Serial No. 762,943. Divided and this application filed Nov. 10, 1914. Serial No. 871,236. (Cl. 188—57.)



1. Hand-actuated brake mechanism comprising in combination a brake staff, a face ratchet secured to said brake staff, a second face ratchet positioned to rotate about said staff and gravity actuated to make positive engagement with said first-named ratchet when the brake staff is to be rotated to set the brakes, but sliding thereover on reverse rotation, a handle operatively connected for turning said ratchets to rotate said brake staff forwardly, said handle being capable of folding down close to and substantially parallel with said brake staff while said ratchets remain in operative engagement, means for separating the ratchets when the brakes are to be released forming an upward extension of said second face ratchet and in position to be grasped by the operator for lifting the second ratchet out of engagement while the operating handle is extended, so that graduated release of the brake staff may be effected.

2. Hand-actuated brake mechanism comprising in combination a brake staff, a ratchet clutch member secured to said brake staff, a second clutch member positioned to rotate about said staff and gravity actuated to make positive engagement with said first-named clutch member when the brake staff is to be rotated to set the brakes, but sliding thereover on reverse rotation, a handle operatively connected for turning said clutch members to rotate said brake staff forwardly, said handle being capable of folding down substantially parallel with said brake staff and close thereto, while said clutch members remain in engagement and means at the upper end of said staff and forming an upward extension of said second clutch member, said means being in position to be grasped by the operator for lifting the second clutch member out of engagement while the operating handle is extended so that graduated release of the brake staff may be effected.

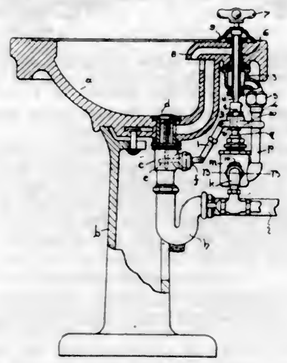
3. Hand-actuated brake mechanism comprising in combination a brake staff, a face ratchet secured to said brake staff, a second face ratchet positioned to rotate about said staff and gravity actuated to make positive engagement with said first-named ratchet when the brake staff is to be rotated to set the brakes, but sliding thereover on reverse rotation, a handle operatively connected for turning said ratchets to rotate said brake staff forwardly, said handle being capable of folding down substantially parallel with said brake staff, and a removable cap inclosing the end of the brake staff and secured to an extension of the second ratchet, said cap being in position to be grasped by the operator for lifting the second ratchet out of engagement while the operating handle is extended so that graduated release of the brake staff may be effected.

4. Hand-actuated brake mechanism comprising in combination a brake staff, a face ratchet secured to said brake staff, a second face ratchet positioned to rotate about said staff and gravity actuated to make positive engagement with said first-named ratchet when the brake staff is to be rotated to set the brakes, but sliding thereover on reverse rotation, a handle operatively connected for turning said ratchets to rotate said brake staff forwardly, said handle being capable of folding down substantially parallel with said brake staff and without separating said ratchets, means for automatically separating the face ratchets on substantially complete backward movement of the operating handle, and a removable cap inclosing the end of the brake staff and pinned to an extension of the second ratchet, said cap being in position to be grasped by the operator for lifting the second ratchet out of engagement while the operating handle is extended so that graduated release of the brake staff may be effected.

5. Hand-actuated brake mechanism comprising in combination a brake staff, a stationary bearing member for the staff adapted for attachment to part of a car, a face ratchet secured to said brake staff, a second face ratchet positioned to rotate on said staff and gravity actuated to make positive engagement with said first-named ratchet when the brake staff is to be rotated to set the brakes, but sliding thereover on reverse rotation, a handle operatively connected for turning said ratchets to rotate said brake staff forwardly, said handle being capable of folding down substantially parallel with said brake staff and without separating said ratchets, means for automatically separating the face ratchets on substantially complete backward movement of the operating handle, and a removable cap inclosing the end of the brake staff and pinned to an extension of the second ratchet and turning therewith, said cap being in position to be grasped by the operator for lifting the second ratchet out of engagement while the operating handle is extended so that graduated release of the brake staff may be effected.

[Claims 6 to 9 not printed in the Gazette.]

1,136,091. LAVATORY-FIXTURE. EDGAR J. BLOOM, Tiffin, Ohio. Filed Oct. 12, 1914. Serial No. 866,230. (Cl. 4—24.)



1. The combination with a lavatory and a waste pipe, of a pop valve controlling said waste pipe, a hot and cold water mixer having a rotatable spindle by which it is operated, a control rod journaled so as to be capable of rotating and sliding movement, and a device attached to said control rod whereby turning of the control rod rotates the mixer spindle and sliding the rod reciprocates the pop valve.

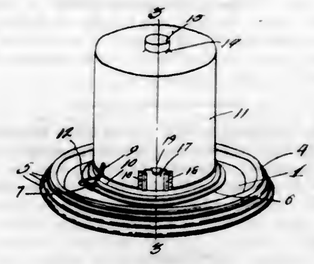
2. The combination with a lavatory and a waste pipe, of a pop valve for controlling the same, a hot and cold water mixer for the water supply to the lavatory bowl, the said mixer being provided with a spindle whose turning controls the mixture, a control rod journaled to rotate or slide, a yoke or slide adjacent the end of the control rod, means on the end of the control rod for picking up the slide or yoke to reciprocate the same when the control rod is reciprocated and for picking up the spindle to rotate the spindle when the control rod is rotated and connections between the pop valve and the slide or yoke for raising or lowering the pop valve when the slide is reciprocated.

3. The combination with a lavatory and a waste pipe, of a pop valve for controlling the waste, a hot and cold water mixer for supplying the lavatory bowl, a control rod journaled to rotate and slide, a lever fulcrumed to raise and lower the pop valve, a slide or yoke adjacent the end of the contral rod, a link connecting said lever with the yoke, and means on the end of the control rod for picking up the slide or yoke to reciprocate the same when the control rod is reciprocated and for picking up the spindle on the mixer to rotate the spindle when the control rod is rotated.

4. The combination with a lavatory and a waste pipe, of a pop valve, a mixer provided with a spindle whose rotation operates the mixer, means for conveying the mixed water from the mixer to the lavatory bowl, a control rod journaled to rotate and slide, a yoke or slide adjacent the end of the control rod, a cross pin in the end of the mixer spindle, a slotted tubular terminal attached to the end of the control rod and having a collar on its end for engaging with the slide or yoke and a ring held on the opposite side of the yoke, the said cross pin engaging in the slot of the terminal whereby rotation of the rod picks up the pin and rotates the spindle leaving the yoke inactive, while the sliding of the rod picks up the yoke, leaving the spindle inactive.

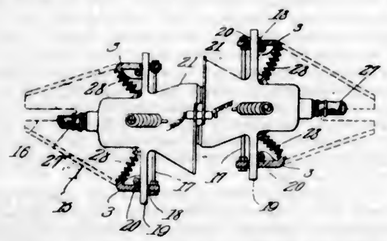
5. The combination of a lavatory and a waste pipe, of a pop valve for controlling the waste, a hot and cold water mixer having a spindle the rotation of which controls the mixing, a lead-away pipe for conveying the mixed water away from the mixer, said lead-away pipe running parallel with the spindle of the mixer, a control rod, a slide or yoke guided upon the lead-away pipe and connected with the pop valve so that the reciprocation of the slide operates the pop valve, and means on the end of the control rod for picking up and rotating the spindle when the rod is rotated and for picking up and reciprocating the slide when the rod is reciprocated.

1,136,092. DRINKING-FOUNTAIN OR WATERER FOR FOWLS. ELIZABETH BLUMER, Albany, Wis. Filed Aug. 20, 1914. Serial No. 857,618. (Cl. 119—77.)



A drinking fountain for fowls and the like comprising a pan fountain, a reservoir provided with means for gradually regulating the flow of water from the reservoir to the pan fountain, said pan fountain having an annular flange T-shaped in cross section and rising therefrom, and above which the reservoir is supported, a plurality of clamps having arms corresponding in shape to the T-shaped flange and engaging therewith, said reservoir having a peripheral flange at its bottom, said clamps having arms overlying the peripheral flange of the reservoir for detachably clamping the reservoir in place, said clamps having additional arms, whereby one or the other of the clamps may be moved or adjusted upon the T-shaped flange to permit the reservoir to be detached, said pan fountain having means to permit the fowls to reach the water.

1,136,093. TRAIN-PIPE COUPLING. GUY L. BONHAM, Dorranceton, Pa. Filed Feb. 10, 1911. Serial No. 607,865. (Cl. 188—13.)



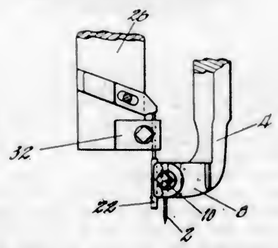
In a device of the class described, a plate provided intermediate its ends with an integrally formed, flaring hood extended to the rear of the plate and in front thereof, there being a female coupling member formed at the base of the hood and the hood being provided at one side with a passage which communicates with the rear portion of the bore of the hood; a male coupling member mounted in the passage and projecting beyond the mouth of the hood; and a bracket in which the end portions of the plate are movable supported.

1,136,094. ERASER-HOLDER FOR PENCILS. ANNIE F. W. BOWEN, San Francisco, Cal. Filed Dec. 28, 1905, Serial No. 293,688. Renewed Nov. 3, 1914. Serial No. 870,168. (Cl. 120—38.)



An eraser holding device comprising a sheet-metal sleeve adapted to be secured at one end upon an end of a pencil, and having the remaining portion internally screw-threaded, a rubber eraser of less diameter than the sleeve, and an externally screw-threaded holder secured about one end of said rubber eraser, said holder being adapted to be screwed into the metal sleeve, the number of threads on said holder being less than the number of threads within the sleeve, whereby the holder may be withdrawn entirely within the sleeve and the rubber eraser permitted to project beyond the end of the sleeve.

1,136,095. MACHINE FOR INSERTING FASTENINGS. THOMAS BRIGGS, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 13, 1910. Serial No. 571,752. (Cl. 1—19.)



1. In a machine for inserting fastenings, a reciprocating tool carrying bar and means carried by the bar for attaching the tool to said bar, said means being constructed to provide bodily adjustment of the tool about an axis lying parallel to the path of reciprocation.

2. In a machine for inserting fastenings, a reciprocating tool carrying bar and means for attaching the tool to said bar, comprising a cylindrical member laterally confined in said bar with provision for adjustment about an axis lying parallel to the path of reciprocation of said bar, said tool being confined in said cylindrical member at one side of the axis of rotation.

3. In a machine for inserting fastenings, a reciprocating tool carrying bar, a cylindrical plug in which the tool is eccentrically mounted and means for clamping said plug in said bar in different angular adjustments about the axis of said plug.

4. In a machine for inserting fastenings, a reciprocating tool carrying bar and means for attaching the tool to said bar comprising a clamp provided with a cylindrical recess, a cylindrical plug in said recess in which the tool is eccentrically mounted, said plug being rotatable in said recess to adjust said tool across the path of reciprocation of said bar and means for clamping said plug in its different positions of adjustment.

5. A machine for inserting fastenings comprising a reciprocating tool carrying bar and means for attaching the tool to said bar comprising a clamp provided with a cylindrical recess, a cylindrical plug in said recess in which the tool is eccentrically mounted, said plug being rotatable in said recess to adjust the tool bodily across its path of reciprocation and being contractible, and a single means arranged to contract said clamp to confine the plug in adjusted position and to contract said plug to grip said tool.

1,136,096. CLOTHES-LINE STRETCHER. MORTIMER CAHILL, Oklahoma, Okla., assignor of one-half to Harry A. Morey, Oklahoma, Okla. Filed Oct. 31, 1914. Serial No. 869,615. (Cl. 68—12.)



1. A stretching mechanism including a shank having a fork at one end, a shaft journaled through the arms of the arranged so that the end portions of a wire may be wound back and forth over the lugs of the respective series, and a reel carried within the fork.

2. A stretching mechanism including a shank having a fork at one end, a shaft journaled through the arms of the said fork, a flexible loop member having its terminals connected to the central portion of said shaft to be wound thereon, the loop member being insertible over a supporting member, and means for preventing the retrograde movement of the said shaft.

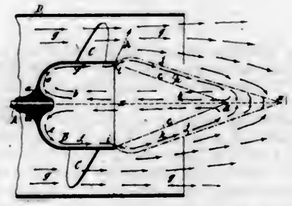
1,136,097. HOSIERY. EDGAR B. CAHN, Far Rockaway, N. Y. Filed June 24, 1914. Serial No. 846,965. (Cl. 2—23.)



1. A stocking or hose having a reinforced upper front toe portion, a porous or open section extending transversely along the top and united at its forward edge to said reinforced upper front portion and at its ends to the sole portion, and having a reinforced portion behind said section that is united at its forward edge to the rear edge of said section and united at its rear edge to the forward edge of the foot portion.

2. A stocking or hose knitted integrally and having a reinforced sole and upper front toe portion, a porous or open section extending transversely along the top behind said reinforced toe portion and united thereto and to the reinforced sole portion, and a reinforced portion behind the porous or open section that is united thereto and to the reinforced sole portion.

1,136,098. FLUID-IMPELLING DEVICE OF THE SCREW-PROPELLER TYPE. CHARLES H. CAMPBELL, New York, N. Y. Filed Mar. 21, 1913. Serial No. 755,881. (Cl. 170—159.)



1. A fluid impeller having screw blades, and a hollow cup open at the discharge side disposed within such blades and located in such position relatively thereto that the discharge from the blades freely enters the hollow hub and freely leaves the same, the walls of the hub being of such formation that the fluid upon leaving the cup forms a solid cone extending rearwardly for filling the normal rearward void and steadying the impeller, and effecting orderly movement of the discharged fluid.

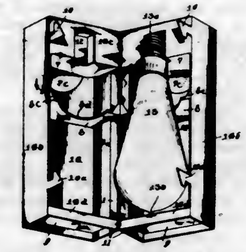
2. A fluid impeller having screw blades, and a hollow cup open at the discharge side disposed within and carrying such blades and located in such position relatively thereto that the discharge from the blades freely enters the hollow hub and freely leaves the same, the walls of the hub being of such formation that the fluid upon leaving the cup forms a solid cone extending rearwardly for filling the normal rearward void and steadying the impeller and effecting orderly movement of the discharged fluid.

3. A fluid impeller having screw blades, and a hollow cup open at the discharge side occupying the ineffectual central portion within and carrying such blades and located in such position relatively thereto that the discharge from the blades freely enters the hollow hub and freely leaves the same, the walls of the hub being of such formation that the fluid upon leaving the cup forms a solid cone extending rearwardly for filling the normal rearward void and steadying the impeller and effecting orderly movement of the discharged fluid.

4. A fluid impeller having screw blades, and a hollow cup open at the discharge side disposed within and carrying such blades and located in such position relatively thereto that the discharge from the blades freely enters the hollow hub and freely leaves the same, the walls of the hub being of hollow cylindrical formation and extending forwardly and rearwardly of the blades, the inner rearward side of the front end of the hub presenting, in radial section, a curve extending forwardly from the central region and from thence rearwardly and merging with the surface of the cylindrical portion whereby the fluid upon leaving the cup forms a solid cone extending rearwardly for filling the normal rearward void and steadying the impeller and effecting orderly movement of the discharged fluid.

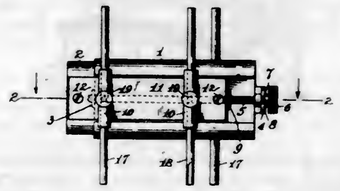
1,136,099. FOLDABLE BOX. JAMES H. CARTER, Chicago, Ill. Filed Aug. 7, 1912. Serial No. 713,706. (Cl. 229—16.)

1. A box consisting of two complementary hingedly connected rectangular compartments, each compartment comprising an outer wall, two side-walls, an inner wall, top and bottom walls and a partition between the top and bottom walls, said top and bottom walls being countersunk relative to the ends of the compartment and having portions contacting and parallel with the outer walls, and said inner wall of each compartment having a recess therein extending into the space between said top wall and the adjacent end of the compartment.



2. A box formed of a single piece of material and consisting of two complementary hingedly connected rectangular compartments, each compartment comprising an outer imperforate wall, two imperforate side walls, an inner wall and top and bottom walls, said top and bottom walls being countersunk relative to the ends of the compartment and having free ends bent to engage and lie parallel with the rear wall, and said top wall and the portion of the inner wall adjacent thereto having a recess therein whereby articles entering said recess may project into the space between the top wall and the end of the compartment.

1,136,100. DENTAL INSTRUMENT. HERMAN E. S. CHAVES, New York, N. Y. Filed Mar. 7, 1912. Serial No. 682,145. (Cl. 32—10.)



1. A dental instrument of the kind described, comprising a pair of relatively movable members, slow-motion means for causing relative movement between the members to adjust them to any one of an infinite number of relative positions, and rod-like elements of the kind described for the members supported in definite relation thereto, and parallel to each other in each of the relative positions of the members.

2. A dental instrument of the kind described, comprising a pair of relatively movable members, slow-motion means for causing relative movement between the members to adjust them to any one of an infinite number of relative positions, a rod-like element of the kind described carried by one of the members, the other member having a portion adapted to support another of such rod-like elements in a definite relation to the member, said members being so connected that in any relative position to which they may be moved the rod-like element of the first member will be parallel to a rod-like element which may be supported by the second member.

3. A dental instrument of the kind described, comprising a pair of relatively movable members, slow-motion means for causing relative movement between the members to adjust them to any one of an infinite number of relative positions, each member having a portion adapted to support a rod-like element of the kind described in a definite relation to the member, and said members being so connected that in any relative position to which they

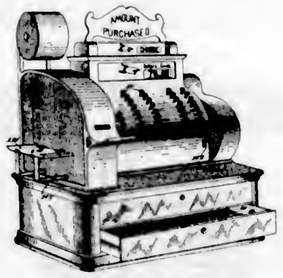
may be moved, the rod-like element which may be supported by one member will be parallel to the rod-like element which may be supported by the other member.

4. A dental instrument of the kind described, comprising a pair of relatively movable members, slow-motion means for causing relative movement between the members to adjust them to any one of an infinite number of relative positions, and rod-like elements of the kind described for the members supported in definite relation thereto and parallel to each other in each of the relative positions of the members, one of said rod-like elements being adjustable on its support without disturbing the parallelism referred to.

5. A dental instrument of the kind described, comprising a pair of elongated members longitudinally slidable relatively to each other and restrained against any other relative movement, a rod-like element carried by each sliding member in parallelism, and screw means carried by one of the sliding members and engaging the other, for effecting the aforesaid relative longitudinal movement between the members.

[Claims 6 to 10 not printed in the Gazette.]

1,136,101. CASH AND CREDIT REGISTER. EDMUND S. CHURCH, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed Oct. 11, 1906, Serial No. 338,502. Renewed Sept. 14, 1914. Serial No. 861,699. (Cl. 235—3.)



1. In a machine of the character described, the combination with accounting mechanism, of a total retaining device detachable from the machine but adapted to be inserted therein, and means for adjusting the accounting mechanism to an extent dependent on said total retaining device.

2. In a machine of the character described, the combination with accounting devices, of a total retaining device detachable from the machine but adapted to be inserted therein, means for adjusting the accounting devices to an extent dependent on said retaining device, and means for further adjusting said accounting devices.

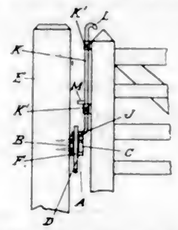
3. In a machine of the character described, the combination with accounting mechanism, of a total retaining device detachable from the machine but adapted to be inserted therein and when so inserted serving to control said accounting mechanism, means for further controlling said accounting mechanism, and means for entering completed transactions in the retaining device.

4. In a machine of the character described, the combination with accounting mechanism, of a device detachable from the machine but adapted to be inserted therein and when so inserted serving to successively control and be controlled by said accounting mechanism.

5. In a machine of the character described, the combination with accounting mechanism, of a device detachable from the machine but adapted to be inserted therein and serving to successively control and be controlled by said accounting mechanism, and means for adjusting said accounting mechanism.

[Claims 6 to 140 not printed in the Gazette.]

1,136,102. GATE-FASTENING. FREDERICK BUNTER CLAPCOTT, Mount Eden, near Auckland, New Zealand. Filed Mar. 20, 1913. Serial No. 755,724. (Cl. 70—28.)



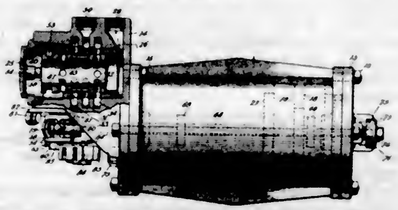
1. In a gate fastening, a plurality of droppers; and a bracket adapted for attachment to the gate side of a gate post and constituted by two parallel plates and a central connecting portion located at their lower edges and normally serving to separate said droppers, said plates having sufficient space between them to allow said droppers to swing freely in such space until their movement is checked by said central connecting portion in combination with a latch adapted for attachment to a gate to ride over and oscillate said droppers and to locate itself in position between said droppers.

2. In a gate fastening, a bracket constituted by two plates and a portion centrally connecting said plates at their lower edges; and a plurality of droppers unequally pivoted between said two plates and having their upper ends curved inward and formed with flat portions on the inner sides thereof, the lower ends of said droppers being kept farther apart than the upper ends by contacting with said central connecting portions.

3. In a gate fastening of the kind described, a pair of connected parallel plates adapted for attachment to a gate post; a plurality of droppers disposed between said plates and formed with flat surfaces at their upper ends; and a latch adapted for attachment to a gate and to ride over the droppers without vertical movement and then to engage between the flat surfaces of the upper ends of said droppers, said latch being adapted to be raised vertically from above in order to clear the droppers when opening the gate.

4. A gate fastening comprising in combination a bracket adapted for attachment to a gate post and formed by two parallel plates and a centrally disposed portion connecting the lower edges thereof; a pair of pivoted droppers arranged between said plates and limited in their movement in one direction by said central connecting portion so as normally to hand substantially vertically; a latch adapted for attachment to a gate so as without vertical movement to ride over the upper edges and engage between the upper ends of said droppers when the gate is closed; and means attached to said latch to raise same vertically to open the gate.

1,136,103. MOTOR FOR METERS. OMAR E. CLARK, Denver, Colo., assignor, by mesne assignments, to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Delaware. Filed Dec. 12, 1912. Serial No. 736,346. (Cl. 138—2.)



1. In a motor of the character set forth, the combination with a cylinder member and a piston operating there-

in, of a valve casing having a valve chamber and passageways leading from different portions of the chamber to opposite end portions of the cylinder member, conduits for conducting fluid to and from the valve casing, a reciprocatory valve operating in the chamber and having an open interior in communication with one conduit and having spaced ports that alternately communicate with the passageways, said valve furthermore having a groove that is in constant communication with the other conduit and alternately in communication with the said passageways, and means controlled by the movement of the piston for shifting the valve.

2. In a motor of the character set forth, the combination with a cylinder member and a piston operating therein, of a valve casing having a valve chamber and passageways leading from different portions of the chamber to opposite end portions of the cylinder member, conduits for conducting fluid from and to the valve chamber, a reciprocatory open-ended tubular valve operating in the chamber and having its interior in constant communication with one conduit, said valve having spaced transverse ports extending through the same and alternately communicating with the passageways and being furthermore provided between the ports with an external groove that is in constant communication with the other conduit and alternately communicates with the said passageways, and means controlled by the movement of the piston for shifting the valve.

3. In a motor of the character set forth, the combination with a cylinder member and a reciprocatory piston operating therein, of a valve casing located at one end of the cylinder member and having an internal valve chamber, said chamber having three spaced peripheral grooves therein, passageways leading from the end grooves to the cylinder member on opposite sides of the piston, a conduit communicating with one end portion of the valve chamber, another conduit communicating with the intermediate groove, a reciprocatory open-ended tubular valve operating in the valve chamber, two series of spaced transverse ports opening through the valve and alternately communicating with the end grooves of the chamber, a peripheral groove between the ports that is in constant communication with the intermediate groove of the chamber and alternately communicates with the end groove, and means controlled by the movement of the piston for shifting the valve.

4. In a motor of the character set forth, the combination with a cylinder member having heads, of a piston member operating in the cylinder member, and means controlled by the movement of the piston member for delivering fluid on opposite sides of the same, said cylinder member heads and piston member being provided one with grooves and the other with flanges that engage in the grooves to provide fluid cushions at the ends of the piston stroke.

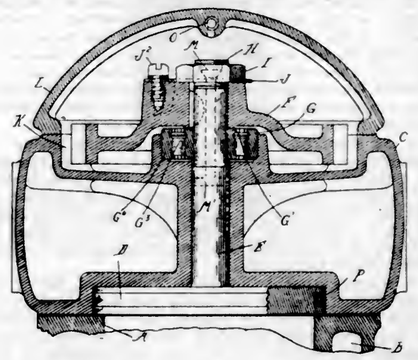
5. In a motor of the character set forth, the combination with a cylinder member having heads provided with substantially circular grooves in their inner sides, of a piston member operating in the cylinder member and having substantially circular flanges projecting from opposite faces and engaging in the grooves at the ends of the stroke to provide fluid cushions, and means controlled by the movement of the piston for delivering fluid on opposite sides of said piston.

[Claims 6 to 8 not printed in the Gazette.]

1,136,104. ENGINE VALVE MECHANISM. HOWARD E. COFFIN, Detroit, Mich., assignor, by mesne assignments, to The Detroit Motor & Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 6, 1911, Serial No. 653,197. Renewed Feb. 6, 1915. Serial No. 6,637. (Cl. 123—80.)

1. The combination with an engine cylinder and the head thereof, of a rotary disk valve seated upon said head, a stem for said valve passing through said head, driving means for said valve engaging the outer end of said stem, and means in substantial lateral alinement with said driving means for maintaining the axis of said stem in constant angular relation to the seat.

2. The combination with an engine cylinder having a ported seat, of a rotary disk valve engaging said seat, a stem for said valve passing centrally through said seat, driving means for said valve engaging said stem, and an anti-friction journal bearing for said stem adjacent to the plane of said driving means adapted to maintain the axis of rotation in constant angular relation to the seat.



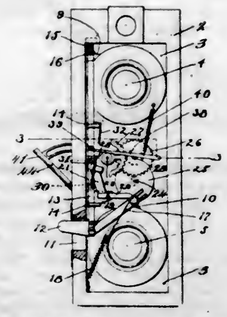
3. The combination with an engine cylinder having a ported valve seat, of a rotary disk valve engaging said seat, a stem for said valve passing centrally through said seat, driving means for said valve connected with the outer end of said stem, and an anti-friction journal bearing for said stem in substantial lateral alinement with said driving means and receiving the lateral thrust thereof.

4. The combination with an engine cylinder and a ported valve seat therefor, of a rotary valve engaging said seat, a stem for said valve passing through said seat, driving means, an anti-friction thrust bearing opposing movement of said valve away from its seat, and means of adjustment for the clearance between said valve and its seat.

5. The combination with an engine cylinder and a ported seat therefor, of a rotary disk valve engaging said seat, a stem for said valve passing through said seat, driving means for said stem, a thrust bearing for said stem opposing movement of said valve away from its seat, and means operable from the outer end of said stem for adjusting the clearance between said valve and its seat.

[Claims 6 to 11 not printed in the Gazette.]

1,136,105. SPEED-MEASURING APPARATUS. DANIEL F. COMSTOCK, Brookline, and HERBERT T. KALMUS, Boston, Mass. Filed Aug. 2, 1909. Serial No. 510,783. (Cl. 95—11.)



1. An apparatus for determining the speed of a moving object having, in combination, photographic apparatus having light receiving apertures and a sensitized surface

for taking two separate pictures of the moving object in rapid succession, and chronometric apparatus mounted with the photographic apparatus between the apertures and the sensitized surface and operating in connection with the photographic apparatus to permanently record the elapsed time between taking the pictures, substantially as described.

2. An apparatus for determining the speed of a moving object, having, in combination, two sensitized surfaces, means having light receiving apertures for successively exposing the two surfaces to take separate and successive pictures of the moving object, and chronometric apparatus between the apertures and the sensitized surface for causing a permanent record to be made of the time at which the exposures were taken, substantially as described.

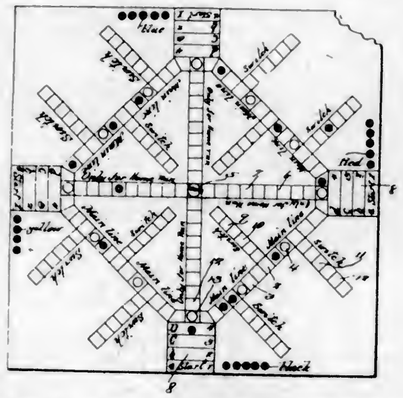
3. An apparatus of the character described, having, in combination, a camera for taking two separate pictures in succession, and a time measuring mechanism having an indicator located within the camera and in front of the film or plate whereby an exposure of the film or plate causes a representation of said indicator as it appears at the time of the exposure to be formed on said film or plate, substantially as described.

4. An apparatus of the character described, having, in combination, a camera for taking two separate pictures, watch works within the camera, and a hand controlled by the watch works moving in front of the film or plate whereby the positions of the hand corresponding to the time of the exposures will be denoted on the negatives by unexposed areas, substantially as described.

5. An apparatus of the character described, having, in combination, two separate camera mechanisms, a single actuating device controlling both of the shutters, a time interval measuring device having a dial and single recording hand, and arranged to cause the camera mechanism to record the position of the hand on its dial at the instants of time pictures are taken by each of the cameras, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,136,106. GAME. JULIA H. CORNING, Mattoon, Ill. Filed Jan. 16, 1915. Serial No. 2,632. (Cl. 46—63.)



A game apparatus comprising a game-board having on its face an angular outlined main pathway or circuit and provided centrally of the board with what may be termed a "home" or "goal," said angular pathway or circuit having four starting leads or pathways divided into spaces, said game-board being provided with four roads or pathways radiating from "home" or "goal" extending into and alined with the starting pathways, said radiating path or roadway being divided into spaces, said main pathway or circuit having laterally extending pathways or leads constituting switches and divided into spaces, some of said switches extending toward "home" or "goal" but not into the same, others laterally from the main pathway or circuit in the opposite direction, said main pathway or circuit being divided into spaces, every sixth space of which is provided with a circle.

1,136,107. TRIANGLE CAST-OFF. JOHN P. CROASDALE, Berwyn, Pa., assignor to Pioneer Suspender Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 8, 1909. Serial No. 500,932. (Cl. 241—6.)



1. A triangle cast-off adapted to conform to the contour of the leg and comprising a slotted plate having its upper corner bent outwardly, its lower corner bent inwardly and its intermediate portion of concavo-convex formation.

2. A triangle cast-off adapted to conform to the contour of the leg and comprising a slotted plate having its lower margin and corner of concavo-convex formation and its upper corner at an angle thereto.

1,136,108. BURETTE. ROBERT W. CURTIS, New York, N. Y. Filed Jan. 30, 1915. Serial No. 5,166. (Cl. 73—166.)

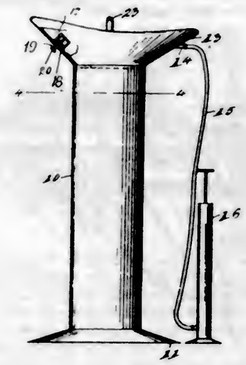


1. The combination with a burette consisting of a graduated glass tube having a reduced lower discharge end and a cock above said end, of an arm extending from the plug of the cock, means for clamping the arm to the cock plug, a threaded adjustable stop with which the end of said arm may be engaged, and means clamping said stop to the tube at a distance above the cock.

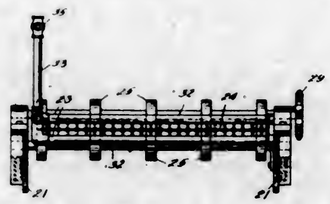
2. The combination with a burette consisting of a graduated glass tube having a reduced lower discharge end and a cock above said end, of a band adjustably clamped to the neck of the cock, an arm extending from said band, a band adjustably clamped to the tube above the cock, a block extending outwardly from said latter band, and a screw turning in the outer end of said block in position to be engaged with the end of the arm projecting from the cock plug.

1,136,109. SYRINGE. ALBERT C. DAYTON, Northfield, Minn. Filed Dec. 3, 1912. Serial No. 734,770. (Cl. 128—25.)

A syringe comprising a vertical tubular tank containing water and having a flared base, an upwardly flared air chamber disposed on the upper end of the tank, the lower wall of the chamber having an opening communicating with the interior of the tank, the upper wall of the air chamber being depressed to form a seat, means for forcing air into the chamber, a vertical water discharge pipe disposed in the tank, and extending upwardly through the depressed wall of the air chamber and provided with a nozzle, a spring pressed valve disposed in the wall of the air chamber, and an operating stem on the valve projecting through the chamber for manual manipulation to exhaust air from the chamber to the atmosphere, and check the outflow of water.



1,136,110. METHOD OF CLEANING SHEET-METAL PLATES. FELIX EBERHART, Newark, N. J., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 9, 1912. Serial No. 719,368. (Cl. 51—15.)



1. The process of treating sheet metal plates for the removal of grease and other substances which consists in first subjecting one surface of the plate to a naked flame and then directly thereafter subjecting said surface of the plate to a frictional rubbing, substantially as specified.

2. A process of treating sheet metal plates having oily or greasy surfaces, for the removal of such grease and oil, which consists in first subjecting the surfaces of the plate directly to naked flames produced by the combustion of a preformed mixture of gas and air, and thereby consuming some of the particles on the surfaces of the plate, and softening the greasy matter thereon, and then immediately thereafter subjecting the surfaces of the plate to frictional rubbing, substantially as specified.

3. The herein described process of treating sheet metal tin plate having oily or greasy surfaces, which consists in first burning up the particles of dirt and dust on the surfaces of the plate, and at the same time heating the plate and softening the greasy matter thereon, and then removing and absorbing the said matter by subjecting the plate to a frictional rubbing by an absorbent material.

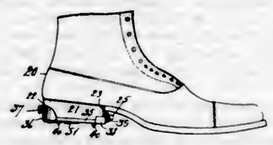
1,136,111. DOWEL CONNECTION. RAYMOND W. ERWIN, Fremont, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Sept. 29, 1913. Serial No. 792,360. (Cl. 204—38.)



1. In a dry cell, a carbon electrode having a cavity in one end, a dowel in the cavity having means to retain it therein, a clamping nut having a flange and a cylindrical boss threaded on the dowel, said nut abutting against the end of the electrode, a mix around the electrode, a receptacle to contain the mix, a seal extending from the receptacle to the boss whereby the end of the electrode and flange of said nut are covered by said seal.

2. In a dry cell, a carbon electrode, a metal sheath in one end of the electrode having a projecting lug, a dowel in said sheath, a nut having a flange and a cylindrical boss threaded on the dowel to bind the sheath tightly in the electrode, a mix around the electrode, a receptacle for the mix and a seal in the end of the receptacle extending above the flange of said nut to contact with the said boss.

1,136,112. HEEL-PLATE. JONOS FECKO, Bayonne, N. J. Filed Aug. 16, 1913. Serial No. 785,030. (Cl. 36—63.)



1. The combination with the heel of a shoe, boot and the like, of a holding bracket attached to said heel, a frame, spikes extending from the frame and a tongue having a hook end extending from the frame, the said hook end engaging said bracket.

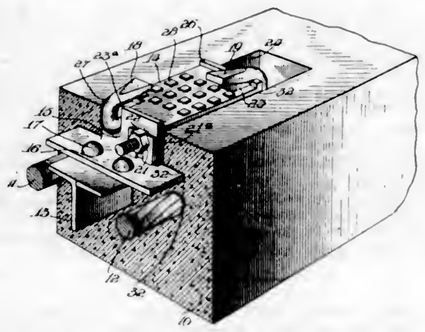
2. The combination with the heel of a shoe, boot and the like, of a holding bracket having a loop formed therewith and attached to the said heel, a frame, spikes extending from the frame, a tongue having a hook and extending from the frame, the said hook end to engage the said loop, a bearing plate extending from the frame and a clamping screw in threaded engagement with the bearing plate to clamp said heel.

3. The combination with the heel of a shoe, boot and the like of a frame, spikes extending from the frame, a tongue with one end thereof connected to the frame and having a hook end at the other end, and comprising two portions with a right hand threaded end on one portion and a left hand threaded end on the other portion, a turnbuckle connecting the threaded ends, a holding bracket on the heel engaging said hook end of the tongue, a plate attached to the rear end of said heel, a bearing plate extending from said frame and a clamping screw in threaded engagement with said bearing plate and one end thereof bearing against the plate attached to the rear portion of the heel.

4. The combination with the heel of a shoe, boot and the like of a heel plate, comprising a frame, spikes extending from the lower face of the frame, a tongue having one end connected to the frame and having a hook end at the other, a holding bracket having a loop connected to the heel and engaging said hook end and means to secure the rear portion of the frame to the rear portion of the heel.

5. The combination with the heel of a shoe, boot and the like of a heel plate, comprising a U shaped frame, spikes extending from the lower face of the frame, angular shields extending from the upper face and ends of the legs of the frame, clamping screws in threaded engagement with said shields, a tongue having one end connected to the frame and having a hook end at the other end, a holding bracket having a loop connected to the heel and engaging said hook end and means to secure the rear portion of the frame to the rear portion of the heel.

1,136,113. RAILWAY-TIE. BENJAMIN Q. P. FOSS, Chicago, Ill. Filed Dec. 20, 1912. Serial No. 737,780. (Cl. 238—3.)



1. In a railway tie, a body of molded material, a reinforcing bar of metal comprising a vertical web and an upper transverse plate embedded in said body, a tie plate secured said reinforcing bar, and adjustable rail clamps attached to said tie plate and movable longitudinally of said tie.

2. In a railway tie a body of molded material, a metal structure embedded in said body, and separately adjustable rail clamps attached to said metal structure and slidable longitudinally of said tie.

3. In a railway tie, a body of molded material, a metal structure embedded in said body, separately adjustable rail clamps attached to said metal structure and adjustable longitudinally of said tie, and a bituminous material enveloping said metal structure within said body.

4. In a railway tie, a body of molded material having recesses in its upper face, a reinforcing bar of metal embedded in said body, said bar having a horizontal plate and a vertical web integral with said plate and a tie plate having webs projecting downwardly into said recesses and secured to said reinforcing bar.

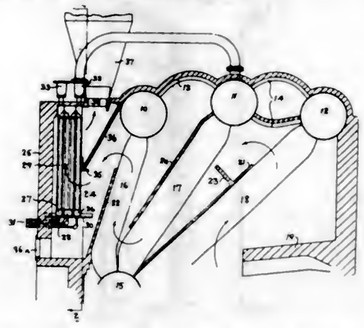
5. In a railway tie, a body of molded material having recesses in its upper face, a reinforcing bar of metal embedded in said body, said bar having a horizontal plate and a vertical web integral with said plate a tie plate having webs projecting downwardly into said recesses and secured to said reinforcing bar, and adjustable rail clamps attached to said tie plate.

[Claims 6 to 8 not printed in the Gazette.]

1,136,114. APPARATUS FOR SUPERHEATING STEAM. ERNEST H. FOSTER, New York, N. Y. Filed Sept. 23, 1910. Serial No. 583,341. (Cl. 122—478.)

1. The combination with a steam boiler having a plurality of upwardly extending banks of water tubes, of a superheater comprising headers and tubes arranged behind the rearmost bank of tubes, a baffle between the superheater and the said rearmost bank of tubes, and extending sufficiently high to protect the headers and joints, and a baffle in front of the superheater and in rear of the first named baffle, extending only far enough down to direct the heated products between the superheated tubes but above the headers for the purposes described.

2. The combination with a steam boiler having a plurality of upwardly extending banks of water tubes, and a setting inclosing the boiler and having at its rear a stack opening for the escape of furnace gases into the stack, of a superheater in the boiler setting and in rear of said stack opening, comprising transverse headers and uprearmost bank of tubes and the superheater, and a downwardly extending baffle in front of the said stack opening and in rear of the first named baffle.



3. The combination with a steam boiler having a plurality of upwardly extending banks of water tubes, of a superheater behind the rearmost bank of tubes, a transverse member in front of the superheater to retain the same in position, a downwardly extending baffle arranged in front of the superheater and supported at its lower part by said transverse member, and an upwardly extending baffle in front of the first named baffle and behind the said rearmost bank of tubes.

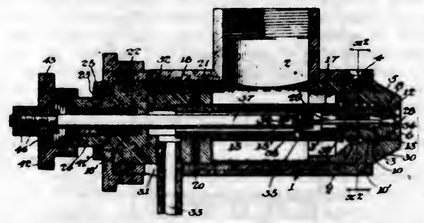
4. The combination with a steam boiler having a plurality of upwardly extending banks of water tubes, and a setting inclosing the boiler and having in rear of the rearmost bank of tubes a stack opening for the escape of furnace gases into the stack, of a superheater in rear of said stack opening, comprising transverse headers and upwardly extending superheating tubes connected thereto, a baffle extending downwardly and rearwardy toward the superheating tubes from a point in front of the stack opening, and a baffle in front of the superheater and extending upwardly to a point in front of the first named baffle, whereby the furnace gases will be directed rearwardly and downwardly then upwardly and forwardly through the superheating tubes to the stack opening.

5. The combination with a steam boiler comprising upper and lower drums connected by upwardly extending banks of water tubes, and a setting inclosing the boiler and having behind the rearmost upper drum a stack opening for the escape of furnace gases into the stack, of a superheater in the setting and behind the said stack opening, a baffle extending downwardly and rearwardly from the said rearmost upper drum toward the superheater, and a baffle extending upwardly behind the rearmost bank of tubes and in front of the superheater to a point in front of the first named baffle, whereby the furnace gases will be directed rearwardly and downwardly and then upwardly and forwardly through the superheating tubes to the stack opening.

[Claims 6 to 8 not printed in the Gazette.]

1,136,115. OIL-BURNER. WARREN HERBERT FROST, Los Angeles, Cal. Filed Mar. 25, 1912. Serial No. 686,160. (Cl. 158—76.)

1. An oil burner comprising a tubular outer member provided with means for supplying air to the interior thereof, said outer member having at its forward end an air outlet and a convergent valve seat directly back of said outlet, and a cylindrical recess back of said seat, a tubular air valve member within said outer member, having its forward end convergent to correspond to the said valve seat, and said tubular air valve member being provided back of said convergent forward end thereof with a spiral rib portion fitting in the cylindrical recess of said outer member, said tubular air valve member being provided with means for supplying oil to the interior thereof, and with an oil outlet at the front end thereof located forwardly of said air outlet and in the path of the jet of air from said air outlet.



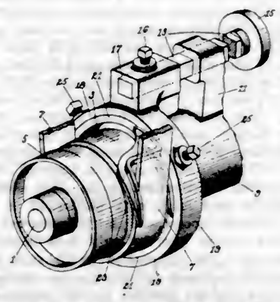
2. An oil burner comprising an outer tubular member having an outlet and a convergent valve seat directly back of said outlet, an inner tubular member movable longitudinally within said outer tubular member and having a convergent forward end portion coöperating with the convergent valve seat on said outer member to form an annular air outlet, the outer and inner walls of said air outlet being forwardly convergent toward the axis of the burner, to the point of delivery, said inner tubular member being provided back of said convergent portion with oblique deflector means for producing a rotative movement of the air passing to said outlet, means for supplying oil to the interior of said inner tubular member, said inner tubular member being provided at its forward end with an outwardly flaring oil outlet located in the path of the jet of air from said annular air outlet, a flaring oil valve in said oil outlet, and means for longitudinal adjustment of said oil valve in said oil outlet.

3. An oil burner comprising an outer tubular member provided with means for supplying air to the interior thereof, said outer member having at its forward end an air outlet and a valve seat directly back of said air outlet, said valve seat being forwardly convergent toward the axis of the burner, and said outer tubular member being provided with a cylindrical recess back of said seat, a tubular air valve member within said outer member having its forward end convergent toward the axis of the burner corresponding to said valve seat, and said tubular air valve member being provided back of said convergent forward end thereof with a spiral rib portion fitting in the cylindrical recess of said outer tubular member, and means for longitudinal adjustment of said tubular air valve member in said outer tubular member to vary the size of said air outlet, said tubular air valve member being provided with means for supplying oil to the interior thereof and with an oil outlet at the front end thereof, located forwardly of said air outlet and in the path of the jet of air from said air outlet.

1,136,116. BELT-SHIFTER. FREDERICK M. FURBER, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 15, 1914. Serial No. 851,192. (Cl. 64—4.)

1. The combination with a shaft, a plurality of pulleys mounted thereon, and a belt adapted to coöperate with any selected pulley, of means for shifting said belt from one pulley to another comprising a manually movable member, a ring fastened to said member and arranged to encircle said shaft, a second ring carried by said first ring and angularly adjustable with respect thereto, means for holding said ring in adjusted position, and a belt engaging member carried by said second ring.

2. The combination with a shaft, a plurality of pulleys mounted thereon and a belt adapted to coöperate with any selected pulley, of means for shifting said belt from one pulley to another comprising a manually movable member, a ring fastened to said member and arranged to encircle said shaft, a second ring located inside said first ring and angularly adjustable therein, means for holding said second ring in adjusted position, and a belt-engaging member carried by said second ring.

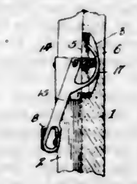


3. The combination with a shaft, a plurality of pulleys mounted thereon and a belt adapted to coöperate with any selected pulley of a movable member having a cylindrical bearing the diameter of which is greater than that of any of the pulleys, a second cylindrical member mounted on said bearing and adjustable angularly with respect to said first member through three hundred and sixty degrees, the diameter of said second cylindrical member being also greater than that of any of the pulleys, means for holding said second member in adjusted position, and a belt engaging member carried by said second cylindrical member.

4. The combination with a shaft, a plurality of pulleys mounted thereon, and a belt adapted to coöperate with any selected pulley, of means for shifting the belt from one pulley to another comprising a manually movable member, a ring encircling said shaft and adjustable longitudinally of said member, a second ring carried by said first ring and angularly adjustable with respect thereto, and a belt engaging member carried by said second ring.

5. The combination with a shaft, a plurality of pulleys mounted thereon and a belt adapted to coöperate with any selected pulley, of means for shifting the belt from one pulley to another comprising a slide rod, a ring encircling said shaft and having a boss provided with a socket to receive said rod, means for holding said rod in adjusted position in said socket, a second ring carried by said first ring and angularly adjustable with respect thereto, means for holding said second ring in adjusted position, and a belt engaging member projecting from said second ring.

1,136,117. CAR-DOOR LOCK. OTTO E. GELBRICH and GUSTAV W. HINTZ, South Bend, Ind. Filed Dec. 19, 1911. Serial No. 666,724. Renewed Mar. 2, 1915. Serial No. 11,578. (Cl. 70—102.)

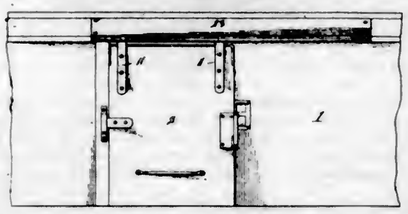


1. In a device of the character described, a supporting structure having a member slidable in engagement therewith said supporting structure adapted to be provided with a cut out portion, a plate adapted to be disposed within said cut out portion said plate provided with a plurality of openings, a bracket carried by said slidable member, a flange formed upon said bracket, an opening in said bracket, a latch member, said latch member provided with a slot adapted to be raised over said opening, an extension formed upon said latch member, means

formed integral with said flange adapted to engage said last named extension and means whereby said latch member may be operated so as to be disengaged from said means and may be in engagement with said plate for the purpose described.

2. In a device as set forth, a supporting structure having a member in slidable engagement therewith, said supporting structure having a cut-out portion, a plate disposed within said cut-out portion, said plate being provided with a plurality of openings, an offset portion depending inwardly from said plate, a bracket secured to said slidable member, a flange formed upon said bracket, said flange being provided with an aperture, a lip formed upon said flange, said bracket being provided with an opening, a latch member, said latch member having a slot and also an opening near one end thereof, said opening coinciding with said aperture in the aforementioned flange whereby said latch may be locked, a cam-shaped extension formed upon said latch, adapted to engage said lip, and means whereby said cam-shaped extension may be moved from engagement with said lip, thereby moving said cam-shaped extension into engagement with the first named off-set portion for the purpose described.

1,136,118. CAR-DOOR HANGER. OTTO E. GELBRICH and GUSTAV W. HINTZ, South Bend, Ind. Filed Dec. 19, 1911. Serial No. 666,725. (Cl. 16—7.)



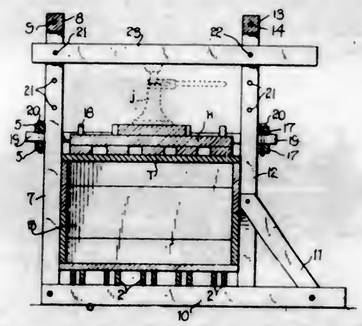
1. A car door hanger comprising a strip and a cross arm carried by said door, guide members mounted on the car, means carried by said door to engage with and travel on said guide members mounted on the car, and means secured on the car upon which a strip and a cross-arm carried by said door rest and are moved as the door is opened and closed.

2. Car door hanger comprising a strip and a cross arm mounted on the door, guide members secured to the car adjacent the door, rollers secured on said door to engage with and travel on the guide members mounted on the car, and rollers secured on the car adjacent the door in such relation that a strip and a cross arm carried by the door work thereon during the opening and closing of said door.

3. A car door hanger comprising a strip and a cross arm rigidly connected on the door to be moved therewith, guide members secured to the car adjacent the door opening, brackets carried by said door to extend adjacent the guide members secured on the car, brackets supported on the car to project within the confines of a strip and a cross arm by the door, means carried by the brackets secured to the door to engage with and travel on the guide members mounted on the car, and means mounted on the brackets secured to the car to be engaged by and to have a strip and a cross arm secured to the door to travel thereon.

4. In a device of the character described, a car body having guide members supported thereby and at the top thereof, brackets supported by said car body, rollers revolubly supported by said brackets, a door having arms projecting upwardly therefrom, said arms adapted to be bent intermediate their ends, means connecting said arms and adapted to engage said rollers, means carried by the upper portion of said door adapted to engage said rollers, said arms adapted to be bent near their upper ends, whereby other rollers may be supported, said last named rollers adapted to operate between said guide members for the purpose described.

1,136,119. TOBACCO-PRESS. JOHN W. GLENN, Indianapolis, Ind., assignor of one-half to Virgil Bert Pounds, Indianapolis, Ind. Filed Apr. 20, 1914. Serial No. 833,222. (Cl. 100—57.)



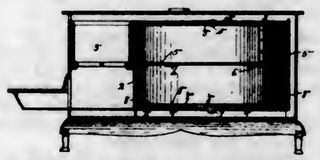
1. A tobacco press comprising a base, a rigid and a hinged side carried thereby, a pair of spaced horizontal cross beams arranged upon the upper end of the rigid wall, a second pair of spaced horizontal cross beams carried by a hinged wall, uprights carried by the walls and provided with transverse openings, a jack beam arranged between the uprights, transverse pins arranged through certain of the transverse openings and the jack beam, hinged and walls carried by the base, horizontal beams carried by the end walls adapted to be received between the first mentioned spaced beams, and pins extending through the beam adjacent their ends to secure the walls together.

2. A tobacco press comprising a base, a rigid and a hinged side wall carried thereby, uprights carried by the side walls and provided with transverse orifices, a jack beam arranged to be disposed between the uprights, means for maintaining the jack beam at any desired adjustment relative to the uprights, end walls hinged to the base, and means for securing the series of walls together.

3. A tobacco press comprising a base, a rigid and a hinged wall carried thereby, spaced uprights carried by the side walls, a jack beam arranged to be disposed between the uprights, means for maintaining the jack beam at any desired adjustment relative to the uprights, hinged end walls carried by the base, and means for connecting the series of walls.

4. A tobacco press comprising a slatted base, slatted side walls connected therewith, one of which is pivoted and the other rigid, spaced uprights carried by the side walls, a jack beam arranged to be disposed between the uprights, means for maintaining the jack beam in relative position between the uprights, slatted end walls pivotally connected with the base, and means for securing the series of walls together.

1,136,120. BAKING-OVEN. CHARLES B. GOLDSMITH, Oakville, Conn. Filed Apr. 16, 1914. Serial No. 832,171. (Cl. 126—338.)

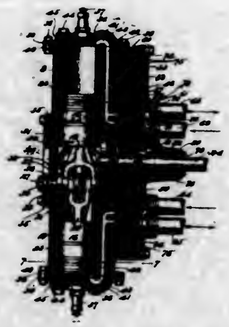


1. A baking oven having upstanding side-walls approximately circular in horizontal section and a top-closure; a skeleton carrier disposed to rotate in an invariable, horizontal plane only within said oven, supported only at, and depending from the top thereof, and provided at its lower portion with a plurality of inturned feet; and a sectional grate, the latter freely positioned marginally on the feet aforenamed.

2. A baking oven having suitable upstanding side-walls and a top-closure; a pivot engaging centrally and only said top-closure; a carrier supported solely by said pivot, rotatable relatively thereto in an invariable horizontal plane only, and having its axis of rotative movement determined solely thereby, said carrier consisting of a center-piece having arms radiating therefrom in more than two different directions, and turned downwardly and terminating in a plurality of inturned feet, one for each of the arms aforenamed, and a grate, the latter contractible in face area to pass between the arms aforenamed comprising in any appropriate pair thereof, and expansible in face area to marginally and freely seat on the feet aforenamed.

3. A baking oven having upstanding side-walls approximately circular in horizontal section and a top-closure; a pivot engaging centrally and only said top-closure; a carrier supported solely by said pivot, rotatable relatively thereto in an invariably horizontal plane only, and having its axis of rotative movement determined solely thereby, said carrier consisting of a centerpiece having arms radiating therefrom in more than two different directions, and turned downwardly and terminating in a plurality of inturned feet, one for each of the arms aforenamed, and a grate, the latter comprising a plurality of hingedly connected sections, whereby said grate may be contracted in face area for passage between the arms aforenamed comprised in any appropriate pair thereof, and expanded in face area to marginally and freely seat on the feet aforenamed.

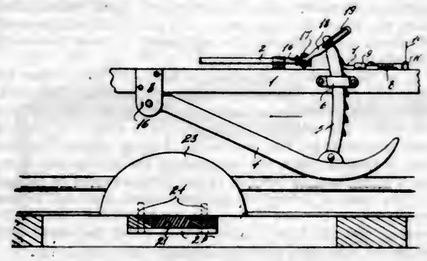
1,136,121. INTERNAL-COMBUSTION MOTOR. ROBERT GORDON and BURT HORTON WESTON, St. Louis, Mo. Filed Apr. 7, 1914. Serial No. 830,254. (Cl. 123—55.)



1. An engine comprising cylinders having intake and exhaust ports, supply and exhaust pipes of like number with said ports, and a valve interposed between said ports and pipes having openings therethrough of like number with said ports and pipes, said openings and said ports so arranged that each valve opening registers with but one inlet or exhaust port, and to cause all the established communications to be of equal time lengths.

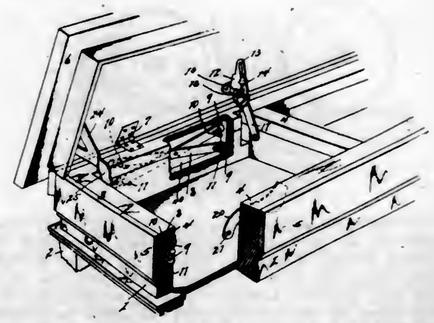
2. In combination with a plurality of cylinders in arcual arrangement, each cylinder having an intake and an exhaust port and each port being spaced from a common center differently from the remaining ports, a plurality of supply and exhaust pipes of like number and arrangement with said intake and exhaust ports and a disk revolubly mounted between said ports and pipes, and having therein a plurality of openings of unequal arcual lengths and each opening being spaced differently from a common center whereby the duration of communication between the various ports and pipes is equalized and each port is in direct communication with but one inlet or exhaust pipe.

1,136,122. AUTOMATIC TRAIN-STOP. JOHN A. GRAMM, Dallas, Tex. Filed Oct. 16, 1914. Serial No. 866,890 (Cl. 249—59.)



In a device, of the character described, the combination of an actuating member, brackets between which is pivoted one extremity of the actuating member, a pivot bolt passed through said brackets and actuating member, coil springs having their extremities fixed to the brackets and to the actuating member, a toothed rack correlated with the actuating member, a guide bracket for the toothed rack, a dog correlated with the toothed rack, a release cable attached to the dog, an air release valve embodied in the air line, a control arm carried by the valve, a slot formed in the control arm and a pin carried by the toothed rack and confined within the slot of the control arm.

1,136,123. CONVERTIBLE PIANO-BENCH. ERNEST B. GREGOR, Detroit, Mich. Filed Feb. 21, 1914. Serial No. 820,115. (Cl. 155—22.)



1. A piano bench comprising a main frame, an auxiliary frame in telescopic relation therewith, lazy-tong hinges connecting the main and auxiliary frames, a seat-board forming a cover for the bench and hinged to the auxiliary frame, and means whereby the auxiliary frame may be raised or lowered by movement of the seat board about its hinged points.

2. A convertible piano bench comprising a main box like frame, an open auxiliary frame, lazy-tong hinges connecting the main and auxiliary frames, both of said frames being grooved forming a chamber to receive said hinges, a seat-board forming a cover for the bench hinged to the auxiliary frame, and means whereby the auxiliary frame may be raised or lowered by movement of the seat-board about its hinge points.

3. A convertible piano bench comprising a main box like frame, an auxiliary frame in telescopic relation therewith, extensible hinges connecting the main and auxiliary frames, a seat-board forming a cover for the bench and hinged to the auxiliary frame, means whereby the auxiliary frame may be raised or lowered by movement of the seat-board about its hinge points, standards pivotally secured to the front portion of the main frame adapted to

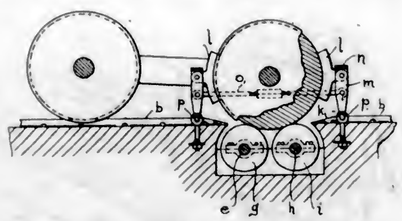
be raised or lowered by corresponding movement of the auxiliary frame, legs secured to the hinged side of the seat-board, and seats for said legs on the main frame, the relation of said legs and seats being such that when the auxiliary frame is raised and the seat board returned to cover the bench the legs rest on the seats and are removed therefrom upon swinging the seat-board to lower the board and auxiliary frame.

4. A piano bench comprising a main box like frame, an auxiliary frame, extensible hinges connecting the main and auxiliary frames, a seat-board forming a cover for the bench and hinged to the auxiliary frame, a slotted plate attached to the seat-board, a link pivoted to the main frame having a pin engaging in the slot in the plate, and a latch-member pivoted to the plate adapted to engage the pin upon a raising of the seat-board whereby, as the seat-board is lowered about its hinge points, the latch-member and pin form a pivot about which the seat-board swings to raise the auxiliary frame.

5. A piano bench comprising a main box like frame, an open auxiliary frame, lazy-tong hinges connecting the main and auxiliary frames, a seat-board forming a cover for the bench and hinged to the auxiliary frame, means whereby a swinging of the cover about its hinge points may raise or lower the auxiliary frame relative to the main frame, and standards brought to position and adapted to support the seat-board in an inclined position when the auxiliary frame is raised.

[Claims 6 and 7 not printed in the Gazette.]

1,136,124. WHEEL-TRUING APPARATUS. JUDSON M. GRIFFIN and OLIVER P. ALLEN, Detroit, Mich., assignors to Wheel Truing Brake Shoe Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 11, 1914. Serial No. 876,747. (Cl. 51—4.)



1. The combination with a track having a pair of rails with cut out portions at opposite points, a plurality of wheels rotatably mounted in each cut out portion so that their peripheries at the top come substantially even with the rails, means for holding an abrading block against the car wheel, the said abrading block and means for driving one or more of said wheels located in said gaps for the purpose of spinning a pair of car wheels.

2. The combination with a track provided with a pair of rails having opposite gaps, rail sections which can be made to bridge the gaps and which are removably securable in said gaps, a plurality of wheels rotatably mounted in each gap for supporting a pair of car wheels, an abrading block, means for supporting the abrading block against the wheel, and means for driving one or more of the wheels in the gaps for the purpose of spinning the car wheels.

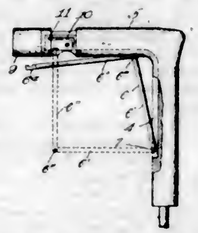
3. Apparatus for truing car wheels, having in combination means for spinning the car wheels, abrading blocks, means for holding an abrading block on each side of the wheel, and connecting means for tightening the two abrading blocks against the wheel.

4. Apparatus for truing car wheels, having in combination means for spinning the car wheel, a pair of pivoted uprights, abrading blocks carried by said uprights and arranged to be held against the wheels, and a turn-buckle connecting the two uprights.

5. Apparatus for truing car wheels, having in combination means for spinning the car wheels, an eye-bolt secured to a support, an upright hooked into the eye-bolt, a second eye-bolt secured to a support, an upright hooked into the second eye-bolt, an abrading block carried on one of the uprights, and tightening means between the two uprights for mechanically drawing them toward each other.

[Claim 6 not printed in the Gazette.]

1,136,125. UMBRELLA, CANE, AND THE LIKE. IRVIN M. GRODIN, Chicago, Ill. Filed Sept. 23, 1912. Serial No. 721,831. (Cl. 135—47.)



1. In a device of the class described, a handle comprising two substantially right angularly disposed portions having a recess therein, a plural link bail mounted in the recess thereof, means fixing one end of the bail to the handle and permitting removal of the remainder of the bail to embrace a fixture or the like, and a lock fixed in the handle and adapted to receive the free end of said bail, as and for the purpose specified.

2. In a device of the class described, the combination of a handle composed of angularly disposed portions and having a groove-like recess therein, a plural-link bail mounted therein, conforming thereto and pivoted at one end to the handle, a ferrule or cap on the handle normally holding the bail in the recess, said cap being movable to permit removal of the bail, and a lock recessed in the handle and adapted to receive the free end of said bail.

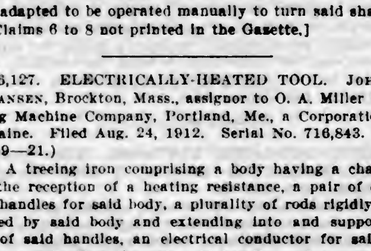
3. In a device of the class described, the combination of a handle having a groove-like recess therein, a bail composed of a number of links arranged in said recess, one end of said bail being pivoted to the handle, a cap or ferrule slidably mounted on the handle and adapted to engage the free end of the bail and hold same against removal, and a lock recessed in said handle adapted to receive the free end of said bail and being normally covered by said slidable cap or ferrule.

4. In a device of the class described the combination of a handle having two right angularly disposed portions, a groove-like recess in the underside of both portions, a two-link bail arranged in said recess, means pivotally securing one end of the bail to the handle, a cap or ferrule slidably mounted on the handle and normally covering the free end of said bail, and preventing removal thereof, a lock arranged in said handle and normally hidden from view by said cap, said lock adapted to receive the free end of said bail, as and for the purpose specified.

5. In a device of the class described, the combination of a handle composed of two portions disposed at substantially right angles to each other, a groove-like recess in the underside of both portions, a two-link member arranged in said recess and flush with the handle, one end of the two-link member being pivoted to the handle and the remainder being removable therefrom, a cap or ferrule slidably arranged on the end of the handle, a lock recessed in the handle adjacent the cap, the cap normally covering the lock and free end of said recessed link-member, and being slidable to expose the lock and the free end of the link member, as and for the purpose specified.

1,136,126. CLOTH-CUTTING MACHINE. JOHN B. GURY, St. Louis, Mo. Filed June 8, 1914. Serial No. 843,656. (Cl. 164—76.)

1. A cloth cutting machine comprising a cutter mounted upon a foot plate, said foot plate having a portion in front of said cutter which inclines upwardly toward said cutter, said inclined portion being above the portions of said foot plate surrounding it and having a guide slot therein, a throat plate having a slot in one end portion thereof and two lugs integral therewith, said throat plate being slidably mounted on said inclined portion with said lugs in said guide slot, and a screw passed through said guide slot from the bottom of said foot plate and screw-threaded into said throat plate.



2. A cloth cutting machine comprising a foot plate, a standard secured to said foot plate, a cutter rotatably mounted on said standard, two spaced arms, flat springs connecting the corresponding ends of said arms to said standard, a grinding wheel rotatably mounted on the free end of each of said arms, said grinding wheels being located on opposite sides of said cutter, and adjustable means connected to said arms for limiting the downward movement of said arms and said grinding wheels.

3. A cloth cutting machine comprising a foot plate, a standard secured to said foot plate, a cutter spindle rotatably mounted on said standard, said cutter spindle having lugs extending radially therefrom at the outer end thereof, a circular cutter having hooked fingers engaging said lugs, said lugs and said hooked fingers preventing rotation of said cutter relative to said cutter spindle in one direction and permitting such rotation in the opposite direction.

4. A cutter for cloth cutting machines comprising a disk having its edge sharpened, said disk having hooked fingers integral therewith, said fingers being spaced apart in the circumference of a circle having the center of said disk as its center, and pointing in the same direction along said circle.

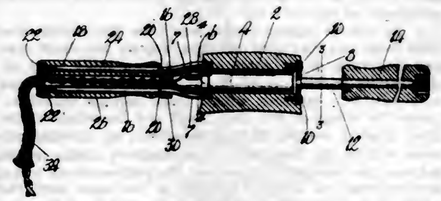
5. A cloth cutting machine comprising a foot plate, a standard secured to said foot plate, a cutter spindle rotatably mounted on said standard, said cutter spindle having lugs extending radially therefrom at the outer end thereof, a circular cutter rotatably mounted on said standard and having hooked fingers engaging said lugs, said lugs and said fingers preventing rotation of said cutter relative to said cutter spindle in one direction and preventing such rotation in the opposite direction, a rotary shaft mounted on said standard and operatively connected to said cutter spindle, and means connected to said shaft and adapted to be operated manually to turn said shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,136,127. ELECTRICALLY-HEATED TOOL. JOHN S. HANSEN, Brockton, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me., a Corporation of Maine. Filed Aug. 24, 1912. Serial No. 716,843. (Cl. 219—21.)

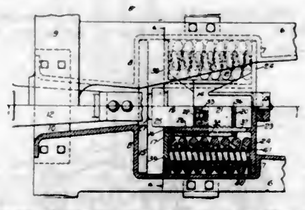
1. A treeing iron comprising a body having a chamber for the reception of a heating resistance, a pair of opposite handles for said body, a plurality of rods rigidly supported by said body and extending into and supporting one of said handles, an electrical conductor for said resistance extending through said handle, and a cover for said chamber supported by one of said handles and removable from said body independently of the other handle.

2. A treeing iron comprising a body having a chamber for the reception of a heating resistance, a handle having a bore formed therethrough, two rods supported rigidly in said body, and extending through said handle at opposite sides of said bore, coöperating collars and nuts on said rods for clamping the handle thereon, supply conductors for said resistance extending through said bore, and means for clamping said conductors to a part of the iron at a point behind their connection with the resistance.



3. A treeing iron comprising a body having a chamber formed longitudinally therethrough, a heating resistance positioned in said chamber, a removable cover for one end of said chamber, a handle supported by said cover, two rods supported rigidly in the end of said body opposite said cover, a handle supported on said rods, said handle having an axial bore formed therethrough, supply conductors extending through said bore and connected to said resistance, a clamp embracing said conductors and one of said rods, and an insulating sleeve positioned between said rods and inclosing the connection between said conductors and said resistance.

1,136,128. DRAFT-RIGGING FOR RAILWAY-CARS, STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed July 7, 1913, Serial No. 777,607. Renewed Aug. 12, 1914. Serial No. 856,486. (Cl. 213—64.)



1. In a draft rigging for railway cars, the combination of a draw bar, draft yoke, followers, front and rear stop members, with an inner shell, friction mechanism in said shell, an outer shell inclosing the inner shell, a key and main springs, the outer shell being provided with laterally extended wings, the main springs being seated between said wings and the rear follower, the key connecting the outer shell to the mechanism in the inner shell, the outer shell and front stop members being spaced apart, whereby on forward movement of the draw bar the main springs and the friction mechanism are both brought into compression resisting action.

2. In a railway draft rigging, the combination of a draw bar, followers, front and rear stop members, and draft yoke with outer and inner reciprocating shells, wings laterally extended from each of said shells, main springs seated between the wings of the outer shell and the wings of the inner shell, friction mechanism within the inner shell, and a key connecting the outer shell to the friction mechanism in the inner shell, the wings of the outer shell being spaced apart from the front stop members, whereby the main springs and friction mechanism are brought into compression resisting action on both forward and rearward movement of the draw bar.

3. In a draft rigging for railway cars, the combination with a draw bar, front and rear stop members, followers and draft yoke, of outer and inner reciprocating shells, wings laterally extended from each of said shells, main springs seated between the wings of the outer shell and

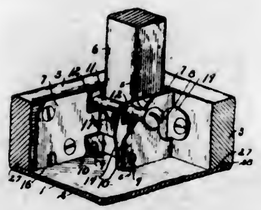
the wings of the inner shell, friction mechanism and an internal follower within the inner shell, and a key engaging the internal follower to the outer shell, the stop members and the wings of the outer shell being spaced apart, whereby the friction mechanism and the main springs are compressed in both forward and rearward movement of the draw bar.

4. In a draft rigging for railway cars, the combination with front and rear stop members, a draw bar, draft yoke and followers, of an outer shell and an inner shell reciprocating therein, each of said shells being provided with laterally extended wings, main springs seated between the wings of the outer shell and the wings of the inner shell, a wedge, friction shoes and an internal follower within the inner shell, a preliminary spring seated between the internal follower and the friction shoes, and a key engaging the internal follower to the outer shell, the wings of the outer shell being spaced apart from the stop members, whereby on forward movement of the draw bar the main springs and friction mechanism are both brought into compression resisting action.

5. In a draft rigging for railway cars, the combination of front and rear followers, a draw bar, stop members and draft yoke, with an outer shell provided with lateral wings, an inner shell reciprocating therein and engaging the rear follower, main springs at either side of the outer shell seated between the wings of the outer shell and the rear follower, friction shoes, a wedge and internal follower within the inner shell, a key engaging the internal follower to the outer shell, the inner shell being provided with slots for the passage of said key, and the wings of the outer shell being spaced apart from the front stop members to permit the forward movement of said wings and compression resisting action of the friction shoes and wedge on forward movement of the draw bar.

[Claims 6 to 9 not printed in the Gazette.]

1,136,129. FOLDING TABLE. HENRY L. HASKELL, Ludington, Mich. Filed May 26, 1911. Serial No. 629,611. (Cl. 45—11.).



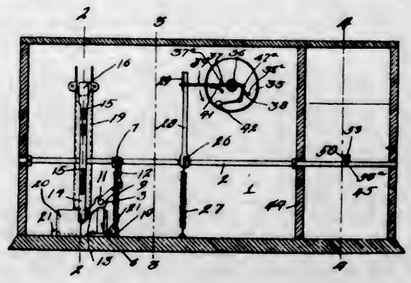
1. The combination with a rectangular frame, of a leg, a hinge for said leg comprising outer and inner U-shaped members arranged one within the other, the outer member being arranged in a corner of said frame with its outer arm secured to one side thereof and its inner end to the adjacent side, the inner member being arranged upon the leg and having pairs of ears at the ends of its arms, the upper pair of ears being pivoted to the arms of the outer member, adjacent its upper edges, the outer member being open at the front between the arms thereof, a catch bolt slidably arranged in the lower pair of ears, said bolt being transversely notched, the outer arm of the outer hinge member being provided with a keeper hole for said bolt when the leg is in its erected position, and with a recess-like keeper for said bolt when the leg is in its collapsed position; and a spring pivotally mounted on the inner arm of said outer member and forked to engage said notch of said bolt.

2. The combination with a frame, of a leg, a hinge for said leg comprising U-shaped leg and frame members arranged one within the other, the frame member being secured to said frame and having arms extending outwardly therefrom, the leg member embracing the end of said leg and having pairs of ears extending therefrom adjacent the upper and lower edges thereof, means pivotally connecting said upper pair of ears to the arms of the frame members adjacent the upper edges thereof, a catch bolt slidably mounted in the lower pair of ears, keeper holes in one arm of the frame member adapted to be engaged by said bolt when the leg is in its raised and lowered positions respectively, and a spring holding said bolts normally in engagement with said keeper holes.

3. The combination with a frame, of a leg, a hinge for said leg comprising leg and frame members arranged one within the other, the frame member being secured to said frame with its arms extending outwardly therefrom, the leg member embracing said leg and having pairs of ears extending therefrom adjacent the upper and lower edges, means for pivotally connecting the upper pair of ears to the frame member adjacent the upper edges thereof, a bolt slidably mounted in said lower ears, and keeper holes in one arm of said frame member adapted to be engaged by said bolt when the leg is in raised and lowered positions respectively.

4. The combination with a frame, of a leg, a hinge for said leg comprising leg and frame members arranged one within the other, the frame member being secured to said frame, the leg member embracing the end of said leg and having pairs of ears extending outwardly therefrom, means pivotally connecting the upper pair of said ears to said frame member adjacent its upper edge, and means carried by the lower pair of ears engaging said frame member when said leg is in its raised and lowered positions for holding it in said positions.

1,136,130. COMBINED CIGAR-CUTTER AND MATCH-DELIVERER. JOHN HORDUBAY, Scalp Level, Pa. Filed Sept. 8, 1914. Serial No. 860,716. (Cl. 206—22.)

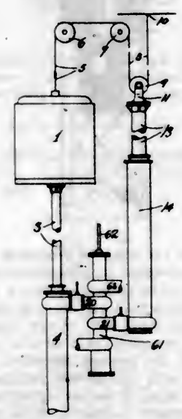


In combination with a match delivering mechanism and cigar cutting mechanism including a dominant rockable shaft for operating the same, a casing therefor, an alarm bell in said casing having a spring tensioned bell clapper lever, a vertical movable bar having a triangular dog, under one of its inclined edges of which one arm of the bell clapper lever normally engages, a spring for tensioning said dog, and connections between the vertically movable bar and the operating shaft for actuating the bar to actuate the bell clapper lever.

1,136,131. HYDRAULIC ELEVATOR. JOHN SHERMAN HOYT, Darien, Conn. Filed Feb. 2, 1907. Serial No. 355,358. (Cl. 138—8.)

1. The combination with a main cylinder, of a plunger therein, a car supported by said plunger, a second cylinder above said first cylinder, a counterweight plunger in said cylinder having equal displacement and one half the travel, relatively to said main plunger, a cable running over sheaves and connecting said plungers, a pressure supply, and valve mechanism for connecting said two cylinders to raise the main plunger and simultaneously lower the counterweight plunger in one open position, and in another open position connecting said counterweight cylinder to the supply and the main cylinder to the exhaust.

2. The combination with a hydraulic cylinder plunger and car, of an auxiliary cylinder located above said cylinder, a plunger in said auxiliary cylinder, a cable connecting said plunger and the car, and means whereby the static pressure of said auxiliary cylinder raises the car, and means for applying pressure to said auxiliary plunger and opening the main cylinder to enable the car to fall by gravity, substantially as described.



3. The combination with a hydraulic cylinder, a plunger and a car, of an auxiliary cylinder and plunger, means for raising the car by the static pressure of said auxiliary cylinder, and means for lowering the car upon admitting lifting pressure to said auxiliary cylinder, substantially as described.

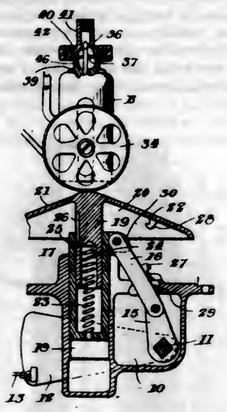
4. The combination with a hydraulic cylinder, a plunger therein, and a car carried by the plunger, of a second cylinder above said first cylinder, a counterbalance comprising a plunger moving therein and connected to said first plunger to have a less ratio of movement, and a controlling valve for simultaneously opening one of said cylinders to pressure and the other to exhaust to operate the car in one direction, and connecting the cylinders to operate the car in the other direction.

5. The combination with a hydraulic cylinder, plunger and car, of a counterbalance connected therewith, and having a lesser ratio of movement, a cylinder in which said counterbalance is adapted to operate, said cylinder being above the main cylinder, means for connecting said two cylinders to raise the car, and means for opening one cylinder to the exhaust and the other to a source of pressure to lower the car, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,136,132. AUTOMATIC TRAIN-STOP DEVICE. ALBERT EDMUND HUDSON, Calgary, Alberta, Canada. Filed June 7, 1913. Serial No. 772,267. (Cl. 246—60.)

In a device of the type described means for releasing the pressure in the train line pipe comprising, a casing, a reciprocable plunger mounted therein, a cross shaft carried by said plunger and extending through slots formed in said casing, an auxiliary casing having an internally screw threaded portion mounted on said casing and providing a valve seat, a frangible valve seating thereon, means for holding the valve upon the seat comprising a nipple connected to the train line pipe, a cap adapted to hold said nipple in place provided with internal screw threads engaging the threaded portion of said auxiliary casing, and a gasket interposed between said valve and said nipple, a pin carried by said plunger member adapted



to break said valve, and a pair of tappet wheels carried by said cross shaft adapted to engage a track detent.

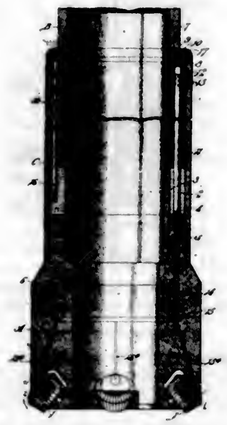
1,136,133. THROTTLE OR STARTING VALVE. ALBERT EDMUND HUDSON, Calgary, Alberta, Canada. Filed Dec. 1, 1913. Serial No. 804,054. (Cl. 246—59.)

In a device of the type described, means for actuating the throttle lever by reduction of pressure in the train line pipe, comprising a cylinder having a chamber located at one side thereof and communicating at one end with the train line pipe, a piston in said cylinder normally held at the opposite end thereof, said piston being operatively connected to the throttle, one end of said chamber communicating with said cylinder between the last named end thereof and said piston, a check valve between the opposite end of said chamber and the cylinder, said check valve being adapted to prevent the return of pressure from said chamber to said cylinder.

1,136,134. LUBRICATING DEVICE FOR ROTARY DRILLS. HOWARD ROBARD HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed June 30, 1913. Serial No. 776,656. (Cl. 255—71.)

1. A lubricating device for rotary drills comprising a hollow ring or sleeve for holding the lubricating medium and adapted to be used for connecting the stem to the head of the drill, a water-pipe arranged in said sleeve with its lower end terminating above the bottom of the hollow space or chamber in the sleeve and its upper end terminating at a point outside of the drill stem so that the wash water or flushing water in the hole which surrounds the stem can enter said pipe, and a lubricant-pipe in said sleeve whose lower end communicates with a distributing duct and whose upper end is so formed that the lubricating medium can enter same.

2. A lubricating device for rotary drills comprising a lubricant-holder formed of two cylindrical-shaped members arranged one within the other and spaced away from each other so as to form an annular chamber for holding a lubricant, a coupling device interposed between said members for connecting the lower ends of said members together, and means at the upper end of one of said members for detachably connecting the lubricant-holder to a drill stem.



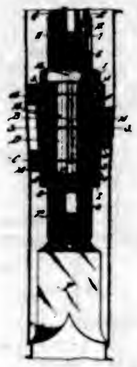
3. A lubricating device for rotary drills comprising a lubricant-holder formed of two cylindrical-shaped members arranged one within the other and spaced away from each other so as to form an annular chamber for holding a lubricant, a coupling device that serves to hold said members spaced apart and also connect the lower ends of said members together, means at the upper end of one of said members for detachably connecting the lubricant-holder to a drill stem, a lubricant-pipe in said annular chamber open at its upper end and having its lower end communicating with a distributing duct in said coupling device, and a water-pipe in said chamber open at its upper end and having its lower end terminating above the bottom of the chamber.

4. A rotary drill comprising a stem, a head provided with cutting devices, a sleeve or collar of greater diameter than the stem that connects said head and stem together, said collar being provided with an annular chamber for holding a lubricating medium, a lubricant-pipe in said chamber that communicates with distributing ducts which lead to the cutting devices on the head, and a water pipe projecting part way down into said chamber and having its upper end terminating in the top wall of said chamber at a point outside of the drill stem for causing the water that is introduced into the hole to exert pressure on said lubricating medium so as to force it through said lubricating pipe and distributing ducts.

5. A rotary drill comprising a stem, a head provided with cutting devices, and a lubricant-holder separate and distinct from said stem and arranged between said stem and head, said holder comprising two tubular-shaped members arranged one within the other and spaced away from each other so as to form an annular chamber, means on one of said members for detachably connecting the holder to the drill stem, a coupling interposed between said members for connecting them together and for securing them to the head, and means for permitting the wash water that is introduced into the hole to exert pressure on the lubricating medium in said annular chamber so as to feed same to the cutting devices on the head.

[Claims 6 and 7 not printed in the Gazette.]

1,136,135. REAMER. HOWARD R. HUGHES, Houston, Tex., assignor to Sharp-Hughes Tool Company, Houston, Tex., a Corporation of Texas. Filed Feb. 24, 1914. Serial No. 820,071. (Cl. 255—73.)



1. A reamer for the purpose described, consisting of a members that is arranged in longitudinal alinement with the drill to which it is connected, and a horizontally disposed cutter rotatably mounted on said member for acting on the side of the hole, said cutter being eccentrically disposed and rotating about said member as an axis.

2. A reamer for the purpose described, consisting of a member provided with means for enabling it to be connected to a drill stem, a horizontally-disposed cutter on said member arranged eccentric with relation to the axis of rotation of said member for acting on the side of the hole and rotating about said member as an axis, and means for preventing said member from wabbling when said cutter is in operation.

3. A reamer for the purpose described, consisting of a member provided with means for enabling it to be connected to the drill stem, means for enabling a drill bit to be connected to the lower end of said member, and an eccentric horizontally-disposed cutter rotating about said member as an axis for acting on the side wall of the hole.

4. A reamer for the purpose described, consisting of a member that is adapted to be connected to a drill stem or operating device and which is arranged in longitudinal alinement with same, and a plurality of horizontally-disposed cutters surrounding said member and rotatably mounted on said member in different horizontal planes for acting on the side walls of the hole.

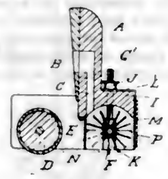
5. A reamer for the purpose described, consisting of a member that is adapted to be connected to a drill stem or operating device, and a plurality of horizontally-disposed cutters surrounding said member and arranged in different horizontal planes for acting on the side wall of the hole, said cutters being of considerably less diameter than the diameter of the hole and all of said cutters being rotatably mounted on said member in such a manner that they engage the side wall of the hole at different points and thus prevent the said member from wabbling.

[Claims 6 to 22 not printed in the Gazette.]

1,136,136. VACUUM-CLEANER. ERNEST ALLEN HUNT, Mount Eden, near Auckland, New Zealand. Filed Nov. 19, 1913. Serial No. 801,989. (Cl. 15—60.)

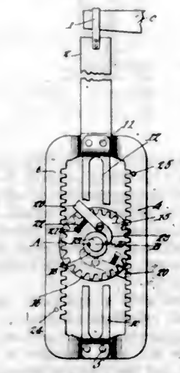
A vacuum cleaner comprising a vertical body portion formed with a lower forward projecting portion and a vertical slot extending the full width thereof and opening out of said body portion at the bottom and connecting with a horizontal opening or passage in the back of said body portion near the top thereof, vertical plates secured to the sides and ends of said body portion, the end plates being provided with vertical slots between the side plates,

a roller journaled between said end plates in the rear of said suction slot, adjustable bearings in said slots, a cylindrical brush mounted in said bearings, screw



threaded projections on said bearings, extending upward through the lower forward projecting portion of the body and nuts working on said threaded portions.

1,136,137. POWER-TRANSMITTING MECHANISM. JOHN S. HUNTER, Coalinga, Cal. Filed Mar. 8, 1913. Serial No. 752,989. (Cl. 74—27.)



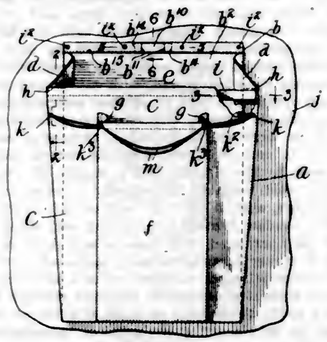
Power transmitting mechanism including a revoluble shaft, gears loosely mounted thereon, oppositely disposed rack bars constantly meshing with the respective gears, notched collars revoluble with the shaft and adjacent the respective gears, spring pressed dogs carried by the respective gears and normally engaging the collars, and tripping means outstanding from and movable with the rack bars for successively disengaging the dogs from the collars during the rotation of the shaft.

1,136,138. LAUNDRY-BAG. CARMICHAEL IZETT, New York, N. Y. Filed Jan. 8, 1914. Serial No. 810,962. (Cl. 150—1.)

1. A laundry bag composed entirely of flexible material and comprising a back, a front, and folding sides, the back being extended above the front and being provided at the top with a fold consisting of a plurality of thicknesses, and in the front thickness of which is a name card holder consisting of oppositely arranged pockets, said fold being also provided with a plurality of eyelets by which the bag may be suspended.

2. A laundry bag composed entirely of flexible material and comprising a back, a front and folding sides, the back being extended above the front and being provided at the top with a fold consisting of a plurality of thicknesses, and in the front thickness of which is a name card holder consisting of oppositely arranged pockets, said fold being also provided with a plurality of eyelets by which the bag may be suspended, and said bag being also provided below the top of the front thereof and in the opposite side edge portions of the front and back and the folding sides, with eyelets through which is passed a draw cord by which the bag may be closed.

3. A laundry bag composed entirely of flexible material and comprising a back, a front and folding sides, the back being higher than the front and being provided with a transverse row of eyelets, said bag being also provided below the top of the front and in the side edges of the front and back with eyelets through which is passed a draw cord, and the top of the bag being provided at the front thereof with a transverse detachable expansion bar.

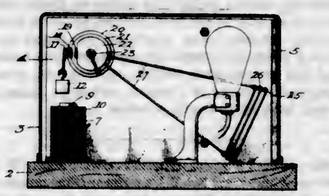


4. A laundry bag comprising a back, a front and folding sides, the back being raised above the front and being provided with transverse eyelets, the front portion of the bag being provided with a transverse detachable expansion bar, and the side edges of the front and side edges of the back being provided with eyelets below the top of the front, and through which a draw cord is passed.

5. A laundry bag comprising a back, a front and folding sides, the back being raised above the front and being provided with transversely arranged eyelets, and a central name plate holder, the front portion of the bag being also provided at the top thereof with a detachable transverse expansion bar, and the front of the bag being also provided with a supplemental pocket, the side edges of the back and the side edges of the front being provided below the top of the front with eyelets, and the side edges of the supplemental pocket being also provided at the top thereof with eyelets and a draw cord passed through said eyelets.

[Claims 6 to 10 not printed in the Gazette.]

1,136,139. CORNER-TURNING INDICATOR FOR AUTOMOBILES. SUMNER JACKSON, Denver, Colo. Filed June 1, 1914. Serial No. 842,163. (Cl. 40—52.)



1. In a direction indicator for automobiles, the combination of a cabinet comprising a base having side standards and a removable cover, a shaft mounted in said standards, three disks of different diameters on each end of said shaft, the inner, the middle and the outer disks on one end being of the same diameter as the corresponding disks on the other end, cross bars connecting the disks of like diameter, an armature depending from each cross bar, a pair of coil magnets on the base below each armature in make and break relation to said armatures, sign-supporting frames connecting each pair of disks of like diameter.

indicating cards secured to said frames, bearing respectively the words "Right," "Left," "Stop," a window in said cover, a group of batteries, push button switches, and circuit wires arranged to connect said switches to each pair of magnets independently of the others and to said batteries for energizing said magnets, thereby to raise any required sign to the said window.

2. In a corner turning stop and alarm indicator, the combination of a supporting base provided with side standards, a stationary shaft supported in said standards, three pairs of different sized disks rotatably mounted on said shaft, cross bars secured independently of each other to said disks, brackets depending from said cross bars, armatures depending loosely from said brackets, wire frames projecting from and supported by each pair of disks, signs secured to and supported by said wire frames, with magnets mounted on said base within magnetic make and break relation to said armatures, said armatures and disks and frames forming a rock arm mechanism pivotally mounted on said shaft, having a reciprocal oscillating movement to and from said magnets, means including a triple push button circuit, and a supply of current for energizing said magnets individually to raise any predetermined sign, with a cover for said cabinet provided with a display window arranged to display said signs, and an electric lamp arranged to illuminate said signs at night.

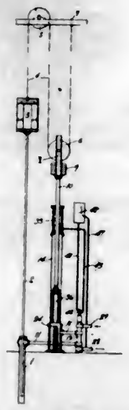
3. In a corner turning or stop indicator for the rear ends of automobiles, the combination of a base plate having a pair of separated standards mounted thereon and supporting a shaft, three pairs of disks of different diameters mounted on said shaft, three pairs of independent right angular shaped sign supporting wire frames secured to and projecting from said pairs of disks, each pair of frames being arranged to support a sign at its opposite ends, one of said signs to be provided with the word "Right," another with the word "Left," and the other with the word "Stop," a windowed cover arranged to be removably secured to said base, cross bars connecting each individual pair of disks, an armature depending from each of said cross bars, magnets for said armatures, circuit wires, push buttons, and batteries, operatively connected in circuit and positioned relative to each other to permit any one of said three signs to be moved at will to and from said display window and means for limiting the up and down movements of said frames.

4. In a direction-indicating device for automobiles, the combination with a cabinet, of a shaft mounted therein, disks of different diameters on opposite ends of said shaft, the inner disks being the smaller and the disks on one end having the same diameter as the corresponding disks on the other end, bars connecting the disks of like diameter, armatures in swinging engagement with said bars, magnet coils beneath said armatures in position to attract them, batteries, push buttons, and wires connecting said magnets, batteries and push buttons in circuit, a window in said cabinet, frames connecting the disks of like diameter having indicating signs in their outer ends and rods above and below said frames to limit their movements, said frames being operated as required by the closing of a circuit through the batteries and magnets, by means of the proper push button, whereby an armature is attracted, and a frame is thereby rocked to bring its indicating sign back of the said window.

1,136,140. HYDRAULIC ELEVATOR. KARL E. OSSIAN JANSSON, Flushing, N. Y., assignor, by mesne assignments, to Standard Plunger Elevator Company, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 22, 1907, Serial No. 363,487. Renewed Sept. 9, 1914. Serial No. 860,962. (Cl. 138—8.)

1. The combination with a hydraulic elevator system embodying a car, two connected cylinders and having connected plungers moving oppositely, one of said plungers displacing a greater volume of water than the other in proportion to a given movement, of means preventing variations of the pressure in said cylinders when connected by reason of the difference in displacement of said plungers.

2. The combination with a hydraulic elevator system embodying a car, two cylinders adapted to be connected, and having connected plungers moving simultaneously, one of said plungers displacing a greater volume of water than the other in proportion to a given movement, of means for connecting said cylinders to move the car in one direction, and means for preventing excess of pressure by reason of the excess of water displaced by one of said plungers when said cylinders are connected.



3. The combination with a hydraulic elevator system embodying a car, two cylinders adapted to be connected, and having plungers moving simultaneously, one of said plungers displacing a greater volume of water in proportion to a given movement than the other, of means for automatically preventing the difference in displacement of said plungers, when said cylinders are connected, from increasing the pressure.

4. The combination with a hydraulic elevator system embodying a car, two cylinders adapted to be connected, and having plungers moving simultaneously, one of said plungers carrying the car, and the other a counterweight connected to the car, and one plunger having a greater displacement in proportion to a given movement than the other, of means for connecting said cylinders to move the car in one direction, and means for preventing increase of pressure by reason of said difference in displacement of said plungers when said cylinders are connected.

5. The combination with a hydraulic elevator system embodying a car, two cylinders adapted to be connected and having plungers moving simultaneously in opposite directions, one of said plungers carrying the car and the other a counterweight, one plunger having a greater displacement than the other, of means for preventing increase of pressure in one cylinder by reason of the greater displacement of the plunger in the other cylinder for a given travel of the car.

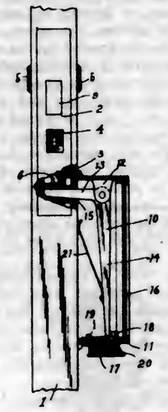
[Claims 6 to 20 not printed in the Gazette.]

1,136,141. PANIC EXIT-LOCK. ARTHUR M. KELLEY, Toledo, Ohio. Filed Jan. 30, 1914. Serial No. 815,428. (Cl. 70—46.)

1. The combination of a lock having a latch shoe, a lever for operating the latch shoe, and a casing having a glass wall for inclosing the said lever and a lock cylinder extending through the said casing for operating the said lever.

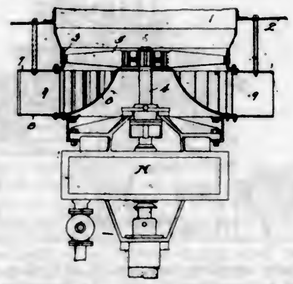
2. The combination of a lock having a latch shoe, a spring pressed lever for operating the latch shoe, and a casing having a glass wall for inclosing the said lever and a lock cylinder extending through the said casing for operating the said lever.

3. The combination of a lock having a bolt, a lever for operating the said bolt, a casing having a glass wall for inclosing the said lever, a lock cylinder located in one wall of the casing for operating the said lever and a



latch for engaging the said lever to hold the bolt in unlocked position.

1,136,142. BLOWER. CHARLES VOLNEY KERR, Wellsville, N. Y. Filed Aug. 15, 1913. Serial No. 785,009. (Cl. 230—11.)



1. In a blower or the like, a bladed impeller and a diffuser having stationary blades, the number of blades in the impeller and diffuser being prime to each other.

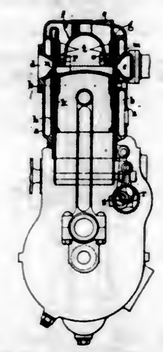
2. In a blower or the like, the combination of a rotary bladed impeller designed to move air axially, a deflector at the discharge side of the impeller, an annular diffusion ring at the periphery of the deflector, said ring being in a plane parallel to the rotative plane of the impeller, and diffusion vanes in the diffuser, the number of the impeller blades being prime to the number of the diffusion vanes to reduce the noise of operation.

3. In a blower, the combination of a rotary bladed impeller, a circular casing therefor having a suction inlet to supply air to the impeller, and a concentric series of diffusion vanes to receive air from the impeller, the number of the impeller blades being prime to the number of the diffusion vanes to reduce noise.

4. In a blower or the like, the combination of a suction inlet, an impeller for moving air axially rotatably supported within said inlet, a stationary deflector at the discharge side of the impeller arranged to receive air moving axially and to deliver it spirally outward, an annular series of diffusion vanes to receive air from the deflector and deliver it radially outward, and an inclosure for containing air under pressure wherein said diffusion vanes are located.

5. In a blower or the like, the combination of a suction inlet, an impeller rotatably mounted therein and constructed and arranged to move air spirally away from said inlet, an annular series of diffusion vanes arranged concentric with said impeller to receive air therefrom and deliver it radially outward, and an inclosed space wherein said series of diffusion vanes is mounted for containing air under pressure.

1,136,143. INTERNAL-COMBUSTION ENGINE. CHARLES Y. KNIGHT, Chicago, Ill., assignor, by mesne assignments, to Knight American Patents Company, a Corporation of Delaware. Filed Oct. 10, 1908. Serial No. 457,057. (Cl. 123—75.)



1. The combination of an engine cylinder having an exhaust port therein; a fixed member to coöperate therewith; two port-controlling members each having an exhaust port therein; and means adapted to operate said port-controlling members and move the lower edge of the exhaust port of one of said members over the lower edge of the fixed member to open the exhaust port of the engine, and to move the upper edge of the exhaust port of one of said members over the lower edge of the exhaust port of the cylinder to close the exhaust port of the engine.

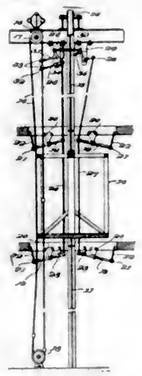
2. The combination of an engine cylinder having intake and exhaust ports therein; a fixed member to cooperate therewith; two concentric sleeves slidably mounted in said cylinder and each having an intake and an exhaust port therein; a piston operatively mounted in the inner of said sleeves; and a connection between said sleeves and said piston moving the lower edge of the exhaust port of the inner sleeve downwardly over the lower edge of the fixed member to open the exhaust port of the engine, and moving the upper edge of the exhaust port of the outer sleeve over the lower edge of the exhaust port of the cylinder to close the exhaust port of the engine.

3. The combination of an engine cylinder having an exhaust port therein; a head on said cylinder and having a portion extending into said cylinder and spaced therefrom; two port-controlling members mounted in the space between said projection and the cylinder, disposed over said exhaust port and each having an exhaust port therein; and means operating said members and moving the lower edge of the exhaust port of one of said members over the lower edge of said projection to open the exhaust of the engine and moving the upper edge of the exhaust port of the other of said members over the lower edge of the exhaust port of the cylinder to close the exhaust port of the engine.

4. The combination of an engine cylinder having intake and exhaust ports therein; a head on said cylinder and having a portion extending concentrically into said cylinder and spaced therefrom; two telescoped sleeves mounted in said cylinder and extending into the space between the cylinder and said projection, each of said sleeves having an intake and an exhaust port therein; a piston mounted in said sleeves; and a connection between said piston and said sleeves moving the lower edge of the exhaust port of the inner sleeve downwardly over the

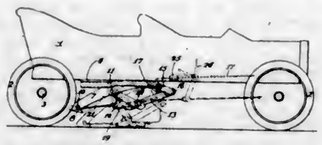
lower edge of said projection to open the exhaust of the engine, and moving the upper edge of the exhaust port in the outer sleeve over the lower edge of the exhaust port of the cylinder to close the exhaust of the engine.

1,136,144. AUTOMATIC ELEVATOR-STOP. JOHN D. KOOYMAN, Salt Lake City, Utah. Filed Apr. 22, 1913. Serial No. 762,901. (Cl. 187—40.)



The combination with an elevator well and a cage mounted for travel therein and a power controlling cable, of tripping means arranged below each floor of the well, levers having coöperative engagement with the power controlling cable at spaced points, the tripping means at each floor of the well being arranged at the opposite sides of the opening in the floor, and connection between each of the tripping means and one of the levers for actuating the lever when the respective means is tripped.

1,136,145. EMERGENCY STOP AND JACK FOR AUTOMOBILES. MORRIS KOPPELMAN, New York, N. Y. Filed Dec. 21, 1914. Serial No. 878,224. (Cl. 21—8.)



1. In a device of the character described, the combination of a shoe, a frame on which the said shoe is mounted, means for moving the said frame so as to bring the said shoe into contact with the ground adjacent to the wheel of the vehicle, and means for permitting the said frame to move relatively to the vehicle so as to permit the wheel to pass over the shoe, and means brought into operation on the passage of the wheel over the shoe for holding the wheel suspended above the ground.

2. In a device of the character described, the combination of a shoe, a frame on which the said shoe is mounted, means for moving the said frame so as to bring the said shoe into contact with the ground adjacent to the wheel of the vehicle, and means for permitting the said frame to move relatively to the vehicle so as to permit the wheel to passs over the shoe, and means brought into operation on the passage of the wheel over the shoe and forming a part of said frame, for holding the wheel against return to the ground after it has passed over the said shoe.

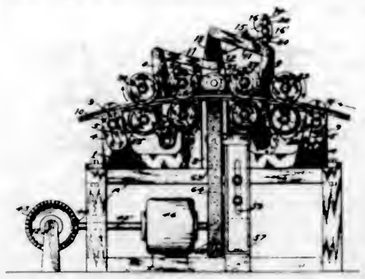
3. The combination with a vehicle comprising a body and wheels of a stop and jack, consisting of a shoe adapted to be moved from an elevated position to a position on the ground in front of a wheel, a support by which said shoe is suspended, said support being slidably connected with the body of the vehicle, means for moving the said support to move the shoe into contact with the ground, means for moving it to raise the said shoe from the ground and means for locking the same in both positions, and means for causing the wheel to be held in a position elevated from the ground on the said support.

4. In combination with a vehicle body supported on front and rear axles traveling on wheels, a shoe, a flexible connection between the said shoe and the body of the vehicle, whereby the same may be moved to and from the ground forward of one of the wheels, a connection between the said flexible shoe connection and the body permitting relative longitudinal movement of the said parts, whereby the wheel is permitted to pass over the shoe, and be raised above the ground thereby, and means for automatically supporting the said wheel above the ground and out of contact with the shoe after it has passed over the same.

5. In combination with a vehicle body supported on front and rear axles provided with wheels, a folding frame supported beneath the body of the vehicle so as to have bodily longitudinal movement, said frame also having parts which move vertically when the same folds and unfolds to remove them from contact with the ground and place them in contact therewith.

[Claim 6 not printed in the Gazette.]

1,136,146. STAVE-SANDER. JULIUS J. KROHN, Arcata, and FREDERICK J. DAVIS, Oakland, Cal. Filed Sept. 26, 1914. Serial No. 863,697. (Cl. 51—5.)



1. A stave sanding machine of the class described, comprising a succession of pairs of coöperating feed rolls, each pair lying in parallel spaced relation in a substantially horizontal plane to the other pairs of rolls and between the rolls of which the staves are adapted to pass, means for rotating said rolls, and a sanding device movable in a path transversely of the path of movement of the staves when propelled between said rolls and adapted to coöperate with said staves when the same are passing between said rolls.

2. A stave sanding machine comprising a succession of pairs of coöperating fed rolls and between which the staves are adapted to pass, means for rotating said rolls, means for adjusting the end pairs of rolls in a vertical plane relative to the other pairs of rolls, and a sanding device operating across the path of said staves while passing between said rolls.

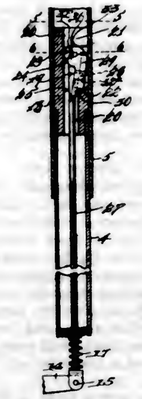
3. A stave sanding machine comprising a plurality of coperating feed rolls arranged in pairs and between which the staves are adapted to pass, means for rotating said rolls, means for simultaneously adjusting certain pairs of rolls relative to the other pairs of rolls, and a sanding device adapted to coöperate with said staves while passing between certain of said rolls.

4. A stave sanding machine comprising a succession of pairs of parallel spaced coöperating feed rolls arranged in a substantially horizontal plane and between the rolls of which the staves are adapted to pass, means for rotating the rolls in the same direction, a supporting wheel adjustably positioned between certain pairs of rolls and rotatable in a path at substantially right angles to the path of rotation of said rolls, and an endless sanding device carried by said wheel for coöperating with the staves while propelled between said pairs of rolls.

5. A stave sanding machine comprising a plurality of rotatably mounted alined rolls arranged in spaced relation to each other and formed with convex surfaces, a rotatably mounted roll positioned above each of said first mentioned rolls and adapted to rest thereon, and each formed with a concave surface and between which and said first mentioned rolls the staves are adapted to pass, means for rotating said rolls, and a sanding device for coöperating with the staves while propelled by said rolls.

[Claims 6 to 8 not printed in the Gazette.]

1,136,147. SELF-LOCKING EXTENSIBLE STAND OR SUPPORT. EDWARD LEVIN, New York, N. Y. Filed Mar. 11, 1914. Serial No. 823,853. (Cl. 248—3.)



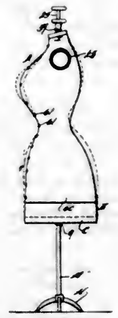
1. In combination with a slidable tubular support, a fixed recessed block within the same provided with an inclined inner face on one side of the center of said support, a sliding and pivotally movable block in the recess of the fixed block having an inclined part for engaging said inclined part of the fixed block and a rod for raising and lowering said movable block, the latter being free to move up and down when raised by said rod, but being tilted pivotally, transversely of said support by the said inclined faces when lowered far enough to effect such contact and consequently caused to bind against said fixed block and said support, locking the latter.

2. In combination with a slidable tubular support, a block within the latter having a depression on one side of the center of said support, a movable block having near its upper end a rounded part for entering said depression, the support being free to move up and down when they are in this position, and means for raising and lowering said movable block, the two blocks being also provided in their lower parts with faces, which when brought into contact by the descent of said movable block, are adapted to tilt said movable block into engagement with said support and with said fixed block below said depression, thereby locking said support.

3. A locking device for slidably connected tubular supports consisting of a block fixed to a support and having a recess intermediate the ends thereof, the lower wall of said recess being angularly disposed, the upper portion of the rear wall of the recess being provided with a depression having a rounded edge, a loosely mounted block in said recess having a curved lower end adapted to contact with the angularly disposed lower wall of said recess, a rounded projection carried by said loosely mounted block adapted to fit in said curved depression when said block is raised and to cause said block to move outwardly when said block is moved downwardly to contact with said angular wall, and means to move said block up or down.

4. In combination with a slidable tubular support, a block within the latter having a depression on one side of the center of said support, a movable block having near its upper end a rounded part for entering said depression, the said support being free to move up and down when they are in this position, and means for raising and lowering said movable block, the two blocks being provided in their lower parts with inclined faces arranged to be brought into contact by the descent of said movable block, the inclined face of the latter being also slightly convex form, and such contact serving to tilt said block transversely of the support into locking engagement with said support and said fixed block below said depression.

1,136,148. GARMENT-FORM. EDWARD LEVIN, New York, N. Y. Filed Mar. 11, 1914. Serial No. 823,854. (Cl. 223—18.)



1. In a garment form, the combination of a skirt-portion with a horizontal support to which the upper end of said skirt-portion is attached, a bust-portion mounted on said support, means, also mounted on the latter, for permitting the tilting the said bust-portion, a horizontal trunnion attached to the underside of said support, a post and a clamp on said post engaging said trunnion and permitting the entire form to be tilted to any desired angle and fastened in such position

2. In a garment form, the combination of a skirt-portion with a bust-portion, means for supporting the entire form and adjusting it as a whole to different angles of inclination, and means for adjusting the bust-portion independently in any tilted position.

3. In a garment form, the combination of a skirt-portion with a bust-portion, a support between and connecting these portions, a post provided with means for adjustably engaging said support to permit the adjustment of the form as a whole to different angles of inclination, a pair of posts pivoted on said support and sustaining the bust-portion and an inclined securing device consisting of a spring held piston sliding in a socket said device connecting said pair of posts obliquely to said support and said posts and securing device providing for the independent adjustment of said bust-portion to different positions of inclination.

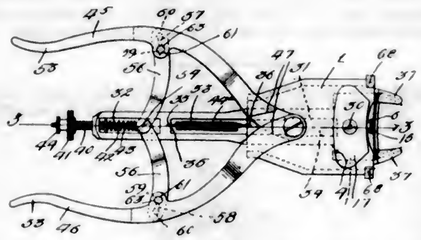
4. In a garment form, a skirt-portion consisting of expansible elements, in combination with a horizontal support composed of a pair of plates holding the upper ends of said elements between them and having a normally horizontal trunnion suspended rigidly from the under plate, a clamp engaging said trunnion for adjusting said skirt-portion to any desired angle of inclination and means for supporting said clamp.

5. In a garment form, a bell-shaped skirt-portion consisting of suspended resilient radially expansible ribs and a covering for holding them in position, in combination with a pair of horizontal plates adapted to receive the upper ends of said ribs horizontally between them, means for holding said plates together, a post supporting said

plates and skirt-portion, and connections between said post and the lower plate permitting said skirt-portion to be adjusted to different tilted positions.

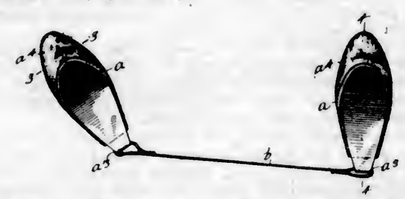
[Claims 6 to 9 not printed in the Gazette.]

1,136,149. HOG-RINGER. WILLIAM L. MCGOWAN, Spickard, Mo. Filed Aug. 20, 1914. Serial No. 857,636. (Cl. 128—27.)



In a hog ringer as set forth, a casing having a ring chamber, a slide plunger operable therein, a magazine for a plurality of hog rings, a pair of lever members pivoted to the casing and having jaws beyond the ring discharge end of the casing, whereby a ring may be clenched as the lever members are manually forced together, and means in the magazine for feeding a ring into the ring chamber as the slide plunger is receded or retracted when the lever members are operated toward one another, yieldable connections between said lever members and the slide member for retracting the same as the lever members are operated toward each other, and means for automatically separating said lever members and their jaws, said last named means acting automatically to force the slide member through the ring chamber to feed a hog ring to and between said jaws.

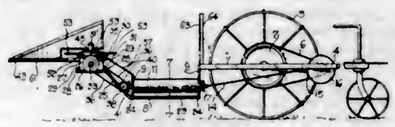
1,136,150. FLOOR-POLISHER. LILI ALINE MCGRATH, Brookhaven, Miss. Filed June 9, 1914. Serial No. 843,986. (Cl. 15—13.)



A floor polishing device, comprising a pair of foot coverings, each of which comprises a strip of suitable material bent intermediate its ends to form superimposed sole members having a loop at the bend, a slipper upper having the lower edges thereof tucked between said sole members, a bottom member also held between said sole members, said upper and sole members being secured together forwardly of said loop, and a cord joining said loops.

1,136,151. HARVESTER. SAMUEL E. MCPHERSON, Cherokee, Okla., assignor of one-half to Hanby L. Young, Cherokee, Okla. Filed Feb. 7, 1914. Serial No. 817,293. (Cl. 56—131.)

1. In combination with a body, a conveying mechanism carried thereby including side boards, tie bars connecting the side boards and having their forward extremities projecting thereabove, blocks carried by the uppermost extremities of the tie bars, forwardly directed guide members carried by the blocks, cutting members carried by the blocks, reels rotatably supported by the blocks and coacting with the cutting members, a shaft rotatably supported by the blocks, an operative connection between the shaft and each of the reels, and means for imparting axia rotation to the shaft.



2. In combination with a body, a conveying mechanism carried thereby including side boards, tie bars connecting the side boards and having their forward extremities projecting thereabove, blocks carried by the uppermost extremities of the tie bars, forwardly directed guide members carried by the blocks, cutting members carried by the blocks, reels rotatably supported by the blocks and coacting with the cutting members, a shaft rotatably supported by the blocks, an operative connection between the shaft and each of the reels, means for imparting axial rotation to the shaft, said reel including a removable cutting disk and a plurality of removable radiating arms, and means common to both for maintaining the same in operative position.

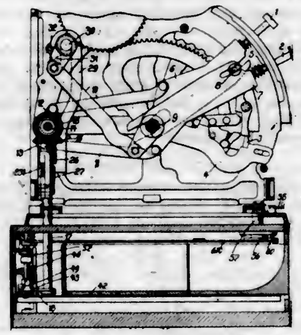
3. In combination with a body, a conveying mechanism carried thereby including side boards, tie bars connecting the side boards and having their forward extremities projecting thereabove, blocks carried by the uppermost extremities of the tie bars, forwardly directed guide members carried by the blocks, cutting members carried by the blocks, reels rotatably supported by the blocks and coacting with the cutting members, a shaft rotatably supported by the blocks, an operative connection between the shaft and each of the reels, and means for imparting axial rotation to the shaft, said reel including a removable cutting disk and a plurality of removable radiating arms.

4. In combination with a body, a transversely disposed conveying mechanism carried thereby including side boards, tie bars connecting the side boards and having their forward extremities projecting beyond the front side board and inclined forwardly and upwardly to a point thereabove, blocks carried by the uppermost extremities of the tie bars, cutting means operatively connected with said blocks, a bar connecting said blocks, and an apron connected to and bridging the space between the last named bar and the adjacent side board and disposed substantially entirely therealong.

1,136,152. ALARM AND LOCK-CONTROL FOR CASH-REGISTERS. HAAKON A. MARTIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed June 27, 1913. Serial No. 776,036. (Cl. 235—22.)

1. In a machine of the class described, the combination with an operating mechanism, of a series of independent cash drawers, independent alarms for the respective cash drawers, means requiring an operation of the operating mechanism for opening any desired drawer and sounding its alarm, means normally preventing successive operations of the operating mechanism to sound the same alarm while the drawer remains open, and a lock controlled manipulative device whereby said preventing means and all of the aforesaid alarms may be simultaneously disabled.

2. In a machine of the class described, the combination with an operating mechanism, of a plurality of separate receptacles, independent alarms for the respective receptacles, manipulative devices under the control of which any desired receptacle may be exposed and its alarm sounded by an operation of said operating mechanism, devices controlled by the exposed receptacle locking its corresponding manipulative device against operation until the receptacle is closed and a common means whereby the locking devices and all of the aforesaid alarms may be simultaneously disabled.



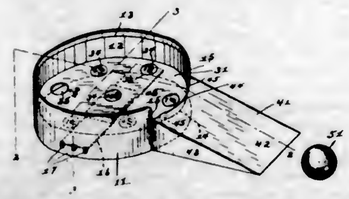
3. In a machine of the class described, the combination with an operating mechanism therefor, of a plurality of normally inaccessible receptacles, manipulative devices, means controlled by said manipulative devices and requiring an operation of the operating mechanism whereby any desired receptacle may be rendered accessible, and means comprising a plurality of spring operated arms for preventing successive operations of a manipulative device while its respective drawer remains open.

4. In a machine of the class described, the combination with an operating mechanism, of a plurality of drawers, an independent alarm for each drawer, manipulative devices, means controlled by said manipulative devices and requiring an operation of the operating mechanism for opening any desired drawer and sounding its alarm, means normally locking a manipulative device against operation while its respective drawer remains open, and an adjustable device whereby said locking means only may be disabled or both the locking means and aforesaid alarms simultaneously disabled.

5. In a machine of the class described, the combination with an operating mechanism, of a plurality of drawers, an independent alarm for each drawer, manipulative devices, means controlled by said manipulative devices and requiring an operation of the operating mechanism for opening any desired drawer and sounding its alarm, means normally locking a manipulative device against operation while its corresponding drawer remains open, and a common manipulative means whereby said locking means and all of the aforesaid alarms may be simultaneously disabled.

[Claims 6 to 16 not printed in the Gazette.]

1,136,153. GAME DEVICE. WILLIAM C. MARTINEAU and CLARENCE R. MARTINEAU, Albany, N. Y. Filed Jan. 26, 1915. Serial No. 4,543. (Cl. 46—61.)



1. A game device including ball retaining means, comprising a substantially circular wall and a turntable rotatable therein; means for guiding a ball on to said turntable; and a plurality of pockets in said ball retaining means in any of which such ball may come to rest after it has been whirled on said turntable.

2. A game device including a substantially circular wall; a turntable rotatable therein; means for guiding a ball onto said table; and a plurality of pockets in said table in any of which such ball may come to rest after it has been whirled on said table.

3. A game device including a circular wall, a portion of which is of less height than the remainder; a turntable rotatable within said wall; a ramp engageable with the lower portion of said wall for guiding a ball on to said table; and a plurality of pockets in said table, each marked with a numerical value, in any of which such ball may come to rest after it has been whirled on said table.

4. A game device including a circular wall, a portion of which is of less height than the remainder; a bridge extending diametrically of said wall and pierced with an aperture axial thereof; a turntable rotatably supported on said bridge; means for guiding a ball over the lower portion of said wall on to said table; and a plurality of pockets in said table, each marked with a numerical value, in any of which such ball may come to rest after it has been whirled on said table.

5. A game device including a circular wall, a portion of which is of less height than the remainder; a turntable rotatable within said wall; a plurality of pockets in said table, each marked with a numerical value, in any of which a ball may come to rest after it has been whirled on said table; and a plurality of ribs stamped in said table for varying the motion of such whirling ball.

[Claim 6 not printed in the Gazette.]

1,136,154. STIRRUP. HOMER METCALF, Tribbey, Okla. Filed July 25, 1914. Serial No. 853,056. (Cl. 54—49.)

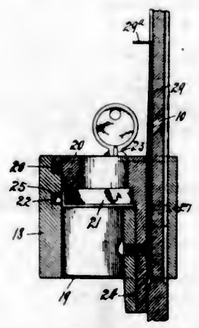


1. The combination with a looped suspending strap, of a head block carried by said suspending strap, a leg secured at its upper end to one end of the block, a second leg hingedly connected at its lower end to the lower end of the first leg, the upper end of the second leg being adapted for engagement against the opposite end of the block, and means pivotally connected to the block to normally maintain the hinged leg in engagement therewith, said means including a normally vertical portion adapted for engagement between the arms of the suspending strap to maintain said locking means in locking engagement with the hinged leg when said legs are disposed in vertical alinement with the suspending strap.

2. A device of the character described comprising a head block, a leg rigidly secured at its upper end to one end of the head block, a second leg hingedly connected at its lower end to the lower end of the first leg, the upper end of the second leg being adapted for engagement against the other end of said block, the upper end of the second leg having a slot formed therein, a lever connected to the block, said lever having a portion adapted to project through the slot to detachably lock the second leg against said block and arranged to aline with the slot, and means for maintaining the locking portion of the lever disposed out of alinement with said slot.

3. The combination with a looped suspending strap, of a head block supported in the strap, a leg secured at its upper end to one end of the block, a second leg hingedly connected at its lower end to the lower end of the first leg, the upper end of said second leg being adapted for engagement against the other end of the block, the last mentioned leg having an inclined slot formed therein, the upper end of which projects above the upper face of the block, and a lever rotatably connected to the upper face of the block and having one end thereof extended vertically between the arms of the suspending strap, the other end of said lever being directed at a plane at right angles to the longitudinal plane of the vertically directed end of the lever for engagement through said inclined slot.

1,136,155. LOCKING MEANS FOR CONTROL-LEVERS. FRANK B. MILLER, Norwalk, Ohio, assignor to The Atwood Automobile Company, Toledo, Ohio, a Corporation of Ohio. Filed Jan. 20, 1915. Serial No. 3,280. (Cl. 70—90.)



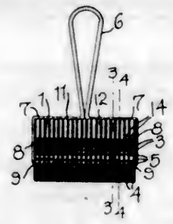
1. The combination with a lever and a guide member therefor, of a locking mechanism case encompassing a portion of said lever, said case being removable from the lever and said lever and case having parts in loose interengaging connection to prevent relative endwise movements of the case and lever when engaged, and a locking mechanism removably mounted in said case at one side of said lever and serving to retain the case and lever in interengaged relation and operable to coact with said guide member to lock the lever against predetermined movements relative thereto.

2. The combination with a lever, and a guide member therefor, of a locking mechanism removably carried by the lever and comprising a case having an opening therethrough in one side portion of which the lever is located, said case and lever being in removable interlocking engagement when in assembled relation, a block movable in said case opening at one side of the lever and having a locking part projecting without said opening for locking engagement with said guide member, key controlled locking means carried by said block for movements therewith relative to said case and operable to coact with the case to lock the block therein or out of locking engagement with said guide member.

3. The combination with a lever and a guide member therefor, of a locking mechanism carried by the lever and comprising a case having an opening therethrough through one side portion of which the lever projects, said case and lever being in removable interlocking engagement, a block movable in said case opening at one side of said lever and having a control part projecting from one end thereof, and a locking part projecting from the other end thereof, and means for locking said block against movement in the case when its locking part is either in or out of locking engagement with the guide.

4. The combination with a lever and a guide member therefor, of a locking-mechanism case encompassing a portion of said lever adjacent to said guide, said case being removable from the lever lengthwise thereof and said lever and case having parts in loose interengaging connection to prevent relative endwise movements of the case and lever when engaged, a block slidably mounted in said case at one side of the lever and serving to retain the case and lever in interengaged relation, means for limiting the lengthwise movements of said block within the case, means for locking the block at one limit or the other of its movement within the case, a part projecting from said block in position to have locking engagement with the guide when the block is in one position of its movement within the case, and a control member projecting from the block at one side of the lever.

1,136,156. CURRYCOMB. GRANT S. MILLER, Bristol, Va. Filed Oct. 10, 1914. Serial No. 866,099. (Cl. 119—88.)



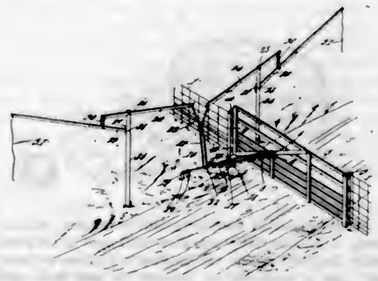
1. A curry comb comprising a handle having a combing head rotatably mounted thereon, and a disinfectant holder carried by the handle and adapted to inclose a portion of said head.

2. A curry comb comprising a handle having a head rotatably supported thereon, said head having a plurality of annular grooves formed therein, a cleaning member supported by the handle, and said member having a plurality of teeth formed thereon for engagement within the grooves in the head.

3. A device of the character described comprising a handle having a rotatable hollow cylindrical head mounted thereon, said head having a plurality of annular corrugations formed therein, the portions of the head between the corrugations being formed with an annular series of openings therein, and means for normally preventing rotation of the head with relation to the handle.

4. A curry comb comprising a handle having a rotatable cylindrical head mounted thereon, the periphery of said head having a plurality of annular grooves formed therein, a cleaning member substantially U-shaped in cross section carried by the handle, the side walls of said cleaning member at their edges having portions cut away to provide V-shaped teeth for engagement in the corrugations in the head, and said cleaning member being adapted to support a disinfectant saturated sponge therein.

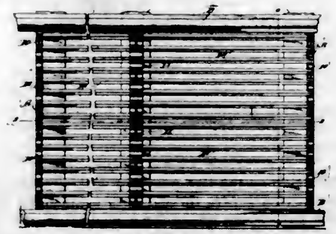
1,136,157. GATE. GEORGE MOCK, Bardstown, Ky. Filed Nov. 19, 1914. Serial No. 873,026. (Cl. 39—14.)



1. In a device of the class described, a swinging gate; a link pivoted to the gate and comprising spaced parts defining an opening; a lever pivoted intermediate its ends between the parts of the link; a transverse weight on one end of the lever and provided with a tapered end adapted to enter the opening thereby to guide the lever between the parts of the link, the weight comprising a lateral projection coöperating with the link to hold the link and the lever in approximate alinement whereby the link and the lever will act as a brace to hold the gate closed; means for pivotally mounting the other end of the lever; and means for raising the lever.

2. In a device of the class described, a swinging gate; a U-shaped link; a pivot element connecting the bend of the link with the gate; a pivot element connecting the ends of the arms of the link; a lever mounted to swing intermediate its ends upon the last named pivot element; a transverse weight on one end of the lever and including a guiding end adapted to enter the link; a projection on the weight and adapted to engage the upper edges of the arms of the link thereby to hold the lever and link in approximate alinement, whereby the lever will act as a brace to hold the gate closed; means for pivotally supporting the other end of the lever; a U-shaped yoke pivoted to the lever and adapted to receive the other end of the weight when the lever is raised.

1,136,158. CATTLE-GUARD. JOHN J. MORSE and WILLIAM B. MALLETTE, St. Louis, Mo., assignors, by mesne assignments, to General Appliance Company, St. Louis, Mo., a Corporation of Missouri. Filed July 29, 1912. Serial No. 712,128. (Cl. 256—17.)

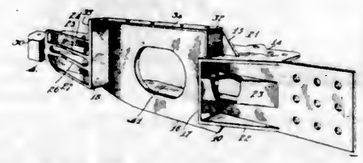


1. A cattle guard for railway tracks comprising longitudinal guard bars formed with sides contracted in width from their bases toward their tops, and transverse supporting bars secured to the ties and formed with pockets to receive the lower edges of said bars, the pockets of the end supporting bars being formed to correspond with the transverse formation of the ends of the longitudinal bars and with flanges extending across their outer ends at right angles with the sides of the longitudinal bars and against which said longitudinal bars are adapted to abut when the parts are assembled, whereby said longitudinal bars are retained in said pockets against displacement both in an upward and in a longitudinal direction, substantially as set forth.

2. A cattle guard comprising metal guard bars formed contracted in width toward their tops and with upwardly curved portions between their ends, transverse bars for supporting said guard bars formed with pockets with tapered sides to receive and embrace their ends, said pockets having open tops through which the upper portions of said guard bars extend and with transverse flanges across their outer ends at right angles with the direction of said guard bars, whereby they are adapted to embrace and support said guard bars against longitudinal and transverse movement, substantially as set forth.

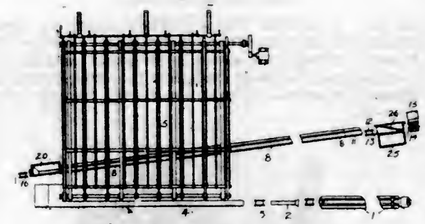
3. A cattle guard comprising longitudinally extending guard bars and transverse end and intermediate supporting bars, which supporting bars comprise solid base plates adapted to be secured to the ties and formed with integral pockets formed to receive and embrace the base portions of said guard bars, said pockets in the several supporting bars being open at their tops with the guard bars projecting into a plane above their tops, the pockets of the intermediate bars being formed with open ends, and the pockets of the end bars with their outer ends provided with webs to engage the ends of the guard bars, whereby a cattle guard is provided, the upper edges of the guard bars of which are exposed throughout their entire length and no crosswise obstruction is presented above said guard bars, while said guard bars at the same time are securely held from longitudinal movement, all substantially as set forth.

1,136,159. DRAFT-ARM FOR RAILWAY-CARS. CHARLES J. NASH, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., a Corporation of Illinois. Filed Feb. 14, 1912. Serial No. 677,450. (Cl. 213—42.)



In a draft arm for railway cars, in combination, a plate adapted for attachment to the sills of a car and having opposed draft shoulders and an oblong aperture intermediate of the shoulders, and an outwardly extending shelf at the lower edge of the aperture.

1,136,160. TONG-CARRIER. WILLIAM M. NECKERMAN, Youngstown, Ohio. Filed Mar. 24, 1913. Serial No. 756,284. (Cl. 205—1.)



1. The combination with a pipe-drawing apparatus, of a tong-carrier independent of the said apparatus and comprising a horizontal endless chain-carrier extending from a position near the rear end of the said apparatus to a position near the front end thereof, and a tong-skid for depositing the tongs upon the chain-carrier.

2. The combination with a pipe-drawing apparatus, of a tong-carrier comprising a horizontal endless chain-carrier extending from a position near the rear end of the said apparatus to a position near the front end thereof, a tong-skid for depositing the tongs upon the chain-carrier, and a tong-bosh into which the chain-carrier delivers the tongs.

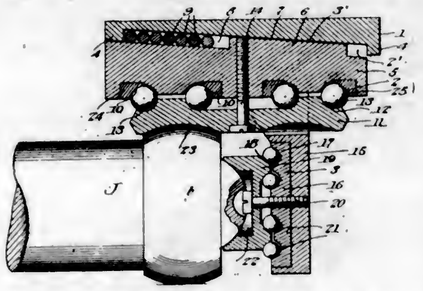
3. In a pipe-mill, a pipe-drawing apparatus, a pit below the floor line independent of the said apparatus and extending from approximately the tong taker-off's position to a position near the front end of the said apparatus, an endless chain-carrier in the pit, and a tong-skid for depositing the tongs on the chain-carrier.

4. In a pipe-mill, a pipe-drawing apparatus, a pit below the floor line independent of the said apparatus and extending from approximately the tong taker-off's position to a position near the front end of the said apparatus, and an endless chain-carrier in the pit.

5. In a pipe-mill, a pipe-drawing apparatus, a pit below the floor line extending forwardly from the vicinity of the tong taker-off, an endless chain-carrier in the pit independent of the said apparatus, means for depositing the tongs on the chain-carrier, and means for causing the forward end of the chain-carrier to rise above the floor line.

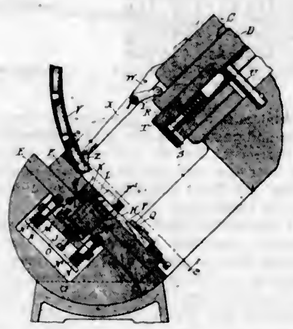
[Claims 6 to 8 not printed in the Gazette.]

1,136,161. ANTIFRICTION-BEARING. WILLIAM W. NEIGHBOUR, Sandusky, Ohio. Filed June 21, 1913. Serial No. 775,129. (Cl. 64—49.)



The combination with a vertical bracket, of a thrust bearing comprising a base plate having one face thereof placed in face to face contact with said bracket and the opposite face formed with concentrically disposed ways, a member capable of rotation and having one face thereof formed with concentrically disposed ways coöperating with the first ways, anti-friction bodies within said ways, and a pin passed through said base plate and member at the axes thereof and threaded into said bracket whereby the member may be rotated upon the base plate and the bearing is secured to the bracket, the outer face of said member being cupped to receive a car journal.

1,136,162. MACHINE FOR CUTTING SLITS IN BOTTLE-CAPS AND SIMILAR ARTICLES. ELLIOTT S. NORTON, Chicago, Ill., assignor, by mesne assignments, to Handycap Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 1, 1913. Serial No. 798,608. (Cl. 164—21.)



1. Dies for cutting a top and side slits in caps comprising a fixed die and a coöperating plunger and movable die which is adapted to center the cap, said dies being formed with opposed shearing edges arranged to form the end portion of a tongue upon the disk portion of a cap, and side cutters adapted to form side cuts forming a continuation of said tongue on the side of such cap as it is centered and carried by the plunger toward the fixed die.

2. Dies for cutting a top and side slits in caps comprising a fixed die and a coöperating plunger and movable die which is adapted to center the cap, said dies being formed with opposed shearing edges arranged to form the end portion of a tongue upon the disk portion of a cap, and a pair longitudinally adjustable side cutters adapted to form side cuts forming a continuation of said tongue on the side of such cap as it is centered and carried by the plunger into the socket.

3. In a device of the character described for slitting caps, a bed having a socket, a die secured within said socket, a plunger equipped with a coöperating die and adapted to center the caps, said dies being formed with opposed shearing edges arranged to form the end portion of a tongue upon the disk portion of a cap, and side cutters adapted to make side cuts forming a continuation of said tongue on the side of such cap, said side cutters being mounted on said bed and longitudinally adjustable toward and from the path of the plunger.

4. In a device of the character described for slitting caps, a bed having a socket, a die secured within said socket and formed to make a cut delimiting a tongue in the top portion of the cap, a sliding block also within said socket embracing said die and normally flush with the surface of said bed, and a plunger equipped with a coöperating die, said plunger being arranged to center said caps in said socket and depress said sliding block.

5. In a device of the character described for slitting caps having substantially cylindrical rim portions, a bed having a socket, a plunger arranged to center a cap and carry it axially into said socket, and a side cutter arranged to project into the path of the cylindrical portion of the cap and form a side cut thereon.

[Claims 6 to 18 not printed in the Gazette.]

1,136,163. ENVELOP OR THE LIKE. JAMES D. O'BRIEN, Greenville, Pa., assignor of one-fourth to Charles K. Callahan and one-eighth to James M. Hittle, Greenville, Pa. Filed June 20, 1914. Serial No. 846,268. (Cl. 229—72.)



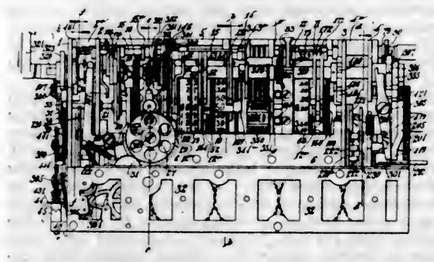
1. An envelop or the like provided with a stamp receiving pocket having a face formed with an opening adapted to expose a part of the stamp for cancellation, the back of the pocket being formed by the face of the envelop, and said face being slitted for the introduction of the stamp, the envelop being provided with a sealing flap adapted when closed to close the opening to the pocket, substantially as described.

2. Mailable matter of the character described comprising an envelop or the like provided with a stamp receiving pocket formed by slitting one wall of the envelop and affixing over the slitted portion a member adapted to constitute the other wall of the pocket, a postage stamp in said pocket, said pocket having a transparent face of a size at least equal to the size of the postage stamp to expose the entire stamp to view from the outside of the envelop, and said face having an opening of a size less than the stamp to prevent escape of the latter from the pocket while permitting direct cancellation of the stamp through the opening, substantially as described.

3. Mailable matter of the character described comprising an envelop or the like provided with a stamp receiving pocket, and a postage stamp in said pocket, said pocket having a transparent face of a size at least equal to the size of the postage stamp to expose the entire stamp to view from the outside of the envelop, and said face having an opening of a size less than the stamp to prevent escape of the latter from the pocket while permitting direct cancellation of the stamp through the opening, substantially as described.

1,136,164. TAXIMETER. JOHN F. OHMER and ELMER H. BRIDENBAUGH, Dayton, Ohio, assignors to Ohmer Fare Register Company, Dayton, Ohio, a Corporation of New York, (incorporated in 1902.) Filed June 3, 1912. Serial No. 701,208. (Cl. 235—30.)

1. In a taximeter, a counter, an actuator for said counter, an arm on said actuator, a lever adapted to engage said arm, a cam adapted to rock said lever to actuate said counter, and a ratchet controlling the movement of said cam.



2. In a taximeter, a counter, an actuator for said counter, a spring controlling said actuator, a cam adapted to move said actuator and to release said actuator to permit said spring to actuate said counter, and a ratchet controlling the movement of said cam.

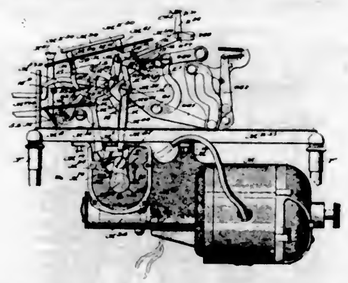
3. In a taximeter, a counter, an actuator for said counter, a spring controlling said actuator, a lever in operative relation with said actuator, a cam adapted to rock said lever to shift and to release said actuator and to thereby permit said spring to actuate said counter, and a ratchet controlling the movement of said cam.

4. In a taximeter, a plurality of banks of printing counters, an inking member for each bank of counters, one of said inking members being mounted on and secured to the other of said inking members, and a common actuator for all of said inking members said common actuator being adapted to move one of said inking members a greater extent than another.

5. In a taximeter, a plurality of banks of printing members, an inking member for each bank of printing members, one of said inking members being mounted on and secured to the other of said inking members, and a common actuator for all of said inking members and having a differential movement, said common actuator being adapted to move one of said inking members a greater extent than another.

[Claims 6 to 117 not printed in the Gazette.]

1,136,165. ELECTRIC DRIVE FOR CALCULATING-MACHINES. NATHAN W. PERKINS, Jr., East Orange, N. J. Filed July 7, 1911. Serial No. 637,375. (Cl. 235—62.)



1. In a calculating machine having a movable carriage, the combination with a normally locked motor drive therefor, of numeral keys for said calculating machine, operating keys for said calculating machine, and an interlock controlled by the operating keys and by the carriage adapted to prevent operation of the motor drive controlling device except on the depression of one of said operating keys or when the carriage is in tabulating position.

2. In a calculating machine, numeral keys, operating keys controlling the functions of the machine, a motor drive for the machine, a starting bar, rockers respectively pivotally connected to the starting bar and pivotally connected together, and a latch for locking one of the rockers to prevent depression of the starting bar, said latch being controlled by the operating keys and released from the rocker when any one of said keys is depressed.

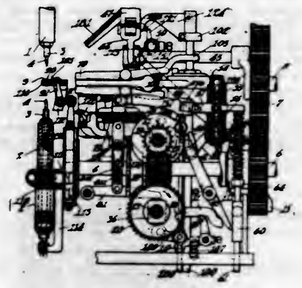
3. In a calculating machine having a movable carriage, the combination with a motor drive for said machine, of a starting bar, rockers pivoted together and respectively pivotally connected to different parts of the starting bar, a latch adapted to lock one of the rockers and prevent depression of the starting bar, means coöperating with the latch and with the carriage, whereby the latch is normally released from the rocker but is caused to engage therewith and to lock it and the starting bar when the carriage has passed beyond printing position.

4. In a calculating machine, the combination with a correction key, of a starting bar, a spring-actuated locking member for the correction key, and means operated by the starting bar adapted to hold the locking device out of engagement with the correction key when the starting bar is in normal position but which releases the locking device to thereby lock the correction key when the starting bar is depressed.

5. In a motor driven calculating machine, the combination with a starting bar, of a correction key, a spring-actuated locking member for the starting bar and means operated by the correction key adapted to hold the locking device out of engagement with the starting bar when the correction key is in normal position but which releases the locking device to thereby lock the starting bar when the correction key is depressed.

[Claims 6 to 8 not printed in the Gazette.]

1,136,166. FASTENER-SETTING MACHINE. DANIEL N. PRIME, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 14, 1911. Serial No. 633,130. (Cl. 218—15.)



1. In a machine of the class described, the combination with means for setting eyelets in stock, of means for automatically discontinuing the supply of eyelets and thereafter punching holes for lacing hooks, and means for automatically controlling the number of holes punched.

2. In a machine of the class described, the combination with means for setting eyelets in stock, of means for automatically discontinuing the supply of eyelets when a predetermined number of eyelets have been set and for thereafter punching a predetermined number of holes for lacing hooks.

3. In a machine of the class described, the combination of means for setting eyelets in stock and for thereafter punching holes for lacing hooks, and means for varying the spacing of the punched holes from the spacing of the eyelets, the operation of said means being initiated automatically when the last eyelet is set.

4. In a machine of the class described, the combination with means for setting eyelets in stock, of means for automatically discontinuing the supply of eyelets when a predetermined number of eyelets have been set and for there-

after punching a predetermined number of holes in the stock, and means for automatically varying the spacing of the eyelets from the spacing of the punched holes.

5. In a machine of the class described, the combination with means for setting eyelets in stock, of means for automatically discontinuing the supply of eyelets when a predetermined number of eyelets have been set and for thereafter punching a plurality of holes in the stock having a different spacing from the eyelets.

[Claims 6 to 75 not printed in the Gazette.]

1,136,167. UMBRELLA-ROD. RICHARD REININGER, Newark, N. J., assignor to Newark Rivet Works, Newark, N. J., a Corporation of New Jersey. Filed Mar. 16, 1914. Serial No. 824,965. (Cl. 135—46.)



1. An inner member of a telescopic umbrella rod of the kind described having the substantially entire outer face thereof which is adapted to bear against the outer member compressible.

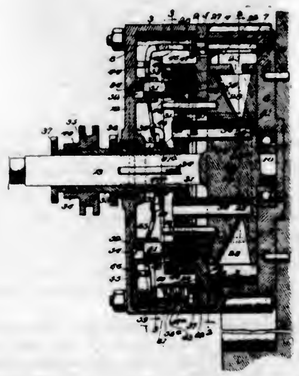
2. An inner member of a telescopic umbrella rod of the kind described having the body thereof composed of resilient strips separated substantially throughout.

3. An inner member of a telescopic umbrella rod of the kind described having the body thereof composed of separated resilient strips having indented faces, and rings or bands surrounding such strips and arranged in the indentations.

4. An inner member of a telescopic umbrella rod of the kind described having the body thereof composed of strips or rods separated for substantially their entire length, a hollow tip receiving an end of each strip or rod, and a link arranged between and pivoted to the other ends of such strips or rods.

5. A telescopic umbrella rod of the kind described comprising an outer member of a form to receive or envelop an inner member, and an inner member having the substantially entire outer face thereof which is adapted to bear against the outer member compressible.

1,136,168. FRICTIONAL LOCKING HYDRAULIC CLUTCH. CHARLES CLAYTON RICH, Mount Vernon, N. Y. Filed Mar. 3, 1913. Serial No. 751,798. (Cl. 192—18.)



1. In a hydraulic clutch, a driving element and a driven element, means for hydraulically engaging the driving with the driven element, means for frictionally engaging the driving with the driven element, and means for securing said frictional engagement after complete hydraulic engagement has been secured.

2. In a hydraulic clutch, a driving element, a driven element, a plurality of frictionally contacting elements, certain of which are operatively connected with the driving element of the clutch, and certain others of which are operatively connected with the driven element of the clutch, means for hydraulically engaging the driving element with the driven element, and means actuated by said means for engaging the frictional members with each other.

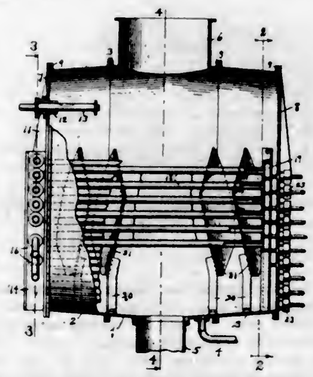
3. In a hydraulic clutch, a driving element, a driven element, means for compressing fluid between the driving and driven elements to operatively engage them for movement in one direction, a plurality of friction elements, certain of the elements being engaged with the driving elements and certain others of the friction elements being engaged with the driven element, and means operated by the fluid compressing means for forcing the friction elements into frictional engagement with each other to thereby engage the driving element with the driven element.

4. In a hydraulic clutch, a driving element, a driven element, means for admitting fluid between the driving and driven elements, means for compressing the fluid in the space between the driving and driven elements, means for relieving the pressure of the fluid between the driving and driven elements, a plurality of frictionally contacting elements normally held out of frictional engagement with each other, and some of said elements being connected with the driving element and other of said elements connected with the driven element, means actuated by the compression of the fluid between the driving and driven elements forcing said frictional elements into operative contact with each other.

5. In a hydraulic clutch, a driving element, a driven element, means for admitting fluid between the driving and driven elements, means for compressing fluid between said elements to thereby operatively engage the elements to each other for coincident movement, means for relieving the pressure of fluid between the driving and driven elements, a plurality of friction disks, certain of the disks being operatively connected to the driving element and certain other disks being operatively connected to the driven element, means actuated by the compression of fluid between the driving and driven elements acting to force said disks into frictional engagement with each other, and means for relieving frictional engagement between said disks when said compression is relieved.

[Claims 6 to 18 not printed in the Gazette.]

1,136,169. LIQUID-HEATER. EDWIN H. ROUSSEAU, New Orleans, La. Filed Mar. 5, 1914. Serial No. 822,575. (Cl. 127—9.)



1. A liquid heater comprising a container having a portion of relatively small cross-section, a portion of relatively large cross-section, and means comprising tubes extending longitudinally of said portions for supplying heat to the contents of the container, and means whereby a natural current is set up between the portions of different cross-section to cause an intimate mixing of the liquid.

2. A liquid heater comprising a container having a portion of relatively small cross-section, a portion of relatively large cross-section, and means comprising tubes extending longitudinally of said portions for supplying heat to the contents of the container, said means being arranged to supply a larger quantity of heat per unit of area of the container to the portion of small cross-section than to the portion of relatively larger cross-section, whereby a natural current is set up between the portions of different cross-section to cause an intimate mixing of the liquid.

3. A liquid heater comprising a container, a cover for the front end of the container, manifolds adjacent to the cover, means for supplying a heating medium to the manifolds, a series of longitudinal heating members leading rearwardly from each manifold, manifolds joining the rear ends of the heating members of a given series, whereby heat may be supplied to the liquid in the container to establish currents therein, and deflecting members for directing the currents set up in the liquid toward an intermediate portion of the container to cause an intimate mixing of the liquid.

4. A liquid heater comprising a horizontally disposed container, the cross-sectional area of the central portion of which is greater than that of the end portions, whereby an enlarged mixing chamber is formed, a closure for one end of the container, a manifold adjacent to the cover, means for supplying a heating medium to the manifold, a series of longitudinal heating members leading from the manifold toward the other end of the container, a second manifold for joining the other ends of the heating members, whereby heat may be supplied to heat the liquid and to cause a circulation thereof between the end portions and the central mixing chamber, said last-mentioned manifold being slidable longitudinally of the container to compensate for the expansion and contraction of the heating members, and a deflecting member arranged for directing the flow of the liquid into the mixing chamber.

5. A liquid heater comprising a container of substantially circular cross-section, the diameter of the central portion being greater than the diameter of the end portions whereby an enlarged central mixing chamber is formed, a cover for the front end of the container comprising a series of manifolds, means for supplying a heating medium to the manifolds, a series of longitudinal heating members leading rearwardly from each manifold whereby heat may be supplied to the liquid in the container, and a series of deflecting plates for directing the current set up in the liquid into the mixing chamber to cause an intimate mixing of the liquid.

[Claims 6 to 22 not printed in the Gazette.]

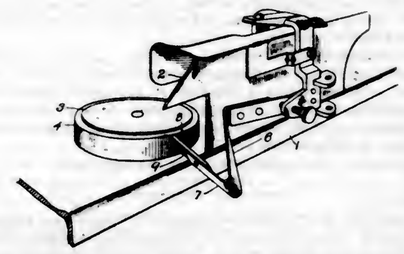
1,136,170. METHOD OF PRODUCING A FASHION-GARMENT ILLUSTRATION. ISAAC H. RUBIN, Philadelphia, Pa. Filed July 7, 1914. Serial No. 849,430. (Cl. 101—205.)



1. In a method of producing a fashion garment illustration, the following steps of procedure, viz., taking a copy photographically of an originally-selected fabric, forming the same into the shape or shapes of the contour and trimming of a garment or garments, affixing such shape or shapes upon the representation of a human figure in semblance of a desired garment or garments, photographing such semblance, and making printing surfaces therefrom.

2. A method of producing a fashion garment illustration embodying the photographic copying of a desired fabric or material, forming the same into the shape or shapes of the outlines of a garment or garments, affixing such shape or shapes upon the representation of a human figure in register with such garment or garments, finishing such shape or shapes in semblance of the contour and trimming of the garment or garments, photographing such semblance, and making printing surfaces therefrom.

1,136,171. ENVELOP-FEEDING MACHINE. DANIEL G. SAUNDERS, Jr., Kansas City, Mo. Filed Apr. 1, 1914. Serial No. 828,740. (Cl. 101—39.)



1. The combination with a forwarding member, of an inclined retarder having a free edge arranged in proximity to the forwarder, and adapted for progressive engagement by the edge of an envelop as the latter advances therealong.

2. The combination of a forwarding member, of a retarder having a flexible contact portion arranged at an incline relative to the axis of the forwarding member.

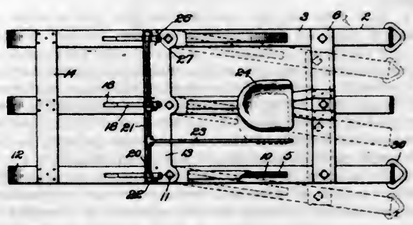
3. The combination with a revoluble forwarder, of a retarder inclined longitudinally and transversely relative to the axis of the retarder.

4. The combination with a forwarder, of a retarder having a flexible free end located adjacent the forwarder and inclined across the face of and rearwardly relative to said forwarder.

5. The combination with a forwarder, of a retarder comprising a flexible member inclined across the line of travel of an article advanced by the forwarder and inclined toward the line of travel.

[Claims 6 and 7 not printed in the Gazette.]

1,136,172. SUBSOIL-PLOW. MATTHEW T. SCOTT, Blue Springs, Mo. Filed Mar. 30, 1914. Serial No. 828,244. (Cl. 97—32.)



1. The combination with a runner, comprising spaced upper and lower portions, each having a longitudinal slot,

of a shank projected through said slots and below the lower member, means for fixing the shank to said runner, and a mold-board carried by said shank below the runner.

2. The combination with spaced runners, each having a longitudinal slot, of a shank projected through each of said slots and extending below said runners, a shaft extending across the top of said runners, cams on said shaft for engaging said shanks, a set screw in each cam for engaging each runner, means for anchoring the shanks to the runners, and a mold-board fixed to each shank beneath the runners.

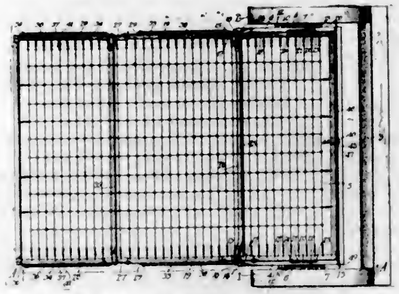
3. A runner comprising spaced upper and lower portions, each having a longitudinal slot, a block spacing the runner members, a shank projecting through the slots, means for pivotally attaching the shank to the block, and a mold-board on said bar beneath the runner.

4. The combination with spaced runners, each comprising longitudinally slotted upper and lower portions, cross-bars fixed to and spacing the runners, journal blocks connecting and spacing the members of the respective runners, an axle mounted in said journal blocks, rotary cutters mounted on said axle and adapted for travel in the runner slots, back of the rotary cutters, means for bracing and anchoring the shanks, and mold-boards on said shanks beneath the runners.

5. The combination with a runner comprising spaced upper and lower members, blocks for spacing said members, a shank having a plurality of apertures therein and extending between the blocks, and a pin projecting through one of the shank apertures to pivotally mount the shank on said blocks.

[Claims 6 to 11 not printed in the Gazette.]

1,136,173. SOFA-BED. WENDELIN P. SENG and DARREL FRANK DYKE, Chicago, Ill., assignors to Davoplane Bed Company, Chicago, Ill., a Corporation of Illinois. Filed July 3, 1912. Serial No. 707,443. (Cl. 5—50.)



1. In a sofa bed, the combination of a pair of wide bed sections and an intermediate narrow section foldably hinged together, engaging means on said wide sections adapted to have interlocking engagement when said sections are shifted to their folded positions, and other means adapted to be so shifted through the folding of said sections as to lock aforesaid engaging means when interlocked.

2. In a sofa bed, the combination of a pair of wide bed sections and an intermediate narrow section foldably hinged together; a shoulder on one of said wide sections; a pawl pivotally carried on the other of said wide sections and having a notch therein adapted to engage said shoulder when said sections are shifted to their folded positions, and means adapted to be automatically shifted, through the folding of said sections, into position to lock aforesaid pawl in engagement with said shoulder.

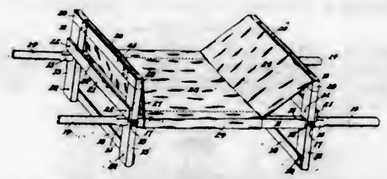
3. In a sofa bed, the combination of a supporting frame; a pair of wide bed sections and an intermediate narrow section foldably hinged together; a shoulder on one of said wide sections; a pawl carried on the other said wide section and having a notch therein adapted to engage said shoulder when said wide sections are folded; a leg pivotally connected to said wide section; a link so connected to said leg as to control the shifting thereof to cause it to occupy a position transversely to said sections when extended and substantially parallel thereto when said sections are folded; and a shoulder carried on said leg and adapted to engage said pawl when said sections are shifted to their folded positions and to lock said pawl in engagement with said shoulder.

4. In a sofa bed, the combination of a supporting frame; a pair of wide bed sections and an intermediate narrow section foldably hinged together; a shoulder on one of said wide sections; a pawl carried on the other said wide section and having a notch therein adapted to engage said shoulder when said wide sections are folded; a leg pivotally connected to said other section; a link connected to said leg and to said narrow section and adapted to shift said leg to a position transversely of said section when extended and into a substantially parallel position therewith when folded; and a shoulder carried by said link and adapted to engage said pawl and so control the movement thereof as to cause said pawl to engage said shoulder when said sections are folded to their parallel positions.

5. In a sofa bed, the combination of a supporting frame; a pair of wide bed sections and an intermediate narrow section foldably hinged together; a shoulder on one of said wide sections; a pawl carried on the other said wide section and having a notch therein adapted to engage said shoulder when said wide sections are folded; a leg pivotally connected to said other wide section; a link connected to said leg and to said narrow section and adapted to shift said leg to a position transversely of said sections when extended and into a substantially parallel position therewith when folded; a shoulder carried by said link and adapted to engage said pawl and so control the movement thereof as to cause said pawl to engage the first mentioned shoulder when said sections are folded to their parallel positions; a second leg pivotally connected to said first mentioned wide section; a link so connected to said second leg as to shift the same to cause it to occupy a position transversely of said one section when unfolded and to occupy a position substantially parallel therewith when said sections are folded; and a shoulder carried by said second leg and adapted to engage said pawl when said sections are folded, and to lock aforesaid pawl in its engaged position with said first mentioned shoulder.

[Claims 6 to 10 not printed in the Gazette.]

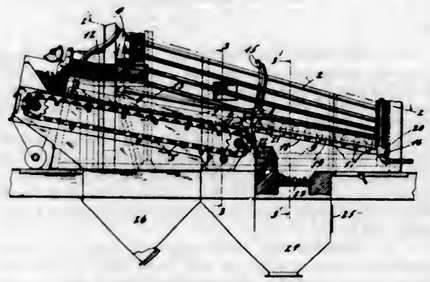
1,136,174. FOLDABLE STRETCHER. JOHN SENIUK, Coyne, Pa. Filed Dec. 2, 1914. Serial No. 875,114. (Cl. 21—80.)



1. A foldable stretcher comprising side rails, foldable support members slidably mounted thereon, locking devices for said support members, a mattress slidably mounted upon the said rails and between the said rails and the said support members, end bars secured to the said mattress, end straps at the opposite ends of said bars, and removably secured to the tops of the said support members.

2. A foldable stretcher comprising side rails having reduced handle ends, foldable support members having posts provided with substantially centrally-positioned slots adapted for the sliding reception of said rails, the said rails provided with shoulders adapted for engaging the said posts, rail-engaging locking means carried by the said posts, cross-bars and flexible strap members pivotally-connecting the posts of the support members and spaced apart upon the opposite sides of said posts, the upper ends of said posts being reduced, a flexible mattress member having oppositely-positioned sleeves slidably-mounted upon the said rails and also having head and foot portions at the opposite ends thereof, end bars fixedly secured to the opposite ends of the said mattress member, strap loops secured to the opposite ends of the said end bars and removably positionable upon the said reduced upper ends of the posts of said support members.

1,136,175. BOILER-FURNACE. MINOTT W. SEWALL, New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Original application filed May 27, 1912, Serial No. 699,860. Divided and this application filed Nov. 26, 1912. Serial No. 733,584. (Cl. 122—292.)



1. A boiler furnace having a traveling grate, a bridge wall above the grate at the rear, a shield in proximity to the rear curvature of the grate, a pit for the ash and fuel refuse which is discharged between the grate and the bridge wall over said shield, and a series of water tubes forming a shield for said pit for the purpose described.

2. A boiler furnace having a grate, a pit at the rear of the grate, means for discharging the ash and fuel refuse from the grate into said pit, and a series of water tubes forming a shield over said pit for the purpose described.

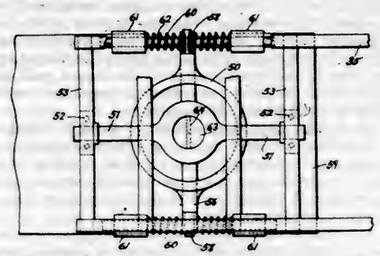
3. A boiler furnace having a grate, a pit at the rear of the grate below the rear of the furnace combustion chamber, means for causing the ash and fuel refuse to discharge from the grate into said pit, and a series of water tubes forming a shield over said pit, said tubes being connected with the boiler circulation.

4. A boiler furnace having a grate, a bridge wall, a pit at the rear of the grate, means for causing the ash and fuel refuse to pass under the bridge wall and beyond the grate into said pit, and a series of water tubes forming a screen above said pit for the purpose described.

5. A boiler furnace having a traveling grate, a water-box bridge wall above the grate at the rear, a shield or stripper extending from the rear curve of the grate downwardly, a pit beyond the grate for the ash and fuel refuse discharged between the grate and bridge wall over said shield, a wall separating the pit from the space beneath the grate, means for supporting the unburned fuel in the pit, and a heat-absorbing member located between the pit and steam generator.

1,136,176. FIFTH-WHEEL FOR VEHICLES. WILLIAM OSCAR SHADBOLT, New York, N. Y. Original application filed Sept. 18, 1913, Serial No. 790,497. Divided and this application filed May 27, 1914. Serial No. 841,282. (Cl. 21—114.)

1. A fifth wheel comprising a lower member provided with lateral projections and slidably secured to devices located below the frame of a vehicle, a stop secured to said devices located below the vehicle, a spring between said lower member and said stop, an upper member having lateral projections journaled in devices secured to the under side of the vehicle, and means adapted to pivotally connect the said members together.



2. A fifth wheel comprising a lower member slidably secured to devices located below the frame of a vehicle, a stop secured to said devices below said vehicle, a spring between said lower member and said stop, an upper member secured to the under side of said vehicle, and means adapted to pivotally connect the said members together, said pivotally connecting means comprising a device projecting from one of said members, of a form decreasing in diameter from its base outward, and an opening in the other of said members adapted to engage with said projecting device.

3. A fifth wheel comprising a lower member slidably secured to devices located below the frame of a vehicle, a stop secured to said devices below said vehicle, a spring between said lower member and said stop, an upper member secured to the under side of said vehicle, and means adapted to pivotally connect the said members together, said pivotally connecting means comprising a device projecting from said lower member, of a form decreasing in diameter from its base outward, and an opening in said upper member adapted to engage with said projecting device.

1,136,177. FILING APPLIANCE. ELLIS T. SILVIUS, Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, (incorporated in 1914,) Alliance, Ohio, a Corporation of Ohio. Original application filed May 4, 1909, Serial No. 493,922. Divided and this application filed Feb. 27, 1912. Serial No. 680,145. (Cl. 45—2.)



1. In a filing appliance of the class described, the combination of a plurality of leaves, connections between the lower ends of the leaves permitting pivotal movements of the leaves relatively to each other and operating when one or more of the leaves are reclined to move the lower ends of the remaining leaves forwardly, said leaves being arrangeable in a rectangular pack and portable for storage, a support or shelf for supporting said leaves for normal operation, a retaining member hinged to one end leaf and detachably connected with the other end leaf, and means for detachably securing said retaining member to said support.

2. In a filing appliance, the combination of a plurality of leaves, connections between the lower ends of the leaves permitting pivotal movements of the leaves relative to each other and operating when one or more of the leaves are reclined to move the lower ends of the remaining upright leaves forwardly, a retaining base-plate hinged at one of its ends to the foremost one of the leaves, and means for detachably securing the rearmost one of the leaves to the opposite end of said base-plate.

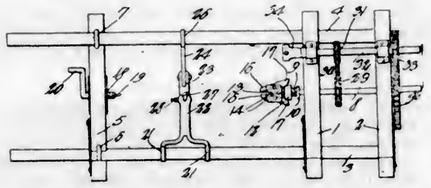
3. In a filing appliance, a floor or shelf provided with two oppositely arranged guides on the top thereof, a base or retaining plate removably mounted on the floor or shelf between the guides and positioned thereby, and a plurality of leaves hinged together, one of the leaves being hinged to the base or retaining plate.

4. In a credit cabinet of the class described, a casing or frame provided with a shelf, a series of leaves provided with base bars, hinge plates secured to said bars and pivotally connected together between the meeting faces of the bars, and a retaining plate hinged to the base bar of the front leaf and removably secured to the shelf.

5. In a filing appliance, the combination of a series of pivotally mounted bill holding leaves, a base relative to which the leaves are adapted to swing from a substantially vertical to a substantially horizontal position, one of the end leaves of the series having a latch-plate, and a locking bar pivotally mounted on the base and provided with a latch for engaging with the said latch-plate.

[Claims 6 to 12 not printed in the Gazette.]

1,136,178. LATHE. HENRY C. SIMONS, Odebolt, Iowa. Filed Apr. 25, 1913. Serial No. 763,673. (Cl. 82—2.)



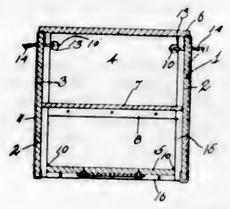
1. The combination with the frame of a lathe having two horizontally disposed parallel tool supporting members, of a tool carrier, including a member having a yoke upon one end for slidably engaging one supporting member of the lathe, and an adjustable supporting screw having one end slidably engaging the other supporting member of the lathe and having its free end slidable through the opposite end of the said member for adjusting the tool carrier member relatively to the adjusting member and to maintain the parts in adjusted position.

2. The combination with the frame of a lathe having two horizontally disposed parallel tool supporting members, of a tool carrier, including a tool carrying member having spaced apertured terminals, an adjustable support for the opposite end freely passing through the opposite end of the tool carrying member, and a hand-nut thereon for regulating the angular relation of the members to each other.

1,136,179. COLLAPSIBLE BOX. JAMES A. SMITH, Fate, Tex. Filed Apr. 15, 1914. Serial No. 832,037. (Cl. 217—16.)

1. A collapsible box comprising side walls, end walls hingedly connected with the side walls, said end and side walls having openings formed adjacent the corners thereof, wires mounted upon the outer faces of the side walls and extending in front of said openings therein, and wires inserted through the openings in the end walls and having their ends twisted so as to surround the first named wires.

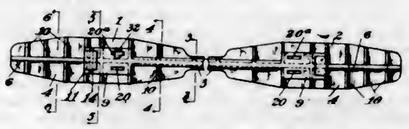
2. A collapsible box comprising side walls, end walls hingedly connected with the side walls, said end and side walls having openings formed adjacent the corners thereof, wires mounted upon the outer faces of the side walls and extending in front of said openings therein, wires inserted through the openings in the end walls and having their ends twisted so as to surround the first named wires and a removable bottom wall mounted within the side and end walls, a partition wall, and means to support the bottom and partition walls carried by the end walls.



3. A collapsible box comprising side walls, end walls hingedly connected with the side walls, said end and side walls having openings formed therethrough adjacent the corners thereof, wires mounted upon the outer faces of the side walls at the ends thereof and extending in front of the openings therein, wire loops mounted within the openings in the end walls and extending into the side wall openings and surrounding said wires, vertical strips secured at the end edges of the end walls upon the inner faces thereof, said loops surrounding said strips, a bottom wall, and a lid.

4. A collapsible box comprising side walls, end walls hingedly connected with the side walls, said end and side walls having openings formed therethrough adjacent the corners thereof, wires mounted upon the outer faces of the side walls at the ends thereof and extending in front of the openings therein, wire loops mounted within the openings in the end walls and extending into the side wall openings and surrounding said wires, vertical strips secured at the end edges of the end walls upon the inner faces thereof, said loops surrounding said strips, a removable bottom wall, transverse strips secured upon the inner face of each end wall, certain of said strips supporting said bottom wall and a horizontal partition wall mounted upon the other of said strips.

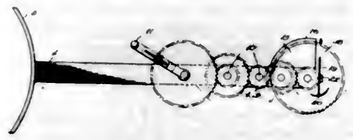
1,136,180. CAST-METAL RAILROAD CROSS-TIE. GEORGE W. SNYDER, Pittsburgh, Pa., assignor to Harry E. Sheldon, Pittsburgh, Pa. Filed July 22, 1912. Serial No. 710,759. (Cl. 238—5.)



1. The combination of a metal rail-tie having a rail-seat provided with a slot adjacent to one rail-flange, a rail-fastener in the slot, a wedge-shaped key in the slot between the rail-fastener and the outer end of the slot, a reinforcing rib carried by the tie for the key at the outer end of the slot, above the rail-seat and in line with the rail-flange and a cross-pin extending through the key and beneath the rail-seat to prevent the key from moving upwardly.

2. The combination of a metal rail-tie having a rail-seat with two openings adjacent to one rail-flange, a rail-fastener secured in one slot, and an anti-creeping device in the other slot, the said device being rotatable on a vertical axis in said slot and having a curved edge in engagement with the rail-flange, the distance of the said curved edge from the said axis increasing gradually from the center thereof toward its extremities.

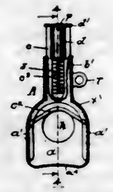
1,136,181. SAW. GEORGE R. BURGESS, Tacoma, Wash. Filed Sept. 17, 1913. Serial No. 790,261. (Cl. 143—43.)



1. In a saw of the character described, a frame, a casting rigidly secured to one end thereof, said casting being formed with a bearing opening and a recess, the outer wall of the recess being curved and longitudinally slotted, an arbor extending through the bearing opening, a tool carried by said arbor, means for rotating the arbor, a gage including a straight bar, having a curved head on one end thereof, the bar being longitudinally slotted; and attaching means passing through the slotted bar and through the slotted wall of the casting to secure the gage in position.

2. In a device of the character described, a frame, a casting secured to one end thereof and formed with a bearing opening and a recess, the outer wall of the recess being curved and longitudinally slotted, an arbor extending through the bearing opening, said arbor being adapted to rotate a tool, a gage secured to said slotted wall and including a body portion having an angular extension adjacent one end thereof; said body portion being slotted and means to secure the body portion to the slotted wall inserted through the slot in the body and wall and adjustingly securing said body.

1,136,182. CIGAR-TIP CUTTER. JOSEPH H. SWIFT, North Attleboro, Mass., assignor to Swift and Fisher, North Attleboro, Mass., a Firm composed of Joseph H. Swift and Harry W. Fisher. Filed Apr. 8, 1914. Serial No. 830,337. (Cl. 131—38.)



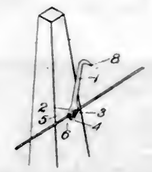
1. A cigar-cutter device comprising an apertured, relatively stationary body member having a comparatively wide lower portion provided with oppositely disposed vertical guides, the upper portion of said body being extended and constituting a central hollow neck of reduced width, a longitudinally movable cutter member having its lower portion mounted in said guides, the cutter member also having an apertured upper extension movably supported and guided in said hollow neck, a tube fixed to said extension of the cutter and extending downward into said hollow neck, and a central spring mounted and concealed in said tube and neck parts, arranged to return the cutter to its normal open position.

2. In a cigar-cutter, the combination of the apertured, substantially flat body member having a recessed hollow neck extension, a cutter member movably mounted and guided in said body, said cutter having an upper extension part mounted in said neck portion, said extension part of the cutter having an elongated opening therein, a capped central tube fixed to the upper end of the cutter, the wall of said tube being oppositely slotted to receive the adjacent inner edges of the said elongated opening and also arranged to enter and be centrally supported and guided in said recessed portion of the neck, and a protected spring mounted in said tube and recess.

3. In a cigar cutter, a body member having side guides and its lower end turned outwardly, said body member being reduced in width at one end to provide a tubular neck portion, a blade slidably mounted in the guides and having a reduced upper end provided with a longitudinal opening and projecting beyond said neck portion, a tubular cap having a closed outer end and diametrically opposed slots to be received on the reduced end of the blade, and an expansion coil spring positioned in the blade opening engaging at its outer end the closed end of the cap and at its inner end the body neck.

4. In a cigar cutter, a body member, a reduced neck portion carried by the body member, a blade slidably mounted therein, the upper end of said blade being reduced in width and having a longitudinal opening therein, a tubular cap secured on the reduced end of the blade, and a coil spring received in said blade opening and cap engaging the cap at one end and the body member at the other end.

1,136,183. WIRE-PLACER. WALTON E. TAYLOR, St. Joseph, Mo. Filed June 16, 1913. Serial No. 773,904. (Cl. 1—50.)



1. A wire placer comprising a body member having a head provided with a longitudinal slot forming side teeth; each of said teeth being cut away at one face to a point adjacent the base of the slot, and back-cut to form sockets and overhanging ears, and said head being recessed at its base and along the inner edges of said ears to form a pocket about the base of the slot, substantially as set forth.

2. A wire placer comprising a head provided with a slot forming side teeth, each of said teeth having a sharpened outer end and being back-cut adjacent the base of the slot to form sockets and overhanging ears; the ears and the head being back-cut to form a pocket about the base of the slot, for the purpose set forth.

3. A wire placer, having spaced teeth at one end, forming a slot, and an ear on each of said teeth, having a back-cut outer end, forming a socket, and having back-cut inner faces, substantially as set forth.

1,136,184. DENTAL BRIDGE. GEORGE W. TODD and CHARLES D. MENDLIK, Omaha, Nebr.; said Mendlik assignor to George W. Todd. Filed July 27, 1914. Serial No. 853,433. (Cl. 32—12.)



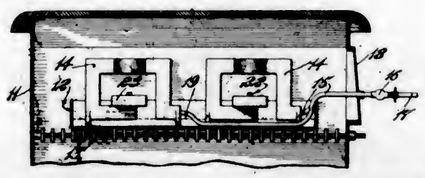
1. A dental bridge, comprising, in combination with a plurality of connected clasp members disposed side by side, each consisting of a curved band with a pair of substantially parallel wings, a plurality of teeth each being provided with a recess in its back and a recess in each of two opposed sides adapted to be mounted on a clasp member, the recess in its back being engaged by the curved part of the band, the recesses in its opposed sides being engaged by the wings of said band.

2. A dental bridge, comprising, in combination with a plurality of connected clasp members disposed side by side, each consisting of a curved band and a pair of substan-

tially parallel wings having ridges formed thereon, a plurality of teeth each being provided with a recess in its back, a recess in each of two opposed sides and with grooves opening on the recesses in its sides, each tooth being adapted to be mounted on a clasp member, the recesses in its back and sides being engaged respectively by the curved part of the band, the grooves opening on the recesses of its sides being engaged by the ridges of said wings.

3. A dental bridge, comprising, in combination with a plurality of connected clasp members disposed side by side, each consisting of a band curved between its ends to provide a pair of substantially parallel wings and provided with a pin disposed intermediate said wings, a plurality of teeth each being provided with a recess in its back, a recess in each of two opposed sides and an aperture opening on the recess of its back, said teeth being adapted to be mounted on the clasp members, the curved part, the parallel wings, and the pin of each band engaging, respectively, in the recess of the back, the recesses in the sides and the aperture of a tooth.

1,136,185. OIL-BURNER. EDWARD B. VALOT, St. Louis, Mo. Filed Apr. 20, 1914. Serial No. 833,036. (Cl. 158—13.)



1. A water pan, an upright burner partly immersed in said water pan, said burner having an orifice and a large generating chamber above the water level, said generating chamber being in line with the discharge from said orifice, and a duct leading to said orifice from said generating chamber and having a large capacity for retaining fuel during the starting operation.

2. A water pan, an upright burner partly immersed in said water pan, said burner having an orifice and a large generating chamber above the water level, said generating chamber being over said orifice, and a duct leading to said orifice from said generating chamber and partly immersed in said water pan, said duct having a large capacity for retaining fuel during the starting operation.

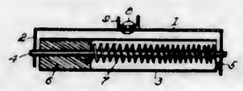
3. A water pan, an upright burner partly immersed in said water pan, said burner having an orifice and a large generating chamber above the water level, the lower surface of said generating chamber being horizontally disposed over said orifice, and a duct leading to said generating chamber and having a large capacity for retaining liquid fuel, said duct having its upper end level with the lower surface of said generating chamber and its lower end immersed in said water pan.

4. A water pan, an upright burner partly immersed in said water pan, said burner having an orifice and a generating chamber having a large flat heating surface horizontally disposed above the water level, and a duct for liquid fuel leading to said generating chamber, said duct having its upper end level with said heating surface of said generating chamber and its lower end immersed in said water pan.

5. A burner comprising an inverted U tube having an enlarged chamber in its horizontal branch, one of the vertical branches of said U tube having an inward extension at its lower end, the extremity of said inward extension having an orifice in its upper wall, a burner tip projecting upwardly from said orifice, a cup surrounding said burner tip and positioned below the extremity thereof and above said extension, and the other of the vertical branches of said U tube having an oil inlet at its lower end.

[Claim 6 not printed in the Gazette.]

1,136,186. MEMORANDUM DEVICE. FREDERICK L. VERNON, Newton, Iowa. Filed Nov. 8, 1913. Serial No. 799,905. (Cl. 40—85.)

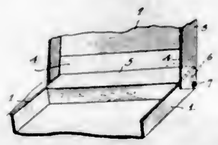


1. A device for the purpose set forth comprising a support having spaced projections extending to one side thereof, an open-ended roller rotatably mounted in and between said projections, a lip struck from one of said projections and extending into the adjacent end of the roller, a spring coiled within the roller and having one end connected therewith and its other end engaging said lip, and a strip of flexible material mounted about said roller to be unwound therefrom while placing said spring under tension.

2. A device for the purpose set forth comprising a supporting bracket, a hollow roller, a shaft rotatably mounted in said supporting bracket and extending through the roller, a body fixed on said shaft, one end of said roller being mounted fixedly on and closed by said body, a lip struck from the bracket adjacent the opposite end of the roller and projecting into said end of the roller, a spring coiled about said shaft within said roller and having one end secured to said body and its opposite end secured to said lip, and a strip of flexible material secured to and adapted to be wound upon the roller by reaction of said spring.

3. A device for the purpose set forth comprising a support having integral apertured projections, a shaft having its ends journaled in the apertures in said projections, a hollow roller arranged about said shaft, a lip struck from one of the projections and extending into the opposite end of the roller, a spring coiled about said shaft within the roller and having one end secured to said lip and its opposite end secured to the closure for the roller, and a flexible strip having one end attached to the roller and adapted to be unwound from the roller to place the spring under tension.

1,136,187. DISPLAY-BOX. HEINRICH WALDES, New York, N. Y. Filed Nov. 24, 1913. Serial No. 802,606. (Cl. 211—28.)

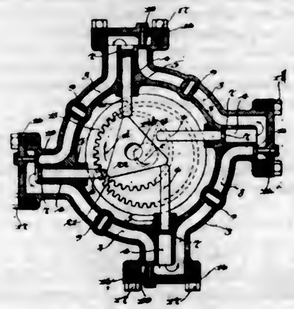


1. In a display device, a box, a cover therefor, pivots on said cover, the box having slots in its sides near one end thereof allowing the pivots to move laterally of the box, a portion of the cover at the rear thereof being cut away and a filling-in piece at the rear of the box covering said cut-away portion.

2. In a display device, a box, a cover therefor, pivots at the rear ends of the side strips of the cover, said box having vertical slots in its side near one end, said pivots mounted in said slots and adapted to move vertically therein, the rear portion of the cover being cut away to allow the same to be moved to the rear of the box and act as a brace for the same.

1,136,188. VARIABLE-SPEED-TRANSMISSION MECHANISM. MELVIN F. WEBSTER, Minneapolis, Minn. Filed Feb. 26, 1914. Serial No. 821,131. (Cl. 192—18.)

1. In a variable speed transmission mechanism, the combination with a shaft provided with a driving eccentric, a piston support carrying a plurality of circumferentially spaced pistons, and provided with chambers within which said pistons are movable, the said chambers being connected in an endless series, and a cam carried by said eccentric and rotatably driven with a timed action from said piston support and eccentric and operative, progressively, and successively on said pistons.



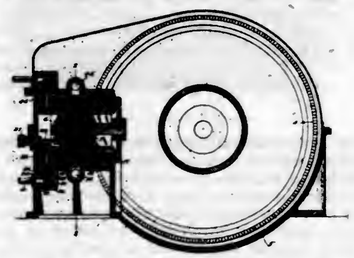
2. In a variable speed transmission mechanism, the combination with a shaft provided with a driving eccentric, of a cylinder casting having its axis of rotation concentric to the axis of said driving shaft but capable of rotation independent thereof, said cylinder casting having a multiplicity of cylinders and a circulating conduit connecting said cylinders in an endless series, pistons working in said cylinders, an internal gear carried by said cylinder casting, a spur gear journaled on and carried by the driving eccentric of said driving shaft and provided with a tappet having a multiplicity of points arranged to progressively and successively engage the inner ends of said piston and force the same outward, and a choke valve in said circulating conduit for cutting off or affording a variable resistance to the circulation of liquid therethrough.

3. In a variable speed transmission mechanism, the combination with a shaft provided with a driving eccentric, of a cylinder casting having its axis of rotation concentric to the axis of said driving shaft, but capable of rotation independent thereof, said cylinder casting having a multiplicity of cylinders and a circulating conduit connecting said cylinders in an endless series, pistons working in said cylinders, an internal gear carried by said cylinder casting, a spur gear journaled on and carried by the driving eccentric of said driving shaft and provided with a tappet having a multiplicity of points arranged to progressively and successively engage the inner ends of said pistons and force the same outward, and check valves and choke valves in said circulating conduit between said pistons.

4. In a variable speed transmission mechanism, the combination with a shaft provided with a driving eccentric, of a cylinder casting having its axis of rotation concentric to the axis of said driving shaft, but capable of rotation independent thereof, said cylinder casting having a multiplicity of cylinders and a circulating conduit connecting said cylinders in an endless series, pistons working in said cylinders, an internal gear carried by said cylinder casting, a spur gear journaled on and carried by the driving eccentric of said driving shaft and provided with a tappet having a multiplicity of points arranged to progressively and successively engage the inner ends of said pistons and force the same outward, check valves and choke valves in said circulating conduit between said pistons, and a valve actuating device arranged to impart simultaneous and like adjustments to said choke valves.

5. The combination with a shaft and a cylinder casting loosely journaled thereon, said cylinder casting having a multiplicity of cylinders and a circulating conduit connecting the same, of pistons working in said cylinders with their ends projecting inward, check valves and choke valves in said conduit between said cylinders, an internal gear carried by said cylinder casting, a driving eccentric carried by said shaft, and an external spur gear carried by and loosely journaled on said driving eccentric and having a tappet head provided with a multiplicity of points operative progressively and successively on the inner ends of said pistons, the number of operating points of said tappet being less than the number of said pistons, and the teeth of said internal gear being the same numerical ratio to the teeth of said external gear, that the number of pistons bear to the number of points of said tappet.

1,136,189. REDUCTION-GEARING. GEORGE WESTINGHOUSE, Pittsburgh, Pa., assignor to The Westinghouse Gear and Dynamometer Company, a Corporation of Pennsylvania. Filed June 18, 1910, Serial No. 567,616. Renewed July 23, 1913. Serial No. 780,814. (Cl. 74—7.)



1. In a reduction gearing, intermeshing gears, fluid actuated supporting means constructed to allow relative angular motion between said gears, means for delivering actuating fluid to said supporting means, and means responsive to variations of tooth pressure for admitting an auxiliary supply of fluid to said supporting means.

2. In a reduction gearing, intermeshing gears, fluid actuated supports arranged to permit relative angular motion between said gears, means for delivering actuating fluid to said supports, and means for admitting auxiliary high pressure fluid to said supports.

3. In a reduction gearing, intermeshing gears, fluid actuated supporting pistons constructed to allow relative angular motion between said gears, means for delivering actuating fluid to said supports, and means responsive to variations of tooth pressure between said gears for delivering variable amounts of auxiliary high pressure fluid to said pistons.

4. In a reduction gearing, intermeshing gears, a cylinder, a fluid actuated piston located in said cylinder for supporting one of the intermeshing gears, means for admitting a constant supply of fluid to said cylinder, and means responsive to variations of tooth pressure between said intermeshing gears for admitting an auxiliary supply of fluid to said cylinder and for discharging fluid therefrom.

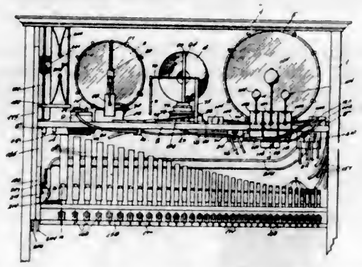
5. In a reduction gearing, intermeshing gears, fluid cylinders, fluid actuated supporting means located in said cylinders and arranged to allow relative angular motion between said gears, a source of fluid supply for said cylinders, a source of high pressure fluid supply and a valve mechanism operating in response to variations of tooth pressure between said intermeshing gears for admitting fluid from said high pressure source of supply to said cylinders and for discharging fluid from said cylinders.

[Claims 6 to 52 not printed in the Gazette.]

1,136,190. PNEUMATIC MUSICAL INSTRUMENT. PEDER WIGGEN, Chicago, Ill., assignor of one-half to Oscar Nelson, Chicago, Ill. Filed Feb. 10, 1913. Serial No. 747,458. (Cl. 84—198.)

1. In a pneumatically actuated musical instrument, including a casing, a main suction channel mounted within said casing, a plurality of valve boxes mounted upon and communicating with said suction channel, pneumatics carried by said valve boxes, diaphragm actuated valves within the valve boxes, and being normally subject to the pressure of the outside air and held in position to admit said

outside air to the interior of said pneumatic, a trackerbar, valve between said bar and pneumatics for each of said diaphragm actuated valves for admitting air beneath the diaphragm to overcome the pressure of the outer air and to cause the same to operate for disconnecting the interior of the pneumatic from the outer air and connecting it to the interior of the valve box.



2. In a pneumatically actuated musical instrument, including a casing, a main suction channel mounted within said casing, a plurality of valve boxes mounted upon and communicating with said suction channel, pneumatics carried by said valve boxes, diaphragm actuated valves within the valve boxes and being normally subject to the pressure of the outside air and held in position to admit said outside air to the interior of said pneumatic, a tracker bar, a pneumatically controlled valve between said bar and pneumatic for each of said diaphragm actuated valves for admitting air beneath the same to overcome the pressure of the outer air and to cause the same to operate for disconnecting the interior of the pneumatic from the outer air and connecting it to the interior of the valve box.

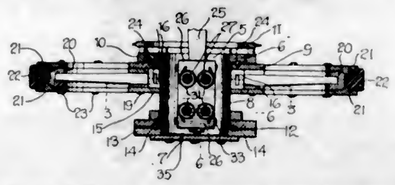
3. In a pneumatically actuated musical instrument, including a casing, a main suction channel mounted within said casing, a plurality of valve boxes mounted upon and communicating with said suction channel, pneumatics carried by said valve boxes, valves within the valve boxes, and being normally subject to the pressure of the outside air and held in position to admit said outside air to the interior of said pneumatic, a trackerbar, a valve between said bar and pneumatic for each of said diaphragm actuated valves for admitting air beneath the diaphragm to overcome the pressure of the outer air and to cause the same to operate for disconnecting the interior of the pneumatic from the outer air and connecting it to the interior of the valve box, and cut-off devices operated by hand for disconnecting the intermediate valves from the diaphragm actuated valves.

4. In a pneumatic self-playing musical instrument, a casing, a main suction channel detachably mounted within said casing and from which air is continuously being drawn, a plurality of valve boxes mounted upon and communicating directly with said channel, pneumatics connected to said valve boxes, valves arranged within the same for opening and closing a passage between the interior of the valve box and its pneumatics, and also between the interior of the pneumatic and the outside air, a controlling valve box also mounted upon and communicating with said channel, a plurality of valves arranged therein for controlling the operation of the first mentioned valves, tubes connecting the first to the last mentioned valves, means arranged with respect to certain of said tubes for disconnecting the valves at the ends thereof, and additional means for disconnecting certain other of the first mentioned valves from the suction channel, striking members carried by said pneumatics, and musical instruments carried by said channel in positions to be played upon by said striking members.

5. In a pneumatic self-playing musical instrument, a casing, a main suction channel mounted within said casing, a plurality of individual valve boxes mounted upon and communicating directly with said suction channel, pneumatics carried by said valve boxes, valves arranged within the valve boxes and which are normally subject to the pressure of the outside air and held in position to admit said outside air to the interior of said pneumatics, diaphragms connected to and adapted to actuate the valves, a governing valve for each of said diaphragm actuated valves for admitting air beneath said diaphragms to overcome the pressure of the outside air and to cause the diaphragm actuated valves to operate for disconnecting the interior of the pneumatics from the outside air and connecting the same with the interior of its valve box, and cut-off devices operated by hand for disconnecting the governing valves from the diaphragm actuated valves.

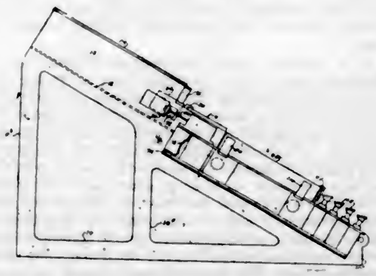
[Claim 6 not printed in the Gazette.]

1,136,191. SPRING-MOUNTED WHEEL. SILAS D. WILLS, Fort Payne, Ala. Filed Oct. 18, 1913. Serial No. 796,026. (Cl. 21—187.)



The herein described spring mounted wheel including in combination, the following elements to wit, a hub sleeve having an outwardly projecting annular flange formed upon one end and an inwardly projecting annular flange formed upon its other end, an annulus detachably threaded upon the latter end of said sleeve, a thimble loosely mounted to rotate upon said sleeve and having an annular flange formed on each end, one of said flanges being of greater diameter than the exterior flange on the hub sleeve, a sprocket wheel rigidly mounted upon the latter flange of said thimble, means for securing the wheel proper upon the thimble, a plate bolted upon the inwardly extending flange of the hub sleeve and entirely closing the end of said sleeve, said plate projecting upon the outer face of the annulus which is threaded upon the sleeve, and means for yieldably mounting the wheel hub upon an axle and normally maintaining the same in concentric relation thereto.

1,136,192. TYPE-SETTING MACHINE. ALEXANDER R. WILSON, Spokane, Wash. Filed Sept. 2, 1913. Serial No. 787,790. (Cl. 101—196.)



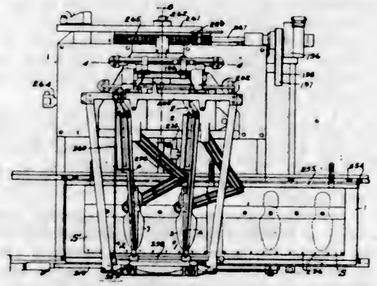
1. A type-setting machine comprising a supporting frame, type-holding channels paralleling each other along the frame, means for permitting the escape of the type from the channels, such means comprising frames normally adapted to retain the lines of type, one of said frames hinged to swing clear of the type and to release the same by mechanical operation, a shuttle adapted for driving the type to a point of line formation, means for selecting and dropping the type from the channels singly in the path of the shuttle, means for operating the shuttle to drive the type and means for forming the type into lines.

2. A type-setting machine comprising a supporting frame, a galley and galley frame, type-holding channels, means for permitting the escapement of the type from the channels, a key platform supplied with a set of keys, a shuttle, a type-way from the channels to the galley including an intermediate way where the type are formed into lines, means for forming the type into lines, means for adjusting the formed lines of type upon the galley, cylinders adapted for carrying air, a conduit leading from a source of compressed air supply and connected with said cylinders to operate the escapement of the type from the channels to drop the same in the path of the shuttle, to operate the shuttle to drive the type, to form the type into lines, to form the lines of type upon the galley by the manual operation of the keys, the operation of the keys serving to direct the passage of air to the operating parts.

3. A type-setting machine comprising a supporting frame, a galley and galley frame, type-holding channels, means for permitting the escape of the type from the channels, a key-platform supplied with a set of keys, a shuttle, a type-way from the channels to the galley including an intermediate way where the type are formed into lines, means for forming the lines of type, means for adjusting the formed lines of type upon the galley, cylinders adapted for carrying air, a conduit leading from a source of compressed air supply and connected with said cylinders to operate the escapement of type from the channels to drop the same in the path of the shuttle by the manual operation of the keys, the operation of the keys serving to direct the passage of air to the operating parts.

4. A type-setting machine comprising a supporting frame, a galley and galley frame, type-holding channels, means for permitting the escapement of the type from the channels, a key platform supplied with a set of keys, a shuttle, a type-way from the channels to the galley including an intermediate way where the type are formed into lines, means for forming the lines of type, means for adjusting the formed lines of type upon the galley, cylinders adapted for carrying air, a conduit leading from a source of compressed air supply and connected with said cylinders, to operate the escapement of the type from the channels to drop the same in the path of the shuttle to operate the shuttle to drive the type to form the type into lines by the manual operation of the keys, the operation of the keys serving to direct the passage of air to the operating parts.

1,136,193. CUTTING-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed June 30, 1910. Serial No. 569,640. (Cl. 12—24.)



1. A machine for cutting sheet material, having, in combination, cutting mechanism comprising a cutter carrying head, a pattern, means for engaging the material for causing the head to travel about the pattern, a work supporting table, and mechanism acting automatically to relatively shift the table and cutting mechanism to present different portions of the material successively to the cutting mechanism, substantially as described.

2. A machine for cutting sheet material, having, in combination, a cutter, means for acting on the material to cause a travel of the cutter along the material, and means for holding down the material directly in front of the cutter, substantially as described.

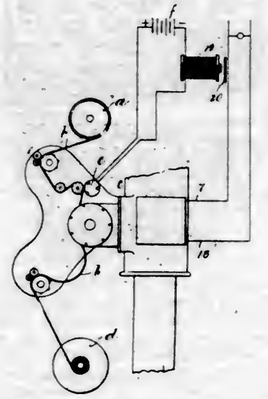
3. A machine for cutting sheet material, having, in combination, a cutter, means for acting on the material to cause a travel of the cutter along the material, and means for intermittently applying pressure to the material directly in front of the cutter, substantially as described.

4. A machine for cutting sheet material, having, in combination, a cutter, means for acting on the material to cause a travel of the cutter along the material, and an intermittently operating presser foot in front of the cutter, substantially as described.

5. A machine for cutting sheet material, having, in combination, a cutter, means for causing a travel of the cutter along the material, a presser foot in front of the cutter mounted for relative movement toward and from the cutter, and mechanism for intermittently raising and lowering the presser foot during the travel of the cutter, substantially as described.

[Claims 6 to 50 not printed in the Gazette.]

1,136,194. DEVICE FOR MOTION-PICTURE PRINTING. ADOLF WOLFSOHN, New York, N. Y., assignor to Motion Picture Appliance Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 26, 1913. Serial No. 808,821. (Cl. 177—350.)



1. In film printing machines, a light controlling mechanism, comprising a manually operated switch board for controlling the circuit of an electric source, a rheostat therefor, electric connections between the same, a set of contact pieces electrically connected with different parts of said switch board, an electromagnet, an automatically controlled switch for a circuit of an independent electric source controlling said electromagnet and means controlled by said electromagnet to automatically adjust the electric connection between said contact pieces and the main electric source.

2. In a film printing machine, the combination with a notched film and a circuit closing means controlled thereby, of an electromagnet energized by the circuit of an electric source controlled by said circuit closing means, a rheostat, a manually operated switch for a circuit of an independent source passing through said rheostat and including electric light and means controlled by said by, of an electro-magnet energized by the circuit of an last named electric circuit through said rheostat and adjust the light according to the previous adjustment of the manual switch.

3. In a film printing machine, the combination with a notched film and a circuit closing means controlled thereby, of an electro-magnet energized by the circuit of an electric source controlled by said circuit closing means, a rheostat, a manually operated switch for a circuit of an independent

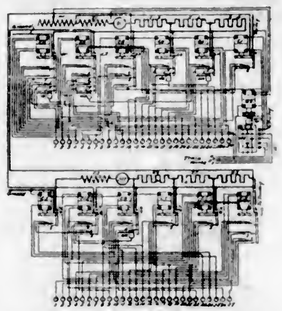
source passing through said rheostat and including electric light and an electric switch controlled by said electromagnet and adapted to automatically control said last named electric circuit through said rheostat and adjust the light according to the previous adjustment of the said manual switch.

4. In a film printing machine comprising a film, a light controlling device comprising an electromagnet controlled by said film, a rack controlled by said electromagnet and carrying a contact piece, and a set of contact pieces which coöperate with said first named contact piece to form a switch.

5. In a film printing machine, the combination with a notched film and a circuit closing means controlled by said film, of a light controlling device, comprising an electromagnet controlled by said click, a rack controlled by said electromagnet, and carrying a contact piece and a set of contact pieces which coöperate with said first named contact piece to form a switch.

[Claims 6 to 9 not printed in the Gazette.]

1,136,195. SYSTEM OF MOTOR CONTROL. EUGENE C. WOODRUFF, State College, Pa. Filed Jan. 17, 1914. Serial No. 812,718. (Cl. 172—179.)



1. In a control system for electric motors, the combination of a group of two coil electromagnets, switches operated thereby for controlling the motor circuits, control circuits, means for placing the coils of said electromagnets in electromagnetic opposition, and means including interlocking switches for placing the coils of said electromagnets successively in electromagnetic conjunction to secure progressive action of the magnets through a predetermined series of steps.

2. In a control system for electric motors the combination of a group of two-coil, main electromagnets for controlling the motor circuits with interlocking devices for securing the successive action of the main electromagnets; and with auxiliary magnets to arrest the operation of said interlocks and thereby separate the successive steps of the main magnets by greater or smaller periods of time as desired, with the necessary circuits and contacts to secure said actions, and with a master controller for controlling the action of the interlocks and auxiliary magnets substantially as described.

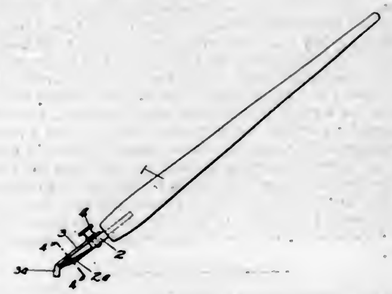
3. In a control system for electric motors the combination of a group of two-coil, main electromagnets with means for causing the same to act in a definite cycle of steps, including interlocking devices, auxiliary arresting magnets, and a master relay adapted to periodically make and break circuits made up of one coil from each main magnet, the relay's own operating coil, and the coils of the auxiliary arresting magnets, the breaking and remaking of these circuits causing the auxiliary magnets to permit an additional step in the cycle of the main switch group, with a master controller for determining the number of steps to be taken at a time, and with the necessary circuits and contacts substantially as described.

4. In a control system for electric motors the combination of a group of two-coil, main electromagnets with a periodically acting master relay, with means whereby the action of said relay may be temporarily arrested when the main motor current is above a certain value, thereby arresting the progression of the main magnets, with means whereby a change in the main motor current allows the relay to resume its periodic action, with interlocking devices and auxiliary arresting magnets controlling the steps of the main magnets, with a master controller for determining the number of steps to be taken at a time, and with the necessary circuits and contacts for securing said actions substantially as described.

5. In a control system for electric motors the combination of a group of two-coil, main electromagnets with interlocks, auxiliary arresting magnets, and a master controller for controlling the steps of the main magnets, and with a periodically acting master relay with means whereby its intermittent action causes the main magnets to take a series of steps in order, with means whereby said periodic action is temporarily arrested by a rise in the motor current to a predetermined value, thereby arresting the cycle of the main magnets, with means whereby said periodic action is resumed when the motor current falls to a predetermined value, and with the necessary circuits and contacts substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,136,196. LETTERING-PEN. WILLIAM E. WORTH, San Francisco, Cal. Filed Mar. 11, 1914. Serial No. 823,884. (Cl. 120—113.)



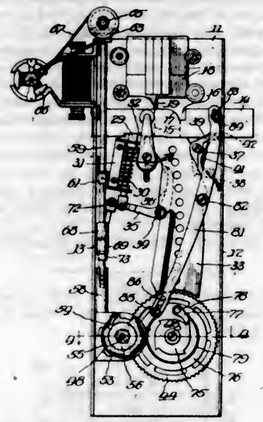
1. In a lettering pen, a pen holding body having a spoon-like ink reservoir formed therein with its extreme end shaped to seat a pen thereacross at an angle thereto, and a pen having a body detachably secured to said holding body and having its end formed into a round, split writing portion bent to an angle with its body and seated across said reservoir at an angle thereto and extending beyond the reservoir, substantially as described.

2. In a lettering pen, in combination, a pen holding member provided with an ink reservoir, and a lettering pen having a round, split writing end and detachably mounted across said pen holding member at an angle thereto with its split portion positioned to receive ink from said reservoir.

3. A lettering pen of the character described comprising a stock or handle, a pen holding device having formed therein a spoon-like reservoir with its discharge end cut out to form a seat for a lettering pen, and a lettering pen having a body portion overlying said reservoir with means for detachably securing it to said holding device and provided with a rounded writing end seated across and projecting beyond the discharge end of said reservoir, substantially as described.

4. In a lettering pen, in combination with the stock or handle, a combination pen holding device and ink reservoir, and a pen having a rounded, split writing end detachably mounted thereon with its writing end bent to an angle and seated in intersecting relationship with the discharge end of said ink reservoir, substantially as described.

1,136,197. COIN-CONTROLLED LOCK. AMOS A. WYCKOFF, Santa Cruz, Cal., assignor, by direct and mesne assignments, to Coin Time Lock Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1913. Serial No. 783,520. (Cl. 194—1.)



1. In a coin-controlled lock, the combination of a coin-controlled locking bolt, a coin chute, mechanism for automatically and intermittently releasing coins from said chute, and means whereby said mechanism is controlled from said bolt.

2. In a coin-controlled lock, the combination of a locking bolt, a coin chute, mechanism for releasing a coin from said chute at predetermined intervals while the locking bolt remains in locked position, and means operated from said bolt to insure the release of a coin upon unlocking movement of the bolt.

3. In a coin-controlled lock, the combination of a locking bolt, a coin chute, mechanism for releasing coins one at a time from said chute, means rendered operative by locking movement of said bolt for actuating said mechanism, and means rendered operative upon unlocking movement of said bolt for moving said mechanism to releasing position.

4. In a coin-controlled lock, the combination of a coin-controlled locking bolt, a coin chute, a wheel provided with a plurality of radially disposed coin-receiving grooves positioned at the lower end of said chute, mechanism rendered operative upon locking movement of said bolt for rotating said wheel to intermittently release the lowermost coin in said chute, and means operative upon unlocking movement of said bolt for positioning said wheel with one of its coin grooves in alinement with said chute.

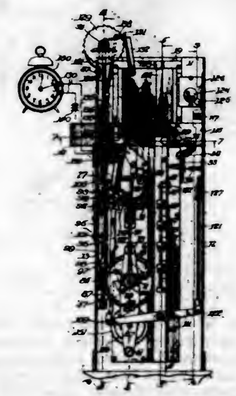
5. In a coin-controlled lock, the combination of a coin-controlled locking bolt, a coin chute, a rotatable member provided with radial slots disposed beneath said chute, means for alining one of said slots with said chute upon unlocking movement of said bolt, and means for continuously rotating said member when the locking bolt is in locked position.

[Claims 6 to 11 not printed in the Gazette.]

1,136,198. COIN-CONTROLLED LOCK. AMOS A. WYCKOFF, Santa Cruz, Cal., assignor, by direct and mesne assignments, to Coin Time Lock Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1914. Serial No. 855,550. (Cl. 194—1.)

1. In a coin-controlled lock, the combination of a coin guide, and means comprising a plurality of individually movable elements movable into and out of operative position for supporting a coin in successive predetermined positions in said guide.

2. In a coin-controlled lock, the combination of a coin chute, a plurality of coin supporting devices positioned in spaced relation longitudinally of said chute, means for normally urging said devices into operative position in said chute, and means for successively withdrawing said devices from operative position to thereby support a coin in a succession of predetermined positions.



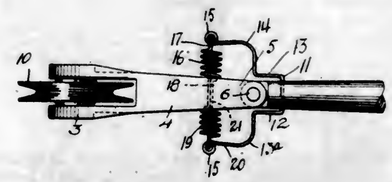
3. In a coin-controlled lock, the combination of a coin chute, a plurality of coin supports projecting into said chute and time-controlled means for moving said supports successively and individually into inoperative position to permit a periodic movement of a coin in said chute.

4. In a coin-controlled lock, the combination of a coin chute, a plurality of coin-supporting devices disposed in spaced relation adjacent to said chute, means for normally urging all of said supports into the chute, and time-controlled mechanism for withdrawing said supports individually and in succession from the chute to permit a predetermined periodic movement of a coin in the chute.

5. In a coin-controlled lock, the combination of a coin chute, a plurality of pins mounted to project into said chute in position to support a coin therein, and means movable longitudinally of the chute for withdrawing said pins individually and in succession from operative position.

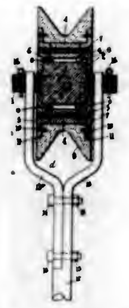
[Claims 6 to 24 not printed in the Gazette.]

1,136,199. TROLLEY-WHEEL MOUNT. ROMAN ZAWEGICZ, Bentleyville, Pa. Filed May 6, 1914. Serial No. 836,772. (Cl. 64—70.)



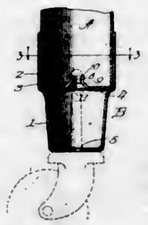
A trolley wheel mount comprising a pole, a harp having a stem pivoted to the pole on substantially a vertical axis, a substantially U-shaped supporting member formed of wire and having its base loosely mounted in said pole adjacent the pivot point, and the arms thereof projected outwardly on each side of the stem, the free ends of said arms being hooked to form eyes, and a pair of coil springs, one being disposed on each side of the stem, the outer end coils of said springs being loosely engaged with the eyes of the adjacent arms of the supporting member and the inner end coils thereof being anchored together in said stem.

1,136,200. ANTIFRICTION-BEARING FOR TROLLEY-WHEELS. HENRY CARL ADAM, Hamilton, Ontario, Canada, assignor of one-half to Jacob Christif Adam, Vancouver, British Columbia, Canada. Filed Jan. 2, 1914. Serial No. 810,027. (Cl. 64—36.)



In a trolley wheel the combination with the harp divided into two portions detachably secured together, of an axle rigidly mounted thereon, said axle provided with a cylindrical boss formed integrally therewith and having peripheral ball races thereon, an annular portion surrounding the boss, flange portions having inwardly extending annular portions engaging the sides of the aforesaid annular portion, means for securing the flange portions to the annular portion, the annular portion surrounding the boss and the inwardly extending annular portions being provided with ball races therein so situated that half is in the annular portion surrounding the boss and half in the inwardly extending annular portions, said ball races coinciding with the ball races in the boss, balls inserted between the said ball races, an annular grooved trolley engaging portion extending around said annular portion, the sides of the said grooved portion being chamfered, the flanges of the flange portions inserted into the chamfers in the grooved portion, and means for securing the flange portions in the said grooved portion.

1,136,201. CASTER-SOCKET. JOHN M. ADAMS, Chicago, Ill. Filed Oct. 14, 1912. Serial No. 725,608. (Cl. 16—4.)



1. A hollow post, a caster, and a socket for said caster, said socket comprising a post-supporting plate secured to the lower end of said post, and a second plate rigidly supported at a distance from said first plate, said plates being provided with caster bearings, substantially as described.

2. A hollow post, a caster, and a socket for said caster, said socket comprising a post-supporting plate secured to the lower end of said post, and a second plate rigidly supported at a distance from said first plate, said plates being provided with caster bearings, and means for removably securing the caster in said socket, substantially as described.

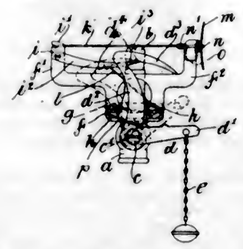
3. A hollow post, a caster, and a socket for said caster, said socket comprising a thimble secured to the lower end of said post, a shoulder thereon which sustains the weight of the post, a plate secured in said thimble at a distance above its lower end, said thimble and plate being provided with caster bearings, substantially as described.

4. A hollow post, a pintle caster, and a socket for said caster, said socket comprising a post-supporting plate secured to the lower end of said post, and a second plate rigidly supported at a distance from said first plate, said plates being provided with bearings for the caster pintle, and yielding means for removably securing the caster pintle in said socket, substantially as described.

5. A hollow post, a pintle caster, and a socket for said caster, said socket comprising a post-supporting plate secured to the lower end of said post, and a second plate rigidly supported at a distance from said first plate, said plates being provided with bearings for the caster pintle, and yielding means on the upper bearing plate for removably securing the caster pintle in said socket, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,136,202. AUTOMATIC CUT-OFF FOR GAS-BURNERS. VINCENT ABBATE, New York, N. Y. Filed Feb. 9, 1915. Serial No. 7,147. (Cl. 67—116.)

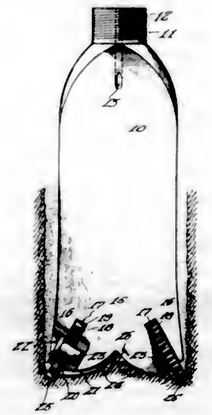


1. An automatic cut-off for gas burners comprising, in combination with a rotatable valve, an elbow lever carried on the valve stem, one of the arms of the lever having formed thereon an arcuate portion on the lower edge of which is a notch, a spring engaging the valve operatively to hold it normally in closed position, a U-shaped bracket, means to secure the bracket detachably to the burner, a bell crank lever pivoted to one of the arms of the bracket, a thermostatic rod secured at one end to one arm of the bell crank lever and secured adjustably at the other end to the other arm of the bracket and disposed within the gas flame, a detent formed on the end of the other arm of the bell crank lever and arranged to be engaged with the notch in the arcuate portion of the elbow lever when the thermostatic rod expands and to be moved out of engagement with the notch when the rod contracts, and a spring carried by the bracket and engaging the bell crank lever operatively, said spring tending to hold the detent in the notch, and the first named spring serving to rotate the valve to closed position when the detent moves out of engagement with the notch.

2. An automatic cut-off for gas burners comprising, in combination with a rotatable valve plug having a square stem, an elbow lever stamped out of sheet metal carried on the valve stem and provided with a square aperture to pass onto the squared stem, one of the arms of the lever having formed thereon an arcuate portion concentric with the valve on the lower edge of which is a notch, and the other of the said arms carrying a pull chain for manual operation of the valve, a spiral spring engaging the elbow lever operatively to hold the valve normally in closed position, a U-shaped bracket stamped out of sheet metal, a strap to secure the bracket detachably to the burner, a bell crank lever having a short arm and a long arm pivoted to one of the arms of the bracket, a thermostatic rod secured at one end to the short arm of the bell crank lever and secured adjustably at the other end to the other arm of the bracket and disposed within the gas flame, a flat expansive spring interposed between the last named

end of the rod and the last named arm of the bracket, a screw to which the rod is attached, a wing nut by which the rod may be tightened against the action of the spring, the rod being assisted in its expansive action on the bell crank lever by the said expansive spring, a detent stamped out of sheet metal and formed on the end of the long arm of the bell crank lever and arranged to be engaged with the notch in the arcuate portion of the elbow lever when the thermostatic rod expands and to be moved out of engagement with the notch when the rod contracts, and a leaf spring carried by the bracket and engaging the bell crank lever operatively, said spring tending to hold the detent in the notch, and the first named spring serving to rotate the valve to closed position when the detent moves out of engagement with the notch.

1,136,203. FISH-TAIL BIT. HUGH A. BARDEEN, Los Angeles, Cal., assignor of one-half to Richard E. Kline, Los Angeles, Cal. Filed Nov. 5, 1913. Serial No. 799,400. (Cl. 255—71.)



1. A fish tail bit having toothed revolving cutters located on radial bearings at the outer corners of its lower edge.

2. A bit comprising a flat body, a stem by which said body may be rotated, a stationary pin radially placed near each of the lower corners of said bit, and a toothed cutter turning freely on each of said pins, the lower edge of the body intermediate of said cutters having a fish tail form.

3. A fish tail bit having toothed cylindrical cutters turning freely on pins located radially near the lower outer corners of said bit, said cutters projecting slightly below the lower edge of said bit.

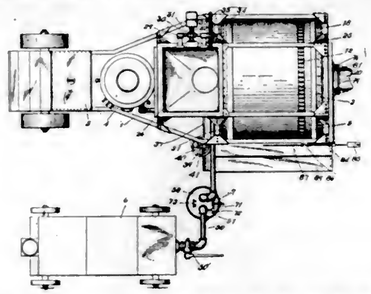
4. A fish tail bit comprising a flat body, a stem by which said body may be rotated, means for introducing water into the well at either side of said flat body, inclined toothed cylindrical cutters at the outer lower corners of said flat body, and cutting edges formed on said flat body between said cutters and at a slightly higher elevation than the cutting edges of said cutters.

5. A fish tail bit having cylindrical toothed cutters located at its lower edge with their axes inclined with relation to the bottom of the hole.

[Claim 6 not printed in the Gazette.]

1,136,204. ASPHALT-MIXING APPARATUS. JOHN H. BLEDSOE, Kansas City, Mo., assignor to Equitable Asphalt Maintenance Company, Kansas City, Mo., a Corporation of Missouri. Filed Sept. 24, 1912. Serial No. 722,046. (Cl. 94—6.)

1. In an asphalt mixing apparatus, the combination with a mixing drum, of a melting kettle, a sealed measuring tank, means for conducting fluid binder from the kettle to the tank, connection between the tank and drum, and means for delivering a fluid pressure medium to the tank, whereby a measured quantity of fluid binder is delivered from the tank to the mixing drum.



2. In an asphalt mixing apparatus, the combination with a drum, of a measuring tank, a conduit leading from the tank to the drum, a melting kettle, a conduit for delivering fluid binder from the kettle to the measuring tank by gravity, means for sealing the kettle conduit, and means for delivering a fluid pressure medium to the measuring tank, whereby the measured contents thereof are forced to the drum, substantially as set forth.

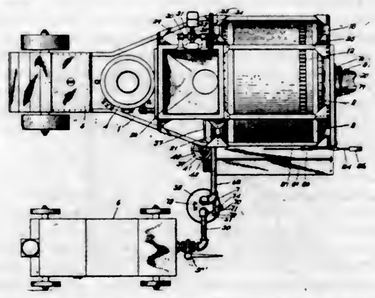
3. In an asphalt mixing apparatus, a mixing drum, means for delivering mineral aggregate to the drum, a separate measuring tank, a collar above and communicating with the tank, a conduit leading from the tank to the drum, and a steam pipe running through the conduit and opening into the collar, for the purpose set forth.

4. In an asphalt mixing apparatus, a mixing drum, means for delivering mineral aggregate to the drum, a separate measuring tank, a conduit opening from the bottom of the tank and running to the drum, a steam pipe running through the exposed portion of the conduit and opening into the top of the tank, and a regulating valve on the steam pipe, for the purpose set forth.

5. In an asphalt mixing apparatus, a mixing drum, means for delivering mineral aggregate to the drum, a measuring tank comprising spaced inner and outer receptacles, a conduit leading from the inner receptacle to the drum, means for conducting a pressure medium to the top of the tank, and inlet and outlet members adapted for affording a continuous flow of heating medium through the space between the inner and outer tank members, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,136,205. METHOD OF MIXING ASPHALT. JOHN H. BLEDSOE, Kansas City, Mo., assignor to Equitable Asphalt Maintenance Company, Kansas City, Mo., a Corporation of Missouri. Filed Sept. 26, 1912. Serial No. 722,499. (Cl. 94—6.)

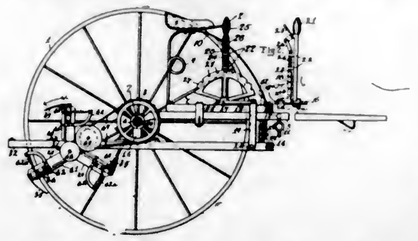


1. The method of mixing asphalt consisting of delivering a jet of fluid binder through a cascade of mineral ag-

gregate and varying the penetration of the jet to deliver the binder at different points in the cascade.

2. The method of mixing asphalt consisting of applying pressure to binder in a closed receptacle, forcing same under pressure through a conduit into mineral aggregate, and varying the pressure to vary the penetration of the fluid through the mineral aggregate.

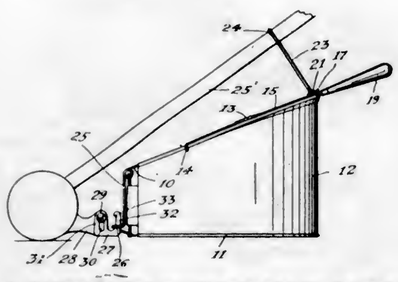
1,136,206. THISTLE-ERADICATOR. HERMAN BORNEMANN and JOHN TENNESSEN, Jr., Dundas, Wis. Filed July 28, 1913. Serial No. 781,545. (Cl. 55—66.)



1. A thistle eradicator comprising a wheeled frame, a shaft mounted for revolution thereon, spaced apart heads secured to the shaft, a plurality of combs secured to said heads, a comb cleaner for each comb consisting each of a bar arranged inside of and longitudinally of the comb and pivotally mounted upon a pivotally mounted lever at each end of the reel head, a stop upon the machine frame arranged in the path of movement of the free ends of said levers and adapted to engage said free ends and swing the cleaner bars from behind the roots of their teeth toward their points at each revolution of said reel and a spring arranged for returning said bars to their normal position after they have been swung for cleaning the comb teeth.

2. A thistle eradicator comprising a wheeled frame, a shaft mounted for revolution thereon, spaced apart reel heads secured to said shaft, a plurality of combs secured to the reel heads, a comb cleaner for each comb consisting each of a bar arranged inside of and longitudinally of the combs and pivotally mounted at each end, a pivotally mounted lever connected to each end of each of said bars, a stop arranged upon said frame in the path of movement of the free ends of said levers for engaging said ends as the reel is revolved, and thereby swinging said comb cleaner bars from behind the roots of the comb teeth toward their points at each revolution of the reel head, and means for returning said bars to their normal position after they have been swung for cleaning the comb teeth.

1,136,207. GRASS-CATCHER. WILLIAM BOSS, St. Paul, Minn. Filed Feb. 15, 1913. Serial No. 748,750. (Cl. 56—114.)

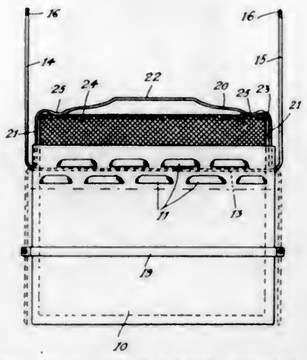


1. A grass catcher comprising a wire top frame formed with an integral wire loop at the back thereof, and a wire handle having diverging arms secured to the sides of said frame and a portion extending through said loop to the rear of the frame and providing a rearwardly extending handle portion.

2. A grass catcher comprising a wire top frame formed with a loop at the back thereof, a wire handle having divergent arms secured to the sides of said frame and a portion extending through said loop to the rear of the frame, a wooden handle upon said rearwardly extended portion of the wire handles, a wire key extending through said loop and wedging the wooden handle upon said rearwardly extended portions, said key comprising a hooked end turned toward the wire handle, and a hooked arm pivotally connected with said hooked end for removably securing the grass catcher to the handle-bar of a lawn mower.

3. A grass catcher comprising a wire top frame formed with an integral wire loop at the central portion of the back thereof, a wire handle having divergent arms secured to the sides of said frame, and a portion extending through said loop a required distance to the rear of the frame, a wire key extending through said loop and engaging the wires of the handle so as to secure the same rigidly within said loop, and a hollow gripping member secured upon said rearwardly extended portion of the wire handle by means of said wire key.

1,136,208. HUMIDIFIER. WILLIAM BOSS, St. Paul, Minn. Filed Feb. 21, 1914. Serial No. 820,353. (Cl. 98—44.)

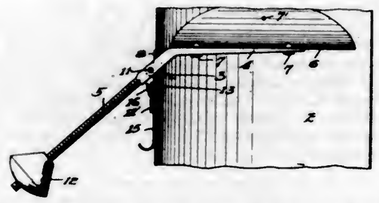


1. A humidifier for heating systems comprising a water container having side walls of relatively wide extent and an open top, an evaporating member extending between said walls and into the water in the container, means for removably holding the moisturizer in the currents of hot air generated by the heating system, and a series of downwardly-opening projections extending outwardly from said side walls into the path of said warm-air currents for directing the same against said evaporating member.

2. A humidifier for heating systems comprising a water container having side walls of relatively wide extent and an open top, a handle having end portions rigidly secured to the end walls of the container and a gripping portion extending above said open top, a bar connected to said end portions and engaged by bends formed in the gripping portion, a fabric wicking removably held upon said bar by said engaging bends so as to extend between said side walls and into the water of the container, and means for removably holding the moisturizer in the currents of hot air generated by the heating system.

3. A humidifier for heating systems comprising a water container having side walls of relatively wide extent and an open top, a handle having end portions rigidly secured to the end walls of the container and a gripping portion extending above said open top, a bar connected to said end portions and engaged by bends formed in the gripping portion, a fabric wicking removably held upon said bar by said engaging bends so as to extend between said side walls and into the water of the container, a shaft journaled in the end walls of the container, and hooked arms rigidly connected with said shaft for suspending said moisturizer from and back of a radiator of the heating system.

1,136,209. DAMPER. CAROLINE M. BROWN, Minneapolis, Minn., assignor to Automatic Heat Regulator Co., St. Paul, Minn., a Corporation. Filed July 26, 1913. Serial No. 781,428. (Cl. 236—2.)



1. The combination, with a flue, of an arm pivoted thereon and provided with a spindle projecting into said flue, a counter-balance weight for said arm, a guide, a bar movable in said guide into the path of said arm and having means for engagement with said guide to hold said bar in different positions with respect to said arm and thereby vary the stroke of said arm, for the purpose specified.

2. The combination, with a flue, of an ear secured thereon and having an outwardly projecting portion forming a housing, said ear and the wall of said pipe having an opening therein, a weighted arm having a spindle projecting into said flue through said opening, a damper blade for said spindle, and a bar slidable in said housing and having means mounted for movement into the path of said arm.

3. The combination, with a flue, of an ear secured thereon, said ear and said flue having openings therein, an arm having a spindle fitting within said openings and projecting into said flue, a damper blade mounted on said spindle, said ear having a housing formed thereon provided with an opening in its side wall, a toothed bar slidable in said housing and having teeth adapted to enter said opening, said bar being mounted for movement into the path of said arm.

4. The combination, with a flue, of an arm pivoted thereon and provided with a spindle projecting into said flue, a damper blade mounted on said spindle, a counter-balance weight for said arm, a sliding toothed bar, a guide therefor adapted to engage the teeth of said bar, said bar being mounted for movement into the path of said arm.

5. The combination, with a flue, of an arm pivoted thereon and having a part projecting within said flue and a weighted end extending outwardly from said flue, a damper blade having its middle portion secured to the inner end of said arm and composed of comparatively thin, flexible material, and a rod bridging the middle portion of said blade and having hooked ends to enter holes in the end portions of said plate for holding said end portions in their curved relation with respect to the middle portion of said blade, said end portions being curved to conform to the curvature of the wall of the flue.

1,136,210. KNOCKDOWN FLY-TRAP. ALONZO E. CHAPMAN, Redlands, Cal. Filed Dec. 11, 1913. Serial No. 805,944. (Cl. 43—22.)

1. A knock-down fly trap comprising a detachable base member having entrance means therein and a cage member comprising two flat pieces of screen with a pair of hinged posts secured to the edges thereof.

2. A knock-down fly trap comprising a square detachable base member having entrance openings therein, and a cage member formed of a pyramid of wire cloth with two hinged posts secured to opposite corners thereof.

3. A knock-down fly trap comprising a square detachable base member having entrance openings therein, and a detachable cage member formed of two flat pieces of wire cloth bent in pyramid form and having posts at the two opposite corners thereof, said posts being hinged together by means of a bolt at the apex of the pyramid.

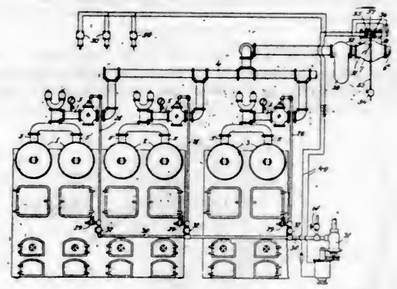


4. A knock-down fly trap comprising a square detachable base member having entrance openings therein, a cage member formed of two flat pieces of screen bent into pyramid form, posts secured at opposite corners of said pyramid, said posts being hinged together by means of a bolt at the apex of the pyramid and means for detachably securing said cage and said posts to said base.

5. A knock-down fly trap comprising a flat base having entrance means therein, and a cage member detachably secured to said base and adapted to be folded flat when not in use.

[Claims 6 and 7 not printed in the Gazette.]

1,136,211. BOILER-CUT-OFF SYSTEM. GEORGE W. COLLIN, Bridgeport, Conn. Filed July 13, 1914. Serial No. 850,839. (Cl. 136—15.)



1. A boiler cut off system comprising in combination a plurality of pressure generators, a main conduit having connections to each of such pressure generators, and separate cut off valves, one for each such pressure generator, and each interposed in the connection from such main conduit to the corresponding pressure generator, said cut off valves each comprising fluid-pressure-actuated means for closing and opening such valves, a master valve, and cut-off-valve-controlling conduits leading from the fluid-pressure-actuated operating means of said cut off valves to said master valve, whereby by the operation of said master valve the said cut off valves may all be operated.

2. A boiler cut off system comprising in combination a plurality of cut off valves comprising fluid-pressure-actuated means for closing and opening such valves, a master valve, conduits leading from the fluid-pressure-actuated operating means of said cut off valves to said master valve, whereby by the operation of said master valve the said cut off valves may all be operated, another valve for each conduit leading from a cut off valve to said master valve, whereby by the operation of such other valve the corresponding cut off valve may be operated singly, and means for preventing back flow from the conduit of one cut off valve to a conduit of another cut off valve.

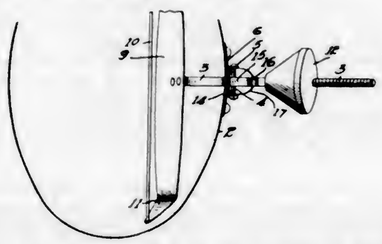
3. A boiler cut off system comprising in combination a plurality of pressure generators, a main conduit having connections to each of such pressure generators, and separate cut off valves, one for each such pressure generator, and each interposed in the connection from such main conduit to the corresponding pressure generator, said cut off valves each comprising fluid-pressure-actuated means for closing and opening such valve, a master valve, and cut-off-valve-controlling conduits leading from the fluid-pressure-actuated operating means of said cut off valve to said master valve, whereby by the operation of said master valve the said cut off valves may all be operated, said master valve comprising means for its control from a distant point.

4. A boiler cut off system comprising in combination a plurality of pressure generators, a main conduit having connections to each of such pressure generators, and separate cut off valves, one for each such pressure generator, and each interposed in the connection from such main conduit to the corresponding pressure generator, said cut off valves each comprising fluid-pressure-actuated means for closing and opening such valves, a master valve, and cut-off-valve-controlling conduits leading from the fluid-pressure-actuated operating means of said cut off valves to said master valve, whereby by the operation of said master valve the said cut off valves may all be operated, and means actuated by variation of conditions within such main conduit for actuating said master valve.

5. A boiler cut off system comprising in combination a plurality of cut off valves comprising fluid-pressure-actuated means for closing and opening such valves, conduits leading from the fluid pressure actuated operating means of such cut off valves, separate controlling valves for such conduits each comprising means for its operation from a distant point, and a single operating means for such controlling valves whereby all such controlling valves may be operated together.

[Claims 6 to 11 not printed in the Gazette.]

1,136,212. DAMPER. OTTO MATILE DAUGHERTY, St. Paul, Minn., assignor to Automatic Heat Regulator Co., St. Paul, Minn., a Corporation. Filed Apr. 18, 1914. Serial No. 832,690. (Cl. 236—2.)



1. A damper blade having end portions thereof inwardly curved to conform to the curvature of the walls of a flue, a rod having its ends mounted in said end portions and extending across said blade from side to side and spaced therefrom and preventing the accumulation of soot or ashes between the blade and rod, said rod also serving as a bracing means for said blade, and an operating arm for said blade secured thereto intermediate to its end portions.

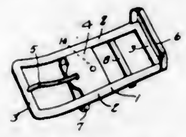
2. The combination, with a flue, of an arm pivoted thereon and projecting therein, a damper blade mounted on said arm within said flue, a counter-balance carried by said arm, said arm having a tooth thereon and a locking arm having a part to engage said tooth and lock said arm and blade in their open position, said locking arm being normally inoperative and permitting the automatic tilting of said damper arm under pressure of the draft in said flue, for the purpose specified.

3. The combination, with a flue, of an arm pivoted therein, a damper blade carried by said arm within said flue, a counter balance for said blade, said arm having a tooth formed thereon, and a slide having a part to normally contact with the face of said tooth and limit the movement of said damper blade, the engagement of said part with the opposite face of said tooth when said arm is tilted past a predetermined point locking said blade in its open position.

4. The combination, with a flue, of a pivoted arm, a damper blade supported by said arm within said flue, a counter-balance for said blade, said blade being free to swing under pressure of the draft in said flue, and a locking device operating to hold said blade in its open position when said arm is tilted by hand past a predetermined point.

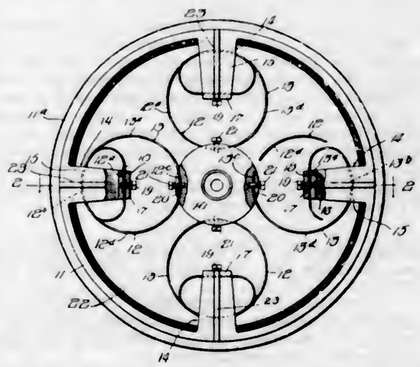
5. The combination, with a flue, of a pivoted arm, a blade mounted thereon, within said flue, a counter-balance for said blade, said arm and blade being free to swing under the pressure of the draft in said flue, a locking device operating to normally limit the swinging movement of said blade toward an open position, said locking device becoming automatically operable to positively lock said blade in its open position when said arm is tilted by hand past a predetermined point.

1,136,213. BUCKLE. ORIN F. DAY, Valley, Wash. Filed Apr. 16, 1913. Serial No. 761,501. (Cl. 24—177.)



A buckle comprising in combination, a substantially rectangular frame, a plate integral with said frame and having a pin projecting downwardly from its lower surface, a prong on the upper surface of said plate and extending forwardly into engagement with said rectangular frame, a bow shaped piece attached to the underside of said frame substantially at the forward edge of said plate, a cross bar attached to the underside of said frame and having its upper surface substantially flush with the lower surface of said frame and spaced from the rear edge of said plate, and a second bow shaped member projecting upwardly from the top face of said frame at the rear thereof.

1,136,214. VEHICLE-WHEEL. LAMBERT DIESEL, Chicago, Ill. Filed July 24, 1913. Serial No. 780,896. (Cl. 152—50.)



1. A vehicle wheel, comprising a rim and a hub, a plurality of pairs of springs interposed between said rim and hub, and a hanger for each pair of springs, embracing an arm secured to the rim and extending toward the hub; the springs of each pair being connected at their outer ends with the associated arm, and each spring being curved from its point of connection with the arm in a direction to extend to one side of said arm and toward said rim, and having a portion extending between the rim and point of connection of the spring with said arm; the remaining portion of the spring being on the other side of the arm and curved in a direction away from said arm and toward the hub; the inner end of said spring being secured to said hub; each spring of said pair having the corresponding curved portions located on opposite sides of the associated arm and curved in opposite directions.

2. A vehicle wheel, comprising a rim and a hub, a plurality of pairs of springs interposed between said rim and hub, and a hanger for each pair of springs, embracing laterally spaced arms secured to the rim and extending toward the hub; the arms of each hanger being connected together at their ends by a connecting member; the springs of each pair having their outer ends secured to said connecting member, and each spring being curved from said member outwardly to one side of said hanger and toward said rim and having a portion passing between said arms and between the rim and connecting member; the remaining portion of the spring being located on the other side of the hanger and curved from the hanger toward the hub; the inner end of each spring being secured to said hub; the springs of each pair having their corresponding curved portions on opposite sides of the associated hanger and curved in opposite directions.

3. A vehicle wheel, comprising a rim and a hub, a plurality of springs interposed between said rim and hub, a hanger for each spring, embracing an arm secured to said rim and extending toward the hub, a spring secured to each arm and curved from its point of connection with said arm in a direction to extend to one side of the arm and toward the rim and having a portion extending between the rim and the point of connection of the spring with the arm; the remaining portion of the spring being on the other side of the arm and curved toward said hub, the inner end of each spring being secured to said hub; the springs being arranged in sets and the springs of one set having their curved portions curved in a direction opposite to the direction of curvature of the corresponding curved portions of the springs of the other set.

1,136,215. MAGNETIC SEPARATOR. MYRON DINGS and ROBERT A. MANEGOLD, Milwaukee, Wis., assignors to Dings Electro-Magnetic Separator Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 7, 1911. Serial No. 642,613. (Cl. 83—71.)



1. A magnetic separator, consisting of a supporting member provided with a set of polar projections having exposed annular peripheral flanges, electro-magnetic windings between said polar projections, flanges on said projections partially overhanging said windings, the opposing margins of the flanges being sinuously curved to approach into and recede from an annular zone constituting a magnetic gap between each pair of pole pieces, and non-magnetizable coverings for said flanges and gaps.

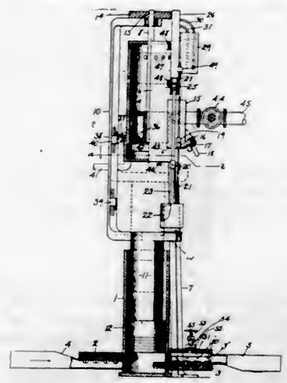
2. A magnetic separator provided with a plurality of annular pole pieces of opposite polarity separated by a magnetic gap, extending in a sinusoidal curve adjacent to its outer surface, the central portion of said gap being continuous in a plane transverse to the axis of the separator, said magnetic gaps and the sinusoidal margins of the pole pieces being covered by non-magnetizable material, and an annular zone being left exposed between the gaps, and constituting a magnetic zone, the covering of the sinusoidal margins of the pole pieces filling portions of the magnetic field of greatest density, to equalize the density of the field adjacent to the periphery of the separator.

3. A magnetic separator, comprising the combination with a support, of a series of pole pieces provided with outer surfaces, flanges projecting laterally from said pole pieces toward those of the adjacent pole pieces, and non-magnetizable shields covering said flanges and coinciding with those of the pole pieces to form a continuous smooth surface, said flanges having their inner surfaces converging outwardly and forming comparatively short edges opposed to the similar edges of the flanges on the opposing pole pieces.

4. The combination of a separating magnet, a conveyer belt for delivering material thereto, and rows of magnetizable projections on said conveyer belt arranged in rows along lines converging inwardly from the margins of the belt and rearwardly with reference to the direction of conveyer movement, said projections being spaced from each other in each row at less distances than the width of the spaces between the rows.

5. A magnetic drum separator, comprising the combination of supports, exciting coils, annular magnetic pole pieces forming a series of narrow peripheral belts separated from each other by annular zones which include the gaps between the pole pieces, said pole pieces being separated from each other by sinusoidal gaps, each traversing one of said zones from side to side, said pole pieces having laterally projecting annular flanges in said zones and bordering said gaps which are sinusoidal in form and said flanges having their inner surfaces converging outwardly toward the periphery of the separator and forming with the outer surfaces comparatively thin edges at the polar gaps, together with a set of annular coverings for the gap zones substantially as described .

1,136,216. VERTICAL STEAM-PUMP. KENNEDY DOUGAN, Minneapolis, Minn. Filed Jan. 16, 1909. Serial No. 472,669. (Cl. 121—8.)



1. A steam pump comprising a piston steam actuated in one direction only, a weighted pump piston and connections therefrom to the steam piston through which said pump piston is lifted by the steam piston, the return forcing stroke being affected by gravity, valve mechanism controlling the steam inlet and cut-off, and means controlled by the movement of the steam piston for operating the valve mechanism to cut off steam at a point such that the steam admitted will fully expand in effecting said lifting stroke.

2. A steam pump comprising a cylinder and piston therein having a variable stroke and steam actuated in one direction only, a weighted pump piston connected to and lifted by the steam piston, the return or forcing stroke being effected by gravity, valve mechanism, and governing means therefor controlled by variations in the stroke of the piston correspondingly to vary the cut-off of steam from said cylinder.

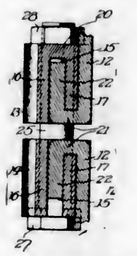
3. A steam pump comprising a cylinder and piston therein having a variable stroke and steam actuated in one direction only, a weighted pump piston connected to and lifted by the steam piston, the return forcing stroke being effected by gravity, valve mechanism controlling the steam inlet and cut-off, means movable with the steam piston to actuate the valve mechanism, and means controlled by variations in the stroke to vary the position of said actuating means relatively to the steam piston.

4. A steam pump comprising a cylinder and piston therein having a variable stroke and steam actuated in one direction only, a weighted pump piston connected to and lifted by the steam piston, the return forcing stroke being effected by gravity, valve mechanism controlling the steam inlet and cut-off, an arm for operating the valve, members movable with the steam piston for actuating said arm to open and close the valve successively, and means controlled by variations in the stroke to vary the position of the closing member relatively to the steam piston.

5. A steam pump comprising a cylinder and piston therein having a variable stroke and steam actuated in one direction only, a weighted pump piston connected to and lifted by the steam piston, the return forcing stroke being effected by gravity, valve mechanism controlling the steam inlet and cut-off, an arm for operating the valve, rods movable with said steam piston provided with members for engaging and actuating said stop to open and close the valve successively, and means controlled by variations in the stroke to move the rod carrying the closing member longitudinally relatively to the piston to vary the point in the stroke at which closing or cut-off will take place.

[Claims 6 to 8 not printed in the Gazette.]

1,136,217. BAND CONNECTION. PETER DROLSHAGEN, Aurora, Ill. Filed Sept. 22, 1913. Serial No. 791,069. (Cl. 217—95.)



1. A band connector having a recessed inner-face such recess extending entirely across the face of the connector and permitting the connector to be applied laterally over the band and having a pocket adapted to receive a return bent-end of the band, substantially as described.

2. A band counector having a recessed inner-face, such recess extending entirely across the face of the connector and permitting the connector to be applied laterally over a band, a pocket to receive a return bent-end of the band, and an inner-wall adapted to occupy the space between the band and bent-end when the connector is applied to the band, substantially as described.

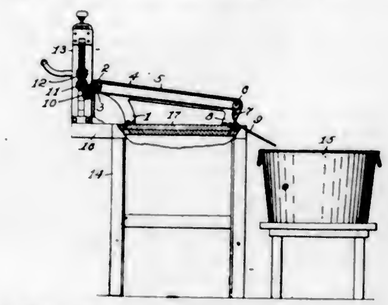
3. The combination of a band having its ends return bent, a connector therefor comprising a pair of members each having a recessed inner-face, such recess extending entirely across the face of the connector and permitting the member to be applied laterally over the band and a pocket adapted to receive one of the return bent-ends of the band, and means to draw said members toward one another, substantially as described.

4. The combination of a band having its ends return bent, a connector therefor comprising a pair of members each having a recessed inner-face, such recess extending entirely across the face of the connector and permitting the member to be applied laterally over the band, a pocket to receive one of the bent band-ends and an inner-wall adapted to occupy the space between the band and bent end, said wall being cut away at its forward edge to correspond to the thickness of the band, and means to draw said members toward one another, substantially as described.

5. A band connector having a recessed inner-face, such recess extending entirely across the face of the connector and permitting the connector to be applied laterally over the band, a pocket adapted to receive a return bent-end of the band, and an inner-wall adapted to occupy the space between the band and the bent end, said wall being cut away at its edge to correspond to the thickness of the band, substantially as described.

[Claim 6 not printed in the Gazette.]

1,136,218. DELIVERY DEVICE FOR WRINGERS. EUGENE D. DUMOND, Waterloo, Iowa. Filed Aug. 24, 1914. Serial No. 858,384. (Cl. 68—32.)



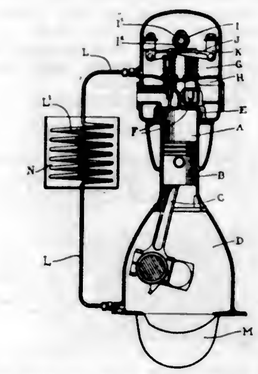
1. The combination with a wringer having rolls provided with intermeshing gears, of an idler-gear in mesh with one of said gears, a movable support adjacent to said wringer, rollers pivotally mounted in said support, an endless belt mounted upon and actuated by said rollers, and a gear-wheel on one roller detachably in mesh with the said idler gear-wheel to form clash-gearing therewith.

2. The combination with a wringer having rolls provided with intermeshing gears, of an idler-gear in mesh with one of said gears, a movable support adjacent to said wringer adapted to swing to and from it and having spaced uprights mounted thereon, rollers pivoted in said uprights, an endless belt carrier mounted upon said rollers, one of said rollers carrying a gear-wheel adapted to detachably mesh with said idler gear-wheel to form clash-gearing when the movable support is swung to and fro, and a plate pivotally mounted in an inclined position below the delivery-end of said endless belt.

1,136,219. LUBRICATING SYSTEM FOR EXPLOSION-ENGINES. GEORGE W. DUNHAM, Detroit, Mich., assignor to Chalmers Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 26, 1914. Serial No. 858,741. (Cl. 121—115.)

1. In an explosion engine, a lubricating system including a receptacle exposed to the heat of the engine, and means for cooling the lubricant fed from said receptacle to the mechanism to be lubricated.

2. In an explosion engine, the combination with a lubricant receptacle exposed to the heat of the engine, of a conduit for feeding the lubricant from said receptacle to the mechanism to be lubricated, and a cooler in said conduit.



3. In an explosion engine, the combination with valve mechanism arranged in the head of the engine and exposed to the heat thereof, of a crank case, means for feeding lubricant to said valve mechanism and from the latter to said crank case, and means for cooling the lubricant intermediate said valve mechanism and crank case.

4. In an explosion engine, the combination with a valve housing arranged above the head of the engine cylinder, of a cam shaft in said housing, mechanism operated by said cam shaft for actuating the valve, an oil passage formed in said cam shaft having distributing ports for the various bearings of said mechanism, and a conduit for conveying the lubricant collecting in said housing to the crank case.

5. In an explosion engine, the combination with a cylinder head having a chamber therein for the valve mechanism, of a cam shaft extending through said chamber, mechanism operated by said cam shaft for actuating said valves, a lubricant channel extending through said cam shaft having distributing passages for the various bearings of said mechanism, a conduit for conveying the lubricant collecting in said chamber to the crank case, and a cooler for the lubricant passing through said conduit.

[Claims 6 and 7 not printed in the Gazette.]

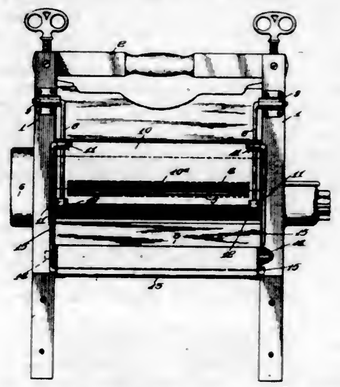
1,136,220. WIRE-TIE TWISTER. FREDERICK W. FEGELY, Allentown, Pa., assignor to Modern Bag Company, a Corporation of New Jersey. Filed Aug. 3, 1914. Serial No. 854,636. (Cl. 140—119.)



In a device of the character described, a handle, a shank within said handle adapted to be rotated by movement of the handle longitudinally, said shank provided at its end with a pair of tie-engaging members comprising a hook and a pair of claws respectively, said claws being separated by a slot adapted to receive and grip the head end of a wire tie, and the hook being adapted to receive the loop end of a wire tie.

1,136,221. CLOTHES-WRINGER. ALVA J. FISHER, Evanston, Ill., assignor to Hurley Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 8, 1914. Serial No. 843,781. (Cl. 68—32.)

1. In combination with a clothes wringer including its rolls, guards located on opposite sides of the rolls and arranged to swing toward and away therefrom, and connections between the guards for alternately presenting the guards to the rolls for guarding purposes.



2. In combination with a clothes wringer including its rolls, guards located on opposite sides of the rolls and arranged to swing toward and away therefrom, and an oscillating drip board operatively connected at its opposite ends to the guards whereby as one of the guards is presented to the rolls the other is swung away therefrom.

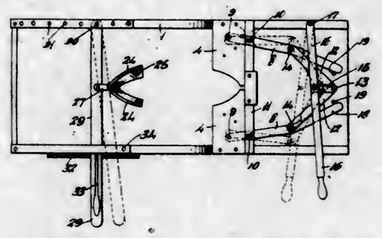
3. In combination with a clothes wringer including its rolls, guards located on opposite sides of the rolls, guide rods which are arranged to oscillate on the wringer and on which the guards are mounted, and connections between the guards for alternately presenting the guards to the rolls for guarding purposes.

4. In combination with a clothes wringer including its rolls, guards located on opposite sides of the rolls, guide rods which are arranged to oscillate on the wringer and on which the guards are carried and are also mounted to slide longitudinally of the guide rods, and connections between the guards for alternately presenting the guards to the rolls for guarding purposes.

5. In combination with a clothes wringer including its rolls, guards located on opposite sides of the rolls, guide rods which are arranged to oscillate on the wringer and on which the guards are carried and are also mounted to slide longitudinally of the guide rods, and an oscillating drip board operatively connected at its opposite ends to the guards.

[Claims 6 to 8 not printed in the Gazette.]

1,136,222. MACHINE FOR USE IN THE MANUFACTURE OF WELT-SHOES. WILLIAM FOWLER, Cincinnati, Ohio, assignor of one-half to Charles H. Krippendorf, Cincinnati, Ohio. Filed May 11, 1914. Serial No. 837,675. (Cl. 12—7.)



1. In a machine of the character described, means for supporting the heel part of an inseamed shoe, means for supporting the toe thereof, means for adjusting the heel and toe supporting means with reference to each other,

and means for pushing in the inseam while the shoe is supported, to conform substantially to the original line of the shoulder of the insole, for the purpose described.

2. In a machine of the character described, a swiveled means for supporting the heel part of an inseamed shoe, means for supporting the toe thereof, means for adjusting the heel and toe supporting means with reference to each other, and means for pushing in the inseam while the shoe is supported, for the purpose described.

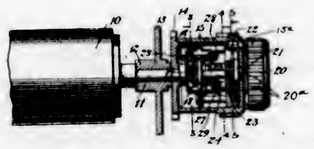
3. In a machine of the character described, means for supporting the heel part of an inseamed shoe, means for fixing said heel supporting means in any desired position, means for supporting the toe thereof, and means for pushing in the inseam while the toe is supported, for the purpose described.

4. In a machine of the character described, a swiveled means for supporting the heel part of an inseamed shoe, means for fixing said heel supporting means in any desired position, means for supporting the toe thereof, and means for pushing in the inseam, while the shoe is supported, to conform substantially to the original line of the shoulder of the insole.

5. In a machine of the character described, an adjustable heel holder for supporting the heel of an inseamed shoe, an adjustable toe supporting member and coöperating sliding jaws to push in the inseam at the toe, while the shoe is held, for the purpose described.

[Claims 6 to 13 not printed in the Gazette.]

1,136,223. LINE-ADJUSTER FOR TYPE-WRITER PLATENS. JOSEPH M. FRAAZ, New York, N. Y. Filed Feb. 18, 1914. Serial No. 819,373. (Cl. 197—121.)



1. The combination with a platen and its shaft journaled in a stationary bar, of a ratchet wheel journaled on the platen shaft, a finger wheel casing connected to the ratchet wheel for simultaneous rotation therewith, an auxiliary finger wheel journaled in the outer end of the casing and rotatable otherwise independently thereof, and reduction gearing connections between said auxiliary finger wheel and the shaft whereby the shaft and platen may be rotated while the ratchet wheel and the casing remain stationary.

2. The combination with a roller and its shaft journaled in a fixed bearing, of a master wheel including a casing, a gear wheel within the casing secured to the master wheel, a floating spider within the casing secured to the shaft, a set of gearing carried by said floating spider and meshing with said first mentioned gear wheel, and a knob rotatable independently of the casing and master wheel to operate the set of gearing and thereby rotate the roller at a slow speed while the master wheel remains stationary.

3. In a device of the character set forth, the combination of a shaft, a master wheel journaled on the shaft, a worm wheel secured to the master wheel, means to rotate the master wheel, and gear connections including a worm meshing with the worm wheel to cause positive rotation of the shaft during rotation of the master wheel.

4. The combination of a shaft, a master wheel journaled thereon, a worm wheel secured to the master wheel, a spider secured to the shaft adjacent the worm wheel, a countershaft journaled in the spider parallel to the first mentioned shaft, means to rotate the countershaft independently of the master wheel, and gear connections between the countershaft and the worm wheel, said connections including a worm meshing with the said worm wheel whereby a rotation of the master wheel will cause similar rotation of the shaft or a rotation of the countershaft will cause a slow rotation of the main shaft while the master wheel remains stationary.

5. In a typewriting or adding machine, the combination with a line space wheel journaled loosely on a shaft, a worm wheel secured to said line space wheel, a worm meshing with the worm wheel, a countershaft, a train of gears, and an auxiliary finger wheel meshing with said gears for turning the platen in the same direction as said auxiliary finger wheel is turned.

[Claims 6 to 8 not printed in the Gazette.]

1,136,224. MEANS FOR SEALING THE ENDS OF ROLLS OF CLOTH. DAVID GESSNER, Worcester, Mass. Filed Apr. 9, 1912. Serial No. 680,681. (Cl. 26—7.)



1. In combination, a perforated receiving cylinder, and sealing means for the end of a roll of cloth wound thereon, comprising a head mounted on the cylinder, detachable bridge means to seal the space between said head and the adjacent end of a roll of cloth, and means on the head to support said bridge means.

2. In combination, a perforated receiving-cylinder, and sealing means for the end of a roll of cloth wound thereon, comprising a head mounted on the cylinder, and bridge-means to seal the space between said head and the adjacent end of the roll of cloth, said bridge-means consisting of a flexible band.

3. In combination, a perforated receiving-cylinder, and sealing means for the end of a roll of cloth wound thereon, comprising a sectional head mounted on the cylinder, and bridge-means, to seal the space between the said head and the adjacent end of the roll of cloth.

4. In combination, a perforated receiving cylinder, and sealing means for the end of a roll of cloth wound thereon, said means comprising a head having a laterally projecting annular flange adapted to engage the end face of a roll of cloth to hold a wrapper in engagement therewith, and detachable means for sealing the space between the head and the end face of the cloth roll.

5. In combination, a perforated receiving-cylinder, and sealing means for the end of a roll of cloth wound thereon, comprising a head mounted on and adapted to be detachably connected to said perforated cylinder, and means for bridging the space between the head and the adjacent end of the roll of cloth.

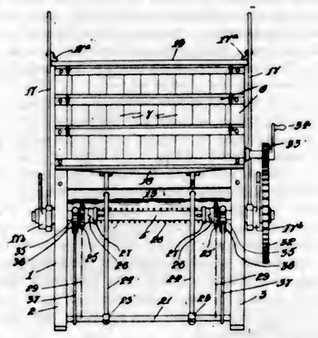
[Claims 6 to 21 not printed in the Gazette.]

1,136,225. CONCRETE-MOLD. LIMOGE GIGUÈRE, Montreal, Quebec, Canada. Filed Dec. 1, 1913. Serial No. 804,007. (Cl. 25—119.)

1. A concrete mold open at its top and bottom, a removable cover for said open top and a pressure plate in said open bottom, each of the side walls of said box being formed of a plurality of sections suitably secured together to provide narrow draining slots therebetween and means for operating said pressure plate.

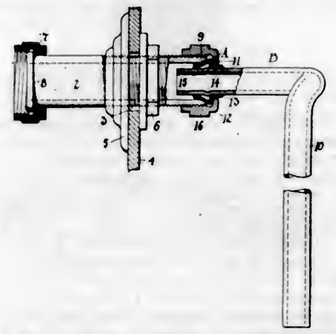
2. A concrete mold open at its top and bottom, a removable cover for said open top and a pressure plate in said open bottom, each of the side walls of said mold being formed of a plurality of narrow sections extending substantially from top to bottom of the box, means for securing said sections in the assembled position and means for operating said pressure plate.

3. In a concrete mold, a mold box frame open at top and bottom, an inner wall forming the side of the mold, each of said sides being composed of a plurality of sections, means for securing said sections in the assembled position within said frame, a removable cover for said mold, a pressure plate fitting the open lower end of the mold within said inner walls and means for operating said pressure plate.



4. In a concrete mold, a mold box frame open at the top and bottom, an inner wall forming the side of the mold, each of said sides comprising a plurality of assembled sections, each of said sections comprising a narrow block with a flat inner face and a hole therethrough from end to end, a plurality of bolts extending through the holes in said sections and secured at their lower end, thus securing said sections in their assembled position, a removable cover for said mold, a pressure plate fitting the open lower end of said mold within the inner wall and means for operating said pressure plate.

1,136,226. COUPLING MEMBER FOR PLUMBING CONNECTIONS. JOSEPH H. GLAUBER, Cleveland, Ohio; The Citizens Savings & Trust Company executor of said Glauber, deceased. Filed Mar. 10, 1911. Serial No. 613,611. (Cl. 137—28.)

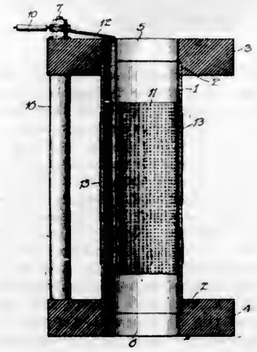


1. A single article of manufacture and sale comprising a pipe and a separate sheet-metal shell united therewith, said pipe having a straight end, and said shell comprising a straight cylindrical neck snugly sleeved upon and united with said end, an annular wall projected at right angles from said neck to provide a flat bearing surface for a coupling nut, and a conical extension of uniform thickness converging from said wall at a relatively acute angle to the axis of said pipe with an annular space between said extension and the pipe to permit said extension to be compressed to a smaller diameter intermediate the ends thereof.

2. A single article of manufacture and sale comprising a tubular coupling member having an annular enlargement and a separate sheet-metal shell fixed to said member in thrust engaging relations with said enlargement, said sheet-metal shell comprising a short neck sleeved upon the pipe, an annular wall projected outwardly from said neck to provide a flat bearing surface for a coupling nut, and a conical extension converging forwardly on straight lines from said wall into contact with said pipe with an annular space between said extension and the pipe.

3. A plumbing connection, comprising a tubular member having a straight end provided with an annular expanded enlargement, in combination with a shell sleeved upon said straight end in abutting relations with said enlargement, said shell being made of pliant metal and expanded to provide a right-angled shoulder and an annular converging portion of substantially uniform thickness extending on straight lines from said shoulder at an acute angle to said straight end and to a smaller diameter of relatively the same diameter as said tubular member.

1,136,227. OZONATOR. LOUIS GOLDBERG, Indianapolis, Ind. Filed Aug. 5, 1914. Serial No. 855,142. (Cl. 204—32.)



1. In a device of the class described, the combination of a pair of blocks, a dielectric tube having its ends in contact with said blocks, air passages in said blocks communicating with said tube, an electrode inside and an electrode outside of said tube, and tie rods connecting said blocks, said tie rods serving as binding posts for said electrodes.

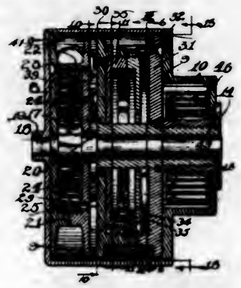
2. In a device of the class described, the combination of a pair of blocks, a dielectric tube having its ends in contact with said blocks, air passages in said blocks communicating with said tube, an electrode inside and an electrode outside of said tube, tie rods connecting said blocks, said tie rods serving as binding posts for said electrodes, said inside electrode being formed of perforated sheet metal, and a metallic strip connecting said inside electrode with one of said tie rods.

1,136,228. TROLLEY-RETRIEVER. JAMES E. GUNDRY, Flint, Mich., assignor of one-half to Charles E. Crusoe, Flint, Mich. Filed Sept. 3, 1912. Serial No. 718,178. (Cl. 191—93.)

1. A trolley retriever comprising a retrieving sheave normally locked from action, a take-up sheave, a retrieving line fastened at its ends to both sheaves, a sheave in the bight thereof to which the trolley rope is attached, a spring constantly acting on the take-up sheave to receive the slack of the retrieving line, a powerful spring tensioned to rotate the retrieving sheave to take up at the other end said retrieving line spring actuated means acting to release the retrieving sheave for rotation, and means acting to rigidly connect said sheaves to rotate together when the trolley rope is jerked.

2. In a trolley retriever the combination with a spring impelled, constantly acting take-up sheave, a retrieving line engaged at one end thereto, a normally inert retrieving sheave, to take up the other end of said retrieving line, a sheave in the bight of said line to which the trolley

rope is attached, a tensioned retrieving spring normally held from action, mechanism operated by jerking the trolley rope to release said spring, and means locking said sheaves together to rotate simultaneously to take up the retrieving line from both ends thereof and draw the trolley pole downwardly.



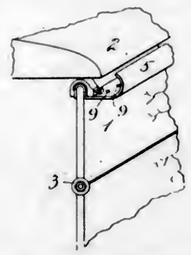
3. In a device of the class described the combination with a trolley rope, of a sheave thereon, a retrieving line engaged through the sheave, a spring impelled take up sheave for one end of the retrieving line, a normally locked retrieving sheave, a retrieving spring tensioned to rotate the retrieving sheave, a release mechanism in the retrieving sheave, the other end of the retrieving line being attached to said mechanism, and acting to release the retrieving sheave when actuated, and a pawl and ratchet on the respective sheaves adapted to be brought into engagement by the releasing mechanism simultaneously with the release of the lock whereby excessive draft on the retrieving line actuates the release mechanism to wind said retrieving line at both ends around said sheaves.

4. In a device of the class described a shaft, a plurality of sheaves rotatable thereon, springs affording a resilient connection between said shaft and sheaves, means for positively locking one of said sheaves from rotation, and mechanism adapted to lock said sheaves together when said latter sheave is released.

5. In a device of the class described a plurality of rotatable sheaves, members positively locking one thereof from rotation, mechanism for releasing said locking members, and means locking said sheaves together after release of said locking members.

[Claims 6 to 14 not printed in the Gazette.]

1,136,229. WIND-SHIELD. MAXWELL S. HART, New Britain, Conn. Filed Feb. 21, 1914. Serial No. 820,134. (Cl. 21—148.)



1. A protector for the space between a carriage top and a wind shield comprising, a deflector arranged to be carried by the wind shield and to project above the same and arranged to stand in front of the front edge of said top, and arranged to deflect air upwardly over said top, said deflector including a trough located below the upper edge of said deflector and arranged to catch the drip from the front end of said top.

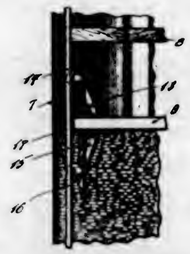
2. A protector for the space between a carriage top and a wind shield comprising, a deflector arranged to be carried by the wind shield and to project above the same and arranged to stand in front of the front edge of said top, and arranged to deflect air upwardly over said top, said deflector including a trough located below the upper edge of said deflector and arranged to catch the drip from the front end of said top, with means for detachably securing said protector to a wind shield.

3. A protector for the space between a carriage top and wind shield comprising, a deflector arranged to be carried by the wind shield and to project above the same and arranged to stand in front of the front edge of said top, and arranged to deflect air upwardly over said top, said deflector including a trough located below the upper edge of said deflector and arranged to catch the drip from the front end of said top, said trough having drain openings therein arranged in a position in front of said wind shield.

4. In a protector of the character described, a main body portion comprising a trough, an upwardly curled deflector flange along the front edge thereof, with means at the rear of said body portion for securing said protector to a suitable mounting.

5. In a protector of the character described, a main body portion comprising a trough, upwardly directed deflector flange along the front edge thereof, and means for supporting said protector.

1,136,230. GAS-EXHAUSTER FOR OIL-TANKS. OSCAR J. HOLMES, St. Louis, Mo.. Filed Nov. 10, 1913. Serial No. 800,174. (Cl. 220—122.)



1. In combination with an oil tank having internal braces and vertical guides secured to said braces, a floating body within the tank between said guides, and floating bodies hingedly secured to the first mentioned body to articulate relative thereto, in order to provide for the movement of the floating body above and below said braces.

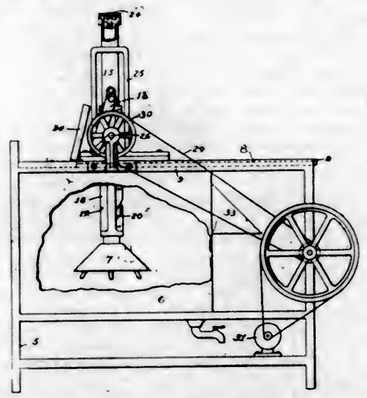
2. In combination with an oil tank having internal braces and vertical guides secured to said braces, a plurality of floats arranged between said guides, certain of said floats having auxiliary, hinged float-sections to form articulating margins for the floats, a gas exhausting means, and a flexible connection between said exhausting means and certain of said floats, substantially as shown and for the purposes stated.

1,136,231. WASHING-MACHINE. FRANCIS G. HOTZEL and JAMES B. ALLEN, Pueblo, Colo. Filed July 3, 1914. Serial No. 848,740. (Cl. 68—19.)

1. In a washing machine, a tub, a horizontally sliding cover therefor, and a plunger carried by said cover, said tub being provided on the side toward which said cover slides to open, said tub with a bay for receiving a portion of said plunger.

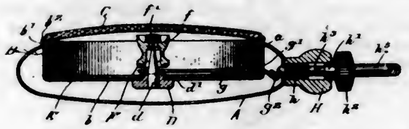
2. In a washing machine, a tub, a horizontally sliding cover therefor, and a plunger carried by said cover, said tub being provided on the side toward which said cover slides to open said tub with a bay for receiving a portion of said plunger and said cover having a swinging section on its side remote from said bay.

3. In a washing machine, a frame, a power shaft mounted on said frame, a pulley on said power shaft, a tub carried by the frame, horizontal cover receiving way on said frame, a cover for said tub mounted to reciprocate on said ways, a plunger carried by said cover and mounted to reciprocate therethrough, plunger reciprocating mechanism comprising a crank shaft also mounted on said cover, and a sliding sleeve for detachably joining said power shaft to said crank shaft.



4. In a washing machine, a tub, a cover therefor, a guide plate mounted on said cover, said guide plate having a plunger rod opening circular in general form but notched at one side, a plunger rod passing through said opening, a crank shaft on said cover, a link connected to said crank shaft, a skeleton sleeve connected to said link and rotatably mounted on said plunger rod with its vertical member engaging said notch in said guide plate, a spirally grooved sleeve secured to said plunger rod and guided in said guide plate, and stationary means mounted on said cover and entering said groove.

1,136,232. COMPASS. JAMES A. HOWE, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a Corporation of New York. Filed Mar. 21, 1914. Serial No. 826,190. (Cl. 58—88.)



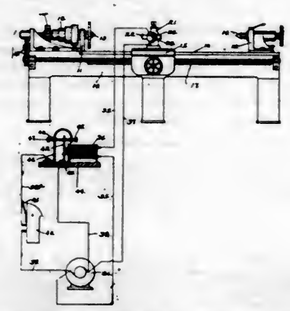
1. The combination with an outer casing formed of an integral piece of metal and having an opening therein, of an inner casing engaged and held by the free edge surrounding the opening in the outer casing, the inner casing being otherwise arranged in spaced relation to the outer casing, and a flange or lip formed at the free edge of the inner casing and engaging the outer casing on one side and a crystal on the other side.

2. The combination with an outer casing, of an inner casing engaged near its free edge by the edge of the outer casing and held frictionally therein, and means formed on the free edge of the inner casing coöperating with a crystal to support the same.

3. The combination with an outer casing formed of an integral piece of metal and terminating in a continuous inwardly projecting edge, of an inner casing arranged within the outer casing and held solely by the frictional engagement of the inwardly projecting edge of the outer casing, the latter having continuous engagement with the outer surface of the inner casing.

4. The combination with an outer casing formed of an integral piece of sheet metal terminating in an inwardly projecting edge, of an inner casing held frictionally within the outer casing, the inner casing having a continuous outwardly bent flange formed adjacent its edge for holding a crystal, the said edge of the outer casing having continuous engagement with the outside of the inner casing adjacent to the aforementioned flange and serving as the sole means for holding the inner casing therein.

1,136,233. METAL-WORKING SWITCH. AUSTIN C. JOHNSON, Chicago, Ill., assignor, by mesne assignments, to Production Meter Company, a Corporation of Delaware. Filed July 26, 1913. Serial No. 781,293. (Cl. 234—1.5.)



1. A device of the character described, comprising a diaphragm so connected with a shop machine as to be vibrated by the vibration of the shop machine caused by the operation thereof, and means engaging said diaphragm and actuated by the vibrations thereof to make and break an electric circuit.

2. An automatically operated switch, comprising a diaphragm directly connected with a shop machine so as to be actuated by the vibration of the shop machine caused by the operation thereof, and a pivoted arm engaging said diaphragm and actuated thereby to produce a rapid make and break of an electric circuit.

3. In an automatically operated switch of the character described, the combination with a shop machine and an electric circuit, of a diaphragm interposed in said circuit and in such operative relation to said machine as to be actuated by the vibration of the shop machine caused by the operation thereof, and a pivoted arm operated by said diaphragm when so vibrated, to open and close said circuit.

4. The combination with a recording circuit and a shop machine circuit, of a shop machine, a diaphragm in such operative relation with the shop machine as to be vibrated by the vibration of the shop machine caused by the operation thereof so as to rapidly make and break said shop machine circuit, and means whereby said recording circuit will be continuously closed during the vibration of said diaphragm.

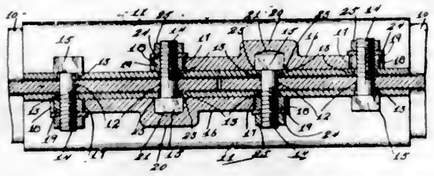
5. In a device of the character described, the combination with a metal working lathe and an electric circuit, of a diaphragm in such operative relation to said lathe as to be vibrated by the vibration of a portion of said lathe caused by the metal working operations of said lathe, and means operated by the vibration of said diaphragm to produce a rapid make and break of said circuit.

[Claims 6 to 14 not printed in the Gazette.]

1,136,234. NUT-LOCK. HUGH J. JOHNSON and JULIUS A. MOSAL, Jackson, Miss. Filed Sept. 27, 1913. Serial No. 792,238. (Cl. 151—55.)

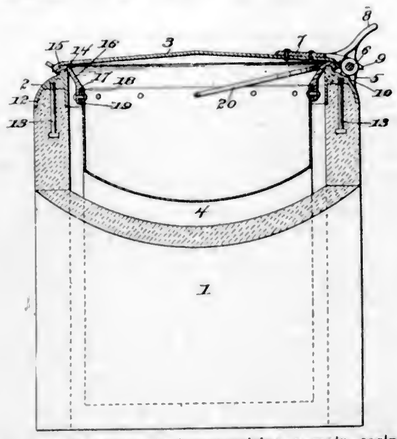
A one-piece locking plate formed to constitute a rigid construction having an up-struck portion intermediate its ends thereby forming an enlarged pocket, side flanges

formed integral upon the up-struck portions and extending into said pocket, said plate provided with squared notches at its end portions, said notches adapted to receive nuts for holding the nuts against rotation, means for retaining said plate in position, said pocket being adapted to receive the head of a bolt, said flanges fitting upon the side



portions of the head of the bolt whereby said flanges will prevent foreign objects from passing downwardly into the pocket between the head of the bolt and the inner portions of the pocket thereby holding the plate from being sprung from engagement with the nuts and the head of the bolts by a foreign object.

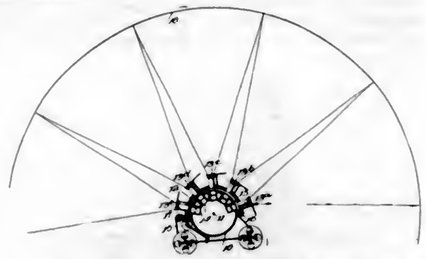
1,136,235. GARBAGE-RECEPTACLE. HENRY H. JONES, Medford, Mass. Filed May 22, 1914. Serial No. 840,346. (Cl. 220—118.)



1. A garbage receptacle comprising a main casing of plastic material; a metallic rim secured to the top of said casing and provided with an upwardly projecting annular bead; a removable receptacle, the body portion of which is of sheet metal, to which is secured, at the top, an annular rim of cast metal, provided with a concave lip shaped to fit over the said upwardly projecting bead, thereby completely closing the said main casing; and a cover hinged to the top of said metallic rim around the main casing at a point outside of the upwardly projecting bead, thereon, the said cover when closed fitting over and engaging the top of the lip around the removable receptacle.

2. The combination with a main casing having a smooth cylindrical inner surface and being provided with a hinged cover at the top; of a removable receptacle provided with an annular metallic rim portion having a lip adapted to overlie the top of the main casing between it and the cover, said metallic rim portion having an annular recess along its inner surface; a cylindrical body portion of sheet metal having a flange fitting the upper part of said recess; a ring fitting the space between the outer surface of said body portion and the wall of said recess below the flange; and rivets extending through said body portion, ring, and flange substantially as herein described.

1,136,236. MEANS FOR TAKING AND PROJECTING MOVING PICTURES. THOMAS A. KILLMAN, Nashville, Tenn., assignor of one-fourth to E. H. Roy, Nashville, Tenn. Filed Oct. 27, 1913. Serial No. 797,586. (Cl. 88—16.6.)



1. A moving picture apparatus including a casing, and a plurality of sets of lenses, each set of lenses being arranged on a different horizoutal and different vertical line from any other set, the optical axis of each set of lenses having such an angular relation to the optical axis of any other set that the field of one set of lenses shall be spatially separated from the field of any other set.

2. A moving picture apparatus including a plurality of sets of lenses arranged in stepped relation, the optical axes of the lenses diverging outward, and means for feeding a picture film having thereon a plurality of series of picture spaces corresponding in number to the number of sets of lenses, intermittently past the lenses.

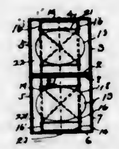
3. A moving picture apparatus including a plurality of sets of lenses arranged in stepped relation, the optical axes of the lenses on one side converging and on the other side diverging outward, so that the field of any one of said lenses shall approximately intersect the field of the next adjacent lens, and adapted to be used with a picture film having a plurality of series of picture spaces thereon corresponding to the number of sets of lenses, and means for causing an intermittent step by step feed of the film past the lenses.

4. A motion picture apparatus including a plurality of lenses arranged in stepped relation, the optical axes of the several sets of lenses diverging with relation to each other so that the field of each lens shall approximately intersect the field of an adjacent lens, and means for intermittently feeding a film before said lenses in the arc of a circle intersecting the inner ends of said lenses.

5. A moving picture apparatus including a casing and a plurality of sets of lenses arranged in stepped relation in said casing, the optical axes of said lenses diverging outward.

[Claims 6 to 9 not printed in the Gazette.]

1,136,237. EGG-CARRIER. WILLIAM P. KING, Syracuse, N. Y. Filed Aug. 24, 1914. Serial No. 858,278. (Cl. 229—29.)



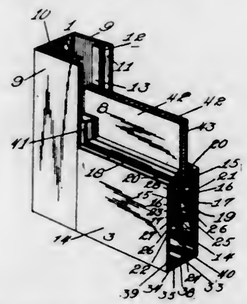
1. In an egg-carrier, the combination with a one-part body comprising a number of foldable portions near each end, of an egg-holder mounted upon one of said portions adapted to be inclosed by said body when said portions are folded, said holder comprising a flexible sheet slitted at its opposite edges and bent for forming a plurality of lugs disposed parallel, the corresponding lugs having concentric perforations to receive the opposite ends of the eggs, and an elastic band encircling the said lugs for holding the eggs in place.

2. An egg-carrier, including a one-piece body having three foldable portions near each end, and having end-flaps integral with one of said portions, a pair of egg-holders comprising flexible sheets bent substantially U-shaped secured to the foldable portions nearest the middle of the body, the opposite sides of said holders slitted at regular intervals and forming parallel lugs having concentric perforations to receive the opposite ends of the eggs, and elastic means embracing the said lugs for holding the eggs in place.

3. An egg-carrier, comprising a one-part body having a plurality of foldable portions disposed at the opposite sides of a rigid middle portion and having end-flaps integral with one of the foldable portions adjacent the middle portion, a pair of egg-holders comprising U-shaped parts secured to the foldable portions nearest the said middle portion, the vertical sides of said holders slitted and forming pairs of flexible lugs having concentric perforations to receive the ends of the eggs, and an elastic band embracing each pair of lugs for holding the eggs in place.

4. An egg carrier, comprising a one-part body having a plurality of foldable portions disposed at the opposite sides of a middle portion having a width equal to two of said foldable portions, said foldable portions adapted to be folded upon said middle portion and forming similar hollow compartments lying parallel to each other, an egg-holder secured to one of said foldable portions within each compartment, each holder comprising a plurality of flexible lugs, said lugs arranged in pairs spaced apart and parallel to each other, each pair of lugs having concentric perforations to receive the ends of the eggs, and elastic means for drawing the free ends of the said lugs toward each other for holding the eggs in place.

1,136,238. SHEET-METAL DOOR AND THE LIKE. ALFRED L. KIRBY, Newark, N. J. Filed Mar. 21, 1912. Serial No. 685,218. (Cl. 189—46.)

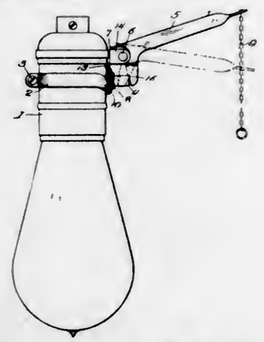


1. In a sheet-metal door or the like, the combination of two hollow parts each having a margin meeting a margin of the other, one of said margins being folded backward on itself providing a doubled edge and then bent laterally at substantially right angles and then backward at right angles substantially parallel to itself, and the other margin being bent laterally in the same direction as the first-mentioned margin and then forwardly to lie against the said portion of the first mentioned margin which is parallel to itself and then folded backward over said parallel portion, whereby said margins are united in a joint.

2. In a sheet-metal door of the like, the combination of two hollow parts each having a margin meeting a margin of the other, one of said margins having a doubled edge portion a lateral shoulder and a backwardly extending portion substantially parallel to itself and the other margin having a lateral shoulder adapted to engage said doubled edge of the first mentioned margin a forwardly extending parallel portion lying against said doubled portion a second lateral shoulder engaging the lateral shoulder of the first mentioned margin, and a second forwardly extending parallel portion lying against the said portion of the first mentioned margin which is parallel to itself and folded backward over said last mentioned portion, whereby said margins are united in a seam.

3. In a sheet-metal door or the like, the combination with parts having margins meeting in interior seams substantially parallel to each other and spaced from the walls of said parts, of a spacing strip extending edgewise between the walls of one of said parts adjacent to said seam and having marginal portions returned upon itself providing a doubled edge, said returned portion being folded at a distance from the doubled edges inwardly between said seams and the body portion of the strip and lying against the inner facing sides of said seams and hooking over the edges of the same away from the body of the spacing strip, said spacing strip having also ears bent out of its doubled edge at the opposite outer sides of said seams or joints.

1,136,239. ATTACHMENT FOR ELECTRIC-SWITCH DEVICES. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 15, 1911. Serial No. 660,343. (Cl. 240—128.)



1. In combination, a lamp socket having a push button operating member for its switch mechanism, a band encircling the lamp socket and having an opening through which said push button extends, a support carried by said band and rotatable relatively thereto, said support also having an opening through which said push button extends, and means attached to said support and engaging the end of said push button for operating the latter by operation of said means, said means being rotatable with said support and being operable by pull.

2. In combination, a lamp socket having a single push button protruding therefrom, a band encircling said lamp socket and having an opening through which said push button extends, a support carried by said band and angularly adjustable with respect thereto, and a bell crank lever pivoted to said support and having one end of the same normally in engagement with said push button.

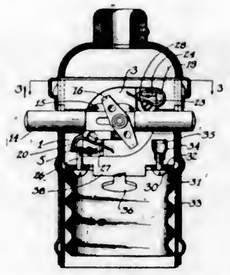
3. In combination, a push button operated snap switch mechanism, a support therefor, a band fixed to said support and having an opening through which a push button extends, a supporting member swiveled to said band and angularly adjustable with respect thereto, a bell crank lever pivoted to said support and limited in its movement in one direction by the latter, said bell crank lever having one end of the same continuously in engagement with said push button.

4. In combination, a lamp socket, a push button operated snap switch mechanism carried therein having a push button protruding therefrom, a band fixed to said lamp socket and having an opening through which said

push button extends, a supporting member swiveled to said band around the periphery of said opening and adjustable in a plurality of positions, and a bell crank lever pivoted to said support, said bell crank lever having one end of the same in continuous engagement with said push button and being operable to reciprocate said push button upon depression of its opposite end and to be returned to its initial position upon the opposite reciprocation of said push button.

5. In combination, a lamp socket, a snap switch mechanism having a push button protruding therefrom, a band removably attached to said lamp socket and having an opening through which said push button extends, a support having a plurality of projections thereon, and an opening therein registering with the opening in said band, said support being swiveled to said band and angularly adjustable with respect thereto, a bell crank lever pivoted in laterally disposed lugs on one end of said support and limited in its movement in one direction by engagement with said support, said bell crank lever having one end in engagement with said push button and a pull chain attached to the opposite end of said bell crank lever.

1,136,240. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 26, 1912. Serial No. 717,066. (Cl. 173—346.)



1. In combination, a casing, a two-part base having projections adjacent one end for supporting the same within said casing, the adjacent faces of the parts of said base having complementary recesses in the plane of said projections, and a switch mechanism mounted in said recesses, the operating member of said switch mechanism extending through opposite walls of said base.

2. In combination, an elongated insulating base having flat sides, a switch mechanism housed therein, stationary contacts therefor, members fixing said contacts to the base and extending through the latter to the exterior thereof, terminal plates on the flat sides of said base, one of said plates being fixed thereto by one of said members, and a threaded shell removably secured by the other member.

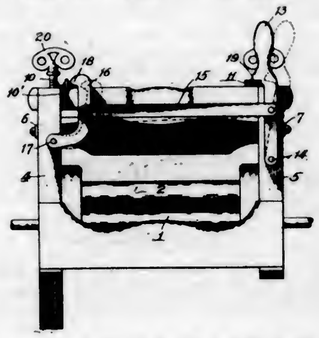
3. In combination, a switch base vertically divided into two sections, a snap switch mechanism inclosed between the sections of said base, stationary contacts therefor carried by one of the parts of said base, screws for fixing said contacts to said base, a threaded shell secured to said base by one of said screws, terminal plates carried on opposite sides of said base, one of said terminal plates being secured thereto by one of said screws and the other of said terminal plates being provided with an extension forming a center contact protruding into said shell.

4. In combination, a two-part vertically divided base having flat sides, a substantially U-shaped member holding the parts thereof together, a snap switch mechanism carried between said parts, stationary contacts for such switch mechanism, a terminal plate carried upon one of the flat sides of the bases, means for directly connecting one of said contacts with said terminal plate, a threaded shell, means for directly connecting said shell with the other of said contacts, and a combined center contact and a terminal plate, said center contact extending into said shell and said terminal plate being carried upon the other flat side of the base.

5. In combination, a vertically divided two-part base having flat vertical sides, a snap switch mechanism housed between the parts of said base, means for holding the parts of said base together, stationary contacts carried by one of the parts of said base, screws for securing said stationary contacts to said base, said screws protruding through the walls of said base, a threaded shell directly connected to one of said protruding screws, a terminal plate held in position upon one of the flat sides of said base by the other of said screws and a second terminal plate fixed upon the opposite flat side of the base and having an elongated substantially L-shaped extension forming a center contact protruding within said shell.

[Claims 6 and 7 not printed in the Gazette.]

1,136,241. SAFETY ATTACHMENT FOR WRINGERS. FRANK G. N. KRANICH, Newton, Iowa, assignor to The Maytag Company, a Corporation of Iowa. Filed Mar. 8, 1913. Serial No. 752,809. (Cl. 68—32.)



1. In a wringer having a pair of wringer rolls suitably mounted in standards, the combination of a cross bar seated at the top of said standards and mounted at both ends on hinge members, an adjusting screw in each end of said cross bar for governing the pressure between the wringer rolls, arms projecting from said cross member at each end, latching means coöperating with said arms, and an emergency handle operatively connected to throw said latching means in emergency, thereby releasing the cross member and reducing the pressure between the wringer rolls.

2. In a device of the class described, the combination of a pair of wringer rolls mounted in standards, a cross bar seated in the top of said standards, a hinge member at either end of said cross bar, adjusting means in said cross bar for controlling the pressure between said wringer rolls, latching arms at either end of said cross bar for holding it in normal position, a handle pivoted to one of said standards and coöperating with one of said latching arms, a latch pivoted to the other standard and coöperating with a latch arm, and a link connecting said handle with said latch to insure simultaneous release of both ends of the cross bar when the handle is swung about its pivot.

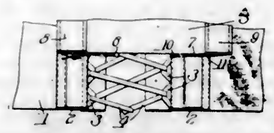
3. The combination with a wringer having a cross bar, and adjusting means carried by the cross bar for controlling the pressure between the wringer rolls, of arms carried by the cross bar, the said arms being pivotally connected at one end to the wringer, latching means carried by the wringer and means whereby the latching means can be jointly operated to hold the opposite ends of said arms in a locked position for the purpose specified.

4. The combination with a wringer comprising standards having wringer rolls journaled therein, a cross bar adapted to rest upon the upper ends of said standards, and means associated with said cross bar for controlling the pressure between the wringer rolls, of arms carried by each end of said cross bar and extending transversely thereof, means for pivotally connecting one end of said arms to the said standards of the wringer, latching means adapted to engage the opposite ends of said arms, and an emergency handle for operating said latching means whereby the cross member may be released and the pressure reduced between the wringer rolls.

5. The combination with a wringer comprising standards having wringer rolls journaled therein, a cross bar, adjusting means carried by the cross bar for controlling the pressure between the wringer rolls, a pair of laterally extending arms carried by the cross bar, means for pivotally connecting one end of said arms to the standards of the wringer, a pair of latch members pivotally mounted upon the standards of the wringer and adapted to engage the opposite ends of the said arms, and means whereby said latch members may be jointly operated.

[Claims 6 and 7 not printed in the Gazette.]

1,136,242. GARMENT-SHIELD. EFFIE C. KUEBLER, Chicago, Ill. Filed Aug. 2, 1912. Serial No. 712,916. (Cl. 2—74.)



1. The combination of a garment provided with an adjustable opening and having means for adjusting the size of said opening, a shield of suitable material shaped to overlie said opening and having a stiffened marginal portion along one longitudinal edge, a pliable strip of material attached along one edge to said shield at the inner edge of the stiffened marginal portion thereof and at its other edge to the garment at one side of said opening, said strip serving to connect the shield to the garment and being disposed within the perimeter of the shield between the shield and the garment, and means for attaching the free edge of said shield to the garment at the opposite of said opening.

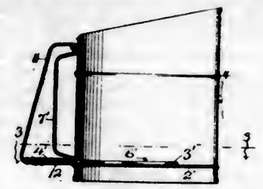
2. The combination of a garment provided with an adjustable opening, and having means for adjusting the size of said opening, a shield shaped to cover said opening, said shield having a stiffened marginal portion along one edge, means for permanently attaching said edge of the shield to the garment comprising a pliable member disposed between the garment and the shield, one edge thereof being attached to the shield at the inner edge of said stiffened portion and the other edge being attached to the garment body at one side of said opening, and means for attaching the opposite edge of said shield to the garment at the opposite side of the opening.

3. A shield adapted to cover a variable width opening in a garment, consisting of a body portion of suitable material having a stiffened marginal portion, and a pliable attaching portion permanently secured to said body portion along the inner edge of said marginal portion so as to lie wholly within the perimeter of the shield whereby said shield may be flexibly attached to a garment without exposing the attaching means to view.

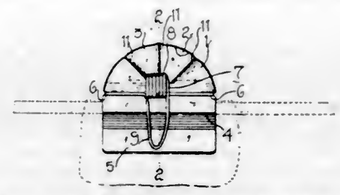
17,136,243. SIEVE. SIMEON C. LAWLOR, Chicago, Ill. Filed June 3, 1912. Serial No. 701,268. (Cl. 83—60.)

1. In a sieve, the combination with a container, and a screen, of a shaker disposed within the container, above the screen, and comprising bent wire, parallel portions of the wire being extended from the shaker through the wall of the container, and forming an operating arm for the shaker, and being disposed in spaced relation to prevent rocking of the arm, an operating handle for said arm outside of the container, and a handle for the container contiguous the first-mentioned handle and disposed for enabling the hand of the operator to grasp both handles.

2. In a sieve, the combination, with a container and a screen therein, of a shaker slidingly disposed above the screen, and a handle outstanding from the container, arms extending from the shaker through the walls of the container at opposite sides of the handle, a second handle pivotally connected to the container at its upper portion and engaging said arms, and a spring pressing the last-mentioned handle outwardly, the two handles being disposed for being grasped by one hand of the operator.

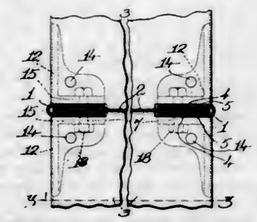


1,136,244. CLOTHES-CLAMP. RICHARD V. LEE, Calistoga, Cal. Filed Apr. 8, 1914. Serial No. 830,456. (Cl. 24—252.)



A clamp comprising a pair of elongated plates, said plates having registering notches formed in their opposite side edges intermediate of the ends of the plates, the plates on one side of the notches being bent outwardly to form handles, the plates on the other side of the notches being bent to form jaws, a length of spring wire engaged around said plates and having portions thereof disposed in the registering notches to pivotally connect the plates together, the wire at a point intermediate of its ends being bent to form a laterally extending loop for engagement against the outer face of one of the jaws, one end of the wire being coiled at a point intermediate of the ends of the other plate, the extremity of the wire extending from the coiled portion thereof and being looped for engagement against the outer face of the jaw of said other plate.

1,136,245. SHELVING. SANFORD D. LELAND, Wellesley Hills, Mass., assignor to Manufacturing Equipment & Engineering Company, South Framingham, Mass., a Corporation of Massachusetts. Filed Nov. 5, 1912. Serial No. 729,623. (Cl. 211—27.)



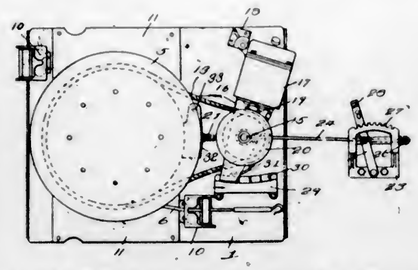
1. In shelving, the combination with uprights, each formed with a plurality of apertures, of sheet metal shelves fitting between the uprights, each shelf having at each corner a corner bracket which is formed with a vertical flange to engage the upright and a horizontal flange

or body underlying the shelf and permanently secured thereto, said vertical flange having an open-ended slot therein, and bolts extending through the apertures in the uprights and through said slots and by which the shelves are supported, said slots permitting any shelf to be removed without disturbing any other shelf.

2. In shelving, the combination with corner uprights formed from sheet metal bent into U-shape in cross section with the edges folded inwardly between the sides of the U, of partitions having their edges inserted between the inwardly-folded edges of the uprights, sheet metal shelves fitting between said uprights, corner brackets permanently secured to each shelf and detachably secured directly to the uprights whereby the shelves constitute the means for tying the uprights together.

3. In shelving, the combination with corner uprights formed from sheet metal bent into U-shape in cross section with the edges folded inwardly between the sides of the U, of partitions having their edges inserted between the inwardly-folded edges of the uprights, and sheet metal shelves fitting between said uprights, each shelf having at each corner a corner bracket which is formed with a vertical flange to engage the upright and a horizontal flange underlying the shelf and permanently secured thereto, said vertical flange having an open-ended slot, and bolts extending through the uprights and slots and by which the shelves are supported.

1,136,246. ELECTRIC LOCOMOTIVE WITH CABLE-REELING MECHANISM. NILS D. LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed July 14, 1909. Serial No. 507,635. Renewed Apr. 11, 1914. Serial No. 831,342. (Cl. 254—150.)



1. In a winding mechanism, the combination of a reel, a motor, power transmitting means between the reel and the motor comprising two separate elements, one bodily movable with respect to the other, and a frictionally acting connecting element between them, a carrier for the movable power element, a starting device for the motor comprising a stationary element and a coöperating movable element connected rigidly to the said carrier, and a manually controllable lever for moving the carrier together with the connected starting device element and the movable power element to throw the starting device and power transmitting means into operation or to throw the starting device and power transmitting means out of operation.

2. In a winding mechanism, the combination of a reel, a motor mounted to swing bodily about a pivot, a sheave rigidly connected to the reel, a sheave mounted in bearings rigidly connected to the motor frame, an endless rope belt passing around the two sheaves, power transmitting gearing between the motor and the second sheave, a starting device for the motor comprising a stationary element and a movable element rigidly connected with the motor frame and adapted to engage the stationary element, and a lever connected to swing the motor and attached parts about the pivot to change the tension of the rope belt and to open or close the electrical connection through the starting device.

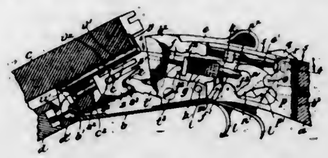
3. In a winding mechanism, the combination of a reel, a motor, power transmitting means between the reel and the motor comprising two separate elements, one bodily movable with respect to the other, and a frictionally acting connecting element between them, a carrier for the movable power element, a device for moving the carrier, a brake adapted to frictionally resist the rotation of the reel, and a connection between the carrier and the brake for automatically applying the brake when the movable power element is moved to break the power connection.

4. In a winding mechanism, the combination of a reel, a motor mounted to swing bodily about a pivot, a sheave rigidly connected to the reel, a sheave mounted in bearings rigidly connected to the motor frame, an endless rope belt passing around the two sheaves, power transmitting gearing between the motor and the second sheave, a device for moving the motor and attached parts about the pivot to change the tension of the rope belt, a brake adapted to frictionally resist the rotation of the reel, and a connection between the movable motor frame and the brake for automatically applying the brake when the second sheave is moved to release the tension in the rope belt.

5. In a winding mechanism, the combination of a rotatable reel, an electric motor, power transmitting means between the motor and the reel comprising a power element movable to make or break power connection, a movable carrier for the element, a starting device for the motor comprising a stationary element and a movable element rigidly mounted on the said movable carrier and adapted to engage the stationary element, a brake for the reel, and an operating connection between the carrier and the brake, the brake connection and the starting device being so constructed and arranged that movement of the carrier in the direction to operatively connect the motor and the reel will release the brake and make electrical connection to the motor through the starting device, and that movement of the carrier in the direction to disconnect the motor and the reel will apply the brake, and break the electrical connection to the motor through the starting box.

[Claims 6 to 9 not printed in the Gazette.]

1,136,247. FIREARM. GEORGE S. LEWIS, Springfield, Mass., assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Jan. 15, 1915. Serial No. 2,296. (Cl. 42—46.)



1. In a double barreled gun, triggers, sears therefor, a common pivot pin on which the sears are carried, and a safety latch carried pivotally on said pin.

2. In a firearm, a chambered frame, plungers, firing pins carried thereby, main springs therefor, a fixed abutment for the main springs comprising a yoke mounted in the chamber and a post engaging the yoke to hold the same against movement, and a pin passed through the walls of the chamber and the arms of the yoke to support the same.

3. In a double barreled gun, triggers, sears therefor, a common pivot pin on which the sears are carried, and a safety latch carried pivotally on said pin and disposed between the sears.

4. In a double barreled gun, triggers, sears therefor, a common pivot pin on which the sears are carried, and a safety latch carried pivotally on said pin and disposed between the sears, the safety latch being provided at its lower end and on opposite faces with pins to lock the triggers respectively.

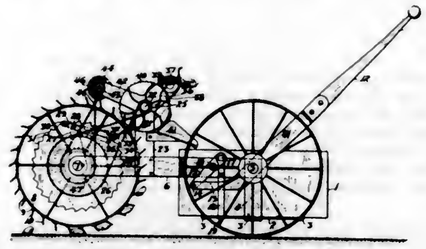
5. In a firearm, the combination with the barrel and fore-end, of a cocking member and extractor carried slidably by the barrel, a plunger carried slidably by the barrel and adapted to move the cocking member and the extractor positively in one direction, an abutment carried by the fore-end and coöperating with the plunger to cause sliding movement thereof when the gun is broken, the plunger with the cocking member being freely slidable with respect to the extractor to inoperative positions whenever the fore-end is removed.

1,136,248. PROCESS OF MAKING ACETYL-CELLULOSE PLASTIC COMPOUNDS. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,744. (Cl. 106—40.)

1. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with tetrachlorethyl acetanilid in the presence of a small proportion of methyl alcohol.

2. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with tetrachlorethyl acetanilid in the presence of a small proportion of methyl alcohol, the proportion of the alcohol being about one to one and one-half times the acetanilid ingredient.

1,136,249. FRUIT-GATHERER. PETER H. LINT, Los Gatos, Cal. Filed June 1, 1914. Serial No. 842,014. (Cl. 56—99.)



1. In a fruit gathering machine, the combination of a roller having prongs for gathering the fruit, a transferrer having pins, means for rotating the transferrer with the roller and at a greater speed, so that the pins intervene between the prongs, an extruder to thrust the fruit from the prongs, and means for operating said extruder actuated by the movement of the roller.

2. In a fruit gathering machine, the combination of a roller having prongs for gathering the fruit, a transferrer having pins, means for rotating the transferrer with the roller and at a greater speed, so that the pins intervene between the prongs, a U-shaped extruder for thrusting the fruit from the prongs, stationary guides for the side members of the extruder, a lever connected at one end to one of said side members, a cam roller at the other end of said lever, and a ratchet-shaped cam rotating with the roller and actuating said cam roller.

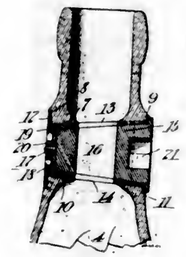
3. In a fruit gathering machine, the combination of a roller having prongs for gathering the fruit, a transferrer having pins, means for rotating the transferrer with the roller and at a greater speed, so that the pins intervene between the prongs, an extruder to thrust the fruit from the prongs, means for operating said extruder actuated by the movement of the roller, and a remover rotating with the transferrer and having pins intervening between those of the transferrer.

4. In a fruit gathering machine, the combination of a roller having prongs for gathering the fruit, a transferrer having pins, means for rotating the transferrer with the roller and at a greater speed, so that the pins intervene between the prongs, an extruder to thrust the fruit from the prongs, means for operating said extruder actuated by the movement of the roller, and a brush rotating with the roller and arranged to brush the prongs thereof.

5. In a fruit gathering machine, the combination of a roller having prongs for gathering the fruit, a transferrer having pins, means for rotating the transferrer with the roller and at a greater speed so that the pins intervene between the prongs, an extruder to thrust the fruit from the prongs, means for operating said extruder actuated by the movement of the roller, a box for receiving the fruit, a handle for propelling the machine, and means whereby the box may be maintained substantially level, notwithstanding the variations in level of the handle.

[Claims 6 and 7 not printed in the Gazette.]

1,136,250. BOTTLE. MIKE LUTENBERGER, Blocton, Ala. Filed July 1, 1914. Serial No. 848,478. (Cl. 215—57.)



1. A bottle, having an integral neck having an annular enlargement provided with a tapering transverse bore, a tapering valve casing arranged within said bore having oppositely disposed openings and provided with flanged ends for securing said casing within said bore, and a tapering plug provided with an opening revolubly mounted within said valve casing having a socket at one end.

2. As a new article of manufacture, a bottle having a tapering bore formed in its neck, the ends of said bore being surrounded by annular recesses, a tapering valve casing arranged within said bore having annular flanges at its ends seated in said recesses, said valve casing being provided with oppositely disposed openings, and a rotary valve plug mounted within said valve casing.

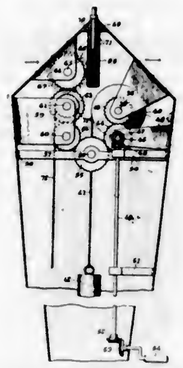
3. A bottle, having a neck provided with an annular interior enlargement, the walls of said neck at the point of enlargement being provided with oppositely disposed tapering bores, the outer ends of said bores being surrounded by annular recesses, a tapering sleeve forming a valve casing arranged within said bores, having annular flanges seated within said recesses at its ends, one end of said sleeve being provided with an interior annular enlargement, a valve plug mounted within said valve casing provided with a threaded stem, a washer carried by said stem fitting within said annular enlargement, a nut mounted on said stem engaging said washer, said valve plug having a key-receiving socket at its opposite end for rotating said valve within said casing.

4. A beer bottle, having an integral neck, the walls of which are provided with oppositely disposed tapering bores, a tapering valve casing arranged within said bores having an annular enlargement at one end, the ends of said valve casing being swaged for securing said valve casing within said bore, a valve plug removably mounted within said valve casing, and a washer carried by one end of said valve plug fitting within the enlargement of said valve casing for preventing longitudinal movement of said valve plug.

1,136,251. WEIGHT-MOTOR. CHARLEY MCQUEEN, San Antonio, Tex., assignor of one-half to Abraham H. Jackson, Gonzales, Tex. Filed Sept. 11, 1912. Serial No. 719,783. (Cl. 185—27.)

1. In a motor of the class described, a casing having a conical top reinforced at its apex to form a bearing, a shaft journaled in the bearing and extending vertically in alinement with the vertical axis of the casing, brackets extending between the side walls of the casing and reinforcing the said walls, a drum shaft mounted within the casing, a drum mounted upon the shaft, a cable wound

upon the drum, a weight carried by the cable, the cable depending from the drum in vertical alinement with the first-mentioned shaft, means for rotating the drum shaft to wind the cable upon the drum, and a train of gears mounted within the casing in the said brackets for transmitting power from the drum shaft to the first-mentioned shaft.

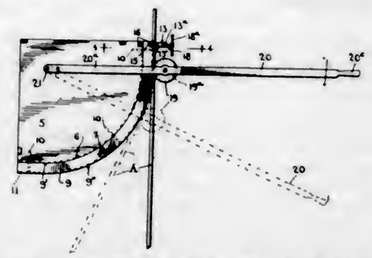


2. In a motor of the class described, a casing having a conical top reinforced at its apex to form a bearing, a shaft journaled in the bearing and extending vertically in alinement with the vertical axis of the casing, brackets extending between the side walls of the casing and reinforcing the said walls, a drum shaft mounted within the casing, a drum mounted upon the shaft, a cable wound upon the drum, a weight carried by the cable, the cable depending from the drum in vertical alinement with the first-mentioned shaft, means for rotating the drum shaft to wind the cable upon the drum, a train of gears mounted within the casing in the said brackets for transmitting power from the drum shaft to the first-mentioned shaft, a brake drum connected with one gear of the train of gears, a band upon the drum, the wall of the casing being provided with a slot, and a flexible element connected with the band and depending therefrom and extending through the said slot.

3. In a motor of the class described, a closed casing, a shaft mounted in the upper end of the casing in alinement with the verical axis of the casing, a drum shaft mounted within the casing, a winding drum carried thereby, a cable wound upon the drum, a weight connected with the cable, the said cable depending from the drum at the vertical axis of the casing, a train of gears for transmitting power from the drum shaft to the first-mentioned shaft, handles secured to the exterior of the casing at diametrically opposite sides thereof, a crank shaft mounted through the side wall of the casing at a point between the said handles, and gear connection between the crank shaft and the drum shaft, whereby the drum shaft may be rotated to wind the cable upon the drum.

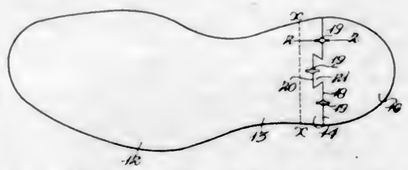
4. In a motor of the class described, a vertically disposed relatively high and narrow casing, a shaft journaled vertically for rotation in the upper end of the casing, a gear element carried by the shaft within the casing, a drum mounted for rotation within the casing beneath the top thereof, a train of gears constituting operative connection between the drum and the gear element upon the said shaft, a cable wound upon the drum, a weight carried by the cable at its free end, the cable depending from the drum at the vertical axis of the casing, the interior of the casing below the drum being free from obstructions in the path of downward movement of the weight, whereby the weight may lower vertically entirely to the bottom of the said casing, and a manually operable winding shaft geared with one element of the train of gears, whereby the drum may be rotated to wind up the cable.

1,136,252. PIPE-BENDING DEVICE. ALBERT H. MEIER, Evansville, Ind. Filed Feb. 16, 1914. Serial No. 818,945. (Cl. 153—46.)



A pipe bender consisting of a stationary member, a lever having arms straddling the member and pivoted thereto, said member having a curved edge and provided with grooves in said curved edge of different area and designed to receive pipe, means for adjusting said arms on the member, a roller pivoted between and to said arms and formed with circumscribing grooves corresponding to the grooves of the member and having direct engagement with the curved edge, a detachable jaw secured to the member and adapted to cover said grooves in said edge and provided with pipe receiving grooves of different area, and means for clamping the pipe to be bent, said jaw being detachable from the curved edge and said lever being adjustable on said stationary member to bring the roller into bending position against said curved edge, the adjustment of the lever arms being such as to permit of a swinging action of the lever in either position to bend the pipe against either the curved edge or detachable jaw, said jaw being curved.

1,136,253. PIECED OUTER SOLE. CHARLES H. MERROW, Brockton, Mass. Filed July 2, 1914. Serial No. 848,564. (Cl. 36—31.)

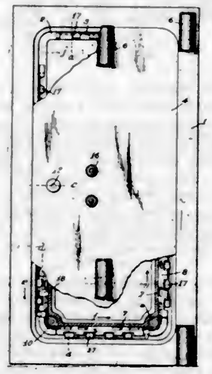


1. A pieced outer sole composed of a one-piece body having a fore portion, a shank portion, and an incomplete heel seat portion, a terminal forming a complemental heel seat portion attached to the body, the said body and terminal having continuous elongated abutting edges which meet within the area of the heel seat and form a joint extending continuously across the sole and arranged to be covered by the heel of the shoe of which the sole forms a part, and means for positively holding said abutting edges in contact with each other, to prevent edgewise and sidewise movements of the terminal relatively to the body, the sole formed by said body and terminal being adapted to be manipulated and treated as one part.

2. A pieced outer sole composed of a one-piece body having a fore portion, a shank portion, and an incomplete heel seat portion, a terminal forming a complemental heel seat portion, the said body and terminal having continuous elongated abutting edges which meet and form a joint within the area of the heel seat and extending continuously across the sole, and stiff connecting members bridging said joint and engaged with the body and terminal to positively hold said abutting edges in contact with each other and prevent edgewise and sidewise movements of the terminal relatively to the body so that the sole formed thereby is adapted to be manipulated and treated as one part.

3. A pieced outer sole composed of a one-piece body having a fore portion, a shank portion, and an incomplete heel seat portion, a terminal forming a complemental heel seat portion, the said body and terminal having continuous elongated abutting edges which meet and form a joint within the area of the heel seat and extending continuously across the sole, one of said edges having a recess and the other a projection fitting said recess whereby edgewise movement of the terminal relatively to the body is prevented, and stiff connecting members bridging said joint and engaged with the body and terminal to prevent both edgewise and sidewise movements of the terminal relatively to the body.

1,136,254. SAFE CONSTRUCTION. MOSES MOSLER, Cincinnati, and CARL BARTELS, Hamilton, Ohio, assignors to The Mosler Safe Company, New York, N. Y. Filed Nov. 25, 1914. Serial No. 873,875. (Cl. 109—3.)



1. Safe-construction comprising, a stepped rectangular door-jamb having teeth projecting inwardly from sides of the jamb, a door having a stepped margin fitting the door-jamb, grooves in the edges of the door to the rear of the plane of the teeth in the door-jamb, a bar fitted for endwise motion in each of said grooves, teeth projecting from the outer edges of said bars and adapted to pass rearwardly through the spaces between the teeth of the door-jamb while the door is being closed and to be slid behind the teeth of the jamb by the endwise movement of the bars, means for preventing the bars from lateral displacement from their grooves, devices operatively connecting all the bars so that they will take on endwise motion in unison, and mechanism accessible from the exterior of the door for shifting said bars, combined substantially as set forth.

2. Safe-construction comprising, a stepped rectangular door-jamb having teeth projecting inwardly from sides of the jamb, a door having a stepped margin fitting the door-jamb, grooves in the edges of the door to the rear of the plane of the teeth in the door-jamb, a bar fitted for endwise motion in each of said grooves, teeth projecting from the outer edges of said bars and adapted to pass rearwardly through the spaces between the teeth of the door-jamb while the door is being closed and to be slid behind the teeth of the jamb by the endwise movement of the bars, the rear faces of the teeth in the jamb being beveled and the front faces of the teeth of the door-bars being correspondingly beveled to engage and force the door firmly to its seat after the door-bars have partaken of a portion of their sliding motion, means for preventing the bars from lateral displacement from their grooves, devices operatively connecting all the bars so that they will take on endwise motion in unison, mechanism accessible from the exterior of the door for shifting said bars, beveled hooks upon teeth of the jamb, and beveled hooks upon teeth of the door to coöperate with the hooks of the jamb and force the door from its seat in the jamb when the door-bars are moved in the direction opposite that in which they move to force the door to its seat in the jamb, combined substantially as set forth.

3. Safe-construction comprising, a stepped rectangular door-jamb having teeth projecting inwardly from the sides of the jamb, a door having a stepped margin fitting the door-jamb, grooves in the edges of the door to the rear of the plane of the teeth in the door-jamb, a bar fitted for endwise motion in each of said grooves, teeth projecting from the outer edges of said bars and adapted to pass rearwardly through the spaces between the teeth of the door-jamb while the door is being closed and to be slid behind the teeth of the jamb by the endwise movement of the bars, the rear faces of the teeth in the jamb being beveled and the front faces of the teeth of the door-bars being correspondingly beveled to engage and force the door firmly to its seat after the door-bars have partaken of a portion of their sliding motion, the beveled surfaces of both sets of teeth being provided with additional and steeper bevels at their preliminarily engaging portions so that the door will be quickly moved toward its seat before being forced firmly thereto, means for preventing the bars from lateral displacement from their grooves, devices operatively connecting all the bars so that they will take on endwise motion in unison, and mechanism accessible from the exterior of the door for shifting said bars, combined substantially as set forth.

4. Safe-construction comprising, a stepped door-jamb having teeth projecting inwardly from the jamb, a door having a stepped margin fitting the door-jamb, grooves in the margin of the door to the rear of the plane of the teeth in the door-jamb, bars fitted for endwise motion in said grooves, teeth projecting from the outer edges of said bars and adapted to pass rearwardly through the spaces between the teeth of the door-jamb while the door is being closed and to be slid behind the teeth of the jamb by the endwise movement of the bars, the rear faces of the teeth in the jamb being beveled and the front faces of the teeth of the door-bars being correspondingly beveled to engage and force the door firmly to its seat after the door-bars have partaken of a portion of their sliding motion, means for preventing the bars from lateral displacement from their grooves, devices operatively connecting all the bars so that they will take on endwise motion in unison, mechanism accessible from the exterior of the door for shifting said bars, beveled hooks upon teeth of the jamb, and beveled hooks upon teeth of the door to coöperate with the hooks of the jamb and force the door from its seat in the jamb when the door-bars are moved in the direction opposite that in which they move to force the door to its seat in the jamb, combined substantially as set forth.

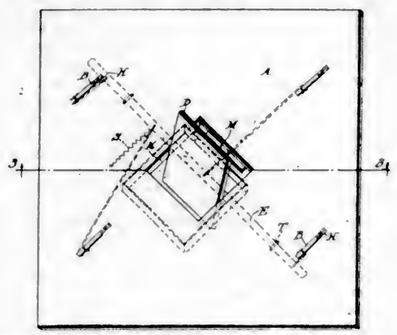
5. Safe-construction comprising, a stepped rectangular door-jamb having teeth projecting inwardly from the sides of the jamb, a door having a stepped margin fitting the door-jamb, grooves in the edges of the door to the rear of the plane of the teeth in the door-jamb, a bar fitted for endwise motion in each of said grooves, teeth projecting from the outer edges of said bars and adapted to pass rearwardly through the spaces between the teeth of the door-jamb while the door is being closed and to be slid behind the teeth of the jamb by the endwise movement of the bars, means for preventing the bars from lateral displacement from their grooves, devices operatively connecting all the bars so that they will take on endwise motion in unison, mechanism accessible from the exterior of the door for shifting said bars, and a locking-dog adapted to connect said mechanism with the safe-lock and prevent the movement of said bars in the releasing direction, combined substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,136,255. CARD-TABLE. FREDERIC JAMES MUSPRATT, St. Helier, Island of Jersey. Filed Aug. 4, 1913. Serial No. 782,930. (Cl. 45—122.)

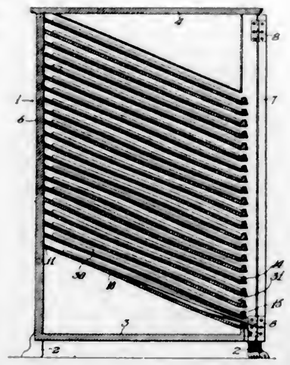
The combination in a card table of a top having slots therethrough, sector shaped handles hinged to the top, and operating in said slots, said top having an opening therein, a roller mounted underneath the opening for rocking movement, a trap door operating in the opening and fixed to said roller, operating arms secured to said roller, con-

necting rods between said handles and said arms, a tray suspended underneath said trap door, and a spring acting



automatically to return the trap door to a horizontal position, as described.

1,136,256. CASE FOR DISK RECORDS. WILLIAM A. E. NOBLE, Los Angeles, Cal. Filed Apr. 1, 1912. Serial No. 687,884. (Cl. 211—16.)



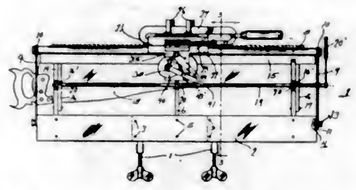
1. A case for disk records comprising an inclosing cabinet, a series of shelves fixed horizontally across and sloping upward from the front of said cabinet, a ledge integral with and upon the upper surface of the forward edge of each of said shelves, a flexible member secured to the upper surface of each of said shelves and forming a covering for the upper surface of the edge and a portion of the bottom surface of said shelf, and a tab formed in said flexible member and extending over the edge of the shelf for the purpose of raising the edge of the record above said ledge.

2. A case for disk records comprising a supporting member, a series of sloping shelves fixed in said member, a ledge integral with and upon the upper surface of the forward edge of each of said shelves, a flexible member secured to the upper surface of each of said shelves and forming a covering for the upper surface of the edge and a portion of the bottom surface of said shelf, and a tab formed in said flexible member and extending over the edge of the shelf for the purpose of raising the edge of the record above said ledge.

3. A case for disk records comprising a supporting member, a series of sloping shelves fixed in said member, a ledge on the edge of each of said shelves, a flexible member composed of a soft fabric secured to the upper surface of each of said shelves and forming a covering for the upper surface of the edge and a portion of the bottom surface of said shelf, and a tab formed in said flexible member and extending over the edge of the shelf for the purpose of raising the edge of the record above said ledge.

4. A case for disk records comprising a supporting case in which the records are placed, a ledge forming a detent for each record, means for causing the records to move toward said ledges, and means for releasing each record from the restraining action of its ledge.

1,136,257. SAW-FILING DEVICE. WILLIAM T. O'HARA, Spokane, Wash. Filed Apr. 27, 1914. Serial No. 834,725. (Cl. 76—33.)



1. A saw filing machine, comprising in combination, a plurality of suitable clamps for securing said machine in position, a connecting member for said clamps, an adjustable vise carried by said connecting member, means for operating said vise, one or more tracks, supports for said tracks secured to said connecting member, a movable carriage mounted on said tracks, reciprocating means carried by said movable carriage and adjustable with respect thereto for filing the saw, and means for bowing said tracks whereby said saw may be filed with a bellied cutting edge.

2. A saw filing machine, comprising in combination, means adapted to secure the saw in position, tracks adapted to support a movable carriage, a movable carriage mounted on said tracks, means carried by said tracks for filing the saw, and means for bowing said tracks whereby said saw may be filed with a bellied cutting edge.

3. A saw filing machine, comprising in combination, means for securing said saw in position, tracks normally parallel to the cutting edge of said saw, a saw filing device mounted on said tracks and movable with respect thereto, and means for distorting said tracks whereby said saw may be filed with a bellied cutting edge.

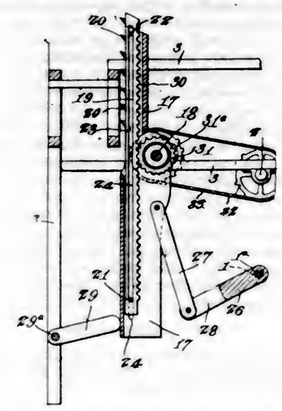
4. A saw filing machine, comprising in combination, means for holding the saw in position, a movable file carriage, a file holder mounted on said carriage and adapted to move transversely of said saw edge, and means whereby said saw may be filed with a bellied cutting edge.

1,136,258. LOG-ROLLING MACHINE. PAUL PANGERL, Rutledge, Minn., assignor of one-third to E. C. Townsend, Rutledge, Minn. Filed Feb. 18, 1911. Serial No. 609,370. (Cl. 143—97.)

1. A log turner comprising a pivotally mounted frame, a turner bar carried by said frame, means for raising and lowering said turner bar, means for tilting said frame and turner bar, and means operatively connected to said tilting means for locking said frame and turner bar in upright position.

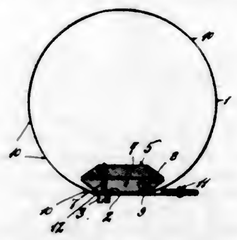
2. A log turner comprising a pivotally mounted frame, a turner bar guided in said frame and having a rack along one edge thereof, a pinion meshing with said rack and mounted upon a shaft, means for reversing the direction of rotation of said shaft, a link connected to said frame, a shaft mounted below said first named shaft and provided with a crank arm pivoted to said link, and means for reversing the direction of rotation of the second named shaft.

3. A log turner comprising a pivotally mounted frame, a turner bar carried by said frame, pin and slot guiding means for said turner bar, said turner bar being provided with a rack along one edge thereof, a pinion meshing with said rack and mounted on a shaft, means for reversing the direction of rotation of said shaft, a link secured to said frame, a shaft mounted below said first named shaft and provided with a crank arm pivoted to



said link, means for reversing the direction of rotation of the second named shaft, and means for locking said frame in upright position.

1,136,259. SACK-TIE. CHARLES PARIDY, Belleville, Ill. Filed Aug. 11, 1913. Serial No. 784,107. (Cl. 24—30.5.)



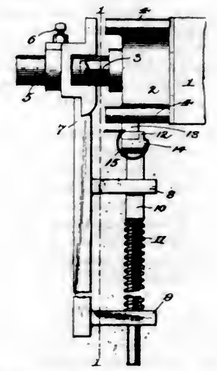
1. In a detachable sack-tie, a pair of clamping jaws, a suitable tie-strip having a series of apertures at various points in its length, a sharpened dowel pin projecting from one of the said jaws and adapted to perforate the sack-material and enter into an aperture in the opposite jaw; and a device for performing the three functions of detachably clamping said jaws upon the sack-material after said dowel-pin has acted to perforate said sack-material, to secure one end of said tie-strip to one of said jaws, and to engage one of said apertures in said strip in adjusting said strip around a sack in tying said sack.

2. In a detachable sack-tie, a pair of clamping-jaws, a dowel-pin connection therefor, a suitable tie-strip having a series of apertures at various points in its length; and a screw having a stop-shoulder and arranged for performing the three functions of detachably clamping said jaws upon a sack, to secure one end of the said tie-strip to the outer one of said jaws, and to engage any of the series of apertures in said tie-strip during the operation of adjusting said stip around a sack in tying a sack.

1,136,260. CYLINDER-HAMMER FOR JACQUARDS. JOHN LEGERWOOD PATTERSON, Roanoke Rapids, N. C. Filed July 11, 1914. Serial No. 850,462. (Cl. 139—16.)

1. The combination with a jacquard cylinder, of a cylinder hammer adapted to coact therewith to arrest said cylinder in card presenting positions and comprising, a guiding member, and a removable head portion carried thereby in coactive relation with said cylinder.

2. The combination with a jacquard cylinder, of a cylinder hammer adapted to coact therewith to arrest said cylinder in card presenting positions and comprising, a guiding member, and a removable head portion of non-metallic material carried thereby in coactive relation with said cylinder.

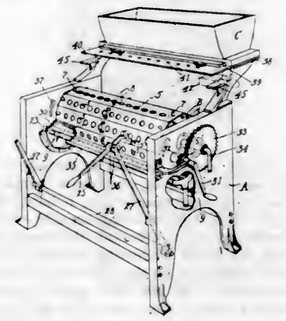


3. The combination with a jacquard cylinder, of a cylinder hammer adapted to coact therewith to arrest said cylinder in card presenting positions and comprising, a guiding member, and a removable head portion of wood carried thereby in coactive relation with said cylinder.

4. The combination with a jacquard cylinder, of a cylinder hammer adapted to coact therewith to arrest said cylinder in card presenting positions and comprising, a guiding member, and a removable head portion of wood impregnated with oil carried thereby in coactive relation with said cylinder.

5. The combination with a jacquard cylinder, of a cylinder hammer adapted to coact therewith to arrest said cylinder in card presenting positions and comprising, a guiding member, and a removable head portion of lignum vitæ carried thereby in coactive relation with said cylinder.

1,136,261. COOKING DEVICE. SIMEON F. PIERCE, St. Paul, Minn., assignor, by direct and mesne assignments, to Cream Cone Machine Company, St. Paul, Minn., a Corporation of Minnesota. Filed Nov. 22, 1909. Serial No. 529,161. (Cl. 107—58.)



1. A machine of the class described comprising in combination a rotary oven, a plurality of rows of outer mold members peripherally supported by said oven, a plurality of freely removable inner mold members, common supporting means for said inner mold members, an eccentric bearing surfaces for said mold supporting means partly surrounding said oven, and spring means engaged by said

bearing surface to hold said inner mold members resiliently pressed in coöperation with said outer mold members in the rotation of said oven.

2. A machine of the class described comprising in combination a rotary oven, a plurality of rows of outer mold members peripherally supported by said oven, a plurality of rows of inner mold members, a common support for each row of inner mold members, said support and inner mold members being freely removable from said oven, a spring member arranged upon the outer side of said inner mold member support, and means engaging with said spring member during a part of the rotation of said oven to hold said inner members resiliently in coöperation with said outer members.

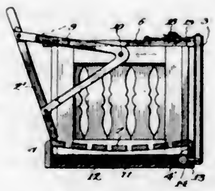
3. A machine of the class described comprising in combination a rotary oven, a plurality of rows of outer mold members peripherally supported by said oven, a plurality of rows of coöperating inner mold members, a supporting plate therefor, each row having rotatable and vertically adjustable support in said plate and means for holding said molds together in the rotation of said oven comprising a support having spring connection with said plate and guideways for said support partially surrounding said oven.

4. A machine of the class described, comprising in combination a rotary oven, a row of outer mold members extending longitudinally of the periphery of said oven, a row of coöperating inner mold members, a plate supporting said inner mold members, coöperating cams between said inner mold members and plate, a driving connection between said inner mold members allowing them to be simultaneously rotated and to be raised by said cams, a spring bar having central connection with said plate and guideways for said bar partly surrounding said oven.

5. A machine of the class described comprising a rotary oven, a row of outer mold members peripherally supported by said oven, a row of coöperating inner mold members, a plate supporting the same, means for resiliently holding said molds in coöperation in the rotation of said oven and means for centrally anchoring said plate upon said oven and leaving its ends anchored whereby to compel expansion of the plate from the center outwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,136,262. SWING. WALTER FRANKLIN PILCHER, Dothan, Ala., assignor of one-half to Henry A. Powell, Dothan, Ala. Filed July 11, 1913. Serial No. 778,557. (Cl. 155—35.)



1. A convertible swing having a bottom frame constructed with ways closed in front and a front slot between said ways, a superjacent seat, a back therefor, a converting slide normally inclosed beneath said seat, a pair of crank-shaped pivots for said slide each comprising a stop-forming head end projecting laterally away from the slide, a shank parallel to the adjoining lateral edge of the slide and a screw end, at right angles to said shank, screwed into said lateral edge, and upon which said slide can be turned upward after it is withdrawn through said slot, and means for fastening the upturned slide in its effective position.

2. The combination in a settee-shaped swing body, of a bottom frame including a slotted front member and constructed with ways closed in front by said slotted member and a front slot between said ways, a superjacent seat, a back therefor, a converting slide normally inclosed beneath said seat and withdrawable through said front slot; a pair of crank-shaped pivots for said slide each comprising a stop-forming portion movable within one of said ways, a shank parallel to the adjoining lateral edge of said slide, and a pivot portion at right angles to said shank upon which said slide can be turned upward after it is withdrawn; and means for fastening the slide in its upturned position; substantially as hereinbefore specified.

3. The combination, in a convertible swing, of a bottom frame comprising a pair of ways and a slotted front piece having stop portions which close said ways in front, a superjacent seat, a converting slide normally inclosed beneath said seat, and a pair of crank-shaped pivots for said slide each comprising a stop forming head within one of said ways adapted to contact with the corresponding stop portion of said front piece, a shank parallel to the adjoining lateral edge of said slide, and a screw end, at right angles to said shank, screwed into said lateral edge, and upon which said slide can be turned upward after it is withdrawn through said slot; substantially as hereinbefore specified.

1,136,263. BOLT CUTTER AND HOLDER. ARTHUR F. PINE, Castle Rock, Colo. Filed July 21, 1914. Serial No. 852,273. (Cl. 81—199.)



1. In a device of the class described, a pair of pivotally connected levers; jaws pivoted to the levers and provided with cutting means and with holding means; and means for pivotally connecting the jaws between the holding means and the cutting means, whereby when the levers are pressed together at their free ends, the cutting means of the respective jaws will move toward each other and the holding means of the respective jaws will move away from each other; one lever including an offset, removable extension adapted for lateral reversal on that lever of which the extension constitutes a part, thereby to effect a crossing of the levers and to cause the holding means of the respective jaws to move toward each other when the free ends of the levers are pressed together.

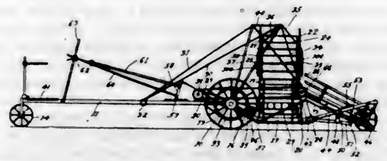
2. In a device of the class described, a pair of levers; a pivot element connecting the levers; jaws pivoted to the levers; a fulcrum member to which the jaws are pivoted; and a plunger mounted on the pivot element and adapted to reciprocate in the fulcrum member, the plunger being resilient and being laterally flexible to relieve an undue strain upon the jaws.

3. In a device of the class described, pivotally connected levers; U-shaped cutting jaws pivoted to the levers and comprising arms; a fulcrum member located between the arms of the jaws and pivoted to the jaws; a plunger slidable in the fulcrum member; and means for connecting the plunger with one lever.

4. In a device of the class described, a pair of pivotally connected levers; jaws pivoted to the levers and provided with primary gripping means and with secondary gripping means; and means for pivotally connecting the jaws between the primary gripping means and the secondary gripping means, whereby when the levers are pressed together at their free ends, the primary gripping means of the respective jaws will move toward each other and the secondary gripping means of the respective jaws will move away from each other; one lever including an offset, removable extension adapted for lateral reversal on that lever of which the extension constitutes a part, thereby to effect a crossing of the levers and to cause the secondary gripping means of the respective jaws to move toward each other when the free ends of the levers are pressed together.

5. In a device of the class described, a pair of pivotally connected levers; jaws pivoted to the levers; a fulcrum member to which the jaws are pivoted; a plunger; means for connecting the plunger with one lever; a guide structure mounted in the fulcrum member and adjustable transversely of the plunger, the guide structure receiving the plunger slidably; and means for holding the guide structure in adjusted positions transversely of the plunger.

1,136,264. SHOCK-LOADER. ELMER PITCHER, Minneapolis, Minn. Filed July 31, 1913. Serial No. 782,222. (Cl. 214—2.)



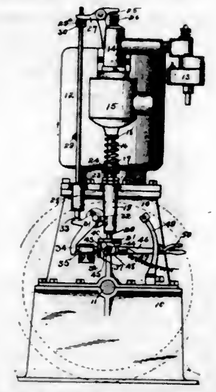
1. A shock loader comprising a wheeled frame adapted to be driven from behind, a forwardly projecting frame pivotally secured to said first named frame and supported at its front end by caster wheels, an oscillating support pivotally attached to said second named frame, means under the control of the operator for oscillating said support, a carrier frame pivoted to the first named frame and resting adjacent its front end upon said support, and means on the carrier frame for engaging and lifting a shock.

2. A shock holder comprising a wheeled frame adapted to be driven from behind, a forwardly projecting frame pivotally secured to said first named frame and supported at its front end by caster wheels, an oscillating support pivotally attached to said second named frame, a plurality of carrier frames independently pivoted in alinement to the first named frame and resting adjacent their forward ends upon said support, and means on each of said carrier frames to engage and lift a shock.

3. A shock loader comprising a wheeled frame adapted to be driven from behind, a forwardly projecting frame pivotally secured to said first named frame and supported at its front end by caster wheels, an oscillating support pivotally attached to said second named frame, a hand lever, a cable and pulley system for guiding the cable extending from the hand lever and connected with the support for holding and adjusting the position of the support, a carrier frame pivoted to the first named frame and resting adjacent its front end upon said support, and means on the carrier frame for engaging and lifting a shock.

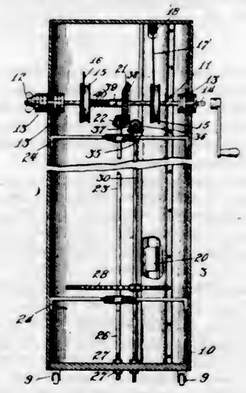
1,136,265. EXPLOSIVE-ENGINE. EZRA GUY PLUMMER, Altoona, Iowa. Filed Apr. 25, 1910. Serial No. 557,584. (Cl. 121—97.)

1. In an engine of the class described, the combination of two valve stems, two rods for operating said valve stems, each being rotatably and slidingly mounted in positions at right angles to each other, disks on the adjacent ends of said rods, a cam rotatably mounted and positioned relative to the disks so as to successively engage the adjacent faces of the disks near their peripheries as the cam is rotated and to thereby rotate said disks and at the same time move the rods on which the disks are mounted, means for rotating the cam, and means whereby a longitudinal movement of either of said rods will operate their respective valve stems, for the purposes stated.



2. In an engine of the class described, the combination of an engine having an intake and an exhaust valve stem, two operating rods for said valve stems, rotatably and slidably mounted in position at right angles to each other, disks on the adjacent ends of said rods with a cam rotatably mounted and positioned relatively to the disks so that in its rotation said cam successively engages the adjacent faces of the disks near their peripheries as the cam is rotated and thereby rotates said disks and at the same time moves the rods on which the disks are mounted, means for rotating the cam, adjusting means between the exhaust valve stem and its operating rod, a lever for operating said intake valve, an adjustable rod for operating said lever, and a bell crank lever between said adjustable rod and one of said operating rods.

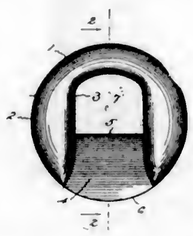
1,136,266. SHAFT-BRAKE MECHANISM. JOHN H. PRINGLE, Sac City, Iowa. Filed Jan. 6, 1913. Serial No. 740,340. (Cl. 74—13.)



A device of the character described embodying a housing, bearings connected with the housing, a shaft in the bearings, one extremity of the shaft projecting through its bearing and beyond the housing, said projecting end provided with threads thereon, collars connected with the shaft and engaging the inner faces of the bearings, a collar connected with the said projecting end of the shaft and engaging the outer face of the adjacent bearing, and a-

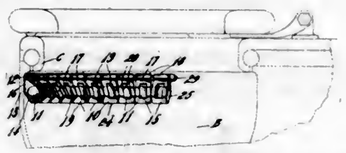
additional collar engaging the threaded extremity of the shaft and coöperating with the other said collars to create friction between the collars and the respective bearings for regulating the speed of rotation of the shaft.

1,136,267. JOCKEY-PLATE. FREDERICK H. RACKLE, Hartford, Conn., assignor to The Smith-Worthington Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 11, 1911. Serial No. 620,505. (Cl. 54—38.)



As an article of manufacture a jockey plate having a U-shaped body with an unbroken and imperforate convex front surface and circular outline, with an upwardly and backwardly extending integral flat web between the ends of said body, the lower edge of said web being circular and the upper edge straight, and bosses that project from the back face of the body on diametrically opposite sides of the opening therethrough, said bosses being integral with the body and having rearwardly opening threaded sockets.

1,136,268. DISINFECTANT APPARATUS. JOHN H. REAMER, Linton, N. D. Filed May 8, 1914. Serial No. 837,115. (Cl. 4—30.)



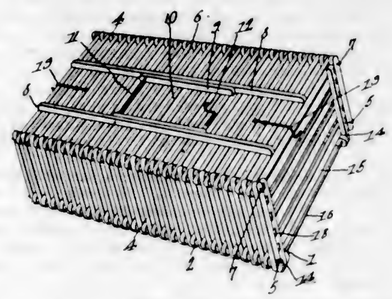
1. A disinfectant holder for water closet bowls and the like comprising a plurality of individual holders each having a pocket formed therein, said holders being arranged so that the pockets form a continuous channel and means for detachably securing said holders in position entirely within the bowl.

2. A disinfectant holder comprising a plurality of individual holders, each holder having a pocket for receiving disinfectant therein, a vertically extending slot adjacent the pocket and a hook at its upper end, and a flexible rod engaging with the hooks for securing the holders in position.

3. A disinfectant holder for water closet bowls and the like comprising a plurality of individual holders each having a pocket formed therein, said holders being arranged so that the pockets form a continuous channel, means on the holders at the end of the channel for closing the channel and means for detachably securing said holders in position entirely within the bowl.

4. A disinfectant holder comprising a plurality of individual holders, means disposed entirely within the bowl for detachably securing said holders in position, each holder comprising a piece of material bent to form an open ended pocket intermediate its length, and having a plurality of apertures adjacent the pocket and having its ends bent together to form a hook for detachably securing it to said means.

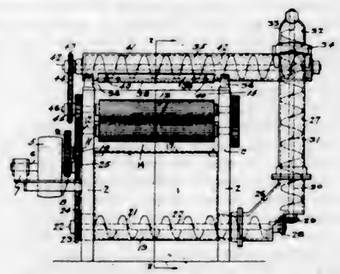
1,136,269. FOLDING COOP. JAMES A. REEDER, Memphis, Tenn. Filed Aug. 12, 1914. Serial No. 856,429. (Cl. 217—47.)



1. In a device of the class described, a bottom comprising cross slats and longitudinal bars; ends comprising cross slats and connecting bars, the connecting bars being pivoted to the longitudinal bars of the bottom and being adapted to lie alongside of the longitudinal bars when the ends are folded under the bottom; movable locking means on one longitudinal bar and adapted to engage with certain of the connecting bars of both ends when the ends are folded under the bottom; sides pivoted to the bottom; and a top pivoted to the sides.

2. In a device of the class described, a top; side slats pivoted to the top; a bottom comprising slats pivoted to the side slats and alternating therewith; ends comprising connecting bars pivoted to the bottom, the ends being adapted to fold beneath the bottom and to rest upon the bottom, the connecting bars of the ends being provided with transverse recesses adapted to receive the extremities of the side slats when the side slats are swung laterally to collapse the top with respect to the bottom.

1,136,270. APPARATUS FOR CLEANING TIN PLATES. CHARLES M. REYNARD, McKeesport, Pa., assignor to McKeesport Tin Plate Company, McKeesport, Pa., a Corporation of Pennsylvania. Filed Mar. 28, 1914. Serial No. 827,945. (Cl. 51—15.)



1. In apparatus for cleaning tin plates, the combination with a suitable frame, of a receptacle for containing the cleaning material, power driven rolls mounted in said receptacle, a second receptacle below said first named receptacle, a hopper member above said first named receptacle having an elongated opening extending across said first named receptacle, a conveyer in said hopper member, and means for conveying the material from said second named receptacle to said hopper member.

2. In apparatus for cleaning tin plates, the combination with a suitable frame, of a receptacle for containing the cleaning material, power driven rolls mounted in said receptacle, a second receptacle below said first named receptacle, a hopper member having an elongated opening extending across said first named receptacle, an adjustable cover for said opening, a conveyer in said hopper member, and means for conveying the cleaning material from said second named receptacle to said hopper member.

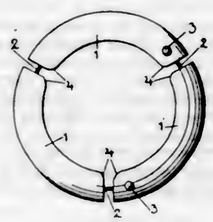
3. In apparatus for cleaning tin plates, the combination with a suitable frame, of a receptacle for containing the cleaning material, power driven rollers mounted in said receptacle, a second receptacle below said first named receptacle, a second receptacle below said first named receptacle, an upwardly inclined passage communicating with said second receptacle, and into which said conveyer extends, an upwardly extending passage connecting with said inclined passage, a conveyer in said upwardly extending passage, a hopper member at the upper end of said upwardly extending passage and communicating therewith, said hopper member having a longitudinally extending opening over said first receptacle, and a conveyer in said hopper member.

4. In apparatus for cleaning tin plates, the combination with a suitable frame, of a receptacle for containing the cleaning material, power driven rollers mounted in said receptacle, a second receptacle below said first receptacle, a hinged bracket on said first receptacle, a hopper member mounted on said bracket above said receptacle, and means for conveying the cleaning material from said second receptacle to said hopper.

5. In apparatus for cleaning tin plates, the combination with a suitable frame, of a receptacle for the cleaning material, power driven rollers mounted in said receptacle, a second receptacle below said first receptacle, a conveyer in said second receptacle, an upwardly extending passage communicating with said receptacle, into which said conveyer extends, a conveyer in said upwardly extending passage, a movable elbow section at the upper end of said upwardly extending passage, and a hopper member into which said elbow is adapted to discharge, said hopper being arranged above said first receptacle.

[Claim 6 not printed in the Gazette.]

1,136,271. METALLIC PACKING-RING. HAMPTON P. RHODES, Shreveport, La. Filed Oct. 27, 1913. Serial No. 797,655. (Cl. 137—116.)



1. A sectional metallic packing ring comprising a plurality of sections, wire bonds joining said sections and holding their extremities in a spaced relation, each section having its end faces intersecting its interior face in gradual curves.

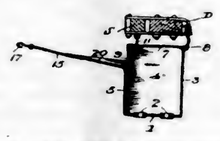
2. A packing ring comprising a plurality of similar sections, and means for holding said sections in a slightly spaced relation, the end faces of each section having intersection with the interior face of the same in gradual curves.

3. A packing ring comprising a plurality of similar sections held in a slightly spaced relation, the ends of the sections being so formed that the spaces between the sections are increased slightly in width adjacent to the interior surface of the ring.

4. A packing ring comprising a plurality of sections normally spaced apart at their ends to permit adjustment toward each other, the outer portions of said ends being formed to close together at the limit of such adjustment and the inner portions of said ends spreading to maintain a space therebetween, substantially as and for the purpose described.

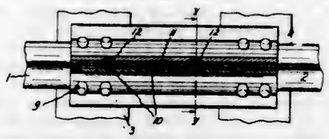
5. A packing ring comprising a plurality of sections normally spaced apart at their ends to permit adjustment toward each other, outer portions of said ends being formed to close together at the limit of such adjustment and the inner portions of said ends spreading to maintain a space therebetween extending axially thereof, substantially as and for the purpose described.

1,136,272. MANURE-POUCH. ROYAL ALONZO RICE and JOEL ALFONZO RICE, New York, N. Y. Filed June 2, 1913. Serial No. 771,349. (Cl. 119—95.)



A device of the class described comprising a substantially rectangular receptacle formed of flexible material and having a perforated bottom, the front wall of said receptacle being dished downwardly, a flexible cover for the receptacle hinged to the upper edge of the rear wall thereof and provided at its forward edge with a depending integral flap, said flap being adapted to contact with the inner face of the front wall of said receptacle when the cover thereof is lowered and the lower edge of said flap being convexed coincident to the curvature of the dished upper edge of said front wall, said convexed lower edge of the flap also projecting to points below the dished upper edge of the front wall when said cover is lowered to entirely cover the front of said receptacle, and an apron connected at its inner end to the dished edge of said front wall, said flap on the cover yielding under pressure of material directed thereagainst from the apron to admit the same to the receptacle.

1,136,273. BOLTLESS RAIL-JOINT. CHARLES I. RICHARDSON and WILLIAM D. HALL, Sherman, Tex. Filed Dec. 15, 1913. Serial No. 806,702. (Cl. 239—6.)

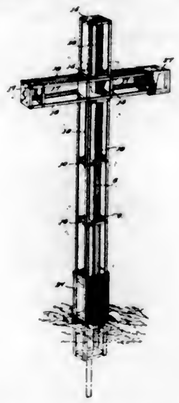


In a device of the character described, the combination with two abutting rail ends, of a pair of fish-plates oppositely engaging the same, partially overlapping one another beneath the rail ends, ties upon which both of the fish-plates are rigidly surmounted, and headed tenons rigidly carried by said fish-plates, passing through the webs of the joined rail ends, the tenon heads being extended parallel to the rails and in opposite directions on the two fish-plates, the base of both of the fish-plates being formed with depending teeth engaging the ties and fastening means traversing the overlapping parts of the fish plates and entering the ties on one side of the device.

1,136,274. CROSS. JOHN EMIL RIGALI, Chicago, Ill., assignor to Daprato Statuary Company, Chicago, Ill. Filed May 4, 1914. Serial No. 836,298. (Cl. 189—23.)

1. In a device of the character described, in combination, a cross having a plurality of parts, one of which forms a central shaft and another the cross arms, said parts being formed of structural angle iron and plates having counter sunk portions in which the angle irons rest to afford increased bearing surfaces for said angle irons and to cause their outer surfaces to be flush with the outer surfaces of the plates, separable reinforcing member passing through the cross arms and plates in the central shaft

to secure said parts together, said cross arm being provided with a flanged plate through which the reinforcing member passes adapted to fit snugly over the upper end of said central shaft.



2. In a device of the character described, in combination, a cross formed of a plurality of parts, one part comprising a straight body portion and another cross arms at the upper part thereof, said parts being formed of skeleton framework and covered with sheet metal, a central member connecting said cross arms and resting on top of said straight portion, and means having an interlocking engagement therewith, comprising two vertically disposing members mounted in the body portion and projecting through the central cross arm connecting member to hold the cross arms rigidly in place.

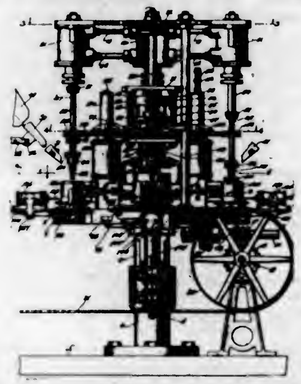
3. In a device of the character described, in combination, a cross having a plurality of parts, one of which forms a central body frame, another transversely disposed cross arms, and a third part a top, said parts being made of skeleton framework covered with non-corrosive sheet metal, and comprising a plurality of plates having counter sunk corners connected by interfitting angle irons, a central tubular member in said top and body frame parts, and a reinforcing member connecting said tubular members and holding the cross arms in place.

4. In a device of the character described, in combination, a cross having a plurality of parts, one of which forms a central shaft and another the cross arms, said parts being made of skeleton framework, said cross arm section having a transversely disposed plate adapted to rest on the upper part of the first-mentioned section, and reinforcing means passing through said plate and into the other member of the section.

1,136,275. PRESS FOR MAKING GLASS INSULATORS. FRANK N. ROEHRICH, Brooklyn, N. Y., assignor to The Brookfield Glass Company, a Corporation of New York. Filed Feb. 5, 1908. Serial No. 414,383. (Cl. 49—36.)

1. In a glass insulator press, the combination of a mold, a cylinder, a piston, a piston rod therefor, a screw plunger connection with the piston rod and adapted to be screwed upward or downward thereon, a second cylinder, another piston, a piston rod therefor, connections between the piston rod and the screw plunger adapted, when operated, to rotate the screw plunger one way or the other, and means for supplying fluid under pressure to the first cylinder to force the screw plunger straight into the molten glass in the mold, and later to restore the piston rod to its original position, and for supplying fluid under pressure to the second cylinder to cause it to rotate the screw plunger to unscrew it from the molten glass in the mold, and later to screw it down on the piston rod to restore it to its original position relative to the piston rod.

2. In a glass insulator press, the combination of a mold, a screw plunger, and means adapted to be actuated by a fluid under pressure to force the screw plunger into the molten glass in the mold, to unscrew it therefrom, and to restore the screw plunger to its original position.



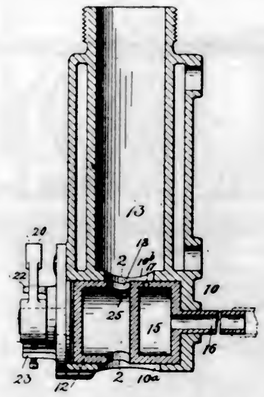
3. In a glass insulator press, the combination with a screw plunger shaft consisting of two parts, one part carrying the screw and adapted to screw up and down upon the other part, a cylinder connected with a source of supply of fluid under pressure, a piston, a piston rod therefor screw-threaded in part of its length, a gear on the screw plunger shaft, a gear connected with the piston rod of the cylinder and means for causing the reciprocating movement of the piston rod to produce a rotary movement one way or the other of the piston rod gear for the purpose of similarly rotating the screw plunger shaft gear and screwing the screw part of the screw plunger away from or toward the other part of the screw plunger shaft.

4. In a glass insulator press, the combination with a screw plunger shaft consisting of two parts, one part carrying the screw and adapted to screw up and down upon the other part, means for moving the screw plunger as a whole to force the screw straight into the molten glass in the mold, a cylinder connected with a source of supply of fluid under pressure, a piston and a piston rod therefor, and connections between said piston rod and the part of the screw plunger shaft carrying the screw for changing the reciprocating movement of the piston rod into a rotary movement one way or the other for the purpose of screwing the screw part of the screw plunger away from or toward the other part of the screw plunger shaft.

1,136,276. CARBURETER. ARTHUR J. SCAIFE, Cleveland, Ohio, assignor to The White Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 6, 1914. Serial No. 849,126. (Cl. 48—180.)

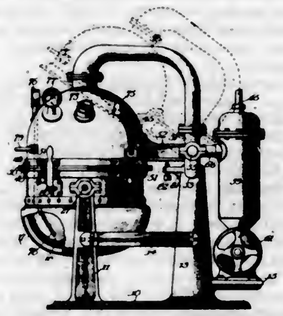
1. In a carbureter, the combination of a cylindrical valve casing through the walls of which are two holes, one open to the atmosphere, a mixing chamber with which the other hole communicates, and a cylindrical valve rotatably mounted in said casing, said valve having in one end a gas chamber, through the cylindrical wall of which are discharge orifices which will be progressively uncovered and placed in communication with the mixing chamber as the valve is turned, and said valve having also through it an air hole which will be progressively uncovered and placed in communication with both holes in the valve casing by the said turning of the valve, and means for delivering gas into said gas chamber.

2. In a carbureter, the combination of a cylindrical valve casing through the walls of which are two holes, one open to the atmosphere, a mixing chamber with which the other hole communicates, and a cylindrical valve rotatably mounted in said casing, said valve has in one end a gas chamber provided with a tubular axially disposed gas inlet stem, there being through the cylindrical wall of said gas chamber discharge orifices which will be progressively uncovered and placed in communication with the mixing chamber as the valve is turned, said valve having also through it an air hole which will be progressively uncovered and placed in communication with both holes in the valve casing by the said turning of the valve.



3. In a carbureter, the combination of a cylindrical valve casing through the wall of which are two holes, one open to the atmosphere, a mixing chamber with which the other hole communicates, and a cylindrical valve rotatably mounted in said casing, said valve has in one end a gas chamber provided with a tubular axially disposed gas inlet stem, there being through the cylindrical wall of said gas chamber discharge orifices which will be progressively uncovered and placed in communication with the mixing chamber as the valve is turned, said valve having also through it an air hole which will be progressively uncovered and placed in communication with both holes in the valve casing by the said turning of the valve, and there being also through said valve a small air hole which will remain uncovered at both ends and therefore in communication with both holes through the walls of the valve casing when all of the other holes referred to are covered.

1,136,277. COOKING VESSEL. PETER H. SCHLUETER, Chicago, Ill. Filed Apr. 22, 1914. Serial No. 833,625. (Cl. 127—4.)



1. In combination, a bowl shaped kettle, a cover adapted to make sealed engagement with the rim of the kettle, said cover being hingedly supported at one side of the kettle, vacuum creating means connected with the cover and means for heating the kettle.

2. In combination, a bowl shaped steam jacketed kettle, a cover adapted to make sealed engagement with the rim of the kettle, said cover being hingedly supported at one side of the kettle, and vacuum creating means connected with the cover.

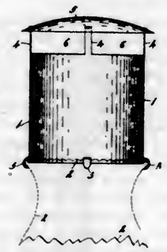
3. In combination, a tilting bowl shaped kettle, a cover adapted to make sealed engagement with the rim of the kettle when the kettle is upright, the cover being hingedly supported at one side of the kettle, vacuum creating means connected with the cover and means for heating the kettle.

4. In combination, a supporting frame, a kettle mounted therein, a hood, the rims of the hood and kettle being constructed for sealed engagement, a bracket arm supporting the hood and having a tubular trunnion journaled in the frame, vacuum creating means, connection between the vacuum creating means and the bore of the said trunnion including a pipe having a swiveled connection with the end of the trunnion, connection between the bore of the trunnion and the chamber of the hood and means for heating the kettle.

5. In combination, a supporting frame, a kettle and a hood each having a trunnion journaled in the supporting frame and the rims of the kettle and hood being constructed for sealed engagement, vacuum creating means connected with the hood and means for heating the kettle.

[Claims 6 to 8 not printed in the Gazette.]

1,136,278. LAMP-GLASS EXTENSION. ERNEST P. SCHULTZ, Hamilton, Ontario, Canada. Filed Mar. 9, 1914. Serial No. 823,475. (Cl. 240—95.)



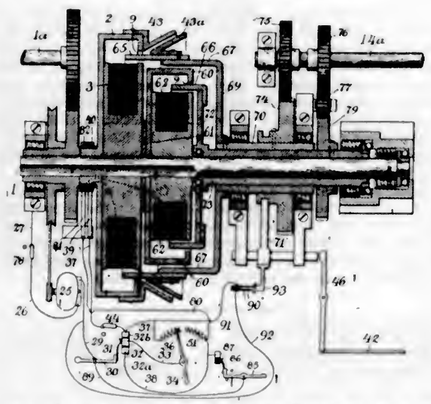
An extension for lamp glasses embodying an imperforate sheet metal cylinder body portion substantially coequal in diameter with the upper edge of the lamp glass, said body portion having integral claws bent backwardly thereupon and then bent into hook formation to adapt them to engage over the usual enlarged edge of a lamp glass while the lower edge of the body portion enters within said upper edge of the lamp glass and lies but slightly below the horizontal plane thereof, upright extensions carried by the upper edge of the body portion and a canopy carried by said extensions which is of greater diameter than said body portion.

1,136,279. POWER-TRANSMITTING DEVICE. MELVIN L. SEVERY, Arlington Heights, Mass., assignor to Severy Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 26, 1912. Serial No. 686,371. (Cl. 172—239.)

1. The combination with a driving means and a driven mechanism, of inductive clutching means for transmitting forward motion from the driving means to the driven mechanism, inductive clutching means for transmitting rearward motion from the driving means to the driven mechanism, and electrically actuated means operative at will whereby while either of said forward propelling or rearward propelling clutching means remains in operation, the other clutching means may be made to brake the action of said operating clutching means.

2. The combination with a driving means and driven mechanism, of inductive clutching means for transmitting

forward motion from the driving means to the driven mechanism, inductive clutching means for transmitting rearward motion from the driving means to the driven mechanism, and means operative at will whereby when either the forward-propelling clutching means, or the rearward-propelling clutching means is in operation, the other clutching means may be made to brake the action of said operating clutching means, said clutching means being so interrelated that the speed imparted by the driving action of one intensifies the braking action of the other.



3. The combination with a driving means and a driven mechanism, of clutching means for transmitting power from the driving means to the driven mechanism, a portion of said clutching means acting inductively and another portion acting contacturally, means for varying the power of said inductive portion of the clutching means, means for rendering operative the contactural portion of said clutching means, and means whereby said inductive clutching power is at its maximum when said contactural portion of the clutching means becomes operative.

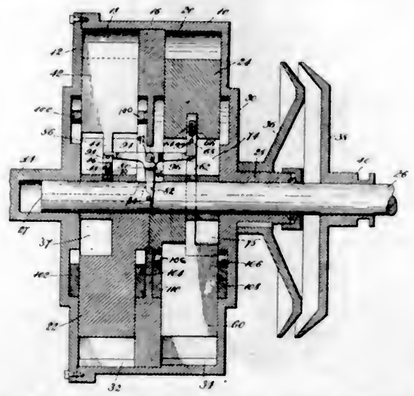
4. The combination with a driving means and a driven mechanism, of two inductive clutches operatively connected with the same, a source of current and circuits for said clutches, a rheostat in the circuit of each clutch, and a single contact member common to both circuits and adapted to sweep over both rheostats successively, the latter being insulated from each other.

5. The combination with a driving means and a driven mechanism, of two inductive clutches operatively connected with the same, a source of current and circuits for said clutches, a rheostat in the circuit of each clutch, and a single contact member common to both circuits and adapted to sweep over both rheostats successively, said rheostats being insulated from each other, the circuit-connection of each rheostat being at its outermost end.

[Claims 6 to 11 not printed in the Gazette.]

1,136,280. POWER-TRANSMISSION MECHANISM. MELVIN L. SEVERY, Arlington Heights, Mass., assignor to Severy Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed June 18, 1913. Serial No. 774,323. (Cl. 192—18.)

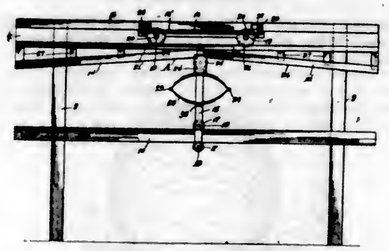
1. The combination of a pair of coaxial independently rotatable members; a hollow substantially cylindrical shell mounted on the first of said members to rotate therewith; a drum splined on the second of said members to rotate therewith within the aforesaid shell, said drum and shell being of such proportions as to form an annular, substantially fluid tight chamber between the same; an impeller fixedly mounted on said shell and running in contact with said drum to interrupt the continuity of said annular space; an outward movable vane mounted in said drum and adapted to be projected therefrom across said annular space; a spring urging said vane outward; a bell crank pivoted in said drum and operatively connected with said second rotary element to be moved by the axial shifting of said rotary element with reference to said drum and operatively related to said movable vane variably to limit the outward movement thereof; a cam structure mounted in said shell and adapted to move said vane inward to clear said impeller as said vane approaches the same; a liquid confined in said annular space; and means for axially moving said second rotary element, to vary the limit of outward movement of said vane.



2. The combination of a pair of coaxially mounted rotatable members; a substantially cylindrical closed shell having two cylindrical chambers mounted to rotate with the first of said members; a drum splined on the second of said members to rotate therewith within said shell and having cylindrical portions turning within the cylindrical chambers of said shell to form two annular chambers; impellers rotating with said shell and running in contact with the peripheries of the cylindrical portions of said drum and adapted to interrupt the continuity of said annular chambers; a pair of outwardly movable vanes mounted in said drum and adapted to be projected across said annular chambers, said vanes and impellers being so arranged relatively to each other that the vanes approach their corresponding impellers in alternation; springs urging said vanes outward; cam structures mounted in said drum one for each of said impellers and each adapted to force the corresponding vane inward to clear its impeller as the vanes approach the same; a bell crank pivoted in said drum, operatively related to said vanes to limit the outward movement thereof and operatively connected with said second element to be adjusted by the axial shifting thereof; a liquid confined in said annular spaces; and means for axially shifting said second rotary element, to adjust the limit of outward movement of said vanes.

3. The combination of a rotary driving element and a rotary driven element, mounted for coaxial rotation; a drum formed with two chambers mounted to turn with one of said elements; a rotor mounted on the other of said elements to turn therewith within said drum, said rotor coacting with the chambers of said drum to form two closed annular spaces; impellers mounted adjacent to each other, one in each of said spaces and each mounted to turn with the drum in sealing contact with said rotor to interrupt the continuity of said annular spaces; a pair of oppositely disposed vanes carried by said rotor and each adapted to be projected across a corresponding one of said annular spaces; cam devices associated with said rotor and drum and adapted to retract said vanes in alternation to cause the same to pass respective impellers; an adjustable stop mechanism coacting with both said vanes and adapted to limit the outward movements thereof; springs urging said vanes outward; and a liquid confined in said annular spaces.

1,136,281. MAIL-BAG-HANDLING APPARATUS. ISAAC E. SHELLEY and SIMON A. SHELLEY, Crawfordsville, Ind. Filed July 30, 1913. Serial No. 782,031. (Cl. 104—4.)



1. In an apparatus of the character described a track comprising an upper rail, a lower rail, intermediate rails positioned between said upper and lower rails and sloping upwardly from the end portion of said track toward the intermediate portion thereof, a frame, rollers carried by said frame and engaging said upper rail, rollers carried by said frame and engaging said lower rails, a support slidably mounted upon said frame, a roller carried by said support, and means yieldably holding said support in a raised position to retain its roller in tight engagement with one of said rails.

2. In a device of the character described a track including upper and lower supporting rails, binding rails positioned between said upper and lower rails and sloping upwardly from the end portion of said track toward the intermediate portion thereof, a frame, supporting wheels carried by said frame and engaging said upper and lower supporting rails, supporting means slidably mounted upon said frame, a roller carried by said supporting means and engaging one of said binding rails, and resilient means carried by said frame and engaging said supporting means to yieldably hold said supporting means in a position to retain its roller in tight engagement with said binding rails.

3. In an apparatus of the character described a track including an inclined rail, a frame slidably mounted upon said track, supporting means slidably carried by said frame, a roller carried by said supporting means and engaging said inclined rail of said track, and means for yieldably holding said supporting means in a position to retain its roller in tight engagement with said inclined rail.

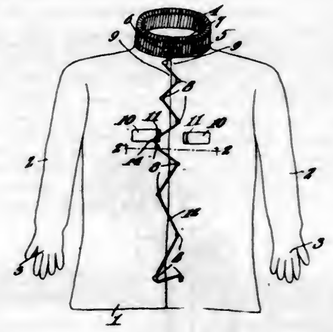
4. In an apparatus of the character described a track including an inclined rail, a frame movably mounted upon said track, said frame being provided with an abutment, supporting means slidably mounted upon said frame and provided with a roller engaging said inclined rail of said track, and resilient means mounted upon the abutment of said frame and engaging said supporting means to yieldably hold the same in a position to retain its roller in tight engagement with said inclined rail.

5. In an apparatus of the character described a supporting track including a cam element, a frame movably mounted upon said track, supporting means movably mounted upon said frame, and a roller carried by said supporting means and engaging said cam element, and resilient means carried by said frame and engaging said supporting means to yieldably hold the same in a position to retain its roller in tight engagement with said cam element.

[Claims 6 and 7 not printed in the Gazette.]

1,136,282. COAT. WILLIAM SIHLER, Decorah, Iowa. Filed Oct. 21, 1912. Serial No. 727,034. (Cl. 2—61.)

In a garment of the class described, a coat comprising front flaps; short flexible strips having their inner ends located close to the longitudinal edges of the front flaps; and means for securing the inner ends of the strips detachably to the flaps, the strips extending from the respective securing means in opposite directions and having



their outer ends free and disposed upon the flaps and at the front of the garment.

1,136,283. MOUTHPIECE-PROTECTOR FOR TELEPHONE-TRANSMITTERS. CHARLES T. SMITH, Newark, N. J. Filed Feb. 6, 1914. Serial No. 816,915. (Cl. 179—185.)



1. A protector for telephone transmitter mouthpieces, comprising a support adapted to be mounted on the mouthpiece, cap sections pivoted to said support, and means mounted on said support and adapted to be engaged by a movable part of the telephone and actuated thereby to operate said cap sections.

2. A protector for telephone transmitter mouthpieces, comprising a support adapted to be mounted on the mouthpiece, cap sections pivoted to said support, resilient means normally tending to operate said cap sections in one direction, and means mounted on said support adapted at one end to engage the receiver arm and at the other end to engage said cap to operate the same in the other direction.

3. A protector for telephone transmitter mouthpieces, comprising a support adapted to be mounted on the mouthpiece, and cap sections pivoted to said support adapted to cover or uncover the mouthpiece as desired.

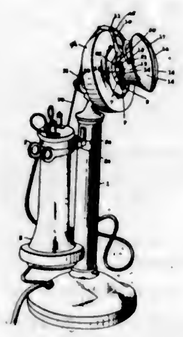
4. A protector for telephone transmitter mouthpieces, comprising a support adapted to be mounted on the mouthpiece, cap sections pivoted to said support, and a forked lever adapted to engage opposite sides of said cap sections for operating the same.

5. A protector for telephone transmitter mouthpieces,

comprising opposite hinged cap sections, a forked lever adapted to engage opposite sides of said cap sections for operating the same, and means for swinging said lever.

[Claims 6 to 15 not printed in the Gazette.]

1,136,284. MOUTHPIECE-PROTECTOR FOR TELEPHONE-TRANSMITTERS. CHARLES T. SMITH, Newark, N. J. Filed July 17, 1914. Serial No. 851,466. (Cl. 179—185.)



1. A protector for telephone transmitter mouthpieces, comprising a support adapted to encircle the neck of the mouthpiece adjacent the transmitter in fixed relation thereto, opposite cap sections pivoted to said support to swing toward each other to cover the transmitter and away from each other to uncover it, spiral springs bearing at one end against the cap sections to normally open the same, and means for holding said cap sections closed together.

2. A protector for telephone transmitter mouthpieces, comprising a support adapted to encircle the neck of the mouthpiece adjacent the transmitter in fixed relation thereto, opposite cap sections each having a pair of alined hinge sleeves, said support providing a pair of brackets for each cap section, a pivot rod extending through corresponding pairs of brackets and hinge sleeves, and spiral springs one on each of said pivot rods said springs bearing at one end against the cap sections to normally open the same.

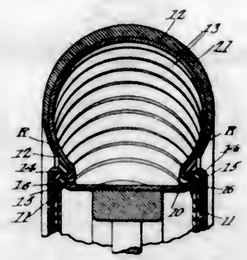
3. A protector for telephone transmitter mouthpieces, comprising a support adapted to encircle the neck of the mouthpiece adjacent the transmitter in fixed relation thereto, opposite cap sections each having a pair of alined hinge sleeves, said support providing a pair of brackets for each cap section, a pivot rod extending through corresponding pairs of brackets and hinge sleeves, spiral springs one on each of said pivot rods said springs bearing at one end against the cap sections to normally open the same, and means for holding said cap sections together.

4. A protector for telephone transmitter mouthpieces, comprising a support adapted to encircle the neck of the mouthpiece adjacent the transmitter in fixed relation thereto, opposite cap sections each having a pair of alined hinge sleeves, said support providing a pair of brackets for each cap section, a pivot rod extending through corresponding pairs of brackets and hinge sleeves, spiral springs one on each of said pivot rods said springs bearing at one end against the mouthpiece and at the other end against the cap sections to normally open the same, and means for holding said cap sections together.

5. A protector for telephone transmitter mouthpieces, comprising in combination with a telephone, opposite cap sections pivoted to swing to cover and uncover the telephone mouthpiece, a member connected with said cap sections and with the receiver arm of the telephone adapted to close said cap sections over the mouthpiece when the transmitter is in normal position, and means for permitting said member to close said cap sections when the transmitter is in abnormal position.

[Claims 6 to 8 not printed in the Gazette.]

1,136,285. VEHICLE-TIRE. JABEZ M. SMITH, Malvern, Ark. Filed July 23, 1914. Serial No. 852,745. (Cl. 152—8.)



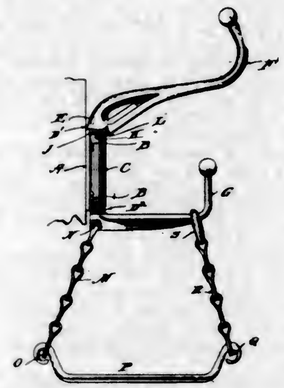
1. In a device of the class described, a rim having inclined flanges; a curved spring element the lateral portions of which are bent to form S-shaped flange engaging hooks defining spaced walls, one of which walls lies against the upper face of one flange, another of which walls lies against the lower face of said flange; and a securing element passing through the flange and engaging both of said walls of the hook to clamp the same on the flange.

2. In a device of the class described, a rim having inclined flanges; a curved spring element comprising a body the lateral portions of which are bent to form S-shaped flange receiving hooks defining upper and lower walls, the upper wall of the hook lying against the upper face of one flange and the lower wall of the hook lying against the lower face of said flange; and a securing element passing through the flange and through both walls of the hook, said securing element having a head which engages the inner wall of the hook; and movable means on the securing element for engaging the outer wall of the hook; the securing element being of greater length than the distance between the lower face of the upper wall of the hook and the body of the spring, whereby the securing element may remain engaged with the flange when said movable means is detached; the spring element being yieldable to permit the insertion of the securing element through the walls of the hook and through the flange.

1,136,286. HARNESS-HANGER. ROLAND R. STAFFORD, Minier, Ill. Filed Jan. 27, 1913. Serial No. 744,271. (Cl. 248—24.)

1. A harness hanger including in its construction an invertible socket member adapted for attachment to a support and including a recess or socket to receive the shank of a bracket and having a cylindrically curved outer surface concentric with the center of its recess, an article carrying bracket provided with a hook and having a shank adapted to occupy and turn within said recess in either inverted position of the member, said bracket including a shouldered portion to rest upon the end of the member and also including a depending portion spaced from its shank and overhanging and substantially paralleling the described cylindrically curved surface and adapted to swing in close proximity to said surface, the socket member having a lip at one end extending outward beyond its cylindrically curved surface and beyond the position of the described depending portion of the bracket, and having a notch to receive said depending portion when the member is in position to support the bracket at that end.

2. A harness hanger including in its construction an invertible socket member adapted for attachment to a support and having a recess to receive a bracket and having a cylindrically curved outer surface at each end concentric with the center of the recess, one end having an outwardly extended lip beyond said surface and concentric therewith, said lip being provided with a series of notches, and a bracket for supporting articles having a shouldered portion adapted to rest upon either end of the member and having a shank to lie in the recess, and also having a depending portion lying outward from and spaced from its shank and adapted to swing free of the cylindrically curved surface when the member having such surface is in one of its positions, said depending portion adapted in the other position of the member to engage in one of the said notches to prevent the bracket swinging, said bracket adapted in one of its adjustments relative to the member to swing freely on the same.



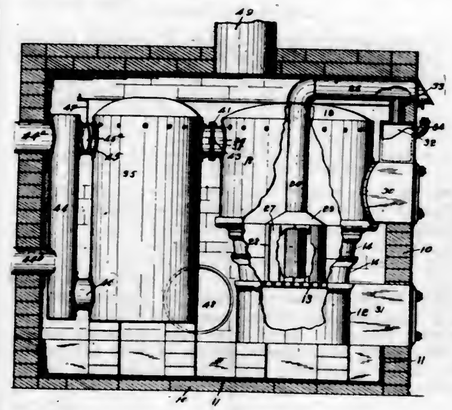
3. A harness hanger including in its construction an invertible socket member adapted for attachment to a support and having a recess to receive a bracket and having a cylindrically curved outer surface at each end concentric with the center of the recess, one end having an outwardly extended lip beyond said surface and concentric therewith, said lip being provided with a series of notches, a bracket for suporting articles having a shouldered portion adapted to rest upon either end of the member and having a shank to lie in the recess, and also having a depending portion lying outward from and spaced from its shank and adapted to swing free of the cylindrically curved surface when the member having such surface is in one of its positions, said depending portion adapted in the other position of the member to engage in one of the said notches to prevent the bracket swinging, said bracket adapted in one of its adjustments relative to the member to swing freely on the same, and elastic means to hold the bracket in engagement with the said notch.

1,136,287. SMOKE-CONSUMING FURNACE. ENOS STANLEY, Watertown, S. D. Filed Dec. 5, 1908. Serial No. 466,186. (Cl. 126—99.)

1. In a furnace, the combination of a fire pot, a grate therein, a combustion chamber mounted on the fire pot, a fresh air pipe extended downwardly through the combustion chamber and the fire pot and arranged to discharge downwardly through the grate, and a casing surrounding the lower end of said pipe and closed at its top and open at its bottom, and having openings in its sides for the purposes stated.

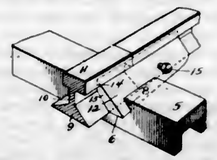
2. In a furnace, the combination of a fire pot, a grate therein, a combustion chamber, an open-ended pipe leading from a point exterior to the furnace and downwardly through the fire pot to the grate and arranged to discharge fresh air downwardly through the grate, a cylinder resting upon the grate and surrounding the said pipe and spaced apart from it, and a top for the cylinder, said cylinder having slotted sides and being of a height substantially the same as that of the part of the combustion chamber designed to receive fuel.

3. In a device of the class described, the combination of a wall inclosing a combustion chamber, an upward extension of said wall, a cover on said upward extension a fire pot below the combustion chamber, a grate in the fire pot, a fresh air supply pipe extending from a point outside the combustion chamber through said combustion chamber and said fire pot to the said grate, a water tank outside of and near said combustion chamber, in a position to be heated therefrom, means for connecting the upper part of said water tank with said air supply pipe, and a cylinder open at its lower end and closed at the top, and surrounding and spaced apart from the lower portion of said fresh air pipe and constructed with a plurality of spaced openings, designed to permit the passage of air into and above the fuel bed.



4. In a furnace, the combination of a fire pot, a combustion chamber, a grate in the fire pot, an air supply pipe extending from without the furnace into close proximity to the grate to discharge air therethrough, and a cylinder surrounding the lower portion of the said pipe and spaced therefrom, the lower end of the cylinder being in close proximity to the grate to exclude fuel from entering the portion of the grate within the cylinder, said cylinder extending to a plane above the fuel bed and provided with openings to permit passage of air into and above the bed of fuel.

1,136,288. RAILWAY-TIE AND CLAMP. SUN R. STILL, Hot Springs, Ark. Filed Dec. 22, 1914. Serial No. 878,615. (Cl. 238—5.)



1. In a device of the character described the combination with a tie having a transverse rail receiving recess formed entirely across its upper face and having the opposite side walls of said recess undercut, of rails having substantially triangular base portions seated in said recess with one side of the base portion thereof engaged with one of the undercut walls of the recess, a wedge disposed between the opposite side of the rail and the other of said undercut walls said wedge tapering both longitudinally and vertically and being of such height as to extend from the base of the recess to the underside of the

ball portion of the rail, and a fastening device traversing said wedge and arranged to bind against one of said rails to thereby hold said wedge against movement.

2. In a device of the character described the combination with a tie having a transverse rail receiving recess formed entirely across its upper face and having the opposite side walls of said recess undercut, of rails having substantially triangular base portions seated in said recess with one side of the base portion thereof engaged with one of the undercut walls of the recess, a wedge disposed between the opposite side of the rail and the other of said undercut walls said wedge tapering both longitudinally and vertically and being of such height as to extend from the base of the recess to the underside of the ball portion of the rail, and a set screw threaded through said wedge and arranged to bind against one of said rails to thereby hold said wedge against movement.

1,136,289. PENHOLDER. ROBERT W. STUCKEY, Orlando, Fla. Filed Nov. 19, 1913. Serial No. 801,917. (Cl. 120—101.)



1. A device of the character described comprising a shank forming a pen seat, a pen grip rotatably associated with said shank, and common means for preventing longitudinal movement of said pen grip upon said shank and for positively removing the pen from said seat when said pen grip is rotated.

2. A device of the character described comprising a shank provided with a pen seat, a sleeve rotatably mounted upon said shank, and common means for preventing longitudinal movement of said sleeve upon said shank and for positively removing the pen from said seat when said sleeve is rotated.

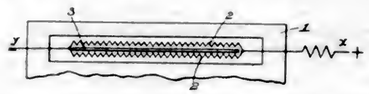
3. A device of the character described including a shank provided with a pen seat, a pen grip rotatably mounted upon the shank and about the seat, said pen grip provided with a slot, and ejecting means associated with the grip for removing the pen from the seat through the slot when the sleeve is rotated.

4. A device of the character described including a shank provided with a pen seat, a pen grip rotatably mounted upon the shank and about the seat, said pen grip provided with a slot, and ejecting means associated with the grip for removing the pen from the seat through the slot when the sleeve is rotated, said ejecting means being associated with the shank for preventing vertical movement of the pen grip on the shank.

5. A device of the character described including a shank forming a pen seat, a pen grip rotatably associated with the shank about the seat, said pen grip being provided with a slot, and an ejecting tongue formed integral with the grip and projecting inwardly from said slot into engagement with said shank for positively removing a pen from the side through the slot and for preventing vertical movement of the grip on the shank when the grip is rotated.

[Claims 6 and 7 not printed in the Gazette.]

1,136,290. METHOD OF PRODUCING DRAWN SHEET-GLASS. SIMON H. STUPAKOFF, Pittsburgh, Pa. Filed Sept. 6, 1904. Serial No. 223,345. Renewed Sept. 4, 1914. Serial No. 860,801. (Cl. 49—83.1.)



1. The method of shaping glass, consisting in drawing glass from a molten glass bath and maintaining the glass being drawn at substantially the same temperature throughout at least a part of the drawing operation.

2. The method of shaping glass, consisting in drawing glass from a glass bath, and simultaneously supplying heat to the bath to maintain the same at substantially the same temperature during the drawing operation.

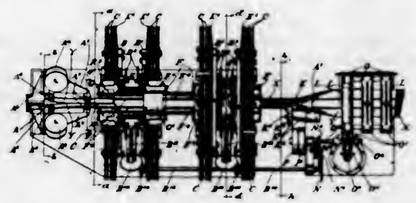
3. The method of forming glass, consisting in drawing glass from a glass bath and maintaining the top portion of the bath at substantially the same temperature through at least part of the drawing.

4. The method of shaping glass, consisting in drawing glass from a glass bath and generating electric heat in said bath during the drawing operation to maintain the glass at substantially the same temperature and thereby prevent thickening of the wall of the article being drawn by the cooling and stiffening of the glass.

5. The method of shaping glass, consisting in drawing glass from a glass bath and generating electric heat in the surface portion of the bath during the drawing operation to maintain the glass at substantially the same temperature and thereby prevent thickening of the wall of the article being drawn by the cooling and stiffening of the glass.

[Claims 6 to 10 not printed in the Gazette.]

1,136,291. MACHINE FOR CONSTRUCTING A LAMINATED COHESIVE INTERWOUND TUBULAR FABRIC. LAWRENCE A. SUBERS, Cleveland, Ohio. Filed June 18, 1912. Serial No. 704,409. (Cl. 28—4.)



1. The combination with a mandrel, rigidly supported at one end and tapered at the free end, a series of reels encircling the mandrel, alternate reels rotating in opposite directions, a series of spools on which fabric bands alternating with bands of non-adhesive material are wound, means for rotating the reels, spools on said reels for storing the bands of non-adhesive material, said spools for adhesive bands operatively connected with said spools for fabric bands, means for guiding said fabric bands to spaced positions on said mandrel, and means for pulling the tubular fabric thus produced from the mandrel.

2. In combination with a mandrel fixed at one end and unsupported at the other end, a series of reels, alternately rotatable in opposite directions about said mandrel, a series of spools on each reel on which fabric goods alternating with bands of non-adhesive material are wound, spools on said reels for winding said bands of non-adhesive material, said spools for fabric bands and non-adhesive material rotatable in unison, means for guiding the fabric bands to spaced positions near the unsupported end of said mandrel, means for feeding the fabric bands from their respective spools to said mandrel, and means for pulling the fabric formed on the mandrel off from the unsupported end thereof.

3. The combination with a mandrel, supported at one end, of means for lining said mandrel with a non-adhesive material, means for forming a laminated interwound fabric upon the mandrel near its unsupported end, means for cutting through said fabric in a longitudinal line, and means for pulling the cut fabric off from the free end of the mandrel, the said pulling means constituting a flattening means for said fabric.

4. In combination with a mandrel having a tapered extremity and supported at the other end, standards through which said mandrel passes, pairs of reels, having overlapping hubs, sleeved in said standards, a series of spools on each reel on which fabric bands alternating with bands of non-adhesive material are wound, a series of spools which receive the non-adhesive bands from the other spools, pressure rollers adapted to feed the fabric at a predetermined rate of speed from the spools to the mandrel, means for rotating the spools for non-adhesive material conjointly with the rotation of the other series of spools, means for rotating alternate reels in opposite directions, a series of guides encircling the mandrel and guide rollers thereon arranged to lead the fabric bands to the free end of the mandrel, means for pulling the completed fabric from the mandrel and for flattening the same, and change gearing operatively connecting the reel operating mechanism with the pulling devices.

5. In combination, a mandrel supported at one end and tapered at the outer end, a series of longitudinal guides for a non-adhesive material on said mandrel, spools and guide rollers for said non-adhesive material adapted to feed the same between said longitudinal guides, a series of reels encircling the mandrel and spools thereon adapted to store fabric bands alternating with bands of non-adhesive material, means for removing said non-adhesive bands from said fabric bands and for feeding said fabric bands to the mandrel, guiding means for applying said fabric bands to spaced positions on said mandrel at the forward end thereof, and a pulling and flattening device for the completed fabric.

[Claims 6 to 9 not printed in the Gazette.]

1,136,292. REINFORCED LAMINATED COHESIVE INTERWOUND FABRIC BAND. LAWRENCE A. SUBERS, Cleveland, Ohio. Filed June 18, 1912. Serial No. 704,411. (Cl. 28—5.)



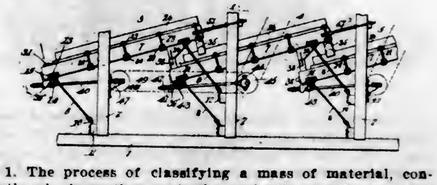
1. As an article of manufacture, a band for incorporation in a fabric, comprising a flattened tube composed of unwoven interwound groups of close lying parallel yarns or threads arranged in parallel rows and the sides of the tube compressed together to form selvage edges, the said band saturated with adhesive material, and a reinforcing band inclosed therein, the edges of which are parallel to said selvage edges.

2. As an article of manufacture, a band for incorporation in a fabric, comprising a flattened tube composed of unwoven interwound groups of close lying parallel yarns or threads arranged in parallel rows and the sides of the tube compressed together to form selvage edges, said band saturated with adhesive material, and a reinforcing band inserted therein said adhesive material preventing movement of said reinforcing band in said fabric band.

3. A band for incorporation in a fabric comprising a tubular structure composed of threads formed from groups of close lying parallel yarns or threads, said groups of threads laid in spaced parallel rows at predetermined angles crossed by spaced groups laid at predetermined angles thereto, a row of said spaced groups of threads filling the spaces between the rows of groups of threads parallel therewith, the sides of said tube being flattened together and saturated with adhesive material, an exterior coating on said band and a reinforcing band inserted in said flattened tube, said reinforcing band provided with irregularities of surface, said adhesive material engaging said irregularities of surface.

4. In a constituent element for an interwound fabric in which the elements cohere together and are interlaid a flattened tube composed of unwoven threads, interwound and interlaid with each other, each thread composed of a parallel series of yarns, the finished product saturated with adhesive material, and provided with an external coating of the same, and a flat band of reinforcing material inclosed in said flattened tube.

1,136,293. PROCESS OF AND APPARATUS FOR CLASSIFYING COMMINUTED MATERIAL. HENRY M. SUTTON, WALTER L. STEELE, and EDWIN G. STEELE, Dallas, Tex. Filed Aug. 13, 1913. Serial No. 784,651. (Cl. 83—56.)



1. The process of classifying a mass of material, consisting in imparting projecting pulsation to the material upon an inclined reticulated supporting surface against the force of gravity to cause the particles to move intermittently by gravity, and separately collecting the thus classified particles.

2. The process of classifying comminuted material, which consists in imparting intermittently thereto, a projecting movement upon an inclined reticulated surface against the force of gravity separated by inactive projecting movements to allow the particles to recede by gravity, and separately collecting the thus classified particles.

3. The process of classifying a mass of material, consisting in supporting the material upon a reticulated supporting surface and imparting movement thereto by the force of gravity and projecting pulsations in opposite directions at different times, to cause the material to advance upon said reticulated surface in a step-like movement.

4. The process of classifying a mass of comminuted material, consisting in intermittently moving said material upon an inclined supporting reticulated surface by projecting pulsations, subjecting said material in the intervals between said movement to the force of gravity, to cause the mass to recede upon said surface to allow the smaller particles thereof to pass through said rectiulated surface, and separately collecting the thus classified particles.

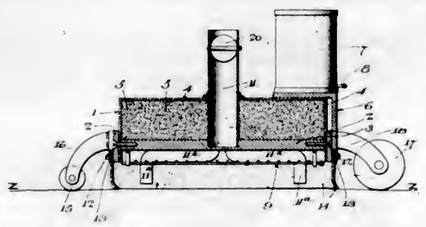
5. The process of classifying a mass of material, consisting in imparting projecting pulsations to the material while supported upon an inclined reticulated surface to cause the particles thereof to intermittently advance against the force of gravity to intermittently recede by the force of gravity upon said surface, and separately collecting the thus classified particles.

[Claims 6 to 24 not printed in the Gazette.]

1,136,294. OVEN FOR HEATING ASPHALT PAVEMENT. CHARLES A. SWITZER, Pasadena, Cal. Filed Apr. 8, 1914. Serial No. 830,387. (Cl. 94—6.)

1. An oven for softening pavement by downward heat radiation, burners in said oven, an oil tank above the oven for supplying liquid fuel to said burners by gravitation, a radiating plate of heat-radiating material above said burners, a layer of non-heat conducting material between said radiating plate and the top and sides of the oven for minimizing the heat radiation upwardly and outwardly from the upper part of the oven, and curtains of flexible, non-heat conducting material attached to the sides of the oven.

2. An oven for softening pavement by downward heat radiation, burners in said oven, an oil tank above the oven for supplying liquid fuel to said burners by gravitation, a radiating plate of heat-radiating material above said burners, a layer of non-heat conducting material between said radiating plate and the top and sides of the oven for minimizing the heat radiation upwardly and outwardly from the upper part of the oven, curtains of flexible, non-heat conducting material attached to the sides of the oven, a vent pipe leading upwardly from the top of said oven, and damper means in said vent pipe.



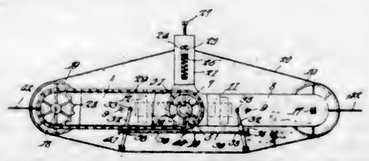
3. An oven for softening pavement by downward heat radiation, casters supporting said oven, a roller at the rear end of the oven for smoothing the pavement, and curtains of flexible material extending down from the oven and inclosing a surface area which lies entirely within the contact points of the casters and roller.

1,136,295. CURVE-DRAWING IMPLEMENT. BELA SZILARD, Paris, France. Filed Aug. 6, 1913. Serial No. 783,336. (Cl. 33—177.)



A curve-drawing implement consisting of a strip of flexible material adapted to be bent into the shape of the curve to be drawn and provided along one edge with a series of lateral tabs which are horizontally bifurcated, the legs produced by the bifurcation in each tab being formed with alining openings; in combination with a series of fastening devices for retaining said strip in such shape having their stems inserted through the openings in the lower legs and their heads slidably engaged in the openings in the upper legs, said heads being provided with spaced upper and lower shoulders disposed upon opposite side of said upper legs, to prevent said devices from being withdrawn from said tabs.

1,136,296. PLATE-GLASS AND MARBLE SMOOTHER, ROUNDER, AND BEVELER. GEORG RUDOLPH TESCHEL, Parkersburg, W. Va. Filed Nov. 24, 1914. Serial No. 873,774. (Cl. 51—11.)



1. In a device of the class described, a drive shaft; means for supporting the drive shaft for rotation; a frame mounted to swing on the drive shaft transversely of the drive shaft; rollers journaled in the frame; an abrasive belt trained about the rollers; and means for operatively connecting one roller with the shaft.

2. In a device of the class described, a drive shaft; means for supporting the drive shaft for rotation; a frame; means for mounting the frame to swing on the drive shaft and to move bodily on the drive shaft transversely of the drive shaft; rollers journaled in the frame; an abrasive belt trained about the rollers; and means for operatively connecting one roller with the shaft.

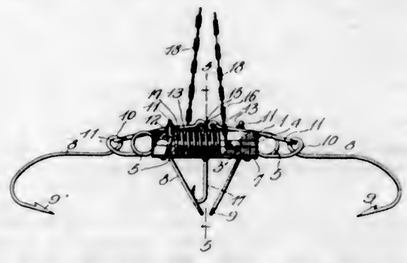
3. In a device of the class described, a drive shaft; means for supporting the drive shaft for rotation; a frame; means for mounting the frame to swing on the drive shaft, to slide longitudinally of the drive shaft, and to move bodily on the drive shaft transversely thereof; rollers journaled in the frame; an abrasive belt trained about the rollers; and means for operatively connecting one roller with the shaft.

4. In a device of the class described, a frame; bearing members mounted to slide on the frame, transversely of the frame; a shaft journaled for rotation in the bearing members; means for supporting the shaft for rotation; rollers journaled in the frame; an abrasive belt trained about the rollers; and means for connecting one roller operatively with the shaft.

5. In a device of the class described, a drive shaft; means for supporting the drive shaft for rotation; a frame; means for mounting the frame to swing on the drive shaft and to slide longitudinally of the drive shaft; abrading means carried by the frame; and means for operatively connecting the abrading means with the shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,136,297. TRAP. PAUL C. THAYER, Enterprise, Cal. Filed Sept. 10, 1914. Serial No. 861,095. (Cl. 43—23.)



1. In a trap, a support, a spring actuated jaw pivoted thereto, a lever attached to said jaw and extending past the pivot thereof, a link pivoted to said lever, a keeper on the support and designed to receive therein the intermediate portion of said link when the trap is set, a trigger tripped catch adapted to abut said link to normally retain the same in said keeper, and a second jaw carried by the support and coacting with said pivoted jaw.

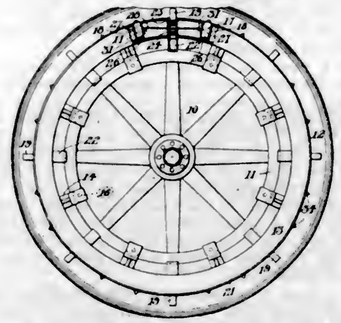
2. In a trap, a support, a spring actuated jaw pivoted thereto, a lever secured to said jaw and projecting beyond its pivot, a keeper carried by the support, a link pivoted to said lever and designed to be partially received in the keeper when the trap is set, a slidable trigger tripped catch carried by the support and designed to be projected and to abut said link to normally retain the same in the keeper, and a second jaw carried by the support and coacting with said pivoted jaw.

3. In a trap, a support having a guide opening enlarged at one end, a catch pin slidable in the enlarged end of said opening, a trigger having a shank slidably mounted in the reduced end thereof, said shank being connected with said pin, jaws carried by said support, one jaw being pivoted and spring operated, and setting elements coacting with said pin for retaining the pivoted jaw in normally set position.

4. In a trap, a supporting block having comparatively deep grooves intermediate the ends of its said edges and comparatively shallow grooves extending around the angles of said block and connecting said comparatively deep grooves, coil springs having one of their ends rigidly secured to the suporting block, the inner sides of said springs lying in the deep grooves, jaws operable by the action of said springs and a clamping band surrounding said block and passing through said springs, the portions of said band lying between adjacent springs being located in said comparatively shallow grooves.

5. In a trap, a supporting block, spring actuated jaws pivoted to opposite side edges thereof, levers attached to said jaws and projecting beyond the pivots thereof, said levers being designed to contact with one side of said block when the jaws are set, links pivoted to the free ends of said levers, substantially hook shaped keepers carried by the side of said block engaged by said levers, said links being designed to project radially inward and to have their inner portions received by said keepers, a slidable catch pin located substantially at the center of the block and normally projecting therefrom and abutting the free ends of said links whereby to retain the same in set position, and a trigger attached to said catch pin and designed to retract the same when tripped.

1,136,298. NON-SKIDDING ATTACHMENT FOR WHEELS. JOSEPH URBANEK, Chicago, Ill. Filed Feb. 4, 1915. Serial No. 6,097. (Cl. 21—210.)



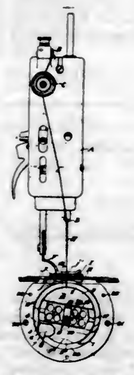
1. A non-skid attachment comprising a tubular casing, projectable normally retracted radially positioned calks carried thereby, a normally projected abutment slidably mounted and radially positioned intermediate the said calks and connecting means operatively positioned between the said abutment and calks.

2. A device of the class described comprising an annular tubular casing, radially positioned tubes carried thereby, normally retracted calks slidably mounted within the said tubes and having their outer ends projecting outwardly of the said casing, a normally projected abutment slidably carried by the said casing transversely thereof and positioned between two of the said calks, and an operative connecting cord between the said abutment and the adjacent calks.

3. A device of the class described comprising an annular tubing casing, radially positioned tubes carried thereby, normally retracted calks slidably mounted within the said tubes and having their outer ends projecting outwardly of the said casing, a normally projected abutment slidably carried by the said casing transversely thereof and positioned between two of the said calks, the said tubes having longitudinal slots in their adjacent sides, transverse rods carried by the said casing between the said tubes, spools upon said rods positioned adjacent the said slots, a cord centrally secured to the said abutment and passing over the said spools and through the said slots and having its opposite ends securely attached to the inner ends of the said calks.

4. A non-skid attachment for vehicle wheels comprising an annular tubular casing rectangular in cross section, fully engaging mounting brackets laterally secured to the said casing, radially positioned rectangular tubes provided in pairs and extending through the said casing, the tubes of each pair having longitudinal slots through their adjacent sides, calks rectangular in cross section slidably mounted within the said tubes and extending through the peripheral side of the casing, retractile springs in the said tubes connected between the inner wall of the casing and the inner ends of the calks, the said casing provided with inwardly projecting sockets between each pair of tubes, an abutment radially positioned and slidably mounted through the said casing and within the said socket, an expansion spring surrounding each abutment and having its ends attached between the abutment and the inner wall of the casing, transverse rods within said casing positioned between each abutmentment and the adjacent tube, a spool upon each of said rods adjacent the slot of the neighboring tube, an operating cord centrally secured through the said abutment and oppositely extending over the said spools and through the said slots and having its opposite ends fixed to the inner ends of the said calks.

1,136,299. SEWING-MACHINE. VANDIVER J. VAN HORN, Chicago, Ill. Filed Apr. 13, 1914. Serial No. 831,527. (Cl. 112—5.)



1. In a sewing machine the combination with a thread-tension and means for supporting it, of a straight vertical needle, means for reciprocating it vertically through strokes of equal length, whereby at each downward stroke it will draw through the thread-tension a length of thread equal to that taken up in making the last preceding stitch and whereby, during each upward stroke that portion of the thread which is between the eye of the needle and the work will slacken, forming a loop, a loop-taking member movable in a circular path which intersects said loop, and means for producing one complete revolution of the loop-taking member during each reciprocation (including an upstroke and a down stroke) of the needle, the maximum cross sectional size of the loop taking member being no greater than the size of the loop formed as aforesaid, whereby the loop-taking member in passing through the loop does not enlarge it and thereby draw thread through the tension.

2. In a sewing machine, mechanism for forming a chain stitch, having, in combination, a loop-taking member consisting of a segmental ring movable in a circular path, means for moving it, the means last aforesaid having a rotatable part lying in the plane of said segmental ring and having its axis concentric with the axis of movement of said segmental ring, a rigid movable device carried by said rotatable part and located in the plane of said segmental ring, means for confining said movable device to rectilinear movement radially with respect to the axis of movement of the rotatable part carrying it, and means coöperating with said rotatable part for moving said radially movable device into and out of engagement with said segmental ring.

3. In a sewing machine, mechanism for forming a chain stitch, said mechanism having, in combination, a loop-

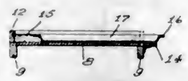
taking member movable in a circular path, means for thus moving it, the means last aforesaid having a rotatable driver lying in the plane of the loop-taking member, a slide carried thereby and movable radially in a plane perpendicular to the axis of said driver and a fixed part, said slide and fixed part coöperating with each other for reciprocating the slide endwise, radially with respect to the axis of rotation of the loop-taking member.

4. In a sewing machine, mechanism for forming a chain stitch, said mechanism having, in combination, a loop-taking member consisting of a segmental ring movable in a circular path and means for thus moving it, the means last aforesaid having a driver rotatable about an axis concentric with the axis of movement of the loop-taking member, said driver having a lug provided with a radially acting cast-off surface located opposite the heel end of the loop-taking member.

5. In a sewing machine, mechanism for forming a chain stitch, said mechanism having, in combination, a loop-taking member consisting of a segmental ring movable in a circular path and means for thus moving it, the means last aforesaid having a driver rotatable about an axis concentric with the axis of movement of the loop-taking member, said driver having a lug provided with a radially acting cast-off surface and also with a surface for supporting the loop in a position substantially parallel with the work.

[Claims 6 to 19 not printed in the Gazette.]

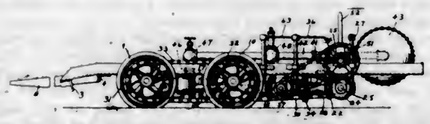
1,136,300. HIGH CHAIR FOR CHILDREN. ERNESTINE P. VAUGHN, Southworth, Wash. Filed Mar. 25, 1914. Serial No. 827,155. (Cl. 65—53.)



1. A tray-holder for a high chair, comprising upwardly projecting grooved side strips disposed on said tray-holder, a dished tray having outwardly projecting lateral edges that are adapted to fit in said grooves, and a spring pressed pivoted end strip provided on said tray-holder, said end strip being adapted to be turned downwardly against the tension of the spring to permit said tray to be inserted in said tray-holder.

2. The combination with a high chair, of a tray-holder swingly hinged to the back of the chair, upstanding side and end walls carried by said tray-holder, a groove formed in the inner face of each of said walls and arranged to provide an endless recess, one of said end walls being hingedly connected to said tray-holder, and a removable dished tray having a peripheral flange to be received in said recess when said hinged end is lowered and be retained in position by said end.

1,136,301. MINING-MACHINE TRUCK. CARL J. E. WAXROM, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed July 13, 1911. Serial No. 638,410. (Cl. 105—32.)



1. In a truck for transporting mining machines and the like, the combination of a wheel-supported frame, a tank on the frame for storing elastic fluid under pressure, an elastic fluid engine mounted on the frame, driving connections between the engine and the truck wheels, said engine having an inlet conduit adapted to be connected independently of the said tank to a source of fluid supply external to the truck, and a manually controllable connection between the tank and the engine, whereby the engine can be driven by fluid drawn from the tank, substantially as set forth.

2. In a truck for transporting mining machines and the like, the combination of a wheel-supported frame, an elastic fluid engine mounted on the frame, a winding drum on the frame for loading a mining machine or the like upon the truck, driving connections between the engine and the truck wheels, driving connections between the engine and the winding drum, the said engine having an inlet pipe adapted to be connected to a source of fluid supply independent of the truck, a tank on the truck for storing fluid under pressure, and connections between the tank and the engine inlet, whereby the engine can be driven by fluid drawn from the tank, substantially as set forth.

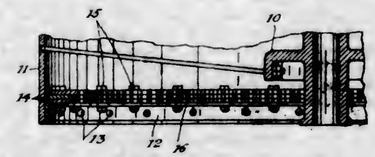
3. In a truck for transporting mining machines and the like, the combination of a wheel-supported frame, an elastic fluid engine mounted on the frame, driving connections between the engine and the truck wheels, a tank on the truck for storing air under pressure, an air compressor for forcing air into said tank, driving connections between the engine and the said compressor, a supply pipe for the engine adapted to be connected to a source of fluid supply independent of the truck, and means for conducting air from the tank to said engine, whereby the engine can be driven by fluid drawn from the tank, substantially as set forth.

4. In a truck for transporting mining machines and the like, the combination of a wheel-supported frame, an elastic fluid engine mounted on the frame, driving connections between the engine and the truck wheels, a tank on the truck for storing air under pressure, an air compressor for forcing air into the tank, driving connections between the engine and the said compressor, a supply pipe for the engine adapted to be connected to a source of fluid supply independent of the truck, and means comprising a conduit and a pressure reducing device for conducting air from the tank to the inlet of the engine, whereby the engine can be driven by fluid drawn from the tank, substantially as set forth.

5. In a truck for transporting mining machines and the like, the combination of a wheel-supported frame, an elastic fluid engine mounted on the frame, a winding drum mounted on the frame, driving connections between the engine and the truck wheels, driving connections between the engine and the winding drum, said engine having an inlet pipe adapted to be connected to the source of fluid supply independent of the truck, a tank carried by the truck, an air compressor forcing air into said tank, driving connections between the air compressor and the engine, and means for conducting air from the tank to the inlet of the engine, whereby the engine can be driven by air drawn from the tank, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,136,302. DETACHABLE GEARING FOR TRACTION-ENGINES. GEORGE H. WILSON, Minneapolis, Minn. Filed Jan. 16, 1914. Serial No. 812,474. (Cl. 74—28.)

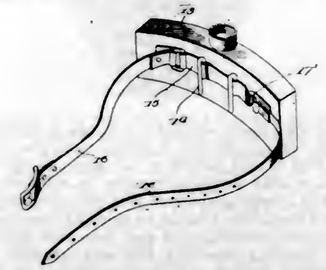


1. In combination with the wheel rim or tire of a traction wheel, an angle iron riveted to the inside of said wheel rim so as to have a flange extending radially toward the center of the wheel, and an internal gear bolted to said flange.

2. In combination with the wheel rim or tire of a traction wheel, an angle iron riveted to the inside of said wheel rim so as to have a flange extending radially toward the center of the wheel, and an internal gear bolted to said flange, said internal gear being formed in segmental sections.

3. In combination with the wheel rim or tire of a traction wheel, an angle iron riveted to the inside of said wheel rim so as to have a flange extending radially toward the center of the wheel, and an internal gear bolted to said flange, said internal gear being formed of a series of superposed plates, the bolts for holding said gear to the flange also serving to hold the plates united.

1,136,303. MINER'S LAMP. STANLY J. YELLEN, Great Neck, N. Y. Filed Oct. 1, 1914. Serial No. 864,461. (Cl. 240—60.)



1. A miner's lamp including a reservoir adapted for attachment with a head covering and provided with a concave face disposed to confront the head covering, hooks arranged in longitudinal spaced relation upon the concave face of the reservoir, a strip securing said hooks to the reservoir, loops carried by said strip, coacting flexible elements engaging said loops and disposed to embrace the head covering, an attaching plate carried by the head covering, and longitudinally spaced and transversely alined loops carried by said attaching plate and disposed for engagement with said hooks.

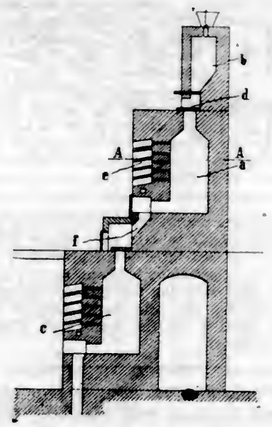
2. A miner's lamp including a reservoir, a strip secured to one side of the reservoir, loops carried by said strip, the ends of the strip being passed through the loops, a hook connected at one terminal to the reservoir by said strip, an attaching plate adapted to coact with said hook, and coacting flexible elements connected to said loops, the said attaching plate being adapted for connection to a head covering and said flexible elements being adapted to extend around the said covering.

3. A miner's lamp including a reservoir, a strip secured to one side of the reservoir, loops freely mounted on said strip, coacting flexible elements connected to said loops, spaced hooks terminally connected to the reservoir by said strip, and an attaching plate adapted to coact with said hooks, said plate being adapted for connection to a head covering and the flexible elements being adapted to extend around the head covering.

1,136,304. ZINC-PRODUCING FURNACE. ALBERT ZAVELBERG, Hohenlohehütte, Germany. Filed Aug. 25, 1914. Serial No. 858,525. (Cl. 75—155.)

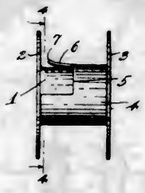
1. In a zinc producing furnace the combination of a plurality of vertical, superposed rows of shafts, preheating chambers above the upper row of said shafts, a plurality of juxtaposed chambers within said shafts, walls separating said chambers, means within said walls for producing gas tight partitions between each two of said chambers, condensers in front of, and connected to the chambers of the various rows of shafts, and means for connecting the preheaters with the upper row and this upper row with the lower row of said shafts, substantially as described.

2. In a zinc producing furnace the combination of a plurality of vertical, superposed rows of shafts, a preheating chamber above the upper row of said shafts, a plurality of juxtaposed chambers formed in said shafts, walls separating each two of said chambers, vertical layers of finely pulverized silicas within said walls, condensers in front of and connected to the chambers of the various



rows of shafts, and means for connecting the preheater with the upper, and the upper with the lower rows of shafts, substantially as described.

1,136,305. BOBBIN. JAMES G. ANDREWS, Cleveland, Ohio. Filed Apr. 17, 1913. Serial No. 761,727. (Cl. 242—125.)



1. The combination with a bobbin having end flanges, of a sleeve surrounding the barrel arranged between the flanges, said sleeve having a cut-away portion, a tongue extending from the edge of the metal in parallel alinement with the axis of the bobbin and into the space formed by the cut-away portion of the sleeve, and a guiding end portion carried by said tongue for guiding the thread thereunder.

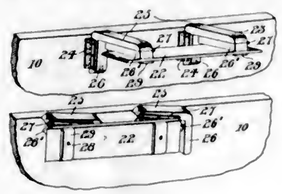
2. The combination with a bobbin having end flanges, of a sleeve surrounding the barrel arranged between the flanges, said sleeve having a cut-away portion, a tongue extending longitudinally of the sleeve from the edge of the metal into the space formed by the cut-away portion of the sleeve, said tongue being provided with side cutting edges, and a guiding end portion carried by said tongue for guiding the thread thereunder.

1,136,306. OUTRIGGER FOR BOATS. JOSEPH BECK, Elberta, Ala. Filed Sept. 11, 1914. Serial No. 861,201. (Cl. 114—126.)

1. In combination with a boat side, L-shaped brackets hinged to said side, blocks hinged to said brackets, and an outrigger board pivoted to said block, the said block and board adapted for automatic shifting during the hinging movement of the said brackets.

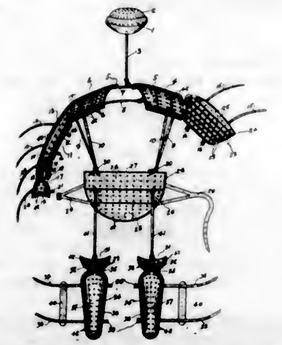
2. An outrigger comprising in combination with a boat side of brackets hinged to the said sides and having substantially horizontally positioned arms, blocks extending longitudinally beneath said horizontal arms, and hinged

to the edges thereof, an outrigger board pivoted centrally beneath the said blocks.



3. An outrigger comprising in combination with a boat side, brackets hinged to said side, blocks hinged to said brackets, and an outrigger board pivoted to said blocks, and adapted for positioning horizontally and perpendicular to the boat side when the brackets are unfolded in their outward positions, the said board adapted for vertical positioning parallel to the boat side when the said brackets are folded.

1,136,307. PROTECTIVE DEVICE FOR BALL-PLAYERS. ELIE BOURDON, West Vancouver, British Columbia, Canada. Filed Feb. 18, 1914. Serial No. 819,477. (Cl. 2—190.)

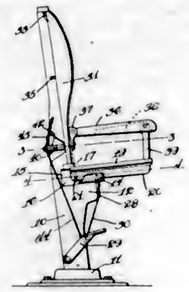


1. A protective device of the class described, comprising a normally flat base of pliable fabric, a normally flat flexible metallic plate secured on the outer surface of the said base, and buckling straps for securing the said base over any exposed vulnerable part of the body, the said base and said plate being adapted to conform temporarily to the contour of the part which it protects by the tightening of the said buckling straps, as and for the purpose specified.

2. A protective device of the class described, comprising a plurality of normally flat bases of pliable fabric, normally flat flexible metallic plates secured on the outer surfaces of the said bases, buckling straps for securing the said bases over any exposed vulnerable part of the body, each of the said bases and said plates being capable of conforming temporarily to the contour of that part of the body which it protects as the said buckling straps are tightened, and means for detachably connecting the said bases to each other, as and for the purpose specified.

3. In a protective device of the class described, the combination with a plurality of normally flat bases of pliable fabric detachably connected together and a plurality of normally flat flexible metallic plates secured thereto on the outer surface thereof, of a base of pliable fabric adapted to conform to the shape of the crown of the head, and a flexible metallic plate conforming to the shape of said base and secured on the outer surface thereof, as and for the purpose specified.

1,136,308. CHAIR. MOULTRE A. BREWER, Concord, N. C. Filed Nov. 29, 1913. Serial No. 803,741. (Cl. 155—13.)

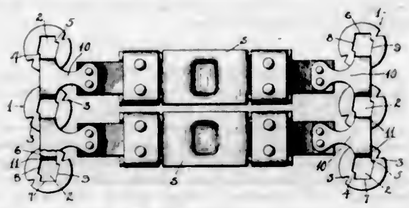


1. A folding chair comprising a standard provided with a cut-out portion and with a shoulder adjacent the lower edge of said cut-out portion, a seat holder carried by said shoulder, a block pivotally mounted in said cut-out portion, a seat pivotally connected with said block and resting upon said seat holder when in an extended position, a latch for releasably retaining said seat upon said holder, back sections pivotally connected with said standard, a latch for releasably holding said back sections in an extended position, and means for operating said latches.

2. A folding chair comprising a standard, a block pivotally connected with said standard, a seat pivotally connected with said block, a latch for releasably holding said seat in an extended position, back sections pivotally connected with said standard, a latch for releasably holding said back sections in an extended position, and means for simultaneously operating said latches.

3. A folding chair comprising a standard, a seat, means connecting said seat with said standard for permitting said seat to have vertical and horizontal pivotal movement, back sections pivotally connected with said standard, a latch carried by said standard releasably holding said back sections in an extended position, a second latch pivotally carried by said standard for releasably holding said seat in an extended position, an operating element carried by said standard, and means connecting said operating element with said latches for moving said latches to release said back sections and seat to permit said back sections and seat to be moved to a folded position.

1,136,309. TIGHTENING-LINK. JOHN J. BUKOLT, Stevens Point, Wis. Filed Apr. 27, 1914. Serial No. 834,716. (Cl. 24—68.)

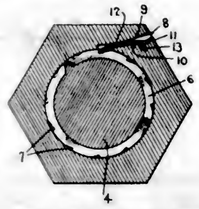


1. An adjusting link comprising a circular disk having a rhomboidal shaped aperture therein having notches cut in the longer sides to define two parallel sides of length equal to the shorter sides of the rhomboid and which are closer together than said shorter sides of the rhomboid.

2. Adjusting links adapted to engage elements having hooks, each link having a rhomboidal shaped aperture adapted to engage said hooks, said link being rotatable to adapt the longer and shorter sides of said aperture to engage said hooks to space the element varying distances apart.

3. An adjusting link having a rhomboidal shaped aperture therein.

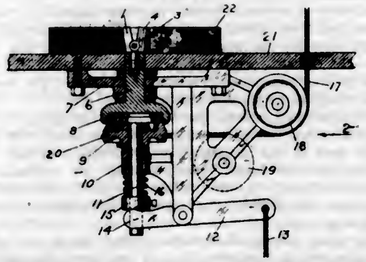
1,136,310. LOCK-NUT FOR BOLTS. FRANK W. BURNETT, Roanoke, Va. Filed May 28, 1914. Serial No. 841,515. (Cl. 151—11.)



1. In a device of the character set forth, the combination with a bolt having notches in its threads, of a nut threaded on the bolt and having a transverse recess extending from its bore through to one side of the nut, the walls of said recess being oppositely curved to form a contraction at a point between its ends, said recess having a stop shoulder in its outer portion at one side of the contraction, and a leaf spring located in the recess, said spring conforming substantially to the curve of and fitting against one wall of the recess, the inner end of the spring projecting into the bolt-receiving opening of the nut and engaging in one of the notches of the bolt, the intermediate portion of the spring substantially filling the contracted portion of the recess and the outer end of the spring engaging the stop shoulder.

2. In a device of the character described, the combination with a bolt having a notch, of a nut threaded on the bolt and having a transverse recess, said recess opening into the bolt-receiving opening of the nut and being closed on all sides, being furthermore provided with an enlarged internal portion and a shoulder in one wall at said enlargement, and a spring located in the recess, the inner end of the spring projecting into the bolt-receiving opening of the nut and engaging in the notch of the bolt, the outer end of the spring engaging the stop shoulder and being movable transversely in the enlargement of the recess out of engagement therewith, and said nut having an opening intersecting the enlarged portion of the recess, for receiving a tool, by which the outer end of said spring can be disengaged from the shoulder.

1,136,311. COIL-TIGHTENING DEVICE. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, New York, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Dec. 12, 1913. Serial No. 806,190. (Cl. 242—72.)



1. A coil tightening device comprising; rotatable means for engaging the inner convolutions of a coil of material, and means for supporting said coil edgewise so that different convolutions may be moved independently of others, and at different speeds while the coil is intact.

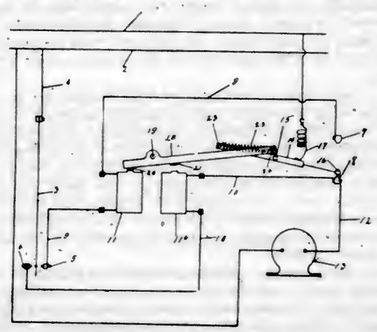
2. A coil tightening device comprising; rotatable means for rtotating the convolutions of a coil progressively from the inside out while the coil is intact, and means for supporting said coil edgewise, whereby the convolutions of the coil are tightened.

3. A coil tightening device comprising; a support adapted to receive a coil of material edgewise, a chuck projecting upwardly from said support and adapted to extend into the center opening of said coil and to engage the same, and means for rotating said chuck, whereby the convolutions of the coil are tightened.

4. A coil tightening device comprising; a support adapted to receive a coil of material edgewise, a chuck having members projecting upwardly from said support and adapted to extend into the center opening of said coil, means to allow said members to expand by centrifugal force and to grip the coil, and means for rotating said members whereby the convolutions of the coil are tightened.

5. A coil tightening device comprising; a support adapted to receive a coil of material edgewise, a chuck projecting upwardly from said support and adapted to extend into the center opening of said coil, said chuck having provision to engage with the inner end of the coil of material to tighten the convolutions thereof by causing the said coil to be rewound from the inside out, and means for rotating said chuck.

1,136,312. THERMOSTATIC CONTROL FOR ELECTRIC MOTORS. DALE P. CARTWRIGHT, Fort Wayne, Ind., assignor to Frigifax Manufacturing Company, La Fayette, Ind., a Corporation of Indiana. Filed Sept. 28, 1914. Serial No. 863,862. (Cl. 177—10.)

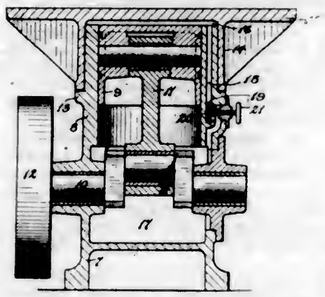


In a thermostatic electric motor control, a thermostat in circuit with the main line interposed between two contact points, two other contact points adapted to coöperate with a switch interposed between them designated herein as switch contacts, two shunt circuits each including an electro-magnet and each connecting respectively one of said thermostatic contact points with one of said switch contact points, a circuit including a motor connecting one of said switch contact points and the main line, a beam centrally pivoted and carrying at one end a contact member adapted to contact with said switch contact points, an elastic electrical connection interposed between said beam and the main line, a second beam centrally pivoted, armatures mounted on said second beam on either side of its pivotal connection said armatures adapted to coöperate with said electro-magnets respectively, said beam being connected at one end of each by a helical spring.

1,136,313. JOLT RAMMING-MACHINE. WILLY CASPARY, Durlach, Germany. Filed Jan. 27, 1914. Serial No. 814,801. (Cl. 22—45.)

1. A jolt ramming molding machine comprising in combination with a movable jolting member, a reciprocatory piston, the movable member and piston being arranged to

provide a cushion of air therebetween, and means for reciprocating the piston whereby to impart movement to the movable member through the cushion of air.



2. A jolt ramming molding machine comprising in combination with a movable jolting member mounted for free vertical movement, a reciprocatory piston working within said member but spaced apart therefrom to provide a chamber for confining a cushion of air, and means for reciprocating the piston whereby to impart upward movement to the said member through the medium of the cushion of air.

3. A jolt ramming molding machine comprising in combination with a movable jolting member mounted for free vertical movement, a reciprocatory piston for actuating the jolting member, there being a space between the piston and said member for confining a cushion of air, means for reciprocating the piston whereby to impart upward movement to the jolting member through the medium of the cushion of air, and means for preventing the formation of a vacuum in said space on the downward stroke of the piston.

4. A jolt ramming molding machine comprising in combination with a movable jolting member mounted for vertical movement, a reciprocatory piston for operating said member, an air chamber above said piston and between the piston and movable member and an air chamber below said piston, a by-pass from the upper to the lower chamber, a valvular device controlling said by-pass, and means for reciprocating the piston, said piston imparting movement to the movable member through the medium of the air in said upper chamber.

5. A jolt ramming molding machine comprising in combination with a movable jolting member, a reciprocatory member for actuating said jolting member, and an interposed yielding movement-transmitting-means through the medium of which the reciprocatory member imparts movement to the bolting member.

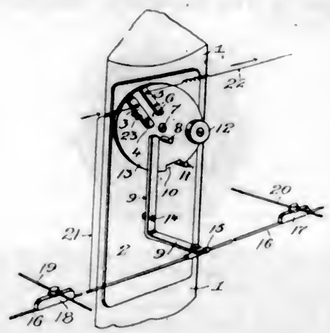
[Claims 6 to 8 not printed in the Gazette.]

1,136,314. CIRCUIT-CLOSER FOR TROLLEY SIGNAL SYSTEMS. ROBERT V. CHEATHAM, St. Matthews, Ky. Filed June 4, 1912. Serial No. 701,677. (Cl. 246—54.)

1. In a device of the class described, a trolley wire, an ear, an arm connected to this ear and fixed to said trolley wire, means for pivotally mounting the same, an electric circuit and means operated by said arm for closing and opening said electric circuit when a trolley wheel passes in one direction and not closing the said circuit when a trolley wheel passes in the other direction.

2. In a device of the class described, a trolley wire, an ear, an arm connected to this ear secured to said trolley wire, and means for pivotally mounting the same with a loose pivot, an electric circuit and means operated by said arm for closing and opening said electric circuit when a trolley wheel passes in one direction and not closing the said circuit when a trolley wheel passes in the other direction.

3. In a device of the class described, a trolley wire, an arm connected to said trolley wire and means for pivotally mounting same, an oscillating member mounted on a pivot means on said oscillating member for causing same to be oscillated by said arm in one direction only, an electric circuit and means on said oscillating member operated by said arm for closing said electric circuit when a trolley wheel passes in one direction.



4. In a device of the class described, a trolley wire, an arm connected to said trolley wire and means for pivotally mounting the same, an oscillating member and means for mounting the same so that it can oscillate, a pin on said oscillating member adapted to be engaged by said arm, an arm fixed to said oscillating member, an arm pivotally mounted on said oscillating member, and an electric circuit adapted to be closed by the action of the arm on the pin on said oscillating member when a trolley wheel passes in one direction.

5. In a device of the class described, a trolley wire, an arm connected to said trolley wire and means for pivotally mounting the same, an oscillating member and means for pivotally mounting the same, a counterweight carried by said oscillating member and means for limiting the movement of the oscillating member on its pivot, a pin extending from said oscillating member and adapted to be connected by said arm, a second arm fixed to said oscillating member and adapted to be connected to one part of an electric circuit, a third arm pivotally mounted on said oscillating member and means for connecting the same to another part of an electric circuit so that the last mentioned arm may be thrown when the oscillating member is turned in one direction by the first mentioned arm to close an electric circuit through the second mentioned arm.

1,136,315. DUMP-CAR. CHARLES H. CLARK, Crafton, Pa., assignor to Clark Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed July 15, 1908. Serial No. 443,654. (Cl. 105—185.)

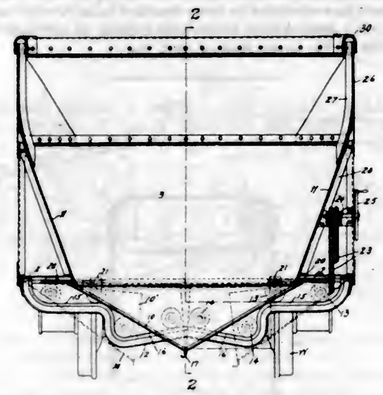
1. A pair of opposite bodily movable doors for a dump car inclined when closed, each door rotatable about an axis located between the upper and lower edges of the door, means for causing said axes to move horizontally with the doors as they open and close, and means for causing the doors to move simultaneously.

2. An inclined bodily movable door mounted to roll without raising its center of gravity, and means for holding the door at any position through which it moves.

3. An inclined bodily movable door for a dump car mounted to lower its center of gravity while opening, and mechanism for holding the door at any position through which it moves.

4. A dump car door movable bodily, means for simultaneously moving opposite edges of the door upwardly and downwardly respectively while moving bodily, and horizontally shifting means connected to the door for moving it bodily.

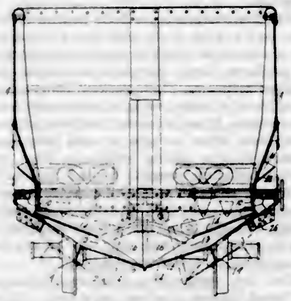
5. A dump car door movable bodily, means for simultaneously moving opposite edges of the door upwardly and downwardly respectively, a screw shaft, a sleeve traveling on the shaft, and an operative connection between the



sleeve and door for effecting the bodily movement of the latter.

[Claims 6 to 18 not printed in the Gazette.]

1,136,316. ORE DUMP-CAR. CHARLES H. CLARK, Crafton, Pa., assignor to Clark Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 5, 1908. Serial No. 456,277. (Cl. 105—185.)



1. An inclined bodily movable door for a dump car rotatable about a horizontal axis with said axis fixed relatively to the door approximately midway between its upper and lower edges.

2. An inclined bodily movable door for a dump car rotatable about a horizontal axis with said axis movable with the door and disposed approximately midway between the upper and lower edges of the door, and means for causing said axis of rotation to move horizontally as the door opens and closes.

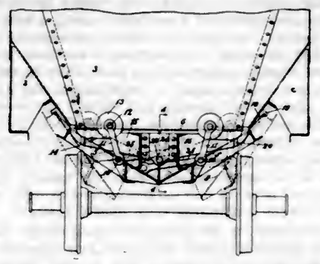
3. A door for dump cars movable bodily, oppositely inclined supports for the outer and inner portions of the door on which the door moves, the door rotatable about a horizontal axis, and means for moving the axis of rotation in a straight line.

4. A door for dump cars movable bodily, oppositely inclined supports for the outer and inner portions of the door, the door rotatable on a horizontal axis, and means for moving the axis of rotation in a horizontal plane.

5. A door for dump cars movable bodily and rotatable between its inner and outer edges about a horizontal axis, oppositely inclined supports engaged by the door at opposite sides of its axis of rotation and on which the door moves, and means for moving said axis of rotation together with the door.

[Claims 6 to 14 not printed in the Gazette.]

1,136,317. DUMP-CAR DOORS. CHARLES H. CLARK, Crafton, Pa., assignor to Clark Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Apr. 3, 1911. Serial No. 618,523. (Cl. 105—185.)



1. A pair of bodily movable doors for a dump car with each door rotatable about a single axis and with the doors wholly supported in all positions thereof at such axes.

2. A pair of opposed bodily movable doors for a dump car adapted to engage each other when closed, each door being rotatable about a single axis and the doors supported in all positions thereof at such axes, and means for securing the doors together in closed position.

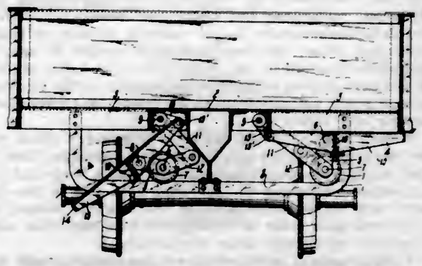
3. A pair of opposed bodily movable doors for a dump car with each door rotatable about a single axis and with the doors wholly supported in all positions thereof at such axes, and means carried by the doors for holding them closed.

4. A pair of opposed bodily movable doors for a dump car with each door rotatable about a single axis and with the doors wholly supported in all positions thereof at such axes, and means mounted on the respective doors and adapted to coöperate in holding the doors in closed position.

5. A pair of opposed bodily movable doors for a dump car, each door rotatable about a single axis and with the doors wholly supported in all positions thereof at such axes, the axis of each door being movable laterally from its normal door-sustaining position, and means for securing the doors together in closed position with said axes deflected from normal position.

[Claims 6 to 32 not printed in the Gazette.]

1,136,318. GONDOLA CAR. CHARLES H. CLARK, Crafton, Pa., assignor to Clark Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 14, 1912. Serial No. 731,305. (Cl. 105—14.)



1. A car bottom door rotatable about a single axis and when closed wholly supported at such axis, supports sustained from beneath and at their upper ends pivoted to the door coincidentally with its axis of rotation, support sustaining means, and means for swinging the supports toward and away from vertical position for closing and opening the doors.

2. The combination of door supports sustained from beneath and movable relatively to their sustaining means.

support sustaining means, a car bottom door when closed wholly sustained by the supports and pivoted to rotate thereon about a single axis when opening and when closing, and means for moving the supports relatively to their sustaining means for opening and closing the door.

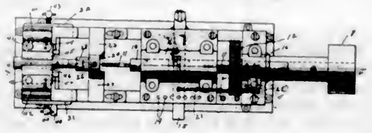
3. The combination of a car body having a bottom horizontal opening, a bodily movable downwardly opening door closed upwardly into horizontal position, means beneath and wholly supporting the door when closed and on which it is rotatable about a single horizontal axis when opening and when closing, and means for moving the supporting means to open and close the door.

4. The combination of a car body having a bottom opening at one side of its longitudinal center line, a bodily movable downwardly opening door for closing the opening, supports beneath and extending downwardly from the door for wholly sustaining it in closed position, the door being connected to the supports at a single horizontal axis and rotatable about said axis, and support shifting means for moving the door bodily toward the center of the car when opening with the door rotatable about its axis into outwardly inclined open position.

5. The combination of a car having a bottom opening, a bodily movable door therefor, a support beneath and pivoted to the under side of the door to swing about a horizontal axis with the support substantially vertical and wholly sustaining the door when closed, support moving means, and means for rotating the door on the support during its opening and closing movements.

[Claims 6 to 11 not printed in the Gazette.]

1,136,319. DRILLING-MACHINE. JOHN M. DELLINGER, Lancaster, Pa., assignor to Follmer Clogg & Co., Lancaster, Pa., a Corporation of New York. Filed Nov. 21, 1911. Serial No. 661,456. (Cl. 77—63.)



1. In a machine of the character described a clamp for the work, comprising two jaws supported independently of each other and each being pivotally supported at one end, and a spring for forcing the free end of each jaw toward the other jaw, in combination with means for moving the jaws transversely in the machine toward or away from each other and means whereby the jaws may be adjusted longitudinally in the machine.

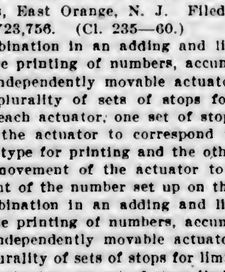
2. In a machine of the character described, a clamp for the work, comprising two slides and means for moving the same transversely in the machine toward or away from each other, and two jaws each carried by one of said slides respectively, in combination with means whereby the jaws may be adjusted longitudinally in the machine on said slides independently of the means for transversely moving said slides.

3. In a machine of the character described, a clamp for the work comprising two slides having depending pins, a disk having cam slots engaging said pins, a lever and intermediate mechanism for operating said disk to thereby move said slides transversely in the machine toward or away from each other in combination with two jaws each carried by one of said slides respectively.

4. In a machine of the character described, a clamp for the work comprising two slides having depending pins, a disk having cam slots engaging said pins, a lever and intermediate mechanism for operating said disk to thereby move said slides transversely in the machine toward or away from each other in combination with two jaws each carried by one of said slides respectively and means whereby each jaw may be adjusted longitudinally in the machine independently of the transverse movement of said slides.

5. In a machine of the character described, a clamping mechanism consisting of two brackets, a jaw pivoted at one end in each of said brackets, a spring for the free end of each jaw arranged to force the free ends of the respective jaws toward each other, and a block of soft material carried by the inner face of each jaw.

1,136,320. METAL BOX. ALSON L. DRAKE, New York, N. Y. Filed May 21, 1913. Serial No. 768,908. (Cl. 206—41.)



1. A metal box comprising a body having a closed bottom and an open top, a movable flanged cover adapted to fit about said body and close said open top, and a supplemental removable closure positioned within said box body below said cover, said supplemental closure having a single constricted opening at one end thereof adjacent the side of said body through which the contents of the box may be poured.

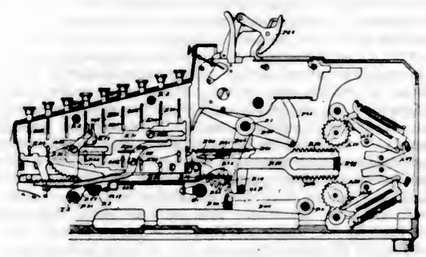
2. A metal box comprising a body having a filling opening therein and a stop fillet adjacent to and below said opening, a plurality of hinge sockets on said body, a cover having a pendant flange adapted to inclose the top of said box above said stop fillet, sockets thereon adapted to coöperate with said hinge sockets upon said body, a supplemental closure, hinge sockets thereon adapted to cooperate with said hinge sockets on said body, said closure being adapted to seat within said stop fillet and having a constricted opening therein, formed by cutting away one end thereof, through which the contents of said box may be poured, the other end of said closure being curved downwardly, whereby when said supplemental closure is raised it will be parallel with the line of the box, and a hinge pin common to all of said sockets.

3. A metal box comprising a laterally elongated body having a closed bottom, and an open top, a hinged cover having a flange adapted to have a close fit with said body about said open top and a supplemental hinged closure within the open top of said body, said closure being narrower than said body whereby a constricted opening is formed adjacent the side of the box.

1,136,321. MACHINE FOR CALCULATION AND PRINTING THE RESULTS OF SAID CALCULATIONS. HALCOLM ELLIS, East Orange, N. J. Filed Oct. 3, 1912. Serial No. 723,756. (Cl. 235—60.)

1. The combination in an adding and listing machine, of type for the printing of numbers, accumulators and a plurality of independently movable actuators for operating them, a plurality of sets of stops for limiting the movement of each actuator, one set of stops limiting the movement of the actuator to correspond to the number set up on the type for printing and the other set of stops limiting the movement of the actuator to correspond to the complement of the number set up on the type.

2. The combination in an adding and listing machine, of type for the printing of numbers, accumulators and a plurality of independently movable actuators for operating them, a plurality of sets of stops for limiting the movement of each actuator, one set of stops limiting the movement of the actuator to correspond to the number set up on the type for printing and the other set of stops limiting the movement of the actuator to correspond to the complement of the number set up on the type, and means under the control of the operator whereby the actuators may be made to engage the desired set of stops.



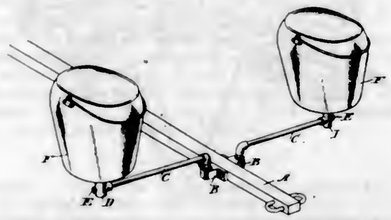
3. The combination in an adding and listing machine, of an accumulator and actuators therefor, type for the printing of numbers and a keyboard having keys for setting stops to limit the movement of the actuators, each key operating two stops, one of which will limit the movement of the actuator to correspond with the number on the key depressed and the other of which will limit the movement of the actuator to correspond to the complement of the number on the key depressed and a selected device to cause the actuators to engage the desired set of stops.

4. The combination in an adding and listing machine, of an accumulator and actuators therefor, type for the printing of numbers, a keyboard for the setting of stops to limit the movement of the actuators and the type, each key operating two stops, one of which will limit the movement of the type and actuators to correspond to the number on the key depressed and the other of which will limit the movement of the actuator to correspond to the complement of the number on the key depressed, and means under the control of the operator to cause the accumulators to engage the desired set of stops.

5. In an adding machine, the combination with an accumulator, of independently shiftable controllers for each numerical order, each of said controllers carrying a plurality of stops, keys which are adapted to coöperate with the stops of both controllers of a given order, an accumulator-actuator for each order, and means for determining which of the stop-carrying controllers shall cooperate with the accumulator actuator.

[Claims 6 to 12 not printed in the Gazette.]

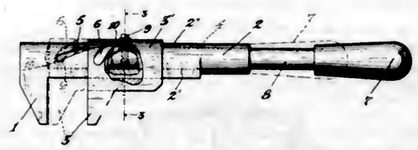
1,136,322. FEEDING DEVICE. ALBERT ENSOR, Jersey City, N. J. Filed Feb. 16, 1914. Serial No. 818,904. (Cl. 119—68.)



1. A feeding device for use on vehicles comprising brackets attached to the sides of the pole of a vehicle in alinement with each other, each bracket having a vertically disposed socket polygonal in cross section, a supporting bar provided at one end with a threaded socket, a polygonal pin threaded at one end and adjustably engaging the threaded socket, said polygonal pins adapted to fit in the brackets, a bearing at the outer end of the said bar, and a feed receptacle provided at its bottom with a shank adjustably engaging said bearing.

2. A feeding device for use on a vehicle comprising brackets attached to the sides of the pole of a vehicle in alinement with each other, each bracket having a vertically disposed socket polygonal in cross section, a supporting bar provided at one end with an internally threaded elbow, a pin threaded at its upper end into said elbow and polygonal at its lower end, a T head bearing at the outer end of the said bar, a feed receptacle provided at its bottom with a shank adjustably engaging the said bearing, and a set screw on the bearing for removably and adjustably holding the shank in place.

1,136,323. WRENCH. CHARLES W. EPPERSON, Seattle, Wash., assignor to Allen M. Cheshire, Seattle, Wash. Filed June 8, 1914. Serial No. 843,871. (Cl. 81—129.)



1. A wrench comprising a fixed jaw having a hollow shank formed with an inclined slot, a movable jaw mounted on the shank of the fixed jaw and formed with a slot, a manipulative handle operable in the hollow shank, and a pin carried by the handle and operating in the slots of the jaws.

2. A wrench comprising a fixed jaw having a hollow shank formed with an inclined slot, a movable jaw mounted on the shank of the fixed jaw and formed with a slot, a manipulative handle operable in the hollow shank, a pin carried by the handle and operating in the slots of the jaws, and a shoe mounted on the pin and operable in the slot of the movable jaw.

3. A wrench comprising separable jaws, one slidable on the other and each provided with a cut-out arranged to cross the cut-out of the companion jaw, manipulative means rotatably mounted, and a pin carried by the manipulative means and operable in the cut-outs of the jaws for moving the latter toward and from one another.

1,136,324. SWITCH-BOX. CHARLES A. ERICHSON, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Mar. 12, 1914. Serial No. 824,189. (Cl. 175—282.)



1. The combination of a switch box, a cover plate for the same, cover plate locking means carried by the cover plate and adapted to engage a keeper on the box for locking the cover plate to the box, a switch, key actuated means for throwing the switch and key actuated means for locking means the switch throwing means and also for shifting the cover plate locking means.

2. The combination of a switch box and switch, switch actuating and locking means, a cover plate having a plurality of key openings and means forming a part of the

switch locking means adapted by its position in rear of the key openings to indicate whether the switch is locked.

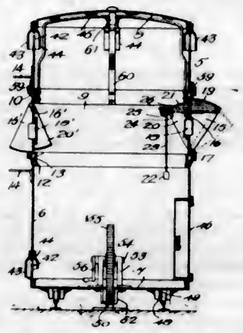
3. The combination of a switch box and switch, switch actuating and locking means, a cover plate having a plurality of key openings and means forming a part of the switch locking means adapted, when the switch is locked, to obstruct one key opening, and when the switch is unlocked, to obstruct another of said key openings.

4. The combination of a switch box, a switch, switch actuating and locking means, a cover plate having a plurality of key slots, a key guide common to all of said slots and means forming a part of said switch locking means, and adapted when in one position to obstruct one of said key openings and when in its other position to obstruct another of said openings.

5. The combination of a switch box, a switch, switch actuating and locking means, a cover plate having a plurality of connected openings for a key, two of said key openings being for the passage of the key to the switch locking means and the other for the passage of the key to the switch actuating means.

[Claims 6 to 10 not printed in the Gazette.]

1,136,325. PROTECTIVE TURRET. RUFUS B. EVERETT, Memphis, Tenn. Filed Apr. 14, 1914. Serial No. 831,721. (Cl. 61—55.)



1. A protective turret including an upper and lower cylindrical section, said upper section being provided with a top, and said lower section with a bottom, an intermediate section in the form of a ring of a diameter equal to the diameter of the upper and lower sections, said ring being rotatably positioned relative to said upper and lower sections, a flat door hinged at its lower edge within an opening provided in the ring, a guard projecting outwardly from said ring and partially inclosing the door opening, said guard comprising substantially triangular shaped side pieces and a transversely curved top piece connecting said side pieces at their upper edges, a second guard projecting inwardly from said door and comprising substantially triangular shaped side pieces secured to the side edges of the door, last said side pieces connected by a second transversely curved top piece, said second guard adapted to slide within the first guard when the door is swung upon its hinges, a weight for counterbalancing the weight of said door, said door being movable in a plane at right angles to the plane of movement of the ring, a gun rest positioned vertically within an opening in said door and revoluble in a plane at right angles to the plane of movement of the door, said turret provided with braces connecting the upper and lower sections, said braces intermediate their ends being disposed in spaced relation to said ring whereby to allow clearance of first said guard, said upper and lower sections provided with ventilating openings, shields positioned over said openings within and without said turret and adapted to prevent the entrance of bullets through the ventilating openings, a door for allowing entrance and exit to said turret, and means for positioning said turret whereby it may be bodily moved upon a support.

2. A protective turret including an upper and lower section, a ring disposed between them and rotatable relative to the upper and lower sections, a door pivoted within an opening in said ring and movable in a plane at right angles to the plane of movement of the ring, guards provided on said ring and door and adapted to coact to close the openings occurring between said door and ring when the former is swung outwardly upon its pivot pin, and a gun-rest within an opening in said door, said gun-rest including a cylindrical member, having a removable circular cap, said cap and cylindrical member provided with stems, plates on which said stems are mounted, said plates adapted to be secured to said door for positioning said gun-rest thereon, said gun-rest provided with an opening therein for receiving the barrel of a gun and provided with a recess above said opening, a glass block positioned within said recess, a grating positioned within said recess to the front and rear of said block to protect the same, a plate, a set screw threaded into said gun-rest below the opening therein, on which said plate is pivoted, said plate adapted to be turned into position to cover said opening.

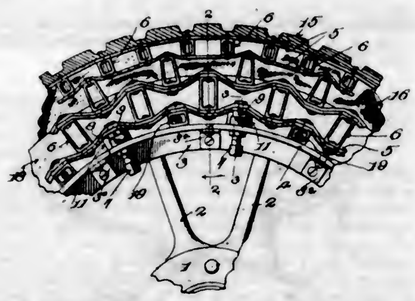
3. A protective turret including an upper and lower cylindrical section, a ring rotatably positioned between said sections, a door pivoted in an opening in said ring, guards for closing the openings occurring between said door and ring when the former is swung outwardly upon its pivot, a gun-rest rotatably positioned in an opening in said door, means for counterbalancing the weight of said door, means for ventilating said turret, a track, wheels carried by said turret for mounting the same upon said track, a rack bar, a keeper embracing said rack bar and secured to said turret, a cog wheel positioned in said turret and extending through an opening therein to engage said rack bar, and a crank handle for rotating said cog wheel.

4. A protective turret including an upper and lower section, a ring rotatably positioned between them, a door pivoted in said ring, means for closing the openings occurring between said door and ring, when the former is swung on its pivot, a gun-rest pivoted in said door and revoluble in a plane at right angles to the plane of movement of the door, said door movable in a plane at right angles to the plane of movement of the ring.

5. A protective turret including a ring, a door pivoted thereon, and a gun-rest pivoted in said door, said gun-rest comprising a cylinder having an opening therein for receiving the barrel of a gun, a transparent element positioned in a recess in the cylinder above the gun opening, and means for protecting the transparent element.

[Claims 6 to 11 not printed in the Gazette.]

1,136,326. CUSHIONING DEVICE FOR TIRES. ETHELBERT FAVARY, Boston, Mass. Filed Sept. 3, 1909. Serial No. 516,063. (Cl. 152—8.)



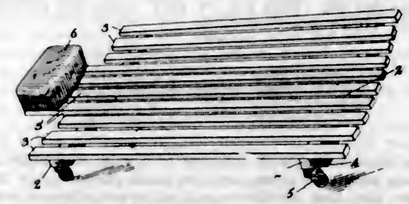
1. A resilient deformable tire comprising a rigid rim supporting a deformable and in itself flabby mechanical structure of practically non-elastic and non-springy positively connected component parts, and a tension band holding said structure in tension to render it resilient.

2. A resilient deformable tire comprising a rigid rim supporting a deformable and in itself flabby mechanical structure of practically non-elastic and non-springy positively connected component parts, a tension band holding said structure in tension to render it resilient and means for varying the tension of said tire.

3. A resilient deformable tire comprising a rigid rim supporting a deformable and in itself flabby structure of practically non-elastic and non-springy tension and compression members, the tension members being fastened to the compression members, and a tension band holding said structure in tension to render it resilient.

4. The combination with a wheel having a rigid felly, of a tire comprising a plurality of concentric pliable bands, rigid supports interposed between said bands and fastened thereto, and outwardly tensioned anchorages upon said felly positively engaging the innermost of said bands intermediate the supports fastened thereto and holding all of said bands except the outermost distended in zig zag formation against said outermost band; substantially as described.

1,136,327. REPAIRMAN'S TRUCK. FRANK A. FRENCH, Pittsburgh, Pa. Filed Oct. 24, 1911. Serial No. 656,551. (Cl. 5—4.)

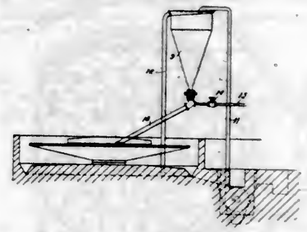


1. A repairman's truck adapted to receive the repairman and his repair tools in a manner to permit the repairman to position the truck and its contents within a low space with the repairman free to operate within said space, said truck comprising a rigid frame composed of supporting cross-pieces having their top surfaces formed with substantially flat end portions and curved downwardly between such end portions, longitudinal slats spaced apart and secured to the flat and curved surfaces of the cross pieces and providing a slotted supporting surface following the configuration of the cross-pieces, the slats at opposite sides of the slat-formed surface being of equal length and the intermediate slats projecting at one end beyond the slats of equal length, a head-rest supported by the extended ends of the intermediate slats, and casters positioned adjacent the ends of and depending from the cross-pieces.

2. A repairman's truck adapted to receive the repairman and his repair tools in a manner to permit the repairman to position the truck and its contents within a low space with the repairman free to operate within said space, said truck comprising a rigid frame composed of cross pieces having their top faces formed with relatively flat ends and with the intermediate portion curved downwardly, the ends of said pieces being undercut to provide recesses at their under sides, casters mounted in the recesses and supporting the bottom edges of said pieces clear of the floor, longitudinal pieces secured to the flat and curved top edges of the cross pieces and forming a top surface which is intermediately curved complementary with the cross pieces, and a head rest.

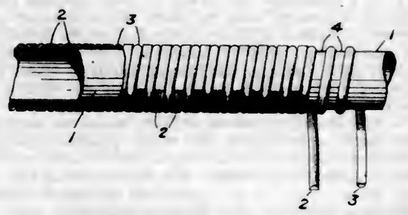
1,136,328. PROCESS OF SUPPLYING ABRASIVE TO GLASS-GRINDING APPARATUS. WILLIAM J. GOLIGHTLY, Kokomo, Ind., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 13, 1911. Serial No. 632,979. (Cl. 51—11.)

1. The process of supplying abrasive to glass grinding apparatus which consists in conducting the drainage from the grinding apparatus and including a mixture of water with all the utilizable grades of abrasive directly to the upper portion of a settling receptacle, eliminating the surplus water and finer abrasive from the upper portion of the receptacle permitting the coarser abrasive to settle into the lower portion of the receptacle, and forcing out such coarser abrasive to the grinding apparatus by the application of fluid under pressure to the lower portion of the receptacle.



2. The method of supplying abrasive to grinding mechanism, which consists in conducting the drainage containing the coarsest grades of abrasive directly from the grinding mechanism to a single settling receptacle, settling the mixture of water and abrasive in the receptacle to a consistency thicker than that which is required in the grinding operation, supplying the mixture from the lower portion of the receptacle to the grinding mechanism, and adding more water to the mixture as it leaves the receptacle to dilute it to proper consistency during the step of supplying the mixture to the grinding mechanism.

1,136,329. METAL-COVERED HOSE. HOWARD W. GOODALL, Aldan, Pa. Filed Nov. 8, 1913. Serial No. 799,987. (Cl. 137—90.)



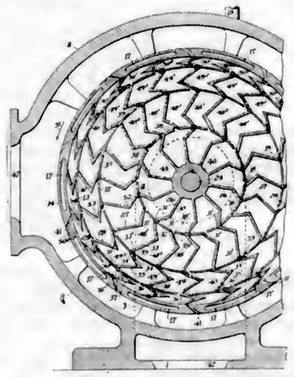
A metal covered hose tube comprising the combination of a tube and a pair of substantially half round wires disposed one with its flat face and the other with its round face toward the surface of the hose tube said round and flat faces being flush and each in contact with the hose tube and each arranged around the tube in the form of a spiral having a pitch substantially equal to the width of the flat face of the other, substantially as described.

1,136,330. MULTISTAGE CENTRIFUGAL BLOWER. THOMAS W. GREEN, Philadelphia, Pa. Filed June 6, 1914. Serial No. 843,340. (Cl. 230—11.)

1. In a centrifugal air blower, a shaft, a web rotatable about the shaft, a plurality of concentric, successively-inclosing partitions extending toward the web and of general cylindrical form, interrupted at intervals by ports, a casing surrounding the partitions, a support for the partitions closing the ends of the casing and a plurality of sets of blades carried by the web, one set of blades projecting between each adjoining pair of partitions and having a greater number of blades than there are ports in the adjoining partition.

2. In a centrifugal air blower, a shaft, a web rotatable about the shaft, a plurality of concentric partitions extending toward the web and of generally cylindrical form, provided with ports at intervals, a support for the parti-

tions closing the space between them and a plurality of sets of blades carried by the web to fit between adjoining partitions to form chambers in a circumferential line communicating with chambers interior and exterior radially thereto respectively and sloped to close against air communication in an outer direction radially while receiving air from the interior.



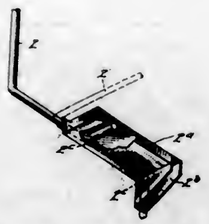
3. In a centrifugal air blower, a shaft carrying a web, a support, partitions of generally cylindrical form provided with ports, mounted upon the support, blades mounted upon the web to fit between the partitions and adapted to form chambers between the adjoining blades, bounded upon the outside and the inside by the partitions, each chamber communicating with a port upon the inside when closed against communication with a port upon the outside radially and vice versa.

4. In a centrifugal air blower, a shaft, bearings therefor, a web mounted upon the shaft, blades mounted upon the web in annular series and extending axially therefrom, an end casing member, cylindrical partitions secured thereto fitting between the annular series of blades and provided with ports in number half of the number of blades in the adjoining annular set.

5. In a centrifugal blower, a shaft, means for mounting the shaft, a web upon the shaft, oppositely-directed, axially-extending, concentric sets of blower blades upon the web, a generally cylindrical casing surrounding the web and blades, ends for the casing and concentric, axially-extending partitions upon the ends adapted to enter between and coöperate with the sets of blades.

[Claims 6 to 10 not printed in the Gazette.]

1,136,331. COMBINATION-RETAINER. FRANK HARDING, San Diego, Cal. Filed June 13, 1912. Serial No. 703,413. (Cl. 155—26.)



1. In a device of the class described the combination of a rectangularly shaped box, a rod with a loop in one end and with a short end in its other end reciprocally mounted in said box adapted to be shifted therein to a position at right angles when in certain relative positions by reason of a slot in one end of said box.

2. In a device of the class described the combination of a rectangularly shaped box, provided with a slot in its one end, adapted to be secured to the back of a seat, a rod with a loop in one end adapted for a hat and with a short bend in its end and a right angled bend intermediate thereto reciprocally mounted in said box so that the short bend in the end thereof may extend out through said slot and allow said rod to be turned at right angles in said box when in certain position therein.

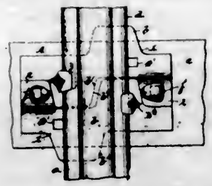
3. In a device of the class described the combination of a rectangularly shaped box inclosed throughout, adapted to be attached to the back of a seat with a right angled extension on one end thereof with its side open and a rod with one end reciprocally mounted therein provided with a short right angled bend adapted to be held in certain position except when shifted to the end with the right angled bend, then it may be turned at right angles thereto, a loop adapted for a hat in its other end and a right angled bend intermediate between said loop and said short bend.

1,136,332. STEERING MECHANISM FOR SHIPS. GUSTAV A. HEINZE, Redland, Fla., assignor of one-eighth to Frank L. Bernecker and one-eighth to Herman Rutzke, Redland, Fla. Filed Feb. 11, 1914. Serial No. 818,160. (Cl. 114—163.)



In combination with the body of a ship, of a steering means positioned at the bow and stern thereof below the water line, each of said steering means comprising spaced vertically alined rods operatively connected with the body and terminating at a point forwardly thereof, a vertically disposed rudder shaft rotatably supported by the free extremities of the rods, means for imparting axial rotation to the rudder shaft, and a rudder plate carried by the shaft and disposed between the rods, said rods being of such a length as to position the rudder plate substantially entirely in advance of the body, the free ends of the rudder plates being forwardly directed.

1,136,333. TIE-PLATE. LEWIS O. HENGGI, Oakmont, Pa. Filed Aug. 25, 1914. Serial No. 858,510. (Cl. 238—2.)



1. A tie-plate for railway rails, comprising two plates for fitting between the rail flange and tie, said plates interfitting with each other by a raised portion at one end of each plate fitting over the end of the other plate, each plate having a portion extending past the corresponding portion of the other plate, thereby to form a break-joint, said plates being provided with spike holes therein, and lug portions on said plates for engaging with the rail flange to form a clamping connection therewith when the plates are moved on each other by driving the spikes through said holes into the tie.

2. A tie-plate for railway rails, comprising two plates for fitting between the rail flange and tie, said plates interfitting with each other by being seated within each other and each plate having a portion extending past the corresponding portion of the other plate, thereby to form a break-joint, said plates being provided with spike holes therein, and lug portions on said plates for engaging with the rail flange to form a clamping connection therewith when the plates are moved on each other by driving the spikes through said holes into the tie.

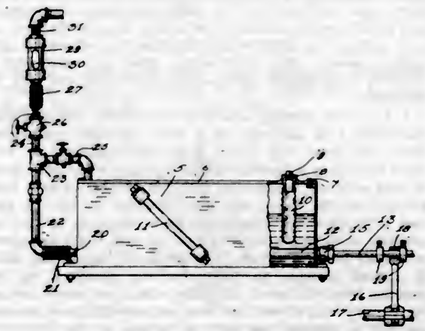
3. A tie-plate for railway rails, comprising two plates for fitting between the rail flange and tie, said plates interfitting with each other by a raised portion at one end of each plate fitting over the end of the other plate, each plate having a portion extending past the corresponding portion of the other plate, thereby to form a break-joint, said plates being provided with spike holes therein, and lug portions on said plates each having a hook portion thereon for fitting over the rail flange to form a clamping connection therewith when the seats are moved on each other by driving the spikes through said holes into the tie.

4. A tie-plate for railway rails, comprising two plates for fitting between the rail flange and tie, said plates interfitting with each other by being seated within each other and each plate having a portion extending past the corresponding portion of the other plate, thereby to form a break-joint, said plates being provided with spike holes therein, and lug portions on said plates each having a hook portion thereon and provided with a tapered under face for fitting over and engaging with the tapered upper face of the rail flange to form a clamping and wedging connection therewith when the plates are moved on each other by driving the spikes through said holes into the tie.

5. A tie-plate for railway rails, comprising two plates for fitting between the rail flange and tie, said plates interfitting with each other by a raised portion at one end of each plate fitting over the end of the other plate, each plate having a portion extending past the corresponding portion of the other plate, thereby to form a break-joint, said plates being provided with spike holes therein, and lug portions on said plates each having a hook portion thereon and provided with a tapered under face for fitting over and engaging with the tapered upper face of the rail flange to form a clamping and wedging connection therewith when the plates are moved on each other by driving the spikes through said holes into the tie.

[Claims 6 to 17 not printed in the Gazette.]

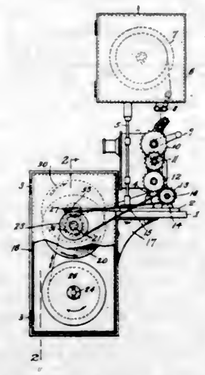
1,136,334. LUBRICATOR-PUMP. JOHN P. HERMAN, Edmonds, Wash. Filed Jan. 17, 1914. Serial No. 812,639. (Cl. 184—27.)



1. In a lubricating pump, a receptacle, a tube arranged adjacent the bottom thereof, a distributing pipe connected to one end of said tube, an elongated piston within said tube, a plurality of diametrical slots in said tube extending through a substantial portion of the piston stroke within said tube adapted to provide a gradual increase in pressure in the tube, and to permit the oil to gradually escape through said slots until the same are closed by the piston.

2. In a lubricating pump, a receptacle, a tube arranged adjacent the bottom thereof, a distributing pipe connected to one end of said tube, a piston in said tube, and slots in said tube adjacent the extreme movement of the piston in one direction to afford a gradual increase in pressure in said tube when the piston moves in a forward direction, thereby to permit the oil to gradually escape through said slots until the same are closed by the piston.

1,136,335. FILM-WINDER. ARTHUR F. HETHERINGTON, Franklin township, Somerset county, N. J. Filed Nov. 28, 1914. Serial No. 874,364. (Cl. 242—55.)



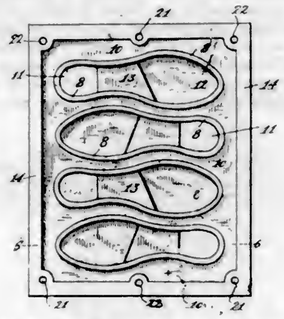
1. In a film-reversing device, the combination of film-forwarding devices, a casing supported closely adjacent thereto to which the film is forwarded, a spindle in the casing driven from the forwarding devices, a second rotary spindle in the casing, a reel thereon, an idle spindle in the casing, a reel thereon, from which film may be rewound on the reel carried by the second spindle, and connections between the first spindle and the second spindle from driving the same, said connections including means for driving the second spindle at a higher speed than the first spindle.

2. In a film-reversing device, the combination of film-forwarding devices, a casing supported closely adjacent thereto to which the film is forwarded, a spindle in the casing driven from the forwarding devices, a second rotary spindle in the casing, a reel thereon, an idle spindle in the casing carrying a reel from which film is adapted to be wound on the reel on the second spindle, and gearing between the first and second spindles proportioned to permit the second spindle to be driven at a higher rate of speed than the first spindle.

3. In a film-reversing device, the combination of film-forwarding devices, a casing supported closely adjacent thereto to which the film is forwarded, a spindle in the casing driven from the forwarding devices, a second rotary spindle in the casing, a reel thereon, an idle spindle in the casing carrying the reel from which film is adapted to be wound on the reel on the second spindle, a slip gear on the first spindle, and a smaller slip gear on the second spindle meshing therewith to cause the second spindle to be driven at a higher rate of speed than the first spindle.

4. In a film-reversing device, the combination with means for forwarding an exhibited film, of a reel to which the film is forwarded, reel rotating means therefor operated from the film-forwarding means, a second rotatably mounted reel, an idle spindle carrying a reel from which film may be rewound on the second reel while an exhibited film is being received on the first reel, and connections for rotating the second reel from the first reel rotating means at a higher speed than the first reel.

1,136,336. COMBINATION GANG SOLE-MOLD. CHARLES H. HILL, Lynn, Mass. Filed Apr. 13, 1914. Serial No. 831,663. (Cl. 18—34.)



1. A gang sole mold, comprising a series of sole forms formed in a single plate, said forms embodying heel cavities formed entirely through the plate, and an integral depressed web connection between and around the several forms.

2. A gang sole mold, comprising a series of sole forms formed in a single plate, said forms embodying heel cavities formed entirely through the plate and contour frames, and an integral depressed web connection between and around the several forms.

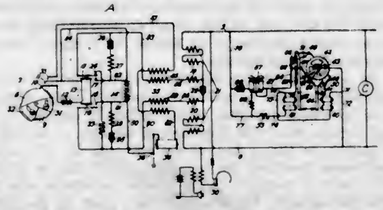
3. A gang mold, comprising a series of sole forms each having a contour frame which is connected to the adjacent frame by a depressed web, a peripheral frame of the same height of the contour frames, and bottom and top plates removably connected to said peripheral frame.

4. A gang sole mold, comprising a series of sole forms formed in a single plate, said forms embodying heel cavities formed entirely through the plate and depressed sole portions, and an integral depressed web connection between and around the several forms.

5. A gang sole mold, comprising a series of sole forms formed in a single plate, said forms embodying heel cavities formed entirely through the plate, a depressed sole portion, and a shank portion thicker than said sole portion, and an integral depressed web connection between and around the several forms.

[Claims 6 to 11 not printed in the Gazette.]

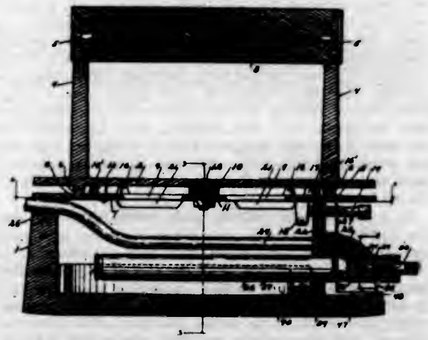
1,136,337. SELECTIVE SIGNALING SYSTEM. RALPH N. HILL, Bloomfield, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 15, 1913. Serial No. 795,175. (Cl. 177—342.)



1. In a selective signaling system, line wires having a sending station and a waystation connected therewith, a sending key at said sending station, a selector at said waystation controlled by said sending key, an alternating current bell at said waystation, and a local circuit at said sending station including an interrupter, a battery and a normally open contact on said sending key, said sending key in its operation closing said normally open contact and causing interrupted current in said local circuit to be associated with said line wires for operating said alternating current bell.

2. In a selective signaling system, line wires having a sending station and a waystation connected therewith, a sending key at said sending station, a selector at said waystation controlled by said sending key, an alternating current bell at said waystation, a local circuit at said sending station including an interrupter, an induction coil primary and battery, and means controlled by said sending key for closing said local circuit whereby superposed current is associated with said line wire for operating said alternating current bell.

1,136,338. SELF-HEATING SAD-IRON. GEORGE B. HUDSON and WILLIAM P. BOPE, Decatur, Mich. Continuation in part of application Serial No. 697,116, filed May 14, 1912. This application filed Dec. 29, 1913. Serial No. 809,159. Renewed Mar. 15, 1915. Serial No. 14,505. (Cl. 158—23.2.)



1. In a self heating sad-iron and heater, the combination with a tubular burner, of a needle valve casing for said burner, with a reduced tapered nozzle aperture and a shouldered valve seat; and a needle valve with a needle point conformed to said nozzle aperture and flattened at its sides, and shouldered to fit said shouldered valve seat, the said nozzle disposed to deliver to said tubular burner, all coacting as specified.

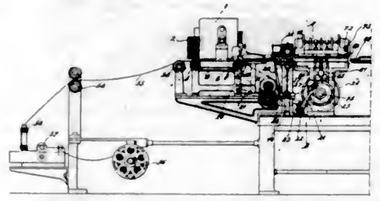
2. In a self heating sad-iron and heater, the combination with a tubular burner, of a needle valve casing for said burner, with a reduced tapered nozzle aperture and a shouldered valve seat; and a needle valve with a needle point conformed to said nozzle aperture, flattened at its sides, and shouldered to fit said shouldered valve seat, said needle point normally projecting beyond the face of said casing, the said nozzle disposed to deliver to said tubular burner, said valve casing being provided with a chamber surrounding said needle valve, all coacting as specified.

3. In a self heating sad-iron and heater, the combination with said sad-iron, of a cover therefor comprising inner and outer top plates, a handle supported on said outer top plate, upwardly extending lugs on the side walls of said sad-iron, rearwardly directed notches in said lugs, notches in the inner top plate adapted to receive said lugs with the edges of said top plate engaging in said lug notches, upwardly extending lugs on said inner top plate, said lugs being adapted to support the upper top plate in spaced relation to the inner top plate, a lug depending from the inner top plate, and a set screw carried by the rear wall of said sad-iron and engaging said depending lug to prevent rearward movemen. of the inner top plate, all coacting as specified.

4. In a self-heating sad-iron, a pair of removable heat deflecting members curved in conformity with the curvature of the sad-iron and adapted to be disposed in the base thereof, said members carrying deflecting flanges on the upper edge thereof, the ends of said members being adapted to engage each other, all coacting substantially as described for the purpose specified.

5. In a self heating sad-iron, a burner support slidably mounted in the rear wall of said sad-iron, a burner and valve casing carried by said support, a starting reservoir in the base of said sad-iron beneath said burner head, and a pair of heat deflecting members disposed in the base of said sad-iron and having their ends nearest the valve casing, notched, all coacting as specified.

1,136,339. BOX-MAKING MACHINE. EMIL JAGENBERG, Dusseldorf, Germany. Filed Sept. 3, 1914. Serial No. 860,001. (Cl. 93—36.)



1. In a box-making machine, a paper-strip feeding band, means for operating said band, a pair of feed rollers, a feeler interposed between said rollers, means actuated by the feeler for arresting the band operating means, a table adapted to receive the paper strip, a bar, a slide for shifting the strip from the table to the bar, means for feeding a second paper strip to the bar, means for gumming said second strip, and means for folding said second strip around one edge of the first named strip.

2. In a box-making machine, a paper strip feeding band, means for actuating said band, walls between which the strip is adapted to enter, a bar, means for advancing said strip onto said bar, means for feeding a second paper strip to the bar, means for gumming said second strip, means for lifting the bar, a vertically movable folder located sidewise of the bar, and adapted to turn upward a projecting end of the second strip, and a second folder adapted to fold said end over the first-named strip.

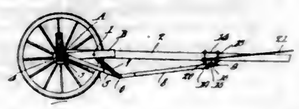
3. In a box-making machine, a paper strip feeding band, means for actuating said band, walls between which the strip is adapted to enter, a bar, means for advancing said strip onto said bar, means for feeding a second strip to the bar, means for gumming said second strip, means for folding the second strip around one edge of the first named strip to form a compound strip, grippers for drawing the compound strip off said bar, shears for cutting the compound strip and means for holding the compound strip during the cutting operation.

1,136,340. ATTACHMENT FOR WINDOW-SHADES. SAMUEL JASGUR, Brooklyn, N. Y. Filed Apr. 8, 1914. Serial No. 830,352. (Cl. 156—23.)



In an attachment for roller window shades comprising means to create air passages at the sides and top or at the sides only of the shade when unrolled, a frame comprising an extensible horizontal bar, the two ends of which are bent at substantially a right angle to said bar, said bent ends being provided at points near said bar with fixtures for holding a shade roller, means for pivotally attaching said frame to the sides of the window casing, and means for raising and lowering said frame; a second frame likewise consisting of an extensible horizontal bar provided with end portions bent at right angles to said bar, and means for raising and lowering said second frame; stops for limiting the movements of both said first and second frames, when the said frames assume a substantially horizontal position, the length of the side portions of said second frame being sufficiently less than the length of the corresponding portions of said first frame as to provide space for said curtain roller between the two bars of said two frames, both said frames being mounted upon one and the same pair of pivots, substantially as described.

1,136,341. TONGUE-SUPPORTER. JIM JENSEN, Elk Horn, Iowa. Filed Sept. 24, 1914. Serial No. 863,335. (Cl. 21—63.)



1. A tongue supporter for vehicles, including pivotally mounted yieldingly supported members, a strip pivotally connected to said members and having an arm at its free end and a finger overhanging the arm, said finger and arm coöperating to form a seat, a tongue pivotally mounted above the strip, means connected to the tongue for loosely supporting the strip, means carried by the tongue for engaging the seat to transfer a portion of the weight of the tongue through said strip to the yieldingly supported element, and means carried by and movable relative to the tongue for lifting the strip to position its seat for engagement by said last mentioned means.

2. The combination with a pivotally supported tongue, and a yieldingly supported pivoted element thereunder, of a supporting strip pivotally connected to said element and having an arm and a finger overhanging the arm, said finger and arm coöperating to form a seat, means connected to the vehicle tongue for supporting said strip adjacent thereto, means supported by the tongue for engagement with the seat on the supporting strip, and means carried by and movable relative to the tongue for shifting the supporting strip relative to the tongue to position its seat for engagement by said seat engaging means.

3. The combination with a pivotally mounted vehicle tongue, and a yieldingly supported pivoted element extending thereunder, of a supporting strip beneath the tongue and pivotally connected to said element, said strip having a seat, means connected to the vehicle tongue for supporting the strip from the tongue, means carried by and movable relative to the tongue for lifting the strip off of the supporting means when the tongue is raised, and means supported by the vehicle tongue for engagement with the seat of the raised strip when the tongue is lowered, thereby to transmit a portion of the weight of the tongue to the yieldingly supported element.

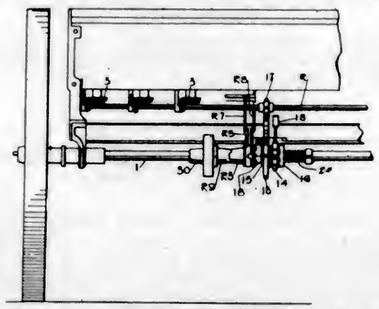
4. The combination with a pivotally mounted vehicle tongue, a yieldingly supported pivoted element extending under the tongue, and a strip pivotally connected to said element and having a seat adjacent its free end, means supported by the tongue for supporting said strip from the tongue, means carried by and movable relative to the tongue operated from a point remote from the strip for lifting said strip off of its supporting means when the tongue is raised, and means supported by the tongue for engaging the seat of the raised strip thereby to transmit a portion of the weight of the tongue to the yieldingly supported element.

5. The combination with a pivotally mounted vehicle tongue, a yieldingly supported pivoted element extending thereunder, and a strip pivotally connected to said element and having a forwardly extending arm and a finger overhanging the arm, said finger and arm coöperating to form a seat, of side members depending from the vehicle tongue, a supporting bolt connecting said members and

holding the strip constantly assembled with the vehicle tongue, means connected to said side members for lifting the strip off the supporting means, and means connecting the side members for entering the seat of the lifted strip when the tongue is lowered.

[Claim 6 not printed in the Gazette.]

1,136,342. TRANSMISSION-GEAR. ANDREW JOHNSTON, deceased, Toronto, Ontario, Canada, by Lydia Ann Johnston, executrix, Toronto, Ontario, Canada, assignor to Massey-Harris Company, Limited, Toronto, Canada. Filed Dec. 11, 1913. Serial No. 806,033. (Cl. 74—31.)



1. In transmission gearing, the combination of a driveshaft including a transmission sleeve having an inwardly facing clutch member at either end; two connected loose sprocket wheels of different size movable lengthwise of said sleeve and provided with clutch members engageable with the clutch members of the sleeve; two retainers hinged on a stationary part and adapted to be swung down to fit between adjacent clutch members of the sleeve and sprockets; a shaft and a sprocket wheel on said shaft into alinement with which either of the aforesaid sprocket wheels may be brought by shifting them as aforesaid.

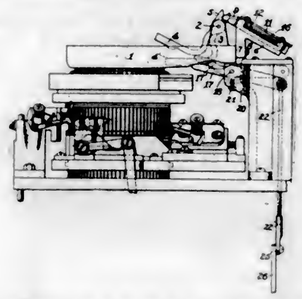
2. In transmission gearing, the combination of a driveshaft including a transmission sleeve having an inwardly facing clutch member at either end; two connected loose sprocket wheels of different size movable lengthwise of said sleeve and provided with clutch members engageable with the clutch members of the sleeve; a spindle carried by a stationary part; two retainers provided with hubs journaled on said spindle and adapted to be swung down to fit between adjacent clutch members of the sleeve and sprockets; a stationary part at each end of the spindle adjacent said hubs; a coil spring between the hubs, said hubs and stationary parts having complementary projections and depressions whereby the retainers may be yieldingly held up or down; a shaft and a sprocket wheel on said shaft into alinement with which either of the aforesaid sprocket wheels may be brought by shifting them as aforesaid.

1,136,343. YARN-FINGER MECHANISM FOR KNITTING-MACHINES. FRANK E. JONES, Pawtucket, R. I., assignor to Hemphill Manufacturing Company, Pawtucket, R. I. Filed June 4, 1914. Serial No. 843,051. (Cl. 66—12.)

1. In combination a series of pivoted yarn fingers having tail portions on the opposite side of the pivots from their main portion, lifting means therefor, a series of plungers bearing upon the tail portions of the yarn fingers, and springs for operating the plungers, said lifting means being independent of the plungers and compression springs, substantially as described.

2. In combination a series of pivoted yarn fingers having tail portions, lifting means therefor, a series of plungers bearing upon the tail portions of the yarn fingers, springs for operating the plungers, and supporting means carrying the plungers and springs and constituting therewith a unit detachably secured to the machine, substantially as described.

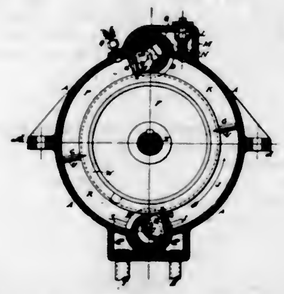
3. In combination a series of pivoted yarn fingers having upwardly extending tail portions on the opposite side of their pivots from their main portions, lifting means, a series of plungers slidably mounted in inclined position and bearing on the said tail portions, and springs acting on the plungers, said lifting means acting on the main portions of the yarn fingers and independent of the plungers and compression springs, substantially as described.



4. In combination a series of pivoted yarn fingers, lifting means therefor, a series of plungers, a box carrying said plungers and having guideways therefor, and pockets for springs, springs in said pockets, said plungers having recesses in which the springs are located with one end bearing on the bottom of the pocket and the other end bearing on the plunger, said plunger projecting into engagement with the tail portions of the yarn fingers, substantially as described.

5. In combination yarn fingers having tail portions and pivotally mounted, a series of slidable plungers, a box arranged in inclined position and having guides for the plungers, springs pocketed in the box and engaging the plungers to force them against the tail pieces of the yarn fingers, said box, together with the plungers and springs, constituting one unit detachably mounted on the machine, substantially as described.

1,136,344. ROTARY ENGINE. LEWIS E. KEIL, St. Paul, Minn. Filed Nov. 6, 1911. Serial No. 658,767. (Cl. 123—13.)



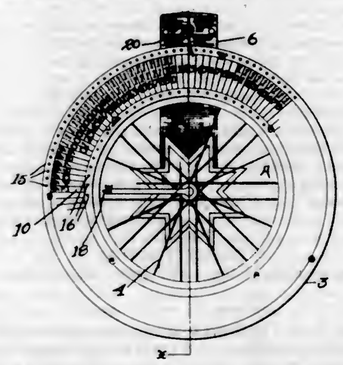
1. A rotary engine, comprising, in combination, a casing, a rotor coöperating with said casing to form an annular passage and having an impelling element adapted to revolve in said passage, abutments movable to intercept said passage, a valved compression chamber communicating with said passage through one of said abutments and adapted to transfer a compressed charge of impelling medium from in front of an impelling element to the back side of an impelling element in position to urge an impelling element forward, and means for igniting a charge of fuel after it has been transferred to a position in which when ignited it is adapted to urge an impelling element forward, said casing being formed with ingress and egress ports for the admission of fuel and the exhaust of spent gases, said admission port being arranged to admit a fuel charge into said passage in position to be compressed by an impelling element.

2. A rotary engine, comprising, in combination, a casing forming an annular chamber, having fuel and exhaust ports, a rotor in said casing having impelling elements revoluble in said passage, rotary abutments adapted to intercept said passage and co-acting with said impelling elements to form compression and combustion chambers in said passage, a by-passage leading through one of said abutments and forming a communication between the compression and combustion chambers, means for revolving the abutment through which said communication is established in synchronism with the revolution of said rotor to intercept said communication after a compressed charge of fuel has been transferred into the combustion chamber and means for igniting the fuel charge after it has been transferred into the combustion chamber in position to urge an impelling element forward.

3. A rotary engine comprising, in combination, a casing, a rotor within said casing and forming therewith an annular chamber, a series of spaced impelling elements carried by said rotor and dividing the chamber into compartments, a compression chamber to receive the fluid from one compartment and to deliver it into another compartment, said compression chamber having an outlet passage, a rotating abutment having a passage therethrough and co-acting with the outlet passage in said compression chamber to time the delivery of the fluid from the compression chamber, means for igniting the delivered fluid, and an exhaust for the spent fluid.

4. A rotary engine comprising, in combination, a casing, a rotor within said casing and forming therewith an annular chamber, a series of impelling elements carried by said rotor and dividing the chamber into compartments, an inlet for admitting impelling fluid to said compartments, a compression chamber having an outlet passage, a rotating abutment provided with an opening therethrough and actuated by said rotor to intermittently aline the opening with the outlet passage in said compression chamber to time the delivery of the fluid therefrom, means for igniting the delivered fluid, and an exhaust for the spent fluid.

1,136,345. GAME APPARATUS. AUGUST J. KEMPIEN, St. Paul, Minn. Filed Feb. 28, 1914. Serial No. 821,803. (Cl. 46—56.)



1. Game apparatus, comprising, in combination, a wheel journaled to spin freely, a series of pins on said wheel concentric with the axis thereof, a wiper adapted to sweep over said pins and a ring detachably mounted upon the rim of said wheel having a series of numbers on each of its opposite faces whereby a plurality of games may be played by reversing said ring on said rim.

2. Game apparatus, comprising, in combination, a wheel journaled to spin freely, a series of pins on said wheel concentric with the axis thereof, a wiper arranged to sweep over said pins and a ring having symbols, said ring being detachably mounted on said wheel concentric to its axis and adjacent said pins whereby a plurality of games may be played by reversing said ring on said rim.

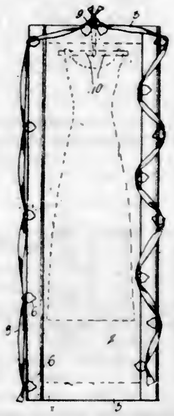
3. Game apparatus, comprising, in combination, a wheel journaled to revolve freely having a channel concentric with the axis of the wheel in its rim, a ring graduated into radiating spaces on each of its opposite faces and reversibly mounted in said channel, a plurality of pins spaced apart to correspond with the spaces on the opposite faces of said ring and arranged in circles concentric to the axis of said wheel, a pair of wipers movably mounted to co-act with said rings of pins, said wipers being adapted to be moved out of co-action with said pins.

4. A game apparatus, comprising, in combination, a wheel journaled to revolve freely, having a channel in its rim, a plurality of graduated rings mounted in said channel and changeably positioned so that a plurality of graduated spaces on any surface of said rings may be selectively disposed in outermost position, a plurality of pins arranged in a circle on said wheel concentric with the axis of said wheel and a wiper adapted to sweep over said pins and stop said wheel positively on any one of the graduated spaces appearing on the exposed surface of the outermost ring.

5. Game apparatus, comprising, in combination, a wheel journaled to revolve freely, having a channel in its rim, a plurality of graduated rings changeably mounted in said channel to expose any graduated surface on said rings, a pair of rings of pins evenly spaced apart and arranged concentric to the axis of said wheel and a pair of wipers adapted to co-act with said rings of pins, each of said wipers being freely mounted to move out of engagement with said pins.

[Claims 6 and 7 not printed in the Gazette.]

1,136,346. CLOTHES-PROTECTOR. AMOS B. KREBS, Bolivar, Pa. Filed Feb. 3, 1912. Serial No. 675,240. (Cl. 206—7.)

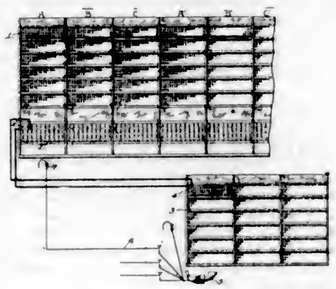


1. In a device of the character described, sections of material having their upper and lower ends secured together, the sides of said sections being folded to close the device, clasps engaging said folded portions, means connecting said clasps together, means connected to said last named means adapted to extend between said sections, and a coat hanger supported by said last named means for the purpose described.

2. In a device of the character described, sections of material having their upper and lower ends secured together the sides of said sections being folded to close the device, clasps engaging said folded portions, a ribbon

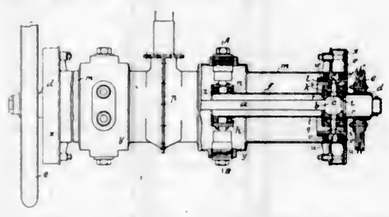
connecting said clasps together, a strip connected to said ribbon and extending between said sections, and a coat hanger supported by said strip for the purpose set forth.

1,136,347. TELEPHONE-EXCHANGE SWITCHBOARD. COLUMBUS O'DONNELL LEE, Jr., Baltimore, Md., assignor to Columbus O'Donnell Lee, Sr., Baltimore county, Md. Filed Jan. 7, 1914. Serial No. 810,708. (Cl. 179—52.)



The combination with a multiple telephone switchboard having answer signals which extend along the board without duplication over the horizontal length of a plurality of switchboard sections, of an auxiliary board for answer signals alone, one for each subscriber's line terminating in the multiple board, and operative connection between each subscriber's line and a corresponding answer signal on the auxiliary board, said signal on the auxiliary board corresponding in number and grouped in the same arrangement as the line jacks of a single section of the multiple board, the said auxiliary signals being thus so concentrated that a single operator at the auxiliary board may observe without change of position a number of answer signals requiring of an operator at the multiple board movement over a considerable distance and so grouped that an operator at the auxiliary board may note the number of the line jack required by observing the position of the auxiliary answer signal operated, in the same manner as an operator at the multiple board notes the number of a line jack.

1,136,348. AXLE FOR AUTOMOBILES. HERMANN LIECHTY, Berne, Switzerland. Filed Apr. 29, 1913. Serial No. 764,302. (Cl. 21—187.)

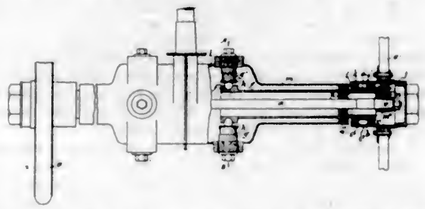


1. In an automobile, an axle, a wheel-spindle, a ball bearing between axle and spindle, a pivotal connection likewise between said axle and spindle, a tubular arm connected to the spindle and encompassing the axle, a relatively fixed member, and springs interposed between the tubular arm and members.

2. In an automobile, an axle, a wheel-spindle, a casing on said spindle, collars having spherical faces and interposed between said casing and axle, a tubular arm on said casing that encompasses the axle, a tubular shell encompassing the tubular arm, a plurality of springs carried by said shell, and a frame engaged by the springs and rotatably mounted on the tubular arm.

3. In an automobile, an axle having a ball near its outer end, a wheel spindle, a casing on said spindle, collars in the casing that engage the ball, a pin passing through the ball and engaging the casing, a tubular arm on the casing that encompasses the axle, a relatively fixed member, and springs interposed between the tubular arm and member.

1,136,349. AXLE FOR MOTOR-CARS. HERMANN LIECHTY, Berne, Switzerland. Filed Oct. 4, 1913. Serial No. 793,280. (Cl. 21—187.)



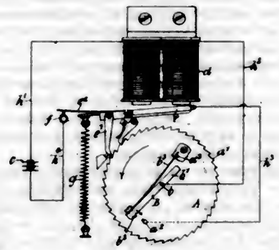
1. In a vehicle, an axle comprising, in combination with an axle casing, a tubular wheel axle supported, in a spherical bearing, at the end of the axle casing, and having arms one of which carries the wheel and the other one extends into the axle casing and terminates in a head bearing against helical springs arranged to absorb any shocks imparted to the wheel, a drive-axle passing through the tubular wheel axle and connected to the wheel by a flexible coupling device that permits the wheel to assume changeable positions relative to the drive-axle, substantially as set forth.

2. In a vehicle, an axle comprising, in combination with an axle casing, a tubular wheel axle supported, in a spherical bearing, at the end of the axle casing, and having two arms one of which carries the wheel and the other one extends into the axle casing and terminates in a head bearing against helical springs arranged to hold the head in a central position and to absorb upward and sidewise directed shocks, said springs being mounted in caps screwed into the widened axle casing and said springs containing caps having, toward the head of the wheel axle, smaller caps slidably fitted into them, which smaller caps are connected to plates provided with projections engaging into countersunk holes in the head of the wheel axle, substantially as set forth.

3. In a vehicle, an axle comprising, in combination with an axle casing, a tubular wheel axle supported, in a spherical bearing, at the end of the axle casing, and having two arms one of which extends into the axle casing and terminates in a head bearing against helical springs arranged to hold the head in a central position and the other arm carries, in ball bearings, the hub of the wheel to be driven, said hub being connected, by means of a flexible coupling device, to a false hub arranged inside the hub proper, said false hub being mounted, in such a manner as to insure a transmission of the rotation of the drive-axle, on a wheel seat into which the drive-axle terminates, while between the wheel axle and the drive-axle, that passes through the wheel axle, a ball bearing is inserted in line with the spherical bearing of the wheel axle, substantially as set forth.

1,136,350. ELECTRICALLY-DRIVEN CLOCK AND OTHER ELECTRICALLY-DRIVEN RUNNING MECHANISM. ROBERT MANN LOWNE, Catford, England. Filed Nov. 18, 1911. Serial No. 660,977. (Cl. 58—41.)

1. An intermittently-actuated electrically-driven mechanism comprising, in combination with a source of electricity, an electro-magnet, an electric-circuit which includes the winding of the magnet and a pivoted armature, contact carriers, a pursued and a pursuing electric-contact so secured to said carriers as to move in the same circular path, a spring mounted on the contact-carriers and so interposed between them as to urge the pursuing-contact, a time-expending device opposing the free advance of the pursuing-contact and means for advancing the pursued-contact by the displacement of the said armature; the arrangement being such that, when the pursued-contact is overtaken by the pursuer, pressure is exerted thereon in the direction of movement for a length of time only sufficient to energize the electro-magnet, the armature of which forthwith advances the pursued-contact and reinforces the energy in the spring carried therewith.



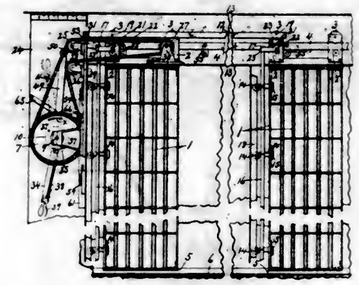
2. An intermittently-actuated electrically-driven mechanism comprising, in combination with a source of electricity, an electro-magnet, an electric-circuit which includes the winding of the magnet and a pivoted armature, contact carriers, a pursued and a pursuing electric-contact so secured to said carriers as to move in the same circular path, a spring mounted on the contact-carriers and so interposed between them as to urge the pursuing-contact, a time expending device opposing the free advance of the pursuing-contact, a second pair of contacts in the said circuit and means for advancing the pursued-contact by the displacement of the said armature; the arrangement being such that, when the pursued contact is overtaken by the pursuer, pressure is exerted thereon in the direction of movement for a length of time only sufficient to energize the electro-magnet, the armature of which separates the contacts of the said second pair, forthwith advances the pursued-contact and reinforces the energy in the spring carried therewith.

3. An intermittently-actuated electrically-driven mechanism comprising, in combination with a source of electricity, an electro-magnet, an electro-circuit which includes the winding of the magnet and a pivoted armature, contact carriers, a pursued and a pursuing electric-contact so secured to said carriers as to move in the same circular path, a spring mounted on the contact-carriers and so interposed between them as to urge the pursuing-contact, a time-expending device opposing the free advance of the pursuing-contact and a ratchet-wheel and spring-tipped pawl for silently advancing the pursued-contact by the displacement of the said armature; the arrangement being such that, when the pursued-contact is overtaken by the pursuer, pressure is exerted thereon in the direction of movement for a length of time only sufficient to energize the electro-magnet, the armature of which forthwith advances the pursued-contact and reinforces the energy in the spring carried therewith.

1,136,351. DOOR OPERATING AND LOCKING MECHANISM FOR JAILS. JAMES A. LOYSTER, Cazenovia, N. Y. Filed Oct. 20, 1910. Serial No. 588,028. (Cl. 189—7.)

1. In an apparatus of the class described, in combination with a plurality of doors, a rock shaft, means for rocking the shaft, disks, one for each door secured to the shaft, door-operating members journaled on the disks, separate connections between said members and their respective doors, and separate devices for locking and releasing said members to and from their respective disks whereby the doors may be operated simultaneously, individually or in groups of two or more.

2. In door operating and locking mechanism for jails, in combination with a plurality of doors, a rock shaft, a plurality of rotary coaxial members concentric with and rotatable independently about the axis of the shaft and each provided with a separate operating lever rigidly secured thereto, separate connections between said rotary members and doors, separate devices for locking each of said levers to the shaft, and means for rocking said shaft and thereby operating all of the levers which may be locked to the shaft.



3. In door operating and locking mechanism for jails, in combination with a sliding door, a rock shaft, a collar secured to the rock shaft and provided with notches in its periphery, a rotary member coaxial with and movable relatively to said collar and provided with a pawl movable into and out of engagement with said notches for locking and unlocking the rotary member to and from the collar, connections between said rotary member and door for imparting sliding motion to the latter by the rotation of said member, means for rotating said member when unlocked from the collar, and separate means for rotating the shaft when the rotary member is locked to or unlocked from the collar.

4. In door operating and locking mechanism for jails, in combination with a sliding door, a lock therefor, a supporting track for the door, a lock releasing bolt, a bolt operating member pivotally mounted upon the door, and means operatively connected to the bolt operating member for releasing the bolt and opening the door.

5. In combination with a sliding door, operating means therefor comprising an endless cable and supporting drums therefor, a lever secured to one of the drums for rotating the same to operate the cable, connections between one side of the cable and door for transmitting motion to said door, a relatively stationary disk coaxial with the lever operated drum and provided with notches in its periphery, and a pawl on the lever operated drum for engaging in the notches of the disk.

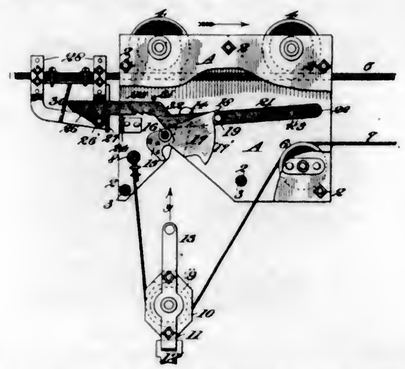
[Claims 6 to 22 not printed in the Gazette.]

1,136,352. TRAMWAY-CARRIER. CHESTER MCLAREN, Oakland, Cal. Filed July 29, 1914. Serial No. 853,883. (Cl. 212—104.)

1. In combination with a track, and a carrier thereon, a grapple member movably connected to the carrier, a slidable and pivoted latch for the grapple member, means on the latch to lock the grapple member in load sustaining position, and stop means to slide and raise the latch to release the grapple member.

2. In combination with a track, a carrier thereon and comprising a casing provided with longitudinal registering slots, a trip lever having a pin which slides in said slots, said casing having a lower cut-out part forming a mouth and having inclined slots extending up from the mouth, a grapple hook pivoted to the casing, a load engaging element engageable at its top in the inclined slots and with the grapple hook, said grapple hook having a free edge and a horn at one end thereof, a projection on the trip lever to hold the grapple hook in load sustaining position, and to engage the horn to limit the movement of the grapple in one direction, a shoulder depending from the front end of the trip lever, and a bar in the casing to engage the shoulder.

3. In combination with a track, and a carrier thereon, a grapple member movably connected to the carrier, a slidable latch for the grapple member having a part engageable with and beneath the latter and a stop member for sliding the latch out of locking position.

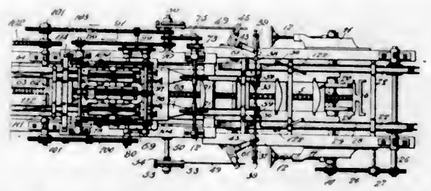


4. In combination with a track, and a carrier thereon, a grapple member movably connected to the carrier, a slidable and pivoted latch for the grapple member, means on the latch to lock the grapple member in load sustaining position, and stop means to slide and raise the latch to release the grapple member, said means on the latch upon sliding of the latter and movement of the latch to grapple releasing position arresting movement of the grapple member so as to hold same in position for return of the parts to grapple sustaining position.

5. In combination with a track, and a carrier thereon, a grapple member pivoted to the carrier, a slidable latch for the grapple member having an outwardly projecting part, means on the latch for holding the grapple member in up position by engaging beneath said part of said member and means to slide the latch to a position to cause said said first means to be disengaged from said part to thereby allow the member to move to load releasing position.

[Claims 6 to 8 not printed in the Gazette.]

1,136,353. FLAP FOLDING AND SEALING MACHINE. FRANK B. MARTIN, Battle Creek, Mich., assignor to Postum Cereal Co., Ltd., Battle Creek, Mich., a Partnership Association of Michigan. Original application filed Oct. 27, 1910, Serial No. 589,426. Divided and this application filed Aug. 10, 1911. Serial No. 643,459. (Cl. 93—6.)



1. In a machine of the character described, the combination of carton-flap-securing devices, with two parallel carton-supporting and guiding channels for directing cartons past said devices, uniformly-spaced followers in said channels, a continuously-moving conveyer simultaneously advancing the followers in both of said channels, and means feeding cartons in front of said followers.

2. In a machine of the character described, the combination of two parallel guide-ways or channels, each consisting of a stationary bottom plate and side walls or rails, for supporting and guiding the cartons, a conveyer arranged to travel in a plane between said guide-ways, uniformly-spaced followers on said conveyer and moving in said guide-ways, carton-flap-securing devices past which the cartons are directed by said guide-ways, and means feeding cartons to said guide in front of said followers.

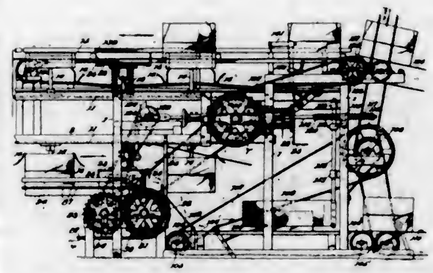
3. In a machine of the character described, the combination of carton-flap-securing devices, with two parallel carton-supporting and guiding channels for directing cartons past said devices, a conveyer chain moving between said channels, uniformly-spaced followers carried by said chain and moving in each of said channels, and means feeding cartons in front of said followers.

4. In a machine of the character described, the combination of carton-flap-securing devices, with two parallel carton-supporting and guiding channels for directing cartons past said devices, a conveyer chain moving between said channels, guide lugs on said chain moving in grooves beneath said channels, uniformly-spaced followers on said chain moving in each of said channels, and means feeding cartons in front of said followers.

5. In a machine of the character described, the combination of a carton-supporting and guiding channel by which alone the cartons are supported and guided, a conveyer moving cartons along said channel, means opening the side flaps of the cartons, means applying an adhesive to a portion only of the upper surface of one of the opened side flaps, and means folding the side flaps to closed position.

[Claims 6 to 22 not printed in the Gazette.]

1,136,354. CARTON-MAKING AND FLAP-SEALING MACHINE. FRANK B. MARTIN, Battle Creek, Mich., assignor to Postum Cereal Co., Ltd., Battle Creek, Mich., a Partnership Association of Michigan. Filed Jan. 14, 1914. Serial No. 812,094. (Cl. 93—6.)



1. In a machine of the character described, the combination of an endless conveyer, equally spaced box-carriers arranged thereon, and yielding connections between said carriers and conveyer, with box-flap sealing devices beneath the lower stretch of said conveyer, and a box-supporting traveling platform also beneath the lower stretch of the conveyer.

2. In a machine of the character described, the combination of a conveyer traveling in two different horizontal planes, carton-formers and carton-carriers alternately arranged on said conveyer, means folding in the end flaps and opening out the side flaps of carton-blanks on the formers and of cartons on the carriers while moving in the upper plane, flap-sealing devices acting on said blanks and cartons in the lower plane, and means retaining the contents of the cartons therein during the sealing operation.

3. In a machine of the character described, the combination of a conveyer, carton-carriers secured to said conveyer by yielding means which permit said carriers to move to and from said conveyer in a direction normal to its line of travel, and a series of flap-sealing devices acting on the cartons as they are advanced by the conveyer.

4. In a machine of the character described, the combination of an endless carton-supporting conveyer moving in two planes one above the other, whereby the cartons are inverted in passing from one plane to the other, flap-sealing devices completing the sealing operation when the cartons are in the lower plane, means squaring the corners after the flaps are sealed, and means retaining the flaps in sealing position as the cartons pass from the sealing devices to the corner-squaring means.

5. In a machine of the character described, the combination of an endless conveyer moving in two horizontal planes, carton-formers and carton-carriers thereon, a single series of flap-sealing devices acting on the blanks on the formers and the cartons on the carriers while inverted, means retaining the contents therein during the sealing operation, whereby empty cartons are made and filled cartons are sealed, and means conveying the empty cartons to one delivery point and the sealed filled cartons to another delivery point.

[Claims 6 to 19 not printed in the Gazette.]

1,136,355. MUSICAL DEVICE. EDWIN S. MAYLAND, New York, N. Y. Filed Mar. 6, 1913. Serial No. 752,294. (Cl. 177—7.)



1. In a musical device, the combination of a magnet frame, a horizontal magnet thereon, a combined armature and hammer fulcrumed on the frame immediately above said magnet and hanging in front of the same, a tubular bell suspended from the frame with its upper portion in position to be struck by the hammer, and a steady bar projecting downward from the frame and having a cushioned portion in position to contact with the upper part of the bell.

2. In a musical device, the combination of a support, a tubular bell suspended therefrom, an electromagnet on the support above the bell, a hammer adapted to be actuated by said magnet depending in position to strike the upper portion of the bell, and a steady bar projecting downward from the support to contact with the upper part of the bell.

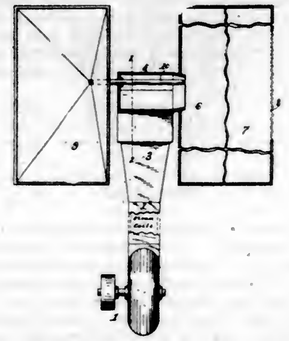
3. In a musical device, the combination of a suspended tubular bell, a hammer arranged to strike the upper portion of the same, and a steady member having a cushioned portion positioned to contact with the upper part of the bell at the same side as the hammer.

4. In a musical device, the combination of a frame, a horizontal electro-magnet thereon, a combined armature and hammer fulcrumed on the frame immediately above said electro-magnet, a tubular bell suspended from the frame, a forwardly projecting arm on the lower portion of the frame, and a steady bar fixed to said arm and projecting downward at one side of said hammer and directed laterally in order to contact with the bell at the same side as and below the hammer.

5. In a musical device, the combination with a suspended tubular bell, of a frame above the bell, a hammer depending therefrom in position to strike the upper portion of said bell, an electro-magnet on the frame for actuating said hammer, and a steady bar projecting downward and sidewise from the frame at one side of the hammer with its lower portion in position to contact with the bell below and at the same side as the hammer.

[Claims 6 to 9 not printed in the Gazette.]

1,136,356. PROCESS OF OBTAINING THE SOLIDS FROM LIQUIDS. OLIVER EDWARD MERRELL, Syracuse, N. Y., assignor to Merrell-Soule Company, Syracuse, N. Y., a Corporation of New York. Original application filed Mar. 29, 1910, Serial No. 522,223. Divided and this application filed Feb. 16, 1912. Serial No. 678,142. (Cl. 99—5.)



1. The process of desiccating liquids consisting in disintegrating and desiccating the liquid solely by the action of a rotating current of moisture absorbing air.

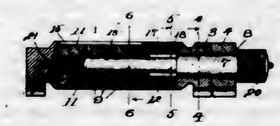
2. The process of desiccating liquids consisting in disintegrating and desiccating the liquid solely by the action of a rotating current of air which absorbs the moisure of the liquid, and collecting the dry solids separated from the moisture-laden air.

3. The herein described process of desiccating liquids consisting in disintegrating and desiccating the liquid solely by means of a current of moisture-absorbing air having a spirally forward motion.

4. The process of obtaining the solid constituents of liquids and semi-liquids in the form of a substantially dry powder, consisting in creating a current of air having a spirally forward motion, introducing the liquid into the whirling current at substantially the vortex thereof and eccentrically of the axis of movement of said current whereby the liquid is held in suspension and the liquid constituents vaporized.

5. The herein described process of desiccating liquids consisting in introducing the liquid into a current of moisture-absorbing air having a spirally forward motion, in such a manner that the liquid is both broken into spray and is desiccated solely by the action of the whirling current.

1,136,357. COMBINATION-LOCK. DAVID J. NEWMAN, Buffalo, N. Y. Filed Jan. 10, 1914. Serial No. 811,369. (Cl. 70—53.)



1. A combination lock comprising a casing having permanent heads, and rotary tumblers arranged side by side therein, the casing being provided in its side with a sight opening through which the edges of the tumblers are partly exposed and between said opening and the adjacent

head of the casing with a second opening of sufficient size to admit the tumblers, said tumblers being adapted to interlock with a suitable bolt.

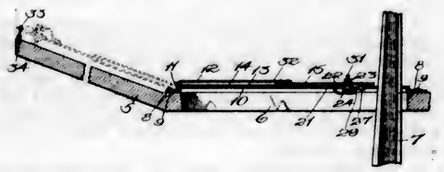
2. A combination lock, comprising a casing, a series of rotary tumblers arranged side by side in the casing, each tumbler having an axial opening provided in different sides thereof with locking notches of different dimensions, and a locking bolt constructed to enter the openings of the tumblers and provided with longitudinal series of projections arranged to pass through said notches, the projections of said rows being of different dimensions to correspond to the notches of the tumblers.

3. A combination lock, comprising a casing, a series of rotary tumblers arranged side by side in the casing, each tumbler having an axial opening provided in opposite sides thereof with locking notches of different widths, and a locking bolt constructed to enter the openings of the tumblers and provided on opposite sides with longitudinal rows of teeth constructed to pass through the notches of the tumblers, the teeth of the two rows being of different widths to fit said notches.

4. A combination lock comprising a casing having a sight-opening, a series of tumblers arranged side by side in said casing, some of said tumblers being exposed through said sight-opening and capable of rotating in the casing and others being concealed and serving as fillers, and a bolt having locking means adapted to engage said exposed rotary tumblers, and means adapted to engage said fillers to prevent rotation of the latter relative to the bolt.

5. A combination lock, comprising a casing having a sight-opening terminating short of the end thereof, a series of tumblers arranged side by side in said casing and provided with central openings having locking notches, some of said tumblers being exposed through said sight-opening and capable of rotating in the casing and others being concealed and serving as fillers, and a locking bolt constructed to enter said tumbler-openings and having a longitudinal row of projections adapted to pass through said notches and interlock with said exposed tumblers and a rib adapted to engage the notches of said fillers.

1,136,358. LOCK FOR AUTOMOBILES. THOMAS L. PARK, San Diego, Cal. Filed July 15, 1914. Serial No. 851,107. (Cl. 70—90.)



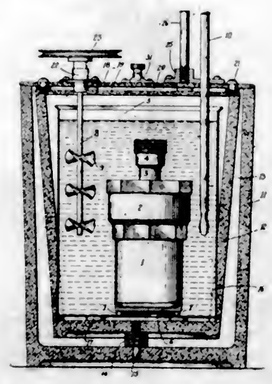
1. In a device of the character described the combination with a member having a slot and a lever operating therein, of a locking plate hinged at one end of said slot and adapted to swing down in front of and prevent movement of said lever, an oscillatory button carried by said plate and lying upon the under side thereof and controllable from the upper side thereof, said button being adapted when turned to a position transversely with relation to said plate, to engage beneath the side edges of said slot, a lock comprising a bolt and a member carried by said button and with which said bolt is adapted to engage to prevent movement of said button.

2. In a device of the character described the combination with an element having a slot formed therein and a lever operating in said slot, a floor plate likewise slotted and arranged upon said element with the slot of the floor plate overlying the slot of said element, a locking element comprising a pair of plates longitudinally adjustable with relation to each other, one of which is hinged at its end to said floor plate, an oscillatory stud passing through the other of said plates and provided upon its lower end with a button adapted to engage beneath the side edges of said floor plate, and a lock mounted upon the underside of the last named plate and arranged to engage said button to prevent movement thereof.

3. In a device of the character described, the combination with a member having a slot with a longitudinally extending hinged locking member at one end of said slot, a lever operating in said slot and arranged to be engaged by said locking member, a stud passing through the free end of said locking member, a button carried by said stud which lies upon the underside of said member, and a lock for holding said button in a position to engage beneath the side edges of said slot, substantially as shown and described.

4. In a device of the character described, the combination with a member having a slot and a lever operating therein, a locking member comprising a pair of longitudinally adjusted plates secured to each other, means for hinging one of said plates at one end of said slot, the other of said plates being movable into the path of said lever, a button mounted upon the under face of one of said plates, spring means for actuating said button in one direction and a lock for holding said button against action by said spring.

1,136,359. CALORIMETRIC APPARATUS. SAMUEL W. PARR, Urbana, Ill. Filed Feb. 27, 1914. Serial No. 821,592. (Cl. 73—184.)



1. Calorimetric apparatus comprising a water container of oval cross-section, a cylindrical combustion chamber in said container with relatively large water channels on diametrically opposite sides thereof, a stirrer in one of said water channels open to free circulation of water on all sides and a thermometer in the other channel, and means for rotating said stirrer to produce positive circulation of the water around the lower part of said combustion chamber and upward through one of said water channels and downward through the other, to quickly cool the lower part of said combustion chamber and to uniformly distribute the absorbed heat through the cooling water.

2. Calorimetric apparatus comprising a liquid container of oval cross section, a turbine stirrer at one end of the oval, and a combustion chamber widest at the top and positioned to be swept by the flow of liquid maintained by said turbine stirrer the end of said stirrer being lower than the widest part of said combustion chamber.

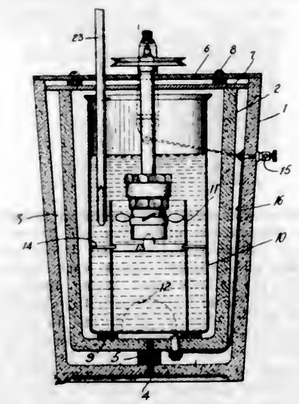
3. In calorimetric apparatus, a water container of oval cross section, a combustion chamber therein having an upper portion wider than its lower portion, means for holding said combustion chamber in proper relative position to the walls of said container, a turbine stirrer at one end of the oval for positively circulating water up one side of the combustion chamber and down the other, said stirrer projecting below the widest part of said combustion chamber, and a thermometer positioned to measure the temperature of said circulating water.

4. In a calorimetric apparatus, a water container of oval cross section, a combustion chamber positioned therein, means for circulating water in said oval chamber around the bottom of said combustion chamber and upward along one side thereof and downward along the other side, said combustion chamber being of greatest diameter near its top and positioned to form a baffle directly in the path of the circulating water for the more ready and uniform absorption of its heat by the water while thus in circulation.

5. A water container for calorimeters, said container being of oval cross-section and having its bottom bent to secure registration between the container and the combustion chamber introduced therein.

[Claims 6 to 9 not printed in the Gazette.]

1,136,360. CALORIMETER. SAMUEL W. PARR, Urbana, Ill. Filed May 6, 1914. Serial No. 836,625. (Cl. 73—184.)



1. In a calorimeter, the combination of a combustion chamber, means for igniting a charge therein, a perforate envelop shielding said combustion chamber from the cooling fluid until combustion is well under way and thereafter permitting direct contact of the cooling fluid with the combustion chamber to effect rapid transference of the heat; substantially as described.

2. In a calorimeter adapted for immersion in a cooling liquid, the combination of a closed combustion chamber wherein a charge may be ignited, and an envelop with an air chamber protecting said combustion chamber from direct contact with the liquid until after combustion is substantially complete said envelop having an opening for the admission of cooling liquid.

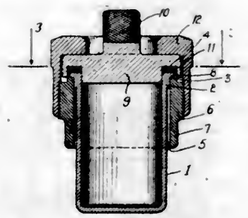
3. In a calorimeter adapted for immersion in a cooling liquid, a closed combustion chamber in which a charge may be ignited, and a casing enveloping said combustion chamber with a limited air space intervening, said casing having openings which permit the expanding air to escape, said casing protecting said combustion chamber from direct contact with the cooling liquid until after the temperature of the combustion chamber begins to decrease.

4. In a calorimeter adapted for immersion in a cooling liquid, the combination of a closed combustion chamber wherein a charge may be ignited, a casing enveloping said combustion chamber with an air space intervening, and said casing having holes through which the heated air may escape while the temperature of the combustion chamber is increasing and through which water may be drawn in when the temperature of the combustion chamber begins to decrease, thereby producing quick transference of the heat of the burning charge to the cooling liquid in which the calorimeter is immersed.

5. In a calorimeter adapted for immersion in a cooling liquid, the combination of a closed combustion chamber wherein a charge may be ignited, a casing enveloping said combustion chamber with an intervening air gap, said casing having a floating bottom limiting the air space below the combustion chamber when the apparatus is mounted in position for ignition of the charge.

[Claims 6 to 23 not printed in the Gazette.]

1,136,361. COMBUSTION DEVICE. SAMUEL W. PARR, Urbana, Ill. Filed May 6, 1914. Serial No. 836,626. (Cl. 75—182.)



1. In an apparatus for combustion determinations, a combustion chamber, means for sealing said combustion chamber with a rubber gasket while protecting the rubber from direct contact with the heated products of combustion, the lower portion of said combustion chamber being uncovered and accessible for ignition purposes, and the upper portion of the body of said combustion chamber being covered with a bell but accessible for contact with a cooling fluid when the apparatus is introduced therein after combustion has been initiated in the combustion chamber; substantially as described.

2. In an apparatus for combustion determinations, the combination of a combustion chamber, a bell secured to the upper edge thereof and spaced from the body portion of the combustion chamber by a narrow air gap, the bell being shorter than the combustion chamber to leave the lower portion of the latter accessible for heating and cooling, a cap fitting down into said combustion chamber and having an annular recess, a gasket in said recess serving as a gas-tight closure for said combustion chamber, and a collar overlapping said cover and threaded to said bell, said collar and bell having wrench seats whereby they may be screwed together to seal the combustion chamber; substantially as described.

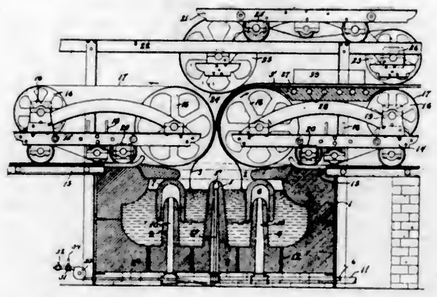
3. A combustion apparatus, comprising a combustion chamber having at its top a shoulder and an outstanding flange, a cylindrical bell fitted against said shoulder and receiving said flange, a cover fitted to said combustion chamber and provided with a gasket protected by a part of said cover from direct contact with the products of combustion within the chamber and a cap overlapping said cover and threaded to said bell, said cap and bell having wrench seats and the bell being short enough to leave exposed the lower portion of said combustion chamber so that a combustible mixture therein may be ignited by the application of a flame to the wall of the combustion chamber.

4. In a combustion apparatus, the combination of a combustion chamber having at its top an outstanding flange, a cylindrical bell receiving said flange and enveloping approximately the upper half of said combustion chamber with a narrow air gap intervening and leaving the lower portion of said combustion chamber uncovered and accessible for ignition purposes, an imperforate cover fitting down within said combustion chamber and having an annular recess, a gasket in said recess for sealing the combustion chamber, and a cap overlapping the top of the cover and in threaded engagement with said bell to hold the cover in place, said cap and bell being provided with wrench seats whereby they may be screwed together to seal the combustion chamber.

5. A combustion apparatus for sulfur determinations, comprising a combustion chamber, a bell inclosing the upper portion of said combustion chamber but spaced therefrom by an air-gap and leaving the lower portion thereof uncovered and accessible for ignition purposes, an imperforate cover fitting down within said combustion chamber and having an annular recess, a rubber gasket in said recess lying against the upper edge of said combustion chamber, and a cap overlapping the top of the cover and in threaded engagement with said bell to hold the cover in place.

[Claims 6 to 10 not printed in the Gazette.]

1,136,362. METHOD OF DRAWING GLASS. ROGER S. PEASE, Pittsburgh, Pa., assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 28, 1912. Serial No. 706,528. (Cl. 49—83.1.)



1. The herein described process of making sheet glass which consists in drawing a tubular member from the body of glass and in compressing said member as it is being drawn into sheet form.

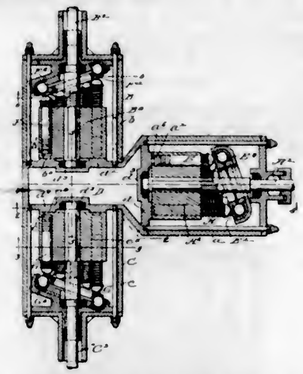
2. The herein described process of making sheet glass which consists in drawing a tubular member from a body of glass, in compressing the tubular member to form a sheet at a predetermined distance from the body of glass, and in maintaining a uniform air pressure within the tubular member.

3. The herein described process of making flat glass articles which consists in drawing a hollow article and in compressing the article to form a sheet.

4. The process of making a glass sheet, which consists in continuously drawing a cylinder of glass and continuously forming the cylinder into a flat sheet as the drawing progresses.

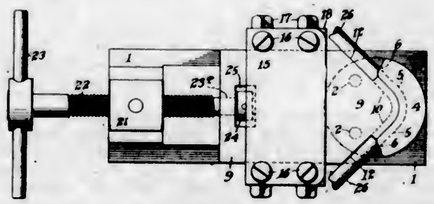
1,136,363. HYDRAULIC TRANSMISSION. WILLIAM BURTON PEPPER, Montrose, Colo. Filed Nov. 3, 1913. Serial No. 798,872. (Cl. 138—3.)

1. A transmission unit of the character described, comprising the combination of driving and driven members consisting of cylinders, driving and driven shafts projecting within the said cylinders, piston blocks carried by the shafts within the cylinders and having piston bores surrounding the shafts and communicating through the inner ends of the cylinders, a valve chest to opposite sides of which the cylinders of the driven members are connected and to the forward end of which the cylinder of the driving member is connected, said valve chest having a central horizontal partition dividing the same into upper and lower compartments and having curved slots in its sides and front end establishing communication between the piston bores of the driving and driven members through the said upper and lower compartments, pistons movable in the piston bores of the driving and driven members and having outer headed bearing ends and springs for moving them in one direction, bearing rings inclined within the cylinders and against which the outer ends of said pistons engage, the bearing ring of the driving cylinder having trunnions one of which projects exteriorly through its cylinder whereby the inclination of the ring may be adjusted, pressure equalizing pipes exteding through the valve chest and connecting the driving and driven cylinders, and check valves arranged in the side, walls, and front end of the valve chest and opening into the driving and driven cylinders whereby to automatically replenish the motive fluid in the valve chest and piston bores when necessary.



2. A transmission unit of the character described, comprising the combination of driving and driven members consisting of cylinders, driving and driven shafts projecting within said cylinders, piston blocks carried by the shafts within the cylinders and having piston bores surrounding the shafts and communicating through the inner ends of the cylinders, a valve chest to opposite sides of which the cylinders of the driven members are connected and to the front end of which the cylinder of the driving member is connected, said valve chest having a central horizontal partition dividing the same into upper and lower compartments and having curved slots in its sides and front end establishing communication between the piston bores of the driving and driven members through the said upper and lower compartments, pistons movable in the piston bores of the driving and driven members and having outer headed bearing ends and springs for moving them in one direction, and bearing rings inclined within the cylinders and against which the outer ends of said pistons engage, the bearing ring of the driving cylinder having trunnions one of which projects exteriorly through its cylinder, whereby the inclination of the ring may be adjusted, all for the purpose described.

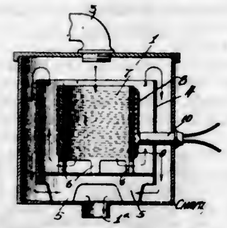
1,136,364. PIPE-BENDING MACHINE. WILLIAM O. POWELL, Chester, Pa. Filed Oct. 26, 1912. Serial No. 727,833. (Cl. 153—21.)



1. In a pipe bending machine, a base, a stationary member resting upon said base and having one end thereof enlarged forming a stationary jaw having an inner concave side, a movable jaw mounted to slide upon the stationary member to and from the stationary jaw, an extension formed upon the movable jaw, the ends of which terminate at the ends of the stationary jaw, said jaws having grooves provided therein, the said groove in the movable jaw terminating at the ends of the enlargement and having their inner sides disposed flush with the sides of the movable jaw.

2. In a pipe bending machine, a base, a plate secured to said base in spaced relation from the ends thereof, a block secured to the base and contacting with the adjacent side of the base, said block having an enlarged portion formed upon one end thereof forming a stationary jaw, a movable jaw slidable upon the block and plate to and from the stationary jaw, said movable jaw having a recess formed in one end thereof, an operating rod engaging said recess, and a top plate engaging the movable jaw and passing over said recess and preventing the displacement of the operating member therefrom.

1,136,365. ELECTRIC WATER-HEATER. CHARLES H. QUINLAN, Amsterdam, N. Y. Filed July 1, 1914. Serial No. 848,483. (Cl. 219—39.)



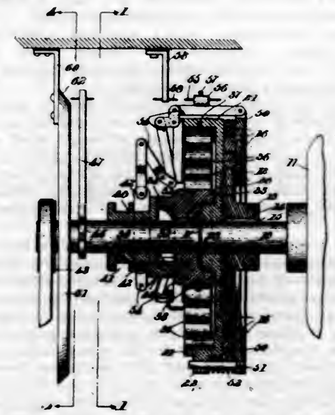
The combination with a faucet, of a water heating device consisting of an exterior cylindrical receptacle provided with a top having a threaded opening arranged to be screwed on to the end of the faucet and provided with a centrally disposed outlet at its bottom, an inner cylindrical receptacle provided with legs arranged to rest on the bottom of said outer receptacle, a third innermost cylindrical receptacle carried by the bottom of said second named receptacle and being provided with openings near its bottom for communication with the interior of said second named receptacle, the inlet end of the faucet being directly above the center of the innermost receptacle, an electric heating coil surrounding said innermost receptacle, and a conduit extending through the walls of said outer receptacle and said second named receptacle for housing the terminals of said coil.

1,136,366. DYNAMOMETER. JOHN A. RANDALL, Brooklyn, N. Y. Original application filed Dec. 8, 1910, Serial No. 596,183. Divided and this application filed Nov. 16, 1911. Serial No. 660,549. (Cl. 73—15.)

1. The combination of a driving shaft and a clutching plated rigidly secured thereto, a driven shaft, a clutched plate loosely mounted thereon, an elastic connection between the driven shaft and the clutched plate, and means for recording the torque transmitted through said elastic part, including a spark gap device comprising two contacts for automatically measuring or recording the angular relation of the two shafts.

2. The combination of a driving shaft and a clutching plate rigidly secured thereto, a driven shaft, a clutched plate loosely mounted thereon, a coupling device whereby the clutch is moved to operation position, means for automatically disengaging said clutched plate from said clutching plate, a coiled spring interposed between the clutched plate and the driven shaft, and means for recording the torque of the driving shaft in winding up the string.

3. In a device of the character described, a driving shaft, a driven shaft, an intermediate clutch comprising a coiled spring, and a coupling device longitudinally movable on the driven shaft in combination with a spark gap device comprising two contacts for automatically measuring the angular relation of the two shafts including a suitable dial, a pointer moving in harmony with the driven shaft and means for intermittently passing an electrical current between the dial and pointer as the driven shaft revolves.

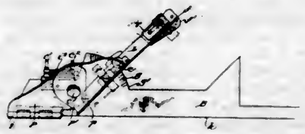


4. In a device of the character described, a driving shaft, a driven shaft, an intermediate clutch comprising a coiled spring, and a coupling device longitudinally movable on the driven shaft and comprising a link and lever mechanism adapted to be placed in operative position against the clutch when the coupling device is moved in one direction, in combination with a spark gap device comprising two contacts for automatically measuring or recording the angular relation of the two shafts.

5. In a device of the character described, a driving shaft, a driven shaft, an intermediate clutch comprising a coiled spring, and a coupling device longitudinally movable on the driven shaft and comprising a link and lever mechanism adapted to be placed in operative position against the clutch when the coupling device is moved in one direction, in combination with a spark gap device comprising two contacts for automatically measuring or recording the angular relation of the two shafts including a suitable dial, a pointer moving in harmony with the driven shaft and means for intermittently passing an electrical current between the dial and pointer as the driven shaft revolves.

[Claims 6 to 12 not printed in the Gazette.]

1,136,367. CARPENTER'S GAGE. REUBEN M. RAYMOND, Malden, Mass. Filed Feb. 24, 1914. Serial No. 820,710. (Cl. 33—90.)



1. In a gage, the combination of a base provided with a gaging edge, a plane-angle bevel member mounted on the base, and a solid-angle bevel member rotatably adjustable with relation to the base about the line of said gaging edge as an axis, and provided with a gaging edge which, if geometrically projected, passes through the angle formed by the plane-angle bevel and the gaging edge of the base.

2. In a gage, the combination of a base provided with a gaging edge, a plane-angle bevel member pivotally mounted on the base, and a solid-angle bevel member pro-

vided with a gaging edge, which, if geometrically projected, passes through the angle formed by the plane-angle bevel and the gaging edge of the base, the plane of the solid angle bevel member being angularly adjustable with respect to the plane common to the base and the plane angle bevel member.

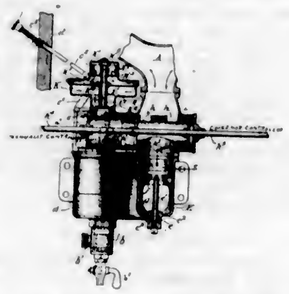
3. In a gage, the combination of a base, a plane-angle bevel member angularly adjustable with relation to and in the plane of the base, and a solid-angle bevel member whose plane is adjustable with relation to the base to positions angularly disposed to the plane common to the base and plane angle bevel member.

4. In a gage, the combination of a base, a plane-angle bevel member pivoted to the base and angularly adjustable to the plane of the base and a solid-angle bevel member comprising mutually angularly adjustable plates, said second bevel member being mounted on the base and having its plane adjustable to positions angularly disposed to the plane common to the base and first named bevel member.

5. In a gage, the combination of a base, a plane-angle bevel member pivoted to the base and angularly adjustable in the plane of the base and a solid-angle bevel member comprising mutually angularly adjustable plates, said solid-angle bevel member being mounted on the base and having its plane adjustable to positions angularly disposed to the plane common to the base and plane-angled bevel member, a slotted nut plate, a keeper therefor, a screw securer engaging said nut plate for the plates of the solid-angle bevel member, said plates being provided with slots and said slots being at an angle to each other.

[Claims 6 to 12 not printed in the Gazette.]

1,136,368. REGULATING MEANS FOR INTERNAL-COMBUSTION ENGINES. ANDREW L. RIKER, Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y., a Corporation of West Virginia. Filed June 10, 1905. Serial No. 264,579. (Cl. 48—180.)



1. An air supplying device for the carbureter of an internal combustion engine, comprising auxiliary air-supplying means having an auxiliary air-supplying chamber having one or more air inlet openings, a valve controlling the admission of air through said openings, said valve being shaped to present an increasing area to the admission of air in the direction of opening movement of the valve, means normally pressing said valve toward a closed position and a plate connected with said valve to move the same against the action of the valve-closing means, said plate partially obstructing the passage of the admitted air through the said chamber and being exposed on its inner face to the suction created by the engine.

2. An air and fuel mixing device for internal combustion engines comprising means for supplying carbureted air, a mixing chamber in communication with said means, means to admit additional air to said mixing chamber and a common valve independent of said additional air admitting means controlling the entrance and discharge from said mixing chamber.

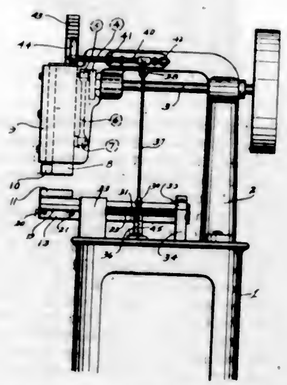
3. An air and fuel mixing device for internal combustion engines comprising means for supplying carbureted air, a mixing chamber in communication with said means, a suction controlled valve to admit additional air to said mixing chamber and a piston valve controlling the entrance to and discharge from said mixing chamber.

4. An air and fuel mixing device for internal combustion engines comprising means for supplying carbureted air, a mixing chamber in communication therewith, a valve for controlling the entrance to and discharge from said mixing chamber and provisions whereby said valve may be operated either automatically or manually.

5. An air and fuel mixing device for internal combustion engines comprising a mixing chamber for the carbureted air, auxiliary air supplying means connected with said chamber and having air admission openings, a valve normally closing said openings, said openings being of gradually increasing area in the direction of opening movement of the valve, the latter having an attached disk interposed between said openings and said mixing chamber and about which the additional air supply passes to said mixing chamber, said disk being exposed upon its inner face to the suction created by the engine.

[Claims 6 to 13 not printed in the Gazette.]

1,136,369. SAFETY DEVICE. CHARLES F. ROOT, Ravenna, Ohio, assignor of one-fourth to Byron O. Conn, Mansfield, Ohio. Filed Apr. 3, 1914. Serial No. 829,236. (Cl. 164—107.)



1. In combination with an anvil and a reciprocatory head, a rack bar secured to the head and projecting upwardly therefroin, a pivoted pawl for engagement with the teeth of the rack, means connected to the pawl normally holding the pawl out of engagement with the rack teeth, and means borne by the anvil for actuating said connecting means to move the pawl into engagement with the rack teeth to hold the head against movement, said anvil means being operable by the head engaging an object extraneous to the work and interposed between the head and anvil.

2. In combination with an anvil and a reciprocatory head, a rack bar secured to the head and projecting upwardly therefrom, a pivoted pawl for engagement with the teeth of the rack, and means associated with the anvil and pawl whereby said pawl is moved to engage the rack to hold the head against movement by an object interposed between the head and anvil, said rack being of such length so that when the head contacts with the anvil the pawl will move over the upper end of the rack without engaging the latter.

3. In combination with an anvil and a reciprocatory head, a locking member on the head, means to engage the locking member to hold the head against downward movement, and means carried by the anvil and actuated by an object extraneous to the work and in the path of travel of the head to actuate the means which engage the locking member.

4. In combination with an anvil and a reciprocatory head, a locking member on the head, means to engage the locking member to hold the head against downward movement, and means associated with the anvil and with the means which engage the locking member to actuate the means which engage the locking member, said means which engages the locking member being movable past the same without engagement therewith upon contact of the head with the work upon the anvil.

5. In combination with an anvil and a reciprocatory head, a jaw movably carried by the anvil and normally projecting thereabove, a shaft carried by the anvil, arms on the shaft engaging the jaw, a lever connected to the shaft, a rack secured to the head and extending upwardly therefrom, a pivoted spring held lever rigidly connected to the shaft, a pivoted pawl for engagement with the rack, and means connected to the lever and pawl whereby rocking of the shaft will move the pawl toward the rack.

[Claims 6 to 14 not printed in the Gazette.]

1,136,370. FIRE AND WATER PROOF COMPOSITION AND PROCESS OF PREPARING THE SAME. JOHN A. SCHARWATH, Brooklyn, N. Y. Filed Apr. 10, 1913. Serial No. 760,229. (Cl. 91—70.)

1. The process of rendering an article fire-proof and water-proof that consists in treating the article with a solution composed of silicate of soda, fire clay and oxid of manganese, baking the article and finally treating the article in a second solution adapted to combine with the first solution to produce a surface coating of hard stone-like fire-proof material that is impervious to moisture.

2. The process of rendering an article fire-proof and water-proof that consists in treating the article with a solution composed of silicate of soda, fire clay and oxid of manganese, baking the article and finally treating the article in a solution composed of oxid of magnesia and chlorid of magnesia.

3. The process of rendering an article fire-proof and water-proof that consists in dipping the article in a bath composed of a solution of silicate of soda, fire clay and oxid of manganese, baking the article to unite the ingredients and finally dipping the treated article in a solution composed of oxid of magnesia and chlorid of magnesia.

4. The process of rendering an article fire-proof and water-proof that consists in dipping the article in a bath composed of silicate of soda, fire clay and oxid of manganese ground in water, baking the article at a temperature between 300° and 500° F. to dry out, flux and unite the ingredients, then dipping the treated article in a bath composed of a solution of oxid of magnesia and chlorid of magnesia.

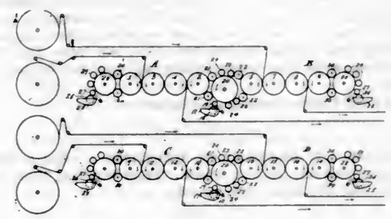
5. A fire and water-proof article composed of an absorbent material, filled and covered with a fluxed and hardened compound consisting of silicate of soda, fire clay and oxid of manganese having a coating consisting of the aforesaid filling and covering compound in combination with a compound consisting of oxid of magnesia and chlorid of magnesia.

[Claims 6 to 9 not printed in the Gazette.]

1,136,371. PRINTING-MACHINE. LOUIS A. SCHMIDT, New York, N. Y., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 29, 1913. Serial No. 781,766. (Cl. 101—117.)

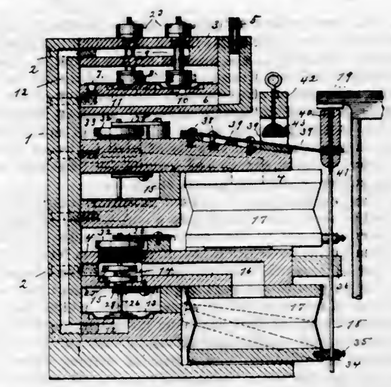
1. In a printing machine, the combination with a plurality of printing couples, of an ink fountain and a single distributing cylinder to which ink is delivered from the fountain, a pair of form rolls which deliver ink to the form member of one couple, a second pair of form rolls which deliver ink to the form member of the second couple, and means for reversing the direction of rotation of one of the sets of rolls.

2. In a printing machine, the combination with a plurality of rotary printing couples, of an ink fountain and a single distributing cylinder to which ink is delivered from the fountain, a pair of form rolls which deliver ink to the form cylinder of one couple, a second pair of form rolls which deliver ink to the form cylinder of the second couple, and means for reversing the direction of rotation of one of the pairs of form rolls.



3. In a printing machine, the combination with a plurality of rotary printing couples, of an ink fountain, a distributing cylinder to which ink is delivered from the fountain, a pair of form rolls which take ink directly from the distributing cylinder and deliver it to the form cylinder of one of the couples, a pair of form rolls for delivering ink to the form cylinder of the other couple, and a pair of intermediate rolls between the distributing cylinder and the second pair of form rolls, said intermediate rolls being arranged to take the ink delivered to the distributing cylinder before the distributing cylinder delivers to the first pair of form rolls.

1,136,372. PNEUMATIC ACTION FOR PLAYER-PIANOS. GEORGE SCHUMANN, Sr., Union Hill, N. J., assignor to himself and Frank Schumann, Union Hill, N. J. Filed Sept. 8, 1914. Serial No. 860,522. (Cl. 84—233.)



1. In a pneumatic action for player pianos, a pneumatic, a wippen-operating rod actuated thereby, a resilient guide secured to a fixed part of the action and engaging the wippen-operating rod and means on the wippen-operating rod for flexing the guide.

2. In a pneumatic action for player pianos, a pneumatic, a wippen-operating rod actuated thereby, a flat metal spring guide secured to a fixed part of the action and engaging the wippen-operating rod and means on the wippen-operating rod for flexing the guide.

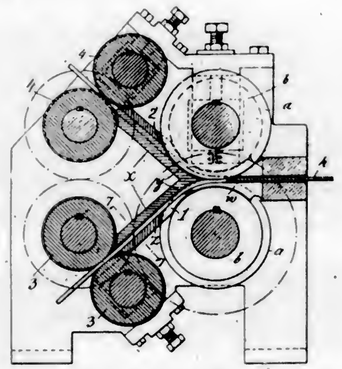
3. In a pneumatic action for player pianos, a pneumatic, a wippen-operating rod actuated thereby, a spring guide secured to a fixed portion of the action and engaging the wippen-operating rod, a capstan adjustably secured to the wippen-operating rod above said guide, and means on the wippen-operating rod for flexing the guide.

4. In a pneumatic action for player pianos, a pneumatic, a wippen-operating rod actuated thereby, a spring guide secured to a fixed portion of the action and engaging the wippen-operating rod, a capstan adjustably secured to the wippen-operating rod above the guide, and a button adjustably secured to the wippen-operating rod below the guide.

5. In a pneumatic action for player pianos, a pneumatic, a wippen-operating rod actuated thereby, a shelf, a spring guide secured to said shelf and engaging the wippen-operating rod, means for spacing the guide from the shelf and means on the wippen-operating rod for flexing the guide.

[Claim 6 not printed in the Gazette.]

1,136,373. WIRE-MAKING MACHINE. ALFRED SHEDLOCK, Cannon Station, Conn. Filed Nov. 14, 1908. Serial No. 462,547. (Cl. 80—3.)



1. The combination of opposed gangs of rotary cutters adapted to sever sheet metal into a multiplicity of strands, strippers arranged in the grooves of the gangs of cutters to discharge the cut strands therefrom, and guides for directing each set of strands from the strippers of the respective gangs of cutters in different angular directions relative to the plane of travel of the sheet metal from which they are cut, said strands of each set being guided in vertical parallel planes and leaving the discharge ends of the guides uniformly spaced apart.

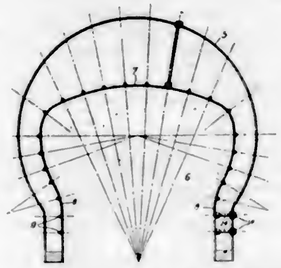
2. The combination of opposed gangs of rotary cutters adapted to sever sheet metal into a multiplicity of strands, strippers arranged in the grooves of the gangs of cutters to discharge the cut strands therefrom, guides for directing each set of strands from the strippers of the respective gangs of cutters in different angular directions relative to the plane of travel of the sheet metal from which they are cut, said strands of each set being guided in vertical parallel planes and leaving the discharge ends of the guides uniformly spaced apart and a pair of shaping rollers located at the discharge ends of the guides of each set of strands adapted to change the cross section of the strands.

3. The combination of opposed gangs of rotary cutters adapted to sever sheet metal into a multiplicity of strands, strippers arranged in the grooves of the gangs of cutters to discharge the cut strands therefrom and shaped to act as scrapers to remove dirt, &c., from said grooves, guides for directing each set of strands from the strippers of the respective gangs of cutters in different angular directions relative to the plane of travel of the sheet metal from which they are cut, said strands of each set being guided in vertical parallel planes and leaving the discharge ends of the guides uniformly spaced apart and a pair of shaping rollers located at the discharge ends of the guides of each set of strands adapted to change the cross section of the strands.

4. The combination of opposed gangs of rotary cutters adapted to sever sheet metal into a multiplicity of strands, strippers arranged in the grooves of the gangs of cutters to discharge the cut strands therefrom, and extending at the front or feeding side of the cutters to act as a guide for directing the sheet material to the cutters, the discharge ends of the strippers being undercut, guides having their ends beveled seated under the undercut ends of the strippers for directing each set of strands from the strippers of the respective gangs of cutters in different angular directions relative to the plane of travel of the sheet metal from which they are cut, said strands of each set being guided in vertical parallel planes and leaving the discharge ends of the guides uniformly spaced apart.

5. The combination of opposed gangs of rotary cutters adapted to sever sheet metal into a multiplicity of strands, strippers arranged in the grooves of the gangs of cutters to discharge the cut strands therefrom, guides for directing each set of strands from the strippers of the respective gangs of cutters in different angular directions relative to the plane of travel of the sheet metal from which they are cut, said strands of each set being guided in vertical parallel planes and leaving the discharge ends of the guides uniformly spaced apart and said guides comprising a V-shaped guide piece whose point extends into the discharge side of the two gangs of cutters and a comb plate for each set of strands, the teeth of which constitute continuations of the strippers.

1,136,374. BOILER CONSTRUCTION. DEARELL D. SHIERK, Rockford, Ill., assignor of one-third to William J. Steward, Rockford, Ill. Filed Jan. 5, 1915. Serial No. 625. (Cl. 122—493.)



1. A boiler construction comprising an imperforate fire box sheet, and means attached to the outer face of said sheet at intervals throughout its area for holding said sheet against deformation.

2. A boiler construction comprising an imperforate fire box sheet provided on its outer face with a plurality of integral nipples, and means attached to said nipples for holding said sheets against deformation.

3. A boiler construction including an imperforate fire box sheet provided on its outer face with a plurality of exteriorly threaded nipples.

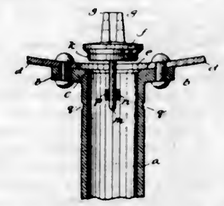
4. A boiler construction comprising an imperforate fire box sheet provided on its outer surface with threaded nipples, and stay bolts having their inner ends in threaded engagement with said nipples.

5. A boiler construction comprising an imperforate fire box sheet, a boiler shell, and means attached to the outer face of said sheet without passing through the sheet and connected with said shell whereby said sheet is held against distortion.

[Claims 6 to 8 not printed in the Gazette.]

1,136,375. DISCHARGE APPLIANCE FOR RAILROAD TANK-CARS. ABRAM E. SMITH, Brooklyn, N.Y. Filed Nov. 29, 1910. Serial No. 594,630. (Cl. 220—120.)

1. In combination with the tank of a tank car, which tank has a discharge opening at its bottom; a discharge nozzle secured to the bottom of the tank, registering with the discharge opening and provided with a breaking point below the discharge opening of the tank; a guide within the nozzle extending across it; a valve for opening and closing the discharge opening; and a pin carried by said valve, passing through an opening in the guide and extending below the breaking point of the nozzle when the valve is seated and of a resistance which permits of its being bent without unseating the valve.



2. In combination with the tank of a tank car which tank has a discharge opening in its bottom; a discharge nozzle secured to the bottom of the tank and registering with the discharge opening; a guide extending across the nozzle; a valve for opening and closing the discharge opening; and a pin projecting from the valve and through the guide and capable of being bent without unseating the valve.

3. In combination, a tank car having a discharge opening at its bottom; a discharge nozzle secured to the tank bottom and registering with said opening, said nozzle having a breaking point; a valve for said opening and having its seat above said breaking point; means for moving said valve to and from its seat; and means connected with the valve, located within the nozzle and constructed upon breaking of the nozzle to prevent dislodgment of the valve from its seat.

4. In combination with the tank of a tank car having a discharge opening at its bottom; a valve within the tank for opening and closing said opening; means within the tank for operating said valve; a depending discharge nozzle secured to the tank below the valve and provided with a breaking point; and means comprising a pin located within the nozzle and carried by the valve which, when the nozzle is broken, acts to hold the valve seated.

1,136,376. CRANK-SHAFT. FRED W. SPACKE, DALMAR T. BROWNLEE, and WILLIAM SPACKE, Indianapolis, Ind., assignors to The F. W. Spacke Machine Company, Indianapolis, Ind., a Corporation of Indiana. Original application filed Jan. 13, 1913, Serial No. 741,719. Divided and this application filed Jan. 28, 1914. Serial No. 815,081. (Cl. 74—38.)

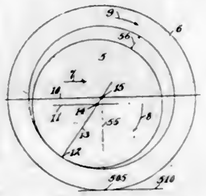


1. A crank shaft comprising two alined stub shafts provided with disks at their adjacent ends, the adjacent faces of said disks having alined eccentric projections substantially parallel to the shaft axis, said projections being bored out taperingly with the large end in each projection toward the other projection, and a double ended doubly tapered bolt fitting in the bores of the projections and provided with nuts whereby the two parts of the shaft may be clamped together.

2. A crank shaft comprising two alined stub shafts provided with disks at their adjacent ends, the adjacent faces of said disks having alined eccentric projections substantially parallel to the shaft axis, said projections being bored out and the bore in each projection being larger at the end toward the other projection than at the end remote therefrom, and a double ended bolt larger at the middle than at the ends and fitting in the bores of the projections and provided with nuts whereby the two parts of the shafts may be clamped together.

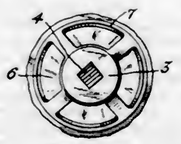
3. A crank shaft comprising two alined stub shafts provided with disks at their adjacent ends, the adjacent faces of said disks having alined eccentric projections substantially parallel to the shaft axis, said projections being bored out, a double ended bolt fitting in the bores of the projections and provided with nuts whereby the two parts of the shaft may be clamped together, and fly wheels mounted on said disks and provided with holes fitting over said nuts to lock them against rotation.

1,136,377. VEHICLE-WHEEL. EDWIN STANCLIFF, New York, N. Y. Filed June 29, 1908, Serial No. 440,835. Renewed Feb. 6, 1915. Serial No. 6,641. (Cl. 21—151.)



The combination of an inner and outer wheel, said inner wheel comprising a pair of outwardly-directed spaced-apart flanges forming a grip-tire space opening toward the outer wheel, and an elastic grip-tire carried by the outer wheel and lying between said flanges to engage the track face therebetween, the tire being of such dimensions that it will expand and engage the flanges with a driving-grip variable according to the variations in the load.

1,136,378. ILLUMINATING DEVICE. AUGUST SUNDH, Hastings-upon-Hudson, N. Y. Filed Nov. 13, 1914. Serial No. 871,889. (Cl. 240—2.)



1. A hollow knob adapted for manual operation, a battery in said hollow, a conical extension on the knob, an electric lamp in said extension surrounded by a conical glass shield, and openings in said extension for the light from said lamp to shine through in all directions circumferentially of the knob.

2. A hollow knob adapted for manual operation, a battery in said hollow, an extension on the knob, an electric lamp in the extension surrounded by a shield, openings in said extension, and a reflector back of said lamp shaped to throw the light from said lamp through said openings.

3. A hollow knob adapted for manual operation, a battery in said hollow, terminals in said battery in axial alinement with each other, an extension on the knob, an electric lamp in said extension surrounded by a shield, openings in said extension for the light from the lamp to

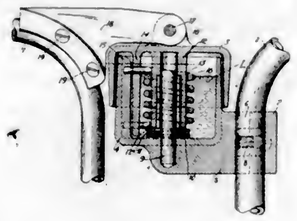
shine through circumferentially of the knob, and means carried in the end of the knob to engage one terminal of the battery.

4. A hollow knob adapted for manual operation, a battery in said hollow, rigid terminals for said battery in axial alinement with each other, an extension on said knob, an electric lamp in said extension surrounded by a shield, and openings in said extension for the light from the lamp to shine through in all directions circumferentially of the knob.

5. A hollow knob adapted for manual operation, an extension on the knob, a cover for the knob, an illuminating device carried by the knob and extension, part of said illuminating device being carried in and wholly surrounded by said extension and part carried in and surrounded by the knob proper, a switch carried by said cover, and means associated with the cover for controlling said switch.

[Claims 6 to 12 not printed in the Gazette.]

1,136,379. GATE-HINGE. AUGUST SUNDH, Hastings-upon-Hudson, N. Y. Filed Dec. 10, 1914. Serial No. 876,402. (Cl. 16—25.)



1. In a hinge, a stationary member, a central spindle, a revoluble member having a socket extending over said spindle and guided thereby, a center position for said revoluble member, a stop in the stationary member, an extension on the revoluble member, a torsional spring surrounding the spindle and the socket and guided thereby, one end engaging on one side of the stop and the other end engaging on the other side of the stop in the stationary member, the extension of the revoluble member being interposed between the ends of said spring, thereby holding the revoluble member in central position.

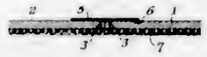
2. In a hinge, a stationary member, another member adapted for manual operation in one direction or the other from a central position, a central spindle supported by the stationary member, the manually operable member having a socket extending over said spindle and guide thereby, a stop in the stationary member, an extension on the manually operable member, a torsional spring surrounding the spindle and the socket and guided thereby, the ends of the spring engaging the stop in the stationary member and held under torsional tension by said stop, the extension of the manually operable member being interposed between the ends of said torsional spring and held in a central position thereby, said extension adapted to wind up the spring when the manually operable member is operated to one side or the other from a center.

3. In a hinge, a stationary member, another member adapted for manual operation in one direction or the other from a central position, a central spindle for said members, sockets in the said members for holding and guiding the members, a torsional spring surrounding the said spindle with its two ends extending out and engaging with a stop in the stationary member and held under torsional strain by said stop, an extension in the manually operable member interposed between the ends of said torsional spring and held in a central position thereby, said extension adapted to operate the spring to cause same to store up tensional spring power by the operation of the manually operable member, this tension adapted to force the manually operable member back to a central position.

4. A hinge, comprising stationary and revoluble members, the stationary member constructed to hold a lubricant, and mechanism consisting of a central spindle for holding and guiding said members relative to each other, a torsional spring surrounding said spindle, means always to hold said spring under tension and to increase said tension upon manual operation of the revoluble member, roller bearings for the spindle, the revoluble member having downwardly extending walls freely fitted to clear the walls of the stationary member.

5. A hinge, comprising stationary and revoluble members, the stationary member constructed to hold a lubricant, coöperating mechanism for said members, said mechanism consisting of a center spindle with antifriction bearings, a torsional spring, means to hold said spring under torsional strain, means to obtain an increased torsional spring tension by a manual operation of the revoluble member, said revoluble member having walls extending downward and freely fitted to clear the walls of the stationary member, a pivoted lever connected to said revoluble member and adapted to suspend a load and also adapted to transmit a manual operation to the revoluble member.

1,136,380. SEAM FOR RUGS. HENRY E. TERRY, Philadelphia, Pa. Filed July 3, 1914. Serial No. 848,733. (Cl. 154—42.)



1. As a new article of manufacture, a rug formed of a plurality of woven strips sewn edge to edge by stitches passing across the front thereof alone and providing a plurality of parallel seam edges unconnected at the extreme back surfaces, and abutting under the tension of the stitches to form tight seams combined with a plurality of strips of reinforcing material tightly cemented to the back surfaces of said rug strips and respectively covering the seams and holding the abutting edges at the back permanently together, said strips of reinforcing material being non-stretchable transversely to the length.

2. A rug formed in sections connected by a sewn seam, said seam formed by hinging the sections together at the front by stitches, a strip of reinforcing textile material non-stretchable transversely to its length cemented tightly to the back of adjacent sections and with the abutting edges in tight compressed contact to cover the seam between them and hold the back edges of said seam from separating.

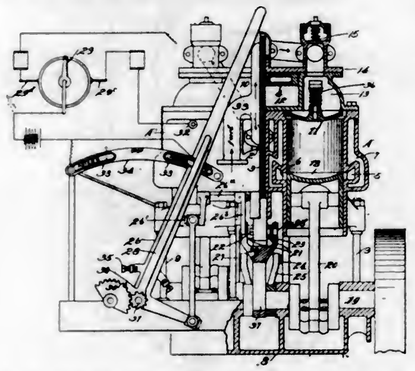
1,136,381. SELF-STARTING AND REVERSIBLE INTERNAL-COMBUSTION ENGINE. JOHN F. TWIGG, San Francisco, Cal. Filed May 19, 1913. Serial No. 768,421. (Cl. 123—41.)

1. An internal combustion engine comprising separated twin cylinders, with a fuel pump arranged above and overlapping the cylinders, said pump comprising a piston and its rod, and a guide for the piston-rod located between the cylinders.

2. An internal combustion engine comprising separated twin cylinders, with a fuel pump arranged above and overlapping the cylinders, said pump comprising a piston and its rod, and a guide for the piston-rod located between the cylinders, automatic inlet valves for the cylinders, and receiving chambers interposed between said cylinders and the pump.

3. In an internal combustion engine comprising separated twin cylinders, with a fuel pump arranged intermediately thereof, said pump comprising a piston and its rod, a guide for the piston-rod located between the cylinders, automatic inlet valves for the cylinders, receiving chambers interposed between said cylinders and the pump, and safety valves for the receiving chambers.

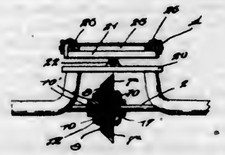
4. An internal combustion engine comprising separated parallel cylinders, pistons reciprocatable in said cylinders, a crank-shaft to which the pistons are connected, a manifold for the supply of fuel, a double-acting pump deriving fuel from said manifold, receiving chambers interposed between said pump and the engine cylinders, automatic inlet valves controlling the passage of gas from said chambers to the cylinders, and a manually operable mechanism for reciprocating the pump piston for the supply of gas to said receiving chambers.



5. An internal combustion engine comprising separated parallel cylinders, pistons reciprocatable in said cylinders, a crank shaft to which the pistons are connected, a manifold for the supply of fuel, a double-acting pump deriving fuel from said manifold, receiving chambers interposed between said pump and the engine cylinders, automatic inlet valves controlling the passage of gas from said chambers to the cylinders, and a manually operable mechanism including a lever for reciprocating the pump piston for the supply of gas to said receiving chambers, said mechanism comprising a connection between said lever and the pump whereby the volume of the fuel forced by the pump into the receiving chambers may be varied.

[Claims 6 to 37 not printed in the Gazette.]

1,136,382. DRIVING-GEARING FOR MOTOR-VEHICLES. ROBERT E. TWYFORD, South Houston, Tex. Filed July 25, 1912, Serial No. 711,595. Renewed Sept. 10, 1914. Serial No. 861,137. (Cl. 74—34.)



1. A gear mechanism including two axially alined shafts, a bayonet gear secured on each of said shafts adjacent to their opposed ends and each being provided with a cylindrical hub extending one toward the other, three concentric rings disposed around the hubs of the beveled gears, the outermost of such rings being provided with a gearing face, while the innermost of such rings serving as a supporting mounting, radially disposed shafts operatively connecting such rings, and beveled gears mounted between the two innermost of such rings adapted to mesh with the pinions on the shafts.

2. A gear mechanism including two axially alined shafts, a beveled gear secured on each of the shafts adjacent to their opposed ends and each being provided with a cylindrical hub extending one toward the other, a plurality of concentric rings disposed around the hubs of the beveled gears, the outermost of such rings being provided with gearing faces while the innermost of such rings serves as a supporting mounting, radially disposed shafts operatively connecting said rings, and beveled gears mounted between the two innermost of said rings adapted to mesh with the pinions on the shafts.

3. A gear mechanism including two axially aline shafts, a beveled gear secured on each of the shafts adjacent to their meeting ends and each being provided with a cylindrical hub extending one toward the other, an annular ring disposed around the hubs of the gears, a toothed rim secured to the outer surface of the annular ring with the radial plane at its axial center coinciding with said meeting ends of the shafts, a plurality of beveled gears operatively mounted within said annular ring and having their longitudinal centers coinciding with the medial radial plane of said toothed rim, and a bearing ring rotatably mounted on the hubs of the first gears and coacting therewith and with the axles of said plurality of gears for supporting the latter and the said annular ring and toothed rim independently of any other supporting means.

1,136,383. CASE FOR INCANDESCENT-ELECTRIC-LAMP SOCKETS. AUGUST WEBER, Sr., Schenectady, N. Y., assignor to Weber Electric Company, Schenectady, N. Y., a Corporation of New York. Filed Aug. 4, 1906, Serial No. 329,153. Renewed Apr. 9, 1914. Serial No. 830,793. (Cl. 173—362.)



1. A case comprising a pair of sheet-metal members, one adapted to telescopically receive the other, one of said members having an offset, the outer end of which is of reduced dimensions, and the other of said members being provided with a seat adapted to receive the body of said offset, and with a continuous bayonet guide-way for the reduced end of said offset extending from the edge of said other member to said seat whereat it terminates of a width less than the width of the body of said offset.

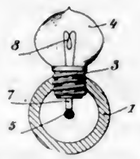
2. A case comprising a pair of sheet-metal members, one adapted to telescopically receive the other, provided with means for guiding the members telescopically together by a movement having a rotational component, the inner of said members being compressible, one of said members having a fixed projection with sides perpendicular to the wall of the member, the other member being provided with an aperture through its wall adapted to automatically interlock with said projection as the members are telescoped together, and presenting rigid cut-sheet-metal edges to the perpendicular sides of said projection in a direction to prevent telescopic separation and relative rotation of the interlocked members, whereby separation of said interlocked members is postively prevented until the inner member is manually compressed.

3. A case comprising a pair of sheet-metal members, one adapted to telescopically receive the other, the inner of said members being compressible, one of said members having a projection riveted thereupon with sides perpendicular to the wall of said member, the other of said members being provided with an aperture through its wall adapted to interlock with said projection, and presenting rigid cut-sheet-metal edges to the perpendicular portion of said projection in a direction to prevent relative rotation of the interlocked members until the inner member is manually compressed.

4. A case comprising a pair of sheet-metal members, one adapted to telescopically receive the other and automatically interlock therewith, one of said members being provided with a perforation through its wall having rigid cut-sheet-metal walls, the other of said members having a projection riveted thereupon, said projection having a beveled end whereby it is adapted to automatically inter-

lock with said perforation as the members are telescoped together, and having perpendicular sides engageable with the rigid cut-sheet-metal walls of said perforation in a direction to positively resist telescopic movement of separation and relative rotation of the interlocked members.

1,136,384. TUBULAR CONDUCTOR FOR INCANDESCENT ELECTRIC LAMPS. GUSTAVE WEISSMANN, Paris, France, assignor to Arnold B. Heine, New York, N. Y. Filed Mar. 18, 1914. Serial No. 825,673. (Cl. 240—1.)



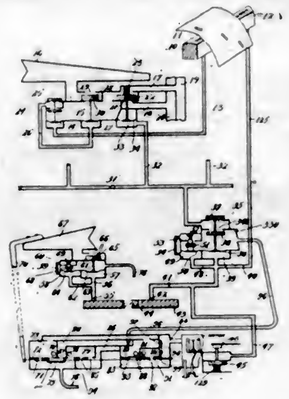
1. An electric conductor designed principally for luminous signs and similar purposes consisting of a tubular outer conductor having threaded holes for the insertion of the sockets of incandescent electric lamps and an inner conductor located in said tubular conductor, means for insulating the inner conductor from the outer conductor, incandescent lamps placed in the outer conductor in such a manner that one pole of the filament is connected with said outer conductor the other pole being connected with the inner conductor, a curved blade spring under said inner conductor for pressing the same upward, means for connecting the outer conductor with one of the poles of a source of electricity and means for connecting the inner conductor with the pole of electricity, substantially as described and shown and for the purpose set forth.

2. An electric conductor designed principally for luminous signs and similar purposes consisting of a tubular outer conductor having threaded holes for the insertion of the sockets of incandescent electric light lamps and an inner conductor located in said tubular conductor, means for insulating the inner conductor from the outer conductor, incandescent lamps placed in the outer conductor in such a manner that one pole of the filament is connected with said outer conductor, the other pole being connected with the inner conductor, means for connecting the outer conductor with one of the poles of a source of electricity and means for connecting the inner conductor with the pole of electricity, and plugs of insulated material in the ends of said tubular outer conductors carrying the means for feeding electricity to said conductors, substantially as described and shown and for the purpose set forth.

3. A device of the character described, comprising a substantially tubular conductor, a second and bare conductor disposed therein and insulating devices interposed between the inner wall of the tubular conductor and the second conductor for maintaining the latter yieldingly in position, the tubular conductor being provided with threaded openings to receive the sockets of lamp filaments, such sockets constituting one pole of each of the filaments and lying in electrical contact with the tubular conductor, and the other pole of each filament being moved into electrical contact with the inner conductor when the sockets are screwed in place.

4. A device of the character described, comprising a continuous integral and substantially tubular conductor, a second conductor disposed therein and insulating devices interposed between the inner wall of the tubular conductor for maintaing the latter in position, the tubular conductor being provided with a series of openings to receive the sockets of lamp filaments, such sockets constituting one pole of each of the filaments and lying in electrical contact with the tubular conductor and the other pole of each filament of each lamp of the series being moved into electrical contact with the common inner conductor when the sockets are in place.

1,136,385. AUTOMATIC COMBINATION SOLO MUSICAL INSTRUMENT. PETER WELIN, Worcester, Mass., assignor, by mesne assignments, to Lawrence Maxwell, Cincinnati, Ohio. Filed Sept. 12, 1907. Serial No. 392,541. (Cl. 84—178.)



1. A music playing action having a plurality of striking pneumatics, a chamber for each of said pneumatics, a passage for high air tensions or pressures, a passage for low air tensions or pressures, yielding means in the action for normally connecting the last named passage with said chambers, and means in the action for cutting off a plurality of said chambers from the low air tension passage and simultaneously connecting them with the high air tension passage.

2. A music playing action having a plurality of striking pneumatics, a chamber for each of said pneumatics, a passage for high air tensions or pressures, a passage for low air tensions or pressures adapted to be connected with said chambers for operating said pneumatics, means in the action for cutting off a plurality of said chambers from the low air tension passage and connecting them with the high air tension passage, and a slide valve controlling said means for cutting off a plurality of said chambers from the low air tension passage in succession as the valve moves in one direction, and simultaneously connecting them with the high air tension passage.

3. In a music playing device, the combination with a plurality of elements, a striking pneumatic in each element and an air chamber for each of said pneumatics, of a passage for high air tensions or pressures, a passage for low air tensions or pressures both extending into each element and connected with all of said chambers, and means in each element for cutting off its chamber from the low air tension passage and connecting it with the high air tension passage.

4. In a music playing device, the combination with a plurality of striking pneumatics and a chamber for each of said pneumatics, of a channel board having a passage for high air tensions or pressures and a passage for low air tensions or pressures adapted to be connected with said chambers for operating said pneumatics, manually controlled pneumatic means in the action for cutting off all of said chambers from the low air tension passage, a manually operated valve controlling said means for cutting off a plurality of chambers from the low air tension passage and connecting them with the high air tension passage, and a governor connected with the low air tension passage, whereby the governor will be ineffective during accenting.

5. In a music playing device, the combination with an action comprising a plurality of striking pneumatics, a chamber for each of said pneumatics, a passage for high air tensions or pressures, and a passage for low air tensions or pressures adapted to be connected with said chambers for operating said pneumatics, of a manually controlled slide valve for cutting off all said chambers from the low air tension passage one after the other, as the valves moves in one direction and simultaneously connecting them with the high air tension passage, and a valve box comprising means constituting part of the action for cutting off a section or sections of chambers from the low air tension passage and connecting them with the high air tension passage controlled from the tracker.

[Claims 6 to 31 not printed in the Gazette.]

1,136,386. UMBRELLA. JOHN GEORGE WOLFE, New York, N. Y. Filed June 18, 1913. Serial No. 774,310. (Cl. 135—28.)



1. In an umbrella or parasol, ribs to receive the covering fabric having laterally extended upper end portions creating spring sections, reinforcing spring metal strips applied on said sections at the outer sides thereof, and means for rigidly securing the upper extremities of said ribs and strips to the stick or rod, whereby on the opening of the umbrella or parasol said sections and strips become flexed.

2. In an umbrella or parasol, ribs to receive the covering fabric having laterally extended upper end portions creating spring sections and thickened upper extremities creating heads, and sleeves, one within the other, on the stick or rod receiving between them and securing the upper ends of said ribs, one of said sleeves having a shoulder engaged by said heads and the outer sleeve being extended downwardly upon the ribs to said spring sections.

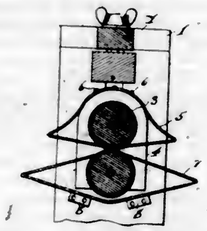
3. In an umbrella or parasol, ribs to receive the covering fabric having laterally extended upper end portions creating spring sections and being folded over inwardly at their extreme upper ends to form heads, and sleeves, one within the other, on the stick or rod receiving between them and securing the upper ends of said ribs, one of said sleeves having a shoulder engaged by said heads and the outer sleeve being extended downwardly upon the ribs to said spring sections.

4. In an umbrella or parasol, ribs to receive the covering fabric having laterally extended upper end portions creating spring sections and thickened upper extremities creating heads, and sleeves, one within the other, on the stick or rod receiving between them and securing the upper ends of said ribs, one of said sleeves having a shoulder engaged by said heads and the outer sleeve being extended downwardly upon the ribs to said spring sections, and said sleeves having interengaging screw threads by which they are connected together and the outer sleeve rendered removable from the inner sleeve.

5. As a new article of manufacture, an individual umbrella rib having at its upper end portion a flattened spring section provided on its upper end with a head and extending laterally at its side edges beyond the side edges of the body of the rib, as described.

[Claims 6 and 7 not printed in the Gazette.]

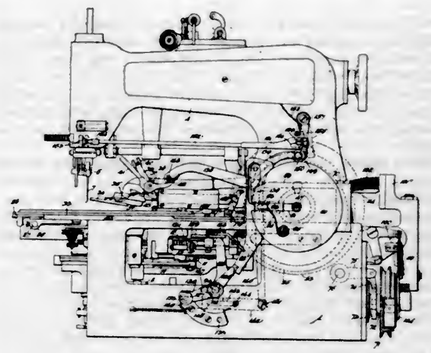
1,136,387. WRINGER-GUARD. EDWARD L. YOUNG and HENRY N. MILLER, Detroit, Mich. Filed Aug. 24, 1914. Serial No. 858,211. (Cl. 68—32.)



1. In a wringer the combination of wringer rolls, means for actuating said rolls, guard members spaced apart around said rolls and substantially surrounding the same, said guards being in close proximity to said rolls on both sides longitudinally thereof near the point of contact of the said rolls.

2. In a wringer the combination of a frame, wringer rolls mounted in said frame, means adapted to revolve said rolls, a metallic sheet longitudinally disposed spaced apart from the upper wringer roll and mounted at both ends upon said frame, said metallic sheet extending from a point above said upper roll outwardly and downwardly on both sides of said upper wringer roll, thence downwardly and inwardly to a point in close proximity to the point of contact of the upper and lower wringer rolls, a second longitudinally disposed metallic sheet spaced apart from the lower wringer roll and fixed at its ends to the frame of said wringer, said last named metallic sheet extending outwardly and upwardly from the bottom of said lower wringer roll and thence upwardly and inwardly to a point in close proximity to the point of contact between the lower and upper wringer rolls.

1,136,388. BUTTONHOLE CUTTING AND SEWING MACHINE. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed June 30, 1913. Serial No. 776,506. (Cl. 112—4.)



1. In a buttonhole sewing machine, in combination, buttonhole cutting and stitch-forming mechanisms, a work-clamp, clamp-closing means, and means dependent in its operation upon the clamp-closing means and the cutting and stitch-forming mechanisms for producing in different orders the clamp-closing, cutting and stitching operations.

2. In a buttonhole sewing machine, in combination, buttonhole cutting and stitch-forming mechanisms, a work-clamp, clamp-closing means, and interdependent means

for producing in different orders the clamp-closing, cutting and stitching operations with provision for insuring the invariable closing of the clamp prior to the cutting and stitching operations.

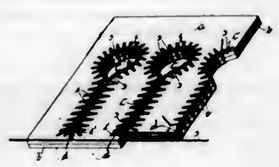
3. In a buttonhole sewing machine, in combination, buttonhole cutting and stitch-forming mechanisms, a work-clamp, clamp-closing means, and controlling means operatively connected with the clamp-closing means and adapted for adjustment to cause the successive operation of the stitch-forming and cutting mechanisms in different orders subsequently to the initial closing of the clamp.

4. In a buttonhole sewing machine, in combination, buttonhole cutting and stitch-forming mechanisms, a work-clamp, controlling means including an adjustable element adapted to be set prior to the performance of a cycle of operation of the machine to set in operation the cutting mechanism either before or after the action of the stitch-forming mechanism, and a connection between the work-clamp and said controlling mechanism whereby the closing of the clamp is succeeded by the cutting and stitching operations in either order.

5. In a buttonhole sewing machine, in combination, buttonhole cutting and stitch-forming mechanisms, a work-clamp, automatically acting clamp-closing means, and controlling means operatively connected with the clamp-closing means and adapted for adjustment to cause the successive operation of the stitch-forming and cutting mechanisms in different orders subsequently to the initial closing of the clamp.

[Claims 6 to 35 not printed in the Gazette.]

1,136,389. STITCHED BUTTONHOLE. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 3, 1914. Serial No. 810,131. (Cl. 112—34.)

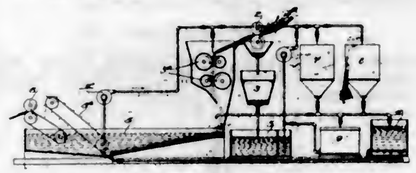


1. A fabric provided with a stitched buttonhole formed with a slit having an overseam composed of a plurality of interlooped stitching threads extending along both edges thereof and with an adjacent aperture, and a cord-loop surrounding said slit and embraced within said overseam upon one face of the fabric with both limbs of said loop leading through said aperture to the other face of the fabric.

2. A fabric provided with a stitched buttonhole formed with a slit and with an adjacent aperture disposed in alinement therewith and having a plural-thread overseam embracing both edges of the slit and extending across said aperture, said overseam having a marginal purl of its component threads disposed upon one face of the fabric, and a cord-loop surrounding said slit and embraced within said overseam upon the other face of the fabric with both limbs of said loop led through said aperture and extended along the first-named face of the fabric each across the line of the slit from the margin of the latter upon which it is secured by said overseam.

3. As an article of manufacture, superposed fabrics provided with a stitched buttonhole formed with a slit extending through both fabrics and an adjacent aperture in one of said fabrics disposed in alinement therewith, and with an overseam extending along both edges of the slit and composed of stitches extending through both fabrics, and a cord embraced within said overseam upon the face of that fabric formed with the aperture and led through said aperture from between said fabrics.

1,136,390. PROCESS FOR THE EXTRACTION OF MINERAL SALTS AND ORGANIC CONSTITUENTS OF KELP. ADOLPHE G. ARTZ, San Francisco, Cal., assignor, by direct and mesne assignments, to Kelp Products Company, San Francisco, Cal., a Corporation of California. Filed Mar. 10, 1913. Serial No. 753,234. (Cl. 23—13.)



1. The continuous process of treating raw kelp, which consists in subjecting the raw, fresh kelp to pressure to remove the expressible liquids, then removing the algin from the expressed liquid, then macerating the remaining solids and treating said solids with said liquid during maceration, after the algin has been removed, to extract the remaining algin and salts, and then boiling in a vat for several hours and constantly removing the cellulose from said vat.

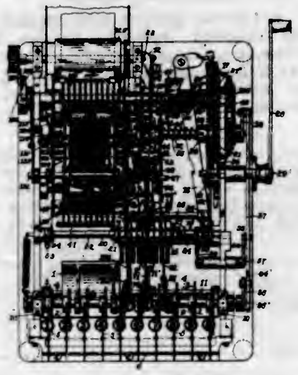
2. The continuous process of treating raw kelp, which consists in subjecting the raw, fresh kelp to pressure to remove the expressible liquids and leave the solids; then treating the expressed juice with sulfuric acid to precipitate the algin; neutralizing the liquid separated from the precipitated algin with carbonate of lime; rendering said neutralized liquid alkaline metal with alkaline carbonate; macerating said solids with the alkaline liquid, to further extract the remaining algin and salts, and then boiling for several hours to precipitate the cellulose, said cellulose being removed as it is precipitated.

3. The continuous process of treating raw kelp, which consists in subjecting the raw, fresh kelp to pressure to remove the expressible liquids and leave a pulp; then treating the expressed juice with sulfuric acid to precipitate the algin; neutralizing the liquid separated from the precipitated algin with carbonate of lime; rendering said neutralized liquid alkaline with alkaline metal carbonate; then disintegrating the pulp, and treating said disintegrated pulp with the last named liquid for the purpose of extracting the therein remaining algin and soluble salts and continuously removing the cellulose freed during such treatment.

4. The continuous process of treating raw kelp which consists in subjecting the kelp to pressure to separate the liquid contents from the solid organic matter, collecting the expressed liquid, treating the expressed liquid with a solution of sulfuric acid to precipitate the algin contained in the liquid, separating the algin from the liquid by filtration, adding sufficient carbonate of lime to the liquids to neutralize the acid, and evaporating the same to remove the salts.

5. The continuous process of treating raw kelp for the purpose of separating it into its various mineral and organic constituents which consists in subjecting the kelp to pressure to separate the liquid contents from the solid organic structure, collecting the expressed liquids separately from the solids, treating the collected liquid with a solution of sulfuric acid to precipitate the algin contained in the liquid, separating the algin from the liquid by filtration, adding sufficient carbonate of lime to neutralize the acid, then adding five to fifteen pounds per one hundred gallons of sodium carbonate, macerating the solids to a pulp, treating the solids with said liquid during maceration, boiling the pulp for approximately six hours in the sodium carbonate solution before obtained to further extract algin and soluble salts contained in the pulp, separating the solution so obtained from the cellulose by pressure, treating same with sufficient sulfuric acid to precipitate the dissolved algin, filtering the solution to remove the secondary precipitation of algin, adding sufficient carbonate of lime to the liquid to neutralize the acid, and evaporating the same to remove the salts.

1,136,391. CALCULATING-MACHINE. SYDNEY B. AUSTIN, Sudbrook Park, Md., assignor, by mesne assignments, to Frederic L. Huidekoper, trustee, Washington, D. C. Filed Aug. 28, 1911. Serial No. 646,507. (Cl. 235—60.)



1. In combination, a selector, a transmitting gear, a carriage, an escape rack on the carriage, a lever having movement vertically and horizontally, pawls carried by the lever for moving the rack step by step, keys with connections for operating the selector, a universal frame operated by the keys, said universal frame giving a vertical movement to the said lever for the escapement action, a hand lever for rotating the selector, and a cam operated from the hand lever for operating the escapement lever horizontally to shift the transmitting gears axially, substantially as described.

2. In combination, a selector, keys for setting the same, transmitting gears to engage the selector, totalizing wheels, a shaft with connections between the same and the selector, a carriage for the transmitting gears, a second shaft with connections for operating the carriage, a hand lever and gearing and clutches between said hand lever and the two shafts, said clutches operating one shaft on the forward stroke of the lever, and the other on the rearward stroke of the hand lever, substantially as described.

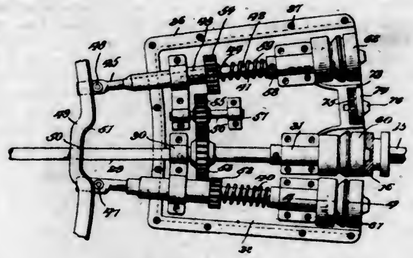
3. In combination, keys, a selector, transmitting gears to engage the selector, a hand lever, a slotted link and an arm on the selector shaft forming the connection between the hand lever and the selector shaft, said slot having a locking notch, the said selector being rotatable in either direction when the selector arm is engaging the slot, means holding the link with its slot in position to allow free movement to the arm, said means being controlled from the hand lever to allow the link by its locking notch to become locked to the arm for the operation of the selector from the hand lever.

4. In combination, a selector, transmitting gears to engage therewith, means for giving the selector rotary movement, an escapement carriage, a lever having pawls to control the escapement carriage, a cam and collar to act on the said lever to shift the same for moving the carriage to make the transmitting gears lie opposite the spaces between the totalizing wheels and a subtracting key with connections to the collar for moving the same circumferentially about the shaft and in relation to the cam to change the time of operation by said cam in relation to the movement of the selector for subtraction.

5. In combination, a selector, transmitting gears, a carriage therefor, keys, connections between the same and the selector, an escapement for the carriage connections thereto from the keys, a hand lever, a shaft geared to the hand lever to make the complete revolution as the hand lever is moved forward and to remain at rest as the hand lever is returned, connections between the shaft and the selector for rotating the same forward and backward for one revolution of the said shaft, means on said shaft for shifting the carriage of the transmitting gears a half space axially, a second shaft, with gearing and clutch between the same and the hand lever to be operated thereby on its return stroke only, accumulator and printing mechanism with means for operating the same from said second shaft, and means for operating the carriage of the transmitting gears from said second shaft, substantially as described.

[Claims 6 to 31 not printed in the Gazette.]

1,136,392. GEARING. AUBURN BAILEY, Oakland, Cal. Filed Apr. 28, 1914. Serial No. 834,998. (Cl. 74—59.)



1. In a power transmission mechanism, the combination with a driven clutch member, of a driving shaft, a coacting clutch member thereon, a plurality of jack shafts, clutch members thereon adapted to co-act with the driven clutch member, means for swinging the jack shafts to selectively bring their clutch members into engagement with the driven clutch member, and means for transmitting power from the jack shafts to the driving shaft.

2. In a power transmission mechanism, the combination with a driven clutch member and a driving shaft including a universal joint, of a co-acting clutch member carried by the driving shaft, a plurality of jack shafts, co-acting clutch members carried by the jack shafts for engagement with the driven clutch member, means for simultaneously swinging the driving shaft and jack shafts to selectively bring their clutch members into engagement with the driven clutch member, and means for transmitting power from the jack shafts to the driving shaft.

3. In a power transmission mechanism, the combination with a driven clutch member and a driving shaft including a universal joint, of a co-acting clutch member carried by the driving shaft, a plurality of jack shafts, co-acting clutch members carried by the jack shafts for engagement with the driven clutch member, means for simultaneously swinging the driving shaft and jack shafts to selectively bring their clutch members into engagement with the driven clutch member, and means for transmitting power from each of the jack shafts to the driving shaft, said means becoming operative only when the clutch member of the jack shaft is in engagement with the driven clutch member.

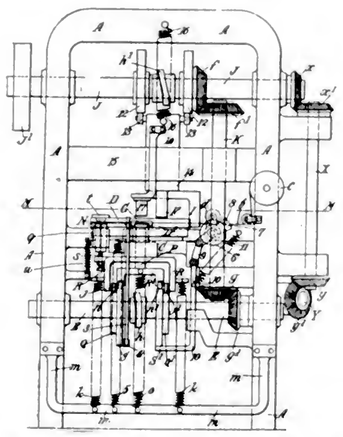
4. In a power transmission mechanism, the combination with a driven clutch member and a swingingly mounted driving shaft having a clutch member adapted to co-act with the driven clutch member but movable away from the same through swinging of the shaft, a plurality of jack shafts having clutch members also movable into and out of engagement with the driven clutch member, each jack shaft including telescopic portions, a gear carried by the driving shaft, a gear upon one portion of the jack shaft adapted upon longitudinal movement of such portion to move into operative relation with respect to the gear carried by the driving shaft, and means for imparting longitudinal movement to said jack shaft sections when the jack shafts are brought into alinement with the shaft of the movable clutch member.

5. In a power transmission mechanism, the combination with a driven clutch member carried by a crank shaft and a driven shaft carrying a universal joint, of a driving shaft connected at one end to the universal joint a clutch

member at the other end of the driving shaft adapted for engagement with the driven clutch member, a support for the driving shaft mounted for swinging movement about the universal joint as a center, a plurality of jack shafts also carried by the support and extending radially with respect to the universal joint, clutch members carried by said jack shafts, and means for transmitting power from the jack shafts to the driving shaft.

[Claims 6 to 13 not printed in the Gazette.]

1,136,393. MANUFACTURE OF STOPPERING CROWNS OR CAPS FOR BOTTLES. WILLIAM BAILEY, Birmingham, England, assignor, by mesne assignments, to Crown Cork & Seal Company, Baltimore, Md. Filed Nov. 22, 1909. Serial No. 529,471. (Cl. 113—80.)



1. In a machine for the manufacture of bottle stoppering crowns, the combination with a rotating conveyer plate for the cork insertions of a die for stamping out disks of flexible material, and means for applying said disks to the cork insertions to be held thereby.

2. In a machine for the manufacture of bottle stoppering crowns the combination of a rotating conveyer plate for the cork insertions, a die for stamping out disks of flexible material, means for applying said disks to the cork insertions, means for inserting said cork insertions in the crowns and means for securing said insertions therein.

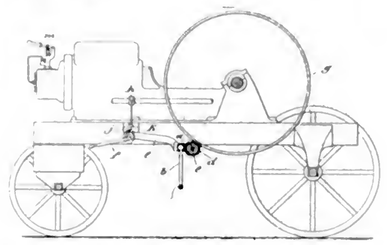
3. In a machine for the manufacture of bottle stoppering crowns, the combination of a rotating conveyer plate for the cork insertions, a roller carrying a band of flexible material, two concentric dies the outer of which stamps out disks from said band, and the inner of which receives the cork insertions and is actuated so as to bring the same on to the disks, and means for applying said disks to the cork insertions.

4. In a machine for the manufacture of bottle stoppering crowns, the combination of a rotating conveyer plate for the cork insertions, a roller carrying a band of tin foil or other suitable flexible material, means for intermittently feeding said band, a die for stamping disks from the said band, and a matrix plate acting in conjunction with said die to apply the disks to the cork insertion to be held thereby.

5. In a machine for the manufacture of bottle stoppering crowns, the combination of a rotating conveyer plate for the cork insertions, a roller carrying a band of tin foil or other suitable material, means for intermittently feeding said band, a die for stamping disks from the said band, a matrix acting in conjunction with said die to apply the said disks to the cork insertions leaving an edge of the disk turned down, an expanding die which is adapted to embrace the lower edge of the turned-down disks and secure it to the cork insertions and means for applying and securing said covered insertions in the stoppering crowns.

[Claims 6 to 22 not printed in the Gazette.]

1,136,394. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. FRIEDRICH BALASSA, Budapest, Austria-Hungary, assignor to Magyár Kir.-Állami Vasgyárak Központi Tgazgatvósága, Budapest, Austria-Hungary. Filed Mar. 4, 1914. Serial No. 822,372. (Cl. 123—185.)



1. The combination with an internal combustion engine having a flywheel, of a pulley, a hand crank and gearing for rotating said pulley, manually operated means for forcing said pulley into frictional engagement with the flywheel, and means for automatically disengaging said pulley and flywheel at the moment when the first explosion occurs.

2. The combination with an internal combustion engine having a flywheel, of a pulley, a hand crank and gearing for rotating said pulley, a lever on which said pulley is mounted journaled co-axially with the hand crank, manually operated means for rotating said lever so as to force the pulley into frictional engagement with the flywheel, and means for automatically disengaging said pulley and flywheel at the moment when the first explosion occurs.

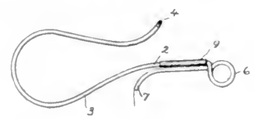
3. The combination with an internal combustion engine having a flywheel, of a rotatable pulley mounted on a lever pivoted to the frame of the engine, a crank pivoted at the end of said lever, a pin on said crank engaging in a slot in a fixed part of the engine, manually operated means for moving said pin in said slot to rotate the lever on its pivot and force said pulley into engagement with the flywheel, and means operating automatically when the first explosion occurs to move said pin in the opposite direction so as to withdraw the pulley from the flywheel.

4. The combination with an internal combustion engine having a flywheel, of a pulley, a hand crank and gearing for rotating said pulley, manually operated means for forcing said pulley into frictional engagement with the flywheel, and means operated by the cam shaft of the engine for disengaging said pulley and flywheel at the moment when the first explosion occurs.

5. The combination with an internal combustion engine having a flywheel, of a shaft journaled in the engine frame, a lever pivoted on said shaft, a pulley rotatably mounted on said lever, a hand lever pivoted on said lever, a pin on said hand lever projecting through a slot on said lever, a crank also pivoted on said lever co-axially with said hand lever and adapted to be engaged by the pin on said hand lever, a pin on said crank adapted to move in a slot in the frame, a rod slidably supported on said frame adapted to engage with the pin on said crank and a lug on the cam shaft of the engine for operating said rod when ignition occurs.

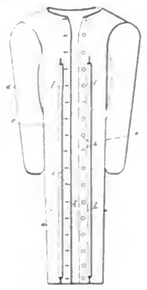
1,136,395. COW-TAIL HOLDER. NELS P. BENGSTON, Plainville, Conn. Filed Sept. 12, 1914. Serial No. 861,341. (Cl. 119—105.)

A cow tail holder comprising a hook, the shank and bill of which have approximately parallel sides, a cross-piece connecting the free end of the bill, the sides of the shank having coiled springs at their outer ends, the inner coils of said springs being projected forwardly, the shank being located between said forwardly projected portions and the bill, and the bill being separated from the shank, the forwardly projected portions being between the sides of the shank and all in one piece, and a plate having



sleeves fitted to the sides of the shank, the outer end of the plate being adjacent said coils and said forwardly projected portions being contiguous to the outer surface of said plate said plate tying together said sides to prevent movement of the latter toward or from each other.

1,136,396. RESTRAINING DEVICE. BERNÁT GÁSPÁR, Miskolcz, Austria-Hungary. Filed May 18, 1914. Serial No. 839,466. (Cl. 128—3.)

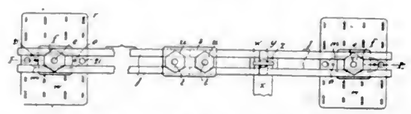


1. A shirt for preventing onanism comprising in combination with a close fitting body portion, longitudinal stiffening members extending along the front of the shirt, and sleeves sewed to the sides of said body portion.

2. A shirt for preventing onanism comprising in combination with a close fitting body portion open in front, longitudinal stiffening members extending along both sides of the open front, means for fastening the front, and sleeves sewed onto the sides of the said body portion.

3. A shirt for preventing onanism comprising a close fitting body portion, longitudinal stiffening members extending along the front of the shirt, and means for holding the arms in position on the sides of the said body portion.

1,136,397. APPARATUS FOR THE TREATMENT OF THE LIMBS OF THE HUMAN BODY. EMANUEL TREFKA BLOCH, Lejre, Denmark. Filed May 5, 1914. Serial No. 836,498. (Cl. 128—52.)



1. In a surgical apparatus, the combination of a splint comprising a pair of spaced members; a bearing member adapted to engage between said members and provided with a socket having an inner spherical surface; a support provided with a partially spherical portion adapted to engage the surface of the socket; a screw passing through said splint bearing member and portion and provided with a head engaging in said spherical portion; a nut on said screw; and a flat spring interposed between said bearing and the splint members for modifying the friction between the contacting surfaces of said head, spherical portion and bearing members.

2. In a surgical apparatus, the combination of a splint comprising a pair of spaced members; a bearing member adapted to engage between said members and provided with a socket having an inner spherical surface; a support provided with a partially spherical portion adapted to engage the surface of the socket; a screw passing through said splint bearing member and portion and provided with a head engaging in said spherical portion; a nut on said screw; a flat disk interposed between said bearing and the splint members and having threaded engagement with said screw; and a flat spring interposed between the bearing member and disk.

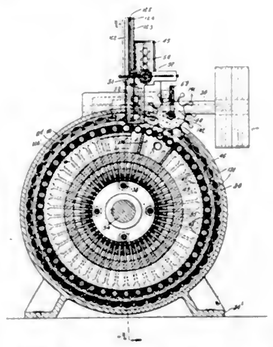
3. In a surgical apparatus, the combination of, a splint comprising spaced members; and a pad holder comprising a strap plate having upturned ends engaging between said members; a strap adapted to pass between said ends and between the plate and said members, an intermediate plate adapted to rest on said members, and a wing screw passing through the intermediate plate into the intermediate plate and into the strap plate.

4. In a surgical apparatus, a pair of spaced members each having an outer flat face; a strap plate contacting the inner face of said members and having a projection engaging therebetween; a strap engaged and held thereby; an intermediate plate having both its breadth and thickness each less than the width of the space between said members, and having an inner flat face adapted to engage the flat faces of said members; and a screw passing through the intermediate plate into the strap plate.

5. In a surgical apparatus, the combination of a splint, a bearing member adjustably secured thereon; a support having universal connection with the bearing member and having a foot piece having a screw hole; a foot plate having thereon a screw engaging in said screw hole; and a metal plate interposed between the foot plate and foot piece, and adapted to have a bandage secured thereto.

[Claim 6 not printed in the Gazette.]

1,136,398. MACHINE FOR THE MANUFACTURE OF BOTTLE-CLOSURES. ALEXANDER BOGDÁNFFY, New York, N. Y. Filed July 29, 1914. Serial No. 853,967. (Cl. 113—80.)



1. In a machine for the manufacture of bottle closures of the cap variety, the combination with a rotary drum having a plurality of recesses, of a chute for holding the metallic parts of the closures, means for holding a plurality of sealing disks to be deposited into said metallic parts, and means carried by said drum for feeding the metallic parts into said recesses and the disks into said metallic parts while in said recesses.

2. In a machine for the manufacture of bottle closures of the cap variety, the combination with a rotary drum having a plurality of recesses, of a chute for holding the metallic parts of the closures, means for holding a plurality of sealing disks to be deposited into said metallic

parts, means carried by said drum for feeding the metallic parts into said recesses and the disks into said metallic parts while in said recesses, and means for applying a cementing medium to the inner faces of said metallic parts while in said chute.

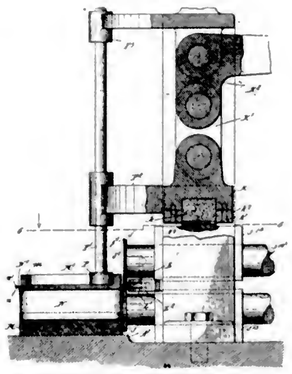
3. In a machine for the manufacture of bottle closures of the cap variety, the combination with a rotary drum having a plurality of recesses, of a chute for holding the metallic parts of the closures, means for holding a plurality of sealing disks to be deposited into said metallic parts, means carried by said drum for feeding the metallic parts into said recesses and the sealing disks onto said drum, and a plurality of spring pressed plungers on said drum for assembling the said metallic parts and sealing disks.

4. In a machine for the manufacture of bottle closures of the cap variety, the combination with a rotary drum having a plurality of recesses, of a chute for holding the metallic parts of the closures, means for applying a cementing medium to said metallic parts while in said chute, means for holding a plurality of sealing disks to be deposited into said metallic parts, means carried by said drum for feeding the metallic parts into said recesses and the sealing disks onto said drum, and a plurality of spring pressed plungers on said drum for assembling the elements of the closures and for holding them under compression for nearly one complete revolution of said drum.

5. In a machine for the manufacture of bottle closures of the cap variety, the combination with a rotary drum having a plurality of recesses, of means for feeding the metallic parts of the closures and the sealing disks into the the said recesses, a plurality of spring pressed plungers for placing the same under compression, and means independent of the springs for causing the sealing disks to be compressed to a predetermined thickness.

[Claims 6 to 27 not printed in the Gazette.]

1,136,399. CAN-SEALING MACHINE. JOHN C. BOWERS, Boston, Mass. Filed Sept. 7, 1912. Serial No. 719,099. (Cl. 113—23.)



1. A box sealing machine comprising a rotatable work-holder, a strip-feeding mechanism, a strip-forming mechanism, and sealing rolls adapted to seal the strip upon the work.

2. A box-sealing machine comprising a rotatable work-holder, a strip-feeding mechanism, a strip-forming mechanism, and sealing rolls adapted to seal the strip upon the work, one of said rolls being mounted in a bearing, adapted to be rocked, and means for rocking said bearing.

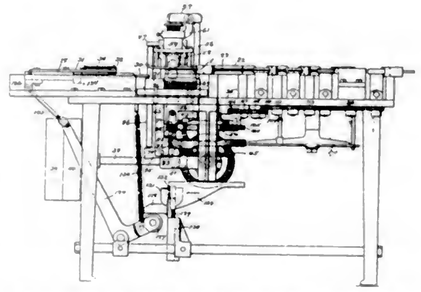
3. A box-sealing machine comprising a rotatable work-holder, a strip-feeding mechanism, a strip-forming mechanism, means for holding the strip straight during the feeding and forming operations, and sealing rolls adapted to seal the strip upon the work.

4. A box-sealing machine comprising a rotatable work-holder, a strip-feeding mechanism, a strip-forming mechanism, sealing rolls adapted to seal the strip upon the work, and a guide adapted to hold the strip against the work during the sealing operation.

5. A box-sealing machine comprising a rotatable work-holder, a strip-feeding mechanism, a strip-forming mechanism, a strip-attaching mechanism, and means for cutting the strip.

[Claims 6 to 31 not printed in the Gazette.]

1,136,400. CAN-SEALING MACHINE. ROBERT REID and ANDREW S. REID, Beverly, Mass., assignors, by mesne assignments, to Arthur H. Parker, Bedford, Mass., and William H. Emerson, Newton, Mass. Filed May 29, 1909. Serial No. 499,184. (Cl. 113—23.)



1. A machine for closing cans, comprising holding means constructed and arranged to grasp a can with its cover in place, such can and cover having outwardly projecting flanges lying closely together, a strip feed comprising a plurality of pairs of rolls adapted to grasp a flat strip and constructed to indent and fold such strip about its longitudinal center line, said rolls being also arranged to advance the strip until its forward end embraces the flanges of the can, a positioning mechanism for the strip arranged to bear on the strip on opposite sides of said flanges, and also outside of the edges of the flanges, and means for producing a relative movement of revolutions between said mechanism and the can-holder whereby the strip is bent around the can and its edge portions caused to embrace the flanges throughout their entire extent.

2. A can-sealing machine comprising a can holder, a pair of rolls located with respect to said holder so that a can carried by the latter and having overlapping edges projecting from its body and cover may have such edges gripped between said rolls, means for feeding a longitudinally folded sealing strip to said rolls, and mechanism for producing a relative progressive motion of said holder and rolls to cause application of the clamping pressure to such edges, and to said sealing strip folded about the same, throughout their entire extent.

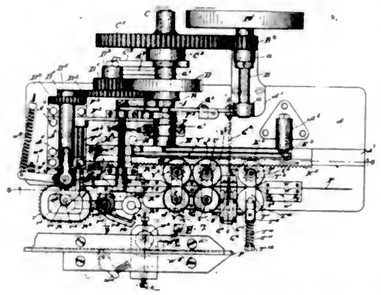
3. A machine for fastening the cover to the body of a can having adjacent flanges on its body and cover by means of a sealing strip, comprising a holder for the article to be sealed, strip-feeding and folding means constructed to bend a strip transversely about its longitudinal center and place such strip with its sides embracing the flanges of the can, strip-setting means for placing and holding said strip upon the can flanges, feeding means for imparting relative movements to said setting means and holder, constructed and arranged to cause the pressure of the setting means to be applied to all parts of the can flanges and strip throughout more than the entire circuit of the flanges, whereby an overlapping end of the strip may be set, and means for restoring the setting means and holder to their relative starting positions between successive operations.

4. A machine for hermetically sealing by mechanical means a can having adjacent flanges on its body and cover, comprising a holder for the article to be sealed, strip-feeding and folding means constructed to bend a strip transversely about its longitudinal center and place such strip with its sides embracing the flanges of the can, strip-setting means for clamping said strip upon the can flanges, and mechanism for giving said holder a movement past said setting means in such directions as to bring every part of the strip and flange into position to be acted on by said setting means, and through a distance greater than the peripheral length of the flanges, whereby to set an overlapping end of the strip.

5. An organized automatic machine for applying a sealing strip to the overlapping projecting edges of a can body and cover, comprising a can holder, feeding mechanism arranged to advance and guide a strip, folded longitudinally in U-form, until its forward end is placed on and embraces said edges, a pair of coöperating pressure members arranged to bear on the opposite sides of the strip when so placed, means for releasing said members as the strip and edges are placed between them, means for forcing the members together to grip the strip and edges with a severe and yielding pressure, and means for giving the members and can-holder a relative movement of revolution, whereby the entire extent of the strip and edges are acted on by the members.

[Claims 6 to 20 not printed in the Gazette.]

1,136,401. MACHINE FOR SEALING METAL BOXES OR CANS. JOHN C. BOWERS and EARL E. BARBER, Boston, and ALBERT D. GROVER, Malden, Mass., assignors to Arthur H. Parker, Bedford, Mass., and William H. Emerson, Newton, Mass. Filed Apr. 15, 1911. Serial No. 621,360. (Cl. 113—23.)



1. A box-sealing machine comprising a rotary work-holder, a strip-feeding mechanism, a strip-forming mechanism, a strip-straightening mechanism, and sealing rolls adapted to seal the strip upon the work.

2. A box-sealing machine comprising a rotary work-holder, a strip-feeding mechanism, sealing rolls adapted to seal the strip upon the work, and a guide adapted to hold the strip against the work during the sealing operation, said parts during the sealing operation occupying relatively fixed positions in the machine.

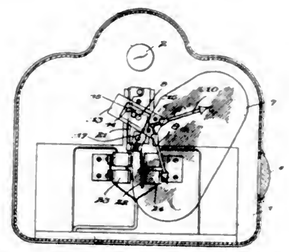
3. In a box-sealing machine, a work-holder comprising two members adapted to clamp a box and its cover between them one of said members having gear teeth about its periphery, means for rotating said work-holder comprising a shaft carrying a gear having elongated teeth in mesh with the teeth on said work-holding member, and means for automatically separating the said gear carrying member from the other member of said work holder to discharge the finished work and releasing it to clamp a fresh piece of work, in combination with means for applying the strip to the work while in said work-holder and means for ejecting the work after said strip has been applied and the members of said work holder have been separated.

4. In a box-sealing machine, two sealing rolls, a work-holder comprising two members and a guide adapted to hold a strip under said sealing rolls and against the work during the sealing operation, and means for separating the members of said work-holder, and means for separating said sealing rolls, said guide being adapted to eject the work when said work-holder members and said sealing rolls have separated.

5. In a box-sealing machine, sealing rolls and means for feeding a sealing strip thereto comprising feed rolls, forming rolls and means for giving them an intermittent movement, and guides located to guide said strip from the forming rolls to the work, one of said guides having a straightening roll, as described.

[Claims 6 to 12 not printed in the Gazette.]

1,136,402. SIGNAL. EDWHIN O. BRANINGTON, Rochester, N. Y., assignor to Andrew Hochreiter, Rochester, N. Y. Filed July 11, 1913. Serial No. 778,546. (Cl. 177—327.)



1. A signaling device comprising a casing having two openings and also having a third opening situated between the first two openings and having a colored glass therein, a light source within the casing, and transparent means adapted to be interposed between the light source and either one of the first two openings for causing either of the first two openings to project a colored light, said transparent means being normally positioned so that both of the first two openings will simultaneously project an uncolored light.

2. A signaling device comprising a casing having two openings, a light source within the casing, and a transparent colored semaphore arranged to be interposed between the light source and either of said openings in order that a colored light may be projected by such opening, said semaphore being in its normal position out of coöperative relation with either of the openings and hidden by the casing so that both openings may simultaneously project an uncolored light.

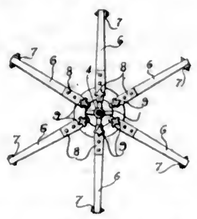
3. A signaling device comprising a casing having two openings, each of which has an uncolored glass therein, said casing also having a third opening situated between the first two openings and having a colored glass therein, a light source in the casing, and means normally out of cooperative relation with both of said openings so that said openings may simultaneously project uncolored light, said means being operable to coöperate with either of the openings to cause such opening to project a colored light.

4. A signaling device comprising a casing having two openings, each provided with an uncolored lens, a light source within the casing, and a transparent colored semaphore normally lying hidden by the casing between the two openings so that the latter may project uncolored lights but movable to either side of its normal position to be interposed between the light source and either of the lenses to cause such lens to project a colored light.

5. A signaling device comprising a casing having three openings, one arranged between the other two and provided with a colored glass, a light source within the casing, a transparent colored semaphore normally lying at a point between the other two openings, and means for moving said semaphore to either side of its normal position in order to cause the semaphore to coöperate with either of the openings.

[Claims 6 to 11 not printed in the Gazette.]

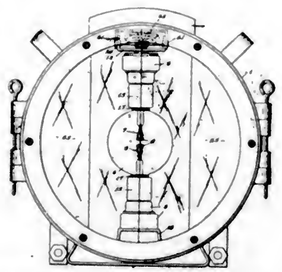
1,136,403. FOLDING GRAIN-HARVESTER REEL. DAVID E. BUCHANAN, Dublin, Tex. Filed June 2, 1914. Serial No. 842,474. (Cl. 56—22.)



1. A folding reel having a shaft, hubs attached thereto, ring braces having flat faces and means mounting said braces on said hubs, slat carrying arms, and means for detachably connecting said arms to said ring braces consisting of spring-actuated yokes having prongs passing through said ring braces and clips attached to said arms and engaged by said prongs.

2. A folding reel having a shaft, hubs attached to said shaft, ring braces and means for attaching the same to said hubs, slat carrying arms, and means for detachably connecting said arms to said ring braces consisting of clips attached to said arms and engaging said ring braces, yokes having prongs passing through said clips and said ring braces, bolts passing through said clips and through said yokes, and spiral springs on said bolts bearing against said yokes and nuts holding said springs in place.

1,136,404. HEADLIGHT. FRANK BUCHANAN, Syracuse, N. Y. Filed June 12, 1912. Serial No. 703,234. (Cl. 240—41.)



1. A headlight comprising opposing fixtures, each having a pair of contact terminals, and an incandescent electric lamp having two pairs of terminals associated therewith for coacting with the first-mentioned terminals, one of the fixtures being pivoted on an axis extending transversely relatively to the axis of the lamp, substantially as and for the purpose set forth.

2. A headlight comprising opposing fixtures, each having a pair of contact terminals, and an incandescent electric lamp having two pairs of terminals associated therewith for coacting with the first-mentioned terminals, one of the fixtures being pivoted on an axis extending transversely relatively to the axis of the lamp, and being also shiftable axially for facilitating placing and removal of the lamp, and a spring for resisting the axial movement, substantially as and for the purpose described.

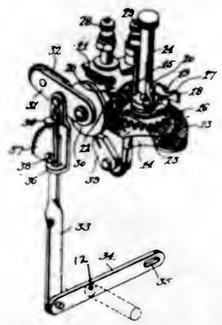
3. A headlight provided with opposing fixtures, each having a pair of sockets and terminals in the sockets, and an incandescent electric lamp provided with two pairs of projecting terminals or prongs for entering the sockets and engaging the terminals therein, substantially as and for the purpose specified.

4. A headlight provided with opposing fixtures, each having a pair of sockets and terminals in the sockets, and an incandescent electric lamp provided with two pairs of projecting terminals or prongs for entering the sockets and engaging the terminals therein, one of said fixtures being pivoted on an axis extending transversely of the axis of the lamp, and being also movable lengthwise of the latter axis, substantially as and for the purpose set forth.

5. A headlight provided with opposing fixtures, each having a pair of sockets and terminals in the sockets, an incandescent electric lamp provided with two pairs of projecting terminals or plugs for entering the sockets and engaging the terminal therein, one of the said fixtures being pivoted on an axis extending transversely of the axis of the lamp, and being also movable lengthwise of the latter axis, and a spring for resisting the lengthwise movement of said fixture, substantially as and for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,136,405. CONTROL MECHANISM FOR ELECTRIC MOTORS. JOHN BUCKLEY, Boston, Mass., assignor to Adolph Sommer, Boston, Mass. Filed May 28, 1913. Serial No. 770,462. (Cl. 74—46.)



1. In an electrically operated advertising device, the combination with an electric motor and gearing driven thereby, of a switch mechanism for breaking the motor circuit embodying a fixed contact, a second contact rotatable about an axis into engagement with the fixed contact, said movable contact being adapted to rotate in one direction only, driving connections intermediate the motor and movable contact for rotating the same and separating the contacts, and manually operated means directly coöperating with the movable contact for positively rotating it in the same direction whereby the contacts are again restored to their operative positions.

2. In an electrically operated advertising device, the combination with an electric motor and gearing driven thereby, of a timed switching mechanism for rupturing the motor circuit, embodying a rotary switch arm having a contact surface, and a coöperating fixed contact, said switch arm being rotatable in one direction only, a driving connection directly engaging the switch arm for positively rotating the same to separate the contacts and rupture the circuit, and rotary means manually operated for positively rotating the switch arm farther in the same direction to reëstablish its operative engagement with the fixed contact.

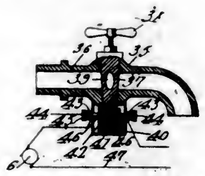
3. In an electrically operated advertising device, the combination with an electric motor and gearing driven thereby, of a switch for rupturing the motor circuit, embodying a fixed elastic contact, a rotatively movable contact with driving connections between the same and motor for rotating the movable contact while permitting said contact to rotate independently of the driving connections, and manually operated rotatable means coöperating directly with the movable contact for positively rotating it farther in the same direction to reëstablish the circuit after the same is ruptured by the operation of the motor.

4. In a device such as described, the combination with an electric motor, gearing driven thereby and switch operating connections driven by said gearing, of a switching mechanism for rupturing the motor circuit embodying a fixed resilient contact, a rotary switch arm having a contact surface for coöperating with said fixed contact, an operating wheel in the driving connections having a projection for direct coöperation with said switch arm for rotating the latter to separate the contacts and rupture the circuit, and manual means for further rotating the switch arm in the same direction to effect contact between the contact surfaces and establish the motor circuit.

5. In an apparatus such as described, the combination with the electric motor and gearing driven thereby, of a switch mechanism for rupturing the motor circuit embodying a fixed resilient contact, a rotary switch arm having a contact surface extending in the line of its movement, an operating wheel driven from said gearing, a projection on said operating wheel in position to directly coöperate with the switch arm and rotate the latter out of engagement with the fixed contact, and a manually operated key for still further advancing the switch arm in the same direction to reëstablish the engagement between the arm and fixed contact.

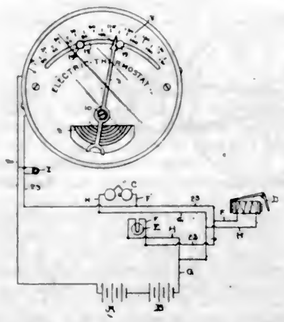
[Claims 6 to 10 not printed in the Gazette.]

1,136,406. WATER SYSTEM. JOHN WILBURN BUTTS, Atlanta, Ga. Filed July 21, 1913. Serial No. 780,276. (Cl. 175—289.)



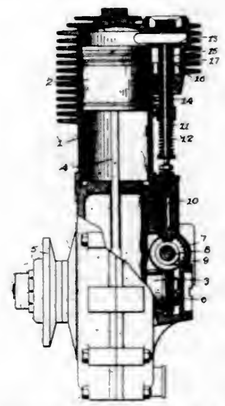
In a device of the class described, a thin-walled cup-like casing fashioned from insulating material and provided with integrally formed, outstanding tubular extensions; an insulating head journaled in the casing; a conducting bar extended through the head; brushes adapted to engage with the ends of the bar, the brushes being mounted to slide in the extensions in direct contact therewith; springs in the extensions and engaging the brushes; adjusting devices in the extensions and coacting with the springs; and conductors entering the casing in spaced relation to the outer ends of the extensions, the brushes being in direct sliding contact with the conductors.

1,136,407. THERMAL CIRCUIT-CLOSURE. JOHN CARRIGAN, Seattle, Wash. Filed July 3, 1913. Serial No. 777,286. (Cl. 177—128.)



A thermostat comprising a housing having an outturned flanged edge, an insulating plate having a central aperture and an arcuate slot therein attached to said flanged edge, a thermostat coil mounted in said housing, a shaft connected to said coil to be actuated thereby and running through said central aperture, a needle attached to said shaft and actuated thereby, and a plurality of contact posts adjustably mounted in said arcuate slot and adapted to be contacted with by said needle to close an alarm circuit, said contact posts consisting of a shaft portion having a head portion at one end and a threaded portion at the opposite end, adapted to adjustably play through said arcuate slot, a washer mounted on said shaft between said head portion and said insulating plate adapted to bind a circuit wire between said head portion and said washer and to rest against said plate, and a sleevelike nut threaded upon the opposite portion of the shaft and adapted to bind said contact post in adjusted position and to receive the contact of said needle.

1,136,408. ENGINE VALVE MECHANISM. LYMAN H. COBB, Fitchburg, Mass., assignor to Mary Elizabeth Johnson, trustee under the will of Iver Johnson, Fitchburg, Mass. Original application Filed Dec. 11, 1911, Serial No. 665,054. Divided and this application filed Sept. 11, 1913. Serial No. 789,389. (Cl. 123—188.)



1. Engine valve mechanism including a valve provided with a stem, a bearing for the stem, and a flange extending from the valve and surrounding the adjacent end of the bearing, the flange and the end of the bearing surrounded thereby being spaced apart to form an insulating layer, the insulating layer serving to prevent access of heat to the valve stem by conduction.

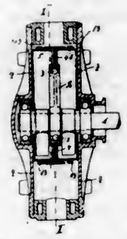
2. Engine valve mechanism including a valve provided with a stem, a bearing for the stem, and a flange extending from the valve, the flange and the adjacent end of the stem overlapping and being spaced apart to form an insulating layer, the insulating layer serving to prevent access of heat to the valve stem by conduction.

3. Engine valve mechanism including a valve provided with a stem, a bearing for the stem, and a flange extending from the valve, the flange and the adjacent end of the bearing overlapping with one outside the other to form a telescopic joint, there being a space between the overlapping portion of the outer member of the joint and the stem to prevent access of heat to the stem by conduction.

1,136,409. ENGINE WITH ROTATING PISTON. PHILIPP CONRADY, Bommersheim, near Oberursel, im Taunus, Germany. Filed July 22, 1914. Serial No. 852,523. (Cl. 121—82.)

1. In an engine of the class described, the combination of a cylinder, and a piston rotatably mounted in said cylinder out of contact with the circumferential walls and

divided transversely whereby in operation the position will have a fluid-tight joint with the lateral walls of said cylinder due to the separation of the cylinder sections by fluid pressure.



2. In an engine of the class described, the combination of a cylinder, a piston rotatably mounted in said cylinder and divided transversely whereby the sections of the piston are separable, and abutments coöperating with the piston, said abutments and sections of the piston having interfitting parts to form a fluid tight joint.

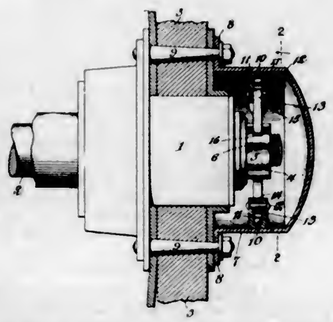
3. In an engine of the class described, the combination of a cylinder, a piston rotatably mounted in said cylinder and divided transversely whereby the sections are separable by fluid pressure, abutments coöperating with the piston, each of said abutments comprising a pair of slide blocks fitting the separable sections of the piston, said slide blocks being movable laterally with the separable sections of the piston.

4. In an engine of the class described, the combination of a cylinder, a piston mounted in the cylinder, abutments coöperating with the piston, each abutment comprising a pivoted part, laterally movable blocks carried by said pivoted part, said blocks fitting the piston at the edges thereof adjacent the lateral walls of the cylinder.

5. In an engine of the class described, the combination of a cylinder, a piston working therein, and an abutment in the cylinder coöperating with the piston, said abutment being divided transversely forming sections which are movable laterally and have parts capable of engaging the lateral wall of the cylinder and parts interfitting parts of the piston at its edges adjacent the lateral wall of the cylinder, whereby a tight joint with the lateral walls of the cylinder is provided.

[Claims 6 to 11 not printed in the Gazette.]

1,136,410. SPEED-ALARM. WILLIAM BLACKNELL CROSSLAND, Newport, Ark. Filed July 13, 1914. Serial No. 850,730. (Cl. 73—123.)



1. An alarm device for moving parts comprising a casing adapted to be attached to a moving part, tappets carried by the casing and adapted to be moved into engagement with the casing by centrifugal force and having a normal constraint away from engagement with the casing, and a relatively fixed member in the casing in the path of the tappet structures when moved toward engaging position with the casing under the action of centrifugal force.

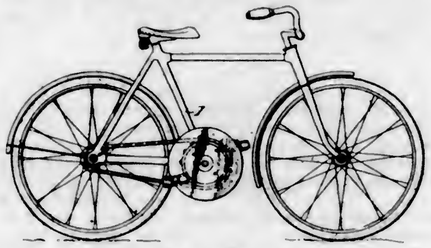
2. An alarm for vehicles comprising a casing constituting a cap member adapted to be attached to the hub portion of a wheel of a vehicle to rotate with the wheel, tappets within and carried by the casing and movable by centrifugal force toward engaging the position with the casing, means constraining the tappets to move away from engaging position with the casing, and means on a fixed part of the vehicle and located within the casing and adapted to be engaged by the tappet structures when moved toward the casing under the action of centrifugal force to vibrate the tappets.

3. An alarm device for vehicles, comprising a casing adapted to be attached to the hub portion of a wheel of the vehicle to rotate with the wheel, tappets within and carried by the casing and each comprising a lever structure pivotally mounted on the casing with one end formed into a head or striker in operative relation to the casing, a spring connected with the lever and normally holding the head end away from the casing, and a nut with a toothed periphery located within the casing and normally fixed against rotation, said nut being in the path of the ends of the levers remote from the head ends when the latter are moved by centrifugal force generated by an excess of speed over a predetermined speed.

4. A speed alarm for automobiles comprising a cap member adapted to be applied to the hub portion of a wheel of the vehicle, levers within the cap member and mounted thereon, each lever having a head at one end adapted to be moved by centrifugal force toward the inner wall of the cap and having the other end directed toward the axis of rotation, a spring for each lever constraining its head end away from the cap, and a nut adapted to the axle of the vehicle and provided with a toothed periphery for engagement with the corresponding ends of the levers when the head ends thereof are moved toward the inner wall of the cap member under the action of centrifugal force generated by an excess over a predetermined speed of rotation of the wheel.

5. A speed alarm device for vehicles, comprising a casing having means for its attachment to the hub portion of a wheel of the vehicle, tappet devices within the casing responsive to centrifugal force to move toward the casing, and relatively fixed means within the casing acting in opposition to centrifugal force to cause the rebound of the tappet devices under centrifugal force into engagement with the casing.

1,136,411. SPROCKET-GUARD FOR CYCLES. ADOLPHUS O. DAVIS, Wilson, N. C. Filed July 17, 1914. Serial No. 851,615. (Cl. 208—148.)

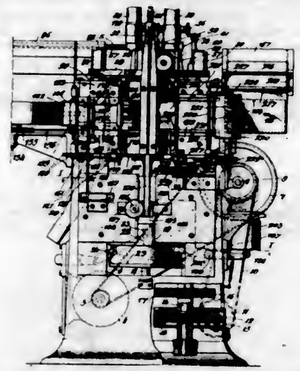


1. As a new article of manufacture, a guard plate provided with means for attachment to the front sprocket and outer face of the adjacent crank of a bicycle and having its periphery formed with a notch to engage the spindle of the pedal carried by said crank.

2. The combination of the front sprocket of a bicycle, a crank adjacent the sprocket, and a pedal having its spindle fitted to the end of said crank, of a guard plate disposed beside the crank and sprocket and against the outer face of the crank and peripherally engaging the pedal spindle, securing means fastened through the plate and crank, and securing and spacing means fastening the plate to the outer face of the sprocket in spaced relation thereto.

3. The combination of a sprocket, a crank connected with the sprocket, and a pedal spindle at the outer end of the crank, of a guard plate disposed entirely in a plane outside of and parallel with the crank and sprocket and having a notch in its edge engaging the pedal spindle, a fastening bolt passed through the plate and the crank, other bolts passed through the plate and the sprocket, and spacing collars around the last-mentioned bolts between the plate and sprocket.

1,136,412. PACKING AND WRAPPING MACHINE. JEAN DE BLONAY, Lausanne, Switzerland, assignor to the Firm of Sapal Societe Anonyme des Plieuses Automatiques, Lausanne, Switzerland. Filed Sept. 2, 1913. Serial No. 787,670. (Cl. 93—2.)



1. In a packing and wrapping machine, a table having step-wise rotation, receiving means for the articles on said table, means to supply a definite number of articles to said means during the pause of the table, a wrapping mechanism, means to transfer the articles during a subsequent pause of the table to said wrapping mechanism and means to support the articles during transfer.

2. In a packing and wrapping machine, a table having step-wise rotation, a container on said table, means to stack the articles in said container during a pause of said table, a wrapping mechanism adjacent the table, mechanism operative during a subsequent pause of the table to transfer the stack to said wrapping mechanism for wrapping and to return the wrapped stack to said container.

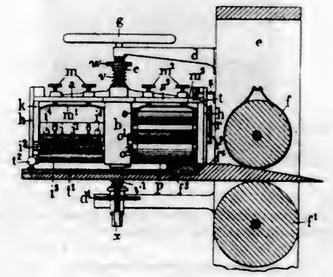
3. In a packing and wrapping machine, a table having step-wise rotation, receiving means on said table, means to deliver the articles to said receiving means during a pause of said table and including means for reversing every alternate article, wrapping mechanism and means operating during a subsequent pause of said table to engage the ends of the stack in the receiving means and transfer it to said wrapping mechanism, and mechanisms to feed a plurality of wrappers in different directions to said wrapping mechanism and stack.

4. In a packing and wrapping machine, a table having step-wise rotation, a plurality of open-ended receptacles thereon, means to stack articles in said receptacles during a pause of said table, a wrapping mechanism, means to transfer a stack of articles from one receptacle to said wrapping mechanism while stacking articles in another receptacle and means to support the articles during the transfer.

5. In a packing and wrapping machine, a table having step-wise rotation, receiving means on the table for the articles, means for stacking articles in said receiving means including mechanism to reverse alternate articles, a wrapping mechanism, and devices operating to engage the stack and transfer it to said wrapping mechanism.

[Claims 6 to 25 not printed in the Gazette.]

1,136,413. INKING AND WIPING DEVICE APPLICABLE TO COPPER-PLATE-PRINTING MACHINES. RENE GEORGES FERNAND DELAHAYE, Paris, France. Filed Aug. 28, 1913. Serial No. 787,159. (Cl. 101—102.)



1. In a copper-plate printing machine, an inking and wiping device constituted by metal arms arranged in a semi-circle, a vertical shaft capable of receiving a movement of rotation supporting these arms, inking rollers carried by one of the arms and bands of fabric carried by the other arms, these inking rollers and these bands of fabric coming successively into contact with the engraved plate when the operating shaft is rotated.

2. In a copper-plate printing machine, an inking and wiping device constituted by metal arms arranged in a semi-circle, a vertical shaft capable of receiving a movement of rotation supporting these arms, inking rollers carried by one of the arms, an ink reservoir for feeding the inking rollers, and bands of fabric carried by the other arms.

3. In a copper-plate printing machine, an inking and wiping device constituted by metal arms arranged in a semi-circle, a vertical shaft capable of receiving a movement of rotation supporting these arms, inking rollers carried by one of the arms, an ink reservoir for feeding the inking rollers carried by the same arm and bands of fabric carried by the other arms.

4. In a copper-plate printing machine, an inking and wiping device constituted by metal arms arranegd in a semi-circle, a vertical shaft capable of receiving a movement of rotation supporting these arms, inking rollers carried by one of the arms, an ink reservoir supported by the same arm for feeding the inking rollers, bands of fabric carried by the other arms, and means for vertically adjusting the inking rollers and the ink reservoir.

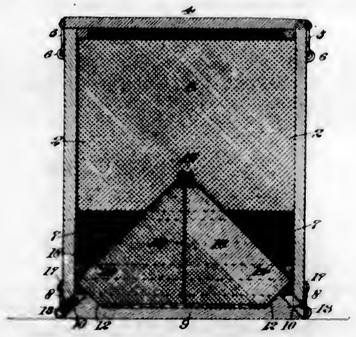
5. In a copper-plate printing machine, an inking and wiping device constituted by metal arms arranged in a semi-circle, a vertical shaft capable of receiving a movement of rotation supporting these arms, inking rollers carried by one of the arms, an ink reservoir supported by the same arm for feeding the inking rollers, bands of fabric carried by the other arms, and screws and springs for adjusting the rollers and the ink reservoir.

[Claims 6 to 16 not printed in the Gazette.]

1,136,414. FLY-TRAP. ALBERT DUNLAP, San Pablo, Cal. Filed Sept. 3, 1913. Serial No. 787,947. (Cl. 43—22.)

An insect trap comprising a base having a recess therein for receiving bait, the side walls of said recess being inclined, a prison chamber supported by the base, and a trapping cell inclosed by said chamber and having a plurality of intersecting walls which divide same into a plurality of compartments, said walls having their lower edges extending into the recess of the base and having their side

edges beveled and engaging the inclined side walls of said recess, said cell having an opening therein common to all



of the compartments to afford communication between the compartments and prison chamber.

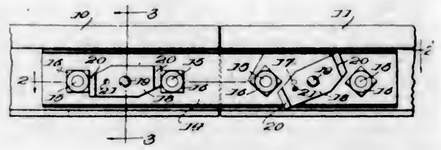
1,136,415. SHAPER-HEAD. GEORGE V. FELLOWS, Syracuse, N. Y. Filed June 7, 1912. Serial No. 702,334. (Cl. 144—253.)



1. A shaper head comprising a spindle having an annular shoulder, a sleeve having a reduced threaded end resting against said shoulder, a cutter head engaged with the sleeve, means for clamping the cutter head and sleeve to the spindle to rotate therewith, an internally threaded bearing member screwed upon the lower reduced end of the sleeve for adjustment relatively thereto to compensate for wear, a detent recessed into the lower end of the sleeve and engaged with said bearing member to hold it in its adjusted position, and a collar having a reduced lower end journaled upon said bearing member and surrounding the lower end of the cutter head.

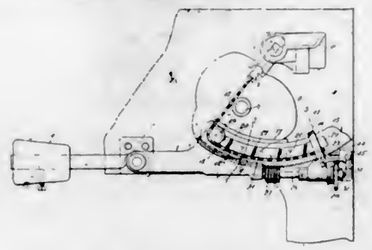
2. A shaper head comprising a spindle having an annular shoulder, a collar composed of inner and outer sections; the inner section having a reduced lower threaded end and the outer section threaded internally and secured upon said reduced end, said outer section being of greater diameter than the inner section and forming therewith a ball-race; a separate collar composed of inner and outer sections, the inner section surrounding the larger upper end of the inner section of the first named collar and provided with a ball-race registering with the first named ball-race; the outer section of the last named collar being secured upon the corresponding inner section; to permit it to be removed or replaced without removing its corresponding inner section or either of the sections of the first named collar.

1,136,416. NUT-LOCK. GEORGE W. FENSTEMAKER, Amboy, Ill., assignor of one-half to Peter O'Connor, Amboy, Ill. Filed June 20, 1913. Serial No. 774,881. (Cl. 151—65.)



In a nut lock, a bearing member having a depression and apertured to receive clamp bolts, said member being adapted to be disposed beneath the nuts upon the bolts, and a member of resilient material pivoted upon said bearing member with its terminals extending obliquely to the longitudinal axis thereof and adapted to bear squarely against the nuts intermediate the contiguous sides of said nuts, said resilient member having a protuberance formed thereon at the inner extremity of one of said obliquely directed terminals, said protuberance being arranged for engagement within the depression of the bearing member, the adjacent obliquely directing terminal of the resilient member coacting with the nut engaged thereby, in the operative position of said resilient member, to hold the protuberance in engagement within the depression.

1,136,417. BUILDER-MOTION. WILLIAM H. GOLDSMITH, Jr., Biddeford, Me., assignor to Saco-Lowell Shops, Boston, Mass., a Corporation of Massachusetts. Filed May 22, 1914. Serial No. 840,373. (Cl. 118—1.)



1. In a builder motion, a builder arm, a fulcrum of support for said arm, a curved rack mounted upon said arm and movable thereon, a chain, a member carried by said rack and around which said chain loosely passes to extend outwardly along said arm and connect therewith, means for effecting such connection, and automatic means for moving said rack outwardly on said arm during the reciprocation thereof.

2. In a builder motion, the combination with a pulley and pivoted support therefor, of a builder arm arranged below said pulley and support, means for reciprocating said arm, a curved rack mounted upon said arm and movable thereon, said rack having a curvature and path of motion concentric with the axis of said support, a chain extending downwardly from said pulley, a member carried by said rack and around which said chain loosely passes to extend outwardly therefrom along said arm and connecting therewith, means for effecting such connection, and automatic means for moving said rack outwardly on said arm during the reciprocation thereof.

3. In a builder motion, a builder arm, means for reciprocating said arm, a curved rack mounted upon said arm and movable thereon, a chain, a member carried by said rack around which said chain loosely passes to extend outwardly therefrom and connecting with said arm, means forming such connection, means whereby the line of the chain between said member and its connection with said

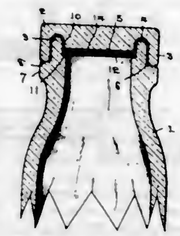
arm may be varied, and automatic means for moving said rack outwardly on said arm during reciprocation thereof.

4. In a builder motion, a builder arm, means for reciprocating said arm, a curved rack mounted upon said arm and movable thereon, a chain, a member carried by said rack around which said chain loosely passes to extend outwardly therefrom and connecting with said arm, means forming such connection, means whereby the lay of the chain may be varied between said member and points where said chain connects with said arm, and automatic means for moving said rack outwardly on said arm during the reciprocation thereof.

5. In a builder motion, a builder arm, a fulcrum of support therefor, means for reciprocating said arm, a curved rack mounted upon said arm and movable in a curved path thereon, a chain, a member carried by said rack around which said chain loosely passes to extend outwardly therefrom and connecting with said arm, means for effecting such connection, means whereby the lay of the chain between said member and its point of connection with said arm may be varied with relation to a center around which said rack moves during the movement thereof on said arm, and automatic means for moving said rack outwardly on said arm during the reciprocation thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,136,418. MILK-BOTTLE CLOSURE. GEORGE W. GOMBER, Conyngham, Pa. Filed July 13, 1914. Serial No. 850,652. (Cl. 215—82.)

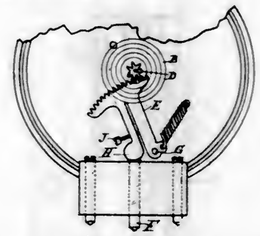


1. A bottle closure comprising a bottle mouth having its outer edge transversely rounded, a cap having an outer depending flange, a central plug or stopper shorter than the outer flange, and an annular groove with a transversely curved bottom between the flange and plug, and a disk of flexible material squeezed between the cap and bottle, the central portion of said disk being tightly stretched over the plug to cause it to fit tightly in the mouth proper, and the outer part of the flexible disk being stretched over the mouth proper and being tightly squeezed in the groove and between the mouth proper and the plug and flange of the cap.

2. A bottle closure comprising a bottle mouth having an enlargement or rib on the outside thereof forming an annular ledge, an annular inner ledge, and a mouth proper between these two ledges having its outer edge transversely rounded, a closure disk resting on the inner ledge, a cap having an outer depending flange of a width to rest upon the outer ledge when the closure is complete, a central plug or stopper shorter than the outer flange, and an annular groove with a transversely curved bottom between the flange and plug, and a disk of flexible material squeezed between the cap and bottle, the central portion of said disk being tightly stretched over the plug to cause it to fit tightly in the mouth proper, and the outer part of the flexible disk being stretched over the mouth proper and being tightly squeezed in the groove and between the mouth proper and the plug and flange of the cap.

1,136,419. LENS-MEASURE. WILLIAM GOWLLAND, Kemp Town, England. Filed Dec. 14, 1912. Serial No. 736,858. (Cl. 33—172.)

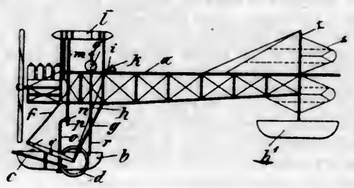
1. In a lens measure, a movable plunger, a case, a dial plate, a toothed segment adapted to be operated by the movable plunger, registering means geared to said toothed segment having a curved surface engaging the said plunger, and an adjustable leg on said toothed segment, substantially as described.



2. In a lens measure of the type in which the registering means are operated by the aid of a movable plunger, a case, a dial-plate, a toothed segment, a bearing for said toothed segment, registering means geared to said toothed segment, a leg forming part of said toothed segment and provided with a curved surface for engagement with said plunger, and means for varying the position of said leg relatively to said bearing.

3. In a lens measure of the type in which the registering means are operated by the aid of a movable plunger, a case consisting of a main portion (A) and an extension (M) embossed or stamped up from a single piece of metal, a dial-plate having its graduations cut completely through it, a toothed segment, a bearing for said toothed segment, a leg forming part of said toothed segment and provided with a surface which is of arc or spherical form for engagement with said plunger, means for varying the position of said leg relatively to said bearing and registering means geared to said toothed segment.

1,136,420. HYDROPLANE AND AEROPLANE. PAUL GROSSER, Albersdorf, Germany. Filed Mar. 28, 1913. Serial No. 757,440. (Cl. 244—2.)

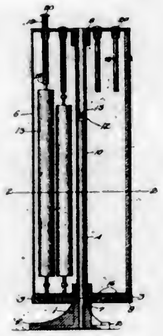


1. In a hydroplane, the combination with the frame, a rear float and a front float carried thereby, an axis carried on the front float, forks, each carrying a wheel, mounted to rock about the axis, springs tending to rock the forks and drive the wheels downward, and a winch mounted on the frame and operatively connected with said forks for rocking the same against the action of said springs and thereby elevating the wheels.

2. In a hydroplane, the combination with the frame, a rear float and two front floats carried thereby, of an axis carried by the front floats, two forks, each carrying a wheel, mounted to rock about said axis and located outside the front floats, an upwardly slanting plane adjustably mounted on each front float and embracing parts of the sides and the front end thereof, springs tending to rock the forks and drive the wheels downward, and a winch mounted on the frame and operatively connected with said forks for rocking the same against the action of said springs and thereby elevating the wheels.

3. In a hydroplane, the combination with the frame, and front and rear floats carried thereby, of an angularly adjustable plane mounted on each front float, each plane extending laterally on both sides of the front portion of the float on which it is mounted.

1,136,421. RECEPTACLE. HARRY H. HANCOCK, Swampscott, Mass. Filed Dec. 28, 1912. Serial No. 739,000. (Cl. 101—73.)

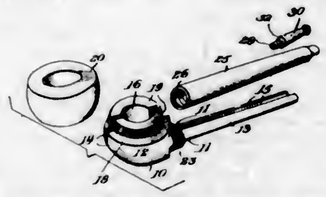


1. A cabinet to contain printing rolls comprising a base, a shaft extending upwardly from the base, a receptacle arranged to revolve on said shaft, having a central sleeve with a pivoted bearing therein for said shaft, the receptacle having a cored bottom portion to contain liquid, means to engage the lower end of a printing roll spindle on the bottom portion of said shaft, a top having perforations, and adjustable holders arranged to slide through said perforations to engage the upper end of said printing roll spindle and thereby hold it in vertical position.

2. A cabinet to contain printing rolls, comprising a base, a shaft extending upwardly from said base, a receptacle arranged to revolve on said base, having a central sleeve engaging said shaft formed with a bearing member intermediate its ends, constructed to engage the end of said shaft, means in the bottom portion of said receptacle to engage one end of a printing roll spindle and adjustable means, slidable through the top of said receptacle, to engage the other end of said printing roll spindle, substantially as described.

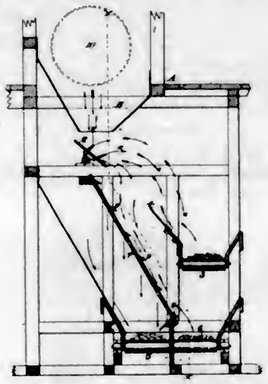
3. A rotatable cabinet to contain printing rolls, comprising a stationary cored base adapted to contain liquid to preserve said rolls, the bottom of said cabinet being a cover for said liquid, means to hold printing rolls within said cabinet, comprising depressions in the top of said base cover, perforations through said cover to admit of moisture passing from the base to the rolls, a top for the cabinet having perforations therein, and hollow tubular members arranged to slide through said perforations to engage the upper end of the printing roll spindles to hold the same in vertical position.

1,136,422. SMOKER'S PIPE. GEORGE C. HOPKINS, Winnsboro, Tex. Filed Apr. 8, 1914. Serial No. 830,446. (Cl. 131—12.)



A pipe including a body portion having a recess formed therein, the said body portion being formed of mating sections each having one section of a stem integrally formed thereon, the said sections of the stem being externally screw threaded adjacent the body portion and having grooves formed therein disposed to coincide to provide a duct within the stem communicating with said recess, a bowl detachably uniting the sections of the body portion, an annular shoulder formed on the body portion at the inner extremities of the stem sections, a barrel surrounding the sections of the stem and being internally screw threaded adjacent one extremity to engage the threads of the stem sections with the adjacent end of the barrel seating against the said annular shoulder, the opposite extremity of the barrel being reduced to provide an internal annular shoulder disposed to abut the outer extremities of the stem sections, the said reduced extremity of the barrel being internally screw threaded, and a mouthpiece screw threaded at one extremity and engaging the screw threads of the reduced extremity of the barrel, with the adjacent end of the mouthpiece abutting the outer ends of the stem sections.

1,136,423. HOP-SEPARATOR. EMIL CLEMENS HORST, San Francisco, Cal., assignor to E. Clemens Horst Co., San Francisco, Cal., a Corporation of New Jersey. Filed May 2, 1914. Serial No. 835,839. (Cl. 130—17.)



1. In a hop separator, the combination of an inclined, slotted, separating table, separating fingers projecting from the table and means for supplying hops, leaves and stems to said table and for causing the separation of the hops by gravity action, the angle of inclination of the separating table being greater than the angle of repose of the hops, substantially as described.

2. In a hop separator, the combination of an inclined, stationary, separating table, said table including bars, the spaces between adjacent bars being unoccupied, and deflecting fingers located at intervals on each bar, substantially as described.

3. A hop separator comprising a separating table, consisting of inclined bars, and a plurality of projections on each bar, said bars including between them parallel, bottomless, V-shaped troughs through which the hops may not pass, but which allow the stems to drop through.

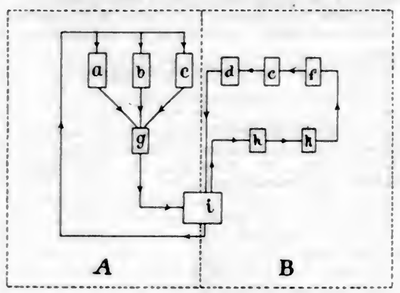
4. In a hop separator, a slotted, inclined separating table, a feed hopper, and a deflecting plate interposed between the hopper and the table and a clean hop conveyer located at one side of said plate and table and adapted to receive hops which rebound from said plate without contact with said table.

5. In a hop separator, a plurality of bars, a hopper through which hops are delivered on said bars, a deflecting plate interposed between the hopper and the bars, means for adjusting the angle of the deflecting plate, and a clean hop conveyer located at one side of said plate and bars and adapted to receive hops which rebound from said plate without contacting said bars.

[Claims 6 to 8 not printed in the Gazette.]

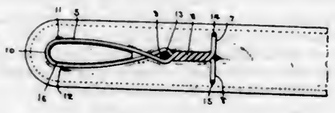
1,136,424. ELECTROLYTIC PROCESS FOR THE EXTRACTION OF COPPER. NOAK VICTOR HYBINETTE, Christiania, Norway. Filed May 22, 1913. Serial No. 769,208. (Cl. 204—15.)

The process of electrolytically extracting copper from material containing the copper partly as oxid and partly as sulfid, which consists in leaching said material with an acid sulfate solution containing a large quantity of iron, of which only a small quantity is oxidized to the ferric state, electrolyzing the resulting solution while maintaining unrestricted diffusion between anolyte and catholyte and interrupting the said electrolysis before sufficient iron has been oxidized to ferric sulfate to seriously retard the deposition of copper, leaching fresh quantities of the ore



with the resulting electrolyte to reduce the ferric salts and repeating such leaching and electrolysis until substantially all oxid of copper and substantially all sulfid of copper, easily soluble in a weak solution of ferric sulfate, are removed, and removing the remaining sulfid of copper by leaching with a stronger ferric sulfate solution, and electrolyzing the resulting solution while maintaining a restricted diffusion between anolyte and catholyte.

1,136,425. REINFORCING-PROTECTOR FOR TRACE-HOLES. JOHN A. JUTEN, Gilbert, Minn. Filed June 17, 1914. Serial No. 845,629. (Cl. 54—53.)

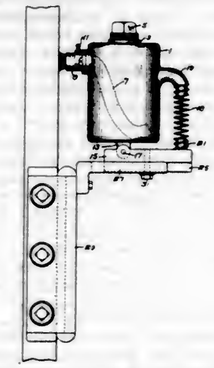


1. In a strap composed of a plurality of layers of strap material having a transverse hole therein, a wire reinforcing and protecting device placed between two of said strap layers and looping said strap hole, a rivet fastening said device in position, and two end portions to said device oppositely disposed and entering one of said strap layers to retain said device, in its fastened position.

2. In a strap composed of a plurality of layers of strap material having a transverse opening therethrough, a reinforcing device looping said hole, said reinforcing device having a rivet section to inclose a rivet fastening running through said strap, having a coil section to resist the longitudinal strain against the rivet, and a plurality of oppositely disposed arms having angular bent ends adapted to penetrate one of said strap material and lock said device in adjusted position.

3. A device adapted to reinforce and protect holes through straps comprising a loop portion, a rivet portion, a coil portion, and a pair of oppositely disposed arm portions, said arm portions having angularly bent end sections, said loop portion arranged to loop around a hole in a strap, said rivet portion arranged to embrace a rivet running through said strap to fasten it in position, said coil section arranged to resist longitudinal strain against said rivet and said arms with angular bent sections adapted to lock said reinforcing device in adjusted position, said device adapted to be positioned between the layers of strap material composing a strap.

1,136,426. LUBRICATOR. DWIGHT F. KILGOUR, Lexington, Mass. Filed Nov. 11, 1913. Serial No. 800,389. (Cl. 184—22.)



1. A lubricator comprising in combination, a support; a reservoir fulcrumed thereon and provided with a wick outlet for a lubricating wick leading from within said reservoir, the latter being arranged with the brunt of its weight on said support, and spring means for pressing the reservoir toward a member to be lubricated.

2. A lubricator comprising in combination, a support; a reservoir fulcrumed thereon and provided with a wick outlet for a lubricating wick, said reservoir being arranged with the brunt of its weight on said support, and spring means connecting said reservoir and support for pressing the former toward a member to be lubricated with light engaging contact.

3. A lubricator comprising in combination, a support; a reservoir fulcrumed thereon and provided with a wick outlet for a lubricating wick; an arm projecting from said reservoir; and a helical spring interposed between said arm and said support for tilting said reservoir toward a member to be lubricated.

4. A lubricator comprising in combination, a support; a reservoir fulcrumed thereon and provided with a wick outlet for a lubricating wick; and a spring connecting said reservoir with said support for tilting said reservoir to present its wick in light engaging contact with a member to be lubricated, said support having provision for permitting the adjustment of said reservoir toward or from said member to different fixed positions.

1,136,427. INSTRUMENT FOR MEASURING OR VERIFYING THE SUPERELEVATION, GAGE, AND INCLINATION OF THE RAILS OF RAILWAY-TRACKS. GEORGES LAKHOVSKY, Paris, France. Filed Mar. 25, 1913. Serial No. 756,793. (Cl. 33—145.)



1. A measuring instrument permitting of measuring the superelevation of a rail and the gage of a railway track and also of verifying the inclination of the rails, comprising a level arranged in the longitudinal direction of the instrument and movable about a transverse axis therein; a toothed sector moving with said level; a pointer movable in front of a graduated scale arranged on the upper face and in the longitudinal direction of the instrument; a rack upon which said pointer is mounted and movable in the longitudinal direction of the instrument; a vertical operating rod projecting above the instrument, carrying an operating knob and on which are rigidly

mounted a worm gearing with the toothed sector of the level and a pinion gearing with the rack of the pointer.

2. A measuring instrument permitting of measuring the superelevation of a rail and the gage of a railway track and also of verifying the inclination of the rails, comprising a level arranged in the longitudinal direction of the instrument; a lever movable about a transverse axis in said instrument and on which the lever can pivot and be secured by means of an adjusting screw; a toothed sector mounted on said lever; a pointer movable in front of a graduated scale arranged on the upper face and in the longitudinal direction of the instrument; a rack upon which said pointer is mounted and movable in the longitudinal direction of the instrument; a vertical operating rod projecting above the instrument, carrying an operating knob and on which are rigidly mounted a worm gearing with the toothed sector of the level and a pinion gearing with the rack of the pointer.

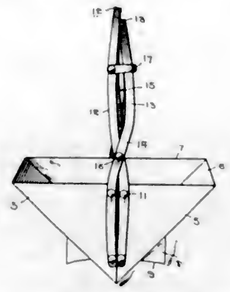
3. A measuring instrument permitting of measuring the superelevation of a rail and the gage of a railway track and also of verifying the inclination of the rails, comprising a level arranged in the longitudinal direction of the instrument and movable about a transverse axis in said instrument; a toothed sector moving with said level; a pointer movable in front of a graduated scale arranged on the upper face and in the longitudinal direction of the instrument; a rack upon which said pointer is mounted and movable in the longitudinal direction of the instrument; a vertical operating rod projecting above the instrument, carrying an operating knob and on which are rigidly mounted a worm gearing with the toothed sector of the level and a pinion gearing with the rack of the pointer; a movable heel portion arranged at one of the ends of the instrument and urged toward the exterior by a returning spring; another pointer movable in front of a second graduated scale arranged on the upper face of the instrument opposite the previous scale; a rack on which said pointer is mounted and movable in the longitudinal direction of the instrument, and means for transmitting with amplification the displacements of the movable heel portion to said rack.

4. A measuring instrument permitting of measuring the superelevation of a rail and the gage of a railway track and also of verifying the inclination of the rails, comprising a level arranged in the longitudinal direction of the instrument and movable about a transverse axis in said instrument; a toothed sector moving with said level; a pointer movable in front of a graduated scale arranged on the upper face and in the longitudinal direction of the instrument; a rack upon which said pointer is mounted and movable in the longitudinal direction of the instrument; a vertical operating rod projecting above the instrument, carrying an operating knob and on which are rigidly mounted a worm gearing with the toothed sector of the level and a pinion gearing with the rack of the pointer; a movable heel portion arranged at one of the ends of the instrument and urged toward the exterior by a returning spring; another pointer movable in front of a second graduated scale arranged on the upper face of the instrument opposite the previous scale; a rack on which said pointer is mounted and movable in the longitudinal direction of the instrument; means for transmitting with amplification the displacements of the movable heel portion to said rack; a casing within which are mounted the level, the movable heel portion and the various members of the device giving the measures of the displacements imparted to this level and movable heel portion, said casing being secured under the table of the instrument, the web of the T-shaped bar constituting the instrument being discontinued so as to permit of the mounting of said casing under the instrument; a slit provided in the upper part of the table, in which the two pointers slide and on the longitudinal edges of which are arranged the two graduated scales giving respectively the different values of superelevation and the different values of the gage of the track.

5. A measuring instrument permitting of measuring the superelevation of a rail and the gage of a railway track and also of verifying the inclination of the rails, comprising a level arranged in the longitudinal direction of the instrument and movable about a transverse axis in said instrument; means for displacing said level about said axis; means for indicating and measuring the angular displacements imparted to said level; a movable heel portion formed with a socket arranged at one of the ends of the instrument and urged by a returning spring; means for indicating and measuring the linear displacements of said movable heel portion; a fixed part formed at the opposite end of the instrument also formed with a socket and removable pins adapted to be fitted in the sockets in said fixed and movable portions so as to constitute projections.

[Claims 6 to 11 not printed in the Gazette.]

1,136,428. GRAB-BUCKET. CHARLES G. LARSON, Burlington, Iowa, assignor of two-fifths to Wm. T. Love, trustee, Lomax, Ill. Filed Jan. 15, 1914. Serial No. 812,241. (Cl. 220—33.)

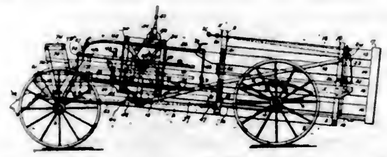


1. A bucket comprising two complementary members, each having parallel, triangular end walls and upwardly and outwardly extending bottoms, the inner and upper sides of each of said members being open, whereby when said members are brought together they will form a wedge-shaped bucket, the edge thereof extending downwardly; a triangular supporting member carried by each of said complementary members, on the under side adjacent the lower edge thereof designed to support said bucket in an upright position, and an arcuate controlling bail for each of said complementary members rigidly secured adjacent the meeting side edges thereof and crossed one over the other and pivotally connected to each other where they cross at a point above the top edges of the complementary members.

2. A bucket, comprising two members of identical construction, each of said members comprising a bottom and triangular side members having contacting edges; a triangular supporting member attached to the under surface of the bottom of each of said members adjacent the lower edge of the said bottom at right angles to said edge and also to said bottom, and half way between the extremities of said edges; an arcuate bail secured to each of said bucket members along the contacting edges of the triangular side members, said bails being pivoted to each other above said bucket members and crossed at the pivoting point, whereby the bottom portions of the bucket may be made to recede from and approach each other in unison with the movements of the said bails.

1,136,429. MACHINE FOR HOLDING ANIMALS. SANFORD LITTLE, Fairmount, Ind. Filed Mar. 13, 1914. Serial No. 824,433. (Cl. 119—103.)

1. In a machine of the character described, the combination with a pivotally mounted frame, of two sets of connected bars passing through said frame, inclined links independently suspending the respective sets of connected bars from the sides of said frame, a transverse rail disposed under said sets of bars, and means for raising said transverse rail to actuate said sets of bars and clamp an animal between them.



2. In a machine of the character described, the combination with a frame, of a floor, a cage mounted in said frame, said cage comprising two sets of clamping bars, an animal raising bar, and means for operating said raising bar to raise an animal off the floor and for operating said sets of clamping bars to clamp the body of the animal between them.

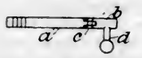
3. In a machine of the character described, the combination with a centrally pivoted frame, of two sets of bars movable in said frame, each set of bars comprising a plurality of horizontal bars and a plurality of vertical bars connecting the horizontal bars, said vertical bars being curved inwardly at their upper ends and the vertical bars of one set separated from the vertical bars of the other set at the upper ends of the same, sets of links suspending the sets of bars from the pivoted frame, a transverse rail under the sets of bars and adapted to movably engage the lower horizontal bar of each set, and means for raising said transverse rail.

4. In a machine of the character described, the combination with a frame, of a cage mounted therein, said cage comprising oppositely disposed clamping bars, means movably supporting said clamping bars, curved rails transversely disposed under said bars, operating levers and flexible connections between said levers and curved rails for operating the latter to clamp an animal between said oppositely disposed clamping bars.

5. In a machine of the character described, the combination with a frame, and a floor therein, of a cage revolubly mounted in said frame, said cage comprising clamping means for the body of a hog, a central longitudinal bar for raising an animal off the floor, curved rails transversely under the clamping means and longitudinally raising bar, and means for raising said rails to raise the longitudinal bar and operate the clamping means.

[Claims 6 to 11 not printed in the Gazette.]

1,136,430. FASTENING FOR DOORS, WINDOWS, AND THE LIKE. THOMAS MARKHAM, Belfast, Ireland. Filed Aug. 29, 1913. Serial No. 787,278. (Cl. 16—81.)

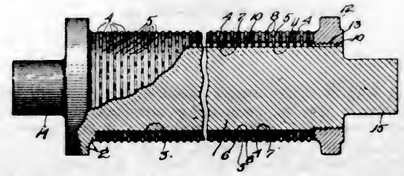


1. A fastening for doors, windows and the like adapted for holding same in three positions, comprising a casing adapted to be secured to the door, a bolt within said casing formed of two members hinged together and capable of movement in said casing into two positions with its members in alinement and into a third position with one of its members angularly disposed, and keepers adapted to be secured to the door frame and a fixed object with which said last mentioned member engages for the purpose of holding the door partly and fully opened respectively.

2. A fastening for doors, windows and the like, comprising a casing adapted to be secured to the door, a bolt within said casing formed of two parts hinged together and its outer end provided with notches, an operating member at the inner end of said bolt, said casing having three cross slots and a longitudinal slot connecting same for reception of said operating member, a keeper adapted to be secured to the door or window frame and having a slotted aperture adapted to be engaged by the notched end of the bolt to hold the door or window in partly opened position and a second keeper adapted to be secured to a fixed object and having a slotted aperture adapted to be engaged by the notched end of the bolt to hold the door or window in fully opened position substantially as described.

3. A locking device for doors, windows and the like including a casing adapted to be secured to the door, said casing being formed with a longitudinal slot and transverse slots which intersect the longitudinal slot and which are disposed in spaced relation throughout the length of the casing, a bolt consisting of hingedly connected sections receivable as an entirety within the casing, the sections being maintained in axial alinement through contact with the casing, means for locking the bolt against movement with respect to the casing whereby both sections are housed within the casing, means for locking one section of the bolt with respect to the casing whereby the other section may move on its hinge connection and means adapted to be carried by the door frame and engageable by the movable section of the bolt.

1,136,431. GO-THROUGH LACE-MACHINE OR LOOM TAKE-UP ROLL. ALFRED B. MORSE, South Easton, Mass. Filed Nov. 4, 1912. Serial No. 729,294. (Cl. 139—56.)



1. A take-up roll, comprising a multiplicity of alternately arranged point carrying rings and spacing rings, each of said point carrying rings having a multitude of radial points projecting from the outer surface thereof for engaging the fabric, said points being substantially A-shaped for readily releasing the fabric during the operation of the roll.

2. A take-up roll, comprising a multiplicity of alternately arranged point carrying rings and spacing rings, said point carrying rings being of substantially the same thickness as said points, and the spacing rings being of greater diameter than the body of the point carrying rings, whereby the points are embraced by the spacing rings.

3. A take-up roll, comprising a multi-part fabric-supporting and engaging surface, including a plurality of iron rings each provided with a series of projecting points and intervening separating and positioning non-corrosive rings.

4. A take-up roll, having multi-part fabric supporting and engaging means, the supporting means being of non-corrosive material, and the engaging means comprising points formed in integrally connected series, the connection of said points being below the surface of the supporting means.

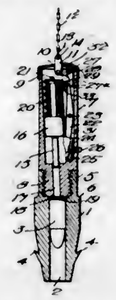
5. A take-up roll, having its fabric supporting surface composed of a plurality of non-corrosive rings, alternating with a plurality of engaging teeth-carrying rings, said carriers having the teeth formed substantially A-shaped to clear the fabric engaged thereby and to be kept clean and clear of rust, the carriers being depressed below the surface of the non-corrosive rings whereby rusting of the carriers will not contact with the fabric and discolor it.

[Claim 6 not printed in the Gazette.]

1,136,432. TRAP. GEORGE W. MORTHLAND, Lead, S. D. Filed Mar. 12, 1914. Serial No. 824,135. (Cl. 43—21.)

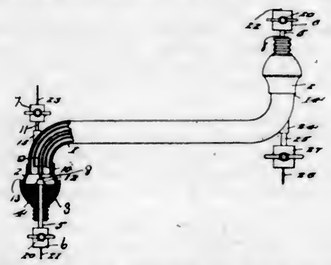
1. A trap of the character specified, comprising a barrel having a bore for receiving a cartridge, a casing detachably connected with the inner end of the barrel, a plunger movable longitudinally of the casing, a spring

normally pressing the plunger toward the barrel, a trip lever within the casing for holding the plunger with the spring under compression, an elbow lever pivoted at the end of the casing remote from the barrel, and having one arm extending radially inward and having the other arm in position to engage the lever and to move the same to release the plunger when the elbow lever is swung on its pivotal connection, said casing having an opening at the end remote from the barrel, a link connected with the first-named arm of the elbow lever and extending through the opening, and a chain connected with the link for suspending the gun, the trap being adapted to be inclosed in the bait and having means for holding the same.



2. A trap of the character specified, comprising a barrel having a bore for receiving a cartridge, a casing detachably connected with the inner end of the barrel, a plunger movable longitudinally of the casing, a spring normally pressing the plunger toward the barrel, a trip lever within the casing for holding the plunger with the spring under compression, means at the end of the casing remote from the barrel for engaging and swinging the lever to release the plunger, said casing having an opening at the end remote from the barrel, and means extending through the opening for suspending the trap and connected with the releasing means to release the same when traction is made on the trap.

1,136,433. TRANSPOSITION DEVICE FOR ELECTRIC LINES. GUY W. NEEL, Dublin, Tex. Filed July 6, 1914. Serial No. 849,154. (Cl. 173—8.)



1. Transposition for telephone and other wires comprising a tubular metallic casing, set at right angles to the line wires and having terminals bent in opposite directions, an insulated wire running through said casing and through said terminals, means for connecting said wire with the line wires, integral bosses formed on said casing opposite said terminals, and means for connecting said bosses with the line wires.

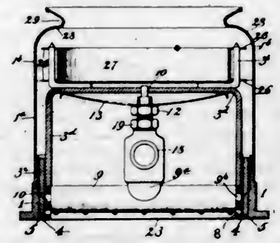
2. Transposition for telephone and other line wires comprising a tubular metallic casing having its terminals bent in opposite directions, a wire running through said casing and terminals and insulated therefrom, means for electrically connecting the ends of said wire with line wires, and means for electrically connecting line wires with said casing opposite said terminals.

3. Transposition for telephone and other line wires comprising a tubular metallic casing having its terminals bent in opposite directions, a wire running through said casing and through said terminals and insulated therefrom, means for electrically connecting said wire with line wires, and connecting members formed integral with said casing at the bends therein and projecting in opposite directions from said terminals.

4. Transposition for telephone and other line wires comprising a metallic casing having its terminals bent in opposite directions, an insulated wire running through said casing and terminals, means for connecting the ends of said wire with line wires, and connecting members formed integral with said casing at the bends thereof and projecting in opposite directions to said terminals.

5. Transposition for telephone and other line wires comprising a metallic casing having its terminals bent in opposite directions, a wire running through said casing and terminals and insulated therefrom, means for connecting the ends of said wire with line wires consisting of bolts connected to the ends of the wires, detachable caps connected to the ends of said casing, and means for insulating said bolts from said caps and casing, and connecting members formed integral with said casing at the bends thereof and projecting in opposite directions from said terminals.

1,136,434. PNEUMATIC CARPET-CLEANER. EDWIN E. OVERHOLT, Washington, D. C., assignor to Modern Compressed Air Cleaning Co., a Corporation of the District of Columbia. Filed Jan. 30, 1906. Serial No. 298,617. (Cl. 15—60.)



1. In pneumatic carpet cleaners, a casing having a dust chamber therein, and an elongated nozzle adapted to move up and down within said dust chamber, and means for adjusting the nozzle angularly relative to its line of travel.

2. In pneumatic carpet cleaners, the combination with a cylindrical casing, of a frame forming an internal collar rotatable therein; and a nozzle carried inside said collar and disposed diametrically of the same.

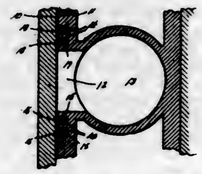
3. In pneumatic carpet cleaners, the combination with a casing having a bottom elongated in the direction of the line of travel of the machine; of a transverse nozzle adjustable angularly relative to the longitudinal extent of said bottom.

4. In pneumatic carpet cleaners, the combination with a casing forming a dust chamber and having a nozzle movable with respect to said dust chamber, of an air pipe passing through said casing and communicating with said nozzle, and an adjustable connection between said nozzle and air pipe, said connection being inside the dust chamber.

5. In pneumatic carpet cleaners, an elongated nozzle having an inlet for compressed fluid and a series of primary outlets longitudinally arranged, said outlets increasing in area as their distances from the inlet increase, and a wear-plate for the nozzle, said plates having a series of longitudinally disposed final outlets for the compressed fluid, and said primary and final outlets having a chamber interposed between them.

[Claims 6 to 8 not printed in Gazette.]

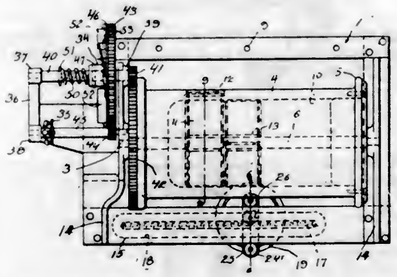
1,136,435. PACKING. ARTHUR J. PAIGE, Indianapolis, Ind. Filed Nov. 28, 1913. Serial No. 803,400. Cl. 137—115.)



1. The combination of a pair of relatively movable members having complementary working faces one relatively movable and one laterally ported and having a circular groove therein surrounding the port, and a pair of packing rings, mounted in said groove one upon the other, the outer ring being radially split and having an outer face complementing the adjacent working face of the other member and having an external circumferential face complementing the external circumferential face of the groove, and the inner ring being radially split and having a radial dimension considerably less than the radial dimension of the groove, the two rings having adjacent complementary beveled faces whereby radial variation in the inner ring will vary the axial position and radial dimension of the outer ring.

2. The combination of a pair of relatively movable members having complementary working faces one relatively movable and one laterally ported and having a circular groove therein surrounding the port, and a pair of packing rings mounted in said groove one upon the other, the outer ring having an outer face complementing the adjacent working face of the other member, and the inner ring being radially split and having a radial dismesion considerably less than the radial dimension of the groove, the two rings having adjacent complementary bevcled faces whereby radial variation in the inner ring will vary the axial position of the outer ring.

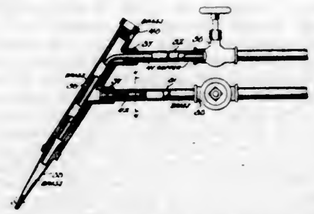
1,136,436. AUTOMATIC FIRE-ESCAPE. WILLIAM ERWIN PAYNE and WALFRID S. EKLUND, Donner, La. Filed Dec. 27, 1913. Serial No. 809,014. (Cl. 254—152.)



1. An automatic fire escape, comprising a supporting frame, a winding drum journaled in the frame and adapted to have a cable wound thereon and means for governing the speed of rotation of said winding drum when the drum is rewinding comprising a shaft rotatably journaled in the frame, means for operatively connecting the shaft with the winding drum to cause rotation of said shaft, a gear wheel loosely mounted upon the shaft, a disk loosely mounted upon the shaft and adapted to engage one side face of the gear wheel, means for rotating the disk when the drum is unwinding and rewinding, a spring mounted upon the shaft and adapted to force the disk into frictional engagement with the loosely mounted gear wheel to cause the same to rotate when the cable is unwinding, a plurality of hingedly secured vanes carried on said disk, means for yieldingly holding the vanes in close and approximately parallel relation to the disk, said vanes adapted to be moved outwardly in angular relation to the disk by atmosphere resistance during the rotation of the disk in the opposite direction during the rewinding of the cable, a second shaft, means for operatively connecting the second shaft with the loosely mounted gear on the first shaft, and governing means on the second shaft operated by centrifugal force during the rotation thereof, when the cable is unwinding.

2. In an automatic fire escape a rotatable drum to have a cable wound thereon, means for governing the speed of the rotation of said drum when the drum is rewinding, means for governing the speed of rotation of the drum when said drum is unwinding and means for preventing operation of said first named governing means upon the operation of said last named governing means.

1,136,437. OXYACETYLENE APPARATUS. MICHAEL L. POPP, Milwaukee, Wis. Filed Jan. 22, 1914. Serial No. 813,765. (Cl. 158—109.)



1. In oxyacetylene apparatus having a gas-mixing burner element comprising a non-corrosive cock-controlled pipe for valve-controlled flexible pipe connection with an oxygen-gas storage-tank, another non-corrosive cock-controlled pipe for similar connection with an acetylene-gas storage-tank, a hollow head to which the cock-controlled pipes are coupled, a non-corrosive oxygen-gas conveyer-tube leading from the cock of one pipe and through said pipe to discharge within the head at a predetermined point beyond the inlet thereto of the other pipe, and a flame-tip extending from said head.

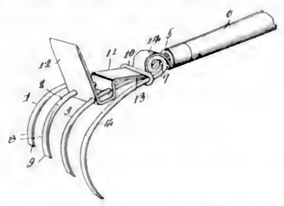
2. An oxyacetylene apparatus having a gas-mixing burner element comprising a non-corrosive cock-controlled pipe for valve-controlled flexible pipe connection with an oxygen-gas storage-tank, another non-corrosive cock-controlled pipe for similar connection with an acetylene-gas storage-tank, a conveniently arranged handle connecting the cock-controlled pipes, a hollow head to which said pipes are coupled, a non-corrosive oxygen-gas conveyer-tube leading from the cock of one pipe and through said pipe to discharge within the head at a predetermined point beyond the inlet thereto of the other pipe, and a flame-tip extending from said head.

3. An oxyacetylene apparatus having a gas-mixing burner element comprising a non-corrosive cock-controlled pipe for valve-controlled flexible pipe connection with an oxygen-gas storage-tank, another non-corrosive cock-controlled pipe for similar connection with an acetylene-gas storage-tank, a hollow head to which the cock-controlled pipes are coupled, a non-corrosive oxygen-gas conveyer-tube leading from the cock of one pipe and through said pipe to discharge within the head at a predetermined point beyond the inlet thereto of the other pipe, a flame-check in the forward end of the acetylene-gas conveyer-pipe, and a flame-tip extending from said head.

1,136,438. WEEDER AND HOE. FRANCIS H. REICHARD, Bangor, Pa. Filed Apr. 15, 1914. Serial No. 832,097. (Cl. 55—39.)

1. An attachment for garden implements including in combination with the implement itself, a blade, a shank integral with the blade, the shank having an opening formed therein, the said shank opening being alined with

an opening of the blade, a portion of the implement passing through the said alined openings to serve as a brace for the attachment, as and for the purpose set forth.



2. An attachment for garden implements including in combination with the implement itself, a blade having openings formed therein, a shank integral with the blade and extending at an angle thereto, the shank, being shaped to conform to the configuration of that portion of the implement to which it is secured, the said shank having openings formed therein in alinement with the opening in the blade, means attaching the shank to the implement, the engagement between the said attachment and the said implement serving as a brace for the latter and a spring support for the former, as and for the purpose set forth.

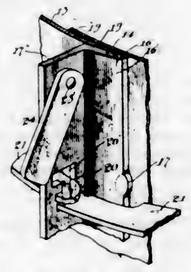
3. An attachment for garden implements including in combination with an implement a blade, a shank bent intermediate its ends, a portion of the shank being shaped to conform to the configuration of the implement itself, part of the implement passing through the said shank and blade to form an attaching means therefor, and means engaging both the attachment and the implement for holding the latter against movement longitudinally of the former, as and for the purpose set forth.

4. An attachment for garden implements including in combination with an implement a hoe blade, disposed to extend at an angle to the back of the implement to which it is attached, a shank integral with the blade and extending at an angle thereto, the said shank and the said blade being provided with alined openings through which portions of the implement extends, said attachment serving as a brace for the implement and the implement as a yieldable support for the attachment, as and for the purpose set forth.

5. In a garden tool, the combination with a weeding implement including a plurality of resilient tines, of a hoe attachment comprising a blade having openings formed therein, a shank integral with said blade, said shank having openings formed therein, the said openings of the blade and shank adapted to receive the tines, as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,136,439. SECTIONAL MOLD. ROBERT R. ROBERTSON, La Grange, and CARL G. NAYLOR, Chicago, Ill. Filed Oct. 18, 1913. Serial No. 795,830. (Cl. 25—121.)

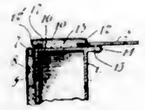


1. In a device of the character described, a plurality of mold segments; a radially disposed plate secured to each segment and having perforations at suitable intervals, and ring segments extending from plate to plate and bearing notches at each of their ends for engagement with said perforations in said plates.

2. In a device of the character described, a plurality of mold segments; an angle bar having one of its flanges secured near to the circumferential marginal edge of each segment, in such manner as to permit the inclusion of the edge of the adjacent segment between said bar and its attached segment, the other, radially-disposed flange of said angle bar, bearing perforations at intervals along its longitudinal extent, and ring segments, having their greatest dimensions lying in planes at right angles to the surface of the mold and removably secured at their ends in the perforations of said adjacent angle bars.

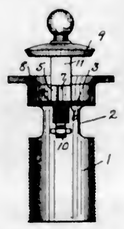
3. In a device of the character described, a plurality of inclosing mold segments; angle bars secured to each segment and having, at intervals, perforations radially wider at one end than the other; ring segments, to encompass said mold structure, notched at their ends and adapted to enter the larger portion of said perforation and to engage the bar in the smaller portion thereof and a latch to cover the larger portion of said perforation to retain said segments in place.

1,136,440. RADIATOR-JACKET. JAMES E. ROBINSON, Chicago, Ill. Filed Dec. 16, 1913. Serial No. 806,983. (Cl. 257—132.)



In a heat insulating jacket for an automobile radiator, the combination of a plate adapted to be secured to the front of a radiator, and having its edges turned in; a sheet of insulating material secured to the rear face of the said plate by engagement with the inturned edges; strips positioned upon the sides of the radiator and having their edges turned in; strips of heat insulating material secured to the inner faces of the said inturned strips by engagement with the inturned edges, and retaining clips securing the inturned edge of the plate to the forwardly extending inturned edges of the strips.

1,136,441. WASTE-PIPE PLUG. ALFRED G. SCHMIDT, Baltimore, Md. Filed Sept. 9, 1914. Serial No. 860,821. (Cl. 4—35.)

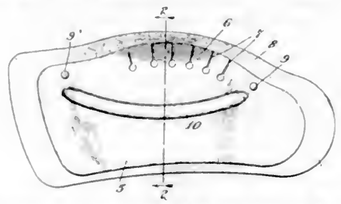


1. The combination of a discharge pipe having a cross-piece near its upper end, and a seat removably secured to said cross piece and having slots in its opposite sides above said cross-piece, and a plug adapted to seat in the upper end of said discharge pipe and having a stem on its lower surface having a portion thereof adapted to operate in said slots and to rest on the upper edge of said seat to hold the plug in the unseated position.

2. The combination of a discharge pipe having a cross-piece near its upper end, and a slotted seat projecting above said cross-piece, and a plug adapted to seat in the upper end of said discharge pipe and having a stem on its lower surface projecting through said seat and having a flat upper end adapted to operate in the slots of said seat and to rest on the upper end of said seat to hold the plug in the unseated position.

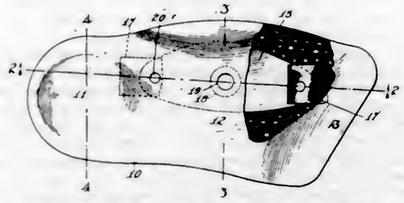
3. The combination of a discharge pipe having a cross-piece near its upper end provided with a screw-threaded aperature and a seat having a screw-threaded lower end adapted to be screwed into the aperture in said cross-piece and having slots in its opposite sides above said cross-piece, and a plug adapted to seat in the upper end of said discharge pipe and having a stem on its lower surface having a portion thereof adapted to operate in said slots and to rest on the upper edge of said seat to hold the plug in the unseated position.

1,136,442. INSTEP-ARCH SUPPORT. WILLIAM M. SCHOLL, Chicago, Ill. Filed Dec. 4, 1911. Serial No. 663,779. (Cl. 36—71.)



In an instep arch support, the combination with a metallic plate provided with a depressed bead running lengthwise thereof along the portion of the plate which underlies the highest arch portion of the shank of the foot, of a body of metal more ductile and less brittle than the material of which the plate is made, entirely filling said bead and substantially flush with the upper surface of the plate.

1,136,443. INSTEP-ARCH SUPPORT. WILLIAM M. SCHOLL, Chicago, Ill. Filed Jan. 3, 1913. Serial No. 739,984. (Cl. 36—71.)



1. In an instep arch support, the combination of a body of rubber shaped to conform with the plantar surface of the foot, from the heel thereof substantially to the ball of the foot, said body being thickened at the central portion thereof, and a metallic plate embedded in said rubber near the under side thereof and extending longitudinally to points oppositely beyond the shank of the foot to afford two bearing points between the ball and the heel of the foot and relieve the shank portion of the shoe from the same without decreasing substantially the resiliency of the thick rubber portion surrounding said metallic plate.

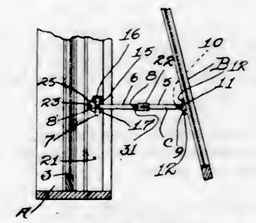
2. In an instep arch support, the combination of a metal plate, arched to receive substantial support from the shoe only at its ends, and a body of rubber shaped to conform with the plantar surface of the foot from the heel thereof substantially to the ball of the foot, investing said plate and positioning the same in the shoe, said rubber body having recesses therein extending substantially to the plate contiguous to the central portion of said plate.

3. In an instep arch support, the combination of a metal plate, arched to receive substantial support from the shoe only at its ends, and a body of rubber shaped to conform with the plantar surface of the foot from the heel thereof substantially to the ball of the foot, investing said plate for positioning the same in the shoe, said rubber body having recesses therein extending substantially to the plate contiguous to the central and end portion of said plate.

4. In an instep arch support the combination of a metal plate, arched to receive substantial support from the shoe only at its ends, and a body of rubber shaped to conform with the plantar surface of the foot from the heel thereof substantially to the ball of the foot, investing said plate for positioning the same in the shoe, said rubber body being thickened above the central portion of the plate and having recesses therein extending substantially to the plate contiguous to the central portion of said plate.

5. As an article of manufacture an instep arch support comprising a body of material having the essential qualities of rubber, having its upper surface curved for substantial conformity with the under side of a human instep arch, to extend from beneath the ball thereof to beneath the heel of the foot and to extend from the outside edge of the foot up the highly arched inner surface at the shank of the foot, the under surface of said body being shaped for substantial conformity with the shank of a normal shoe, and having a curvature longitudinally and transversely which gives to said body maximum thickness at about the highest point of the arch in a longitudinal direction and at about the juncture of the body portion and the side extension in a transverse direction, and a metallic plate embedded in and positioned by said rubber, said plate curved in substantial parallelism with the normal curve of the bottom of the rubber and located in the rubber near the under side thereof, said plate extending longitudinally to points oppositely beyond the shank of the foot to afford two bearing points between the ball and heel of the foot and relieve the shank portion of the shoe from same, without decreasing substantially the resiliency of the thick rubber portion surmounting said metallic plate.

1,136,444. STORM-SASH FASTENER. JULIUS J. SCHUBERT, St. Paul, Minn. Filed Mar. 3, 1915. Serial No. 11,910. (Cl. 16—22.)

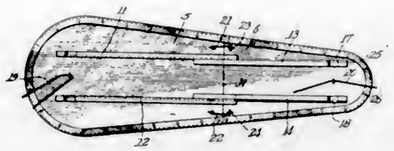


1. In combination with a window casing and swinging sash, a stay consisting of an arm hinged by one end to said sash and formed with a shoulder on its other end, a lock member attached to said casing having upper and lower shoulders spaced apart, said arm engaging by its shoulder the lower shoulder of said lock member to support said sash in open position and adapted to swing down behind said lower shoulder to hold the sash closed, and a member pivoted upon the inner end of said arm and engaging below said upper shoulder and behind said lower shoulder on said lock member to assist in holding said arm engaged with said lock member while the sash is in open position.

2. In combination with a window casing and swinging sash, a stay pivotally attached by one end to said sash consisting of a plurality of longitudinal arms hinged together near their ends, the end of one arm adjoining its hinged connection to its adjacent arm overlapping a portion of the body of said adjacent arm when said arms are extended, a lock member attached to said casing having an upper shoulder and a lower shoulder spaced from the upper shoulder, said arms constituting said stay being

formed with shoulders near their ends farthest away from said sash adapted to engage said lower shoulder to assist in either holding the sash in partly or fully open position and said overlapping portion being adapted to engage below said upper shoulder while the shoulder on the adjoining arm engages said lower shoulder to hold said stay with said sash in partly open position, and means on said stay engaging said overlapping end to hold said arms extended.

1,136,445. IRONING-BOARD. EDNA L. SELLS, Chicago, Ill. Filed Jan. 16, 1915. Serial No. 2,517. (Cl. 68—10.)



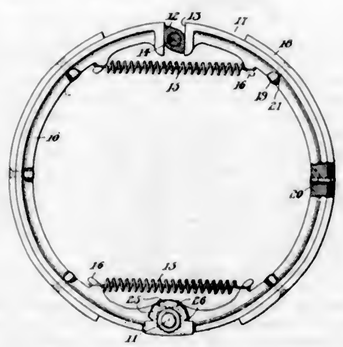
1. An ironing board divided into two parts in a transverse plane; a pair of cleats secured to the under side of each part, one pair projecting beyond the meeting edges of the parts when said parts are placed end to end, the members of the respective pairs being slidably engageable, and engageably reversible with respect to the other members when the board parts are reversed and means to prevent separation of the cleats.

2. An ironing board divided into two parts, in a transverse plane; two slidably engaging pairs of cleats, one pair secured to the under-side of each part of the divided board and having their proximate ends extending beyond the joining edges of said parts, said pairs of cleats being relatively reversible so that the two parts of the board may thereby be held together when the parts are relatively reversed and axially moved toward each other.

3. An ironing board; a plurality of pairs of cleats secured on the under side thereof, said cleats provided with notches near their outer ends and tapes secured to the board near said notches.

4. An ironing board divided into two parts in a transverse plane; a pair of cleats secured to the under side of each part, one pair within the other pair and slidably engaging, said cleats provided with notches near their outer ends and tapes secured to the board near said notches.

1,136,446. AUTOMOBILE BRAKE-SHOE. CHARLES S. SHUMAKER, Jeannette, Pa. Filed June 30, 1914. Serial No. 848,222. (Cl. 21—8.)

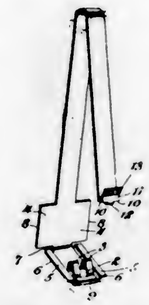


1. In combination with two semi-circular brake shoe sections, each of which sections has a semi-tubular hub at one end thereof, a clip having side members inwardly bent inclosing the adjacent hub end, the said clip having openings in the sides thereof alining with the bearings of said hub and a pintle bolt secured through said openings and bearing.

2. A brake shoe comprising two semi-circular sections, each having a semi-tubular hub at one end thereof, said sections having opposite cut away portions at their adjacent ends and adjacent to said hubs, a clip partially surrounding said hub and having its sides positioned in said cut away portions and provided with ears bent inwardly engaging around said hub, the sides of said clip provided with alined perforations and a pintle bolt through said perforations and said hub.

3. A brake shoe comprising two semi-circular sections, semi-tubular hubs upon the adjacent ends of said sections, and said section ends being cut away upon opposite sides thereof adjacent said hub, a U-shaped clip partially surrounding said hub and provided with inwardly bent portions engaging the outer faces of said hub, the sides of said clip provided with alining openings, and a pintle bolt secured through said openings and through the said hubs.

1,136,447. CAR-SEAL. VOORHEES GILBERT SMITH, Iola, Kans., assignor of one-half to Luther C. Beatty, Iola, Kans. Filed May 25, 1914. Serial No. 840,819. (Cl. 70—99.)

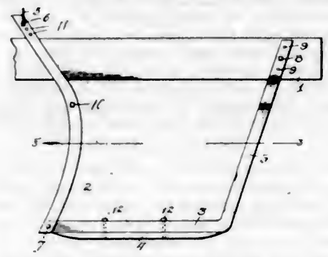


1. A seal including a strip provided at one end in its side edges with opposite relatively narrow notches forming a terminal T-shaped portion having a relatively short stem located intermediate of the side edges of the strip, said terminal T-shaped portion being bent inwardly or rearwardly at the stem to form an overlying catch, a casing carried by the other end of the strip, and spaced means located within the casing and arranged to engage with the catch, the space between the said engaging means permitting the passage of the said stem.

2. A seal constructed of sheet metal and comprising a narrow strip, a casing carried by one end of the strip and provided with spaced interiorly arranged locking hooks, a catch consisting of an approximately T-shaped terminal portion located at the other end of the strip and having a projecting lip, said catch overlying the strip and connected therewith and the narrow stem thereof being adapted to pass between the locking hooks in engaging the catch therewith.

3. A seal consisting of a strip of sheet metal provided at one end with opposite narrow notches forming a T-shaped terminal catch portion, the stem thereof being bent backwardly and inwardly to cause the said portion to form an overlying catch, the other end of the strip being longitudinally slotted and bent to form spaced locking hooks, said strip being also provided with spaced inner and outer enlargements having laterally projecting wings, the wings of one of the enlargements being flanged and having the wings of the other enlargement bent around and secured to the flanges, said enlargements forming a casing for the locking hooks, and the casing being open at one end to permit the catch to be engaged with the said hooks.

1,136,448. PLOW. HUGH C. STANTON, Dillon, S. C. Filed Feb. 17, 1913. Serial No. 749,004. (Cl. 97—26.)



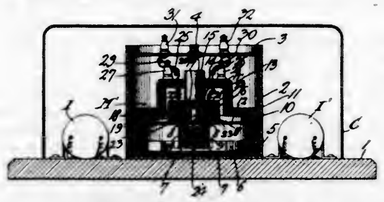
1. In a plow, the combination of a plow beam, a standard having an upper end adjustably connected with the beam, a runner pivotally connected with the foot of said standard and having its rear end pivotally connected with the beam, the runner being freely swingable about a fixed point in the beam and in the rear end of the runner, whereby when the upper end of said standard is moved forwardly the front end of the beam is depressed and when the upper end of said standard is moved rearwardly the front end of the beam is elevated, thus changing the digging action of the plow but preserving the depth uniform.

2. In a plow, the combination of a plow beam, a standard having forwardly curved arms embracing the beam and projecting above the same, an adjusting bolt connecting the arms above the beam, a runner pivotally connected with the foot of the standard, the rear end of said runner extending upwardly and being pivotally connected to the beam by a U-shaped connection, the construction being such that when the arms of the standard are moved forwardly, the front end of the beam will be depressed and when moved rearwardly, the front end of the beam will be elevated thus changing the digging action of the plow but preserving the depth uniform, the runner being freely swingable with relation to the beam about a fixed point in said U-shaped connection and in said beam.

3. In a plow, the combination of a plow beam, a front standard comprising a pair of forwardly curved arms embracing the beam, extending above the same, and each having bolt holes above the beam, an adjusting bolt fitting the bolt holes and connecting the arms above the beam, a device pivotally connected at its forward end to the foot of the front standard and having a horizontal and rearwardly extending part and an upwardly extending part, the rearwardly extending part constituting the runner of the plow, the upwardly extending part constituting the rear standard and being bifurcated at its upper end to embrace the plow beam, means for adjustably connecting the rear standard to said beam comprising bolt holes in each of said parts of the bifurcated portion, and a bolt fitting said last mentioned bolt holes, the upwardly extending part of said device which constitutes the rear standard when adjusted in place being swingable about a fixed point in the rear standard and in the beam of the front standard are moved forwardly the front of the plow beam will be depressed, and when the said arms are moved rearwardly the front of the beam will be elevated thereby changing the digging action of the plow, but preserving the depth uniform.

4. In a plow, the combination of a plow beam, a front standard comprising a pair of forwardly curved arms having bent parts near their upper ends providing shoulders to engage the lower edge of said beam, said arms extending above the beam and each having bolt holes in the part thereof above the beam, an adjusting bolt fitting the bolt holes and capable of clamping the arms together to secure the front standard to the beam, a bolt capable of fastening the arms together below the beam and below the lower shoulders of said arms, a device pivotally connected at its forward end to the foot of the front standard and having a horizontal part constituting a runner and an upwardly extending part constituting the rear standard, the said upwardly extending part being bifurcated at its upper end to embrace the plow beam and pivotally connected to said beam and swingable about a fixed point in the rear standard and in the beam, for the purpose described.

1,136,449. MICROPHONE. CHARLES W. UNDERWOOD, Crowley, La., assignor of one-half to William M. Egan, Crowley, La. Filed May 27, 1914. Serial No. 841,313. (Cl. 179—136.)



1. A microphone, having a body of insulation provided with a rectangular receptacle, metal strips lining two of the opposite walls of the receptacle, a vibrating member, granular conducting material in the receptacle and bridging the metal strips, and a plurality of compressing and agitating blades disposed in parallel and actuated by the vibrating member, said blades being projected into the granular conducting material.

2. A microphone, having a support, a vibrating member mounted therein, a receptacle of non-conducting material having a rectangular chamber, two metal plates lining two of the opposite walls of the chamber, granular conducting material in the chamber and bridging the two metal plates, and a compressing and agitating blade actuated by the vibrating member and disposed edgewise of and longitudinally within the chamber of the receptacle, said blade being in contact with the granular conducting material.

3. A microphone, including a support, a vibrating member, a receptacle of non-conducting material adjustably mounted in the support relatively to the vibrating member and provided with a rectangular chamber, two metal plates abutting opposite walls of the chamber, granular conducting material mounted in the chamber and bridging the metal plates, and a plurality of compressing and agitating blades disposed in parallel and actuated by the vibrating member, said blades being projected within the receptacle into the granular conducting material.

4. A microphone, including a support, a vibrating member, a receptacle composed of non-conducting material adjustably mounted in the support, the receptacle being provided with two chambers, granular conducting material mounted in each chamber, and two blades actuated by the vibrating member and projected one within each chamber.

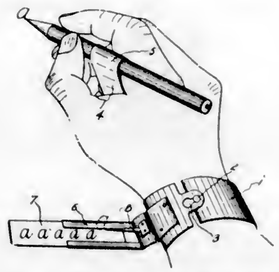
1,136,450. DEVICE FOR TEACHING WRITING. MASAJIRO URASE, Steveston, British Columbia, Canada. Filed Nov. 4, 1914. Serial No. 870,292. (Cl. 35—8.)

1. A device for teaching writing, comprising a divided ring adapted to encircle the wrist and to be detachably secured therearound, said ring having an outwardly extending finger on one side thereof and approximately at right angles thereto and a forwardly extending portion the extremity of which is adapted to receive and hold a pencil.

2. A device for teaching writing, comprising a divided ring adapted to encircle the wrist and to be detachably secured therearound, said ring having an outwardly extending finger on one side thereof and approximately at right angles thereto and a forwardly extending portion the extremity of which is adapted to hold a pencil, and a member secured to the said ring and extending outwardly therefrom below and adjacent the said finger, said member being adapted to slidably receive a letter chart.

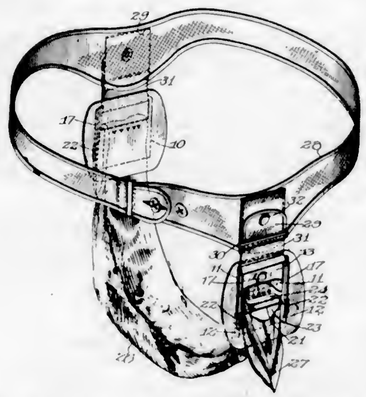
3. A device for teaching writing, comprising a divided ring having a slot near one end and a button near the op-

posite end designed to engage the said slot so as to secure the said ring on the wrist, a finger secured to the ring on one side thereof and approximately at right angles thereto, a member secured to the said ring on the same side as the said finger below and adjacent thereto, said member being adapted to slidably receive a letter chart, and a pencil supporting member the outer extremity of which is adapted to hold a pencil, said member being secured at its inner end to said ring and extending forwardly so as to support the pencil at a suitable distance therefrom.



4. A device for teaching writing comprising a pointer attached to the wrist so as to extend laterally therefrom, and a writing instrument supporting member attached to the wrist at one end and extending through the hand gripping the writing instrument so as to engage and support such instrument.

1,136,451. BUCKLE. ALBERT T. VAN ALSTYN, New York, N. Y. Filed Aug. 28, 1911. Serial No. 646,346. (Cl. 24—191.)



1. In a buckle, the combination of a buckle frame, flexible guides supported thereby, a crossbar mounted to slide upon the guides, and a clamping member pivotally mounted upon the cross bar.

2. In a buckle, the combination of a buckle frame, an elastic support mounted upon the frame, a slide movable on the support, and a clamping member mounted upon the slide to coöperate with the buckle frame.

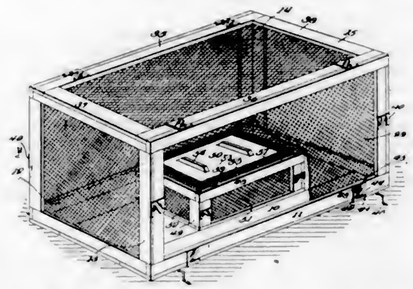
3. In a buckle, the combination of a buckle frame, an elastic guide, one end of said guide being fixed to the frame, the other end having a yielding connection with the frame, and a clamping member slidably connected with the guide and pivotally supported with respect to the guide.

4. In a buckle, the combination of a buckle frame, an elastic guide supported by the frame, a portion of the guide being fixed with respect to the frame, another portion of the guide having a sliding connection with the frame, a clamping member slidably mounted upon the guide and supported for pivotal movement with respect to the guide.

5. In a buckle, the combination of a frame, spaced elastic guides pivotally connected adjacent one end with the frame, the other ends of the guides having sliding connection with the frame, a slide movable on the guides, and a clamping member supported by the slide for pivotal movement with respect to the slide and guides.

[Claims 6 to 12 not printed in the Gazette.]

1,136,452. COLLAPSIBLE FLY-TRAP. CALVIN W. VON DORN, Albuquerque, N. Mex., assignor of one-third to Cecil K. Schafer, Naco, Ariz. Filed May 22, 1913. Serial No. 769,260. (Cl. 43—22.)



1. A fly trap including a rectangular bottom forming frame having its inner and outer edges rabbeted, side and end frames covered with foraminous material seating by their lower edges in the rabbets of the outer edges of the bottom, a top covered with foraminous material resting upon the upper edges of the end frames and between the upper edges of the side frames, means for detachably connecting the side frames to the bottom and end frames and the top to the side frames, and an inner body member including detachable side and end frames seating by their lower edges in the rabbets of the inner edges of the bottom, an imperforate top mounted between the upper edges of the side and end walls of the inner body member with its edges spaced therefrom, and crimped baffle members interposed between the top and edges of said frames to provide a plurality of reduced passages.

2. A fly trap including side and end frames covered with foraminous material, a top provided at its ends with spacer blocks, said top being imperforate, a strip of foraminous material surrounding the top and held in spaced relation by the spacer blocks and extending by its upper edge above the top, strips of crimped foraminous material interposed between the first strip and the edges of the top to provide a plurality of reduced passages, supporting strips L-shaped in cross section secured to the spacer blocks by one flange and with their other flanges extending laterally to rest upon the side and end wall frames when the top is in place, and an outer body member inclosing the inner body member and provided in its bottom with an opening communicating with the inner body member.

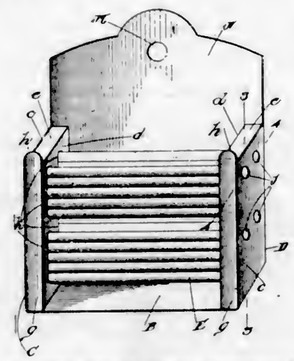
3. A fly trap including a bottom provided with an opening, outer side and end walls and top wall, each including a frame covered with foraminous material, said parts forming an outer body member, an inner body member positioned within the outer body member and communicating with the opening in the bottom thereof, said inner body member being provided with a plurality of reduced passages communicating with the outer body member, and means for detachably securing the outer top, side and end walls and bottom to each other, said means including pins carried by adjacent members to be secured, a plate of sheet metal provided with a diagonally extending slot through which one of the pins pass and with a notch for engagement with the other pin, one edge of said notch being parallel to one edge of the plate, while the opposite edge is parallel to the slot.

4. A trap including a bottom having spaced side and end strips both edges of all of which are rabbeted, side walls including frames covered with foraminous material and seating in the rabbeted edges of the bottom, each frame including upper and lower strips and end strips connecting the upper and lower strips and spaced from the ends thereof, end walls, each including frames covered with foraminous material and seating in the rabbeted portions of the bottom, each end wall frame including upper and lower strips bearing between the ends of the upper and lower strips of the side walls and end strips bearing against the end strips of the side walls between the ends of the upper and lower strips thereof, a top including a frame covered with foraminous material seating upon the upper strips of the end walls and between the upper strips of the side walls, means for securing said members together, and an inner member seated upon the bottom of the outer member and provided in its upper end with a plurality of reduced passages.

5. A fly trap including inner and outer body members spaced from each other, a common bottom for the two having an opening communicating with the inner body member, and a removable top for the inner body member, said top including a top proper, smaller in size than the inner body member, a strip of foraminous material peripherally surrounding the top proper and projecting at its free edge above the top proper, spacer blocks secured at intervals to the peripheral edge of the top proper, a similar strip of foraminous material surrounding the top proper and secured to the spacer blocks in spaced relation to the first strip, strips of crimped foraminous material interposed between the first and second strips to provide a plurality of reduced passages, and a plurality of top supporting strips, L-shaped in cross section, bearing each by one flange against the outer strip of foraminous material, being secured to the spacer blocks, and adapted to rest by and with their outwardly directed flanges upon the upper edge of the inner body member.

[Claims 6 and 7 not printed in the Gazette.]

1,136,453. DISPLAY-HOLDER. PETER R. WARREN, Boston, Mass. Filed Nov. 1, 1913. Serial No. 798,757. (Cl. 211—24.)



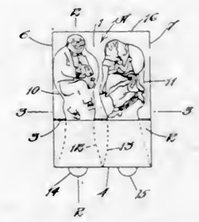
1. The improved display holder comprising a back, oppositely disposed sides secured to said back having outer and inner faces retained apart from each other, the opposing faces of said sides having oppositely placed slots therein for the reception of the ends of articles to be displayed and an outer face having a hole therein in line with a portion of said oppositely placed slots to permit the passage therethrough of one of said articles only at a time.

2. The improved display holder comprising a back, a bottom, sides secured to said back and bottom having outer and inner faces retained apart from each other, one of said inner faces having a slot therein, the other of said inner faces having a corresponding slot oppositely disposed to said first mentioned slot, said slots being adapted to retain a tier of articles to be displayed, and an outer face having a hole therein in line with said slots, said hole being adapted to permit the passage therethrough of one of said articles only at a time.

3. The improved display holder formed from a single sheet of folded material and having a back, a bottom and two parallel box-shaped sides, the opposing faces of which have oppositely placed slots therein for the reception of the ends of articles to be displayed and having outer faces one of which has a hole therein in line with a portion of said oppositely placed slots.

4. The improved display holder formed from a single sheet of folded material and having a back, a bottom member, box-shaped sides secured to said back and parallel with each other, the opposing faces of said sides having slots therein oppositely placed for the reception of articles to be displayed, an outer face having holes therein in line with a portion of said slots, each of said sides having a top member detachably secured at one side and said bottom being detachably secured to said sides whereby said members may be detached permitting said box-shaped sides to be pressed inwardly and lie flat against said back.

1,136,454. FOLDING BOX. PETER R. WARREN, Boston, Mass. Filed Dec. 30, 1914. Serial No. 879,640. (Cl. 46—37.)



1. A box having a plurality of figures secured along one edge thereof to an edge of a panel of the box, and lying in a plane at an angle to the panel to which they are attached, whereby a flexing of the said panel will cause the said figures to be moved relatively to each other.

2. A box having a plurality of figures secured along one edge thereof to an edge of a panel of the box and overlying another panel of the box at an angle to said first mentioned panel whereby a flexing of said first mentioned panel will cause said figures to be moved relatively to each other.

3. A box having a plurality of figures secured along one edge thereof to an edge of a panel of the box and overlying another panel of the box at an angle to said first mentioned panel whereby a flexing of said first mentioned panel will cause said figures to be moved relatively to each other, and a strap parallel to the plane of said second mentioned panel between which and said second mentioned panel said movable figures lie.

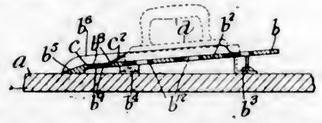
4. A combination box and toy having a face panel formed with an upper and a lower portion having a transverse slit between them, a back panel opposite the said face panel, an end panel flexibly connected with said back panel, an extension member flexibly connected with the edge of said end panel on the opposite edge from the connection of said end panel with the said back panel, said extension member being tucked in beneath the lower portion of said face panel, and thorugh said transverse slit and lapping over onto the outer face of the upper portion of said face panel, said extension member being divided to form a plurality of figures.

5. A combination box and toy having a face panel formed with an upper and a lower portion having a transverse slit between them, a back panel opposite the said face panel, an end panel flexibly connected with said back panel, an extension member flexibly connected with the edge of said end panel on the opposite edge from the con-

nection of said end panel with the said back panel, said extension member being tucked in beneath the lower portion of said face panel, and through said transverse slit and lapping over onto the outer face of the upper portion of said face panel, said extension member being divided to form a plurality of figures, the dividing line between said extension figures extending substantially to the junction thereof with said end flap and having upwardly diverging edges.

[Claims 6 to 10 not printed in the Gazette.]

1,136,455. IRON-STAND. PAUL WIENER, New York, N. Y. Filed Feb. 15, 1915. Serial No. 8,222. (Cl. 68—27.)



1. An iron stand, comprising a flat body portion having raised side flanges and adapted to be rigidly secured to a board or support in a downwardly and backwardly inclined position, said body portion being provided transversely thereof and forwardly of its rear edge portion with a transverse raised member.

2. An iron stand or holder, comprising a base plate or body portion having raised side flanges and provided with front and rear legs, the front legs being longer than the rear legs, and said device being adapted to be rigidly secured to a board or support in a downwardly and backwardly inclined position with the rear edge thereof resting on said board or support.

3. An iron stand or holder, comprising a base plate or body portion having raised side flanges and provided with front and rear legs, the front legs being longer than the rear legs, and said device being adapted to be rigidly secured to a board or support in a downwardly and backwardly inclined position with the rear edge thereof resting on said board or support, and the base plate or body portion being provided forwardly of the rear edge thereof with a raised member.

4. A iron stand or holder, comprising a flat body portion adapted to be rigidly secured to a board or support in a downwardly and backwardly inclined position, said body portion being provided with a transverse rear edge which rests on said board or support when the device is secured thereto.

1,136,456. SHOE-FILLER. FREDERICK E. WOODWARD, Lachine, Quebec, Canada. Filed Aug. 8, 1913. Serial No. 783,793. (Cl. 106—3.)

1. A shoe filler comprising Burgundy pitch, oil, a comminuted resilient solid material, and an ingredient which, when combined with said ingredients and heated gives off an incombustible gas.

2. A shoe filler comprising Burgundy pitch, oil, a comminuted resilient solid material and bi-carbonate of soda.

3. A shoe filler comprising Burgundy pitch 450 lbs., oil 60 lbs., and a comminuted resilient solid material in the proportion of 25 lbs. to 6 gals. of pitch and oil mixture.

4. A shoe filler comprising Burgundy pitch 450 lbs., oil 60 lbs., a comminuted resilient solid material in the proportion of 25 lbs. to 6 gals. of the pitch and oil mixture, asphalt, and bi-carbonate of soda.

5. A shoe filler comprising Burgundy pitch 450 lbs., oil 60 lbs., a comminuted resilient solid material in the proportion of 25 lbs., to 6 gals. of the pitch and oil mixture, and bi-carbonate of soda.

1,136,457. SHOE-FILLER. FREDERICK E. WOODWARD, Lachine, Quebec, Canada. Filed Aug. 8, 1913. Serial No. 783,794. (Cl. 106—3.)

1. A shoe filler comprising, resin, vaseline, pine tar, bi-carbonate of soda, and a comminuted resilient solid material.

2. A shoe filler comprising, resin 250 lbs. vaseline 30 lbs. pine tar 20 lbs. bi-carbonate of soda 10 lbs. and a comminuted resilient solid material.

3. A shoe filler comprising, resin 250 lbs. vaseline 30 lbs. pine tar 20 lbs. bi-carbonate of soda 10 lbs. and 25 lbs. of comminuted resilient solid material to 6 gals. of said mixture.

1,136,458. SHOE-FILLER. FREDERICK E. WOODWARD, Lachine, Quebec, Canada. Filed Aug. 8, 1913. Serial No. 783,795. (Cl. 106—3.)

1. A permanently tenacious, quicksetting, permanently elastic, non-inflammable shoe filler capable of being molded into a thin pliable layer filling the shoe bottom, said filler comprising, wax tailings, resin, petroleum oil, a comminuted resilient solid material and a substance which when combined with said ingredients and heated, gives off a non-inflammable gas.

2. A shoe filler consisting of wax tailings, resin, petroleum oil, a substance which when incorporated in the completed filler will give off non-inflammable gas upon heating of the filler, and a comminuted resilient solid material.

3. A shoe filler consisting of wax tailings, resin, petroleum oil, bi-carbonate of soda, and a comminuted resilient solid material.

4. A shoe filler consisting of wax tailings 240 lbs. resin 240 lbs. petroleum oil 80 lbs. bi-carbonate of soda 10 lbs. and a comminuted resilient solid material in the proportion of 25 lbs. of comminuted resilient solid material to 6 gals. of the above mixture.

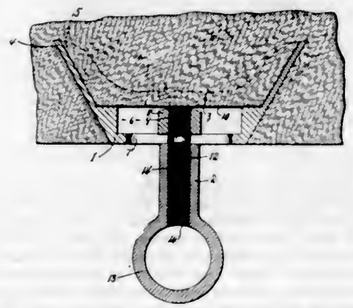
1,136,459. SHOE-FILLER. FREDERICK E. WOODWARD, Lachine, Quebec, Canada. Filed Aug. 8, 1913. Serial No. 783,796. (Cl. 106—3.)

1. A shoe filler containing a resinous gum, resin, resin oil, pine tar, solid petrolatum, and a comminuted resilient solid material.

2. A shoe filler consisting of a resinous gum 4 lbs. resin oil 4 lbs. resin 16 lbs. pine tar 1 lb. solid petrolatum 8 lbs. bi-carbonate of soda 10 lbs., and a comminuted resilient solid material.

3. A shoe filler consisting of a resinous gum 4 lbs.; resin oil 4 lbs.; resin 16 lbs., pine tar 1 lb. solid petrolatum 8 lbs., bi-carbonate of soda 10 lbs., and a comminuted resilient solid material in the proportion of 25 lbs., of comminuted resilient solid material to 5 gals. of said mixture.

1,136,460. HANGER FOR USE IN CONCRETE CONSTRUCTION. ALBERT N. WRIGHT, Rochester, N. Y. Filed Jan. 24, 1908. Serial No. 412,394. (Cl. 72—101.)



1. A hanger for use in concrete construction comprising a body designed to be embedded in the concrete, the body being formed with an elongated chamber opening through the top of the body and having side walls, the body being also formed with a slot opening through the bottom of the chamber into the same and with a ledge around the upper side of the chamber and walls rising from the ledge, a cover plate for the top of the chamber, the cover plate resting on the ledge and engaging at its edges the last-mentioned walls, a supporting member located in the chamber and adjustable along the slot and engaging the side walls of the chamber, and an engaging member suspended from the supporting member and detachably connected through the slot thereto, substantially as and for the purpose described.

2. A hanger for use in concrete construction comprising a body designed to be embedded in the concrete, the body being formed with a chamber having a slot in its bottom and a cover for the chamber, the cover being immovable when the hanger is embedded in the concrete, a nut in the chamber having its threaded opening alined with the slot, a supporting member extending through the slot and threading into the nut and turning into engagement with the cover to hold said member in its adjusted position relatively to the slot, and an extension member adjustable lengthwise of the supporting member, substantially as and for the purpose specified.

3. A hanger for use in concrete construction comprising a body designed to be embedded in the concrete, the body being formed with a chamber having a slot in its bottom and an open upper side, a cover removable for closing the said upper side of the chamber, a nut in the chamber having its threaded opening alined with the slot, and a supporting member extending through the slot and threading into the nut and into engagement with said cover to hold said member in its adjusted position relatively to the slot, substantially as and for the purpose specified.

4. A hanger for use in concrete construction comprising a body designed to be embedded in the concrete, the body being formed with side walls, an elongated chamber having an elongated slot in its bottom and an open upper side, a nut in the chamber engaging the side walls thereof and having its threaded opening alined with the slot, a plate arranged to cover the open upper side, said plate being designed to have the concrete in which the body is embedded contact therewith for preventing the dislodgement of the same and resting on surfaces on opposite sides of the upper edges of its side walls, and a supporting member extending through and adjustable lengthwise of the slot and threading into the nut and movable into engagement with the plate and hence holding the nut and supporting member in its adjusted position relatively to the slot and chamber, substantially as and for the purpose set forth.

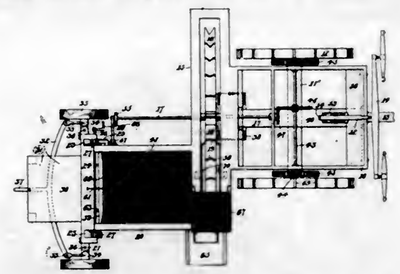
5. A hanger for use in concrete construction comprising an elongated body designed to be embedded in the concrete, said body being formed with outwardly inclined sides and ends, the ends being of greater height than the central portions of the sides and together with the end portions of the sides forming wings having channels, an engaging member and means associated with the body for supporting the engaging member, substantially as and for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,136,461. POTATO-DIGGER. JOHN ZIENCIK, New Kensington, Pa. Filed Nov. 18, 1914. Serial No. 872,742. (Cl. 55—56.)

1. A potato digger comprising a forwardly positioned main body, traction wheels supportingly positioned therebeneath, a transversely positioned rectangular frame secured to the rear of said body, a substantially square frame rearwardly attached to said transverse frame and being positioned in alinement with one side and wheel of the body, and a potato-extracting plow positioned centrally beneath the device and suspended from the transverse frame adjacent the rear side of the main body.

2. A potato digger comprising forward and rear rectangular members offset from each other, a transversely positioned narrow rectangular frame positioned between the said members, traction wheels beneath said forward member, a longitudinal shaft carried by said forward member and journaled through said transverse frame, operative connections between the said traction wheels and said shaft, a bladed wheel rigid with said shaft and mounted within said transverse frame, and a potato-extracting plow carried by said transverse frame and mounted forwardly of said bladed wheel.



3. A potato digger comprising a forward rectangular frame, supporting traction wheels for said frame, an oblong frame positioned rearwardly and transversely of the forward frame, a rear rectangular frame positioned rearwardly of the oblong frame and centrally of one of the traction wheels, a revolving bladed wheel journaled in said oblong frame, and operative connections between said traction wheels and said bladed wheel.

4. A potato digger comprising a forwardly positioned main body, a transverse narrow rectangular frame secured rearwardly thereof, a square frame attached to the rear side of said transverse frame and offset with respect to the said body, traction wheels beneath the said body, a plow beneath said transverse frame, a potato grader suspended beneath the said square and transverse frame, a bladed elevating wheel journaled within said transverse frame, rearwardly of said plow, an inclined platform adjacent said bladed wheel and extending within said grader, and operating means for said bladed wheel and grader.

1,136,462. PURIFICATION OF NATURAL AND REGENERATED CAOUTCHOUCS AND OTHER COLLOIDAL MATTERS. CHARLES PAUL BARY, Paris, France, assignor to Henry Debauge, Paris, France. Filed Feb. 3, 1912. Serial No. 675,357. (Cl. 18—50.)

1. A process of purifying caoutchouc, which comprises subjecting a solution of caoutchouc containing impurities, to dialysis.

2. A process of purifying caoutchouc, which comprises circulating a solution of caoutchouc containing impurities, on one side of a dialyzing membrane, and circulating a solvent on the other side of said dialyzing membrane, whereby impurities are separated from said solution of caoutchouc by dialysis.

3. A process of purifying caoutchouc, which comprises circulating a solution in hydrocarbon of caoutchouc containing impurities on one side of a dialyzing membrane, and circulating the pure hydrocarbon solvent on the other side of said dialyzing membrane.

4. A process of purifying caoutchouc, which comprises circulating a solution of caoutchouc containing impurities on one side of a dialyzing membrane, and circulating a solvent on the other side of said dialyzing membrane in a reverse direction, whereby impurities are separated from said solution of caoutchouc by dialysis.

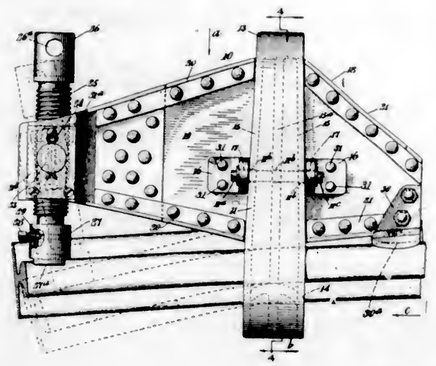
5. A process of purifying caoutchouc, which comprises subjecting a solution of caoutchouc containing impurities to dialysis through a caoutchouc membrane.

[Claims 6 to 9 not printed in the Gazette.]

1,136,463. REVERSIBLE RAIL-BENDER. MORRIS A. BODKIN, New York, N. Y. Filed June 22, 1914. Serial No. 846,515. (Cl. 153—38.)

1. An apparatus of the character described comprising an attaching member, a support provided upon its opposite sides with means to engage said attaching member;

said attaching member being provided at its opposite ends with means adapted to engage with a rail and with one edge of said support, a bearing at one end of said support, and a bending member at the other end of said support, substantially as specified.



2. An apparatus of the character described comprising an attaching member having abutments at the opposite ends thereof; one of said abutments being adapted to engage a rail, a support provided upon its opposite sides with means to receive said attaching member, means for securing said attaching member to the receiving means on either side of said support, a bearing member at one end of said support, and a bending member at the other end of said support, substantially as specified.

3. An apparatus of the character described comprising an attaching member, a support, bearings arranged upon the opposite sides of said support adapted to receive said attaching member, means for securing said attaching member to the bearings on either side of said support, means arranged at the opposite ends of said attaching member adapted to engage with a rail and one edge of said support, a bearing member at one end of said support, and a bending member at the opposite end of said support, substantially as specified.

4. An apparatus of the character described, comprising an attaching member abutments at the ends thereof; one of said abutments being adapted to engage a rail, a support reversibly secured to said attaching member and adapted to engage with the other of said abutments, a bearing member at one end of said support, and a bending member at the other end of said support, substantially as specified.

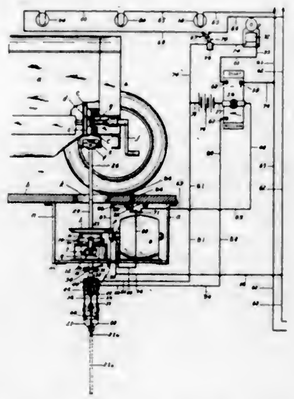
5. An apparatus of the character described, comprising an attaching member abutments at the opposite ends thereof; one of said abutments being adapted to engage a rail, a lever reversibly secured to said attaching member adapted to engage the other of said abutments, a bearing member at one end of said support, and a bending member pivotally mounted at the other end of said lever, substantially as specified.

[Claims 6 to 12 not printed in the Gazette.]

1,136,464. ENGINE-STARTER. GEORGE G. CHUTE and CHESTER A. GROAT, Portland, Oreg. Filed Mar. 12, 1913. Serial No. 753,868. (Cl. 123—179.)

1. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing; a rotatable member providing a sliding bearing for said driven shaft; means for supporting the driven shaft in coupled position; and means connecting the rotatable member with a source of power.

2. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing; said coupling means also adapted for accommodating the relative movement of said driven shaft in all directions; a rotatable member providing a sliding bearing for said driven shaft, such sliding bearing adapted to permit the movement of the driven shaft in all directions without interfering with the driving thereof; means for supporting the driven shaft in coupled position; such supporting means controlled by an electromagnet and operable to release the driven shaft by the energizing of the electromagnet; and means connecting the rotatable member with a source of power.



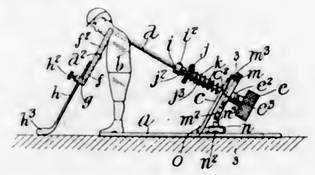
3. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a pendent, driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing, said coupling means also adapted for accommodating the relative movement of said driven shaft in all directions; a rotatable member and a support therefor, a sliding bearing for said driven shaft, such bearing supported on the rotatable member by means accommodating the movement of said shaft in all directions; means for supporting the driven pendent shaft in coupled position; such supporting means controlled by an electromagnet and operable to release the driven shaft by the energizing of the electromagnet; and means connecting the rotatable member with a source of power.

4. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a pendent, driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing, said coupling means also adapted for accommodating the relative movement of said driven shaft in all directions; a rotatable member providing a sliding bearing for said driven shaft; such sliding bearing adapted to permit the movement of the driven shaft in all directions without interfering with the driving thereof; a projection on the shaft, pivoted arms engaging with such projection for supporting the driven shaft in coupled position; a spring operating to spread such arms apart in order to release the shaft; a latch holding the arms against the tension of said spring; means for disengaging said latch, such means controlled by an electromagnet; and means connecting the rotatable member with a source of power.

5. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a pendent, driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing, said coupling means also adapted for accommodating the relative movement of said driven shaft in all directions; a rotatable member providing a sliding bearing for said driven shaft; such sliding bearing adapted to permit the movement of the driven shaft in all directions without interfering with the driving thereof; a projection on the shaft, pivoted arms engaging with said projection for supporting the driven shaft in coupled position; a spring operating to spread such arms apart in order to release the shaft; a latch holding the arms against the tension of said spring; a spring actuated projectable device arranged to disengage said latch by impact therewith; means for normally restraining such projectable device, such means controlled by an electromagnet and operated to release the projectable device when the electromagnet is energized; and means connecting the rotatable member with a source of power.

[Claims 6 to 13 not printed in the Gazette.]

1,136,465. MECHANICAL TOY. CHARLES H. CLARK, Jr., New York, N. Y. Filed Feb. 4, 1915. Serial No. 5,988. (Cl. 46—40.)



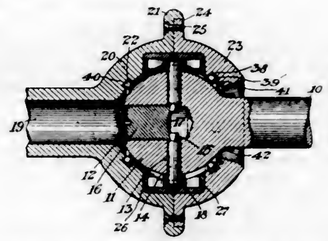
1. A golf playing top device, comprising a base provided on one end portion with a figure which represents the player and rearwardly of said figure with a raised support, a rotatable rod which passes through said support and through the top body portion of said figure and is provided forwardly of said figure with a downwardly and forwardly directed member provided at its lower end with a golf club holder, and means for operating said rod.

2. In a toy device of the class specified and adapted to represent a golf player, a base provided on one end portion thereof with a figure which represents the player and rearwardly of which is an upwardly directed support, a rotatable rod passing through said support and the front end portion of which extends forwardly of said figure and is provided with a downwardly and forwardly directed member provided at its lower end with a golf club, and means for operating said rod.

3. In a toy device of the class described and adapted to represent a golf player, said device comprising a base provided on its front end portion with a figure which represents the player and rearwardly of which is an upwardly directed support, a rotatable rod mounted in said support and extending forwardly of the figure and provided at its front end with a downwardly directed member having a golf club, and said member being also provided at its lower end with upwardly and laterally directed arms, and means for operating said rod.

4. In a toy device of the class described and adapted to represent a golf player, a base provided in its front end portion with a figure and rearwardly thereof with a support, a rotatable rod mounted in said support and extending upwardly and forwardly of the figure and provided at its front end with a downwardly and forwardly directed member adapted to carry a golf club, a clutch device mounted on said rod rearwardly of said figure, another clutch member slidably mounted on said rod rearwardly of said clutch device, a spiral spring mounted on said rod between said clutch member and said support and secured to both, said rod being also provided rearwardly of said support with a ratchet disk and said base being provided rearwardly of said support with a spring arm adapted to engage said disk, means for holding said arm out of engagement with said disk, and means for limiting the rotation of said disk in both directions.

1,136,466. UNIVERSAL JOINT. EUGENE P. EDWARDS, Plainfield, N. J., assignor of one-half to himself and one-half to A. S. Giles, Plainfield, N. J. Filed May 12, 1914. Serial No. 837,968. (Cl. 74—19.)



1. A universal joint comprising a shaft, a ball head at the end thereof, a plurality of pins fixed in and projecting from the said ball head, a socket member, ring members within the said socket member, and a plurality of bearing members set within the said ring members, each bearing member being provided with a recess adapted to receive the end of one of the said pins and within which each said pin slides in the operation of the apparatus.

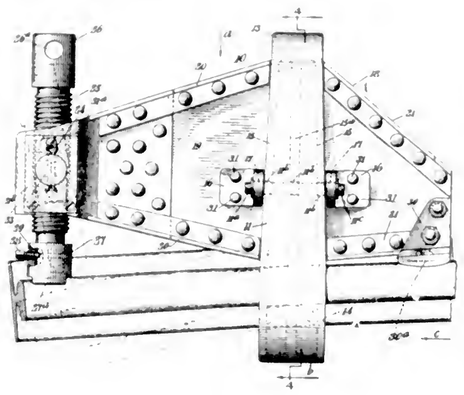
2. A universal joint comprising a shaft, a ball head at the end thereof, a plurality of pins projecting from the said ball head, a roller on the free end of each of the said pins, a socket member adapted to be connected to the end of a second shaft, a pair of ring members adapted to be received within the said socket, means for securing the said ring members in position within the said socket, and a plurality of bearing members set within the said ring members and each provided with a recess adapted to receive one of the said rollers and within which the said roller operates in the operation of the apparatus.

3. A universal joint comprising a shaft, a ball head at the end thereof provided with an opening in alinement with the said shaft, and with a plurality of radial bores at right angles to the axis of the said shaft, a pin placed within each of the said bores, means fitting within the said opening in the ball head for engaging the inner ends of the said pins to secure the same in position, a roller on the outer end of each of the said pins, a socket member adapted to be connected to the end of a second shaft, ring members within the said socket member, and a plurality of bearing members set within the said ring members, each bearing member being provided with a recess adapted to receive one of the said rollers.

4. A universal joint comprising a shaft, a ball head at one end thereof, a plurality of pins fixed in and projecting from the said ball head, a roller on the free end of each of the said pins, a semi-spherical socket member adapted to be connected to the second shaft, an annular socket member through which the said shaft passes, means for connecting the said socket members together, a pair or rings fitted within recesses provided therefor in the said socket members, and a plurality of bearing members set within recesses provided therefor in the peripheries of the said ring members, each bearing member being provided with a recess adapted to receive one of the said rollers.

5. A universal joint comprising a shaft, a ball head at the end thereof, the said ball head being provided with a tapped opening in alinement with the said shaft, and with a plurality of radially spaced bores at right angles to the axis of the said shaft, a pin within each of the said bores, a screwthreaded plug adapted to be turned down within

said attaching member being provided at its opposite ends with means adapted to engage with a rail and with one edge of said support, a bearing at one end of said support, and a bending member at the other end of said support, substantially as specified.



2. An apparatus of the character described comprising an attaching member having abutments at the opposite ends thereof; one of said abutments being adapted to engage a rail, a support provided upon its opposite sides with means to receive said attaching member, means for securing said attaching member to the receiving means on either side of said support, a bearing member at one end of said support, and a bending member at the other end of said support, substantially as specified.

3. An apparatus of the character described comprising an attaching member, a support, bearings arranged upon the opposite sides of said support adapted to receive said attaching member, means for securing said attaching member to the bearings on either side of said support, means arranged at the opposite ends of said attaching member adapted to engage with a rail and one edge of said support, a bearing member at one end of said support, and a bending member at the opposite end of said support, substantially as specified.

4. An apparatus of the character described, comprising an attaching member abutments at the ends thereof; one of said abutments being adapted to engage a rail, a support reversibly secured to said attaching member and adapted to engage with the other of said abutments, a bearing member at one end of said support, and a bending member at the other end of said support, substantially as specified.

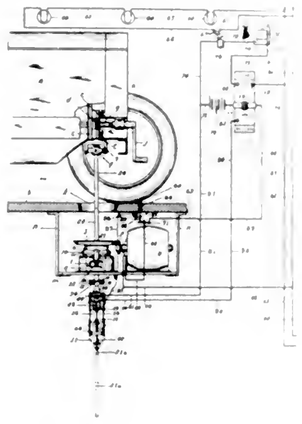
5. An apparatus of the character described, comprising an attaching member abutments at the opposite ends thereof; one of said abutments being adapted to engage a rail, a lever reversibly secured to said attaching member adapted to engage the other of said abutments, a bearing member at one end of said support, and a bending member pivotally mounted at the other end of said lever, substantially as specified.

[Claims 6 to 12 not printed in the Gazette.]

1,136,464. ENGINE-STARTER. George G. Chute and Chester A. Groat, Portland, Oreg. Filed Mar. 12, 1913. Serial No. 753,868. (Cl. 123—179.)

1. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing; a rotatable member providing a sliding bearing for said driven shaft; means for supporting the driven shaft in coupled position; and means connecting the rotatable member with a source of power.

2. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a pendent driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing, said coupling means also adapted for accommodating the relative movement of said driven shaft in all directions; a rotatable member providing a sliding bearing for said driven shaft, such sliding bearing adapted to permit the movement of the driven shaft in all directions without interfering with the driving thereof; means for supporting the driven shaft in coupled position, such supporting means controlled by an electromagnet and operable to release the driven shaft by the energizing of the electromagnet; and means connecting the rotatable member with a source of power.



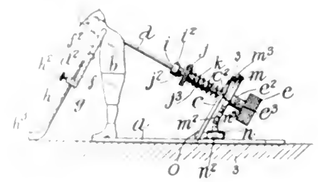
3. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a pendent driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing, said coupling means also adapted for accommodating the relative movement of said driven shaft in all directions; a rotatable member and a support therefor, a sliding bearing for said driven shaft, such bearing supported on the rotatable member by means accommodating the movement of said shaft in all directions; means for supporting the driven pendent shaft in coupled position, such supporting means controlled by an electromagnet and operable to release the driven shaft by the energizing of the electromagnet; and means connecting the rotatable member with a source of power.

4. As a starting mechanism for the engine having a starting element including a crank member and therewith combined gearing for rotating such member, a pendent driven shaft, means for coupling this shaft with said gearing, said coupling means adapted to be disengaged by the longitudinal movement of said driven shaft from said gearing, said coupling means also adapted for accommodating the relative movement of said driven shaft in all directions; a rotatable member providing a sliding bearing for said driven shaft; such sliding bearing adapted to permit the movement of the driven shaft in all directions without interfering with the driving thereof; a projection on the shaft, pivoted arms engaging with said projection for supporting the driven shaft in coupled position; a spring operating to spread such arms apart in order to release the shaft; a latch holding the arms against the tension of said spring; means for releasing said latch, such means controlled by an electromagnet; and means connecting the rotatable member with a source of power.

starting mechanism for the engine having a ... element including a crank member and therewith ... aring for rotating such member, a pendent, ... means for coupling this shaft with said ... coupling means adapted to be disengaged by ... nal movement of said driven shaft from said ... coupling means also adapted for accommo... relative movement of said driven shaft in all ... a rotatable member providing a sliding bear... driven shaft; such sliding bearing adapted ... the movement of the driven shaft in all direc... t interfering with the driving thereof; a pro... the shaft, pivoted arms engaging with said ... for supporting the driven shaft in coupled ... spring operating to spread such arms apart in ... release the shaft; a latch holding the arms ... tension of said spring; a spring actuated ... device arranged to disengage said latch by ... rewith; means for normally restraining such ... device, such means controlled by an electro... and operated to release the projectable device ... electromagnet is energized; and means connect... ... atable member with a source of power.

[Claims 6 to 13 not printed in the Gazette.]

... MECHANICAL TOY. Charles H. Clark, ... New York, N. Y. Filed Feb. 4, 1915. Serial No. ... (Cl. 46—40.)



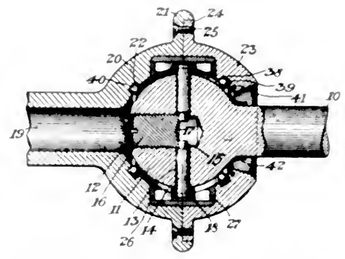
... playing top device, comprising a base provided ... end portion with a figure which represents the ... and rearwardly of said figure with a raised support, ... rod which passes through said support and ... the top body portion of said figure and is pro... wardly of said figure with a downwardly and for... directed member provided at its lower end with a ... holder, and means for operating said rod.

... toy device of the class specified and adapted to ... golf player, a base provided on one end portion ... with a figure which represents the player and rear... which is an upwardly directed support, a rotata... passing through said support and the front end ... which extends forwardly of said figure and is ... with a downwardly and forwardly directed mem... ded at its lower end with a golf club, and means ... ting said rod.

... toy device of the class described and adapted to ... a golf player, said device comprising a base pro... its front end portion with a figure which repre... player and rearwardly of which is an upward... support, a rotatable rod mounted in said sup... extending forwardly of the figure and provided ... end with a downwardly directed member hav... club, and said member being also provided at its ... with upwardly and laterally directed arms, and ... operating said rod.

... toy device of the class described and adapted to ... golf player, a base provided in its front end ... with a figure and rearwardly thereof with a sup... table rod mounted in said support and extend... ly and forwardly of the figure and provided ... end with a downwardly and forwardly di... ber adapted to carry a golf club, a clutch de... ed on said rod rearwardly of said figure, an... member slidably mounted on said rod rear... said clutch device, a spiral spring mounted ... between said clutch member and said support and secured to both, said rod being also provided rearwardly of said support with a ratchet disk and said base being provided rearwardly of said support with a spring arm adapted to engage said disk, means for holding said arm out of engagement with said disk, and means for limiting the rotation of said disk in both directions.

1,136,466. UNIVERSAL JOINT. Eugene P. Edwards, Plainfield, N. J., assignor of one-half to himself and one-half to A. S. Giles, Plainfield, N. J. Filed May 12, 1914. Serial No. 837,968. (Cl. 74—19.)



1. A universal joint comprising a shaft, a ball head at the end thereof, a plurality of pins fixed in and projecting from the said ball head, a socket member, ring members within the said socket member, and a plurality of bearing members set within the said ring members, each bearing member being provided with a recess adapted to receive the end of one of the said pins and within which each said pin slides in the operation of the apparatus.

2. A universal joint comprising a shaft, a ball head at the end thereof, a plurality of pins projecting from the said ball head, a roller on the free end of each of the said pins, a socket member adapted to be connected to the end of a second shaft, a pair of ring members adapted to be received within the said socket, means for securing the said ring members in position within the said socket, and a plurality of bearing members set within the said ring members and each provided with a recess adapted to receive one of the said rollers and within which the said roller operates in the operation of the apparatus.

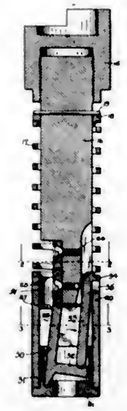
3. A universal joint comprising a shaft, a ball head at the end thereof provided with an opening in alinement with the said shaft, and with a plurality of radial bores at right angles to the axis of the said shaft, a pin placed within each of the said bores, means fitting within the said opening in the ball head for engaging the inner ends of the said pins to secure the same in position, a roller on the outer end of each of the said pins, a socket member adapted to be connected to the end of a second shaft, ring members within the said socket member, and a plurality of bearing members set within the said ring members, each bearing member being provided with a recess adapted to receive one of the said rollers.

4. A universal joint comprising a shaft, a ball head at one end thereof, a plurality of pins fixed in and projecting from the said ball head, a roller on the free end of each of the said pins, a semi-spherical socket member adapted to be connected to the second shaft, an annular socket member through which the said shaft passes, means for connecting the said socket members together, a pair or rings fitted within recesses provided therefor in the said socket members, and a plurality of bearing members set within recesses provided therefor in the peripheries of the said ring members, each bearing member being provided with a recess adapted to receive one of the said rollers.

5. A universal joint comprising a shaft, a ball head at the end thereof, the said ball head being provided with a tapped opening in alinement with the said shaft, and with a plurality of radially spaced bores at right angles to the axis of the said shaft, a pin within each of the said bores, a screwthreaded plug adapted to be turned down within

the said tapped opening to engage the inner ends of the said pins to maintain the same in position within the said ball head, a roller on the outer end of each of the said pins, a semi-spherical socket member adapted to be secured to a second shaft, an annular socket member, means for securing the said socket members together, a pair of rings fitted within recesses provided therefor in the said socket members, and a plurality of bearing members set within recesses provided therefor in the peripheries of the said ring members, each bearing member being provided with a recess adapted to receive one of the said rollers, and within which the same operates.

1,136,467. BOTTLE-CAPPING MACHINE. JOHN J. GAYNOR and PETER CARL LIEBER, Indianapolis, Ind., assignors to Progress Machine Company, Indianapolis, Ind., a Corporation. Filed Mar. 16, 1914. Serial No. 825,028. (Cl. 113—2.)



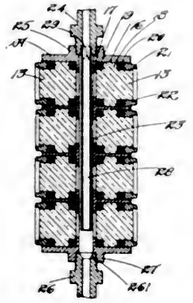
1. A bottle capping machine including a bottle support, a dog for frictionally resisting the movement thereof, means for holding said dog in its frictionally resisting position, and a spring for returning the bottle supporting means after its actuation and acting on said dog holding means and causing it to hold the dog in its resisting position.

2. A bottle capping machine including a bottle supporting means having a downwardly extending bar with beveled surface thereon, a tube in which the lower end of said bar extends, a dog mounted in said tube with the beveled upper end engaging the beveled surface of the bar, means for holding said dog in its engaging position, and a spiral spring surrounding said bar and acting on said dog holding means for returning the bottle supporting means to its normal position and for actuating said dog holding means.

3. A bottle capping machine including a bottle supporting means with a downwardly extending bar having a beveled surface thereon, a tube in which the lower end of said bar extends, a dog fulcrumed at its lower end in said tube and with its upper end beveled to engage the beveled surface of the bar, said dog having a laterally extending arm, a rod engaging said arm on the dog, and a spiral spring surrounding said bar and bearing down upon said rod, substantially as set forth.

4. A bottle capping machine including a bottle supporting means having a bar, a plate secured to said bar with a beveled lower end, a tube in which the lower end of the bar is mounted, a dog with the lower end fulcrumed in said tube and with the upper end beveled and engaging said beveled plate and said dog having a laterally extending arm, a rod resting on said arm and with a projection from its upper end through a slot in said tube, and a spiral spring surrounding said bar with its lower end resting upon the projection from said rod, substantially as set forth.

1,136,468. GAGE-GLASS. WILLIAM J. HANLON, Fitchburg, and JOHN H. HANLON, Somerville, Mass. Filed Apr. 25, 1913. Serial No. 763,541. (Cl. 73—334.)



1. An improved water gage consisting of a metallic frame or body, vertical rows or tiers of bull's-eye glasses fitted therein and separated from each other forming a central water chamber between the inner faces of the bull's-eyes, and a steam tube extending from the top of said chamber to near the bottom thereof so that the lower end of said tube opens into said chamber in such a manner that when steam is admitted to said tube the water in said chamber will be agitated to cleanse the inner faces of the bull's-eyes.

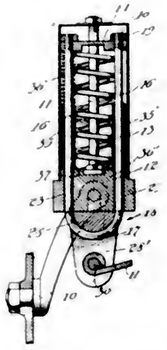
2. An improved water gage consisting of a metallic frame or body, vertical rows or tiers of bull's-eye glasses fitted therein and separted from each other forming a central water chamber between the inner faces of the bull's-eyes, a top or inlet tubular mounting attached to said frame or body, and a steam tube attached to said top mounting and extending from the top of said chamber to near the bottom thereof so that the lower end of said tube opens into said chamber in such a manner that when steam is admitted to said tube the water in said chamber will be agitated to cleanse the inner faces of the bull's-eyes.

3. An improved water gage consisting of a metallic frame or body, vertical rows or tiers of bull's-eye glasses fitted therein and separated from each other forming a central water chamber between the inner faces of the bull's-eyes, a top or inlet tubular mounting attached to said frame or body, and a steam tube attached to said top mounting and extending from the top of said chamber to near the bottom thereof so that the lower end of said tube opens into said chamber in such a manner that when steam is admitted to said tube the water in said chamber will be agitated to cleanse the inner faces of the bull's-eyes, and a lower or outlet tubular mounting at the bottom of said chamber providing an inwardly flaring outlet from said chamber.

4. An improved water gage comprising a metallic frame or body, vertical rows or tiers of bull's-eye glasses, a central water chamber, and a steam tube extending from the top of said chamber to a point near the bottom thereof, so that said tube may discharge steam into the water at a little distance above the bottom of said chamber, thereby causing the water to be agitated or whirled about in said chamber so as to cleanse the inner faces of the bull's-eyes before it is discharged from the gage.

5. An improved water gage comprising a metallic frame or body, vertical rows or tiers of bull's-eye glasses, a central water chamber, and a steam tube extending from the top of said chamber to a point near the bottom thereof, so that said tube may discharge steam into the water at a little distance above the bottom of said chamber, thereby causing the water to be agitated or whirled about in said chamber so as to cleanse the inner faces of the bull's-eyes before it is discharged from the gage, said tube having ports at its upper end leading into said chamber, to equalize the pressure therein.

AUTOMOBILE SHOCK-ABSORBER. WILLIAM JOHNSON, Chicago, Ill. Filed Apr. 17, 1914. Serial No. 832,461. (Cl. 21—50.)



1. In a shock absorber, the combination with a head, adapted for connection with one hanger member of an automobile, an opposed platform, and an interposed spring-structure, of a plurality of guides connected for movement with the platform, and extending through the head for connection with a second automobile hanger, a casing for said parts, having a bottom and a guide for said platform extending through the same and rigidly connected with the head and the casing bottom and securing said casing in place.

2. In a shock absorber, the combination with a head adapted for connection with an automobile hanger-member, an opposed platform, and an interposed spring; of guides connected with said platform for movement therewith guidedly extending through said head, and beyond said head connected by an arcuate yoke, and a segment block engaged between said head and said yoke, for a rocking movement against the tension of said spring.

3. In a shock absorber, the combination of a head, an opposed platform, and an interposed spring, of two pairs of guides connected with said platform to move therewith, guidedly extending through the head, and connected in pairs by two arcuate yokes, segment blocks between the respective yokes and the head, arranged to rock against the tension of the spring means, and a hanger receiving connection associated with said blocks.

4. In a shock absorber, the combination of a head, an opposed platform, interposed spring means, a pair of guide members extending from said platform for movement therewith guidedly through the head, and a rocking link coacting with the said pair of guides in said head by its rocking movement to tension said spring, whereby said link is normally spring maintained in predetermined position.

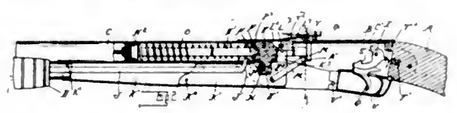
5. In a shock absorber, the combination with a head, an opposed platform, and interposed spring means, of two pairs of guides connected with the said platform for movement therewith and guidedly extending through the head, two rocking members associated with the respective pairs of guides for rocking movement to tension the spring means, and a hanger connector spanning said two rocking members and arranged for movement to rock the same.

[Claims 6 to 17 not printed in the Gazette.]

1,136,470. SPRING AIR-GUN. CHARLES F. LEFEVER, Plymouth, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed June 21, 1913. Serial No. 775,092. (Cl. 124—10.)

1. In a gun, the combination with a barrel and frame detachably telescopically engaging each other, of a power storage mechanism mounted upon and detachable with said barrel.

2. In a gun, the combination with a barrel and frame detachably telescopically engaging each other, of a power storage mechanism mounted on said barrel and detachable therewith, and sear mounted on said frame for cooperation with said power storage mechanism.



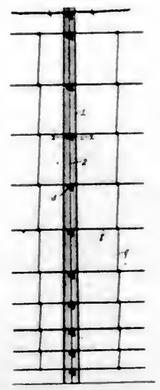
3. In a gun, the combination with a barrel and frame telescopically engaging each other, of a power storage mechanism comprising a plunger, a compression spring, an abutment and a lever mechanism for retracting the plunger and compressing the spring, all mounted upon said barrel and attachable and detachable as a unit therewith.

4. In a gun, the combination with a barrel, of a frame having a cylindrical socket for telescopically receiving the end portion of the barrel, a lug projecting downward from said barrel, spaced flanges in said socket member between which said lug is inserted, and a pin passing through said spaced flanges and engaging a bearing on said lug to retain said barrel in engagement with said frame.

5. In a gun, the combination with a barrel, of a frame member having a cylindrical socket for receiving the end portion of said barrel, a spring and abutment in said barrel having a downwardly-extending lug, spaced flanges on said socket between which said lug is inserted, and a cross pin engaging apertures in said spaced flanges and having a bearing on said lug.

[Claims 6 to 27 not printed in the Gazette.]

1,136,471. METAL FENCE-POST AND WIRE-FASTENING MEANS THEREFOR. HENRY L. LEILICH and FREDERICK W. BURGER, Delphos, Ohio, assignors to The Delphos Manufacturing Company, Delphos, Ohio, a Corporation of Ohio. Filed Mar. 27, 1914. Serial No. 827,528. (Cl. 256—55.)



1. The combination with a fence post having bearing surfaces which are spaced transversely thereof, of a wire holding clip secured to one side of said post and provided with wire engaging tongues projecting therefrom in opposite directions longitudinally of the post and transversely offset from the space intermediate the post bearing surfaces, said clip being adjustable to place said tongues into gripping coaction with either of said bearing surfaces.

2. The combination with a fence post having a bolt receiving opening in a side thereof and a bearing surface at each side of said opening, of a wire holding clip extending across said opening transversely of the post and having a bolt receiving opening in register with the post opening, said clip also having wire engaging tongues pro-

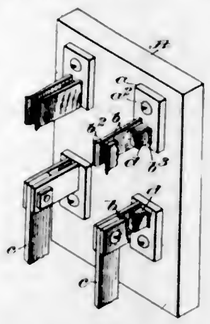
jecting therefrom in opposite directions longitudinally of the post and offset from the clip opening transversely of the post, the clip being shiftable to place said tongues in clamping coaction with one or the other of said bearing surfaces, and means projecting through said clip and post openings for securing the clip in position relative to the post.

3. In combination, a fence-post formed of sheet-metal with the longitudinal edges of said metal spaced to form a slot lengthwise of the post, a wire securing clip for seating against a side of the post cross-wise of the slot and having a recess in its inner side, and means projecting through the clip and post slot for securing the clip in adjusted position to the post and for drawing edge portions of the post at the sides of the slot into said recess.

4. In combination, a fence-post formed of sheet-metal with the edges of said metal spaced to provide a slot lengthwise of the post, a wire engaging clip for seating against the post crosswise of the slot and having a hole therein and a recess at its inner side, and a bolt projected through said hole and the post slot and adapted when tightened to clamp the clip in adjusted relation to the post and to draw registering edge portions of the post metal into said recess.

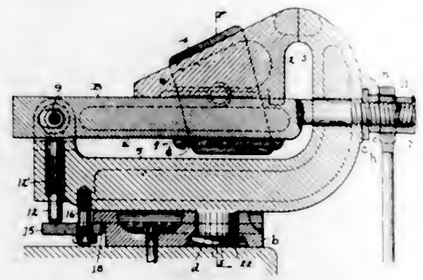
5. In combination, a fence-post of sheet-metal with the edges of said metal spaced to provide a slot lengthwise of the post, a wire engaging clip for seating against the post crosswise of the slot and having a hole therein and a recess at its inner side, and a bolt projected through said hole and the post slot and adapted when tightened to clamp the clip in adjusted relation to the post and to draw registering edge portions of the post metal into said recess, said clip having vertically projecting wire engaging tongues which are offset from the bolt hole therein to facilitate a placing of the tongues at one side or the other of the slot upon a half turning of the clip relative to the post.

1,136,472. KNIFE-BLADE SWITCH. GEORGE E. LINTON, Worcester, Mass., assignor to Frank C. Montgomery, Worcester, Mass. Filed Sept. 30, 1911. Serial No. 652,098. (Cl. 175—282.)



A switch member comprising a metallic base, provided with a rectangular laterally inclosed opening extending wholly through said base; flat contact plates, the main portion of each plate being wider than one dimension of the opening and the lower portion thereof being equal in width to the said dimension of the opening, the length of said lower portion being equal to the depth of said opening so that said lower portions extend into and through said opening to the bottom of the base, the sides of the lower portion of said contact plates when the switch is assembled lying in contact with opposite vertical walls of the said opening; and a rectangular metallic block inserted in the opening between the contact plates and closely fitting the space inclosed by the exposed sides of said plates and the opposite vertical walls of the opening, the said block constituting the sole means for securing said plates to said base, substantially as described.

1,136,473. BENCH-VISE. JOHN R. LONG, Akron, Ohio. Filed May 23, 1914. Serial No. 840,400. (Cl. 81—33.)



1. A bench vise as described having an outer jaw with a body having an upturned outer end, in combination with a bar supported in the base of said jaw and in said outer end, an inner jaw and a yoke confining the same slidable on said bar, a separate locking piece in said yoke adapted to lock on the lower edge of said bar and means to draw said bar lengthwise in its supports and lock said yoke thereon.

2. A bench vise as described having an outer jaw with a horizontally disposed body and an upward projection at its rear end, a bar having a parallel upper and lower edges supported in said projection and in the base of said jaw, an inner jaw having a substantially wedge shaped shank slidable on said bar and a yoke engaged over said shank and bar, the said bar having serrations on its bottom, a separate locking piece confined in said yoke and slidable therein provided with teeth engaging said serrations and means to draw said bar into tightening relations with said yoke and locking piece.

3. A bench vise as described, having an outer jaw with a horizontally disposed body and a bar slidably mounted on said body having a roughened lower edge in combination with an inner jaw and a yoke over the same and said bar, a separate locking piece of greater length than the width of said yoke supported in the bottom of the yoke and having confining heads at its ends and teeth to engage said roughened edge, and means to draw said bar lengthwise and lock said parts together.

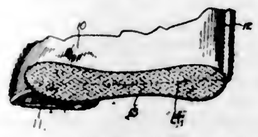
4. A vise as described having an outer jaw with a horizontally disposed body provided with an upward projection at its outer end and a pivot at its middle and bottom, a bar slidably mounted on said body and an inner jaw and a yoke therefor slidably on said bar, a base on which said outer jaw is rotatably mounted on its pivote, a thrust bolt in the outer end of said jaw body engaged by the end of said bar and means engaged by said bolt in locking relations with the said base and adapted to prevent rotation of the vise on the base when the vise is in locked position.

5. A bench vise of the kind described comprising inner and outer jaw members slidably related and a bar mounted at its ends on said outer jaw member and having a plain upper edge and a roughened lower edge parallel therewith, in combination with a yoke slidably mounted over said inner jaw member and said bar and a separate locking device confined in the bottom of said yoke adapted to engage the roughened edge of said bar.

1,136,474. SLIPPER. IDA F. MCCAMISH, Winchester, Ind. Filed Nov. 6, 1913. Serial No. 799,[illegible]. (Cl. 36—9.)

1. A slipper including an upper, and a sole fitted and secured to such upper, said parts being made of material which is more elastic in one direction than in the other direction, the direction of greater elasticity of said sole being substantially transverse of the direction of greater elasticity in said upper.

2. A slipper including an upper, and a sole fitted and secured to such upper, said parts being made of material which has greater elasticity in one direction than in the other direction, the direction of greater elasticity in the upper being longitudinal thereof, and the direction of greater elasticity in the sole being transverse thereof.



3. A slipper including an upper made of elastic material, an elastic sole fitted and secured to the upper, and a non-elastic insole so secured to said sole so as not to prevent the stretching thereof.

4. A slipper including an upper made of elastic material, an elastic sole fitted and secured to such upper, and a non-elastic insole secured to the sole along a central longitudinal line extending for only a portion of the length of the in-sole.

5. A slipper including an upper made of elastic material, an elastic sole fitted and secured to such upper, and a non-elastic insole secured to the sole along a central longitudinal line extending from the heel toward the toe for only a portion of the length of the in-sole.

[Claim 6 not printed in the Gazette.]

1,136,475. TROLLING-SPOON. HARRY W. MCMAHON, Seattle, Wash. Filed Oct. 19, 1914. Serial No. 867,432. (Cl. 43—30.)



1. A trolling spoon having a symmetrically disposed reaction surface at its rear end, extending from below the plane of the medial portion of the spoon to a point above said plane, and opposing lateral reaction surfaces extending from said medial portion of the spoon rearwardly to said first-named reaction surface, and branched gullies formed between said lateral reaction surfaces and between the latter and said first-named reaction surface.

2. A trolling spoon having a gully near its rear end which is divided into two laterally disposed gullies at the rear end of said first-named gully.

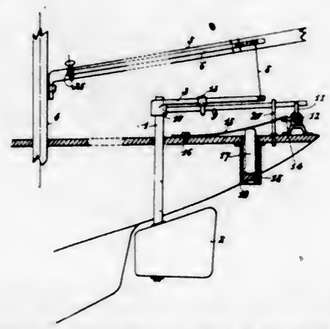
3. A trolling spoon having a gully lying along its major axis and rearwardly of its minor axis, said gully being divided at its rear end into two laterally disposed gullies, the rear end of said spoon being bent upwardly from the bottom of said gullies above the medial plane of the spoon to form an upstanding lip.

4. A trolling spoon having a gully extending along its major axis rearwardly of its minor axis, and below the medial plane of the spoon, said gully being divided at its rear end into two laterally disposed gullies, the rear end of said spoon being bent upwardly from the bottom of said gullies above the medial plane of the spoon to form an upstanding lip of substantially plane surface, the lateral surfaces at each side of the first-named gully being curved upwardly to form lateral reaction surfaces, and means for cutting the water and directing it with greater force against one of said lateral reaction surfaces and the adjacent portion of said lip.

5. A trolling spoon having a gully extending along its major axis rearwardly of its minor axis, and below the medial plane of the spoon, said gully being divided at its rear end into two laterally disposed gullies, the rear end of said spoon being bent upwardly from the bottom of said gullies above the medial plane of the spoon to form an upstanding lip of substantially plane surface, the lateral surfaces at each side of the first-named gully being curved upwardly to form lateral reaction surfaces, and a projection formed on the front end of said spoon and extending upon the opposite side of the medial plane of the spoon from said gullies, whereby the water is divided and directed with greater force against the upper of said lateral reaction surfaces and the adjacent portion of said lip.

[Claim 6 not printed in the Gazette.]

1,136,476. TOY SAIL-BOAT. JULES MACÉ, Grasse, France. Filed May 11, 1914. Serial No. 837,882. (Cl. 46—37.)



1. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, and automatically-operated restraining means adapted temporarily to check the action of the boom on the rudder, substantially as described.

2. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, restraining means adapted when operative to check the action of the boom on the rudder, and means adapted to become automatically ineffective and adapted normally to preserve the operative condition of said restraining means, substantially as described.

3. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, restraining means adapted when operative to check the action of the boom on the rudder, and a stop made of material soluble in water and adapted normally to preserve the operative condition of said restraining means, substantially as described.

4. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, automatic restraining means adapted temporarily to check the action of the boom on the rudder, and a resilient connection between the restraining means and rudder, substantially as described.

5. A sail boat comprising a mast, a swinging boom, a rudder and tiller, a flexible connection between said boom and said tiller and automatically operated restraining means adapted temporarily to check the action of the boom on the rudder, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,136,477. TRANSMITTING APPARATUS FOR USE IN WIRELESS TELEGRAPHY AND TELEPHONY. GUGLIELMO MARCONI, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Dec. 31, 1913. Serial No. 809,711. (Cl. 250—36.)

1. The combination of a plurality of condensers in parallel, and means for charging them with electricity in opposite directions alternately and for discharging them in regular succession through inductive resistances substantially as described.

2. The combination of a plurality of condensers in parallel, means for charging them with electricity and a rotating disk adapted to discharge the condensers in succession through inductive resistances and a second rotating disk adapted to discharge the condensers in succession after the first disk has done so.

3. The combination of a plurality of condensers in parallel, means for charging them with electricity in opposite

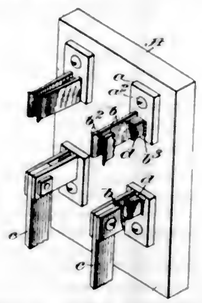
jecting therefrom in opposite directions longitudinally of the post and offset from the clip opening transversely of the post, the clip being shiftable to place said tongues in clamping coaction with one or the other of said bearing surfaces, and means projecting through said clip and post openings for securing the clip in position relative to the post.

3. In combination, a fence-post formed of sheet-metal with the longitudinal edges of said metal spaced to form a slot lengthwise of the post, a wire securing clip for seating against a side of the post cross-wise of the slot and having a recess in its inner side, and means projecting through the clip and post slot for securing the clip in adjusted position to the post and for drawing edge portions of the post at the sides of the slot into said recess.

4. In combination, a fence-post formed of sheet-metal with the edges of said metal spaced to provide a slot lengthwise of the post, a wire engaging clip for seating against the post crosswise of the slot and having a hole therein and a recess at its inner side, and a bolt projected through said hole and the post slot and adapted when tightened to clamp the clip in adjusted relation to the post and to draw registering edge portions of the post metal into said recess.

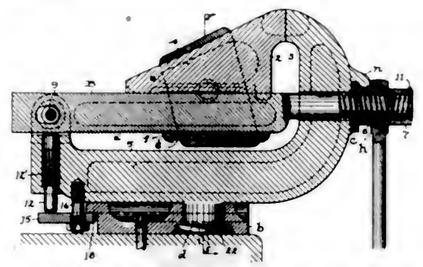
5. In combination, a fence-post of sheet-metal with the edges of said metal spaced to provide a slot lengthwise of the post, a wire engaging clip for seating against the post crosswise of the slot and having a hole therein and a recess at its inner side, and a bolt projected through said hole and the post slot and adapted when tightened to clamp the clip in adjusted relation to the post and to draw registering edge portions of the post metal into said recess, said clip having vertically projecting wire engaging tongues which are offset from the bolt hole therein to facilitate a placing of the tongues at one side or the other of the slot upon a half turning of the clip relative to the post.

1,136,472. KNIFE-BLADE SWITCH. GEORGE E. LINTON, Worcester, Mass., assignor to Frank C. Montgomery, Worcester, Mass. Filed Sept. 30, 1911. Serial No. 652,098. (Cl. 175—282.)



A switch member comprising a metallic base, provided with a rectangular laterally inclosed opening extending wholly through said base; flat contact plates, the main portion of each plate being wider than one dimension of the opening and the lower portion thereof being equal in width to the said dimension of the opening, the length of said lower portion being equal to the depth of said opening so that said lower portions extend into and through said opening to the bottom of the base, the sides of the lower portion of said contact plates when the switch is assembled lying in contact with opposite vertical walls of the said opening; and a rectangular metallic block inserted in the opening between the contact plates and closely fitting the space inclosed by the exposed sides of said plates and the opposite vertical walls of the opening, the said block constituting the sole means for securing said plates to said base, substantially as described.

1,136,473. BENCH-VISE. JOHN R. LONG, Akron, Ohio. Filed May 23, 1914. Serial No. 840,400. (Cl. 81—33.)



1. A bench vise as described having an outer jaw with a body having an upturned outer end, in combination with a bar supported in the base of said jaw and in said outer end, an inner jaw and a yoke confining the same slidable on said bar, a separate locking piece in said yoke adapted to lock on the lower edge of said bar and means to draw said bar lengthwise in its supports and lock said yoke thereon.

2. A bench vise as described having an outer jaw with a horizontally disposed body and an upward projection at its rear end, a bar having a parallel upper and lower edges supported in said projection and in the base of said jaw, an inner jaw having a substantially wedge shaped shank slidable on said bar and a yoke engaged over said shank and bar, the said bar having serrations on its bottom, a separate locking piece confined in said yoke and slidable therein provided with teeth engaging said serrations and means to draw said bar into tightening relations with said yoke and locking piece.

3. A bench vise as described, having an outer jaw with a horizontally disposed body and a bar slidably mounted on said body having a roughened lower edge in combination with an inner jaw and a yoke over the same and said bar, a separate locking piece of greater length than the width of said yoke supported in the bottom of the yoke and having confining heads at its ends and teeth to engage said roughened edge, and means to draw said bar lengthwise and lock said parts together.

4. A vise as described having an outer jaw with a horizontally disposed body provided with an upward projection at its outer end and a pivot at its middle and bottom, a bar slidably mounted on said body and an inner jaw and a yoke therefor slidably on said bar, a base on which said outer jaw is rotatably mounted on its pivote, a thrust bolt in the outer end of said jaw body engaged by the end of said bar and means engaged by said bolt in locking relations with the said base and adapted to prevent rotation of the vise on the base when the vise is in locked position.

5. A bench vise of the kind described comprising inner and outer jaw members slidably related and a bar mounted at its ends on said outer jaw member and having a plain upper edge and a roughened lower edge parallel therewith, in combination with a yoke slidably mounted over said inner jaw member and said bar and a separate locking device confined in the bottom of said yoke adapted to engage the roughened edge of said bar.

1,136,474. SLIPPER. IDA F. MCCAMISH, Winchester, Ind. Filed Nov. 6, 1913. Serial No. 799,618. (Cl. 36—9.)

1. A slipper including an upper, and a sole fitted and secured to such upper, said parts being made of material which is more elastic in one direction than in the other direction, the direction of greater elasticity in said sole being substantially transverse of the direction of greater elasticity in said upper.

2. A slipper including an upper, and a sole fitted and secured to such upper, said parts being made of material which has greater elasticity in one direction than in the other direction, the direction of greater elasticity in the upper being longitudinal thereof, and the direction of greater elasticity in the sole being transverse thereof.



3. A slipper including an upper made of elastic material, an elastic sole fitted and secured to the upper, and a non-elastic insole so secured to said sole so as not to prevent the stretching thereof.

4. A slipper including an upper made of elastic material, an elastic sole fitted and secured to such upper, and a non-elastic insole secured to the sole along a central longitudinal line extending for only a portion of the length of the in-sole.

5. A slipper including an upper made of elastic material, an elastic sole fitted and secured to such upper, and a non-elastic insole secured to the sole along a central longitudinal line extending from the heel toward the toe for only a portion of the length of the in-sole.

[Claim 6 not printed in the Gazette.]

1,136,475. TROLLING-SPOON. HARRY W. MCMAHON, Seattle, Wash. Filed Oct. 19, 1914. Serial No 867,432. (Cl. 43—30.)



1. A trolling spoon having a symmetrically disposed reaction surface at its rear end, extending from below the plane of the medial portion of the spoon to a point above said plane, and opposing lateral reaction surfaces extending from said medial portion of the spoon rearwardly to said first-named reaction surface, and branched gullies formed between said lateral reaction surfaces and between the latter and said first-named reaction surface.

2. A trolling spoon having a gully near its rear end which is divided into two laterally disposed gullies at the rear end of said first-named gully.

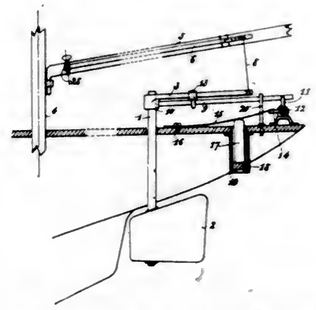
3. A trolling spoon having a gully lying along its major axis and rearwardly of its minor axis, said gully being divided at its rear end into two laterally disposed gullies, the rear end of said spoon being bent upwardly from the bottom of said gullies above the medial plane of the spoon to form an upstanding lip.

4. A trolling spoon having a gully extending along its major axis rearwardly of its minor axis, and below the medial plane of the spoon, said gully being divided at its rear end into two laterally disposed gullies, the rear end of said spoon being bent upwardly from the bottom of said gullies above the medial plane of the spoon to form an upstanding lip of substantially plane surface, the lateral surfaces at each side of the first-named gully being curved upwardly to form lateral reaction surfaces, and means for cutting the water and directing it with greater force against one of said lateral reaction surfaces and the adjacent portion of said lip.

5. A trolling spoon having a gully extending along its major axis rearwardly of its minor axis, and below the medial plane of the spoon, said gully being divided at its rear end into two laterally disposed gullies, the rear end of said spoon being bent upwardly from the bottom of said gullies above the medial plane of the spoon to form an upstanding lip of substantially plane surface, the lateral surfaces at each side of the first-named gully being curved upwardly to form lateral reaction surfaces, and a protuberance formed on the front end of said spoon and extending upon the opposite side of the medial plane of the spoon from said gullies, whereby the water is divided and directed with greater force against the upper of said lateral reaction surfaces and the adjacent portion of said lip.

[Claim 6 not printed in the Gazette.]

1,136,476. TOY SAIL-BOAT. JULES MACÉ, Grasse, France. Filed May 11, 1914. Serial No. 837,882. (Cl. 46—37.)



1. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, and automatically-operated restraining means adapted temporarily to check the action of the boom on the rudder, substantially as described.

2. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, restraining means adapted when operative to check the action of the boom on the rudder, and means adapted to become automatically ineffective and adapted normally to preserve the operative condition of said restraining means, substantially as described.

3. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, restraining means adapted when operative to check the action of the boom on the rudder, and a stop made of material soluble in water and adapted normally to preserve the operative condition of said restraining means, substantially as described.

4. A sail boat comprising a mast, a swinging boom, a rudder, a suitable operative connection between said boom and rudder, automatic restraining means adapted temporarily to check the action of the boom on the rudder, and a resilient connection between the restraining means and rudder, substantially as described.

5. A sail boat comprising a mast, a swinging boom, a rudder and tiller, a flexible connection between said boom and said tiller and automatically operated restraining means adapted temporarily to check the action of the boom on the rudder, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

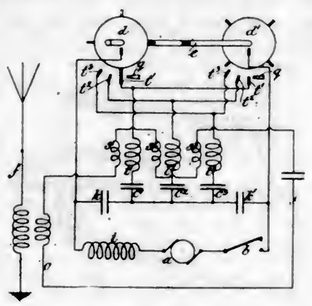
1,136,477. TRANSMITTING APPARATUS FOR USE IN WIRELESS TELEGRAPHY AND TELEPHONY. GUGLIELMO MARCONI, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y., a Corporation of New Jersey. Filed Dec. 31, 1913. Serial No. 809,711. (Cl. 250—36.)

1. The combination of a plurality of condensers in parallel, and means for charging them with electricity in opposite directions alternately and for discharging them in regular succession through inductive resistances substantially as described.

2. The combination of a plurality of condensers in parallel, means for charging them with electricity and a rotating disk adapted to discharge the condensers in succession through inductive resistances and a second rotating disk adapted to discharge the condensers in succession after the first disk has done so.

3. The combination of a plurality of condensers in parallel, means for charging them with electricity in opposite

directions alternately, a plurality of inductive resistances, means for discharging the condensers in regular succession through the resistances and a winding having portions adapted to act as secondaries to the primaries formed by the resistances.

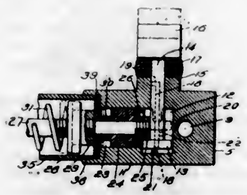


4. The combination of a plurality of condensers in parallel, means for charging them with electricity in opposite directions alternately, a plurality of inductive resistances, means for discharging the condensers in regular succession through the resistances and an oscillating circuit having portions adapted to act as secondaries to the primaries formed by the resistances, and an aerial inductively coupled to this circuit.

5. The combination of a plurality of condensers in parallel, an inductive resistance connected to each condenser, a winding having portions adapted to act as secondaries to the primaries formed by the inductive resistances, and means for charging the condensers with electricity in opposite directions alternately and for discharging them in regular succession.

[Claims 6 and 7 not printed in the Gazette.]

1,136,478. PRESSURE-TRANSMITTING CONTROLLER. FRANCIS E. MILLS and EDWARD F. MILLS, Boston, Mass. Filed Oct. 1, 1914. Serial No. 864,422. (Cl. 137—53.)



1. A pressure transmitting controller for automobile tires, comprising a head having a passageway for the transmission of air pressure, means for connecting said passageway with the tire to be inflated and with a source of air pressure, a valve chamber communicating with said passageway, a pressure relief valve associated with said chamber and adapted to be opened to relieve the air pressure therein, and a lock normally acting to positively hold the relief valve in closed position and acting automatically when the air pressure in said chamber reaches a predetermined amount to unlock said valve and permit it to open.

2. In a device of the character described, the combination of a head having a passageway for the transmission of air, means for connecting the passageway to a source of air-pressure supply and to a receptacle to be supplied with air pressure, a valve chamber communicating with said passageway, a relief valve movable longitudinally in said valve chamber, a lock movable transversely to the relief valve movement and normally acting to hold the relief valve closed, said lock having a head to receive the air pressure in the valve chamber and acting automatically to free the relief valve when the air pressure has reached a predetermined amount.

3. In a pressure transmitting controller, the combination of a head having a passageway adapted to transmit air pressure from a source of supply to a receptacle to be supplied, a valve chamber communicating with said passageway, a pressure relief valve associated with said chamber and adapted to be opened by the air pressure in said chamber, a lock normally acting to hold the relief valve closed and acting automatically when the pressure in said chamber reaches a predetermined amount to unlock said valve and permit it to open.

4. In a pressure transmitting controller, the combination of a head having a passageway for transmitting air pressure from a source of supply to a receptacle to be supplied, said head also having a valve chamber the wall of which is provided with a passageway smaller than and communicating with the passageway in the head, a relief valve associated with said chamber, and locking means normally holding the relief valve closed and acting automatically when the pressure in the valve chamber reaches a predetermined amount to permit said relief valve to open.

5. A pressure transmitting controller, comprising a head having a passageway for the transmission of air pressure from a source of supply to a receptacle to be supplied and a valve chamber communicating with said passageway, a relief valve in said chamber, a yielding lock for normally holding the relief valve closed and acting automatically when the air pressure in the said chamber reaches a predetermined amount to free the valve to movement, and means for adjusting the yieldability of the lock.

[Claims 6 to 15 not printed in the Gazette.]

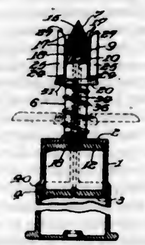
1,136,479. PROCESS FOR MAKING PAPER BOXES. FREDERICK J. MOTZ, Cincinnati, Ohio. Filed Feb. 29, 1912. Serial No. 680,745. (Cl. 93—52.)



1. The process of making paper boxes which consists in feeding a continuous web of material and scoring the same lengthwise along lines intended to form the edges of the boxes, folding said web flatly upon itself along some of said scoring lines as it advances, with the opposite edges of said web engaging each other to form a butt joint, feeding a second web of material along out of registry with said first web, scoring said second web along lines in substantial registry with the scorings of said first web, bringing said second web into surface engagement with said flat folded first web, folding said second web along some of its scoring lines into engagement with said folded first web and bringing the edges of said second web into abutting engagement at a distance from the butt joint of the first web, uniting said two webs together to form a flat unitary body and then cutting said flat unitary body into the desired lengths.

2. The process of making paper boxes which consists in feeding a continuous web of material and scoring the same lengthwise along lines intended to form the edges of the boxes, folding said web flatly upon itself along some of said scoring lines as it advances with the opposite edges of said web engaging each other to form a butt joint, applying an adhesive to the outer surfaces of said folded flat web, feeding a second web of material along out of registry with said first web, scoring said second web along lines in substantial registry with the scorings of said first web, bringing said second web into engagement with the one gummed surface of said flat folded first web, folding said second web along some of its scoring lines and about said flat folded first web into engagement with the other gummed surface of said flat folded first web and bringing the opposite edges of said second web into abutting engagement at a distance from the butt joint of the first web to combine both webs into a flat unitary body and cutting said flat unitary body into the desired lengths.

1,136,480. PROJECTILE. ALEXANDER O'RAWE, Philadelphia, Pa. Filed Dec. 18, 1914. Serial No. 877,851. (Cl. 102—26.)



1. A projectile containing a fluid and comprising means operative by the forward movement of said projectile after its contact with an object to discharge said fluid adjacent the forward end of said projectile.

2. A projectile comprising a hollow body portion, an outwardly projecting neck, and means operative by the contact of the projectile with an object to eject the contents of said body beneath the surface of said object penetrated by said neck.

3. A projectile comprising a hollow body portion and an outwardly projecting neck, a piston slidable in said body, and means operative to move said piston in said body to eject the contents of said body adjacent the forward end of said neck as said neck penetrates a target.

4. A projectile comprising a hollow body portion, an outwardly projecting neck, a piston slidable in said body, a hollow piston rod slidable in said neck, and means operative to retract said piston as said neck penetrates a target to eject the contents of said body through said neck.

5. A projectile comprising a hollow body portion and an outwardly projecting neck, a piston slidable in said body, a hollow piston rod slidable in said neck, and means slidable on the exterior of said neck operative to engage the surface of an object struck by said projectile to retract said piston and said rod to eject the contents of said body as said neck penetrates said object.

[Claims 6 to 12 not printed in the Gazette.]

1,136,481. EXERCISING APPARATUS FOR USE BY MUSICIANS FOR DEVELOPING THE MUSCLES OF THE HAND. HARRY OSTROVSKY, London, England. Filed Sept. 11, 1914. Serial No. 861,268. (Cl. 84—92.)



1. A finger exercising apparatus comprising a key board, keys provided upon said key board, and means for adjusting said keys longitudinally of said key board.

2. A finger exercising apparatus comprising a key board, keys provided upon said key board, means for adjusting said keys longitudinally of said key board, and a part carrying a support also connected to said key board.

3. A finger exercising apparatus comprising a key board, keys provided upon said key board, and means for detachably connecting said keys to and for adjusting the same on said key board.

4. A finger exercising apparatus comprising a key board, and a part carrying a support, said support carrying part being adapted to be detachably secured either to one end of said key board or to the center thereof.

5. A finger exercising apparatus comprising a key board, a part carrying a support, and means for detachably securing said support carrying part either to one end of said key board or to the center of the same.

[Claims 6 to 15 not printed in the Gazette.]

1,136,482. DOLL. FREDERICK WILLIAM PARSONS, Cleveland, Ohio, assignor to The Parsons-Jackson Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 12, 1913. Serial No. 767,144. (Cl. 46—40.)



1. A doll having a hollow body and hollow arms and legs and provided with ball and socket joints for the said arms and legs, and flexible connection between the arms and between the legs having beads swiveled on the inside of the walls thereof.

2. A doll body having hollow arms and legs socketed thereon, flexible connection between said members respectively provided with beads at their ends and metallic washers secured over said beads on the walls of said parts.

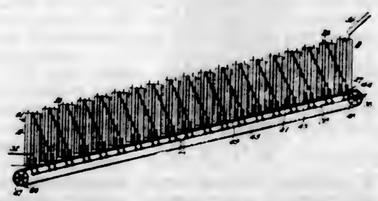
3. A doll having hollow members socketed on the body thereof, and flexible spring connections through said body having swivel engagement on the inside of the outer walls of said members, said engagement comprising a meeallic washer and a disk over said washer permanently adhered to said wall about the edge of the washer.

4. A doll having hollow members socketed on the side of the body thereof, a spring tension connection through said sockets having beads at its ends, metal washers over said beads on the walls of said members and means over said washers confining the same in working position on said walls.

5. A doll having hollow arms socketed thereon, a single transverse spring and links at the ends thereof provided with balls engaged in the outer wall of said arms and means confining said balls in working position against the wall of said arms.

[Claims 6 to 10 not printed in the Gazette.]

1,136,483. PROCESS AND APPARATUS FOR TREATING ORES. LEWIS E. PORTER, Los Angeles, Cal., assignor of one-half to Hugh E. Stock, Casper, Wyo. Filed Aug. 27, 1914. Serial No. 858,955. (Cl. 204—15.)



1. An electrolytic cell and agitator comprising a containing vessel, porous diaphragms dividing the interior of said vessel into anode and cathode compartments, an anode in each anode compartment, a cathode in each cathode compartment, an anode compartment outlet pipe located

in the side of said vessel in open communication with the anode compartment at some distance from the top of said compartment, and means for intermittently injecting solution into said anode compartment.

2. An electrolytic cell and agitator comprising a containing vessel, porous diaphragms dividing the interior of said vessel into anode and cathode compartments, an anode in each anode compartment, a cathode in each cathode compartment, an anode compartment outlet pipe located in the side of said vessel in open communication with the anode compartment at some distance from the top of said compartment, and means for intermittently injecting solution into said anode chamber at a rate considerably faster than the discharge rate through said outlet pipe, so that the level of the electrolyte in the anode chamber rises during the time of injection and falls during the intervals between said injection.

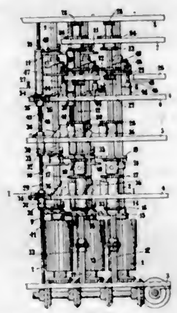
3. An electrolytic cell and agitator comprising a containing vessel, porous diaphragms dividing the interior of said vessel into anode and cathode compartments, an anode in each anode compartment, a cathode in each cathode compartment, an anode compartment outlet pipe located in the side of said vessel in open communication with the anode compartment at some distance from the top of said compartment, and perforated pipes located at the bottom of said anode chamber for intermittently injecting solution into said anode chamber at a rate considerably faster than the discharge rate through said outlet pipe, so that the level of the electrolyte in the anode chamber rises during the time of injection and falls during the intervals between said injection.

4. An electrolytic apparatus comprising a cell divided by a porous diaphragm into anode and cathode compartments each having suitable electrodes, means by which an ore in suspension in an electrolyte is flowed through the anode compartment, and means whereby an electrolyte containing the values extracted in the anode compartment is flowed through the cathode compartment.

5. An electrolytic apparatus comprising a cell divided by a porous diaphragm into anode and cathode compartments each having suitable electrodes, means by which an ore in suspension in an electrolyte is flowed through the anode compartment, means for pulsating the ore and the electrolyte in the cathode compartment, and means whereby an electrolyte containing the values extracted in the anode compartment is flowed through the cathode compartment.

[Claims 6 to 16 not printed in the Gazette.]

1,136,484. CALCULATING-MACHINE. HEINRICH RAUSCHER, Vienna, Austria-Hungary. Filed Sept. 24, 1913. Serial No. 791,460. (Cl. 235—73.)



1. In a calculating machine having counter actuating shafts with slidable gear members, toothed actuating members for said shiftable gear members adapted to be operated at will in opposite direction, two sets of tens transferring arms for the several number wheels of the counters means adapted to bring the arms of the one set or of the other into operative position depending from the direction of rotation of the said shiftable gear members.

2. In a calculating machine having counter actuating shafts with slidable gear members, toothed actuating members for said shiftable gear members adapted to be operated at will in opposite directions, two sets of tens transferring arms for the several number wheels of the counters arranged in pairs firmly connected with each other and slidable on the carrying shafts of the shiftable gear members including angles varying with the position of the coöperating shafts in the series of shafts, cams cooperating with said tens transferring arms and adapted to shift the tens transferring arms on their carrying shafts and means adapted to bring the arms of the one set or of the other into operative position depending from the direction of rotation of the said shiftable gear members.

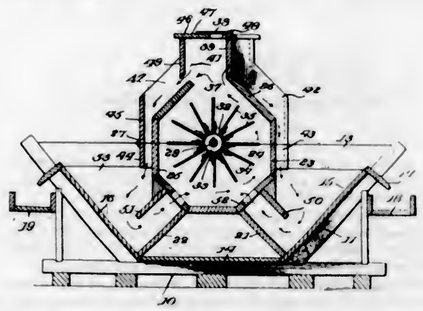
3. In a calculating machine having counter actuating shafts with slidable gear members, stepped toothed cylinders mounted parallelly to said shafts rotatable at will in opposite directions and adapted to be coupled with said slidable gear members, the cylinders provided each with teeth of decreasing length on both sides of the longest tooth and means adapted to operate the number wheels of a counter in opposite directions depending from the direction of rotation of the stepped toothed cylinders.

4. In a calculating machine having counter actuating shafts with slidable gear members, toothed actuating members for said shiftable gear members adapted to be operated at will in opposite directions, two counters for indicating the result of calculating operations actuated both by said actuating shafts and gear members and means to alter the direction of operation of one of the counters at will irrespective the direction of rotation of the slidable gear members.

5. In a calculating machine having counter actuating shafts with slidable gear members toothed actuating members for said shiftable gear members adapted to be operated at will in opposite directions, two counters for indicating the result of calculating operations actuated both by said actuating shafts and gear members, tens transfer mechanism for said counters and means to uncouple one of the counters from the actuating members of the other during a period where tens transfer in the latter possibly may take place.

[Claims 6 to 26 not printed in the Gazette.]

1,136,485. FLOTATION-MACHINE. CHARLES E. ROBK, Douglas, Ariz. Filed Sept. 10, 1914. Serial No. 861,061. (Cl. 83—85.)



1. A flotation separator including a settling tank provided at its sides with overflow lips, an agitation chamber spaced from the sides of the tank and partially immersed in the tank and divided into a plurality of compartments, each compartment being provided near its lower end with an inlet opening and at its upper end with a discharge opening, the inlet and discharge openings of each compartment being oppositely disposed to those of adjacent compartments, and agitators mounted one in each compartment.

2. A flotation separator including a settling tank provided at its sides with overflow lips, an agitation chamber spaced from the sides of the tank and partially immersed in the tank and divided into a plurality of compartments, each compartment being provided near its lower end with an inlet opening and at its upper end with a discharge opening above the liquid level, the inlet and discharge openings of each compartment being oppositely disposed to those of adjacent compartments, agitators mounted one in each compartment, and valves controlling the size of the discharge openings.

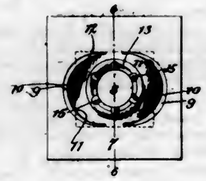
3. A flotation separator including a settling tank provided at its sides with overflow lips, an agitation chamber spaced from the sides of the tank and partially immersed in the tank and divided into a plurality of compartments, each compartment being provided near its lower end with an inlet opening and at its upper end with a discharge opening above the liquid level, the inlet and discharge openings of each compartment being oppositely disposed to those of adjacent compartments, agitators mounted one in each compartment, valves controlling the size of the discharge openings, and spouts leading from the discharge openings to points below the liquid level in the settling tank.

4. A flotation separator including a settling tank provided at its sides with overflow lips, an agitation chamber spaced from the sides of the tank and partially immersed in the tank and divided into a plurality of compartments, each compartment being provided near its lower end with an inlet opening and at its upper end with a discharge opening, the inlet and discharge openings of each compartment being oppositely disposed to those of adjacent compartments, agitators mounted one in each compartment, valves controlling the size of the discharge openings, spouts leading from the discharge openings to points below the liquid level in the settling tank, and baffles spaced below the discharge ends of the spouts to deflect the discharged matter outwardly toward the sides of the tank.

5. A flotation separator including a settling tank provided at its sides with overflow lips, an agitation chamber spaced from the sides of the tank and partially immersed in the tank and divided into a plurality of compartments, each compartment being provided near its lower end with an inlet opening and at its upper end with a discharge opening, the inlet and discharge openings of each compartment being oppositely disposed to those of adjacent compartments, agitators mounted one in each compartment, valves controlling the size of the discharge openings, spouts leading from the discharge openings to points below the liquid level in the settling tank, and baffles disposed below the discharge ends of the spouts to deflect the discharged matter outwardly toward the sides of the tank, one end of the agitation chamber being spaced from the discharge end of the tank.

[Claims 6 to 10 not printed in the Gazette.]

1,136,486. NUT-LOCK. J W ROSE and CHARLES A. FOX, Buffalo, N. Y. Filed June 11, 1913. Serial No. 773,044. (Cl. 151—52.)



1. The combination of a body, a bolt passing through said body and having a nut, and a plate interposed between said body and nut and having a central hole which receives the shank of said bolt, a curved slot on one side of said bolt hole forming a lip which is bent forwardly and engages the rear corners of said nut, and an annular bead formed on the front side of the plate around the bolt hole and engaging with the rear side of said nut.

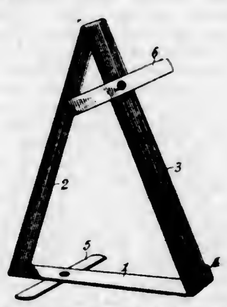
2. A nut lock comprising a plate having a central bolt hole and a curved slot on the side of said bolt and forming a lip which is bent laterally and adapted to engage the side of a nut and said plate being provided on one of its sides between its hole and slot and at a distance from both of these with a laterally projecting bead which is adapted to engage with a coöperating member.

3. A nut lock comprising a plate having a central bolt hole and a curved slot on one side of said bolt hole and forming a lip which is bent laterally and adapted to engage the side of a nut and said plate being provided at its bolt hole with a radial stop bead for preventing the plate from working into the threads of the bolt.

4. A nut lock comprising a plate having a central bolt hole and a curved slot on one side of said bolt hole and forming a lip which is bent laterally and adapted to engage the side of a nut, said plate being also provided around its hole with a laterally projecting annular spacing bead and with a plurality of radial stop ribs extending from the bore of said hole outwardly.

5. A nut lock comprising a plate having a central bolt hole and a curved slot on one side of said bolt hole and forming a lip which is bent laterally and adapted to engage the side of a nut, a portion of the stock of said plate being removed in the formation of said slot so that the opposite walls of the slot are separated by an intervening clear space or gap, the curvature of that part of said lip which is engaged by the advancing side of the nut being of a greater radius than that part of said lip which is engaged by the backing side of said nut, said plate being also provided around its hole with a laterally projecting annular spacing bead and with a plurality of radial stop ribs extending from the bore of said hole outwardly.

1,136,487. CARD-HOLDER. WILLIAM H. ROUSE, Grand Rapids, Mich. Filed Mar. 28, 1914. Serial No. 828,051. (Cl. 40—146.)

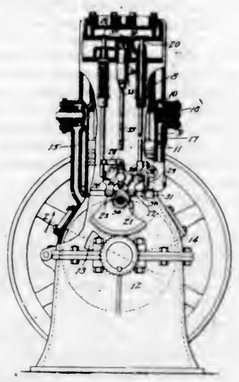


1. A card holder, comprising a strip of resilient material having a base portion to support the same, a rear inclined portion and a front inclined portion extending above the base portion, said base portion having an upturned end overlapping outer side of the low end of the front portion and yieldably engaged thereby to grip a card therebetween and to permit the card to rest on the base portion.

2. A card holder, comprising a strip of resilient material bent in triangular form and having overlapping ends yieldably engaging each other at one of the angles to grip a card therebetween, and supports pivotally mounted on the holder.

3. A card holder, comprising a strip of flexible material having a base portion, a rear inclined portion and a front inclined portion extending above said base portion, an upturned end to the base portion overlapping the lower end of the front portion and yieldably engaged thereby, and supports pivotally mounted on the respective base portion and the front portion and adapted to fold parallel therewith.

1,136,488. GAS-DRIVEN AIR-COMPRESSOR. CHARLES E. SARGENT, Chicago, Ill. Filed Aug. 11, 1911. Serial No. 643,538. (Cl. 230—32.)

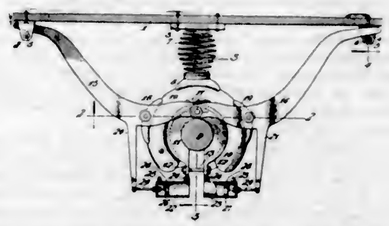


1. The combination with a differential cylinder the head of which is of the smaller diameter, and a crank-case secured to the cylinder, of a differential piston having a smaller part fitting within the smaller head part of the cylinder and a flange fitting the larger part of the cylinder whereby to form within the structure three spaces, to wit, a combustion chamber in the head of the cylinder, an annular chamber in the lower part of the cylinder, and a crank-case chamber, means causing the operation of the combustion chamber as the corresponding chamber of an internal combustion engine independent of the other two chambers, means for admitting gas to the crank-case chamber, a valve controlled communication between the crank-case chamber and the annular chamber, and an exhaust valve leading from the annular chamber, whereby the crank-case operates as the first and the annular chamber as the second chamber of a two stage compressor.

2. The combination with a differential cylinder the head of which is of the smaller diameter, and a crank-case secured to the cylinder, of a differential piston having a smaller part fitting within the smaller head part of the cylinder and a flange fitting the larger part of the cylinder whereby to form within the structure three spaces, to wit, a combustion chamber in the head of the cylinder, an annular chamber in the lower part of the cylinder, and a crank-case chamber, means causing the operation of the combustion chamber as the corresponding chamber of an internal combustion engine independent of the other two chambers, means for admitting gas to the crank-case chamber, a valve controlled communication between the crank case chamber and the annular chamber, an exhaust valve leading from the annular chamber, whereby the crank-case operates as the first and the annular chamber as the second chamber of a two stage compressor, and a water jacket surrounding the annular chamber and the combustion chamber, and provided with a water intake adjacent to the annular chamber, a water exit adjacent to the combustion chamber, whereby the cooler water surrounds the annular and the warmer water the combustion chamber.

1,136,489. COMBINED CUSHION-SPRING AND SHOCK-ABSORBER. JOHN C. SCHLEICHER, Mount Vernon, N. Y. Filed Feb. 5, 1914. Serial No. 816,805. (Cl. 21—50.)

1. A combined cushioning spring and shock absorber comprising an axle engaging element, a pneumatic cushioning spring mounted on said element, levers fulcrumed at one end on said axle engaging element and having shoes for engagement with said cushioning element, shock absorbing cylinders, pistons carried by said levers and slidably mounted in said cylinders, and means for slidably supporting the free ends of said levers.



2. A combined cushioning spring and shock absorber comprising an axle engaging element, a pneumatic cushion mounted on said element, levers fulcrumed at one end on said axle engaging element and having their opposite ends curved upwardly and outwardly, means adapted to be secured to a vehicle body for slidably supporting the free ends of said levers, shock absorbing cylinders mounted on said axle engaging element, depending arms on said levers, pistons slidable in said cylinders and piston rods connected with said pistons and with the free ends of said arms.

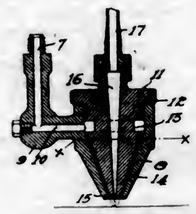
3. A combined cushion spring and shock absorber comprising a substantially annular hub adapted to be mounted on a vehicle axle and having a peripheral groove, a substantially annular pneumatic cushion seated in said groove, a spring pressed shoe for engagement with said annular cushion to hold it seated in said groove and to prevent bulging thereof, levers fulcrumed at one end on said hub and provided with shoes positioned to engage said cushion at opposite sides thereof, hangers adapted for attachment to a vehicle body and to receive the free ends of said levers whereby said lever ends are slidably mounted relatively to said hangers, shock absorbing cylinders carried by said hub and having pistons slidable therein, said pistons being provided with outwardly opening spring pressed valves, said cylinders having vent openings at their outer or rear ends, and means for connecting said pistons with said levers.

4. A combined cushion spring and shock absorber comprising a substantially annular hub adapted to be mounted on a vehicle axle and having a peripheral groove, a substantially annular pneumatic cushion seated in said groove, a spring pressed shoe for engagement with said annular cushion to hold it seated in said groove and to prevent bulging thereof, levers fulcrumed at one end on said hub and provided with shoes positioned to engage said cushion at opposite sides thereof, hangers adapted for attachment to a vehicle body and to receive the free ends of said levers, whereby said lever ends are slidably mounted relatively to said hangers, shock absorbing cylinders carried by said hub and having pistons slidable therein, said pistons being provided with outwardly opening spring pressed valves, said cylinders having vent openings at their outer ends, means for connecting said pistons with said levers, said cylinders being pivotally supported at their opposite ends.

5. A combined cushioning spring and shock absorber comprising an axle engaging hub formed in hingedly connected sections and having a peripheral groove therein, an arcuate cushioning member seated in said groove, means for holding said cushioning member in said groove, levers having bifurcated inner ends fulcrumed on said hub, the arms of said levers spanning said hub and cushioning member, cushion engaging shoes pivotally mounted in the crotches of said levers, arms depending from said levers, means for slidably suporting the free ends of said levers, shock absorbing cylinders pivotally mounted at one end on said hub, valved pistons slidable in said cylinders, and vent openings at the closed outer ends of said cylinders, and piston rods fixed to said pistons and pivotally connected with the arms of said levers.

[Claim 6 not printed in the Gazette.]

1,136,490. CUTTING-TORCH. ELMER H. SMITH, Minneapolis, Minn. Filed Jan. 22, 1914. Serial No. 813,664. (Cl. 158—13.5.)

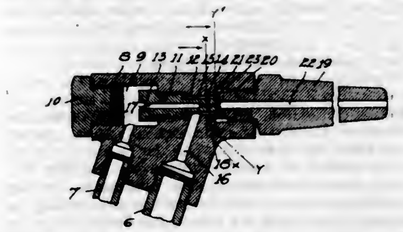


1. An oxy-acetylene cutting torch comprising a nozzle having a cone-shaped recess therein extending to the tip of the nozzle, a plug fitting within said nozzle and having an annular passage therein communicating with a source of oxygen-acetylene supply, said plug having a tapered end fitting within the correspondingly shaped recess in said nozzle and spaced from the walls thereof to form a passage leading from said recess to said tip, said plug having a duct therein communicating with a source of pure oxygen supply and extending through the tip end of said plug and encircled by the passage between said plug and nozzle at the tip thereof.

2. A cutting torch comprising a nozzle having a cone-shaped recess therein, a plug fitting within said nozzle and having a tapered end to enter said recess, the tip end of said nozzle and said plug being concentric and in alinement substantially with one another, said plug having an annular passage communicating with a source of oxygen and acetylene supply, a cone-shaped passage being formed between the tapered end of said plug and said nozzle communicating with said annular passage and leading to the tips of said nozzle and plug, said plug also having a passage therein for the pure oxygen supply, the exit end of the oxygen passage in said plug being encircled by the exit of the passage between said plug and nozzle.

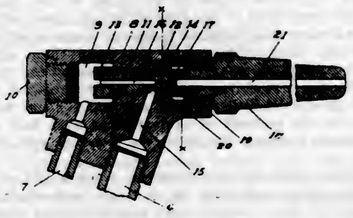
3. A cutting torch comprising a nozzle having a tapered end and a correspondingly tapered recess therein, a plug fitting within said nozzle and having a tapered end to enter said recess and spaced from the walls thereof to form a passage encircling the tapered end of said plug, the tip end of said nozzle and said plug being concave and the conical end of said plug having a passage therethrough for the pure oxygen supply, the passage between said plug and nozzle communicating with a source of oxygen-acetylene gas supply to form a circular preheating flame at the tip of said nozzle, the oxygen for the cutting flame being supplied through the duct in said plug.

1,136,491. ACETYLENE-BLOWPIPE. ELMER H. SMITH, Minneapolis, Minn. Filed Jan. 23, 1914. Serial No. 813,907. (Cl. 158—109.)



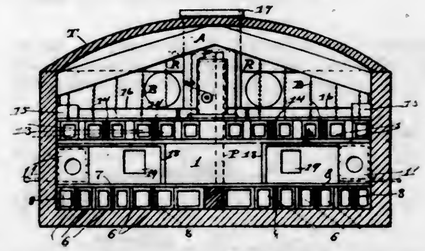
An acetylene blow pipe comprising a head having a socket and a chamber formed therein, a plug fitting into said socket and having a longitudinal duct therein communicating with said chamber and a nozzle projecting into said socket and spaced from the walls thereof and forming a passage around said nozzle, said nozzle also having a comparatively small duct forming a continuation of said first named duct, the inner end of said nozzle being tapered, a tip fitting within said head adjacent to said nozzle and provided with a longitudinal duct concentric with the duct in said nozzle, the inner end of said tip being countersunk and seated against the tapered end of said nozzle, the countersunk surface of said tip having a series of comparatively small ducts leading from the passage around said nozzle to the duct in said tip, whereby the velocity of the flow of gas from said passage into the jet of oxygen will be increased and a more complete and uniform mixture obtained.

1,136,492. ACETYLENE-BLOWPIPE. JOHN W. SMITH and ELMER H. SMITH, Minneapolis, Minn. Filed Jan. 10, 1913. Serial No. 741,189. (Cl. 158—109.)



An acetylene blow pipe comprising a head having a chamber formed in one end thereof and a cap for said chamber, the bottom of said chamber having a socket therein, a plug fitting within said socket and accessible through said chamber and provided with a tip projecting into said socket and spaced from the walls thereof to form an annular passage, said plug having a longitudinal duct therein extending from end to end and communicating at one end with said chamber, the inner end of said tip being beveled, a nozzle fitting within the other end of said head and provided with a longitudinal duct concentric with the duct in said tip, the inner end of said nozzle being countersunk and adapted to receive the tapered end of said tip and uniformly spaced therefrom to form a flaring annular passage communicating with the passage around said tip, said head also having ducts in its side walls communicating respectively with said chamber through the side walls thereof and with said annular passage, and oxygen and acetylene gas pipes mounted in said head and communicating respectively with said ducts, the acetylene gas entering said annular passage being directed against the wall of said tip and flowing around the same before passing to the inlet of said nozzle, the walls of said flaring passage around the tapered portion of said tip directing the acetylene gas inwardly into the jet of oxygen flowing through said tip.

1,136,493. OVEN. FRANK STAŠEK, Cleveland, Ohio. Filed Feb. 9, 1914. Serial No. 817,449. (Cl. 107—55.)



1. In an oven, the combination with the oven chamber, of a tier of longitudinal heat supplying flues underneath, said chamber, said tier formed in two sections, and an

oven floor thereover, alternate flues communicating with each other, at their ends in each section to provide a continuous circulation from the center toward each side, longitudinal flues at the sides of the oven chamber communicating with said floor forming flues, a second tier of longitudinal flues in two sections forming upper wall of said chamber, alternate flues communicating with each other at their ends, a transverse flue connecting each section of the upper tier of flues with one of said side flues, a chimney centrally located at the rear of said chamber, and transverse flues connecting said chimney with the respective outer flues of said upper tier, and a heating device for each section of the lower tier of flues.

2. In an oven, a chamber, a lower tier of heat supplying flues underneath said chamber, an upper tier of heat supplying flues above said chamber arranged in two portions, said respective tiers of flues formed in parallel sections longitudinal flues at the sides of the chamber, and transverse flues at the rear of the chamber, said side and transverse flues forming means of communication between said tiers of flues, and encircling three sides of said chamber, a chimney, transverse flues at the rear of said chamber connecting the two portions of the upper tier of flues with said chimney and independent heating means for the sections of said tiers of flues and means for forming dead air spaces at the front corners of said ovens.

3. In an oven, an oven chamber, a lower tier of heat supplying flues arranged in sections underneath said chamber, an upper tier of heat supplying flues arranged in two sections and forming the upper wall of said chamber, a flue forming each side of said chamber, and transverse flues forming the rear wall thereof, said side and transverse flues forming means for communication between the corresponding sections of the lower and upper tiers of flues, a chimney, and flues connecting the sections of the upper tier of flues with said chimney, a movable partition arranged to separate said chamber into compartments corresponding in position to the position of the sections of said tiers of flues, and a separate means of supplying heat to the flues of each compartment.

4. In an oven, in combination, an oven chamber having a front opening, heat conveying flues inclosing the bottom sides, rear, and top portions of said chamber and arranged in sections, a separate device for supplying a heating medium to each section, a common chimney for said sections, controlling dampers for each section of flues, a removable partition in said chamber separating said chamber into compartments, and a hinged front edge to said partition adapted to close one side of said front opening in said chamber.

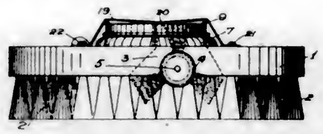
1,136,494. OFFENSIVE DEVICE CARRIED BY AIR-CRAFT. JOSEPH A. STEINMETZ, Philadelphia, Pa. Filed Apr. 30, 1914. Serial No. 835,453. (Cl. 244—1.)



1. The combination with a suitable air-craft in flight, of a bomb suspended therefrom by a flexible connection, and a grapple supported also by said connection and arranged to explode the bomb upon its own engagement with any strongly resisting object.

2. The combination with a suitable air-craft in flight, of a bomb suspended therefrom by a flexible connection, grappling device arranged to explode the bomb when itself engaged with any strongly resisting body, and a bomb-exploding weight releasable at will at said aircraft and adapted to slide upon and be guided to the bomb by said connection while descending by gravity.

1,136,495. BRUSH. FRANK HENRY STERLING, Highbury, London, England. Filed May 22, 1913. Serial No. 769,134. (Cl. 15—16.)



1. In a polishing brush, in combination, a stock provided with bristles, means for holding a box of polishing material on said stock, and an auxiliary brush supported on said stock for transferring the material from the box to the surface to be polished, such auxiliary brush operating among the bristles in the stock.

2. In a polishing brush, in combination, a stock provided with bristles, means for holding a box of polishing material on said stock, and an auxiliary brush rotatably supported on said stock for transferring the material from the box to the surface to be polished, such auxiliary brush operating among the bristles in the stock.

3. In a polishing brush, in combination, a stock provided with bristles and having an aperture formed therein, means for holding an open box of polishing material upon said stock with the opening in the box registering with the aperture in said stock, and means supported on said stock operating among the said bristles and adapted to transfer the material from the box to the surface to be polished.

4. In a polishing brush, in combination, a stock provided with bristles and having an aperture formed therein, means for holding an open box of polishing material upon said stock with the opening in the box registering with the aperture in said stock, and an auxiliary brush rotatably supported on said stock operating among the said bristles and adapted to transfer the material from the box to the surface to be polished.

5. In a polishing brush, in combination, a stock provided with bristles and having an aperture formed therein, means for holding an open box of polishing material upon said stock with the opening in the box registering with the aperture in said stock, and an auxiliary brush rotatably supported on said stock below said aperture and provided with bristles adapted to extend through said aperture into engagement with the material in the box, and means for rotating said auxiliary brush whereby the bristles thereof will transfer the material from the box to the surface to be polished.

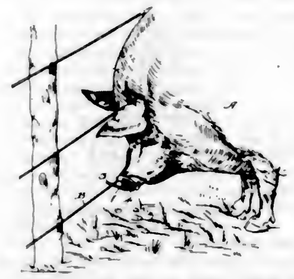
[Claim 6 not printed in the Gazette.]

1,136,496. NOSE-RING FOR LIVE STOCK. ULYSSES G. STEWART, Paris, Ill. Filed Oct. 14, 1914. Serial No. 866,649. (Cl. 119—135.)

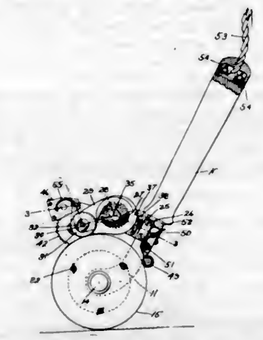
1. As an article of manufacture a nose-ring for live stock having an upstanding prong adapted to project above the animal's snout, and a depending spur having its end adapted to bear upon the end of said snout.

2. As an article of manufacture a nose-ring for live stock crossed by an upstanding prong and a depending spur, the former adapted to project above the animal's snout, and the latter adapted to bear at its end upon the end of said snout.

3. As an article of manufacture a unity nose-ring for live stock, comprising in combination a body portion adapted to be secured between the nostrils of an animal, an upstanding prong adapted to project above the animal's snout, and a depending spur having its end arranged and adapted to bear upon the end of said snout.



1,136,497. METALLIC-LEAF-APPLYING DEVICE. STUART H. SWALLOW, Providence, R. I., assignor to W. H. Coe Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Sept. 18, 1914. Serial No. 862,280. (Cl. 41—7.)



1. A device for applying a strip of metallic leaf comprising a depositing roll, means for carrying a roll of combined leaf and backing material, and positively driven means for drawing out the backing material to present the leaf to the depositing roll at the surface speed of the latter.

2. A device for applying strips of metallic leaf comprising a depositing roll, means for heating the same, means on the device for carrying a roll of combined leaf and backing material, and means for positively drawing out the backing strip to present the leaf to the depositing roll at the surface speed of the latter.

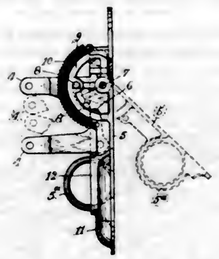
3. A device for applying strips of metallic leaf comprising a depositing roll, electric means for heating the same, means in the device for carrying a roll of combined leaf and backing material and a pair of driven rolls for drawing out the backing strip to present the leaf to the depositing roll at the surface speed of the latter.

4. A device for applying strips of metallic leaf comprising a depositing roll, means for heating the same, means on the device for carrying a roll of combined leaf and backing material, means for applying tension to said roll and a pair of positively driven feed rolls for drawing out the backing strip to present the leaf to the depositing roll at the surface speed of the latter.

5. A device for applying strips of metallic leaf comprising a depositing roll, means on the device for carrying a roll of combined leaf and backing material, a pair of feed rolls for drawing out the backing strip to present the leaf to the depositing roll at the surface speed of the latter and gears for driving the feed rolls in time with the depositing roll.

[Claims 6 to 10 not printed in the Gazette.]

1,136,498. BOLT-OPERATING MECHANISM. DANIEL W. TOWER, Grand Rapids, Mich. Filed July 9, 1914. Serial No. 850,016. (Cl. 70—42.)



1. The combination of a pivoted handle, levers connected to simultaneously swing toward and away from each other, and means for connecting the handle to one of said levers whereby the handle has a limited independent movement relative to the said lever.

2. The combination of two levers connected to swing toward and away from each other, one of said levers having a slot therein, a pivoted handle, and a pin carried by the handle traversing the slot and engaging the end of the slot to operate the levers.

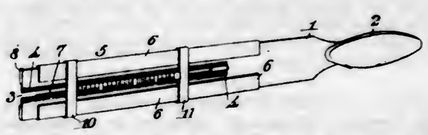
3. The combination of a housing, a handle pivoted in the housing and swinging outward therefrom, two levers pivoted in the housing and having a cog connection to swing toward and away from each other, one of said levers being provided with a segmental slot and a pin carried by the handle and engaging the ends of the slot to operate said levers.

4. The combination of a housing, a handle pivoted in the housing and adapted to swing outward therefrom, a spring to normally hold the handle within the housing, bell crank levers pivoted in the housing and having engagement to simultaneously swing toward and away from each other, one of said levers being provided with a segmental slot, a segment on the handle, a pin in the segment traversing the slot and engaging the ends thereof to operate the levers, and a spring to yieldably hold the handle within the housing.

5. The combination of a housing having an opening, a flange on the housing surrounding the opening, a handle to normally close the opening and pivoted to the flange, bell crank levers pivoted to the flange and connected to swing toward and away from each other, means for connecting the handle to one of the levers to operate the same, and a spring to normally hold the handle in closed position.

[Claims 6 to 8 not printed in the Gazette.]

1,136,499. TYPE-FILING INSTRUMENT. GILBERT HARNEY WARNER, Indianapolis, Ind. Filed Feb. 24, 1914. Serial No. 820,611. (Cl. 29—24.)



1. In a device of the class described, a bifurcated plate, said plate adjacent said bifurcated portions being provided with abrading surfaces, a member mounted for reciprocation upon said plate, and means for securing

type to said member to reciprocate with the same in contact with said abrading surfaces, substantially as described.

2. In a device of the class described, a substantially thin rectangular plate being slotted inwardly from one end, the said plate upon its upper face adjacent said slot being provided with abrading surfaces, a member mounted for reciprocation upon said plate, and means for securing type to said member within said slots, and in engagement with said abrading surfaces, substantially as described.

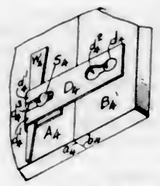
3. In a device of the class described, a plate having a slot extending inwardly from one end, the upper face of said plate adjacent said slot being provided with abrading surfaces, a sleeve mounted for reciprocation upon said plate and provided with a slot adapted to register with and corresponding in width with the slot in said plate, and means for holding type securely to said sleeve within said slots, substantially as described.

4. In a device of the class described, a plate provided at one end with a hand grip and with a slot extending inwardly from the opposite end, the upper face of said plate adjacent said slot being provided with abrading surfaces, a sleeve mounted for reciprocation upon said plate and provided with a slot adapted to register with and corresponding in width with the slot in said plate, and means for holding type securely to said sleeve within said slots, substantially as described.

5. In a device of the class described, a substantially thin rectangular plate provided at one end with a hand grip and being slotted inwardly from the opposite end, the said plate upon its upper face adjacent said slot being provided with abrading surfaces, a member mounted for reciprocation upon said plate, and means for securing type to said member within said slots and in engagement with said abrading surfaces, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,136,500. BOX-FASTENER. GEORGE P. WOOD, Peekskill, N. Y. Filed Mar. 12, 1912. Serial No. 683,288. (Cl. 70—3.)



1. A clamp or fastener consisting of four distinct features, two engaging portions having heads, a locking member adapted to slide under and engage these heads and a wedge adapted to bind between one end of the locking member and its engaging catch.

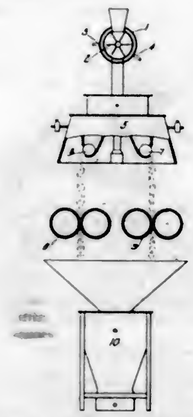
2. A clamp or fastener consisting of four distinct features, two engaging portions having heads, a locking member adapted to slide under and engage these heads, one end of the locking member having an enlarged opening and a wedge adapted to bind between one end of the locking member and its engaging catch.

3. A clamp or fastener consisting of four distinct features, two engaging portions having heads, a locking member adapted to slide under and engage these heads, one end of the locking member having an enlarged opening and a wedge adapted to bind between one end of the locking member and its engaging catch and double upon itself and back over the clasp.

1,136,501. PROCESS OF TREATING FLOUR. WILLIAM G. ANDREWS, Chicago, Ill., assignor to himself, and Frederick D. Larabee, Hutchinson, Kans. Filed May 20, 1914. Serial No. 839,692. (Cl. 83—42.)

1. The process of treating commercially finished flour which consists in subjecting it to the action of heat and pressure while in its normally dry powdery form.

2. The process of treating commercially finished flour which consists in rolling it under a heavy pressure while in its normally dry powdery form and while in a heated state.



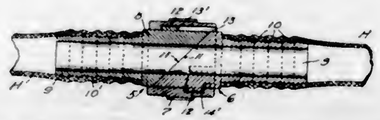
3. The process of treating commercially finished flour which consists in rolling it under a heavy pressure while in its normally dry powdery form and while in a heated state, and then passing the flour through a reel.

4. The process of treating wheat flour which consists in rolling it under a heavy pressure while in its normally dry powdery form and in a dry heated state.

5. The process of treating wheat flour which consists in heating it while in its normally dry powdery form and then passing it through warm smooth rolls so as to subject it to heavy pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,136,502. HOSE-COUPLING. LACEY BABOS, Winslow, Wash. Filed June 13, 1914. Serial No. 844,984. (Cl. 137—28.)



1. A hose coupling comprising two coupling members, a lug carried by each member being diametrically-disposed in assembled condition, and a coupling sleeve associated therewith, a pair of bayonet slots formed on the inner face of the sleeve opening at the same end thereof and lying on one side of the diametrical axis of the sleeve with the inner extensions of the slots disposed in opposite directions, one of said slots disposed at an angle relative to the circumference of the sleeve whereby said sleeve is caused to move in opposite directions to bring the coupling members into juxtaposition.
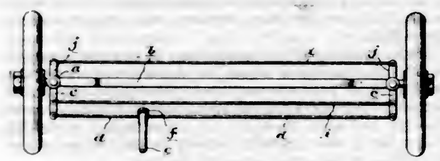
2. A hose or pipe coupling comprising two coupling members having inclined meeting faces and provided with lugs projecting from the outer peripheral surface of the respective members on the sides of greatest width, and a sleeve adapted to receive the ends of said members, said sleeve being provided with two lug-receiving slots extending from the same end of the sleeve disposed on one side of a diameter of the sleeve and communicating with circumferentially disposed branches similarly positioned and extending in opposite directions, one of said branches being arranged in helical relation whereby the lugs are drawn toward each other when the sleeve is turned to cause the faces of the members to be juxtaposed with each other.

3. A hose or pipe coupling comprising two coupling members having inclined meeting faces, and each provided with an outwardly projecting lug, and a single sleeve adapted to receive the ends of both of said coupling members, said sleeve being provided interiorly with two slots for the engagement of the respective lugs, both of said slots extending from the same end of the sleeve, one of said slots being provided with a circumferentially extending branch at right angles to said slot, the other slot having a circumferentially extending branch extending in helical relation from said last-named slot.

4. A hose or pipe coupling comprising two coupling members having inclined faces, and each provided with an outwardly projecting lug, and a single sleeve adapted to receive the ends of both of said coupling members, said sleeve being provided interiorly with two parallel slots adapted to receive the respective lugs and each having a circumferentially disposed branch, said branches extending in opposite directions within the sleeve.

5. A hose or pipe coupling comprising two coupling members having inclined faces, and each provided with an outwardly projecting lug, and a single sleeve adapted to receive the ends of both of said coupling members, said sleeve being provided interiorly with two parallel slots spaced apart a distance less than the inside diameter of the sleeve, and each adapted to receive the respective lugs, and each having a circumferentially-disposed branch, said branches extending in opposite directions within the sleeve and in substantial alinement.

1,136,503. MOTOR-VEHICLE STEERING-GEAR. JESSE ATLAS BAUCOM, Raeford, N. C. Filed Nov. 27, 1914. Serial No. 874,226. (Cl. 21—197.)



In combination with an axle, steering knuckles and wheels, each of said knuckles being provided with a forwardly-extending arm and also with a rearwardly-extending arm, a pair of rods arranged parallel with the axle and having their ends pivotally connected to the respective arms, one of these rods being arranged in front of the axle and the other in the rear thereof, additional rods pivotally connected to the rearwardly extending arms at points to the rear of said parallel rods, these additional rods being parallel with the aforesaid rods, and means connected to these additional rods to shift them in unison endwisely in a direction transversely of the vehicle, for the purpose set forth.

1,136,504. GLASS AND ART OF MAKING THE SAME. HENRY M. BROOKFIELD, New York, N. Y. Filed Jan. 27, 1912. Serial No. 673,716. (Cl. 49—90.)

1. The process of making a glass compound, which is non-crystalline in character, which consists in thoroughly mixing pulverized glass or cullet with pulverized clay, the proportion of glass being comparatively large, subjecting the same to an approximate heat of 2500° F., cooling and annealing the same.

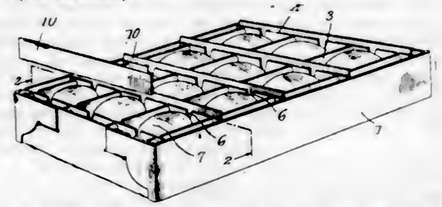
2. The process of making a glass compound, which is non-crystalline in character, which consists in thoroughly mixing pulverized glass or cullet with pulverized clay and lime, the proportion of glass being comparatively large, subjecting the same to approximate heat of 2500° F., cooling and annealing the same.

3. The process of making a glass compound, which is non-crystalline in character, which consists in thoroughly mixing pulverized glass or cullet with pulverized clay in approximate proportions of 100 lbs. of glass to every 30 lbs. of clay, subjecting the same to an approximate heat of 2500° F., cooling and annealing the same.

4. As a new composition of matter, a batch for the manufacture of a non-crystalline glassy product comprising a pulverized glass or cullet thoroughly mixed with pulverized clay, the quantity of pulverized glass in said batch being large in proportion to the quantity of clay therein.

5. The product of manufacture comprising a non-crystallized compound of glass and clay in approximate proportions by weight of 100 parts of glass to 30 parts of clay fused together into a homogeneous mass.

1,136,505. PACKAGING DEVICE. EDWARD L. CALAHAN, Clifton, N. J. Filed Apr. 1, 1914. Serial No. 828,670. (Cl. 217—28.)



1. In a packaging device, in combination, a box, two sets of partitions therein, the partitions of one set intersecting with the partitions of the other set to form compartments, slots formed in the partitions of one of said sets, a fabric carrier adapted to support the articles to be packed engaging in said slots, and means engaging said carrier adjacent said slots to prevent movement of said carrier relatively to said slots.

2. In a packaging device, in combination, a box, two sets of partitions therein, the partitions of one set intersecting with the partitions of the other set to form compartments, slots formed in the partitions of one of said sets, a fabric carrier adapted to support the articles to be packed engaging said slots, and removable means engaging said carrier adjacent said slots to prevent movement of said carrier relatively to said slots.

3. In a packaging device, in combination, a box, two sets of partitions therein, the partitions of one set intersecting with the partitions of the other set to form compartments, slots formed in the partitions of one of said sets, a fabric carrier adapted to support the articles to be packed engaging in said slots, and locking strips engaging said carrier adjacent said slots to prevent movement of said carrier relatively to said slots.

4. In a packaging device, in combination, a box, a cover therefor, a plurality of interlocking longitudinal and transverse partitions within said box forming a plurality of compartments, slots formed in said transverse partitions, a fabric carrier adapted to support the articles to be packed, and engaging in said slots whereby said carrier will be held in position within the box, and locking strips adapted to register with said slots and engaging said carrier to lock the same against movement.

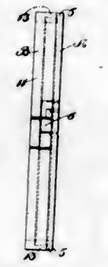
5. In a packaging device, in combination, a box, a cover therefor, a plurality of interlocking longitudinal and transverse partitions within said box forming a plurality of compartments, slots formed in said transverse partitions, a fabric carrier adapted to support the article to be packed and engaging in said slots whereby said carrier will be held in position within the box, and locking strips adapted to register with said slots and engaging said carrier to lock the same against movement, said locking strips engaging the inner surface of the cover when the cover is positioned upon the box.

[Claims 6 and 7 not printed in the Gazette.]

1,136,506. PACKING-RING. EDWARD B. CAMPBELL, St. Louis, Mo., assignor to McQuay-Norris Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 28, 1914. Serial No. 868,951. (Cl. 121—108.)

1. A packing comprising two overlapping rings, a portion on the inner ring extending outwardly to the periph-

ery of the outer ring at the edge of the outer ring and provided with an oblique wall on said extended portion adjacent to the edge of the outer ring, said outer ring having an oblique wall adapted to coöperate with the oblique wall adjacent thereto, and an inwardly extending portion on said outer ring at one edge of the inner ring and provided with an oblique wall, and said inner ring being also provided with an oblique wall adapted to cooperate with said oblique wall on said extended portion of the outer ring adjacent thereto.



2. A packing comprising an inner ring portion provided with an inclined peripheral, wall, an outward extension on said ring portion at the thinner part thereof and provided with an oblique wall on the side adjacent to said inclined wall, an outer ring portion encircling said inner ring portion and provided with an inclined wall adapted to coöperate with the inclined wall on said inner portion and also provided with an oblique wall adapted to cooperate with the oblique wall on said outward extension, an inward extension on said outer ring portion, and provided with an oblique wall, and the edge of said inner ring portion being also provided with an oblique wall adapted to coöperate with the oblique wall on said inward extension.

3. A packing comprising a ring including an outer portion and an inner portion thinner than said outer portion, an oblique wall on the outer portion outwardly from said thinner portion, an oblique wall on the edge of said thinner portion, a second ring having an oblique wall adapted to coöperate with the oblique wall on said thinner portion of said first-named ring, a portion on said second-named ring encircling said thinner portion of said first-named ring, and an oblique wall on said second-named ring adapted to coöperate with said oblique wall on the outer portion of said first-named ring.

4. A packing, comprising two overlapping rings of the open resilient type, two oblique walls formed on each of said rings, the two oblique walls on one of said rings adapted to coöperate with the two oblique walls on the other ring, and a passage between the overlapping portions on said rings for admitting a lubricant between said rings.

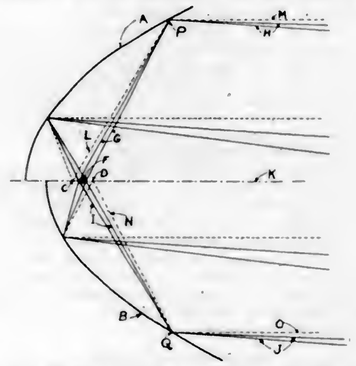
5. A packing, comprising a resilient open ring including an outer portion having an oblique wall on one side, and an inner portion extending from the side of said outer portion and having an oblique wall on its edge, a second ring having an oblique wall adapted to coöperate with the oblique wall on the edge of the inner portion of said first-named ring, a portion on said second ring overlapping the inner portion on said first-named ring, an oblique wall on the overlapping portion of said second ring adapted to coöperate with the oblique wall at the side of said first-named ring, and an abutment carried by one of said rings for limiting relative movement of said rings.

[Claims 6 and 7 not printed in the Gazette.]

1,136,507. HEADLIGHT. EMERSON L. CLARK, Lakewood, Ohio. Filed Oct. 16, 1914. Serial No. 866,961. (Cl. 240—41.)

1. In a headlight the combination of two reflecting surfaces consisting of approximate half paraboloids of revolution set with their axes approximately coincident but with the focus of one in advance of the focus of the other.

2. In a headlight the combination of two reflecting surfaces, each having a region of concentration for light parallel to its axis, set with their axes approximately coincident but with the region of concentration of one set in advance of the region of concentration of the other.



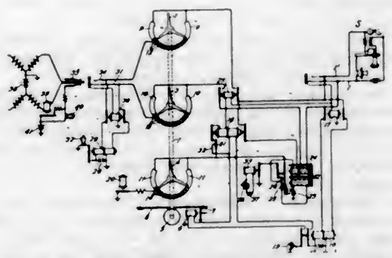
3. In a headlight the combination of two reflecting surfaces, each having a region of concentration for light parallel to its axis, set with their axes approximately coincident but with the region of concentration of one set in advance of the region of concentration of the other, and a light source placed between said regions of concentration.

4. In a headlight the combination of two reflecting surfaces, each having a region of concentration for light parallel to its axis, set with their axes approximately coincident, and occupying different angular space around the axis, and with the region of concentration of one displaced along the axis with respect to the region of concentration of the other reflecting surface.

5. In a headlight, a reflector provided with two angularly displaced reflecting portions having foci which are located approximately on the axis of the reflector and are displaced one in advance of the other.

[Claims 6 to 9 not printed in the Gazette.]

1,136,508. CALL-DISTRIBUTING SYSTEM. HENRY PETER CLAUSEN, Mount Vernon, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Feb. 10, 1914. Serial No. 817,826. (Cl. 179—27.)



1. In a telephone system, an incoming line, outgoing lines, a switch for automatically connecting the incoming line to an idle outgoing line when a call is originated upon said incoming line, and means whereby the subsequent alteration of the incoming line will be without effect on said switch, except at definite separate intervals.

2. In a telephone system, an incoming line, outgoing lines, a switch, means operative upon closing a bridge across the conductors of the incoming line for causing said switch to automatically connect said line to an idle outgoing line, a relay, a circuit for said relay, an interrupter for intermittently breaking said circuit, and means whereby the opening of the bridge across the conductors of said incoming line will be without effect on said switch unless the open period overlaps the period of interruption of the circuit through the winding of said relay.

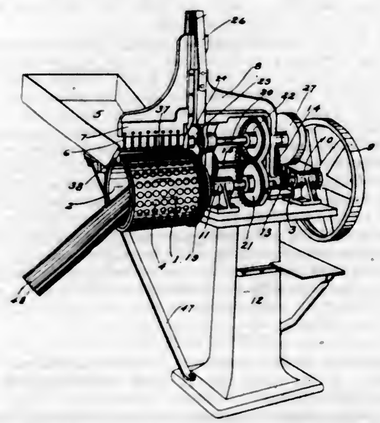
3. In a telephone system, an incoming line, outgoing lines, a switch, means for causing said switch to automatically connect the incoming line to an idle outgoing line upon the closure of a bridge across the conductors of said incoming line, a relay for controlling the release of said switch, a winding on said relay, an interrupter for intermittently breaking the circuit of said winding, and means whereby the interruption of the bridge across the conductors of said incoming line will be ineffective to cause the release of said switch, except when such interruption occurs simultaneously with the interruption of the circuit through the winding of said relay.

4. In a telephone system, an exchange, an incoming line extending thereto, a switch at which said line terminates, trunks extending from said switch, means for causing said switch to select an idle trunk and connect said line thereto upon closing a bridge across the conductors of said line, means for extending said trunk, a bridge established across the conductors of said trunk thereby, an interrupter, and means whereby said switch may be released only if both of said bridges are open, when said interrupter functions.

5. In a telephone system, an exchange, an incoming line, outgoing lines, a switch at said exchange, means for causing said switch to automatically connect said incoming line to an idle outgoing line upon the closure of a bridge across the conductors of said incoming line, a relay controlling the release of said switch, a circuit for said relay, an interrupter for intermittently breaking said circuit, and means whereby release of said switch can be effected only by simultaneously opening the bridge across the conductors of said incoming line and the circuit through said relay.

[Claims 6 to 15 not printed in the Gazette.]

1,136,509. FRUIT-PITTING MACHINE. OLIVER COLBORNE and DENNIS W. SMITH, Chicago, Ill., assignors to Colborne Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 23, 1914. Serial No. 826,607. (Cl. 146—6.)



1. In a fruit pitting machine, the combination of a traveling carrier adapted for continuous movement in one direction and having a series of fruit cells arranged in the direction of travel thereof, a pitting plunger adapted to remove pits from the fruit in said cells, and mechanism for reciprocating said plunger into and out of said cells, and for causing said plunger to travel with the carrier during each pitting operation.

2. In a fruit pitting machine, the combination of a traveling carrier adapted for continuous movement in one direction and having a series of fruit cells arranged in the direction of travel thereof, a pitting plunger adapted to remove pits from the fruit in said cells, and mechanism for reciprocating said plunger into and out of said cells, and for causing said plunger to also travel forward and back in the direction of travel of the carrier so as to register with successive cells during successive pitting operations.

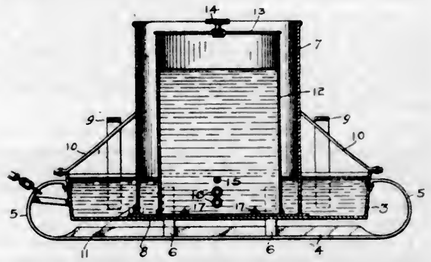
3. In a fruit pitting machine, the combination of a movable carrier adapted for continuous movement in one direction and having a series of apertures therein extending in one direction of movement of said carrier, a bottom member adapted to support fruit in said apertures, a pitting plunger adapted to drive a pit through the fruit and said bottom member, and mechanism for reciprocating said plunger and for causing said plunger to travel with said carrier during the pitting operation.

4. In a fruit pitting machine, the combination of a rotatable carrier having a peripheral series of apertures therein for supporting fruit, a pitting plunger movable into and out of said apertures for removing the pits from the fruit contained therein, and means supporting said plunger and adapted to cause the same to travel with said carrier during the pitting operation.

5. In a fruit pitting machine, the combination of a cylindrical carrier having in its periphery a series of rows of apertures each adapted for supporting fruit, a cross-head mounted above said carrier, a series of pitting plungers carried by said cross-head and arranged to register with said rows of apertures, mechanism for continuously rotating said carrier and for simultaneously oscillating said cross-head angularly about the axis of said carrier, whereby said pitting plungers travel in fixed angular relation with said carrier during each pitting operation, and are swung back to register with a succeeding row of apertures between successive operations of said cross-heads.

[Claims 6 to 13 not printed in the Gazette.]

1,136,510. SANITARY STOCK-TANK. WINFIELD S. CRUM, Wilkinson, Ind. Filed Dec. 6, 1913. Serial No. 805,147. (Cl. 119—77.)

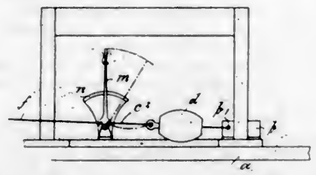


1. In a stock tank, a trough, a tank with a closed bottom and open top seated in said trough, said tank having a side opening, a reservoir-tank closed at the top and open at its lower end located within the first tank, said reservoir-tank having a water discharge-opening through its side into the first tank.

2. In a stock tank, a trough, a tank with a closed bottom and open top seated in said trough, said tank having a side opening, a reservoir-tank closed at the top and open at its lower end located within the first tank, said reservoir-tank having a vertical series of water discharge-openings through its side near its lower end into said first tank, and means for closing one or more of the openings of said series.

3. In a stock tank, a trough, a tank with a closed bottom and open top seated in said trough, said tank having a side opening, brace-rods connecting said tank with the walls of the trough to hold the tank in a fixed position of the trough, a reservoir-tank closed at the top and open at its lower end located within the first tank, said reservoir-tank having a water discharge-opening through its side into the first tank and means for varying the water level in the trough.

1,136,511. TRACTIVE-FORCE-MEASURING APPLIANCE. PAUL DAIMLER, Cannstatt, Germany, assignor to the Firm of Daimler-Motoren-Gesellschaft, Untertürkheim, Germany. Filed Nov. 17, 1913. Serial No. 801,508. (Cl. 73—15.)



1. In an appliance for measuring the tractive force of traction motors, the combination with a tractor and trailer having a dynamometer interposed between them and a direct connection between said dynamometer and trailer, of an adjustable member, a connection between said member and the tractor, a flexible connection between said member and the dynamometer and adjustable means upon the trailer for temporarily securing said member in a position in which said flexible connection is slackened.

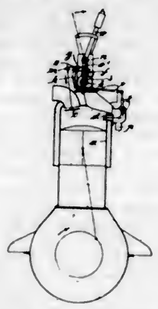
2. In an appliance for measuring the tractive force of traction motors, the combination with a tractor and trailer having a dynamometer interposed between them and a direct connection between said dynamometer and trailer; of a movable member, a connection between said member and the tractor, a flexible connection between said member and the dynamometer, a lever pivoted upon said trailer and adapted to move said member, and means for securing said lever in a position in which said member is so situated that said flexible connection is slackened.

3. An appliance for measuring the tractive force of traction motors comprising in combination a loaded trailer, a connection between said trailer and the tractor, a dynamometer in said connection, a lever pivoted to said trailer and connected to said tractor, a flexible connection between said lever and dynamometer, and means for securing said lever in a position in which said flexible connection is slackened.

1,136,512. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. PAUL DAIMLER, Cannstatt, and MAX FRIZ, Untertürkheim, Germany, assignors to Daimler-Motoren-Gesellschaft, Untertürkheim, Germany. Filed May 4, 1914. Serial No. 836,367. (Cl. 123—182.)

1. In combination with a multi-cylinder internal combustion engine having admission and exhaust valves for each cylinder, a starting device comprising an eduction valve for each cylinder through which the gas residues may be withdrawn, and mechanism for simultaneously opening the admission and eduction valves of those cylinders whose exhaust valves are closed at the moment of starting the engine and for closing the eduction valve of the cylinder whose exhaust valve is open at that moment.

2. In combination with an internal combustion engine having admission and exhaust valves operated from admission and exhaust cams on a cam shaft, a starting device comprising an eduction valve, and a starting cam on said cam shaft so disposed relatively to said admission and eduction valves are opened when the exhaust valve is closed to enable the gas residues in the cylinders to be withdrawn and enable fresh gas mixture to enter the cylinder.



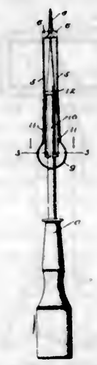
3. In combination with an internal combustion engine having admission and exhaust valves operated from admission and exhaust cams on a cam shaft, a starting device comprising an eduction valve, a starting cam on said cam shaft, valve mechanism operated by said starting cam to open said admission and eduction valves, said cam being so disposed relatively to said admission and exhaust cams that the admission and eduction valves are opened when the exhaust valve is closed to enable the gas residues in the cylinders to be withdrawn and enable fresh gas mixture to enter the cylinder and means for putting said valve mechanism into or out of coöperation with said starting cam.

4. In combination with an internal combustion engine having admission and exhaust valves, a cam shaft and admission and exhaust valves on said cam shaft adapted to operate said admission and exhaust valves, a starting device comprising a starting cam on said cam shaft, a pivoted lever adapted to be operated by said starting cam, an eduction valve in the cylinder operated by said lever, an admission valve lever pivoted coaxially with the first mentioned lever and adapted to be operated by said admission cam and to operate said admission valve, said starting cam being so disposed relatively to said admission and exhaust cams and said co-axially pivoted levers being so interconnected that the admission and eduction valves may be opened by said starting cam when the exhaust valve is closed while said admission cam may open said admission valve without opening said eduction valve, and means for putting said first mentioned lever into and out of cooperation with said starting cam.

5. In combination with an internal combustion engine having admission and exhaust valves, a cam shaft, admission, exhaust and starting cams on said cam shaft, mechanism for operating said exhaust valve from said exhaust cam, co-axially pivoted levers adapted to be operated by said starting and admission cams respectively, an eduction valve in said cylinder, mechanism for connecting said admission valve with the lever operated by the admission cam, mechanism for connecting said eduction valve with the other lever, interlocking hubs on said levers admitting of slight play so that the lever connected with the admission valve may be operated without operating the other lever while both levers may be operated by said starting cam, and a device for putting the lever connected with the eduction valve into or out of cooperation with said starting cam.

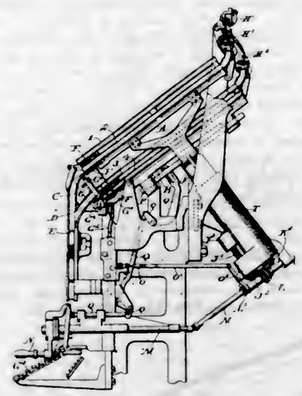
1,136,513. SCREW-HOLDER. JOSEPH A. DEMERS, New York, N. Y. Filed Apr. 12, 1913. Serial No. 760,719. (Cl. 145—52.)

A screw holder comprising a resilient member having an enlarged arcuate intermediate portion with jaws extending therefrom in the same general direction, a guide located between and fixed to the jaws at points between their ends, and resilient jaws mounted at the inner sides of the first mentioned jaws at points between the guide and the enlarged arcuate intermediate portion of the said member and having inwardly disposed ends located within the said enlarged arcuate intermediate portion of the said



member and disposed radially with relation thereto and normally meeting each other approximately at the center thereof.

1,136,514. TYPOGRAPHICAL MACHINE. NORMAN DODGE, East Orange, N. J., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 5, 1913. Serial No. 777,572. (Cl. 199—7.)



1. In a typographical machine, the combination of two sets of magazines, each set comprising a plurality of magazines and being movable independently of the other to effect a change from one magazine to another as to operative position; whereby different pairs of magazines may be selected for conjoint use.

2. In a typographical machine, the combination of a plurality of magazines arranged in series and divided into sets, and supporting frames, one for each set, the said frames being movable independently of each other to effect a change from one magazine to another.

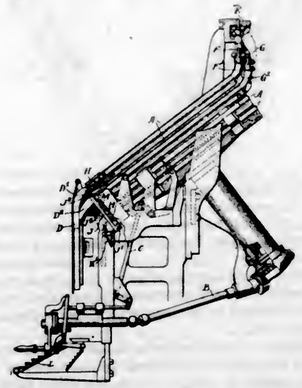
3. In a typographical machine, the combination of a plurality of sets of magazines, and means for moving said sets, one independently of another, to effect a change from one magazine to another.

4. In a typographical machine, the combination of a plurality of sets of magazines, a supporting frame for each set, and means for moving said frames independently of each other to effect a change from one magazine to another.

5. In a typographical machine, the combination of a plurality of magazines divided into independent sets one overlying another, and means for moving said sets bodily with reference to each other to effect a change from one magazine to another.

[Claims 6 to 29 not printed in the Gazette.]

1,136,515. TYPOGRAPHICAL MACHINE. PHILIP T. DODGE, New York, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 29, 1913. Serial No. 798,004. (Cl. 199—7.)



1. In a typographical machine, the combination of three or more superposed magazines, and two adjacent distributers therefor, the said parts being arranged so that any selected pair of adjoining magazines may be brought into operative relation to the two distributers.

2. In a typographical machine, the combination of three or more superposed magazines, and two adjacent assembler receiving devices therefor, the said parts being arranged so that any selected pair of adjoining magazines may be brought into operative relation to the two assembler receiving devices.

3. In a typographical machine, the combination of two fixed adjacent distributers, and three or more superposed magazines movably mounted so that any selected pair of adjoining magazines may be brought into operative relation to the two distributers.

4. In a typographical machine, the combination of two fixed assembler receiving devices, and three or more superposed magazines movably mounted so that any selected pair of adjoining magazines may be brought into operative relation to the two assembler receiving devices.

5. In a typographical machine, the combination of two fixed adjacent distributers, and three or more magazines movable as a whole relatively to the distributers, the said magazines being arranged so that any adjoining pair may be brought into operative relation to the two distributers.

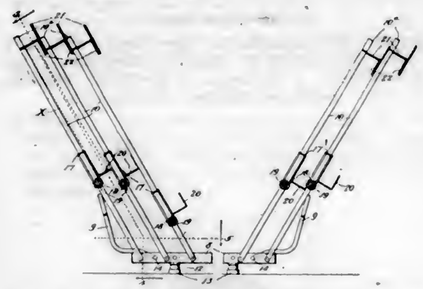
[Claims 6 to 17 not printed in the Gazette.]

1,136,516. DISPLAY-RACK. THOMAS W. DOWNING, Chicago, Ill. Filed Jan. 13, 1914. Serial No. 811,786. (Cl. 40—102.)

1. A display-rack comprising a base having heads at its opposite ends, and holding-frames hingedly connected at intervals with the base-sides, the holding-frames having brackets on their upper ends and cross-members adjustably supported on their legs and provided with seats for the articles to be displayed, said brackets maintaining the holding frames in spaced relation at all times.

2. A display-rack comprising an oblong base-frame, heads hingedly connected with said frame to project over its ends, and holding-frames hingedly connected at intervals with the base-frame sides, the holding-frames having brackets on their upper ends and cross-frames adjustably supported on their legs and provided with seats for the

articles to be displayed, said brackets and cross frames also coacting with the adjacent holding frame to prevent damage to the articles carried thereby.



3. A display-rack comprising an oblong base having heads at its opposite ends, and holding-frames hingedly connected at intervals with the base-sides, the holding-frames having upper T-shaped brackets and lower cross-frames adjustably supported on the holding-frame legs and provided with seating fingers for the articles to be displayed, said brackets and cross frames also maintaining said holding frames in substantially parallel relation in all positions of rest.

4. A display-rack comprising an oblong base-frame having holes at intervals in its sides, heads hingedly connected with said frame to project over its ends, and holding-frames having buttons on their legs to enter said holes and hingedly connect the holding-frames with the base-frame, the holding-frames having brackets on their upper ends and lower cross-frames slidingly supported on the holding-frame legs and provided with seats for the articles to be displayed and with means for fastening the cross-frames in adjusted position on the legs.

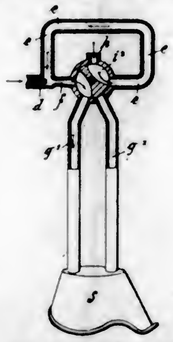
5. A display-rack comprising an oblong base-frame, heads hingedly connected with said frame to project over its ends, and holding-frames hingedly connected at intervals with the base-frame sides, the holding-frames having brackets on their upper ends, cross-frames having end-pieces at which they are slidingly supported on the legs of the holding-frames and provided with set-screw bearings and set-screws for fastening the cross-frames in adjusted position, and seating-fingers on the cross-frames, said brackets being mounted to engage the adjacent holding frames and prevent damage to the article carried thereby.

1,136,517. ARTIFICIAL-BREATHING APPARATUS. JOHANN HEINRICH DRÄGER, Lübeck, Germany, assignor to the Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Original application filed Oct. 1, 1908, Serial No. 455,718. Divided and this application filed Nov. 5, 1912. Serial No. 729,673. (Cl. 128—13.)

1. In an apparatus for generating artificial respiration, a pipe forming a complete circuit and having openings therein, means to supply air under pressure to said pipe in the direction of said openings, means adapted to direct said air out of the pipe through one of said openings and thereby create a suction through the other opening.

2. In an apparatus for generating artificial respiration, a pipe forming a complete circuit and having openings therein, means to supply air under pressure to said pipe in the direction of said openings, means adapted to direct said air out of the pipe through one of said openings and thereby create a suction through the other opening, and a branch pipe communicating with one of said openings and adapted to be connected with the mouth of a human being for the purpose specified.

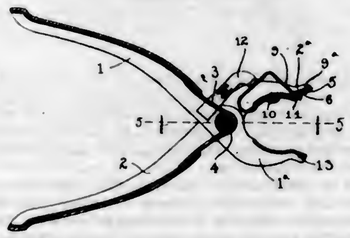
3. In an apparatus for generating artificial respiration, a pipe forming a complete circuit and having branches therein, means to supply air under pressure to said pipe in the direction of said branches, and a valve arranged to simultaneously connect one portion of the pipe with one of said branches and the other portion of the pipe with the other branch, and thereby create a pressure of air in one branch and a suction in the other branch.



4. In an apparatus for generating artificial respiration, a pipe forming a complete circuit, a branch in the pipe opening into the air, a second branch adapted to be connected with the mouth of a human being, a nozzle in said pipe for supplying compressed air thereto in the direction of said branches, a valve in said pipe adapted to simultaneously open one branch and close the other to the air under pressure, whereby the escape of air from the pipe into one branch will create a suction in the other branch.

5. In an apparatus for generating artificial respiration means for supplying gas under pressure a circulation pipe in connection with said means, a nozzle in said pipe, centrally arranged within the pipe and adapted to cause a pressure in front and a sucking action in the pipe behind the front part of said nozzle, a valve in the pipe at a distance from the nozzle, a branch in the pipe opening into the air and controlled by the valve two more branches in the pipe so controlled by the valve that one of these two branches is connected with the pressure part of the pipe or the second of these two branches is connected with the suction part of the pipe, the other of the two branches being closed at that time.

1,136,518. HAND BUTTON-ATTACHING TOOL. WILLIAM E. ELLIOTT and DWIGHT S. COLE, Grand Rapids, Mich.; said Cole assignor to said Elliott. Filed May 9, 1913. Serial No. 766,555. (Cl. 218—24.)



1. A button attaching tool, comprising a pivoted jaw having an opening therethrough near its pivot to receive a spring and a slot in the end to receive the eye of a button, and a spring having a slot in the end registering with the slot in the jaw and extending through said opening in a curve and secured to the inner surface of the jaw, said spring also being freely movable in the opening, whereby the end of the spring moves substantially vertically to the end of the jaw.

2. A button setting tool, comprising a channeled sheet metal pivoted jaw having an opening near the pivot and provided at its outer end with a longitudinal slot to receive the eye of a button, and a spring above said jaw at one end and having a slot registering with the slot in the jaw, said spring also extending in a curve through the said opening and thence on the inner surface of the jaw and secured thereto, the inner end of the spring also extending to a position opposite the slot in the jaw to engage and guide a staple.

3. A button attaching tool, comprising a pivoted and channeled jaw having an opening near the pivot and adapted at its outer end to receive a button and staple and also provided near its pivot with an opening, and a spring bent to extend through said opening and embracing the jaw, one end thereof being adapted to engage and lift a button away from the jaw and the other end secured to the under side of the jaw and adapted to engage and guide a staple.

1,136,519. MUFFLE FOR THE DISTILLATION OF ZINC. MAX ENGELS, Westend, near Berlin, Germany. Filed Feb. 11, 1915. Serial No. 7,653. (Cl. 106—10.)

1. A muffle for the distillation of zinc consisting of clay and fire-proof material containing from 1 to 10% of the total mass of the muffle in zirconia.

2. A muffle for the distillation of zinc consisting of about 33⅓% of clay, 1 to 10% of zirconia and with the remainder substantially of fire-clay.

1,136,520. DIAL AND CASE OF CLOCKS. KIUHICHI FUKAMI, Kojimachiku, Tokyo, Japan. Filed Aug. 26, 1913. Serial No. 786,802. (Cl. 58—56.)



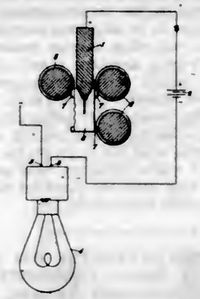
1. A dial and case for clocks consisting of a plate having a concave front face and provided with a flat dial receiving central portion having a central perforation for the passage of a shaft, and an integral annular flange projecting from the rear face of the plate concentric with and spaced from the central perforation, said flange and flat central portion forming a rear recess adapted to receive a clock movement.

2. A dial and case for clocks consisting of a plate provided with a rearwardly projecting flange and a supporting device composed of two parts hinged together and adapted to be arranged at different angles to each other, one of the members being provided with spaced projecting pivots engaging the flange of the plate, and the other member being provided at its free end with a projecting portion adapted to be engaged with the bottom edge of the plate.

3. A dial and case for clocks consisting of a plate provided with a rearwardly projecting flange forming a recess, and a supporting device including an approximately U-shaped supporting member having spaced sides and a transverse connecting portion, the terminals of the sides being provided with projecting pivots engaged with the flange of the plate and a bottom supporting member composed of spaced sides having eyes receiving said transverse portion and a connecting portion bent upwardly and adapted to be engaged with the lower edge of the plate.

1,136,521. TYPOGRAPHICAL COMPOSING-MACHINE. MAX J. GEEL, Vienna, Austria-Hungary, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 23, 1915. Serial No. 4,072. (Cl. 199—7.)

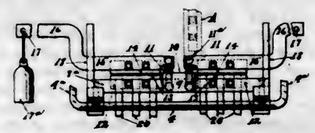
1. In a typographical composing machine, the combination of a distributing mechanism for the type or matrices, and an electrically operated signal controlled automatically by the type or matrices undergoing distribution.



2. In a typographical composing machine, the combination with a distributing mechanism of electric-current conductors forming a normally open circuit adapted to be closed by a matrix passing through the distributing mechanism, and an indicator in the said circuit operated when such closure is effected.

3. In a typographical composing machine, the combination of an electric-current generator, a distributer bar insulated from the machine frame and connected with one pole of the said generator, distributer screws in electrical connection with the machine frame, and an electric lamp having its two terminals respectively connected to the machine frame and the second pole of the said generator.

1,136,522. SCRAPER FOR GALVANIZING-POTS. JOHN A. HANLON, Pittsburgh, Pa., assignor to Hanlon-Gregory Galvanizing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 18, 1912. Serial No. 721,079. (Cl. 91—59.4.)



1. Wiping apparatus for use in galvanizing strips, comprising a frame, a fixed wiping member secured therein and adapted to wipe over one surface of the strip, a coöperating wiping member for the other surface of the strip and movable toward and from said fixed wiping member, a lever arranged to swing in a vertical plane and carrying said movable wiping member, and a threaded pivot member carried by the frame with its axis vertical and supporting said lever, said pivot member being threaded into the frame and adjustable vertically therein, whereby said wiping members may be adjusted relatively to each other.

2. Apparatus for use in connection with galvanizing pots, comprising a frame adapted to be supported over the pot and carrying a fixed wiping member, a vertically movable wiping member coöperating with said fixed wiping member, a pivot member threaded into said frame on a vertical axis and adjustable vertically therein, and a lever pivotally connected to said pivot member on a horizontal axis and carrying said movable wiping member.

3. Apparatus for use in connection with galvanizing pots, comprising a frame having side members each terminating at one end in a hook and at its opposite end forming a handle, cross bars connecting said side frame members, fixed wiping members carried by said cross bars, and movable wiping members pivotally connected to said cross bars and coöperating with said fixed wiping members.

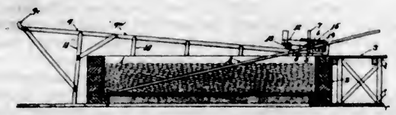
4. Wiping apparatus for use in galvanizing strips, comprising a portable frame adapted to be supported over the galvanizing tank, cross members on said frame spaced apart horizontally and each carrying a fixed wiping member, and levers pivoted in said frame and carrying co-

operating wiping members, said levers being independently adjustable in a vertical direction to vary the distance between the coöperating wiping members of each pair.

5. Wiping apparatus for use in galvanizing strips, comprising a frame adapted to be supported over the galvanizing tank, said frame including a cross member carrying a plurality of fixed wiping members, a pair of levers pivoted at or near the middle of said frame and extending in opposite directions laterally thereof, each lever carrying a movable wiping member for coöperating with one of said fixed wiping members, and threaded members for independently adjusting said levers vertically to vary the distance between said wiping members, said levers extending in one direction only from the threaded members.

[Claim 6 not printed in the Gazette.]

1,136,523. TRANSFER APPARATUS FOR GALVANIZING-POTS. JOHN A. HANLON, Pittsburgh, Pa., assignor to Hanlon-Gregory Galvanizing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 3, 1913. Serial No. 745,912. (Cl. 91—12.6.)



1. Apparatus for coating strips or bars, comprising a pot in which the strips or bars to be coated are laid, said pot being shorter than said strips or bars, a track extending from a point near one end of said pot to a point beyond the other end thereof, and a carriage on said track adapted to support and carry one end of a strip or bar while the same is moved from one end of the pot to the other for coating its other end.

2. Apparatus for coating strips or bars, comprising a pot shorter than the strips or bars to be coated, a track longer than said pot and extending lengthwise thereof, a wiping or scraping device at one end of said pot, a carriage normally lying on said track at said end of the pot and adapted to support and carry one end of the strip or bar and to be moved along said track to transfer a strip or bar to the other end of said pot, said track being so constructed and arranged that the carriage automatically returns to normal position when the strip or bar is removed therefrom.

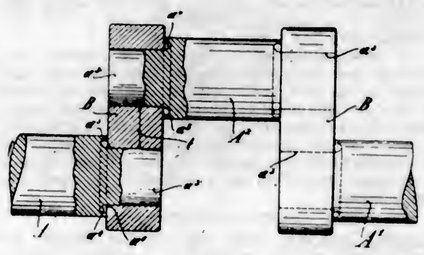
3. Apparatus for coating strips or bars, comprising a pot shorter than the strips or bars to be coated, an inclined track extending lengthwise of said pot with its lower end near one end of said pot and its upper end at a point beyond the other end thereof, and a carriage normally lying at the lower end of said track and adapted to support and carry one end of a strip or bar and to be moved upwardly along said track to transfer a strip or bar to the other end of said pot.

4. Apparatus for coating strips or bars, comprising a pot shorter than the strips or bars to be coated, an inclined track extending lengthwise of said pot with its lower end near one end of said pot and its upper end at a point beyond the other end thereof, and a carriage normally supported at the lower end of said track and adapted to support and carry one end of a strip or bar and to be moved upwardly along said track to transfer a strip or bar from one end to the other of said pot, said carriage having a perforated bottom for draining off the excess material.

5. Apparatus for coating strips or bars, comprising a pot shorter than the strips or bars to be coated, an inclined track extending lengthwise of said pot with its lower end near one end of said pot and its upper end at a point beyond the other end thereof, a carriage normally supported at the lower end of said track and adapted to support and carry one end of a strip or bar and to be moved upwardly along said track to transfer a strip or bar from one end to the other of said pot, and a support in said carriage for the strips or bar.

[Claims 6 to 9 not printed in the Gazette.]

1,136,524. CRANK-PIN CONNECTION. RUDOLF HARTWIG, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Apr. 21, 1910. Serial No. 556,789. (Cl. 74—38.)



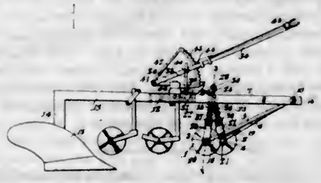
1. A pin connection comprising a pin and its carrying member integral therewith, and a pin-receiving member having a straight bore in which the pin fits; said pin carrying member having a shoulder which seats against the pin receiving member and being provided with an annular undercut, which lies outside of the pin receiving member and within the pin carrying member.

2. A pin connection comprising a pin, a carrying member integral therewith and a pin receiving member; said carrying member having a seating shoulder which abuts against the pin receiving member; said pin carrying member being constructed with an annular recess with a suitable fillet lying outside of the pin receiving member and within the pin carrying member.

3. A pin connection comprising a pin receiving member having a bore of uniform diameter extending the full width of the member and constructed to contact with the pin throughout the length of the bore; a pin with its integral carrying member, said carrying member being constructed with a face through which it seats against the face of the pin receiving member around the pin; said seating face being constructed with an annular recess having a suitable fillet leaving a portion of the seating face radially outside of said recess, in the form of an annular extension from said carrying member.

4. A crank shaft comprising a shaft in sections coaxially arranged and provided with pins, arms having straight cylindrical bores in which the pins fit, and pins having a common carrying member connecting said arms, said arms having straight cylindrical bores in which said last named pins fit; said shaft sections and pin carrying member having shoulders which seat against said arms, an annular undercut with suitable fillet being provided around each pin in said shoulder, said undercut being seated entirely outside of said arms and within said shoulders; whereby on shrinking said pin and arms together a perfectly secure connection is obtained of great strength and small dimensions.

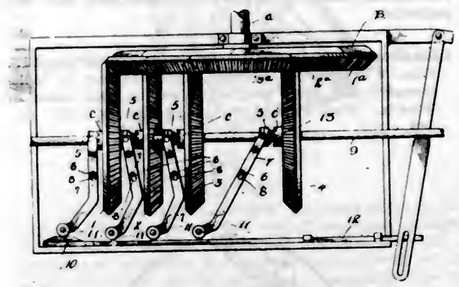
1,136,525. COLTER ATTACHMENT FOR GANG-PLOWS. JOHN HEITBRINK, Minster, Ohio. Filed July 6, 1914. Serial No. 849,198. (Cl. 97—43.)



1. A colter attachment of the class described including independently movable links provided at their front ends and having forked rear portions, colters mounted in the forked portions of the links, rods having forked portions straddling the colters and connected with the links, a rock shaft provided with arms connected with the upper ends of the rods, and means for partially rotating the rock shaft.

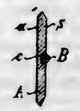
2. The combination with a beam having spaced side bars, a front pivot connecting the side bars, a transverse rock shaft also connecting the said side bars and arranged in rear of the pivot, said rock shaft being provided with spaced forwardly extending arms and having a rearwardly projecting arm, inclined links hung from the pivot and extending downwardly and rearwardly therefrom, colters carried by the rear ends of the links, rods connected with the links and with the front arms of the rock shaft, a bracket mounted on the beam in rear of the rock shaft and having a notched segment, and an adjusting lever fulcrumed on the bracket and connected with the rear arm of the rock shaft.

1,136,526. AUTOMOBILE TRANSMISSION. WARE A. HENDERSON, Randsburg, Cal. Filed Dec. 27, 1912. Serial No. 738,869. (Cl. 74—59.)



A transmission gearing comprising a multiple gear having concentric toothed portions upon one of its sides in substantially the same plane, a shaft arranged parallel and in line with the axis of the multiple gear, a plurality of gear wheels of like diameter, mounted loosely upon the shaft and in mesh with the respective toothed portions of the multiple gear, each of such gear wheels being provided upon one side with a clutch member, complemental clutch members, one for each of the gear wheels, splined upon the shaft and adapted to engage with the respective clutch members of the gear wheels, a plurality of levers arranged between the gear wheels and mounted between their ends, one end of each of the levers engaging a clutch member, and a longitudinally movable actuator having a projecting part to successively engage with the clutch operating levers to throw the clutches into operative relation.

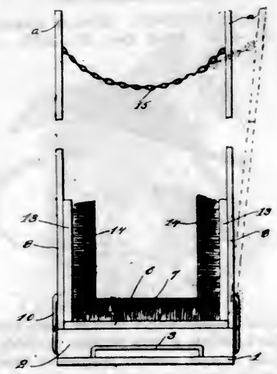
1,136,527. THERMOMETER. OTTO HERRMANN, Manebach, Germany. Filed June 1, 1914. Serial No. 842,180. (Cl. 73—52.)



1. In a thermometer, the combination of a glass plate graduated on the rear side and a capillary tube having a bulb mounted thereon, said plate having a groove in the rear side thereof in which the tube is located, the bottom of the groove being polished and curved toward the tube.

2. A thermometer comprising in combination two glass plates each having a groove in the rear thereof placed back to back, and a capillary tube having a bulb in the grooves between the plates, the bottom of each groove being polished, and the rear of one of the plates being graduated.

1,136,528. SHOE-CLEANER. PRATT H. HIGLEY, Gillespieville, Ohio, assignor of one-half to Charles E. Stewart, Gillespieville, Ohio. Filed Apr. 23, 1914. Serial No. 833,971. (Cl. 15—2.)



A cleaner for boots and shoes comprising a base, a supporting block connected to the base, a brush connected to the supporting block with its bristles extending upwardly, handles hinged at the opposite sides of the base and extending up within reach of the operator, means for limiting action of the hinges, brushes secured to the inner sides of said handles with their bristles extending inwardly, and a chain connected to the upper ends of said handles for limiting the outward movement thereof.

1,136,529. NURSING-BOTTLE HOLDER. JOSEPHINE L. R. HOPWOOD, Primos, Pa. Filed Sept. 19, 1912. Serial No. 721,181. (Cl. 215—116.)

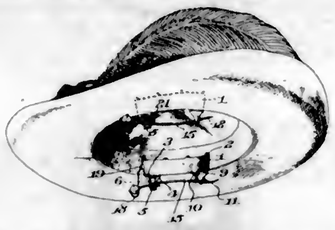


1. In combination, a strap adapted to be passed around opposite bars of a crib, and adjustable means for connecting the ends of the strap so that it can be slid or moved lengthwise back and forth; a strip secured at one end only to one side of the strap, and means for adjustably connecting the free end of the strip to the strap to form an adjustable retainer for a bottle, substantially as described.

2. A nursing bottle holder comprising a strap of suitable material adapted to be looped around opposite pieces of a crib or cradle and means for detachably attaching the ends of the strap so that it can be slid or moved length-

wise back and forth, an elastic strip attached to one side of the band; and a buckle attached to the strap adapted to engage the other end of the strip to cause it to retain a bottle, substantially as described.

1,136,530. HAT-FASTENER. MINNIE HUEMPFNER, San Marcial, N. Mex. Filed Dec. 13, 1913. Serial No. 806,566. (Cl. 132—25.)



A hat fastener comprising a flexible plate adapted to be secured to the bandeau, a loop member movably supported from the plate, a hook member supported from the plate and alined with the loop member and a pin extending through the loop member and terminally connected with the hook member.

1,136,531. LINK FOR LIGHT-FIXTURES. WILLIAM C. HUNT, Toronto, Ontario, Canada. Filed Apr. 9, 1914. Serial No. 830,761. (Cl. 240—85.)

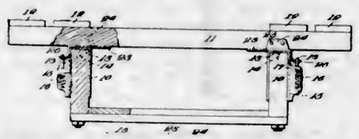


1. A sheet metal link comprising an internally threaded boss, lateral members extending from said boss, tongues upon the ends of said lateral members, the ends of said members and tongues meeting, substantially as described.

2. A sheet metal link comprising an internally threaded boss, lateral members extending from said boss, tongues upon the ends of said lateral members, the ends of said members and tongues meeting to form a flush joint at their juncture, substantially as described.

3. A sheet metal link comprising an internally threaded boss, lateral members extending in diametrically opposite direction from the lowermost portion of said boss, tongues upon the ends of said lateral members, the ends of said members and tongues meeting, substantially as described.

1,136,532. VEHICLE BODY-FASTENER. EVERETT R. JACKSON, Hesper, N. D. Filed Sept. 3, 1913. Serial No. 787,907. (Cl. 21—74.)



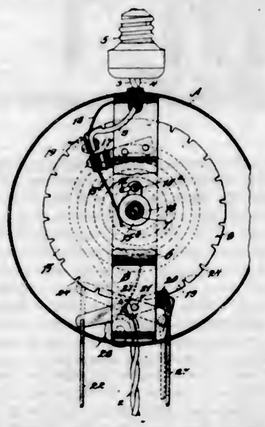
1. A device of the class described comprising a member adapted to be attached to a support and including spaced ears, a loop pivoted by its terminals in said ears and with one terminal extended into a spring and connected to one of said ears, and another member adapted to be attached to a support and including a terminal hook adapted to engage said loop.

2. A device of the class described comprising a member adapted to be attached to a support and including spaced ears, one of said ears having an inwardly directed lip, a loop pivoted by its terminals in said ears and with one terminal extended into a spring and connected to one of said ears, said loop adapted to be engaged by said lip to hold the same in open position.

3. A device of the class described comprising coacting members adapted to be attached respectively to a stationary and a movable portion of a vehicle, one of said members having a projection and the other member having an inwardly directed lip, a holding member including a loop pivoted at its ends to the other member and extending into the path of said projection and adapted to be engaged by said lip when in one position, and a spring associated with said loop and operating to hold the same yieldably in engagement with the projection.

4. A device of the class described comprising coacting members adapted to be attached respectively to a stationary and a movable portion of a vehicle, one of said members having lateral ears spaced apart and the other member having a projection, a holding device including a loop extending between said ears and pivoted therein and extending into the path of said projection, and means for maintaining said loop in yieldable engagement with said projection.

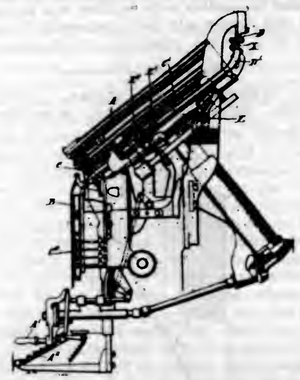
1,136,533. WINDING DEVICE FOR DROP-LIGHTS. CARL V. JOHNSON, Goldfield, Nev., assignor to Indispensable Mfg. Co., Goldfield, Nev., a Corporation of Nevada. Filed June 1, 1914. Serial No. 842,276. (Cl. 248—10.)



1. In a device of the class described, the combination of a supporting frame, a drum pivotally mounted therein and including peripheral flanges, a cord conductor connected with the drum and adapted to wind in the space between the flanges, collector rings on the drum, brushes bearing on the collector rings, means for connecting the brushes with a current supply circuit, a brake device bearing on one of the flanges to retard the winding means of the drum, a locking device arranged to engage the other flange of the drum, means for holding the locking device in either locking or unlocking position, an operating means connected with the locking device, and a spring connected with the drum for turning the same in a direction to wind the cord conductor.

2. In a device of the class described, the combination of a supporting frame, a drum pivotally mounted therein and including peripheral flanges, a cord conductor connected with the drum and adapted to wind in the space between the flanges, collector rings on the drum, brushes bearing on the collector rings, means for connecting the brushes with a current supply circuit, a brake device bearing on one of the flanges to retard the winding means of the drum, a locking device arranged to engage the other flange of the drum, means for holding the locking device in either locking or unlocking position, an operating means connected with the said locking device, a spring connected with the drum for turning the same in a direction to wind the cord conductor, and guiding means arranged on the frame at a point directly under the axis of the drum to guide the conductor as it winds and unwinds.

1,136,534. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 10, 1913. Serial No. 789,026. (Cl. 199—7.)



1. In a typographical machine, the combination of distributing mechanism, and two sets of magazines arranged side by side in the machine, one of said sets comprising a plurality of magazines and movable independently of the other set to bring one or another of its magazines into operative relation to the distributing mechanism.

2. In a typographical machine, the combination of assembling mechanism, and two sets of magazines arranged side by side in the machine, one of said sets comprising a plurality of magazines and movable independently of the other set to bring one or another of its magazines into operative relation to the assembling mechanism.

3. In a typographical machine, the combination of distributing mechanism, a plurality of magazines shiftable to bring one or another thereof into operative relation to the distributing mechanism, and a fixed magazine having a series of matrix channels and arranged at the side of said plurality with its channels in constant operative relation to the distributing mechanism; whereby different pairs of magazines may be brought into use.

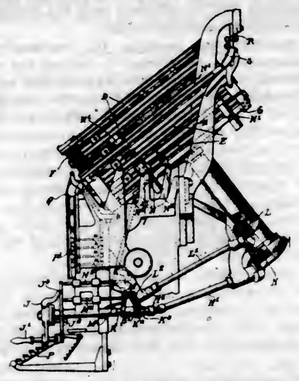
4. In a typographical machine, the combination of assembling mechanism, a plurality of magazines shiftable to bring one or another thereof into operative relation to the assembling mechanism, and a fixed magazine arranged at the side of said plurality and in constant operative relation to the assembling mechanism; whereby the different pairs of magazines may be brought into use.

5. In a typographical machine, the combination of distributing mechanism, and two sets of magazines arranged side by side in the machine, one of said sets comprising a plurality of magazines, and the other set a single magazine having a series of matrix channels and arranged with its channels in constant operative relation to the distributing mechanism, and means whereby the distributing mechanism may be connected to one or another of the magazines of the first set at will.

[Claims 6 to 17 not printed in the Gazette.]

1,136,535. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Oct. 23, 1913. Serial No. 796,745. (Cl. 199—7.)

1. In a typographical machine, the combination of distributing mechanism, and two series of magazines arranged side by side in the machine, each series being movable independently of the other to bring one or another of its magazines into operative relation to the distributing mechanism; whereby any magazine of one series may be used conjointly with any magazine of the other series.



2. In a typographical machine, the combination of assembling mechanism, and two series of magazines arranged side by side in the machine, each series being movable independently of the other to bring one or another of its magazines into operative relation to the assembling mechanism; whereby any magazine of one series may be used conjointly with any magazine of the other series.

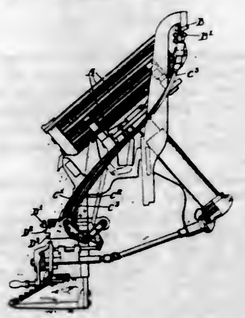
3. In a typographical machine, the combination of distributing mechanism, two series of magazines arranged side by side in the machine, each of said magazines having a series of matrix channels, and means whereby the distributing mechanism may be connected to any selected pair of magazines of the two series at will.

4. In a typographical machine, the combination of assembling mechanism, and two series of magazines arranged side by side in the machine, and means whereby the assembling mechanism may be connected to any selected pair of magazines of the two series at will.

5. In a typographical machine, the combination of two series of magazines in the machine, and a keyboard mechanism for each series adapted to be connected with one or another of the magazines therein; whereby any magazine of one series may be used simultaneously with any magazine of the other series.

[Claims 6 to 18 not printed in the Gazette.]

1,136,536. TYPOGRAPHICAL MACHINE. DAVID SHERWOOD KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 14, 1914. Serial No. 856,762. (Cl. 199—7.)



1. In a typographical machine, the combination of a channeled magazine to contain a regular font of matrices,

a distributer to deliver the matrices into one or another of the channels according to character, a plurality of receptacles wherein the sorts matrices are arranged irrespective of character and in an exposed condition to permit their ready withdrawal by hand, and means whereby the sorts matrices may be delivered from the distributer to all of said receptacles simultaneously.

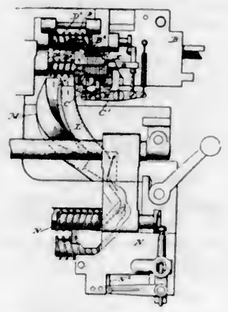
2. In a typographical machine, the combination of a channeled magazine, a distributer to deliver the matrices thereto, a plurality of receptacles wherein the sorts matrices are arranged, irrespective of character, and in an exposed condition to permit their ready withdrawal by hand, and a corresponding plurality of tubes or conductors leading from the distributer to the respective receptacles.

3. In a typographical machine, the combination of a plurality of magazines, a distributer common to all of said magazines, a plurality of sorts receptacles, one for each magazine, and means whereby the sorts matrices may be delivered from the distributer to all of said receptacles simultaneously.

4. In a typographical machine, the combination of a plurality of magazines, a distributer common to all of said magazines, a plurality of sorts receptacles, one for each magazine, and a corresponding plurality of tubes or conductors leading from the distributer to the respective receptacles.

5. In a typographical machine, the combination of a channeled magazine, a distributer having a series of distributing combinations, one for each channel of the magazine, a plurality of sorts receptacles, and a corresponding plurality of tubes or conductors leading from the distributer to the respective receptacles, the distributer having an additional distributing combination to deliver the sorts matrices into one of said tubes, and being arranged so as to allow other sorts matrices to drop from the end thereof into another of said tubes.

1,136,537. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 21, 1914. Serial No. 857,810. (Cl. 199—7.)



1. In a mechanism of the class described, the combination of distributing mechanism, means for delivering the type or matrices individually thereto, and means for causing the delivery of succeeding type or matrices irrespective of their thickness at shorter or longer intervals according to whether they are reversed or unreversed with relation to each other.

2. In a mechanism of the class described, the combination of distributing mechanism, means for delivering the type or matrices individually thereto, and means whereby succeeding type or matrices irrespective of their thickness will permit or prevent the delivery action of said means according to whether they are reversed or unreversed with relation to each other.

3. In a mechanism of the class described, the combination of a composed line of type or matrices, a device to detach the type or matrices individually from the line, and means to permit or prevent the detachment of succeeding type or matrices irrespective of their thickness at successive operations of said device according to whether they are reversed or unreversed with relation to each other.

4. In a mechanism of the class described, the combination of a composed line of type or matrices, a device to detach the type or matrices individually from the line, and means whereby a reversed type or matrix irrespective of its thickness will render said device inactive.

5. In a mechanism of the class described, the combination of a composed line of type or matrices, a device to detach the type or matrices individually from the line, and means whereby a type or matrix irrespective of its thickness reversed in position with relation to a preceding type or matrix will render said device momentarily inactive.

[Claims 6 to 20 not printed in the Gazette.]

1,136,538. WATER-FILTER. HENRY L. KUENZLI, Nevada, Ohio. Filed July 14, 1914. Serial No. 850,981. (Cl. 210—4.)



1. A device of the character specified, adapted to be interposed within the length of a supply pipe for a cistern or other receptacle for rain water, and comprising a casing of approximately rectangular cross section having an opening in one wall intermediate the ends of the body and of the width of the casing, and having a reinforcing frame at the opening, said casing having an inlet at its upper end and an outlet at its lower end, a screen arranged transversely of the body at the opening and in inclined position, said screen comprising a substantially rectangular open frame consisting of side members and end members, and a covering of perforate material, the side members and the covering being doubled back upon themselves near their lower ends and being then bent forwardly, the forwardly bent portion extending through the opening and resting on the casing at the lower end of the opening with the doubled portion engaging the inner surface of the casing, the screen having depending pins engaging outside of the casing at the opening and a solid portion extending between the side members at the junction of the doubled back portions of the body of the screen, said solid portion having its rear face flush with the rear face of the screen and its upper face connecting the front face of the body of the screen with the upper face of the forwardly bent portion, the screen inclining downwardly toward the opening, a deflecting plate detachably connected with the inner face of the casing at the upper end of the screen and extending over the said upper end, and a splash plate mounted to swing at its upper end and depending toward the screen below the upper end of the opening.

2. A device of the character specified, adapted to be interposed within the length of a supply pipe for a cistern or other receptacle for rain water, and comprising a casing having an opening in its front wall intermediate the ends thereof and of the width of the casing, said casing having an inlet at its upper end and an outlet at its lower end,

a screen arranged transversely of the casing and inclining upwardly toward its upper end, said screen having at its lower end a laterally bent portion extending through the opening and resting on the casing at the lower end of the opening, the screen also having a portion depending within the casing at the opening, and said screen having a solid portion at the junction of the portions with the body of the screen, a deflecting plate connected with the casing and extending over the upper end of the screen, and a splash plate suspended from the casing toward the upper face of the screen, the lower end of the plate being below the upper end of the opening and being spaced apart from the screen.

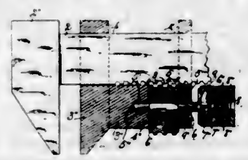
3. A device of the character specified, adapted to be interposed within the length of a supply pipe for a cistern or other receptacle for rain water, and comprising a casing having an opening in its front wall intermediate the ends thereof and of the width of the casing, said casing having an inlet at its upper end and an outlet at its lower end, a screen arranged transversely of the casing and inclining upwardly toward its upper end, said screen having at its lower end a laterally bent portion extending through the opening and resting on the casing at the lower end of the opening, the screen also having a portion depending within the casing at the opening, and said screen having a solid portion at the junction of the portions with the body of the screen, and a deflecting plate connected with the casing and extending over the upper end of the screen.

4. A device of the character specified, adapted to be interposed within the length of a supply pipe for a cistern or other receptacle for rain water, and comprising a casing having an opening in its front wall intermediate the ends thereof and of the width of the casing, said casing having an inlet at its upper end and an outlet at its lower end, a screen arranged transversely of the casing and inclining upwardly toward its upper end, said screen having at its lower end a laterally bent portion extending through the opening and resting on the casing at the lower end of the opening, the screen also having a portion depending within the casing at the opening, and said screen having a solid portion at the junction of the portions with the body of the screen.

5. A device of the character specified, comprising a casing having an opening in its front wall and having an inlet at its top and an outlet at its bottom, a screen arranged transversely of the casing and inclining downwardly and forwardly, said screen having a portion extending laterally forward at an angle to the body of the screen and resting on the casing at the lower end of the opening and having a portion depending within the casing at the opening, a deflecting plate connected with the casing at the top of the screen, and a splash plate depending in front of the screen below the center thereof and spaced apart from the screen.

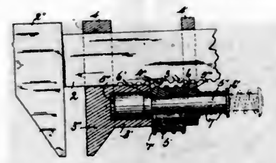
[Claims 6 to 9 not printed in the Gazette.]

1,136,539. QUICK-RELEASE WRENCH. SAMUEL LAUFF, Waterbury, Conn. Filed Feb. 4, 1914. Serial No. 816,528. (Cl. 81—158.)



A wrench comprising a movable-jaw; an adjusting-nut arbor mounted for rotative movement only therein and projecting somewhat rearwardly therefrom; a hollow keeper mounted on the rearwardly projecting portion of said arbor for movement both rotarily therewith and longitudinally therealong; a terminal disk so fixed on the rearwardly projecting portion of said arbor as to be surrounded peripherally and housed at all times by, and to serve incidentally as an auxiliary bearing for, said keeper; and an elastic element, said element being housed at all times by the keeper aforenamed, and tending to elastically urge the same forwardly with respect to said disk, said keeper being adapted to lockingly engage the jaw-extension aforenamed, at a point in its rotative movement relative thereto.

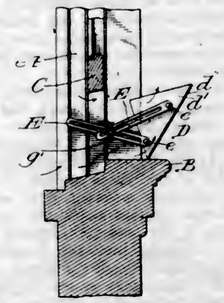
1,136,540. QUICK-ACTION WRENCH. SAMUEL LAUFF, Waterbury, Conn. Filed Mar. 10, 1914. Serial No. 823,648. (Cl. 81—158.)



1. A wrench comprising a segmentally threaded shank; a jaw-extension slidably mounted thereon; an arbor reciprocable axially only, varying in diameter for the formation therefor of an annular shoulder, and supported by said jaw-extension, the shoulder aforenamed being duly inclined; and a circumferentially threaded adjusting-screw, said adjusting-screw loosely mounted on said arbor and adapted to be thereby controlled in a manner to releasably hold its circumferential threads in normal engagement with the segmental threads of the shank aforenamed.

2. A wrench comprising a shank affording segmental threads; a jaw-extension having a cut-out for the reception of an adjusting-screw and provided at its rear end with an opening and forwardly of said cut-out with a socket, the latter and said opening arranged in axial alinement and communicating, respectively, with the cut-out aforenamed; a bushing in said opening; a spring-controlled arbor arranged to reciprocate endwise in said socket and bushing, traversing the cut-out aforenamed, and having an inclined, annular shoulder; and a circumferentially threaded adjusting-screw, the latter loosely mounted on said arbor, within said cut-out, and adapted to be thereby controlled in a manner to releasably hold its circumferential threads in normal engagement with the segmental threads of the shank aforensmed.

1,136,541. WINDOW-VENTILATOR. THOMAS H. LEARY, Richmond, Va. Filed Aug. 17, 1914. Serial No. 857,101. (Cl. 98—31.)



1. The combination with a window frame of a ventilator, and means for attaching the same to the window frame whereby the ventilator may be adjustably held either on the inside or the outside of the window comprising rods pivotally connected with the ventilator at different points thereon, and an attachment to pivotally and slidably secure said rods to the window frame.

2. The combination with a window frame of a ventilator consisting of a screen or deflector and end wings ar-

ranged at right angles to the deflector, and means for attaching the same to a window frame whereby the ventilator can be adjustably held either on the inside or outside of the window comprising crossed slotted rods pivotally connected with the ventilator at different points thereon and an attachment to pivotally and slidably secure said slotted rods to the window frame.

1,136,542. BASE-BALL APPARATUS. RAPHAEL A. L'HOMME, Worcester, Mass. Filed June 8, 1914. Serial No. 843,804. (Cl. 46—59.)



1. The combination with a game board representative of a base ball field, of a netting secured on the surface of said board, said netting being adapted to form a retarding surface, as and for the purpose set forth.

2. A base-ball game apparatus comprising a board having the representative of a field thereupon, a block secured upon said board, a batting member upon said block, and means for moving said member vertically, the said block being inclined from a point representing the pitcher's box to a line representing the home plate, said batting member being positioned adjacent said line.

3. A base-ball game, a board having the representation of a ball field, a block upon the front end portion of said board, the said block being inclined from rear to front, and being transversely and longitudinally grooved, a T-shaped batting member pivotally mounted upon the block having its head normally resting in the transverse groove and having a depending lug normally resting in the longitudinal groove, and means adapted to enter the last mentioned groove and engage said lug, as and for the purpose set forth.

4. The combination with a game board, of a block secured adjacent one end of the board, the upper surface of said block inclining downwardly toward the end of the board, and being transversely and longitudinally grooved, the said block having bores registering respectively with said grooves, one of said bores opening at the end of the board, a shaft pivotally mounted upon said block, a T-shaped arm carried by said shaft, the head of the arm resting normally in the transverse groove, a lug carried by said arm extending into the longitudinal groove, means adapted to pass through the bore at the end of the board into said longitudinal groove to strike said lug, the other bore being adapted to discharge a ball from said transverse groove.

1,136,543. UNDERREAMER. JOSEPH LORENZ, Robinson, Ill. Filed May 4, 1914. Serial No. 836,257. (Cl. 255—78.)

1. In an underreamer, an elongated body member, reamer bits carried thereby, bit expanding means in and movable longitudinally of the body member in opposite directions, a spring constraining the bit expanding means to move in the active direction, triggers movable with the bit expanding means and also laterally thereto, the trigger and bit expanding means having coacting portions for causing the lateral movement of the triggers, and longitudinally movable dogs carried by the body member, said dogs, triggers and body member having coacting portions for locking the dogs and triggers at either limit of longitudinal movement of the dogs.



2. In an underreamer, an elongated body member, reamer bits carried thereby, bit expanding means in and movable longitudinally of the body member in opposite directions, a spring constraining the bit expanding means to move in the active direction, and longitudinally movable dogs carried by the body member, said dogs coacting with the bit expanding means and the dogs and body member having coacting locking means for positively holding the dogs at either limit of their travel to in turn lock the bit expanding means in the inactive position in opposition to the normal tendency of the spring.

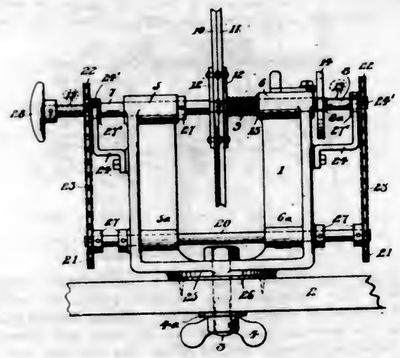
3. In an underreamer, an elongated body member, reamer bits carried thereby, bit expanding means in and movable longitudinally of the body member in opposite directions, and longitudinally movable dogs carried by the body member for locking the bit expanding means in the inactive position at either limit of longitudinal travel of the dogs, said dogs and body member having coacting means for positively locking the dogs at the opposite limits of their travel in the body member.

4. In an underreamer, an elongated body member, reamer bits carried thereby, bit expanding means in and movable longitudinally of the body member in opposite directions, and longitudinally movable dogs carried by the body member for locking the bit expanding means in the inactive position at either limit of longitudinal travel of the dogs, said dogs and body member having coacting means for positively locking the dogs at the opposite limits of their travel in the body member, and said dogs being movable bodily in directions laterally to their longitudinal travel and having portions exposed at the surface of the body member.

5. In an underreamer, an elongated body member with intermediate longitudinal slots on opposite sides, reamer bits mounted on the body members, bit expanding means within the body member and movable longitudinally thereof, and locking dogs mounted in the body member and projecting through and movable longitudinally of the slots for locking the bit expanding means in the inactive position at either limit of travel of the dogs in the slots, said dogs being also movable laterally of the body member, and said dogs and body member having coactive means for positively locking the dogs against longitudinal movement at either limit of their longitudinal movement in the slots.

[Claims 6 to 14 not printed in the Gazette.]

1,136,544. SEAMING-MACHINE. OSSIAN G. LYON, Akron, Ohio. Filed July 28, 1914. Serial No. 853,624. (Cl. 18—2.)



1. A bag-making apparatus, comprising longitudinally alined spindles, means for revolving said spindles in unison, confronting clamping plates between which the edges of a plurality of sheets are adapted to be secured, resilient means bearing upon one of said plates, and means for separating said plates for the insertion and removal of said sheets.

2. A bag-making apparatus, comprising longitudinally alined spindles, means for revolving said spindles in unison, confronting clamping plates between which the edges of a plurality of sheets are adapted to be secured, resilient means bearing upon one of said plates, and means for separating said plates for the insertion and removal of said sheets embodying a member adjustable on one of said spindles, and cam mechanism for moving said member.

3. The combination with a support, of a frame pivotally connected thereto and provided with shaft bearings, and with spindle bearings, a shaft mounted in said shaft bearings, longitudinally alined spindles within said spindle bearings, a pair of confronting clamping plates on said spindle, and means for separating and closing together said plates, comprising cam mechanism, a movable member on one of said spindles, and a resilient member interposed between one of said plates and the adjacent spindle bearing.

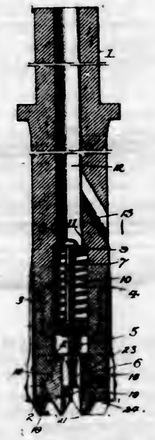
4. In apparatus for seaming rubber bags and like articles, a pair of confronting clamping plates having beveled edges arranged to form a groove when the plates are together, said plates being adapted to hold between them a plurality of sheets and the groove being adapted to receive a welt, in combination with means for connecting and disconnecting said plates.

5. In apparatus for seaming rubber bags or like articles, a pair of confronting clamping plates having beveled edges arranged to form a groove when the plates are together, said plates being adapted to hold between them a plurality of sheets and the groove being adapted to receive a welt between the edges of said sheets, in combination with cam mechanism for separating said plates, and resilient means normally holding said plates together.

1,136,545. BIT. JOSEPH D. MACDONALD, Butte, Mont.; Frank C. MacDonald administrator of said Joseph D. MacDonald, deceased. Filed Apr. 29, 1913. Serial No. 764,423. (Cl. 255—63.)

1. In combination with a drill-body having two oppositely-disposed arcuate slots in its outer end, said slots being undercut and extending from edge to edge of the body and into a centrally-disposed chamber formed axially of the body; an arcuate bit removably mounted in each of said slots, said bits having at least one cutting edges following the curve of the bit; and means mounted in the central chamber for holding the bits in place.

2. In combination with a drill-body having two oppositely-disposed arcuate slots in its outer end, said slots being undercut and extending from edge to edge of the body and into a centrally-disposed chamber formed axially of the body; an arcuate bit, removably mounted in each of said slots, said bits being of a cross-section to fit the slots, with their cutting edges following the curve of the bit and extending outwardly beyond the end of the body; and means mounted in the central chamber for holding the bits against movement.



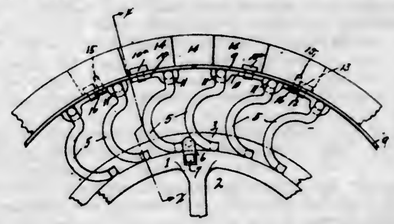
3. In combination with a drill-body having an arcuate slot extending across its outer end, the walls thereof converging toward the outer open portion of the slot; an arcuate bit having a cross-section of substantially the same contour as the slot, and seated therein; and means for locking the bit in place.

4. In combination with a drill-body having a pair of arcuate slots formed in the outer end thereof, said slots having an irregular cross-section; an arcuate bit, having a similar cross-section, mounted in each slot, each bit having a recess formed in its side face; and a locking member carried by the drill adapted to enter said recesses when the bits are positioned, and hold the same against endwise movement.

5. In combination with a drill-body having a pair of arcuate slots formed in the outer end thereof, said slots being irregular in cross-section, and passing between their ends into a chamber formed in the drill-body; a bit mounted in each slot, said bits in cross-section being similar to the slots and curved to fit the same, each bit having a recess formed in its side face; and a spring-pressed plunger mounted in said chamber and adapted to enter the recesses formed in the bits.

[Claims 6 to 9 not printed in the Gazette.]

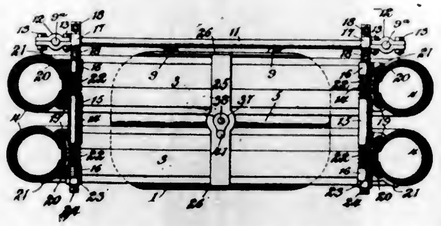
1,136,546. TIRE. CLEMENS MARKSON, Seattle, Wash. Filed May 16, 1914. Serial No. 838,933. (Cl. 152—8.)



In a resilient vehicle tire, the combination of a plurality of looped springs which extend transversely of the tire and radially from the felly of the wheel, the said springs

having squared ends, means for rigidly securing the squared ends of the springs to the felly whereby there is no movement between the said ends and the felly, the said means including a band secured to the felly and having squared recesses therein in spaced relation to each other and into which the squared ends of the springs tightly fit, a plurality of resilient tread strips arranged in staggered relation to each other around the felly, but in spaced relation to the felly and means for pivotally securing the tread portions of the springs to the said tread strips.

1,136,547. TIRE-HOLDER. FRANKLIN C. MILLER, Easton, Pa. Filed July 25, 1913. Serial No. 781,237. (Cl. 224—29.)



1. A tire holder including spaced upwardly extending bars, a horizontal bar connecting the upper ends of the bars and adjustably secured to the same, whereby it is adapted to be arranged at different elevations, and arms carried by the horizontal bar in the adjustment thereof and arranged to extend through a rim or tire from the rear or inner side thereof and provided with means for engaging the same, said tire holder permitting the rim or tire to be removed from the front.

2. A tire holder including spaced upwardly extending bars, a bottom support secured to and connecting the lower ends of the bars and provided with a circumferentially curved tire receiving seat extending across the space between the said bars, and spaced outwardly extending arms located above the bottom support and connected at their inner ends with the spaced bars, said arms being arranged to extend through a rim or tire from the inner or rear side thereof, whereby the rim or tire is adapted to be removed from the tire holder at the front of the same.

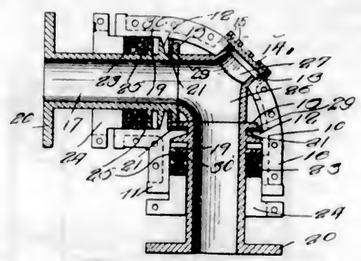
3. A tire holder including a bottom support having a tire receiving seat, spaced upwardly extending bars connected with the bottom support at the end portions thereof, a horizontal bar connecting the upper ends of the spaced bars and adjustably secured to the same, whereby it is adapted to be arranged at different elevations, and arms carried by the horizontal bar and arranged to extend through a rim or tire from the rear or inner side thereof and provided with means for engaging the same.

4. A tire holder including a bottom support, a tire receiving seat, spaced bars extending upwardly from the bottom support at the ends thereof, a horizontal bar adjustably secured at its ends to the said spaced bars and adapted to be moved upwardly and downwardly to arrange it at different elevations, and horizontal arms extending outwardly or forwardly from the horizontal bar and arranged to project through a rim or tire from the inner or rear side thereof, and means for adjustably securing the arms to the horizontal bar for enabling the said arms to be arranged at different points on the said bar.

5. A tire holder including spaced upwardly extending bars provided with lower outwardly extending portions, a bottom support having a tire receiving seat and mounted upon the said outwardly extending portions, horizontal arms extending forwardly or outwardly and arranged to project through a tire or rim from the inner or rear side thereof, means carried by the arms for engaging a rim or tire, and means for connecting the inner ends of the arms with the spaced bars.

[Claims 6 to 13 not printed in the Gazette.]

1,136,548. FLEXIBLE ELBOW. JOSEPH H. MOORE, Mulberry, Fla. Filed Oct. 2, 1913. Serial No. 793,017. (Cl. 137—34.)



A pipe connection comprising a body divided longitudinally into complementary sections, means for uniting said sections in assembled relation, internal flanges spaced from the respective ends of said sections and arranged to form continuous flanges when the sections are assembled, pipe sections each having spaced flanges at its inner end embracing the respective continuous flanges, said pipe sections being further provided each with a third flange spaced from the first mentioned flanges on said pipe sections, said pipe sections having body portions spaced from the body sections to form packing spaces, glands movable on the pipe sections to enter the packing spaces, and packing held between the third flange of each pipe section and its gland.

1,136,549. TREATMENT OF ALUNITE AND THE LIKE. CHARLES H. MACDOWELL, Chicago, Ill., assignor to The Mineral Products Company, New York, N. Y., a Corporation of West Virginia. Filed July 31, 1914. Serial No. 854,278. (Cl. 23—22.)

1. The method of treating alunite and the like, which comprises first calcining the alunite for the purpose of driving off sulfurous anhydrid and sulfuric anhydrid, and then heating it to a higher temperature to volatilize and drive off potash.

2. The method of treating alunite and the like, which comprises first calcining the alunite for the purpose of driving off sulfurous anhydrid and sulfuric anhydrid, and then heating it to a higher temperature, in the presence of carbon, to volatilize and drive off potash.

3. The method of treating alunite and the like, which comprises first calcining the alunite for the purpose of driving off sulfurous anhydrid and sulfuric anhydrid, then heating it to a higher temperature sufficient to volatilize and drive off potash, and depositing the volatilized potash as a solid.

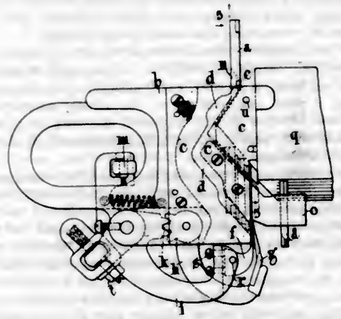
4. The method of treating alunite and the like, which comprises calcining the alunite for the purpose of driving off sulfurous anhydrid and sulfuric anhydrid, then heating it to a temperature sufficient to volatilize and drive off potash, and expediting the exit of the volatilized potash from the charge by carrying it off in a gaseous current.

1,136,550. DISTRIBUTING MECHANISM OF TYPOGRAPHICAL COMPOSING AND CASTING MACHINES. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 12, 1914. Serial No. 837,981. (Cl. 199—7.)

1. In a mechanism of the class described, the combination with two matrix separator fingers, of two separate and independently mounted rocking levers carrying said fingers, and means for rocking said levers simultaneously in opposite directions.

2. In a typographical composing and casting machine, the combination with a reciprocating matrix separator finger and a rocking lever, of a pivot pin connecting it to the said lever and set screws adapted to adjust it angularly upon the said pin.

3. The separator box *b* having a passage therethrough for the matrices, and provided with a guide forming one of the walls of said passage and upon which the matrices fall endwise, the said guide being formed with a projecting rib to engage the feet of the matrices at points between their vertical edges, for the purpose described.



4. The separator box *b* having a passage therethrough for the matrices, and provided with a guide forming one of the walls of said passage, said guide being pivotally connected to the separator box so as to be movable at will from its operative position to give access to the passage.

5. In a mechanism of the class described, the combination of a distributer, two alternately acting fingers to control the delivery of the matrices thereto, and two independently mounted rocking levers carrying said fingers.

1,136,551. TYPOGRAPHICAL COMPOSING AND DISTRIBUTING MACHINE. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 19, 1914. Serial No. 846,012. (Cl. 199—7.)



1. In a typographical composing machine comprising matrices of different fonts, the combination with a rotary shaft and an adjustable font distinguisher, of devices on the shaft operative to effect the adjustment of the font distinguisher to correspond to the matrices of one or another of the fonts, the said devices being adjustable relatively to each other to vary the adjustment of the font distinguisher to correspond to matrices of other fonts.

2. In a typographical machine, the combination of an adjustable font distinguisher, a rotary shaft, and studs projecting radially from the shaft, each of said studs adapted to effect the adjustment of the font distinguisher to correspond to matrices of a given font, and being adjustable at will to vary the adjustment of the font distinguisher to correspond to matrices of a different font.

3. In a typographical composing machine comprising matrices of different fonts, the combination with a rotary shaft and an adjustable font distinguisher, of devices on the shaft operative to effect the adjustment of the font distinguisher to correspond to the matrices of one or another of the fonts, the said devices being adjustable relatively to each other to vary the adjustment of the font distinguisher to correspond to matrices of other fonts, and means for locking the said devices in their adjusted position.

4. In a typographical composing machine, the combination with a rotary shaft and an adjustable font distinguisher, of screwed studs adjustable to project radially more or less from the shaft, and adapted to effect the adjustment of the font distinguisher, faces on the screwed stems of those studs and fingers resiliently engaging those faces to prevent accidental rotation of the studs.

5. In a typographical composing machine, the combination with a rotary shaft and an adjustable font distinguisher, of screwed studs adjustable to project radially more or less from the shaft, and adapted to effect the adjustment of the font distinguisher, faces on the screwed stems of those studs, fingers resiliently engaging those faces to prevent accidental rotation of the studs and a spring uniting all the fingers together.

[Claims 6 to 8 not printed in the Gazette.]

1,136,552. GAME-BOARD. LYMAN H. NELSON, Portland, Me. Filed Feb. 8, 1915. Serial No. 6,712. (Cl. 46—61.)



1. A game board including a sheet of pulp board having its corners cut away, a lower rectangular frame on which the edges of said sheet rest, an upper rectangular frame resting on the edges of said sheet and coinciding with the lower frame and nails passing through said upper frame and the edges of the sheet and into said lower frame to secure the parts together.

2. A game board including a sheet of pulp board having its corners cut away, a lower rectangular frame on which the edges of said sheet rest, an upper rectangular frame resting on the edges of said sheet and coinciding with the lower frame, nails passing through said upper frame and the edges of the sheet and into the lower frame and an envelop secured to the under surface of the sheet for containing the playing pieces of the game.

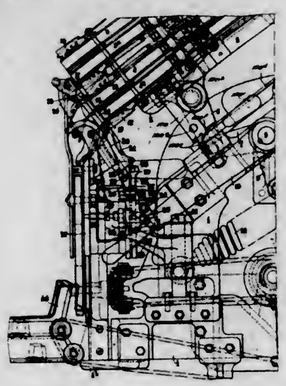
3. A game board including a sheet of pulp board having its corners cut away, a lower rectangular frame on which the edges of said sheet rest, an upper rectangular frame resting on the edges of said sheet and coinciding with the lower frame, and being relatively thinner than said lower frame and nails passing through the upper frame the edges of the sheet and into said lower frame to secure the parts together.

4. A game board including a sheet of pulp board having its corners cut away, a lower rectangular frame on which the edges of said sheet rest, an upper rectangular frame resting on the edges of said sheet and coinciding with the lower frame, nails passing through said upper frame, the edges of the sheet and into the lower frame and an envelop secured to the under surface of said sheet for containing the playing pieces, said envelop being as deep as the lower frame and being composed of material rigid enough to sustain the center of the said sheet.

1,136,553. TYPOGRAPHICAL COMPOSING-MACHINE. HERBERT PEARCE and JOHN ERNEST BILLINGTON, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Filed Jan. 27, 1914. Serial No. 814,670. (Cl. 199—7.)

1. In a typographical composing machine, the combination with two distributer mechanisms and two assembler plate entrances, of a plurality of superposed magazines arranged in a plurality of pairs and adjustable so that each pair can in turn be brought into or out of operative

relationship with or to the distributer mechanisms and assembler plate entrances.



2. In a typographical composing machine, a series of superposed magazines arranged in a plurality of pairs, a bank of escapement levers on each magazine, the escapement levers on the two magazines of each pair being located one bank on the under side of one magazine, and the other bank on the upper side of the companion magazine.

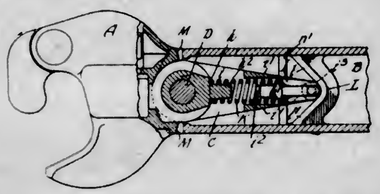
3. In a typographical composing machine, the combination of two superposed magazines, a bank of escapements on the upper side of the upper magazine, a bank of escapements on the under side of the lower magazine, two banks of striker levers for actuating the escapements positively in effecting their releasing action, those of one bank being pivoted at one end and arranged to engage at their other end beneath the escapements for the upper magazine, and those of the other bank being pivoted between their ends and arranged to engage above the escapements of the lower magazine, and two banks of operating links connected to the strike levers.

4. In a typographical composing machine, the combination with a movable assembler plate, of a plurality of pivots pivoting it to the main frame, the said pivots having their axes in parallel vertical planes and about, or relatively to each of which axes individually the assembler plate is capable of being moved angularly.

5. In a typographical composing machine, the combination with an assembler plate, and a plurality of pivots pivoting it to the main frame and about either or both of which the plate may be turned, of registering or positioning means for the said assembler plate.

[Claims 6 to 52 not printed in the Gazette.]

1,136,554. CAR-COUPLING. WILLARD F. RICHARDS, Depew, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed Jan. 14, 1914. Serial No. 812,124. (Cl. 213—42.)



1. In a car coupler, the combination of a coupler head, a shank to which said head is pivotally connected, said head having a neck which extends longitudinally of said shank beyond said pivotal connection, stationary inclines on said shank, and a spring-pressed device movably mounted on said neck and engaging said inclines for centering said head on said shank.

2. In a car coupler, the combination of a chambered shank provided interiorly with inclined faces, a coupler head pivoted to said shank and having a neck extending into the shank, a device movably mounted on said neck, and a spring which presses said device against said inclined faces for centering the head on the shank.

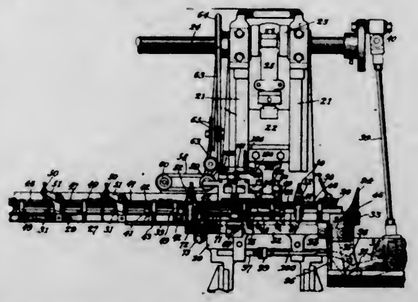
3. In a car coupler, the combination of a chambered shank provided interiorly with a stationary V-shaped transverse surface, a coupler head pivoted to said shank and having a neck extending into the shank beyond the pivot for the head, a device mounted to slide longitudinally on said neck, and a spring which presses said device against said V-shaped surface.

4. In a car coupler, the combination of a chambered shank, a coupler head having a neck pivoted to said shank and extending into the shank beyond said pivot, a spring-pressed device which is movable on the rear end portion of said neck, and inclines in said shank against which said device reacts to center the coupler head on the shank.

5. In a car coupler, the combination of a chambered shank, a coupler head having a neck pivoted to said shank and extending into the shank beyond said pivot, a device mounted to slide on said neck longitudinally of the shank, a spring which is arranged between said device and a portion of said neck and presses said device rearwardly, and inclines in said shank against which said device reacts to center the coupler head on the shank.

[Claims 6 to 8 not printed in the Gazette.]

1,136,555. MACHINE FOR ASSEMBLING METAL RECEPTACLES. HANS F. RICHTER, Winston-Salem, N. C., assignor to R. J. Reynolds Tobacco Company, Winston-Salem, N. C., a Corporation of New Jersey. Filed Dec. 6, 1913. Serial No. 804,991. (Cl. 113—43.)



1. In a machine of the character described, means for feeding forward parts of a receptacle including a formed body and a formed cover therefor, said parts having hinge members, means for guiding said parts so as to bring the hinge member of one part into position projecting adjacent to the hinge member of the other part, and means for clenching the hinge members thereafter to effect an interlocking engagement therebetween.

2. In a machine of the character described, means for feeding forward parts of a receptacle including a formed body and a formed cover therefor, said parts having hinge members, means for guiding said parts so as to bring the hinge member of one part into position projecting across and adjacent to the hinge member of the other part, and means for clenching the hinge members thereafter to effect an interlocking engagement therebetween.

3. In a machine of the character described, means for feeding forward parts to a receptacle including a formed body and a formed cover therefor, said body and said cover having the one a pintle and the other a hinge member with a projecting tongue, means for moving one of said parts laterally toward the other so as to bring said tongue into

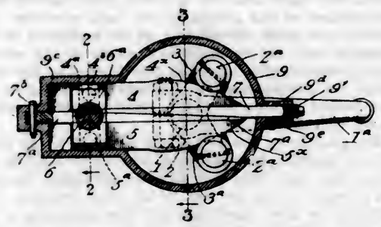
position adjacent and projecting across said pintle, and means for clenching the tongue around the pintle thereafter.

4. In a machine of the character described, in combination, means for feeding forward formed receptacle covers having hinge members, means for feeding forward formed receptacle bodies having hinge members, means for guiding said bodies so as to bring the mouth of each body into a position in which it projects into its corresponding cover, means for then relatively moving the receptacle body and its corresponding cover to inter-engage said hinge members, and means for effecting the interlocking of said hinge members thereafter.

5. In a machine of the character described, in combination, means for feeding forward formed receptacle covers having hinge members, means for feeding forward formed receptacle bodies having hinge members, means for guiding said bodies so as to bring the mouth of each body into a position in which it projects into its corresponding cover, means for then relatively moving the receptacle body and its corresponding cover to inter-engage said hinge members with the cover in an open position, and a member guided to move into the space between the cover and the body to clench said hinge members thereafter.

[Claims 6 to 24 not printed in the Gazette.]

1,136,556. STEERING-GEAR. DAVID E. ROSS, La Fayette, Ind., assignor to Ross Gear and Tool Company, La Fayette, Ind., a Corporation of Indiana. Filed Mar. 31, 1913. Serial No. 757,937. (Cl. 74—79.)



1. In a steering gear, a member to be operated, devices connected with said member at points equi-distant therefrom, opposite cam members engaging said devices, a steering shaft, and a cross head connected therewith and engaging the cam members and adapted to cause opposite movements thereof.

2. In a steering gear, the combination of a rocker-shaft, opposite shoes connected therewith at equi-distant points, opposite cam members engaging the respective shoes; a steering shaft, and a cross head thereon engaging said cam members and adapted to move them simultaneously and equally in opposite directions.

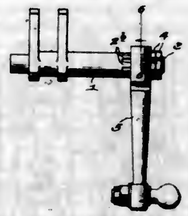
3. In a steering gear, the combination of a rocker-shaft, opposite shoes connected therewith, an independent cam member engaging each shoe, said cam members being faced in opposite directions; a steering shaft, and a cross head thereon engaging said cam members to move same equally and simultaneously in opposite directions.

4. In a steering gear, the combination of a rocker-shaft, opposite shoes connected therewith, a cam member engaging each shoe, said cam members being faced in opposite directions, a steering shaft, a cross head thereon for simultaneously operating said cam members, and means for adjusting the cam members laterally.

5. In a steering gear, the combination of a rocker-shaft, opposite shoes connected therewith, an independent cam member engaging each shoe, said cam members being faced in opposite directions; a steering shaft, a cross head thereon for simultaneously operating said cam members, and wedges extending axially of and between the cam members for adjusting them laterally.

[Claims 6 to 9 not printed in the Gazette.]

1,136,557. STEERING ARM AND POST. DAVID E. ROSS, La Fayette, Ind., assignor to Ross Gear and Tool Company, La Fayette, Ind., a Corporation of Indiana. Filed Apr. 24, 1914. Serial No. 834,140. (Cl. 74—8.)



1. In combination a shaft having a circumferential series of longitudinally disposed tapered splines, and a member having an opening provided with a similar series of longitudinally disposed slots adapted to engage the splines, there being a loose fit between the opposed peripheral surfaces of the splines and slots and a wedging fit between both of the opposed side surfaces of the splines and slots, substantially as described.

2. In combination a shaft having a circumferential series of longitudinally disposed tapered splines, and a member having a tapered socket provided with a circumferential series of longitudinally disposed tapered slots adapted to engage the splines of the shaft, there being a loose fit between the opposed peripheral surfaces of the splines and slots and a wedging fit between both of the opposed side surfaces of the splines and slots, substantially as described.

3. In combination a shaft having a circumferential series of longitudinally disposed tapered splines, and a member having a tapered socket provided with a circumferential series of longitudinally disposed tapered slots adapted to engage the splines of the shaft; there being a loose fit between the opposed peripheral surfaces of the splines and slots and a wedging fit between both of the opposed side surfaces of the splines and slots; with means for preventing endwise movement of the member on the shaft when the slots are engaged.

4. In combination a shaft of uniform diameter having a circumferential series of longitudinally disposed splines formed by slotting the shaft, and a member having a tapered opening provided with a similar series of longitudinally disposed slots adapted to engage the splines, said splines and slots being so formed that both the approximately radially disposed side edges thereof engage and prevent the opposed peripheral surfaces thereof coming into contact.

5. In combination a shaft having a circumferential series of longitudinally disposed splines, a member having a tapered socket provided with a circumferential series of longitudinally disposed slots adapted to engage the splines of the shaft, said splines and slots being so formed that both the approximately radially disposed side edges thereof engage and the opposed peripheral surfaces thereof cannot contact.

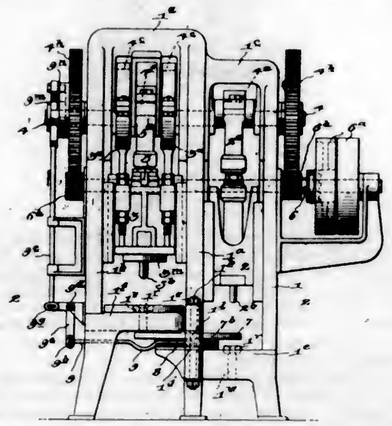
[Claim 6 not printed in the Gazette.]

1,136,558. MACHINE FOR DRAWING AND STAMPING METAL. HOWARD B. SHERMAN, Battle Creek, Mich. Filed Apr. 4, 1914. Serial No. 829,661. (Cl. 113—43.)

1. In combination, a main frame having central and side standards, the central standard having a horizontal transverse slot; adjacent mechanisms arranged between the said standards, a disk carrier mounted in the slot in the central standard and adapted to receive objects operated upon by one mechanism and carry same into position to be operated upon by the other mechanism, and means for operating said carrier.

2. In combination, a main frame having central and side standards, the central standard having a horizontal transverse slot; and a removable section; adjacent press mechanisms arranged between the said standards, and a carrier

mounted in the slot in the central standard and adapted to receive an object operated upon by one press mechanism and carry it over into position to be operated upon by the other press mechanism, and means for operating said carrier.



3. A drawing press comprising a main frame having central and side standards, the central standard or upright having a horizontal transverse slot; die supporting beds between the standards, and reciprocatory cross heads arranged between the standards above the beds; with a carrier mounted to rotate in the slot in the central standard and adapted to carry an object discharged from the press into position to be operated upon by the other press, and means for rotating this carrier step by step.

4. A drawing press comprising a main frame having central and side standards, the central standard or upright having a horizontal transverse slot; die supporting beds between the standards, and reciprocatory cross heads arranged between the standards above the bed; with a carrier mounted to rotate in the slot in the central standard and below the bed of one press and above the bed of the other press, and adapted to carry an object discharged from one press into position to be operated upon by the other press, and means for rotating this carrier step by step.

5. In combination, a main frame having central and side standards and beds, the central standard having a transverse horizontal slot near its base with a carrier rotatably mounted in said slot and adapted to receive objects from one bed and carry same through the slot in the standard into position to be operated upon over the other bed said beds being on opposite sides of the central standard, and means for operating said carrier.

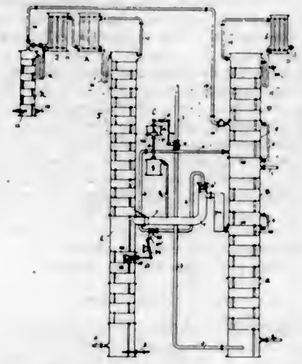
[Claims 6 to 9 not printed in the Gazette.]

1,136,559. CONTINUOUS PROCESS FOR THE DISTILLATION AND RECTIFICATION OF ALCOHOLIC LIQUIDS. VICTOR SLAVÍČEK, Vienna, Austria-Hungary. Filed Oct. 29, 1908. Serial No. 460,107. (Cl. 195—13.)

1. The process for the continuous distillation and rectification of alcoholic liquids, which consists in dividing the alcoholic raw vapor into two portions, purifying the noncooled phlegms of one portion of the head products, and introducing the same immediately at the beginning of the rectification into the alcoholic raw vapor of the second portion.

2. The process for the continuous distillation and rectification of alcoholic liquids, which consists in dividing the alcoholic raw vapor into two portions, purifying the noncooled phlegms of one portion of the head products, and introducing the same immediately at the beginning of the rectification into the alcoholic raw vapor of the second portion, previously depriving the said portion of the head products but leaving the tail products.

3. The process for the continuous distillation and rectification of alcoholic liquids, which consists in dividing the alcoholic raw vapor into two portions, purifying the noncooled phlegms of one portion of the head products, and introducing the same immediately at the beginning of the rectification into the alcoholic raw vapor of the second portion, previously depriving the said portion of the head products but leaving the tail products, and utilizing the mutual contact to vaporize the phlegms.

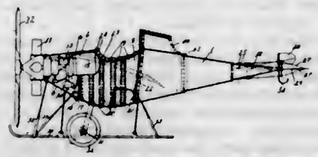


4. The process for the continuous distillation and rectification of alcoholic liquids, which consists in dividing the alcoholic raw vapor into two portions, purifying the noncooled phlegms of one portion of the head products, and introducing the same immediately at the beginning of the rectification into the alcoholic raw vapor of the second portion, previously depriving the said portion of the head products but leaving the tail products, and utilizing the mutual contact to vaporize the phlegms, and impregnating the same with the tail products.

5. The process for the continuous distillation and rectification of alcoholic liquids, which consists in dividing the alcoholic raw vapor into two portions, purifying the noncooled phlegms of one portion of the head products, and introducing the same immediately at the beginning of the rectification into the alcoholic raw vapor of the second portion, previously depriving the said portion of the head products but leaving the tail products, and utilizing the mutual contact to vaporize the phlegms, and impregnating the same with the tail products, preventing the same from becoming saturated with alcohol.

[Claims 6 to 13 not printed in the Gazette.]

1,136,560. AEROPLANE. JOHN W. SMITH, Chicago, Ill. Filed July 22, 1912. Serial No. 710,747. (Cl. 244—30.)



1. A fuselage for an aeroplane consisting of a metal nose for mounting the engine, an operator's compartment, and a metal tail mounting, said operator's compartment comprising a built-up structure of circumferential fiber strips and similarly disposed fiber ribs riveted together to constitute with the nose and tail mounting a continuous inclosing shell.

2. A fuselage for an aeroplane consisting of a metal nose for mounting the engine, an operator's compartment, a metal tail mounting, said operator's compartment comprising a built-up structure of circumferential fiber strips and similarly disposed fiber ribs riveted together to constitute with the nose and tail mounting a continuous inclosing shell, said nose having a bulkhead at its rear end for reinforcing the structure and separating the propelling mechanism from the operator's compartment.

3. A fuselage for an aeroplane consisting of a metal nose for mounting the engine, an operator's compartment, and a metal tail mounting, said operator's compartment comprising a built-up structure of circumferential fiber strips and similarly disposed fiber ribs riveted together to constitute with the nose and tail mounting a continuous inclosing shell, said nose having a bulkhead at its rear end for reinforcing the structure and separating the propelling mechanism from the operator's compartment.

4. A fuselage for an aeroplane consisting of a metal nose for mounting the engine, an operator's compartment, a metal tail mounting, said operator's compartment comprising a built-up structure of circumferential fiber strips and similarly disposed fiber ribs riveted together to constitute with the nose and tail mounting a continuous inclosing shell, and a bulkhead extending transversely across the operator's compartment thus formed, said operator's compartment having a transverse fiber bulkhead provided with an opening therethrough for reinforcing the operator's compartment and providing access to the interior of the rear of the same.

5. An operator's compartment for an aeroplane, comprising a shell constructed of fiber sheets, a metal nose reinforcing said compartment.

[Claims 6 to 8 not printed in the Gazette.]

1,136,561. ICE-PICK. WILLIAM A. STEWART, Madison, Wis. Filed June 12, 1914. Serial No. 844,730. (Cl. 83—62.)



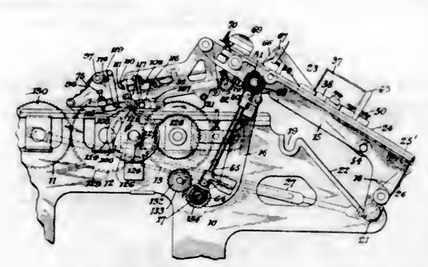
1. An ice pick including a shank having a longitudinal rib thereon, a handle reciprocably and removably associated with the shank, a collar on the shank provided with an opening similar in contour to the outer surface of the shank and rib, resilient means associated with the shank handle and collar for normally maintaining said handle in spaced relation with the shank, and means on the shank for limiting the downward movement of the collar on the shank.

2. An ice pick including a handle provided with a longitudinally extending recess, a coil spring disposed in said recess, a shank having a longitudinally extending rib thereon disposed in said recess, a jam nut provided with an opening similar in contour to the outer surface of the shank for sliding engagement with the shank and for removable engagement with the recess, a collar on the shank provided with an opening similar in contour to the outer surface of the shank for sliding engagement with the shank and for contacting with one end of the spring, means for limiting inward movement of the collar on the shank, a head removably secured to the inner end of the shank for contacting with the inner end of the recess, and means carried by the handle for removable engagement with the collar on the shank for preventing a sliding movement of the parts.

3. An ice pick including a handle provided with a longitudinally extending recess, a coil spring disposed in said recess, a shank having a longitudinally extending rib thereon disposed in said recess, a jam nut provided with an opening similar in contour to the outer surface of the shank for sliding engagement with the shank and for removable engagement with the recess, a collar on the shank provided with an opening similar in contour to the outer surface of the shank for sliding engagement with the shank and for contacting with one end of the spring, means for limiting inward movement of the collar on the shank, and a head removably secured to the inner end of the shank for contacting with the inner end of the recess.

4. An ice pick comprising a handle provided with a longitudinally extending recess, said recess being provided with screw threads adjacent the outer end thereof, a coil spring disposed in said recess, a shank having a longitudinally extending rib thereon disposed in said recess, a nut provided with a central opening and a longitudinal groove on the inner periphery of the opening for sliding engagement with the shank and for screw-threaded engagement with the recess, a collar on the shank provided with a central opening and a longitudinal groove on the periphery of the opening for sliding engagement with the shank and for engagement with one end of the coil spring, a pin for limiting the outward movement of the collar on the shank, and a head removably secured to the inner end of the shank for contacting with the inner end of the recess.

1,136,562. SHEET-FEEDING MECHANISM. JOHN STOCKDELL STOKES, Moorestown, N. J., and JAMES D. REIFSNYDER, Philadelphia, Pa., assignors to Stokes and Smith Co., Summerdale, Pa., a Corporation of Pennsylvania. Filed May 29, 1914. Serial No. 841,767. (Cl. 101—36.)



1. In a printing press in combination, registering mechanism for controlling the alinement of the sheet on the press, feeding mechanism arranged to feed a sheet directly into the press independently of said registering mechanism operating when the said registering mechanism is not in use, said registering mechanism being movable into a position to cooperate with said feeding mechanism to assist in feeding the sheet and movable into an inoperable position when it is not in use and when the said feeding mechanism operates independently thereof.

2. In a printing press in combination, feeding mechanism arranged to advance the sheet directly from the same into the press, and registering mechanism removably interposable in the path of the sheet for controlling the alinement thereof in the press.

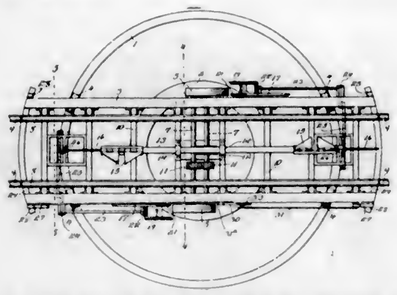
3. In a printing press in combination, a main frame, a feed frame movably mounted thereupon, feeding mechanism mounted on said feed frame for advancing the sheet directly from the same into the press, a registering frame, registering mechanism carried thereby arranged for taking a sheet from the said feeding mechanism to control the alinement of the sheet as it passes to the press, said registering frame being movable so as to occupy a position in which said registering mechanism cooperates with said feeding mechanism, and having a second position rendering said registering mechanism inoperative.

4. In a printing press in combination, a main frame, a feed frame movably mounted thereupon, feeding mechanism mounted on said feed frame for advancing the sheet directly from the same into the press, a registering frame, registering mechanism carried thereby arranged for taking the sheet from the said feeding mechanism to control the alinement of the sheet as it passes to the press, said registering frame being movable so as to occupy a position in which said registering mechanism coöperates with said feeding mechanism, and having a second postion rendering said registering mechanism inoperative, said feeding frame and said registering frame being connected together and movable simultaneously when said registering frame moves from the operative position of said registering mechanism to the inoperative position thereof.

5. In a printing press in combination, a main frame, a feed frame movably mounted thereupon, feeding mechanism mounted on said feed frame for advancing the sheet into the press, a registering frame, registering mechanism carried thereby for controlling the alinement of the sheet as it passes to the press, said registering frame being movable so as to occupy a position in which said registering mechanism coöperates with said feeding mechanism, and having a second position rendering said registering mechanism inoperative, said feed frame having two positions corresponding to the two positions of said registering frame, in one of which positions said feed mechanism feeds the sheet directly from itself into the press, and means for driving said feed mechanism in either of the positions of said feed frame.

[Claims 6 to 26 not printed in the Gazette.]

1,136,563. TURN-TABLE. JOSEPH B. TINSLEY, Kansas City, Kans. Filed June 2, 1914. Serial No. 842,435. (Cl. 104—211.)



1. A turn-table of the type described, equipped with means to provide for the running thereon of a locomotive or engine, means including jaws adapted to engage the locomotive wheel-axles, means adapted to bring said jaws into position to receive said axles, and means to effect connection between the locomotive and the turn-table whereby, with the movement of the former, the turning of the latter may be effected.

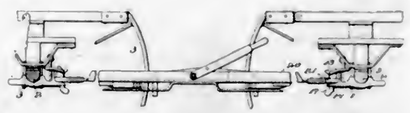
2. A turn-table of the type described, equipped with means adapted for the running of a locomotive or engine thereon, means including jaws to engage the locomotive wheel-axles, a member carrying said jaws, means for actuating said jaw-carrying member whereby said jaws may be brought into such engagement with said wheel-axles, and means geared to the truck-axles of said turn-table, said jaw-carrying member being adapted to engage and impart movement to said truck-axle geared means with the movement of the locomotive.

3. A turn-table of the type described, equipped with means adapted for the running of a locomotive or engine thereon, means including a rack geared to the truck-axles of the turn-table, jaws adapted to engage the locomotive wheel-axles, a carrying member for said jaws adapted to engage and move said rack longitudinally, and manually actuated means for axially moving said jaw-carrying member for effecting such engagement between said jaws and said locomotive wheel-axles with the movement of the locomotive.

4. A turn-table of the type described, equipped with means for running a locomotive or engine thereon, a rack geared to the truck-wheel-axles of the turn-table, jaws for engagement with the locomotive wheel-axles, a carrying member for said jaws having one end received within one end of and engaging said rack and a opposite angular end portion, a manually actuated lever, a shaft geared to said lever, and link and arm connections between said shaft and said angular end portion of said jaw-carrying member whereby the latter may be actuated to effect such engagement of said jaws with said locomotive wheel-axles, said rack being adapted to effect the actuation of the turn-table truck-wheel-axles with the movement of said jaw-carrying member, the movement of the latter being effected by the movement of the locomotive or engine.

5. A turn-table of the type described, equipped with means for the running of a locomotive or engine thereon, including angular foot-locks pivoted to said turn-table and adapted to engage a fixture, a manually actuated lever fulcrumed upon said turn-table, flexible means of connection between said foot-locks and said lever, and means for the retention of said lever in fixed position.

1,136,564. VEHICLE-COUPLING. MARQUIS J. TODD, Buffalo, N. Y., assignor to Buffalo Pitts Company, Buffalo, N. Y., a Corporation of New York. Filed Apr. 25, 1913. Serial No. 763,588. (Cl. 21—114.)



1. A coupler for wheeled vehicles comprising, in combination, a base having an upwardly projecting lug, a coupling bar designed to be held by said lug, a pivoted keeper designed to engage the upper end of said lug to retain the coupling bar in engagement therewith, and a latch supported by said lug for retaining the keeper in engagement with the latter.

2. A coupler for wheeled vehicles comprising, in combination, a base having an upwardly projecting lug, a coupling bar designed to be held by said lug, a pivoted keeper designed to engage the upper end of said lug to retain the coupling bar in engagement therewith, and a vertically disposed latch supported by said lug for retaining the keeper in engagement with the latter, said keeper and latch being constructed and arranged to allow the latch to be moved by the coupling bar out of engagement with the keeper and the latter out of engagement with the lug when coupling is being effected.

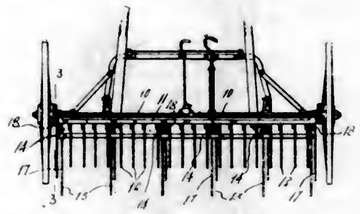
3. The combination with a base having an upwardly projecting lug, and a coupling bar designed to be held by said lug, of a keeper pivoted above the base and having at its free end a cross member designed to rest upon said lug to retain the coupling bar thereon, and a latch pivoted in said lug and having laterally projecting ears for extending over said cross member to lock the keeper to the lug.

4. The combination with a base having an upwardly projecting lug formed with a vertically extending slot and shoulders at its upper end, a link provided at its rear end and having its front cross piece designed to rest on said shoulders of the lug, said link having a slot in said cross piece, a vertically-disposed latch extending through said slot and having laterally arranged ears for extending over said cross piece on either side of said slot, said latch being automatically moved out of its normal position by said link when the latter is being lowered into engagement with said shoulders.

5. The combination with a base having an upwardly projecting lug and a wall curved concentrically to said lug in rear thereof, of a coupling bar having an eye through which such lug is designed to project, the end of said coupling bar being capable of bearing against said wall, a keeper pivoted to said base at one end and having its other end designed to engage the upper end of said lug to retain the coupling bar thereon, and a pivoted latch on said lug for engaging and holding said keeper, said latch being automatically moved out of its engagement with the keeper and the keeper from the lug in the act of coupling.

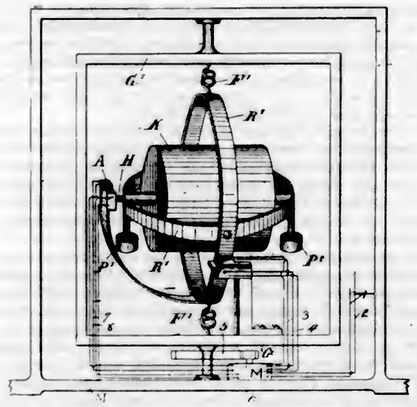
[Claims 6 to 8 not printed in the Gazette.]

1,136,565. HAY-RAKE ATTACHMENT. MAX TURK, Huron, S. D. Filed Dec. 17, 1913. Serial No. 807,314. (Cl. 56—67.)



In an attachment for a hay rake, the combination with the stationary stripper fingers of the rake, of clamps carried by certain of the stripper fingers, downwardly and rearwardly extending resilient hay holding fingers secured at one end to the said clamps and having coil turns adjacent the points of attachment thereof, and angularly bent terminals normally projecting between the teeth of the rake, said fingers being adapted to spring rearwardly under the pressure of the hay and hold the hay from falling out at the sides of the rake.

1,136,566. GYRO-COMPASS. HANS USENER, Kiel, Germany. Filed Dec. 9, 1912. Serial No. 735,667. (Cl. 33—204.)



1. In a meridional gyroscope-compass the combination with a gyroscope wheel, of a cardanic suspension for said wheel, a rotatable casing yieldingly connected with the suspension, a motor for turning the casing relatively to said suspension and a regulating device for said motor controlled by the elevation of the gyroscope wheel, said regulating device including two coils and means whereby the influence of one circuit is increased and that of the other decreased with shifting of said cardanic suspension.

2. In a meridional gyroscope-compass the combination with a gyroscope wheel, of a cardanic suspension for said wheel, a rotatable casing connected by a torsional spring with the suspension, a motor for turning the casing relatively to said suspension and a regulating device for said motor controlled by the elevation of the gyroscope wheel, said regulating device including two coils and means whereby the influence of one circuit is increased and that of the other decreased with shifting of said cardanic suspension.

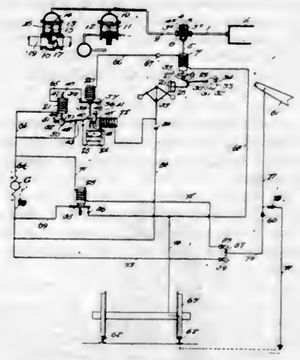
3. In a meridional gyroscope-compass the combination with a gyroscope wheel, of a cardanic suspension for said wheel, a rotatable casing yieldingly connected with the suspension, a motor for turning the casing in the same direction as the suspension and a regulating device for said motor controlled by the elevation of the gyroscope wheel, said regulating device including two coils and means whereby the influence of one circuit is increased and that of the other decreased with shifting of said cardanic suspension.

4. In a meridional gyroscope-compass the combination with a gyroscope wheel, of a cardanic suspension for said wheel, a torsional spring a rotatable casing connected by said torsional spring with the suspension, a motor for turning the casing in the same direction as the suspension and a regulating device for said motor controlled by the elevation of the gyroscope wheel, said regulating device including two coils and means whereby the influence of one circuit is increased and that of the other decreased with shifting of said cardanic suspension.

5. In a meridional gyroscope-compass the combination with a gyroscope wheel, of a cardanic suspension for said wheel, a rotatable casing yieldingly connected with the suspension, a motor connected to turn the casing; and regulating transformers associated with said motor, one of said transformers disposed between the casing and the suspension, and the other of said transformers disposed between the elements of said suspension; said transformers being controlled through the movements of the cardanic suspension.

[Claim 6 not printed in the Gazette.]

1,136,567. AUTOMATIC TRAIN-STOP. FRANK K. WADE, Paterson, N. J., assignor of one-half to R. C. Denny, Bloomfield, N. J. Filed Jan. 30, 1913. Serial No. 745,116. (Cl. 246—58.)



1. In an automatic train stopping device, the combination with a pressure pipe, of brake setting means controlled thereby, a valve controlled by said pressure pipe for cutting off steam from the throttle, electro-magnetic means for controlling the pressure in the pressure pipe, means carried by the engine for energizing said electro-magnetic means, means for automatically deënergizing said electro-magnetic means, said last named means comprising a relay having contacts disposed in the circuit of the electro-magnetic means, a pair of contacts in circuit with said relay, and conductors disposed along the track for bridging the contacts and thereby energizing the relay.

2. In an automatic train stopping device, the combination with a pressure pipe, of brake setting means controlled thereby, a valve controlled by said pressure pipe for cutting off steam from the throttle, electro-magnetic means for controlling the pressure in the pressure pipe, means carried by the engine for energizing said electro-magnetic means, means for automatically deënergizing said electro-magnetic means, said last named means comprising a relay having contacts disposed in the circuit of the electro-magnetic means, a pair of contacts in circuit with said relay, one of said contacts having electrical connections with one side of said electromagnetic means, the other side of said electromagnetic means being permanently grounded, conductors disposed along the track for bridging the contacts and thereby energizing the relay, said conductors being normally grounded, and means for breaking the ground connection of any of said conductors.

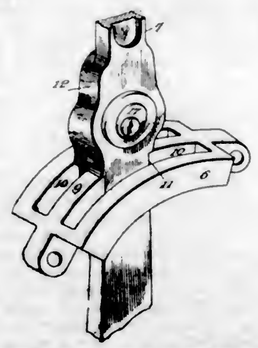
3. In an electrical train stopping system, a fluid pressure pipe, a valve for controlling the fluid pressure, electro-magnetic means for controlling the valve, a source of current, a normally closed circuit connecting said source of current and said electro-magnetic controlling means, a relay for breaking the circuit of the electro-magnetic controlling means at a point on one side of said source of current, and means on the opposite side of said source of current and controlled by the normally closed circuit for breaking the circuit through the electro-magnetic controlling means, at another point.

4. In an electrical train stopping system, a fluid pressure pipe, a valve for controlling the fluid pressure, electro-magnetic means for controlling the valve, a source of current, normally closed connections between said source of current and said electro-magnetic controlling means, a relay for breaking the circuit of the electro-magnetic controlling means on one side of said source of current, and means on the opposite side of said source of current for breaking the circuit at another point through the electro-magnetic controlling means, said last named means comprising a magnet having its winding and its armature in series with the electro-magnetic controlling means.

5. In a train stopping device, a pressure pipe, means for controlling the pressure of motive fluid in said pressure pipe, a normally closed circuit including a source of current, and an electro-magnet for operating said controlling means, a cut out relay having its contacts in series with the winding of said electro-magnet for breaking the circuit through said electro-magnet, means in said normally closed circuit for breaking the circuit through the electro-magnet at another point, and a normally open circuit including the energizing coils of the cut out relay.

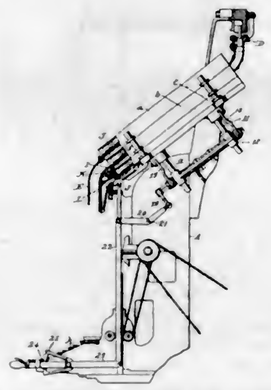
[Claims 6 to 14 not printed in the Gazette.]

1,136,568. LOCK FOR GEAR-LEVERS. PERCY B. WALLS, Los Angeles, Cal. Filed July 28, 1911, Serial No. 641,033. Renewed Feb. 18, 1915. Serial No. 9,175. (Cl. 70—90.)



The combination of a sector having spaced longitudinal slots and a transverse slot connecting said longitudinal slots, a controlling lever operating within either longitudinal slot and movable bodily through the transverse slot, said transverse slot defining the neutral position of the lever, a locking member mounted on the lever, and mechanism housed within the lever and connected with the locking member whereby said member may be projected into the transverse slot or one of the longitudinal slots when the lever is in neutral position and will be prevented by a solid portion of the sector from being projected when the lever is out of neutral position.

1,136,569. TYPOGRAPHICAL MACHINE. JAMES A. WATSON, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Continuation of application Serial No. 774,661, filed June 19, 1913. This application filed Sept. 30, 1914. Serial No. 864,196. (Cl. 199—7.)



1. In a typographical machine, the combination with a common distributer and a common assembler entrance, of two magazine supports movable up and down and each carrying a plurality of magazines, and means connecting said supports whereby they balance each other.

2. In a typographical machine, the combination with a common distributer and a common assembler entrance, of two magazine supports each carrying a plurality of magazines, means for guiding said supports in an up-and-down direction, and means connecting said supports whereby they counterbalance each other.

3. In a typographical machine, the combination with a common distributer and a common assembler entrance, of two magazine supports each carrying a plurality of magazines, means for guiding said supports in an up-and-down direction, a rock shaft, and connections between said rock shaft and said supports, whereby they counterbalance each other.

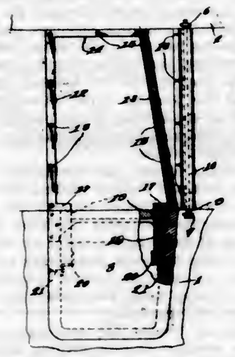
4. In a typographical machine, the combination of two relatively movable magazine supports, means connecting said supports whereby they counterbalance each other, complementary magazines arranged on the supports respectively, and a common distributer for said magazines.

5. In a typographical machine, the combination of two relatively movable magazine supports, means connecting said supports whereby they counterbalance each other, a plurality of magazines arranged on each support, a common distributer, and means for moving said supports to bring the complementary magazines into a common plane and into register with the distributer.

[Claims 6 to 35 not printed in the Gazette.]

1,136,570. STORM-CURTAIN. OLIVER L. WHITE, Alpha, N. D. Filed May 13, 1913. Serial No. 767,370. (Cl. 21—62.)

1. The combination with a vehicle body having a curtain roller attached thereto, of a substantially inverted U-shaped frame for the door of said vehicle comprising upright members to which the curtain is adapted to be attached, a member for conecting the tops thereof, downwardly extending offset portions formed on the lower ends of said member for engagement in openings formed in the vehicle door, brackets for supporting said offset portions within the door, and spring actuated members for closing said openings when the frame is removed.



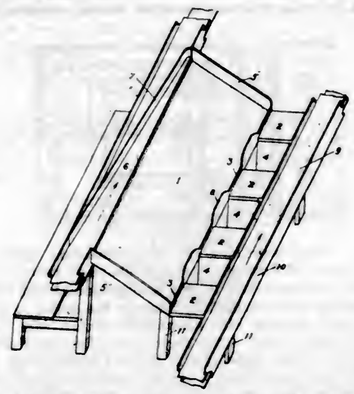
2. The combination with a vehicle body having a curtain roller attached thereto, a door carried by said body, said door having an opening formed therein, of a substantially inverted U-shaped frame for the door of said vehicle comprising upright members to which the curtain is adapted to be attached, a downwardly extending offset portion formed on the lower end of one of said members for engagement with said opening, and a plate slidably mounted in said door for closing said openings upon removal of said frame.

3. The combination with a vehicle body having a curtain roller attached thereto, a door carried by said body, said door having an opening formed therein, of a substantially inverted U-shaped frame for the door of said vehicle comprising upright members to which the curtain is adapted to be attached, a downwardly extending offset portion formed on the lower end of said members for engagement with said openings, a plate slidably mounted in said door for closing said openings upon removal of said frame, and a spring for exerting pressure to normally hold said plate in position to cover said opening.

1,136,571. ROUTING APPARATUS. FREDERICK G. WHITTIER, Brookline, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Original application filed Oct. 28, 1912, Serial No. 728,049. Divided and this application filed Jan. 8, 1914. Serial No. 810,983. (Cl. 193—1.)

1. The combination of a stationary routing table of sufficient extent to provide a plurality of operating stations, means of materially less width than said table for conveying articles toward the table, article deflecting means for causing said conveying means to deliver laterally thereof toward said table, said table having a pronounced downward slope and a smooth surface whereby to spread the so delivered articles over its surface substantially toward said stations by gravity, and means for stopping and accumulating said articles at each of said stations.

2. The combination of a wide stationary routing table of sufficient extent to provide a plurality of operating stations, conveying means, the width of which is less than half the width of said table, for conveying articles toward the table, article deflecting means, the overall length of which is substantially equal to the width of said table, for removing articles from said conveying means and depositing them according to size upon successive portions of said table, said table sloping downwardly from said conveying means to cause the articles deposited thereupon to move downwardly thereover toward said stations by gravity, and means to cause said articles to accumulate upon the sloping surface of the table until said articles are removed therefrom by the operatives at said stations.



3. The combination of a routing table of sufficient extent to provide a plurality of operating stations, compartments for the operatives at said stations, means of materially less width than said table for conveying articles toward and delivering them laterally, with respect to said means, to the table, said conveying and delivering means including a device for selectively unloading articles of successively decreasing size normally successively on to said table along the extent thereof, said table being sloped to deliver articles upon the surface thereof sequentially toward said stations as the lowermost packages upon said table are removed, and means to accumulate articles upon the sloping surface of said table adjacent said compartments.

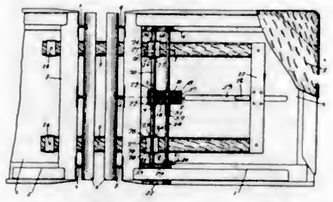
4. The combination of a stationary routing table of sufficient extent to provide a plurality of operating stations, conveying means, at a higher level than said stations, to carry articles to said table, said conveying means traveling along an extended edge of said table, means to remove large articles first and thereafter successively smaller articles from said conveying means, and deposit them upon said table substantially sequentially according to size, said table being sloped downwardly from said extended edge thereof toward said stations and having stationary means at said stations to cause said articles to accumulate upon the sloping table surface.

5. The combination of a stationary sorting table of sufficient extent to provide a plurality of stations for operatives, the surface of said table being generally inclined to the horizontal at such an angle as to permit of the articles to be handled sliding downwardly thereover, means for conveying articles toward said table; a device for unloading articles from said conveying means laterally with respect to said means on to said table, articles deposited on the latter from said conveying means moving downwardly over said surface by the action of gravity substantially directed toward said stations, stationary means for limiting the downward movement of, and retaining said articles at said stations, a series of spaced individual supports adjacent said movement limiting means, and means extending past said supports for conveying the assorted articles from said table.

1,136,572. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. GEORGE P. WIGGINTON, Kalamazoo, Mich. Filed June 6, 1914. Serial No. 843,397. (Cl. 129—41.)

1. In a temporary binder, the combination with the covers, one of said covers having a chamber therein, of binding strips extending between the covers, a pinion shaft arranged transversely within said chambered cover,

bearing plates for said shaft, a rack member having flanges slotted to receive said pinion shaft, a pinion arranged on said pinion shaft between the flanges of said rack member to coact therewith, a securing shaft having bearings in said flanges of said rack member, said bearing plates being slotted to receive the ends of said securing rod, and binding strip securing members mounted on said securing rod.



2. In a temporary binder, the combination with the covers, one of said covers having a chamber therein provided with an inner wall having a longitudinal slot therein, of binding strips extending between the covers, a cross bar for said binding strips arranged within said cover chamber and provided with a finger piece disposed through said slot, the other ends of said binding strips being connected to the other cover, a pinion shaft arranged transversely within said chambered cover, an adjustable rack member, a pinion arranged on said pinion shaft to coact with said ruck, a securing rod having bearings in said rack member, and binding strip securing members coacting with said rod.

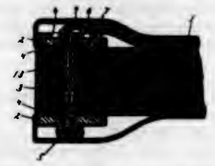
3. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a pinion shaft mounted on one of said covers, an adjustable rack member to which said binding strips are connected, a pinion arranged on said pinion shaft to coact with said rack member, a toothed stop wheel on said pinion shaft, a coacting stop, said pinion shaft being supported for longitudinal movement, whereby said stops may be engaged and disengaged, and a spring acting on said shaft to engage said stops.

4. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a pinion shaft mounted on one of said covers, an adjustable rack member to which said binding strips are connected, a pinion arranged on said pinion shaft to coact with said rack member, stops to prevent rotation of said shaft, and a spring acting on said shaft to cause said stops to engage, said shaft being adapted to be actuated from the outside of the cover to disengage said stops and rotate the shaft by means of a key.

5. In a temporary binder, the combination with the covers, of binding strips extending between the covers, an adjusting member to which said binding strips are connected provided with a rack, a shaft arranged transversely of the rack for rotative and longitudinal adjustment, and stops to prevent rotation of said shaft adapted to be engaged and disengaged by the longitudinal movement of the shaft.

[Claims 6 to 23 not printed in the Gazette.]

1,136,573. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. GEORGE P. WIGGINTON, Kalamazoo, Mich. Filed June 15, 1914. Serial No. 845,170. (Cl. 129—41.)



1. In a temporary binder, the combination of binding members having slots therein, covers connected to the rear edges of said binding members to fold forwardly over the same, binding strips folded to provide double strands arranged through the slots in said binding members, I-shaped retaining members removably engaged in the loops of said binding strips on the outer side of one of said binding members, and securing members for said binding strips mounted on the outer side of the other binding member.

2. In a temporary binder, the combination of binding members having openings therein, binding strips folded to provide double strands arranged through the openings in said binding members, retaining members engaged in the loops of said binding strips on the outer side of one of said binding members, and spring clutch members having parts adapted to project into the binding member openings and engage the binding strips between the strands thereof, the ends of the strands of the binding strips being secured together, said retaining members being removable to release the binding strips.

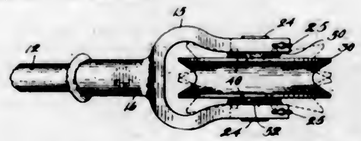
3. In a temporary binder, the combination of binding members having openings therein, binding strips folded to provide double strands arranged through the openings in said binding members, removable retaining members engaged in the loop of said binding strips on the outer side of one of said binding members, and spring securing members having pairs of openings therein through which the strands of said binding strips are passed, the ends of the strands being secured together.

4. In a temporary binder, the combination of binding members having openings therein, binding strips folded to provide double strands arranged through the openings in said binding members, retaining members engaged in the loop of said binding strips on the outer side of one of said binding members, and spring securing members having pairs of openings therein through which the strands of said binding strips are passed.

5. In a temporary binder, the combination of binding members, binding strips having double strands connected to one of said binding members the other having slots through which said binding strips are arranged, and securing members mounted on said slotted binding member, said securing members having pairs of slots therein through which the strands of the binding strips are disposed and members between the pairs of slots adapted to project into the binding member slots and engage the binding strips between the strands thereof.

[Claims 6 to 19 not printed in the Gazette.]

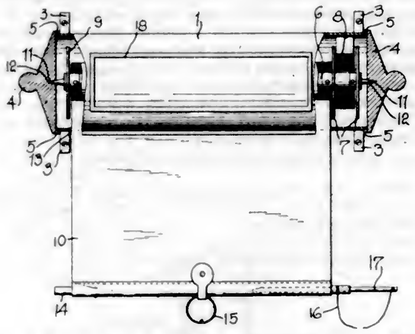
1,136,574. TROLLEY-WHEEL MOUNT. JULIAN WILDER, Augusta, Me. Filed Mar. 3, 1913. Serial No. 751,681. (Cl. 64—66.)



A trolley harp having the arms thereof formed with longitudinally-extending slots, an axle having reduced end portions to fit the slots and hold the axle against independent rotary movement in the arms, a trolley wheel mounted on the axle and capable of free sliding movement from end to end of the axle between the arms, and springs encircling the axle and secured to the wheel, said springs tending to normally center the wheel on the axle.

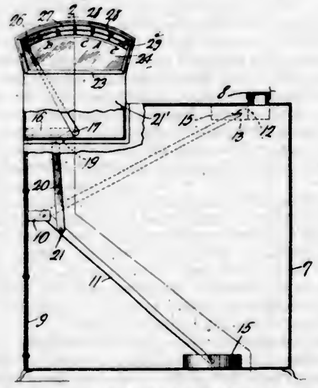
1,136,575. SLATE. FRED J. WOHLCKE and JOSEPH H. MCLELLAN, Nederland, Colo. Filed Nov. 4, 1914. Serial No. 870,276. (Cl. 35—15.)

1. A device of the class described including a cylindrical body open at both ends, means for supporting said body in a horizontal plane, cap members, each being provided with a central bearing recess, an annular flange formed upon each of said cap members and adapted to engage over the ends of the body to close the same, a rotatable drum within the body, bearing members formed in each end of the drum and adapted to be disposed within the bearing recesses of the cap members, a flexible element adapted to be wound upon said drum, said body having a slot through which one end of the flexible element extends, a spring member mounted upon said drum adapted to be placed under tension upon the unwinding of said flexible element, whereby the tension of said spring will rewind the flexible element.



2. A device of the class described including a cylindrical body, means for supporting said body in a horizontal position, a rotatable drum within the body, a flexible element adapted to be wound upon said drum and unwound therefrom, said body having a slot through which the flexible element extends, a yieldable flange formed on one side of the slot, from the material which is cut to form said slot, said flange engaging the flexible element to retain the same against the object upon which the body is supported, and a spring member mounted upon said drum adapted to be placed under tension upon the unwinding of said flexible element, whereby the tension of said spring will rewind the flexible element.

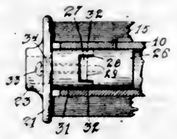
1,136,576. INDICATING AND REGISTERING MECHANISM FOR TANKS. ADAM M. WOLF, Plymouth, Wis. Filed May 21, 1914. Serial No. 840,082. (Cl. 73—82.)



1. The combination with a tank having an inlet opening, of a lever pivotally disposed therein, a float carried by said lever, a casing carried by said tank, a shaft extending through one wall of the said tank into said casing, an arm carried by said shaft mechanically connected to said float carrying lever, an indicating arm carried by said shaft, the said casing provided with a pair of oppositely graduated scales disposed therein, a scribable surface disposed within said casing adjacent said scales, and a scribing element carried by said indicating arm.

2. The combination with a tank, of a lever pivotally disposed therein, a float carried by said lever, a casing carried by said tank, a shaft extending through one wall of the said tank into said casing, an arm carried by said shaft mechanically connected to and actuated by said float carrying lever, an indicating arm carried by said shaft and provided with offset indicating fingers for liquids having different specific gravities, a scribable surface disposed within said casing, and a scribing element carried by the indicating arm.

1,136,577. MUSIC-ROLL FOR MECHANICAL MUSICAL INSTRUMENTS. CHARLES A. AHLSTROM, Jamestown, N. Y. Filed Apr. 6, 1914. Serial No. 829,864. (Cl. 242—69.)



1. A music roll spool comprising a shaft and flanged ends on said shaft, a plurality of stops of different depths in said shaft and a projection on one of said flanged ends to engage said stops to hold the flange of said flanged end at different distances from the edge of the music roll.

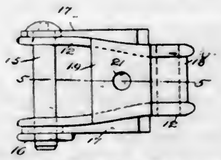
2. A music roll comprising a shaft and flanged ends on said shaft, a plurality of stops of different depths within the end of said shaft, and one of said flanged ends slidably and revolubly connected to said shaft to permit said flanged end being moved from one to the other of said stops to positively adjust said spool to different lengths.

3. A music roll spool comprising a tubular shaft, flanged ends on said shaft extending into the same, a plurality of positive stops for said flanged ends within said spool, and means permitting turning said flanged ends from one of said stops to another to adjust said flanged ends in relation to the music roll.

4. A music roll spool comprising a tubular shaft, flanged ends on said shaft extending into the same, a plug fastened in said shaft a spaced distance from its end, stops or steps in said plug on different levels on adjacent sides, and a screw through said flanged end permitting the outward and inward movement of said flanged end to change it from one stop to another.

5. A music roll spool comprising a tubular shaft, flanged ends on said shaft extending into the tubular end of the same, a plug fastened in said shaft a spaced distance from the end thereof corresponding to the extension of said flanged ends into said shafts, stops on the different sides of said plug shaped to different levels in relation to the distance from the end of said tubular shaft, the inner end of each of said flanged ends formed to fit over the ends of said plugs and to permit the change of said flanged ends from one level to another on said stops, and a screw in each of said plugs extending through each of said flanged ends to limit the outward movement thereof, substantially as and for the purpose specified.

1,136,578. CONVEYER. WALLACE S. AYRES, Hazleton, Pa. Filed Feb. 24, 1909. Serial No. 479,700. (Cl. 193—2.)



In a conveyer, a chain comprising a plurality of links, each composed of side members converging toward one

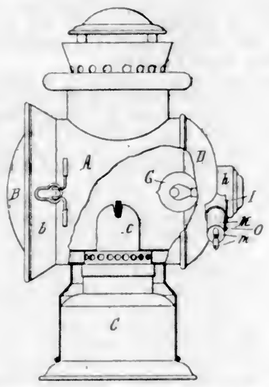
end, means for connecting the side members comprising a tubular end member, a plate for supporting a conveyer strip, and a web portion connecting the tubular member and the plate, and bearing devices connected with the side members having one edge substantially coincident with the lower edge of the side members, said devices being wider at the end adjacent to the converging portions.

1,136,579. AGRICULTURAL IMPLEMENT. LEAVI S. BALLARD, Holstein, Iowa. Filed June 29, 1914. Serial No. 848,020. (Cl. 55—30.)



An agricultural machine comprising a plurality of sections, means for connecting the adjacent extremities of the sections, a toothed shank carried by each of the sections, said section and shank being capable of vertical movement, ground engaging supports on said shanks, a shaft section carried by each of the sections operatively engaged with the toothed shank, an intermediate section operatively connecting the first named sections, and means carried by one of the first named sections for imparting rotation thereto whereby the machine will be bodily raised or lowered.

1,136,580. CONVERTIBLE LAMP. CHARLES BERGENER, Rochester, N. Y., assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Filed Dec. 27, 1910. Serial No. 599,272. (Cl. 240—37.)



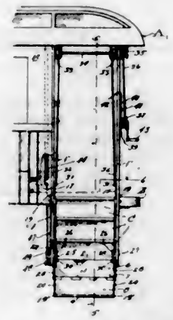
1. The combination with a lamp casing comprising a body, and a hinged back plate by means of which the interior of said body is accessible from the rear, of an attaching socket for an electric light bulb secured to said back plate and opening forwardly, a detachable electric light bulb removably held in said socket, a holding socket for a contact plug which is secured to the rear side of said back plate, and conductors connecting said sockets.

2. The combination with a lamp casing comprising a body, and a hinged back plate by means of which the interior of said body is accessible from the rear, of an attaching socket for an electric light bulb secured to said back plate and opening forwardly, a detachable electric light bulb removably held in said socket, a holding socket for a contact plug which is secured to the rear side of said back plate transversely to said attaching socket and opens sidewise at its outer end for the reception of said plug, and conductors connecting said sockets.

3. The combination with a lamp casing having a front glass and a back plate, of an attaching socket for an electric light bulb carried by said plate and opening forwardly, a holding socket for a contact plug arranged on said back plate and provided with an external locking spring; and a removable contact plug adapted to enter said holding socket and engage said spring, substantially as set forth.

4. The combination with a lamp casing having a front glass and a back plate, of an attaching socket for an electric light bulb carried by said plate and opening forwardly, a holding socket for a contact plug arranged on said back plate and provided with an insulating base and contact posts, a locking spring arranged on the outer side of said holding socket, and a removable contact plug adapted to enter said holding socket and provided with bores for said posts and with means for engaging said spring, substantially as set forth.

1,136,581. FOLDING CAR-STEPS. ALBERT F. BILTGEN, Arrowrock, Idaho. Filed Dec. 15, 1914. Serial No. 877,305. (Cl. 105—88.)



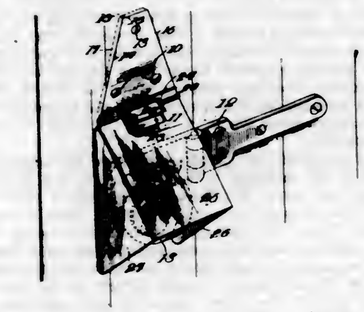
1. The combination with the platform of a car including the steps thereof, of a set of hinged steps, vertical standards attached to the car at each side of the platform steps, a winding device located above the platform of the car, bars connected at their lower ends to the hinged steps, connections between said bars and the winding devices, link arms slidingly engaging the standards at their upper ends and pivotally connected to the hinged steps at their lower ends, toggle links pivotally connected to the vertically sliding bars, and to the hinged steps, and slidingly engaging the arms, means normally tending to move the steps into extended position and means for operating the winding device to raise and fold the steps.

2. The combination with the platform of a car including the platform steps thereof, of vertical standards located at the sides of the steps of the platform, a set of hinged steps, arms pivotally and slidingly engaging the standards at their upper ends and pivoted to the steps at their lower ends, toggle connections pivoted to the hinged steps and slidingly engaging the arms, vertically sliding bars connected at their lower ends with the steps, said toggle connections being pivotally connected with the sliding bars, means for normally tending to pull the steps to extended position, and means for raising the steps.

3. The combination with a pair of standards, of a set of hinged steps, a pair of bars sliding alongside the standards and connected at their lower ends with the hinged steps, said bars having studs sliding in slots formed in the standards, a pair of arms pivotally connected at their lower ends with the hinged steps and having studs at the upper ends thereof sliding in slots formed in the standards, pairs of links connected with the sliding bars and with the steps, studs connecting the members of each pair of links, said studs sliding in slots formed in the arms, a spring connected with one of the sliding bars for lowering and extending the steps, and means for raising and folding the steps against the action of the spring.

4. The combination with a pair of standards, of a set of hinged steps, a pair of bars sliding alongside the standards and connected at their lower ends with the hinged steps, said bars having studs sliding in slots formed in the standards, a pair of arms pivotally connected at their lower ends with the hinged steps and having studs at the upper ends thereof sliding in the slots formed in the standards, pairs of links connected with the sliding bars and with the steps, studs connecting the members of each pair of links, said studs sliding in slots formed in the arms, means normally tending to move the steps to extended position, and means connected with the sliding bars for raising and extending the steps, said means including a winding shaft, winding spools on said shaft, cables connected at their lower ends with the sliding rods and adapted to wind and unwind on the spools, a third spool at one end of the shaft, a winding drum and a cable training over the winding drum and third spool, said winding drum being actuated to rotate the winding drum, and a locking device for the winding drum.

1,136,582. LOCK-SHIELD. JOHN L. BIRDSONG, Kenbridge, Va., assignor of one-half to Enoch Studebaker, Waverly, Va. Filed Aug. 2, 1913. Serial No. 782,651. (Cl. 70—17.)

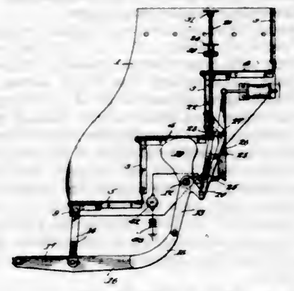


1. The combination with a lock and its supporting body, of a protector including a wall plate detachably secured to the supporting body, an offset transversely extending flange formed on the lower terminal of the wall plate and disposed in spaced relation to the lock supporting body, a hood member normally adapted to house the lock, a hinge plate carried by the hood member, a hinge rod connecting said plate to said off-set flange, and a transversely curved rib formed at the hinged terminal of the hood and normally disposed in the space comprehended between the said offset flange and the lock supporting body, said rib being adapted to engage the lock supporting body for holding the hood in elevated position.

2. The combination with a lock and its supporting body, of a protector including a wall plate, a transversely extending flange formed integrally therewith, and offset from the plane thereof, being disposed when in assembled position in spaced relation to the supporting body, a hood loosely hinged to the offset flange, a transversely extending rib formed integrally with the hood and at the hinged terminal thereof, the said rib being normally disposed in the space comprehended between the offset flange and the lock supporting body and adapted to engage the adjacent surface of the lock supporting body for holding the hood in elevated position.

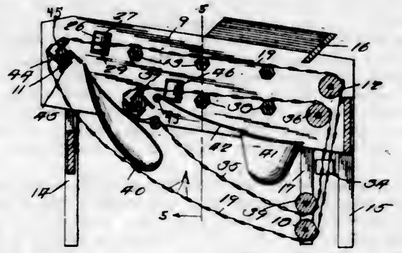
3. The combination with a lock and its supporting body, of a protector including a wall-plate, a transversely extending outwardly offset flange formed thereon, said flange extending in parallel spaced relation to the supporting body of the lock, and a hood loosely hinged to the flange and normally arranged to form a housing for the lock, the upper edge of the hood being disposed between the flange and the lock-supporting body when the hood is in dependent position.

1,136,583. CAR-STEP. FRED D. BLAKE, Charlotte, N. C., assignor to Blake Car Step Works, Charlotte, N. C. Original application filed Feb. 13, 1914, Serial No. 818,519. Divided and this application filed May 16, 1914. Serial No. 839,059. (Cl. 240—7.)



The combination with fixed car steps, of an extension step connected to the lower one of said fixed car steps, means for moving said extension step into and out of active position relative to the lower car step, a lamp located under and protected by the fixed car steps and positioned to cast rays of light onto the extension step when said step is lowered to active position, and means operated by the movement of the extension step into and out of active position for placing the lamp in circuit and out of circuit respectively, with a source of energy.

1,136,584. DOUBLE-BELT POTATO-SORTER. FRANK BOGGS, Atlanta, N. Y. Filed Dec. 23, 1913. Serial No. 808,464. (Cl. 130—32.)



1. In a separating machine, a flexible belt formed of a series of connected sections, a drum for imparting a vibratory motion to the belt and including projecting members adapted to contact with the belt at the points thereof where the sections are connected, and means for adjusting said members to maintain the latter in contacting relation with such points of the belt irrespective of the shortening or lengthening of the belt.

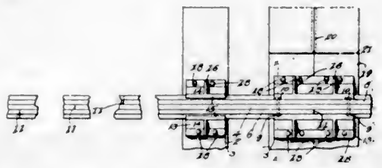
2. In a separating machine, a belt formed of a series of interlooping strands, a drum for imparting a vibratory motion to the belt including projecting members adapted to contact with the belt at the points where the strands interloop, and means for adjusting said members to maintain the latter in contacting relation with the interlooping portions of the strands irrespective of variations in the length of the belt.

3. In a separating machine, a belt formed of a series of interlooping wire strands, one terminal of each strand being provided with an eye to engage with the end loop of an adjacent strand, the opposite terminal of each strand being free from connection with the end loop of the adjacent strand, said free end being turned inward, the construction being such that the assembled loops present substantially continuous edge portions, and guiding means adapted to be uniformly engaged by the substantially continuous edge portions of the belt.

4. In a separating machine, a sorting belt comprising a plurality of lengths of wire, each length being formed into a series of loops, the connecting portions of the loops of one length of wire being engaged with the loops of the adjacent length of wire, the ends of each length of wire terminating near the adjacent length to produce substantially unbroken edges for the sorting belt.

5. In a sorting machine, the combination with a frame and drums mounted therein, of a sorting belt engaging with the drums and comprising a plurality of interwoven lengths of wire, each formed into loops having parallel arms, the arms of the adjacent loops of each length lying one above the other, said wires at the ends of the arms being bent to form small connecting loops, said small loops of one length being engaged centrally of the large loops of the next adjacent length, one end of each length of wire being engaged through a small loop of one adjacent length, and then carried away from said small loop to a point adjacent the terminal of the large loop of the other adjacent length, and then turned inwardly of the element, and guide devices carried by the frame for engagement with the edges of the belt.

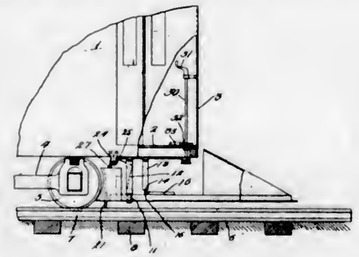
1,136,585. COMPOUND RAIL. ELMER R. BROWN, New York, N. Y. Filed July 3, 1914. Serial No. 848,811. (Cl. 239—16.)



1. A compound rail comprising a flat center section, side sections mounted on the center sections and being enlarged at their lower longitudinal edges and provided with beveled faces on the outer sides of the longitudinal enlarged portions, bolts inserted transversely through the sections, the center section being provided with a recess and a tongue at its ends to coöperate with the ends of adjacent sections at the joint and means to engage the beveled enlarged portions of the outer sections, to hold the sections in operative relation to one another and secure the rail to a tie.

2. A compound rail consisting of a plurality of sections, means to secure the sections to one another, each of said sections being beveled at its upper edge to provide a slope to the upper face of the rail and means to clamp the sections in operative relation, the central sections being provided with tongues and recesses at their ends, and means to secure the rail to a tie, also serving to hold the sections in operative relation to one another.

1,136,586. COMBINED CAR FENDER AND BRAKE. THOMAS W. BUSH, Colquitt, Ga. Filed Apr. 14, 1914. Serial No. 831,817. (Cl. 105—128.)



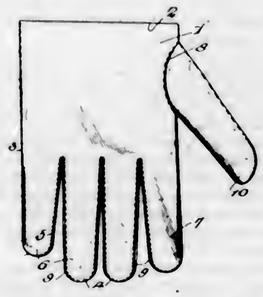
1. In a device of the character described, the combination with a car including a frame, a truck carried by the frame, and wheels carried by the truck, of a fender comprising a pair of laterally swinging arms, chock blocks supported on the car frame, means connecting the chock blocks and the arms to actuate the same and cause said arms to swing outwardly when the chock blocks descend, and means controlled by the operator of the car to release the mechanism and thereby set the device in operation.

2. In a device of the character described the combination with a car including a frame, a truck, and wheels carried by the truck, of a fender, said fender comprising a pair of arms secured to the frame, of the car and arranged to swing laterally, chock blocks vertically slidable with relation to the car frame, means carried by the chock blocks to cause the arms to swing laterally when said blocks descend, a plate hingedly supported on the frame, the free edge of said plate being arranged to swing downwardly to engage the car track when the device is operated, and means to control the operation of the device.

3. In a device of the character described, the combination with a car including a frame, a truck, and wheels carried by the truck, of a pair of arms hingedly secured to the car frame, said arms being arranged to swing laterally, a catch at the free ends of the arms to hold the same against movement, a pair of chock blocks adapted to descend against the rail and frictionally engage the car wheels, a winding drum controlling the operation of the chock blocks, means carried by the chock blocks and adapted to control the operation of the arms, a flexible member connected to the latch and the winding drum whereby when the winding drum is turned, the latch will be released, means to control the operation of the mechanism, and means to raise the same to its normal position.

4. In a device of the character described the combination with a car including a frame, a truck, and wheels carried by the truck, of a fender comprising a pair of pivoted arms arranged to swing laterally, a plate pivoted to the car frame, the free edge of said plate resting on the arms and adapted to descend against the rails when the arms are opened, chock blocks vertically slidable with relation to the car frame, means carried by the chock blocks to actuate the arms, means to slide the chock blocks vertically, a catch carried by the free ends of the arms and adapted to hold the same together, means connected to the catch to release the same automatically when the mechanism is set in motion, and means to reset the device.

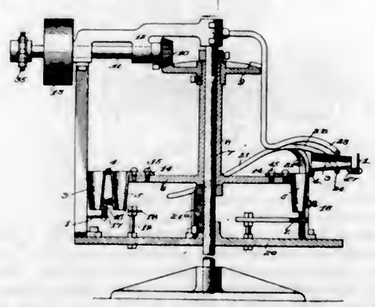
1,136,587. REVERSIBLE GLOVE. CHARLES E. CHADDOCK, RICHARD G. CHADDOCK, and GUSTAVE A. KURZ, Zanesville, Ohio. Filed May 11, 1910. Serial No. 560,714. (Cl. 2—9.)



1. A reversible glove comprising a body portion folded along a medial line and stitched at the adjacent edges to produce a palm and a back, the forward edge of the body portion being provided with vertical slits forming the second, third and little fingers and a solid intermediate portion of twice the width of said fingers and adapted, when the body portion is folded to form the index finger, there being a single thumb receiving opening formed in the body portion in alinement with the fold of the index finger and spaced inwardly from the rear edge of said body portion, said thumb receiving opening being substantially circular in shape, and a thumb piece adapted to fit in said circular opening and having converging side walls and vertically alined V-shaped notches formed in the center of its upper and lower ends to permit the thumb to be folded along the longitudinal center thereof to produce mating portions of equal size and shape, the converging walls of the thumb piece being connected by a line of stitching arranged on the upper face of the thumb and in alinement with the fold of the index finger.

2. A reversible glove comprising a body portion folded along a medial line and stitched at the adjacent edges to provide a palm and a back, the forward edges of the palm and back having slits to form fingers, the body portion having a thumb receiving opening located below the top of the body portion with its center in alinement with the medial line of fold of the body portion, said thumb receiving opening being substantially circular in shape, and a folded thumb piece fitting in said opening and comprising a body portion having converging side walls and vertically alined V-shaped notches formed in the center of the upper and lower ends thereof, the upper notch being of greater depth than the lower notch and the inclined walls of the notch in the upper end of the thumb piece being gradually curved in an arc from the fold line of said thumb piece to and intersecting the converging side walls thereof, the curved arc-shaped walls corresponding to the circular opening in the body portion when the thumb piece is folded, said thumb piece having the curved walls of the notch in the upper end thereof stitched to the body portion around the circular opening and having its converging side walls connected by a line of stitching arranged in alinement with the medial fold line of the body portion of the glove.

1,136,588. STRING-BEAN SNIPPER. KERRISON M. DAVIES, Williamson, N. Y., assignor to George W. Cobb, New York, N. Y. Filed Mar. 11, 1911. Serial No. 613,887. (Cl. 146—11.)



1. In a string-bean snipper, the combination with a pair of supports one of which is movable above the other, of guides for maintaining the beans upright upon the supports and cutters arranged to snip the ends of the beans while on the supports.

2. In a string-bean snipper, the combination with a pair of supports, of a pair of guides for holding a bean with opposite ends against the respective supports, one of said guide supports being movable to discharge its bean to the other guide in an inverted position, and cutters for operation on the supporting ends of the bean.

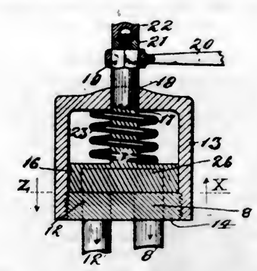
3. In a string-bean snipper, the combination with a plurality of traveling supports, of a plurality of guides movable with the supports, a feeding mechanism for depositing beans within the guides, a second set of traveling guides, devices for moving the first set of guides to cause them to discharge into the second set, a support for beans in the second set of guides over which the latter travel, and cutters for removing the supporting ends of beans while in the guides.

4. In a string-bean snipper, the combination with a rotary carrier, of an annular series of guides carried thereby, an annular series of swinging guides also carried thereby, a series of supports carried by the movable guides, and a support over which the first named series of guides travel.

5. In a string-bean snipper, the combination with two series of guides, one of which is movable to discharge into the other, of a series of supports carried by and arranged in spaced relation to the movable guides, a fixed support over which the other series of guides pass, and cutters arranged to engage between the guides and the supports.

[Claims 6 to 11 not printed in the Gazette.]

1,136,589. VALVE. WILLIAM M. DAVIS, Akron, Ohio. Filed Nov. 21, 1912. Serial No. 732,689. (Cl. 137—26.)



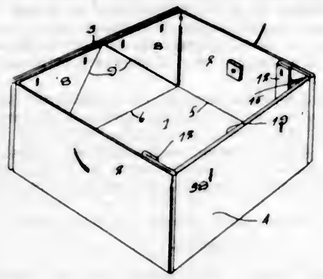
A power-brake valve comprising a cup-shaped casing having its lower open end interiorly screw-threaded, a threaded disk having peripheral threads engaging the threads of the casing to secure the lower face of the disk flush with the lower end of the casing, said disk having a plurality of pipe-receiving openings one of which is counterbored, said disk serving as a valve seat, a rotary valve supported upon the disk and formed on its under face with a circular recess and also with a recess concentric with the axis of the valve and of a length to communicate simultaneously with two of said openings, a stem projecting centrally from said valve and extending through an opening in the end of said casing, an operating lever for said stem, a coil spring surrounding said stem and being confined between the end of the casing and the valve, a washer within the counterbore of said disk, and a rubber plug within the circular recess of said valve adapted to coöperate with the washer of the disk to close the opening surrounded by said washer.

1,136,590. HAT-BOX. DELIA A. DESMOND, Charlestown, Mass. Filed Aug. 25, 1914. Serial No. 858,470. (Cl. 229—43.)

1. A hat box including a bottom, side and rear walls rigidly secured to the bottom and connected at their adjacent corners, a front wall hingedly secured to the bottom, flaps formed at the ends of the front wall, extensions formed at the forward ends of the side wall, said extensions being bent back upon the side wall, a bent back portion formed at the terminals of the extensions, said bent back portions being riveted at their upper terminals and forming pockets for the reception of the flaps on the front wall, said pockets being so designed as to hold the walls in proper position, a lid on the box and means carried by the lid to engage the front wall and hold the same up.

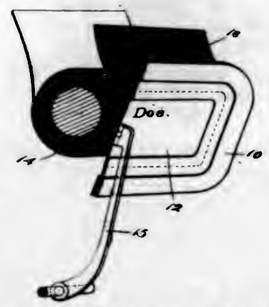
2. A hat box including a bottom, side and rear walls rigidly secured to the bottom, said side and rear walls being connected at their adjacent corners, a front wall hinged to the bottom, flaps formed at the ends of the front wall, extensions on the side walls, said extensions

being bent back to form pockets for the reception of the flaps on the front wall, a lid, extensions on the side walls of the lid, the front wall of the lid being hinged and



tongues formed at the terminals of the extensions on the side walls of the lid, said tongues being arranged to engage the front wall of the box and hold the same in its closed position.

1,136,591. METHOD OF FORMING STENCIL-SHEETS. HARMON P. ELLIOTT, Cambridge, Mass. Filed July 17, 1912. Serial No. 709,871. (Cl. 101—131.)



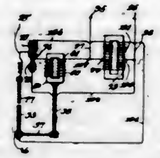
The method of forming a stencil consisting in placing a sheet carrying a transfer medium upon the rear face of a stencil sheet, and thereupon impressing the front face of said stencil sheet with the desired characters, whereby said characters are simultaneously outlined and rendered opaque on the stencil sheet by said transfer medium.

1,136,592. ADJUSTABLE ERASER. JOSEPH J. FERRARI, Syracuse, N. Y. Filed Dec. 13, 1913. Serial No. 806,357. (Cl. 120—36.)



In a device of the character described an implement, a tubular holder therefor having a slotted side, and means for adjusting the implement in the holder comprising a metal strip member slidable longitudinally of the holder with its shank portion adjacent to and parallel with said slotted side and bent at its lower end to constitute a stirrup, the terminal portion of which is parallel to the opposite side of the holder, adjusting means for said member engaging the slotted side and adjacent shank portion, said adjusting means permitting the member to project beyond the lower end of the holder to present an open eye extending through said member between its shank and terminal portions, and a hook carried by the implement secured at its heel portion thereto and free at its toe portion to pass through said eye and be suspended thereby, substantially as described.

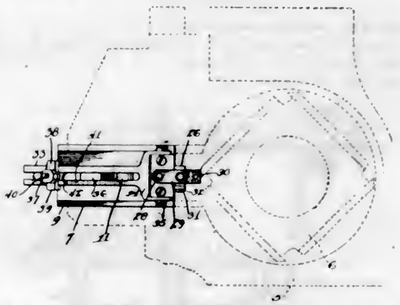
1,136,593. ARC-LAMP. RICHARD FLEMING, Indianapolis, Ind., and CROMWELL A. B. HALVORSON, Jr., Saugus, Mass., assignors to General Electric Company, a Corporation of New York. Original application filed Mar. 6, 1905, Serial No. 248,549. Divided and this application filed June 19, 1913. Serial No. 774,685. (Cl. 176—53.)



1. In an arc lamp for use in a constant current system, a compensator having its primary winding connected in the constant current system, a secondary winding the terminals of which are connected to the electrodes, a winding in shunt around the primary winding of the compensator for feeding the electrodes, and a device in series with the electrodes for opening the shunt circuit when the arc between the electrodes carries a current of normal strength.

2. In an arc lamp for use in a constant current system, a compensator having its primary winding connected in the constant current system, a secondary winding the terminals of which are connected to the electrodes, a magnet and mechanism controlled thereby for feeding the electrodes, and a magnet winding in series with the electrodes for controlling the mechanism controlling magnet.

1,136,594. WOODWORKING-MACHINE. JESSE W. FORTERLING, Missoula, Mont. Filed June 20, 1914. Serial No. 846,353. (Cl. 144—114.)



1. In a jointer for wood working machines, a base, a slide member longitudinally adjustable upon said base, a frame pivotally mounted upon said member, abrasive means longitudinally movable in said frame, means for adjusting said abrasive means in the frame, and means for securing said frame upon the slide member in various adjusted positions.

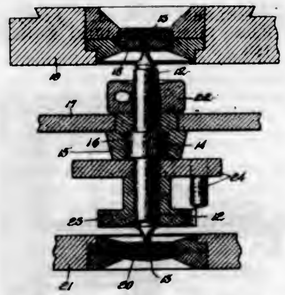
2. In a jointer for wood working machines, a base, a slide member longitudinally adjustable upon the base, means for adjusting said slide member, a frame pivotally mounted upon one end of said member, a slide block mounted upon said frame, abrasive means carried by said slide block, means for adjusting said block with respect to the frame, and means mounted upon said slide member for securing said frame in its adjusted position against pivotal movement.

3. In a jointer for wood working machines, a base, a slide member longitudinally adjustable on said base, means for adjusting the slide member, a frame pivotally mounted upon one end of said slide member, abrasive means mounted in said frame, means mounted in the frame for adjusting said abrasive means thereon, a quadrant pivotally connected at one of its ends to said frame, and means mounted upon the slide member and coöperating with said quadrant to secure the frame in its adjusted position against pivotal movement.

4. In a jointer for wood working machines, a base, a bar longitudinally adjustable upon said base, means for adjusting said bar, a frame pivotally mounted upon one end of said bar, abrasive means longitudinally adjustable upon said frame, means for adjusting said abrasive means with respect to the frame, a quadrant pivotally connected at one of its ends to said frame, an obliquely disposed arm fixed upon said slide bar, and means carried by said arm coöperating with the quadrant to secure said frame in its adjusted position against tilting movement with respect to the bar.

5. In a jointer for wood working machines, a base, a bar longitudinally adjustable upon said base, means for adjusting said bar, a frame pivotally mounted upon one end of said bar, abrasive means longitudinally movable upon said frame, means for adjusting said abrasive means with respect to the frame, a quadrant pivotally connected at one of its ends to said frame, an obliquely disposed arm fixed at one end upon said slide bar, the other end of said arm terminating in a threaded shank, said quadrant including spaced bars disposed upon opposite sides of said shank, and clamping means engaging upon said threaded shank to clamp the quadrant bars against movement upon the end of the arm and secure said frame in its adjusted position against pivotal movement with respect to the slide bar.

1,136,595. BALANCE-STAFF FOR WATCHES. JACOB FREISTADTER, Waltham, Mass. Filed Oct. 7, 1914. Serial No. 865,473. (Cl. 58—140.)

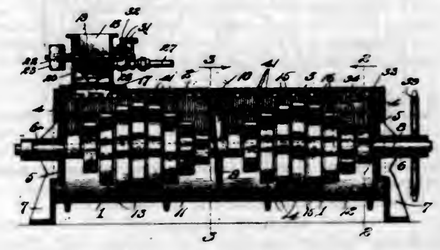


A reversible balance staff composed of duplicate end portions, each having a pivot and each formed to engage either a hair spring collet or a safety roller and a roller table, and an intermediate cylindrical balance hub-engaging collar the ends of which form duplicate oppositely facing stops, the distance between the upper stop and the upper pivot being the same as that between the lower stop and the lower pivot, each end portion being practically an inverted facsimile of the other, whereby the staff may be installed with either end portion uppermost, and with either end portion engaged with a hair spring collet and the other end portion engaged with a safety roller and a table roller, the cylindrical form of said collar permitting it to engage a balance hub with either end of the staff uppermost.

1,136,596. WHEAT-CLEANING MACHINE. ORLANDO M. FRIEND and SAMUEL E. FRIEND, Hannibal, Mo. Filed Oct. 6, 1913. Serial No. 793,541. (Cl. 83—30.)

1. A wheat cleaning machine comprising a casing provided with an inlet and and outlet for grain and affording an uninterrupted space for the agitation of the grain in bulk, a shaft extending through said casing and provided with two sets of agitators, a force feed device mounted on said shaft and interposed between the two sets of agitators, and a yieldable closure for said outlet.

2. A grain cleaning device comprising a casing affording an uninterrupted space for the agitation of the grain in bulk and having an inlet and an outlet for grain located, respectively, at opposite ends of the casing, a shaft extending through said casing and provided with two sets of agitators, a force feed device mounted on said shaft between the two sets of agitators, a partition coöperating with said force feed device to divide the casing into two chambers, and a yieldable closure for said outlet.



3. A wheat cleaning device comprising a casing of substantially uniform dimension throughout and affording an uninterrupted space for the agitation of the grain in bulk, a shaft extending through the casing and provided centrally of the casing with an auger, a partition coöperating with said auger to divide the casing into two chambers, a set of agitators mounted on said shaft and located in one of said chambers, means for supplying grain and water to said chamber, a set of agitators mounted on said shaft and located in the other chamber and being similar in construction and arrangement to those in the first named chamber, said other chamber being provided with an opening, and a yieldable closure for said opening.

4. A wheat cleaning device comprising a casing affording an uninterrupted space for the agitation of the grain in bulk, a shaft extending through said casing and provided with two sets of curved agitators, an auger mounted on said shaft between the two sets of agitators, means coöperating with said auger for dividing the casing into two chambers, each containing a set of agitators, said casing having an inlet and an outlet for grain located, respectively, at opposite ends thereof, and said outlet having a yieldable closure.

5. A wheat cleaning device comprising a casing affording space for the agitation of grain in bulk and having at one end an inlet for grain and an inlet for water, automatic means for controlling the flow of water from the flow of grain, a shaft extending through said casing and provided with two sets of agitators, a force feed device mounted on said shaft between the two sets of agitators, said casing having an outlet opening provided at its opposite end, and a yieldable closure for said opening.

[Claim 6 not printed in the Gazette.]

1,136,597. METHOD OF TREATING WHEAT. ORLANDO M. FRIEND and SAMUEL E. FRIEND, Hannibal, Mo. Filed June 29, 1914. Serial No. 847,934. (Cl. 83—27.)

1. The method of treating wheat, which consists in subjecting the same, in bulk, to the concurrent action of moisture and frictional agitation and continuously decorticating the wheat thus treated.

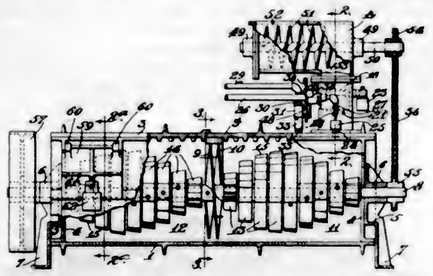
2. The method of treating wheat, which consists in subjecting the same, in bulk, to the concurrent action of moisture and attrition and continuously decorticating the wheat thus treated.

3. The herein described method, which consists in frictionally agitating heated moistened wheat and continuously decorticating the wheat thus treated.

4. The herein described method, which consists in frictionally agitating in bulk moistened wheat, and simultaneously heating the same and thereupon, and in a continuous operation, decorticating the wheat thus treated.

5. The method of treating wheat, which consists in sub-

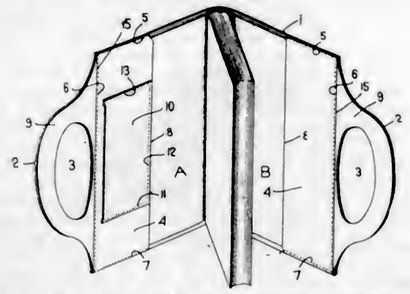
jecting the same in bulk, to the concurrent actions of frictional agitation, moisture and heat and thereupon, and



in a continuous operation, decorticating the wheat thus treated.

[Claims 6 to 14 not printed in the Gazette.]

1,136,598. BOOK CARRIER AND COVER. CLARKE S. GOULD, Norwood, Mass. Filed Dec. 4, 1913. Serial No. 804,770. (Cl. 224—47.)



1. A book carrier and cover comprising a flexible body portion of a form substantially corresponding to the contour of the covers of an open book and having integral apertured extensions from opposite ends, and members secured to said body portion adjacent its opposite ends to form pockets adapted to receive the edges of the covers of a book and having integral apertured extensions corresponding to the extensions from said edge portion, and secured thereto to form handles for conveniently carrying said book.

2. A book carrier and cover comprising a flexible body portion of a form substantially corresponding to the contour of the covers of an open book and having integral apertured extensions from its opposite edges, and members secured to said body portion adjacent its opposite ends to form pockets adapted to receive the edges of the covers of a book, and having integral apertured extensions corresponding to the extensions from said edge portion, and secured thereto to form handles for conveniently carrying a book, and a crease at the base of each extension whereby said extensions are adapted to be folded inwardly when the book is in use or to mark the page at which a book is closed.

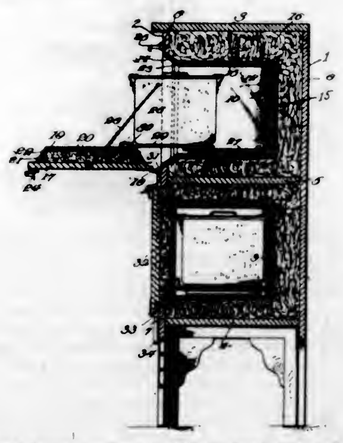
1,136,599. WRENCH. JOHNIE B. HALEY, Java, Va. Filed May 8, 1914. Serial No. 837,276. (Cl. 81—140.)

A device of the class described including a shank having teeth upon one face and a rigid jaw at one end, a movable shank, a sleeve carried thereby and adapted to inclose the stationary shank, a jaw carried by the movable shank, said movable shank being mounted for pivotal movement within the sleeve and having teeth adapted to engage the teeth on the first shank, a spring member having one end rigidly secured to the inner face of the movable shank and having its free end yieldably engaging the stationary shank, a handle portion formed integral with the movable shank, a locking lever pivotally mounted upon said handle, said locking lever including a bell crank having its outer end normally projecting beyond the outer face of the



handle and its inner end adapted for engagement with one face of the stationary shank to securely retain the teeth on the aforesaid shanks into engagement to prevent longitudinal movement of the movable shank with respect to the stationary shank.

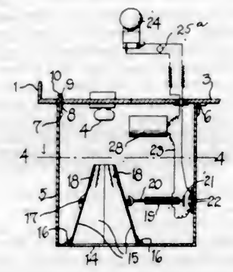
1,136,600. FIRELESS COOKER. FRED H. HARPER, Wichita, Kans. Filed Jan. 9, 1912. Serial No. 670,272. (Cl. 53—11.)



1. In a fireless cooker, a casing, ovens arranged within the casing one above the other, the casing being provided in one wall with door openings at which the open sides of the ovens are presented, a door arranged to close each of the door openings, and a drain device including a trough extending across the said wall of the casing at the lower side of each of the door openings, conduits connecting the troughs at their ends, and a drain leading from the lower trough.

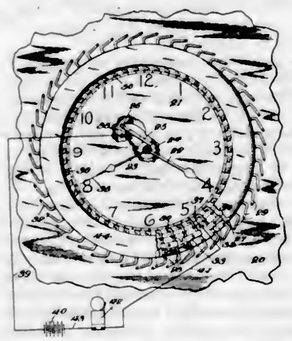
2. In a fireless cooker, a casing, an oven arranged within the casing, a door closure for the open side of the oven, the door being arranged to swing downwardly to open position, means for supporting the door in open position, a thermo radiator plate disposed upon the bottom of the oven, a plate slidably disposed upon the thermo radiator plate, and spaced members upon the inner face of the door pivotally engaging the said slidable plate adjacent its forward edge, the points of pivotal engagement of the members with the slidable plate being in a horizontal plane with the plate both when the door is in open and closed position and the said plate, when the door is in open position being arranged to span the space between the door and the surface of the thermo radiator plate and constituting a support for a utensil disposed therein.

1,136,601. GUARD. THOMAS B. HARRIS, Jacksonville, Fla. Filed May 16, 1914. Serial No. 839,107. (Cl. 177—379.)



A device of the character described comprising a housing adapted to normally inclose a lock operating mechanism and provided with an entrance opening, contacts within the housing, an electrically operated signal, a circuit for operating said signal, said contacts being interposed in said circuit and normally maintaining the circuit open, an endwise movable rod within the housing provided at one extremity with a contact plate adapted to coact with the first mentioned contacts, and means operable upon the insertion of the hand through the entrance opening to impart movement to the rod in a direction to cause the contact plate to engage the first named contacts.

1,136,602. PROGRAM-CLOCK. CHARLES O. HEON, Portage, Wis., assignor to Heon Reminder Clock Company, Inc., Janesville, Wis., a Corporation of Wisconsin. Filed Jan. 28, 1913. Serial No. 744,711. (Cl. 161—3.)



1. A signal device to coöperate with an indicator having a hand, including a plurality of electrically connected spaced contacts movable into and out of operative position for engagement by the hand during movement of the latter and each movable into position to be engaged by the hand at different predetermined positions thereof, and means for determining when they have reached any one of such predetermined positions.

2. A signal device to coöperate with an indicator having a hand, including a contact ring, and a plurality of spaced contacts carried by the ring and movable into and out of position to be engaged by the hand during movement of the latter, each of the contacts including a radially extending body member mounted to turn about its longitudinal axis and provided at its inner end with a laterally directed contact terminal.

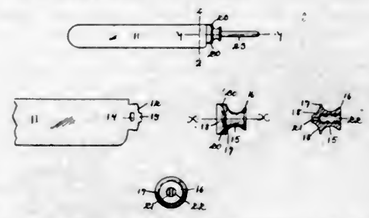
3. A signal device to coöperate with an indicator having a hand, including a contact ring, a plurality of contact members positioned in spaced relation about the ring and extending radially with respect thereto, the inner ends of said contact members having laterally bent contact forming terminals, and the outer ends of said contact members having laterally bent operating arms, said contact members being mounted for turning movement about their longitudinal axes.

4. A signal device adapted for attachment to an indicator having a hand, including a contact ring positioned in the path of movement of the hand, a plurality of eyes arranged in radially alined pairs upon the ring, each pair of eyes being spaced from adjacent pairs, a contact member revolubly mounted in each pair of eyes and provided at its inner end with a contact terminal for engagement with the indicator hand and intermediate its length with angularly formed faces, and means for holding said contact members in adjusted position.

5. A signal device adapted to coöperate with an indicator having a movable hand, including a contact ring, a plurality of eyes arranged in radially alined pairs upon the ring, each pair of eyes being spaced from the adjacent pair, a contact member rotatably mounted in each pair of eyes and provided at its inner end with a contact terminal for engagement with the indicator hand and intermediate its length with angularly formed faces, and leaf springs secured intermediate their length between adjacent contact members and bearing by their free ends upon the angular faces of such contact members to hold them in adjusted position.

[Claims 6 and 7 not printed in the Gazette.]

1,136,603. METHOD OF FORMING AND ATTACHING BOLSTERS TO CUTLERY IMPLEMENTS AND THE BOLSTER-BLANK THEREFOR. JOSEPH F. LAMB, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed June 3, 1914 Serial No. 842,623. (Cl. 76—104.)



1. That improvement in the art of forming and securing bolsters to cutlery implements which consists in separately forming a flat blade with a short shank and a central projection therefrom, and a bolster blank having a grooved neck, a rib at one end of said neck, a transversely slotted head at the other end, and a central hole through the ribbed end that terminates within the said slotted head, assembling the said bolster blanks on the shank of the said blade and positioning the same therein by having the said central projection enter the said round hole, with the flat shank filling the said slotted head at the outer end of the said hole, and then securing the bolster thereon by pressing the bolster in dies.

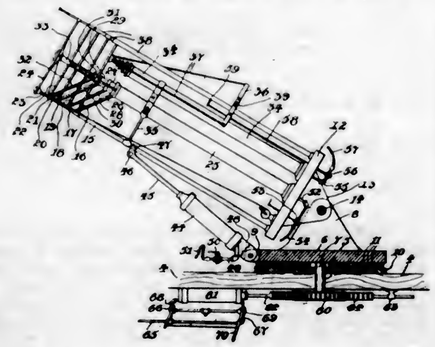
2. That improvement in the art of forming and securing bolsters to cutlery implements which consists in separately forming a flat blade, a round tang and a bolster blank slotted and drilled at its opposite ends to receive said blade and tang, assembling the said blade and tang within the opposite ends of the said bolster blank and then securing them together by pressing the said bolster blank in dies.

3. That improvement in the art of forming and securing bolsters to cutlery implements which consists in separately forming a flat blade having a perforated shank and central projection therefrom, a separately formed round bolster blank, having a grooved neck, a transversely slotted head and a central round hole extending into and terminating within the slot of the said head, assembling the said parts with the perforated shank within the said slotted head and the central projection therefrom in the said round hole, and then securing the parts together by changing the round form of the bolster blank into an oval form, forcing the metal thereof into the perforation of the said shank and the opposite walls of the slotted head firmly together at points outside the opposite edges of the said shank by pressing the said bolster blank in dies.

4. That improvement in the art of forming and securing bolsters to cutlery implements which consists in separately forming a flat blade having a shank with a central projection therefrom, a separately formed round tang having a holding shoulder near one end, and a round bolster blank having a slotted head and a round hole extended from the other end of the said bolster blank to and terminating within the slotted portion of the said head, assembling the said parts with the said shank within and filling the middle portion of the said slotted head while the central projection therefrom enters the said round hole, and with the shouldered end of the said round tang within the round hole of the said bolster blank, and then pressing the said blank in dies and forcing the metal thereof solidly over the opposite edges of the shank and solidly into engagement with the shouldered portion of the said tang.

5. A bolster blank for use in the art of securing bolsters to separately formed cutlery implements which consists of a separate single piece of the general contour of the finished bolster, the same having a blade receiving head at one end, the said head having a slot of uniform width from end to end and extended transversely through the said head with a substantial depth at the opposite open ends thereof, and having also a central tang receiving aperture that opens into the said slot and is extended to the opposite end of the said piece.

1,136,604. TOWER FOR FIRE-FIGHTING PURPOSES. LUDGER L'HEUREUX, Montreal, Quebec, Canada. Filed Feb. 10, 1913. Serial No. 747,219. (Cl. 227—20.)



1. In a tower for fire fighting purposes, an extensible frame formed of telescoping sections, telescoping rods rigidly carried by said frame and extensible therewith and forming tracks, an elevator engaging said tracks and adapted to run up and down said frame, runners on said elevator embracing said tracks, means for raising and lowering said frame and tracks and separate means for raising and lowering said elevator.

2. In a tower for fire fighting purposes, an extensible frame having extensible tracks at one side thereof, said frame being formed of a number of telescoping sections, each having a pair of tracks rigid therewith and adapted to telescope with the tracks of the adjacent section, a telescopic fluid cylinder parallelly arranged within said frame sections for extending purposes, an elevator adapted to run up and down said tracks, runners on said elevator embracing said tracks to prevent lateral movement of the elevator in relation to the extensible frame, a second telescopic cylinder arranged between said tracks for raising and lowering the elevator and means for supplying fluid to said cylinders.

3. In a tower for fire fighting purposes, a telescoping air cylinder suitably supported, an extensible frame comprising a plurality of sections each of which comprises four corner posts suitably braced together and to one of the cylinder sections centrally disposed therebetween, said sections having all one open side and the posts and cylinders of each consecutive section telescoping into the posts and cylinder of the section therebelow, a pair of tracks formed of telescoping sections carried one by each of the corner posts at the open side and whose sections correspond to the sections of the frame, an elevator in the form of a platform fitting said open side of the frame and having means for engaging said tracks, a second air cylinder adapted to raise and lower said platform up and down said tracks and means for supplying fluid to said cylinder.

4. In a tower for fire fighting purposes, a vehicle, an extensible tower flexibly secured at its lower end to said vehicle, a platform adapted to travel up and down said tower, means for guiding said platform in its movement up and down the tower, means for tilting the floor of said platform, means for extending and collapsing said tower and means for raising and lowering said platform.

1,136,605. MOTOR-VEHICLE. JOHN C. LOBATO, Lowell, Mass. Filed Nov. 21, 1914. Serial No. 873,340. (Cl. 89—40.)



1. An armored car including a wheeled truck portion, and a hollow metallic body inclosing the truck and having openings for the projection of the wheels, said body being elliptical in plan and upwardly bowed or rounded from end to end and transversely bowed or rounded from lateral edge to lateral edge.

2. An armored car comprising a wheeled truck, and a hollow metallic body inclosing said truck, said body having a transversely and longitudinally downwardly curved or bowed bottom section having openings for the projection of the wheels of the truck and a transversely and longitudinally upwardly bowed or curved upper section connected at its margin to the margin of the lower section, the body being elliptical in plan.

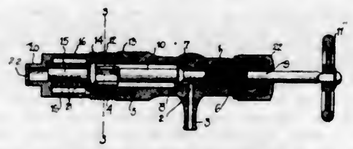
3. An armored car including a hollow metallic body formed of an upper section and a lower or bottom section, both of said sections being longitudinally bowed in opposite directions and transversely bowed in opposite directions, the lateral margins of the top and bottom sections being respectively curved downward and upward and then gradually reversely curved outward and connected to each other whereby to provide a reinforced belt around the car composed of two thicknesses of material extending approximately in a horizontal plane.

4. An armored car including a wheeled truck portion, and a hollow metallic body formed of an upper section and a bottom section, the bottom section being relatively shallow and transversely and longitudinally bowed or curved and formed with openings for the projection of the wheels, the top section being transversely and longitudinally curved, the margin of the bottom section being joined to the margin of the top section to provide a relatively stiff and rigid reinforced impact receiving band extending entirely around the body and projecting beyond any other portion thereof.

5. An armored car including a wheeled truck portion, and a hollow metallic body inclosing the truck portion, said body being elliptical in plan and having a top portion upwardly bowed or curved from end to end, and transversely bowed or curved, and a longitudinally and transversely curved bottom portion, said body being formed to provide an impact receiving belt or band of reinforced material extending entirely around the body in a horizontal plane and projecting beyond any other portion of the body.

[Claim 6 not printed in the Gazette.]

1,136,606. SAFETY-VALVE. MELVIN W. LOYD, Afton, Okla., and ABRAHAM PHELPS, Fort Scott, Kans. Filed May 29, 1914. Serial No. 841,880. (Cl. 137—138.)



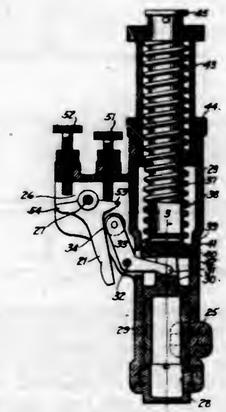
A safety valve comprising a hollow body, the bore of said body being reduced at its forward end to form a rearwardly facing valve seat, a discharge vent formed in the body forwardly of the valve seat, a valve member mounted for reciprocation in the bore rearwardly of the seat, a forwardly projecting operating stem carried by the valve member, said body having a reduced rearwardly projecting exteriorly threaded portion, the inner extremity of the reduced portion being beveled to provide a valve seat, the reduced portion at its juncture with the body being weakened, a cage having an open forward end and being provided with interior threads at its forward end for engagement with the exterior threads of the reduced portion of the body, said cage being exteriorly threaded at its forward end whereby the cage and body may be connected in a suitable support, a spring pressed valve carried by the cage for engagement against the valve seat on the extremity of the reduced portion of the body, the last mentioned valve having a forwardly extending guide member for engagement in the reduced portion of the body, and a rearwardly projecting stem carried by the first mentioned valve member for engagement against said guide member.

1,136,607. GOVERNOR FOR COMPRESSORS. JOHN L. OSBORNE, Rochester, N. Y., assignor to Judson Governor Company, Rochester, N. Y., a Corporation of New York. Filed May 29, 1913. Serial No. 770,781. (Cl. 230—24.)

1. In a compressor-governor, a pressure-controlled element having, in combination, a cylinder; a piston loosely mounted therein; means for admitting fluid to the cylinder behind the piston; means, for operatively connecting the piston with the valve controlled thereby, comprising a lever having an arm extending in front of the piston and loosely engaged thereby; and a spring-pressed counterbalancing-member independent of said means and also loosely engaged by the piston.

2. In a compressor-governor, a pressure-controlled element having, in combination, a cylinder; a piston loosely mounted therein; a removable closure for the end of the cylinder at the rear of the piston; means for admitting fluid to said end of the cylinder; means, for operatively connecting the piston with the valve controlled thereby, comprising a lever having an arm extending in front of the piston and loosely engaged thereby; and a spring-pressed counterbalancing-member independent of said means but located in front of the piston and loosely engaged thereby.

3. In a compressor-governor, a pressure-controlled element having, in combination, a cylinder; a piston loosely mounted therein; a removable closure for the end of the cylinder at the rear of the piston; means for admitting fluid to said end of the cylinder; means, for operatively connecting the piston with the valve controlled thereby, comprising a lever having an arm extending in front of the piston and loosely engaged thereby; a spring-pressed counterbalancing-member independent of said means but located in front of the piston and loosely engaged thereby; and means for limiting the movement of the counterbalancing-member when the piston is withdrawn from engagement therewith.



4. In a compressor-governor, a pressure-controlled element having, in combination, a cylinder; a piston loosely mounted therein; a removable closure for the end of the cylinder at the rear of the piston; means for admitting fluid to said end of the cylinder; means, for operatively connecting the piston with the valve controlled thereby, comprising a lever having an arm extending in front of the piston and loosely engaged thereby; and a spring-pressed counterbalancing-member independent of said means but located in front of the piston and loosely engaged thereby, the cylinder and the counterbalancing-member having coöperating abutments to limit the movement of the latter when the piston is withdrawn therefrom.

5. In a compressor-governor, a pressure-controlled element having, in combination, a cylinder provided, at both ends, with removable closures; a piston movable within the cylinder near one end thereof; means for admitting fluid to said end of the cylinder; a counterbalancing-spring inclosed within the cylinder near the other end thereof; and means for connecting the piston with the valve controlled thereby, said means comprising a lever extending transversely into the cylinder and engaging the end of the piston which is adjacent said spring.

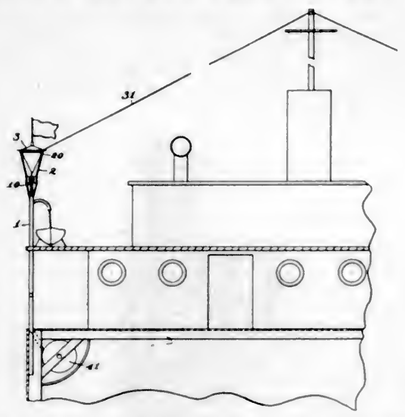
[Claims 6 to 23 not printed in the Gazette.]

1,136,608. DEVICE FOR RAISING SUNKEN VESSELS. SETH PARSHALL, Seattle, Wash., assignor of one-fifth to Allie Weatherhead and one-fifth to Irene Reed, Tacoma, Wash. Filed June 29, 1914. Serial No. 848,310. (Cl. 114—50.)

1. An apparatus for raising sunken vessels comprising a series of buoys, cradles or supports for the buoys permitting free upward removal of the buoys, a guide cable secured to each buoy, cables connecting the various buoys in a string, and lifting hooks secured to the frame of the vessel and each having a hole passing through its upper part and through which the guide cables pass.

2. In an apparatus for raising sunken vessels, a beam secured to the vessel's framing and extending upward to a level above and clear of all superstructure, a downwardly inclined hook arm carried by the upper end of said beam, two arms secured to the upper part of said beam and

extending upwardly and divergently, a buoy carried by said arms over the hook, a guide cable secured to the buoy and a guide for said cable carried by the hook.



3. In an apparatus for raising sunken vessels, a beam secured to the vessel's framing and extending upward to a level above and clear of all superstructure, a downwardly inclined hook arm carried by the upper end of said beam and having a cable guide at its upper end, two arms secured to the upper part of said beam and extending upwardly and divergently well above the hook arm, separated ring-guiding bars carried above said hook and inclined in like direction therewith, a buoy carried by the said divergent arms above the hook and a guide cable secured to the buoy and passing through the cable guide of the hook.

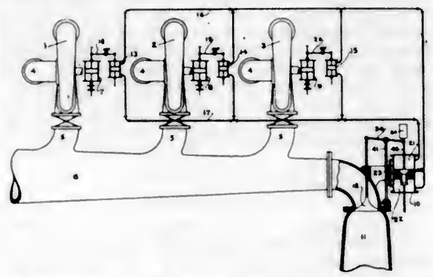
4. In an apparatus for raising sunken vessels, a beam secured to the vessel framing and extending upward to a point clear of the superstructure, a hook arm extending at a downward incline from the upper end of said beam, a guide line having running engagement with the upper part of said hook arm and a guide plate of U-shape carried above and with its arms inclined in a direction corresponding with that of the hook arm and with its median plane corresponding with that of the hook arm.

5. An apparatus for use in raising sunken vessels, comprising a series of buoys and supports therefor distributed about the outer margin of the hull, a guide cable connected with each buoy, means adapted when directed by said cables for securing lifting cables to the hull, and horizontal cables connecting all the buoys in series.

1,136,609. RELIEF MECHANISM. ARNOLD PFAU, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Feb. 17, 1913. Serial No. 749,537. (Cl. 138—5.)

1. In combination, a plurality of prime movers, means common thereto for supplying motive fluid to said prime movers, load affected devices controlling the flow of fluid from said supply means to said prime movers, means connecting said devices for effecting the algebraic sum of the movements of said devices, and means operable by said connecting means to an extent proportional to said algebraic sum for permitting discharge of fluid from said common supply means.

2. In combination, a plurality of turbines, a penstock common thereto for supplying fluid to said turbines, gates affected by the load on said turbines for controlling the flow of fluid from said penstock to said turbines, means connecting said gates for effecting the algebraic sum of the movements of said gates, and a relief valve common to said turbines and operable by said connecting means to an extent proportional to said algebraic sum for permitting discharge of fluid from said penstock.



3. In combination, a plurality of prime movers, means common thereto for supplying motive fluid to said prime movers, load affected devices controlling the flow of fluid from said supply means to said prime movers, fluid pressure means connecting said devices for effecting the algebraic sum of the movements of said devices, and means operable by said fluid pressure means to an extent proportional to said algebraic sum of the movements of said devices for permitting discharge of fluid from said common supply means.

4. In combination, a plurality of turbines, a penstock common thereto for supplying water to said turbines, load affected gates controlling the flow of water from said penstock to said turbines, fluid pressure means connecting said gates for effecting the algebraic sum of the movements of said gates, and a relief valve common to said turbines and operable by said fluid pressure means to an extent proportional to said algebraic sum of the movements of said gates for permitting discharge of water from said penstock.

5. In combination, a plurality of prime movers, means common thereto for supplying motive fluid to said prime movers, load affected devices controlling the flow of fluid from said supply means to said prime movers, fluid pressure means connecting said devices independently of said supply means, and means operable by variations in pressure in said fluid pressure means for permitting discharge of fluid from said common supply means, said variations being induced by movement of said devices.

[Claim 6 not printed in the Gazette.]

1,136,610. SUSPENDER-BUCKLE. JOSEPH H. PILKINGTON, Waterbury, Conn. Filed Oct. 9, 1914. Serial No. 865,783. (Cl. 24—168.)

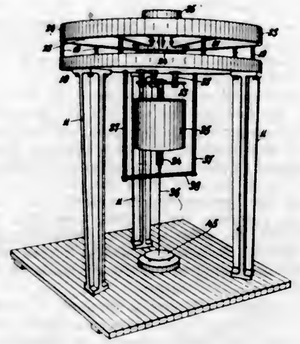


1. A suspender buckle, comprising a frame member including a lower bar, alined sockets and a back, a loop like clamping-member including alined pivotal bars pivotally mounted in some of the sockets of the frame, a clamping-bar to clamp the webbing against the back projecting portions between the said pivotal bars, an operating lever also pivotally mounted in other of the sockets of the frame and including a short arm to engage the projecting end of the clamping-member and a long arm forming a finger piece for the operation of the buckle.

2. A suspender buckle, comprising a sheet metal frame member including a lower bar for the attachment of a piece of webbing and alined sockets, a wire clamping-member pivotally mounted in some of the sockets of the frame and including pivotal bars, a clamping-bar and a projecting portion upon the inside of the pivotal bars, an operating lever pivotally mounted in the sockets of the frame and including a short arm to engage the projecting end of the clamping member and a long arm forming a finger piece for the operation of the buckle.

3. A suspender buckle, comprising a frame member including a lower bar for the attachment of a piece of webbing and alined sockets and a concave back, a wire clamping-member including pivotal bars mounted in the sockets of the frame and a clamping-bar to clamp the webbing in the concave of the back, an operating lever also pivotally connected to the frame and including a short arm to engage the clamping-member and a long arm forming a finger piece for the operation of the buckle.

1,136,611. BALANCING-TABLE. WILLIAM D. POMEROY, Norwood, Ohio, assignor, by direct and mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Nov. 30, 1906. Serial No. 345,608. (Cl. 73—51.)



1. In a balancing device, a stationary horizontal frame or support, a movable table above and supported at its center on said stationary frame so as to be capable of tilting in any direction, said movable table having an upper surface for supporting the article to be balanced, a spindle extending downward from said movable table in line with its center and at right angles to the table, a weight adjustably mounted on said spindle, and means for indicating the tilting of said movable table.

2. In a balancing device, a stationary horizontal frame or support, a movable table above and supported on said frame at its center so as to be capable of tilting in all directions, said movable table having an upper surface for supporting the article to be balanced and means for indicating the position of said table comprising a spindle extending downward therefrom in line with its center and at right angles thereto and a weight adjustably mounted on said spindle.

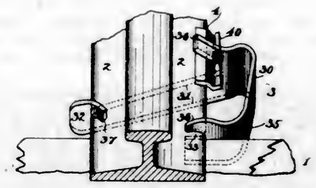
3. In a balancing device, a stationary frame or support, a movable table, a ball and socket joint supporting said movable table on said frame or support and permitting an universal movement of said table, said movable table having an upper surface for supporting the article to be balanced, and means for indicating the movement of said table.

4. In a balancing device, a stationary frame or table, a bearing-support at its center having a spherical shaped socket, a movable table having also at its center a spherical shaped socket, said movable table having an upper surface for supporting the article to be balanced, a spherical bearing resting in the first named socket and supporting said table and means for indicating the movement of the movable table.

5. In a balancing device, a stationary frame or table having a spherical shaped bearing at its center, a movable table with an upper surface for supporting the article to be balanced, said movable table having a spherical shaped bearing socket resting on said bearing, means for excluding dust or dirt from said bearing, and means for indicating the movements of said latter table.

[Claims 6 to 11 not printed in the Gazette.]

1,136,612. RAIL-ANCHOR. CLARENCE D. PORTERFIELD, New York, N. Y. Filed June 24, 1914. Serial No. 846,968. (Cl. 238—4.)



1. A non-creeping rail anchor adapted to engage a railroad rail and tie comprising a tang having oppositely located resilient rail-base gripping members arranged thereon, one of said gripping members abutting against the tie, and a wedge for increasing the tension therebetween.

2. A non-creeping rail anchor adapted to engage a railroad rail and tie comprising resilient oppositely arranged rail-base engaging members integrally connected, one of said base-engaging members abutting against the tie, and tension increasing means between said resilient members.

3. A non-creeping rail anchor comprising resilient oppositely arranged rail-base engaging members integrally connected, tension increasing means between said resilient members, and locking means carried by said tension-increasing means to maintain the same in operative position.

4. A non-creeping anchor adapted to engage a railroad rail and tie and comprising a tang adapted to extend obliquely across the rail-base and integral therewith, and oblique thereto a head adapted to abut against a tie, flukes extending from said tang and head and forming flange-notches and a wedge-notch, and a wedge driven into said wedge notch, straining the anchor upon the rail base.

5. A non-creeping anchor adapted to engage a railroad rail and tie and comprising a tang adapted to extend obliquely across the rail-base and integral therewith, and oblique thereto a head adapted to abut against a tie, flukes extending from said tank and head and forming flange-notches and a wedge-notch, a forked wedge driven into said wedge-notch with one fork riding the rail-flange and the other bent down on the anchor.

[Claims 6 to 17 not printed in the Gazette.]

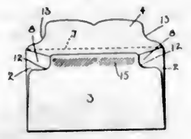
1,136,613. COMPOSITION FOR CHEWING-GUM. MARIA M. RAUB, Brooklyn, N. Y. Filed Dec. 31, 1913. Serial No. 809,783. (Cl. 127—4.)

The herein described composition of matter consisting of chicle, sugar, pine tar and a flavoring ingredient admixed in substantially the proportions of one part of chicle, three parts of sugar, and one sixth of one part of pine tar with any desired quantity of flavoring ingredient.

1,136,614. ENEVELOP. ISAAC L. RHEUTAN, Richmond, Va., assignor to Union Envelope Company, Richmond, Va., a Corporation of Virginia. Filed Oct. 21, 1914. Serial No. 867,819. (Cl. 229—72.)

1. An envelop comprising a body portion provided with side flaps, a back and a sealing flap, the side flaps being

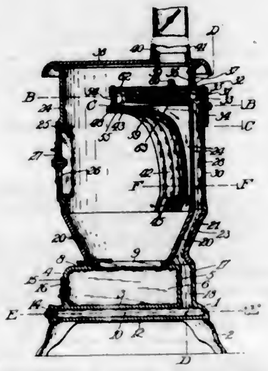
folded inwardly upon the body and being provided with an adhesive, said back flap being of approximately the same dimensions as the body and being superposed upon the side flaps, and registering notches provided in said back and sealing flaps adapted to register over said side flaps when all of said flaps are folded, whereby the folders for the side flaps, used in manufacturing an envelop, may remain depressed while the back and sealing flaps are being folded.



2. A twin envelop comprising a body portion provided with side flaps, a back and a sealing flap, the side flaps being folded inward upon the body and being provided with an adhesive, and the back flap being provided intermediate its ends with a line of adhesive which divides the envelop into two pockets when the back flap is superposed upon the side flaps, said back flap being of approximately the same dimensions as the body portion and being provided at its corners with notches, and the sealing flap being superposed upon the said back flap and having its corners notched to correspond with the notched portions of the back flap whereby said notched portions will register over the side flaps in the complete envelop.

3. An envelop comprising a body portion provided with side flaps, a back and a sealing flap, the side flaps being folded inwardly upon the body and being provided with an adhesive, said back flap being of approximately the same dimensions as the body and being superposed upon the side flaps, and registering notches provided in said back and sealing flaps, whereby the folders for the side flaps, used in manufacturing an envelop, may remain depressed while the back and sealing flaps are being folded, and an adhesive provided upon the upper outer surface of said back flap for engagement with the sealing flap when the envelop is closed.

1,136,615. HEATING-STOVE. CHARLES K. RICE, Indianapolis, Ind. Filed June 14, 1913. Serial No. 773,625. (Cl. 126—77.)



1. A heating stove including a fire bowl, a drum on the bowl, a vertically fluted partition secured in the drum and extending opposite the rear wall portion and upward and over toward the front wall portion of the drum, the edges of the partition being connected to the wall of the drum, the back of the partition having vertical ribs thereon forming passageways extending downward approximately to the top of the bowl for discharging air onto the fire, and an air-duct extending from the exterior of the drum to the forward upper portion of the partition for conducting air to the passageways.

2. A heating stove including a fire bowl having a conduit on the exterior thereof, and a drum on the bowl having an external conduit thereon extending from the conduit of the bowl and into the upper portion of the wall of the drum, the drum having also a relatively broader internal conduit extending from the external conduit and increasing in width therefrom toward the front of the drum and thence extending downward to the lower inner side of the wall of the drum and approximately to the top of the bowl for discharging air onto the fire, the inner wall of the downward extending portion of the conduit having vertical flutings.

3. A heating stove including a drum or body portion having an air-conduit on the interior thereof extending from one portion horizontally toward the opposite portion of the wall of the drum and thence backward under the horizontal portion and also downward, the horizontally extending portion increasing in width from the wall and having vertical partitions therein, the inner wall of the downward extending portion of the air-conduit being fluted to form ribs extending toward the outer wall thereof, the air-conduit extending downward to the lower portion of the drum for discharging air onto the fire.

4. A heating stove comprising a base, an ash pit box on the base, a fire bowl on the ash pit box, a drum on the bowl having an aperture in the upper rear portion of the wall thereof, and a top on the drum having a flue-opening therein adjacent to the aperture, the stove having an air-duct extending in the base under the ash pit box and upward behind the box and the bowl and also behind the drum to the aperture, the air-duct extending from the aperture within the drum below the flue-opening toward the front and thence back to the rear of the interior of the drum and downward to the lower portion of the drum, for discharging air onto the fire.

5. A heating stove including a fire-bowl, a drum or body portion on the fire-bowl and having an inlet aperture in the upper rear wall portion thereof, an upright partition connected to two portions of the wall of the drum and extending upward opposite the rear portion and over toward the front portion of the wall, the partition forming with the back of the drum an air pass agency extending downward to the top of the fire-bowl for discharging air onto the fire, a front wall plate on the forward portion of the partition, side walls extending from opposite sides of the aperture to the front wall plate, a top plate extending from the wall of the drum above the aperture and to the front wall plate, a partition plate extending from the wall of the drum between the top plate and the upper portion of the upright partitions toward but not to the front wall plate, and vertical partitions between the partition plate and the top plate.

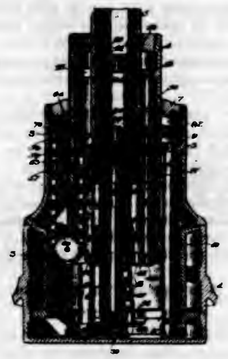
[Claim 6 not printed in the Gazette.]

1,136,616. [WITHDRAWN.]

1,136,617. CHAIR-BASE. FRANK RITTER, Rochester, N. Y. Filed Mar. 11, 1910. Serial No. 548,534. (Cl. 138—9.)

1. In a chair base, the combination with a pedestal, a movable section telescoping therein having longitudinally extending ribs and mechanism for elevating the section, of a locking ring surrounding the movable section, brake shoes located between the ring and said ribs, means for adjusting one of said shoes relatively to the ring at one side thereof and an adjustable stud on the pedestal pivotally engaging the opposite side of the ring and positioning the latter, relatively to the telescoping section with which it coöperates.

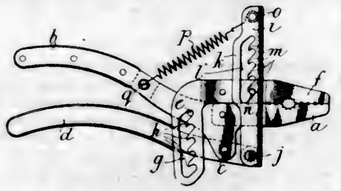
2. The combination with a chair base and hydraulic operating mechanism comprising a cylinder and a piston arranged therein, of a cup located within the cylinder, a projection on the piston fitting the cup and having a relief passage and a valve closing the latter during the entrance



of the projection into the cup.

3. The combination with a chair base and hydraulic operating mechanism comprising a cylinder and a piston arranged therein, of a cup located within the cylinder, a projection on the piston fitting the cup and having a relief passage leading from a point outside of the cup to the bottom thereof when the parts are together and a valve closing and opening the passage during the entrance and withdrawal of the projection into and out of the cup.

1,136,618. PLIERS AND LIKE GRIPPING-TOOL. ARTHUR SAMUEL FRANCIS ROBINSON, Beccles, England. Filed May 4, 1914. Serial No. 836,296. (Cl. 81—84.)



1. In a gripping tool, a pair of gripping members, an operating lever pivoted to one of said gripping members, pins fixed one to each of said gripping members, ratchet-like racks each engaging the said pin of one of said gripping members, one of said racks being connected to one of said gripping members, ratchet-like racks each engaging the said pin of one of said gripping members, one of said racks being connected to one of said gripping members on one side of the pivot of said operating lever, and the other of said racks being pivoted to said operating lever beyond its pivot, and a spring tending to maintain said racks in engagement with said pins.

2. In a gripping tool, a pair of gripping members, an operating lever pivoted to one of said gripping members, pins fixed one to each of said gripping members, a ratchet-like rack engaging the said pin of the said gripping member to which the said operating lever is pivoted and fixed to the other said gripping member, a ratchet-like rack pivoted to the operating lever and engaging the said pin of the gripping member other than that to which said operating lever is pivoted, and a spring tending to maintain said racks in engagement with said pins.

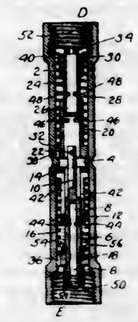
3. In a griping tool, a gripping member formed with a hand grip, an operating lever pivoted to said gripping member, a pin fixed to said gripping member between said hand grip and the pivot of said operating lever, a movable gripping member, a ratchet-like rack projecting from the inner end of said movable gripping member toward said operating lever and engaging said pin, a ratchet-like rack pivoted to said operating lever, a pin on said movable gripping member engaged by said pivoted rack, and a spring tending to maintain said racks in engagement with said pins.

4. In a gripping tool, a gripping member formed with a hand grip, an operating lever pivoted to said gripping member, a pin fixed to said gripping member between said hand grip and the pivot of said operating lever, a movable gripping member, a ratchet-like rack projecting from the inner end of said movable gripping member toward said operating lever and engaging said pin, a ratchet-like rack pivoted to said operating lever, a pin on said movable gripping member engaged by said pivoted rack, and a spring connected at one end to the said pivoted rack and at the other end to the said gripping member formed with a hand grip.

5. In a gripping tool, a gripping member formed with a hand grip, an operating lever pivoted to said gripping member, a pin fixed to said gripping member between said hand grip and the pivot of said operating lever, a movable gripping member, an extension of said movable gripping member formed with a slot provided along one edge with ratchet-like teeth engaging said pin, a link pivoted to said operating lever and formed with a slot having ratchet-like teeth along one edge, a pin on said movable gripping member engaged by the ratchet-like teeth of said link, and a spring tending to maintain the ratchet-like teeth of said extension and the ratchet-like teeth of said link in engagement with said pins.

[Claim 6 not printed in the Gazette.]

1,136,619. FLUID PRESSURE OR FLOW REGULATOR OR CONTROLLER. ERNEST LINCOLN SAGE, Newton Center, Mass., assignor, by mesne assignments, to Eastern Fountain Company, a Corporation of Massachusetts. Filed Jan. 17, 1911. Serial No. 603,061. (Cl. 50—14.)



1. A fluid pressure or flow regulator comprising a casing having open ends to permit the flow of fluid therethrough, a plurality of telescoping tubular members in said casing having lateral openings in the walls thereof, partitions in said casing and members to cause fluid flowing through said casing to pass alternately inwardly and outwardly through the lateral openings in the several members, said members being movable to telescoped position to close said lateral openings by the pressure of said fluid, and springs for distending said members.

2. In a fluid pressure or flow regulator, the combination with a casing having open ends to permit the flow of fluid therethrough, of means within said casing for dividing said flow into a plurality of portions and including means for completely cutting off a portion of said flow at one point, means for subsequently varying the amount of the

remaining portion of said flow, and means controlled by the pressure of said fluid and located at another point in the path of said flow for controlling said two last named means.

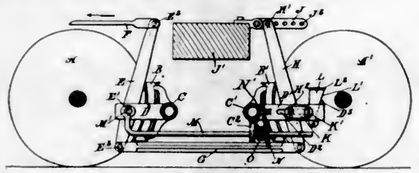
3. A fluid pressure or flow regulator comprising a casing having open ends to permit the flow of fluid therethrough, and means within said casing for dividing said flow into a plurality of portions, said means including a plurality of members having openings through which said fluid passes, said members being movable by the pressure of said fluid to close all the openings in one of said members completely and to vary the size of the openings in another of said members.

4. A fluid pressure or flow regulator comprising a casing having open ends to permit the flow of fluid therethrough, a plurality of telescoping tubular members within said casing having lateral openings in the walls thereof, partitions in said casing and members to cause a portion of the fluid flowing through said casing to pass alternately inwardly and outwardly through said openings, and yielding means for normally distending said members, said members being movable by the pressure of said fluid to telescoped position to close the openings in one of said members completely and to vary the effective size of the openings in another of said members.

5. A fluid pressure or flow regulator comprising a casing having open ends to permit the flow of fluid therethrough, a plurality of telescoping tubular members within said casing, one of said members having in its wall one or more transversely arranged slots and the other of said members having in its wall one or more longitudinally arranged slots, and yielding means for normally distending said members, said members being movable by the pressure of said fluid to telescoped position to close said transversely arranged slots completely and to vary the effective length of said longitudinally arranged slots.

[Claims 6 to 10 not printed in the Gazette.]

1,136,620. SLACK-ADJUSTER FOR RAILWAY-BRAKES. WILLIAM H. SAUVAGE, New York, N. Y., assignor, by mesne assignments, of one-half to Standard Coupler Company, a Corporation of New Jersey. Filed June 29, 1908, Serial No. 440,831. Renewed June 15, 1912. Serial No. 703,975. (Cl. 188—49.)



1. In a vehicle brake, two brake shoes adapted to engage adjacent wheels in combination with levers, one for each of said shoes, one of said levers having a permanent pivotal connection with its shoe and the other having a pivotal connection which is adjustable relatively to its shoe, a wedge arranged to automatically drop to a new position whenever the connection of said other lever is shifted and means connected with one of said levers for returning the levers to normal position.

2. In a vehicle brake, two brake shoes adapted to engage adjacent wheels, in combination with levers, one for each of said shoes, one of said levers having a pivotal connection which is adjustable relatively to its brake shoe, a wedge arranged to automatically drop to a new position whenever the connection of said lever is shifted and means connected with one of said levers for returning the levers to normal position.

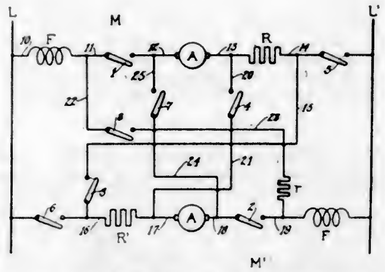
3. In a vehicle brake, two brake shoes adapted to engage adjacent wheels, in combination with levers, one for each brake shoe, a slide movable relatively to one of the brake shoes and pivotally connected with the corresponding lever, an inclined surface facing said slide and permanently connected with said brake shoe, and a wedge engaging said surface at one side and the slide at the other side and arranged to drop by gravity when required, so as to always fill the space between the slide and said inclined surface.

4. In a vehicle brake, brake beams and shoes carried thereby, in combination with an adjustable connection by which the distance between the brake beams may be varied, said connection including levers, one for each brake beam, a slide connected with one of said levers and movable relatively to its brake beam, a wedge movable on said brake beam transversely to the slide's path to hold the slide against movement in one direction and means connected with one of said levers for returning the levers to normal position.

5. In a vehicle brake, two brake shoes adapted to engage adjacent wheels in combination with an adjustable connection by which the distance between the brake shoes may be varied, said connection including levers, one for each brake shoe, the connection of one of said levers being adjustable relatively to its brake shoe, a wedge arranged to shift to a new position by gravity whenever the connection of said lever is shifted and means connected with one of said levers for returning the levers to normal position.

[Claims 6 to 21 not printed in the Gazette.]

1,136,621. MOTOR-CONTROLLER. WILMER M. SHALLCROSS, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 6, 1913. Serial No. 740,434. (Cl. 172—179.)



1. A controller for a plurality of series motors, comprising a plurality of sets of motor leads, line leads, means for connecting said sets of motor leads to said line leads for either series or parallel connection, and means coöperating with said former means to connect the armature leads of said sets to form a single dynamic braking circuit and to connect the field leads of said sets to said line leads.

2. In a controller for a plurality of electric motors, in combination, a plurality of sets of motor leads each including armature leads and field leads, line leads, means including a switch for connecting all of said motor leads to said line leads and two single pole switches coöperating with said former switch to connect said armature leads for dynamic braking and to connect said field leads to said line leads.

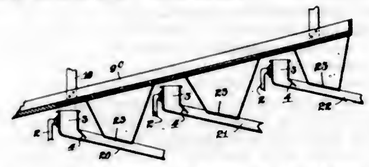
3. In a controller for a plurality of electric motors, in combination, a plurality of sets of motor leads, line leads, means for connecting said motor leads to said line leads for either series or parallel connection of the motors and two single pole switches coöperating with said means to connect the armature leads of said sets for dynamic braking and to establish connections between the field leads of said sets and said line leads.

4. In a controller for a plurality of electric motors, in combination, a plurality of sets of motor leads, line leads, a plurality of switches for connecting said sets of motor leads to said line leads for either series or parallel connection of the motors, and switches coöperating with certain of said former switches to establish dynamic braking connections for the armature leads of said sets and to establish connections between the field leads of said sets and said line leads.

5. In a controller for a plurality of electric motors, in combination, motor leads, line leads, switches controlling said leads for either series or parallel connection of the motors, and two single pole switches coöperating with one of said first mentioned switches to adjust said connections for dynamic braking.

[Claims 6 to 10 not printed in the Gazette.]

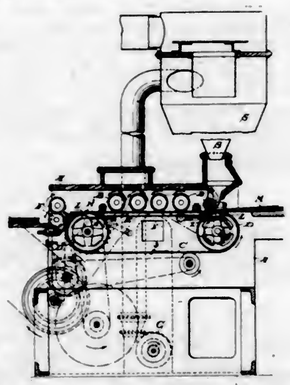
1,136,622. APPARATUS FOR THE WET DRESSING OF SULFID ORES. BENJAMIN SEDGELY SMITH, Sydney, New South Wales, Australia. Filed Feb. 11, 1913. Serial No. 747,646. (Cl. 83—85.)



1. In combination, a surface tension separating table provided with means for flowing liquid therethrough, a screen thereover adapted to deliver a predetermined size of material to the table, a distributing screen close to and parallel with the surface of the liquid on the table, interposed in the path of material dropping from the primary screen and adapted to break the momentum thereof.

2. In combination, a plurality of surface tension separating tables provided with means for flowing liquid therethrough, an inclined screen traversing the head ends of the separating tables and adapted to deliver progressively different sizes to the successive tables, and an intermediate distributing screen interposed in the path of each grade from the primary screen, parallel and close to the surface of the liquid in each table.

1,136,623. BRONZING AND LIKE MACHINE. MARK SMITH, Reddish, near Stockport, England. Filed Feb. 7, 1914. Serial No. 817,116. (Cl. 91—62.)

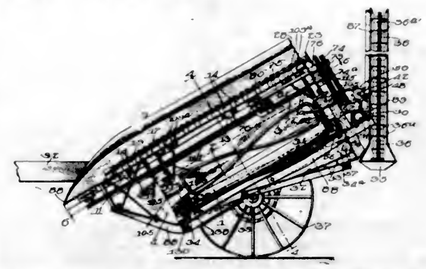


1. In a traveling belt bronzing machine comprising a traveling belt, and means for driving the same, spring grippers thereon composed of spring plates attached to the inner surface side of the belt and projecting through holes in the belt to the outer surface thereof where they are provided with gripper ends which completely close the holes in the belt, and means situated within the loop of the belt adapted to coöperate with parts of the spring grippers to open and permit the closing of such grippers as they move over such means, substantially as described.

2. On a traveling carrying belt for a bronzing machine, a spring gripper composed of a spring plate the leading end of which is attached to the inner surface of the belt the outer end of which passes through a hole to the outer surface of the belt where it is formed with a gripping end which completely closes the holes in the belt, and the intermediate portion of which projects away from the inner surface of the belt in a manner suitable for engagement with means for lifting the gripping end away from and permitting it to return to the outer surface of the belt, substantially as described.

3. In a traveling belt bronzing machine comprising a traveling belt, and circumferentially grooved pulleys for the same, spring grippers composed of spring plates attached by their leading ends to the inner surface of the belt, such spring grippers being formed with rear parts which pass through the belt to the outer surface and are formed as gripping ends which completely close the hole in the belt and with intermediate parts which project from the inner surface of the belt, and means disposed within the circumferential grooves in the pulleys to operate the grippers by engagement with their projecting intermediate parts, substantially as hereinbefore described.

1,136,624. CORN HARVESTER AND HUSKER. BYRON C. SMALL, Thayer, Ill. Filed Aug. 30, 1907. Serial No. 390,816. (Cl. 56—113.)



1. In a corn husking machine, the combination of a frame, power transmitting mechanism, gathering rolls, and a spiral knocker bar.

2. In a corn husking machine, the combination of a frame, power transmitting mechanism, gathering rolls, a knocker bar, and spring actuated shield blades.

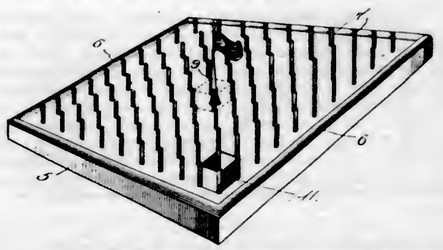
3. In a corn husking machine, the combination of a frame, power transmitting mechanism, gathering rolls, a spiral knocker bar, and spring actuated shield blades.

4. In a corn husking machine, the combination of a frame, power transmitting mechanism, gathering rolls, the lower ends of which are corrugated, and a spiral knocker bar.

5. In a corn husking machine, the combination of a frame, power transmitting mechanism, gathering rolls the lower ends of which are formed with spiral corrugations, and a spiral knocker bar.

[Claims 6 to 28 not printed in the Gazette.]

1,136,625. GAME OR TOY. JOSEPH J. SONSIKOWSKI and JOHN K. SONSIKOWSKI, Chicago, Ill. Filed July 20, 1914. Serial No. 851,866. (Cl. 46—64.)



1. A game apparatus comprising a suitable board, pegs arranged thereon and provided with longitudinal grooves,

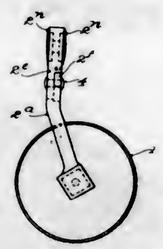
and devices adapted to be inserted longitudinally in the grooves of two pegs to construct portions of figures.

2. A game apparatus comprising a suitable board, pegs arranged in rows thereon, and provided with longitudinal grooves, and plates adapted to be inserted in facing grooves of said pegs.

3. A game apparatus comprising a suitable board, pegs arranged at the corners of geometric figures thereon, said pegs having longitudinal grooves facing adjacent pegs, and plates adapted to be removably inserted in two of said grooves.

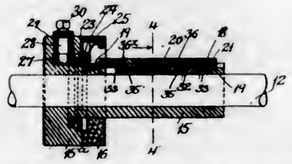
4. A game apparatus comprising a suitable board, equally spaced pegs arranged in longitudinal and transverse alinement with each other, said pegs having longitudinal grooves facing adjacent pegs, and plates adapted to be removably inserted in two of said grooves.

1,136,626. TENSION-PULLEY-SUPPORTING BRACKET. CARL E. SPAULDING, Lowell, Mass. Filed Nov. 16, 1907. Serial No. 402,400. (Cl. 64—67.)



A tension-pulley supporting-bracket having a fixed arm and a pivoted arm both of which are provided with bearing blocks projecting inward beyond the pockets containing said bearing blocks, combined with a tension pulley having fixed journals fitting said blocks and provided with shoulders abutting against the inwardly projecting inner ends of said blocks to limit lateral movement of the pulley; whereby the pivoted arm may be swung aside to unlock said pulley when it is desired to remove or replace the same or to permit the driving band or tape to be removed or replaced, and whereby also lateral movements of the pulley in its bearings will be prevented.

1,136,627. CHUCK FOR WEB-SPINDLES. GEORGE F. SULLIVAN, Cambridge, Mass. Filed June 12, 1913. Serial No. 773,244. (Cl. 242—72.)



1. A double acting chuck comprising a sleeve having longitudinal slots, inner and outer keys movable in said slots, yielding means preventing longitudinal movement of the inner keys, the inner keys being movable radially inward and immovable longitudinally, while the outer keys are movable radially outward and longitudinally, and means for possibly moving the outer keys longitudinally in one direction, the sleeve and keys being provided with complemental means whereby said longitudinal movement of the outer keys is caused to simultaneously move the inner keys radially inward and the outer keys radially outward.

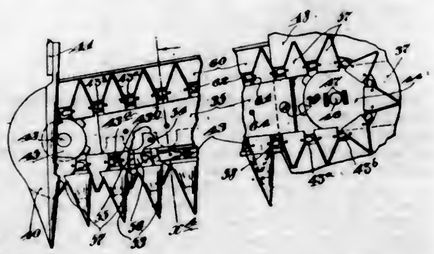
2. A double acting chuck comprising a sleeve having longitudinal slots, inner and outer keys movable in said slots, yielding means preventing longitudinal movement of the inner keys, the inner keys being movable radially inward and immovable longitudinally, while the outer keys are movable radially outward and longitudinally, and a cam ring movable in the sleeve and having cam faces adapted to move the outer keys longitudinally in one direction, the sleeve and keys being provided with complemental means whereby said longitudinal movement of the outer keys is caused to simultaneously move the inner keys radially inward and the outer keys radially outward, means being provided for yieldingly holding the outer keys against the cam ring.

4. A double acting chuck comprising a sleeve having longitudinal slots and spaced apart bridges extending across the end portions of the slots, inner keys located in said slots between the bridges and having bearings, yielding connections between the inner keys and the bridges which permit radial inward movement of said keys and prevent longitudinal movement thereof, outer keys longitudinally movable in said slots and having bearings, swinging struts fitting between the bearings of the inner and outer keys, and means carried by the sleeve for moving the outer keys longitudinally in one direction, said movement causing the inner keys to move radially inward and the outer keys to move radially outward.

5. A double acting chuck comprising a sleeve having longitudinal slots and spaced apart bridges extending across the end portions of the slots, inner keys located in said slots between the bridges and having bearings in their onter sides, yielding connections between the inner keys and the bridges which permit radial inward movement of said keys and prevent longitudinal movement thereof, outer keys longitudinally movable in said slots and having bearings in their inner sides, swinging struts fitting between the bearings of the inner and outer keys, a cam ring movable in the sleeve and having cam faces bearing on the outer keys and adapted to move the same endwise in one direction, springs yieldingly holding the outer keys against the cam ring, and means for partially rotating said ring.

[Claim 6 not printed in the Gazette.]

1,136,628. ENDLESS CUTTING APPARATUS FOR MOWING-MACHINES AND HARVESTERS. JOHN C. SWANSON, Buffalo, Minn. Filed Aug. 6, 1913. Serial No. 783,316. (Cl. 56—42.)



1. In a machine of the kind described, the combination with an inner drag shoe, having a depression, of a sickle bar, having its inner end portion offset in a plane below the body thereof and detachably and removably seated in the depression of said shoe.

2. In a machine of the kind described, the combination with an inner drag shoe, having a bridge bar and a stop flange, of a sickle bar, having its inner end portion offset in a plane below the body thereof, said offset portion having detachable interlocking engagement with the bridge bar and stop flange of said shoe.

3. In a machine of the kind described, the combination with a sickle bar, of independent guard fingers, removably secured to said sickle bar and having oppositely projecting shoulders, the shoulders of one of said guard fingers closely engaging the shoulders of adjacent guard fingers, a continuous unbroken channel cut transversely through said guard fingers and their shoulders, and having tight closed walls and bottom throughout its entire length a driven sprocket chain arranged to run in said channel, and sickle knives secured to said chain.

1,136,629. ROOF FOR MAUSOLEUMS, VAULTS, AND THE LIKE. CHARLES E. TAYNTOR, New York, N. Y. Filed Dec. 31, 1910. Serial No. 600,268. (Cl. 72—89.)



A roof for mausoleums, vaults and the like comprising pediments and two side roof stones, said stones having their upper surface flat and continuous, one side roof stone having a raised ridge cap formed integral therewith and extending above the plane of the upper flat surface and overlapping the other side roof stone, a joint having extended vertical and lateral surfaces being formed between the two side roof stones, the two surfaces having a sharp apex at the ends of the roof and a rounded apex intermediate the ends of the roof.

1,136,630. PROCESS FOR THE MANUFACTURE OF ANHYDRIDS OF MONOBASIC ORGANIC CARBOXY-ACIDS. ADRIANUS JOHANNES VAN PESKI, Vlaardingen, Netherlands. Filed July 30, 1913. Serial No. 781,971. (Cl. 23—24.)

1. A process for the manufacture of anhydrids of monobasic organic carboxy-acids, which consists in heating salts of sulfuric acid-carboxy-acid anhydrids with bases having an alkaline reaction, and then distilling off the acid anhydrid that is formed.

2. A process for the manufacture of anhydrids of monobasic organic carboxy-acids, which consists in heating salts of sulfuric acid-carboxy-acid anhydrids with bases having an alkaline reaction in the presence of neutral liquids, and then distilling off the acid anhydrids that is formed.

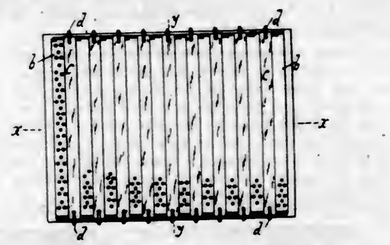
3. A process for the manufacture of anhydrids of monobasic organic carboxy-acids, which consists in heating salts of sulfuric acid-carboxy-acid anhydrids with bases having an alkaline reaction, in the presence of a mixture of salts of monobasic organic acids with bases having an alkaline reaction, and of free organic acids and then distilling off the acid anhydrid that is formed.

1,136,631. SEPARATOR AND TRACK FOR SLIDING DOORS. ALBERT VOIGT, New York, N. Y. Filed May 13, 1914. Serial No. 838,202. (Cl. 16—90.)

In show cases and the like the combination with a pair of doors slidable relative to each other and a runway in which said doors engage, of a separator to extend between the doors and having opposite right angle portions to engage with the bottom of the runway, comprising a sheet of metal bent substantially at right angles and then one of said right angle portions bent reversely upon itself to project beyond the other portion of the right angle and then again bent upon itself toward said latter portion of the right angle to lie contiguous thereto to form a structure substantially T shaped in cross section.

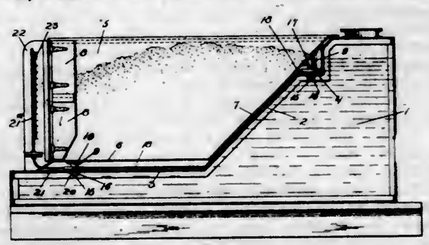


1,136,632. PLATE FOR EMBOSSED PRINTING. WILLIAM B. WAIT, New York, N. Y. Filed June 5, 1913. Serial No. 771,911. (Cl. 101—169.)



An embossing plate having elevations and channels, an elastic strip arranged in each of the channels, a hook member secured to each end of the strip adapted to tension the strip thereby holding it firmly in the channel and engage the plate.

1,136,633. MEANS FOR DETERMINING THE WEIGHT OF FUEL CARRIED BY A LOCOMOTIVE-TENDER. LEWIS S. WATRES, Scranton, Pa., assignor of forty one-hundredths to Clarence D. Simpson and twenty one-hundredths to Henry H. Brady, Scranton, Pa. Filed May 16, 1913. Serial No. 767,997. (Cl. 73—8.)



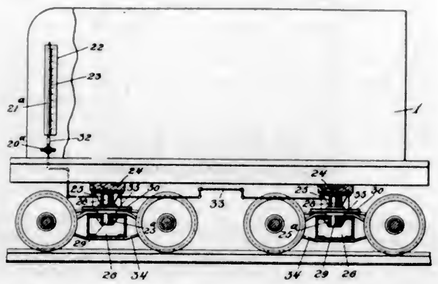
1. The combination with a locomotive tender body of a fuel container located therein as an independent lining thereto and adapted to move vertically relative to the

tender body, yielding liquid containers comprising diaphragm heads connected to the fuel container and tender body a gage attached to the tender body and a pipe connecting the gage with the liquid containers whereby vertical relation of the fuel container to the tender body will cause the weight of fuel to be indicated on the gage.

2. A locomotive tender comprising a water tank, a coal container, a closed liquid system comprising a diaphragm supporting means carrying the weight of the container and its contents, and a gage forming part of said closed system whereby variations of pressure imposed upon the confined liquid by variations of amount of fuel in said container may be made to operate an indicating gage.

3. A locomotive tender comprising a water tank, a coal container, a closed liquid system comprising a diaphragm supporting means carrying the weight of the container and its contents, and a gage consisting of a casing divided by a diaphragm one chamber of which is connected to the diaphragm supports forming part of said closed system and the other chamber provided with a tube and filled with a liquid, whereby variation of pressure imposed on the liquid in the closed system will actuate the gage diaphragm causing variations of amount of fuel in said container to be indicated in said gage tube whereby variations of pressure imposed upon the confined liquid by variations of amount of fuel in said container may be made to operate an indicating gage.

1,136,634. MEANS FOR DETERMINING THE WEIGHT OF FUEL CARRIED BY A LOCOMOTIVE-TENDER. LEWIS S. WATRES, Scranton, Pa., assignor of forty one-hundredths to Clarence D. Simpson and twenty one-hundredths to Henry H. Brady, Scranton, Pa. Original application filed May 16, 1913, Serial No. 767,997. Divided and this application filed Nov. 7, 1913. Serial No. 799,755. (Cl. 73—8.)

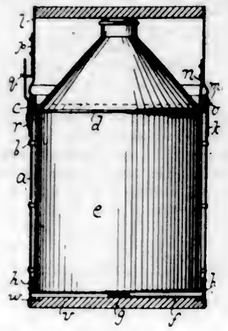


1. A locomotive tender having combined with it and interposed between it and its carrying trucks a closed liquid system comprising a liquid container and having one or more diaphragms acting as a support for the tender body, and king bolts secured to the liquid containers whereby variations of load may be indicated by a gage controlled by the liquid in the closed system.

2. The combination with a locomotive tender and its carrying trucks of king bolts having mediate their ends yielding liquid containers, a gage casing and pipes connecting the containers and gage casing constituting a closed liquid system, whereby variations of pressure upon the liquid in the containers due to variations of load of fuel carried by the tender may be indicated by corresponding changes of pressure in the gage casing.

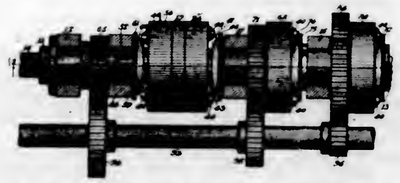
3. The combination with a locomotive tender and its carrying trucks of king bolts having mediate their ends yielding liquid containers, a gage casing divided by a diaphragm, pipes connecting the containers and one side of the gage casing constituting a closed liquid system, and a gage tube extending from the other side of the gage casing, whereby variations of pressure upon the liquid in the containers due to variations of load of fuel carried by the tender may be indicated by corresponding changes of pressure in the gage casing.

1,136,635. SHIPPING-JACKET. EDWARD WEISLOWITS, Newark, N. J. Filed Sept. 3, 1913. Serial No. 787,845. (Cl. 220—138.)



In a shipping case the combination with a can having a cover thereon, of a cylindrical jacket adapted to receive the can through the bottom thereof, a rigid collar formed by bending the top of the casing over an annular wire and adapted to engage on its under portion the edge of said cover, resilient strips secured at one of their ends to the wall of the jacket adjacent the bottom thereof and having their other ends extending into said jacket, said strips having means at their inner ends whereby the same are adapted to interlock and to press against said can to hold the cover against said collar, and a removable bottom for closing the bottom of the jacket.

1,136,636. VARIABLE-SPEED-TRANSMISSION APPARATUS. JOSEPH A. WILKIN, Matamoras, Pa. Filed May 12, 1914. Serial No. 838,012. (Cl. 74—59.)



1. A variable speed transmission apparatus comprising a drive shaft, a driven shaft, bearings therefor, means for connecting and disconnecting the drive and driven shafts, a gear and a clutch device associated therewith mounted to turn freely on a bearing of the driven shaft, a collar fixed on the said driven shaft and adapted to be engaged by the said clutch device, an intermediate shaft, a connection between the same and the said gear and clutch device, and means for operating the said clutch device to cause the same to engage the said collar in order to turn the driven shaft from the said intermediate shaft and the said connection and gear and clutch device.

2. A variable speed transmission apparatus comprising a drive shaft and driven shaft, means for connecting and disconnecting the drive and driven shafts, bearings for the said drive and driven shafts, an intermediate shaft, means for connecting and disconnecting the drive and intermediate shafts, a gear and associated clutch device, so mounted on a bearing of the driven shaft as to turn independently thereof, a collar fixed on the driven shaft and adapted to be engaged by the said clutch device, a gear on the said intermediate shaft meshing with the gear associated with the said clutch device, and means for actuating the said clutch device to cause the same to engage the said collar.

3. A variable speed transmission apparatus, comprising a drive shaft, a driven shaft of rectangular cross section, bearings for the said shafts, means for connecting and

disconnecting the said drive and driven shafts, an intermediate shaft, means for connecting and disconnecting the said drive and intermediate shafts, a gear and associated clutch device so mounted on a bearing of the driven shaft as to turn independently thereof, a collar fixed on the said driven shaft and adapted to be engaged by the said clutch device, a gear fixed on the intermediate shaft and meshing with the aforesaid gear, a ring loosely mounted on the said collar, and means for actuating the said ring to cause the same to connect and disconnect the said clutch device with and from the said collar.

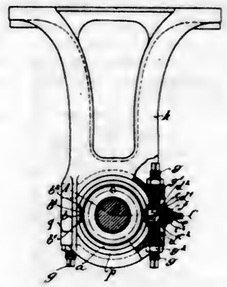
4. A variable speed transmission apparatus comprising a drive shaft, circular in cross section, a driven shaft rectangular in cross section, bearings for the said shafts, an intermediate shaft, means for connecting and disconnecting the drive and driven shafts, a divided sleeve on the drive shaft, a clutch member associated with one part of the said divided sleeve, a gear connected to the other part of the divided sleeve, means for connecting and disconnecting the said clutch member to the divided sleeve to turn the same and the said gear thereon, a gear on the intermediate shaft constantly in contact with the aforesaid gear, a plurality of gear and clutch devices mounted on the bearings of the said driven shaft, so that the same may turn independently thereof, a plurality of gears on the intermediate shaft, each of which is constantly in engagement with one of the said plurality of gears of the gear and clutch devices on the bearings of the driven shaft, and means for connecting and disconnecting any one of the said plurality of gear and clutch devices to and from the said driven shaft so that the same may be turned from the intermediate shaft and the gears thereon.

5. A variable speed transmission apparatus comprising a drive shaft, circular in cross section, a driven shaft, rectangular in cross section, bearings for the said shafts, an intermediate shaft, means for connecting and disconnecting the drive and driven shafts, a divided sleeve on the drive shaft, a clutch member associated with one part of the said divided sleeve, a gear connected to the other part of the divided sleeve, means for connecting and disconnecting the said clutch member to the divided sleeve to turn the same and the said gear thereon, a gear on the intermediate shaft constantly in contact with the aforesaid gear, a plurality of sleeves mounted on and secured to the said driven shaft, a corresponding number of gear and clutch devices each mounted on a bearing, and one of the said sleeves on the driven shaft, so that the same may be turned independently thereof, a corresponding number of gears secured to the said intermediate shaft, each meshing with one of the said gears of the said gear and clutch devices, and means for connecting and disconnecting the said gear and clutch devices to the said sleeves, so that the said driven shaft may be turned through the same and the corresponding gears on the intermediate shaft.

1,136,637. SHAFT-SUPPORT. FRIEDRICH WILHELM WITTE, Leipzig-Plagwitz, Germany, assignor to Deutsche Kugellagerfabrik G. M. B. H., Leipzig-Plagwitz, Germany. Filed Mar. 18, 1911. Serial No. 615,211. (Cl. 64—14.)

1. In a shaft support, an automatically adjustable ball-bearing comprising an inner rotary race-ring, an outer stationary race-ring having opposite recesses diametrically located, guides having each an extension reaching into the corresponding recess, said recesses being wider than the guides to allow an axial shifting of the bearing and having rounded bottoms to allow a movement around a line crossing the axis of the bearing, and a swinging pivot for each guide connecting the guide with the shaft support.

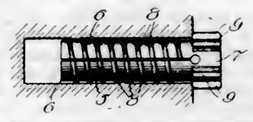
2. In a shaft support, an automatically adjustable ball-bearing comprising an inner rotary race-ring, an outer stationary race-ring having two opposite recesses diametrically located, two guides having each an extension reaching into the corresponding recess, said recess being wider than the guides to allow an axial shifting of the bearing and having rounded bottoms to allow a movement around a line crossing the axis of the bearing, and a cylindrical pivot for each guide establishing connection with the shaft support.



3. In a shaft-support, the combination with a ball-bearing for a shaft comprising an inner rotary race-ring, an outer stationary race-ring spherical on the outside and balls between them, of means for adjusting the ball bearing, and means for allowing said outer spherical race-ring to slightly shift under the strain of the load comprising, a support, two opposite adjusting screws in the same axis in said support, the outer race-ring having in its outside portion two opposite recesses with sides in two parallel planes equidistant from the axis of the shaft and with rounded bottoms at right angles to these two planes, the vertical axis of said rounded bottoms cutting the axis of the shaft, and two guides with parallel side surfaces revolubly connected with said two adjusting screws and adapted to engage with their plane side surfaces in the two recesses of said outer race-ring.

4. In a shaft-support, the combination with a ball-bearing for a shaft comprising an inner rotary race-ring, an outer stationary race-ring spherical on the outside and balls between them, of a shell encircling the outer race-ring of said ball-bearing and having a spherical outer surface with two opposite recesses which have side surfaces in two parallel planes equidistant from the axis of the shaft and rounded bottoms at right angles to these two planes, the vertical axis of said rounded bottoms cutting the axis of the shaft, a support, two opposite adjusting screws on the same axis in said support, and two guides with parallel side surfaces revolubly connected with said two adjusting screws and adapted to engage with their side surfaces in the two recesses of said shell.

1,136,638. EXPANSION-BOLT. LOTHAR R. ZIFFERER, New York, N. Y. Filed Nov. 25, 1914. Serial No. 873,967. (Cl. 85—2.4.)



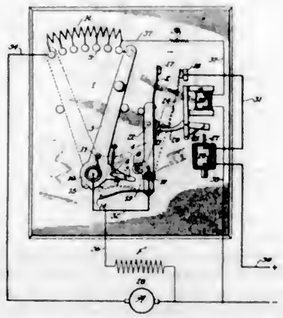
1. A shield for expansion bolts made of relatively soft material provided on its exterior at the inner end with threads, and at the outer end with projections slightly higher than the threads, substantially as described.

2. A shield for expansion bolts made of relatively soft material provided on its exterior at the inner end with threads, and at the outer end with projections slightly higher than the threads, said projections being irregularly spaced apart and inclined toward the wider adjacent spaces, substantially as described.

1,136,639. CIRCUIT-CONTROLLER. PAUL H. ZIMMER, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 1, 1913. Serial No. 751,492. (Cl. 172—179.)

1. In combination, two switch members independently biased to their respective initial positions, means coöp-

erating with one of said members after operation thereof to restrain the same against its biased movement and a latching device for the other switch member carried by said former member.



2. In combination, two switch members independently biased to their respective initial positions, and one being operable by the other, means to restrain the operated member against return movement and a device carried by said operated member to engage said operating member to restrain the latter against return movement.

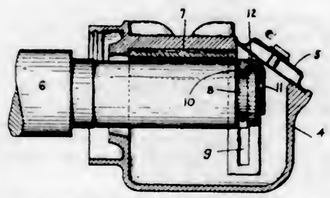
3. In combination, two switch members biased to their respective initial positions and one being operable by the other, means to restrain the operated member against return movement and means to restrain the operating member against return movement, said last means being mechanically rendered effective and ineffective by said operated member.

4. In combination, two switch members biased to their respective initial positions and one being operable by the other, means to releasably lock the operated member in the position to which it is moved by the operating member and a latch for holding the operating member in a predetermined position, said latch being mechanically controlled by the operated member to release the operating member upon release of the former member.

5. In combination, two switch members biased to their respective initial positions, an operative connection between said members whereby movement of one toward its operative position moves the other toward its operative position, electro-magnetically controlled latching means for one of said members and latching means for the other member mechanically controlled by the former member.

[Claims 6 to 13 not printed in the Gazette.]

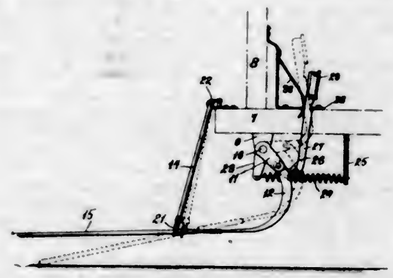
1,136,640. CHECK-PLATE FOR JOURNAL-BOXES. CHARLES S. BANGHART, Flushing, N. Y., assignor, by mesne assignments, to N-W Equipment Co., Inc., New York, N. Y., a Corporation of New York. Filed Apr. 28, 1913. Serial No. 764,038. (Cl. 64—25.)



1. The combination with a journal-box having vertical guideways on the inner sides of the walls thereof and an axle having one end extending beyond the bearing in the box and provided with a circumferential groove adjacent its end and in line with said guideways, of a check-plate comprising two substantially parallel, integrally connected walls, one of which has the central portion thereof cut away to form a segmental flange seated within said groove in the axle and the other of which walls extends over and in contact with the end of the axle, said first-named wall having laterally extending ribs seated within said guideways in the journal-box, substantially as set forth.

2. The combination with a journal-box having vertical guideways on the inner sides of the walls thereof and an axle having one end extending beyond the bearing in the box and provided with a circumferential groove adjacent its end, of a check-plate having laterally-extending edge-portions slidably seated within said guideways in the journal-box, and having two substantially parallel integrally-connected walls, parallel to said edge-portions, one of which walls comprises a flat plate contacting the end of the axle, and the other of which comprises a semi-circular flange seated within said groove in the axle, said walls being united by an integral connecting wall at the top thereof, substantially as set forth.

1,136,641. FENDER FOR RAILWAY-CARS. CHARLES S. BANGHART, Flushing, N. Y., assignor, by mesne assignments, to N-W Equipment Co., Inc., New York, N. Y., a Corporation of New York. Filed June 4, 1913. Serial No. 771,652. (Cl. 105—252.)



1. The combination of a shaft adapted to be supported from a car, a fender having a horizontal portion, a supporting apron extending downwardly from the car to the fender at a point intermediate the forward and rear edges of the fender, and there pivotally supporting the fender, a crank pivotally connecting the shaft and the rear portion of the fender, a second crank on said shaft, a vertically movable trip lever extending above the car floor and pivotally connected to said second crank, latch means coacting with said trip lever, for holding the fender in normal position, the fender being adapted to be turned about its pivotal connection with said first crank into an inoperative vertical position, and said trip lever being operable to permit the rocking of the fender about its pivotal connection with the apron, to lower the forward edge of the fender from normal position, and to raise it to normal position, substantially as set forth.

2. The combination of a fender mounted on a car and supported intermediate its forward and rear edges, a spring tending to raise the rear edge of the fender and thereby depress the forward edge, a foot lever operable from the car platform and pivotally connected to the rear end of the fender, a latch plate coacting with said lever, for holding the fender in normal position and preventing said lever from rising, and spring means for holding said lever in latched position, said lever being operable from the car platform to unlatch the same, to permit said first-named spring to raise the rear edge of the fender, and said lever, and depressible into latched position, to restore said fender to normal position, substantially as set forth.

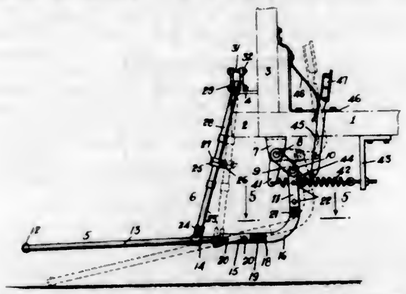
3. The combination of a car having a motorman's platform, a fender mounted on the car and supported intermediate its forward and rear edges, a crank pivoted to the car and to the rear portion of the fender about which the fender may be turned to move the fender to an inoperative vertical position, and means for rocking said crank about its pivot on the car to rock said fender about its support to depress and raise the forward portion of the fender, substantially as set forth.

4. The combination of a car having a motorman's platform, a fender mounted on the car and supported intermediate its forward and rear edges, a pivotal connection to the rear portion of the fender about which the fender may be turned to move the fender to an inoperative vertical position, a spring for shifting said pivotal connection to raise the rear portion of the fender, a latch to hold the parts against the tension of said spring, means for releasing the latch, and means for restoring the fender to normal position when it has been operated by the spring, substantially as set forth.

5. The combination of a car platform, a fender, a connection from the platform to the fender at a point intermediate the forward and rear edges of the fender, a shaft mounted on the platform, cranks on the shaft connected to the rear portion of the fender, a spring connected to a crank on said shaft tending to raise the rear edge of the fender and depress the front edge, a latch for holding said shaft against movement actuated by said spring, and means for turning the shaft against the tension of said spring to raise the forward edge of the fender, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,136,642. FENDER. CHARLES S. BANGHART, Flushing, N. Y., assignor to N-W Equipment Co., Inc., New York, N. Y., a Corporation of New York. Filed Aug. 27, 1914. Serial No. 858,815. (Cl. 105—252.)



1. In a car fender, the combination of a horizontal portion pivotally connected at the rear to the car, and a supporting apron comprising upper and lower side members pivotally connected together, the lower edge of said lower member being pivotally connected to said horizontal portion at a point forward of the rear pivotal support of the same, and the upper edge of said upper member being pivotally secured to the car, and adjustable means for locating the pivotal support of the upper edge of said upper member at different distances from the road-bed, substantially as set forth.

2. In a car fender, the combination of a horizontal portion pivotally connected at the rear to the car, and a supporting apron having engagement at its lower edge with said horizontal portion to support the same, said apron having a horizontal top portion, a bracket secured to the car, having horizontal openings therein at different heights, and means adapted to be inserted in any of said openings to coact with the horizontal top portion of said apron to support the same, substantially as set forth.

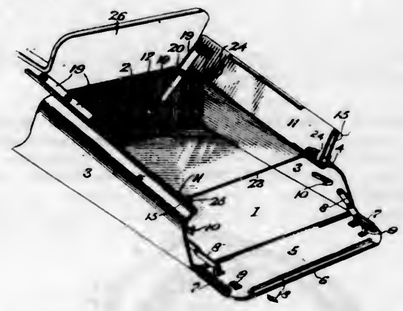
3. In a car fender, the combination of a horizontal portion having rearwardly extending arms, members extending rearwardly from said arms and adjustably secured thereto, and arms extending upwardly from said members and adjustably secured thereto, said upwardly extending arms being pivotally secured to the car, and a supporting apron connected to said horizontal portion and to the car, substantially as set forth.

4. In a car fender, the combination of a horizontal portion having rearwardly extending arms, members extending rearwardly from said arms and pivotally connected to the car at their rear ends, said members and arms having serrated engaging surfaces, one of each pair of engaging elements having a longitudinal slot therethrough, bolts extending through said arms, members and slots, and adjustably securing said arms and members together, and a supporting apron connected to said horizontal fender portion and to said car, substantially as set forth.

5. In a car fender, the combination of a horizontal portion having rearwardly extending arms, adjustable means secured to said arms and pivotally connected to the car, being adjustable to vary the forward projection of said fender, a supporting apron pivotally connected to said horizontal portion intermediate the front edge and the rear pivotal support of the same, and means for adjusting the height at which the forward edge of said fender is normally carried, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,136,643. BODY FOR AUTOMOBILES. JOSEPH DE N. BERRYMAN, Philadelphia, Pa. Filed Dec. 16, 1914. Serial No. 877,476. (Cl. 21—7.)



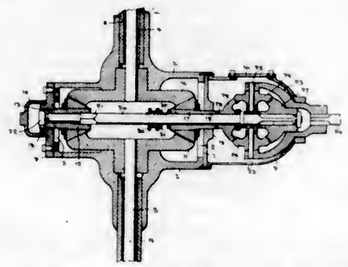
1. A vehicle body, comprising a box adapted to be supported upon a chassis or vehicle frame, and having a bottom and a front wall and side-walls, a tail-gate hinged to the rear edge of the bottom, hinged links pivoted to said tail-gate and the rear ends of said side-walls, spring catches upon the rear portions of the side-walls and upon the tail-gate to detachably engage when the gate is closed, cover-leaves hinged to the upper edges of the side-walls, cover-leaves hinged to the edges of said former leaves, and hinged braces movably connected to the outer cover-leaves and to the front wall of the box.

2. An automobile body, comprising a seat and a box adapted to be supported upon a chassis or vehicle frame, and having a front-wall and having the upper portions of its side-walls curved inwardly, a tail-gate hinged to the rear edge of the bottom of said box and having its upper portion curved inwardly, hinged links pivoted to said tail-gate and to the side-walls, cover-leaves hinged to the upper edges of the side-walls, cover-leaves hinged to the edges of said former leaves, means for locking said leaves together, and hinged braces movably connected to the outer cover-leaves and the front wall of the box.

1,136,644. TRANSMISSION MECHANISM. WILLIAM A. BERSEADICH, Clintonville, Wis., assignor of one-half to Bernhard A. Mosling, Clintonville, Wis. Filed June 14, 1913. Serial No. 773,696. (Cl. 74—34.)

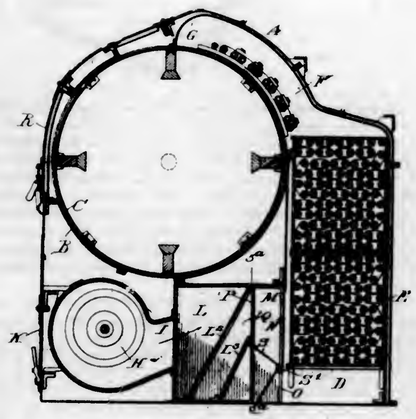
A transmission gearing comprising; a housing, axles mounted in said housing, a friction wheel mounted on the inner end of each of said axles to actuate the same, a drive shaft, an intermediate shaft mounted in said housing and playing between said friction wheels, a differential gearing connecting said intermediate shaft to said drive shaft to actuate the said intermediate shaft, a friction cone rigidly mounted on one end of said intermediate shaft and frictionally engaging one of said friction wheels to actuate the same, a second friction cone rotatably and

loosely mounted on said intermediate shaft and frictionally engaging the second of said friction wheels to actuate the same, said last mentioned friction cone being connected at its outer end to said differential gearing to be actuated thereby, and having teeth upon the inner end thereof, and a clutch device keyed to said intermediate shaft be-



tween said friction cones and said friction wheels and mounted for longitudinally sliding movement along said intermediate shaft, said clutch device having teeth upon its outer end adapted to engage the teeth upon the inner end of said last mentioned friction cone to thereby operate said axles from a differential to a direct drive.

1,136,645. DRYING APPARATUS. GOTTLOB BINDER, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 21, 1914. Serial No. 813,403. (Cl. 34—5.)



1. In a drying apparatus, the combination with a casing, of a drying chamber, a heating chamber arranged in the rear of the casing, an air circulating device beneath the drying chamber at the front of the casing, and a screening chamber disposed between the air circulating device and the heating chamber at the bottom of the casing and communicating with the heating chamber.

2. In a drying apparatus, the combination with a casing, of a drying chamber, a heating chamber arranged at the rear of the casing, an air circulating device beneath the drying chamber at the front of the casing, a screening chamber having communication with the atmosphere and with the heating chamber, and a gate or door adapted to cut off communication between the heating chamber and screening chamber.

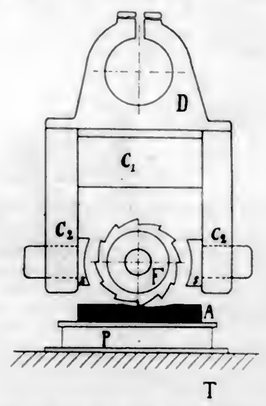
3. In a drying apparatus, the combination with a casing, of a drying chamber, a heating chamber arranged at the rear of the casing and separated by a wall extending longitudinally throughout the casing, said wall having an opening therein, a gate or door movable to open or close said opening, an air circulating device beneath the drying chamber at the front of the casing and a screening chamber between the air circulating device and the heating chamber.

4. In a drying apparatus, the combination with a casing having an air inlet opening, of a drying chamber, a heating chamber arranged in the rear of the casing, an air circulating device beneath the drying chamber, a screening chamber in rear of the circulating device, and an exit chamber between the screening chamber and the heating chamber.

5. In a drying apparatus, the combination with a casing having an air inlet opening, a drying chamber, a heating chamber arranged at the rear of the casing, an air circulating device beneath the drying chamber, a screening chamber in rear of the circulating device, and an exit chamber between the screening chamber and the heating chamber, the wall between the heating chamber and exit chamber having an opening therein, and an adjustable door coöperating with said opening.

[Claims 6 to 14 not printed in the Gazette.]

1,136,646. DEMAGNETIZATION OF TOOLS WORKING MAGNETICALLY-MOUNTED WORK-PIECES. JULIUS BING, Eisenach, Germany. Filed Oct. 25, 1913. Serial No. 797,229. (Cl. 90—11.)



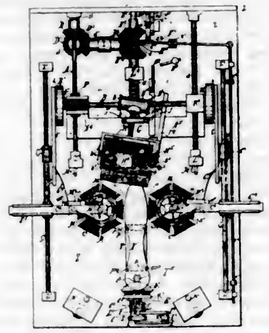
A process of preventing shavings which are cut from magnetically fixed work-pieces from magnetically adhering to the operative tool consisting in constantly exposing the tool to an alternating magnetic field while the same is cutting the work-piece.

1,136,647. MECHANICAL-SHOE-POLISHING MACHINE. JAMES ELBERT BIRDSALL, Philadelphia, Pa., assignor, by mesne assignments, to Advertising Device Company, a Corporation of Delaware. Filed Mar. 30, 1912. Serial No. 687,529. (Cl. 15—61.)

1. In a shoe polishing machine, the combination of a carriage, means to reciprocate the carriage, brushes connected with the carriage to reciprocate therewith, means imparting to the brushes a reciprocatory movement independent of that caused by the reciprocations of the carriage though in the same direction and a foot rest adjacent to the brushes.

2. In a shoe polishing machine, the combination of a carriage, means to reciprocate the carriage, brushes connected to the carriage to reciprocate therewith, means imparting to the brushes a reciprocatory movement independent of that caused by the reciprocations of the carriage though in the same direction a blacking apparatus disposed so as to be intermittently touched by the brushes while reciprocating.

3. In a shoe polishing machine, the combination of a carriage, means to reciprocate the carriage, guides, brushes transversely yieldably mounted thereon and connected to said carriage to reciprocate therewith, means imparting to said brushes a reciprocatory movement independent of that caused by the reciprocations of the carriage though in the same direction, and a foot rest adjacent to said brushes.



4. In a shoe polishing machine, the combination with a foot-rest, of a polygonal brush revolubly mounted adjacent the foot-rest, means to cause the brush to travel back and forth along the foot-rest, means to reciprocate the brush during its travel, and means operative upon the arrival of the brush at one point in its travel to rotate the brush to present another face of the brush to the foot-rest, and means to stop the brush after a desired period of movement.

5. In a shoe polishing machine, the combination of a blacking container, a polygonal brush axially mounted, means to rapidly reciprocate the brush, and means to slowly carry the brush while reciprocating so as to bring a given side thereof into jolting contact with the blacking container.

[Claims 6 to 29 not printed in the Gazette.]

1,136,648. MEASURING INSTRUMENT. WILLIAM H. BRISTOL, Waterbury, Conn., assignor to The Bristol Company, Waterbury, Conn., a Corporation of Connecticut. Filed Sept. 8, 1914. Serial No. 860,772. (Cl. 234—1.)



1. A recording member, comprising: attaching means; a resilient supporting member initially adjustable with respect to said attaching means; a resilient marking arm carried by said support and initially adjustable with respect thereto; and means to effect a further adjustment between said marking arm and said support.

2. A recording member, comprising: attaching means; a resilient supporting member initially angularly adjustable with respect to said attaching member; a resilient marking arm carried by said support and initially radially adjustable with respect thereto; and means to effect an angular adjustment between said marking arm and its said support.

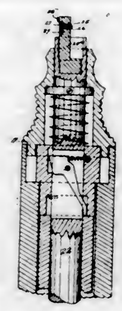
3. A recording member, comprising: an attaching member; a resilient supporting member secured thereto and provided with a slot at its free end; a resilient marking arm provided with a slot at its inner end and pivotally attached at said end to said supporting member; and adjustable means working in the slot of said supporting member and connected with said marking arm to effect an adjustment between the same and said supporting member.

4. A recording member, comprising: an attaching member; a resilient supporting member secured thereto and provided with a slot at its free end; a resilient marking arm pivotally attached to said supporting member; and adjustable means including a sliding member secured to said supporting member and movable in the slot thereof, a threaded block fixed to said marking arm, and a rotatable screw working in said block and guided in said sliding member.

5. A recording member, comprising: an attaching member; a resilient suporting member secured thereto and provided with a slot at its free end; a resilient marking arm pivotally attached to said supporting member; and adjustable means including a sliding member secured to said supporting member between the same and said marking arm and having sides embracing the latter but removed a suitable distance therefrom, said sliding member being movable in the slot of the supporting member, a threaded block fixed to the upper surface of the marking arm, and a rotatable screw working in said block and guided in the sides of said sliding member.

[Claim 6 not printed in the Gazette.]

1,136,649. DENTAL INSTRUMENT. HARRY M. BROCK, North Yakima, Wash. Filed Feb. 19, 1914. Serial No. 819,667. (Cl. 32—8.)

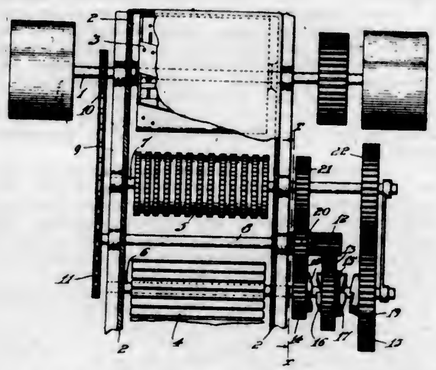


1. The combination with the internally threaded socket of a dental instrument, of a sectional bit and means for separating the sections of the bit while one of the sections remains screwed into the said socket, the said means including a fully threaded end upon one of the sections which is adapted to be screwed into the socket, the said section being split in the direction of its length and behind its fully threaded end, whereby a portion of the socket is left open when the said fully threaded end is in place, the other section of the bit being similarly split and adapted to be slipped into and out of the said open portion of the socket when the other section is in place.

2. The combination with the internally threaded socket of a dental instrument, of a sectional bit and means for separating the sections of the bit while one of the sections remains screwed into the said socket, the said means including a fully threaded end upon one of the sections which is adapted to be screwed into the socket, the said section being split in the direction of its length and behind its fully threaded end, whereby a portion of the socket is left open when the said fully threaded end is

in place, the other section of the bit being similarly split and adapted to be slipped into and out of the said open portion of the socket, and means for holding the last mentioned section in place, said means including a spring-actuated pin.

1,136,650. GEARING FOR ENSILAGE-MACHINES. NORTON M. BROWN, Aurora, Ill. Filed Feb. 2, 1914. Serial No. 815,956. (Cl. 74—59.)



1. In an ensilage machine, the combination of a pair of rotatable driven elements; a rotatable driving shaft; an operative connection between said driving shaft and said driven elements whereby the latter may be driven in either direction, said connection comprising a gear fixed to said driving shaft; a second gear loosely mounted on one of said driven elements and meshing with said first gear; third and fourth gears, one of which is loosely mounted on and the other fixed to said driven element at opposite sides of said second gear; means for operatively connecting said second gear with either said third and fourth gears; and an operative connection between said third and fourth gears and the other of said driven elements whereby, when one of said gears is rotated, said last mentioned element will be rotated in one direction, and when the other of said gears is rotated, said last mentioned element will be rotated in the other direction, substantially as described.

2. In an ensilage machine, the combination of a pair of rotatable driven elements; a rotatable driving shaft; an operative connection between said driving shaft and said driven elements whereby the latter may be driven in either direction, said connection comprising a gear fixed to said driving shaft; a second gear loosely and shiftably mounted on one of said driven elements and meshing with said first gear; third and fourth gears, one of which is loosely mounted on and the other fixed to said driven elements at opposite sides of said second gear; means for operatively connecting said second gear with either said third or fourth gears; and an operative connection between said third and fourth gears and the other of said driven elements whereby, when one of said gears is rotated, said last mentioned element will be rotated in one direction, and when the other of said gears is rotated, said last mentioned element will be rotated in the other direction, substantially as described.

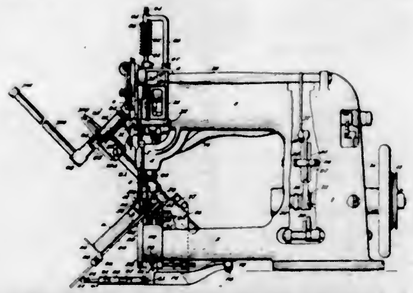
3. In an ensilage machine, the combination of a pair of rotatable driven elements; a rotatable driving shaft; an operative connection between said driving shaft and said driven elements whereby the latter may be driven in either direction, said connection comprising a gear fixed to said driving shaft; a second gear loosely mounted on one of said driven elements and meshing with said first gear; third and fourth gears, one of which is loosely mounted on and the other fixed to said driven element; means for operatively connecting said second gear with either said third or fourth gears; and an operative connection between said third and fourth gears and the other of said driven elements, whereby when one of said gears is rotated, said last mentioned element will be rotated in one direction, and when the other of said gears is rotated, said last mentioned element will be rotated in the other direction, substantially as described.

4. In an ensilage machine, the combination of a pair of rotatable driven elements; a rotatable driving shaft; an operative connection between said driving shaft and said driven elements whereby the latter may be driven in either direction, said connection comprising a gear fixed to said driving shaft; a second gear loosely mounted on one of said driven elements and meshing with said first mentioned gear; third and fourth gears arranged on said last mentioned driven element at opposite sides of said second gear, one of said last mentioned gears being fixed to said driven element and the other being loosely mounted upon said element; clutch teeth on said second, third and fourth gears adapted to interlock with each other whereby, by shifting said second gear, the latter may be operatively connected with either third or fourth gears; and an operative connection between said third and fourth gears and the other of said driven elements whereby, when one of said gears is rotated, said last mentioned element will be rotated in one direction, and when the other of said gears is rotated, said last mentioned element will be rotated in the other direction, substantially as described.

5. In an ensilage machine, the combination of a pair of rotatable driven elements; a rotatable driving element; an operative connection between said driving element and said driven elements whereby the latter may be driven in either direction, said connection comprising a gear fixed to said driving element; a second gear loosely mounted on one of said driven elements and meshing with said first gear; third and fourth gears arranged on said last mentioned driven element, said third gear being fixed to said feeding element and said fourth gear being loosely mounted upon said element; means for operatively connecting said second gear with either said third or fourth gears; fifth and sixth gears fixed to the other of said driven elements; an idler operatively connecting said third gear with said fifth gear; and said sixth gear meshing with said fourth gear, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,136,651. WORK-HOLDER FOR SEWING-MACHINES. OTIS E. BROWN, Brockton, Mass., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 27, 1911. Serial No. 651,555. (Cl. 112—29.)



1. In a sewing machine, the combination with stitch-forming mechanism, of a work-plate, a spring-pressed presser-bar movable toward and from said work-plate, a presser-foot disposed above the work-plate, said presser-foot being movable angularly with respect to the presser-bar and adapted to transmit the thrust of the presser-bar in a plane substantially parallel with the work-plate, and means for holding the work against lateral displacement under the action of the presser-foot.

2. In a sewing machine, the combination with stitch-forming mechanism, of a work-plate, a spring-pressed presser-bar movable toward and from said work-plate, and a presser-foot mounted independently of and movable in a direction in angular relation with said presser-bar and adapted to transmit to the work sustained by the work-plate the thrust of the presser-bar.

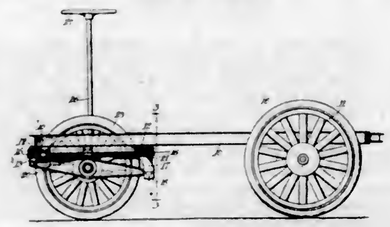
3. In a sewing machine, the combination with stitch-forming mechanism, of a work-plate, a spring-pressed presser-bar movable toward and from said work-plate, a presser-foot mounted independently of and movable relatively to said presser-bar and adapted to transmit to the work sustained by the work-plate and thrust of the presser-bar, and a spring applied to the presser-foot and acting thereon in opposition to the thrust of the presser-bar.

4. In a sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, of a work-plate, means for adjusting the angular relation of said work-plate with the needle, a presser-foot movably mounted upon said work-plate, and means sustained independently of the work-plate for pressing said presser-foot against the work sustained by the work-plate.

5. In a sewing machine, the combination with stitch-forming mechanism including a needle, of a work-plate inclined to said needle, a presser-foot movable substantially parallel with the face thereof, and spring-actuated means applied to the presser-foot for pressing it against the work sustained by said work-plate.

[Claims 6 to 12 not printed in the Gazette.]

1,136,652. GUIDING MECHANISM FOR VEHICLES. GEORGE W. BULLEY, Chicago, Ill. Filed Jan. 22, 1914. Serial No. 813,788. (Cl. 21—202.)



1. Vehicle guiding mechanism combining a bearing ring fixed with respect to the body of the vehicle, an annular turn-table having roller bearing engagement with the bearing ring, means for securing the ring and turn-table from dis-engagement, said turn-table being rotatable with respect to the bearing ring, two spaced yokes hinged at adjacent ends to a point upon the turn-table, a vertical bearing formed at the opposite side of the turn-table and in which the opposite ends of the yokes are movably carried, means joining the said opposite ends of the yokes, and resilient means interposed between said joining means and the body of the turn-table.

2. Vehicle guiding mechanism combining a bearing ring fixed with respect to the body of the vehicle, an annular turn-table having roller bearing engagement with the bearing ring, means for securing the ring and turn-table from dis-engagement, said turn-table being rotatable with respect to the bearing ring, two spaced yokes hinged at adjacent ends to a point upon the turn-table, a vertical bearing formed at the opposite side of the turn-table and in which the opposite ends of the yokes are movably carried, means joining the said opposite ends of the yokes, resilient means interposed between said joining means and the body of the turn-table, and apparatus operable from the body of the vehicle for oscillating the turn-table in the bearing ring.

3. The combination with a vehicle, of an annular bearing fixed with respect to the body of the vehicle, a turn-table engaging the bearing and rotatable in an approximately horizontal plane with respect thereto, spaced wheel bearings hinged at adjacent ends to a point near the periphery of the turn-table, retaining arms for the opposite ends of the wheel bearings positioned substantially at the opposite side of the turn-table from the hinge side, said opposite ends of the wheel bearings being vertically movable with respect to the retaining arms and the turn-table, stops upon the retaining arms limiting the downward movement of said opposite ends of the yokes with respect to the retaining arms, resilient means interposed between said opposite ends of the wheel bearings and the body of the turn-table, and a wheel journaled in the wheel bearings.

4. The combination of a bearing ring, a turn-table ring concentric therewith and rotatable with respect thereto, a bearing frame extending diametrically across said turn-table ring and comprising spaced side bars pivoted at one end to the turn-table, guide bearings on said turn-table diametrically opposite the said pivot and in which the free end of said bearing frame reciprocates, means for limiting the movement of the free end of said frame in one direction, spring mechanism interposed between the turn-table and the free end of said bearing frame for yieldingly supporting the turn-table upon the free end of said frame, and a wheel positioned substantially within said turn-table ring and between the side bars of said bearing frame and journaled in said bearing frame intermediate the ends thereof.

5. The combination of a turn-table, a pair of yokes pivoted at their forward ends to said turn-table with their rearward ends disposed under the rear side of said turn-table, arms depending from the rear side of the turn-table and having parallel surfaces thereon engaging the rear end portions of the yokes limiting lateral movement of the latter, stops at the lower ends of said arms adapted to engage the yokes and limit the downward movement of the rear ends thereof, a plate joining the rear ends of the yokes, and a compression spring between said plate and the turn-table.

1,136,653. PERMUTATION-LOCK. BUELL S. BURNETT, Jacksonville, Fla. Filed June 1, 1914. Serial No. 842,192. (Cl. 70—53.)



1. In a permutation lock, the combination, with a case, and a bolt slidably mounted therein and provided with lateral projections; of a pair of rotatable, annular tumblers arranged within said case in juxtaposed, concentric relation; a rotatable disk tumbler encircled by the annular tumblers, each of said tumblers having a peripheral notch adapted to receive the adjacent projection; and operating element rigidly connected with the disk tumbler and free of connection with the annular tumblers; and coacting means provided upon said tumblers for transmitting rotary movement from one to another.

2. In a permutation lock, the combination, with a case, and a bolt slidably mounted therein and provided with outer and inner lateral projections; of a plurality of rotatable tumblers arranged within said case and having each a peripheral notch adapted to be brought into alinement with the outer projection; a smaller, rotatable tumbler arranged within said case in juxtaposition to the first-named tumblers and having a peripheral notch adapted to be brought into alinement with the inner projection; an operating element rigidly connected with the last-

named tumbler; and coacting means provided upon said tumblers for transmitting rotary movement from one to another.

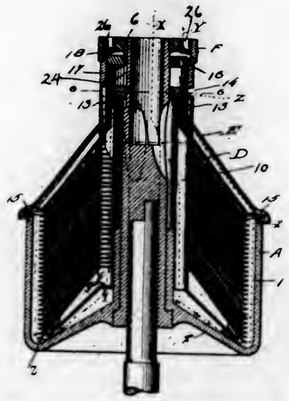
3. A permutation lock comprising a case; a bolt slidably mounted therein; a plurality of tumblers controlling the movement of said bolt, one of said tumblers being provided with an annular series of teeth; coöperating means provided upon said tumblers for transmitting movement from one to another; an operating element having an annular series of teeth for adjustable engagement with the first-named series; and a member detachably coupling said operating element and toothed tumbler together.

4. A permutation lock comprising a case; a bolt slidably mounted therein; a plurality of tumblers controlling the movement of said bolt, one of said tumblers being provided with an axial stem formed at its free end with a series of teeth; coöperating means provided upon said tumblers for transmitting movement from one to another; a rotary operating element provided upon its inner face with a stem coaxial with the first-named stem and having the free end thereof formed with a series of teeth adjustably engaged with the first-named teeth; and a member detachably engaged with said stems for coupling said operating element and toothed tumbler together.

5. In a permutation lock, the combination with a case, and a bolt slidably mounted therein and provided with lateral projections; of a pair of rotatable tumblers arranged within the case and provided, each with a pair of opposed fingers, the fingers on one tumbler being bent at right angles to those of the other tumbler, to engage the same during the rotation of the first-named tumbler; a tumbler having a pair of radially projecting fingers adapted to engage the fingers on said first-named tumbler, to rotate the same, said tumblers being provided with notches for the reception of said projections; and a rotatable operating element connected to the last-named tumbler.

[Claim 6 not printed in the Gazette.]

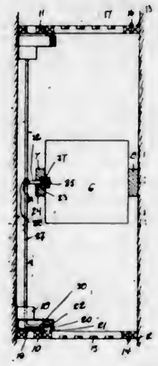
1,136,654. CENTRIFUGAL CREAM-SEPARATOR. WALDO E. CALLANE, Lebanon, Ind. Filed Mar. 23, 1914. Serial No. 826,670. (Cl. 127—20.)



1. In a centrifugal separator, the combination of an integral bowl and center shaft member having inclined lateral channels in the upper end of the center shaft, a central channel extending to its top, and a deep bowl member having a concave base, a removable disk holder having a tubular portion with hollow vertical wings disposed in alinement with the lateral channels opening out of the tubular portion of the center shaft and having orifices at its base for the backflow of cream, liner or disk members positioned within the bowl, a channeled cream cone, a bowl top having a beveled neck portion and lateral channels opening out of same, and an annular channeled feed tube nut having cream channels opening out of the annular channel, the aforesaid member being threaded to engage with the upper end of the center shaft to fasten all parts of the separator in position for operation, substantially as set forth.

2. A cream separator feed tube nut interiorly threaded to engage over the end of a separator center shaft, and having an inner annular cream channel positioned adjacent the threaded portion and channels for the egress of cream therefrom through the top of the feed nut, as shown.

1,136,655. SAFETY-GATE FOR ELEVATOR-HATCHWAYS. JOHN C. COLLIER, Russelton, Pa. Filed May 6, 1914. Serial No. 836,745. (Cl. 187—61.)

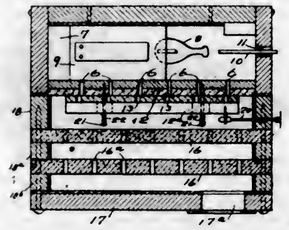


1. A safety gate for elevators comprising the combination with a gate provided with a keeper and a shaft having a crank arm formed with a depending end engaging in said keeper for maintaining the gate locked; of a resilient shifting member comprising a bulged leaf spring arranged in the path of a hoist, a lateral arm connected to the bulged portion of said spring, a coiled spring encircling said arm to force the leaf spring to its extended position and means operatively connecting the opposite end of said arm with said shaft to rock the latter as the hoist passes said leaf spring.

2. In a device of the class described, the combination with a hatchway, a swinging gate carried on the frame thereof and provided with a keeper, the frame of said hatchway having a recess at a predetermined point therein and a shaft having a crank arm formed with a depending end for engagement in said keeper to maintain the gate locked; of a resilient shifting member comprising a bulged leaf spring arranged in said recess in the path of a hoist, the free ends of said spring being movably connected to the frame of said hatchway to admit of compression of said spring, a lateral arm connected with the bulged portion of said spring and guided through the frame of said hatchway, a coil spring encircling said arm between said frame and the leaf spring to normally force the latter to its extended position, and means operatively connecting the opposite end of said lateral arm with said shaft to rock the latter as a hoist moves in the hatchway pass the leaf spring.

1,136,656. MODULATING DEVICE AND MUFFLER FOR PNEUMATIC PIANO-PLAYERS. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 15, 1914. Serial No. 831,903. (Cl. 84—178.)

1. In a piano player exhaust mechanism, in combination with an exhaust air trunk, a relief device comprising a two-part air chamber having one part connected with the trunk and the other part with the atmosphere; a valve which controls communication between the two parts having relatively long travel for progressive opening and closing, and a valve which controls communication of the second part with the atmosphere having a short movement for full opening and closing.



2. In a piano player exhaust mechanism, in combination with an exhaust air trunk, a two-part air chamber, a gradually-opening valve controlling communication between the two parts of the chamber having relatively long travel for progressive opening and closing, one part having free air connection with the air trunk, and the other part having an apertured wall; an apertured and longitudinally slidable valve seating on said wall, the apertures of the valve and wall being adapted to register at one position of the valve, and being each narrow in direction of the valve-sliding movement, whereby the valve is adapted for quick opening and closing.

3. In a piano player exhaust mechanism, in combination with an exhaust air trunk, a two-part air chamber, a gradually-opening valve controlling communication between the two parts of the chamber, having relatively long travel for progressive opening and closing, one part having free air communication with the air trunk, the other part having an exterior wall apertured for atmospheric communication; an apertured and longitudinally-sliding valve seating on said wall, the apertures of the valve and wall being adapted to register respectively at one position of the valve, said apertures in the valve and wall being arranged in rows transversely of the sliding movement of the valve, and having their diameter or width in the direction of the sliding movement small relatively to the aggregate dimensions transversely of the direction of said sliding movement of all the apertures in each row.

4. In a piano player exhaust mechanism, in combination with an exhaust air trunk, a relief device comprising a two-part air chamber having one part connected with the trunk and the other part communicating with the atmosphere; a valve which controls communication between the two said parts and a muffler device consisting of a hood seated on the air chamber encompassing the atmosphere communication thereof and having its atmosphere-intake-mouth remote from said seat and comprising intermediate said mouth and seat a plurality of diaphragms spaced apart and having each a multiplicity of relatively small apertures for breaking up the current of air entering through said atmosphere-intake mouth.

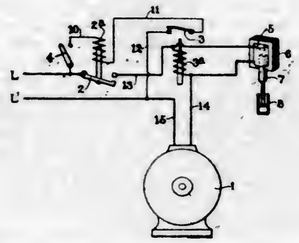
5. In a piano player exhaust mechanism a relief device comprising a chamber having atmosphere inlets and a hood encompassing such inlets having an atmosphere-intake mouth remote from said inlets and intermediate between said mouth and said atmosphere inlets, a plurality of diaphragms spaced apart, each having a multiplicity of relatively small air apertures.

[Claims 6 and 7 not printed in the Gazette.]

1,136,657. OVERLOAD PROTECTIVE DEVICE. WILLIAM E. DATE, Westfield, N. J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Dec. 18, 1913. Serial No. 807,454. (Cl. 172—289.)

1. In combination, a load circuit, an overload protective device therefor, and automatic means subjecting the winding of said overload device to different percentages of the current of said circuit.

2. In combination, a load circuit, an overload protective device therefor, the winding of said overload device receiving a limited percentage of the load current upon closure of said circuit, and means operating upon closure of said circuit to increase the percentage of load current received by said winding.



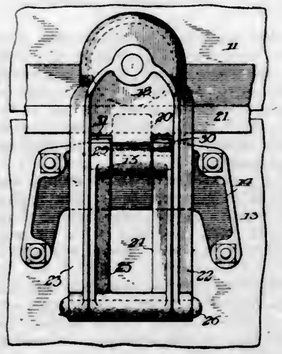
3. In combination, a load circuit, an overload protective device therefor, the winding of said overload device receiving a limited percentage of the load current upon closure of said circuit, and means operating upon closure of said circuit to increase the percentage of load current received by said winding, said means having a definite time element.

4. In combination, a load circuit, an overload protective device therefor having a winding in series therewith, and means acting upon closure of said circuit to divert a portion of the load current from said winding and thereafter automatically decreasing in effectiveness.

5. In combination, a load circuit, an overload protective device therefor having a winding in series therewith, a shunt around said winding to divert a part of the load current therefrom, and automatic means for varying the effectiveness of said shunt following the closure of said load circuit.

[Claims 6 to 14 not printed in the Gazette.]

1,136,658. DOOR-HANGER. CHRISTIAN DAVIDSON, Chicago, Ill. Filed Dec. 31, 1914. Serial No. 879,928. (Cl. 16—7.)

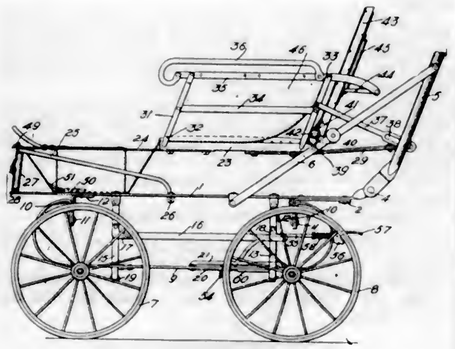


1. A hanger for sliding car doors which are movable over the side wall of the car comprising, in combination, a roller head having a rigid depending leg adapted to overhang the track on which the head runs, an upright link having its lower end pivotally connected with the lower end of the depending leg of the roller head to permit the swinging of the link in a vertical plane which is transverse to the plane of the door, a door plate pivotally connected with the upper end of the link and extending upon the inside of the depending leg of the roller head, and coöperating stop lugs formed on the link and one of the said

parts with which the link is pivotally connected to limit the inward swinging movement of the link with reference to said part and thereby prevent outward movement of the lower end of the depending leg of the roller head when the door plate occupies its innermost position.

2. A hanger for sliding car doors which are movable over the side wall of the car comprising, in combination, a roller head having a rigid depending leg adapted to overhang the track on which the head runs, an upright link having its lower end pivotally connected with the lower end of the depending leg of the roller head to permit the swinging of the link in a vertical plane which is transverse to the plane of the door, a door plate pivotally connected with the upper end of the link and extending upon the inside of the depending leg of the roller head, and cooperating stop lugs formed on the link and door plate to limit the relative movement of said parts in one direction and thereby prevent outward movement of the lower end of the depending leg of the roller head when the door plate occupies its innermost position.

1,136,659. FOLDING VEHICLE. STILLMAN DAY, Leominster, Mass., assignor to F. A. Whitney Carriage Co., Leominster, Mass., a Corporation of Massachusetts. Filed Apr. 8, 1909. Serial No. 488,545. (Cl. 21—83.)



1. A vehicle comprising in combination, a body frame, handle bars pivoted thereto, a forwardly extending bail pivoted to said frame, a seat, straps connecting said seat to said bail and to said handle bars, means for limiting upward swinging movement of said bail away from said body frame, and toggle means coöperating with said body frame and handle bars for supporting said bail and tensioning said straps.

2. A vehicle comprising in combination, a body frame, a swinging member connected thereto, folding handle bars, a seat, means connecting said seat to said swinging member and handle bars, collapsible sides for said seat, and means including lost motion members for collapsing said sides.

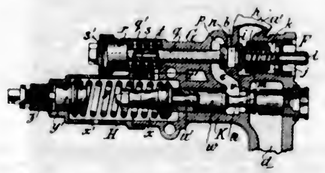
3. A vehicle comprising in combination, a body frame, a seat, and means for collapsibly supporting said seat including a swinging member, handle bars, and straps connecting said seat to said swinging member and handle bars.

4. A vehicle comprising, in combination, a body frame; a seat frame; swinging handle bars; supporting bands connecting the seat frame and handle bars; and swinging means connecting the body and seat frames, and provided with limiting means.

5. A vehicle comprising, in combination, a body frame; a seat frame; a forwardly extending yoke pivoted to the body frame; a connection between the yoke and seat frame; and means to connect the yoke and the body frame for positioning the former.

[Claim 6 not printed in the Gazette.]

1,136,660. REDUCING-VALVE FOR AUTOMOBILE TORPEDOES. WILLIAM DIETER, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Apr. 15, 1913. Serial No. 761,293. (Cl. 50—10.)



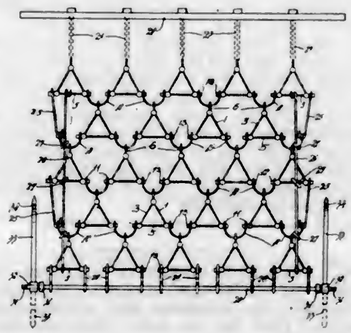
1. A valve group for an automobile torpedo comprising a starting valve, and two successive reducing valves, said starting valve and the primary reducing valve having tappet members engaging seats on opposite sides of an opening.

2. A valve group for an automobile torpedo comprising a starting valve, and two successive reducing valves, said starting valve and the primary reducing valve having tappet members engaging seats on opposite sides of an opening, and having their members controlling such tappet members extended in contrary directions to opposite sides of said opening.

3. A valve group for an automobile torpedo comprising a starting valve, and two successive reducing valves, said starting valve and the primary reducing valve having tappet members engaging seats on opposite sides of an opening, and said reducing valve comprising a stem carrying said tappet having a balancing piston on said stem, a cylinder in which said piston moves, the chamber on one side of said piston having a passage communicating with the high pressure side of the valve to admit pressure thereto tending to close the tappet, and a spring tending to open the tappet.

4. A valve group for an automobile torpedo comprising a starting valve, and two successive reducing valves, said starting valve and the primary reducing valve having tappet members engaging seats on opposite sides of an opening, said primary reducing valve comprising a stem carrying said tappet, a piston on said stem, a cylinder in which said piston moves, said stem having a passage through it admitting high pressure air to said cylinder on the remote side of said piston to establish a pressure therein tending to close the tappet, and a spring in said cylinder pressing against said piston and tending to open the tappet.

1,136,661. HARROW. FRANCIS THOMAS FINLAY EVANS, Auckland, New Zealand. Filed June 3, 1914. Serial No. 842,706. (Cl. 55—32.)

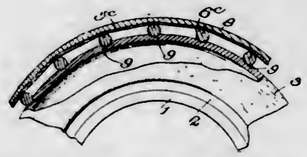


1. In an implement of the kind described, a plurality of units, a coupling bar connecting the front and rear units and oval links loosely connecting said bar with intermediate units.

2. In an implement of the kind described, a plurality of units, a coupling bar connecting the front and rear units, links loosely connecting said bar to intermediate units, a transverse bar at the rear of the implement, and arms journaled one upon each end of said transverse bar.

3. In an implement of the kind described, a plurality of units, a coupling bar connecting the front and rear units, means for connecting said bar to intermediate units, a transverse bar at the rear of the implement, hooks for connecting said transverse bar to the rear units, and arms journaled one upon each end of said transverse bar.

1,136,662. TIRE. ETHELBERT FAVARY, East Boston, Mass. Filed July 6, 1909. Serial No. 506,153. (Cl. 152—10.)

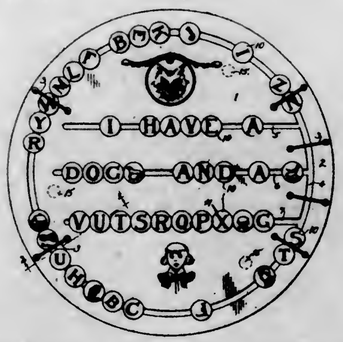


1. A vehicle tire comprising an annular air chamber, relatively rigid supports mounted upon the peripheral wall of said air chamber and a pliable band tread supported upon and connected with said supports, to be brought into a state of tension by the inflation of said air chamber, substantially as described.

2. A vehicle tire comprising an annular air chamber, relatively rigid supports mounted upon and connected with the peripheral wall of said air chamber and a pliable band tread supported upon and connected with said supports, to be brought into a state of tension by the inflation of said air chamber, substantially as described.

3. A vehicle tire comprising an annular air chamber, a series of relatively rigid supports mounted upon the peripheral wall of said air chamber, a pliable band supported upon and connected with said supports, a second series of relatively rigid supports mounted upon and connected with the between-support stretches of said pliable band, and a pliable tread band mounted upon and connected to said second series of supports, said bands being subjected to tension by the inflation of said air chamber, substantially as described.

1,136,663. EDUCATIONAL DEVICE. JOHN H. FOX, Berea, Ohio. Filed Oct. 14, 1912. Serial No. 725,613. (Cl. 35—9.)



A double headed button for an educational device consisting of three integral parts, namely; two round heads and a connecting shank, the shank being a flattened cylinder, the cylinder portion of which is of materially less diameter than the diameter of the heads, and characters on the two opposite faces of the button.

1,136,664. ARTIFICIAL TOOTH. GUSTAV E. FRITZ, Peoria, Ill. Filed June 15, 1912. Serial No. 703,849. (Cl. 32—9.)



1. A tooth formed with a buccal cusp and a "rubber-line-shoulder," and also having a sloping lingual surface, said surface adjacent the shoulder having a depression produced by oppositely inclined faces; said tooth also having a curved cavity opening out of the lingual surface and terminating in the buccal cusp; a curved pin and a backing, said backing having a portion to fit against the lingual surface proper and also provided with a portion adapted to be seated in the depression in the lingual surface, when the pin is in the cavity of the tooth.

2. A tooth having a cavity which is curved longitudinally and wedge shaped in cross section and opening out of the lingual surface thereof; a backing for the tooth having an opening; a pin for securing the tooth and backing together, said pin curved throughout its length and wedge shaped in cross section and having a head adapted to be seated in the opening in the backing.

3. A tooth having a "rubber-line-shoulder" and a sloping lingual surface, said surface adjacent the "rubber-line-shoulder" having a depression produced by oppositely inclined faces; the approximal wall of the tooth formed with depressions, one wall of the depressions merging into the deepest portion of the depression in the lingual surface and another wall of said depression merging into the lingual surface at a predetermined point between the gingival margin and said depression in the lingual surface.

1,136,665. BRAKE. HERBERT FROOD, Buxton, England. Filed July 25, 1913. Serial No. 781,067. (Cl. 74—13.)



1. In a mechanical brake, a textile brake block, a support therefor, and a metallic heat conducting backing interposed between the two, said backing being formed with air-passages therein to effectively radiate the heat taken up by the backing from said block, substantially as described.

2. In a mechanical brake, a textile brake block, a support therefor, and a metallic backing interposed between said block and support having a plurality of heat radiating surfaces and air-passages for conducting heat away from the block and support.

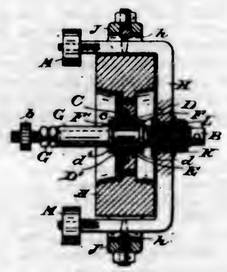
3. In combination a textile brake block, a support therefor, having a ribbed metallic heat radiating surface interposed between the block and the main body of said support, substantially as set forth.

4. In combination a textile brake block, a grooved metallic shoe therefor and a thin metal plate interposed between the grooved metallic shoe and the block, substantially as set forth.

1,136,666. GYROSCOPE. JOHN GARDNER, Knott End, near Fleetwood, England. Filed May 5, 1914. Serial No. 836,893. (Cl. 74—78.)

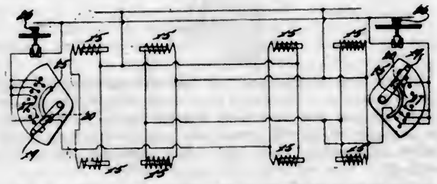
1. In a gyroscope, a gimbal frame, a stationary axle adjustably carried thereby, a gyroscopic wheel supported

on said axle, a bearing interposed between said axle and wheel consisting of a single row of balls lying in a fixed plane perpendicular to the axis of said axle and passing through the center of inertia of said wheel, a row of balls arranged on each side of said central row, and races for the balls, one of said races being carried by each of the side faces of said wheel and the others of said races being supported on said axle, the wearing faces of said races being in parallelism with the fixed plane aforesaid whereby the mass particles of said wheel are forced to rotate in exact parallelism with said fixed plane.



2. In a gyroscope, a gyroscopic wheel, a stationary axle therefor, a gimbal frame, an adjustable eccentric support carried by said frame into which one end of said axle is threaded, the other end of said axle being free, a bearing interposed between said axle and wheel, consisting of a single row of balls lying in a fixed plane perpendicular to the axis of said axle and passing through the center of inertia of said wheel, a row of balls arranged on each side of said central row, races for said balls, one of said races being carried by each side face of said wheel and the other of said races being supported on said axle, the wearing faces of said races being in exact parallelism with the fixed plane aforesaid whereby the gyroscopic wheel may be adjusted to a nicety both longitudinally and transversely of said frame, and the mass particles of said wheel forced to rotate in exact parallelism to said fixed plane.

1,136,667. METHOD AND APPARATUS FOR SANDING RAILS. JAMES V. GERAGHTY, New York, N. Y. Filed June 19, 1914. Serial No. 846,042. (Cl. 105—60.)



1. The electromagnetic method of sanding rails to prevent and remove corrugations therein, which consists in supplying sand between progressing, rail-contacting revolving surfaces and said rails by means of, and in coördination with, the electric current employed substantially at all times during the acceleration of rotation of said revolving surfaces, so as to simultaneously furnish requisite adhesion between said surfaces and rails to prevent the formation of corrugations, and to displace the crests of the corrugations already formed.

2. The electromagnetic method of sanding rails to prevent corrugations therein, which consists in supplying sand between progressing, rail-contacting revolving surfaces and said rails by means of, and in coördination with, the electric current employed substantially at all times during the acceleration of rotation of said revolving surfaces, so as to furnish requisite adhesion between said surfaces and said rails.

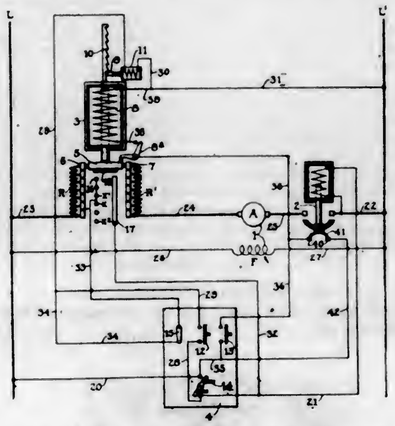
3. The electromagnetic method of sanding rails to remove corrugations therein, which consists in supplying sand between progressing, rail-contacting revolving surfaces and said rails by means of, and in coördination with, the electric current employed substantially at all times during the acceleration of rotation of said revolving surfaces, so as to displace the crests of the corrugations already formed.

4. An apparatus for sanding rails on electric railways, which comprises, in combination, a controller connected with the main circuit to operate the motors, a solenoid connected by successive contact points to the main circuit by the advance of the motor controller in starting and running positions, a sand box having an outlet to the rail, and a valve in said outlet connected with the solenoid to open the valve when the motor controller is advanced.

5. An apparatus for sanding rails on electric railways, which comprises, in combination, a controller connecting the motors to the main circuit, means to connect same in series or in parallel, a solenoid connected by successive contact points to the main circuit when the motor controller is advanced in starting and running positions, a sand box having an outlet to the rail, and a valve in said outlet connected with the solenoid to open said valve when the motor controller is advanced.

[Claims 6 to 13 not printed in the Gazette.]

1,136,668. MOTOR-CONTROLLER. MAURICE M. GOLDENSTEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 10, 1913. Serial No. 794,415. (Cl. 172—179.)



1. The combination with an electromagnetically controlled rheostat, of means for effecting operation thereof at will, and means for maintaining the same in operation between certain positions independently of said former means, said latter means being controllable at will to arrest said rheostat in one or more intermediate positions.

2. The combination with an electromagnetically controlled rheostat, of manual control means for effecting operation thereof, said means when released tending to automatically arrest said rheostat and means for maintaining said rheostat in operation between certain positions independently of said former means, said latter means being controllable at will to arrest said rheostat in one or more intermediate positions.

3. The combination with an electromagnetically controlled rheostat, of means adapted when said rheostat is set in operation to effect continuous movement thereof from one position to another and manual control means operable to set said rheostat in operation and arrest the same intermediate of the aforesaid positions.

4. The combination with an electromagnetically controlled rheostat, of means adapted when said rheostat is set in operation to effect continuous movement thereof between certain positions, and manual control means for effecting operation of said rheostat in opposite directions and for arresting the same upon movement in either direction in a position intermediate of the aforesaid positions.

5. The combination with an electromagnetically controlled rheostat, of manual means for effecting operation thereof but effective only during manual retention and means for maintaining said rheostat in operation independently of said former means through a definite range of movement and then automatically arresting the same.

[Claims 6 to 18 not printed in the Gazette.]

1,136,669. PROCESS OF PRODUCING CARBON-FREE FERROCHROMIUM. HANS GOLDSCHMIDT and OTTO WEIL, Essen-on-the-Ruhr, Germany, assignors to Goldschmidt Thermit Company, New York, N. Y., a Corporation of New York. Filed Oct. 29, 1912. Serial No. 728,450. (Cl. 75—17.)

1. A process for increasing the yield of chromium in the aluminothermic manufacture of ferro-chromium from materials containing chromium which consists in adding to the ordinary aluminothermic mixture a certain amount of chromium oxid and subjecting this mass to the aluminothermic reaction.

2. A process for increasing the yield of chromium in the aluminothermic manufacture of ferro-chromium from chrome-iron ore which consists in adding to the ordinary aluminothermic mixture of chrome-iron ore and reducing metal a certain amount of chromic oxid, preheating the mixture up to a temperature near the melting point of the reducing metal and subjecting this mass to the aluminothermic reaction.

3. A process for increasing the yield of chromium in the aluminothermic manufacture of ferro-chromium from chrome-iron ore which consists in adding to the ordinary aluminothermic mixture of chrome-iron ore and reducing metal a certain amount of chromic oxid, preheating the mixture up to red heat and subjecting this mass to the aluminothermic reaction.

1,136,670. TITANIUM ALLOYS AND METHOD OF PRODUCING THE SAME. HANS GOLDSCHMIDT and OTTO WEIL, Essen-on-the-Ruhr, Germany, assignors to Goldschmidt Thermit Company, New York, N. Y., a Corporation of New York. Original application filed Oct. 19, 1910, Serial No. 587,857. Divided and this application filed Oct. 29, 1912. Serial No. 728,451. (Cl. 75—1.)

1. As a new product, an alloy of ferro-titanium with aluminum containing at least 15% of titanium and in which the aluminum present is at least 10% of the titanium.

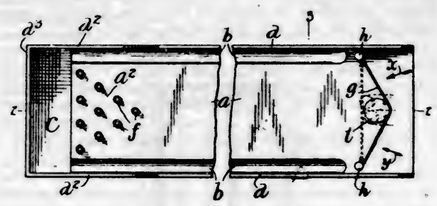
2. As a new product, an alloy of iron, titanium and aluminum containing approximately 24% of titanium and approximately 3% of aluminum.

3. As a new product, an alloy of iron, titanium and aluminum containing at least 15% of titanium and at least 1.5% of aluminum.

1,136,671. AMUSEMENT DEVICE. WALTER W. HALL, Brooklyn, N. Y. Filed June 2, 1914. Serial No. 842,460. (Cl. 46—62.)

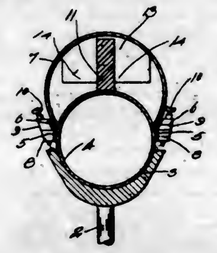
1. A portable game device made in imitation of a bowling alley and provided with the usual alley-way at the opposite sides of which are the usual side gutters and at the rear end of which is the usual pin pit, the front end portion of the device between the side gutters and forwardly thereof being free and unobstructed and being provided forwardly of the front ends of the side gutters with securing devices, and an elastic strip or band connected with said devices and extending transversely of and entirely across the alley-way.

2. A portable game device made in the imitation of a bowling alley and provided with the usual alley-way, the front end portion of the alley-way being open and unobstructed and being provided with securing devices at the opposite side edges thereof, an elastic strip or band con-



nected with said securing devices and extending entirely across the alley-way, and a disk-shaped projectile adapted to be manipulated in connection with said band, substantially as shown and described.

1,136,672. PUNCTURE-PROOF TIRE. RICHARD B. HAYTER, Lawrence, Kans., assignor of one-half to Clarence O. Foster, Lawrence, Kans. Filed June 12, 1914. Serial No. 844,736. (Cl. 152—17.)



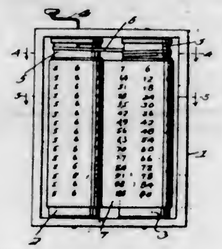
1. A device of the class described comprising a pneumatic tire, a pair of strips secured longitudinally to the opposite sides thereof and upon the outer face of the tire, oppositely directed ears projecting from said strips, an outer protecting casing resting upon said tire and having strips secured to its lower longitudinal edges and resting upon the first mentioned strips, ears directed outwardly from the second mentioned strips and resting upon the first mentioned ears, means secured through the first mentioned and second mentioned ears to secure the casing in proper position and prevent the same from creeping upon the tire, and spacing and cushioning means positioned between the tire and the central portion of the casing.

2. A device of the class described comprising the combination with a tire; of strips secured to the outer face thereof at its opposite sides, ears projecting outwardly from said strips at spaced distances, a casing positioned upon the central portion of the tire, strips carried by said casing and resting upon the first mentioned strips, ears projecting outwardly from the second mentioned strips and resting upon the first mentioned ears, said first and second mentioned ears being provided with registering openings, means threaded in said registering openings to secure the casing in position, said casing being formed of flexible material to yield locally, and cushioning and reinforcing members carried by the tire and casing and interlocked with one another and serving to space the main portion of the casing from the tire.

1,136,673. CALCULATING-MACHINE. LOUIS M. HERON, Washington, D. C. Filed Oct. 1, 1912. Serial No. 723,419. (Cl. 235—86.)

1. In a calculating machine, a casing, a pair of rollers journaled in the casing, means to manually operate one of the rollers, a flexible connection between the rollers rigidly connected at its ends to the rollers whereby when the

connection is wound on the manually operated roller the other roller will rotate with said manually operated roller but in an opposite direction from the latter, and a web bearing figures connected to the rollers so that when the flexible connection is unwound from the manually operated roller the web will actuate the other roller.



2. In combination with a casing, a pair of spaced rotary rollers therein, means to manually operate one of the rollers, and a pair of flexible connections between the rollers whereby clock-wise or anti-clock-wise movement of either roller will cause opposite rotation of the other roller, rotation of either roller causing one of the pair of flexible connections to be wound on that roller and unwound from the other roller and the other connection to be unwound from the first mentioned roller and wound on the said other roller.

1,136,674. SCREENING-CONVEYER. ARTHUR RICHARD HOUSTON, Ensley, Ala. Filed Feb. 6, 1914. Serial No. 816,931. (Cl. 83—56.)



1. In an apparatus of the character described, rocking screen members having concave material receiving faces pivoted at one side, and means to swing their said faces approximately from horizontal to vertical position, said differential driving means acting to move adjacent faces in opposite directions at different speeds, and guards carried by the free ends of said faces.

2. In an apparatus of the character described, transverse rocking screening members each having upper curved concave material supporting faces and outer curved edges, and differential driving means to alternately raise and lower said members, said means acting to effect the lowering movement of members in advance of the lifting movement of adjacent members, and the upper curved faces of adjacent pairs of members when they stand at opposite extremes of their travel forming a substantially continuous curved surface in the direction of the discharge end of the apparatus.

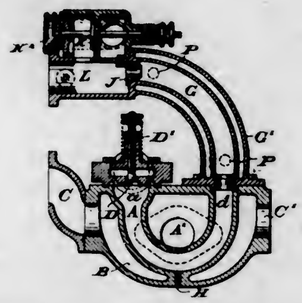
3. A screening mechanism comprising a series of horizontal rocker shafts, screening members connected at one side to each shaft and comprising an upper inclined top face and a convex vertical end face, and differential operating connections to rock one member upwardly as the adjacent member toward the discharge end of the machine is rocked downwardly, and vice versa, the down movements taking place more rapidly than the up movements, the material handled being supported principally on said inclined upper faces and fed by each onto the next to move it, substantially as described.

4. In an apparatus of the character described, rocking screening members, alternate members being connected to form two groups, means to swing one group upwardly as the other is swung down, said means comprising a rocking reciprocatory element connected to both groups of screening members, substantially as described.

5. In an apparatus of the character described, rocking screening members, the alternate members being connected in groups, means to raise one group as the other is lowered, said means comprising a rocking element connected to both groups of screening members, and a reciprocatory cross head to which said element is pivotally connected midway between its connections to said screening members, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

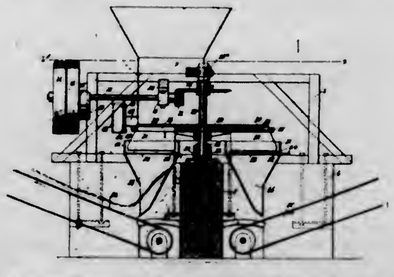
1,136,675. CARBURETER. PERCY HUTCHINSON, Putney, London, England. Filed Jan. 18, 1913. Serial No. 742,773. (Cl. 48—148.)



1. A carbureter for heavy liquid hydrocarbon, comprising in combination a heating chamber for vaporizing such hydrocarbon, an inlet in such chamber for the hydrocarbon, an inlet in such chamber for primary air, a delivery pipe for the vaporized hydrocarbon from such heating chamber leading to the engine induction pipe, an inlet to such delivery pipe for secondary air, a cooling means combined with the delivery pipe and operating to condense the vapors which are not in a desirable condition for use in the engine, and means for preventing the passage of the products of condensation to the induction pipe, the heating chamber and the delivery pipe being so relatively disposed that condensation products in the delivery pipe flow back into the heating chamber, substantially as set forth.

2. A carbureter for heavy liquid hydrocarbon, comprising a vertical U-shaped tubular heating chamber, inlets for hydrocarbon and primary air at the upper end of one limb of the U, a curved delivery pipe leading up from the upper end of the other limb of the U and curving over the first limb, an inlet for secondary air at the overhanging end of the curved delivery pipe, and a cooling jacket disposed on such delivery pipe, substantially as hereinbefore described.

1,136,676. CLAY-CLEANER. BERNARD JACQUART, South River, N. J., and JOHN V. V. BOORAEM, New York, N. Y. Filed Jan. 5, 1910. Serial No. 536,537. (Cl. 83—6.)



1. The combination of a hopper provided with an arcuate wall, a neck communicating with said hopper and extending outwardly from said wall, a plate mounted upon said neck and fixed relatively to the same, a box provided with a slot for registering with the opening in said neck, said slot being longer than said opening, means for adjusting said box relatively to said plate, and a cutter wheel disposed adjacent to said hopper and revoluble for the purpose of forcing pebbles and other impurities through said neck.

2. The combination of a hopper provided with an outlet, cutters movable relatively to said outlet for the purpose of cutting material discharged therefrom, a neck mounted upon said hopper at a point adjacent to said cutters and adapted to receive stones and other impurities forced out of the material operated upon by said cutters, a receptacle for receiving said stones and other impurities, and means for regulating the rate of passage of the said stones and other impurities into said receptacle.

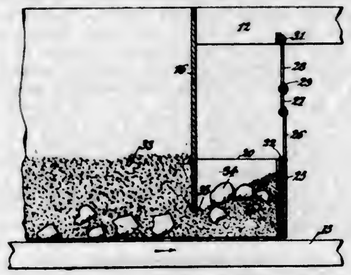
3. The combination of a revoluble member provided with slots, said slots being wider at the top than at the bottom of said revoluble member, sectors mounted upon said revoluble member and separated from each other by slots, said last-mentioned slots being narrower than said slots in said revoluble member, knives mounted upon one of said sectors and extending over the slots separating said sectors, and means for adjusting the position of said knives relatively to the sectors upon which they are mounted.

4. The combination of a revoluble member provided with a slot, a sector mounted upon said revoluble member and overhanging a portion of said slot, an L-shaped shoe sunken into said sector and removably connected therewith, said shoe being provided with a down-turned portion extending across the overhanging edge of said sector, another sector mounted upon said revoluble member and in registry with said first-mentioned sector, a knife mounted upon the second-mentioned sector, and means controllable at will for adjusting the position of said knife relatively to said sectors.

5. The combination of a cutter wheel provided with longitudinal openings, said openings being wider adjacent to one face of said wheel than to the other face thereof, sectors mounted upon said wheel and partially covering said openings, knives mounted upon some of said sectors and overhanging the spaces between successive sectors and means for adjusting said knives relatively to said last-mentioned openings.

[Claims 6 and 7 not printed in the Gazette.]

1,136,677. CLAY-CLEANER. BERNARD JACQUART, South River, N. J., and JOHN V. V. BOORAEM, New York, N. Y. Filed Oct. 25, 1912. Serial No. 727,666. (Cl. 83—6.)



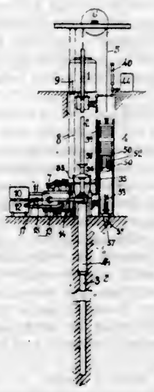
1. In a clay cleaner, a hopper for material to be cut, and a stone compartment open at its top for escape of material over the walls thereof, having a front wall of a height approximately that of the normal height of the material in the hopper, to create a back pressure by means of the weight of the material in the compartment, said hopper and compartment communicating with each other by an unobstructed opening in the wall dividing the hopper and compartment, said opening being of less height than the normal height of the material in the hopper.

2. In a clay cleaner, the combination of a main hopper having an unobstructed opening in its side of less height than the normal height of the material in the hopper, an extension or compartment in communication with the main hopper by means of said opening, and having an open top, and a manually operated door on the extension for permitting the discharge of the contents thereof and for creating a variable back pressure by means of the weight of the material in the compartment, said door being of approximately the same height as the normal height of the material in the hopper.

3. In a clay cleaner, a hopper for the material to be cut having a wall with its lower end distant from the knives and extending below the material in the hopper, and an open-top extension protected by the wall from the weight of the clay in the hopper, and manually-operative means for discharging the material in the extension for creating a variable back pressure by means of the weight of the material in the compartment, said means being of approximately the same height as the normal height of the material in the hopper.

4. In a clay cleaner, a hopper of arcuate shape rotating knives and table below the same forcing pebbles and material against one wall of the hopper, said wall having an unobstructed opening at its lower end to permit the passage of pebbles and said opening being of less height than the normal height of the material in the hopper, a second wall beyond the first, and manually-operative discharge means for the matter contained between the wall of the hopper having the opening and the wall extending in proximity to the knives, said second wall being of approximately the same height as the normal height of the material in the hopper for creating a back pressure by means of the weight of the material in the compartment.

1,136,678. HYDRAULIC PLUNGER-ELEVATOR. KARL E. OSSIAN JANSSON, Flushing, N. Y., assignor, by mesne assignments, to Standard Plunger Elevator Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 27, 1908, Serial No. 429,355. Renewed Oct. 16, 1914. Serial No. 867,038. (Cl. 138—8.)



1. The combination with a hydraulic plunger elevator comprising a cylinder having means at the top for supplying and exhausting water, and a plunger working therein, of means wholly within and respectively at the top and bottom of the cylinder for stopping the plunger at corresponding ends of its travel, and means comprising separate supply and exhaust connections with the cylinder whereby actuating pressure for a normal start in one direction may be applied to the plunger independently of one end stopping means, and an exhaust for a normal start in the other direction secured independently of the other end stopping means.

2. The combination with a hydraulic plunger elevator,

of a main cylinder having separate supply and exhaust ports, and means whereby the plunger automatically cuts off the supply within the main cylinder at the upper end independently of the exhaust.

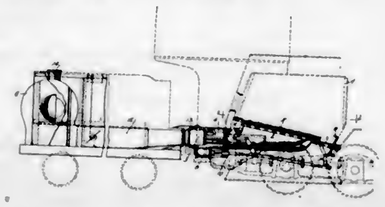
3. The combination with a hydraulic plunger elevator, of a main cylinder, and means whereby the plunger automatically cuts off the supply within the main cylinder at the upper end.

4. The combination with a hydraulic plunger elevator, of a main cylinder having separate supply and exhaust ports, means whereby the plunger automatically cuts off the supply within the main cylinder at the upper end, and means whereby the car can be started in the reverse direction through said exhaust port.

5. The combination with a hydraulic plunger elevator cylinder and a plunger working therein, of means wholly within the cylinder whereby the plunger automatically cuts off the supply to stop at one end.

[Claims 6 to 26 not printed in the Gazette.]

1,136,679. AUTOMATIC STOKING APPARATUS. WILLIAM JOHN KENNEY, Wilmette, and HENRY PHILLIP GROHN, Chicago, Ill., assignors to The Under-feed Stoker Company of America, Chicago, Ill., a Corporation of New Jersey. Original applications filed Oct. 12, 1908, Serial No. 457,199, and Jan. 29, 1912, Serial No. 673,993. Divided and this application filed Jan. 7, 1915. Serial No. 905. (Cl. 110—103.)



1. In combination with a boiler, a furnace, an automatic stoker in the furnace for delivering fuel thereto, apparatus for removing from the stoker the clinkers and ashes resulting from the combustion of the fuel, independent actuating means for said stoker and said apparatus, and means influenced by variations in the boiler pressure for controlling said means.

2. In combination with a boiler, a furnace, an automatic stoker in the furnace for delivering fuel thereto, a motor for actuating said stoker, apparatus for removing from the stoker the clinkers and ashes resulting from the combustion of the fuel, a second motor for actuating said apparatus, and means influenced by variations in the boiler pressure for actuating said motors.

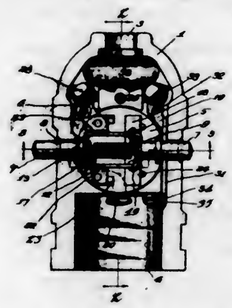
3. In combination with a boiler, a furnace, an automatic stoker in the furnace for delivering fuel thereto, a motor for actuating said stoker, apparatus for removing from the stoker the clinkers and ashes resulting from the combustion of the fuel, a second motor for actuating said apparatus, means influenced by variations in the boiler pressure for actuating said motors, and individual controllers for said motors.

4. In combination with a boiler, a furnace, an automatic stoker in the furnace for delivering fuel thereto, a motor for actuating said stoker, means for removing from the stoker the clinkers and ashes resulting from the combustion of the fuel, a second motor for actuating the aforesaid means, and means influenced by variations in boiler pressure for actuating said second motor.

5. In combination with a boiler, a furnace, an automatic under-feed stoker including a retort arranged within the furnace, apparatus within the furnace beside the retort for receiving clinkers and ashes therefrom and removing them, independent actuating means for said stoker and said apparatus, and means influenced by variations in the boiler pressure for controlling said actuating means.

[Claims 6 and 7 not printed in the Gazette.]

1,136,680. ELECTRIC SWITCH. CHARLES J. KLEIN, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Sept. 25, 1911. Serial No. 651,224. (Cl. 175—284.)



1. In an electric switch, an insulating base, a snap switch mechanism carried thereon and having its operating member reciprocable across the same, stationary contacts for said switch mechanism on the same side of said base and terminal members carried upon the opposite side of said base, one of said terminal members being adapted to be attached to a support and the other of said terminal members being adapted to make contact with a contact of a translating device.

2. In an electric switch, a substantially disk-shaped insulating base having switch contacts thereon, movable snap switch mechanism mounted upon said base and movable to make or break circuit at said contacts with a quick snap action, and laterally extending terminal members carried upon the opposite face of said base and extending in opposite directions therefrom, one of said members being adapted to act as a means for attaching the base to a support and the other being adapted to make contact with a contact of a translating device.

3. In an electric switch, in combination, a reciprocable operating member, parallel cams pivoted upon the same and biased in one direction, and a contact member reciprocable in a plane substantially parallel to said operating member and arranged to be actuated by said cams in an opposite direction to the latter and with a quick snap action in either direction.

4. In an electric switch, in combination, a reciprocable operating member, resiliently mounted winged cams carried thereby on opposite sides and biased to press in the same direction, and a reciprocable contact at one side of said operating member and said cams and having bearing surfaces engaged by the latter, said contact being actuated with a snap movement in alternately opposite directions upon successive movements of said operating member.

5. In an electric switch, in combination, a reciprocable operating member, pivoted cams carried on opposite sides of the latter, a coil spring carried by said operating member and biasing said cams in one direction, and a reciprocable contact having bearing surfaces operatively engaged by said cams whereby the same is moved with a snap action in alternately opposite directions upon successive reciprocations of said operating member.

[Claims 6 to 13 not printed in the Gazette.]

1,136,681. SWITCHING SOCKET OR CONNECTOR. GEORGE C. KNAUFF, Chicago, Ill. Filed Dec. 12, 1913. Serial No. 806,239. (Cl. 175—282.)

1. In a socket and plug combination, a plug, a circuit terminal carried thereby and projecting beyond the forward end of the plug; a casing equipped with means for coupling the plug thereto in either of two rotationally separated positions, the said coupling means permitting the plug to be rotated relatively to the casing to move the plug from one to the other of its said positions; and

a second circuit terminal mounted within and insulated from the casing forwardly of the said plug; one of the said terminals equipped with an extension substantially radial of the casing, the other thereof presenting a tip disposed at one side of the axis of the casing and contacting with the said radial extension upon the other terminal when the plug and casing are in one of their said coupled positions, the said disposition of the contacting portions of the said terminals causing the same to be brought out of contacting relation when the plug is rotated to the other of its said coupled positions.



2. In a socket and plug combination, a plug, a circuit terminal carried thereby and projecting beyond the forward end of the plug; a casing equipped with means for coupling the plug thereto in either of two rotationally separated positions, the said coupling means permitting the plug to be rotated relatively to the casing to move the plug from one to the other of its said positions; and a second circuit terminal mounted within and insulated from the casing forwardly of the said plug; one of the said terminals equipped with an extension substantially radial of the casing, the other thereof presenting a tip disposed at one side of the axis of the casing and contacting with the said radial extension upon the other terminal when the plug and casing are in one of their said coupled positions, the said disposition of the contacting portions of the said terminals causing the same to be brought out of contacting relation when the plug is rotated to the other of its said coupled positions; and spring means associated with one of the said terminals and coöperating with the said formations to hold the plug in either of its said coupled positions.

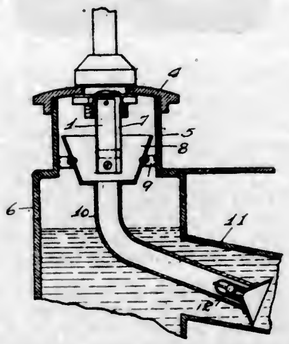
3. In a socket and plug combination, a plug, a circuit terminal carried thereby and projecting beyond the forward end of the plug; a casing equipped with means for coupling the plug thereto in either of two rotationally separated positions, the said coupling means permitting the plug to be rotated relatively to the casing to move the plug from one to the other of its said positions; and a second circuit terminal mounted within and insulated from the casing substantially axially thereof and forwardly of the said plug, the rear end thereof equipped with an extension substantially radial of the casing; the first named circuit terminal being disposed at an angle to the common axis of the plug and the casing, the forward end of the said terminal contacting with the said extension upon the other terminal when the plug is in one of its said coupled positions; the said angular disposition of the first named terminal causing the forward end thereof to be moved out of contact with the rear end of the other terminal upon rotation of the plug to the other of its coupled positions, thereby opening the circuit.

4. In a socket and plug combination, a plug, a circuit terminal carried thereby and projecting beyond the forward end of the plug; a casing equipped with means for coupling the plug thereto in either of two rotationally separated positions, the said coupling means permitting the plug to be rotated relatively to the casing to move the plug from one to the other of its said positions; a second circuit terminal mounted within and insulated from the casing substantially axially therof and forwardly of the said plug, the rear end thereof equipped with an extension substantially radial of the casing; the first named circuit terminal being disposed at an angle to the common axis of the plug and the casing, the forward end of the said terminal contacting with the said extension upon the other terminal when the plug is in one of its said coupled positions; the said angular disposition of the first named terminal causing the forward end thereof to be moved out of contact with the rear end of the other terminal upon rotation of the plug to the other of its coupled positions, thereby opening the circuit; and spring means associated with one of the said terminals and pressing the said ends of the terminals into forcible impingement when the plug is in the first of its said coupled positions.

5. In a socket and plug combination, a plug, a circuit terminal carried thereby and projecting beyond the forward end of the plug; a casing equipped with means for coupling the plug thereto in either of two rotationally separated positions, the said coupling means permitting the plug to be rotated relatively to the casing to move the plug from one to the other of its said positions; and a second circuit terminal mounted within and insulated from the casing forwardly of the said plug; the adjacent ends of the said terminals contacting with each other when the plug is in one of its said coupled positions, one of the said terminals being disposed at an angle with the common axis of the casing and plug, the said angular disposition of the last named terminal causing the said adjacent ends of the terminals to be brought out of contact with each other when the plug is moved to the other of its said coupled positions.

[Claim 6 not printed in the Gazette.]

1,136,682. AUTOMOBILE RADIATOR-THERMOMETER. EDWARD A. LARSON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed July 6, 1914. Serial No 849,075. (Cl. 73—52.)

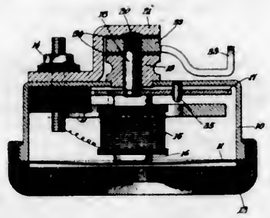


1. A device for indicating the temperature of the cooling water of an internal combustion engine, comprising, in combination with the radiator, an upwardly-open receptacle for water adapted to be suspended within the radiator below the filling mouth thereof; a tube discharging into said receptacle and extending within the radiator to the inlet orifice thereof; a check valve in said tube opening for flow therethrough into the receptacle and adapted to be seated by reverse flow, and a thermometer device adapted to be mounted on the radiator cap, comprising a heat-responsive element which, when it is thus mounted, protrudes into said receptacle, and a temperature-indicating element which is exposed to view outside the cap.

2. A device for indicating the temperature of the cooling water of an internal combustion engine, comprising, in combination with the radiator, a receptacle for water adapted to be inserted through the radiator filling mouth and to be suspended within the receptacle below said mouth; a tube connected with said receptacle for discharge thereinto, extending from said receptacle within the radiator to the inlet orifice thereof, and having a funnel inlet mouth positioned for receiving water flowing for discharge into the radiator through said inlet orifice, and a thermometer mounted on the radiator cap having its heat-responsive element protruding into said receptacle and its temperature-indicating element exposed to view outside the cap.

3. A device for indicating the temperature of the cooling water of an internal combustion engine, comprising, in combination with the radiator, a water receptacle adapted to be inserted into the radiator through the filling mouth thereof, and means for suspending it within the radiator below said mouth; a tube connected with said receptacle for discharge of water thereinto and extending thence within the radiator to the vicinity of the inlet orifice thereof, and provided with a funnel receiving mouth positioned for receiving water flowing for discharge through said orifice into the radiator; a check valve in said tube opening for flow therethrough toward the receptacle, and adapted to be seated by reverse flow; a thermometer and means for mounting it on the radiator cap with its heat-responsive element protruding into said receptacle and its temperature-indicating parts exposed to view outside the radiator.

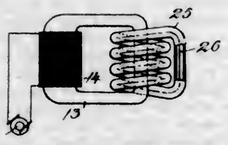
1,136,683. WIRELESS RECEIVING APPARATUS. JOSEPH S. LEACH, Brooklyn, N. Y. Filed Dec. 12, 1913. Serial No. 806,168. (Cl. 179—117.)



1. In receiving apparatus of the character set forth: a casing; suitable magnetic means therein, and a diaphragm coöperating therewith; and means to vary the distance between said magnetic means and said diaphragm, comprising a reciprocable shaft connected with said magnetic means to reciprocate the same, said shaft being threaded at its outer end, an elongated bearing for said shaft and secured to the said casing, means to prevent turning of said magnetic means, a threaded nut engaging the threaded end of said shaft, and a lever connected therewith to move said nut whereby the said shaft is reciprocated accordingly.

2. In receiving apparatus of the character set forth: a casing; suitable magnetic means therein, and a diaphragm coöperating therewith; and means to vary the distance between said magnetic means and said diaphragm, comprising a reciprocable shaft connected with said magnetic means to reciprocate the same, said shaft being threaded at its outer end, a bracket extending over said casing and provided with a recess for the threaded end of said shaft, an elongated bearing for said shaft and secured to the said casing, means to prevent turning of said magnetic means, a threaded nut engaging the threaded end of said shaft, and a lever connected therewith to move said nut whereby the said shaft is reciprocated accordingly.

1,136,684. INDUCTION LIGHT SYSTEM. JOSEPH LEDWINKA, Philadelphia, Pa., assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 25, 1913. Serial No. 750,528. (Cl. 176—23.)



1. In a lighting system, a translating device including a core formed into a closed magnetic circuit, a hollow transparent member surrounding a portion of said core, and an incandescent element contained within the interior chamber of the evacuated member.

2. In a lighting system, a translating device including a core formed into a closed magnetic circuit, an evacuated hollow member encircling a portion of said core, and an incandescent material contained within the evacuated member and forming a circuit closed upon itself.

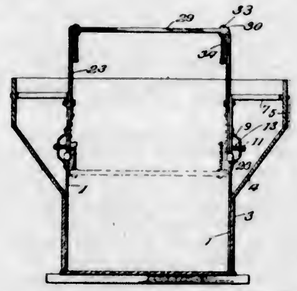
3. In a lighting system, a translating member, a source of alternating energizing current therefor, said translating member including a core formed into a closed magnetic circuit, and an evacuated hollow member encircling a portion of said core and containing a filament closed upon itself.

4. In a lighting system, a source of alternating current, a translating device including a core formed into a closed magnetic circuit, a coil arranged in the circuit of the source of current and encircling a portion of the core, and an evacuated hollow member encircling another portion of the core and containing an incandescent material.

5. In a lighting system, a translating device including a core formed into a closed magnetic circuit, an evacuated hollow member encircling a portion of said core and containing an incandescent filament a coil encircling another portion of the core, and a source of alternating current for said coil.

[Claims 6 to 11 not printed in the Gazette.]

1,136,685. SEAT FOR GRAIN-WAGONS. JACOB J. LEE, Agate, N. D. Filed May 6, 1913. Serial No. 765,858. (Cl. 21—42.)



1. In a seat structure, standards, a seat board hanger pivotally mounted upon each of the standards, the hangers being supported for reversal, a seat board supported by the hangers and arranged when the hangers are in one position to lie above the pivots for the hangers and when the hangers are in the reverse position to lie below the said pivots, and a hook carried by each hanger and arranged to engage with the respective standard when the hangers are in the first mentioned position, whereby to brace the same against tilting.

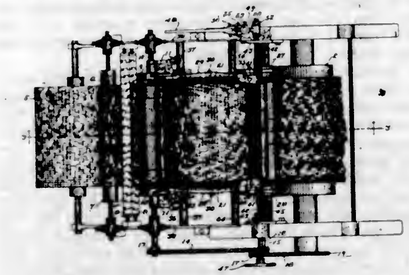
2. In a seat structure, standards, a seat-board hanger pivotally mounted upon each of the standards, each of the hangers having portions extending at opposite sides beyond the pivot, a seat-board supported by one of the portions of each of the hangers and arranged when the hangers are in one position of adjustment to assume a position above the pivot and when the hangers are in another position of adjustment to assume a position below the pivot, and means coöperating with the said portions of each hanger for holding the hangers in either of their positions of adjustment.

3. In a seat structure, standards, a seat-board hanger pivotally mounted upon each of the standards, each of the hangers having portions extending at opposite sides beyond the pivot, a seat-board supported by one of the portions of each of the hangers and arranged when the hangers are in one position of adjustment to assume a position above the pivot and when the hangers are in another position of adjustment to assume a position below the pivot, means coöperating with the said portions of each hanger for holding the hangers in either of their positions of adjustment, and means yieldably supporting the seat-board when the hangers are in their last mentioned adjusted position.

4. In a seat structure, standards, seat board hangers mounted upon the standards for reversal and each provided with a seat board supporting flange, the said flanges being provided with openings, a seat board disposed to rest against the flanges, bolts secured through the seat board and slidably fitting in the said openings in the flanges, a spring upon each of the bolts, and a stop upon each bolt the springs bearing at their ends against the stops and the said flanges.

5. In a seat structure, standards, a seat board hanger pivotally mounted upon each of the standards, each of the hangers having portions extending at opposite sides beyond the pivot, a seat board supported at each end by one of the portions of each hanger and arranged when the hangers are in one position of adjustment to assume a position above the pivot and when the hangers are in another position of adjustment to assume a position below the pivot, each of the hangers having each of its portions provided with a keeper member and the said keeper members of each hanger being equi-distantly spaced at opposite sides of the pivot, and a latch member carried by each hanger and coöperating with the keeper members, whereby to support the hangers in one or another of their said positions of adjustment.

1,136,686. AUTOMATIC WEB-GUIDING DEVICE. WILLARD I. LEWIS, Walpole, Mass. Filed Feb. 13, 1911. Serial No. 608,449. (Cl. 26—18.)



1. In combination, traveling endless carriers acting to positively hold the selvage or margin of a web, and means for bringing the receiving portions of such carriers automatically to the position of the oncoming portion of the selvage or margin or to that of a predetermined lateral portion of the web, compensating thereby for variations in the line of travel of the said selvage or margin, or other portion, of the web.

2. In combination, selvage-detecting means, selvage-carrying wheels and selvage-retaining endless bands coöperating with the said wheels, and means controlled by the said selvage-detecting means for automatically adjusting the receiving portions of the said wheels and bands to correspond with the oncoming portions of the selvages or margins of the web being operated upon.

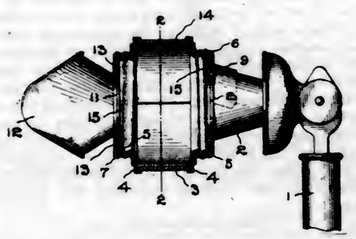
3. In combination, selvage-detecting means, selvage-carrying wheels and selvage-retaining endless bands coöperating with the said wheels, supports for the said wheels and bands pivotally mounted adjacent the delivery portions thereof, and means controlled by the said selvage-detecting means for automatically adjusting the receiving portions of the said wheels and bands to correspond with the oncoming portions of the selvages or margins of the web being operated upon.

4. In combination, selvage-carrying means, for the opposite selvages of a traveling web, and means for bodily shifting the said means transversely at will without varying the distance apart of the devices at the opposite selvages to thereby correspondingly shift the general path of the web being operated upon.

5. In combination, selvage-carrying wheels and selvage-retaining endless bands coöperating with the said wheels, and means for bodily shifting the said wheels transversely without varying their distance apart to thereby correspondingly shift the general path of the web being operated upon.

[Claims 6 to 8 not printed in the Gazette.]

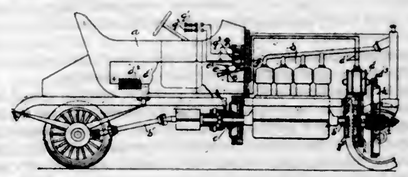
1,136,687. MUFFLER ATTACHMENT FOR TELEPHONES. JAY LITT, Philadelphia, Pa. Filed Mar. 2, 1914. Serial No. 821,976. (Cl. 179—188.)



1. In a device of the character described the combination with a cylindrical casing, of rings secured on the ends of the casing and having screw-threaded extensions appreciably smaller in diameter than the casing, removable ends screwed onto said rings, one of said ends having an opening therein, and a mouth piece secured to the end and communicating with the opening, the other of said ends having an opening therein, and a spring clamp secured to the end around the opening, said spring clamp having its ends free, substantially as described.

2. In a device of the character described, the combination with a cylindrical casing, of rings secured on the ends of the casing and having screw-threaded extensions appreciably smaller in diameter than the casing, removable ends screwed onto said rings, one of said ends having an opening therein, a mouth piece secured to the end and communicating with the opening, the other of said ends having an opening therein, and a spring clamp secured to the end around the opening, said spring clamp disposed at an angle to the end and having its ends free, and a lining of non-conducting material fitting the casing and the ends, one of said ends having perforations therein, substantially as described.

1,136,688. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. WILLIAM D. LUTZ, Allendale borough, N. J. Filed Oct. 8, 1913. Serial No. 794,181. (Cl. 172—239.)



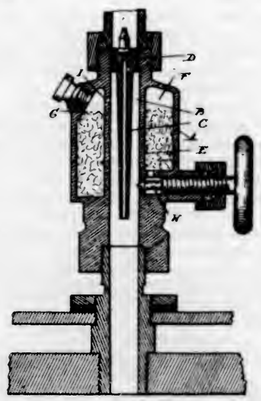
1. In an electric apparatus for starting an internal combustion engine, an electric motor, means to connect automatically the same with the crank shaft of the engine, a source of current supply therefor, circuits between the motor and the source of supply, a switch in the circuit, an electromagnet for holding the switch in the position in which it is moved when operated, and means for breaking the circuit of said magnet releasing the switch held thereby.

2. An electric apparatus for starting an internal combustion engine, means to connect the same with the crank shaft of the engine, means to disconnect the same from the crank shaft of the engine, a source of current supply therefor, circuits between the motor and the source of supply, a switch in the circuit, an electromagnet for holding the switch in the position in which it is moved when operated, and means for breaking the circuit of said magnet releasing the switch held thereby.

3. An electric apparatus for starting an internal combustion engine, means to connect the same with the crank shaft of the engine, means to automatically disconnect the same from the crank shaft of the engine, a source of current supply therefor, circuits between the motor and the source of supply, a switch in the circuit, an electromagnet for holding the switch in the position in which it is moved when operated, and means for breaking the circuit of said magnet releasing the switch held thereby.

4. An electric apparatus for starting an internal combustion engine, means to connect automatically the same with the crank shaft of the engine, means to disconnect automatically the same from the crank shaft of the engine, a source of current supply therefor, circuits between the motor and the source of supply, a switch in the circuit, an electromagnet for holding the switch in the position in which it is moved when operated, and means for breaking the circuit of said magnet releasing the switch held thereby.

1,136,689. LOCOMOTIVE-LUBRICATOR. ELIJAH MCCOY, Detroit, Mich., assignor to Alexander H. Fuss, Detroit, Mich. Filed Apr. 24, 1914. Serial No. 834,097. (Cl. 184—52.)



1. In a locomotive lubricator, the combination with a choke-plug fitting, of a lubricant receptacle surrounding the same and communicating therewith, said communication comprising a steam passage above the lubricant and a discharge passage for the lubricant, the latter being out of the direct path of the restricted choke passage.

2. In a locomotive lubricator, a casing having a central passage and a surrounding annular chamber, the latter constituting the lubricant receptacle, a choke-plug arranged with the central passage, a valve-controlled passage for the lubricant from said annular chamber to said central passage at one side of said choke-plug, and a pressure-equalizing passage between said annular chamber and central passage above the level of the lubricant.

3. In a locomotive lubricator, a casing containing a central passage and a surrounding annular chamber having a pressure-equalizing port at the upper end and a valve-controlled discharge port connection at the lower end, a choke-plug within said central passage having a depending nozzle extending below the point of entrance of said discharge passage.

4. In a locomotive lubricator, a fitting adapted for coupling between the oil conduit and steam chest and having a central passage and a surrounding annular chamber, a choke-plug having a depending nozzle within said central passage, a pressure-equalizing port between said central passage and annular chamber at the upper end of the latter, and a valve-controlled discharge port between the lower end of said annular chamber and central passage.

1,136,690. FRICTIONAL VARIABLE-SPEED GEARING. JENS CHRISTIAN MAATINS, Copenhagen, Denmark, assignor to Transmission Akts., Copenhagen, Denmark, a Firm. Filed Feb. 27, 1914. Serial No. 821,478. (Cl. 74—34.)



1. In combination, a gearing comprising a driving shaft, a driven shaft, two sets of outer rings two sets of inner flanges and two sets of double conical friction bodies adapted to coact each with one set of said flanges and rings, one of said sets of flanges being connected to said driving shaft, means for relatively displacing said rings and flanges, and a planetary system comprising a sun wheel, planetary gears and a tooth rim, one element of the said system being connected with said driving shaft, another with one set of the elements coacting with the double conical bodies and the third element with said driven shaft.

2. In combination, a gearing comprising a driving shaft, two inner flanges connected therewith, two outer rings, double conical bodies adapted to roll on the circumference of said flanges and inside said outer rings, two other outer rings non-rotatably connected with said outer rings, two other inner flanges, a set of double conical bodies adapted to roll inside the second outer rings and on the circumference of said other inner flanges, means for relatively displacing said rings and flanges, an outer tooth rim connected with the latter inner flanges and planetary wheels adapted to coact with said tooth rim and connected with the driving shaft, a sun wheel meshing with said planetary wheels and a driven shaft connected with the sun wheel.

1,136,691. SADDLE-BAG. MONSEY E. MEASE, Sandy Level, Va. Filed Nov. 7, 1914. Serial No. 870,821. (Cl. 224—43.)

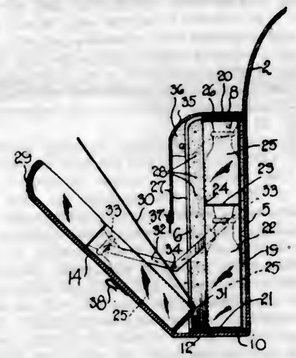
1. A saddle-bag comprising a center strap and a plurality of receptacle casings all formed of one integral piece of material, and receptacle frames each consisting of two sides provided in each of said casings.

2. A saddle-bag comprising a center strap and a plurality of receptacle casings, all formed of one integral piece of leather, receptacle frames each consisting of two sides provided in each of said casings, and a closing flap for each of said receptacles secured to said center strap.

3. A saddle-bag comprising a center strap and a plurality of receptacle casings all formed of one integral piece of material, and receptacle frames each consisting of two sides provided in each of said casings, one side of each of said frames being partly inclosed by the casing of the opposite side.

4. A saddle-bag comprising a center strap and a plurality of receptacle casings all formed of one integral piece of material, and receptacle frames each consisting of two sides provided in each of said casings, one side of each of said frames being partly inclosed by the casing of the opposite side, and a closing flap for each of said receptacles secured to said center strap.

5. A saddle-bag comprising a center strap and a plurality of receptacle casings all formed of one integral piece of material, receptacle frames each consisting of two sides provided in each of said casings, one side of



each of said frames being partly inclosed by the casing of the opposite side when the receptacles are closed, partition plates hinged to the frames of one side of the receptacles and a closing flap for each of the receptacles secured to said center strap.

[Claims 6 to 10 not printed in the Gazette.]

1,136,692. BUTTON. ALFRED MELLA, New York, N. Y. Filed Jan. 18, 1911. Serial No. 603,366. (Cl. 24—105.)

1. A button comprising a front part screw threaded in its center, a covering for the same folded around its edges, a rear part provided with eyelets at a distance from the center, clamping said covering on said front part, a clamping screw formed with an eye adapted to be passed through said rear part and screwed to said front part, and connections between said eyelets and the eye of said clamping screw, locking the same in position.

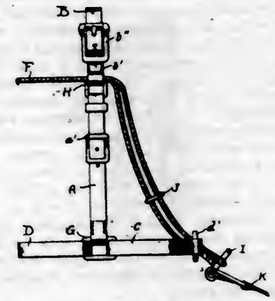
2. A button comprising a front part screw threaded in its center, a covering for the same folded around its edges, an intermediate part of a larger diameter, a covering for the same, a rear part provided with eyelets at a distance from the center, a screw formed with an eye adapted to be passed through said rear part and screwed to said front part clamping all the parts together, and connections between said eyelets and the eye of said clamping screw, locking the same in position.

3. In a button of the character as described, comprising a front part threaded in its center, a covering for the same folded around its edges, a clamping rear part, and a clamping screw formed with an eye adapted to be passed through said rear part and screwed to said front part, means connecting the eye of said clamping screw to said rear part, locking said screw in position.

1,136,693. HALTER. NATHANIEL D. MERTZ, Freeport, Ill. Filed Mar. 30, 1914. Serial No. 828,217. (Cl. 54—24.)

1. A halter including a nose piece, cheek pieces, a crown piece, a brow band, and a hitching strap connected to the brow band so constructed and arranged that a pull upon the strap will tighten the brow band about the brow of the animal.

2. A halter including a nose piece, cheek pieces, a crown piece, a brow band arranged for movement relative to and transversely of said crown piece, and a hitching strap so connected with the brow band that a pull upon the strap will tighten the brow band about the head of the animal.



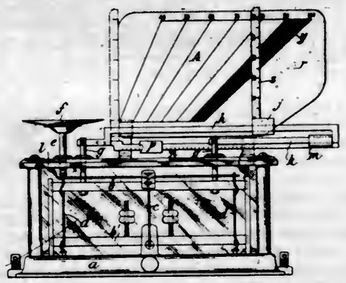
3. A halter provided with a nose piece, cheek pieces, a crown piece, and a slidably mounted brow band.

4. A halter provided with a nose piece, cheek pieces, a crown piece and a brow band slidably mounted in said crown piece.

5. In a halter a brow band, a nose-piece, jaw-pieces, cheek-pieces fastened to said nose-piece and jaw-pieces, and having their upper extremities fastened to a crown-piece, means being provided at the ends of the crown-piece by which the brow-band is slidably mounted, a throat-latch, means for adjusting the cheek and crown pieces, and a hitching strap so connected with the brow band that a pull upon the strap will tighten the brow band about the brow of the animal.

[Claims 6 to 8 not printed in the Gazette.]

1,136,694. PERCENTAGE-SCALE. CLARENCE G. MICHALIS, East Orange, and MAX MÜNZNER, Arlington, N. J., assignors to The Torsion Balance Company, New York, N. Y., a Corporation of New York. Filed Sept. 18, 1913. Serial No. 790,458. (Cl. 73—104.)



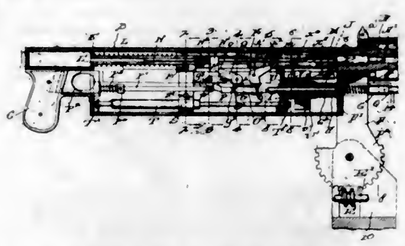
1. A percentage scale comprising weighing means and a computer, the weighing means including a scale beam and slide weight thereon, and the computer comprising a diagram and indicator, said diagram having a horizontal graduated scale with divisions answering to successive positions of said slide weight and having radial lines converging from such divisions toward a focus, and said indicator mounted on the slide weight and movable therewith across said diagram, whereby at successive weighings of an object of varying weight the indicator occupies proportionately different positions on said diagram, such indicator having means adapted at a weighing operation to locate a point of intersection of the indicator with an oblique line of the diagram and thereby to establish one of an infinity of imaginary horizontal lines of the diagram, so that at a second weighing the intersection of such horizontal line with another radial line of the dia-

gram enables the ratio of the differing weights at such two weighings to be read on said graduated scale.

2. A percentage scale comprising weighing means and a computer, the weighing means including a scale beam and slide weight thereon, and the computer comprising a diagram and indicator, said diagram having a horizontal graduated scale with divisions answering to successive positions of said slide weight and having radial lines converging from such divisions toward a focus, and said indicator mounted vertically on the slide weight and movable therewith across said diagram, whereby at the successive weighings of an object of varying weight the indicator occupies proportionately different positions on said diagram, and said indicator having vertical graduations whereby at a weighing operation to locate a point of intersection of the indicator with an oblique line of the diagram, and thereby to establish one of an infinity of imaginary horizontal lines of the diagram, so that at a second weighing the intersection of such horizontal lines with another radial line of the diagram enables the ratio of the differing weights at such two weights to be read on said graduated scale.

3. A percentage scale comprising weighing means and a computer, the weighing means including a scale beam and slide weight, and the computer comprising a diagram and indicator, said diagram having a horizontal graduated scale with divisions answering to successive positions of the slide weight, and having radial lines converging thence toward a focus located beyond the diagram and beyond the range of movement of said slide weight, the scale beam having also a compensating weight movable from a normal weighing position to a position corresponding to the displacement of the slide weight to the zero position of said diagram, whereby to counterpoise the scale when empty to facilitate adjustment.

1,136,695. AUTOMATIC GUN. ALEXANDER MICLAUS, Jr., Washington, D. C. Filed Dec. 2, 1914. Serial No. 875,146. (Cl. 89—2.)



1. In an automatic gun of the character described, the combination with the barrel and receiver, the barrel being perforated near the muzzle to permit the escape of powder gases, of an actuating rod operated by said escaping powder gases, and a return spring for returning said rod to the initial position, a breech block mounted in said receiver and adapted to be moved rearward by the pressure of the powder gases, a return spring for returning said breech block to the closed position, and a bell crank locking lever pivoted in said receiver and having one arm adapted to engage said breech block and the other arm engaging said actuating rod, the said locking lever being released from engagement with the breech block by the rearward movement of the said actuating rod and being thrown into locking position when said breech block and said actuating rod are in the forward position, substantially as described.

2. In an automatic gun of the character described, the combination with the barrel and receiver, the barrel being perforated near the muzzle to permit the escape of powder gases, of an actuating rod operated by said escaping powder gases, and a return spring for returning said rod to the initial position, with means for reciprocating said actuating rod by hand, when desired, a breech block mounted in said receiver and adapted to be moved rearward by the pressure of the powder gases, a return spring for returning said breech block to the closed position, and a bell-crank locking lever pivoted in said receiver and having one arm adapted to engage said breech block and the other arm engaging said actuating rod, the said locking lever being released from engagement with the breech block by the rearward movement of the said actuating rod and being thrown into locking position when said breech block and said actuating rod are in the forward position, substantially as described.

3. In an automatic gun of the character described, the combination with the barrel and receiver, the barrel being perforated near the muzzle to permit the escape of powder gases, of an actuating rod operated by said escaping powder gases, and a return spring for returning said rod to the initial position, a breech block mounted in said receiver and adapted to be moved rearward by the pressure of the powder gases, a return spring for returning said breech block to the closed position, and a locking lever operated by the reciprocating movement of said actuating rod and adapted to release said breech block when said rod is moved rearward and to lock the breech block when the breech block and actuating rod are in the forward position, with feed mechanism operated by the reciprocating movement of said breech block for feeding the cartridges *seriatim* to the gun, substantially as described.

4. In an automatic gun of the character described, the combination with the barrel and receiver, the barrel being perforated near the muzzle to permit the escape of powder gases, of an actuating rod operated by said escaping powder gases, and a return spring for returning said rod to the initial position, with means for reciprocating said actuating rod by hand, when desired, a breech block mounted in said receiver and adapted to be moved rearward by the pressure of the powder gases, a return spring for returning said breech block to the closed position, and a locking lever operated by the reciprocating movement of said actuating rod and adapted to release said breech block when said rod is moved rearward and to lock the breech block when the breech block and actuating rod are in the forward position, with feed mechanism operated by the reciprocating movement of said breech block for feeding the cartridges *seriatim* to the gun, substantially as described.

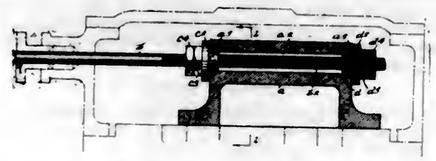
5. In an automatic gun of the character described, the combination with the barrel and receiver, the barrel being perforated near the muzzle to permit the escape of powder gases, of an actuating rod operated by said escaping powder gases, and a return spring for returning said rod to the initial position, a breech block mounted in said receiver and adapted to be moved rearward by the pressure of the powder gases, a return spring for returning said breech block to the closed position, and a bell crank locking lever pivoted in said receiver and having one arm adapted to engage said breech block and the other arm engaging said actuating rod, the said locking lever being released from engagement with the breech block by the rearward movement of the said actuating rod and being thrown into locking position when said breech block and said actuating rod are in the forward position, with feed mechanism operated by the reciprocating movement of said breech block for feeding the cartridges *seriatim* to the gun, substantially as described.

[Claims 6 to 38 not printed in the Gazette.]

1,136,696. SLIDE-VALVE. JOHN W. MILLER, Rantoul, Ill. Filed May 20, 1914. Serial No. 839,758. (Cl. 136—8.)

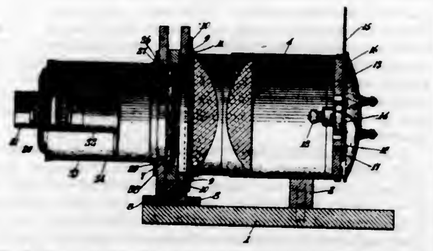
1. In an engine, the combination of a slide valve having a relatively large bore longitudinally arranged therein and the ends of which are outwardly flared, a screw-threaded rod passed through said bore, and adjustable, cone shaped, locking means for said valve on said rod, and engaged in said flared ends of said bore.

2. In an engine, the combination of a slide valve having a relatively large longitudinal bore therethrough, the ends of which are outwardly flared, a screw-threaded rod passed through said bore, adjustable, cone shaped, nuts on said rod, at each valve end, engaged in corresponding flared bore ends, to lock said valve to said rod, and means for locking said nuts against movement.



3. In an engine, the combination of a slide valve having a relatively large bore longitudinally arranged therein and the ends of which are outwardly flared, a screw-threaded rod passed through said bore, adjustable, cone shaped, nuts on said rod, one at each valve end and engaged in the corresponding flared end, to lock said valve on said rod, and means for locking said nuts against movement, the inclination of said flared ends and nuts being such as to take the longitudinal end thrust of said valve on said rod in a resisting manner by reason of the weight of said valve, and each of said nuts having a flange thereon to limit such end thrust.

1,136,697. ENLARGING-LANTERN OR PROJECTOSCOPE. FRANK W. MINOR, Richmond, Va. Filed Aug. 15, 1914. Serial No. 856,884. (Cl. 88—24.)



1. A lantern comprising a yoke open at the top and sides, and adapted to receive a transparent object to be enlarged, light forming and condensing means mounted upon and supported by one side of said yoke, and projecting means mounted upon and supported by the other side of said yoke.

2. A lantern comprising a yoke having telescopic tubes connected to it on the front and rear, said front tubes having projecting lenses and said rear tubes having condensing means and a lamp, said yoke being detachably connected to a base.

3. A lantern comprising a yoke having telescopic tubes detachably connected to it on the front and rear, said front tubes having projecting lenses and said rear tubes having condensing means and a lamp, said yoke being detachably connected to a base.

4. A lantern comprising a yoke having telescopic tubes detachably connected to it on the front and rear, said front tubes having projecting lenses and said rear tubes having condensing means and a lamp, said yoke being detachably connected to a base, and a saddle adapted to support said rear tubes.

5. A lantern comprising a yoke having telescopic tubes detachably connected to it on the front and rear, said front tubes having projecting lenses and said rear tubes having condensing means and a lamp, said yoke being detachably connected to a base, and a saddle adapted to support said rear tubes, said saddle being detachably attached to said base.

[Claims 6 to 10 not printed in the Gazette.]

1,136,698. SPUD FOR BARRELS. GEORGE E. MITTINGER, Youngstown, Ohio, assignor of fifteen-sixteenths to Pressed Steel Products Company, Sharon, Pa. Filed May 23, 1914. Serial No. 840,532. (Cl. 217—113.)



1. An improved spud comprising a body portion in combination with a barrel having an opening in its shell, said body portion having an inclined annular flange on its outer edge extending laterally and engaging the inner surface of the barrel shell, and an outwardly extending lip at right angles to the said annular flange, the said lip passing through the hole in the barrel and adapted to be bent backward against the shell, said body portion having a central opening, and a plug adapted to fit within the said opening.

2. An improved spud comprising a body portion in combination with a barrel having an opening in its shell, the said body portion having on its outer edge a laterally extending inclined annular flange engaging the inner surface of the barrel shell, a lip adjacent the said annular flange extending through the opening and bent backward against the outer surface of the barrel shell, said body portion having a central opening and an annular depressed portion, the said depressed portion having beveled sides, and a seat parallel to the annular flange and in a plane within the said flange, and a plug adapted to fit within the central opening in the body portion, and having an annular flange adapted to engage the seat of the depressed portion whereby the outer surface of the plug is in a plane within the outer surface of the annular lip after it has been bent back.

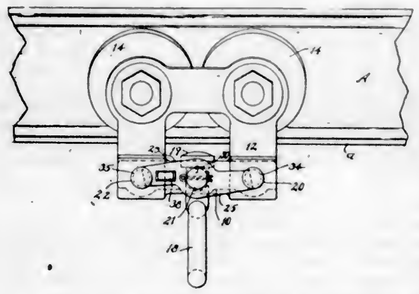
3. An improved spud comprising a body portion in combination with a barrel having an opening in its shell, the said body portion having on its outer edge a laterally extending inclined annular flange engaging the inner surface of the barrel shell, a lip adjacent the said annular flange extending through the opening and bent backward against the outer surface of the barrel shell, the said lip when bent fitting within the annular flange and flush with the outer surface of the barrel shell, said body portion having a central opening and an annular depressed portion, the said depressed portion having beveled sides, and a seat parallel to the annular flange and in a plane within the said flange, and a plug adapted to fit within the central opening in the body portion, and having an annular flange adapted to engage the seat of the depressed portion whereby the outer surface of the plug is in a plane within the other surface of the annular lip after it has been bent back.

4. An improved spud comprising a body portion in combination with a barrel having an opening in its shell, said body portion having an inclined annular flange on its outer edge extending laterally and engaging the inner surface of the barrel shell, a lip adjacent the annular flange and at right angles thereto, the said lip extending through the opening in the barrel and bent backward against the outer surface of the shell and thereby bending the shell backward and clamping it between the lip and the inclined flange, the said body portion having a central opening

and an annular depressed plug receiving seat in a plane within the shell of the barrel, and a plug adapted to fit within the central opening and having a flange engaging the said plug receiving seat.

5. An improved spud comprising a body portion in combination with a barrel having an opening in its shell, said body portion having an inclined annular flange on its outer edge extending laterally and engaging the inner surface of the barrel shell, a lip adjacent the annular flange and extending through the opening in the barrel and bent backward against the outer surface of the shell, and thereby bending the shell backward and clamping it between the lip and the inclined flange, whereby the outer surface of the lip is in the same plane as the outer surface of the barrel shell, said body portion having a central opening, and a plug fitting therewithin, the outer surface of the plug in a line with the surface of the barrel shell for the purpose described.

1,136,699. TROLLEY. EDWARD Y. MOORE, Cleveland, Ohio. Filed Feb. 2, 1915. Serial No. 5,791. (Cl. 104—181.)



1. In a trolley, the combination of a frame portion adapted to lie beneath the flange of a supporting I-beam and an upwardly extending portion rigidly connected with the portion first mentioned, a pair of supporting wheels carried on the inner side of the upwardly extending portion, a member carrying a pair of wheels on the opposite side of the I-beam, said member being movable as a unit and slidably guided on the frame portion first mentioned, whereby it may be slid outwardly to carry its wheels clear of the supporting flange while retaining its engagement with the frame.

2. In a trolley adapted to ride on the lower flange of an I-beam, the combination of a frame portion adapted to stand below the I-beam flange and an upstanding portion on one side extending above such flange, a pair of wheels carried on the inner side of the upstanding portion, an upstanding member on the opposite side movable as a unit and carrying a pair of wheels, means projecting from the side of the frame portion first mentioned and forming a seat on which such unitarily movable member is slidably mounted, and means for locking such member in position.

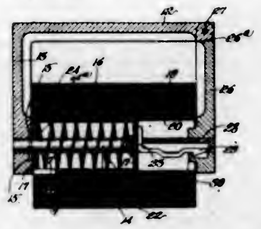
3. In a trolley, the combination of a partial frame adapted to lie beneath an I-beam flange and extend upwardly onto one side thereof, wheels on the inner side of the upwardly extending portion, and a pair of studs projecting rigidly from the portion below the I-beam flange, a member movable as a unit and slidably mounted on said studs and serving to complete the trolley frame, and wheels carried on the inner face of said member.

4. In a trolley, the combination of a frame member adapted to stand beneath an I-beam flange, an upstanding member carried thereby and extending above one of the flanges, a pair of wheels carried by such member, an upstanding member on the other side, a pair of wheels carried by it and adapted to ride on the other flange of the I-beam, the last mentioned upstanding member being slidably mounted on an extension of the frame below the flange, and a lever adapted to lock such slidably mounted member in place.

5. In a trolley, the combination of a frame member provided with means for supporting a load, an upstanding member connected therewith and having a wheel, a stud extending from the other side of such frame member, an upstanding member slidably mounted on said stud and carrying a wheel, and a locking device adapted to engage a notch in said stud to hold the slidable member in position.

[Claims 6 to 15 not printed in the Gazette.]

1,136,700. TOILET-PAPER FIXTURE. FREDERICK H. MOORE, Melrose, Mass. Filed Oct. 7, 1914. Serial No. 865,459. (Cl. 211—31.)



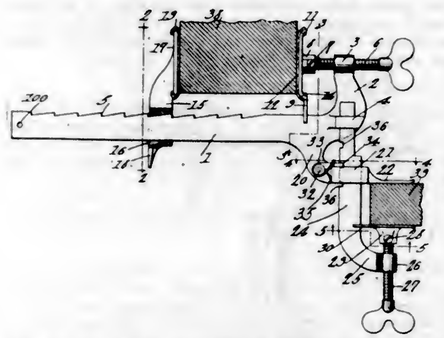
1. A fixture for supporting a transversely weakened rolled web of paper, comprising a fixed spindle, a drum adapted to engage the rolled web and rotatable therewith by a pull on the leading end of the web, and a spring engaged at one end with the spindle and at the other end with the drum and offering a gradually increasing resistance to the rotation of the drum and roll, whereby breakage of the web at one of its lines of weakness is caused after a predetermined length has been withdrawn from the roll, the spring being adapted to rotate the drum backwardly after each breakage of the web, and formed to expand into contact with the internal surface of the drum and arrest the backward rotation thereof at a predetermined point.

2. A fixture for supporting a transversely weakened rolled web of paper, comprising a fixed spindle, a drum adapted to engage the rolled web and rotatable therewith by a pull on the leading end of the web, and a helical spring engaged at one end with the spindle and at the other end with the drum, and having its convolutions normally in contact with the inner surface of the drum, said spring being contracted out of contact with the drum by a forward rotation of the drum caused by a pull on the web, until breakage of the web occurs, and then reacting to rotate the drum backwardly, and at the same time expanding to cause its convolutions to act as a brake and arrest the backward rotation of the drum in a predetermined position.

3. A toilet paper fixture comprising a base a fixed arm at one end of the base, a non-rotating spindle attached to said arm, a roll-engaging drum rotatable on the spindle, a spring engaged at one end with the spindle and at the other end with the drum, and adapted to yieldingly oppose forward rotation of the drum, an arm hinged to the opposite end of the base, and provided with a keeper, the drum being shorter than the spindle and the space between said arms when the hinged arm is in its operative position, so that a portion of the spindle is exposed between one end of the drum and the hinged arm, and a latch attached to the spindle and extending along the exposed portion thereof to engage said keeper, the exposed portion of the spindle and the latch being arranged to be covered by a rolled web of paper on the drum.

1,136,701. DOOR-SUPPORTING CLAMP. ANCIL B. MORSE, Beloit, Wis. Filed Aug. 12, 1914. Serial No. 856,455. (Cl. 144—296.)

1. In a tool of the class described, a frame embodying angularly disposed main and auxiliary bars, the main bar having a fixed jaw; a movable jaw on the auxiliary bar and coöperating with the fixed jaw; means for operating the movable jaw; a pair of jaws shiftable upon the main bar; means for advancing one of said shiftable jaws independently of the other, both of said shiftable jaws being movable and the said coöperating jaws extending from the auxiliary bar in a direction opposite to the main bar thereby to enable said coöperating jaws to clear a support wherewith the shiftable jaws are assembled.



2. In a tool of the class described, a main bar provided with a lateral offset and with a fixed jaw disposed approximately at right angles to the offset; a pair of shiftable jaws on the main bar; means in the offset for controlling one of the shiftable jaws; an auxiliary bar slidably supported upon the main bar for movement in a direction substantially parallel to the offset, the second bar being provided with a terminal offset; a movable jaw in the auxiliary bar and coöperating with the fixed jaw; means carried by the offset of the auxiliary bar for controlling said movable jaw; and latch mechanism coöperating with the bars to prevent relative sliding movement therebetween.

3. In a device of the class described, a main bar having a fixed jaw; an auxiliary bar disposed at an angle to the main bar and slidable in the fixed jaw; a movable jaw slidable upon the auxiliary bar and coöperating with the fixed jaw; means carried by the auxiliary bar for operating the movable jaw; a pair of shiftable jaws upon the main bar and disposed substantially at right angles to the first specified jaws; and means carried by the main bar for manipulating one of said shiftable jaws independently of the other.

1,136,702. STUMP-PULLER. MICHAEL MULLINS, Seattle, Wash. Filed July 22, 1912. Serial No. 710,820. (Cl. 254—189.)

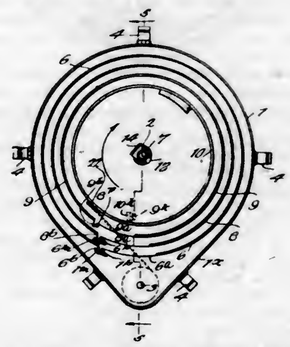


1. A stump puller, comprising a frame provided with longitudinal guideways, a driven drum journaled in the said frame, a cross head mounted to slide in the said guideways, a set of sheaves journaled in the said frame, a set of cross head sheaves journaled in the said cross head and arranged opposite the said frame sheaves, a cable fixed at one end to the cross head and winding at the other end on the said drum, the cable passing around the said frame sheaves and the said cross head sheaves, a second driven drum journaled on the said frame, a guide pulley on the said frame, and a return cable attached at one end to the cross head, the return cable passing over the said guide pulley and winding on the said second drum, and a flexible pulling connection engaging the stump to be pulled and connected with the said cross head.

2. A stump puller, comprising a frame having longitudinal guideways, a cross head mounted to slide in the said guideways and having at one end means for attaching a flexible connection thereto, a driven drum mounted in the frame, a plurality of sets of sheaves mounted in the frame between the drum and cross head, and a plurality of cables each having one end secured to the drum and after passing around the several sheaves of each set of sheaves has its other end secured to the cross head.

3. A stump puller, comprising a frame provided with longitudinal guideways, a driven drum journaled in the said frame, a cross head mounted to slide in the said guideways, a set of frame sheaves journaled in the said frame, a set of cross head sheaves journaled in the said cross head and arranged opposite the said frame sheaves, a cable fixed at one end to the cross head and winding at the other end on the said drum, the cable passing around the said frame sheaves, and cross head sheaves, a second driven drum journaled on the said frame, a guide pulley on the said frame, a return cable attached at one end to the cross head, the return cable passing over the said guide pulley and winding on the said second drum, a flexible pulling connection engaging the stump to be pulled and connected with the said cross head, a motor mounted on the said frame and provided with a main shaft carrying a pinion, gear wheels in mesh with the said pinion, and clutches connecting the said gear wheels with the said drums to drive either of the latter from the said motor.

1,136,703. DEVELOPING-MACHINE. CARL K. NESHIME and SEVERIN J. ROGNLIE, Minot, N. D. Filed Nov. 1, 1913. Serial No. 798,671. (Cl. 95—90.5.)



1. In a developing machine, an outer casing provided with a central pivot post, a cylinder disposed within said casing and provided with a sleeve arranged to fit over said central pivot post, a pair of concentric cylinders having openings arranged to fit over said sleeve, an inner cylinder having a central sleeve arranged to fit over said first named sleeve, and means carried by said second named sleeve for securing it against longitudinal movement with respect to the first named sleeve.

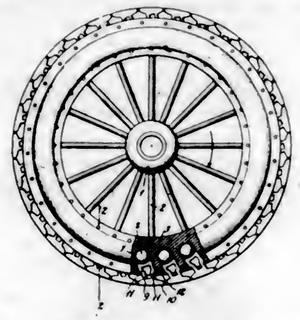
2. In a developing machine, an outer casing provided with a central pivot post, a cylinder disposed within said casing and provided with a sleeve arranged to fit over said central pivot post, said sleeve having a peripheral groove, a pair of concentric cylinders having openings arranged to fit over said sleeve, an inner cylinder having a central sleeve arranged to fit over said first named sleeve, and means carried by said second named sleeve for securing it against longitudinal movement with respect to the first named sleeve, said last named means comprising a spring-pressed arm slidably secured to said last named sleeve and adapted to extend through said last named sleeve into the peripheral groove of said first named sleeve.

3. In a developing machine, a casing provided with a pivot pin on its bottom, a cover for said casing, a spring plate carried by said cover and provided with a pivot pin in alinement with said first named pivot pin, said cover

being provided with an opening in registration with said spring plate, and means for closing said opening.

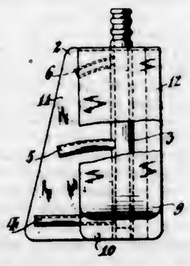
4. In a developing machine, an outer casing provided with a central pivot post, a cylinder disposed within said casing and provided with a sleeve arranged to fit over said central pivot post, a pair of concentric cylinders having openings arranged to fit over said sleeve, an inner cylinder having a central sleeve arranged to fit over said first named sleeve, means carried by said second named sleeve for securing it against longitudinal movement with respect to the first named sleeve, a cover having an opening arranged to admit said second named sleeve, and a handle carried by said second named sleeve exteriorly of said cover.

1,136,704. RESILIENT WHEEL. JOHN F. NETTLE, Butte, Mont. Filed Nov. 7, 1913. Serial No. 799,684. (Cl. 152—9.)



In a resilient wheel of the character described, a felly formed with a plurality of bores arranged at a tangent, each bore having an appreciable depth and having straight side walls, a pneumatic ball in each of said bores, a plunger arranged in each of said bores and resting against said balls, each of said plungers being formed with bearing sides engaging the side walls of said bores so as to be guided in a reciprocatory movement thereby, each of said plungers being also formed with shouldered portions, a pair of side plates rigidly secured to said felly, said side plates being formed with overhanging peripheral edges engaging certain of said shoulders, and a retaining plate arranged between respective plungers overhanging other of said shoulders, whereby the plungers are limited in their outward movement.

1,136,705. WASHER FOR PHOTOGRAPHIC FILMS AND PRINTS. HERBERT B. NICHOLS, South Norwalk, Conn. Filed Aug. 5, 1914. Serial No. 855,101. (Cl. 95—89.)

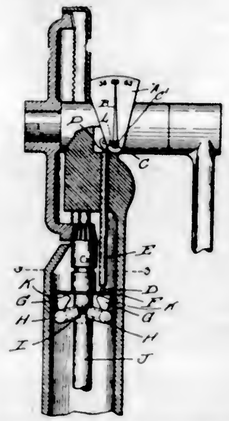


1. In a washer for photographic films and prints, a nozzle comprising a tubular portion having a plurality of nipples of increasing length toward the outer end of the nozzle and a holding clip for attaching the nozzle to the wall of a suitable washing vessel and thereby holding the nozzle in working position.

2. In a washer for photographic films and prints, a nozzle comprising a tubular portion having a plurality of nipples and a fixed shield to prevent the films and prints under treatment from catching on the nozzle.

3. In a washer for photographic films and prints, a nozzle comprising a tubular portion provided with means for emitting jets of water, a fixed shield to prevent the films and prints under treatment from catching on the nozzle and a holding clip for attaching the nozzle to the wall of a suitable washing vessel and thereby holding the nozzle in working position.

1,136,706. CENTRIFUGAL SPEEDOMETER FOR SEPARATORS. MARTINUS H. G. OMDEKERK, Lebanon, Ind., assignor to The Dairy Cream Separator Co., Lebanon, Ind. Filed May 16, 1914. Serial No. 839,041. (Cl. 73—123.)



1. A centrifugal speedometer comprising opposite centrifugal elements each having a weighted portion and an arm with an arcuate edge portion, a disk member supported by the centrifugal elements, a separator center shaft to which the centrifugal elements are pivoted and on which the disk member is mounted, a connecting rod having its bottom end supported and actuated by the disk member, a sleeve in which the aforesaid connecting rod is vertically movable, a graduated plate member, a speed-indicating finger pivotally mounted thereon, and means connecting the aforesaid finger with the above-mentioned connecting rod, substantially as set forth.

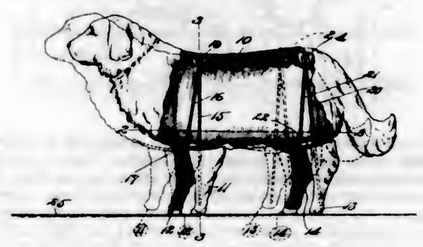
2. The combination with a center shaft of a dial plate, a speed indicating finger pivotally mounted on the dial plate, a disk member mounted on the center shaft and free to move vertically thereon, substantially vertically-disposed gravity-controlled members operatively connecting the disk member and the speed-indicating finger, and centrifugally-controlled means pivoted to the center shaft and actuating the disk member.

3. A centrifugal speedometer comprising in combination with a center shaft a dial plate, a pivotally-mounted speed indicating finger on the dial plate, means to secure said finger in adjusted position, gravity-controlled members operatively connected with and disposed parallel to the center shaft and centrifugally actuated members pivoted to the center shaft operatively connected with the aforesaid gravity-controlled members.

4. A centrifugal speedometer comprising centrifugal elements, a disk member supported by the centrifugal elements, a separator center shaft to which the centrifugal elements are pivoted and on which the disk member is mounted, a connecting rod having its bottom end supported and actuated by the disk member, a graduated

plate member, an adjustable speed-indicating finger pivotally mounted thereon, and means connecting the aforesaid finger with the above-mentioned connecting-rod, substantially as set forth.

1,136,707. MECHANICAL TOY. MAX OEHLER, Richfield, Idaho. Filed July 18, 1914. Serial No. 851,710. (Cl. 46—40.)



1. A toy comprising a body, a pair of legs pivoted to the forward end of said body, and a pair of legs pivoted to the rear end of said body, said legs being constructed and arranged on said body for free forward and backward movement with respect to said body, the ends of said legs forming distinct centers of oscillation, and said body being adapted to oscillate laterally about the ends of the legs, whereby said legs are caused to move by gravity to simulate an animal in walking.

2. A toy comprising a body, pairs of legs pivoted to the forward and rear ends of said body and above its center of gravity and adapted for free forward and backward movement with respect to said body, the ends of said legs forming distinct centers of oscillation, and said body being adapted to oscillate transversely on the ends of said legs, whereby said legs are caused to move by gravity to simulate an animal in walking.

3. A toy comprising a body, pairs of legs pivoted to the forward and rear ends of said body and adapted for free forward and backward movement with respect to said body, the pivotal ends of the legs of a pair being closer together than the lower ends thereof, and said body being adapted to oscillate transversely on the lower ends of said legs, whereby said legs are caused to move by gravity to simulate an animal in walking.

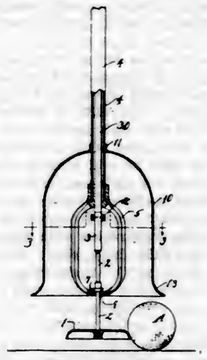
4. A toy comprising a body, pairs of legs pivoted to the forward and rear ends of said body and adapted for free forward and backward movement with respect to said body, the pivots of said legs being above the center of gravity of said body and the pivotal ends of the legs of a pair being closer together than the lower ends thereof, said body being adapted to oscillate transversely on the lower ends of said legs, whereby said legs are caused to move by gravity to simulate an animal in walking.

5. A toy comprising a body, pairs of legs pivoted to the forward and rear ends of said body and above its center of gravity and adapted for free forward and backward movement with respect to said body, the pivotal ends of the legs of a pair being closer together than the lower ends thereof, the ends of said legs forming distinct centers of oscillation and said body being adapted to oscillate transversely on the ends of said legs, whereby said legs are caused to move by gravity to simulate an animal in walking.

1,136,708. GAME APPARATUS. HENRY C. OSBORN, Cleveland, Ohio. Filed Dec. 26, 1914. Serial No. 879,065. (Cl. 46—4.)

1. The combination, with a ball, of an indicating device having a disk the diameter of which bears such a relation to the diameter of the ball that when the disk is struck by the ball it indicates that at least half of the ball is within a certain circular region, and detaining means adapted to be released by the movement of said disk.

2. The combination of a suspended movable disk, a suspended detaining device adapted to drop, and means actuated by the movement of the disk for controlling the dropping of the detaining device.



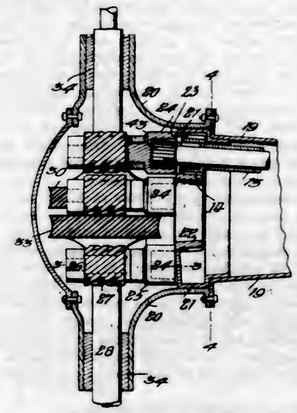
3. The combination, with a support, of a pendulum rod suspended therefrom and adapted to move in any direction, a movable detaining device, and means actuated by the movement of the pendulum for controlling the movement of the detaining device.

4. In a game apparatus, the combination of a suitable support, a detaining device normally suspended by it above the plane of play, and trigger mechanism adapted to be engaged by a rolling ball to release the detaining device and allow it to drop and detain the ball.

5. In a game apparatus, the combination of an inverted cup, means for suspending it, and trigger mechanism adapted to be engaged by a ball passing beneath the rim of the cup to release the cup.

[Claims 6 to 28 not printed in the Gazette.]

1,136,709. DIRECT-DRIVE TRANSMISSION. WILLIAM D. PARSONS, Joliet, Mont.; E. L. Marvin, Joliet, Mont., executor of said Parsons, deceased. Filed Jan. 16, 1914. Serial No. 812,409. (Cl. 74—36.)



1. In a direct drive transmission mechanism, an engine shaft, an axle, a plurality of worm wheels of different size carried by said axle, a plurality of rotatable stub shafts, the axis of each of said stub shafts being at right angles to the axle and said axes being arranged in a circle, a socket carried by each of said stub shafts, a drive shaft having a connection for universal movement with respect to said engine shaft, a clutch member carried by said

drive shaft, said drive shaft being mounted so as to bring its clutch member into registration with any of said sockets, means for moving said drive shaft bodily to cause its clutch member to enter the registering socket, said last named means comprising a tubular shaft surrounding said drive shaft, a gear carried by said tubular shaft, and a cylindrical stationary guide member having a centrally disposed gear arranged to be engaged by the gear on said tubular shaft, and means for rotating said tubular shaft.

2. In a direct drive transmission mechanism, an engine shaft, an axle, a plurality of worm wheels of different size carried by said axle, a plurality of rotatable stub shafts, the axis of each of said stub shafts being at right angles to the axle and said axes being arranged in a circle, a socket carried by each of said stub shafts, a drive shaft having a connection for universal movement with respect to said engine shaft, a clutch member carried by said drive shaft, said drive shaft being mounted so as to bring its clutch member into registration with any of said sockets, means for moving said drive shaft bodily to cause its clutch member to enter the registering socket, said last named means comprising a tubular shaft surrounding said drive shaft, a gear carried by said tubular shaft, and a cylindrical stationary guide member having a centrally disposed gear arranged to be engaged by the gear on said tubular shaft, means for rotating said tubular shaft, and additional means for moving said drive shaft longitudinally.

3. In a transmission mechanism, an engine shaft, a drive shaft having a universal connection with said engine shaft, a tubular shaft surrounding said drive shaft, means for rotating said tubular shaft, a gear carried by said tubular shaft, a cylindrical stationary guide member having a centrally disposed gear arranged to be engaged by the gear on the tubular shaft, said guide member having openings, an axle, driving means for said axle including sockets arranged to register with the openings in said guide member, and means for moving said drive shaft longitudinally to project its gear through any of said openings into the registering socket.

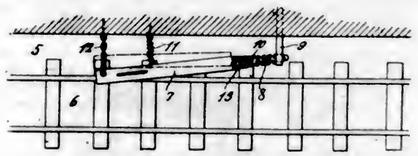
4. In a transmission mechanism, an engine shaft, a drive shaft having a universal connection with said engine shaft, a tubular shaft surrounding said drive shaft, means for rotating said tubular shaft, a gear carried by said tubular shaft, a cylindrical stationary guide member having a centrally disposed gear arranged to be engaged by the gear on the tubular shaft, said guide member having openings, an axle, driving means for said axle including sockets arranged to register with the openings in said guide member, means for moving said drive shaft longitudinally to project its gear through any of said openings into the registering socket, said last named means comprising a sleeve slidably disposed on said engine shaft, a yoke for operating said sleeve, an inner casing surrounding said drive shaft to permit the rotation of the latter and having means to engage said drive shaft to effect a longitudinal movement of the shaft, and connections between the sleeve and the inner casing.

5. The combination of a slidable rack bar provided with a notch, a lever pivotally connected with said rack bar and arranged to enter the notch, a slidable bar disposed adjacent to said slidable rack bar and being provided with a plurality of notches arranged to receive said lever, a yoke carried by said last named slidable bar, a transmission mechanism arranged to be actuated by said yoke, a pinion meshing with the rack bar, means actuated by the yoke and pinion for controlling the transmission mechanism, and means for locking said rack bar in position when the lever is in one of the notches on the bar carrying the yoke.

[Claim 6 not printed in the Gazette.]

1,136,710. SAFETY DEVICE. JOHN PAULAUSKI, Chicago, Ill. Filed Sept. 14, 1914. Serial No. 861,592. (Cl. 188—76.)

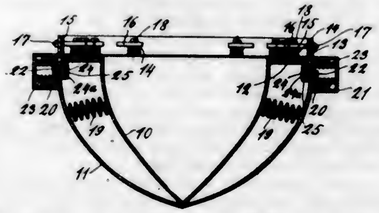
1. A safety stop device for cars, comprising a buffer beam mounted to swing transversely of the line of travel of the car and to move in the direction of its length, yielding means opposing the last-mentioned movement of the beam in one direction, yielding means normally holding the beam in the path of travel of the car, said means allowing the beam to swing inward when the car is traveling in one direction, and means for limiting the outward swing of the beam.



2. A safety stop device for cars, comprising a buffer beam, a bracket arm having an aperture through which the beam passes loosely, said beam being free to slide in the aperture and to swing therein, yielding means opposing the last-mentioned movement of the beam in one direction, and yielding means normally holding the beam in the path of travel of the car, said means allowing the beam to swing inward when the car is traveling in one direction.

3. A safety stop device for cars, comprising a buffer beam mounted to swing transversely of the line of travel of the car and to move in the direction of its length, yielding means opposing the last-mentioned movement of the beam in one direction, yielding means normally holding the beam in the path of travel of the car, said means allowing the beam to swing inward when the car is traveling in one direction, means for limiting the outward swing of the beam, and a pivoted brace bar loosely connected to the beam.

1,136,711. SHIP. JOHN PAULAUSKI, Chicago, Ill. Filed Sept. 14, 1914. Serial No. 861,593. (Cl. 114—68.)



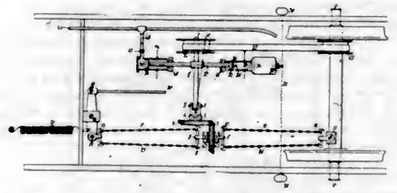
1. A ship comprising spaced inner and outer hulls, the outer hull having a continuous internal horizontal flange and the inner hull having a corresponding outstanding flange seating on said first-mentioned flange, and means for clamping the flanges together.

2. A ship comprising spaced inner and outer hulls, the outer hull having a continuous internal horizontal flange and the inner hull having a corresponding outstanding flange seating on said first-mentioned flange, abutments on the outer hull, and springs between said abutments and the second-mentioned flange for clamping the same against the first-mentioned flange.

3. A ship comprising spaced inner and outer hulls, the outer hull having a continuous internal horizontal flange and the inner hull having a corresponding outstanding flange seating on said first-mentioned flange, means for clamping the flanges together, and a sealing means covering the joint between the flanges.

4. A ship comprising spaced inner and outer hulls, the outer hull having a continuous internal horizontal flange and the inner hull having a corresponding outstanding flange seating on said first-mentioned flange, abutments on the outer hull, springs between said abutments and the second-mentioned flange for clamping the same against the first-mentioned flange, and a sealing material on the second-mentioned flange engageable by the springs, said material covering the joint between the flanges.

1,136,712. BRAKE-ACTUATING MECHANISM FOR VEHICLES AND TRAINS. ERNESTO PENNATI and MICHELANGELO CATTORI, Castellammare di Stabia, Italy. Filed Oct. 10, 1913. Serial No. 794,424. (Cl. 188—66.)



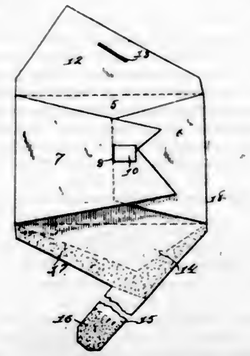
1. An automatic device for actuating brake shoes for vehicles and trains, comprising a pressure main, brake shoes for the wheels, brake applying means operated by the moving train, an actuating bar to bring the brake applying means into or out of action, a pair of cylinders in alinement, and differing in diameter, a piston in each cylinder, a hollow piston rod connecting the pistons together and attached to the said actuating bar, a communicating pipe between the larger cylinder and the pressure main, a non-return valve on the hollow piston rod and within the smaller cylinder, whereby the actuating bar is moved in one direction by a fall, and in the other direction by a rise of pressure in the main.

2. An automatic device for actuating brake shoes for vehicles and trains, comprising a pressure main, brake shoes for the wheels, brake applying means adapted to be operated by the moving train, an intermittently rotating shaft to bring the brake applying means into or out of action a pair of unequally-sized cylinders in alinement, a piston in each cylinder, a hollow piston rod connecting the pistons together and through a hole in which the intermittently rotating shaft passes laterally, a communicating pipe between the larger cylinder and the pressure main, a non-return valve at one end of the hollow piston rod within the smaller cylinder, whereby the intermittently rotating shaft is moved in one direction by a fall, and in the other direction by a rise, of pressure in the main for the purpose described.

3. An automatic device for actuating brake shoes for vehicles and trains, comprising a pressure main, brake shoes for the wheels, a pair of unequally-sized cylinders in alinement, a piston in each cylinder, a hollow piston rod connecting the pistons together, a non-return valve at one end of the hollow piston rod within the smaller cylinder, a brake actuating shaft passing through a lateral hole in the piston rod, rotatable brake applying means on one end of said shaft, a universal joint in said shaft, a pulley at the other end of said shaft, a pulley rotated by the train or vehicle and a power transmission band around both of the said pulleys and which is normally slack the arrangement being such that upon a fall of pressure in the main, the brake actuating shaft is swung laterally to draw the band taut so that it is rotated to operate the rotatable brake applying means, a subsequent rise of pressure causing the band to slacken.

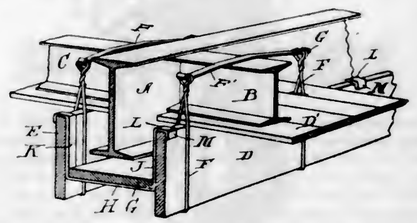
4. An automatic device for actuating brake shoes for vehicles and trains, comprising a pressure main, brake shoes for the wheels, a pair of cylinders in alinement one being larger than the other, an enlargement at one end of the smaller cylinder, a piston in each cylinder, a hollow piston rod connecting the pistons together, a non-return valve at one end of the hollow piston rod within the smaller cylinder, a brake actuating shaft passing through a lateral hole in the piston rod, a bevel wheel at one end of said shaft, a lever fulcrumed on the frame of the vehicle, connections on end of the lever to the brake shoes, parallel flexible transmission means attached at one end to the other end of the lever and anchored at the other end to the vehicle frame, a bevel gear intermediate of the ends of the flexible transmission in gear with the bevel wheel on the brake actuating shaft, a universal joint in said shaft, a pulley at the other end of said shaft, a pulley rotated by the train or vehicle, and a power transmission band around both of the said pulleys and which is normally slack the arrangement being such that upon a fall of pressure in the main, the switch shaft is swung laterally to draw the band taut so that it is rotated to operate the rotatable brake applying means, a subsequent rise of pressure causing the band to slacken.

1,136,713. ENVELOP. HERMAN G. PIEL, Indianapolis, Ind. Filed Sept. 14, 1914. Serial No. 861,610. (Cl. 229—84.)



An envelop comprising end flaps and upper and lower flaps, a tongue provided upon one of said end flaps, a slit of corresponding size formed in the other of said end flaps, said end flaps adapted to be folded upon said body portion, said tongue extending through said slit and adapted to be sealed upon the other of said end flaps, the edges of said upper and lower flaps being cut at an angle relative to the body portion, a tongue formed from said lower flap, one longitudinal edge of said last mentioned tongue extending in direct alinement with one of the slanting edges of said lower flap, the other longitudinal edge of said last mentioned tongue extending parallel with the other edge, said upper flap provided with an angularly disposed slip, said lower flap adapted to be sealed upon said end flaps and said first mentioned tongue, said last mentioned tongue extending through said last mentioned slit, from the under face of said upper flap so that it may be folded and sealed upon the front of the envelop at a point adjacent one corner thereof.

1,136,714. CENTERING OR SCAFFOLDING. ADIN G. PIERCE, New York, N. Y. Filed Nov. 4, 1910. Serial No. 590,633. (Cl. 25—131.5.)



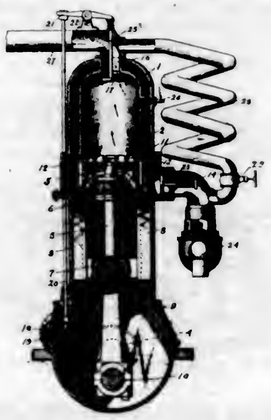
1. Means for molding concrete about the projecting lower flange of a floor girder, said means including in combination joists forming the sides of a mold and located in planes alongside of the girder and supported from said girder with their upper edges at a determined level, a bottom board lying below the girder and forming the bottom of such mold and hangers engaging the underside of said

board and having two ends projecting upward from the edges of said board and provided with hooks engaging upper edges of said joists to support the board therefrom at a distance below the girder which is determined by the lengths of said ends independently of the depths of the joists, said hooks being readily detachable from and attachable to said joists, and the board being removable from the hangers, so that the hangers may first be hooked over the joists and the boards then laid thereon.

2. Means for molding concrete about the projecting lower flange of a floor girder, said means including in combination joists forming the sides of a mold and located in planes alongside of the girder and supported from said girder with their upper edges at a determined level, a bottom board lying below the girder and between said joists and forming the bottom of such mold and hangers having each a central portion H engaging the underside of said board and vertical portions J and K projecting upward from the edges of said board and provided with hooks L engaging upper edges of said joists to support the board therefrom at a distance below the girder which is determined by the lengths of said ends independently of the depths of the joists, the hooks being extended and bent downward over the opposite sides of the joists to hold the upper edges of the latter against lateral movement.

3. Means for molding concrete about the projecting lower flange of a floor girder, said means including in combination joists forming the sides of a mold and located in planes alongside of the girder and supported from said girder with their upper edges at a determined level, a bottom board lying below the girder and forming the bottom of such mold and hangers engaging the underside of said board and having two ends projecting upward from the edges of said board and provided with hooks engaging upper edges of said joists to support the board therefrom at a distance below the girder which is determined by the lengths of said ends independently of the depths of the joists, said hooks being readily detachable from and attachable to said joists, and the board being removable from the hangers, so that the hangers may first be hooked over the joists and the board then laid thereon, and a platform supported from said joists at the sides of the girder and above said bottom board to form a centering for concrete between the girders.

1,136,715. METHOD OF OPERATING INTERNAL-COMBUSTION ENGINES. JOHN W. PITTS, Bisbee, Ariz. Filed Feb. 14, 1912. Serial No. 677,627. (Cl. 123—1.)

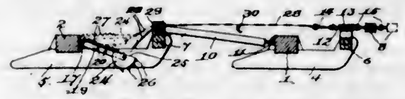


1. The herein described method of operating two cycle internal combustion engines having a compression chamber, which consists in introducing explosive mixture and spent gases together into the compression chamber by drawing more or less of the spent gases from the exhaust of the cylinder through a cooler into the compression chamber with relatively more or less explosive mixture to make a full charge, compressing said full charge in the compression chamber, admitting said charge into the cylinder at a lower pressure, compressing and igniting.

2. The herein described method of operating two cycle internal combustion engines having a compression chamber, which consists in introducing explosive mixture and spent gases together into the compression chamber, controlling the amount of explosive mixture admitted into the compression chamber by controlling the admission of spent gases drawn from the exhaust to form jointly a constant volume containing more or less explosive mixture, compressing the entire volume, admitting it to the cylinder at a lower pressure and compressing and igniting.

3. The herein described method of operating two cycle internal combustion engines having a compression chamber, which consists in forming an explosive mixture, supplying spent gases from the exhaust through a cooler into the explosive mixture between its source and the compression chamber, drawing the explosive mixture and spent gases together into the compression chamber, regulating the admission of explosive mixture by the regulation of admission of the spent gases, compressing the charge thus formed, introducing said charge into the engine cylinder at a lower pressure, compressing said charge and igniting.

1,136,716. AUTOMATIC SLED-BRAKE. ALOIS PLATZEK, Athens, Wis. Filed Sept. 17, 1914. Serial No. 862,179. (Cl. 21—46.)



1. In a sled brake, a brake wheel having peripheral spurs, means for pivotally hanging the wheel, and a spiral spring attached to the wheel so as to permit a partial turn of the wheel forwardly in a braking operation.

2. The combination with a sled having front and rear runners, and a draft appliance, of a thrust brake wheel, a double forked wheel hanger, a spring connected with the wheel, and means connecting the wheel with the draft appliance for raising the wheel out of braking position.

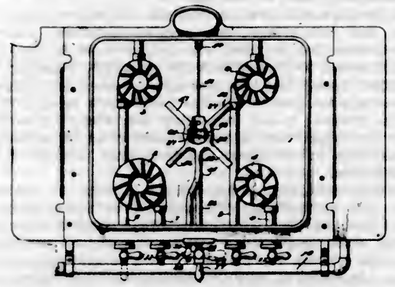
3. The combination with a sled having a pair of front runners and pair of rear runners, a draft appliance, and front and rear bars connecting the respective runners of said pairs, a slidable rod mounted on the front bar, and a sheave mounted on the rear bar in alinement with said rod, of a spur wheel, a pivoted hanger in which the wheel is journaled, a spring attached to the wheel for thrusting the wheel into braking position, and a chain riding on the sheave and connecting the said rod with the hanger.

4. In a brake for a sled, a spur wheel having a flat peripheral face, a wheel hanger a spiral spring attached to one end of the face and secured to the pivot of the hanger for thrusting the wheel into braking position.

1,136,717. LIGHTING DEVICE FOR GAS-STOVES. MINARD A. POSSONS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Sept. 29, 1913. Serial No. 792,510. (Cl. 158—116.)

1. In a stove having a series of main burners, the combination of a simmering burner between the main burners, a valve for each main burner, a lighter between the burners and adjacent the simmering burner, a valve plug controlling the gas supply to the simmering burner, and means carried by the valve plug for supplying the lighter with gas when the valve plug is open or closed in respect to the simmering burner.

2. The combination with a gas stove having a series of burners, of a simmering burner, a lighter adjacent the simmering burner and having radial arms extending outwardly adjacent the burners, a valve controlling the gas supply to the simmering burner and to the lighter, and means within the valve for supplying the lighter with gas when the valve is open or closed.



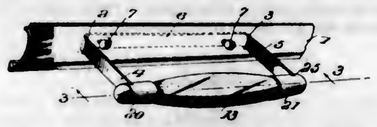
3. The combination with a stove having a series of burners, of a simmering burner, a lighter adjacent the simmering burner and having radial arms extending outwardly adjacent the burners, a valve controlling the gas to the simmering burner, and a valve within the first-mentioned valve for controlling the gas to the lighter when the first mentioned valve is opened or closed.

4. The combination with a gas stove having a series of burners, of a simmering burner, a lighter adjacent the simmering burner, a turning plug controlling the gas to the simmering burner, and a spring pressed valve within the turning plug for controlling the gas to the lighter when the turning plug is open or closed.

5. The combination with a gas stove having a series of burners, of a simmering burner, a lighter adjacent the simmering burner, a turning plug controlling the gas to the simmering burner, a by-pass connected to the turning plug and supplying gas to the lighter, and a spring-pressed valve within the turning plug and controlling the gas supply to the lighter when the turning plug is open or closed.

[Claims 6 to 15 not printed in the Gazette.]

1,136,718. STOVE-HANDLE. MINARD A. POSSONS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 29, 1914. Serial No. 841,915. (Cl. 16—10.)



1. A handle of the character described, comprising two spaced members, having screw-threaded openings therein, a member between said spaced members, a rod extending through the member and held against rotation therein and having a right and left hand screw thread adapted to be screwed into the openings in said spaced members and ferrules carried by the body-portion, substantially as shown and described.

2. A handle of the character described, comprising two spaced members, having screw-threaded openings therein, a member between said spaced members, a rod extending through the member and held against rotation therein, ferrules carried by the member and adapted to receive the ends of the spaced members and said rod having a right and left-hand thread adapted to be screwed into the openings in the spaced members within the ferrules.

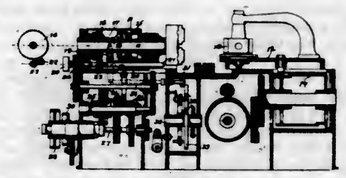
3. A handle comprising two spaced members having screw-threaded openings therein, a member between said spaced members, ferrules carried by the ends of the member and having openings to receive the outer ends of the spaced members, a rod extending through the member and held against rotation therein, the said rod beyond the member having a right and left-hand thread adapted to be screwed into the openings of the spaced members within the ferrule.

4. A handle comprising two spaced members having screw-threaded openings therein, a member between said spaced members, ferrules loosely mounted upon the ends of the members and having openings therein adapted to receive the ends of the spaced members, a rod extending through the member and keyed therein against rotation and said rod extending beyond the member and having right and left hand threads on opposite ends adapted to screw into the threaded openings of the spaced members within the ferrule.

5. A handle comprising two spaced members having screw threaded openings therein, a member between said spaced members, ferrules loosely mounted upon the outer ends of the members and having openings adapted to receive the reduced outer ends of the spaced members, a rod extending through the member and held against rotation therein and extending beyond the ends of the member and having a right and left-hand thread adapted to screw into the openings in the spaced members within the ferrule.

[Claims 6 to 8 not printed in the Gazette.]

1,136,719. SCREW-MACHINE. JAMES C. POTTER, Pawtucket, R. I. Filed Sept. 14, 1909. Serial No. 517,696. (Cl. 29—44.)



The combination of a work spindle, a tool carrier reciprocable toward and from the work, a variable speed shaft separate from the spindle, two driving connections between said shaft and said spindle, that respectively revolve the same in opposite directions including clutch devices mounted on the spindle, means acting on said clutch devices to render said driving connections effective at different times, tool carrier moving means, and gearing between said variable speed shaft and said tool carrier moving means the direction of revolution of the members of said gearing not being changed when the direction of revolution of the spindle is reversed, said gearing receiving its motion independently of the spindle.

1,136,720. CIGARETTE-MAKING DEVICE. JAMES PRESTON, Tuckahoe, N. Y.; Lucy Preston executrix of said James Preston, deceased. Filed Apr. 22, 1914. Serial No. 833,685. (Cl. 131—5.)



1. A device of the character described, comprising a tubular wrapper rolling and filling means formed of sections open along a side thereof and open at an end thereof, and mounted to turn one on the other through an angle, to positions to dispose the section in trough-like form, with the open side in register, or to positions with one section closing the side opening of the companion section, the two sections in the latter position presenting jointly an exterior surface around which a cigarette wrapper may be rolled, the sections permitting an endwise removal of the rolled wrapper, and the said open end of the sections forming an outlet for the tobacco into the rolled wrapper, longitudinally of the sections, as the said wrapper is removed endwise.

2. In a cigarette making device, a tubular wrapper rolling and filling means comprising two approximately semi-cylindrical sections adapted to turn one on the other, to a position with one section closing the side opening of the other to constitute a trough-like receiver adapted to hold a charge of tobacco, or to a position with one section closing the other, said sections having an open end, the sections presenting opposed longitudinal edges meeting to clamp the edge of a wrapper, whereby a bodily turning of the device will roll the wrapper on the exterior of the said charged tubular means, the sections permitting an endwise removal of the rolled wrapper and the said open end of the sections forming an outlet for the tobacco into the rolled wrapper, longitudinally of the sections, as the rolled wrapper is removed endwise.

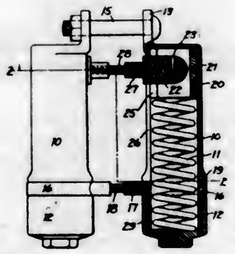
3. In a cigarette making device, a tubular wrapper rolling and filling means comprising approximately semi-cylindrical sections arranged to turn at an angle relatively to each other, to present registering open sides for receiving a charge of tobacco, or to effect a closure of said open sides, said section having an open end, and means to lock said sections against longitudinal displacement and limit the relative turning movement thereof, the sections permitting an endwise removal of the rolled wrapper and the said open end of the sections forming an outlet for the tobacco into the rolled wrapper, longitudinally of the sections, as the rolled wrapper is removed endwise.

4. In a cigarette making device, a tubular wrapper rolling and filling means, comprising approximately semi-cylindrical sections arranged to turn through an angle relatively to each other, to present registering open sides for receiving a charge of tobacco, or to effect a closure of said open sides, the inner one of said sections having a transversely disposed tongue, and the other of said sections having an opening through which the said tongue projects, said tongue limiting the turning movement of the sections and preventing longitudinal displacement thereof.

5. In a cigarette making device, a tubular wrapper rolling and filling means comprising approximately semi-cylindrical sections adapted to turn one on the other and having an open end and opposed longitudinal, beveled edges, to clamp a cigarette wrapper and hold the same, the said sections turning one on the other to positions with one section closing the side of the other section, the two sections in the said positions presenting jointly an exterior surface around which a cigarette wrapper may be rolled and then removed endwise, the said open end of the sections forming an outlet for the tobacco into the rolled wrapper, longitudinally of the sections, when the said wrapper is withdrawn endwise.

[Claims 6 to 11 not printed in the Gazette.]

1,136,721. SPRING MECHANISM FOR VEHICLES. JAMES H. SAGER, Rochester, N. Y., assignor to J. H. Sager Company, Rochester, N. Y., a Corporation of New York. Filed Apr. 26, 1913. Serial No. 763,940. (Cl. 21—50.)



1. Spring-mechanism for vehicles having, in combination, a coil-spring; a cylinder inclosing the spring and provided with a longitudinal slot extending to one end of the cylinder, said end being externally threaded; means extending through the slot and coöperating with the spring; a screw-threaded cap for closing the threaded end of the cylinder; and a ring mounted on the cylinder, near said end, and provided with a tongue which lies in the slot and supports the end of the cylinder against the compressive action of the cap.

2. Spring-mechanism for vehicles having, in combination, two coil-springs; two parallel cylinders inclosing the springs and provided with lateral slots in their adjacent sides; pistons, within the cylinders, engaging the springs; arms extending through the slots and directly connecting the pistons together, said arms being pivoted to the pistons; means connecting the arms to a member of a vehicle-gear and means for connecting the cylinders, at one end, to each other and to another member of the vehicle-gear.

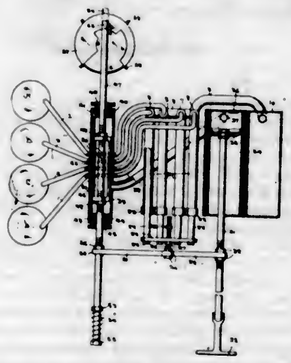
3. Spring-mechanism for vehicles having, in combination, two coil-springs; two parallel cylinders inclosing them and provided with longitudinal slots in their adjacent sides; connections between the pistons; and connections between the cylinders; both of said connections being adjustable to vary the distance between the pistons and the cylinders.

4. Spring-mechanism for vehicles having, in combination, two coil-springs; two parallel cylinders inclosing them and closed at the ends, the closures for the lower ends of the cylinders being removable; longitudinal slots, in the cylinders, extending to their lower ends; pistons located between the upper ends of the springs and the cylinders; means, extending through said slots, for connecting the pistons with one member of a vehicle-gear; and connections between the lower portions of the cylinders, said connections encircling the cylinders and being removable therefrom.

5. Spring-mechanism for vehicles having, in combination, two coil-springs; two parallel cylinders inclosing them and closed at the ends, the closures for the lower ends of the cylinders being removable; longitudinal slots, in the cylinders extending to their lower ends; pistons located between the upper ends of the springs and the cylinders; means, extending through said slots, for connecting the pistons with one member of a vehicle-gear; and connections between the lower portions of the cylinders, said connections being removable therefrom and being normally retained in place by said removable closures.

[Claims 6 to 8 not printed in the Gazette.]

1,136,722. ENGINE-STARTER. ANTON I. SANDBO, Rock Island, Ill., assignor to The Sandbo Starter Company, Rock Island, Ill., a Corporation. Filed June 17, 1914. Serial No. 845,628. (Cl. 123—180.)



1. An engine starter, in combination with the cylinders of an explosive engine, and the timing mechanism thereof, of means operated by the timing mechanism for determining the cylinder under compression, means for supplying gaseous fuel to the cylinder under compression, means for supplying liquid fuel to the cylinders not under compression, and means for actuating said fuel supplying means in one operation.

2. An engine starter, in combination with the cylinders of an explosive engine, and the timing mechanism thereof, of means operated by the timing mechanism for determining the cylinder under compression, the liquid fuel reservoir, means for supplying the fuel to said cylinders from said reservoir, an air chamber, means for supplying air to said air chamber, and means within said air chamber for directing the air into the fuel in its passage to said cylinder under compression.

3. An engine starter, in combination with the cylinders of an explosive engine, and the timing mechanism thereof, of means operated by the timing mechanism for determining the cylinder under compression, a fuel reservoir, means for supplying fuel to the cylinders, an air chamber connected to said fuel supplying means, means for supplying air under pressure to said air chamber, means within said air chamber for distributing the air into said fuel supplying means, said air distributing means being operated by said air supplying means, and means upon said determining means for limiting the movement of said air distributing means.

4. An engine starter, in combination with the cylinders of an explosive engine, and the timing mechanism thereof, of a liquid fuel reservoir, a main fuel supply pipe leading therefrom, a plurality of valve chambers connected to said main fuel supply pipe, fuel supply pipes for said cylinders, pumps connecting said valve chambers for supplying fuel to said cylinders, an air valve connected to said supply pipes, connections between said air chamber and said fuel supply pipes, an air compressor for supplying air to said air chamber, a valve operated within said air chamber for distributing air into certain of said fuel supply pipes, means for actuating the air compressor and said air valve, means operated by the timing mechanism of the engine for determining the cylinder under compression, and means connecting said determining means with said air valve, for positioning the same for distributing air into the fuel in the supply pipe leading to said compression cylinder.

5. An engine starter, in combination with the cylinders of an explosive engine, and the timing mechanism thereof, of a fuel reservoir, fuel supply pipes for said cylinders, means for forcing the fuel into said cylinders, an air chamber in communication with said fuel supply pipes, a valve within said air chamber for distributing air in certain of said supply pipes, means for supplying air to said air chamber, and means for operating said air supplying means, said fuel supplying means, and said air distributing means in consecutive order during each operation.

[Claims 6 to 12 not printed in the Gazette.]

1,136,723. UNEXPLOSIVE PREPARATION. ALBRECHT SCHMIDT, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Sept. 29, 1913. Serial No. 792,465. (Cl. 252.)

1. As new products, the preparations, obtained by incorporating waste-liquors from sulfite-cellulose into nitro compounds, showing on the one hand the reactions of the waste-liquors from sulfite-cellulose, on the other hand, those of the nitro compounds.

2. As a new product, the preparation, obtained by incorporating the waste-liquors from sulfite-cellulose into the alkali salt of the dinotrophenol, showing on the one hand the reactions of the waste-liquors from sulfite-cellulose, on the other hand, those of the dinitrophenol.

1,136,724. NON-EXPLOSIVE PREPARATIONS AND PROCESS OF MAKING SAME. ALBRECHT SCHMIDT, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Sept. 22, 1914. Serial No. 863,010. (Cl. 252.)

1. The process which consists in incorporating with explosive nitro-phenol compounds having mycocide properties, fireproofing inorganic salts in quantity sufficient to render the mixture non-explosive.

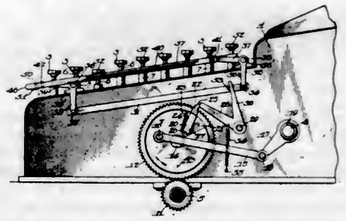
2. The process of manufacturing non-explosive preparations, which consists in incorporating with alkali-nitrophenol compounds having mycocide properties in organic salts which are capable of diminishing the inflammability of combustible material.

3. As new products, the preparations obtainable by incorporating with explosive nitro-phenol compounds having mycocide properties, fireproofing inorganic salts in quantity sufficient to render the mixture non-explosive.

4. As new products having mycocide properties, the preparations obtainable by incorporating inorganic salts with sodium-dinitro-phenolate, said preparations showing on the one hand the reactions of the sodium-dinitrophenolate and on the other hand those of the said inorganic salts.

5. As new products having mycocide properties, the preparations obtainable by incorporating zinc chlorid with sodium-dinitro-phenolate, said preparations showing on the one hand the reactions of the sodium-dinitro-phenolate and on the other hand those of the zinc chlorid.

1,136,725. COMPUTING-MACHINE OR THE LIKE. DANIEL W. SHIEK, Indianapolis, Ind., assignor to Walter L. Milliken, Barnstable, Mass. Filed Feb. 19, 1909. Serial No. 478,888. (Cl. 235—62.)



1. A device of the kind described comprising a group of controlling keys divided into series to correspond with the different numerical orders, said keys being formed in sections whereby they have a primary and a secondary movement, operating mechanism normally at rest, a detent for said operating mechanism, and means coöperating with one of said keys upon the secondary movement thereof to remove the detent from the oporating mechanism said means being normally out of operative engagement with the keys.

2. In a device of the kind described and in combination, a group of controlling keys divided into series to correspond with the different numerical orders, said keys being formed in movably connected sections, whereby they have a primary and a secondary movement, operating mechanism normally at rest, a detent for said operating mechanism, and means normally out of operative engagement with the keys and coöperating with any of said controlling keys in the secondary movement thereof for removing the detent from the operating mechanism.

3. In a device of the kind described and in combination, a plurality of controlling keys having yieldably connected sections whereby to produce a primary setting up movement and a secondary movement, an operating shaft, a driven shaft normally disconnected therefrom, and means connecting said shafts coöperating with any of said keys in the secondary movement thereof.

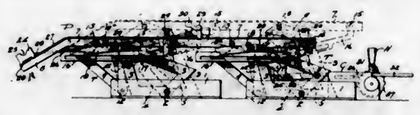
4. In a device of the kind described and in combination, operating mechanism and a series of controlling keys therefor, driving mechanism for said operating mechanism normally out of engagement therewith and means coöperating with one or more of said controlling keys for throwing said driving and operating mechanisms into engagement, said means including clutch mechanism comprising a rotatable driving member, a driven member rotatable concentrically therewith, and a pawl arranged to operatively connect said members, a movable stop arranged to be maintained in the path of said pawl, means for operatively

connecting said stop and one or more of said keys, and means for operatively connecting said driven member and said operating mechanism.

5. In a device of the kind described and in combination, operating mechanism, a series of controlling keys, driving mechanism for said operating mechanism normally out of engagement therewith, and means coöperating with one or more of said controlling keys for throwing said driving and operating mechanisms into engagement, said means including a friction clutch comprising a rotatable driving member provided with an annular concentric engaging surface, a driven member rotatable concentrically therewith, and an engaging member pivotally supported at one end by said driven member and eccentrically disposed thereon, said engaging member arranged to engage said engaging face but projecting beyond the same, and a removable stop for said engaging member controlled by one or more of said keys and normally arranged in the path of the projected end of said engaging member in opposition to its line of travel and means for operatively connecting said driven member with the operating mechanism.

[Claims 6 to 24 not printed in the Gazette.]

1,136,726. VEHICLE-ELEVATOR. HARVEY E. SHUMWAY and WALTER T. SCHOLZ, Frankfort, Kans. Filed Feb. 25, 1914. Serial No. 821,013. (Cl. 254—89.)



1. A vehicle elevating device comprising a stationary bed frame, a vehicle supporting platform, rocking means pivoted eccentrically on both the frame and platform, connecting means for said rocking means carried by the frame and platform, and means also carried by the platform for engaging the rocking means pivoted on the bed frame to cause them to rock and elevate the platform when the latter is moved forward by the momentum of a moving vehicle.

2. A vehicle elevating device comprising a stationary bed frame, main rocking elevating and supporting levers eccentrically pivoted thereto, a vehicle platform, auxiliary elevating rocking and supporting levers pivoted eccentrically to said platform, links connecting said levers, and pivoted trip arms carried by said platform adapted to engage the said main rocking levers to cause them to rock and elevate the platform when the latter is moved forward by the momentum of a moving vehicle.

3. A vehicle elevating device comprising a stationary bed frame, main rocking elevating and supporting levers eccentrically pivoted thereto, a vehicle platform, auxiliary elevating rocking and supporting levers pivoted eccentrically to said platform, swinging means connecting similar ends of said levers, and pivoted trip means carried by said platform adapted to engage with each of said main rocking levers to cause them to rock and elevate the platform when the latter is moved forward by the momentum of a moving vehicle.

4. A vehicle elevating device comprising a stationary bed frame, a vehicle supporting platform, rocking means pivoted eccentrically on both the said frame and platform, connecting means for said rocking means carried by the frame and platform, means also carried by the platform for initially tripping said rocking means carried by the bed frame, and auxiliary elevating and retaining means for raising the platform to higher elevations.

5. A vehicle elevating device comprising a stationary bed frame, rocking elevating and supporting levers pivoted to said bed frame and arranged in longitudinal pairs, hanger links having their upper ends pivotally connected to the said rocking levers, a vehicle supporting platform, auxiliary rocking elevating and supporting levers pivotally carried by the said platform, said latter levers pivoted at their lower ends to said hanger links, sliding bumper means carried by said vehicle platform for causing said main rocking levers to tilt upon forward movement of the platform caused by the momentum of a moving vehicle, and auxiliary elevating and retaining means connected with the forward end of said platform.

[Claims 6 and 7 not printed in the Gazette.]

1,136,727. NURSING-VEST. GOODWIN B. SMITH, Philadelphia, Pa. Filed June 17, 1914. Serial No. 845,665. (Cl. 128—3.)



1. The combination with a body section having two spaced openings located entirely within and surrounded by the material constituting the body section and means for fastening the body section on the wearer, of flaps permanently attached at their lower edges to the body section below the openings, each flap being adapted to be folded downward to expose the adjacent opening and to be folded up over the opening to close the latter, and means for detachably fastening the flaps to the body section at points above the lower edges of the flaps to detachably secure such flaps in closed position.

2. In an article of the class described, the combination with a body section having two spaced openings therein and means for fastening the body section on the wearer, of elastic strips inserted in the body section between the top portions of the openings and the top edge of the body section and flaps for the openings attached at their lower edge portions to the body section below the openings and adapted to be folded down to expose the openings and to be folded up over the openings to close the latter, and means for fastening the flaps in their closed position.

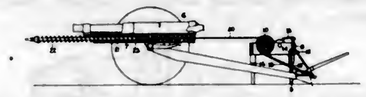
3. The combination with a body section having two separate bust openings therein and a web between the openings, of a flap for each opening secured to the body section, the adjacent edges of the flaps being adapted when in closed position to overlap and to overlie the web between the openings, means for fastening together the overlapping portions of the flaps, and means for fastening the flaps in their closed positions.

4. The combination with a body section having two relatively large spaced breast openings therein adapted to accommodate the breasts of the wearer and means for fastening the body section upon the wearer, of a flap for each opening attached to the body section at a point below the opening and adapted to be folded downward to expose the opening and to be folded up over the opening to close the latter, means for fastening each flap in its closed position, and a piece of material connected with each flap and lying adjacent the inner side of such flap to form a pad receiving pocket in conjunction with the flap.

5. The combination with a body section having two relatively large bust openings therein with a spacing web therebetween, of an elastic strip inserted in the body section between the top of each opening and the top edge of the body section, the material of the body section between the bottom of each bust opening and the lower edge of the body section being slitted, flaps for the bust opening permanently attached at their lower edges to the body section below the openings, each flap being adapted to be folded up over the adjacent opening to close the latter, a piece of fabric attached to the inner side of each flap and forming a pad receiving pocket in conjunction with the flap, and means for securing the body section on the wearer.

[Claim 6 not printed in the Gazette.]

1,136,728. DEVICE FOR REPLACING AND ADJUSTING COILS IN FIELD-GUNS. JOHN SMITH, New York, N. Y. Filed Dec. 24, 1914. Serial No. 878,955. (Cl. 89—1.)



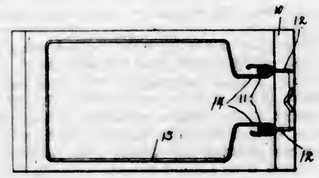
1. In combination with a field gun having a recoil mechanism and a trail, a device for resetting said recoil mechanism comprising a frame, means for supporting said frame over the trail, abutting members from the frame to the trail, a flexible member connecting the front and rear of the frame to the end of the trail, and a winch mechanism on said frame.

2. In combination with a field gun having a trail, a device of the class described comprising a frame, removable supports for the frame whereby the same is supported above the trail, abutting members from the frame to the trail, hooks at the sides adjacent the front and at the rear adjacent the sides of the frame, a flexible member connecting said hooks to the end of the trail, and a winch mechanism on said frame.

3. In combination with a field gun having a trail, a device of the class described comprising a frame, detachable supports for the frame whereby the same can be mounted above the trail, abutting members from the frame to the trail, hooks at the front and rear of the frame, said trail having a lunette at the end thereof, a flexible member connecting the front hooks to the lunette and the lunette to the rear hooks, and a winch mechanism on said frame.

4. In combination with a field gun having a trail, a device of the class described comprising a rectangular frame, removable pegs for said frame adapted to maintain the frame above the trail, abutting members from the frame to the trail, hooks at the sides adjacent the front and at the rear adjacent the sides of the frame, said trail having a lunette, a flexible member connected with one end to one of the hooks at the side, then passing through the lunette, then through a hook at the rear adjacent the side to which the end is attached, then through the other rear hook, then back through the lunette to the other side hook where the other end of the flexible member is secured, and a winch mechanism on said frame.

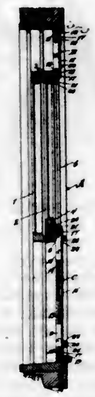
1,136,729. CLIP-FILE PROTECTOR. WALTER RAY SMITH, Milwaukee, Wis. Filed Feb. 26, 1914. Serial No. 821,226. (Cl. 129—4.)



The combination with a filing device having paper transferring pins, of an open rigid frame member formed of a single length of wire disposed on the papers of the device, and loop members carried by the open end of the frame for detachable engagement with and transferring movement on the said pins.

1,136,730. WINDOW-SCREEN. EUGENE SONNTAG, New York, N. Y. Filed Apr. 21, 1914. Serial No. 833,439. (Cl. 156—38.)

1. A window screen composed of sections formed of bars, each pair of corresponding bars of the sections having respectively a longitudinal slot and a tongue fitting in the slot, whereby a frame of any desired size may be formed, a single piece of netting having its four edges fastened to the frame, and strips fastening the netting to the frame and serving to cover the gaps between the slotted and tongued bars of the sections.



2. A window screen composed of sections formed of bars, each pair of corresponding bars of the sections having respectively a longitudinal slot and a tongue fitting in the slot, whereby a frame of any desired size may be formed, a netting for the frame, strips fastening the netting to the frame and serving to cover the gaps between the slotted and tongued bars of the sections, a flexible sealing strip extending horizontally from one of the horizontal bars of the frame, and a flexible sealing strip extending vertically from the other horizontal bar of the frame.

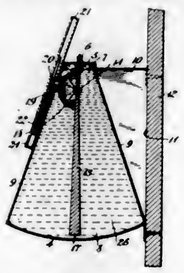
3. A screen comprising a frame having runner-engaging flanges at its ends, a plurality of runner-engaging blocks at the ends coöperating with the said flanges to mount the screen in a window frame, and means for loosening or tightening the blocks, whereby the blocks can be held in sliding or frictional engagement with the runners, in combination with a window frame, and runners on opposite sides of the window frame and each provided with a screen-guiding flange, said screen frame being disposed between the runners, with the flanges of the screen frame engaging the flanges of the runners and the blocks projecting beyond the screen frame and engaging the flanges of the runners.

4. A screen comprising a frame having grooved vertical and horizontal bars, a netting covering the frame, the vertical bars of the frame having runner-engaging flanges, tongue strips secured to the bars of the frame and serving to fasten the netting thereto, the vertical strips being of less length than the distance between the horizontal strips to provide recesses between the ends of the vertical strips and the horizontal strips, clamping blocks disposed in said recesses, and the said blocks having tongues to engage in the grooves of the vertical bars, and the blocks extending outwardly from the sides of the bar to coöperate with the flanges on the vertical bars to engage screen runners, and means for fastening the blocks to the vertical bar.

5. A screen composed of sections forming the frame, each section including a pair of rigidly connected members, one member having a longitudinal slot extending inwardly from one end, and the other member having a longitudinal tongue adapted to enter the slot of the slotted member of another section, a netting fastened to the frame, strips fastened to the front side of the screen frame and bridging the gaps between the sections thereof, and sealing strips at the top and bottom of the frame, one sealing strip extending upwardly and the other strip extending laterally from the frame.

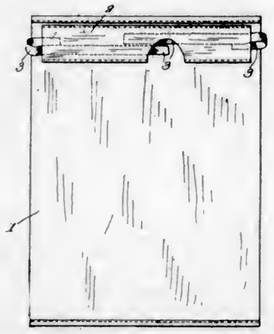
[Claim 6 not printed in the Gazette.]

1,136,731. GRADOMETER. WALTER J. SPAULDING, Santa Barbara, Cal. Filed Mar. 19, 1914. Serial No. 825,806. (Cl. 33—220.)



In a gradometer, a casing having the shape of a sector of a cylinder, said casing having an inlet at the narrower end; a cap for said casing engaging the inlet and closing said casing hermetically; a fluid in said casing; a pendulum mounted to vibrate in said casing between the radial sides thereof, said pendulum having its width substantially equal to the distance between the parallel sides of the casing, thus dividing said casing into two parts intercommunicating through the clearance formed by the pendulum and the parallel sides of the casing, whereby said fluid dampens the vibration of the pendulum in said casing; a gear associated with the pendulum; a pin engaging the gear; a hand associated with the pinion; and a dial for said hand, said hand being adapted to register on the dial the displacement of the casing with reference to the pendulum.

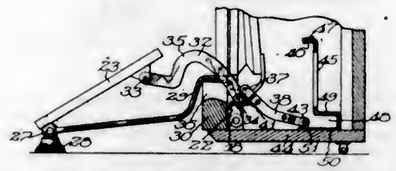
1,136,732. APRON. GEORGE ADOLPH STEINER and WILLIAM FRISBY TUCKETT, Salt Lake City, Utah. Filed Jan. 17, 1914. Serial No. 812,698. (Cl. 2—54.)



An apron having adjacent its top a sheath which is arranged transversely and open at both ends, and tie strings secured to the apron, the said strings being of such length that when inserted in the sheath they overlap, as described.

1,136,733. TREADLE FOR PIANO-PLAYING ATTACHMENTS. ADOLF A. STEINHILBER, Rock Island, Ill., assignor to Artista Piano Player Company, Milan, Ill., a Corporation of Illinois. Filed Aug. 10, 1911. Serial No. 643,291. (Cl. 84—169.)

1. In a folding treadle mechanism, the combination of a treadle support pivoted at its inner end to a stationary support, a rock shaft within the casing of the instrument, a bellows, an operative connection between the bellows and shaft, a treadle pivoted at its forward end to the treadle support, a crank on the shaft, a link connecting the free end of the treadle and the said crank, an extension member pivotally connected with the link to fold with respect to the link in one direction, during the folding movement of the treadle, and means for locking the link and extension against folding movement with respect to each other in the opposite direction when the treadle is unfolded.



2. In a folding treadle mechanism, the combination of a treadle support pivoted at its inner end to a stationary support, a rock shaft within the casing of the instrument, a bellows, an operative connection between the bellows and shaft, a treadle pivoted at its forward or outer end to the treadle support, a crank on the shaft, a link connecting the free end of the treadle and the said crank, an extension member pivotally connected at its outer end with the inner end of the link to fold with respect to the link in one direction during the folding movement of the treadle, interengaging means on the link and extension member for locking them against folding movement with respect to each other in the opposite direction when the treadle is unfolded, the inner end of the said extension engaging and moving upon a fixed support when the treadle is operated.

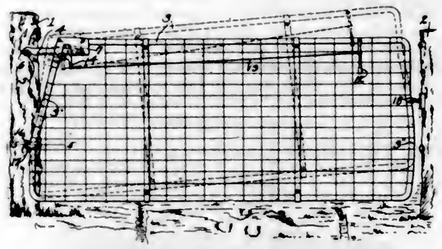
3. In a folding treadle mechanism, the combination of a treadle support pivoted at its inner end to a stationary support, a rock shaft within the casing of the instrument, a bellows, an operative connection between the bellows and shaft, a treadle pivoted at its forward or outer end to the treadle support, a crank on the shaft, a link connecting the free end of the treadle and the said crank, and an extension member pivotally connected at its outer end with the inner end of the link to fold with respect to the link in one direction during the folding movement of the treadle, a portion of the link beyond its point of connection with the said crank abutting the said extension member for locking said member and link against folding with respect to each other in the opposite direction and while the treadle is being operated, the inner end of the extension member engaging and moving on a fixed surface in the casing and forming a fulcrum for the link and extension member.

4. In a folding treadle mechanism, the combination of a treadle support pivoted at its inner end to a stationary support, a rock shaft within the casing of the instrument, a bellows, an operative connection between the bellows and shaft, a treadle pivoted at its forward end to the treadle support, a crank on the shaft, a link connecting the free end of the treadle and the said crank, an extension member pivotally connected with the link to fold with respect to the link in one direction during the folding movement of the treadle, a position of the link beyond its point of connection with the said crank, abutting the said extension member for locking said member and link against folding with respect to each other in the opposite direction and while the treadle is being operated, the free end of the extension member engaging and moving on a fixed surface in the casing and forming a fulcrum for the link and extension member, and a guide for receiving the free end of said extension member.

5. In a folding treadle mechanism, the combination of a treadle support pivoted at its inner end to a stationary support, a rock shaft within the casing of the instrument, a bellows, an operative connection between the bellows and shaft, a treadle pivoted at its forward end to treadle support, a crank on the shaft, a link connecting the free end of the treadle and the said crank, an extension member pivotally connected with the link to fold with respect to the link in one direction during the folding movement of the treadle, a position of the link beyond its point of connection with the said crank, abutting the said extension member for locking said member and link against folding with respect to each other in the opposite direction and while the treadle is being operated, the free end of the extension member engaging and moving on a fixed surface in the casing and forming a fulcrum for the link and extension member, and a support within the casing upon which the treadle rests when folded into the casing.

[Claims 6 to 14 not printed in the Gazette.]

1,136,734. FARM-GATE. MARCUS ALLEN STICKLEY, Strasburg, Va. Filed May 12, 1914. Serial No. 838,070. (Cl. 39—25.)



1. In combination, a supporting post, a gate adapted to be supported thereby, a locking bar pivoted to the post and adapted to slide longitudinally of the gate, means for locking the bar to the gate, a pivoted lever having an arm disposed to swing into position for swinging the bar out of engagement with the locking means, and means for actuating said lever.

2. In combination, a supporting post, a gate adapted to be supported thereby, a bar pivoted to the post and having a notched under surface, a projection on the gate adapted to engage in any one of the notches of said bar, a lever pivoted on the gate adjacent the projection, and means for swinging the lever for moving the same into contact with the under portion of the bar for lifting the bar out of engagement with the projection.

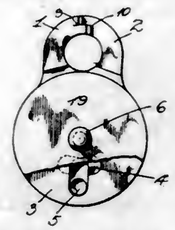
3. In combination, a supporting post, a gate adapted to be supported thereby, a bar pivoted to the post and extending into movable engagement with the gate, means for locking the bar against movement independent of the gate, an angle lever pivoted to the gate adjacent to and beneath the bar, and means for swinging the angle lever for bringing the angle thereof into contact with the bar for elevating the bar out of engagement with the locking means.

4. In combination, a gate, a supporting post therefor, hinge connections intermediate the gate and post permitting horizontal swinging of the gate, one of said connections comprising an adjusting and locking bar pivotally connected with the post, the gate being formed with a stop to positively interlock with said bar to hold the free end of the gate against unauthorized vertical movement, a lever pivoted to the gate and arranged to engage and lift said bar out of coöperation respecting the stop, and means for actuating said lever.

5. In combination, a gate, a supporting post therefor, hinge connections intermediate the gate and post permitting horizontal swinging of the gate, one of said connections comprising an adjusting and locking bar pivotally connected with the post, the gate being formed with a stop to positively interlock with said bar to hold the free end of the gate against unauthorized vertical movement, means for controlling the operation of said bar, the other of said hinge connections consisting of a hinge part attached to the post, and a hinge member carried by the gate coöperating with said hinge part and comprising an extension engaging beneath the latter when the gate is in closed position, whereby to prevent unauthorized lifting of the hinged end of the gate.

[Claim 6 not printed in the Gazette.]

1,136,735. LOCK. CHARLES G. TAYLOR, Los Angeles, Cal. Filed Dec. 26, 1914. Serial No. 879,084. (Cl. 70—104.)



1. A lock having separable shackle members and a gravity actuated tumbler adapted to be shifted by altering the position of the lock for locking or unlocking the said shackle members.

2. A lock comprising pivoted disks applied face to face and having radial recesses therein adapted to be brought into coincidence, a tumbler disk movable in said recesses for locking the disks against movement, the said recesses having offset extensions for receiving the tumbler when the parts are in unlocked position, and shackle members carried by said disks.

3. A lock comprising shackle carrying members mounted to revolve with respect to each other and having shackle arms projecting therefrom, the said arms having interlocking edge portions adapted to form a firm joint between the parts, the said members having angular recesses adapted to be brought into coincidence and a disk of sufficient thickness to extend into both recesses for locking the shackle arms.

4. A lock having a separable shackle, pivoted disks carrying the members of said shackle and having superposed recesses formed therein, said recesses having lateral extensions projecting in opposite directions with respect to each other from the inner ends of said recesses, and a loose tumbler engaging said recesses, the structure being such that when the tumbler is at the outer end of the said recesses the shackle members will be locked, and when the lock is inverted and the tumbler permitted to fall into the other ends of the recesses, the shackles will be permitted to open.

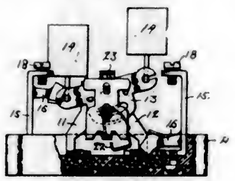
5. A lock having disks pivoted with respect to each other and shackle members projecting therefrom, the ends of said members having split portions bent in opposite directions for forming a firm joint at the ends of the said shackle members and means for preventing the movement of the said disks on their pivot points to prevent the unauthorized opening of the said shackle members.

1,136,736. ADJUSTABLE NOSE-PIECE FOR EYE-GLASSES. WINFIELD JACOB TAYLOR, Ord, Nebr. Filed May 3, 1913. Serial No. 765,244. (Cl. 88—50.)



A frame for eye glasses comprising a bridge piece having lense holding members; pivot pins mounted on said bridge piece; finger levers having nose engaging portions pivotally mounted on said pivot pins, said finger levers having each a plurality of integral and upstanding lugs providing notches; and springs encirclingly mounted on said pivot pins above said finger levers and each having one end thereof engaging one of said lens holding members, and the other ends of said springs being straight and adapted to engage within either of said notches, said notch engaging spring portions projecting beyond the pivotally mounted members whereby to be engaged for adjustment within said notches.

1,136,737. ELECTRIC SWITCH. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 10, 1914. Serial No. 850,206. (Cl. 175—293.)



1. A device of the character described, comprising a two-piece insulating body, a carrying yoke therefor and securing bolts passing through both pieces of the insulating body and engaging said yoke to hold the several parts in assembled condition.

2. A device of the character described, having a two-piece insulating body comprising a shallow cup-shaped base, wire terminals and switch mechanism mounted thereon, and an independent cap of corresponding contour fitting upon said base in assembled position and inclosing said switch mechanism, and means for securing said cap and base together.

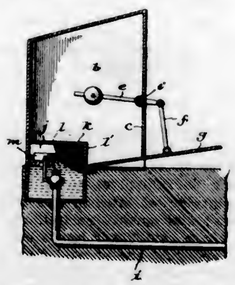
3. A device of the character described, having a two-piece insulating body comprising a shallow cup-shaped base, wire terminals and switch mechanism mounted thereon, and an independent cap of corresponding contour fitting upon said base in assembled position and inclosing said switch mechanism, together with a carrying yoke adjustable on said cap and means for securing said body parts and yoke together.

4. A device of the character described, having a two-piece insulating body comprising a shallow cup-shaped base, wire terminals and switch mechanism mounted thereon, and an independent cap of corresponding contour fitting upon said base in assembled position and inclosing said switch mechanism, said cap being apertured to expose the wire terminals in the assembled position of the parts.

5. A device of the character described, having a two-piece insulating body comprising a shallow cup-shaped base, wire terminals mounted thereon and upstanding above the walls of said base and an independent cap of corresponding contour resting upon said base and having apertures in its top to expose said wire terminals.

[Claims 6 to 9 not printed in the Gazette.]

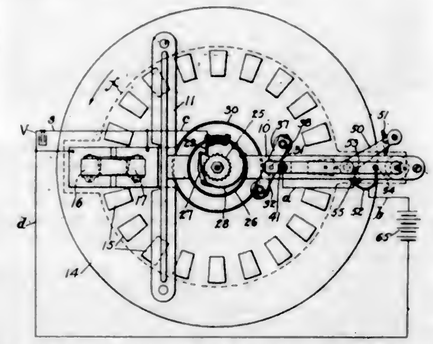
1,136,738. AUTOMATIC STOCK AND POULTRY FOUNTAIN. JOHN H. THRELKELD, Chariton, Iowa. Original application filed Sept. 10, 1913, Serial No. 789,129. Divided and this application filed May 27, 1914. Serial No. 841,277. (Cl. 119—76.)



1. A drinking fountain of the class set forth, comprising a housing having an opening in its front wall, a trough in the housing, a pivotally depending door closing the opening in the front wall of the housing, a platform pivoted in the housing and extending outwardly through said door opening, and counter-weight means connected to the door and the platform acting to normally close the door and to raise the platform, for the purpose set forth.

2. A drinking fountain of the class set forth, comprising a housing having an opening in its front wall, a trough in the housing, a pivotally depending door closing the opening in the front wall of the housing, a platform pivoted in the housing and extending outwardly through said door opening, and counter-weight means connected to the door and the platform acting to normally close the door and to raise the platform, the lower edge of the door abutting against the upper side of the platform when the door is closed, to thereby completely close the front wall of the housing.

1,136,739. PHONOGRAPH. GEORGE S. TIFFANY, Summit, N. J. Filed Aug. 7, 1914. Serial No. 855,574. (Cl. 181—3.)



1. A phonograph comprising in combination a movable support for the sound record body, a plurality of armature bodies carried by said support, electro-magnetic means for attracting said armature bodies, the arrangement of said armature bodies and said electro-magnetic means being such that each armature body when attracted by the electro-magnetic means is balanced magnetically in the magnetic field, and means controlling said electro-magnetic means to cause it to attract said armature bodies in succession.

2. A phonograph comprising in combination a rotatable support for the sound record body, a plurality of armature bodies carried by said support and spaced equal distances apart, an electro-magnet for attracting said armature bodies having polepieces so arranged with respect to the path of movement of the armature bodies that each armature body in approaching the polepieces of the magnet shall be balanced magnetically in the magnetic field, and circuit controlling means for causing the magnet to attract the armature bodies in succession.

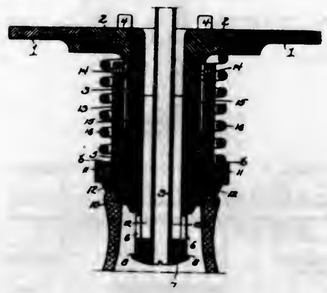
3. A phonograph comprising in combination a rotatable support for the sound record body, a plurality of armature bodies carried by the support and spaced equal distances apart, electro magnetic means for attractin said armature bodies comprising a pair of polepieces mounted so that each armature body shall come within the sphere of influence of both polepieces simultaneously, passing on one side of one polepiece and on the other side of the other polepiece, and circuit controlling means controlled according to the movement of the rotatable support for causing said electro-magnetic means to attract the armature bodies in succession.

4. A phonograph comprising in combination a rotatable table for carrying a sound record disk on the upper face thereof, a plurality of armature bodies carried by the table and projecting from the lower face thereof, said bodies being equidistant from each other and at equal distances from the axis of rotation of the table, electro-magnetic means for attracting the armature bodies comprising a pair of polepieces mounted so that as the armature bodies pass the electro-magnetic means in succession each armature body shall pass between and be attracted by both the polepieces, and circuit controlling means for causing the electro-magnetic means to attract the armature bodies in succession.

5. A phonograph comprising in combination a rotatable table for carrying a sound record disk on its upper face, said table being formed of non-magnetic material, a plurality of armature bodies carried by the table and projecting from the under face thereof, electro-magnetic means for attracting the armature bodies comprising a pair of polepieces beneath the table in position such that as the armature bodies pass the electro-magnetic means in succession each armature body will pass between and be attracted by both the polepieces, and circuit controlling means for causing said electro-magnetic means to attract the armature bodies in succession.

[Claims 6 to 19 not printed in the Gazette.]

1,136,740. VALVE FOR BOTTLE-FILLING MACHINES. FRANK TYSON, Canton, Ohio. Filed Apr. 17, 1913. Serial No. 761,705. (Cl. 226—12.)



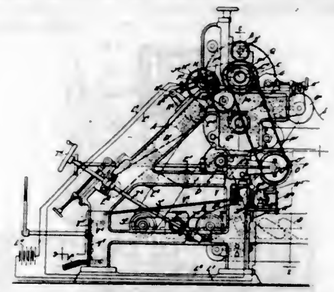
1. The combination, in a bottle filling machine, of a filling tube and a bottle-controlled valve for opening and closing the same, with means whereby the closing movement of the valve causes the withdrawal of air from the upper portion of the bottle.

2. The combination, in a bottle filling machine, of a filling tube, a vent tube, and a bottle-controlled valve for opening and closing said filling tube, with means whereby, while the valve is closing the discharge opening in the filling tube, the movement of the valve causes the withdrawal of air from the bottle above the milk and consequently an indraft of air through the vent tube.

3. The combination, in a bottle filling machine, of a filling tube, a bottle controlled valve for opening and closing the same, said valve having a projecting sleeve, and a guiding nipple fitted to said sleeve so as to form a pump of which the sleeve is the cylinder and the nipple the piston, passages being formed between the filling tube and valve which provide communication between said pump cylinder and the lower end of the valve.

1,136,741. BORDER-CUTTING MACHINE. WILLIAM HUBBELL WALDRON, Highland Park, N. J., assignor to John Waldron Co., New Brunswick, N. J. Filed July 14, 1914. Serial No. 850,892. (Cl. 164—28.)

1. A border cutting machine, comprising a driven impression roll, a cutting roll operating in conjunction with the said impression roll and having a continuous cutting edge conforming in shape to the contour of the imprint on the border, a differential driving gear for driving the said cutting roll from the said impression roll, an electrically controlled brake mechanism for the said driving gear to retard or accelerate the rotation of the cutting roll relative to the impression roll, and a circuit closer for the said brake mechanism and controlled by the travel of the border.



2. A border cutting machine, comprising a driven impression roll, a cutting roll operating in conjunction with the said impression roll and having a continuous cutting edge conforming in shape to the contour of the imprint on the border, a differential driving gear for driving the said cutting roll from the said impression roll, an electrically controlled brake mechanism for the said driving gear to retard or accelerate the rotation of the cutting roll, a circuit closer for the said brake mechanism and controlled by the travel of the border, and a manually controlled speed-changing device for the said differential driving gear to vary the speed thereof.

3. A border cutting machine provided with a cutting roll having a continuous edge conforming in shape to the contour of the imprint on the border, a differential driving gear for driving the said cutting roll from the said impression roll, a sprocket wheel mounted to turn loosely and having sprockets adapted to engage apertures along the margin of the border to turn the sprocket wheel by the advancing border, and means actuated by the said sprocket wheel to vary the speed of the said differential driving gear.

4. A border cutting machine provided with a cutting roll having a continuous edge conforming in shape to the contour of the imprint on the border, a differential driving gear for driving the said cutting roll from the said impression roll, a sprocket wheel mounted to rotate loosely and arranged in front of the said rolls, the said sprocket wheel having sprockets adapted to engage apertures in the margin of the border to turn the sprocket wheel by the advancing border, an electromagnet having an armature lever adapted to engage a member of the said driving gear to vary the speed of the driving gear, and a circuit closer for the said electromagnet and controlled by the said sprocket wheel.

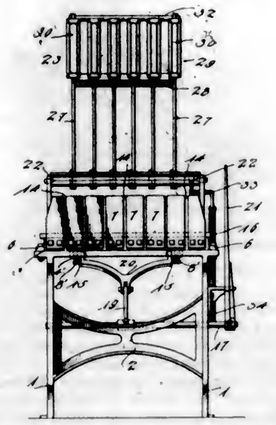
5. A border cutting machine provided with a cutting roll having a continuous edge conforming in shape to the contour of the imprint on the border, a differential driving gear for driving the said cutting roll from the said impression roll, a sprocket wheel mounted to rotate loosely and arranged in front of the said rolls, the said sprocket wheel having sprockets adapted to engage apertures in the margin of the border to turn the sprocket wheel by the advancing border, an electromagnet having an armature lever adapted to engage a member of the said driving gear to vary the speed of the driving gear, a circuit closer for the said electromagnet and controlled by the said sprocket wheel, and a manually controlled speed changing device for the said driving gear.

[Claims 6 to 8 not printed in the Gazette.]

1,136,742. FURNITURE-POLISH. SAMSON WATERS, Los Angeles, Cal. Filed Apr. 23, 1914. Serial No. 833,913. (Cl. 134—24.)

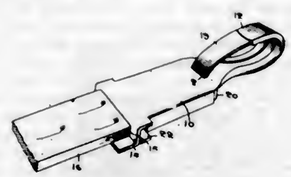
The herein described composition of matter for a furniture polish, consisting of linseed oil, coal oil, water, beeswax, banana oil, and paraffin oil, substantially in the proportions described.

1,136,743. BRICK-MACHINE. ERNEST F. WEGE, La Crosse, Wis., assignor to Sterling Machinery Company, La Crescent, Minn. Filed Jan. 3, 1913. Serial No. 740,072. (Cl. 25—41.)



In a brick machine, the combination with a main frame, front and rear pallet bars mounted thereon for longitudinal adjustment with respect to one another, a plurality of upstanding plates removably secured to said pallet plates, and arranged in spaced relation to one another and a pallet removably disposed between the rows of upstanding plates; of a carriage rearward of the rear pallet bar and movable longitudinally on the frame with respect thereto, said carriage including a transverse bar, a plurality of vertical spaced apart plates supported thereon, each of said plates being provided with a pair of vertically alining slots, and an additional transverse bar engaged with the upper edges of said vertical plates to support and brace the latter, end and intermediate partitions applied to the vertical plates in overlapping relation thereto, means engaged with said partitions and the slots of said vertical plates to secure the former to the latter for vertical adjustment thereon, and means for moving said carriage longitudinally on the frame to permit the partition plates to project through the spaces between the vertical plates on said pallet bars.

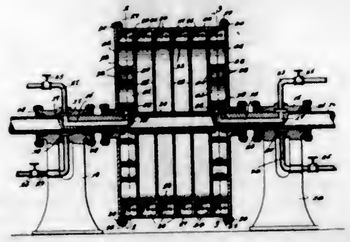
1,136,744. SNAP-HOOK. HENRY G. WERNIMONT, Washington, D. C., assignor, by mesne assignments, to William Rauen, Chicago, Ill. Filed May 6, 1913, Serial No. 765,796. Renewed Sept. 16, 1914. Serial No. 862,103. (Cl. 24—242.)



1. A springless snap consisting of a plate and having a tongue extending from one end thereof, lugs laterally projecting from opposite side edges of the plate and adjacent the other end thereof, a second plate having a slotted flange extending at right angles from one end thereof, a hook extending from the opposite end of the plate, said second plate having a second slot between the hook and said first mentioned slot, said first mentioned slot adapted to have an end of the flexible member extended therethrough and secured to the first mentioned plate, downwardly extending flanges provided on the side edges of said second plate and adapted to engage the sides of said flexible member, said lugs of said first mentioned plate adapted to lie between and abut against said longitudinal flanges and said slotted flange, said tongue extending through said second slot into contiguity with said hook.

2. A hook of the character described comprising a plate adapted to have a flexible member secured thereto, an upwardly projecting flange provided on the upper end of said plate, a tongue projecting outwardly from said flange, lugs projecting outwardly from opposite side edges of the plate at the opposite end thereof, a second plate, a hook provided at one end of said second plate, said plate being provided on its sides adjacent its other end with laterally extending slits, downwardly projecting flanges formed by the side edges of said second plate between said slitted portion and said hook, a second flange provided on the opposite end of said second plate and extending downwardly at right angles thereto, and being provided with a transversely extending slot therein, said flexible member adapted to extend through said transverse slot, said tongue adapted to extend through said first slot into contiguity with said hook and said lugs adapted to be housed between the second flange and the ends of the side flanges on the second plate when the tongue is in engagement with said hook.

1,136,745. TURBINE. DAVID WESTFALL, Canajoharie, N. Y. Filed July 6, 1914. Serial No. 849,319. (Cl. 121—57.)



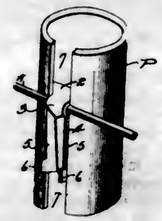
1. A turbine engine comprising standards having their upper ends provided with bearings having chambers formed therein, feed pipes and exhaust pipes communicating with said chambers, a shaft rotatably mounted in said bearings and provided with passages leading from said chambers and having their opposite ends terminating at points intermediate said standards, a turbine drum carried by said shaft intermediate said standards and inclosing the inner end portions of the passages formed in said shaft, partitions positioned in said drum dividing the end portions into annular tracks having conduits connecting the same and dividing the intermediate portion of the drum into a spiral track communicating with the chambers in the end portions of the drum, and perforated abutments positioned in said chambers and tracks.

2. A turbine engine comprising a rotatably mounted shaft provided with passages having their inner ends terminating adjacent the central portion of the shaft, a feed pipe communicating with one of the passages of said shaft, an exhaust pipe communicating with the second passage of said shaft, and a turbine rigidly carried intermediate its length and inclosing the inner end portions of the passages of said shaft, the end portions of said turbine being provided with annular partitions forming annular chambers having conduits connecting the same, and the intermediate portion of the drum being provided with partitions forming a spiral track connecting the outer chambers of the end portions of said drum.

3. A turbine drum, heads for said drum, a hub for said drum, disks leading from said hub to the walls of said drum, an inner wall positioned adjacent the outer wall of said drum, partitions positioned in the space between said inner and outer walls and forming a spiral track about said drum, abutments positioned in said track, partitions positioned in the space between said heads and the outer disks leading from said hub to the wall of said drum and dividing the space between said heads and outer disks into annular chambers, abutments positioned in said chambers, and conduits providing communication between said chambers.

4. A turbine drum, partitions in said drum dividing the end portions of the drum into annular chambers having conduits permitting communication between said chambers and dividing the intermediate portion of said drum into a spiral track leading from the outer chamber at one end of said drum to the outer chamber at the opposite end of said drum, and abutments positioned in said chambers and track.

1,136,746. WIRE-FASTENING DEVICE. HERBERT E. WHITE, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed Feb. 25, 1914. Serial No. 821,074. (Cl. 256—48.)

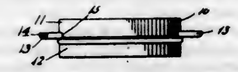


1. A wire fastening device comprising in combination with a post, a fastener key of substantially T-shaped formation consisting of a fulcrum member and a locking shank disposed substantially at right angles to each other, and each adapted to have a locking engagement with the post wholly within the latter.

2. A wire fastening device comprising in combination with the slotted post, a fastener key having at one end a wire engaging T-shaped fulcrum member engaged within the post across the slot thereof, and a wedging locking shank adapted to have a spring-locking engagement behind the edge portions of the slot.

3. A wire fastening device comprising in combination with the longitudinally slotted post, a fastener key having at one end a T-shaped wire engaging fulcrum member engaging within the post across the slot thereof, said key also having a channeled locking shank of wedge form in cross section and provided with terminal catch projections having a spring-locking engagement with the edge portions of the slot.

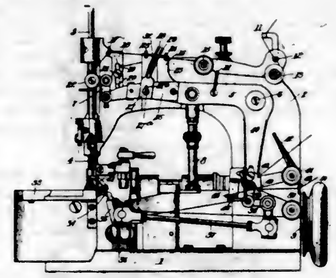
1,136,747. REMOVABLE COVER FOR CONTAINERS. FRANK R. WOODS, Hillsdale, Mich. Filed June 5, 1912, Serial No. 701,851. Renewed Oct. 1, 1914. Serial No. 864,531. (Cl. 220—58.)



1. A metallic cover comprising a depending flange, cover actuating means integral with the depending flange and projecting from said flange, and a reinforcing device integral with the cover actuating means, the ends of said reinforcing device bearing against said depending flange.

2. A metallic cover comprising a depending flange, an ear integral with and projecting from the lower edge of said flange, and a reinforcing device in the form of an upstanding flange integral with the ear, said reinforcing flange bearing against the depending flange of the cover for the purpose described.

1,136,748. THREAD-CONTROLLER FOR SEWING-MACHINES. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 11, 1908. Serial No. 432,003. (Cl. 112—24.)



1. The combination with stitch forming mechanism, including a needle, of means for taking up the needle thread on the first part of the downward movement of the needle, and for giving slack to said needle as the eye thereof enters the material and independent means for taking up the needle thread for setting the stitch.

2. The combination with stitch forming mechanism, including a needle, a tension, means for taking up the needle thread on the first part of the downward movement of the needle, pulling thread through the tension and giving slack to the needle as the eye thereof enters the material and independent means for taking up the needle thread for setting the stitch.

3. In an overseaming machine, the combination of a needle and complemental stitch forming mechanism for carrying threads around the edge of the material and a needle thread controller operating to pull up the needle thread on the first part of the downward movement of the needle and to give up slack to the needle just before the eye thereof enters the material.

4. In an overseaming machine, the combination of a work support, a needle, a thread carrying looper cooperating therewith beneath the work support, a second thread carrying looper coöperating with the first thread carrying looper, and with the needle above the work support, a needle thread controller operating to give slack to the needle just before the eye thereof enters the material and means independent of the slack thread controller for taking up the needle thread for setting the stitch.

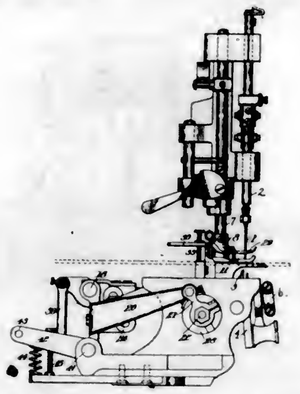
5. In an overseaming machine, the combination of a work support, a needle, a thread carrying looper cooperating therewith beneath the work support, a second thread carrying looper coöperating with the first thread carrying looper and with the needle above the work support, and a needle thread controller operating to pull up the needle thread on the first part of the downward movement of the needle, and to give up slack to the needle just before the eye thereof enters the material.

[Claims 6 to 21 not printed in the Gazette.]

1,136,749. FEEDING MECHANISM FOR SEWING-MACHINES. WARD E. WRIGHT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 13, 1909. Serial No. 477,758. (Cl. 112—8.)

1. The combination of a work support, stitch forming mechanism and feeding mechanism, said feeding mechanism including a main feeding member and an auxiliary feeding member, means for moving said auxiliary feeding member back and forth to feed the material and up and down out of and into engagement with the material, said auxiliary feeding member having a differential movement relative to the main feeding member, means for normally holding said auxiliary feeding member out of effective engagement with the fabric, and means whereby the aux-

iliary feeding member may be moved into effective engagement with the fabric, without stopping the stitch forming mechanism.



2. The combination of a work support, stitch-forming mechanism and feeding mechanism including an auxiliary feed bar located beneath the work support, an auxiliary feed dog rigidly carried thereby, means for moving the auxiliary feed bar back and forth and up and down, and means whereby said auxiliary feed dog may be moved out of operative engagement with the fabric without stopping the feeding action of the main feeding mechanism and without stopping the stitch-forming mechanism.

3. The combination of a work support, stitch-forming mechanism and feeding mechanism, including a main feeding member, an auxiliary feed bar located beneath the work support, an auxiliary feed dog rigidly carried thereby, means for giving the auxiliary feed dog a differential movement relative to the main feed member, means for normally holding said auxiliary feed dog out of effective engagement with the fabric, and means for moving said auxiliary fed dog into effective engagement with the fabric, without stopping the stitch-forming mechanism.

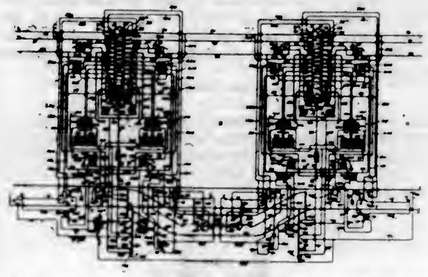
4. The combination of a work support, stitch-forming mechanism and feeding mechanism, including a main feeding member, an auxiliary feed bar located beneath the work support, an auxiliary feed dog rigidly carried by said auxiliary feed bar and extending above the work support, so as to engage the upper surface of the fabric, and means for moving said auxiliary feed dog into and out of operative engagement with the fabric without stopping the feeding action of the main feeding member and without stopping the stitch-forming mechanism.

5. The combination of a work support, stitch-forming mechanism and a feeding mechanism, including an auxiliary feed bar, an auxiliary feed dog rigidly carried by said feed bar, and means for swinging said auxiliary feed bar, so as to render said auxiliary feed dog effective or ineffective, without stopping the feeding action of the main feeding mechanism and without stopping the stitch-forming mechanism.

[Claims 6 to 20 not printed in the Gazette.]

1,136,750. ELECTRIC TRAIN SIGNALING AND CONTROLLING SYSTEM. ANDREW J. ALLARD, Richmond, Va., assignor of one-third to T. F. Green and one-third to D. R. Creecy, Jr., Richmond, Va. Filed June 2, 1913. Serial No. 771,312. (Cl. 246—27.)

1. In an electrical block system, the combination with track rails, contact rails, circuit shifting means at the junction of two blocks, and signaling means on the rolling equipment, of electro-magnetic devices for operating the circuit shifting means, electric circuits including said electro-magnetic devices, electro-magnetically controlled circuit closers in said circuits, circuits including the track rails and rolling equipment for controlling said electro-magnetically controlled circuit closers, circuit closers in said last-mentioned circuits, magnets for opening said last-mentioned circuit closers, partial circuits including said shifting means and contact rails, certain of said partial circuits including in parallel the magnets of said last-mentioned circuit closers, and partial circuits including the signaling means on the rolling equipment to coöperate with the contact rails.



2. In an electrical block system, the combination with track rails, contact rails, circuit shifting means at the junctions of two blocks, and signaling means on the rolling equipment, of electro-magnetic devices for operating said circuit, shifting means, electric circuits for said electro-magnetic devices, means for controlling said electric circuits, partial circuits including the circuit shifting means and the contact rails partial circuits including the signaling means on the rolling equipment for coöperation with contact rails, electro-magnetically operated unlocking means for the circuit shifting means, electro-magnet circuit closers for controlling the circuits of the unlocking means, a circuit including the magnet of one of said electro-magnetic circuit closers at one block juncture and including the circuit shifting means at two block junctions, a normally closed circuit closer and a normally open circuit closer in said last mentioned circuit at one block junction, electro-magnetically operated means for opening said normally closed circuit closer and electro-magnetically operated means controlled by the rolling equipment for closing said normally open circuit closer.

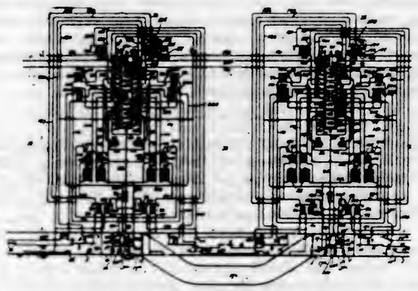
3. In an electrical block system, the combination with track rails, contact rails, circuit shifting means at the junction of two blocks, and signaling means on the rolling equipment, of electro-magnetic devices for operating the circuit shifting means, electric circuits including said electro-magnetic devices, electro-magnetically controlled circuit closers in said circuits, circuits including the track rails and rolling equipment for controlling said magnetically controlled circuit closers, partial circuits including said circuit shifting means and contact rails, partial circuits including the signaling means on the rolling equipment to coöperate with the contact rails, permanently closed circuits, each including a plurality of contact rails at each block junction and an electro-magnet, a circuit closer normally held open by each of said magnets, and partial circuits including said last-mentioned circuit-closers and track rails.

4. In an electrical block system, the combination with track rails, circuit shifting means at two block junctions, and train controlling means on the rolling equipment, of electro-magnetic devices for operating the circuit shifting means, electric circuits including said electro-magnetic devices, electro-magnetically controlled circuit closers in said circuits, electric circuits including the track rails and rolling equipment for controlling said electro-magnetically controlled circuit closers, partial circuits including the train controlling means on the rolling equipment, a contact rail between the track rails at each block junction to coöperate with the partial circuits on the rolling equipment, other magnetically controlled circuit closers at both block junctions, circuits including the magnets of said last-mentioned circuit closers and the circuit shifting means at both block junctions, and a partial circuit for each contact rail including the corresponding one of said last-mentioned circuit closers whereby, when the two circuit shifting means are shifted in opposite directions and two trains running in opposite directions arrive at the respective block junctions at the same time, both trains will be stopped.

5. In an electrical block system, the combination with track rails, contact rails, circuit shifting means at the junction of two blocks, and signaling means on the rolling equipment, of electro-magnetic devices for operating the circuit shifting means, electric circuits including said electro-magnetic devices, electro-magnetically controlled circuit closers in said circuits, circuits including the track rails and rolling equipment for controlling said electro-magnetically controlled circuit closers, normally closed electro-magnetically controlled circuit closers in said last mentioned circuits, partial circuits including said shifting means and contact rails, circuits in parallel to certain of said partial circuits and including the magnets of said last-mentioned electro-magnetically controlled circuit closers, and partial circuits including the signaling means on the rolling equipment to coöperate with the contact rails.

[Claims 6 to 11 not printed in the Gazette.]

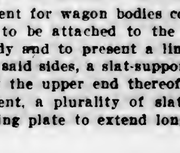
1,136,751. ELECTRIC TRAIN SIGNALING AND CONTROLLING SYSTEM. ANDREW J. ALLARD, Richmond, Va. Filed July 30, 1913. Serial No. 782,118. (Cl. 246—27.)



1. In an electrical block system, the combination with track rails, contact rails, circuit shifting means at the junction of two blocks, and signaling means on the rolling equipment, of electro-magnetic devices for operating the circuit shifting means, electric circuits including said electro-magnetic devices, normally open circuit closers in said circuits, electro-magnets for said circuit closers, normally closed electric circuits including the track rails and the magnets of said circuit closers, said normally closed circuits including batteries disposed between the track rails and adapted to be short-circuited by a rolling equipment, partial circuits including said shifting means and contact rails, and partial circuits including the signaling means on the rolling equipment to coöperate with the contact rails, high resistance magnets operatively associated with said circuit closers, electric circuits including said high resistance magnets and arranged in parallel with certain of said first-mentioned partial circuits, and electro-magnetically controlled locking and releasing means for the circuit shifting means, and circuits and devices controlled by said circuit closers for controlling said locking and releasing means.

2. In an electrical block system, the combination with track rails, contact rails, circuit shifting means at each block junction, and signaling means on the rolling equipment, of electro-magnetically operated devices for operating the circuit shifting means, electric circuits including said electro-magnetic devices for controlling the latter, means controlled by the rolling equipment for controlling the circuits of said electro-magnetic devices, line conductors, high and low resistance magnets included in a closed circuit with said line conductors at one block juncture, high resistance magnets included in said closed circuit at another block juncture, circuit closers controlled by the high and low resistance magnets at one block junction, a circuit closer controlled by the high resistance magnets at the other block junction, circuits including said circuit closers and arranged in parallel to said first mentioned circuits which control the said electro-magnetic devices, partial circuits including the circuit shifting means and contact rails, and partial circuits including signaling means on the rolling equipment for coöperation with said contact rails.

1,136,752. BRACKET. GEORGE E. ANDERSON, Shaw, Kans. Filed Apr. 3, 1912. Serial No. 688,279. (Cl. 21—74.)



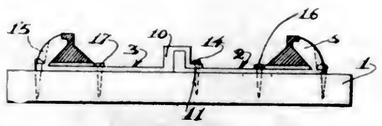
1. An attachment for wagon bodies comprising in combination, clips adapted to closely embrace the upper side edges of the wagon body and including a limb extending over the outer face of said sides, a slat supporting plate hinged to said bracket at the upper end thereof to swing in a path at right angles to the longitudinal extent of the wagon body sides, a second portion of said plate disposed in right angular arrangement along one edge and provided with a plurality of openings, the several clips made to be duplicates, a plurality of slats received through the openings to form the longitudinally extending structure of auxiliary sides, said supporting plates and the exteriorly positioned limbs of said clips each provided with a plurality of spaced-apart openings disposed along the longitudinal extent thereof, and a brace rod having pins carried by the opposite ends thereof to be adjustably received within the openings of said supporting plate in the proper angular disposition and to thus dispose the auxiliary sides in an operative relation.

2. An attachment for wagon bodies comprising in combination, brackets having clips for closely embracing the upper side edges of a wagon body and including limbs extending adjacent the inner and also the outer faces of said sides, a slat-supporting plate hinged to each of said brackets at the upper end to swing in a path substantially at right angles to the longitudinal extent of the wagon box sides, a portion of said plate disposed substantially at right angles to the transverse extent thereof along one edge and provided with a plurality of slat-supporting openings to which slats may be fitted to form the longitudinal structure between said attachments and to complete the auxiliary sides, the outer limb of said clip and said slat-supporting plate provided with a plurality of spaced-apart openings arranged throughout the longitudinal extent thereof, a brace rod for each of said brackets having the ends bent to one side to permit fitting of said brace rods between the supporting plate and the exteriorly disposed limb of the clip when the supporting arms are swung to the angular disposition with respect to the clips, and pins carried by the shaped ends of said brace rods to extend in angular disposition therefrom and to be adjustably received in the openings of the supporting plate and said limbs to hold said plate in an adjusted angular disposition and to thus hold the auxiliary sides in the desired relation.

3. An attachment for wagon bodies comprising in combination, means to be attached to the upper side edges of the wagon body and to present a limb extending over the outer face of said sides, a slat-supporting plate hinged to said means at the upper end thereof to be capable of swinging movement, a plurality of slats connected with said slat-supporting plate to extend longitudinally of the

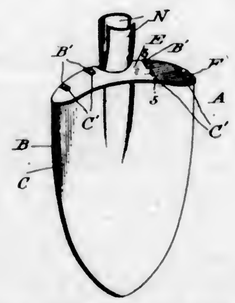
wagon box, said limb and said supporting plate each provided with a plurality of openings spaced throughout the longitudinal extent thereof, and the brace rod to be received between said plate and limb to support the plate provided with pins at either end thereof to be adjustably received within the openings of the plate and to permit adjustment of the angular dispcsition of said plate.

1,136,753. RAIL-BRACE. ALFRED T. ANGLE, Dayton, Ohio. Filed Oct. 15, 1914. Serial No. 866,855. (Cl. 238—5.)



A rail brace comprising interlocked sections, each consisting of an elongated plate, rail clamping members formed on the outer ends of said plates, an inverted U-shaped hook formed on the inner end of one of said plates and having its free arm portion formed shorter than the integral arm portion, a laterally extending flange formed integral with the free arm portion of the lower end thereof and having an aperture therein, an upstanding lug formed on the corresponding end of the plate of the other section, an aperture formed in the plate of said last named section and arranged to aline with an aperture in said last named flange, said lug arranged to extend within said hook, said flange to engage upon the face of the last named section, and a fastening element inserted through the alined apertures.

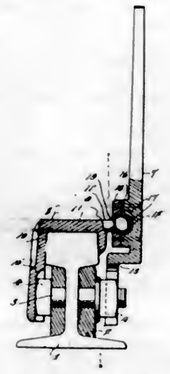
1,136,754. SHOVEL. ISAAC FLOOD ARNOW, St. Marys, Ga. Filed Sept. 1, 1914. Serial No. 859,663. (Cl. 55—14.)



A shovel blade comprising united sheets of metal, each provided with an integral projection coöperating to form a socket for a handle, a foot rest extending the width of the heel of the blade and in contact therewith, one edge of the foot rest being provided with a concaved recess for the reception of one of said projections and apertured adjacent to one edge, said sheets having integral lugs upon the heel thereof extending through the apertures in said foot rest and bent at angles in opposite directions against the upper surface of the foot rest.

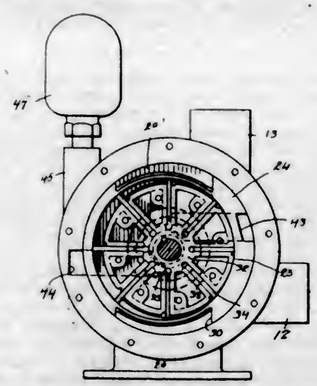
1,136,755. WRENCH. COMMODORE P. BAKER, St. Catharine, Mo. Filed Apr. 10, 1914. Serial No. 830,997. (Cl. 81—55.)

A wrench designed for operation upon nuts and bolts connecting fish plates to a rail, comprising a substantially U-shaped member, the arms of which engage with the opposite sides of the head of a rail, one of the arms being of a materially greater length than the second arm, and the said lengthened arm having a slot to receive the head of a bolt, the yoke having a round lateral extension which terminates in a ball-head, a shank having a boss upon one of its faces which projects laterally therefrom, and which is provided with an arcuate depression providing a pocket to receive the ball head of the yoke, a plate having its inner face formed with a depression



agreeing with the pocket secured to the boss, said plate having an arcuate slot which communicates with the depression, the said lever opposite the boss having an offset portion provided with a longitudinal extension which is centrally slotted to provide spaced arms which form the jaw for the lever, and one of said arms being inclined and provided with teeth, and the said jaw adapted to engage with a nut upon the bolt.

1,136,756. ROTARY PUMP. DEXTER C. BAKER and HARVEY F. HANSEN, Oakland, Cal., assignors to Baker-Hansen Manufacturing Company, East Oakland, Cal., a Corporation of California. Filed Dec. 23, 1913. Serial No. 808,466. (Cl. 103—44.)



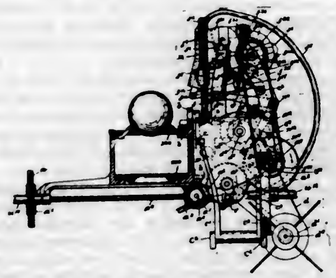
1. In a pump, a cylinder, cylinder heads secured thereto, a sleeve eccentrically positioned within the cylinder, a rotary piston operable within the sleeve, means for spacing the sleeve from the inner face of the cylinder, and exterior flanges formed upon the sleeve and engaging the interior of the cylinder, the cylinder heads being formed with offsets providing interior recesses, said flanges being cut away opposite said recesses, whereby a fluid may pass into and from the sleeve.

2. In a pump, a cylinder, cylinder heads secured thereto, said cylinder heads forming with the cylinder a chamber, a stationary sleeve within said cylinder, a rotary piston operable within the sleeve, means for spacing the sleeve from the inner face of the cylinder, and exterior transverse flanges formed upon the sleeve and engaging the interior of the cylinder, the cylinder heads being formed with offsets providing interior recesses, said sleeve having exterior opposite side flanges, the last mentioned flanges being cut-away opposite said recesses, whereby a fluid may pass into and from the sleeve.

3. In a pump, a cylinder, cylinder heads secured thereto and formed with offsets providing interior recesses, said heads being also provided with a central recess and transverse extensions connected with said central recess at their inner ends, an air supply pipe connected with said cylinder, one of the transverse recesses of each head being connected with said air supply pipe, a sleeve eccentrically positioned within the cylinder, a rotary piston operable within the sleeve, means for spacing the sleeve from the inner face of the cylinder, said cylinder having inlet and outlet ports, said inlet and outlet ports communicating with the recesses of the cylinder heads, exterior flanges formed upon the sleeve and engaged with the interior of the cylinder, said flanges being cut-away opposite said recesses, whereby a fluid may pass into and from the sleeve, the air supply pipe and the transverse passages in the head serving to conduct air to the center of the rotor.

4. In a pump, a cylinder, cylinder heads secured thereto, a sleeve eccentrically positioned within the cylinder, and said sleeve being provided with an unbroken inner surface, a rotor within said sleeve, said rotor having radially directed slots with transverse passages at the inner ends of said slots, pistons within said slots and having their outer ends engaged with the inner unbroken surface of the sleeve, said cylinder having inlet and outlet ports, said cylinder heads having offset portions, parallel flanges projecting outwardly from said sleeve and bearing against the inner face of the cylinder, said flanges having cut-away portions opposite the recesses in the heads, an air supply pipe for said cylinder, said cylinder heads having transverse passages and central openings, said transverse passages communicating at their inner ends with the central opening of said cylinder heads, the outer ends of the corresponding transverse passages of the cylinder heads connecting with the air supply pipe, plates positioned against the opposite sides of said rotor and having openings registering with the transverse passages of said rotor, and valve disks mounted in the center of the cylinder heads and having arcuate slots communicating with the openings of the plates to control the passage of air to said transverse passages of the rotor.

1,136,757. LABEL-AFFIXING DEVICE. MILTON H. BALLARD, Lynn, Mass., assignor to Tripp Fruit Wrapping Machine Company, San Francisco, Cal., a Corporation of Maine. Filed Apr. 4, 1910, Serial No. 553,366. Renewed July 22, 1911. Serial No. 640,020. (Cl. 216—55.)



1. In a labeling-machine, the combination of a movable conveyer for the article to be labeled, a reciprocating supporting-frame bearing said label-affixing device, means for moving said supporting-frame in a direction corresponding to the movement of the conveyer at a speed approximately equal to the speed of the conveyer and for then returning it, means to affix a label to the moving article, and means to operate said label-affixing device to obtain another label while said supporting-frame is returning, substantially as described.

2. In a label-affixing device, the combination of a movable conveyer for the article to be labeled, a reciprocating supporting-frame movable in parallel with the conveyer, means for moving said supporting-frame in a direction corresponding to the movement of the conveyer at a speed approximately equal to the speed of said conveyer and for then returning it, a label-carrying-and-applying-device borne by said supporting-frame, and means for operating it, while the supporting-frame is moving in the direction of movement of the conveyer, to carry the label into position to be applied to the moving article and to press it into engagement therewith, substantially as described.

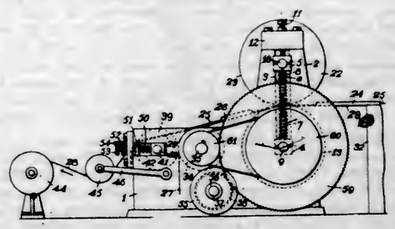
3. In a label-affixing device, the combination of a movable conveyer for articles to be labeled, a reciprocating supporting-frame, means for moving said supporting-frame in one direction at a speed approximately equal to the speed of said conveyer and for then returning it, a label-carrying and applying device borne by said supporting-frame, a guide-plate for the label also borne by said supporting-frame recessed to permit the label-carrying-and-applying device to enter it and engage the label, a pasting-device also borne by said supporting-frame for applying paste to one side of the label while held by the guide-plate, and means for operating said label-carrying-and-applying device and said pasting-device while the supporting-frame is moving, substantially as described.

4. In a label-affixing device, the combination of a movable conveyer for articles to be labeled, a reciprocating supporting-frame, means for moving the supporting-frame in one direction at a speed approximately equal to the speed of said conveyer and for then returning it, a reel borne by said frame for holding a label-strip, means for feeding said strip forward, means for cutting off a label from the strip, a pasting-device for applying paste to one side of the label, a label-carrying-and-applying device for carrying the label to and pressing it into engagement with an article to be labeled, and means borne by said supporting-frame for operating said parts while the supporting-frame is moving, substantially as described.

5. In a label-affixing device, the combination of a pivoted-frame, another frame mounted to slide on said pivoted-frame, a suction-pipe slidably supported by said sliding-frame, and means for moving said frames, substantially as described.

[Claims 6 to 29 not printed in the Gazette.]

1,136,758. LABEL-CUTTING MACHINE. MILTON H. BALLARD, Lynn, Mass., assignor to Tripp Fruit Wrapping Machine Company, San Francisco, Cal., a Corporation of Maine. Filed Apr. 15, 1911. Serial No. 621,276. (Cl. 164—28.)



1. The combination with a cutting roll and a bed roll by which a longitudinal movement is imparted to a continuous strip of material to be cut, of a supporting plate for said strip leading to said cutting and bed rolls and substantially tangential thereto, said plate having side lips forming a guide for the strip.

2. The combination with a cutting roll and a bed roll, of a guide plate leading to said cutting and bed rolls and substantially tangential thereto, and a guide leading from said cutting and bed rolls substantially tangential to said cutting roll and at an angle to the plane of said first guide plate.

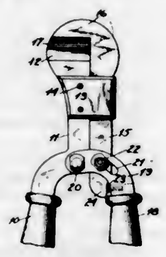
3. The combination with a cutting roll and a bed roll, of a guide for conducting a continuous strip of material to be cut to said rolls, a second guide in front of said rolls, and a connecting plate between said guides passing between said rolls.

4. The combination with a cutting roll and a bed roll, of an elastic yielding plate passing between said rolls and beneath the continuous strip of material to be cut, whereby said strip is held against said bed roll.

5. The combination with a cutting roll and a bed roll, of a guide, a separating mechanism for separating the severed strips, and an inclined guide between said cutting roll and said separating mechanism, said guide being tangential to said cutting roll, and at an angle to the line of feed to said cutting roll.

[Claims 6 to 19 not printed in the Gazette.]

1,136,759. PRUNING-SHEARS. WILLIAM ROBINSON BARR and HUGH ALBERT BARR, Oakland, Cal. Filed Aug. 26, 1914. Serial No. 858,630. (Cl. 30—11.)

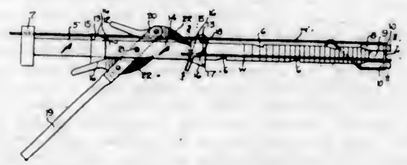


1. A pruning shears comprising a handle, a knife having the shank thereof in fixed relation to said handle, the shank terminating in a straight transverse knife, a second shank slidable in a direction parallel to the first shank, a guide member for the second shank, said guide member being in fixed relation to the first shank, a lateral extension on the second shank formed at the rear side thereof with a knife edge, the second knife edge being disposed in front of the first knife and parallel with the latter, a second handle having an element in fixed relation thereto at the forward end, said element being pivoted to the shank of the first knife and formed with an arcuate slot rearward of the pivot, and a pin extending through the arcuate slot and secured to the second shank.

2. In a pruning shears, a handled member, a transverse knife in fixed relation to the said member, at the forward end, a second knife disposed transversely in front of the first knife and parallel therewith, the shank of the second knife having sliding movement parallel with the said handled member, means on the said handled member for giving guided movement to the shank of the second knife, and a second handled member pivoted at its forward end to the first handled member and operatively connected with the shank of the second knife.

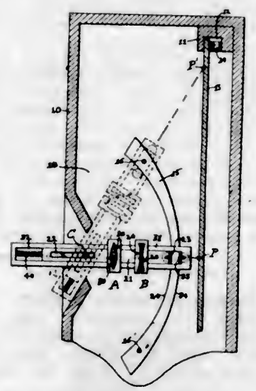
3. A pruning shears, comprising a handle, a rigid shank extending forward at the front end of the handle and formed with a transverse straight knife edge, a second shank slidable on the first shank, and having a lateral extension formed with a knife at the edge opposed to the first knife and parallel with the latter, a keeper on the first shank in which the second shank has guided movement, a second handle having at its forward end a rigid arcuate plate, said plate being pivoted to the first shank and having an arcuate slot, a transverse pin extending from the second shaft through the said slot, and an adjustable screw stop in the arcuate plate at the inner side, the rear end of the second shank presenting an extension through the edge of which the said screw is adapted to contact to limit the upward movements of the handle.

1,136,760. WIRE-SPLICING TOOL. JAMES W. BARTON, Pequot, Minn. Filed Apr. 26, 1913. Serial No. 763,854. (Cl. 254—72.)



A wire splicing tool comprising a body-bar provided along its opposite edges with alternating notches and at each end with a rigid head, one of which is longitudinally and transversely slotted, a slide bar provided at its ends with channeled heads to receive the body-bar, a wire gripping cam carried by one of the heads, an operating lever having one end bifurcated to provide arms to straddle the body-bar, a pivot connecting the arms and the body-bar, and dogs pivoted between the lever arms and arranged to engage the notches in the body-bar.

1,136,761. PANORAMIC PHOTOGRAPHIC CAMERA. JOSEPH BECKER, Washington, D. C. Filed June 17, 1913. Serial No. 774,220. (Cl. 95—15.)



1. A photographic camera having a compound objective mounted to rotate or revolve about a vertical axis and provided with means for changing the radial distances of one or more of its component lenses from the axis of rotation during the rotation.

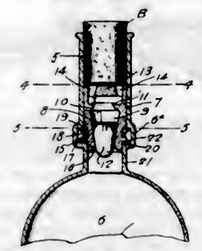
2. A photographic camera having a compound objective mounted to rotate or revolve about a vertical axis and provided with mechanism for changing the radial distances of one or more of its component lenses from the axis of rotation during the rotation, such means comprising an assemblage of pivoted rods.

3. A photographic camera having a compound objective mounted to rotate or revolve about a vertical axis and provided with mechanism for changing the radial distances of one or more of its component lenses from the axis of rotation during the rotation, such means comprising a large Peaucellier linkage carrying a smaller and similar linkage.

4. A panoramic camera having its plate both flat and stationary, and having its objective mounted to rotate or revolve about a vertical axis, such objective being composed of a plus lens and minus lens whose focal lengths are numerically equal.

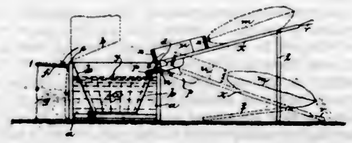
5. A panoramic camera having its plate or film both flat and stationary, and having its objective mounted to rotate about a vertical axis, passing through the nodal point of emergence of such objective.

1,136,762. NON-REFILLABLE BOTTLE. LOUIS BERGER and GEORGE A. HASSINGER, New Orleans, La. Filed Jan. 12, 1914. Serial No. 811,564. (Cl. 215—65.)



The combination with a bottle having a neck, of a stopper adapted to fit into said bottle neck, means to prevent retraction of said stopper from said neck, said stopper having a substantially funnel-shaped chamber communicating with the interior of the bottle, said chamber communicating by a restricted opening having convex walls with the upper end of the bottle neck, a substantially egg-shaped valve adapted to seat in the smaller end of the chamber when the bottle is in upright position, and adapted to unseat when the bottle is inverted, a frusto-conical disk positioned adjacent the restricted opening and being of a diameter greater than the diameter of the opening, arms connecting said disk with the walls of the stopper, and a plurality of triangularly shaped radially disposed lugs on the larger end of the valve to prevent seating of the valve in the restricted opening.

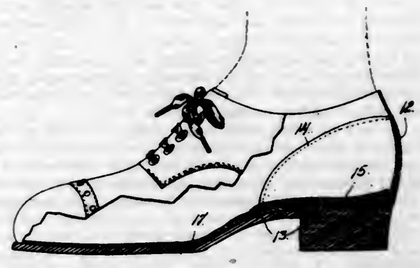
1,136,763. APPLIANCE FOR PICKLING WHEAT OR GRAIN. ALFRED JAMES BISHOP, Perth, Western Australia, Australia. Filed May 15, 1914. Serial No. 838,766. (Cl. 83—28.)



1. A pickling appliance comprising, in combination, a vat for containing the pickling solution; a perforated hopper for receiving the material to be pickled hinged to said vat for movement into and out of the solution; a downwardly-inclined loading platform connected to said vat for supplying said material to said hopper; means for supporting said platform; a pair of converging guides mounted upon the discharge end of said platform for narrowing the descending stream of material; and a gate associated with said guides for controlling the discharge of material therethrough.

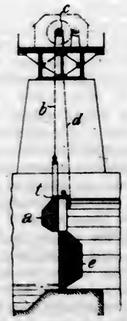
2. A pickling appliance comprising in combination, a container for the pickling solution; a perforated hopper removably supported therein and adapted to receive the material to be pickled; a loading platform for supplying said material to said hopper provided at its discharge end with slotted brackets hingedly connected to the opposite sides of said container, to permit the platform to be moved forward and backward and raised and lowered; a pair of converging guides mounted upon the said platform end for narrowing the descending stream of material, the discharge ends of said guides being adapted to project across the adjacent wall of the container when said platform has been raised and moved forward; and collapsible supporting means pivoted to said platform for holding the same in such position.

1,136,764. REPAIR-COUNTER FOR SHOES. JOHN WILHELM BODEEN, Greeley, Colo., assignor of one-half to Olof Victor Johnson, Denver, Colo. Filed July 31, 1914. Serial No. 854,214. (Cl. 36—68.)



As an improved article of manufacture, a repair counter for shoes comprising a counter member composed of stiff leather and an insole member projecting forwardly a short distance from the counter member, and composed of bendable leather, whereby it may be secured to the bottom of the shoe while the counter member is raised above the same, but sufficiently stiff to form a stop against forward movement of the counter member in a direction endwise of the insole member, while the counter member is being crowded downwardly and rearwardly into place in the shoe.

1,136,765. GATE FOR LOCKS, WEIRS, AND THE LIKE. CARLO BONZANIGO, Basel, Switzerland. Filed Nov. 29, 1913. Serial No. 803,677. (Cl. 61—46.)



1. In a gate for locks weirs and the like, the combination with upper and lower gate sections, of a single hoisting mechanism connected with said sections for operating the same in opposite directions, and means on said lower section operative after the upper section has been lowered into opening position and arranged to carry the upper section along as the lower section is raised to the fully open position of the gate.

2. In a gate for locks weirs and the like, the combination with upper and lower gate sections, of a single hoisting mechanism comprising rotary members, lifting elements connected with said rotary members for operation

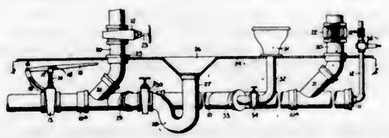
in opposite directions and connected respectively with the said gate sections, the element connected with the lower section being operative after the upper section has been lowered into opening position, and means on said lower section for carrying the upper section along.

3. In a gate for locks weirs and the like, the combination with upper and lower gate sections, of a single hoisting mechanism comprising rotary members, flexible lifting elements connected with said rotary members for operation in opposite directions and connected respectively with the said gate sections, the element connected with the lower section being operative after the upper section has been lowered into opening position, and means on said lower section for carrying the upper section along.

4. In a gate for locks, weirs, and the like, the combination of upper and lower gate sections capable of independent movement one relatively to the other, means on the lower section to engage and support the upper section, and actuating mechanism which when operated in one direction will first move the upper section alone to its open position and will then move both sections in the opposite direction, to fully open the gate.

5. In a gate for locks, weirs, and the like, the combination of upper and lower gate sections of which the upper section is capable of a limited movement relatively to the lower section, and operating mechanism having individual connections to the respective sections, said mechanism, when operated continuously in one direction, effecting first a movement of the upper section in one direction and then a movement of both sections in the opposite direction.

1,136,766. SEWER-CLEANING MEANS. ADOLPH BORNEMANN, Bettendorf, Iowa. Filed Dec. 10, 1914. Serial No. 876,429. (Cl. 182—4.)

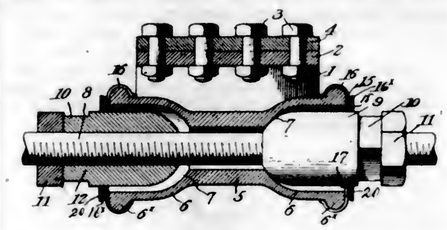


1. A sewer and cleaning means therefor, comprising a main sewer pipe, flushing means connected with said pipe and adapted to discharge water thereinto under pressure, a quick acting automatically opening outlet valve and actuating means therefor adjacent to the outlet end of the sewer pipe, whereby to impart a sudden ejective impulse to the sewer contents under pressure of the flushing water upon a quick opening of the said valve when released, and an intake leading to said sewer between the flushing means and the quick acting valve, said intake having a valve to effect a closure of the intake to hold the pressure of the flushing water until the outlet valve is opened.

2. A sewer and cleaning means therefor, comprising a main sewer pipe, a cap on one end of the sewer pipe, a flushing pipe leading into the sewer pipe through the said cap to conduct water thereto under pressure, a valve in the sewer pipe near the outlet end, a spring normally tending to maintain said valve open and adapted to instantaneously open the valve when closed, whereby to effect a sudden ejective impulse of the sewer contents, a valve-closing lever operatively engaging said valve to close the same in opposition to the tension of the spring, and risers connected with the sewer pipe between the flushing pipe and the said valve, said risers constituting sewer intakes and being fitted with cut-off valves to be closed whereby to hold the pressure of the flushing water.

1,136,767. APPARATUS FOR OPERATING SWITCH-POINTS. WILLIAM F. BOSSERT, Utica, N. Y. Filed Aug. 27, 1914. Serial No. 858,921. (Cl. 104—96.)

1. An apparatus for adjusting switch points on railways comprising a casing to which the switch point throwing bar is adapted to be connected, said casing having chambered ends with concaved abutment walls, a threaded operating rod passing through said casing, cylindrical nuts upon said rod and having their inner ends convexed to conform to said abutment surfaces, and apertured caps fitted to the ends of the casing and about said nuts.



2. An apparatus for adjusting switch points on railways comprising a casing to which the switch point throwing bar is adapted to be connected, said casing having chambered ends having concaved abutment walls, a threaded operating rod passing through said casing, cylindrical nuts upon said rod and having their inner ends convexed to conform to said abutment surfaces, apertured caps fitted to the ends of the casing about said nuts, a space intervening between the casing and caps, and a washer adapted to close said space.

3. An apparatus for adjusting switch points on railways comprising a casing to which the switch point throwing bar is adapted to be connected, said casing having chambered ends having concaved abutment walls, a threaded operating rod passing through said casing, cylindrical nuts upon said rod and having their inner ends convexed to conform to said abutment surfaces, apertured caps fitted to the ends of the casing, and provided with openings of larger diameter than the diameter of the nuts, and washers interposed between the ends of the casing and cap.

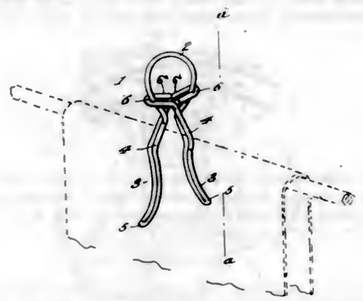
4. An apparatus for adjusting switch points on railways comprising a casing to which the switch point throwing bar is adapted to be connected, said casing having chambered ends having concaved abutment walls, a threaded operating rod passing through said casing, cylindrical nuts upon said rod and having their inner ends convexed to conform to said abutment surfaces, apertured caps fitted over the ends of the casing, and provided with openings of larger diameter than the diameter of said nuts, washers of larger diameter than the apertures in said caps and having a central opening engaging the circumferences of the nuts.

5. An apparatus for adjusting switch points on railways comprising a casing to which the switch point throwing bar is adapted to be connected, said casing having chambered ends having concaved abutment walls, a threaded operating rod passing through said casing, cylindrical nuts upon said rod and having their inner ends convexed to conform to said abutment surfaces, each end of said casing having a beading about its circumference, a cap having a central opening and a laterally extending curved flange which is slitted, forming series of fingers adapted to spring over said beading, and washers mounted one about each nut and interposed between the same and said caps.

[Claim 6 not printed in the Gazette.]

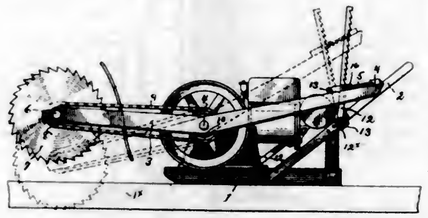
1,136,768. CLOTHES-PIN. TILMAN A. BOURGEOIS, Auburndale, Mass. Filed Oct. 5, 1910. Serial No. 585,465. (Cl. 24—261.)

A clothes pin consisting of a single piece of wire, an open loop formed approximately centrally of the ends of the wire, outwardly extending clamping legs formed integral with the loop at the ends thereof, each of said clamping legs consisting of a single piece of wire bent intermediate its ends back upon itself, said legs being bowed intermediate their ends, the bent back portions of the legs being crossed at a point above the open end of the loop and within said loop and then bent to provide U-shaped loop engaging portions receiving the sides of the open loop



and the free ends of the loop engaging portions arranged for engagement with the bent back portions of the legs.

1,136,769. ICE-CUTTING APPARATUS. MAURICE A. BRUET and LOUIS J. DUFFER, Croghan, N. Y. Filed Mar. 11, 1915. Serial No. 13,653. (Cl. 125—14.)



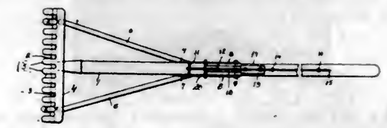
1. An ice cutting apparatus comprising a sled with handles thereon, pivotal beams mounted thereon, a rotatable saw carried by the beams, an engine and connections between the same and saw for driving the latter, cross-pieces connecting said beams, a resilient slotted bar fixed at one end to one of said cross-pieces, a ratchet bar pivoted to the handle of the slot and engaged by said bar, a bolt connecting said cross-pieces and passing through the slot of said bar and tending to hold the latter from swinging vertically.

2. An ice cutting apparatus comprising a sled with handles thereon, pivotal beams mounted thereon, a rotatable saw carried by the beams, an engine and connections between the same and saw for driving the latter, cross-pieces connecting said beams, one of said cross-pieces having a slot in the edge thereof, a ratchet bar pivoted to the handles positioned in said slot, a resilient bar fastened at one end to the edge of the slotted cross-piece and engaging the teeth of the ratchet bar, and means for preventing the free end of the bar from swinging.

3. An ice cutting apparatus comprising a sled with handles thereon, pivotal beams mounted thereon, a rotatable saw carried by the beams, an engine and connections between the same and saw for driving the latter, cross-pieces connecting said beams, one of said cross-pieces having a slot in the edge thereof, a ratchet bar pivoted to the handles positioned in said slot, a slotted bar fastened at one end to the slotted cross-piece and provided with a handle at its free end, a bolt passing through said cross-pieces and the slots of said bar.

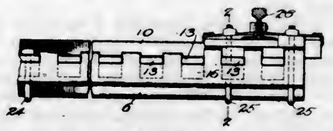
1,136,770. RAKE-CLEANER. JOSEPH A. BREWER, Washington, D. C., and WALKER A. BREWER, Long Island City, N. Y. Filed July 16, 1913. Serial No. 779,359. (Cl. 55—146.)

In combination with a rake, a stripping bar having a plurality of extensions on one side thereof, said extensions being spaced from each other and adapted to extend in the spaces between the rake teeth, a pair of extensions secured to the stripping bar adjacent the ends and projecting in an opposite direction to the first mentioned extensions, each of the second mentioned extensions being bent and converging toward their free ends, parallel projections formed integral with the converging members and extending angularly with relation thereto, the free ends of said parallel extensions being pivotally secured to the rake



handle, each of said parallel projections being provided with a slot intermediate its ends, a leaf spring secured to the rake handle and extending forwardly between the parallel projections, a transverse bar secured to the free end of the leaf spring and extending through the slot in the projections and an operating rod pivotally secured to the extensions near the end where they join the angle members and slidably mounted on the rake handle to provide a means to operate the stripping bar.

1,136,771. METALLIC TIE. GEORGE F. BROCKWAY, Eden township, Fayette county, Iowa. Filed Oct. 21, 1914. Serial No. 867,760. (Cl. 238—5.)



1. A metallic tie comprising a body including side walls, a central web, and a sinuous bracing strip anchored to said web and side wall.

2. A tie comprising a body including side walls, a longitudinal truss bar, and a sinuous bracing strip alternatingly contacting with and anchored to said truss bar and body side walls.

3. A metallic tie comprising a body including side walls, a longitudinal centrally disposed truss bar disposed therein, and a sinuous bracing strip arranged on edge and contacting at successive points with said truss bar and body side walls, and means anchoring the bracing strip at said points of contact.

4. A metallic tie comprising a shell with longitudinal ribbed top and base plates, a truss bar anchored within and extending between the internal rib-defined grooves, and a continuous laterally bent bracing strip arranged on edge and alternatingly contacting with the shell side walls and said truss bar and anchored thereto at the points of contact.

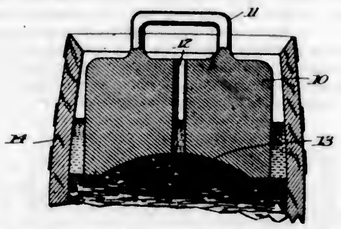
5. A metallic tie comprising a body and cover plate with overlapping and interlocking tongues, said body and cover plate provided with outwardly projecting longitudinally extending ribs, a truss bar extending longitudinally of said body with the edges thereof disposed within the internal rib-defined grooves, sinuous bracing strips arranged upon opposite sides of said truss bar, secured thereto, and extending to the side walls of said body, said body provided with spaced tongues projecting over said bracing strips and locking the same in rigid relation with respect thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,136,772. PICKLING-WEIGHT. SANFORD BUFFENBARGER, Titusville, Pa. Filed Apr. 21, 1914. Serial No. 833,520. (Cl. 217—86.)

1. A pickling weight, comprising a body having a concaved face for contact with the material to be pickled

and a vent passage providing communication between said concaved face and the atmosphere.



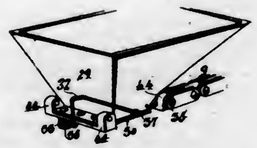
2. A pickling weight, comprising a vitreous body having a concaved face for contact with the material to be pickled, the concavity of said face concentrating the material toward the center of the body, and a vent passage extending from said face to the exposed portion of the body.

3. A pickling weight, comprising a body, having a recessed face for contact with the material to be pickled, whereby the latter is concentrated toward the center of the body and means for venting the recess in said face.

4. A pickling weight, comprising a body, and a handle associated therewith, the under face of said body having an inwardly-extending pocket for concentrating the mass weighted down by the device in such relation to the under side of the device as to preclude the mass rising upwardly beyond the sides of the weight, said body having an air passage extending therethrough and in communication with said pocket.

5. A pickling weight, comprising a body, and a handle associated therewith, the under side of said body having a concave pocket formed therein, whereby to concentrate the mass weighted down by the device in such relation to the under side of the device as to preclude the mass rising upwardly beyond the sides of the weight, said body being also provided with a vertically-extending air passage in communication with said concave pocket to permit circulation of the air to and from the pocket.

1,136,773. ELEVATOR. GUY F. CHAPMAN, Brook, Ind. Filed Sept. 3, 1913. Serial No. 787,942. (Cl. 193—6.)



In an elevator of the class described, a bucket, a hinged drop door forming the bottom of said bucket, a door latch on said bucket consisting of a spring fastened at one end to the bucket and having its free end extended to form an arm projecting laterally and horizontally from one side of said bucket, and stationary devices coöperating with said latch arm operating automatically and successively to unlatch said door and reset the latch thereof.

1,136,774. TIRE-ARMOR. GEORGE W. CHILDERS and HARBIN D. BORST, San Diego, Cal. Filed Aug. 20, 1913. Serial No. 785,825. (Cl. 152—16.)

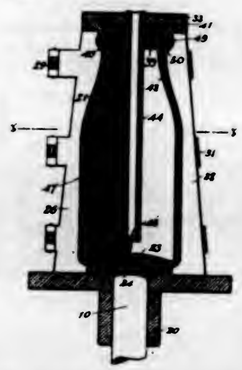
1. The combination with a circular tire armor comprising a plurality of connected sections, of U-shaped bails having their arms connected to the opposite sides of said sections, the cross bars of said bails being substantially concentric with the armor, and a plurality of transverse retaining members extending from the cross bars of the bails on one side of the armor, to those on the other side thereof, said members being adjustable longitudinally on said cross bars for the purpose set forth.

2. The combination with a circular tire armor of a plurality of U-shaped bails whose arms are secured to the opposite sides of said armor, said bails being positioned in transversely alined pairs and having their cross bars



lying substantially concentric with the armor, and transverse retaining members whose ends are mounted on and adjustable longitudinally on said cross bars of the bails, for the purpose set forth.

1,136,775. PROCESS OF AND APPARATUS FOR MAKING RECEPTACLES. EMIL A. CLAUS, New York, N. Y. Filed Jan. 26, 1914. Serial No. 814,526. (Cl. 92—58.)



1. The process of making receptacles, which consists in introducing viscous material into a mold, in causing the material to be spread upon the inner surface of said mold, in mechanically wiping the material into a thin layer upon the inner surface of said mold, and in introducing fluid under pressure into said mold to press the material against the walls thereof and to dry the same.

2. The process of making receptacles, which consists in introducing viscous material into a perforated mold, in causing the material to be spread upon the inner surface of said mold, by centrifugal action, and in mechanically wiping the material into a thin layer upon the inner surface of said mold, and in introducing fluid under pressure into said mold, to press the material against the walls thereof.

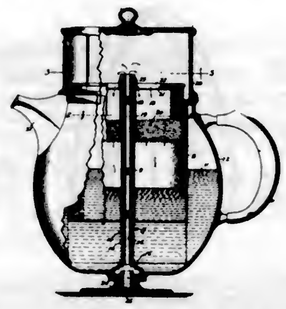
3. The process of making receptacles, which consists in introducing viscous material into a mold, and in spreading the material upon the walls of the mold by mechanically wiping the same against the walls of said mold and by means of fluid under pressure.

4. The process of making receptacles, which consists in introducing viscous material into a perforate mold, in causing the material to be spread upon the inner surface of said mold, by rotating said mold, in mechanically wiping the material into a thin layer upon the inner surface of said mold, and in introducing heated fluid under pressure into said mold to press the material against the walls thereof.

5. Apparatus of the class described, comprising a rotary mold, means for introducing viscous material into said mold, flexible means for wiping said material into a thin layer upon the inner walls of said mold, and means for introducing fluid under pressure into said mold.

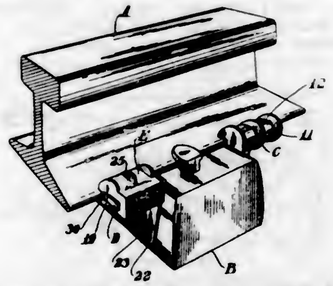
[Claims 6 to 16 not printed in the Gazette.]

1,136,776. PERCOLATOR. WILLIAM D. COLLINS, New York, N. Y. Filed May 27, 1914. Serial No. 841,243. (Cl. 53—3.)



A percolator comprising a main water receptacle; a holder for comminuted coffee, arranged to permit liquid to pass therethrough; a supporting column for said holder, said column having a chambered base resting on the bottom of said receptacle for trapping water delivered from said receptacle, for super-heating the same to lift the contents of said column above, for delivery to, said holder; a container for liquid coffee disposed in guided relation to said column, said container being completely immersed in, to be floated by, water in said receptacle, said container telescopically infolding, when lifted, said holder, the side walls of said receptacle and said container being spaced apart for holding a body of water surrounding said container to maintain the heat therin and to prevent the boiling of the liquid coffee held thereby.

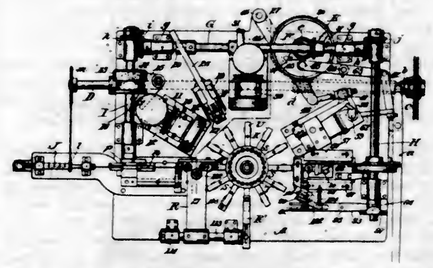
1,136,777. RAIL-ANCHOR. THOMAS DAVISON, Brantford, Ontario, Canada. Filed Nov. 19, 1914. Serial No. 873,078. (Cl. 238—4.)



1. A rail anchor comprising a bottom member formed on one end with a hook shaped portion adapted to embrace the flange of the rail and being formed on the opposite side with an abutment flange, an end clamping member adapted to fit over the bottom clamping member having a portion adapted to embrace the side of the bottom flange of the rail having slots to receive a wedge and being formed on the underside with an abutment flange adapted to engage the side of the tie, a wedge adapted to extend through said slot and to bear against the abutment flange on the end of the bottom clamping member.

2. A rail anchor comprising a bottom clamping member formed on one end with a hook shaped portion adapted to embrace the side of the rail, said hook shaped portion having peripheral reinforcing flanges and being formed on one end with an abutment flange and on the bottom with an abutment flange having a reinforcing rib, an end clamping member fitting over the end of the bottom clamping member formed with a portion adapted to embrace the end of the rail, formed with slots to receive a wedge and formed on the underside with an abutment flange having a reinforcing rib, and a wedge adapted to extend through the said slot and formed with a recess in which a portion of the end clamping member is adapted to engage.

1,136,778. AUTOMATIC SPRING-BEARD-NEEDLE-MAKING MACHINE. WILLIAM H. DAYTON, Torrington, Conn., assignor to Excelsior Needle Company, Torrington, Conn., a Corporation of Connecticut. Filed Dec. 27, 1909. Serial No. 535,128. (Cl. 63—2.)



1. An automatic machine for making spring beard needles, comprising a single turret with holding jaws for the blanks, and means for rotating the turret with a step by step movement, a series of compression tools for forming the reducing operations upon the blank, the holding jaws themselves being one of the compression tools, and the other compression tools performing the other operations of reduction, and a series of bending tools for forming the beard upon the needle, all of said tools except the first compression tool or holding jaw, being movable toward and from the turret.

2. In an automatic machine for making spring beard needles, an intermittently rotatable turret having holding jaws, said holding jaws being constructed as forming dies with means for compressing them to form notches or flats on the beads of the blanks, and a series of reducing and bending tools, movable to and from the turret for performing the subsequent operations upon the blanks.

3. An automatic needle-making machine, comprising means for feeding the wire blank, a rotating turret or carrier having holding jaws for the blanks, compression tools movable to and from the turret, bending tools and a slide carrying the same, movable to and from the turret.

4. An automatic needle-making machine, comprising means for feeding the wire blank, a rotating turret or carrier, having holding jaws for the blanks, swaging, eye-cutting and flattening and bending tools, movable to and from the turret, and a movable support for the bending tools.

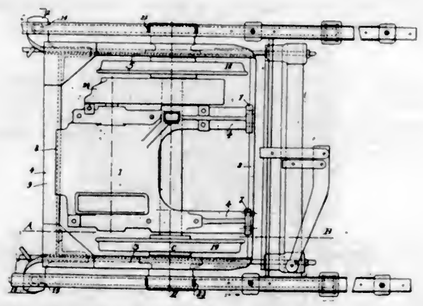
5. An automatic spring beard needle machine, comprising a rotarily mounted turret or carrier, having holding jaws for the blanks, and a series of slides movable toward and away from the turret or carrier, a plurality of swaging tools carried by respective slides, an eye-cutting and flattening tool carried by another of said slides, and a plurality of bending tools carried by another slide.

[Claims 6 to 31 not printed in the Gazette.]

1,136,779. SUSPENSION DEVICE OF MOTORS ON TRAMWAY OR RAILROAD MOTOR-CARS. CELESTIN DELMEZ, Antwerp, Belgium. Filed July 17, 1913. Serial No. 779,570. (Cl. 105—241.)

1. A suspension device for motors on tramway and railroad motorcars comprising a truck, a frame on said truck, a motor secured on said frame, means for yieldingly securing said frame to the truck frame, a driving axle, journals on said axle, axle boxes on said journals, means for connecting said frame with said axle boxes, ball bearings in said axle boxes, means for supporting the truck frame

on said axle boxes, means for preventing the eccentric and axial strains on said boxes.

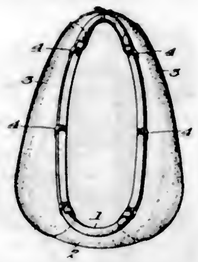


2. A suspension device for motors on tramway and railroad cars, comprising a truck, a frame on said truck, a motor secured on said frame, means for yieldingly securing said frame to the truck frame, a driving axle, journals on said axle, axle boxes on said journals, means for connecting said frame with said axle boxes, a circular groove at the periphery of each of said axle boxes, a box yoke smoothly sliding in said groove and supporting the weight of the truck frame, means for preventing the eccentric and axial strains on said axle boxes.

3. A suspension device for motors on tramway and railroad cars, comprising a truck, a frame on said truck, a motor secured on said frame, means for yieldingly securing said frame to the truck frame, a driving axle, journals on said axle, axle boxes on said journals, means for connecting said frame with said axle boxes, ball bearings in said axle boxes, means for supporting the truck frame on said axle boxes, a sleeve surrounding said journal, an oval slot on said sleeve, a bolt secured on said journal and extending through said oval slot so that said sleeve rotates together with the journal and slides axially on same, a threaded portion at one end of said sleeve, an inner ball race, a nut screwed on said sleeve for securing said inner ball race onto said sleeve, an outer ball race, balls between both races, a ring shaped crown tightly engaged between the inner circular periphery of said axle box and said outer race, a circular trough shaped groove at the inner periphery of said axle box and adjacent one of the lateral sides of said crown, a ring shaped spring located within said groove and bearing on said crown, in order to firmly maintain said crown on the opposite lateral wall of said axle box and on the outer ball race.

4. A suspension device for motors on tramway and railroad cars, comprising a truck, a frame on said truck, a motor secured on said frame, means for yieldingly securing said frame to the truck frame, a driving axle, journals on said axle, axle boxes on said journals, means for connecting said frame with said axle boxes, ball bearings in said axle boxes, means for supporting the truck frame on said axle boxes, a sleeve surrounding said journal, on oval slot on said sleeve, a bolt secured on said journal, and extending through said oval slot so that said sleeve rotates together with the journal and slides axially on same, a threaded portion at one end of said sleeve, an inner ball race, a nut screwed on said sleeve for securing said inner ball race onto said sleeve, an outer ball race, balls between both races, a ring shaped crown tightly engaged between the inner circular periphery of said axle box and said outer race, a circular trough shaped groove at the inner periphery of said axle box and adjacent one of the lateral sides of said crown, a ring shaped spring located within said groove and bearing on said crown, in order to firmly maintain said crown on the opposite lateral wall of said axle box and on the outer ball race, a groove provided between said journal and said axle, a forked piece of bronze engaged in said groove and a spring applying said fork into said groove.

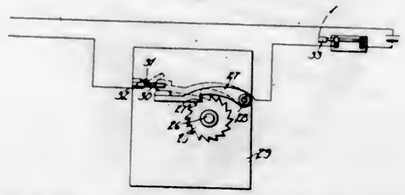
1,136,780. METAL COLLAR-PAD. JAMES LEONIDAS DUNN, Scotland Neck, N. C. Filed Oct. 20, 1914. Serial No. 867,642. (Cl. 54—65.)



1. A collar pad for the purpose specified comprising similar opposite members adapted to be interposed between the opposite sides of the collar and the shoulders of the animal; each member being formed of sheet metal shaped to cover and approximately conform to the inner surfaces of the front roll and cushion roll of the related side of the collar, and a set of spring clips rigidly attached to the front edge of each member and bent to closely clasp the front roll of the collar and detachably attach the pad member thereto.

2. In combination with a horse-collar having front and cushion rolls of ordinary construction; a collar pad comprising opposite members adapted to be interposed between the sides of the collar and the shoulders of the animal, each member being formed out of sheet metal shaped to cover and approximately conform to the inner surface of the front roll and cushion roll of the related side of the collar; and a set of spaced spring clips rigidly attached to the front edge of each member and bent to clasp the front roll of the collar and detachably attach the pad member thereto; and a flexible connection between said members, substantially as described.

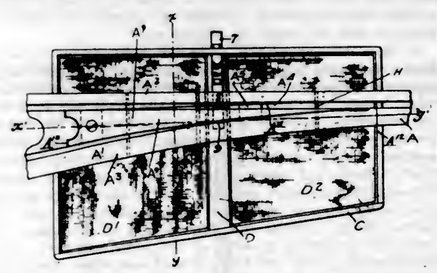
1,136,781. BELL-RINGING DEVICE. HUGH D. ELLIOTT, Skamokawa, Wash. Filed July 23, 1914. Serial No. 852,676. (Cl. 175—347.)



1. In a device of the character described, a circuit closer, comprising a ratchet wheel, a contact member pivoted at one end and extending over the ratchet wheel, said contact member engaging the ratchet wheel intermediate of its ends, and a second pivoted contact member above the free end of the first contact member and with which the said free end engages when raised by the ratchet wheel.

2. In a device of the character described, a circuit closer comprising a contact member, a second contact member pivoted at one end and having its free end extending under the first member, the said second member having a shoulder on the underside intermediate of its ends, and a ratchet wheel, the teeth of which contact with the second member to move the same toward and from the first member, the engagement of the teeth of the ratchet wheel being adjacent to the shoulder of the second contact member to permit the said second member to have retrograde movement away from the first member upon the movement of a tooth beyond said shoulder.

1,136,782. SWITCH-POINT DRAIN-BOX. GEORGE ARTHUR ERRINGTON, Toronto, Ontario, Canada. Filed June 15, 1914. Serial No. 845,151. (Cl. 104—12.)

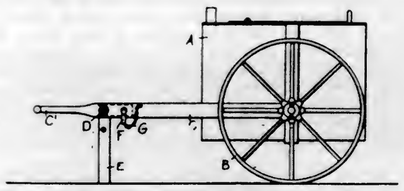


1. The combination with a Y-shaped rail section having an open bottom and adapted to support a swingable switch point, of a drain box surrounding the switch point casing and extending beneath the same and having an inclined bottom and an outlet orifice extending through the wall of the casing at the lowest point of the incline, and removable screens supported within the drain box beneath the switch point casing, as and for the purpose specified.

2. The combination with a Y-shaped rail section having an open bottom and adapted to support a swingable switch point, of a drain box surrounding the switch point casing and extending beneath the same and having an inclined bottom and an outlet orifice extending through the wall of the casing at the lowest point of the incline, and removable screens removably supported within the drain box casing and formed concave in cross section, as and for the purpose specified.

3. The combination with the switch point casing and conduits containing the switch point operating mechanism, of a drain box having an inlet orifice leading from the aforesaid conduits, an inclined bottom and having an outlet orifice extending through the wall of the casing at the lowest point in such inclined bottom, as and for the purpose specified.

1,136,783. SUPPORT. FREDERIC H. EVANS, New York, N. Y. Filed Feb. 27, 1913. Serial No. 751,009. (Cl. 21—65.)



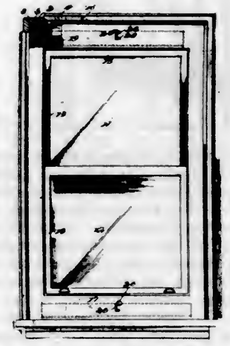
1. In combination, a device to be supported and having a transverse pivot, a leg mounted to swing on the said pivot and provided at its pivotal end with an angular arm and a transverse pin engaging the said device at one side of and a short distance from the said pivot and adapted to engage either the said leg or its angular arm to hold the leg locked in either a folded or extended position.

2. In combination, a device to be supported and having a transverse pivot, and a transverse hole spaced a short distance from the said pivot, a leg mounted to swing on the said pivot and provided at its pivotal end with an angular arm, the said leg and the said arm having holes spaced equal distances from the said pivot and adapted to register with the said hole in the device, and a pin adapted to pass through the hole of the leg or arm in register at the time with the hole in the said device.

3. In combination with a vehicle having a handle provided with arms, the arms having a transverse pivot and a transverse hole spaced a distance from the said pivot, of a leg mounted to swing on the said pivot between the arms of the handle and provided at its pivotal end with an angular arm, the said leg and the said arm having holes spaced equal distances from the said pivot and adapted to register with the said hole in the arms of the handle, a pin adapted to pass through the hole in the arms of the handle and through the hole of the leg or arm thereof in register at the time with the hole in the said handle arms, and a chain attached to one of the arms of the handle and to one end of the said pin.

4. The combination with a two-wheeled vehicle having a handle for wheeling the vehicle about and provided with a hole, of a leg pivoted at one end to the handle to swing at right angles to the handle or parallel therewith, said leg having an angular arm at its pivoted end, the leg and arm having holes equal distances from the pivot and adapted to register with the hole of the handle, and a pin adapted to engage the hole of the handle and the hole of either the leg or its arm.

1,136,784. VENTILATING WINDOW OR DOOR. GEORGE A. FAIR, Los Angeles, Cal. Filed May 26, 1914. Serial No. 841,107. (Cl. 98—31.)



1. In a window of the character described, outer and inner sashes, a frame in which said sashes move, one member of the frame being hollow and having communication with the outside air and with the space between said sashes, and a damper arranged within the hollow member and controlling the passage of air therethrough.

2. In a window of the character described, outer and inner sashes, a frame in which said sashes move, one member of the frame being hollow and having communication with the outside air and with the space between said sashes, a damper pivotally mounted within the hollow member and controlling the passage of air thereinto, and damper actuated means extending out of the front of said hollow member.

3. In a window of the character described, an outer sash and upper and lower inner sashes, a frame in which said sashes move, said frame including hollow elements opening into the space between the sashes and communicating with the outside air, and dampers controlling the entrance of air into said hollow elements.

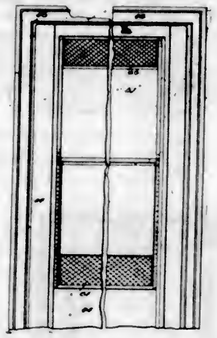
4. In a window of the character described, outer and inner sashes spaced from each other, and an outer sash frame including a hollow element having a lateral opening, and an opening communicating with the space between the outer and inner sash frames, and a damper pivotally mounted within the hollow element and movable into position to cover or uncover said lateral opening, and a lever pivoted to the exterior of the hollow member and having linked engagement with the said damper.

5. In a window of the character described, outer and inner sashes, the inner sashes comprising an upper and a lower sash, shiftable with relation to each other, a frame inclosing said sashes and within which the sashes

move, said frame having a hollow lintel and a hollow sill, each communicating with the outer air, there being a screened opening leading into the space between the sashes, and dampers arranged one in each of said elements and controlling the passage of air through said hollow members into the space between the outer and inner sashes.

[Claim 6 not printed in the Gazette.]

1,136,785. SASH-CONTROLLED VENTILATING WINDOW OR DOOR. GEORGE A. FAIR, Los Angeles, Cal. Filed May 26, 1914. Serial No. 841,108. (Cl. 98—31.)



1. In a window, a frame having a hollow member formed with inwardly and outwardly extending openings, and a sash mounted in said frame and adapted in one position to extend across the hollow member and prevent the passage of air therethrough and adapted to be moved within certain limits to uncover the adjacent opening of the hollow member normally closed by the said sash, to regulate the passage of air through the hollow member without uncovering the window opening proper.

2. In a window, a frame having a hollow ventilating member at one end provided upon a vertical wall with an air opening, a sash closing the said frame upon one side and extending from the hollow ventilating member to the opposite end of the frame, and a sash arranged on the opposite side of the frame and spaced from the first-mentioned sash to normally maintain a dead-air space, and extending across the hollow ventilating member to close the air opening in the vertical wall thereof and move within certain limits to uncover said air opening more or less to regulate the degree of ventilation without disturbing the dead air space formed between the spaced sashes.

3. In a window, upper and lower transversely extending hollow ventilating members having air openings formed in their inner and outer vertical walls, a sash arranged at one side of the window between the hollow ventilating members without closing the openings in the adjacent walls of such members, and sliding sashes arranged upon the opposite side of the window and spaced from the first-mentioned sash to maintain a dead air space, each of the sliding sashes extending across the adjacent wall of a ventilating member to close the opening thereof and move within certain limits to uncover the opening more or less to regulate the degree of ventilation without disturbing the dead air space formed between the spaced sashes.

4. In a window of the character described, a window frame, including laterally disposed bars and transversely disposed upper and lower bars, the upper and lower bars being hollow, the lower portion of the lower bar projecting inward of the upper portion of said bar, and the upper portion of the upper bar projecting inward of the lower portion of said bar, the inner faces of said bars respectively, above and below said projecting portions being formed with air outlet openings and the outer faces of the bars being formed with air inlet openings, a pair of sashes sliding between said lateral bars in the space between the projecting portions of the upper and lower bars and bearing against the faces of said bars when closed, to thereby obstruct the openings on the inner walls of said bars, said sashes when shifted toward the middle of the window disclosing said openings to permit the inlet of fresh air and the outlet of vitiated air.

5. In a window of the character described, a window frame including laterally disposed bars, and transversely disposed upper and lower bars, the upper and lower bars being hollow, the lower portion of the lower bar projecting inward of the upper portion of said bar, and the upper portion of the upper bar projecting inward of the lower portion of said bar, the inner faces of said bars respectively, above and below said projecting portions being formed with air outlet openings and the outer faces of the bars being formed with air inlet openings, a pair of sashes sliding between said lateral bars in the space between the projecting portions of the upper and lower bars and bearing against the faces of said bars when closed, to thereby obstruct the openings on the inner walls of said bars, said faces when shifted toward the middle of the window disclosing said openings to permit the inlet of fresh air, and outlet of vitiated air and outer sashes disposed between the upper and lower bars and spaced from the inner sashes to thereby provide a dead air space between the sashes when the sashes are closed.

[Claims 6 to 9 not printed in the Gazette.]

1,136,786. SAFETY-FASTENER FOR AUTOMOBILE-CHAINS, &c. JACOB FAUS, Jr., Boulder, Colo. Filed Oct. 6, 1914. Serial No. 865,360. (Cl. 24—241.)



1. A safety fastener for chains comprising an inner hook member provided with a central threaded hole, an outer casing inclosing said hook member and having in one side a hole and in the other an open-sided slot adapted to aline with said threaded hole, a screw adapted to pass through said holes and slots to clamp the casing and hook member together, and means for preventing complete withdrawal of said screw from said threaded hole.

2. A safety fastener for chains comprising an inner hook member having a hook recess near one end, an outer casing inclosing said hook member and closing the side of said recess, said hook member and casing being pivotally mounted near one end with respect to each other, the hook member being provided with a central threaded hole and the casing with a hole in one side and an open sided slot in the other alining with the central threaded hole, a screw in said threaded hole adapted to clamp the casing and hook member in closed position, and means for preventing complete removal of the screw from said threaded hole.

3. A safety fastener for chains comprising an inner hook member and an outer casing pivotally mounted on a chain link at one end, said hook member being provided with a central threaded opening, and said casing being provided in one side with a hole and in the other with an open-sided slot adapted to aline with said threaded hole, and means for fastening said hook member and casing together comprising a screw adapted to pass through said holes and slot and having a reduced portion near its head and a safety plate pivoted upon said chain link and having an opening engaging the reduced portion of said screw to prevent complete withdrawal thereof from said threaded hole.

4. A safety fastener for chains comprising an inner hook member having a hook recess near one end, an outer casing inclosing said hook member and closing the side of said recess, said hook member and casing being pivotally mounted near one end with respect to each other, the hook member being provided with a central threaded hole and the casing with a hole in one side and an open sided slot in the other alining with the central threaded hole, a screw in said threaded hole adapted to clamp the casing and hook member in closed position, said screw having a reduced portion near its head, and a safety plate pivotally mounted with respect to said casing and having an opening engaging the reduced portion of said screw to prevent complete withdrawal thereof from said threaded hole.

1,136,787. COSTUMER. THOMAS PAUL FORMAN, Waterbury, Conn. Filed Apr. 23, 1914. Serial No. 833,935. (Cl. 45—13.)

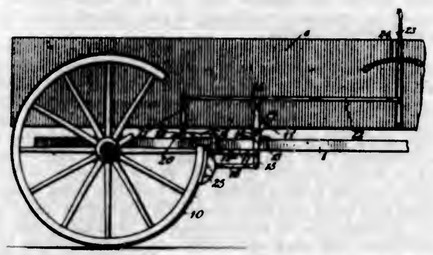


1. A costumer comprising a stem or standard, a supporting base therefor, a head surrounding the upper end of the stem, said head consisting of a tubular body split longitudinally at its top into a plurality of members and bent outwardly and shaped into article-supporting hooks.

2. A costumer comprising a stem or standard, a supporting base therefor, and a head surrounding the upper end of the stem, said head comprising a tubular body split longitudinally at its top and bottom in spaced lines to provide members, the upper members being bent outwardly and upwardly into main hooks and the lower members being bent into hooks for supporting articles.

3. A costumer comprising a stem or standard, a supporting base therefor, a head on the upper end of the stem, and means on the stem for rotatably supporting the head, said head comprising a tubular body split longitudinally at its top and bottom to provide members, the upper members being bent into main hooks and the lower members being bent into hooks for supporting articles.

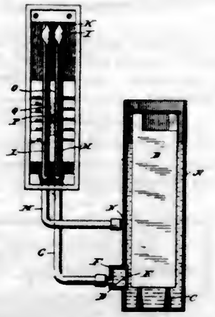
1,136,788. BRAKE. FRANK FRAME, Sawyer, Kans. Filed July 21, 1914. Serial No. 852,182. (Cl. 21—8.)



1. In a brake, the combination of a rocking shaft, means controllable by hand for actuating said rocking shaft, an arm connected rigidly with said rocking shaft, a pair of links pivotally connected with said arm, a brake shoe connected with said links, another link connected with said brake shoe, an arm connected with said second mentioned link, a rock shaft carrying said arm, another arm mounted upon said rock shaft and connected from said last mentioned arm to said first mentioned rock shaft.

2. In a vehicle provided with a wheel, a rock shaft, means under the control of an operator for actuating the same, a brake shoe in operative connection with said shaft and adapted to be forced into frictional engagement with said wheel in one direction of shaft rotation, and a supplemental rock shaft in operative connection with said shoe and with said shaft actuating means for rotating said first named shaft still further in the same direction to force said shoe into binding engagement with said wheel when moved therewith through said frictional engagement.

1,136,789. TESTING DEVICE FOR ACCUMULATORS. OLIVER P. FRITCHLE, Denver, Colo., assignor to The Fritchle Automobile and Battery Company, Denver, Colo., a Corporation of Colorado. Filed Dec. 27, 1909. Serial No. 534,973. (Cl. 73—42.)



1. The combination with a battery cell containing an electrolyte whose specific gravity is variable, of a tube containing liquid of constant specific gravity, means for hydrostatically connecting the liquid in the cell and that in the tube, and a graduated scale arranged to indicate changes of liquid level in the tube.

2. The combination with a battery cell containing an electrolyte whose specific gravity is variable, of a tube containing liquid of constant specific gravity, a flexible diaphragm separating the liquid in the cell from that in the tube, and a graduated scale arranged to indicate changes of liquid level in the tube.

3. The combination with a battery cell containing an electrolyte whose specific gravity is variable, of a tube containing liquid of constant specific gravity, means for hydrostatically connecting the liquid in the cell and that in the tube, and a graduated scale arranged to indicate changes of liquid level in the tube, the graduations also arranged to indicate the degree of energy consumption.

4. The combination with a battery cell containing an electrolyte whose specific gravity is variable, of a tube containing liquid of constant specific gravity, a flexible diaphragm separating the liquid in the cell from that in the tube, and a graduated scale arranged to indicate changes of liquid level in the tube, the graduations also arranged to indicate the degree of energy consumption.

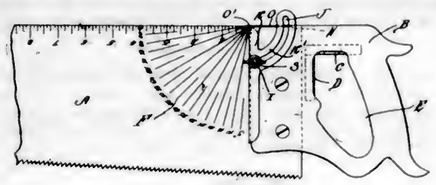
5. The combination with a battery cell containing an electrolyte whose specific gravity is variable, of a tube containing a liquid of constant specific gravity and opening into the cell near its base; means separating the liquid in the tube from that in the cell, said means being yieldable in accordance with the hydrostatic pressure in the cell; means for indicating the level of the liquid in the cell, and a scale-carrying member arranged in coöperative relation to said tube and last-named means and adjustable to conform to such indicated liquid level and provided with graduations to coöperate with the liquid level in the first-named tube.

[Claims 6 to 12 not printed in the Gazette.]

1,136,790. COMBINATION SAW AND TRY-SQUARE. CAPTAIN PERRY FUNK, Wooster, Ohio. Filed July 6, 1914. Serial No. 849,157. (Cl. 7—13.)

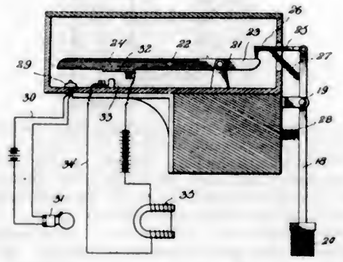
In combination with a saw and handle fixed thereto, a plate fastened to the upper edge of the handle and having a downwardly extending flange engaging the forward end of the handle on either side of the saw and slotted

to receive the rear edge of the latter, said plate having lugs extending at right angles to said flange and in advance of the same, angled bars, the upper ends of which



bear against said flange and the under edges of said lugs, each bar having a curved slotted arm bearing against the outer face of the handle, and means for holding the bars in adjusted positions.

1,136,791. AUTOMATIC TRAIN-STOPPING APPARATUS. SARATH KUMAR GHOSH, Seattle, Wash. Filed Feb. 27, 1914. Serial No. 821,488. (Cl. 246—59.)

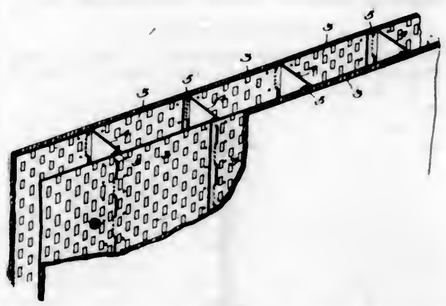


1. In automatic train stopping apparatus, car carried mechanism comprising a signal, an electric circuit including said signal, means for effecting an application of the brakes to the wheels, an electroresponsive device for operating said means, an electric circuit including said device, a lever fulcrumed between its ends and capable of swinging movement and adapted when swung in one direction to close said circuits, a vertical rod pivoted upon the car and capable of swinging movement, an arm carried by said rod and engaging said lever and holding the latter normally stationary, and a track instrument for swinging said rod to relieve the lever of the influence of said arm.

2. In automatic train stopping apparatus, car carried mechanism comprising a signal, an electric circuit including said signal, means for cutting off the propelling power of the car, an electroresponsive device for operating said means, an electric circuit including said device, a lever fulcrumed between its ends and capable of swinging movement and adapted when swung in one direction to close said circuits, a vertical rod pivoted upon the car for swinging movement, an arm pivotally connected to the upper end of said rod and engaging said lever and holding the latter normally stationary, a track instrument for swinging said rod to relieve said lever of the influence of said arm, and a spring for swinging said arm to an out of the way position succeeding the release of said lever.

1,136,792. WALL OR PARTITION. WILLIAM M. GOLDSMITH, Cincinnati, Ohio. Filed Oct. 7, 1912. Serial No. 724,284. (Cl. 189—34.)

A wall structure consisting of a series of sheet metal members, each consisting of a main plate provided along one edge with a partition-forming flange which in turn is provided with a foot-flange along its free edge, thereby giving to each member an approximately L-shape in horizontal section, said members being adapted to receive and hold plaster and arranged in vertical position and spaced apart in two rows by said partition-forming flanges, the foot-flange of each member bearing against the inner face of the opposite member and the unflanged edge of each



main plate being overlapped upon the outer face of the main plate of the next adjacent member, means being provided for fastening the members together at the points of overlap and also at the points where the foot-flanges bear against the main plate.

1,136,793. RAILROAD SAFETY DEVICE. CHARLES HENRY GOODPASTURE, Olympia, Wash. Filed Jan. 10, 1914. Serial No. 811,352. (Cl. 246—49.)



1. In a railroad safety device, the combination of a rail, a shuttle disposed under said rail and provided with an upwardly extending end member at the outer side of the rail, the end member having an inwardly extending portion carrying a torpedo, and adapted when the shuttle is actuated to engage the upper or tread surface of said rail in order to enable said torpedo to be exploded by a train moving relatively to said rail, and mechanism controlled by abnormal conditions of the railroad track for actuating said shuttle.

2. In a device of the character described, the combination of a track provided with a plurality of rails, a shuttle movable relatively to said rails and provided with means for placing torpedoes thereover, mechanism controllable by a landslide or similar casualty moving said shuttle to the limit of its travel in one direction, mechanism including a counterweight for moving said shuttle to the limit of its travel in the opposite direction, and a plurality of torpedoes carried by said shuttle, said torpedoes being so disposed that when said shuttle is at the limit of its travel in one direction, one of said torpedoes is adjacent to one of said rails, and when said shuttle is at the limit of its travel in the opposite direction, another of said torpedoes is adjacent another of said rails.

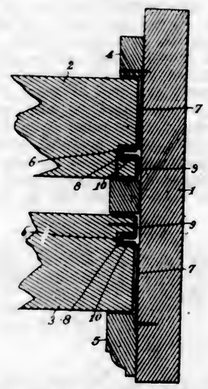
3. A device of the character described, comprising a shuttle movable relative to the track rails, means connected with one end of the shuttle for controlling the movement of the shuttle in one direction, mechanism connected with the other end of the shuttle for moving the same in the opposite direction, the said mechanism including a cord and a counterweight, and torpedoes carried by the shuttle, one of said torpedoes being adapted to be brought into close proximity to one of said rails, when the shuttle is moved in either direction.

4. In a device of the character described, the combination with track rails, of a shuttle movable relative to the rails and provided at its ends with means for carrying torpedoes, the supporting means for the torpedoes being normally spaced from the rails, mechanism controllable by abnormal conditions of the railroad track, for moving the shuttle in one direction, to place one of said torpedoes in position to be exploded by a train, and mechanism for moving the said shuttle in the opposite direction to place the other torpedo in position to be exploded by a train.

5. In a device of the character described, the combination with the rails of a track, of a shuttle movable relative to the rails, torpedoes carried by the shuttle at the ends thereof and adapted to be moved over the rails, as the shuttle reaches the limit of its travel in either direction, means connected with one end of the shuttle and controllable by abnormal conditions of the railroad track for moving the shuttle to the limit of its travel in one direction, mechanism connected with the other end of said shuttle for moving the shuttle to the limit of its travel in the opposite direction, and a visual signal actuated when the shuttle is moved in either direction.

[Claims 6 and 7 not printed in the Gazette.]

1,136,794. WEATHER-STRIP. ALBERT E. GOULD, Grand Rapids, Mich., assignor to American Metal Weather Strip Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Dec. 30, 1912. Serial No. 739,323. (Cl. 20—69.)



1. A weather strip for windows comprising strips of sheet metal each having one edge formed into U-shape, one U-shape portion being smaller than the other and having rocking and sliding movement on the larger U-shape portion.

2. A weather strip, comprising two sheet metal strips each bent at right angles near one edge and thence formed in U-shapes of unequal dimensions, the smaller U-shaped portion being slidable within the larger and out of contact therewith except at the convex base portion of the same which portion engages the concave base portion of the other strip, said strips being respectively attached near their other edges respectively to a window casing and to a window sash.

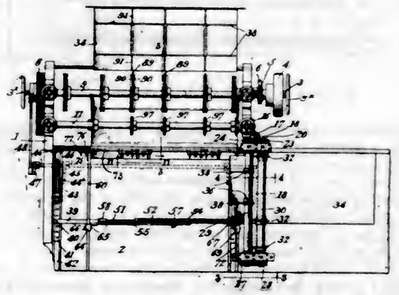
3. In a combination with a window sash having a groove in its edge, and a window casing, two strips of sheet metal each bent substantially at right angles to extend within the groove and each bent in U-shape within the groove, said bent portions being of different dimensions, the smaller U-shaped portion slidable within the larger U-shaped portion and spaced therefrom at its parallel sides and also engaging the concave portion of the larger one at its convex base portion and slidable therein.

4. A weather strip for windows comprising strips of sheet metal each having one edge formed into U-shape, one U-shape portion being smaller than the other and having rocking and sliding movement on the larger U-shape portion at one side only thereof.

5. The combination with a sash having a groove in its edge and a casing for the sash, of a weather strip consisting of two sheets of strip metal one of which is secured at one edge to the casing and at its opposite edge bent into U-shape with the U-shape portion extending into said groove, the other strip also being bent at one edge to form a U-shape portion which extends into the U-shape portion of the other strip and which has sliding and rocking movement on the latter U-shape portion, the U-shape portion of the first strip being spaced from the walls of said groove.

[Claim 6 not printed in the Gazette.]

1,136,795. BOX-MAKING MACHINE. FRANK A. GRAHAM, Buffalo, N. Y. Filed Jan. 4, 1915. Serial No. 428. (Cl. 93—58.)



1. A machine for scoring and cutting blanks for paper boxes comprising a frame, rotatable shafts, scoring disks fixed to one of said shafts and cutting knives upon the other shaft and designed to score and trim the edge of a blank, a rotatable saw carrying shaft and saws mounted thereon adapted to slit the opposite edges of the blank, means for feeding the blank in contact with the saw, and means for scoring the blank intermediate the adjacent ends of the slits formed in the opposite edges of the blank.

2. A machine for scoring and cutting blanks for paper boxes comprising a frame, rotatable shafts, scoring disks fixed to one of said shafts and cutting knives upon the other shaft and designed to score and trim the edge of a blank, means for scoring the blank at right angles to the scored lines formed by said disk, a saw carrying shaft, saws mounted thereon and adapted to slit the blank on the opposite edges thereof in alinement with its transverse scored lines.

3. A machine for scoring and cutting blanks for paper boxes comprising a frame, rotatable shafts, scoring disks fixed to one of said shafts and cutting knives upon the other shaft and designed to score and trim the edge of a blank, means for scoring the blank at right angles to the scored lines formed by said disk, a saw carrying shaft, saws mounted thereon and adapted to slit the blank on opposite edges thereof in alinement with its transverse scored lines, disks upon said saw carrying shaft and to which the saws are scored.

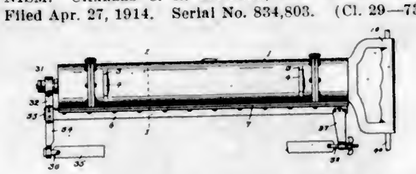
4. A machine for scoring and cutting blanks for paper boxes comprising a frame, rotatable shafts, scoring disks fixed to one of said shafts and cutting knives upon the other shaft and designed to score and trim the edge of a blank, means for scoring the blank at right angles to the scored lines formed by said disk, a saw carrying shaft, saws mounted thereon and adapted to slit the blank on the opposite edges thereof in alinement with its transverse scored lines, disks fixed to the saw carrying shaft and secured to the saw, and a circumferentially grooved disk underneath each saw and supporting the blank as the slits are formed therein.

5. A machine for scoring and cutting blanks for paper boxes, comprising a frame, rotatable shafts, scoring disks fixed to one of said shafts and cutting knives upon the other shaft and designed to score and trim the edge of a

blank, adjustable means for receiving and guiding the blank after it has been scored by said disk, means for moving the blank laterally, means for scoring the blank transversely, a rotatable saw carrying shaft, segment saws mounted thereon, saws upon the saw carrying shaft and to which the saws are secured and supported a circumferentially grooved disk upon each saw upon which the blank rests when being slit, and means for feeding the blank in contact with the saw.

[Claims 6 to 9 not printed in the Gazette.]

1,136,796. POWER-DRIVEN RECIPROCATING MECHANISM. CHARLES C. R. HAMMAR, New Duluth, Minn. Filed Apr. 27, 1914. Serial No. 834,803. (Cl. 29—73.)

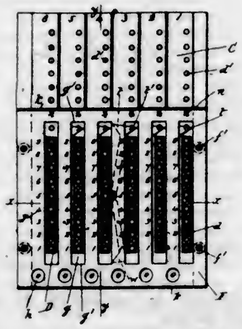


1. A tool reciprocating mechanism comprising a cylinder, a piston and piston rod operatively mounted within the cylinder and having the end of the rod extending through one end of the cylinder and attached to the tool carrying means mounted upon one side of the cylinder, and a plurality of projecting members upon one side of the cylinder at right angles to the tool carrying means upon which the cylinder may rest while at work.

2. A tool reciprocating mechanism comprising a cylinder, a piston and piston rod operatively mounted within the cylinder, inlet and exhaust ports in the ends of the cylinder, a valve rod reciprocally mounted within the cylinder and communicating with the said inlet and exhaust ports, a slide in one side of the cylinder, and a bar connected to the piston rod and adapted to be reciprocated in the said slide.

3. A tool reciprocating mechanism comprising a cylinder, a piston and piston rod operatively mounted therein, inlet and exhaust valves within the ends of the cylinder, a hollow valve rod reciprocally mounted within the cylinder and having ports on its ends adjacent the cylinder heads communicating with the said inlet and exhaust valves, a slide in one side of the cylinder, and tool engaging means connected to the piston rod and reciprocally movable within the said slide, the parts arranged as and for the purpose described.

1,136,797. CALCULATING-MACHINE. ALTON D. HARMON, Cambridge Springs, Pa. Filed Nov. 9, 1914. Serial No. 871,125. (Cl. 235—69.)



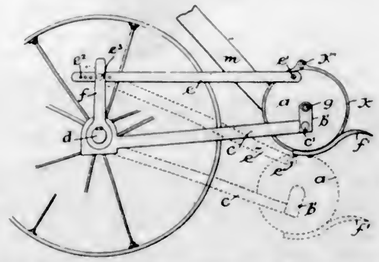
1. In a calculating machine, the combination, with a frame provided with a back plate having a series of parallel projecting ribs, and a numbered face plate provided with slots and sight holes; of a series of slides provided with slots in their backs which engage with and slide upon the said ribs, said slides being supported upon the said ribs out of contact with the said back plate and with each other, said slides being also provided with index numerals arranged behind the bars of the face plate and in line with the sight holes.

2. In a calculating machine, the combination, with a frame having a face plate provided with parallel slots, and slides movable in the frame and provided with stylus holes; of a carrying signal pivoted under the face plate between two adjacent slots and extending longitudinally of them, said signal having lateral projections at its opposite end portions, one projection being moved into view at one end portion of one slot when the other projection is moved by the stylus at the other end portion of the other slot.

3. In a calculating machine, the combination, with a frame provided with a face plate having parallel slots and bars, of a series of slides movable longitudinally in the frame and provided with stylus holes arranged behind the slots and numerals arranged behind the said bars, and signal levers arranged in pairs with their adjacent ends articulated, said signal levers being pivoted behind the said bars and provided with teeth at their opposite end portions adapted to project crosswise of the end portions of the slots, a signal being displayed at one end of one slot each time a lever is operated by the stylus at the other end of the adjacent right hand slot.

4. In a calculating machine, the combination, with a frame provided with a face plate having parallel slots and bars, of a series of slides movable longitudinally in the frame and provided with stylus holes arranged behind the slots and numerals arranged behind the said bars, signal levers arranged in pairs and having their middle parts pivoted behind the said bars, the adjacent ends of each pair of levers being articulated together, and their opposite ends being provided with teeth adapted to project crosswise of the end portions of the slots, a signal being displayed in one slot each time a lever is operated by the stylus at one end of the adjacent right hand slot.

1,136,798. HARVESTER. SAMUEL HARRIS, Dumbleyung, Western Australia, Australia. Filed Sept. 8, 1913. Serial No. 788,645. (Cl. 56—29.)

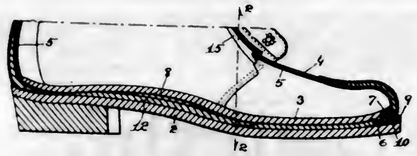


1. In a harvester, in combination, a beater drum including a cylindrical body, a grain throat associated with the drum, the latter having an opening adjacent said throat and registering therewith, a shaft extending longitudinally through said body, end plates forming end closures for said body, a wheeled axle, upright arms keyed to said axle, arms pivotally mounted upon said axle, brackets pivotally mounted at the ends of said pivotally mounted arms and supporting said end plates, other arms pivotally connected to said end plates, adjustable pivotal connections between said last named arms and the upper ends of said upright arms, and a comb projecting forwardly from said drum, and supported by said end plates, the drum also having a longitudinal opening above said comb through which the grain heads enter and which alines with said first-named opening, substantially as and for the purpose set forth.

2. In a harvester, in combination, a beater drum including a cylindrical body, a grain throat associated with the drum, the latter having an opening adjacent said throat and registering therewith, a shaft extending longitudinally through said body, end plates forming end closures for said body, a wheeled axle, upright arms keyed to said axle, arms pivotally mounted upon said axle, the end plates having lugs thereon, bracketa pivotally mounted at the ends of said pivotally mounted arms and having openings receiving said lugs therein, concentric bearings for said shaft carried by said lugs, other arms pivotally connected to said end plates, adjustable pivotal connections between said last named arms and the upper ends of said upright arms, and a comb projecting forwardly from said drum, and supported by said end plates, the drum also having a longitudinal opening above said comb through which the grain heads enter and which alines with said first-named opening, substantially as and for the purpose set forth.

3. In a harvester, in combination, a beater drum including a cylindrical body, a shaft extending longitudinally through said body, end plates forming end closures for said body, a wheeled axle, upright arms keyed to said axle, arms pivotally mounted upon said axle, brackets pivotally mounted at the ends of said pivotally mounted arms and supporting said end plates, other arms pivotally connected to said end plates, adjustable pivotal connections between said last named arms and the upper ends of said upright arms, a comb projecting forwardly from said drum, and supported by said end plates, and a grain throat having a curved shoe arranged in telescoping relation to the beater drum, the drum having an opening adjoining and registering with said throat and of greater width than the latter, whereby the neck of said throat is maintained fully open in any radial adjustment of said drum relatively to said axle, the drum also having a longitudinal opening above said comb through which the grain heads enter and which alines with said first-named opening, substantially as and for the purpose set forth.

1,136,799. WATERPROOF SHOE. SAMUEL J. HARRIS, Randolph, Mass., assignor of one-half to C. Le Roy Seaver, Jr., Stoughton, Mass. Filed Jan. 22, 1914. Serial No. 813,744. Renewed Mar. 5, 1915. Serial No. 12,417. (Cl. 36—17.)



1. In a shoe, upper leathers, a sole, an insole, a welt, a bottom waterproof layer covering the underside of the insole, an upper waterproof layer covering the inside surface of the upper leathers and lapping the marginal portion of said bottom waterproof layer, a waterproof joint connecting the lapped marginal portions of the bottom waterproof layer and the upper waterproof layer, and a waterproof strip connected to the bottom of the upper and connecting it to the welt.

2. In a shoe, upper leathers, a sole, an insole, a lining, a welt, a bottom waterproof layer covering the underside of the insole, an upper waterproof layer covering the outside surface of the lining and lapping said bottom waterproof layer, and a waterproof joint connecting the lapped marginal portions of the bottom waterproof layer and the upper waterproof layer.

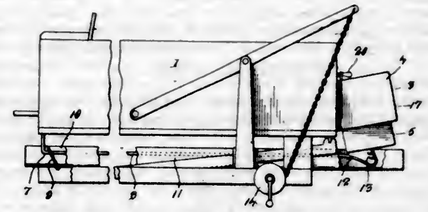
3. In a shoe, upper leathers, a sole, an insole, a bottom waterproof layer covering the underside of the insole, an upper waterproof layer covering the inside surface of the upper leathers and lapping said bottom waterproof layer, a welt, a waterproof joint connecting the lapped marginal portions of the bottom waterproof layer and the upper waterproof layer and a waterproof strip between and connecting the bottom waterproof layer and the welt.

4. In a shoe, upper leathers, a sole, a marginally channeled insole, a bottom waterproof layer covering the underside of the insole and the inside of the channel, an upper waterproof layer covering the inside surface of the upper leathers, a waterproof joint in the channel of the insole connecting the marginal portions of the bottom waterproof layer and the upper waterproof layer, and a welt in the channel between the joint and the margin of the sole.

5. In a shoe, upper leathers, a sole, a marginally channeled insole, a bottom waterproof layer covering the underside of the insole, an upper waterproof layer covering the inside surface of the upper leathers, a waterproof joint in the channel of the insole connecting the marginal portions of the bottom waterproof layer and the upper waterproof layer, a welt covering said joint in the channel, and a waterproof layer between the welt and sole.

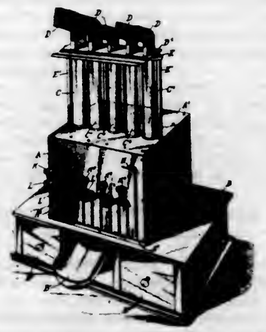
[Claim 6 not printed in the Gazette.]

1,136,800. DUMPING-WAGON. ISAAC HILB, Baltimore, Md. Filed Mar. 7, 1913. Serial No. 752,791. (Cl. 21—86.)



A dumping wagon having its body provided with a discharge opening at the rear end, a hopper secured to the rear end of the body, a rail extending longitudinally of the body, underlying the same and having its outer end arranged under the hopper and provided with a vertical series of hooks, and a chute slidably supported upon the said rail, adjustable angularly in horizontal and vertical directions and provided with means for interchangeable connection with the hooks of said rail.

1,136,801. CHANGE-MAKING MACHINE. GEORGE HOFMANN, Lyons, Iowa, assignor of one-half to Robert Holding, Lyons, Iowa. Filed May 21, 1913. Serial No. 768,946. (Cl 133—4.)



1. In a change-making machine, a coin magazine adapted to contain a stack of coins, a coin slide movable under the said coin magazine and having two openings adapted to move successively into register with the said coin

magazine, the coin slide being formed of two plates of which one is provided with two openings one in front of the other, the rear opening containing the other plate, a setting key for moving the said coin slide into set position for the successive removal of the two lowermost coins from the said stack of coins, and ejecting means for moving the set coin slide to successively eject the two lowermost coins from the said stack of coins.

2. In a change-making machine, a coin magazine adapted to contain a stack of coins, a coin slide movable under the said coin magazine and having two openings adapted to move successively into register with the said coin magazine, the said coin slide being formed of two plates of which one is provided with two openings one in front of the other, the rear opening containing the other plate, setting keys connected with the coin slide to move the latter in one direction until either opening is in register with the said coin magazine, and ejecting means connected with the coin slide for moving the latter in a reverse direction from either of the set positions to remove either one or two coins from under the stack of coins.

3. In a change-making machine, a coin magazine adapted to contain a stack of pennies, a coin slide movable under the stack of pennies and consisting of a plurality of superimposed plates, of which the middle plate is provided with openings arranged one in front of the other and adapted to move into register with the said coin magazine for receiving each a plurality of pennies, the bottom plate being adapted to close the rear opening and the top plate forming a cut-off for the pennies in the coin magazine, and means for moving the said plates.

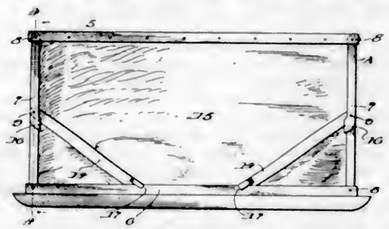
4. In a change-making machine, a coin magazine adapted to contain a stack of coins, a coin slide movable under the said coin magazine and having two openings adapted to move successively into register with the said coin magazine, the said coin slide being formed of two plates, of which one is provided with two openings one in front of the other, the rear opening containing the other plate, setting keys connected with the said coin slide, one of the keys being adapted to move the said coin slide in one direction into set position with the rear opening in register with the said coin magazine, and the other key for moving the coin slide in the same direction into set position with the front opening in register with the said coin magazine, and an ejecting key connected with the said coin slide for moving the latter in a reverse direction from either of the said set positions to remove one or two coins from under the stack of coins.

5. In a change-making machine, a coin magazine adapted to contain a stack of coins, a coin slide movable under the said coin magazine and having two openings adapted to move successively into register with the said coin magazine, the said coin slide being formed of two plates, of which one is provided with two openings, one in front of the other, the rear opening containing the other plate, setting keys connected with the said coin slide, one of the keys being adapted to move the said coin slide in one direction into set position with the rear opening in register with the said coin magazine, and the other key for moving the coin slide in the same direction into set position with the front opening in register with the said coin magazine, an ejecting key connected with the said coin slide for moving the latter in a reverse direction from either of the set positions to remove one or two coins from under the stack of coins, and means for limiting the sliding movement of the coin slide into set position.

[Claims 6 to 11 not printed in the Gazette.]

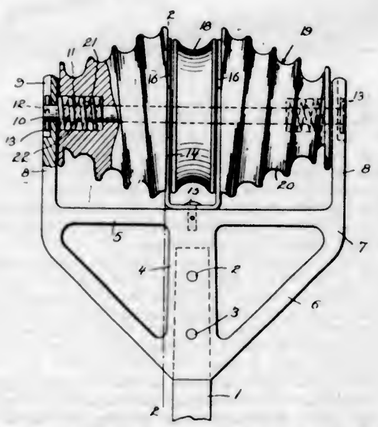
1,136,802. FOLDING SHIPPING-CASE. THOMAS M. HOLLOMAN, Evansville, Ind. Filed Feb. 28, 1914. Serial No. 821,713. (Cl. 150—49.)

1. In a substantially oblong shaped folding crate, the combination of a lower frame, uprights hingedly disposed at the opposite corners of said lower frame, an upper frame hingedly mounted upon the upper extremities of the said uprights, said uprights comprising two sections hinged intermediately and adapted to fold inwardly between said frames, one section of each upright being formed with an ear at right angles thereto at the point of its hinge connection to engage the other section of the said upright to limit the outward swinging movement thereof, a longitudinal bar disposed medially in the lower frame, downwardly convergent braces connected to the hinge joints between the sections of the uprights and pivoted to the ends of the longitudinal bar in the lower frame, the longer side edges of the lower frame being formed with notches between the ends thereof, and swinging arms supported by the hinge connections between the sections of the uprights and having bifurcated ends engaging in said notches in the lower frame.



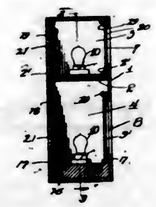
2. In a substantially oblong shaped folding crate, the combination of a lower frame, uprights hingedly disposed at the opposite corners of said lower frame, an upper frame hingedly mounted upon the upper extremities of the said uprights, said uprights comprising two sections hinged intermediately and adapted to fold inwardly between said frames, one section of each upright being formed with an ear at right angles thereto at the point of its hinge connection to engage the other section of the said upright to limit the outward swinging movement thereof, a longitudinal bar disposed medially in the lower frame, downwardly convergent braces connected to the hinge joints between the sections of the uprights and pivoted to the ends of the longitudinal bar in the lower frame, the longer side edges of the lower frame being formed with notches between the ends thereof, swinging arms supported by the hinge connections between the sections of the uprights and having bifurcated ends engaging in said notches in the lower frame, and a flexible body supported between the upper and lower frames.

1,136,803. TROLLEY-REPLACER. GEORGE D. HOPPES, Springfield, Ohio. Filed Nov. 18, 1913. Serial No. 801,706. (Cl. 191—75.)



In a trolley replacer, a supporting frame adapted for detachable attachment to a trolley pole, an axle carried by said frame, a substantially U-shaped bracket detachably carried by said frame and having substantially semi-circular shaped enlargements formed upon the terminals of its legs, a trolley wheel carried by said axle intermediate of said legs and having its periphery in line with the edges of said substantially semi-circular enlargements, substantially cone shaped wheels mounted upon said axle and having their bases positioned in engagement with the outer surface of the legs of said bracket and the outer surface of said substantially semi-circular enlargements, the faces of said cone shaped wheels being of larger diameter than said trolley, said substantially cone shaped wheels being provided with peripheral spiral grooves leading to their bases, and means for holding said bases in engagement with the outer surface of said substantially semi-circular shaped enlargements and the legs of said brackets.

1,136,804. SIGNAL-LAMP. HARRY ED. HORNING and JOHN L. SUBIK, Johnstown, N. Y. Filed Mar. 7, 1913. Serial No. 752,737. (Cl. 40—132.)

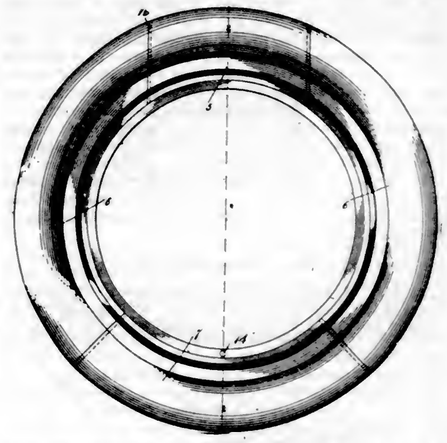


An automobile signaling apparatus, comprising a casing, partitions dividing the interior of said casing into a lower compartment and a series of upper compartments, said casing having a series of circular openings in its front wall communicating with the upper compartments and a rectangular opening communicating with the lower compartment, a lamp support extending across the bottom of said lower compartment, a lamp carried by said lamp support a lamp positioned in each of the upper compartments, glass plates for the openings in the front wall of said casing, reflectors spaced from the rear of said plates, and cleats on the upper sides of said lamp support and the partition between the upper and lower compartments and the upper portions of the inner front and rear walls of the compartments for securing said plates and reflectors in place.

1,136,805. COLLAPSIBLE CORE. GUY E. HORTON and CASPAR S. WAGNER, Akron, Ohio. Filed Oct. 9, 1913. Serial No. 794,238. (Cl. 18—45.)

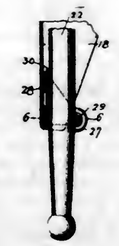
1. In a collapsible core, a plurality of sections forming the core and each having a flange T-shape in cross section, one shoulder of which is under cut; a fixed ring adapted to engage the under-cut shoulder of the flanges; and an expanding ring adapted to engage the flanges of the sections and force said flanges against said fixed ring, one of said sections having means coacting with the adjacent sections whereby the said section may be removed radially without disturbing the other sections when said expanding ring is removed, substantially as and for the purpose set forth.

2. In a collapsible core, a plurality of sections forming the core and each having a flange T-shape in cross section, one shoulder of which is under-cut; a fixed ring adapted to engage the under-cut shoulders of the flanges; a split ring adapted to engage the flanges of the sections; a pin adapted to engage the split of the ring and thereby expand the same, thus forcing said section against the said fixed ring, all of said sections having means preventing the lateral displacement of the sections, and one of said sections having means coacting with the adjacent section whereby the said section can be removed radially without disturbing any of the other sections forming the core



when said split ring is removed, substantially as and for the purpose set forth.

1,136,806. UMBRELLA. KATHERINE CANFIELD HOUT, Albany, N. Y. Filed June 26, 1914. Serial No. 847,411. (Cl. 135—36.)



1. An umbrella comprising, a plurality of ribs, each having adjacent the free end thereof an eyelet; a cover supported by said ribs, having angular terminals, the ends of said terminals being folded under the body of said cover in line with said eyelets; and a plurality of fastening clips, each having a body portion for encircling one of said ribs and the under-turned angular terminal of said cover, said clips each having a reduced end extending through one of said eyelets.

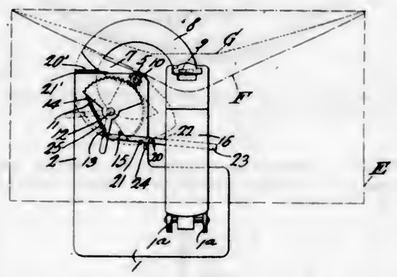
2. An umbrella comprising, a plurality of ribs, each having adjacent the free end thereof an eyelet; a cover supported by said ribs, having angular terminals, the ends of said terminals being folded under the body of said cover in line with said eyelets; and a plurality of fastening clips, each having a body portion for encircling one of said ribs and the under-turned angular terminal of said cover, said clips each having a plurality of reduced ends, said ends both extending through one of said eyelets and in overlapped relation.

3. An umbrella comprising, a plurality of ribs, each having adjacent the free end thereof an eyelet; a cover supported by said ribs, having angular terminals, the ends of said terminals being folded under the body of said cover in line with said eyelets; and a plurality of fastening clips, each having a body portion for encircling one of said ribs and the under-turned angular terminal of said cover, said clips each having a plurality of reduced ends, said ends both extending through one of said eye-

lets and in overlapped relation, the body portion of said clips having a body extension corresponding in shape with the angular terminals of said cover.

4. An umbrella comprising, a plurality of ribs, each having adjacent the free end thereof an eyelet; a cover supported by said ribs, having angular terminals, the ends of said terminals being folded under the body of said cover in line with said eyelets; and a plurality of fastening clips, each having a body portion for encircling one of said ribs and the under-turned angular terminal of said cover, said clips each having a plurality of reduced ends, said ends both extending through one of said eyelets and in overlapped relation, the body portion of said clips having a body extension corresponding in shape with the angular terminals of said cover, and said body portion being further provided with a central opening to holdingly engage said angular terminal.

1,136,807. STAPLE-AFFIXING MACHINE. GEORGE F. HULLINGS and DAVID P. MOORE, Washington, D. C. Filed Nov. 4, 1913. Serial No. 799,136. (Cl. 1—48.)



1. A staple affixing machine, including a flat base, a staple magazine having a severing and delivering plunger and mounted upon the base, an anvil slidably mounted in the base and having a clenching recess for movement into and out of registration with the plunger, and manually operated means for actuating the anvil.

2. A staple affixing machine, including a base, a staple magazine having a severing and delivering plunger and carried by the base, a slidable anvil mounted within the base and provided with a staple clenching means, and means for sliding the anvil to place the clenching means into and out of registration with the plunger and for retracting the anvil within or projecting it without the base.

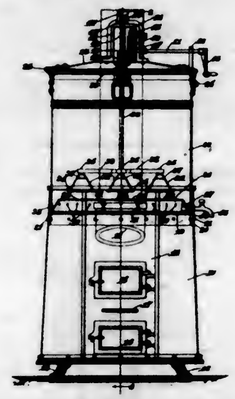
3. A staple affixing machine, including a base, a staple magazine having a severing and delivering plunger and carried by the base, a flat curved anvil pivoted to the base for sliding movement, whereby the free end is capable of describing the arc of a circle with the pivoted point its center, said anvil being provided with a clenching means adjacent its free end, and means carried by the base and operably engaging the anvil to impart movement thereto to place the clenching means into and out of registration with the plunger.

4. A staple affixing machine, including a base, a staple driving mechanism, a slidable anvil mounted for movement into and out of staple receiving and clenching position, manually controlled means for moving the anvil to one position, means for locking the anvil in such position, and means for automatically moving the anvil to the opposite position.

5. A staple affixing machine, including a flat base, a staple magazine having a severing and delivering plunger and mounted upon the base, an anvil slidably mounted in the base and having a clenching recess for movement into and out of registration with the plunger, manually operated means for actuating the anvil, means connected to the operating means and engageable with the magazine to lock the anvil in clenching position, and means for automatically moving the anvil to the opposite position when the magazine releases the same.

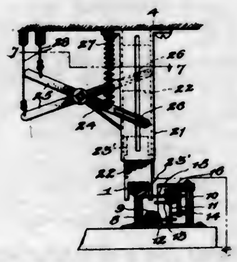
[Claims 6 to 10 not printed in the Gazette.]

1,136,808. STEAM WASHING-MACHINE. JOHN W. JACKSON, St. Louis, Mo. Filed Dec. 6, 1912. Serial No. 735,210. (Cl. 68—19.)



A washing machine comprising a container, a diaphragm in said container, said diaphragm having a plurality of apertures in the body thereof and having a plurality of apertures at its circumference, a plunger head mounted in said container above said diaphragm, ribs on the under side of said diaphragm dividing the same into a plurality of compartments corresponding to the apertures in the body thereof, a plurality of plungers on said plunger head with a plunger positioned above each aperture and compartment in the diaphragm body, and means for reciprocating said plunger head, adapted to cause a circulation in said container upwardly in the center and downwardly at the sides and vice versa.

1,136,809. SWITCH-THROWING DEVICE. FRANK A. JOHNSON, Danville, Ill., assignor of one-half to Chester B. Vail, Danville, Ill. Original application filed May 14, 1914, Serial No. 838,595. Divided and this application filed Jan. 28, 1915. Serial No. 4,889. (Cl. 104—171.)



1. In a switch operating mechanism of the character described, the combination with a track section and an object movable thereon; of a depending casing carried by the object, a pair of tappets movable vertically therein, the lower ends of said tappets being slotted to receive the head of a rail section when said tappets are lowered, means for normally retaining said tappets in their raised positions in the casing, and additional means for moving said tappets into operative positions, one at a time.

2. In a switch operating mechanism of the class described, the combination with a track section and a movable object thereon; of a depending housing carried by said object, a pair of tappets slidably mounted within said housing, said tappets having their lower extremities slotted to receive the head of one of the rails in said track section, a pair of movable members operatively connected with said tappets, spring means in connection with said members to normally maintain said tappets in an inoperative position, and other means in connection with said members whereby to bring said tappets into operative position one at a time, substantially as and for the purpose set forth.

3. In a switch operating mechanism of the class described, the combination with a track section and a movable object thereon, of a casing secured to the bottom of said member and depending therefrom, said casing being disposed in alinement with one rail of said track section, a pair of tappets slidably mounted within said casing, and having the lower ends thereof slotted, means in connection with said tappets to raise and lower the same, means in connection with the last mentioned means to normally maintain said tappets in an inoperative position, and other means in connection with the first mentioned means whereby said tappets may be brought to an operative position one at a time, substantially as and for the purpose set forth.

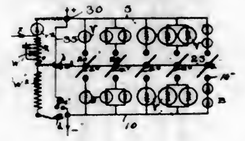
4. In a switch operating mechanism of the class described, the combination with a track section and a movable member thereon, of a casing depending from said movable member and disposed in vertical alinement with one of the rails of said track section, said casing having longitudinally extending slots formed therein, tappets slidably mounted within said casing and having the lower ends thereof notched for engagement with the heads of said rails, a laterally projecting stud carried by each said tappets and extending through said slots, horizontal pivot members loosely connected at one extremity with said studs whereby said tappets may be brought to operative and inoperative positions, spring means in connection with said members to normally maintain said tappets in inoperative position, and other means coöperating with the free end of said movable members whereby said tappets may be brought to operative positions one at a time, substantially as and for the purpose set forth.

5. In a switch operating mechanism of the class described, the combination with a track section and a movable member thereon, of a casing secured to the object and depending therefrom, said casing being disposed in the same vertical plane with one rail of said track section, a pair of tappets movable vertically in said casing, the lower ends of said tappets being bifurcated to receive the head of the rail section therein when said tappets are lowered, the furcations of one of said tappets being of greater length than those of the other tappets, spring means for normally retaining said tappets in their raised and inoperative positions in the casing, and additional means for disposing said tappets to their lowered and operative positions, one at a time.

[Claims 6 and 7 not printed in the Gazette.]

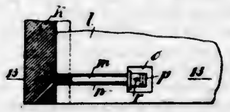
1,136,810. DEVICE FOR THE COMPARISON OF CURRENT, TENSION, AND POWER BY SELF-ACTING RESISTANCES. MARTIN KALLMANN, Berlin, Germany; Paula Kallmann, Berlin, Germany, administratrix of said Martin Kallmann, deceased. Filed July 12, 1909. Serial No. 507,271. (Cl. 175—183.)

1. In a device of the character described, a plurality of outer conductors having terminal connections; a third and normally neutral conductor between the conductors first mentioned; a meter having its main coil connected with one of the outer conductors; a plurality of load resistances of high temperature coefficient arranged to be connected across the outer conductors and with the main coil, said resistances also being arranged for connection with said third conductor; a supplementary resistance of high temperature coefficient connected with one of the outer conductors and with the shunt coil of the meter, the latter coil having connection with the other of said outer conductors; independent means arranged to connect the outer conductors; means for connecting the third and normally neutral conductor with the supplementary resistance and the negative terminal; and means for disconnecting one of the outer conductors from said negative terminal.



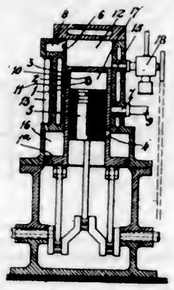
2. In a device of the character described, a plurality of outer conductors having terminal connections; a third and normally neutral conductor between the conductors first mentioned; a meter having its main coil connected with one of the outer conductors; a plurality of load resistances of high temperature coefficient arranged to be connected across the outer conductors and with the main coil, said resistances also being arranged for connection with said third conductor; a supplementary resistance of high temperature coefficient connected with one of the outer conductors and with the shunt coil of the meter, the latter coil having connection with the other of said outer conductors; an adjustable resistance of constant resistance material in series with the supplementary resistance of high temperature coefficient; independent means arranged to connect the outer conductors; means for connecting the third and normally neutral conductor with the supplementary resistance and the negative terminal; and means for disconnecting one of the outer conductors from said negative terminal.

1,136,811. CONSTRUCTION OF FURNITURE. TIVADAR KASANSZKY, Ujpest, and SÁNDOR BERNSTEIN, Budapest, Austria-Hungary. Filed Jan. 28, 1913. Serial No. 744,655. (Cl. 20—92.)



In a furniture joint, the combination with the members to be joined, one of said members having a seat forming a mortise, the other said member having a reduced tongue forming a tongue, the latter fitting in the seat, the member having the reduced tongue being provided with an open side groove which extends through the tongue, the inner end of the open side groove being enlarged to form an abutment adjacent the smaller portion of the open side groove, the enlarged inner end being also open to afford access through the outside, a screw having a flanged head, the latter having openings for the insertion of a tool to rotate the screw, the flange of the screw bearing against the abutment and the stem of said screw extending through the smaller portion of the open side groove and into the member formed with the seat whereby when the screw is rotated and driven into the member having the seat, the flange will impinge the abutment and force the tongue into the seat, the head of said screw being held in the enlarged end of the groove and accessible from the exterior and the point of the screw extending into the first member a distance greater than the length of the tongue, whereby by partially unscrewing the screw the tongue may be drawn out of the seat and the second member moved laterally for complete disengagement from the first member without disengagement of said screw from said first member.

1,136,812. INTERNAL-COMBUSTION ENGINE. THOMAS DANIEL KELLY, Southend-on-Sea, England. Filed July 30, 1914. Serial No. 854,147. (Cl. 123—50.)

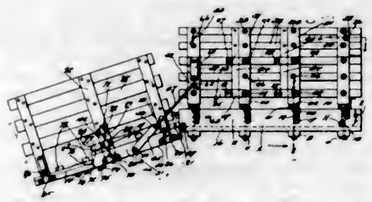


1. In an internal combustion engine, a cylinder having upper and lower portions of less and greater diameter, respectively, a piston having heads of less and greater diameter, respectively, to work in said respective upper and lower cylinder portions, charge chamber arranged at the upper end of the cylinder portion of less diameter and having an opening extending to the interior of said cylinder, a pipe connecting said charge chamber and the cylinder portion of greater diameter, the cylinder having an exhaust opening adjacent the lower end of its cylinder portion of less diameter, and having an inlet opening in the cylindrical wall of said cylinder portion of less diameter and at some distance below said charge chamber and above said exhaust opening, the reduced head of said piston having inlet and exhaust openings which in the extreme upper position of said piston register with said opening leading from said charge chamber and said exhaust opening of said cylinder, and a second piston working within the reduced head of said first-named piston and moving lengthwise of said first-named piston in an opposite direction thereto.

2. In an internal combustion engine, a cylinder having upper and lower portions of less and greater diameter, respectively, a piston having heads of less and greater diameter, respectively, to work in said respective upper and lower cylinder portions, a charge chamber arranged at the upper end of the cylinder portion of less diameter and having an opening extending to the interior of said cylinder, a pipe connecting said charge chamber and the cylinder portion of greater diameter, the cylinder having an exhaust opening adjacent the lower end of its cylinder portion of less diameter and having an inlet opening in the cylindrical wall of said cylinder portion of less diameter and at some distance below said charge chamber and above said exhaust opening, the reduced head of said piston having inlet and exhaust openings which in the extreme upper position of said piston register with said opening leading from said charge chamber and said exhaust opening of said cylinder, a second piston working within the reduced head of said first-named piston and moving lengthwise of said first-named piston in an opposite direction thereto, and a valve-controlled gas inlet connection interposed in said pipe.

1,136,813. COMBINATION WAGON-BODY, HAY AND HOG RACK, AND HOG-CHUTE. ZACHARIAH T. KIRKHAM, Mount Sterling, Ill. Filed Mar. 11, 1914. Serial No. 823,953. (Cl. 21—74.)

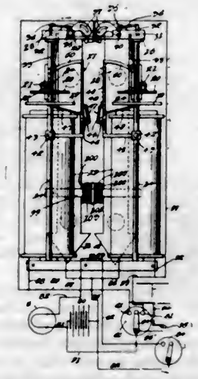
1. In a device as set forth, a vehicle body including a tail end gate hingedly connected thereto, means connecting the gate and the body to hold the gate in an inclined position, a gate extension member, means for detchably connecting the gate and the member, the side edges of the gate and the member having arched straps, said gate at its side edges having troughs, side racks having legs, two legs of each rack adapted to enter each trough, the end legs of each side rack having metallic strips to engage the arched straps, another of said legs of each side rack having a locking device to engage another of said arched straps for detachably locking each side rack in position, the troughs of the gate adapted to receive the sides of the body when the gate is thrown up.



2. In a device as set forth, a vehicle body including a tail end gate hingedly connected thereto and having its side edge portions provided with troughs to receive the ends of the sides of the vehicle body when the gate is vertical, a tail end gate extension having connections with the tail end gate, the side edges of the tail end gate adjacent the trough and the side edges of the extension having arched straps, tail end gate side members engaging said troughs and provided with elements engaging said straps, one of said elements adapted to be partially rotated and provided with an angled end to engage under the tail end gate to lock the tail end gate side members in position.

3. In a device as set forth, a vehicle body including a tail end gate hingedly connected thereto and having its side edge portions provided with troughs to receive the ends of the sides of the vehicle body when the gate is vertical, a tail end gate extension having connections with the tail end gate, the side edges of the tail end gate adjacent the trough and the side edges of the extension having arched straps, tail end gate side members engaging said troughs and provided with elements engaging said straps, one of said elements adapted to be partially rotated and provided with an angled end to engage under the tail end gate to lock the tail end gate side members in position, links detachably connected to the opposite side edges of the tail end gate, hooks connecting said links detachably to the sides of the vehicle body, and foothold means on the tail end gate.

1,136,814. AUTOMATIC DIRECTION-INDICATOR. NATHANIEL W. KLEINMAN, Brooklyn, N. Y. Filed Apr. 8, 1914. Serial No. 830,442. (Cl. 177—337.)



1. A direction indicator comprising a casing to be secured to the rear of an automobile, a pair of indicating arrows swingingly mounted within the casing to be swung outwardly therefrom in horizontal extended position, a frame mounted within the casing, said arrows pivotally

supported by the frame, electromagnets mounted within the casing, plates slidably mounted on the frame above the magnets to be attracted thereby, a second set of plates slidably connected with the first plates and slidably mounted on the frame, shafts journaled in the frame for supporting the arrows, means for connecting the shafts with the second set of plates, and automatic means for energizing the magnets whereby the plates are moved on said frame and the arrows moved into extended horizontal position from the casing, operated when the automobile makes a right or left turn.

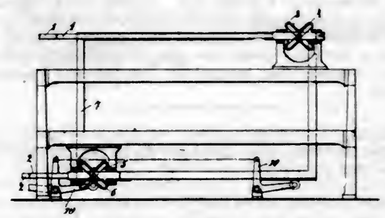
2. A direction indicator comprising a casing to be secured to the rear of an automobile, a pair of indicating arrows swingingly mounted within the casing to be swung outwardly therefrom in horizontal extended position, a frame mounted within the casing, said arrows being pivotally supported by the frame, electromagnets mounted within the casing, plates slidably mounted on the frame above the magnets to be attracted thereby, a second set of plates slidably connected with the first plate and slidably mounted on the frame, shafts journaled in the frame for supporting the arrows, means for connecting the shafts with the second set of plates, automatic means for energizing the magnets whereby the plates are moved on said frame and the arrows moved into extended horizontal position from the casing, operated when the automobile makes a right or left turn, and means for automatically illuminating the arrows at the time of their disposal in horizontal extended position relative to the casing.

3. In a direction indicator, a casing to be mounted upon the rear of an automobile, a pair of indicating arrows swingingly connected with the casing to be swung into horizontal extended position, means mounted within the casing for operating the arrows, a pair of rotatable shafts mounted within the casing and secured at certain of their terminals to the arrows, said shafts operatively connected with the operating mechanism for the arrows, a frame for supporting the operating mechanism and shafts, electric lamps carried by said arrows, a contact member carried by said shafts, a fixed contact member on the frame, said first named contact member normally out of engagement with the fixed contact members, said contacts being operatively connected with a battery circuit and the electric lamps to coöperate with each other when the arrows move singly or together into horizontal extended position, to cause illumination of the arrows.

4. A direction indicator for automobiles comprising a casing to be secured to the rear of an automobile, a pair of indicating arrows, operating means for the arrows mounted within the casing, said arrows swingingly connected with the operating means to be swung from the casing into horizontal extended position, said operating mechanism comprising electromagnets to be energized automatically when the automobile makes a right or left turn, independently, and simultaneously, means for automatically and independently energizing the magnets operatively connected with the steering gear of the automobile, means for simultaneously energizing the magnets to be mounted adjacent the driver's seat of the automobile, a frame mounted within the casing, means slidably mounted on the frame and operatively connected with the arrows for extending the arrows, means for connecting said last named means with the arrows and means for holding the slidably mounted operating means against accidental sliding movement supported by said frame, said slidably mounted operating means to be attracted by the magnets when the magnets are energized.

5. An automobile direction indicator comprising a casing to be secured to the rear of an automobile, a frame mounted within the casing, a pair of arrows swingingly connected with the frame exteriorly of the casing to be swung into horizontal extended position relative to the casing, electromagnets mounted within the casing and to be singly and simultaneously energized, means for independently energizing the magnets, automatically operated when the vehicle makes a right or left turn, means for simultaneously energizing the magnets, a pair of plates slidable on the frame to be drawn downwardly when the magnets are energized, a second pair of plates slidably mounted upon the frame above the first pair, each plate of said second pair being slidably connected with the plates of the first pair, means connected with the second pair of plates and operatively connected with the arrows, spring catches for normally holding the second plates against sliding movement, and means for disengaging the spring catches from the second pair of plates operated by the first pair of plates when the magnets are energized.

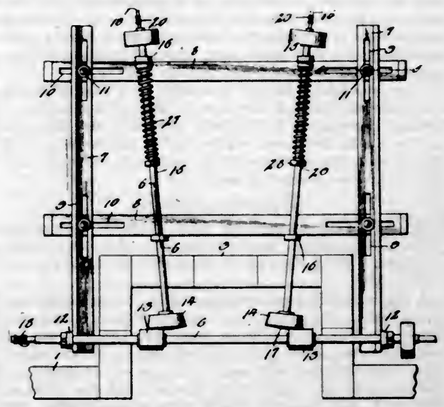
1,136,815. FRAME-ACTUATING MECHANISM FOR EMBROIDERING-MACHINES. JOHANN JAKOB KNECHT, Chemnitz, Germany. Filed Oct. 11, 1910. Serial No. 586,507. (Cl. 112—7.)



1. In an embroidering machine the combination of a vertical fabric frame composed of limbs, movable supports upon which said frame is mounted, and a plurality of actuating devices severally engaging different limbs at opposite sides of said frame, whereby movements in different paths are imparted to said frame, each of said movements being imparted by said actuating devices acting together on said different limbs.

2. In an embroidering machine the combination of a vertical fabric frame composed of limbs, movable supports upon which said frame is mounted, and two actuating devices severally engaging different limbs of said frame at diametrically opposite corners thereof, the several actuating devices imparting like movements to the frame.

1,136,816. APPARATUS FOR DRAWING SHEET-GLASS. LOUIS J. KREBS, Coffeyville, Kans. Filed Jan. 17, 1914. Serial No. 812,834. (Cl. 49—17.)

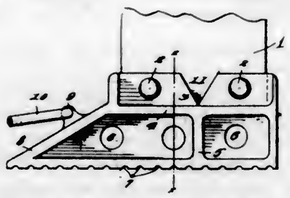


1. In an apparatus for drawing sheet glass, a rotary shaft, guide rollers carried by said shaft to bear against one face of the sheet as drawn, a pair of rotary shafts arranged at an angle to the first named shaft, spreader rollers carried by said shafts in line with the guide rollers and arranged to bear against the opposite face of the sheet and to laterally spread the same to maintain a uniform width thereof, and means for rotating the respective shafts.

2. In an apparatus for drawing sheet glass, a rotary shaft, guide rollers carried by said shaft to bear against one face of the sheet as drawn, a pair of rotary shafts arranged at an angle to the first-named shaft, spreader rollers carried by said shaft in line with the guide rollers and arranged to bear against the opposite face of the sheet and to laterally spread the same to maintain uniform width thereof, means for adjusting the second-named shafts to vary the relationship of the axes of the rollers, and means for rotating the respective shafts.

3. In an apparatus for drawing sheet glass, a rotary shaft, guide rollers carried by said shaft to bear against one face of the sheet as drawn, a pair of rotary shafts arranged at an angle to the first-named shaft, means for adjusting said pair of rotary shafts in a vertical direction and horizontally toward or from each other, spreader rollers carried by said shafts in line with the guide rollers and arronged to bear against the opposite face of the sheet to laterally spread the same to maintain a uniform width thereof, and means for rotating the respective shafts.

1,136,817. ANCHOR-PLATE. WILLIAM C. LADD, Mendota, Ill. Filed July 12, 1913. Serial No. 778,737. (Cl. 72—108.)



1. An anchoring device consisting of a casting having a base portion and a plurality of longitudinal and vertical ribs and a vertical web in conjunction with said vertical and longitudinal ribs forming an upper and lower recess in said casting, the upper recess receiving the lower end of the post and the lower recess receiving cement, a nose formed on the casting, and a tie rod secured to said nose.

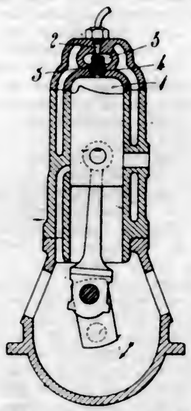
2. A device of the character described, comprising a lower corrugated base, a projecting toe or nose, tie rods secured thereon, a plurality of longitudinally and horizontally extending ribs cast integral therewith, a vertical connecting rib for said ribs forming pockets having openings therein, a retaining means adapted to fill said openings to secure said plate and stud in position.

3. An anchoring device, consisting of a casting having a bottom rib forming the base, a parallel horizontal rib forming the support for the post, a vertical rib connecting said base and horizontal supporting rib and forming pockets on each side of the casting, said casting having openings to receive anchoring means.

1,136,818. FUEL-GASIFIER FOR INTERNAL-COMBUSTION ENGINES. HARRY FERDINAND LEISSNER, Ljusne, Sweden. Filed Mar. 18, 1914. Serial No. 825,634. (Cl. 123—30.)

1. In an internal combustion engine, the combination of a combustion chamber, a primary explosion chamber, and means dividing said primary explosion chamber into two compartments, said compartments being in permanent open communication with each other and one of them being isolated from the combustion chamber and the other extending to and being in direct open communication with the combustion chamber.

2. In an internal combustion engine, the combination of a combustion chamber, a primary explosition chamber, means for introducing liquid fuel into the latter, and means dividing said primary explosion chamber into two compartments, the latter being in permanent open communication with each other, and one of them being isolated from the combustion chamber and the other extending to and being in direct open communication with the said fuel-introducing means and the combustion chamber.



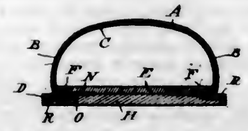
3. In an internal combustion engine the combination of, a combustion chamber, a primary explosion chamber, means for introducing liquid fuel into the latter, and means dividing said primary explosion chamber into two compartments, the latter being in permanent open communication with each other, and one of them being isolated from the combustion chamber, and the other extending to and being in direct open communication with the said combustion chamber, the passages allowing the communication between the said two compartments of the primary explosion chamber being of smaller cross sectional area than the passages allowing the communication between one of said compartments and the combustion chamber, substantially as and for the purpose set forth.

4. In an internal combustion engine the combination of a combustion chamber, a primary explosion chamber, means for introducing liquid fuel into the latter, means dividing the latter into two compartments, and a fuel spraying device between the said primary explosion chamber and the combustion chamber, the compartments of the primary explosion chamber being in permanent open communication with each other and one of them being isolated from the combustion chamber and the other being arranged to receive fuel from the fuel-introducing means and being extended to and arranged in direct open communication with the said combustion chamber, substantially as and for the purpose set forth.

5. In an internal combustion engine the combination of, a combustion chamber, a primary explosion chamber, a sleeve extending into the latter and dividing it into two compartments one outside and one inside said sleeve, a fuel nozzle opening into the latter compartment, the said compartments being in permanent open communication with each other and that inside the sleeve being extended to and arranged in direct open communication with the said combustion chamber, substantially as and for the purpose set forth.

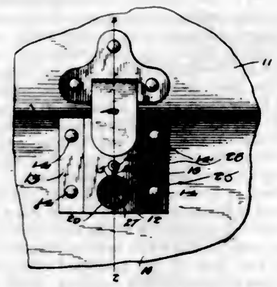
[Claim 6 not printed in the Gazette.]

1,136,819. WATERPROOF SHOE. CHARLES M. LENKER, Shamokin, Pa. Filed Feb. 9, 1915. Serial No. 7,061. (Cl. 36—17.)



A water-proof shoe comprising an upper and an insole having a recess in the under marginal surface thereof, a sheet of water-proof material in said recess and projecting over the inturned edge of the upper, a welt stitched to said water-proof material, upper and insole, an out sole having a recess in its upper marginal surface, and a sheet of water-proof material in said recess and in contact with the water-proof material in the under surface of the insole and extending underneath the welt.

1,136,820. PERMUTATION-LOCK. BERNHARD LERBACK, Mandan, N. D. Filed May 23, 1913. Serial No. 769,513. (Cl. 70—55.)

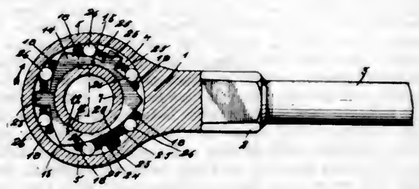


1. A device of the class described comprising a casing having a pocket, a locking frame positioned within said pocket, said locking frame comprising a U-shaped head extending transversely across said pocket, a rod carried by the lower portion of said head, a base carried upon the lower end of said rod and extending transversely across said pocket, said base and head bearing upon the side portion of said casing whereby said locking frame will be held against wabbling and will be allowed to slide freely within said casing, a spring carried upon said rod, said spring being adapted to exert an upward pressure upon said head whereby said locking frame will be normally urged upwardly, a lug formed upon the lower portion of said base, means engaging said lug for locking said frame in the upper portion of said casing, said frame being adapted to engage a hasp.

2. A device of the class described comprising a casing having a pocket, a locking frame positioned within said pocket, said locking frame comprising a U-shaped head, a rod depending from said head, a base carried upon said rod, said base and head fitting snugly upon the side portions of said casing, a spring mounted upon said rod, said spring engaging a portion of said casing and engaging said head for normally urging said locking frame upwardly, said casing provided with a slot in its forward portion, a pin passing through said slot and engaging said base whereby said locking frame may be moved when the device is unlocked, means for releasably holding said frame in a locked position, said frame being adapted to engage a hasp.

3. A device of the class described comprising a casing having a pocket, a locking frame positioned within said pocket, said locking frame comprising a U-shaped head extending transversely across said pocket, a rod carried by the lower portion of said head, a base carried upon the lower end of said rod and extending transversely across said pocket, said base and head bearing upon the side portion of said casing whereby said locking frame will be held against wabbling and will be allowed to slide freely within said casing, a spring carried upon said rod, said spring being adapted to exert an upward pressure upon said head, whereby said locking frame will be normally urged upwardly, a lug formed upon the lower portion of said base, permutation disks rotatably carried within said pocket, said disks provided with notches formed in their outer peripheries, said disks being adapted to be rotated so as to cause said notches to register with each other in alinement with said lug, whereby the lug may be moved into said notches when it is desired to move the locking frame, said frame being adapted to engage a hasp when in a locked position.

1,136,821. INTERMITTENT-GRIP DEVICE. OSMOND E. LOOMIS, Akron, Ohio, assignor of three-eighths to Ivan Thursby and three-eighths to Oscar E. Roush, Akron, Ohio. Filed Feb. 6, 1914. Serial No. 816,978. (Cl. 74—55.)



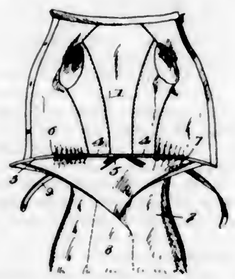
1. A device of the class described comprising a body having an operating handle, said body provided with an enlarged pocket, said body also provided with an opening communicating with said pocket, a sleeve passing through said opening in said pocket, said sleeve provided with an enlarged head inclosing said pocket, and fitting over said sleeve, a cam positioned in said pocket, means for holding said sleeve and cam against independent rotation, said cam comprising a substantially triangular body, said cam provided with an integral lug extending from each side thereof, each of said lugs provided with a plurality of spring receiving pockets, coiled springs carried within said pockets and extending therebeyond, a plurality of roller bearings positioned within said pocket and engaging the free ends of said springs, said head provided with a circular groove, a shifting plate positioned within said groove, said plate provided with a plurality of shifting pins extending into said pocket, said pins adapted to engage said roller bearings, said head provided with a longitudinal slot, an operating pin engaging said shifting plate and passing through said slot, a trigger carried by the outer end of said operating pin, said head provided with a plurality of notches adapted to be engaged by said trigger whereby said pin may be shifted for moving said plate at which time said trigger may engage one of said notches for holding said plate in a set position, said pins engaging said roller bearings whereby when said plate is shifted a plurality of roller bearings will be moved from binding engagement with said body, and the remaining roller bearings will be moved into binding engagement with said body and said cam whereby said cam will be rotated as said body is rotated in one direction, and said body adapted to be rotated in the opposite direction without interference from said roller bearings.

2. A device of the class described comprising a body having an operating handle, said body provided with an enlarged pocket, said body also provided with an opening communicating with said body, a sleeve passing through said opening in said pocket, said sleeve provided with an enlarged head inclosing said pocket and fitting over said sleeve, a cam positioned in said pocket, means for holding said sleeve and cam against independent rotation, said cam comprising a substantially triangular body, said cam provided with an integral lug extending from each side thereof, each of said lugs provided with a plurality of spring receiving pockets, coil springs carried within said pockets and extending therebeyond, a plurality of roller bearings positioned within said pocket and engaging the free ends of said springs, said head provided with a circular groove, a shifting plate positioned within said groove, said plate provided with a plurality of shifting pins extending into said pocket, said pins adapted to engage said roller bearings, means for shifting said plate, whereby when said plate is shifting said pins will move so as to allow a plurality of said roller bearings to move in binding engagement with said body and said cam where-

by said cam will be rotated as said body is rotated in one direction and said body being adapted to be rotated in the opposite direction without interference from said roller bearing.

3. A device of the class described comprising a body having an operating handle, said body provided with an enlarged pocket, said body also provided with an opening communicating with said pocket, a sleeve passing through said opening in said pocket, said sleeve provided with an enlarged head inclosing said pocket and fitting over said sleeve, a cam positioned within said pocket, means for holding said sleeve and cam against independent rotation, said cam comprising a substantially triangular body having bowed side portions, lugs formed integral upon said cam at spaced distances from the corner portions thereof, roller bearings positioned within said pocket, coil springs engaging said lugs and roller bearings for normally urging said roller bearings away from said lugs, means carried within said pocket for engaging said roller bearings and moving a plurality of the bearings in the desired direction at which time the remaining bearings will move into binding engagement with the outer bowed surfaces of said cam and the inner surfaces of said body whereby when said body is moved in one direction, said cam and sleeve will also be moved in the same direction, said body being adapted to move in the opposite direction without interference from said roller bearings.

1,136,822. GARMENT. ROBERT E. LOWE, Brooklyn, N. Y. Filed Jan. 5, 1912. Serial No. 669,691. (Cl. 2—145.)



1. A garment of the character described having a waist band and an enlarged casing secured to the waist band and adapted to be shirred to fit the wearer, the shirring being limited to the portions of the waist band over the hips by drawing strings respectively secured thereto at one margin of each of the portions to be shirred and leading in the direction of the other margin thereof, and by a belt secured to said waist band at the other margins of said portions to be shirred and having free end portions overlapping the full length of the shirred portions of the band and extending in the opposite directions from said drawing strings, whereby the front and back portions of said band may be preserved smooth and flat by tightening each of the drawing strings in one direction and the corresponding overlapping free end portion of the belt in the opposite direction.

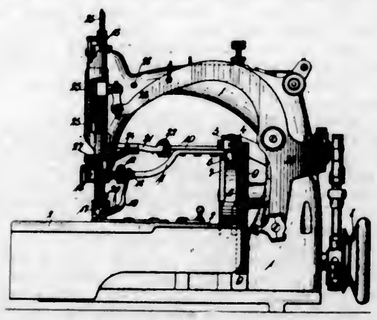
2. A garment of the character described having an enlarged casing adapted to be shirred to fit the wearer, the shirring being limited to the portions of the casing over the hips by drawing strings respectively secured thereto at the margin of each of the portions to be shirred nearest the opening in the garment and leading in the direction of the other margin of the portion to be shirred, and by a belt secured to the waist band of the garment at the other margins of said portions to be shirred and having free end portions overlapping the full length of the shirred portions of the band and extending in the opposite directions from said drawing strings, whereby the front and back portions of said band may be preserved smooth and flat by tightening each of the drawing strings in one direction and the corresponding overlapping free end portions of the belt in the opposite direction.

3. A garment of the character described having a waist band, an enlarged casing provided with an opening therein and adapted to be shirred to fit the wearer, the shirring being limited to the portions of said casing over the hips by drawing strings secured thereto at points between which and said opening no shirring is desired and by a belt secured to the other edges of the portions of said waist band to be shirred, said belt having free end portions overlapping the shirred portions of the band throughout and extending in opposite directions from said drawing strings.

4. A garment of the character described having a waist band, an enlarged casing provided with an opening in the front thereof and adapted to be shirred to fit the wearer, the shirring being limited to the portions of said casing over the hips by drawing strings secured thereto at the margins of the front gore, and by a belt secured to the rear of said waist band at the margins of the back of the garment and having free end portions overlapping the shirred portions of the band throughout, said drawing strings extending to the back and the free ends of said belt extending to the front of the garment.

5. A garment of the character described having a waist band, an enlarged casing positioned at the waist band, and means for shirring said casing at the side portions thereof over the hips, leaving the waist band substantially smooth in the front and back of the garment, said means comprising two sets of overlapping members, those of one set being secured to corresponding edges of the portions to be shirred, the members of the other set being attached to the opposite edges of said portions to be shirred and overlapping the first set throughout the shirred portions.

1,136,823. SEWING-MACHINE. CARL MAIER, Stuttgart, Germany, assignor to the Firm of Union Special-Maschinenfabrik G. M. B. H., Stuttgart, Germany. Filed Aug. 9, 1910. Serial No. 576,376. (Cl. 112—7.)

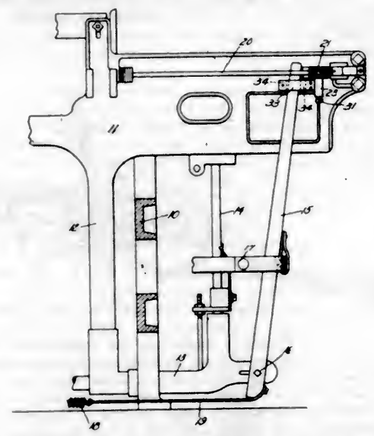


1. A sewing machine including in combination a driving shaft, a laterally movable needle, an oscillating thread guide, a single bell crank lever, devices for oscillating said lever from said driving shaft, said lever having two arms, devices for connecting one of said arms to the needle for moving the same laterally and devices for connecting the other arm to the thread guide for oscillating the same.

2. A sewing machine including in combination a driving shaft, a laterally movable needle, an oscillating thread guide, a single bell crank lever, devices for oscillating said bell crank lever from said driving shaft, said bell crank lever having a long arm and a short arm, devices for connecting the short arm with the needle bar for moving the same laterally and devices for connecting the long arm with the oscillating thread guide for oscillating the same.

3. A sewing machine including in combination a driving shaft, a laterally movable needle, an oscillating thread guide, a single bell crank lever and devices operated by the driving shaft for oscillating said lever, said bell crank lever having a long arm and a short arm, a needle bar carrying said needle, a guide for the needle bar and means for oscillating said guide from said short arm, a toothed sector carrying said thread guide, a second toothed sector meshing with said first named sector for swinging the same and a link connecting said long arm with said second toothed sector for oscillating the same.

1,136,824. PICKING MECHANISM FOR LOOMS. MICHAEL H. MALONEY, Plymouth, Mass. Filed July 18, 1914. Serial No. 851,736. (Cl. 139—48.)



1. A picker mechanism, comprising a spindle, a picker slidably fitted thereto, positive operating means therefor, and a connection between said operating means and said picker formed for releasing disengagement under excess operating strain, and for convenient manual reassemblage.

2. A picker mechanism, comprising a spindle, a picker slidably fitted thereto, positive operating means therefor, and a member connecting said operating means with said picker having connection with the picker by means of a yielding detent adapted to permit disconnection of said member, and convenient reassemblage of said member with the picker.

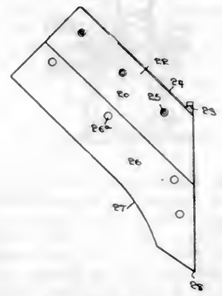
3. A picker mechanism, comprising a spindle, a picker slidably fitted thereto, positive operating means therefor, a member connecting said operating means with said picker, and means for connecting said picker and said member yieldingly together consisting in a spring pressed conical detent in one of said members engaging a correspondingly formed recess in the other.

4. A picker mechanism, comprising a spindle, a picker slidably fitted thereto having a depending post, a strap extending horizontally from said post below the picker having yieldingly disengageable connection therewith, and a picker stick arm engageable with said strap for actuating the picker.

1,136,825. PLOWSHARE. MATTHEW MARES, Racine, Wis. Filed Jan. 23, 1913. Serial No. 743,867. (Cl. 97—22.)

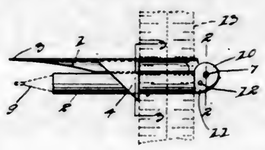
1. A plow share comprising; a cutter blade, an upper share section and a frog connecting said cutter blade and said upper plow section together, said frog consisting of a body portion having a recess in one end thereof, a supporting lug on the recessed end of said body portion, and a plurality of apertures through said body portion, said recess, lug and apertures fastening said cutter blade and upper share section together in interlocked position.

2. A plow share comprising; a cutter blade having a landside section, and with a plurality of apertures parallel with one edge portion of the cutter blade, an upper section having a land side section to match and seat flush with the landside section of the cutter blade, an offset flange to said upper section having a pluralty of apertures parallel to the edge of said flange, said flange adapted to seat over the edge portion of the cutter blade so that the apertures in the flange will register with the apertures in the cutter blade, fastening devices passing through said apertures, and fastening said flange to the cutter blade, a frog having a recess portion to seat over a portion of said flange, and having a supporting lug



adapted to seat against the landside section of the upper plow section, one edge of said frog resting against the landside section of the cutter blade to prevent lateral play and said supporting lug supporting the landside section of the upper plow section flush with the landside section of the cutter blade, and a fastening device passing through said frog and said cutter blade to retain said frog in position, one end of said frog being retained by one of the fastening devices fastening the upper plow section to the cutter blade.

1,136,826. COMBINATION POCKET-TOOL. GEORGE F. MILLER and HERMAN M. KONEISKA, San Francisco, Cal. Filed Feb. 27, 1914. Serial No. 821,517. (Cl. 33—103.)



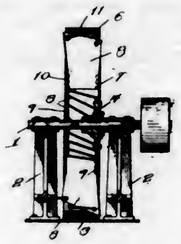
1. A combination pocket tool comprising a member having parallel projections, a second member pivoted to the first member, and means carried by the second member for coöperation with one of said parallel projections to clamp a third member upon movement of the second member toward the first member.

2. A device of the class described comprising a member having parallel projections and a hinge member formed on one end, a second member having hinge members pivoted to the hinge member of the first mentioned member, and means carried by the second mentioned member for coöperation with one of said parallel projections to clamp in position a measuring tool when the first mentioned and second mentioned members are in parallel relation.

1,136,827. FAN-BLOWER. WILLIAM J. MONTGOMERY, Jeannette, Pa., assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed June 19, 1909. Serial No. 503,207. (Cl. 230—11.)

1. In a fan, the combination of the stationary support, the shaft mounted thereon, the solid plane disk rigidly secured to the shaft, the fan blades secured to the disk and disposed with their planes intersecting the plane of the disk and extending beyond the outer peripbery of the disk, being adapted to throw air in a direction parallel to the fan shaft, and a circular plate of an outer diameter

equal to that of the disk secured to the opposite edges of the fan blades in a position concentric with the fan shaft and having an in-take opening through which the blades can draw air.

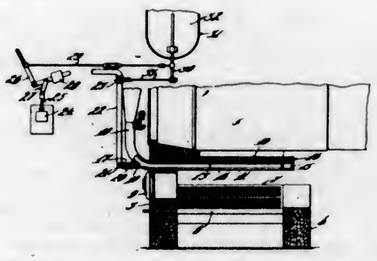


2. In a fan, the combination of the stationary support, the shaft mounted thereon, the blades mounted upon the shaft so that each makes an acute angle with the plane of the fan as a whole and has its two radial edges disposed in straight lines, and stay-rods securing the rear outer corner of each blade to the forward outer corner of the blade behind it in such positions relatively to each other that the blades have the shape of a warped surface and that the perpendicular distance between adjacent straight radial edges of adjacent blades is substantially constant for all radial distances.

3. The combination of the shaft, the disk rigidly secured to the shaft, the blades secured to the disk independently of the shaft and projecting radially beyond it, and means independent of the shaft for connecting and bracing together rigidly the inner ends of the blades at their edges opposite to the disk and at points remote from the shaft.

4. The combination of the shaft, the disk rigidly secured to the shaft, the blades secured to the disk independently of the shaft and projecting radially beyond it, means independent of the shaft for connecting and bracing together rigidly the inner ends of the blades at their edges opposite to the disk and at points remote from the shaft, and devices carried by the blades for connecting them at their outer ends and holding them in fixed spaced relationship to each other.

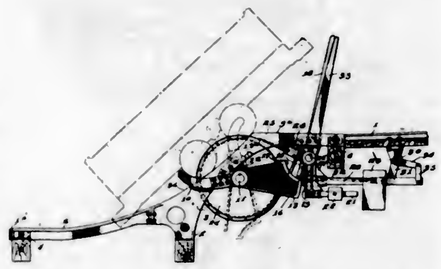
1,136,828. FURNACE. MONROE J. MOONEY, Cincinnati, Ohio. Filed July 15, 1912. Serial No. 709,535. (Cl. 110—28.)



1. In a furnace, a combustion chamber, an arch forming the top of said chamber having a coincident liner plate at the rear end thereof, a series of nozzles longitudinally embedded in said arch supportingly engaged in said liner plate, each longitudinally apertured to jet a spray of fuel into said combustion chamber, and an injector on each nozzle exterior of the furnace combining two conduits, a fuel supply and a fluid pressure for advancing the fuel within the nozzle.

2. In a furnace, a combustion chamber, an arch forming the top of said chamber having a coincident liner plate at the rear end thereof, a boiler supported over said chamber and arch, a series of nozzles within said arch supportingly engaged with said plate and each longitudinally apertured toward the combustion chamber, an injector for each nozzle comprising two conduits, one a disintegrated bituminous fuel supply, and the second a fluid pressure supply, the fluid pressure advancing the fuel within the nozzle, and a valve controlling the fluid pressure to the injector.

1,136,829. CAR-DUMPING APPARATUS. GEORGE H. MUELLER, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Jan. 2, 1913. Serial No. 739,838. (Cl. 214—8.)



1. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a brake on the rock shaft for resisting its movement and that of the horns, a movable stop for positively limiting the movement of the shaft and the horns in one direction, a lever for regulating the said brake, and a second lever movable independently of the first for moving the said stop into and out of operative position.

2. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a brake on the rock shaft for resisting its movement and that of the horns, a movable stop for positively limiting the movement of the shaft and the horns in one direction, a counter-weight connected for normally applying the brake, a hand lever for regulating the said brake, and a second lever movable independently of the first for moving the said stop into and out of operative position.

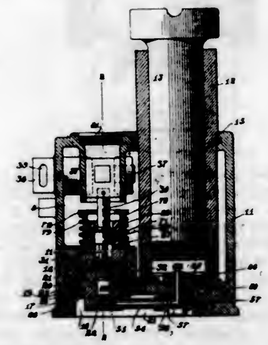
3. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks, at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a brake on the rock shaft for resisting its movement and that of the horns, a movable stop for positively limiting the movement of the shaft and the horns in one direction, a lever for regulating the said brake, a second lever movable independently of the first for moving the said stop out of operative position, and a counter-weight connected for normally holding the stop in its operative position.

4. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a brake on the rock shaft for resisting its movement and that of the horns, a movable stop for positively limiting the movement of the shaft and the horns in one direction, a counter-weight connected for normally applying the brake, a lever for regulating the said brake, a second lever movable independently of the first for moving the said stop out of operative position, and a counter-weight connected for normally holding the stop in its operative position.

5. In a car dumping apparatus, the combination with approximately horizontal car feed and car discharge tracks at different levels, and a sharply inclined rigidly mounted stationary track connecting the feed and discharge tracks, of a transverse rock shaft, horns secured to the rock shaft and adapted to be swung into and out of the path of the wheels of a car on the sharply inclined track, a brake on the rock shaft for resisting its movement and that of the horns, a second transverse rock shaft, an arm on the first shaft, a stop on the second shaft adapted to engage the arm to limit the movement of the first shaft and that of the horns, a lever secured to the second rock shaft for moving it to bring the stop into or out of operative position, and a second lever loosely mounted on the said second shaft and operatively connected with the brake.

[Claims 6 and 7 not printed in the Gazette.]

1,136,830. HYDRAULIC JACK. JAMES W. NELSON and WILLIAM H. MATHERS, New York, N. Y. Filed Oct. 27, 1909, Serial No. 524,956. Renewed Sept. 11, 1914. Serial No. 861,325. (Cl. 138—9.)



1. A hydraulic jack comprising, with a suitable casing, a pump and a ram-cylinder having separate axes and a connecting conduit therebetween, said conduit being included within said casing and said pump being located within a removable pump-block, said conduit being detachably mounted to permit of such removal, the securing means for said pump-block and said conduit being exterior of said casing.

2. A hydraulic jack comprising, with a suitable casing, a pump and a ram-cylinder, having separate axes and a separate conduit therebetween and included within said casing, said pump being included within a removable pump-block, said conduit being screw threaded at both ends to permit of its removal and the removal of the said pump-block, the securing means for said pump-block and said conduit being exterior of said casing.

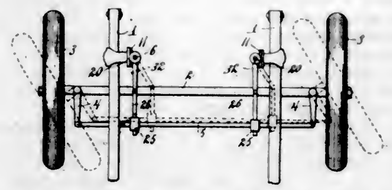
3. A hydraulic jack comprising a pump and a ram-cylinder having separate axes and a connecting conduit therebetween, suitable valves for said pump, and exterior means for removably securing the pump-block in said jack, said valves being located in said block and removable therewith, and said conduit having exterior detachable connection with the ram-cylinder to permit of removal with said pump-block.

4. A hydraulic jack having the ram-cylinder located at one side of the pump and a lateral conduit provided with screw-threaded connections to both said pump and to said ram-cylinder, said pump being removable with a pump-block, to which one end of said conduit is secured, and the other end of said conduit having exterior detachable connection with the ram-cylinder, whereby said conduit may be removed with said pump-block, all of said parts being included within a suitable casing.

5. A hydraulic jack comprising a body portion which provides receptacles for the ram-cylinder, for the pump-block and for the connecting conduit between pump and ram, and exterior means for removably securing said pump-block and said conduit in said receptacle, said conduit having a detachable connection with the ram-cylinder to permit of such removal.

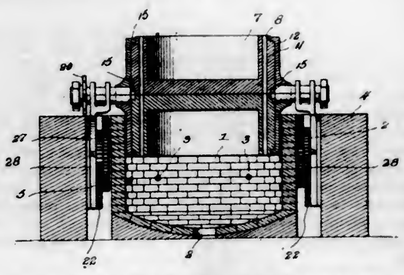
[Claims 6 to 11 not printed in the Gazette.]

1,136,831. AUTOMOBILE LAMP-GEAR. WILLIAM OSMOND, Scranton, Pa. Filed May 3, 1912, Serial No. 694,862. Renewed Sept. 18, 1914. Serial No. 862,404. (Cl. 240—62.)



In an automobile, the combination with the steering knuckle lever arms and the connecting rod joining said arms and located in parallel relation to the front axle, of vertical lamp carrying shafts journaled in advance of the vertical plane of the front axle, lever arms on the lamp carrying shafts having the same sweep or radius of movement as the knuckle lever arms, and rigid arms fastened to said connecting rod intermediate of the ends thereof and extending at right angles thereto, the lever arms of the lamp shafts being connected to said shafts by a knuckle joint having movement on a horizontal axis only, each of the last-named lever arms embodying telescopic sections.

1,136,832. GLASS-WORKING APPARATUS. CHARLES PAQUET, Okmulgee, Okla. Filed Jan. 3, 1914. Serial No. 810,200. (Cl. 49—53.)

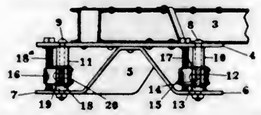


1. The combination with a furnace, of blocks vertically movable with relation thereto, bearings carried by the blocks, duplicate holding rings rotatably supported in the bearings, and a melting pot secured in each ring, said pots being reversed with relation to each other, each of said pots including an open ended receptacle and an outer wall surrounding the wall of the receptacle and spaced therefrom.

2. The combination with a furnace, of blocks vertically movable with relation thereto, bearings carried by the blocks, duplicate holding rings rotatably supported in the bearings, a melting pot secured in each ring, said pots being reversed with relation to each other, each of said

pots including an open ended receptacle and an outer wall surrounding the wall of the receptacle and spaced therefrom, said outer wall being formed with an annular projection to coöperate with the rings.

1,136,833. PLOW-BEAM ADJUSTMENT. WESLEY A. PAUL, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Apr. 5, 1913. Serial No. 759,173. (Cl. 97—60.)



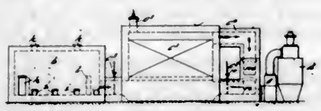
1. In a device of the class described, the combination of a main-frame, a horizontally disposed plate secured thereto, a plate connected with the first mentioned plate and having its ends spaced therefrom, a vertical member interposed between said plates adjacent the ends thereof and secured thereon, a plow-beam, a support movable on said vertical member and to which the plow-beam is horizontally pivoted, and means independent of said vertical member to adjust the support thereon.

2. In a device of the class described, the combination of a main-frame, a horizontally disposed plate secured thereto, a plate connected with the first mentioned plate and bent downwardly and extended laterally from said connection, a vertical member interposed between said plates adjacent the ends thereof and rigidly secured thereto, a support movable on said vertical member to which a plow-beam may be horizontally pivoted, and means independent of said vertical member and engaging with the support and operable to adjust the latter at will.

3. In a device of the class described, the combination of a main-frame, a horizontally disposed plate secured thereto, a plate connected intermediate its ends with the first mentioned plate and bent downwardly on opposite sides of said connection and having its end portions in a plane parallel to the first mentioned plate, vertical members interposed between the plates adjacent the ends thereof and rigidly secured thereto, a vertically movable support on each vertical member, a plow-beam horizontally pivoted on one of said supports, a brace connected to the plow-beam and horizontally pivoted to the second support, and screws mounted between the plates and engaging with the plow-beam and brace supports and operable to adjust the latter at will.

4. In a device of the class described, the combination of a main-frame, a horizontally disposed plate secured thereto, a plate connected intermediate its ends with the first mentioned plate and bent downwardly and outwardly on opposite sides of said connection, vertical members interposed between the plates adjacent the ends thereof and rigidly secured thereto, a vertically movable support on each vertical member, a threaded bearing forming part of each support, a plow-beam horizontally pivoted to one support, a brace connected to the plow-beam and to the other support by a horizontal pivot, and screws mounted between the plates and engaged with said threaded bearings and operable to adjust said supports at will.

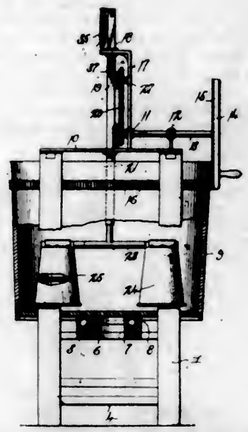
1,136,834. COPPER-SMELTING FURNACE. WALTER GEORGE PERKINS, London, England. Filed Jan. 20, 1913. Serial No. 743,159. (Cl. 75—17.)



1. In a copper smelting plant, the combination of a non-reversible gas-fired reverberatory furnace, a checker-work regenerator and means embodying an enlarged chamber between the said furnace and regenerator adapted to remove dust from the waste gases passing from the furnace to the regenerator.

2. In a copper smelting plant, the combination of a non-reversible gas-fired reverberatory furnace, a checker-work regenerator and an enlarged dust chamber situated between the said furnace and regenerator and through which the waste gases from the furnace pass at reduced velocity on their way to the regenerator.

1,136,835. WASHING-MACHINE. WINFIELD RIPLEY, Breckenridge, Colo. Filed Feb. 7, 1913. Serial No. 746,917. (Cl. 68—19.)



In a washing machine, a frame, a standard mounted upon the frame, having the upper end extending at right angles to the vertical portion provided with a square opening, a shaft mounted in said opening carrying at its lower end pounder heads, sprocket wheel mounted on the standard, an endless sprocket chain operatively mounted on said sprocket wheels, provided with lugs having recessed faces an arm pivoted to the pounder shaft provided with a lateral extension to engage the recessed faces in the lugs, a tripping dog, a spring to depress the pounder shaft when the arm is released from the lugs, a rotatable tub mounted in the frame and means to rotate the tub and operate the pounder mechanism.

1,136,836. DUST-SEPARATOR. JOHN ROBERTSON, Cincinnati, Ohio. Filed Mar. 20, 1911. Serial No. 615,766. (Cl. 83—47.)



1. In a dust separator, a filtering bag, a removable roll of corrugated material within said bag adapted to prevent its collapsing, and having its corrugations extending longitudinally therewithin to form a series of air passages lengthwise of and within said bag, substantially as set forth and for the purposes specified.

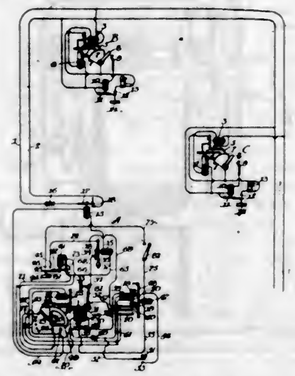
2. In a dust separator, a filtering bag and a removable piece of corrugated material within said bag having its corrugations extending longitudinally therewithin to form a series of air passages lengthwise of and within said bag.

1,136,837. LEMON-SQUEEZER. HENRY ROCHMILL, Selma, Ala. Filed Dec. 2, 1913. Serial No. 804,267. (Cl. 100—41.)



A lemon squeezer comprising an upper shank and a lower shank hinged together at one end, the upper shank being provided with a circular depression, a hollow pressure head having its marginal edge flanged and seated in said depression, said lower shank having a through bore of different diameters, a spout seated therein, said spout having a portion of its outer surface contacting with the lower portion of the bore and its upper edge flange and seat on the shoulder formed in the wall of the bore, and a flanged cup extending into said spout inclosing the upper end of the bore, said head, cup and spout being tapered longitudinally so that their surfaces will lie in close proximity to each other.

1,136,838. SELECTIVE CALL DEVICE. HARRY O. RUGH, Sandwich, Ill., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Filed Aug. 26, 1912. Serial No. 717,092. (Cl. 177—380.)



1. A calling device having a line circuit controlling element, individual operating devices corresponding respectively to the different calls, means under the control of each operating device to selectively control the operations of said line circuit controlling device, said means under the control of each operating device operating automatically upon actuation of any device aforesaid to send a predetermined call, means to restore said means to normal and means to at will prevent the restoration to normal of said means, whereby when one operating device has been actuated to send a call, succeeding devices may be successively operated to send their call.

2. A calling device having a line circuit controlling element, individual operating devices corresponding respectively to the different calls, means under the control of each operating device to selectively control the operations of said line circuit controlling device, said means under the control of each operating device operating automatically upon actuation of any device aforesaid to send a predetermined call, and including a common controlling element adapted to occupy different operating positions for the different calls, means to restore said element to normal and means to at will prevent the restoration to normal of said common controlling element, whereby when one operating device has been actuated to send a call, succeeding devices may be successively operated to send their call.

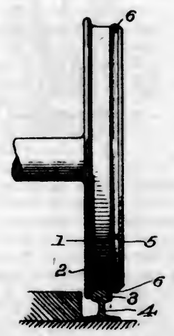
3. A calling device having a line circuit controlling element, individual operating devices corresponding respectively to the different calls, means under the control of each operating device to selectively control the operations of said line circuit controlling device, said means under the control of each operating device operating automatically upon actuation of any device aforesaid to send a predetermined call, and including a common step-by-step circuit controlling element, means to restore said element to normal and means to at will prevent the restoration to normal of said step-by-step element, whereby when one operating device has been actuated to send a call, succeeding devices may be successively operated to send their call.

4. A call box having line circuit controlling means, individual operating devices one for each call, means under the control of each operating device and operable automatically upon actuation of the associated device to selectively control the operations of said line circuit controlling means, means to restore said means to normal and means to at will prevent the restoration to normal of said means, whereby when one operating device has been actuated to send a call, succeeding devices may be successively operated to send their call.

5. A call box having line circuit controlling means, individual operating devices one for each call, means under the control of each operating device and operable automatically upon actuation of the associated device to selectively control the operations of said line circuit controlling means, said last aforesaid means including a common device adapted to occupy different operative resting positions corresponding to the different calls, means to restore said device to normal and means to at will prevent the restoration to normal of said common device, whereby when one operating device has been actuated to send a call, succeeding devices may be successively operated to send their call.

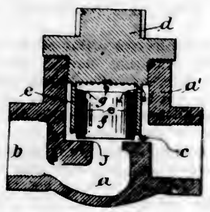
[Claims 6 to 17 not printed in the Gazette.]

1,136,839. CAR-WHEEL. PAUL SEIDEL, Los Angeles, Cal. Filed Nov. 18, 1914. Serial No. 872,802. (Cl. 105—181.)



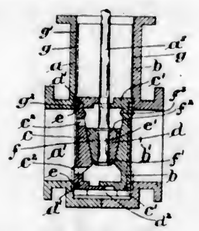
An ordinary flanged car wheel being provided with a peripheral annular recess formed in the face of the wheel to one side of the portion of the wheel which engages a T rail, and an elastic nonsonorous band seated in said annular recess and held therein by its elasticity for absorbing sound wave vibration for decreasing the noise occasioned by the travel of said wheel, said band extending outwardly of the periphery of said wheel.

1,136,840. AUTOMATIC CHECK-VALVE. EDWARD WORSTER SHAW, Brown Hill Mine, Kalgoorlie, Western Australia, Australia. Filed May 1, 1913. Serial No. 764,943. (Cl. 137—32.)



A check valve comprising a casing formed with intersecting inlet and outlet passages having a horizontally flat valve seat at the point of intersection thereof, said casing also being formed with an internally threaded upstanding throat directly over the valve seat, a nut having a portion thereof threaded in said throat, said threaded portion being provided with a depending cylindrical valve guide fully open at the bottom and having a straight contour with openings therethrough only at the upper extremity adjacent to the threaded portion of the nut, the openings in the guide being for the entry of back-flow water from said outlet passage and the guide terminating adjacent to and above the valve seat and having an external diameter which is less than the internal diameter of the said throat, and a cylindrical valve having opposite flat ends and arranged interiorly of the said guide, the lower flat end of the valve being adapted to fully cover the horizontally flat valve seat, the upper flat end of the valve being free to rise close to the lower end of the nut within the throat and close over the openings solely in the upper portion of the guide and also to release said openings when the valve is closed to permit the back flow water to engage the upper flat end of the valve.

1,136,841. FULL-WAY VALVE. EDWARD WORSTER SHAW, Brown Hill Mine, Kalgoorlie, Western Australia, Australia. Filed May 19, 1913. Serial No. 768,590. (Cl. 137—5.)

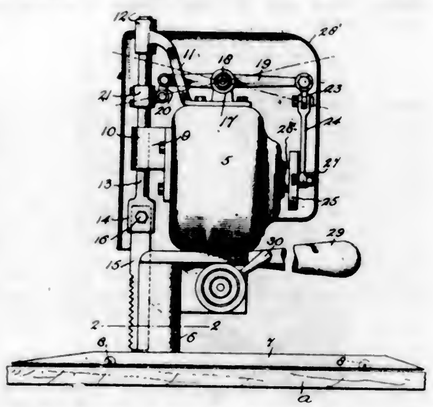


1. The combination, with a valve casing provided with a plurality of opposed, interiorly-located, vertical guides; of a valve movable vertically in said casing and embodying a pair of companion members having external projections and tapered internal faces; an operating rod; and a wedge provided on said rod and disposed between the valve members for movement both in unison with and relatively to the valve and for co-action with said tapered faces, to expand the valve during movement of the wedge in one direction, said projections being arranged to engage and ride over said guides during the vertical movements of the valve, to force the valve members toward each other and contract the valve.

2. The combination, with a valve casing provided with a plurality of opposed, interiorly-located, vertical guides; of a valve movable vertically in said casing and embodying a pair of companion members having external projections and tapered internal faces; an operating rod; and a wedge provided on said rod and disposed between the valve members for movement both in unison with and relatively to the valve and for co-action with said tapered faces, to expand the valve during movement of the wedge in one direction, said wedge and valve members having coöperating means for initially locking the same together to provide for the said movements in unison during the vertical movements of the valve, and said projections being arranged to engage and ride over said guides during said vertical movements, to force the valve members toward each other and contract the valve.

3. The combination, with a valve casing provided with a plurality of opposed, interiorly-located, vertical guides having seats therein at predetermined points; of a valve movable vertically in said casing and embodying a pair of companion members having tapered internal faces; an operating rod; a wedge provided on said rod to expand the valve during movement of the wedge in one direction, said wedge and valve members having coperating means for initially locking the same together for movement in unison during the vertical movements of the valve; and lateral projections provided on the external faces of the valve members and arranged to engage and travel along said guides during the vertical movements of the valve, to contract said valve and force said coöperating locking means into engagement, said projections being arranged to enter said seats when brought opposite the same during the movements of the valve to release said coöperating locking means.

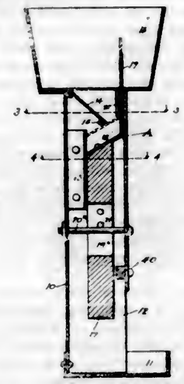
1,136,842. CLOTH-CUTTING MACHINE. MYER SIEGEL, New York, N. Y., assignor of one-half to Sigmund Solomon, New York, N. Y. Filed June 19, 1914. Serial No. 846,194. (Cl. 164—75.)



In a reciprocating cutting machine of the class described, the combination of a base provided with an opening, a motor mounted on the base, a bearing arranged at the side of the motor, a second bearing angularly arranged at the top of the motor and in alinement with the first-named bearing, a drive rod slidably fitted in the said bearings, a cutting-element detachably carried by the said drive rod and adapted to operate in the opening provided in the base, a rock arm fulcrumed on the upper side of the motor and pivotally connected to the drive-rod, and an adjustable crank rod having one end pivotally connected to the rock arm and having its other end detachably secured to the armature of the motor in eccentric relation therewith.

1,136,843. AUTOMATIC STOCK-FEEDER. ELSWORTH J. SMITH, Hastings, Iowa. Filed Apr. 27, 1914. Serial No. 834,822. (Cl. 119—53.)

1. A chute adapted to have its upper end in communication with a suitable source of supply and having a part of its lower wall cut away, a second chute within the first chute, adjacent at one wall thereof near its upper end, an inclined leaf hinged to the last mentioned wall and extending over said second chute, a plunger mounted for vertical reciprocation within the first chute, means for limiting the vertical movement of said plunger, a plate mounted on the upper end of said plunger arranged in connection with the walls of said chutes to form a pocket.



2. In a device of the class described, a chute having part of its lower wall removed, a plunger mounted for vertical reciprocation therein, a second chute mounted within said first chute, a plate on the upper end of said plunger, which in connection with the walls of said chutes forms a pocket, an inclined leaf, extending over said second chute and having its discharge end above said pocket.

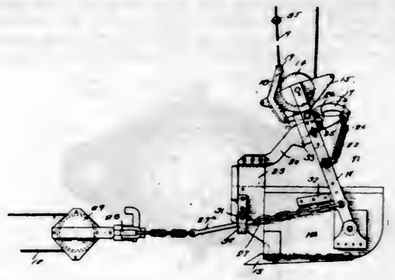
3. In a device of the class described, a chute having part of its lower wall removed, a plunger mounted for vertical reciprocation therein, a second chute mounted within said first chute, a plate on the upper end of said plunger, which in connection with the walls of said chutes forms a pocket, an inclined leaf, extending over said second chute and having its discharge end above said pocket, and means for limiting the vertical movement of said plunger, and guide devices for said pocket.

4. In a device of the class described, a chute having part of its lower wall removed, a plunger mounted for vertical reciprocation therein, a second chute mounted within said first chute, a plate on the upper end of said plunger, which in connection with the walls of said chutes forms a pocket, an inclined leaf, extending over said second chute and having its discharge end above said pocket, means for limiting the vertical movement of said plunger, guide devices for said pocket, a feeding receptacle at the lower end of said chute and a suitable source of supply in communication with the upper end of said chute.

5. In a device of the class described, a chute having part of its lower wall removed, a plunger mounted for vertical reciprocation therein, a second chute mounted within said first chute, a plate on the upper end of said plunger, which in connection with the walls of said chutes forms a pocket, an inclined leaf, extending over said second chute and having its discharge end above said pocket, and means for limiting the vertical movement of said plunger, said limiting means being mounted in the walls of said chute and being adjustable with relation to said plunger, and guide devices for said pocket.

1,136,844. EXCAVATOR-BUCKET. WILLIAM N. SPRINGER, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Filed Mar. 1, 1911. Serial No. 611,564. (Cl. 37—54.)

1. The combination of a bucket, a hoisting bail pivoted thereto, a latching mechanism for connecting the bail rigidly to the bucket, a drag line attached to the bail, guide means for the drag line whereby tension thereon swings the bail to the latching mechanism and whereby the shoveling edge of the bucket is held in predetermined relation to the line of drag, and power operated means coöperating with the latching mechanism to release it when the draft line is relieved of tension.



2. The combination of a bucket, a hoisting bail pivoted to the bucket, a releasable latching mechanism for connecting the bail rigidly to the bucket when the bail is swung forward, a drag line slidably connected with the bucket and attached to the hoisting bail whereby it can swing the bail forward into engagement with the latching mechanism when the draft line is advancing, means to limit the forward swing of the bail, and a power actuated releasing means coöperating with the latching mechanism.

3. The combination of a bucket open at one end and closed at the other, a bail pivoted thereto near the closed end, a hoisting line and a drag line both attached to the bail, one above the top of the bucket and the other below said top, a latching mechanism for connecting the bail rigidly to the bucket, a guide means on the bucket engaging with the drag line whereby tension on said line swings the bail forward toward said latching mechanism, and power actuated means for releasing the latching mechanism, substantially as set forth.

4. In an apparatus for excavating, the combination of a shovel open at one end, a bail secured to the other end, a latch mechanism adapted to lock the shovel and the bail in proper relative positions for lifting, a lifting means connected with the bail, means for releasing the latch mechanism and a flexible draft device connected at its end with the bail at a point above its point of connection with the shovel, the said draft device also having sliding engagement with the forward end of the shovel whereby when tensioned, it tends both to lift the forward end of the shovel and to draw the upper end of the bail forward to facilitate the engagement of the latch mechanism.

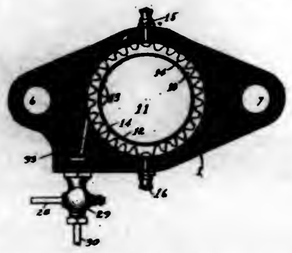
5. The combination of a bucket, a hoisting bail pivoted to the bucket, a hoisting line attached thereto, releasable latching mechanism for connecting the bail rigidly to the bucket when the bail is swung forward, a drag-line independent of the aforesaid hoisting line slidably connected with the bucket and attached to the hoisting bail whereby to swing the same forward into engagement with the latching mechanism when the drag-line is advanced and means coöperating with the latching mechanism to release the same.

[Claims 6 to 11 not printed in the Gazette.]

1,136,845. ELECTRIC VAPORIZER. CHARLES G. TATE, Chicago, Ill., assignor to United Motor Equipment Co., Chicago, Ill., a Corporation of Maine. Filed Feb. 15, 1913. Serial No. 748,509. (Cl. 219—38.)

1. A liquid fuel vaporizer having a vaporizing chamber, an exposed electrical resistance unit located within said chamber, a liquid fuel supply communicating with said vaporizing chamber, said vaporizing chamber having a restricted outlet for the vapor, whereby the vaporizing chamber is sealed to the atmosphere by the excess pressure of the vapors passing through said restricted outlet.

2. In a device of the class described, the combination of an engine cylinder, a combustible mixture intake for said cylinder, a vaporizer in said intake, said vaporizer including a body portion having a recess provided with a restricter communicating with said intake, a resistance wire in said recess, said wire being adapted to be electrically heated to incandescence, and means for admitting combustible fluid to said recess and directly into contact with said incandescent wire, substantially as described.

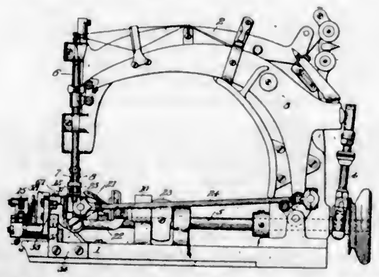


3. In a device of the class described, the combination of an engine cylinder and a carbureter, a conduit between said cylinder and carbureter, a vaporizer interposed in said conduit, said vaporizer including a body having a chamber communicating with said conduit by a plurality of minute perforations, a bare resistance unit in said chamber, said unit being adapted to be electrically heated to incandescence, and means for admitting liquid fuel to said chamber.

4. In a device of the class described the combination of an engine cylinder, a carbureter, a vaporizer interposed in a conduit between said cylinder and carbureter, said vaporizer being provided with a chamber having communication with said conduit by a plurality of minute apertures, means for supplying liquid fuel to said chamber, a resistance unit in said chamber, electrical means for heating said unit to incandescence, whereby the fuel is instantly vaporized by direct contact with said unit, ignition of said fuel being prevented by the exclusion of oxygen from said chamber, substantially as described.

5. A liquid fuel vaporizer having a vaporizing chamber, a heating unit within said chamber, means for heating said unit to incandescence, a liquid fuel supply communicating with said vaporizing chamber, and adapted to direct the fuel into actual contact with said incandescent unit, said chamber having a restricted outlet for the vapor whereby said chamber is sealed to the atmosphere by the excess pressure of the vapors passing through said restricted outlet, substantially as described.

1,136,846. TRIMMING MECHANISM FOR SEWING-MACHINES. REUBEN B. THOMPSON, Cohoes, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 18, 1909. Serial No. 496,859. (Cl. 112—6.)



1. The combination with a work support, and mechanism for making a cross stitch, of a trimming mechanism including a movable member for severing the fabric, said severing member having a shank projecting through the work support and located entirely at one side of the cut edge which is to be covered by the stitches, and having its cutting edge only, substantially in the vertical plane of one edge of the cross-stitching.

2. The combination with mechanism for making a cross stitch including spaced needles, of a trimming mechanism including a movable member for severing the fabric, said severing member having its body portion located entirely at one side of the cut edge which is to be covered by the stitches, and having its cutting edge only, substantially in line with one of the needles of the cross-stitching, said severing member being shaped and supported to separate superposed layers of fabric and sever one of them.

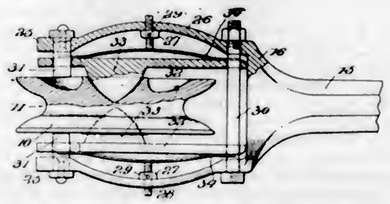
3. The combination with mechanism for making a cross stitch including spaced needles, of a trimming mechanism including a movable member for severing the fabric, said severing member having its body portion located entirely at one side of the cut edge which is to be covered by the stitches, and having its cutting edge only, substantially in line with one of said needles of the cross-stitching, said body portion being arranged to deflect the cut-off strip beyond the plane of the cut edge and out of the path of the needles.

4. The combination with a work support, and cross stitching mechanism, of a trimming mechanism, including a movable supporting member, a cutting blade carried thereby and having a laterally projecting cutting portion, the cutting face of said portion being located on the side adjacent the cross stitching mechanism.

5. The combination with a two needle stitching mechanism, of a trimming mechanism including a support, a cutting blade carried by said support, means for operating said support, said cutting blade having a laterally projecting portion adapted to separate two superposed layers of fabric and cut one of said layers, said cutting blade being located in advance of the stitching mechanism and substantially in front of one of the needles, the cutting face of said blade being on the side adjacent the stitching mechanism.

[Claims 6 to 34 not printed in the Gazette.]

1,136,847. TROLLEY. FREDERICK THORNTON, Huntington, W. Va. Filed June 13, 1914. Serial No. 844,888. (Cl. 64—66.)

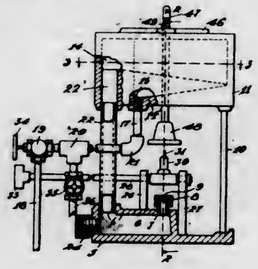


1. The combination with a trolley harp including spaced arms, and a trolley wheel provided with oppositely disposed bearing recesses; of plates between said arms on opposite sides of said wheel, bearing bosses on said plates engaging said recesses, springs urging said plates inward, and means to adjust the tension of said springs.

2. The combination with a trolley harp including spaced pairs of arms, and a trolley wheel provided with oppositely disposed bearing recesses; outer plates closing the spaces between respective pairs of arms, inner plates slidable in said spaces, leaf springs between the inner and outer plates, adjusting screws extending through the outer plates and engaging said springs, and bosses on the inner plates engaging the recesses in the wheel.

1,136,848. HYDROCARBON-BURNER. WILLIAM H. TRANTER, Los Angeles, Cal. Filed Oct. 13, 1913. Serial No. 794,834. (Cl. 158—63.)

1. A hydrocarbon burner, comprising a base member, a generating chamber arranged above the base member having an inclined floor therein, a hydrocarbon supply pipe connected to said chamber at the lowermost portion of the floor thereof, a valve for controlling the flow of hydrocarbon through said pipe, valve controlled means for draining the generating chamber arranged in the supply pipe between the controlling valve and the generating chamber, and a burner nozzle arranged beneath the generating chamber, the interior of said nozzle communicating with the generating chamber at the upper end of the inclined bottom thereof.



2. A hydrocarbon burner, comprising a base member, a generating chamber arranged above the base member having an inclined floor therein, a hydrocarbon supply pipe connected to said chamber at the lowermost portion of the floor thereof, a valve for controlling the flow of hydrocarbon through said pipe, valve controlled means for draining the generating chamber arranged in the supply pipe between the controlling valve and the generating chamber, a gas receiving chamber below the generator, a pipe connecting said gas receiving chamber opening into the generating chamber at the highest portion of the inclined bottom thereof, and a burner nozzle connected to said gas chamber having an opening directed upwardly beneath the generating chamber.

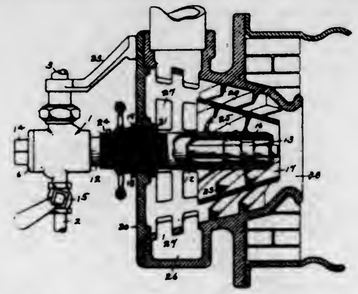
3. A hydrocarbon burner, comprising a base member, a generating chamber arranged above the base member having an inclined floor therein, a hydrocarbon supply pipe connected to said chamber at the lowermost portion of the floor thereof, a valve for controlling the flow of hydrocarbon through said pipe, valve controlled means for draining the generating chamber arranged in the supply pipe between the controlling valve and the generating chamber, a gas receiving chamber opening into the generating chamber at the highest portion of the inclined bottom thereof, a burner nozzle connected to said gas chamber having an opening directed upwardly beneath the generating chamber, a rockable air inlet pipe opening adjacent the burner nozzle, and means carried on said air inlet pipe adapted to enter the opening of the nozzle on rocking of said pipe.

1,136,849. FUEL-OIL-BURNING APPARATUS. EDWIN W. TUCKER, San Francisco, Cal. Filed Oct. 3, 1912. Serial No. 723,736. (Cl. 158—15.)

1. In a fuel oil burning apparatus, the combination with a tapered ventilator body provided with interior spirally disposed vanes, of a threaded sleeve, means for rotatably supporting said sleeve, a tubular stem engaging said threaded sleeve, an oil burner within said sleeve provided with a tubular shell forming a guide for said sleeve, and a tapered hood carried by said tubular stem and provided with internal spirally disposed vanes.

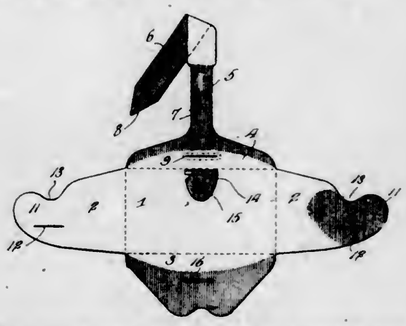
2. In a fuel oil burning apparatus, the combination of a tapered ventilator body, a burner provided with a tubular shell, a bracket for supporting one end of said burner, a tapered hood slidably mounted upon and guided by said shell, said hood serving to center said burner, and means for adjusting said hood on said shell with respect to said ventilator body.

3. In a fuel oil burning apparatus, the combination with a tapered ventilator body provided with internal spirally disposed vanes, a burner provided with a tubular shell, means for supporting said burner, a tapered hood slidably mounted upon and guided by said shell, said



hood being also provided with internal spirally disposed vanes, and means for adjusting said hood on said shell with respect to the ventilator body.

1,136,850. SAFETY-ENVELOP. RALPH V. TUTTLE and JOHN W. TUTTLE, Pomeroy, Wash. Filed May 6, 1914. Serial No. 836,725. (Cl. 229—82.)



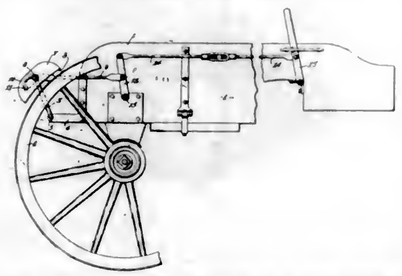
The combination with an envelop body provided with a slit, of bottom and side flaps having rounded cut out portions in the upper marginal edge thereof, a sealing flap having a medially disposed slit therein, a tongue having a reduced portion formed integral with said sealing flap adapted to pass through said slits, and means disposed within said cut out portions and engageable with said flap and tongue for securing said means over the contents of the envelop.

1,136,851. BRAKE FOR WAGONS. WALTER A. UNDERHILL, Auburn, N. Y., assignor to The Eagle Wagon Works, Auburn, N. Y., a Corporation of New York. Filed Nov. 26, 1909. Serial No. 529,896. (Cl. 21—8.)

1. The combination with a vehicle, of a brake shoe arranged to engage the periphery of a wheel, a rock arm pivotally mounted at one end on the vehicle body and the axis thereof being located in a line extending transversely of the wheel within the same, the shoe being mounted on the outer end of the arm, and the arm being arranged to carry the shoe in a tangential direction toward the periphery of the wheel, and means for actuating the arm and holding the shoe in parallelism to the periphery of the wheel during the movement of said arm to carry the shoe in a tangential direction, substantially as and for the purpose described.

2. The combination with a vehicle, of a brake shoe arranged to engage the periphery of a wheel, a rock arm pivotally mounted at one end on the vehicle body and the axis thereof being located in a line extending transversely

of the wheel within the same, the shoe being mounted on the outer end of the arm, and the arm being arranged to carry the shoe in a tangential direction toward the periphery of the wheel, and means for actuating the arm, said means being connected to the shoe to hold the same in parallelism with the periphery of the wheel while moving the arm to carry the shoe in a tangential direction, substantially as and for the purpose specified.



3. The combination with a vehicle, of a brake shoe arranged to engage the periphery of the wheel, a rock arm pivotally mounted at one end on the vehicle body, the axis of said arm being arranged in a line extending transversely of the wheel within the same, and the arm having at its outer end a laterally extending stub on which the shoe is pivotally mounted, the arm being relatively arranged to the wheel to carry the shoe in a substantially tangential direction toward and from the periphery of the wheel, and means for operating the rock arm including a link having a bearing on the stub, the link being rigidly connected to the shoe to hold the same in parallelism with the periphery of the wheel during the movement of the shoe in a tangential direction, substantially as and for the purpose set forth.

4. The combination with a vehicle, of a brake shoe arranged to engage the periphery of the wheel above the horizontal plane intersecting the axis of the wheel and in the rear of the vertical plane intersecting said axis, a rock arm pivotally mounted at one end on the side of the vehicle body and extending upwardly and rearwardly, and pivotally connected at its upper end to the shoe, the arm being arranged to carry the shoe in a tangential direction toward and from the periphery of the wheel, and the axis of the arm being arranged in a line extending transversely of the wheel within the same, and above and in the rear of the axis of the wheel, and means for operating the shoe comprising means connected thereto to hold the same in parallelism with the periphery of the wheel during the movement of the shoe by the arm in a tangential direction, substantially as and for the purpose described.

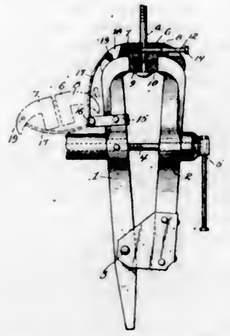
1,136,852. TREE-SAWING MACHINE. JACQUES M. VAN DEN BERGHE, Montreal, Quebec, Canada, assignor of one-half to Francois Délas, Montreal, Canada. Filed June 5, 1914. Serial No. 843,286. (Cl. 143—32.)



1. A chain saw frame comprising a stem having its rear end turned up and having two arched arms at its forward end, a block secured to said frame, arms secured to said block and guide pulleys for the saw mounted in all of said arms, in combination with longitudinally slotted L-shaped plate having its foot secured against the upturned part of the frame and its forward end fastened to said block, a yoke having a screw-threaded stem extending through the foot of said plate and the upturned part of said frame, and carrying a shaft on which is mounted a drive wheel for said saw, said shaft extending through the slot in said plate, means to guide said frame and nuts working on said screw-threaded stem and bearing against the rear face of said upturned part for adjusting the yoke and shaft longitudinally of said frame and locking them in such position of adjustment.

2. A chain saw frame comprising a slotted stem having its rear end turned up at right angles and having two arched arms at its forward end, a block secured to said frame, arms secured to said block and guide pulleys for the saw mounted in all of the arms, in combination with a longitudinally slotted L-shaped plate having its foot secured against the upturned part of the frame and its forward end fastened to said block, a yoke having a screw-threaded stem extending through the foot of said plate and the upturned part of the frame ,and carrying a shaft on which is mounted a drive wheel for said saw, said shaft extending through the slot in the frame and the slot in the plate, means for driving said shaft, means working in said slotted stem to guide said frame and nuts working on said screw-threaded stem and bearing against the rear face of said upturned part for adjusting the yoke and shaft longitudinally of the frame and locking them in such position of adjustment.

1,136,853. WORK-HOLDER FOR BENCH-VISES. SCOTT C. WALTERS, Albany, Wis. Filed Feb. 4, 1914. Serial No. 816,406. (Cl. 81—38.)

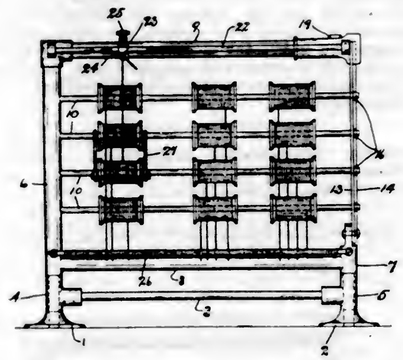


In combination with a bench vise comprising a pair of jaws and means to move them toward and from each other, a work holder comprising a pair of members adapted to be fitted on and between the opposing sides of vise jaws, said members being formed with work receiving openings in their opposing sides, and means connecting the said work holder members together for movement of said members toward and from each other, an attaching member secured to one of the vise jaws and a link having one end pivotally connected to said attaching member and having the other end pivotally connected to one member of the work holder, and adapting the work holder to be swung over and placed on or to be removed from the jaws.

1,136,854. SPOOL-HOLDER. SANDER MORDECAI WECHSLER and SAMUEL WECHSLER, Cleveland, Ohio. Filed May 13, 1914. Serial No. 838,272. (Cl. 242—139.)

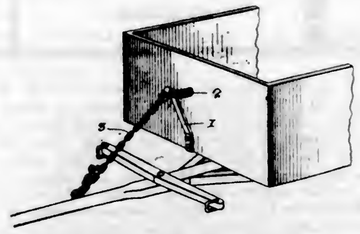
1. In a spool-holding rack, the combination of base members, a frame mounted on said base members and open at one side, spool-holding rods mounted in said frame, a pair of locking bars hingedly mounted at the open side of said frame, said bars being provided with grooves adapted to receive the free ends of the spool-holding rods, and means for securing the two locking bars together.

2. In a spool-holding rack, the combination of base members, a rigid frame mounted on said base members, said frame having an open side spool-holding rods mounted in said frame, a pair of locking bars pivotally mounted at their lower ends at the open side of said frame, said bars being provided with grooves adapted to receive the free ends of the spool-holding rods, means for securing said locking bars together and to said frame, a thread



guiding device supported at the top of the frame and adjustable longitudinally thereof, a coiled spring arranged at the bottom of the frame and adapted to engage the free ends of the thread of the spools mounted in said frame and a spacing device arranged to engage the spool holding rods and separate the spool being used from the adjacent spools, substantially as described and for the purpose set forth.

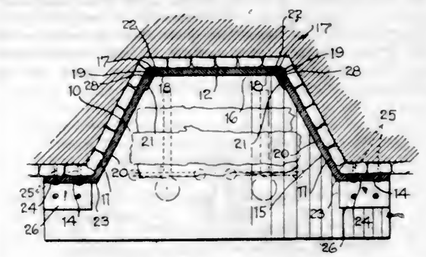
1,136,855. TONGUE-SUPPORT. HENRY I. WEST, Cavendish, Vt. Filed Dec. 3, 1913. Serial No. 804,462. (Cl. 21—63.)



In combination with a vehicle body having a draft member pivotally connected therewith, a support comprising a flexible member secured at one end to the body and being free at its other end to move in a forward direction with relation to the body, a chain connected at one end with the upper free end portion of said flexible member and at its other end with the said draft member and a spring connected at one end with the body and at its other end with the upper free end portion of the said flexible member.

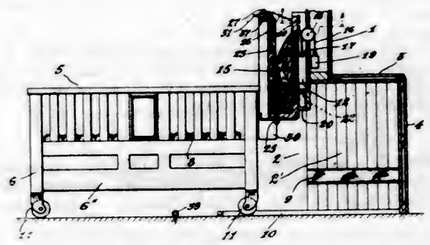
1,136,856. LINING FOR FIREPLACES. BENJAMIN R. WILLIAMS, English, Ark. Filed Mar. 15, 1913. Serial No. 754,614. (Cl. 126—130.)

A lining for fire places comprising a back plate provided adjacent to each end with an allthrough seat the inner wall of which is straight and the outer wall inclined, and side plates having tongues arranged to engage with the seats, the inclined walls of the seats permitting the side plates to be adjusted to vary the distance between said side plates at the back plate and permitting adjustment of the side plates to different angles relative to the back



plate, jamb plates carried by the outer ends of the side plates, and attaching feet carried by the jamb plates.

1,136,857. COMBINED BED AND DAVENPORT. NATHAN W. WILLIAMS, Seattle, Wash. Filed June 28, 1913. Serial No. 776,310. (Cl. 5—18.)



1. In furniture of the character described, in combination, with an upright support having an opening therein, a bed movably disposed in the opening of said support and adapted to project therefrom, means retaining the bed from movement, and a slidable back mounted on the support above the bed to provide a back for the projecting portion of the bed which forms a seat.

2. In furniture of the character described, in combination with an upright support, a bed, a back on the support adapted to form a back for the projecting bed, and a supplemental seat section carried by the back and adapted to rest on the bed.

3. In furniture of the character described, in combination with an upright support, a bed, a back on the support adapted to form a back for the projecting bed, and a supplemental seat section swingingly carried by the back and engaging the bed to prevent independent movement of the latter with respect to the back.

4. In furniture of the character described, in combination with an upright support, a bed, a back on the support adapted to form a back for the projecting bed, and a hollow supplemental seat section carried by the back and adapted to receive the mattress of the bed.

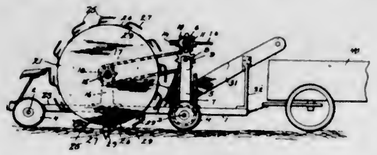
5. In furniture of the character described, in combination with an upright support, a bed, a back on the support adapted to form a back for the projecting bed, and a supplemental seat section carried by the back and provided with a depending edge projection engaging the side rail of the bed.

[Claims 6 and 7 not printed in the Gazette.]

1,136,858. BEET-HARVESTER. WILLIAM G. ACKERMAN, Westpoint, Nebr. Filed Nov. 30, 1914. Serial No. 874,840. (Cl. 55—108.)

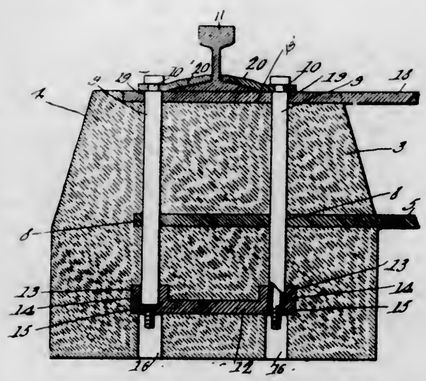
1. In a beet harvester structure, a supporting platform, a drum rotatably carried by said platform, means for rotating said drum by the traction of the harvester

structure, a plurality of forked members secured to the periphery of said drum and in spaced relation to each other, said forked members having their arms bents outwardly and spaced from the peripheries of said drum for engaging beets and uprooting them upon the rotation of said drum, cutting blades secured to said forked members for cutting the tops from the beets upon the uprooting thereof by said forks.



2. In a beet harvester structure, a supporting platform having a longitudinally extending opening formed therein, a drum rotatably carried by said platform and extending through said opening, a plurality of forked members secured to the periphery of said drum in spaced relation to each other, said forked members having their arms bent outwardly and spaced from the periphery of said drum, cutting blades secured to said forked members for cutting the tops from the beets, traction axles carried by said supporting structure, means for operatively connecting said drum to said traction axles for rotating said drums upon the rotation of said axle, and means for throwing said drum into or out of operative connection with said traction axle.

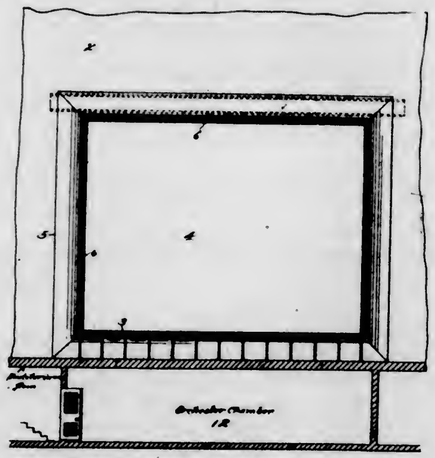
1,136,859. RAIL-TIE. LARS A. ANFINSON, Clermont, Iowa. Filed Dec. 30, 1913, Serial No. 809,554. Renewed Sept. 24, 1914. Serial No. 863,382. (Cl. 238—6.)



1. A railroad tie comprising spaced sleeper blocks, tie rods carried by said sleeper blocks and detachably secured together intermediate their ends, a strut member rigidly secured to and extending between the said sleeper blocks and coöperating with the tie rods to hold the said sleeper blocks in rigid relation, a plate embedded in each of said sleeper blocks and provided with coaxial openings of different diameters extending therethrough, bolt receiving pipes embedded within said blocks and engaging the larger of said boss openings, and clamping plates mounted upon said sleeper blocks adapted to engage a flanged rail, and bolts engaging said clamping plates, extending through said pipe and adapted to engage the boss openings.

2. A railway tie including spaced sleeper blocks, each of said blocks provided with a plate embedded therein, said plate provided with upstanding spaced bosses, said bosses provided with coaxial openings of different diameters extending therethrough, bolt receiving pipes embedded within the said concrete blocks and engaging the larger of said boss openings, a tie rod embedded within said sleeper block provided with apertures extending therethrough through which extend the said bolt receiving pipes, a strut member provided with pipe receiving openings extending therethrough, said strut member resting upon the top surface of said sleeper block with the pipes projecting through the openings therein, said sleeper blocks provided with passageways terminating adjacent the boss openings and providing for the insertion of locking nuts therein, and bolts extending through said pipe openings engaging the boss threaded openings and provided with lock nuts upon their lower extremities, said bolts adapted to rigidly secure a rail to said sleeper blocks.

1,136,860. PROSCENIUM STRUCTURE. HARRY W. BISHOP, Oakland, Cal. Filed Apr. 27, 1914. Serial No. 834,625. (Cl. 20—1.12.)

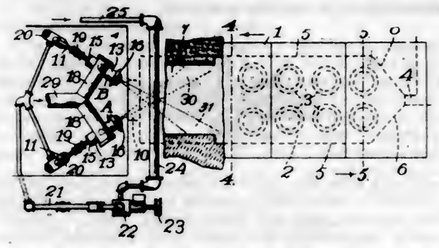


1. In a stage structure, in combination with the proscenium wall and the opening therein, a frame fitted within the opening and having an exposed convex surface which extends on opposite sides of the front and rear faces of the wall and across the bounding walls which define the opening, said convex face converging from the front to the rear thereof and having its front extended over and across the front face of the proscenium wall.

2. In a stage structure, in combination with the proscenium wall and the opening therein, a frame fitted within the opening and having an exposed convex surface which extends on opposite sides of the front and rear faces of the wall and across the bounding walls which define the opening, said convex face converging from the front to the rear thereof and having its front extended over and across the front face of the proscenium wall, the bottom side of the frame terminating at points in close relation to the auditorium floor.

3. In a stage structure, in combination with the proscenium wall and the opening therein, a frame fitted within the opening and having an exposed convex surface which extends on opposite sides of the front and rear faces of the wall and across the bounding walls which define the opening, said convex face converging from the front to the rear thereof and having its front extended over and across the front face of the proscenium wall, the rear edge of the frame having a recessed portion and the front edge of the frame having an extension which is curved inwardly to project over the exposed surface of the frame in spaced relation thereto.

1,136,861. HEATING-FURNACE. WILLIAM W. BRIERLY and THOMAS M. SCANLON, Millbury, Mass., assignors to Millbury Steel Foundry Company, Millbury, Mass., a Corporation of Massachusetts. Filed Feb. 6, 1913. Serial No. 746,468. (Cl. 75—186.)

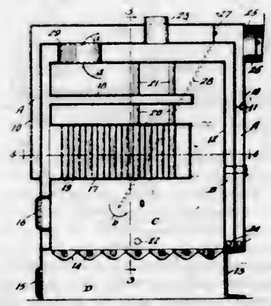


1. In a heating furnace of the kind described, a heating chamber for the reception of a number of crucibles, a chamber in longitudinal alinement with said heating chamber and forming an extension thereof, said second mentioned chamber having an opening in its end wall remote from said heating chamber, and means for directing converging jets of flame through said opening, whereby a current of atmospheric air is induced therethrough.

2. In a heating furnace of the kind described, a heating chamber, a second chamber in longitudinal alinement with said heating chamber having a transversely arched roof, and an opening in its end wall remote from said heating chamber, and means for directing a jet of flame against the side of said arched roof, whereby to prevent direct impingement of the flame jet against articles contained in said heating chamber.

3. In a heating furnace of the kind described, a heating chamber, a combustion chamber in communication therewith having an arched roof, and an opening in its end remote from said heating chamber, means exterior to said combustion chamber for directing jets of flame through said opening against the sides of said arched roof, whereby a current of atmospheric air is induced through said opening into said combustion chamber.

1,136,862. HOT-WATER HEATER. JOHN T. BUNTING, Chicago, Ill. Filed Sept. 22, 1913. Serial No. 791,027. (Cl. 122—165.)

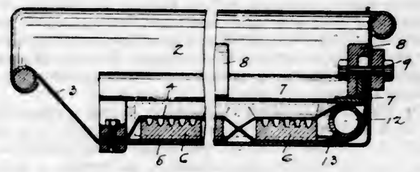


1. A heater of the character described having outer intermediate and inner shells forming an outer heating chamber and an inner water chamber, said chambers being substantially co-extensive and constituting side walls of the heater, a combustion chamber within said inner shell, said combustion chamber being in communication with the outer heating chamber by means of a passage through the water chamber, a water heating box within the combustion chamber having a plurality of vertically arranged heating flues therein, said box communicating with said inner water chamber and inclined partitions at the side of the heater in the outer heating chamber forming baffles adapted to direct the heated air downwardly in the outer heating chamber and thence upwardly in contact with the inner water chamber, substantially as specified.

2. A heater of the character described having an outer, intermediate and inner shells forming an outer heating chamber and an inner water chamber, said chambers being substantially co-extensive and constituting the front, back, side and top portions of the heater, a combustion chamber within the inner shell, said combustion chamber being in communication with the outer heating chamber by means of a passage through the water chamber, a water heating box within the combustion chamber having a plurality of vertically arranged heating flues therein, a second water heating box spaced from and located above the first named box, water pipes connecting said boxes with each other and with the top of the water chamber, and inclined partitions on the sides of the heater within the heating chamber, said partitions forming baffles, substantially as specified.

1,136,863. FILTER. CHARLES BUTTERS, Oakland, Cal. Filed June 18, 1913. Serial No. 774,295. (Cl. 75—86.)

1. A filter comprising a shallow pan, a filtering medium arranged in said pan, a plurality of transverse supports arranged below said medium, and a perforated pipe arranged below said medium.



2. A filter comprising a shallow pan having one end thereof of less height than the other three sides, and a filtering medium in said pan.

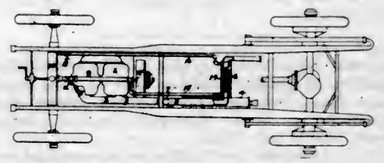
3. A filter comprising an elongated shallow pan adapted to be tilted provided on one end with a discharge lip of less height than the other three sides, and a filtering medium arranged in said pan below the level of said lip.

4. A filter comprising a shallow pan having a discharge lip of less height than the other three sides, a filtering medium arranged in said pan and attached thereto, and means for producing a variation in pressure below said medium.

5. A filter comprising a pan having a discharge lip, a flexible dam arranged to extend above said discharge lip, and a filtering medium arranged in said pan.

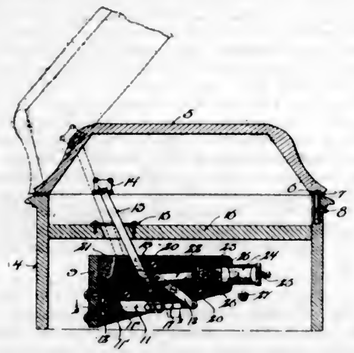
[Claims 6 to 9 not printed in the Gazette.]

1,136,864. AUTOMOBILE. JEREMIAH E. CARROLL, Cleveland, Ohio. Filed July 5, 1912. Serial No. 707,833. (Cl. 237—21.)



An automobile having an engine with a water jacket and a seating compartment, a conduit for the waste products of combustion from the engine having a by-pass through the said compartment and a muffler in said by-pass positioned in said compartment, a jacket about said muffler and water circulating pipes connecting the engine water jacket and the jacket of the said muffler.

1,136,865. LID-CONTROL MECHANISM. JOSEPH B. CHERNEY, Milwaukee, Wis. Filed Jan. 31, 1914. Serial No. 815,841. (Cl. 217—57.)



1. The combination of a receptacle having a hinged lid, a block rigid in the receptacle at a right-angle to a side wall of the same, a bracket fast on the block, a lever having a lateral spindle-end journaled in the bracket, a spiral-spring surrounding said end of the lever and tensioned in connection with said lever and bracket, a link-bar in pivotal connection with the lid and lever, means in connection with said lever for checking movement of the same in opposite directions, and means for fastening said lid in closed position.

2. The combination of a receptacle having a hinged lid, a block rigid in the receptacle at a right-angle to a side wall of the same, a bracket fast on the block, a lever having a lateral spindle-end journaled in the bracket, a spiral-spring surrounding said end of the lever and tensioned in connection with said lever and bracket, a link-bar in pivotal connection with the lid and lever, means in connection with said lever for checking movement of the same in opposite directions, a stop extending from said block in the lifting path of the lever, and means for fastening said lid in closed position.

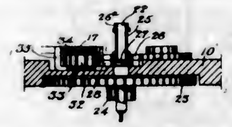
3. The combination of a graphophone or gramophone cabinet having a hinged lid, a fixed plate in the lid, a spring-controlled lever fulcrumed in the cabinet below the bottom of an upper compartment of the same, a slotted plate in connection with said bottom, a link bar guided in the slotted plate and connected to the lever and the other of said plates, means for fastening the lid in closed position, and means in connection with said lever for checking movement of the same in opposite directions.

4. The combination of a graphophone or gramophone cabinet having an upper compartment and a hinged lid; a spring-controlled lever fulcrumed in the cabinet below the bottom of the upper compartment of the same, a link bar connecting the lid and lever and having play in a slot with which said bottom is provided, means for fastening the lid in closed position, and means in connection with the lever for checking movement of the same in opposite directions.

1,136,866. POSITIVE-DRIVING MECHANISM FOR THE HANDS OF TIMEPIECES. LEON C. COLLINS, Roxbury, Mass., assignor of one-third to Charles Wagner, Suffolk county, Mass. Filed June 19, 1912. Serial No. 704,653. (Cl. 58—138.)

1. In a time-piece the combination with a hand setting wheel, of a center staff, a cannon pinion mounted thereon and meshing with said hand setting wheel, means for positively connecting said center staff and said cannon pinion to rotate in unison at the same speed, and means for controlling said hand setting wheel, said controlling means being provided with means for acting on the connecting means to disconnect said center staff and cannon pinion.

2. In a time piece the combination with a hand setting wheel, of a center staff, a cannon pinion mounted thereon and meshing with said hand setting wheel, a pivoted lever, means carried by said lever for connecting said center staff and said cannon pinion to rotate in unison at the same speed, and controlling means connected with said hand setting wheel for shifting said lever.

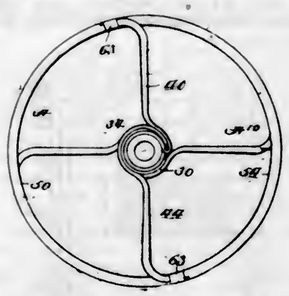


3. In a time piece the combination with a hand setting wheel, of a center staff, a cannon pinion mounted thereon and meshing with said hand setting wheel, a member rigidly connected to said center staff, a movable member for connecting said cannon pinion with the rigid member of said center staff, and means for controlling said hand setting wheel, said controlling means being provided with means for shifting said connecting member.

4. In a time piece the combination with a hand-setting wheel, of a center staff, a cannon pinion mounted thereon and meshing with said hand setting wheel, a pinion rigidly connected to said center staff and corresponding with said cannon pinion, a pivoted lever, a pinion carried thereby and arranged to mesh with said cannon pinion and the pinion on said center staff, and means connected with the setting wheel for shifting said lever.

5. In a time piece the combination with a hand setting wheel, of a center staff, a cannon pinion mounted thereon and meshing with said hand setting wheel, a pivoted lever provided with an offset portion, and means connected with said lever for connecting said cannon pinion and center staff, and a movable member connected with said setting wheel to engage the offset portion of said lever.

1,136,867. RESILIENT WHEEL. WILLIAM F. DOLL, New York, N. Y., assignor of one-half to Lee McClung, Washington, D. C.; Robert G. McClung administrator of said Lee McClung, deceased. Filed Jan. 24, 1914. Serial No. 814,164. (Cl. 152—50.)



1. A resilient wheel, having an element made of spring metal one of whose ends is coiled, the said element having integral with its coiled portion a rigid substantially straight spoke which extends outward from its coiled portion and is arranged at an angle to the same.

2. A resilient wheel having an element made of spring metal one of whose ends is coiled, the said element having integral with its coiled portion a rigid, straight spoke which extends outward from its coiled portion and is provided with a rim section projecting from its outer end.

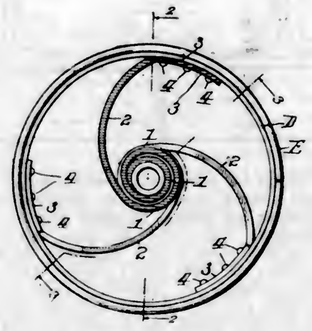
3. A resilient wheel having an element made of spring metal one of whose ends is coiled, the said element having integral with its coiled portion a rigid, straight spoke which is tapered outward from the coiled portion and is provided with a rim section projecting from its outer end.

4. A resilient wheel comprising a spring bar one of whose ends is flattened, the other of whose ends is of channel formation and the intermediate part of which is flattened and widened from the flattened end of the bar to the channeled part thereof, the said flattened end of the bar being coiled and disposed around the hub and the said intermediate part forming a spoke.

5. A resilient wheel comprising a spring bar one of whose ends is flattened, the other of whose ends is of channel formation and the intermediate part of which is flattened and widened from the flattened end of the bar to the channeled part thereof, the said flattened end of the bar being coiled, the said intermediate part forming a spoke and extending outward from the coiled part at an angle thereto and the channel end of the bar forming a rim section and extending from the outer end of the spoke portion in a forwardly curved direction.

[Claims 6 to 14 not printed in the Gazette.]

1,136,868. RESILIENT WHEEL. WILLIAM F. DOLL, New York, N. Y., assignor of one-half to Lee McClung, Washington, D. C.; Robert G. McClung administrator of said Lee McClung, deceased. Filed Jan. 24, 1914. Serial No. 814,165. (Cl. 152—50.)



1. A resilient wheel having a plurality of metallic elements widened at one end and tapered outward from said end, the widened ends of each element being coiled to provide one or more convolutions and said ends being arranged in an endwise relation and forming a hub portion or axial portion of the wheel of greater width than the rim portion thereof, the tapered sections of the strip forming the spoke portions of the wheel and the outermost elements being inclined from the extremities of the hub portion toward the central plane of the wheel, and means forming a rim.

2. A resilient wheel having a plurality of metallic elements each bent to provide one or more convolutions to form a resilient hub or axial portion for the wheel of greater width than the rim portion thereof and thence outward on a curve to form a resilient spoke portion and thence around in a plurality of superimposed circular convolutions to form a rim portion, said elements being relatively so arranged that their hub portions will be disposed in an endwise relation to each other and their rim portions similarly disposed in an endwise relation to each other, the outermost of the elements having their spoke portions extending inwardly from the extremities of the hub toward the central plane of the wheel.

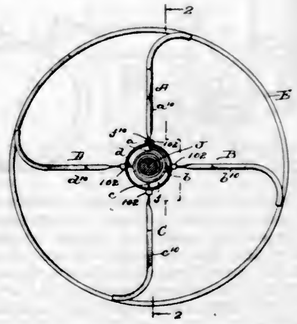
3. A resilient wheel having a plurality of metallic elements each bent to provide one or more convolutions to form a resilient hub or axial portion and thence outward to form a spoke portion and thence around in a circular convolution to form a rim or felly portion, said elements being relatively so arranged that their hub portions will be disposed in an endwise relation to each other and their rim or felly portions will be arranged in an endwise relation to each other and centrally disposed over the hub portions, the rim or felly portions of said elements being also formed with flanges which are spaced from each other and filling material in said spaces.

4. A resilient wheel having a plurality of metallic elements each bent to provide one or more convolutions to form a resilient hub or axial portion and thence outward to form a spoke portion and thence around in a circular convolution to form a rim or felly portion, said elements being relatively so arranged that their hub portions will be disposed in an endwise relation to each other and their rim or felly portions will be arranged in an endwise relation to each other and centrally-disposed over the hub portions, the rim or felly portion of the intermediate element being of approximately inverted-T shape in cross section and the corresponding portions of the outer elements being of approximately L-shape in cross section, said portions being relatively arranged to form spaces between them, and a filling material in said spaces.

5. A resilient wheel having a plurality of metallic elements each bent to provide one or more convolutions to form a resilient hub or axial portion and thence outward to form a spoke portion and thence around in a circular convolution to form a rim or felly portion, said elements being relatively so arranged that their hub portions will be disposed in an endwise relation to each other and their rim or felly portions will be arranged in an endwise relation to each other and centrally disposed over the hub portions, the rim or felly portion of the intermediate element being of approximately inverted T-shape in cross section and having its outer surface provided with transverse grooves and the corresponding portions of the outer elements being of approximately L-shape in cross section, said portions being relatively arranged to form spaces between them, and a filling material in said spaces and grooves.

[Claim 6 not printed in the Gazette.]

1,136,869. RESILIENT WHEEL. WILLIAM F. DOLL, New York, N. Y., assignor of one-half to Lee McClung, Washington, D. C.; Robert G. McClung administrator of said Lee McClung, deceased. Filed June 24, 1914. Serial No. 847,036. (Cl. 152—50.)



1. A resilient wheel having a plurality of members each provided with a coiled spring at its end and with a spoke extending outward from the coiled spring, said members being so arranged that the spokes will extend radially from the springs and the springs will lie beside each other with their axial openings alined, and means forming chambers which receive said springs and having openings through which the spokes extend.

2. A resilient wheel having a plurality of members each provided with a coiled spring at its end and with a spoke extending outward from the coiled spring, said members being so arranged that the spokes will extend radially from the springs and the springs will lie beside each other with their axial openings alined, a device extending through the alined openings of the springs, and means connected to said device and spokes and transmitting

movement between the same, said means having chambers which receive the springs, respectively.

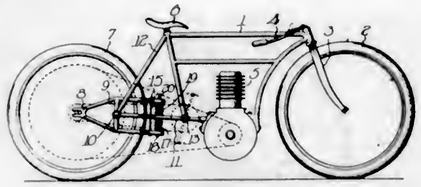
3. A resilient wheel having a plurality of members each provided with a coiled spring at its end and with a spoke extending outward from the coiled spring, said members being so arranged that the spokes will extend radially from the springs and the springs will lie beside each other with their axial openings alined, a shaft extending through the alined openings of the springs, and means connected to said shaft and spokes and transmitting movement between the same, said means having chambers which receive the springs, respectively.

4. A resilient wheel having a plurality of members each provided with a coiled spring at its end and with a spoke extending outward from the coiled spring, said members being so arranged that the spokes will extend radially from the springs and the springs will lie beside each other with their axial openings alined, a shaft which extends through the alined openings of the springs, members mounted on said shaft, the latter members being arranged to provide openings through which the spokes extend and chambers which respectively receive the springs.

5. A resilient wheel having a plurality of members each provided with a coiled spring at its end and with a spoke extending outward from the coiled spring, said members being so arranged that the spokes will extend radially from the springs and the springs will lie beside each other with their axial openings alined, a device extending through the alined openings of the springs, casings for said springs, said casings being mounted on the shaft and secured to the same and each comprising side walls and a circumferential wall, arranged to contain a spring, the circumferential walls of the casings having openings through which the spokes extend, the latter openings being fitted to the spokes, whereby rotary movement of said device and spokes will be transmitted through the casings.

[Claims 6 to 14 not printed in the Gazette.]

1,136,870. SPRING-FRAME FOR BICYCLES OR THE LIKE. JOHN E. DUKELOW, Chicago, Ill. Filed Mar. 5, 1910. Serial No. 547,616. (Cl. 208—94.)



1. In a device of the kind described, a main frame, an auxiliary frame pivotally mounted upon an extremity of said main frame and adapted to support a wheel in position, and extend outward beyond the rim of said wheel in combination with a plurality of opposed means coöperating with said main frame and one end of said auxiliary frame to resiliently maintain said auxiliary frame in position.

2. In a device of the kind described, a main frame an auxiliary frame pivotally attached intermediate its ends upon the extremity of said main frame and adapted to support a wheel in position and extend outward beyond the rim of said wheel, in combination with a plurality of opposing and substantially independent means coöperating with said main frame and one end of said auxiliary frame to resiliently maintain said auxiliary frame in position.

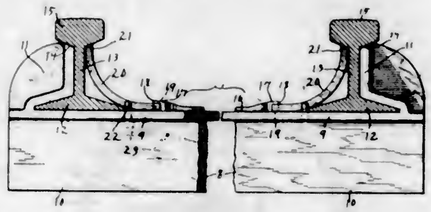
3. In a vehicle body, a forked main frame, an auxiliary frame mounted between the fork arms of said main frame and adapted to support a wheel in position and extend outward beyond the rim of said wheel, in combination with a plurality of opposing and substantially independent means coöperating with said main frame and one end of said auxiliary frame to resiliently maintain said auxiliary frame in position.

4. In a vehicle body, a main frame, an auxiliary frame forked at both ends mounted upon said main frame and adapted to receive and support a wheel between one pair of its forked arms, in combination with means positioned between the other pair of fork arms adapted to engage said main frame to resiliently maintain said auxiliary frame in position and resist its movement in either direction.

5. In a vehicle body, a main frame, a forked auxiliary frame pivotally mounted upon an extremity of said main frame with one end adapted to engage both ends of an axle to support a wheel in position, in combination with a plurality of opposing and substantially independent means coöperating with said main frame and one end of said auxiliary frame to resiliently maintain said auxiliary frame in position.

[Claims 6 to 14 not printed in the Gazette.]

1,136,871. RAILWAY-TIE. HAROLD J. GOODYEE, Racine, Wis., assignor of one-third to Ezra R. Burgess and one-third to Leslie M. Fowler, Racine, Wis. Filed Dec. 7, 1912. Serial No. 735,389. (Cl. 238—5.)



1. A railway tie, comprising a reinforced bed plate provided with upwardly and inwardly projecting rail engaging extensions, and yielding clamping members constructed to pivotally engage the bed plate and to impinge against the inner sides of rails engaged by the extensions.

2. A railway tie, comprising a reinforced bed plate provided with upwardly and inwardly projecting rail engaging extensions and with angular shoulders, and clamping members having recessed angular ends engaging the angular shoulders and having their opposite ends impinging against rails engaged by the extensions, and pins extending into the bed plate on opposite sides of the members for locking said members in clamping position.

3. A railway tie, comprising a reinforced bed plate provided with upwardly and inwardly projecting rail engaging extensions, and yielding clamping members engaging the bed plate and constructed to be swung horizontally into clamping engagement with rails engaged by the extensions.

1,136,872. PROCESS OF TREATING ORES. EDWARD M. HAMILTON, Bristol, England, assignor to Charles Butters, Oakland, Cal. Filed June 5, 1914. Serial No. 843,215. (Cl. 75—185.)

1. The process of treating slimes which consists in adding a substance thereto to render alkaline and settle the slimes and subsequently rendering said substance insoluble and precipitating the values.

2. The process of treating slimes which consists in adding a substance thereto to render alkaline and settle the slimes and subsequently precipitating out said substance and forming a substance beneficial to precipitation.

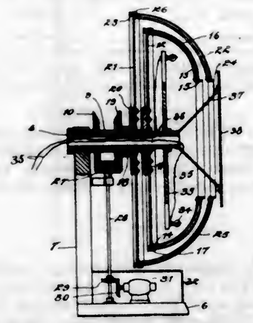
3. The process of treating slimes which consists in adding a substance thereto to render alkaline and settle the slimes and subsequently precipitating out said substance and forming a substance beneficial to precipitation by a metal which is not attacked by potassium cyanid.

4. The process of treating slimes which consists in adding a substance thereto to render alkaline and settle the slimes and subsequently precipitating out said substance and forming a substance beneficial to precipitation by aluminum.

5. The process of treating slimes which consists in adding lime thereto, precipitating out said lime and forming a caustic alkali in the slimes, filtering said slimes and precipitating the precious metal from the filtered solution by aluminum.

[Claims 6 to 10 not printed in the Gazette.]

1,136,873. SIGN OR ADVERTISING DEVICE. FRANK Z. HANSCOM, Chicago, Ill. Filed Mar. 13, 1911, Serial No. 614,224. Renewed Sept. 14, 1914. Serial No. 861,706. (Cl. 240—49.)



1. In a sign or advertising device, the combination of a support, a tubular spindle rigidly secured to said support, a rotating sleeve on said spindle, a second rotating sleeve on said first-mentioned sleeve, means for turning said sleeves, lights supported from said spindle, and rotating members secured to said sleeves and extending over in front of said lights.

2. In an advertising or display apparatus, the combination of a support, a hollow spindle mounted in said support, a sleeve rotatably mounted on said spindle, a second sleeve rotatably mounted on said first-named sleeve, means for turning said sleeves in opposite directions, a lamp support secured to the front end of said spindle, lamps on said support, arms connected with the first-named spindle and extending around and in front of said lamps, arms connected with said second-named spindle and extending out and around said last-named arms, and bands supported by said arms, said bands being colored or provided with designs to affect the light from said lamps.

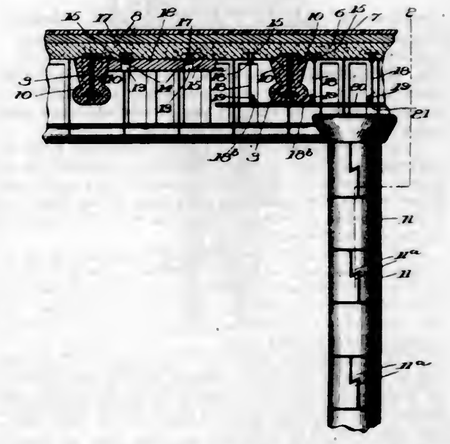
3. In an apparatus of the character set forth, the combination of a stationary tubular spindle, a reflector mounted on the free end of said spindle, lamps arranged in front of said reflector, arms extending forwardly from said spindle, a plate for receiving advertising or the like, supported by said arms, a sleeve mounted on said spindle, behind said reflector, arms extending out from said sleeve and curved inwardly in front of said reflector, rings supported by said arms, an annular band of material through which light may pass, carried by said rings, a second sleeve mounted on said first-named sleeve, arms extending out from said second sleeve, said arms being bent forwardly and inwardly over the arms carried by said first-named sleeve, rings secured to said last-named arms, an annular ring of material through which light may pass, carried by said rings, gears on said sleeves, a pinion meshing with said gears for turning them in opposite directions, and means for turning said pinion.

4. In an apparatus of the character set forth, the combination of a stand or support, a hollow spindle rigidly secured at one end to said support, a light board mounted at the free end of said spindle, lamps on said board, electric supply wires for said lamps, passing through said spindle, a disk for receiving advertising or the like, supported from said spindle in advance of the light board, a sleeve on said spindle, at the rear of said light board, arms projecting from said spindle around said board, the inner free ends of said arms extending inwardly behind said disk, rings carried by said arms, an annular band of transparent material carried by said rings, means for securing said band in position, a second sleeve mounted on said first-named sleeve, at the rear of said arms, arms on said second-named sleeve, extending out and around the arms of the first-named sleeve, the inwardly extending ends of said last-named arms projecting inwardly behind said disk, rings carried by said last-named arms, an annular band of transparent material carried by said rings, means for holding said band in position, oppositely disposed beveled gears on said sleeves, a pinion engaging with said gears, and means for turning said pinion.

5. In a sign or advertising device, the combination of a stationary hollow spindle, a support for one end of said spindle, electric lamps supported from the free end of the spindle, wires leading through said spindle to said lamps, rotatable sleeves fitting one within another mounted on said spindle, means for rotating said sleeves, and devices carried by said sleeves, extending around said lamps, said devices being adapted to modify the light from the lamps.

[Claim 6 not printed in the Gazette.]

1,136,874. FIREPROOF CONSTRUCTION. STEPHEN J. HAYDE, Kansas City, Mo. Filed Jan. 20, 1906. Serial No. 296,981. (Cl. 72—68.)



1. In a fire proof construction, the combination of an I beam placed with the web vertical, blocks fitted around the side and the lower flanges of said beam, said blocks having a portion of their upper edges beveled to fit against the under side of the upper webs and having the other edges bevele din another direction, said blocks being provided at their under abutting edges with interlocking members and tongue and groove connections on the end thereof, a concrete floor foundation supported by said beam and blocks, hangers fitted in and depending from said concrete foundation, suspension rods secured at their upper ends to said hangers, bars secured to the lower ends of said suspension rods, and metallic lathing secured to said bars.

2. In a fire proof construction, an I beam, blocks arranged to fit against the sides of the beam, arms integral with said blocks and adapted to fit around the flange of the beam, said arms being provided with interlocking members and the side of the blocks being provided with reinforced ribs.

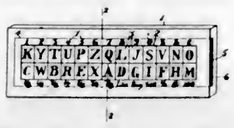
3. In a fire proof construction, an I beam, blocks fitting against the side of said beam, arms integral with the blocks and adapted to fit around the lower flange of the beam, interlocking members on said arms, reinforcing ribs on the sides of the blocks, and a cap covering the upper surface of the I beam and the upper terminals of the blocks.

4. In a fire proof construction, an I beam, blocks fitting against the side of said beam, arms integral with the blocks and adapted to fit around the lower flange of the beam, interlocking members on said arm, reinforcing ribs on the sides of the blocks, a cap covering the upper surface of the I beam and the upper terminals of the block and a cement or grout between the surface of the I beam and the blocks and cap.

5. In a fire proof construction, an I beam, and blocks comprising portions which are fitted against opposite sides of the beam, other portions which extend therefrom toward each other around the lower flange of the beam and have interlocking members, a cap covering the upper surface of the I beam and the upper terminals of the blocks, and a cement or grout between the surface of the I beam and the blocks and cap.

[Claim 6 not printed in the Gazette.]

1,136,875. CRYPTOGRAPHIC-CODE CARDS. EDWARD H. HEBERN, Oakland, Cal. Filed Feb. 24, 1914. Serial No. 820,515. (Cl. 35—13.)



1. A cryptographic device having characters to be enciphered, one only of each character, arranged in irregular or fortuitous order in two parallel and equal rows, those in one row registering with those in the other.

2. A cryptographic device having characters to be enciphered, one only of each character, arranged in irregular or fortuitous order in two parallel and equal rows, those in one row registering with those in the other, and a row of other characters registering with the characters in the aforesaid rows.

3. A cryptographic device having characters to be enciphered, one only of each character, arranged in irregular or fortuitous order in two parallel and equal rows, those in one row registering with those in the other, and two rows of other characters, registering with the characters in the aforesaid rows.

4. In combination with an even number of uniform blocks having respectively printed thereon characters to be enciphered, a receptacle adapted to exactly contain said blocks in two parallel rows, the blocks of one row registering with those of the other.

5. In combination with an even number of uniform blocks having imprinted thereon different characters to be enciphered, a receptacle adapted to contain said blocks in two registering parallel rows and in such position that the imprinted characters are open to observation, and having imprinted thereon a row, registering with said blocks, of other characters.

[Claim 6 not printed in the Gazette.]

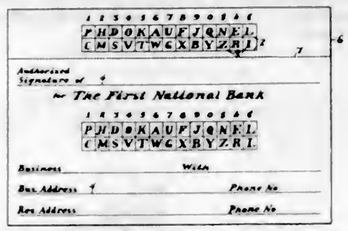
1,136,876. CIPHER-CODE DEVICE. EDWARD H. HEBERN, Oakland, Cal. Filed Mar. 11, 1914. Serial No. 823,880. (Cl. 35—13.)

1. In a cipher device, means for forming twenty-six spaces in two equal series, the spaces of one series registering with those of the other.

2. In a cipher device, means for forming twenty-six spaces in two equal series, the spaces of one series registering with those of the other, the nine digits being imprinted adjacent to certain of said spaces.
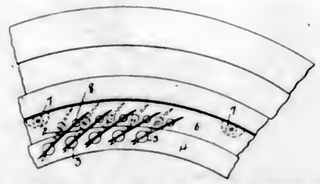
3. In a cipher device, means for forming twenty-six spaces in two equal series, the spaces of one series registering with those of the other, the nine digits, the zero mark, and three other symbols being printed adjacent to the respective spaces of one of the series.

4. In a device of the character described, a card consisting of two portions separated by a weakened line, each having thereon a group of twenty-six spaces arranged in two equal series, the spaces of one series registering respectively with those of the other, and the letters of the



alphabet being printed in each group of spaces in irregular order but in the same order in the two groups.

1,136,877. CENTRIFUGAL BLOWER AND OTHER CENTRIFUGAL MACHINE OF A SIMILAR NATURE. THOMAS HENRY COLLETT HOMERSHAM, Bradford, England. Filed June 1, 1914. Serial No. 842,242. (Cl. 230—11.)



1. In centrifugal blowers and other centrifugal machines of the character described, guide blades, pins secured to the guide blades, means for revolubly mounting said pins in a portion of the framework of the machine, a floating annulus and sliding engaging means between said floating annulus and said blade.

2. In centrifugal blowers and other centrifugal machines of the character described, a plurality of guide blades, a pin mounted on each guide blade, an annulus fixed in the framework of the machine, means for mounting said pins in said annulus, a floating annulus located about said fixed annulus, anti-friction means between said floating annulus and the framework of the machine, revoluble pins mounted one for each guide blade in said floating annulus said pins being each provided with a saw cut on its head in which the edge of the respective blade enters.

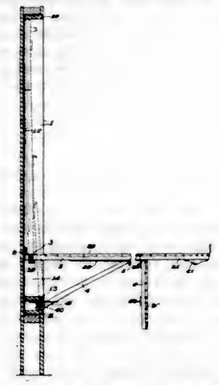
3. In centrifugal blowers and other centrifugal machines of the character described, a plurality of guide blades, revoluble means for mounting said guide blades in the machine, a floating annulus free to move in a circumferential direction under the influence of said blades and connected to all of said blades substantially as described.

4. In centrifugal blowers and other centrifugal machines of the character described, a plurality of guide blades, a ring free to rotate in a circumferential direction connected to each of said guide blades, a crank engaging with said ring, a shaft carrying said crank and a handle connected to said shaft, substantially as and for the purpose described.

5. In centrifugal blowers and other centrifugal machines of the character described, a plurality of guide blades, a ring free to rotate in a circumferential direction connected to each of said guide blades, and means connected to said floating ring for moving the same by hand and giving visible indication of any movements made thereby substantially as described.

1,136,878. IRONING-BOARD. OTTO F. HORNSCHUCH, Seattle, Wash. Filed July 13, 1914. Serial No. 850,818. (Cl. 68—10.)

1. In an ironing board, in combination, a board pivoted at one end, a strut or brace leg pivoted by one end at a lower point than that at which the board is pivoted, a spring acting upon said strut to press its swinging end against the under surface of the board, and a stop on the lower side of the board in position to engage the end of the strut when the board is in horizontal position.



2. An ironing board having an extension of reduced width at its outer end adapted to be used as a sleeve board, complemental sections hinged to the board and adapted to be swung up at each side of said sleeve board extension to complete the normal outline of the board, and a bar fixedly connecting said swinging side sections to prevent their relative separation.

3. An ironing board having at its outer end a fixed central section and side sections hinged by their inner ends to swing into position alongside the central section, the meeting edges of said sections being slightly beveled on planes which incline toward the central plane as it extends downwardly, and a positive connection between the swinging sections extending beneath the fixed section.

1,136,879. WELL-PACKING. DANIEL FRED HUNT, Easton, Pa. Filed June 23, 1913. Serial No. 775,274. (Cl. 166—10.)

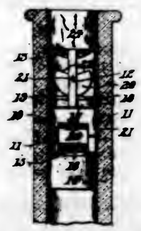


1. A combined well casing and packing comprising a casing, a collar affixed to said casing and forming a water tight connection therewith, a frusto-conical shoe having its smaller end downward, means fastening said shoe to said casing between the collar and the adjacent end thereof, a water proof tube having one end fastened to said collar and the other end fastened to the shoe and having a water tight connection with the collar and a fibrous filler disposed between said sleeve and shoe and between said casing and tube whereby when said shoe is wedged from movement by a constriction in the well the weight of the casing will disengage the casing from the shoe, compressing the packing and forcing the tube into engagement with the side of the well.

2. A combined well casing and packing comprising a casing, a collar affixed to said casing and forming a water tight connection therewith, a ring screwed to said collar, a shoe adapted to slide relative to said casing toward said collar, a pin fastening said shoe to said casing between the collar and the adjacent end thereof, a flexible tube connecting said ring and shoe and having a water tight connection with the ring and a filler disposed between said casing and shoe and between said casing and tube whereby when said shoe is held from movement by a constriction in the well the weight of the casing will shear off the pin, compressing the packing and forcing the tube into engagement with the side of the well.

3. In combination with a well casing, a packing carried thereby comprising an expandible tube having a shoe attached to the lower portion thereof and surrounding the casing, a sleeve fastening the upper portion of the tube to the casing, said shoe and sleeve having a diameter at least equal to the diameter of the tube, the portion of the tube fastened to the casing adapted to move toward said shoe to expand the tube and means temporarily fastening said shoe to said casing.

1,136,880. NON-REFILLABLE BOTTLE. JACOB KOSIENSKI and ALBERT KAMINSKI, Amsterdam, N. Y., assignors of one-third to Benjamin H. Lichtman, Amsterdam, N. Y. Filed Sept. 2, 1914. Serial No. 859,832. (Cl. 215—68.)



In a device of the class described, a cage, embodying a pair of long arms and a pair of short arms, a valve seat and flap valve carried by the lower ends of the longer arms, and a second valve seat and flap valve carried by the lower ends of the shorter arms, said flap valves being hinged to their seats in different vertical planes, cam members pivotally mounted in each of said long and short arms above said flap valves to engage the same and hold the valves in closed position when the bottle is in upright position and adapted to be moved to disengaging position when the bottle is inverted to permit the flap valves to unseat and allow the contents of the bottle to be poured therefrom.

1,136,881. METHOD OF TREATING FLOUR. FREDERICK D. LARABEE, Hutchinson, Kans., assignor to himself, and William G. Andrews, Chicago, Ill. Filed July 11, 1913. Serial No. 778,576. (Cl. 83—42.)

1. The method of treating ordinary flour which consists in further mechanically acting upon the same in the dry state to break down the starch cells thereof.

2. The method of treating ordinary flour which consists in further mechanically acting upon the same in the dry state to break down the starch cells thereof, without materially affecting the granulation of the flour.

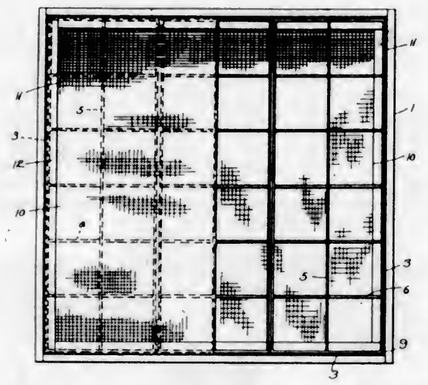
3. The herein described method which consists in reducing wheat to flour, and then mechanically breaking down the starch cells of the dry flour.

4. The herein described method which consists in reducing wheat to flour, and then mechanically breaking down the starch cells of the dry flour without materially affecting the granulation thereof.

5. The method of treating flour which consists in subjecting the same in the dry state to mechanical reducing agents yielding a maximum rubbing and a minimum grinding action, whereby to break down the starch cells without materially affecting the granulation of the flour.

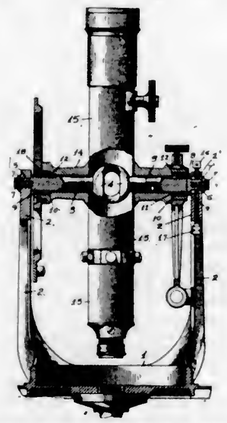
[Claims 6 and 7 not printed in the Gazette.]

1,136,882. EGG-CASE. JOSEPH J. LASSALETTE, Los Angeles, Cal. Filed Oct. 20, 1913. Serial No. 796,292. (Cl. 217—27.)



An egg case comprising a box, said box divided into sections adapted to form a series of egg cells, each section being formed of asbestos fabric sides, ends, and partitions, having a metal binding at the top and bottom, and metal corner pieces, a mat disposed between the sections, said mat being formed of an intermediate layer of asbestos fabric, and a sheet of resilient wire cloth upon opposite sides thereof, said mat being bound by a rigid material.

1,136,883. TRANSIT-FRAME. ADOLPH LIETZ, San Rafael, Cal. Filed Jan. 22, 1913. Serial No. 743,622. (Cl. 33—46.)



1. A transit frame comprising a suitable top plate having parallel vertical standards secured thereto; an apertured axis rigidly secured to and uniting the upper ends of the standards and adapted to support a telescope rotatably mounted thereon.

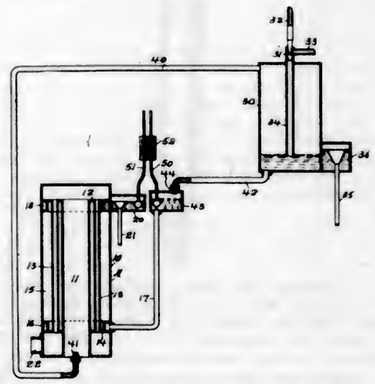
2. A transit frame comprising a suitable top plate having parallel vertical standards integral therewith; an apertured axis rigidly secured to and uniting the upper ends of the standards and adapted to support a telescope rotatably mounted thereon; and means for vertically adjusting one end of the apertured axis.

3. A transit frame comprising a suitable top plate having parallel, vertical standards integral therewith; a centrally apertured axis rigidly secured to and uniting the upper ends of the standards; suitable cone bearings slidably mounted upon either end of the axis and adapted to engage and support the trunnions of a telescope; and vertical screws secured to the top of one of the standards and adapted to raise and lower one end of the rigid axis.

4. A transit frame comprising a suitable top plate; vertical, parallel standards integral with the base plate and having a circular aperture in the upper portion of one standard and a vertical slot in the other standard; a centrally apertured axis having a cylindrical reduced portion at one end adapted to engage the circular aperture in one standard and a flattened reduced portion at the other end thereof adapted to engage the slot in the other standard; vertical screws projecting into either end of the vertical slot and adapted to engage the flattened, reduced portion of the axis therein; suitable cone bearings slidably mounted upon either end of the apertured axis and between the standards to which the axis is secured; and means for adjusting the distance between the cone bearings.

5. In a transit frame the combination of a suitable top plate; vertical, parallel standards integral with the base plate and having a circular aperture in the upper portion of one standard and a vertical slot in the upper portion of the other standard; an axis having a cylindrical reduced portion at one end and a flattened reduced portion at the other end thereof and an enlarged central piece with a central aperture produced by boring two intersecting holes whose axes intercept the center of the rigid axis; vertical screws projecting through the upper and lower ends of the vertical slot in one standard and adapted to engage the flattened reduced portion of the axis thereof; suitable cone bearings feathered to either end of the axis and between the standards to which the axis is secured; and collars threaded on either end of the axis and adapted to move the cone bearings longitudinally upon the said axis.

1,136,884. CALORIMETER. CHARLES E. LUCKE, New York, N. Y. Filed June 27, 1906, Serial No. 323,575. Renewed Apr. 19, 1913. Serial No. 762,386. (Cl. 73—184.)



1. A calorimeter for measuring the heating value of gases comprising a heater for water or other liquid having a water chamber or passage and a combustion chamber or passage, means for causing a continuous flow of water through the water chamber or passage and a continuous flow of gas to the combustion chamber and for maintaining a continuously constant predetermined ratio between the quantity of water flowing through the water chamber or passage and the quantity of gas flowing to the combustion chamber or passage, said means comprising means providing a measuring orifice for the water and a measuring orifice for the gas and means for maintaining a continuously constant predetermined ratio between the pressures at which the water and gas are supplied to their respective measuring orifices; and means for measuring the rising temperature of the water in passing through the water chamber or passage, substantially as described.

2. A calorimeter for measuring the heating value of gases, comprising a heater for water or other liquid having a water chamber or passage and a combustion chamber or passage; means for causing a continuous flow of water through the water chamber or passage and a continuous flow of gas to the combustion chamber or passage and for maintaining a continuously constant predetermined ratio between the quantity of water flowing through the water chamber or passage and a quantity of gas flowing to the combustion chamber or passage, said means comprising means providing a measuring orifice for the water and a measuring orifice for the gas and means for supplying the water and gas to their respective measuring orifices under equal pressures; and means for measuring the rise in temperature of the water in passing through the water chamber or passage, substantially as described.

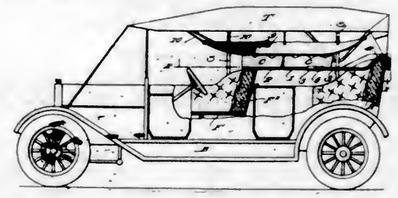
3. A calorimeter for measuring the heating value of gases comprising a heater for water or other liquid having a water chamber or passage and a combustion chamber or passage; means for causing a continuous flow of water through the water chamber or passage and a continuous flow of gas to the combustion chamber and for maintaining a continuously constant predetermined ratio between the quantity of water flowing through the water chamber or passage and the quantity of gas flowing to the combustion chamber or passage, said means comprising means providing a measuring orifice for the water and a measuring orifice for the gas and means for maintaining a continuously constant predetermined ratio between the pressures at which the water and gas are supplied to their respective measuring orifices; and indicating means controlled by the rise in temperature of the water in passing through the water chamber or passage and having a scale reading to heat units, substantially as described.

4. A calorimeter for measuring the heating value of gases, comprising a heater for water or other liquid having a water chamber or passage and a combustion chamber or passage; means for causing a continuous flow of water through the water chamber or passage and a continuous flow of gas to the combustion chamber or passage and for maintaining a continuously constant predetermined ratio between the quantity of water flowing through the water chamber or passage and the quantity of gas flowing to the combustion chamber or passage, said means comprising means providing a measuring orifice for the water and a measuring orifice for the gas and means for supplying the water and gas to their respective measuring orifices under equal pressures; and indicating means controlled by the rise in temperature of the water in passing through the water chamber or passage and having a scale reading to heat units.

5. A calorimeter for measuring the heating value of gases comprising a heater for water or other liquid having a water chamber or passage and a combustion chamber or passage; means for causing a continuous flow of water through the water chamber or passage and a continuous flow of gas to the combustion chamber and for maintaining a continuously constant predetermined ratio between the quantity of water flowing through the water chamber or passage and the quantity of gas flowing to the combustion chamber or passage, said means comprising means providing a measuring orifice for the water and a measuring orifice for the gas and means for maintaining a continuously constant predetermined ratio between the pressures at which the water and gas are supplied to their respective measuring orifices; and indicating means controlled by the rise in temperature of the water in passing through the water chamber or passage, such indicating means having a sliding scale which may be adjusted according to the temperature of the water fed to the heater, substantially as described.

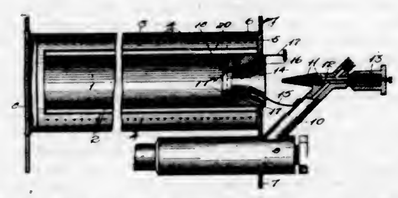
[Claims 6 to 8 not printed in the Gazette.]

1,136,885. SUPPORT FOR AUTOMOBILE-BEDS. CLIFFORD K. MCMILLIN, Bellingham, Wash. Filed June 1, 1914. Serial No. 842,244. (Cl. 21—43.)



The combination with a two seated vehicle body having a supported top thereover, of a number of spaced longitudinal bars overlying the backs of the seats and each having one end formed into a back engaging arch, a pair of cushions arranged transversely on the bars and a flexible sling resting at its intermediate portion on said cushions and having attaching means connected to the supports of said top.

1,136,886. OIL-GAS BURNER. WILLIS MITCHELL, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y., a Corporation of New York. Filed June 11, 1914. Serial No. 844,425. (Cl. 158—99.)



1. An oil gas burner having an elongated combustion chamber and an elongated concentric inner chamber, communicating at its rear end therewith, in combination with a fixed tapering fuel inlet in its forward end and a movable part arranged in this forward end between said fuel inlet and the wall of said inner chamber and forming an adjustable air inlet between it and said fuel inlet, these inlets discharging directly and without obstruction into the said inner chamber.

2. An oil gas burner having an elongated approximately cylindrical chamber, in combination with adjustable means forming the outer wall of an air inlet fitted into one end of said chamber and a fuel inlet forming also the inner wall of said air inlet, said fuel being shorter than the said outer wall of said air inlet, to provide a space beyond the former where the air may mingle with the gas before issuing into the interior of said chamber, the inner ends of said inlets being unobstructed and permitting direct inflow of gas and air.

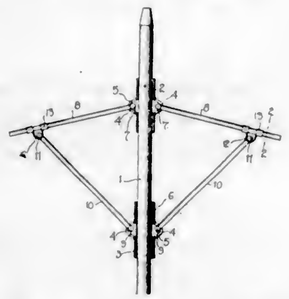
3. An oil gas burner comprising an approximately cylindrical elongated inner chamber, in combination with a fuel inlet directed into one end thereof and an adjustable air inlet surrounding said fuel inlet and arranged within the forward end of said inner chamber, said inlets discharging directly and freely into said inner chamber.

4. An elongated inner chamber, in combination with a concentric exterior burner chamber communicating therewith, a conoidally recessed block conforming externally to the internal shape of said inner chamber and adjustable longitudinally in the inlet end thereof, a trumpet-form air inlet guide carried by the inner face of said block, and a fixed fuel inlet guide of like form arranged centrally within the former guide, but extending less far inward to leave a space at its inner end where the two fluid streams may come into contact before entering the inner chamber of the burner.

5. In combination with the inner chamber of a burner and inlets for air and gas supplying the same, a block fitting into the inlet end of said chamber and having an annular concave inner face for the purpose of creating eddies in the flowing current of gas and air and causing more homogeneous mingling and heating.

[Claims 6 to 12 not printed in the Gazette.]

1,136,887. UMBRELLA-FRAME. WILLIAM SYLVESTER PENN, Atlanta, Ga. Filed June 3, 1914. Serial No. 842,731. (Cl. 135—30.)



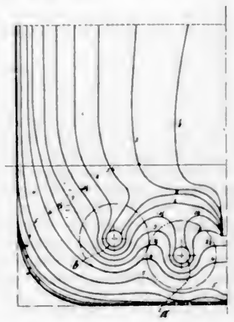
1. An umbrella frame comprising a staff, a thimble connected to the staff adjacent its outer end, a runner slidably mounted upon the staff inwardly of the thimble, ribs pivotally connected to the thimble, stretchers pivotally connected at their inner ends to the runner, a bracket connected to each of the ribs intermediate of its ends, each of the brackets comprising a strip having an inwardly bowed slotted portion, and the onter end of each of the stretchers being provided with a T-shaped head for engagement through the slot of the corresponding bracket, the length of the slot being longer than the length of the T-shaped head, whereby the stretchers may be turned to pivotally connect the same to the brackets.

2. An umbrella frame comprising a staff, a thimble connected to the staff adjacent its outer ends, a runner slidably mounted upon the staff inwardly of the thimble, ribs pivotally connected to the thimble, stretchers pivotally connected at their inner ends in said runner, a bracket connected to each of the ribs intermediate of its ends, each of said brackets comprising an elongated strip having transversely extending heads at its ends, the heads of each bracket being secured around one of the ribs, the body portion of each strip being slotted and being bowed inwardly to provide a seat between the rib and the bowed portion of the plate, and the end of each of said stretchers being provided with a T-head whereby the same may be extended through the slot of one of the brackets and turned to extend across the slot, whereby the stretchers are pivotally connected to the ribs.

3. In an umbrella, a staff, a runner mounted upon the staff, a rib mounted upon the staff, a geat or bracket mounted upon the rib, the runner being provided with an outwardly bowed and longitudinally slotted portion, the seat being formed with outwardly projecting oppositely disposed spaced eyes, and a stretcher having at each end an identical cross bar, said cross bar and the adjacent portion of the stretcher being less in thickness than the slot in the runner or the space between the eyes on the geat, whereby to permit the insertion of the cross bars respectively into the geat and runner, the rotation of the stretcher bringing said cross bar into position at right angles to the space in the gent between the eyes and the slot in said runner, thus pivotally and detachably connecting the stretcher with the runner and the rib.

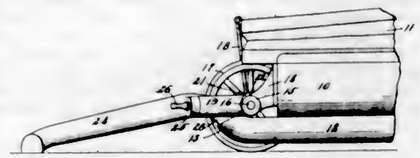
4. In an umbrella, a staff, a runner on the staff, a rib pivoting at its inner end to the staff, said rib being U-shaped in cross section, the open face of the rib being disposed toward the staff, the runner being formed with an outwardly bowed portion longitudinally slotted, a geat or bracket mounted upon the rib and having an inwardly bowed longitudinally slotted portion disposed in line with the hollow of the rib, and a stretcher having at opposite extremities thereof identical cross bars, the cross bars and the adjacent portions of the stretcher having a width less than the width of said slots and a length greater than the width of the slots whereby the cross bars may be inserted in said slots in the geat and runner and the stretcher rotated to turn the cross bars at right angles to the slots, thereby pivotally connecting the stretcher with the runner and geat, respectively.

1,136,888. SHIP'S HULL. LOTHAR VON KÖPPEN, Stettin-on-the-Oder, Germany. Filed Nov. 13, 1914. Serial No. 871,985. (Cl. 114—56.)



In a hull for a ship propelled by three or more propellers, the combination with a plurality of longitudinally extending hollows in the lower face of the bottom of its aft part, of bilges laterally bounding the said hollows and forming propeller shaft tunnels, the inner shaft tunnel or tunnels ending in front of the outer ones, substantially as set forth.

1,136,889. SUCTION-HEAD CONNECTION. GEORGE BRAND, Brooklyn, N. Y. Filed July 24, 1914. Serial No. 852,886. (Cl. 15—60.)



1. In a vacuum cleaning machine, a relatively fixed dust tube, a pivotally mounted suction head support adapted for swinging movement in a vertical direction, a suction head secured to said support and having one end thereof adapted to freely rest upon the surface to be cleaned, a hollow shank on said support communicating with said head and telescoping into said tube and adapted for movement therein with the suction head.

2. In a vacuum cleaning machine, a dust tube having an open curved end, a pivotally mounted support, a suction head secured to said support at one end and having the other end adapted for free movement in a vertical direction whereby the same may rise and fall with the variations in the surface to be cleaned, a curved hollow shank on said support communicating with said head and engaging in said open end of the tube.

3. In a vacuum cleaning machine, a body, a dust tube fixed upon the body and having a curved open end, a bracket on the body, and a suction head support hinged upon the bracket concentric with the curved end of said tube and having a correspondingly curved hollow shank telescoping into said curved end of the tube, whereby to establish communication between the suction head support and the tube.

4. In a vacuum cleaning machine, a body, a dust tube fixed upon the body, a suction head support hinged upon the body and having a hollow shank telescoping into said dust tube, a suction head carried by said support, said dust tube and said shank being curved concentric to the pivotal support of said head.

5. In a vacuum cleaning machine, a body, a dust tube fixed upon the body and having a curved open end, a support hinged upon the body concentric to said curved end and having a hollow shank of corresponding curvature telescoping into said end, and a cleaning tool communicating with said support.

[Claims 6 to 9 not printed in the Gazette.]

1,136,890. VACUUM CLEANING-MACHINE. GEORGE BRAND, Brooklyn, N. Y. Filed July 24, 1914. Serial No. 852,888. (Cl. 83—47.)

1. In a vacuum cleaning machine, a dust receptacle, a dust bag within said receptacle and a dust tube extending in a straight line longitudinally of said receptacle on its exterior for a portion of its length, said dust tube passing through said dust bag and receptacle and terminating at the rearward end of the same and adapted to discharge toward said end.

2. In a vacuum cleaning machine, an inwardly tapering dust receptacle, an inwardly tapering bag mounted in said receptacle, means for holding said bag taut in the receptacle, and a dust tube opening through one side of the dust receptacle and bag near the enlarged ends thereof.

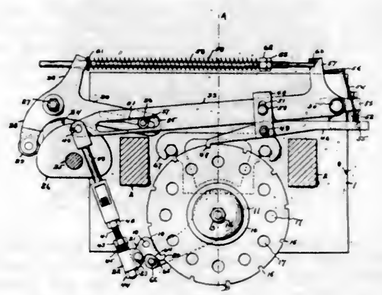
3. In a vacuum cleaning machine, a dust receptacle tapering throughout its entire length toward the forward end thereof and open at its enlarged end, a removable cap adapted to inclose said enlarged end, and a dust tube extending in a straight line substantially parallel with the longitudinal axis of said dust receptacle on the exterior of the reduced or forward end thereof and extending into said dust receptacle near its enlarged end and toward the same.

4. In a vacuum cleaning machine, a tapering dust receptacle, a dust bag therein and a dust tube extending in a straight line longitudinally of the receptacle against the exterior forward end thereof and entering said receptacle and bag in the same straight line near its enlarged end and at one side thereof.

5. In a vacuum cleaning machine, a dust receptacle tapering from end to end, a dust bag in said receptacle, a dust tube arranged in a straight line against the outer reduced end of the receptacle and extending longitudinally thereof, said dust tube being flattened at one end and projecting in the same line into the receptacle and bag near the enlarged end of the receptacle whereby the flattened end of said tube is disposed adjacent the inner side of the receptacle and bag and discharges toward the enlarged end thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,136,891. DIAL MECHANISM. ZENAS P. CANDEE, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 1, 1914. Serial No. 842,239. (Cl. 164—87.)



1. The combination with a dial having one or more stop faces thereon; of a pawl lever movable about the same axis as said dial; a pawl movably mounted upon said lever; means for limiting the movement of said pawl upon said lever in one direction; a rock lever; a second rock lever, having an operative engagement with and actuated by said first lever; means having connection with both of said levers for moving them in one direction; a connection between said second rock lever and said pawl; and a detent connected with one of said levers and movable into and out of the path of the stop faces in said dial.

2. The combination with a dial having one or more stop faces thereon; of a pawl lever movable about the same axis as said dial; a pawl movably mounted upon said lever; means for limiting the movement of said pawl upon said lever in one direction; a rock lever; a second rock lever, having an operative engagement with and actuated by said first lever; means having connection with both of said levers for moving them in one direction; a connection between said second rock lever and said pawl; means for varying the length of said connection; and a detent movably mounted upon one of said levers and movable into and out of the path of the stop faces in said dial.

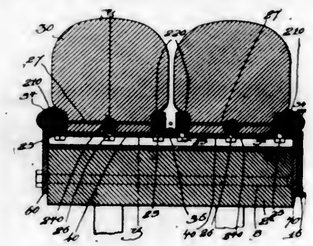
3. The combination with a dial having one or more stop faces thereon; of a pawl lever movable about the same axis as said dial; a pawl movably mounted upon said lever; means for limiting the movement of said pawl upon said lever in one direction; a rock lever; a second rock lever, having an operative engagement with and actuated by said first lever; means having connection with both of said levers for moving them in one direction; a connection between said second rock lever and said pawl; a detent connected with one of said levers and movable into and out of the path of the stop faces in said dial; and means for variably limiting the movement of said detent upon said lever.

4. The combination with a dial having one or more stop faces thereon; of a pawl lever movable about the same axis as said dial; a pawl movably mounted upon said lever; means for limiting the movement of said pawl upon said lever in one direction; a rock lever; a second rock lever, having an operative engagement with and actuated by said first lever; means having connection with both of said levers for moving them in one direction; a connection between said second rock lever and said pawl; a locking pawl pivotally connected with one of said levers; means for varying the relative position of said pivotal connection with said lever; and means limiting the movement of said locking pawl in one direction.

5. The combination with a dial having one or more stop faces thereon; of a pawl lever; a pawl movably mounted upon said lever; and means for applying a variable friction to said dial and to said pawl lever.

[Claims 6 to 10 not printed in the Gazette.]

1,136,892. AUTOMOBILE-TIRE. WALTER E. COPITHORN, Natick, Mass. Filed Mar. 21, 1912, Serial No. 685,200. Renewed Mar. 10, 1915. Serial No. 13,502. (Cl. 152—7.)



1. In a wheel, the combination with a wheel body, of a demountable rim therefor, a tread member on said rim, retaining rings separable from said rim and detachably secured thereto, one on each side of the tread member, said retaining rings having apertures, and projections extending laterally from the tread member and entering the apertures in the retaining rings, said projections being freely withdrawable from the apertures when the retaining rings are removed.

2. In a wheel, the combination with a wheel body, of a demountable rim therefor, a tread member on said rim, a retaining ring detachably secured to the rim at each side thereof, said rings embracing the sides of the tread member and provided with apertures, and rods extending transversely through the tread member and having their ends entering said apertures but freely withdrawable therefrom when the retaining rings are removed.

3. In a wheel the combination with a wheel body, of a demountable rim therefor, a tread member on said rim, retaining rings encircling the rim and embracing the sides of the tread member, said retaining rings having sockets, projections extending laterally from the tread member and entering said sockets in the retaining rings, and means to detachably secure one of the retaining rings to the demountable rim, the projections being freely withdrawable from said ring when it is removed.

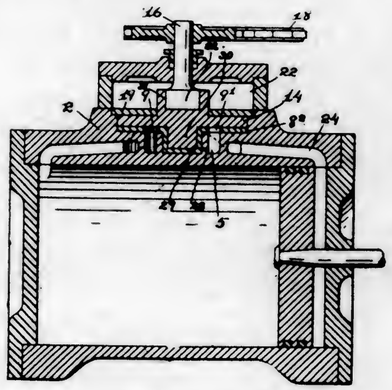
4. In a wheel, the combination with a demountable rim, of a tread member thereon, a ring embedded in the tread member, rods secured to said ring and extending transversely of the tread member and projecting beyond the sides thereof, and retaining rings embracing the sides of the tread member and provided with apertures into which the projecting ends of the rods freely enter and means to connect the retaining rings detachably to the rim, said rings being separable from the tread member.

5. In a wheel, the combination with a demountable rim, of a tread member thereon, a ring embedded in the tread member, rods secured to said ring and extending transversely of the tread member and projecting beyond the latter at each side, retaining rings separate from the demountable rim and embracing the sides of but separate from the tread member, said retaining rings having apertures to receive the projecting ends of the rods, and means to detachably secure the retaining rings to the tread member.

[Claims 6 and 7 not printed in the Gazette.]

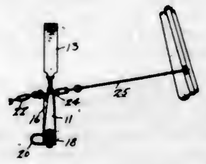
1,136,893. STEAM-ENGINE VALVE-GEAR. SAMUEL G. COLSON, Ashton, Idaho. Filed Sept. 2, 1914. Serial No. 859,904. (Cl. 136—12.)

1. In valve gear for steam engines, the combination with an engine cylinder having steam ports communicating with opposite ends thereof, of a steam chest having two sets of diametrically opposite lateral ports, the ports of each set communicating with opposite steam ports, an exhaust port in said chest, a rotary valve having at one side a long arcuate port and at the other side a long chamber to bridge successively the lateral ports and the exhaust port, a reversing plate having diametrically opposite ports adapted to register with either set of said lateral ports and to close the other set of said ports, and means for rotatably mounting said valve and said plate, comprising a journal seated in the cylinder wall, a hollow boss upon said plate in register with said journal seat, a stud upon said valve engaging the hollow of said boss, a prismatic seat in said valve opposite said stud, and a driving shaft loosely engaging said prismatic seat.



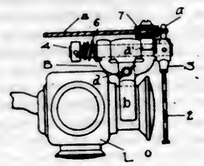
2. In valve gear for steam engines, the combination with an engine cylinder having steam ports communicating with opposite ends thereof, of a steam chest having two sets of diametrically opposite lateral ports, the ports of each set communicating with opposite steam ports, an exhaust port in said chest, a rotary valve having at one side a long arcuate port and at the other side a long chamber to bridge successively the lateral ports and the exhaust port, a reversing plate having diametrically opposite ports adapted to register with either set of said lateral ports and to close the other set of said ports, and means for rotatably mounting said valve and said plate, comprising a journal seat in the cylinder wall, a hollow boss upon said plate in register with said journal seat, a stud upon said valve engaging the hollow of said boss, a prismatic seat in said valve opposite said stud, a driving shaft loosely engaging said prismatic seat, and a retaining plate secured to said cylinder wall and engaging said valve.

1,136,894. HARNESS. ARTHUR F. CROWELL, Spokane, Wash. Filed Nov. 18, 1911. Serial No. 661,160. (Cl. 54—3.)



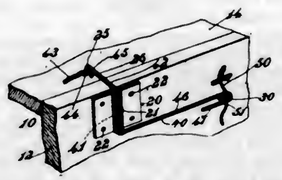
In a harness, the combination with an evener, and whiffletrees centrally pivoted to the ends thereof and each having at each extremity an eye and near the latter a notch in its rear edge; of attaching members connected with the collar of the harness, links carried by the rear ends of said members and adapted to pass bodily over the eyes at opposite ends of the whiffletrees and rest in the notches thereof, the back bands, and snap hooks at the extremities of the latter adapted to engage said eyes and hold the links in position.

1,136,895. SIGNAL FOR AUTOMOBILES. WILLIAM M. CUMMER, Cleveland, Ohio. Filed June 21, 1910. Serial No. 568,230. (Cl. 116—31.)



A signaling mechanism for automobiles comprising a lamp at the rear of the machine, in combination with a rotatable shaft at one side of said lamp, a bracket clamped on said lamp and supporting said shaft, a disk mounted on one end of said shaft and having an arm to operate the same, said disk adapted to be rotated in front of said lamp, a spring on the opposite end of said shaft from said disk arranged to hold said disk in raised position apart from said lamp, a cable extending from the said arm on said disk to the front of the machine and means adapted to be engaged by the foot of the driver to operate said cable and throw said disk in front of said lamp, the said disk having a plurality of holes through the same.

1,136,896. BOX-FASTENER. TITUS J. DAY, Damascus, Md. Filed Feb. 6, 1915. Serial No. 6,572. (Cl. 70—3.)



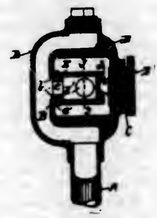
1. A fastener of the character described comprising an attaching plate having a bearing, a swiveled member consisting of a shank journaled in said bearing, a hook which consists of a primary right angular extension integral with one end of said shank and a secondary extension integral with said primary extension and an actuating handle which consists of an angular extension integral with the other end of said shank, said handle and said secondary extension projecting in opposite directions, and a lid member engaged by said hook.

2. A fastener of the character described comprising an attaching plate having a bearing, a swiveled member consisting of a shank journaled in said bearing, a drawing hook which consists of a primary right angular extension integral with one end of said shank and a secondary extension integral with said primary extension and provided with a lateral projection, and an actuating handle which consists of an angular extension integral with the other end of said shank, said handle and said secondary extension projecting in opposite directions and a lid member engaged by said hook and said handle.

3. A fastener of the character described comprising an attaching plate having a bearing, a swiveled member consisting of a shank journaled in said bearing, a hook which consists of a primary right angular extension integral with one end of said shank and a secondary extension integral with said primary extension and an actuating handle which consists of an angular extension integral with the other end of said shank, said handle and said secondary extension projecting in opposite directions, said handle having a loop at its outer end, and lid and wall members engaged respectively by said hook and said handle.

4. A fastening member for a fastener of the character described comprising a swiveling shank, a hook which consists of a primary right angular extension integral with one end of said shank, a secondary extension integral with said primary extension and an actuating handle which consists of an angular extension integral with the other end of said shank, said handle and said secondary extension projecting in opposite directions.

1,136,897. SPRINKLER-VALVE MECHANISM. JULIUS R. DROZESKI, Erie, Pa., assignor of one-half to John Kolb, Erie, Pa. Filed Nov. 2, 1914. Serial No. 869,833. (Cl. 137—69.)



1. In a sprinkler valve mechanism a yoke having a water passage in one side thereof, a hollow cylinder rotatively mounted in said yoke, and connecting with the water passage therein, a hollow sleeve on one side of said cylinder, a valve-seat in said cylinder opposite the inner end of said sleeve, and a hollow stem operating in said sleeve, and adapted to contact with said valve-seat, substantially as set forth.

2. In a valve, a yoke having a water passage in one side thereof, a hollow cylinder mounted in said yoke, and communicating with said passage, a hollow sleeve on one side of said cylinder, a valve-seat in said cylinder opposite the inner end of said stem, and a hollow screw threaded stem adapted to be rotated in said sleeve to bring the inner end thereof into contact with or away from the seat in said cylinder, substantially as set forth.

1,136,898. PORTABLE SCAFFOLD. JOHN A. GRANGER, Chicago, Ill., assignor of one-half to Macomber & Whyte Rope Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 29, 1912. Serial No. 733,989. (Cl. 20—81.6.)



1. A portable scaffold constructed for use on modern high buildings and comprising a platform, transverse sills upon which the ends of said platform rest, uprights medially secured to the rear ends of said sills, and extending both above and below the horizontal plane of the same and forming upper and lower vertical portions which are about equal in length to the width of the platform, vertically disposed taut flexible guide-cables arranged fairly close and substantially parallel to the plane of the wall of the building, overhead outriggers attached

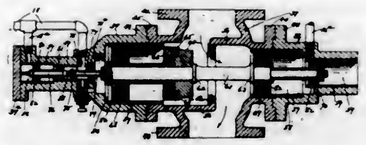
to the building at or near the top thereof, pulleys journaled in the overhanging portions of said outriggers, hoisting cables medially encircling said pulleys and having their inner end portions depending therefrom and in proximity to and parallel with the guide-cables and the outer end portion extending diagonally downward and outward from said pulleys and secured at their lower extremities to the outer portions of the sills, and suitable winches supported by the inner portions of said sills to which the lower extremity of the inner end portions of said hoisting cables are movably secured, and supporting blocks extending laterally from the extremities of the upper and lower end portions of the uprights and having openings through which the guide cables pass.

2. A portable scaffold constructed for use on modern high buildings and comprising a platform, transverse-sills upon which the ends of said platform rest, uprights medially secured to the rear ends of said sills, and extending both above and below the horizontal plane of the same and forming uper and lower vertical portions which are about equal in length to the width of the platform, vertically disposed taut flexible guide-cables arranged fairly close and substantially parallel to the plane of the wall of the building, overhead outriggers attached to the building at or near the top thereof, pulleys journaled in the overhanging portions of said outriggers, hoisting-cables medially encircling said pulleys and having their inner end portions depending therefrom and in proximity to and parallel with the guide-cables and the outer end portions extending diagonally downward and outward from said pulleys and secured at their lower extremities to the outer portions of the sills, and suitable winches supported by the inner portions of said sills to which the lower extremity of the inner end portions of said hoisting-cables are movably secured, and supporting blocks extending laterally from the extremities of the upper and lower end portions of the uprights and having openings through which the guide-cables pass, and rollers journaled in said blocks and adapted to contact and roll against the outer vertical surface of the building.

3. A portable scaffold constructed for use on modern high buildings and comprising a platform, transverse-sills upon which the ends of said platform rest, uprights medially secured to the rear ends of said sills, and extepding both above and below the horizontal plane of the same and forming upper and lower vertical portions which are approximately equal in length to the width of the platform, vertically disposed taut flexible guide-cables arranged fairly close and substantially parallel to the plane of the wall of the building, overhead outriggers attached to the building at or near the top thereof, pulleys journaled in the overhanging portions of said outriggers hoisting cables medially encircling said pulleys and having their inner end portions depending therefrom and in proximity to and parallel with the guide-cables and the outer end portions extending diagonally downward and outward from said pulleys and secured at their lower extremities to the outer portions of the sills, and suitable winches supported by the inner portions of said sills to which the lower extremity of the inner end portions of said hoisting-cables are movably secured, and supporting blocks extending laterally from the extremities of the upper and lower end portions of the uprights and having openings through which the guide-cables pass, and rollers journaled in said blocks and adapted to contact and roll against the outer vertical surface of the building; the blocks being separated approximately, the vertical length of the uprights and the lower extremities of the hoisting cables being separated approximately the horizontal width of the platform.

1,136,899. VALVE FOR ELEVATORS. SAMUEL C. GREER, Warwick, R. I., assignor to Safety Engineering Company, Providence, R. I. Filed July 10, 1913. Serial No. 778,265. (Cl. 138—14.)

1. A pilot-valve device, including a vertical tubular casing having three chambers, the lower chamber receiving a constant water pressure, the upper chamber serving as an exhaust, and the intermediate chamber serving as a supply and as a discharge; a tubular sleeve fixedly secured within the casing and extending to the intermediate chamber, and said sleeve having openings communicating with the upper chamber; a stem carrying a piston movable in the lower chamber, said stem having a valve formed thereon and reduced at each side in order to have a sliding fit on the bore of the chamber left by the upper part of said stem and bore of said sleeve, and to allow said valve to close off the latter chamber before it uncovers the lower chamber of said casing, and means to actuate the stem to permit its valve to close off the constant water pressure.



2. A pilot-valve device, including a vertical tubular casing having three chambers, the lower chamber receiving a constant water pressure, the upper chamber serving as an exhaust, and the intermediate chamber serving as a supply and as a discharge; a tubular sleeve fixedly secured within the casing and having openings communicating with the upper chamber; a double acting valve operable in the intermediate chamber and constructed to close off the water pressure from the upper chamber before uncovering the pressure in the lower chamber, and a spring-controlled means to hold said valve closed against the said constant water pressure, during normal condition; and means to actuate the valve to close off the discharge from the upper chamber, during abnormal condition.

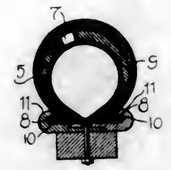
3. A pilot-valve device, including a tubular casing having a chamber to receive a constant water pressure, a chamber to serve as an exhaust, and an intermediate chamber to serve as a supply and as a discharge, respectively; a stem having a double acting valve formed thereon, and said valve constructed to close off the discharge to the second mentioned chamber before it uncovers the chamber which receives the constant pressure; a bracket; a tilting arm mounted above said bracket; a slide-rod movable through the latter and connected to said arm; a rod having its lower end secured to the valve-stem; means to couple together the inner ends of both said rods; an expanding coil spring interposed between the coupling point of said rods and upper part of said bracket, and means to uncouple said rods to enable the valve, through action of said spring, to close off the pressure to the intermediate chamber.

4. A cut-off valve device, including a vertical valve-case having a partition provided with a valve-seat surrounding an opening to receive a main supply of water pressure therethrough; a bonnet secured at the top of said case and provided with two chambers of different diameters; a bonnet secured at the bottom of said case and provided with three chambers, one of which is of large diameter and the other two of relatively smaller size; a valve-rod carrying pistons held in separated fixed relation on said rod and movable in the chambers of the top bonnet, and the other piston secured at the opposite end of said rod and movable in the large chamber of the bottom bonnet; a cut-off valve carried by said rod and having a conical member designed to close off gradually the main supply as said valve moves toward the seat of said case; a pipe to deliver a constant water pressure back of the inner piston, of the separated pair on said rod, and thereby keep the valve to its open position, during normal condition, and a follower-valve device operable by water pressure in the small chambers of the bottom bonnet, to provide a more rapid movement during the first part of travel of said valve in closing upon its seat, during abnormal condition.

5. A cut-off valve device, including a valve-case having a partition provided with a valve-seat surrounding an opening to receive a main supply of water pressure therethrough; a valve-rod carrying different size pistons; a cut-off valve secured on said rod, as a point intermediate its pistons, said valve comprising a conical member to freely enter and pass through the opening in the seat of said case and to close off gradually the main supply, a disk, and a ring, which forms the valve proper, intermediate said disk and of larger diameter than the latter in order to provide a shoulder to rest against the seat in closing off the main supply, respectively; a constant water pressure back of the small piston of said rod, to keep the valve at its open position, during normal condition, and means back of the large piston of said rod and operable by water pressure, to accelerate the valve in the first part of its travel toward the seat of said case.

[Claim 6 not printed in the Gazette.]

1,136,900. METHOD AND MEANS FOR REPAIRING PNEUMATIC TIRES. LEON G. HARDENBROOK, Lynden, Wash., assignor of one-third to Watson R. St. John, Alger, Wash. Filed Dec. 30, 1914. Serial No. 879,751. (Cl. 152—23.)



1. The herein described method of repairing a punctured tire which consists in cutting away sections of the longitudinal tire beads, then applying to said tire over the puncture, a patch section conforming in cross-sectional contour and in diameter to the tire and having beads upon its ends to be received in the spaces provided by cutting away the beads of the tire, and then applying the tire with the patch to the wheel rim and clenching the rim upon said beads whereby the patch is drawn inwardly into clamping engagement upon the wheel tire.

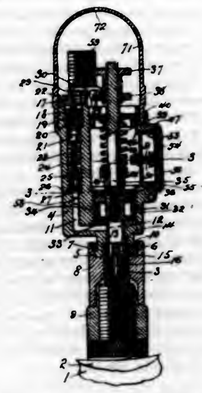
2. A patch for repairing punctured pneumatic tires consisting of a flexible patch member conforming in cross-sectional contour to the tire and having beads upon its opposite ends, the longitudinal beads of the tire being cut away, such cut away portions extending beyond the opposite ends of the puncture, and the beads upen the patch member being engaged by the clenching flanges of the wheel rim and drawn into the spaces thus provided in the tire beads, and said patch member clamped upon the wheel tire and caused to exert a compressing action upon the same whereby the puncture is closed.

3. A tire patch consisting of a patch member conforming in cross-sectional contour and diameter to the tire to be patched and having beads upon its opposite ends, the tire to be repaired having its longitudinal beads cut away, such cut away portions extending upon opposite sides of the puncture in the tire, said patch member being adapted for engagement upon the tire over the puncture therein and the beads thereon engaged by the clenching flanges of the wheel rim and drawn into the spaces in the tire beads whereby said patch is clamped upon the periphery of the tire and caused to exert a compressing action upon the same.

1,136,901. SAFETY-VALVE MECHANISM FOR PNEUMATIC TIRES. WILLIAM M. MYERS, St. Joseph, Mo. Filed July 20, 1914. Serial No. 851,878. (Cl. 152—12.)

1. In a valve mechanism, a valve casing having an air passage, a valve normally closing said passage, a lever for opening said valve, a member movable in one direction by the pressure in said passage, and when moved a pre-determined distance, engaging said lever for opening said valve, and yielding means for resisting movement of the member in said direction.

2. In a valve mechanism, a valve casing having an air passage, a valve normally closing said passage, and means actuated by a pre-determined pressure in said passage for swinging said lever to open said valve.



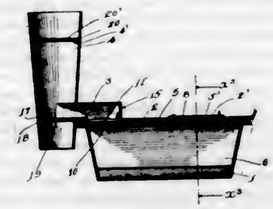
3. In a valve mechanism, a valve casing having an air passage, a valve normally closing said passage, a lever for opening said valve, and adjustable means actuated by a pre-determined pressure in said passage for swinging said lever to open said valve.

4. In a valve mechanism, a valve casing having an air passage, a valve normally closing said passage, means adjustable as to length and movable longitudinally in one direction by a pressure in said passage, yielding means for resisting movement in said direction of said longitudinally movable means, and a lever in the path of said longitudinally movable means and movable thereby so as to open said valve.

5. In a valve mechanism, a valve casing having an air passage, a valve normally closing said passage, a plunger movable in one direction by the pressure in said passage, yielding means for resisting movement of the plunger in said direction, means actuated by the plunger for opening said valve, and means actuated by said plunger for indicating the pressure in said passage.

[Claims 6 to 14 not printed in the Gazette.]

1,136,902. ORCHARD-HEATER. WILLIAM C. SCHEU, Grand Junction, Colo. Filed Mar. 18, 1913. Serial No. 755,251. (Cl. 158—91.)

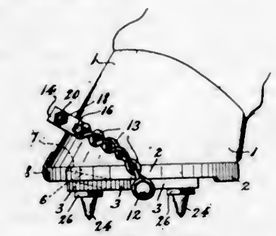


1. A heater comprising a tank for containing liquid fuel, a cover therefor, means for supplying a restricted amount of air in said tank to produce partial combustion and generation of vapor from the fuel contained therein, a mixer communicating with said tank to receive the vapor therefrom, and provided with air inlet means for mixing air with said vapor, and a stack communicating with said mixer to receive the mixture of air and vapor therefrom and to serve as a combustion chamber therefor, said stack being provided with air inlet means for supplying air to support combustion of said mixture.

2. A heater comprising a tank for containing liquid fuel, a cover therefor, vertical partitions extending across said tank forming a draft flue and generator chamber communicating at its lower portion with the remainder of the tank, air inlet means in the cover of the tank near one end of said draft flue and generator chamber for supplying a restricted amount of air to said draft flue and generator chamber in said tank to produce partial combustion and generation of vapor from the fuel contained therein, a mixer communicating with said draft flue and generator chamber in said tank at the other end of said draft flue and generator chamber to receive the vapor therefrom, and provided with air inlet means for mixing air with said vapor, and a stack communicating with said mixer to receive the mixture of air and vapor therefrom and to serve as a combustion chamber therefor.

3. A heater comprising a tank for containing liquid fuel, a cover therefor, means for supplying a restricted amount of air in said tank to produce partial combustion and generation of vapor from the fuel contained therein, a mixer communicating with said tank to receive the vapor therefrom, and provided with air inlet means for mixing air with said vapor, a stack communicating with said mixer to receive the mixture of air and vapor therefrom and serve as a combustion chamber therefor, and a perforated plate in said stack below the top thereof for retarding the passage of flame from the stack.

1,136,903. DETACHABLE ANTISLIPPING TREAD FOR HORSES. GEORGE E. SPARE, New York, N. Y.; Robert Hildreth Spare, Reading, Mass., executor of said George E. Spare, deceased. Filed June 26, 1914. Serial No. 847,381. (Cl. 168—30.)



1. In a device of the kind described, a tread-plate provided with anti-slipping means adapted to be registered against the bottom of the shod hoof of a horse, and adapted to extend within the limits of the outer circumference of the shod hoof, a forwardly extending butt-piece connected with said tread-plate, the free end of said butt-piece being positioned to butt against the toe of the horse-shoe, and means extending from the side portions of said tread-plate adapted to be secured over the face of the hoof to retain said tread-plate in operative position.

2. In a device of the kind described, a tread-plate provided with anti-slipping means adapted to register against the bottom of the shod hoof of a horse so as to extend over and cover the hollow portion of the bottom of the horse's hoof, means connected with said tread-plate adapted to engage a portion of the horse-shoe to prevent longitudinal displacement of said tread-plate in one direction, and a tie means connected with said tread-plate and adapted to extend over the face of the hoof to prevent displacement of said tread-plate in other directions.

3. In a device of the kind described, a tread-plate extending under the shod hoof, and provided with a butt-piece inclined upwardly to butt against the inner side of the horse-shoe back of its toe, laterally extending flexible tie means connected with the side portions of said tread-plate so as to be secured over the face of the hoof, and a plurality of sharpened calks projecting from the bottom surface of said tread-plate.

4. In a device of the kind described, a tread-plate adapted to extend over the shoe of the shod hoof, a butt-piece connected with said tread-plate, the free end of the same being positioned to butt against the inner side of the shoe back of its toe, flexible tie-members, means for securing said flexible tie-members to the side portions of said tread-plate, a coupling-device for firmly securing the free ends of said tie-members together so that the same extend over the face of the hoof, and a plurality of sharpened calks projecting from the under surface of said tread-plate.

5. In a device of the kind described, a tread-plate adapted to extend over the shoe of the shod hoof, a butt-piece connected with said tread-plate, the free end of the same being positioned to butt against the inner side of the shoe back of its toe, flexible tie-members, means for securing said flexible tie-members to the side portions of said tread-plate, a coupling-device for firmly securing the free ends of said tie-members together so that the same extend over the face of the hoof, and a plurality of anti-slipping calks detachably connected with said tread-plate so as to project from the bottom thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,136,904. DEEP-WELL PACKER. JAMES C. STINSON, Bradford, Pa. Filed Jan. 12, 1914. Serial No. 811,641. (Cl. 166—12.)



1. The combination of a casing having openings therethrough, a locking disk adapted to be inserted in the casing, and telescopic pins carried by the disk and adapted to engage the openings in the casing.

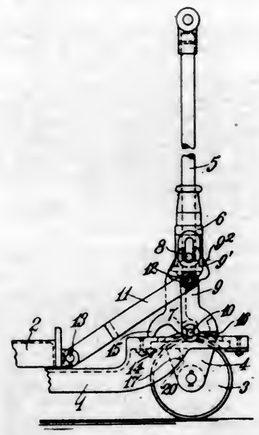
2. The combination of a casing having openings therethrough, a locking disk adapted to fit within the casing and provided with a projection adapted to engage one of said openings and having a socket in its inner end, a guide upon the disk, a pin playing in said guide and said socket, and yieldable means bearing upon said pin to cause the same to engage an opening in the casing.

1,136,905. ELEVATING-TRUCK. GEORGE E. CLARK, Windsor Locks, Conn., assignor to George P. Clark Company, Windsor Locks, Conn., a Corporation of Connecticut. Filed July 31, 1914. Serial No. 854,253. (Cl. 254—8.)

1. In an elevating truck, the combination of a frame mounted on wheels one of which is swiveled for steering, a platform arranged over the frame and horizontally movable with respect thereto, means to move said platform horizontally, comprising a handle pivotally connected with said swiveled wheel, levers pivoted on said frame and provided with slots, a cross bar on said handle operable by the latter for positioning in said slots to operably connect the handle and levers to swing the latter by the former and link connections pivotally mounted between and on said levers and platform, whereby the latter may be moved horizontally on said frame as said levers are moved by the handle.

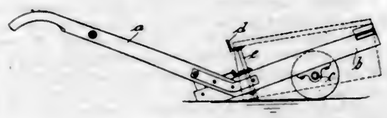
2. In combination with an elevating truck having a frame mounted on wheels with a swiveled wheel at the front, a platform movable on the frame, means to move said platform, comprising, a handle pivoted to said swiveled wheels, levers pivoted to said frame, ears on the ends of said levers, a cross-bar on said handle adapted to engage said ears at will to move said levers, and link connections between said levers and said platform, whereby the latter may be drawn forwardly as said levers are moved, said levers and link connections forming a toggle having a part to engage the frame and adapted to hold the platform in its elevated position when the toggle centers are out of line.

3. In combination with an elevating truck having a frame mounted on wheels and with a swiveled wheel at the front, a platform movable on the frame, a U-shaped member pivoted to said swiveled wheel, a handle slidable in said U-shaped member, levers pivoted to said frame, ears on the ends of said levers, a cross-bar on said handle adapted to engage said ears at will to move said levers, and link connections between said levers and said platform, whereby the latter may be drawn forwardly, as said levers are moved.



4. In combination with an elevating truck having a frame with wheels at the rear and a swiveled wheel at the front, a platform movable on the frame, and devices on the frame to lift the platform as it is drawn forwardly on said frame, a U-shaped member pivoted to said swiveled wheel, a handle slidable in said U-shaped member, levers pivoted to said frame, ears on the ends of said levers, a cross-bar on said handle adapted to engage said ears at will to move said levers, link connections between said levers and said platform whereby the latter may be drawn forwardly, as said levers are moved, and elevated by said devices, said levers and link connections forming a toggle adapted to hold the platform in its elevated position, and stop members on said levers adapted to engage with said frame when the latform is elevated and limit the movement of said levers.

1,136,906. ELEVATING TRANSFER-TRUCK. EDWIN S. TODD and BOUGHTON T. NOBLE, Millidale, Conn., assignor to George P. Clark Company, Windsor Locks, Conn., a Corporation of Connecticut. Filed Oct. 13, 1913. Serial No. 794,873. (Cl. 21—118.)



1. A transfer truck, comprising a frame provided with a handle, means for pivoting the frame intermediate its ends, a load supporting mechanism vertically slidable relatively to the frame located between the pivoting means and the handle.

2. A transfer truck comprising a frame provided with a handle, means for pivoting the frame intermediate its ends, a load supporting mechanism vertically slidable relatively to the frame located near one end thereof, together with locking means for said mechanism.

3. A transfer truck, comprising a frame provided with a handle, means for pivoting the frame intermediate its ends, a supporting mechanism movable relatively to the frame, a part of said mechanism being arranged to engage the floor as the handle of the frame is lowered, means to lock the frame and mechanism in the relative position taken when the handle is lowered, all constructed and arranged so that the load is supported at one end by said frame and at the other end by said supporting mechanism.

4. A transfer truck comprising a frame provided with a handle, wheels for supporting the frame, an axle for the wheels, pivotally connected with the frame, an elevating and load-supporting device amounted for relative movement with the frame between the axle and the handle, having a part to engage the floor when the handle is lowered and means to hold the parts in the relative position taken when the handle is lowered.

5. A truck arranged to lift and transfer a load supporting platform, comprising a truck frame pivoted intermediate its ends, supported on wheels and adapted to be inserted adjacent the under side of the platform, a vertically movable supporting means in the frame near the handle end thereof, the upper end of which is designed to engage the under side of the platform, the lower end of which is designed to engage the floor, together with a device to lock said means in elevated position, all constructed and arranged so that when the handle is lowered one end of the truck frame raises one end of the platform which pivots on its other end and said supporting means bears on the under side of the platform so that when the supporting means is locked and the handle raised, the platform will be supported and lifted from the floor.

[Claims 6 to 8 not printed in the Gazette.]

1,136,907. ARMATURE FOR ELECTRICAL MACHINES. ROBERT MACK WARREN, Sumter, S. C., assignor to Sumter Electrical Company, Sumter, S. C., a Corporation of South Carolina. Filed Nov. 22, 1913. Serial No. 802,421. (Cl. 171—207.)

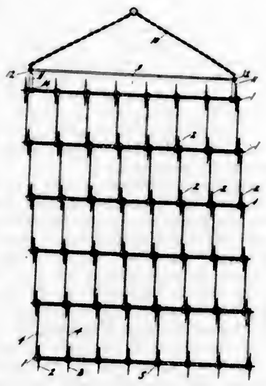


1. In an armature for electrical machines, a central group of H-shaped laminæ having solid center ribs, a plurality of H-shaped laminæ on the ends of said central core, said last mentioned laminæ having center ribs of less width than the core laminæ and so disposed in relation to each other that when all of the laminæ are secured together the center ribs of the end laminæ are not materially distorted out of their normal place, substantially as described.

2. In an armature for electrical machines, end members having center ribs, a plurality of laminæ having center ribs of width equal to the center ribs of the end members, a plurality of laminæ having center ribs of less width than the first mentioned laminæ and adapted to permit expansion of the center ribs of the laminæ without permitting said center ribs to distort the ribs of the end members, and means for securing said laminæ and ends together.

3. In an armature for electrical machines, a central core of laminations having central ribs, end members having central ribs of substantially the same width as the ribs of the core laminæ, and a plurality of laminæ interposed between said core laminæ and said end members, said last mentioned laminæ having central ribs so disposed as to permit lateral expansion of the ribs of said core laminæ to take place without distorting the ribs of said end members, substantially as described.

1,136,908. FLEXIBLE DISK HARROW. MATTHEW S. FARMER, Washington, D. C., assignor to International Harrow Cultivator Company, Birmingham, Ala., a Corporation of Nevada. Continuation of application Serial No. 578,494, filed Aug. 23, 1910. This application filed Sept. 16, 1911. Serial No. 649,727. (Cl. 55—30.)



1. In a harrow, the combination of a plurality of spaced parallel rods, links arranged in echelon and connecting said rods, rotatable disks mounted on said rods, one face of each disk engaging one terminal of one of said links, and spacing sleeves on said rods interposed between said disks, substantially as described.

2. A flexible disk harrow comprising a series of transverse parallel bars equal in length and arranged in echelon, disks mounted in spaced relationship on each bar and the disks on the several bars being relatively arranged in echelon from front to rear to move in different paths of travel, rows of links which are arranged in echelon and loosely couple each bar to the succeeding bar, and draft appliances, said several bars and links being free of rigid connection to each other or to said draft appliances, substantially as described.

3. In a harrow, the combination of spaced parallel rods, links arranged in parallelism with each other and hinged to the rods to lie substantially in the same horizontal plane with the latter which are each free to rise and fall independently of the other, and rotatable disks mounted on said rods and arranged in diagonal rows and extending from front to rear of the harrow, the lines of travel of the disks in one row being spaced from each other and from the lines of travel of the disks in adjacent rows substantially as described.

4. In a harrow, the combination of a plurality of spaced parallel rods, links arranged in echelon and connecting said rods, rotatable disks mounted on said rods, and spacer means on the rods to space the disks and links thereon.

5. A flexible disk harrow comprising a series of parallel transverse shafts, series of links connecting said shafts and arranged in echelon, disks mounted for free rotation on said shafts and arranged in echelon, the disks and links being distributed in diagonal rows across the harrow, as and for the purposes described.

[Claims 6 to 12 not printed in the Gazette.]

1,136,909. PROCESS OF MAKING ALLOYS. EDWARD D. GLEASON, New York, N. Y., assignor, by mesne assignments, to Neu-Metals and Process Company, Long Island City, N. Y., a Corporation of New York. Filed Nov. 16, 1912. Serial No. 731,863. (Cl. 75—1.)

1. A process of producing copper containing boron material throughout its mass, which consists in fusing calcium fluorid and vitrified boracic acid together, adding copper thereto at a temperature of 2500 degrees F. and upward, maintaining the copper heated until boron material produced by the reaction of said fluorid and acid is occluded in the copper, and cooling the copper.

2. A process of producing copper containing boron material throughout its mass, which consists in occluding boron fluorid in copper at a temperature of 2500 degrees F. and upward, and cooling the copper while the fluorid is occluded therein.

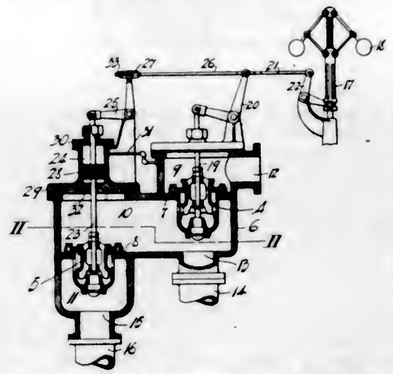
3. A process of producing copper containing boron material, which consists in occluding boron fluorid in copper, and cooling the copper while the fluorid is occluded therein.

4. The process of producing copper containing boron material, which consists in occluding boron fluorid in copper.

5. A process of producing copper containing boron throughout its mass, which consists in fusing calcium fluorid and vitrified boracic acid together, adding copper thereto at a temperature of 2500 degrees F. and upward, maintaining the copper heated until boron fluorid produced by the reaction of said fluorid and acid is occluded in the copper, and cooling the copper.

[Claims 6 to 11 not printed in the Gazette.]

1,136,910. GOVERNING MEANS FOR ENGINES. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 27, 1910. Serial No. 579,243. (Cl. 121—118.)



1. In combination with a supply valve for an engine, means for exerting a closing force on said valve, means for overcoming or removing said force prior to the opening of said valve and governor controlled means for opening said valve.

2. In combination with a supply valve for an engine, fluid pressure means for imposing a closing force on said valve, means for automatically overcoming said force and governor actuated means for opening said valve.

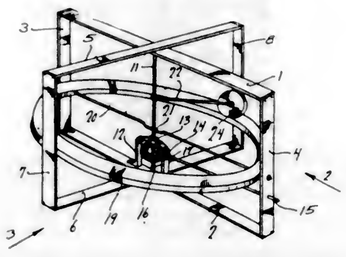
3. A control mechanism for an engine, comprising a valve for delivering motive fluid to the engine, an auxiliary valve for delivering an auxiliary supply of motive fluid to the engine, a governor for controlling the operation of both valves, and pressure actuated means responsive to variations in the pressure of the fluid delivered by the first mentioned valve for imposing a closing force on the auxiliary valve while said valve is closed and for relieving said auxiliary valve of the closing force, prior to the opening of said valve in response to the operation of the governor.

4. In combination with a supply valve for an engine, fluid accuated means for imposing a closing force on said valve, governor controlled means for overcoming said force and means connected to and operated by the governor for opening said valve.

5. In combination with the supply valve of an engine, means subjected to opposing fluid pressures for exerting a closing force on the valve, governor actuated means for equalizing said opposing fluid pressures and means connected to and actuated by the governor for opening said valve.

[Claims 6 to 16 not printed in the Gazette.]

1,136,911. MECHANICAL MOVEMENT. EDRICK N. KIGER, Plummer, Idaho. Filed Sept. 29, 1914. Serial No. 864,080. (Cl. 185—27.)



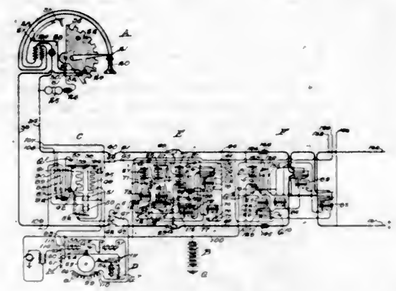
1. In a mechanical movement, a ring transmission member, means pivotally supporting the latter to rock about a horizontal axis, a rotating weight movable on said ring about a vertical axis intersecting the rocking axis of said ring, means for rocking said ring to cause movement of said weight by gravity, and means for taking power from said weight, substantially as described.

2. In a mechanical movement, rectangular frames, one within and in crossed relation with respect to the other and said frames having bearings at their crossing juncture, a vertical transmission shaft having its ends journaled in said bearings, a bearing bracket fixed to said inner frame and provided with a hub in bearing relation with said shaft, a gear on said shaft and a power shaft journaled in said bracket bearing and having a gear meshing with said transmission gear and said power shaft being journaled in said inner frame, a horizontal ring spindle journaled in said inner frame with its axis intersecting the axis of said vertical shaft and being offset to clear said vertical shaft, a transmission ring disposed within said frames in concentric relation with said vertical shaft and mounted on said spindle, an arm fixed to said transmission shaft and provided with a power transmission weight rotatively mounted thereon and revoluble around and upon said ring, and means for rocking said ring to cause gravity movement of said weight thereabout to actuate said transmission shaft, substantially as described.

3. In a mechanical movement, a ring transmission member, pivotal supports for the latter, a rotating weight revoluble along said ring, means for taking power from said weight, and means for rocking said ring to cause gravity movement of said weight and in such timed relation with respect thereto as to change the ring from one position to another while said weight is above the pivotal supports of said ring, substantially as described.

4. In a mechanical movement, rectangular frames disposed one within and in crossed relation with each other and said frames having bearings at their crossing juncture, a vertical transmission shaft having its ends journaled in said bearings, a horizontal ring spindle journaled in said inner frame with its axis intersecting the axis of said vertical shaft and being offset to clear said vertical shaft, a transmission ring disposed within said frames in concentric relation with said vertical shaft and mounted on said spindle, an arm fixed to said transmission shaft and provided with a power transmission weight rotatively mounted thereon and revoluble around and upon said ring, and means for rocking said ring to cause gravity movement of said weight thereabout to actuate said transmission shaft, substantially as described.

1,136,912. TELEPHONE REPEATER SYSTEM. TALBOT G. MARTIN, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 16, 1910, Serial No. 555,883. Renewed May 2, 1913. Serial No. 765,132. (Cl. 179—18.)



1. In a telephone system, a two-way trunk line, a non-numerical trunking switch for each end of said line, a repeater at one end of said trunk line adapted to control the switch at the other end thereof, and trunks, each switch adapted to automatically select idle trunks.

2. In a telephone system, a two-way trunk line, a non-numerical trunking switch for each end of said line, a repeater at one end of said trunk line adapted to control the switch at the other end thereof, instrumentalities operative to make either end of the line busy when the other end is seized, and trunks, each switch adapted to automatically select idle trunks.

3. In a telephone system, a two-way trunk line, a non-numerical trunking switch for each end of said line, a repeater at one end of said trunk line adapted to control the switch at the other end thereof, each switch adapted to automatically extend a trunking connection from said line in the direction of the called subscriber, numerical trunking switches for seizing either end of said trunk line, and instrumentalities operative to render either end of said trunk line busy when the other end is seized.

4. In a telephone system, a two-way trunk line, a non-numerical trunking switch for each end of said line, a repeater at one end of said trunk line adapted to control the switch at the other end thereof, instrumentalities operative to make both ends of said trunk line busy when either end thereof is seized, and trunks, each switch adapted to automatically select idle trunks.

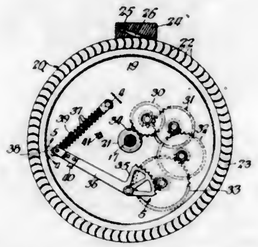
5. In a telephone system, a two-way trunk line, a non-numerical trunking switch for each end of said line, a repeater at one end of said trunk line adapted to control the switch at the other end thereof, each switch adapted to automatically extend a trunking connection from said line in the direction of the called subscriber, numerical trunking switches for seizing either end of said trunk line, and instrumentalities operative to render both ends of said trunk line busy when either end thereof is seized.

[Claims 6 to 36 not printed in the Gazette.]

1,136,913. STARTING DEVICE FOR EXPLOSIVE-ENGINES. CLARENCE F. POOLE and CHARLES C. POOLE, Evanston, Ill.; Annie Poole executrix of said Charles C. Poole, deceased. Filed Dec. 13, 1910. Serial No. 597,057. (Cl. 123—179.)

1. The combination with a rotative shaft, of a starting device, comprising a motor provided with a rotor, the initial torque of which is less than that required to turn the shaft, a rotative member having positive driving connection with said shaft and speed reducing and lost motion mechanism, mounted on said rotative member and adapted to afford a driving connection between said rotor and said rotative member after the rotor has attained a sufficient degree of torque to overcome the forces tending to prevent the rotation of the shaft.

2. The combination with an explosive engine crank-shaft, of a starting device comprising a motor provided with a rotor, a rotative member having positive driving connection with the crank-shaft, speed reducing and power increasing mechanism carried by said rotative member and actuated by said rotor, and elastic tension means mounted on and turning with said rotative member, and interposed between said rotative member and said speed reducing and power increasing mechanism; said tension means being adapted to be placed under tension by the rotor through the medium of said speed reducing and power increasing mechanism to effect a driving connection between said rotative member and said rotor after the latter has attained a sufficient degree of torque to overcome the forces tending to prevent rotation of the crank-shaft.



3. The combination with an explosive engine, of a starting device comprising a motor provided with a rotor loosely mounted upon the engine crank-shaft, and means for transmitting to the said crank-shaft the torque of the rotor embracing gearing carried by said crank-shaft and operated by the rotation of the rotor, and a yielding resistance member carried by said crank-shaft and interposed between said gearing and the crank-shaft, and adapted to yieldingly transmit rotary motion from the rotor to the shaft when power is applied to the rotor, and to effect rotation of the rotor with the crank-shaft in the normal operation of the engine.

4. The combination with an explosive engine, of a starting device comprising a motor provided with a rotor loosely mounted upon the engine crank-shaft, and means for transmitting the torque of the rotor to said crank-shaft, embracing a train of gears and a yielding resistance member interposed between said train of gears and the crank-shaft, and adapted to be placed under tension by the action of the rotor, acting thereon through said train of gears.

5. The combination with an explosive engine crank-shaft, of a starting device comprising a motor provided with a rotor, a rotative member having positive driving connection with the crank-shaft, a gear pinion attached to and turning with the rotor, a gear wheel carried by said rotative member, and intermeshing with the said gear pinion, a spring mounted on said rotative member, and means operated by said gear wheel for placing said spring under tension.

[Claims 6 to 9 not printed in the Gazette.]

1,136,914. DRAFT ATTACHMENT FOR CHIMNEYS OR STACKS. JOHN L. RETALIATA, Jr., Denver, Colo., assignor of one-half to John L. Retaliata, Sr. Filed Jan. 24, 1914. Serial No. 814,036. (Cl. 98—4.)

1. A draft attachment for chimneys or stacks comprising a main pipe having an exterior frustum shaped hood surrounding the same, its smaller extremity being uppermost and closely fitting the main pipe to which it is attached, a frustum shaped pipe member located within the main pipe and having its larger extremity lowermost and closely fitting the pipe which is provided with perforations, whereby the exterior space inclosed by the hood and the interior space between the frustum shaped pipe member and the body of the pipe are placed in communication, and vertically disposed plates attached to the pipe exteriorly and dividing the space around the main pipe and below the hood into compartments communicating at the top with the space within the hood, the upper extremities of the said plates extending into the last named space.



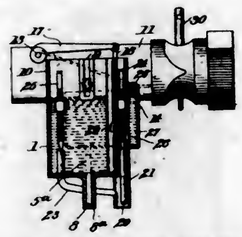
2. A draft attachment for chimneys or stacks comprising a main pipe having an exterior frustum shaped hood surrounding the same, its smaller extremity being uppermost and closely fitting the main pipe to which it is attached, a frustum shaped pipe member located within the main pipe and having its larger extremity lowermost and closely fitting the pipe which is provided with perforations, whereby the exterior space inclosed by the hood and the interior space between the frustum shaped pipe member and the body of the pipe are placed in communication, and plates attached to the pipe exteriorly and dividing the space around the main pipe and below the hood into compartments communicating at the top with the space within the hood, the upper extremities of the said plates extending into the last named space, but terminating below the top of the hood, whereby the upper portion of the space within the hood and entirely around the main pipe is uninterrupted.

3. A draft attachment for chimneys or stacks comprising a main conduit having an exterior frustum shaped hood surrounding the same, its smaller extremity being uppermost and closely fitting the pipe to which it is attached, a frustum shaped pipe member located within the main pipe and having its larger extremity lowermost and closely fitting the interior of the last named pipe which is provided with perforations, whereby the exterior space within the hood and the interior space between the frustum shaped pipe member and the body of the pipe, are placed in communication, and plates attached to the main pipe exteriorly and dividing the space around the pipe and below the hood into compartments communicating at the top with the space within the hood, the upper extremities of the said plates entering the space within the hood, but terminating below the perforations of the main pipe, whereby the upper portion of the space within the hood and in the zone of the perforations is uninterrupted entirely around the pipe.

4. A draft attachment for chimneys comprising a main pipe, a hood having the shape of a frustum of a cone applied to the main pipe, its smaller extremity being uppermost and fitting closely around the pipe where it is attached, a pipe member located within the main pipe and also having the shape of a frustum of a cone, its larger extremity being lowermost and fitting closely within the pipe, the latter being perforated, whereby the space within the hood around the main pipe, and the space within the main pipe and around the said interior pipe member are placed in communication with each other, and means applied to the main pipe for dividing the space around the latter and means projecting upwardly into the lower portion of the space within the hood, whereby the upper portion of said space is uninterrupted entirely around the pipe.

REISSUES.

13,903. CARBURETER FOR EXPLOSIVE-ENGINES. RALPH SHIPMAN, Sunbury, Pa. Filed Mar. 15, 1915. Serial No. 14,613. Original No. 783,902, dated Feb. 28, 1905, Serial No. 188,211. (Cl. 48—154.1.)



1. In an atomizer for an internal-combustion engine, a normally open-air passage, a fuel-supply nozzle projecting into said passage, a swinging damper normally operating to partially close that portion of the air-passage at said nozzle but leaving said nozzle open at all times said damper being adapted to move and increase the size of said passage proportional to an increased volume of air traversing said passage.

2. In an atomizer for internal-combustion engines, an air-passage, a fuel-supply nozzle projecting into said passage, a swinging damper, the free end of the same moving toward and away from said nozzle and normally operating to partially close the air-passage at said nozzle but leaving the latter open at all times, said damper being movable to increase the size of the passage directly adjacent to the nozzle proportionally to an increased volume of air traversing said passage.

3. In a carbureter for explosive-engines, a mixing-chamber comprising a tubular casing having one end adapted for connection to an engine and an air-admission opening at its opposite end, a hinged valve within the casing, normally restricting the passage of air through the casing and adapted to open by atmospheric pressure, and means for admitting liquid fuel into said casing at a point adjacent to the free end of said valve and between said free end and the air-admission opening.

4. In a carbureter for explosive engines, the combination with a mixing-chamber, having an air-inlet opening, a reservoir for liquid fuel adjacent to said chamber and a passage-way connecting said reservoir and chamber, of a valve normally restricting the flow of air to said chamber and adapted to open by atmospheric pressure, and means for retarding the return or closing movement of said valve comprising a reciprocating pump having its plunger connected to said valve, the cylinder of said pump having inlet and outlet openings communicating with said reservoir, and means for regulating the flow of liquid through said openings.

5. In a carbureter for explosive-engines, the combination with a mixing-chamber having an air-inlet opening, a reservoir for liquid fuel adjacent to said chamber and a passage-way connecting said reservoir and chamber, of a valve normally restricting the flow of air to said chamber and adapted to open by atmospheric pressure, and means for retarding the return or closing movement of said valve comprising a reciprocating pump, having its plunger connected to said valve, said pump being arranged to pump liquid into and out of said reservoir.

6. In a carbureter for explosive-engines, the combination with a mixing-chamber having an air-inlet opening, a reservoir for liquid fuel adjacent to said chamber and a passageway connecting said reservoir and chamber of a valve normally restricting the flow of air to said chamber and adapted to open by atmospheric pressure, and means for retarding the return or closing movement of said valve comprising a reciprocating pump having its plunger connected to said valve, the cylinder of said pump having inlet and outlet openings communicating with said reservoir.

7. In a carbureter for explosive-engines, a mixing-chamber comprising a tubular casing having one end adapted for connection to an engine and an opening at its opposite end for the admission of air, a valve pivoted at one end within the casing and extending longitudinally therein and adapted to open by atmospheric pressure, and means for admitting liquid fuel into said casing between the free end of said valve and the adjacent wall of the casing.

8. In a carbureter for explosive-engines, a mixing-chamber comprising a tubular casing having one end adapted for connection to an engine and an opening at its opposite end for the admission of air, a valve pivoted at one end within the casing and extending longitudinally therein and adapted to open by atmospheric pressure, a stop arranged to prevent the complete closure of said valve, and means for admitting liquid fuel into said casing between the free end of said valve and the adjacent wall of the casing.

9. In a carbureter for explosive-engines, a mixing-chamber comprising a tubular casing having one end adapted for connection to an engine and an opening at its opposite end for the admission of air, a valve pivoted at one end within the casing and extending longitudinally therein and adapted to open by atmospheric pressure, means for admitting liquid fuel into said casing between the free end of said valve and the adjacent wall of the casing, and means for retarding the closing movement of said valve.

10. In a carbureter for explosive-engines, a mixing-chamber comprising a tubular casing having one end adapted for connection to an engine and an opening at its opposite end for the admission of air, a valve pivoted at one end within the casing and extending longitudinally therein and adapted to open by atmospheric pressure, a stop arranged to prevent the complete closure of said valve, means for admitting liquid fuel into said casing between the free end of said valve and the adjacent wall of the casing, and means for retarding the closing movement of said valve.

11. In a carbureter for explosive-engines, the combination with a mixing-chamber having an air-inlet opening, a reservoir for liquid fuel adjacent to said chamber and a passageway connecting said reservoir and chamber, of a valve normally restricting the flow of air to said chamber and adapted to open by atmospheric pressure, and means for retarding the return or closing movement of said valve comprising a reciprocating pump having its plunger operatively connected to said valve, the cylinder of said pump having inlet and outlet openings communicating with said reservoir, a check-valve controlling said inlet-opening to the pump-cylinder and a valve arranged to regulate the passage of fluid through said outlet-opening of the pump cylinder.

12. In a carbureter for explosive-engines, the combination with a reservoir for liquid fuel and means for maintaining the liquid therein at a practically constant level, of a horizontally-arranged mixing-chamber adjacent to said reservoir, a vertically-adjustable valve arranged longitudinally in said chamber, means for admitting liquid fuel into said chamber between the free end of said valve and the adjacent wall of the chamber.

13. In a carbureter for explosive-engines, the combination of a mixing-chamber, a spring-pressed valve arranged to restrict the flow of air through said chamber and to open by atmospheric pressure, a reservoir for liquid fuel adjacent to said mixing-chamber, and means for retarding the closing movement of said valve comprising a reciprocating pump having its plunger operatively connected to said valve, the barrel of said pump having an opening above the plunger communicating with said reservoir and having inlet and outlet openings below the plunger communicating with said reservoir.

14. In an atomizer for an internal-combustion engine, a normally open air-passage, a fuel-supply nozzle projecting into said passage, a swinging damper normally operating to partially close that portion of the air-passage at said nozzle but leaving said nozzle open at all times said damper being adapted to move and increase the size of said passage proportioned to an increased volume of air traversing said passage, and means for retarding the return movement of the damper.

15. In a carbureter for explosive engines, the combination with a reservoir for liquid fuel and means for maintaining the fuel therein at a practically constant level, of a mixing chamber adjacent said reservoir and having air and fuel inlet openings, the latter opening communicating with the reservoir so that the air draft past the fuel opening will cause fuel to be sucked from the reservoir into said chamber, a valve normally restricting the flow of air through said chamber and adapted to open by atmospheric pressure, and means for retarding the closing movements of said valve comprising a cylinder communicating with said reservoir so as to receive liquid fuel therefrom and a piston connected to said valve and operating in said cylinder.

DESIGNS.

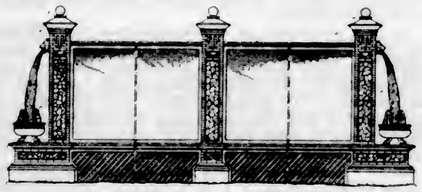
47,241. ELECTRIC-LIGHT SOCKET. WALLACE B. COSGRAVE, New York, N. Y. Filed Jan. 9, 1915. Serial No. 1,472. Term of patent 7 years.

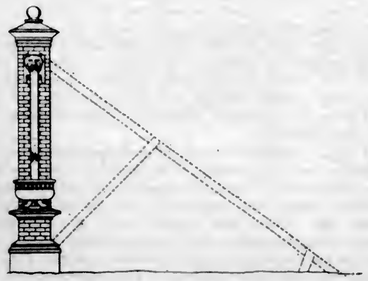




The ornamental design for an electric light socket, as shown.

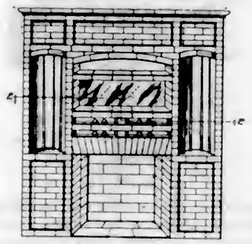
47,242. SIGN. HAROLD CUSACK, Chicago, Ill., assignor to Thos. Cusack Company, Chicago, Ill., a Corporation of New Jersey. Filed Jan. 20, 1915. Serial No. 3,421. Term of patent 3½ years.

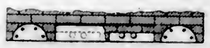




The ornamental design for a sign, as shown.

47,243. FIREPLACE. HENRY J. GROTH, Los Angeles, Cal. Filed Jan. 2, 1915. Serial No. 280. Term of patent 14 years.





The ornamental design for a fire place as shown.

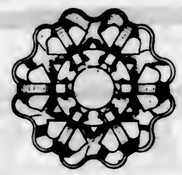
47,244. SHOWER-PAN FOR LIGHTING-FIXTURES. BIRCHARD E. HOLTON, Los Angeles, Cal., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1915. Serial No. 7,887. Term of patent 3½ years.





The ornamental design for a shower pan for lighting fixtures, as shown.

47,245. GEM-SETTING. LOUIS E. LADD, Providence, R. I., assignor to Potter & Buffinton Company, a Corporation of Rhode Island. Filed Jan. 16, 1915. Serial No. 2,769. Term of patent 7 years.





The ornamental design for a gem setting, as shown.

47,246. PARASOL. CARL EMIL LIEDBERG, Chicago, Ill. Filed Apr. 30, 1913. Serial No. 764,695. Term of patent 7 years.



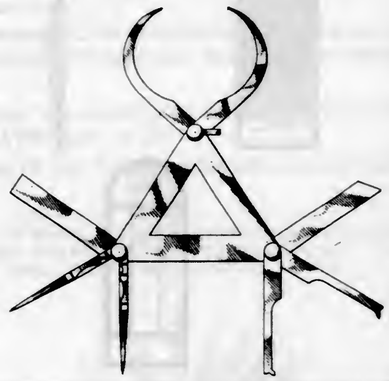
The ornamental design for a parasol, as shown.

47,247. BADGE. LEO A. MCDONAGH, Linden, N. J. Filed Jan. 9, 1915. Serial No. 1,469. Term of patent 3½ years.



The ornamental design for a badge, as shown.

47,248. BADGE OR SIMILAR ARTICLE. JULIUS MILEWSKI, Byrnedale, Pa. Filed Feb. 3, 1915. Serial No. 5,976. Term of patent 7 years.



The ornamental design for a badge or similar article, as shown.

47,249. SHOWER-PAN FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1915. Serial No. 11,060. Term of patent 3½ years.





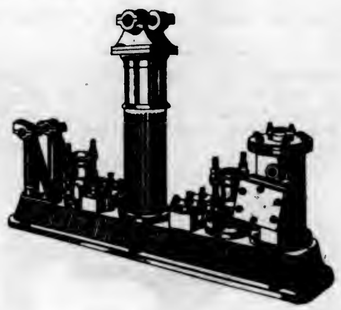
The ornamental design for a shower pan for lighting fixtures, as shown.

47,250. MATCH-SCRATCHER. ELMER J. RYAN, Long Beach, Cal., assignor of one-fourth to Prudence M. Welsh and one-fourth to Marvin H. Darby, Long Beach, Cal. Filed Dec. 22, 1914. Serial No. 878,622. Term of patent 3½ years.



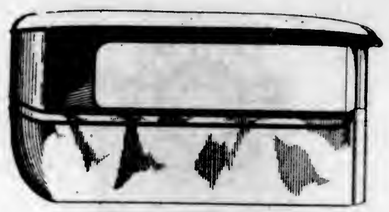
The ornamental design for a match scratcher, as shown.

47,251. PUMP-FRAME. GEORGE SHELTON, Paducah, Ky. Filed Sept. 25, 1914. Serial No. 863,562. Term of patent 14 years.



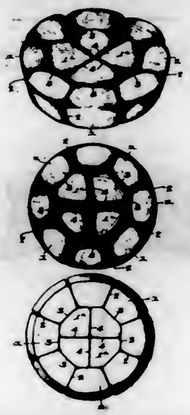
The ornamental design for a pump frame, as shown.

47,252. AUTOMOBILE-BODY. HINSDALE SMITH, South Hadley, Mass. Filed Feb. 19, 1915. Serial No. 9,458. Term of patent 14 years.



The ornamental design for an automobile body as shown.

47,253. LOAF OF BISCUIT OR ROLLS. DAVID J. HANNA, Philadelphia, Pa. Filed Dec. 2, 1914. Serial No. 875,168. Term of patent 7 years.



The ornamental design for a loaf of biscuit or rolls, substantially as shown and described.

TRADE-MARKS

PUBLISHED APRIL 20, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 53,731. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AMERICAN PIANO COMPANY, Jersey City, N. J., and New York, N. Y. Filed Jan. 7, 1911.

AMERICAN PIANO CONTROL APC

No claim is made to the words "American Piano Control" apart from the letters "A P C."

Particular description of goods.—Note-Sheets for Automatic or Partly-Automatic Musical Instruments, Piano-Players, and Player-Pianos.

Claims use since Aug. 31, 1910.

Ser. No. 65,266. (CLASS 39. CLOTHING.) I. HAUSMAN & SONS, Newark, N. J. Filed Aug. 14, 1912.

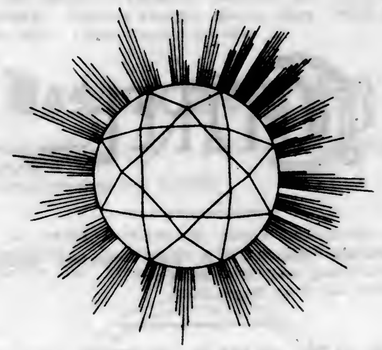


No claim is made to the exclusive right to the use of the name "Hausman's" or the representation of a shoe, a portion of which is broken away, with the foot exposed.

Particular description of goods.—Leather Boots and Shoes.

Claims use since the 7th day of March, 1912.

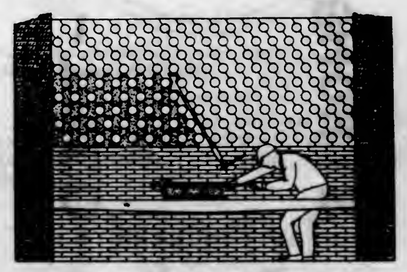
Ser. No. 66,490. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN A. KELLY, Forsyth, Mont. Filed Oct. 24, 1912.



Particular description of goods.—Pharmaceutical Preparations for the Treatment of Internal and External Ailments—Namely, Coughs or Colds; Stomach Troubles; Headaches, and for Treatment of the Skin.

Claims use since July 1, 1912.

Ser. No. 66,713. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN KEERS, Brooklyn, N. Y. Filed Nov. 5, 1912.



No claim being made to the representation of the tube-spreading and brick-holding tool, *per se*.

Particular description of goods.—Tube-Spreading and Brick-Holding Tools.

Claims use since Sept. 12, 1912.

Ser. No. 68,792. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EGMONT SCHAMBERG, Berlin-Halensee, Germany. Filed Feb. 27, 1913.

„Radiosclerin"

Particular description of goods.—Preparations Containing Radium and Having Radioactive Properties.
Claims use since March, 1910.

Ser. No. 70,751. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) COTTRELL SADDLERY CO., INC., Richmond, Va. Filed May 29, 1913.

COTTRELL

Particular description of goods.—Harness, Saddles, Horse-Clothing, and Horse Equipment.
Claims use since March, 1913.

Ser. No. 72,773. (CLASS 39. CLOTHING.) CHAS. W. STROHBECK, New York, N. Y. Filed Sept. 10, 1913.

STROHBECK SOF-TRED

Applicant makes no claim to the exclusive use of the word "Strohbeck."
Particular description of goods.—Cushion-Heels.
Claims use since Feb. 24, 1911.

Ser. No. 74,928. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE APEX ELECTRICAL MANUFACTURING CO., Cleveland, Ohio. Filed Jan. 2, 1914.

Apex

Particular description of goods.—Electric Vacuum-Cleaners.
Claims use since Aug. 15, 1913.

Ser. No. 74,998. (CLASS 38. PRINTS AND PUBLICATIONS.) BERNEY B. BOAS, Chicago, Ill. Filed Jan. 7, 1914.

DING-A-LING

Particular description of goods.—Prints and Supplements for Publications Issued Daily and Periodically.
Claims use since about the 15th of July, 1913.

Ser. No. 75,044. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ZOZ CHEMICAL COMPANY, Cincinnati, Ohio. Filed Jan. 8, 1914.

ZOZ

Particular description of goods.—Skin-Lotions, Lotions for the Relief of Burning, Itching, and Swelling of the Feet and Body, Frost-Bites and Chilblains, Cuts, Bruises, Burns, Sores, Swellings, Inflammations, Skin Diseases, Congestion, Closed Pores, Soft Corns, Bunions, Callous Spots, Sprains, Strained Muscles, Insect-Bites, Prickly Heat, Chafing, Sore Throat, Eczema, Sunburn, Piles, Headaches, Neuralgia, Lotions Used as a Mouth-Wash and for the Control of Excessive Perspiration, for Deodorizers, and for Antiseptics.
Claims use since the year 1904.

Ser. No. 75,666. CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ASSOCIATED AUTOMATIC SPRINKLER CO., Dover, Del., and Philadelphia, Pa. Filed Feb. 3, 1914.

ASSOCIATED
AUTOMATIC SPRINKLER CO.
"THE END OF FIRE WASTE"

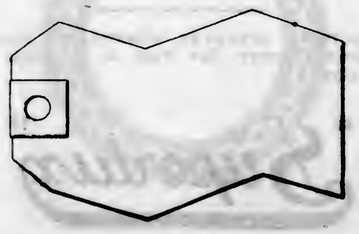
No claim being made, however, to the exclusive use of the words "The End of Fire Waste," nor to the pictorial representation of a sprinkler-head, nor to the words "Associated Automatic Sprinkler Co.," except when appearing generally in the form shown in the drawing.
Particular description of goods.—Automatic Sprinklers.
Claims use since Jan. 2, 1914.

Ser. No. 75,785. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio. Filed Feb. 9, 1914.

ATLAS

Particular description of goods.—Compression-Bulbs.
Claims use since Jan. 12, 1914.

Ser. No. 75,900. (CLASS 12. CONSTRUCTION MATERIALS.) MARQUETTE CEMENT MANUFACTURING CO., Chicago and Oglesby, Ill. Filed Feb. 14, 1914.



Particular description of goods.—Portland Cement.
Claims use since the 15th day of October, 1913.

Ser. No. 76,105. (CLASS 38. PRINTS AND PUBLICATIONS.) ROBERT E. FORD, administrator of the estate of Patrick Ford, deceased, New York, N. Y. Filed Feb. 24, 1914.



The trade-mark consists of the title "The Irish World and American Industrial Liberator" intertwined with shamrocks and the following drawings, to wit: Two hemispheres, with a rising sun in the background, surmounted by a cross with the motto "In This Sign Conquer," on the left of which is represented the ruins of an ancient Irish castle, a monastery, and round tower, with an ancient Irish bard in the foreground, and on the right a picture of New York city, with a figure representing liberty in the foreground.
Particular description of goods.—Newspaper.
Claims use since the year 1877.

Ser. No. 76,143. (CLASS 38. PRINTS AND PUBLICATIONS.) THOMAS LEAVITT, Boston, Mass. Filed Feb. 25, 1914. Under ten-year proviso.

Boston Courier.

Particular description of goods.—Printed Periodical Publications.
Claims use since July 1, 1795.

Ser. No. 76,386. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE THIEME & WAGNER BREWING CO., La Fayette, Ind. Filed Mar. 5, 1914.



Particular description of goods.—Beer.
Claims use since about 1880.

Ser. No. 76,875. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. D. RIEDEL AKTIENGESELLSCHAFT, Berlin, Germany. Filed Mar. 23, 1914.

Dijodyl

Particular description of goods.—Iodin-Containing Medicinal Preparations, and More Particularly Preparations for Heart and Skin Diseases, and Blood Diseases.
Claims use since Sept. 15, 1913.

Ser. No. 77,606. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOWERS RUBBER WORKS, San Francisco, Cal. Filed Apr. 21, 1914. Under ten-year proviso.

SUNSET

Particular description of goods.—Rubber Hose, Rubber Belting, and Composite Rubber Packing for Pistons.
Claims use since about the 1st day of the month of September, 1893.

Ser. No. 77,607. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOWERS RUBBER WORKS, San Francisco, Cal. Filed Apr. 21, 1914. Under ten-year proviso.

BAY CITY

Particular description of goods.—Rubber Hose, Rubber Belting, and Composite Rubber Packing for Pistons.
Claims use since about the 1st day of the month of September, 1893.

Ser. No. 77,608. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOWERS RUBBER WORKS, San Francisco, Cal. Filed Apr. 21, 1914. Under ten-year proviso.

LIVE OAK

Particular description of goods.—Rubber Hose, Rubber Belting, and Composite Rubber Packing for Pistons.
Claims use since about the 1st day of the month of September, 1893.

Ser. No. 77,609. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOWERS RUBBER WORKS, San Francisco, Cal. Filed Apr. 21, 1914. Under ten-year proviso.

GOLDEN-GATE

Particular description of goods.—Rubber Hose, Rubber Belting, and Composite Rubber Packing for Pistons.
Claims use since about the 1st day of the month of September, 1893.

Ser. No. 77,610. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOWERS RUBBER WORKS, San Francisco, Cal. Filed Apr. 21, 1914. Under ten-year proviso.

SUNPROOF

Particular description of goods.—Rubber Hose, Rubber Belting, and Composite rubber Packing for Pistons.
Claims use since about the 1st day of the month of September, 1893.

Ser. No. 77,611. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BOWERS RUBBER WORKS, San Francisco, Cal. Filed Apr. 21, 1914. Under ten-year proviso.

SEALROCK

Particular description of goods.—Rubber Hose, Rubber Belting, and Composite Rubber Packing for Pistons.
Claims use since about the 1st day of the month of September, 1893.

Ser. No. 77,785. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ADOLPH KLAR, New York, N. Y. Filed Apr. 27, 1914.

"Viennette"

Particular description of goods.—Hair-Nets.
Claims use since May 21, 1912.

Ser. No. 77,877. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN CARAMEL COMPANY, York, Pa. Filed Apr. 30, 1914.

CITY

Particular description of goods.—Caramels and candies.
Claims use since Jan. 10, 1909.

Ser. No. 79,856. (CLASS 33. GLASSWARE.) LIGHTING STUDIOS COMPANY, New York, N. Y. Filed July 16, 1914.

"Superlux"

Particular description of goods.—Glass Lamp Shades and Globes.
Claims use since Oct. 1, 1913.

Ser. No. 80,704. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) ARTHUR NOSWORTHY, Brooklyn, N. Y. Filed Aug. 20, 1914.

PPCO

Particular description of goods.—Clothes-Driers in the Nature of Portable Racks Adapted to Be Set Up in the House.
Claims use since July 29, 1914.

Ser. No. 81,100. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) STEWART-WARNER SPEEDOMETER CORPORATION, Chicago, Ill. Filed Sept. 8, 1914.

Stewart

A facsimile of the signature of the president and founder of this corporation.
Particular description of goods.—Odometers, Revolution-Counters, and Motion-Counters.
Claims use since Sept. 15, 1913.

Ser. No. 81,372. (CLASS 39. CLOTHING.) W. J. HOAR SHOE MANUFACTURING Co., Portland, Me. Filed Sept. 21, 1914.



Particular description of goods.—Leather Boots and Shoes.
Claims use since Apr. 5, 1912.

Ser. No. 81,718. (CLASS 17. TOBACCO PRODUCTS.) LILLY, DUNGAN & COMPANY, Baltimore, Md. Filed Oct. 7, 1914.

ELDEANCO

Particular description of goods.—Cigars, Little Cigars, Cigarettes, and Smoking and Chewing Tobacco.
Claims use since June 1, 1914.

Ser. No. 81,822. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EUGENE I. LEIGHTON, Fort Dodge, Iowa. Filed Oct. 12, 1914.

MEN-THO-EZE

Particular description of goods.—An Ointment.
Claims use since Aug. 1, 1913.

Ser. No. 82,267. (CLASS 39. CLOTHING.) CRADDOCK-TERRY COMPANY, Lynchburg, Va., and St. Louis, Mo. Filed Oct. 30, 1914.



The words "McElroy-Sloan Shoe Company" and "Trade Mark" being disclaimed.
Particular description of goods.—Leather Shoes.
Claims use since June 1, 1914.

Ser. No. 83,053. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY TETLOW CO., Philadelphia, Pa. Filed Dec. 3, 1914.



The portrait shown being purely fanciful.
Particular description of goods.—Face-Powder.
Claims use since about January, 1902.

Ser. No. 83,054. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY TETLOW CO., Philadelphia, Pa. Filed Dec. 3, 1914. Under ten-year proviso.



Which consists of the words "Tetlow's Ruby Rouge."
Particular description of goods.—A Rouge.
Claims use since about 1880.

Ser. No. 83,055. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY TETLOW CO., Philadelphia, Pa. Filed Dec. 3, 1914.



No claim being made to the word "Powder."
Particular description of goods.—A Face-Powder.
Claims use since about January, 1905.

Ser. No. 83,056. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY TETLOW CO., Philadelphia, Pa. Filed Dec. 3, 1914.

"CHEK"

Which consists of the word "Chek."
Particular description of goods.—A Toilet Preparation for Use as a Deodorant.
Claims use since about June, 1904

Ser. No. 83,079. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRY TETLOW CO., Philadelphia, Pa. Filed Dec. 4, 1914.

NEXT

Which consists of the word "Next."
Particular description of goods.—Face-Powder.
Claims use since about June 1, 1908.

Ser. No. 83,097. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHELTON MILLS, Chattanooga, Tenn. Filed Dec. 5, 1914.

TABLE KING

Particular description of goods.—Wheat-Flour.
Claims use since December, 1912.

Ser. No. 83,172. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FLINT AND WALLING MANUFACTURING CO., Kendallville, Ind. Filed Dec. 9, 1914.

F. & W.

Particular description of goods.—Horse-Powers; Windlasses; Vises; Feed-Grinding Mills; Machinery Transmission-Gearing; Reliefs; Hydropneumatic Cylinders; Air-Cylinders; Water-Cylinders; Pump-Brackets; Supporting-Bearings for Windmills; Working Heads; Internal-Combustion Motors; Water, Air, and Combined Pump and Motor Equipment in Supply Systems, with Controllers and Regulators Therefor; and Parts Thereof.
Claims use since prior to Jan. 1, 1886.

Ser. No. 83,187. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CHARLES RUBEN, Pittsburgh, Pa. Filed Dec. 9, 1914.



The words "Rubens Tie Glides Thro' the Collar" being disclaimed.
Particular description of goods.—Neckties.
Claims use since Nov. 1, 1914.

Ser. No. 83,294. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich. Filed Dec. 15, 1914.

W. K. Kellogg

This trade-mark is a copy of the signature of Will K. Kellogg, president of this applicant corporation.
Particular description of goods.—Prepared Cereal Foods Marketed Under the Trade Names of Toasted Corn Flakes, Toasted Wheat Flakes, Toasted Wheat Biscuit, Krumbles, and Cereal Coffee Substitutes.
Claims use since about Apr. 1, 1906.

Ser. No. 83,399. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CONTINENTAL RUBBER WORKS, Erie, Pa. Filed Dec. 19, 1914.

VITALIC

"Vitalic."
Particular description of goods.—Rubber Tire-Stock and Rubber Sponges.
Claims use since Sept. 15, 1913.

Ser. No. 83,404. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CONTINENTAL RUBBER WORKS, Erie, Pa. Filed Dec. 19, 1914.
"Vitalic."

VITALIC

Particular description of goods.—Rubber Mallets, Type-Writer Platens, and Rubber Printing-Rolls and Paper-Machine Rolls.
Claims use since Sept. 15, 1913.

Ser. No. 83,436. (CLASS 12. CONSTRUCTION MATERIALS.) EVANSVILLE PAINT & VARNISH CO., Evansville, Ind. Filed Dec. 21, 1914.



Particular description of goods.—Prepared Roofing.
Claims use since 1904.

Ser. No. 83,444. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WILEY DANDRUFF REMOVER COMPANY, Toledo, Ohio. Filed Dec. 21, 1914.



Containing the portrait of Frank E. Wiley.
Particular description of goods.—Shampoo in Soap and Liquid Form, Hair-Tonic, Dandruff-Remover, Liquid Cocoa-Butter, and Liquid Face-Dressing.
Claims use since October, 1904.

Ser. No. 83,464. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PURITY CORPORATION, Richmond, Va. Filed Dec. 22, 1914.

PURITEEKAKE

Particular description of goods.—Cake.
Claims use since Dec. 16, 1914.

Ser. No. 83,534. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) JOHN I. HUGHES, Chicago, Ill. Filed Dec. 26, 1914.

Optigraph

Particular description of goods.—Moving-Picture Machines.
Claims use since on or about the 25th day of February, 1898.

Ser. No. 83,569. (CLASS 39. CLOTHING.) ROSE-ROGERS CO., Dallas, Tex. Filed Dec. 29, 1914.

DIXIE KING

Particular description of goods.—Overalls, Jumpers, Overall Coats and Pants.
Claims use since Dec. 21, 1914.

Ser. No. 83,632. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ANTHONY A. GIUNTA, Philadelphia, Pa. Filed Jan. 2, 1915.



The words "Trade-Mark Reg. U. S. Pat. Off." and "Brand" being disclaimed.
Particular description of goods.—Cotton-Seed Oil Slightly Flavored with Olive-Oil.
Claims use since on or about Aug. 1, 1901.

Ser. No. 83,685. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALFONSO DE TULLIO, Youngstown, Ohio. Filed Jan. 5, 1915.



No claim being made for the exclusive use of the name "De Tullio."
Particular description of goods.—A Tonic-Reconstituent Digestive Antimalaric.
Claims use since Sept. 21, 1912.

Ser. No. 83,714. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) NEILSON BROTHERS, Chicago, Ill. Filed Jan. 7, 1915.

Japaneil

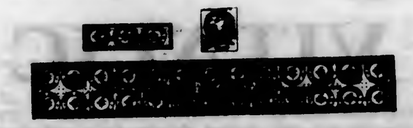
Particular description of goods.—Imitation Leather.
Claims use since Nov. 30, 1914.

Ser. No. 83,757. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FEDERAL COFFEE MILLS COMPANY, Cleveland, Ohio. Filed Jan. 9, 1915.

GOLDEN HARVEST

Particular description of goods.—Coffee.
Claims use since January, 1914.

Ser. No. 83,895. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FELICE BISLERI, New York, N. Y. Filed Jan. 16, 1915. Under ten-year proviso.



Particular description of goods.—Tonic-Bitters.
Claims use since Jan. 1, 1885.

Ser. No. 83,935. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JOHN A. MORAN, Kansas City, Mo. Filed Jan. 18, 1915.



Particular description of goods.—First-Aid or Emergency Cases.
Claims use since Dec. 10, 1914.

Ser. No. 83,991. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) AMERICAN STOVE COMPANY, St. Louis, Mo. Filed Jan. 21, 1915.

"FIRE FLY"

Particular description of goods.—Wood, Coal, Gas, and Vapor Stoves and Heaters and Lighters and Burners Therefor.
Claims use since Dec. 15, 1914.

Ser. No. 84,054. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) CHEVROLET MOTOR COMPANY OF NEW YORK, INC., New York, N. Y. Filed Jan. 23, 1915.

"FOUR-NINETY"

Particular description of goods.—Automobiles, Motor-Vehicles, and Parts Thereof.
Claims use since Dec. 31, 1914.

Ser. No. 84,118. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) EXCELSIOR FEATURE FILM CO. INC., New York, N. Y. Filed Jan. 26, 1915.



The trade-mark consists of the representation of a Roman standard-bearer standing on the peak of a mountain, holding upraised a banner with the word "X L C R."
Particular description of goods.—Motion-Picture Films.
Claims use since Mar. 15, 1914.

Ser. No. 84,210. (CLASS 25. LOCKS AND SAFES.) GEORGE T. TRUNDLE, Jr., Cleveland, Ohio. Filed Jan. 29, 1915.

COMMERCIAL

Particular description of goods.—Automobile-Locks.
Claims use since October, 1914.

Ser. No. 84,237. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ERNEST R. DOWNER, Aurora, Ill. Filed Feb. 1, 1915.



The trade-mark consisting of a girl's profile above the monogram "Iza." This monogram consists of a large letter "Z" with a small letter "I" immediately under the upper horizontal line of the "Z" and a small letter "A" immediately above the lower horizontal line of the "Z;" both monogram and profile inclosed with an outline representing a bluebell.
Particular description of goods.—Face Creams, Bleach, and Face-Powders other Than Talcum; Cold-Cream; Talcum Powder; Tooth-Powder, Rouge, Blackhead-Remover; Mole-Remover; Eyebrow-Pencil; Shampoo Preparation; Deodorant; and Perfumery.
Claims use since Dec. 7, 1914.

Ser. No. 84,238. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) EBERTS BROS. CO., Wyandotte, Mich. Filed Feb. 1, 1915.

BLACKBURN
COAL

The representation of a lump of coal and the word "Coal" being disclaimed.

Particular description of goods.—Hard and Soft Coal, Coke, and Briquets.

Claims use since Oct. 1, 1914.

Ser. No. 84,244. (CLASS 38. PRINTS AND PUBLICATIONS.) NATIONAL ALFALFA JOURNAL COMPANY, Sioux Falls, S. D. Filed Feb. 1, 1915.

NATIONAL
ALFALFA JOURNAL



Particular description of goods.—A Monthly Periodical.

Claims use since Aug. 11, 1914.

Ser. No. 84,339. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RICHARD HELLMANN, New York, N. Y. Filed Feb. 6, 1915.

MINIMAX
PUMPERNICKEL

No claim being made to the word "Pumpernickel."

Particular description of goods.—Bread, Especially Pumpernickel-Bread, Salad-Dressing, Jellied Meats, Potato-Chips, Fruit Jam and Jellies.

Claims use since Oct. 1, 1913.

Ser. No. 84,350. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE WORTHINGTON BALL COMPANY, Elyria, Ohio. Filed Feb. 6, 1915.

DEUCE

Particular description of goods.—Golf-Balls.

Claims use since Nov. 28, 1914.

Ser. No. 84,359. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOHN W. DICK, New York, N. Y. Filed Feb. 8, 1915.

TIPPERARY KID

Particular description of goods.—Dolls.

Claims use since the 2nd of February, 1915.

Ser. No. 84,373. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Kansas City, Mo. Filed Feb. 8, 1915.

HOLLYHOCK

Particular description of goods.—Candy Figs.

Claims use since Dec. 16, 1914.

Ser. No. 84,374. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed Feb. 8, 1915.

Orbit

Particular description of goods.—Biscuit.

Claims use since on or about Jan. 21, 1915.

Ser. No. 84,386. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOUTHERN CALIFORNIA FISH COMPANY, Los Angeles, Cal. Filed Feb. 8, 1915.

FISHAM

Particular description of goods.—Canned Fish.

Claims use since the 16 day of December, 1914.

Ser. No. 84,388. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE THOMAS PINEAPPLE COMPANY, LIMITED, Honolulu, Territory of Hawaii. Filed Feb. 8, 1915.

PRIDE OF HAWAII



No claim being made to the exclusive use of the representation of a pineapple or the word "Hawaiian."

Particular description of goods.—Canned Pineapple.

Claims use since 1907.

Ser. No. 84,441. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Feb. 11, 1915.

NOBBIKID

Particular description of goods.—Dolls.

Claims use since Jan. 30, 1915.

Ser. No. 84,459. CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALFRED S. LIVERMORE, Chicago, Ill. Filed Feb. 11, 1915. Under ten-year proviso.

FRUIT
MINCE MEAT

Particular description of goods.—Fruit-Mince-Meat Preparations.

Claims use since prior to Jan. 20, 1895.

Ser. No. 84,471. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PHILIP M. WATKINS, San Francisco, Cal. Filed Feb. 11, 1915.

Lilac



Particular description of goods.—Flavoring Extracts for Foods.

Claims use since Oct. 1, 1905.

Ser. No. 84,485. (CLASS 39. CLOTHING.) JACOBS BROS. & LEVENE, Baltimore, Md. Filed Feb. 12, 1915.

BOB EVANS
Modern Make
FOR THE FASTIDIOUS

The words "Modern Make" and "For the Fastidious" being disclaimed.

Particular description of goods.—Middy-Blouses.

Claims use since Jan. 1, 1915.

Ser. No. 84,501. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UNITED STATES MANUFACTURING CO., St. Louis, Mo. Filed Feb. 11, 1915.

JIFFY

Particular description of goods.—Churns.

Claims use since Jan. 1, 1914.

Ser. No. 84,505. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) APPLEBY BROTHERS, Fayetteville, Ark. Filed Feb. 13, 1915.

Fat-Fit

Particular description of goods.—Canned Fruits and Vegetables.
Claims use since Aug. 1, 1914.

Ser No. 84,519. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) E. C. ATKINS & COMPANY, Indianapolis, Ind. Filed Feb. 15, 1915. Under ten-year proviso.

PRIBNOW

Particular description of goods.—Swage-Shapers.
Claims use since the early part of the year 1891.

Ser. No. 84,548. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN CAMPBELL & Co., New York, N. Y. Filed Feb. 16, 1915.

CAMPBELLINE SIZE

No claim being made for the use of the word "Size."
Particular description of goods.—A Sizing and Finishing Product Used in Sizing and Finishing Textile Fabrics.
Claims use since Aug. 1, 1914.

Ser. No. 84,561. (CLASS 39. CLOTHING.) STANDARD FELT COMPANY, West Alhambra, Cal. Filed Feb. 16. 1915.

Reposo

Particular description of goods.—Felt Shoes and Felt Slippers.
Claims use since on or about Feb. 1, 1907.

Ser. No. 84,580. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich. Filed Feb. 17, 1915.

DRINKET

Particular description of goods.—A Beverage Made Partly or Wholly of Cereals Sold as Soft Drinks.
Claims use since about June 23, 1913.

Ser. No. 84,581. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOEHNDS MANUFACTURING COMPANY, St. Louis, Mo. Filed Feb. 17, 1915.

KISS-LIPS

Particular description of goods.—Candy.
Claims use since on or about the 1st day of September, 1914.

Ser. No. 84,591. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VI-TON SALES CO., Shippensburg, Pa. Filed Feb. 17, 1915.

VITA-LAX

Particular description of goods.—A Medicinal Preparation for Treatment of Chronic Constipation.
Claims use since 1912.

Ser. No. 84,596. (CLASS 12. CONSTRUCTION MATERIALS.) HOWARD B. FRENCH, Philadelphia, Pa. Filed Feb. 18, 1915.

SAMUEL H. FRENCH & CO. · PHILADELPHIA U.S.A. · FRENCH'S CEMENT

All wording on the drawing except the word "French's" being disclaimed.
Particular description of goods.—Structural Cement.
Claims use since on or about Feb. 10, 1915.

Ser. No. 84,598. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GORDON A. PETERMONT, New York, N. Y. Filed Feb. 18, 1915.

SMILES

Particular description of goods.—Candy.
Claims use since Jan. 23, 1915.

Ser. No. 84,602. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KE-KONE COMPANY, Connellsville, Pa. Filed Feb. 18, 1915.

KE-KONE

Particular description of goods.—Ice-Cream Cones.
Claims use since Jan. 1, 1915.

Ser. No. 84,611. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) INLAND ELECTRIC CO., Chicago, Ill. Filed Feb. 18, 1915.

STEELITE

Particular description of goods.—Armored Flexible Electric Extension-Conductors.
Claims use since Nov. 1, 1914.

Ser. No. 84,619. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOWKER FERTILIZER CO., New York, N. Y. Filed Feb. 19, 1915.



Particular description of goods.—Animal-Meal Made from Meat, Blood, and Bones Cooked, Dried and Ground; Ground Beef-Scraps; Oyster-Shells, Ground or Cracked; Bones, Ground or Cracked, and Fish-Meal Made from Desiccated Fish, all Used Particularly as Food for Poultry; also, Bone-Meal for Cattle.
Claims use since Jan. 8, 1898.

Ser. No. 84,634. (CLASS 46. FOODS AND INGREDIENTS OF FOOD.) E. B. MÜLLER & Co., New York, N. Y., and Port Huron, Bay City, Bad Axe, Mount Pleasant, Coleman, and Capac, Mich. Filed Feb. 19, 1915.



The facsimile signature being in the handwriting of Mr. Ernest B. Müller, no claim being made to the geographical terms appearing thereon.
Particular description of goods.—Genuine Chicory.
Claims use since 1909.

Ser. No. 84,635. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILLER-ELMER MANUFACTURING CO., LTD., New Orleans, La. Filed Feb. 19, 1915.

Louisiana Maid

Particular description of goods.—Chocolates.
Claims use since Dec. 15, 1914.

Ser. No. 84,638. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POWELL'S New York, N. Y. Filed Feb. 19, 1915. Under ten-year proviso.

OLD VIRGINIA

Particular description of goods.—Peanut-Brittle.
Claims use since January, 1895.

Ser. No. 84,650. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. M. & J. C. DUPONT, Houma, La. Filed Feb. 20, 1915.

HOTTENTOTS



Particular description of goods.—Roasted Ground Coffee.
Claims use since Aug. 1, 1914.

Ser. No. 84,664. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT LICH, Sutton, Nebr. Filed Feb. 20, 1915.

NOXGERM

Particular description of goods.—A Medicinal Preparation for Treatment of Diseases of Poultry—to wit, Bowel Complaint, Roup, Cholera, Swelled Head, Pip, and Colds.
Claims use since May, 1911.

Ser. No. 84,669. (CLASS 39. CLOTHING.) ROGERS PEET COMPANY, New York, N. Y. Filed Feb. 20, 1915.

FOREFATHERS' CLOTH

Comprising the words "Forefathers' Cloth," the exclusive independent use of the word "Cloth" not being claimed.
Particular description of goods.—Outer Suits and Overcoats.
Claims use since August, 1914.

Ser. No. 84,671. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MABLE P. TAYLOR, Cleveland, Ohio. Filed Feb. 20, 1915.

BUNGALOW

Particular description of goods.—Salted Peanuts.
Claims use since June 1, 1914.

Ser. No. 84,694. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) FRANK P. JOHNSON, Danville, Pa. Filed Feb. 23, 1915.

Acme

Comprising the word "Acme."
Particular description of goods.—Garment-Hangers for Trousers, Skirts, Coats, and Suits.
Claims use since 1902.

Ser. No. 84,700. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EUGENE MOULIÉ, San Diego, Cal. Filed Feb. 23, 1915.

MISSION MEMORIES

Comprising the words "Mission Memories."
Particular description of goods.—Perfumes and Sachet-Powder.
Claims use since Jan. 23, 1915.

Ser. No. 84,717. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TILZER BROTHERS, New York, N. Y. Filed Feb. 23, 1915.

Tilbro

Particular description of goods.—Tea.
Claims use since Feb. 1, 1912.

Ser. No. 84,738. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHANDLER A. MACKEY, New York, N. Y. Filed Feb. 24, 1915.

No. 21

Particular description of goods.—Green Coffee.
Claims use since Nov. 10, 1914.

Ser. No. 84,739. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHANDLER A. MACKEY, New York, N. Y. Filed Feb. 24, 1915.

EFR

Particular description of goods.—Green Coffee.
Claims use since Nov. 10, 1914.

Ser. No. 84,744. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GRANVILLE P. ROSE, JR., Nashville, Tenn. Filed Feb. 24, 1915.

ROSE



Particular description of goods.—Metal-Polish.
Claims use since Jan. 4, 1915.

Ser. No. 84,775. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SOUTHERN LARD AND PROVISION COMPANY, Norfolk, Va. Filed Feb. 25, 1915.

Old Glory

Particular description of goods.—Lard Substitute.
Claims use since Nov. 16, 1914.

Ser. No. 84,779. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WINDSOR STOCK FOOD COMPANY, Windsor, Conn. Filed Feb. 25, 1915.

CHICKTONE

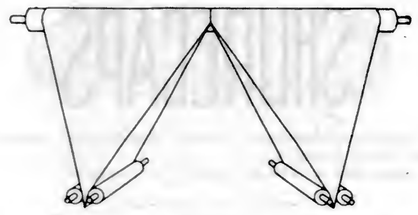
Particular description of goods.—Food for Fowls.
Claims use since on or about the month of November, 1914.

Ser. No. 84,785. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) AMERICAN FLYER MANUFACTURING COMPANY, Chicago, Ill. Filed Feb. 26, 1915.

"American Flyer"

Particular description of goods.—Mechanical Toys.
Claims use since Feb. 23, 1915.

Ser. No. 84,788. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) NEW ENGLAND FIBRE BLANKET COMPANY, Worcester, Mass. Filed Feb. 26, 1915.



Particular description of goods.—Blankets for Printing-Presses.
Claims use since Feb. 23, 1915.

Ser. No. 84,797. (CLASS 39. CLOTHING.) WILLIAM D. CRAIG, Logansport, Ind. Filed Feb. 26, 1915.

COM-FIT

Particular description of goods—Sleeping-Garments.
Claims use since the 9th day of February, 1915.

Ser. No. 84,798. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. WRIGLEY, JR., COMPANY, Chicago, Ill. Filed Feb. 26, 1915. Under ten-year proviso.

JUICY FRUIT

Particular description of goods.—Chewing-Gum.
Claims use since about Jan. 1, 1894.

Ser. No. 84,805. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HAAS BROTHERS, New York, N. Y. Filed Feb. 26, 1915.

Crepe Suzette

No claim of right to the exclusive use of the word "Crape" being made.
Particular description of goods.—Silk Dress Goods.
Claims use since Feb. 1, 1915.

Ser. No. 84,808. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUNTE BROTHERS, Chicago, Ill. Filed Feb. 27, 1915.

Milkjes

Particular description of goods.—Candy.
Claims use since about the 5th day of February, 1915.

Ser. No. 84,813. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HAMMEL, RIGLANDER & CO., New York, N. Y. Filed Feb. 27, 1915.

L.C.R.

Particular description of goods.—Calipers.
Claims use since the 9th day of June, 1902.

Ser. No. 84,828. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TEXAS GUM COMPANY, (INC.), Temple, Tex. Filed Feb. 27, 1915.

CHICAMAH

Particular description of goods.—Chewing-Gum.
Claims use since Jan. 2, 1915.

Ser. No. 84,832. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) L. A. VINTON & SON, Moline, Ill. Filed Feb. 27, 1915. Under ten-year proviso.

RYAN

Particular description of goods.—Post-Hole Diggers and Repair Parts Therefor.
Claims use since about 1878.

Ser. No. 84,835. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BISHOP & COMPANY, Los Angeles, Cal. Filed Mar. 1, 1915.



Particular description of goods.—Ginger-Snaps.
Claims use since Feb. 5, 1915.

Ser. No. 84,836. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BISHOP & COMPANY, Los Angeles, Cal. Filed Mar. 1, 1915.

DRUMMER BOY

Particular description of goods.—Ginger-Snaps.
Claims use since Feb. 5, 1915.

Ser. No. 84,841. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FISHER FLOURING MILLS COMPANY, Seattle, Wash. Filed Mar. 1, 1915.

BLENDAKO

Particular description of goods.—Wheat-Flour.
Claims use since Oct. 30, 1914.

Ser. No. 84,842. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FISHER FLOURING MILLS COMPANY, Seattle, Wash. Filed Mar. 1, 1915.



The picture being fanciful.
Particular description of goods.—Wheat-Flour.
Claims use since Oct. 30, 1914.

Ser. No. 84,843. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FISHER FLOURING MILLS COMPANY, Seattle, Wash. Filed Mar. 1, 1915.



The picture being fanciful.
Particular description of goods.—Wheat-Flour.
Claims use since Oct. 30, 1914.

Ser. No. 84,849. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALDEMAR KALITZKY, Milwaukee, Wis. Filed Mar. 1, 1915.

SHURECAPS

Particular description of goods.—Remedies for Stomach and Bowel Ailments.
Claims use since on or about Mar. 1, 1914.

Ser. No. 84,853. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUELLER-KELLER CANDY CO., St. Joseph, Mo. Filed Mar. 1, 1915.

ROSARY

Particular description of goods.—Candy.
Claims use since Sept. 15, 1910.

Ser. No. 84,854. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUELLER-KELLER CANDY CO., St. Joseph, Mo. Filed Mar. 1, 1915.

SOVEREIGN

Particular description of goods.—Candy.
Claims use since Oct. 29, 1910.

Ser. No. 84,855. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUELLER-KELLER CANDY CO., St. Joseph, Mo. Filed Mar. 1, 1915.

CURFEW

Particular description of goods.—Candy.
Claims use since Sept. 20, 1910.

Ser. No. 84,856. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUELLER-KELLER CANDY CO., St. Joseph, Mo. Filed Mar. 1, 1915.

SHADY NOOK

Particular description of goods.—Candy.
Claims use since Sept. 20, 1910.

Ser. No. 84,858. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUELLER-KELLER CANDY CO., St. Joseph, Mo. Filed Mar. 1, 1915.

COZY CORNER

Particular description of goods.—Candy.
Claims use since Nov. 9, 1910.

Ser. No. 84,861. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) JOHN C. METZGER, Chicago, Ill. Filed Mar. 1, 1915.



Particular description of goods.—Metal Coat or Hat Hooks.
Claims use since Nov. 4, 1914.

Ser. No. 84,938. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE TURNER & SEYMOUR MANUFACTURING CO., Torrington, Conn. Filed Mar. 4, 1915.

Curvex

Particular description of goods.—Metal Curtain-Rods.
Claims use since Dec. 9, 1914.

Ser. No. 84,950. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JANE R. A. BROWN, Cooperstown, N. Y. Filed Mar. 5, 1915. Under ten-year proviso.

GALE'S
OINTMENT

Particular description of goods.—Ointment.
Claims use since about Jan. 1, 1895.

Ser. No. 84,951. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) BURTON S. BOOTH, Troy, N. Y. Filed Mar. 5, 1915.

TANGO

Particular description of goods.—Fly-Catching Devices.
Claims use since Feb. 1, 1915.

Ser. No. 84,988. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAIUS H. SMITH, Providence, R. I. Filed Mar. 6, 1915.



The word "Liniment" being disclaimed.
Particular description of goods.—Medicines.
Claims use since Mar. 1, 1912.

Ser. No. 84,992. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COVALT AND SMITH, Pittsburgh, Pa. Filed Mar. 6, 1915.



The seal being in red.
Particular description of goods.—Quinin Hair-Tonic.
Claims use since Feb. 1, 1909.

Ser. No. 84,994. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) LOCKWOOD AMUSEMENT COMPANY, Kansas City, Mo. Filed Mar. 8, 1915.

BOWLS OF JOY

Particular description of goods.—Roller-Coasters.
Claims use since May, 1913.

Ser. No. 85,018. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM HENRY BLACK, New York, N. Y. Filed Mar. 8, 1915.

VONOL

Particular description of goods.—Hair-Tonic and Eczema.
Claims use since July 25, 1914.

Ser. No. 85,031. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) BRITISH AMERICAN MANUFACTURING COMPANY, Springdale, Conn. Filed Mar. 9, 1915.

STYMA

Particular description of goods.—Waterproof Fabric.
Claims use since Jan. 1, 1915.

Ser. No. 85,061. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) K. A. C. POWER MANUFACTURING COMPANY, Jersey City, N. J. Filed Mar. 10, 1915.



Particular description of goods.—Compounds to Eradicate and Prevent Hard Carbon Formations in Internal-Combustion Motors.
Claims use since Feb. 5, 1915.

Ser. No. 85,079. (CLASS 39. CLOTHING.) FERGUSON, HENE & NEVENS, New York, N. Y. Filed Mar. 11, 1915.



Particular description of goods.—Negligée Dress and Work Shirts.
Claims use since Dec. 20, 1914.

Ser. No. 85,082. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN L. C. MULKEY, Detroit, Mich. Filed Mar. 11, 1915.



Particular description of goods.—Salt.
Claims use since Oct. 1, 1914.

Ser. No. 85,121. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOL MEYER, Indianapolis, Ind. Filed Mar. 12, 1915.

ANTIVEN

Particular description of goods.—Preparations for the Prevention of Venereal Diseases.
Claims use since Mar. 9, 1915.

Ser. No. 85,124. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY SPECIALTY CO. INC., New York, N. Y. Filed Mar. 12, 1915.



The portrait being fanciful.
Particular description of goods.—Toilet Creams.
Claims use since December, 1914.

Ser. No. 85,160. (CLASS 39. CLOTHING.) ATLANTIC MANUFACTURING COMPANY, Wilmington, Del. Filed Mar. 15, 1915.



Which consists of the words or phrase "Pep-Step."
Particular description of goods.—Rubber Heels for Boots and Shoes.
Claims use since about Nov. 20, 1914.

Ser. No. 85,174. (CLASS 39. CLOTHING.) AVON SOLE COMPANY, Avon and Brockton, Mass. Filed Mar. 16, 1915.

RESISTOE

Particular description of goods.—Composition Soles and Heels for Shoes.
Claims use since Nov. 1, 1914.

Ser. No. 85,181. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALFRED C. FAY, Boston, Mass. Filed Mar. 16, 1915.

SALAMANDER

Particular description of goods.—A Case-Hardening Compound.
Claims use since Mar. 5, 1915.

Ser. No. 85,186. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 16, 1915.

CEBERSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since the 3d day of March, 1915.

Ser. No. 85,215. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS OPPER, Paterson, N. J. Filed Mar. 17, 1915.



My portrait. The words "Opper's Salve" are disclaimed as a specific part of the trade-mark.
Particular description of goods.—Salves.
Claims use since Oct. 1, 1914.

Ser. No. 85,242. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) NATIONAL HAIR GOODS COMPANY, Chicago, Ill. Filed Mar. 18, 1915.

NATIONAL BRAND
—HUMAN HAIR—

No claim for registration is herein made for the words "Brand" or "Human Hair" apart from the other features of the mark, as shown in the drawing.
Particular description of goods.—Hair Switches.
Claims use since about the 1st day of September, 1912.

Ser. No. 85,268. (CLASS 39. CLOTHING.) J. BAKER & SONS, Evansville, Ind. Filed Mar. 20, 1915.

Bakermaid

Particular description of goods.—Men's and Boys' Overalls.
Claims use since Mar. 15, 1915.

Ser. No. 85,269. (CLASS 39. CLOTHING.) TIMOTHY F. CROWLEY, INCORPORATED, New York, N. Y. Filed Mar. 20, 1915.

The Lily

Particular description of goods.—Ladies' Collars Made of Fancy and Plain Nets, Laces, Chiffons, Silks, Embroideries, Lawns, Organdies, Linens.
Claims use since Mar. 15, 1915.

Ser. No. 85,308. (CLASS 39. CLOTHING.) O. C. HANSEN MFG. COMPANY, Milwaukee, Wis. Filed Mar. 22, 1915.

Gauntmitts

Particular description of goods.—Mitts and Gloves.
Claims use since Mar. 1, 1915.

Ser. No. 85,341. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOSEPH K. RUSH, Syracuse, N. Y. Filed Mar. 23, 1915.

TANGO

Particular description of goods.—Artificial Bait.
Claims use since Sept. 1, 1914.

Ser. No. 85,355. (CLASS 39. CLOTHING.) ALEXANDER & Co., INC., New York, N. Y. Filed Mar. 24, 1915.

ALEXO

Particular description of goods.—Men's Outer Shirts.
Claims use since Jan. 1, 1912.

Ser. No. 85,365. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HARVEY C. FERGUSON, Cornelia, Ga. Filed Mar. 24, 1915.

TOKOOLUS

Particular description of goods.—A Non-Alcoholic Carbonated Beverage and the Syrup for Making Same.
Claims use since Mar. 13, 1915.

Ser. No. 85,416. (CLASS 39. CLOTHING.) S. L. SILVER & Co., New York, N. Y. Filed Mar. 25, 1915.

THE HUSSAR

Particular description of goods.—Ladies' Coats and Outer Suits.
Claims use since Dec. 1, 1914.

Ser. No. 85,460. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WEEDEN MANUFACTURING CO., New Bedford, Mass. Filed Mar. 26, 1915. Under ten-year proviso.

WEEDEN

Particular description of goods.—Steam and Electric Toys, Mechanical Toys, and Parts Thereof.
Claims use since May 19, 1885.

TRADE-MARK REGISTRATIONS GRANTED

APRIL 20, 1915.

103,844. OLEAGINOUS COMPOUND FOR USE AS A PASTRY-SHORTENING. ATLANTA REFINING & MANUFACTURING COMPANY, Atlanta, Ga.
Filed November 23, 1914. Serial No. 82,772. PUBLISHED FEBRUARY 2, 1915.

103,845. CERTAIN NAMED FLAVORING EXTRACTS. FRED E. BARR, Chicago, Ill.
Filed November 30, 1914. Serial No. 82,971. PUBLISHED FEBRUARY 9, 1915.

103,846. SCREWS. THE BRISTOL COMPANY, Waterbury, Conn.
Filed November 23, 1914. Serial No. 82,777. PUBLISHED FEBRUARY 2, 1915.

103,847. CULTIVATOR-SHOVELS. DEERE AND COMPANY, Moline, Ill.
Filed October 20, 1914. Serial No. 82,017. PUBLISHED FEBRUARY 2, 1915.

103,848. EMMER BREAKFAST FOOD, EMMER GRAHAM FLOUR, AND EMMER STOCK AND POULTRY FOOD. EMMER PRODUCTS COMPANY, Worland, Wyo.
Filed April 2, 1914. Serial No. 77,147. PUBLISHED OCTOBER 20, 1914.

103,849. SALTS REMEDY FOR THE RELIEF OF CONSTIPATION, KIDNEY, LIVER, AND STOMACH DISORDERS, AND RHEUMATISM. STEPHEN FARGO, Cleveland, Ohio.
Filed September 4, 1914. Serial No. 80,978. PUBLISHED FEBRUARY 9, 1915.

103,850. REMEDY FOR THE TREATMENT OF CERTAIN NAMED AILMENTS. STEPHEN FARGO, Cleveland, Ohio.
Filed September 4, 1914. Serial No. 80,980. PUBLISHED FEBRUARY 2, 1915.

103,851. TOILET CREAM. STEPHEN FARGO, Cleveland, Ohio.
Filed September 12, 1914. Serial No. 81,219. PUBLISHED FEBRUARY 9, 1915.

103,852. HAIR-INVIGORATOR AND REMEDY FOR DISEASES OF THE SCALP, DANDRUFF, AND FALLING HAIR. STEPHEN FARGO, Cleveland, Ohio.
Filed January 13, 1915. Serial No. 83,813. PUBLISHED FEBRUARY 9, 1915.

103,853. LAGER-BEER. THE GOTTLIEB BAUERNSCHMIDT STRAUS BREWING COMPANY, Baltimore, Md.
Filed January 18, 1915. Serial No. 83,931. PUBLISHED FEBRUARY 9, 1915.

103,854. FLAGS. WILLIAM J. HELLER, Easton, Pa.
Filed December 2, 1914. Serial No. 83,033. PUBLISHED JANUARY 26, 1915.

103,855. CARTONS, BOXES, AND PAPER BAGS. ANNA JARVIS, Philadelphia, Pa.
Filed November 10, 1914. Serial No. 82,513. PUBLISHED FEBRUARY 9, 1915.

103,856. FLAVORING EXTRACTS FOR FOODS. H. KOHNSTAMM & Co., New York, N. Y.
Filed November 21, 1914. Serial No. 82,738. PUBLISHED FEBRUARY 2, 1915.

103,857. CYCLES, MOTOR-CYCLES, AND SIDE CARS FOR USE WITH MOTOR-CYCLES. JOHN MARSTON, LIMITED, Wolverhampton, England.
Filed June 23, 1914. Serial No. 79,300. PUBLISHED AUGUST 11, 1914.

103,858. CERTAIN NAMED VEHICLES, OTHER THAN ENGINES, FOR CHILDREN'S USE. A. MECKY COMPANY, Philadelphia, Pa.
Filed December 22, 1914. Serial No. 83,462. PUBLISHED FEBRUARY 9, 1915.

103,859. GASOLENE, KEROSENE, NAPHTHA, BENZIN, LUBRICATING-OILS, AND AXLE-GREASE. THE NATIONAL REFINING COMPANY, Cleveland, Ohio.
Filed December 23, 1914. Serial No. 83,495. PUBLISHED FEBRUARY 2, 1915.

103,860. COFFEE AND CHICORY. MISSISSIPPI COFFEE COMPANY, Gulfport, Miss.
Filed October 20, 1914. Serial No. 82,027. PUBLISHED FEBRUARY 9, 1915.

103,861. COFFEE. MISSISSIPPI COFFEE COMPANY, Gulfport, Miss.
Filed October 20, 1914. Serial No. 82,028. PUBLISHED FEBRUARY 9, 1915.

103,862. SAUCE. PRATT-LOW PRESERVING CO., Santa Clara, Cal.
Filed November 7, 1914. Serial No. 82,471. PUBLISHED JANUARY 26, 1915.

103,863. PREPARATION FOR VENEREAL DISEASES. CHRISTOPHER COLUMBUS SELF, Barham, La.
Filed June 2, 1913. Serial No. 70,832. PUBLISHED OCTOBER 20, 1914.

103,864. MOTOR-CARS. THE SUNBEAM MOTOR CAR COMPANY, LIMITED, Wolverhampton, England.
Filed March 14, 1914. Serial No. 76,660. PUBLISHED AUGUST 18, 1914.

103,865. STOCK FOR SOUPS AND DRESSING FOR SALADS. SABURO R. TAKASUGI, Los Angeles, Cal.
Filed November 16, 1914. Serial No. 82,634. PUBLISHED JANUARY 26, 1915.

103,866. PERFUMERY. TOKALON, INCORPORATED, New York, N. Y.
Filed December 3, 1913. Serial No. 74,345. PUBLISHED JANUARY 6, 1914.

103,867. CHOCOLATES. WADSWORTH CHOCOLATE CO., Newark, N. J.
Filed October 12, 1914. Serial No. 81,838. PUBLISHED FEBRUARY 2, 1915.

103,868. WHEAT-FLOUR. I. J. WARREN, Springfield, Mass.
Filed November 2, 1914. Serial No. 82,363. PUBLISHED FEBRUARY 9, 1915.

103,869. MUSICAL-INSTRUMENT STRINGS. FRED GRETSCH MFG. CO., New York, N. Y.
Filed November 25, 1913. Serial No. 74,183. PUBLISHED FEBRUARY 9, 1915.

103,870. CHILDREN'S SLEEPING-GARMENTS. LAX & STRAUSS, New York, N. Y.
Filed January 13, 1915. Serial No. 83,829. PUBLISHED FEBRUARY 9, 1915.

103,871. RUBBER BOOTS AND SHOES. E. G. STEARNS, Chicago, Ill.
Filed June 30, 1914. Serial No. 79,464. PUBLISHED FEBRUARY 9, 1915.

103,872. SOAPS. FREDERICK STEARNS & Co., Detroit, Mich., and New York, N. Y.
Filed December 19, 1914. Serial No. 83,422. PUBLISHED FEBRUARY 9, 1915.

103,873. POWDER FOR RENOVATING SPENT FOUNDRY-SAND. HENRY EMERSON COMINGS, Summerstown, London, England.
Filed May 6, 1914. Serial No. 78,015. PUBLISHED FEBRUARY 9, 1915.

103,874. MAGAZINE-CATALOGUE ISSUED ANNUALLY. DOUBLEDAY PAGE & CO., Garden City, N. Y.
Filed August 18, 1914. Serial No. 80,073. PUBLISHED FEBRUARY 9, 1915.

103,875. INNER TUBES FOR CASINGS AND PNEUMATIC TIRES. GIBSON AUTOMOBILE COMPANY, Indianapolis, Ind.
Filed October 19, 1914. Serial No. 81,979. PUBLISHED FEBRUARY 9, 1915.

103,876. LEATHER BELTINGS. CHAS. L. IRESON (INC.), Boston, Mass.
Filed October 6, 1914. Serial No. 81,688. PUBLISHED FEBRUARY 9, 1915.

103,877. CIGARS, CHEROOTS, CIGARETTES, AND STOGIES. CASPER ROSENBERG, Cleveland, Ohio.
Filed December 11, 1914. Serial No. 83,218. PUBLISHED FEBRUARY 9, 1915.

103,878. SNAP-ON TREADS FOR VEHICLE-TIRES. RUTHERFORD RUBBER COMPANY, Rutherford, N. J.
Filed December 2, 1914. Serial No. 83,025. PUBLISHED FEBRUARY 9, 1915.

103,879. WEEKLY PERIODICAL. THE SAFE-CABINET COMPANY, Marietta, Ohio.
Filed October 15, 1914. Serial No. 81,918. PUBLISHED FEBRUARY 9, 1915.

103,880. CIGARETTES. JOHANN FRANZ STURM, New York, N. Y.
Filed December 2, 1914. Serial No. 83,028. PUBLISHED FEBRUARY 9, 1915.

103,881. CARAMELS AND CANDIES. AMERICAN CARAMEL COMPANY, York and Lancaster, Pa.
Filed June 23, 1914. Serial No. 79,298. PUBLISHED OCTOBER 6, 1914.

103,882. CHEMICAL PRODUCTS FOR EXTERMINATING DISEASES OF PLANTS AND VEGETABLES. AMSTERDAMSCHE SUPERFOSFAATFABRIEK, Minervahaven, near the North Sea Canal, Amsterdam, Netherlands.
Filed January 15, 1915. Serial No. 83,868. PUBLISHED FEBRUARY 9, 1915.

103,883. YARNS OF WOOL, WORSTED, OR HAIR. J. AND J. BALDWIN & PARTNERS, LIMITED, Halifax, England.
Filed January 5, 1915. Serial No. 83,679. PUBLISHED FEBRUARY 9, 1915.

103,884. LEATHER AND CANVAS SHOES. BIELEFELD & SPAHN, New York, N. Y.
Filed September 11, 1912. Serial No. 65,680. PUBLISHED OCTOBER 20, 1914.

103,885. CHEWING-GUM. BISHOP & COMPANY, Los Angeles, Cal.
Filed January 21, 1913. Serial No. 68,029. PUBLISHED FEBRUARY 2, 1915.

103,886. CERTAIN NAMED STATIONERY SUPPLIES. GEO. BORGFELDT & CO., New York, N. Y.
Filed June 2, 1914. Serial No. 78,729. PUBLISHED DECEMBER 22, 1914.

103,887. CERTAIN NAMED PAPER AND STATIONERY SUPPLIES. GEO. BORGFELDT & CO., New York, N. Y.
Filed July 15, 1914. Serial No. 79,796. PUBLISHED DECEMBER 22, 1914.

103,888. CERTAIN NAMED PAPER AND STATIONERY SUPPLIES. GEO. BORGFELDT & CO., New York, N. Y.
Filed July 15, 1914. Serial No. 79,797. PUBLISHED DECEMBER 22, 1914.

103,889. CERTAIN NAMED BOYS' AND MEN'S CLOTHING. BROOKS BROTHERS, New York, N. Y.
Filed December 21, 1914. Serial No. 83,432. PUBLISHED FEBRUARY 9, 1915.

103,890. LAMP CONNECTIONS. CHICAGO RUBBER COMPANY, Chicago, Ill.
Filed April 18, 1913. Serial No. 69,888. PUBLISHED JANUARY 26, 1915.

103,891. OVERCOATS. ALFRED DECKER & COHN, Chicago, Ill.
Filed April 20, 1914. Serial No. 77,585. PUBLISHED FEBRUARY 9, 1915.

103,892. THROAT-PASTILS. DIAMOND REMEDY CO., Brooklyn, N. Y.
Filed January 7, 1915. Serial No. 83,713. PUBLISHED FEBRUARY 9, 1915.

103,893. COMPOUND FOR USE IN THE TREATMENT OF PYORRHEA. CHARLES A. FARLOW, Pueblo, Colo.
Filed December 17, 1914. Serial No. 83,344. PUBLISHED JANUARY 26, 1915.

103,894. LEATHER BOOTS AND SHOES. GRASS & LUDDY, Boston, Mass.
Filed August 6, 1914. Serial No. 80,363. PUBLISHED NOVEMBER 3, 1914.

103,895. CERTAIN NAMED CHEMICAL PREPARATIONS. LEONARD A. HARRIS, Newark, N. J.
Filed December 12, 1914. Serial No. 83,249. PUBLISHED FEBRUARY 2, 1915.

103,896. HOSIERY FOR MEN, LADIES, AND CHILDREN. ILLINOIS KNITTING COMPANY, Mount Vernon, Ill.
Filed January 13, 1915. Serial No. 83,826. PUBLISHED FEBRUARY 9, 1915.

103,897. CRACKERS, CAKES, AND BISCUITS. ITEN BISCUIT CO., Omaha, Nebr.
Filed November 25, 1914. Serial No. 82,909. PUBLISHED FEBRUARY 2, 1915.

103,898. INDIVIDUAL ANTISEPTIC AND STYPTIC APPLICATORS. LOUIS S. IRGENS, Oakland, Cal.
Filed December 10, 1914. Serial No. 83,197. PUBLISHED FEBRUARY 2, 1915.

103,899. SELF-RETAINING UTERINE TUBE. RICHARD JENTZSCH, Chicago, Ill.
Filed November 6, 1914. Serial No. 82,443. PUBLISHED FEBRUARY 9, 1915.

103,900. REMEDY EMPLOYED AS A LAXATIVE AND FOR THE TREATMENT OF CONSTIPATION. KNOLL & CO., Ludwigshafen-on-the-Rhine, Germany.
Filed January 15, 1915. Serial No. 83,877. PUBLISHED FEBRUARY 9, 1915.

103,901. WHEAT-FLOUR. EDWARD F. KOHNKE, New Orleans, La.
Filed November 21, 1914. Serial No. 82,740. PUBLISHED FEBRUARY 2, 1915.

103,902. DOUGHNUT AND CRULLER FLOUR. FRANCIS A. KRAUSE, West Hingham, Mass.
Filed November 24, 1914. Serial No. 82,799. PUBLISHED FEBRUARY 2, 1915.

103,903. MIXED FEED FOR DAIRY-CATTLE. THE LARROWE MILLING CO., Cohocton, N. Y., and Detroit, Mich.
Filed November 21, 1914. Serial No. 82,742. PUBLISHED FEBRUARY 2, 1915.

103,904. BISCUIT. LOOSE-WILES BISCUIT COMPANY, Boston, Mass.
Filed November 11, 1914. Serial No. 82,520. PUBLISHED JANUARY 26, 1915.

103,905. TEA. THE LOWRY COFFEE CO., Philadelphia, Pa.
Filed November 21, 1914. Serial No. 82,741. PUBLISHED FEBRUARY 2, 1915.

103,906. CERTAIN NAMED CLOTHING MADE OF TEXTILE MATERIAL. THE MANHATTAN SHIRT COMPANY, New York, N. Y.
Filed September 16, 1914. Serial No. 81,287. PUBLISHED FEBRUARY 2, 1915.

103,907. KITCHEN-CABINETS. MCDOUGALL COMPANY, Frankfort, Ind.
Filed December 7, 1914. Serial No. 83,120. PUBLISHED FEBRUARY 9, 1915.

103,908. RUBBER AUTOMOBILE-TIRES. MISHAWAKA WOOLEN MANUFACTURING COMPANY, Mishawaka, Ind.
Filed September 23, 1914. Serial No. 81,428. PUBLISHED FEBRUARY 9, 1915.

103,909. RUBBER AUTOMOBILE-TIRES. MISHAWAKA WOOLEN MANUFACTURING COMPANY, Mishawaka, Ind.
Filed September 26, 1914. Serial No. 81,490. PUBLISHED FEBRUARY 9, 1915.

103,910. REFRIGERATORS. NORTHERN REFRIGERATOR COMPANY, Grand Rapids, Mich.
Filed December 7, 1914. Serial No. 83,124. PUBLISHED FEBRUARY 9, 1915.

103,911. TOILET WATER. O-DO-CURE TOILET COMPANY, Chicago, Ill.
Filed February 2, 1914. Serial No. 75,627. PUBLISHED SEPTEMBER 29, 1914.

103,912. PREPARATION FOR TREATMENT OF LUNGS, CONSUMPTION, PNEUMONIA, PLEURISY, AND ALL BRONCHIAL AFFECTIONS. PIERRE OLIVIER, Lake Charles, La.
Filed December 3, 1914. Serial No. 83,048. PUBLISHED FEBRUARY 9, 1915.

103,913. CITRUS FRUITS. PLYMOUTH CITRUS GROWERS ASSC., Plymouth, Fla.
Filed November 25, 1914. Serial No. 82,915. PUBLISHED FEBRUARY 9, 1915.

103,914. WHEAT-FLOUR. REGINA FLOUR MILL COMPANY, St. Louis, Mo.
Filed September 8, 1914. Serial No. 81,089. PUBLISHED FEBRUARY 2, 1915.

103,915. CERTAIN NAMED CLOTHING FOR MEN AND BOYS. RICE-STIX DRY GOODS COMPANY, St. Louis, Mo.
Filed December 14, 1914. Serial No. 83,285. PUBLISHED FEBRUARY 9, 1915.

103,916. CERTAIN NAMED FOODS. SANITARY FOOD PRODUCTS CO., New York, N. Y.
Filed September 28, 1912. Serial No. 66,031. PUBLISHED NOVEMBER 3, 1914.

103,917. SODA-WATER AND SODA-FOUNTAIN BEVERAGE. ADOLPH SEIDEL & SONS, Chicago, Ill.
Filed March 12, 1914. Serial No. 76,588. PUBLISHED APRIL 7, 1914.

103,918. BRUSHES—NAMELY, WALL, SCRUBBING, CLOTHES BRUSHES, PAINT AND WHITEWASH BRUSHES. WILLIAM H. SHEETS, JR., & CO., Baltimore, Md.
Filed May 19, 1914. Serial No. 78,399. PUBLISHED NOVEMBER 3, 1914.

103,919. UMBRELLAS AND PARASOLS. SIMONS & MCGILL, New York, N. Y.
Filed December 19, 1914. Serial No. 83,419. PUBLISHED FEBRUARY 9, 1915.

103,920. BAKING-POWDER. THE SOUTHERN M'F'G CO., Richmond, Va.
Filed December 23, 1914. Serial No. 83,498. PUBLISHED FEBRUARY 9, 1915.

103,921. ANTI-HOG-CHOLERA SERUM AND HOG-CHOLERA VIRUS. H. STATTER, Sioux City, Iowa.
Filed January 4, 1915. Serial No. 83,671. PUBLISHED FEBRUARY 9, 1915.

103,922. BLENDED COFFEE. THE UNIVERSAL TEA CO., Hartford, Conn.
Filed March 2, 1909. Serial No. 40,899. PUBLISHED NOVEMBER 3, 1914.

103,923. FABRICS MADE WHOLLY OR PARTLY OF COTTON AND USED PRINCIPALLY IN THE MAKING OF BAGS. VAN HEE, HUNTER, AND PARSONS COMPANY, INC., New York, N. Y.
Filed December 26, 1914. Serial No. 83,543. PUBLISHED FEBRUARY 9, 1915.

103,924. VEILS AND VEILING IN THE PIECE. E. & Z. VAN RAALTE, New York, N. Y.
Filed December 29, 1914. Serial No. 83,571. PUBLISHED FEBRUARY 9, 1915.

103,925. PREPARATION OF LIQUID AND HARD SOAP. LOUIS C. WEDGEFUTH, Yonkers, N. Y.
Filed November 11, 1914. Serial No. 82,529. PUBLISHED FEBRUARY 9, 1915.

103,926. PREPARATION OF SULFUR IN SOLUBLE FORM, PREPARATIONS AND MEDICAL COMPOUNDS CONTAINING SULFUR IN SOLUBLE FORM. LOUIS C. WEDGEFUTH, Yonkers, N. Y.
Filed November 11, 1914. Serial No. 82,531. PUBLISHED FEBRUARY 9, 1915.

103,927. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed December 17, 1914. Serial No. 83,359. PUBLISHED JANUARY 26, 1915.

103,928. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed December 17, 1914. Serial No. 83,360. PUBLISHED JANUARY 26, 1915.

103,929. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed December 17, 1914. Serial No. 83,361. PUBLISHED JANUARY 26, 1915.

103,930. REMEDY FOR SYPHILIS, GONORRHEA, GLEET, AND SIMILAR DISEASES. HORACE WINTERSMITH, Elizabethtown, Ky.
Filed December 18, 1914. Serial No. 83,386. PUBLISHED FEBRUARY 9, 1915.

103,931. LADIES' DRESSES AND DANCING-DRESSES. WOOLF & SHULHOF, New York, N. Y.
Filed December 16, 1914. Serial No. 83,340. PUBLISHED FEBRUARY 2, 1915.

103,932. MEN'S, BOYS', YOUTHS', WOMEN'S, MISSES', AND CHILDREN'S LEATHER, CANVAS, AND CLOTH BOOTS, SHOES, AND SANDALS. ADAMS BROTHERS, Boston, Mass.
Filed January 8, 1915. Serial No. 83,723. PUBLISHED FEBRUARY 16, 1915.

103,933. MEDICINAL PREPARATION IN LIQUID, SYRUP AND TABLET FORM FOR TREATING CERTAIN NAMED DISEASES. AMERICAN APOTHECARIES COMPANY, New York, N. Y.
Filed December 2, 1914. Serial No. 83,009. PUBLISHED FEBRUARY 16, 1915.

103,934. REMEDY FOR SKIN AND SCALP DISEASES. THE AM-O-LOX COMPANY, Youngstown, Ohio.
Filed January 16, 1915. Serial No. 83,891. PUBLISHED FEBRUARY 9, 1915.

103,935. BOOTS, SHOES, SLIPPERS, AND SANDALS MADE OF LEATHER. THE ANATOMIK FOOTWEAR COMPANY, New York, N. Y.
Filed December 28, 1914. Serial No. 83,544. PUBLISHED FEBRUARY 9, 1915.

103,936. SMOKED HAMS. ANTONÍN CHMEL, PRVNÍ ČESKÁ TOVÁRNÍ VÝROBA A VÝVOZ ZBOŽÍ UZENÁŘSKÉHO NA KR. VINOHRADECH, Königliche Weinberge, near Prague, Austria-Hungary.
Filed May 20, 1914. Serial No. 78,410. PUBLISHED JANUARY 19, 1915.

103,937. WHEAT-FLOUR. GEO. C. BAGLEY ELEVATOR CO., Minneapolis, Minn., and Glenham, S. D.
Filed October 19, 1914. Serial No. 81,970. PUBLISHED FEBRUARY 9, 1915.

103,938. CORSETS, CORSET-WAISTS, BRASSIÈRES, BUST-CONFINERS, WAISTS, HOSIERY, AND CERTAIN NAMED UNDERWEAR. GAYLORD A. BARCLEY, Newark, N. J.
Filed September 10, 1914. Serial No. 81,152. PUBLISHED FEBRUARY 16, 1915.

103,939. CIGARETTES. TOBIAS BLUESTEIN, INC., Chicago, Ill.
Filed December 10, 1914. Serial No. 83,213. PUBLISHED FEBRUARY 9, 1915.

103,940. DIGESTIVE MEDICINES IN THE FORM OF POWDERS AND TABLETS. SHIROSABURO CHIBA, Seattle, Wash.
Filed November 2, 1914. Serial No. 82,337. PUBLISHED DECEMBER 1, 1914.

103,941. CANDY. CHOCOLATE PRODUCTS COMPANY, Baltimore, Md.
Filed December 14, 1914. Serial No. 83,268. PUBLISHED FEBRUARY 16, 1915.

103,942. WHEAT-FLOUR, BRAN, AND MIDDLINGS. CLARK PAPER AND MANUFACTURING COMPANY, Rochester, N. Y.
Filed July 23, 1914. Serial No. 80,023. PUBLISHED NOVEMBER 3, 1914.

103,943. FRESH FRUITS. ALBERT S. CONGDON, North Yakima, Wash.
Filed November 7, 1914. Serial No. 82,458. PUBLISHED FEBRUARY 16, 1915.

103,944. LADIES' FICHUS MADE OF FANCY AND PLAIN NETS, LACES, CHIFFONS, SILKS, EMBROIDERIES, LAWNS, ORGANDIES, LINENS. TIMOTHY F. CROWLEY, INCORPORATED, New York, N. Y.
Filed January 23, 1915. Serial No. 84,053. PUBLISHED FEBRUARY 16, 1915.

103,945. PNEUMATIC TIRES, OUTER SHOES FOR PNEUMATIC TIRES, AND INNER TUBES FOR PNEUMATIC TIRES. THE EAST PALESTINE RUBBER COMPANY, Unity township, Columbiana county, Ohio.
Filed December 5, 1914. Serial No. 83,087. PUBLISHED FEBRUARY 9, 1915.

103,946. SHOES AND BOOTS MADE FROM LEATHER, CANVAS, AND CLOTH, AND RUBBERS. HARRY EBY SHOE CO., INC., Ephrata, Pa.
Filed December 11, 1914. Serial No. 83,227. PUBLISHED FEBRUARY 16, 1915.

103,947. COUGH-SYRUP. BETTY E. FLETCHER, Kansas City, Mo.
Filed January 7, 1915. Serial No. 83,715. PUBLISHED FEBRUARY 16, 1915.

103,948. TONIC LAXATIVE. F. C. GALEHOUSE, Taft, Cal.
Filed October 20, 1914. Serial No. 82,044. PUBLISHED JANUARY 26, 1915.

103,949. CERTAIN NAMED HARDWARE SUPPLIES. ARDO HEBING, Philadelphia, Pa.
Filed August 4, 1914. Serial No. 80,297. PUBLISHED NOVEMBER 10, 1914.

103,950. HAIR RESTORER AND TONIC. BENJAMIN H. HARRIS, New York, N. Y.
Filed January 15, 1915. Serial No. 83,873. PUBLISHED FEBRUARY 9, 1915.

103,951. TRUNKS AND SUITCASES. THE HARTMANN TRUNK COMPANY, Racine, Wis.
Filed November 11, 1914. Serial No. 82,517. PUBLISHED FEBRUARY 9, 1915.

103,952. GARBAGE-CANS, OIL-CANS, AND WASTE-CANS. JUSTRITE MANUFACTURING COMPANY, Chicago, Ill.
Filed June 19, 1914. Serial No. 79,216. PUBLISHED NOVEMBER 24, 1914.

103,953. FIRE-EXTINGUISHERS. JUSTRITE MANUFACTURING COMPANY, Chicago, Ill.
Filed June 19, 1914. Serial No. 79,217. PUBLISHED NOVEMBER 17, 1914.

103,954. MEDICINAL COMPOUNDS USED IN THE TREATMENT OF DISEASES OF WOMEN. ESTATE OF HOWARD A. KINGDON, DECEASED, Buffalo, N. Y.
Filed November 3, 1914. Serial No. 82,377. PUBLISHED FEBRUARY 9, 1915.

103,955. CERTAIN NAMED MEDICINES AND REMEDIES FOR CERTAIN DISEASES. LUSK BROS. CHEMICAL CO., Muskogee, Okla.
Filed May 12, 1913. Serial No. 70,377. PUBLISHED DECEMBER 22, 1914.

103,956. COAL. MARTIN-HOWE COAL CO., Chicago, Ill.
Filed June 29, 1914. Serial No. 79,434. PUBLISHED FEBRUARY 9, 1915.

103,957. SOAP, WASHING POWDERS AND COMPOUNDS, CERTAIN NAMED PREPARATIONS, AND LIQUID POLISHES FOR CLEANING CERTAIN SUBSTANCES. MCCLINTON'S LIMITED, Donaghmore, Ireland.
Filed June 16, 1914. Serial No. 79,162. PUBLISHED OCTOBER 13, 1914.

103,958. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed July 14, 1914. Serial No. 79,783. PUBLISHED OCTOBER 13, 1914.

103,959. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed September 11, 1914. Serial No. 81,196. PUBLISHED NOVEMBER 24, 1914.

103,960. CIGARS, CIGARETTES, AND CHEROOTS. ERICH NOACK, Clifton, N. J.
Filed July 21, 1914. Serial No. 79,965. PUBLISHED OCTOBER 6, 1914.

103,961. PREPARATION FOR INVIGORATING THE SCALP AND DEVELOPING THE GROWTH OF THE HAIR. JANE S. NOBLE, Washington, D. C.
Filed December 2, 1914. Serial No. 83,022. PUBLISHED FEBRUARY 16, 1915.

103,962. KNOCKDOWN HOUSES. NORTH AMERICAN CONSTRUCTION COMPANY, Bay City, Mich.
Filed November 21, 1914. Serial No. 82,743. PUBLISHED FEBRUARY 9, 1915.

103,963. CAPS OR CLOSURES FOR RECEPTACLES, SUCH AS BOTTLES AND THE LIKE. THE PA PRO COMPANY, Lowville, N. Y.
Filed October 16, 1914. Serial No. 81,944. PUBLISHED FEBRUARY 9, 1915.

103,964. MEDICINAL AND TOILET SOAPS. REGENTS MERCANTILE CORPORATION, St. Louis, Mo.
Filed July 22, 1914. Serial No. 79,992. PUBLISHED OCTOBER 20, 1914.

103,965. FOREIGN AND DOMESTIC CHEESE. O. ROTH & CO., New York, N. Y., and Uster-Zurich, Switzerland.
Filed March 14, 1914. Serial No. 76,656. PUBLISHED JANUARY 19, 1915.

103,966. FERTILIZERS. F. S. ROYSTER GUANO CO., Norfolk, Va.
Filed April 23, 1914. Serial No. 77,689. PUBLISHED AUGUST 4, 1914.

103,967. REAL-RUBBER BUMPERS FOR AUTOMOBILE-SPRINGS. RUTHERFORD RUBBER COMPANY, Rutherford, N. J.
Filed December 2, 1914. Serial No. 83,026. PUBLISHED FEBRUARY 16, 1915.

103,968. COLLAR SUPPORTERS AND FOUNDATIONS. JOSEPH W. SCHLOSS CO., New York, N. Y.
Filed January 22, 1915. Serial No. 84,041. PUBLISHED FEBRUARY 16, 1915.

103,969. CITRUS FRUITS. H. C. SCHRADER CO., Jacksonville, Fla.
Filed November 20, 1914. Serial No. 82,718. PUBLISHED FEBRUARY 2, 1915.

103,970. RAW GLASS FOR MAKING CERTAIN NAMED ARTICLES. SCHOTT & GEN., Jena, Germany.
Filed December 10, 1914. Serial No. 83,212. PUBLISHED FEBRUARY 9, 1915.

103,971. JAMAICA RUM. ALEX. D. SHAW & CO., New York, N. Y.
Filed January 19, 1915. Serial No. 83,962. PUBLISHED FEBRUARY 16, 1915.

103,972. CANDY. ELIE SHEETZ, Washington, D. C.
Filed October 12, 1914. Serial No. 81,831. PUBLISHED FEBRUARY 9, 1915.

103,973. FRUIT PRESERVES AND JAMS. FANNIE H. SMITH, Dayton, Ohio.
Filed May 11, 1914. Serial No. 78,210. PUBLISHED SEPTEMBER 1, 1914.

103,974. DATA-SHEETS. SOCIETY OF AUTOMOBILE ENGINEERS, New York, N. Y.
Filed August 27, 1914. Serial No. 80,849. PUBLISHED FEBRUARY 9, 1915.

103,975. RUBBER TIRES, CASINGS, BLOW-OUT PATCHES, RUBBER PATCHES, AND INNER TUBES. H. STARNES, Atlanta, Ga.
Filed December 5, 1914. Serial No. 83,101. PUBLISHED FEBRUARY 9, 1915.

103,976. PRESERVED FISH. STAVANGER PRESERVING CO. A/S., Stavanger, Norway.
Filed June 20, 1914. Serial No. 79,250. PUBLISHED AUGUST 11, 1914.

103,977. LEATHER. HENRY STOCKMAN, Elizabeth, N. J., assignor to The United States Leather Company, Elizabeth, N. J., a Corporation of New Jersey.
Filed July 3, 1914. Serial No. 79,547. PUBLISHED FEBRUARY 9, 1915.

103,978. LACES. SWISS LACE AND EMBROIDERY CO., Chicago, Ill.
Filed January 29, 1913. Serial No. 68,189. PUBLISHED FEBRUARY 9, 1915.

103,979. FACE-POWDER. HENRY TETLOW CO., Philadelphia, Pa.
Filed November 30, 1914. Serial No. 82,990. PUBLISHED DECEMBER 29, 1914.

103,980. SOAP. UNITED DRUG COMPANY, Boston, Mass.
Filed June 3, 1914. Serial No. 78,781. PUBLISHED SEPTEMBER 15, 1914.

103,981. COFFEE. ROSS W. WEIR & CO., INC., New York, N. Y.
Filed November 14, 1914. Serial No. 82,605. PUBLISHED FEBRUARY 9, 1915.

103,982. CANDY. WESTMORELAND CANDY COMPANY, INC., Richmond, Va., and New York, N. Y.
Filed November 21, 1914. Serial No. 82,769. PUBLISHED FEBRUARY 9, 1915.

103,983. GRASS-SEED. WHITNEY-ECKSTEIN SEED COMPANY, Buffalo, N. Y.
Filed May 24, 1911. Serial No. 56,575. PUBLISHED DECEMBER 15, 1914.

103,984. CIGARETTES. HENDERSON M. WOLFE, New York, N. Y., assignor to Polo Club Cigarette Co., Inc., a Corporation of New York.
Filed July 7, 1914. Serial No. 79,618. PUBLISHED NOVEMBER 3, 1914.

103,985. SMOKING-TOBACCO, CIGARS, AND CIGARETTES. OTIS F. WOOD, New York, N. Y.
Filed April 2, 1914. Serial No. 77,169. PUBLISHED FEBRUARY 9, 1915.

103,986. TEA, COFFEE, AND COCOA. SAMUEL ZECHNOWITZ, New York, N. Y.
Filed July 24, 1914. Serial No. 80,048. PUBLISHED NOVEMBER 10, 1914.

103,987. TEA. SAMUEL ZECHNOWITZ, New York, N. Y.
Filed July 24, 1914. Serial No. 80,049. PUBLISHED NOVEMBER 10, 1914.

LABELS

REGISTERED APRIL 20, 1915.

18,383.—*Title:* "EUREKA STOVE POLISH." (For Stove-Polish.) CHAS. W. AULLS, Marshalltown, Iowa. Filed December 23, 1914.

18,384.—*Title:* "LACLEDE BOUQUET." (For Cigars.) F. J. DAUSCHA, St. Louis, Mo. Filed December 26, 1914.

18,385.—*Title:* "THE TIPPERARY PUP." (For a Grotesque Figure of a Dog.) HERBERT ELLIOTT, Toronto, Ontario, Canada. Filed February 12, 1915.

18,386.—*Title:* "HILLSIDE." (For Tea.) J. A. FOLGER & Co., Kansas City, Mo. Filed March 4, 1915.

18,387.—*Title:* "SUNSHINE SHAMPOO." (For Tin, Glass, and Clay Containers of Shampoo.) S. W. GILLETT, Los Angeles, Cal. Filed January 27, 1915.

18,388.—*Title:* "FOUR BEAUTIES." (For Whisky.) GOODMAN LIQUOR COMPANY, Waco, Tex. Filed February 5, 1915.

18,389.—*Title:* "WHITE PEARL BRAND." (For Macaroni.) LORENZ BROS. MACARONI CO., Milwaukee, Wis. Filed February 26, 1915.

18,390.—*Title:* "IVORY BRAND." (For Varnishes.) EDWARD VAN HOOGSTRATE, Chicago, Ill. Filed January 9, 1915.

18,391.—*Title:* "IVORY BRAND." (For Paints.) EDWARD VAN HOOGSTRATE, Chicago, Ill. Filed March 3, 1915.

PRINTS

REGISTERED APRIL 20, 1915.

3,870.—*Title:* "FORSTER TREUFIT." (For Artificial Limbs, Supports, Extensions, Braces, Splints, and Orthopedic Appliances.) ADJUSTABLE SOFT SOCKET ARTIFICIAL LIMB CO., Cincinnati, Ohio. Filed March 27, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

SIMPLEX ELECTRIC HEATING COMPANY *v.* GOLD CAR HEATING & LIGHTING COMPANY.

Decided January 4, 1915.

TRADE-MARKS—OPPOSITION—GOODS OF THE SAME CLASS.

Where the opposer was the first to adopt and use the word "Simplex" as a general trade-mark for electrical and steam apparatus in which thermostatically-operated relief-valves were used and applicant used the mark only on thermostatic steam-traps, *Held* that the appliance upon which the applicant is using the mark in question belongs to the same general class of goods as that of the opposer and the applicant should not be permitted by the adoption and use of this mark to invade the present field of the opposer or the domain to which it may legitimately extend the use of its mark.

Mr. Nathan Heard for the appellant.

Mr. A. C. Fraser and *Mr. E. V. Myers* for the appellee.

VAN ORSDEL, *J.:*

Appellant, Simplex Electric Heating Company, appeals from the decision of the Commissioner of Patents dismissing its opposition to the registration by appellee, Gold Car Heating & Lighting Company, of the word "Simplex" as a trade-mark for thermostatic steam-traps.

It is alleged in the notice of opposition that appellant, long prior to any use of the mark by appellee, used the word "Simplex" as a trade-mark for goods of the same descriptive properties as those set forth in the application of appellee company. Appellant further alleges that appellee company manufactures and sells both steam and electric heating apparatus, and is a competitor of appellant in the manufacture and sale of electric heating apparatus, including the thermostatic devices therefor. It is also alleged that appellant would be damaged, in that the use of the mark by appellee would be likely to deceive purchasers and cause confusion in trade.

It appears that appellee company only uses the mark on its thermostatic steam-trap, which is used in connection with its steam car-heating apparatus. But it must be conceded that the granting of registration would authorize it to extend its use to any thermostatic steam-trap it might devise or use in the future.

On the other hand, the word "Simplex" is appellant's general trade-mark for its electrical and steam apparatus. It must be remembered that appellant's business is not confined alone to the manufacture and instalment of electrical heating, but to steam appliances also. In fact, as stated in the opinion of the Examiner of Interferences—

> it is pointed out for opposer that it makes certain electrically heated boilers or water heaters and that some of these have a thermostatically operated relief valve. But there is no proof that opposer manufactures such a valve, *per se*, or uses the trade-mark "Simplex" thereon, and it is freely admitted that the relief valve is not put on the market separately by applicant.

It also appears that appellant makes a thermostatically-controlled apparatus as a regular product. The witness Ayer testified on behalf of appellant:

> We make frequent applications of thermostats to control a variety of our product in the development of special work for special customers, in such cases thermostats are frequently applied to our standard apparatus usually sold without thermostats.

The witness also testified to the use of thermostats with hot-water boilers manufactured and sold by appellant company and to one particular type of thermostatic valve which operates automatically to prevent generation of steam if the boiler is neglected. He described it as a device which may be operated to open a steam-valve to permit the flow of steam in the same manner as is adapted to permit the flow of water to prevent the generation of steam. In other words, like appellee's device, it is a temperature-controlled relief-valve, and is used for the same general purpose to control the overflow or discharge of water or steam.

Thus, it will be observed that the product of appellant is within the same general class as that of appellee.

> The intent of the statute is to protect the rightful owners of trade-marks in their valuable property rights; and it seems to tax the courts to the utmost to protect those rights against the ingenuity of counsel and the designs of sharp competitors. A mark should be denied not only when used upon goods of the same descriptive properties as a similar registered mark, but when used on goods belonging to the same general class. (*Walter Baker & Co.* v. *Harrison*, 32 App. D. C., 272.)

It is no answer that appellant has not manufactured a steam car-heating system upon which thermostatic steam-traps are used, or even that its trade-mark has not been applied directly to the thermostatic devices in use. They are a part of its system to which the mark is applied, and it is at any time within their power to apply it to any appliance of that kind they may manufacture, and this is true should they extend their manufacture to elec-

trically-heated steam car-heaters. Indeed, it appears that such heating apparatus may be manufactured by appellant. It, therefore, has the right to extend the use of its mark accordingly. Appellee should not, in justice, be permitted, by the adoption and use of this mark, to invade the present field of appellant, or the domain to which it may legitimately extend the use of its mark. In *Florence Mfg. Co.* v. *J. C. Dowd & Co.*, (178 Fed., 73) the court, considering the right of the owner of a mark to extend its use, said:

But it is urged that as the complainant did not manufacture tooth brushes at the time the defendants entered the field, it cannot be injured by the sale of tooth brushes by others. We do not think the conclusion follows. The complainant had acquired a reputation as the manufacturer of high grade toilet brushes; and it certainly had a right to include tooth brushes at any time, and, when it did so, purchasers who were acquainted with the high character of its goods, would quite likely purchase its tooth brushes deeming its previous reputation a guaranty of excellence. In other words, the complainant did not abandon the right to make "Keepclean" tooth brushes because it did not at the outset make such brushes, as well as other varieties of toilet brushes.

To the same effect are *Collins Co.* v. *Oliver Ames & Sons*, (18 Fed., 569;) *American Tobacco Co.* v. *Polacsek*, (170 Fed., 117.)

It is no excuse that appellee's officers testified that they were not aware that appellant applied the mark to steam-heaters. They conceded they knew of the existence of appellant company. In fact, they were competitors to the extent of both having furnished car-heating systems for the New Haven Railroad Company. Appellee knew of the general use of the mark by appellant, and it should have advised itself fully before appropriating the mark. It is hard, even in the absence of evidence to the contrary, to attribute good faith to one who knowingly appropriates the mark of another to be used upon the same general class of goods. As Mr. Justice Robb said in *Phoenix Co.* v. *Lewis Co.*, (32 App. D. C., 285:)

The purpose of the act being to prevent, and not to promote, fraud and mistake, we do not feel inclined, even in a doubtful case, to grant registration to a claimant where it appeared, as here, that, when he adopted the mark, he knew of its prior adoption and use by another firm in connection with goods of the same general character and properties. The opportunity for selection being as limitless as the human imagination, we have reason to question the motive prompting the adoption by one dealer of a mark previously applied by another dealer to like goods.

The case here presents no great difficulty. Appellee is using the mark in question upon an appliance which belongs to a class in use by appellant. The general system of appellee, to which the appliance belongs, possesses the same descriptive properties of the system which bears the mark of appellant. That such a condition would in all probability lead to confusion in trade is evident. A situation, therefore, exists which is forbidden by the statute.

Inasmuch as the objection to the use of the distinguishing part of appellant's corporate name was not set out in the notice of opposition, it must be deemed to have been waived. See opinion of this court in *The Rookwood Pottery Co.* v. *The A. Wilhelm Company*, filed this date.

The decision of the Commissioner of Patents is reversed, and the clerk is directed to certify these proceedings as by law required.

Reversed.

Court of Appeals of the District of Columbia.

ROTTER *v.* HODGKINSON.

Decided March 1, 1915.

1. INTERFERENCE—SECOND DECLARATION.

Where an interference was declared between a patent to R. and a later application of H. and was dissolved on account of the failure of H. to file a satisfactory oath overcoming a reference and thereafter H. filed the same claims in an earlier application and another interference with the patent to R. was declared, *Held* that the right of H. to make the claims was not *res adjudicata* by reason of the dissolution of the first interference.

2. SAME—PRIORITY—RIGHT TO MAKE CLAIMS.

Structure analyzed and *Held* that H. had a right to make the claims and priority was properly awarded to H.

Mr. G. F. De Wein for the appellant.

Mr. J. S. Green and *Mr. E. W. McCallister* for the appellee.

SHEPARD, *C. J.*:

This is an appeal from a decision of the Commissioner in an interference case relating to an invention of an improvement in a steam-turbine system.

The issue is in the following two counts:

1. In a power system, the combination of an engine, an exhaust pipe extending therefrom divided into two paths, a condenser in direct communication with said exhaust pipe by one of said paths, a turbine in communication with said exhaust pipe by the other of said paths, valves for limiting the flow through said paths, and a governor controlling said valves.

2. In a power system, the combination of an engine, an exhaust therefor, a turbine in communication with said exhaust, a valve in the turbine inlet, a valve in said exhaust beyond the point of said communication, a governor controlling both said valves, and a condenser connected to the exhausts of said engine and turbine.

Hodgkinson's application in issue was filed January 2, 1909, while that of Rotter was filed July 2, 1910. An interference was declared between Hodgkinson's application and applications of Flanders and Kieser on April 20, 1909, and remained undecided. January 12, 1912, Hodgkinson filed another application for the same invention and asked an interference with a patent issued to Max Rotter, whose application had, by an inadvertence, ripened into a patent. Hodgkinson's application was rejected on reference to the British patent.

March 15, 1912, he filed an affidavit stating that he had made the invention prior to July 27, 1909, which was the filing date of the said British patent. April 12, 1912, an interference was declared on two counts with the patent to Rotter.

Rotter moved to dissolve on the ground that Hodgkinson had failed to overcome the reference to the British patent.

The Examiner of Interferences denied transmission of this motion.

July 29, 1912, Rotter petitioned the Commissioner to dissolve the interference. September 10, 1912, the Commissioner granted the petition and Hodgkinson was given a limited time to comply with Rule 75 by filing a proper affidavit, failing which the interference was to be dissolved. The Commissioner said:

Hodgkinson having fallen so far short of establishing a *prima facie* right to a patent over the reference cited, the patentee, Rotter, should not be called upon to contest an interference with him in respect to the question of priority of invention. I would not hesitate to peremptorily dissolve this interference in view of the facts stated, were it not possible that a showing might eventually be introduced into the records which would cause the redeclaration thereof.

This was in accordance with the procedure adopted in *Graham* v. *Langhaar*, (164 O. G., 739,) in which it was stated:

The question involving alleged informalities in oaths can be determined *ex parte* after the termination of an interference. Where, however, the moving party to an interference calls attention to an informality in an oath and contends that he should not be compelled to contest the interference unless and until his opponent files an oath in compliance with the rules, it would seem that an order may properly be issued calling upon the delinquent party to file an oath in compliance with Rule 46, within a limited time set, under penalty of dissolution of the interference.

Hodgkinson did not file the oath but on November 25, 1912, filed an amendment to his original application, which was filed January 2, 1909, making the two claims of this interference and asking an interference thereon with Rotter's patent. This interference was then declared on a count having the claims above set out.

Neither party having taken testimony the question of priority arose on the record, and as Hodgkinson antedated Rotter he was entitled to have judgment on the record. Rotter moved to dissolve, however, on two grounds. First, that the right of Hodgkinson to make the claims is *res adjudicata* by reason of the former adjudication between Hodgkinson and Rotter dissolving the interference. Second: Hodgkinson is not entitled to make the claims under his application.

The Examiner of Interferences denied the motion on the first ground but sustained the second and thereupon awarded priority to Rotter.

On appeal to the Examiners-in-Chief the Board held that the plea of *res adjudicata* was well taken and also that Hodgkinson had no right to make the claims under his disclosure. They affirmed the award to Rotter.

On appeal to the Commissioner this decision was reversed on both points and priority awarded to Hodgkinson on the record.

Rotter has appealed therefrom and assigns error on both grounds.

The first question arises on the plea of *res adjudicata*. We agree with the Commissioner on this point. There was no adjudication of priority. The question involved was whether Hodgkinson had the right to a patent by reason of the reference to the British patent. That was the sole issue. There was no determination of priority but simply a denial of patent to Hodgkinson for the reasons given. The question falls within the rule established in such cases by decisions of this court. (See *Gold* v. *Gold*, 34 App. D. C., 229, 238; 150 O. G., 570; 1910, C. D., 269; *Moore* v. *Colburn Machine Glass Co.*, 40 App. D. C., 201, 211; 191 O. G., 293; *Rowe* v. *Brinkman*, 172 O. G., 1090; 1911, C. D., 209.)

The right of Hodgkinson to make the claim turns upon the words in the claim "a governor controlling both said valves." At the time of filing his application Hodgkinson had in his application claims of the same general nature as those in this interference. There is no ambiguity in the claims and they are capable of a broad construction, and the court will not read into them a limitation not expressed therein. Had the appellant desired to limit their construction he should have done so in making his application for a patent. (*Geltz* v. *Crozier*, 32 App. D. C., 324, 327; 140 O. G., 757; 1909, C. D., 313; *Engel* v. *Sinclair*, 34 App. D. C., 212, 217; 152 O. G., 489; 1910, C. D., 310; *Western Electric Co.* v. *Martin*, 39 App. D. C., 147; 182 O. G., 723; 1912, C. D., 567; *Leonard* v. *Horton*, 40 App. D. C., 22. 28; 189 O. G., 781; 1913, C. D., 348.)

There is no doubt that Rotter's drawing shows a governor acting through a system of levers by a link and acting directly upon both valves. Its control over the valves is direct. As said by the Primary Examiner by whom the question was first decided, Hodgkinson's governor controls valve 14, and indirectly controls valve 26. The throttling effect of valve 14 is as positive in its action on valve 26 as in any ordinary relay device for all practical working pressures which may exist in pipe 10. In other words, while the Hodgkinson governor may not directly control both valves, it controls one directly and the other indirectly. The Assistant Commissioner, from whose decision the appeal is taken, said:

Hodgkinson has an engine 7, an exhaust 10, extending therefrom, divided into two paths 19 and 18, a condenser 17, in direct communication with said exhaust pipe by one of said paths, a turbine 12 in communication with said exhaust pipe by the other of said paths, valves 14 and 26 for limiting the flow through said paths and a governor 15 controlling said valve. The point made is that Hodgkinson's governor 15 does not control his valves 14 and 26. * * *

The general function of all these parts in Rotter is very much the same as they are in Hodgkinson. They both have a turbine which is to be run by the exhaust from an engine, and they both need a governor to control the running of the turbine. The function, therefore, of Hodgkinson's governor 15 and Rotter's governor (not lettered) is quite similar. It is true that they operate in a little different way. Rotter's governor acts through the system of levers directly on the valves 10 and 15. Hodgkinson's governor acts on the valve 14, thus opening or closing it in proportion to the speed of the governor and thus allowing an amount of steam to go through the valve 14 in proportion to the speed of the turbine, and this steam passing through the pipe 10 presses upon the diaphragm 24, an amount proportionately to the speed of the governor.

It seems to me, therefore, that the Hodgkinson device comes squarely under the terms of the issue. The very object of Hodgkinson's governor 15 is to control the two valves. There would be no use for such a governor in Hodgkinson's construction were it not to control the two valves. It is true it controls them through the medium of the steam passing through the pipe 10, but this is only an indirect instead of a direct control. The natural way to express the influence that Hodgkinson's governor 15 has on his valves is to say that it controls them, although there may be other things that help to do this controlling. It is significant that Hodgkinson in his original claim 4 before he ever saw Rotter's claims expressed the relation between his governor and his valve by this very word "controlling." I do not know of a word that expresses the relation between Hodgkinson's governor and his two valves better than the word "controlling." Even in Rotter's structure and in almost any other conceivable construction, other things than the governor exercise a controlling influence on the two valves, for example, the friction of the parts, etc. So that this word "controlling" as applied to Hodgkinson's structure is only to a degree more inaccurate than as applied to Rotter's. In such case the proper way to determine whether it was unduly expanding the meaning of the word "controlling" to apply it to Hodgkinson is to find out whether there is any prior art that would limit its meaning. If there is such prior art, such limitation should be put upon this word "controlling" as would free the count from the prior art, but if not, the broadest possible construction should be put upon this word. Of course, as there is no prior art, the rule is to put the broadest construction on this word, and when this is done the counts clearly read upon Hodgkinson.

We are perfectly satisfied with the reasoning of the Assistant Commissioner and his decision is affirmed.

The clerk will certify this decision to the Commissioner of Patents as required by law.

Affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Sturtevant reissue patent, No. 12,611, and the Anderson patent, No. 1,063,148, each for a carbureter, *Held* valid, but not infringed. *Stromberg Motor Devices Co.* v. *Zenith Carburetor Co.*, 220 F., 154.

(U. S. C. C. A.) The Davidson reissue patent, No. 12,796, (original No. 662,395,) for a centrifugal fan or pump, *Held* void for anticipation and also not infringed. *Sirocco Engineering Co.* v. *B. F. Sturtevant Co.*, 220 F., 137.

(U. S. C. C. A.) The Davidson reissue patent, No. 12,797, (original No. 662,395,) for a centrifugal fan or pump, *Held* void for anticipation and also not infringed. *Sirocco Engineering Co.* v. *B. F. Sturtevant Co.*, 220 F., 137.

(U. S. D. C.) The Rose patent, No. 586,076, for a tobacco-packing machine, *Held* valid and infringed. *Wright's Automatic Tobacco Packing Mach. Co.* v. *American Tobacco Co.*, 220 F., 163.

(U. S. C. C. A.) The Rowley patent, No. 644,464, for an artificial-limb suspender, *Held* valid and infringed. *J. F. Rowley Co.* v. *Columbus Pharmacal Co.*, 220 F., 127.

(U. S. C. C. A.) The Froslid patent, No. 668,175, for a grain-separator, *Held* infringed as to claim 1. *American Grain Separator Co.* v. *Twin City Separator Co.*, 220 F., 150.

(U. S. D. C.) The Ahara patent, No. 684,662, for a carbureter, and the Richard patent, No. 791,501, for an improvement thereon, both *Held* valid and infringed by two forms of defendant's carbureters, but not infringed by a third. *Stromberg Motor Devices Co.* v. *Zenith Carburetor Co.*, 220 F., 154.

(U. S. C. C. A.) The Froslid patent, No. 684,751, for a grain-separator, *Held* infringed as to claim 1. *American Grain Separator Co.* v. *Twin City Separator Co.*, 220 F., 150.

(U. S. C. C. A.) The McClave patent, No. 831,178, for a grate, *Held* valid and infringed. *McClave-Brooks Co.* v. *M. H. Treadwell Co.*, 220 F., 143.

(U. S. D. C.) The King patent, No. 914,426, for a rod packing-ring, *Held* valid, but not infringed. *United States Metallic Packing Co.* v. *Hewitt Supply Co.*, 220 F., 171.

(U. S. D. C.) The Beckwith patent, No. 931,374. for improvement in heating-stoves, *Held* valid and infringed. *Estate of P. D. Beckwith, Inc.*, v. *Riley*, 220 F., 173.

(U. S. C. C. A.) The Boyce patent, No. 1,090,776, for a motometer, *Held* valid and infringed. *Boyce* v. *Stewart Warner Speedometer Corporation*, 220 F., 118.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 10, 1915.

John L. Radermacher, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Bloom & Godley Co., of 205 North Willow street, Trenton, N. J., for registration of a trade-mark and trade-mark registered May 5, 1914, No. 96,828, to John L. Radermacher, of 296 Sterling Place, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said John L. Radermacher at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John L. Radermacher, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 213—No. 4. TUESDAY, APRIL 27, 1915. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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Trade-Marks	127—No.	103,988 to No. 104,114, inclusive.
Labels	30—No.	18,392 to No. 18,421, inclusive.
Prints	20—No.	3,871 to No. 3,890, inclusive.
Reissues	5—No.	13,904 to No. 13,908, inclusive.
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The patents of this issue were pending an average of 23.5 months

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	2	1	North Carolina	5	3
Arizona	3	....	North Dakota	3	....
Arkansas	1	....	Ohio	64	12
California	29	5	Oklahoma	4	....
Colorado	6	....	Oregon	4	....
Connecticut	20	....	Pennsylvania	79	8
Delaware	1	1	Rhode Island	4	1
Florida	2	....	South Carolina	1	1
Georgia	3	1	South Dakota	4	....
Idaho	1	....	Tennessee	5	1
Illinois	86	27	Texas	10	3
Indiana	21	1	Utah	4	2
Iowa	14	3	Vermont	2	....
Kansas	7	....	Virginia	5	....
Kentucky	7	3	Washington	14	....
Louisiana	4	2	West Virginia	5	1
Maine	6	2	Wisconsin	25	5
Maryland	6	3	Wyoming	....	....
Massachusetts	45	15			
Michigan	20	5	Alaska, District of	....	....
Minnesota	16	4	Canal Zone	1	....
Mississippi	3	....	District of Columbia	6	1
Missouri	25	2	Hawaii Territory	1	....
Montana	5	....	Philippine Islands	....	....
Nebraska	3	....	Porto Rico	....	....
Nevada	....	1	U. S. Army	....	....
New Hampshire	2	1	U. S. Navy	....	....
New Jersey	42	4			
New Mexico	1	....	Total to residents of the United States.	759	172
New York	117	53			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Natal	....	....
Austria-Hungary	....	....	Netherlands	2	....
Belgium	3	....	New South Wales	....	....
British India	....	....	New Zealand	1	....
British West Indies	....	....	Norway	1	....
Canada	14	1	Portugal	....	....
Cape Colony	....	....	Queensland	....	....
Chile	....	....	Roumania	....	....
Costa Rica	....	....	Russia	1	....
Cuba	1	....	Scotland	1	....
Denmark	1	....	South Australia	....	....
England	21	2	Spain	....	....
Finland	....	....	Sweden	2	....
France	3	....	Switzerland	1	....
Germany	18	....	Transvaal, South Africa	....	....
Guatemala	....	....	Victoria	1	....
India	....	....	Western Australia	2	....
Ireland	....	....	Total to residents of foreign countries	74	5
Italy	1	2			
Luxemburg	....	....			
Mexico	....	....			

Attorneys.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 23, 1915.

By direction of the Secretary of the Interior, Order No. 1,382, of November 19, 1900, disbarring Oscar A. Michel, of New York, N. Y., from practising before the United States Patent Office, has been revoked, and he is, from March 2, 1915, restored to practice before the Patent Office under his former number, 57.

W. F. WOOLARD,
Chief Clerk.

Drawings of Foreign Patents.

(ORDER No. 2,096.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., January 21, 1914.

In addition to the data required to be given by Rule 66 the Examiner, when citing foreign patents, will include a statement identifying the particular figures of the drawings relied upon as showing the anticipating structure. If the drawing of the foreign patent as issued comprises a single sheet, the Examiner will say: "(One sheet)." If the drawings of the foreign patent as issued comprise more than a single sheet, the particular figures and number of sheets will be indicated.

The purpose of this order is to give applicants and attorneys information respecting foreign patents cited as references, so that photographic copies thereof may be ordered without unnecessary correspondence and delay.

THOMAS EWING,
Commissioner of Patents.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business April 24, 1915.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Jan. 15	Jan. 14	497
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Medicines; Pneumatics; Presses; Tents, Canopies, Umbrellas, and Canes; Tobacco.	Mar. 5	Feb. 8	753
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Apr. 9	Apr. 10	101
232	4. Conveyers; Elevators; Excavating; Hoisting; Loading and Unloading; Pneumatic Despatch; Railway Mail Delivery; Traversing Hoists.	Nov. 11	Apr. 10	606
167	5. Bookbinding; Harvesters; Jewelry; Music.	Jan. 31	Mar. 10	339
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	Oct. 21	Apr. 20	495
312	7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes.	Feb. 24	Mar. 13	512
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Oct. 29	Apr. 5	1221
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps.	July 23	Mar. 27	821
235	10. Carriages and Wagons	Dec. 14	Apr. 3	722
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 19	Apr. 12	142
322	12. Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Jan. 9	Apr. 10	774
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	Mar. 6	Mar. 8	416
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Dec. 7	Mar. 27	336
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Nov. 19	Apr. 6	684
109	16. Electric Signaling; Radiant Energy; Telegraphy; Telephony.	Sept. 25	Feb. 2	502
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Feb. 11	Apr. 10	173
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Mar. 11	Mar. 8	304
236	19. Dampers, Automatic; Furnaces; Heating Systems; Stoves and Furnaces.	Mar. 4	Feb. 20	237
179	20. Artificial Limbs; Builders' Hardware; Cutlery; Dentistry; Locks and Latches; Safes; Undertaking.	Mar. 24	Mar. 25	228

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Dec. 17	Mar. 19	421
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Mar. 20	Mar. 25	225
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Oct. 23	Dec. 31	470
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Nov. 30	Apr. 2	456
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Mar. 19	Mar. 23	151
106	26. Electricity, Generation; Motive Power.	Sept. 25	Jan. 30	538
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Feb. 8	Mar. 31	275
65	28. Internal-Combustion Engines	Feb. 9	Mar. 13	472
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 8	Mar. 1	331
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Dec. 14	Apr. 1	288
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Jan. 16	Mar. 8	331
278	32. Agitating; Carbonating Beverages; Dispensing Beverages; Dispensing; Domestic Cooking Vessels; Gas and Liquid Contact Apparatus; Heat Exchange; Ornamentation; Packaging Liquids; Refrigeration.	Nov. 2	Apr. 10	665
71	33. Bridges; Hydraulic Engineering; Masonry and Concrete Structures; Metallic Building Structures; Paving.	Jan. 13	Mar. 16	361
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 12	Apr. 1	200
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Jan. 16	Apr. 16	560
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Feb. 5	Apr. 5	622
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Oct. 9	Feb. 25	713
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Nov. 30	Mar. 15	545
321	39. Water Distribution	Jan. 18	Feb. 4	452
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Nov. 4	Mar. 17	1066
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Feb. 23	Mar. 24	271
279	42. Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Nov. 2	Feb. 6	689
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Nov. 2	Mar. 24	299

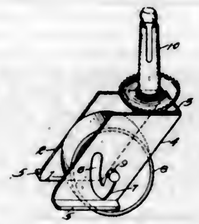
Oldest new case, July 23; oldest amended, Dec. 31.
Total number of applications awaiting action..... 20,254

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Mar. 8	Apr. 5	778
	Designs	Feb. 2	Mar. 2	483
	Labels and Prints	Apr. 10	Apr. 10	68

PATENTS

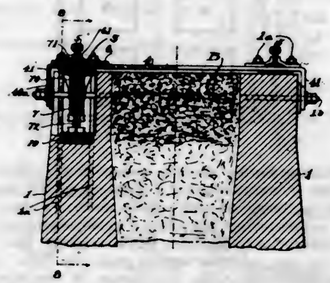
GRANTED APRIL 27, 1915.

1,136,915. CASTER. CHARLES J. ADAMS, Hatfield, W. Va. Filed July 31, 1912. Serial No. 712,474. (Cl. 16—165.)



In a caster, an angularly slotted casing, the slotted portions of said casing comprising a long and a relatively short side diverging from a common apex, and a wheel provided with an axle capable of removable disposition in the short side of the slotted portion of said casing whereby the casing will be supported upon the wheel, or, of removable disposition in the relatively long side of the slotted portion of said casing whereby the wheel will be thrown forward with relation to said casing and thereby relieved of the weight of the same.

1,136,916. ROAD-BED AND LEVELER. FREDERICK U. ADAMS, Hastings-upon-Hudson, N. Y. Filed Feb. 7, 1914, Serial No. 817,092. Renewed Mar. 25, 1915. Serial No. 17,049. (Cl. 238—3.)



1. A road bed comprising a reinforced concrete substructure and borne thereby a metal superstructure; said substructure comprising sleeper walls and rail-bolts fixed therein, and cross walls and buttresses in line therewith; and said superstructure comprising sleeper plates, cross tie formed with down-turned ends and bolt-slots, T-rails, rail-clamps formed with rail-web-buttressing extensions and bolt-slots and serving to adjustably bolt said rails to said tie plates and substructure by means of nuts engaging said rail-bolts; cheek plates between the down-turned tie ends and the sleeper walls, and cheek bolts bolting and laterally confining the last named parts.

2. In combination, a road-bed comprising a reinforced concrete substructure and a superstructure; said substructure comprising sleeper walls and rail-bolts fixed therein; said superstructure comprising sleeper-plates, cross-ties, T-rails, and rail clamps; and adjustable levelers interposed between said substructure and said ties and rails, and means to secure the ties and rails to the levelers and to the substructure.

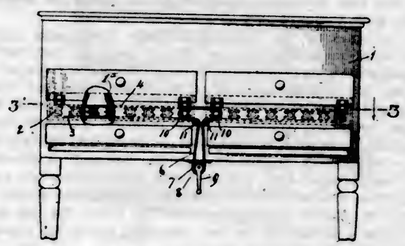
3. A road bed comprising a reinforced concrete substructure; a metal superstructure comprising metal cross ties and T-rails; and screw-jacks interposed between said substructure and said ties and rails; and means to secure the ties and rails to the jacks and to the substructure.

1,136,917. NECKTIE. JOSEPH H. ALLEN, El Paso, Tex. Filed Sept. 24, 1913. Serial No. 791,605. (Cl. 2—84.)



The method of forming a ready made tie which consists in placing around a former the neckband of an ordinary tie, tying the knot, severing the ends of the neckband adjacent the knot, inserting in the knot and extended ends of the band a member comprising a substantially V-shaped piece of spring wire, the ends of which project beyond the ends of the neck-band, bending the ends of the spring member, closing the ends of the band over the bent portion of the spring member, inserting in the knot a collar attaching member connected to the spring member and bending the end of said device to form a collar engaging hook.

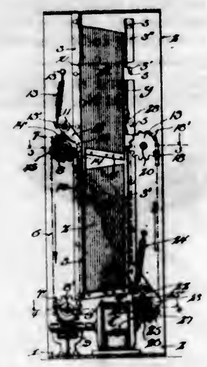
1,136,918. EGG-TURNING DEVICE. ELMER V. ANDERSON, Morristown, Minn. Filed July 22, 1914. Serial No. 852,420. (Cl. 119—44.)



A device for turning eggs in incubators comprising a casing, racks mounted within the casing, rollers journaled in the opposite ends of the racks, driving shafts journaled in opposite ends of the racks and in apertures in the wall of the casing, said racks being supported by the side walls of the casing with a space intervening between the same and the bottom of the latter, sprocket wheels upon said

shafts and the rollers at corresponding ends, sprocket wheels fixed to the ends of the shafts which project outside the casing, rollers pivotally mounted upon the outer face of the casing below and between said sprocket wheels, a driving shaft journaled in suitable bearings underneath the casing, a sprocket wheel upon the driving shaft, a sprocket chain passing about the sprocket wheel upon the projecting ends of the shaft and said rollers and the sprocket wheel upon the driving shaft.

1,136,919. MEANS FOR DISPLAYING CARDS. BERT APPLEBY, Milwaukee, Wis., assignor to Appleby Automatic Sign Company, Milwaukee, Wis. Filed July 27, 1914. Serial No. 853,538. (Cl. 40—79.)



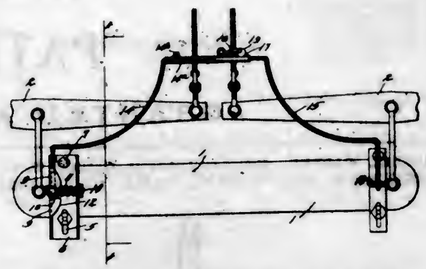
1. A machine for displaying tables comprising upper and lower magazines having bottom supports inclined in opposite directions, an endless carrier mechanism positioned at the front of one of the magazines, a similar endless carrier mechanism positioned at the rear of said magazine, means in connection with the carriers for engaging the outer tables contained in each magazine, and a cam-actuated mechanism for laterally shifting the stacks of tables in opposite directions.

2. A machine for displaying tables comprising upper and lower magazines having bottom supports inclined in opposite directions adapted to receive separate stacks of tables, the bottom support of the upper magazine being arranged to form a throat in communication with the lower magazine, sprocket carried chain belts mounted upon opposite faces of the lower magazine, a motor for driving the chain belts, a finger carried by each chain belt for engagement with the opposite outer tables of each magazine, spring-controlled presser feet for laterally shifting the stacks of tables in opposite directions, actuating cams for the feet, and means carried by the cams for engagement with the chain belts.

3. A machine for displaying tables comprising upper and lower magazines having bottom supports inclined in opposite directions adapted to receive separate stacks of tables, the bottom support of the upper magazine being arranged to form a throat in communication with the lower magazine, paired endless carriers mounted upon opposite faces of the magazines, a motor for driving the pairs of carriers, fingers carried by each pair of carriers for engagement with the opposite outer tables of each magazine, presser feet for laterally shifting the stacks of tables in opposite directions, actuating means for the feet, and means carried by the feet actuating means for engagement with the aforesaid carriers.

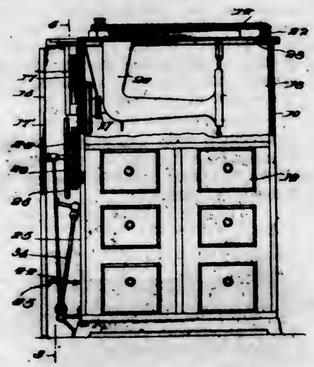
1,136,920. REIN-GUARD. DAVID ANDERSON, Christine, N. D. Filed Dec. 18, 1913. Serial No. 807,548. (Cl. 21—128.)

1. In a rein guard the combination with a doubletree; of guard sections, a tubular member adjustably connecting said sections and a lock for said sections when in inoperative position.



2. In a rein guard the combination with a doubletree, of an adjustable retaining block, a notched lip carried by said retaining block, a spring-pressed guard section pivotally carried by said retaining block capable of releasable locking engagement with the notched portion of said lip and another guard section pivotally secured to said doubletree operatively associated with said first named guard section.

1,136,921. FOLDING SEWING-MACHINE. SARAH E. AVERY, Columbia, S. C. Filed June 18, 1914. Serial No. 845,964. (Cl. 45—27.)



1. A folding sewing machine comprising a cabinet provided with a compartment, a table hingedly supported adjacent one edge of said compartment, a base plate hingedly supported by said edge, a needle operating mechanism arranged on said base plate, the base plate being movable to one position seated upon the table to support the needle operating mechanism in operative position and to another position to dispose the needle operating mechanism within the compartment, a driving mechanism having an operative connection with the needle operating mechanism, said driving mechanism being hingedly supported on the cabinet, said table when folded being disposed parallel with the side wall of the cabinet, and the driving mechanism being housed between the table and the cabinet.

2. A folding sewing machine comprising a cabinet, said cabinet being formed with an extension, a table hingedly mounted on said extension and disposed to assume a position parallel with the adjacent side wall of the cabinet, a base-plate hingedly supported on the cabinet and movable to operative position to rest upon the table, a needle operating mechanism mounted on said base-plate, said cabinet being provided with a compartment disposed to receive the base-plate and needle operating mechanism, and a driving mechanism for the needle operating mechanism hingedly mounted on the cabinet, said table, when folded, being disposed parallel with the adjacent wall of the cabinet, the driving mechanism being disposed between the table and the cabinet, and means for maintaining the table in spaced relation with respect to the cabinet.

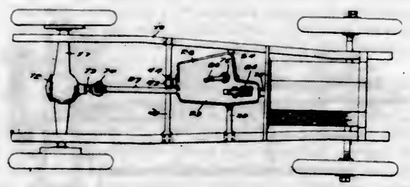
3. A sewing machine comprising a cabinet, a table hingedly supported by the cabinet, means for supporting said table in alinement with the top of the cabinet, a base-plate supported by the cabinet, a needle operating mechanism arranged on said base-plate, the base plate being movable to one position seated upon the table to support the needle operating mechanism in operative position and to another position to dispose the needle operating mechanism within the cabinet, a sheave rotatably supported by the cabinet, a crank disk secured to said sheave, a lever having an operative connection with said crank disk, a treadle hingedly mounted on the cabinet and disposed to actuate said lever to rotate the crank disk, and means for maintaining the table in spaced parallel relation with the adjacent side of the cabinet, the driving mechanism being disposed between said table and cabinet.

4. A folding sewing machine comprising a cabinet, said cabinet being formed at its top with an extension, a table hingedly mounted on said extension, means for supporting said table in alinement with the top of the cabinet, a base-plate hingedly mounted on the cabinet, a needle operating mechanism mounted on said base-plate, the base plate being movable to one position seated upon the table to support the needle operating mechanism in operative position and to another position to dispose the needle operating mechanism within the cabinet, a driving mechanism supported by the cabinet and having an operative connection with the needle operating mechanism, and means for supporting said table parallel with one wall of the cabinet.

5. A folding sewing machine comprising a cabinet, a table hingedly supported at the upper end of said cabinet, a needle actuating mechanism hingedly supported by the cabinet, said mechanism being movable to operative position to rest upon the table and to inoperative position within the cabinet, means for supporting said table in alinement with the top of the cabinet, a driving mechanism for the needle actuating mechanism hingedly mounted on the cabinet, and means for supporting said table parallel with one of the side walls of the cabinet, the driving mechanism being disposed between the table and the cabinet.

[Claims 6 to 8 not printed in the Gazette.]

1,136,922. SHIFTING MULTIPLE-CLUTCH DEVICE. AUBURN BAILEY, Oakland, Cal. Filed July 12, 1914. Serial No. 850,787. (Cl. 74—58.)



1. In a power transmission mechanism, the combination with a driven clutch member, of a driving shaft, a clutch member thereon, a plurality of concentrically arranged clutch members adapted, together with the clutch member of the driving shaft, to co-act with the driven clutch member and movable into selective engagement therewith, and means for transmitting power from any one of the plurality of clutch members to the driving shaft.

2. In a power transmission mechanism, the combination with a driven clutch member, of a driving shaft having a co-acting clutch member, a plurality of jack shafts having clutch members adapted to co-act with the driven clutch member, means for simultaneously revolving the driving shaft and jack shafts to selectively bring their clutch members into engagement with the driven clutch member, and means for transmitting power from the jack shafts to the driving shaft.

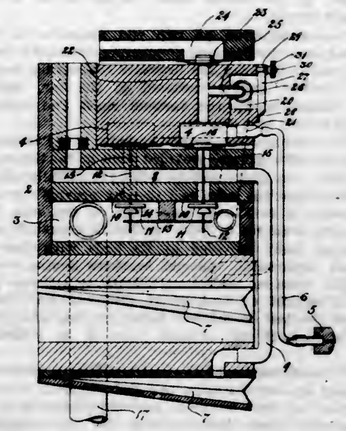
3. In a power transmission mechanism, the combination with a driven clutch member and a driving shaft including a universal joint, of a clutch member carried by the driving shaft to co-act with the driven clutch member, a plurality of jack shafts, co-acting clutch members carried by the jack shafts for engagement with the driven clutch member, supporting means for the driving shaft and jack shafts, means for revolving the supporting means of such shafts to selectively bring the clutch members of such shafts into engagement with the driven clutch member, and means for transmitting power from the jack shafts to the driving shaft.

4. In a power transmission mechanism, the combination with a clutch member and a driving shaft including a universal joint, of a co-acting clutch member carried by the driving shaft, a plurality of jack shafts, co-acting clutch members carried by the jack shafts for engagement with the driven clutch member, means for simultaneously revolving the driving shaft and jack shafts to selectively bring their clutch members into engagement with the driven clutch member, and means for transmitting power from any jack shaft to the driven shaft, said means becoming operative only when the clutch member of such jack shaft is in engagement with the driven clutch member.

5. In a power transmission mechanism, the combination with a clutch member carried by a crank shaft and a driven shaft carrying a universal joint, of a plurality of concentrically arranged shafts radially disposed with respect to the universal joint, one of said shafts being operatively connected to such joint, clutch members carried by all of said concentrically arranged shafts and adapted for engagement with the driven clutch member, and means for bringing any one of such clutch members into engagement with the clutch member of the crank shaft.

[Claims 6 to 13 not printed in the Gazette.]

1,136,923. PNEUMATIC PIANO-PLAYER. HOLDEN P. BALLOU, Hartford, Conn., assignor to Walter S. Schutz, trustee, Hartford, Conn. Filed Jan. 31, 1913. Serial No. 745,360. (Cl. 84—178.)



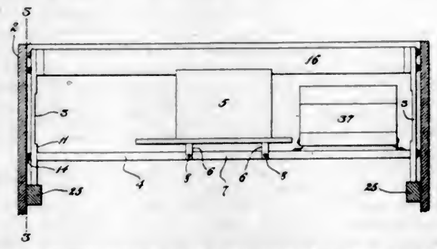
1. A vacuum chest having a vacuum bleed chamber directly therein, bleed openings extending into said vacuum chamber, the latter being open on one side, an air-tight closure for the bleed chamber, and means for holding the closure in place.

2. A vacuum chest having a vacuum bleed chamber directly therein, bleed openings extending into said vac-

uum chamber, the latter being open on one side, an air-tight closure for the bleed chamber, and means for removably holding said closure in place.

3. A vacuum chest having pneumatics, means embodying auxiliary chambers, a tracker in communication with said auxiliary chambers, and diaphragms associated with the respective auxiliary chambers, for controlling said pneumatics, said chest having an exteriorly accessible bleed chamber directly therein, and nipples communicating with the respective auxiliary chambers, extending into said bleed chamber, the forward ends of said nipples having bleed openings.

1,136,924. AUTOMATIC PIANO-PLAYER. HOLDEN P. BALLOU, Hartford, Conn., assignor to Walter S. Schutz, trustee, Hartford, Conn. Filed May 9, 1914. Serial No. 837,419. (Cl. 84—233.)



1. The combination of two end brackets, a vacuum chest supported by and between the end brackets, a bar also supported by and between the end brackets, a roll box supported by the bar, fingers connected with said bar, pneumatics coöperative with the vacuum chest and supported thereby, and operative connections between said pneumatics and fingers.

2. The combination of two end brackets, a vacuum chest between the brackets, tying them together and adjustably connected thereto for adjustment longitudinally of said brackets, a bar between said brackets tying them together and adjustably connected with them for adjustment longitudinally thereof, a roll box supported by the bar, fingers mounted upon the bar, and pneumatics sustained by the vacuum chest and operatively connected with said fingers.

3. The combination of two end brackets, a vacuum chest between the brackets connecting and tying them together, a bar between the brackets connecting and tying them together, fingers mounted on the bar, and pneumatics supported by the vacuum chest and operatively connected with said fingers.

4. The combination of end-brackets, a bar disposed between the end brackets, provided with metal tips equipped with bolts, the end brackets having vertically elongated slots to receive the bolts and thereby provide for vertical adjustment of said cross bar, nuts on the bolts for engaging the brackets to hold the bar in adjusted position, a vacuum chest provided at its ends with face plates equipped with bolts, the end brackets having vertically elongated slots to receive said bolts to thereby provide for the vertical adjustment of said vacuum chest, and nuts on the last mentioned bolts, for engaging the end brackets to hold the vacuum chest in an adjusted position.

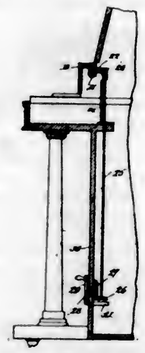
5. The combination of two end brackets, a vacuum chest supported by and between the end brackets, a bar also supported by and between the end brackets, the bar and vacuum chest jointly tying the end brackets together, and a roll box supported by the bar between said bar and the vacuum chest.

[Claims 6 to 8 not printed in the Gazette.]

1,136,925. [WITHDRAWN.]

1,136,926. [WITHDRAWN.]

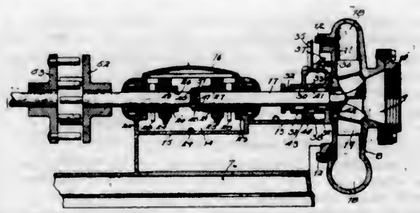
1,136,927. LEAF-TURNING DEVICE. CHARLES J. BENDER, Chicago, Ill. Filed Apr. 20, 1914. Serial No. 833,145. (Cl. 84—17.)



1. A leaf-turning device comprising a support, a spindle carried by the support, a series of swinging arms mounted in superposed relation on the spindle, said arms having hubs through which the spindle passes, and the hubs having teeth, means for connecting the arms to the leaves to be turned, the support having an arcuate opening in which said means swing, a longitudinally slidable bar having teeth which are arranged in stepped relation to correspond to the position of the teeth of the hubs, means for actuating said bar, a slide for covering the aforesaid opening, and a connection between the uppermost arm and the slide for actuating the latter to uncover the opening.

2. A leaf-turning device comprising a support, a spindle carried by the support, a series of swinging arms mounted in superposed relation on the spindle, said arms having hubs through which the spindle passes, and the hubs having teeth, blocks mounted on the outer ends of the arms, sheet supporting strips carried by the blocks and having sheet-engaging fingers, a longitudinally slidable bar having teeth which are arranged in stepped relation to correspond to the position of the teeth of the hubs, and means for actuating said bar.

1,136,928. CENTRIFUGAL PUMP. LARS W. BODINSON, Aurora, Ill., assignor to The American Well Works, Aurora, Ill., a Corporation of Illinois. Filed July 13, 1912. Serial No. 709,131. (Cl. 103—43.)



1. In a centrifugal pump, the combination of a runner chamber, a shaft extending into said chamber, a runner mounted on said shaft, a packing chamber adjacent to the runner chamber and surrounding said shaft, inlet and outlet openings for said packing chamber, and a lantern-ring in said packing chamber opposite said openings.

2. In a centrifugal pump, the combination of a runner chamber, a shaft extending into said chamber, a runner mounted on said shaft, a packing chamber adjacent to the runner chamber and surrounding said shaft, inlet and outlet openings for said packing chamber, a lantern-ring in said packing chamber opposite said openings, and means for causing water to flow into and out of said packing chamber through said lantern-ring.

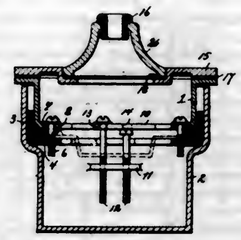
3. In a centrifugal pump, the combination of a runner chamber, a shaft extending into said chamber, a runner mounted on said shaft, a packing chamber adjacent to the runner chamber and surrounding said shaft, inlet and outlet openings for said packing chamber, and means between said openings and the outer end of said packing chamber dividing said chamber into separate compartments.

4. In a centrifugal pump, the combination of a runner chamber, a shaft extending into said chamber, a runner mounted on said shaft, a packing chamber adjacent to the runner chamber and surrounding said shaft, means for dividing said packing chamber into three separate compartments, and inlet and outlet openings for the intermediate compartment.

5. In a centrifugal pump, the combination of a runner chamber, a pump shaft extending thereinto, a runner mounted on said shaft, a packing chamber adjacent to the runner chamber and surrounding said shaft, said packing chamber having inlet and outlet openings, and a pipe for supplying water from the runner chamber to said packing chamber.

[Claims 6 to 8 not printed in the Gazette.]

1,136,929. UNIVERSAL FLOOR-BOX. WILLIAM A. BONNELL, Brooklyn, N. Y., assignor to Fountain Electrical Floor Box Corporation, a Corporation of New York. Filed May 20, 1913. Serial No. 768,728. (Cl. 247—6.)



1. A floor box having two adjustable box body sections, an adjustable clamping ring carried by one of said sections and resilient means carried by said clamping ring, said resilient means interposed between the ring and said sections for connecting said box sections together in their adjusted positions.

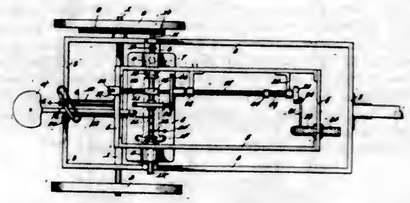
2. A floor box having two adjustable box body sections, one section provided with securing means, an adjustable clamping ring carried by said securing means, and a gasket carried by said ring, said gasket being interposed between the ring and said sections for connecting said box sections together in their adjusted positions.

3. A floor box having two adjustable box body sections, one section being provided with an outwardly projecting flange, at its top edge, and with an inwardly projecting flange at its bottom edge, a clamping ring suspended from said inwardly projecting flange and a gasket carried by said ring and adapted to engage with said sections for firmly securing the sections together in position when properly adjusted.

4. A floor box having two adjustable box body sections, one section being provided with an outwardly projecting flange at its top edge and with an inwardly projecting flange at its bottom edge, a clamping ring carried by said inwardly projecting flange, a strap carrying a switch or fuse plug secured to said clamping ring, a gasket carried by said ring and adapted to engage with said sections for firmly securing the sections together and means for firmly securing the sections and gasket in position when properly adjusted.

5. A floor box having two adjustable box body sections, a clamping ring carried by one of said sections, and a gasket provided with a flat under side and with an outer cylindrical and an inner concave surface, said flat surface adapted to engage with the clamping ring, and the outer cylindrical and inner concaved surfaces adapted to engage with said box body sections, thereby connecting said box sections together and means for firmly securing the sections and gasket in position when properly adjusted.

1,136,930. COTTON-CHOPPING MACHINE. MALICHI C. BREWER, Nashville, Tenn. Filed Apr. 19, 1913. Serial No. 762,316. (Cl. 97—45.)



1. In a cotton chopping machine, a main frame, an operating shaft therefor, a supplemental frame mounted for vertical pivotal movement upon the said operating shaft, a base plate to which the said supplemental frame is secured, the said base plate being pivoted to the said main frame at one side thereof, means carried by the said base plate and engaging the said main frame to limit the pivotal movement of the said supplemental frame, and means carried by the said main frame for laterally and vertically adjusting the said supplemental frame independent of the said main frame, as and for the purpose set forth.

2. In a cotton chopping machine, a main frame, a supplemental frame disposed above the said main frame, a base plate to which the said supplemental frame is secured, an operating shaft carried by the said base plate, the said shaft adapted to form a pivotal support for the said supplemental frame, means carried by the said main frame for vertically adjusting the said supplemental frame upon the pivot formed by the said operating shaft, a stud carried by the said main frame at one side thereof, a bearing for the said stud carried by the said base plate, the said supplemental frame adapted to be pivotally supported by the said stud, means carried by the said base plate and engaging the said main frame for limiting the lateral pivotal movement of the said supplemental frame, and means carried by the said main frame for laterally adjusting said supplemental frame, as and for the purpose set forth.

3. In a cotton chopping machine, a main wheeled frame, a plate member pivotally mounted upon the said main frame, bearings carried by the said plate member, a driven shaft journaled within the said bearings, the said shaft being connected to the wheels of the machine, a depending projection formed upon one of said bearings extending through an opening formed within the said main frame for limiting the pivotal movement of the said plate member, a supplementary frame carried by the said plate member, the said supplementary frame being loosely mounted upon the said driven shaft, means for vertically adjusting the said supplementary frame, and means for laterally adjusting the frame independent of the said vertical adjustment.

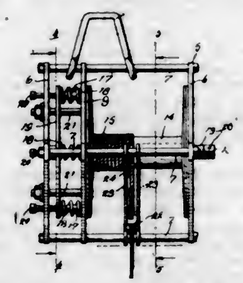
4. In a cotton chopping machine, a main wheeled frame, a brace beam extending transversely of the frame, a plate member pivotally mounted upon the said beam near one end thereof, bearings carried by the said plate at each end thereof, a stud shaft projecting from the said beam into one of the said bearings for pivotally mounting the said plate member, a projection depending from the opposite bearing extending through an arcuate slot formed within the said brace beam for limiting the pivotal movement of the said brace member, a driven shaft journaled within the said bearings, means for imparting motion to the said driven shaft from the wheels of the machine, a supple-

mentary frame loosely mounted upon the said driven shaft, and means for vertically adjusting the said frame.

5. In a cotton chopping machine, a main wheeled frame, a brace beam extending transversely of the said frame, a plate member pivotally mounted upon the said beam, bearings disposed upon each end of the said plate member, a vertically extending stud shaft projecting into one of the said bearings and through the said plate member for pivotally mounting the latter upon the said beam, a dove tail projection depending from the said bearings extending through an arcuate slot formed within the said beam for limiting the movement of the said plate member, sleeves loosely mounted within the said bearings, a driven shaft journaled within the said sleeves of the bearings, means for rotating the said driven shaft according to the rotation of the wheels of the machine, a supplementary frame pivotally mounted upon the said sleeves, and means including a pair of levers arranged upon the said main frame for laterally or vertically adjusting the said supplementary frame.

[Claims 6 to 8 not printed in the Gazette.]

1,136,931. FIRE-ESCAPE. CHARLES A. BRICKEL, Neilsonville, Quebec, Canada. Filed Apr. 21, 1914. Serial No. 833,557. (Cl. 254—154.)



1. A fire escape including a frame, a drum revolubly mounted in said frame, a cable wound on said drum having one end engaged therewith and the opposite end adapted to extend beyond the frame, means for regulating the speed of rotation of said drum including a disk frictionally engaged with one end of the drum having studs extending from one face thereof, elastic elements associated with said studs, a disk engaged with said elastic elements for holding said first mentioned disk in yielding engagement with the drum, and set-screws extending through said frame and having engagement with said second mentioned disk for regulating the tension of said elastic elements for the purpose specified.

2. A fire escape including a frame, a drum revolubly mounted in the frame, a cable one end of which is in connection with said drum and the opposite end adapted for association with a person descending, a friction disk carried by the frame and engageable with one end of the drum, means directly connected with said disk and extending through said frame to hold said disk in a predetermined position for obtaining a minute adjustment of the disk, and means in yieldable connection with said disk, to permit slight movement of the latter when pressure is exerted on the cable for imparting movement to the drum.

1,136,932. TOY BALLOON. FERDINAND F. BRUCKER, Akron, Ohio, assignor to Miller Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Sept. 17, 1914. Serial No. 862,231. (Cl. 46—37.)

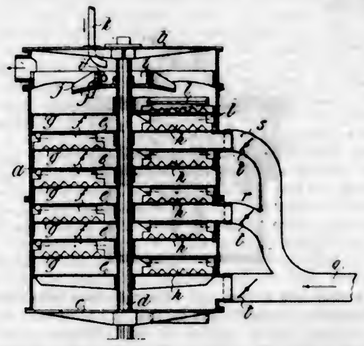
1. A toy balloon having a tubular neck or mouth-piece integral therewith, a conical cup-shaped member adapted to be inserted and retained in said neck, a self-closing valve formed in the inner end of said member, substantially as described.

2. A toy balloon having a tubular neck or mouth-piece, a cup-shaped member having inwardly tapering walls, said member being insertible in said neck piece, a self-closing



valve at the inner closed end of said member and a reinforcing ring surrounding the outer end of said neck or mouth-piece, substantially as described.

1,136,933. DRYING-MACHINE. JOHN MCLEOD CAMERON, Ravenscourt Park, London, England. Filed Apr. 25, 1914. Serial No. 834,495. (Cl. 34—23.)



1. A drying machine comprising in combination a casing or tower, a central rotatable shaft therein, fixed platforms or drying floors on the casing, rotating platforms on the central shaft, said fixed and rotating platforms having radially arranged apertures, and scrapers carried by said platforms for the purpose of controlling the distribution of the material, substantially as described.

2. A drying machine comprising in combination a casing or tower, a central rotatable shaft therein, fixed platforms or drying floors on the casing, rotating platforms on the central shaft, said fixed and rotating platforms having radially arranged apertures located at an intermediate point between the centers and peripheries of the said platforms, scrapers carried by said platforms for the purpose of controlling the distribution of the material and means for controlling the supply of the material to be treated, substantially as described.

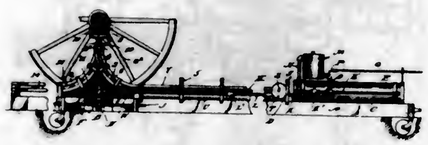
3. A drying machine comprising in combination a casing or tower, a central rotatable shaft therein, fixed platforms or drying floors on the casing, rotating platforms on the central shaft, said fixed and rotating platforms having radially arranged apertures, scrapers carried by said platforms for the purpose of controlling the distribution of the material and means for controlling the supply of the material to be treated, comprising a rotating trough, substantially as described.

4. A drying machine comprising in combination a casing or tower, a central rotatable shaft therein, fixed platforms or drying floors on the casing, rotating platforms on the central shaft, said fixed and rotating platforms having radially arranged apertures, scrapers carried by said platforms for the purpose of controlling the distribution of the material and means for controlling the supply of the material to be treated, comprising a distributing trough adapted to be automatically tipped at intervals to cause it to discharge its contents substantially as described.

5. A drying machine comprising in combination a casing or tower, a central rotatable shaft therein, fixed platforms or drying floors on the casing, rotating platforms on the central shaft, said fixed and rotating platforms having radially arranged apertures, scrapers carried by said platforms for the purpose of controlling the distribution of the material and means for automatically controlling the duration of operation of the scrapers substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,136,934. JACK. JOSEPH E. CAMP, Washington, Ill. Filed Mar. 1, 1911. Serial No. 611,694. (Cl. 254—95.)



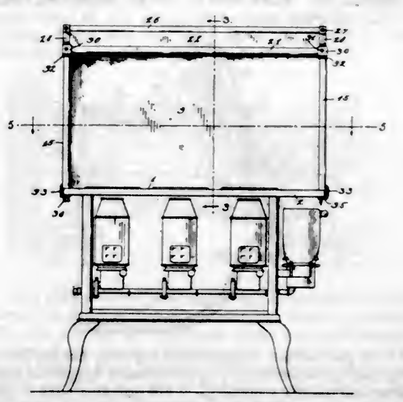
1. In a jack, the combination of a support, a guide or track mounted thereon including an upright portion, a member slidable in said guide comprising a series of pivotally connected portions each including a lateral extension at each end and at one side of the pivot points of said portion, a second guide or track also including an upright portion opposed in position to that of the first said guide, and spaced sidewise therefrom, a member slidable in said guide and made up of a series of pivotally connected portions and each including a lateral extension at each end at one side of the pivot points of said portion, and a stirrup to which one of the portions of each member is pivoted.

2. The combination in a jack, of a support, a guide comprising two spaced track portions reclining thereon and having an upturned end terminating in a substantially upright portion, a member slidable therein comprising a series of pivotally connected portions, rollers carrying the portions, each of the latter having a face at each end forming an abutment, a second guide disposed opposite to the first and having an upturned part terminating in the vicinity of that of the first guide and spaced therefrom; a member slidable in the same and likewise composed of a series of pivotally related portions and each provided with means for limiting the movement of said portions relatively in one direction, and a stirrup to which both said members are connected above the said upturned ends of the guides.

1,136,935. STOVE CONSTRUCTION. LEE S. CHADWICK, Cleveland, Ohio, assignor to The Cleveland Foundry Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 3, 1913. Serial No. 798,840. (Cl. 126—18.)

1. In combination with a stove top, of a back plate rising from the rear edge thereof, end panels rising from the ends of the stove top, a shelf which connects the upper edges of the panels and overlies the upper edge of the back plate, the vertical edges of the panels and the back plate and the adjacent edges of the shelf and the end panels being formed so as to interlock, and a back extension rising from the rear edge of the shelf and having a ledge which bears upon the shelf and its lower edge formed so as to interlock with the engaging edges of the shelf and the back plate.

2. In combination with a stove top, of a back plate rising from the rear edge thereof, end panels rising from the ends of the stove top, a shelf which connects the upper edges of the panels and overlies the upper edge of the back plate, the vertical edges of the panels and the back plate and the adjacent edges of the shelf and the end panels being formed so as to interlock, a back extension rising from the rear edge of the shelf and having a ledge which bears upon the shelf and its lower edge formed so as to interlock with the engaging edges of the shelf and the back plate, and means for detachably connecting the end panels to the stove top.



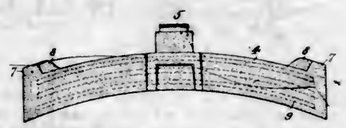
3. As a new article of manufacture, an attachment for stoves of the "stand" type, the attachment comprising, in combination, a back plate having a flange which is spaced from its lower edge and arranged to overlie the rear edge of the stove top, end panels having flanges spaced from their lower edges and adapted to overlie the ends of the stove top, and means for detachably connecting the lower edges of the end panels to the stove top.

4. As a new article of manufacture, an attachment for stoves of the "stand" type having a top with a depending skirt, the attachment comprising, in combination, a back plate having a flange which is spaced from its lower edge and arranged to overlie the rear edge of the stove top, end panels having flanges spaced from their lower edges and adapted to overlie the ends of the stove top, and means for detachably connecting the lower edge of the back plate to the adjacent portion of the skirt of the stove top, and means for detachably connecting the end panels to the stove top.

5. As a new article of manufacture, an attachment for stoves of the "stand" type comprising, in combination, end panels having their lower edges bent inwardly and upwardly against their body portions and then forwardly at right angles thereto to form flanges which are adapted to rest upon the ends of the stove top, a member depending from the lower end of each of the end panels and extending inwardly beneath the stove top where it is provided with a threaded aperture, and a screw in said aperture which is adapted to bear against the underneath surface of the stove top.

[Claims 6 to 16 not printed in the Gazette.]

1,136,936. BRAKE-SHOE. GARDINER W. CHIPLEY, Los Angeles, Cal. Filed Aug. 5, 1914. Serial No. 855,129. (Cl. 188—29.)



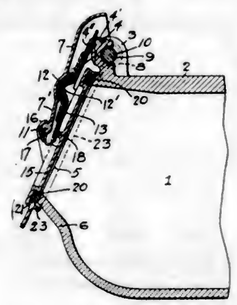
1. A brake shoe the major portion of which is constructed of hydraulic cement.

2. A brake shoe constructed of reinforced hydraulic cement.

3. A brake shoe the body of which is constructed of cement and containing a metal reinforcement.

4. A brake shoe made of cement and sand, and the body of which contains a plurality of layers of expanded metal.

1,136,937. JOURNAL-BOX. ANDREW CHRISTIANSON, Butler, Pa. Filed Feb. 10, 1911. Serial No. 607,861. (Cl. 64—23.)

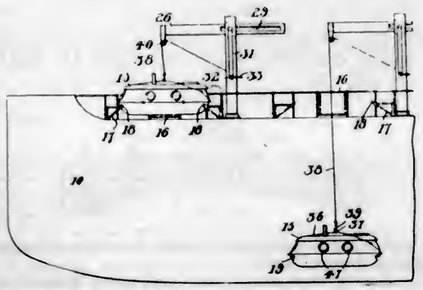


1. A journal box comprising a box body having an opening, and provided with a cover member hinged to the box body, and having a pivot pin, a lid provided with a hooked member beneath which said pin engages, and a spring having one end bearing on said box body, its intermediate portion bearing on said cover member, and its opposite end bearing on the lid beneath said hooked member to maintain said pivot pin within said hooked member, and force said lid into mating fit at all points with said box body around said opening.

2. A journal box comprising a box body having an opening and a bearing lug adjacent thereto, a cover member hinged to said bearing lug, a lid having a pivot connection with said cover member, and a spring bearing at a point intermediate its ends on said cover member, and having one end bearing on said bearing lug, and having its opposite end bearing on said lid beneath the pivotal connection thereof with said cover member.

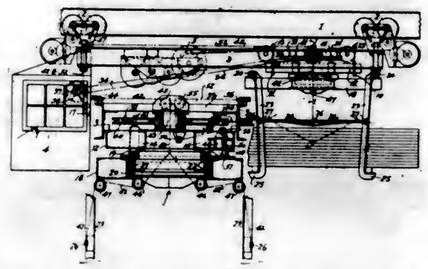
3. A journal box comprising a box body having an opening, a cover member of hollow form hinged adjacent thereto, said box body having a bearing lug arranged above said opening, said cover member having a centrally arranged spring pocket and having a pivot pin below the same, a lid having a hooked portion within which said pivot pin engages, and a spring bearing upon said bearing lug and upon the under side of said cover member, and upon said lid at a point beneath the pivotal point thereof with said cover member.

1,136,938. LIFE-BOAT AND LAUNCHING-DAVIT THEREFOR. MIKLOS CHUPKA, Johnstown, Pa. Filed Nov. 10, 1914. Serial No. 871,274. (Cl. 9—22.)



A device of the class described comprising in combination with the deck of a vessel, a railing arranged adjacent the gunwale portion thereof and formed into spaced inclosures having open outer sides, and with hinged sections at their inner sides, life-boat mounting brackets substantially triangular in side elevation and having upwardly and inwardly projecting flanges and oppositely mounted upon the railing at the ends of said inclosure for supporting a life boat.

1,136,939. HOISTING AND CONVEYING MACHINE. MARK R. COLBY, Portland, Oreg., and JAMES STEWART, Cleveland, Ohio, assignors to The Brown Hoisting Machinery Company, Cleveland, Ohio, a Corporation. Filed Oct. 1, 1914. Serial No. 864,415. (Cl. 212—127.)



1. In a hoisting and conveying machine, the combination with an overhead trolley provided with a horizontal sheave mounted on an axle and containing an annular series of grappling engagement holes, a lifting-head connected with the trolley, a grapple having a swivel connection with said head, a sheave-engaging bolt on said grapple in line with the path of rotation of said holes and extending upwardly through said head, suitable means for raising and lowering said head and grapple with relation to the trolley, and means for rotating said sheave, substantially as shown and described.

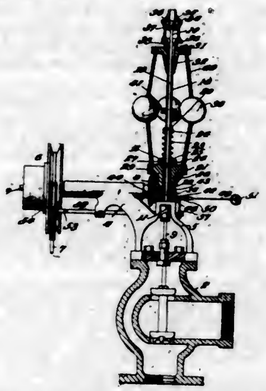
2. In a hoisting and conveying machine, the combination, with an overhead trolley, of a hoisting-drum, a lifting head, having an open space therein, connected with said drum by cables from a plurality of diametric points on the same, and provided with a central bearing-ring, a grapple comprising a frame with a bearing-ring, forming with the other ring a swivel connection between said head and grapple, hooks pivotally connected to said frame, and a sheave on said trolley, having annularly arranged holes therein, said sheave being horizontally mounted on the trolley; an upright locking-bolt on said grapple in line with the path of rotation of said holes and extending through said open space, together with suitable means for rotating said horizontal sheave around its said axle, substantially as shown and described.

3. In a hoisting and conveying machine, the combination, with an overhead trolley, of a hoisting-drum, a lifting head, having an open space therein, connected with said drum by cables from a plurality of diametric points on the same, and provided with a central bearing-ring, a grapple comprising a frame with a bearing-ring, forming with the other ring a swivel connection between said head and grapple, hooks pivotally connected to said frame; a sheave on said trolley, having annularly arranged holes therein, said sheave being horizontally mounted on the trolley, a hollow axle in vertical alinement with said rings; an upright locking-bolt on said grapple in line with the path of rotation of said holes and extending through said open space, a hook-operating connection passing through said rings and hollow axle, together with suitable means for rotating said horizontal sheave around its said axle, substantially as shown and described.

4. In a hoisting and conveying machine, the combination, with an overhead trolley, of a hoisting-drum, a lifting head having an open space therein, connected with said drum by cables from a plurality of diametric points on the same, a grapple-frame, having a swivel connection with said head, and hook-arms pivotally connected thereto on

lines in a horizontal plane and at predetermined angles with respect to a transverse vertical plane through said frame, a sheave on said trolley, having annularly arranged holes therein, said sheave being horizontally mounted on the trolley, an upright locking-bolt on the grapple-frame in line with the path of rotation of the holes and extending through said open space, together with suitable means for rotating said horizontal sheaves, substantially as shown and described.

1,136,940. ADJUSTABLE GOVERNOR FOR ENGINES. ELISHA CRAFT, Wellsburg, W. Va. Filed June 27, 1914. Serial No. 847,785. (Cl. 121—112.)



1. A governor of the character described including a driving gear, a driven gear, governor weights operatively connected to the driven gear, a valve rod controlled by said governor weights and means for shifting the gears relative to each other to thereby connect or disconnect said gears.

2. A governor of the character described including a driving shaft, a gear wheel mounted thereon, a driven gear wheel, governor weights operatively connected to the driven gear wheel to rotate therewith, a valve rod operatively connected to and controlled by the governor weights, and means for shifting the gear wheels into or out of engagement with each other.

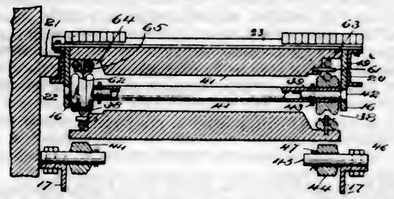
3. A governor of the character described including a driving shaft, a beveled gear wheel mounted thereon, a driven beveled gear wheel, a rotatable element to which the driven beveled gear wheel is connected, governor weights operatively connected to said element, a valve rod operatively connected to and controlled by said governor weights, and means for shifting said element to carry the gear wheel coacting therewith into or out of mesh with the driving gear wheel.

4. A governor of the character described including a driving shaft, a beveled gear wheel mounted thereon, a driven beveled gear wheel, a rotatable element operatively connected to the driven gear wheel to rotate therewith, governor weights connected to the rotatable element, a valve rod operatively connected to the governor weights and controlled thereby, resilient means for urging the rotatable element toward the driving beveled gear wheel, and means for shifting the rotatable element against the force of the resilient means to thereby carry the driven gear wheel out of mesh with the driving gear wheel.

5. In a governor of the character described, a valve, a valve-rod, upper and lower rotatable elements, the upper rotatable element controlling the movements of the valve-rod, governor mechanism connecting the upper and lower rotatable elements and controlling the movements of the upper rotatable member, a rotary element splined to the lower rotatable element and having a limited longitudinal movement thereon, and means for moving the lower rotatable element within certain limits independently of the rotary element for adjustment of the valve, or to move both the lower rotatable and the rotary elements together to throw the governor mechanism out of action.

[Claims 6 to 14 not printed in the Gazette.]

1,136,941. CHAIN-GRATE MECHANISM. PAUL L. CROWE, Jersey City, N. J., and AARON FRANKENHEIM, New York, N. Y.; said Frankenheim assignor to said Crowe. Filed Nov. 4, 1907. Serial No. 400,722. (Cl. 110—40.)



1. In a device of the class described, a furnace structure formed with a ledge projecting inwardly from the surface of the wall thereof, a supporting frame arranged therein, the sides of the frame abutting such ledge, whereby the frame is spaced from the wall of the structure, means for pivotally mounting one end of the frame, standards mounted adjacent the opposite end of the frame, grate supporting devices carried by the frame and by said standards, bars carried by the sides of the frame and overlapping the ledge, and a traveling grate carried by the grate supporting devices, the surface of such grate being disposed above the surface of the ledge providing an open ash receptacle above such ledge and alongside the grate.

2. In a device of the class described, a furnace structure having a ledge projecting inwardly from the surface of the wall thereof, a frame mounted within the structure, and abutting the edge of the ledge, a grate supported within the frame, the surface of the grate being disposed above the upper surface of the ledge whereby an open ash receptacle is formed above such ledge, and alongside the grate, bars carried by the sides of the frame and overlapping said ledge, an angle bar extending transversely of the frame and connected with opposite sides thereof, said angle bar being secured to the bars overlapping the ledge.

3. In a device of the class described, a supporting frame, means for pivotally mounting one end of the frame within a furnace structure, standards vertically and laterally adjustably mounted adjacent the opposite end of the frame and without the furnace structure, a transverse horizontal shaft carried by the standards and supported independently of the frame, a hub for said shaft, portions of one end of the frame being arranged to rest on said hub, sprocket wheels carried by the shaft, plate supporting devices mounted in the opposite end of the frame, a traveling grate arranged to have motion imparted thereto by said shaft and sprocket wheels, hollow shafts mounted between the members of the frame, idler wheels carried at the ends of the hollow shafts for supporting the traveling grate at points intermediate of the ends, and means whereby either wheel of each shaft may be detached independently of the other, said means including pins projecting into the ends of the hollow shafts and secured to the latter and to the frame.

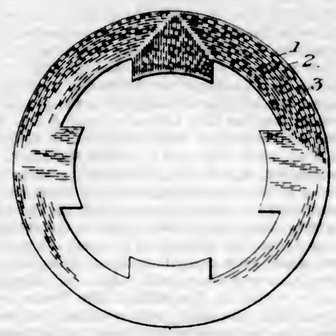
4. In a device of the class described, a supporting frame, means for pivotally mounting one end of the frame within a furnace structure, standards vertically and laterally adjustably mounted adjacent the opposite end of the frame and without the furnace structure, a transverse horizontal shaft carried by the standards and supported independently of the frame, a hub for said shaft, portions of one end of the frame being arranged to rest on said hub, sprocket wheels carried by the shaft, grate supporting devices mounted in the opposite end of the frame, and a traveling grate arranged to have motion imparted thereto by said shaft and sprocket wheels, an engaging device on

one of the standards, a dumping member mounted at one end of the traveling grate, a rod connected with such member and arranged to be held against displacement by such engaging device, an angle bar extending transversely of the grate adjacent to the dumping member, and a plurality of bridge members slidable transversely thereof, and rigidly secured against movement at an angle to such transverse movement.

5. In a device of the class described, a frame, a traveling grate mounted therein, a bridge extending transversely of the grate near one end thereof, said bridge consisting of a plurality of bars and upper edges of which extend in a continuous curve whereby the movement of the material thereover is rendered uniform, said bars each provided with an L-shaped slot, and a laterally projecting lug arranged to engage a corresponding aperture in an adjoining bar, and an angle bar arranged transversely of the frame, such L-shaped slots in the bridge bars engaging the angle bar.

[Claims 6 to 9 not printed in the Gazette.]

1,136,942. LAMINATED CORE FOR ELECTRICAL APPARATUS. ELISHA B. CUTTEN, Erie, Pa., assignor of three-fourths to United States Horse Shoe Co., Erie, Pa., a Corporation of Pennsylvania. Filed Sept. 23, 1913. Serial No. 791,304. (Cl. 171—252.)



1. The method of constructing laminated cores for electrical apparatus which consists in forming sheets of metal to the required shape, slitting the sheets at a multiplicity of points the slits being substantially parallel with the lines of magnetic flux, and superposing and compressing said slitted sheets to form the core.

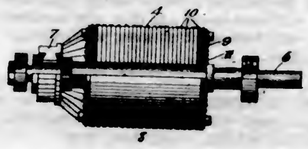
2. The method of constructing laminated cores for electrical apparatus which consists in forming sheets of metal to the required shape, interrupting the continuity of the sheets by closely arranged rows of narrow slits the slits of adjacent rows being disposed in staggered relation and the several rows being substantially parallel with the lines of magnetic flux in the core, and securing said sheets together in stacks of desired thickness under pressure and by means of a suitable cement.

3. A magnetic core for electrical apparatus comprising superposed flat plates or laminæ with open centers, each lamina being provided with a multiplicity of closely arranged narrow slits piercing the body thereof and running substantially parallel with the lines of magnetic flux in the core.

4. A plate or lamina for cores of electrical apparatus provided with a multiplicity of closely spaced rows of narrow slits piercing the body thereof the slits of adjacent rows being arranged in staggered relation.

5. A core for electrical apparatus comprising a superposed series of thin sheets of magnetic material secured together by cement under pressure, each sheet being provided with a multiplicity of rows of narrow slits piercing the body thereof the slits of adjacent rows being arranged in staggered relation.

1,136,943. DYNAMO-ELECTRIC MACHINE. ELISHA B. CUTTEN, Erie, Pa., assignor of three-fourths to United States Horse Shoe Co., Erie, Pa., a Corporation of Pennsylvania. Filed Sept. 27, 1913. Serial No. 792,118. (Cl. 171—206.)



1. The method of making laminated cores for electrical apparatus, which consists in forming each individual lamina of closely wound convolutions of iron ribbon, and assembling a series of laminæ so formed in closely juxta-posed relation.

2. The method of making laminated cores for electrical apparatus, which consists in forming each individual lamina of closely wound convolutions of slitted iron ribbon, and assembling a series of laminæ so formed in closely juxta-posed relation.

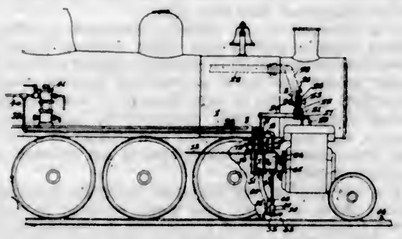
3. The method of making laminated cores for electrical apparatus, which consists in laterally slitting iron ribbon forming each individual lamina of closely wound convolutions of such laterally slitted iron ribbon, and assembling a series of laminæ so formed in closely juxta-posed relation.

4. The method of making laminated cores for electrical apparatus, which consists in slitting the opposite edges of iron ribbon in staggered relation, forming each individual lamina of closely wound convolutions of such slitted iron ribbon, and assembling a series of laminæ so formed in closely juxta-posed relation.

5. The method of making laminated cores for electrical apparatus, which consists in laterally slitting filamentary iron, forming individual laminæ of closely wound convolutions of such filamentary iron, juxta-posing a series of laminæ so formed, and uniting the same by pressure and a suitable binding agent.

[Claims 6 to 9 not printed in the Gazette.]

1,136,944. AUTOMATIC TRAIN-STOP. CHARLES A. EIB, New Brunswick, N. J. Filed Oct. 8, 1913. Serial No. 794,107. (Cl. 246—59.)



1. In an automatic train stop, the combination with a locomotive, of a steam controlling valve mounted in the main steam conduit of the locomotive at a point between the throttle valve and the cylinders for cutting off the steam, a cylinder located beneath the locomotive and having a piston, lever connections between the piston and the steam valve, a reciprocatory valve mounted on the cylinder and having a depending vertical stem, and a shoe connected to the stem and arranged to be operated by a track device.

2. In an automatic train stop, the combination with a locomotive, of a steam controlling valve mounted in the main conduit of the locomotive at a point between the throttle valve and the steam cylinders for cutting off the steam, a vertical cylinder located beneath the locomotive and having a vertically movable piston, mechanical means

for connecting the piston with the steam controlling valve for actuating the latter, a vertically movable reciprocatory valve mounted on the cylinder and having a depending stem, and a shoe connected to the stem and arranged to be actuated by a track device.

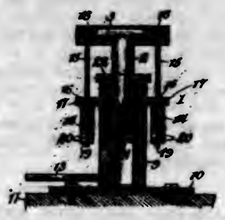
3. In an automatic train stop, the combination with a locomotive having a main steam conduit provided with branches extending to opposite sides of the locomotive, of steam controlling valves mounted in the said branches and located at points between the throttle valve and the cylinders, said valves being provided with means extending across the locomotive for connecting them and causing the valves to operate in unison, an arm connected with one of the valves, a bell crank lever fulcrumed at its angle and having one of its arms connected to the arm of the valve, a cylinder having a piston connected with the other arm of the bell crank lever, a track device, and means carried by the locomotive and arranged in the path of and adapted to be actuated by the track device for controlling the flow of fluid pressure to and from the last-mentioned cylinder.

4. In an automatic train stop, the combination with a locomotive, of a steam controlling valve mounted in the main steam conduit of the locomotive at a point beyond the throttle valve, a vertical cylinder carried by the locomotive and located beneath the boiler and having a piston, a transverse lever fulcrumed at an intermediate point and connected at its inner end with the piston, a bell crank lever arranged at one side of the locomotive and having an arm connected with the steam controlling valve, means for connecting the other arm of the bell crank lever with the outer arm of the transverse lever, a track device, and means carried by the locomotive and arranged in the path of and adapted to be actuated by the track device for controlling the flow of fluid pressure to and from the cylinder.

5. In an automatic train stop, the combination with a locomotive, of a steam controlling valve mounted in the main steam conduit of the locomotive at a point beyond the throttle valve, a cylinder located beneath the locomotive and having a piston connected with the steam controlling valve for actuating the same, a reciprocatory valve mounted on the cylinder and having a depending stem, and a curved shoe pivotally mounted at one end and connected to the valve stem, said shoe presenting a lower convex face and adapted to be actuated by a track device.

[Claims 6 to 10 not printed in the Gazette.]

1,136,945. TRACK DEVICE FOR AUTOMATIC TRAIN-STOPS. CHARLES A. EIB, New Brunswick, N. J. Original application filed Oct. 8, 1913, Serial No. 794,107. Divided and this application filed Aug. 3, 1914. Serial No. 854,753. (Cl. 246—59.)



1. A track device of the class described comprising a fluid pressure cylinder, a plunger operating in the cylinder and movable upwardly and downwardly, a spring arranged exteriorly of the cylinder, and means also arranged exteriorly of the cylinder for connecting the spring with the plunger for moving the same downwardly.

2. A track device of the class described comprising a fluid pressure cylinder, a plunger operating in the cylinder and movable upwardly and downwardly, said plunger being provided with a cross head, rods located at opposite sides of the plunger and connected with the cross head, and springs mounted on the rods and arranged to urge the plunger downwardly.

3. A track device of the class described comprising a fluid pressure cylinder provided with projecting guiding arms, a plunger operating in the cylinder and movable upwardly and downwardly, rods connected with the plunger and guided by the said arms, and springs mounted on the rods and arranged to be compressed against the guiding arms in the upward movement of the plunger, said springs operating to urge the plunger downwardly.

4. A track device of the class described including a fluid pressure cylinder provided with projecting guiding arms, a plunger operating in the cylinder and provided with a cross head located above the said arms, vertically movable rods secured at their upper ends to the cross head and guided by the said arms, and springs disposed on the lower portions of the rods below the guiding arms and arranged to be compressed in the upward movement of the plunger.

5. A track device of the class described including a vertical fluid pressure cylinder provided at the upper portion with horizontal projecting arms having openings, a plunger operating in the cylinder and provided at the upper end with a laterally projecting cross head, vertical rods secured at their upper ends to the projecting portions of the cross head, and guided in the openings of the said arms, said rods having lower threaded portions, nuts arranged on the lower threaded portions of the rods, and coiled springs disposed on the rods and interposed between the nuts and the arms and adapted to urge the plunger downwardly.

[Claim 6 not printed in the Gazette.]

1,136,946. PUMP. WILLIAM B. ERB, Chicago, Ill. Filed Oct. 2, 1913. Serial No. 792,954. (Cl. 103—54.)



1. In a pump, in combination with a pump piston and a cylinder in which it reciprocates, a by-pass from a lower to a higher point on the cylinder chamber around a certain position if the piston therein at the upper part of its stroke; a hollow piston stem opening into the cylinder below the piston; a source of compressed air and means for alternately admitting it to and excluding it from the piston stem, said means comprising a valve which is operated by the compressed air, and devices operated by the up-and-down movement of the piston stem for unbalancing the air pressure on said valve oppositely at opposite stakes of the piston stem's movement.

2. In combination with a pump piston and a cylinder in which it reciprocates, a by-pass from a lower to a higher point of the cylinder chamber around a certain position of the piston therein at the upper part of its stroke; a source of compressed air; a passage leading from the piston chamber below the piston to said compressed air source; a device for controlling communication through said passage; a valve operated by the piston for controlling said passage at a point intermediate the first-men-

tioned controlling device and the pump cylinder; an auxiliary passage not controlled by the last-mentioned valve connecting the previously-mentioned passage with the first-mentioned controlling device, and valve operated by the piston at opposite stages of its stroke for controlling the communication of said auxiliary passage with said first-mentioned controlling device.

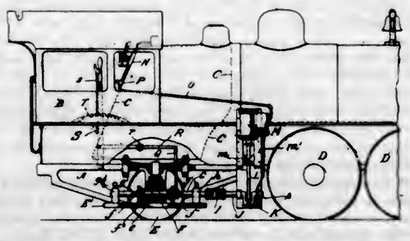
3. In combination with a pump piston and a pump cylinder in which it reciprocates, an up-lead pipe connected to the upper end and leading to a discharge; a check valve in the up-lead pipe opening dischargeward; a by-pass from a lower to a higher point of the cylinder chamber around a certain position of the piston therein at the upper part of its stroke; a hollow piston stem opening into the cylinder below the piston; a source of compressed air and means for alternately admitting it to and releasing it from the piston stem, said means comprising a valve which is operated by the compressed air, and devices operated by the up-and-down movement of the piston stem for unbalancing the air pressure on said valve oppositely at opposite stages of the movement of the piston stem.

4. In combination with a well tube or casing, a pump cylinder supported within the casing and positioned therein to afford water space between it and the casing wall; a check valve at the foot of the casing admitting water to said water space; a piston mounted for reciprocation in the cylinder, the latter having communication with said water space near the upper limit of the piston's stroke in the cylinder, and also at its upper part below the piston's position at said limit, whereby a by-pass is formed around the piston at said position; a hollow piston stem opening into the pump cylinder below the piston; a source of compressed air and means for alternately admitting it to and releasing it from the piston stem, said means comprising a valve which is operated by the compressed air, and devices operated by the up-and-down movement of the piston stem for unbalancing the air pressure on said valve oppositely at the opposite stages of the piston's movement.

5. In combination with a pump piston and a pump cylinder in which it reciprocates, a by-pass from a lower to a higher point of the cylinder chamber around a certain position of the piston therein at the upper part of its stroke; a hollow piston stem opening into the cylinder below the piston; a source of compressed air and means for alternately admitting it to and releasing it from the piston stem; said means comprising a piston valve and its chamber provided with means for communicating with the source of compressed air adapted to admit balanced pressure to the valve, passages affording communication from the pump piston chamber below the piston to the piston valve chamber at opposite sides of the valve therein, and means by which the pump piston stem opens said communications alternately at opposite stages of its stroke.

[Claims 6 to 16 not printed in the Gazette.]

1,136,947. LOCOMOTIVE. WHEELON C. EVANS, Mount Herman, La. Filed Oct. 2, 1914. Serial No. 864,600. (Cl. 105—99.)



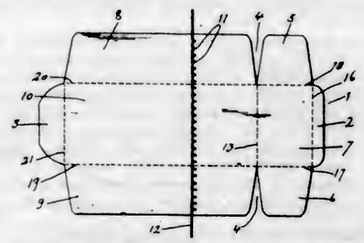
1. A locomotive, having the main driving wheels below the boiler forward of the fire box, a trailer under the fire box and sustaining the weight thereof, and the wheels and axle of which are mounted to shift laterally when taking a curve, an auxiliary engine attached to the boiler, gearing connecting said engine with the trailer axle, and a flexible joint in said connection.

2. A locomotive, having the main driving wheels under the boiler forward of the fire box, a trailer under the fire box and sustaining the weight thereof, and the wheels and axle of which are mounted to shift laterally when taking a curve, an auxiliary engine attached to the boiler near the front of the fire box, gearing connecting said auxiliary engine with the trailer axle, and a flexible joint in said connection.

3. A locomotive, having the main driving wheels beneath the boiler forward of the fire box, a trailer under the fire box and sustaining the weight therein at the wheels and axle of which are mounted to shift laterally when taking a curve, an auxiliary engine attached to the boiler, a shaft carrying gear wheels for driving the trailer axle, another shaft operatively connected with the auxiliary engine, and a flexible connection between said shafts.

4. A locomotive, having the main driving wheels beneath the boiler forward of the fire box, a trailer under the fire box and sustaining the weight thereof and the wheels and axle of which are mounted to shift laterally when taking a curve, an auxiliary engine attached to the boiler, gearing connecting said auxiliary engine with the trailer axle, a flexible joint in said connection, an operating lever, a vertically arranged lever for shifting the gears, a connecting rod between said vertically arranged lever and said operating lever, and a flexible joint in said connecting rod.

1,136,948. MONEY-TRANSMITTING ENVELOP. WILLIAM P. FAULKNER, Kansas City, Mo. Filed July 10, 1914. Serial No. 850,162. (Cl. 229—69.)

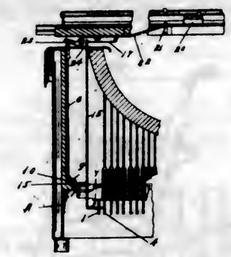


A money transmitting envelop consisting of an oblong sheet of suitable fabric having a portion thereof separately provided with oppositely disposed overlapping side flaps and with an end flap adapted to overlap the outer ends of said side flaps and thereby forming an envelop, the remaining portion of the sheet being separately provided with oppositely disposed overlapping and united side flaps and with an end flap which overlaps the outer ends of said overlapping side flaps and is united therewith, said side flaps forming the side and said end flap the bottom of a pocket adapted to fold forwardly at its open end and lie within said envelop portion, said envelop portion having a crosswise extending line of perforations traversing the body and said side flaps, and a cable secured on the inner sides of the envelop portion and extending along said perforations and adapted for totally separating the envelop at said perforations.

1,136,949. LINE-END INDICATOR AND LOCK FOR TYPE-WRITERS. JOHN R. FREE, Salt Lake City, Utah. Filed May 3, 1913. Serial No. 765,388. (Cl. 197—110.)

1. In a typewriting machine the combination of a marginal stop; a crank-arm movable thereby; a horizontally disposed bar pivoted on said crank-arm; a vertical rod; a bell crank lever connecting said bar and rod; a space-key lever; a vertically extended lug on said space key lever having an open cut on its front edge; and a lock bar adapted to engage in said open cut when moved into a contiguous position.

2. In a typewriting machine the combination of a carriage; a lock bar moved laterally by the travel of said carriage after a predetermined point is reached; a space key lever having a portion thereof formed to hold said lock bar against said lateral movement and to allow said lateral movement when said space key lever is operated.



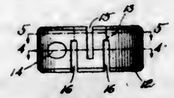
3. A typewriting machine consisting of a carriage; a lock bar adapted to be moved by the travel of said carriage after a predetermined point is reached; a space key lever having a lug thereon adapted to prevent said movement of said lock bar when in normal position and to allow said movement when the space key is operated.

4. A typewriting machine consisting of a carriage; a lock bar adapted to be moved by the travel of said carriage after a predetermined point is reached; a space key lever having a member attached thereto adapted to prevent said movement of said lock bar when said space key lever is in normal position and to allow said movement when the space key is operated.

5. In a typewriting machine the combination of a marginal stop; a crank arm movable thereby; a horizontally disposed bar pivoted to said crank arm; a bell crank lever connected with said bar; a space key lever; a vertical rod connected with said space key lever, and a spring adapted to resist the action of said lever when said crank is contacted by said marginal stop.

[Claim 6 not printed in the Gazette.]

1,136,950. HAIR-SPRING COLLET FOR WATCHES. JACOB FREISTADTER, Waltham, Mass. Filed Oct. 7, 1914. Serial No. 865,474. (Cl. 58—115.)



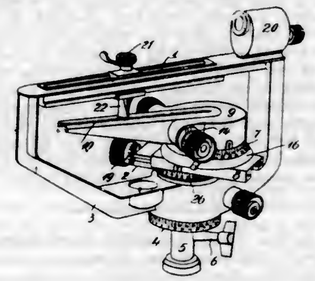
1. A hair spring collet having a staff-receiving bore formed to entirely surround the collet-engaging portion of a balance staff, whereby the collet is poised, said bore being self-conforming from end to end to said portion.

2. A hair spring collet having a staff-receiving bore formed to entirely surround the collet-engaging portion of a balance staff, whereby the collet is poised, said bore being non-continuous at both end portions whereby it is adapted to conform either to a taper or to slight irregularities of said portion.

3. A poised continous hair spring collet slotted partly across from opposite sides, said slots intersecting the wall of the staff-receiving bore of the collet, and rendering said wall self-conforming to the collet-engaging portion of a balance staff.

1,136,951. SURVEYING INSTRUMENT. MAX GIESECKE, New York, N. Y., assignor to the Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed July 20, 1910. Serial No. 572,814. (Cl. 33—46.)

1. A surveying instrument for ascertaining an inaccessible side of a triangle of which the base is known and of which one side is known either approximately or absolutely, comprising three rules arranged for adjustment with relation to each other so as to form a triangle similar to the triangle the inaccessible side of which is to be determined, pivotal mountings for the first rule, corresponding to the base of such triangle, and for the second rule, corresponding to the approximately or absolutely known side of the triangle, such mountings having a common axis, a telescope sighting device mounted directly upon the second rule, the third rule having with the first rule a pivotal connection adjustable longitudinally along such first rule, such pivotal connection of the third rule comprising angle measuring means for measuring the angle between the first and third rules; whereby the distance between the points of pivotal connection of the second and third rules, to the first rule, may be adjusted according to the known length of the base of the triangle; the second and third rules being provided, the one with an index movable along its rule, and the other with a scale adapted for coaction with such index.



2. A surveying instrument comprising in combination a rule member, an angle measurer mounted thereon and slidable thereon in the direction of the rule of said rule member, and provided with a rotatable part, a second rule mounted on such rotatable part and a frame rotatably related with respect to the first mentioned rule member, and inclosing said rule member and the angle measurer carried thereby, said frame provided with a third rule and with a sighting device.

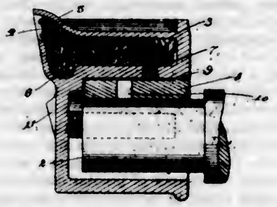
3. A surveying instrument comprising a rule member, an angle measurer mounted thereon and slidable in the direction of the rule of said rule member and comprising a rotatable part, a second rule carried by the said rotatable part of said angle measurer, and a frame provided with a third rule and with a sighting device, said frame mounted rotatably on the first mentioned rule member, and a gear connection between said first mentioned rule member and the said frame.

4. A surveying instrument comprising two pivotally mounted rules having a common axis of rotation, and rotatable independently, a slide mounted for movement on one of said rules, an index movably mounted on the other of said rules, a third rule pivotally connected to said slide, and means for determining the angular position of such third rule with respect to the slide, said third rule provided with a scale adapted to coact with the said index, said third rule having no direct mechanical connection with said index or with the rule carrying such index.

5. A surveying instrument comprising in combination three rules, two of which are pivotally mounted with the same axis of rotation and are movable independently of each other, a slide adjustable along one said rule by distances proportional to one of two sides of a triangle, an index adjustable on the other rule to distances proportional to another side of a triangle, the third rule pivotally mounted on said slide and provided with a scale adapted for coaction with said index, and means for determining the varying angular position of said third rule with respect to said slide, said third rule having no direct mechanical connection with said index or with the rule carrying such index.

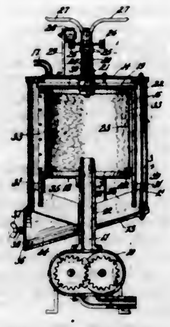
[Claims 6 to 12 not printed in the Gazette.]

1,136,952. AXLE-BOX. JOHN J. GILROY, Pittston, Pa. Filed Sept. 3, 1913. Serial No. 787,965. (Cl. 64—24.)



An axle box formed with an oil reservoir in its upper portion, a bearing block operative within the box and arranged beneath the reservoir, said bearing block having a shallow recess to receive oil from the reservoir, an opening leading from the recess to deliver oil therein to the axle, packing receiving chambers arranged on opposite sides of the bearing block and terminating adjacent the axle, the bearing block having the lateral channels in the upper and side surfaces thereof leading from the recess in said block to the packing chamber, said bearing block having forwardly extending channels communicating with the recess in said block and leading to the axle, the forward wall of the box being formed with packing receiving openings immediately adjacent the axle bearing plane and below normal position of the bearing block.

1,136,953. SELF-CLEANING DUST-SEPARATOR. FRIEDRICH GRAFFENBERGER, Milwaukee, Wis. Filed Jan. 17, 1910. Serial No. 538,407. (Cl. 83—47.)



1. In a dust separator, comprising a casing, a stem slidably and rotatably mounted in the casing, a flexible screen contained within the casing and supported by the stem, means for turning the stem, an arm fixed on the stem, a scraper blade attached thereto for scraping the flexible screen, and means depending on the rotary motion of the stem for producing a reciprocating motion thereof.

2. A dust separator, comprising a casing, a stem slidably and rotatably mounted therein, a flexible screen within the casing supported by the stem, an arm fixed on the stem, a scraper blade carried thereby for scraping the flexible screen, a spring means for holding the stem in its upper position, means for turning the stem, and means operated by the turning movement of the stem for causing the stem to move downwardly.

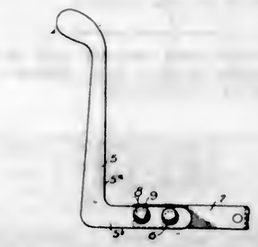
3. A dust separator, comprising a cylindrical casing having a discharge passageway in the bottom thereof, a stem slidably and rotatably mounted in the casing, a flexible screen within the casing having its upper end supported by the stem, an arm carried by the stem, a scraper blade carried by the arm for engaging the flexible screen and a scraper also carried by the arm for scraping the material from the bottom of the casing into the discharge passageway thereof, means for turning the stem and means for reciprocating the stem incident to its turning movements.

1,136,954. TRUCK. FREDERICK GUNNING, Tallmadge township, Summit county, Ohio, assignor of one-half to Howard E. Bender, Akron, Ohio. Filed Aug. 14, 1914. Serial No. 856,789. (Cl. 21—65.)



The combination with a truck having side stiles, an axle and ground wheels for the axle, of a rigid supporting frame pivotally connected with said axle and extending behind the same and provided with a ground wheel, and a cross-bar forming a portion of the frame and extending in a lateral direction sufficient to engage the stiles of the truck for supporting the latter.

1,136,955. CONTROLLER-LEVER FOR AUTOMATIC MUSICAL INSTRUMENTS. ADOLPH PETER GUSTAFSON, Chicago, Ill., assignor to M. Schulz Co., Chicago, Ill. Filed Dec. 4, 1913. Serial No. 804,613. (Cl. 74—33.)



1. In an instrument of the class specified, the combination of a movable member for use in the operation of the instrument, a controlling lever pivoted to said member, and means for exerting friction upon the pivotal connection between said member and lever.

2. In an instrument of the class specified, the combination of a movable member for use in the operation of the instrument, a controlling lever pivotally mounted upon said member, and a spring exerting tension on said pivotal mounting to cause friction at the same.

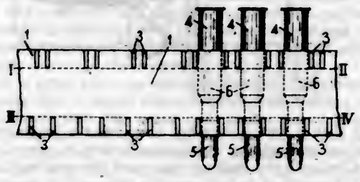
3. In an instrument of the class specified, the combination of a movable member for use in the operation of the instrument, a lever pivoted to said member, a pivot forming the pivotal connection between said lever and member, and a spring connected with one end of said pivot and arranged to draw upon the same so as to cause friction at said pivotal connection.

4. In an instrument of the class specified, the combination of a movable member for use in the operation of the instrument, a lever pivotally connected with said member, and a pin carried by said member, said lever having a notch adapted to engage said pin to limit the extent of pivotal movement of said lever.

5. In an instrument of the class specified, the combination of a movable member for use in the operation of instrument, said member extending in a forwardly and rearwardly direction, and having its front end at the front of the instrument, a controlling lever for manual engagement pivotally connected with the front end of said movable member and spring means exerting tension upon the pivotal connection between said member and lever tending to hold the latter in the position to which it is adjusted.

[Claim 6 not printed in the Gazette.]

1,136,956. CARTRIDGE-BELT FOR MACHINE-GUNS. JACOBUS HENNEVELD, Laandam, and ALEXANDER LEMEI, Amsterdam, Netherlands. Filed Aug. 9, 1912. Serial No. 714,232. (Cl. 89—35.)



1. An improved cartridge belt for machine guns, comprising two bands held together by coöperating pairs of transverse seams extending a short distance from each side of the respective longitudinal edges of the bands, the seams of each pair at one edge of the bands being closer together than the seams of the pair of the other edge.

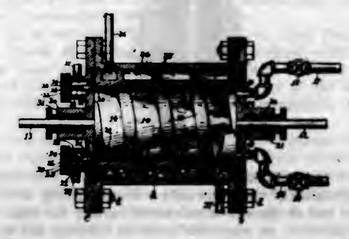
2. An improved cartridge belt for machine guns, comprising two bands held together by coöperating pairs of transverse seams extending a short distance from each side of the respective longitudinal edges of the bands, the intramarginal portions of the bands being continuous and free of seams.

3. An improved cartridge belt for machine guns, comprising two bands held together by coöperating pairs of transverse seams extending a short distance from each side of the respective longitudinal edges of the bands, the part of the bands adjacent to the conical part of the cartridge being continuous and free from transverse seams.

4. An improved cartridge belt for machine guns, comprising two identical bands held together by coöperating pairs of transverse lines of stitches extending a short distance from each side of the respective longitudinal edges of the bands, the intramarginal portions of the bands being free of seams.

5. An improved cartridge belt for machine guns, comprising two identical bands held together by coöperating pairs of transverse lines of stitches extending a short distance from each side of the respective longitudinal edges of the bands, the part of the bands adjacent to the conical part of the cartridge being free from transverse seams.

1,136,957. ROTARY COMPRESSOR. CARL F. HETTINGER, Boston, Mass. Filed Jan. 6, 1914. Serial No. 810,665. (Cl. 230—11.)



1. In a rotary compressor, in combination, a cylindrical casing provided with a water jacket, and having at one end a head provided with a fluid inlet and at its opposite end a head provided with a fluid outlet, of a rotor located within said casing and separate therefrom and comprising a conical center member journaled in said heads with the apex of said member adjacent the fluid inlet end of said casing, and a helical compressing member attached to said center member to revolve therewith and coöperating with the latter and the said casing to form a helical passage, which decreases in size from the fluid inlet end of the said casing to the fluid outlet end thereof, said helical compressing member making a substantially fluid-tight fit with said casing, substantially as described.

2. In a rotary compressor, in combination, a casing provided at one end with a fluid inlet and at its other end with a fluid outlet, and having means for cooling it, of a rotor located within the casing and separate therefrom and comprising a conical center member and a helical compressing member attached to said center member and coöperating with the latter and said casing to form a helical passage which decreases in size from the fluid inlet end of the casing to the fluid outlet end thereof, said helical compressing member making a substantially fluid-tight fit with said casing, substantially as described.

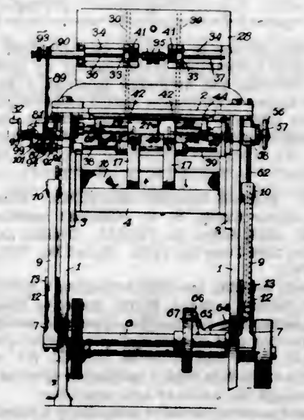
3. In a rotary compressor, in combination, a casing provided with a fluid inlet and with a fluid outlet, a rotor rotatable in said casing, and provided with a passage extended in the direction of the length of the rotor and of a size which decreases from the fluid inlet to the fluid outlet of said casing, said rotor making a substantially fluid-tight fit with said casing.

4. In a rotary compressor, in combination, a casing provided with a fluid inlet and with a fluid outlet, and a rotor rotatable within said casing and making a substantially fluid-tight fit with said casing, one of said parts having a helical passage extended in the direction of the length of the rotor and of a size which decreases from the fluid inlet to the fluid outlet of said casing.

5. In a rotary compressor, in combination, a casing provided with a fluid inlet and with a fluid outlet, and a rotor rotatable in said casing and comprising a conical center member and a helical compressing member which makes a substantially fluid-tight fit with said casing, said rotor being located in the said casing with the apex of the center member adjacent the fluid inlet of the casing, substantially as described.

[Claim 6 not printed in the Gazette.]

1,136,958. BOX-ENDING MACHINE. SAMUEL T. HOBBS, Worcester, Mass., assignor to Hobbs Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed Mar. 25, 1912. Serial No. 686,056. (Cl. 93—55.)



1. In a box ending machine, a shaft, two pasters carried by and movable longitudinally of said shaft, a right

and left hand screw carried by said shaft and connected with said pasters for adjusting the pasters toward and from each other along the shaft, a gear fixed to said screw, a gear pivoted to said shaft and in axial alinement therewith, said gears being in mesh, and means for rotating said pivoted gear to adjust the pasters toward and from each other along the shaft.

2. In a box ending machine, a shaft, two pasters carried by and movable longitudinally of said shaft, a right and left hand screw carried by said shaft and connected with said pasters for adjusting the pasters toward and from each other along the shaft, and means for rotating said screw to adjust the pasters, said means including a pair of gears movable into and out of mesh.

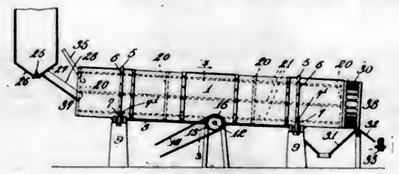
3. In a box ending machine, a shaft, two pasters carried by and movable longitudinally of said shaft, a right and left hand screw carried by said shaft and connected with said pasters for adjusting the pasters toward and from each other along the shaft, a box form having sides adjustable toward and from each other, and means for simultaneously rotating said screw and adjusting said sides of the box form, said means including a member movable into and out of operative connection with said screw, whereby said sides of the box form may be adjusted independently of the pasters.

4. In a box ending machine, a pressing mechanism comprising a platen, and a box form having sides with pressing surfaces for the side flanges of a box body and including a pair of overlapping plates presenting a pressing surface for the bottom flange of the box body, said overlapping plates being detachably carried by said sides.

5. In a box ending machine, a pressing mechanism comprising a platen, and a box form having sides with pressing surfaces for the side flanges of a box body and including a pair of overlapping adjustably united plates presenting a pressing surface for the bottom flange of the body, said overlapping plates being detachably carried by said sides.

[Claims 6 to 12 not printed in the Gazette.]

1,136,959. BARK-STRIPPING MACHINE. CLAUDE CLEMENT HOCKLEY, Grand Mere, Quebec, Canada. Filed Nov. 16, 1912. Serial No. 731,865. (Cl. 144—208.)

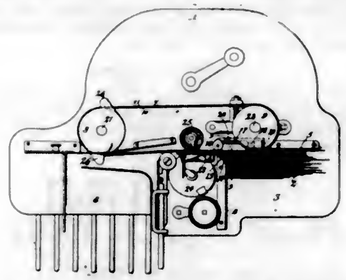


A machine for use in stripping the bark from wood and consisting of a rotatable barrel having its ends open to provide receiving and discharge openings, a plurality of interior annular baffle flanges spaced longitudinally of the barrel and lifting flanges extending between the annular flanges and being disposed lengthwise of the barrel.

1,136,960. MAIL-MARKING MACHINE. FRED C. IELFIELD, Silver Creek, N. Y. Original application filed Mar. 22, 1913, Serial No. 756,191. Divided and this application filed June 12, 1913. Serial No. 773,163. (Cl. 101—39.)

1. A mail marking machine comprising a relatively fixed separator having a notch in its operative edge, and an endless feeding belt having the upper and lower parts of its face moving past the edge of said separator above and below said notch and provided between the upper and lower parts of its face with a continuous friction rib which passes through the notch of said separator.

2. A mail marking machine comprising a relatively fixed separator having a notch in its operative edge, and an endless feeding belt having the upper and lower parts of its face moving past the edge of said separator above and below said notch and provided between the upper and lower parts of its face with a continuous friction rib which passes through the notch of said separator, the depth of said notch being greater than the distance from the face of said rib to the face of said feeding belt.



3. A mail marking machine comprising a feeding table, a printing mechanism, a stacking device, a separator arranged between the feeding table and the printing mechanism and provided in its operative edge with a notch, and an endless feeding belt passing along said feeding table, printing mechanism and stacking device and having the upper and lower parts of its face arranged close to the parts of the operative edge of said separator above and below the notch thereof, and a continuous friction rib arranged lengthwise on the face of said belt between the upper and lower parts thereof.

4. A mail marking machine, comprising a feeding table, a printing mechanism, a stacking device, a separator arranged between the feeding table and the printing mechanism and provided in its operative edge with a notch, an endless feeding belt passing along said feeding table, printing mechanism and stacking device and having the upper and lower parts of its face arranged close to the parts of the operative edge of said separator above and below the notch thereof, a continuous friction rib arranged lengthwise on the face of said belt between the upper and lower parts thereof, and a time stop which is arranged between said separator and said printing mechanism and which is adapted to control the forward movement of the letters in harmony with said printing mechanism.

1,136,961. SPARK-PLUG. JOHN P. INMAN and ROBERT E. ESTES, Midland, Tex. Filed Nov. 11, 1913. Serial No. 800,282. (Cl. 123—169.)



1. In a spark plug, an insulator having a bore extending longitudinally therethrough, a sleeve fitting the bore, the upper end of the sleeve extending beyond the upper end of the insulator, an electrode passing through the sleeve, and a cap resting upon the upper end of the insulator and engaging with the upper end of the sleeve, having independent screw threaded engagement with the upper end of the electrode.

2. In a spark plug, an insulator having a bore extending longitudinally therethrough, a sleeve screw-threaded at its upper end and enlarged at its lower end passing through said bore, a cap disposed upon the upper end of the insulator and interiorly screw threaded to engage said sleeve, an electrode pin passing through the sleeve and insulator and having screw threaded engagement at its upper end with said cap.

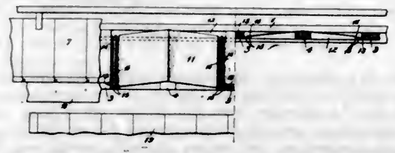
3. In a spark plug, an insulator having a bore extending longitudinally therethrough, a sleeve screw-threaded at its upper end and enlarged at its lower end passing through said bore, a cap disposed upon the upper end of the insulator and interiorly screw-threaded to engage said sleeve, an electrode pin passing through the sleeve and insulator and having screw-threaded engagement at its upper end with said cap, whereby the electrode pin may be longitudinally adjusted with relation to the cap and sleeve, and means for locking the electrode pin in any adjusted position.

4. In a spark plug, an insulator having a longitudinally extending bore, a sleeve fitting said bore and having an enlarged lower end, the upper end of the sleeve being exteriorly screw-threaded, a cap on the upper end of the insulator having screw-threaded engagement with the sleeve and extending beyond the sleeve, an electrode pin passing through the sleeve and said cap, and having screw-threaded engagement with the cap, and means for locking the electrode pin in any desired position.

5. In a spark plug, a tubular insulator, a tubular sleeve disposed therein, a tubular cap on the insulator, and an electrode pin passing through the sleeve and insulator and having screw-threaded engagement at its upper end with said cap said sleeve having screw threaded engagement with the cap.

[Claims 6 to 11 not printed in the Gazette.]

1,136,962. CAR-ROOF. GEORGE R. JOUGHINS, Moncton, New Brunswick, Canada. Filed Sept. 13, 1913. Serial No. 789,720. (Cl. 108—15.)



1. In a car roof, in combination: carlines formed with grooves in their sides; and metal roof sheets hipped at their middle portions, formed with gutters along their sides to which gutters the two halves of the sheets pitch from the hip, and having side flanges fitted in the said grooves; substantially as specified.

2. In a car roof, in combination: carlines formed with grooves in their sides; metal roof sheets formed with gutters along their sides and having side flanges fitted in the said grooves; and intermediate carlines under the roof sheets from which the sheets pitch toward the said gutters, the two sets of said carlines alternating with each other; substantially as specified.

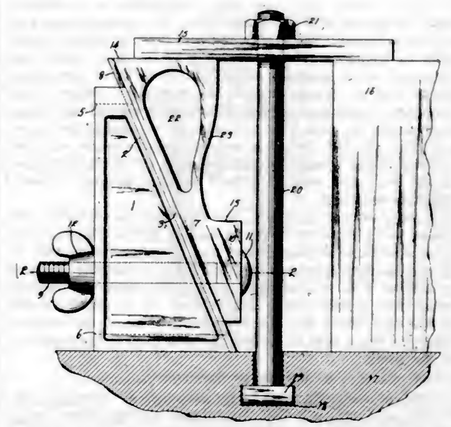
3. In a car roof, in combination: a roof frame; and roof sheets supported thereby and formed with gutters along their edges leading toward the eaves, and pitched toward the eaves and also longitudinally of the car from their middles to the edge gutters; substantially as specified.

4. In a car roof, in combination, a roof frame: and roof sheets supported thereby and formed with marginal gutters and pitched toward the eaves, and also pitched longitudinally of the car, the said roof sheets being hipped at their middles and pitching from the hip to the said gutters; substantially as specified.

5. In a car roof, in combination: a roof frame; and roof sheets supported thereby and formed with embossments arranged out of line with each other and lapping so as to direct water longitudinally of the car and toward the eaves; substantially as specified.

[Claims 6 to 12 not printed in the Gazette.]

1,136,963. ADJUSTABLE STRAP-SUPPORT. ALFRED T. KEITH, Bridgewater, Mass. Filed Oct. 10, 1913. Serial No. 794,464. (Cl. 90—59.)

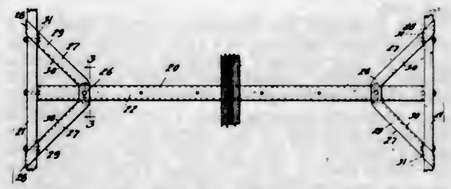


1. A strap support comprising, a base having a vertical back a smooth vertically inclined face and a slot extending through said base, an adjustable section provided with a smooth vertically inclined face having a sliding engagement with that of the base, a bolt secured to the adjustable section and extending through said slot, and a nut engaging the end of the bolt and the vertical back of the base.

2. A strap support comprising, a base having a vertical back a smooth vertically inclined face and a slot extending through said base, an adjustable section provided with a smooth vertically inclined face having a sliding engagement with that of the base and with an offset shoulder forming a bearing surface intermediate the ends of said adjustable section, a bolt secured to the adjustable section and extending through said slot, and a nut engaging the end of the bolt and the vertical back of the base.

3. A strap support comprising, a base having a vertical back a smooth vertically inclined face and a slot extending through said base, an adjustable section provided with a smooth vertically inclined face having a sliding engagement with that of the base, said section being cut away centrally to form a combined handle and brace, a bolt secured to the adjustable section and extending through said slot, and a nut engaging the end of the bolt and the vertical back of the base.

1,136,964. CARLINE STRUCTURE. SAM F. KLOHS, Chicago, Ill., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 5, 1912. Serial No. 669,670. (Cl. 108—5.)



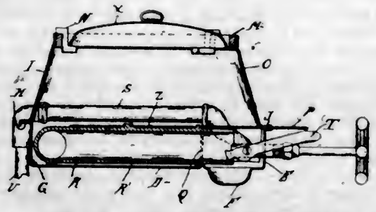
1. In a carline structure, the combination of a metallic beam composed of a horizontal web and vertical flanges at

the sides thereof, the said web being bent to extend vertically in engagement with the face of the side plate; and diagonal brace members each composed of a horizontal flange and a vertical flange, the horizontal flange having its ends bent into U-form to engage the inner side, the top and the outer side of the side plate, and the vertical flange being bent parallel with the vertical flanges of the beam and secured to said vertical flanges, substantially as set forth.

2. In a carline structure, the combination of a metallic beam composed of a horizontal web and vertical flanges at the sides thereof, the said web being bent to extend vertically in engagement with the face of the side plate; and diagonal brace members each composed of a horizontal flange and a vertical flange, the horizontal flange being extended across and secured to the said web of the beam and having its ends bent into U-form to engage the inner side, the top and the outer side of the side plate, and the vertical flange being bent parallel with the vertical flanges of the beam and secured to said vertical flanges, substantially as set forth.

3. In a carline structure, the combination with the side plates, of a metallic beam extending across the car and formed with a horizontal web and a vertical web, and diagonal bracing members formed with a horizontal web and a vertical web, the vertical webs of the bracing members being bent parallel with and secured to the vertical web of the said beam and the horizontal webs of the bracing members being bent to inclose the side plates, substantially as set forth.

1,136,965. VAPOR-BURNER FURNACE. CHARLES R. LAMBERT, Detroit, Mich., assignor to Clayton & Lambert Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 1, 1912. Serial No. 680,998. (Cl. 126—239.)



1. In a furnace, the combination with a tank, a standard rising therefrom, a spider frame supported on said standard, a pan secured to said spider frame, burners and a mixing tube in said pan, and a deflecting plate engaging said tube and having portions projecting into operative relation to the burners for the purpose described.

2. In a furnace, the combination with a tank and a standard mounted thereon, of a sheet metal structure mounted on said standard comprising a pan having a bottom and integral sides flanged at their upper edge, a hearth-plate of sheet metal resting on said flange and having a depending flange extending into the pan, a hood formed of sheet metal having a circular opening at the top thereof and flanged at its lower end to rest upon said pan and to embrace the flanged edge thereof, and a reinforcing ring of cast metal secured to the upper ends of said hood.

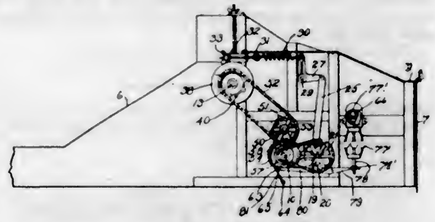
3. In a furnace, the combination with a tank and a standard rising therefrom, of a sheet metal structure supported on said standard comprising a pan having upwardly extending integral sides flanged at their upper edge, a hearth-plate supported at one end of said pan having a downward extending flange, a hood arranged above said pan and flanged to rest thereon and to engage the flanged edges of the pan, said hood being cut-away over said hearth-plate, a burner arranged within said pan, a vaporizer extending through said hood, and a vapor controlling inlet valve arranged beneath said hearth-plate and connected with said vaporizer.

4. A furnace comprising a tank, a standard rising therefrom, a spider frame supported on said standard, a pan formed of sheet metal secured to said spider frame having integral sides and a flanged upper edge, a burner and mixing tube in said pan, an inlet valve in front of said burner, a hearth-plate formed of sheet metal having a down-turned flange dividing the portion of said pan containing said burner from that containing said inlet valve, a hood formed of sheet metal above said pan and hearth-plate and flanged for engagement therewith, a vaporizing tube passing through said hood above said burner at one side thereof and downward through said hearth-plate to said valve.

5. In a furnace, the combination with a tank, a standard rising therefrom, a spider frame upon said standard, and a sheet metal structure upon said frame comprising a pan having integral upwardly extending sides with a flanged upper edge, a hearth-plate overlying a portion of said pan having a depending flange, and a hood having a horizontal flange resting on said hearth-plate and pan, a down-turned marginal flange, and a tapering upwardly extending body portion, said body portion being cut-away above said hearth-plate, the upper edge of said body being of circular form and a cast metal reinforcing ring secured to the upper edge of said hood and having inwardly extending lugs thereon for supporting the pot or ladle.

[Claims 6 to 8 not printed in the Gazette.]

1,136,966. BAND-CUTTER AND FEEDER. JOHN F. LANGDON, Kansas City, Kans. Filed Apr. 17, 1911. Serial No. 621,499. (Cl. 130—1.)



1. In a feeder, the combination with a band-cutter and a conveyer, of driving mechanism, clutch mechanism for driving the conveyer from the driving mechanism, a retarder, means operable by the retarder for controlling said clutch mechanism, and means movable toward and from the retarder for pressing material against the retarder after delivery of the material from the conveyer, whereby action of the retarder is governed by the condition of grain passing thereover.

2. In a feeder, the combination with a band cutter and a conveyer, of driving mechanism, clutch mechanism for driving the conveyer from the driving mechanism, an adjustable retarder, means operable by the retarder for controlling said clutch mechanism, and means movable toward and from the retarder for pressing material against the retarder, after delivery of the material from the conveyer, whereby action of the retarder is governed by the condition of grain passing thereover.

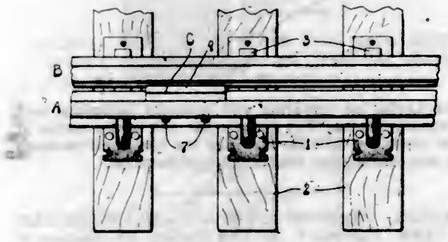
3. In a feeder, the combination with an automatically adjustable retarder, of a conveyer adapted for delivering material over the retarder, means movable toward and from the retarder for thrusting a mass of material delivered by the conveyer against the retarder, and means controllable by the retarder for actuating the conveyer whereby travel of the conveyer is influenced by position of the retarder.

4. In a feeder, the combination with a conveyer, of driving mechanism, clutch mechanism for actuating the conveyer from the driving mechanism, an automatically adjustable retarder onto which material is delivered by the conveyer, vertically movable means adapted for projection into a mass of material carried by the retarder, and means operably connected with the retarder for controlling said clutch mechanism.

5. In a feeder, the combination with an automatically adjustable retarder, of a conveyer adapted for delivering material onto the retarder means adapted for movement over the retarder, and having members adapted for projection into a mass of material overlying the retarder, in the direction of travel of said means, and whereby the retarder is automatically adjusted, means for actuating the conveyer, and means operable by the retarder for controlling said actuating means.

[Claims 6 to 19 not printed in the Gazette.]

1,136,967. STOP FOR RAILWAY-SWITCHES. EDWARD D. LEVY, Springfield, Mo. Filed July 24, 1914. Serial No. 852,828. (Cl. 104—12.)



1. A railway switch comprising a stationary rail, a switch point movable toward and away from said stationary rail, the switch point being provided with a base flange, and a stop member, secured to said stationary rail, adapted to engage the base flange of the switch point for the purpose described.

2. A railway switch comprising a stationary rail having a head, a web and a base flange; a switch point movable toward and away from said stationary rail, said switch point being provided with a head, a web and a base flange; and a stop device fitted to the head, web and base flange of the stationary rail, adapted to interlock with said switch point when the latter lies adjacent to said stationary rail.

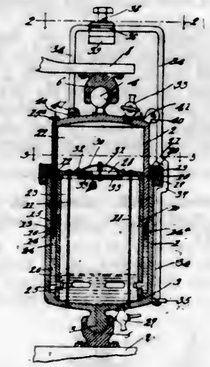
3. A railway switch comprising a stationary rail having a head, a web and a base flange; a switch point movable toward and away from said stationary rail, said switch point being provided with a head, a web and a base flange; and a stop device fitted to the head, web and base flange of the stationary rail, adapted to interlock with said switch point when the latter lies adjacent to said stationary rail, the outer end portion of said stop device being adapted to engage the head, web and base flange of said switch point.

4. A railway switch comprising a stationary rail having a base flange, a switch point movable toward and away from said stationary rail, said switch point being provided with a base flange, and a stop device secured to said stationary rail, the bottom face of said stop device being separated from the top face of the flange on said stationary rail so that the flange of said switch point may be moved to a position between and engaged with said faces.

1,136,968. PNEUMATIC CUSHION. CHARLES W. MCDADE, Moorhead, Iowa. Filed Oct. 1, 1914. Serial No. 864,498. (Cl. 21—50.)

1. A pneumatic cushion comprising an extensible casing having two telescoping sections, one section embodying a rim slidably engaging the other section, a ring disposed adjacent the end of the rim, clamping rods extending longitudinally through said rim and engaged to the ring, and a packing disposed between the ring and rim and engaging the second mentioned section.

2. A pneumatic cushion comprising an extensible casing having two telescoping sections, one section embodying outer and inner cylinders, and the other section embodying a bell having its rim fitting slidably between the said cylinders, a ring arranged between the cylinders adjacent the end of the said rim, clamping rods extending longitudinally through the said rim and engaged to the ring, and a packing disposed between the ring and rim and engaging the outer and inner cylinders.



3. A pneumatic cushion comprising a cylinder having two telescoping sections, guide rods attached to one section, guide wheels carried by the other section and engaging the said rods, and a buffer carried by the said rods for limiting the movement of the last mentioned section away from the first mentioned one.

4. A pneumatic cushion comprising an extensible casing having telescoping sections, one section embodying outer and inner cylinders having an annular lubricant chamber therebetween, the other section embodying a bell having its rim received snugly by said lubricant chamber, the said inner cylinder being adapted to hold the lubricant and having openings therethrough for the passage of the lubricant into and out of said lubricant chamber, and the chambers within said inner cylinder and bell being in communication.

1,136,969. COTTON GINNING AND CLEANING. WILLIAM E. MOORE, Pittsburgh, Pa. Filed Apr. 16, 1908. Serial No. 427,413. (Cl. 13—9.)



1. A gin for cotton or the like, comprising in combination with the gin saws, an air doffing flue comprising a Venturi tube having an inlet of relatively large area tapering to a constricted throat at the doffing point and then expanding gradually into an outlet passage of relatively large area.

2. A gin for cotton or the like, comprising a gin frame, gin saws mounted therein, and an air doffing flue having a constricted throat provided with a series of slots into which extend the respective gin saws.

3. A gin for cotton and the like, comprising a gin frame, gin saws mounted therein, and an air doffing flue having a curved or bent neck in which is formed a con-

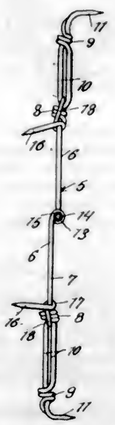
stricted throat provided with a series of slots into which extend the respective gin saws.

4. The combination with a gin frame, of gin saws mounted therein, an air doffing flue having a relatively expanded mouth and a constricted throat provided with a series of slots into which extend the respective gin saws, the said flue expanding in area from said throat toward its outlet end, and means to create an air suction entering at said mouth and passing said saws to the outlet.

5. A gin for cotton and the like, comprising a gin frame, gin saws mounted therein, an air doffing flue having a constricted throat provided with a series of slots into which extend the respective gin saws, and air obstructing bodies mounted in said constricted throat between the respective gin saws, for the purpose set forth.

[Claims 6 to 21 not printed in the Gazette.]

1,136,970. ANIMAL-POKE. REUBEN M. NOBLITT, Oklahoma, Okla. Filed Oct. 20, 1914. Serial No. 867,562. (Cl. 119—139.)

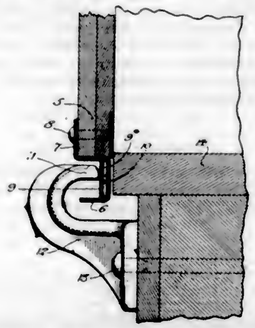


An animal poke comprising substantially U-shaped yoke-frames having their inner ends pivotally connected, each yoke-frame comprising a pair of relatively stiff rods closely twisted together at points spaced a substantial distance apart for providing relatively long rod-sections which are spaced and arranged parallel with relation to each other and disposed in a plane at a right angle to the plane of the yoke, said pair of rods extending outwardly beyond the outer twisted portions thereof forming outwardly diverging fingers, and a pricking device at the base of each yoke, including a section of wire passed between the spaced rod-sections substantially of and adjacent the inner twisted portion thereof and twisted about the base of the yoke and extending inwardly therebeyond to provide a plurality of inwardly projecting prongs.

1,136,971. DOOR MECHANISM FOR RAILWAY-CARS. ERIK G. NYLANDER, Chicago, Ill., assignor to Camel Company, Chicago, Ill., a Corporation. Filed July 14, 1913. Serial No. 778,890. (Cl. 20—22.)

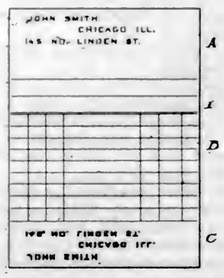
1. In a railway freight car, the combination with a sliding door, of an outwardly facing channel bar secured to the bottom of said door and covering the lower edge thereof, said channel bar having formed integral with its upper member a vertical flange secured to the outer face of the door, and a retaining bracket secured to the car body and having an upwardly and forwardly extending part projecting within said channel bar, substantially as described.

2. In a railway freight car, the combination with a sliding door, of an outwardly facing channel bar secured to the bottom of said door and covering the lower edge thereof, said channel bar having formed integral with its upper member a vertical flange secured to the outer face of the door, a retaining bracket secured to the car body



and having an upwardly and inwardly extending part projecting within said channel bar and wedge plates of less thickness than the width of the horizontal members of said channel bar, substantially as described.

1,136,972. COMBINED STENCIL-PLATE AND RECORD-CARD. CLINTON D. PALMER, Chicago, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a Corporation of New York. Filed Feb. 8, 1913. Serial No. 747,048. (Cl. 101—134.)



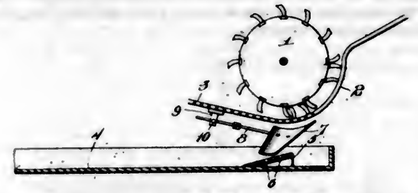
1. An integral combined record card and stencil plate comprising a paper sheet having an identifying portion at its upper end, a record-receiving portion intermediate its ends, and a stencil-plate portion at its lower end.

2. A combined record card and stencil plate formed wholly of flexible paper, one end of the card having openings therethrough forming stencil characters, the card being capable of being flexed to bring said end into contact with the opposite end of the card, the intermediate portion of the card being ruled to receive records.

3. A flexible card having in one end openings therethrough forming stencil characters, said end of the card being adapted to be placed in contact with the opposite end of the card to permit of applying ink through said openings onto said opposite end, the space intermediate said ends on one side of the card being prepared to receive records, and the other side of the card exclusive of the portion bearing the stencil openings being also prepared to receive records.

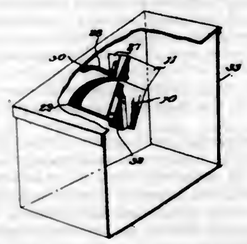
1,136,973. GRAIN-SEPARATOR. CHARLES W. PETERS, Moose Jaw, Saskatchewan, Canada. Filed May 19, 1914. Serial No. 839,600. (Cl. 130—24.)

In combination with a threshing mechanism including a grate and a coöperating pan, distributers arranged near the receiving ends and sides of the pan, deflectors located above the distributers, means carried by the grate for connecting the former with the latter, and means connected with a portion of the former threshing means and



extending exteriorly beyond the opposite sides of the pan, whereby the deflectors may be adjusted to insure a uniform spreading of the grain throughout the width of the pan.

1,136,974. COIN-RECEPTACLE FOR MAIL-BOXES. HENRY C. PILANT, Oak Grove, Mo. Filed Dec. 30, 1913. Serial No. 809,519. (Cl. 133—14.)



1. A blank of the character described, including a body portion bent at right angles along parallel lines to form bottom and side walls, the side walls being extended at their upper ends to form reduced extremities adapted to provide a flared mouth portion, the forward edges of said reduced portions being continued to form flaps adapted to be folded at right angles, the extremities of said flaps overlapping to form a forward end portion, the body portion of the blank being formed with a rearwardly extending end flap adapted to be folded at right angles to the bottom wall, one of said reduced extremities being undercut along its rear edge, and such reduced extremity and adjacent side wall having a continuous flap formed thereon, adapted to be bent at right angles, the rear edge of the opposite reduced extremity being formed with a relatively wide flap adapted to be bent at right angles to form a portion of the rear end wall, such relatively wide flap having a reduced extremity thereon adapted to bear against the end flap formed adjacent the bottom wall, and a relatively narrow flap formed on the rear edge of the side wall adjacent the reduced extremity carrying the relatively wide flap, said first mentioned flap being adapted to be bent at right angles to lie against the end flap formed adjacent the bottom wall.

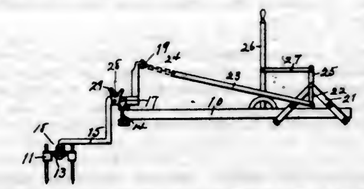
2. A device of the character described including a support, a coin receptacle mounted for pivotal movement thereon, said receptacle being formed with a coin receiving pocket, a coin receiving chute opening into said pocket, said chute having converging walls and a coin discharging chute arranged at right angles to the coin receiving chute, and means for tilting the receptacle.

3. A device of the character described including an integral support having spaced arms joined by a connecting portion, a coin receptacle mounted for pivotal movement upon the support between said arms, said receptacle having a mouth and a discharge opening and being normally counterbalanced upon the support, the connecting portion of the support being arranged to limit the oscillatory movement of the receptacle, and means for tilting said receptacle.

4. A device of the character described including a support having spaced resilient arms having apertures formed therein adjacent their outer extremities, a coin receptacle mounted for pivotal movement upon the support, said receptacle having a mouth and a discharge opening, cleats secured to the side walls of the receptacle, pintle lugs formed on said cleats and adapted to engage within the apertures formed in said arms, the upper extremities of said arms being adapted to be sprung apart to receive said pintle lugs.

5. A blank of the character described adapted when folded to form a coin receptacle having a coin receiving chute, the wall of said coin receiving chute being flared outwardly and upwardly spaced from the bottom wall of the receptacle, and a coin discharge chute extending at right angles to said coin receiving chute, the walls of said discharge chute being cut away upon their free edges from the inner extremity of the coin receiving chute to the outer extremity of the coin discharge chute.

1,136,975. HARROW ATTACHMENT FOR CORN-PLANTERS. CLARENCE E. POWERS, Monroe township, Madison county, Iowa, assignor of one-third to W. C. Grandfield, Lorimor, Iowa. Filed Aug. 31, 1914. Serial No. 859,327. (Cl. 55—80.)



1. A planter attachment comprising a harrow and means adapted to be carried on the planter frame for drawing and raising said harrow, said means comprising bell-cranks pivoted on the planter frame, a bar adjustably connecting said bell-cranks, a crank-shaft journaled on the planter frame, rods pivoted at their forward ends to arms of said crank-shaft, chains flexibly connecting the rear ends of said rods to end portions of said bar, and means for oscillating and locking said crank-shaft.

2. The combination of a support, bell-cranks fulcrumed thereon, a harrow carried by said bell-cranks at the rear and transversely of said support, and a hand-lever adjustably and flexible connected to and adapted to oscillate said bell-cranks.

3. The combination of a support, bell-cranks fulcrumed thereon, a harrow carried by said bell-cranks at the rear of the support, a floating-bar connecting said bell-cranks adjustably, a crank-shaft on the support, flexible connections between said crank-shaft and bell-cranks, and a hand-lever adapted to oscillate said crank-shaft.

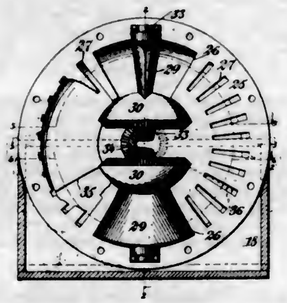
4. The combination of a support, bell cranks fulcrumed thereon and arranged on opposite sides of the center thereof, means for oscillating said bell-cranks, an arm pivoted to said support and adapted to be moved through an arc across said bell-cranks, and means on said bell-cranks adapted to engage said arm.

1,136,976. PUMP OR MOTOR. FRANK REAUGH, Oak Cliff, Tex. Filed Mar. 2, 1905. Serial No. 248,054. (Cl. 230—31.)

1. A pump or motor, comprising a casing provided with inlet and outlet ports, a circular web within the casing and a piston mounted in the web to rotate on an axis transverse to the axis of the casing, and means for relatively rotating the piston and the casing.

2. The combination of a casing having inlet and outlet ports, a radial web revolving within the casing, and piston blades mounted upon axis transverse to the axis of the web to rotate within openings in the web simultaneously with their revolution with the web.

3. The combination of a circular web, radial, rotating pistons mounted in the web, and a casing formed to have continuous contact with both the piston blades and the web.

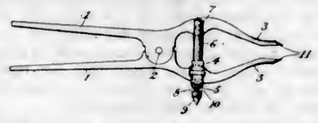


4. In combination, an annular casing having inlet and outlet ports, piston blades mounted for rotation and arranged radially of the casing, and means for simultaneously rotating the blades and revolving the said blades around the axis of the casing twice for each complete rotation of a blade.

5. The combination of an annular casing having inlet and outlet ports, a revolving web carrying a circular flange in running contact with the casing, and piston blades mounted on the web to revolve through the casing and simultaneously to continuously rotate on their own axes.

[Claims 6 to 24 not printed in the Gazette.]

1,136,977. TIRE-TOOL. ROBERT WILLIAM SAMPSON, Westmount, Quebec, Canada. Filed Oct. 15, 1913. Serial No. 795,245. (Cl. 152—27.)



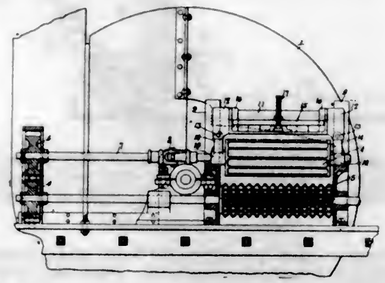
1. In a tire-tool, the combination of a pair of pivoted jaws, a sleeve-guide provided with a cutting edge pivoted to one jaw and a plunger pivoted to the other jaw and passing through said guide and being provided with a cutting edge coöperating with the cutting edge of said sleeve-guide.

2. In a tire-tool, the combination of a pair of pivoted handles provided with projected, tapered meeting ends or jaws adapted to be spread by the closing together of the handles, a tubular cutter pivoted to one jaw and a coöperating plunger pivoted to the other jaw and provided with a head adapted to shear interiorly past the edge of said tubular cutter, said head being of a diameter adapted to form a hole in a flexible tire suitable to receive the closed jaw-ends.

1,136,978. FEEDING DEVICE FOR ENSILAGE-CUTTING MACHINES. ELISHA H. SCOTT, Richmond, Ind., assignor to Swayne, Robinson and Co., Richmond, Ind., a Corporation of Indiana. Filed June 5, 1913. Serial No. 771,844. (Cl. 146—26.)

1. The combination, with a pair of feed rollers, one of which is movable toward and away from the other and is also capable of movement about a transverse horizontal axis, of a weighted pressure device movably supported above the movable feed roller and connected to the opposite ends thereof to maintain working pressure upon both ends of said roller when the latter is moved about its transverse axis.

2. The combination, with a pair of feed rollers, one of which is movable toward and away from the other and is also capable of movement about a transverse horizontal axis, of a weighted pressure device movably supported above the movable feed roller and connected to the opposite ends thereof to maintain substantially normal pressure upon both ends of said roller when the latter is moved about its transverse axis.



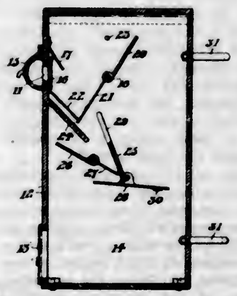
3. The combination, with a pair of feed rollers, one of which is movable toward and away from the other and is also capable of movement about a transverse horizontal axis, of a weighted pressure device movably supported above the movable feed roller and connected to the opposite ends thereof to maintain working pressure upon both ends of said roller when the latter is moved about its transverse axis, and means for varying the amount of said pressure.

4. The combination, with a pair of feed rollers, one of which is movable toward and away from the other and is also capable of movement about a transverse horizontal axis, of a weighted pressure device movably supported above the movable feed roller and pivotally connected to the opposite ends thereof on transverse axes above the axis of said roller.

5. The combination, with a pair of feed rollers, one of which is movable toward and away from the other and is also capable of movement about a transverse horizontal axis, of a weight box movably supported above said movable feed roller and pivotally connected to the opposite ends of said roller on axes above the axis thereof, and weights removably mounted in said weight box to regulate the pressure upon said feed roller.

[Claims 6 to 9 not printed in the Gazette.]

1,136,979. MAIL-BOX. FRANK SLAGOW, Bretz, W. Va. Filed July 30, 1914. Serial No. 854,158. (Cl. 232—48.)



1. A mail box comprising a receptacle having a collecting chamber in the bottom thereof and with a mail entrance slot through the front wall of the receptacle, guard plates pivoted within the receptacle normally covering said slot, an inclined ledge beneath said slot, a weighted platform pivoted within the receptacle in substantial alinement with said slot and adapted to have its lower portion normally contacting said ledge, a guard obliquely secured within the receptacle and having a cut away upper portion adapted to allow movement of said platform thereinto, an intermediate platform pivoted within the receptacle and having its lower portion normally engaging said oblique guard, a lower plate platform pivoted adjacent the ends of said oblique platform and normally positioned substantially horizontal and a weight member carried by said lower platform for normally returning the same to its inoperative position.

2. A mail box comprising a receptacle, a mail-receiving opening and mail-exit door in one wall thereof, a guard member positioned inwardly of the receiving opening adapted to overlie the same, an angular ledge and guard plate arranged in parallelism and positioned below said opening, a pivoted guard member adapted to engage the free end of said plate, a tiltable mail-receiving plate, and guard members associated with said plate.

1,136,980. PLASTIC SHOE-BOTTOM FILLER AND METHOD OF MAKING THE SAME. ANDREW THOMA, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y., a Corporation of Maine. Filed June 19, 1912. Serial No. 704,552. (Cl. 106—3.)

1. The method of making shoe-bottom filler, which consists in mixing with wax tailings, a powdered inert material and a dissolved silicate, and then admixing with said mixture a granular filler-body material to a doughy consistency.

2. The method of making shoe-bottom filler, which consists in mixing with a heat-sensitive sticky binder, a powdered inert mineral thickening material, adding an alkaline silicate in solution, mixing, adding filler-body material, and mixing to a dough-like consistency.

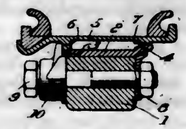
3. The method of making shoe-bottom filler, which consists in mixing with a heat-sensitive sticky adhesive binder, and a solution of an alkaline silicate, a material reacting with said silicate to produce a harder, insoluble silicate, and then admixing a comminuted filler-body material.

4. The method of making shoe-bottom filler, which consists in first mixing with a heat-sensitive sticky adhesive binder, a soluble silicate, and then admixing a comminuted fibrous filler-body material to a doughy consistency.

5. The method of making a material for use in filling the bottoms of shoes, which consists in mixing with a heat-sensitive sticky binder, a powdery inert absorbent material in amount sufficient to make a putty-like mass, adding a soluble silicate, and mixing.

[Claims 6 to 24 not printed in the Gazette.]

1,136,981. VEHICLE WHEEL-RIM. JAMES H. WAGENHORST, Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York, one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio, and one-fifth to The United States Tire Company, New York, N. Y., a Corporation of New York. Filed Mar. 14, 1911. Serial No. 614,356. (Cl. 152—21.)



1. In a vehicle wheel, in combination, a fixed member having an outwardly inclined beveled bearing surface at one side thereof, said surface being provided with a plurality of circumferentially spaced lands, a detachable rim having a face at one side thereof engaging said lands, and means for supporting the other side of said rim.

2. In a vehicle wheel, in combination, a fixed member, and a tire-carrying rim, and coacting wedging faces on said rim and fixed member, one of said faces carrying circumferentially spaced projecting lands engaged by the corresponding face on the other member.

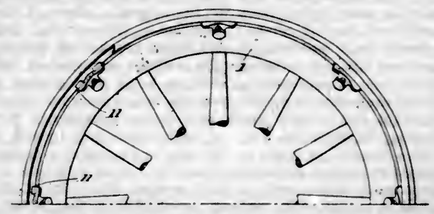
3. In a vehicle wheel, in combination, a fixed member having similarly inclined wedging surfaces at each edge thereof, a tire-carrying rim having complementary inclined surfaces, at least one surface of each of said pairs of surfaces upon the fixed member and tire-carrying rim, respectively, being provided with circumferentially spaced lands.

4. In a vehicle wheel, in combination, a fixed member provided with a plurality of laterally separated beveled surfaces forming frustums of different cones, a detachable tire-carrying rim having coacting contacting surfaces adapted to contact with respective surfaces on said member, at least one surface of each complementary pair of surfaces on said member and said rim being provided with circumferentially spaced lands, and means for securing said detachable rim to said member.

5. A wheel comprising fixed and removable rings, the latter of which constitutes a removable rim embodying at its outer side a pair of flanges for holding a rubber tire between them, said rings having as their only lateral stop-faces laterally separated pairs of complementary bearing surfaces disposed at different distances from the axis of the wheel, at least one bearing surface of each pair being provided with circumferentially spaced lands.

[Claims 6 to 17 not printed in the Gazette.]

1,136,982. VEHICLE WHEEL-RIM. JAMES H. WAGENHORST, Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York, one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio, and one-fifth to The United States Tire Company, New York, N. Y., a Corporation of New York. Filed Mar. 14, 1911. Serial No. 614,358. (Cl. 152—21.)



1. The combination of a vehicle wheel provided with an inclined wedging surface with a detachable tire-carrying rim adapted to be wedged upon said surface, and locking means for retaining said rim upon said wheel, comprising a locking member, movable in a direction inclined toward the center of the wheel and engaging a portion of said rim when moved to locking postion, said locking member lying out of the path of said rim when moved downwardly in an inclined direction to the limit of its travel, a portion of said locking member sliding upon and being guided by an inclined surface of said wheel periphery during the portion of its travel adjacent to the felly of the wheel, and a member independent of said rim secured to the side of the wheel and having a guiding surface inclined in the direction of and forming a continuation of the adjacent portion of the wheel surface, and acting to guide said locking member during the portion of its travel remote from the felly of the wheel.

2. The combination of a vehicle wheel with a detachable tire-carrying rim adapted to be mounted thereon, and means for retaining said rim upon said wheel including a locking member movable in a line inclined toward the center of the wheel, said locking member engaging a portion of the rim when moved to locking position and lying out of the path of said rim when moved downwardly in an inclined direction, to the limit of its travel, and means for guiding said locking member in such inclined direction comprising a plate secured to the side of the

wheel near the periphery thereof, said plate having a guiding surface projecting from the side of said wheel engaged by said locking member and inclined in the direction of movement of said locking member.

3. The combination of a vehicle wheel having similarly inclined wedging surfaces at the opposite edges of the periphery thereof with a detachable tire-carrying rim adapted to be mounted on said wheel and having bearing surfaces adapted to engage the wedging surfaces on the wheel, one of said bearing surfaces being formed upon a flange projecting inwardly from the rim, and means for securing said rim to said wheel, said means including a screw-threaded member projecting laterally from the wheel, but inclined toward the axis of the wheel, an internally and externally threaded nut screwing on said threaded member, and a locking-member screwing on said nut, and being supported upon and guided by the wedge surface of the wheel with which the wedging surface on the inwardly projecting flange on the rim engages, said locking-member engaging the inwardly projecting flange on the rim when moved to operative position and lying out of the path of said flange when moved to inoperative position.

4. The combination of a vehicle wheel having similarly inclined wedging surfaces at the opposite edges of the periphery thereof with a detachable tire-carrying rim adapted to be mounted on said wheel and having bearing surfaces adapted to engage the wedging surfaces on the wheel, one of said bearing surfaces being formed upon a flange projecting inwardly from the rim, means for securing said rim to said wheel, said means including a locking-member movable in a plane inclined in the direction of the inclination of the wedging surface of said wheel engaged by the bearing surface on said inwardly projecting flange, said locking-member being guided through a part of its travel by said inclined wedging surface, and a guide having a similarly inclined surface acting to guide said locking-member during the remainder of its travel.

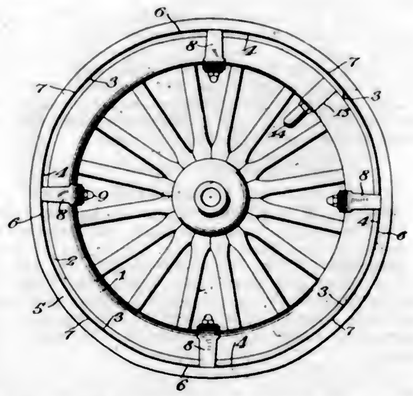
5. The combination of a vehicle wheel having similarly inclined wedging surfaces at the opposite edges of the periphery thereof with a detachable tire-carrying rim adapted to be mounted on said wheel and having bearing surfaces adapted to engage the wedging surfaces on the wheel, one of said bearing surfaces being formed upon a flange projecting inwardly from the rim, means for securing said rim to said wheel, said means including a bolt passing through the felly of said wheel and having a collar thereon adjacent to one side of the felly, a screw-threaded portion projecting from the end of said bolt beyond said collar and inclined toward the axis of the wheel, a nut screwing on said threaded projection, a locking-member rotatably mounted upon said nut and adapted to engage the inwardly projecting flange on the rim when moved to operative position, said locking-member being guided by the inclined wedging surface on the wheel engaged by the bearing surface on the inwardly projecting flange on the rim during a part of its travel, and a plate secured between the side of the felly and the collar on said bolt, said plate having a flange projecting therefrom and inclined in the same direction as and forming an extension of said inclined wedging surface on the wheel, said flange serving to guide said locking-member during the remainder of its travel.

[Claims 6 to 13 not printed in the Gazette.]

1,136,983. VEHICLE WHEEL-RIM. JAMES H. WAGENHORST, Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York, one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio, and one-fifth to The United States Tire Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1911. Serial No. 668,771. (Cl. 152—21.)

1. In combination with a vehicle wheel, an initially distorted rim, and means for changing the configuration of said rim without decreasing its peripheral length to cause it to clamp the periphery of said wheel.

2. In a vehicle wheel, in combination, a fixed wheel member having a periphery of non-circular outline, the portions thereof of greatest diameter forming bearing surfaces, a removable rim adapted to be applied thereto, and means for changing the outline of said rim after application to said fixed wheel member to cause the same to clamp itself upon the bearing surfaces of said fixed wheel member.



3. In a vehicle wheel, in combination, a fixed wheel member having a periphery of non-circular outline, and a removable rim adapted to be applied thereto while out of circular form, and means for forcing said rim into circular form after application to said wheel, whereby said rim will be caused to clamp itself upon said wheel.

4. In a vehicle wheel, in combination, a fixed wheel member having a periphery, a part of which is concentric with the axis of rotation of the wheel, and a part of which is depressed below said concentric portion, a rim adapted to be mounted upon said wheel while having a part of the same depressed, said depressed portion corresponding in location to the depressed portion of the fixed wheel member, and means for causing the said rim to assume substantially circular configuration after application to said fixed wheel member, whereby said rim is clamped upon the concentric portion of said fixed wheel member.

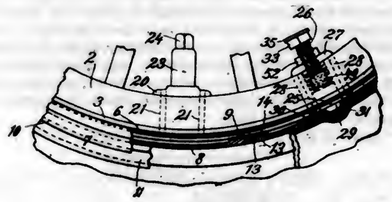
5. In a vehicle wheel, in combination, a fixed wheel member having a non-circular periphery, a rim initially distorted from a circular configuration and adapted to be laterally applied to said fixed wheel member, and means for changing the configuration of said rim without decreasing its peripheral length to cause the same to clamp said fixed wheel member.

[Claims 6 to 25 not printed in the Gazette.]

1,136,984. VEHICLE WHEEL-RIM. JAMES H. WAGENHORST, Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York, one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio, and one-fifth to The United States Tire Company, New York, N. Y., a Corporation of New York. Filed June 10, 1912. Serial No. 702,851. (Cl. 152—21.)

1. A removable tire-carrying rim for vehicle wheels having sockets pressed therein at intervals, and wear plates conforming to said sockets and secured to the under-surface of the rim.

2. The combination with a vehicle wheel of a tire-carrying rim having rounded sockets pressed in the bottom thereof, and means for securing said rim upon said wheel comprising radially movable studs carried by the wheel, said studs having concave tapered ends entering the sockets in the rim, the extreme ends of said studs being flattened so as to provide a clearance between said ends and the rounded bottoms of the sockets in the rim.



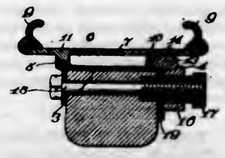
3. The combination with a vehicle wheel of a tire-carrying rim removably mounted thereon and having sockets pressed therein, wear plates secured to the under-surface of the rim and conforming to said sockets, and means for securing the rim upon the wheel comprising radial studs carried by the wheel having tapered ends engaging said wear plates.

4. The combination with a vehicle wheel of a tire-carrying rim removably mounted thereon, and means for securing the rim upon the wheel comprising plates having integral prongs turned up from the ends thereof, said prongs securing the plates to the under-surface of the felly of the wheel, said plates having screw-threaded openings therethrough, and stubs sliding in radial holes through the felly of the wheel, said studs having screw-threaded stems passing through the screw-threaded holes in said plates, the ends of said studs engaging the under-surface of said rim.

5. In a vehicle wheel, in combination, a felly, a metallic felly band mounted thereon, a movable tire-carrying rim mounted on said felly band, and means for securing said rim in position comprising plates having integral prongs turned up therefrom, said prongs passing radially through the felly and felly band and being riveted to said felly band, said plates having screw-threaded openings therethrough, and radial studs mounted in holes in the felly, said studs having screw-threaded stems passing through the screw-threaded holes in said plates, the ends of said studs engaging the undersurface of the rim.

[Claims 6 to 12 not printed in the Gazette.]

1,136,985. VEHICLE WHEEL-RIM. JAMES H. WAGENHORST, Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York, one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, a Corporation of Ohio, and one-fifth to The United States Tire Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1912. Serial No. 676,820. (Cl. 152—21.)



1. In a vehicle wheel, in combination, a fixed rim having bearings surfaces of different diameters near the edges thereof, a tire-carrying rim having bearing surfaces of different diameters adapted to engage the bearing surfaces of the fixed rim, the bearing surface of smaller diameter being formed upon an inwardly projecting portion of said rim, said inwardly projecting portion being recessed, and a wedge carried by the wheel and adapted to be forced laterally into said recess and between the fixed rim and tire-carrying rim.

2. In a vehicle wheel, in combination, a felly, a felly band thereon having a raised beveled bearing surface at one edge thereof, a tire-carrying rim mounted upon said felly band and having near one side thereof a beveled bearing surface engaging the beveled bearing surface of said felly band, and having near the other side thereof a plurality of concave beveled seats and a plurality of locking wedges secured to the felly and movable laterally with relation thereto, said wedges having convex beveled bearing surfaces adapted to engage and interlock with the concave beveled bearing surfaces of the rim, whereby said wedges will hold said rim upon said felly band against lateral and circumferential movement.

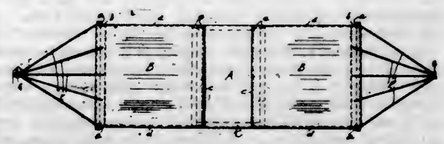
3. In a vehicle wheel, rim, in combination, a felly, a felly band thereon having a raised beveled bearing surface at one edge thereof, a tire-carrying rim mounted on said felly band and having inwardly projecting ribs near each side thereof, one of said ribs having a beveled bearing surface engaging the raised beveled bearing surface on said felly band, and the other rib extending into contact with the other side of said felly band, said second rib being cut out at intervals to form beveled concave bearing surfaces, bolts passing transversely through said felly and locking wedges carried by said bolts, said locking wedges have surfaces supported upon said felly band and having beveled convex wedging surfaces engaging the concave bearing surfaces of said rim.

4. In a vehicle wheel, in combination, a felly, a felly band thereon having a raised beveled bearing surface at one edge thereof, and a beveled bearing surface of smaller diameter at the other edge thereof, a tire-carrying rim mounted upon said felly band and having inwardly projecting ribs near each side thereof, one of said ribs having a beveled bearing surface engaging the raised beveled bearing surface of said felly band, and the second rib being of greater depth than said first rib and having a beveled bearing surface engaging the second beveled bearing surface of said felly band, said rib having recesses formed therein at intervals, the walls of said recesses being concave and beveled in a direction opposite to the bevel of the main bearing surface of said rim, bolts projecting laterally from the side of said felly, and wedges carried by said bolts, said wedges having surfaces engaging the surface of said felly band and having convex wedging surfaces engaging the concave bearing surfaces of the flange of said tire-carrying rim, said wedges, when withdrawn from engagement with the concave bearing surfaces of said rim, being rotatable about said bolts to inoperative position.

5. In combination with a vehicle wheel having a bearing surface on its periphery, a tire-carrying rim, and means for distorting said rim to cause the same to grip the bearing surface of said wheel at intervals, said means comprising bolts projecting laterally from the wheel felly, and wedges mounted on said bolts, said wedges entering between the wheel periphery and the rim at separated points and lifting the rim out of contact with the bearing surface of the wheel adjacent to said points.

[Claims 6 and 7 not printed in the Gazette.]

1,136,986. HAMMOCK. SAMUEL W. WAGNER, Boston, Mass. Filed Aug. 2, 1912. Serial No. 712,939. (Cl. 5—10.)



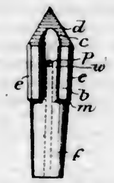
1. A hammock comprising a body portion of canvas or similar material extending longitudinally under tension the length of the hammock, said body portion comprising a central and two end sections, spreaders at each end holding said end sections transversely extended, said central section being of relatively less length than the end sections, and a central frame comprising side members and transverse members situated beneath the central section, the latter being secured both to the side and transverse members of the frame whereby the central section is held

under tension in both a longitudinal and transverse direction, said frame having a dimension in the direction of the length of the hammock greater than the distance between the adjacent ends of the end sections whereby the transverse members of the frame are situated below the end sections and are spaced beyond the inner edges thereof to an extent sufficient to prevent contact of the occupant of the hammock therewith.

2. A couch hammock comprising a rectangular frame covered with canvas, duck or like material and end sections of similar material secured to the covering of said frame along lines parallel to but spaced inwardly from the side members of said frame to an extent sufficient to prevent contact of the occupant of the hammock with said rectangular frame, whereby said end sections and the covering of said frame coöperate to provide a continuous body portion or seat flexible longitudinally and transversely.

3. A couch hammock comprising a rectangular frame covered with canvas, duck or like material, end sections of similar material secured to the covering of said frame along lines parallel to, but spaced inwardly from the transverse members of said frame to an extent sufficient to prevent contact of the occupant of the hammock with said side members and upon the upper side thereof, transversely extending spreaders secured to the free ends of said end sections, said end sections being provided with cords extending along the lateral edges thereof and secured to said frame and to the ends of said spreaders, said cords being drawn taut to give a sag to the end sections.

1,136,987. IMPACT ROTARY DRILL. WILLIAM HENRY WAKFER, South Norwood, England, assignor of one-half to Samuel Peck, Wallington, England. Filed June 16, 1913. Serial No. 773,994. (Cl. 255—64.)



1. An impact rotary drill comprising a prismatic head of larger cross sectional dimensions than the shank or bar upon which it is carried, said head having a short pointed end the faces of which meet in edges having a length substantially equivalent to that of the base of said faces, whereby the edges of the faces perform a cutting operation during rotation.

2. An impact rotary drill comprising a prismatic head of larger cross sectional dimensions than the shank or bar upon which it is carried, said head having a short pyramidal end, the faces of which are inclined at such an angle to the base of the pyramid that the edges of said faces form substantially equilateral triangles, whereby the edges of the faces perform a cutting operation during rotation.

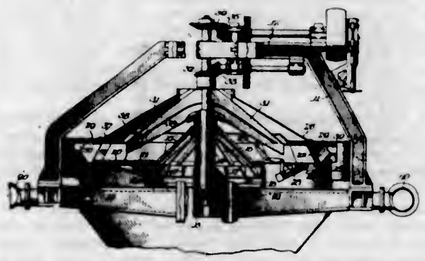
3. An impact rotary drill comprising a prismatic head of larger cross sectional dimensions than the shank or bar upon which it is carried, said head being formed with hollow or concaved sides and with a short pyramidal end, the faces of which are inclined at such an angle to the base of the pyramid that the edges of said faces form substantially equilateral triangles, whereby the edges of the faces perform a cutting operation during rotation.

4. An impact rotary drill comprising a prismatic head of larger cross sectional dimensions than the shank or bar upon which it is carried, said head having a short pyramidal point formed on one end, the sides of the pyramid being continuations of the sides of the prism, the angle of inclination of the sides of said pyramid being such that the edges of said sides form substantially equilateral triangles, whereby the edges of the sides perform a cutting operation during rotation, and means formed on the other end of said head for attaching said head to a shank or bar.

5. An impact rotary drill, comprising a prismatic head of larger cross sectional dimensions than the shank or bar upon which it is carried, said head having a short point formed on one end, the converging edges of the sides of said end forming substantially equilateral triangles, said point being adapted to penetrate under impact and to cut during rotation, and a tapered shank portion on the opposite end of said head.

[Claim 6 not printed in the Gazette.]

1,136,988. CENTRIFUGAL DRIER. CARL A. WENDELL, Joliet, Ill. Filed July 14, 1913. Serial No. 778,865. (Cl. 127—3.)



1. In a centrifugal drier, the combination of a frame, a pair of horizontal, rotatable, differentially geared members, one of said members being in the form of a delivery spout, the other of said members acting as a separating member whereby moisture is projected from the material by centrifugal action, said separating member consisting of a screen mounted at an angle to the vertical, there being a clear uninterrupted apace between the path of the mouth of the spout and the screen, and the screen forming an unbroken screening surface, and a trap mounted in said last named member and located beneath said screen whereby materials forced against said screen by the centrifugal force is by the same force projected downwardly and outwardly through said trap, substantially as described.

2. In a centrifugal drier device of the class described, the combination of a frame, a rotatable casing, a rotatable delivery spout, said casing and spout being differentially geared whereby both are rotated in the same direction but at different speeds, said casing being provided with a screen, said screen being secured to the bottom wall of said casing and extending upwardly and inwardly in a substantially straight line, there being a clear uninterrupted space between the path of the mouth of the spout and the screen, and the screen forming an unbroken screening surface, and a trap mounted in the bottom wall of said casing, said trap serving the space over which said screen is inclined, and means for periodically opening said trap the arrangement being such that centrifugal force tends to project downwardly and outwardly materials forced against said screen, substantially as described.

1,136,989. EMERGENCY-EXIT-DOOR FASTENER. CHARLES B. WOODARD, Springfield, Tenn. Filed Feb. 15, 1913. Serial No. 748,695. (Cl. 70—120.)

1. The combination with a door, of a panel supported in spaced relation to the door and bodily movable toward the same, a rocking rod arranged for actuation upon movement of the panel toward the door, a latch-arm extending from the rod, an arm extending from the rod, a spring bearing against the last mentioned arm and yieldably holding the same in one direction, a rotatable head having a cam face against which the end of the last mentioned arm rests and means for rotating the head.

2. The combination with a door, of a panel supported in spaced relation to the door and bodily movable toward the same, supporting means for the panel including a rod arranged for actuation upon movement of the panel toward the door, a latch-arm extended from the rod and movable therewith, a second arm extending from the rod and also movable therewith, a rotatable head having a cam surface engaged by the last mentioned arm, means for limiting the rotative movement of the head, and a spring bearing against the last mentioned arm and holding the same in engagement with the cam face of the head and acting also to yieldably hold the rod rocked to position with the supporting arm holding the panel spaced from the door.



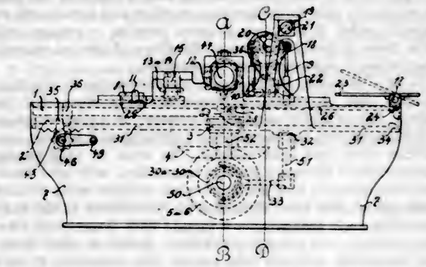
3. The combination with a door, of a panel, and means supporting the panel in spaced relation to the door, said means including bracket arms pivoted upon the door and supporting the panel at one side, a rod mounted for turning movement at the other side of the door, and bracket arms secured to the said rod for turning movement therewith and pivoted to the panel and supporting the panel at its corresponding side, the panel being movable toward the door and upon such movement acting to turn the rod, a latch arm carried by the rod, and means yieldably holding the parts in position with the panel moved away from the door.

4. The combination with a door, of a member supported in spaced relation to the door and bodily movable toward the same, a latch arm mounted for rocking movement and arranged to be rocked upon movement of the member toward the door, an arm connected for movement with the latch arm, means coöperating with the second-mentioned arm and yieldably holding the latch arm in locking position and through the medium of the said second-mentioned arm yieldably holding the said member spaced from the door, and means independent of the said member and coöperating with the said second-mentioned arm and manually operable to move the latch arm out of locking position.

5. The combination with a door, of a member supported for movement relative thereto, a latch arm mounted for rocking movement and operatively connected with the said member, whereby to be moved out of locking position upon the movement of the member in one direction, means yieldably holding the latch arm in locking position and acting through the said arm to hold the member yieldably against movement in said direction, and a rotatable cam member coöperating with the latch arm and manually operable to move the latch arm out of locking position.

1,136,990. MACHINE FOR THE MANUFACTURE OF HORSESHOES. JOHANN ZINS, Bremen, Germany, assignor to the Firm of Wiesche & Scharffe, Frankfort-on-the-Main, Germany. Filed Sept. 27, 1909. Serial No. 629,518. (Cl. 59—48.)

1. The herein described machine for the manufacture of horse-shoes, comprising a table, a shoe-"former" on said table, a pair of bending rollers, a matrix, and a punch; means for reciprocating said table beneath said rollers, matrix, and punch, and means for operating the matrix and then the punch during the forward movement of said table, said means serving during the return of the table to set the punch and the matrix into operative position.

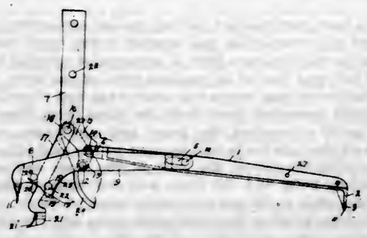


2. In a machine for the manufacture of horse-shoes, the combination with a reciprocating table and a "former" on said table, of a matrix mounted above said table, levers for vibrating said matrix, and means on said table for actuating said levers as said table moves to and fro, substantially as set forth.

3. In a machine for the manufacture of horse-shoes, the combination, with a reciprocating table and a "former" on said table, of a punch mounted above said table, levers mounted at the front and rear of said punch, and means on said table for actuating said levers; the levers at the front of the punch being actuated during the forward movement of the table to perforate the shoe, while the levers at the rear of the punch are actuated during the return of the table to set the punch in its normal position, substantially as set forth.

4. In a machine for the manufacture of horse-shoes, the combination, with a reciprocating table whereon the shoe is formed of a chute pivotally mounted at the front end of the machine and so disposed as to receive the shoe from its "former"; a latch mounted on the pivot of said chute and a catch on said table adapted to engage with said latch and to tip the chute, substantially as set forth.

1,136,991. HOOF-CLIPPER. ROY L. ARTHUR, Lane, Ill., assignor to Eli C. Herschberger, Arthur, Ill. Filed May 25, 1914. Serial No. 840,693. (Cl. 168—48.)



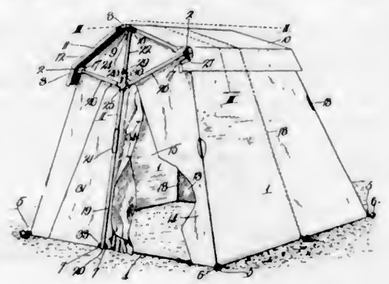
1. In a device of the character described and in combination, a pair of handle members pivotally connected together, one of which forms a base member, a knife carrying member having a slidable and pivotal connection with one of said handle members and a jaw or anvil member pivotally connected to the other of said handle members and adapted to coöperate with said knife carrying member, said jaw or anvil member having one face formed on two inclines converging to an apex and a pin connected to said knife carrying member engaging said face whereby a slidable and pivotal connection between said members is provided.

2. In a device of the character described and in combination, a pair of handle members pivotally connected together, one of which forms a base member, a knife carrying member having a slidable and pivotal connection with one of said handle members and a jaw or anvil member pivot-

ally connected to the other of said handle members and adapted to coöperate with said knife carrying member, said jaw or anvil member having its edge faces each formed on a plurality of inclines and a plurality of pins connected to said knife carrying member and positioned on opposite sides of said jaw or anvil member to engage said edge faces thereof, whereby a slidable and pivotal connection between said members is provided.

3. In a device of the character described and in combination, a pair of handle members pivotally connected together, one of which is adapted to serve as a base member, a knife carrying member having a slidable and pivotal connection with said base member, the other of said handle members also having a pivotal connection with said knife carrying member, said knife carrying member being formed with spaced side members and a pin connection at the ends of said spaced side members to said base member to form said slidable and pivotal connection, a jaw or anvil member extending between said spaced side members of said knife carrying member and pivotally connected to the other of said handle members, said jaw or anvil member having its edge faces each formed on a plurality of inclines and a plurality of pins connected to said knife carrying member and positioned on opposite sides of said jaw or anvil member to engage said edge faces thereof, whereby a slidable and pivotal connection between said members is provided.

1,136,992. TENT. CYRUS M. AVERITT, Kansas City, Mo. Filed Mar. 11, 1914. Serial No. 823,907. (Cl. 135—1.)



1. A tent, comprising a pair of upright supporting poles, a ridge pole connecting and secured to the upper ends of the supporting poles, a pair of eaves poles paralleling the ridge pole and located at opposite sides of the same, a top stretched over and secured to said ridge and eaves poles, side walls extending down from the eaves poles, front and back walls connecting the front and rear edges respectively of the side walls and secured to the said ridge and eaves poles inward of the ends of the same and of the supporting poles and the front and rear ends of the top, said top, side walls and end walls being of fabric, toggle connections between the supporting poles and the ends of the eaves poles externally of the front and back walls, and means for anchoring the walls to the ground.

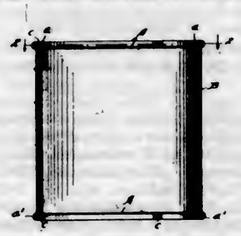
2. A tent comprising a pair of upright supporting poles, a ridge pole connecting and secured to the upper ends of the supporting poles, a pair of eaves poles paralleling the ridge pole and located at opposite sides of the same, a top stretched over and secured to said ridge and eaves poles, side walls extending down from the eaves poles, front and back walls connecting the front and rear edges respectively of the side walls and secured to the said ridge and eaves poles inward of the ends of the same and of the supporting poles and the front and rear ends of the top, said top, side walls and end walls being of fabric, toggle connections between the supporting poles and the ends of the eaves poles externally of the front and back walls, and means for anchoring the walls to the ground.

3. A tent comprising a pair of upright supporting poles, a ridge pole connecting and secured to the upper ends of the supporting poles, a pair of eaves poles paralleling the ridge pole and located at opposite sides of the same, a top stretched over and secured to said ridge and eaves poles, side walls extending down from the eaves poles, front and back walls connecting the front and rear edges respectively of the side walls and secured to the ridge and eaves poles inward of the ends of the same and of the supporting poles and the front and rear ends of the top, said top, side walls, and end walls being of fabric, toggle connections between the supporting poles and the ends of the eaves poles externally of the front and back walls, a flexible reinforcement of the lower edges of the walls, provided midway the width of the front and back walls with a pair of enlargements flanking the lower ends of the supporting poles to prevent lateral movement thereof, and means for anchoring the walls to the ground.

4. A tent, comprising a pair of upright supporting poles, a ridge pole connecting and secured to the upper ends of the supporting poles, a pair of eaves poles paralleling the ridge pole and located at opposite sides of the same, a top stretched over and secured to the said ridge and eaves poles, side walls extending down from the eaves poles, front and back walls connecting the front and rear edges respectively of the side walls and secured to the said ridge and eaves poles inward of the ends of the same and of the supporting poles and the front and rear ends of the top, said top, side walls and end walls being of fabric, toggle connections between the supporting poles and the ends of the eaves poles externally of the front and back walls, a flexible reinforcement for the lower edges of the walls, cords secured to the ridge and eaves poles and extending down from the latter along and under the corners formed by the front and side walls and attached at their lower ends to the said flexible reinforcement, and means for anchoring the walls to the ground.

5. A tent, comprising a pair of upright supporting poles, a ridge pole connecting and secured to the upper ends of the supporting poles, a pair of eaves poles paralleling the ridge pole and located at opposite sides of the same, a top stretched over and secured to the said ridge and eaves poles, side walls extending down from the eaves poles, front and back walls connecting the front and rear edges respectively of the side walls and secured to the said ridge and eaves poles inward of the ends of the same and of the supporting poles and the front and rear ends of the top, said top, side walls and end walls being of fabric, and the front wall having a door opening, toggle connections between the supporting poles and the ends of the eaves poles externally of the front and back walls, a flexible reinforcement for the lower edges of the walls, an inverted-V shaped fabric door secured at its apex to the front wall above the door opening therein and slidingly affixed at its lower end to the said flexible connection at opposite sides of the front supporting pole, and means for anchoring the walls to the ground.

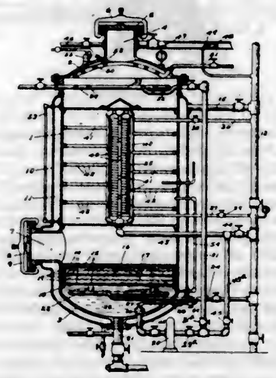
1,136,993. CAN END. WILLIAM AYRES, Mount Hamilton, Ontario, Canada, assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed July 29, 1912. Serial No. 711,967. (Cl. 220—68.)



1. A can end having a laterally extending flange and a countersunk central portion, the vertical wall of the countersunk portion being formed with outwardly bulged portions extending upwardly and downwardly along the said vertical walls, whereby the nesting of the can end is prevented when it is stacked with others of a similar structure, substantially as specified.

2. A sheet metal can end having a laterally extending circumferential and countersunk central portion, the vertical wall of the countersunk portion being formed with outward bulges at three circumferential equally spaced points, the said bulges extending upwardly and downwardly along the said vertical wall, the bulges preventing the can end from nesting with others of a similar structure when stacked, substantially as specified.

1,136,994. PROCESS OF REMOVING ROSIN AND TURPENTINE FROM RESINOUS WOODS. WILLIAM M. BASHLIN, Grove City, Pa. Filed May 11, 1912, Serial No. 696,747. Renewed Feb. 10, 1915. Serial No. 7,371. (Cl. 203—6.)



1. The process of removing rosin and turpentine from resinous woods which consists in subjecting such wood to heat; extracting rosin and turpentine from the wood by the action of a percolating liquid solvent while maintaining the wood in an unsubmerged condition, the withdrawal of the solvent rich in extract, the application of steam in an upward direction to drive off the residue of turpentine and the easily volatilized substances from the wood, the application of steam in a downward direction, the application of water at about the boiling point, and drawing off at the surface of the water the products separated from the wood by the water.

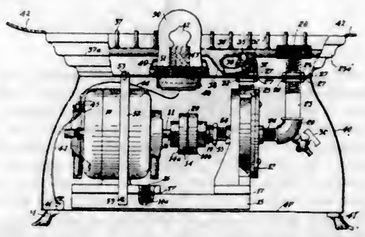
2. The process of removing rosin and turpentine from resinous woods which consists in subjecting such wood to a pressure below atmospheric pressure, extracting rosin and turpentine from the wood by the action of a percolating liquid solvent while maintaining the wood in an unsubmerged condition, the withdrawal of the solvent rich in extract, the application of steam in an upward direction to drive off the residue of turpentine and the easily volatilized substances from the wood, the application of steam in a downward direction, the application of water at about the boiling point, and drawing off at the surface of the water the products separated from the wood by the water.

3. The process of removing rosin and turpentine from resinous woods which consists in subjecting such wood to heat and a pressure below atmospheric pressure; extracting the rosin and turpentine from the wood by the action of a percolating liquid solvent while maintaining the wood in an unsubmerged condition, the withdrawal of the solvent rich in extract, the application of steam in an upward direction to drive off the residue of turpentine and the easily volatilized substances from the wood, the application of steam in a downward direction, the application of water at about the boiling point, and drawing off at the surface of the water the products separated from the wood by the water.

4. The process of removing rosin and turpentine from resinous woods which consists in subjecting the wood to a pressure below atmospheric pressure and extracting the turpentine and rosin by a percolating liquid solvent while maintaining the wood in an unsubmerged condition.

5. The process of removing rosin and turpentine from resinous woods which consists in subjecting the wood to heat at a pressure below atmospheric pressure and extracting the rosin and turpentine by a percolating liquid solvent while maintaining the wood in an unsubmerged condition.

1,136,995. ELECTRIC WATER-FOUNTAIN. ORLANDO F. BATTAGLIA, New York, N. Y. Filed Apr. 3, 1911. Serial No. 618,644. (Cl. 137—108.)

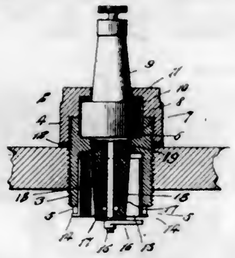


1. An electric water fountain having in combination, a base, a casing, a frame, an outer casing and a support, within the casing an electric motor mounted in bearings, and upon a horizontal shaft, said shaft adapted to serve as a drive shaft, a centrifugal pump having a horizontal shaft mounted in bearings, said shaft being in alinement with the shaft of the motor, and having connections with the drive shaft whereby the power from the drive shaft is transmitted to the shaft of the pump, a basin surmounting the casing of the structure adapted to contain water, a supply pipe connecting the basin with the pump, an open mesh metal strainer over the inlet to the pipe and a joint provided in the pipe, a cock for connecting a hose with the pipe, a transmission pipe leading from the pump upwardly to the basin, a tubular ring concentric with the wall of the basin positioned in a horizontal plane, branch pipes connecting the transmission pipe with the opposite sides of the tubular ring, a cock in each of the branch pipes for regulating the flow of water to the tubular ring, a plurality of nozzles seated in the upper side of the tubular ring, and an electric lamp centrally located in the bottom of the basin, means for supplying said lamp and said electric motor with electrical energy, and a globe of glass surrounding the electric lamp, all arranged and combined to operate in the manner set forth and for the purposes stated.

2. An electric water fountain of the character described, having in combination with a support, a frame and a base and a casing, an open basin of elliptical contour, and having slanting slides, and extended flanges; within the casing beneath the basin mounted upon bearings and fixed to the base, an electric motor and a turbine pump, means for connecting the motor with a source of electrical supply, and means for transmitting the power from the motor to the pump, comprising a drive shaft forming a part of the engine positioned in a horizontal plane, and a horizontally disposed rotatable shaft forming a part of the pump and engaging with the drive shaft of the motor in such manner that the power of the motor is transmitted to the pump, a pipe leading from the basin to the pump having a grating over the inlet, and having a cock provided in a joint for connecting with a hose adapted to conduct water as may be required, a transmission pipe leading from the pump to the basin, and a tubular ring having connected therewith a plurality of nozzles, at spaced intervals in the tubular ring on the upper surface

thereof, a plurality of branch connecting pipes leading from the transmission pipe to the tubular ring, a cock in each connecting pipe adapted for regulating the flow of water through the pipes, a glass globe adapted to exclude moisture, seated in the bottom of the basin, and an electric lamp seated within the glass globe and means connecting the lamp with a source of electrical energy, substantially as set forth and for the purposes stated.

1,136,996. SPARK-PLUG. CHARLES W. BECK, Rockville Center, N. Y., assignor, by mesne assignments, to Beck-Frost Corporation, Detroit, Mich., a Corporation of Michigan. Filed Feb. 18, 1910. Serial No. 544,570. (Cl. 123—169.)



1. A spark plug comprising a tubular base, an insulator supported by said base and carrying an electrode, said insulator extending through the base and the inner end thereof being smaller in diameter than the interior of the inner portion of the base whereby a gas space of considerable capacity is formed within the base and around the inner part of the insulator, and removable protectors for the inner end of the base and the inner end of the insulator, said protectors serving as means to prevent the deposit of carbon on the inner surface of the base and the exterior of the insulator.

2. A spark plug comprising a tubular base, an insulator supported by said base and carrying an electrode, said insulator extending through the base and the inner end thereof being smaller in diameter than the interior of the inner portion of the base, and removable protectors for the inner end of the base and the inner end of the insulator, the insulator and its protector being considerably smaller than the interior of the base protector, whereby a gas space of considerable capacity will be formed around said insulator protector.

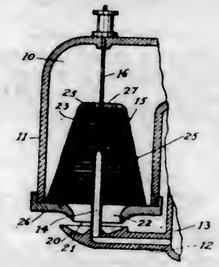
3. A spark plug comprising a tubular base, an insulator supported by said base and carrying an electrode, said insulator extending through the base and the inner end thereof being smaller in diameter than the interior of the inner portion of the base, and a thin removable protector for the inner end of the insulator, said protector being out of contact with the base whereby a gas space of considerable capacity will be formed between said protector and the inner surface of the base and said protector will serve as a means to prevent the deposit of carbon on the insulator.

4. A spark plug comprising a tubular base, an insulator supported by said base and carrying an electrode, said insulator extending through the base and the inner end thereof being smaller in diameter than the interior of the inner portion of the base, and a removable protector of non-conducting material covering the inner end of the insulator, said insulator and protector being smaller in diameter than the interior of the base whereby a considerable gas space will be formed around said protector and said protector will prevent the deposit of carbon on the insulator.

5. A spark plug comprising a tubular base, an insulator supported by said base and carrying an electrode, said insulator extending through the base and the inner end thereof being smaller in diameter than the interior of the inner portion of the base, a thin removable protecting and nonconducting sheath or covering on the inner end of the insulator within the base, said insulator and sheath being considerably smaller in diameter than the interior of the base, and a detachable firing pin carried by the electrode and serving to hold the sheath or protector in position on the insulator.

[Claims 6 and 7 not printed in the Gazette.]

1,136,997. CARBURETER. ASHLEY C. BENNETT, Minneapolis, Minn. Filed Feb. 17, 1913. Serial No. 748,834. (Cl. 48—168.)



1. A carbureter comprising a carbureting chamber having a central air admission opening, an oil feed pipe extending centrally through said opening and within the carbureting chamber, and an evaporator surrounding said feed pipe and opening through which all air and fuel oil must pass, said evaporator being built up of a multiplicity of juxtaposed parts having their contiguous surfaces widely extended and held just out of contact.

2. A carbureter comprising a carbureting chamber having a central air admission opening, a fuel oil reservoir, and means for conducting oil therefrom and into the carbureting chamber including a feed pipe extending centrally through said opening, a cup-like member surrounding the base of the feed pipe and spaced from the said opening, and an evaporator surrounding said feed pipe and opening through which all air and fuel oil must pass, said evaporator being built up of a multiplicity of juxtaposed parts having their contiguous surfaces widely extended and held just out of contact.

3. A carbureter comprising a carbureting chamber having a central air admission opening, an evaporator within the carbureting chamber comprising a hollow member closed at the top and having the bottom thereof surrounding the said opening, the walls of said member consisting of a series of parts provided with extended surfaces, the adjacent surfaces being slightly spaced apart, and means for delivering fuel oil within said evaporator.

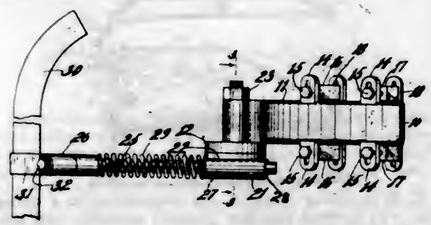
4. A carbureter comprising a carbureting chamber having a central air admission opening, an evaporator within the carbureting chamber comprising a hollow member and having the bottom thereof surrounding the said opening, the walls of said member consisting of a series of annular plates laid one upon another, and means for delivering fuel oil within the evaporator.

5. A carbureter comprising a carbureting chamber having a central air admission opening, an evaporator within the carbureting chamber comprising a hollow member and having the bottom thereof surrounding the said opening, the walls of said member consisting of a series of annular plates laid one upon another, means for holding the adjacent surfaces of said plates out of contact, and means for delivering fuel oil within the evaporator.

[Claim 6 not printed in the Gazette.]

1,136,998. FENDER FOR AUTOMOBILES. JAYSON K. BOND, Milwaukee, Wis., assignor of one-half to Kenneth W. Jacobs, Milwaukee, Wis. Filed Mar. 11, 1911. Serial No. 613,886. (Cl. 213—39.)

1. A fender for automobiles, comprising connecting members adapted to be rigidly connected to an automobile frame and provided with forward enlargements having recesses, eyed members revolubly connected to the enlargements and provided with pins positioned to enter the recesses and lock the members in adjusted positions, said revoluble members adapted to be adjusted with relation to the connecting members without changing the adjustment of the connecting members on the frame, plunger rods slidably extending through the eyes of the eyed members, a buffer carried by the outer ends of the rods, and springs surrounding the rods and interposed between the buffer and the eyed members.



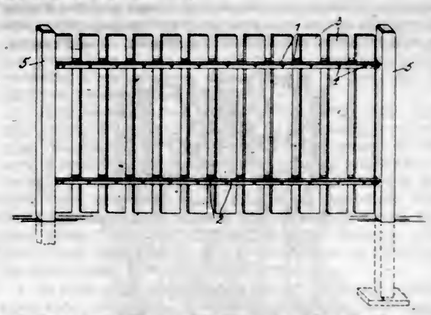
2. A fender for automobiles, comprising connecting members adapted to be rigidly connected to an automobile frame and provided with disk shaped forward projections, eyed members revolubly connected to the disk shaped projections, the projections of the connecting members and the eyed members being provided with a pin and recess means for locking the members in adjusted positions, said revoluble members adapted to be adjusted with relation to the connecting members without changing the adjustment of the connecting members on the frame, plunger rods slidably extending through the eyes of the eyed members, clamping heads carried by the outer ends of the rods, coiled springs surrounding the rods and interposed between the eyed members and the clamping heads, and a buffer connected to the clamping heads.

3. A fender for automobiles, comprising connecting member adapted to be rigidly connected to an automobile frame and provided with disk-shaped forward projections having medial openings and a circumferential line of recesses, eyed bolts extending through the medial openings and provided with enlarged heads having projecting pins positioned to enter the recesses of the disk shape projections to lock said parts in adjusted positions, said revoluble members adapted to be adjusted with relation to the connecting members without changing the adjustment of the connecting members on the frame, plunger rods slidably extending through the eyes of the eyed bolts, clamping heads carried by the outer ends of the rods, coiled springs surrounding the rods and interposed between the eyed bolts and the clamping heads, and a buffer connected to the clamping heads.

4. A fender for automobiles, comprising connecting members each provided with slotted laterally projecting ears and with a disk-shaped forward projection having a medial opening and a circumferential line of recesses, threaded side members engaged by bolts passing through the projecting ears, clip plates extending transversely beneath the side members and through which bolts extend and are threaded into the side members, eyed bolts extending through the medial openings and provided with enlarged heads having projecting pins positioned to enter the recesses of the disk shape projections to lock said parts in adjusted positions, plunger rods slidably extending through the eyes of the eyed bolts, clamping heads carried by the outer ends of the rods, coiled springs surrounding the rods and interposed between the eyed bolts and the clamping heads, and a buffer connected to the clamping heads.

1,136,999. FENCE. JOSEPH L. BONDY, Chicago, Ill. Filed Oct. 5, 1911. Serial No. 652,928. (Cl. 256—24.)

1. In a fence, the combination of a fence section comprising a plurality of fence boards, metal rails symmetrically disposed upon either side of the boards to support them, bars bent at right angles extending from the ends of the rails, and concrete posts provided with supporting plates having T-shaped openings through them to receive the ends of the bent bars.



2. In a fence, the combination of a fence section comprising a plurality of fence boards, metal rails symmetrically disposed upon either side of the boards to support them, bars bent at right angles extending from the ends of the rails, and concrete posts provided with supporting plates having openings through them to receive the ends of the bent bars, such plates and bent bars so conformed as to lock the rails to the post when the bars are in place.

3. In a fence, a combination of a section comprising a plurality of fence boards, metal rails symmetrically disposed on opposite sides of the fence boards for supporting them, concrete posts carrying devices for engaging the ends of the rails and means wholly contained in the space between the rails for maintaining a space between the rails and boards, said means provided with means extending into the body of the boards for preventing relative endwise motion of the boards.

4. In a fence, the combination of a plurality of vertical pickets disposed in substantially parallel relation, metal rails symmetrically placed upon each side of the pickets, bolts extending through the rails between the pickets to hold the latter in place, and devices carrying prongs projecting into the body of the pickets to prevent their relative displacement from between the rails.

5. In a fence, the combination of a plurality of vertical pickets disposed in substantially parallel relation, metal rails symmetrically placed upon either side of the pickets, bolts extending through the rails between the pickets to hold the latter in place, and prongs embedded in the faces of the pickets to prevent their displacement from between the rails.

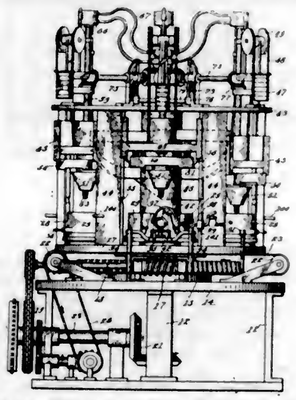
[Claim 6 not printed in the Gazette.]

1,137,000. FLUID-MOLDING PRESS. HENRY M. BROOKFIELD, New York, and SIGWARD OLSEN, Brooklyn, N. Y., assignors to The Brookfield Glass Company, New York, N. Y., a Corporation of New Jersey. Filed July 24, 1912. Serial No. 711,234. (Cl. 49—36.)

1. In a glass pressing machine for forming insulators and the like, the combination of a movable carrier having a plurality of molds mounted thereon, the bottoms of said molds being closed when the material in said molds is under pressure, a plunger including a core for each mold adapted to coöperate therewith in forming an article, and having a follower for closing the open end of its mold when the material in said molds is under pressure, locking means for each follower, means for operating said plungers and followers for advancing them to their mold to close said follower thereupon and effectuate the locking action of said locking means, and for continuing the advancing motion of said plunger with its core into its mold after said follower is locked, and means for unlocking said followers.

2. In a glass pressing machine for forming insulators and the like, in combination, a rotatable carrier having a plurality of molds mounted thereon, a plunger for each

mold adapted to coöperate therewith in forming an article, and having a follower for closing the open end of its mold, means operated by the rotation of said machine for raising and lowering said plungers and followers, locking means for holding each follower in closed position during the pressing action of its plunger, and means for unlocking said followers actuated by the rotation of said carrier.



3. In a glass pressing machine for forming insulators and the like, the combination of a mold for receiving glass and the bottom of which is closed at the time the glass is under pressure, a plunger coöperating therewith, a follower slidably mounted on said plunger, locking means for said follower, and means for advancing said plunger and follower to said mold to close said follower thereupon and effectuate the locking action of said locking means, and for continuing the advancing motion of said plunger after said follower is locked.

4. In a glass pressing machine for forming insulators and the like, in combination, a mold for receiving glass, a plunger coöperating therewith, a cross-head adapted to move in the direction of said mold, a follower moving with said cross-head and adapted to seat on said mold to close the same, means for imparting a yielding pressure from said cross-head to said follower, said plunger having a free sliding movement through said follower so that it may move into the mold after said follower closes said mold, and locking means for holding said follower in closed position during said free sliding movement of said plunger.

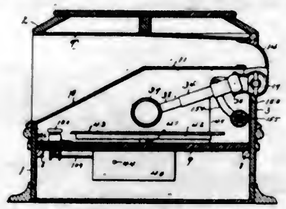
5. In a glass pressing machine for forming insulators and the like in combination, a rotatable carrier having a plurality of molds mounted thereon, a plunger for each mold adapted to coöperate therewith in forming an article, a cross-head for depressing said plunger, a follower for closing the open end of each mold slidably mounted on its associated plunger and adapted to engage the same for downward movement, a flexible connection between each cross-head and its associated follower, cam means operated by the rotation of the carrier for giving said cross-heads vertical movement, locking means for holding each follower in closed position during the pressing movement of its respective plunger, and means actuated by the rotation of said carrier for unlocking said followers.

[Claims 6 and 7 not printed in the Gazette.]

1,137,001. TALKING-MACHINE. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, a Corporation of New Jersey. Filed Apr. 18, 1914. Serial No. 832,710. (Cl. 181—3.)

1. In a talking machine, the combination of a motor box, with a hinged cover, a tone arm, an amplifier within said cover, a connection between said tone arm and said amplifier concentric with the hinge of said cover, and frictional means for holding said cover and amplifier in adjusted positions.

2. In a talking machine, the combination of a motor box, with a combined amplifier and cover for said box, a friction hinge connection between said box and cover whereby said cover may be adjusted to any degree of angularity in a vertical plane, a tone arm, a connection between said tone arm and said amplifier, and a friction hinge connection between said tone arm and said box whereby said tone arm may be adjusted in a vertical plane independently of the amplifier and without breaking the connection between said tone arm and said amplifier.



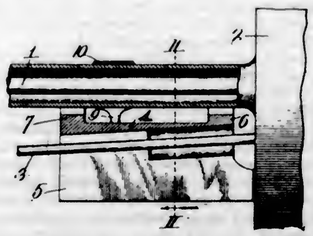
3. In a talking machine, the combination of a motor box, with a sound amplifier pivotally mounted upon said box to swing in a vertical plane, a tone arm frictionally connected to said box and amplifier to swing in a vertical plane, and a series of friction plates, connected to said box and amplifier for holding said amplifier in adjusted position relatively to said box.

4. In a talking machine, the combination of a motor box, with a sound amplifier pivotally mounted thereon to swing in a vertical plane, a slotted friction plate rigidly mounted upon said box, a second friction plate carried by said amplifier, and means for resiliently pressing said plates together whereby said amplifier will remain in any adjusted position.

5. In a talking machine, the combination of a motor box and turn-table, a motor within said box for driving said turn-table, a cover hinged to said box, having an amplifier fixed therein, adjustable friction mechanism connecting said cover and said motor box, for holding said cover in any desired angular position relatively to said box, and a tone arm frictionally connected to said amplifier for adjustment in a vertical plane, and carrying a sound box adapted to play a record mounted upon said turn-table.

[Claims 6 to 22 not printed in the Gazette.]

1,137,002. JACK-ENGAGING REAR-AXLE BRACKET. HARRY C. EDWARDS, Kansas City, Mo., assignor of one-half to John T. Megredy, Kansas City, Mo. Filed Mar. 14, 1914. Serial No. 824,795. (Cl. 21—90.)

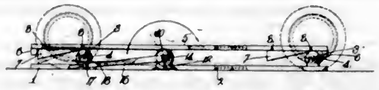


1. The combination with the rear axle of a motor car, of a bracket underlying the axle and comprising a top portion and two side portions spaced apart at opposite sides of the plane of the axis of the axle; said sides having oppositely bowed portions providing a longitudinally extending widened space between them and means securing the bracket rigidly to the axle.

2. A bracket comprising a top portion, substantially parallel sides depending vertically from the side margins of the top portion, forked lugs projecting upwardly from the top portion, and perforated ears projecting laterally from the top portion.

3. A bracket comprising a top portion, substantially parallel sides depending vertically from the side margins of the top portion and provided with oppositely bowed longitudinal portions 13, forked lugs projecting upwardly from the top portion, and perforated ears projecting laterally from the top portion.

1,137,003. AUTOMOBILE-JACK. HARRY C. EDWARDS and JOHN T. MEGREDY, Kansas City, Mo. Filed Sept. 21, 1914. Serial No. 862,709. (Cl. 254—88.)

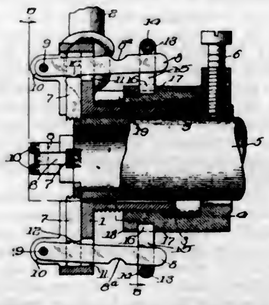


1. An automobile jack, comprising two pairs of journaled rollers, a frame provided with cam bars for operation on said rollers to effect a variation in the altitude of the frame, a suitably journaled shaft extending transversely of and below the said frame, and provided at one side of the latter with a crank adapted to occupy a substantially floor-level position when the said frame is in normal or lowered position, so that the wheels of a motor car may roll over without injuring the said crank, connections between said shaft and said frame whereby rotation of the former shall effect endwise movement of the frame and the consequent raising thereof through the cooperative action of the cams and rollers, and means for operating the shaft.

2. An automobile jack comprising two pairs of journaled rollers, a frame provided with cam bars for operation on said rollers, a suitably-journaled shaft extending transversely of and below said frame, provided at one side of the latter with a crank adapted when vertically pendant to contact with the floor, a lever secured to the shaft outward of the crank, means whereby the operation of said lever effects climbing movement of the cam bars on said rollers, and latch mechanism to secure the lever in adjusted position.

3. An automobile jack comprising two pairs of journaled rollers, a frame provided with cam bars for operation on said rollers, a suitably-journaled shaft extending transversely of and below said frame, provided at one side of the latter with a crank adapted when vertically pendant to contact with the floor, a pair of sprocket wheels secured on said shaft, chains engaging the wheels and connected to said frame, a lever secured to the shaft outward of said crank, and latch mechanism to secure the lever in adjusted position.

1,137,004. DIE-STOCK. JOSEPH C. FLETCHER, Chicago, Ill., assignor to The Nye Tool and Machine Works, Chicago, Ill., a Corporation of Illinois. Filed July 10, 1913. Serial No. 778,274. (Cl. 10—120.)



1. In a thread cutting device, a stock body, a die movable toward and from the work, a leader bushing screwing upon said stock body and adapted to be fastened to the work, a rotatable ring having a fixed position lengthwise of the axis of rotation, and a lever operatively engaging said die and being controlled jointly by the ring and stock body, said lever being oblique to the axis of the stock body and being pivoted to one of the two last mentioned parts and always engaging the other of said parts at a point having a fixed distance from the axis of rotation and a fixed position lengthwise of the axis of rotation, said lever being controlled from points on opposite sides of the point of action of the lever upon the die.

2. In a thread cutting device, a stock body, a die movable toward and from the work, a leader bushing screwing upon the stock body and adapted to be fastened to the work, a rotatable ring having a fixed position lengthwise of the axis of rotation, and a lever oblique to the axis of the stock body, said lever being pivoted to said stock body and being acted upon by said ring at a point whose distance from the axis of the stock body is constant, said lever acting upon said die at a point between its pivot and the point where it is acted upon by the ring.

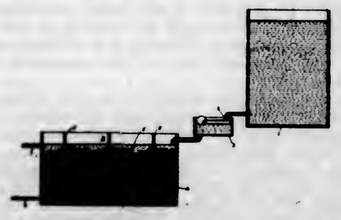
3. In a die stock, a stock body, a lever fulcrumed on said stock body, and having a working edge, said lever being oblique to the axis of the stock body, a radially movable die held to its work by said lever, a non-traveling rotatable ring acting upon the working edge of said lever at a point having a fixed distance from the axis of the stock body, the lever fulcrum and the point of action of the ring upon the lever being on opposite sides of the die, and a work holder for causing the stock body with its lever fulcrum and die to travel toward said ring as the stock body is rotated in a direction to cut a thread on the work.

4. In a die stock, a stock body, a die radially slidable therein, a work holder for causing the stock body to travel axially when rotated, a lever holding the die to its work, said lever being oblique to the axis of the stock body and having an outer working edge, a non-traveling rotatable ring acting upon the outer working edge of the lever at a point whose distance from the axis of the stock body is constant, said lever being pivoted to the stock body at a point on the opposite side of the die from the point where said lever is acted upon by said ring, and the point of action of the ring upon the lever being farthest from the lever pivot at the beginning of the cut, whereby the leverage which holds the die to its work is greatest when the cut which the die makes is deepest.

5. In a die stock, a stock body, a die movable toward and from the work, a lever fulcrumed on said stock body, and having a working edge, said lever being oblique to the axis of the stock body, a radially movable die held to its work by said lever, a non-traveling rotatable ring, an antifriction roller mounted in said ring and acting upon the working edge of said lever, the lever fulcrum and the antifriction roller engaging the lever on opposite sides of the die, and a work holder for causing the stock body to travel toward said ring as the stock body is rotated in a direction to cut a thread on the work.

[Claims 6 to 8 not printed in the Gazette.]

1,137,005. COAGULANT FOR WATER PURIFICATION AND PROCESS FOR MAKING SAME. ANDREW JACOBSON, Council Bluffs, Iowa. Filed Apr. 27, 1914. Serial No. 834,855. (Cl. 23—13.)



1. A coagulant for water purification, consisting of iron sulfate and soluble basic sulfate of aluminium.

2. A coagulant for water purification, consisting of ferrous sulfate and basic sulfate of aluminium having the composition, $Al_2(OH)_2 (SO_4)_2$:

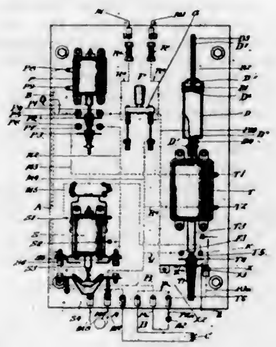
3. A coagulant for water purification, consisting of a salt of one metal and a soluble basic salt of another metal, the first-named metal being one capable of displacing the second-named metal from its combination with the acid radical of the salt.

4. A coagulant for water purification, consisting of a sulfate of one metal and a soluble basic sulfate of another metal, the first-named metal being one capable of displacing the second-named metal from its combination with the sulfuric acid radical, SO_4.

5. The process of making coagulant for water purification, consisting in passing an aqueous solution of sulfate of aluminium over metallic iron, so that a part of the iron is dissolved to form iron sulfate, and the sulfate of aluminium is reduced to a soluble basic sulfate of aluminium.

[Claims 6 to 10 not printed in the Gazette.]

1,137,006. ELECTRIC-MOTOR CONTROL. CHESTER S. JENNINGS, Boston, Mass., assignor to The Lamson Company (formerly Lamson Consolidated Store Service Company), Boston, Mass., a Corporation of New Jersey. Filed June 17, 1911. Serial No. 633,648. (Cl. 161—25.)



1. In a control for an electric motor, electrically actuated means for starting the motor from a distant point, means unaffected by the power generated by the motor for timing the duration of the operation of the motor when started, said timing means adapted to be re-set to extend the operation of said motor uninterruptedly at any time during the period of operation of the same and means for insuring a setting of said timing means to time for a full period whenever said first mentioned means is actuated.

2. In a control for an electric motor, electrically actuated means for starting the motor from a distant point, pneumatic means unaffected by the power generated by the motor for timing the duration of the operation of the motor when started, said timing means adapted to be re-set to extend the operation of said motor uninterruptedly at any time during the period of operation of the same and means for insuring a setting of said timing means to time for a full period whenever said first mentioned means is actuated.

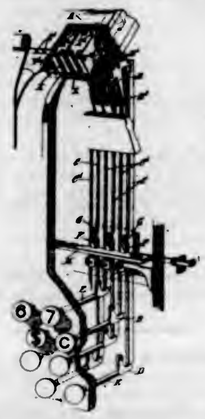
3. In a control for an electric motor, a controlling circuit having provisions for temporarily establishing motor-starting current conditions therein and separate provisions for maintaining said conditions when established, means controlled by said circuit for enabling the operation of said motor by electric current only so long as said conditions remain established, and means, operating independently of the power generated by said motor, for timing the duration of said conditions whereby to automatically limit the operation of said motor.

4. In combination, an electric motor having a circuit, a controlling circuit independent of the motor circuit and operating at a lower potential than said motor, said controlling circuit having provisions for temporarily establishing motor-starting current conditions therein and separate provisions for maintaining said conditions when established, means, controlled by said controlling circuit and including an electro-magnetic device operating at a higher potential than said circuit, for disestablishing said conditions while enabling the operation of said motor by electric current for a determined period running from the disestablishment of said conditions, and means for timing the duration of said period whereby to automatically limit the operation of said motor.

5. In a control for an electric motor, a motor controlling circuit including an electro-magnetic device having a part movable into and out of a position in which it is adapted to render the motor operative, provisions for maintaining said part in its motor operating position when once disposed therein, a second electric circuit dominated by said device and including a second electro-magnetic motor-controlling device, means controlled by said second device for rendering the provisions aforesaid inoperative, and means for timing a movement of said second device to normally limit the operation of said motor to a period determined by said timing means.

[Claims 6 to 10 not printed in the Gazette.]

1,137,007. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 17, 1914. Serial No. 832,421. (Cl. 199—7.)



1. In a typographical machine comprising integral type or matrices, the combination of a place of storage therefor, and means for releasing them therefrom, the said means comprising a plurality of escapements to engage simultaneously each type or matrix in effecting its release.

2. In a typographical machine comprising integral type or matrices, the combination of a place of storage therefor, and escapements arranged side by side for controlling their release therefrom, a plurality of said escapements being operated simultaneously in effecting the release of the individual type or matrices.

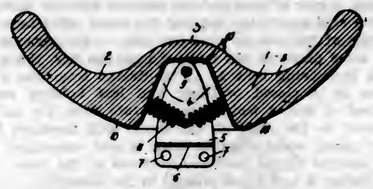
3. In a typographical machine, the combination of a magazine containing integral type or matrices, and escapements arranged side by side to control their release therefrom, a plurality of said escapements being operated simultaneously in effecting the release of the individual type or matrices.

4. In a typographical machine, the combination of a magazine having a series of channels, a series of escapements, one for each channel, a column of integral type or matricts stored in the magazine and occupying a plurality of channels therein, and means for operating simultaneously the escapements of said channels to effect the release of the individual type or matrices in the column.

5. In a typographical machine, the combination of a magazine having a series of channels, a series of escapements, one for each channel, a corresponding series of actuating devices therefor, a column of integral type or matrices stored in the magazine and occupying a plurality of channels therein, and means for connecting the actuating devices for the escapements of such channels so that they may be operated simultaneously to effect the release of the individual type or matrices in the column.

[Claims 6 to 10 not printed in the Gazette.]

1,137,008. CRUTCH. FRANZ KINDERMANN, Berlin, Germany. Filed June 16, 1914. Serial No. 845,340. (Cl. 3—4.)



1. A crutch comprising a staff, a cross piece, a member having a cavity secured to said crosspiece, and a pivotal connection between said member and said staff.

2. A crutch comprising a staff, a cross piece, a member having a cavity secured to said crosspiece, and a pivotal connection between said member and said staff, said pivotal connection being disposed at the upper end of said cavity.

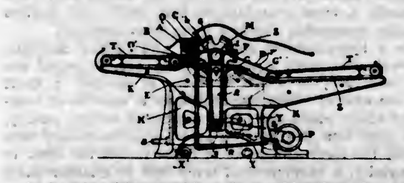
3. A crutch comprising in combination a staff and a crosspiece pivotally connected to one end thereof, said crosspiece comprising a middle part pivotally mounted on the staff, two side parts pivotally mounted on the middle part, and a flexible covering carried by the middle and side parts.

4. A crutch comprising a staff, a cross piece comprising a middle member forming an upwardly projecting part adapted to engage in the arm pit, a pivotal connection between said middle member and said staff, side elements of said cross piece secured to and movable with respect to said middle member, and a flexible member extending over the outer ends of said side elements and over said middle member.

5. A crutch comprising in combination a staff and a crosspiece pivotally connected to one end thereof, said crosspiece having a hollow middle projecting portion adapted to take into the armpit and to contain the pivotal connection with the staff.

[Claims 6 to 9 not printed in the Gazette.]

1,137,009. BRUSHING-MACHINE. BENOIT LACROIX, Chazelles-sur-Lyon, France. Filed May 6, 1913. Serial No. 765,801. (Cl. 26—4.)



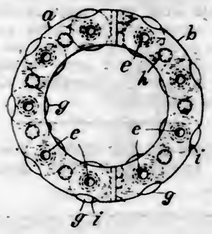
1. In a brushing machine, the combination of a conveyer, conveying rollers, a rotary brushing element comprising segmental brushes, a stationary trough under said brushing element against which the article to be brushed is pressed during the brushing action, liquid spraying means disposed between said conveying rollers and said rotary brush, a protector for stopping the finished article ejected by the said brush and a conveyer for receiving the finished article.

2. In a brushing machine, the combination of a conveyer, conveying rollers, a rotary brushing element comprising segmental brushes, a stationary trough under said brushing element against which the article to be brushed is pressed during the brushing action, liquid spraying means disposed between said conveying rollers and said rotary brush, a protector for stopping the finished article ejected by the said brush, a conveyer for receiving the finished article, and means for heating the liquid supplied to said spraying means.

3. In a brushing machine, the combination of a conveyer, conveying rollers, a rotary brushing element comprising segmental brushes, a stationary trough under said brushing element against which the article to be brushed is pressed during the brushing action, liquid spraying means disposed between said conveying rollers and said rotary brush, a tank disposed below said rotary brushing element for containing a liquid, means for heating said liquid and means for distributing said liquid to said spraying means.

4. In a brushing machine the combination of a conveyer, conveying rollers, a rotary brushing element comprising segmental brushes, a stationary trough under said brushing element against which the article to be brushed is pressed during the brushing action, liquid spraying means disposed between said conveying rollers and said rotary brush, a tank disposed below said rotary brushing element for containing a liquid, means for heating said liquid, means for distributing said liquid to said spraying means and a return way for conveying the surplus liquid back to said tank.

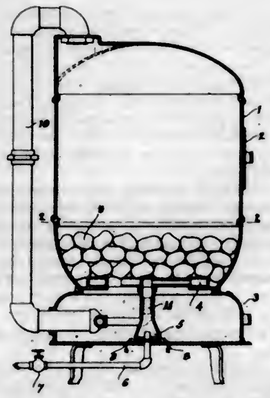
1,137,010. DIVIDED CAGE FOR ROLLER-BEARINGS. CHARLES S. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed Aug. 15, 1913. Serial No. 784,860. (Cl. 64—62.)



1. A roll-set for a roller bearing, comprising sheet-metal heads of annular form divided each into two sections, studs upon the heads, a set of tubular rollers held in the cage thereby, tie-rods connecting such head-sections separately between the said rollers and fitted to guide the same, and lugs turned inwardly upon the divided edges of the heads and lying in spaces between the rollers and provided with loosely detachable connection, whereby the cage-sections are held together without any projections upon the outer sides of the cage-heads.

2. A roll-set for a roller bearing, comprising sheet-metal heads of annular form divided each into two sections, studs upon the heads, a set of tubular rollers held in the cage thereby, tie-rods connecting such head-sections separately between the said rollers and fitted to guide the same, and lugs turned inwardly upon the divided edges of the heads and lying in spaces between the rollers and provided with loosely detachable connection, such lugs operating as guides for the adjacent rollers conjointly with the tie-rods and the roll-set thus forming when separated from the shaft, two separate self-contained half roll-sets adapted for insertion in a bearing at opposite sides of the shaft.

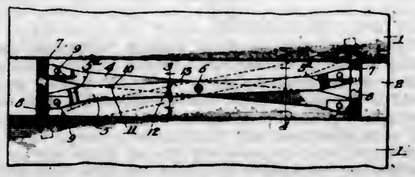
1,137,011. GAS-HEATER. THOMAS J. MCCARTHY, Cincinnati, Ohio. Filed Dec. 9, 1912. Serial No. 735,777. (Cl. 158—99.)



1. In a gas heater having an upper chamber provided with a gas burner therein, and a lower chamber provided with a gas and air mixer therein, said mixer being arranged in a plane some distance below said gas burner, a return pipe communicating with the upper portion of said upper chamber and extending downwardly into said lower chamber and having an outlet arranged independently of said mixer adapted to discharge the unburned or partially burned gas at a point intermediate of the gas burner and of said mixer, substantially as set forth and for the purposes specified.

2. In a gas heater having a chamber provided with a gas burner therein and with a gas and air mixer arranged on a plane below said gas burner, a return pipe extending from above said gas burner, to a point below said gas burner, and having a plurality of outlets arranged independently of said mixer on a plane intermediate of said mixer and gas burner, said pipe being adapted to carry the unburned or partially burned gas from above said gas burner and to discharge the same through said outlets until the same is burned, substantially as set forth and for the purposes specified.

1,137,012. LOOSE-LEAF BINDER. JOHN P. MENTZER, Chicago, Ill. Filed Oct. 27, 1913. Serial No. 797,376. (Cl. 129—10.)



1. A device of the class described comprising in combination, a pair of bars both pivoted between their ends at a common pivot, the opposite ends of each bar being separated from the corresponding end of the other bar when in closed position, one part of an openable leaf holding member mounted upon each end of each bar and forming a pair of substantial rings when closed and the holding rings formed upon the opposite ends of both bars being parallel to each other when in closed position.

2. A device of the class described comprising in combination, a pair of bars both pivoted between their ends at a common pivot, the opposite ends of the bars being bent so as to diverge from one another at their ends when in closed position, one part of an openable leaf holding member mounted upon each end of each bar and forming a pair of substantial rings when closed, the holding rings formed upon the ends of the bars being parallel to each other when closed, and means for limiting the movement of the bars in one direction.

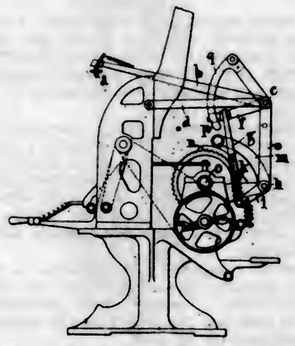
3. A device of the class described comprising in combination, a pair of bars pivoted between their ends at a common pivot, the opposite ends of each bar being normally separated from the corresponding ends of the other bar when in closed position, the corresponding ends of both bars being movable in the same plane, and coacting leaf holding members mounted upon the ends of the bars.

4. A device of the class described comprising in combination, a pair of bars pivoted between their ends at a common pivot, each end of each bar being provided with one part of an openable leaf holding means, and the corresponding ends of both bars being movable in the same plane when the openable leaf holding members are operated to open or close said means.

5. A device of the class specified comprising in combination, a pair of bars pivoted together between their ends, one of said bars being flat and the other being bent downwardly at its ends so that the bent down portions lie in the same plane as the ends of said flat bar, the ends of both bars being bent so as to diverge from one another when in a closed position, and leaf holding members formed of pieces which are separate from the bars and secured to the ends of the same, said members having their lower ends provided with lateral extensions which are secured to the bent end portions of the bars.

[Claims 6 and 7 not printed in the Gazette.]

1,137,013. TYPOGRAPHICAL COMPOSING AND CASTING MACHINE. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 12, 1914. Serial No. 837,980. (Cl. 199—7.)



1. In a typographical composing and casting machine, the combination with a matrix carrier bar, a second elevator long lever to which that bar is pivoted, a shaft about the axis of which the said lever is capable of turning, and a lever arm operatively fast to that lever and located to one side thereof, of a cam-operated lever fast to another shaft parallel with the first-named shaft, the said shaft, a lever arm fast to this shaft, and devices elastically connecting the two lever arms together.

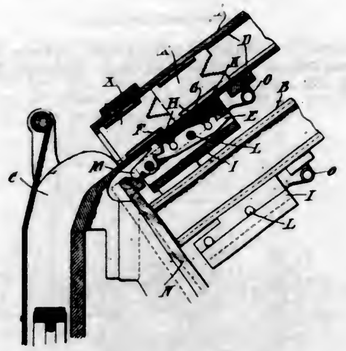
2. In a typographical composing and casting machine, the combination with a matrix carrier bar, a second elevator long lever to which that bar is pivoted, a shaft about the axis of which the said lever is capable of turning, and along which shaft it is capable of moving axially, and a lever arm fast to that lever, of a stationary cam engaging the lever arm so as to cause it and the lever to move axially, a cam-operated lever fast to another shaft parallel with the first-named shaft, the said shaft, a lever arm fast to this shaft, and devices elastically connecting the two lever arms together.

3. In a typographical machine, the combination of a matrix carrier, an operating lever therefor, and a cam operated lever, a shaft upon which it is mounted, a lever arm also mounted on the shaft and located to one side of the cam operated lever and operatively connected therewith, and connections between the lever arm and the operating lever for the matrix carrier.

4. In a typographical machine, the combination of a matrix carrier, its operating lever mounted to turn about a transverse axis, a cam operated lever mounted to turn about a different transverse axis and operatively connected to the operating lever, and means for shifting the operating lever axially in its turning movements.

5. In a typographical machine, the combination of a matrix carrier, a vertically movable operating lever therefor mounted to turn about a transverse axis, an arm fast to said lever, and a slotted cam wherein the said arm engages and acting to shift the operating lever axially in opposite directions as it is raised and lowered.

1,137,014. TYPOGRAPHICAL MACHINE. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 23, 1914. Serial No. 840,445. (Cl. 199—7.)



1. An escapement for typographical machines comprising a cylindrical stem or pawl to engage the type or matrices.

2. An escapement for typographical machines comprising an operating lever and a cylindrical stem or pawl to engage the type or matrices, said pawl being formed with a flat disk-shaped bearing surface seated in said lever.

3. An escapement for typographical machines consisting of an operating lever and two cylindrical pawls pivotally connected thereto to engage the type or matrices alternately.

4. In a typographical machine, the combination of a magazine formed with grooves wherein the type or matrices travel on their edges, and cylindrical escapement pawls acting through the bottoms of said grooves to control the release of type or matrices from the magazine.

5. A magazine for linotype machines formed with a groove wherein the matrices travel on their edges, and further with a circular opening extending through the bottom of said groove to receive a cylindrical escapement pawl.

[Claims 6 to 9 not printed in the Gazette.]

1,137,015. ARTIFICIAL TEETH. FREDERICK H. NIBS and JOHN F. CARETTO, New York, N. Y. Filed Apr. 1, 1914. Serial No. 828,751. (Cl. 32—9.)

1. The combination of a dental plate having a gum ridge of molded material of a plurality of artificial teeth contacting with and supported by the molded material, each of said teeth having a member extending into said molded material, and an anchoring means embedded in and supported by said molded material, said anchoring means connected to the members of said plurality of teeth.



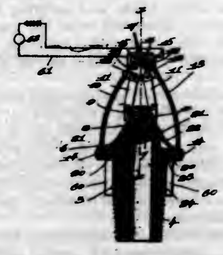
2. The combination with a dental plate of a plurality of artificial teeth, each of said teeth having a pin projecting from its basal portion, and an anchorage bar connected to the pins of said teeth and embedded in said plate.

3. The combination with a dental plate of a plurality of artificial teeth, each of said teeth having a pin projecting from its basal portion, said pins having loops or eyes, and an anchorage bar passing through said loops or eyes and embedded in said plate.

4. An artificial denture comprising a dental plate of molded material, a series of artificial teeth of bulbous form, making contact with said plate chiefly at the basal portions of the teeth, an anchorage bar embedded in and supported by the plate, and pins projecting from the basal portions of the teeth and connected with said anchorage bar.

5. A dental plate having a gum ridge of vulcanite, a plurality of artificial teeth in said gum ridge, and an anchoring means embedded in and supported by said vulcanite, said anchoring means connected with a plurality of such artificial teeth.

1,137,016. AUTOMATIC SPRINKLER. CHARLES P. NUTTER, Malden, Mass., assignor to Combined Heat & Sprinkler Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 9, 1908. Serial No. 419,868. (Cl. 169—5.)



1. In an automatic sprinkler, the combination with a valve seat member, of a valve seated thereon, and means including a fusible connection to keep the valve seated, and means to heat insulate the fusible connection from both the valve and the valve seat member.

2. In an automatic sprinkler, the combination with a valve seat member, of a valve seated thereon, valve-retaining means to keep the valve seated, said means including an insulated fusible connection and means to insulate the valve-retaining means from the valve seat member.

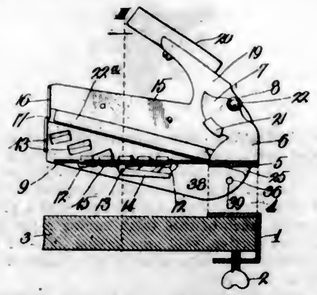
3. In an automatic sprinkler, the combination with a valve seat member, of a valve seated thereon, means to keep the valve seated, said means including an insulated fusible connection and means to insulate said means from both the valve and the valve seat member.

4. In an automatic sprinkler, the combination with a valve seat member, of a valve seated thereon and heat-diffusing means associated with the valve seat member to diffuse and radiate any heat communicated thereto from the sprinkler pipe to which it is attached.

5. In an automatic sprinkler, the combination with a valve seat member provided with heat-radiating flanges, of a valve seated thereon, and means to keep the valve seated.

[Claims 6 to 14 not printed in the Gazette.]

1,137,017. VEGETABLE-SLICER. CHARLES W. OTT, Pittsburg, Kans. Filed May 22, 1914. Serial No. 840,244. (Cl. 146—7.)



1. A vegetable cutter, comprising a supporting plate, a slicing blade to operate along the edge of said plate, a gage movable with the blade and extending parallel thereto, and a plate detachably mounted on the gage and provided with splitting blades projecting toward the vertical plane of the slicing blade.

2. A vegetable cutter, comprising a supporting plate, a slicing blade to operate along the edge of said plate, a gage movable with the blade and extending parallel thereto, a plate fitting flatly against the gage and provided with forwardly projecting splitting blades and also provided with rearwardly projecting flanges engaging the upper and lower edges of the gage, and means mounted on the gage for preventing accidental disengagement of the said plate therefrom.

3. A vegetable cutter, comprising a supporting plate having notches in its rear edge, a slicing blade to operate in a vertical plane adjacent to the notched edge of said plate, a gage parallel with and occupying planes below and rearward of the slicing blade, and splitting blades movable with and projecting forwardly from the gage and bearing such relation to notches of said supporting plate as to be capable of swinging therethrough as the slicing blade is operated.

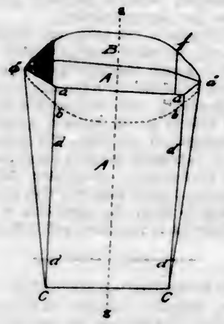
4. In a vegetable cutter, a supporting plate, a swinging slicing blade to operate upon an article resting upon said plate, a gage movable with the blade and arranged parallel thereto and in planes rearward and below the latter, and a plate detachably secured to the supporting plate and underlying said slicing blade and provided with rearwardly projecting fingers spaced apart to permit the slicing blades to operate between them.

5. In a vegetable cutter, a supporting plate, a swinging slicing blade to operate upon an article resting upon said plate, a gage movable with the blade and arranged parallel thereto and in planes rearward of and below the latter, a plate secured flatly to the gage, provided with forwardly-projecting splitting blades, and a plate detachably secured to the supporting plate and underlying said slicing blade and provided with rearwardly projecting fingers spaced apart to permit the splitting blades to operate between them, and provided at their rear ends with upwardly projecting arms.

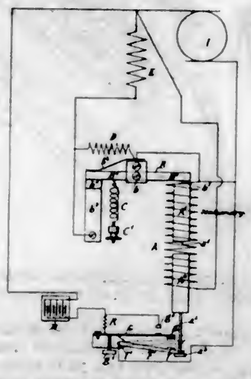
[Claims 6 to 12 not printed in the Gazette.]

1,137,018. SANITARY DRINKING-CUP. WILLIAM J. PAUL, Pittsburgh, Pa., assignor to L. W. Reed, Pittsburgh, Pa. Filed Mar. 20, 1913. Serial No. 755,746. (Cl. 229—68.)

A collapsible drinking cup formed from a single piece of water-proof material folded on a line at right angles to its greatest length to form a front portion and a back portion each of keystone shape, secured together along their longitudinal edges, the back portion being provided at its free edge with a flap adapted to fold over and protect the upper edge of the front portion, said front and back portions being each provided with scores extending from top to bottom near their edges, the scores of the back portion extending through the flap, said scores being on parallel lines, the scores on the front and back portions being in line with each other and being so formed that when pressure is applied on the side edges, the front and back portions will separate.



1,137,019. VOLTAGE-REGULATOR. ANTON POLLAK, Paris, France. Filed July 18, 1912. Serial No. 710,234. (Cl. 171—313.)

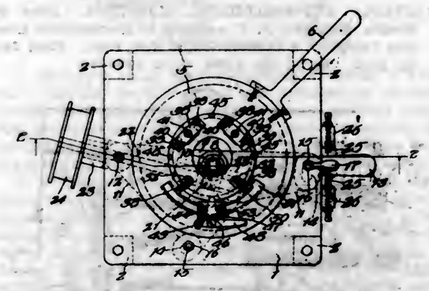


1. A voltage regulator for variable speed dynamos comprising in combination, a switch to close and open the dynamo circuit respectively when the voltage exceeds and drops below a certain limit, a shunt circuit, a spring controlled oscillating interrupter armature interposed in said circuit and a single coil interposed in another circuit, a stationary core arranged in said coil and adapted to regulate the dynamo voltage by the operation of said interrupter armature, and a movable core likewise arranged in said coil and adapted to operate said switch and to influence the regulation of the dynamo voltage, as a separate part, independently of the spring of said oscillating interrupter armature in such a manner that the voltage is regulated to a given value exceeding the normal voltage until the movable core reaches its final position.

2. A voltage regulator for variable speed dynamos comprising in combination a work circuit extending from the dynamo, a single coil arranged in shunt from said circuit and containing a fixed and a movable core, a switch operated by said movable core to cut accumulators automatically into and out of circuit with said dynamo, said switch comprising main contacts, an additional contact between said main contacts and said work circuit, and a resistance through which the work circuit is connected with the dynamo when said switch is preliminarily attracted and when the main contacts are in engagement, and which resistance is short circuited during further movement of said movable core toward said fixed core and when the additional contact is in operation.

3. A voltage regulator for variable speed dynamos comprising in combination, a work circuit extending from the dynamo, a single coil arranged in shunt from said circuit and containing a fixed and a movable core, a main resistance, an interrupter armature operated by said fixed core to throw the resistance into and out of the excitation circuit under determined conditions, a switch operated by movable core to cut said accumulators automatically into and out of circuit with said dynamo under determined conditions, said switch comprising main contacts, auxiliary contacts between said main contacts and said work circuit, and a resistance through which the work circuit is connected with the dynamo when said switch is preliminarily attracted and when the main contacts are in engagement, and which resistance is short circuited during further movement of said movable core toward said fixed core and when the auxiliary contacts are in engagement, the said resistance being cut into the work circuit during a given return movement of said movable core and cut out of circuit only during a further return movement of said movable core, thereby obviating the vibration of the main contacts by a step-by-step switching in and out of operation.

1,137,020. DIE-THREADING MACHINE. WILLIAM H. POTTER and JOHN E. BENSON, Chicago, Ill., assignors to The Nye Tool and Machine Works, Chicago, Ill., a Corporation of Illinois. Filed Apr. 6, 1914. Serial No. 829,776. (Cl. 10—154.)



1. In a threading machine the combination of a stationary table, a rotatable die holder capable of receiving a die at its upper end, said die holder having a central opening, a hob, a hob spindle passing down through the central opening of the die holder, and means partially beneath the table and partially within the central opening of the die holder for supporting said spindle and driving it.

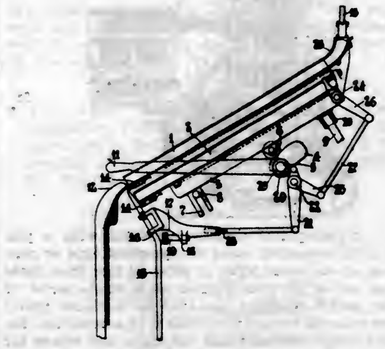
2. In a die threading machine the combination of a stationary table, a rotatable die holder having a central opening monnted on said table and adapted to hold a die at its upper end, a segment on the under side of said table pivotally connected thereto, means for adjustably securing said segment in different positions about its pivot, an upstanding boss rising from said segment and passing through the central opening of the die holder, a hob spindle journaled in said boss, and a hob at the upper end of said spindle.

3. In a die threading machine the combination of a stationary table, a die holder mounted thereon and rotatable about a vertical axis, said die holder being capable of supporting a die at the top and having a central opening, a hob, a hob spindle extending downward from the hob, a spindle support located partially within the central opening of the die holder and partially beneath the table, and means for adjusting said spindle support horisontally for producing dies of different diameters.

4. In a die threading machine the combination of a stationary table, a die holder mounted thereon and rotatable about a vertical axis, said die holder being capable of supporting a die at the top and having a central opening, a hob, a hob spindle extending downward from the hob, a spindle support located partially within the central opening of the die holder and partially beneath the table, said spindle support being horizontally adjustable, and means carried by said spindle support for driving said spindle in all positions of said spindle support.

5. In a die threading machine the combination of a stationary table, a lead block screwing into said table and having a vertical axis of rotation, a die holder laterally surrounded by said lead block, said die holder having a central opening, a spindle and means at the lower end of said spindle for driving it, said driving means being beneath the table, and the spindle passing up through the central opening of the die holder.

1,137,021. TYPOGRAPHICAL MACHINE. KARL RÖGER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 25, 1914. Serial No. 840,805. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of magazines, and a rotary cam system for shifting the magazines bodily to bring one or another into operative position, the said cam system having a common axis located centrally, or substantially so, of the magazines and extending parallel therewith.

2. In a typographical machine, the combination of a plurality of magazines, a rotary cam system for shifting the magazines bodily to bring one or another into operative position, the said cam system having a common axis of rotation, and means for guiding and confining the magazines in a straight path during their movement.

3. In a typographical machine, the combination of a plurality of magazines, and a rotary cam system for shifting the magazines bodily to bring one or another into operative position, the said cam system having a common axis of rotation extending transversely of the magazine and located midway, or substantially so, between the opposite ends of the magazines.

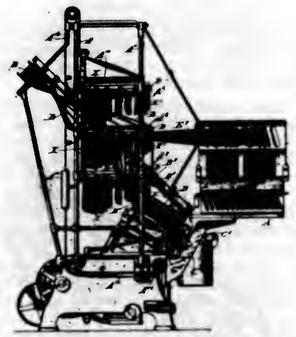
4. In a typographical machine, the combination of a plurality of magazines, a rotary cam system for shifting the magazines bodily to bring one or another into operative position, the said cam system having a common axis of rotation extending transversely of the magazine and located midway, or substantially so, between the opposite ends of the magazine, and means for guiding the magazines in their movements, the said means including guides arranged at the opposite ends of the magazines.

5. The combination in means for quick-changing a plurality of magazines in a typographical composing and distributing machine of a magazine supporting frame adjustable for the purpose of quick-change, a cam-system all the parts of which have a common axis transverse of the said frame and in operative contact with its bottom face, a hand lever operatively fast to the said cam-system, a rise positioned on each cam of the cam-system to anticipate the magazine-frame adjusting movements of the lat-

ter, a series of magazine-escapement actuating rods, a yoke embracing the said rods, a movable frame carrying that yoke, and means actuated by the said rise to make the said movable frame put the escapement rods out of working connection with the escapement of, and to also rock the magazine entrance out of working connection with, the magazine to be changed.

[Claim 6 not printed in the Gazette.]

1,137,022. TYPOGRAPHICAL MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 22, 1913. Serial No. 786,083. (Cl. 199—8.)



1. In a typographical machine provided with a plurality of interchangeable series of suspended type or matrices, those of one series being of different font from those of another series, the combination of a single series of sustaining guides whereon the type or matrices travel from their place of storage to the place of assemblage, the said guides being common to all the fonts, and means for selecting one or another of the several fonts for use.

2. In a typographical machine comprising suspended type or matrices, the combination of a single series of sustaining guides, with a plurality of series of hangers to support the type or matrices in storage, any selected series of which may be connected at will to the said series of guides.

3. In a typographical machine comprising suspended type or matrices, the combination of a single series of sustaining guides, with a plurality of series of hangers to support the type or matrices in storage, and movably arranged so that any selected series thereof may be connected to the said series of guides.

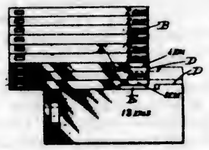
4. In a typographical machine comprising suspended type or matrices, the combination of a fixed series of sustaining guides, a plurality of series of hangers to support the type or matrices in storage, and a frame carrying said storage hangers and movable to connect any selected series thereof with the fixed series of guides.

5. In a typographical machine, the combination of circulating suspended type or matrices, with continuous sustaining guides from which the matrices are suspended comprising an interchangeable section where the type or matrices are stored, said section being mounted in the machine so as to be movable to an operative or inoperative position therein at will.

[Claims 6 to 46 not printed in the Gazette.]

1,137,023. TYPOGRAPHICAL CASTING-MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 21, 1914. Serial No. 857,808. (Cl. 199—13.)

1. An ejector mechanism for typographical machines comprising, in combination, a plurality of ejector blades, at least one of said blades being formed with a recess at its active end to reduce the width of said blade at such end, actuating means, and means whereby any selected number of blades may be connected to said actuating means.

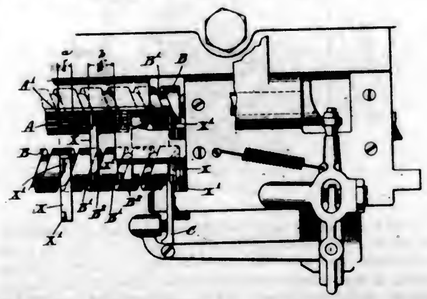


2. An ejector mechanism for typographical machines comprising, in combination, a plurality of ejector blades, at least one of said blades being formed with a projecting portion at its active end to increase the width of said blade at such end, actuating means, and means whereby any selected number of blades may be connected to said actuating means.

3. An ejector mechanism for typographical machines comprising, in combination, a series of ejector blades, one of said blades being formed with a recess at its active end, and an adjoining blade being formed with a projecting portion seated in said recess, actuating means, and means whereby any selected number of said blades may be connected to said actuating means.

4. An ejector mechanism for typographical machines, comprising, in combination, a pair of ejector blades, one formed with a recess at its active end, and the other formed with a projecting portion seated in said recess, actuating means, and means whereby one or both of said blades may be connected to the actuating means.

1,137,024. TYPOGRAPHICAL MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 13, 1915. Serial No. 1,898. (Cl. 199—7.)



1. Distributing mechanism for typographical machines comprising a distributer bar formed with a series of distributing-combinations, and rotating screws for conveying the type or matrices along the bar, the number of convolutions of each of said screws being less than that of the distributing-combinations, for the purpose described.

2. Distributing mechanism for typographical machines comprising a distributer bar formed with a series of distributing-combinations to release the type or matrices at different points in its length, and rotating screws for conveying the type or matrices along the bar, the pitch of said screws being greater than the distance between adjacent releasing-points on the bar, for the purpose described.

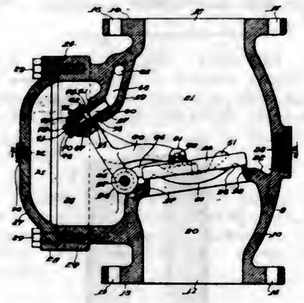
3. Distributing mechanism for typographical machines comprising a conveying screw having its thread of greater width throughout than that of its groove, for the purpose described.

4. Distributing mechanism for typographical machines comprising a distributer bar along which the type or matrices travel, and a conveying screw having a spiral groove wherein the projecting ears of the type or matrices engage, the said groove having its opposite walls arranged in such proximity throughout as to embrace closely the projecting ears of the type or matrices; whereby the latter are prevented from swinging or tilting throughout their travel along the bar.

5. Distributing mechanism for typographical machines comprising a distributer bar along which the type or matrices travel, and a conveying screw having a spiral groove wherein the projecting ears of the type or matrices engage, the said groove being of such form and angularity throughout as to embrace closely the projecting ears of the type or matrices; whereby the latter are prevented from swinging or tilting throughout their travel along the bar.

[Claims 6 and 7 not printed in the Gazette.]

1,137,025. ALARM-CHECK VALVE. ARTHUR C. ROWLEY Philadelphia, Pa., assignor to Associated Automatic Sprinkler Co., Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 10, 1914. Serial No. 817,750. (Cl. 169—23.)



1. An alarm check valve comprising a casing, a main valve inclosed in said casing and arranged to oscillate about a fixed axis with respect thereto, an auxiliary valve, and means detachably connected to said main valve for oscillating said auxiliary valve, said auxiliary valve having a limited movement with respect to said main valve.

2. An alarm check valve comprising a casing, a main valve inclosed in said casing and arranged to oscillate about a fixed axis with respect thereto, an auxiliary valve, means detachably connected to said main valve for oscillating said auxiliary valve, said auxiliary valve having a limited movement with respect to said main valve, and yielding means tending to move said secondary valve with respect to said main valve.

3. An alarm check valve comprising a casing, a main valve arranged in said casing, a pivot upon which said main valve is arranged to oscillate, a lever arranged to oscillate upon said pivot and detachably connected to said main valve, and an auxiliary valve arranged to be actuated by said lever.

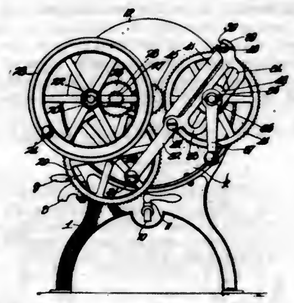
4. An alarm check valve comprising a casing, a main valve arranged in said casing, a pivot upon which said main valve is arranged to oscillate, a lever arranged to oscillate upon said pivot and detachably connected to said main valve, and an auxiliary valve arranged to be actuated by said lever, and having a limited movement with respect thereto when in operation.

5. An alarm check valve comprising a casing, a valve arranged in said casing, a pivot extending in said casing and carried thereby and upon which said valve is arranged to oscillate, a lever mounted upon said pivot and an auxiliary valve carried by said lever, said pivot being removable longitudinally from said casing and from engagement with said lever.

[Claims 6 to 13 not printed in the Gazette.]

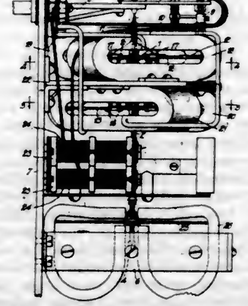
1,137,026. GEARING. WILLIAM A. SALTER, Kansas City, Mo., assignor, by mesne assignments, to E. H. Purdy, Clay Center, Kans. Filed May 9, 1911. Serial No. 626,590. (Cl. 74—50.)

The combination with a wheel and means for driving it, of a rotatable element, a wheel geared thereto, a pitman pivoted to the first-named wheel and guided with respect to the last-named wheel, and a rack bar engaging the last-named wheel and carried by the pitman, the rack-



bar being adjustable to withdraw it from engagement with said wheel, and means whereby said wheel may be rotated continuously in one direction when not engaged by the rack-bar.

1,137,027. ELECTRICITY-METER. GUSTAVE A. SCHEEFFER, Indianapolis, Ind., assignor, by mesne assignments, to Roller Smith Co., New York, N. Y., a Corporation of New York. Filed Sept. 28, 1910. Serial No. 584,173. (Cl. 171—265.)



1. In an electric meter the combination of a rotatable armature having a plurality of independent windings, independent cores for said windings, each of said cores having a pole piece, said pole pieces lying in the same plane, and a common field coil adapted to surround the pole pieces of said cores as the armature rotates.

2. In an electric meter, the combination of a rotatable armature having a plurality of windings, an independent core for each winding extending longitudinally of the armature, and two field coils surrounding opposite poles of such cores.

3. In an electric meter, the combination of a rotatable armature having a plurality of windings, an independent core for each winding, and two field coils on each side of the armature, the coils on one side surrounding opposite poles of the same armature winding cores and the coils on the other side of the armature surrounding opposite poles of oppositely magnetized armature winding cores.

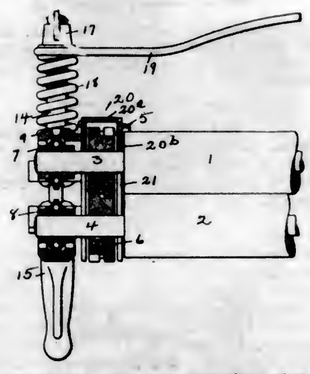
4. In an electric meter, the combination of a rotatable armature having a plurality of windings, an independent core for each winding, and two field coils on each side of the armature, the coils on one side surrounding opposite poles of the same armature winding cores and the coils on the other side of the armature surrounding opposite

poles of oppositely magnetized armature winding cores, the coils on each side of the armature being angularly displaced and exerting a continuous rotative effort on the corresponding poles.

5. In an electric meter, the combination of a rotatable armature having a plurality of windings, an independent core for each winding, and two field coils on the same side of the armature surrounding opposite poles of the same armature winding cores, such coils being angularly displaced and exerting a continuous rotative effort on such poles.

[Claims 6 to 20 not printed in the Gazette.]

1,137,028. COMPRESSING-ROLLS AND MOUNTINGS THEREFOR. PAUL H. SCHENDLER, Erie, Pa., assignor to Lovell Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Jan. 31, 1910. Serial No. 540,974. (Cl. 69—32.)



1. In compressing rolls and mountings therefor, the combination of two rolls; two bearing levers extending transversely from the rolls and having a swinging connection at their outer ends to permit a to and from movement at their inner ends; bearings, one for each roll carried by said levers; and a guard plate secured to one of the levers and extending between the rolls and the bearings.

2. In compressing rolls and mountings therefor, the combination of two rolls; bearing levers extending transversely from the rolls; bearings for the rolls carried by the levers; gears between the levers and the rolls; and a housing for the gears carried by one of the levers.

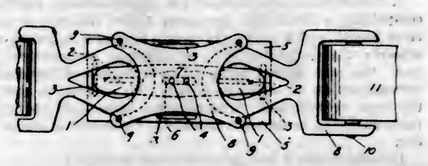
3. In compressing rolls and mountings therefor, the combination of two rolls; two bearing levers extending transversely from the rolls and having a swinging connection at their outer ends to permit a to and from movement at their inner ends; bearings, one for each roll carried by the levers; gears, one for each roll between the bearings and the rolls; and a housing for the gears carried by one of the levers comprising a peripheral wall, and a plate between the gears and the rolls.

4. In compressing rolls and mountings therefor, the combination of two rolls; bearings for the rolls; bearing mountings for the bearings; gears between the mountings and the rolls; a housing for the gears comprising a peripheral wall and a plate between the gears and the rolls; and a plate on the mounting side of the housing carried by the mounting.

5. In compressing rolls and mountings therefor, the combination of two rolls; bearings for the rolls; bearing mountings for the bearings; gears between the mountings and the rolls; a housing for the gears comprising a peripheral wall and a plate between the gears and the rolls; and a plate telescopically arranged in the walls of the housing and secured therein by upsetting the walls of the housing and galvanizing the housing, said plate being carried by the mounting.

[Claim 6 not printed in the Gazette.]

1,137,029. TRACE-SUPPORT. HORACE H. SHERTS, Sherman, Cal. Filed Mar. 25, 1912. Serial No. 686,178. (Cl. 54—56.)



In a trace support, the combination of a rectangular base plate provided with strap receiving slots and having a pair of integral lugs and an intermediate post, spring arms secured to said post and extending over said lugs, and a cover plate attached to and spaced from the base plate and extending partially over the spring arms and arranged to limit their upward movement.

1,137,030. DRY CELL. EDWARD C. SMITH, Toronto Ontario, Canada, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Oct. 18, 1912. Serial No. 726,419. (Cl. 204—38.)



1. In a dry cell, a container electrode, a mix compressed therein, a second electrode in the mix, and a rigid disk having a hole therethrough and having an edge upturned against one of said electrodes to retain the mix in place.

2. In a dry cell, a container electrode, a mix compressed therein, a second electrode in the mix, a rigid disk binding tightly against said electrodes and packed against the top of the mix and a pitch seal on top of said disk.

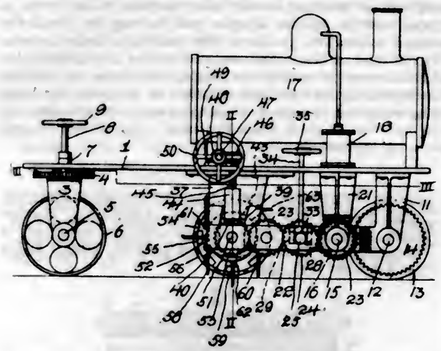
3. In a dry cell, a container electrode, a lining within the container having a mix therein, and having the upper portion of the lining folded over the mix, a second electrode in the mix and a rigid disk binding tightly against one of said electrodes to retain the mix and folded portion of the lining.

1,137,031. PLOWING-MACHINE. HENRY STELEMANN, Sewickley, Pa. Filed Apr. 17, 1913. Serial No. 761,834. (Cl. 97—72.)

1. In a plowing machine the combination of a carriage, a power-shaft mounted in said carriage a pair of extensible arms borne by said carriage, each consisting of two parts, screw-threaded into engagement one with the other, a pair of bearing-blocks borne on said extensible arms, a disintegrater mounted in said bearing blocks, and guides concentric with said power shaft controlling the movement of said bearing blocks in response to the extension movement of said arms.

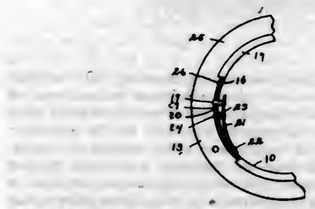
2. In a plowing machine the combination of a carriage, a power shaft mounted in said carriage, a pair of arms pivoted in said carriage concentrically with said power shaft, a second and extensible pair of arms comprising telescopic sections, screws threaded one within the other mounted in said carriage, and a disintegrater articulated at opposite ends to one of each of said pairs of arms.

3. In a plowing machine the combination of a carriage, a pair of downwardly extending screw-threaded shafts rotatably mounted in said carriage, a pair of journal mem-



bers each provided with correspondingly threaded recesses applied to the ends of said shafts, and a rotary disintegrator journaled at its opposite ends in the said pair of journal members.

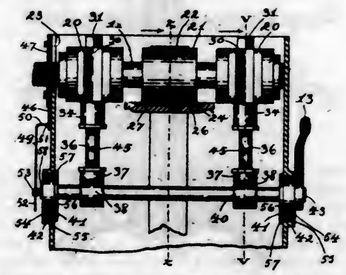
1,137,032. LOCKING DEVICE FOR DASH-CLOCKS. THOMAS B. STEPHENSON, Forestville, Conn., assignor to The Sessions Clock Company, Forestville, Conn., a Corporation. Filed Jan. 15, 1915. Serial No. 2,445. (Cl. 58—56.)



1. A bezel and a supporting ring therefor, the said bezel having a cylindrical flange, the said ring having a flange portion fitting over the said flange and provided with a bayonet slot composed of a longitudinally directed entrance portion and a lateral branch connected with the said entrance portion, a spring mounted by one end on the inner face of the said cylindrical flange, a pair of pins mounted on the other end of the said spring, and suitably spaced to fit in the said lateral branch, the said other end having an inward movement sufficient to release one of the said pins from the said slot, and the other of the said pins being longer than the said first pin suitably to serve as an operating knob for effecting such movement of the said spring and the said pins being so arranged that when they are engaged with the said lateral branch of the bayonet slot the pin that serves as an operating knob will be out of alinement with the said entrance portion, whereby the said last named pin throughout the range of movement for effecting the release of the mating pin will be positively engaged with the said lateral portion.

2. A circular sash for a clock face member, an annular supporting frame therefor, the said sash and frame having overlapping sleeve portions, one of the said sleeve portions having a bayonet slot comprising a longitudinally directed entrance portion and a laterally directed branch, a spring mounted on the other of the said sleeve portions, a pair of pins mounted on the said spring in spaced relation to fit in the said lateral branch, one of the said pins being short, suitably to be brought out of engagement with the said slot when the said spring is depressed and when in locking position being at the end of the said lateral branch adjacent the said entrance portion, and the other of the said pins being positioned out of alinement with the said entrance portion and being of sufficient length to remain in engagement with the said lateral branch throughout the necessary movement for effecting the release of the said short pin.

1,137,033. BELT-TIGHTENER FOR GRINDING-MACHINES. WILLIAM S. THOMSON, Plantsville, Conn., assignor to The H. D. Smith & Company, Plantsville, Conn., a Corporation. Filed Aug. 7, 1913. Serial No. 783,518. (Cl. 64—52.)



1. In a journal box moving device, a casing, journal boxes housed therein, disk-like end members rotatively mounted in the side walls of the said casing, an auxiliary shaft having its ends fixed in the said end members, and in eccentric relation thereto, and means connecting the said journal boxes and auxiliary shaft whereby the said journal boxes will be raised and lowered simultaneously with the said auxiliary shaft responsive to a turning movement of the said end member.

2. In a grinding machine comprising a casing having a vertical slot in one of the end walls, a shaft operatively housed in the said casing and having one end extending through the said slot and having means for being raised and lowered so that the said end will travel in the said slot, a shutter inclosing the said end of the shaft, closing the said slot, and having means for being guided in a vertical plane, means for moving the said shutter correspondingly to the movement of the said end of the shaft, and the said latter means being connected to the said means for raising and lowering the shaft so as to be operative independently of the said shaft.

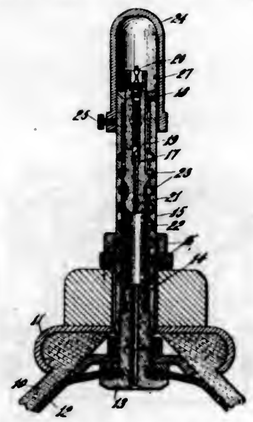
3. In a grinding machine comprising a casing, a shaft, bearings in the said casing and engaged with the said shaft, means for raising and lowering the said bearings and shaft, the said casing having a vertical slot, the end of the said shaft being positioned in the said slot and guiding means for guiding the said shaft as it is raised and lowered and so that the said end wall will travel in a vertical plane in the said slot, and a shutter having a hole in which the said shaft is positioned, and closing the said slot exterior to the said shaft, and means for raising and lowering the said shutter and connected to the said means for raising and lowering the said shaft and independently of the said shaft.

4. In a grinding machine comprising a casing, a pair of bearings for the said shaft, means for guiding the said bearings in a vertical plane a yoke on each of the said bearings provided with a cross-wise slot, and cam shaft mechanism mounted in the said casing and having an eccentrically positioned auxiliary shaft, and the said auxiliary shaft fitting and engaged with the said cross-wise slot.

5. In a grinding machine comprising a casing, a shaft, a pair of bearings for the said shaft means for guiding the said bearings in a vertical plane, a yoke on each of the said bearings having each a cross-wise slot, and means for raising and lowering the said bearings comprising an auxiliary shaft engaged with the said slots and means for raising and lowering the said auxiliary shaft.

[Claims 6 to 11 not printed in the Gazette.]

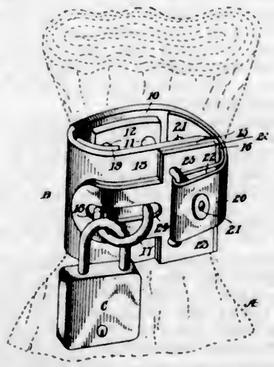
1,137,034. RELIEF-VALVE FOR PNEUMATIC TIRES. RAYMOND F. TIBBETTS, Milwaukee, Wis., assignor to one-half to Edward Fiebrich, Racine, Wis. Filed Dec. 7, 1914. Serial No. 875,837. (Cl. 152—12.)



1. A relief valve for p[illegible]matic tires, comprising an elastic tube, means for e[illegible]cting one end of the tube with the interior of a pneumatic tire, a valve mechanism connected with the other end of the elastic tube and movable therewith by the elongation of the elastic tube under abnormal pressure, said valve mechanism having a projecting valve stem, means in the path of the valve stem to be engaged thereby for opening the valve, and a casing surrounding the elastic tube having a roughened surface to be engaged by the elastic tube in its lateral distention to retard its elongation.

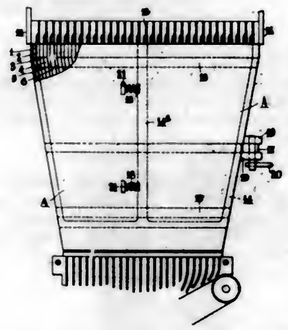
2. A relief valve for pneumatic tires, comprising an elastic tube, means for connecting one end of the elastic tube with the interior of the tire, a valve mechanism carried by the other end of the elastic tube, said valve mechanism having a projecting valve stem, a casing surrounding the elastic tube, a cap on the casing to be engaged by the valve stem for unseating the valve when the elastic tube becomes elongated under abnormal pressure, said casing having a series of grooves upon its inner surface to have the elastic tube fit therein by lateral distention thereof under abnormal pressure and so retard elongation of the elastic tube.

1,137,035. BAG-LOCK. CLEOPHAS TOTTEN, Dennison, Ohio. Filed Aug. 12, 1914. Serial No. 856,379. (Cl. 150—15.)



The combination with a bag, of a strap permanently secured intermediate of its ends to the bag and having one end reduced in width and secured upon itself to form a loop, a main staple-plate secured to the outer surface of the broad end of the strap and provided at one end with a shoulder and at its other end with a tongue, an auxiliary staple plate disposed on the inner surface of the strap, a staple carried by the tongue and having its terminals swaged in the two plates, a hasp having a keeper engaging the bend of the strap-loop, and having a longitudinally slotted tongue to engage the staple, and means for holding the keeper against shifting relation to the loop, the hasp being arranged to engage at one end with the shoulder on the main staple plate when the strap is positioned around the neck of the bag.

1,137,036. TYPOGRAPHICAL COMPOSING-MACHINE. JOZEF PETRUS VAN BLIJENBURGH, Amsterdam, Netherlands, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 16, 1914. Serial No. 845,346. (Cl. 199—7.)



1. In a typographical composing machine, the combination with a channel magazine adjustable transversely of the machine, a single magazine entrance coöperating with the magazine, an escapement for each of the magazine channels, a series of escapement reeds capable of operating escapements situated at distances apart and leaving intervening escapements at rest, and means adapted to move the magazine transversely to bring those intervening escapements into operative relationship with the escapement reeds and the other escapements out of such relationship.

2. In a typographical composing machine, the combination with a channeled magazine adjustable edgewise in the machine, a single channeled magazine entrance coöperating with the magazine, the number of channels in the magazine being a multiple of the number of channels in the magazine entrance, and means adapted to move the magazine edgewise to establish for each such movement operative connection between the magazine entrance channels and respectively different magazine channels.

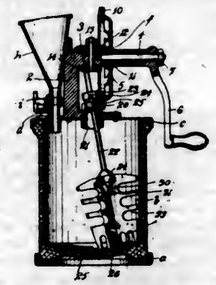
3. In a typographical composing machine the combination with a channeled magazine adjustable transversely of the machine, an escapement for each channel of the magazine, a series of escapement reeds capable of operating escapements situated at distances apart while leaving intervening escapements at rest, the number of the escapements being a multiple of the number of escapement reeds, and means adapted to move the magazine transversely to establish for each such movement, operative relationship between the escapement reeds and respectively different escapements.

4. In a typographical composing machine, the combination with a channeled magazine having its channels divided into sets, a magazine frame beneath it, guides on the magazine and magazine frame guiding the magazine in transverse direction, manual means operative to move the magazine transversely in one direction to bring one set of channels into action, and springs operative to move it transversely in the opposite direction to bring another set of channels into action.

5. In a typographical composing machine, the combination with a channeled magazine adjustable transversely of the machine, an escapement for each channel of the magazine, a series of escapement reeds capable of operating escapements situated at distances apart while leaving intervening escapements at rest, the number of the escapements being a multiple of the number of escapement reeds and springs and manual means such as the eccentric 17 adapted to move the magazine transversely in relatively opposite directions to establish for each such movement, operative relationship between the escapement reeds and respectively different escapements.

[Claims 6 to 8 not printed in the Gazette.]

1,137,037. MIXING-MACHINE. ALONZO A. WARNER, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 25, 1914. Serial No. 827,227. (Cl. 107—35.)



1. In a device of the character described, a bowl, a beater within said bowl, and a beater shaft, driving connections for said shaft, a non-revoluble bearing for said shaft, and means engaging said shaft at the opposite side of said bearing from said beater to cause said beater to move in a circular path within said bowl.

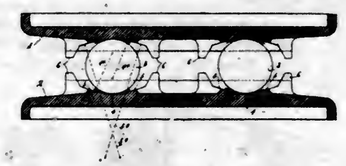
2. In a device of the character described, a bowl, a beater located therein, a beater shaft and a non-revoluble bearing therefor, a driving head and means for rotating it, and eccentric connection between said driving head and beater shaft, a gear secured to said shaft at a point between said driving head and beater, and means for rotating said gear.

3. In a device of the character described, a bowl, a beater therein, a beater shaft, a driving head, the end of said shaft terminating adjacent to said head and eccentrically connected therewith, a pinion having driving connection with said beater shaft between said head and beater, a second pinion having a driving connection with said head, and a main driving member having separate gears meshing with said pinions.

4. In a device of the character described, a bowl, a cover therefor, a hollow sleeve fitted in an aperture in said cover and provided with a pinion at its upper end, a beater within the bowl, a beater shaft extending through said sleeve, a tapering polygonal member secured to the beater shaft and fitting within the similarly shaped upper end of said hollow sleeve, a driving head, and an eccentric connection between said head and the upper end of said beater shaft, a pinion connected with said driving head, and means for operating said pinions.

5. In a device of the character described, a bowl, a cover therefor, a standard mounted on the cover and having a base and a laterally extending arm, a driving gear supported on a hollow sleeve in said base, a vertical shaft extending through said lateral arm, a gear secured to the upper end of said shaft, and a driving head to the lower end thereof, a laterally extending shaft mounted in the end of said arm, a driving member mounted thereon and provided with gears meshing with the two first mentioned gears, a handle slidable on said shaft, interengaging parts on said handle and driving member, a nut threaded onto said shaft to hold the last mentioned parts in engagement, a beater within the bowl, a beater shaft extending through said hollow sleeve and having its upper end eccentrically connected with said driving head, and means secured to said beater shaft and having a driving connection with the first mentioned gear.

1,137,038. ROLLER-BEARING FOR CARS. EDWIN W. WEBB, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed May 20, 1914. Serial No. 839,701. (Cl. 105—243.)



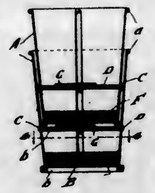
1. A roller bearing device comprising upper and lower bearing plates and interposed rollers, said bearing plates having roller engaging surfaces, each formed by an intermediate curved surface of slightly greater radius than the coöperating roller, and by outer curved surfaces of very much greater radii tangentially joining the said intermediate curved surfaces.

2. A roller bearing device comprising upper and lower bearing plates and interposed rollers, said bearing plates having roller engaging surfaces, each formed by an intermediate curved surface of slightly greater radius than the coöperating roller, and by outer curved surfaces of very much greater radii, tangentially joining the said intermediate curved surfaces, the relatively long radii intersecting each other and having their axes off-set on opposite sides of the vertical line which intersects the axis of said intermediate curved surfaces.

3. A roller bearing device comprising upper and lower bearing plates and interposed rollers, said bearing plates having roller engaging surfaces formed by curved tangential surfaces of different radii, and the said bearing plates having roller engaging stops at the outer extremities of said outer curved roller engaging surfaces.

4. A roller bearing device comprising upper and lower bearing plates and interposed rollers, said bearing plates having roller engaging surfaces, each formed by an intermediate curved surface of slightly greater radius than the coöperating roller, and by outer curved surfaces of very much greater radii, tangentially joining the said intermediate curved surfaces, the relatively long radii intersecting each other and having their axes off-set on opposite sides of the vertical line which intersects the axis of said intermediate curved surfaces, and the said bearing plates having roller engaging stops at the outer extremities of said outer curved roller engaging surfaces.

1,137,039. INDIVIDUAL DRINKING-CUP. GEORGE W. WEBER, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 25, 1911. Serial No. 645,906. (Cl. 206—38.)



As a new article of manufacture, a combined drinking cup and closed package for dispensing articles of sale, the

same consisting of a tapered open-top body whereby such cups may be nested one within the other to form a stack, the said cup being formed on the interior and the exterior of its tapered sides with an annular bead to produce an interior annular groove and exterior annular projection; and having a removable false bottom seated in the said groove within the cup; whereby merchandise to be sold with the cup may be contained therein beneath the said false bottom, and the said false bottoms will support successively the nested cups of a stack and the said exterior annular projections will hold the tapered walls of the cups out of contact with each other so that the said walls will not adhere to-gether.

1,137,040. OVERHEAD CARRIER. GEORGE H. WEBER, Carlton, Oreg. Filed Nov. 13, 1913. Serial No. 800,794. (Cl. 104—133.)



1. In an overhead carrier, a continuous track cable comprising a plurality of independent sections, supporting devices arranged at intervals and each including a shoe having intersecting grooves in which the adjacent ends of related ones of the sections of the track cable are laid, the ends of the cable sections being anchored and the said shoes supporting each section independent of the other sections.

2. In an overhead carrier, a continuous track cable comprising a plurality of independent sections, and means for supporting the sections independently of each other, said means comprising shoes arranged at intervals in the length of the cable, each shoe having an edge portion grooved at its ends and between the grooves formed to constitute a track surface substantially a continuation of the stretches of the cable sections supported by the shoe, one side of each shoe being formed with intersecting grooves extending downwardly from the inner ends of the first mentioned grooves, and the respective track cable sections being laid within grooves and led downwardly from the shoe in opposite directions and anchored.

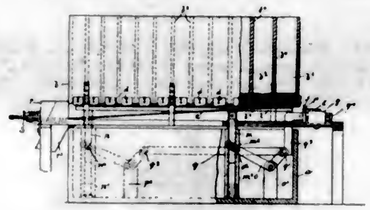
3. In an overhead carrier, a continuous track cable comprising a plurality of independent sections, means supporting the sections of the cable, said means including shoes arranged at intervals in the length of the cable, the sections supported by each shoe being led over the shoe in crossed relation and anchored, and means upon the shoes extending between the adjacent ends of the stretches proper of the sections and constituting a continuation thereof.

4. In an overhead carrier including a continuous track cable consisting of a plurality of independent sections, supporting means for each two adjacent sections including a member disposed against a support and having a socket, a supporting beam fitted at one end in the socket, a shoe supported by the beam, the shoe being constructed to receive the related sections in crossed relation and the ends of the said sections of the cable being anchored below the shoe, and means connected to the shoe and to the said support for supporting the shoe and beam.

5. In an overhead carrrier, a track cable support including a member designed to be disposed against a spar and having a socket, a supporting beam fitted at one end in the socket, a shoe supported upon the other end of the beam, anchoring guy cables connected to the shoe, and supporting guy cables connected to the shoe and extending upwardly and connected to the spar.

[Claims 6 to 20 not printed in the Gazette.]

1,137,041. HEEL-BUILDING MACHINE. IRA J. WEBSTER, Haverhill, Mass. Filed Feb. 10, 1909. Serial No. 477,064. (Cl. 12—50.)



1. In a heel-building machine, a series of heel-lift holders arranged in a row, means for applying cement simultaneously to the lifts held by said holders, and means to move said lifts one over another, to collect them in a pile.

2. In a heel-building machine, a series of heel-lift holders arranged in a row, means for simultaneously applying cement to a series of lifts while held by said holders, and means, movable longitudinally of said row, to remove the cemented lifts from their respective holders, successively, and to move one onto the next, as they are removed, to form an assembled heel.

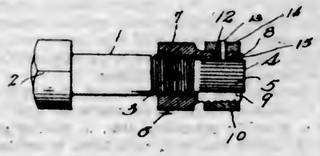
3. In a heel-building machine, a series of holders constructed to hold a series of heel-lifts with one side thereof exposed, means to apply cement simultaneously to the exposed facea of the lifts while held by said holders, and means to assemble the cemented lifts in heel form.

4. A heel-building machine comprising a series of heel-lift holders, means for simultaneously applying cement to a series of lifts held by said holders, means for successively removing a cemented lift from each holder, and means for receiving the lifts and holding them face to face as they are removed, substantially as described.

5. A heel-building machine comprising means for supporting a series of stacks of superimposed heel lifts means for simultaneously applying cement to the under sides of the bottom lifts of said stacks, means for successively removing the cemented lifts, and supporting means for receiving the lifts in superimposed position as they are removed, substantially as described.

[Claims 6 to 32 not printed in the Gazette.]

1,137,042. NUT-LOCK. CHARLES H. WILLISON, Ashland, Oreg. Filed Aug. 11, 1914. Serial No. 856,270. (Cl. 151—2.)



The combination with a threaded bolt and holding nut having a resilient tapered sleeve with external threads, and a clamping nut engaging the external threads, corrugations on the exterior of the bolt end, and corrugations on the interior of the sleeve adapted to engage the corrugated bolt.

1,137,043. ADHESIVE TO BE EMPLOYED IN THE MANUFACTURE OF PAPER-WALLED VESSELS. FREDERICK P. WOOD, Detroit, Mich., assignor to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Nov. 12, 1912. Serial No. 730,877. (Cl. 87—17.)

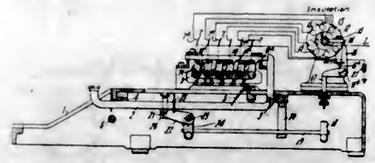
1. A fusible, adhesive compound which becomes adhesive solely by fusion and which when cold is not sticky, containing as a principal ingredient thereof a fusible asphaltite, and also containing a non-drying oil, substantially as specified.

2. A fusible, adhesive compound which becomes adhesive solely by fusion, containing as a principal ingredient thereof, gilsonite, and containing also a drying oil and a non-drying oil, substantially as specified.

3. A fusible, adhesive compound which becomes adhesive solely by fusion and which when cold is not sticky consisting of gilsonite, boiled linseed oil and vaseline, substantially as specified.

4. A fusible, adhesive compound which becomes adhesive solely by fusion and which when cold is not sticky consisting proportionably of three hundred pounds of a fusible asphaltite, forty pounds of a drying oil and one hundred and fifty pounds of a non-drying oil, substantially as specified.

1,137,044. KEYBOARD FOR PRINTING-TELEGRAPH APPARATUS. WILLIAM ZABEL, Edgewood borough, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Apr. 28, 1914. Serial No. 834,981. (Cl. 177—381.)



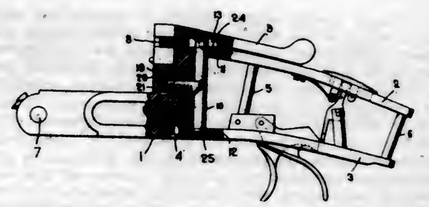
1. A keyboard for printing telegraph apparatus, comprising a key, a continuously rotating shaft, a device to be intermittently rotated and tending to rotate with said shaft, holding means for preventing rotation of said device, a hammer, means controlled by said hammer for releasing said holding means, yielding means interposed between the hammer and the key for moving said hammer when the key is depressed, said hammer being normally out of releasing position when the key is in the depressed position and said hammer having sufficient inertia to carry it momentarily into releasing position when the key is struck.

2. A keyboard for printing telegraph apparatus, comprising a key, a continuously rotating shaft, a device to be intermittently rotated and tending to rotate with said shaft, a pawl for preventing rotation of said device, a hammer adapted to actuate said pawl to release said device, yielding means interposed between the hammer and the key for moving the hammer when the key is depressed, said hammer being normally out of actuating position when the key is in the depressed position, and said hammer having sufficient inertia to carry it momentarily into the releasing position when the key is struck.

3. A keyboard for printing telegraph apparatus, comprising a key, a continuously rotating shaft, a device to be intermittently rotated and tending to rotate with said shaft, holding means for preventing rotation of said device, a resilient bar, means for swinging said bar when the key is depressed, a hammer fixed to said bar, means controlled by said hammer for releasing said holding means, said hammer being normally out of releasing position when the key is in the depressed position, and said hammer having sufficient inertia to carry it momentarily into releasing position when the key is struck.

4. A keyboard for printing telegraph apparatus, comprising a key, a continuously rotating shaft, a sunflower having an element to be intermittently rotated and tending to rotate with said shaft, means controlled by said key and by said sunflower for signaling, holding means for preventing rotation of said sunflower element, a hammer for releasing said holding means, yielding means interposed between the hammer and the key for moving the hammer when the key is depressed, said hammer being normally out of releasing position when the key is in the depressed position, and said hammer having sufficient inertia to carry it momentarily into releasing position when the key is struck.

1,137,045. BARREL-LOCKING DEVICE FOR GUNS. WILLIAM O. BARNES, Leominster, Mass., assignor to Mary E. Johnson, trustee, Fitchburg, Mass. Filed Sept. 5, 1914. Serial No. 860,387. (Cl. 42—44.)



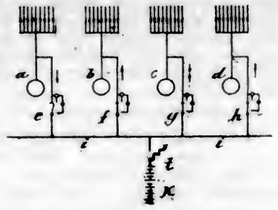
1. In a breech loading firearm the combination of a breech block, a top snap lever, a spindle for said lever rigid therewith and projecting downwardly therefrom and provided with a lateral recess, a bearing in said breech block for said spindle at or near each end thereof, a spring pressed plunger mounted in said breech block and having its nose in coöperative engagement with the lower surface and with the rear wall of said recess and acting to press downwardly on said lower surface at all times thus to maintain the lever always in a definite position vertically and also acting to return said lever when swung aside to a definite angular position while at all times preventing lost motion.

2. In a breech loading firearm the combination of a breech block, a top snap lever, a spindle for said lever rigid therewith and projecting downwardly therefrom and provided with a lateral recess having a horizontal upper and a beveled lower surface, bearings in said breech block for said spindle, one above and one below said recess, a cylindrical spring pressed plunger mounted horizontally in said breech block having its nose correspondingly beveled to the bevel of the recess, and having its longitudinal axis passing to the same side of the spindle axis as that to which the top lever swings, whereby when the top lever is swung aside the recess coöperating with the nose causes the plunger to move back and rotate on its axis, and the plunger pressed forwardly by the spring upon the release of the top lever moves longitudinally and rotates reversely to maintain the upper and lower surface of its nose in contact with those of said recess thus maintaining the lever in a definite vertical position and returning the lever to a definite angular position.

1,137,046. SECTIONING MEANS FOR ELECTRIC STATIONS PROVIDED WITH ACCUMULATORS. EDWIN BRANDENBURG, Brussels, Belgium. Filed Oct. 2, 1911. Serial No. 652,316. (Cl. 175—294.)

1. In an electric supply system, in combination with the generators, bus bars between the generators and the feeders, sectioning interrupters in said bus bars, means acting on said sectioning interrupters for automatically sectioning the installation in case of overload of a generator, an auxiliary source of current supply in parallel with the generators, isolating interrupters between the auxiliary source and the bus bars in each section formed between two consecutive sectioning interrupters, connections between the tripping devices of all the interrupters, and connections between the tripping circuits of the sectioning interrupters and the safety interrupters of the

generators for the purpose of automatically isolating the sections served by running generators in case of overload of a generator and supplying the current from the auxiliary source to the defective section only.

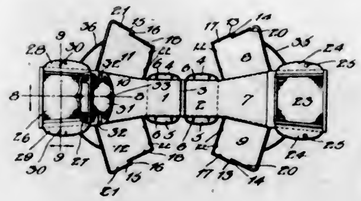


2. In an electric supply system, in combination with the generators, bus bars between the generators and the feeders, sectioning interrupters in said bus bars, means acting on said sectioning interrupters for sectioning the installation in case of overload of a generator, a battery of accumulators in parallel with the generators, an isolating interrupter arranged in the connections of each section with said battery of accumulators, connections between the tripping devices of all the interrupters, and connections between the tripping circuits of the sectioning interrupters and the safety interrupters of the generators for the purpose of automatically isolating the sections served by running generators in case of overload of a generator and supplying the current from the battery of accumulators to the defective section only.

3. In an electric supply system, in combination with the generators, bus bars conducting current to the feeders, connections between the generators and the bus bars, sectioning interrupters in said bus bars, a battery common to all the sections, a general multiple line connected to said battery, maximum current relays controlled by the current of the connections between the generators and the bus bars and branched upon said general multiple line to energize this line in case of overload of a generator, solenoids controlling said sectioning interrupters and branched upon said general multiple line for automatically sectioning the bus bars in case of overload of a generator, a battery of accumulators in parallel with the generators, an isolating interrupter in the connection of each section with said battery of accumulators, connections between the tripping devices of said isolating interrupters and the general multiple line, and connections between the tripping circuits of the sectioning interrupters and the safety interrupters of the generators for the purpose of automatically isolating the sections served by running generators in case of overload of a generator and supplying the current from the battery of accumulators to the defective section only.

4. In an electric supply system, in combination with the generators, bus bars conducting current to the feeders, connections between the generators and the bus bars, safety interrupters in said connections, sectioning interrupters in said bus bars, tripping solenoids controlling said sectioning interrupters, a battery common to all the sections, a general multiple line connected to said battery, tripping circuits containing said tripping solenoids and branched upon said general multiple line, locking contacts inserted in the tripping circuits and actuated by said safety interrupters so as to allow of the closing of the tripping circuit only when the corresponding generator is running, maximum current relays controlled by the current passing through the connections between the generators and the bus bars and branched upon said general line to energize this latter in case of overload of a generator, a battery of accumulators in parallel with the generators, an isolating interrupter in the connections of each section with said battery of accumulators, a tripping winding controlling said isolating interrupter, a tripping circuit branched upon said general multiple line and containing said tripping winding, and a reversing current relay controlled by the current through the connections between the battery of accumulators and the bus bars, said reversing current relay being adapted to be automatically actuated by a current flowing from the bus bars to the accumulators when the maximum relay of any overloaded section has operated to close the circuit of the tripping winding and so isolate from the battery of accumulators the section served by running generators in case of overload of a generator in order that the current of said accumulators may be supplied to the defective section only.

1,137,047. FOLDING HAND-BAG. NATHAN BUSHWICK, Maspeth, N. Y. Filed Apr. 6, 1914. Serial No. 830,051. (Cl. 190—43.)



1. A convertible handbag and basket comprising flexibly connected bottom sections, end members flexibly connected with the free ends of said bottom sections, wings foldably connected to the side edges of each end member, and interlocking means carried by said wings for fastening said wings together.

2. A convertible hand bag and basket comprising flexibly connected bottom sections, end members flexibly connected with the free ends of said bottom sections, wings foldably connected to the side edges of each end member, the wings on the respective end members having interlocking elements and coöperating fastening elements for securing the wings of one end member to those of the other end member, and means for connecting said wings with said bottom sections.

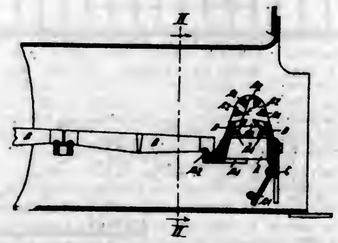
3. A convertible hand bag and basket comprising flexibly connected bottom sections, end members flexibly connected with the free ends of said bottom sections, wings foldably connected to the side edges of each end member, the wings on the respective end members having interlocking tongues and coöperating fastening elements for securing the wings of one end member to those of the other end member, and means for detachably connecting said wings with said bottom sections.

4. A convertible hand bag and basket comprising flexibly connected bottom sections, end members flexibly connected with the free ends of said bottom sections, wings foldably connected to the side edges of each end member, the wings on one end member having the upper portion of their free end edges cut away and the wings on the other end member having the lower portion of their free end edges cut away to form interlocking means for connecting said wings together, fastening elements for locking said wings in connected position, and means for detachably connecting said wings and bottom sections.

5. A convertible hand bag and basket comprising flexibly connected bottom sections, end members flexibly connected with the free ends of said bottom sections, wings foldably connected to the side edges of each end member, the wings on one end member having the upper portion of their free end edges cut away and the wings on the other end member having the lower portion of their free end edges cut away to form interlocking tongues, said tongues having their inner ends inclined downwardly and inwardly and adapted for interlocking engagement to hold said wings in connected relation, means for locking said wings in connected position, and means for detachably connecting said wings and bottom sections.

[Claims 6 to 12 not printed in the Gazette.]

1,137,048. FIRE-BRIDGE FOR BOILER OR THE LIKE FURNACES. GEORGE HERBERT BUTTERWORTH and ROWLAND CANLIN, Great Crosby, near Liverpool, England. Filed May 4, 1912. Serial No. 695,258. (Cl. 110—73.)



1. In a fire bridge, in combination, a pair of rails extending across the furnace, supporting means therefor, an arch formed of a series of arch pieces each consisting of two sections, each of said arch pieces comprising a web, which in transverse elevation is co-extensive with the arch piece as a whole, and a series of distance facings on each side of the web adapted, when the arch pieces are assembled to form the arch, to abut and form air-ways between the webs, substantially as described.

2. In a fire bridge, in combination, a pair of rails extending across the furnace, supporting means therefor, an arch formed of a series of arch pieces each consisting of two sections, each of the said arch pieces comprising a web, which in transverse elevation is coextensive with the arch piece as a whole and which is provided with a depending extension adapted to engage with the rails, and a series of distance facings on each side of the web adapted, when the arch pieces are assembled to form the arch, to abut and form air-ways between the webs, substantially as described.

3. In a fire bridge, in combination, a pair of rails extending across the furnace, supporting means therefor, an arch formed of a series of arch pieces each consisting of two sections, each of said arch pieces comprising a web, which in transverse elevation is co-extensive with the arch piece as a whole, and a series of distance facings on each side of the web located so as to leave a margin of web outside the facings, said distance facings being adapted, when the arch pieces are assembled to form the arch, to abut and form air-ways between the webs, substantially as described.

4. In a fire bridge, in combination, a pair of rails extending across the furnace, supporting means therefor, an arch formed of a series of pairs of overlapping sections each of which extends across and is carried by perforated extensions on the rails, each pair of overlapping sections forming an arch piece comprising a web extending from the periphery of the arch to the extensions, and a series of thin distance pieces on each side of the web, the distance pieces of adjacent arch pieces being in contact and leaving parallel air-ways between the arch pieces, substantially as described.

5. In a fire bridge, in combination, a pair of rails extending across the furnace, supporting means therefor, an arch formed of a series of pairs of overlapping sections each of which extends across and is carried by perforated extensions on the rails, the edges of said extensions forming a dove-tail recess and the said overlapping parts being shaped to form a dove-tail attachment piece fitting said recess, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

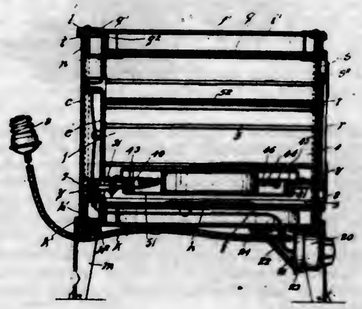
1,137,049. BEACH-FORMING JETTIES. MARK A. CALLAHAN, Cleveland, Ohio. Filed Feb. 2, 1914. Serial No. 815,891. (Cl. 61—30.)



1. In a beach forming construction, a plurality of spaced jetties arranged in a row and each composed of two arms diverging shoreward forming an outwardly converging pocket open shoreward and closed seaward, said jetties having an unobstructed space between them and being arranged sufficiently close together that the adjacent arms of adjacent jetties form inwardly or shorewardly converging funnels which intensify the incoming waves passing through them.

2. In a beach forming construction, a plurality of V-shaped jetties arranged in a row with their apices seaward and with their bases shoreward, each jetty being composed of two arms forming a triangular pocket, the jetties being closed at their apices and having between their bases unobstructed or open spaces of such width that waves entering between the shorewardly converging arms of adjacent jetties are intensified.

1,137,050. ELECTRICAL COOKING DEVICE. FREDERICK E. CARLSON, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 7, 1913. Serial No. 783,475. (Cl. 219—35.)



1. In an electric oven, supporting ribs at opposite sides, an electrical heater adapted to move longitudinally on said ribs for positioning within the oven, contact plugs laterally projecting from one edge of the heater, and sockets mounted in the back of the oven below the wall and open to the interior thereof, said plugs and sockets adapted to be alternately engaged and disengaged by the horizontal movement of said heater into and out of position within the oven.

2. In an electric oven, sockets mounted in the back thereof below the plane of the inner wall of the back,

in alinement with apertures therein, a receptor snugly fitting within and removable from said oven, side walls on said receptor provided with supporting ribs, an electrical heater slidable on said ribs into and out of said oven, and plugs projecting laterally from the rear edge of said heater and adapted to be alternately engaged with and disengaged from said sockets by the movement of the heater into and out of said oven.

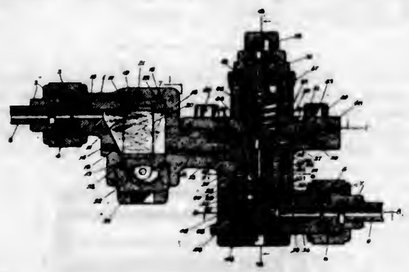
3. The combination with an electric oven provided at its sides with oppositely projecting supporting ribs arranged in alined pairs at different elevations, of an electric heater comprising a recessed base, lateral flanges, the edges of which are adapted to rest and slide upon said supporting ribs, an electrical resistance located within the recessed base, a cover plate overlying said recessed base and supported on said lateral flanges, said flanges being apertured beyond the edges of the cover plate.

4. A heater adapted for use in electric ovens and similar devices, comprising a shallow recessed base adapted to be supported at its side edges on the sides of the oven, strips of insulating material arranged about the sides of the recessed base, arms embedded in said insulating material with their ends bent to form inwardly extending lateral supports, and an electrical resistance coil arranged about the sides of said base and secured to said lateral supports.

5. A heater for use in electric ovens and similar devices comprising a shallow recessed base, an oppositely recessed cover plate secured thereto, an electrical resistance located around the sides of said base, and an annular ring arranged centrally of and extending between said base and cover.

[Claims 6 to 9 not printed in the Gazette.]

1,137,051. AUTOMATIC EXPANSION-VALVE. GEORGE P. CARROLL, Bridgeport, Conn., and FRANK N. ROEHRICH, Jersey City, N. J.: said Roehrich assignor to said Carroll. Filed Feb. 9, 1910. Serial No. 542,870. (Cl. 50—23.)



1. In combination a chamber casing having an inlet, a valve seat around the inlet and an outlet, a valve within the chamber in said casing and adapted for seating on said seat, a diaphragm forming one wall of said chamber, a carrier separate from and bearing against said diaphragm and carrying said valve, a guide support guiding said carrier and valve near both extremes thereof, means tending to force said diaphragm outward and to seat said valve, and means tending to force said diaphragm inward and to unseat said valve and exerting greater force than said former means.

2. In combination a chamber casing having a valve seat, a valve adapted for seating on said seat, a diaphragm forming one wall of the chamber in said casing, means secured to said valve and operating when said diaphragm moves outward a certain distance to seat said valve, said valve being eccentric as to said means and longitudinally adjustable thereon, and means tending to force said diaphragm inward and to unseat said valve.

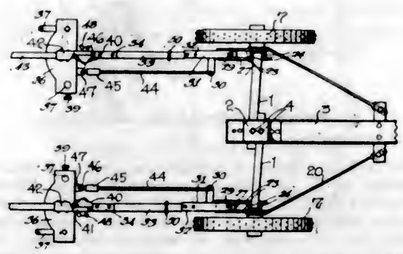
3. In combination a chamber casing having a valve seat, a valve adapted for seating on said seat, a diaphragm forming one wall of the chamber in said casing, means secured to said valve and tending to force said diaphragm outward and to seat said valve, said valve being eccentric as to said means and longitudinally adjustable thereon, and means tending to force said diaphragm inward and to unseat said valve and exerting greater force than said former means.

4. In combination a chamber casing having a valve seat, a valve adapted for seating on said seat, a diaphragm forming one wall of the chamber in said casing, reciprocating means secured to said valve and operating when said diaphragm moves outward a certain distance to seat said valve, said valve being eccentric as to said means and longitudinally adjustable thereon, and means tending to force said diaphragm inward and to unseat said valve.

5. In combination a chamber casing having a valve seat, a valve adapted for seating on said seat, a diaphragm forming one wall of the chamber in said casing, reciprocating means secured to said valve and tending to force said diaphragm outward and to seat said valve, said valve being eccentric as to said means and longitudinally adjustable thereon, and means tending to force said diaphragm inward and to unseat said valve and exerting greater force than said former means.

[Claims 6 to 25 not printed in the Gazette.]

1,137,052. AGRICULTURAL IMPLEMENT. WILLIAM W. CRANFORD, Johnson county, near Altus, Ark. Filed Aug. 9, 1913. Serial No. 784,007. (Cl. 97—35.)



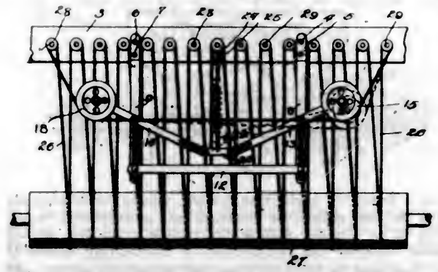
1. In combination with a supporting axle, a beam, a coupling member interposed between the beam and axle and pivotally engaged therewith, an angular arm projecting laterally from the coupling member intermediate the length thereof, a vertically pivoted implement supporting member carried by the beam, an ear projecting forwardly from the implement supporting member to one side of its pivot, a sleeve operatively engaged with the ear, and a rod operatively connected to the angular extension of the coupling member and adjustably engaged with the sleeve.

2. In combination with a supporting axle, a beam, a coupling member interposed between the beam and axle and pivotally engaged therewith, an angular arm projecting laterally from the coupling member intermediate the length thereof, a vertically pivoted implement supporting member carried by the beam, and a rod operatively connected to the angular extension of the coupling member and with the implement supporting member.

1,137,053. TENSION-REGULATOR FOR SPINNING-MACHINES. JOHN G. CUNNINGHAM and FRANK W. MANION, Waterford, N. Y. Filed Apr. 3, 1914. Serial No. 829,320. (Cl. 118—24.)

1. A tension regulator for spinning machines, comprising a plurality of supports, an arm pivotally and slidably mounted on each of said supports, band receiving means carried at the outer end of each of said arms, a link loosely connecting the inner ends of said arms, to permit one of the arms to move independently of the other, and tensioning means connected to the link and adapted to cause a movement of said arms whereby to tighten a band engaged by said band receiving means.

2. A tension regulator for spinning machines, comprising a plurality of supports, an arm pivotally and slidably carried by each of said supports, the inner end of each arm being provided with a slot, a loose pulley carried at the outer end of each arm, a link loosely connecting the inner ends of said arms, pivots extending from the ends of the link and passing loosely through the slots in the arms to permit one arm to move independently of the other arm, a spring adapted to exert a pull upon the link in one direction to cause an opposite movement of the outer ends of said arms.



3. A tension regulator for spinning machine bands, comprising a pair of supports provided with slots therein, an arm mounted on each of said supports, pivots extending from the arms and projecting through the slots whereby to adjust the position of the arms, a loose pulley on the outer end of each arm, the inner end of each arm having a slot, a link interposed between the inner ends of the arms, pivots extending from the outer ends of the link and loosely passing through the slots in the arms, a spring connected to said link to exert a pull in one direction upon said link whereby to cause an opposite movement of the outer ends of the arms, the slots in the arms and the pivots loosely engaging therein permitting independent movement of either arm.

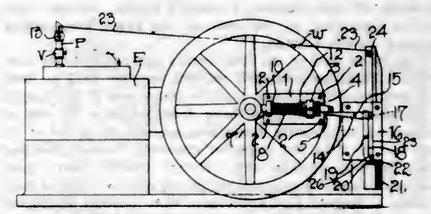
4. In a spinning machine, the combination with the spindle rail, of a pair of supports mounted thereon and having slots therein, an arm mounted on each of said supports by means of a bolt on said arm engaging the slot, and adapted to slide in said slot upon sudden loosening of the strain on said arm, a drum, a loose pulley on the outer end of each arm, a spindle driving band engaging each of said pulleys and the drum, a link loosely connecting the inner ends of said arms, a spring connected to said rail and said link adapted to pull the link and the ends of the arms toward the rail whereby to cause an outward movement of the outer ends of the arms to take up the slack of the band carried by the pulleys.

5. A tension regulator for spinning machines, comprising supports, arms pivotally mounted on the supports, the inner end of each arm having a slot, a pulley mounted on the outer end of each arm, a link interposed between the inner ends of the arms, connections extending from the link and passing loosely through the slots, whereby to permit one arm to move independent of the other, and tension means for causing the outer ends of the arms to move in an opposite direction to the inner ends.

1,137,054. CONTROLLING DEVICE. GEORGE WILLIAM EDWARDS, Fort Edward, N. Y. Filed July 27, 1914. Serial No. 853,377. (Cl. 121—97.)

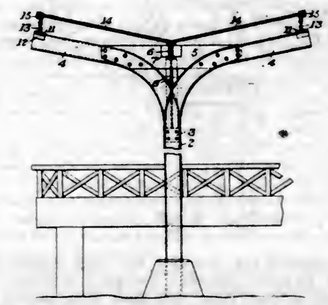
1. A device of the character described including a plate adapted to be secured to a rotatable element, alined loops carried thereby, one of said loops being interiorly threaded, a barrel adjustably engaged with the threaded loop, a collar secured to the elongated member intermediate of the loops, a second collar loosely engaged with the elongated member intermediate the loops, and an expansible member surrounding the elongated member and having the extremities thereof secured to the collars.

2. A device of the character described including alined loops adapted to be carried by a rotatable element, one of said loops being interiorly threaded, a barrel adjustably engaged with the threaded loop, a collar secured to the



elongated member intermediate of the loops, a second collar loosely engaged with the elongated member intermediate the loops, and an expansible member surrounding the elongated member and interposed between and in contact with the collars.

1,137,055. TRAIN-SHED CONSTRUCTION. GEORGE I. FINLEY, Culebra, Canal Zone, assignor to American Cement Tile Mfg. Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 24, 1912. Serial No. 727,567. (Cl. 189—1.)



1. A train shed shelter having supporting columns each consisting of a plurality of channels secured together back to back, the upper portions of the channels being deflected adjacent to the top of the column to form supporting arms inclined upward and outward, means engaging the arms and acting as a support for a central purlin, a central purlin thereon, eave purlins higher than the central purlin supported on the ends of the arms and roofing plates resting on the purlins.

2. A train shed shelter having supporting columns, each consisting of a plurality of channels secured together back to back, the upper portions of the channels being deflected adjacent to the top of the column to form supporting arms inclined upward and outward, a plate connecting the arms and secured to the back faces of the channels, a central purlin supported on the plate, eave purlins supported on the ends of the arms at a higher level than the central purlin, and roofing plates placed with their outer edges on the eave purlins and their inner edges on the central purlin.

3. A train shed shelter having central columns consisting of a plurality of longitudinal members secured together from the lower ends to a point near the roof, the upper portions of said members being deflected laterally in opposite directions, forming supporting arms inclined slightly upward and outward toward their ends, means for supporting a central purlin over the columns, a central purlin thereon, eave purlins supported on the ends of the arms higher than the central purlin and roofing members supported on the purlins inclined toward the center.

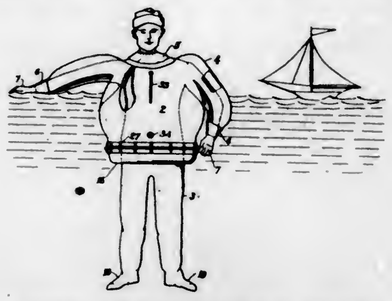
4. A train shed or the like having central columns consisting each of two channels secured together back to

back with their back webs in a plane transverse to the length of the shed, the channels being deflected near the top of the column in opposite directions, each in the plane of its back web so that the deflected channels form supporting arms, means for supporting a central purlin on the arms of each column, a central purlin thereon, eave purlins supported on the ends of the arms, and roofing members on the purlins.

5. A train shed or the like having central columns consisting each of two channels secured together back to back with their bottom webs in a plane transverse to the length of the shed, the channels being deflected near the top of the column in opposite directions, each in the plane of its back web so that the deflected channels form supporting arms, inclined upward and outward toward their ends, means for supporting a central purlin on the arms of each column, a central purlin thereon, eave purlins supported on the ends of the arms, and roofing members on the purlins.

[Claim 6 not printed in the Gazette.]

1,137,056. COMBINED LIFE-PRESERVER AND BODY-PROTECTOR. ERNEST H. GAGNON, Billings, Mont. Filed Jan. 22, 1915. Serial No. 3,719. (Cl. 9—20.)



1. A combined life preserver and body protector, comprising a two-piece garment, having a separable water-tight joint between them, said joint being formed by interfitting tapered wedging portions carried by the meeting portions of the two pieces; substantially as described.

2. A combined life preserver and body protector, comprising a two-piece garment, having a separable water-tight joint between them, said joint being formed by a yieldable projecting annular wedge member on one of the pieces fitting into an annular wedge shaped recess on the other garment piece; substantially as described.

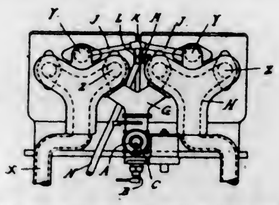
3. A combined life preserver and body protector, comprising a separable two piece garment, the two pieces having a water-tight joint between them, and said joint being formed by annular metallic members carried by the garment pieces and having their opposed horizontal surfaces provided with tightly interfitting gasket members, together with clamping means for drawing said members together in a vertical direction; substantially as described.

4. A combined life preserver and body protector, comprising a separable two piece garment, the two pieces having a water-tight joint between them, each of the pieces having at its meeting portion a trough-shaped metallic reinforce having opposing surfaces, and the joint being formed by gasket members carried by the reinforce, and having a wedging interfit in a vertical direction; substantially as described.

5. A combined life preserver and body protector, comprising a separable two piece garment, the two pieces having a water-tight joint between them, and said joint being formed by annular metallic members carried by the garment pieces and having their opposed horizontal surfaces provided with tightly interfitting gasket members, together with clamping means for drawing said members together in a vertical direction, the upper piece having a double wall inflatable air chamber therein whose bottom wall is formed by the metallic member of said piece; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,137,057. HEAVY-OIL-CARBURETING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. THOMAS ERNEST HALLIDAY, Bishopstoke, England. Filed Jan. 30, 1912. Serial No. 674,396. (Cl. 123—124.)



In a heavy oil carbureter system, means for mixing air with the fuel, means for receiving said mixture and vaporizing it at a point sufficiently remote from the mixing means whereby the temperature of the mixing means is not increased by the heat from said vaporizing means, and means apart from the mixing means and the vaporizing means for moistening the vaporized mixture, all of said means being separate and apart from each other and arranged to act upon the fuel charge in the order named.

1,137,058. CLUTCH-ACTUATING MECHANISM FOR RIVETING-MACHINES. RUDOLF JAY, Leipzig, Germany, assignor to Leipziger Maschinenbau-Gesellschaft M. B. H., Leipzig-Sellerhausen, Germany. Filed Jan. 29, 1913. Serial No. 744,929. (Cl. 192—9.)

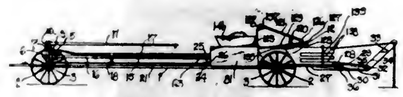


1. In a controlling mechanism for power-driven riveting machines the combination with a shaft of a two part clutch mounted theron one of the parts of said clutch being keyed to said shaft, the parts of said clutch being normally disengaged a spring adapted to cause the parts of said clutch to partially engage and cam means for insuring the completion of said engagement as and for the purpose described.

2. In a controlling mechanism for power driven riveting machines a casing a shaft within said casing and having an end protruding therethrough a two part clutch mounted on said shaft, means for rotating one part of said clutch freely about said shaft, the other member of said clutch being feathered to the shaft and adapted to shift longitudinally thereon, a lever for shifting said feathered member of the clutch into and out of engagement with the rotatable member thereof, a crank disk mounted on the protruding end of said shaft, a controlling member, spring means for shifting said controlling member, means connecting the clutch operating lever with the controlling member whereby the shifting of said controlling member by said spring causes the parts of said clutch to engage and automatic means for returning the controlling member to its normal position against the action of said spring.

3. In a controlling mechanism for power-driven riveting machines the combination with a shaft of a two part clutch mounted thereon one of the parts of said clutch being keyed to said shaft, the parts of said clutch being normally disengaged a spring adapted to cause the parts of said clutch to partially engage, and cam means for insuring the completion of said engagement said cam means operating after the operation of said spring, as and for the purpose described.

1,137,059. BALING-PRESS. PRESLEY T. JONES, Fulton, Ky. Filed Aug. 22, 1914. Serial No. 858,051. (Cl. 100—20.)



1. A device of the character described comprising a baling chamber, compression means coacting therewith, needles spaced longitudinally relative to the baling chamber, means for reciprocating said needles in unison transversely of the baling chamber, each of said needles being provided with wire engaging means, a clamping mechanism adapted to coact with one of the needles when projected across the baling chamber, and a combined holding and cutting mechanism adapted to coact with the second needle when in the same position.

2. A device of the character described comprising a baling chamber, compression means coacting therewith, needles spaced longitudinally relative to the baling chamber, means for reciprocating said needles in unison transversely of the baling chamber, each of said needles being provided with wire engaging means, a clamping mechanism adapted to coact with one of the needles when projected across the baling chamber, a combined holding and cutting mechanism adapted to coact with the second needle when in the same position, and a twisting mechanism operatively engaged with the combined holding and cutting mechanism.

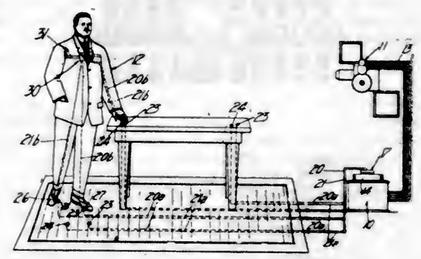
3. A device of the character described comprising a baling chamber, reciprocating compression means coacting therewith, a needle mounted for reciprocatory movement and adapted to travel across the baling chamber, a member carried by the needle and disposed angularly thereto, said member being provided with a channel, a shaft terminating in a crank operatively engaged with the channel of the needle, and means under control of the compression means for rotating the shaft.

4. A device of the character described comprising a baling chamber, reciprocating compression means coacting therewith, a needle mounted for reciprocatory movement and adapted to travel across the baling chamber, a member carried by the needle and disposed angularly thereto, said member being provided with a channel, a shaft terminating in a crank operatively engaged with the channel of the needle, and means under control of the compression means for rotating the shaft, said last named means including timed mechanism whereby the needle is held stationary at the end of a stroke.

5. A device of the character described comprising a baling chamber, reciprocating compression means coacting therewith, a needle mounted for reciprocatory movement and adapted to travel across the baling chamber, a member carried by the needle and disposed angularly thereto, said member being provided with a channel, a shaft terminating in a crank operatively engaged with the channel of the needle, means under control of the compression means for rotating the shaft, and means operable by the movement of a bale for controlling the reciprocation of the needle.

[Claims 6 to 8 not printed in the Gazette.]

1,137,060. SOUND TRANSMISSION AND RECORDING. ORLANDO E. KELLUM, Los Angeles, Cal. Filed Sept. 13, 1913, Serial No. 789,643. Renewed Mar. 18, 1915. Serial No. 15,386. (Cl. 88—16.2.)



1. In combination, a sound recording apparatus, a telephonic receiver apparatus coöperating therewith, a telephonic transmitter apparatus adapted to be placed upon a person, and an electric circuit beteween the transmitter and receiver apparatus including electrical contacts mounted upon the person and adapted to be brought into contact with stationary electrical contacts also in the circuit.

2. In combination, an electrically actuated sound recording mechanism, a telephonic transmitter adapted to be placed upon a person, and an electrical circuit between the transmitter and the sound recording mechanism including contacts mounted upon the person and coöperating stationary contacts adapted to be engaged by the contacts upon the person.

3. In combination, a moving picture camera and a sound recording mechanism operating together in synchronism, electrically actuated means for conveying sound vibrations to the sound recorder, a telephonic transmitter adapted to be placed upon a person, and an electrical circuit between the transmitter and the sound vibration conveying means including circuit connections permitting movement of the person relative to the recorder within the field of view of the camera.

4. In combination, a moving picture camera and a sound recording mechanism operating together in synchronism, electrically actuated means for conveying sound vibrations to the sound recorder, a telephonic transmitter adapted to be placed upon a person, and an electrical circuit between the transmitter and the sound vibration means including contacts mounted upon the person and stationary contacts adapted to be engaged by the contacts on the person, said stationary contacts being arranged so that they may be engaged when the person is in the field of view of said camera.

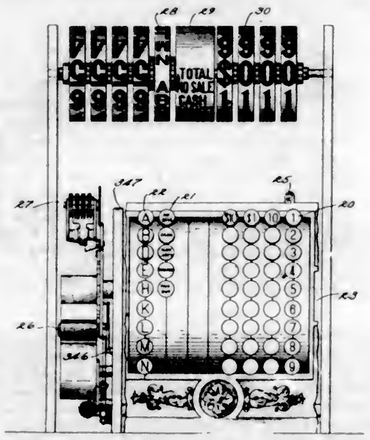
5. In combination, a moving picture camera and a sound recording mechanism operating together in synchronism, a telephonic receiver in coöperation with the sound recorder, a telephonic transmitter adapted to be placed upon a person, and an electrical circuit between the transmitter and receiver including contacts mounted upon the person and stationary contacts adapted to be engaged by the contacts upon the person, said stationary contacts being arranged so that they may be engaged when the person is in the field of view of said camera.

[Claims 6 to 8 not printed in the Gazette.]

1,137,061. CASH-REGISTER. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Sept. 2, 1908. Serial No. 451,446. (Cl. 235—2.)

1. In an accounting machine, the combination with a segmental frame piece, of a bank of keys each carried by said frame piece, substantially radial to a point therein, and a differentially movable element pivoted to said

frame piece at said point, and constructed to have its extent of movement controlled by said keys.



2. In a machine of the class described, the combination with an accounting device and means for operating it, of a transaction determining member, a pin located on said member, connections controlling the engagement of the accounting device with means for operating it, and means connected to and movable with said controlling connections and adapted to engage said pin in certain positions of adjustment of said transaction determining member whereby said connections will be disabled.

3. In an accounting machine, the combination with a bank of keys, of a detent plate for holding any adjusted key in actuated position and constructed to release any held key by actuation of any other key, of a differential element constructed to have its movement controlled by said keys, a zero stop normally preventing movement of said differential element but constructed to be released by said detent plate, a second plate adjacent said detent plate, a special release key having connections to actuate said second plate, said second plate being constructed to lock the keys in said bank upon the operation of said release key and to prevent an operation of the release key when one of the keys in said bank has been operated.

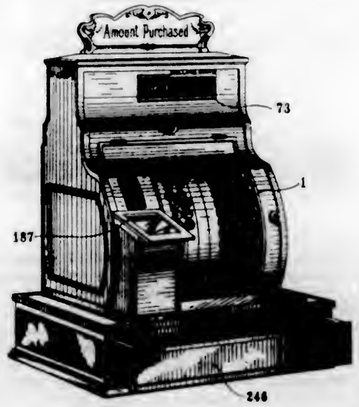
4. In an accounting machine, the combination with a cash drawer, and devices for holding said drawer in a position preventing access thereto and comprising a rocking frame including a rod, of a bank of keys, a plate operated by said keys, and connections from said plate preventing movement of said frame, and including a hooked arm, the hook of which normally engages said frame rod.

5. In an accounting machine, the combination with an accounting device and manipulative devices for determining the extent of operation thereof, of a detent plate for holding said manipulative devices in actuated position, a main operating device for the accounting device, connections controlled by said detent plate normally locking said main operating device, and a resetting key constructed to operate said detent plate, thereby releasing any manipulative device held in actuated position and also releasing said locking means for the main operating device.

[Claims 6 to 69 not printed in the Gazette.]

1,137,062. CASH AND AUTOGRAPHIC REGISTER. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Feb. 11, 1909. Serial No. 477,419. (Cl. 235—2.)

1. In a machine of the class described, an autographic mechanism comprising a side frame, carrying rods projecting from said frame, a second side frame, sleeves projecting from said second frame and positioned to surround said projecting rods, a latch carried by said second side frame and positioned to engage said projecting rods to lock said frame in proper position, a record table carried by one of said side frames, and devices for supplying and feeding a record strip; in combination with a cash register having movable parts, with connections from said movable parts to the feeding devices of the autographic mechanism.



2. In an accounting machine, the combination with a totalizer comprising a plurality of pinions, of means for differentially rotating the pinions of the totalizer in a forward direction, means for backwardly rotating the totalizer pinions to their zero positions, a depressible resetting key for controlling said latter means, driving mechanism and means operated by the driving mechanism for preventing the resetting key from being held in a position intermediate its undepressed position and its depressed position.

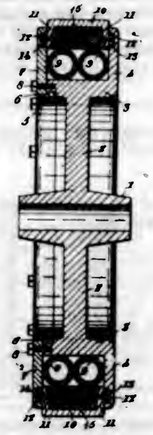
3. In an accounting machine, the combination with a totalizer comprising a plurality of pinions, of means for rotating said pinions in a forward direction, means for backwardly rotating the pinions to their zero positions, a depressible resetting key for controlling said means, driving mechanism, a member operated by the driving mechanism and a co-acting member carried by the resetting key, said members operating when the driving mechanism is operated to cause the resetting key to be moved either to its undepressed position or its fully depressed position if the resetting key is in an intermediate position at the time the driving mechanism is operated.

4. In an accounting machine, the combination with a totalizer comprising a plurality of pinions, means for differentially rotating the totalizer pinions in a forward direction, means for backwardly rotating the totalizer pinions to their zero positions, a depressible resetting key for controlling said means, a member carried by the resetting key, driving mechanism, a V-shaped member which is actuated by the driving mechanism which when the driving mechanism is operated moves toward the member carried by the resetting key and cams the same to force the resetting key to its undepressed position or to its fully depressed position if the resetting key is in an intermediate position.

5. In an accounting mechanism, the combination with a totalizer comprising a plurality of pinions, of means for differentially rotating the totalizer pinions in a forward direction, means for backwardly rotating the totalizer pinions to their zero positions, a depressible key for controlling said means, driving mechanism, and means actuated by the driving mechanism which if the key is only partly depressed will force the key back to its undepressed position.

[Claims 6 to 16 not printed in the Gazette.]

1,137,063. RESILIENT WHEEL. NORMAN KING, Sr., Canton, Ohio. Filed Nov. 30, 1914. Serial No. 874,635. (Cl. 152—35.)



In a wheel of the character described, a felly provided with an integral annular, outstanding flange upon one side, a removable annular, outstanding flange attached upon the other side of said felly, each of said flanges provided with inwardly disposed elongated pockets, a plurality of pneumatic tubes located around said felly and between said flanges, an annular metallic tire provided with inwardly disposed annular flanges located around said pneumatic tubes and between said outstanding annular flanges, pins carried by said tire and located within said elongated pockets and an annular cushion member located between the inwardly disposed annular flanges of said tire.

1,137,064. INNER TIRE. GUY V. KRICHBAUM, Ashland, Ohio. Filed Dec. 4, 1913. Serial No. 804,570. (Cl. 152—18.)



1. An inner tire for use in automobile tires comprising a hollow tubular body made of flexible material, the body being split upon its inner surface to form edges, non-stretchable material associated with one of said edges, the other edge being unsecured and adapted to overlap and lock around the first mentioned edge, whereby the edges are held against creeping when the inner tube is inflated.

2. An inner tire for use in automobile tires comprising a hollow tubular body, the body being split upon its inner surface to form edges, a non-stretchable substantially rigid means associated with one of said edges, the other of said edges being unscrewed and overlapping the aforesaid means, and being adapted to lock around the said non-stretchable means when the inner tube of the tire is inflated.

3. An inner tire for use in automobile tires comprising a hollow tubular body, made of flexible material the body being split upon its inner surface to form edges, an annular wire member associated with one of said edges and adapted to encircle the rim of the wheel to which it may be applied, the other edge of the tubular body being unsecured and being adapted to extend upwardly upon the inner walls of the inner tire and to lock around the said wire when the inner tube of the tire is inflated.

1,137,065. PROCESS OF RENDERING AVAILABLE PHOSPHORIC ACID. WALTER S. LANDIS, Niagara Falls, N. Y., assignor to Frank S. Washburn, Nashville, Tenn. Filed Mar. 3, 1915. Serial No. 11,849. (Cl. 71—7.)

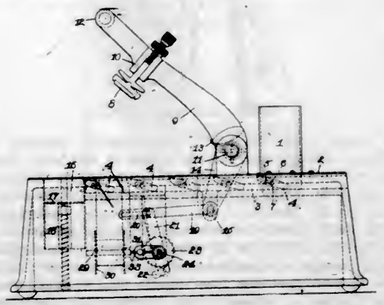
1. The process of producing citrate soluble phosphoric acid from tri-calcium phosphate, which consists in mixing finely divided phosphate rock, a suitable alkali metal salt and carbon in suitable proportions; subjecting the mixture to a sufficient temperature to eliminate the acid radical from the said salt; then subjecting said mixture to a higher temperature sufficient to cause an incipient fusing or clinkering of the mixture, substantially as described.

2. The process of producing citrate soluble phosphoric acid from tri-calcium phosphate, which consists in mixing finely divided phosphate rock, sodium sulfate and carbon in suitable proportions; subjecting the mixture to a sufficient temperature and for a sufficient time to eliminate the sulfate radical from said sulfate; then subjecting said mixture to a higher temperature sufficient to cause an incipient fusing, or clinkering of the mixture, substantially as described.

3. The process of producing citrate soluble phosphoric acid from tri-calcium phosphate which consists in preparing a suitable mixture of said phosphate, a suitable sodium salt and carbon; subjecting said mixture to a suitable temperature to eliminate the acid radical from a substantial proportion of said salt; then subjecting said mixture to a higher temperature to cause an incipient fusing or clinkering of the mixture, substantially as described.

4. The process of producing citrate soluble phosphoric acid from tri-calcium phosphate which consists in preparing a suitable mixture of said phosphate, a suitable sodium salt and carbon; subjecting said mixture to a suitable temperature to eliminate the acid radical from a substantial proportion of said salt; subjecting said mixture to a higher temperature to cause an incipient fusing or clinkering; then discharging said clinkered mixture from the furnace; and finely grinding the same, substantially as described.

1,137,066. ADDRESSING-MACHINE. ULYSSES G. LEE, Chattanooga, Tenn., assignor to Montague Mailing Machinery Co., a Corporation of Tennessee. Filed July 11, 1912, Serial No. 708,921. Renewed June 5, 1913. Serial No. 772,000. (Cl. 101—1.)



1. In addressing machines, the combination of a pivotally mounted hand operated impression arm, a hopper

for address plates adjacent the pivot of the arm, a feed slide moving under the hopper and in a direction transverse to the pivotal axis of the said pivot of the arm, a connection between the impression arm and the feed slide for operating said slide, an inking ribbon extending transversely of the line of movement of the feed slide and of the impression arm, ribbon spools, and a connection from the impression arm for operating the ribbon spools, substantially as described.

2. In combination a hopper, a pivoted hand operated impression arm, a feed slide working under the hopper, ribbon spools to direct a ribbon transversely of the feed slide, an arm extending down from the pivoted end of the impression arm connected with the feed slide, and a connection from said arm to the ribbon spools for operating the same, substantially as described.

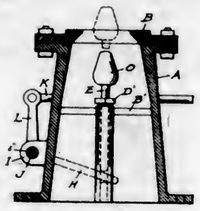
3. In a manually operated addressing machine for printing from individual address plates, a frame, a straight runway for address plates, a hopper from which said straight runway leads, an impression arm pivotally mounted, a handle at the free end of said arm, an inking ribbon extending over the impression point, an inking ribbon mechanism below the upper surface of the frame, an address plate feeder operating along the straight runway, and connections from the impression arm to the address plate feeder and the inking ribbon mechanism, substantially as described.

4. In a manually operated addressing machine for printing from individual address plates, a frame, a hopper for address plates, an address plate feeder operating along a straight path from the hopper to the impression point, an inking ribbon mechanism including an inking ribbon extending over the impression point, a pivotally mounted impression arm having a handle at one end and an arm extending below its pivot at the other end, a connection between said arm and the address plate feeder and means for operating the inking ribbon mechanism from the impression arm, substantially as described.

5. In combination, a table, an impression arm pivotally mounted and working above the table and having a handle at its free end and operable by hand, a hopper for address plates, a reciprocatory feed slide for moving the plates from the hopper to the printing point, an inking ribbon extending over the impression point, inking ribbon spools, and connections from the hand operated impression arm for giving the feed slide its reciprocatory movement and for giving the ribbon spools a step by step movement in one direction, substantially as described.

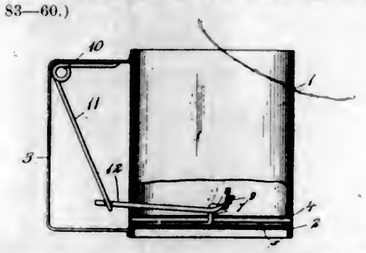
[Claim 6 not printed in the Gazette.]

1,137,067. NOZZLE-AREA AND DRAFT REGULATOR FOR LOCOMOTIVE-ENGINES. ALBERT LIEB, St. Joseph, Mo. Filed Jan. 20, 1913. Serial No. 742,992. (Cl. 110—152.)



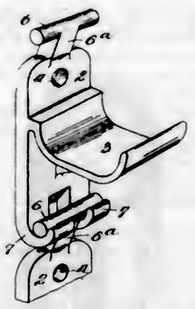
A nozzle area regulator for locomotive engines comprising a nozzle stand having a slot in the front thereof, a flat tip on the top thereof with an inwardly flared edge to reduce the draft area space, a partition supported vertically by the bottom of the nozzle stand, a passage central in said partition extending from the bottom of said stand to the top of the partition, a stuffing box at the top of said passage, a spindle housed in said passage the lower parts of both partition and spindle having corresponding slots therein, a tapered bulb carried by said spindle, duplicate lugs with corresponding holes therein rigid on opposite sides of the slot in the front of the nozzle stand, a shaft supported in said lugs, a lever carried by said shaft extending through the slot in the front of the stand its inner end engaging with the slots in said partition and spindle, an arm on said shaft, a rod engaging the other end of said arm and a gage, said lever and its operating mechanism being adapted to raise and lower said spindle and bulb from the front of said stand from a line horizontally above the base of the nozzle area regulating stand.

1,137,068. FLOUR-SIFTER. GEORGE MCEACHRON, Iron River, Mich. Filed Mar. 8, 1913. Serial No. 753,053. (Cl. 83—60.)



In a device of the class described, a scoop having a handle and a screen bottom, an agitator supported for rotation above the screen bottom and having a crank, a double coiled spring supported within the handle and having a yoke with substantially parallel limbs slightly spaced apart extending within the handle, and a connecting member guided through the wall of the scoop, one end of said member being connected with the agitator crank, and the other end of said member having a reduced portion engaging the loop of the yoke.

1,137,069. PIPE AND CABLE HANGER. DUNCAN BUCHANAN MCINTYRE, Montreal, Quebec, Canada. Filed Sept. 8, 1914. Serial No. 860,803. (Cl. 248—34.)

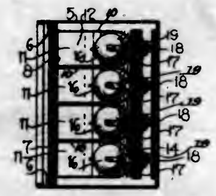


1. A hanger consisting of a flat back portion and a shelf portion extending outwardly from the back, such back portion having a hole therethrough, an extension of T-form at one end of the back and a pair of spaced lugs at the opposite end of the back.

2. In combination, a wall, a bolt embedded in the wall at one end, and a hanger consisting of an angular bracket having a hole therethrough for the reception of the bolt, an extension of T-form at one end of the bracket, a pair of spaced lugs at the opposite end of the bracket and a second substantially similar angular bracket, the T-form extension of such second bracket being located between and supported by the lugs of the first bracket.

3. In combination, a wall, a bolt extending out from the wall, a bracket consisting of a back portion having a hole therethrough, hung upon the bolt and lying flat against the wall, a shelf portion extending outwardly from the back, a pair of outwardly extending spaced lugs at the bottom of said back and a second bracket consisting of a back in alinement with the first back and lying flat against the wall, a shelf portion extending outwardly from the second back, an outwardly extending T-form extension at the top of said second back and located between and resting upon the lugs of the first bracket whereby such second bracket is supported.

1,137,070. SIGNALING DEVICE FOR VEHICLES. MILTON T. MILLER, Los Angeles, Cal. Filed Feb. 21, 1914. Serial No. 820,260. (Cl. 40—132.)



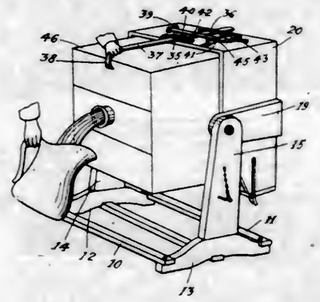
1. In a signal lamp the combination with a lamp box or case, of a reflector having a series of channel shaped compartments, an insulating base, plates secured upon said base and closing the ends of said compartments, a series of lamp bulbs arranged in each of the compartments and mounted upon said base, a glass plate mounted in said case in front of the reflector, and a sign plate arranged between said glass plate and the compartments of the reflector and having portions of the indicia thereon in front of the respective compartments.

2. In a signaling lamp the combination with a lamp box or case, of a reflector having a series of narrow longitudinal compartments, a base upon which said reflector is permanently secured, a series of lamp bulbs arranged in each of the compartments, the base wall of the compartment having openings therein to receive the plugs of the lamp bulbs, threaded sockets in the base alining with said openings to receive the plugs of said lamp bulbs, said reflector and the insulating base being removable as a unit from said case, a glass plate mounted in the lamp case in front of the reflector, and a sign plate arranged between said glass plate and the compartments of the reflector and having portions of the indicia thereon in front of the respective compartments.

3. In a signal lamp the combination with a lamp box or case, of a reflector provided with a series of narrow longitudinal compartments, an insulating base, plates permanently secured upon said base and to the body of the reflector to close the ends of said compartments, a series of lamp bulbs arranged in each of the compartments and mounted on said base, said reflector and insulating base being removable as a unit from the case, a glass plate removably mounted in the case in front of said reflector, and a sign plate arranged between said glass plate and the compartments of the reflector and having portions of the indicia thereon in front of the respective compartments.

4. In a signal lamp the combination with a lamp box or case, of a reflector including a body provided with a plurality of longitudinal compartments, the base wall of each compartment having a plurality of openings therein, an insulating base, plates permanently secured upon said base and to the body of the reflector to close the ends of said compartments, a series of electric light bulbs in each of the compartments having plugs extending through the openings in the wall thereof and removably mounted on said base, said reflector and the base being bodily removable from the lamp case, a colored glass plate removably mounted in the case in front of said reflector, and a sign plate mounted in the case between the glass plate and the open side of said compartments and having portions of the indicia thereon and disposed in front of the respective compartments.

1,137,071. INCLINATOR FOR CARBOYS. HORACE M. MCCORD, Minneapolis, Minn., assignor, by direct and meane assignments, to Horace M. McCord & Co., Inc., Minneapolis, Minn., a Corporation. Filed May 2, 1914. Serial No. 835,872. (Cl. 221—90.)

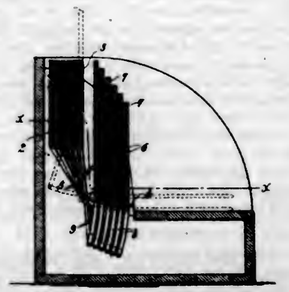


1. An inclinator comprising a box-like carboy holder, a bar slidably mounted upon the back of said holder and held spaced from the body of the carboy to provide a handle for manipulating the inclinator, a hook on said bar for engaging the body of the carboy, a link pivoted to the back of the carboy, a lever pivoted to said link and to the bar for sliding the same to force the hook into the carboy, and means for holding the lever locked where set.

2. An inclinator comprising a box-like carboy holder, a bar slidably mounted upon the back of said holder, a hook on said bar for engaging the body of the carboy, a link pivoted to the back of the carboy, a lever pivoted to said link and to the bar for sliding the same, and a keeper extending above the bar having ratchet teeth engageable with a portion thereof for holding the parts locked in operative position.

3. An inclinator comprising a box-like carboy holder, a bar slidably mounted upon the back of said holder, a hook on said bar for engaging the body of the carboy, a link pivoted to the back of the carboy, a lever pivoted to said link and to the bar for sliding the same, a keeper extending above the bar having ratchet teeth engageable with a portion thereof for holding the parts locked in operative position, said bar having an angularly-disposed portion for engaging said notches, and an offset handle to turn said angularly-disposed portion out of said notches.

1,137,072. ADVERTISING-CABINET. ALBERT S. MACHEN, Norfolk, Va. Filed Dec. 3, 1913. Serial No. 804,548. (Cl. 40—65.)

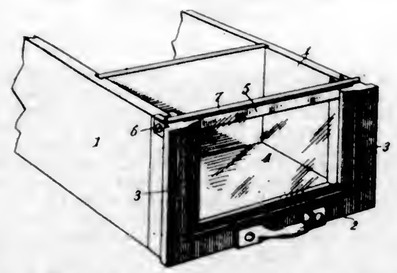


1. In an appliance of the character specified, the combination of two groups of vertically arranged frames of like number, the said groups being adapted to removably support corresponding sets of cards, and connecting means between corresponding frames of the two groups, whereby movement of any one of the frames of one group, produces movement of the corresponding frames of the oppo-

site group, so that the corresponding cards of the two sets are exposed.

2. In an appliance of the character specified, a support, front and rear groups of frames therein adapted to support corresponding sets of cards, the frames forming the front group being pivotally located for rocking movement, and arranged in stepped relation so as to expose the upper marginal edges of the adjacent cards, connecting means between corresponding frames of front and rear groups, whereby movement of any one of the frames of the front group produces movement of the corresponding frames of the rear group.

1,137,073. DUST-JOINT FOR DRAWERS. EDMUND MORRIS, Grand Rapids, Mich., assignor to Wilmarth Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed May 14, 1914. Serial No. 838,448. (Cl. 45—7.)



1. A drawer having sides, bottom and front, said front consisting of bottom and side members and a glass panel carried by said members, a U-shaped member located back of the panel and bearing against the same adjacent the upper edge thereof, and a yieldable strip carried by the U-shaped member and extending above the upper edges of the sides and front of the drawer.

2. A drawer having sides, back and front, said front consisting of a bottom and spaced apart side members, a U-shaped member inserted in and extending between the upper ends of said side members and rigidly secured thereto, a flexible strip in said member and projecting above the drawer, and a glass panel supported by said bottom and side members with its rear upper portion engaged and held by the U-shaped member, substantially as described.

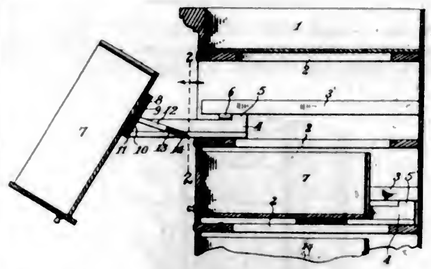
3. A drawer having a front consisting of bottom and spaced apart side members, and a glass panel carried by said members, a U-shaped member extending between and connecting the side members and inserted in the upper ends thereof immediately back of the glass panel, and a yieldable strip extending the full width of the drawer and projecting above the upper edge thereof and also secured between the side of the U-shaped member.

4. A drawer front consisting of a bottom and spaced apart grooved side members a glass panel carried in the grooves of said members, a cross member bearing against the inner side of said panel adjacent the upper edge thereof, said cross member being seated in slots in the side members of the front having its ends bent at right angles and secured to the respective side members and a flexible strip inserted in the cross member at one edge and projecting at the other edge above the plane of the front.

1,137,074. TILTING DRAWER. EDMUND MORRIS, Grand Rapids, Mich., assignor to Wilmarth Show Case Company, Grand Rapids, Mich., a Corporation of Michigan. Filed May 14, 1914. Serial No. 838,449. (Cl. 45—96.)

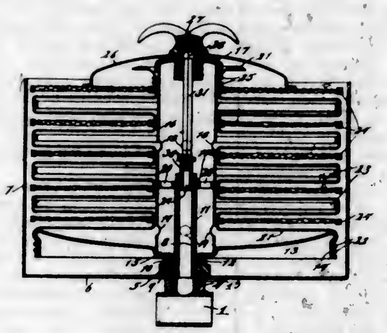
1. In combination, a case, slides arranged for sliding movement in said case, a bar pivotally connected to said slides, a link pivotally connected to the bar at one end and both pivotally and slidably connected to one of the slides, a drawer and means for detachably connecting the drawer to the bar.

2. A tilting drawer construction, comprising slides spaced apart and arranged for longitudinal sliding movement, a bar pivotally connected to and extending between the ends of the slides, means limiting the pivotal movement of the member with respect to the slides, a drawer, a cross bar secured to the bottom of the drawer and having detachable connection with said pivoted bar.



3. A tilting drawer construction, comprising spaced apart slides arranged for longitudinal sliding movement, a bar pivotally connected to and extending between the ends of the slides, means for limiting the pivotal movement of the bar with respect to the slides, and a drawer detachably connected to said bar, by means of a cross bar attached to the bottom of the drawer and engaging the movable edge of the pivoted bar, and detachable connecting means for attaching the said bars to each other.

1,137,075. FILTER. WILLIAM L. MORRIS, Chicago, Ill., assignor to S. F. Bowser & Co., Inc., Fort Wayne, Ind., a Corporation of Indiana. Filed Apr. 25, 1910. Serial No. 557,318. (Cl. 210—16.)



1. The combination with a filtering sleeve gathered at intervals to form a plurality of circular superposed folds, of a spring ring to distend the folds, and annular spacing screens disposed between the said folds and each comprising a pair of reticulated annular screens, a corrugated disk disposed between the screens, and means to bind the screens and the disk together at the edges.

2. The combination with a filtering sleeve gathering at intervals to form a plurality of circular superposed folds, of a spring ring to distend the folds, and annular spacing screens disposed between the said folds and each comprising a pair of reticulated annular screens, a corrugated disk disposed between the screens and of smaller outer diameter than the screens, and means to bind the inner edges of the screens and disk together.

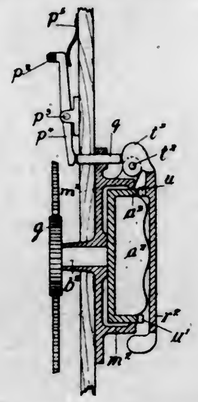
3. The combination with a filtering sleeve gathered at intervals to form a plurality of circular superposed folds, of a cylindrical perforated housing about which the sleeve is disposed, means to distend the folds of the sleeve, and annular spacing rings substantially as wide as the folds and disposed between them, and operative to press the gathered portions of the sleeve against the housing.

4. The combination with a perforated cylindrical housing, of a filtering sleeve larger than said housing, means to distend the sleeve and means to draw the sleeve at intervals, against the housing, to form superposed folds, said means being also adapted to space the folds apart when the sleeve is distended from within, and means to secure the sleeve at the ends to the housing.

5. In a filter, the combination with a casing member, of a nozzle member disposed within the casing, a thimble surrounding the nozzle member and having a bearing flange at the bottom, packing disposed below the said flange, a base member supported by the said flange, a perforated cylindrical housing secured to the base member, a filtering sleeve gathered at intervals about the housing to form a plurality of superposed folds, means to distend the folds of the sleeve, and means to bind the gathered portions of the sleeve about the housing and to space the adjacent folds apart when the sleeve is distended by fluid pressure from within.

[Claims 6 to 10 not printed in the Gazette.]

1,137,076. MECHANISM FOR OPENING AND CLOSING SLIDING WINDOWS. GOTTFRIED BERNHARD MÜNCH, Leipzig, Germany, assignor to Allvor-Apparte-Gesellschaft mit Beschränkter Haftung, Wurzen, Germany. Filed Aug. 8, 1913. Serial No. 783,716. (Cl. 16—53.)

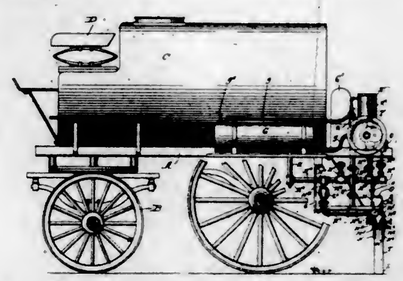


In mechanism for raising and lowering a sliding window, the combination of a fixed housing, a rotatable actuating handle in said housing, having a ring of teeth, a hinged cover on said housing having a tooth adapted to engage said ring of teeth, for locking the handle, a movable device adapted to automatically bear against the window, to prevent rattling thereof, and means whereby the opening of said cover removes said movable device from contact with the window.

1,137,077. PROCESS OF AND APPARATUS FOR SPRINKLING ROADS. HOWARD M. NICHOLS, Philadelphia, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 13, 1911. Serial No. 626,957. (Cl. 137—63.)

1. The process of producing a jet, by forcing fluid through a passage which has an elongated cross section and sides that lie in parallel planes in the direction of such elongation, turning the margins of the flattened parallel sided stream so produced toward each other as oppositely flowing currents, and releasing the fluid at and for a distance on each side of the meeting plane of said currents across the full width of the latter and for a short distance back from their outermost edges, substantially as described.

2. The process of producing a jet, by forcing fluid through a passage which has an elongated cross section and sides that lie in parallel planes in the direction of such elongation, turning the margins of the flattened parallel sided stream so produced toward each other as oppositely flowing currents, and releasing the fluid at and for a distance on each side of the meeting plane of said currents across the full width of the latter and for a short distance back from their outermost edges at a jet orifice of approximately equal dimensions both longitudinally of and transversely to said currents, substantially as described.



3. A jet nozzle which is provided (1) with a passage therein adapted to convey fluid under pressure and having an elongated cross section and sides that lie in parallel planes in the direction of such elongation, (2) with means for turning the margins of the flattened parallel sided stream so produced toward each other as oppositely flowing currents, and (3) with a jet orifice open at and for a distance on each side of the meeting plane of said currents across the full width of the latter and for a short distance back of their outermost edges, substantially as described.

4. A jet nozzle which is provided (1) with a passage therein adapted to convey fluid under pressure and having an elongated cross section and sides that lie in parallel planes in the direction of such elongation, (2) with means for turning the margins of the flattened parallel sided stream so produced toward each other as oppositely flowing currents, and (3) with a jet orifice of approximately equal dimensions both longitudinally of and transversely to said currents open at and for a distance on each side of the meeting plane of said currents across the full width of the latter and for a short distance back of their outermost edges, substantially as described.

5. The process of producing a road sprinkling or other sprinkling jet, by forcing road oil or other liquid through a passage which has an elongated cross section, turning the margins of the flattened stream so produced toward each other as oppositely flowing currents, and releasing said liquid at and for a distance on each side of the meeting plane of said currents so as to produce a fan-shaped jet of the road oil or other liquid from a jet orifice whose corresponding dimension is great as compared with the thickness of said jet, substantially as described.

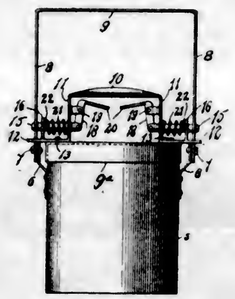
[Claims 6 to 31 not printed in the Gazette.]

1,037,078. COVERED RECEPTACLE. JOHN P. NICODEMUS and LOUIS E. BECKLEY, Logansport, Ind. Filed June 11, 1913. Serial No. 773,019. (Cl. 220—22.)

1. The combination with a receptacle, of a handle bail pivoted thereto, a removable cover for the receptacle, and a reciprocating bolt slidably mounted on the cover and slidable into and out of interlocking engagement with the handle bail, said bolt when so interlocked holding both the cover on the receptacle and the bail against its swinging movement.

2. The combination with a receptacle, of a handle bail pivoted thereto, a removable cover for the receptacle, a hand grip mounted on the cover, a bolt slidably mounted

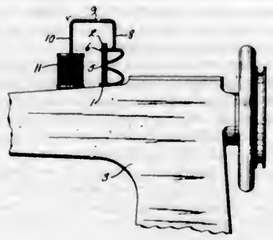
on the cover and grip and detachably interlocking with the handle bail, said bolt when so interlocked, constituting common means for holding the cover on the receptacle and preventing the swinging movement of the bail, and an actuating device for the bolt arranged within the hand grip in a position to be grasped by a hand engaging said grip.



3. The combination with a receptacle, of a handle bail pivoted thereto, a cover for the receptacle, a hand grip mounted on the cover and having integral projecting terminal portions slidably engaging the bail, and a reciprocatory locking device movably mounted on the hand grip and detachably interlocking with the handle bail at one side thereof to secure the cover in place on the receptacle and also hold the handle bail against swinging movement.

4. The combination with a receptacle, of a handle bail having side arms pivoted to opposite portions thereof, a removable cover for the receptacle, a hand grip secured on the cover and having extended portions slidably engaging the bail, oppositely projecting locking bolts slidably mounted on the hand grip and detachably interlocking with the bail to hold the cover upon the receptacle, and operating devices connected to the bolts and arranged within the hand grip.

1,137,079. SPOOL-HOLDER. MAXIMILIAN J. OTTO, New York, N. Y. Filed July 26, 1913. Serial No. 781,296. (Cl. 242—134.)



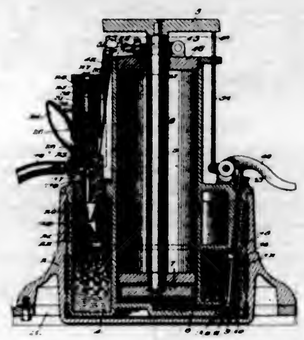
1. A spool-holder comprising a pair of eyes arranged in alinement and adapted to loosely engage a supporting pin; and a spring tongue arranged intermediate said eyes and extending into the space between them for frictionally retaining the holder in desired position on said supporting pin.

2. A spool-holder formed of a single piece of resilient wire and bent to provide a spool-holding pin and a securing portion, the latter comprising a holding-eye for loosely engaging a supporting pin, and a tongue extending across said eye and adapted to frictionally engage said supporting pin.

3. A spool-holder having a spool-pin, an eye for loosely encircling a supporting-pin, and a resilient tongue for frictionally engaging said supporting pin, whereby the spool-pin may be adjusted relatively to the supporting pin.

4. A spool-holder formed of a single piece of resilient wire bent into substantially U form, and having at one end a spool-holding pin and at its other end a securing portion consisting of a pair of spaced apart eyes adapted for loosely engaging a supporting-pin, and an intermediate spring tongue extending into the space between the eyes so as to frictionally engage the supporting-pin passing through said eyes, whereby to adjustably and firmly secure the spool-holder upon said supporting-pin.

1,137,080. ADJUSTABLE CHAIR. OSCAR H. PIEPER and ALPHONSE F. PIEPER, Rochester, N. Y. Filed Apr. 21, 1913. Serial No. 762,503. (Cl. 138—9.)



1. In an adjustable chair, the combination with a cylinder, of a piston movable within the cylinder, a liquid chamber in communication with the cylinder, a fluid pressure supply pipe communicating with the liquid chamber, a spring actuated valve controlling the passage of liquid to the cylinder, means for opening said valve, and means controlled by the downward movement of the piston for releasing said valve to permit it to close.

2. In an adjustable chair, the combination with a cylinder, of a piston movable within the cylinder, a fluid pressure supply pipe in communication with the cylinder, an exhaust for the fluid pressure, a spring actuated valve controlling the passage of liquid to the cylinder, means for opening said valve, and means controlled by the downward movement of the piston for releasing said valve to permit it to close.

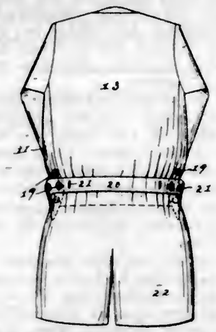
3. In an adjustable chair, the combination with a cylinder, of a piston movable in the cylinder, a liquid chamber communicating with the cylinder, an exhaust outlet in communication with the liquid chamber, a spring actuated valve for closing the passage from the liquid chamber to the exhaust outlet, and means actuated by the piston on its downward movement for retarding the flow of liquid from the cylinder.

4. In an adjustable chair, the combination with a cylinder, of a piston movable within the cylinder, a liquid chamber in communication with the cylinder, a fluid pressure supply pipe communicating with the liquid chamber, a valve controlling the supply of fluid pressure, and spring controlled means operating to close said valve, the spring controlled means being normally out of operative relation with the valve and automatically connected therewith at the limit of the upward movement of the piston.

5. In an adjustable chair, the combination with a cylinder, of a piston movable within the cylinder, a liquid chamber in communication with the cylinder, a fluid pressure supply pipe communicating with the liquid chamber, a valve controlling the supply of fluid pressure, automatic means for throwing the valve from open to closed position, and devices for permitting the automatic means to operate at the limit of the upward movement of the piston.

[Claim 6 not printed in the Gazette.]

1,137,081. SHIRT. JAMES K. P. PINE, Troy, N. Y., assignor to United Shirt and Collar Company, Troy, N. Y., a Corporation of New York. Filed Feb. 10, 1914. Serial No. 817,733. (Cl. 2—144.)

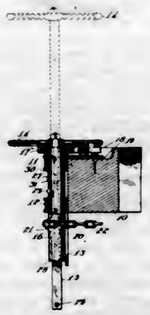


1. In a shirt of the class described, a rear opening; a fall for closing said opening; a closely adjacent series of fastening devices at each side of said opening; a closely adjacent series of coöperating fastening devices at each free corner of said fall; said first named and said last named series being disposed in lines substantially at right angles with each other.

2. In a shirt of the class described, a rear opening; a fall for closing said opening; a vertically disposed, closely adjacent series of fastening devices at each side of said opening; a horizontally disposed, closely adjacent series of coöperating fastening devices at each free corner of said fall, substantially for the purposes set forth.

3. In a shirt of the class described, a rear opening; a fall for closing said opening; a vertically disposed, closely adjacent series of fastening devices at each side of and at least in part above said opening; and a horizontally disposed, closely adjacent series of coöperating fastening at each upper corner of said fall, substantially for the purpose set forth.

1,137,082. BRAKE-SHAFT. HERMAN PRIES, Michigan City, Ind. Filed Feb. 10, 1913. Serial No. 747,522. (Cl. 188—52.)



1. In a brake shaft for railway cars, in combination, a sleeve adapted to be journaled in suitable boxes, a rod slidable in the sleeve, a hand piece carried by the rod, means for attaching a brake chain to the sleeve, and a latch pivotally carried by the sleeve for supporting the rod.

2. In a brake shaft for railway cars, in combination, a sleeve adapted to be journaled in suitable boxes, a rod slidable in the sleeve, a hand piece carried by the rod, means for attaching a brake chain to the sleeve, a ratchet wheel carried by the sleeve, a holding pawl coöperating with the ratchet wheel, and a latch pivotally carried by the sleeve for supporting the rod.

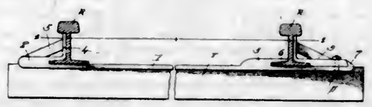
3. In a brake shaft for railway cars, in combination, a sleeve adapted to be journaled in suitable boxes and having a lateral aperture and a bridge piece crossing the aperture, a rod slidable in the sleeve, a hand-piece carried by the rod, means for attaching a brake chain to the sleeve, and a latch for supporting the rod within the sleeve and being housed within the sleeve aperture and held in place by the bridge piece.

4. In a brake shaft for railway cars, in combination, a sleeve adapted to be journaled in suitable boxes and having a lateral aperture and a bridge piece crossing the aperture, a rod slidable in the sleeve, a hand-piece carried by the rod, means for attaching a brake chain to the sleeve, and a latch for supporting the rod within the sleeve and being housed within the sleeve aperture and having a downwardly facing shoulder engageable with the bridge piece.

5. In a brake mast an operated part, an operating part, and means pivotally and slidably mounted within said operated part for supporting said operating part.

[Claims 6 to 9 not printed in the Gazette.]

1,137,083. ANTI-RAIL-SPREADING DEVICE. LOUIS H. REINHARDT, Berger, Mo. Filed Dec. 9, 1914. Serial No. 876,326. (Cl. 238—5.)



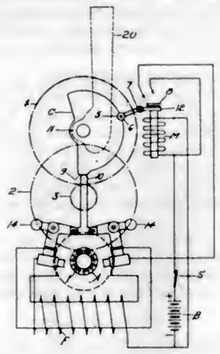
1. An anti-rail spreading device comprising a bar, said bar having integral heads formed thereon, one of said heads adapted to engage the outer portion of one of the rails, the other head adapted to engage the inner portion of the other rail, said first-mentioned head comprising a base flange engaging portion and a web engaging portion, said web engaging portion adapted to have the upper portion thereof abut the under face of the ball of a rail, an angular lip formed on one end of said bar, said lip being beveled adjacent its angular face, a removable head for engagement with the outer portion of said last-mentioned rail, said head having a beveled portion for engagement with the beveled portion of the lip, and means to prevent accidental disengagement of the removable head from the bar.

2. An anti-rail spreading device comprising a bar, said bar having integral heads formed thereon, one of said heads adapted to engage the outer portion of one of the rails, the other head adapted to engage the inner portion of the other rail, said first mentioned head comprising a base flange engaging portion and a web engaging portion, said web engaging portion adapted to have the upper portion thereof abutting the under face of the ball of the rail, a brace connected between said web engaging portion and said bar, an angular lip formed on one end of said bar, said lip being beveled adjacent its angular face, a removable head for engagement with the outer portion of said last-mentioned rail, said head having a beveled portion for engagement with the beveled portion of the lip, and means to prevent accidental disengagement of the removable head from the bar.

1,137,084. MECHANISM FOR CONTROLLING RAILROAD-SIGNALS. ALFRED H. RENSHAW, Noroton, Conn., assignor to Federal Signal Company, Albany, N. Y., a Corporation. Filed Oct. 6, 1913. Serial No. 793,514. (Cl. 246—29.)

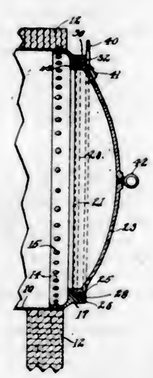
1. In a railway signal, the combination of a signal biased to one position of indication; a mechanism to operate the signal in opposition to its bias; an electric motor to operate said mechanism; a circuit controller operated by the signal to open the electric circuit to the motor; and means whereby the brushes of the said motor are removed from contact with its commutator when the signal is being moved to a position of indication in oppo-

sition to its bias, said means becoming operative subsequent to the opening of the electric circuit at the controller.



2. In a railway signal, a signal arm; motor brushes adapted to be moved to and from contact with the commutator of the motor; a controller to open the circuit to the motor; and means connected with the signal arm for automatically breaking and making of contact between said brushes and the commutator when the signal arm is raised to, or descends from, one of indication, said latter means operating to move the said brushes subsequent to the movement of the circuit controller.

1,137,085. DEVICE FOR LOCKING CLOSURES. CARLTON RIDDLE, Akron, Ohio. Filed Dec. 15, 1913. Serial No. 806,939. (Cl. 220—60.)



1. In a device of the character described, the combination of an annular casing having a cylindrical inner periphery, a groove on the inner periphery having parallel sides and a cut away portion adjacent one part of the groove extending to the outer portion of the casing, a closure fitting into said casing having a cylindrical periphery and a groove registering with the groove in the casing, a parallel sided flexible ring adapted to fit into said grooves and having two free ends projecting outwardly through the cut away portion of the casing, and means engaging these ends for separating and drawing them together, whereby the ring may be expanded to lie wholly within the groove in the casing or may be contracted to engage both grooves.

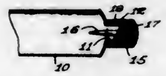
2. In a device of the character described, the combination of an annular casing having a cylindrical inner periphery, a groove on the inner periphery having parallel sides and a cut away portion adjacent one part of the groove extending to the outer portion of the casing, a closure fitting into said casing having a cylindrical periphery and a groove registering with the groove in the casing, a parallel sided expansible and contractible ring adapted to fit into said grooves, comprising a plurality of sections pivoted together and having two free ends outwardly projecting through the cut away portion of the casing, and a screw engaging these ends for separating and drawing them together.

3. In a device of the character described, the combination of an annular casing, a closure fitting into said casing, annular grooves in the casing and closure facing each other, one of said grooves being deeper than the other, an expansible and contractible ring in said grooves adapted to lie wholly in the deeper groove or be moved partially into the shallower groove whereby it may engage both of the grooves, and means for expanding and contracting said ring.

4. In a device of the character described, the combination of an annular casing having an annular groove on its inner periphery, a closure fitting into said casing and having an annular groove on its outer periphery registering with the groove on the casing, when the closure is in position, one of said grooves being deeper than the other, an expansible and contractible ring adapted to lie wholly within the deeper groove or fill the shallower groove and project into the other whereby it may engage both the grooves, said ring having threaded ends, and means for engaging said ends to contract and expand the ring.

5. In a device of the character described, the combination of an annular casing, a closure fitting into such casing having an annular groove in its periphery, an annular groove in the casing facing the groove in the closure, and a ring of solid material having two free ends and being circumferentially expansible and contractible and adapted to lie within said groove, said grooves being of such proportions that the ring may fill one and project into the other or may be moved entirely into such other to allow the removal of the closure.

1,137,086. COLLAPSIBLE TUBE. WILLIAM RODIGER, Chicago, Ill. Filed February 13, 1913. Serial No. 748,066. (Cl. 91—67.4.)



1. A collapsible tube having a thickened perforated end with a beveled end spreading surface, and a cap adapted to embrace the extremity with an inner beveled surface corresponding with and closely fitting the beveled end and having an inner projection to close the perforation when the cap is fitted closely over the end of the tube.

2. A collapsible tube having a beveled extremity with a perforation therein, and a cap for embracing the extremity having an inner beveled surface corresponding thereto and a pin projecting from the beveled surface adapted to fit in the perforation.

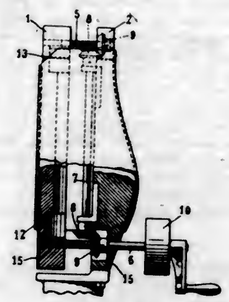
3. A collapsible tube having a head formed integral therewith at one end and a circular unthreaded neck portion with a perforated beveled extremity, and a circular unthreaded cap therefor having a beveled surface corresponding to the beveled extremity and a pin projecting therefrom and adapted to enter the perforation in the beveled extremity in a direction parallel with the sides of the tube.

4. A collapsible tube having a beveled perforated unthreaded extremity, and a cap therefor having an inclined portion adapted to coöperate with the extremity, a pin projecting at an angle from the beveled face of the cap adapted to enter the perforation at the end of the tube in the direction of its length, and unthreaded sides projecting from the cap at the edges of the beveled surface in the same direction as the pin to embrace the extremity of the tube.

5. A collapsible tube having a beveled perforated extremity, and a cap therefor adapted to surround the extremity having a beveled inside surface adapted to cooperate with and fit closely the beveled extremity and a pin projecting therefrom adapted to enter the perforation in the end of the tube parallel with the length of the tube.

[Claims 6 and 7 not printed in the Gazette.]

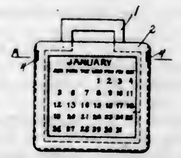
1,137,087. APPARATUS FOR USE IN MANUFACTURING LEGGINGS. MORRIS ROSENWASSER, New York, N. Y. Filed Feb. 7, 1912. Serial No. 676,088. (Cl. 12—102.)



1. In an apparatus for use in manufacturing leggings; a plurality of formers adapted to receive a tubular blank about them and to be expanded relatively to each other for giving shape to said blank by expanding means carried at opposite ends of one of said formers, each comprising a rotatably mounted screw having threaded engagement with another of said formers; a beleved gear fixed to each of said screws; and a shaft rotatably mounted upon one of said formers having gears fixed thereto meshing with the gears on said screws; and one of said screws having an operating handle connected thereto for operating said entire expanding means; said blank having a fullness at one locality and said formers being adapted, in effect, to transfer said fullness to a different locality through the operation of said expanding means.

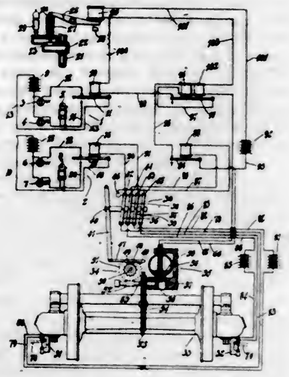
2. The combination with the relatively movable sections of an expanding former adapted to receive an article about them and to be expanded within said article, of means for trimming off portions of said article, while said article is on said former, comprising an undercut groove having parts formed in at least two of the relatively movable sections of said former, means for maintaining the parts of said groove in alinement as the sections of said former separate, and a trimming off tool in said groove, guided thereby, and being retained by the undercut walls thereof against displacement.

1,137,088. WATCH-CHARM. THOR ROSTEN and NILS TAVDAL, Madison, Wis. Filed Mar. 7, 1914. Serial No. 823,258. (Cl. 63—23.)



In a watch-charm, a frame comprising bottom, side and top rails, the top rail adapted to be suspended on a watch-guard, notches adjacent the upper end of the side rails, a one-piece metal case comprising a front plate having the central portion removed therefrom so that it projects a distance over the inner edges of the frame and adapted to retain cards in position within the frame, a back plate connected to the front plate by a web integral therewith, spring clips formed on the edges of the front and back plates, those on the back plate adapted to engage the notches in the frame.

1,137,089. RAILWAY SIGNAL AND CONTROL APPARATUS. CHRISTIAN F. RUMOLD, Berea, Ky. Filed Aug. 12, 1913. Serial No. 784,393. (Cl. 246—58.)



1. In railway signal and control apparatus, in combination with a vehicle and engaging means along the path of travel of the vehicle, a signaling device on the vehicle, electro-magnetic means for controlling the signaling device by energization and deënergization of the means, said means being dependent upon manual return after deënergization, a bar in the circuit of said means, companion electro-magnetic means, either of which holds the bar in circuit-maintaining position when energized, the bar being released and breaking the circuit when both of said companion means are deënergized, the first one of said two means having a circuit through said bar and through the means that controls said signaling device and being unable to return said bar to circuit-maintaining position upon reenergization, but the second one of said two means being able to so return said bar when reënergized, a fourth single electro-magnetic means and a bar for said means also in the circuit of the first one of the two means to make or break the circuit, a source of current, means connecting this circuit with said source, means included in the circuit of the fourth electro-magnetic means adapted to be engaged by the means along the path of the vehicle to make or break said circuit, a circuit for the second one of said companion means, means connecting this circuit with a source of current, means in this circuit to make or break the circuit, actuated in accordance with the speed of travel of the vehicle, and electro-magnetic means affecting the mechanical operation of the vehicle by energization and deënergization of the means, included in the circuit which includes the means controlling the signaling device and the first one of said two means and the bar of said fourth means.

2. In railway signal and control apparatus, in combination with a vehicle and engaging means along the path of travel of the vehicle, signaling devices on the vehicle, separate electro-magnetic means for controlling the signaling devices by energization and deënergization of the means, said means being dependent upon manual return after deënergization, a bar in the circuit of one of said means, companion electro-magnetic means, either of which holds the bar in circuit maintaining position when energized, the bar being released and breaking the circuit when both of said companion means having a circuit through said bar and through the means that controls one of said signaling devices and being unable to return said bar to circuit-maintaining position upon reënergization, but the

second one of said companion means being able to so return said bar when reënergized, a fourth single electro-magnetic means and a bar also in the circuit of the first one of said companion means to make or break the circuit, a source of current, means connecting this circuit with said source, and means in the circuit of the fourth electro-magnetic means adapted to be engaged by the means along the path of the vehicle to make or break said circuit, a circuit for the second one of said companion means, means connecting this circuit with a source of current, and means in this circuit to make or break the circuit, actuated in accordance with the speed of travel of the vehicle.

3. In railway signal and control apparatus, in combination with a vehicle and engaging means along the path of travel of the vehicle on both sides of the path, signaling devices on the vehicle, separate electro-magnetic means for controlling each signaling device by energization and deenergization of the means, said means being dependent upon manual return after deënergization, a bar in the circuit of said controlling means of one of said signaling devices, companion electro-magnetic means, either of which holds the bar in circuit-maintaining position when energized, the bar being released and breaking the circuit when both of said companion means are deënergized, the first one of said companion means having a circuit through said bar and through the means that controls said signaling device and being unable to return said bar to circuit-maintaining position upon reënergization, but the second one of said companion means being able to so return said bar when reënergized, a fourth single electro-magnetic means and a bar for said means also in the circuit of the first one of the companion means to make or break the circuit, means included in the circuit of the fourth electro-magnetic means adapted to be engaged by the means along one side of the path of the vehicle to make or break said circuit, a circuit for the second one of said companion means, means in thia circuit to make or break the circuit, actuated in accordance with the speed of travel of the vehicle, a circuit for the controlling means of the other one of said signaling devices, means included in this circuit to be engaged by the means along the other side of the path of travel of the vehicle, and means supplying current to the respective circuits.

4. In railway signal and control apparatus, in combination with a vehicle and engaging means along the path of travel of the vehicle on both sides of the path, signaling devices on the vehicle, separate electro-magnetic means for controlling each signaling device by energization and deenergization of the means, said means being dependent upon manual return after deënergization, a bar in the circuit of said controlling means of one of said signaling devices, companion electro-magnetic means, either of which holds the bar in circuit-maintaining position when energized, the bar being released and breaking the circuit when both of said companion means are deënergized, the first one of said companion means having a circuit through said bar and through the means that controls said signaling device and being unable to return said bar to circuit-maintaining position upon reënergization, but the second one of said companion means being able to so return said bar when reënergized, a fourth single electro-magnetic means and a bar for said means also in the circuit of the first one of the companion means to make or break the circuit, means included in the circuit of the fourth electro-magnetic means adapted to be engaged by the means along one side of the path of the vehicle to make or break said circuit, a circuit for the second one of said companion means, means connecting this circuit with a source of current, means in this circuit to make or break the circuit, actuated in accordance with the speed of travel of the vehicle, and electro-magnetic means, affecting the mechanical operation of the vehicle by energization and deënergization of the means, included in the circuit which includes the controlling means of the first described signaling device and the first one of said companion means and the bar of said fourth means.

5. In railway signal and control apparatus, in combination with a vehicle, engaging means along the path of travel of the vehicle, signaling elements on the vehicle of different visual characteristics, electro-magnetic means rendering one or the other of said signaling elements active by energization or deënergization of the means, said means being dependent upon manual return after deënergization, a bar in the circuit of said means, companion electro-magnetic means, either of which holds the bar in circuit-maintaining position when energized, the bar being released and breaking the circuit when both of said companion means are deënergized, the first one of said companion means having a circuit through said bar and through the means that controls said signaling device and being unable to return said bar to circuit-maintaining position upon reënergization, but the second one of said companion means being able to so return said bar when reënergized, a fourth single electro-magnetic means and a bar therefor, also in the circuit of the first one of said companion means to make or break the circuit, a source of current, means connecting this circuit with said source, and means in the circuit of the fourth electro-magnetic means adapted to be engaged by the means along the path of the vehicle to make or break said circuit, a circuit for the second one of said companion means, means connecting this circuit with a source of current, and means in this circuit to make or break the circuit, actuated in accordance with the speed of travel of the vehicle.

[Claims 6 to 8 not printed in the Gazette.]

1,137,090. HOOF-STEADYING DEVICE. HOWARD F. SCHREIBER, Northampton, Pa. Filed Mar. 13, 1915. Serial No. 14,139. (Cl. 168—45.)



1. A hoof steadying implement comprising a bar formed at one end with a handle and at its opposite end with a head terminating in a transversely extending yoke, the ends of which are turned at right angles to the plane of the bar, and then inwardly toward each other whereby the device may be easily applied to a shoe to engage and hold the same, the head portion of the bar being formed with an opening extending therethrough and in one face with a circular socket registering with said opening, as and for the purpose set forth.

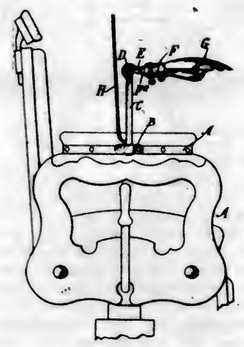
2. A hoof steadying implement, comprising a bar formed at one end with a handle and at its opposite end with a head terminating in a transversely extending yoke, the ends of which are turned at right angles to the plane of the bar, and thence inwardly toward each other whereby the device may be easily applied to a shoe to engage and hold the same, the head portion of the bar being formed with an opening extending therethrough and in one face with a circular socket registering with said opening, the base of said socket terminating in segmental recesses.

3. As a new article of manufacture, the herein described hoof steadying implement, consisting of a bar formed at one end with a handle and provided at its other end with a laterally extending yoke formed with inturned extremities adapted to engage a horseshoe, the bar being formed close to said yoke with an opening extending therethrough.

1,137,091. LAMP FOR BARBERS' CHAIRS. ANTONIO SCIAFANI, New York, N. Y. Filed June 24, 1914. Serial No. 847,033. (Cl. 240—4.)

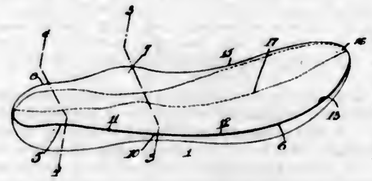
1. In combination with a barber's chair, a detachable bracket secured to the arm rest of the chair and comprising a bar, a recess to receive the chair arm, a set screw and a vertical socket, a post mounted on the said bracket and rising to a distance above the top of the arm post, a short arm held on the upper end of the said post and extending forwardly, the arm having a threaded nipple, and an electric lamp mounted on the said nipple and provided on top with a deflector to deflect the rays of light of the lamp in a downward direction.

2. The combination with a barber's chair of a bracket detachably secured to the arm rest of the said chair at or near the middle of the said arm rest, a tubular post having a reduced lower end adapted to be seated in the said bracket, a clamping screw on the upper end, a tubular short arm pivoted on the said clamping screw and adapted to be fastened in position on the post by the said clamping screw, the arm extending in a forward direction and terminating in a threaded nipple, and an electric lamp attached to the said nipple and provided with a flexible conductor extending through the said hollow post and nipple.



3. The combination with a barber's chair of a bracket detachably secured to the arm rest of the said chair at or near the middle of the said arm rest, a tubular post having an opening near the lower end, and a reduced lower end adapted to be seated in the said bracket, a clamping screw on the upper end, a short tubular arm pivoted on the said clamping screw and adapted to be fastened in position on the post by the said clamping screw, the arm extending in a forward direction and terminating in a threaded nipple, an electric lamp attached to the said nipple and provided with a flexible conductor extending through the said hollow post and nipple, and a detachable deflector attached to the said lamp and extending over the bulb of the lamp.

1,137,092. INSOLE. COLUMBUS A. SHARP, Chicago, Ill. Filed Oct. 31, 1913. Serial No. 798,541. (Cl. 36—71.)

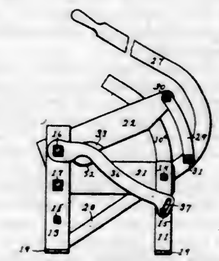


1. An insole shaped to conform to the configuration of a foot having elevations subjacent the ball and heel portions on the outside thereof and sloping transversely and longitudinally of the insole, said insole having an arch elevation on the inside acting in opposition to the outside elevations, said arch supporting elevation sloping transversely and longitudinally of the insole, said elevations being substantially triangularly disposed and providing an undulated upper surface for preventing the "rolling" of the foot when the muscles thereof are active.

2. An insole shaped to conform to the configuration of a foot having elevations subjacent the ball and heel portions on the outside thereof and having an oppositely disposed arch elevation on the inside, said arch elevation extending transversely and longitudinally of the insole sufficient to support the cavity of the arch and emerging gradually into the upper surface of the insole, said heel elevation sloping transversely to the inside edge, said elevation subjacent the ball of the foot declined toward the toe and transversely declined toward the inner edge, and said elevations being triangularly disposed and forming undulations on the upper of the insole for preventing "rolling" of the foot.

3. An insole shaped to conform to the configuration of a foot having elevations subjacent the ball and heel portions on the outside thereof and having an oppositely disposed arch elevation on the inside, said elevation subjacent the heel being thicker on the outside than on the inside and having the upper face thereof sloping transversely toward the inside, the central portion of the insole being substantially horizontal with the outside edge, the outside edge of the heel of the insole being sloped to a point substantially intermediate the ends and thence inclined toward the elevation subjacent the ball of the foot, said elevation subjacent the ball of the foot declined toward the toe and transversely declined toward the inner edge, the inner edge of the insole adjacent the toe and ball portions being reduced in thickness, and said elevations being triangularly disposed and forming undulations on the upper surface of the insole for preventing "rolling" of the foot when the muscles thereof are active and inactive.

1,137,093. ROD-CUTTER. NIELS C. SIMONSEN, Sioux Rapids, Iowa. Filed Apr. 7, 1914. Serial No. 830,808. (Cl. 164—46.)

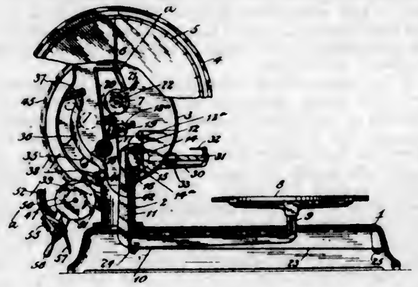


1. A rod cutter, comprising spaced forward legs, spaced rear legs, a stationary jaw member mounted between said legs, a swinging jaw member pivoted between the rear legs and extending above and at one side of the stationary jaw member, an operating lever fulcrumed between the forward legs, links pivotally connecting said lever and the forward end of the swinging jaw member, cutting devices on said jaw members, and a keeper pivoted on one of said rear legs and extending alongside the stationary jaw member, the opposite end of said keeper being adjustably secured to one forward leg.

2. A rod cutter, comprising spaced legs, a stationary jaw member carried by said legs, a swinging jaw member pivoted at one end to certain of said legs, means for oscillating the forward end of said swinging jaw member, notched cutting devices on said jaw members, and a keeper pivoted on that side of the frame opposite to the swinging jaw member and extending forwardly and downwardly adjacent the stationary jaw member, said keeper being notched to correspond to the notching of said cutting devices.

3. A rod cutter, comprising legs, a stationary jaw member carried thereby, a swinging jaw member pivoted at one end to certain of said legs, means for oscillating the forward end of the swinging jaw member, notched cutting devices on said jaw members, and a keeper pivoted at one end on that side of the frame opposite to the swinging jaw member and extending forwardly and downwardly adjacent said stationary jaw member, said keeper being formed with a slot at its opposite end adjustably secured to the opposite end of the frame.

1,137,094. INDICATING AND REGISTERING MECHANISM. WILHELM SIMONSSON, New York, N. Y. Filed Dec. 28, 1908. Serial No. 469,625. (Cl. 73—100.)



1. In index mechanism, two index members one of which is mounted for turning movement relatively to the other and has a track produced upon it eccentric to its axis of movement, and a counterbalancing device having shifting engagement with said eccentric track of the movable index member and capable of operation to retard vibratory or oscillatory movement thereof.

2. In index mechanism, two index members one of which is mounted for turning movement relatively to the other, a casing connected with the movable index member and having a chamber eccentric to the center of rotation of said movable index member, and a shiftable weight contained in said eccentric chamber and capable of operation to retard vibratory or oscillatory movement of the movable index member.

3. In index mechanism, two index members one of which is mounted for turning movement relatively to the other, a casing connected with said movable index member and having a volute passage produced within it, and a weight contained in said passage and movable along the same and adapted for operation to check vibratory or oscillatory movement of said movable index member.

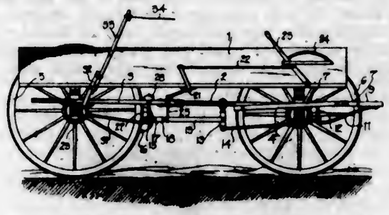
4. In index mechanism, two index members one of which is mounted for turning movement relatively to the other, a casing connected with said movable index member and having a curved passage produced within it, said passage having a curvature of uniform eccentricity with respect to the axis of rotation of the movable index member throughout its entire length, and a weight contained in and movable along said passage and capable of operation to check vibratory or oscillatory movement of the movable index member.

5. The combination of registering mechanism, controlling means therefor, a measuring instrument in actuating relation to said controlling means, and actuating mechanism also in actuating relation to said controlling means and capable of operation first to adjust the registering mechanism into registering condition, and afterward to reset the same to zero.

[Claims 6 to 11 not printed in the Gazette.]

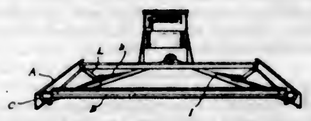
1,137,095. AUTOMATIC VEHICLE-BRAKE. JOHN T. STEPHENS, Knoxville, Iowa, assignor of one-third to Willard H. Lyon, Knoxville, Iowa. Filed Aug. 8, 1914. Serial No. 855,850. (Cl. 21—9.)

1. In combination with the running gear of a vehicle including a reach, hounds, a tongue mounted between the front hounds, and a rod connected with the tongue and provided with an upstanding end, said upstanding end being secured to the rear end of the tongue and movable therewith to limit the sliding movement of the tongue, of a brake beam disposed beneath the reach, and swingingly supported thereby, a depending link pivotally connected at its upper end to the reach, forward of the brake beam, a rod connected at its forward end to the upstanding portion of the rod on the tongue and pivotally connected at its rear end to the lower end of said link, means forming connection between the link and the brake beam to actuate the brake beam upon the rearward movement of the tongue, and manually operated means adapted to actuate said connecting means and disengage the same from the brake beam whereby to move the brake beam forwardly of the reach.



2. In combination with the running gear of a vehicle, including a reach, hounds, and a tongue slidably connected to the front hounds, of a brake beam disposed below the reach and swingingly supported thereby, a depending link pivotally connected at its upper end to the reach forwardly of the brake beam, a rod connected at its forward end to the tongue and pivotally connected at its rear end to the lower end of said link, a U-shaped member carried by the beam and extending forwardly therefrom, links pivotally connected to the U-shaped member, a bar pivotally connected at its forward end to the link intermediate of its ends, said bar being pivotally connected adjacent its rear end between said links, the rear end of said bar being formed with a hook for engagement with said U-shaped member, and means for raising said bar to disengage the hook from the U-shaped member, whereby to move the brake beam forwardly of the reach.

1,137,096. SCALE. WALTER F. STIMPSON, Detroit, Mich., assignor to The Stimpson Scale & Electric Company, Northville, Mich., a Corporation of Michigan. Filed July 9, 1914. Serial No. 849,957. (Cl. 73—121.)



1. In a scale, the combination of members arranged at substantially right angles, a bracket abutting one of said members, an arm extending from said bracket and inwardly and transversely from said members, a platform lever, and a hanger for the platform lever carried by said arm.

2. In a scale, the combination of members arranged at substantially right angles to each other, a bracket secured to one of said members and having a portion extending transversely therefrom, a strengthening rib for said portion and having a bearing, a platform lever, and a hanger for said platform lever engaging the bearing in said rib.

3. In a scale, the combination of a sill member, a cross-connecting member, a bracket having a body portion attached to one of said members and a portion engaging and alining with the other, and a bearing portion projecting from the body transversely to said members.

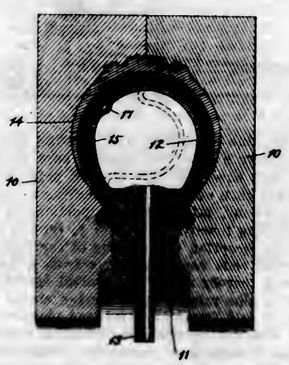
4. In a scale, the combination of a sill member, a cross-connecting member, a bracket secured to one of said members provided with a vertically arranged portion having a knife-edge like bearing extending transversely to said members, a platform lever, and a hanger for said platform lever embracing said transversely extending portion and engaging said bearing.

5. In a scale, the combination of a sill member a cross-connecting member, an arm secured to one of said members extending inwardly and transversely to said members, a bearing for the cross-connecting member extending from

the last named member, a platform lever, said arm being in vertical alinement with the end of the platform lever, and a hanger for said end of the platform lever carried by the arm.

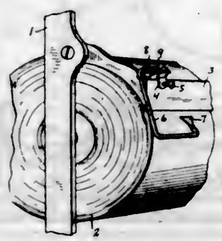
[Claims 6 to 10 not printed in the Gazette.]

1,137,097. TIRE-VULCANIZING APPARATUS. JAMES D. TEW, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Aug. 9, 1913. Serial No. 783,927. (Cl. 18—45.)



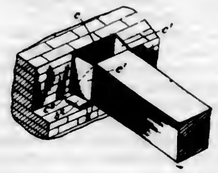
Apparatus for stretching and vulcanizing pneumatic tire casings comprising, in combination with the outer mold and inner inflatable pressure-tube, an annular, relatively-stiff, but flexible, discontinuous, removable shield adapted to be located between the tube and the tire casing, for transmitting the pressure of the tube to the casing without substantially conforming to irregularities in the surface of said tube, said shield being longer than the unexpended circumference of the pressure tube, so that its ends overlap when placed in the tire and slide on each other as the tire is expanded by inflation of the tube.

1,137,098. PAPER-HAND-OUT DEVICE. HAROLD A. TOWNE, Waterloo, Wis. Filed Apr. 29, 1914. Serial No. 835,081. (Cl. 211—32.)



The combination with a bearing provided with hand operable means to clamp it to a cutter bar for a roll of paper, of a hand-out journaled in the bearing and extending outwardly from the bearing to a sufficient distance to clear the end of a roll of paper, thence extending downwardly and inwardly and provided with an upwardly extending point adapted to lie against a roll of paper at an angle thereto and below the cutter bar, and a spring secured at one end to the bearing and at its other end to the hand-out to resiliently hold the point of the hand-out against a roll of paper independently of the pressure of the cutter bar against said roll of paper.

1,137,099. BEAM-END PROTECTOR AND ANCHORAGE. JULIUS TUTEUR, Cleveland, Ohio. Filed Feb. 20, 1909. Serial No. 479,085. (Cl. 72—108.)

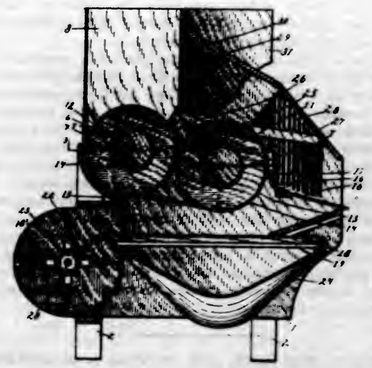


1. An integral beam-end protector, shaped from a sheet metal blank and comprising a base portion, and substantially vertical rear and side walls, forming therewith a receptacle opening from the top and front, bottom flanges provided upon the side walls, and overlapping ends upon the base portion, bent up to inclose and retain the flanges and side walls in position, substantially as set forth.

2. An integral beam-end protector shaped from a sheet metal blank and comprising a base portion, and substantially vertical rear and side walls, forming therewith a receptacle opening from the top and front, an anchorage member stamped up from the base portion within said receptacle, bottom flanges provided upon the side walls, and overlapping ends upon the base portion, bent up to inclose and retain the flanges and side walls in position, substantially as set forth.

3. A beam-end protector and anchorage shaped from an integral sheet metal blank, comprising a base portion, a rear wall bent vertically therefrom, and side wings forwardly extending at acute angles to inclose the beam-end; the terminals of the base portion being bent up and around the bottom portions of said side wings in order to retain the side wings in position, and an anchorage member integrally shaped from the base portion of the receptacle thus formed, substantially as set forth.

1,137,100. CORN-SHELLER. WILLIAM WATTS, Jackson, Mich. Filed Mar. 19, 1914. Serial No. 825,768. (Cl. 130—6.)



1. In a device of the class described, the combination of a casing, a hopper carried thereby, a shelling cylinder provided with a plurality of shelling teeth, rotatably mounted in said casing, a jacket provided with a perforated bottom surrounding said cylinder, said jacket having an opening adjacent to the lower end of said hopper, and an opening in its side at the other end of said jacket, a second shelling cylinder rotatably mounted in said casing, a jacket having a perforated bottom surrounding said second cylinder and having an opening in its side communicating with the opening in said first named jacket, a platform having a perforated bottom connecting said openings

in said jackets, said second jacket being provided with a discharge opening adjacent the inlet opening of the said first jacket, means for varying the size of said discharge opening, and means for driving said shelling cylinders in opposite direction, all coacting substantially as described for the purpose specified.

2. In a device of the class described, the combination of a casing, a shelling cylinder rotatably mounted in said casing, a jacket provided with a perforated bottom surrounding said cylinder, a second shelling cylinder mounted on a shaft parallel with and in a plane slightly lower than that of the first cylinder, a jacket surrounding said second cylinder, said jackets having openings in line with each other, a platform between said jackets provided with a perforated bottom and connecting said openings, and means for driving said shelling cylinders in opposite directions, all coacting substantially as described for the purpose specified.

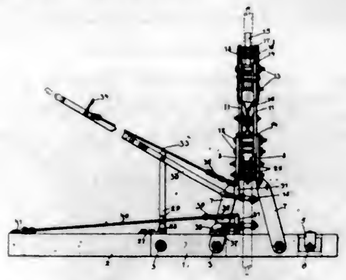
3. In a device of the class described, the combination of a casing, a hopper carried thereby, a shelling cylinder rotatably mounted in said casing, a jacket provided with a perforated bottom surrounding said cylinder, said jacket communicating at one end with said hopper, a second shelling cylinder rotatably mounted in said casing parallel to said first named cylinder, a jacket having a perforated bottom surrounding said second cylinder, said jackets being connected with each other by a passage, said second jacket having a discharge opening in the end thereof, a rod extending transversely of said casing, a gate slidably mounted on said rod adapted to be moved transversely of said casing for opening and closing the discharge opening, and means for driving said shelling cylinders in opposite directions.

4. In a device of the class described, the combination of a casing, a pair of shafts rotatably mounted in said casing parallel to each other, shelling cylinders mounted on said shafts, pulleys on the outer ends of said shafts in line with each other, a third shaft rotatably mounted in said casing above said shelling cylinders, a fan mounted on said third shaft, said shaft being provided with a pulley on its outer end in line with said first named pulleys, a fourth shaft rotatably mounted in said casing parallel to and below said first-named shafts, a fan carried by said fourth shaft, and a pulley for driving the same arranged in line with the first named pulleys, and a driving belt passing over said upper fan pulley, beneath one of said shelling cylinder pulleys and above the other and beneath said last named fan pulley, whereby said shelling cylinders are driven in opposite directions.

5. In a device of the class described, the combination of a casing, a hopper carried thereby, a shelling cylinder provided with a plurality of shelling teeth disposed beneath said hopper, a jacket having a perforated bottom surrounding said shelling cylinder, a second shelling cylinder rotatably mounted in said casing parallel to said first named cylinder, a jacket surrounding said second cylinder and provided with a perforated bottom, said jackets being connected by a passage at one end thereof, said last named jacket being provided with a discharge opening, a husk discharging chute mounted above said last named opening, means for drawing the husks through said chute, and a cob discharging chute to one side of said last named jacket adjacent to the discharge opening therein, all coacting substantially as described for the purpose specified.

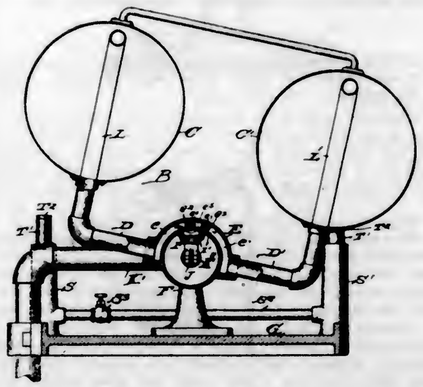
1,137,101. MACHINE FOR RAISING AND LOWERING WELL-PIPING. MARVIN B. WHISENANT, Hollis, Okla. Filed June 7, 1913. Serial No. 772,316. (Cl. 254—31.)

1. In a machine for raising and lowering well piping, a frame comprising a base surrounding the well opening and two pairs of bars projecting upward therefrom, the bars of each pair inclining upwardly toward each other and terminating in horizontal portions, said horizontal portions of each pair projecting toward each other to form a central aperture for the reception and guiding of the pipe, in combination with pipe raising and lowering means supported by the base of said frame and arranged to operate on said base below said central aperture, and wrenches constituting a pipe holding means, said wrenches supported by said frame below the aperture and above the pipe raising and lowering means.



2. In a machine for raising and lowering well piping, a frame comprising a base, two pairs of bars projecting upward from said base, the bars of each pair inclining upwardly toward each other and terminating in horizontally projecting portions, said horizontal portions of each pair of bars extending toward each other to form a central aperture for the reception and guiding of the pipe, a pair of spaced vertical rods each projecting from a pair of rods and supported thereby above said central aperture, in combination with pipe raising and lowering means supported by the base of said frame and arranged to operate on said base below said central aperture, wrenches constituting a pipe holding means and operatively supported by the frame below the aperture and above the pipe raising and lowering means and a second pipe raising and lowering means operatively supported by the spaced vertical rods above said central aperture.

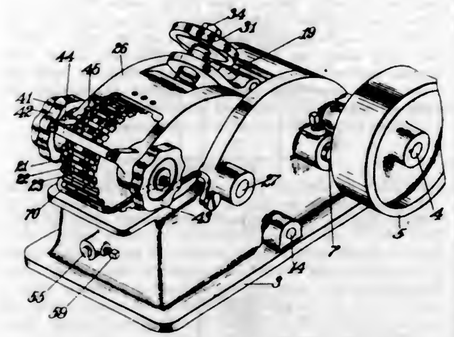
1,137,102. STEAM-TRAP. WILLIAM L. WILCOX and THOMAS G. RAKESTRAW, Detroit, Mich., assignors to Duplex Steam Trap Manufacturing Company, Detroit, Mich. Filed Dec. 26, 1913. Serial No. 808,810. (Cl. 137—101.)



1. In an apparatus such as described, a base, a rocking valve chamber mounted upon said base, said valve chamber having a passage in the upper portion thereof, and extending substantially one half the circumference of said valve chamber, spaced partitions extending from the outer wall of the passage through the passage, the inner wall of said passage having an opening formed therein and extending beyond the outer sides of the spaced partitions, said spaced partitions dividing the passage into separated passages, the said extension of the opening beyond the outer sides of the partitions forming ports at the inner ends of said separated passages, said spaced partitions having a passage therebetween, a valve disposed in said valve chamber for connecting the passage located between the spaced partitions with one of the separated passages, while permitting communication between the other of the separated passages and the interior of the chamber, and a pair of tanks supported by the valve chamber and in communication with the separated passages.

2. In an apparatus such as described, a base, a rocking valve chamber mounted upon said base, said valve chamber having a passage formed in the upper portion, the inner wall of said passage having an opening therein and providing communication between the passage and the interior of the chamber, transverse partitions extending through said passage and into the opening provided in the inner wall of the passage, and dividing said passage into separated passages, the extension of the opening beyond the outer sides of the partitions forming ports at the inner ends of said separated passages, said transverse partitions being spaced apart providing a passage therebetween, a valve disposed within the valve chamber, said valve having a channel formed in its outer side, said channel adapted to connect the passage between the transverse partitions with one of the separated passages, said valve upon movement in opposite directions permitting communication between one of the separated passages and the interior of the valve chamber, and a pair of tanks supported by the rocking valve chamber and being in communication with separated passages.

1,137,103. STAMPING-MACHINE. HENRY W. WINTER, Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 18, 1909. Serial No. 502,931. (Cl. 101—83.)



1. A machine of the class described, having, in combination, a work table and a movably mounted stamping head coöperating with said table for stamping sheet material, said stamping head comprising a plurality of flanged die-carrying disks, marking dies having shanks extending through the flanges of said disks and means for drawing said shanks inwardly to hold said dies rigidly against the flange in stamping position.

2. A machine of the class described, having, in combination, a work table and a movably mounted stamping head coöperating with said table for stamping sheet material, said stamping head comprising die-carrying disks having peripheral annular flanges and axially extending ribs forming sockets, together with marking dies having shanks extending through said flanges, said dies being prevented from turning by said ribs.

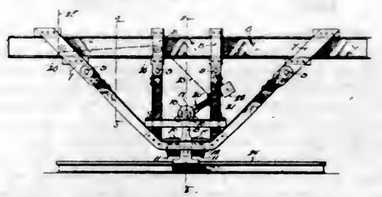
3. A machine of the class described, having, in combination, a work table, a stamping head movable to and from said work table, a carrier for said stamping head, and actuating means therefor, a lever pivoted on said carrier and adjustable with respect thereto, whereby adjustment of the point of nearest approach of the stamping head and work table may be effected.

4. A machine of the class described, having, in combination, a work table, a stamping head movable to and from said work table, a carrier for said stamping head and actuating means therefor, a lever pivoted on said carrier and connected with said actuating means, said lever being adjustable with respect to said carrier, whereby adjustment of the point of nearest approach of the stamping head and work table may be effected.

5. A machine of the class described, having in combination, a work table, a stamping head carrier mounted for oscillation about an axis at one side of the table and having an arm disposed below the plane of the table, a movable edge gage controlled in its position by said arm, and adjustable means arranged to be encountered by the arm during the movement of the carrier for arresting the movement thereof at a predetermined distance from the work table.

[Claims 6 to 19 not printed in the Gazette.]

1,137,104. ANTISKIDDING RAIL-CLAMP MECHANISM. ANDREW E. WIRSING, Milwaukee, Wis. Filed Oct. 29, 1914. Serial No. 869,171. (Cl. 188—48.)



1. A carriage, a framing with which the carriage has lateral play connection, a right and left hand screw-spindle for which the framing is provided with bearings, a weighted lever in adjustable connection with the spindle, a pivot mounted in said framing, rail-gripping clamp-members on the pivot, and spindle-engaging nuts held in ends of the clamp-members.

2. A pair of parallel carriage sills, hangers in connection with each sill, supports engaging the hangers, a framing in which the supports are loose, a right and left hand lever-controlled screw-spindle for which the framing is provided with bearings, a pivot mounted in said framing, rail-gripping clamp-members on the pivot, and spindle-engaging nuts held in ends of said clamp-members.

3. A carriage, a framing with which the carriage has lateral play connection, a right and left hand screw-spindle for which the framing is provided with bearings, a weighted lever in connection with the spindle, a pivot mounted in said framing, rail-gripping clamp-members on the pivot, and spindle-engaging nuts held in ends of said clamp-members.

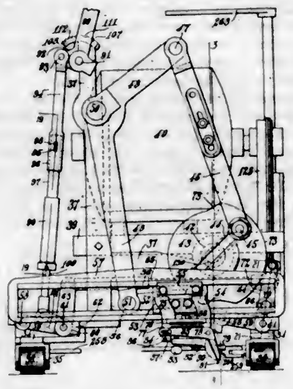
4. A carriage, a framing therewith, a right and left hand screw-spindle for which the framing is provided with bearings, a clutch-member fast on the spindle, a weighted lever loose on said spindle and having a clutch-end engaging the clutch-member aforesaid, a pivot mounted in said framing, rail-gripping clamp-members on the pivot, and spindle-engaging nuts held in ends of said clamp-members.

5. A pair of parallel carriage sills, a frame hung in connection with each sill, tie-plates connected to the frames, boxes attached to said plates, a pivot hung in the boxes, rail-gripping clamp-members on the pivots, other boxes with said frames, a lever-controlled right and left hand screw-spindle engaging the latter boxes, and spindle-engaging nuts held in ends of said clamp-members.

1,137,105. FLOOR-PLANING MACHINE. HARVEY L. YOUNG, Dayton, Ohio. Filed Mar. 18, 1914. Serial No. 825,480. (Cl. 144—115.)

1. In a floor-surfacing machine, a main frame, a movably frame mounted on said main frame, a floor-finishing member mounted on said movable frame, a crank adapted

to horizontally reciprocate said member, and a cam adapted to vertically reciprocate said movable frame.



2. In a floor-surfacing machine, a main frame, a movable frame mounted on said main frame, a floor-finishing member mounted on said movable frame, a crank adapted to horizontally reciprocate said member, a cam adapted to vertically reciprocate said movable frame, and means for disengaging said movable frame from said cam.

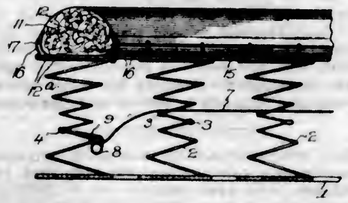
3. In a floor-surfacing machine, a main frame, levers mounted on said frame, a movable frame mounted on said levers, a reciprocating floor-finishing member mounted on said movable frame, a lever connected to said reciprocating member, a crank connected to said last named lever and adapted to horizontally reciprocate said reciprocating member, and a cam connected to said first named levers and adapted to vertically reciprocate said movable frame.

4. In a floor-surfacing machine, a main frame, levers mounted on said frame, a movable frame mounted on said levers, a cam connected to said levers and adapted to vertically reciprocate said movable frame, means for disconnecting said cam from said levers, a reciprocating floor-finishing member mounted on said movable frame, a lever connected to said reciprocating member, and a crank connected to said last named lever.

5. In a floor-surfacing machine, a main frame, levers mounted on said frame, a movable frame mounted on said levers, a second lever connected to said first levers, a roller mounted on said second lever, a cam engaged by said roller, means for rocking said levers to place said roller out of the path of said cam, a reciprocating floor-finishing member mounted on said movable frame, a third lever connected to said reciprocating member, and a crank connected to said third lever.

[Claims 6 to 11 not printed in the Gazette.]

1,137,106. UPHOLSTERY SPRING CONSTRUCTION. LEONARD A. YOUNG, Detroit, Mich. Filed Nov. 4, 1913. Serial No. 799,103. (Cl. 155—25.)



1. An upholstery spring structure comprising upright body springs secured in fixed relation, auxiliary rim wires supported by the outer body springs, upholstery resting upon and supported solely by the auxiliary rim wires, and auxiliary spring members supported on the lower portions of the body springs and adapted to coöperate with the body springs when the latter are partially depressed.

2. An upholstery spring structure comprising upright body springs secured in fixed relation, auxiliary rim wires supported by the outer body springs, upholstery resting upon and supported solely by the auxiliary rim wires, and braces connecting intermediate coils of the body springs and transmitting the load imposed by the auxiliary rim wires throughout the body springs.

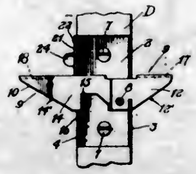
3. A spring structure comprising a base, upright body springs secured thereon, auxiliary rim wires supported on the outer body springs, an upholstery roll supported on and secured to the auxiliary rim wires, the roll and auxiliary rim wires transmitting local pressure along the entire margin of the structure and auxiliary spring members spanning portions of the structure and supported near their ends by the lower portions of the body springs.

4. A spring structure comprising a base, upright body springs secured thereon, spring rim wires resting on the outer turns of the marginal body springs, upholstery rolls secured to and supported by the auxiliary rim wires whereby local load along the margin is transmitted throughout the length of the structure to the body springs, braces connecting the intermediate coils of the body springs and arch auxiliary springs spanning the intervals between certain of the body springs to the intermediate coils of which the end portions of the auxiliaries are secured.

5. A spring structure comprising a base, upright body springs secured thereon, braces connecting intermediate coils of the body springs for transmitting pressure from one to the other, auxiliary springs spanning the intervals between certain of the body springs supported by the lower turns of the body springs, the braces coöperating to distribute load imposed by the auxiliary springs upon the body springs throughout the lower turns of the latter, upholstery rolls along the margins of the structure on the body springs, and auxiliary rim wires supporting the rolls and transmitting any load imposed thereon throughout the series of contiguous body and auxiliary springs.

[Claims 6 to 10 not printed in the Gazette.]

1,137,107. DOOR-LATCH. VINZENZ ZSUZSITS, Aurora, Ill., assignor of one-fourth to C. H. FRANZ, Aurora, Ill. Filed July 20, 1914. Serial No. 852,025. (Cl. 70—44.)



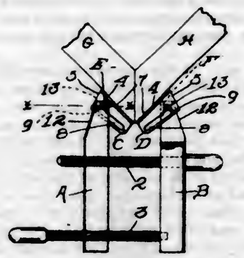
In a device of the character described, an upright vertically elongated attaching plate designed to be secured within a notch in the free edge of a door, said attaching plate having laterally projecting flanges on its upright side edges, one of said flanges having an upright notch in its free edge, and the other flange having an upright slot, a horizontally elongated latch plate pivoted to said attaching plate to swing in a vertical plane, one end of said latch plate being extended outwardly through the upright slot and contacting with the upper end thereof, and the other end of said latch plate being offset from the attaching plate and extending outwardly through said notch, said last named end having a locking notch in its lower edge, and being inclined upwardly and outwardly from said notch, and operating ears spaced outwardly from the flanges of the attaching plate and formed integrally with the ends of the latch plate.

1,137,108. COLUMN-FOOTING. WILLIAM P. ANDERSON, Cincinnati, Ohio, assignor to The Ferro Concrete Construction Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 28, 1911. Serial No. 651,710. (Cl. 72—77.)



A column footing comprising reinforcing members consisting of three or more concentric rings located adjacent to the bottom of the footing, the inner ring of which is of a diameter smaller than that of the column and the next ring of which is of a diameter greater than that of the column, radiating rods hooked at their ends, the hooked portions embracing the two or more inner rings with the lower legs of the hooked portions crossing beneath the outer rings, the hook of each rod lying in the vertical plane of the rod and concrete surrounding and embedding the rings and the rods.

1,137,109. CLAMP. OVE H. ARNESON, St. Paul, Minn. Filed Apr. 11, 1914. Serial No. 831,201. (Cl. 144—293.)



1. A clamp, comprising, in combination, a pair of main jaws having slots in substantial alinement across their outer ends, means for adjusting said jaws apart, an auxiliary jaw carried by each of said main jaws, consisting of a plate, having a series of inwardly and downwardly tending teeth carried by its face and a rib on the back of said plate, said rib being formed with a slot trending at an angle to the adjacent face of said plate and terminating at one end in an offset pocket, said rib being movably seated in the slot in one of said main jaws and a pintle passing across the space between the sides of the slot in each main jaw and through the slot in the rib of an auxiliary jaw and adapted to form a pivot for the auxiliary jaw, said pintle member being adapted to permit said auxiliary jaw swinging back over the upper end of the main jaw and the trending of said slot causing said plate to bind with one of its faces binding against the back of the main jaw.

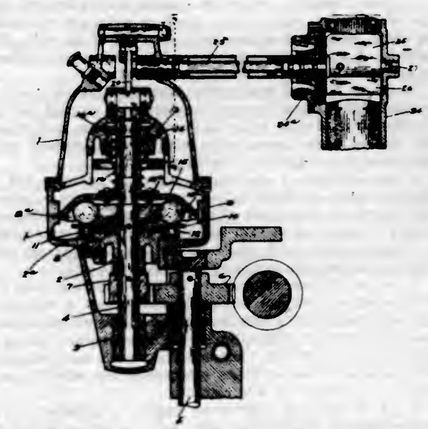
2. A clamp, comprising, in combination, a pair of main clamping jaws, means for adjusting said jaws apart and an auxiliary jaw pivoted upon each of said main jaws having a toothed work engaging surface adapted to lie at an obtuse angle to the working surface of the opposite main jaw and a slotted member co-acting with said pivot connection, permitting said auxiliary jaw swinging and sliding back free of the working surface of the main jaw on which it is mounted.

3. A clamp, comprising, in combination, a pair of main clamping jaws having bifurcated upper ends, means for adjusting said jaws apart and an auxiliary jaw slidably engaged within the bifurcated end of each of said main jaws having a work engaging surface adapted to lie at an obtuse angle to the working surface of the opposite main jaw or to slide back free of the working surface of the main jaw on which it is mounted.

4. A clamp comprising a pair of main clamping jaws having slots therethrough, means for adjusting said jaws apart, and an auxiliary jaw slidably engaged within the slots of each of said main jaws adapted to adjust itself to and bear against the adjacent face of a miter joint and to be slid back free of the working surfaces of said main jaws.

5. A clamp comprising a pair of main clamping jaws having bifurcated upper ends, a pivot pin extending through each of said bifurcated ends, means for adjusting said jaws apart, and an auxiliary jaw slidably engaged by said pivot pin within the bifurcated ends of each of said main jaws adapted to operatively engage the adjacent face of work lying at an angle to the working faces of said main jaws.

1,137,110. ENGINE-GOVERNOR. CHARLES BALOUGH, Springfield, Ohio, assignor to The Kelly-Springfield Motor Truck Company, Springfield, Ohio, a Corporation of Ohio. Filed Nov. 7, 1913. Serial No. 799,794. (Cl. 121—112.)



1. In a governor, a revoluble member having a series of pockets, balls located in said pockets, a revoluble track for said balls, an anti-friction support for said track, and a movable member coöperating with said balls.

2. In a governor, a revoluble member having a series of radially-arranged pockets open on their under sides, a series of balls in said pockets, a movable circular track for said balls, an anti-friction support for said track, and a slidably-arranged place having an inclined surface cooperating with said balls together with means for holding the same in frictional engagement therewith.

3. In a governor, a revoluble shaft, a member connected with said shaft having a series of radially-arranged pockets open on their under sides, a series of balls in said pockets, a movable track for said balls, an anti-friction support for said track, and a movable member coöperating with said balls together with a spring for holding the same in frictional engagement therewith.

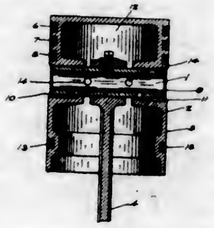
4. In a governor, a revolving member having a series of radially-arranged pockets open on their under sides, a series of balls in said pockets, a track for said balls, and an anti-friction support for said track, said track being capable of moving independent of said pocketed member, and a movable spring-pressed member coöperating with said balls.

5. In a governor, a revoluble shaft, a member connected with said shaft having a series of radially-arranged pockets open on their upper and under sides, a movable track on the under side of said pockets for said balls, an anti-friction support for said track, a movable member co

said shaft above said pockets, and a spring for holding said movable member in frictional engagement with said balls.

[Claims 6 to 11 not printed in the Gazette.]

1,137,111. OILING DEVICE. CHARLES BALOUGH, Springfield, Ohio, assignor to The Kelly-Springfield Motor Truck Company, Springfield, Ohio, a Corporation of Ohio. Filed Nov. 7, 1913. Serial No. 799,795. (Cl. 121—104.)



1. In an internal combustion engine, a cylinder and piston, bearings on said piston, a hollow wrist-pin rotatably mounted in said bearings and communicating with the outside of said piston and also with the interior thereof to permit the escape of gases therethrough.

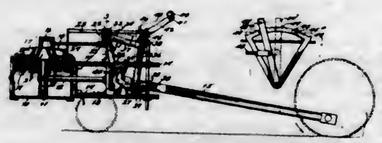
2. In an internal combustion engine, a cylinder and a hollow piston, inwardly-extending bearings on said piston, a wrist-pin rotatably mounted in said bearings, said wrist-pin having a gas passage-way which communicates with the exterior and interior of said piston.

3. In an internal combustion engine, a cylinder and a hollow piston, bearings on said piston, piston rings about said piston on either side of said bearings, and a wrist-pin rotatably mounted in said bearings, said wrist-pin having a communcation with the exterior and interior of said piston to permit the escape of gases therethrough.

4. In an internal combustion engine, a cylinder and its hollow piston, bearings carried by said piston, a wrist-pin rotatably mounted in said bearings, the ends of said wrist-pin being formed with oil-receiving recesses, and oil passages in said bearings communicating with said recesses, said wrist-pin having a gas communication with the exterior and interior of said piston.

5. In an internal combustion engine, a cylinder and a hollow piston, bearings on said piston, a hollow wrist-pin rotatably mounted in said bearings, a piston rod fixedly connected with said wrist-pin, said bearings having oil passage-ways communicating with the interior of the walls of said cylinder and said hollow piston having a gas communication with the exterior and interior of said piston.

1,137,112. VALVE-GEAR. REINHOLDT BORCHERDT, South Kaukauna, Wis. Filed Oct. 1, 1914. Serial No. 864,394. (Cl. 121—98.)



1. A valve gear of the character descried, embodying a reciprocating valve, a reciprocating cross head, a slide connected with the valve, a bell crank lever pivotally mounted directly upon the cross head, movable therewith and with respect thereto, a jointed member, one end of said member pivotally connected directly to the said slide, the other end of the member pivotally connected directly with one arm of the bell crank lever, the intermediate joint of said member being free, a second member pivotally connected by one end to the other arm of the bell crank lever, an operating lever connected with the said second member for actuating the latter to rock the bell crank, and a connection between the said second member, and that portion of the said jointed member which is connected with the said slide.

2. A valve gear of the character described, embodying a reciprocating valve, a reciprocating cross head, a slide connected with the valve, a bell crank lever pivotally mounted directly upon the cross head, movable therewith and with respect thereto, a jointed member, one end of said member pivotally connected directly to the said slide, the other end of the member pivotally connected directly with one arm of the bell crank lever, the intermediate joint of said member being free, a second member pivotally connected by one end to the other arm of the bell crank lever, an operating lever connected with the said second member for actuating the latter to rock the bell crank, and a connecting member pivotally and detachably secured to the said second member and that portion of the said jointed member which is connected with the said slide.

3. A valve gear of the character described, embodying a reciprocating valve, a reciprocating cross head, a slide connected with the valve, a bell crank lever pivotally mounted directly upon the cross head, movable therewith and with respect thereto, a jointed member, one end of the member pivotally connected directly with the said slide, the other end of the member pivotally connected directly with one arm of the bell crank lever, the intermediate joint of said member being free, a second member pivotally connected by one end to the other arm of the bell crank lever, an operating lever connected with the said second member for actuating the latter to rock the bell crank, a connection between the said second member, and that portion of the said jointed member which is connected with the said slide, a driving rod connected with the cross head, and a connection between the said other end of the bell crank and the said driving rod, and pivotally secured to both.

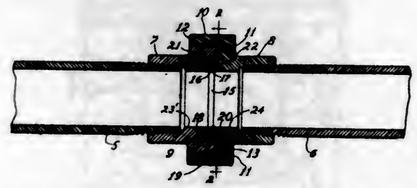
4. A valve gear of the character described, embodying a reciprocating valve, a reciprocating cross head, a slide, an adjustable connection between the valve and slide, a bell crank lever pivotally mounted directly upon the cross head and movable therewith, a jointed member pivotally connected at one end directly with the said slide and at its other end directly with one arm of the bell crank, the intermediate joint of said member being free, a second member pivotally connected by one end to the other arm of the bell crank, a connection between the said second member and that portion of the said jointed member which is connected with the said slide, and means for actuating the said second member to position the valve for a predetermined reciprocating movement, the said means also adapted to vary the extent of the reciprocating movement of the valve while the degree of movement of the valve gear remains constant.

5. A valve gear of the character described, embodying a reciprocating valve, a reciprocating cross head, a slide, an adjustable connection between the valve and slide, a bell crank lever pivotally connected directly with the cross head and movable therewith, a jointed member pivotally connected at one end directly with the said slide and at its other end directly with one arm of the bell crank, the intermediate joint of said member being free, a second member pivotally connected by one end to the other arm of the bell crank, a connection between the said second member and that portion of the said jointed member which is connected with the said slide, means for actuating the said second member to position the valve for a predetermined reciprocating movement, the said means also adapted to vary the extent of the reciprocating movement of the valve while the degree of movement of the valve gear remains constant, and means for maintaining the parts in adjusted positions.

[Claim 6 not printed in the Gazette.]

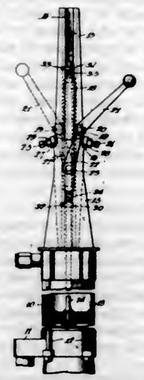
1,137,113. PIPE-COUPLING. EVERETT J. BOUCHARD, Ware, Mass. Filed Jan. 15, 1914. Serial No. 812,230. (Cl. 137—28.)

A pipe coupling comprising a pair of coupling sections, means to secure said sections together, one of said sections having an interior annular recess formed at the end thereof adjacent the other of said sections, the bottom of said recess inclining outwardly away from said end, a portion of the outer wall of said recess being cylindrical, the remaining portion of said outer wall inclining outwardly toward the bottom of said recess, the end adjacent to said recess of the other section of said coupling being inclined outwardly and away from said recess, and a seat ring



expanded into said annular recess, the outer face thereof conforming with the cylindrical portion of said wall and the portion thereof which inclines outwardly toward the bottom of said recess, the end of said ring conforming to the inclined bottom of said recess, said ring also being provided with an inclined end face adapted to conform to the adjacent inclined end face of the other coupling section, the inner wall of said ring alining with the interior of said coupling sections.

1,137,114. PUMP-OPERATING MEANS. SYLVANUS F. BOWSER, Fort Wayne, Ind., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind., a Corporation of Indiana. Filed Sept. 30, 1910. Serial No. 584,662. (Cl. 74—27.)



1. The comination with a reciprocable member having a continuously toothed periphery, of a support therefor permitting its reciprocation, an arm pivoted to the support, a gear rotatably mounted in the arm and adapted to engage the teeth of the member, and lateral fixed stops to engage the arm to limit its angular movement in both directions and to hold the gear carried by the arm in engagement with the toothed member.

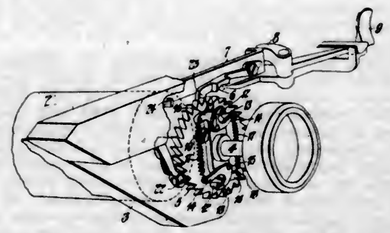
2. The combination with a reciprocable rack having a continuously toothed periphery, of a support therefor to permit the reciprocation, an arm pivoted to the support, a gear rotatably mounted in the arm and adapted to engage the teeth of the rack, lateral fixed stops on the support to engage opposite sides of the arm and to limit the angular movement of the arm about its pivotal support in both directions for holding the gear in engagement with the rack, and adjustable means in connection with the lugs to engage the arm for taking up wear and for setting the gear with respect to the rack.

3. The combination with a reciprocable peripherically toothed rack, of a support in which it is movable, an arm pivoted to the support, a gear adapted to mesh with the teeth of the rack, means to rotatably mount the gear in the arm, means to hold the gear in engagement with the rack at the sides, and resilient means at each end of the rack to hold the gear in contact with the rack at the ends thereof in the intervals between the reciprocating movements of the rack while the gear is constantly rotated.

4. The combination with a reciprocable elongated rack bar provided with a continuously toothed periphery, of a support therefor permitting the reciprocation thereof, an arm pivoted to the support, a gear adapted to mesh with the teeth of the rack, means to rotatably mount the gear in connection with the arm, adjustable limiting means for the arm to hold the gear in contact with the sides of the rack bar during its reciprocation, and resilient means at each end of the rack bar, one of which is compressed when the rack is reciprocated in either direction to hold the gear and rack in contact at the ends of the reciprocating movements of the rack when the gear passes from one side of the rack to the other.

5. The combination with a reciprocable elongated rack bar having a continuously toothed periphery and perforated portions at the ends, of a support to permit its reciprocation, a rod extending through the perforations at the ends of the rack bar, adjustable collars on the rod without the rack bar, a compressible spring between each collar and the adjacent end of the rack bar, an arm pivoted in the support, a shaft rotatably mounted in the arm, a gear secured to the shaft and adapted to mesh with the teeth of the rack, a hand lever to rotate the shaft and the gear, and adjustable means to limit the angular movement of the arm and to hold the gear in contact with the teeth at the sides of the elongated rack bar, the springs being compressed in the direction of movement of the rack bar to hold the gear in contact with the rack when the arm is oscillated by the gear as it passes from side to side of the rack bar at the end of the strokes in either direction.

1,137,115. TYPE-WRITING MACHINE. CLARENCE H. BROWN, Bridgeport, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 6, 1913. Serial No. 752,269. (Cl. 197—114.)



1. In a typewriting machine, the combination with a revoluble platen and a line space wheel loose on the axle thereof, of an arm fast on said axle, a lever pivoted on said arm, a stop on said wheel bearing against said lever, and a spring connecting said lever and said arm.

2. In a typewriting machine, the combination with a revoluble platen and a line space wheel loose on the axle thereof, of an arm fast on said axle, a lever pivoted on said arm, a stop on said wheel bearing against said lever, an abutment on said wheel against which said arm bears, and a spring connecting said lever and said arm.

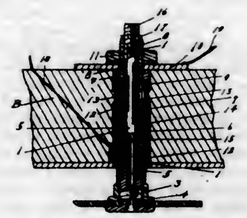
3. In a typewriting machine, the combination with a revoluble platen and a line space wheel loose on the axle thereof, of an arm fast on said axle, a lever pivoted on said arm, a stop on said wheel bearing against said lever, a spring connecting said lever and said arm, and an adjustable abutment on said wheel against which said arm bears, whereby the tension of said spring may be varied.

4. In a typewriting machine, the combination with a revoluble platen and a line space wheel loose on the axle thereof, of arms extending radially from said axle, oppositely extending levers pivoted on said arms, stops on said wheel bearing against said levers, springs connecting said arms and levers, and an abutment on said wheel bearing against one of said arms.

5. In a typewriting machine, the combination with a revoluble platen and a line space wheel loose on the axle thereof, of a pawl for driving said line space wheel, arms extending radially from said axle, oppositely extending levers pivoted on said arms, stops on said wheel bearing against said levers, springs connecting said arms and levers, an overthrow stop limiting the throw of said line-space wheel, and an abutment on said wheel bearing against one of said arms.

[Claims 6 to 19 not printed in the Gazette.]

1,137,116 AUTOMATIC VEHICLE TIRE-SIGNAL. JOHN H. BROWN, Midvale, Utah. Filed Dec. 11, 1913. Serial No. 806,105. (Cl. 177—311.)

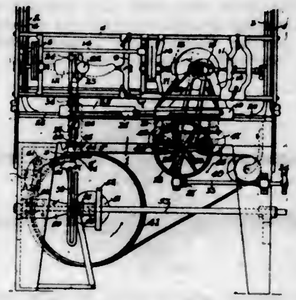


1. In a device of the class described the combination of an air tube; a contact sleeve secured on said air tube; a contact screw fastened in the side of said contact sleeve; a spring carried on said air tube and within said contact sleeve; an externally threaded sleeve within which said air tube is operated; an adjusting nut screwed on said last mentioned sleeve; an insulating sleeve fastened to said adjusting nut and within which said contact sleeve is operated and provided with a longitudinally disposed slot in the side; a contact member fastened on said insulating sleeve having a slot therein contiguous the slot in said insulating sleeve; and a jam nut screwed on said externally threaded sleeve to fasten the device to the felly of a wheel.

2. In a device of the class described the combination of an air tube; a contact sleeve secured on said tube; a detachable contact point on the face of said contact sleeve; an insulating member within which said contact sleeve is operated, having a slot therein within which said contact point is operated; a contact member fastened on said insulating member having a slot therein contiguous the slot mentioned; a spiral spring carried on said air tube and within said insulating member; an externally threaded member carried on said air tube and bearing against said spring; an adjusting nut thereon having a portion fastened to said insulating member; a felly plate; and a jam nut to hold said plate against said adjusting nut.

1,137,117. MACHINE FOR TURNING IRREGULAR FORMS. FRANK S. BUCK, Springfield, Vt., assignor to Gilman & Son, Inc., Springfield, Vt., a Corporation of Vermont. Filed Oct. 6, 1910, Serial No. 585,600. Renewed Sept. 12, 1914. Serial No. 861,887. (Cl. 142—15.)

1. A machine for turning irregular objects comprising rotating pattern and work supports, a traveling rotating cutter head arranged with its axis oblique to the axis of rotation of the work-holder, and making an acute angle with a line running from the cutter head in the direction in which it travels while cutting, a plurality of cutters carried by the said cutter head at separated points on the periphery, and said cutters being respectively at different distances from the end thereof, and a guide arranged to be engaged by the pattern.



2. In a machine of the character stated having rotating holders for a pattern and for the work, a cutter holder mounted rotatively with its axis transverse to the axis of rotation of said work holder and making an acute angle with the direction of approaching operative travel, and cutters secured detachably to the sides of said holder near the end thereof, and being so formed that their cutting edges extend beyond the end of the holder and inwardly toward the axis thereof.

3. In a machine of the character described, a cutter carrier consisting of a rotary shaft and a cutter head secured upon such shaft, and being inclined toward the work and with the line of feed, and cutters independent of each other secured at the periphery of the cutter head in different zones with respect to the axis thereof, one of the cutters having its edge extending beyond the end and curved toward the axis of rotation of the cutter head.

4. In a machine of the character described a cutter carrier consisting of a rotary shaft and a cutter head secured upon such shaft, a plurality of cutters detachably secured at angularly spaced points at the periphery and at one end of the cutter head with their cutting edges extending respectively beyond such end and outwardly from the head to different extents and curved toward the axis of rotation of the cutter head, and a guide arranged to be engaged by a pattern piece, and having an end shaped to conform with the surface of revolution defined by the edge of said cutter in its rotation.

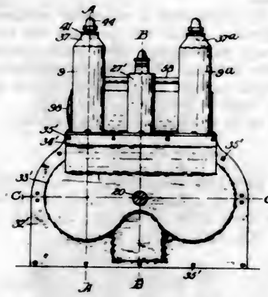
5. A machine of the character described, comprising a swing frame, means for supporting an irregular model and a block on said frame, a cutter carriage arranged to travel longitudinally of the block from one end to the other, a cutter mounted rotatably on the said carriage on an axis inclined toward the block and making an acute angle with the direction of feeding travel.

[Claims 6 to 19 not printed in the Gazette.]

1,137,118. ENGINE. ALEXANDER BURKHARDT, Indianapolis, Ind. Filed Jan. 31, 1912. Serial No. 674,506. (Cl. 123—195.)

1. An engine including a frame having a plurality of bushings secured therein, the frame having also two journal boxes secured therein in contact each with the other, one of the boxes being between and in contact with the two bushings, two main shafts rotatably mounted in the bushings respectively, two gear wheels fixed on the two shafts respectively, a countershaft rotatably mounted in the journal box that is between the bushings and having a pinion thereon that meshes with the two gear wheels, and a shaft rotatably mounted in the remaining one of the two journal boxes and having a gear wheel fixed thereon that meshes with the pinion.

2. An engine including a frame having an opening therein, two bushings inserted and secured in the opening, two journal bearings fixedly secured in the two bushings respectively, a main shaft rotatably mounted in the bearings and within the opening, a gear wheel in the opening secured to the shaft between the two bushings, a countershaft rotatably mounted in the frame, a pinion fixed on the countershaft in mesh with the gear wheel, two disks in the opening and secured to opposite end portions respectively of the main shaft and having each a crank pin, two cylinders mounted upon the frame, and two pistons in the cylinders operatively connected with the two crank pins respectively.



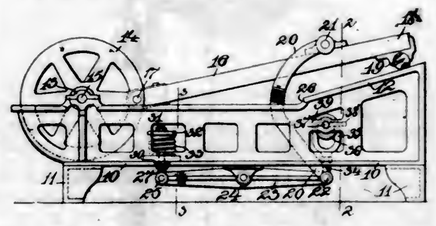
3. An engine including a frame having a plurality of bushings secured therein at a distance apart, the bushings being cylindrical and having each a journal-bearing therein, the frame having also two journal boxes secured therein in contact each with the other, one of the boxes being between and in contact with the two bushings, two main shafts rotatably mounted in the two journal bearings respectively, two gear wheels fixed on the two shafts respectively, a countershaft rotatably mounted in the journal box that is between the bushings and having a pinion thereon that meshes with the two gear wheels, a crank shaft rotatably mounted in the remaining one of the two journal boxes and having a gear wheel fixed thereon that meshes also with the pinion, two crank disks fixed on the two main shafts respectively and having each a crank pin thereon, two cylinders mounted upon the frame and having two pistons operatively connected respectively with the two crank pins, and a pump-cylinder mounted upon the frame between the two cylinders and having a piston operatively connected with the crank shaft.

4. In an engine, the combination of a frame comprising a base part composed of two identically shaped sections secured together, a top part composed of two identically shaped sections secured together, and bolts detachably connecting the top part to the base part; said frame having bushings and also journal boxes removably secured therein, each bushing having also a journal box therein, a main shaft rotatably mounted in the journal boxes of said bushings and having a gear wheel thereon that is less in diameter than the diameter of the respective bushings, a countershaft rotatably mounted in two of the remaining journal boxes and having a pinion fixed thereon that is in mesh with said gear wheel, a crank shaft rotatably mounted in the remaining journal boxes and having a gear wheel thereon that is in mesh with said pinion, a plurality of cylinders mounted on said frame, a disk fixed on said main shaft and having a crank pin, and pistons in the cylinders respectively and having operative connection with the crank shaft and the crank pin respectively.

5. In an engine, the combination of a frame comprising a main portion having a shelf-like extension on the upper portion of one side thereof, a main shaft rotatably mounted in the main portion of the frame, countershafts rotatably mounted in the said main portion and geared to said main shaft, a disk secured to said main shaft and having a crank pin thereon, a cylinder mounted partially upon the said main portion and partially upon the said extension of the frame, a piston in the cylinder provided with a pitman that is connected to the crank pin, and an inclosing plate removably secured to said main portion and having an upper portion extending outwardly to the end of said extension of the frame, said plate extending past the ends of said crank pin and countershafts.

[Claims 6 to 8 not printed in the Gazette.]

1,137,119. MACHINE FOR PEBBLING AND GLAZING LEATHER AND LIKE PURPOSES. JAMES R. CAMERON and WILLIAM J. DENNIN, Elizabeth, N. J. Filed Apr. 20, 1914. Serial No. 833,035. (Cl. 149—17.)



1. In a machine of the class described, an arm, rotating actuating means to which said arm is pivotally connected, rubbing means on said arm, a stationary table adapted to hold work to be engaged by said rubbing means, and means arranged below the level of the table and connected with said arm for controlling the pressure exerted by said arm and rubbing means upon work on the table.

2. A machine of the kind described comprising a frame, a table on said frame, an arm having one end provided with an implement to engage work on the table, means for imparting rotary movement to the other end of the arm, a lever pivotally connected below the table and connected to the arm, yielding means for pulling said lever downward, and manually operated means for overcoming said yielding means and holding the lever and the arm in elevated position.

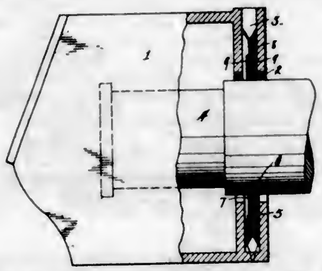
3. A machine of the kind described comprising a frame, a table on said frame, a reciprocating arm having an implement on its end to engage work on the table, a beam adapted to rock on a fulcrum intermediate of its ends, a lever pivotally connected at one side of the fulcrum to the end of the beam and connected to the arm, yielding means connected to the beam on the side of the fulcrum opposite the lever, said yielding means influencing the beam to draw the arm toward the table, adjustable means for limiting the movement of the beam in said direction, and means for overcoming the yielding means and for raising the lever.

4. A machine of the kind described comprising a frame, a table on said frame, a reciprocating arm having an implement on its end to engage work on the table, a beam adapted to rock on a fulcrum intermediate of its ends, a lever pivotally connected at one side of the fulcrum to the end of the beam and connected to the arm, yielding means connected to the beam on the side of the fulcrum opposite the lever, said yielding means influencing the beam to draw the arm toward the table, adjustable means for limiting the movement of the beam in said direction, a yoke connected to the beam, an eccentric within the yoke, and means for rotating the eccentric to overcome the yielding means.

1,137,120. DUST-GUARD. FRANK W. CAUDRLING, Toledo, Ohio, assignor to The National Railway Equipment Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 5, 1913. Serial No. 759,180. (Cl. 64—22.)

1. In a dust-guard, a collar holder having a centrally disposed collar-holding portion provided with opposed side walls, and also having a surrounding rim portion and a portion intermediate said collar-holding and rim portions which is transversely restricted relative thereto, and a journal encircling collar mounted in said collar-holding portion for movements relative thereto.

2. In a dust-guard, a collar-holder having opposing side members provided with registering journal receiving openings and secured together in abutting relation with their inner edge portions spaced apart to form a collar-receiving chamber within the points of securance of said members and with the rim portion of one member flared outwardly to project transversely beyond the adjacent side plane of the chambered portion, and a journal-collar mounted for radial movements in said chamber and being frictionally held by the side walls thereof.



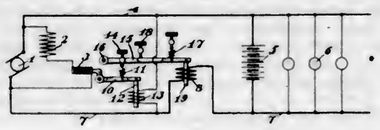
3. In a dust-guard, a holder member comprising two plates having centrally disposed openings and secured together with said openings in register and with portions in side abutting relation entirely around said openings, the inner edge portions of the plates being spaced in parallel relation to form a collar-receiving chamber around said openings, and one of said plates having an outwardly flaring outer edge portion projecting transversely beyond the adjacent side plane of said chamber.

4. In a dust-guard of the class described, a holder member comprising a plurality of parts secured together to form a centrally disposed collar-receiving chamber, and also to form a rim portion surrounding said chamber, which rim portion is composed of opposing members which are yieldingly spaced relative to the collar-receiving chamber.

5. In a dust-guard of the class described, a holder member of sheet metal having a centrally-disposed portion forming a collar-holding chamber, and also having a rim portion laterally yieldable relative to the chambered portion projecting outwardly from said chamber portion with its outer edge portion extended laterally beyond the adjacent side of said chamber portion and entirely surrounding the same.

[Claims 6 to 14 not printed in the Gazette.]

1,137,121. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Dec. 29, 1910. Serial No. 599,874. (Cl. 171—229.)



1. Means for regulating a generator comprehending voltage varying means; means for operating the same responsive to voltage fluctuations; and means for adjusting the operation of said last-named means adapted to be actuated when the current produced by the generator exceeds a predetermined limit.

2. Means for regulating a generator comprehending means for varying the voltage thereof; means for controlling said voltage varying means responsive to voltage fluctuations; and means for adjusting the effect produced by said voltage responsive means depending upon current fluctuations and adapted to be actuated when the current produced by the generator exceeds a predetermined limit.

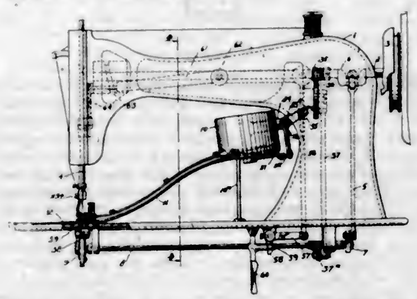
3. Means for regulating a generator comprehending regulating means responsive to voltage fluctuations, adjustable means for controlling the same and means for changing the adjustment thereof responsive to current fluctuations beyond a predetermined limit.

4. Means for regulating a generator comprehending a voltage operated regulator therefor, means for adjusting the same and means for varying the adjustment thereof depending upon current fluctuations beyond a predetermined limit.

5. Means for regulating a generator comprehending a regulating element, means for operating the same responsive to voltage fluctuations comprising resilient means and means for varying the effect of said resilient means depending upon current fluctuations beyond a predetermined finite limit.

[Claims 6 to 11 not printed in the Gazette.]

1,137,122. SEWING-MACHINE. ISIDOR R. DASHER, New York, N. Y., assignor to Leicester Theodore Bernstein, New York, N. Y. Filed Mar. 13, 1912. Serial No. 683,458. (Cl. 112—32.)



1. In a machine for sewing hooks, stitching mechanism including a needle-bar, a presser-bar, means for raising and lowering the presser-bar, hook engaging means connected with the presser-bar, and means coöperating with said raising and lowering means for actuating said hook engaging means to position the latter in a plurality of longitudinal hook holding adjustments by the raising and lowering of said presser-bar, the machine being constructed so that it forms hook holding stitches that extend transversely to the hook.

2. In a machine for sewing hooks, stitching mechanism including a needle bar, a presser bar, means for raising and lowering the presser bar, hook engaging means connected with the presser bar, and means coöperating with said hook engaging means for actuating said hook engaging means, so that said hook engaging means will be caused to move horizontally when the presser bar is raised or lowered.

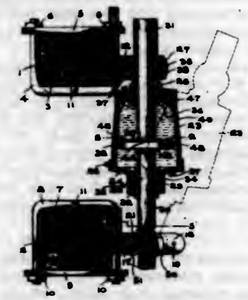
3. In a machine for sewing hooks, a needle-bar, a presser-bar, hook engaging or holding means connected to said presser-bar, a lever for raising and lowering said presser-bar, and means coöperating with said presser-bar and adapted to place said hook holding means in one position of adjustment when the presser-bar is raised to its extreme position and then lowered, and to place said hook holding means in another position of adjustment when the presser-bar is raised part way up and then lowered.

4. In a machine for sewing hooks, a needle-bar, a vertically movable presser-bar, a hook engaging presser foot mounted on said presser-bar so that it can move longitudinally, a projection extending laterally from said presser foot, a wedge, and means for causing said projection to ride on one or the other side of the wedge when the presser-bar is moved vertically.

5. In a machine for sewing hooks, a needle-bar, a presser-bar, a hook engaging presser foot mounted on said presser-bar, so that it can move horizontally, and means on the base of the machine which coöperate with a part on the movable presser foot, so that when the presser foot is moved vertically it will also be caused to move horizontally.

[Claims 6 to 15 not printed in the Gazette.]

1,137,123. SHOCK-ABSORBER. GARIBALDI DE FERNANZO, Philadelphia, Pa. Filed May 19, 1914. Serial No. 839,492. (Cl. 21—105.)



1. A shock absorber comprising a casing, a rod projecting through the ends of the casing, a piston secured to the rod in the casing, said casing having one cylindrical end portion of a diameter appreciably larger than the diameter of the other cylindrical end portion, and the wall of said casing tapering from one cylindrical portion to the other, substantially as described.

2. A shock absorber, comprising a casing, a rod projecting through the casing, a piston fixed to the rod and movable in the casing, said casing having its wall tapered longitudinally, ports in the piston, and spring plates secured to the piston and having their ends overlapping at the ports, substantially as described.

3. A shock absorber, comprising a casing, a rod projecting through the ends of the casing, a piston secured to the rod in the casing, said casing having one cylindrical end portion of a diameter appreciably larger than the diameter of the other cylindrical end portion, and the wall of said casing tapering from one cylindrical portion to the other, ports in the piston, spring plates secured to the piston and having their ends overlapping at the ports, substantially as described.

4. A shock absorber, comprising a casing, a rod projecting through the casing, a piston fixed to the rod and movable in the casing, said casing having its wall tapered longitudinally, ports in the piston, spring plates secured to the piston and having their ends overlapping at the ports, the underlying portions of said plates having recessed ends, substantially as described.

5. A shock absorber, comprising a casing, a rod projecting through the ends of the casing, a piston secured to the rod in the casing, said casing having one cylindrical end portion of a diameter appreciably larger than the diameter of the other cylindrical end portion, and the wall of said casing tapering from one cylindrical portion to the other, ports in the piston, spring plates secured to the piston and having their ends overlapping at the ports, the underlying portions of said plates having recessed ends, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,137,124. TIRE. WALTER DRABOLD and AUGUSTUS P. MOTT, Detroit, Mich. Filed May 25, 1914. Serial No. 840,669. (Cl. 152—5.)

1. A tire comprising side members, an intermediate member having a wedge action between said side members, and an elastic member connecting the confronting sides of said side members and said intermediate member.

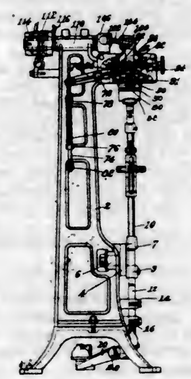
2. A tire comprising segment-shaped side members, a sector-shaped intermediate member, and an elastic member connecting said intermediate member to said side members.



3. A tire comprising segment-shaped side members, a sector-shaped intermediate member, an elastic member connecting said intermediate member to said side members, and casing inclosing all of said members.

4. A tire comprising segment-shaped side members having the flat faces thereof disposed to form a groove, a sector-shaped intermediate member arranged in the groove formed by said side members, an elastic member formed integral with the confronting sides of said members, and a casing inclosing all of said members and having a thickened tread portion forming the base of said intermediate member.

1,137,125. SHOEMAKING-MACHINE. EDWARD ERICKSON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 21, 1912. Serial No. 685,176. (Cl. 12—47.)



1. In a machine for operating upon boots and shoes, the combination of a knife, and power means for rapidly vibrating the knife substantially about a point located within the knife and adjacent to its edge.

2. In a machine for treating the heels of boots and shoes, the combination of a knife, means for raising the shoe toward the knife, and means for vibrating the knife substantially about a point located in its cutting edge.

3. In a machine for treating the heels of boots and shoes, the combination of a knife, and power means for rapidly vibrating the knife about a movable axis, the locus of which is perpendicular to the plane of the knife.

4. A machine of the class described having, in combination, a knife, a shoe support, means for manually moving the support toward and from the knife and means for oscillating the knife about a substantially stationary point located in the cutting edge of the knife.

5. In a machine of the class described, a machine head, a knife carrier, inclined links supporting the carrier on said head, and means for rocking the carrier on said links.

[Claims 6 to 24 not printed in the Gazette.]

1,137,126. SHIPPING-CONTAINER FOR PHONOGRAPH-RECORDS. MZL FULLER, Birmingham, Ala. Filed July 3, 1913. Serial No. 777,237. Renewed Sept. 19, 1914. Serial No. 862,436. (Cl. 206—62.)



1. A shipping carrier for phonographic record disks comprising a base, a top, a separate tubular body adapted to be inserted between said top and base, and, means to interlock base, top and body with a series of superimposed centrally apertured record disks within the carrier.

2. A shipping carrier for phonographic record disks comprising a base, a top, a detachable and interchangeable tubular body adapted to be interposed and held between the top and base, a member adapted to be inserted through the central openings of a number of superimposed record disks to center them in said body, and means to fasten the top and base to said member to interlock them with said body.

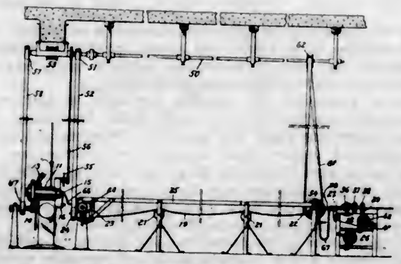
3. In a shipping carrier for phonographic record disks, a tubular body adapted to be varied in length to receive a variable number of superimposed record disks, end plates to close the ends of said tubular body, a central member upon which the record disks to be shipped are strung, means to interlock said member with said end plates, and means to hold the body portion in position between the end plates.

4. In a shipping carrier for phonographic record disks, a tubular body, duplicate flanged end closure plates which interlock with the ends of said body, and a central fastening means which holds the ends interlocked with said body and upon which the inclosed disks are adapted to be strung.

5. A shipping carrier for phonographic record disks comprising, in combination, a tubular body, reinforced end closures shaped to engage the ends of and fit against the inner peripheral wall of said tubular body, superimposed record disks which have central openings and are disposed within said body and spaced from contact with its inner wall, packing between said disks and body, and flexible means passed through the central openings of said disks and through said end plates to fasten all said parts together.

[Claims 6 to 8 not printed in the Gazette.]

1,137,127. RUBBER-BEAD FORMING AND COVERING APPARATUS. JOHN R. GAMMETER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed June 23, 1913. Serial No. 775,301. (Cl. 154—9.)



1. An apparatus of the character described comprising a mechanism for continuously extruding a core of plastic material, a mechanism for continuously applying a fabric cover to said core, and means for supporting and exposing said core to the atmosphere between said mechanisms.

2. An apparatus of the character described comprising a mechanism for continuously extruding a core of plastic material, a mechanism for continuously applying a fabric cover to said core, and a positively-driven conveyer interposed between said mechanisms, for supporting said core.

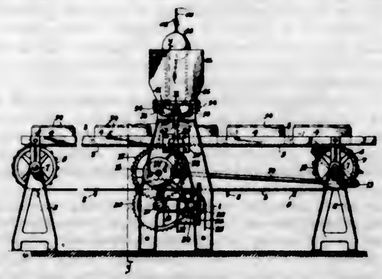
3. An apparatus of the character described comprising a mechanism for continuously forming a plastic strip, a conveyer for supporting and advancing the formed strip, means for driving said mechanism and said conveyer, means for varying their relative speed, and means for continuously covering with fabric the strip delivered by said conveyer.

4. An apparatus of the character described comprising a conveyer for supporting and advancing a plastic core, a mechanism for covering said core with fabric, means for driving said conveyer and said mechanism, and means for verying their relative speed.

5. An apparatus of the character described comprising a mechanism for continuously forming a plastic core, a mechanism for continuously applying a fabric cover to said core, a conveyer for supporting and advancing the core between said mechanisms, means for driving said mechanisms and said conveyer, and means for varying the speed of the covering mechanism relatively to that of the conveyer.

[Claims 6 and 7 not printed in the Gazette.]

1,137,128. MACHINE FOR FILLING RECEPTACLES. JOHN F. GEYER, Philadelphia, Pa., assignor to Robert J. Purdy, John McMahon, and Samuel Walter Humphreys, Philadelphia, Pa., trading as Colonial Conserve Co. Filed Feb. 24, 1914. Serial No. 820,439. (Cl. 226—18.)



1. In a machine of the character stated, a tank provided with means to permit the discharge of the contents thereof, in combination with a measuring device having a chamber provided with an inlet and an outlet for said contents, a valve mechanism adapted to alternately control said inlet and said outlet, means to actuate said valve mechanism, means adapted to communicate with said chamber to receive an excess supply of said contents and means to vary the level of the tank contents whereby said excess supply may be varied at will.

2. In a machine of the character stated, a tank provided with means to permit the discharge of the contents thereof, in combination with a measuring device having a plurality of chambers, each chamber being provided with an inlet and an outlet for said contents, a valve mechanism adapted to alternately control said inlet and said outlet, means adapted to communicate with each chamber to receive an excess supply of said contents and means to vary the level of the tank contents whereby said excess supply may be varied at will.

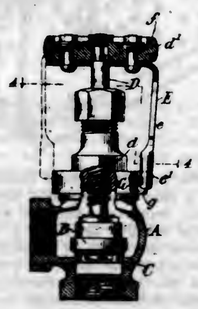
3. In a machine of the character stated, a tank provided with means to permit the discharge of the contents thereof, in combination with a measuring device having a plurality of chambers each chamber being provided with an inlet and an outlet for said contents, a plate for supporting said measuring device having a plurality of openings therein, adapted in certain positions of said measuring device to aline with the respective chamber outlets, means to reciprocate said measuring device to alternately control the inlets and outlets for said chambers, means adapted to communicate with each chamber to form an air vent therefor said means being controlled by the movement of said measuring device, and intermittently operated means to cut off the flow of the drip from said measuring device.

4. In a machine of the character stated, a tank provided with a plurality of outlets to permit the discharge of the tank contents in combination with a measuring device having a plurality of chambers, each chamber being provided with an inlet and an outlet for said contents, a plate forming a support for said measuring device, and having a plurality of openings therein, means to reciprocate said measuring device to alternately bring said chamber inlets respectively into alinement with the tank outlet, and the chamber outlets respectively into alinement with the plate openings, a plurality of pipes adapted respectively to communicate with said chambers, means to vary the level of said tank contents at will, and means operating in timed relation with said measuring device for arresting the drip from said plate openings.

5. In a device of the character stated, the combination of a tank having a plurality of discharge openings in the bottom, a plurality of pipes respectively located adjacent said openings and having unobstructed communication with the atmosphere, a reciprocable frame containing a plurality of measuring compartments and located beneath said tank and said compartments provided with inlets and outlets and also passages adapted in a certain position of said measuring devices to aline with the respective air pipes to permit the escape of air in filling and entrance of air where discharging, a drip cut off plate mounted for sliding movement beneath said reciprocable frame having the measuring compartments and having a plurality of openings adapted in discharging positions of said measuring compartments to respectively aline with the outlets thereof, and common means for reciprocating said reciprocable frame containing the measuring compartments and said drip plate in timed relation, said means being also arranged to move said drip plate relative to said reciprocable frame whereby the drip is automatically cut off.

[Claim 6 not printed in the Gazette.]

1,137,129. VALVE. EDWARD E. GOLD, New York, N. Y., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Filed May 10, 1913. Serial No. 768,060. (Cl. 137—4.)



1. A rotary valve having a stem, a spring member attached to the stem and turning therewith, a casing, and an inclined surface thereon against which said spring member is adapted to bear, said valve and valve stem and spring member having a reciprocating movement and said inclined surface located at the end of the travel of said spring finger in the closing movement of the valve, and inclined toward the axis in the direction of such closing movement of the valve and said spring finger adapted to bear on said inclined surface when the valve is seated, whereby the said spring finger has a tendency to slide down said surface and maintain a tight fit of the valve to its seat.

2. A rotary valve having a stem, a spring member attached to the stem and turning therewith, and means for adjusting said spring finger relatively to said stem, a casing, and an inclined surface thereon against which said spring member is adapted to bear, said valve and valve stem and spring member having a reciprocating movement and said inclined surface located at the end of the travel of said spring finger in the closing movement of the valve, and inclined toward the axis in the direction of such closing movement of the valve and said spring finger adapted to bear on said inclined surface when the valve is seated, whereby the said spring finger has a tendency to slide down said surface and maintain a tight fit of the valve to its seat.

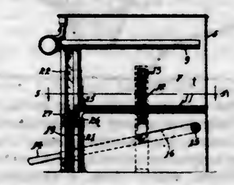
3. A rotary valve having a stem, a spring member attached to the stem and turning therewith, a casing, a quick acting threaded connection between said stem and said casing and an inclined surface on said casing against which said spring member is adapted to bear, said valve and valve stem and spring member having a reciprocating movement and said inclined surface located at the end of the travel of said spring finger in the closing movement of the valve, and inclined toward the axis in the direction of such closing movement of the valve and said spring finger adapted to bear on said inclined surface when the valve is seated, whereby the said spring finger has a tendency to slide down said surface and maintain a tight fit of the valve to its seat.

4. A rotary valve having a stem, a casing, a spring member attached to the stem externally of the casing and extending substantially parallel with the stem and adapted to turn therewith and an inclined surface on said casing against which said spring member is adapted to bear, said valve and valve stem and spring member having a reciprocating movement and said inclined surface located at the end of the travel of said spring finger in the closing movement of the valve, and inclined toward the axis in the direction of such closing movement of the valve and said spring finger adapted to bear on said inclined surface when the valve is seated, whereby the said spring finger has a tendency to slide down said surface and maintain a tight fit of the valve to its seat.

5. A rotary valve, a casing, a valve stem, a spring member attached to the stem, a track for said spring member upon said casing on which said member presses in adjusting the valve whereby the valve is held in adjusted position; said valve, valve stem and said spring member having a reciprocating movement, and a recess in said track at substantially the end of travel of the spring finger in the closing movement of the valve, said recess having a wall forming a portion of said track and inclined axially therefrom and said spring finger adapted to rest on said inclined wall when the valve is seated, whereby the spring finger has a tendency to slide down said surface and maintain a tight fit of the valve to its seat.

[Claim 6 not printed in the Gazette.]

1,137,130. BROILER. MICHAEL J. GREEN, Rockford, Ill., assignor to Eclipse Gas Stove Company, Rockford, Ill., a Corporation of Illinois. Filed Jan. 19, 1915. Serial No. 3,101. (Cl. 126—41.)



1. The combination of a broiling oven having heating means arranged in the upper portion thereof, a broiling rack movable vertically in the oven below the heating means, the oven having an entrance opening extending above and below the broiling rack, and means for maintaining the entrance opening below the broiling rack closed while leaving the portion of the oven above the rack open.

2. The combination of a broiling oven having heating means at the upper portion thereof, a broiling rack mounted to move vertically in the oven, the oven having an entrance opening extending above and below the broiling rack, and collapsible means movable by said rack for closing the entrance to the oven below the broiling rack.

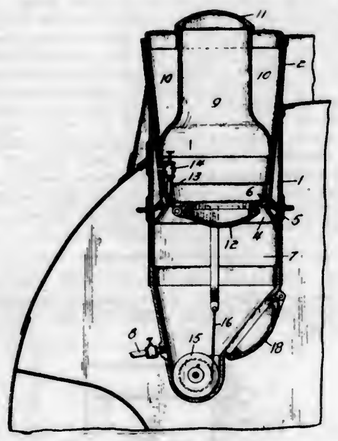
3. The combination of a broiling oven having heating means located at the upper portion thereof, a vertically movable broiling rack arranged in the oven below the heating means, the oven having an entrance opening extending above and below the broiling rack, and means movable vertically with the broiling rack for closing the entrance to the oven below said broiling rack.

4. The combination of a broiling oven having heating means, a broiling rack mounted to move vertically in the oven into and out of proximity to the heating means, the oven having an entrance opening extending above and below the broiling rack, means extending across the said opening for closing the same below the broiling rack, and means for moving said closing means vertically when the rack is so moved, said closing means being so mounted as to be detachable to permit access to the lower portion of the oven.

5. The combination of a broiling oven having burners arranged in the upper portion thereof, a broiling rack movable vertically in the oven below said burners, the oven having an entrance opening extending above and below the broiling rack, and means for closing the entrance to the oven below the broiling rack, said means being movable to close more or less of said entrance opening in accordance with the position of the broiling rack with respect to the burners.

[Claims 6 to 14 not printed in the Gazette.]

1,137,131. LIFE-BUOY FOR SUBMARINE OR SUBMERGIBLE BOATS. HUGO GRIESHABER, New London, Conn., assignor to Electric Boat Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 15, 1913. Serial No. 795,189. (Cl. 114—16.7.)

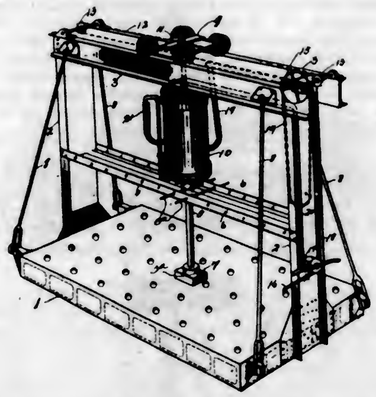


1. A submarine or submergible boat having a launching pocket constituting a guideway and receptacle for a life-buoy, a conical valve seat in said pocket, a man-carrying life-buoy having a member coacting with said seat to form therewith a closure, and to form a substantially water-tight space in the lower portion of the pocket, means operable from within the boat for removing water from said space to subject the buoy to the pressure of the sea and thereby force it onto the valve seat, means for admitting water to said space to equalize the pressure and permit the buoy to rise to the surface, and means for retracting the buoy from the surface into the pocket, substantially as described.

2. A submarine or submergible boat having a launching pocket constituting a guideway and receptacle for a life-buoy, a conical valve seat in said pocket, a man-carrying life-buoy having a member coacting with said seat to form therewith a closure, and to form a substantially water-tight space in the lower portion of the pocket, means operable from within the boat for removing water from said space to subject the buoy to the pressure of the seat and thereby force it onto the valve seat, means operable from within the buoy for admitting water to said space to equalize the pressure and permit the buoy to rise to the surface, and means for retracting the buoy from the surface into the pocket, substantially as described.

3. The combination with a submarine or submergible boat having an exterior launching pocket, of a man-carrying life-buoy having a substantially water-tight compartment and adapted to seat in the pocket in such manner as to form a substantially water-tight space therein, means affording passage from the interior of the boat, to the compartment, means for removing water from said space to subject the buoy to the pressure of the seat to hold it seated in position, a valved-conduit within the compartment adapted to admit water from the seat to said space to equalize said pressure and thereby allow the buoy to rise to the surface of the seat, and supplemental means operable from within the boat for admitting water to said space, substantially as described.

1,137,132. PNEUMATIC PRESS AND METAL-FORMING MACHINE. EDWARD G. GROSS, Columbus, Ga. Filed Mar. 30, 1914. Serial No. 828,174. (Cl. 113—45.)

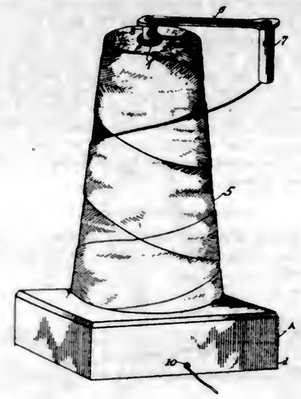


In a pneumatic press and metal forming machine, the combination of a face plate, upright members secured at each end thereof, transverse members secured at the top ends of the said upright members, a carrying member adapted to traverse the length of the said transverse members and support a cylinder, provided with a piston, a piston rod, means for applying, attaching and detaching forming members of various designs to the bottom end thereof, with means for applying a downward pressure to the said piston rod, means for controlling and releasing said pressure, means for moving the said carrying member and cylinder from one point to another along the length of the said transverse members, and means for maintaining the said carrying member and cylinder in a stationary position, substantially as shown and described.

1,137,133. TWINE-HOLDER. JACOB A. HAMELBACK, Newark, Ohio, assignor of one-half to Joseph W. Horner, Newark, Ohio. Filed Nov. 2, 1914. Serial No. 869,860. (Cl. 242—141.)

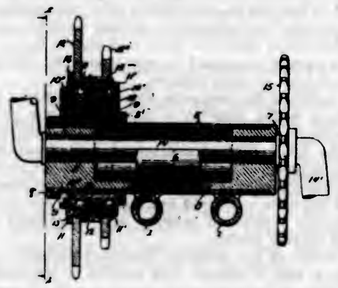
A twine-holder comprising a support, a hollow post, and a removable arm having a tube at either end, one of which fits and turns in the upper end of the post and the other

of which is adapted to receive the twine through its lower end on its way alongside the arm and thence downward



through the other tube, the post, and out at some convenient point on the support.

1,137,134. TRANSMISSION-GEARING. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Filed July 13, 1912. Serial No. 709,160. (Cl. 64—53.)

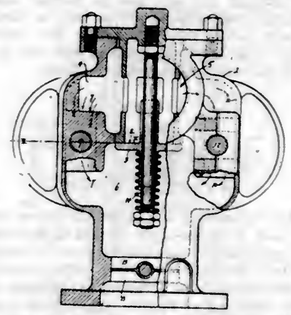


1. A transmission gearing comprising a tubular hanger, a rotatory adjustable barrel mounted in the hanger provided with an eccentric bore, a shaft journaled in the eccentric barrel bore, an outer rotatorily adjustable eccentric mounted exteriorly of the hanger, means for securing the barrel and outer eccentric to the hanger and a wheel mounted upon said eccentric.

2. A transmission gearing comprising a tubular hanger, a rotatory adjustable barrel mounted in the hanger provided with an eccentric bore, a flange projecting from one end of the barrel in engagement with the hanger, the opposite end of said barrel being extended beyond the hanger and provided with screw threads, a flange projecting from the exterior wall of the tubular hanger juxtaposing its end, a rotatory adjustable eccentric mounted upon said end of the hanger adapted to abut the hanger flange, a clamping nut engageable with the threaded end of the barrel and adapted to bind the rotatory eccentric between the face of the nut and hanger flange, a wheel mounted upon the rotatory adjustable eccentric, and a shaft mounted in the eccentric bore of said barrel.

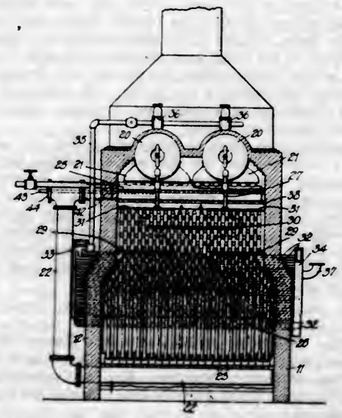
1,137,135. CARBURETER. CHARLES W. HART, Charles City, Iowa. Filed Mar. 17, 1909. Serial No. 483,890. (Cl. 48—155.1.)

A carbureter provided with a mixing chamber, an air inlet, three passages between said inlet and mixing chamber, means for admitting liquid fuel to one of said passages, means for admitting water to another of said passages, and means for resiliently controlling the passage of a diluting charge of air through the third and central passage.



1,137,136. [WITHDRAWN.]

1,137,137. STEAM-GENERATOR. HERMAN C. HEATON, Berwyn, Ill. Filed Oct. 7, 1910. Serial No. 585,750. (Cl. 110—98.)



1. In a boiler, a furnace, a plurality of horizontal tiers of inclined water tubes, said furnace having walls on the sides of said water tubes, baffle plates arranged parallel with said tubes, said baffle plates defining a path of decreasing area for the products of combustion, said baffles including a pair of baffles each extending from a point adjacent the side walls and a baffle above the space between said pair of baffles and relatively remote from said side walls.

2. In a boiler, a furnace having side walls, a plurality of horizontal tiers of inclined water tubes, baffle plates arranged between said horizontal tiers and parallel with said tubes, said baffle plates extending from end to end of said tubes and defining a path of decreasing area for the products of combustion, said baffles including a pair of baffles each extending from a point adjacent the side walls and a baffle above the space between said pair of baffles and relatively remote from said side walls.

1,137,138. BUFFER. ROBERT P. HERON, Syracuse, N. Y. Filed Aug. 2, 1909. Serial No. 510,789. (Cl. 155—33.)

1. A buffer comprising a retainer having a hole in its bottom leaving a pressure resisting flange surrrounding

said hole, a block of compressible fibrous material formed into a hard contact button by compression against the flange and through the hole and by further compression of the part thus forced through the hole, a backing plate for the block, means on the retainer for retaining the backing plate and block in position with the block compressed, and means for attaching the buffer.



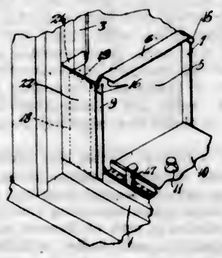
2. A buffer comprising a retainer having a hole in its bottom, a block of unsized felt formed by having its edge supported, gripped and compressed and its inner part at the same time materially displaced with respect to said edge by compression into a cavity surrounded by a support for the edge and by further compression and shaping of said inner part, means for permanently holding in the retainer the felt block as thus formed with its inner part projecting through the hole in the retainer to act as a contact button, and means for attaching the buffer.

3. A buffer comprising a retainer having a hole in its bottom, a block of unsized felt larger than said hole and of substantially uniform thickness compressed against the bottom of the retainer and through the hole therein and formed into a hard contact button, and a backing plate therefor permanently secured to said retainer.

4. A buffer comprising a retainer having a hole in its bottom, a block of felt larger than said hole having its outer part gripped against the bottom of the retainer adjacent the hole and its inner part materially displaced with respect to its outer part through said hole by compression of the block against the bottom and through the hole, means for attaching the buffer, and means for permanently fastening together said retainer, compressed block, and attaching means.

5. A buffer comprising a retainer, a pad or cushion therein, a backing plate for said pad or cushion having a raised portion and a flange below the same surrounding it, and a plate on the under side of the backing plate within the raised portion and having prongs projecting therethrough, the upper edge of the retainer being bent down upon the flange to hold the parts permanently in assembled relation with the turned down edge and raised portion in substantially the same plane.

1,137,139. WINDOW-VENTILATOR. HENRY HIGGIN, Newport, Ky., assignor of one-half to The Higgin Manufacturing Company, Newport, Ky., a Corporation of West Virginia. Filed Apr. 16, 1914. Serial No. 832,152. (Cl. 98—31.)



1. In a device of the character described, a ventilator box member, and means for securing the same in the frame of a window, comprising a plate secured to the said box member, said plate having a laterally extending portion for securing it to the box member, a base portion for securing it to the window sill, and a vertical portion extending parallel with said sill, and a plate having a vertical member provided with means for slidably engaging the vertical member of the plate first mentioned, and a lateral member for securing it to the side of the window frame.

2. In a device of the character described, a ventilator box member, and means for securing the same in the frame of a window, comprising a plate secured to the said box member, said plate having a laterally extending portion for securing it to the box member, a base portion for securing it to the window sill, and a vertical portion extending parallel with said sill, and a plate having a vertical member provided with a downwardly depending flange for slidably engaging the vertical member of the plate first mentioned, and a lateral member for securing it to the side of the window frame.

1,137,140. FOUR-WHEEL DRIVE. EUGENE C. HODGES, Gregory, Tex. Filed July 31, 1913. Serial No. 782,257. (Cl. 21—90.)



1. In a device of the character described, a driving axle, a hub, a trunnion pivotally mounted in the end of said axle, cone shaped caps adjustable upon said trunnion and pivotally supporting said hub upon the apexes thereof.

2. A device of the character described including a driving axle, a casing therefor, a hub, a trunnion pivotally mounted in the end of said driving axle, cone shaped caps adjustable upon the extremities of said trunnion and pivotally supporting said hub upon said apexes thereof, and means integrally connected to said casing for supporting said wheel in a vertical position.

3. A device of the character described including a driving axle, a casing therefor, a hub, a trunnion pivotally mounted in the end of said driving axle, cone shaped caps adjustable upon the extremities of said trunnion and pivotally supporting said hub upon the apexes thereof, a bearing surface secured to said hub supporting means for said hub operable upon said bearing surface and anti-frictional means interposed between said supporting means and said bearing surface.

4. A device of the character described including a driving axle, a hub, a channel ring secured to the inner face of said hub, an annular band seated in said channel ring and connected to a suitable steering mechanism, a trunnion pivotally mounted at the extremities of said driving axle and cone shaped caps adjustable upon the extremities of said trunnion and pivotally supporting said hub upon the apexes thereof.

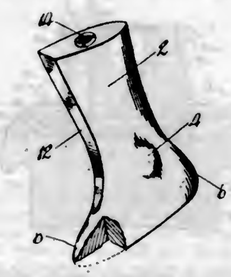
5. A device of the character described including a driving axle, a casing therefor, a hub, a trunnion mounted upon the extremities of said driving axle and within said hub, cone shaped caps adjustable upon the extremities of said trunnion and pivotally supporting said hub upon the apexes thereof, means integrally connected to said axle casing for supporting said hub in a vertical plane and means interposed between said hub and a suitable steering mechanism for swinging the former upon the apexes of said trunnion cone caps as a pivot.

[Claim 6 not printed in the Gazette.]

1,137,141. SHOE-FORM. CHARLES H. HOLMES, Brockton, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me., a Corporation of Maine. Filed Aug. 24, 1912. Serial No. 716,874. (Cl. 12—116.)

1. A shoe form comprising an ankle portion, heel and instep portions of approximately normal shape and proportions, the surfaces of all the said portions being continuous with each other, said form having a bottom face extending substantially from the forward extremity of the instep to a point just below the rounded extremity of the heel, and being cut away along the portion corresponding to the hollow of the arch.

2. A shoe form comprising an angle portion, heel and instep portions of approximately normal shape and proportions, the surfaces of all the said portions being continuous with each other, said form having a bottom face extending substantially from the forward extremity of the instep to a point just below the rounded extremity of the heel, and having a flat face extending along the front of the ankle and into the upper portion of the instep.



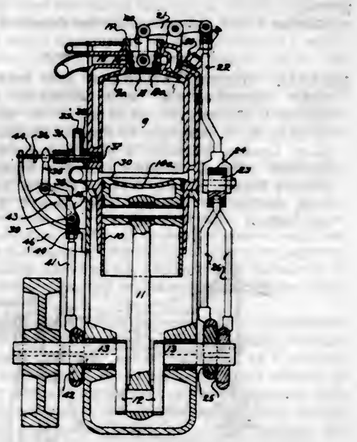
3. A shoe form comprising an ankle portion of dimensions greater than normal from front to back but less than normal from side to side, heel and instep portions of approximately normal shape, the surfaces of all the said portions being continuous with each other, said form having a bottom face extending substantially from the forward extremity of the instep to a point just below the rounded extremity of the heel, and having a beveled face forming a portion corresponding to the hollow of the arch, said ankle portion having lateral projections corresponding to the ankle bones.

4. A shoe form comprising an ankle portion of dimensions greater than normal from front to back but less than normal from side to side, and having lateral projections corresponding to the ankle bones, heel and instep portions of approximately normal shape, all of said portions having continuous surfaces to support the upper of a shoe, said form having a flat bottom face extending substantially from the forward extremity of the instep to a point just below the rounded extremity of the heel, a beveled portion corresponding to the hollow of the arch of the foot, and a flat face formed along the front of the ankle and the upper portion of the instep.

1,137,142. INTERNAL-COMBUSTION ENGINE. REINHOLD JOHNSON, Brooklyn, N. Y. Filed Dec. 23, 1912. Serial No. 738,236. (Cl. 123—65.)

1. The herein described method of operating an engine under a differential pressure cycle by the combustion of an ignitible charge, which consists in expanding the burnt gases in the cylinder until their pressure is reduced to less than that of the atmosphere or intake, and opening the cylinder when the piston is at or near the end of its outstroke so that a new charge at normal pressure will spontaneously enter by virtue of the difference between terminal and intake pressures.

2. The method of operating an engine under a differential pressure cycle by the combustion of an ignitible charge, which consists in carrying on the expansion of the burnt gases in a closed cylinder until their pressure is reduced to less than the intake or atmospheric pressure, opening the cylinder so that a new charge at normal pressure will spontaneously enter thereinto by virtue of the difference between terminal and intake pressures when the piston is at or near the end of its outstroke, the new charge entering the cylinder at its coolest point and displacing the gases of combustion adjacent the face of the piston, the burnt gases being forced out ahead of this charge in the direction of the return stroke of the piston whereby the new charge reaches the hottest part of the cylinder only during compression, which occurs at the last part of the return stroke, thus assuring properly timed ignition.



3. The method of operating an engine under a differential pressure cycle by the combustion of an ignitible charge, which consists in uninterruptedly expanding the burnt gases until the pressure thereof is reduced to less than that of the intake or atmospheric pressure, opening the cylinder so that a new charge at normal pressure will spontaneously enter thereinto by virtue of the difference between terminal and intake pressures when the piston is at or near the end of its outstroke, forcing out the burnt gases ahead of the new charge, and causing the exhaust valve to automatically differentiate the pressures between the incoming and outgoing charges, thereby varying the point at which ignition occurs and consequently the power of the engine.

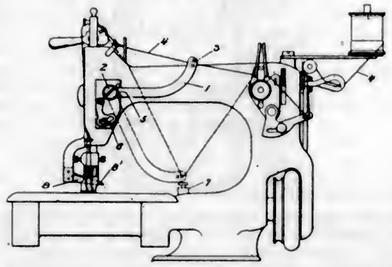
4. A combustion engine operating under a differential pressure cycle comprising a cylinder, a piston therein allowing the burned gases to expand below intake pressure, said cylinder having the inlet and exhaust at opposite ends, said piston uncovering the inlet at or near the end of the outstroke thereof to permit spontaneous entrance of a new charge at normal pressure adjacent to the face of the piston after the inferior pressure has been obtained in the cylinder, the exhaust permitting of the burnt gases being driven out ahead of the new charge on the return stroke of the piston, and means capable of automatically differentiating the pressures between the incoming and outgoing charges and controlling said exhaust so that the piston during the last part of its return stroke causes compression of the new charge, whereafter ignition takes place.

5. A two cycle combustion engine operating under automatically differentiating pressure comprising a cylinder, a piston in said cylinder allowing the burned gases to expand below intake or atmospheric pressure, said cylinder having an inlet port adjacent to the face of the piston when the latter is at or near the end of its outstroke, said piston uncovering said inlet port to admit of a new charge at normal pressure entering the cylinder spontaneously after the inferior pressure has been obtained therein, the charge received in the cylinder being solely due to the difference between terminal and intake pressures and displacing the burnt gases adjacent to the piston, the amount of the new charge being determined by the equalization of the interior and intake pressures, said cylinder having at the opposite end to the inlet an exhaust port through which the burnt gases preceding the new charge are driven out on the return stroke of the piston, and a valve for said exhaust port capable of automatically differentiating the pressures between the incoming and outgoing charges and controlling the compression of the new charge by the piston on the last part of its return stroke, the ignition of the

charge occurring thereafter, and the other steps in the operative cycle all taking place on the one side of the piston.

[Claims 6 to 8 not printed in the Gazette.]

1,137,143. THREAD-DRAWING AND THREAD-CUTTING MECHANISM FOR SEWING-MACHINES. FRANK J. KAUFMANN and WILLIAM N. MARSDEN, Amsterdam, N. Y., assignors to Fownes Brothers and Company, London, England, a Firm composed of William Gardner Rigden, William Fownes Rigden, Edward Fownes Rigden, Stanley Fownes Rigden, Samuel J. Urwick, and Henry Urwick. Filed Dec. 7, 1912. Serial No. 735,371. (Cl. 112—33.)



1. A sewing machine having a manually operative pivoted arm located between the spool and the head of the machine through an opening in the free end of which arm the thread passes, means tending to hold the arm in an elevated position, and means for limiting depression of the arm whereby a definite amount of slack thread is provided by actuation of the arm and independently of release of a sewn fabric from its holding or feeding devices, and a gage for determining the point at which the thread is to be severed.

2. A sewing machine having a manually operated pivoted arm located between the spool and the head of the machine through an opening in the free end of which arm the thread passes, means tending to hold the arm in an elevated position, and means for limiting depression of the arm whereby a definite amount of slack thread is provided by actuation of the arm and independently of release of a sewn fabric from its holding or feeding devices, and a fixed gage located adjacent the present foot of the machine and comprising a plate having a cutting edge indicating where a laterally drawn thread loop shall be cut at the termination of a stitching operation, substantially as described.

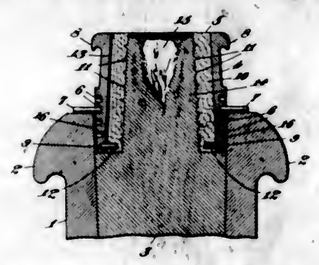
3. A sewing machine having a spindle for a spool, a reciprocating needle, an arm located between the spindle and the needle, said arm being pivoted on the front part of the head and extending rearwardly and upwardly, and having a loop in its free end through which the thread may pass, a spring for holding said arm raised, and an adjustable stop on the base of the head within reach of the pivoted arm, substantially as described.

4. A sewing machine having a spindle for a spool, a reciprocating needle, an arm located between the spindle and the needle, said arm being pivoted on the front part of the head and extending rearwardly and upwardly, and having a loop in its free end through which the thread may pass, a spring for holding said arm raised, an adjustable stop on the base of the machine within reach of the pivoted arm, a bracket on the machine, and a gage mounted in said bracket just above the bed plate and in rear of the presser foot, substantially as described.

5. A sewing machine having a spool spindle, a reciprocating needle, a pivoted rearwardly extending arm between the spindle and the needle, an opening in the free end of said arm, means for yieldingly holding said arm in raised position, a stop against which said arm may strike when swung downward, and a gage arranged in proper relation to the stop and the needle for determining the point at which the thread is to be severed, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,137,144. STEEL MANUFACTURE. EDWARD F. KENNEY, Westmont borough, Pa. Filed Jan. 16, 1915. Serial No. 2,512. (Cl. 22—216.)



1. The process of producing ingots which consists of pouring molten metal into a metal mold provided with a non-conducting top, then, while the interior of the metal is molten, heating the whole ingot with the non-conducting top thereon.

2. The process of producing ingots which consists in pouring molten metal into a metal mold provided with a non-conducting top, then removing the metal mold leaving the non-conducting top on the upper portion of the ingot, and then heating the same whereby the temperature throughout the ingot is equalized and the shrinkage fed from the molten metal within the top.

3. The process of making ingots which consists in pouring molten metal into a metallic mold with a refractory non-conducting top contained within a metallic casing, removing the metal mold and the casing, then putting the ingot with the non-conducting top thereon into a heating furnace, then equalizing the temperature of the ingot while the molten metal in the top feeds the shrinkage thereof.

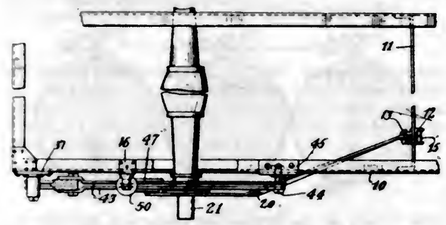
4. The process of producing steel ingots which consists in introducing molten metal into a metallic mold having a non-conducting top removably held in a casing, then removing the casing and the mold leaving the non-conducting portion of the ingot, then charging the ingot with the non-conducting portion of the mold top thereon into a heating furnace, thereby equalizing the temperature of the ingot while feeding the shrinkage from the molten metal in the top, and then withdrawing and working the ingot as desired.

5. The process of producing steel ingots which consists in introducing molten metal into a metal ingot mold provided with a non-conducting top temporarily secured within a casing, adjustably fitted in the top at desired elevation within the ingot mold to predetermine the length of the cast ingot, then removing the casing from the top and the mold from the ingot leaving the non-conducting top on the ingot, then charging the ingot with the said non-conducting top thereon into a heating furnace and then heating the whole, whereby the molten metal in the top feeds the shrinkage and the temperature is equalized throughout.

1,137,145. VEHICLE-SPRING. MARIUS C. KRARUP, New York, N. Y. Filed Jan. 27, 1913. Serial No. 744,833. (Cl. 21—101.)

1. A vehicle frame, an axle therefor, a resilient member at a fixed point on said frame arranged to sustain pressures between the frame and axle, a bar on which said member acts, said bar being supported on the frame and arranged to be moved automatically relative to the resilient member in a plane at right angles to the direction of the resiliency of said member by the relative movement of the axle toward and from the frame.

2. A vehicle frame, an axle therefor, a resilient member at a fixed point on said frame arranged to sustain pressures between the frame and axle, a bar on which said member acts and a swinging support for the bar arranged to give said bar a longitudinal movement relative to the resilient member.



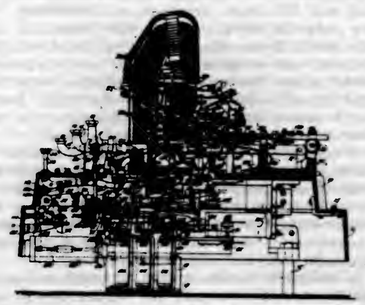
3. A vehicle frame, an axle therefor, a compression spring element at a fixed point on said frame arranged to sustain pressures between the frame and axle, and a bar on which said element acts, said bar being supported on the frame and arranged to be moved automatically longitudinally relative to said element by the relative movement of the axle toward and from the frame.

4. A vehicle frame, an axle therefor, a resilient member at a fixed point on said frame arranged to sustain pressures between the frame and axle, a connecting bar, a suspension bar pivoted at one end to the vehicle frame, a movable connection between the other end of the suspension bar and said connecting bar, said resilient member being interposed between the vehicle frame and the suspension bar and means for moving the connecting bar longitudinally in relation to the suspension bar.

5. A vehicle frame, an axle therefor, a resilient member at a fixed point on said frame arranged to sustain pressures between the frame and axle, a connecting bar, a suspension bar pivoted at one end to the vehicle frame, a movable connection between the other end of the suspension bar and said connecting bar, said resilient member being interposed between the vehicle frame and the suspension bar intermediate the ends of the suspension bar and a swinging support for the connecting bar whereby its position is shifted automatically in a longitudinal direction in relation to the suspension bar.

[Claims 6 to 28 not printed in the Gazette.]

1,137,146. PRINTING-TELEGRAPH APPARATUS. CHARLES L. KRUM, Chicago, Ill., assignor to Morkrum Company, Chicago, Ill., a Corporation of Maine. Filed Feb. 4, 1909. Serial No. 475,998. (Cl. 178—27.)



1. In a printing telegraph apparatus, the combination with a set of finger-keys, and a set of variably-toothed, switch-operating type controlled by said keys, of a common actuator for said keys, a set of connectors for coupling the selected key to said actuator, said connectors being normally spring-held in inoperative position, and a stationary cam-bar for shifting said connectors to operative position upon the initial depression of said keys.

2. In a printing telegraph apparatus, the combination with a set of finger keys, and a set of switches, of a set of variably-toothed, switch-operating type connected to said finger keys, said type being arranged to directly engage and operate said switches, a common actuator for said keys and switch-operating type, and means controlled by the initial shift of any selected key and switch-operating type for coupling said actuator thereto.

3. In a printing telegraph apparatus, the combination with a set of finger keys, a set of variably-toothed, switch-operating type and printing mechanism actuated by said keys, of a common actuator for said keys, a set of connectors for coupling said keys to said actuator, said connectors being normally spring-held in inoperative position, and a stationary cam-bar for shifting any connector to operative position upon the initial movement of the corresponding key.

4. In a printing telegraph apparatus, the combination with a set of finger keys and a set of variably-toothed, switch operating type actuated by said keys, of a common actuator for said keys, a set of connector links pivoted to said keys and normally spring-held out of engagement with said actuator, and means for shifting any of said connector links into engagement with said actuator upon the initial depression of the corresponding key.

5. In a printing telegraph apparatus, the combination with a set of switch-controlling finger keys, of a common actuator for said keys, a set of connector links pivoted to said keys to swing into and out of operative relation with said actuator, springs normally holding said connector links in inoperative position, and means for positively shifting any connector link to operative position upon the initial movement of the corresponding key.

[Claims 6 to 31 not printed in the Gazette.]

1,137,147. HAIR-PIN. JAMES B. LADD, Ardmore, Pa. Filed Nov. 27, 1911. Serial No. 662,557. (Cl. 132—22.)



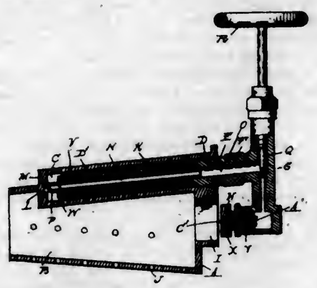
A hair pin having more than two prongs with a common fixed point of connection whereby they are relatively immovable with respect to one another at said point, said prongs beyond said point being resiliently related, but normally lying in a common plane, including in its number a prong having a hump or extension projecting out of said common plane and adjacent the head, said hump or extension provided for the purpose of throwing a prong out of said common plane by exerting pressure on said hump and the opposite sides of adjacent prongs, as and for the purpose specified.

1,137,148. BURNER. CHARLES R. LAMBERT, Detroit, Mich, assignor to Clayton & Lambert Manufacturing Co., Detroit, Mich., a Corporation of Michigan. Filed Mar. 29, 1913. Serial No. 757,675. (Cl. 158—53.)

1. In a burner, a body portion having a flame-receiving chamber and vaporizing chamber, a nozzle communicating with the flame-receiving chamber and being in communication with the vaporizing chamber, a fuel supply opening into the vaporising chamber, and filtering means within said nozzle for a vaporized fuel.

2. In a burner, a body portion having a flame-receiving chamber and a vaporizing chamber closed at one end, a nozzle communicating with the flame-receiving chamber,

an outlet conduit for the vaporizing chamber communicating with the nozzle, an extension of the outlet conduit in communication with the vaporizing chamber only adjacent the closed end of the latter, a fuel supply opening into the vaporizing chamber adjacent the opposite end, and filtering means associated with the outlet conduit adjacent to said nozzle.



3. In a burner, a body portion having a flame-receiving chamber and a vaporizing chamber closed at one end, a nozzle communicating with the flame receiving chamber, an outlet conduit for the vaporizing chamber communicating with the nozzle, an extension of the outlet conduit within the vaporizing chamber and in communication therein with the vaporizing chamber only adjacent the closed end of the latter, a fuel supply opening into the vaporizing chamber adjacent the opposite end, atomizing means associated with the outlet conduit adjacent to said nozzle, and a plurality of plies of fine mesh screens filling the space in the vaporizing chamber between the walls thereof and said extension.

4. In a burner, a body portion having a flame-receiving chamber and a vaporizing chamber closed at one end, a nozzle communicating with the flame-receiving chamber, an outlet conduit for the vaporizing chamber communicating with the nozzle, an extension of the outlet conduit within the vaporizing chamber and in commuication therein with the vaporizing chamber only adjacent the closed end of the latter, a fuel supply opening into the vaporizing chamber adjacent the opposite end, atomizing means associated with the outlet conduit, and a filtering material carried by said extension and filling the space between the same and the walls of the vaporizing chamber.

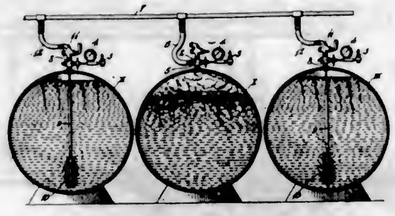
5. In a burner, a body portion having a vaporizing chamber closed at one end and a flame-receiving chamber, a valve controlled nozzle communicating with the flame-receiving chamber, an outlet conduit for the vaporizing chamber communicating with the nozzle, a hollow extension of the outlet conduit arranged within the vaporizing chamber, there being a seat at the closed end of the latter with which the inner end of said extension is engaged, filtering material carried by said extension, and a fuel supply opening into the vaporizing chamber adjacent one end thereof, said extension communicating with the vaporizing chamber adjacent the opposite end.

[Claims 6 to 10 not printed in the Gazette.]

1,137,149. PROCESS OF CHARGING BEER. OSCAR M. LAMSENS, Detroit, Mich. Filed May 20, 1912. Serial No. 698,582. (Cl. 209—10.)

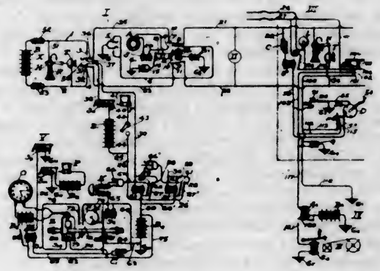
1. The process of charging beer which consists in introducing the gases, ethers and other like concomitants given off by beer confined in the fermenting tanks ordinarily used in the process of brewing into still beer while the latter is confined in the chip or settling tanks used ordinarily in brewing process in such manner that the gases, ethers and other concomitants are forced by the natural pressure of fermentation in the fermenting tank and are very finely divided and diffused throughout the body of the still beer at the point of introduction thereto into the body of still beer.

2. The process of charging beer during the brewing thereof by utilization of the various fermenting, settling and chip casks in which the beer is confined at times during the brewing which consists in forcing by the natural pressure of fermentation the gases, ether and other concomitants given off by the working beer con-



fined in any of the fermenting tanks into the still beer confined in any of the settling and chip tanks and casks and in finely dividing and diffusing the gases, ethers and other concomitants at the point of liberation into the body of the still beer whereby the beer becomes charged to the point of saturation thereby.

1,137,150. COMPOSITE ELECTRIC SYSTEM. ALBION D. T. LIBBY, Elyria, Ohio, assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Aug. 28, 1909. Serial No. 515,044. (Cl. 179—5.)



1. In a composite electric system, the combination of a telephone circuit, a fire alarm circuit, a motor operated signal sending device in said circuit, a central station, substations in said telephone circuit, a lamp signal at each substation and means at each substation adapted to cause the actuation of the signal at said substation and to control said fire alarm circuit at said substation.

2. In a composite electric system, the combination of a telephone circuit, a fire alarm circuit, a central station, substations in said telephone circuit, a visible signal at each substation and means at each substation controlling the signal at said substation and the fire alarm circuit connected to said substation whereby said signal and said fire alarm circuit may be actuated simultaneously.

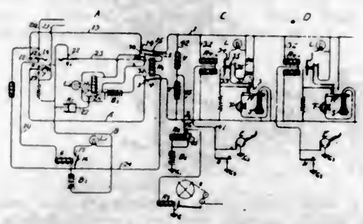
3. In a composite electric system, the combination of a telephone circuit, a fire alarm circuit, a central and substations in said telephone circuit, lamps at said substations, a circuit for said lamps and means at each substation controlling the lamp thereat and the fire alarm circuit connected to such substation, said means being common to said lamp and said fire alarm circuit.

4. In a composite electric system, a telephone circuit, a fire alarm circuit, a central and substations in said circuit, motor operated fire alarm signal sending apparatus at each substation, a lamp signal at each substation and switching means common to said signal sending apparatus and said signal at said substation controlling both the signal sending apparatus and the signal at said substation.

5. In a composite electric system, the combination of a police and fire system, a central and substations in said system, normally closed police boxes at said sub-stations, opening means for said boxes, an inclosure for the opening means, signals in said boxes, signal sending apparatus in said boxes, and means operated automatically by the breaking of the inclosure, controlling both the signals and the signal sending apparatus.

[Claims 6 to 18 not printed in the Gazette.]

1,137,151. COMPOSITE ELECTRIC SYSTEM. ALBION D. T. LIBBY, Elyria, Ohio, assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Jan. 28, 1910. Serial No. 540,572. (Cl. 179—5.)



1. In a composite system consisting of a combined police and telephone system, the combination of a main station and a plurality of substations, conductors connecting said stations, telephone instruments connected to two of said conductors and adapted to be operated thereover, low-resistance non-inductive lamp signals at said substations, non-inductive means for connecting said lamps in circuit with said telephone conductors, said lamps operating thereover, a source of current adapted to be connected in circuit with said telephone conductors to actuate said signals and means for automatically disconnecting said source when response is made at a signaled substation.

2. In a composite system consisting of a combined police and telephone system, the combination of a main station and a plurality of substations, conductors connecting said stations, telephone instruments connected to two of said conductors and adapted to be operated thereover, lamp signals at said substations, means for connecting said lamps in circuit with said telephone conductors, said lamps operating thereover, a source of current, means for connecting said source in circuit with said telephone lines and said signals, and means for automatically interrupting said connection when response is made at a signaled station, said means operating before the telephone at that station is connected in circuit with said conductors.

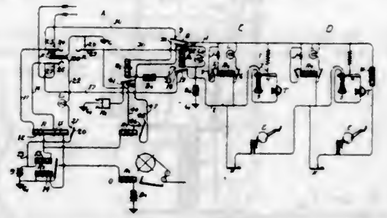
3. In a composite system consisting of a combined police and telephone system, the combination of a main station and a plurality of substations, conductors connecting said stations, telephone instruments connected to two of said conductors and adapted to be operated thereover, lamp signals at said substation, means for connecting said lamps in circuit with said telephone conductors, said lamps operating thereover, a source of current for operating said signals, means for connecting said source in circuit with said telephone conductors and said signals, and means for disconnecting said source from said conductors before the telephone instrument at a substation is connected in circuit therewith.

4. In a composite system, consisting of a combined police and telephone system, the combination of a main station and a plurality of substations, conductors connecting said stations, telephone instruments at said substations connected to two of said conductors, lamp signals at said substations, a source of current adapted to operate said lamp signals, means for connecting said source in circuit with said telephone conductors, a normally open shunt of said conductors and means to automatically close said shunt when response is made at a signaled substation, the closure of said shunt occurring before the telephone instrument is connected to the line and operating to cause disconnection of said source from said conductors.

5. In a composite system consisting of a combined telephone and police system, the combination of a main station, a plurality of substations, conductors connecting said stations, telephone instruments operating over a pair of said conductors, a police signaling system operating in phantom over said conductors and low resistance non-inductive lamp signals at said substations adapted to be connected in circuit with said telephone conductors and to be operated thereover.

[Claims 6 to 13 not printed in the Gazette.]

1,137,152. COMPOSITE ELECTRIC SYSTEM. ALBION D. T. LIBBY, Elyria, Ohio, assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed Jan. 28, 1910. Serial No. 540,573. (Cl. 179—5.)



1. In a composite system consisting of a combined police and telephone system, the combination of a main station, a plurality of substations, a pair of conductors connecting said stations, telephone instruments adapted to be connected in circuit with said conductors, police signaling and receiving apparatus connected in a series circuit with said conductors, lamp signals, and means for connecting said signals in circuit with said conductors, said means under control of the attendant at the main station.

2. In a composite system consisting of a combined telephone and police system, the combination of a main station, a plurality of substations, a pair of conductors connecting said stations, telephone instruments adapted to be connected to said conductors, signals at said stations, means for connecting said signals to said conductors, police signal sending and recording apparatus operating over said conductors, a condenser in circuit with said means, said means operable by an impulse of current through the circuit of said condenser and when so operated adapted to shunt said condenser.

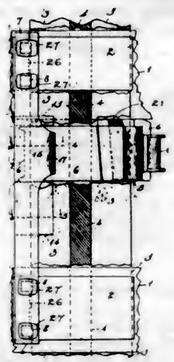
3. In a composite system, consisting of a combined police and telephone system, the combination of a main station, a plurality of substations, conductors connecting said stations, telephone instruments adapted to be connected to said conductors, police signal sending and receiving apparatus operating over said conductors, signals at said stations adapted to be connected to and to be operated over said conductors, relays controlling the circuit of said signals, a condenser in circuit with each relay, each relay adapted to be actuated by an impulse of current and when so actuated, shunting said condensers.

4. In a composite system, consisting of a combined police and telephone system, the combination of a main station, a plurality of substations, a pair of conductors connecting said stations, telephones adapted to be connected to said conductors, police signal sending and receiving apparatus operating over said conductors, signals at the substations adapted to be connected to said conductors, means operable over said conductors controlling said signals, the circuit of said means being impervious to a continuous current, and means to render said circuit permeable to such currents.

5. In a composite system consisting of a combined police and telephone system, the combination of a main station, a plurality of substations, conductors connecting said stations, said conductors being common to a telephone and a police signaling system, signals at said substations, relays operable over said conductors controlling said signals, the circuits being impervious to a continuous current, said relay adapted to be energized by an impulse of current through said conductor and when so energized operating to render its circuit permeable to continuous currents.

[Claims 6 to 13 not printed in the Gazette.]

1,137,153. LOCK FOR TIES, TIE-PLATES, RAILS, AND RAIL-ANCHORS. CARL AMEL LIND, Malden, Ill., assignor of one-fourth to William A. Thornton and one-fourth to Harry M. Richards, Galesburg, Ill. Filed Nov. 17, 1913. Serial No. 801,513. (Cl. 238—4.)



1. In combination, a railway rail, a tie to which it is secured, a rail-anchor comprising transversely interwedging members, and separate means securable to a tie and adapted to engage one of said interwedging members for preventing said rail-anchor from bodily lateral movement.

2. A rail-anchor lock having a pocket in which one end portion only of a rail-anchor is adapted to be seated, and a lip overhanging said pocket.

3. In combination with a railway tie and a railway rail, a rail-anchor clip, a rail-anchor mate adapted for transverse wedging engagement therewith, and a plate securable to said tie for locking said clip and thereby said mate relatively to the tie.

4. In combination, a railway rail, a plural member rail-anchor adapted to grip it, and means substantially embracing one member of said anchor to prevent lateral movement thereof.

5. In combination with a railway tie, a rail thereon, a rail-anchor engaging said rail and adapted to abut said tie to restrain the anchor comprising interlocking members from movement theretoward as the rail tends to move in that direction, and means for restraining the anchor from movement in the opposite direction.

[Claims 6 to 15 not printed in the Gazette.]

1,137,154. VEHICLE WHEEL CONSTRUCTION. EMIL O. LINDNER, Brooklyn, N. Y., assignor of one-half to John Jenchen, New York, N. Y. Filed July 16, 1914. Serial No. 851,237. (Cl. 21—151.)

1. A wheel construction, comprising a fixed axle having a spindle, opposite side hub members radially movable on said spindle, a main wheel member mounted on said hub members and rotatable thereon, and a supplemental inner wheel member mounted on said spindle and inclosed by said hub members and the main wheel member.

2. A wheel construction, comprising a fixed axle having a spindle, opposite side hub members radially movable on said spindle, a main wheel member mounted on said hub members and rotatable thereon, and a supplemental inner wheel member mounted on said spindle and inclosed by said hub members and the main wheel member, said main wheel member being provided within the outer portion thereof with a flexible tube on which the inner supplemental wheel member is adapted to bear.

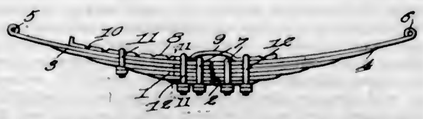


3. A wheel construction, comprising a fixed axle having a spindle, opposite side hub members radially movable on said spindle, a main wheel member mounted on said hub members and rotatable thereon, and a supplemental inner wheel member mounted on said spindle, said main wheel member being provided within the outer portion thereof with a flexible member on which the inner supplemental wheel member is adapted to bear.

4. A wheel construction, comprising a fixed axle having a spindle, opposite side hub members radially movable on said spindle, a main wheel member mounted on said hub members and rotatable thereon, a supplemental inner wheel member mounted on said spindle, said main wheel member being provided within the outer portion thereof with a flexible member on which the inner supplemental wheel member is adapted to bear, and means for holding said flexible member in place.

5. A wheel construction, comprising a fixed axle having a spindle, opposite side hub members radially movable on said spindle, a main wheel member mounted on said hub members and rotatable thereon, and a supplemental inner wheel member mounted on said spindle, said main wheel member being provided on its outer face portion with a flxible member.

1,137,155. SPRING-REPAIR MEANS. JOHN LOCK, Silver City, N. Mex. Filed Aug. 21, 1914. Serial No. 857,909. (Cl. 21—50.)



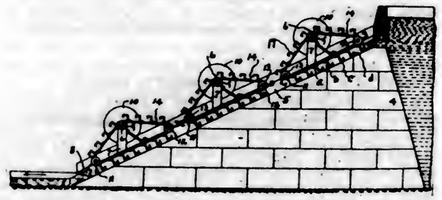
1. An elliptical spring repair comprising in combination, a repair device comprising rigid repair bars one of which is provided with a loop for adjustable projection therethrough of one end of the other bar to dispose said bars in overlapping relation and permit of extension or contraction of said device, said looped terminal being proportioned to hold the overlapping bars against lateral separation with respect to each other upon thrust applied in one direction, and devices disposed in spaced relation along said device and spring for binding the former on the latter, substantially as described.

2. In a device for repairing elliptical springs, an elongated repair device extensible in the direction of its length and shaped to lie along the spring to be repaired and extending in opposite directions from the point of break of the spring, and clip devices for clamping said repair device on said spring, substantially as described.

3. As a means for repairing a broken elliptical spring, rigid bars slidably jointed for extending or contracting the same and shaped to lie along the spring to be repaired, and devices for clamping said bars to said spring at points opposite the joint connection of said bars, substantially as described.

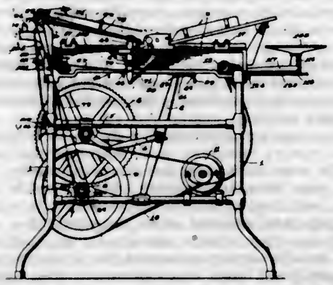
4. As a means for repairing a broken elliptical spring, rigid bars shaped to lie along the spring to be repaired with their adjacent ends in overlapping relation, and devices for clamping said bars to said spring at points on opposite sides of such overlapping point, substantially as described.

1,137,156. POWER MECHANISM FOR DAM-SPILLWAYS. JAMES M. MAHER, Fremont, Nebr. Filed Apr. 6, 1914. Serial No. 829,743. (Cl. 170—89.)



Mechanism for the purpose described, comprising, in combination with an inclined chute, a series of carriers disposed at longitudinal intervals of the chute consisting of a plurality of parallel shafts in suitable bearings disposed adjacent to and transversely of the chute, each being provided with sprocket wheels, sprocket chains carried by said wheels, a plurality of blade-members each consisting of a rectangular sheet bent transversely to provide a flat base and an extension of L-shape in cross-section, a plurality of bearing-plates each being secured upon the base of a blade-member, each blade-member and bearing-plate being disposed parallel with said shafts, and a single pivot member traversing each blade member near each of its terminals for engagement with each sprocket chain.

1,137,157. PRINTING-MACHINE. JOHN F. MAHLSTEDT, Los Angeles, Cal. Filed July 29, 1913. Serial No. 781,750. (Cl. 101—34.)

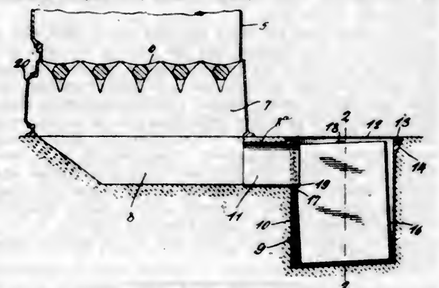


1. In a printing machine, printing means, a receiving table, means for delivering printed sheets from the printing means to said table, devices projecting up from said receiving table and movable against the edges of the sheets thereon, a sliding bar carrying one of said devices, another sliding bar carrying another of said devices, said sliding bars being at right angles to each other, a lever, one end of which is connected to one sliding bar, said lever having a rigid offset arm which engages and operates the other sliding bar, and means for rocking said lever.

2. In a printing machine, printing means, a receiving table, means for delivering printed sheets from the printing means to said table, devices projecting up from said receiving table and movable against the edges of the sheets thereon, a sliding bar carrying one of said devices, another sliding bar carrying another of said devices, said sliding bars being at right angles to each other, a lever, one end of which is connected to one sliding bar, said lever having an offset arm which engages the other sliding bar, a spring connected to said lever for moving it in one direction, said printing means embracing a rotating element, a cam carried by said rotating element, a pivoted lever with one end engaging said cam, and its other end movable against the first named lever.

3. In a printing machine, printing means, a conveyer for carrying printed sheets from the printing means, a cross bar above said conveyer, boxes slidable on the cross bar, a paper guard comprising a blade extending through each box, a follower plate within each box and a compression spring between the box and follower plate acting to hold the lower portion of the box frictionally against the cross bar and to hold said plate frictionally between the cross bar and follower plate, permitting lateral movement of the blade along the cross bar and longitudinal movement of the blade with respect to the cross bar.

1,137,158. ASH-RECEPTACLE FOR FURNACES. ALBERT B. MEYER, Chicago, Ill. Filed Feb. 13, 1915. Serial No. 8,037. (Cl. 126—242.)



1. The combination with a furnace, of an ash pit beneath the grate thereof, said pit having a passageway projecting beyond the furnace base and having therein a cavity, a lining in said cavity, said lining having a side spout extending into the passageway, a receptacle removably mounted in the cavity, within the lining, said receptacle having a side opening registering with the outlet end of the spout, and a closure for the cavity.

2. The combination with a furnace, of an ash pit beneath the grate thereof, said pit having a passageway projecting beyond the furnace base and having therein a cavity, a lining in said cavity, said lining having a side spout extending into the passageway, and the outlet end of the spout extending into the lining, a receptacle removably mounted in the cavity, within the lining, said receptacle having a side opening registering with the outlet end of the spout and receiving the said end of the spout, and a closure for the cavity.

3. The combination with a furnace, of an ash pit beneath the grate thereof, said pit having a passageway projecting beyond the furnace base and having therein a cavity, a lining in said cavity, said lining having a side spout extending into the passageway, and the outlet end of the spout extending into the lining, a receptacle removably mounted in the cavity, within the lining, said receptacle having a side opening registering with the outlet end of the spout, and receiving said end of the spout, the bottom of the lining sloping toward the side of the lining from which the spout extends, and a closure for the cavity.

1,137,159. SOLE FOR SHOES. LEROY E. MEYER, Akron, Ohio. Filed Feb. 27, 1913. Serial No. 750,962. (Cl. 36—32.)

1. A sole for shoes and the like provided around its outer edge with a kerf extending substantially parallel to the upper surface of the sole, said kerf producing an

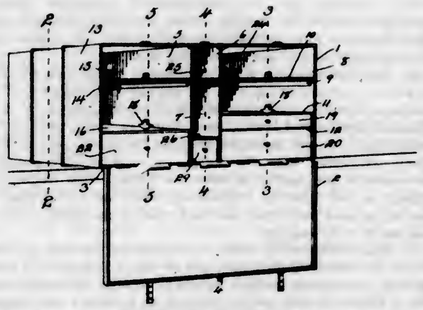
upper-attaching portion and a stitching-covering portion, and a stitching-anchoring member on the lower face of said upper-attaching portion, the stitching-covering portion being adapted to be temporarily bent away from said upper-attaching portion to permit stitching through said upper-attaching portion and anchoring member and to be united to said upper-attaching portion and anchoring member to cover said stitching and provide a uniform tread surface extending to the edge of the sole.



2. A sole for shoes formed of elastic material and comprising a main body portion having top and tread surfaces and integral upper-attaching and stitching-covering portions at the edges of said sole, and a stitching-anchoring member connected to said upper-attaching portion on its under surface adjacent said stitching-covering portion, said stitching-covering portion being adapted to be bent away from said upper-attaching portion whereby to permit the upper of a shoe to be sewed to said upper-attaching portion, and said stitching-covering portion being adapted to be connected to said upper-attaching portion in a plane to continue the tread surface of said sole uninterruptedly to the edge of the same.

3. A rubber sole for shoes provided at its edge with a continuous kerf extending into the body of the sole substantially parallel to the general plane of the sole, forming an upper-attaching portion and a stitching-covering portion, and fabric, constituting a stitching-anchoring member, connected to said upper-attaching portion on the lower side thereof adjacent said stitching-covering portion and said stitching-covering portion being adapted to be temporarily bent away from said upper-attaching portion and further adapted to be connected to said upper-attaching portion, said stitching-covering portion being adapted, when connected to said upper-attaching portion, to continue the tread surface of said sole to the extreme edge thereof.

1,137,160. SANITARY LUNCH-BOX. LYDIA MONTGOMERY, Colville, Wash. Filed Apr. 1, 1914. Serial No. 828,696. (Cl. 206—4.)

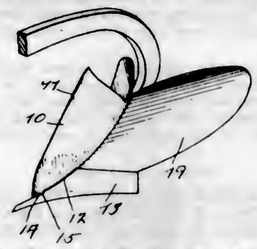


1. In combination, a lunch box provided with a compartment, a removably supported shelf slidably supported in said compartment, means for not only detachably securing said shelf supported in the compartment, but for holding the shelf in different adjusted positions, and interchangeable receptacles having detachable threaded connections with said shelf.

2. In combination, a lunch box provided with a compartment, a removably supported shelf adjustably connected in said compartment, said shelf having secured thereto a plurality of members provided with interiorly threaded flanges, each flange being threaded to threads formed upon closed ends of the jar, and pivoted cam latches for holding the shelf in different adjusted positions.

1,137,161. [WITHDRAWN.]

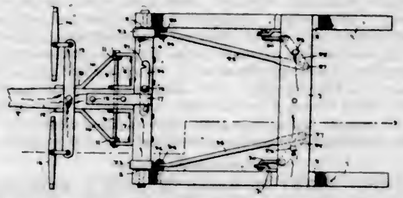
1,137,162. COLTER ATTACHMENT FOR LISTER-PLOWS. GEORGE L. MOSELY, Jacksboro, Tex. Filed July 13, 1914. Serial No. 850,742. (Cl. 97—6.)



1. A colter attachment for lister plows comprising a blade adapted to fit vertically on the upper face of the plow share adjacent the point thereof, and laterally diverging saddle portions adapted to engage the plow frog and lie between said frog and the moldboards of the plow, whereby said blade may be clamped in position.

2. A colter attachment for lister plows comprising a substantially triangular blade adapted to fit vertically on the upper face of the plow share, a lug at the forward end of said blade for engagement in an opening formed in said share, and projections extending alternately from the sides of said blade for engagement with the plow frog, said blade being held in place by clamping the projections between said frog and the moldboards of the plow.

1,137,163. BRAKE FOR SLEDS. CHARLEY OAK, Sidnaw, Mich. Filed May 2, 1914. Serial No. 835,810. (Cl. 21—46.)



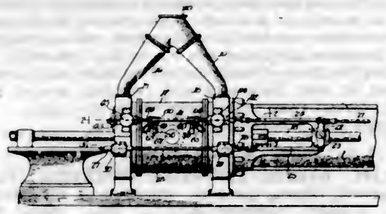
1. In a braking mechanism for sleds, a sled including a pair of runners connected with a knee and with a rotatable cross beam, a tongue pivotally mounted forward of said cross beam, an extension brace secured to the rear end of said tongue and adapted to overlie said cross beam, brackets mounted at either end of said cross beam, brake levers mounted upon the runners of the sled, and means for operatively connecting said cross beam brackets with said brake levers.

2. In a braking mechanism for sleds, a sled including a pair of runners connected by a transverse knee and by a rotatable cross beam, a tongue pivotally mounted forward of the cross beam, an extension brace secured to the rear end of said tongue and adapted to overlie said cross beam, brackets mounted upon the extremities of said cross beam, brake levers pivoted to the sled runners, means for operatively connecting the cross beam brakes with said brake levers in such manner that a backward thrust of the tongue will result in application of the brake levers and means contained upon said cross beam for use in connection with said extension brace to permit a backward thrust of the tongue thereupon without application of the brake levers.

3. In a braking mechanism for sleds, a sled including a pair of runners connected by a transverse knee and by a rotatable cross beam, a tongue pivotally mounted forward of said cross beam, an extension brace secured to said tongue and adapted to overlie said cross beam, brake levers pivoted to said sled runners, means for insuring the operation of said brake lever upon a backward thrust

of said tongue, and a latch lever pivoted to said cross beam and capable of holding said extension brace upon said cross beam to permit the backing of the sled without application of said brake levers.

1,137,164. SAFETY DEVICE FOR BLOWING-ENGINES. HENRY G. O'REILLY, Joliet, Ill. Filed Apr. 26, 1911. Serial No. 623,550. (Cl. 230—34.)



1. In a blowing engine, the combination of a cylinder, a piston working therein, an outlet valve for each end of the cylinder, an inlet valve for each end of the cylinder, a valve gear for successively opening and closing the outlet valves, means for holding closed the closed outlet valve and also for closing the other outlet valve on retrograde movement of the piston, and means for closing one of the inlet valves and opening the other inlet valve to vent the cylinder of the back pressure which reversed the movement of the piston.

2. In a blowing engine, the combination of a cylinder, a piston working therein, an outlet valve for each end of the cylinder, fluid-actuated means for successively opening the outlet valves, each fluid-actuated means being in communication with the cylinder, and means controlled by the valve gear for maintaining open the communication from the blowing cylinder to the fluid-actuated means of the open outlet valve during a predetermined movement of the piston and thereafter maintaining such communication closed and the fluid-actuated means vented.

3. In a blowing engine, the combination of a cylinder, a piston working therein, an outlet valve for each end of the cylinder, fluid-actuated devices for successively opening the outlet valves, a conduit leading from the cylinder to each fluid-actuated device, a valve gear for successively closing the outlet valves, and means actuated by the valve gear for successively opening and closing the conduits.

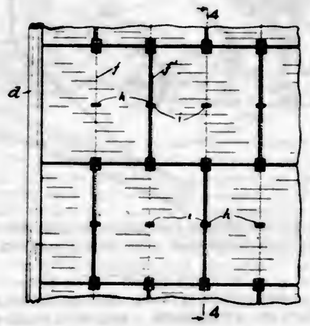
4. In a blowing engine, the combination of a cylinder, a piston working therein, an outlet valve for each end of the cylinder, a fluid-pressure device for opening each outlet valve, a conduit leading from the cylinder to each fluid-actuated device, a valve gear for successively closing the outlet valves, and means actuated by the valve gear for maintaining closed the conduit to the outlet valve which is closed and for maintaining open the conduit to the outlet valve which is open during a predetermined movement of the piston.

5. In a blowing engine, the combination of a cylinder, a piston working therein, an outlet valve for each end of the cylinder, a fluid-actuated device for opening each outlet valve, a conduit leading from the cylinder to each fluid-actuated device, a valve in each conduit, said valve having a vent opening to the atmosphere when the valve is closed, and means actuated by the valve gear for opening and closing the conduit valves.

[Claims 6 to 14 not printed in the Gazette.]

1,137,165. FIREPROOF PARTITION. HAROLD K. PAXSON, Cynwyd, and ELMENDORF J. HEDDEN, Bala, Pa. Filed July 9, 1914. Serial No. 849,913. (Cl. 72—46.)

1. A partition comprising boards arranged in rows in which the boards of one row break joint with the boards of an adjacent row, external supporting and reinforcing wires spanning the rows and each extending over one side of a board of one row and alining with the joint between two boards of an adjacent row, said wire extending through said joint from one side to the other of the partition, and means to fasten each wire to hold it in the position specified.



2. A partition comprising boards arranged in rows in which the boards of one row break joint with the boards of an adjacent row, external supporting and reinforcing wires spanning the rows and each extending over one side of a board of one row, thence through the joint between two boards of the next row from one side to the other of the partition, thence back through the same joint to the first named side of the partition, and thence over the side of a board in the next row, and means to fasten the wires in the relation specified.

3. A partition comprising boards arranged in rows, there being a number of boards in each row, external supporting and reinforcing wires each of which extends along the partition and alines with a joint between boards and extends through said joint from one side of the partition to the other and crosses a joint between boards extending at right angles to the first joint, and securing devices spanning each wire and arranged on opposite sides of the second joint.

4. A partition comprising boards and external supporting and reinforcing wires each of which extends along the partition and from one side thereof to the other and through joints between the boards, a series of washers each of which spans a joint and lies under a wire and engages the two boards on opposite sides of the joint, and securing wires extending through the boards and over the washers.

5. A partition comprising boards and external supporting and reinforcing wires each of which overlies one side of a board and thence extends between the joints of two adjacent boards from one side of the partition to the other, washers lying between the board and the wires where the latter overlie the sides of the boards and other washers spanning said joints and lying under the wires.

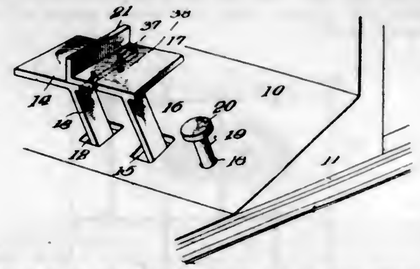
[Claims 6 and 7 not printed in the Gazette.]

1,137,166. PEDAL CONTROL FOR AUTOMOBILES. ROBERT T. PEIRCE, Newport News, Va. Filed May 15, 1914. Serial No. 838,799. (Cl. 74—81.)

1. In a self-propelled vehicle, the combination with a clutch operating mechanism and a brake operating mechanism, of a clutch pedal and a brake pedal operatively connected to such mechanisms and each having a foot piece, the foot piece of the brake pedal partially overlapping the foot piece of the clutch pedal, that edge of the foot piece of the brake pedal overlapping the foot piece of the clutch pedal having an upstanding flange.

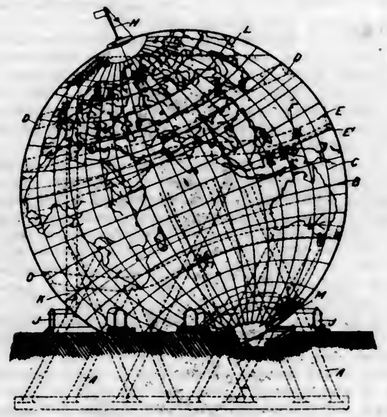
2. In a self-propelled vehicle, the combination with a clutch pedal and a brake pedal, of a foot piece carried by the clutch pedal, a second foot piece carried by the brake pedal and bridging the space between the pedals, one edge of the second foot piece overlapping the adjacent

edge of the other foot piece, such edges being co-extensive, and an upstanding flange formed upon the overlap-



ping edge of the second foot piece to prevent slipping of the foot from either foot piece onto the other.

1,137,167. STRUCTURE FOR EDUCATIONAL AND RECREATIVE PURPOSES. FRANK ANDREWS PRIDMORE, London, England. Filed May 28, 1914. Serial No. 841,630. (Cl. 104—111.)



1. In a structure for educational and recreative purposes, the combination of a supporting framework, a substantially spherical casing therefor comprising transparent sections representing the oceans and seas and opaque sections representing the continents and islands of the world, a corridor extending around the sphere immediately within said casing, and a wall adjacent to the inner side of said corridor, for the purpose described.

2. In a structure for educational and recreative purposes, the combination of a supporting framework, a spherical casing therefor having transparent sections representing the oceans and seas and opaque sections representing the continents and islands, the axis of said casing being inclined to represent the poles of the earth, and a sinuous corridor extending from top to bottom of the sphere immediately within the casing, and a wall adjacent to the inner side of said corridor, for the purpose described.

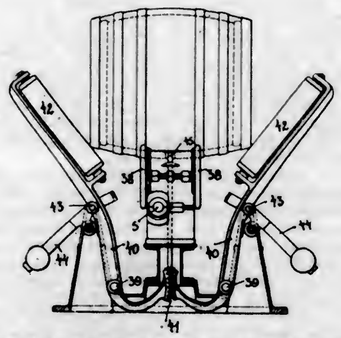
3. In a structure for educational and recreative purposes, the combination of a supporting framework, a spherical casing therefor having transparent sections representing the oceans and seas, opaque sections representing the continents and islands, and an inclined axis representing the poles of the earth, a sinuous corridor extending from top to bottom of the sphere immediately within the casing, and a chamber below the South Pole, for the purpose described.

4. In a structure for educational and recreative purposes, the combination of a supporting framework of spherical outline, and a substantially spherical casing for said framework comprising transparent sections representing the oceans and seas and opaque sections representing the continents and islands of the world, the girders of said framework being arranged to indicate the lines of longitude and latitude.

5. In a structure for educational and recreative purposes, the combination of a supporting framework of spherical outline, a substantially spherical outer casing for said framework comprising transparent material to represent the oceans and seas and opaque material to represent the continents and islands of the world, the longitudinal and transverse girders of said supporting framework indicating the lines of longitude and latitude, and a track carried by said framework and extending around the sphere several times immediately within the casing.

[Claim 6 not printed in the Gazette.]

1,137,168. BARREL-ADJUSTING APPARATUS. PAUL ROMBERG, Leipzig, Germany. Filed Aug. 4, 1910, Serial No. 575,558. Renewed Sept. 2, 1914. Serial No. 859,919. (Cl. 141—6.)



1. In a barrel adjusting apparatus the combination of a barrel receiving device and adjusting guides symmetrically placed with regard to said device and intersecting the side edges of the path of the barrel thereto.

2. In a barrel adjusting apparatus the combination with a barrel receiving device comprising barrel revolving rollers and means for rotating them, of adjusting guide rollers located obliquely symmetrically with regard to the receiving device and movable to and from the same.

3. In a barrel adjusting apparatus the combination of a barrel receiving device and adjusting guide rollers similarly movable to and from said device and intersecting the side edges of the path of the barrel thereto, said adjusting guide rollers being under tension tending to move said guide rollers toward one another.

4. In a barrel adjusting apparatus the combination of a barrel receiving device and adjusting guide rollers similarly movable to and from said device and intersecting the side edges of the path of the barrel thereto, said adjusting guide rollers being under tension tending to move said guide rollers toward one another, the tension increasing as the distance between the guide rollers increases.

5. In a barrel adjusting apparatus the combination of a barrel receiving device and bell cranks carrying adjusting guide rollers similarly movable to and from said device and intersecting the side edges of the path of the barrel thereto, the bell cranks being connected so that their symmetry is maintained during said movement.

1,137,169. COMBINED SQUARE, LEVEL, AND COMPASS. BARNET RUDOLFF, Bayonne, N. J., assignor to Fannie Dorison, Jersey City, N. J. Filed July 13, 1914. Serial No. 850,710. (Cl. 33—105.)

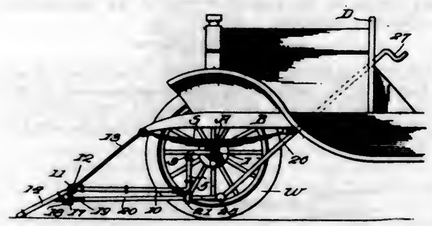
A combined square and level comprising two members of L-shape in cross section pivotally connected together at

one of their ends, and provided with recesses, extensions pivoted to said members at their free ends, latches for holding the members in extended position, said latches comprising pivoted members having projecting portions to



engage the recesses of the adjacent member, and springs for normally holding the latches in closed and in inoperative position, and screws for adjusting said latches to hold the parts in position, said extensions adapted to be inclosed between the L-shape members when folded.

1,137,170. AUTOMOBILE-FENDER. NETTIE CODTHERITA SCHAFFER, Milwaukee, Wis. Filed Dec. 3, 1914. Serial No. 875,306. (Cl. 105—253.)



1. The combination with a vehicle and a fender in advance thereof comprising a fixed section secured to the vehicle, and a movable section hinged to the front of the fixed section, of a revolubly mounted horizontal shaft extending forwardly from the vehicle and disposed beneath the fixed section, means on the rear end of the shaft for rotating the same, and connections between the front end of the shaft and the movable section, for rocking the latter around its hinges.

2. The combination with a vehicle and a fender in advance thereof comprising a fixed section secured to the vehicle, and a movable section hinged to the front of the fixed section, of a revolubly mounted shaft extending forwardly from the vehicle, means on the rear end of the shaft for rotating the same, a worm on the front end of said shaft, and a nut carried by the movable section and into which said worm is threaded, whereby to swing said section around its hinges as the shaft is rotated.

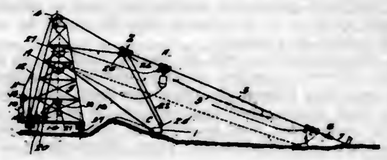
3. The combination with a vehicle and a fender in advance thereof comprising a fixed section secured to the vehicle, and a movable section hinged to the fixed section, of a bearing depending from the fixed section, a horizontal shaft revolubly mounted and held against longitudinal movement in said bearing, connections between the front end of the shaft and the movable section to adjust the latter as the shaft is rotated, and means connected to said shaft whereby it may be rotated.

4. The combination with a vehicle and a fender in advance thereof and comprising a fixed section secured to the vehicle, and a movable section hinged to the fixed section, of a pair of ears depending from the movable section, a nut pivoted between said ears, a bearing depending from the fixed section and alining with the nut, a horizontal shaft revolubly mounted in and held against longitudinal movement in said bearing, a worm on the free end of said shaft threaded into said nut, whereby rotation of said shaft will swing the movable section around its hinges, and means connected to the rear end of the shaft for rotating the same.

5. The combination with a vehicle, of a transverse bar parallel and in contact with the front axle thereof, clamps securing the bar to the axle, a fender projecting forwardly from said bar, and braces for said fender.

[Claim 6 not printed in the Gazette.]

1,137,171. EXCAVATOR. WALKER STANSELL, Memphis, Tenn. Filed June 2, 1914. Serial No. 842,392. (Cl. 214—13.)



1. The combination in an excavating apparatus with a tower and a track cable having one end anchored, of a winding drum on the tower, a sheave on the free end of the track cable, and a tension cable on the drum passed over said sheave and having a counterweight at its end whereby a uniform tension is preserved in the track cable.

2. The combination in an excavating apparatus with a gravity traveling carriage and its bucket, of a loading cable attached to the bucket and a winding drum for the cable, a dumping cable attached to the carriage and supporting the bucket and a winding drum for said cable, a winding spool for each drum, a cable passed over each spool and a weight on each cable, whereby when the carriage is traveling by gravity the weights assist in unwinding the cables from the drums.

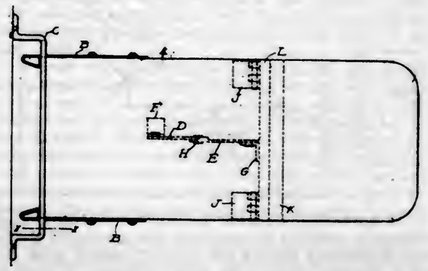
3. The combination in an excavating apparatus with a track a carriage thereon and a bucket, of a pair of winding drums, a dumping cable extending from one drum and attached to the carriage having operative connection with the bucket, a loading cable from the other drum to the bucket, a tower, and vertically adjustable supporting sheaves in the tower for said cables.

4. The combination in an excavating apparatus including a movable wheeled tower and its rack and an anchoring cable parallel with the track, a traveling device on the anchoring cable, a track cable suspended from the tower and having one end connected to the traveling device, a winding drum on the tower, a sheave on the free end of the track cable, and a tension cable on the drum passed over said sheave and having a counterweight at its end whereby a uniform tension is preserved in the track cable.

5. The combination in an excavating apparatus with a suitably supported track cable and a carriage thereon, of a bucket suspended from the carriage, an operating cable attached to the carriage, and a winding drum for said cable, a winding spool, and a weighted cable passed over the spool and drum for unwinding the operating cable from the drum.

[Claim 6 not printed in the Gazette.]

1,137,172. IRONING-BOARD. WILLIAM W. STEWART, Muscatine, Iowa. Filed Mar. 24, 1913. Serial No. 756,573. (Cl. 68—10.)

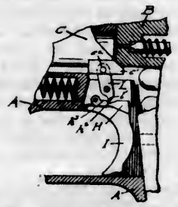


1. The combination with an ironing board of an apertured supporting member, means for attaching said board to said supporting member including oppositely facing spring members attached to and projecting beyond the

ends of the board, and having oppositely facing beveled catches on their ends adapted to be simultaneously first sprung apart upon engagement of the beveled catch with the apertured supporting member and then to return to normal position to detachably lock the board in place substantially as described.

2. The combination with an ironing board, of an apertured supporting member, resilient members attached to and projecting beyond the end of the board, and adapted to be first sprung apart upon engagement with the apertured support and then to return to normal position to detachably lock the board in place, substantially as described.

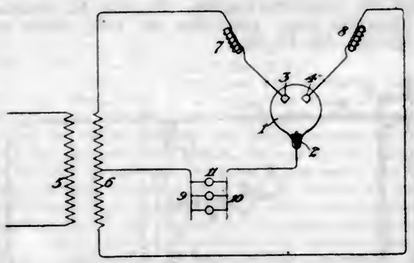
1,137,173. AUTOMATIC SELF-LOADING PISTOL. HENRY H. TALBOT, St. Joseph, Mo. Filed Jan. 8, 1914. Serial No. 810,924. (Cl. 42—4.)



1. The combination in a magazine pistol with a frame, a recoiling barrel, a trigger and a trigger lock, of a link pivoted at the upper end thereof to said recoiling barrel, a cam on the lower end of said link impinging on and coacting with a plane on the upper surface of said trigger lock to depress said lock when the barrel recoils.

2. The combination in a magazine pistol with a frame, a recoiling barrel and a trigger, of a link pivoted at its upper end to the recoiling barrel, a cam on the lower end of said link, a trigger lock immediately above the trigger and pivoted at its front end in the frame, a rearwardly extended shank, a plane on the upper surface of said lock, a notch in the upper surface of said shank providing a seat for the cam, a rearwardly and downwardly inclined surface bearing at the rear end of the lower face of said shank on a similarly inclined surface on the trigger, said cam impinging on and co-acting with the plane on said trigger lock to depress said lock when the barrel recoils.

1,137,174. ELECTRICAL DISTRIBUTION SYSTEM. PERCY H. THOMAS, East Orange, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed July 6, 1904. Serial No. 215,535. (Cl. 171—253.)



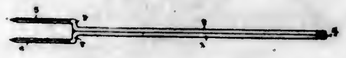
1. In a system of electrical distribution wherein a vapor converter is employed in connection with a source of single-phase alternating current and a direct current work circuit is supplied through the vapor converter, a negative electrode in the converter and a plurality of positive electrodes, and energy storing devices in the leads to the positive electrodes whereby the converter is maintained in operative condition.

2. The combination with a source of single-phase current and a work circuit supplied thereby, of a vapor converter unable of itself to maintain operation over the zero point of the supply unless means are provided for carrying it over the natural zero point, a plurality of positive electrodes and a negative electrode in the said converter and energy storing devices in the leads to the positive electrodes for preventing the extinguishment of the converter at the zero point.

3. In a system of electrical distribution, a source of alternating current, a direct current work circuit supplied therefrom, an interposed vapor converter having a suitable negative electrode and a plurality of positive electrodes, and an inductance introduced into each of the leads to a plurality of the positive electrodes for the purpose of maintaining the converter in operative condition.

4. In a system of electrical distribution, a source of alternating current, a direct current work circuit supplied therefrom, an interposed vapor converter and a positive electrode therefor, and an energy storing device in the lead thereto for the purpose of maintaining the converter in operative condition.

1,137,175. CAN-OPENER. HENRY G. WERNIMONT, Washington, D. C., assignor, by mesne assignments, to William Rauen, Chicago, Ill. Filed May 6, 1913, Serial No. 765,797. Renewed Sept. 16, 1914. Serial No. 862,104. (Cl. 30—3.)

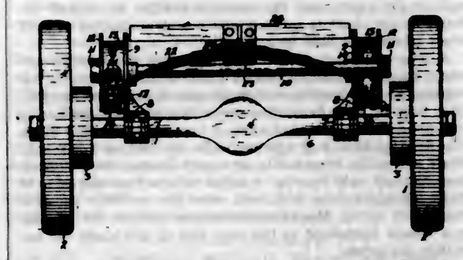


1. A can opener formed of a single piece of sheet metal and having a handle section and a pair of integral cutting blades, and means integral with said handle to lie in opposed relation to each other adapted to be bent between the blades for holding the same in spaced relation with each other.

2. A cutting tool comprising a handle portion formed of a single piece of sheet metal bent upon itself substantially along its medial line, a pair of cutting blades formed upon one end of the handle portion, and integral extensions on the handle, said extensions bent between the blades for holding the same in spaced relation with each other.

3. The herein described cutting tool comprising a handle portion formed of sheet metal bent upon itself substantially along its median line, and a pair of cutting members formed upon one end of the handle portion and held parallel with each other by an integral extension from the handle.

1,137,176. RESILIENT SUPPORT FOR VEHICLE-BODIES. WILLIAM G. WOOD, Sacramento, Cal. Filed Nov. 28, 1913. Serial No. 803,360. (Cl. 21—50.)



1. Resilient means for supporting a vehicle body upon wheels, comprising, at each side of the vehicle, a ring, and a bar passing through the ring, one of said elements being supported by the wheels and the other supporting the vehicle body, an annular pneumatic tube within the ring

and around the bar and coaxial therewith, and plates secured to the bar on opposite sides of the ring, and in slidable contact therewith.

2. Resilient means for supporting a vehicle body upon wheels comprising, at each side of the vehicle, a ring, and a bar passing through the ring parallel with, and spaced from the wheel axle, one of said elements being supported by the wheels and the other supporting the vehicle body, an annular pneumatic tube within the ring and around the bar and coaxial therewith, and plates secured to the bar on opposite sides of the ring, and in slidable contact therewith.

1,137,177. LOCKING DEVICE FOR ELECTRIC LAMPS. HENRY TOWNSEND WORRALL, Chelmsford, England. Filed Dec. 26, 1913. Serial No. 808,763. (Cl. 176—31.)



1. A lamp having a cap comprising upper and lower detachably connected sections, a plug provided with contacts and a locking cylinder arranged in said upper section, the filaments of said lamp extending through said lower section and secured at their ends to said contacts, in combination with a socket provided with contacts and a locking shaft for engagement with said plug contacts and locking cylinder respectively, said locking means being capable of being released only upon separation of said upper and lower members, substantially as described.

2. In a device of the class described, a lamp provided with a cap formed of upper and lower detachably connected sections, said upper section having a plug provided with a central opening and electrical contacts, a pair of conductors connecting to said contacts and passing through said lower section to said lamp, in combination with a socket provided with electrical contacts and an outwardly extending centrally disposed locking shaft for engagement with said plug contacts, and said opening respectively, the said locking shaft being capable of being released only upon separation of said upper and lower members, and the sides of said cap and socket being provided with cooperating indents for properly aligning said contacts and preventing rotation of said lamp and socket, substantially as described.

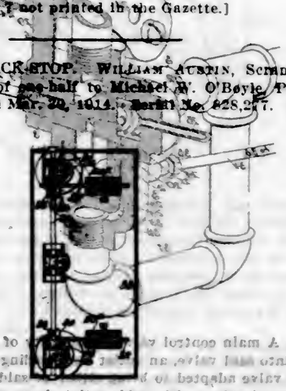
3. In a device of the class described, the combination of a lamp and socket, said lamp being provided with a cap formed of upper and lower detachable sections, said upper section having a plug provided with contacts and a centrally disposed locking cylinder communicating with said lower section, the filaments of said lamp extending through said lower section and connected to said contacts, said socket being provided with contacts and an outwardly extending shaft, said shaft being adapted to be extended through said cylinder and having spring shoulders at its outer end for snapping engagement behind said plug, and means for securing said upper and lower sections together, substantially as described.

4. In a device of the class described, the combination of a lamp and a socket, said lamp being provided with a cap comprising upper and lower separable sections, said upper section having a plug provided with contacts, current conductors, connected to said contacts and passing within said lower section to said lamp, means for securing said upper and lower sections together, contacts on said socket for engagement with the contacts on said plug when the said cap is inserted within said socket, and coöperating means within said socket and lamp for holding the same together, the said means being accessible for releasing the socket and lamp only upon separation of said upper and lower members, substantially as described.

5. In a device of the class described, a lamp and a socket, said lamp having the usual current conductors and being provided with a cap adapted to fit within said socket, said cap comprising a pair of interlocking separable sections, one of said sections being provided with a centrally disposed locking cylinder and also a pair of contacts to which the ends of said current conductors are secured, and the other of said sections being secured at one end to said lamp and supporting said first named section at its opposite end spaced from said lamp, said socket having contacts and a centrally disposed outwardly extending locking shaft for coöperation with the contacts and locking cylinder respectively of said first named section, the said shaft and locking cylinder being so arranged as to be capable of being released from engagement with each other only upon separation of said sections, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,137,178. TRACK-STOP. WILLIAM AUSTIN, Scranton, Pa., assignor of one-half to Michael W. O'Boyle, Pittston, Pa. Filed Mar. 20, 1914. Serial No. 826,247. (Cl. 246—59.)



1. In a track stop, supporting standards, bearings carried thereby, a substantially U-shaped stop arm journaled in said bearings and adapted to gravitate to the horizontal or active position and an electromagnetic holding mechanism adapted when energized to hold said arm in its safety position.

2. In a track stop, supporting standards, bearings carried thereby, a substantial U-shaped stop arm journaled in said bearings and adapted to gravitate to the horizontal or active position and an electromagnetic holding mechanism adapted when energized to hold said arm in its safety position, and a water shed housing supported on said standards to completely house said arm while in its safety position.

3. A track stop comprising a pair of tubular standards, bearing boxes carried thereby, bearings within said boxes, a substantially U-shaped stop arm having journals in said bearings and adapted to gravitate to the horizontal or active position, a crank arm connected with said stop arm, a solenoidal magnet and its armature mounted within one of the tubular standards, and a connection between said armature and said crank arm for holding said arm in its retracted or safety position when said solenoidal magnet is energized.

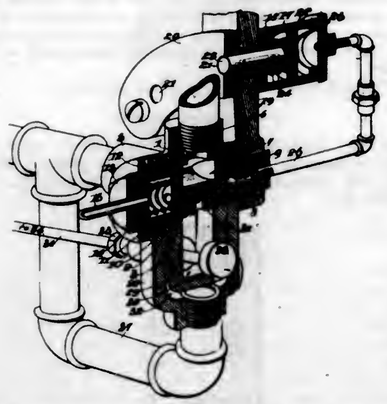
4. In a track stop, a supporting structure including a pair of columns spaced apart, said columns having bearings, a stop arm, a shaft therefor having its ends journaled in said bearings, a crank on said shaft, said columns including extensions having bearings, a counter-shaft journaled in said last named bearings, cranks on

said counter shaft, a connection between one of said first mentioned shaft cranks and one of said counter-shaft cranks, and a holding solenoid magnet and an armature operatively connected with another of said counter-shaft cranks.

5. A track stop comprising a supporting structure, columns depending therefrom and having bearings, a shaft journaled in said bearings, a stop arm on said shaft, a counter-shaft, an operative connection between said shafts, operating magnets and their armatures, and operating connections between said armatures and said counter-shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,137,179. VALVE MECHANISM FOR AIR-BRAKE SYSTEMS. WILLIAM AUSTIN, Scranton, Pa., assignor of one-half to Michael W. O'Boyle, Pittston, Pa. Filed Mar. 30, 1914. Serial No. 828,280. (Cl. 188—1.)



1. A main control valve, a plurality of inlet ducts leading into said valve, an outlet duct leading from said valve, said valve adapted to bring either of said inlet ducts into communication with said outlet duct, according to the position of said valve, a valve moving lever, a quadrant, and fluid pressure operated means mounted on said lever for locking said lever and quadrant together during the time a fluid under pressure is passing through said valve.

2. A main control valve, a plurality of inlet ducts leading into said valve, an outlet duct leading from said valve, said valve adapted to bring either of said inlet ducts into communication with said outlet duct, according to the position of said valve, a valve moving lever, a quadrant, means for locking said lever and quadrant together during the time a fluid under pressure is passing through said valve, said means including a cylinder and piston-detent carried by said lever and adapted to engage said quadrant, and a duct for conveying a portion of the fluid which passes through the valve into said cylinder against said piston to bring said detent into locking engagement with said quadrant.

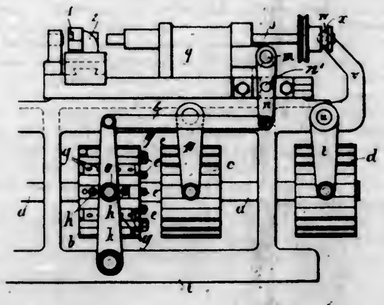
3. A main control valve, a plurality of inlet ducts leading into said valve, an outlet duct leading from said valve, said valve adapted to bring either of said inlet ducts into communication with said outlet duct, according to the position of said valve, a valve moving lever, a quadrant, means for locking said lever and quadrant together during the time a fluid under pressure is passing through said valve, said means including a cylinder and piston-detent carried by said lever and adapted to engage said quadrant, a duct for conveying a portion of the fluid which passes through the valve into said cylinder against said piston to bring said detent into locking engagement with said quadrant, and means for moving said piston to release said detent from said quadrant when the fluid pressure reaches a predetermined minimum.

4. A valve mechanism comprising a valve casing, a valve proper in the casing, fluid admission and outlet ducts for said casing, said valve proper adapted to control communication between the outlet and admission ducts according to the position of said valve proper, a chamber in said casing adjacent to the end of said valve proper, a fluid inlet duct communicating with said chamber, said valve proper having a fluid passage from said chamber to the outside of the valve proper, a valve moving lever, a piston mounted in said lever, a duct connecting said piston and the fluid passage of said valve proper, a detent-piston in said cylinder adapted to be moved in one direction by fluid pressure, means for moving said piston in the opposite direction when said fluid pressure is released, a quadrant, said quadrant having detent holes according to the positions of said lever, substantially as shown and described.

5. A valve mechanism comprising a valve casing, a valve proper in the casing, fluid admission and outlet ducts for said casing, said valve proper adapted to control communication between the outlet and admission ducts according to the position of said valve proper, a chamber in said casing adjacent to the end of said valve proper, a fluid inlet duct communicating with said chamber, said valve proper having a fluid passage from said chamber to the outside of the valve proper, a valve moving lever, a cylinder mounted on said lever, a duct connecting said cylinder and the fluid passage of said valve proper, a detent-piston in said cylinder adapted to be moved in one direction by fluid pressure, means for moving said piston in the opposite direction when said fluid pressure is released, a quadrant, said quadrant having detent holes according to the positions of said lever, and connections between said outlet of said valve casing and said casing chamber for conveying a portion of the discharge fluid to said chamber to thereby pass to said cylinder and operate said detent-piston.

[Claims 6 to 9 not printed in the Gazette.]

1,137,180. DRIVING MECHANISM FOR THE MOVING PARTS OF AUTOMATIC AND SEMI-AUTOMATIC MACHINE-TOOLS. ANDRÉ BECHLER, Moutier, Switzerland. Filed Dec. 22, 1914. Serial No. 878,530. (Cl. 29—53.)



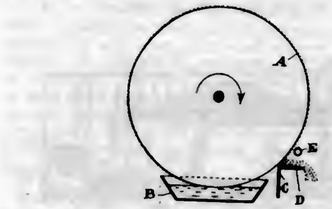
1. Driving mechanism for the moving parts of automatic and semi-automatic machine tools, comprising a tool supporting member, a stop supporting member independent thereof, stops mounted on said stop supporting member, means for imparting to said stop-supporting member a straight-line reciprocating motion, and means for imparting to said stop-supporting member a motion, independent of said straight line reciprocating motion, for the purpose of bringing another stop into the working position.

2. Driving mechanism for the moving parts of automatic and semi-automatic machine tools, comprising a stop-supporting member, stops mounted thereon, means for imparting to said stop-supporting member a straight-line reciprocating motion, and means for imparting to said stop-supporting member, a motion independent of said straight-line reciprocating motion, for the purpose of bringing another series of stops, into the working position and means for imparting the movement of said stops to the moving parts to be actuated.

3. Driving mechanism for the moving parts of automatic and semi-automatic machine tools, comprising a stop-supporting drum, stops mounted thereon, means for imparting to said stop-supporting member a straight-line reciprocating motion, and means for imparting to said stop-supporting member, a motion independent of said straight-line reciprocating motion for the purpose of bringing another series of stops into the working position and means for imparting the movement of said stops to the moving parts to be actuated, adjusting screws for adjusting the position of the stops on the supporting member, a shaft movable in the axial direction, said stop-supporting drum being rigidly mounted thereon.

4. Driving mechanism for the moving parts of automatic and semi-automatic machine tools, comprising a stop-supporting drum, stops mounted thereon, means for imparting to said stop-supporting member a straight-line reciprocating motion, and means for imparting to said stop-supporting member, a motion independent of said straight-line reciprocating motion for the purpose of bringing another series of stops into the working position and means for imparting the movement of said stops to the moving parts to be actuated, adjusting screws for adjusting the position of the stops on the supporting member, a shaft movable in the axial direction, a plurality of stop-supporting drums being rigidly mounted thereon, each of said drums being adapted to actuate one of the moving parts to be actuated.

1,137,181. PROCESS OF SIMULTANEOUSLY SCRAPING OFF AND GRANULATING SUBSTANCES. OLAF BERG, Rjukan, Norway, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed July 9, 1914. Serial No. 849,967. (Cl. 83—91.)



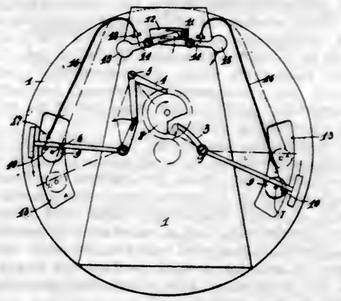
1. In the method of granulating material of the character described which consists in drying and hardening the material in a thin sheet on a moving surface, causing the material to be scraped and deflected from said surface thereby changing its direction of movement as it leaves said surface and to simultaneously break it from the sheet on said surface in flakes, and immediately thereafter forcing the material to again change its direction of movement and thereby breaking up the flakes.

2. In the method of granulating material of the character described which consists in drying and hardening the material in a thin sheet on a moving surface, causing the material to be scraped and deflected from said surface thereby changing its direction of movement as it leaves said surface and to simultaneously break it from the sheet on said surface in flakes, immediately thereafter changing the direction of movement of the flaked material by crowding the latter against a directing surface at an angle to the direction of movement of the flaked material sufficient to cause the granulation of the flakes.

3. The method of granulating material of the character described, which consists in drying and hardening the material in a thin sheet on a moving surface, scraping the surface to remove the hardened material in flakes, causing the flakes to collect at the point of removal on a directing surface positioned at an angle to the drying surface, thereby causing a compression of the flakes sufficient to granulate the latter.

4. The method of granulating material of the character described, which consists in drying and hardening the material in a thin sheet on a moving surface, scraping the surface to remove the hardened material in flakes, causing the flakes to collect at the point of removal on a directing surface positioned at an angle to the drying surface, thereby causing a compression of the flakes sufficient to granulate the latter, and subjecting the granulated material to a current of air.

1,137,182. DIAL-MOVING MECHANISM FOR CLOCKS. JEANNE MARGUERITE BLANCHARD, Bordeaux, France. Filed July 9, 1914. Serial No. 849,949. (Cl. 58—128.)



1. In dial moving mechanism for clocks, the combination of a fixed dial, a rotary dial coaxial therewith, means for imparting a rotary movement to said rotary dial in a reverse direction every 12 hours, a pin on said rotary dial, two pivoted tappets adapted to be respectively brought into position to prevent movement of said pin and said dial for a definite period and means for operating said tappets.

2. In dial moving mechanism for clocks the combination of a fixed dial, a rotary dial coaxial therewith, a cam rotated by the clock mechanism, pivoted and jointed detents coacting with said cam at one end and operated thereby, rollers mounted on said movable dial, pins on said rollers upon which the other ends of said detents rest, a pin on said rotary dial, two pivoted tappets adapted to be brought into position to prevent movement of said pin, and said movable dial, and flexible transmission means connecting said rollers with said tappets adapted to move said tappets to engage or release said pin by the movement of said detents.

3. In dial moving mechanism for clocks the combination of a fixed dial, a rotary dial coaxial therewith, a cam rotated by the clock mechanism, pivoted and jointed detents coacting with said cam at one end and operated thereby, rollers mounted on said movable dial, pins on said rollers upon which the other ends of said detents rest, a pin on said rotary dial, two pivoted tappets adapted to be brought into position to prevent movement of said pin and said movable dial, flexible transmission means connecting said rollers with said tappets adapted to move said tappets to engage or release said pin by the movement of said detents, and means for imparting axial movement to said rotary dial so as to bring it away from and back toward said fixed dial during its movement of rotation.

1,137,183. SELF-LOCKING SEAL. WINFRED MUDGE BROOKS, East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y., a Corporation of New York. Filed Dec. 18, 1914. Serial No. 877,984. (Cl. 70—98.)

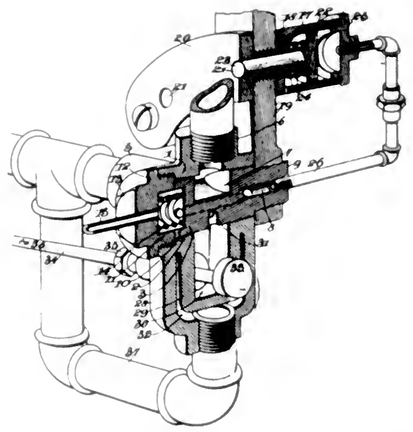
1. A self-locking seal having two interlocking portions one of which is adapted to be wrapped around the other to form a locking coil, means for insuring the fracture of

said counter shaft, a connection between one of said first mentioned shaft cranks and one of said counter-shaft cranks, and a holding solenoid magnet and an armature operatively connected with another of said counter-shaft cranks.

5. A track stop comprising a supporting structure, columns depending therefrom and having bearings, a shaft journaled in said bearings, a stop arm on said shaft, a counter-shaft, an operative connection between said shafts, operating magnets and their armatures, and operating connections between said armatures and said counter-shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,137,179. VALVE MECHANISM FOR AIR-BRAKE SYSTEMS. WILLIAM AUSTIN, Scranton, Pa., assignor of one-half to Michael W. O'Boyle, Pittston, Pa. Filed Mar. 30, 1914. Serial No. 828,280. (Cl. 188—1.)



1. A main control valve, a plurality of inlet ducts leading into said valve, an outlet duct leading from said valve, said valve adapted to bring either of said inlet ducts into communication with said outlet duct, according to the position of said valve, a valve moving lever, a quadrant, and fluid pressure operated means mounted on said lever for locking said lever and quadrant together during the time a fluid under pressure is passing through said valve.

2. A main control valve, a plurality of inlet ducts leading into said valve, an outlet duct leading from said valve, said valve adapted to bring either of said inlet ducts into communication with said outlet duct, according to the position of said valve, a valve moving lever, a quadrant, means for locking said lever and quadrant together during the time a fluid under pressure is passing through said valve, said means including a cylinder and piston-detent carried by said lever and adapted to engage said quadrant, and a duct for conveying a portion of the fluid which passes through the valve into said cylinder against said piston to bring said detent into locking engagement with said quadrant.

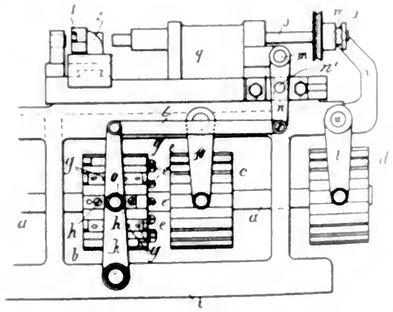
3. A main control valve, a plurality of inlet ducts leading into said valve, an outlet duct leading from said valve, said valve adapted to bring either of said inlet ducts into communication with said outlet duct, according to the position of said valve, a valve moving lever, a quadrant, means for locking said lever and quadrant together during the time a fluid under pressure is passing through said valve, said means including a cylinder and piston-detent carried by said lever and adapted to engage said quadrant, a duct for conveying a portion of the fluid which passes through the valve into said cylinder against said piston to bring said detent into locking engagement with said quadrant, and means for moving said piston to release said detent from said quadrant when the fluid pressure falls below a predetermined minimum.

4. A valve mechanism comprising a valve casing, a valve proper in the casing, fluid admission and outlet ducts in said casing, said valve proper adapted to control communication between the outlet and admission ducts according to the position of said valve proper, a chamber in said casing adjacent to the end of said valve proper, a fluid inlet duct communicating with said chamber, a valve proper having a fluid passage from said chamber to the outside of the valve proper, a valve moving piston mounted in said lever, a duct connecting said cylinder and the fluid passage of said valve proper, a detent-piston in said cylinder adapted to be moved in one direction by fluid pressure, means for moving said piston in the opposite direction when said fluid pressure is released, a quadrant, said quadrant having detent holes according to the positions of said lever, substantially as shown and described.

5. A valve mechanism comprising a valve casing, a valve proper in the casing, fluid admission and outlet ducts in said casing, said valve proper adapted to control communication between the outlet and admission ducts according to the position of said valve proper, a chamber in said casing adjacent to the end of said valve proper, a fluid inlet duct communicating with said chamber, a valve proper having a fluid passage from said chamber to the outside of the valve proper, a valve moving cylinder mounted on said lever, a duct connecting said cylinder and the fluid passage of said valve proper, a detent-piston in said cylinder adapted to be moved in one direction by fluid pressure, means for moving said piston in the opposite direction when said fluid pressure is released, a quadrant, said quadrant having detent holes according to the positions of said lever, and connections between said outlet of said valve casing and said chamber for conveying a portion of the discharge fluid to said chamber to thereby pass to said cylinder and operate said detent-piston.

[Claims 6 to 9 not printed in the Gazette.]

1,137,180. DRIVING MECHANISM FOR THE MOVING PARTS OF AUTOMATIC AND SEMI AUTOMATIC MACHINE-TOOLS. ANDRÉ BECHLÉR, Moutier, Switzerland. Filed Dec. 22, 1914. Serial No. 878,550. (Cl. 29—53.)



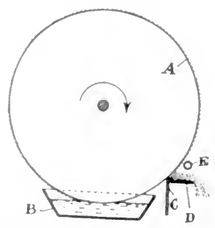
1. Driving mechanism for the moving parts of automatic and semi-automatic machine tools, comprising a stop-supporting member, a stop supporting member and stops thereof, stops mounted on said stop supporting member, means for imparting to said stop-supporting member a straight-line reciprocating motion, and means for imparting to said stop-supporting member a motion, in addition to that of said straight line reciprocating motion, for the purpose of bringing another stop into the working position.

2. Driving mechanism for the moving parts of automatic and semi-automatic machine tools, comprising a stop-supporting member, stops mounted thereon, means for imparting to said stop supporting member a straight-line reciprocating motion, and means for imparting to said stop supporting member a motion independent of said reciprocating motion for the purpose of bringing a series of stops, into the working position and imparting the movement of said stops to the parts to be actuated.

3. A mechanism for the moving parts of automatic or semi-automatic machine tools, comprising a supporting drum, stops mounted thereon, means for imparting to said stop-supporting member a straight-line reciprocating motion, and means for imparting to said supporting member a motion independent of said reciprocating motion for the purpose of bringing a series of stops into the working position and imparting the movement of said stops to the parts to be actuated, adjusting screws for adjusting the position of the stops on the supporting member, a plurality of stop-supporting drums being rigidly mounted thereon.

4. A mechanism for the moving parts of automatic or semi-automatic machine tools, comprising a supporting drum, stops mounted thereon, means for imparting to said stop-supporting member a straight-line reciprocating motion, and means for imparting to said supporting member a motion independent of said reciprocating motion for the purpose of bringing a series of stops into the working position and imparting the movement of said stops to the parts to be actuated, adjusting screws for adjusting the position of the stops on the supporting member, a plurality of stop-supporting drums being rigidly mounted thereon, each of said drums being adapted to actuate one of the moving parts to be actuated.

[illegible]. PROCESS OF SIMULTANEOUSLY SCRAPING OFF AND GRANULATING SUBSTANCES. OLAF [illegible] Rjukan, Norway, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Filed [illegible], 1914. Serial No. 849,967. (Cl. 83—91.)



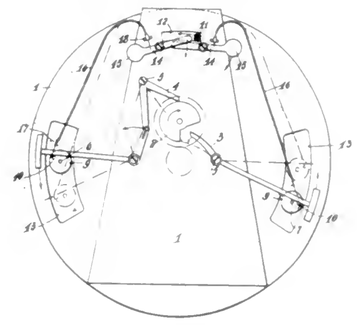
1. The method of granulating material of the character described, which consists in drying and hardening the material in a thin sheet on a moving surface, causing the surface to be scraped and deflected from said surface changing its direction of movement as it leaves the surface and to simultaneously break it from the sheet surface in flakes, and immediately thereafter forcing the material to again change its direction of movement thereby breaking up the flakes.

2. The method of granulating material of the character described which consists in drying and hardening the material in a thin sheet on a moving surface, causing the surface to be scraped and deflected from said surface changing its direction of movement as it leaves the surface and to simultaneously break it from the sheet surface in flakes, immediately thereafter changing the direction of movement of the flaked material by crowding it after against a directing surface at an angle to the direction of movement of the flaked material sufficient to cause granulation of the flakes.

3. The method of granulating material of the character described which consists in drying and hardening the material in a thin sheet on a moving surface, scraping the surface to remove the hardened material in flakes, causing the flakes to collect at the point of removal on a directing surface positioned at an angle to the drying surface, thereby causing a compression of the flakes sufficient to granulate the latter.

4. The method of granulating material of the character described, which consists in drying and hardening the material in a thin sheet on a moving surface, scraping the surface to remove the hardened material in flakes, causing the flakes to collect at the point of removal on a directing surface positioned at an angle to the drying surface, thereby causing a compression of the flakes sufficient to granulate the latter, and subjecting the granulated material to a current of air.

1,137,182. DIAL-MOVING MECHANISM FOR CLOCKS. JEANNE MARGUERITE BLANCHARD, Bordeaux, France. Filed July 9, 1914. Serial No. 849,949. (Cl. 58—128.)



1. In dial moving mechanism for clocks, the combination of a fixed dial, a rotary dial coaxial therewith, means for imparting a rotary movement to said rotary dial in a reverse direction every 12 hours, a pin on said rotary dial, two pivoted tappets adapted to be respectively brought into position to prevent movement of said pin and said dial for a definite period and means for operating said tappets.

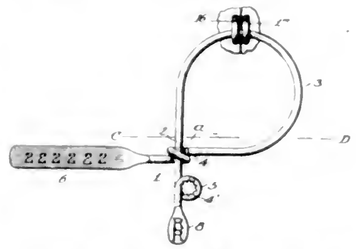
2. In dial moving mechanism for clocks the combination of a fixed dial, a rotary dial coaxial therewith, a cam rotated by the clock mechanism, pivoted and jointed detents coacting with said cam at one end and operated thereby, rollers mounted on said movable dial, pins on said rollers upon which the other ends of said detents rest, a pin on said rotary dial, two pivoted tappets adapted to be brought into position to prevent movement of said pin, and said movable dial, and flexible transmission means connecting said rollers with said tappets adapted to move said tappets to engage or release said pin by the movement of said detents.

3. In dial moving mechanism for clocks the combination of a fixed dial, a rotary dial coaxial therewith, a cam rotated by the clock mechanism, pivoted and jointed detents coacting with said cam at one end and operated thereby, rollers mounted on said movable dial, pins on said rollers upon which the other ends of said detents rest, a pin on said rotary dial, two pivoted tappets adapted to be brought into position to prevent movement of said pin and said movable dial, flexible transmission means connecting said rollers with said tappets adapted to move said tappets to engage or release said pin by the movement of said detents, and means for imparting axial movement to said rotary dial so as to bring it away from and back toward said fixed dial during its movement of rotation.

1,137,183. SELF-LOCKING SEAL. WINFRED MUDGE BROOKS, East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y., a Corporation of New York. Filed Dec. 18, 1914. Serial No. 877,984. (Cl. 70—98.)

1. A self-locking seal having two interlocking portions one of which is adapted to be wrapped around the other to form a locking coil, means for insuring the fracture of

said coil by a reverse movement thereof, a loop the ends of which inseparably adjoin said interlocking portions respectively and means for preventing the withdrawal of the innermost of said interlocking portions.



2. A self-locking seal having two interlocking portions one of which is adapted to be wrapped around the other to form a locking coil, means for insuring the fracture of said coil by a reverse movement thereof, a loop the ends of which inseparably adjoin said interlocking portions respectively, and a coil-shaped withdrawal preventing portion inseparably adjoining the outer end of the innermost of said interlocking portions.

3. A self-locking seal having two interlocking portions one of which is adapted to be wrapped around the other to form a locking coil, means for insuring the fracture of said locking coil by a reverse movement thereof, a loop the ends of which inseparably adjoin said interlocking portions respectively, and a coil-shaped withdrawal preventing portion inseparably adjoining the outer end of the innermost of said interlocking portions and means for insuring the fracture of said withdrawal preventing coil by a reverse movement thereof.

4. A self-locking seal having two interlocking portions one of which is adapted to be wrapped around the other to form a locking coil, means for insuring the fracture of said locking-coil by a reverse movement thereof, a loop the ends of which inseparably adjoin the said interlocking portions respectively and a coil-shaped withdrawal preventing portion adjoining the outer end of the innermost of said interlocking portions and provided with internal notches adapted to insure its fracture by an attempt to uncoil it.

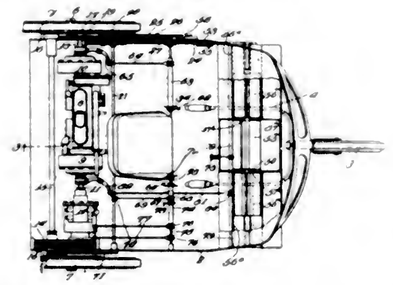
5. A self-locking seal having two interlocking portions one of which is adapted to be wrapped around the other to form a locking coil, a loop the ends of which inseparably adjoin said interlocking parts respectively, a withdrawal preventing coil near the extremity of the innermost of said interlocking portions and transverse weakening notches on the inner sides of each of said locking and withdrawal preventing coils adapted to assure the fracture of said coils by a reverse movement thereof, the metal at the outer side of said coils being hardened and made brittle.

[Claims 6 to 8 not printed in the Gazette.]

1,137,184. DUST-COLLECTOR MECHANISM FOR STREET-SWEEPERS. FREDERICK R. BRUGGER, Yetter, Iowa. Filed Oct. 11, 1913. Serial No. 794,657. (Cl. 83—48.)

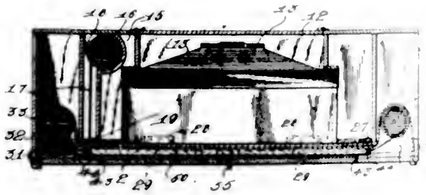
1. In combination, juxtaposed chambers, the one adapted to receive sweepings and the other dust separated from such sweepings, and a separator arranged in the upper portion of the dust chamber and comprising a casing, and a rotary fan, said casing having a central air outlet in its upper forward portion and having its end portions opening into the sweepings chamber at a point midway between the top and bottom of the casing, and such end portions of the casing being formed in their bottoms with dust outlets discharging into the dust chamber.

2. In a street sweeper, a primary dirt collecting chamber, a secondary dust collecting chamber extending parallel to the dirt collecting chamber, a circular fan casing disposed in the upper portion of the dust collecting chamber, said casing having a relatively large middle portion, the ends of said fan casing communicating with the primary dirt collecting chamber, a shaft passing through the casing, relatively small radiating blades disposed on said shaft on each side of the enlarged middle portion of the casing, the relatively contracted portion of the casing formed with openings in the bottom thereof whereby dust may pass into the dust collecting chamber, the portion of the shaft having relatively large fan blades thereon and having a discharge opening.



3. In combination, juxtaposed chambers, the one adapted to receive sweepings and the other the dust separated from such sweepings, a casing arranged in the upper portion of the dust chamber, and having an air outlet in its upper forward portion midway of its ends, and having its end portions opening into the sweeping chamber and further provided in their bottoms with openings for discharging into the dust chamber, suction fans arranged in the end portions of the casing for drawing the dust and air therein from the sweeping chamber and separating the dust from the air, and a third fan arranged medially of the casing to draw the air to a central point from the ends of the casing and to force such air outwardly through the outlet.

1,137,185. CAMERA. ALBERT E. CHASE and CARL A. BRINEY, New Sharon, Iowa, assignors of one-third to James E. De Witt, New Sharon, Iowa. Filed Nov. 5, 1912. Serial No. 730,255. (Cl. 95—32.)



1. A camera of the class described comprising a body, a hinged back secured thereto, film carrying means carried by said back, and a curtain passing transversely of said film and comprising a body having its ends connected by means of cables, said curtain provided with means for facilitating the drawing of said body in front of the sensitized portion of said film for removing the body of said curtain from in front of the sensitized portion of said film.

2. A camera of the class described comprising a body, a hinged back therefor, a partition secured to said hinged back, guiding rollers carried by said partition, a shield curtain supported upon said rollers and adapted to travel thereon, cables connecting the free ends of said curtain, and means engaging said curtain for moving said curtain upon said rollers.

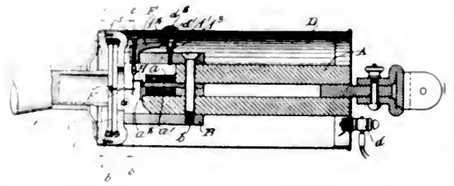
3. A camera of the class described comprising a body, a hinged back therefor, a partition carried by said hinged back, said partition provided with rolled ends, rollers carried by the upper and lower edges of said partition, a shield plate positioned upon the upper end of said partition and overhanging the upper end of said rollers, a curtain passing over said rollers and having

rolled portions of said partition, and a ... secured to the edge of said curtain for causing ... to be drawn over the sensitized portion of ...

... of the class described comprising a body, ... therefor, a partition carried by said hinged ... partition provided with rolled ends, rollers ... upper and lower edges of said partition, a ... positioned upon the upper end of said partition ... the upper end of said rollers, a shield ... over said rollers and having its ends ... said rolled portions of said partition, said par... provided with a plurality of laterally extending ... hinged back provided with a plurality of ... therein and adapted to receive said flanges ... said partition in engagement with said back.

... of the class described comprising a body, ... therefor, a removable plate secured to said ... for facilitating the renewal of the films in ... back, sockets carried by said hinged plate ... with dove-tail notches, and locking keys fitting ... dove-tail notches and provided with over... for engaging said removable cover for hold... removable cover in a locked position relative to ... hinged back.

... TELEPHONE-RECEIVER. JOHN J. COMER, ... Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 21, 1910. Serial No. 588,790. Renewed Sept. 12, 1914. Serial No. 861,483. (Cl. 179—108.)



... a telephone receiver, a resilient diaphragm, a ... connection from said diaphragm to the lever, a ... said lever, a pivoted support on which said ... is adjustably mounted, an electro-magnet, ... armature therefor, a connection from said armature ... said lever, and means for adjusting said support ... its axis, the adjustment of the fulcrum on said support serving to vary the leverage, and the adjustment of the said support serving to vary the air gap between said magnet and armature.

... telephone instrument, a member to be vibrated, ... connection from the lever to said member, a ... said lever, a pivoted support on which said ... adjustably mounted, an electromagnet, an armature therefor, a connection from said armature to said lever, and means for adjusting said support about its axis, the adjustment of the fulcrum on said support serving to vary the leverage, and the adjustment of the said support serving to vary the air gap between said magnet and armature.

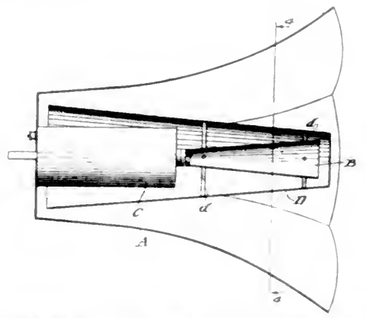
... telephone receiver, a resilient diaphragm, an electro-magnet, an armature therefor, a lever, a connection from the diaphragm to the lever, said connection being secured to said diaphragm, a link connection from the lever to the armature, a fulcrum for said lever, and means for adjusting said fulcrum to regulate the air gap between said magnet and armature.

... telephone instrument, a member to be vibrated, ... to telephonic currents, an electro-magnet for ... said member, a lever, an armature for said magnet, a link connecting said armature to said lever, and means for varying the leverage by movement of said lever to regulate the operation of said member by said magnet.

... telephone instrument, a resilient member, a lever connected to said member, an electro-magnet, an armature therefor, a connection from said armature to said lever, and means for moving said lever to adjust the fulcrum for said lever.

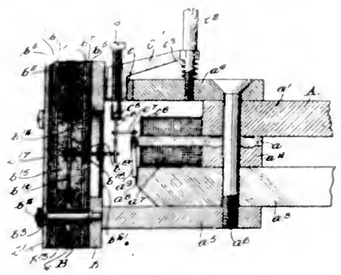
[Claims 6 to 12 not printed in the Gazette.]

1,137,187. RESONATOR. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 23, 1911. Serial No. 604,143. (Cl. 181—27.)



In an apparatus of the class described, the combination of a plurality of resonator horns disposed one within the other and tapered in opposite directions and being unrestrictedly open at their larger ends, and provided with perpendicular walls at their smaller ends, the larger open end of the inner horn being of less diameter than the smaller end of the outer horn within which it is disposed, and spaced annularly and endwise from the walls of said outer horn, and spacer members positioned adjacent both ends of the inner horn for supporting the inner horn at two separated points within the outer horn and in concentric relation to said outer horn.

1,137,188. DIFFERENTIAL-MICROPHONE REPEATER. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 13, 1911. Serial No. 608,386. Renewed Sept. 12, 1914. Serial No. 861,484. (Cl. 179—171.)



1. In a differential microphone repeater, a microphone box provided with a movable stem for the operation thereof, a magnet provided with an armature, a connection between the armature and said stem, and a spring opposing the action of said armature, applied to said stem at a point between the armature and box.

2. In a differential microphone repeater, a microphone box provided with a movable stem for the operation thereof, a magnet provided with an armature, a connection between the armature and said stem, a spring opposing the action of said armature, applied to said stem at a point between the armature and box, and means for regulating the tension of said spring.

3. In a differential microphone repeater, a microphone box provided with a movable stem for the operation

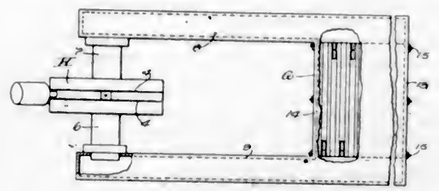
thereof, a magnet provided with an armature, a connection between the armature and said stem, a spring opposing the action of said armature, applied to said stem at a point between the armature and box, said spring consisting of a flat strip of spring metal mounted transversely on the said stem, and means for engaging the ends of said spring.

4. In a differential microphone repeater, a microphone box provided with a movable stem for the operation thereof, a magnet provided with an armature, a connection between the armature and said stem, and a spring opposing the action of said armature, applied to said stem at a point between the armature and box, the said connection between the stem and armature comprising a lever.

5. In a differential microphone repeater, a microphone box provided with a movable stem for the operation thereof, a magnet provided with an armature, a connection between the armature and said stem, and a spring opposing the action of said armature, applied to said stem at a point between the armature and box, the said connection between the armature and the stem consisting of a variable leverage connection.

[Claims 6 to 21 not printed in the Gazette.]

1,137,189. TRANSMITTING APPARATUS. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed July 16, 1913. Serial No. 779,241. (Cl. 179—123.)



1. In an apparatus of the class described, a diaphragm, means for vibrating said diaphragm, air columns connected with opposite sides of said diaphragm, and a microphone transmitter adapted to be operated by the simultaneous compressions and rarefactions produced in said air columns.

2. In an apparatus of the class described, a diaphragm, means for vibrating said diaphragm, an air column communicating with each side of said diaphragm, a microphone transmitter including a daphragm, and means whereby the rarefactions and compressions set up in one of said air columns affect one side of said diaphragm, while the compressions and rarefactions set up simultaneously in the other of said air columns affect the opposite side of said diaphragm.

3. In an apparatus of the class described, a reproducer comprising a diaphragm and means for vibrating the same, an air column communicating with each side of said diaphragm, and a plurality of microphone transmitters adapted to be operated by the compressions and rarefactions of the air in said air columns.

4. In an apparatus of the class described, a reproducer comprising one or more diaphragms and means for vibrating same, an air column communicating with each side of said diaphragms, a multiple transmitter located between said air columns, said transmitter comprising a plurality of diaphragms, means whereby the compressions and rarefactions set up in the air in one of said air columns by the vibrations of said reproducer diaphragms affect one side of each of the diaphragms of said multiple transmitter, and the vibrations set up in the other column of air operate upon the opposite side of said multiple transmitter diaphragms.

5. In an apparatus of the class described, a reproducer comprising one or more diaphragms and means for vibrating same, an air column communicating with each side of said diaphragms, a multiple transmitter located between said air columns, said transmitter comprising a plurality of diaphragms mounted adjacent to each other, resistance material located between each pair of diaphragms, and means for directing the air vibrations produced in one air column into the space between alternate pairs of diaphragms and for directing the air vibrations from the other air column into the space between the remaining pairs of diaphragms.

[Claims 6 to 10 not printed in the Gazette.]

1,137,190. COMBINATION STRAINER, FUNNEL, AND LID FOR CULINARY VESSELS. ALICE A. COOK, Rich Hill, Mo. Filed June 3, 1914. Serial No. 842,604. (Cl. 210—16.)



The herein described combination strainer, funnel and lid for culinary vessels, comprising a lid having a central opening; a hemispherical strainer having a flange at right angles to the edge thereof; a circular lip attached to the under side of said lid, and a latch positioned opposite the said lip, whereby the said flange of the strainer is engaged and the strainer held in operative position.

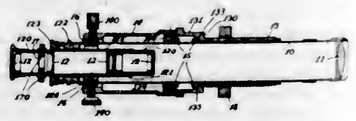
1,137,191. TORCH. BURR CUSTER, Marion, Ind. Filed July 3, 1914. Serial No. 848,843. (Cl. 158—109.)



1. In a torch, the combination with two cylinders, and a casing disposed between said cylinders and communicating with both, of a gas inlet pipe communicating with one of said cylinders, an oxygen inlet pipe communicating with said casing, a gas outlet pipe communicating with said casing, a burner head on said gas outlet pipe, an oxygen outlet pipe communicating with the other cylinder and said gas outlet pipe, and a valve device in said casing and common to both cylinders and their pipe connections.

2. In a torch, the combination with gas and oxygen pipes communicating with each other, and a burner head on the gas pipe, of cylinders in the circuits of said pipes, a plug valve common to both of said pipes, manually operable means for operating the plug valve, and another manually operable valve mounted in the plug for separately controlling passage of gas through the gas pipe to the burner head.

1,137,192. TELESCOPE. PHILIP FERBER, Hoboken, N. J., assignor to The Keuffel & Esser Company, Hoboken, N. J., a Corporation of New Jersey. Filed Feb. 1, 1913. Serial No. 745,613. (Cl. 88—32.)



1. A telescope comprising a tube having an objective in one end, a sleeve in the other end, an eye piece adjustable in the sleeve and having cross wires, means for limiting the sliding movement of the eye piece in the sleeve, and means for supporting the telescope and laterally adjusting the same in the bore of a gun.

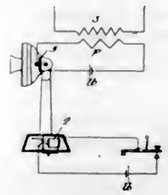
2. A telescope comprising a tube provided at [illegible] with an objective and at the opposite end with a [illegible] eyepiece carrying cross wires which move with it, [illegible]

adapted to surround the tube, a spherical bearing intermediate the tube and the sleeve, a cylindrical bearing on the outside of the tube arranged between the spherical bearing and the cross wires, and adjusting means for moving the sleeve and tube relatively and in a direction transverse to their longitudinal axes.

3. A telescope comprising a tube provided at one end with an objective and at the opposite end with a slidable eye piece carrying cross wires which move with it, a sleeve adapted to surround the tube, a spherical bearing intermediate the tube and the sleeve, a cylindrical bearing on the outside of the tube arranged between the spherical bearing and the cross wires, and means carried by the sleeve and adapted to coöperate with the tube to move the sleeve and tube relatively and in a zone transverse to their longitudinal axes, and which means include adjusting screws threaded into the sleeve and impinging upon the cylindrical bearing.

4. A telescope comprising a tube provided at one end with an objective and at the opposite end with a slidable eye piece carrying cross wires which move with it, a sleeve surrounding the tube, a universal joint between the sleeve and tube, a cylindrical bearing on the outside of the tube, and adjusting screws threaded onto the sleeve and impinging upon the cylindrical bearing to move the sleeve and tube relatively and in a zone transverse to their longitudinal axes.

1,137,193. MEANS OF COMBINED TELEPHONIC AND TELEGRAPHIC TRANSMISSION. PATRICK B. DELANY, South Orange, N. J. Filed Mar. 17, 1911. Serial No. 614,990. (Cl. 179—4.)



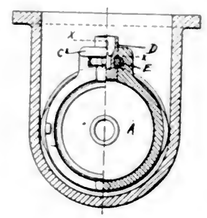
1. In a system of combined telegraphy and telephony, the combination of a microphone transmitter, its holder, circuit and battery connections, an automatic interrupter inclosed in said holder, a telegraph key and circuit connections therefrom to said interrupter whereby telegraphic signals may be mechanically transmitted to the microphone transmitter by said interrupter for transmission over the telephone line.

2. In a system of combined telegraphy and telephony, the combination of a microphone transmitter, a desk-stand holder for said transmitter, circuit and battery connections, an automatic interrupter inclosed in said holder, a telegraph key and circuit connections therefrom to said interrupter whereby telegraphic signals may be mechanically transmitted to the microphone transmitter by said interrupter for transmission over the telephone line.

3. In a system of combined telegraphy and telephony, the combination of a microphone transmitter, its holder, an automatic buzzer inclosed in said holder and transmitting vibrations to said microphone by means of said holder, battery and circuit connections for the buzzer and microphone, and a telegraph transmitter controlling the transmission of telegraphic signals over the telephone line.

4. In a system of combined telegraphy and telephony, the combination of a microphone transmitter, its holder, an automatic buzzer inclosed in said holder and transmitting vibrations to said microphone by means of said holder, battery and circuit connections for the buzzer and microphone, and a telegraph transmitter for controlling the transmission of a series of dot and dash impulses generated by the buzzer.

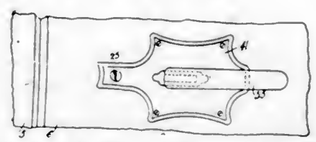
1,137,194. STOP-VALVE. JOHN DEWRANCE, Southwark, England. Filed Apr. 18, 1914. Serial No. 832,945. (Cl. 137—5.)



1. In a stop-valve of the sliding-gate or shutter type, a shutter consisting of two spring-supported disks mounted in a ring wherein they are free to rotate, each of said disks engaging at one side of its periphery with said ring by means of a snug which enters a groove on the disk, while at the other side a snug formed upon the extremity of a non-rotatable operating spindle engages in the same groove.

2. In a stop-valve of the sliding-gate or shutter type, the combination with a pair of circumferentially grooved valve-disks, of a ring formed or provided at one side of its periphery with snugs adapted to engage in the grooves in the said valve-disks, and at the other side with a head adapted to engage with a non-rotatable operating spindle formed at its inner extremity with snugs adapted to engage in the grooves on the valve-disks.

1,137,195. COMBINED DOOR CATCH AND LOCK. DONALD DONALD, Masterton, New Zealand. Filed Sept. 10, 1913. Serial No. 789,096. (Cl. 70—29.)



1. Latch mechanism comprising a sliding bolt supported upon the door, a horizontal slot in said bolt, operating handles having arms for engaging said horizontal slot, a vertical slot in said bolt, a bridge piece inserted in said vertical slot and maintained in a stationary position relatively to the door, a spring also located in said vertical slot between the end of the bolt and the said bridge piece, and means for locking said bolt against movement when in either its projected or withdrawn positions.

2. Latch mechanism comprising a sliding bolt supported upon the door, operating handles having arms for engaging said bolt so as to withdraw the same, a vertical slot in said bolt, a bridge piece inserted in said vertical slot and maintained in a stationary position relatively to the door, a spring located between the end of the bolt and said bridge piece, a pivoted hook, operating within said bridge piece, and slots in the bolt adapted to be engaged by said hook to prevent movement of the bolt when in its projected or withdrawn positions.

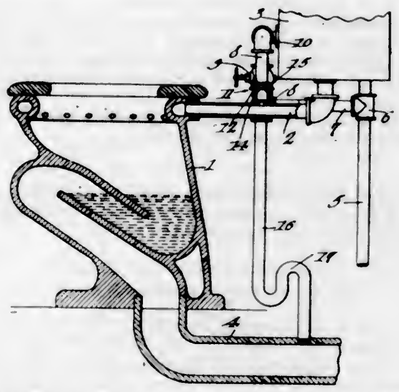
3. Latch mechanism comprising a sliding bolt supported upon the door, operating handles having arms for engaging said bolt so as to withdraw the same, a vertical slot in said bolt, a bridge piece inserted in said vertical slot and maintained in a stationary position relatively to the door, a spring located between the end of the bolt and said bridge piece, a casing in which the forward end of said bolt slides, and a disk on the bolt adapted to engage the rear end of said casing to limit the distance to which the bolt is projected.

4. Latch mechanism comprising a sliding bolt supported upon the door, operating handles having arms for engaging said bolt so as to withdraw the same, a vertical slot in said bolt, a bridge piece inserted in said vertical slot and

maintained in a stationary position relatively to the door, a spring located between the end of the bolt and said bridge piece, a pivoted hook, operating within said bridge piece, adapted to engage a slot in the bolt, and holes in the pivot of said hook for the insertion of the prongs of a key.

5. Latch mechanism comprising a sliding bolt supported upon the door, a horizontal lateral slot in said bolt, operating handles pivoted on vertical axes and having arms for engaging said horizontal slot, a vertical slot in said bolt, a bridge piece inserted in said vertical slot and having forked ends, a pivot pin carried by the door and passing through said forked ends, a spring located in said vertical slot between the end of the bolt and said bridge piece, a pivoted hook carried on said pin and operating within said bridge piece, slots in the bolt adapted to be engaged by said hook for retaining the bolt in its inner or outer position, and means for operating said hook externally of the door.

1,137,196. CLOSET ATTACHMENT. EDWARD E. DUFF, Seattle, Wash. Filed Aug. 14, 1914. Serial No. 856,832. (Cl. 4—21.)

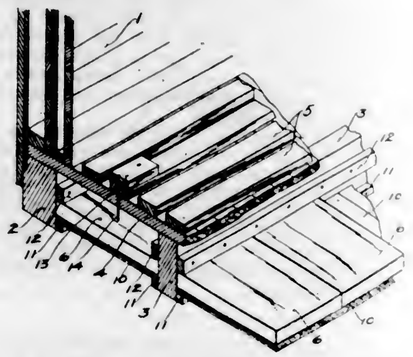


In a water closet, the combination with a bowl, a waste pipe for the bowl, a flushing tank in rear of the bowl, a horizontally extending flushing pipe connecting the bottom of the tank and the upper portion of the bowl, and an upwardly extending water supply pipe connected to the bottom of the tank, of a forwardly projecting branch connected to the supply pipe, an inverted U-shaped pipe disposed in front of the tank and having one limb connected to the front end of the said branch, one limb of the said U-shaped pipe having a valve, a bracket attached to the front of the tank and having means engaging the crest portion of the U-shaped pipe to support the same, an ejector embodying an upright T-casing and a nozzle having its butt end secured therein above the arm thereof and having its tip projecting downwardly past the said arm, the upper end of the casing being engaged to the lower end of the other limb of the U-shaped pipe, an eduction pipe connected to the arm of the casing and the top of the U-shaped pipe, and a discharge pipe connected to the lower end of the said casing and the waste pipe.

1,137,197. REFRIGERATOR-CAR FLOOR. GEORGE H. ELLIS, St. Paul, Minn. Filed Mar. 16, 1914. Serial No. 824,959. (Cl. 20—6.)

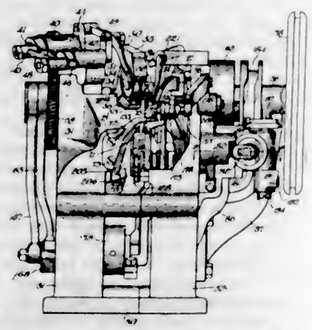
1. A flooring structure comprising a main floor somewhat pervious to moisture, a subfloor pervious to at least the same degree, and a heat insulating layer between the two comprising separate units, each consisting of an insulating body composed of fiber, and for each such unit a waterproof envelop excluding moisture from the fiber, while the separateness of the units permits of substantially the same degree of percolation as the said floors.

2. A floor structure comprising an upper floor somewhat pervious to moisture, a lower floor pervious to at least the same degree, and a heat-insulating layer between the two floors, comprising separate units, each unit consisting of an insulating filler, and for each such unit a water-proof envelop excluding moisture from said filler, the said units being assembled in such manner as to permit of at least the same degree of percolation from said upper floor to said lower floor, as is permitted through said upper floor.



3. A floor structure comprising an upper floor somewhat pervious to moisture, a lower floor pervious to at least the same degree, and a heat-insulating layer of waterproof insulating units assembled between said floors, said units being assembled in such manner as to permit of at least the same degree of percolation from said upper floor to said lower floor, as is permitted through said upper floor.

1,137,198. LOCK-STITCH SEWING-MACHINE. EDWARD ERICKSON, West Lynn, Mass., assignor, by direct and mesne assignments, to Victor Shoe Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 28, 1912. Serial No. 739,056. (Cl. 112—20.)



1. In a sewing machine, the combination with the stitch-forming mechanism thereof, of an oscillating awl, a slide for shifting the awl in the direction of its axis of oscillation, a lever for actuating the slide, a sleeve adjustable longitudinally of said lever, a tubular block in which said sleeve is pivotally mounted, and means for adjusting said tubular block in the direction of the length of said sleeve.

2. In a sewing machine, the combination with the stitch-forming mechanism thereof, of an oscillating awl, a slide for shifting the awl in the direction of its axis of oscillation, a lever for actuating the slide, a sleeve adjustable longitudinally of said lever, a tubular block in which

sleeve is pivotally mounted, said tubular block having a rack, a pinion engaging said rack, and a handle for manually rotating said pinion.

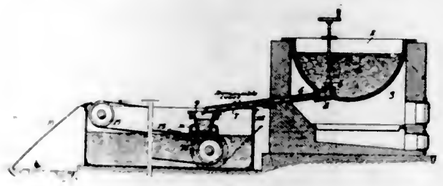
3. In a sewing machine, the combination with the stitch forming mechanism thereof, of an oscillating awl, a slide for shifting the awl in the direction of its axis of oscillation, a lever for actuating the slide, a sleeve adjustable longitudinally of said lever, a tubular block in which said sleeve is pivotally mounted, said tubular block having a rack, a pinion engaging said rack, a handle for manually rotating said pinion, and means for adjustably determining the limits of movement of the pinion and rack.

4. In a sewing machine, the combination with the stitch forming mechanism thereof, of an oscillating awl, a slide for shifting the awl in the direction of its axis of oscillation, a lever for actuating the slide, a sleeve adjustable longitudinally of said lever, a tubular block in which said sleeve is pivotally mounted, said tubular block having a rack, a pinion engaging said rack, a handle for manually rotating said pinion, and means for adjustably determining the limits of movement of the pinion and rack, said means comprising a pair of fingers adjustably secured to one end of the pinion, and a stop pin mounted between said fingers.

5. In a sewing machine, the combination with the stitch-forming mechanism thereof, of an oscillating awl, a slidable member for shifting the awl in the direction of its axis of oscillation, a lever for actuating said slidable member, a pivot member movable lengthwise of said lever, a slidable block adapted to receive the pivot thereof and provided with a rack, and a revoluble pinion meshing with said rack.

[Claims 6 to 9 not printed in the Gazette.]

1,137,199. MEANS FOR FORMING LEAD WIRE. ADAM TUDOR BYRON, Nelson, British Columbia, Canada. Filed Aug. 4, 1914. Serial No. 854,965. (Cl. 207—12.)



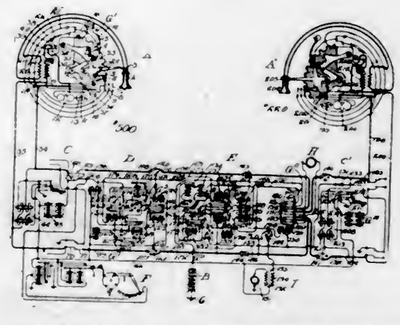
1. Means for producing a finely divided wire of lead, said means comprising the combination with a melting pot, of a hopper having a series of small apertures in the bottom into which hopper the molten metal is delivered, an endless traveling band arranged beneath the hopper apertures to receive the metal and a reservoir in which said band projects, a cooling fluid in said reservoir, the cooling fluid emersing said band at the place of said hopper discharge whereby the molten metal from the hopper passes through the cooling fluid just prior to the delivery of the metal on to the traveling band to cause the metal to be partially surface cooled.

2. Means for producing a finely divided wire of lead, said means comprising the combination with a melting pot having an outflow aperture adjacent to the bottom, and means for regulating the flow of the molten metal therethrough, a duct conveying the molten metal from the outflow aperture of the melting pot to a tumfit having a line of small apertures in the bottom, means adjacent to the outflow apertures of the tumfit for maintaining the metal in a fluid condition, and an endless traveling band beneath the apertures of the tumfit which band is traveling faster than the outflowing metal, and means for imparting a primary surface cooling to the metal as it leaves the tumfit and for rapidly cooling the metal as it is delivered on to the traveling band.

3. Means for producing a finely divided wire of lead, said means comprising the combination with a melting pot having an aperture adjacent to the bottom, and means for regulating the flow of the molten metal through that aperture, of a duct conveying the molten lead to a tumfit having a line of small apertures in the bottom, said tumfit supported over the level of water in a trough and an endless traveling band inclined upward from a position beneath the apertures of the tumfit and below the surface of the water to the level of the upper edge of the tank at the other end.

4. Means for producing a finely divided wire of lead, said means comprising an endless traveling band, means for delivering the molten lead upon said traveling band, means for directing said traveling band faster than the movement of the stream of lead, and means for surface cooling the stream of lead prior to its contact with the traveling band.

1,137,200. COMMON-BATTERY AUTOMATIC TELEPHONE SYSTEM. WILSON L. CAMPBELL, La Grange, Ill., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Filed July 9, 1907. Serial No. 382,900. (Cl. 179—18.)



1. In a telephone system, a called subscriber's line, a switch individual thereto for trunking therefrom, provided with a controlling magnet connected in the line circuit, means for feeding talking current through the said magnet to the called line, said magnet having windings constituting the sole resistance for regulating the flow of talking current to the line, a calling line, a manually-operated calling mechanism therefor, and means for extending connection from the calling line to the called line, said means including an automatic switch individual to the calling line and responsive to and simultaneously with the manual operation of said calling mechanism.

2. In a telephone system, a plurality of lines, automatic means for trunking a calling line into connection with a called line, comprising individual trunking switches for the said lines, a connector for finding the called line, a calling mechanism for each line, said connector responsive to a varying number of impulses in accordance with the different digits of the called number, means including a trunk line for feeding talking current to the calling line, all talking current for the called line being fed directly through elements of the individual switch thereof.

3. In a telephone system, a called line, a connector for seizing said line, said connector provided with a relay adapted to remain energized during conversation, means by which the calling subscriber deënergizes said relay to signal the called subscriber, trunk lines, an individual trunking switch for the called line, said individual switch provided with electromagnet windings, means for supplying talking current through said electromagnet windings to the called line, and a calling mechanism for controlling said connector, which connector is operated by a varying number of impulses in accordance with the different digits of the called number.

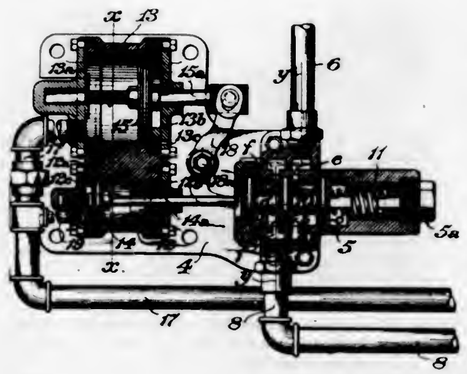
4. In a telephone system, automatic means for extending connection from a calling line to a called line, a common battery normally connected to the called line, means by which the called line receives talking current only through the medium of its normal connection with said

battery, and means for opening said normal connection when the called line becomes a calling line.

5. In a telephone system, subscribers' lines, individual trunking switches for said lines, each switch provided with a differentially-wound trip magnet normally bridged across its allotted telephone line, a releasable plunger-arm controlled by each trip magnet and provided with means for opening the bridge thereof when the subscriber calls, means for supplying talking current through the trip magnet of a called line, the differential windings of said trip magnets preventing actuation of the called subscriber's individual switch during conversation, a ringer relay for controlling the flow of ringing current to the called subscriber's line, and means for deënergizing said ringer relay to signal the called subscriber.

[Claims 6 to 12 not printed in the Gazette.]

1,137,201. DRIFTING-VALVE FOR LOCOMOTIVES. WILLIAM H. FOSTER, Flushing, N. Y. Filed Feb. 2, 1915. Serial No. 5,632. (Cl. 121—14.)



1. In a drifting valve appliance for locomotives, the combination of a passage adapted to establish communication between a locomotive boiler and a distribution valve chest, independently of main steam supply, valve mechanism controlling said passage, actuating mechanism for imparting opening movement to said valve mechanism, and means for automatically subjecting said actuating mechanism either to the action of vacuum or of compression in a valve chest or cylinder of a locomotive, when not under main steam supply.

2. In a drifting valve appliance for locomotives, the combination of a passage adapted to establish communication between a locomotive boiler and a distribution valve chest, independently of main steam supply, valve mechanism controlling said passage, actuating mechanism for imparting movement to said valve mechanism, means for automatically subjecting said actuating mechanism either to the action of vacuum or of compression in a valve chest or cylinder of a locomotive, when not under main steam supply, to effect opening movement of said valve mechanism, and means for automatically imparting closing movement to said valve mechanism when the locomotive is stationary.

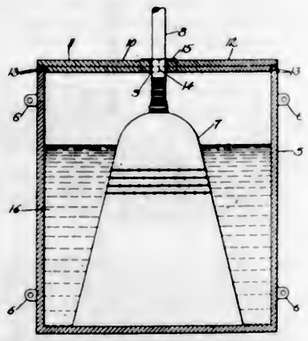
3. In a drifting valve appliance for locomotives, the combination of a passage adapted to establish communication between a locomotive boiler and a distribution valve chest independently of main steam supply, valve mechanism controlling said passage, a piston subject on opposite sides to distribution valve chest or cylinder pressure and to spring resistance, an independent piston subject on opposite sides to distribution valve chest pressure and to atmospheric pressure, and means for independently imparting movement from said pistons to said valve mechanism.

4. In a drifting valve appliance for locomotives, the combination of a passage adapted to establish communication between a locomotive boiler and a distribution valve chest independently of main steam supply, valve mechanism controlling said passage, a piston subject on opposite sides to distribution valve chest or cylinder pressure and to spring resistance and adapted to impart opening movement to said valve mechanism by preponderance of pressure over resistance, another piston subject on opposite sides to distribution valve chest or cylinder pressure and to atmospheric pressure and adapted to impart opening movement to said valve mechanism by the formation of a vacuum in a distribution valve chest, and means for independently transmitting movement from said pistons to said valve mechanism.

5. In a drifting valve appliance for locomotives, the combination of a passage adapted to establish communication between a locomotive boiler and a distribution valve chest independently of main steam supply, two admission valves, independently controlling said passage, a piston subject on opposite sides to distribution valve chest or cylinder pressure and to spring resistance and adapted to impart opening movement to one of said admission valves by preponderance of pressure over resistance, another piston subject on opposite sides to distribution valve chest or cylinder pressure and to atmospheric pressure and adapted to impart opening movement to the other admission valve by the formation of a vacuum in a locomotive cylinder, and means for transmitting movement from each of said pistons to one of the admission valves.

[Claims 6 and 7 not printed in the Gazette.]

1,137,202. FIRE-EXTINGUISHER. GEORGE B. GALLUP, Boston, Mass. Filed Aug. 6, 1914. Serial No. 855,501. (Cl. 169—13.)



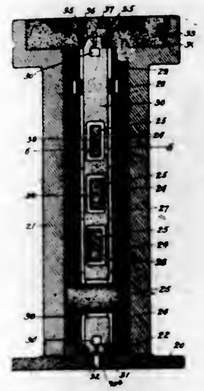
A fire extinguisher having, in combination, a receptacle adapted to contain liquid, a top for said receptacle made in two parts, a broom located within said receptacle and a handle for said broom projecting through a hole provided in said top between the adjacent ends of said top.

1,137,203. MOLD FOR ROTARY VALVES. GEORGE GORTON, Racine, Wis., assignor to Robinson & Robinson, Racine, Wis., a Copartnership consisting of Richard T. Robinson and Richard T. Robinson, Jr. Filed Feb. 6, 1915. Serial No. 6,445. (Cl. 22—127.)

1. In a mold for engine valves, the combination of a central core for forming a longitudinal duct in the valve, cores for forming ports through the valve, sectional rings around the central core, provided with means for holding the port-cores, and means for holding said rings together.

2. In a mold for engine valves, the combination of a central core for forming a longitudinal duct in the valve, cores for forming ports through the valve, sectional chill-rings around the central core and provided with means for holding the port-cores, and means for holding said rings together.

3. In a mold for engine valves, the combination of a central core for forming a longitudinal duct in the valve, cores for forming ports in the valve, sectional rings around the central core provided with recesses in their contiguous ends for holding the port cores, and means for holding said rings together.

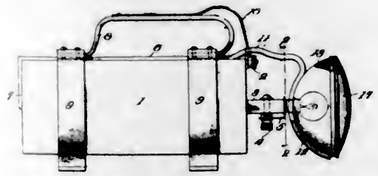


4. In a mold for engine valves, the combination of a central core for forming a longitudinal duct in the valve, cores for forming ports through the valve, sectional chill-rings around the central core and provided with means for holding the port-cores and a sleeve fitting around the sections of the rings serving to hold them together.

5. In a mold for engine valves, the combination of a central core for forming a longitudinal duct in the valve, cores for forming ports through the valve, sectional-rings around the central core and provided with means for holding the port-cores and a sleeve fitting around the sectional rings to hold them together.

[Claims 6 to 23 not printed in the Gazette.]

1,137,204. LAMP. ARCHIE B. GATES, Peterborough, Ontario, Canada. Filed Nov. 10, 1914. Serial No. 871,324. (Cl. 240—8.5.)



1. A device for the purpose set forth comprising a bar adapted to extend along a cell and having one end projecting beyond and across the cell to form a lamp support in proximity to one terminal of the cell, clamping jaws projecting laterally from said bar to engage around the cell, and a circuit closer co-acting with the lamp support to make or break a circuit through the other terminal of the cell.

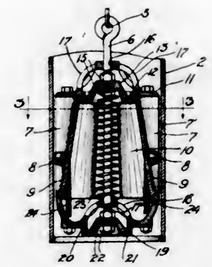
2. A device for the purpose set forth comprising a bar having one end bent laterally to extend under an electric cell and its other end projected beyond said cell and extended across the same to form a lamp support, jaws secured to said bar and adapted to engage and hold the cell, a terminal secured upon one member of the cell adjacent the lamp support, and a circuit closing member co-acting with the lamp support to make or break a circuit through the other element of the cell.

3. A device for the purpose set forth comprising a bar adapted to extend along a cell and having one end projected beyond and across the cell to form a lamp support, clamping jaws secured to said bar and adapted to engage around the cell, a handle secured to the said bar, and a circuit closing or breaking member secured upon the said handle and adapted to engage a terminal of the cell.

4. A device for the purpose set forth comprising a bar adapted to extend along an electric cell and having one end projected beyond and across the cell, a shell rigid with the said bar and adapted to receive an electric lamp, an electric terminal secured upon one element of the cell immediately adjacent said shell and adapted to be engaged by a terminal of said lamp, and a circuit making or breaking plate adapted to form an electrical connection with the other element of the cell and coact with the said bar to complete a circuit through the lamp.

5. A device for the purpose set forth comprising a bar adapted to extend along an electric cell and having one end extended beyond and across the cell and provided with an opening adjacent a projecting element of the cell, a shell secured in said opening and adapted to receive an electric lamp and form an electrical connection therewith, the said shell being so disposed that when the lamp is secured therein it will form an electrical connection with the adjacent element of the cell, a binding post on the other element of the cell, and a leaf spring extended through the said bar and adapted to engage said binding post.

1,137,205. OIL-WELL PLUG. JAMES T. HALL, Conlinga, Cal. Filed Jan. 22, 1914. Serial No. 813,614. (Cl. 166—13.)



1. A plug for oil well casings, the same comprising a body portion provided with a plurality of longitudinally extending race-ways closed at one end, increasing in depth toward the upper portion of the plug and each communicating with the peripheral surface thereof, a plate for closing the opposite end of said race-ways, a ball member movably mounted in each of said race-ways for frictional engagement with the inner wall of the well casing, and means for positioning the plug relative to the casing.

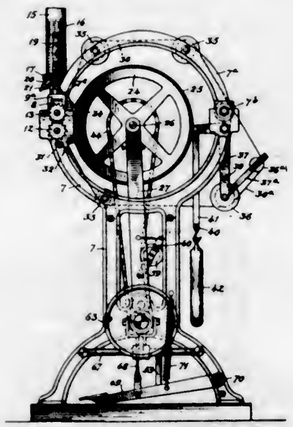
2. A plug for oil well casings, the same comprising a body portion formed throughout its length with a valve controlled passage-way for the flow of oil therethrough, a plurality of race-ways formed in the exterior surface of said plug and each closed at its opposite end, said race-ways extending longitudinally of the said plug and decreasing in depth adjacent the lower end of the plug, a ball friction member mounted in each race-way, and means for positioning the plug relative to the well casing.

3. A plug for oil well casings, the same comprising a body provided in its exterior surface with a plurality of longitudinally extending race-ways, said race-ways being substantially oval in cross section and decreasing in depth adjacent the lower end of the plug, a friction ball mounted in each of said race-ways, and said plug formed with a valve controlled passageway for the passage of the oil therethrough.

4. A plug for oil well casings, the same comprising a tubular body portion formed with a plurality of longitudinally extending race-ways communicating with the exterior surface thereof, said race-ways being substantially oval in cross section and opening at one end of said body member, and said race-ways increasing in depth adjacent the open ends thereof, an end plate fitted over

one end of said body portion to close said race-ways and provided with a passageway for the flow of oil through the tubular body portion, an end plate fitted over the other end of said body portion and provided with a passageway for the flow of oil through the tubular body portion, and a vertically movable valve controlling each of said passageways.

1,137,206. TOBACCO-MACHINE. OSCAR HAMMERSTEIN, New York, N. Y. Filed Nov. 21, 1913. Serial No. 802,188. (Cl. 131—57.)



1. A tobacco machine comprising means for feeding tobacco leaf, relatively stationary bearings for said feeding means, booking means for receiving said leaf from said feeding means and automatically adjustable relatively thereto by pressure exerted by the booked leaf toward the feeding means as the booking proceeds and mechanism for actuating said means.

2. A tobacco machine comprising means for feeding tobacco leaf, relatively stationary bearings for said feeding means, a rotatable booking drum adapted to receive the leaf from said feeding means, a movable support for said drum whereby the position of said drum is automatically adjusted relatively to said feeding means by pressure exerted by the booked leaf toward the feeding means as the booking proceeds and mechanism for actuating said means and drum.

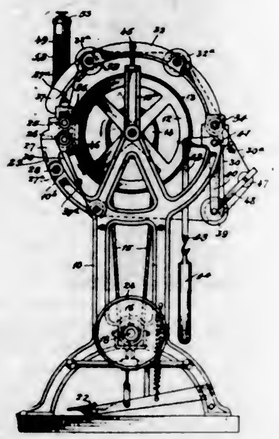
3. A tobacco machine comprising means for feeding tobacco leaf, relatively stationary bearings for said feeding means, booking means for receiving said leaf from said feeding means and automatically adjustable relatively thereto by pressure exerted by the booked leaf toward the feeding means as the booking proceeds, mechanism for actuating said means and means for moving a portion of said booking means relatively to another portion thereof to permit a removal of the books of tobacco.

4. A tobacco machine comprising a pair of feed rollers, a rotatable drum adjacent to said feed rollers, a pivoted support for said drum whereby the latter is moved away from said feed rollers by pressure exerted by the booked leaf, means for actuating said drum, an apron passing around said drum and coöperating therewith for booking tobacco leaf, said apron being operatively connected with said feed rollers to actuate same and means for maintaining said apron under tension and for permitting a movement thereof away from the surface of the drum to accommodate the leaf as the booking proceeds.

5. A tobacco machine comprising a pair of feed rollers, a rotatable drum adjacent to said feed rollers, a pivoted support for said drum whereby the latter is moved away from said feed rollers by pressure exerted by the booked leaf, means for actuating said drum, a plurality of aprons passing around said drum and coöperating therewith for booking tobacco-leaf, one of said aprons being operatively connected with said feed rollers to actuate same and means for maintaining said aprons under tension and for permitting an independent movement thereof away from the surface of the drum to accommodate the leaf as the booking proceeds.

[Claims 6 to 10 not printed in the Gazette.]

1,137,207. TOBACCO-LEAF MACHINE. OSCAR HAMMERSTEIN, New York, N. Y. Filed Dec. 15, 1913. Serial No. 806,661. (Cl. 131—56.)



1. A machine of the kind described comprising a rotatable booking drum, relatively stationary bearings for said drum and means for feeding tobacco leaf thereto, a movable support for said feeding means whereby the latter is automatically adjustable away from said drum by pressure exerted by the booked leaf as the booking proceeds.

2. A machine of the kind described comprising a stationary frame, a booking drum rotatably mounted thereon, a support movably connected with said frame, a pair of coöperating feed rollers carried by said support, said support and feed rollers being automatically movable away from said drum by pressure exerted by the booked leaf as the booking proceeds and means for actuating said drum and feed rollers.

3. A machine of the kind described comprising a stationary frame, a booking drum rotatably mounted thereon, an apron coöperating with said drum to book the leaf thereon, a pair of supports pivotally connected with said frame, a pair of coöperating feed rollers on one of said supports for feeding the leaf, a guide roller on the other support for guiding said apron, said supports being automatically adjustable whereby the feed rollers and guide roller are moved away from the drum by pressure exerted by the booked leaf as the booking proceeds and means for actuating said drum and feed rollers.

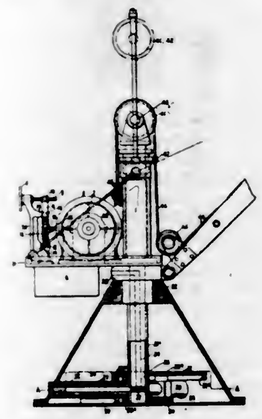
4. A machine of the kind described comprising a stationary main frame, a booking drum rotatably mounted thereon, a support pivotally connected with said main frame, a pair of coöperating feed rollers mounted on said support, an auxiliary frame pivotally connected with said main frame and movable to an inoperative position away from the drum, a second support pivotally connected with said auxiliary frame, a guide roller on said second support, an apron coöperating with said drum to book the leaf and passing around one feed roller and said guide roller, said two supports being automatically adjustable whereby the feed rollers and guide roller are moved away from the drum as the booking proceeds and means for actuating said drum.

5. A machine of the kind described comprising a stationary main frame, a booking drum rotatably mounted thereon, a support pivotally connected with said main frame, a pair of coöperating feed rollers mounted on

support, an auxiliary frame pivotally connected with said main frame and movable to an inoperative position away from the drum, a second support pivotally connected with said auxiliary frame, a guide roller on said second support, an apron coöperating with said drum to book the leaf and passing around one feed roller and said guide roller, said two supports being automatically adjustable whereby the feed rollers and guide roller are moved away from the drum as the booking proceeds, means for maintaining said apron under tension at all times and means for actuating said drum.

[Claims 6 to 12 not printed in the Gazette.]

1,137,208. HYDRAULIC APPARATUS. HENRY SELBY HELE-SHAW and FRANCIS LEIGH-MARTINEAU, London, England. Filed Mar. 11, 1911. Serial No. 613,806. (Cl. 138—13.)



1. Hydraulic apparatus comprising a motor, variable stroke reversible pumps continuously driven by the motor, means actuated by liquid circulated by one of the pumps for moving the load in one direction, means actuated by liquid circulated by another pump for moving the load in another direction, closed circuits including the pumps and the load moving means and means for controlling the pumps independently of each other, substantially as described.

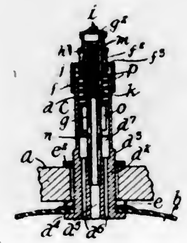
2. In hydraulic apparatus wherein a continuously driven variable stroke pump operated to move a load, a safety device comprising the combination of means automatically operating to reduce the stroke of the pump when the pressure within the system reaches a predetermined limit, and means automatically operating to cause the pump to cease moving the load under all conditions when the apparatus is left unattended, substantially as described.

3. The improved hydraulic lifting and lowering apparatus comprising the combination of a continuously driven variable stroke reversible pump, a hydraulic ram in the pump circuit for raising the load, operable means for regulating and controlling the stroke of the pump and the direction of flow of the liquid, a safety device for automatically reducing the stroke of the pump when the pressure within the system rises beyond a certain limit and a safety device for automatically reducing the stroke of the pump to zero or that at which the load is held stationary when the apparatus is left unattended.

4. In apparatus of the kind set forth, the aluing gear comprising a continuously driven variable stroke rotary pump, a hydraulic apparatus associated with the pump for readily rotating the lifting apparatus and means for controlling the stroke of the pump and the direction of flow of the liquid to the apparatus for causing the rotation whereby the direction and degree of rotation of the lifting apparatus is regulated and controlled.

5. In a hydraulic crane apparatus in combination, a revoluble vertical standard, pumping apparatus carried by said standard, a load lifting device also carried by said standard, a motor for sluing said standard, connections between said pumping apparatus and said device and motor, and means for controlling said apparatus whereby said device and said motor can be operated independently of each other.

1,137,209. EXHAUST-VALVE AND PRESSURE-GAGE FOR PNEUMATIC TIRES. ROBERT H. HENEMIER, New York, N. Y. Filed May 10, 1913, Serial No. 766,734. Renewed Feb. 26, 1915. Serial No. 10,856. (Cl. 152—12).



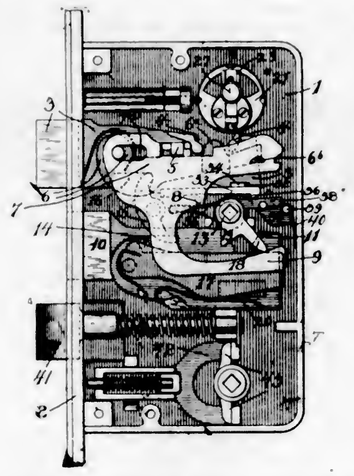
1. A device of the class described comprising a tubular casing or barrel one end portion of which is provided with a central longitudinal chamber and the other end portion of which is provided with a central bore or passage around which are other bores or passages, the open end portion of said chamber being closed by a cap provided with an internally threaded neck, said casing or barrel being also provided with an exhaust port, a plunger-valve mounted in said casing and adapted to open and close said port, a spring mounted in said casing and having a bearing on said plunger-valve and in said cap, a tube passing through said cap and the neck thereof and into said bore or passage and having a threaded connection with said cap, and an air valve mounted in said tube and normally closed and adapted to open inwardly.

2. A device of the class described comprising a tubular casing or barrel in one end of which is a longitudinal chamber and the other end of which is provided with a central bore or passage around which are other bores or passages, the other end of said casing or barrel being closed by a cap having a neck, said tubular casing or barrel being also provided in one side thereof with an exhaust port, a plunger-valve mounted in said chamber and adapted to open and close said exhaust port, a spring mounted in said chamber and bearing on said plunger valve and on said cap, a tube passing through said cap and the neck thereof and into said central bore or passage and having a threaded connection with the neck of said cap, and a threaded plug mounted in said tube and through which passes a valve stem provided at its inner end with a valve, and on the outer end portion of which is mounted a spiral spring adapted to move said valve stem outwardly, said valve stem being provided with a central longitudinal bore which opens outwardly through said head, and laterally and adjacent to said valve.

1,137,210. LOCK. NORMAN B. HURD, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed July 3, 1914. Serial No. 848,845. (Cl. 70—92.)

1. In a lock, a dead bolt, means controlled by one of a plurality of keys for projecting and retracting said bolt, means controlled by another and different of said plurality of keys for projecting said bolt and for blocking its subsequent retraction through said first named key, and means controlled by a third and certain key of said plurality of keys for projecting said bolt and including means separate from the aforesaid key-controlled bolt-operating

means and coöperating with said bolt to block its subsequent retraction through said first and second named keys.



2. In a lock, a dead bolt, means controlled by one of a plurality of keys for projecting and retracting said bolt, means controlled by another and different of said plurality of keys for projecting said bolt and for blocking its subsequent retraction through said first named key, and means controlled by a third and certain key of said plurality of keys for projecting said bolt and including means separate from the aforesaid key-controlled bolt-operating means and coöperating with said bolt to block its subsequent retraction through any other of said plurality of keys.

3. In a lock, a dead bolt, means controlled by one of a plurality of keys for projecting and retracting said bolt, means controlled by another and different of said plurality of keys for projecting said bolt and for retracting said bolt when previously projected by said first and second mentioned keys and for blocking its subsequent retraction through said first named key, and means controlled by a third and certain key of said plurality of keys for projecting said bolt and including means separate from the aforesaid key-controlled bolt-operating means and coöperating with said bolt to block its subsequent retraction through said first and second named keys.

4. In a lock, a dead bolt, a plurality of keys for operating said bolt, one of said keys being a short key and at least two other of said keys being longer relative to said short key and of different relative lengths, means controlled by said short key for projecting and retracting said dead bolt, means controlled by one of said long keys for projecting said bolt and for blocking its subsequent retraction through said port key, and means controlled by the other of said long keys for projecting said bolt and blocking its subsequent retraction through said short key and said first mentioned long key.

5. In a lock, a dead bolt, a plurality of keys for operating said bolt, one of said keys being a short key and at least two other of said keys being longer relative to said short key and of different relative lengths, means controlled by said short key for projecting and retracting said dead bolt, means controlled by one of said long keys for projecting said bolt and for blocking its subsequent retraction through said short key, and means controlled by the other of said long keys for retracting said bolt when previously projected through said short and first mentioned long keys and for projecting said bolt and blocking its subsequent retraction through said short key and said first mentioned long key.

[Claims 6 to 26 not printed in the Gazette.]

1,137,211. PUMP. RALPH E. HURST, Wellington, Kans. Filed Oct. 16, 1913. Serial No. 795,503. (Cl. 103—82.)



1. In a pump, a casing having a tubular bore and provided with a series of by-pass passages, each having their extremities in communication therewith, valves at the upper extremities of said by-pass passages, and a plurality of valved pistons concentrically mounted and movable relatively within said bore and operating in conjunction with said by-pass passages substantially as and for the purposes set forth.

2. In a pump, a casing having a tubular bore and provided with a series of by-pass passages extending longitudinal of the bore, the latter having their extremities communicating with said bore, a valve at the upper extremity of each of said passages and a plurality of valved pistons concentrically mounted and movable relatively within said bore and operating in conjunction with said passages, substantially as and for the purpose as set forth.

3. In a pump, a casing having a tubular bore, and provided with a plurality of valved pistons, concentrically mounted and movable relatively within the latter, a plurality of arcuate shaped by-pass passages extending longitudinally of the bore and having their extremities communicating with the latter above and below the pistons therein, valves operatively disposed at the upper extremities of said passages, said valved pistons and by-passages coöperating substantially as and for the purpose set forth.

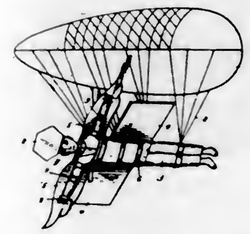
4. In a pump, a casing having a tubular bore and provided with a series of liners arranged in spaced relationship within the said bore, a series of arcuate shaped by-pass passages extending longitudinally of the bore and having their extremities communicating with the latter above and below each of said liners, valves operatively disposed at the upper extremities of said by-pass passages and a piston disposed in each of said liners, said piston being concentrically mounted and movable relatively to coöperate with said by-pass passages, substantially as and for the purposes set forth.

5. In a multi-cylinder pump, a plurality of interconnected casings each having a tubular bore provided with a liner, each casing having a pair of by-pass passages extending longitudinally thereof whose extremities communicate with its bore, above and below the line therein, valves disposed at the upper extremities of said by-pass passages, and a reciprocating valved piston operatively disposed in each of said liners, to coöperate with said by-pass passages substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,137,212. SPORTING DIRIGIBLE BALLOON. SARKIS JELALIAN, Cranston, R. I. Filed Jan. 14, 1915. Serial No. 2,138. (Cl. 244—9.)

1. An apparatus of the character described, comprising a gas bag having means to permit the escape of gas from the latter, a rectangular back support suspended from said bag and adapted to be secured to the body of the aviator, a flat outwardly extending wing portion pivoted to and projecting from each side of said support, a pair of bird like wings pivotally secured to the forward end of said support, and arm-securing straps on said wings.

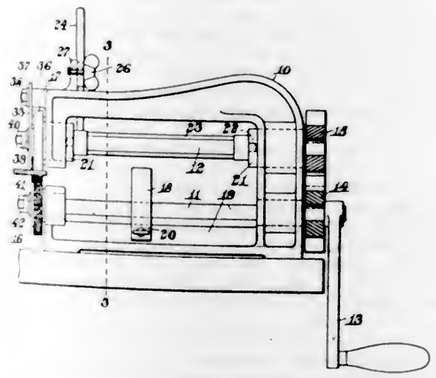


2. An apparatus of the character described, comprising a gas bag having means to permit the gas to escape from the latter, a rectangular support for the aviator having outwardly extending planes pivoted to and projecting from each side thereof, wings pivotally secured to the said support, forwardly of its planes, said support and said wings having straps for securing to the body of the aviator.

3. An apparatus of the character described, comprising a gas bag having means to permit the escape of gas from the latter, a support having outwardly extending planes pivoted to and projecting from each side thereof, flat wings pivotally secured to the forward part of said support, and means for securing the said support and said wings to the aviator, a hat adapted to be secured to the aviator and having a flat outwardly projecting pentagonal plane.

4. An apparatus of the character described, comprising a gas bag having means to permit the escape of gas from the latter, a back-support, planes projecting from each side of the same, a movable bar, supports for said planes, each support pivoted to the said back-support and connected to the said bar, and means to actuate said bar to bring the supports for said planes to a folded position.

1,137,213. SOLE-LEATHER-CUTTING MACHINE. LAWRENCE E. JOHNSON, Winthrop, Mass., assignor to Victor Shoe Machinery Co., Boston, Mass., a Corporation of Massachusetts. Filed Apr. 6, 1914. Serial No. 830,078. (Cl. 164—49.)



1. In a device of the class described, the combination of two parallel shafts revoluble in opposite directions; a cutting knife; and means on said shafts for imparting a combined reciprocatory and vibratory movement to said knife.

2. In a device of the class described, the combination of two feed rolls; a knife having a cutting edge perpendicular to the axes of said rolls; and means revoluble with said feed rolls for imparting to said knife a combined simultaneously reciprocatory and vibratory movement in the same plane.

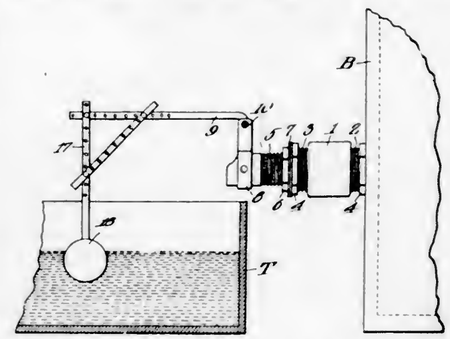
3. In a device of the class described, the combination of two feed rolls; a knife having a cutting edge perpendicular to the axes of said rolls; and means operable with said feed rolls for simultaneously reciprocating said knife and simultaneously moving it first in the direction of feed and then in the opposite direction.

4. In a device of the class described, the combination of two feed rolls; a cutting knife having an opening therethrough at one end; and an eccentric in said opening revoluble with one of said feed rolls.

5. In a device of the class described, the combination of two feed rolls; a cutting knife having openings therethrough at opposite ends; and eccentrics in said openings revoluble with said feed rolls.

[Claims 6 to 18 not printed in the Gazette.]

1,137,214. DEVICE FOR WATERING STOCK. STEPHEN T. KELLEY, Great Falls, Mont. Filed Aug. 10, 1914. Serial No. 856,066. (Cl. 137—68.)

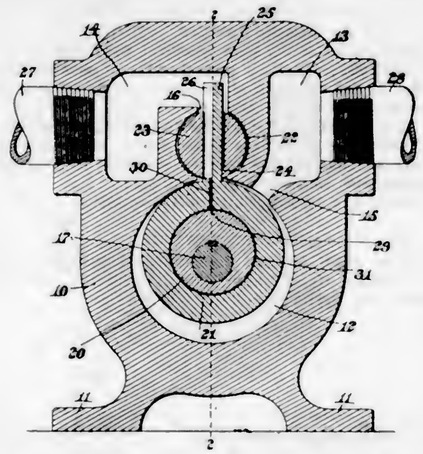


A device for watering stock, including a water supply, a bushing having a restricted inlet and an enlarged outlet connected to the supply, a tubular casing connected exteriorly of the enlarged outlet of the bushing, a second bushing connected in the opposite end of the casing and having a reduced internally threaded bore, an externally threaded pipe extending therethrough and having one end projected into and out of contact with the tubular casing, such extended end forming a valve seat, the outer end of the pipe being provided with a spout and with a longitudinal slot in the upper wall thereof, a clamp surrounding the spout and having a pair of arms extending upwardly therefrom, said arms being spaced apart so that the space thereof alines with the slot of the spout, a float actuated bell crank lever pivoted between the arms and with one end thereof movable in the slot and projecting into the spout end of the pipe, a disk valve having a plurality of guide pins mounted in the casing, the pins being extended into the pipe from within so that the valve is slidable to and from the seat and is carried by the pipe, said valve being of lesser diameter than the casing and out of contact therewith, an apertured lug carried by the valve and upon the same side thereof as the pins, and a link connected to the apertured lug of the valve and to the end of the bell crank lever within the pipe.

1,137,215. ROTARY PUMP. JUSTUS R. KINNEY, Dorchester, Mass., assignor to The Kinney Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,539. (Cl. 103—44.)

1. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber

and an outlet compartment communicating therewith; a revoluble shaft centrally disposed therein; an eccentric thereon; and an annular piston on said eccentric having a radial blade extending into said outlet compartment and provided with a groove extending transversely of its inner cylindrical wall communicating with the outlet compartment by means of a passage through said blade.



2. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber and an outlet compartment communicating therewith; a revoluble shaft centrally disposed therein; an eccentric thereon; and an annular piston on said eccentric having a radial blade extending into said outlet compartment and provided with a groove extending transversely of its inner cylindrical wall communicating constantly with the outlet compartment by means of a passage through said blade.

3. In a device of the class described, the combination of a casing provided with a cylindrical piston chamber and an outlet compartment communicating therewith; a revoluble shaft centrally disposed therein; an eccentric thereon; and an annular piston on said eccentric having a radial blade extending into said outlet compartment and provided with a groove extending transversely of its inner cylindrical wall communicating constantly with the outlet compartment.

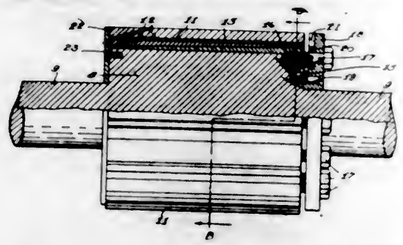
4. In a device of the class described having an inclosed outlet compartment, the combination of an eccentric, an annular piston, and means for supplying a film of liquid between said eccentric and piston under constant pressure through a passage communicating directly with said outlet compartment.

5. In a device of the class described having an outlet compartment, the combination of an eccentric, an annular piston, and means for supplying directly from said outlet compartment a film of liquid between said eccentric and piston under constant pressure.

[Claims 6 and 7 not printed in the Gazette.]

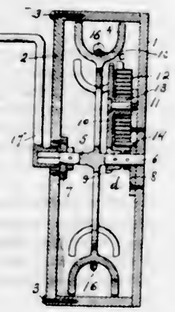
1,137,216. CUTTER-HEAD. CARL J. KLINGBORG, Seattle, Wash. Filed May 2, 1914. Serial No. 836,025. (Cl. 144—230.)

1. In a cutter-head, the combination with a blade cylinder having longitudinal slots in the periphery thereof, of blades disposed to extend lengthwise in said slots with their cutting edges projecting outwardly from the periphery of said cylinder; chip-breakers associated with each of said blades; wedges to engage with said chip-breakers and with the walls of said slots; a plate secured to the end of said blade cylinder and spaced therefrom; and adjusting bolts associated with said plate and disposed each to screw into an end of a different one of said wedges to move such wedge lengthwise within its slot to clamp a knife and a chip-breaker within said slot.



2. In a cutter-head, the combination with a blade cylinder having longitudinal slots in the periphery thereof, of cutter knives disposed in said slots; chip-breakers disposed in said slots adjacent said cutter knives; wedges longitudinally disposed to engage with said chip-breaker with the sides of said slots, a plate secured to one end of said blade cylinder, bolts extending through the plate and engaging the wedges for moving said wedge endwise within said slots; and a plate associated with the opposite end of said cylinder to prevent endwise movement of said chip-breakers and said cutter knives when said wedges are moved.

1,137,217. CLOTHES-LINE REEL. ROY R. LANE, Independence, Mo. Filed Nov. 5, 1909. Serial No. 526,439. (Cl. 242—102.)

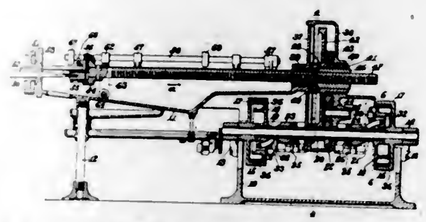


1. In a clothes line reel, the combination with a casing having an opening, of a gear wheel rotatively mounted in the casing, a spring for rotating the gear wheel, a reel insertible and removable through said opening without removing the spring, and a pinion secured to and rotatable with the reel and movable with the reel to and from the casing and to and from a position in which it will engage the gear wheel.

2. In a clothes line reel, the combination with a casing having an opening and a cover for closing said opening, of a reel rotatively mounted on the cover and removable with the cover from said casing, a gear wheel rotatively mounted in the casing, a spring for rotating the gear wheel, and a pinion secured to and rotatable with the reel and movable with the reel to and from the casing without removing the spring and movable to and from a position in which it will engage the gear wheel.

1,137,218. KEY-SEAT-BROACHING MACHINE. [illegible] CIS J. LAPOINTE, Hudson, Mass. Filed July 26, 1911. Serial No. 640,960. (Cl. 90—33.)

1. In a machine of the class described, the combination of a bed frame; a tool holder adapted to reciprocate lengthwise thereof and consisting in part of a nonrevoluble screw; a nut on said screw; gears mounted on the periphery of said nut and secured thereto; a revoluble shaft parallel to said screw; and mechanism on said shaft adapted to coact with said gears to impart rotary movement to said nut in either direction and to be moved into inoperative position by the reciprocation of said holder.



2. In a machine of the class described, the combination of a bed frame; a tool holder adapted to reciprocate lengthwise thereof and consisting in part of a nonrevoluble screw; a nut on said screw; two gears secured to the periphery of said nut; a revoluble shaft parallel to said screw; and mechanism thereon for driving said gears alternately in opposite direction adapted to be moved into inoperative position by the reciprocation of said holder.

3. In a machine of the class described, the combination of a bed frame; a tool holder adapted to reciprocate lengthwise thereof and consisting in part of nonrevoluble screw; a nut on said screw; two gears secured to the periphery of said nut; a revoluble shaft parallel to said screw; mechanism thereon for driving said gears alternately in opposite directions; and mechanism operable by the reciprocating movement of said holder for stopping the operation of said driving mechanism.

4. In a machine of the class described, the combination of a bed frame; a reciprocating tool holder thereon consisting in part of a nonrevoluble screw; a nut on said screw; two gears secured to the periphery of said nut; a revoluble shaft parallel to said screw; two sleeves upon said shaft; a pinion on each adapted to drive one of the nut gears; clutches fixedly secured to said shaft for controlling the operation of said sleeves; manually controlled mechanism slidable lengthwise of said sleeves for actuating either of said clutches; and means controlled by the movement of said holder for disengaging said engaged clutch.

5. In a machine of the class described, the combination of a bed frame; a reciprocating tool holder thereon consisting in part of a nonrevoluble screw; a nut on said screw; two gears secured to said nut; a revoluble shaft parallel to said screw; two sleeves upon said shaft; a pinion on each adapted to drive one of the nut gears; an intermediate gear interposed between one of said nut gears and one of said pinions; clutches fixedly secured to said shaft for controlling the operation of said sleeves; manually controlled mechanism slidable lengthwise of said sleeves for actuating either of said clutches; and means controlled by the movement of said holder for disengaging said clutch.

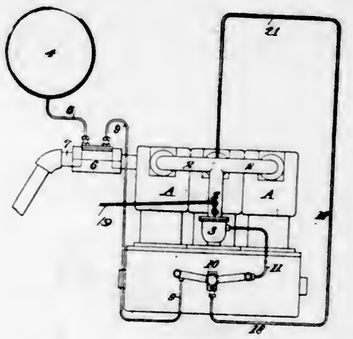
[Claims 6 to 26 not printed in the Gazette.]

1,137,219. HEATER AND THERMOSTAT ATTACHMENT FOR MOTORS. THOMAS C. LEAKE, San Francisco, Cal., assignor to Leake Motor Fuel Economy Company, a Corporation of California. Filed Apr. 9, 1914. Serial No. 830,709. (Cl. 48—148.)

1. An attachment for an internal combustion engine having a manifold and carbureter, consisting of a hydrocarbon fuel supply pipe connected to the carbureter, a pipe connecting the fuel supply pipe with the manifold, means for heating the fuel, and means operated by the rise in temperature of the fuel for cutting off the flow of fuel directed into the manifold.

2. An attachment for an internal combustion engine having a manifold and carbureter, consisting of a source of hydrocarbon supply, a pipe connecting said supply with the carbureter, a casing forming a part of said pipe, a pipe connecting the casing with the upper part of the manifold adapted to conduct hydrocarbon directly to the manifold, means for heating the hydrocarbon, and means operated by the rise in temperature of the hydrocarbon for cutting off the flow of hydrocarbon directed to the manifold.

3. An attachment for an internal combustion engine having a manifold, consisting of means for introducing liquid hydrocarbon directly into said manifold, means for heating the hydrocarbon before it enters the manifold, and means operated by a rise in temperature of the hydrocarbon for cutting off the direct supply thereof to the manifold.

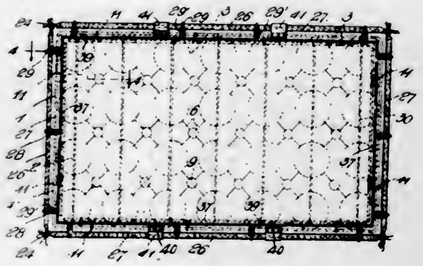


4. An attachment for an internal combustion engine having a manifold and carbureter, consisting of a fuel supply tank, pipes connecting said tank with the carbureter and with the manifold, whereby fuel is fed to the carbureter and directly to the manifold and means for automatically controlling the supply of fuel directed to the manifold.

5. An attachment for an internal combustion engine provided with a manifold and carbureter, and exhaust pipe, consisting of a fuel supply tank, a conductor extending from said tank to the carbureter disposed in thermal communication with the exhaust pipe, a casing interposed in said pipe, a pipe leading from said casing to the upper part of the manifold whereby fuel may be fed directly into the manifold, and thermally operated means in said casing for controlling the flow of fuel through said last mentioned pipe.

[Claims 6 to 8 not printed in the Gazette.]

1,137,220. BED-BOTTOM. EMIL LEHMANN, Hammond, Ind. Filed Dec. 1, 1913. Serial No. 804,023. (Cl. 5—13.)

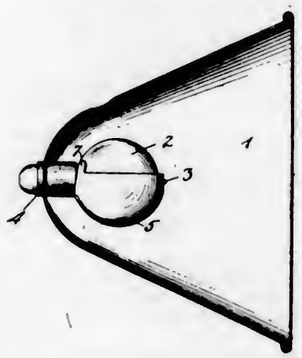


1. In a structure of the character described, a vertical rectangular shaped metal frame having a horizontal lip projecting outwardly at its top, downwardly projecting studs on the bottom of said lip at spaced intervals, a plurality of coiled springs mounted on spaced slats across the bottom of the frame and supporting a pad and cover, flaps hanging from the sides and ends of said cover, having at

their lower edges hems adapted to incase independent wire rods, wire hooks having slotted elongated shanks slidably mounted on said studs, the bills of said hooks being adapted to pass transversely through said hems and engage over the rods in said hems, whereby the said flaps are held taut between the frame and cover substantially as described.

2. In a structure of the character described, a vertical rectangular shaped metal frame having a horizontal lip projecting outwardly near its top, said frame comprising ends and sides, loop-shaped handles riveted to the bottom of said lip along the two sides of the metal frame, said loop handles having hooks on their upper sides near the top of the loops, a plurality of coiled springs mounted on spaced slats across the bottom of the frame, a pad and a cover, said springs supporting said pad, said cover having end and side flaps secured to the frame at the bottom of said lip, and said side flaps having eyes, whereby the said hooks on the handles can be engaged with the eyes on the flaps to cause the loop handles to stand upright substantially as described.

1,137,221. HEADLIGHT ATTACHMENT. WILLIAM F. LENNON, Willimantic, Conn. Filed Feb. 12, 1915. Serial No. 7,668. (Cl. 240—47.)



1. In a light deflector for an incandescent lamp bulb, a main body portion designed to cover one side of the bulb, a spring clip at the forward edge of said deflector arranged to yieldingly engage the tip of the bulb with means at the rear edge of the deflector for engaging the rear of the bulb, said last mentioned means comprising two spaced yielding clips integral with said main body.

2. In a deflector for an incandescent lamp bulb, a main body arranged to substantially fit and cover one side of the lamp bulb, the forward edge of said body being slitted to form a spring clip, the latter being arranged to yieldingly to engage the tip of the bulb, with means at the rear edge of said deflector to engage the rear of the bulb, said means and said spring clip serving to hold said deflector in place.

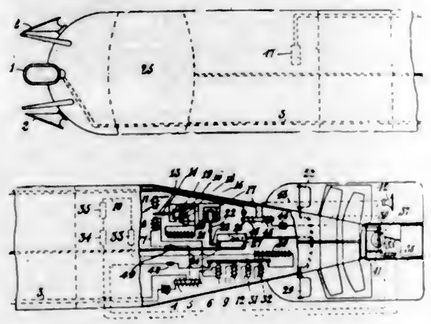
3. In a light deflector for an incandescent lamp bulb, a main body portion designed to cover one side of the bulb, a spring clip at the forward edge of said deflector arranged to yieldingly engage the tip of the bulb with means at the rear edge of the deflector for engaging the rear of the bulb, said last mentioned means comprising two spaced flexible clips, and a non-metallic pad interposed between said spring clip and said bulb.

1,137,222. TORPEDO AND OTHER SUBMARINE APPARATUS. KARL OSKAR LEON, Gottenborg, Sweden, assignor to Leon Steering Device Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 11, 1908. Serial No. 415,309. (Cl. 114—23.)

1. A submarine vessel combined with a receiver adapted to be actuated by vibrations of the water, and a controlling means actuated by said receiver.

2. In a submarine vessel, the combination with a propelling engine and a steering device, of controlling means therefor, and a receiver operating said controlling means and adapted to be actuated by the vibrations of the water.

3. The combination with a submarine vessel of a receiver adapted to be actuated by vibrations of the water, a steering device for the said vessel, and controlling means therefor operated by said receiver for causing the vessel to approach the source of vibrations.

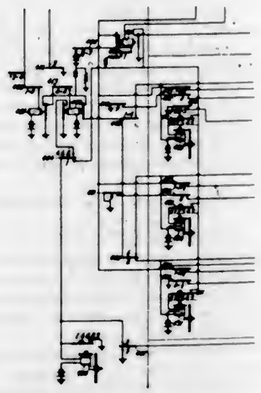


4. The combination with a submarine vessel of opposite receivers adapted to be actuated by sound vibrations, a steering device for the said vessel, and controlling means therefor actuated by either of said receivers for directing the vessel toward the source of sound.

5. The combination with a submarine vessel of two receivers adapted to be actuated by sound vibrations, a steering device for the said vessel and controlling means adapted to operate the steering device in one or the other direction, when actuated by one or the other receiver, for steering the vessel toward the source of sound.

[Claims 6 to 14 not printed in the Gazette.]

1,137,223. MACHINE TELEPHONE SWITCHING SYSTEM. FRANK ROBERT MCBERTY, Antwerp, and LIPA POLINKOWSKY, Brussels, Belgium, assignors to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Mar. 2, 1914. Serial No. 821,874. (Cl. 179—18.)



1. Registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, a sequence switch controlling the circuits by which said register controllers are set one after another and a second sequence switch controlling the circuits by which said register controllers one after another exercise their selection controlling operations.

2. Registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers adapted to register the numerical designation of the desired line, and to produce selection controlling operations in accordance therewith, an incoming circuit under the control of which such register-controllers are one after another set, and an outgoing or selection controlling circuit over which said register-controllers one after another perform their selection controlling operations, and two sequence switches one controlling the association of such register-controllers with said incoming circuit and the other controlling the association of such register-controllers with said outgoing circuit.

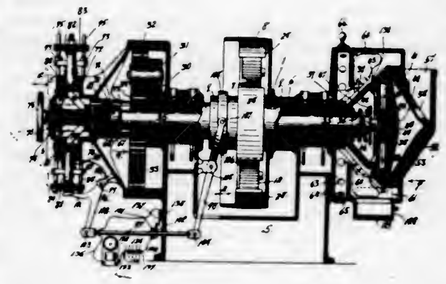
3. Registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, an incoming circuit under the control of which said register-controllers are adapted to be set to register the numerical designation of the desired line, an outgoing circuit over which said register-controllers perform their respective controlling operations, a sequence switch associated with said register-controllers and said incoming circuit adapted to associate said register controllers one after another with said incoming circuit in response to changeover impulses in said circuit, a second sequence switch associated with said register-controllers and said outgoing circuit, a circuit controlled by said first sequence switch for operating said second sequence switch to associate a register-controller with said outgoing circuit, and a circuit controlled by said register-controller in the position taken by it at the termination of its selection controlling operation to operate said second sequence switch to remove such register-controller from association with said outgoing circuit and associate a second register-controller therewith.

4. A registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, an incoming circuit under the control of which said register-controllers are set to register the numerical designation of the desired line, an outgoing circuit over which the said register-controllers perform their selection controlling operations, a sequence switch associated with said incoming circuit and said register-controllers to associate said register-controllers one after another with said incoming circuit in response to the changeover impulse in said incoming circuit, a second sequence switch associated with said register-controllers and said outgoing circuit for associating said register-controllers one after another therewth, a circuit controlled by said first sequence switch the closure of which causes said second sequence switch to operate to associate a first register-controller with said outgoing circuit, and a circuit jointly controlled by said first register-controller and said first sequence switch, the closure of which causes said second sequence switch to remove such first register-controller from association with said outgoing circuit and associate a second register-controller therewith.

5. A registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, an incoming circuit by which the setting of said register-controllers is controlled when they are one after another associated therewith, a slow operating relay coöperating with said incoming circuit and adapted to respond only to a prolonged impulse in said circuit, a sequence switch associated with said slow acting relay and said register-controllers responsible to the operation of the slow acting relay to cause the association of said register-controllers with said incoming circuit one after another, an outgoing circuit over which such register controllers perform their selection controlling operations when one after another associated therewith, a second sequence switch associated with said register-controllers, and said outgoing circuit controlling the association of said register-controllers one after another with said outgoing circuit, and a plurality of controlling circuits for said sequence switch each jointly controlled by one of said register-controllers and said first sequence switch.

[Claim 6 not printed in the Gazette.]

1,137,224. GRINDING-MILL. EDWARD F. MCCOOL, Victor, Colo. Filed May 27, 1912. Serial No. 699,907. (Cl. 83—10.)



1. In an ore-grinder, the combination of a grinding-member, a rotary shaft connected in operative relation with said member, spring-actuated cross-heads movable at right angles to said shaft, and an operative connection between the said shaft and said cross-heads whereby the springs act to impart an endwise thrust to the shaft in the direction of the grinding member.

2. In an ore grinder, the combination of a grinding-member, an endwise-movable rotary shaft connected in operative relation with said grinding member, coil springs having their axes at right angles to the axis of the shaft, and an operative connection between said springs and the shaft to impart an endwise thrust to the latter.

3. In an ore grinder, the combination of a grinding-member, an endwise-movable rotary shaft connected in operative relation with said grinding-member, coil springs having their axes at right angles to the axis of the shaft, and an operative connection between said springs and the shaft to impart an endwise thrust to the latter, comprising blocks acted on by the springs and movable at right angles to the axis of the shaft, and a toggle connection between the blocks and the shaft.

4. The combination of a grinding-member, a rotary endwise movable shaft connected in operative relation with the grinding-member, blocks movable at right angles to the axis of the shaft, cross-heads acting on the blocks, springs acting on the cross-heads, and a toggle connection between the blocks and the shaft to cause the tension of the springs to act on the shaft in an endwise direction.

5. In a grinder, the combination of an endwise-movable shaft, a grinding member connected in operative relation with one extremity of the shaft, blocks movable at right angles to the axis of the shaft, a toggle connection between the said blocks and the shaft, cross-heads acting on the blocks, springs acting on the cross-heads, a power pulley concentrically arranged with reference to the shaft but loose thereon, having a clutch splined on the shaft and connected in operative relation with the power pulley, and an operative connection between one of the said cross-heads and the clutch, whereby, as the cross-heads are thrust outwardly by the rearward movement of the shaft, the clutch is actuated to disengage the shaft from the power influence of the operating pulley, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,137,225. [WITHDRAWN.]

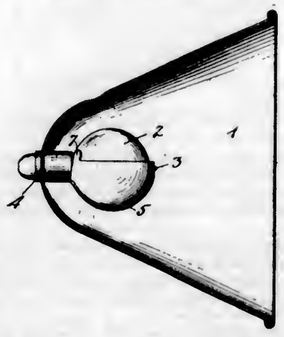
1,137,226. ELECTROLYTE FOR PRIMARY BATTERIES. ARTHUR P. MANCHESTER, Providence, R. I. Filed Dec. 26, 1912. Serial No. 738,760. (Cl. 204—38.)

1. A gelatinous alkaline electrolyte for primary batteries formed of an alkaline hydroxid of approximately 28 grav-

their lower edges hems adapted to incase independent wire rods, wire hooks having slotted elongated shanks slidably mounted on said studs, the bills of said hooks being adapted to pass transversely through said hems and engage over the rods in said hems, whereby the said flaps are held taut between the frame and cover substantially as described.

2. In a structure of the character described, a vertical rectangular shaped metal frame having a horizontal lip projecting outwardly near its top, said frame comprising ends and sides, loop-shaped handles riveted to the bottom of said lip along the two sides of the metal frame, said loop handles having hooks on their upper sides near the top of the loops, a plurality of coiled springs mounted on spaced slats across the bottom of the frame, a pad and a cover, said springs supporting said pad, said cover having end and side flaps secured to the frame at the bottom of said lip, and said side flaps having eyes, whereby the said hooks on the handles can be engaged with the eyes on the flaps to cause the loop handles to stand upright substantially as described.

1,137,221. HEADLIGHT ATTACHMENT. WILLIAM F. LENNON, Willimantic, Conn. Filed Feb. 12, 1915. Serial No. 7,668. (Cl. 240—47.)



1. In a light deflector for an incandescent lamp bulb, a main body portion designed to cover one side of the bulb, a spring clip at the forward edge of said deflector arranged to yieldingly engage the tip of the bulb with means at the rear edge of the deflector for engaging the rear of the bulb, said last mentioned means comprising two spaced yielding clips integral with said main body.

2. In a deflector for an incandescent lamp bulb, a main body arranged to substantially fit and cover one side of the lamp bulb, the forward edge of said body being slitted to form a spring clip, the latter being arranged to yieldingly to engage the tip of the bulb, with means at the rear edge of said deflector to engage the rear of the bulb, said means and said spring clip serving to hold said deflector in place.

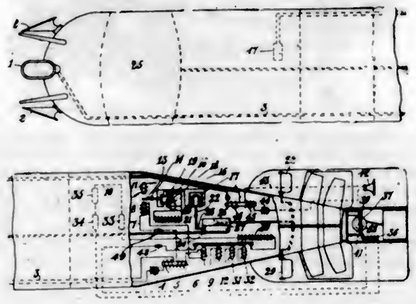
3. In a light deflector for an incandescent lamp bulb, a main body portion designed to cover one side of the bulb, a spring clip at the forward edge of said deflector arranged to yieldingly engage the tip of the bulb with means at the rear edge of the deflector for engaging the rear of the bulb, said last mentioned means comprising two spaced flexible clips, and a non-metallic pad interposed between said spring clip and said bulb.

1,137,222. TORPEDO AND OTHER SUBMARINE APPARATUS. KARL OSKAR LEON, Gottenborg, Sweden, assignor to Leon Steering Device Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 11, 1908. Serial No. 415,309. (Cl. 114—23.)

1. A submarine vessel combined with a receiver adapted to be actuated by vibrations of the water, and a controlling means actuated by said receiver.

2. In a submarine vessel, the combination with a propelling engine and a steering device, of controlling means therefor, and a receiver operating said controlling means and adapted to be actuated by the vibrations of the water.

3. The combination with a submarine vessel of a receiver adapted to be actuated by vibrations of the water, a steering device for the said vessel, and controlling means therefor operated by said receiver for causing the vessel to approach the source of vibrations.

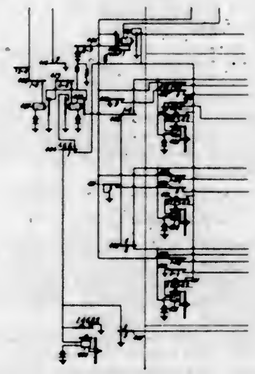


4. The combination with a submarine vessel of opposite receivers adapted to be actuated by sound vibrations, a steering device for the said vessel, and controlling means therefor actuated by either of said receivers for directing the vessel toward the source of sound.

5. The combination with a submarine vessel of two receivers adapted to be actuated by sound vibrations, a steering device for the said vessel and controlling means adapted to operate the steering device in one or the other direction, when actuated by one or the other receiver, for steering the vessel toward the source of sound.

[Claims 6 to 14 not printed in the Gazette.]

1,137,223. MACHINE TELEPHONE SWITCHING SYSTEM. FRANK ROBERT MCBERTY, Antwerp, and LIPA POLINKOWSKY, Brussels, Belgium, assignors to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Mar. 2, 1914. Serial No. 821,874. (Cl. 179—18.)



1. Registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, a sequence switch controlling the circuits by which said register controllers are set one after another and a second sequence switch controlling the circuits by which said register controllers one after another exercise their selection controlling operations.

2. Registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers adapted to register the numerical designation of the desired line, and to produce selection controlling operations in accordance therewith, an incoming circuit under the control of which such register-controllers are one after another set, and an outgoing or selection controlling circuit over which said register-controllers one after another perform their selection controlling operations, and two sequence switches one controlling the association of such register-controllers with said incoming circuit and the other controlling the association of such register-controllers with said outgoing circuit.

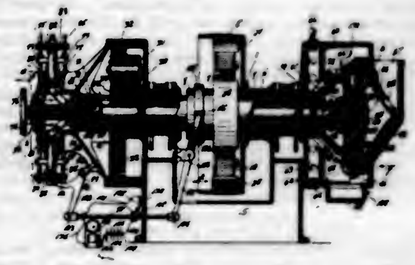
3. Registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, an incoming circuit under the control of which said register-controllers are adapted to be set to register the numerical designation of the desired line, an outgoing circuit over which said register-controllers perform their respective controlling operations, a sequence switch associated with said register-controllers and said incoming circuit adapted to associate said register controllers one after another with said incoming circuit in response to changeover impulses in said circuit, a second sequence switch associated with said register-controllers and said outgoing circuit, a circuit controlled by said first sequence switch for operating said second sequence switch to associate a register-controller with said outgoing circuit, and a circuit controlled by said register-controller in the position taken by it at the termination of its selection controlling operation to operate said second sequence switch to remove such register-controller from association with said outgoing circuit and associate a second register-controller therewith.

4. A registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, an incoming circuit under the control of which said register-controllers are set to register the numerical designation of the desired line, an outgoing circuit over which the said register-controllers perform their selection controlling operations, a sequence switch associated with said incoming circuit and said register-controllers to associate said register-controllers one after another with said incoming circuit in response to the changeover impulse in said incoming circuit, a second sequence switch associated with said register-controllers and said outgoing circuit for associating said register-controllers one after another therewth, a circuit controlled by said first sequence switch the closure of which causes said second sequence switch to operate to associate a first register-controller with said outgoing circuit, and a circuit jointly controlled by said first register-controller and said first sequence switch, the closure of which causes said second sequence switch to remove such first register-controller from association with said outgoing circuit and associate a second register-controller therewith.

5. A registering and controlling equipment for machine switching telephone systems comprising a plurality of register-controllers, an incoming circuit by which the setting of said register-controllers is controlled when they are one after another associated therewith, a slow operating relay coöperating with said incoming circuit and adapted to respond only to a prolonged impulse in said circuit, a sequence switch associated with said slow acting relay and said register-controllers responsible to the operation of the slow acting relay to cause the association of said register-controllers with said incoming circuit one after another, an outgoing circuit over which such register-controllers perform their selection controlling operations when one after another associated therewith, a second sequence switch associated with said register-controllers, and said outgoing circuit controlling the association of said register-controllers one after another with said outgoing circuit, and a plurality of controlling circuits for said sequence switch each jointly controlled by one of said register-controllers and said first sequence switch.

[Claim 6 not printed in the Gazette.]

1,137,224. GRINDING-MILL. EDWARD F. MCCOOL, Victor, Colo. Filed May 27, 1912. Serial No. 699,807. (Cl. 83—10.)



1. In an ore-grinder, the combination of a grinding-member, a rotary shaft connected in operative relation with said member, spring-actuated cross-heads movable at right angles to said shaft, and an operative connection between the said shaft and said cross-heads whereby the springs act to impart an endwise thrust to the shaft in the direction of the grinding member.

2. In an ore grinder, the combination of a grinding-member, an endwise-movable rotary shaft connected in operative relation with said grinding member, coil springs having their axes at right angles to the axis of the shaft, and an operative connection between said springs and the shaft to impart an endwise thrust to the latter.

3. In an ore grinder, the combination of a grinding-member, an endwise-movable rotary shaft connected in operative relation with said grinding-member, coil springs having their axes at right angles to the axis of the shaft, and an operative connection between said springs and the shaft to impart an endwise thrust to the latter, comprising blocks acted on by the springs and movable at right angles to the axis of the shaft, and a toggle connection between the blocks and the shaft.

4. The combination of a grinding-member, a rotary endwise movable shaft connected in operative relation with the grinding-member, blocks movable at right angles to the axis of the shaft, cross-heads acting on the blocks, springs acting on the cross-heads, and a toggle connection between the blocks and the shaft to cause the tension of the springs to act on the shaft in an endwise direction.

5. In a grinder, the combination of an endwise-movable shaft, a grinding member connected in operative relation with one extremity of the shaft, blocks movable at right angles to the axis of the shaft, a toggle connection between the said blocks and the shaft, cross-heads acting on the blocks, springs acting on the cross-heads, a power pulley concentrically arranged with reference to the shaft but loose thereon, having a clutch splined on the shaft and connected in operative relation with the power pulley, and an operative connection between one of the said cross-heads and the clutch, whereby, as the cross-heads are thrust outwardly by the rearward movement of the shaft, the clutch is actuated to disengage the shaft from the power influence of the operating pulley, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,137,225. [WITHDRAWN.]

1,137,226. ELECTROLYTE FOR PRIMARY BATTERIES. ARTHUR P. MANCHESTER, Providence, R. I. Filed Dec. 26, 1912. Serial No. 738,760. (Cl. 204—38.)

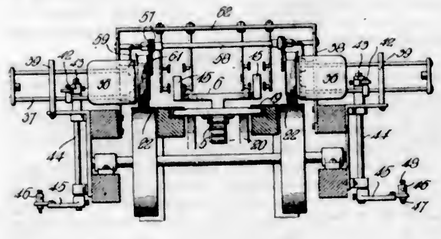
1. A gelatinous alkaline electrolyte for primary batteries formed of an alkaline hydroxid of approximately 28 grav-

ity Baumé with which vegetable starch is combined at a temperature of approximately 180° F. and in quantity substantially less than that required to gelatinize an equal quantity of water.

2. A gelatinous alkaline electrolyte for primary batteries formed of sodium hydroxid of approximately 28 gravity Baumé with which vegetable starch is combined at a temperature of approximately 180° F. and in quantity substantially less than that required to gelatinize an equal quantity of water.

3. A gelatinous alkaline electrolyte for primary batteries formed of an alkaline hydroxid of approximately 28 gravity Baumé with which vegetable starch is combined at a temperature of approximately 180° F. and in substantially the proportions of approximately 273.1 grs. of starch to one pound of hydroxid.

1,137,227. CARTON-FEEDING MECHANISM. FRANK B. MARTIN, Battle Creek, Mich., assignor to Postum Cereal Co., Limited, Battle Creek, Mich., a Copartnership of Michigan. Filed Oct. 27, 1910. Serial No. 589,426. (Cl. 193—24.)



1. In a machine of the character described, the combination of means for supporting and guiding two streams of cartons, a main conveyer traveling between said guiding and supporting means, two feed-conveyers to supply to said main conveyer, and means for simultaneously moving a carton from each feed-conveyer to said guiding and supporting means to be engaged by the main conveyer.

2. In a machine of the character described, the combination of two parallel belts for conveying two streams of cartons, two carton guiding ways within the planes of said belts, a conveyer between the guideways provided with means for propelling cartons along the guiding ways, and means comprising transverse push members for simultaneously pushing a carton off each belt upon the adjacent guideway.

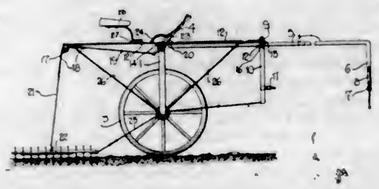
3. In a machine of the character described, the combination of means for supporting and guiding two streams of cartons, a main conveyer to travel between said carton supporting and guiding means, followers arranged at intervals on said main conveyer and provided with members to engage with cartons in both streams and push them through said carton guiding means, feed conveyers to supply cartons to said main conveyer, and means for simultaneously pushing a carton from each feed conveyer into the path of the carton engaging members of a follower on the main conveyer.

4. In a machine of the character described, the combination of means for supporting two streams of cartons, pairs of spaced guiding members for guiding two streams of cartons on said supporting means, means whereby the guiding members of each pair may be adjusted toward and from each other for the reception of different sized cartons, a main conveyer to travel between the two carton supporting and guiding means, and provided at intervals with followers having members to engage cartons and push them through said guiding means, and means for feeding cartons simultaneously to both members of a follower on the main conveyer.

5. In a machine of the character described, the combination of a carton supporting plate, spaced carton guiding members adjacent the latter, means for adjusting one of said members toward and from the other to receive cartons of different sizes, and means for feeding cartons to said guiding members.

[Claims 6 to 17 not printed in the Gazette.]

1,137,228. AGRICULTURAL IMPLEMENT. JOHN J. MATHEY and THEODORE E. WILLIAMS, Robey, S. D. Filed May 14, 1914. Serial No. 838,553. (Cl. 55—89.)



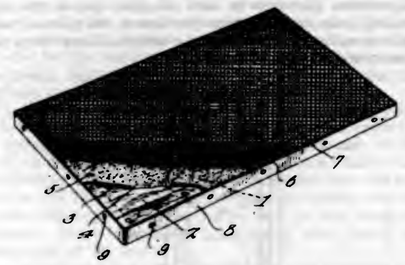
1. A device of the character described comprising an arched supporting member having a cross arm, a draft tongue connected with the cross arm of the member, a frame substantially U-shape in form operatively connected with the cross arm and with the draft tongue, such U-shape frame having its stems disposed rearwardly, an agricultural implement, a connection between such implement and the supporting member, a second connection between the implement and the member coacting with the frame, and means for adjusting the last named connection for elevating the implement.

2. A device of the character described comprising an arched supporting member having its extremities provided with oppositely directed trunnions and having a cross arm, traction wheels mounted on such trunnions, a draft tongue operatively connected with the cross arm of the supporting member and provided forwardly thereof, a substantially U-shape frame connected to the cross arm of the supporting member and to the tongue in advance of such member, the stems of such frame being disposed rearwardly, an agricultural implement, a connection between such implement and a trunnion of the supporting member, a lever mounted for rocking movement on the cross arm of the supporting member, a connection between such lever and the agricultural implement, and a guiding means for such last named connection carried by the rear portion of the frame.

3. A device of the character described comprising an arched supporting member having a cross arm, a draft tongue connected with the cross arm of the member, a frame substantially U-shape in form operatively connected with the cross arm and with the draft tongue, such U-shape frame having its stems disposed rearwardly, an agricultural implement, a connection between such implement and the supporting member, a second connection between the implement and the member coacting with the frame, means for adjusting such last named connection for elevating the implement, and a seat structure carried by the frame rearwardly of the supporting member.

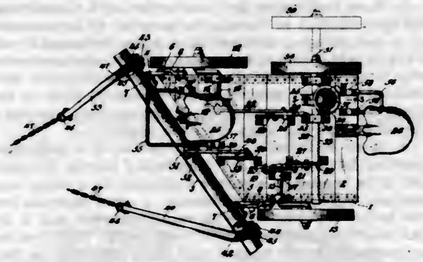
1,137,229. TRACING-BOARD. EMMA A. O'BRIEN, Wichita, Kans. Filed Nov. 12, 1914. Serial No. 871,843. (Cl. 101—132.)

A marking board comprising a base, a sheet of cotton flannel thereon with the fleece side uppermost, a marking powder upon the fleece side of the said sheet, a fabric sheet of fine mesh disposed upon the fleece side of the said



sheet, and a covering of coarse mesh disposed upon the fine mesh sheet.

1,137,230. WHEELED SCRAPER. JUDSON E. PETTY, Greensboro, N. C. Filed Nov. 6, 1913. Serial No. 799,534. (Cl. 37—7.)



1. A scraper of the class described including a main frame, an obliquely arranged scraper blade extending across the front of the main frame and carried by the latter, front and rear main side wheels arranged at opposite sides of the frame in different transverse planes and located directly in rear of the terminal portions of the scraper blade, crank axles mounted on the main frame and carrying the said wheels, and an auxiliary side wheel mounted on the main frame opposite the rear main side wheel and adjustable laterally of the main frame to arrange it directly in rear of the front side wheel and also at a point beyond the longitudinal plane of the same.

2. A scraper of the class described comprising a main frame, an obliquely arranged scraper blade extending across the front of the main frame and carried by the latter, front and rear main side wheels arranged at opposite sides of the frame in different transverse planes and located in rear of the terminal portions of the scraper blade, and an auxiliary side wheel mounted on the main frame opposite the rear main side wheel and adjustable laterally of the main frame to arrange it in rear of the front main side wheel and also at a point beyond the longitudinal plane of the same.

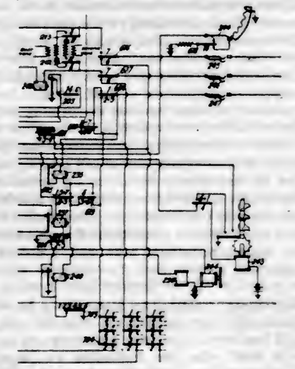
3. A scraper of the class described comprising a main frame including a platform, an obliquely arranged blade inclined to the line of travel and extending across the front of the main frame, said blade being pivotally connected to the main frame so as to swing upwardly and downwardly, means mounted on the main frame and operable from the platform for adjusting the scraper blade upwardly and downwardly with respect to the main frame, wheels supporting the main frame and adjustable to tilt the same and the scraper blade laterally, and draft beams secured to and extending forwardly from the scraper blade at opposite sides of the scraper and carried by the said scraper blade in the adjustment thereof.

4. A scraper of the class described comprising a main frame including a platform, an obliquely arranged blade inclined to the line of travel and extending across the front of the main frame, said blade being pivotally connected to the main frame so as to swing upwardly and downwardly, means mounted on the main frame and operable from the platform for adjusting the scraper blade upwardly and downwardly with respect to the main frame, front and rear main side wheels arranged at opposite sides of the main frame in different transverse planes and located directly in rear of the terminal portions of the scraper blade, crank axles mounted on the main frame and carrying the said wheels, means for partially rotating the crank axles for tilting the main frame and the scraper blade laterally, and draft beams secured to and extending forwardly from the scraper blade at opposite sides of the scraper and carried by the said scraper blade in the adjustment thereof.

5. A scraper of the class described comprising a wheeled main frame including a platform having a diagonally arranged front edge inclined to the line of travel, brackets mounted on the platform at the side edges thereof adjacent to the front edge of the same, an obliquely arranged scraper blade extending across the front of the main frame, brackets secured to the scraper blade, means for hinging the brackets of the scraper blade to the brackets of the platform to permit the scraper blade to swing upwardly and downwardly, and draft beams secured to and extending forwardly from the scraper blade at opposite sides of the scraper and carried by the said blade in the adjustment thereof.

[Claim 6 not printed in the Gazette.]

1,137,231. MACHINE TELEPHONE SWITCHING SYSTEM. LIPA POLINKOWSKY, Brussels, Belgium, assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Mar. 2, 1914. Serial No. 821,896. (Cl. 179—18.)



1. Telephone exchange system comprising automatically operated switches over which a call is to be extended, one of such switches having the lines terminating thereon, the terminals of said lines being non-decimally arranged, a plurality of register-controllers for controlling said switches when set in accordance with the numerical designation of the desired line, and means whereby the set condition of one of such register-controllers may be modified in accordance with the particular set position of another of such register-controllers.

2. Telephone exchange system in which a call is extended over a plurality of automatically operating switches, a plurality of register-controllers for controlling the operation of such switches, a controlling circuit for setting said register-controllers according to the numerical designation of the desired line, a selection controlling circuit over which such register-controllers control the se-

lective operations of the respective switches to extend the connection to the desired line, terminals in said switches arranged in accordance with some other system than the decimal system, and means associated with said register-controllers whereby the set position of one of such register-controllers is determined, and the set position of a register-controller, subsequently used in the same connection is modified in accordance with the set condition of the said first register-controller.

3. Telephone exchange system comprising a plurality of automatically operating switches by which the connection is extended to a desired line, a plurality of register-controllers adapted to control the selective operation of the respective switches over which the call is extended, a controlling circuit by which such register-controllers are set in accordance with the numerical designation of the desired line, a selection controlling circuit extending from such register-controllers to the respective switches over which the selective operation of such switches will be controlled to select terminals arranged in accordance with some other numerical system than the decimal system, and a relay associated with said register-controllers adapted to be energized or remain unenergized in accordance with the set position of one of such register-controllers and to close a circuit if energized to transmit an additional setting impulse to a register-controller subsequently used to modify the set position of such subsequent register-controller in accordance with the set position of the said first register-controller.

4. Telephone exchange system comprising automatically operating selector switches over which a call may be extended, register-controllers controlling the selective operation of said switches, means for setting said register-controllers in accordance with the numerical designation of a desired line, a selection controlling circuit leading from said register-controllers to the respective switches over which such switches are controlled by such register-controllers to select terminals arranged in accordance with some other numerical system than the decimal system to make connection with the desired line, a relay associated with said register-controllers adapted to be energized or remain unenergized according to the set position of one of said register-controllers, and means for modifying the set position of such register-controller after the set position of such register-controller has been recorded by the energization or non-energization of said relay.

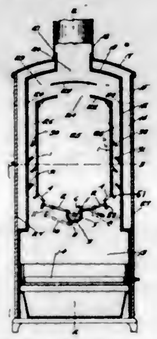
5. Telephone exchange system comprising automatically operating switches over which a connection may be extended; register-controllers for controlling the selective operation of said switches, means for setting said register-controllers in accordance with the numerical designation of a desired line, a selection controlling circuit extending from said register-controllers to the respective switches over which the selective operation of such switches is controlled to select terminals arranged according to some other numerical system than the decimal system to produce the selection of the desired line, a relay associated with said register-controllers adapted to be energized or remain unenergized in accordance with the set position of one of said register-controllers, and a circuit including the contacts of said relay for delivering an impulse to said register-controller to modify its set position if such relay is energized.

[Claims 6 to 18 not printed in the Gazette.]

1,137,232. INCINERATOR. JAMES B. RICKETTS, Brookline, Mass., assignor to The Nightingale Company, a Corporation of New York. Filed Dec. 14, 1911. Serial No. 665,611. (Cl. 110—18.)

1. In an incinerator, the combination with a chamber for containing the material to be consumed, of a gas burner positioned in coöperative relation to said chamber, means for incasing the burner to substantially preclude the lodgment of material thereon, and a grate separate from said incasing means, said grate being operable to dump the material in a direction to overcome lodgment upon the burner and thereby preclude obstruction of the flame apertures of said burner.

2. In an incinerator, the combination with a combustion chamber adapted to contain the material to be consumed, of a gas burner positioned below the grate and in a plane intermediate the walls of said chamber, and a two-part dumping grate separate from the burner, the parts of said grate operating to discharge the material away from the respective sides of said burner.



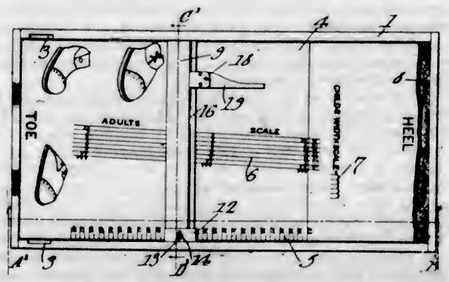
3. In an incinerator, the combination with a combustion chamber adapted to contain the material to be consumed, of a gas burner positioned in a plane intermediate the walls of said chamber, and a sectional dumping grate separate from said burner, the members of said grate being inclined upwardly relative to the horizontal plane of said burner, said grate members operating to dump material in two directions and away from the burner.

4. In an incinerator, the combination of a combustion chamber having means for introducing therein the material to be consumed, a burner positioned in a plane intermediate the walls of said chamber, a grate separate from the burner and inclined with respect thereto, and a drip pan below the grate to receive liquid matter therefrom and in proximity to the burner, said grate operating to drain into the tray liquid matter present in the material supported upon the grate.

5. In an incinerator, the combination of a combustion chamber having means for introducing therein the material to be consumed, a gas burner at the lower part of said chamber, a grate separate from, and in coöperative relation to said burner for supporting the material in the path of the flame emanating from said burner, and an evaporating tray positioned in proximity to said burner and in operative relation to the grate, said grate operating to drain into the tray liquid matter present in the material supported upon the grate.

[Claims 6 to 18 not printed in the Gazette.]

1,137,233. FOOT-MEASURING DEVICE. MARTIN V. RUSH, Anderson, Ind. Filed Apr. 16, 1914. Serial No. 832,353. (Cl. 33—3.)

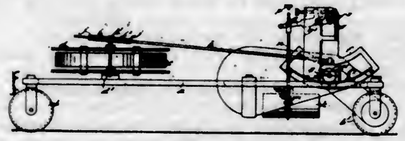


1. A foot marking device including a foot receiving box, a chart therein, a marking sheet adapted to extend over the chart, yieldingly supported means adjustable within the box and against the foot, adjustable means supported by and extending at an angle from the first named means and movable against the foot, one of said means being adapted to indicate width and the other one of said means being adapted to indicate length, and projecting portions carried by the respective means, said means being simultaneously depressible to force the projecting portions against the marking sheet.

2. A foot measuring device including a foot receiving box having guide grooves in the sides thereof, a cross bar, a spring extending from the bar and into each of the grooves to yieldably support the bar, a block slidable longitudinally of the bar and adjustable against one side of a foot in the box, said bar being adjustable against one end of the foot, and means carried by the bar and block for pressing the marking sheet against the chart during the depression of the bar.

3. A foot marking device including a foot receiving box, a chart therein, a marking sheet adapted to extend over the chart, there being longitudinal grooves in the sides of the box, a bar, yieldable supporting means extending beyond the ends of the bar and slidable within the grooves, said bar and means being detachably connected to the box, an extension device adjustably mounted upon one end portion of the bar, a marking device carried thereby, a block slidable longitudinally of the bar and adjustable against one side of the foot in the box, and a plurality of marking devices depending from the block, all of said marking devices being adapted simultaneously to press the marking device upon the chart during the depression of the bar.

1,137,234. GYROSCOPE. PETER SCHILOWSKY, Simbirsk, Russia. Filed Mar. 1, 1910. Serial No. 546,681. (Cl. 74—78.)



1. Means for imparting lateral stability to a body naturally unstable, comprising a rotating gyroscope wheel, a frame supporting the wheel and pivotally mounted on the body with its pivot axis transverse to the line of support of the body, and in a plane lying between the said line of support and the center of gravity of the wheel, a constantly acting source of power and mechanism adapted to transmit intermittently impulses from the source of power to the frame at the moment oscillating, said mechanism comprising a transmitting member connected to the frame, and means on the body independent of and entirely separate from the gyroscope frame automatically operating when the body oscillates in one direction about its line of support, to cause a driving connection between the said member and the constantly acting source of power.

2. Means for imparting lateral stability to a body naturally unstable, comprising a rotating gyroscope wheel, a frame supporting the wheel and pivotally mounted on the body with its pivot axis transverse to the line of support of the body and in a plane lying between the said line of support, the center of gravity of the wheel, a constantly acting source of power and mechanism adapted to transmit intermittently impulses from the source of power to the frame, said mechanism comprising a transmitting member connected to the frame, and means on the body independent of and entirely separate from the gyroscope frame automatically operating when the body oscillates in one direction about its line of support, to cause a driving connection between the said member and the constantly acting source of power, and means automatically operating to disconnect the source of power and the said mechanism as an oscillation of the body terminates so that the period of a series of impulses is proportional to the extent of the synchronous oscillations of the body.

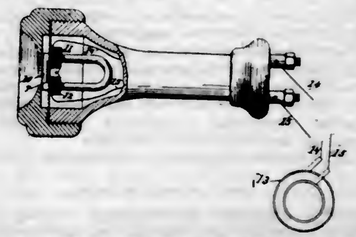
3. Means for imparting lateral stability to a body naturally unstable, comprising a rotating gyroscope wheel, a frame supporting the wheel and pivotally mounted on the body and in a plane lying between the said line of support and the center of gravity of the wheel, a constantly acting source of power and mechanism adapted to transmit intermittently impulses from the source of power to the frame, said mechanism comprising a transmitting member connected with the frame and means on the body independent of and entirely separate from the gyroscope frame automatically operating when the body oscillates about its line of support, to cause a driving connection between the said member and the constantly acting source of power, a hanging weight mounted on the body to move transversely to the line of support thereof, and means rendered operative by said pendulum for connecting intermittently the said member and the constantly acting source of power.

4. Means for imparting lateral stability to a body naturally unstable, comprising a rotating gyroscope wheel, a frame supporting the wheel, and pivotally mounted on the body with its pivot axis transverse to the line of support of the body and in a plane lying between the said line of support and the center of gravity of the wheel, a constantly acting source of power, and mechanism adapted to transmit intermittently impulses from the source of power to the frame, said mechanism comprising a transmitting member connected to the frame, and means on the body independent of and entirely separate from the gyroscope frame automatically operating when the body oscillates in one direction about its line of support, to cause a driving connection between the said member and the constantly acting source of power, a pendulum mounted on the body to swing transversely to the line of support thereof, means rendered operative by said pendulum for connecting intermittently the said member and the constantly acting source of power, and means automatically operating to disconnect the source of power and the said member as an oscillation of the body terminates so that the period of a series of impulses is proportional to the extent of the synchronous oscillations of the body.

5. Means for imparting lateral stability to a body naturally unstable, comprising a gyroscope which includes a wheel rotating on a frame pivotally mounted on the body with its pivot axis transverse to the line of support of the body and in a plane between said line of support and the center of gravity of the gyroscope wheel, a continuously rotating pinion, a pivoted quadrant rack elastically coupled with the frame work and adapted to engage the pinion, a pendulum mounted to swing transversely to the line of support of the body, and means actuated and controlled by the pendulum and adapted to bring the rack and pinion intermittently into engagement.

[Claims 6 to 8 not printed in the Gazette.]

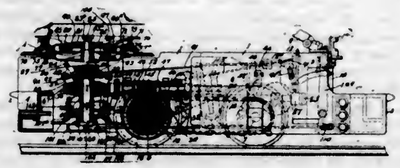
1,137,235. TELEPHONE-RECEIVER. HUGO H. SCHNEIDER, Seattle, Wash. Filed Mar. 13, 1914. Serial No. 824,438. (Cl. 179—114.)



1. In a telephone receiver, a diaphragm, a permanent magnet secured thereto; an electro-magnet located with its two poles adjacent to the poles of the permanent magnet; and a source of alternating electric current connected with the electro-magnet.

2. In a telephone receiver, a source of alternating current; a magnet of fixed polarity and a magnet of reversible polarity located adjacent one to the other to coact, and a diaphragm carrying one of the said magnets.

1,137,236. LOCOMOTIVE WITH CABLE-REELING MECHANISM. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Sept. 12, 1907, Serial No. 392,577. Renewed Feb. 23, 1915. Serial No. 10,130. (Cl. 242—91.)



1. In an electric locomotive, the combination with a main frame, and axles and track wheels upon which the frame is mounted, of a reel rotatably mounted upon the frame and adapted to have a cable wound upon it, a motor on the frame, power transmitting mechanism between the motor and the reel, a gear rotatable concentrically on one of the axles, power transmitting mechanism between the motor and the said gear, and a manually controllable clutch mounted concentrically on the axle and adapted to connect the gear and the axle.

2. In an electric locomotive, the combination with a main frame, and axles and track wheels upon which the frame is mounted, of a reel rotatably mounted on the frame and adapted to have wound upon it an electric conductor cable, a second rotatable reel adapted to have wound upon it a haulage cable, a motor, power transmitting mechanism between the motor and each of the reels, a gear mounted concentrically with one of the axles and rotatable with respect thereto, power transmitting mechanism between the motor and the said gear, and a manually controllable clutch interposed between the gear and the axle.

3. In an electric locomotive, the combination of track wheels and axles for supporting the locomotive, a rotatable reel adapted to have an electric conductor cable wound upon it in either direction, an electric motor, power connections between the motor and the reel, and power connections comprising a clutch between the motor and one of the axles.

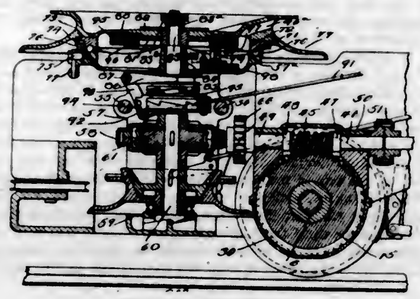
4. In an electric locomotive, the combination of axles and track wheels for supporting the locomotive, a rotatable reel adapted to have an electric conductor cable wound upon it, an electric motor, power transmitting mechanism comprising a friction clutch between the motor and the reel, and power transmitting mechanism comprising a clutch between the motor and one of the axles.

5. In an electric locomotive, the combination of a frame, axles and track wheels for supporting the frame, a rotatable reel adapted to have an electric conductor cable wound upon it, an electric motor, power transmitting mechanism comprising a manually controllable clutch between the motor and the reel, and power transmitting mechanism comprising a manually controllable clutch between the motor and one of the axles.

[Claims 6 to 70 not printed in the Gazette.]

1,137,237. WINDING MECHANISM. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Original application filed Sept. 12, 1907, Serial No. 392,577. Divided and this application filed Oct. 19, 1910. Serial No. 587,975. (Cl. 242—91.)

1. In a winding mechanism, the combination of a reel adapted for winding and unwinding a cable, reversible drive shafting, and a single direction drive clutch mechanism adjustable to either drive the reel in one direction only of rotation or to drive the reel in the other direction only of rotation, the clutch mechanism in one position of adjustment automatically connecting the drive shafting and the reel when the drive shafting is rotating in a given direction and disconnecting the drive shafting and the reel when the drive shafting is rotating in the opposite direction, and the clutch mechanism in the other position of adjustment automatically connecting the drive shafting and the reel when the drive shafting is rotating in the said opposite direction and disconnecting the shafting and reel when the shafting is rotating in the said given direction.



2. In a winding mechanism, the combination of a reel mounted for rotation about a vertical axis, a holder having a friction surface upon which the reel rests slidably, a bearing upon which the holder rotates, a driving mechanism for the reel connected thereto independently of the holder, and means for preventing the rotation of the holder in one direction while freely permitting rotation in the other.

3. In a winding mechanism, the combination of a reel mounted for rotation about a vertical axis, a holder having a friction surface upon which the reel rests slidably, a bearing upon which the holder rotates, a driver for the reel, a friction clutch supplemental to the said holder interposed between the driver and the reel, and means for preventing the rotation of the holder in one direction while permitting it to freely rotate in the other.

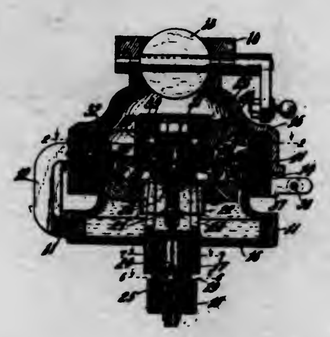
4. In a winding mechanism, the combination of a reel mounted on a vertical axis, a holder having a friction surface upon which the reel rests slidably, a bearing upon which the holder rotates, a driver for the reel, a friction clutch interposed between the driver and the reel and having its clutching parts adjustable to vary their engaging pressure, and means for preventing the rotating of the holder in one direction.

5. In a winding mechanism, the combination of a reel mounted for rotation about a vertical axis, a holder for the reel having frictional engagement therewith, an anti-friction bearing upon which the holder rests, and means for preventing the rotation of the holder in one direction or for preventing the rotation of the holder in the other direction as desired.

[Claims 6 to 23 not printed in the Gazette.]

1,137,238. CARBURETER. WILLIS S. SHERMAN, Milwaukee, Wis. Filed Apr. 18, 1913. Serial No. 761,897. (Cl. 48—155.1.)

1. The combination in a carbureter of an air conduit adapted to have a current of air pass therethrough, of a suitably driven rotary member mounted within the air conduit, said rotary member being disk shaped and concave or dished so that its edges incline toward the direction of travel of the current of air, and means for supplying liquid fuel at the center of the rotary member to be drawn into a progressively thinner film as it moves over the surface of the rotary member toward the edges thereof by centrifugal action until forcibly discharged from the edges of the rotary member across the current of air through the air conduit.



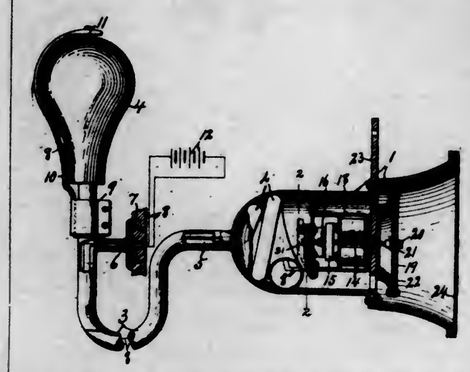
2. The combination in a carbureter, of a casing forming an air conduit adapted for connection with the intake of a gas engine to create a current of air therethrough, a rotary member suitably mounted within the air conduit and receiving motion from the current of air, a flanged ring adjustably mounted in the casing for varying the area of the passageway for the air around the rotary member, and means for supplying liquid fuel to the center of the rotary member to be forced by centrifugal action over the surface thereof into a progressively thinner film until discharged from the edge of the rotary member into the current of air.

3. In a carbureter, the combination of a casing forming an air conduit adapted for connection with the intake of a gas engine to have a current of air pass therethrough, an adjustable flanged ring threaded within the casing, a rotary member suitably mounted within the casing and rotated by the current of air therethrough, a split ring threaded on the flanged ring by which it may be adjusted to vary the area of the air passageway between it and the rotary member, and means for supplying liquid fuel to the center of the rotary member to be forced by centrifugal action over the surface thereof into a progressively thinner film until discharged from the edge of the rotary member into the current of air.

4. The combination in a carbureter, of an air conduit adapted to have a current of air pass therethrough, a rotary member suitably driven and mounted within the air conduit and comprising a concave disk with a convex disk fitting therein and spaced therefrom to form a passageway between them, and means for supplying liquid fuel to the space between the concave disk and the convex disk to be forced by centrifugal action over the surface of the concave disk until discharged from the edge thereof into the current of air.

5. The combination in a carbureter, of a casing forming an air conduit adapted to be attached to the intake of a gas engine to have a current of air pass therethrough, a bearing seat supported by the casing within the air conduit, a ball bearing therein, a suitably driven rotary member journaled within the ball bearing and having a slight endwise movement therein, a float chamber mounted on the casing beneath the rotary member and having the rotary member seated thereon in its lower position, a float controlled valve for controlling the admission of liquid fuel to the float chamber, and means on the rotary member for delivering liquid fuel from the float chamber to the center of the rotary member to be forced by centrifugal action over the surface thereof into a progressively thinner film until discharged from the edge thereof into the current of air.

1,137,239. COMBINED ELECTRIC AND PNEUMATIC HORN. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Jackson, Mich., a Corporation of Michigan. Filed Oct. 20, 1910. Serial No. 588,127. (Cl. 177—7.)



1. A signaling device comprising a casing having an amplifier on one end, an electric sound producing device within the amplifier and spaced apart therefrom to allow the passage of sound waves through said space, and a pneumatic sound producing device communicating with the opposite end of the casing.

2. A combined electric and pneumatic sound producing signal comprising a hollow casing having an amplifier on one end and a pneumatic sound producing device attached to its opposite end and provided with a sound conducting tube opening thereinto and an electric sound producing device within the casing provided with a diaphragm within and spaced apart from the amplifier to allow the sound waves from the pneumatic sound producing device to pass through said space.

3. In a combined electric and pneumatic horn, a tubular shell having a pneumatic bulb connected to one end and a sound amplifier connected to its opposite end, a diaphragm within the amplifier and spaced apart therefrom to allow the passage of sound waves through such space, electrical means for vibrating the diaphragm and a pneumatic sound producing device within the shell between the diaphragm and bulb and operated by compression of said bulb.

4. A signaling device comprising a casing having an amplifier on one end, a tube having one end attached to and opening into the opposite end of the casing, a bulb secured to the opposite end of the tube, a reed within the tube between the bulb and casing, an electric sound-producing device within the casing, a circuit closer supported in proximity to the bulb and circuit connections between the electric sound-producing device and circuit closer passing through the tube.

5. In a signaling device, a base member, a hollow casing secured upon one side thereof, an amplifier secured upon the other side, a pneumatic sound producing device discharging into said casing, and means of communication between the casing and the amplifier for the transfer of air vibration.

[Claims 6 and 7 not printed in the Gazette.]

1,137,240. FAN. WILLIAM SPARKS, Jackson, Mich. Filed Sept. 11, 1914. Serial No. 861,221. (Cl. 170—177.)

1. A fan comprising separate blade forming members having portions in contact provided with interengaging ribs and grooves, and telescoping portions extending substantially perpendicular to said contacting portions.

2. A fan comprising separate blade forming members having portions in contact with each other in substantially the plane of rotation of the fan, and portions disposed

at substantially right angles to the plane of rotation of the fan and coacting to form a hub.



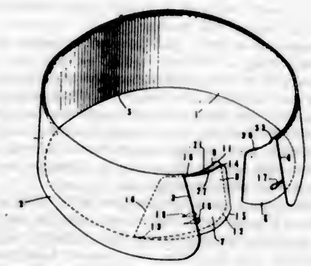
3. A fan comprising separate blade-forming members having portions in contact with each other and telescoping portions extending substantially perpendicular to said contacting portions.

4. A fan comprising separate blade-forming members having portions in contact, and telescoping cylindrical portions having their axes at right angles to the planes of the contacting portions.

5. A fan composed of cross plates having telescoping portions coacting to form a hub, said plates having their ends deflected substantially wholly to that side of the plane of one end of the hub upon which the hub is located.

[Claims 6 to 8 not printed in the Gazette.]

1,137,241. COLLAR. ALBERT B. STAFFORD, Troy, N. Y. Filed Feb. 1, 1913. Serial No. 745,592. (Cl. 2—69.)



1. A collar comprising an inner band of substantial height, an outer band of substantial height opposite the inner band, connected to the upper edge of the inner band and free at its lower edge, said inner band provided at opposite ends with buttoning portions of substantially the height of the inner band, one of said ends having a pocket extending beneath the outer band, and the other end being adapted to lie in said pocket when the collar is fastened, said last-mentioned end having an edge adapted to lie closely adjacent the proximate edge of the said pocket.

2. A collar comprising an inner band of substantial height, an outer band of substantial height opposite the inner band, connected to the upper edge of the inner band, said inner band provided at opposite ends with buttoning portions of substantially the height of the inner band, one of said ends being bifurcated throughout the height of the inner band, to receive the other, said bifurcated end providing an upper edge adapted to lie closely adjacent the upper edge of the collar between said bands.

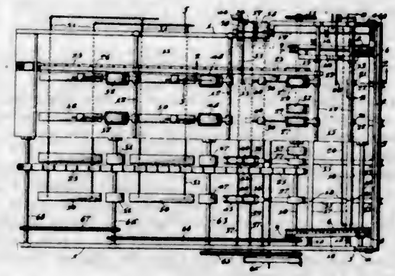
3. A collar comprising an inner band, an outer band opposite the inner band connected to the upper edge of the inner band, said inner band provided at opposite ends with buttoning tabs of substantially the height of the inner band, one of said tabs being bifurcated throughout the height of the inner band to receive the other, the upper edges of the tabs formed by the bifurcation being shaped to lie closely adjacent the upper edge of the collar, one between the inner and the outer bands and the other on the outside of the inner band opposite its companion tab.

1,137,242. SYRINGE. WILLIAM D. STRATTON, Grand Rapids, Mich. Filed July 2, 1912. Serial No. 707,198. (Cl. 128—25.)



A device of the character described including an elongated shoe formed of solid material and having a flat lower face adapted to rest squarely upon a supporting surface, the upper surface of the shoe being convexed and the said shoe being contracted in width and thickness at an intermediate point in its length so as to form raised and enlarged end portions separated by a contracted and depressed intermediate portion, the shoe being formed with a passage extending longitudinally into the same from the front end thereof and having the rear end thereof extended upwardly so as to open through the top of the shoe at a point toward the rear end thereof, a valved tube fitted removably in the forward end of the passage and projecting from the front end of the shoe and a removable nozzle fitted within the rear end of the passage so as to project upwardly from the shoe.

1,137,243. MACHINE FOR APPLYING REINFORCING MEANS TO RUG-SEAMS. HENRY E. TERRY, Philadelphia, Pa. Filed Oct. 6, 1914. Serial No. 865,303. (Cl. 154—42.)



1. In a machine of the character stated, the combination of means for feeding an article having a plurality of parallel seams into and through the machine, a plurality of tape guides for feeding the tapes to the seams of the article, means for applying paste to one side of the respective tapes, means for pressing the pasted tapes upon the respective seams of the article, and means for drying the respective tapes after leaving the pressing means.

2. In a machine of the character stated, the combination of means for feeding an article forward and stretching it laterally to flatten its seams, and means for pressing a pasted tape over and upon the stretched seam for covering the same and holding it in a flat condition.

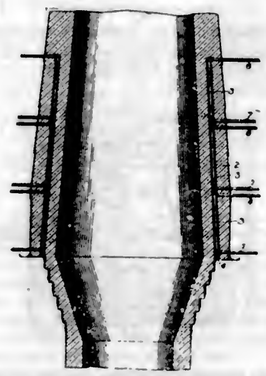
3. In a machine of the character stated, the combination of means for feeding an article forward and stretching it laterally to flatten its seams, means for pressing a pasted tape over and upon the stretched seam for covering the same and holding it in a flat condition, and drying means for drying the pasted tape after it is applied.

4. In a machine of the character stated, the combination of means for feeding a seamed article into the machine and simultaneously stretching said article, a conveyer mechanism for receiving said article from the feeding means, means for applying and permanently securing a reinforcing material to said article for covering the seamed portion, and means adjacent the stretching means for treating the seamed portions with steam.

5. In a machine of the character stated, the combination of means for feeding a seamed article into the machine and simultaneously stretching said article, a conveyer mechanism for receiving said article from the feeding means, and means for applying and permanently securing a reinforcing material to said article for covering the seamed portions.

[Claims 6 to 14 not printed in the Gazette.]

1,137,244. BLAST-FURNACE CONSTRUCTION. THOMAS E. THOMAS, Niles, Ohio. Filed July 17, 1913, Serial No. 779,555. Renewed Sept. 24, 1914. Serial No. 863,883. (Cl. 75—116.)



1. A blast furnace having a stack wall of refractory material, said wall having embedded therein above the bosh a water-cooled jacket comprising a plurality of box-like cooling members arranged one above another, together with means for circulating water through said members, substantially as described.

2. A blast furnace having a stack wall of refractory material, and provided above the bosh with a water-cooled jacket embedded therein, said jacket comprising a plurality of hollow cooling members whose inner walls are of sheet metal and possessing inherent elasticity or yield, substantially as described.

3. A blast furnace having at least a portion of its stack above the bosh provided with a water-cooled jacket, incased within the refractory material, said jacket comprising a plurality of hollow box-like cooling members of segmental form arranged in vertical and horizontal tiers and providing within that portion of the stack which contains them a body of cooling water which surrounds the major part of that portion of the stack, together with means for circulating cooling water through said members, substantially as described.

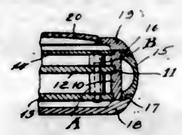
4. A blast furnace having a stack wall of refractory material, said wall having embedded therein above the bosh a plurality of tiers of hollow cooling boxes, said boxes having inherent elasticity to adapt them to expansion and contraction movements of said wall, said boxes forming means for providing within said wall a relatively large body of cooling water, substantially as described.

5. A blast furnace having its stack wall above the bosh formed of an inner masonry wall, an outer masonry wall, and a hollow metal shell interposed between said walls and having water circulating connections; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

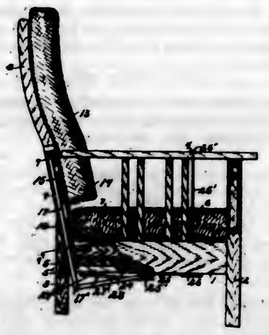
1,137,245. TIMEPIECE. WILLIAM H. TONKS, Pasadena, Cal., assignor of one-half to Mark Steward Morse, Oakland, Cal. Filed June 12, 1912. Serial No. 703,235. (Cl. 58—88.)

In a watch, a frame comprising a ring, upper and lower plates carried by said ring, an intermediate plate positioned within said ring and spaced from said upper and lower plates, a collar carried by said ring and provided with upper and lower off-set externally threaded flanges, a crystal carrying ring provided with an overhanging internally threaded portion fitting over the upper threaded



portion of said first mentioned ring, and a back plate provided with an overhanging internally threaded portion fitting over the lower threaded portion of said first mentioned ring for firmly holding said frame in an assembled position.

1,137,246. ADJUSTABLE CHAIR. JERROLD F. WALTON, Sturgis, Mich. Continuation of application Serial No. 486,470, filed Mar. 29, 1909. This application filed Jan. 29, 1912. Serial No. 674,024. (Cl. 155—27.)



1. In a knock-down chair structure, the combination of an adjustable back detachably connected to the body of the chair and made up of side pieces and cross pieces, a detachable arm with a round straight part disposed in an upright bore through said cross pieces, means for supporting said arm in said cross pieces, and detachable means connected to the lower end of said arm for adjusting the said back, all coacting as specified.

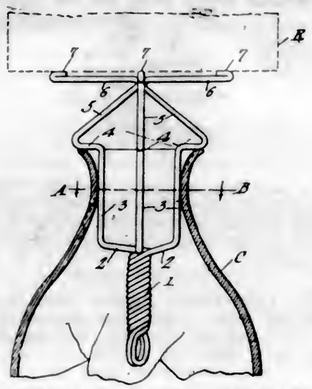
2. In a knock-down chair structure, the combination of an adjustable back detachably connected with the body of the chair and made up of side pieces and cross pieces, an arm with a straight part disposed in a bore in said cross pieces, means for supporting the said arm in said cross pieces, and detachable means connected with the lower end of said arm for adjusting the said back, all coacting as specified.

3. In a knock-down chair structure, the combination of an adjustable detachable back, with a separable hinge joint for securing the same to the body of the chair, a detachable arm disposed in an upright bore in said back, means for supporting the same detachably in position comprising a laterally projecting pin on the said arm and a plate on said back positioned to engage the said pin when the arm is turned to normal position, and detachable means connected to said arm for adjusting the angle of said back, coacting as specified.

1,137,247. ATTACHMENT FOR LAMP-CHIMNEYS. PAUL A. WELLER, Maitland, Mo. Filed Jan. 14, 1915. Serial No. 2,209. (Cl. 126—258.)

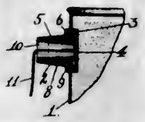
An attachment for lamp chimneys and the like, comprising separate folded resilient wires, the folded portions of the wires being twisted together to form a stem, said

wires being bent to provide radial arms at the upper end of the stem, hangers integral with the arms for engaging the inner surface of the upper portion of the chimney, outstanding chimney engaging portions or shoulders inte-



gral with the hangers, upwardly converging fingers extending from said shoulders, and radially disposed supporting stems projecting from the respective fingers.

1,137,248. SPOUTED CONTAINER. ARTHUR ST. JOHN WHITNEY, San Francisco, Cal. Filed Mar. 28, 1914. Serial No. 828,046. (Cl. 221—11.)



1. A container for salt and the like provided with a discharge opening, and a spout associated with said opening provided with a hollow fastening part passed through the opening and formed with a disk-like head engaging the inner surface of the container wall to prevent outward displacement of said part, the exposed inner surface of said disk being beveled from the bore of said hollow part laterally toward the periphery of the disk to provide an enlarged funnel leading to said bore, substantially as described.

2. A container of the character described provided with a discharge opening, and a two-part spout associated with said opening and comprising interfitting hollow parts flanged at adjacent ends to receive therebetween the wall of the container surrounding the opening therein, means for securing the parts together, and to said wall, and a stopper engaging the inner hollow part of the spout and detachable through the end thereof, substantially as described.

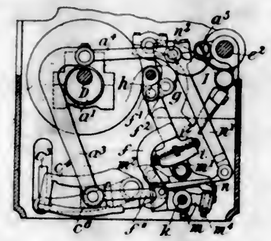
3. A container of the character described provided with a discharge opening, and a two-part spout associated with said opening and comprising interfitting hollow parts flanged at adjacent ends to receive therebetween the wall of the container surrounding the opening therein, means for securing the parts together and to said wall, and a detachable stopper removable from the end of the spout adapted to close the opening at said end of the spout when not in use, substantially as described.

4. A container of the character described provided with a discharge opening and a two part spout associated with said opening and comprising interfitting hollow parts flanged at adjacent ends to receive therebetween the wall of the container surrounding the opening therein, means for securing the parts together and to said wall, said last mentioned means comprising an adhesive substance interposed between the inner end of the outer part of the spout and the outer wall of the container and also between the adjacent surfaces of the interfitting parts of the spout, substantially as described.

5. A container of the character described provided with a discharge opening, and a two-part spout associated with said opening and comprising interfitting hollow parts flanged at adjacent ends to receive therebetween the wall of the container surrounding the opening therein, means for securing the parts together and to said wall, said means constituting a direct fastening between the wall of the container and the outer part of the spout, and a direct fastening between the parts of the spout, substantially as described.

[Claim 6 not printed in the Gazette.]

1,137,249. STRAW-PLAIT-SEWING MACHINE. EDMUND WISEMAN, Luton, England. Filed Aug. 30, 1913. Serial No. 787,511. (Cl. 112—29.)



1. A sewing machine, embodying therein needle-operating mechanism, controller mechanism therefor including a controller lever, and means for locking said lever comprising a member carried by said lever and capable of rocking slightly in a plane at right angles to that in which the said lever moves, a block operatively related to said member, and means for periodically forcing said block into direct engagement with said member.

2. A sewing machine, embodying therein needle-operating mechanism, controller mechanism therefor including a controller lever, means for locking said lever comprising an arc shaped member on the lever and capable of rocking slightly in a plane at right angles to that in which the said lever moves, a block having a curved face adapted to engage said member, and means for periodically forcing the curved face of said block into direct engagement with the arc surface of said member.

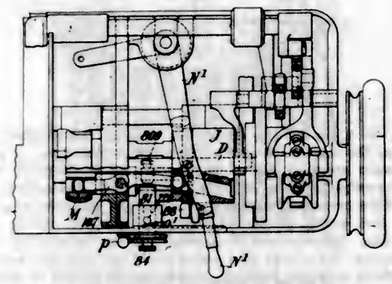
3. A sewing machine, embodying therein needle-operating mechanism, controller mechanism therefor including a pivoted controller lever, a locking member on said lever, a pivoted block adapted to engage said locking member, and pivoted means for periodically forcing said block into engagement with said member, the pivots of said lever, block and last named means being adapted to be moved into line with each other when said controller lever is moved during engagement between said member and said block.

4. A sewing machine, embodying therein needle-operating mechanism, controller mechanism therefor including a controller lever, a locking member carried by said lever, means for securing the member to the lever so that said member is capable of a slight rocking motion in a plane at right angles to the plane of movement of said lever, a block operatively related to said member, and means for periodically forcing said block into engagement with said member.

5. A sewing machine, embodying therein needle-operating mechanism, controller mechanism therefor including a controller lever, a locking member carried by said lever and capable of rocking slightly in a plane at right angles to the plane of movement of said lever, a block operatively related to said locking member, a support for said block, said block having a rocking motion in said support in the plane of the locking member, and means for forcing said block directly into engagement with said locking member.

[Claims 6 to 10 not printed in the Gazette.]

1,137,250. TENSION MECHANISM OF STRAW-PLAIT-SEWING MACHINES. EDMUND WISEMAN, Luton, England. Original application filed Aug. 30, 1913, Serial No. 787,511. Divided and this application filed Feb. 3, 1914. Serial No. 816,166. (Cl. 112—25.)



1. A sewing machine, embodying therein thread tensioning mechanism, and controlling means therefor comprising a revoluble cam having a series of eight successive peripheral inclines, seven of said inclines extending parallel with the cam axis and one of said inclines extending obliquely around said cam, said inclines being adapted to alternately open and close said tensioning mechanism eight times during each revolution of said cam.

2. A sewing machine, embodying therein thread tensioning mechanism, and controlling means therefor comprising a revoluble cam having a series of eight successive peripheral inclines, seven of said inclines extending parallel with the cam axis and one of said inclines extending obliquely around said cam and being stepped about midway of its length, said inclines being adapted to alternately open and close said tensioning mechanism eight times during each revolution of said cam.

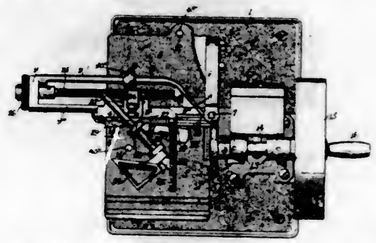
3. A sewing machine, embodying therein thread tensioning mechanism, controlling means therefor comprising a revoluble cam having a series of eight successive peripheral inclines, seven of said inclines extending parallel with the cam axis and one of said inclines extending obliquely around said cam being stepped about midway of its length, said inclines being adapted to alternately open and close said tensioning mechanism eight times during each revolution of said cam, and means for shifting said cam laterally whereby said last named incline varies the timing of a predetermined closing of said tensioning mechanism.

4. In a straw plait sewing machine, the combination with thread tensioning mechanism, of a revoluble tension cam coöperating therewith, and means on the periphery of said cam for opening and closing said tensioning mechanism eight times during each revolution of said cam to produce stitches relatively loose on the short top portion of the stitch and relatively tight on the long under portion of the stitch.

5. In a straw plait sewing machine, the combination with thread tensioning mechanism, of a revoluble tension cam coöperating therewith, and a series of successive inclines on the periphery of said cam adapted to open and close said tensioning mechanism eight times during each revolution of said cam to produce stitches relatively loose on the short top portion of the stitch and relatively tight on the long under portion of the stitch.

1,137,251. CUTTING-MACHINE. JOHN C. BACKERT, New York, N. Y. Filed Dec. 24, 1914. Serial No. 878,878. (Cl. 29—69.)

1. In combination, a work table, a cutter positioned adjacent the edge thereof, said cutter and table being relatively movable, a back extending across said table in the direction of said cutter and transversely of the cutting plane, a work gage coöperating with and adjustable longitudinally relative to said back and extending transversely therefrom, and a clamping member arranged to engage and clamp material against said back at a point between said transverse gage and said cutter, said member extending longitudinally of said back and transversely of the cutting plane, and having a work engaging surface of narrow width whereby it may engage and clamp a narrow piece of material.



2. In combination, a work table, a cutter positioned adjacent the edge thereof, said cutter and table being relatively movable, a back extending across said table in the direction of said cutter and transversely of the cutting plane, a work gage coöperating with and adjustable longitudinally relative to said back and extending transversely therefrom, and an adjustable work clamping member adapted to extend substantially longitudinally of said back and beyond said transverse gage and in the direction of said cutter.

3. In combination, a work table, a cutter positioned adjacent the edge thereof, said cutter and table being relatively movable, a back extending across said table in the direction of said cutter and transversely of the cutting plane, a work gage coöperating with and adjustable longitudinally relative to said back and extending transversely therefrom, and an adjustable work clamping member adapted to extend substantially longitudinally of said back and beyond said transverse gage and in the direction of said cutter, said member having a work engaging portion of narrow width adapted to engage and clamp narrow material.

4. In combination, a work table, a cutter positioned adjacent the edge thereof, said cutter and table being relatively movable, a back extending across said table in the direction of said cutter, a work gage carried by and adjustable longitudinally of said back and extending transversely therefrom, and a work clamping member adjustable longitudinally relative to said back and arranged to extend through and beyond said transverse gage to engage and clamp material against said back at a point between said cutter and gage.

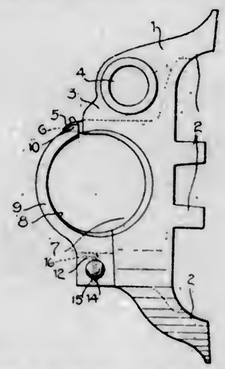
5. In combination, a work table, a cutter positioned adjacent the edge thereof, said cutter and table being relatively movable, a back extending across said table in the direction of said cutter, a work gage carried by and adjustable longitudinally of said back and extending transversely therefrom, and a work clamping member carried by and moving with said gage and itself adjustable longitudinally relative to said back and arranged to extend through and beyond said transverse gage in the direction of said cutter.

[Claims 6 to 10 not printed in the Gazette.]

1,137,252. BRAKE-HEAD. JULIUS BRAGG, Huntington, Oreg., assignor, by direct and mesne assignments, of one-fourth to himself, one-fourth to Samuel Winchester, and one-fourth to V. L. Plummer, Huntington, Oreg., and one-fourth to J. F. Barnes, Nampa, Idaho. Filed Mar. 29, 1913. Serial No. 757,682. (Cl. 188—28.)

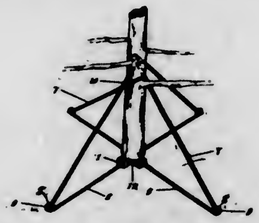
A brake head comprising a body having a substantially semi-circular bearing face, an upwardly projecting flange

formed on the body at one side of the bearing face and having a centrally arranged opening, a cover plate having a semi-circular bearing face therein arranged in opposed relation with the first bearing face, a lug formed on one end of the cover plate and removably disposed within said opening, spaced ears projecting from the cover plate and adapted to be disposed upon opposite sides of the flange and contacting therewith to prevent lateral movement of



the cover plate, a lug formed upon the body and arranged at the opposite side of the bearing face, spaced ears formed upon the end of the cover plate opposite the lug and adapted to be disposed upon opposite sides of the lug of the body, said lug and second pair of ears being provided with alined openings, and a securing pin removably arranged within said openings to lock the cover plate in position.

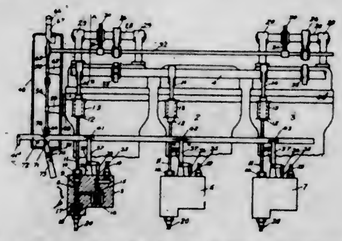
1,137,253. TREE-STANDARD. THOMAS F. BROWN, Bath, N. Y. Filed Mar. 5, 1914. Serial No. 822,568. (Cl. 248—38.)



The combination in a holder for a tree or the like, of a base plate adapted to receive thereupon the butt of a tree, and be secured thereto, a plurality of arms separately pivoted at their inner ends to said base plate, and adapted to be separately adjusted to a considerable degree radially and off of the horizontal and guy rods loosely mounted upon the outer ends of said arms and provided toward their free ends with a series of holes whereby said free ends may be secured at convenient points to the trunk of a tree.

1,137,254. CONTROLLING DEVICE FOR INTERNAL-COMBUSTION ENGINES. WALTER W. BROWN, Erie, Pa., assignor to Fulton Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed Mar. 12, 1914. Serial No. 824,147. (Cl. 123—181.)

1. In a controlling device for internal combustion engines, the combination of a plurality of cylinders; a fluid pressure starting device for one of said cylinders; fuel feed pumps for said cylinders; controlling mechanism for the fluid pressure starting device; means for throwing out the fuel pump connected with the cylinder having the starting device; and a lock-out device compelling the throwing-out of the fuel pump from the cylinder having the fluid pressure starting device by said means to permit the moving of the controlling mechanism to starting position.



2. In a controlling device for internal combustion engines, the combination of a plurality of cylinders; a fluid pressure starting device for one of said cylinders; fuel feed pumps for said cylinders; controlling mechanism for the fluid pressure starting device; means for throwing out the fuel pump connected with the cylinder having the starting device; and a lock-out device compelling the throwing out of the fuel pump from the cylinder having the fluid pressure starting device by said means to permit the moving of the controlling mechanism to starting position, said lock-out device permitting the operation of the controlling mechanism to cut off the fluid pressure from the starting device independently of the operation of said means.

3. In a controlling device for internal combustion engines, the combination of a plurality of cylinders; a fluid pressure starting device for one of said cylinders; fuel feed pumps for said cylinders; controlling mechanism for the fluid pressure starting device adapted to be set at starting position, running position or barring position; means for throwing out the fuel pump connected with the cylinder having the starting device; and a lock-out device compelling the throwing out of the fuel pump from the cylinder having the fluid pressure starting device by said means to permit the movement of the controlling mechanism to starting position and to compel the throwing out of all the fuel pumps to permit the movement of the controlling mechanism to barring position.

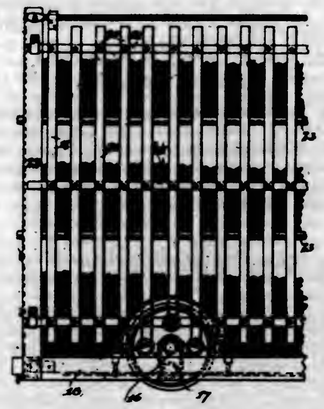
4. In a controlling device for internal combustion engines, the combination of a plurality of cylinders; a fluid pressure starting device for one of said cylinders; fuel feed pumps for said cylinders; a controlling mechanism for the fluid pressure starting device adapted to be set at starting position or running position; means independently operative for throwing out each of the fuel pumps; and a lock-out device compelling the throwing out of the fuel pump from the cylinder having the fluid pressure starting device by said means to permit a movement of the controlling mechanism to starting position.

5. In a controlling device for internal combustion engines, the combination of a plurality of cylinders; a fluid pressure starting device for one of said cylinders; fuel feed pumps for said cylinders; a controlling mechanism for the fluid pressure starting device adapted to be set at starting position or running position; means independently operative for throwing out each of the fuel pumps; and a lock-out device compelling the throwing out of the fuel pump from the cylinder having the fluid pressure starting device by said means to permit a movement of the controlling mechanism to starting position and releasing said means to independent action with the control at running position.

[Claims 6 to 16 not printed in the Gazette.]

1,137,255. PROCESS OF AND APPARATUS FOR THE DESTRUCTIVE DISTILLATION OF WOOD. ALEXANDER CAMERON, East Jordan, Mich. Filed Sept. 26, 1913. Serial No. 791,891. (Cl. 203—6.)

1. The improvement in the art of destructively distilling cord-wood, which consists in arranging the wood in orderly-piled adjacent superimposed layers, the under side of each upper layer and the upper face of the lower layer being exposed to permit air to circulate in contact with said adjacent side and face, inclosing the charge in a sealed retort, progressively destructively distilling same by the application of controlled supplies of externally applied heat, and progressively effecting a separation of said layers by permitting said layers to shrink in thickness independently during the distillation process in order to form distinct bodies of charcoal with circulation spaces between them.



2. The improvement in the art of destructively distilling cord-wood, which consists in cording the wood in overlying proximate layers having their adjacent surfaces exposed and separated by inchoate circulation spaces, and carried by a common support, inclosing the charge on said support in a sealed retort, progressively distilling the same by the application of controlled supplies of externally applied heat, and effecting progressive separation of said layers and a development of said circulation spaces to an effective value by substantially confining the movement due to shrinkage to the respective layers.

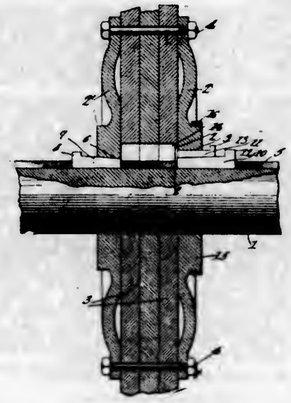
3. In charcoal burning apparatus, the combination of a sealed retort, a plurality of incombustible cross-members adapted to divide the charge of wood into horizontal layers vertically spaced apart from each other, said members at the commencement of the process being in contact with both layers between which they are interposed, and a plurality of opposed supports adapted to engage said cross-members and support said upper layer upon shrinkage of said lower layer during the distillation process.

4. In charcoal burning apparatus, the combination of a sealed retort, a plurality of incombustible cross-members interposed between two horizontal layers of wood to be distilled and supported at the commencement of the process by the bottom layer, and a pair of opposed supports adapted to engage said cross-members and to support said members and said upper layer upon shrinkage of the lower layer during the distillation process.

5. In apparatus for destructively distilling wood, the combination of a sealed retort, a wheeled skeleton car provided with laterally extending supports at two of its opposed sides, and a plurality of detached incombustible cross-members adapted to be interposed between horizontal layers of wood supported on said car and at the commencement of the process adapted to be supported by the lower layer of wood out of contact with said opposed supports, but long enough at each of their ends to project from between said layers and engage said supports upon shrinkage of said lower layer during the distillation process.

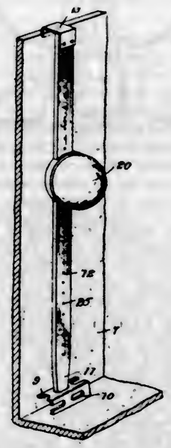
[Claim 6 not printed in the Gazette.]

1,137,256. COÖPERATING KEYS. CHARLES C. CHAMBERLIN, Washington, Pa. Filed Oct. 2, 1913. Serial No. 793,045. (Cl. 74—8.)



In combination, a shaft having a key seat, a member thereon having a complementary keyway, a tapered relief key disposed within the keyway and disposed wholly outside of the key seat, and a tapered main key disposed within the key seat, entering the keyway and resting against the relief key, one end of the main key projecting beyond the relief key and having an angularly extending driving portion, the corresponding end of the relief key having an angularly extending driving portion projecting beyond the aforesaid driving portion, and the adjacent faces of the two keys extending diagonally from the ends of the keys having said driving portions toward the axis of the shaft.

1,137,257. TRUNK. MOSES CHERRY, Jr., Larchmont Manor, N. Y. Filed June 2, 1913. Serial No. 771,203. (Cl. 206—8.)



1. In a trunk, a corner rail having openings therein, a standard engaging said openings and trunk, said standard being adapted to receive a plurality of supports simultaneously, and a support on said standard, said standard being adapted to be positioned in any part of the trunk adjacent the body thereof.

2. In a trunk, a rail having openings therein, a standard removably associated with said rail and trunk and adapted to engage the opening of the rail, and a support projecting laterally from said standard and mounted to slide between the ends thereof.

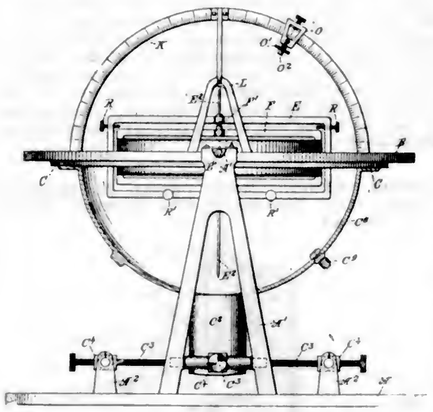
3. In a trunk, a corner rail having openings therein; a standard removably associated with said trunk engaging said openings with one end and with the other end engaging said trunk; and a support slidably mounted on said standard.

4. In a trunk, a corner rail having openings therein; a standard removably associated with said trunk having a reduced end adapted to engage the openings in the rail; means at the opposite end of the standard adapted to engage the wall of the trunk; and a support on said standard, said support having clamping means whereby said support can be adjusted on said standard.

5. In a trunk, a corner rail, said rail having openings therein; a standard removably associated with the trunk; said standard having a reduced end adapted to engage the openings in the rail; a U-shaped member at the opposite end of the standard adapted to engage the wall edge of the trunk; a support on said standard; and a clamping member on said support whereby said support is secured at any desired place on said standard.

[Claims 6 to 13 not printed in the Gazette.]

1,137,258. GYROSCOPIC COMPASS. ALEXANDER S. CHESSIN, New York, N. Y. Filed Dec. 14, 1908. Serial No. 467,361. (Cl. 73—151.)



1. The combinationn of a support having a universal suspension, a frame, means for effecting a universal connection of said frame with said support, a gyroscope rotor mounted to rotate in said frame, an arc, adjustable circumferentially of the support, to serve as a guide in positioning the rotor, and means, adjustable on said arc, for bringing the rotor's axis to a predetermined position.

2. The combination of a support, means for effecting a universal suspension of said support, a frame, means for effecting a universal connection of said frame with said support, a gyroscope rotor mounted to rotate in said frame, an arc, adjustable circumferentially of the support, to serve as a guide in positioning the rotor, and a clamp on said arc for holding the rotor in its adjusted position.

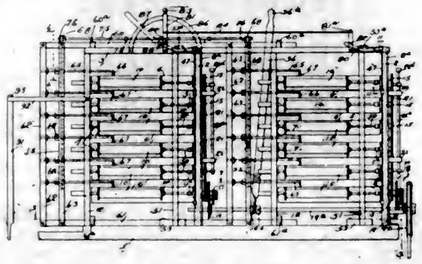
3. The combination of a support, means for effecting a universal suspension of said support, a frame, means for effecting a universal connection of said frame with said support, a gyroscope rotor mounted to rotate in said frame, an arc adjustable circumferentially of said support, to serve as a guide in positioning the rotor, and means for holding the rotor in its adjusted position.

4. The combination of a support, means for effecting a universal suspension of said support, a frame, means for effecting a universal connection of said frame with said support, a gyroscope rotor mounted to rotate in said frame, an arc, adjustable circumferentially of said support, to serve as a guide in positioning the rotor, and a clamp, adjustable along said arc, for holding the rotor in its adjusted position.

5. The combination of a support, means for effecting a universal suspension of said support, a frame, means for effecting a universal connection of said frame with said support, a gyroscope rotor mounted to rotate in said frame, and a globe connected with said support to move in unison therewith and having a series of meridians for indicating the position of the gyroscope's axis.

[Claims 6 to 12 not printed in the Gazette.]

1,137,259. MACHINE FOR APPLYING EXPRESSION-INDICATING LINES AND THE LIKE TO PERFORATED NOTE-SHEETS. ERNEST G. CLARK, De Kalb, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed June 4, 1914. Serial No. 842,843. (Cl. 33—24.)



1. In a machine for the purpose indicated, in combination with a frame, a multiplicity of sheet-marking units mounted in the frame, each comprising a platen roll having a mark-producing surface; a take-up roll having its axis parallel with that of the platen roll and spool centers also parallel to said axis; means for rotating the take-up rolls; a stylus carrier having a stylus arm for each platen roll; styli thereon overhanging the platen rolls respectively; means for pressing the styli yieldingly against their respective platen rolls, and means for moving the carrier bodily to carry all the styli longitudinally of the platens during the actuation of the take-up roll.

2. In a machine for the purpose indicated, in combination with a frame, a multiplicity of sheet-marking units mounted in the frame, each such unit comprising a platen, a take-up roll and spool centers, live and dead, said spool centers having their axes parallel to that of the take-up roll; a gear train in which the spool live centers are operatively connected for rotation; another gear train in which the take-up roll shafts are operatively connected for rotation; a power-communicating wheel and means for shifting its connection from the initial gear of one of said trains to the initial gear of the other train, said two trains comprising idler gears between each two consecutive operative gears, said idlers for the two trains being the same; a frame upon which said idlers are mounted and means for shifting it to engage said idlers alternatively with the two trains.

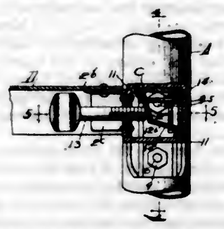
3. In a machine for the purpose indicated, in combination with a frame, a multiplicity of sheet-marking units mounted in the frame, each such unit comprising a platen, a take-up roll and spool centers, live and dead, having their axis parallel with that of the take-up roll; a spacing spindle for each spool live center, and a support upon which all said spacing spindles are mounted, such spacing spindles being adapted at one end to engage the live center, and having at the other end means for engagement similar to that of the live centers, the frame being provided with means for positioning said spindle support removably with the spindles alined with the live centers and engaged therewith respectively.

4. A machine for the purpose indicated, comprising, in combination with a frame, a multiplicity of sheet-marking units mounted in the frame, each such unit comprising a platen, a take-up roll and spool live and dead centers having their axis parallel to that of the take-up roll, such units being comprised in a plurality of columns or vertical series, the several elements of the units of each series being axially alined with corresponding elements of like units of the remaining series; a stylus carrier mounted for sliding on the frame parallel to the axes of the take-up roll and spool centers; stylus arms mounted on said carrier, styli on said stylus arms overhanging the platens respectively; means for moving the stylus carrier at will parallel to said axes during the rotation of the take-up roll, and means for actuating the stylus arms to advance the styli toward and retract them from the platens respectively.

5. In a machine for the purpose indicated, in combination with a frame, a multiplicity of sheet-marking units mounted in the frame, each such unit comprising a platen, a take-up roll and spool live and dead centers having their axis parallel to that of the take-up roll; means for rotating the take-up roll; a stylus carrier mounted on the frame having a stylus arm for each platen, and styli thereon overhanging the platens respectively; means for moving the stylus frame to carry the styli longitudinally of the respective platens during the actuation of the take-up roll; means for operating the stylus arms to advance the styli toward and retract them from the platens respectively; means for actuating the spool live centers when the platen rolls are relieved from actuation; means for shifting the driving connection from the platen rolls to the spool live centers, and connections between said shifting means and the stylus-arm-operating means for locking the stylus arms at position for holding the styli retracted from the platens when the spool live centers are actuated.

[Claims 6 to 15 not printed in the Gazette.]

1,137,260. BEDSTEAD CORNER-FASTENING. DARRELL FRANK DYKE, Chicago, Ill., assignor to The Seng Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 4, 1913. Serial No. 788,074. (Cl. 5—55.)



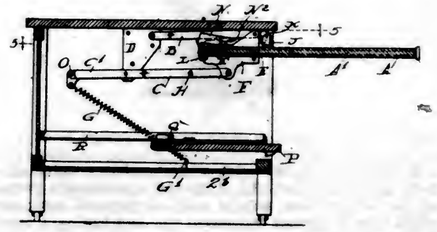
1. A bed corner fitting comprising a rectangular socket, in combination with an angle-iron side rail adapted to be inserted in the socket; an obliquely-extending brace clamp held loosely in the angle of the side rail at the end portion thereof which enters the socket, and a clamping bolt set through one side of the socket for impinging upon said oblique brace clamp to force the same against the flanges of the side rail and seat the latter in the corner of the socket.

2. A bedstead corner fitting comprising a bracket member adapted to be secured to the corner post and having a rectangular socket and a clamping screw set through the inner side of said socket protruding into the cavity thereof, in combination with an angle-iron side rail, adapted to have its end entered in the socket; an oblique brace clamp lodged and loosely retained in the angle of the side rail at said end portion, said brace clamp being bent outwardly opposite the angle of the side rail, and provided with two seats for the end of the clamping bolt at positions respectively for seating said bolt when the side rail is inserted in the socket with the horizontal flange at the top, and when it is inserted with said flange at the bottom.

3. A bedstead corner fitting consisting of a bracket made of a single piece of metal plate folded at not less than three parallel lines to form four encompassing walls of a rectangular socket, presenting, for receiving a side rail endwise, an opening equal to the cross-sectional area of the socket back of said opening, and further folded at a line at right angles to said parallel lines to form a vertical back plate for mounting the bracket on the post, and having lugs projecting at right angles to each other and folded one at a line parallel to said three parallel lines, and the other at a line parallel to the line of folding of the back plate, whereby said lugs at right angles to each other both project at right angles to the length of the rectangular socket, for securement of a cross rail.

4. A bedstead corner fitting made of one piece of metal plate, having lugs folded to lap each other to form a rectangular socket, and riveted together at their lap, and other lugs folded to lap each other and form a vertical channel at the inner end of the rectangular socket, and bolts which bind them together at their lap adapted also for securing the fitting to the post.

1,137,261. TYPE-WRITER SUPPORT FOR DESKS. DARRELL FRANK DYKE, Chicago, Ill., assignor, by mesne assignments, to The Clemetsen Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1913. Serial No. 790,634. (Cl. 45—52.)



1. In combination with a housing, a movable tablet and supporting means therefor, comprising a system of parallel links pivoted on either side wall of the housing, carrying plates pivoted at the free ends of the links in each system, means on said carrying plates adapted to slidably engage the lateral edges of the tablet at two points longitudinally separated to permit horizontal movement of said tablet with respect to the plates, and means on one of the links intermediate of its pivots adapted to engage one of said lateral edges of the tablet at a third point during its sliding movement.

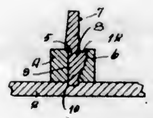
2. In combination with a housing, a movable tablet; carrying plates and a system of parallel links connecting the plates with the side walls of the housing for up-and-down movement of the plates by swinging movement of the links; means by which the tablet is engaged with the carrying plates for horizontal sliding with respect thereto, adapted to permit the tablet to be protruded from the housing; a catch mounted on one of the carrying plates positioned and adapted for locking the tablet at horizontally extended position during the swinging movement of the links, said catch being formed and positioned for encounter with one of the links at the upper limit of their swinging movement for disengagement of the catch to release the tablet, and coöperating devices on the tablet and housing, positioned for engagement of the tablet with the housing upon inward sliding of the tablet upon its release from the catch.

3. In combination with a housing, a movable tablet; carrying plates and a system of parallel links connecting the plates with the side walls of the housing for up-and-

down movement of the plates by swinging movement of the links; means by which the tablet is engaged with the carrying plates for horizontal sliding with respect thereto, adapted to permit the tablet to be protruded from the housing; a catch mounted on one of the carrying plates positioned and adapted for locking the tablet at horizontally extended position during the swinging movement of the links, said catch being formed and positioned for encounter with one of the links at the lower limit and with the other link on the same side at the upper limit of said swinging movement for releasing the tablet at said limits respectively.

4. In combination with a housing, a movable tablet and supporting means therefor, comprising carrying plates slidably engaging the lateral edges of the tablet to permit horizontal extension thereof from the housing, and means whereby said carrying plates are mounted in the housing to permit vertical movement of the tablet, a spring stop positioned to limit the horizontal extension of the tablet, a controlling catch on one of the carrying plates adapted to lock the tablet at its extreme limit of extension during the vertical movement of said carrying plates, a horizontally engageable hook device positioned for positively supporting said tablet at its upper limit of movement, and means for automatically releasing the controlling catch at the upper limit of the vertical movement to permit retraction of the tablet by the spring stop for engaging the hook device.

1,137,262. HORSESHOE-CALK. ELVER C. FLANAGAN, Detroit, Mich. Filed June 29, 1914. Serial No. 848,039. (Cl. 168—35.)



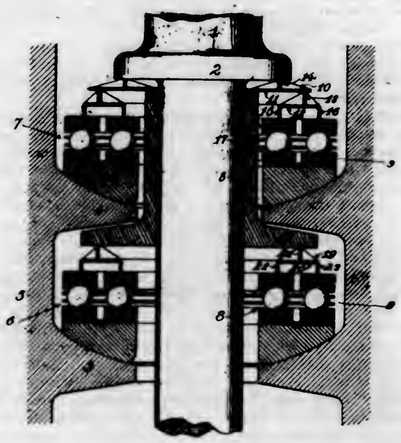
1. The combination with a horse shoe comprising a body portion, a plurality of spaced enlargements formed on the body portion, each of said enlargements being provided with a tapered transverse slot and having a recess in its upper surface communicating with said slot, of a horse shoe calk comprising a tapered body portion, a pair of spaced lugs formed at one edge of the tapered body portion, and a tapering extension adapted to be held in the tapered slot in the enlargement whereby the body portion is held in place.

2. The combination with a horse shoe comprising a body portion, a plurality of spaced enlargements on the body portion, each of said enlargements being provided with a transverse tapering slot and having a recess communicating therewith, of a horse shoe calk comprising a tapering body portion, a pair of spaced lugs formed on one edge of the body portion, a tapered extension formed on the body portion, said tapered extension being adapted to enter the tapered slot, and a lateral projection formed on the body portion and arranged to enter the recesses formed in the enlargements and thereby lock the calks firmly in place.

3. The combination with a horse-shoe comprising a body portion, of a plurality of spaced enlargements formed on the body portion, each of said enlargements being provided with a tapered transverse slot and having a recess in its upper surface communicating with said slot, of a horse-shoe calk comprising a flat tapered body portion, a tapering extension formed on the body portion adapted to be held in the tapered slot in the enlargement and means for holding the calk in place.

4. A horse-shoe comprising a body portion formed with a boss having a slot which is tapered toward its bottom extending transversely of the body, said slot being formed with a lateral recess intermediate the ends of the slot in one wall thereof, which recess is tapered toward the bottom of the slot, and a calk to fit within the slot comprising a blade portion and a shank portion, the shank portion being formed with a rib at one side to fit the recess and tapered to fit the slot, and the blade portion being of lesser width than the shank portion to form a shoulder, and a portion of the boss being peened over the shoulder on the calk to hold the calk in place within the slot.

1,137,263. THRUST-BEARING. MAX GOHLKE, Berlin, Germany. Filed Nov. 3, 1911. Serial No. 658,334. (Cl. 64—49.)



1. In a thrust bearing, the combination of a shaft, individual antifriction bearings therefor arranged in tandem, a member loose on the shaft and acting on one of said antifriction bearings, and an equalizing device in position to receive the thrust loads of the shaft, said equalizing device acting on said loose member and acting also on the other of said antifriction bearings.

2. In a thrust bearing, the combination of a shaft, two sets of antifriction bearings arranged in tandem and each set comprising a plurality of individual bearings, a member loose on the shaft and acting on the bearings of one set, and an equalizing device in position to receive the thrust loads of the shaft, said equalizing device acting on said loose member and acting also on the bearings of the other set.

3. In a thrust bearing, the combination of a shaft, an antifriction bearing therefor, a member loose on the shaft, an equalizing device in position to receive the thrust loads of the shaft, said equalizing device acting respectively on said loose member and acting also on said antifriction bearing, and means for supporting the load transmitted by the loose member.

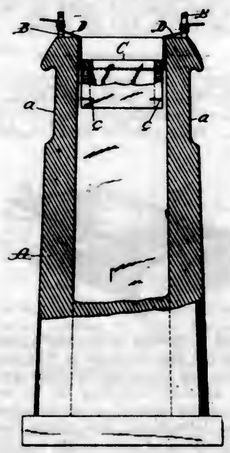
4. In a thrust bearing, the combination of a shaft provided with a plurality of bearings, an equalizing device comprising two annular plates and an intermediate annular connecting web, one of the plates being arranged to receive the thrust loads of the shaft and suitably supported inwardly of the point of application of said loads, and the other plate being provided with flanges bearing on the said bearings.

5. In a thrust bearing, the combination of a shaft, a plurality of bearings therefor, and an equalizing device comprising two annular connected plates, one of the plates being suitably supported at its inner edge and arranged in position to receive between its edges the thrust loads of the shaft, and the other plate bearing at its inner and outer edges respectively on said bearings.

[Claim 6 not printed in the Gazette.]

1,137,264. INGOT-MOLD. EMIL GATHMANN, Baltimore, Md. Filed Feb. 11, 1915. Serial No. 7,594. (Cl. 22—147.)

1. The combination with a mold of a feeder or sink head therefor through which the metal is poured and means for suspending the feeder in the mold in different horizontal planes below the top of the mold.



2. The combination with a mold of a feeder or sink head therefor through which the metal is poured and means for adjustably suspending the feeder in the mold in different horizontal planes below the top thereof.

3. The combination with a mold of a feeder or sink head therefor and flexible means for suspending the feeder in the mold.

4. The combination with a mold of a feeder or sink head therefor and wires attached to the feeder and adapted to be attached to the upper portion of the mold to suspend the feeder therein.

5. A sectional feeder provided with a tie-wire surrounding it for holding the sections together and means connected with the tie-wire for adjustably suspending the feeder in a mold.

[Claims 6 and 7 not printed in the Gazette.]

1,137,265. COFFEE TABLET AND PROCESS OF MAKING THE SAME. ROBERT HÜBNER, New York, N. Y., assignor, by mesne assignments, to George Hillard Benjamin, New York, N. Y. Filed Dec. 27, 1909. Serial No. 534,992. (Cl. 99—11.)

1. The herein described process of making coffee tablets, which consists in first extracting from the coffee such aromatic ketones, glycerids, and fatty bodies, as are soluble in ether or ether-alcohol, then extracting from the mass such bodies as are soluble in water, then subjecting the first mentioned extract to the action of an alkali, then removing the saponified bodies, then combining the extracts and evaporating them to the condition of a solid.

2. The herein described process of making coffee tablets, which consists in first extracting from the coffee such aromatic ketones, glycerids, and fatty bodies, as are soluble in ether or ether-alcohol, then extracting from the coffee all matters which are soluble in hot water, then concentrating the extracts to a solid, then compressing to tablet form, then finally coating with a preservative envelop.

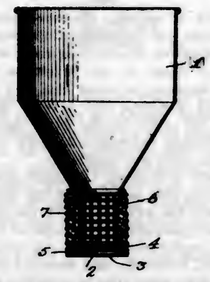
3. The herein described process of making coffee tablets, which consists in first grinding, then extracting from the mass such bodies as are soluble in ether or ether-alcohol, then extracting from the mass such bodies as are soluble in water, then subjecting the first mentioned extract to the action of an alkali, then removing the saponified bodies, then combining the extracts and evaporating them to the condition of a solid, then compressing into tablet form and finally coating with a preservative envelop.

4. The herein described process of making coffee tablets, which consists in first grinding, then extracting from the mass such bodies as are soluble in ether or ether-alcohol, then extracting from the mass such bodies as are soluble in water, then subjecting the first mentioned extract to the action of an alkali, then removing the saponified bodies, then combining the extracts, then evaporating them, then mixing them with a carrying body, then compressing into tablet form, and then coating them with a preservative envelop.

5. As a new article of manufacture, a coffee tablet containing all of the aromatic and palatable substances contained in coffee which may be extracted by ether or ether alcohol, and all the other bodies which may be extracted by warm water, excepting such fatty matters as may be saponified by an alkali.

[Claims 6 and 7 not printed in the Gazette.]

1,137,266. STRAINER. IRVIN L. JAMES, Fargo, N. D. Filed June 18, 1914. Serial No. 845,864. (Cl. 210—16.)



1. In a strainer, a receptacle provided with an outlet, a cylindrical extension extending over the outlet of the receptacle, said extension having an imperforate bottom and its cylindrical wall reticulated, a foraminous clamp comprising hinged members shaped to fit over the cylindrical extension of the receptacle, and means for fastening the hinged members together when closed over the cylindrical extension.

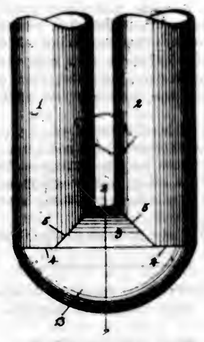
2. In a strainer, a receptacle provided with an outlet, a reticulated cylindrical extension extending over the outlet of the receptacle, an imperforate bottom on said cylindrical extension, flanges on said bottom forming an annular groove outside of the extension, and a foraminous clamp to fit over the cylindrical extension above said annular groove.

3. In a strainer, a receptacle provided with an outlet, a reticulated extension extending over the outlet of the receptacle, a foraminous clamp comprising hinged members shaped to fit over the reticulated extension, and means for fastening the hinged members together when closed over the reticulated extension.

4. In a strainer, a receptacle provided with an outlet, a cylindrical extension extending over the outlet of the receptacle, said extension having an imperforate bottom and its cylindrical wall reticulated, a filtering mat to fit over the cylindrical wall of the extension, a foraminous clamp comprising hinged members shaped to fit over the mat web when said members are closed to hold the mat in place on the extension, and means for fastening the hinged members together when closed.

5. In a strainer, a receptacle provided with an outlet, a reticulated cylindrical extension extending over the outlet of the receptacle, an imperforate bottom on said cylindrical extension, flanges on said bottom forming an annular groove outside of the cylindrical wall of the extension, a filtering mat placed over the reticulated cylindrical extension with its lower edge inserted in said groove, and a foraminous clamp for holding the mat upon the extension.

1,137,267. METHOD OF MAKING U-SHAPED PIPE-BENDS. JULIUS KINDERVATER, Richmond, Va., assignor to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed July 8, 1914. Serial No. 849,676. (Cl. 29—157.)



1. The method of making U-shaped pipe bends which comprises squaring and beveling off the ends of two pipes, providing a segment of pipe having ends beveled at angles corresponding to those of the bevels on the two pipes, inserting said segment between the two pipes, with its ends respectively abutting the beveled portions of said pipes, welding the edges of the pipe ends and segments together, and welding the edges of a cap to the remaining edges of the pipe ends and segments.

2. The method of making U-shaped pipe bends which comprises squaring and beveling off the ends of two pipes, so as to intersect the axial plane of the pipe in the open end of said pipe; providing a segment of half pipe having ends beveled at angles corresponding to those of the bevels on the two pipes, inserting said segment between the two pipes, with its ends respectively abutting the beveled portions of said pipes, welding the edges of the pipe ends and segments together, and welding the edges of a cap to the remaining edges of the pipe ends and segments.

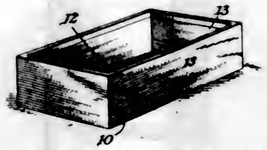
3. The method of making U-shaped pipe bends which comprises squaring and beveling off the ends of two pipes each bevel being at 45° with an axial plane which it intersects at the open end of the pipe, providing a segment of half pipe of the same diameter and wall thickness as the two pipes and having similar and symmetric ends beveled at the same angle as are the two pipes, inserting said segment between the two pipes with its ends respectively abutting the beveled portions of said pipes, welding the edges of pipe ends and segment together, and welding the edges of a cap to the remaining edges of the pipe ends and segment.

1,137,268. CONTAINER. CARL KORMANSHAUS, Barmen, Germany, assignor to Stokes & Smith Company, Summerdale, Pa., a Corporation of Pennsylvania. Filed June 10, 1914. Serial No. 844,306. (Cl. 229—40.)



A box consisting of two telescoping shells, one of said shells having a bottom wall and side walls extending upwardly therefrom and having a cover completely covering the under face of said bottom and the outer faces of said side walls, the other of said telescoping shells consisting of a lid wall and side walls extending down therefrom and having a cover completely covering the upper face of said lid wall and the outer side of said side walls, said shells being attached together at their overlapping portions, the outer wall of said overlapping portion having an incision extending longitudinally on three sides only above the attached portion, forming abutting edges between the lid portion and the bottom portion of the box supporting the lid of the box, the fourth undivided wall of said outer shell forming a hinge-wall on which the lid may be raised, said incision having all points thereof in the same plane, said plane being parallel with the said lid wall and bottom wall and being at an intermediate point between the bottom and lid walls.

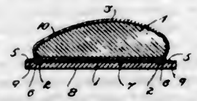
1,137,269. METHOD OF MAKING CONTAINERS. CARL KORMANSHAUS, Barmen, Germany, assignor to Stokes & Smith Company, Summerdale, Pa., a Corporation of Pennsylvania. Filed June 10, 1914. Serial No. 844,307. (Cl. 93—36.)



1. The method of making a box which consists in forming a blank with a flap to make a rear wall, forming a score line in said flap at an intermediate point thereupon, forming a box lid shell including the lid wall from said blank, forming a box bottom shell including the bottom wall of the box, telescoping said shells together, attaching the lower portions of said shells together below said score line in the rear wall and cutting the outer shell on a single continuous line lying wholly in the plane of said score line to form the outer shell wall into two parts having abutting edges which abut when the box is closed, said score line forming a hinge line for opening the lid.

2. The method of making a box which consists in forming a blank with a flap to make a rear wall, forming a score line in said flap at an intermediate point thereupon, forming a box lid shell including the lid wall from said blank, forming a box bottom shell including the bottom wall, telescoping said shells together, attaching the lower portions of said shells together below said score line in the rear wall and cutting completely through the outer shell on the forward wall and end walls in a continuous line lying wholly in the plane of said score line and thereby dividing the outer shell wall into two parts only, having abutting edges between the upper part of the lid shell and the lower portion of the box which abut when the box is closed, said score line forming a hinge line for opening the lid.

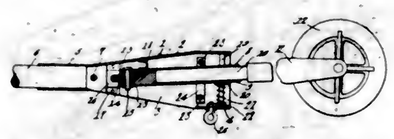
1,137,270. WELT-SHOE. FRANK W. MERRICK, Boston, Mass., assignor to Union Lock Stitch Company, Boston, Mass., a Corporation of Maine. Filed May 20, 1911. Serial No. 628,379. (Cl. 36—17.)



1. The improved welt-shoe having an insole of thin flexible material formed with a permanent inseam-governing molded down-turned edge-flange or lip produced by a bend around the margin thereof defining the extreme outer boundary of the tread-surface of the insole and controlling the position of the inseam and the shape of the shoe, said shoe also having the upper drawn inward against the said continuation of the insole tread-surface immediately at the bend, a welt, an inseam securing the welt, upper and flange or lip together, and an outsole secured to the welt by an outseam.

2. The improved welt-shoe having an insole of thin flexible material formed with a permanent inseam-governing molded down-turned edge-flange or lip produced by a bend around the margin thereof defining the extreme outer boundary of the tread-surface of said insole and controlling the position of the inseam and the shape of the shoe, with the whole substance of the insole extending to the said boundary, and a continuation of the said tread-surface forming the exterior of the flange or lip, said shoe also having the upper drawn inward against the said continuation of the insole tread-surface immediately at the bend, a welt, an inseam securing the welt, upper, and flange or lip together, and an outsole secured to the welt by an outseam.

1,137,271. TROLLEY-HARP CARRIER. ALFRED C. MINER, Missoula, Mont. Filed Dec. 24, 1914. Serial No. 878,894. (Cl. 64—70.)



1. In a device of the class described, a casing, a T-shaped member having its arms journaled within the casing, a member pivoted to the body portion of the said T-shaped member, and yieldable means within the casing for holding the second mentioned member at a normal position.

2. In a device of the character described, a casing, an arm pivotally mounted therein to swing vertically and laterally relative thereto, balanced yieldable means between the said member and sides of the casing to hold the said member at an intermediate position between the sides of the casing, and yieldable means for swinging the said member and casing vertically relative to one another.

3. In a device of the character described, a casing, a member pivotally mounted therein to swing vertically and laterally, a vertically movable spring pressed slide mounted within the casing, the said member bearing against the slide and being swingable along the same, and spring means disposed between the said member and sides of the casing for normally holding the said member at an intermediate position.

4. In a device of the character described, a casing, a member pivotally mounted therein, a pair of upright rods mounted within the casing, a transverse bar slidable upon the said rods, springs mounted upon the said rods and cooperating with the said bar, the said member bearing against the bar and being movable therealong, and yieldable means between the said member and casing for holding said member normally at an intermediate position.

5. In a device of the character described, a casing, a member pivotally mounted therein, transverse rods mounted within the casing, slides mounted upon the said rods and bearing against the opposite sides of the said member, balanced springs disposed upon the said rods between the slides and casing for holding the said member normally at an intermediate position, and yieldable means for moving the casing and said member vertically relatively to one another.

1,137,272. STAMP-MILL. EDWARD H. MOYLE, Los Angeles, Cal. Filed Mar. 30, 1914. Serial No. 828,384. (Cl. 83—57.)

1. In a stamp mill, a stamp having a stem, guides for said stem, a tappet on said stem, a plurality of springs and slidable weights on stem and between tappet and guide, and a cam for lifting said tappet.

2. In a stamp mill, a stamp having a stem, an adjustably fixed tappet on said stem, an actuating cam for cooperating with said tappet, guides for said stem, a plurality of weights slidable on said stem, and a plurality of springs between said weights.

3. In a stamp mill, a stamp having a stem, an adjustable tappet on said stem, adjustable and removable guides for said stem, an adjustable set collar for said stem, a plurality of springs between adjustable tappet and guide and a plurality of springs between adjustable set collar and guide, a plurality of weights slidable on said stem to hold said springs, and an actuating cam for raising said adjustable tappet.



4. In a stamp mill, a stamp having a stem, adjustable guides for said stem, an adjustable tappet on said stem, springs and slidable weights on said stem and above adjustable tappet, and an actuating cam for said tappet.

5. In a stamp mill, a stem having an adjustably actuated tappet, stem guides above and below said tappet, and a plurality of springs and slidable shock-absorbing weights on stem and interposed between said tappet and stem guide.

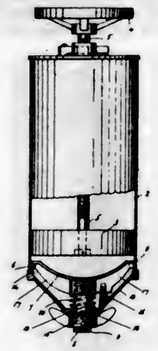
[Claims 6 to 8 not printed in the Gazette.]

1,137,273. PENCIL-CALENDAR. CURTIS M. MYERS, Glenfield, and JOSEPH A. TERHORST, Pittsburgh, Pa. Filed Jan. 19, 1914. Serial No. 812,932. (Cl. 40—108.)



The combination in a pencil calendar with a fixed slitted sleeve open at one end and a removable slotted outer casing free to rotate forwardly and reversely thereon, of a reversible, dispensable rolled strip in the sleeve having its end passed through and loosely wrapped once around the sleeve and in frictional contact with the outer casing, and said strip having the successive calendar months printed upon its sides, whereby the casing may be revolved to disclose a calendar month, then be reversely revolved to reverse and wrap the strip upon the sleeve and successively disclose the dates of the calendar month on the reverse side of the strip.

1,137,274. LUBRICATOR. OSCAR HERMAN NEIMAN, Freeport, Ill. Filed May 8, 1914. Serial No. 837,320. (Cl. 221—47.)

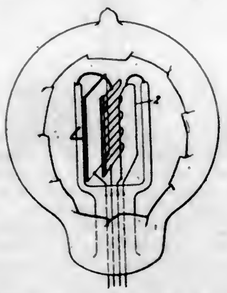


1. In a lubricator, the combination, with a cylinder provided with projections at its lower end portion, and means for ejecting the lubricating material from the cylinder; of a crossbar which engages with the said projections and which has an outlet pipe at its middle part, a cover closing the outlet end of the cylinder and having a hole for the outlet pipe to project through, and means for securing the cover on the outlet pipe.

2. In a lubricator, the combination, with a cylinder provided with projections at its lower end portion, and means for ejecting the lubricating material from the cylinder; of a crossbar which engages with the said projections and which has an outlet pipe at its middle part, a cover closing the outlet end of the cylinder and having a hole for the outlet pipe to project through, a helical spring encircling the outlet pipe and arranged between the cover and the crossbar, and means for securing the cover on the outlet pipe.

3. In a lubricator, the combination, with a cylinder provided with projections at its lower end portion, and means for ejecting the lubricating material from the cylinder; of a crossbar which engages with the said projections and which has an outlet pipe at its middle part, a cover closing the outlet end of the cylinder and having a hole for the outlet pipe to project through, a guide portion projecting from the cover and engaging slidably with the crossbar, and means for securing the cover on the outlet pipe.

1,137,275. FILAMENT FOR AUDIONS. ALEXANDER MCLEAN NICOLSON, Tarrytown, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed June 6, 1914. Serial No. 843,504. (Cl. 250—35.)

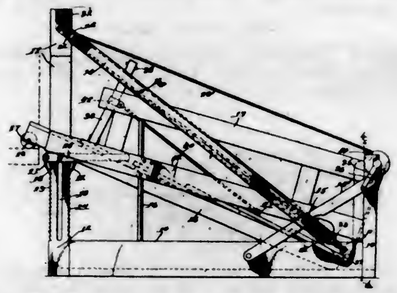


1. An audion filament consisting of a twisted metallic ribbon having an oxid coating.

2. An audion filament consisting of a twisted platinum ribbon having an oxid coating.

3. In an audion, a metallic filament provided with a spiral groove, and an electron-emitting coating upon the grooved portion of the filament.

1,137,276. GANGWAY. CHARLIE A. NORMAN, Frankfort, S. D. Filed Feb. 18, 1914. Serial No. 819,585. (Cl. 119—82.)



1. In a device of the character described a frame including forward and rear standards, a support adjustably connected with said forward standards, a drum rotatably connected with said rear standards, a gangway mounted in said frame and having its forward end resting upon said support, pulleys carried by said gangway and forward standards, cables having their inner ends connected with the pulleys of said gangway and passed around the pulleys of said gangway and forward standards with their outer ends wound upon said drum, and a cable wound upon said drum in an opposite direction to that of said first-mentioned cables and connected with said gangway.

2. In a device of the character described a frame including forward and rear standards, a supporting shaft positioned between said forward standards, means adjustably connecting said shaft with said forward standards whereby said shaft may be releasably set at a desired height, a gangway having its rear end resting upon the lower portion of said frame and having its forward end resting upon said shaft, a drum rotatably carried by said rear standards, a guide carried by said forward standards, a cable connected with the rear end of said gangway and passing around said guide and having its opposite end wound upon said drum, and a second cable connected with the rear end of said gangway and wound upon said drum in an opposite direction to said first-mentioned cable.

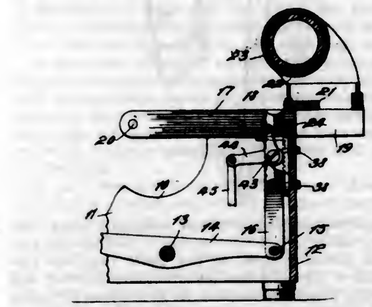
3. In a device of the character described a frame including forward standards, said forward standards being provided with slots, a shaft extending between said forward standards and through said slots, levers pivotally connected with the end portions of said shaft, said forward standards being provided with rack teeth, pawls carried by said levers and engaging said rack teeth to releasably hold said shaft in an adjusted position, a gangway mounted in said frame with its forward end portion resting upon said shaft, and means for moving said gangway longitudinally in said frame whereby the angle of said gangway may be regulated.

4. In a device of the character described a frame including side beams, forward and rear standards carried by said side beams, diagonally-extending bracing strips having their lower ends connected with said side beams and their upper ends connected with the upper end portion of said standards, rods carried by said side beams and having their upper end portions connected with the bracing strips of said forward standards, side rails movably mounted between said rods and the diagonal bracing strips, a supporting shaft adjustably connected with said forward standards, a drum rotatably connected with said rear standards, a gang way mounted in said frame for longitudinal movement and having its forward end resting upon said supporting shaft, and means carried by said drum and connected with said gangway for moving said gangway in said frame upon rotation of said drum.

5. In a device of the character described a frame including side beams, standards, bracing strips having their lower ends connected with said side beams and their upper ends connected with said standards, rods carried by said side beams and having their upper ends connected with said bracing strips, side rails movably mounted between said rods and bracing strips, supporting means carried by said standards for engaging said side rails to support the same, a gangway movably mounted in said frame and having one end resting upon said supporting means, and means for moving said gangway in said frame.

[Claims 6 and 7 not printed in the Gazette.]

1,137,277. TYPE-WRITING MACHINE. OTTO PETERMANN, Groton, N. Y., assignor to Corona Typewriter Company, Incorporated, a Corporation of New York. Filed Feb. 6, 1913. Serial No. 746,488. (Cl. 197—73.)



1. In a typewriting machine, the combination of a support having a pair of arms, a carriage adapted to travel along said support, brackets having openings of relatively different sizes, slides passing through the openings of the brackets and connected to the arms, means for adjusting the slides and arms in the direction of travel of the carriage, and means for moving said slides.

2. In a typewriting machine, the combination of a support, a carriage adapted to travel along said support, a bracket having an opening, a second bracket spaced from the first-mentioned bracket and provided with an elongated opening, slides passing through the openings of the brackets, and means for adjusting the slides in the direction of travel of the carriage.

3. In a typewriting machine, the combination of a frame, a support, a carriage adapted to travel along said support, a bracket having a round opening and secured to the frame at the rear corner thereof, a second bracket having an elongated opening extending in the direction of travel of the carriage and secured at the other rear corner of the frame, slides passing through the openings of the brackets and connected to the support, and means for adjusting the slides in the direction of travel of the carriage.

4. In a typewriting machine, a pair of brackets formed of sheet metal and each comprising a vertically arranged portion adapted to be secured to the frame of the machine, wings arranged at an angle with respect to said vertically arranged portion, and an overhanging guiding portion horizontally arranged and supported by the wings and each horizontal portion being provided with an opening, and slides movable in said openings.

5. In a typewriting machine, the combination of a support, slides connected to the support, a plurality of brackets formed of sheet metal and each comprising a portion adapted to be secured to the frame of the machine, and a single angular portion, each angular portion being provided with an opening forming a guide for a slide, and means for adjusting the support and slides.

[Claims 6 to 17 not printed in the Gazette.]

1,137,278. COMPOSITE FOIL SHEET. JONATHAN PETERSON, Brooklyn, N. Y. Filed Apr. 11, 1913. Serial No. 760,368. (Cl. 154—50.)



1. As a new product of manufacture, a thin, flexible composite sheet especially adapted for forming packages or containers consisting of two superposed sheets, one of said sheets consisting of frail metal foil, the other of said sheets consisting of a thin, flexible and substantially non-extensible backing sheet resisting extension and rupture of said foil sheet under the action of a tensile force, and a connecting coating of a permanently resilient substance on at least one of said sheets connecting said foil to said backing sheet throughout the entire area of one of said sheets, the said composite sheet having the properties of pliability and impermeability to air and moisture.

2. As a new product of manufacture, a thin, flexible composite sheet especially adapted for forming packages or containers, consisting of two superposed sheets, one of said sheets consisting of a frail metal foil, the other of said sheets consisting of a thin, flexible paper strip constituting a backing for said frail foil sheet and resisting extension and rupture thereof under the action of tensile strains, and a connecting coating of rubber compound on at least one of said sheets, connecting said foil sheet to said backing sheet throughout the entire area of one of said sheets, said rubber compound resiliently uniting the said foil and backing sheets.

3. As a new product of manufacture, a thin, flexible and substantially non-extensible composite web especially adapted for forming blanks to be used in the manufacture of packages, pouches or containers, consisting of two superposed webs, one of frail metal foil and the other of thin flexible paper of less width than the foil web arranged centrally and longitudinally thereof and constituting a backing therefor, and a connecting coating of rubber compound in substantially a dry state on each of said webs facially uniting said foil to said backing throughout the entire area of the latter, said rubber compound resiliently uniting the said foil to said backing and providing a flexible composite web of foil and paper having unbacked foil portions along the opposite longitudinal edges thereof.

1,137,279. METHOD AND APPARATUS FOR PRODUCING COMPOUND SHEETS. JONATHAN PETERSON, Brooklyn, N. Y. Filed Aug. 3, 1914. Serial No. 854,778. (Cl. 154—40.)



1. The method of forming a compound sheet which consists in advancing a continuous web, applying a moist dryly cohesive compound coating to the face of said web, drying said coating, advancing a second continuous web superposed over said first web and having a face with a dry coating of the said compound, arranged with the coated faces of said webs adjacent to each other, and then pressing said webs together while said coatings are dry to unite said webs by the dry cohesion of said coatings.

2. The method of forming a compound sheet which consists in advancing a continuous web of foil, applying a moist dryly cohesive compound coating to the face of said

web, drying said coating, advancing a continuous backing web having a face with a dry coating of the said compound and arranged to overlie said foil web, with the coated faces of said webs adjacent to each other, and then pressing said webs together while said coatings are dry to unite said webs by the dry cohesion of said coatings.

3. The method of forming a compound sheet which consists in advancing a continuous web of foil, covering one face of said foil web with a moist dryly cohesive compound coating, applying said moist compound coating to the margins of said foil web on the other face thereof, advancing a continuous backing web having a face with a coating of said compound and arranged to overlie substantially centrally said foil web whereby the said coated margins are left unbacked and projecting beyond the edges of said backing sheet, drying said moist coatings, and then pressing said webs together while said coatings are dry to effect dry cohesion of their coatings and form the compound sheet.

4. The method of forming a compound sheet which consists in advancing a continuous web of foil, covering one face of said foil web with a moist dryly cohesive compound coating, applying said compound coating to the margins of said foil web on the other face thereof, advancing a continuous backing web having a face with a coating of said compound and arranged to overlie substantially centrally said foil web whereby the said coated margins are left unbacked and projecting beyond the edges of said backing sheet, drying said coatings, and then pressing said webs together while said coatings are dry to effect dry cohesion of their coatings and form the compound sheet, and applying said compound to the margins of the exposed face of said backing web.

5. The method of forming a compound sheet for producing pouches which consists in advancing a continuous web of foil, covering one face of said foil web with a moist dryly cohesive compound coating, applying said compound coating to the margins of said foil web on the other face thereof, advancing a continuous backing web having a face with a coating of said compound and arranged to overlie substantially centrally said foil web whereby the said coated margins are left unbacked and projecting beyond the edges of said backing sheet, drying said coatings, and then pressing said webs together while said coatings are dry to effect dry cohesion of their coatings and form the compound sheet, and applying said compound to the margins of the exposed face of said backing web, coiling the compound sheet into a roll, and simultaneously coiling a protecting web into the roll between the coils of the compound sheet to prevent contact between the coated coils of said projecting margins.

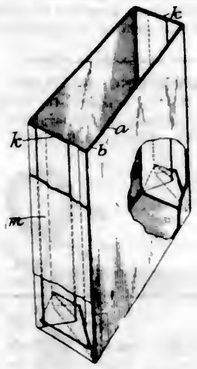
[Claims 6 to 26 not printed in the Gazette.]

1,137,280. FOIL PACKAGE FOR TOBACCO AND OTHER SUBSTANCES. JONATHAN PETERSON, Brooklyn, N. Y. Filed Apr. 11, 1913. Serial No. 760,367. (Cl. 229—87.)

1. A pouch formed from a flexible composite foil blank consisting of frail foil and a backing sheet therefor, said blank being folded transversely of its length to form the bottom and two opposite side walls of the pouch and said pouch also having overlapping foil portions at the opposite ends thereof, said overlapping foil portions being facially united by an intermediate film of rubber compound and constituting portions of the opposite longitudinal end walls of the pouch.

2. A pouch or package formed from a flexible composite blank, consisting of a sheet of tin-foil having a backing sheet of soft flexible fibrous material of less width than the foil sheet, arranged substantially centrally and longitudinally thereof and facially united thereto throughout its entire area by means of a thin film of rubber compound, said blank being folded transversely of its length to form the bottom and two sides of the pouch or package, the free or unbacked foil portions of the blank at the opposite longitudinal edges thereof being overlapped and joined foil to foil along the opposite longitudinal ends of the pouch or package.

3. A foil-lined pouch formed from a flexible composite blank, consisting of a sheet of tin-foil having a backing sheet of soft fibrous material of less width than the foil sheet, arranged substantially centrally and longitudinally thereof, and facially united thereto throughout its entire area by means of a thin film of rubber compound, said blank being folded transversely of its length to form the bottom and two sides of the pouch, and the oppositely disposed unbacked foil portions of the blank being folded inward toward each other and overlapped and joined foil to foil by an interposed film of rubber compound to form the opposite ends of the pouch.

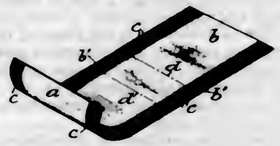


4. A pouch formed from a flexible composite blank, consisting of a sheet of tin-foil having a backing sheet of soft flexible fibrous material of less width than the foil-sheet, arranged centrally and longitudinally thereof and facially united thereto throughout its entire area by means of a film of rubber compound, said blank being folded along parallel lines transversely of its length to form the bottom and two sides of the pouch, the free or unbacked foil portions of the blank being overlapped and joined foil to foil along the opposite longitudinal ends of the pouch, and flexible strengthening strips overlying and united to the said lapped and joined foil portions.

5. As a new article of manufacture, an air and moisture-proof foil-lined pouch formed from a flexible composite blank, consisting of a sheet of tin-foil having a soft, flexible backing of fibrous material facially joined thereto throughout its contacting face through the medium of a film of rubber compound, said blank being folded in the form of a pouch having foil to foil joints or seams at its opposite ends only, the sides and bottom of the pouch being free from joints or seams.

[Claims 6 to 10 not printed in the Gazette.]

1,137,281. METHOD OF MAKING BAGS, POUCHES, PACKAGES, OR CONTAINERS. JONATHAN PETERSON, Brooklyn, N. Y. Filed July 6, 1914. Serial No. 849,270. (Cl. 93—35.)



1. The method herein described of making a bag or container from a flexible blank, which consists in applying, while in a fluid state, to opposite faces of the blank, along the longitudinal edges thereof, zones of an adhesive substance which is non-adhesive when in a dry state, but which has the property of cohering when dry, and at ordinary temperature with a like substance when brought into contact therewith, then folding the blank into the form of a container by causing portions of the blank having such zones to overlap like portions, and then subjecting the said overlapped portions to pressure and without requiring the application of heat to cause them to unite by the cohesive attraction of the adhesive substance.

2. The herein described method of making a bag or pouch from a flexible sheet, which consists in forming a blank from such a sheet, applying to the opposite edges of said blank a liquid coating of a substance which is cohesive but non-adhesive when in a dry state, permitting the said coatings to become dry, then folding the blank into the form of a container so that said edges overlap with the coated surfaces adjacent each other, and then uniting said edges by pressing the coated portions together to cause them to join by the cohesive attraction of said coatings and without necessarily applying heat.

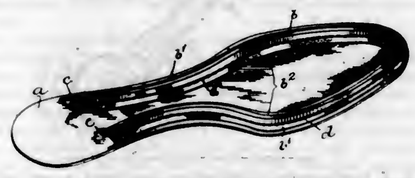
3. As a new article of manufacture, a blank for forming containers, comprising a strip of foldable material having coated zones on oppositely disposed faces at opposite edges thereof, said zones consisting of a substance which is non-adhesive when dry but which has cohesive properties at ordinary temperatures, the faces of the blank between the coated zones being free from such coatings.

4. As a new article of manufacture, a blank for forming bags or containers, comprising a strip of foldable material having coated zones on opposite faces thereof along opposite longitudinal edges, said zones consisting of a substance which is non-adhesive when in a dry state, but which is cohesive when in such state and at ordinary temperature.

5. As a new article of manufacture, a blank for forming bags or pouches, comprising a strip of flexible material having coated zones on opposite faces thereof along opposite longitudinal edges, said zones consisting of a substance which is non-adhesive when in a dry state, but which is cohesive when in such state, and the zones on one face of the blank being wider than those on the other face.

[Claims 6 and 7 not printed in the Gazette.]

1,137,282. INNERSOLE AND METHOD OF MAKING THE SAME. JESSE V. POOLE, Abington, Mass., assignor of one-half to Lloyd L. Livingston, Abington, Mass. Filed Nov. 7, 1914. Serial No. 870,868. (Cl. 36—22.)



1. An inner sole comprising a body and a rib, said rib being a composite strip of substantially uniform width laid on one surface of the body following the outline thereof, and having a core and a flexible covering member which is folded over the core and permanently united by stitching to the body at each side of the core.

2. An inner sole comprising a body and a composite rib consisting of a core strip and a covering strip of fabric of sufficient width to cover said core strip and to provide attaching flaps on each side thereof, said covering strip embracing the core and being stitched to the body at each side of the core.

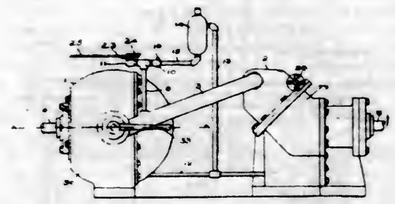
3. An inner sole comprising a body and a composite stitch-receiving rib formed of a fabric strip folded longitudinally to provide an upstanding portion and having its edge portions turned out and laid against the said body and stitched thereto on each side of the upstanding portion, and a reinforcing member contained within such upstanding portion.

4. An inner sole comprising a body portion and a rib structurally distinct from said body portion and permanently connected thereto, said rib comprising a core member having greater width than thickness and a covering strip embracing said core member and stitched to the said body at each side of said core member, the core member being so arranged that its greater cross sectional dimension is approximately perpendicular to the plane of the body.

5. An inner sole comprising a body and a composite stitch-receiving rib formed of a core and a fabric covering bent around said core so as to embrace the same, and a seam uniting said fabric covering to the inner sole body at each side of the base of the core, the said seams being the only means for holding the sides of the strip in their determined relation to one another, and the said strip being of substantially uniform width throughout and covering only the portions of the sole body immediately adjacent to the core.

[Claims 6 to 9 not printed in the Gazette.]

1,137,283. ROTARY-PISTON POWER TRANSMISSION. CHARLES R. PRATT, Montclair, N. J., assignor to The Universal Speed Control Company, a Corporation of New York. Filed July 26, 1910. Serial No. 573,970. (Cl. 138—3.)



1. The combination with a rotary piston unit having a closed casing, a barrel in said casing having a cylinder, an inlet and an outlet leading to said cylinder, a piston in said cylinder, and means for reciprocating said piston, of a fluid reservoir, a duct leading from the unit casing to the upper part of said reservoir, another duct leading from the lower part of said reservoir to the cylinder inlet, and a screen in the reservoir between the inlet of said first-mentioned duct and the outlet of said second mentioned duct arranged and adapted to permit the flow of fluid from the said inlet to the outlet and to strain out air bubbles and allow the same to rise in the reservoir.

2. The combination with a rotary piston unit having a closed casing, a barrel in said casing having a cylinder, an inlet and an outlet leading to said cylinder, a piston in said cylinder, and means for reciprocating said piston, of a fluid reservoir, a duct leading from the unit casing to the upper part of the reservoir, another duct leading from the lower part of said reservoir to the cylinder inlet and a screen arranged in the reservoir transversely of the direction of flow between said upper and lower ducts so as to permit air bubbles to rise from its side toward the said inlet.

3. The combination with a rotary piston unit having a closed casing, a barrel in said casing having a cylinder, inlet and exhaust pipes leading through the casing to said cylinder, a piston in said cylinder, and means for reciprocating the same, of a reservoir adapted to contain liquid and having a compartment with an inwardly opening check valve in the wall thereof, a duct leading from said compartment to the inlet pipe, a second duct leading from the unit casing to said compartment, and means for introducing pressure into said reservoir.

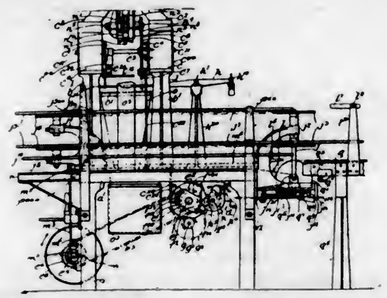
4. The combination with a rotary piston unit having a closed casing, a barrel in said casing having a cylinder, inlet and exhaust pipes leading through the casing to said cylinder, a piston in said cylinder, and means for reciprocating the same, of a reservoir adapted to contain liquid and having a compartment with an inwardly opening check valve in the wall thereof, a duct leading from said compartment and having branches connected to the inlet

and exhaust pipes, respectively, check valves in said branches opening toward the unit, a second duct leading from the unit casing to said compartment of the reservoir, and means for introducing pressure into said reservoir.

5. The combination with a rotary piston unit having a closed casing, a barrel in said casing having a cylinder, inlet and exhaust pipes leading through the casing to said cylinder, a piston in said cylinder, and means for reciprocating the same, of a reservoir adapted to contain liquid and having a compartment with an inwardly opening check valve in the wall thereof, a duct leading from said compartment to the inlet pipe, and a second duct leading from the unit casing to said compartment.

[Claims 6 to 54 not printed in the Gazette.]

1,137,284. AUTOMATIC MACHINE FOR PACKETING, WEIGHING, AND DELIVERING GIVEN QUANTITIES OF GRANULAR OR POWDERY MATERIAL. GEORGE PROKOFIEW, Kensal Rise, London, England. Filed May 20, 1911. Serial No. 628,604. (Cl. 73—183.)



1. In an automatic machine for packeting, weighing and delivering predetermined quantities of finely divided material, a weighing beam, a weighing frame or scales carried by said beam, rails for supporting and guiding packets to and beyond the weighing frame, a feed chamber arranged over and adapted to feed material into the packet on the weighing frame, a feed regulating device for controlling the discharge from said feed chamber, means for imparting differential speeds to the feed regulating device, a shutter controlling the delivery mouth of the feed chamber, means for reducing the speed of the feed regulating device as the packet on the weighing frame receives material approaching in quantity the required weight, means for arresting the motion of the feed regulating device and means for closing the shutter when the required weight is reached, a conveyer for traversing the packets from the supporting rail on to the weighing frame and, on completion of the weighing, traversing them beyond said frame, means for freeing the conveyer from the packet during the weighing, and means for holding the weighing frame depressed while the packeting is being traversed on to and off the weighing frame.

2. In an automatic machine for packeting, weighing and delivering predetermined quantities of finely divided material, a weighing beam, a weighing frame or scales carried by said beam, rails for supporting and guiding packets to and beyond the weighing frame, a feed chamber arranged over and adapted to feed material into the packet on the wighing frame, a feed regulating device for controlling the discharge from said feed chamber, means for arresting the feed of material when the required weight is reached and means for removing dust escaping during the filling of the packet.

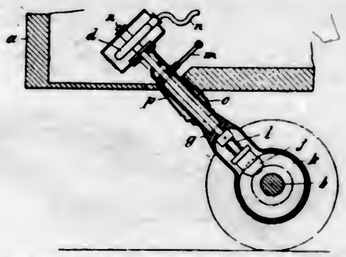
3. In an automatic machine for packeting, weighing and delivering given quantities of finely divided material having weighing means, a feed chamber having a circular bottom with an outlet spout, a cylinder arranged concentrically within the feed chamber, a shutter at the lower end of said cylinder, controlling the outlet spout from the feed chamber, a revoluble skeleton drum concentrically arranged and working within the space between the wall of the feed chamber and said cylinder, means for rotating the skeleton drum, means for varying the speed of and arresting said rotation at the desired times, and means for for automatically closing the shutter when the required weight of material is deposited in the packet on the weighing frame.

4. In an automatic machine for packeting, weighing and delivering given quantities of finely divided material having weighing means, a feed chamber having a circular bottom with an outlet spout, a cylinder arranged concentrically within the feed chamber, a shutter at the lower end of said cylinder, controlling the outlet spout from the feed chamber, a revoluble skeleton drum concentrically arranged and working within the space between the wall of the feed chamber and said cylinder, means for rotating the skeleton drum, means for varying the speed of and arresting said rotation at the desired times, means for automatically closing the shutter when the required weight of material is deposited in the packet on the weighing frame, and means for automatically opening said shutter when the filled packet has been removed from the weighing frame and another packet placed in position to receive the material.

5. In an automatic machine for packeting, weighing and delivering given quantities of finely divided material, having a weighing frame and a feed chamber adapted to feed material into a packet on the weighing frame, additional material feeding means and parts co-acting therewith to control the delivery of material therefrom, beneath which the packets are partially filled before arriving beneath the feed chamber over the weighing frame and a brush operating at the mouth of said feed chamber substantially as and for the purpose set forth.

[Claims 6 to 26 not printed in the Gazette.]

1,137,285. REFRIGERATING-CAR. JOHAN GUSTAF RICHERT, Stockholm, Sweden. Filed Feb. 21, 1914. Serial No. 820,258. (Cl. 105—238.)



1. A refrigerating installation comprising a car body mounted on wheels, a fan driven from a wheel axle and mounted in said car body, said fan being rigidly supported on the truck but being with its casing movably arranged relatively to the car body.

2. A refrigerating installation comprising a car body mounted on wheels, a fan driven from a wheel axle, a driving shaft for said fan mounted between the fan and the wheel axle, a shell inclosing the driving shaft and inclined to the horizontal, said shell being supported by the car axle and indirectly supporting the fan.

3. A refrigerating installation comprising a car body mounted on wheels, a fan driven from a wheel axle, a driving shaft for said fan mounted between the fan and said wheel axle, a shell supported by the car axle and inclosing the driving shaft and inclined to the horizontal, said shell being pivotally connected to the car by a link member and supporting the fan.

4. A refrigerating installation comprising a car body mounted on wheels, a fan driven from a wheel axle and mounted in said car, a driving shaft for said fan mounted between the fan and the wheel axle, a shell inclosing the driving shaft supporting the fan and supported by the car axle and inclined to the horizontal and a sleeve of flexible material mounted between the car and the shell.

1,137,286. PRUNING IMPLEMENT. DOMENICO RONCONI, Chicago, Ill. Filed May 29, 1914. Serial No. 841,785. (Cl. 30—11.)



1. In an implement of the class described, a pole, a gripper and a saw mounted on one end of the pole, means mounted on the pole and controlled from the other end of the pole for operating said gripper to grasp the branch of the tree, and means operated from said other end of said pole for reciprocating said saw, and a spring for pressing the saw against the work.

2. In an implement of the class described, a pole, a gripping device mounted on one end of said pole, means controllable from the other end of said pole for actuating said gripping device, a cutting element reciprocably and pivotally carried by the pole, means operable from said other end of said pole for effecting reciprocation of said element and other means also operable from said other end of said pole for moving said element on its pivot into engagement with the work.

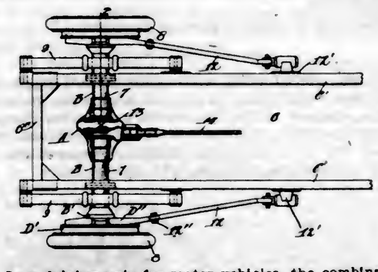
3. In an implement of the character described, a pole consisting of a relatively immovable section and a movable section slidable on the immovable section, gripper members mounted on one end of the immovable section, means controlled from the other end of said immovable section to operate said grippers to grasp the work, a saw pivotally and reciprocably mounted upon one end of the movable section, means on the other end of the movable section whereby said movable section can be reciprocated to thereby reciprocate the saw, and a spring device mounted on the immovable section for coöperatively engaging the saw to turn it on its pivot and thereby hold said saw either out of engagement with the work or in engagement with the work according as the pivot of the saw is to one side or the other of the point of contact of said spring device.

4. In an implement of the character described, a pole consisting of a relatively immovable section and a movable section slidable on the immovable section, gripper members mounted on one end of the immovable section, means controlled from the other end of said immovable section to operate said grippers to grasp the work, a saw pivotally and reciprocably mounted upon one end of the movable section, means on the other end of the movable section whereby said movable section can be reciprocated to thereby reciprocate the saw, and a spring device mounted on the immovable section for coöperatively engaging the saw to turn it on its pivot and thereby hold said saw either out of engagement with the work or in engagement with the work according as the pivot of the saw is to one side or the other of the point of contact of said spring device, and means mounted on the movable section for continuously tending to hold the saw in contact with the work.

5. In an implement of the class described, a pole, a gripping device mounted on one end of the pole, the said device being spring released, and means operable from the other end of the pole for holding the gripping device to its gripping position, a cutting element reciprocably and pivotally mounted on the pole to coöperate with the gripping device, means for effecting reciprocation of the said element, the said means including a rod slidable on the pole, means on the pole for moving the cutting element to its work and other means carried by the slidable rod connectable with the cutting element to assist the first stated means for holding the cutting element to the work.

[Claims 6 to 11 not printed in the Gazette.]

1,137,287. AXLE FOR AUTOMOBILES. RALPH H. ROSENBERG, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Feb. 14, 1912. Serial No. 677,557. (Cl. 21—90.)



1. In a driving axle for motor vehicles, the combination of a non-rotatable hollow axle casing, a road wheel having a hub which extends within the outer end of said casing, means for rotatably mounting the wheel therein, detachable means for preventing its free withdrawal therefrom, a driving shaft extending through said hub without contact with the inward extension thereof and through said casing, a driving gear carried by the casing with which the inner end of the shaft is freely separably connected, and means for rotatably connecting the outer end of the shaft with the hub of the wheel, said shaft being freely removable through the hub without disturbing the wheel or driving gear.

2. In a driving axle for motor vehicles, the combination of a hollow non-rotatable member, a road wheel at the outer end thereof and having an inwardly extending hub adapted to be rotatably mounted within the outer end of said member, a driving shaft extending through said hub and said hollow member and supported by and connected with said hub at its outer end to rotate said wheel, and driving mechanism carried by the axle with which the inner end of said shaft is connected, said shaft being free to be drawn from said mechanism without disturbing said mechanism or said wheel.

3. In a driving axle for motor vehicles, the combination of a hollow stationary member, a road wheel having a hub extension projecting within the outer end of said member, antifriction bearings within said member and within which said hub is rotatably mounted, a collar within said member to which the hub is secured and by which it is held against removal from the member, and a drive shaft rotatably mounted within the axle and having operative connection with the hub of the road wheel.

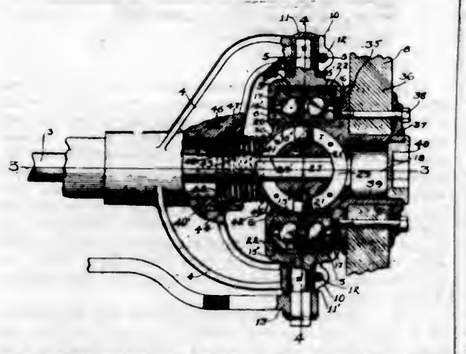
4. In a driving axle for motor vehicles, the combination of a non-rotatable hollow axle member, a road wheel rotatably mounted therein, said wheel having a hub extension projecting within the outer end of the axle, an antifriction bearing removably mounted within the axle and upon which the wheel rotates, a ring removably secured within the outer end of the axle and adapted to retain the said bearing against free removal, a collar arranged within the axle at the inner end of said bearing, means removably securing the hub of the wheel to said collar whereby said wheel is retained against free removal, and a drive shaft within said axle having separable connection with the wheel hub and by which the wheel is driven.

5. In a driving axle for motor vehicles, the combination of a non-rotatable hollow member carrying drive gears between its ends, a road wheel having a central hub portion adapted to project within the outer end of the hollow member, an antifriction bearing mounted within the outer end of the hollow member and upon which the wheel is rotatably mounted, a separable collar secured to the inner end of the hub and by which the wheel is held against free removal from the axle, bolts extending through the hub for securing said collar thereto, an enlarged central chamber in the outer end of the hub for accommodating the heads of said bolts, a drive shaft extending through said

hub and said casing having separable connection at its inner end with said gearing and having a polygonal shaped head on its outer end, the periphery of said chamber being similarly formed to receive said head and by which said shaft is rotatably connected with the wheel, and means for preventing the free removal of the shaft from the axle.

[Claims 6 to 14 not printed in the Gazette.]

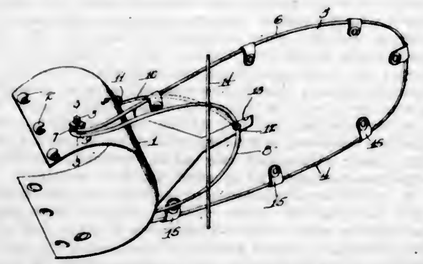
1,137,288. STEERING AND DRIVING WHEEL FOR MOTOR-VEHICLES. RALPH H. ROSENBERG, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed June 10, 1911, Serial No. 632,491. Renewed Jan. 16, 1914. Serial No. 812,586. (Cl. 21—90.)



1. A steering and driving wheel for motor vehicles including, in combination, a suitable mounting permitting the wheel to oscillate horizontally, a socket member on the wheel provided with an annular groove, a ring oscillating in said groove, a driving member within said socket member and a swiveled connection between said ring and the driving member, substantially as described.

2. A steering and driving wheel for motor vehicles including, in combination, a suitable mounting permitting the wheel to oscillate horizontally, a socket member on the wheel provided with an annular groove, a ring oscillating in said groove, a driving member within said socket member, and polarily arranged pins on the driving member swivelly engaging said ring, substantially as described.

1,137,289. SWIMMING DEVICE. THOMAS ROYSTER, New Haven, Conn. Filed June 18, 1914. Serial No. 845,982. (Cl. 9—21.)

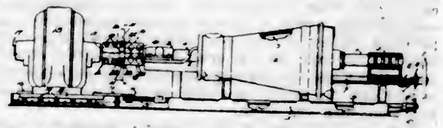


1. In a swimming device, an attaching band, a wing pivoted to the band, stop means extending at an angle to the band to limit pivotal movement of the wing, and a guide element for the wing, said element acting as a brace for the stop means, as and for the purpose set forth.

2. A swimming device including a removable limb-engaging band, a slotted wing pivoted to the band, a frame attached to the band and disposed to extend at an angle to its longitudinal axis, the frame serving as a stop means limiting pivotal movement of the wing, and a brace rod affixed to the frame and the band, said brace rod being adapted to operate within the slot aforesaid to act as a guide for the wing, as and for the purpose set forth.

3. A swimming device including an attaching band, a wing comprising a wing frame pivoted to the band, a body fitting within and fastened to the frame, a portion of the said body being cut away, means carried by the band and extending therefrom at right angles to its longitudinal axis, means holding the said last mentioned means immovable relatively to the band, said last mentioned means operating within that portion cut away of the wing to provide for movement of the latter from a position parallel with the longitudinal axis of the band to a position at right angles to the said longitudinal axis of the band, the said wing when in the latter position being engageable with the said stop means, as and for the purpose set forth.

1,137,290. SHAFT-COUPLING. FRANK E. SAECKER, Appleton, Wis., assignor to Appleton Machine Company, Appleton, Wis. Filed Sept. 2, 1913. Serial No. 787,561. (Cl. 64—13.)



1. A coupling connection comprising a pair of shafts each having a halved coupling member secured thereto, each half of the coupling member being provided with a tongue-and-grooved sector for interlocking engagement with the tongue-and-grooved sectors of the opposite coupling member, and shock-absorbing plugs fitted between the engaging faces of the tongue-and-groove sectors.

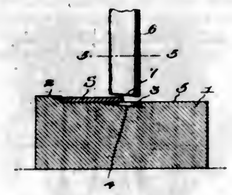
2. A coupling connection comprising a pair of alined shafts, a coupling member secured to each shaft each member being halved, means for clamping the halves together, a tongue-and-grooved sector extending from each half for interlocked engagement with the sectors of the opposite member, the interlocking joints being spaced apart, and shock absorbing plugs fitted within the spaces between said sectors.

3. A coupling means for alined shafts comprising pairs of longitudinally halved coupling members, each pair being provided with companion male and female tongue-and-groove sectors for interlocking engagement with the corresponding tongue-and-grooved sectors of the opposite coupling member, and means for securing the halves of each coupling member together, the said coupling members being halved to intersect their respective female sectors.

1,137,291. DIE FOR MAKING HINGE-LEAVES FOR LOOSE-LEAF BINDERS. JOHN SCHADE, Jr., Brooklyn, N. Y., assignor to National Blank Book Company, a Voluntary Trust Association of Copartnership, having as trustees J. W. Towne, F. B. Towne, E. S. Towne, and E. W. Wilson, Holyoke, Mass. Filed May 6, 1914. Serial No. 836,836. (Cl. 78—60.)

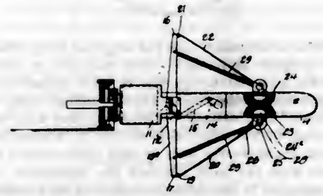
1. A die for making hinge leaves for loose leaf binders having a raised shoulder on its upper face against which one side of the stock is adapted to abut and having a shallow depression in its upper face of substantially elliptical contour located opposite to the shoulder and spaced therefrom, said depression having a bottom wall which is inclined downwardly at the outer end portion of the depression, and a punch of a size to enter the depression having its under face inclined to conform to the inclination of the bottom of the depression.

2. A die for making hinge leaves for loose leaf binders having a depression on its upper face of a shape corresponding to that to be given the leaf, means to engage the stock at one side thereof so that the opposite side of the stock overhangs the depression, and a punch receivable



in the depression to force the material at said opposite side of the stock into the depression.

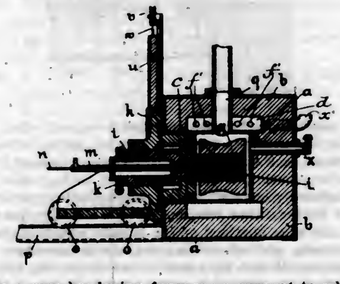
1,137,292. SHOE-POLISHING MACHINE. JOHN C. C. SCHEER, Beaver Falls, Pa. Filed May 25, 1914. Serial No. 840,803. (Cl. 15—61.)



1. A shoe polishing machine comprising a platform having each of its sides provided with a longitudinal groove and its upper face providing a foot rest, supporting means for said platform, an oscillating plate arranged below said platform and supported by said means, brush actuating members hinged to the ends of said plate, brushes hinged to the forward ends of said members, arms depending from said members, resilient connections between said arms and said plates, and rollers carried by said arms and traveling in said grooves.

2. A shoe polishing machine comprising a platform having each of its sides provided with a longitudinal groove and its upper face providing a foot rest, supporting means for said platform, an oscillating plate arranged below said platform and supported by said means, brush actuating members hinged to the ends of said plate, brushes hinged to the forward ends of said members, arms depending from said members, resilient connections between said arms and said plates, rollers carried by said arms and traveling in said grooves, and a handle connected to said plate.

1,137,293. HARDENING APPARATUS. FRIEDRICH SCHÖNEMANN, Friedrich-Wilhelmshütte-on-the-Sieg, Germany. Filed Mar. 28, 1914. Serial No. 827,868. (Cl. 148—34.)



1. In a case hardening furnace: a support to which the article to be hardened may be attached and provided with a duct through which a gaseous medium may be introduced about the said article and a second duct about said first duct through which a cooling medium may be introduced to cool the said support for the article, and means to rotate said support.

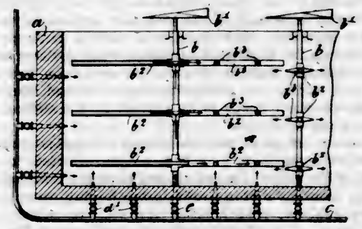
2. In a case hardening furnace: a suitable muffle, means to close the same, a support carried by said closing means and to which the article to be hardened may be attached, means to rotate said support, and means to supply a hardening medium about said article.

3. In a case hardening furnace: a suitable muffle, means to close the same, a support carried by said closing means and to which the article to be hardened may be attached, said support being provided with a duct through which a gaseous medium may be introduced about the said article, and means to rotate said support.

4. In a case hardening furnace: a suitable muffle, means to close the same, a support carried by said closing means and to which the article to be hardened may be attached, means to rotate said support, means to sprinkle a pulverulent hardening medium upon said article, and means to regulate the supply of hardening medium during the hardening operation.

5. In a case hardening furnace: a suitable muffle, a movable cover to close the same, a support carried by said cover and to which the article to be hardened may be attached, said suport having a duct therethrough through which a gaseous medium may be introduced about the said article, means to rotate said support, and a spiral conveyer to sprinkle a pulverulent hardening medium upon said article.

1,137,294. APPARATUS FOR MIXING SLURRY. AAGE SCHRÖDER, Charlottenlund, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a Corporation of New Jersey. Filed Feb. 24, 1914. Serial No. 820,789. (Cl. 83—73.)



1. An apparatus for agitating thick slurry or the like comprising a container for the slurry, nozzles arranged to discharge air into the slurry below its surface, and mechanical agitating means arranged to operate in the slurry in planes between the nozzles and the surface of the slurry.

2. An apparatus for agitating thick slurry or the like comprising a container for the slurry, nozzles arranged in the bottom of the container and adapted to discharge air into the slurry, and mechanical agitators arranged to operate between the nozzles and the surface of the slurry.

3. An apparatus for agitating thick slurry or the like comprising a container for the slurry, nozzles arranged in the bottom and sides of the container and adapted to discharge air into the slurry, and a mechanical agitator between the nozzles in the bottom and the surface of the slurry.

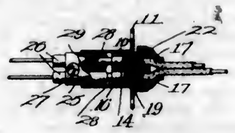
4. An apparatus for agitating thick slurry or the like comprising a container for the slurry, nozzles arranged in the bottom of the container and arranged to discharge air into the slurry, a mechanical agitator comprising a series of arms provided with nozzles arranged to discharge air into the slurry and adapted to operate between the nozzles arranged in the bottom of the container and the surface of the slurry.

5. An apparatus for agitating thick slurry or the like to prevent the precipitation of the solid particles to the bottom including a container for the slurry, fixed nozzles to permit the discharge of air jets into the slurry to agitate

it and mechanical agitating means disposed operatively within the container between the nozzles and the surface of the slurry to agitate the slurry, said means including moving arms disposed at different levels within the slurry.

[Claims 6 to 9 not printed in the Gazette.]

1,137,295. ELECTRICAL CONNECTOR OR SOCKET. JASON C. STEARNS, Worcester, Mass. Filed Mar. 23, 1912. Serial No. 685,708. (Cl. 173—328.)



1. As an article of manufacture, an electrical connector comprising a cylindrical casing, a removable plug in the end of the casing provided with terminals, said removable plug being provided with sockets at its end for receiving a pair of conductors and having an external circumferential enlargement at the end beyond the end of the casing, a cylindrical armor fitting freely between said plug and casing, and fitting against the edge of said enlargement, and having an external screw thread at the end, and a member adapted to be received by said screw thread and having a central opening in the end through which the conductors may enter, said member being provided with a surface curved inwardly toward the central opening and spaced from the screw-threaded end for engaging the conductors and holding them firmly in position.

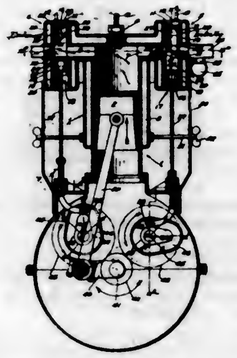
2. As an article of manufacture, an electrical connector comprising a cylindrical casing, a cylindrical plug entering the end of the casing and adapted to be held therein and having terminals in one end, and sockets in its other end for receiving conductors, said sockets being provided with screws for holding the conductors in position, and an armor cylinder slidably mounted on said plug, located inside said casing but projecting from the end thereof, to permit the screw heads to be exposed by the sliding of the armor from over them.

3. As an article of manufacture, an electrical connector or socket comprising a casing, a plug adapted to be inserted in the end of the casing and having a radial pin projecting from its surface, said casing having means for engaging said pin and holding the plug in position, said plug being of insulating material, and a metallic armor longitudinally slidable thereon and provided with a longitudinal slot for said pin.

1,137,296. INTERNAL-COMBUSTION ENGINE. RAY D. STEVENS, San Bernardino, Cal. Filed Oct. 28, 1912. Serial No. 728,273. (Cl. 123—188.)

1. The combination with an engine cylinder having a port, of a cylindrical valve chamber cutting through the port and dividing said port into inner and outer bores, and a cylindrical valve reciprocating in said valve chamber and provided with a transverse port therethrough, said valve port having an oblique upper wall designed to extend downward and outward between said bores from the upper side of the inner bore to the lower side of the outer bore when the valve is closed.

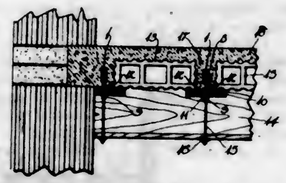
2. Inlet valve mechanism for gas engines, said mechanism comprising a cylindrical valve chamber, a cylindrical piston valve adapted to operate in said chamber, said valve chamber having one port communicating with the engine and another port leading into said valve chamber, the lower portion of the last said port being inclined downwardly, outwardly and away from said valve chamber, the cylindrical face of said piston valve having a downwardly and outwardly extending dirt groove cut therein, said dirt groove being adapted to open into the last said port and to deliver dirt thereto, and a removable receptacle mounted adjacent the lower portion of the last said port, said receptacle being adapted to collect the dirt deposited by said dirt groove.



3. A valve mechanism for gas engines comprising a cylindrical member to form a valve chamber, a cylindrical piston valve adapted to operate in said cylindrical member, a port communicating with the engine being formed in one side of said cylindrical member, and a second port being formed in the other side of the cylindrical member, there being a transverse port in said piston valve adapted to register with the ports through the cylindrical member, and a groove cut in the cylindrical face of said piston; said groove extending downwardly and outwardly and being adapted to open into said second port and to deliver carbon deposit thereto.

4. A valve for gas engines comprising a valve chamber, a cover for said valve chamber, an inlet pipe secured to said cover and affording communication into said valve chamber, a cylindrical piston valve adapted to operate in said chamber, said piston valve being formed with an upwardly opening cup-shaped portion adapted to form a reservoir for lubricating oil which may be supplied thereto through said inlet pipe, said cylindrical piston valve having an aperture through that part of its side which is removed from the piston cylinder, said aperture being adapted to feed lubricating oil from said cup-shaped reservoir on the valve to the walls of the valve chamber which are removed from the engine cylinder.

1,137,297. BUILDING CONSTRUCTION. ALFONS TREO, Duquesne, Pa. Filed Mar. 27, 1914. Serial No. 827,628. (Cl. 25—131.5.)



In a centering structure, parallel bars, centering boards disposed below the respective bars, a series of carriers mounted on each bar, a series of hangers engaged through the median portion of each board and having their upper ends threadedly engaged to the corresponding carriers, the hangers having lower stirrups upon which the boards are seated, the edge portions of the boards serving to support tiles thereon, and upstanding detachable members driven into the boards and arranged intermediate the edges and median portions thereof to serve as stops to space the tiles from the bars and being arranged to be embedded in the concrete poured between the tiles.

1,137,298. ORTHODONTIA DEVICE FOR INFLUENCING THE ALVEOLAR PROCESS AND UNEMERGED TEETH. WILLIAM ERNEST WALKER, New Orleans, La. Original application filed Oct. 14, 1911, Serial No. 654,769. Divided and this application filed Feb. 11, 1913. Serial No. 747,765. (Cl. 32—19.)



1. A device for influencing the alveolar process, said device comprising suitable anchorage, a carrying member supported from said anchorage and provided with a bearing plate constructed and located to communicate inward pressure on the jaw through the gum simulating lip pressure; said bearing plate carrying a padding through which it bears against the gum.

2. A device for influencing the alveolar process, said device comprising suitable anchorage, a carrying member supported from said anchorage and provided with a bearing plate constructed and located to communicate pressure on the jaw through the gum simulating lip or tongue pressure; said bearing plate carrying a padding through which it bears against the gum; said bearing plate being recessed to accommodate the frenum.

1,137,299. PRINTING-MACHINE. JOSEPH WHITE, Beechwood Heights, Piscataway township, Middlesex county, N. J., assignor to Hall Printing Press Company, Dunellen, N. J., a Corporation of New Jersey. Filed May 5, 1913. Serial No. 765,415. (Cl. 101—99.)



1. In a printing press, a form bed and a cylinder relatively movable lengthwise of said bed, and a bearer, carried by said cylinder and normally freely movable into and out of concentric relation therewith, and means to move said bearer into concentric relation with said cylinder.

2. In a printing press, a form bed and a cylinder relatively movable lengthwise of said bed, and a bearer, carried by said cylinder and normally freely movable into and out of concentric relation therewith, means to move said bearer into concentric relation with said cylinder, and means to lock said bearer in such concentric relation.

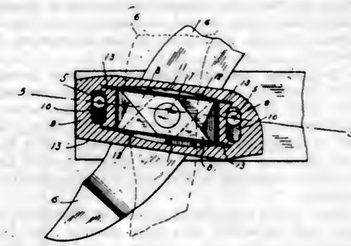
3. In a printing press, a form bed and a cylinder relatively movable lengthwise of said bed, a track, a bearer carried by said cylinder and arranged to travel on said track, said bearer being normally free to move on said cylinder at right angles to said track, and means to lock said bearer to said cylinder.

4. In a printing press, a form bed and a cylinder relatively movable lengthwise of said bed, a track, a bearer carried by said cylinder and arranged to travel on said track, said bearer being normally free to move on said cylinder at right angles to said track, and means to lock said bearer to said cylinder so as to be concentric therewith.

5. In a printing press, a form bed and a cylinder relatively movable lengthwise of said bed, a track, a bearer carried by said cylinder and arranged to travel on said track, said bearer being normally free to move into and out of concentric relation with said cylinder, and a device on said cylinder constructed and arranged to lock said bearer to said cylinder and concentric therewith.

[Claims 6 to 9 not printed in the Gazette.]

1,137,300. BRAKE-DOG. ALBERT WILLSON, Winslow, Ariz. Filed Jan. 22, 1913. Serial No. 743,573. (Cl. 74—16.)



1. A device as set forth including a ratchet wheel, a pivoted pawl having an angular projection symmetrically centered thereupon and integral therewith, and a pair of parallel resilient means in contact with said projection, to yieldably mount said pawl in a number of positions.

2. A device as set forth including a ratchet wheel, a pivoted pawl having a diamond shaped projection symmetrically centered thereupon and integral therewith, and a pair of parallel resilient means, each of which is in contact with a pair of adjacent faces of said projection, to yieldably mount said pawl in any of a number of positions.

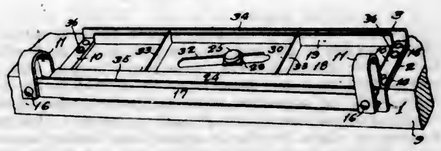
3. A device as set forth including a ratchet wheel, a pivoted pawl having a projection formed with one set of adjacent angled faces, and an oppositely disposed set of oppositely parallel faces, and a pair of resilient means, each in contact with one set of the said angled faces, to yieldably mount said pawl in any of a number of positions.

4. A device as set forth including a ratchet wheel, a pivoted pawl having an angular projection symmetrically centered thereupon and integral therewith, a pair of parallel resilient means in contact with said projection to yieldably mount said pawl in any of a number of positions, and means mounting said resilient means for movement independent of said projection.

5. A device as set forth including a ratchet wheel, a pivoted pawl having a diamond shaped projection symmetrically centered thereupon and integral therewith, a pair of parallel resilient means, each of which is in contact with a pair of adjacent faces of said projection to yieldably mount said pawl in any of a number of positions, and means mounting said resilient means for movement independent of said projection.

[Claims 6 to 14 not printed in the Gazette.]

1,137,301. SAW-CLAMP. HARVEY M. WOOD, Los Angeles, Cal. Filed Sept. 16, 1912. Serial No. 720,669. (Cl. 76—78.)



1. A saw clamp comprising forward clamping means adapted to hold the saw while being filed, rearward clamping means adapted to hold the saw while the teeth are being set, and means located between said forward and rearward clamping means for operating the clamps alternatively.

2. In a saw clamp, a relatively fixed clamp member having two saw engaging portions, a relatively movable clamp member coöperating with the said saw engaging portions to hold a saw in a position for filing and in a position for teeth setting, and sliding means for shifting

the movable clamp member, alternatively into coöperative clamping positions with the said saw engaging portions, the said sliding means having a longitudinal movement relative to the movable clamp member, and a corresponding longitudinal and lateral movement relative to the fixed clamp member, to adjust to the coöperative clamping positions.

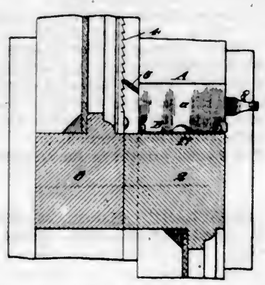
3. A saw clamp comprising clamping means having two elongated clamping bars, the upper face of one being at a higher level than the upper face of the other, said clamping means being adapted to hold the saw while being filed, other clamping means adapted to hold the saw while the teeth are being set, and means located between the two said clamping means for operating the clamps alternatively.

4. A saw clamp comprising a base carrying two clamping bars, each of which bars form part of two separate clamping means, a member movably mounted on said base, said member also carrying two clamping bars, each of which last said bars also form a part of the two said separate clamping means, and means for moving said member for operating the two said clamping means alternatively.

5. A saw clamp comprising a base, two clamping bars thereon, each of which bars forms a part of separate clamping means, a laterally adjustable plate mounted on said base, clamping bars on the adjustable plate complemental to the first-named bars, and means for alternatively adjusting the separate clamping means to an operative position consisting of an operating plate sliding longitudinally upon the laterally adjustable clamp plate having a diagonal slot, and a retaining member projecting from the base into said slot in the operating plate causing the operating plate to have simultaneous corresponding longitudinal and transverse movements in effecting the adjustment of the clamping means.

[Claims 6 to 10 not printed in the Gazette.]

1,137,302. SASH-LOCK. ROBERT O. BEACH, San Francisco, Cal., assignor of one-half to Edward W. Weiland, San Francisco, Cal. Filed July 27, 1914. Serial No. 853,267. (Cl. 16—146.)



1. A window sash lock comprising a toothed bar applicable to one of the sashes, a locking device applicable to the other sash, said device comprising a housing with a portion forming a seat and having an opening in its opposite end, an upwardly inclined, yieldably suspended locking dog projecting through said aperture, a slidable member on which the dog is pivoted and means including a screw turnably fitting said seat and held thereby against longitudinal movement for projecting and retracting said dog to and from engagement with said rack.

2. A window sash lock comprising a toothed bar applicable to one of the sashes, a locking device applicable to the other sash, said device comprising a housing with a portion forming a seat and having an opening in its opposite end, a locking dog projecting through said aperture, means including a sliding member and a screw turnably fitting said seat and held thereby against longitudinal movement for projecting and retracting said dog to and from engagement with said rack, and a spring for suspending said dog and permitting its pivotal movement.

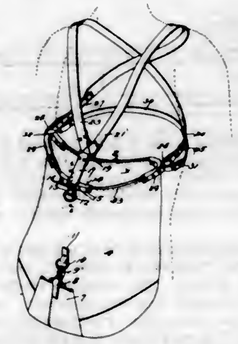
3. A sash lock comprising the combination of a dog mounted upon one sash and engageable with a toothed surface on the adjacent opposite sash, a slidable member on which the dog is pivoted, a spring connecting the dog and the member for suspending the dog in an inclined position, and means for actuating said member so as to project the dog into locking engagement with said toothed surface and for disengaging the dog therefrom.

4. A sash lock comprising the combination of a dog mounted upon one sash and engageable with a toothed surface on the adjacent opposite sash, a slidable member for the dog, a spring for suspending same in an inclined position, and means for actuating said member so as to project the dog into locking engagement with said toothed surface and for disengaging the dog therefrom, said means comprising a screw mounted for non-longitudinal movement and threaded in said member.

5. A sash lock comprising the combination of a dog mounted upon one sash and engageable with a toothed surface on the adjacent opposite sash, a slidable member for the dog, a spring for suspending same in an inclined position, means for actuating said member so as to project the dog into locking engagement with said toothed surface and for disengaging the dog therefrom, said means comprising a screw mounted for non-longitudinal movement and threaded in said member, with means for limiting the swinging movement of the dog, and means for limiting the longitudinal movement of the sliding member.

[Claim 6 not printed in the Gazette.]

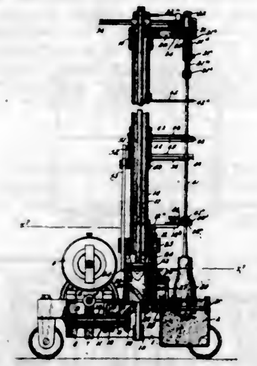
1,137,303. FRUIT-GATHERING BAG. CHARLIE A. CARPENTER, Wenatchee, Wash. Filed Dec. 3, 1914. Serial No. 875,258. (Cl. 150—2.)



1. A bag of the character stated, comprising a substantially rigid elongated frame having convex and concave sides, a bag proper secured thereto, means for holding the bottom of the bag in closed condition, a clip secured to the front of said frame, a ring in said clip, a strap extending upwardly from said clip, a triangular member secured to the upper end of said strap, and shoulder straps each having one end secured to said triangular member and extending in opposite directions, said shoulder straps being crossed and having their other ends secured to the opposite ends of said frame.

2. A bag of the character stated, comprising a substantially rigid elongated frame having convex and concave sides, a bag proper secured thereto, means embracing the frame at the ends and at the front, rings carried by said means at the ends of the frame, shoulder straps having one end adjustably connected to said rings, a belt having its ends adjustably connected to said rings, and means connecting the other ends of said shoulder straps to the means at the front of the frame.

1,137,304. GLASS-BLOWING MACHINE. BENJAMIN D. CHAMBERLIN, Washington, D. C., assignor to Empire Machine Company, Portland, Me., a Corporation of Maine. Filed July 24, 1908, Serial No. 445,252. Renewed Oct. 29, 1910. Serial No. 589,786. (Cl. 49—18.)



1. In a glass-blowing machine, the combination with a mold opening mechanism and an air-supply mechanism, of a motor for driving the same, a clutch interposed between the said motor and the mold and air mechanisms, and a clutch-actuating lever forming a vertically movable blow-pipe support.

2. In a blow-pipe removing mechanism for a glass blowing machine, the combination of a horizontally swinging arm, jaws pivoted to the said arm and adapted to encircle the blow-pipe and driving means for the arm to which the said jaws are connected to the sides of their pivotal point, said driving means being synchronized in respect to the blowing machine.

3. The combination with a mold closing and opening mechanism, of a vertically movable blow head, an arm movable in a horizontal plane, pipe removing jaws pivoted to the said arm, and a driver for the arm to which the said jaws are secured to the sides of their pivotal points and mechanism for actuating the several mechanisms in a predetermined order.

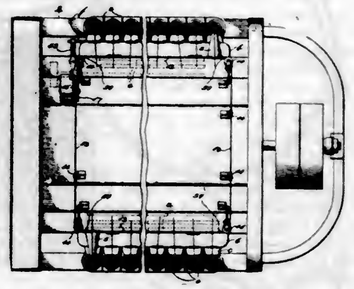
4. The combination with a mold closing and opening mechanism, of a vertically movable blow head, an arm movable in a horizontal plane, pipe removing jaws pivoted to the said arm, a driver to which the said jaws are secured to the sides of their pivotal points and a shaft for actuating the several mechanisms in a predetermined order, and a clutch for the said shaft closed by the weight of the blow-pipe.

5. In a glass-blowing machine, the combination with a vertical shaft, of a separable mold, a cam track on the said shaft for opening and closing the said mold, a vertically movable blowing head actuated by the said shaft, a horizontally swinging arm, jaws pivoted to the said arm, a spoked collar moving concentrically with the said arm, the jaws being attached to the spoke of the said collar, and means for imparting a reciprocating rotary motion to the said collar from the said shaft.

[Claim 6 not printed in the Gazette.]

1,137,305. THREAD-BOARD-CLEANING APPARATUS. HOWARD D. COLMAN and BURT A. PETERSON, Rockford, Ill., assignors to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business as Barber-Colman Company, Rockford, Ill. Filed May 20, 1910. Serial No. 562,431. (Cl. 118—26.)

1. The combination of a spinning frame, a thread-board hinged at one edge to said frame to swing upwardly, a series of thread-guides attached to the other edge of the thread-board, a cable supported for movement longitudinally of the frame and close to the hinge connection between the frame and the thread-board, means for moving the cable, a plate attached to said cable for swinging movement in a vertical plane, a spindle fixed to the forward side of said plate, a tapering roller mounted on said spindle and overlying the thread-board and thread-guides, said roller having a surface to which lint will cling, and a hood for the roller, said hood being hinged to said plate, said plate, spindle, roller and hood being capable of swinging upward with the upward swinging movement of the thread-board.



2. In a spinning machine, a part to be cleaned, a device for cleaning said part, means for moving said device along said part, separators movable in the operation of the spinning frame into the path of movement of said cleaning device, and means for suspending the operation of said cleaner-moving means.

3. In a spinning machine, a part to be cleaned, a device for cleaning said part, means for moving said device along said part, separators movable in the operation of the spinning frame into the path of movement of said cleaning device, and means automatically actuated by the upward movement of said separators for suspending the action of said moving means.

4. In a spinning machine a part to be cleaned, a device for cleaning said part, means for moving said device along said part, separator means movable in the operation of the spinning frame into the path of movement of said cleaning device, and a lever and connections for starting and stopping said cleaner-moving means, said lever being arranged to be engaged by said separator means.

5. In a spinning machine, a thread-board, thread-guides attached to said thread-board, a device for cleaning said thread-board and thread-guides, means for moving said device along the thread-board and thread-guides, a vertically-reciprocatory bar extending longitudinally of the spinning machine, separators attached to said bar and movable vertically through the spaces between the thread-guides, and means actuated by said bar for controlling the operation of said moving means.

[Claims 6 to 15 not printed in the Gazette.]

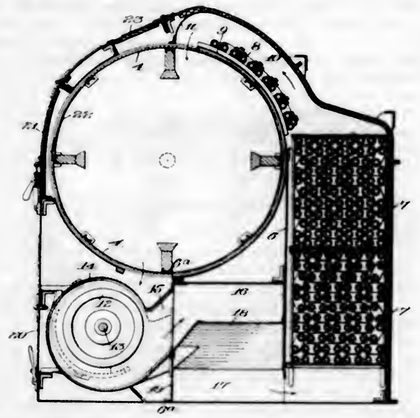
1,137,306. DRIER. DANIEL M. COOPER, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 14, 1912. Serial No. 731,265. (Cl. 34—5.)

1. The combination with a casing, of a holder journaled in the casing, a heating chamber arranged in the casing, and means disposed beneath the holder at the forward part of the casing and connected with a source of air supply for effecting movement of air through the heating chamber, and through the holder in a direction transversely thereof.

2. The combination with a casing, of a holder journaled in the casing, a heating chamber arranged in rear of the holder, a source of air supply connected with the heating chamber, and means arranged beneath the holder at the forward part of the casing for effecting movement of the heated air therethrough.

3. The combination with a casing, of a holder journaled in the casing, a heating chamber, and means arranged beneath the holder at the forward part of the casing for

causing a current of air to pass successively through the heating chamber, and through the holder in a direction transversely thereof.

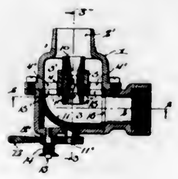


4. The combination with a casing, of a holder journaled in the casing, and means arranged beneath the holder at the forward part of the casing for causing a current of air to pass through the holder in a direction transversely thereof.

5. The combination with a casing, of a holder journaled in the casing, a heating chamber in rear of the holder, and means arranged beneath the holder at the forward part of the casing for causing a current of air to pass upwardly through the heating chamber and thence downwardly through the holder in a direction transversely of its rotating axis.

[Claims 6 to 11 not printed in the Gazette.]

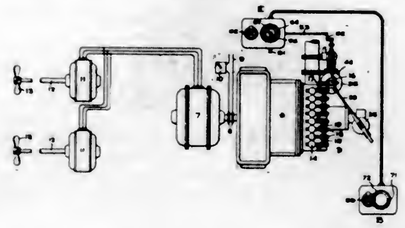
1,137,307. CARBURETER. HENRY N. EDENS, New Holstein, Wis. Filed June 1, 1914. Serial No. 842,028. (Cl. 48—155.1.)



1. A carbureter comprising a casing having an intake channel and a fuel delivery channel, a ported partition within the casing arranged to divide the same into an air chamber communicating with the air intake channel, and a mixing chamber communicating with the discharge channel, a centrally disposed Venturi tube carried by the partition having its flared intake mouth extending into the air chamber and its flared discharge mouth extending into the mixing chamber, a valve-controlled fuel supply orifice in communication with the restricted belt of said tube, and a rotatory barrel valve mounted in said air chamber provided with a port adapted to co-act with the partition port, and a second port for controlling the air intake channel.

2. A carbureter comprising a casing having an intake channel and a fuel delivery channel, a ported partition within the casing arranged to divide the same into an air chamber communicating with the air intake channel, and a mixing chamber communicating with the discharge channel, a centrally disposed Venturi tube carried by the partition having its flared intake mouth extending into the air chamber and its flared discharge mouth extending into the mixing chamber, a valve-controlled fuel supply orifice in communication with the restricted belt of said tube, and a rotatory barrel valve mounted in said air chamber provided with a port adapted to co-act with the partition port, and a second port for controlling the air intake channel, the ports being so proportioned with relation to eaca other that when the intake channel is partly open, the partition controlling port is fully closed, whereby air is admitted to the mixing chamber through the tube only.

1,137,308. SYSTEM OF SHIP PROPULSION. WILLIAM L. R. EMMET, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 17, 1912. Serial No. 720,764. (Cl. 121—118.)



1. A ship propulsion system comprising in combination, an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor adapted to be electrically connected to said alternator, and means including an adjustable speed governing mechanism for varying the speed of said motor by adjusting the admission of elastic fluid to said turbine and for approximately maintaining any desired operating speed of the turbine.

2. A ship propulsion system comprising in combination, an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, an adjustable speed governing mechanism for approximately maintaining any normal operating speed of the turbine, and means located at a distance from the turbine for adjusting said governing mechanism to vary the speed of the ship.

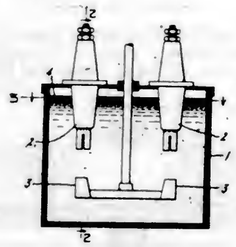
3. A ship propulsion system comprising in combination an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, an adjustable speed governing mechanism for approximately maintaining any normal operating speed of the turbine, and means located at a plurality of different points for adjusting said governing mechanism to vary the speed of the ship.

4. A ship propulsion system comprising in combination an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, an adjustable speed governing mechanism for approximately maintaining any normal operating speed of the turbine, means located near the turbine for adjusting said governing mechanism to vary the speed of the ship, and means located at a distance from said turbine for similarly adjusting said governing mechanism.

5. A ship propulsion system comprising in combination an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor connected to said alternator, a valve for controlling the admission of elastic fluid to said turbine, means for actuating said valve, an adjustable speed governor adapted to control the operation of said valve actuating means so as to approximately maintain any operating speed of the turbine, and means for adjusting said speed governor to vary the speed of the ship.

[Claims 6 to 13 not printed in the Gazette.]

1,137,309. OIL-SWITCH. LIONEL FLEISCHMANN and AUGUST ELPES, Berlin, Germany, assignors to General Electric Company, a Corporation of New York. Filed Oct. 11, 1912. Serial No. 725,179. (Cl. 175—282.)

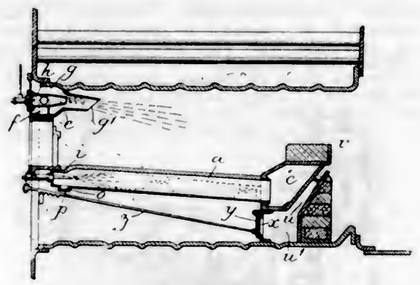


1. An electric switch comprising a vessel containing insulating fluid, coöperating contacts separable in said fluid, and means mounted just below the surface of said fluid for permitting the escape of gases but preventing the passage of heated solid particles from the vicinity of the arc to the surface of said fluid.

2. An electric switch comprising a vessel containing insulating fluid, coöperating contacts separable in said fluid, and a screen mounted just below and near the surface of said fluid to prevent heated particles from the vicinity of the arc from rising to the surface of said fluid.

3. An electric switch comprising a vessel containing insulating fluid, coöperating contacts separable beneath the surface of said fluid, and a woven wire screen mounted just below the surface of said fluid to permit the passage of gases but to prevent solid particles from entering the air space above the oil.

1,137,310. LIQUID AND SOLID FUEL FURNACE. GEORGE ROBERT GREGORY, Westminster, London, England. Filed Nov. 19, 1910. Serial No. 593,253. (Cl. 110—22.)



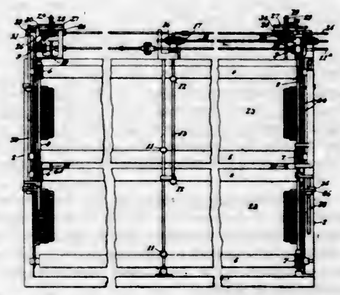
1. The combination, in a liquid and solid fuel furnace, of a grate, a retort near the level of the grate, means adapted to inject liquid fuel into the retort, an air heating chamber at the front of the furnace having a controllable inlet and discharge pipe directed over the grate toward the rear of the furnace so that the draft of the furnace tends to draw air from such chamber, an ejector located in said chamber and adapted to discharge into the discharge pipe of such chamber, means adapted to supply fluid under pressure to the ejector and a connector placing the ejector in communication with the retort so that the fluid under pressure and gas are caused to issue in a well mixed jet into the discharge pipe of the air heating chamber, the arrangement being such that the hot air introduced into the furnace is controlled in part by the draft of the furnace and in part by the mixed jet of gas and fluid supplied independently under pressure to the ejector.

2. In a liquid and solid fuel furnace, the combination with a grate, of a retort near the level of the grate, means for injecting liquid fuel into the retort and cutting off the supply at will, an air inlet and means controlling the same whereby air may be drawn into the retort when the liquid fuel supply is cut off, an air heating chamber at the front of the furnace having a controllable inlet and a discharge pipe directed over the grate toward the rear of the furnace so that the draft of the furnace tends to draw air from said chamber, an ejector located in said air heating chamber and having its discharge directed into the discharge from said air heating chamber, means for supplying fluid under pressure to said ejector, and suitable connections whereby the ejector is placed in communication with the retort so that the fluid under pressure and gas are delivered in a well mixed jet into the discharge from the air heating chamber, the hot air introduced into the furnace being controlled in part by the draft of the furnace and in part by the mixed jet fluid and gas supplied under pressure to the ejector.

3. In a liquid and solid fuel furnace, the combination with a grate, of a retort near the level of the grate, liquid fuel injecting means and an associated steam jet for introducing commingled liquid fuel and steam into said retort, an ejector located above the grate and in communication with said retort through return passages therefrom for forcing air or steam into the combustion chamber, an air heating chamber inclosing said ejector and having a discharge pipe in front of the delivery end of said ejector directed over the grate and in communication with said air heating chamber, an air inlet to said retort, means for controlling said air inlet, and means for shutting off the supply of liquid fuel to the retort.

4. In a liquid and solid fuel furnace, the combination with a grate, of a retort near the level of the grate, liquid fuel injecting means and an associated steam jet for introducing commingled liquid fuel and steam into said retort, an ejector located above the grate and in communication with said retort through return passages therefrom for forcing air or steam into the combustion chamber, an air heating chamber inclosing said ejector and having a discharge pipe in front of the delivery end of said ejector directed over the grate and in communication with said air heating chamber, an air inlet to said retort, means for controlling said air inlet, and independent means for shutting off the supply of liquid fuel and steam to said retort.

1,137,311. TENSIONING DEVICE FOR EMBROIDERING-MACHINES. JOSEPH A. GROEBLI, New York, N. Y. Filed May 26, 1913. Serial No. 769,783. (Cl. 112—7.)



1. In an embroidering machine of the class mentioned, the combination with a tambour frame of lateral tension mechanisms, adapted to engage the opposite edges of the fabric, each provided with multiple and locally yieldable fabric-pressing elements and a laterally acting tractor cooperating with a plurality of the fabric-pressing elements.

2. In an embroidering machine of the class mentioned, the combination with a tambour frame of lateral tension mechanisms, adapted to engage the opposite edges of the

fabric, each provided with multiple automatically and locally yieldable fabric-pressing elements and a laterally acting tractor coöperating with a plurality of the fabric-pressing elements.

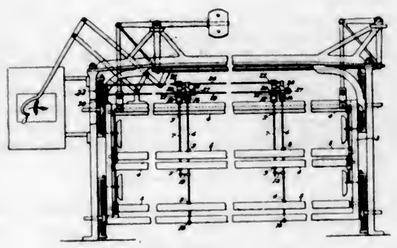
3. In an embroidering machine of the class mentioned, the combination with a tambour frame of lateral tension mechainsms, adapted to engage the opposite edges of the fabric, each provided with elements constituting a multiple, fabric-pressing device, which elements are severally adapted to yieldably engage against the same side of a fabric, and a coöperating lateral tractor engaging against the other side of the fabric.

4. In an embroidering machine of the class mentioned, the combination with a tambour frame of lateral tension mechanisms, adapted to engage the opposite edges of the fabric, each provided with a multiple, automatic, fabric-pressing device, provided with elements which are severally adapted to yieldably engage against the same side of a fabric, and a coöperating lateral tractor engaging against the other side of the fabric.

5. In an embroidering machine of the class mentioned, the combination with a tambour frame of lateral tension mechanisms, adapted to engage the opposite edges of the fabric, each provided with a fabric engaging device embracing a plurality of independently yieldable elements, all adapted to simultaneously engage directly against the same side of a fabric, and a coöperating lateral tractor engaging against the other side of the fabric.

[Claims 6 to 42 not printed in the Gazette.]

1,137,312. ROLLER-SPREADING DEVICE FOR EMBROIDERING-MACHINES. JOSEPH A. GROEBLI, New York, N. Y. Filed June 6, 1913. Serial No. 772,026. (Cl. 112—7.)



1. In an embroidering machine of the class mentioned, the embodiment of coöperating fabric holders, means for spreading the same in opposite directions and common means for moving the spreading means collectively in the same direction and relatively to the fabric holders.

2. In an embroidering machine of the class mentioned, the embodiment of coöperating fabric holders, means for spreading the same in opposite directions and common justifying means for moving the spreading means collectively in the same direction and relatively to the fabric holders.

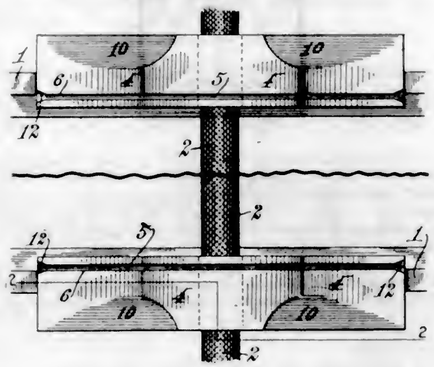
3. In an embroidering machine of the class mentioned, the embodiment of coöperating fabric holders, means for spreading the same in opposite directions and common and mechanically operated means for moving the spreading means collectively in the same direction and relatively to the fabric holders.

4. In an embroidering machine of the class mentioned, the embodiment of coöperating fabric holders, a plurality of means for spreading the same in opposite directions and common means for moving the spreading means collectively in the same direction and relatively to the fabric holders.

5. In an embroidering machine of the class mentioned, the embodiment of coöperating fabric holders, a plurality of sets of means positioned along the fabric holders for spreading the same in opposite directions and common means for operating all the spreading means in the same direction and relatively to the fabric holders.

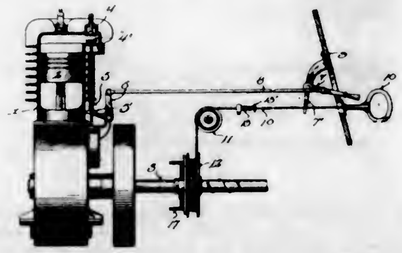
[Claims 6 to 17 not printed in the Gazette.]

1,137,313. COMBINED FIRE-HOSE BRIDGE AND CAR-WHEEL REPLACER. CARL C. HAMILTON, Dayton, Ohio. Filed Aug. 17, 1914. Serial No. 857,028. (Cl. 104—7.)



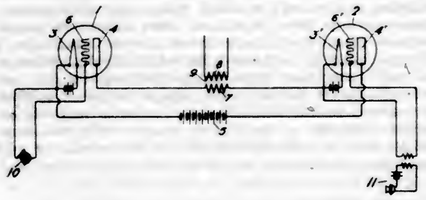
A device of the character described, comprising a curved tread plate, centrally disposed vertical arch walls inclosing a space adapted to receive a fire hose, and terminating in an arch which forms the central portion of the curved tread plate, the said curved tread plate being provided with a groove adapted to receive the flange of a car wheel, and side plates supporting said curved tread plate, and means for holding said device in position.

1,137,314. ENGINE-STARTER. WILLIAM S. HARLEY, Milwaukee, Wis., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Filed July 7, 1913. Serial No. 777,704. (Cl. 123—182.)



In an internal combustion engine having a cylinder, a piston therefor, a crank shaft connected to the piston, a clutch drum carried by the crank shaft, a vent for the cylinder, and a valve for said vent; the combination of a starting mechanism comprising manually operated actuating means for the vent valve, locking means for the vent valve actuating means, whereby said valve is held open, a manually operated actuating means connected to the clutch drum, whereby the latter is rotated in one direction, and a tappet carried by the clutch drum actuating means engageable with the vent valve locking means, whereby said valve locking means is released to effect closure of the vent valve after the clutch drum has been rotated a predetermined extent.

1,137,315. SYSTEM FOR THE TRANSMISSION OF INTELLIGENCE. RAYMOND A. HEISING, East Orange, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Nov. 14, 1914. Serial No. 872,105. (Cl. 179—171.)

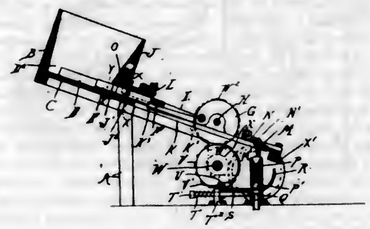


1. The combination with two thermionic repeaters connected in series and having a common output circuit, of a source of high frequency potential united with the input circuit of one of said repeaters, a source of low frequency potential variations united with the input circuit of the other repeater, and message transmitting means united with the common output circuit of said repeaters.

2. The combination with two evacuated vessels and means, including a cathode in each vessel, for producing a state of ionization in said vessels; of an input anode and an output anode in each of said vessels; a common output circuit including said output anodes in series; an independent input circuit for each of said vessels, each of said input circuits being connected to the corresponding input anode; means connected with one of said input circuits for producing high frequency potential therein; and means connected with the other input circuit for producing low frequency potential variations in said last mentioned input circuit.

3. The combination with two audions having a common output circuit and each having an independent input circuit, of a source of high frequency potential united with the input circuit of one of said audions, a source of low frequency potential variations united with the input circuit of the other audion, and message transmitting means united with the common output circuit of said audions.

1,137,316. NAIL-FEEDING MECHANISM. HENRY C. HERR, Detroit, Mich., assignor, by mesne assignments, to South Side Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 25, 1910. Serial No. 594,073. (Cl. 10—167.)



1. In a nail feeding machine, the combination with a receptacle for an irregular mass of nails, means operating within said receptacle for arranging the nails in parallelism, means permitting the successive passing out of said parallelly arranged nails from the receptacle when arranged head foremost, and means for successively withdrawing from said parallelly arranged nails, those which are point foremost.

2. In a nail feeding machine, the combination with a receptacle for an irregular mass of nails, of a reciprocating member within said receptacle for effecting a parallel arrangement of the lowermost nails therein, means permitting the successive extraction from said receptacle of those of the parallelly arranged nails which are head foremost and for withdrawing from said parallelly arranged nails those that are point foremost.

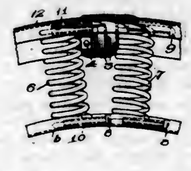
3. In a nail feeding machine the combination with a receptacle for an irregular mass of nails, of means operating within said receptacle for arranging the lowermost nails thereof in parallelism, and selective means operating upon said parallelly arranged nails for successively feeding those having their heads arranged in one direction out from the receptacle and for returning to the irregular mass those of the parallelly arranged nails whose heads are in the opposite direction.

4. In a nail feeding machine the combination with a receptacle for an irregular mass of nails having a grooved and inclined bottom, of a slide covering a side of the groove, means for reciprocating said slide, and a channel registering with the bottom of the groove through which nails are successively fed by said slide.

5. In a nail feeding machine, the combination with a receptacle for an irregular mass of nails, of a grooved and inclined bottom for said receptacle, a slide covering the sides of said groove adapted to support the head of the nail but cut-away to permit the body of the nail to rest upon the inclined bottom, means for reciprocating said slide, and a channel in registration with the bottom of said groove through which the nails therein are successively extracted.

[Claims 6 to 25 not printed in the Gazette.]

1,137,317. VEHICLE-TIRE. MICHEL W. HICKEY, Rochester, N. Y. Filed Oct. 7, 1911. Serial No 653,353. (Cl. 152—8.)



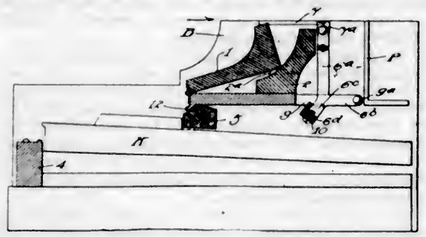
1. A vehicle tire composed of an inner ring, an outer surrounding ring spaced therefrom composed of sections spaced apart at their adjacent ends and expansible coil springs supporting the outer ring sections upon the inner ring, of inwardly turned ears on said sections, a fastening member extending loosely through said ears and connecting the ends of said sections, a shoe also composed of sections surrounding the outer ring and covering the space between the ends of the sections of said outer ring.

2. A tire composed of two concentric rings spaced apart, expansible coil springs extending outwardly from the inner ring and supporting the outer ring, said springs being inclined alternately in opposite directions relatively to the plane of the tire, and each extending from one side of the inner ring to the opposite side of the outer ring, the alternate springs being formed by having their coils wound in opposite directions.

1,137,318. FALL-BOARD FOR PIANOS AND THE LIKE. OTTO HIGEL, Toronto, Ontario, Canada, assignor to C. Kurtzmann & Co., Buffalo, N. Y., a Corporation of New York. Filed July 28, 1914. Serial No. 853,639. (Cl. 84—119.)

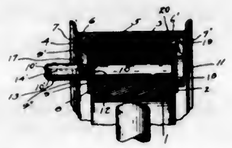
A fall-board for upright pianos comprising a forward and a rearward member hinged together and adapted to fold one upon the other, a guide bar extending transversely of the piano, a swinging hinge having pivotal connection with the piano casing at one end, a link pivotally connected to the other end of said hinge and rigidly connected to the rear edge of said fall-board, and a lip or projecting edge formed at the forward edge of the rear member of the

fall-board, said lip or edge adapted to contact with the transverse guide bar to limit the rearward movement of



the hinged members as they move into their retracted position.

1,137,319. LOCKING MEANS FOR DEMOUNTABLE RIMS FOR AUTOMOBILE-WHEELS AND THE LIKE. FRANK D. HILLER, Jr., and MAURICE R. KOHN, St. Louis, Mo., assignors of five and seventy-one one-hundredths per cent. to Frank D. Hiller, Sr., Webster Groves, Mo. Filed Oct. 19, 1914. Serial No. 867,377. (Cl. 152—21.)



1. A locking device for demountable wheel-rims comprising a member adapted to transversely engage the felly of the wheel, a lever, an extension on said lever, said extension being approximately flat on its opposite side faces and annularly rounded at its edge, and a pivot-pin engaging said member and said extension for pivotally fastening said lever and its said extension to said member, said extension being flatwise and eccentrically disposed relatively to said member, whereby the lever, on being swung to locking position, is adapted to camwise at the rounded edge of its said extension engage the felly of the wheel.

2. A locking device for demountable wheel-rims comprising a member adapted to transversely engage the felly of the wheel, a lever, an extension on said lever, said extension being approximately flat on its opposite side faces and annularly rounded at its edge, a pivot-pin engaging said member and said extension for pivotally fastening said lever and its said extension to said member, said extension being flatwise and eccentrically disposed relatively to said member, whereby the lever, on being swung to locking position, is adapted to camwise at the rounded edge of its said extension engage the felly of the wheel at one side thereof, and a block on said member adapted to operatively engage the felly of the wheel on an opposite side thereof when said lever is in locking position.

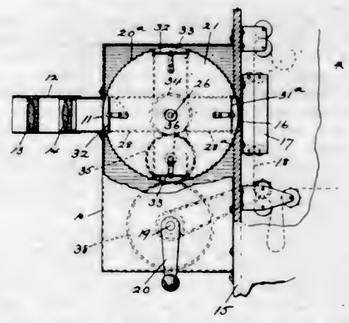
3. A locking device for demountable wheel-rims comprising a bolt adapted to be passed transversely through the felly of the wheel, said bolt being longitudinally slotted at one end, a cam-lever pivotally fastened to said bolt and swingable in the slot thereof to camwise engage the wheel when in locking position, and a block on said bolt adapted also to engage the wheel when said lever is in locking position.

4. The combination with a wheel and its felly, of a rim-engaging member on said wheel, said member having an obliquely disposed flange, a tire-rim encircling said rim-engaging member and provided with a pair of oppositely disposed oblique faces, said flange being adapted to engage with one of said faces, a bolt extending transversely loosely through said felly, said bolt being longitudinally slotted at one end, a cam-lever pivotally fastened to said bolt and swingable in the slot thereof to engage the wheel, and a block also carried by said bolt, said block having a wedge-shaped portion adapted to operatively engage with the other oblique face of said tire-rim, substantially as and for the purposes described.

5. The combination with a wheel and its felly, of a rim-engaging member on said wheel, said member having an obliquely disposed flange, a tire-rim encircling said rim-engaging member and provided with a pair of oppositely disposed oblique faces, said flange being adapted to engage with one of said faces, a bolt extending transversely loosely through said felly, said bolt being longitudinally slotted at one end, a cam-lever pivotally fastened on said bolt and swingable in the slot thereof to engage the wheel, a block also carried by said bolt, said block having a wedge-shaped portion adapted to operatively engage with the other oblique face of said tire-rim, and a wear-plate for said cam-lever, substantially as and for the purposes described.

[Claims 6 to 8 not printed in the Gazette.]

1,137,320. SHUTTER FOR MOVING-PICTURE MACHINES. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., a Corporation of New York. Filed May 21, 1913. Serial No. 769,021. (Cl. 88—19.3.)



1. In a shutter of the character described, a rotatable drum having a passage extending diametrically therethrough from opposite parts of its peripheral face, said drum being adapted to be disposed so that when rotated in the path of the rays of light its peripheral face will revolve whereby the light focused thereon will be alternately directed through its passage and cut-off during the revolutions of the drum, means provided in the passage of the drum for removably carrying a colored transparent plate therein and means serving to rotate the drum.

2. In a shutter of the character described, a rotatable drum having a plurality of passages extending diametrically therethrough from opposite parts of its peripheral face and disposed in spoke-fashion with relation to the axial center thereof whereby the ends of the passages are spaced apart, said drum being adapted to be disposed so that when rotated in the path of rays of light its peripheral face will revolve whereby the light focused thereon will be directed through the passages and cut-off alternately during the revolutions of the drum, means provided in each passage of the drum for removably carrying a colored transparent plate therein, means provided on the drum at each of its passages for holding each of the transparent plates against displacement, and means serving to rotate the drum.

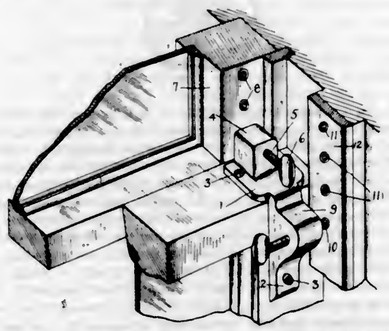
3. In a shutter of the character described, a plurality of pairs of connected rotatable tubes, each being radially disposed from a common center so that the outer ends thereof are spaced apart, and the tubes of each pair being in alinement whereby a continuous passage is provided therethrough, said tubes being adapted to be disposed so that when rotated in the path of the rays of light the outer ends thereof will revolve whereby the light focused thereon will be directed through the passages and cut-off alternately during the revolutions of the tubes, means provided in each pair of the tubes for removably carrying a transparent plate, a clip on each pair of the tubes for holding the transparent plates against accidental displacement when in the pair of tubes, and means serving to rotate the tubes.

4. In a shutter of the character described, a plurality of pairs of connected rotatable tubes, each being radially disposed from a common center so that the outer ends thereof are spaced apart and the tubes of each pair being in alinement whereby a continuous passage is provided therethrough, said tubes being adapted to be disposed so that when rotated the outer ends thereof will revolve whereby the light focused thereon will be directed through the passages of the tubes and cut-off alternately during the revolution of the tubes, a plurality of colored transparent plates, one being provided in each pair of the tubes to embrace the passage thereof, and means serving to rotate the tubes.

5. In a shutter of the character described, the combination with a moving picture machine which is operated by a drive shaft, of a rotatable drum composed of two spaced parallel circular side plates, an annular band provided around the periphery of the side plates, said annular band having a plurality of spaced openings therethrough, and a plurality of pairs of connected tubes provided between the side plates, said tubes being radially disposed with relation to the axial center of the side plates so that the outer end of each tube communicates with one of the openings of the annular band, and the tubes of each pair being in alinement whereby a continuous passage is provided therethrough, said drum being adapted to be disposed so that when rotated the annular band thereof will revolve whereby the light focused thereon will be directed through the passages of the tubes and cut-off alternately during the revolution of the drum, means provided in each pair of the tubes for removably carrying a number of transparent plates therein, a plurality of clips on each pair of the tubes for holding the transparent plates against accidental displacement when in the tubes, and gearing for imparting rotation to the drum when the drive shaft of the machine is driven.

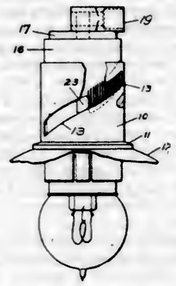
[Claim 6 not printed in the Gazette.]

1,137,321. WINDOW-FASTENING. JOHN W. HOGG, Jr., Schenectady, N. Y. Filed Sept. 9, 1913. Serial No. 788,855. (Cl. 16—52.)



A window fastener comprising a right-angle base adapted to be secured to the top rail and either stile of the lower sash, said base having on its horizontal portion a massive lug and a fastening device associated therewith adapted to engage the stile of the upper sash, the base being extended at either side of said lug to form a flange, and said base having formed integrally and medially of its vertical portion a massive lug extending completely across said vertical portion and having a transversely screw-threaded socket, and a threaded bolt fitting said socket and adapted to engage the window-casing, the bolt being removable and reversible whereby the fastener is adapted to be applied to either side of the sash.

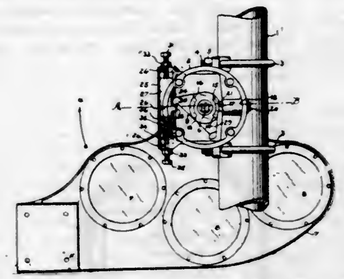
1,137,322. FOCUSING DEVICE FOR ELECTRIC LAMPS. HARRY H. HOLLAND and JASON C. STEARNS, Worcester, Mass.; said Holland assignor to said Stearns. Filed Aug. 22, 1914. Serial No. 857,997. (Cl. 240—44.)



1. In an adjusting and focusing device for an electric lamp, the combination of a cylindrical sleeve having a helical groove therein, a bushing inside the sleeve adapted to move therein, said bushing having a circumferential ratchet thereon, a projection extending from said bushing into said slot, whereby the turning of the bushing will move the same longitudinally, and a second ratchet member engaging the ratchet member of the bushing and connected with the sleeve.

2. In a focusing and adjusting device for an electric lamp, the combination of a sleeve having a helical slot in the cylindrical portion thereof, and a bushing movable therein provided with longitudinal external corrugations thereon and having a projection extending into said slot for causing the bushing to move longitudinally when turned, said sleeve being provided with a resilient tongue having longitudinal corrugations thereon for engaging the corrugated surface of the bushing and constituting a ratchet.

1,137,323. SEMAPHORE-STOP. WINTHROP K. HOWE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Mar. 6, 1911. Serial No. 612,529. (Cl. 246—15.)



1. In a combined buffer, stop, lock, and coupling, a shaft, a driven member rigid with said shaft, having an operated and a normal position, said member having a locking notch in the periphery thereof, a spring pressed dog engaging said notch, a driver to engage and having lost motion with respect to said driven member, a driver member having lost motion with respect to said driver and engaging said driver, a notch having a sloping side in the periphery of said driver member, said spring pressed dog having a beveled end adapted to be engaged by said sloping side and pressed outwardly thereby, whereby said spring pressed dog is removed from the notch in said driven member upon a rotation in one direction of said driver member, arms on said driven member, a member adapted to be engaged by one of said arms in normal position of said driven member on one side and to be engaged

by said other arm on the other side in the operated position of said driven member, an adjustable spring holding said member resiliently against the arm which is adapted to contact it in the normal position of said driven member, and an adjustable rigid abutment adapted to hold said member from movement when the other arm bears against it in the operated position of said driven member.

2. In an adjustable semaphore stop, a semaphore, having a normal and an operated position, a shaft attached rigidly to said semaphore, arms rigid on said shaft, a member adapted to be forced in one direction by one of the arms when the semaphore is in normal position and in the other direction when the semaphore is in operated position, an adjustable spring resiliently holding said member against movement when the semaphore is in normal position and an adjustable rigid stop for holding said member against movement when the semaphore is in operated position.

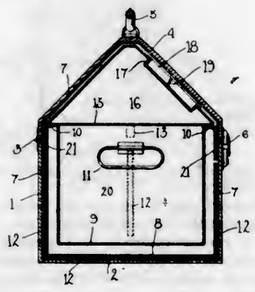
3. In an adjustable semaphore stop, a semaphore having a normal and an operated position, arms moved in unison with said semaphore, a member contacted by said arms for holding said semaphore in said two positions, and adjustable means to vary the position of said member, whereby the angle of said semaphore to the vertical in its two positions may be varied.

4. In a semaphore stop, a semaphore having a plurality of positions, a shaft to which said semaphore is attached, arms on said shaft disposed at an angle one to the other, a plunger having a lug for contact with said arms, said plunger adapted to be reversed end for end, a spring adapted to always press against one end of said plunger.

5. In a semaphore stop, a semaphore, a shaft on which said semaphore is mounted, a member which may be placed on said shaft in two positions, a movable plunger for contact with said member, the plunger being reversible end for end, resilient means adapted to always bear against one end of said plunger, adjustable means to limit the movement of said plunger, the said member when placed on said shaft in one of said positions co-acting with said plunger to limit the movement of said shaft to a particular arc, and when placed on said shaft in the other of said positions co-acting with said plunger to limit the movement of said shaft to another particular arc.

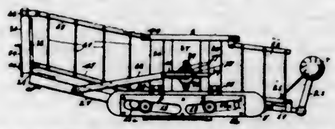
[Claims 6 to 12 not printed in the Gazette.]

1,137,324. PORTABLE REFRIGERATOR. RICHARD JACKSON, Jr., Detroit, Mich., assignor to Detroit Refrigerator Grip Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 27, 1914. Serial No. 834,577. (Cl. 62—82.)



A portable refrigerator comprising an outer case, a hinged lid carried thereby and having inclined walls, an inner case arranged within said outer case and spaced from the walls thereof, said inner case extending above the walls of said outer case and having a hollow bottom and walls providing a drain chamber, handles carried by the inner sides of said inner case, a hollow lid detachably mounted upon said inner case and having inclined walls adjacent to the inclined walls of the lid of said outer case, a cap detachably supported by an inclined wall of the lid of said inner case, and drip tubes carried by said hollow lid and extending into the drain chamber of said inner case.

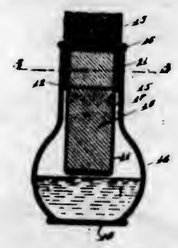
1,137,325. CONVERTIBLE CHILD'S HIGH CHAIR AND CRIB. CARL JACOBSEN, De Pere, Wis. Filed Dec. 13, 1913. Serial No. 806,398. (Cl. 155—6.)



1. In a convertible chair having a chair seat frame, arm posts hinged to the seat frame to swing in a vertical plane, pivotally mounted back posts adjustable into a nearly horizontal position and means actuated by the back posts for swinging the arm posts outward when the back posts are swung to said nearly horizontal position.

2. In a convertible chair having a chair seat frame, arm posts hinged to the seat frame to swing in a vertical plane, pivotally mounted back posts adjustable into a nearly horizontal position, crank arms between the arm posts at opposite sides of the seat, a rod from each crank arm to a chair back post, hinges pivotally connected by one leaf to opposite chair seat frame sides and by the other leaf in an eccentric position relative to the axis of a crank arm to the inner end of a crank arm shaft and adapted to swing the chair arm posts outward when the chair back posts are swung into said nearly horizontal position.

1,137,326. BRUSH. HIPPOLYTE JEANNE, New York, N. Y., assignor to Robert Webb, Bryn Mawr, Pa. Filed Apr. 9, 1914. Serial No. 830,568. (Cl. 15—50.)



1. In combination, a brush, a handle for the brush, a compartment located within said handle adapted to hold soap and to permit it to be expressed therefrom, a second and independent compartment formed with the handle and adapted to hold water, a channel communicating with the said second compartment and said brush, and a collapsible element included in the said second compartment adapted upon manipulation to feed water to the brush at will.

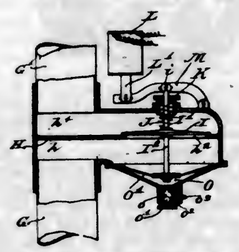
2. In combination, an annular brush, a soap pocket concentric with and located within the brush, a handle for the brush forming a water compartment separate from the soap pocket, and a valve located between the water compartment and the brush and adapted to control the flow of water from the handle to the brush.

3. In combination, an annular brush, a collapsible soap pocket concentric with and located within the brush, a bulbous handle of collapsible and resilient material forming a water compartment separate from the soap pocket, and an annular valve surrounding the soap pocket and adapted to control the flow of water from the handle to the brush.

4. In combination, an annular brush having an annular base, the base being provided with longitudinal channels for the passage of water to the brush, a cylindrical soap pocket closed at its lower end and having its upper end terminating within the said annular base, a bulbous water compartment having a cylindrical neck closely fitting the outside of the annular base and having communication with the said channels, and a valve for controlling the flow of water from the compartment through the channels to the brush.

5. In combination, an annular brush, a soap pocket concentric with and located within the brush, and a handle for the brush comprising a resilient bulbous water compartment, terminating in a neck, the neck being provided internally with an annular valve adapted to regulate the flow of water from the compartment to the brush and terminating in a stiffening ring adapted to hold the brush, soap pocket and handle firmly together.

1,137,327. PNEUMATIC-DESPATCH-TUBE APPARATUS. CHESTER S. JENNINGS, Boston, Mass., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass., a Corporation of Delaware. Filed July 11, 1907. Serial No. 383,176. (Cl. 243—15.)



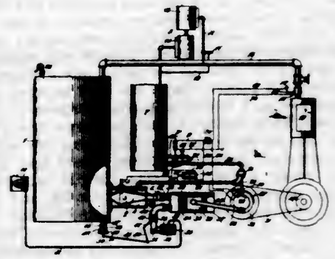
1. In pneumatic despatch tube apparatus, a transit tube for the transmission of carriers, an air-exhaust pipe communicating with said transit tube, a casing interposed in the communication between the transit tube and air-exhaust pipe, a partition dividing said casing into two chambers respectively communicating with the transit tube and the exhaust pipe and said partition having an opening between the two chambers, a valve controlling said opening between the two chambers, a spring normally closing said valve, a lever pivoted on the exterior of the casing and connected with said valve, a solenoid having its armature connected with the free end of said lever; an electric circuit including said solenoid, a normally open switch actuated by the insertion of a carrier in the transit tube to momentarily close the electric circuit to energize the solenoid so that the movement of its armature through the intervening mechanism will open said valve to permit the flow of air through said chambers from the transit tube to the exhaust pipe, a diaphragm connected with said valve positioned in the casing chamber communicating with the exhaust pipe and forming with the wall of such chamber a controlling chamber, said controlling chamber having an air inlet to admit outside air when the diaphragm rises through the opening of said valve by the solenoid and said controlling chamber having a restricted vent to permit the egress of air when the diaphragm lowers through the closing of the valve by said spring, a check-valve to prevent the egress of air through said air-inlet of the controlling chamber, and a screw-valve to regulate the egress of air through said restricted vent of the controlling chamber to retard the closing of said valve through the action of the spring.

2. A pneumatic despatch tube system, having, in combination, transit tubing through which carriers are transmitted, an air valve for controlling the passage of air through said tubing, mechanism operating independently of variations in pneumatic pressure to open the valve upon the despatching of a carrier, and timing mechanism acting to control the closing of the valve, said valve having a casing with a chamber therein which when said valve is closed is normally in communication with said transit tubing and with said tubing alone.

3. A pneumatic despatch tube system, having, in combination, transit tubing through which carriers are transmitted, means for exhausting air from said tubing, an air valve between the transit tubing and said means, electrically operated mechanism connected to open the valve, means for making and breaking the circuit for said mechanism when despatching the carrier, and a timing mechanism for automatically timing the closing of said valve, said valve when being closed, timed by said timing mechanism, and when open even but partly, affording communication between said air exhausting means and said transit tubing alone.

4. A pneumatic despatch tube system, having, in combination, transit tubing through which carriers are transmitted, an air valve for controlling the passage of air through said tubing, an exhaust device, means operating independently of the exhaust device for opening the valve upon the despatch of a carrier and a timing mechanism for automatically controlling the closing of the valve, said valve when being closed, being timed by said timing mechanism, and when open even but partly, affording communication between said air exhausting means and said transit tubing alone.

1,137,328. INTERNAL-COMBUSTION GENERATOR. IRVING C. JENNINGS, South Norwalk, Conn. Filed July 18, 1907. Serial No. 384,431. (Cl. 60—15.)



1. In an internal combustion generator, a combustion chamber, means for supplying a combustible charge, and means for introducing charges of said combustible mixture of varying predetermined volumes into said chamber against a variable pressure therein.

2. In an internal combustion generator, a combustion chamber, means for supplying a combustible charge, and a yielding piston for introducing charges of said combustible mixture of varying predetermined volumes into said chamber against a variable pressure therein.

3. In an internal combustion generator, a combustion chamber, means for supplying a combustible charge and means for introducing charges of said combustible mixture of varying predetermined volumes into said chamber against a variable pressure therein, said means comprising a yielding piston having outer and inner members and a spring cushion between the heads of said two members.

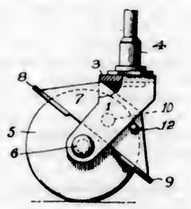
4. In an internal combustion generator, a combustion chamber, a pump for supplying a combustible mixture thereto, a storage tank for receiving the products of combustion, means for supplying a cooling medium to said chamber comprising a tank, a compressor for supplying the cooling medium thereto, said compressor being operated by the pressure in the storage tank and regulated by the pressure in the cooling medium tank and means controlled by the temperature of the products of combustion for regulating the supply of cooling medium from its tank to the said chamber.

5. In an internal combustion generator, a combustion chamber, a pump for supplying a combustible mixture thereto, a storage tank for receiving the products of combustion, means for supplying a cooling medium to said chamber comprising a tank, a compressor for supplying the cooling medium thereto, said compressor being operated by the pressure in the storage tank and regulated by the pressure in the cooling medium tank and means con-

trolled by the operation of the mixture pump for regulating the supply of cooling medium from its tank to the said chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,137,329. LOCK-LEVER CASTER. JOHN A. JOHNSON, Meriden, Conn., assignor to The M. B. Schenck Company, Meriden, Conn., a Corporation of Connecticut. Filed Feb. 15, 1915. Serial No. 8,208. (Cl. 16—168.)



1. A lock lever caster, comprising spaced horn members, a caster roller, a pin extending through said members and roller whereby the latter is journaled, and a brake lever interposed between one of the horn members and the roller and pivoted to said horn member eccentric to said pin.

2. A lock lever caster, comprising spaced horn members, a caster roller, a pin extending through said members and roller whereby the latter is journaled, and a pivoted brake lever interposed betwen one of the horn members and the roller and having a lateral projection adapted to be forced against said horn member to bind said lever firmly against the side face of the roller thereby locking the latter.

3. A lock lever caster, comprising spaced horn members, a caster roller, a pin extending through said members and roller whereby the latter is journaled, and a brake lever pivotally connected to the inner face of one of said horn members and capable of lateral movement, said lever and horn member having interengaging means for causing the lever to be forced firmly against the side of the roller when said lever is swung to locking position.

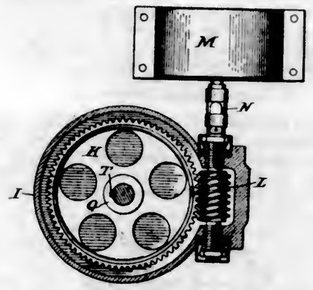
4. A lock lever caster, comprising spaced horn members, a caster roller, a pin extending through said members and roller whereby the latter is journaled, and a brake lever between one of the horn members and the roller, said lever and horn member having a pivotal relation eccentric to said pin and also having interengaging cam surfaces, whereby when the lever is in unlocked position the roller is free to rotate, but when said lever is swung to locked position it will be forced firmly against the side face of the roller to lock the latter as against rotation.

5. A lock lever caster, comprising spaced horn members, a caster roller, a pin extending through said members and roller whereby the latter is journaled, and a brake lever pivoted to the inner face of one horn member eccentric to said pin and having its locking and unlocking movements limited by said pin and by the caster frame.

1,137,330. DRILL-DRIVING MECHANISM. HENRY B. KEIPER, Lancaster, Pa. Filed Apr. 13, 1912. Serial No. 690,661. (Cl. 74—36.)

1. In combination, a shaft, a worm-wheel thereon, a shaft carrying a worm engaging said worm-wheel, a motor having a direct connection with said worm-shaft, said connection including a universal joint between said motor and said worm, and a housing for said worm-wheel and worm consisting of a horizontally disposed approximately cup-shaped casing inclosing said worm-wheel; said casing being provided with a removable cover and having at one side thereof an integral tubular portion opening into the adjacent cup-like body of the casing and inclosing the worm on said worm-shaft.

2. In combination a driven shaft, a driving shaft, a worm-wheel on said driving shaft, a shaft having a worm thereon engaging said worm-wheel, and a housing for said worm-wheel and worm, comprising a substantially cup-shaped casing inclosing said worm-wheel and having a detachable cover; said casing also having an integral tubular portion opening into it at one side thereof and extending substantially at right angles to the axis of said worm wheel and inclosing said worm, and a motor mounted on the machine frame adjacent to said housing and having a direct connection with said worm-shaft.



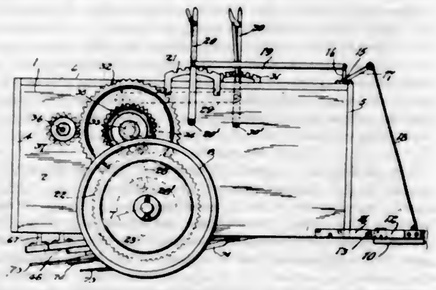
3. In a drill, the combination with a vertical driving shaft, of a horizontal casing surrounding said shaft, a worm gear mounted in said casing around the shaft and adapted to rotate with the latter, and a worm also arranged in said casing and meshing with said worm gear, there being an oil cup formed in the bottom of the casing immediately around the lower end of the hub of the worm gear, whereby the oil is retained in contact with the bearing faces of said hub and the bottom of the casing.

4. In a drill, the combination with a vertical driving shaft, of a horizontal casing surrounding said shaft, a worm gear mounted in said casing around the shaft and adapted to rotate with the latter, and a worm also arranged in said casing and meshing with said worm gear, a bushing fitted around the shaft and in the top of the casing, said worm gear and bushing being splined to the shaft by a single key passed through both.

5. In a drill, the combination with a vertical driving shaft, of a horizontal casing surrounding said shaft, a gear mounted in said casing around the shaft and adapted to rotate with the latter, means to drive said gear, and a bushing fitted around the shaft in the top of the casing to rotate with said shaft, said bushing having an oil duct entering its upper end portion and adapted to deliver onto the bearing surfaces between said bushing and casing.

[Claims 6 to 11 not printed in the Gazette.]

1,137,331. CULTIVATOR. ISAAK K. KLASSEN, Hague, Saskatchewan, Canada. Filed July 6, 1914. Serial No. 849,247. (Cl. 97—25.)



1. In a cultivator the combination with a main frame mounted on suitable traction wheels, of an adjustable frame suitably suspended within the main frame and presenting rear runways, a plurality of agitating bars having their rear ends located beneath the adjustable frame and suspended from the runways and their forward ends operating in forward runways presented by the main frame, cultivator blades mounted on the under sides of the rear ends of the agitating bars, means for reciprocating the forward ends of the agitating bars in the forward runways to effect the forward and backward movement of the cultivator blades and means for raising the rear ends of the agitating bars in the forward movement thereof, as and for the purpose specified.

2. In a cultivator the combination with a main frame mounted on suitable traction wheels, of an inner adjustably suspended frame carried by the rear end of the main frame and formed to present longitudinally disposed rear runways, a plurality of agitating bars having their rear ends located beneath the inner frame and suspended from the respective runways and their forward ends mounted in longitudinally disposed forward runways presented by the forward end of the main frame, a crank shaft carried by the main frame, means actuated by one of the traction wheels for driving the crank shaft, links connecting the crank shaft with the forward ends of the agitating bars whereby the forward ends of the said agitating bars are reciprocated in the forward runways by the action of the crank shaft, cultivating blades carried by the rear ends of the agitating bars and means for raising the rear ends of the agitating bars from the rear runways in the forward movement of the bars, as and for the purpose specified.

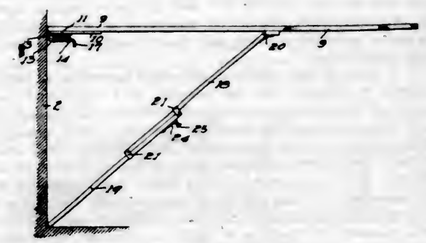
3. In a cultivator the combination with a box like main frame mounted on suitable traction wheels, of an inner frame suspended adjustably from the main frame and formed with a plurality of longitudinally disposed rear runways, a plurality of longitudinally disposed forward runways located in the front end of the main frame, a plurality of agitating bars having their forward ends carried by the front runways and the rear ends passing beneath the inner frame and suspended from the rear runways, a crank shaft rotatably mounted in the main frame and fitted with a crank for each agitating bar, means actuated by one of the traction wheels for driving the crank shaft, connecting links connecting the respective cranks with the forward ends of the respective agitating bars whereby the reciprocation of the bars is effected in the rotation of the crank shaft, cultivator blades secured to the rear ends of the agitating bars and means for raising the rear ends of the agitating bars in the forward stroke thereof, as and for the purpose specified.

4. In a cultivator the combination with a box like main frame mounted on suitable traction wheels, of an inner frame suspended adjustably from the main frame and formed with a plurality of longitudinally disposed rear runways, a plurality of longitudinally disposed forward runways located in the front end of the main frame, a plurality of agitating bars having their forward ends carried by the front runways and their rear ends passing beneath the inner frame and suspended from the rear runways by rollers, a crank shaft rotatably mounted in the main frame and fitted with a crank for each agitating bar, means actuated by one of the traction wheels for driving the crank shaft, connecting links connecting the respective cranks with the forward ends of the respective agitating bars whereby the reciprocation of the bars is effected in the rotation of the crank shaft, cultivator blades secured to the rear ends of the agitating bars and short curved lengths of tracks having their forward ends pivotally mounted and elevated above the respective rear runways and their rear ends bearing on the runways, said tracks being designed to rise and free the rollers in the back stroke of the agitating bars and to pick up the rollers from the guide ways and raise the rear ends of the agitating bars in the forward stroke thereof, and curved guide bars located in advance of the tracks and designed to return the rollers to the rear runways after escaping from the forward ends of the tracks, as and for the purpose specified.

5. In a cultivator the combination with a box like main frame mounted on suitable traction wheels, of an inner frame suspended adjustably from the main frame and formed with a plurality of longitudinally disposed rear runways, a plurality of longitudinally disposed forward runways located in the front end of the main frame, a

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1,137,332. IRONING-BOARD. OTTO KLATTE, Minneapolis, Minn. Filed Oct. 10, 1913. Serial No. 794,419. (Cl. 68—10.)



1. The combination, with a bar having sockets therein, of a board having hooks to enter said sockets, guides mounted on the underside of said board, a bolt slidable in said guides and provided with a suitable handle, a spring carried by said bolt and normally holding it in a projected position, the forward end of said bolt engaging the edge of said bar when in its locking position and securing the end of said board against said bar, with the hooks of said board in the sockets of said bar and a supporting leg for said board.

2. The combination, with a bar having vertical sockets therein, of an ironing board having an end to rest upon said bar and provided on its underside with a pair of straps having downwardly turned ends adapted to enter said sockets when said board is seated on said bar, a spring-pressed bolt slidably mounted on the underside of said board between said straps and having an end portion arranged to slide under the lower edge of said bar and lock the end of said board against its seat on the upper edge of said bar and a supporting leg for said board.

1,137,333. FLEXIBLE CLAMP-JOINT. CHARLES P. KLOREK, East Conemaugh, Pa., assignor of two-thirds to Joseph E. Zang, Johnstown, Pa. Filed Mar. 9, 1914. Serial No. 823,515. (Cl. 248—8.)

1. A flexible joint of the character described comprising two pairs of coacting clamping members, a connecting member rotatively engaging one of the clamping members of one pair and both of the clamping members of the other pair, said connecting member forming a common axis for the relative rotation of both of said pairs of members with relation to each other, and means on said connecting member whereby both pairs of clamping members may be simultaneously shifted into or out of clamping position.

2. A flexible joint of the character described including two pairs of coacting clamping members, a connecting bolt passing through both pairs of clamping members and forming a common axis upon which both pairs of clamping members may turn relative to each other, and a nut engaging said connecting bolt, said nut bearing against one member of one pair of said clamping members to shift it and said bolt also engaging one member of the other pair of clamping members to also shift it when the nut is turned.



3. A flexible joint of the character described including two pairs of clamping members, one of the members of one pair being longitudinally shiftable relative to the other, a bolt having swiveled engagement with one of said clamping members, a clamping member through which said bolt passes and bearing against the other of said first named pair of clamping members, a clamping member coacting with the third named clamping member and through which the bolt passes, and a nut engaging said bolt and bearing against the last named clamping member whereby when the nut is turned up it will force the clamping members of each pair into clamping engagement with each other.

4. A joint of the character described including an outer member perforated for the passage of a supported element, an inner member also perforated for the passage of said element, opposed coacting clamping jaws rotatable with relation to the first named members and connected thereto, said clamping jaws being adapted to receive an element to be supported between them, and means for simultaneously shifting the first two members into or out of a position of eccentricity and relatively shifting the jaws toward or from each other to thereby simultaneously clamp or unclamp both of said supported elements.

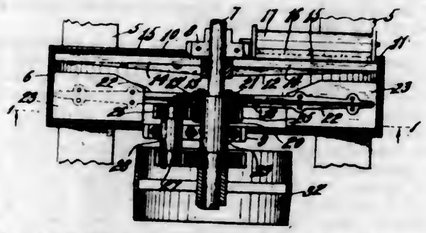
5. A flexible joint of the character described, including an outer member having oppositely disposed perforations for the passage of an element to be clamped, an inner member having sliding engagement with the outer member and formed with oppositely disposed perforations for the passage of said element, said inner clamping member having an inwardly directed flange at its outer end, a clamping bolt having a head rotatively engaging the inner side face of said flange, said bolt being cylindrical for a portion of its length and being transversely perforated for the passage of a supported element, a clamping member having the form of an annulus and through which the bolt passes, said clamping member bearing against the end face of the outer first named member and being formed with a seat for the passage of the supported element, a coacting annular clamping member through which said bolt passes and also formed with a seat confronting the seat on the last named clamping member, and a nut engaging the threaded end of the bolt and when turned home engaging the last named clamping member to thereby force the two annular clamping members toward each other and shift the second named inner clamping member out of concentricity with the first named outer clamping member to thereby clamp the joint simultaneously both upon said supported members.

[Claims 6 to 10 not printed in the Gazette.]

1,137,334. ENSILAGE-CUTTER. FRANK N. G. KRANICH, Laporte, Ind. Filed May 28, 1914. Serial No. 841,440. (Cl. 146—26.)

1. An ensilage cutter, comprising in part a casing, a shaft extending into the casing and having a cutter mounted thereon, and a fan also within the casing and surrounding said shaft and means for rotating the fan at a different rate of speed than the cutter.

2. An ensilage cutter, comprising in part a casing provided with an inwardly extending journal box, a shaft extending through the box and into the casing and having a cutter mounted thereon, a fan within the casing and journaled on the inwardly extending portion of the box, and means for rotating the fan and the cutter at different rates of speed.

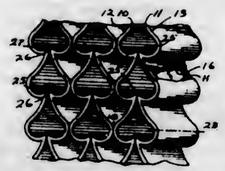


3. An ensilage cutter, comprising in part a casing provided with an inwardly extending journal box, a shaft extending through the box and into the casing and having a cutter mounted thereon, a fan within the casing and journaled on the inwardly extending portion of the box, said fan provided with a gear wheel, a counter shaft extending into the casing and provided with a pinion in mesh with the fan gear, and means for rotating the cutter shaft and the counter shaft at different rates of speed.

4. An ensilage cutter, comprising in part a casing provided with an inwardly extending journal box, a shaft extending through the box and into the casing and having a cutter mounted thereon, a fan within the casing and journaled on the inwardly extending portion of the box, said fan provided with a gear wheel, a countershaft extending into the casing and provided with a pinion in mesh with the fan gear, a gear mounted on the outer end of the countershaft, and a gear on the cutter shaft in mesh with the gear of the countershaft to rotate said shafts at different rates of speed.

5. An ensilage cutter, comprising in part a support, a shaft mounted thereon, a cutter mounted on the shaft, a fan journaled concentrically with relation to the shaft, said fan provided with a gear wheel, a countershaft extending into the casing and provided with a pinion in mesh with the fan gear, means for rotating the cutter shaft and the countershaft at different rates of speed, and unitary inclosing means for the cutter and the fan.

1,137,335. RADIATOR. JOSEPH A. KUENZ, Toledo, Ohio. Filed Mar. 20, 1914. Serial No. 826,010. (Cl. 257—130.)

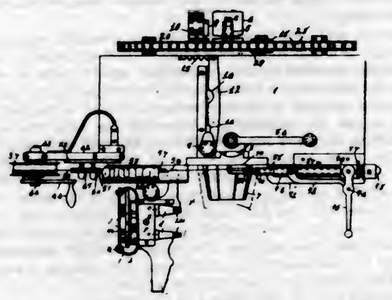


1. A radiator having inverted heart-shaped cells surrounded by two pairs of substantially parallel walls forming water passageways having semi-heart-shaped contours, the water entering the apices of the heart-shaped cells and passing around the opposite sides of the heart-shaped cells.

2. A radiator having cells separated by pairs of substantially parallel walls forming water chambers and, from point to point, extend downward a short distance and then extend upward, the downwardly extending portions extending to the top of the upwardly extending portions and forming abutting surfaces and a sharp corner at the termination of the upwardly extending portions and at the beginning of the downwardly extending portions.

3. A radiator having heart-shaped cells separated by a pair of substantially parallel walls forming narrow water passageways extending vertically through the radiator, the walls surrounding the cells being inclined on an outer curve downward for a short distance then turning inwardly and upwardly on a short inner curve of small curvature and then starting vertically downward and inclined to an outer curve downward for a short distance and then turning inwardly and upwardly on a short inner curve of small curvature.

1,137,336. WIRE-HOOP FORMING AND APPLYING MACHINE. CHARLES A. LEE, Neenah, Wis., assignor of one-half to Gustav Kalfahs, Neenah, Wis. Filed July 29, 1914. Serial No. 853,875. (Cl. 140—93.)



1. A wire hoop applying and lock forming machine, consisting of a frame for supporting the mechanism, a revoluble and longitudinally movable conical block mounted upon said frame for receiving the article to be hooped, a reel having wire thereon from which it may be unwound as wanted, a tension device applied to the wire for drawing it tightly around said article being hooped, a gripping device adapted to receive the free end of the wire from said reel, and wind the wire around the article being hooped slightly exceeding one revolution and leaving the ends in close proximity and crossed, a lock forming tool arranged to be swung into position for receiving the wires where crossed and to be revolved a half revolution and form a lock of the hoop, and a prong forming and wire severing tool consisting of two revoluble spindles, each having a slotted end and a shear alongside of each slot, the slot being adapted to form prongs upon the wire for being driven into the wood of the article and the shears to sever the wire upon a partial revolution being given to said spindles.

2. In a wire hoop applying and lock forming machine, a frame for supporting the mechanism, a longitudinally movable and revoluble conical block for receiving the article to be hooped mounted upon said frame, a ring spaced from said block and arranged for revolution around the same, a wire gripping tool secured to said ring and revoluble with it around said block, and means for revolving said ring independently of the revolutions of said block.

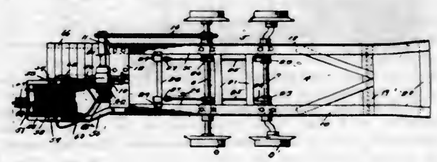
3. In a wire hoop applying and lock forming machine, a frame for supporting the mechanism, a longitudinally movable and revoluble conical block for receiving the article to be hooped mounted upon said frame, a ring having gear teeth outside thereof spaced from said block and arranged for revolution around the same within a channeled partial ring secured to said frame, and one or more gear wheels for revolving said ring, one of which is provided with a crank by which the ring may be revolved.

4. In a wire hoop applying and lock forming machine, a frame for supporing the mechanism, a longitudinally movable and revoluble conical block for receiving the article to be hooped mounted upon said frame, a ring having gear teeth outside thereof spaced from said block and arranged for revolution around the same within a channeled partial ring secured to said frame, one or more gear wheels arranged upon the frame for revolving said ring, a shaft extending from one of said gear wheels, a shaft arranged parallel with said gear shaft, means for the simultaneous revolution of said shafts, a friction clutch pulley upon the second named shaft, a clutch flange for engaging the clutch face of said pulley, and a lever arranged within each reach of an operator for engaging and disengaging the friction faces of said pulley and flange.

5. In a wire hoop applying and lock forming machine, a frame for supporting the mechanism, a longitudinally movable and revoluble conical block for supporting the article to be hooped, a wire of which to form a hoop, means for winding the wire around the article to be hooped, and leaving the ends of the wire in close proximity and crossed, a hoop lock forming tool consisting of a block arranged to slide within a guide at right angles with the axial line of said conical block, a supporting standard, pivotally mounted in said sliding block and vertically arranged when at rest, a sleeve arranged upon said standard in a nearly horizontal position, a rod arranged to slide through said sleeve, wire gripping jaws mounted at one end of said rod, means for closing the jaws upon said crossed wires after said rod is swung into a vertical position nearly over the axial line of said conical block, and a crank upon the outer end of the sliding rod by which said jaws may be given a half revolution thereby locking one wire end around the other.

[Claims 6 to 8 not printed in the Gazette.]

1,137,337. MINING-MACHINE AND TRUCK. NILS D. LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Aug. 31, 1910. Serial No. 579,798. (Cl. 191—12.)



1. The combination of a wheel truck, a mining machine adapted to be supported on the truck but separable therefrom, the said machine having an electric driving motor, a rotatable cable reel mounted on the truck separately from the mining machine, an electric conductor cable on the reel, and electric conductor means including a flexible cable for electrically connecting the electric motor of the mining machine with the cable on the reel when the machine is in any one of a variety of positions with respect to the truck.

2. The combination of a wheel truck, a mining machine separable from the truck and adapted to be supported thereby, an electric motor, a cable reel mounted on the truck separately from the machine, an electric conductor cable on the reel, means for conducting current from the reel and the cable to the motor, and means for transmitting the power of the motor to the reel to drive it.

3. The combination of a wheel truck, a mining machine separable from the truck and adapted to be supported thereby, an electric motor, a cable reel mounted on the truck separately from the machine, an electric conductor cable on the reel, means for conducting current from the reel and the cable to the motor, means for transmitting the power of the motor to the truck wheels to drive them, and means for transmitting the power of the motor to the reel to drive it.

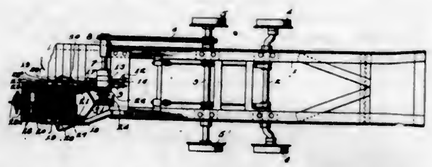
4. The combination of a wheeled truck, a coal cutting machine separable from the truck and adapted to be supported thereby, the said machine having an electric driving motor, a cable reel and a frame therefor separable from the truck and adapted to be mounted thereon separately from the machine, an electric conductor cable on the reel, a separable conductor for connecting the reel and the cable with the machine motor, and gearing on the ma-

chine and gearing on the truck adapted to be connected to each other and when connected to transmit power from the motor to the truck wheels.

5. In an apparatus comprising a wheeled truck and a mining machine adapted to be transported by the truck, the combination of a truck frame, wheels for supporting the frame, power transmitting mechanism connected with the wheels and comprising an initial power receiving element, a mining machine bodily movable onto or off the truck frame and comprising an electric motor and a power transmitting element connected with the motor and adapted to engage the power receiving element of the said power transmitting mechanism, a rotatable cable reel mounted on the truck frame separately from the mining machine, an electric conductor cable on the reel, and a flexible conductor connecting the reel and the cable with the mining machine motor when the machine is in normal position on the truck and when it is separated from the truck and in any one of a variety of positions with respect thereto.

[Claims 6 to 39 not printed in the Gazette.]

1,137,338. CABLE-WINDING MECHANISM. NILS DAVID LEVIN, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Original application filed Aug. 31, 1910, Serial No. 579,798. Divided and this application filed Dec. 5, 1911, Serial No. 664,037. Renewed Aug. 17, 1914. Serial No. 857,263. (Cl. 242—91.)



1. In a cable winding mechanism for a vehicle, the combination of a reel frame supported at its lower end for movement about a horizontal axis, a reel rotatably mounted on the frame with its center of gravity at one side of the vertical plane through the said horizontal axis, a cable wound upon the reel, a rotatable rope sheave on the frame operatively connected with the reel, an endless rope belt passing over the sheave, a second rope sheave over which the rope also passes thereby serving to prevent movement of the reel and the reel frame about the horizontal axis of frame support, and means for driving the second sheave to cause rotation of the reel by means of the rope and the first sheave.

2. In a cable winding mechanism for a vehicle, the combination of a frame supported at its lower end in a manner to permit movement about a horizontal axis, a cable reel mounted on the frame for rotation about a horizontal axis the position of the reel on the frame being such that its center of gravity is at one side of the vertical plane through the horizontal axis of frame support, a cable wound upon the reel, a rope sheave rigidly connected to the reel for rotation therewith, a second relatively fixed rotatable sheave in the same vertical plane with the first sheave, an endless rope belt passing over the two sheaves and thereby serving to support the reel and its frame against movement about the axis of frame support, and means for driving the second sheave to cause rotation of the reel.

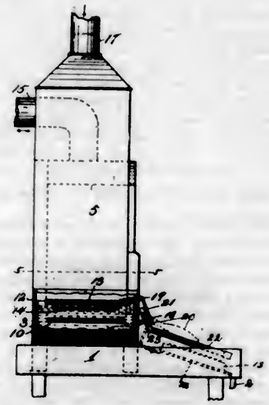
3. In a cable winding mechanism for a vehicle, the combination of a reel holding frame, a support upon which the frame is pivotally mounted in a manner to permit free removal therefrom, a rotatable cable reel on the frame positioned with its center of gravity at one side of the vertical plane through the pivotal axis of frame support, a rope sheave connected to the reel for rotation therewith, a second relatively fixed rotatable sheave in the same plane with the first sheave, an endless rope belt passing over the two sheaves and thereby serving to support the reel and its frame against movement about the axis of frame support, means for driving the second sheave to cause rotation of the reel, and a cable connected to the reel to be wound thereon.

4. In a cable winding mechanism for a vehicle, the combination of a frame supported at its lower end in a manner to permit movement about a transverse horizontal axis, a reel rotatably mounted on the frame with its center of gravity at one side of the vertical plane through the said horizontal axis, a cable wound upon the reel, a rotatable rope sheave operatively connected with the reel, a second fixed rope sheave in the same plane with the first rope sheave, an endless rope belt passing over the two sheaves and serving to support the reel and its frame against movement about the said horizontal axis, means for moving the lower end of the frame to change its axis of support and thereby vary the tension of the rope, and means for driving the second rope sheave to cause rotation of the reel.

5. In a cable winding mechanism for a vehicle, the combination of a reel supporting frame, a reel mounted on the frame for rotation about a horizontal axis, a cable wound upon the reel, means for supporting the frame at its lower end in a manner to permit swinging about a horizontal axis, means for horizontally adjusting the axis of frame support to vary the distance between the said axis and the vertical plane through the center of gravity of the reel, a rope sheave rigidly connected with the reel and rotatable therewith, a second rotatable rope sheave in the same vertical plane with the first rope sheave, an endless rope belt passing over the two sheaves and serving to support the reel and the frame against movement about the horizontal axis of the frame support, and means for rotating the second rope sheave to cause rotation of the reel.

[Claims 6 to 17 not printed in the Gazette.]

1,137,339. ETCHING APPARATUS. LOUIS E. LEVY and HOWARD S. LEVY, Philadelphia, Pa.; said Louis E. Levy assignor to Graphic Arts Company, Philadelphia, Pa., a Corporation of Delaware. Filed May 19, 1911. Serial No. 628,322. (Cl. 41—9.)



1. In an etching apparatus, a tank for etching fluid, means for effecting an ebullition of the etching fluid by the introduction of air into the etching fluid, means for maintaining a plate to be etched so that said plate will be maintained in a fixed position submerged in the etching fluid with the face to be etched downward, and means for effecting a distribution of the air in the etching fluid such means being located beneath the plate to be etched.

2. In an etching apparatus, a tank for etching fluid, means for introducing air into the tank to effect an ebullition of the etching fluid therein, a plate-holder which is maintained in a hinged engagement with the tank and is adapted to carry a plate so that the plate may be maintained face downward and submerged in the etching fluid, and a perforated plate maintained in the tank submerged in the etching fluid below the face of the plate to be etched and above the bottom of the tank.

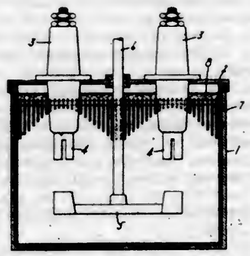
3. In an etching apparatus, a tank for etching fluid, a plate-holder maintained in such pivotal relation to the tank that a plate maintained by the plate-holder may be positioned below the surface of the etching fluid in the tank with its face downward, means associated with the plate-holder for moving said plate-holder to position the same in or out of the etching fluid, a perforated plate maintained within the tank for etching fluid and positioned above the bottom of the tank and below the face of the plate that is maintained by the plate-holder when said plate is submerged in the etching fluid.

4. In an etching apparatus, a container for etching fluid, a plate support associated therewith to maintain a plate within said container, a partition that depends below the normal level of etching fluid in the container and means for unbalancing the atmospheric pressure on opposite sides of the depending partition.

5. In an etching apparatus, a container for etching fluid, a plate-support which constitutes a partial closure for the container, flues associated with the plate-support and means for effecting greater pressure in one of the flues than in the other; sufficient to aerate the etching fluid in the container.

[Claims 6 to 26 not printed in the Gazette.]

1,137,340. CIRCUIT-INTERRUPTER. CHESTER LICHTENBERG, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 11, 1912. Serial No. 725,176. (Cl. 175—282.)



1. A circuit interrupter comprising a vessel containing insulating liquid, a cooling barrier mounted just below and near the surface of said liquid, having a plurality of permanently opened constricted passages for the escape of gases from said liquid, and relatively movable coöperating contacts submerged in the liquid in said vessel and separable to draw an arc beneath said cooling barrier.

2. A circuit interrupter comprising a vessel partially filled with oil, relatively movable coöperating contacts separable in said vessel beneath the surface of the oil, and cooling means mounted just below and near the surface of the oil for cooling the products of the arc before said products reach the surface of the oil.

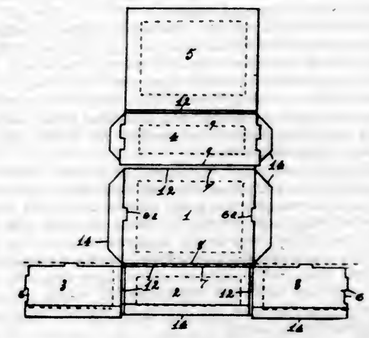
3. A circuit interrupter comprising a vessel partially filled with oil, relatively movable contacts mounted to separate in said vessel beneath the surface of the oil, and a plurality of cooling members spaced apart and mounted just below and near the surface of the oil for reducing the temperature of the arc gases before they reach the air space above the oil.

4. A circuit interrupter comprising a vessel containing insulating liquid, relatively movable coöperating contacts separable to draw an arc in said liquid, and a metal cooling screen comprising a plurality of plates so mounted just below and near the surface of the oil as to form for the hot arc gases submerged vents which cool to a safe temperature the gases passing through it.

5. A circuit interrupter comprising a vessel partially filled with oil, relatively movable contacts mounted to separate in said vessel beneath the surface of the oil, and a cooling grid mounted just below and near the surface of the oil comprising a plurality of permanently opened constricted passages interposed in the path of hot gases to cool said gases before they reach the air space above the oil.

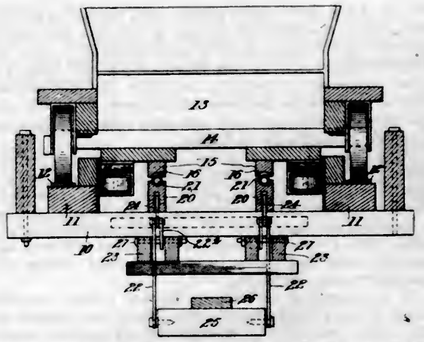
[Claims 6 and 7 not printed in the Gazette.]

1,137,341. BOX. HENRY J. MCCABE and JOHN WISE, Menasha, Wis. Filed Sept. 25, 1914. Serial No. 863,427. (Cl. 229—14.)



A box the body of which is formed from a single sheet of pasteboard divided into six sections, the sides of which are integral with its bottom, its ends integral with its front side and its cover integral with its rear side, flexible joints between the bottom and sides, front side and ends and rear side and cover, in combination with a lining of Spanish cedar veneering, glued upon the bottom, its sides, and ends and a binding strip projecting from each end of its bottom and rear side adapted to be pasted down upon the ends when the box is folded together for use.

1,137,342. BRAKE FOR PLEASURE-RAILWAYS. THOMAS MCCORMICK, Detroit, Mich., assignor to himself and Frederick Ingersoll, Detroit, Mich. Filed May 8, 1913. Serial No. 766,439. (Cl. 188—47.)



1. A brake for pleasure railways comprising a brake member carried by a car, a second brake member located between the rails, one of said members being provided in one face with a longitudinally disposed concaved recess, the other being provided in one face with a longitudinally disposed complemental tubular element adapted to enter said recess, and means for moving one of said members to bring the tubular element of one member into and out of engagement with the groove of the other member.

2. A brake for pleasure railways comprising a brake member carried by a car and provided in one face with a

longitudinally disposed concaved recess, a second brake member located between the rails and provided in one face with a longitudinally disposed complemental tubular element adapted to enter said recess, and means for raising and lowering said last mentioned brake member to bring said tubular element into and out of engagement with the groove of the other member.

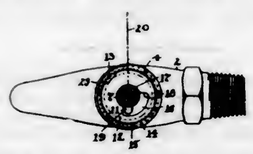
3. As an improvement in brakes for pleasure railways, the combination with cross ties and rails supported thereby, of a brake member normally resting upon said ties, a supporting beam suspended from said ties, toggles supported by said beam and engaging said brake member, and means for operating said toggles.

4. As an improvement in brakes for pleasure railways, the combination with cross ties and rails supported thereby, of a brake member normally resting upon said ties, supporting beams suspended from said ties, long toggle members pivoted to said beams, short toggle members connecting said long toggle members and said brake member, and an operating member connecting the lower ends of said long toggle members.

5. As an improvement in brakes for pleasure railways, the combination with cross ties and rails supported thereby, of a brake member normally resting upon said ties, a supporting beam suspended from said ties, pivot pins carried by said beams, long toggle members supported by said pivot pins, supplemental toggle members also supported by said pivot pins, short toggle members connecting said long toggle members and said supplemental toggle members with said brake member, and means for moving all of said toggle members in unison.

[Claims 6 to 9 not printed in the Gazette.]

1,137,343. FAUCET OR COCK. HUGH J. MCGIVERN, Cleveland, Ohio, assignor to United Brass Manufacturing Company, a Copartnership composed of William J. Schoenberger and Benjamin F. Klein, Cleveland, Ohio. Filed Feb. 27, 1914. Serial No. 821,378. (Cl. 137—4.)



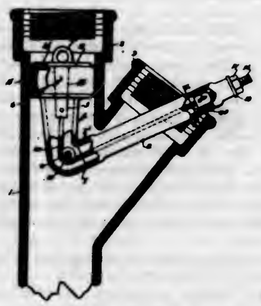
1. In a faucet or cock a tubular neck having an annular recess with serrations in its side, a rotatable and axially movable valve having a stem provided with a stop, adjustable means to limit the movement of said valve and stem comprising a flat disk having a shoulder radially thereof between its flat faces to coöperate with said stop and provided with teeth for engaging said serrations and a curved indenture in its border.

2. In a faucet or cock, a body portion having a serrated recess, a rotatable and axially movable valve having a fixed stop member thereon, and a disk having a segmental opening of substantially quadrant shape therein forming a shoulder for engagement by said stop member and provided with a series of teeth at its border adjacent said opening, said disk being removably seated within said serrated recess.

3. In a faucet or cock a body portion having a serrated recess, a valve stem having a lug, and a stop member for said stem comprising a disk having an opening therein forming shoulders for said lug and provided with serrations for engaging the serrations in said recess and an escalloped border.

4. In a faucet or cock, a body having a tubular neck provided with screw threads and radial serrations, a valve and a threaded stem therefor having a stop projection, a removable rotatably-adjustable disk having a toothed border engaging with said serrations and an indenture in said border and provided with a stop shoulder to co-act with said stop projection, and a cap nut to secure said disk in place.

1,137,344. SMOKE-PLUG. DUNCAN MCKENZIE, Winnipeg, Manitoba, Canada. Filed June 8, 1914. Serial No. 843,901. (Cl. 137—76.)



1. A smoke plug comprising an expansible member fitted with an extending shank, a pipe having one end demountably associated with the shank, a flexible member connected with the expansible member and passing normally through the shank and pipe and removable means for adjusting the tension in the flexible member to expand the expansible member, said adjustable means being located at the free end of the pipe, as and for the purpose specified.

2. A smoke plug comprising an expansible member fitted with an extending shank, a pipe disposed at an angle to the shank and having the inner end demountably associated with the shank, a cable connected to the expansible member and passing normally through the shank and pipe and means located at the outer end of the pipe for adjusting the tension in the cable and thereby effecting the expansion of the expansible member, as and for the purpose specified.

3. A smoke plug comprising an expansible member fitted with an extending shank, a pipe extending at an angle from the shank and having the inner end thereof demountably associated with the shank, an adjusting bolt carried by the outer end of the pipe and fitted with a washer and an adjusting nut bearing on the latter end of the pipe and a cable connecting the bolt with the expansible member and passing through the pipe and shank, as and for the purpose specified.

4. A smoke plug comprising an expansible member, a cable connected with the expansible member and demountable means associated with the expansible member and the cable for adjusting the tension in the cable and effecting the expansion of the expansible member, as and for the purpose specified.

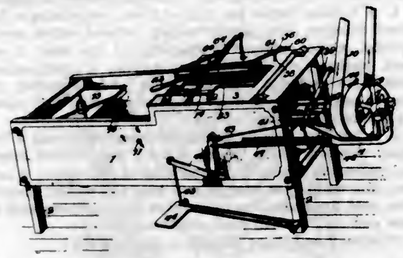
5. A smoke plug comprising an expansible member fitted with an open centered extending shank, a pipe disposed at an angle to the shank and having the inner end thereof demountably associated with the shank, an adjusting bolt located at the outer end of the pipe and extending within the same, an adjusting nut on the bolt and engageable with the pipe end and a cable having one end secured to the inner end of the bolt and the other end connected with the expansible member, said cable passing through the open centers of the shank and pipe, as and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,137,345. CAN-WASHING MACHINE. EDWARD MANNING, Rutland, Vt., assignor to Manning Manufacturing Company, Rutland, Vt., a Corporation of Vermont. Filed Nov. 19, 1914. Serial No. 872,972. (Cl. 141—7.)

1. In a can washing machine, the combination with a tank, of a driven shaft, an expansible head carried by said shaft, a pair of brushes mounted within the bottom of the tank, a hinged frame mounted above said tank, a brush carried by said hinged frame, and means operated by the downward movement of said hinged frame for throwing said pair of brushes toward each other.

2. In a can washing machine, the combination with a vat, of a revoluble shaft mounted in said vat, a head carried by said shaft, expansible brushes carried by said head, brushes arranged parallel to one another within said vat, levers upon which said brushes are mounted, a connection between said levers, and means for operating one pair of levers so as to simultaneously move said brushes toward each other.



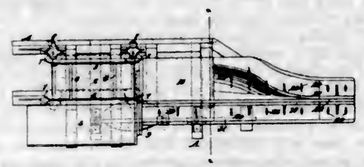
3. In a can washing machine, the combination with a tank, of brackets mounted in the bottom of said tank, levers mounted in said brackets and extending parallel to each other, a connection between said levers, brushes connecting the respective pair of said levers, spring-actuated rods connected to one pair of levers, and a pivoted frame adapted to engage said spring-actuated rods for rocking said levers upon their pivots.

4. In a can washing machine, the combination with a tank, of a revoluble shaft mounted in said tank, a head fixed on said shaft, levers pivotally mounted in said head provided with gear portions, racks coöperating with said gears, brushes carried by said levers, and means for operating said racks so as to rock said levers.

5. In a can washing machine, the combination with a tank, of a revoluble shaft mounted in said tank, a head carried by said shaft, expansible brushes carried by said head, means for expanding said brushes, a pair of brushes mounted within said tank, means for moving said brushes toward each other, and a top brush carried by a frame having a connection with said pair of brushes for operating said brushes.

[Claims 6 to 25 not printed in the Gazette.]

1,137,346. AUTOMATIC HOPPER AND FEEDING DEVICE. JOHN S. MARDON and LOUIS D. FAY, Loyalton, Cal. Filed Aug. 31, 1914. Serial No. 859,340. (Cl. 144—245.)



1. In combination with a feed hopper, a turning device including a vertical straight wall and a curved wall which latter starting from a position at an angle to said vertical wall terminates in a vertical portion arranged parallel to the vertical wall so as to form a vertically disposed discharge in conjunction with the vertical wall.

2. In a feeding device, a hopper having an inclined side and a conveyer coöperating with said side to form a second side for the hopper, and a turning device located at the inner end of the conveyer and consisting of a vertical wall and a curved wall which walls conjointly form a vertically disposed discharge for the material.

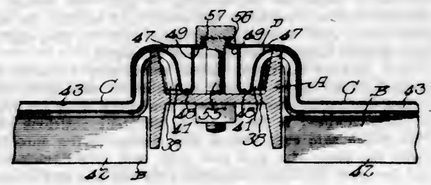
3. The combination with a feed hopper, of a turning device consisting of a trough having one vertical side wall, the other wall of the trough being gradually curved from an inclined to a vertical position with a suitable space intervening between the two walls whereby the material is turned by moving same lengthwise to cause its front end to engage the curved trough wall.

4. The combination of a hopper having a bottom portion which is inclined transversely, a side portion at the lower edge of the inclined bottom and at right angles thereto, an adjustable gate, a pair of traveling chains with a connecting push bar traveling over the bottom, a trough beyond the gate having a vertical wall, and a bottom portion which is in substantially the same plane with and in continuation of the bottom of said hopper, said trough having a curved wall continuation beyond its inclined bottom, said curved wall gradually approaching a perpendicular and coöperating with the opposite vertical wall of the trough to form a guide slot, substantially as described.

5. A machine for turning lumber from a horizontal to a vertical edge position comprising in combination a hopper having a transversely inclined bottom, a headgate adjustable at right angles to the bottom to form a feed slot through which the lumber to be treated is allowed to pass, a pair of chains at each side of said bottom with a connecting push bar adapted to travel over the bottom in the direction of said feed slot, means for varying the speed of travel of the push bars, and a turning device beyond the slot and terminating in a transversely adjustable vertical slot.

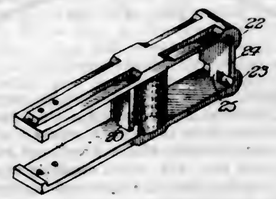
[Claims 6 to 8 not printed in the Gazette.]

1,137,347. CAR-ROOF CONSTRUCTION. FRED MATHEWS, Chicago, Ill., assignor to Clinton C. Murphy, Chicago, Ill. Filed July 15, 1912. Serial No. 709,494. (Cl. 108—5.)



In a roof construction for railway cars, the combination of carlines formed to provide channels opening upwardly and roof sheets between said carlines, the margins of which are formed with substantially U-shaped bends terminating in horizontal flanges, the bends lying in the channels of the carlines, caps extending over said carlines and the edges of adjacent roof sheets which bear upon said horizontal flanges, and means for binding the caps against said flanges.

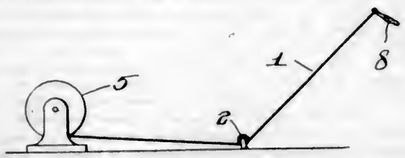
1,137,348. YOKE FOR DRAFT-GEAR. CHARLES J. NASH, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., a Corporation of Illinois. Original application filed Oct. 9, 1911, Serial No. 653,676. Divided and this application filed Aug. 16, 1913. Serial No. 785,014. (Cl. 213—42.)



1. A yoke for draft gears comprising a pair of parallel arms having their inner ends curved inwardly and forwardly and united by web section, the distance spanned by the web being less than the distance between the parallel arms.

2. A yoke for draft gears comprising a pair of parallel arms having their inner ends curved inwardly and forwardly and united by a web section.

1,137,349. EXERCISING-MACHINE. FRANCIS E. PATTERSON, Wilmington, Del. Filed Jan. 27, 1914. Serial No. 814,609. (Cl. 46—69.)



1. A golfer's exercising device comprising a flexible member under tension and having a free end, and a golf grip having one end free and the other end connected with the free end of said flexible member.

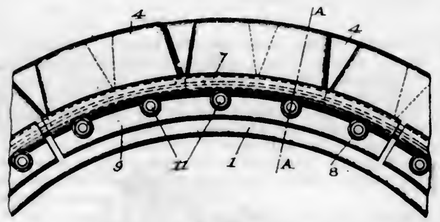
2. A golfer's exercising device comprising a flexible member under uniform tension and having a free end, and a golf club grip having one end free and the other end connected with the free end of said flexible member.

3. A golfer's exercising device comprising a tensional holding device, a flexible member connected therewith and having one end free, and a golf club grip connected with the free end of said flexible member in alinement therewith.

4. A golfer's exercising device comprising a tensional holding device adjustable into different positions for the successive segments representing a golf club swing, a flexible member connected therewith and having one end free, and a golf club grip connected with the free end of said flexible member in alinement therewith.

5. A golfer's exercising device comprising a spring retracted rotary spool, a cord windable on said spool and having one end connected therewith and the other end free, a pulley adapted to be placed in different positions and over which said cord passes, and a grip having substantially the form of a golf club grip, said grip having one end free and the other connected with the free end of said cord.

1,137,350. HOLDING DEVICE FOR VEHICLE-TIRES. FREDERICK F. PHILLIPS, Flushing, N. Y., assignor to The Hartford Rubber Works Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 4, 1912. Serial No. 729,307. (Cl. 152—7.)



1. A holding device for vehicle tires, comprising, a fixed wheel member, a tire having a rigid base and extending laterally from the tire, a separate ring at the side of the fixed member of the wheel and adjacent the edge of the said base, and means engaging opposite sides thereof for drawing said tire base and ring respectively toward each other radially.

2. A holding device for vehicle wheels, comprising, a fixed member, a tire having a rigid base, a laterally projecting margin, a separate ring at the side of the fixed member of the wheel, and means including opposed parts engaging said tire base and ring on opposite sides to draw the same respectively toward each other radially, and devices for securing said holding means in position on said fixed member.

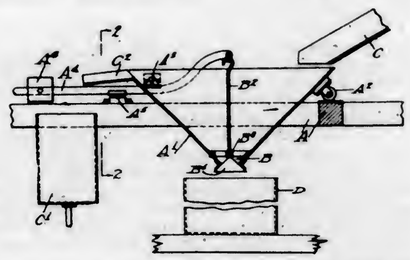
3. A holding device for vehicle tires, comprising a fixed wheel member, a tire base carried thereby, a separate ring extending laterally at the side of said fixed member, clamping means having a wedge-shaped groove for wedging said tire base and ring radially toward each other, and devices for securing said clamping means in position.

4. A holding device for vehicle tires, comprising a fixed wheel member, tire plates having beveled edges carried thereby, a ring extending laterally at the side of said fixed member, clamping means having a wedge-shaped groove for wedging said tire base and extending ring toward each other, and devices for securing said clamping means in position.

5. A holding device for vehicle tires, comprising a fixed wheel member, a tire having a rigid base carried thereby and extending laterally beyond said fixed member, a separate ring within the edge of said base and of less diameter than said fixed member, and means for clamping said tire base and ring toward each other radially.

[Claims 6 and 7 not printed in the Gazette.]

1,137,351. SETTLING-TANK. AXEL G. J. RAPP, Chicago, Ill., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 26, 1914. Serial No. 868,563. (Cl. 83—82.)



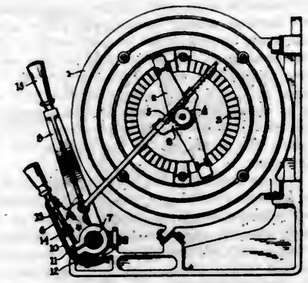
1. A settling tank pivoted at one side, a scale beam supporting the opposed side, an extension on the scale beam projecting over the tank the bottom of the tank being apertured for discharge, a valve controlling said aperture and a connection from the scale beam extension to said valve said connection passing up through the tank, the tank and valve rod being each connected to the beam on the same side of its fulcrum, the latter being farther from the fulcrum than the tank connection.

2. A settling tank pivoted at one side supported at the other side by a weighing mechanism, having a discharge port at the bottom thereof and a valve mounted for vertical movement to and from said port to control it, a valve stem projecting upward from said port through the said tank and an extension from the weighing means overhanging the tank and supporting said valve stem, the tank and valve rod being each connected to the beam on the same side of its fulcrum, the latter being farther from the fulcrum than the tank connection.

3. A settling tank pivotally mounted on one side a scale beam, a connection between the scale beam and the tank and an extension projecting from said scale beam on the side removed from the fulcrum of the beam and overhanging the tank and a valve stem passing up through the tank and suspended on said extension, the tank and valve rod being each connected to the beam on the same side of its fulcrum, the latter being farther from the fulcrum than the tank connection.

4. A settling tank pivoted to one side, a scale beam supporting the opposed side, a discharge valve on the bottom of the tank and means for moving the valve and the tank in the same direction at different velocities, said means comprising an extension projecting from the scale beam beyond its point of connection with the tank and overhanging the tank and a connection from it to the valve.

1,137,352. RHEOSTAT. GUSTAV B. REISBACH, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 6, 1914. Serial No. 836,744. (Cl. 219—48.)



1. The combination with a plurality of rheostats, of an operating member for each, a common supporting shaft for said members, means associated with each of said members to fix the same to said shaft in any angular position relative thereto, and a master lever for turning said shaft to operate all of said levers simultaneously.

2. The combination with a plurality of rheostats having movable contact arms, of a shaft, an independently operable lever for each of said arms loosely fulcrumed on said shaft, an operative connection between each of said levers and its respective arm, means associated with each of said levers to clamp the same to said shaft in the position thereof corresponding to any adjustment of its respective arm, and a master lever for turning said shaft.

3. The combination with a plurality of rheostats, of a pivoted operating lever for each, a common supporting shaft on which all of said levers are loosely fulcrumed, a master lever for turning said shaft, and operative connecting means between said shaft and each of said pivoted levers for fixing the latter to the former in any angular position relative thereto, said means comprising a compressible collar loosely encircling said shaft and a threaded spindle carried by said lever and rotatable for tightening said collar to said shaft.

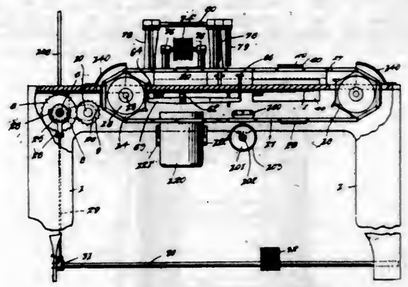
4. The combination with a plurality of rheostats having movable contact arms, of a pivoted operating lever for each of said arms, a common supporting shaft on which all of said levers are loosely fulcrumed, a member having a fixed relation with each of said levers and relatively movable with respect to said shaft, means carried by each of said levers for rendering its respective member fixed to said shaft in any angular position of the lever, said levers being independently operable and said means being independently operable, and a master lever for rotating said shaft.

1,137,353. LOGOTYPE-MACHINE. JUSTUS RIEHL, Baltimore, Md., assignor, by mesne assignments, to John Norris McFarland. Filed May 15, 1914. Serial No. 838,770. (Cl. 199—5.)

1. In a logotype machine, the combination with a plurality of slidable matrices, of a finger keyboard, a plurality of pins operable by said keyboard for limiting the movement of said matrices, means for automatically repositioning said pins after the forming of a type bar, and a plurality of flat springs bent sinuously about said pins for holding them against accidental sliding movement.

2. In a logotype machine, the combination with a plurality of slidable matrices, of a finger keyboard, a plurality of pins operable by said keyboard for limiting the movement of said matrices, and a plurality of flat springs bent sinuously about said pins for holding them against accidental sliding movement.

3. In a logotype machine, a plurality of slidable matrix bars, a frame provided with a casting slot, a finger keyboard, means operable by said keyboard for automatically stopping said matrix bars when the proper matrix formed therein is positioned over said casting slot, and a wedge locking means for securely holding said matrices in position over said casting slot.

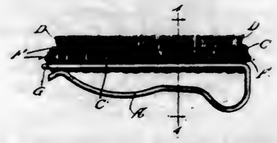


4. In a logotype machine, a plurality of slidable matrix bars, a frame provided with a casting slot, a finger keyboard, means operable by said keyboard for automatically stopping said matrix bars when the proper matrix formed therein is positioned over said casting slot, said matrix bars normally lying in a movement arresting position, and a lever actuated cam for tilting said matrix bars to permit of their free sliding movement.

5. In a logotype machine, a plurality of slidable matrix bars, a frame provided with a casting slot, a finger keyboard, means operable by said keyboard for automatically stopping said matrix bars when the proper matrix formed therein is positioned over said casting slot, said matrix bars normally lying in a movement arresting position, a lever actuated cam for tilting said matrix bars to permit of their free sliding movement, a wedge locking means for securely holding said matrix bars positioned over said casting slot.

[Claims 6 to 26 not printed in the Gazette.]

1,137,354. RUNNING-BOARD MAT. FRANK G. RUDDIMAN, Muskegon, Mich. Filed May 27, 1914. Serial No. 841,187. (Cl. 15—62.)



1. A running-board mat comprising, in combination, interwoven strands, fillers and plugs, and a substantially U-shaped spring having one arm thereof interwoven with said strands, fillers and plugs, and the other arm extending transversely of the mat on the under side thereof, said strands, fillers, plugs and spring being thus carried together and constituting a unitary mat structure.

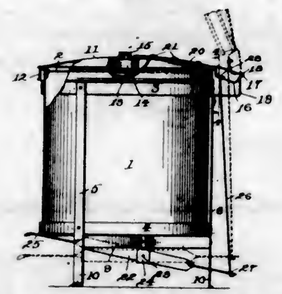
2. A running-board mat comprising, in combination, interwoven strands, fillers and plugs, and a running-board engaging spring having a portion thereof interwoven with said strands, fillers and plugs, said strands, fillers, plugs and spring being thus carried together and constituting a unitary mat structure.

3. A running-board mat comprising, in combination, woven yarn and a running-board engaging spring interwoven with the yarn and with the yarn constituting a unitary mat structure.

4. A running-board mat comprising, in combination, woven yarn and a substantially U-shaped running-board engaging spring having one arm thereof interwoven with

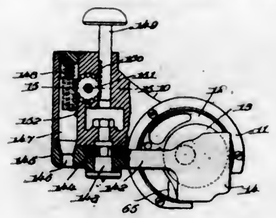
the yarn and the other arm extending under the woven yarn, said spring adapted to clamp the woven yarn to a running-board, said yarn and spring being thus carried together and constituting a unitary mat structure.

1,137,355. STAND FOR GARBAGE AND OTHER RECEPTACLES. CHARLES F. SCHELL, Buffalo, N. Y., assignor to Jay T. Badgley, Dunkirk, N. Y. Filed Mar. 28, 1914. Serial No. 827,835. (Cl. 220—115.)



A stand for garbage receptacles and the like, comprising a frame constructed to receive and support the receptacle, a lid for said receptacle having a projecting arm hinged to the top of said frame, a single foot-lever pivoted between its ends to the underside of said frame, and a thrust-bar pivotally connected at its lower end to the rear end of said lever and having its upper end pivoted to said lid-arm between the lid and the hinge-end of the arm.

1,137,356. SEWING-MACHINE. AUGUST R. SCHOENKY, Somerville, Mass., assignor to The Reece Shoe Machinery Company, Boston, Mass., a Corporation of Maine. Original application filed Sept. 25, 1912, Serial No. 722,300. Divided and this application filed Jan. 7, 1913. Serial No. 740,640½. (Cl. 112—22.)



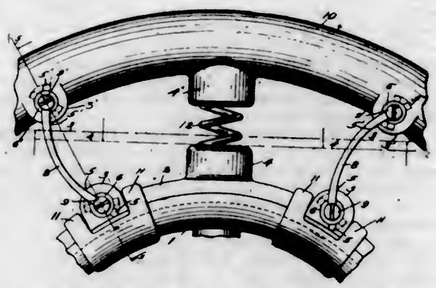
1. In a sewing machine the combination of a shuttle adapted to contain a bobbin, a movable bobbin retainer adapted when in closed position to retain a bobbin in said shuttle, an apertured plate movable with said retainer, a locking bolt adapted to engage the aperture in said plate to positively lock the retainer in closed position, and means, including a single controller or handle, operable at will for disengaging said bolt and plate and permitting the moving of the retainer into open position, and a means other than said controller for moving open the retainer; said bolt and aperture being so relatively formed as to readily engage upon closing the retainer and so constructed not only to lock the retainer against opening movement but to afford a stop to the closing movement.

2. In a sewing machine the combination of a shuttle adapted to contain a bobbin, a horizontally swinging bobbin retainer adapted when in closed position to retain a bobbin in said shuttle, an apertured plate horizontally movable with said retainer, a self-descending locking bolt above said plate adapted to engage from above the aperture in said plate to positively lock the retainer in closed position, a single controlling handle having connections for disengaging said bolt and plate such that the bolt is moved upward by a suitably convenient motion of the handle, and means acting automatically upon the operation of the handle for swinging the retainer open.

3. In a sewing machine the combination of a shuttle adapted to contain a bobbin, a horizontally swinging bobbin retainer adapted when in closed position to retain a bobbin in said shuttle, an apertured plate horizontally and rigidly movable with said retainer, a self-descending locking bolt located wholly above said plate adapted to engage from above the aperture in said plate to positively lock the retainer in closed position, a single controlling handle above said plate, and having connections for disengaging said bolt and plate such that the bolt is moved upward by a suitably convenient motion of the handle, and means also located above said plate, acting automatically upon the operation of the handle for swinging the retainer open.

4. In a sewing machine the combination of a shuttle adapted to contain a bobbin, a horizontally swinging bobbin retainer adapted when in closed position to retain a bobbin in said shuttle, an apertured plate horizontally and rigidly movable with said retainer, a self-descending locking bolt located wholly above said plate adapted to engage from above the aperture in said plate to positively lock the retainer in closed position, a single controlling handle above said plate, and having connections for disengaging said bolt and plate such that the bolt is moved upward by a suitably convenient motion of the handle, a flat bottomed fixed frame part directly above said plate, and against which the plate swings in direct face contact, and in which the pivot of swinging is located, the plate and frame part constructed with a central recess, and a spiral spring within said recess adapted to swing the retainer open when unlocked.

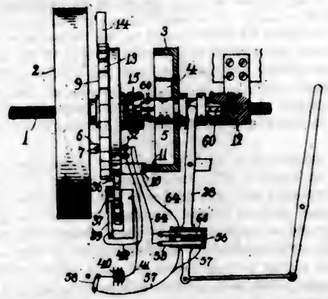
1,137,357. VEHICLE-TIRE. MORECZ SIMON, East Chicago, Ind. Filed Feb. 11, 1913, Serial No. 747,722. Renewed Mar. 26, 1915. Serial No. 17,278. (Cl. 152—8.)



1. The combination with a vehicle wheel rim of a flexible tire formed with a plurality of integral hollow protuberances and sockets alternately arranged upon its periphery, an auxiliary flexible rim formed with similar and oppositely disposed integral hollow protuberances and sockets alternately arranged upon its periphery, a metal bushing disposed within each of said hollow protuberances, spring stays terminally disposed within said metal bushings and hollow protuberances of said tire and rim and springs connecting the oppositely disposed sockets of said tire and rim.

2. The combination with a vehicle wheel rim of a flexible tire formed with a plurality of integral hollow protuberances and sockets alternately arranged upon its periphery, metal castings encompassing said hollow protuberances, an auxiliary flexible rim formed with similar and oppositely disposed integral hollow protuberances and sockets alternately arranged upon its periphery, a metal bushing disposed within each of said hollow protuberances, spring stays terminally disposed within said metal bushings and hollow protuberances of said tire and rim and springs connecting the oppositely disposed sockets of said tire and rim.

1,137,358. STARTER FOR ENGINES. GEORGE B. SINCLAIR, Georgetown, Me. Filed July 1, 1912. Serial No. 706,911. (Cl. 185—41.)



1. A starting device for engines comprising a shaft rotatably connected with an engine, a drum loosely mounted on said shaft, means for communicating rotary motion from said shaft to said drum, means for disconnecting the same, a clutch sleeve loosely mounted on said shaft, means for longitudinally moving said sleeve on said shaft, a spring terminally attached to said sleeve and drum, clutch members at the ends of said sleeve, a stationary clutch member adapted to be engaged by one of the clutch members of said sleeve, and a clutch member fixed on said shaft and adapted to be engaged by a clutch member of said sleeve, said clutch members being adapted to permit the clutch sleeve to engage with the clutch member fixed to the shaft while still in engagement with the stationary clutch member.

2. The combination with an engine, of a shaft connected therewith, a clutch sleeve loosely mounted on said shaft, means for longitudinally shifting said sleeve, a drum rotatably mounted on said sleeve, a coiled spring terminally attached to said sleeve and drum, a stationary clutch member adapted to be engaged by said clutch sleeve, a clutch member fixed on said shaft and adapted to be engaged by said sleeve, a wheel loosely mounted on said shaft, movable means for communicating the rotation of said shaft to said wheel, means for preventing said wheel from turning backward, and means for communicating motion from said wheel to said drum.

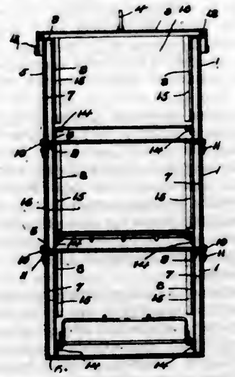
3. An engine starter comprising a shaft, a clutch sleeve losely mounted thereon, a stationary clutch member adapted to be engaged by one end of said sleeve, a spring terminally attached to said sleeve, means for winding said spring and holding it in a wound condition, a clutch member fixed on said shaft, and means for slidably shifting said sleeve, one end of said sleeve being provided with pivoted resiliently supported ribs, and the clutch member coöperating therewith being formed with ratchet ribs, whereby said clutch sleeve can be made to engage one clutch member before being entirely disconnected from the other.

4. A starter for engines comprising a shaft, a fly-wheel fixed thereon, a wheel loose on said shaft and having a movable spur, a finger rigid with said fly-wheel and adapted to engage said spur, a spring adapted to be wound by said wheel's rotation, means for retaining said spring in a wound condition, means for transmitting motion from said wheel to said shaft, and means for releasing said spur after a predetermined number of turns of said wheel.

5. A starter for engines comprising a shaft, a wheel loose on said shaft and having a movable spur, means for transmitting motion from said wheel to said shaft, means rigid with said shaft for engaging said spur and turning said wheel, a spring wound by said wheel, means for holding said spring in its wound condition, a latch normally locking said spur in its engaging position, an electromagnet, means actuated by the energizing of said electromagnet to release said latch, and means for delivering energizing current to said electromagnet after a predetermined number of turns of said wheel.

[Claims 6 to 11 not printed in the Gazette.]

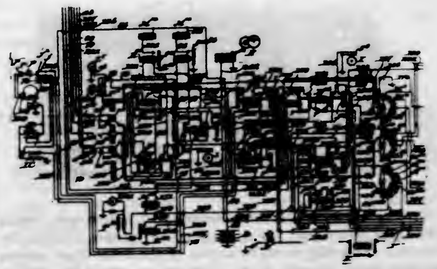
1,137,359. COOKER. JOSEPH J. SLEEPER, Moores, Pa. Filed June 10, 1913. Serial No. 772,754. (Cl. 53—6.)



1. A cooker consisting of two separable members, one member comprising an outer shell, and the other member an inner removable casing appreciably smaller than the shell, said shell having at its lower end an inwardly projecting flange supporting the casing, and said casing at its upper end having an outwardly projecting flange frictionally engaging the inner surface of the shell, said shell and casing when together forming a dead air chamber all around the casing, the air within said last-mentioned chamber adapted to be released when the casing is moved relative to the shell, substantially as described.

2. A cooker section consisting of an outer shell having an inwardly projecting flange at its lower edge, and a removable inner casing having an outwardly projecting flange at its upper edge frictionally engaging the inner face of the walls of the shell, said shell and casing when together forming a dead air chamber all around the casing, the air within said last-mentioned chamber adapted to be released when the casing is moved relative to the shell, said outer shell having on its inner surface a covering of non-conducting material, substantially as described.

1,137,360. TELEPHONE SYSTEM. CLYDE SMITH, Cleveland, Ohio, assignor, by mesne assignments, to Frederick C. Stevens, Attica, N. Y. Filed Apr. 4, 1911. Serial No. 618,926. (Cl. 179—27.)



1. In a telephone exchange system, a plurality of line circuits, switching apparatus for effecting interconnection

thereof, an operator's circuit, means for effecting an initial connection of a line when calling to said operator's circuit, an operator's telephone, means to connect the same with the operator's circuit after said initial connection, and a signal device actuated only when the operator's telephone is so connected.

2. In a telephone exchange system, a plurality of line circuits, switching apparatus for interconnecting the same, an operator's circuit, means for effecting the initial connection of a line when calling to said operator's circuit, a called signal associated with the operator's circuit and adapted to be displayed to indicate the call, an operator's telephone, means to connect said telephone to the operator's circuit in response to the call, and a supplemental signal associated with said connecting means and adapted to be displayed only when the telephone is so connected.

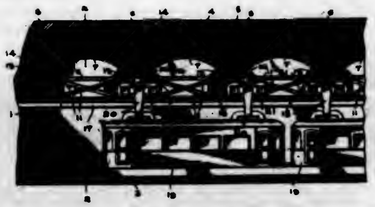
3. In a telephone exchange system, a plurality of line circuits, switching apparatus for interconnecting them, an operator's equipment circuit, automatic means for effecting the initial connection of said circuit with a line when calling, a signal associated with said circuit and adapted to be automatically displayed when it is so connected, an operator's telephone, means for connecting the same to the operator's circuit, and a supplemental signal device adapted to be automatically displayed when the telephone becomes so connected.

4. In a telephone exchange system, a plurality of line circuits, switching apparatus for interconnecting the same, and operator's equipment circuit, automatic means for effecting an initial connection of said circuit with a line when calling, a relay adapted to become energized upon the completion of said connection, a called signal device controlled by said relay, an operator's telephone normally disconnected from said circuit, means for connecting the telephone in response to the indication of the signaling device, and a supplemental signal device controlled in the actuation of said connecting means.

5. In a telephone exchange system, a plurality of line circuits, automatic switching apparatus for interconnecting the same, an operator's circuit, means for effecting the initial connection of said operator's circuit with a line when calling, an operator's telephone, means for connecting the same to the operator's circuit in response to a call, connection from said operator's circuit to the automatic switching apparatus, actuating means for said switching apparatus adapted to be controlled through the operator's circuit, a signal device adapted to be automatically displayed when the said telephone becomes connected with the operator's circuit, and a second signal device becoming displayed upon the initial operation of said switch actuating means.

[Claims 6 to 22 not printed in the Gazette.]

1,137,361. SUSPENSION-RAILWAY. JOSIAH H. SMITH, Philadelphia, Pa., assignor to William H. Tigerman, Philadelphia, Pa. Filed Aug. 19, 1914. Serial No. 857,477. (Cl. 104—181.)



1. The combination with a series of transverse beams embedded in cement, of a longitudinal girder located below and extending at right angles to the transverse beams, anchor plates secured to and forming parts of the girder, said anchor plates projecting above the girder embedded in the cement, and secured to opposite sides of the beams, substantially as described.

2. The combination with a series of transverse beams embedded in cement, of a longitudinal girder located below and extending at right angles to the transverse beams, anchor plates secured to and forming parts of the girder, said anchor plates projecting above the girder embedded in the cement, and secured to opposite sides of the beams, said anchor plates having angles at their edges embedded in the cement, substantially as described.

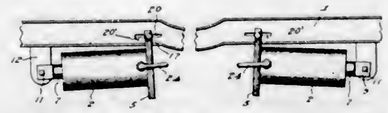
3. The combination with a series of transverse beams embedded in cement, of a longitudinal girder located below and extending at right angles to the transverse beams, anchor plates secured to and forming parts of the girder, said anchor plates projecting above the girder embedded in the cement, and secured to opposite sides of the beams, and said anchor plates recessed at their edges conforming in shape to the shape of the beams, substantially as described.

4. The combination with a series of transverse beams embedded in cement, of a longitudinal girder located below and extending at right angles to the transverse beams, anchor plates secured to and forming parts of the girder, said anchor plates projecting above the girder embedded in the cement, and secured to opposite sides of the beams, said anchor plates having angles at their edges embedded in the cement, and said anchor plates recessed at their edges conforming in shape to the shape of the beams, substantially as described.

5. In a subway, the combination with a roof construction consisting of transverse I-beams embedded in cement, of a longitudinal girder consisting of upper and lower parallel angle bars, anchor plates secured between both pairs of angle bars and projecting above the girder, said plates having recesses in their edges receiving the base flange of the I-beams, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,137,362. AUTOMOBILE-JACK. CHARLES R. SPALDING, Safford, Ariz. Filed Aug. 7, 1914. Serial No. 855,668. (Cl. 254—86.)



1. The combination with an automobile axle of jacks pivotally secured at their upper ends to said axle adjacent to the end thereof, base plates on said jacks, said axle having longitudinal slots therein on either side of the center thereof, said base plates being cut away adjacent certain edges to receive a portion of the axle, and spring pressed latch bolts mounted in opposite sides of the axle and arranged to extend into the slots to hold the jacks in out of the way position.

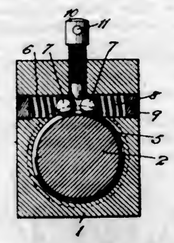
2. An automobile jack consisting of a base plate, lifting means mounted on the base plate, latch bolts mounted in one side of the base, and springs normally holding said latch bolts in extended position.

3. An automobile jack consisting of a base plate having a recess cut in one face thereof, lifting means carried by the base plate to be pivotally connected with the axle of an automobile and means carried on opposite sides of the recess in said base plate to automatically lock the base to the axle upon movement of the base into engagement therewith.

1,137,363. LOCK. CHARLES H. STAHL, New Haven, Conn., assignor to The Pfleghar Hardware Specialty Co., New Haven, Conn., a Corporation of Connecticut. Filed June 2, 1914. Serial No. 842,391. (Cl. 21—148.)

1. A locking device of the class described comprising inner and outer members fitted to oscillate relatively to each other, a pair of balls arranged to rest on the periphery of the inner member, automatic means to force the balls toward each other and into engagement with both members, and means for forcing said balls away from each other and out of engagement with both members.

2. A locking device of the class described, comprising a circular inner member, an outer member in which the inner member is fitted to oscillate, a pair of balls adapted to rest on the periphery of the inner member, a transverse passage in the outer member substantially tangential to the inner member, means located in said passage to force the balls into engagement with the two members, and means disposed at an angle to said passage for forcing the balls out of said engagement.



3. A locking device of the class described comprising a circular inner member, an outer member in which the inner member is fitted to oscillate, a peripheral groove on the inner member, a pair of balls adapted to rest in said groove, a transverse passage in the outer member substantially tangential to the inner member, means to force the balls toward each other and into engagement with the bottom of the groove and the top of the passage, and means to force the balls away from each other and out of engagement with the bottom of the groove and top of the passage.

4. A locking device of the class described comprising a circular inner member, an outer member in which the inner member is fitted to oscillate, a peripheral groove on the inner member, a pair of balls adapted to rest in said groove, a transverse passage in the outer member substantially tangential to the inner member, automatic means to force the balls toward each other and into engagement with the bottom of the groove and the top of the passage, and means to force the balls away from each other and out of engagement with the bottom of the groove and top of the passage.

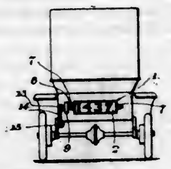
5. A locking device of the class described comprising a circular inner member, an outer member in which the inner member is fitted to oscillate, a peripheral groove on the inner member, a transverse passage in the outer member substantially tangential to the inner member, but with its bottom wall lying closer to the center of the inner member than does the bottom of the groove, a pair of balls fitted to rest in the groove, said balls being greater in diameter than the shortest distance between the bottom of the groove and the top of the passage, means to force the balls into engagement with the bottom of the groove and the top of the passage, and means to force the balls out of engagement with the bottom of the groove and the top of the passage.

[Claims 6 to 9 not printed in the Gazette.]

1,137,364. VEHICLE-SIGNAL. CHARLES A. SWITZER, Pasadena, Cal., assignor, by direct and mesne assignments, to Safety Auto Signal Company, Los Angeles, Cal. Filed Apr. 7, 1913. Serial No. 759,534. (Cl. 40—77.)

1. A vehicle signal comprising a signal displaying element, means for moving said displaying element to display a signal, means for automatically maintaining said signal stationary in displaying position for a definite period of time, a spring for restoring said signal displaying element to normal position after it has been so displayed, and means for arresting the restoring action of said spring when said element reaches its normal position.

2. A revolving signal displaying element provided with a plurality of signals, means for revolving said element to display any of said signals, means for automatically maintaining said signal stationary in any displaying position for a definite period of time, a spring for restoring said signal displaying element to normal position after it has been so displayed, and means for arresting the restoring action of said spring when said element reaches its normal position.



3. A rotatable signal displaying element having a plurality of signal displaying surfaces, means for rotating said element to display any of said surfaces, a drum, a follower in said drum, said follower being actuated in one direction by said rotating means, means for locking the signal element against rotation when the follower is so actuated, means for automatically moving the follower in the other direction back to its initial position to release said signal element, said drum provided with an air inlet for admitting air into the interior of said drum, and an air outlet of less area than the inlet to restrict the escape of air from the drum and to retard the return movement of the follower to its initial position to maintain the displaying element in displaying position for a definite period of time, and means for returning said signal element to its normal non-displaying position when released from said locking means by said follower in its initial position.

4. A rotatable signal, a displaying element having a plurality of signal displaying surfaces, spring means for holding said element in a definite normal position, a shaft on said element, a reel on said shaft, a connection wound on said reel, a drum, a follower in said drum, a spring below the follower, air inlet means in said drum, said drum having an exhaust port of less capacity than the inlet means, an operating shaft slidable and rotatable in said drum carrying said follower, a pulley carried by said operating shaft, said connection being wound on said latter pulley, an arm for operating said operating shaft, and a sector with notches adapted to receive the operating arm and allow the same to slide the operating shaft longitudinally to operate the follower.

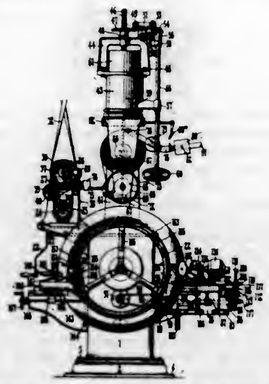
5. A rotatable signal, a displaying element having a plurality of signal displaying surfaces, spring means for holding said element in a definite normal position, a shaft on said element, a reel on said shaft, a connection wound on said reel, a drum, a follower in said drum, a spring below the follower, air inlet means in said drum, said drum having an exhaust port of less capacity than the inlet means, an operating shaft slidable and rotatable in said drum carrying said follower, a pulley carried by said operating shaft, said connection being wound on said latter pulley, an arm for operating said operating shaft, a sector with notches adapted to receive the operating arm and allow the same to slide the operating shaft longitudinally to operate the follower, a sleeve supporting said latter pulley, means revolubly supporting said sleeve, said sleeve being longitudinally slotted, and a pin in said operating shaft engaging the slotted sleeve.

[Claims 6 to 8 not printed in the Gazette.]

1,137,365. MACHINE FOR MAKING OR BUILDING UP PNEUMATIC TIRES. JOHN E. THROPP and PETER D. THROPP, Trenton, and ALBERT DE LASKI, Weehawken, N. J., assignors to The de Laski and Thropp Circular Woven Tire Company, Trenton, N. J., a Corporation of New Jersey. Original application filed Jan. 24, 1912, Serial No. 673,069. Divided and this application filed Sept. 19, 1913. Serial No. 790,691. (Cl. 154—10.)

1. A machine of the character described, comprising a source of tire fabric supply, a core upon which the tire may be built, a pair of guide rolls mounted intermediate the source of fabric supply and the core, said guide rolls

being substantially equidistant from the core and lying in substantially the same plane as the core, and means for rotating the core in either direction, whereby the fabric may be drawn over one of the said guide rolls and onto the core when the latter is rotating in one direction and over the other of the said guide rolls and onto the core when the latter is rotating in the other direction and the fabric be thereby drawn onto the core in the desired arrangement.



2. A machine of the character described comprising a casing, an overhanging stanchion mounted thereon, a source of tire material supply carried by said stanchion, a rotatable core upon which a tire may be built mounted below said source of supply, and means for adjusting the source of supply in the stanchion toward and away from the core.

3. A machine of the character described comprising a casing, an overhanging stanchion mounted thereon, a source of tire material supply carried by the stanchion, a rotatable core upon which a tire may be built journaled in the casing below the source of supply, and means for reciprocating the source of supply in the stanchion toward and away from the core.

4. A machine of the character described comprising a casing, an overhanging stanchion mounted thereon and provided with a hollow head, a rotatable core upon which a tire may be built journaled in the casing below the said head, and a source of tire material supply fitted to reciprocate in said head to move it toward and away from the core.

5. A machine of the character described comprising a casing, an overhanging stanchion mounted thereon and provided with a hollow head, a rotatable core upon which a tire may be built journaled in the casing below the said head, a frame fitted to reciprocate in said head, a roll for carrying tire material mounted in the frame, and means for reciprocating the frame toward and away from the core.

[Claims 6 to 16 not printed in the Gazette.]

1,137,366. CEMENT FOR EYEGLASS-MOUNTINGS. WILLIAM R. UHLEMANN, Chicago, Ill. Filed May 1, 1914. Serial No. 835,731. (Cl. 87—17.)

1. The herein described composition for cementing box-clips to eyeglass lenses, consisting of approximately fifteen parts fusible gum, eight parts finely powdered metal, and ten parts finely divided earthy matter.

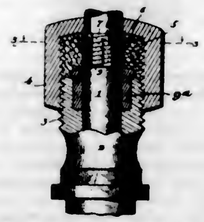
2. The herein described composition for cementing box-clips to eyeglass lenses, consisting of approximately fifteen parts gum shellac, eight parts leaf bronze powder, and ten parts finely divided earthy matter.

3. The herein described composition for cementing box-clips to eyeglass lenses, consisting of approximately fifteen parts fusible gum, eight parts finely powdered metal, and ten parts finely divided talc.

4. The herein described composition for cementing box-clips to eyeglass lenses, consisting of approximately fifteen parts gum shellac, eight parts leaf bronze powder, and ten parts finely divided talc.

5. The method of cementing box-clips to eyeglass lenses which consists in taking a composition consisting of approximately fifteen parts fusible gum, eight parts finely powdered metal and ten parts finely divided earthy matter, thoroughly mixing the ingredients of the composition together, placing the desired amount of the composition between the inner surface of the box-clip and the edge of the eyeglass and finally applying heat to effect a fusion of the composition and attain an adhesion of the same to the immediately adjoining surfaces of the clip and the lens.

1,137,367. PACKING. GEORGE FRANKLIN VAN BRUNT, Kewanee, Ill. Filed May 22, 1913. Serial No. 769,258. (Cl. 137—116.)



1. The combination with a rod, of packing means therefor comprising a packing chamber surrounding the rod and provided with an entering packing gland, a metallic member in the form of an elongated strip of sheet metal of even width throughout the greater portion of its length with the extremities beveled in opposite directions one to the other, said strip surrounding the rod within the packing chamber, and packing material within the chamber exterior to the strip and compressible by the gland into fluid tight relation to the metal strip and compressing the latter tightly against the rod within the gland, the strip being impervious to the packing material.

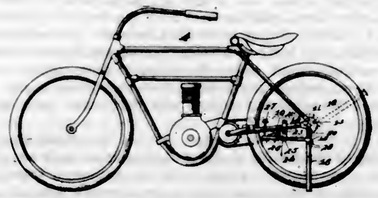
2. The combination with a rod, of a packing means therefor comprising a packing chamber surrounding the rod, a continuous elongated and relatively narrow strip of sheet metal of even width throughout the greater portion of its length and wound helically into a plurality of turns about the rod within the packing chamber, and packing material also within the chamber exterior to the strip of sheet metal and compressed within the chamber against the outer surface of the sheet metal to force the latter into packing relation with the rod, the packing being compressed into fluid tight relation to the sheet metal, and said sheet metal strip being impervious to the compressed packing material in the chamber.

3. The combination with a rod, of a packing therefor comprising an elongated narrow strip of sheet metal of equal width throughout the greater portion of its length and with the extremities oppositely beveled one with relation to the other, said strip being wound about the rod a plurality of times in the form of a close helix snugly fitting the rod, and said strip being provided with minute perforations, and a surrounding mass of packing material compressed into fluid tight relation to the strip and rod and holding the strip in the wound condition in contact with the rod, the minute perforations being permeable to lubricating material and impermeable to the compressed packing material.

4. The combination with a rod, of a packing therefor comprising a packing chamber and packing gland entering the chamber, a mass of packing material within the chamber, a metallic lining for the packing material interposed between the rod and said material and comprising an elongated narrow strip of substantially even width throughout the greater portion of its length and wound about the rod a plurality of times into the form of a close helix, said strip being provided with an elongated series of minute perforations pervious to lubricating material and impervious to the surrounding packing material.

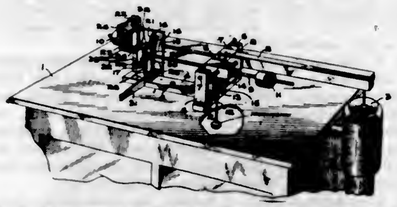
5. A packing for rods comprising an elongated narrow flat metallic strip of a length to encircle the rod a plurality of times in the form of a close helix, packing material exterior to the metallic strip and wholly separated by the latter from the rod, and means for compressing the packing material into fluid tight condition and forcing the metal strip against the rod.

1,137,368. MOTOR-CYCLE PROP. MAX VESICH, Chicago, Ill. Filed Jan. 5, 1914. Serial No. 810,480. (Cl. 208—78.)



The combination with the base bar of a motor cycle frame having an enlarged integral radial extension formed with a central bearing for the rear axle of the cycle, a laterally projecting stop-pin, and a prop-pivot, of a prop mounted on said pivot, a spring coiled centrally around said pivot to provide divergent ends one of which is secured to the base bar and the other to the prop, a clamp on said base bar in front of its enlarged rear extension, an arm depending from said clamp, a lever fulcrumed on said arm forked at its rear end, a pin on said prop to be engaged by the fork of the lever, a spring secured at one end to the base bar and at its opposite end to the lever in front of its fulcrum point, and a push-rod at the front end of the lever.

1,137,369. DAMPER-CONTROLLING MECHANISM. HARRY WILGUS, Philadelphia, Pa. Filed June 10, 1914. Serial No. 844,134. (Cl. 236—7.)



1. A damper controlling mechanism, comprising two movable members, one member adapted to be connected to a damper, and the other member to a thermostat, and means permitting the thermostat-controlled member on its initial movement in both directions to move independently of the damper-connected member and during the remainder of its movement in both directions to move the damper-connected member therewith, substantially as described.

2. A damper controlling mechanism, comprising a damper lever, a second lever adapted to be moved by a thermostat, and ratchet means connecting the levers, said ratchet means permitting the thermostat controlled lever on its initial movement in both directions to move independently of the damper lever, and during the remainder of its movement in both directions to move the damper lever therewith, substantially as described.

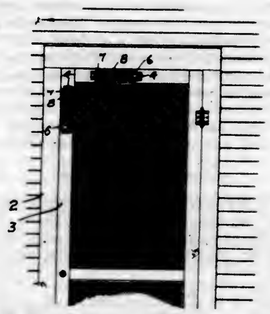
3. A damper controlling mechanism, comprising a damper supporting lever, a lever adapted to be moved by a thermostat, and ratchet mechanism connecting the levers whereby a portion of the movement of the last-mentioned lever is imparted to the first-mentioned lever, substantially as described.

4. A damper controlling mechanism, comprising a damper supporting lever, a second lever adapted to be moved by a thermostat, a pair of ratchet racks supported by the first-mentioned lever, ratchet dogs carried by the last-mentioned lever and engaging the racks, locking pawls engaging the racks, said lever adapted to move the locking pawls out of engagement with the racks, and said dogs adapted to cause the movement of the racks when the last-mentioned lever is moved by the thermostat, substantially as described.

5. A damper controlling mechanism, comprising a damper supporting lever, a second lever adapted to be moved by a thermostat, a pair of ratchet racks supported by the first-mentioned lever, ratchet dogs carried by the last-mentioned lever and engaging the racks, locking pawls engaging the racks, said lever adapted to move the locking pawls out of engagement with the racks, and said dogs adapted to cause the movement of the racks when the last-mentioned lever is moved by the thermostat, and a plate adapted to hold one of the locking dogs out of engagement with its rack when the lever is moved in one direction and to hold the other dog out of engagement with its rack when the lever is moved in the opposite direction, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,137,370. FLY-CATCHER. OTTO J. WILKENS, Minneapolis, Minn. Filed Mar. 12, 1914. Serial No. 824,228. (Cl. 43—22.)



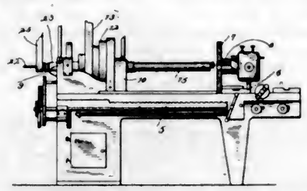
1. A fly trap comprising a base plate adapted to be mounted on a screen, a perforated cylindrical member mounted on said base plate and having a longitudinal opening leading therein adjacent to said base plate, a tube arranged within said screen and having supporting spindles therein, and a poison fly paper coiled on said tube.

2. The combination, with a screen door stile, of a plate mounted thereon and having a guide wing, a perforated cylinder having its longitudinal edges spaced to form a gap between them provided with closed ends, clips mounted on said edges and having loops formed therein to receive said wing, a space being provided between one of the longitudinal edges of said screen and said plate to allow the entrance of insects therein, and a poison support mounted within said cylinder.

1,137,371. LATHE GRINDER ATTACHMENT. THOMAS E. WOOD and WILLIAM H. SAFFORD, Jr., Great Falls, Mont. Filed July 27, 1914. Serial No. 853,459. (Cl. 51—4.)

1. The combination with the tubular spindle of a lathe or like machine, of a substantially straight tubular grinder

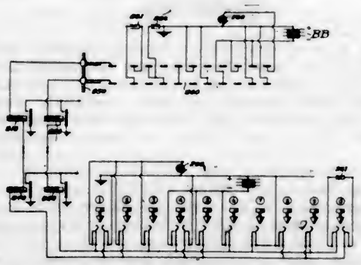
carrier concentrically connected with one end of the tubular spindle in end to end relation thereto, a rotatable feed bearing arranged within the tubular grinder carrier and being eccentric with relation thereto, a grinder shaft extending longitudinally within the tubular grinder carrier and journaled through the feed bearing, a grinder carried by the outer end of the grinder shaft, a driving shaft extending through the tubular spindle and having connection with the grinder shaft, and means to turn the feed bearing.



2. An attachment to be connected with the rotatable tubular spindle of a lathe, comprising a tubular body portion to be concentrically connected with the tubular spindle, a rotatable feed bearing eccentrically mounted within the tubular body portion, means to turn the feed bearing with relation to the body portion, a grinder carrying shaft extending within the tubular body portion and through the feed bearing, and a driving shaft extending through the tubular body portion and having operative connection with the grinder carrying shaft.

3. The combination with the tubular spindle of a lathe or like machine, of a tubular grinder carrier connected therewith to be rotated thereby, an eccentric feed bearing extending longitudinally within the tubular grinder carrier and having an eccentric opening, a grinder shaft rotatable within the eccentric opening of the eccentric feed bearing, means to turn the eccentric feed bearing with relation to the grinder carrier, a grinder shaft rotatable within the opening of the eccentric feed bearing, a grinder secured to the outer portion of the grinder shaft, a driving shaft extending longitudinally within the tubular spindle, a coupling shaft having universal connections with the driving shaft and the grinder shaft, means to rotate the driving shaft, and means to rotate the tubular spindle.

1,137,372. TELEPHONE-EXCHANGE SYSTEM. JOSEPH L. WAIGHT, Washington, D. C., assignor, by mesne assignments, to Frederick C. Stevens, Attica, N. Y. Filed Mar. 23, 1912. Serial No. 685,896. (Cl. 179—27.)



1. In a telephone exchange system, a plurality of lines, automatic switches for interconnecting the same and a control device therefor comprising means to selectively associate with said switch, circuits of different electrical dimensions irrespective of the state of activity of the switch, and control magnets for each switch responsive to control from a circuit of an electrical dimension dependent upon the position of the switch.

2. In a telephone exchange system, a plurality of lines to be interconnected, automatic switches for interconnecting them, and control means for said switches comprising a digital set of control circuits at a control station having individually permanently established electrical dimensions, a coacting set of circuits associated with each switch, and switch control magnets arranged to be connected with said circuits for control thereby.

3. In a telephone exchange system, a plurality of lines to be interconnected, automatic switches for interconnecting them, and control means for said switches comprising a digital set of control circuits having different but immobile electrical characteristics, a switch control magnet for each switch responding to control over one or another of said control circuits depending upon the position of the switch, and means to associate any desired one of said control circuits with said switch control magnet.

4. In a telephone exchange system, in combination switching mechanism and contact arms therefor, contacts associated with said switching mechanism engageable by said contact arms; an operator's key-board, actuating means apart from said key-board for the switching mechanism, a control circuit extending between the switching mechanism and key-board; means rendered operable over said control circuit when the contact arms engage contacts corresponding to the indication on the key-board, to disable said actuating means and disconnect said key-board.

5. In a telephone exchange system, in combination a link circuit comprising a series of automatic switches and contact arms therefor, contacts for the automatic switches engageable by the contact arms, an operator's key-board consisting of a series of rows of keys apportioned to the automatic switches, actuating means apart from said key-board for said automatic switches, a control circuit extending between the automatic switches and key-board; means rendered operable over said control circuit to disable the actuating means of an automatic switch of the series when its contact arms engage contacts indicated by its apportioned row of keys, together with means in said control circuit for connecting the next row of keys in the series.

[Claims 6 to 16 not printed in the Gazette.]

1,137,373. EXPANDED GRAPHITE AND COMPOSITION THEREOF. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Condensite Company of America, Glen Ridge, N. J., a Corporation of New Jersey. Filed May 29, 1913. Serial No. 770,689. (Cl. 106—1.)

1. A new composition of matter, comprising flake graphite and a binding material, which material covers the surfaces of the superposed laminæ of which the graphite is composed, and binds together and surrounds the separate graphite flakes and the laminæ of which the flakes are composed, substantially as described.

2. A new composition of matter, comprising flake graphite which has been so treated as to be expanded into many times its original bulk, with the laminæ of which each flake is composed opened up like the leaves of a book, and a binding material surrounding and forming a surfacing layer upon the laminæ of the flakes and the exterior surfaces of the flakes, the graphite and binder being thoroughly intermixed, substantially as described.

3. A new composition of matter, comprising flake graphite which has been so treated as to be expanded into many times its original bulk, with the laminæ of which each flake is composed opened up like leaves of a book, a fibrous reinforcing material and a binder thoroughly intermixed, substantially as described.

4. A new composition of matter, comprising flake graphite which has been so treated as to be expanded into many times its original bulk, with the laminæ of which each flake is composed opened up like the leaves of a book, and a binding material comprising a phenol methylene condensation product surrounding and forming a surfacing layer upon the laminæ of the flakes and the exterior surfaces of the flakes, the graphite and binder being thoroughly intermixed, substantially as described.

5. A new composition of matter, comprising flake graphite which has been expanded into many times its original volume with the laminæ of which each flake is composed opened up but connected together at one or more points, and a binding material which after sufficient heating is chemically inert, and infusible, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,137,374. VARNISH, ENAMEL, OR LACQUER COMPOSITION. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Condensite Company of America, Glen Ridge, N. J., a Corporation of New Jersey. Original application filed Feb. 11, 1910, Serial No. 543,239. Divided and this application filed Dec. 2, 1913. Serial No. 804,220. (Cl. 134—26.)

1. As a new composition of matter, a varnish or enamel comprising a volatile solvent, and a fusible resin of phenolic origin and hexa-methylene-tetra-amin, both dissolved in said solvent, substantially as described.

2. As a new composition of matter, a varnish or enamel comprising a volatile solvent, and a fusible resin of phenolic origin and a substance which is capable of combining with the said resin on application of heat to harden the same to infusibility and insolubility, both dissolved in said solvent, the said resin being characterized by its incapability of transformation into an infusible and insoluble body, when not mixed with such a substance, substantially as described.

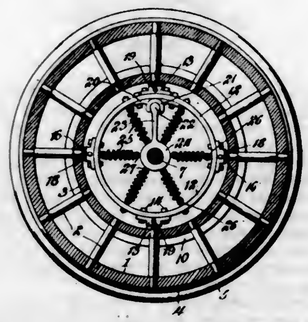
3. As a new composition of matter, a varnish or enamel comprising a volatile solvent, and an anhydrous phenol resin and an anhydrous methylene-containing hardening agent therefor, both dissolved in said solvent, substantially as described.

4. As a new composition of matter, a varnish or enamel comprising a volatile solvent, and an anhydrous phenol resin and an anhydrous methylene-containing hardening agent therefor, both dissolved in said solvent, the said resin being characterized by its incapability of transformation into an infusible and insoluble body, when not mixed with such an agent, substantially as described.

5. As a new composition of matter, a varnish or enamel comprising a volatile solvent, a phenol resin substantially free from uncombined formaldehyde or equivalent, and hexa-methylene-tetra-amin, in the proportion of from 4 to 10 per cent. of the weight of the resin, both said resin and hexa-methylene-tetra-amin being dissolved in said solvent, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,137,375. RESILIENT WHEEL. GEORGE RICHARDS BAIR, Belton, Mo., assignor of one-half to Walter S. Allen, Belton, Mo. Filed Mar. 8, 1913. Serial No. 752,960. (Cl. 21—187.)



1. A wheel structure comprising two concentric members, the outer one of which constitutes the wheel proper, and is freely rotatable on the inner member, an axle receiving and supporting member having a radial arm pivotally connected to and pendently hung from the inner one of the concentric members, and elastic means between the axle-receiving member and the inner one of the concentric members, whereby under the action of a force obstructive to the progress of the wheel the axle supporting end of the radial arm will swing on the pivot connection between it and the inner one of the concentric members against the restraining action of the elastic means.

2. A wheel structure comprising two concentric members, the outer one of which is freely rotatable on the inner one and constitutes the wheel proper, an axle receiving and supporting member having an inflexible radial arm pivotally connected to and pendently hung from the inner one of the concentric members, and centralizing elastic means between the axle receiving member and the inner one of the concentric members, whereby under the action of a force obstructive to the progress of the wheel the axle supporting end of the radial arm will swing on the pivot connection between it and the inner one of the concentric members against the restraining action of the elastic means.

3. A wheel structure comprising two concentric members, the outer one of which is freely rotatable and constitutes the wheel proper, an axle receiving and supporting member having an inflexible and axially elongated radial arm pivotally connected to and pendently hung from the inner one of the concentric members, with the pivot connection also axially elongated, and a circular series of radially-disposed extension springs connected at the ends to the axle receiving member and the inner one of the concentric members, respectively, for centralizing the axle receiving members with respect to said inner one of the concentric members, whereby under the action of a force obstructive to the progress of the wheel the axle supporting end of the radial arm will swing on the pivot connection between it and the inner one of the concentric members against the restraining action of the springs.

4. A wheel structure comprising a rotatable member constituting the wheel proper, a ring therewithin upon which the wheel rotates, a normally pendent arm pivotally connected at its upper end to a high point of the ring and at its lower end provided with means for encircling an axle so as to be rockable thereon, and a circular series of springs connected at their ends to the axle encircling means and the ring respectively, to normally centralize the pendent member in the ring.

5. A wheel structure comprising a rotatable wheel having a ring-shaped hub, a ring within the hub and upon which the wheel rotates, a normally pendent rockable member pivotally connected at its upper end to a high point of the ring and at its lower ends provided with means for receiving an axle and rockable thereon, and a circular series of pairs of springs in normally radial relation to the ring and each connected at the ends to the part of the pendent member encircling the axle and to the ring, respectively, the springs being spaced apart axially as well as circularly.

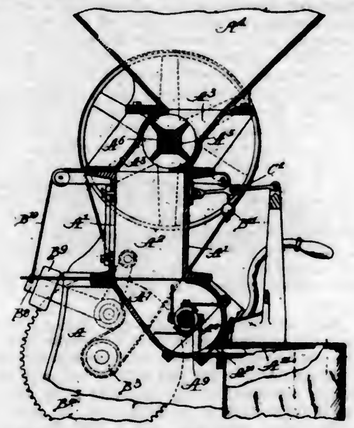
[Claim 6 not printed in the Gazette.]

1,137,376. BAGGING-MACHINE. ADELMER M. BATES, Chicago, Ill., assignor to Bates Valve Bag Company, Chicago, Ill., a Corporation of West Virginia. Filed Sept. 6, 1910. Serial No. 580,716. (Cl. 83—26.)

1. A bag filling machine comprising a supply bin, a mechanical feeding device at the bottom thereof, a feed hopper into which said feeding device discharges, a propeller located at the bottom of said hopper and a discharge tube leading therefrom, means for actuating said propeller and said feeding device in unison, and means for discontinuing the operation of said feeding device and said propeller, without interfering with the operation of the propeller.

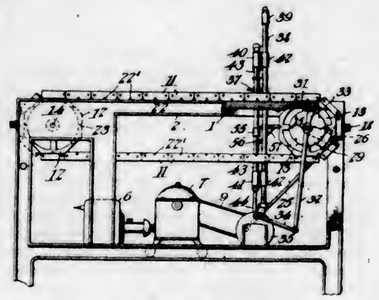
2. A bag filling machine comprising a supply bin, a mechanical feed control device at the bottom and discharging from said bin, a small charge retaining hopper located beneath and fed by said feed control device, a propeller located at the bottom of said hopper, a discharge tube in line with and fed from said propeller, said propeller and said

feeding device being normally driven in unison and means for disconnecting said feeding device and said pro-



peller without interfering with the operation of the propeller.

1,137,377. MOLDING AND PRESSING MACHINE. JOHN H. BEERY, Springfield, Ohio, assignor of one-fourth to H. A. Boxill, one-fourth to Pliny M. Gale, and one-fourth to Vance Towler, Cincinnati, Ohio. Filed Mar. 20, 1914. Serial No. 826,045. (Cl. 107—16.)



1. In a molding and pressing machine, the combination with a series of intermittently advancing molds, a plunger for pressing material in the molds, and means for moving the plunger into and out of the molds, of a plunger for ejecting the pressed material from the molds, and means for moving the ejector plunger into and out of the molds during the advance of the press plunger.

2. In a molding and pressing machine, the combination with a series of intermittently advancing molds, a plunger for pressing material in the molds, and means for moving the plunger into and out of the molds, of a plunger for ejecting the pressed material from the molds, and means for moving the ejector into and out of the molds during the advance of the press plunger, and before the latter is brought into contact with the material to be pressed.

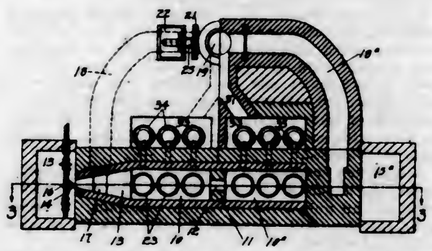
3. In a molding and pressing machine, a press plunger, a series of intermittently advancing molds, a frame carrying the plunger, means to reciprocate the frame to move the plunger into and out of the molds, an ejector plunger, and means on the frame to advance the latter into the molds.

4. In a molding and pressing machine, a press plunger, a series of intermittently advancing molds, a frame carrying the plunger, means to reciprocate the frame to move the plunger into and out of the molds, an ejector plunger, means on the frame to advance the latter into the molds, and means independent of the advancing means to retract the ejector plunger.

5. In a molding and pressing machine, a press plunger, a series of intermittently advancing molds, a frame carrying the plunger means to reciprocate the frame to move the plunger into and out of the molds, an ejector plunger, means on the frame to advance the latter into the molds, and a spring to retract the ejector plunger after advancement.

[Claims 6 to 15 not printed in the Gazette.]

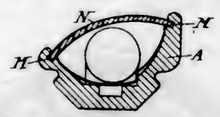
1,137,378. MELTING-FURNACE. WILLIAM N. BEST, New York, N. Y. Filed May 31, 1913. Serial No. 770,947. (Cl. 75—94.)



1. In combination, a heating chamber, a stack, two separate flues serving to connect said chamber with said stack, means for delivering fluid fuel to each end of said chamber, each of said flues having an air inlet port, means intermediate said stack and the port for closing communication through the flue to the stack, a drainage chamber from said heating chamber and a flue from said drainage chamber to said stack.

2. A furnace including a heating chamber, a combustion chamber at one end thereof and having a fluid fuel inlet port, and an air inlet port, a stack, a flue connecting the opposite end of said heating chamber with said stack, a drainage chamber connected with said heating chamber, and a separate flue connecting said drainage chamber and said stack.

1,137,379. SHOW-CASE LIGHT. ALFRED W. BEUTTELL, Streatham, London, England. Filed Dec. 21, 1912. Serial No. 737,955. (Cl. 240—6.)



1. An illuminating device of the class referred to comprising lamp holders, a body member formed of or from a continuous moulding capable of being made in long lengths and adapted to be cut to any length of body desired, and clips or mounts for detachably holding the body in position, the said moulding having a portion concaved in cross section throughout its length, being of substantial thickness in cross section, having a channel or conduit formed in and of the substance of said material to receive the conducting wires therein, and also provided with grooves or beads on the exterior adapted to receive or be engaged by said clips or mounts.

2. An illuminating device of the kind referred to comprising a body member, lamp holders mounted at intervals on said body member, which body member is formed of or from a continuous moulding capable of being made in long lengths and adapted to be cut into any length of body desired, said moulding having a portion grooved in cross section extending throughout its length and being provided with longitudinally extending members on the outside thereof, and clips or mounts for engaging said longitudinally extending members whereby said body and the parts supported thereby may be held in position.

3. An illuminating device of the class described having lamp holders, a body to which said lamp holders are secured, a reflector detachably secured to said body, and a transparent screen, said body being formed of or from a continuous mould which can be used in long lengths or which can be cut into shorter lengths as desired, said moulding having a portion concaved in cross section throughout its length, being of substantial thickness, being provided with a channel or conduit extending throughout its length, and also being provided with grooves or recesses which receive the transparent screen.

4. An illuminating appliance of the kind referred to having lamp holders mounted at intervals thereon wherein the body of such appliance is formed of or from a continuous moulding capable of being made in long lengths and adapted to be cut to any length of body desired, and spring clips for engaging the moulding and holding the body of the appliance in place, said moulding having a portion concave in cross section throughout its length, being of substantial thickness in cross section, having a channel or conduit formed in and of the substance thereof to receive the conductor wires and being provided with longitudinally extending grooved portions or beaded portions which are adapted to be engaged by said spring clips.

5. An illuminating appliance of the class described comprising lamp holders, a body formed of a moulding which can be made in long lengths and cut to any desired length of body, a transparent screen and means for detachably securing said screen in place on the body, said moulding being concave in cross section throughout its length, being of substantial thickness in cross section, having a channel or conduit formed in and of the substance of said moulding and being provided on the outer portions thereof with longitudinally extending grooves or beads with which the means for securing the screen in place thereupon engage.

[Claim 6 not printed in the Gazette.]

1,137,380. PRUNING-SHEARS. EDGAR BUELL, Clinton, Conn. Filed Dec. 4, 1914. Serial No. 875,427. (Cl. 30—11.)



1. In a cutting tool of the character described, a pair of blades, a pair of handles, one blade being rigidly connected to one of said handles, a forwardly faced shouldered abutment on the same handle, an offset bend at the rear of the other blade bearing upon and supported against strain by said abutment, said offset bend being pivotally connected to the other handle, the latter being pivotally connected to the first mentioned handle to the rear of said abutment, and means to hold said blades together.

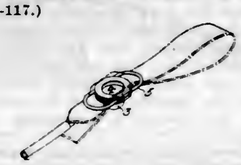
2. In a cutting tool of the character described, a pair of blades, a pair of handles, one blade being rigidly connected to one of said handles, a forwardly faced shouldered abutment on the same handle, an offset bend at the rear of the other blade bearing upon and supported against strain by said abutment, said offset bend being pivotally connected to the other handle, the latter being pivotally connected to the first mentioned handle to the rear of said abutment, said abutment being in a plane at one side of the plane of the blade rigidly connected to one of the handles, and means to hold said handle together.

3. In a cutting tool of the character described, a pair of blades, a pair of pivotally connected handles, one of the blades being rigidly connected to one of the handles, a forwardly faced abutment shoulder on that handle to which the blade is rigidly attached, an offset bend on the other blade, the outer end of said bend being pivotally connected to the other handle, the back of said bend intermediate its length being arranged to both slide and tilt on said offset as said handles are moved to and fro.

4. In a cutting tool of the character described, a pair of blades, a pair of pivotally connected handles, one blade being rigidly carried by one handle, the other blade being pivotally connected to the other handle, an angular bend in the last mentioned blade forming a cam at its rear, a forwardly faced abutment on that handle which carries the rigid blade, said cam being arranged to slide and tilt on said abutment as the handles are moved to and fro, and means to hold said blades together comprising a slot in the bent part of the blade which is pivotally connected to one of the handles, and a beaded stud standing in said slot and connected to the rigid handle forward of the abutment.

5. In a cutting tool of the character described, a pair of blades, a pair of pivotally connected handles, one of the blades being rigidly connected to one of the handles, a forwardly faced abutment shoulder on that handle to which the blade is rigidly attached, an offset bend on the other blade, the outer end of said bend being pivotally connected to the other handle, the back of said bend intermediate its length being arranged to both slide and tilt on said offset as said handles are moved to and fro, the cutting edge of the pivotally carried blade being transversely notched.

1,137,381. SHOE-LACE HOLDER. ELMER BURKET, Wayne, Pa. Filed June 30, 1911. Serial No. 636,214. (Cl. 24—117.)



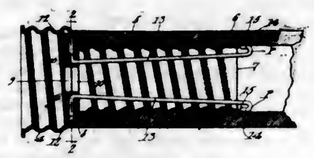
1. A holder for shoe laces and the like consisting of an elongated wire loop; a snap fastener having its top surface substantially parallel with the plane of the loop; with two parallel integral flanges on one member of said fastener extending on opposite sides of the loop and slidably guided thereon so as to be free to move toward and from the ends thereof.

2. A holder for shoe laces and the like consisting of an elongated wire-loop; a snap fastener having its top surface substantially parallel with the plane of the loop; with two parallel integral flanges on one member of said fastener extending on opposite sides of the loop and slidably guided thereon so as to be free to move toward and from the ends thereof, opposite portions of the flange edges being bent toward each other to embrace the edges of the loop.

1,137,382. HOSE-WASHER. WALTER RILEY CALVERT, San Antonio, Tex. Filed May 12, 1914. Serial No. 838,084. (Cl. 137—28.)

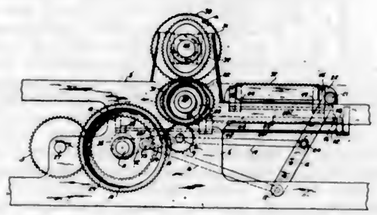
In a device of the character described, a washer, and a retaining device therefor embodying a wire having an intermediate semi-circular portion embedded in one half of the washer, portions projecting inwardly from the ends of the said semi-circular portion, and complementing resilient arms projecting from the inner ends of the said inwardly-projecting portions, the arms having outturned

hooks at their free ends, and the washer having inwardly projecting lugs embracing the inner ends of the said



inwardly-projecting portions and the bends between the said inwardly-projecting portions and arms.

1,137,383. TWO-REVOLUTION RECIPROCATING FLAT-BED PRINTING-PRESS. ALBERT L. COLBURN, New Haven, Conn. Filed Sept. 21, 1914. Serial No. 862,697. (Cl. 101—158.)



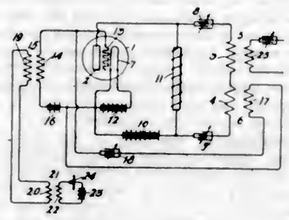
1. In a two-revolution reciprocating flat-bed printing press, the combination with a cylinder, of means for rotating the same, a type-bed, a lever pivoted at its upper end to the said type-bed, a connecting rod pivoted at one end to the lower end of the said lever, a connecting rod pivoted at one end to the said lever at a point between the pivotal connection thereof with the type-bed and the pivotal connection thereof with the other connecting rod, a main shaft, and crank connections between the said main shaft and the opposite ends of the said connecting rods, whereby the type-bed is horizontally reciprocated back and forth.

2. In a two-revolution reciprocating flat-bed printing press, the combination with a cylinder, of means for rotating the same, a type-bed, a lever pivoted at its upper end to the said type-bed, a connecting rod pivoted at one end to the lower end of the said lever, a connecting rod pivoted at one end to said lever at a point about midway the length thereof, two cranks connected with the opposite ends of the said rods, and a main shaft upon which the said cranks are mounted, whereby the said type-bed is reciprocated back and forth.

3. In a two-revolution reciprocating flat-bed printing press, the combination with a reciprocating type-bed, of a lever for operating the same, a driving shaft, a crank thereupon, a pin carried by the said crank, a connecting rod extending between the said pin and the lower end of the lever, a crank carried by the said pin, and a connecting rod extending between the crank last mentioned and the lever at a point midway the length thereof.

4. In a two-revolution flat-bed printing press, the combination with a reciprocating type-bed, of a lever having its upper end pivoted to the said bed for operating the same, a connecting rod connected at one end with the lower end of the said lever, a connecting rod connected at one end with the said lever about midway the length thereof, a driving shaft mounting cranks respectively connected with the opposite end of the said rods, a supplemental crank connected with the rod which is pivoted to the lever about midway the length thereof, and a secondary shaft located in line with the main shaft and mounting the said supplemental crank.

1,137,384. SYSTEM FOR THE TRANSMISSION OF INTELLIGENCE. EDWIN H. COLPITTS, East Orange, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed May 18, 1914. Serial No. 839,318. (Cl. 179—171.)



1. The combination with a generator of high frequency current, comprising a repeater, an input and an output put circuit therefor united with each other, said repeater having an electrode located in said input circuit; of a transmission line united with said output circuit, and a source of low frequency potential variations connected to said electrode.

2. The combination with an audion having a filament, a plate and a grid, an input circuit connected with the grid and an output circuit connected with the plate; of an inductive connection between said output and said input circuits adapted to the production by said audion of sustained high frequency oscillations, and a sending device, adapted for producing signaling impulses of low frequencies, connected with said input circuit.

3. The combination with a generator of high frequency current, comprising a repeater, an input and an output circuit therefor and a connection between said circuits; of a transmission line united with said output circuit, and a sending device, adapted for producing signaling impulses of low frequencies, connected with said input circuit.

4. The combination with a generator of high frequency current, comprising an evacuated vessel, means for producing a state of ionization in said vessel, and an input and an output circuit interconnected to react upon each other; of means connected with said input circuit for producing low frequency potential variations in said input circuit.

5. The combination with a generator of high frequency current, comprising an evacuated vessel, means for producing a state of ionization in said vessel, and an input and an output circuit inductively connected with each other; of a source of low frequency potential variations connected with said input circuit for controlling the amplitude of the high frequency currents developed by said generator.

[Claims 6 to 8 not printed in the Gazette.]

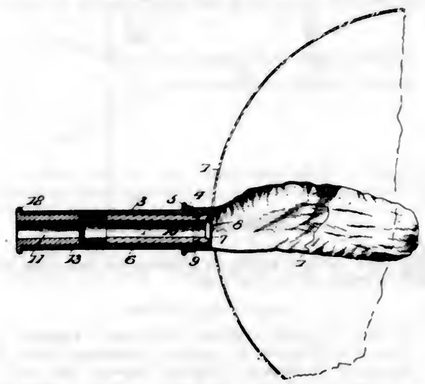
1,137,385. TOY BALLOON. FRANK J. CREQUE, Cuyahoga Falls, Ohio. Filed Nov. 12, 1914. Serial No. 871,742. (Cl. 46—37.)

1. A toy balloon, having a stem, a plug arranged within said stem having a sound-producing device, and a detachable valve plug mounted in the outer end of said stem.

2. A toy balloon, having a stem provided with a sound-producing device, and a detachable valve mounted within said stem.

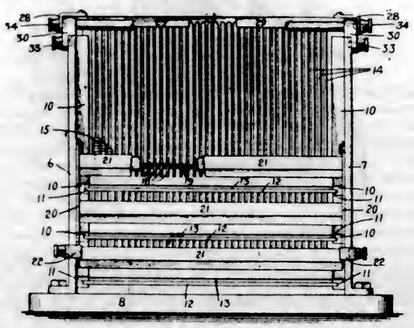
3. A toy balloon, comprising an inflatable bag having a neck, a stem arranged within said neck, a tubular plug arranged within said stem having a strip of flexible material arranged over one end thereof, and a plug arranged in the opposite end of said stem, having a flap valve at one end.

4. As a new article of manufacture, a toy balloon, comprising an inflatable bag provided with a neck, a tubular stem secured within said neck, a tubular plug mounted within said stem, a strip of flexible material arranged over the inner end of said tubular plug, a flanged plug



arranged within the outer end of said stem, and a flap valve mounted upon the inner end of said plug.

1,137,386. TYPE-HOLDER. ALBERT B. DICK, Lake Forest, Ill., assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 2, 1913. Serial No. 792,913. (Cl. 101—149.)



1. A type-holder comprising the combination of a frame, having pairs of guides thereon, a plurality of units, each removably mounted on one of said pairs of guides, each unit comprising a plurality of type-receiving members having type-slots therein, means for locking said units in said frame, and means movable as a unit into positions for preventing or permitting passage of type out of the ends of all of the slots, substantially as set forth.

2. A type-holder comprising the combination of a frame, a plurality of rows of type-receiving members thereon, each member having a slot in which the type are movable, means mounted on the frame and movable as a unit into positions for preventing or permitting passage of type out of the ends of the slots, and a locking device for holding said means in its slot-closing position, substantially as set forth.

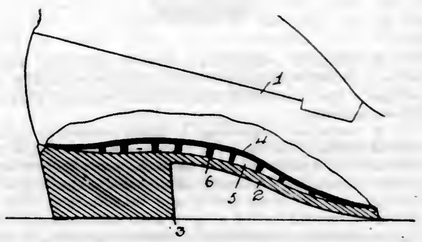
3. A type-holder comprising the combination of a frame, a plurality of rows of type-receiving members thereon, each member having a slot in which the type are movable, arms pivotally mounted on the frame, bars extending between said arms, the movement of said arms carrying each of said bars toward and away from the ends of the slots of one row of type-receiving members and into and out of position for precluding passage of type through the ends of all said slots, and a locking device for holding said arms in a predetermined position, substantially as set forth.

4. A type-holder having a frame, a plurality of type-receiving members thereon each having a slot in which type are movable, and two closing devices movably mounted on the frame, and adjacent respectively to the upper and lower ends of said members, each adapted to be moved into and out of position for closing one end of all of said slots to preclude passage of type through the ends of the slots and means for locking said devices in slot-closing position, substantially as set forth.

5. A type-holder comprising the combination of a frame, a plurality of rows of type-receiving members thereon, each member having a slot down which the type are adapted to slide, said slots being closed at the extreme lower ends, and having their sides cut away adjacent to the said ends, so that the bottom type may be lifted out of each member at such openings, arms pivotally mounted on the frame and bars extending between said arms so positioned as to prevent passage of type through said openings when said arms are in one position, and to permit the same when said arms are in another position, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,137,387. ARCH FOR SHOES. WILMER DUNBAR, Greensburg, Pa. Filed Feb. 25, 1914. Serial No. 820,841. (Cl. 36—71.)



1. A shoe arch consisting of a non-metallic body portion of ogee curvature provided on its lower face with annular members to constitute vacuum cups to set up a vacuum grip when pressure is applied to the upper face of said body, and said body further provided with integral means on its lower face for bracing the annular members exteriorly and interiorly thereof.

2. A shoe arch consisting of a non-metallic body portion of ogee curvature provided on its lower face with annular members to constitute vacuum cups to set up a vacuum grip when pressure is applied to the upper face of said body, and said body further provided with integral means on its lower face for bracing the annular members together, said integral means being of greater height than the height of said members.

3. A shoe arch comprising a non-metallic body portion having its lower face formed with rows of annular members to provide vacuum cups, said body portion further having its lower face provided with integral means to constitute exteriorly and interiorly braces for said members.

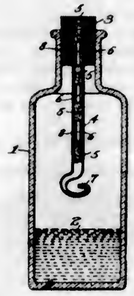
4. A shoe arch comprising a non-metallic body portion having its lower face formed with rows of annular members to provide vacuum cups, said body portion further having its lower face provided with integral means to constitute braces for said members, said means intersecting said members and of greater height than the height of said members.

5. A shoe arch comprising a non-metallic body portion having its lower face formed with rows of annular mem-

bers to provide vacuum cups, said body portion further having its lower face provided with integral means to constitute braces for said members, said means intersecting said members and of greater height than the height of said members, said body being of ogee curvature in the direction of its length and further concavo-convex in transverse section.

[Claims 6 and 7 not printed in the Gazette.]

1,137,388. CONTAINER FOR TRANSPORTING BACTERIAL CULTURES. GEORGE H. EARP-THOMAS, Glen Ridge, N. J. Filed Jan. 15, 1909, Serial No. 472,476. Renewed Aug. 31, 1914. Serial No. 859,565. (Cl. 71—10.)



1. A container comprising a closed receptacle and a conduit communicating with the atmosphere within the receptacle and containing three or more separate plugs of fibrous material.

2. A container comprising a closed receptacle and a conduit communicating with the atmosphere within the receptacle at a point removed from the walls thereof, said conduit containing a plurality of separate plugs of fibrous material and the inner end of said conduit being bent in circular form and ending at such point of communication.

3. A container comprising a closed receptacle, a conduit tube connecting the atmosphere within the receptacle with the atmosphere external to the receptacle and having its inner end reduced and curved circularly and ending and open to the interior of the receptacle at a point removed from the walls of the receptacle, and a plug of fibrous material in the conduit tube.

4. A container comprising a receptacle, a stopper for closing the mouth of the receptacle, a conduit tube extending through the stopper and open to the interior of the receptacle at a point removed from the walls thereof, a plug of fibrous material in the conduit tube, and means for preventing liquid entering the conduit tube and reaching the plug of fibrous material.

5. A container adapted for transporting and preserving aerobic bacterial cultures comprising a receptacle, a stopper for closing the mouth of the receptacle, a conduit tube traversable by air extending through the stopper and open to the interior of the receptacle at a point removed from the walls thereof, said conduit tube containing a plurality of separate plugs of fibrous material and having a reduced end through which connection is established with the interior of the receptacle at said point removed from the walls of the receptacle.

[Claims 6 to 21 not printed in the Gazette.]

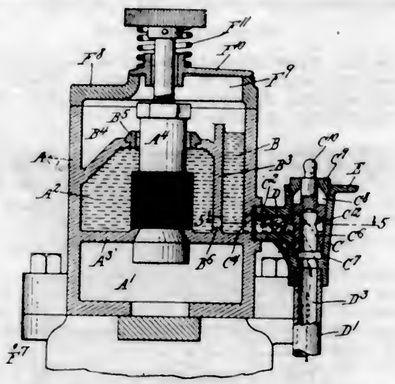
1,137,389. VERTICAL FILE. LACEY H. EVANS, Landsdowne borough, Pa. Filed Jan. 29, 1913. Serial No. 744,945. (Cl. 45—4.)

A vertical file consisting of end supports; horizontal parallel strips extending between the lower portions of said supports; horizontal parallel rods extending in a vertical plane between the end supports at the back of the



file; with vertical partitions mounted on said rods and free to swing on vertical axes.

1,137,390. LIQUID-CONTROL SYSTEM. HERMAN W. FALK and WILLIAM K. ANDREW, Milwaukee, Wis., assignors to M. Rumely Company, Laporte, Ind., a Corporation of Indiana. Filed Jan. 2, 1912. Serial No. 669,090. (Cl. 137—26.)



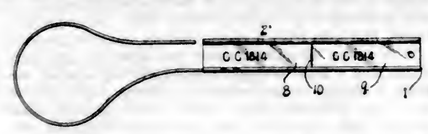
1. A liquid control system comprising a housing, a three-way valve contained therein, a liquid supply pipe leading to said housing and controlled by said valve, a liquid discharge pipe leading from said housing and controlled by said valve, a second pipe communicating with said housing and directly with said liquid discharge pipe independent of the valve, a run-off pipe leading from said housing and controlled by said valve and a liquid supply pipe leading to said housing and communicating with said run-off pipe independent of said valve.

2. The combination with a reservoir of a liquid supply and discharge system therefor comprising a valve housing, a run-off pipe from the reservoir leading to and through the housing, a single supply pipe leading from the housing to the reservoir, a supply pipe leading to and through the housing and communicating directly with said single supply pipe and a valve control supply pipe leading to said housing and adapted to communicate with said single reservoir supply pipe or with the run-off pipe depending on the position of the valve.

1,137,391. SEAL. LOUIS S. FLATAU, St. Louis, Mo. Filed Oct. 3, 1914. Serial No. 864,756. (Cl. 70—98.)

A seal comprising a connecting member and a wire shackle associated therewith, the said connecting member being a long narrow strip of sheet metal having its longitudinal margins curled to provide passageways for the reception of said shackle, the curled sheet metal forming

one of said passageways being primarily crimped with one end of the shackle so as to permanently secure only one end of the shackle to said sheet metal, and the said



long narrow strip of sheet metal being folded on itself to produce a crimp 7 wherein the other end of the shackle is secured.

1,137,392. SEAL. LOUIS S. FLATAU, St. Louis, Mo. Filed Nov. 7, 1914. Serial No. 870,813. (Cl. 70—98.)



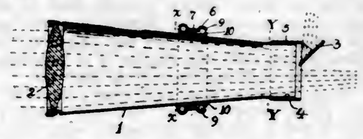
1. A seal comprising a shackle, and means for securing the ends of said shackle, said means including a pocket member comprising layers of sheet metal secured together and pressed outwardly to form a bearing, a shackle receiving pocket and a shackle receiving passageway communicating with said pocket; said pocket being larger than the inside diameter of said bearing, and a shackle winder rotatably fitted to said bearing and surrounded by the walls of said pocket so that the shackle winder may be rotated to interlock the shackle with said pocket member.

2. A seal comprising a pocket member having a pair of shackle receiving passageways, a shackle winder rotatably fitted to said pocket member, said shackle winder being provided with two perforations adapted to register with said pair of shackle receiving passageways, and a shackle passing through one of said passageways and through one of said perforations and having one of its ends wound around said shackle winder, the opposite end of said shackle being free to be inserted through the other perforation in the shackle winder.

3. A seal comprising a pocket member having two shackle receiving passageways at one of its edges, said passageways being substantially parallel with each other but not in alinement with each other, a shackle having its ends separated from each other and arranged in said passageways, and a rotatable device adapted to coöperate with the ends of said shackle to permanently connect all of said parts, said rotatable device being provided with a removable operating member adapted to be broken from the body of said rotatable device.

4. A seal comprising a shackle, a pocket member, and a shackle winder rotatably fitted to said pocket member, said shackle winder being provided with an aperture for the reception of said shackle, and said pocket member being provided with a shackle receiving passageway which terminates at a point beyond said shackle winder so as to form a stop for one end of the shackle, said end of the shackle being wound onto the shackle winder to secure the shackle and shackle winder to the pocket member.

1,137,393. MEDICAL APPLIANCE. NEWELL T. FOGG, Sanford, Me. Filed Feb. 6, 1915. Serial No. 6,542. (Cl. 174—177.)



1. A medical appliance comprising a sunlight concentrating means, means for supporting the same in front of a patient's mouth, and means for holding the patient's mouth open and for directing the concentrated rays within the throat of the patient.

2. A medical appliance comprising a conoidal shell, a lens carried in its larger end, and a mirror supported obliquely just outside the smaller end of said shell to intercept a fraction of the light rays cast by said lens.

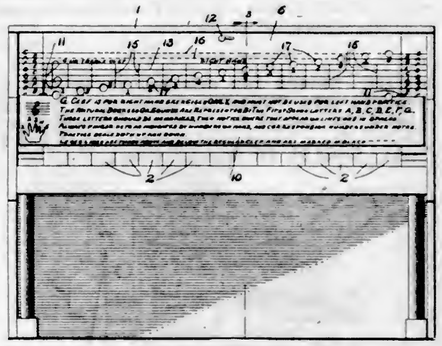
3. A medical appliance comprising a conoidal shell, a lens carried in its larger end, and means for supporting said parts between the teeth or lips of the user, said means consisting of two spaced annular ridges.

4. A medical appliance comprising a conoidal shell, a light-concentrating means carried at the larger end of said shell, and means for rotatively supporting the appliance between the teeth or lips of the user, said means consisting of a grooved annulus inclosing said shell and rotatably held thereon, the small end of the shell having a mirror.

5. A medical appliance comprising a conoidal shell, a light-concentrating means carried at the larger end of said shell, an oblique mirror at the small end of the shell, a raceway about an intermediate point of said shell, a grooved annulus surrounding said raceway, and ball bearings between the raceway and annulus.

[Claim 6 not printed in the Gazette.]

1,137,394. INDICATOR FOR PIANO-KEYBOARDS. GEORGE FOWLER, Philadelphia, Pa. Filed Jan. 23, 1914. Serial No. 813,822. (Cl. 84—48.)

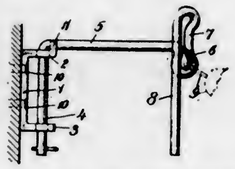


1. An indicator for piano key boards, comprising a plate having a staff thereon with openings in the plate on the lines and spaces of the staff, parallel horizontally positioned longtiudinal bars secured to the back of the plate, spaced apart and spaced from the upper and lower edges of the plate, said bars having alined recesses in their edges adjacent the plate, vertical plungers fitting the alined recesses and guided in their vertical movement by said recesses, said plungers at their lower ends supported upon the keys of a piano, and plates secured to the forward faces of the plungers and having characters thereon movable into register with the openings, substantially as described.

2. An indicator for piano keyboards, comprising a plate having parallel staffs thereon, each staff having a longitudinal series of openings, an opening being provided for each line and space, vertical plungers back of the plate having letters movable into register with the openings, and a longitudinally positioned leaf hinged to the plate between the two staffs and adapted to be positioned so as to cover either staff, substantially as described.

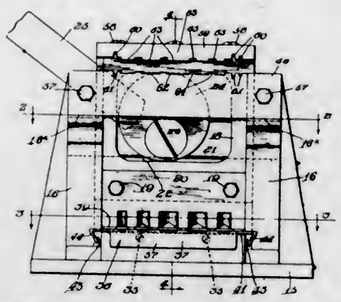
3. An indicator for piano keyboards, comprising a plate having parallel staffs thereon, each staff having a longitudinal series of openings, an opening being provided for each line and space, vertical plungers back of the plate having letters movable into register with the openings, and a longitudinally positioned leaf hinged to the plate between the two staffs and adapted to be positioned so as to cover either staff, said openings indicated by numerals, and said leaf having on opposite sides the representation of the right and left hand respectively with the thumb and fingers indicated by numerals, substantially as described.

1,137,395. CLOTHES-LINE SUPPORT. DOROTHY GAMBLE, New York, N. Y. Filed June 24, 1911. Serial No. 635,166. (Cl. 68—12.)



In a clothes line support, an arm comprising a rod having its inner end bent down and adapted for attachment at the side of the window frame so that the arm may swing horizontally in or out of the window, the other end of said rod being bent down to form a hook to receive the clothes line pulley and having a reverse bend above said hook and substantially closing the opening thereof to prevent accidental release of the pulley, the extreme end of said arm being bent down vertically and extending below said hook to form a handle whereby said arm may be swung, substantially as described.

1,137,396. DEVICE FOR CUTTING STAYS AND APPLYING TIPS THERETO. MARSHALL B. GARDNER, Aurora, Ill., assignor to International Corset Company, Aurora, Ill., a Corporation of Illinois. Filed May 11, 1914. Serial No. 837,754. (Cl. 153—1.)



1. A device for cutting stays and applying tips thereto, comprising a base having vertical guide standards, a sliding frame mounted between said standards, means for actuating said sliding frame, coacting stationary and movable cutting dies, the movable cutting die being attached to the bottom of the sliding frame and the stationary cutting die being attached to said base below said sliding frame, and coacting stationary and movable pressing dies, the movable pressing die being attached to the top of the sliding frame and the stationary pressing die being attached to the standards below said movable pressing die; said pressing dies being provided with two opposed recesses, and also with a recess and an opposed projection.

2. A device for cutting stays and applying tips thereto, comprising a base having vertical, laterally spaced standards, a sliding frame mounted between said standards, means for actuating said sliding frame, coacting stationary and movable cutting dies, the movable cutting die being attached to the bottom of said sliding frame and the stationary cutting die being attached to the base below said movable cutting die, coacting stationary and movable pressing dies, the movable pressing die being attached to the top of the sliding frame and the stationary pressing die to said standards below said movable pressing die, and a grooved guide for the stays detachably secured to said base.

3. A device for cutting stays and applying tips thereto, comprising a base having vertical guide standards, a sliding frame mounted between said standards, means for actuating said sliding frame, coacting stationary and movable cutting dies, the movable cutting die being attached to the sliding frame and the stationary cutting die being attached to the base below said movable cutting die, coacting stationary and movable pressing dies, the movable pressing die being attached to the sliding frame and the stationary pressing die to the standards below said movable pressing die; the stationary cutting die being adjustably mounted on the base, and a grooved guide plate for the stays detachably mounted on said base.

4. A device for cutting stays and applying tips thereto, comprising a base having vertical guide standards, a sliding frame mounted between said standards, an eccentric mounted on said standards and engaging upper and lower, parallel, bearing surfaces on said sliding frame, an operating lever attached to said eccentric, coacting stationary and movable cutting dies, the movable cutting die being attached to the top of the sliding frame and the stationary cutting die to the base, and coacting stationary and movable pressing dies, the movable pressing die being attached to the sliding frame and the stationary pressing die to the base below said movable pressing die.

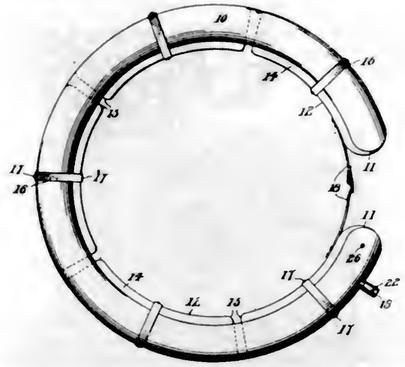
5. A device for cutting stays and applying tips thereto, comprising a main frame having laterally separated upright guide standards, a sliding frame mounted at its side edges in said guides, a frame bar attached to and extending between said guides, an eccentric mounted on said frame bar and engaging upper and lower, parallel, bearing surfaces, an operating lever attached to said eccentric, coacting stationary and movable cutting dies, the movable cutting die being attached to the sliding frame and the stationary cutting die to the main frame, and coacting stationary and movable pressing dies, the movable pressing die being attached to the sliding frame and the stationary pressing die to the standards below said movable pressing die.

[Claims 6 to 19 not printed in the Gazette.]

1,137,397. LIFE-PRESERVER. PAUL GEPACK, McKees Rocks, Pa., assignor of one-eighth to Joseph Romanczk, one-fourth to Joseph Wienicki, and one-eighth to John Modranski, McKees Rocks, Pa. Filed Nov. 4, 1914. Serial No. 870,232. (Cl. 9—17.)

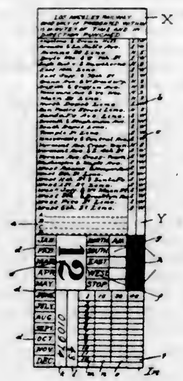
1. A device of the class described comprising a plurality of arcuate spacing sections each having opposite channels thereon, tubular floats positioned in said channels in parallelism, encircling straps for said floats secured to the outer and inner edges of the said sections, retaining straps connecting the adjacent ends of the terminal ones of said sections, and an inflating device for the float.

2. A life preserver comprising a plurality of arcuate spacing sections slightly spaced apart and positioned in substantially angular arrangement and having channels substantially centrally positioned upon their opposite faces, tubular floats positioned in parallelism within the said channels and having closed opposite ends terminating substantially at the adjacent ends of the terminal sections, retaining straps encircling the said floats and sections and retained to the sections at their outer and inner edges, air pumps projecting outwardly of said



floats, means for simultaneously operating the said pumps, a connecting brace between the said pumps and rigidly secured to the outer edge of one of said sections and a strap retaining means for the device connected between the terminal ones of said sections.

1,137,398. RAILWAY-TRANSFER. ARMAND GINSS, Downey, Cal., assignor of one-half to Charles Barrington, Jr., Los Angeles, Cal. Filed Nov. 14, 1913. Serial No. 801,042. (Cl. 11—15.)



1. A railway transfer comprising a blank provided upon its face with a single tabular list of the several routes, including the route upon which the transfer is to be issued, also with spaces in alinement with each name of the list containing characters for designating the direction in which an issuing car is traveling upon the route, and also with spaces containing characters indicating the direction in which the car upon which the transfer may be validly used is to travel.

2. A railway transfer comprising a blank provided upon its face with a tabular list of the several routes, including the route upon which the transfer is to be issued, also with spaces in alinement with each name of the list containing characters for designating the direction in which an issuing car is traveling on the route, also with spaces containing characters for indicating the direction in which the car upon which the transfer may be validly used is to travel, and also with A. M. and P. M. indicating spaces having a zone relation with the last mentioned spaces so that the half of the day together with the direction of the car upon which the transfer may be used can be indicated by a single operation.

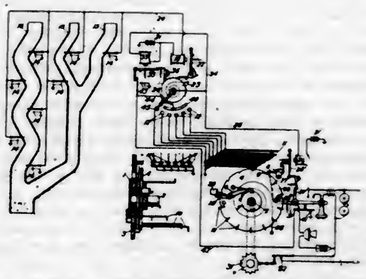
3. A railway transfer comprising a blank provided upon its face with a tabular list of the several routes, also with spaces in alinement with each name of the list containing characters for designating the direction in which an issuing car is traveling on the route, also with a column of spaces containing characters for indicating the direction in which the car upon which the transfer may be validly used is to travel, and also with parallel columns of A. M. and P. M. spaces arranged transversely in zones with the spaces of the first mentioned column so that the half of the day and the direction of the car upon which the transfer may be used can be indicated by a single operation.

4. A railway transfer comprising a blank provided upon its face with a column of spaces containing characters for indicating the direction in which the car upon which the transfer may be validly used is to travel, and also with parallel columns of A. M. and P. M. indicating spaces arranged in transverse zones with the direction indicating spaces of the first mentioned column so that both the half of the day and the direction of the car upon which the transfer may be used can be indicated by a single operation.

5. A railway transfer comprising a blank provided upon its face with a column of spaces containing characters for indicating the direction in which the car upon which the transfer may be validly used is to travel, also with parallel columns of A. M. and P. M. indicating spaces arranged in transverse zones with the direction indicating spaces of the first mentioned column so that both the half of the day and the direction of the car upon which the transfer may be used can be indicated by a single operation, and also with a series of parallel columns divided into twelve identified transverse zones so that a fractional part of the hour of the day can be indicated by a second operation.

[Claims 6 and 7 not printed in the Gazette.]

1,137,399. MULTICOIN-COLLECTOR AND RATE-INDICATOR FOR AUTOMATIC TELEPHONE SYSTEMS. CHARLES L. GOODRUM, New York, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Dec. 5, 1914. Serial No. 875,580. (Cl. 194—9.)



1. In an automatic telephone system, the combination with a subscriber's calling device, of coin-controlled means permitting a partial operation of said calling device for the purpose of ascertaining the amount of coin to be deposited and requiring the deposit of coin of the ascertained value before permitting of the completion of the operation of the calling device.

2. In an automatic telephone system, the combination with a subscriber's calling device, of means for locking said calling device in the position to which it is moved in partly setting up a call, and coin-controlled means for releasing the calling device for the completion of the call.

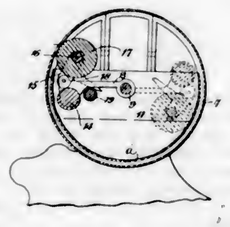
3. In an automatic telephone system, the combination with a subscriber's calling device, of means for locking said calling device in and for indicating a coin value according to the position to which it is moved in setting up the first digit of a called subscriber's number, and coin-controlled means, responsive to the deposit of coin of a value ascertained by such movement of the calling device, for releasing the calling device for the completion of the call.

4. In an automatic telephone system, the combination with a subscriber's calling device, of a rate indicator adjusted by the operation of the calling device.

5. In an automatic telephone system, the combination with a subscriber's calling device, of a rate indicator adjusted by the operation of the calling device in instituting a call and means under the control of said rate indicator for controlling the completion of the call.

[Claims 6 to 11 not printed in the Gazette.]

1,137,400. INKING DEVICE FOR ROTARY DUPLICATORS. CHARLES FREDERICK GREEN, Hornchurch, England, assignor, by mesne assignments, to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 15, 1913. Serial No. 742,130. (Cl. 101—132.)



1. In a rotary duplicator, the combination of a stencil cylinder, an ink reservoir having a curved surface, a pivoted inking roller and means for either bringing the roller into contact with the cylinder or rotating the same over said curved surface within said reservoir to coat said roller with ink, substantially as set forth.

2. In a rotary duplicator, the combination of a stencil cylinder, a fixed reservoir, a spindle concentric with and extending through said cylinder, a handle on said spindle, an inking roller, and means supporting said roller from said spindle in such manner that rotation of said spindle in one direction brings the roller into contact with the cylinder and rotation of the spindle in the other direction carries the roller across said spindle and immerses the roller in the reservoir, substantially as set forth.

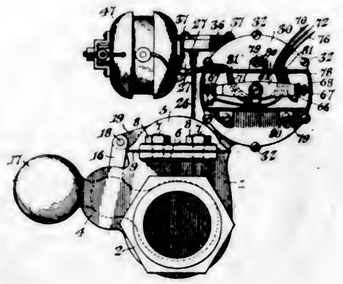
3. In a rotary duplicator, the combination of a stencil cylinder, a fixed reservoir within said cylinder, a spindle concentric with and extending through said cylinder, an inking roller, an arm secured to said spindle, and means pivoted to said arm and supporting said roller, whereby turning of said spindle in one direction or the other brings said roller into contact with the cylinder or immerses it in the reservoir, substantially as set forth.

4. In a rotary duplicator, a closed stencil cylinder, an ink reservoir within the cylinder, a rotary member within the cylinder, a pair of arms attached to said rotary member, a weight carried by said arms, a pair of links pivotally mounted upon said arms, a roller supported by said links, a projection upon said links, a cross bar adapted to engage the projection on the links, and means for effecting the operation of the rotary member to cause the roller to be dipped into the ink reservoir and brought into contact with the interior of the cylinder.

5. In a rotary duplicator, the combination of a stencil cylinder, a stationary ink-carrying member, an ink roller, and means for rotating said roller over the surface of said member, or bringing the same into contact with said cylinder, at will, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,137,401. ELECTROMECHANICAL CONTROLLING MEANS FOR FLUID-SUPPLIES. WALTER O. HAYMOND, Muncie, Ind. Filed Apr. 8, 1914. Serial No. 830,473. (Cl. 137—5.)



1. A device for the purpose described, comprising a valve casing including a valve, said valve casing having means for its attachment in a line of pipe, another casing on and in offstanding relation to the first-named casing, gearing in the second-named casing, operating connections between the gearing and valve, an electric motor offstanding from and carried by the second-named casing in overhanging relation to the first-named casing, and driving connections between the motor and gearing.

2. In a device for the purpose described, a valve casing and valve inclosed thereby, said valve casing being provided with means for its attachment in a line of pipe, a bonnet attached to the valve casing and provided with another casing forming a permanent part of the bonnet and offset therefrom laterally with relation to the first-named casing, mechanical valve-operating means inclosed by the second-named casing, and electrical means connected to the mechanical valve operating means for the actuation of the latter and attached to the second-named casing exterior thereto and in overhanging relation to the first-named valve casing.

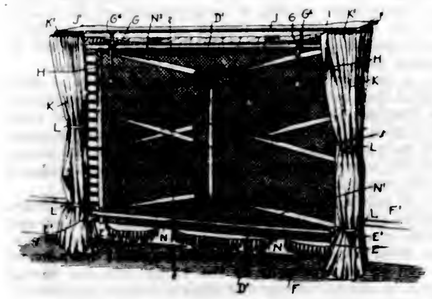
3. In a device for the purpose described, a valve casing and valve therein, said casing being provided with a bonnet in turn provided with another casing offset at one side thereof, gearing in the second-named casing connected to the valve in the first-named casing, an electric motor carried by the second-named casing and connected to the gearing for the actuation of the latter, said motor being offset with relation to the second casing toward the opposite side of the first casing, a switch carried by the second-named casing for controlling the electric motor, and means controlled by the gearing for actuating the switch.

4. In a device for the purpose described, a valve casing and valve therein, said casing being provided with a bonnet in turn provided with another casing, one-way gearing housed in the second-named casing and connected to the valve in the first-named casing, a one-way electric motor carried by and exterior to the second-named casing and connected to the gearing for the actuation of the latter, a switch carried by the second-named casing for controlling the electric motor, and means controlled by the gearing for actuating the switch, said switch being of the double throw type and the operating means therefor being constructed to automatically move the switch to one position or the other in accordance with the position of the valve.

5. In a device for the purpose described, a valve casing having a bonnet formed with another casing, gearing mounted in the second-named casing and including a rotatable member having a cam portion, an electric motor carried by the second-named casing and connected to the gearing for the actuation of the latter, a double throw switch carried by the casing, and operating means for the switch also carried by the casing and located in the path of the cam for the actuation of the switch on the rotative movement of the part of the gearing provided with the cam, the motor and gearing being constructed for progressive movement in one direction and the gearing having connections with the valve constructed to rock the latter to the open and closed positions alternately.

[Claims 6 to 9 not printed in the Gazette.]

1,137,402. FOLDING BED. JOSEPH I. HIGGINS, East Rockaway, N. Y. Filed July 21, 1913. Serial No. 780,195. Renewed Sept. 19, 1914. Serial No. 862,596. (Cl. 5—18.)



1. A folding bed, comprising a spring frame provided with side bars, floor brackets provided with bearings engaged by one of the said side bars to permit of swinging the spring frame from a horizontal into a vertical folded position or vice versa, legs pivoted adjacent the other side of the frame and adapted to rest on the floor at the time the spring frame is in horizontal position, and adapted to hang in a vertical position at the time the spring frame is in vertical folded position, and a shelf carried by, and movable with, the last mentioned frame side and forming a side rail for the bed when the said frame is in extended position.

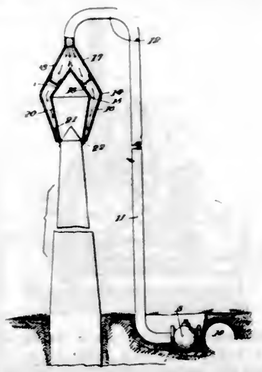
2. A folding bed, comprising a spring frame provided with side bars, floor brackets provided with bearings engaged by one of the said side bars to permit of swinging the spring frame from a horizontal into a vertical folded position or vice versa, side bar brackets attached to the other side bar, legs pivoted on the said side bar brackets and adapted to rest on the floor at the time the spring frame is in horizontal position at the time the spring frame is in vertical folded position, and a shelf attached to the said side bar brackets and adapted to form a side rail for the bed at the time the bed is in extended position.

3. A bed, comprising a spring frame having front and rear side bars, floor brackets adapted to be attached to the floor and having open bearings adapted to be engaged by the said rear side bar, leg brackets each having bearing parts pivotally connected with each other and adapted to engage the front side bar, a bolt connecting the bearing parts with each other to clampingly attach the leg brackets to the said front side bar, each leg bracket having lugs standing at an angle one to the other, a leg pivoted to one of the lugs, and a shelf attached to the other lug.

4. In a shelf bed, the combination of a bed frame having a pivotal support at one side whereby it may be moved from a horizontal to a vertical position and vice-versa, a shelf carried by the opposite side of the frame and forming a side rail for the bed in lowered position, covering curtain members movable along the shelf to conceal the frame in raised position, and means whereby to hold the said curtain members in furled position at the ends of the frame when the latter is lowered, substantially as and for the purpose specified.

5. A bed, comprising a spring frame having front and rear side bars, floor brackets having bearings for the rear side bar and upon which the frame is movable, brackets clamped upon the front side bar and having projections, legs pivoted to certain of the bracket projections, and a shelf rigidly attached to the other bracket projections, substantially as described.

1,137,403. LIQUID-DISPENSING APPARATUS. BENJAMIN F. HOOVER, Seattle, Wash. Filed Dec. 8, 1913. Serial No. 805,897. (Cl. 137—80.)



1. In an apparatus of the character described, a main pipe, a branch pipe, a valve controlling the flow of liquid from the main pipe to the branch pipe, and a nozzle carried by the upper terminal of the branch pipe, said nozzle including an outer casing, an inner casing, and brackets supporting the inner casing in position in the outer casing, said last mentioned casing having substantially conical upper and lower portions, the base portions of which join at the approximate center of the casing, said inner casing also having substantially conical upper and lower portions, the bases of which join at the approximate center of the inner casing, the lower conical portion of the inner casing being shaped to approach the lower conical portion of the outer casing toward the extreme lower terminal thereof, whereby a restricted annular passage is formed between the lower edge portions of the inner and outer casings for discharging the liquid issuing from the nozzle in a substantially conical sheet.

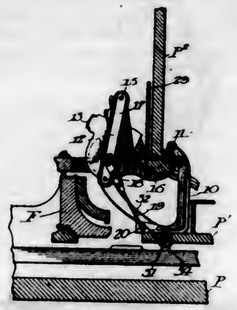
2. In an apparatus of the character described, a main supply pipe, a branch pipe, a valve controlling issuance of liquid from the main pipe to the branch pipe, and a discharge nozzle carried by the branch pipe, said nozzle including an outer casing consisting of upper and lower substantially conical portions, the upper conical portion having a relatively small opening communicating with the branch pipe, the lower terminal of the lower conical portion having a relatively large opening, an inner casing supported within the outer casing and spaced therefrom, said inner casing including a substantially conical upper portion, the apex of which is arranged in longitudinal alinement with the opening of the branch pipe, and a substantially conical lower portion, the lower edge of the inner casing being spaced from the adjacent portion of the outer casing a less distance than is the upper conical portion of the inner casing spaced from the adjacent portion of the outer casing, whereby a relatively narrow annular opening is formed between the lower edges of the inner and outer casings for discharging the liquid issuing from the nozzle in a substantially conical sheet.

1,137,404. PLAYER-PIANO. CHARLES V. JAMESON, Chicago, Ill., assignor of one-eighth to Henry E. Weisert, one-eighth to Arthur Bissell, and three-eighths to James Curtiss, Chicago, Ill. Filed May 24, 1912. Serial No. 699,361. (Cl. 84—233.)

1. The combination with the front panel and the fall board of a piano, of a pivotally supported tracker bar, and means by which the bar may be moved from a position below the panel and behind the fall board to a position in front of the panel and above the fall board.

2. In a piano, a front panel and a fall board, a tracker bar having an operative position in front of the panel

and somewhat above the fall board, and means by which the tracker bar may be moved to a position within the piano below the panel and behind the fall board.



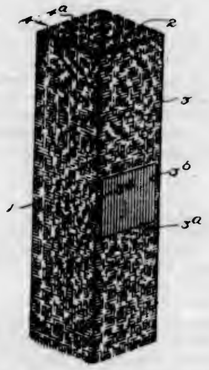
3. The combination with a piano casing having a front panel and a fall board, of a tracker bar normally concealed within the casing below the panel and behind the fall board, and means for moving the tracker bar to and supporting it at a position exterior to the casing.

4. The combination with a piano casing having a front casing and a fall board, of a tracker bar normally concealed within the casing below the panel and behind the fall board, a pivotal support for the tracker bar, an opening through the casing in front of the panel and normally closed by a door, and means for moving the tracker bar on its pivotal support so as to cause it to raise the door and pass through said opening to the exterior of the casing.

5. The combination with a piano casing having a front panel, a fall board and an opening between the lower part of the panel and the fall board, and a door adapted to close said opening, of a tracker bar and a pivotal support therefor located within the casing, means for moving the tracker bar on its pivotal support so that it will open the door and pass to the exterior of the casing, and means for moving a perforated sheet over the tracker bar when in its exterior position.

[Claims 6 to 11 not printed in the Gazette.]

1,137,405. WOVEN TUBE AND METHOD OF WEAVING THE SAME. VICTOR H. JENNINGS, Worcester, Mass., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass., a Corporation of Massachusetts. Filed Sept. 23, 1912. Serial No. 721,867. (Cl. 139—72.)



1. A tubular woven fabric having a plurality of sides meeting at angles, with the corners angularly defined in the weaving and with each of said sides composed of its individual set of warp threads.

2. A tubular woven fabric having woven in one side of the tube an opening or window extending transversely across manifold warp-spaces as well as longitudinally of the warps, with its lateral margins formed with selvages produced in the weaving, the intervening warp-threads floated from top to bottom of the opening or window, and weft-threads omitted from said top to said bottom.

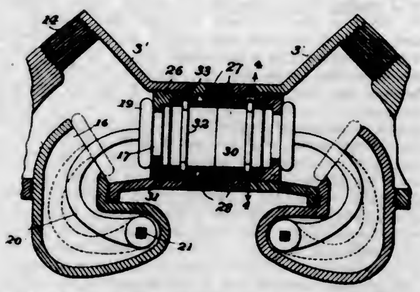
3. A tubular woven fabric having in one side thereof an opening or window extending transversely across manifold warp-spaces as well as longitudinally of the warps, with its lateral margins formed with selvages produced in the weaving, and with a longitudinal selvaged slit in another side thereof.

4. A tubular woven fabric having a plurality of sides greater than two meeting at angles, the corners defined in the weaving, and having woven in one of the said sides an opening or window extending transversely across manifold warp-spaces as well as longitudinally of the warps, with its lateral margins formed with selvages produced in the weaving.

5. A tubular woven fabric having a plurality of sides meeting at angles, the corners defined in the weaving, and having woven in one of the said sides an opening or window extending transversely across manifold warp-spaces as well as longitudinally of the warps, and also having woven in another of the said sides a narrow longitudinal slit, said opening or window and said slit having lateral margins formed with selvages produced in the weaving.

[Claims 6 to 8 not printed in the Gazette.]

1,137,406. TRAIN-PIPE COUPLING. GEORGE E. KELLY and GEORGE F. ROYER, Wilkes-Barre, Pa., assignors to The Kelly-Arnold Manufacturing Co., Wilkes-Barre, Pa., a Corporation of Pennsylvania. Original application filed Mar. 5, 1909, Serial No. 481,258. Divided and this application filed Aug. 30, 1909. Serial No. 515,300. (Cl. 137—89.)



1. In a coupler, the combination of a coupler head having a groove adjacent the mouth of a port therein, said groove forming a curved gasket seat, a gasket substantially circular in cross section seated in said gasket seat, a sleeve separate from the said gasket and head extending into said port said sleeve being provided with a flange at one end adapted to fit the curved surface of the gasket and hold the gasket to its seat, and means independent of and located near the inner end of said sleeve for detachably connecting the sleeve to the head.

2. In a coupler, the combination with a coupler head having a groove, of a sleeve loosely mounted within the head, a loose ring on the sleeve, said groove, sleeve and ring forming a gasket seat, a gasket for the seat, a passageway between the head and sleeve, and releasable means for loosely holding the sleeve within the head.

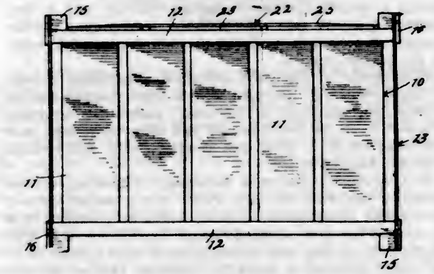
3. In a coupler, the combination with a coupler head provided with a groove, of a sleeve within the head, a loose ring on the sleeve, said groove, sleeve and ring forming a seat of substantially circular cross section, a gasket of substantially circular cross section located in the seat and an annular passage between the head and sleeve.

4. In a coupler, the combination with a coupler head having a groove adjacent the mouth of a port therein, said groove forming a gasket seat, of a sleeve separate from the gasket and head and fitting loosely within said port, said sleeve having a flange at its outer end near the mouth of the port adapted to fit the surface of the gasket and coöperate with the gasket to hold it against its seat, and a movable expansible locking device bearing against the inner surface of the sleeve near the inner end of the latter adapted to engage in a recess in the coupler head and hold the sleeve in position therein.

5. In a coupler, the combination with a coupler head, of a gasket seated in a seat formed within the mouth of a port in said head, a sleeve having apertures therein and fitting loosely within said port and adapted to coöperate with the gasket to hold it against said seat, and a movable spring bow having its body bearing against the inner surface of the sleeve and of such length that when adjusted to a position substantially transverse of the axis of the sleeve its ends will be projected through apertures in the sleeve into engagement with the surrounding portion of the coupler head and loosely retain the sleeve within the head.

[Claims 6 to 13 not printed in the Gazette.]

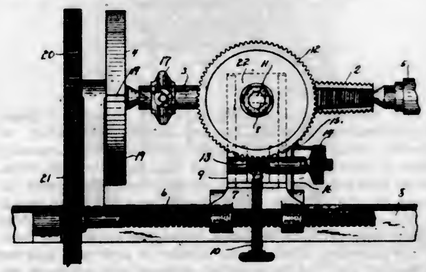
1,137,407. CRATE OR BOX. OSCAR A. LANE, DUKE GUICE, and HERMAN P. DOHRMEIER, Greenville, Ala. Filed Aug. 27, 1914. Serial No. 858,980. (Cl. 217—48.)



1. A crate or box of the character described, comprising sides having exterior longitudinal reinforcing members, ends having interior transverse reinforcing members disposed above and below the longitudinal reinforcing members and pivotally connected thereto whereby the ends are adapted to be swung longitudinally of the sides, a floor removably mounted within and between the sides and ends and having its opposite ends engaging and supported by the lower transverse reinforcing members of the ends, a cover removably mounted upon the upper longitudinal reinforcing members of the sides and carrying upon its lower surface longitudinally extending members projecting at one end beyond the corresponding end of the cover to be inserted beneath the adjacent transverse upper reinforcing member of the corresponding end, and a latch-strip pivoted to the side of the cover and adapted to have one end thereof swung to a position beneath the adjacent upper transverse reinforcing member of the corresponding end.

2. A crate or box of the character described, comprising sides having exterior longitudinal reinforcing members, ends having interior transverse reinforcing members disposed above and below the longitudinal reinforcing members and pivotally connected thereto whereby the ends are adapted to be swung longitudinally of the sides, a floor removably mounted within and between the sides and ends and having its opposite ends engaging and supported by the lower transverse reinforcing members of the ends, a cover removably mounted upon the upper longitudinal reinforcing members of the sides and carrying upon its lower surface longitudinally extending members projecting at one end beyond the corresponding end of the cover to be inserted beneath the adjacent transverse upper reinforcing member of the corresponding end, and a latch-strip pivoted to the outer side of the lid and adapted to have its opposite ends swung to positions beneath the upper transverse reinforcing members of the ends to detachably lock the cover.

1,137,408. MEANS FOR CUTTING THREADING-DIES. WILBUR A. LEONARD, New Haven, Conn. Filed Sept. 14, 1914. Serial No. 861,613. (Cl. 10—154.)



1. The combination with a tap cutter and means for driving the same, of a die-blank holder and means for moving the same in time with the tap cutter, and means for rocking the blank holder with relation to the cutter whereby the dies of a set produced will cut threads of a greater angle than the angle of the tap cutter.

2. The combination with a tap cutter and means for driving the same, a feed screw parallel with the tap cutter, a carriage on said feed screw and movable thereon, a blank holder mounted in said carriage, and means for advancing and holding the tap cutter, a space in advance of the previous position corresponding to the number of dies in a set.

3. The combination with a tap cutter, of means for supporting the same and for rotating it, a feed screw parallel with the tap cutter, a carriage on said feed screw, an adjustable block in said carriage, a blank holder in said block, means for rocking the said block, and connection between the driving means for the cutter and driving means for the feed screw whereby the blank may be moved in predetermined relation to the cutter, and a dog connected with said tap cutter and adjustably engaged with the means for driving the same.

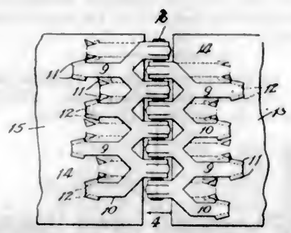
4. The combination with a tap cutter, of means for supporting the same and for rotating the die, a feed screw parallel with the cutter, a carriage on said feed screw, an adjustable block on said carriage, a blank holder and means for rocking the said block, connections between the driving means for the feed screw whereby the blank may be moved in predetermined relation to the cutter, and means for advancing and holding the tap cutter a space in advance of the previous position corresponding to the number of dies in a set.

5. The combination with a tap cutter, of a head with which the cutter is centrally engaged, said head formed with a series of notches, a feed screw parallel with the tap cutter, a carriage on said feed screw, a blank holder movable with said carriage, and a dog fixed to the tap cutter and adapted to engage with said head whereby the tap cutter may be adjusted relatively to the position of the blank holder whereby the beginning of the cutter operation of a series of blanks will be relatively advanced.

1,137,409. BELT-FASTENER. FRANK M. LINDERMAN, Chicago, Ill. Filed Aug. 5, 1914. Serial No. 855,255. (Cl. 24—33.)

1. A belt-fastener comprising a bar formed of diagonally-extending sections forming apexes alternately on opposite edges of the bar and having diagonal scores in one face, arms of varying length on each edge of the bar extending from the successive apexes, the arms on one

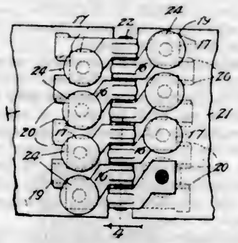
edge of the bar being bent on themselves between their ends to extend along the spaces between the arms on the opposite edge thereof, and prongs on the outer ends of the arms.



2. A belt-fastener comprising a bar formed of diagonally-extending sections forming apexes alternately on opposite sides of the bar, arms extending from opposite edges of the bar, the arms on one edge being bent on themselves between their ends to extend along the spaces between the arms on the opposite edge, and a pair of prongs on the outer end of each arm having the members folded toward each other on diagonal outwardly converging lines, at the junctions between the prongs of each pair and the respective arm, whereby in the driving of the prongs the members of each bar are caused to spread outwardly at their end portions and to be self-clenched in spread condition against the adjacent belt surface.

3. A belt-fastener comprising a bar formed of diagonally extending sections forming apexes alternately on opposite edges of the bar, arms of varying length extending from the successive apexes, the arms on one edge of the bar being bent on themselves between their ends to extend along the spaces between the arms on the opposite edge, and a pair of prongs on the outer end of each arm having the members folded toward each other on diagonal outwardly converging lines at the junctions between the prongs of each pair and the respective arm.

1,137,410. BELT-FASTENER. FRANK M. LINDERMAN, Chicago, Ill. Filed Aug. 5, 1914. Serial No. 855,256. (Cl. 24—33.)



1. A belt-fastener of sheet-metal, comprising a body-section having prongs projecting at right angles from it in pairs at intervals along one edge and provided with rivet holes adjacent to the prongs, and spaced arms extending from the opposite edge of said section, provided on their ends with diagonally projecting necks terminating in spaced heads containing rivet holes, said arms being bent upon themselves between their ends, thereby bringing the rivet holes in the heads respectively coincident with those in the body-section and the outer edges of the heads adjacent to the base-line of the prongs.

2. A belt-fastener of sheet-metal, comprising a body-section having prongs cut out of one edge forming pairs projecting at right-angles from said section, the members of each pair having respectively opposite straight and diagonal edges, rivet holes in said section adjacent to the prongs, and spaced arms extending from the opposite edge of said section, provided on their ends with diagonally projecting necks terminating in spaced heads containing rivet holes, said arms being bent midway between their ends upon themselves to form hinge-knuckles at the point of bending, thereby bringing the rivet holes in the heads respectively coincident with those in the body-section and the outer edges of the heads short of the base-line of the prongs.

1,137,411. POULTRY-HOUSE. JOHN LISKA, Ovid, Mich. Filed July 22, 1914. Serial No. 852,468. (Cl. 119—21.)



1. A poultry house comprising a pentahedron shaped coop, a lower hinged portion upon the rear coop side and having a plurality of doors carried thereby, and a tray positioned within said coop adjacent said hinged portion thereof adapted to be removed through the space occupied by the hinged portion.

2. A device of the class described, comprising a coop having a rear wall provided with a lower hinged section having door openings at the ends, means for retaining said section in its open position, and doors carried by said wall adapted for closing said openings when said section is in its closed position.

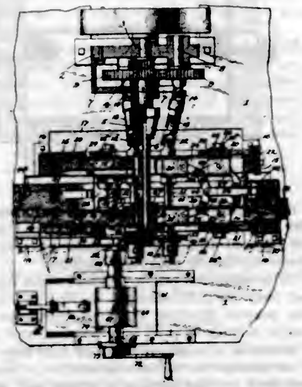
3. A device of the class described, comprising a coop having a rear wall provided with a lower hinged section having door openings at the ends, means for retaining said section in its open position, doors carried by said wall adapted for closing said openings when said portion is in its closed position, a plurality of doors carried by said hinged section, and a tray within said coop adjacent said hinged section of the rear side thereof adapted to be removed through the space occupied by the hinged section.

1,137,412. MACHINE FOR COILING METAL. CYRUS H. LOUTREL, South Orange, N. J., assignor to The National Lock Washer Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 8, 1914. Serial No. 830,428. (Cl. 153—65.)

1. In a coiling machine, the combination of a rotatable mandrel; a fixed die surrounding the same and having a spirally-inclined face; a plurality of forming rolls located in a spiral stepped relation with reference to said face; means for positively driving said rolls; means for effecting an initial adjustment of said rolls toward the mandrel; and means for moving said rolls into and out of operative relation with the die and mandrel.

2. In a coiling machine, the combination of a rotatable mandrel; a fixed die surrounding the same and having a spirally-inclined working face; a plurality of shafts spaced about said mandrel; a roll carried by each shaft and adapted to coöperate with the die and mandrel; a plurality of pairs of fulcrum blocks, one pair for each shaft; means for adjusting said blocks simultaneously toward and from the mandrel; bearing boxes for each shaft; connections between said boxes and blocks; means for simultaneously adjusting said connections, whereby the shafts, and consequently the rolls, may be adjusted with reference to the mandrel and die; and means for driving the shafts, and consequently the rolls carried thereby.

3. In a coiling machine, the combination of a rotatable mandrel; a fixed die surrounding the same and having a spirally-inclined working face; a plurality of shafts spaced about said mandrel; a forming roll carried by each shaft adjacent the outer end of the mandrel and the working face aforesaid; means for rotating said shafts; a plurality of pairs of fulcrum blocks, one pair for each shaft; a cam mechanism for simultaneously adjusting said blocks toward and from the mandrel; a pair of supporting boxes for each shaft; a link connection between the boxes and their respective fulcrum blocks; and a cam mechanism for simultaneously adjusting said link connections.



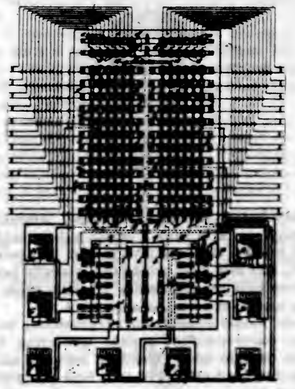
4. In a coiling machine, the combination of a rotatable shaft; a chuck carried thereby; a mandrel secured in said chuck; a fixed frame; a spider secured thereto and forming a support for the mandrel adjacent its outer end; a spirally-faced die carried by the spider and surrounding the mandrel, the end of the mandrel projecting beyond said face; a plurality of shafts arranged around the mandrel; a forming roll carried by each shaft, the rolls standing in a stepped relation to each other and having their working faces lying close to the spiral face of the die; a pair of boxes for each shaft; a fulcrum block for each box, said blocks being arranged in pairs and movable in radially-disposed ways in the fixed frame; a cam mechanism for simultaneously adjusting said blocks toward or from the mandrel; an adjustable link connection between each block and its adjacent box; a cam mechanism for effecting a simultaneous adjustment of said link connections; and means for driving the shafts.

5. In a coiling machine, the combination of a positively-driven, rotatable mandrel; a fixed die surrounding the same, said die having a spirally-formed face upon its outer end; a stock feeding guide located at one side of the mandrel and adapted to deliver the stock at the innermost portion of the spiral face of the die; and a plurality of similarly shaped forming rolls disposed about the mandrel and overlapping the face of the fixed die, said rolls having a spiral stepped relation to each other conforming to the spiral face of the die, and acting to force the stock against said spiral face.

[Claims 6 to 17 not printed in the Gazette.]

1,137,413. METERING PANEL-BOARD. ARTHUR C. MCWILLIAMS, Chicago, Ill. Filed Apr. 25, 1910. Serial No. 557,535. (Cl. 247—13.)

1. A metering panel board having a plurality of groups of fixed crossed conductors, the conductors running one way being for the meter circuits and those running across them being for the consumption circuits, said conductors being adapted to be electrically connected at their points of crossing, and means for electrically energizing said conductors, all the conductors of a group being normally of the same polarity and the conductors of one group being of a different polarity from the conductors of another group.



2. A metering panel board having groups of permanent crossed conductors, substantially all of the conductors of a group being of the same polarity and differing in polarity from the conductors of another group, the conductors running one way being for the meter circuits and those running across them being for the consumption circuits, said conductors having means for electrically connecting them at their points of crossing, a bus bar and means for connecting it to a plurality of the said consumption circuits, said bus bar being arranged crosswise of a plurality of said groups beyond the ends thereof.

3. A metering panel board having crossed permanent conductors arranged in a plurality of groups, substantially all of the conductors of a group being of the same plurality and differing in polarity from the conductors of another group, the conductors running one way being for the meter circuits, those running across them being for the consumption circuits, means for electrically connecting said crossing conductors at the points of crossing, a bus bar extending across two or more of said groups and being located slightly beyond the ends of said groups, and means for connecting said bus bar to a plurality of the consumption circuits to thereby complete the circuit through them.

4. A metering panel board having crossed permanent conductor bars arranged in a plurality of groups, substantially all of the bars of a group being of the same polarity and differing in polarity from the bars of another group, each group consisting of vertically arranged meter bars and horizontally arranged consumption circuit bars, means for electrically connecting said bars at their points of crossing, and horizontally arranged bus bars located slightly beyond the ends of the meter bars adapted to be electrically connected to the consumption circuits.

5. A metering panel board having stationary crossed conductors segregated into two groups substantially all of the conductors of a group being of the same polarity, and the adjacent groups being of different polarity, and said conductors being adapted to be electrically connected at their points of crossing, and a bus bar whereby the circuits may be energized.

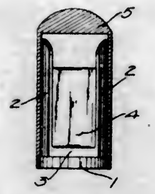
[Claims 6 to 10 not printed in the Gazette.]

1,137,414. ROSIN-HOLDER. WILLIAM F. T. MOLLERHAUER and HARLAN E. LEACH, Owatonna, Minn. Filed May 20, 1914. Serial No. 839,918. (Cl. 206—56.)

1. A rosin holder comprising a base, laterally spaced prongs rising from said base, and a raised hub on said base between said prongs, the said prongs and hub being of the same width, and said base projecting laterally beyond said hub.

2. A rosin holder comprising a base and laterally spaced rigid prongs having parallel edges, said base projecting laterally beyond said prongs, combined with a cake of

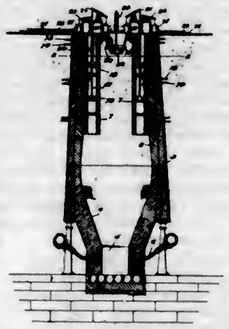
rosin cast between and against said prongs and upon said base.



3. A rosin holder comprising a base, laterally spaced prongs rising from said base, a raised hub on said base between said prongs, the said prongs and hub being of the same width, and said base projecting laterally beyond said hub, and the said prongs having concave inner surfaces for holding a cake of rosin between them.

4. A rosin holder comprising a cylindrical base, laterally spaced concavo-convex prongs projecting from said base, a hub on said base extending between said prongs and having flattened sides, the said base projecting laterally outward beyond said prongs and hub, and a casing adapted to be telescoped over said prongs.

1,137,415. APPARATUS FOR FEEDING LIME TO BLAST-FURNACES. JAMES G. MORGAN, Jackson, Ohio. Filed Nov. 3, 1913. Serial No. 799,000. (Cl. 75—115.)



1. In a blast furnace, a chute of straight line extent projecting vertically downward from the upper end of the furnace, being located wholly therein and being open at its lower end, the lower end being on a level above the zone of fusion and below the zone where carbon dioxid gas exists.

2. In a blast furnace whose walls incline downward and outward to the bosh and then downward and centrally, a chute extending straight downward from the upper end of the furnace and disposed against the inner face of the wall of the furnace, said chute being open at its lower end, the mouth of the chute being disposed above the zone of fusion.

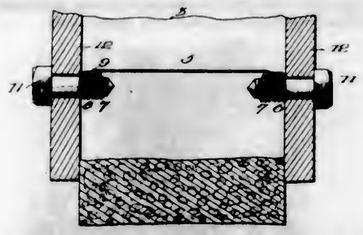
3. In a blast furnace, a chute located interiorly of the furnace extending downward from the upper end of the furnace and opening at its lower end, the lower end being on a level above the zone of combustion and below the zone where carbon dioxid gas exists.

4. In a blast furnace, the inner face of whose walls extends downward and outward to the bosh, a chute, located interiorly of the furnace extending straight downward from the upper end of the furnace and disposed at its upper end partially in the furnace wall and with its lower end wholly within the furnace and clear of the wall.

5. In a blast furnace, a chute located within the furnace extending downward from the upper end of the furnace and disposed against the inner face of the wall thereof, the chute terminating short of the bosh and being adapted to discharge matter out of contact with the wall.

[Claims 6 to 8 not printed in the Gazette.]

1,137,416. APPARATUS FOR CASTING CONCRETE WALLS. GURDON SALTONSTALL MUMFORD, New York, N. Y. Filed Dec. 24, 1914. Serial No. 878,917. (Cl. 25—131.)



1. A tie member for use in concrete walls comprising an extended body portion having a helical end extending in the same general direction and connected near the middle of its outer surface to said body portion.

2. A tie member for use in concrete walls comprising an extended body portion having a helical end extending in the same general direction and connected near the middle of its outer surface to said body portion, and an enlarged anchor device at the opposite end of said body member.

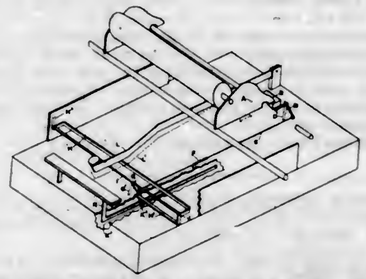
3. A tie member for use in concrete walls comprising an extended body portion having a helical end extending in the same general direction and connected near the middle of its outer surface to said body portion, and a helical coil at the opposite end of said body member adapted to act as an anchor and receive a solid member within its coils.

4. A tie member for use in concrete walls comprising an extended body portion having a helical end extending in the same general direction, said helical end being formed in two parts oppositely wound.

5. A tie member for use in concrete walls comprising an extended body portion having a helical end extending in the same general direction, said helical end being formed from a continuation of said body portion and comprising two oppositely wound sections adapted to receive a threaded member.

[Claims 6 to 14 not printed in the Gazette.]

1,137,417. TYPE-WRITER KEY-LOCK. ALBERT F. NATHAN, Jr., New York, N. Y. Filed Sept. 7, 1905. Serial No. 277,297. (Cl. 197—110.)



1. A typewriter comprising in combination, a carriage, a plurality of operating-keys, a member connected with an operating-key and adapted to be vibrated thereby, a member movable by said carriage into the path of said vibrating member, and a device for locking certain of said keys and movable into operative position by said carriage-moved member when it is moved by said vibrating-member.

2. A typewriter comprising in combination, a carriage, a plurality of operating-keys, a vibrator movable by an operating-key, an interponent movable by said carriage into the path of said vibrator, whereby said interponent may be laterally shifted by said vibrator, and a key-locking device movable into locking position by said interponent when the latter is shifted by said vibrator.

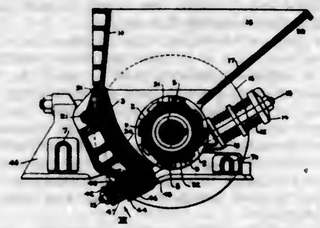
3. A typewriter comprising in combination, a carriage, operating-keys, a line-lock, an operative connection between said carriage and said lock, and independent means extending from an operating-key to said line-lock adapted to enable said key to move said line-lock into locking relation with other of said keys.

4. A typewriter comprising in combination, a carriage, operating-keys, a line-lock mechanism, a device movable by said carriage for rendering effective and ineffective said line-lock mechanism to the action of an operating-key, and means controlled by an operating-key for coöperating with said carriage-moved means for setting said mechanism into locking relation.

5. A typewriter comprising in combination, a carriage, operating-keys, a line-lock, normally ineffective line-lock operating means connected with an operating-key, a device operated by the carriage for rendering said operating-means effective after a given station has been passed by the carriage, whereby other operating-keys may be locked after the next stroke on said first mentioned operating-key.

[Claims 6 to 40 not printed in the Gazette.]

1,137,418. ROLL-CRUSHER. RAY C. NEWHOUSE, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Sept. 19, 1912. Serial No. 721,319. (Cl. 83—14.)



1. In a crusher, a rotatable roll having a plurality of slugger knobs, means for positively rotating said roll, a normally stationary anvil having a gradually curved crushing surface which approaches said roll, and a hopper having guiding surfaces adjacent said roll and anvil for delivering material to the entire upper portion of said roll in the path of said knobs and to the space between said anvil and said roll, said guiding surface adjacent said anvil being overhung toward said roll and being substantially tangent to the end of said anvil surface and said guiding surface adjacent said roll being inclined relative to said first mentioned guiding surface and being substantially radial relative to said roll.

2. In a crusher, a rotatable roll having a plurality of slugger knobs, means for positively rotating said roll, a normally stationary anvil having a crushing surface which gradually approaches and extends under said roll, the crushing surface of said anvil being smooth in both transverse and lateral extent, and means for feeding material to the space between said roll and anvil.

3. In a crusher, a rotatable roll having a plurality of slugger knobs, means for positively rotating said roll, a normally stationary anvil having a gradually curved crushing surface which approaches said roll, the crushing surface of said anvil being smooth in both transverse and lateral extent, and a hopper having guiding surfaces adjacent said anvil and roll, said guiding surface adjacent said anvil being substantially tangent to the end of said curved anvil surface, and said guiding surface adjacent said roll being inclined relative to said first mentioned guiding surface and being substantially radial relative to said roll.

4. In a crusher, a rotatable roll, an anvil having a crushing surface adjacent said roll, means for permitting recession of said anvil from said roll during abnormal conditions of operation, and elastic means for cushioning said anvil during its return movement.

5. In a crusher, a rotatable roll, an anvil having a crushing surface adjacent said roll, means for permitting recession of said anvil from said roll, and spring means for cushioning said anvil during its return movement.

[Claims 6 to 12 not printed in the Gazette.]

1,137,419. FASTENER FOR HAND-BAGS AND THE LIKE. KARL OSWALD, Irvington, N. J. Filed Dec. 31, 1913. Serial No. 809,608. (Cl. 70—116.)



1. The combination with a pair of hinged frame sections, of a primary locking member on one of said sections arranged and adapted to tilt in a plane transverse to said sections and normally engaging the other section to prevent separation of the said sections, and a secondary locking member mounted on said primary locking member to swing in the plane of the frame sections and lie outside the same when they are closed.

2. The combination with a pair of hinged frame sections, of a primary locking member on one of said sections arranged and adapted to tilt in a plane transverse to said sections and normally engaging the other section to prevent separation of the said sections, and an arm mounted on said primary locking member to swing in the plane of the frame sections and lie outside the section which does not carry the primary locking member when said sections are closed.

3. The combination with a pair of hinged frame sections, of a primary locking member on one of said sections arranged and adapted to tilt in a plane transverse to said sections and normally engaging the other section to prevent separation of the said sections, and a secondary locking member comprising opposite arms mounted on said primary locking member to swing in planes parallel to the frame sections and lie outside the same when they are closed.

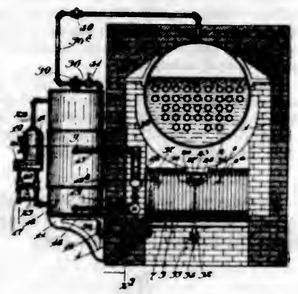
4. The combination with a pair of hinged frame sections, of a primary locking member on one of said sections arranged and adapted to tilt in a plane transverse to said sections and normally engaging the other section to prevent separation of the said sections, and a secondary locking member comprising arms at opposite sides of said primary locking member adapted to swing in planes parallel to the frame sections and lie outside the same when they are closed, and pivoting means extending between said arms through said primary locking member and holding the arms against turning independently of each other.

5. The combination with a pair of hinged frame sections, of spaced posts on one of said sections, a hollow bar having its ends journaled in said posts, a torsion spring inside said hollow bar, said spring engaging the hollow bar at one end to turn therewith and at its other end engaging a fixed part to prevent turning, and a body on said hollow bar adapted to engage the other frame section and releasably hold said sections against separation.

1,137,420. FURNACE. JOHN POMEROY, East St. Kilda, Victoria, Australia. Filed July 12, 1912. Serial No. 708,999. (Cl. 110—59.)

1. In a furnace, a steam supply pipe, a perforated nozzle pipe delivering steam to the furnace and having an

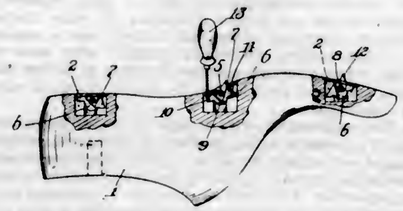
offset end connected to said steam supply pipe by a swivel joint, and a rock shaft axially alined with said swivel joint and having arms connected to the said nozzle pipe for supporting and adjusting the same.



2. In a furnace, a steam supply pipe, a perforated nozzle pipe delivering steam to the furnace and having an offset end connected to said steam supply pipe by a swivel joint, a rock shaft axially alined with said swivel joint and having arms connected to the said nozzle pipe for supporting and adjusting the same, and operating connections to said rock shaft for oscillating the same, said connections extending to the exterior of the furnace.

3. In a furnace, a steam supply pipe, a perforated nozzle pipe delivering steam to the furnace and having an offset end connected to said steam supply pipe by a swivel joint, a rock shaft axially alined with said swivel joint and having arms connected to the said nozzle pipe for supporting and adjusting the same, operating connections to said rock shaft for oscillating the same, said connections extending to the exterior of the furnace, and an air bridge inclosing said nozzle pipe.

1,137,421. LAST. JOSEPH HORACE POPE, Hamilton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 2, 1911. Serial No. 658,209. (Cl. 12—141.)



1. A last having a sole retaining prong movable into operative or inoperative position, and means for retaining said prong in operative position, said prong being constructed and mounted to be moved into inoperative position by the withdrawal of that part of the last which contains the prong from the shoe.

2. A last having a sole retaining prong movable into operative or inoperative position, said prong being mounted to be moved into inoperative position by the relative movement of the last and sole during the withdrawal of the last from the shoe, and means for yieldingly holding said prong in operative position.

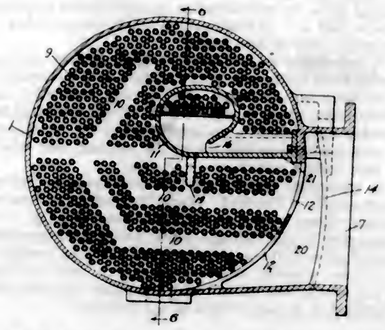
3. A last having a sole retaining prong mounted for swinging movement into a plurality of positions and means for maintaining said prong in any one of said positions.

4. A last having a sole retaining prong mounted for movement into operative or inoperative position and means for yieldingly retaining said prong in each of said positions.

5. A last having a sole retaining prong, means supporting said prong for swinging movement into operative or inoperative position and yielding means for retaining said prong in each of said positions.

[Claims 6 to 14 not printed in the Gazette.]

1,137,422. SURFACE CONDENSER. FREDERICK RAY, Short Hills, N. J., assignor to Alberger Pump and Condenser Company, New York, N. Y., a Corporation of New York. Filed Sept. 24, 1912. Serial No. 722,008. (Cl. 257—43.)



1. In a surface condenser, the combination with an outer cylindrical shell, of an inner partition forming with said shell a spiral condensing chamber receiving the exhaust steam at its larger end, said partition being curved and having a lateral opening and forming an auxiliary condensing chamber receiving therein the air and uncondensable vapors which are cooled in said auxiliary chamber and then removed therefrom.

2. In a surface condenser, the combination with an outer cylindrical shell, of an inner partition forming with said shell a spiral condensing chamber receiving the exhaust steam at its larger end, said partition being curved and having a flat portion separated from the curved part to provide a lateral opening for the admission of the air and uncondensable vapors into an auxiliary chamber within the partition and adjacent to the small end of the spiral chamber, the air and uncondensable vapors being cooled in said auxiliary chamber and being withdrawn therefrom.

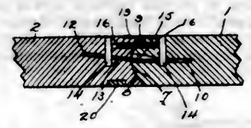
3. In a surface condenser, the combination with an outer cylindrical shell, of an inner eccentric curved partition forming with said shell a spiral condensing chamber receiving the exhaust steam at its larger end, said partition forming an auxiliary condensing chamber having a lateral opening in the smaller end of the main spiral chamber and receiving through said opening the air to be cooled.

4. In a surface condenser, the combination with a shell, of an inner eccentric curved partition having a flat portion separated from the curved part to leave a lateral longitudinal opening, said partition forming with the outer shell a spiral condensing chamber receiving the exhaust steam at its larger end and through which the steam courses and delivers air and uncondensable vapors into the interior of the partition at the small end of the spiral chamber, said partition thus providing an auxiliary chamber which serves as an air cooler and from which the air is withdrawn from the condenser.

5. In a surface condenser, the combination with a shell, water chambers at the ends, and connecting water-cooled tubes, of a partition or baffle plate eccentrically placed within the shell so as to form with the latter a spiral condenser chamber receiving the steam at its larger end, said partition having an internal cooling chamber having a longitudinal side opening which receives the air and uncondensable vapors and allows them to be removed from the condenser.

[Claims 6 to 10 not printed in the Gazette.]

1,137,423. SHOE. GEORGE H. RICKE, Cincinnati, Ohio, assignor of one-half to Edward Oelker, Cincinnati, Ohio. Filed June 3, 1914. Serial No. 842,655. (Cl. 36—33.)



1. In a shoe of the character described, a sole, said sole comprising two sections having abutting ends, said abutting ends having a slot therein, a plate located in said slot, and means for securing said plate to said sections, one of said abutting ends being partly cut away and the other of said abutting ends being cut away adjacent said plate in such manner as to facilitate bending of the sole.

2. In a shoe of the character described, a sole, said sole comprising a section having a concave end face and a section having a convex end face closely fitting said concave face except at the upper portions of said faces, said concave and convex ends having a slot therein, a plate located in said slot, and means for securing said plate to said sections, said concave end being cut away at its upper portion and said convex end being cut away adjacent said plate in such manner as to facilitate bending of the sole.

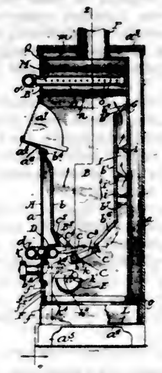
3. In a shoe of the character described, a sole, said sole comprising a section having a concave end face and a section having a convex end face closely fitting said concave face except at the upper portions of said faces, said concave and convex ends having a slot therein, a plate located in said slot, means for securing said plate to said sections, said concave end being cut away at its upper portion and said convex end being cut away adjacent said plate in such manner as to facilitate bending of the sole, and a flexible material placed over the meeting faces of the sections at the top thereof.

4. In a shoe of the character described, a sole, said sole comprising a section having a concave end face and a section having a convex end face closely fitting said concave face except at the upper portions of said faces, said concave and convex ends having a slot therein, a plate located in said slot, means for securing said plate to said sections, said concave end being cut away at its upper portion and said convex end being cut away adjacent said plate in such manner as to facilitate bending of said sole, said concave and convex ends having a second slot therein above said plate, and a layer of leather and a layer of metal placed in said last named slot.

5. In a shoe of the character described, a sole, said sole comprising a section having a concave end face and a section having a convex end face closely fitting said concave face except at the upper portions of said faces, said concave and convex ends having a slot therein, a plate located in said slot, means for securing said plate to said sections, said concave end being cut away at its upper portion and said convex end being cut away adjacent said plate in such manner as to facilitate bending of said sole, said concave and convex ends having a second slot therein above said plate, a layer of leather and a layer of metal placed in said last named slot, and a layer of flexible material placed over the upper edge of said faces on top of said sole sections.

1,137,424. INCINERATOR. JAMES B. RICKETTS, New York, N. Y., assignor to The Nightingale Company, New York, N. Y., a Corporation of New York. Filed Mar. 22, 1913. Serial No. 756,218. (Cl. 110—18.)

1. In an incinerator, a combustion chamber one of the walls of which is provided with an offset, in combination with a burner having flame apertures positioned to direct the flame beyond said offset, and a grate provided with flame openings the area of which is such that the flame from the burner will pass into direct contact with the material resting upon the grate and without impinging the metal of the grate.



2. In an incinerator, the combination of a combustion chamber the front wall of which is provided with a horizontal offset extending inwardly of the chamber and at the lower part thereof, a burner substantially housed by the offset, and a single dumping grate at the lower end of said chamber and in the horizontal plane of the burner, said grate having flame openings of such area that the flame emanating from the burner will pass therethrough without impinging the grate.

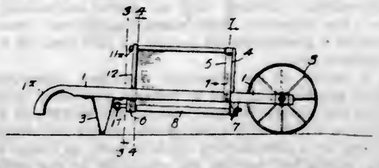
3. In an incinerator, a combustion chamber the opposite walls of which converge at the lower parts thereof, one of said converging walls being a transverse offset, a burner positioned below said offset, and a single pivoted grate provided with upwardly diverging wings adapted to respectively contact with said diverging walls.

4. In an incinerator, a combustion chamber the opposite walls of which converge at the lower parts thereof, one of said converging walls being a transverse offset, a burner positioned below said offset, and a single pivoted grate provided with upwardly diverging wings adapted to respectively contact with said diverging walls, the wing of said grate nearest the burner having flame openings of such area that the flame emanating from the burner will pass therethrough without impinging the grate.

5. In an incinerator, the combination of a combustion chamber the front and rear walls of which converge at the lower parts thereof, a burner positioned substantially forwardly of the converging part of one wall, and a single grate embodying upwardly extending wings which coöperate with the converging parts of said walls respectively, the wing of said grate nearest the burner having flame openings through which are adapted to pass the flame emanating from the burner so as to act directly upon the material resting upon the grate.

[Claims 6 to 28 not printed in the Gazette.]

1,137,425. WHEELBARROW. JOHN HALL ROYALL, Wake Forest, N. C. Filed July 16, 1913. Serial No. 779,274. (Cl. 21—68.)



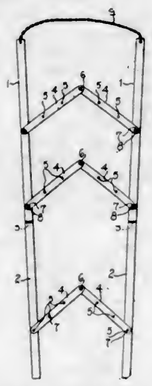
1. In a wheelbarrow, a frame comprising a pair of converging members and cross members secured to said converging members underneath the latter, integral handles for said frame, the converging members of the frame each

having a socket or recess, stationary front posts carried by said frame, a post hinged to each converging member of the frame and adapted to enter said recess, a roller carried by said cross members underneath each of said converging frame members and flexible side sheets carried by said rollers and arranged to be supported in position by said hinged supports at one end and by said front posts at the other.

2. In a wheelbarrow, a frame, stationary front posts carried by said frame, hinged rear posts carried by the frame, rollers disposed underneath the frame, and flexible side sheets carried by said rollers and arranged to be supported in position by said hinged supports at one end and by said front posts at the other.

3. In a wheelbarrow, a frame, stationary front posts carried by said frame, hinged rear posts carried by the frame, rollers disposed underneath the frame, flexible side sheets carried by said rollers, a supporting bar for each of said side sheets, one end of said supporting bar being bent laterally to engage and to be supported by said hinged post, and the other end of the bar being supported by one of said posts.

1,137,426. GARMENT-STRETCHER. LEONARD NELSON SALISBURY, Fairmont, W. Va. Filed Apr. 22, 1914. Serial No. 833,756. (Cl. 223—19.)



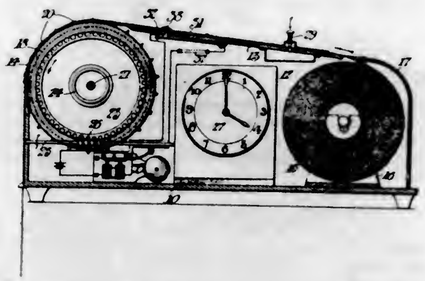
A trousers stretcher comprising a pair of bars foldable intermediate of their ends upon themselves, pairs of links longitudinally adjustable relative to each other, removable bolts extending through the outer ends of the links, and through the bars, and wing nuts carried by the bolts and adapted to engage the links to lock the same against pivotal movement.

1,137,427. APPOINTMENT-ANNOUNCER. SCHUYLER R. SCHAFF, Louisville, Ky. Filed Dec. 8, 1914. Serial No. 876,029. (Cl. 161—3.)

1. A device of the character described, including a strip of paper or the like marked along its length to indicate subdivisions of time and adapted to have memoranda written or printed thereon, means for advancing said strip at a substantially uniform rate, an alarm mechanism, and means for operating said alarm mechanism upon the arrival of a predetermined portion of said strip at a predetermined point.

2. A device of the character described, comprising a strip of paper sub-divided to indicate successive intervals of time and adapted to have memoranda written or printed thereon within said subdivisions, means for advancing said strip at a substantially uniform rate, an alarm mechanism, means for varying the character of the strip opposite the memoranda thereon, and means for operating said alarm mechanism upon the arrival of said memoranda bearing portion at a predetermined point in its path of travel.

3. A device of the character described, comprising a strip of paper sub-divided to indicate successive intervals of time and adapted to have memoranda concerning events to take place at or following particular predetermined times written or printed thereon, means for perforating the strip opposite such memoranda, means for advancing said strip, and means for sounding an alarm upon the arrival of the perforation at a predetermined point in its path of travel.



4. A device of the character described, comprising a strip of paper sub-divided to indicate successive intervals of time and adapted to have memoranda concerning events to take place at or following particular predetermined times written or printed thereon, means for perforating the strip opposite such memoranda, means for advancing said strip, an alarm mechanism, and means for operating said mechanism, said means being controlled by the movement of said perforation at a predetermined point in its path of travel.

5. A device of the character described, comprising a strip of paper sub-divided to indicate successive intervals of time and adapted to have memoranda concerning events to take place at or following particular predetermined times written or printed thereon, means for perforating the strip opposite such memoranda, means for advancing said strip, an alarm mechanism, and a controller for said alarm mechanism movable to effect the sounding of the alarm upon the movement of a perforation past said controller.

[Claims 6 to 8 not printed in the Gazette.]

1,137,428. PROTECTOR. JOHN SCHOENING, Kenosha, Wis. Filed Oct. 7, 1914. Serial No. 865,539. (Cl. 54—65.)



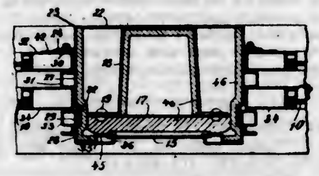
1. A device of the class described including a U-shaped metallic body member having alined slots formed adjacent each edge thereof, a protecting pad of substantially the same shape as the body member and adapted to be arranged within the body member and in spaced relation thereto, and means adjustably arranged within said slots to connect the pad with the body member, as and for the purpose set forth.

2. A device of the class described including a U-shaped metallic body member having alined slots formed therein adjacent each edge, a protecting pad of substantially the same shape as the body member and provided with a central opening, said protecting pad being arranged in spaced relation with the inner walls of the body member to form a chamber between the pad and the body member, plates carried by the side walls of the pad, plates arranged upon the outer side of the metallic body member and screw bolts extended through the slots and engaged with the

said plates, whereby said pad may be longitudinally adjusted with respect to the metallic body member, as and for the purpose set forth.

3. A device of the class described including a metallic body member, a protecting pad mounted upon the inner side thereof and in spaced relation therewith, said pad being provided with a central opening communicating with the space between the pad and the body member, plates carried by opposite ends of the pad, screw bolts extended through the slots in the body member and engaged with the plates, whereby said pad may be adjusted longitudinally with respect to the body member, and securing straps carried by the body member, as and for the purpose set forth.

1,137,429. CAR CONSTRUCTION. WALTER E. SCOTT, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 20, 1913. Serial No. 749,602. (Cl. 189—75.)



1. A railway car having a wall comprising a plurality of parallel posts, an outer metallic sheathing secured to the posts and having its edges overlapping the openings for windows between the posts, a plurality of metallic window-frames in said openings of such width that the side-members thereof are spaced from the adjacent posts, flanges on the outer edges of the side-members of said frames, each of said frames being positioned in one of said openings by movement of the frame into the opening from the inner side of the wall until the flanges on the frame engage the inner sides of said overlapping edges of the sheathing, detachable securing devices securing said flanges to said overlapping edges of the sheathing, and flanges on the inner edges of the side-members of each frame overlapping the adjacent posts on the inner sides thereof, substantially as set forth.

2. A railway car construction comprising a wall including a plurality of parallel posts and an outer sheathing secured to the posts and having its edges overlapping the openings for windows between the posts, said edges having flanges parallel to the main portion of said sheathing, weather strips, and detachable bolts for securing said strips to said flanged overlapping edges in position to bear against sashes in window frames secured to said flanged overlapping edges, substantially as set forth.

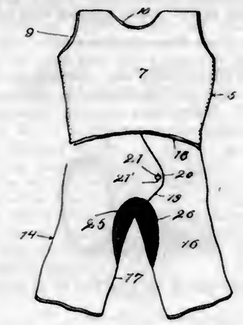
3. A railway car having a wall comprising a plurality of parallel posts, an outer sheathing secured to the posts and having its edges overlapping the openings for windows between the posts, a plurality of window-frames in said openings, flanges on the frames adapted to abut against said overlapping edges, detachable bolts securing said flanges and edges together, and strips lying against the outer faces of said overlapping edges and secured thereto by said bolts and adapted to bear against sashes in said frames, substantially as set forth.

4. A railway car having an outer sheathing whose edges overlap an opening in the wall for a window, a window-frame located in said opening and bearing against said edges, and detachable bolts securing said frame to said edges, substantially as set forth.

5. A railway car having an outer sheathing whose edges overlap an opening in the wall for a window, a window-frame located in said opening and bearing against said edges, detachable bolts securing said frame to said edges, and strips secured to the outer faces of said edges by said bolts and bearing against the window-frame, substantially as set forth.

[Claim 6 not printed in the Gazette.]

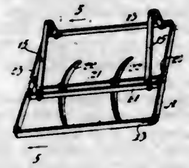
1,137,430. UNION SUIT. CHARLES ARDLEY SHEDAKER. Philadelphia, Pa. Filed July 21, 1914. Serial No. 852,171. (Cl. 2—144.)



1. In a union suit of the character described; a body portion having a front opening; a lower portion carried by the body portion and comprising legs having inner longitudinal seams, the rear portions of the legs being separated and overlapping for forming a normally closed posterior opening; a vertically yieldable crotch insert tapered toward its ends, arranged between the legs wholly rearwardly of the inner seams thereof and attached to the legs; and a second vertically yieldable crotch insert tapered toward its ends, arranged between the legs forwardly of the first named crotch insert, and attached to the legs and the first named insert, such attachment with the first named insert forming a continuation of the inner seams of the legs.

2. In a union suit of the character described; a body portion having a front opening; a lower portion carried by the body portion and comprising legs having inner longitudinal seams, the rear portions of the legs being separated and overlapping for forming a normally closed posterior opening; means for detachably connecting the overlapping rear portions of the legs; a vertically yieldable crotch insert tapered toward its ends and arranged between the legs wholly rearwardly of the inner seams and attached to the legs, said vertically yieldable crotch insert including a plurality of separate overlapping sections forming a continuation of the normally closed posterior opening; and a second vertically yieldable crotch insert tapered toward its ends, arranged between the legs forwardly of the first named crotch insert, and attached to the legs and the first named insert, such attachment with the first named insert forming a continuation of the inner seams of the legs.

1,137,431. PORTABLE CLOSET. GEORGE E. SHERMAN, Chicago, Ill. Filed Apr. 14, 1913. Serial No. 760,905. (Cl. 45—118.)

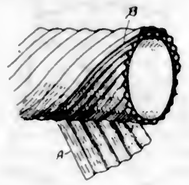


1. The combination of an envelop of flexible material, a hollow frame attached to the upper end thereof and distending the envelop to form a dust proof chamber, fastening devices upon the frame for attachment to supports, and a hanger rod suported by the frame, said fastening devices and hanger rod being collapsible into the frame substantially into the plane of the latter.

2. The combination of a frame having its central portion open, an envelop of flexible material secured to the

outer edge of the frame, fastening members pivoted to said frame and adapted to swing into the opening of the frame to a position substantially coplaner with the latter, and a hanger rod pivoted to said frame and adapted to swing into the opening of the frame against said fasteners.

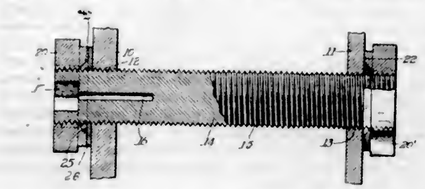
1,137,432. PIPE-COVERING. CLARENCE M. STOKES, Norristown, Pa. Filed June 27, 1910. Serial No. 569,080. (Cl. 154—44.)



1. A pipe covering consisting of a spirally wound strip of asbestos, an adhesive applied to the outer surface of said spirally wound strip and a second strip of deadening felt wound about the first named strip and adhesive, and so disposed as to overlap the joint formed by the spiral winding of the first named strip, said covering being split longitudinally as and for the purpose set forth.

2. A pipe covering consisting of a spirally wound corrugated strip of insulating material, a second corrugated strip of insulating material spirally wound about the first named strip and so disposed as to overlap the joint formed by the winding of the first named strip, and an adhesive disposed between said strips for securing them together, said covering being split longitudinally for the purpose described.

1,137,433. BOILER STAY-BOLT. GEORGE SWARTWOOD, Chicago, Ill., assignor of one-third to August Krumm and one-third to Ludwig J. Koeppen, Chicago, Ill. Filed Sept. 22, 1913. Serial No. 791,018. (Cl. 85—1.5.)



1. A stayed-plate boiler structure, comprising, in combination the parallel plates having alining threaded openings therein, a bolt-stem having threaded engagement with both of said plates, a head upon one extremity of said bolt-stem, a nut comprising a polygonal plinth threaded directly on the threads of said bolt stem beyond the other plate, said nut having in its surface confronting the plate a recess contiguous to the bolt hole in the nut, and a flat bearing surface surrounding said recess and within the periphery of the plinth.

2. In a structure of the character described, the combination with the boiler plates, having threaded apertures in threaded engagement with both of said plates and projecting beyond one of said plates, a nut upon the projecting end of said bolt comprising a polygonal plinth and a crown projecting from the surface of said plinth which confronts the contiguous plate, said crown having an annular surface 22 for contact with the plates and a beveled surface 23 extending from the bearing surface to the bolt hole.

3. In a structure of the character described the combination with the boiler plates, of a stay bolt passing therethrough and effecting screw threaded engagement with both of said plates, one end of said stay bolt projecting beyond its plate, a nut upon the projecting end of said stay bolt, and a gasket interposed between said stay bolt and plate, said nut having a recess therein and said gasket having a projection thereon to enter said recess.

4. In a structure of the character described, the combination with the boiler plates, having threaded apertures therein, of an integral rigid stay bolt extending through said plates in screw threaded engagement therewith and having a head on each end thereof, one of said heads comprising a nut engaging the threaded stem of the bolt and having a recess on its inner surface surrounding the bolt hole and a gasket interposed between said nut and said plate and having a projection thereon to interfit in said recess in the nut.

5. In a structure of the character described, the combination with the boiler plates, having threaded apertures therein, of an integral rigid stay bolt extending through said plates in screw threaded engagement therewith and having a head on each end thereof, one of said heads comprising a nut engaging the threaded stem of the bolt and having a recess on its inner surface surrounding the bolt hole and a gasket interposed between said nut and said plate, the gasket having a projection, larger than the recess in the nut, to enter said nut-recess.

[Claims 6 and 7 not printed in the Gazette.]

1,137,434. PROCESS OF MANUFACTURING FABRIC. PAUL F. VOGEL, Belleville, Ill. Filed Mar. 26, 1914. Serial No. 827,515. (Cl. 8—5.)



1. The herein-described process of manufacturing fabric consisting in twisting together thread silk in the gum with either artificial silk or cotton and then knitting or weaving same, degumming the thread silk, and then dyeing the artificial silk or the cotton.

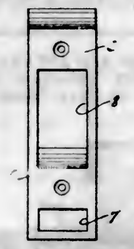
2. The herein-described process of manufacturing fabric consisting in twisting together thread silk in the gum with either artificial silk or cotton and then knitting or weaving same, degumming the thread silk by boiling the fabric in a soap bath, and then dyeing the artificial silk or the cotton.

3. The herein-described process of manufacturing fabric consisting of twisting together white thread silk in the gum with either white artificial silk or cotton and then knitting or weaving same, degumming the thread silk, then dyeing the fabric with such combination of dyestuffs and chemicals as will dye only the artificial silk or the cotton, and lastly boiling the fabric to remove the dye from the thread silk so as to leave the latter white.

4. The herein-described process of manufacturing fabric consisting in twisting together white thread silk in the gum with either white artificial silk or cotton and then knitting or weaving same, degumming the thread silk by boiling the fabric in a soap bath and then dyeing the fabric with such combination of dye stuffs and chemicals as will affect only the artificial silk or cotton.

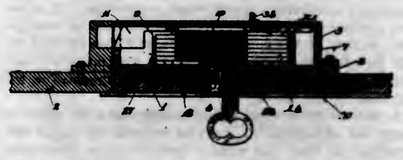
5. The herein-described process of manufacturing fabric consisting in twisting together white thread silk in the gum with either white artificial silk or cotton and then knitting or weaving same, degumming the thread silk by boiling the fabric in a soap bath, then dyeing the fabric with such combination of dye stuffs and chemicals as will substantially affect only the artificial silk or cotton and lastly boiling the fabric to remove any possible dye that may have lodged in the thread silk during the dyeing process.

1,137,435. SASH-LOCK FOR WINDOWS. WILLIAM H. VOORHEES, Woodbridge, N. J. Filed Jan. 13, 1914. Serial No. 811,830. (Cl. 16—143.)



In a device of the kind described, a casing for attachment to one window-sash, a spring actuated bolt slidably mounted in said casing so as to be projected from one end of said casing, a nosing on the outer end of said bolt, a retractor-arm pivotally connected with the interior end of said bolt and capable of a vertical swinging movement relative to said bolt, the outer end of said casing having a vertically elongated opening through which the exterior end of said retractor-arm extends, a shoulder on the exterior end of said retractor-arm adapted to engage the outer end of said casing to limit the inward movement of said retractor-arm and the projection of the nosing of said bolt, means for locking said retractor-arm against its bolt retracting movement, comprising an upwardly extending vertical portion connected with the exterior end of said retractor-arm, a rearwardly extending portion parallel to said retractor-arm connected with the free end of said vertical portion, a depending latch-nosing at the free end of said rearwardly extending portion, a holding rib at the upper forward marginal edge of said casing with which said latch-nosing engages, said latch-nosing being released from such engagement by the upward vertical swinging movement of said retractor-arm and its vertical and rearwardly extending portions, and a lock-plate for attachment with the other window-sash with which the nosing of said bolt engages.

1,137,436. INTERCHANGEABLE-KEY LOCK. ELMER ELLSWORTH WATSON, Hamilton, Ohio. Filed Sept. 24, 1909. Serial No. 519,364. (Cl. 70—70.)



1. In a device of the character described, the combination of a locking member, the member having a key slot, a key operated tumbler movable as a whole adjacent to the key slot and having a fulcrum adapted to be moved with the movement of the tumbler as a whole by the operation of a particular key for controlling the movement of the locking member, and a stump coöperating with the tumbler at one end thereof.

2. In a device of the character described, the combination of a locking member and a key-operated tumbler for controlling the movement of the locking member, said tumbler having a movable fulcrum adapted to be moved by the key, and an operative open-ended slot on each end.

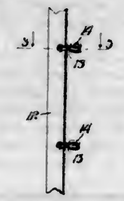
3. In a device of the character described, the combination of a locking member, a member having a key-slot, a tumbler adjacent to the key-slot for controlling the movement of the locking member, a racking stump coöperating with the tumbler at each end thereof, and a movable pin for preventing, when in one position, insertion of a key and locking of the locking member, and when in another position, permitting said insertion and locking.

4. In a device of the character described, the combination of a locking member, a member having a key-slot, a tumbler adjacent to the key-slot for controlling the movement of the locking member, said tumbler having an operative slot on each end, and a movable pin for preventing, when in one position, the insertion of a key and locking of the locking member, and when in another position, permitting said insertion and locking.

5. In a device of the character described, the combination of a locking member, a member having a key-slot, a plurality of tumblers adjacent to the key-slot for controlling the movement of the locking member, a stump coöperating with the tumblers at each end of each of the tumblers, and a movable pin for preventing, when in one position, the insertion of a key and locking of the locking member, and when in another position, permitting said insertion and locking.

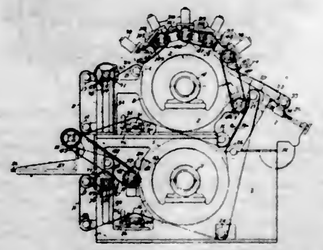
[Claims 6 to 23 not printed in the Gazette.]

1,137,437. GARMENT-CLOSURE. OSCAR WEINGARTEN, New York, N. Y. Filed June 16, 1914. Serial No. 845,859. (Cl. 24—141.)



A garment closure, embodying therein an elongated support, sockets projecting therefrom at intervals in successive horizontal planes, and a retaining guide loosely arranged in each pocket with its axis extending at right angles to the plane of its appurtenant socket, each said retaining guide comprising an axially bored member having outwardly flaring ends and a constricted intermediate portion embraced by one of the sockets.

1,137,438. IRONING-MACHINE. FRED C. WENDELL, deceased, by Theresa S. Wendell, administratrix, New York, N. Y. Filed Feb. 1, 1913. Serial No. 745,701. (Cl. 68—9.)



1. An ironing machine having the combination of a revoluble heated drum at the base of the machine, a revoluble heated drum superposed above said lower drum, means coacting with said higher drum for initially ironing one side of the goods, means for passing and reversing the goods from said higher drum to said lower drum, and means coacting with said lower drum for ironing the opposite side of the goods.

2. An ironing machine having the combination of a revoluble heated drum at the base of the machine, a similar revoluble heated drum superposed above said lower drum, pressure rollers and a running apron coacting with

said higher drum for initially ironing one side of the goods, and an apron coacting with said lower drum and running together with its periphery for similarly ironing the opposite side of the goods.

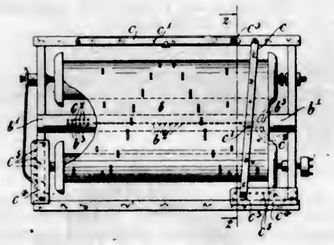
3. An ironing machine having the combination of a revoluble heated drum, a revoluble heated drum superposed above said lower drum, a running apron coacting with said higher drum for initially ironing one side of the goods, and an apron coacting with said lower drum and running together with its periphery for similarly ironing the opposite side of the goods.

4. An ironing machine having the combination of a revoluble heated drum, a revoluble heated drum superposed above said lower drum, an apron for each of said drums, a drive roll for each of said aprons for positively driving said aprons together with the drum peripheries, means to feed the goods to the upper side of said higher drum, and said drums being arranged whereby the goods are carried around said higher drum and toward the feed side of the machine to iron one side thereof, then downwardly to said lower drum, then around this drum toward the delivery side of the machine to similarly iron the opposite side thereof.

5. An ironing machine having the combination of a revoluble heated drum at the base of the machine, a revoluble heated drum superposed above said lower drum, an apron coacting with each of said drums and running together with its periphery, pressure rollers coacting with the upper side of said higher drum, and said aprons being arranged to pass the goods around the higher drum toward the feed side of the machine to iron one side thereof, then downwardly to said lower drum, then around this drum toward the delivery side of the machine to similarly iron the opposite side of the goods.

[Claim 6 not printed in the Gazette.]

1,137,439. MECHANICAL MUSICAL INSTRUMENT. JOHN A. WESER, New York, N. Y. Original application filed Mar. 22, 1910, Serial No. 550,976. Divided and this application filed Apr. 3, 1913. Serial No. 758,588. (Cl. 164—96.)



1. In a mechanical musical instrument, the combination with the tracker board, of a music sheet perforating device under the control of the performer arranged to perforate the music sheet in position in the tracker box.

2. In a mechanical musical instrument, the combination with the tracker board of a music sheet perforating device to perforate the music sheet in position in the tracker box and a gage therefor to determine the position of the perforations at the will of the performer.

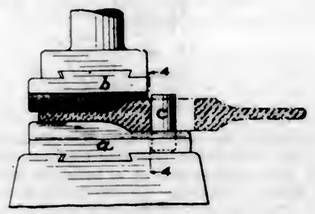
3. In a mechanical musical instrument, the combination with the tracker board and the frame to support the music roll and spool, of a music sheet perforating device under the control of the performer mounted on the frame and arranged to perforate the music sheet.

4. In a mechanical musical instrument, the combination with the tracker board and the frame to support the music roll and spool, of a music sheet perforating device mounted on the frame and arranged to perforate the music sheet and a gage for the perforating device.

5. In a mechanical musical instrument, the combination with the tracker board and the frame to support the music roll and spool, of a lever mounted on the frame and having a punch to perforate the music sheet and enter the holes in the tracker board.

[Claims 6 to 9 not printed in the Gazette.]

1,137,440. PROCESS AND APPARATUS FOR FORGING BUCKET-WHEELS. FRANCIS S. WHITE, Philadelphia, Pa. Filed May 15, 1914. Serial No. 838,656. (Cl. 29—159.)



1. The process of forging wheels with a central opening which consists in forming a blank with a central hole, compressing a relatively small part of the entire blank on one side of the hole while maintaining the adjacent wall of the hole against an abutment, and repeating the operation on the other relatively small parts of the blank until the entire blank has been forged.

2. The process of forging wheels with a central opening which consists in forming a blank with a central hole, maintaining the wall of the hole at one point against a fixed abutment, compressing the metal of the blank along a radially extending section thereof adjacent to said point, thereby displacing the metal outwardly and also in a direction tending to enlarge the hole, turning the wheel relatively to the abutment to bring another point on said wall against the abutment, compressing another radially extending section of the blank adjacent to the last named point, and continuing the operation until the blank has been forged and the hole enlarged to the desired diameters.

3. Means for forging wheels comprising an upper die and a lower die adapted to compress the metal along successive radial sections of a blank provided with a hole extending centrally therethrough, and an abutment adapted, as the diameters of the wheel and central hole are increased in successive operations, to engage that part of the hole in the blank adjacent to the dies.

4. Means for forging wheels from a blank having a hole extending centrally therethrough, comprising an upper die and a lower die adapted to compress the metal along a radial section of the blank, the lower die extending at one end beyond the upper die, and an abutment at the last named end of the lower die adapted to engage the wall of the hole in the blank.

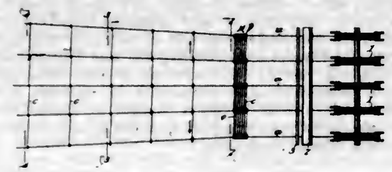
5. Means for forging wheels comprising an upper die, a lower die extending at one end beyond the upper die and provided at that end with a socket and a removable pin insertible in said socket.

[Claims 6 and 7 not printed in the Gazette.]

1,137,441. PROCESS FOR MAKING WIRE FABRIC. HERBERT E. WHITE, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed Dec. 23, 1913. Serial No. 808,471. (Cl. 140—3.)

1. A process for making wire fabric which consists in continuously feeding a series of line wires through the open loops of a magazined series of prepared stay wires, sequentially engaging the individual looped stay wires with the fed line wires, and subsequently causing each stay wire to be longitudinally extended while moving with the supporting line wires and thereby simultaneously closing all of the loops thereof onto the line wires.

2. A process for making wire fabric which consists in feeding a series of line wires in diverging paths and passing them through the open loops of a series of prepared stay wires, then stepping off each stay wire onto the line wires, and subsequently causing each stay wire to be longitudinally extended while moving with the diverging line wires.

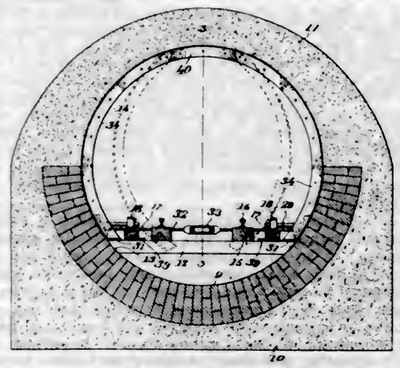


3. A process for making wire fabric which consists in feeding a series of line wires through the open loops of a series of stay wires, causing the stay wires to be stepped off onto the line wires for carriage by the latter, and subsequently causing each stay wire to be longitudinally extended while moving with the line wires and thereby simultaneously closing the loops thereof.

4. A process for making wire fabric which consists in feeding a series of line wires through the open loops of a series of stay wires, causing the stay wires to be stepped off onto the line wires for carriage by the latter, and subsequently gradually causing each stay wire to be longitudinally extended while moving with the line wires and thereby simultaneously closing the loops thereof.

5. A process for making wire fabric which consists in continuously feeding a series of line wires through open loops of a magazined series of stay wires, stepping off one stay wire at a time onto the moving line wires, and subsequently gradually causing each stay wire to be longitudinally extended and thereby simultaneously closing its loops onto the line wires.

1,137,442. MOLD FOR CONSTRUCTING CONCRETE TUNNELS. GHEEN R. ABBOTT, Baltimore, Md. Filed May 8, 1914. Serial No. 837,122. (Cl. 25—131.6.)

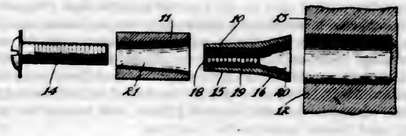


1. A mold-section for the formation of concrete tunnels having in combination two vertical arch-ribs 34, at each end of the mold-section; two parallel stringer bars 43, extending from the top ends of said two ribs at one end of the mold-section to the like ends of the two ribs at the other end, and said two parallel stringer bars spaced apart and forming between the two an opening along the entire top of the mold-section; a supplemental rib-piece 40, spanning across each end of said top opening and attached to the said top ends of the vertical arch-ribs; a horizontal cylindric sheet-metal shell around said arch-ribs and at the top said shell having two longitudinal edges each of which is attached to a different one of said two stringer bars; and a trap-door having a down-flange along both longitudinal edges and fitting within said top opening and said door provided at its ends with horizontal projections which rest on said supplemental rib-pieces.

2. A mold-section for the formation of concrete tunnels having in combination a vertical arch-rib at the two opposite ends of the section; a double vertical angle-bar arch-rib 19, intermediate said ribs at the two ends; a double horizontal angle-bar 22, intersecting said vertical intermediate angle-bar arch-rib, and joined therewith by a short arm 26, that is integral with said horizontal bar and lapping over a part of said vertical arch-rib and the extremity of said short arm bent at an angle 28, and riveted to said rib, and a cylindric sheet-metal shell covering all said arch-ribs and horizontal bars.

3. A part-cylindric mold-section for the formation of concrete tunnels having in combination cross-ties supporting two stringers each adjacent to an opposite side of the mold-section and extending parallel with said side; wedges between the cross-ties and the lower surface of said stringers—the thin edge of each wedge pointing to the nearest side of the conduit and the large end of each wedge being nearer the center of the conduit; a part-cylindric mold arched over said cross-ties and stringers, the lower part of both sides of said mold provided with arms 29, projecting over said stringers and means on the said projecting arms that rest on said stringers.

1,137,443. SCREW-HOLDING INSERT. CHARLES N. ACKERMAN, Chicago, Ill. Filed Mar. 7, 1914. Serial No. 823,199. (Cl. 85—2.4.)



1. The combination of a rigid, centrally-apertured screw receiving member having its exterior surface tapering on two different angles, and a ductile sleeve encircling the same.

2. In a device of the character described, the combination of an internally threaded screw-receiving member, open axially from end to end with its axial opening threaded at its front end and enlarged at its rear end and exteriorly increasing in diameter from its front toward its rear end, and a ductile sleeve exteriorly coöperating with said member.

3. As an article of manufacture a screw holding insert consisting of a rigid shell, increasing in exterior diameter from one end thereof toward the other, axially open from end to end and having the front end portion of its axial opening screw threaded and the rear portion thereof flared.

4. As an article of manufacture a screw holding insert consisting of a rigid shell, increasing in exterior diameter from one end thereof toward the other, axially open from end to end and having the forward end of its axial opening screw threaded and its rearward end enlarged beyond the diameter of the screw threaded portion.

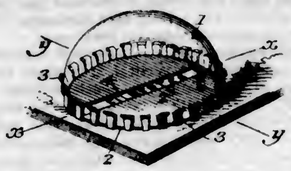
5. A screw holding insert member having an external configuration afforded by two conoidal portions of different pitch and a central bore extending from end to end thereof, a portion of the bore being screw threaded.

[Claims 6 to 10 not printed in the Gazette.]

1,137,444. DEVICE FOR VIEWING AND MAGNIFYING LINES, &c. JOHN QUINCY ADAMS, Westmont, N. J. Filed Jan. 19, 1915. Serial No. 3,018. (Cl. 88—39.)

In a viewer and magnifier of the character stated, a lens, and a base plate therefor separate therefrom, said plate having in a portion thereof, an opening therethrough, and

the remaining portion thereof of opaque nature, and a peripheral rim adapted to embrace the side of the lens



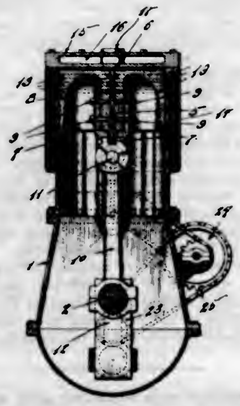
about the bottom thereof for attachment of said plate to said lens.

1,137,445. PACKER'S CUTTING IMPLEMENT. JOHN R. ALLAIS, Chicago, Ill., assignor to Sears, Roebuck & Co., Chicago, Ill., a Corporation of New York. Filed Dec. 16, 1914. Serial No. 877,464. (Cl. 30—17.)



A cutting-implement of the character described comprising a handle equipped head of approximately oval-form slightly offset relatively to the line of the handle and provided with a cutting edge, and a companion blade provided with a cutting edge and pivotally and separably fastened at its outer end to the outer end of the head and extending rearwardly, the said companion blade being provided with a slot in the rear of said pivotal connection, whereby said companion blade may be positioned relative to said first named blade with its cutting edge in apex forming relation thereto or in longitudinally extending relation therewith or bodily separated therefrom, said companion blade being provided at the inner end of its cutting edge with a button-like blunting head, and means for holding said blades in adjusted position.

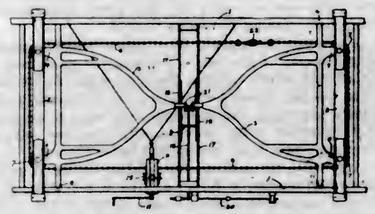
1,137,446. HYDROCARBON-ENGINE. JAMES M. ALLEN, St. Louis, Mo., assignor of one-tenth to Walter A. Gruenewald, St. Louis, Mo. Filed Dec. 5, 1913. Serial No. 804,886. Renewed Mar. 18, 1915. Serial No. 15,390. (Cl. 123—53.)



1. The improved hydro-carbon engine, comprising twin parallel cylinders, twin pistons in said cylinders, a partition-wall separating said cylinders and limited in length, a crank-shaft, a bifurcated cross-head having vertical forks which are extended upwardly within said pistons astride of said limited partition-wall, to directly connect said twin pistons at the points of their connection with said forks, a cross-head pin carried by the lower end of said cross-head, and a single connecting-rod extending from said cross-head pin to said crank-shaft.

2. A hydrocarbon engine having a number of pairs of parallel twin cylinders arranged on a single crank-shaft, pistons in each pair of said cylinders, a partition-wall separating the compression end of each pair of cylinders, bifurcated cross-heads straddling the said partition-walls, a cross-head pin at the lower end of each cross-head, a single compression-space connecting the cylinders of each pair, a crank-shaft having a number of cranks formed thereon, and a connecting-rod attached to each cross-head pin and to said crank-shaft.

1,137,447. WAGON-SCALE. MARTIN E. ANDERSON, De Kalb, Ill., assignor to Jacob Haish Company, De Kalb, Ill. Filed Dec. 11, 1914. Serial No. 876,660. (Cl. 73—8.)



1. A device of the class named, comprising a main frame, suitably supported; bolsters normally supported on said frame; frame-levers pivoted in said frame and provided at their outer ends with screws adapted to cooperate with said bolsters to raise the same from said frame; weighing devices mounted on said frame and operatively connected with the inner ends of said frame levers; and means for simultaneously operating said screws, to raise said bolsters and transfer the load thereon from said main frame to said frame-levers.

2. A device of the class named, comprising a suitably mounted main frame; load-carrying means normally supported thereon; frame levers pivoted in said frame; screws vertically movable in the outer ends of said frame levers, adapted to cooperate with said load-carrying means to elevate the same above said frame; and provided with similar sprocket-wheels; a sprocket-chain engaging all of said sprocket-wheels, so as to impart rotation thereto simultaneously; weighing-devices mounted on said frame; and operatively connected with the inner ends of said frame-levers; and means for suitably actuating said sprocket-chain.

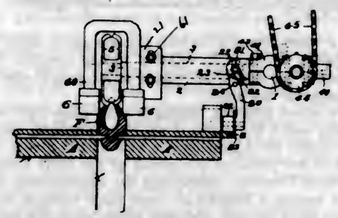
3. A device of the class named, comprising a suitably mounted frame; load-carrying means normally supported thereon; frame-levers pivoted in said frame, and provided at their outer ends with screws capable of vertical movement to engage said load-carrying means to raise the same from said frame; sprocket-wheels fixed on said screws; a sprocket-chain engaging said wheels and adapted to actuate the same simultaneously; means for suitably operating said chain; weighing mechanism mounted on said frame; and a lever connected with said weighing mechanism and operatively connected with said fram-levers.

4. A device of the class named, comprising a suitably mounted frame; load-carrying means normally mounted thereon; frame-levers pivoted in said frame; screws in the outer ends of said frame-levers adapted to operate vertically to raise or lower said load-carrying devices; sprocket-wheels fixed on said screws; a sprocket-chain engaging said sprocket-wheels and capable of operating the same simultaneously; hand-operated gearing at the side of said frame adapted to suitably actuate said chain; weighing mechanism mounted on said frame; and a lever

fulcrumed in said frame, connected with said weighing mechanism, and operatively connected with said frame levers.

5. A device of the class named, comprising a suitably mounted frame; load-carrying devices normally supported on said frame; frame levers fulcrumed in said frame; screws vertically operable in said frame-levers, and adapted to coöperate with said load-carrying devices, to raise or lower the same; sprocket-wheels fixed on said screws; a sprocket-chain engaging said sprocket-wheels to simultaneously operate the same; manually operated means at the side of said frame for actuating said chain; means for taking up the slack in said chain; weighing mechanism mounted on said frame; and a lever fulcrumed in said frame, connected with said weighing mechanism and operatively connected with said frame-levers.

1,137,448. FISH-CLEANING MACHINE. NELS BERNHARD ANDERSON, Bellingham, Wash., assignor of four-fifths to Everett B. Deming, Bellingham, Wash. Filed Nov. 2, 1914. Serial No. 869,998. (Cl. 17—10.)



1. A cutter for cleaning fish, comprising two sets of cutting blades having their outer cutting ends bent inward or toward each other and together forming the outline of a rounded-edge disk.

2. A cutter for use in cleaning fish, comprising two sets of cutting blades mounted to turn about an axis, said sets being separated axially and having their outer ends curved inward, the blades of the two sets being arranged opposite each other.

3. A cutter for use in cleaning fish, comprising two sets of blades mounted at a slight distance from each other to turn upon a common axis, the outer ends of said blades being bent toward each other and located in opposed relation, the end edges of said blades being inclined to make a V-shaped aperture having its apex rearwardly.

4. A revolving cutter for use in cleaning fish, having cutting edges lying in approximately a tangential plane and inclined to form a V-shaped opening with the large end of the opening forward.

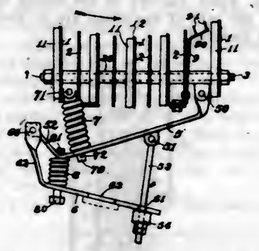
5. A revolving cutter for use in cleaning fish, having cutting edges arranged in pairs, the cutting edges of each pair being located opposite and each consisting of a substantially radial section and an outward extension thereof which curves inward toward the companion blade and then extends across the end edge of the blade, said end edges of the blades being inclined toward each other to form a V-shaped recess having the apex of the recess rearwardly.

[Claims 6 to 17 not printed in the Gazette.]

1,137,449. CLEANING ATTACHMENT FOR FISH-DRESSING MACHINES. NELS BERNHARD ANDERSON, Bellingham, Wash., assignor of four-fifths to Everett B. Deming, Bellingham, Wash. Filed Nov. 2, 1914. Serial No. 869,999. (Cl. 17—10.)

1. An attachment for fish cleaning machines comprising a series of scraper blades adapted to enter the slitted abdominal cavity, each alternate blade being provided with a beveled edge and a face-projecting flange just within such beveled edges.

2. An attachment for fish cleaning machines comprising a series of scraper blades adapted to enter the slitted abdominal cavity, means for securing said blades together in fixed relation, a supporting bar to which one end of the series of blades is pivotally secured, a pivotal support for the other end of said bar, and springs acting to sustain said scraper blades in contact with the fish.



3. An attachment for fish cleaning machines comprising a series of scraper blades secured together in fixed relation, a supporting bar hinged by one end to one end of said series of blades, a spring interposed between the other end of the series of blades and their supporting bar, and a spring acting to sustain said bar.

4. An attachment for fish cleaning machines comprising a series of scraper blades secured together in spaced relation, presser members located at each side said blades, springs connecting said presser members with the bases of the scrapers, and acting to hold the pressers toward the scrapers, a supporting bar pivoted by one end to one end of the series of scrapers, a spring interposed between the other end of the scrapers and said bar, the other end of said bar being pivotally supported, and a spring acting to support said hinged bar.

5. An attachment for fish cleaning machines comprising a series of scrapers secured together in fixed relation, a pivoted lever supporting mechanism for said scrapers, springs acting to yieldingly hold the scrapers in contact with the fish, and pressers lying outwardly of the flanks of the scrapers and carried from a common support therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,137,450. BELT-DRESSING. ANTHONY G. BAKEVICH, New Britain, Conn. Filed July 2, 1914. Serial No. 848,596. (Cl. 149—6.)

1. A composition of matter suitable for use as a belt dressing comprising a mixture of kerosene oil, pine tree pitch, spruce tree pitch, and castor oil.

2. A composition of matter suitable for use as a belt dressing comprising a mixture of the following ingredients and in the proportions indicated by weight, kerosene oil, 5 parts, pine tree pitch, 4 parts, spruce tree pitch, 2 parts, and castor oil, 2 parts.

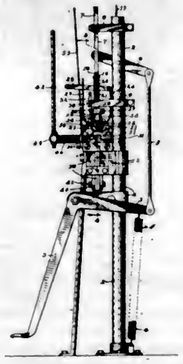
1,137,451. MACHINE FOR ASSEMBLING SPRING-HINGES. GEORGE N. BARCUS and CLARENCE E. SMITH, Wabash, Ind., assignors to The Rock City Manufacturing Company, Wabash, Ind., a Corporation of Indiana. Filed July 16, 1914. Serial No. 851,327. (Cl. 29—11.)

1. In a machine for assembling spring hinge parts, means for supporting hinge members, movable means for forcing said hinge members and spring together and so that the eye of the spring will register with the perforations in the ears of the hinge and mechanism for operating said movable means, substantially as described.

2. In a machine for assembling spring hinge parts, means for supporting hinge members, means for supporting a spring, means for moving said supporting means relatively toward one another and means for simultaneously forcing said spring from its supporting means against the hinge members with the spring eye in registry with the hinge pivot perforations and imparting tension to said spring, substantially as described.

3. In a machine for assembling spring hinge parts, means for supporting hinge members, means for carrying

a hinge spring, means for spreading the ends of the spring and means for moving said spring carrying means toward the hinge support, and means for forcing said spring from its carrying means against the hinge members and into a position in which the eye of the spring and the perforations in the ears of the hinge are in alinement, substantially as described.

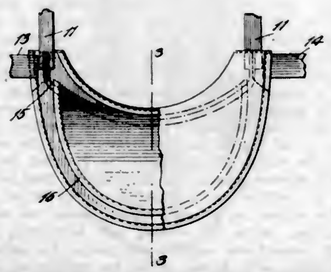


4. In a machine for assembling spring hinge parts, means for supporting hinge members, movable opposite yielding members adapted to receive and support the free ends of a spring, a member movable relatively to the spring supporting members, and operable to exert pressure in said spring to spread the spring ends and also the supporting member apart, and to carry said spring against said hinge members and the eye of the spring into registry with the perforations in the ears of said members, substantially as described.

5. In a machine for assembling spring hinge parts, means for supporting hinge members, a hinge-spring carrier movable toward and from said supporting means and coöperating to operatively position the spring on said hinge members, opposed swinging jaws on said carrier adapted to receive respectively the opposite free ends of the spring, a plunger mounted on said carrier between said jaws and movable relatively thereto, said plunger having means to engage a spring and force it against the hinge members, means to limit the movement of said jaws relatively to the carrier, and means for operating said carrier substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,137,452. DRESS-SHIELD PROTECTOR. ANNA E BIENSTOCK, Newark, N. J. Filed Feb. 27, 1914. Serial No. 821,370. (Cl. 2—34.)



1. The combination with a dress shield protector comprising a covering consisting of side members connected at the top, a shoulder strap connected adjacent its ends to the side members and having its extremities projecting therebetween, and a shield supporting cord between said side members and having its extremities directly connected to the extremities of the shoulder strap.

2. The combination with a pair of dress shield protectors each comprising a covering consisting of side members connected at the top, a shoulder strap connected adjacent its ends to the side members and having its extremities projecting therebetween, a shield supporting cord between said side members and having its extremities directly connected to the extremities of the shoulder strap and means for connecting the fronts and backs of the projectors.

1,137,453. WOOD-TRIMMER. ARTHUR S. BILLINGS, North Vancouver, British Columbia, Canada. Filed July 13, 1914. Serial No. 850,771. (Cl. 144—216.)



1. In a wood trimmer having a fence and a knife slideway pivotally mounted in relation to one another, means for adjusting the axis of the pivots in relation to the plane of movement of the knife.

2. In a wood trimmer having a base plate and lengthwise fence and a knife frame slideway pivotally mounted thereto, means for adjusting the axis of the pivots of the slideway to the plane of movement of the knife frame.

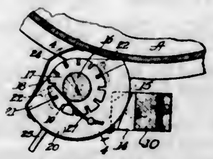
3. A wood trimmer, comprising the combination with a bed plate having a lengthwise fence plate integral with or secured to it, of an open slideway frame pivotally mounted at each end on an axis which coincides with the plane of the fence, means for clamping each slideway frame at an angular adjustment, a knife frame having a knife blade secured to it said frame slidable in the slideway, and means for endwise reciprocating the knife frame.

4. A wood trimmer, comprising the combination with a bed plate having a fence plate at right angles to it, of an open frame pivotally mounted at each end to move on an axis which coincides with the plane of the fence, said frame having a grooved slideway, means for adjusting the axis of the pivots in relation to the plane of the slideway, means for clamping the slideway frame, and a lever operated knife frame movable in the slideway of each frame.

5. A wood trimmer, comprising the combination with a bed plate having a lengthwise fence plate at right angles to it, an open slideway frame pivotally mounted at each end to move on a vertical axis, a knife frame endwise movable in each slideway said knife frame having a seat for the knife blade the plane of which seat is angled slightly to the plane of movement of the knife frame, a knife blade of uniform thickness adjustably secured on the seat, and means for endwise moving each knife frame in its slideway.

[Claims 6 to 8 not printed in the Gazette.]

1,137,454. ADJUSTABLE STOP DEVICE. ALLEN A. BOWSER, Fort Wayne, Ind. Filed July 9, 1913. Serial No. 777,996. (Cl. 221—103.)



1. The combination of a threaded rod, a sleeve threaded upon the rod and having peripheral flanges at its ends, a stop projecting laterally of the rod and fitted for rotation about the sleeve and between the flanges thereof, and means for securing the sleeve and stop in fixed relation.

2. The combination of a threaded rod, a movable sleeve threaded upon the rod, and having peripheral flanges at its ends, and a stop projecting laterally of the rod, disposed about the sleeve and fitted rotatable between the flanges thereof.

3. The combination of a threaded rod, a movable sleeve threaded upon the rod, and having peripheral flanges at its ends, and a stop projecting laterally of the rod, disposed about the sleeve and fitted between the flanges thereof, said stop being formed of two pieces removably secured together.

4. The combination of a threaded rod, a removable sleeve threaded upon the rod and having peripheral flanges at its ends, a wall parallel and adjacent to the rod, a segmental stop of greater width than the distance between the rod and the wall, disposed about part of the sleeve and fitted between the flanges thereof, and a yoke secured to the ends of the segmental stop disposed about the remainder of the sleeve and fitted between the flanges thereof, said yoke being at its center of lesser width than the distance from the rod to the wall.

5. The combination of a threaded rod, a movable sleeve threaded upon the rod and having peripheral flanges at its ends, a wall parallel and adjacent to the rod, a segmental stop of greater width than the distance between the rod and the wall, disposed about part of the sleeve and fitted between the flanges thereof, a yoke secured to the ends of the segmental stop disposed about the remainder of the sleeve and fitted between the flanges thereof, said yoke being at its center of lesser width than the distance from the rod to the wall, and means for securing the stop and sleeve in fixed relation.

[Claims 6 to 9 not printed in the Gazette.]

1,137,455. ADJUSTABLE POINTER AND STOP FOR PUMPS AND THE LIKE. SYLVANUS F. BOWSER, Fort Wayne, Ind., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind. Filed Nov. 29, 1912. Serial No. 733,997. (Cl. 221—103.)



1. In a device of the class described, the combination with a rod, of a recessed member freely movable along the rod having a lateral recess intermediate the ends, a ring-shaped member internally threaded and disposed within the recess of said member and adjustable in position upon the rod, and means to engage and prevent the rotation of the ring-shaped member upon the rod.

2. In a device of the class described, the combination with a rod, of a recessed member freely movable along the rod having a laterally opening recess, a ring-shaped member internally threaded and disposed within the recess of said member and adjustably in position upon the rod, and means to releasably engage and lock the threaded member against rotation.

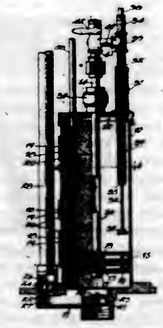
3. In a device of the class described, the combination with a threaded rod of a laterally recessed member having an opening through which the rod extends at right angles to the recess, a ring-shaped member disposed within the recess having interior threads adapted to engage the threads of said rod and having a notched periphery, and a pin adapted to be inserted through the sides of the recessed member to engage one of the notches in the periphery of said ring-shaped member.

4. In a pump having a cylinder and a reciprocable piston, the combination of a stop for the pump and a pointer in connection with the stop to point to the position on the outside of the cylinder at which the pump piston is stopped within the cylinder.

5. The combination with a fluid pump having a reciprocable piston, of a combined stop and pointer for the pump, the stop being effective to limit the movement of the pump, and a pointer indicating on the cylinder the position of the pump piston within the cylinder when stopped by the said stop.

[Claims 6 to 15 not printed in the Gazette.]

1,137,456. PUMP. SYLVANUS F. BOWSER, Fort Wayne, Ind. Filed Dec. 20, 1912. Serial No. 737,787. (Cl. 221—103.)



1. In a pump, the combination with a cylinder having transparent portions in the walls thereof, of a piston movable in the cylinder, and a plate affixed to the lower side of the piston in direct contact with the liquid and distinguishable through the transparent portion both from the piston and from the liquid pumped.

2. In a pump, the combination with a cylinder having windows therein, of a piston movable in said cylinder and visible through said windows, and an adjustable pointer to indicate the position of the piston to pump a predetermined amount.

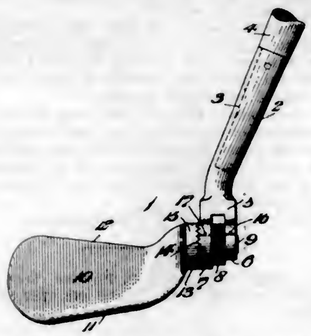
3. In a pump, the combination with a cylinder having transparent windows therein, of a piston movable in said cylinder having means distinguishable from the piston and from a liquid in the cylinder and visible through said windows, and adjustable pointers disposed without the cylinder to indicate the positions of the plate within the cylinder at which predetermined amounts will be pumped.

4. In a pump, the combination with a pump casing provided with transparent windows, of a piston movable therein, a plate removably secured to the piston distinguishable therefrom and from a liquid in the cylinder and visible through the windows, and a stop device movable into a position to limit the movement of the piston in one direction, the said plate indicating the position of the piston through the windows for each stop position.

5. In a pump, the combination with a cylinder provided with transparent windows, of a piston reciprocable therein, a plate secured to said piston and visible through the windows, means to move the piston in the cylinder, and a detent for said means having a finger to indicate the position in which the plate should be for the piston to pump a predetermined amount.

[Claims 6 to 22 not printed in the Gazette.]

1,137,457. ADJUSTABLE GOLF-CLUB. WILLIAM F. BREITENBAUGH, Philadelphia, Pa. Filed Feb. 16, 1915. Serial No. 8,503. (Cl. 46—4.)

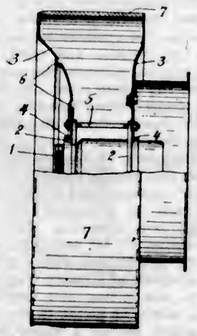


1. In an adjustable golf club, a socket bifurcated at its lower portion, the bifurcated members having holes therethrough, a club head having a threaded stem thereon located in said holes, a nut engaging said stem and located between said members, and serrations common to one of said members and the contiguous portion of said head.

2. An adjustable golf club, comprising a socket bifurcated at its lower portion, the bifurcated members having holes therethrough and the outer one of said members being of less diameter than the other, a club head having a threaded stem thereon located in said holes, a nut rotatably engaging said stem and contained between said members, and ratchet teeth common to one of said members and the contiguous portion of said head.

3. An adjustable golf club, comprising a socket bifurcated at its lower portion, the bifurated members having holes therethrough and the outer one of said members being of less diameter than the other, a club head having a threaded stem thereon located in said holes, a nut rotatably engaging said stem and contained between said members, and ratchet teeth common to one of said members and the contiguous portion of said head, said head being thicker at its base than its top, and said nut being of greater diameter than said outer bifurcated member.

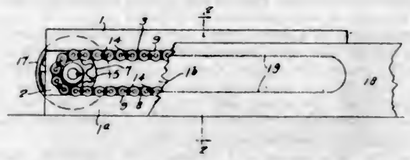
1,137,458. WHEEL. EDWARD G. BUDD and JOSEPH LEDWINKA, Philadelphia, Pa., assignors to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 15, 1912. Serial No. 683,930. (Cl. 21—69.)



1. A vehicle wheel comprising a metallic hub, two side plates of pressed sheet metal secured thereon and a sheet metal rim, the edges of said plates and rim being correspondingly notched and interlocked to form dovetailed joints, and welded together to form an inseparable structure, substantially as set forth.

2. A vehicle wheel comprising a metallic hub, two side plates of pressed sheet metal secured thereon and a sheet metal rim, said rim and side plates being interlocked at their edges and welded together to form an inseparable structure, and said side plates being dished so that they diverge toward their outer edges, and provided with a stiffening bead in the diverging portion, substantially as set forth.

1,137,459. POCKET-CUTTER. ALEXANDER BRONSON CAMPBELL, Jr., Jacksonville, Fla. Filed May 10, 1913. Serial No. 766,851. (Cl. 144—19.)



1. A cutter of the character specified, comprising a supporting plate, lateral guides connected to the plate at the opposite side edges thereof, said guides being spaced apart at their adjacent edges, a central guide arranged longitudinally of the plate between the first named guides and in spaced relation to the said guides, said central guide being of lesser length than the lateral guides and having its ends spaced apart from the ends of the plate, a shaft journaled in the plate at each end of the central guide, a sprocket wheel keyed to each shaft, an endless chain supported by the sprocket wheels, said chain comprising spaced inner pairs of oppositely arranged links, and spaced outer pairs of oppositely arranged links, the pairs of outer links lapping on the adjacent ends of the inner links, pins connecting the said lapping ends and extending across the space betwen the pairs of links, an arbor on each pin between the members of each pair of innermost links, a cutting blade secured to each of the outermost links at one side of the chain, each blade having a shank connected with the link, said blades being arranged with their wide dimension parallel with the direction of motion of the chain between the sprocket wheels, and the free end of each blade being beveled, said blades being similarly arranged, and means for rotating one of the shafts.

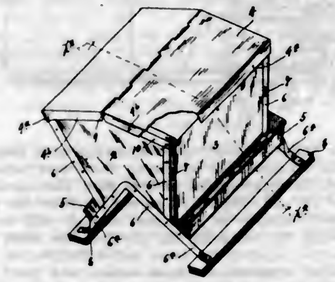
2. A cutter of the character specified, comprising a supporting plate, lateral guides connected to the plate at the opposite side edges thereof, said guides being spaced apart at their adjacent edges, a central guide arranged longitudinally of the plate between the first named guides and in spaced relation to the said guides, said central guide being of lesser length than the lateral guides and having its ends spaced apart from the ends of the plate, a shaft journaled in the plate at each end of the central guide, a sprocket wheel keyed to each shaft, an endless chain supported by the sprocket wheels, said chain comprising connected links, each link having a laterally extending blade at one side of the chain, said blades being arranged with their wide dimension parallel with the direction of motion of the chain between the sprocket wheels, each blade having its free end beveled, said blade being similarly arranged, and means for rotating one of the shafts.

3. A cutter of the character specified, comprising a supporting plate, lateral guides connected to the plate at the opposite side edges thereof, said guides being spaced apart at their adjacent edges, a central guide arranged longitudinally of the plate between the first named guides and in spaced relation to the said guides, said central guide being of lesser length than the lateral guides and having its ends spaced apart from the ends of the plate, a shaft journaled in the plate at each end of the central guide, a sprocket wheel keyed to each shaft, and endless chain supported by the sprocket wheels, said chain comprising connected

links, each link having a laterally extending blade at one side thereof, and means for rotating one of the shafts.

4. A cutter of the character specified, comprising an endless chain composed of spaced pairs of links, the adjacent pairs overlapping at their ends and being pivoted together, and a blade connected with each alternate pair intermediate the ends of the links, all of the said blades extending laterally from the links in the same direction, and means for supporting and guiding the chain, said last-named means comprising a central and lateral guides, the central guide being of less length than the lateral guides, a shaft journaled in the support at each end of the central guide, and a sprocket wheel keyed to each shaft, the chain engaging the sprocket wheels.

1,137,460. HOG-FEEDING TROUGH. EDWARD CARLSON, Parkers Prairie, Minn. Filed Apr. 9, 1914. Serial No. 830,631. (Cl. 119—53.)



A hopper having a pair of inverted, laterally-spaced angle strips, having at their ends floor-engaging feet, an inverted V-shaped bottom plate secured to the horizontal flanges of said angle strips, end plates secured at their lower edges to the vertical flanges of said angle strips and having flanges at their vertical edges, a hinge rod connecting said end plates, side plates slidably mounted as entireties on the vertical flanges of said end plates, a partition secured to said end plates and extending upward from the apex of said bottom plate, and covers pivotally mounted on said hinge rod and having, at their outer edges, depending flanges that overlap the edges of said side plates in all adjustments thereof, the edge portions of said bottom plates, outward of the side plates, being bent upward to afford feed troughs.

1,137,461. SELF-HEALING COMPOSITION FOR INNER TUBES OF TIRES. JAMES P. CLARE, Stratham, N. H. Filed Aug. 20, 1913. Serial No. 785,617. (Cl. 106—23.)



1. A healing composition for the inner tubes of tires, comprising a mixture of reclaimed rubber, tar and a softening agent, said composition having a semiplastic consistency, and being somewhat elastic, and retaining these properties, when the same is heated under a steam pressure of 45 pounds for 45 minutes.

2. A healing composition for the inner tubes of tires, comprising a mixture of reclaimed rubber, vorite, tar and a softening agent, said composition having a semi-plastic consistency, and being somewhat elastic, and retaining these properties, when the same is heated under a steam pressure of 45 pounds for 45 minutes.

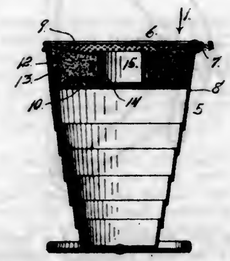
3. A self healing composition for application to the inner tubes of tires, comprising reclaimed rubber, tar, petrolatum and oxidized oil, said composition having a semi-plastic consistency and being somewhat elastic.

4. A self healing composition for the inner tubes of tires, said composition comprising reclaimed rubber, tar, petrolatum and vorite, said material not being vulcanized, when heated in contact with rubber containing sulfur.

5. A self-healing composition for the inner tubes of tires, comprising approximately ten parts reclaimed rubber, two parts tar, one part petrolatum, and two parts vorite.

[Claim 6 not printed in the Gazette.]

1,137,462. FILTERING-CUP. FRED B. CLARK, Denver, Colo. Filed Oct. 17, 1914. Serial No. 867,209. (Cl. 210—16.)



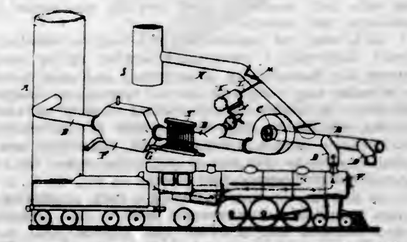
1. A filtering receptacle comprising in combination with the receptacle, a filter applied to the upper part thereof and including a quantity of filtering material, the filter having an opening through which the receptacle may receive liquid when the filter is in position.

2. A filter cup comprising in combination with the cup, a filter composed of two perforated walls and an interposed quantity of filtering material, the filter being arranged to fit within the upper part of the cup and hingedly connected with one edge thereof.

3. A filtering cup comprising in combination with the cup, a filter composed of two perforated walls and an interposed quantity of filtering material, the filter being arranged to fit within the top of the cup and having an opening through which the cup may receive liquid.

4. A combination with a cup, of a filter applied to the upper portion thereof, the filtering part having an opening therethrough independent of the filter openings themselves, and through which independent opening the cup may receive liquid.

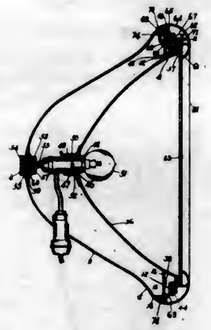
1,137,463. BLOWER SYSTEM. CHARLES W. E. CLARKE, New York, N. Y. Filed Oct. 23, 1909. Serial No. 524,102. (Cl. 237—2.)



The combination with a chimney and a locomotive having a smoke stack, of a main pipe line delivering at

one end to the chimney and having a plurality of detachable connections at its other end each adapted to be connected to a locomotive smoke stack, an economizer and a blower located in said main pipe line, means for circulating water through said economizer, an auxiliary pipe line connection communicating with an independent source of heat and delivering to the main pipe line, a thermostatic means for automatically controlling the delivery of heat medium through said auxiliary pipe line, and means for utilizing the heated water from the economizer.

1,137,464. LAMP. THOMAS J. CORCORAN, Cincinnati, Ohio. Filed Sept. 12, 1914. Serial No. 861,410. (Cl. 240—41.)



1. In a lamp the combination of a body, a reflector provided with a laterally outwardly extending flange, a closure comprising a transparent member, said body and closure having coacting stops in rear of the plane in which said flange is located, said stops arranged to coact by a movement parallel to the axis of said reflector, and wedge-like means between said closure and body causing relative movement between said closure and body parallel to said axis for causing coaction between said stops, and means for positioning said reflector.

2. In a lamp, the combination of a body, a reflector, a closure comprising a transparent member, said closure and body having coacting stops arranged to coact by a movement parallel to the axis of said reflector for fixing the limit of movement of said body and closure toward one another, wedge-like spring means between said closure and the forward end of said body causing relative movement between said closure and body parallel to said axis for causing coaction between said stops at said limit of movement and fixedly securing said body and closure together, and means for positioning said reflector.

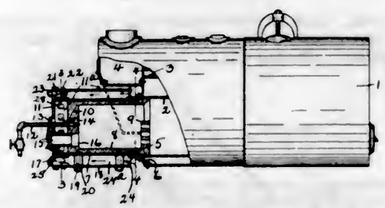
3. In a lamp, the combination of a body, a reflector, a closure comprising a transparent member, spring means between the forward end of said body and said closure for drawing said body and closure toward one another, said body and closure having coacting stops brought into coacting relation by said spring means for maintaining said body and closure in fixed relation, and means for positioning said reflector.

4. In a lamp, the combination of a body, a reflector, a closure comprising a transparent member, spring means between the forward end of said body and said closure for drawing said body and closure toward one another, said body and closure having coacting stops brought into coacting relation by said spring means for maintaining said body and closure in fixed relation, and spring means acting opposite to said first named spring means for urging said reflector toward said closure.

5. In a lamp, the combination of a body, a reflector, a closure comprising a transparent member, dust retarding means between said reflector and closure, said body and closure provided with coacting stops arranged to coact by a movement parallel to the axis of said reflector for fixing the limit of movement of said body and closure toward one another, and means between the forward end of said body and said closure acting oppositely to said stops and arranged by relative rotary movement between said closure and body for causing coacting relation between said stops at said limit of movement and fixedly securing said body and closure together.

[Claims 6 to 14 not printed in the Gazette.]

1,137,465. BOILER-FURNACE. JOHN DICK, Meadville, Pa., assignor to Phoenix Iron Works Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Jan. 27, 1913. Serial No. 744,357. (Cl. 158—1.)



1. In a boiler furnace, the combination of a boiler; a cylindrical furnace shell extending from said boiler; a draft shell surrounding the furnace shell and exposed to the outer air and adapted to convey air from the boiler end of said furnace to the front end of said furnace shell; means for conveying the air from the draft shell to the furnace shell at the front end of the furnace; and a cylindrical regulator arranged within said draft shell and at the front of the furnace to control the passage of air from the draft shell to the furnace.

2. In a boiler furnace, the combination with a boiler of a cylindrical furnace shell secured to the front of the boiler; a draft shell surrounding the furnace shell and adapted to convey air from the boiler end of the furnace to the front end of the furnace; a furnace head having an inwardly extending cylindrical flange having draft opening therein; and a regulating ring arranged on the flange, the ring having openings adapted to be brought into and out of register with openings in the flange to regulate the draft.

1,137,466. KEY-PLUG. CHARLES A. DILLON, Canton, Ohio, assignor to The United Electric Company, Canton, Ohio, a Corporation of Ohio. Filed June 18, 1913. Serial No. 774,490. (Cl. 137—76.)



1. A key plug composed of rubber including a head portion and a hollow cylindric body portion having a free rim at its inner end, there being an annular rib around the body portion adjacent to the free rim thereof.

2. A key plug composed of rubber including a head portion with a metallic reinforcement therein and a hollow cylindric body portion having a free rim at its inner end, there being an annular rib around the body portion adjacent to the free rim thereof.

3. A key plug composed of rubber having metallic disk and socket plates embedded in its head portion, there being a key socket formed by the socket plate on the inner side of the disk plate and a central key hole communicating with the socket.

4. A key plug composed of rubber having metallic disk and socket plates embedded in its head portion, and a metallic face plate on the outer side thereof, there being a key socket formed by the socket plate on the inner side of the disk plate, and a key hole through the disk and face plates.

5. A key plug composed of rubber having metallic disk and socket plates embedded in its head portion, a metallic face plate on the outer side thereof, and a spacing plate between the central portions of the disk and face plates, there being a key socket formed by the socket plate on the inner side of the disk plate and a key hole through the disk, spacing and face plates.

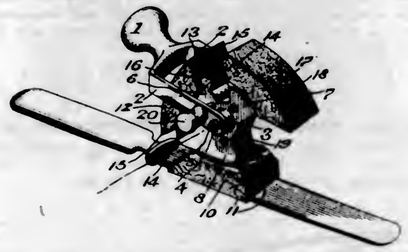
1,137,467. MANUFACTURE OF CINNABAR. ALEXANDER EIBNER, Munich, Germany. Filed Sept. 4, 1914. Serial No. 860,149. (Cl. 134—58.)

The herein described method of producing light insensible cinnabar of varying tints from cinnabar ores and minerals containing mercuric sulfid, which process consists in treating said ores with a solution of simple sulfid of potassium thus forming a double salt solution,

$$(HgS.K_2S + 5H_2O),$$

permitting said last named solution to cool and introducing the same into a cold sulfur saturated solution of liver of sulfur and flower of sulfur whereby said double salt is decomposed into black mercuric sulfid and complex sulfid of potassium, and thereafter heating the entire mass for a predetermined period to produce cinnabar of a desired tint.

1,137,468. DEVICE FOR CLEANING AND POLISHING KNIVES, FORKS, AND SPOONS. AUGUST H. EISENMANN, Philadelphia, Pa. Filed Dec. 6, 1913. Serial No. 805,037. (Cl. 51—6.)

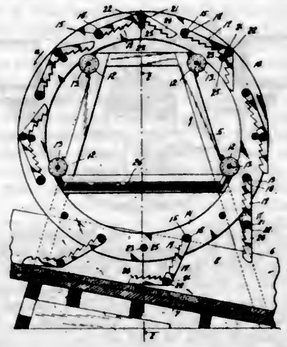


In a device of the character stated, a grasping handle, a body portion in rotative relation to said handle and carrying a plurality of polishing faces, said body portion having a plurality of openings and a locking pin in suitable connection with said handle and adapted to be inserted in the proper opening of the body portion in order to locate the desired polishing face in operative position.

1,137,469. ROTARY TRASH-CATCHER. PETER EKMAN, Greeley, Colo. Filed Dec. 20, 1912. Serial No. 737,838. (Cl. 146—14.)

1. In a trash catcher the combination with a frame of a wheel mounted to rotate on the frame, and rakes pivotally connected with the wheel and arranged to hang freely downwardly from the lower part thereof and to serve as paddles against which material passing under the wheel may act to rotate the wheel.

2. In a trash catcher the combination with a frame, of a wheel mounted to rotate on the frame, rakes pivotally connected with the wheel and arranged to hang freely downwardly from the lower part thereof, and means carried by the wheel for supporting the rakes in inverted position when the rakes are on the upper part of the wheel.



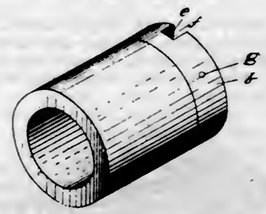
3. In a trash catcher the combination with a frame, of a wheel supported on the frame, said wheel consisting only of two rings joined together in parallel relation, rollers mounted upon said frame in positions to form a bearing for the wheel, the space inclosed by said rings being free of obstructions and rakes pivotally connected with the wheel and depending from the lower part thereof.

4. In a trash catcher the combination with a frame, of a wheel comprising a rim only, said wheel being rotatably supported upon the frame, and rakes pivotally connected with the wheel, and depending from the lower part thereof, the wheel being equipped with means for supporting the rakes in the trash discharging position on the upper part of the wheel.

5. A trash catcher comprising a wheel, jointed rakes mounted thereon and composed of toothed members, the rakes being pivotally connected with the wheel, means for supporting the rakes in position to discharge the trash collected thereby from the upper part of the wheel, the rakes being pivotally mounted on the wheel and arranged to assume a depending position on the downwardly moving side for the purpose set forth.

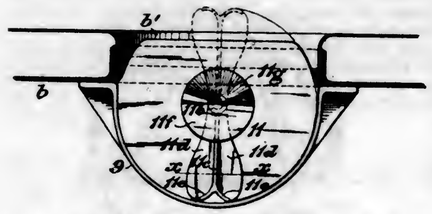
[Claims 6 to 12 not printed in the Gazette.]

1,137,470. REINFORCING-BUSHING FOR CORES. THEODORE ELIXMAN, Corinth, N. Y., assignor to The Elixman Paper Core Company, Corinth, N. Y., a Corporation of New York. Filed Feb. 27, 1912. Serial No. 680,279. (Cl. 242—120.)



A paper core for winding paper in rolls, comprising a hollow cylindrical body and hollow caps, affixed thereon, one on each end thereof and conforming therewith in shape and in the interior and exterior diameters; the said caps being drawn and rolled of one piece of sheet metal, uniformly thick throughout, each cap comprising an inner and an outer ring connected by a rim integral therewith; and notches cut through the rim, the inner and the outer rings, and through the ends of the core, the notches being adapted to engage with a pin to connect the core with a driven shaft; substantially as herein shown and described.

1,137,471. MECHANICAL STOKER. ALBERT G. ELVIN, Somerville, N. J. Filed Sept. 19, 1914. Serial No. 862,434. (Cl. 110—113.)



1. In a mechanical stoker, the combination of a fuel receptacle adapted to communicate with a furnace opening, a twin shovel facing in both directions and mounted, at one end, on a vertical shaft to swing horizontally in opposite directions for projecting fuel through the furnace opening, and means for intermittently depositing fuel upon opposite sides of said shovel alternately.

2. In a mechanical stoker, the combination of a fuel receptacle adapted to communicate with a furnace opening, a twin shovel facing in both directions, mechanism for swinging said shovel alternately in opposite directions, horizontally, and means for intermittently depositing fuel upon opposite sides of said shovel alternately.

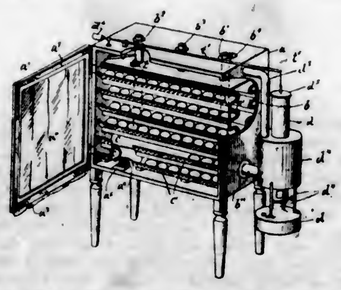
3. In a mechanical stoker, the combination of a fuel receptacle adapted to communicate with a furnace opening, a twin shovel facing in both directions, a vertical shaft for said shovel, mechanism for oscillating said shaft to cause the shovel to swing in opposite directions through said receptacle, and means for intermittently depositing fuel on opposite sides of said shovel alternately.

4. In a mechanical stoker, the combination of a fuel receptacle adapted to communicate with a furnace opening, a vertical shaft extending into said receptacle, means for oscillating said shaft, a shovel mounted, at one end, on said shaft, and adapted to deliver fuel through said opening when swinging in either direction, and means for intermittently depositing fuel on opposite sides of said shovel alternately.

5. In a mechanical stoker, the combination of a fuel receptacle adapted to communicate with a furnace opening, an oscillatory shovel pivoted in said receptacle and adapted to swing horizontally through said opening, a fuel supply conduit for said receptacle, and means operated by the shovel, for intermittently controlling said fuel supply to opposite sides of said shovel alternately.

[Claims 6 to 19 not printed in the Gazette.]

1,137,472. HEATER FOR INCUBATORS. ANDREW ESSIG, Cleveland, Ohio. Original application filed May 5, 1909, Serial No. 494,077. Divided and this application filed May 28, 1910. Serial No. 563,940. (Cl. 237—15.)



1. In an incubator, the combination with the casing inclosing the incubating-chamber, of an external heating-device, a plurality of permanently-open flues connected therewith and extending through the incubating-chamber in different planes, thermostatic means for controlling the heating-device and an adjustable member having openings of different size, positioned in the flue nearer said heating-device, whereby its orifice is regulated and the heating effect within the chamber may be equalized, substantially as set forth.

2. In an incubator, the combination with an exterior casing, of a fluid tank positioned therein, a lamp for heating the same exterior of the casing, a plurality of normally-open connecting flues communicating with the lamp extending interiorly of the tank, and means comprising a rotatable perforated slide for securing the equalized passage of the heated air and gases through said flues, substantially as set forth.

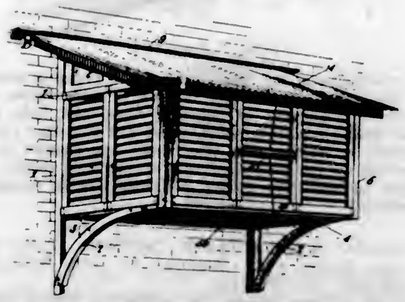
3. In an incubator, the combination with an exterior casing, of a fluid tank positioned therein, a lamp for heating the same exterior of the casing, a plurality of normally-open connecting flues communicating with the lamp and positioned at different distances therefrom interiorly of the tank, and means comprising a rotatable perforated slide for restricting the orifice of one of the flues for the purpose of diverting an equalized volume of air and heated gas through the other flue, substantially as set forth.

4. In an incubator, the combination with a vertical tank, of means for heating the same, a plurality of perforated shelves extending across the face of the tank substantially in horizontal planes, an exterior casing, and means for ventilating the interior of the incubator transversely of he shelves, comprising an open drum associated with the heating means and connected with the upper portion of the incubator, substantially as set forth.

5. In an incubator, the combination with a vertical tank, of means for heating the same, a plurality of perforated shelves extending across the face of the tank substantially in horizontal planes; said shelves forming guards to prevent displacement of the eggs and supports for the chicks when hatched, an exterior casing, and means for ventilating the interior of the casing from above transversely of the shelves, comprising an open drum associated with the heating means and connected with the upper portion of the incubator, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,137,473. VENTILATED COMPARTMENT. HANNIBAL C. FORD, New York, N. Y., assignor of one-half to CHARLES FLOYD BURROWS, Syracuse, N. Y. Filed Dec. 14, 1909. Serial No. 533,034. (Cl. 20—1.)



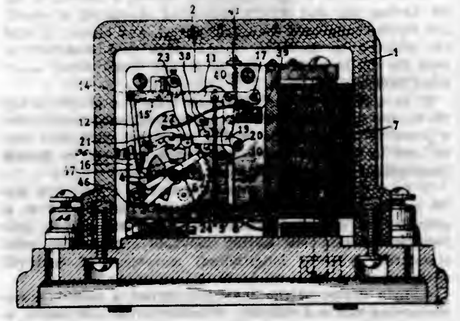
1. The combination with a ventilated compartment having a rack mounted on one of the side walls thereof, of a rotatable roof having a pinion mounted thereon for engagement with said rack, and an endless rope connection for rotating said pinion to effect the translation of the roof.

2. The combination with a ventilated compartment having a rack mounted on one of the side walls thereof, of a rotatable and translatable roof having a shaft, a pinion mounted thereon for engagement with said rack, an endless rope connection for rotating said pinion to effect the translating movement of the roof, a stop arranged on the side wall of the compartment, and means on said shaft for coöperating with said stop to limit the translating movement of said roof, said means and stop serving as a pivot upon which the rotation of the roof is effected.

3. The combination with a ventilated compartment having a rack mounted on one of the side walls thereof, of a translatable and rotatable roof having a pinion mounted thereon adjacent the transverse medial line of the roof, said pinion engaging with said rack, an endless rope connection for rotating said pinion and thereby effecting the translation of the roof, and means for preventing the disengagement of the pinion with the end of the rack, said means coöperating with the endless rope connection to effect the rotation of the roof.

4. The combination with a ventilated compartment having a guide channel mounted on one of the side walls thereof, of a translatable and rotatable roof, a roller on said roof engaging in said guide channel, said guide channel having a slot therein through which said roller passes when the rotation of the roof is effected, and means for effecting both the translation and rotation of the roof.

1,137,474. SELECTIVE SIGNALING APPARATUS. EDWIN R. GILL, Yonkers, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Filed Oct. 21, 1910. Serial No. 588,359. (Cl. 177—332.)



1. In a device of the kind described, a control wheel adapted to be moved in a step-by-step rotation, means tending to retain said control wheel in a normal position, means actuated by a series of impulses and engaging said control wheel to impart a step-by-step rotation thereto against the action of said retaining means, and a time element whose function is to render said actuating means inoperative for rotating said control wheel until a long impulse has been impressed upon the line of sufficient duration to permit said time element to perform its function; all in combination with means for releasing said control wheel whereby said control wheel may be restored to normal position by said first mentioned means after any degree of rotation.

2. In a device of the kind described, a control member adapted to be stepped through a phase of movement, means for stepping said control member, means opposing the stepping of said control member, means coöperating to free said control member from the action of said stepping means after said control member has been rotated through its full phase of movement, and a time element coöperating to free said control member and permit its return to normal position under the influence of said opposing means after the completion of any movement of said control member in the event of the failure of said first mentioned freeing means to operate.

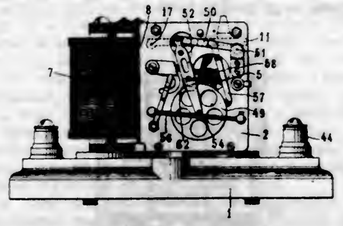
3. In a device of the kind described, a toothed control member adapted to be stepped by one long and a series of short impulses, means tending to return said control member to normal position, a pawl adapted to engage the teeth of said control member to prevent such return movement, a time controlled mechanism adapted to bring the control member and the pawl into operative relation, and a second time controlled mechanism adapted to throw said pawl out of operative relation with said control member, said last mentioned time controlled mechanism being normally inoperative against said pawl.

4. In a device of the kind described, a toothed control member adapted to be stepped by one long and a series of short impulses, means tending to return said control member to normal position, a pawl adapted to engage the teeth of said control member to prevent such return movement, means whose operation is determined by said long impulse for bringing the pawl and the control member into operative relation, and means whose operation is affected by a determined length of pause between impulses for throwing the pawl and the control member out of operative relation.

5. In a device of the kind described, a toothed control member adapted to be stepped by a long and a series of short impulses, means tending to return said control member to normal position, a pawl adapted to engage the teeth of said control member to prevent such return movement, a time element whose operation is determined by said long impulse for bringing about operative relation between the control member and the pawl, and means whose operation is affected by a determined length of pause between impulses for throwing the pawl and the control member out of operative relation.

[Claims 6 to 29 not printed in the Gazette.]

1,137,475. SELECTIVE SIGNALING APPARATUS. EDWIN R. GILL, Yonkers, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Filed Mar. 28, 1912. Serial No. 686,798. (Cl. 177—332.)



1. In a device of the class described, in combination, a member adapted to be stepped to a predetermined point by a series of codal impulses of different characteristics, means opposing the stepping of said member, means whose operation is determined by impulse characteristic to render said last named means inoperative, means for restoring said opposing means to operative condition when the member has been stepped through its phase of movement, a circuit closer, and a time element for operating said circuit closer when said member has been stepped through its phase of movement.

2. In a device of the kind described, a member adapted to be stepped to a predetermined point by a series of codal impulses of different characteristics, means opposing the stepping of said members, means whose operation is determined by impulse characteristic to render said last named means inoperative, means for restoring said opposing means to operative condition when the member has been stepped through its phase of movement, a pair of opposed contact members, one of which is movable, and a time element for moving said movable contact member.

3. In a device of the kind described, a toothed member adapted to be stepped by a series of impulses of different characteristics, means opposing the stepping of said

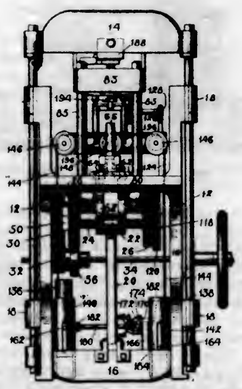
member, a pawl adapted to engage the teeth of said member to prevent operation of the opposing means, means whose operation is determined upon impulse characteristic for bringing the pawl and toothed member into operative relation, and a pair of opposed contact members which are adapted to be moved into operative relation by said last named means.

4. In a device of the kind described, a toothed member adapted to be stepped by a series of impulses, means opposing the stepping of said member, a pawl adapted to engage the teeth of said member to prevent operation of said opposing means, a time element whose operation is determined by impulse characteristic for bringing about operative relation between the toothed member and the pawl, and a circuit closer adapted to be operated by said time element.

5. In the device of the kind described, a toothed member adapted to be stepped by a series of impulses, means opposing the stepping of said member, a pawl adapted to engage the teeth of said member to prevent operation of said opposing means, a time element whose operation is determined by impulse characteristic for bringing about operative relation between the toothed member and the pawl, a pair of opposed contact members, one of said contact members being movable and its movement being controlled by said time element, means whereby when the first named member has been stepped by a predetermined series of impulses, said time element will bring about an operative relation between said contact members, and means whose operation is determined by impulse characteristic for throwing the toothed member and pawl out of operative relation.

[Claims 6 to 11 not printed in the Gazette.]

1,137,476. HEEL-ATTACHING MACHINE. JOHN E. GLIDDEN, Beverly, Mass., by Sadie E. Glidden, guardian, Beverly, Mass.; said Sadie E. Glidden, administratrix of said John E. Glidden, deceased, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 16, 1911. Serial No. 602,884. (Cl. 1—37.)



1. A heel attaching machine having, in combination, a laterally movable nail block having provisions for accommodating drivers and nails in parallel relation to each other, drivers arranged for movement with the nail block, and actuating means for the drivers.

2. In a machine of the class described, a nail block provided with driver passages, each of said driver passages being enlarged at one side, to provide pockets in which nails may be retained in parallel relation to the drivers.

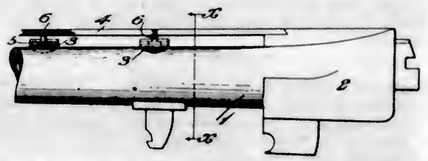
3. In a machine of the class described, a driver, and a nail block having a driver passage, the upper portion of said driver passage being provided at one side with a longitudinal nail holding pocket in which a nail may be retained by engagement with the side of said driver, said driver being arranged to be elevated sufficiently to permit the nail to drop into the driver passage in front of the driver.

4. A heel attaching machine having, in combination, a nail block provided with driver passages and nail receiving recesses, and movable laterally toward and from heel-attaching position, drivers in said passages, a driver plate connected with said drivers and movable with the nail block, and a reciprocating cross head arranged for engagement with the driver plate.

5. A heel attaching machine having, in combination, a nail block provided with driver passages and nail receiving recesses, drivers in said passages, and a driver plate connected with the drivers and having nail passages aliing with said recesses.

[Claims 6 to 22 not printed in the Gazette.]

1,137,477. FIREARM. CLARENCE A. GODSHALK, Philadelphia, Pa. Filed Nov. 12, 1914. Serial No. 871,652. (Cl. 42—1.)



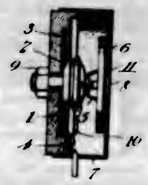
1. In a device of the character stated, a barrel, a top rib having one end rigidly connected therewith, a standard rigidly connected with said barrel, and means on said rib adapted to movably engage with said standard to hold the rib in position and to permit longitudinal movement between the parts.

2. In a device of the character stated, a barrel, a top rib having one end rigidly connected with said barrel, and a plurality of standards rigidly connected with said barrel and in movable engagement with said rib to permit longitudinal movement between the parts.

3. In a device of the character stated, a barrel, a top rib having one end suitably connected with said barrel, a plurality of standards connected with said barrel, projections on said rib having movable engagement with standards, whereby longitudinal movement of said rib with respect to said standards is permitted.

4. In a device of the character stated, a barrel, a top rib having one end suitably connected with said barrel, a plurality of standards connected with said barrel, said standards having slots therein, and headed pins carried by said rib and each seated in a slot of a standard forming a movable engagement therewith.

1,137,478. DEVICE FOR DETECTING MECHANICAL VIBRATION. FELIX GOTTSCHALK, Stirling, N. J. Filed Jan. 15, 1914. Serial No. 812,266. (Cl. 179—138.)



1. In an apparatus of the character described, a transmitter cell, a stem projecting from said cell, a vibratory member comprising a concave plate shaped disk, having a rearwardly projecting flange carried on said stem and a casing completely closing and surrounding said cell and vibratory member and thereby shielding same from the direct action of sound waves, substantially as described.

2. In an apparatus of the character described, a vibratory member comprising a concave plate shaped disk having a rearwardly projecting flanged portion, a spider shaped member 5, the ends of which are attached to said vibratory member at interperipheral points on the latter, and a resistance cell supporting said vibratory member and spider, substantially as described.

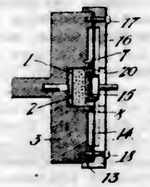
3. In an apparatus of the character described, a vibratory member having a flanged edge, the true flanged portion of which is substantially at right angles to the normal plane of the vibratory member and free to vibrate therewith.

4. In an apparatus of the character described, a free vibrating member having a flanged periphery.

5. In an apparatus of the character described, a vibratory member having a curved surface in combination with a flanged edge, said flange being substantially at right angles to the plane of the body of said member.

[Claim 6 not printed in the Gazette.]

1,137,479. RESISTANCE-CELL FOR TRANSMITTERS. FELIX GOTTSCHALK, Stirling, N. J. Filed Feb. 13, 1914. Serial No. 818,502. (Cl. 179—122.)



1. A resistance cell comprising a member, adapted to be secured to a transmitter bridge, and forming a chamber carrying electrodes and a variable resistance medium, a diaphragm of insulating material supporting one of said electrodes and having a diameter greater than the cell chamber and forming a closure therefor, means on said last mentioned electrode whereby it may be secured to a sound receiving diaphragm, a support carried by said member for the periphery of said diaphragm of insulating material and means for clamping said diaphragm to said support.

2. A resistance cell adapted to be mounted in a transmitter casing comprising a member forming a chamber, an electrode and a variable resistance medium in said chamber, a front electrode partially closing said chamber, a diaphragm supporting said front electrode, radial arms projecting from the chamber and united at their outer ends to form a diaphragm support, means for securing said diaphragm to said support, and cut-away portions in the surface of said arms adjacent the diaphragm, substantially as described.

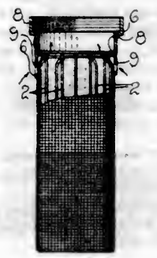
3. A resistance cell comprising a member forming a chamber having relatively thin lateral walls and adapted to be secured to a transmitter bridge, electrodes and a variable resistance medium in said chamber, radially projecting arms adapted to radiate heat from said chamber and support an annular ring, a diaphragm of insulating material supported by said ring, means supported by said diaphragm whereby it may be secured to a sound receiving diaphragm, and a plate covering substantially all of said first mentioned diaphragm except over the electrode chamber, substantially as described.

4. A resistance cell comprising an electrode chamber adapted to be secured to a transmitter bridge, a pair of electrodes, a resistance medium between the electrodes, a plurality of radial arms projecting from said chamber and carrying a diaphragm of insulating material closing said chamber and supported only at its peripheral portion by said support, a plate covering all of the said diaphragm laterally outside said chamber, and means for connecting said diaphragm to a sound receiving diaphragm, substantially as described.

5. In a resistance cell, an electrode chamber adapted to be secured to a transmitter bridge, a diaphragm of insulating material of greater diameter than the outer wall of said chamber, means carried by said chamber for securing said diaphragm at its periphery so it is free to vibrate, means carried by said chamber inclosing all of said diaphragm except the portion above said chamber and means carried by said diaphragm whereby it may be connected to a sound receiving diaphragm.

[Claim 6 not printed in the Gazette.]

1,137,480. GASOLENE-FILTER. ALBERT R. GWYNN, Phoenix, Ariz. Filed July 18, 1914. Serial No. 851,801. (Cl. 210—16.)



1. A filter consisting of a tension spring frame supported from a ring having air orifices therein, a chamois bag surrounding the spring frame, a wire screen cylinder surrounding the chamois bag, a head provided with an internal annular shoulder for supporting the ring and a cap secured by screw threads to the head of the filter, substantially as and for the purpose set forth.

2. In a filter such as described, a tension spring frame consisting of a ring provided with air orifices therein and a series of springs having one end securely connected with the ring, then returned at the bottom and carried upward and with the extremity free to vibrate, a filtering casing disposed around and carried by the spring frame.

3. In a filter of the character described, a head and a tension spring frame removably supported by the head, and a filtering bag surrounding the spring frame, said bag being confined at its upper extremity between the free ends of the spring frame and said head.

4. In a filter such as described, in combination with the head having lateral air inlet orifices adjacent to its lower extremity, a tension spring frame supported by a ring upon an annular shoulder on the head and provided with vertical air orifices, and a filtering casing carried by the spring frame.

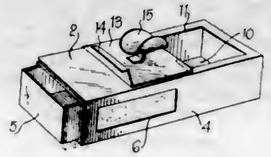
5. In a device of the character described, the combination with a supporting head open at both ends, of a supporting member removably disposed in the head, a resiliently expansible frame carried by the member, and insertible through the head, said frame normally having a greater diameter than the head and compressible to permit its movement through the head, and a filtering casing of flexible material carried on said frame.

[Claims 6 to 10 not printed in the Gazette.]

1,137,481. COMBINED MATCH-BOX, CIGAR-REST, AND ASH-TRAY. FRANK HAGEN, Breese, Ill. Filed Feb. 16, 1914. Serial No. 819,008. (Cl. 131—51.)

A device of the class described including a rectangular casing, the opposite ends whereof being open, a partition within the casing dividing the same into two compartments, a box slidably arranged within one of the compartments, the top of the casing over the remaining compartment being cut out, a plate hingedly connected to the top of the casing adjacent the inner end of the cut out

portion and normally closing said compartment, the outer extremity of the plate being angularly disposed to par-



tially overlie the adjacent open end of the casing, and a cigar rest mounted upon the inner face of said plate.

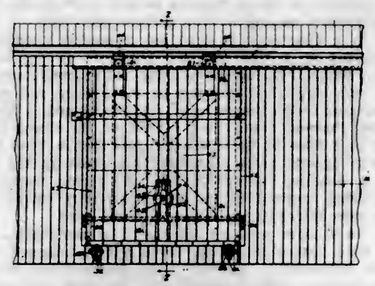
1,137,482. AMALGAM-MIXER. GEORGE M. HANLY, La Grange, Ill. Filed Sept. 10, 1914. Serial No. 861,121. (Cl. 32—5.)



1. An amalgam mixer, comprising a base formed with a receptacle, in combination with a pad adapted to be received in the receptacle.

2. An amalgam mixer, comprising a base formed with a receptacle, and an absorbable medicated pad adapted to be received in the same.

1,137,483. DOOR STRUCTURE FOR RAILWAY-CARS. EDWARD W. HARTOUGH, St. Louis, and SVEN PETER ALQUIST, Sedalia, Mo., assignors to Joseph S. Ralston, Columbus, Ohio. Filed May 1, 1914. Serial No. 835,675. (Cl. 20—23.)



1. The combination with a railway car having a door opening, of a door, a single straight track secured to the car, a hanger provided with means for supporting it on the track and secured to the outer face of the door and having an intermediate portion inclined inward over the door to bring its track engaging means over door and to engage the track, whereby when the door is raised, said inclined portion of the hanger will engage the track and force the upper part of the door inwardly, and means for raising said door.

2. The combination with a railway car having a door opening of an outwardly and downwardly inclined cover strip above said opening provided with recesses at its top and on its upper side, a door, a track on the car arranged outwardly of said cover strip, hangers on the door having each an upwardly and inwardly inclined portion and positioned between said strip and track, and mechanism for moving the door from the track upwardly and inwardly into said opening.

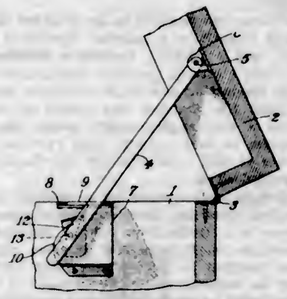
3. The combination with a railway car having a door opening, of a cover strip above said opening, a door, a track on the car arranged outwardly of said cover strip, hangers on the door provided with rollers bearing on said track, and mechanism for moving the door inwardly under said cover strip, said hangers having oblique portions which bear against the upper surface of the cover strip when the door is moved into closed position.

4. The combination with a railway car having a door opening; of a door adapted to seat over said opening so that it is flush with the side of the car; a cover strip fixed to the car above said opening in a position to cover the line of engagement between the top of the door and the lintel of the opening and projecting outwardly and downwardly; means for sustaining the door so that it is movable back and forth across said door opening in a plane outside of and parallel with the plane of the side of the car comprising a single straight track, and a one-piece hanger on the door standing between the track and cover strip, and having an oblique portion positioned to bear against the inner side of track during the closing movement of the door to guide the door inwardly; and means for moving the door upwardly and inwardly to its closed position.

5. The combination with a railway car having a door opening; of a door adapted to seat over said opening so that it is flush with the side of the car; a cover strip fixed to the car above said opening in a position to cover the line of engagement between the top of the door and the lintel of the opening and projecting outwardly and downwardly; means for sustaining the door so that it is movable back and forth across said door opening in a plane outside of and parallel with the plane of the side of the car comprising a single track, and a one-piece hanger on the door standing between the track and cover strip and having an oblique portion positioned to bear against the track during the closing movement of the door to guide the door inwardly and to bear against the cover strip during the opening movement of the door to guide the door outwardly; and means for moving the door inwardly to its closed position and outwardly to its open position.

[Claims 6 to 9 not printed in the Gazette.]

1,137,484. AUTOMATIC LID-SUPPORT. LEWIS H. HAYS, Spokane, Wash., and GUSTAF W. JOHNSON, Mace, Idaho, assignors to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed July 30, 1913. Serial No. 782,026. (Cl. 217—60.)



1. An automatic lid-support, comprising a rod adapted to be secured to the lid and having a projection, a relatively-stationary guide for said rod having a cam and a seat for said projection, and a pivoted dog located adjacent said seat and extending above said seat and into the path of said projection.

2. An automatic lid-support, comprising a vertically-movable supporting-member, means for supporting the same in its raised position, a pivoted dog having a flange and nose interposed in the upward path of said member and blocking it against further upward movement beyond its supported position, said dog being deflectable by a succeeding upward movement of said member so as to permit the latter to pass by said dog and then be lowered.

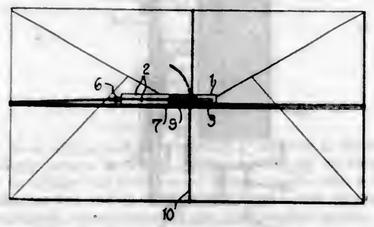
3. An automatic lid-support, comprising a rod having a projection, a stationary seat for said projection, and a pivoted dog extending normally in the path of said projection and normally preventing it from passing upwardly beyond said seat, but tiltable by succeeding upward movement of said projection after first lowering it slightly, so as to permit the latter to pass beyond said dog.

4. An automatic support for the hinged lid of a box or the like, comprising a prop depending from a pivot on the lid and having a projection, a stationary guide for said prop comprising a seat for said projection, and suitable means for preventing said projection being drawn completely through said guide without first being lowered to rest in said seat and thereby support said lid in raised position.

5. An automatic lid-support, comprising a rigid supporting-member, a stationary seat for supporting the same in raised position, and a dog normally preventing the passage of said member beyond the position of being engaged by said seat, said dog being tiltable by a succeeding upward movement of said member after first lowering it slightly and permitting return of the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,137,485. PACKAGE-TIE. JOHN W. HEFFLEY, Duncannon, Pa., assignor to William H. Heffley, Duncannon, Pa. Filed May 13, 1914. Serial No. 838,365. (Cl. 24—18.)



1. A package tie comprising a plate having overlying side flanges at one end thereof, a wire securing device secured at one end beneath said flanges, a portion of said wire being projected longitudinally from the flanged end of the plate and being bent backwardly upon itself to form an eye, the securing device including a hook at its other end, a cord connected at one end in said eye, and said securing device being formed with means for resiliently holding the other end of the cord within the hook.

2. A package tie comprising a plate having overlying side flanges at one end thereof, a securing device comprising a length of spring wire, said wire being bent to form three parallel limbs, said limbs being engaged at one end beneath said overlying flanges, the intermediate limb and one of the outer limbs projecting rearwardly from said plate to form an eye, the outermost limbs at the forward end of the plate being bent to form a hook, the intermediate limb at the forward end of said plate being bowed upwardly to form a resilient hump below said hook, and a cord connected at one end in said eye, the free end of said cord being adapted for engagement between said hump and said hook.

1,137,486. NECKWEAR. MICHAEL HEYMAN, Cincinnati, Ohio. Filed Aug. 8, 1914. Serial No. 855,718. (Cl. 2—11.)



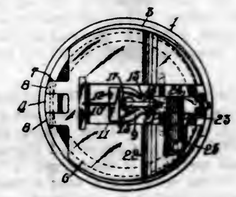
1. In a necktie of any desired fabric, a reinforcing strip of any desired fabric sewed diagonally on the fabric of the tie at the neck portion thereof, with the fabric together with the strip folded on itself to form a narrow neck band, with the reinforcing portion outside.

2. In a necktie, comprising two tying ends and an intermediate portion for encircling the neck, a reinforcing strip secured across the fabric, with the fabric folded on itself to form a narrow neck band and with the reinforcing strip on both sides of the band, and a triple line of stitches in parallel lines extending the length of the reinforced portions securing the band folds and reinforcements together.

3. In a necktie, of any desired fabric, a reinforcing strip secured across the fabric at the neck portion thereof, with the fabric folded on itself to form a narrow neck band and with the reinforcing strip on both sides of the band having non-reinforced portions of the fabric intermediate the reinforced portions, and a triple line of stitches in parallel lines extending the length of the reinforced portions securing the band folds and reinforcements together.

4. In a necktie, comprising two tying ends and an intermediate portion for encircling the neck, a reinforcing strip secured across the fabric in diagonal lines crossing each other, with the fabric folded on itself to form a narrow neck band and with the reinforcing strip on both sides of the band, and a triple line of stitches in parallel lines extending the length of the reinforced portions securing the band folds and reinforcements together.

1,137,487. PHONOGRAPH-REPRODUCER. NEWMAN H. HOLLAND, West Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 6, 1913. Serial No. 793,547. (Cl. 181—10.)



1. In a phonograph reproducer, the combination with a sound box having a diaphragm mounted therein, of a floating weight mounted on said sound box, a member mounted on said floating weight and free to oscillate laterally with respect to the same, a stylus lever connected to said diaphragm and pivotally mounted on said member, and pneumatic means for damping the lateral movement of said member, substantially as described.

2. In a phonograph reproducer, the combination with a sound box having a diaphragm mounted therein, of a floating weight mounted on said sound box, a member mounted on said floating weight and free to oscillate laterally with respect to the same, a stylus lever connected to said diaphragm and pivotally mounted on said member, and a dash pot for damping the lateral movement of said member, substantially as described.

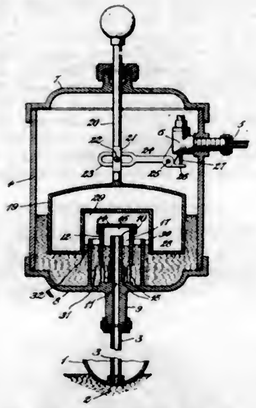
3. In a phonograph reproducer, the combination with a sound box having a diaphragm mounted therein, a floating weight mounted on said sound box, a member mounted on said floating weight and free to move laterally with respect to the same, a stylus lever connected with said diaphragm and pivotally mounted on said member, and a dash pot for damping the lateral movement of said member, said dash pot comprising a reciprocatory member pivotally connected to said laterally movable member, substantially as described.

4. In a phonograph reproducer, the combination with a sound box having a diaphragm mounted therein, of a floating weight mounted on said sound box, a member mounted on said floating weight and free to oscillate in a direction substantially parallel to said floating weight, a stylus lever connected to said diaphragm and pivotally mounted on said member, and pneumatic means for damping the movement of said member parallel to said weight, substantially as described.

5. In a phonograph reproducer, the combination with a sound box having a diaphragm mounted therein, of a member free to oscillate laterally with respect to said sound box, a stylus lever connected to said diaphragm and pivotally mounted on said member, and pneumatic means for damping the lateral movement of said member, substantially as described.

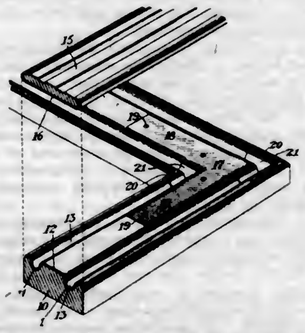
[Claims 6 to 8 not printed in the Gazette.]

1,137,488. SIPHON ATTACHMENT. FRANCIS K. HYDE, New York, N. Y. Filed Aug. 31, 1914. Serial No. 859,321. (Cl. 182—12.)



A device of the character described having a reservoir adapted to contain a supply of water and provided with an inlet and an outlet, a seal for closing said outlet, an upwardly directed nozzle at the outlet through which the water from said reservoir is discharged, a valve controlling the inlet to the reservoir, a float actuated by variations in the water level of the reservoir controlling said valve, and having an air chamber closed at its upper part surrounding said nozzle, and a member within the chamber of said float communicating at its lower part with the reservoir, having a chamber closed at its top inclosing said nozzle and adapted to contain air affording a seal to prevent entry of water into the nozzle.

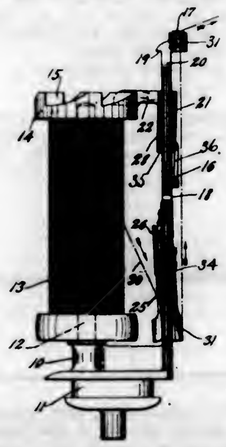
1,137,489. MOLDING. CHARLES JELLINEK, New York, N. Y., assignor of one-third to said Jellinek, one-third to David Stern, and one-third to David Wald, New York, N. Y. Filed Apr. 1, 1914. Serial No. 828,725. (Cl. 247—4.)



1. A molding for electric wiring, comprising a wooden base having grooves in one face thereof, a metallic facing having grooves therein fitting into the grooves in the said base and secured at its opposite edges in the adjacent parts of the said base, and a bond member for connecting together electrically adjacent sections of the molding.

2. A molding for electric wiring, comprising a wooden base having grooves therein, a metallic facing also having grooves therein adapted to fit within the grooves in the said base and secured at opposite edges to the adjacent parts of the said base, a bond member having tongues for connecting the same to the metallic facing of adjacent sections of the said molding, and grooved ears fitting into the grooves thereof to cover the edges of the metallic facing at the joints between the sections.

1,137,490. CARRIER FOR BRAIDING-MACHINES. WILLIAM H. JOSLIN, Providence, R. I. Filed Feb. 12, 1914. Serial No. 818,373. (Cl. 28—24.)



1. A carrier for braiding machines comprising a frame having a spool spindle and a standard, a slidable latch on said standard having a finger to engage the ratchet teeth on the spool, a yarn tension controlling weight also slidable on said standard and a downwardly extending member on said latch adapted to over-lap said weight when the latter is raised for the purpose of straightening both of said sliding members on their standard.

2. A carrier for braiding machines comprising a frame having a spool spindle and a standard, a slidable latch on said standard having a finger to engage the ratchet teeth on the spool, a yarn tension controlling weight also slidable on said standard and a downwardly extending lip on the rear of said latch adapted to over-lap and embrace the body of said weight when the latter is raised to straighten both members on their standard.

3. A carrier for braiding machines comprising a frame having a spool spindle and a standard, a slidable latch on said standard having a finger to engage the ratchet teeth on the spool, a yarn tension controlling weight also slidable on said standard, a downwardly extending lip on the rear of said latch adapted to over-lap and embrace the body of said weight when the latter is raised and an upwardly extending lip on said weight having a roughened engaging face adapted to coöperate with said latch lip to pull downward the raised latch by frictional engagement therewith.

4. A carrier for braiding machines comprising a frame having a spool spindle and a standard, the latter having a guide eye near its middle and a lead eye near its upper end, a slidable latch on said standard having a body portion with a finger to engage the ratchet teeth on the spool, a downwardly extending weight engaging lip on said latch, a slidable tension weight on said standard comprising a main body portion having an upwardly extending guiding and friction lip adapted to engage the front face of said latch body, the rear portion of said weight being adapted to engage said latch lip, a yarn guide in the front wall of said weight at a point below the upper edge of said body, and a guide notch adjacent the lower edge of its outside wall whereby the yarn leads from the spool through said front eye thence through the guide eyes in the standard down around the outer lower edge of the weight and up through the lead eye whereby a double action slack take-up is provided.

1,137,491. HEAD FOR LIFTING-JACKS. FRANK I. JOYCE, Dayton, Ohio. Original application filed Jan. 27, 1912, Serial No. 673,901. Divided and this application filed Apr. 14, 1914. Serial No. 831,761. (Cl. 254—100.)



1. In a lifting jack, a standard, a member to be raised, a raising means, a socket on the member to be raised, a ram to engage the load seated in the socket, and a liquid cushion in the socket for the base of the ram to form an anti-friction thrust bearing for the raising means, with an oil reservoir in the ram, and a passageway therefor for the socket to maintain the liquid supply and a valve normally to close the passageway adapted to open to permit passage of oil upon release of the load.

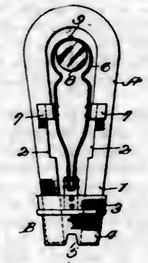
2. In a lifting jack, a standard and a lifting screw mounted therein, a ram to engage the load with a socket in the head of the screw within which the ram is seated, and a liquid cushion in the socket for the base of the ram to form an anti-friction thrust bearing for the screw, with an oil reservoir in the ram, and a passageway therefor to the socket to maintain the liquid supply and a valve normally to close the passageway adapted to open to permit passage of oil upon release of the load.

3. In a lifting jack, a standard and a lifting screw mounted therein, a ram to engage the load with a socket in the head of the screw within which the ram is seated, and a liquid cushion in the socket for the base of the ram to form an anti-friction thrust bearing for the screw, with an oil reservoir in the ram, and a passageway therefor to the socket to maintain the liquid supply and a valve normally to close the passageway, a spring bearing between the base of the socket and the bottom of the ram to return the ram to normal position upon leakage of the liquid from the socket and to permit the liquid supply valve to open to renew the liquid in the socket.

1,137,492. MAGNETIC SEPARATOR. ALFRED H. KIDNEY, Orange, N. J. Filed Aug. 18, 1914. Serial No. 857,380. (Cl. 83—71.)

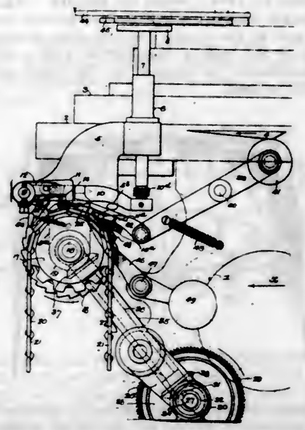
1. The combination with a magnet having poles, of a shield mounted thereon, means carried by the magnet connected to the shield for moving the shield whereby the contact will be made between the shield and poles for energizing the shield to attract particles, said shield adapted to be disengaged from the poles whereby the particles will automatically fall from the shield, and means for controlling the movement of said shield.

2. The combination with a magnet having poles, of a shield mounted thereon provided with a contacting surface, a handle connected to said shield for causing the shield to be brought into engagement with the poles for the energization of the shield and for breaking the contact between said shield and poles, means on the handle having sliding engagement with the magnet, and means for limiting the movement of said sliding means for controlling the movement of the handle.



3. The combination with a magnet having poles, of a shield movably mounted on the poles and provided with a contacting surface adapted to be brought into engagement with the poles for the energization of the shield, a loop handle connected to said shield for making and breaking the contact between the shield and magnet, a disk mounted on the handle whereby the handle can be gripped for operating the shield, guides connected to the handle having engagement with the magnet, and means on the magnet for limiting the movement of the members and handle.

1,137,493. STITCH-CHANGING MECHANISM FOR KNITTING-MACHINES. DAVID B. KIMES, Spring City, Pa. Filed Oct. 26, 1912. Serial No. 727,902. (Cl. 66—22.)



1. The combination in a knitting machine of stitch changing mechanism; pattern mechanism; two devices, of which one is normally active, for actuating the pattern mechanism; and means for holding the other of said devices out of operative position, said pattern mechanism including a single member movable to release said holding means and operative to actuate the stitch changing mechanism.

2. The combination in a knitting machine of stitch changing mechanism; pattern mechanism; and two devices, of which one is normally active, for actuating the

pattern mechanism, the latter including members successively operative to move the stitch changing mechanism into different active positions, said members also being movable to periodically effect the operation of the other of said devices.

3. The combination in a knitting machine of a supporting structure; stitch changing mechanism; pattern mechanism; two operatively connected levers pivotally mounted on the supporting structure; two devices for actuating the pattern mechanism; and means for normally holding one of said devices inoperative, said pattern mechanism being operative to move one of said levers to actuate the other lever to throw said latter device into operation, and being also operative to actuate said stitch changing mechanism during the operation of said latter device.

4. The combination in a knitting machine of a supporting structure; stitch changing mechanism; pattern mechanism; two operatively connected levers pivotally mounted on the supporting structure; two devices for actuating the pattern mechanism; and means for normally holding one of said devices out of action, said pattern mechanism including a member operative to move one of said levers and thereby actuate the other lever to cause said latter device to operate, said member also being operative to actuate said stitch changing mechanism.

5. The combination in a knitting machine of a supporting structure; stitch changing mechanism; a ratchet; pattern mechanism movable with the ratchet; means operated by the fabric produced for moving said pattern mechanism; a pawl for said ratchet; means actuated from a movable part of the machine for operating said pawl; two operatively connected levers pivotally mounted on the supporting structure; and means for normally holding said pawl out of action, said pattern mechanism being operative to actuate said levers to permit engagement of the pawl with the ratchet, and to actuate said stitch changing means during the operation of said pawl.

[Claims 6 to 14 not printed in the Gazette.]

1,137,494. GOGGLES. WALTER G. KING, New York, N. Y. Filed May 13, 1914. Serial No. 838,215. (Cl. 2—149.)

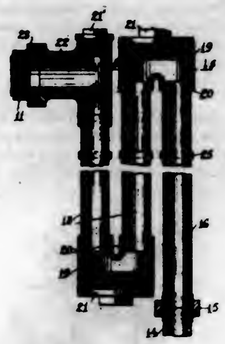
1. A goggle comprising lens rims of greater width than the thickness of the lenses, and extending rearward from the plane of the lens in combination with a nose bridge whose extremities are secured to the inner surfaces of the respective rims.



2. A goggle comprising lens rims of greater width than the thickness of the lenses, and extending rearward from the plane of the lens in combination with a nose bridge whose extremities are secured to the inner surfaces of the respective rims and extend therefrom around the rear edges of the rims and forward therefrom.

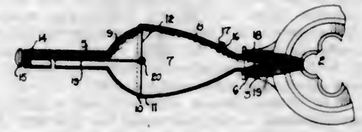
1,137,495. APPARATUS FOR DISPENSING BEVERAGES. ANTON LANDGREBE, New York, N. Y. Filed Feb. 4, 1914. Serial No. 816,486. (Cl. 225—1.)

In apparatus of the character set forth, the combination of a plurality of straight parallel pipes having smooth interior surfaces, and means connecting the ends of the pipes each to each so as to provide a continuous circulation and communication throughout all of the pipes, said connecting means including a hollow cylindrical coupling



head having a pair of internally threaded bosses receiving the adjacent pipe ends and a flat circular plug removably secured in the end of the head opposite the open ends of the pipes in said bosses.

1,137,496. SELF-LUBRICATING DIE-STOCK. OLE G. LARSON, Duluth, Minn., assignor of one-half to David R. Black, Duluth, Minn. Filed Jan. 4, 1915. Serial No. 426. (Cl. 10—126.)



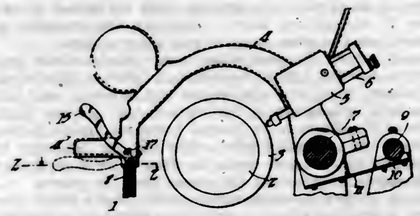
1. A die stock having a hollow handle formed to provide a lubricant reservoir, a diaphragm disposed within the reservoir, and means extending through the handle for actuating said diaphragm to eject oil from the reservoir.

2. A die stock having a hollow handle, one portion of the handle being enlarged to form a lubricant chamber, a diaphragm disposed within the chamber, a rod connected with the diaphragm and extending out through the handle, and a button mounted upon the rod whereby the diaphragm may be actuated to eject the oil from the reservoir.

3. A die stock including a hollow handle enlarged at one portion to form a lubricant reservoir, said handle being made in two sections, the joint between the sections extending through the reservoir, a diaphragm disposed between said sections and within the reservoir, a rod attached to the diaphragm and extending out through the outer end of the hollow handle, and a button attached to said rod.

4. A die stock including a body having outwardly extending oppositely disposed handle sockets, a removable handle in one of said sockets, and a removable handle for engagement in the other socket, the last named handle being hollow and having an enlarged portion intermediate its length, a metallic diaphragm removably disposed within said enlarged portion, a rod extending out through the end of the handle and provided with means whereby the diaphragm may be actuated, and means whereby the reservoir may be filled.

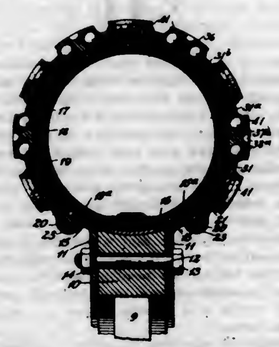
1,137,497. ATTACHMENT FOR SHAVING-MACHINES. FRANK F. LATTA, Wadena, Minn., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Jan. 3, 1911. Serial No. 600,543. (Cl. 181—15.)



1. In a device of the class described, the combination with a record support, of a shaving knife, supporting means for said knife, said knife being adjustable with respect to said supporting means in a direction toward said record support, and positioning means comprising a cam member having a flattened bearing surface, said positioning means coacting with said supporting means and being operable without alteration of the position of said knife with respect to said supporting means to cause movement of said knife toward said record support an amount always equal to a predetermined depth of cut for said knife, substantially as described.

2. The combination with a record support, of a shaving knife, supporting means for said knife, said knife being adjustable with respect to said supporting means in a direction toward said record support, positioning means comprising a cam having a flattened bearing surface said positioning means coacting with said supporting means and being operable without alteration of the position of said knife with respect to said supporting means to cause movement of said knife toward said record support an amount always equal to a predetermined depth of cut for said knife and means for producing a relative feeding movement between said supporting means and said record support, said feed producing means being operative for different positions of operation of said positioning means, substantially as described.

1,137,498. VEHICLE-TIRE. RICHARD LAWRENCE LEACH, Honolulu, Hawaii. Filed Feb. 5, 1914. Serial No. 816,739. (Cl. 152—16.)



1. In a tire, the combination of a tubular portion, a rubber jacket partly encircling the same, disks sunken slightly into said rubber jacket and provided with cavities of substantially hemispherical form, and with passages of substantially semi-cylindrical form, said passages merging into said cavities, plates provided with necks for extending through said passages and with balls carried by said necks for fitting into said cavities, and other disks connected with said first mentioned disks and provided with bearing portions for fitting upon said necks and said balls.

2. In a tire armor, a covering of rubber partially encircling a tire, a plurality of anti-skid members spaced apart and each partially sunken in the rubber covering, a plurality of plates disposed about the anti-skid members, means forming ball and socket connections between the said plates and the anti-skid members, and means for connecting sundry of said plates with the wheel rim to hold the armor in position on the tire.

3. In a tire armor, the combination of a plurality of anti-skid members each being substantially circular in form and provided with sockets and with passages merging into said sockets, and a plurality of plates each provided with a member extending into one of said sockets and with a neck extending through one of said passages, each of said plates being provided with a plurality of straight edges and with a plurality of curved edges of arcuate form, said curved edges being located between said straight edges.

4. In a tire armor, the combination of a pair of disks connected together by a centrally disposed member carried by one of said disks and engaging the other, said disks together being provided with sockets arranged in a circle and with radially disposed passages merging into said sockets, and a plurality of plates arranged around the said disks and each comprising a body portion having a curved edge corresponding in shape to the periphery of the disks, the plates being each provided with a neck extending from the body portion through one of said passages and with a spherical member carried by said neck and fitting into one of said sockets, so that said plates are connected to said disks by ball and socket joints.

5. The combination with a wheel rim, of an inflatable tire mounted upon the rim, a tire covering of rubber partly encircling the tire, and an armor comprising a plurality of anti-skid members each having a disk partially sunken in the rubber covering and a mating disk adapted to be secured to the first disk, a plurality of plates disposed about the anti-skid members, means forming ball and socket connections between the said plates and the anti-skid members, and means for securing the armor to the wheel rim.

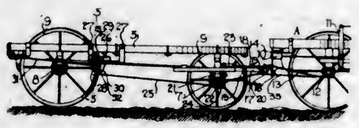
1,137,499. FASTENING DEVICE FOR GARMENTS. JOSEPH LIEBERMAN, ALBERT FRIEDMAN, and BENJAMIN ROSE, Philadelphia, Pa. Filed Aug. 17, 1912. Serial No. 715,574. (Cl. 2—143.)



The combination with a garment having side slits adjacent the hip portions to form front and rear waist sections, said rear section having on each side thereof an opening, passing entirely therethrough, at a suitable point removed from each edge of the side slits, an attaching means carried on the inner face, at each side, of said front section, a loop for each opening suitably secured to said rear section, and a pair of belt members, one end of one member passing through one of said openings and its loop, and extending forwardly, and being removably secured to the attaching means on one side of the front section, and one end of the other belt member passing through the other opening of the rear sections and its loop, and extending forwardly and removably secured to the attaching means on the other side of the front section, the opposite ends of said belt members extending

forwardly to the front of said front section, whereby the belt members are situated exterior of the edges of the slits of both the front and rear sections, and the said belt members serving to hold the edges in close contact and in a flat condition, and means for securing the front ends of said belt members together.

1,137,500. AUTOMATIC VEHICLE-BRAKE. CHARLES H. LIKELY, Woody, Cal. Filed June 15, 1914. Serial No. 845,168. (Cl. 21—9.)



1. The combination with the lead and trail wagons, said latter wagon being provided with movable brake beams and having a forwardly extending tongue, of a bar slidably mounted upon said tongue, a rearwardly extending rod mounted upon the lead wagon and slidably connected to the forward end of said bar, connecting means between the rear end of said bar and the brake beams, and a bumper fixed to the rod on the lead wagon adapted to be engaged by the forward end of the slide bar, whereby said bar is moved and the brakes applied.

2. The combination with the lead and trail wagons, said latter wagon being provided with wheel brakes, and a forwardly extending tongue, of a bar slidably mounted upon said tongue and provided with a sleeve upon its forward end, a rod mounted upon the rear axle of the lead wagon and extending rearwardly therefrom, said rod being loosely engaged in the sleeve on said bar, a lever fulcrumed intermediate of its ends upon the forward axle of the trail wagon, a connection between the upper end of said lever and the rear end of said slide bar, operating means connecting the lower end of said lever to the brakes on the trail wagon, and a bumper on the rear end of the lead wagon adapted to be engaged by the sleeve on the forward end of said slide bar upon an excessive forward movement of the trail wagon to move said bar and apply the brakes.

3. The combination with the lead and trail wagons, said latter wagon being provided with wheel brakes and having the forwardly extending tongue, of a bar slidably mounted upon said tongue and provided with a sleeve on its forward end, a rearwardly extending rod mounted upon the lead wagon and loosely engaged in said sleeve, a yieldable bumper member fixed to said rod, a lever fulcrumed intermediate of its ends upon the forward axle of the trail wagon, links connecting the upper end of said lever to the rear end of the slide bar, and connecting means between the lower end of said lever and the brakes on the trail wagon, the sleeve upon the forward end of the slide bar being adapted to engage the bumper upon an excessive forward movement of the trail wagon to slide said bar and apply the wheel brakes.

1,137,501. PROCESS OF ORNAMENTING FABRICS. MAURICE LINFOOT, Bocking, Braintree, England, assignor to Courtaulds Limited, London, England. Filed Feb. 3, 1914. Serial No. 816,140. (Cl. 26—2.)

1. A process of ornamenting textile fabrics which consists in forming a layer comprising a fabric to be treated, a pattern fabric and a permeable bed or apron, said fabrics being superposed in the order named and the finish face of the fabric to be treated being juxtaposed to the face of the pattern fabric, subjecting the ensemble to pressure and causing a heated fluid to pass therethrough.

2. The process of ornamenting textile fabrics which consists in forming a plurality of superposed layers comprising in each layer, a fabric to be treated, a pattern fabric and a permeable bed or apron, said fabrics being superposed in the order named and the finish face of the fabric being juxtaposed to the face of the pattern fabric, subjecting the ensemble to pressure and causing a heated fluid to pass therethrough.

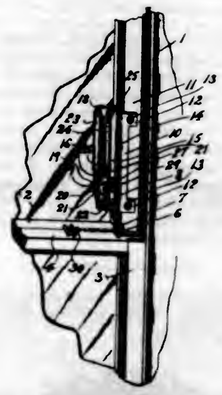
3. A process of ornamenting textile fabrics which consists in forming a layer comprising a fabric to be treated, a pattern fabric and a permeable bed or apron, said fabrics being superposed in the order named and the finish face of the fabric to be treated being juxtaposed to the face of the pattern fabric, subjecting the ensemble to pressure and causing steam to pass therethrough.

4. A process of ornamenting textile fabrics which consists in forming a layer comprising a fabric to be treated, a pattern fabric and a permeable bed or apron, said fabrics being superposed in the order named and the finish face of the fabric to be treated being juxtaposed to the face of the pattern fabric, subjecting the ensemble to pressure and causing steam to pass therethrough, and subsequently exhausting the steam from the fabrics.

5. A process of ornamenting textile fabrics which consists in forming a layer comprising a fabric to be treated, a pattern fabric and a permeable bed or apron, said fabrics being superposed in the order named and the finish face of the fabric to be treated being juxtaposed to the face of the pattern fabric, subjecting the ensemble to pressure and causing steam to pass therethrough, subsequently exhausting the steam from the fabrics and thereafter drying the fabrics.

[Claims 6 to 11 not printed in the Gazette.]

1,137,502. WINDOW-LOCKING DEVICE. JOHN G. LOCKE, Passaic, N. J. Filed Apr. 29, 1913. Serial No. 764,329. (Cl. 16—146.)

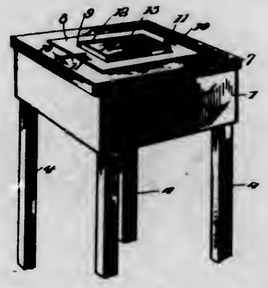


1. In a device of the kind described a pivoted bolt element for connection with one window-sash, an enlarged head connected with the free end of said bolt element, a bolt-receiving element comprising a slotted plate in which the free end of said bolt element may be inserted, a bracket-plate connected with said slotted plate and off-set therefrom whereby said slotted plate may be secured to and offset from a vertical stile of the other window-sash, a body-plate connected with and rearwardly spaced from said slotted-plate to provide a runway in which said head of said bolt element rides, and a depressed portion providing a shoulder in said body-plate adjacent to its lower end with which said head of said bolt element engages when the window-sashes are in closed position, and by means of which said window-sashes are automatically locked when closed.

2. In a device of the kind described a pivoted bolt element for connection with one window-sash, an enlarged head connected with the free end of said bolt element, a bolt-receiving element comprising a slotted plate in which the free end of said bolt element may be inserted, a bracket-plate connected with said slotted plate and off-set therefrom whereby said slotted plate may be secured to and offset from a vertical stile of the other window-sash, a body-plate formed integrally with said slotted-plate and doubled back upon the latter so as to be spaced rearwardly therefrom to provide a runway in which said head of said bolt rides, and a side-portion connected with said body-plate, the same being bent forwardly and over a side marginal edge of said slotted plate to secure the side body-plate in fixed position with relation to said slotted-plate.

3. In a device of the kind described a pivoted bolt element for connection with one window-sash, an enlarged head connected with the free end of said bolt element, a bolt-receiving element comprising a slotted plate in which the free end of said bolt element may be inserted, a bracket-plate connected with said slotted plate and offset therefrom whereby said slotted plate may be secured to and offset from a vertical stile of the other window-sash, a body-plate formed integrally with said slotted-plate and doubled back upon the latter so as to be spaced rearwardly therefrom to provide a runway in which said head of said bolt rides, a side-portion connected with said body-plate, the same being bent forwardly and over a side marginal edge of said slotted plate to secure the said body-plate in fixed position with relation to said slotted-plate, and a depressed portion providing a shoulder in said body-plate adjacent to its lower end with which said head of said bolt element engages when the window-sashes are in closed position, and by means of which said window-sashes are automatically locked when closed.

1,137,503. ART OF PRODUCING PHOTOGRAPHIC PRINTS. MYRON S. LOVELL, Oswego, N. Y. Filed July 15, 1914. Serial No. 851,208. (Cl. 95—73.)



1. The method of producing softness in photographic prints which consists in causing a relative movement (in a plane parallel with the planes thereof) of the negative and sensitized material while they are separated, during exposure.

2. In photographic printing apparatus, a negative holding frame having an opening to expose the negative, in combination with a sensitized sheet holder adapted to said opening and of a reduced size with respect thereto for back and forth and right and left movement therein.

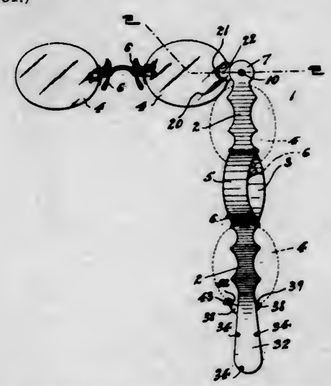
3. In photographic printing apparatus, negative holding means having an opening exposing the negative, in combination with a sensitized sheet holder adapted to enter said opening and engage the negative, said holder being laterally movable on the negative within the confines of said opening and provided with means whereby the sensitized sheet can be pressed against and allowed to separate from the negative during exposure to the negative.

4. In photographic printing apparatus, in combination, means for holding the negative, means for holding a sensitized sheet parallel with and exposed to the negative, said last mentioned means being laterally movable in all directions to move the sensitized sheet in a plane parallel with and with respect to the negative, and means whereby the sheet can be maintained from contact with the negative and can be brought into contact with the negative during the time of exposure.

5. In photographic printing apparatus, a frame for holding a negative exposed to a light box, said frame having an opening to expose the negative, in combination with a portable hand operated sensitized sheet holder adapted to enter said opening and having an open bottom to expose said sensitized sheet to the negative, said holder being laterally slidable on said negative and within the confines of said opening.

[Claims 6 to 14 not printed in the Gazette.]

1,137,504. LORGNETTE. GEORGE J. LOWRES, Newark, N. J. Filed Feb. 7, 1914. Serial No. 817,143. (Cl. 88—51.)



1. The combination with a lorgnette-handle provided with a receiving space, of a pair of eye-glasses pivotally mounted in said space but separately connected with said lorgnette-handle, whereby the eye-glasses can be disconnected from the handle and used also in the manner of ordinary eye-glasses, and a means of adjustment connected with the handle, for detachably connecting eye-glasses having different sized lenses to said handle.

2. A detachable lorgnette-handle, comprising a pair of side-members secured together so as to provide an intervening space therebetween, a spring-actuated coupling-member pivotally mounted between the upper ends of said side-members, said coupling-member having means for gripping one lens of an ordinary pince-nez, and a holding-catch member mounted between the lower ends of said side-members for engaging the other lens of said pince-nez when the latter is folded into the said space between said side-members.

3. A detachable lorgnette-handle for attachment to ordinary pince-nez, comprising a pair of superimposed side-members secured together to provide an intervening space into which said pince-nez may be folded, means for detachably and pivotally connecting said pince-nez with one end of said lorgnette-handle, and an adjustable holding-catch member connected with said lorgnette-handle for holding said pince-nez in its folded relation to said handle.

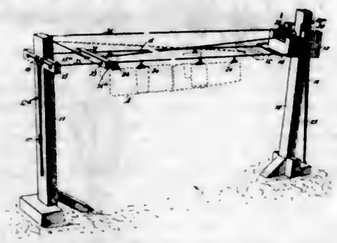
4. A detachable lorgnette-handle for attachment to ordinary pince-nez, comprising a pair of superimposed side-members secured together to provide an intervening space into which said pince-nez may be folded, one of said side-members having a bowed-out portion to permit the nose-guards of said pince-nez to pass thereunder, means for detachably and pivotally connecting said pince-nez with one end of said lorgnette-handle, and an adjustable holding-catch member connected with said lorgnette handle for holding said pince-nez in its folded relation to said handle.

5. A detachable lorgnette-handle for attachment to ordinary pince-nez, comprising a pair of superimposed side-members secured together to provide an intervening space into which said pince-nez may be folded, a fulcrum-shank extending transversely between the upper ends of

said side-members, a pair of plate-members pivotally mounted upon said fulcrum-shank, a block mounted between said plate-members and to which the latter are secured, outwardly extending embracing-arms connected with said plate-members between which a lens of said pince-nez is receivable, means for locking said lens in embraced relation between said embracing-arms, and a spring-means for rotating said plate-members to throw outwardly said embracing-arms so as to carry said pince-nez at substantially right angles to said lorgnette-handle

[Claims 6 to 11 not printed in the Gazette.]

1,137,505. CLOTHES-LINE SUPPORT AND ADJUSTER. FRITZ LUERSEN, Price, Utah. Filed Jan. 14, 1914. Serial No. 812,028. (Cl. 68—3.)



1. The combination of a pair of clothes-lines, a slide to which the lines are connected at one end, a post on which said slide is adapted to be raised or lowered, means for raising and lowering the slide, a post to which the opposite ends of the lines are connected, a series of pins on the lines, a cross bar fitted to slide on the lines, a haul rope connected with said bar, and extending in opposite directions therefrom to the posts, the said haul rope having a running connection with one post, and means on the slide of the other post for moving said rope to or from either post.

2. The combination of end supports, a slide movable on one of said supports, a clothesline connected at one end with the slide, and connected at its opposite end with the opposite support, a series of pins strung on the line for sliding movement thereon, a bar slidable on the line, a haul rope connected with said bar and extending in opposite directions toward the supports, the rope having running connection with one of the supports, and a drum on the slide, around which the haul rope is given a turn.

1,137,506. NON-SKIDDING ATTACHMENT FOR WHEEL-TIRES. GEORGE ALBERT LYON, Philadelphia, Pa. Filed Oct. 29, 1909. Serial No. 525,283. (Cl. 152—2.)

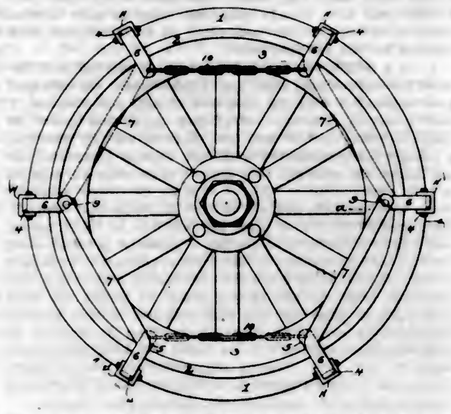
1. As non-skidding wheel tire attachment having treads with depending side members disposed laterally beyond the tire, said treads being provided with shoes having wings which engage the treads and are disposed between the tire and the depending side members of the treads.

2. A non-skidding wheel tire attachment having treads with depending side members disposed laterally beyond the tire, said treads being provided with shoes having wings which engage said treads and are secured thereto at points between the tire and the depending side members of the treads.

3. A non-skidding wheel tire attachment having treads projecting laterally beyond the tire, said treads being provided with shoes having wings which engage said projecting portions of the tread and are secured thereto by transverse bolts passing under the same.

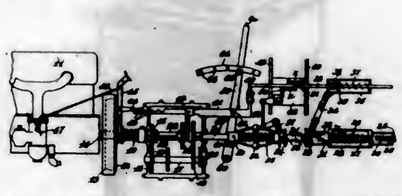
4. A non-skidding wheel tire attachment consisting of members, each comprising a tread with opposite side bars and a longitudinal connecting bar all rigidly joined together, said connecting bar being pivoted directly to a side bar of an adjoining member.

5. A non-skidding wheel tire attachment consisting of sections each comprising a member having two treads, each with opposite side bars and a longitudinal bar connecting the side bars on one side of the tire, and another



member having a single tread with side bars and a longitudinal bar which projects from one of said side bars and has pivotal connection with one of the side bars of the first member.

1,137,507. AUTOMATIC CHANGE-SPEED DEVICE. JAMES A. MCKEEVER, New York, N. Y. Filed Sept. 3, 1914. Serial No. 860,016. (Cl. 74—58.)



1. An automatic change speed device, comprising a pair of shafts, a torque device connecting between the same, a change speed mechanism for the shafts, means in connection with said torque device for automatically operating said change speed mechanism, together with a governor rotating with said shafts and means operated thereby for controlling the automatic operation of the change speed mechanism.

2. In an automatic change speed mechanism, a torque-operated change speed device, a locking device controlling the same and a centrifugal governor operating said locking device.

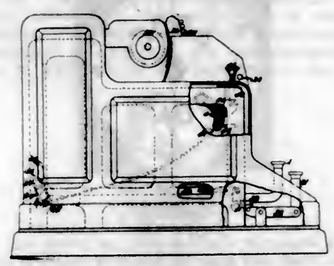
3. In an automatic change speed mechanism, a pair of shafts, a torque device connecting the same, a change speed shifting member, a yielding connection between said torque device and shifting member and a locking device serving to temporarily detain said shifting member.

4. In an automatic change speed mechanism, a pair of shafts, a torque device connecting the same, a change speed shifting bar, an operative connection between the same and the torque device, a locking device engaging said shifting bar, a governor rotating with said shafts, and means in connection therewith for intermittently freeing said shifting bar from the locking device.

5. In an automatic change speed device, a pair of shafts, a torque device connecting the same, a change speed shifting rod operatively connected to the torque device, a governor rotating with said shafts, and means controlled by the governor for detaining the shifting rod, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,137,508. ADDING AND RECORDING MACHINE. JOHN MAGNUS, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 12, 1909. Serial No. 507,273. (Cl. 235—60.)



1. In an adding machine, the combination with a series of racks, a carriage whose operation is necessary before said racks may be operated, a detaining device arranged to prevent operation of said racks under certain conditions, a totals recording key, and connections operable by said totals recording key to release said detaining device, of a subtracting key operable to move said connections to release said detaining device for subtracting operations, substantially as described.

2. In an adding machine, a movable carriage, means for setting up numbers in said carriage, a series of racks, a detaining device supported by said carriage to prevent operation of said racks under certain conditions, a member adjacent to said detaining device operable to move the same, a totals recording key operable to move said member and detaining device, and a subtracting key operable to move said member and detaining device, substantially as described.

3. In an adding machine, the combination with a series of type-carriers, hammers arranged to drive the type on said type-carriers to record, and an element normally in position to prevent movement of said type-carriers to position to coöperate with said hammers, of connections for moving and holding said element in position to release said type-carriers, a bar normally held out of the path of movement of said hammers by said connections, and means for moving said bar in the path of movement of said hammers to prevent said hammers from striking the type on said type-carriers when said connections are in position to release said element.

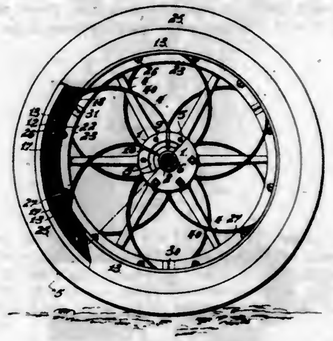
4. In an adding machine, a movable carriage, means for setting up numbers in said carriage, recording mechanism operable to record said numbers, adding mechanism, a detaining device preventing operation of said recording mechanism when said carriage is void of numbers, a connection for moving said detaining device, a totals recording key arranged to operate said connection, and a subtracting key arranged to operate said connection, substantially as described.

5. In an adding machine, a movable carriage, means for setting up numbers in said carriage, mechanism for recording said numbers, adding mechanism, means for operating said adding mechanism to add numbers different from the numbers set up in the carriage, and automatic means for preventing said recording mechanism from recording said numbers, substantially as described.

[Claims 6 to 34 not printed in the Gazette.]

1,137,509. RESILIENT WHEEL. BERNARD MARLEY, WARREN PRESTON THACKER, and ROBERT PARKER BARNARD, Nokomis, Ill. Filed Dec. 18, 1912. Serial No. 737,456. (Cl. 152—28.)

1. In a resilient wheel, a hub, an outer rim including a pair of internal annular grooves and a separating internal annular web having a tread face, spring spokes having one end connected with said hub and the other end lying in said internal grooves of said rim, clamping members in said grooves for retaining said spokes in place, said clamping members including opposing annular ring portions to form an internal channel way in connection with said separating web, and an internal rim member lying normally in said channel way out of contact with the walls thereof and rigidly connected with said hub, substantially as shown and described.



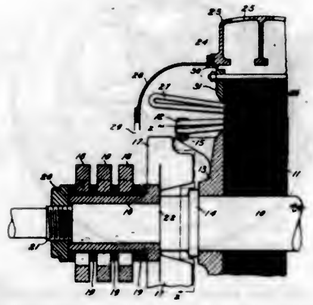
2. In a resilient wheel, a hub, an outer rim including a pair of internal annular grooves and a separating internal annular web having a tread face, spring spokes having one end connected with said hub and the other end lying in said internal grooves of said rim, clamping members in said grooves for retaining said spokes in place, said clamping members including opposing annular ring portions to form an internal channel way in connection with said separating web, and an internal rim member lying normally in said channel way out of contact with the walls thereof and rigidly connected with said hub, said channel way including a flared mouth in which said internal rim is normally located, said channel way also including a restricted portion of a width substantially equal to that of said internal rim, whereby when said internal rim rides on the tread face of said separating web when said spring supports are excessively compressed the sides of said internal rim will lie in close proximity to the side walls of said channel way, substantially as shown and described.

3. In a wheel of the character described; the combination of a rim having an internal annular groove and an annular flange centrally of the groove, a pair of sets of curved resilient spokes, one set being at each side of the central flange on the rim, said spokes each having one end connected to the wheel hub, and the other end slidably engaging the annular groove in the rim, elastic blocks that coöperate with the rim ends of the spokes, and a shaped keeper that covers the said blocks, said keeper including an internally extended flange, the adjacent flanged faces of the keeper forming a central guideway; of a series of rigid spokes projected from the wheel hub, between the two sets of resilient springs, and a rim mounted on the ends of the spokes, said rim being movable within the aforesaid central guideway and adapted for engaging the said guideway under lateral strain on the resilient spokes.

1,137,510. DYNAMO-ELECTRIC MACHINE. EMIL MATTMAN, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Oct. 6, 1909. Serial No. 521,375. (Cl. 171—252.)

1. In a dynamo-electric machine, the combination of a shaft, a core mounted on said shaft, a current collecting member, means mounted on said shaft for supporting said current collecting member, and fan blades mounted on said supporting means adjacent said core, and extending axially toward said core and effective to draw air across said collector and force the same toward the interior of the machine.

2. In a dynamo-electric machine, the combination of a shaft, a core mounted thereon and provided with a winding having extending end portions, a current collecting device mounted on said shaft, and fan means positioned intermediate said current collecting device and said core and operative with said parts, the working surfaces of said fan means being so disposed as to draw cooling fluid across the surface of said current collecting device and to force said fluid toward said core and about the end portions of said winding when said machine is in operation.



3. In a dynamo-electric machine, a shaft, a core mounted thereon and provided with a winding having projecting end portions, a current collecting device mounted on said shaft, and fan means mounted to rotate with said shaft and positioned intermediate said current collecting device and said core, the working surfaces of said fan means being of such form and so disposed as to draw air over the exterior surface of said collecting device and force the same outward through the end portions of said winding when the machine is in operation.

1,137,511. MACHINE FOR TREATING ADHESIVE-COATED FABRIC. JAMES MEADE, Stoughton, Mass., assignor to Plymouth Rubber Company, Stoughton, Mass., a Corporation of Massachusetts. Filed Feb. 19, 1909. Serial No. 478,792. (Cl. 91—55.)



1. In a machine for treating coated fabric, means for mechanically softening the fabric, and means for applying heat to the uncoated side of the fabric.

2. In a machine for treating adhesive coated fabric, means for mechanically softening the fabric including a creasing mechanism, and means for applying heat to the uncoated side of the fabric.

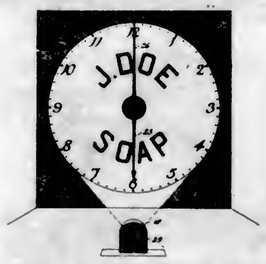
3. In a machine for treating adhesive coated fabric, means for mechanically breaking up the sizing in the fabric, means for forming a crease longitudinally of the fabric, and means for softening and rendering tacky the coating without the application of moisture.

4. In a machine for treating adhesive coated fabric, means for mechanically softening the fabric, and means for softening and rendering tacky the coating without the application of moisture.

5. In a machine for treating adhesive coated fabric, means for mechanically softening the fabric, a steam-chest incased to form a chamber through which the fabric may be passed with the uncoated side in contact with the steam-chest, whereby the fabric will be rendered pliable without the application of moisture and the coating will be rendered tacky by the heat.

[Claims 6 to 8 not printed in the Gazette.]

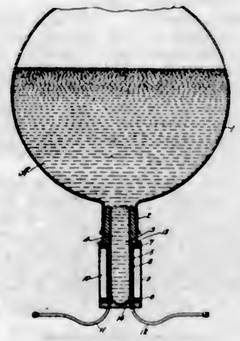
1,137,512. ADVERTISING-CLOCK. HARRY MILLER, New York, N. Y. Filed June 24, 1914. Serial No. 846,994. (Cl. 88—26.)



1. In a device of the character set forth, the combination of front and rear telescopically arranged casings, the front end of the front casing comprising a disk, an object lens secured to the disk, a plurality of parallel rods extending rearwardly from the disk, a source of light within the rear casing, condensing means including a lens between the source of light and the object lens, said condensing lens having a central hole therein, a time piece fitted in said hole, tubular members supported from the bottom of the casing members, and means securing the condensing lens and time piece upon said tubular members, the rods aforesaid coöperating with said tubular members during adjustments of the casing members with respect to each other.

2. In apparatus of the class set forth, the combination of a source of light, a pair of condensing lenses of plano-convex form arranged in alinement with each other and with their convexities adjacent each other in front of the source of light, one of said lenses having an axial opening, a time piece fitted in said opening, supporting members arranged parallel to the axis of the lenses, means adjustably connecting the lenses to the supporting means maintaining them in proper parallel relation to each other, and a slide support adjustably connected to said supporting means adjacent the time piece, substantially as set forth.

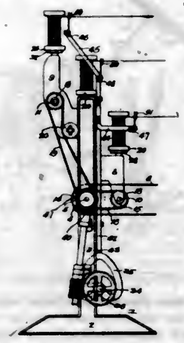
1,137,513. ELECTRIC HEATER. WILFRED A. MILLER, New York, N. Y. Filed Jan. 31, 1914. Serial No. 815,592. (Cl. 219—38.)



In an electric heating attachment for vessels of various kinds, the combination with a glass tube closed at one end and open at the other, means surrounding the open end for enabling the latter to be inserted with tight fit into an opening in the vessel with which the device is used, insulating disks surrounding the glass tube at a certain distance apart, an outer cylindrical casing surrounding the said disks, and an electric conductor within said casing, said conductor being wound directly upon

the glass, together with means for enabling an electric circuit to be passed through said conductor for heating the latter and imparting heat to the glass tube and its contents.

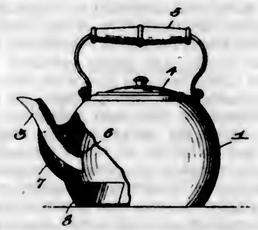
1,137,514. WINDING-MACHINE. WILLIAM EWALD MOLL, Philadelphia, Pa., assignor to S. Rosenau & Company, Philadelphia, Pa., a Firm consisting of Simon Rosenau, S. A. Rosenheim, and Leo Silverman. Filed Jan. 15, 1913. Serial No. 742,205. (Cl. 242—44.)



1. A winding machine consisting of a main support constituting a bracket; additional brackets thereon; a bank of spindles on each bracket; a driving shaft for each of said banks; driving connections from one of said shafts to each of the other shafts; with means for driving said first shaft.

2. A winding machine consisting of a main support constituting a bracket; additional brackets thereon; a bank of spindles on each bracket; a driving shaft for each bank; driving connection from one of said shafts to each of the other shafts; means for driving said first shaft; a multiple thread-guiding means for all the spindles; and mechanism driven directly from said first shaft for operating the thread-guiding means.

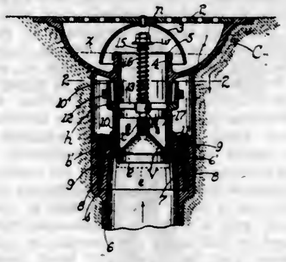
1,137,515. TEA AND OTHER SPOUT-PROVIDED KETTLE. LOUISE MONEUSE, New Rochelle, N. Y. Filed Sept. 25, 1913. Serial No. 791,834. (Cl. 53—9.)



A tea kettle or similar spouted vessel having a retaining space formed in its body, a spout carried by the body and having an inner extension which extends through the retaining space and into the body so that when the kettle is tilted water will fill the retaining space, a baffle plate mounted upon the bottom of the body, said inner extension having its inner end spaced above the upper edge of the baffle plate, and above the bottom of the kettle, said baffle plate serving to retard the flow of water to the spout and retaining space when the kettle is tilted.

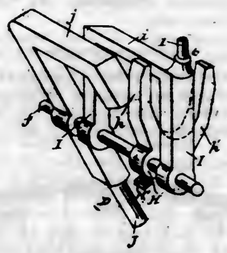
1,137,516. SEWER-TRAP. GEORGE W. MOON, St. Louis, Mo. Filed Oct. 19, 1914. Serial No. 867,387. (Cl. 182—14.)

In combination with a trap-basin provided with a central hollow discharge hub having a portion depending below the basin bottom, a drain pipe terminating in an upper terminal enlargement about the axis of the hub, a hollow valve-seat member engaging the depending portion of the hub aforesaid and forming a seal with the enlargement of the drain pipe, a member spanning the valve-seat



member at the base of the depending portion aforesaid and provided with a central hub, a valve-stem loosely operating through, and extending partly above and partly below said hub, and a spring-controlled valve on the stem maintained in coöperative relation to the valve-seat member.

1,137,517. VALVE-ACTUATING DEVICE. HANS Z. NELSON, Albert Lea, Minn., assignor to American Gas Machine Company, Albert Lea, Minn., a Corporation of Minnesota. Filed May 1, 1912. Serial No. 694,540. (Cl. 137—4.)



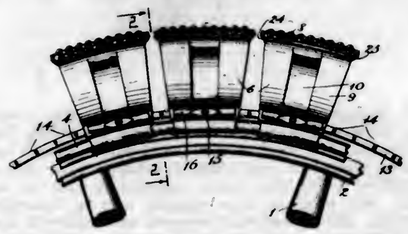
1. The combination of a gasolene supply pipe, a valve and valve seat, to control the discharge of gasolene from said supply pipe, said valve provided with a stem, a base rigidly secured on said stem, a weighted lever and an additional lever, both loosely mounted to turn on said stem, said weighted lever normally held in inoperative position, means positioned between said weighted lever and said base whereby the turning of the weighted lever turns the base and stem, and said levers so related that the turning of the additional lever turns said weighted lever to permit the weight on said weighted lever to fall and thereby turn the base and valve stem, a timer provided with a screw threaded shaft, and an additional weighted lever mounted to be turned on its fulcrum by the fall of the weight on the weighted end thereof, said additional weighted lever adapted to normally rest on and be held in a raised position by said screw threaded shaft, and also adapted to be moved laterally off from said shaft by the turning thereof, and means connecting said additional weighted lever to said additional lever whereby the turning of said additional weighted lever turns said additional lever.

2. The combination with a valve body, valve and valve seat to control the discharge of gasolene, of a supply pipe attached to the said valve body, said valve provided with a stem, a base rigidly secured on said stem, arms carried by said base, a weighted lever and an additional lever both loosely mounted to turn on said stem, said weighted lever normally held in inoperative position, said arms and said base in the path of movement of said weighted lever,

and said levers so related that turning of said additional lever turns said weighted lever to permit the weight of said weighted lever to fall and thereby move said arms and turn said base and valve stem, a timer provided with a screw-threaded shaft, an additional weighted lever adapted to turn on a fulcrum, and the weighted end thereof adapted to be moved laterally, and said weighted end adapted to rest on and to be supported by said screw-threaded shaft when said weighted end is in its normal or raised position, whereby the rotation of said shaft moves said weighted end off therefrom to permit the said weighted end to fall and turn on its fulcrum, adjustable means to determine the particular screw threads on said shaft between which said additional weighted lever is placed, and means connecting said additional weighted lever to said additional lever, whereby the turning of said additional weighted lever turns said additional lever.

3. A valve and a valve seat arranged to co-act, said valve provided with a stem, in combination with a base rigidly secured on said stem, arms carried by said base, a weighted lever and an additional lever both loosely mounted on said stem, said weighted lever normally held in inoperative position, said arms in the path of movement of said weighted lever, and said levers so related that turning of said additional lever turns said weighted lever to a falling position, whereby the valve is operated, a screw threaded shaft, and a weighted lever normally resting on said shaft, said last named weighted lever adapted to turn on its fulcrum and the part thereof on said shaft adapted to be moved laterally by said screw threads and discharged from said shaft by the turning thereof, and a connection between said last named weighted lever and said additional lever, whereby the discharge of said last named weighted lever from said shaft permits the weighted end to fall, and turns said lever and said additional lever.

1,137,518. RESILIENT TIRE. SEBASTIAN PHILIP NEUHAUSEN, Chicago, Ill., assignor of forty-nine one-hundredths to Alfred Doria, New York, N. Y. Filed Feb. 21, 1914. Serial No. 820,209. (Cl. 152—S.)

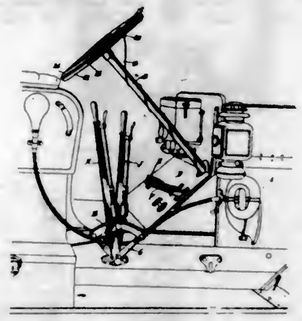


1. A tire of the class described, comprising a plurality of independent sections, each of said sections being formed substantially tubular in shape, and with a pressed-out center portion on each side, the sides of said pressed-out portions being severed from said sections whereby resilient side members are presented designed to bow or spring in opposite directions when the tread of the tire is moved.

2. A resilient tire for wheels, comprising a plurality of independent sections, and means for holding said sections in place on the wheel, each of said sections being formed of resilient metal having the sides slit and the portions between the slits pressed inwardly, whereby upon the compression of the tread of the tire the inwardly extending portions and the remaining parts of the sides will bow in opposite directions.

3. A tire comprising a plurality of metallic sections formed with resilient sides and a tread, said resilient sides merging into hooked members, retaining members connected with the felly of the wheel engaging said hooked members for holding the various sections of the tire on said felly, means for clamping said hooked members to the retaining means connected with the felly, and a floating, bracing and stiffening ring for preventing said clamping means crushing said resilient sides.

1,137,519. AUTOMOBILE SAFETY DEVICE. STEPHEN NEWBURGER, New York, N. Y. Filed Dec. 22, 1911. Serial No. 667,361. (Cl. 21—90.)



1. A safety device for automobiles, comprising a normally open ignition circuit, and means for closing said circuit, said means controlled by the speed lever of the automobile at its neutral point and by the brake lever of the automobile at its position applying the brakes, so that if the brakes are in non-operative position or the speed lever is in operative position, the circuit is open.

2. A safety device for automobiles, comprising a normally open ignition circuit, means for closing said circuit, said means controlled by the speed lever of the automobile at its neutral point and by the brake lever of the automobile at its position applying the brakes, and mechanism independent of either of said levers, by means of which said circuit may be closed.

3. A safety device for automobiles, comprising a normally open circuit, the framework of the automobile forming a grounded element of said circuit, the brake and speed levers, pedals and steering wheel being in electric circuit with said framework, and conductors leading from said framework to said levers, pedals and steering wheel, which members afford means for completing the ignition circuit.

4. A safety device for automobiles, comprising a normally open circuit, the framework of the automobile including the clutch and brake pedals forming the grounding element of said circuit, and plates insulated from and mounted on said pedals included in said circuit and affording means for closing said circuit when said plates are pressed into engagement with said pedals.

5. A safety device for motor vehicles comprising a normally-open ignition circuit on which the motor vehicle engine is started, manually-controlled motor-vehicle brake mechanism, and means for closing said circuit so that the engine can be started thereon, said means being actuated to close said circuit by and when said mechanism is in brake applying adjustment only.

[Claims 6 to 12 not printed in the Gazette.]

1,137,520. LIGHTER FOR GAS-STOVES. FREDERIC G. NICOLAUS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 5, 1915. Serial No. 658. (Cl. 158—115.)

1. A lighter of the character described, comprising a vertically disposed burner having horizontally arranged openings, a bell surounding the burner and having horizontally arranged openings opposite the openings in the burner, a cap on the upper end of the bell and spaced therefrom, and a pilot burner within the center of the main burner.

2. A lighter of the character described, comprising a burner having horizontally arranged openings, a gas supply for the burner, a pilot burner within the center of the main burner and having a gas supply leading through the supply for the burner, and a bell surrounding the burner and having horizontally arranged openings opposite the openings in the burner.



3. A lighter of the character described comprising a vertically disposed burner, having horizontally arranged openings, a gas supply for the burner, a pilot burner within the main burner at the center, a gas supply for the pilot burner extending downwardly through the main burner and through the gas supply for the main burner, and a bell surrounding the main burner and having horizontally arranged openings opposite the openings in the main burner.

4. A lighter of the character described, comprising a vertically disposed burner having horizontally arranged gas discharge openings, a gas supply pipe for the lower end of the burner, a pilot-burner within the center of the main burner, a gas supply pipe for the pilot burner extending downwardly through the main burner and through the gas supply for the main burner, a bell surrounding the main burner and having horizontally arranged openings opposite the openings in the main burner, and a removable cap carried by the bell and spaced therefrom and extending out beyond the vertical walls thereof, substantially as shown and described.

5. A lighter of the character described, comprising a vertically disposed burner having horizontally arranged openings, a bell surrounding the burner and having horizontally arranged openings opposite the openings in the burner, a gas supply pipe for the burner, a valve within the gas supply for controlling the same, and means carried by the valve for allowing two charges of gas to pass to the burner during a single operation of the valve.

[Claims 6 to 28 not printed in the Gazette.]

1,137,521. MAXIMUM-PRESSURE SAFETY INFLATING TIRE-GAGE. SEAMAN PARTERSUS NOE, Ocean Grove, N. J. Filed May 28, 1914. Serial No. 841,531. (Cl. 152—12.)

1. The combination with a body to be inflated and to withstand a predetermined degree of pressure; of a gage attached thereto and including an inflating valve at the outer end thereof said valve permitting inflation of the body through the gage, and means inwardly of the inflating valve and forming a part of the gage to permit the discharge of air when the pressure in the tire exceeds the maximum, said menas including in part a piston actuated valve normally held in closed position by the internal pressure of the tire and automatically opened upon the existence of excessive pressure in the tire to permit the escape of air until the proper pressure has been reached.

2. The combination with a body to be inflated and to withstand a predetermined degree of pressure; of a gage attached thereto and including an inflating valve permitting inflation of the body through the gage, means to indicate the internal pressure of said body, and means to relieve the body of excess pressure beyond the maximum, said means forming a part of the gage and including a balanced valve normally held in closed position whereby the escape of air from the body is prevented but adapted to be shifted by pressure above the predetermined point and including an apertured shell for the escape of the air.

3. The combination with a tire gage including a casing having an attaching barrel and a cap threaded to the barrel; of a tire having an attaching portion adapted to extend through the felly of a wheel slightly beyond the peripheral edge of the felly and loosely fitted therein for attachment of the barrel with a surrounding space, and an attaching member threaded to the barrel and filling the space between the barrel and the surrounding wall of the aperture in the felly to hold the gage rigid.



4. In a maximum pressure safety inflating gage, the combination with a body adapted to be inflated and having an attaching part; of a barrel for connection with said part, a casing within the barrel, a pair of movable elements mounted within the casing, means permitting inflation of the body through the elements, and means cooperative with said movable elements to indicate the pressure within the body, said elements preventing escape of air from the body below a predetermined pressure while permitting the escape of the air under excessive pressure.

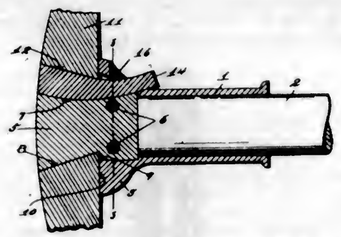
5. In a maximum pressure safety inflating gage, the combination with a body adapted to be inflated and having an attaching part; of a barrel for connection with said part, a casing within the barrel, a pair of movable elements mounted within the casing, means permitting inflation of the body through the elements, one of said elements and the casing having openings therethrough, said casing being graduated adjacent to the openings therein, and said elements when the tire is being inflated and until the inflation thereof beyond a maximum pressure preventing the escape of air, and means coöperative with said movable elements to cause said elements to disengage to permit the escape of air upon the pressure reaching a point beyond the maximum due to expansion, excessive inflation of otherwise and one of said movable elements coöperating with the graduation to indicate the internal pressure.

[Claims 6 to 19 not printed in the Gazette.]

1,137,522. PICK-FASTENER. ADOLPH OSTLUND, Exline, Iowa. Filed Sept. 30, 1913. Serial No. 792,645. (Cl. 125—19.)

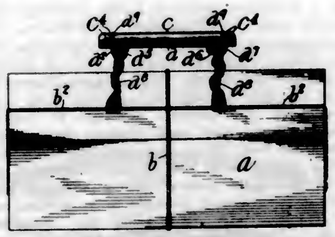
1. In a pick of the class described, the combination of a body having a projection, said projection provided with a curved side, said body provided with an opening and with a biting edge formed adjacent said opening, a pick head positioned upon said projection, a wedge engaging said projection and passing through said pick head and the opening formed in said body, whereby said biting edge will engage said wedge, whereby the wedge will be held against accidental displacement and said pick head will be held upon said projection.

2. In a pick of the class described, the combination of a sleeve having an enlarged body formed thereon, a tongue secured within and extending from said body, said tongue provided with a slanting side and with a curved side, said body provided with an opening adjacent the curved side of said tongue, said body tapering rearwardly adjacent said opening to provide a biting edge at a spaced



distance from the curved side of said tongue, a pick head carried by said tongue, a wedge passing through said head so as to engage said tongue and pass through the opening formed in said body, whereby said biting edge will engage said wedge so that any outward movement of the wedge will cause the edge to dig thereinto, whereby acidental displacement of the wedge is prevented and thus the head will be retained upon said tongue.

1,137,523. PACKAGE-CARRIER. ELLA PALMER, New York, N. Y. Filed Oct. 24, 1914. Serial No. 868,370. (Cl. 224—56.)



1. A package securing and carrying device, comprising an oblong hollow handle the bottom of which is provided adjacent to its opposite ends with holes or apertures, and the top side portion of which is provided adjacent to its opposite ends with transverse recesses, and a cord passed longitudinally through the handle between said holes or apertures and through said holes or apertures and the end portions of which are provided with loops of predetermined length which depend from said handle.

2. A package securing and carrying device, comprising an oblong trough-shaped handle, the bottom of which is provided adjacent to its opposite ends with holes or apertures and the top side edge portion of which is provided adjacent to its ends with transverse recesses, and a cord passed through said handle between said holes or apertures and the ends of which are passed outwardly through said holes or apertures and provided with loops of predetermined length.

1,137,524. PROCESS OF PRODUCING CARBONITRIDS. SAMUEL PEACOCK, Chicago, Ill., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Feb. 14, 1912. Serial No. 677,543. (Cl. 204—64.)

1. The process of producing a carbo-nitrid, which consists in heating in the presence of nitrogen an oxid of an element having metallic properties with sufficient carbon and to a temperature sufficient to produce said carbonitrid, while preventing the partial pressures of the gaseous products of the reaction from rising sufficiently to interfere with the reaction, substantially as described.
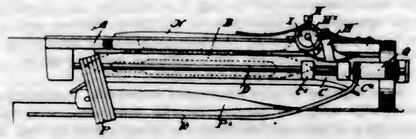


2. The process of producing a carbo-nitrid, which consists in heating an oxid of an element having metallic properties in the presence of nitrogen with sufficient carbon and to a temperature sufficient to produce said carbonitrid, while maintaining the partial pressures of the gaseous products of the reaction below 500 millimeters of mercury, substantially as described.

3. The process of producing a carbo-nitrid, which consists in heating an oxid of an element having metallic properties in the presence of nitrogen with sufficient carbon and to a temperature sufficient to produce said carbonitrid, while maintaining the partial pressure of the gaseous products of the reaction below 350 millimeters of mercury, substantially as described.

4. The herein described composition of matter consisting of a carbo-nitrid containing a metal chemically combined with carbon and nitrogen, but failing to evolve cyanogen $(CN)_2$ except upon fusion, substantially as described.

1,137,525. PICKER-HEAD CHECK. ALLAN ANDREW PERKINS, Sanford, Me. Filed June 5, 1914. Serial No. 843,201. (Cl. 139—29.)



1. A picker head check, comprising a cam adapted to engage the picker head, a fixed pin, a collar secured to the said pin and on which the said cam is mounted to turn, the said collar having a sidewise extending arm and the said cam having a recess into which projects the said arm, and a spring held and concealed in the said recess and pressing the said arm.

2. A picker head check, comprising a cam adapted to engage the picker head, a fixed pin, a collar secured to the said pin and on which the said cam is mounted to turn, one end of the said collar having a flange engaging the corresponding face of the hub of the cam, the said collar having a sidewise extending arm and the said cam having a recess into which projects the said arm, and a spring seated in the said recess and pressing the said arm.

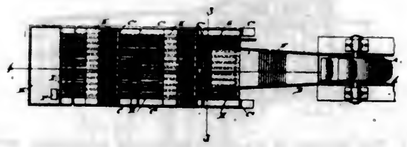
3. A picker head check, comprising a cam adapted to engage the picker head, a fixed pin having an offset terminal, a bearing in which the pin is adjustably secured, a collar secured on the said pin terminal, and having a sidewise extending arm, and a spring pressing the said arm, the said cam being mounted to turn on the said collar.

4. A picker head check, comprising a cam adapted to engage the picker head and provided with a hub, a bearing attached to a part of the loom, a pin secured in said bearing, a collar secured to the said pin and on which the hub of said cam is mounted to turn loosely, the said collar having a sidewise extending arm, the cam having a recess into which projects the said arm, and a spring seated in the said recess and pressing against said arm to hold the cam normally in the path of the picker head.

5. A picker head check, comprising a cam adapted to engage the picker head and provided with a hub, a collar on which the hub of the cam is mounted to turn loosely, a spring interposed between the said cam and the said collar, a fixed pin on which the collar is mounted, the collar being adjustable on said pin to regulate the tension of said spring, and means for securing the collar in position on the pin.

[Claim 6 not printed in the Gazette.]

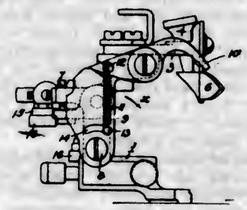
1,137,526. SCREENING APPARATUS. JAMES JASPER PHILLIPS, Brookhaven, Miss. Filed Apr. 24, 1914. Serial No. 834,142. (Cl. 83—56.)



1. A clay screen, comprising a metal plate apertured to form a screen, a coil of longitudinally extending steam pipes on the underside of the screening plate, transverse bars upon which the coil rests, and bolts passing through the said plate and bars and provided with nuts on their lower ends.

2. In a clay screen, an inclined frame having longitudinally extending ledges on the inner faces of its sides, said ledges gradually increasing in distance from the bottom of the frame from the upper to the lower end of the frame, a metal plate apertured to form a screen and resting upon the ledges, a steam coil below the plate, means for supporting the coil from said plate, and vertical chutes arranged side by side at the lower end of the frame.

1,137,527. YARN-FEEDING DEVICE FOR KNITTING-MACHINES. ROBERT S. PHILLIPS and BENJAMIN H. PHILLIPS, Riverside, N. J., assignors to Henry Taubel, Riverside, N. J., and Charles H. Taubel, Delanco, N. J., trading together under the firm style and title of Henry Taubel & Son. Filed Nov. 6, 1913. Serial No. 799,462. (Cl. 66—12.)

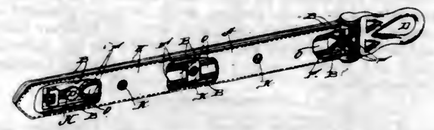


1. The combination in a plating device for knitting machines of the main and supplementary yarn feeds, with means for moving the supplementary yarn feed into and out of operative relation to the needles, means for retaining the main yarn feed always in feeding position in respect to the needles, and means for shifting the position of the main yarn feed when the supplementary yarn feed is moved into feeding position.

2. The combination in a plating device for knitting machines of the main yarn feeding lever and supplementary yarn feeding lever, means for retaining the main yarn feed always in feeding position in respect to the needles, an actuating lever, and means whereby said actuating lever is caused to move the supplementary yarn feeding lever from inoperative to operative position and at the same time to shift the main yarn feeding lever from its normal feeding position to an abnormal feeding position.

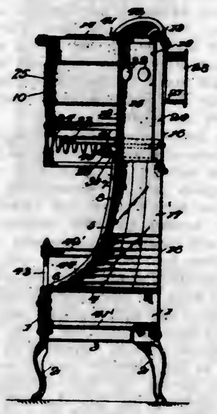
3. The combination in a plating device for knitting machines of the main yarn feeding lever and the supplementary yarn feeding lever, means for retaining the main yarn feed always in feeding position in respect to the needles, an actuating lever having a cam for acting upon the main yarn feeding lever to move it from normal to abnormal feeding position, and means whereby the movement of the actuating lever is transmitted to the supplementary yarn feeding lever to move the same from inoperative to operative position.

1,137,528. MEANS FOR REINFORCING TRACES. JOHN A. POLLARD, Hunnewell, Mo. Filed Nov. 30, 1914. Serial No. 874,780. (Cl. 54—52.)



A trace consisting of a strap doubled upon itself, a filler piece between the marginal portions of each edge of the doubled strap, a pin about which the central portion of the strap is bent, a wire bent upon itself to form two reinforcing strands and fastened to said pin, a filler intermediate the said strands of the wire and arranged to hold the said strands against the inner edges of the filler pieces which are secured to the marginal portions of the strap, means for fastening the ends of the wire together, and metallic eyelets secured to said wire and held in position thereon by the filler intermediate the strands of the wire, said strap having apertures registering with the apertures in said metallic eyelets.

1,137,529. GAS HEATING-STOVE. MINARD A. POSSONS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Oct. 23, 1912. Serial No. 727,421. (Cl. 126—86.)



1. A gas heating stove comprising a base, substantially semicircular in cross section, a vertically arranged heat reflector having an enlarged lower end at the top of the base, the reflector tapered upwardly to a reduced upper end, a heating drum above the reflector, and substantially semicircular in cross section and overhanging the upper end of the heat reflector, an outwardly extending deflector plate at the lower end of the heating drum and the upper edge of the reflector, and the wall of the heating drum and the outer edge of the deflector plate separated to form a passage, the lower edge of the heating drum having a plurality of openings therearound in substantially the same horizontal plane as that of the deflector plate and a burner tube curved around the up-

per portion of the reflector and provided with a plurality of radially arranged burner openings.

2. A gas heating stove comprising a base, a rear vertically disposed wall carried by the base, a heating drum supported by the vertically disposed wall and of a cross sectional area substantially corresponding with that of the base, a heat reflector located between the base and the drum and spaced from the rear vertical wall, a vertically disposed flue in communication with the apace between the reflector and rear vertical wall and passing through the heating drum and spaced from the walls thereof, an outwardly extending deflector plate adjacent the lower end of the heating drum and the upper edge of the reflector, and having its outer edge spaced from the drum, the lower edge of the heating drum having a plurality of openings in horizontal alinement with the deflector plate, and a burner around the upper portion of the deflector plate and provided with a plurality of radially arranged burner openings.

1,137,530. SIPHON-HEAD. ALLISON A. PRATT and JOHN ZOLLINGER, New York, N. Y., assignors of one-third to Allison A. Pratt, one-third to John Zollinger, and one-third to Henry J. Hemmens, New York, N. Y. Filed Apr. 12, 1913. Serial No. 760,661. (Cl. 215—114.)



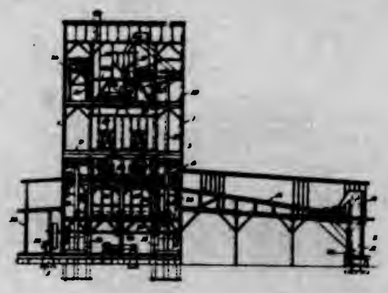
1. A siphon head for containers provided with a cap, an elastic tubular bearing held in the upper end of the said cap, a spout having an inlet member and an angularly disposed outlet member, the said inlet member being mounted in the said bearing and having an opening therein, and a closure held on the inner end of the inlet member of the said spout below the opening and normally closing the cap, the said closure moving into open position on rocking the spout.

2. A siphon head for containers, comprising a cap provided in its lower end with a conical seat, a tubular bearing of resilient material arranged in the upper end of the said cap, a siphon tube in register with the said seat, a spout having an inlet member and an outlet member, the inlet member having an inlet opening and extending through the said bearing into the said conical seat, and an elastic closure held on the inner end of the said inlet member and normally closing the said seat.

3. A siphon head for containers, comprising a cap provided in its lower end with a conical seat, a tubular bearing of resilient material arranged in the upper end of the said cap, a siphon tube in register with the said seat, a spout having an inlet member and an outlet member, the inlet member having an inlet opening and extending through the said bearing into the said conical seat, an elastic closure held on the inner end of the said inlet member and normally closing the said seat, and a stop on the said inlet member of the spout and adapted to engage the cap to limit the rocking movement of the spout.

4. A siphon head for containers, comprising a cap provided in its lower end with a conical seat, a tubular bearing of resilient material arranged in the upper end of the said cap, a siphon tube in register with the said seat, a spout having an inlet member and an outlet member, the inlet member having an inlet opening and extending through the said bearing into the said conical seat, and a closure held on the inner end of the said inlet member and provided with a head and an elastic gasket held on the said head and engaging the said seat.

1,137,531. MANUFACTURING AND CURING ACID PHOSPHATES AND THE LIKE. GEORGE L. PRATT, Atlanta, Ga. Filed Jan. 30, 1912. Serial No. 674,392. (Cl. 71—7.)



1. The method of manufacturing acid phosphate, which consists in introducing into a curing den a substantially viscous mass of phosphatic dust and acid, effecting an initial curing of the mass therein, removing it from the den, and delivering the initially-cured mass to a place of storage for final curing, all operations subsequent to the introduction of the mass into the den being performed without rubbing, paste-producing pressure thereon.

2. The method of manufacturing acid phosphate in connection with curing-den systems, which consists in introducing phosphatic dust to a mixer, commingling acid therewith to convert it into a viscous mass, then discharging the viscous mass into an underlying curing den to effect its initial curing therein, removing the resultant initially-cured, dry and friable mass from the den, and delivering it to a place of storage; the operations subsequent to the introduction of the mass into the curing den being effected entirely from a relatively high to a lower plane, whereby subsequent elevation of and consequent rubbing pressure on the mass are avoided.

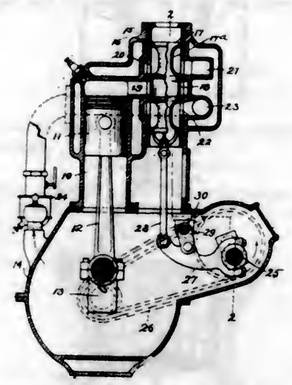
3. The method of manufacturing acid phosphate in connection with curing den systems, which consists in mixing phosphatic dust and acid into a viscous mass at a relatively high plane, then discharging the viscous mass into an underlying curing den, subjecting said mass in the den to an initial curing action, then removing the resultant initially-cured, dry and friable mass from the den, and, finally, discharging the friable mass into a second underlying transporting instrumentality without subjecting the same to rubbing pressure; the discharging of the initially-cured mass from one point to another being effected entirely from a relatively high to a lower plane, whereby subsequent elevation of and consequent rubbing pressure on the mass are avoided.

4. The method of manufacturing acid phosphate in connection with curing den systems, which consists in introducing a previously-pulverized phosphatic mass to a mixer at a relatively high plane, commingling acid therewith to convert it into a viscous mass, discharging the mass into an underlying curing den for effecting an initial curing of the mass therein, and finally, discharging the initially-cured mass into an underlying carrier; the operations of discharging the initially-cured mass being effected entirely from a relatively high to a lower plane and with avoidance of rubbing pressure that would convert the mass into a sticky and gummy condition.

5. The method of handling a mass of material in connection with curing den systems which consists in introducing into a mixer disposed at a relatively high plane a previously-pulverized solid ingredient in conjunction with the introduction thereinto of an acid to convert it into a viscous mass, then discharging the viscous mass into an underlying curing holder, retaining said mass in the holder to effect an initial curing thereof, then discharging the resultant initially-cured, dry and friable mass directly into an underlying carrier and therein transporting it on a substantially horizontal plane, and, finally, discharging the contents of the carrier to an underlying storage place for final curing; the several discharging operations of the initially-cured mass being progressively effected from a relatively high to a lower plane whereby elevation thereof and consequent rubbing pressure thereon are avoided.

[Claims 6 to 8 not printed in the Gazette.]

1,137,532. VALVE-OPERATING MECHANISM. THOMAS F. RAINSFORD, Cleveland, Ohio. Filed Oct. 18, 1912. Serial No. 726,443. (Cl. 123—90.)



1. In combination in an internal combustion engine, a cylinder, a slide valve controlling the admission to and exhaust of gases from the cylinder, a valve operating mechanism comprising a rotating member, an arm eccentrically connected thereto, a valve rod connected to the valve and pivotally connected to said arm, and a swinging link pivotally connected to said arm between said rotating member and the valve rod, the axes of connection of said arm with the rotating member, with the link, and with the rod being in a substantially straight line.

2. In combination in an internal combustion engine, a cylinder, a slide valve controlling the admission to and exhaust of gases from the cylinder, a valve operating mechanism comprising a rotating member, an arm eccentrically connected thereto, a valve rod connected to the valve and pivotally connected to said arm and a swinging link pivotally connected to said arm between said rotating member and the valve rod, the axes of connection of said arm with the rotating member, with the link and with the rod being in a substantially straight line, said link being pivotally connected to a support above the arm and extending from said support downwardly to the arm.

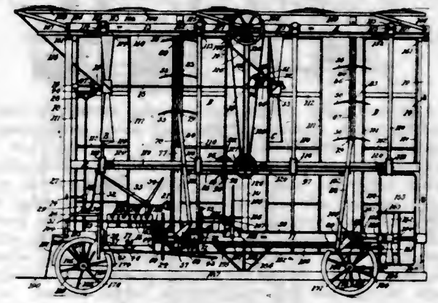
1,137,533. FLYING-MACHINE. HERMANN REICHE, Millstone, N. J. Filed Nov. 10, 1909. Serial No. 527,155. (Cl. 244—12.)

1. A flying machine provided with a front propeller, a series of lifting planes located back thereof, a rear propeller rotating with a higher speed and in a direction opposite to that of the front propeller, a series of lifting planes located back of the rear propeller, and means for vertically reciprocating both series of planes.

2. In a flying machine, the combination of an air propeller and a series of coöperating reciprocative lifting planes located back thereof and inclined relatively to the current produced by said propeller, and means for varying the course of said planes.

3. In a flying machine, the combination of an air propeller, a guide located back thereof, reciprocative lifting planes engaging said guide and inclined relatively to the air current produced by the propeller, and means for varying the inclination of the guide.

4. A flying machine comprising a frame, a propeller, a guide fulcrumed to the frame, reciprocative lifting planes engaging said guide and inclined relatively to the air current produced by the propeller and means for tilting the guide.



5. A flying machine provided with a frame, a front propeller, a first guide fulcrumed to the frame back of the front propeller, a rear propeller, a second guide fulcrumed to the frame back of the rear propeller, reciprocative lifting planes engaging the guides, and means for tilting the first and second guides, either jointly or separately.

[Claims 6 to 39 not printed in the Gazette.]

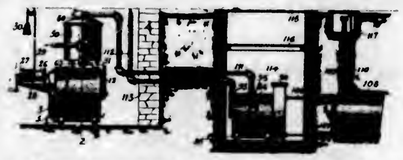
1,137,534. WARDROBE. HARRY A. ROAT, Jr., Harrisburg, Pa. Filed July 16, 1914. Serial No. 851,338. (Cl. 45—118.)



1. A device of the character specified, comprising a supporting bar having means whereby it may be secured to a fixed support, having at its upper end a laterally extending perforated lug, a sectional hoop comprising similar sections pivoted together at one end and each provided with a lateral pin at the other end, said pins being adapted to engage the opening of the lug to support the hoop in a position perpendicular to the bar, and a covering comprising a top shaped to fit upon the hoop and having a depending portion, said portion being split at the front and the rear and having lapping flaps provided with fastening means.

2. A clothes supporting bracket or rack, comprising a supporting bar having perforated lugs, a rod having an angular pin for engaging one of the lugs, a brace pivoted to the other end of the rod and having a hoop for engaging another lug, and a plate having at its upper end an eye and having at its lower end a fork, the arms of which are adapted to engage astride the brace, each arm having an outwardly extending hoop, and the brace having a laterally offset portion at the fork for engagement by one of the arms of the fork to hold the plate from movement longitudinally of the brace.

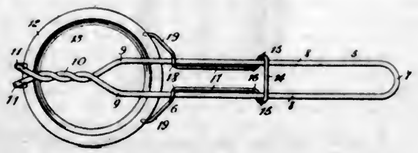
1,137,535. CARBURETING APPARATUS. GUSTAVE F. SCHMIDT, Richmond, Va. Filed Apr. 9, 1909. Serial No. 488,897. (Cl. 48—153.)



1. A carbureter comprising a casing having an inlet and an outlet, a rotator within said casing, said rotator including a cylindrical body open at one end, and a fan-like member within said cylindrical body, said cylindrical body and said fan-like member adapted to rotate together, said cylindrical body having an inlet in communication with said casing inlet whereby the gaseous fluid may pass from the casing inlet through said cylindrical body to said casing outlet to thereby operate said rotator, means for forcing gaseous fluid through said casing from the inlet to the outlet thereof, and means operated by said rotator for delivering gasolene into said cylindrical body as said rotator turns.

2. A carbureter comprising a casing having an inlet and an outlet, a rotator within said casing, said rotator including a cylindrical body open at one end, and a fan-like member within said cylindrical body, said cylindrical body and said fan-like member adapted to rotate together, said cylindrical body having an inlet in communication with said casing inlet whereby the gaseous fluid may pass from the casing inlet through said cylindrical body to said casing outlet to thereby operate said rotator, means for forcing gaseous fluid through said casing from the inlet to the outlet thereof, and means operated by said rotator for delivering gasolene into said cylindrical body as said rotator turns, said last named means including a hollow closure head for said casing and forming a gasolene reservoir, an elevator within said closure head, power transmitting connections between said rotator and said elevator, a receiver for receiving the gasolene from said elevator, and a duct connected with said receiver and delivering into said cylindrical body.

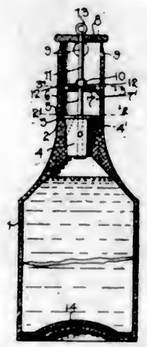
1,137,536. PAN AND PLATE LIFTER. ELLA D. SCHMITT, Upper Montclair, N. J. Filed July 1, 1914. Serial No. 848,387. (Cl. 65—32.)



In a device of the class described, a wire looped with its two parts disposed substantially parallel and spaced apart for a distance, the two parts of the wire being twisted together adjacent the terminals of the wire, the terminals of the wire being bent to form hooks, a second wire disposed transversely over the spaced apart portions of the first wire, the second wire being bent down at the outer sides of the spaced apart portions of the first wire and then extending for a distance substantially parallel with each portion of the first wire in the direction of the hooks, the portions of the second wire being then bent outward over the top of the said portions of the first wire and down to form hooks for coöperating with the first mentioned hooks.

1,137,537. NON-REFILLABLE BOTTLE. PETER J. A. SCHNOOR, Holstein, Iowa. Filed Aug. 19, 1914. Serial No. 857,553. (Cl. 215—65.)

1. A bottle of the character described provided in its neck with a relatively long tapering valve seat and with a partition extending across the neck between the valve seat and the mouth of the bottle, said partition being formed with outlet openings and with a centrally disposed opening, a relatively long tapering valve disposed normally on the valve seat and having a stem extending through and movable in the centrally disposed opening of the partition and provided at its upper end with a head, said valve having a length greater than the distance between the partition and the adjacent end of the valve seat, the mouth of the bottle being closed by a permanent top and being provided with lateral openings below the top, and a valve raising rod movable through the permanent top of the bottle and having detachable engagement with the head on the end of the stem.



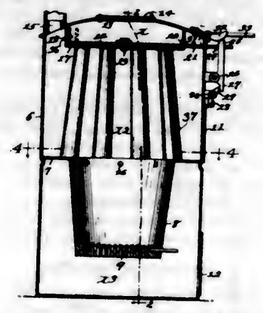
2. A bottle of the character described provided in its neck with a relatively long tapering valve seat, and with a partition extending across the neck between the valve seat and the mouth of the bottle, the mouth of the bottle being formed with lateral discharge openings and with a permanent top, a valve normally resting upon the valve seat and having openings extending from its periphery to the upper end of the valve and having a stem passing through said partition and formed with a head, said valve being longer than the distance between the partition and the adjacent end of the valve seat, and a valve raising member movable through the top of the bottle and detachably engaging said head, the openings at the mouth of the bottle being larger in diameter than the openings through the valve.

3. A bottle of the character described provided in its neck with a relatively long tapering valve seat and with a partition between the mouth of the bottle and the valve seat, the mouth of the bottle being provided with a permanent top and with lateral discharge openings, the distance between the upper face of the partition and said top being greater than the distance between the lower face of the partition and the top of the valve when the latter is in its closed position whereby to permit the disengagement of a lifting rod from said head when the valve strikes the face of the partition, the valve being greater in length than the distance between the partition and the adjacent face of the valve seat whereby to prevent the valve from entirely disengaging from its seat when lifted, said valve being provided with a plurality of relatively small openings from the periphery of the valve to its upper face.

1,137,538. STOVE. HARRY J. SCHUYLER, Louisville, Ky. Filed Dec. 4, 1914. Serial No. 875,415. (Cl. 126—58.)

A stove, comprising a shell, a partition intermediate the height thereof, a fire-pot depending from said partition, a pan shaped member in the top of said stove provided with a plurality of openings through the bottom thereof and with an opening in the side thereof, an outlet for said stove, a controlled inlet at the top of said stove, above said pan, a tube leading from each bottom opening of said member to and through said partition,

and a plate slidable in said member and serving to close the side opening and open the bottom openings of said



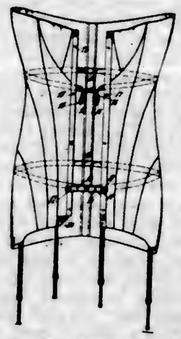
member, or to open said side opening and close said bottom openings.

1,137,539. CORSET. EMIL SCHWEINBURG, New York, N. Y. Filed Dec. 19, 1911. Serial No. 666,741. (Cl. 2—73.)



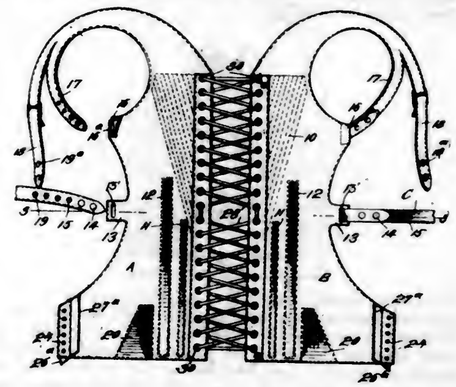
A corset comprising a body composed of vertical sections, and abdominal straps integrally connected therewith at opposite sides of the corset, said straps meeting at the front thereof and being provided with connecting devices, each strap being composed of two lateral extensions stitched together, each of said extensions being integrally connected at their inner ends with different vertical sections at different vertical joints.

1,137,540. CORSET. EMIL SCHWEINBURG, New York, N. Y. Filed Feb. 10, 1912. Serial No. 676,841. (Cl. 2—74.)



A corset provided with an opening and with pairs of securing tabs extending from the edges of said opening in positions corresponding to the wearer's waist-line and hip-line respectively, one tab of each pair being slotted for the passage of the other tab, and means for securing the free ends of the tabs to the opposite edges of the said opening.

1,137,541. COMBINED SHOULDER-BRACE AND COMPRESSOR. EMIL SCHWEINBURG, New York, N. Y. Filed Mar. 13, 1912. Serial No. 683,437. (Cl. 2—73.)



1. A corset substitute comprising two half-back members adapted to cover the back of the wearer and provided with shoulder straps at their upper ends, with lateral extensions directly under the arms, with lateral hip flaps and with lateral tabs at the waistline, means for connecting said half-back members along their rear edges, and a waistline strap extending across the front and connected with said waistline tabs, said shoulder straps being detachably connected with said lateral extensions underneath the arms and forming arm scyes.

2. A corset substitute comprising two half-back members adapted to cover the back of the wearer and provided with shoulder straps at their upper ends, with lateral extensions directly under the arms, with lateral hip flaps and with lateral tabs at the waistline, means for connecting said half-back members along their rear edges, and a waistline strap extending across the front and connected with said waistline tabs, said shoulder straps being divided longitudinally at their outer ends, parts thereof being detachably connected with said lateral extensions underneath the arms and forming scyes and other parts extending downward in front and being detachably connected with said waist strap.
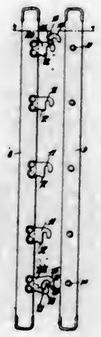
3. A garment adapted to serve as a substitute for corsets, comprising two connected back parts adapted to extend from the wearer's shoulder to the hips and provided with tabs at the waist-line and under the arms, an adjustable girdle connected with the tabs at the waist-line, adjustable shoulder-straps connected with the tabs under the arms, and an abdominal support extending forwardly from the lower portions of said back parts.

4. A garment adapted for use as a substitute for corsets, comprising a back member adapted to extend from the wearer's shoulders to the hips and provided with tabs at the waist-line and double tabs under the arms, an adjustable girdle connected with the tabs at the waist-line, shoulder-straps connected with the tabs under the arms between the two layers of such tabs, and an abdominal support extending forwardly from the lower portion of the back member.

1,137,542. CORSET-BUSK AND FASTENING MEANS THEREFOR. EMIL SCHWEINBURG, New York, N. Y. Filed Nov. 25, 1913. Serial No. 802,860. (Cl. 24—223.)

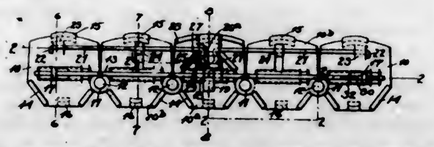
1. In a corset, the combination of a busk half provided with a plurality of studs and a second busk half pro-

vided with a plurality of hooks, one of said hooks having a vertical upward inner beak forming an approximately vertical inner slot and a vertical downward outer beak which overhangs said upward beak and extends downward in front thereof approximately parallel therewith, forming an approximately vertical outer slot leading to said inner slot, said outer beak constituting a lock against lateral separation of the busks, the base of the inner beak extending below the tip of the outer beak, and a locking catch on one of said hooks for locking said busk halves in closed position.



2. In a corset, the combination of a busk half provided with a plurality of studs and a second busk half provided with a plurality of hooks, one of said hooks having a vertical upward inner beak forming an approximately vertical inner slot and a vertical downward outer beak which overhangs said upward beak and extends downward in front thereof approximately parallel therewith, forming an approximately vertical outer slot leading to said inner slot, said outer beak constituting a lock against separation of the busks, the base of the inner beak extending below the tip of the outer beak, the outer face of said outer beak being beveled inward forming a guide to the mouth of said outer slot, and a locking catch on one of said hooks for locking said busk halves in closed position.

1,137,543. CARTRIDGE-HOLDER. GEORGE SERGEEFF, Philadelphia, Pa. Filed Sept. 2, 1914. Serial No. 859,797. (Cl. 42—89.)



1. A cartridge holder having a plurality of movably connected elements provided with cartridge-retaining means, and means on said holder to dispose the elements with the cartridge-retaining means in a circular series corresponding with the circular series of chambers in the magazine of a firearm.

2. A cartridge holder comprising a plurality of elements connected for relative movement in their common plane, individual cartridge-retaining means on said elements, and resilient means on said holder tending to dispose the elements with the cartridge-retaining means in a circular series corresponding with the circular series of chambers in the magazine of a firearm.

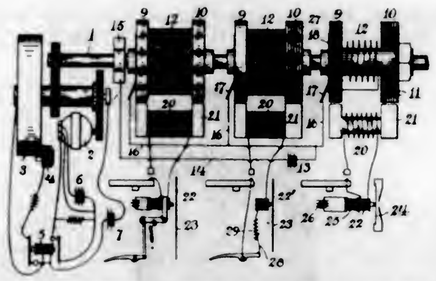
3. A cartridge holder having a plurality of relatively movable elements provided with cartridge-retaining means, means on the holder tending to dispose said elements in a circular series, and means on the holder to lock said elements approximately in a straight line.

4. A cartridge holder comprising a series of connected members provided with individual cartridge-retaining means, said elements being movable to a position approximately in a straight line, or into a position with the cartridge-retaining means disposed in circular series, latch means to maintain the elements in the first-mentioned position, and means to retain said elements in the second mentioned position.

5. A cartridge holder comprising a plurality of relatively movable connected elements, said elements being movable into positions approximately in a straight line, or into positions to form an annular series, and resilient means tending to dispose said elements in one of the said positions, and being yieldable to permit the disposal of said members into the other of said positions.

[Claims 6 to 16 not printed in the Gazette.]

1,137,544. TONE-PRODUCING MEANS. MELVIN L. SEVERY, Arlington Heights, and GEORGE B. SINCLAIR, Medford, Mass. Filed Feb. 25, 1910. Serial No. 545,962. (Cl. 84—131.)



1. A tone-producing means comprising a rotor and a stator, one thereof being magnetic, and the other having windings thereon, and an electromagnetic translating device in circuit with said windings; said rotor having a head composed of a plurality of easily removable disks each formed with peripheral teeth, the disks being changeable for the purpose of differently relating to each other the teeth of the various disks and thereby producing different tone-qualities.

2. A tone-producing means comprising a rotor and a stator, one thereof being magnetic, and the other having windings thereon, and an electromagnetic translating device in circuit with said windings; said rotor having a head composed of a plurality of removable disks formed with equal peripheral teeth and made angularly adjustable relative to each other for the purpose of producing different tone-qualities.

3. A tone producing instrument comprising an electromagnet, a sonorous body vibrated thereby, a rotor consisting of a uniformly rotated spool having its axis of rotation coincident with its own axis, windings on said spool, a head at one end of said spool having a toothed periphery concentric with said axis, a current source and connections between the same and said windings, a stator having a pole piece presented to said teeth, and windings on said stator in circuit with said electromagnet.

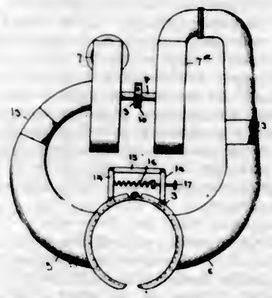
4. A tone producing instrument comprising an electromagnet, a sonorous body vibrated thereby, a rotor consisting of a uniformly rotated cylindrical spool concentric with its axis of rotation, windings on said spool, a head at each end of said spool each head having a toothed periphery concentric with said axis, a current source and connections between the same and said windings, a stator having pole pieces presented to said heads, and windings on said stator in circuit with said electromagnet.

5. A tone-producing instrument comprising an electromagnet, a sonorous body vibrated thereby, a rotor consisting of a uniformly rotated spool concentric with its axis of rotation, windings on said spool, a head at an end of said spool having its periphery concentric with said

axis, said head being composed of a plurality of thin disks angularly adjustable relative to each other to present their teeth in different relations, a stator having a pole piece presented to said head, and windings on said stator in circuit with said electromagnet.

[Claim 6 not printed in the Gazette.]

1,137,545. COTTON-HARVESTER. WILLIAM J. SHAFFER, Chattanooga, Okla. Filed May 22, 1913. Serial No. 769,262. (Cl. 56—117.)



1. In a machine of the class described, a suction apparatus, a blowing apparatus, a hood, a connection between the blowing apparatus and one side of the hood, and a connection between the suction apparatus and the opposite side of the hood.

2. In a machine of the class described, a suction apparatus, a blowing apparatus, a two part hood having the parts thereof hinged to each other, a hollow connection between the suction apparatus and one part of the hood, and a hollow connection between the blowing apparatus and the other part of the hood.

3. In a harvesting machine, a hood comprising two parts substantially semicircular in cross section and hinged along their upper longitudinal edges, the forward ends of said hood curved downwardly and forwardly forming prow-shaped ends to provide means for raising and gathering lodged plants.

4. In a harvesting machine, a hood comprising two parts substantially semicircular in cross section and hinged along their upper longitudinal edges, an arm pivotally secured to each of said parts, a pivoted link connecting the upper ends of said arms, a spring disposed between the arms for resiliently closing the parts of the hood, and means for adjusting the tension of the spring.

5. In a harvesting machine, a hood comprising two parts hinged together at their upper edges, pivoted members connecting said parts and resilient means controlling the pivoted members for closing the parts of said hood.

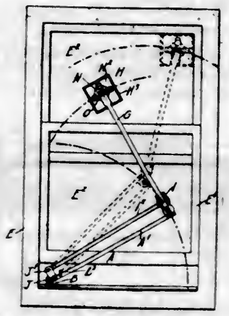
[Claims 6 to 8 not printed in the Gazette.]

1,137,546. WINDOW-CLEANER. LEO SONDEREGGER, New York, N. Y., assignor of one-half to William Meyer, New York, N. Y. Filed July 14, 1914. Serial No. 850,905. (Cl. 15—59.)

1. A window cleaner, comprising a sill member adapted to be fixed on a window sill, a bearing slidably engaging the said sill member, a frame mounted to swing up and down on the said bearing and provided with an inner bar and an outer bar, wiper arms mounted to swing transversely on the said bars, and wipers held on the said wiper arms.

2. A window cleaner, comprising a sill member adapted to be fixed on a window sill, a bearing slidably engaging the said sill member, a frame mounted to swing up and down on the said bearing and provided with an inner bar and an outer bar, wiper arms mounted to swing transversely on the said bars, wipers held on the said wiper arms, and means for imparting a swinging movement to the outer wiper arm on imparting a swinging motion to the inner wiper arm.

3. A window cleaner, comprising a frame adapted to swing up and down and provided with an inner bar and an outer bar, inner and outer wiper arms mounted to swing transversely on the free ends of the said bars, wipers held on the said wiper arms, and manually controlled adjusting means for setting the outer wiper arm to press its wiper with more or less force against the outer face of the window pane.

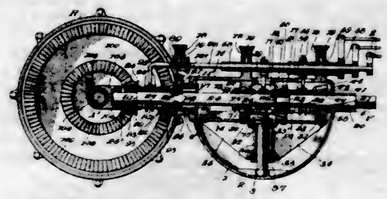


4. A window cleaner, comprising a frame adapted to swing up and down and provided with an inner bar and an outer bar, inner and outer wiper arms mounted to swing transversely on the free ends of the said bars, wipers held on the said wiper arms, connecting means connecting the said wiper arms with each other for imparting a swinging motion to the outer wiper arm on imparting a swinging motion to the inner wiper arm, and manually controlled adjusting means for setting the wiper arm to press its wiper with more or less force against the outer face of the window pane.

5. A window cleaner, comprising a frame adapted to swing up and down and provided with an inner bar and an outer bar, inner and outer wiper arms mounted to swing transversely on the free ends of the said bars, wipers held on the said wiper arms, connecting means connecting the said wiper arms with each other for imparting a swinging motion to the outer wiper arm on imparting a swinging motion to the inner wiper arm, manually controlled adjusting means for setting the outer wiper arm to press its wiper with more or less force against the outer face of the window pane, and means for varying the throw of the outer wiper arm relative to the inner wiper arm.

[Claims 6 to 13 not printed in the Gazette.]

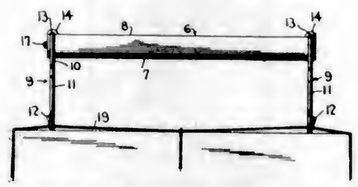
1,137,547. SIX-SPEED COMBINATION GEAR SET. IRA D. SPANGLER, Salida, Colo., assignor of one-half to Perry H. Spangler, Callender, Iowa. Filed Oct. 7, 1913. Serial No. 793,867. (Cl. 74—59.)



1. In a transmission mechanism, the combination with the driving and driven shaft sections disposed end to end, the gears thereon, an upright post beneath the driven section, and a master gear journaled on said post and having rings of teeth engaging said gears; of a cup-shaped casing inclosing said master gear and in which the lower end of the post is mounted, the walls of the casing inclosing said gears and shaft sections, and radial wings beneath the gear body and outside its hub and moving within said casing, for the purpose set forth.

2. In a mechanism of the class described, the combination with a rigid member and movable elements in connection therewith; of a plurality of tubular bearings carried on said member, a plurality of sliding telescopic members in connection with the movable elements and each directly movable through one of the aforesaid bearings, and spring locking members in connection with said bearings for retaining said sliding members independently in various adjusted positions.

1,137,548. HANDLE FOR CARRYING PACKAGES. THOMAS H. SPURRIER, Washington, D. C. Filed July 31, 1914. Serial No. 854,307. (Cl. 224—57.)



1. In a device of the character set forth, a handle, and hooks having looped ends pivoted to the upper side of the handle and swinging over the ends thereof and to a position surrounding said ends.

2. In a device of the character set forth, a handle, and hooks having looped ends pivoted to the upper side of the handle, said hooks being movable to positions longitudinally along said upper side and swinging to positions in angular relation to said handle with the loops surrounding the ends thereof and in frictional engagement therewith.

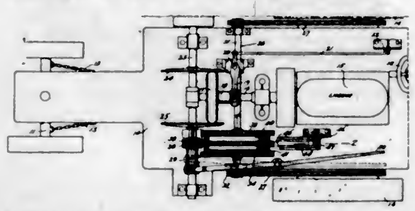
3. In a device of the character set forth, a tubular handle forming a container, hooks pivoted thereto, and closures for the ends of the handle, one of said closures being removable to permit access to the interior of the handle.

4. In a device of the character set forth, a handle having a substantially flat upper face and a rounded under face, and hooks having substantially triangular looped upper ends that are pivoted to the end portions of the handle and swing to and from positions surrounding the same.

5. In a device of the character set forth, a handle, and hooks pivoted to the upper side of the handle and having shank portions that lie upon the same and are movable to a position therebeneath, said hooks having offset portions that are turned toward the handle when the shanks are swung to positions alongside the handle.

[Claim 6 not printed in the Gazette.]

1,137,549. POWER-TRANSMISSION MECHANISM FOR MOTOR-VEHICLES. GEORGE M. STONE, Griswold, Iowa. Filed Sept. 4, 1913. Serial No. 788,103. (Cl. 74—34.)



1. In a power transmission mechanism, the combination with a driven means for transmitting rotation and comprising separate sections and a drive shaft; of means cooperatively connecting said drive shaft and said sections, whereby the latter may be driven simultaneously in the same or opposite directions.

2. In a power transmission mechanism, the combination with a driven means for transmitting rotary motion and comprising separate sections and a drive shaft; of means coöperatively connecting said first-named shaft sections to the drive shaft, whereby the sections may be driven simultaneously in the same or opposite directions or independently.

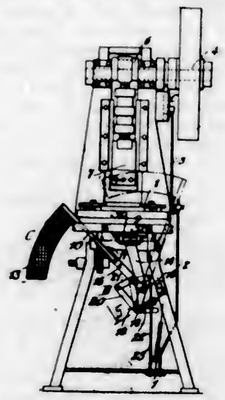
3. The combination with the drive wheels of a vehicle, a shaft and a motor for driving the same; of driven shaft sections each having operative connections with the drive wheels, and coöperative means carried by the first-named shaft and the adjacent ends of the shaft sections, for causing independent or simultaneous rotation of said sections.

4. The combination with the drive wheels of a vehicle, a drive shaft and a motor for driving the same; of driven shaft sections each having operative connections with the drive wheels, a pinion slidable on the drive shaft to rotate therewith, gears fixed to each section of the driven shaft sections, and an intermediate gear having operative connections with said sections, whereby when the pinion is in engagement with either of said first-named gears the corresponding section will be driven independently of the other section, and whereby when said pinion is in engagement with the intermediate gear both sections will be simultaneously driven.

5. The combination with the drive wheels of a vehicle and a drive shaft therefor; of a driven means for transmitting rotation to said wheels, said means comprising sections each having operative connections with the drive wheels, a pinion slidable on the drive shaft to rotate therewith, spur gears fixed to each section of the driven means, an intermediate spur gear having operative connections with said sections whereby when the pinion is in engagement with either of said first-named spur gears the corresponding section will be driven independently of the other section, and whereby when said pinion is in engagement with the intermedite spur gear both sections will be simultaneously driven, and means for holding said intermediate spur gear stationary, whereby said sections may be driven in opposite directions when the pinion is rotated in mesh with either.

[Claim 6 not printed in the Gazette.]

1,137,550. WORK-TABLE GUARD FOR POWER-PRESSES. JOHN J. SWEENEY, New York, N. Y. Filed July 28, 1914. Serial No. 853,653. (Cl. 164—107.)



1. The combination of a machine including a work table, a working element coöperating therewith, and an operator's device for throwing on and off the power for the working element, with a guard mechanism carried wholly by the table and located under the same and having a member extending upwardly along the front of the table and movable back and forth, and a connection between the guard mechanism and the device for throwing on and off the power.

2. The combination of a power press including means for throwing on and off the power, a work table, with a guard movable back and forth and on the front of the table, and operating means carrying the guard and supported by the work table, and a connection including a motion multiplying device between the guard operating means and the said means for throwing on and off the power.

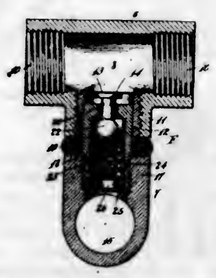
3. The combination of a machine of the class described including a work table, and means for throwing on and off the power, with a swinging guard disposed at the front of the table, a supporting arm connected with and disposed under the table, a lever connected with the arm and carrying the guard, and motion multiplying means between the lever and the operating means of the machine.

4. A power press including a stationary base, a body adjustably mounted thereon, a work table on the body, a power-driven tool carrier disposed in coöperative relation with the table, a pedal on the base for throwing on and off the power, with a work table guard comprising means movable back and forth at the front of the table, an adjustable supporting arm mounted on the bottom of the table, a lever on the arm and to which the said means is hingedly connected, and a motion multiplying means between the pedal and lever for moving the latter back and forth.

5. A power press including a stationary base, a body adjustably mounted thereon, a work table on the body, a power-driven tool carrier disposed in coöperative relation with the table, a pedal on the base for throwing on and off the power, with a work table guard comprising means movable back and forth at the front of the table, an adjustable supporting arm mounted on the bottom of the table, a lever on the arm and to which the said means is hingedly connected, a second lever mounted on the said arm and connected with the first-mentioned lever, and an adjustable connection between the second lever and the pedal, whereby the latter operates the guard.

[Claim 6 not printed in the Gazette.]

1,137,551. WATER-AGITATOR FOR ICE-CANS. JOSEPH C. TABY, JAMES H. STRAUB, and DAVID M. MAURER, Shamokin, Pa. Filed Sept. 10, 1913. Serial No. 789,059. (Cl. 261—3.)



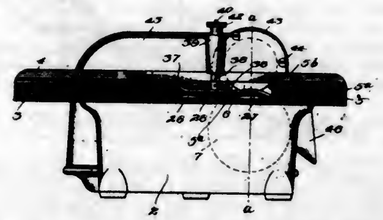
1. In an apparatus of the class described, the combination of an air distributing pipe, a nipple extending upwardly therefrom and having a smooth exterior, a nozzle having a coupling provided with a smooth interior to slip on and off the nipple, a self-closing valve in the nipple, a screen in the coupling, and a device carried by the screen for entering the nipple and unseating the valve by the placing of the nozzle on the nipple.

2. In an apparatus of the class described, the combination of an air distributing pipe, a nipple extending upwardly therefrom, an agitating nozzle having a coupling provided with an inlet for fitting over the nipple, a gasket on the nipple arranged to be engaged by the coupling, whereby the weight of the nipple is brought to bear on the gasket to maintain an air-tight joint while permitting the nozzle to be moved around the nipple as a center, and a valve in the nipple arranged to be automatically closed by the removal of the nozzle.

3. In an apparatus of the class described, an agitating device comprising a yoke, a nozzle, a coupling connecting the nozzle with the yoke, and a diaphragm in the coupling and having an opening through which the air passes from the yoke to the nozzle.

4. In an apparatus of the class described, an agitating device comprising a yoke including a central inlet coupling, a screen in the inlet, a valve-unseating means carried by the screen, and nozzles on the ends of the yoke.

1,137,552. MACHINE FOR OPENING ENVELOPS. HENRY D. TAYLOR, Rochester, N. Y., assignor to Lightning Letter Opener Company, Rochester, N. Y., a Corporation. Filed Apr. 20, 1914. Serial No. 833,266. (Cl. 164—61.)



1. In a machine for opening envelops, the combination with a cutting mechanism, and a guide for directing envelops to the cutting mechanism, of a feed member having an endless face coöperating with the envelops, said face moving in a plane at an acute angle to the path of travel of the envelops, the receiving portion of said feed member being movable toward the guide in order to carry the envelops to the guide.

2. In a machine for opening envelops, the combination with a cutting mechanism and a guide for directing envelops to the cutting mechanism, of a feeding belt moving in a plane at an acute angle to the plane of travel of the envelops in order that said belt may feed the envelops toward the guide and then carry them along the guide.

3. In a machine for opening envelops, the combination with a cutting mechanism and a guide for directing envelops to the cutting mechanism, of a table for supporting the envelops, and a feed member operable through the table and having an endless face for coöperating with the envelop, said face moving in a plane at an acute angle to the table and having the receiving portion movable toward the guide in order to carry the envelop to the guide.

4. In a machine for opening envelops, the combination with a cutting mechanism, a guide for directing envelops to the cutting mechanism and a table for supporting the envelops, of an endless belt operating through the table and having its engaging face moving in a plane at an acute angle to the table, the belt being directed toward the guide at the receiving portion and then being directed substantially parallel with the guide for carrying the envelops along the guide.

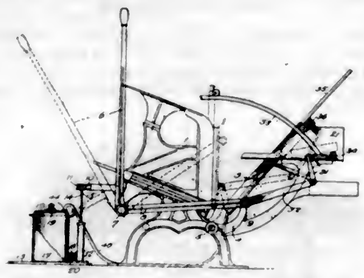
5. In a machine for opening envelops, the combination with the cutting mechanism and a guide for directing envelops to the cutting mechanism, of an endless belt having a work engaging face moving in a plane at an acute angle to the plane of the envelops passing through the machine, the receiving portion of said belt being directed toward the guide and another portion of said belt being directed substantially parallel with the guide.

[Claims 6 to 13 not printed in the Gazette.]

1,137,553. PAPER-FEEDING DEVICE. JAY L. THOMPSON, Greensburg, Kans., assignor of one-third to A. W. Gibson and one-third to A. W. McKinley, Greensburg, Kans. Filed Sept. 24, 1913. Serial No. 791,530. (Cl. 101—41.)

1. In combination with a printing press having a type bed and a platen mounted to swing toward and from the type bed, and means for moving the platen, of a forwarding magazine for the printed sheets at the upper end of the platen when the platen is in inoperative position, a

guide for the magazine, the magazine being slidable toward and from the platen, means operated by the return of the platen to inoperative position for lifting the magazine into approximate parallelism with the platen, and feeding mechanism for engaging the topmost sheet and moving it on to the platen operated by the movement of the platen.



2. In combination with the printing press having a type bed and a platen mounted to swing toward and from the type bed, and the means for moving the platen, of a forwarding magazine for the printed sheets at the upper end of the platen when the platen is in inoperative position, means movable longitudinally of the platen toward the upper end thereof for feeding the sheets in succession on to the upper face of the platen, and means operated by the return of the platen to inoperative position for moving the magazine to cause the topmost sheet to contact with the feeding means.

3. In combination with the printing press having a type bed and a platen mounted to swing toward and from the type bed, and the means for moving the platen, of a forwarding magazine for the printed sheets at the upper end of the platen when the platen is in inoperative position, means for feeding the sheets in succession from the forwarding magazine to a position to be printed on the platen, said feeding means being movable longitudinally of the platen beyond the upper end thereof, and means operated by the movement of the platen into inoperative position for lifting the magazine to bring the upper sheet into contact with the feeding mechanism.

4. In combination with a printing press having a type bed and a platen mounted to swing toward and from the type bed, and means for moving the platen, of a slide provided with feeding means and movable longitudinally of the platen, the platen having guideways for guiding the slide, stub shafts at the sides of the platen at the upper end thereof, arc-shaped rack bars arranged at each side of the platen between the inoperative position of the platen and the type bed, a pinion secured to the outer end of each stub shaft and engaging the adjacent rack bar, a pinion secured to the inner end of each stud shaft, and rack bars connected with the slide and engaging the inst-named pinion.

5. The combination with the printing press having a type bed and a platen and means for moving the platen, of a forwarding magazine at the upper end of the platen when the platen is in inoperative position, said magazine being adapted to contain the sheets to be printed, a support for the magazine in which the magazine is mounted to tilt, feeding means for the sheets movable longitudinally of the platen and beyond the upper end thereof, and means for tilting the magazine to bring the topmost sheet into engagement with the feeding mechanism, and a connection between the said means and the platen for operating the same to tilt the magazine when the platen moves toward the magazine.

[Claim 6 not printed in the Gazette.]

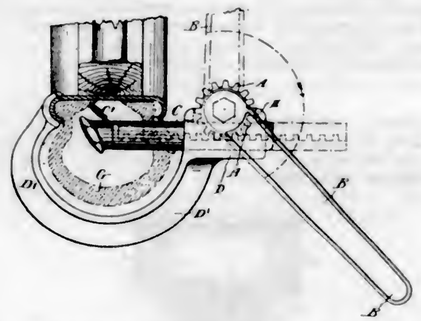
1,137,554. MUFFLER. ERNST TROIKE, Sandusky, Ohio. Filed Mar. 25, 1914. Serial No. 827,167. (Cl. 121—116.)

An exhaust muffler for explosive engines comprising spaced heads, concentric shells between said heads, a pipe leading into the inner of the shells and spaced therefrom, said pipe and the inner shell having openings establishing communication between the spaces between the pipe and said shell, and between the shells themselves, means for supplying exhaust gases to said pipe, one of the heads being formed with an outlet opening for said gases opposite the space between the shells, and the inner shell being formed with a portion depressed toward the adjacent pipe and inclosed thereby to permit of the provision of said



outlet opening of a larger area than the normal cross sectional area of the space between said shells, the said heads being formed with grooves on their inner faces receiving the opposite ends of the shells to center and interlock the same with respect to the heads, the head having the outlet opening mentioned having one of its grooves formed with a straightened portion in which the flattened portion of the inner shell is seated whereby to provide rigid connection of the depressed portion aforesaid with its adjacent head.

1,137,555. TIRE-WRENCH. ALEXANDER TURNBULL, Glasgow, Scotland. Filed Oct. 4, 1912. Serial No. 723,923. (Cl. 157—6.)

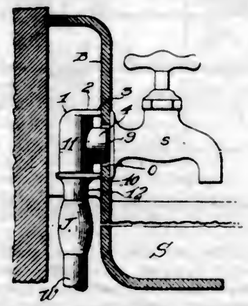


1. A tire wrench having a tire loosening and gripping ram, and comprising a jaw constructed at one end with a rim-bearing adapted to engage one side of the wheel-rim, and at its other end with a bracket mounting the ram and presenting it in position to bear inwardly against the side of the tire opposite the rim-bearing; said jaw straddling the outside of the tire when its said end and plunger are in bearing thereon; and a combined plunger-projecting and jaw-swinging lever coöperating with the plunger to project it against the tire by the same direction of movement which, when the jaw is in the straddling position stated, causes the jaw to swing away from the rim and remove the tire.

2. In an appliance for loosening or attaching elastic tires, a bracket having a jaw constructed to grip one side of a wheel rim, a bearing portion facing said jaw and an arcuate bridge portion connecting said jaw and said bearing portion, a ram sliding in said bearing portion, and means for actuating said ram to reciprocate in the direction of said jaw, said means also guiding said ram to prevent it from turning; said means comprising a level fulcrumed at the free end of said bearing portion exterior to said ram and adapted to swing in a radial direction of the tire, a pinion mounted coaxially with the lever fulcrumed in said bearing portion to be turned by said lever, said ram having gear teeth meshing with said pinion; whereby a continuous pull on the lever in one

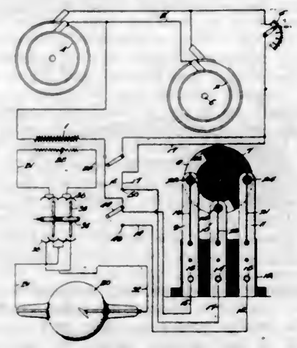
direction will first compress and thereupon remove the tire from the wheel, when the device is applied over the tire.

1,137,556. PIPE-FITTING. GEORGE J. VON GLAHN, Brooklyn, N. Y. Filed July 30, 1914. Serial No. 854,078. (Cl. 137—75.)



A pipe fitting comprising an upright hollow cylindrical head, a hollow boss projecting laterally from the intermediate portion thereof, said boss having its outer end internally threaded, a horizontal top plate formed integrally with and closing the upper end of the head, said top plate having one of its edges extended laterally over the boss to form a flange, a second horizontal flange formed integrally with the lower end portion of the head and projecting laterally under the boss, and a contracted neck depending from the head, the outer end of the flanges being adapted to bear against a fitting.

1,137,557. X-RAY APPARATUS. HARRY F. WAITE, New York, N. Y. Filed Feb. 18, 1913. Serial No. 749,200. (Cl. 171—253.)



1. In a device of the character described the combination of a source of alternating current; a circuit for said current; a translating device; an interrupter in said circuit between said source and said translating device; means for operating said interrupter in synchronism with said source of current; and means whereby the relative duration of opening to closing of said circuit may be varied, while still maintaining the interruptions at the zero value of the waves, substantially as described.

2. In a device of the character described the combination of a source of alternating current; a circuit for said current; a translating device; an interrupter in said circuit between said source and said translating device, said interrupter being so adjusted as to open said circuit when certain predetermined waves have their zero value; means for operating said interrupter in synchronism with said source of current; and means whereby the relative duration of opening to closing of said circuit may be varied, while still maintaining the interruption at the zero value of the waves, substantially as described.

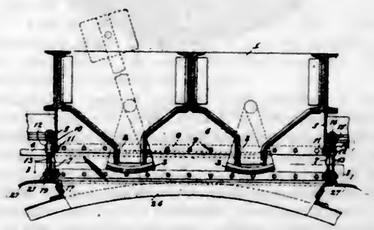
3. In a device of the character described the combination of a source of current waves; a circuit for said source; a translating device a rotating member provided with a conducting element extending a predetermined angular distance around its path of rotation; and a plurality of members in said circuit adapted to simultaneously contact with said element for a predetermined interval during each rotation, said conducting element being so adjusted that the circuit will be broken when certain predetermined waves have their zero value and having a sufficient angular extent to permit a plurality of waves to pass during each interval of contact, substantially as described.

4. In a device of the character described the combination of a source of current waves; a circuit for said source; a rotating member provided with a conducting element extending a predetermined angular distance around its path of rotation; a plurality of members in said circuit adapted to simultaneously contact with said element for a predetermined interval during each rotation, said conducting element being so adjusted that the circuit will be broken when certain predetermined waves have their zero value, and said element having an angular extent sufficient to permit a plurality of waves to pass during each contact; a primary coil in said circuit between said contact members and said source; a secondary coil associated with said primary coil; and a translating device connected to said secondary coil, substantially as described.

5. In a device of the character described the combination of a source of current waves; a circuit therefor; a primary coil in said circuit; a secondary coil associated with said primary coil; a rotating conducting element of a predetermined angular extent; a plurality of contact members adapted to simultaneously contact with said element for a predetermined interval during each rotation; means for including different pairs of said contact members in said circuit at will; and a device adapted to receive current connected to said secondary coil, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,137,558. MEANS FOR PREVENTING THE ESCAPE OF DUST, &c. ARTHUR W. WARNER, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Feb. 15, 1913. Serial No. 748,641. (Cl. 193—41.)



1. In combination, a bin having a discharge opening, a hopper positionable below said opening, and means carried by the bin for closing the space between the bin and hopper against escape of dust, etc., said means including a frame movable vertically in one direction by the positioning of the hopper below the opening.

2. In combination, a bin having a discharge opening, a hopper positionable below said opening, and means carried by the bin for closing the space between the bin and hopper against escape of dust, etc., said means including a frame movable vertically in one direction by the positioning of the hopper below the opening, said discharge opening being positioned permanently above the top plane of the hopper.

3. In combination, a bin having a discharge opening, a hopper positionable below said opening, and means car-

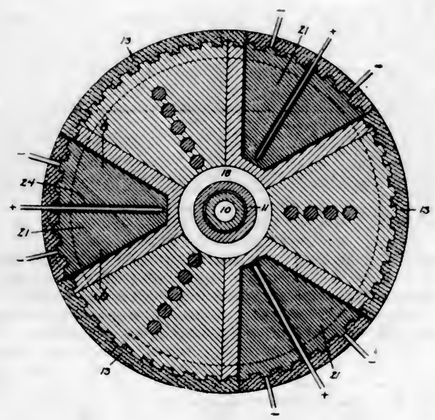
ried by the bin for closing the space between the bin and hopper against escape of dust, etc., said means including a frame movable vertically in one direction by the positioning of the hopper below the opening, said means extending permanently below the plane of the discharge opening.

4. In combination, a bin having a discharge opening, a hopper positionable below said opening, and means carried by the bin for closing the space between the bin and hopper against escape of dust, etc., said means including a frame movable vertically in one direction by the positioning of the hopper below the opening, said frame and hopper being complementally formed to cause automatic raising of the frame by the hopper.

5. In combination, a bin having a discharge opening, and a dust-retaining structure external of the opening, said structure being rendered active by the positioning of a hopper below the opening and including a frame permanently positioned below the plane of the opening and movable vertically to accommodate for the positioning of the hopper.

[Claims 6 to 11 not printed in the Gazette.]

1,137,559. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Original application filed Feb. 25, 1913, Serial No. 750,596. Divided and this application filed Oct. 22, 1913. Serial No. 796,609. (Cl. 204—64.)



1. In a metallurgical furnace having a plurality of superposed hearths, a hearth with electrical resistance body therein exposed on the underside of the hearth so as to radiate heat directly onto the material on the hearth below.

2. A metallurgical furnace having a hearth with electrical resistance body therein, and an electrically insulated conductor passing through said body and in electrical connection with the inner portion thereof.

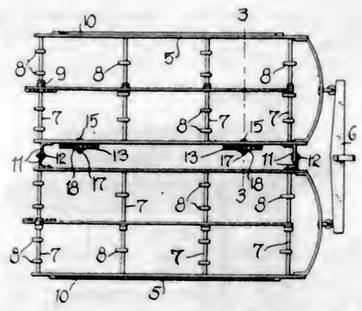
3. A metallurgical furnace having a hearth composed of a plurality of sections disposed side by side, electrical resistance bodies in some of said sections, and rabbles carried by sections alternating therewith.

4. A metallurgical furnace having a hearth with open-bottomed recess therein, an electrical resistance body contained in said recess and exposed on the under side, and means for passing a current of electricity through said resistance body so as to heat the same.

5. A metallurgical furnace having a hearth with sector-shaped recess therein, a sector-shaped electrical resistance body adapted to said recess, and means for passing a current of electricity through said resistance body so as to heat the same.

[Claim 6 not printed in the Gazette.]

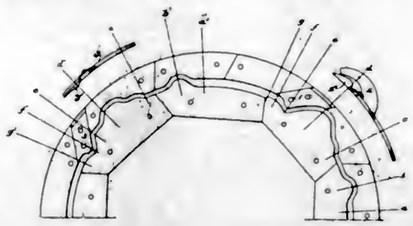
1,137,560. HARROW. JOHN L. WENMAN, New Vernon, N. J. Filed Feb. 16, 1915. Serial No. 8,575. (Cl. 55—80.)



1. The combination with a harrow including two frames connected together for relative vertical movement and outer longitudinal runners supporting the respective frames, of intermediate peripherally spurred supporting wheels mounted upon the inner longitudinal bar of one frame.

2. The combination with a harrow including two frames arranged side by side and pivotally connected to each other for relative vertical movement, each of said frames being provided with outer longitudinal runners, of spaced supporting wheels journaled upon the inner longitudinal bar of one frame, said wheels being provided with peripheral projections for engagement with the ground to cause vertical agitation of the frames, substantially as and for the purpose specified.

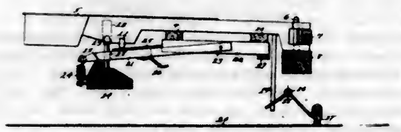
1,137,561. RIB-KNITTING MACHINE. LOUIS N. D. WILLIAMS, Ogontz, Pa., assignor to Scott & Williams, Incorporated, Ogontz, Pa., a Corporation of New Jersey. Filed June 28, 1911. Serial No. 635,882. (Cl. 66—22.)



The combination, in a knitting machine, of needle carriers having needles so disposed that the planes of movement of the needles cross each other, with a latch closer for one set of said needles, means for advancing said set of needles to such extent that said latch closer can operate in front of the other set of needles, and cams for operating the latter set of needles so that they will first clear their stitches and then be withdrawn sufficiently to receive the yarn on their latches as the stitches are drawn by the first set of needles.

1,137,562. DULCIMER-ACTION. NICHOLAS J. WINLUND, Rockford, Ill. Filed June 20, 1914. Serial No. 846,306. (Cl. 84—106.)

1. An action, comprising a bar, a key pivoted thereto, a hammer rail, a hammer pivotally mounted thereon, means on said key in operative connection with said hammer, and means for maintaining said hammer and key in normal positions, said hammer consisting of a main body portion arranged longitudinally beneath said key, a transverse pivot at the inner end thereof, a string-striking member movably mounted on said pivot, and yielding means for normally maintaining said striking member in stationary relationship with said body member.



2. An action, comprising a bar, a key pivoted thereto, a hammer rail, a hammer pivotally mounted thereon, means on said key in operative connection with said hammer, and means for maintaining said key and hammer in normal positions, said hammer consisting of a main body member arranged longitudinally beneath said key, a transverse pivot at the inner end thereof, a string striking member movably mounted on said pivot, and a pad interposed between said members for yieldingly holding said members in stationary relationship.

3. An action, comprising a bar, a key pivoted thereto, a hammer rail, a hammer pivotally mounted thereon, means on said key in operative connection with said hammer, and means for maintaining said key and hammer in normal positions, said hammer consisting of a main body member arranged longitudinally beneath said key, a transverse pivot at the inner end thereof, a string striking member movably mounted on said pivot, a pad interposed between said members to yieldingly hold the same in stationary relationship, and means for returning said movable member to pad engaging position when moved therefrom.

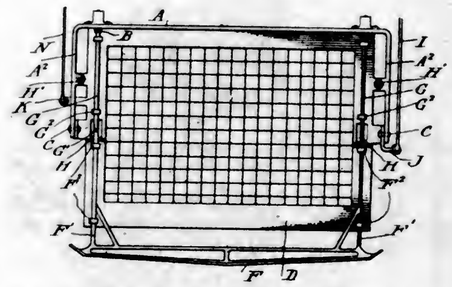
4. An action, comprising a bar, a key pivoted thereto, a hammer rail, a hammer pivotally mounted thereon, means on said key in operative connection with said hammer, and means for maintaining said key and hammer in normal positions, said hammer consisting of a main body member arranged longitudinally beneath said key, a transverse pivot at the inner end thereof, a string-striking member movably mounted on said pivot, a pad interposed between said members to yieldingly hold the same in stationary relationship, means for returning said movable member to pad engaging position when moved therefrom, and a stop beneath said body member for limiting the movement of said movable member.

5. An action, comprising a bar, a key pivoted thereto, a hammer rail, a hammer pivotally mounted thereon, means on said key in operative connection with said hammer, and means for maintaining said key and hammer in normal positions, said hammer being transversely grooved in the position of said rail, a wire rod on said rail engaged in said groove, a pin on said rail passed loosely through said hammer, and said hammer consisting of a main body member, a member movably mounted thereon, and a yielding pad interposed between said members for normally maintaining said members in stationary relationship.

1,137,563. AUTOMATIC FENDER. FREDERICK ROBERT WOOLLEY, Jr., Great Falls, Mont. Filed Sept. 12, 1914. Serial No. 861,411. (Cl. 105—250.)

1. An automatic fender for cars, consisting of two fender sections, one fixed and the other hinged thereto, a buffer member upon the hinged fender section, latches upon one section and adapted to engage the other, means for releasing the latches as the buffer member comes in contact with an object, means for allowing the hinged fender section to tilt after it is released, and means designed as the fender tilts to actuate brake operating mechanism, as set forth.

2. An automatic fender for cars, consisting of two fender sections, one fixed and the other hinged thereto, a buffer member having bars projecting therefrom and mounted upon the hinged fender section, spring-pressed latches upon the fixed fender section, rods upon the hinged fender section and adapted to be actuated longitudinally by said bars upon the buffer member to release said latches, springs for causing the said hinged section to tilt when released, and means actuated by the swinging of the hinged fender section to cause brake mechanism to be applied, as set forth.



3. An automatic fender for cars, consisting of two fender sections, one fixed and the other hinged thereto, a buffer member having bars projecting therefrom and mounted upon the hinged fender section, spring-pressed latches upon the fixed fender section, rods upon the hinged fender section and adapted to be actuated longitudinally by said bars upon the buffer member to release said latches, springs interposed between the fenders for causing the hinged section to tilt when released, means actuated by the swinging of the hinged fender section to cause pneumatic mechanism for applying the brakes to be actuated, and a rod connected to the hinged fender section and adapted to be actuated by the said pneumatic mechanism for returning the hinged fender section to its normal position, as set forth.

4. An automatic fender for cars, comprising a fixed fender section for attachment to a car and having brace bars at the opposite ends thereof, a hinged fender section pivoted to said brace bars, springs fastened to the frame of the hinged fender section and to said brace bars, latches projecting through apertures in the fixed fender section and adapted to engage the inner edge of the hinged fender section, a buffer member having rearwardly projecting bars movable upon the hinged buffer section, longitudinally movable rods mounted upon the hinged buffer section with their forward ends passing through apertures in the hinged fender section and against which said bars are adapted to contact as the buffer member comes in contact with an obstruction, thus causing the latches to be released to allow the springs to tilt the hinged fender section, and means connected to the latter for causing the brakes to be applied, as set forth.

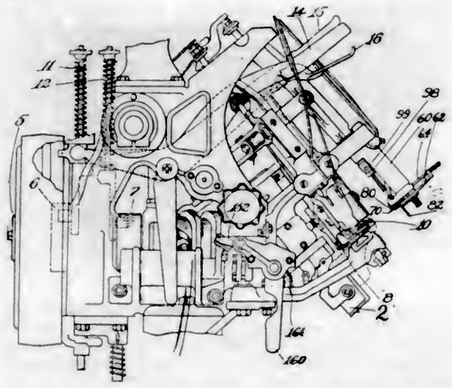
1,137,564. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ORRELL ASHTON, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 10, 1909. Serial No. 527,210. (Cl. 12—4.)

1. In a pulling-over machine, means to engage and pull the upper at the end and opposite sides of the forward portion of the shoe, and means for moving the heel portion of the last downwardly relative to the toe portion.

2. In a pulling-over machine, means to engage the upper at the end and opposite sides of the forward portion of the shoe, means to actuate the gripping means to pull the upper, and means capable of operation to depress the rear part of the last relatively to the toe end whereby to increase the tension on the upper held by the side gripping means.

3. In a pulling-over machine, means to engage and pull the upper at the end and opposite sides of the forward portion of the shoe, a last bottom rest arranged to engage the forward portion of the last to resist the pull of the gripping means, and independently movable means to depress the rear portion of the last.

4. In a pulling-over machine, means to engage and pull the upper at the end and opposite sides of the forward portion of the shoe, and shoe bottom engaging means including a member which is movable to rock the last about an axis located approximately at the toe end.



5. In a pulling-over machine, means to engage and pull the upper at the end and opposite sides of the forward portion of the shoe, and shoe bottom engaging means including members which are movable relatively to one another to move the last angularly through a greater distance at the heel than at the toe end.

[Claims 6 to 82 not printed in the Gazette.]

1,137,565. TACKING MECHANISM. ORRELL ASHTON, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Continuation of application Serial No. 527,210, filed Nov. 10, 1909. This application filed Nov. 10, 1910. Serial No. 591,622. (Cl. 1—18.)



1. A machine of the class described, having, in combination, a tack block, a driver, and operating and guiding mechanism for the block and the driver arranged to produce in the tack while it is being driven a bend which is initiated at a point distant from the lower end of the tack.

2. A machine of the class described, having in combination, a driver, a tack block, and automatic means for operating the driver to insert a tack from the tack block into the work and for moving the block inwardly over the work during the operation of driving the tack into the work.

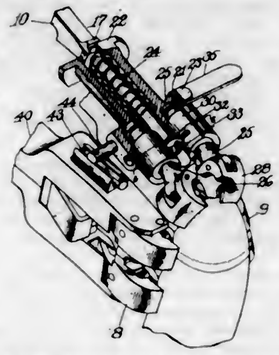
3. A machine of the class described, having in combination, a driver, and a tack block mounted for swinging movement bodily forward simultaneously with the entrance of the tack into the work under the pressure of said driver.

4. A machine of the class described having, in combination, a tack block, a driver, and means whereby the tack block is moved during the operation of the driver so that the tacks are bent and the upper drawn over the last.

5. A machine of the class described having, in combination, a pivoted tack block provided with tack pockets, means for feeding tacks to the pockets, and means for oscillating the tack block while the tacks are being driven.

[Claims 6 to 39 not printed in the Gazette.]

1,137,566. GRIPPER. ORRELL ASHTON, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Nov. 10, 1909, Serial No. 527,210. Divided and this application filed June 25, 1910. Serial No. 568,918. (Cl. 12—11.1.)



1. A pulling-over machine, having in combination with suitable actuating mechanism, a toe gripper comprising sectional jaws mounted for turning movement independently about axes located over the curved corners of the shoe toe and also for movement together about a central axis.

2. In a pulling-over machine, a gripper comprising a stem formed with a jaw having its gripping face oblique to the axis of the stem, a coöperating jaw pivoted at one side of the stem and provided with a closing arm embracing said stem, a sleeve mounted upon said stem and engaging said arm, and means for actuating the sleeve to operate the jaws.

3. In a pulling-over machine, a gripper comprising a block, a stem rotatable in the block and having a jaw, a second jaw pivotally connected to the first, and an operating device for both closing and uplifting the jaws, arranged to permit rotation of the gripper on the axis of the stem.

4. In a pulling-over machine, a gripper bar, a block rotatable thereon, two stems rotatably mounted on opposite sides of the axis of the block, jaws formed on the stems, coöperating jaws pivotally connected with said stems, and means for simultaneously closing said coöperating jaws arranged to permit free rotation of the pairs of jaws independently.

5. In a pulling-over machine, a gripper bar, a block rotatable thereon, two stems rotatably mounted in the block on opposite sides of the axis thereof, jaws formed on the stems, coöperating jaws pivotally connected with said stems, means for simultaneously closing said coöperating jaws arranged to permit rotation of the pairs of jaws independently, and means for turning the block.

[Claims 6 to 53 not printed in the Gazette.]

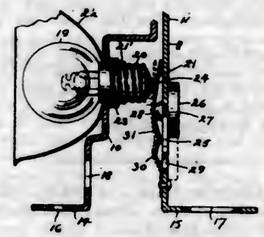
1,137,567. MANUFACTURE OF CALCIUM CARBID. FREDERICK M. BECKET, Niagara Falls, N. Y., assignor to Union Carbide Company, New York, N. Y., a Corporation of Virginia. Filed Jan. 20, 1915. Serial No. 3,384. (Cl. 204—62.)

1. In the manufacture of calcium carbid, the process of preparing aggregate suitable for furnacing, which consists in mixing lime and a suitable coking coal in such proportions that the fixed carbon of the coal will substantially suffice for the carbid-forming reaction, said coal being sufficiently rich in bituminous matter to yield with the lime, in the proportions stated and under ordinary coking conditions, a mechanically strong aggregate suitable for furnacing, and then coking said mixture.

2. In the manufacture of calcium carbid, the process of preparing aggregates suitable for furnacing, which consists in mixing lime and a suitable coking coal containing nitrogen in such proportions that the fixed carbon of the coal will substantially suffice for the carbid-forming reaction, said coal being sufficiently rich in bituminous matter to yield with the lime, in the proportions stated and under ordinary coking conditions, a mechanically strong aggregate suitable for furnacing, and then coking said mixture in a by-product oven and collecting the volatile products, including ammonia.

3. The process of making calcium carbid, which consists in mixing lime and a suitable coking coal in such proportions that the fixed carbon of the coal will substantially suffice for the carbid-forming reaction, said coal being sufficiently rich in bituminous matter to yield with the lime, in the proportions stated and under ordinary coking conditions, a mechanically strong aggregate suitable for furnacing, coking said mixture, and thereafter embedding electrodes within a charge of said mixture and smelting said charge to produce calcium carbid.

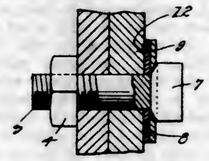
1,137,568. LAMP-CARRIER. THEODOR BIRATH, Jersey City, N. J., assignor to Manhattan Electrical Supply Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 1, 1914. Serial No. 864,480. (Cl. 240—8.5.)



A lamp carrier comprising a body portion having a lamp carrying branch and a contact carrying branch, insulated from each other and having means for the detachable connection with the terminals of a battery, a spring contact on the contact carrying branch, the latter having a longitudinal slot, one end of which is circular, a button slidable against said contact carrying branch, said button having a shank provided with a head, the diameter of the head being less than that of said circular portion of said slot, said shank being slidable in the slot, the button being contiguous to one side of said contact carrying branch and the head being contiguous to the other side thereof, the button being adapted to engage said spring contact on one movement of the button to move said contact into circuit closing position, and said spring contact having a portion to receive said head before said shank enters said circular portion to thereby prevent accidental displacement of the button.

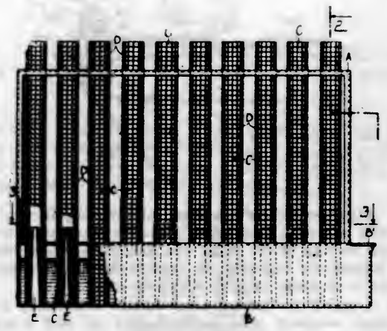
1,137,569. BOLT-LOCK. WILLIAM H. A. BOON, San Dimas, Cal. Filed Nov. 19, 1913. Serial No. 801,940. (Cl. 151—32.)

A bolt lock including a bolt comprising a shank, a head formed at one end of the shank, threads formed at the opposite end of the shank, the head of said bolt being provided with a longitudinal slot, a strip of metal inserted within said slot and extending through and projecting out of the under surface of said head, its ends being beveled and the inner end engaging the bolt shank, and a washer having transverse recesses fitting up against the under face of said head, and the beveled portions of the metal



strip seating within the recesses of said washer to hold the bolt and washer against relative movement.

1,137,570. HUMIDIFIER. EMIL J. BRAUN, New York, N. Y. Filed Dec. 5, 1914. Serial No. 875,624. (Cl. 98—44.)



1. A humidifier, comprising an open frame, a water receptacle on the lower end of the said frame, a moisture distributer extending with its lower end loosely through the top of the said receptacle into the water contained in the receptacle, the said distributer being of a permeable material, and a perforate guard surrounding the said distributer from the top to the bottom thereof and having a bearing on the top of the said receptacle and on the top of the said frame, the said guard resting at its lower end on the bottom of the receptacle.

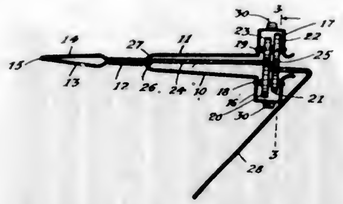
2. A humidifier, comprising an open frame, a water receptacle at the lower end of said frame, a tubular moisture distributer extending into the water contained in the said receptacle, the said distributer being of a permeable material to draw the water from the said receptacle by capillary attraction and to evaporate the water into the surrounding atmosphere, a perforate tubular guard surrounding the distributer and having a bearing in the top of the receptacle and in the top of the frame, the upper end of the distributer and its guard projecting beyond the top of the frame, and the lower end resting on the bottom of the receptacle and means for conducting air into the lower end of the said distributer.

3. A humidifier, comprising an open frame having openings in its top, a water receptacle at the lower end of said frame having its top provided with openings, the said receptacle having an inlet spout at one end projecting beyond the corresponding end of the frame, a plurality of tubular moisture distributers of permeable material, perforated tubular guards surrounding the said distributers from the top to the bottom thereof, the said distributers and their guards extending through the openings in the top of the frame and projecting above the same and also extending through the openings in the top of the water receptacle and resting at their lower ends on the bottom of the receptacle, air supply tubes extending through the bottom of said water receptacle into the tu-

bular distributers and extending at their upper ends above the top of the water receptacle, and suspending means for the humidifier.

4. A humidifier, comprising an open frame having top and side bars, a water receptacle held at the lower end of said frame and having an inlet spout at one side projecting beyond the corresponding side of the frame, a moisture distributer of permeable material extending loosely through the top of said water receptacle into the water contained in the said receptacle, and an open mesh guard covering said moisture distributer from the top to the bottom thereof, the moisture distributer and its guard being held on the top bar of said frame and resting at their lower ends on the bottom of the water receptacle.

1,137,571. COLLAR-SPACER. THEODOR J. BUERGER, Minneapolis, Minn., assignor of one-fourth to Joseph J. Buerger, Minneapolis, Minn. Filed Aug. 31, 1914. Serial No. 859,365. (Cl. 68—11.)



1. A spacer for turned-down collars comprising a pair of arms normally held apart, means on said arms for engaging the flap of the collar and forming a crease therein, and a guide for engaging the edge of the flap to cause the crease to be made parallel with said edge.

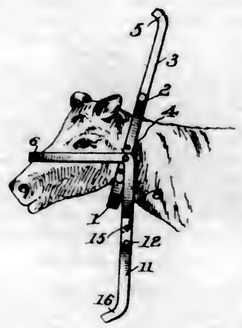
2. A spacer for turned-down collars comprising a pair of arms normally held apart, means on said arms for engaging the flap of the collar and forming a crease therein, and a guide for engaging the edge of the flap to cause the crease to be made parallel with said edge, said guide comprising a curved seat formed by the junction of said arms.

3. A spacer, for turned-down collars comprising a pair of normally separated arms of spring material, and a pair of rollers of different diameters journaled upon each arm, the smaller roller on one arm being engageable with the larger roller on the other arm, so that when said rollers are forced upon a flap of the coller inserted between the same and drawn along said flap the rollers will form a right-angled bend in the flap which causes said bent flap to be spaced from the other flap when the collar is in position upon the wearer.

4. A spacer for turned-down collars comprising a pair of normally separated arms of spring material, a box-like projection formed at the end of each of said arms and opening toward each other, a pin across each of said openings, and a pair of rollers of different diameters journaled upon each pin, the smaller roller on one arm being engageable with the larger roller on the other arm, so that when said rollers are forced upon a flap of the collar inserted between the same and drawn along said flap the rollers will form a right-angled bend in the flap which causes said bent flap to be spaced from the other flap when the collar is in position upon the wearer.

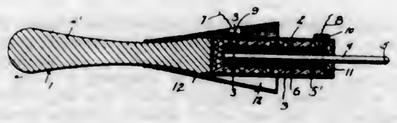
5. A spacer for turned-down collars comprising a pair of normally separated arms of spring material, a box-like projection formed at the end of each of said arms and opening toward each other, a pin across each of said openings, a pair of rollers of different diameters journaled upon each pin, the smaller roller on one arm being engageable with the larger roller on the other arm, so that when said rollers are forced upon a flap of the collar inserted between the same and drawn along said flap the rollers will form a right-angled bend in the flap which causes said bent flap to be spaced from the other flap when the collar is in position upon the wearer, and flanges on the outside of said box-like members, said members and flanges providing means for gripping the same between the thumb and finger to apply pressure to the rollers and flap of the collar between the same.

1,137,572. CATTLE-YOKE. JESSIE D. CARR, Padgitt, Tex. Filed Aug. 22, 1914. Serial No. 858,144. (Cl. 119—140.)



In a stock yoke, a U-shaped member positioned beneath the under surface of a cow's neck and adapted for clamping engagement with the cow's under jaw, a U-bracket adapted for engagement with the upper jaw of the cow, a plurality of arms connected to said U-shaped members for moving said U-shaped members into clamping engagement with the cow's jaws upon rearward movement of said arms, one of said arms being permitted to have forward pivotal movement independent of the U-clamping member which is attached thereto.

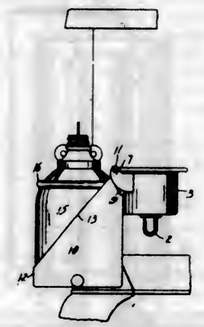
1,137,573. PYROGRAPHIC NEEDLE. MICHAEL R. CARR, Corte Madera, Cal. Filed Sept. 23, 1914. Serial No. 863,168. (Cl. 219—21.)



In a pyrographic needle structure, a handle having a casing secured to one end thereof, an insulating tube mounted within said casing, a pyrographic needle disposed centrally within the hollow portion of said tube, an electrical resistance coil positioned about said needle within said tube for heating said needle to the desired temperature for burning designs upon various articles, and an auxiliary gripping casing secured to said handle and flaring outwardly therefrom being disposed in spaced relation with said first named casing.

1,137,574. LIQUID-DISPENSING DEVICE. LEE S. CHADWICK, Cleveland, Ohio, assignor to The Cleveland Foundry Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 8, 1913. Serial No. 788,599. (Cl. 158—41.)

1. In a device of the character set forth, the combination of a distributing receptacle having an open top, a carrier having a liquid tight bottom, a hinge connecting the carrier to the side of said receptacle, the hinge operating upon a substantially horizontal axis, means on said carrier for conveying to said receptacle any liquid therein upon the inversion of said carrier, a dispensing receptacle adapted to fit within said carrier, and means for securing said last named receptacle in said carrier during its movement toward and from said distributing receptacle.



2. In a device of the character set forth, the combination of a distributing receptacle, a carrier, pivotal means connecting said carrier to said receptacle at one side thereof whereby said carrier may be swung above and laterally away from said receptacle, the carrier being provided at its pivoted side with an extension which is adapted to overlap the top of the receptacle, and means associated with said carrier for supporting a dispensing receptacle during its movement toward and away from said distributing receptacle and while in inverted position thereabove.

3. In a device of the character set forth, the combination of a distributing receptacle, and a carrier movable toward and away from a position above said receptacle and provided with an extension which is adapted to overlap the top of the receptacle when above the same, the extension being inclined downwardly and toward the interior of the receptacle when in such position.

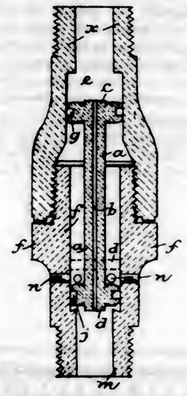
4. In a device of the character described, the combination of a distributing receptacle, a carrier, a retaining member within said carrier which projects toward the bottom thereof, means pivotally supporting said carrier at one side of said receptacle whereby the carrier may be swung to inverted position above the receptacle and laterally away from the receptacle, and a dispensing receptacle adapted to be inserted within said carrier and having an abutment coöperating with said retaining member.

5. In a device of the character described, the combination of a distributing receptacle, a carrier, a retaining member within said carrier, means pivotally supporting said carrier adjacent to said receptacle whereby the carrier may be swung to inverted position above the receptacle and laterally away from the receptacle, and a dispensing receptacle adapted to be inserted within said carrier and having an abutment coöperating with said retaining member.

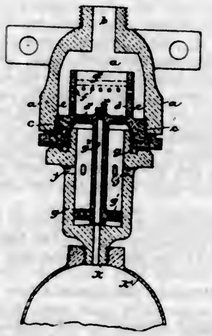
[Claims 6 to 17 not printed in the Gazette.]

1,137,575. AUTOMATIC AIR-ESCAPE VALVE FOR RAILWAY-BRAKES. SAMUEL CHENEY, Wickepin, Western Australia, Australia. Filed Nov. 23, 1914. Serial No. 873,576. (Cl. 188—1.)

In an air brake apparatus, a brake controlling air escape valve comprising a casing having cylinders of larger and smaller diameters adapted to be connected respectively to the train pipe and the brake cylinder, the cylinder of smaller diameter having a plurality of circumferentially spaced air escape ports in the lateral wall thereof, and pistons of different diameters operating in said cylinders and having a hollow rod connecting them and forming a conduit for feeding air between opposite ends of the pistons, the larger piston having its active face subject to the pressure of air in the train pipe and the smaller piston operating to simultaneously open or close all of said air escape ports in its movements and being subject to the pressure of air in the brake cylinder.



1,137,576. AUTOMATIC ADJUSTING AIR-ESCAPE VALVE FOR RAILWAY-BRAKES. SAMUEL CHENEY, Wickepin, Western Australia, Australia. Filed Nov. 23, 1914. Serial No. 873,577. (Cl. 188—14.)



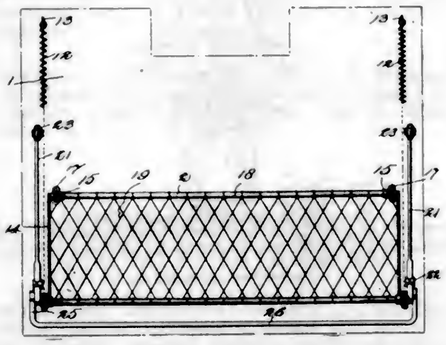
1. In air brake apparatus, an automatically acting air escape valve comprising a casing having a pair of cylinders of different diameters, the larger cylinder adapted to be connected to the train pipe and the smaller cylinder to an air reservoir, pistons working in said cylinders, and a tubular rod connecting the pistons and providing means for conducting air between the operative faces of the pistons, air vents being formed in the casing between said pistons, and the larger cylinder having ports in its wall arranged to be uncovered by the respective piston to admit the flow of train pipe air to said vents.

2. In air brake apparatus, an automatically acting air escape valve comprising a pair of cylinders of different diameters, the larger cylinder adapted to be connected to the train pipe and having ports in the wall thereof to admit air from the train pipe to such cylinder, and the smaller cylinder adapted to be connected to an air reservoir and having air vent ports in its wall, pistons working in said cylinders, the piston in the larger cylinder opening and closing the ports therein in its movements, and a tubular rod connecting said pistons in tandem and serving to feed air between the train pipe and said reservoir.

3. In air brake apparatus, the combination of a pair of cylinders of different diameters, the cylinder of larger diameter having one end in communication with the train pipe and also having ports in its side wall to admit air

thereto from the train pipe, and the smaller cylinder having one end in communication with an air reservoir and having air vent ports in its side wall, pistons working in said cylinders, the piston in the larger cylinder controlling said air admission ports therein, and means connecting said pistons in tandem and providing air communication between the operative faces of the pistons.

1,137,577. FENDER. JAMES W. CLICKSTINE, Camden, N. J. Filed June 17, 1914. Serial No. 845,645. (Cl. 105—127.)



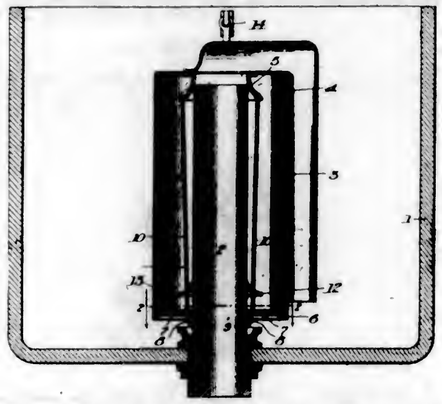
1. A street car fender including a hinged frame secured to the dash of a street car, a spring connected to the free ends of the hinged frame and to the street car dash and arranged to exert upward pressure on the end of the frame, brace rods connected to the frame near its free ends, the opposite ends of the brace rods being connected to the street car dash, knuckle joints in the brace rods and means connected to the brace rods and extending beneath the frame whereby, when the fender strikes a person or object, the same will engage the tripping means and thereby cause the brace rods to bend on their knuckle joints and permits the spring to raise the forward end of the frame.

2. The combination with the dash of a street car of a fender frame pivotally secured to the dash, a jointed brace rod connected to the fender frame and to the dash and arranged to normally hold the fender frame downwardly, a spring connected to the fender frame and to the dash and arranged to normally exert upward pull on the fender frame and means carried by the jointed brace rod and extending beneath the fender frame to cause the brace rod to bend on its joint when the fender is engaged by a person or object.

3. The combination with a dash of a street car of a fender frame suitably connected thereto, springs connected to the free ends of the fender frame and exerting upward pull thereon, brace rods connected near the free ends of the frame said brace rods being provided with knuckle joints and also being connected to the dash to normally hold the fender in its lower position and a U-shaped bar connected with the brace rods and extending beneath the fender frame to form a tripping means therefor.

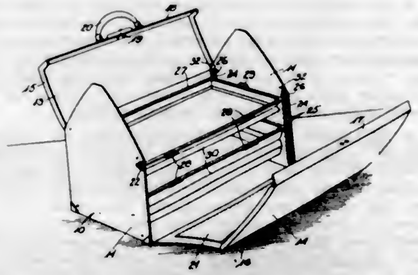
1,137,578. FLUSHING APPARATUS. ALBERT J. COBURN and FRANK HARDIE, New Orleans, La. Filed Dec. 19, 1914. Serial No. 878,110. (Cl. 4—5.)

In a flushing apparatus, the combination of a tank, an upright pipe fixed therein and adapted to lead water downwardly therefrom, a vertically-movable casing surrounding the pipe and having an apertured bottom and also having a flange on said bottom surrounding the pipe, a tension wire arranged in said flange and engaging said pipe, a conduit connected with the upper end of the casing and extending laterally and then downwardly and open at its lower end to the interior of the tank, upright rods grouped about the pipe and extending between and connected with the bottom of the casing and the upper portion thereof, an annular stop fixed to said pipe and spaced



above the bottom of the casing, a valve plate surrounding the pipe and movable vertically between the bottom of the casing and the annular stop and independently of the casing, and suitable means for raising the casing.

1,137,579. DRESSER-VALISE. GEORGE COHN, Louisville, Ky. Filed Nov. 5, 1914. Serial No. 870,427. (Cl. 190—41.)



1. A valise, comprising ends having inverted V-shaped upper portions, a rear side having a hinged cover section provided with a handle, a front side having a cover section, said cover sections engaging the upper portions of the ends and having at their free edges portions overlying one another when the cover sections are closed, and a plurality of trays mounted in the valise so as to slide out through one side or to be lifted bodily therefrom.

2. A valise, comprising ends having inverted V-shaped upper portions, a rear side having a cover section, a front side swinging freely and coöperating with the other side and its cover section to close the valise, means to retain said swinging side toward the valise proper at the ends thereof, a plurality of collapsible trays, and means for supporting the trays within the valise to permit the removal thereof from the top or at the side of the valise.

3. A dresser valise having closure means including a side portion swinging from the bottom of the valise at one side and foldable at an intermediate point, means carried by the end members of the valise to secure said side therebetween in a closed position, notched supports at the ends of the valise on the inside and collapsible trays having frames designed to be adjustably supported on said supports and having means to permit the same to be elevated from the valise or slid from the side thereof.

4. The combination with a valise having a closure section with a handle and an open side; of a swinging side portion for closing the latter side and coöperating with the closure section to fully close the valise, angular members at the ends of the valise engaging said side to hold the same toward the body of the valise, notched bars secured to the ends of the valise adjacent each corner thereof and having supporting faces, a plurality of trays supported on said faces, said trays including frames and foldable pockets attached to the frames and depending therefrom and handles at the ends and one side of each frame to permit the trays to be horizontally slid into and out of position at one side or removed and replaced vertically at the top of the valise when said side portion is closed and a shelf above the trays.

5. In a valise, a body having notched supports at the corners, and a plurality of collapsible trays engaging the notches of the said supports.

[Claim 6 not printed in the Gazette.]

1,137,580. DEVICE FOR CLEANING SEWERS AND PIPES. MARCELLUS COLE, Washington, D. C. Filed Sept. 5, 1914. Serial No. 860,327. (Cl. 137—70.)

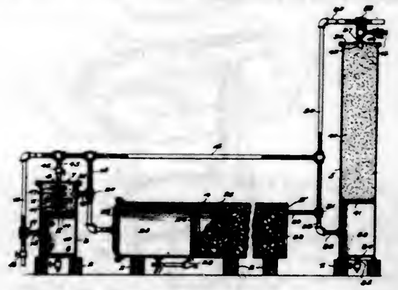


1. A device for cleaning sewer-pipes or traps, having in combination a tubular stem provided with an operating handle; a sleeve adapted to be reciprocated within said stem; compression-disks carried by said sleeve; a hollow ball between the compression-disks; a longitudinally-movable sleeve arranged to guide the reciprocatory sleeve, and a pipe secured to the longitudinally-movable sleeve, so as to permit the introduction of water to soften obstructions.

2. A device for cleaning sewer-pipes or traps, having in combination a tubular stem provided with an operating handle; a sleeve adapted to be reciprocated within said stem; compression-disks carried by said sleeve; a hollow ball between the compression-disks; a longitudinally-movable sleeve adapted to guide the reciprocatory sleeve; a spring arranged within the hollow ball for insuring the return of the ball to normal position after expansion, and a pipe or tubular rod secured to the longitudinally-movable sleeve, whereby water is introduced to soften obstructions and thereby facilitate the removal of the same.

1,137,581. FILTER. MARCELLUS COLE, Washington, D. C. Filed Sept. 5, 1914. Serial No. 860,328. (Cl. 210—8.)

1. A successive filtration system, having in combination a vertical primary chamber; a horizontal secondary chamber; a vertical final chamber higher than the other two, each chamber being divided into two compartments by a reticulated partition, one of said compartments in each chamber adapted to receive a filtering-material; a main supply-pipe 16, a branch-pipe 15 connecting said main supply-pipe with the non-filtering compartment of the primary chamber; a three-way valve 17 located at the junction of said supply and branch-pipes; a branch-pipe 19 connecting the main supply-pipe with the non-filtering compartment of the secondary chamber; an outlet 18 connecting the filter compartment of the primary chamber with the branch-pipe 19; a three-way valve 20 located at the junction of the outlet 18 and branch-pipe 19; a branch-pipe 30 connecting the main supply-pipe 16 with the compartments 39 and 40 of the final chamber by means of inlets 32 and 37 respectively; an outlet 29 connecting the filtering-compartment of the secondary chamber with the branch-pipe 30; a three-way valve 31 located at the junction of the outlet 29 and said branch-pipe 30, and a three-way valve 38 located at the junction of the inlet 37 and branch-pipe 30, whereby the filtered and purified liquid may be supplied to a distributing-pipe.



2. A filtration system, having in combination primary and final chambers, each chamber having filtering and non-filtering compartments, the latter chamber being higher than the former; a main-pipe 16; a branch-pipe 15 connecting the main-pipe with the non-filtering compartment of said primary chamber; a three-way valve 17 located at the junction of said main and branch-pipes; a branch-pipe 19 in communication with the main pipe; an outlet 18 connecting the branch-pipe 19 with the filtering compartment of the primary chamber; a three-way valve 20 located at the junction of said outlet 18 and the branch-pipe 19; a branch-pipe 30 connecting the main-pipe with the filtering and non-filtering compartments of said final chamber by means of inlets 32 and 37 respectively; a three-way valve 31 located in said branch-pipe 30; a three-way valve 38 located at the junction of the branch-pipe 30 and the inlet 37, and a valved-pipe in communication with the inlet 37, whereby a heating medium may be introduced for sterilizing the chambers and connections.

1,137,582. INCUBATOR. THOMAS COWBURN, Churchdown, near Cheltenham, England. Filed July 1, 1912. Serial No. 707,092. (Cl. 119—44.)

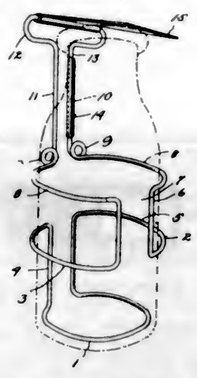


1. An incubator egg-tray comprising a frame, partitions extending across the frame to separate the latter into spaces each adapted to receive a row of eggs, a plurality of egg-separating wires extending transversely of said partitions to form egg-receiving spaces, each of a size to receive an individual egg, a plurality of egg-supporting wires extending parallel to the egg-separating wires below the latter and traveling bands resting on the egg-supporting wires and on which the eggs are sustained, each egg-supporting wire being situated at one side of the center of the corresponding compartment whereby the eggs in each row are prevented from contacting with each other.

2. An incubator egg-tray comprising a frame, a plurality of partitions extending across the frame, a plurality of egg-separating wires extending transversely of the partitions to form egg-receiving spaces each adapted to receive an individual egg, a plurality of egg-supporting wires extending parallel to the egg-separating wires, traveling

bands resting on the egg-supporting wires and forming the bottom of the egg-receiving spaces, a portion of the egg separating wires and egg-supporting wires being arranged in a horizontal plane and the remaining wires being arranged in an inclined plane and a hold-down wire E' engaging the top of the traveling bands at the point where the angle of inclination is changed, whereby the spaces between the partitions have a horizontal portion and an inclined portion.

1,137,583. MILK-BOTTLE HOLDER. ROBERT E. COX, Palouse, Wash. Filed Oct. 19, 1914. Serial No. 867,477. (Cl. 248—20.)



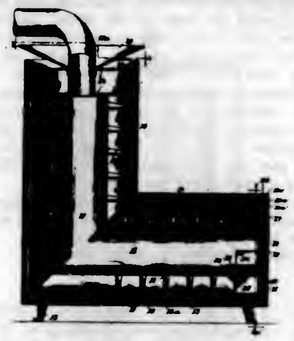
1. In a milk bottle holder, a base, a pair of arcuate arms, a shank extending upwardly from said arms, a loop on the upper end of said shank, and a metallic plate hingedly secured to the upper portion of said loop, said base, arms, shank and loop being formed of a continuous piece of wire.

2. In a milk bottle holder formed of a continuous piece of wire, a base of substantially circular formation, spaced parallel portions of wire extending upwardly from the base, arcuate members extending at right angles to said portions, additional arcuate members spaced vertically from the first mentioned members, said first mentioned arcuate members being connected to the last mentioned members by integral portions of the wire, a shank formed of parallel portions of the wire extending upwardly from said last mentioned arcuate members, eyes formed in the wire adjacent the junction of the shank and the said arcuate members, and a loop formed integral with the shank at the upper portion thereof and of the wire.

1,137,584. HEATER. LEONARD TRACY CRABTREE, Crandon, Wis. Filed Aug. 23, 1913. Serial No. 786,264. (Cl. 126—61.)

1. A heater, comprising an approximately horizontal tubular fire box, a tubular up-take forming an upward continuation of the horizontal fire box, a spiral air flue surrounding the fire box, and a communicating spiral air flue surrounding the tubular up-take, the spiral flue of the horizontal fire box having an inlet adjacent to the front of the heater, to permit air to enter said flue from the room in which the stove is located, and there being an outlet for the air at the upper end of the spiral air tube of the up-take.

2. A heater having an approximately horizontal fire box and a communicating up-take, the fire box and up-take having communicating air-heating flues surrounding said fire-box and up-take, there being an inlet to the air flue of the fire box near the front of the heater, and an outlet for the air at the upper end of the flue of the up-take, the said air flues having a casing comprising a metallic inner wall, a layer of non-combustible, heat-insulating material directly applied to the outer side of said wall, a layer formed of wood pulp applied to said layer of



non-combustible material, and a sheet metal inclosing shell around said layer of wood pulp.

1,137,585. DENTAL APPLIANCE. THORNTON CRAIG, Jr., San Francisco, Cal. Filed Feb. 5, 1915. Serial No. 6,324. (Cl. 32—7.)



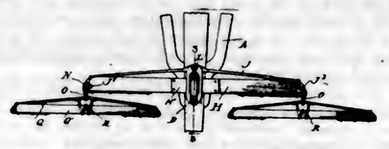
1. A device of the character described comprising a member spatulated at one end for engagement with a patient's chin, an arm pivotally connected therewith and spatulated at its free end for engagement with the tongue, a pair of arms detachably mounted on said arm and extending laterally and then substantially parallel with said tongue engaging member, a spring forcing said member and said last named arm normally apart, a ratchet bar on said last named arm and a pawl pivoted on said member and engageable with said ratchet bar.

2. The combination with a tongue depressing device comprising a chin engaging member and an arm pivoted thereon and terminating in a tongue engaging member, of a pair of spaced strips on said arm and having their opposing edges angular, and a pair of arms detachably engageable with said strips and extending laterally and then substantially parallel with said tongue engaging member.

3. The combination with a tongue depressing device comprising a chin engaging member and an arm pivoted thereon and terminating in a tongue engaging member, of a pair of spaced strips on and extending transversely of said arm intermediate its ends and having their opposing edges beveled inwardly, and a pair of arms, having their edges adjacent one end beveled, detachably and independently engageable between said strips, said arms extending laterally and forwardly substantially parallel with and on a lower plane than said tongue engaging member.

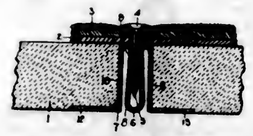
1,137,586. TRUSS-EVENER. FREDERICK JOHN CUDNEY, Golden Valley, N. D. Filed Jan. 4, 1915. Serial No. 446. (Cl. 21—76.)

1. In combination with the tongue of a vehicle, a bracket member secured thereto, an evener bar and a truss rod bent about the ends of the bar and secured thereto, apertured plates, a bolt passing through said plates and rod, a hammer bolt passing through registering apertures in said plates and tongue, and whiffletrees connected to the truss rod and the ends of the evener.



2. In combination with the tongue of a vehicle, a bracket member secured thereto, an evener bar and a truss rod bent about the ends of the bar and secured thereto, said rod provided with eyes at the ends of the bar, apertured plates, a bolt passing through registering apertures therein and in said truss rod, a hammer bolt passing through said member and apertures in the tongue, whiffletrees, and a link connecting the same to said eyes.

1,137,587. CARPET-STRIP. THOMAS P. A. F. DEAN, Kansas City, Mo. Filed Feb. 17, 1915. Serial No. 8,966. (Cl. 16—71.)



1. A carpet strip adapted to extend entirely across a room formed with a pair of upstanding portions forming a body and a depending loop, said loop extending for the full length of the strip and arranged with the upper part closer together than the lower part for presenting a resilient pinching member.

2. A metallic carpet strip formed with a depending loop extending the full length of the strip, being spaced somewhat from the body and thereby presenting a resilient structure whereby the strip is designed to receive and pinch securing members at any point.

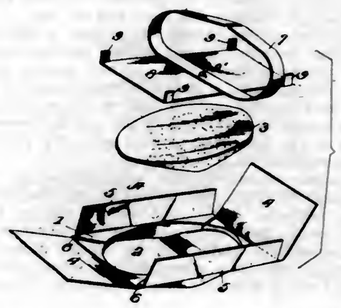
3. A carpet strip formed from a single sheet of metal bent so as to provide a pair of upstanding members and a depending loop arranged between said upstanding members, said depending loop being spaced from the upstanding members, said depending loop being adapted to receive carpet securing members, said carpet securing members being designed to be inserted into said loop and be firmly held thereby.

4. A metallic carpet strip comprising a structure formed from a single sheet of material bent so as to provide longitudinal retaining feet, a pair of upstanding walls spaced apart, and a depending loop arranged between said upstanding walls and extending for the full length thereof, said loop being arranged so that the same is nearer together at the top than at the bottom so as to pinch a securing member inserted into the loop adjacent the point of insertion.

1,137,588. RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 9, 1913. Serial No. 805,620. (Cl. 246—20.)

1. An improved torpedo comprising a case made of a fibrous blank having a central portion provided with an explosive receiving recess, the blank having inwardly folding flaps, a plate located between the flaps, a strap connected to the plate, the said plate provided with ears turned over and clamping the outer inturned flap to the plate for the purpose described.

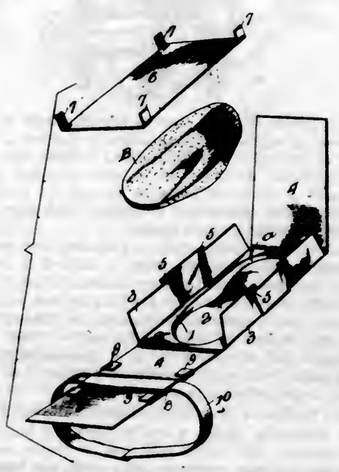
2. An improved torpedo, comprising a case made of a paper blank, having a central portion provided with an explosive receiving recess, the side and end flaps folded inward, a plate located between the side and end flaps, the plate and flaps cemented together, a strap connected to the plate, the plate provided with ears turned over and clamping the outer inturned flaps to the plate for the purpose described.



3. An improved torpedo, comprising a case made of a paper blank having a central portion provided with an explosive receiving recess, the central portion having inturned side flaps and inturned end flaps, a plate located between the side and end flaps, the flaps and plate cemented together, the corners of the plate having ears turned inward on the outer side of the outer inturned flaps for clamping the parts together.

4. An improved torpedo comprising a case made of a fibrous blank having a central portion provided with an explosive receiving recess, the central portion having inwardly folded flaps, a plate located between the said flaps, a strap connected to the plate, the corners of the plate provided with ears turned over and clamping one of the inturned flaps to the plate for the purpose described.

1,137,589. RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 9, 1913. Serial No. 805,621. (Cl. 246—20.)



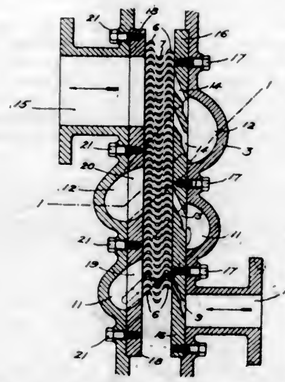
1. A railway signal torpedo comprising a case made from a blank having a central portion provided with an explosive receiving recess, the central portion having inwardly folding flaps, a plate located between the flaps and provided with means for clamping the outer flap to the plate, a strap attaching plate connected to the outer flap and a strap connected to the outer plate.

2. A railway signal torpedo, comprising a case made from a paper blank having a central portion provided with an explosive receiving recess, the central portion having inwardly folding side flaps and inwardly folding end flaps, a plate located between the said flaps, a strap attaching plate connected to the outer flap and a strap passing between the last said plate and the flap.

3. A railway signal torpedo comprising a case made from a blank having a central portion provided with an explosive receiving recess, the central portion having inwardly folding flaps, a plate located between the flaps and the said central portion, said plate provided with ears bent around the outer side of the flaps for connecting the flaps to the plate, and a strap attaching plate connected to the outer flap.

4. A railway signal torpedo comprising a case made from a blank having a central portion provided with an explosive receiving recess, the central portion having inwardly folding flaps for closing the said recess, a plate located between the flaps and the central portion, the plate having corner ears turned upward around the outer flap, and a strap attaching plate connected to the outer flap.

1,137,590. REËNTRANT TURBINE. RAYMOND N. EHRHART, Edgewood Park, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 22, 1910. Serial No. 578,315. (Cl. 121—57.)



1. In a turbine, a rotor element provided with a plurality of rows of blades extending radially thereof, a casing, a series of divergent fluid expanding nozzles for successively delivering motive fluid in one direction to said blades, and a series of passages formed to receive the fluid leaving said blades and to redirect and deliver it to the successive nozzles of the series.

2. In a turbine, a rotor element provided with two rows of impulse blades extending radially thereof, a casing, a series of divergent fluid delivery nozzles located on one side of said rotor element for discharging motive fluid to said blades, and a series of fluid passages subtending said blades and formed to receive the motive fluid leaving said blades and to convey it in a substantially spiral course around said rotor element to redirect and deliver it to the successive nozzles of the series.

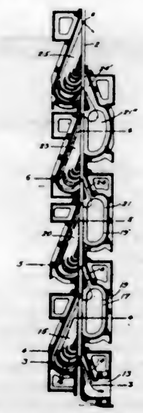
3. In a turbine, a rotor element provided with a row of radially extending blades, a casing having a plurality of curved passages subtending said row of blades, and each end of each passage communicating with the blades and a nozzle block secured to an inner face of the casing, and having a plurality of fluid delivery nozzles formed therein, each of which communicates with one end of one of the curved passages and is adapted to deliver motive fluid from its communicating passage to the rotor blades.

4. In a turbine, a rotor element provided with a row of radially extending blades, a casing having a plurality of curved passages subtending said row of blades and communicating at each end with the blades so as to form a substantially spiral passage for the motive fluid, a nozzle block secured to an inner face of the casing and having nozzles formed therein communicating with said passage, and a block secured to an opposite face of the casing and having directing passages formed therein communicating with said curved passages.

5. In a turbine, a rotor element provided with a row of radially extending blades, a casing having a curved fluid delivery passage subtending the row of blades, for receiving fluid discharged from the blades and for redirecting and delivering it to the blades, and a nozzle block secured to an inner face of the casing and having a divergent nozzle formed therein which communicates with one end of said passage and is adapted to expand fluid issuing from the passage and deliver it to said row of blades.

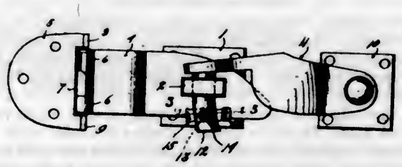
[Claim 6 not printed in the Gazette.]

1,137,591. MULTIPLE-DECK REËNTRANT TURBINE. RAYMOND N. EHRHART, Edgewood, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Aug. 22, 1912. Serial No. 716,450. (Cl. 121—57.)



In a turbine having blades divided by ribs into a plurality of radially disposed blade sections, a series of conduits for delivering and re-delivering motive fluid to the blades, so that the fluid passes first in one and then in the opposite direction through the blades, the passages on one side of the blades being formed in superimposed or radially located sections with partitions between the sections, and a plurality of redirecting vanes located in each of said superimposed sections.

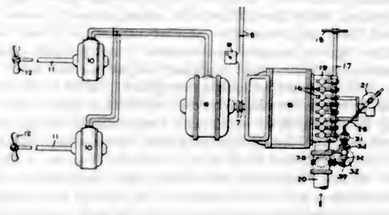
1,137,592. SEALING DEVICE. JOSEPH D. ELDRIDGE, New York, N. Y. Filed Sept. 21, 1914. Serial No. 862,766. (Cl. 70—23.)



1. A device for securing a hasp to a keeper including a pin arranged to extend through said keeper, the said pin having transversely extending holes arranged at right angles to each other and a pin mounted in one of said holes and having a portion thereof extending into the other of said holes.

2. A device for securing a hasp to a keeper including a pin arranged to extend through said keeper, and having transversely extending holes therein arranged at right angles to each other, one of said holes having enlargements between its ends and a metallic strip extending through said last mentioned hole and having a portion extending into the other of said transversely extending holes and portions extending into said enlargements.

1,137,593. SYSTEM OF SHIP PROPULSION. WILLIAM L. R. EMMET, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 17, 1912. Serial No. 720,763. (Cl. 121—118.)



1. A ship propulsion system comprising in combination, an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, and means for varying the speed of the ship within the range of speeds normally employed in the navigation of the ship by varying the speed of said turbine and for holding said turbine in an operating condition at an approximately constant predetermined speed when the load is removed from the turbine.

2. A ship propulsion system comprising in combination, an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, and means for varying the speed of the ship by varying the admission of elastic fluid to said turbine and for maintaining said turbine when the load is removed therefrom in an operative running condition at a speed slightly in excess of the maximum speed employed in the normal navigation of the ship.

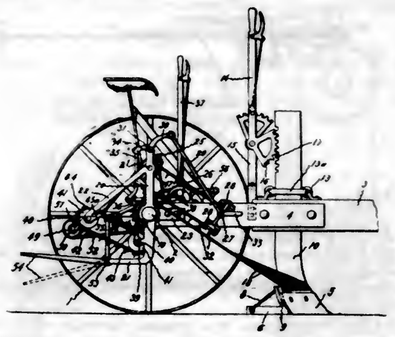
3. A ship propulsion system comprising in combination, an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, a speed responsive device adapted when the speed of the turbine slightly exceeds the maximum operating speed normally employed in the navigation of the ship to maintain said turbine in an operating condition and to limit its speed, and means independent of said speed responsive device for varying the speed of said turbine to vary the speed of the ship.

4. A ship propulsion system comprising in combination, an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, a speed responsive device in operative relation to said turbine for maintaining a no-load speed of the turbine, and means independent of said speed responsive device for controlling the speed of said turbine for obtaining the speeds required in the normal navigation of the ship.

5. A ship propulsion system comprising in combination, an elastic fluid turbine, an alternator coupled to said turbine, a propeller driving motor electrically connected to said alternator, means for varying the speed of said turbine through the range necessary to obtain the desired speeds employed in the navigation of the ship and for maintaining said turbine in an operative running condition when the load is removed therefrom.

[Claims 6 to 12 not printed in the Gazette.]

1,137,594. PEANUT-HARVESTER. JOSEPH R. ERWIN, Sabanno, Tex. Filed Oct. 31, 1913. Serial No. 798,592. (Cl. 55—53.)



In a device of the character described, the combination with a mold-board, comprised by a plurality of spaced parallel inclined rods, of a pair of crank shafts transversely extended above the mold-board, substantially equidistant from the same, a toothed bar substantially parallel to said rods, having its extremities respectively pivotally supported by the cranks of said shafts, a rock shaft mounted above the upper shaft, a pair of parallel arms fast upon the rock shaft, a pair of swinging links extending to the extremities of the lower crank shaft from said arms, and a mechanism for manually rocking the rock shaft.

1,137,595. PROCESS OF FORMING ORNAMENTAL BLOCKS. EMIL C. EYL, Seattle, Wash. Filed May 28, 1912. Serial No. 700,280. (Cl. 25—1.)

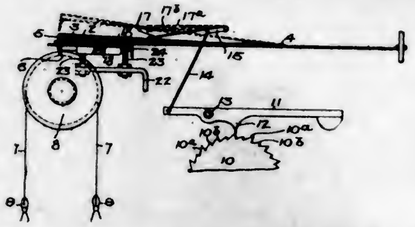


The method of forming an ornamental block comprising; the molding and hardening of a plurality of concrete blocks of a desired shape and a desired color, grinding the surfaces and edges of each block so that the surfaces might be smooth and the edges sharp, placing the ground blocks to a desired pattern, filling the spaces between and around and uniting said ground blocks with cement colored to the desired tint, uniting a backing of cement to said united ground blocks and filling cement, and then regrinding the faces of said ground blocks and grinding the said filling cement until the color and sharp edges first mentioned are clearly brought forth to their full beauty.

1,137,596. GRAPHIC RECORDER. HARRY FALTERMAYER and CHARLES B. THWING, Philadelphia, Pa., assignors to Thwing Instrument Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 18, 1913. Serial No. 762,084. (Cl. 234—1.)

1. The combination in a graphic recorder of a chart; a pen; and means independent of the pen for producing a film of ink for supplying said pen; with means for caus-

ing the pen to transfer limited amounts of ink from the film to the chart to form records thereon.



2. The combination in a graphic recorder of a chart; a pen; means for producing a film of ink in the path of movement of the pen; and means for causing said pen to periodically pass through the ink film into engagement with the chart.

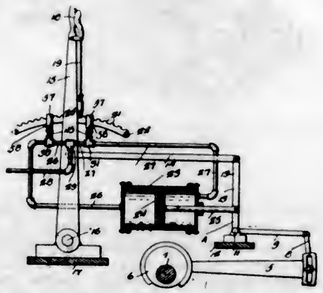
3. The combination in a graphic recorder of a chart; a plate having a slot therethrough; means for supplying ink to said slot to form a film across the same; a pen; and means for periodically causing said pen to pass through the ink film into engagement with the chart.

4. The combination in a graphic recorder of a chart; a plate having a longitudinally tapering slot therethrough; means for supplying ink to the widest portion of said slot to form a film across the same; and a pen mounted to pass through the ink film into engagement with the chart.

5. The combination in a graphic recorder of a chart; a plate having a longitudinally tapering slot therethrough; means for supplying ink to the widest part of the slot to form a film across the same; a pen; and means for periodically causing the pen to pass through said slot into engagement with the chart.

[Claims 6 to 11 not printed in the Gazette.]

1,137,597. REVERSING-GEAR MECHANISM. CLAUDE FEAGLER, Garrett, Ind. Filed May 4, 1914. Serial No. 836,203. (Cl. 121—98.)



1. In a reversing gear mechanism, a cylinder, a piston operable in the cylinder, a source of pressure supply communicating with opposite ends of the cylinder and including pressure actuated valve mechanisms, and means yieldably mounted over the valve mechanisms for depression separately to cut-off the pressure supply from one end of the cylinder and simultaneously exhaust the pressure from that end of the cylinder through said valve mechanism.

2. In a reversing gear mechanism, a cylinder, a piston operable in the cylinder, a source of pressure supply communicating with opposite ends of the cylinder, including pressure actuated valve mechanisms and normally communicating with the interior of said cylinder, and foot operating means connected to the valve mechanisms for depression separately to lock the same and cut-off the pressure supply from the respective ends of the cylinder, said foot operating means locking the respective valves upon depression and providing a passage from the interior of the valve mechanisms to the atmosphere.

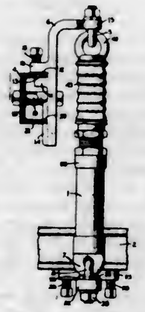
3. In a valve gear mechanism, a cylinder, a source of fluid pressure supply including branches which communicate with opposite ends of the cylinder, a valve casing in each branch and normally in communication with the opposite ends of said cylinder, a pressure actuated valve in each valve casing, means to hold each valve normally on its seat and means to permit exhausting the pressure from the corresponding end of the cylinder through one of the valve mechanisms during reversing operation without opening the respective valve.

4. In a reversing gear mechanism, a cylinder, a piston in the cylinder, a source of pressure supply communicating with opposite ends of the cylinder, valve mechanisms in the line of the pressure supply, each valve mechanism including a valve casing and a pressure actuated valve therein, a tubular extension on each valve casing communicating with the latter, the stem of each valve projecting into the respective tubular extension, each extension having an internal valve seat, a valve stem slidable in each extension and arranged in alinement with the stem of the respective pressure actuated valve in the valve casing, a valve on each second mentioned stem held normally in engagement with the respective internal valve seat of the corresponding extension, and a cap slidable on each extension, and having an outlet to register with the outlet of the respective extension upon depression of the corresponding cap the depression of which locks the respective pressure actuated valve on its seat to permit the reversing operation.

5. In a reversing gear mechanism, a cylinder, a piston in the cylinder, a source of pressure supply communicating with opposite ends of the cylinder, a valve casing in the line of the source of supply, a pressure actuated valve, and means slidable exteriorly of the valve casing to exhaust through said casing, and means carried by the slidable means for engagement with the valve to cut-off the supply to one end of the cylinder and to simultaneously permit exhaust of pressure from that end of the cylinder.

[Claims 6 to 21 not printed in the Gazette.]

1,137,598. HANGER FOR SHOCK-ABSORBERS. ERNST FLENTJE, Cambridge, Mass. Filed Oct. 30, 1914. Serial No. 869,469. (Cl. 248—30.)



1. A hanger member for a shock absorber comprising a body portion provided at its upper end with an overhanging head to which the shock absorber is secured and also provided wth two transversely-extending flanges forming between them a groove to receive one leg of a channel-iron member, said body portion being provided below said flanges with two vertically-extending ribs having notches to receive the lower leg of the channel-member, and means to clamp said hanger to said member.

2. A hanger member for a shock absorber comprising a body portion provided at its upper end with an overhanging head to which the shock absorber is secured and also provided with two transversely-extending flanges forming between them a groove to receive one leg of a channel-iron member, said body portion being provided below said flanges with two vertically-extending ribs having notches to receive the lower leg of the channel-member, means to clamp said hanger to said member, and a set screw carried by one of said transverse flanges to take up loose play.

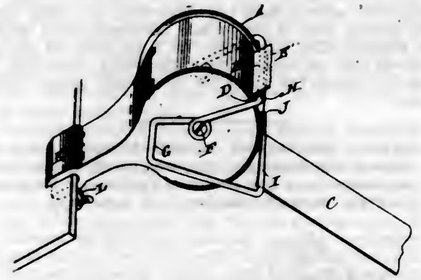
3. A hanger for shock absorbers comprising a member having a laterally-extending portion to which the shock absorber is secured and presenting at one end a head having two jaws to embrace the flange of an I-beam axle member, one of said jaws carrying set-screws, a clamping member adapted to embrace the other flange of the I-beam member, and means to clamp said clamping member to the head.

4. A hanger for shock absorbers comprising a member having a laterally-extending portion to which the shock absorber is secured and presenting at one end a head having two jaws to embrace the flange of an I-beam axle member, one of said jaws carrying set-screws, said hanger member also having a downwardly-directed lug, a clamping member constructed to embrace the other flange of said I-beam axle member, a clamping bolt extending through said clamping member and said lug, and spacing means between the lug and clamping member.

5. A hanger member for shock absorbers provided with means by which it can be secured to the axle of an automobile and also provided with a laterally-extending portion, a staple carried by said portion and to which the eye of a shock absorber is swiveled, and a seat member resting on the hanger member and having a curved seat on which said eye rests, said seat member being held in place by the staple but capable of having slight lateral movement thereon.

[Claim 6 not printed in the Gazette.]

1,137,599. ASEPTIC RAZOR-STROP AND DISPENSER. GEORGE C. FRYE and FRED C. ROLLINS, Portland, Me. Filed Jan. 15, 1915. Serial No. 2,335. (Cl. 51—16.)

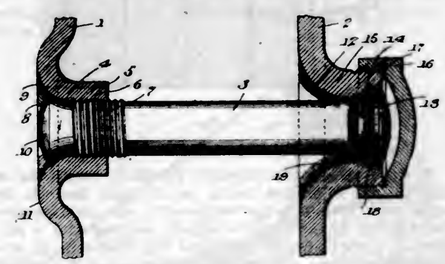


1. A magazine razor strop comprising a long narrow flexible ribbon of any suitable stropping material made into the form of a roll and means for dispensing it comprising a container with a narrow opening for dispensing the strop, a stop on one side of said opening and a pivoted bar on the other side of said opening and means operable by the free end of the strop to lock the strop temporarily between said stop and bar.

2. A magazine razor strop comprising a long narrow flexible ribbon of any suitalbe stropping material made into the form of a roll and means for dispensing it comprising a container provided with a long narrow opening for dispensing the strop, a stop and cutter on one side of said opening and a pivoted locking bar on the other side of said opening and means operable by the free end of the strop to lock the strop temporarily between said stop and bar.

3. A magazine razor strop comprising a long flexible ribbon of any suitable stropping material made into the form of a roll and means for dispensing it in convenient portions comprising a container provided with a long narrow opening for dispensing the strop, a stop along the edge of said opening and a locking bar pivotally attached to the ends of the container having a transversely extending bar adapted to lock the strop against said stop and a lever arm substantially parallel with said bar and having a free end adapted to let the strop in and out sidewise.

1,137,600. FLEXIBLE STAY-BOLT. PETER F. GALLAGHER, Baltimore, Md., assignor of forty-nine one-hundredths to Philip Conniff, Baltimore, Md. Filed July 3, 1914. Serial No. 848,907. (Cl. 85—1.5.)



1. In a flexible bolt connection, a sheet having a bolt opening, a tubular seat flange punched out from the sheet in alinement with the bolt opening, a bolt extending through the opening and having a headed end engaging said seat flange, and a cap engaging and closing the outer end of said tubular seat flange.

2. In a flexible stay bolt connection, a sheet having an inwardly flaring bolt opening, a tubular seat flange punched out from the sheet in alinement with the bolt opening and having a flared inner end forming a continuation of the flare of the opening and a concaved surface at its outer end, a bolt extending through the opening, said bolt having a headed end with a convex surface engaging the concaved surface of the seat flange, and a cap engaging and closing the outer end of said tubular seat flange.

3. In a flexible stay bolt, a fire sheet having a circular portion offset from the plane thereof and formed with a threaded opening, and a bolt having a threaded end engaging said threaded opening and a terminal head seated and inclosed below the surface of the sheet in the recess on the fire side formed by said offset portion.

4. In a flexible stay bolt, a sheet having a tubular flange offset outwardly therefrom, a circular reinforcing corrugation surrounding the flange, and a bolt having a threaded and headed end seated within the flange below the surface of the sheet.

5. In a flexible stay bolt, a sheet having an outwardly punched tubular flange internally threaded at its outer end and flared at its inner end, a circular reinforcing corrugation surrounding said flange, and a bolt having a threaded end engaging the threaded portion of the flange and a tapered head fitted within the flared portion of said flange.

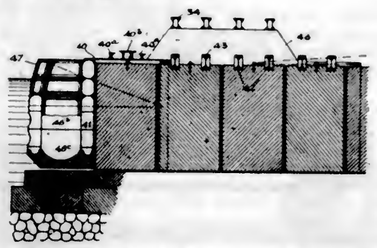
[Claims 6 to 12 not printed in the Gazette.]

1,137,601. PROCESS AND APPARATUS FOR HAVING ARTIFICIAL BLOCKS CAST OR SETTLED ON SPOT TO BUILD PIERS, QUAYS, AND LIKE STRUCTURES. EZIO GALLO, Genoa, Italy. Filed Apr. 15, 1913. Serial No. 761,316. (Cl. 61—3.)

1. Apparatus of the character described, comprising in combination, a block holding caisson, wholly or partly buoyant, means for sinking or floating said caisson, beams fitted on the upper part of the side walls o f said caisson rigidly connecting the same so as to offer a resistance to the waves, and means for increasing the resistance of the caisson to wave action upon the part of the caisson above said beams, substantially as described.

2. Apparatus of the character described, comprising in combination, a block molding caisson, wholly or partly buoyant, ballast for sinking or floating said caisson,

beams fitted on the upper part of the side walls of said caisson rigidly connected the same so as to offer a resistance to the waves, means for increasing the resistance of the caisson to wave action upon the part of the caisson above said beams and cores within said caisson for the formation of hollow blocks.



3. Apparatus of the character described, comprising in combination, a caisson having an air tight door on its upper face, side walls and cross-walls, and packings provided along the sides of the caisson coacting with a portion of a wall already completed for producing an air-tight chamber for construction by the use of compressed air, substantially as described.

1,137,602. ROTARY FLY-BRUSH. ALLISON F. GODDARD, Rankin, Ill. Filed May 9, 1914. Serial No. 837,469. (Cl. 230—7.)

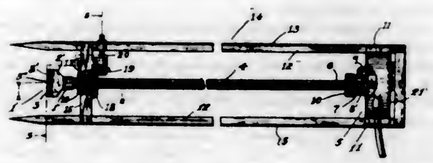


1. A rotary fly brush comprising a hub having an enlarged head at its outer end, the said head being provided with a peripheral groove, a plurality of arms mounted on the head, each arm being formed from a single strand of wire bent to form an elongated loop and a fork, the stretches of the wire being twisted between the loop and the fork, in-turned pointed ends formed on the fork for engagement in the head to hold the fork seated in the groove therein, and slitted flexible pieces carried by the arms.

2. A rotary fly brush comprising a hub having an enlarged head at its outer end, the said head being provided with a peripheral groove, a plurality of arms mounted on the head, each arm being formed from a single strand of wire bent to form an elongated loop and a fork, the stretches of the wire being twisted between the loop and the fork, in-turned pointed ends formed on the fork for engagement in the head to hold the fork seated in the groove therein, slitted flexible pieces carried by the arms, and a reinforcing wire trained about the inner end of the hub and having tis ends twisted together.

3. A rotary fly brush comprising a hub having an enlarged head at its outer end, the said head being provided with a peripheral groove, a plurality of arms mounted on the head, each arm being formed from a single strand of wire bent to form an elongated loop and a fork, the stretches of the wire being twisted between the loop and the fork, in-turned pointed ends formed on the fork for engagement in the head to hold the fork seated in the groove therein, slitted flexible pieces carried by the arms, and a reinforcing wire trained about the inner end of the hub and having its ends twisted together, the said inner end of the hub being formed with a groove for receiving the last-named wire.

1,137,603. BORING-TOOL. ALBERT S. GOODWIN, Tacoma, Wash. Filed June 8, 1914. Serial No. 843,878. (Cl. 144—43.)

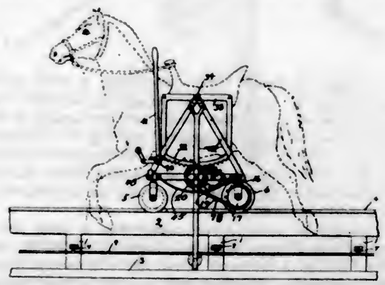


1. A boring tool comprising a cylindrical socket member or sleeve adapted for attachment to a stem, a bar integral with said socket member and extending diametrically across one end thereof, and centrally divided extensions from said diametrical bar having an increased diametrical extent and shaped at their outer ends to form inclined cutting lips.

2. A boring tool comprising a cylindrical socket member or sleeve internally threaded for the attachment of a stem and having a bar extending centrally across one end and having centrally divided axial extensions from said bar which are bent to form inclined cutting lips, said lips projecting diametrically beyond the outer margin of said socket member.

3. A boring tool having a diametrically positioned bar and two integral extensions therefrom in an axial direction, said extensions lying at respectively opposite sides of the axis and having their outer ends bent toward respectively opposite sides and terminating in cutting edges, the cutting edge of one of said extensions being divided or discontinuous, to thereby cut a plurality of distinct grooves and the other cutting edge being continuous, to thereby remove the ridges left by the first named cutting edge.

1,137,604. TRAVELING HOBBY-HORSE. JOHN W. GREENE, San Francisco, Cal., assignor to Amuse-U-Riding Device Co., a Corporation of California. Filed June 15, 1914. Serial No. 845,108. (Cl. 104—111.)

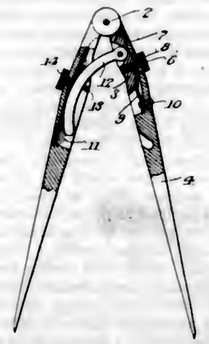


1. A hobby horse comprising a wheeled frame, a sprocket wheel carried by one of said wheels, a sprocket wheel on the wheeled frame, a chain passing around both of said sprocket wheels, a rocking frame having means to deliver power to the sprocket chain, to drive the hobby horse forward, and a hand lever for rocking the horse to cause the forward travel thereof.

2. In a hobby horse, a frame, wheels for supporting said frame, a rocking frame supported in the first frame and carrying a figure, means to drive one of the supporting wheels in one direction from the rocking frame, a pivoted shaft, a hand lever connected therewith, and a link connected with the figure for rocking one of said frames to drive the figure forward.

3. In a hobby horse, a frame, wheels in a single plane supporting said frame, side braces to hold the frame upright, a sprocket wheel carried by one of the supporting wheels, a second sprocket wheel on the frame, a sprocket chain passing around the sprocket wheels, a second frame pivoted in the first frame, means operated by said second frame to cause the travel of the sprocket chain in one direction regardless of the direction of movement of said pivoted chain, and a hand lever at each side of the frame for rocking the figure and pivoted frame to drive the hobby horse forward.

1,137,605. DIVIDERS. FRANK W. GREGORY, Danbury, Conn. Filed Jan. 14, 1914. Serial No. 812,064. (Cl. 33—149.)



1. Dividers including legs, an arm pivotally connected to one of said legs, the other leg being recessed to receive the arm, an adjusting screw having threaded connection with said arm passing loosely through said recessed leg to permit adjustment of the recessed leg with relation to the arm, and means for fixing said arm with relation to the pivotally connected leg.

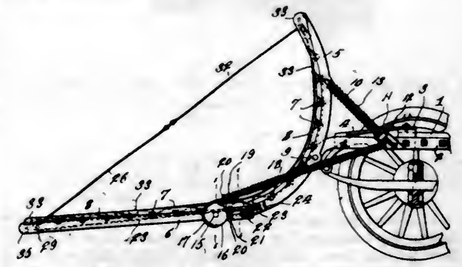
2. Dividers including legs, an arm pivotally connected to one of said legs, the other leg being recessed to receive the arm, an adjusting screw having threaded connection with said arm passing loosely through said recessed leg to permit adjustment of the recessed leg with relation to the arm, a lever projecting from the arm and operating in the recess in the pivotally connected leg, and a set screw carried by the pivotally connected leg to engage the lever.

3. Dividers including legs, an arm pivotally connected to one of said legs, the other leg being recessed to receive the arm, an adjusting screw having threaded connection with said arm passing loosely through said recessed leg to permit adjustment of the recessed leg with relation to the arm, a spring bearing between the recessed leg and arm, a lever pivotally connected to the arm and operating in the recess in the pivotally connected leg and a set screw carried by the pivotally connected leg and bearing upon the lever to lock the same in fixed relation to the lever.

1,137,606. FENDER. JOHN F. GREEN and HAYDEN B. MAUCK, Muncie, Ind. Filed Oct. 21, 1914. Serial No. 867,881. (Cl. 105—127.)

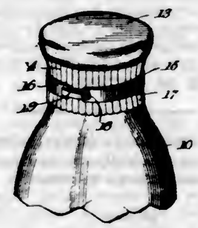
1. In a fender, a pair of pivotally connected frames, means for attaching one of the frames to a vehicle, means for holding the other frame in substantial parallelism with the surface over which the vehicle is traveling, means acting to raise the last-named frame to vertical position when the holding means is released, flexible object-actuated means extending across the frames for releasing the holding means, and object-supporting netting extending across the frames.

2. In a fender, supporting members, a frame pivotally mounted upon the supporting members, a second frame pivoted to the first frame and adapted to be held in substantial parallelism with the surface over which the vehicle is traveling, means connecting the second frame and the supporting members and normally acting to raise the second frame to vertical position, spring pressed locking members for holding the second frame against movement, cables extended across the frame and connected to said locking members, said cables being adapted to be actuated by an object thrown upon the fender to release the locking members, and object-supporting netting stretched across the frame.



3. In a fender, supporting members, a frame connected thereto, a second frame pivotally mounted upon the first frame, sprocket wheels connected to the second frame, chains connected to said sprocket wheels, a spring connecting the chains and supporting members and adapted to be placed under tension when the second frame is in operative object-catching position, and object-released locking dogs engaged with the sprocket wheels for holding the second frame in object-catching position.

1,137,607. BOTTLE CLOSURE AND PROTECTOR. ARTHUR W. GROSS and GEORGE H. DANNENBERG, Schenectady, N. Y. Filed June 6, 1914. Serial No. 843,469. (Cl. 215—24.)

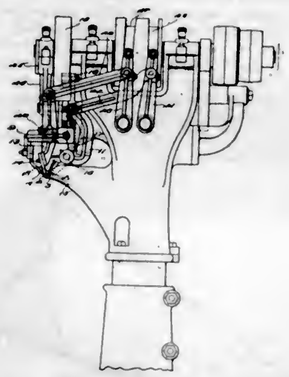


In combination with a bottle having a neck, a hood-like member adapted to be arranged over the neck and having a depending fluted portion encircling the neck, and a securing member for securing the said hood-like member on the neck, said securing member consisting of a strip formed at one end with a slot, a tongue formed at the other end of the strip and adapted to be passed through the slot when the strip encircles the neck, and a plurality of gripping lugs struck from one side of the strip and projecting in opposite directions to grip into the depending portion of the hood-like member to secure the same on the neck.

1,137,608. TACK-PULLING MACHINE. JOHN B. HADAWAY, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 25, 1909. Serial No. 498,238. (Cl. 12—16.)

1. A tack pulling machine, having, in combination, tack pulling jaws, and mechanism for moving said jaws in

unison to pull a tack, and for relatively moving the jaws in the direction of the pull to eject the tack, substantially as described.



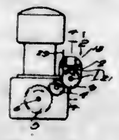
2. A tack pulling machine, having, in combination, fixed means for engaging the upper on opposite sides of a tack, tack pulling jaws, and mechanism for automatically actuating the jaws to advance into the plane of the work engaging surface of the upper engaging means to close upon the tack and move away from the work to pull the tack, substantially as described.

3. A tack pulling machine, having, in combination, fixed work supports engaging the upper on opposite sides of the tack, tack pulling jaws, and means for automatically actuating said jaws to advance into the plane of the work supports and engage and pull a tack from a shoe held against said supports, substantially as described.

4. A tack pulling machine, having, in combination, tack pulling jaws, and mechanism for moving the jaws in unison to pull a tack and for stopping the tack pulling movement of one of the jaws while continuing the movement of the opposite jaw to cause the tack to be ejected from between the jaws, substantially as described.

5. A tack pulling machine, having, in combination, tack pulling jaws, and mechanism for imparting a tack pulling movement to the jaws in unison and for relatively moving the jaws in a direction to relieve the pressure upon one side only of the tack and eject the tack over one of the jaws, substantially as described.

1,137,609. INITIAL SPARKER FOR GAS-ENGINE MAGNETOS. LEONARD HAGGBLOM, Los Angeles, Cal. Filed Dec. 26, 1913. Serial No. 808,699. (Cl. 123—149.)



1. The combination with a magneto shaft arranged with its axis extending along a different line from the axis of the engine shaft, of means operatively connecting said magneto shaft to said engine shaft to transmit a rotary movement from said engine shaft to said magneto shaft, a dash-pot, a member operating in said dash-pot and provided with a dog, means coöperating with said dog to hold said magneto shaft as the engine starts, means to release said magneto shaft, and means to rotate said magneto shaft with an increased speed upon its release.

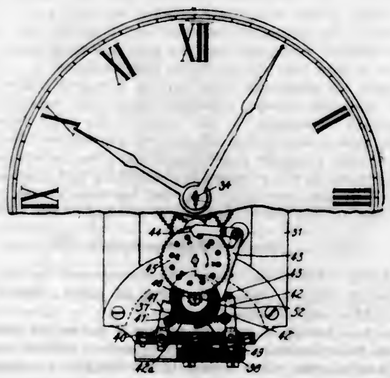
2. The combination, with a magneto shaft having its axis extending along a different line from the axis of the engine shaft, of means operatively connecting said magneto shaft to the engine shaft to rotate said magneto shaft, a dash-pot, a member operating within and projecting from said dash-pot, means coöperating with said member while said member is extending to hold said magneto shaft as the engine starts, means to retract said member, and means to lock said member in the retracted position after the engine has been fully started.

3. The combination, with a magneto shaft operatively connected with an engine shaft, of a dog having a tooth to hold the magneto shaft as the engine shaft starts, means operating upon a portion of said dog at one side of the tooth thereof to retract said dog and thereby release said magneto shaft, means to rotate said magneto shaft at an increased speed upon its release, and means to retract said dog and maintain it in the inoperative position during the regular operation of the engine, said dog being provided with a part projecting laterally therefrom to coöperate with the last named means.

4. The combination, with a magneto shaft operatively connected with an engine shaft, of a dash-pot having a piston head and a stem the outer end of which has formed thereon a dog for holding the magneto shaft as the engine shaft starts, means to retract said stem to release the magneto shaft, means to cause the magneto shaft to snap ahead to the extent of the lost motion to produce the initial spark to start the engine, said means to retract said stem comprising a cam operating thereon against the opposition of the air in the dash-pot.

5. The combination, with a magneto shaft operatively connected with an engine shaft, of a mutilated disk mounted on said magneto shaft in fixed relation thereto, said disk having a peripheral portion eccentric to the magneto shaft and terminating in a locking tooth, a dog to coöperate with said locking tooth, a casing extending around said magneto shaft, said casing having a partial rotation with respect to said magneto shaft and being provided with a stop tooth which operates against a shoulder on said mutilated disk to hold the magneto shaft as the engine starts, a spring to cause said casing to rotate yieldingly with relation to said engine shaft, and means operatively connecting the engine shaft to said casing to rotate the latter, said casing having upon its periphery means to release said dog to cause the magneto shaft to snap ahead.

1,137,610. CIRCUIT-CONTROLLER. CHESTER I. HALL, Chicago, Ill., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 25, 1911. Serial No. 651,165. (Cl. 175—282.)



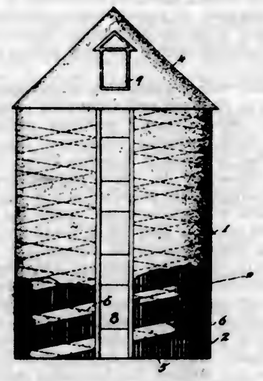
1. In combination, a switching mechanism, a contact member operated by said switching mechanism, devices for operating said switching mechanism to render said contact member alternately operative and inoperative, and devices actuated by said operating devices for moving said contact member from engagement with said switching mechanism.

2. In combination, switching mechanism comprising contact members and a connecting element for establishing electrical connection between said members, mechanism for operating the switching mechanism so as to alternately establish connection between said contact members and break said connection, and devices actuated by said operating mechanism for moving one of said contact members from the path of said element.

3. In combination, contact members, a rotary switching device for alternately establishing connection between said members and breaking said connection, means for operating said rotary device, and mechanism actuated by said operating means for moving one of said contact members from engagement with said rotary device.

4. In combination, an involute disk, and a contact member engaging the periphery of said disk, the drop of the involute being cut back on a tangent to a circle contained by the involute, mechanism for operating said disk, and devices actuated by said operating mechanism for moving said contact member from engagement with said involute disk.

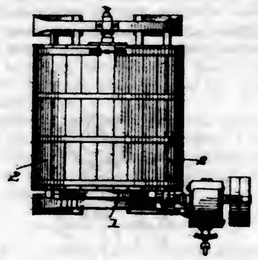
1,137,611. SILO. HARVEY B. HAMILTON, Tulare, S. D. Filed Jan. 17, 1914. Serial No. 812,860. (Cl. 72—6.)



A silo comprising a tubular body constructed of metal sections arcuate in form, reinforcing angle irons on the side edges of the sections, means passing through the angle irons for drawing the sections together, spirally arranged bands secured to and surrounding the outer surface of the wall, spirally arranged bands secured to the inner surface of the wall and crossing the outer bands at an angle, both the inner and outer bands being spaced away from portions of the wall and plastic coatings covering the inner and outer surfaces of the wall and the bands and keyed between said bands and portions of the wall.

1,137,612. MECHANISM ON BUTTER-FINISHERS FOR WORKING OUT BUTTERMILK OR WATER. EMIL HANSEN, Flensburg, Germany, assignor to the Firm Bergedorfer Eisenwerk Aktiengesellschaft, Bergedorf, Germany. Filed Apr. 13, 1914. Serial No. 831,629. (Cl. 31—18.)

In a device of the character described, a butter vat rotatable on its vertical axis, rotating butter workers in the central portion of said vat, radial beating boards on the bottom of said vat extending from near the vat walls toward the vat's central axis, vertical, inwardly extending projections on said walls located between said walls and the outer ends of said beating boards, there being outlets in the bottom of said vat adjacent said projections



adapted to permit the escape of liquid, and means to operate the device, as specified.

1,137,613. CURRYCOMB. WALTER W. HARRIS, Brownsburg, Pa. Filed Apr. 26, 1911. Serial No. 623,412. (Cl. 119—88.)



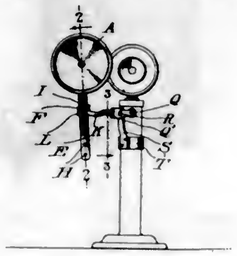
1. A curry comb comprising a plate having transverse slots formed therein, a handle for the plate, U-shaped comb teeth operable in the slots, the bight portions of which normally engage the upper surface of the plate, longitudinal bracing plates connecting the bights of said teeth, bars connecting the comb plates and having slots formed intermediate their ends, a pair of spaced brackets secured at their opposite ends to the plate and embracing the bights of the comb teeth, bowed springs disposed between the brackets and comb teeth and rigidly connected to the bracing strips to normally hold the teeth extended from the plate, a bell crank lever mounted on the plate adjacent the handle and having one of its arms located between the bars and provided with a cross bar adapted to slidably engage said slots, said bell crank lever being rocked upon pressure being applied to its other arm by the user's hand without disengaging the handle, whereby the bights of the comb teeth are forced out of contact with the plate and against the tension of the bowed springs and a spring connecting the bell crank and plate, as and for the purpose set forth.

2. A curry comb comprising a flat plate having transversely extending slots, elongated inverted U-shaped members mounted on said plate and having the legs thereof extending downwardly through the slots and slidable therein, parallel strips connecting said U-shaped members above the plate, said strips having parallel elongated slots therein, a brace member connected to the plate and extending over the strips, a bowed spring connected to one of the strips and pressing against the brace to normally maintain the aforementioned legs in their lowermost positions and a lever slidably connected to the said strips, a handle connected to the plate, said lever being pivoted to the handle and arranged to raise the aforementioned legs so that the lowermost edges thereof will lie substantially in the plane of the plate.

1,137,614. AMPLIFIER FOR TELEPHONES. ROSA D. HATCH, Memphis, Tenn. Filed Dec. 7, 1914. Serial No. 875,878. (Cl. 179—182.)

1. A sound intensifier for telephones comprising a horn with a contracted portion and a flaring funnel-shaped part, a central conical, open-ended tubular extension within said flaring end with one end adapted to be positioned adjacent to the diaphragm of the receiver, a support for holding the horn upon a receiver holder, a clamp-

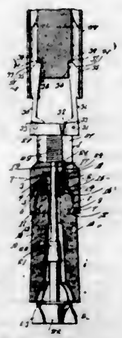
ing member, a pin pivotally connected thereto, an apertured bar secured to said pin, a bolt carried by the bar, a washer carried by the bolt, a nut upon the latter and affording means whereby the bar may be held in different adjusted positions upon a forked telephone receiver, and means for raising and lowering the receiver holder.



2. In combination with a telephone, an amplifier for attachment to the receiver of a telephone, a swivelly mounted clamping member fixed to said amplifier, a bar secured to said clamping member and designed to be adjustably held to the forked end of a telephone receiver holder, and a lever for raising and lowering the receiver holder.

3. In combination with a telephone, an amplifier for attachment to the receiver of a telephone, a swivelly mounted clamping member secured to the amplifier, a bar fastened to the clamping member, a receiver holder and support therefor, a clamping member engaging said support and provided with an arm, a lever pivotally mounted upon said arm and having a forked end for engagement with the receiver holder, the latter being connected to said bar.

1,137,615. UNDERREAMER. FRANK A. HAUGH, Independence, Kans. Filed Apr. 21, 1914. Serial No. 833,467. (Cl. 255—78.)



1. An under-reamer comprising an elongated body having a socket in its lower end, a plurality of cutters having their upper ends pivotally mounted within the body socket for radial swinging movement, the said cutters being adapted to project laterally from the outer periphery of the body in operative position and being adapted to collapse into inoperative position, a longitudinally adjustable plunger mounted within the body, an expanding head provided upon the lower end of said plunger for wedging engagement with the cutters when moved upwardly into operative position, yieldable means for normally maintaining the plunger in its operative position, the body being provided with a longitudinal slot opening through its outer periphery and with a longitudinal groove in the said periphery in communication with the upper end of the slot, a cross-head mounted fixedly upon the plunger for movement within the body slot, and an upwardly projecting dog pivotally mounted upon the outer end of the cross-head for movement within the said body groove, the body being provided in the lower end of the said groove with a recess affording an inclined upper wall for locking engagement with the free end of the dog when the plunger is in its depressed, inoperative position.

2. An under-reamer comprising an elongated body having a socket in its lower end, a plurality of cutters having their upper ends pivotally mounted within the body socket for radial swinging movement, the said cutters being adapted to project laterally from the outer periphery of the body in operative position and being adapted to collapse into inoperative position, a longitudinally adjustable plunger mounted within the body, an expanding head provided upon the lower end of said plunger for wedging engagement with the cutters when moved upwardly into operative position, yieldable means for normally maintaining the plunger in its operative position, the body being provided with a longitudinal slot opening through its outer periphery and with a longitudinal groove in the said periphery in communication with the upper end of the slot, a cross-head mounted fixedly upon the plunger for movement within the body slot, an upwardly projecting dog pivotally mounted upon the outer end of the cross-head for movement within the said body groove, the body being provided in the lower end of the said groove with a recess affording an inclined upper wall for locking engagement with the free end of the dog when the plunger is in its depressed inoperative position, and an actuating lug formed upon the outer edge of the said dog and being adapted to project outwardly from the body when the dog is in its uppermost, inoperative position and to be contained within the body groove when the dog is operative.

3. An under-reamer comprising an elongated body having a socket in its lower end, a plurality of cutters having their upper ends pivotally mounted within the body socket for radial swinging movement, the said cutters being adapted to project laterally from the outer periphery of the body in operative position and being adapted to collapse into inoperative position, a longitudinally adjustable plunger mounted within the body, an expanding head provided upon the lower end of said plunger for wedging engagement with the cutters when moved upwardly into operative position, yieldable means for normally maintaining the plunger in its operative position, the body being provided with a longitudinal slot opening through its outer periphery and with a longitudinal groove in the said periphery in communication with the upper end of the slot, a cross-head mounted fixedly upon the plunger for movement within the body slot, an upwardly projecting dog pivotally mounted upon the outer end of the cross-head for movement within the said body groove, the body being provided in the lower end of the said groove with a recess affording an inclined upper wall for locking engagement with the free end of the dog when the plunger is in its depressed, inoperative position, and an actuating lug formed upon the outer edge of the said dog and being adapted to project outwardly from the body when the dog is in its uppermost, inoperative position and to be contained within the body groove when the dog is operative, the upper face of the actuating lug being inclined longitudinally.

4. An under-reamer comprising an elongated body having a longitudinal socket in its lower end, the lower end portion of the socket being enlarged, a supporting member adapted to be mounted removably within the body socket with its lower end projecting into the enlarged portion thereof, a plurality of cutters pivotally connected with the lower end of the supporting member and being adapted to project through the lower end of the socket and laterally from the outer periphery of the body when operative, and means for securing the supporting member detachably within the body.

5. An under-reamer comprising an elongated body having a longitudinal socket in its lower end, the lower end portion of the socket being enlarged, a supporting member adapted to be mounted removably within the body socket with its lower end projecting into the enlarged portion thereof, a plurality of cutters pivotally connected with the lower end of the supporting member and being adapted to project through the lower end of the socket and laterally from the outer periphery of the body when operative, the body and supporting member being provided with alining transverse openings, and a securing pin adapted to be mounted removably within said opening.

[Claims 6 and 7 not printed in the Gazette.]

1,137,616. HOOK. JOHN P. HEBENDAHL, Elizabeth, N. J. Filed Feb. 28, 1914. Serial No. 821,682. (Cl. 24—231.)



A hook comprising a yoke having arms of substantially equal length, the first arm having an eye on its end, a finger with one end passing downward through the eye and headed, the finger extending straight across the end of the second arm and being arched so as to provide a space between the finger and said second arm, the first arm having a free end devoid of any head.

1,137,617. METHOD OF MAKING ALKALI-SOLUBLE ALUMINA. PAUL R. HERSHMAN, Chicago, Ill., assignor to The Mineral Products Company, New York, N. Y., a Corporation of West Virginia. Filed Oct. 29, 1914. Serial No. 869,203. (Cl. 23—13.)

1. The method of treating alumina, which consists in heating it in admixture with carbon up to a temperature sufficient to leave it soluble in alkali mainly as oxid.

2. The method of treating alumina, which consists in heating it, in admixture with carbon, and in the presence of a protective gas, up to a temperature sufficient to leave it soluble in alkali, mainly as oxid.

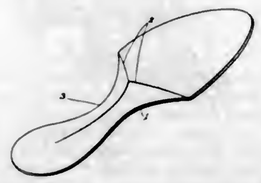
3. The method of treating alumina, which consists in heating it, in admixture with carbon, and in the presence of a non-nitrifying atmosphere, to a temperature sufficient to make it soluble in alkali.

4. The method of treating alunite and the like, which consists in calcining it, and thereafter heating it, in admixture with carbon up to a temperature sufficient to leave it soluble in alkali mainly as oxid.

5. The method of treating alunite, which consists in calcining it, and thereafter heating it, in admixture with carbon, and in the presence of a protective gas, up to a temperature sufficient to leave it soluble in alkali, mainly as oxid.

[Claim 6 not printed in the Gazette.]

1,137,618. METHOD OF PREPARING OUTSOLES. JOHN J. HEYS, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 27, 1914. Serial No. 853,384. (Cl. 12—146.)



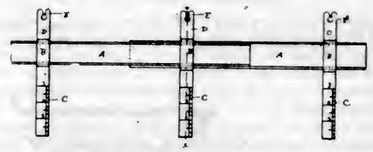
1. The method of preparing outsoles for incorporation in boots and shoes which consists in first molding the block stock to the desired shape, and thereafter feather-edging the molded sole.

2. The method of preparing outsoles which consists in first molding the sole blank while it is composed of an even amount of stock in the shank, and thereafter reducing the shank of the molded sole.

3. The method of preparing outsoles which consists in first molding a sharply defined break or line of demarcation at the ball line between the shank and forepart, and thereafter reducing the shank of the molded sole in the rear of said break.

4. The method of preparing outsoles which consists in first molding the sole blank to produce a break at the ball line, and thereafter reducing the shank of the molded sole, said break forming a guide to determine the forward extent of the shank reduction.

1,137,619. COMBINED SHINGLING-GAGE AND STRAIGHT-EDGE. HERBERT E. HIGGINS, Cape Elizabeth, Me. Filed Nov. 13, 1913. Serial No. 800,873. (Cl. 33—188.)

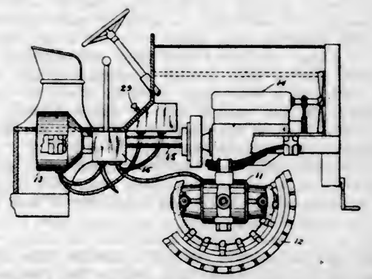


1. In a device of the character described, a straight edge and a gage mounted thereon in transverse relation thereto provided with a nail receiving slot extending into the upper end thereof.

2. In a device of the character described, a straight edge and a gage mounted thereon in transverse relation therto and provided with a rule scale on its lower end and with a nail receiving slot extending into its upper end.

3. In a device of the character described, a straight edge, and a gage mounted thereon in transverse relation thereto, provided on its lower end with a rule scale and in its upper end with a nail receiving recess, said gage being adapted to be moved longitudinally of straight edge.

1,137,620. TRACTOR SYSTEM FOR MOTOR-VEHICLES. ALFRED H. HOADLEY, Providence, R. I. Filed June 11, 1914. Serial No. 844,555. (Cl. 21—90.)



1. In a tractor system a pair of motors each mounted to operate separate steerable traction wheels, said motors being connected to work in unison, and means for breaking the current of both motors when one becomes inoperative, whereby an excessive driving force is effectually prevented from being applied to one of said wheels to throw it from its normal line of travel.

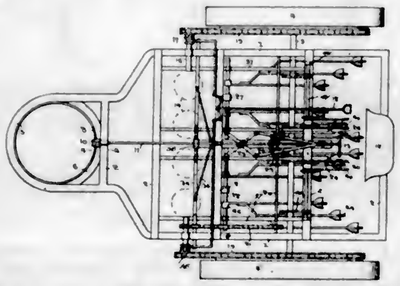
2. In a tractor system a pair of motors each mounted to operate separate steerable traction wheels independently and means interposed into the electric circuit adapted to be operated by an unbalancing of the current to the different motors to automatically affect the main current and prevent an excessive driving force being applied to

one of said wheels to throw it from its normal line of travel.

3. A motor vehicle comprising traction wheels pivotally journaled upon opposite ends of a relatively stationary axle, an electric generator carried by the vehicle for supplying current with which to drive said motors and means whereby the current is broken to both motors when the current to said motors becomes unequal, whereby an excessive driving force is effectually prevented from being applied to one of said wheels to turn the vehicle from its normal line of travel.

4. A motor vehicle comprising traction wheels pivotally journaled upon opposite ends of a relatively stationary axle, a source of electric energy carried by the vehicle for supplying current with which to drive said motors and means whereby the current is rendered ineffective upon both motors when the current to both becomes unequal, whereby a double driving force is prevented from being thrown on one of the steerable traction wheels to turn the vehicle from its normal line of travel.

1,137,621. CULTIVATOR. EUGENE C. HODGES, Gregory, Tex. Filed July 12, 1913. Serial No. 778,634. (Cl. 97—30.)

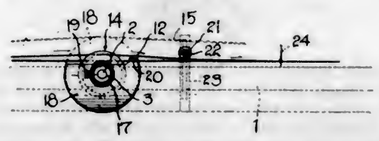


1. In a motor propelled vehicle, a frame, cross bars for said frame, drive wheels depending from said frame, a front steering wheel positioned forwardly of said drive wheels, a beam pivoted to one of said cross bars, a bracket secured to the other of said cross bars for slidably supporting said beam, arch members slidably mounted on the second of said cross bars, means for grouping or separating said arch members associated with said beam, a transversely slidable rack bar supported by said frame and connected to said beam, a steering shaft connecting with said front steering wheel, a hand wheel for said shaft, a pinion carried by said shaft and meshing with said rack bar so that manual operation of said hand wheel will swing said front steering wheel to change the course of said vehicle and to simultaneously shift said pivoted beam so that said arch members are given a turning curve of larger radius than the vehicle.

2. In a motor propelled vehicle, a frame, cross bars for said frame, drive wheels depending from said frame, a front steering wheel positioned forwardly of said drive wheels, a beam pivoted to one of said cross bars, a bracket secured to the other of said cross bars for slidably supporting said beam, arch members slidably mounted on the second of said cross bars, means for grouping or separating said arch members associated with said beam, a transversely slidable rack bar supported by said frame and connected to said beam, a steering shaft connecting with the said front steering wheel, a pinion carried by said shaft and meshing with said rack bar so that said front steering wheel can be partially rotated by the motor of the vehicle to change the course of the latter and to simultaneously shift said pivoted beam to give said arch members a turning curve of larger radius.

3. In a motor propelled vehicle, a frame, cross bars for said frame, drive wheels depending from said frame, a steering wheel positioned forwardly of said drive wheels, a beam pivoted to one of said cross bars, a bracket secured to the other of said cross bars for slidably supporting said beam, arch members slidably mounted on the second cross bars, means for grouping or separating said arch members, a shaft positioned transversely of said frame, a pair of shiftable friction disks mounted on said shaft, a third friction disk adapted to be singly mated with either of first said disks and to be connected to said steering wheel and means for driving said shaft by the motor of the vehicle to change the course of the latter and to impart simultaneously the movement to said pivoted beam whereby said arch members are given a turning curve of larger radius than the vehicle.

1,137,622. LEASE-FORMING DEVICE. EUGENE HOLT and LAFAYETTE HOLT, Burlington, N. C. Filed Oct. 22, 1914. Serial No. 868,029. (Cl. 28—29.)



1. In combination with a slasher or warp-dressing machine, a lease-forming roll arranged between the dressing roll and comb.

2. In combination with a slasher or warp-dressing machine, a lease-forming roll arranged between the dressing roll and comb, said roll being made up of a series of alternately arranged cams and disks.

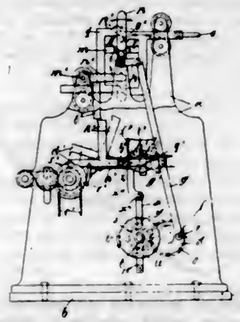
3. In combination with a slasher or warp-dressing machine, a lease-forming roll arranged between the dressing roll and comb, said roll being made up of a series of alternately arranged cams and disks, each of said cams being provided with a flattened face, and the flattened faces of adjacent cams being oppositely disposed.

4. In combination with a slasher or warp-dressing machine, a lease-forming roll arranged between the dressing roll and comb, said roll being made up of a supporting base and a series of alternately arranged cams and disks keyed to said supporting base, each of said cams being provided with a flattened face, and the flattened faces of adjacent cams being oppositely disposed.

5. In a slasher or warp-dressing machine, a lease-forming roll, a shield inclosing a portion of said roll, and guides provided upon said shield for facilitating the insertion of a lease rod.

[Claims 6 to 8 not printed in the Gazette.]

1,137,623. EMBROIDERING-MACHINE. GUSTAV HÜBNER, Plauen, Germany, assignor to Wilhelm Reents, Bauen, Germany. Filed Oct. 14, 1910. Serial No. 586,995. (Cl. 112—7.)



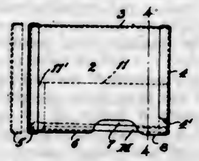
1. In embroidering machines, movably mounted frames, a main shaft, a driving crank connected thereto, a rod joined to said crank, a common axle, a pattern card, arms arranged on said common axle and slidable on said axle and controlled by means of the pattern card, said axle forming means whereby said arms are put into uniform oscillatory motion and according to their height of position engaging and actuating said frames, and toothed wheel segments connected to said frames whereby the embroidering frame is adjusted.

2. In embroidering machines, movably mounted frames, a main shaft, a driving crank connected thereto, a rod joined to said crank, a common axle, a pattern card, arms arranged on said common axle and slidable on said axle and controlled by means of the pattern card, said axle constituting means whereby said arms are put into uniform oscillatory motion and according to their height of position engaging and actuating said frames, toothed wheel segments attached to said frames whereby the embroidering frame is adjusted, spur wheels engaging said toothed wheel segments, screw spindles carrying said spur wheels and provided with right and left hand screw threads, and axially disposed nuts connecting said spindles.

3. In embroidering machines, movably mounted frames, a main shaft, a driving crank connected thereto, a rod joined to said crank, a common axle, arms slidable on said axle and controlled by means of the pattern card, said axle forming means whereby said arms are put into uniform oscillatory motion and according to their height of position engaging and actuating said frames, toothed wheel segments attached to the frames, whereby the embroidering frame is adjusted, spur wheels engaging said toothed wheel segments, screw spindles carrying said spur wheels and provided with right and left hand screw threads and axially disposed nuts connecting said spindles, and pins on said arms arranged at a predetermined distance from each other.

4. In embroidering machines, movably mounted frames, a main shaft, a driving crank connected thereto, a rod joined to said crank, a common axle, a pattern card, arms slidably arranged on said common axle and controlled by means of the pattern card, said axle constituting means whereby said arms are put into uniform oscillatory motion and according to their height of position engaging and actuating said frames, toothed wheel segments attached to the frames whereby the embroidering frame is adjusted, spur wheels engaging said toothed wheel segments, screw spindles carrying said spur wheels and provided with right and left hand screw threads, axially disposed nuts connecting said spindles, pins on said arms arranged at a predetermined distance from each other, and projections on said frames engageable with said pins.

1,137,624. MATCH-BOX. JOSEF HURTIG and ERNEST A. ERICSSON, Wilkinsburg, Pa. Filed Jan. 19, 1914. Serial No. 812,868. (Cl. 206—28.)



1. A match box comprising a casing having a split longitudinal edge with the split adapted to expand for the sidewise passage of matches one by one, the length of the split edge being limited to prevent passage of matches other than by canting the match during the withdrawing movement, the interior of the box formed with a relatively narrow passage which extends longitudinally of the box with one longitudinal side of the passage open to the split edge of the box and its opposite longitudinal side open to the match-holding portion of the box, the passage being deflected transversely of the box and thereby placing its slotted discharge opening out of line with the remainder of the box and preventing removal of any match that is not disposed longitudinally within the discharge passage, the deflection being limited to permit the match-canting action.

2. A match box having its match-holding cavity formed with a transversely narrowed passage leading to its bottom edge and with said edge split longitudinally for the sidewise movement of matches therethrough, the length of the split edge being limited to prevent passage of matches other than by canting the match during the withdrawing movement, said passage being disposed longitudinally of the box and deflected laterally above the split match discharging edge of the box whereby matches arranged within the passage other than longitudinally thereof are prevented from reaching the split edge, the deflection being limited to permit the match-canting action.

3. A match box comprising a casing having a chamber for confining a plurality of matches lengthwise thereof between the casing ends, an inwardly projecting abutment extending longitudinally of one side of the casing interior and stopping short of one end of the casing for the purpose described, the casing formed with an outlet passage leading from the chamber around said abutment with the head portion of the matches extending beyond the abutment and in uninterrupted communication with the passage, said casing having an edge split to form a terminal for said outlet passage, the length of the split portion being limited to prevent discharge of matches other than by canting the match during the withdrawing movement, the outlet for the match head being of sufficient size to permit withdrawal without liability of ignition.

4. A match box comprising a casing formed with a match confining chamber having opposite side walls and opposite end walls—one end wall being flanged to overlap the side walls, the casing being contracted adjacent a longitudinal edge thereof with said edge formed with a finger opening and with said edge split longitudinally at one side of the opening, a portion of the end wall flange being removed to permit lateral deflection at the split of a portion of one of the sides of the contracted casing part to permit the withdrawal of matches, the length of the split edge being limited to prevent passage of matches other than by canting the match during the withdrawing movement.

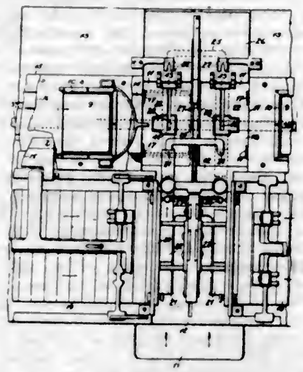
5. A match box comprising a casing having a match-holding chamber, a portion of one side wall of the casing being contracted toward the opposite wall to provide the casing with a relatively shallow edge, said edge being recessed to provide a finger opening and with a longitudinal split in the portion of the shallow edge at one side of the finger opening, the length of the split edge being limited to prevent passage of matches other than by canting the match during the withdrawing movement, and a longitudinal abutment with the chamber adjacent its shallow portion, the abutment extending longitudinally of the casing and stopping short of one end thereof to leave space for the passage of match heads, the casing having a channel extending from the abutment to the finger opening and split edge through which the matches are adapted to move sidewise.

[Claim 6 not printed in the Gazette.]

1,137,625. STAMP-SUPPORTER FOR CIGARETTE-BOX-STAMP-APPLYING MACHINES. JOSÉ IBARRA, Habana, Cuba. Filed Sept. 23, 1914. Serial No. 863,085. (Cl. 216—24.)

1. A machine as characterized having, box-feeding and stamp-feeding tables disposed in parallel arrangement, and a runway for delivering stamped boxes, said runway having a floor at a level lower than said box and stamp-feeding tables, in combination with a receiving table for the boxes and stamps delivered from said tables; a mechanism for feeding boxes to said receiving table; a mechanism for feeding stamps to said receiving table; and means for elevating the said receiving table to the level of said box and stamp-feeding tables, said means operating in timed relation to said feeding mechanism.

2. A machine as characterized having, box-feeding and stamp-feeding tables in parallel arrangement, and a runway for delivering stamped boxes, said runway having a floor at a level lower than said box and stamp-feeding tables in combination with a receiving table for said stamps and boxes; and an operating mechanism for said table, embodying a supporting spindle for said table, a yoke at the end of said spindle for engaging a driving shaft operatively connected with said feeding mechanism; a pin laterally extended from said yoke; and a cam disk mounted upon said shaft to bear upon said pin and to pivot upon said spindle and table connected therewith.

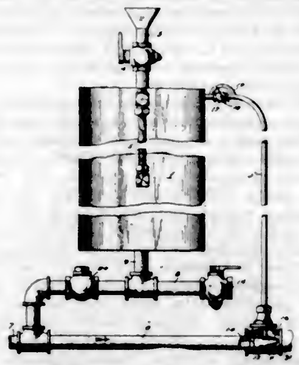


3. A machine as characterized having, box-feeding and stamp-feeding tables disposed in parallel arrangement, and a runway for delivering stamped boxes, said runway having a floor at a level lower than said boxes and stamp-feeding tables, in combination with a receiving table for said stamps and boxes; and an operating mechanism for said table, embodying a supporting spindle for said table, a yoke at the end of said spindle for engaging a driving shaft operatively connected with said feeding mechanism, a pin laterally extended from said yoke, a cam disk mounted on said shaft to bear upon said pin and to operate upon said spindle and table connected therewith, and yielding means for maintaining said pin in bearing relation to said disk.

4. A machine as characterized having, box-feeding and stamp-feeding tables disposed in parallel arrangement, and a runway for delivering stamped boxes, said runway having a floor at a lower level than said box and stamp-feeding tables in combination with a receiving table for said stamps and boxes; and an operating mechanism for said table embodying a supporting spindle for said table, a yoke at the end of said spindle for engaging a driving shaft operatively connected with said feeding mechanism, a pin laterally extended from said yoke, a cam disk mounted on said shaft to bear upon said pin for operating upon said spindle and table connected therewith, and coiled springs connected for suspending said spindle and table connected therewith for maintaining the same in bearing relation to said disk.

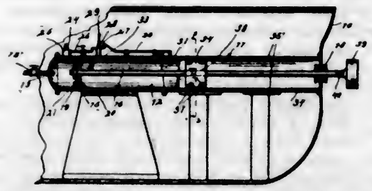
1,137,626. LOCOMOTIVE-WASHING APPARATUS. ROBERT E. JACKSON, Victoria, Va. Filed Apr. 18, 1914. Serial No. 832,777. (Cl. 137—14.)

An apparatus for the purpose described, comprising an oil tank, a casing, a hose connected with the forward end of said casing, a pipe adapted to be connected with means for supplying hot water under a proper head and connected with the rear end of the casing, said pipe having a contracted discharge in the form of a nozzle extending forwardly in said casing, a conduit intermediate the pipe and the tank and opening into the bottom of the tank; said conduit having a valved drain outlet, and a comparatively-small conduit for oil interposed between the tank and the casing and having its discharge end extending into the casing and connected with the interior



of the nozzle on the pipe at an intermediate point in the length of said nozzle.

1,137,627. FENDER. WALTER H. JENNINGS, Smithfield, Pa. Filed Aug. 12, 1914. Serial No. 856,415. (Cl. 114—219.)



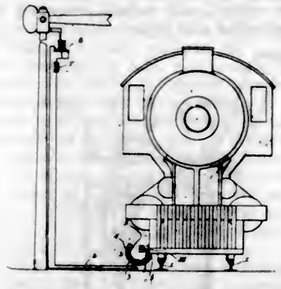
1. In apparatus of the character described, a cylinder, a plunger mounted to reciprocate therein, a plunger rod connected with the plunger and extending exteriorly of the cylinder and provided with a buffer head, means to supply pressure to the inner end of the cylinder for moving the plunger forwardly, and automatic means to cut off the supply of pressure when the plunger has moved a predetermined distance in the forward direction.

2. In apparatus of the character described, a cylinder, a plunger to reciprocate therein, a plunger rod connected with the plunger and extending exteriorly of the cylinder and carrying a buffer head, a track extending longitudinally of the cylinder, and a guide carriage rigidly secured to the plunger rod and traveling longitudinally upon the track to hold the plunger rod against improper lateral movements.

3. In apparatus of the character described, a cylinder, a plunger mounted to reciprocate therein, a plunger rod attached to the plunger and extending forwardly beyond the cylinder, a pressure inlet valve connected with the cylinder, a trip element secured to the plunger rod, means to shift the inlet valve embodying a member disposed in the path of travel of the trip element to be moved thereby, a wheeled carriage rigidly secured to the plunger rod to hold the same against turning movement, a track extending longitudinally of the cylinder and having the wheeled carriage traveling thereon, and a buffer head carried by the forward end of the plunger rod.

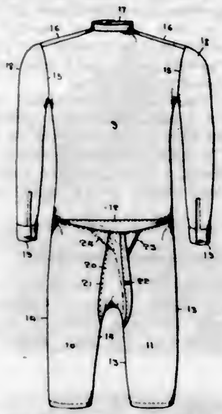
1,137,628. TRAIN SIGNALING APPARATUS. JAMES A. JOHNSON, Stockville, Nebr., assignor of one-half to Ellsworth D. Brown, Stockville, Nebr. Filed Mar. 10, 1914. Serial No. 823,761. (Cl. 246—58.)

In train signaling apparatus, a track electroresponsive device comprising a core curved longitudinally in the form of a semi-circle, poles at the ends of said core, a winding encircling said core, means for energizing said winding to set up a magnetic field between said poles, a circuit breaker, and a magnetizable element controlling



said circuit breaker and movable through said magnetic field whereby the circuit breaker will be opened to break the controlled circuit.

1,137,629. UNION SUIT. LA FAYETTE JOHNSON, St. Joseph, Mo. Filed May 2, 1914. Serial No. 835,818. (Cl. 2—144.)

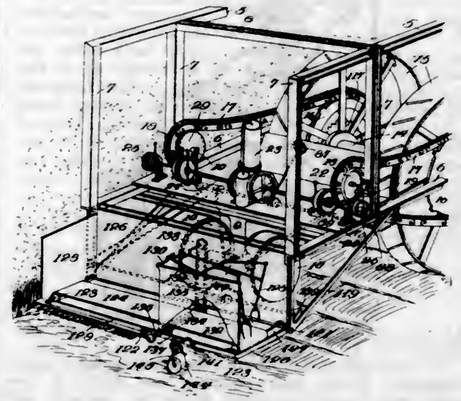


1. In a union garment combining a negligée shirt and a pair of drawers, a practically closed crotch provided for the latter including a flap portion normally closing an opening formed in the rear of said drawers; resilient means for connecting the detached edge of the flap to the right side of the body portion; other resilient means for connecting the free edge of the right leg to the left side of the body portion of the said garment, whereby the parts of the crotch are automatically held in closed relation.

2. In a combination set including upper and lower garments and an opening formed in the rear portion of said lower garment, a flap piece overlapping said opening and elastic webbing pieces for normally holding said flap portion and the free edge of the right leg over said opening thereby closing the latter.

1,137,630. MOWER AND TEDDER. WILLIAM R. JONES, Marion, Mich. Original application filed Mar. 29, 1912, Serial No. 687,192. Divided and this application filed Apr. 18, 1913. Serial No. 762,160. (Cl. 56—100.)

1. An agricultural machine including a wheeled truck, an auxiliary frame pivotally mounted beneath the front end of the truck and extending in advance of the same, the width of the truck and of the auxiliary frame being the same, a vertical imperforate guard plate arranged at the rear side of the auxiliary frame and coextensive therewith and extending upwardly therefrom to the front end of the truck, a second vertical guard plate projecting longitudinally from the truck at one end of the auxiliary frame, a cuttter on the front of the auxiliary frame adjacent said second guard plate, a conveyer carried by the auxiliary frame and coöperating with the cutter and moving transversely of the truck from the longitudinally extending guard plate, a tedder operating longitudinally of and above the conveyer at the end of the auxiliary frame remote from said guard plate, a driving shaft on the truck, and means for transmitting motion from the driving shaft to the tedder, conveyer and cutter.



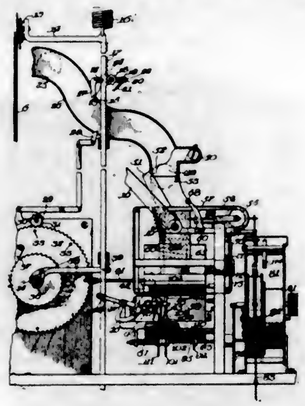
2. An agricultural machine comprising a truck, brackets secured to and depending from the front end of the truck at the sides thereof, a horizontal rectangular frame secured to the lower front ends of said brackets and extending between the same and projecting in advance of the truck, a cutter on the front side of the said frame at one end thereof, a conveyer mounted on said frame and operable transversely of the truck, a vertical guard plate rising from the auxiliary frame to the front of the truck and equal in length to the rear side of the auxiliary frame, a second vertical guard plate projecting forward from one end of the first mentioned guard plate to the front side of the auxiliary frame, an upright on the front side of the auxiliary frame extending parallel with the first mentioned guard plate from the cutter to the end of the auxiliary frame, a tedder mounted above the conveyer between the first mentioned guard plate and said upright and operating longitudinally of the conveyer, and means for actuating the cutter, the conveyer and the tedder supported by the bottom of the rectangular frame and in rear of the first mentioned guard plate and operated from the truck.

3. An agricultural machine comprising a truck, brackets secured rigidly to and depending from the sides of the truck at the front end of the same, an auxiliary frame carried by the lower ends of said brackets and extending between and projecting forwardly from the same, a vertical guard plate erected on one end of the said frame, a second vertical guard plate at the rear of the auxiliary frame and closing the entire space between the auxiliary frame and the truck and the brackets depending from the truck, and a third vertical guard plate on the front of the auxiliary frame adjacent the end thereof remote from the first mentioned guard plate.

4. An agricultural machine comprising a truck, brackets secured rigidly to and depending from the sides of the truck at the front end of the same, an auxiliary frame pivoted at its rear side to the lower ends of said brackets and extending between the same, a traveling support for the front side of the auxiliary frame, a vertical guard plate erected on one end of said frame, a second vertical guard plate at the rear side of the frame

and closing the entire space between the frame and the truck, and a third vertical plate on the front of the frame adjacent the end thereof remote from the first-mentioned guard plate.

1,137,631. CHECK-CONTROLLED APPARATUS. HARRY J. KEATING, Chicago, Ill., assignor to Venn Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 19, 1910. Serial No. 582,775. (Cl. 73—100.)



1. A machine of the character described having a weight responsive device, means whereby said device is normally held against operation, means for releasing said holding means to permit it to give an indication, and means operable when said device is released to cause a record to be made of the indication of said device, said last aforesaid means including a striking element adapted to engage said weight responsive device, and a clock mechanism to actuate said striking element.

2. A machine of the character described having a weight responsive device, means whereby said device is normally held against operation, means for releasing said holding means to permit it to give an indication, and means operable when said device is released to cause a record to be made of the indication of said device, said last aforesaid means including a striking element adapted to engage said weight responsive device, a clock mechanism to actuate said striking element, and a lever for periodically starting said clock mechanism in motion.

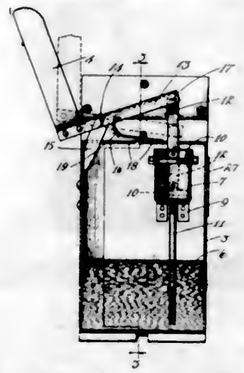
3. A machine of the character described having a weight responsive device, means whereby said device is normally held against operation, means for releasing said holding means to permit it to give an indication, and means operable when said device is released to cause a record to be made of the indication of said device, said last aforesaid means including a striking element adapted to engage said weight responsive device, a clock mechanism to actuate said striking element, and means under the control of said weight responsive device to wind said clock mechanism.

1,137,632. PERFUMING APPARATUS. HARRY J. KEATING, Chicago, Ill. Filed Apr. 20, 1914. Serial No. 833,208. (Cl. 167—3.)

1. A device of the character described comprising a liquid container, a pump within the container, means whereby said pump when actuated forces air through said liquid, and openings in said container through which the treated air is emitted.

2. A device of the character described comprising a liquid container, a pump within the container, means whereby said pump when actuated forces air through said liquid, and openings in said container through which the treated air is emitted in jets through the agency of the pressure supplied by said pump.

3. A device of the character described comprising a liquid container, a pump within the container, means whereby said pump when actuated forces air through said liquid, openings in said container through which the treated air is emitted, and a door actuating lever for periodically operating said pump.

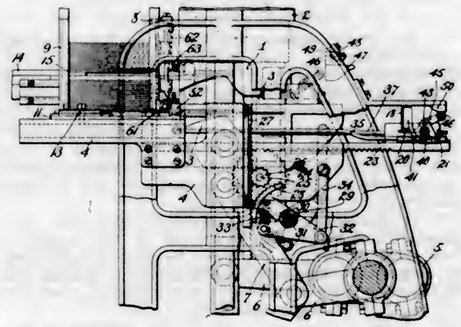


4. A device of the character described comprising a liquid container, a pump within the container, means whereby said pump when actuated forces air through said liquid, openings in said container through which the treated air is emitted in jets through the agency of the pressure supplied by said pump, and a door actuating lever for periodically operating said pump.

5. A device of the character described comprising a liquid container, a pump within the container, means whereby said pump when actuated forces air through said liquid, openings in said container through which the treated air is emitted, a door actuating lever for periodically operating said pump, and a spring for restoring said lever.

[Claims 6 to 8 not printed in the Gazette.]

1,137,633. SOLE-MOLDING MACHINE. RAWSON A. KELLEY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 22, 1910. Serial No. 583,227. (Cl. 12—21.)



1. A sole molding machine, having, in combination, sole molding molds, a magazine arranged at one end of the molds, and mechanism for feeding the soles lengthwise from the magazine to a position between the molds and for positioning them between the molds, substantially as described.

2. A sole molding machine, having, in combination, sole molding molds, a magazine arranged at one end of the molds, mechanism for feeding individual soles from the magazine to a position between the molds, and sole locating and gripping devices for positioning and holding the sole during the action of the molds, substantially as described.

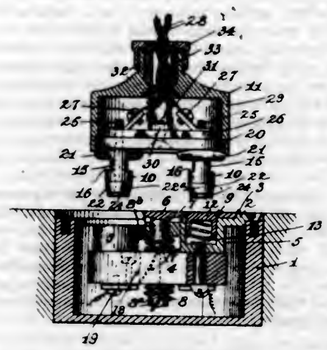
3. A sole molding machine, having, in combination, sole molding molds, a magazine, mechanism for feeding soles from the magazine to a position between the molds, mechanism acting on opposite sides of the medial line of the sole for centering the soles transversely and means for bringing the ball line into register with the ball line of the molds, substantially as described.

4. A sole molding machine, having, in combination, sole molding molds, a magazine for the soles, mechanism for feeding individual soles from the magazine to a position between the molds, devices engaging the sole on opposite sides of its medial line for centering the sole transversely and means for shifting it longitudinally to bring the ball line into register with the ball line of the mold, substantially as described.

5. A sole molding machine, having, in combination, sole molding molds, and mechanism for automatically feeding soles lengthwise from a stack of soles successively to the molds having provision for adjustment to bring the ball lines of soles of different lengths into register with the ball line of the molds, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,137,634. ELECTRICAL PLUG AND RECEPTACLE. WILLIAM R. KELTING, New York, N. Y. Filed Mar. 5, 1913. Serial No. 751,975. (Cl. 173—330.)



1. In an electrical device of the class described, the combination of contact means within the device, a perforate rotatable plate over said means, plug means for making electrical contact with the aforesaid contact means by way of the perforation in the plate after said plate has been rotated from a normal position, and means for closing the perforation in the plate when in its normal position.

2. In an electrical device of the class described, the combination of contact means within the device, a perforate rotatable plate over said means, plug means for making electrical contact with the aforesaid contact means by way of the perforation in the plate after said plate has been rotated, and means giving said plate tendency to rotate into a normal position wherein the plug means cannot reach the contact means through the perforation in the plate, and means for closing the perforation in the plate when in its normal position.

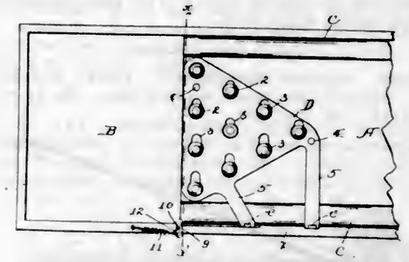
3. In an electrical device of the class described, the combination of contact means within the device, a perforate rotatable plate over said means, plug means for making electrical contact with the aforesaid contact means by way of the perforation in the plate after said plate has been rotated from a normal position, and means for closing the perforation in the plate when in its normal position comprising a spring-pressed button at the perforation in the rotatable plate when said plate is in its normal position, said button then springing up into said perforation.

4. In an electrical device of the class described, the combination of contact means within the device, a perforate rotatable plate over said means, plug means for making electrical contact with the aforesaid contact means by way of the perforation in the plate after said plate has been rotated, and means giving said plate tendency to rotate into a normal position wherein the plug means cannot reach the contact means through the perforation in the plate, and means for closing the perforation in the plate when in its normal position comprising a spring-pressed button at the perforation in the rotatable plate when said plate is in its normal position, said button then springing up into said perforation.

5. In an electrical device of the class described, the combination comprising a shallow cup, a disk snugly rotatable within the cup, said disk and the bottom of the cup having holes through them which aline in one position of the rotation of the disk, electrical contact means supported below the hole in the bottom of the cup, plug means insertible in the hole in the disk to rotate the disk to carry its hole into alinement with the hole in the bottom of the cup, said plug then being insertible through said holes to make electrical contact with the aforesaid contact means, means giving the disk rotative tendency into a position wherein the disk and the cup-bottom holes are out of alinement, and a spring pressed button located at the disk hole when the disk is in normal position, said button then springing up into the hole.

[Claims 6 and 7 not printed in the Gazette.]

1,137,635. BOWLING-ALLEY. AUGUST J. KEMPIEN, St. Paul, Minn. Filed Apr. 2, 1904. Serial No. 201,209. (Cl. 46—54.)



1. Apparatus of the class set forth, comprising, in combination, a bowling alleyway, a swinging frame pivoted adjoining the alleyway and having passages through which the pins are spotted and means for supporting it above the floor of the alleyway when in lowered position, said passages being elongated to permit said frame swinging up without disarranging the pin.

2. Apparatus of the class set forth, comprising, in combination, a swinging frame pivoted to swing from over the alleyway and having openings for spotting the pins elongated to permit the frame being swung upwardly without disarranging said pins, means for holding said frame in superior position and means for supporting said frame above the floor of the alleyway when in lowered position.

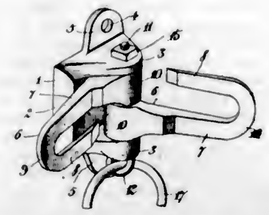
3. A bowling alley having, in combination with its floor A near the pit end thereof, a frame D having openings 2 and elongations 8 to said openings, means for supporting said frame in horizontal position above said floor, a hinged connection between the frame and a side of the alley for swinging the frame out of operative position, and a catch 9 on the side of the alley for holding the frame in superior position.

4. Apparatus of the class set forth, comprising, in combination, an alley proper, a swinging frame pivoted clear of said alley proper for spotting the pins, said frame having openings in which the pins are received elongated to permit the frame swinging up without disarranging the pins and means for supporting said frame above the floor of the alley proper when in lowered position.

5. Apparatus of the class set forth, comprising, in combination, an alley proper, and a swinging frame pivoted clear of said alley proper for spotting the pins, said frame having openings to receive the pins elongated to permit the frame swinging clear of the alley proper without disturbing said pins.

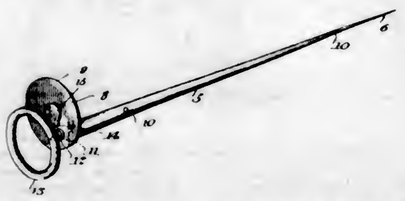
[Claims 6 to 10 not printed in the Gazette.]

1,137,636. TRACE-FASTENER. CHARLES V. KILGORE, Sykesville, Md. Filed Dec. 17, 1912. Serial No. 737,258. (Cl. 54—30.)



A hame fastener comprising a bracket arranged for attachment to the forward surface of the hame, and including a base plate having a width substantially equal to the width of the hame, the said plate being of increasing thickness throughout its width and toward the back of the hame, the forward face of the plate being inclined with relation to the inner face of the hame, and trace hooks pivotally connected to the bracket adjacent to the point of minimum thickness of the plate and arranged to contact with the forward surface of the plate throughout a major portion of its width.

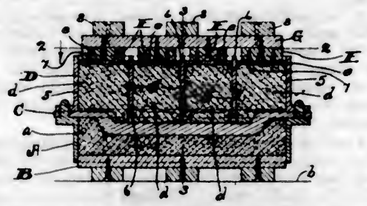
1,137,637. MINING IMPLEMENT. ANDREW KOLENIC, Jr., Streator, Ill. Filed Jan. 14, 1914. Serial No. 812,111. (Cl. 125—19.)



The combination with a member having a recess in one end, an internally threaded socket member permanently fixed within the recess and having a portion extending beyond the end of the member, a disk having a beveled portion at the periphery thereof forming a knife edge and also provided with an opening eccentrically therein for receiving the extended portion of the socket member, means on the disk for swinging movement over the opening therein, and a needle having a threaded stem adapted for detachable engagement in the socket member when the opening in the disk is exposed.

1,137,638. SAND-COMPRESSING MEANS FOR MAKING MOLDS. WILLIAM C. LANG, Cleveland, Ohio. Filed Apr. 20, 1914. Serial No. 833,097. (Cl. 22—46.)

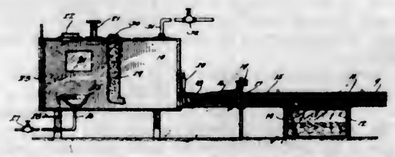
1. Sand-compressing means for making molds, said means comprising horizontally arranged plates adapted to cover the molding sand in different compartments respectively of a flask-section and to extend into close proximity to the upright walls of the respective compartments; slabs arranged over and carrying the different plates respectively and being each smaller in dimensions horizontally than the connected plate, and a board extending across the upper sides of and secured to said slabs, which board is provided at its upper side with reinforcing cleats arranged parallel with the slabs.



2. The combination, with a substantially horizontally arranged pattern-plate, and a flask-section arranged on the pattern-plate and having vertically arranged compartments adapted to receive molding sand, of plates adapted to cover the molding sand in the different compartments respectively of said flask-section; slabs arranged over and carrying the different plates respectively, each slab being smaller in dimensions horizontally than the connected plate, and a board arranged above and rigid with said slabs, the relative arrangement of the parts being such that when the plates have entered the aforesaid compartments from above a suitable distance upon supplying said compartments with molding sand to a suitable height the board is spaced from the top edge of each partition between adjacent compartments.

3. The combination, with a suitably supported horizontally arranged mold-bottom, the lower flask-section embracing the upper portion of said mold-bottom, a double-faced pattern-plate lying in a substantially horizontal position on said flask-section, and the upper flask-section mounted on the pattern-plate, the upper flask-section having vertically arranged compartments adapted to be supplied with molding sand, and the lower flask-section being adapted to be filled with molding sand between the mold-bottom and the pattern-plate, of plates adapted to cover the molding sand in the different compartments respectively of the upper flask-sections; slabs arranged over and carrying the different plates respectively, each slab being smaller in dimensions horizontally than the connected plate, said slabs being tied together, said slabs being depressible independently of the upper flask-section, and said slabs, the upper flask-section the pattern-plate and the lower flask-section being capable of descending together independently of the mold-bottom.

1,137,639. RODENT-EXTERMINATING SYSTEM. DAVID L. LEVEY, Los Angeles, Cal. Filed Nov. 3, 1913. Serial No. 798,846. (Cl. 43—24.)

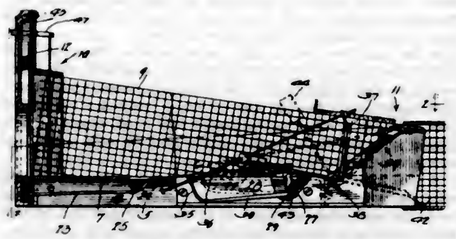


1. In a rodent exterminating system, a conduit, entrance traps opening to the conduit, an exterminating station to which the conduit leads, and a tank adapted to contain a bath opening to said conduit, and arranged between the entrance traps and the exterminating station.

2. A rodent exterminating system, comprising a conduit, a plurality of entrance traps opening thereto, an exterminating station into which the conduit leads, a tank adapted to contain a bath arranged in the conduit between the entrance traps and the exterminating station, means for precipitating the rodents into the tank, and means for permitting the rodents to escape from the tank into the conduit and exterminating station.

3. In a rodent exterminating system in combination with a building or other inclosed structure, of a plurality of entrance devices communicatingly connected with a plurality of conduits, a central conduit connecting said branch conduits and leading to an exterminating station, a tank adapted to contain a bath, a registering device, and means to exterminate the rodents entrapped therein forming said exterminating station.

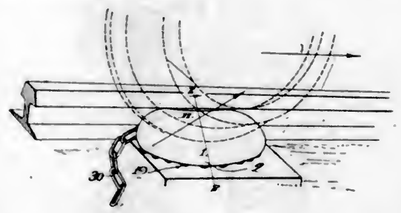
1,137,640. RODENT-TRAP. DAVID L. LEVEY, Los Angeles, Cal. Filed Nov. 3, 1913. Serial No. 798,847. (Cl. 43—26.)



1. A rodent trap, comprising a cage having an apertured floor, a pivoted section mounted in said aperture, a pivoted entrance gate on the cage, a weighted arm connected to said gate and to the pivoted floor section operating to normally maintain the gate in its open position and the floor section in an inclined position and operating when the floor section is rocked downwardly by the weight imposed therein to close the gate, means operating on the pivoted section for automatically locking the gate in its closed position, a normally closed inclined door forming an exit to the cage adapted to be opened by a weight imposed thereon, and means operated by the opening of said door for unlocking the gate and floor section, whereby they will be restored to normal by the action of the weighted arm.

2. A rodent trap, comprising an apertured floor, a pivoted section mounted in said aperture, a latching means adapted to latch said pivoted section, a cage adapted to cover and form a passageway over said floor and said pivoted section, a pivoted entrance gate, a weighted lever controlling said pivoted gate adapted to close the entrance to said floor, an arm engaging said weighted lever connected to said pivoted section, an apertured arm connected with said latching means, a pivoted gate controlling the exit from said floor, an apertured arm secured to said hinged door forming an exit from said chamber, a weighted arm secured to said hinged door, and a connecting rod connecting said apertured hinged door arm and said apertured latching arm.

1,137,641. CAR-REPLACER. ALBERT ELLISON LINDBERG, Wilkes-Barre, Pa. Filed July 7, 1914. Serial No. 849,394. (Cl. 104—163.)



1. A car replacer comprising a body having a flat base and an upper convexed face, said upper face including a crown portion midway the ends of the body and adjacent one side thereof, the said side of the body being extended in the longitudinal direction of the body and including a convexed vertical wall, the upper face of the said body also including a downwardly inclined portion that extends from the crown portion to the upper edge of the said concaved wall.

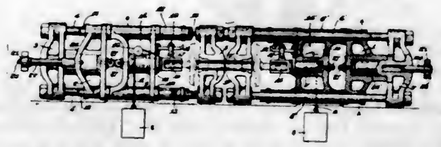
2. A car replacer comprising a body having a flat base and an upper convexed face, said upper face including a crown portion midway the ends of the body and adjacent one side thereof, the said side of the body being extended in the longitudinal direction of the body and including a convexed vertical wall, the upper face of the said body also including a downwardly inclined portion that extends from the crown portion to the upper edge of the said concaved wall, the said body portion also having a concaved socket in its lower face in vertical alinement with the crown portion of the body, a spherical bearing for seating in the concaved socket of the body and a pull member connected to the said bearing.

1,137,642. MATCH-BOX. JULIUS S. LINGNER, East Glastonbury, Conn. Filed Dec. 18, 1912. Serial No. 737,537. (Cl. 206—33.)



A match box comprising two hollow telescopic members, enlarged heads at the opposite ends of said members forming closures, each member having a longitudinal slot extending inwardly from its open end and terminating in spaced relation to its head, said members being rotatable one within the other for bringing the slots into coincidence for discharging a match and being separable for filling the smaller member with matches.

1,137,643. WHEEL-PRESS. ALBERT A. LONGAKER, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed Sept. 30, 1914. Serial No. 864,224. (Cl. 29—86.)



1. In a press for mounting and demounting wheels and axles, in combination, a pair of fixed cylinder beams, one at each end of the press, outwardly moving plungers carried by said beams, a pair of movable yokes at the center of the machine, means for connecting said yokes one to the plungers carried by the cylinder beam at the right hand end of the machine and the other to the plungers carried by the cylinder beam at the left hand end of the machine, a pair of fixed intermediate cylinder beams between said end cylinder beams and the center of the machine, plungers carried by said intermediate cylinder beams operatively acting toward the center of the machine and each other, means for tying all of said cylinder beams together, and means for operatively actuating the plungers carried by said beams.

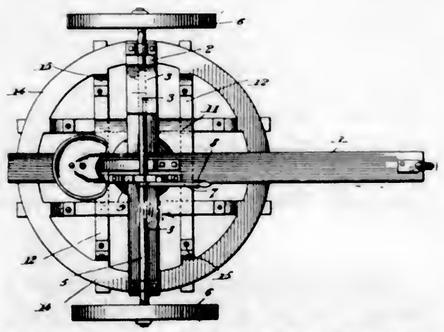
2. In a press for mounting and demounting wheels and axles, in combination, two fixed end cylinder beams, plungers carried by and operating outwardly from said beams, cross-heads actuated by said plungers, two yokes at the center of the machine, sliding rods connecting the left cross-head and yoke, sliding rods connecting the right cross-head and yoke, means for supporting and guiding said rods, an intermediate fixed cylinder beam located be-

tween each of said end cylinder beams and said yokes, plungers carried by said intermediate cylinder beams operatively acting toward the center of the machine and each other, means for admitting liquid under pressure to the cylinders carrying said plungers, and means for tying all of said cylinder beams together.

3. The combination in a wheel press of two fixed end cylinder beams, outwardly operating plungers carried by said beams, two movable yokes between said cylinder beams, means for connecting said plungers and yokes, two fixed cylinder beams one intermediate the left end cylinder beam and yoke, the other intermediate the right end cylinder beam and yoke, inwardly facing plungers carried by said intermediate cylinder beams and means for operatively actuating said plungers, all of said plungers being upon a common longitudinal axis.

4. In a machine of the character described, in combination, fixed end beams carrying cylinders, plungers carried by said cylinders, means for admitting liquid to said cylinders to move said plungers outwardly, main cross-heads carrying cylinders and being carried by said plungers, movable tie rods carried by said cross-heads, yokes carried by said tie rods, arms or cross-heads fixedly carried by said fixed end beams, plungers carried by said arms or cross-heads, entering the cylinders in the main cross-heads, and means for admitting a liquid under pressure to the cylinders in said main cross-heads, all substantially as and for the purposes set forth.

1,137,644. HARROW. SAMUEL JAMES MCCALL, Butler, Pa. Filed July 22, 1913. Serial No. 780,532. (Cl. 55—20.)



A harrow comprising a frame, a harrow member journaled at its center to the frame for rotation with relation to the same, a weight mounted upon the frame at one side of the center of the harrow member, a crank axle journaled upon the frame and passing through the weight and turnably mounted therein, and wheels journaled upon the ends of the axle.

1,137,645. GANG-PLANK. WILLIAM D. MCCORMICK, Uniontown, Pa., assignor of one-half to Robert W. Playford, Uniontown, Pa. Filed Apr. 6, 1914. Serial No. 830,016. (Cl. 14—72.)



1. In combination, a gang plank and a brace at each side thereof, each brace including a post projecting laterally from the gang plank, a lever pivotally mounted on the said post and a sill-engaging jaw pivoted to the outer end of the lever for movement in the plane thereof.

2. In combination, a gang plank and a brace at each side thereof, each brace including a post projecting laterally from the gang plank and adjustable lengthwise thereof, a lever pivotally mounted on the said post and a sill-engaging jaw pivoted to the outer end of the lever for movement in the plane thereof.

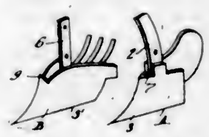
3. In combination, a gang plank and a brace at each side thereof, each brace including a clip adjustable lengthwise of the gang plank and having a laterally projecting post, a lever pivotally mounted on said post and a sill-engaging jaw pivotally connected to the outer end of said lever for movement in the plane thereof.

4. In combination, a gang plank and a brace at each side thereof, each brace comprising a U-shaped clip fitted over the side edge portion of the gang plank and adjustable lengthwise thereof and having a laterally projecting post, a lever pivoted on said post and a sill-engaging jaw pivotally connected to the outer end of said lever for movement in the plane thereof.

5. In combination, a gang plank and a brace at each side thereof, each brace comprising a U-shaped clip fitted over the side edge portion of the gang plank and adjustable lengthwise thereof and having a laterally projecting post, a lever pivoted on said post, a sill-engaging jaw pivotally connected to the outer end of said lever for movement in the plane thereof, the plank having a longitudinal row of openings at each side thereof, a clip having alining openings in its legs, and a pin for engagement through the openings in the clip and through any one of the openings in the plank.

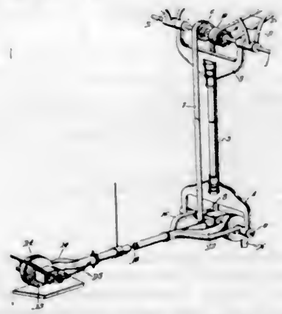
[Claim 6 not printed in the Gazette.]

1,137,646. PLOW. CHARLES MCDOWELL, Sturgis, S. D. Filed Nov. 29, 1911. Serial No. 662,958. (Cl. 97—32.)



In a breaking plow, a beam, two standards associated therewith, plow units carried by the two standards, the landsides of said units being disposed in the same plane, and one unit being disposed above and in advance of the other unit, the landside of the lower rear unit being provided with a notch at its upper front corner, and the landside of the upper front unit being extended rearwardly and seated in said notch.

1,137,647. GRINDING-MACHINE. THOMAS S. MCGUIRE, Carlisle, Pa. Filed July 28, 1914. Serial No. 853,663. (Cl. 51—4.)



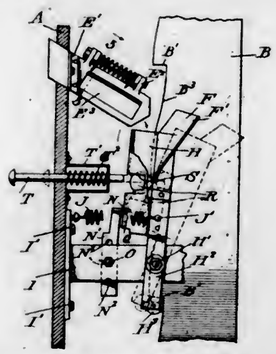
1. In a grinding device, the combination of a power shaft, a hanger suspended from the power shaft and having a yoke at its lower end, a counter-shaft mounted in said yoke, gearing connecting the power shaft and counter shaft, a tubular arm having a yoke at each end, one being supported by the counter-shaft to swing about the axis thereof, a grinding wheel having its arbor mounted in the arms of the yoke at the other end of said tubular arm, a bevel gear on the counter-shaft, a similar gear on the arbor of the grinding wheel, a connecting shaft arranged within the tubular arm and having gears directly engaging those on the grinding wheel arbor and counter-shaft, and a suction fan having its casing in communication with the tubular arm, whereby the driving connection between the counter-shaft and grinding wheel is completely inclosed and a continuous rigid suction tube extending from the grinding wheel to the fan casing is provided.

2. In a grinding device, the combination of a suitable hanger, a driving shaft journaled in bearings at the lower end of the hanger, a tubular arm having at each end a yoke one of which is supported to swing about the axis of said shaft, a grinding wheel mounted on a shaft journaled in bearings in the yoke at the other end of said arm, a shaft extending through the tubular arm and geared directly to both said driving and grinding wheel shafts, and a suction fan having its casing in communication with said tubular arm.

3. In a grinding device, the combination of a driving shaft, a tubular arm having at one end a yoke which is supported to swing about the axis of said shaft, a yoke having a tubular head rotatably fitted about the other end of said arm, a grinding wheel having its arbor journaled in bearings on the arms of said second yoke, a bevel gear on the driving shaft, a bevel gear on the grinding wheel arbor, a shaft extending through the tubular arm and provided at its ends with bevel gears meshing with those aforesaid, a hood over the grinding wheel, and a suction fan having its casing in communication with said tubular arm.

4. In a grinding device, the combination of a driving shaft, a grinding wheel, gears connected with said shaft and wheel, respectively, a connecting shaft having at its ends gears that engage directly with both said gears, a conduit surrounding said shaft throughout its length, a hood over the grinding wheel, a branch pipe connecting the hood with the main conduit, and a suction fan mounted directly on the driving shaft and having its casing in communication with said main conduit.

1,137,648. AUTOMATIC VENDING APPARATUS. SOREN MADSEN, New York, N. Y. Filed Aug. 26, 1914. Serial No. 858,736. (Cl. 194—57.)



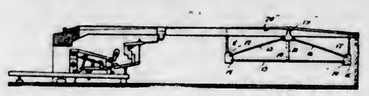
1. An automatic vending apparatus comprising a casing provided with a coin chute, a movable slotted coin-receiving member into which the coin is directed from the chute, means coöperating with said member for holding one or more coins within the latter, a plunger adopted to contact with a coin exposed in the slot of the member to cause the latter to move, and means upon said member for supporting an article carrying member.

2. An automatic vending apparatus comprising a casing provided with a coin chute, a tilting slotted member adapted to receive a coin from a chute, adjustable means for holding one or more coins within the latter, a spring-pressed plunger adapted to contact with a coin exposed in the slot of the member to cause the latter to tilt, and means upon the lower end of the tilting member for supporting an article carrying member.

3. An automatic vending apparatus comprising a casing provided with a coin chute, a tilting slotted coin-receiving member mounted within the casing, the edge of the latter having notches, an adjustable member supported within the casing and designed to engage said notches to cause the apparatus to operate with one or more coins, a spring-pressed plunger adapted to contact with a coin exposed in the slot of the member to cause said member to tilt, and means upon the member for supporting an article carrying member.

4. An automatic vending apparatus comprising a casing provided with a coin chute, a coin receiving member having a passageway extending the entire length thereof and open ended and provided with a slot in one edge thereof, an inclined portion within the member for directing a coin toward said slot, the member being provided with notches below the slot, pins projecting from said member and pivotally mounted within the casing, a spring fastened at one end to the member above its pivotal point and its other end to the wall of the casing, a bar adjustably held within the casing and having a lateral extension for engagement with one of said notches, and a spring-pressed plunger adapted to bear against a coin exposed in said slot to cause the member to tilt, and means upon the tilting member for supporting an article carrying member which is released as the latter tilts.

1,137,649. COMBINED SOUND-BOX AND BRIDGE. HERMAN MAX MAINE, Estherville, Iowa. Filed June 17, 1913. Serial No. 774,197. (Cl. 84—30.)



1. A sound box for a stringed musical instrument comprising a plurality of similar rim-sections, a bottom plate supported on the rim sections, a bridge provided with a plurality of longitudinal slots, and relatively inclined top plates having connection with the rim sections and having edges thereof fitting into the slots of the bridge.

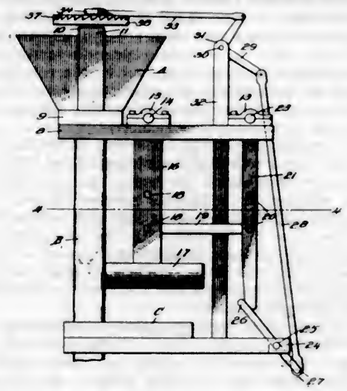
2. A sound box for a stringed musical instrument comprising rim sections, each provided with a pair of longitudinal slots, a bottom plate having opposite edges fitting into one of the slots of each rim section, a bridge provided with longitudinal slots, and top plates, one fitting into the other slot of each rim section, with portions of the plates fitting into the slots in the said bridge.

3. A sound box for a stringed musical instrument comprising similar parallel rim sections and a bridge lying between and slightly above the rim sections, a bottom plate connecting the rim sections, relatively inclined top plates connecting with the rim sections and with the bridge, and posts on the bottom plate and engaging the bridge to support the same.

1,137,650. FIRE-CLAY FEEDER. JOSEPH H. MEININGER, Strasburg, Ohio. Filed Apr. 29, 1914. Serial No. 835,250. (Cl. 193—1.)

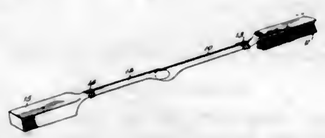
The combination with a conveyer pipe and a hopper communicating therewith, of an agitator rotatably supported within the hopper, a disk fixed to the agitator, a swinging arm supported at one side of the conveyer pipe, trip means connected with said arm, a hammer carried

by the arm and adapted to strike the conveyer pipe, means for actuating the trip means to impart movement



to the hammer, and means coöperative with the last-named means for intermittently moving the said disk.

1,137,651. TOOTH-BRUSH. ELMER METIVIER, Boston, Mass. Filed July 7, 1914. Serial No. 849,536. (Cl. 15—39.)



1. In a brush, the combination with a main handle, of a brush body thereon, an auxiliary handle mounted to swing on the main handle, a cap, and means on the main handle and auxiliary handle and adapted to be engaged by the cap to hold the same in locked relation to the said main and auxiliary handles and hold the said handles in locked relation.

2. In a brush, the combination with a handle, of a brush body thereon, an auxiliary handle, and means for association with the said main handle and auxiliary handle for holding the same in relatively locked position, said means forming a covering for the said brush body.

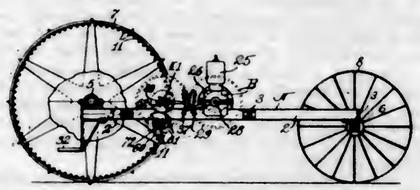
3. In a brush, the combination with a brush body, of a handle carrying the brush body, an auxiliary handle on the first mentioned handle, a threaded portion on the first mentioned handle, a threaded portion on the auxiliary handle and adapted to be alined with the threaded portion of the first mentioned handle, and a cap for threaded engagement with the threaded portions of the said handles.

4. In combination with a brush handle, a second handle mounted to swing on the first mentioned handle, a cap, and relatively coöperating means on each of the handles for holding the cap in locked relation thereto.

5. A brush comprising a plurality of handles relatively connected to fold upon one another, a brush body on one of said handles, and means encircling said handles and forming a covering for said brush body.

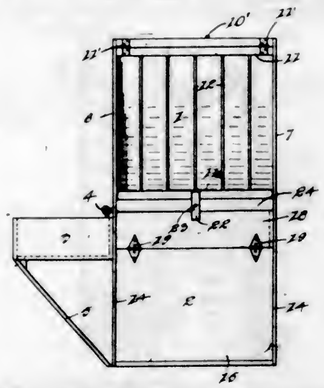
1,137,652. TRACTOR. DANIEL MEYER, Morris, Minn. Filed Apr. 14, 1913. Serial No. 760,892. (Cl. 21—114.)

1. In a self propelled vehicle, a supporting frame, carrying wheels for said frame, one of which forming a propelling element and being freely journaled, a prime mover carried by said frame, a drive shaft journaled on said frame parallel to the axis of said propelling element, said propelling element carrying gear teeth adjacent its rim, a pinion on said shaft having straight teeth meshing with the teeth on said driving element, a counter shaft journaled on said frame, whose axis lies parallel with the axis of said shaft, a pinion on said counter shaft having straight teeth meshing with the teeth on said driving element, a train of gearing carried by said frame and connecting said prime mover with said shaft and counter shaft, the axes of rotation of the gears constituting said train lying parallel with the axes of said prime mover, shaft and counter shaft, clutches carried by said shaft and counter shaft, and adapted to communicate motion from said train of gearing to said shaft and counter shaft and means for shifting said clutches simultaneously into and out of connection with said gears whereby motion is transmitted to said driving element in a direct manner to revolve it either in forward or backward direction.



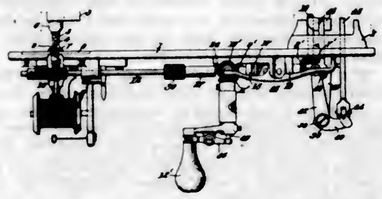
2. In a self propelled vehicle, a supporting frame, carrying wheels for said frame, a pair of which are adapted to propel said vehicle and are freely journaled upon said frame, a prime mover carried by said frame, differential gearing operatively connected with said prime mover, a pair of main shafts journaled on said frame parallel to the axis of said propelling wheels and connected with said differential gearing to be driven thereby, pinions carried by the outer ends of said shafts, counter shafts journaled upon said frame in co-axial alinement and lying parallel to the axis of said main shafts, gear teeth carried by the inner surfaces of the rims of said propelling wheels with which the teeth of said pinions are adapted to mesh, means carried by each of said main shafts for driving one of said counter shafts and clutches interposed between each of said main shafts and its driven counter shaft and adapted to communicate motion to drive either said main shafts or its counter shaft, whereby the propelling wheels are adapted to be revolved in either a forward or backward direction.

1,137,653. FEED-RACK. JOHN A. MURR, Cohutta, Ga. Filed Apr. 13, 1914. Serial No. 831,577. (Cl. 119—58.)



A feeding device, including a hay rack comprising a casing having a front wall composed of a plurality of spaced bars, a foraminous bottom in the casing, the front wall of the casing being hinged at the top, a seed receiving chamber beneath the hay rack a hinged door in the front wall of the seed chamber, a turn button arranged to hold both the front wall of the hay rack and the door of the seed chamber closed and a removable grain box secured to the device at the top of the seed chamber.

1,137,654. SEWING-MACHINE. WALTER MYERS, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Sept. 27, 1913. Serial No. 792,107. (Cl. 112—7.)



1. In a sewing machine, the combination with a universal feed-directing mechanism, a stitch-forming mechanism including an open-eyed needle and thread-looper, and means for actuating said mechanisms including a thread-looper-actuating shaft, of a clutch mechanism comprising coacting forked members, one of which is adjustable axially and in the direction of its length for maintaining given relative adjustments of said thread-looper and clutch mechanism and permitting their relative adjustment for effecting stitches of different character.

2. In a sewing machine, the combination with a universal feed-directing mechanism, a stitch-forming mechanism including an open-eyed needle and thread-looper, and means for actuating said mechanisms including a thread-looper-actuating shaft, of a resiliently controlled clutch mechanism comprising coacting forked members, one of which is adjustable axially and in the direction of its length for maintaining given relative adjustments of said clutch mechanism and thread-looper and permitting their relative adjustment for effecting stitches of different character.

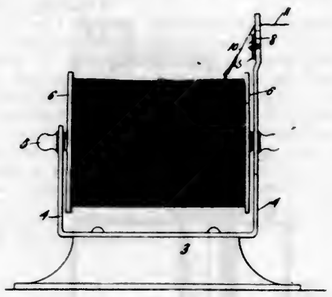
3. In a sewing machine, the combination with a universal feed-directing mechanism, a stitch-forming mechanism including an open-eyed needle and thread-looper, and means for actuating said mechanisms including a thread-looper-actuating shaft, of means including a spring-controlled clutch mechanism for maintaining given relative adjustments of said thread-looper and clutch mechanism and permitting their relative adjustment for effecting stitches of different character.

4. In a sewing machine, the combination with a universal feed-directing mechanism, a stitch-forming mechanism including an open-eyed needle and thread-looper, and means for actuating said mechanisms including a thread-looper-actuating shaft, of means including a spring-controlled clutch mechanism located between said shaft and feed-directing mechanism for maintaining given relative adjustments of said thread-looper and clutch mechanism and permitting their relative adjustment for stitches of different character.

5. In a sewing machine, the combination with a universal feed-directing mechanism, a stitch-forming mechanism including an open-eyed needle and thread-looper, and means for actuating said mechanisms including a thread-looper-actuating shaft, of a clutch mechanism including coacting forked members carried by said shaft for maintaining given relative adjustments of the clutch mechanism and said feed-directing mechanism and permitting their relative adjustment for effecting stitches of different character.

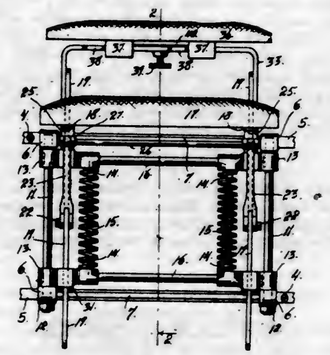
1,137,655. HOLDER AND CUTTER. MAX NEUBER, New York, N. Y. Filed Sept. 30, 1911. Serial No. 652,140. (Cl. 242—142.)

A device of the character described comprising a U-shaped support provided with an axis and a spool of tying material adapted to be mounted therein, one leg of said support projected upwardly beyond said spool and provided at its extremity with a cut away portion through



which said tying material may be introduced, and a detachable knife secured at the base of said cut away portion adapted to cut said tying material.

1,137,656. SPRING-SEAT. JOSEPH P. NICHOLLS, Denver, Colo. Filed Oct. 23, 1912. Serial No. 727,317. (Cl. 155—25.)



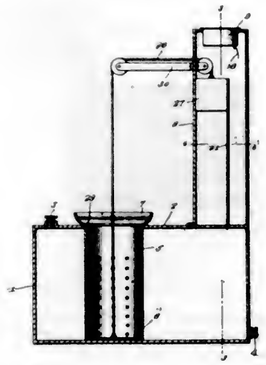
1. In combination, a support, a member mounted upon said support, a second member arranged directly above the first, and slidable upon the support, a spring interposed between said members, a seat frame supported by said upper member and extending downwardly through an opening formed in the lower member, a portion of the frame below said opening having perforations therein, and means adapted to be inserted in said perforations to adjust the resilience of the spring.

2. In combination, a vertically disposed supporting frame, two horizontal bars arranged to slide vertically upon said frame, compression springs mounted between said bars, the latter having vertical alining openings near their extremities, rods slidable through said openings, means for adjustably supporting said rods, from the upper bar, and a seat mounted upon said rods.

1,137,657. EGG-BOILER. JOHN F. NICHOLS, San Francisco, Cal. Filed Feb. 17, 1914. Serial No. 819,247. (Cl. 161—16.)

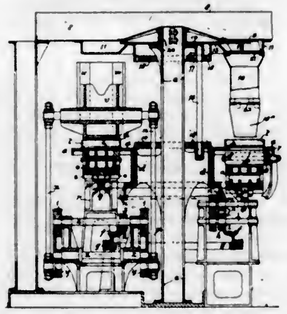
1. In an egg boiler, a tank having a top provided with an opening therein, a foraminous receptacle arranged within the tank and having its lower end resting on the bottom of the tank, the other end of the receptacle extending above the tank and flared to provide an egg receiving mouth, an egg supporting member slidably arranged within the receptacle and normally resting upon the bottom of the tank, and means for causing, at a

predetermined time, the travel of the egg supporting member toward the egg receiving mouth on the receptacle.



2. In an egg boiler, a tank having a top provided with an opening therein, a foraminous receptacle arranged within the tank and having its lower end resting on the bottom of the tank, the other end of the receptacle extending above the tank and flared to provide an egg receiving mouth, an egg supporting member slidably arranged within the receptacle and normally resting upon the bottom of the tank, and means for causing, at a predetermined time, the travel of the egg supporting member toward the egg receiving mouth on the receptacle, and means carried by the receptacle for limiting the upward movement of the egg supporting member.

1,137,658. FOUNDRY MOLDING-MACHINE. WILLIAM DAVEY ODDY, Leeds, England, assignor of one-half to Henry Richmond and Sons, Limited, Leeds, England. Filed Sept. 15, 1913. Serial No. 789,763. (Cl. 22—21.)



1. In a foundry molding machine, the combination of a rotatable table having a series of openings, mechanism for rotating said table adapted to temporarily stop the same during each rotation as many times as the number of such openings, provided with patterns and individually fitting such openings, mold boxes surrounding the latter, means for automatically applying sand to said patterns and means for pressing the sand therein and completing the mold, these means for filling and pressing being arranged for alternative action to supply and press successive layers of sand in order that all parts of the filling may be perfectly packed during a rotation of the table.

2. In combination with an intermittently rotated table provided with openings, mold boxes adapted to surround the same, pattern plates fitting said openings, spouts for suppiying the mold box with a layer of sand corresponding to each pause in rotation, presses arranged alternately with respect to said spouts to act on each layer after it is supplied and means for lowering each of said pattern plates from its opening after the work of filling and pressing has been completed.

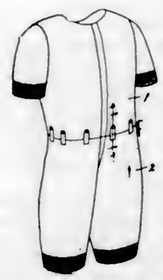
3. In combination with a mold-carrying table and mechanism for rotating it, with several stops during each rotation, means for supplying a layer of sand to each mold box, means for pressing each layer at each stop after it is thus supplied and helping to form the upper part of the mold, pattern plates carried by said table and constituting the bottoms of the mold boxes and means for automatically removing said pattern plates after such pressure for the purpose set forth.

4. In a foundry molding machine, the combination of an intermittently rotated table provided with three or more openings, a succession of vertically movable bottom pattern plates, fitting said openings, two or more automatically controlled sand delivery chutes and two or more succeeding presses alternating with said chutes and pressing plates attached to said presses, substantially as and for the purpose set forth.

5. In a foundry molding machine the combination of an intermittently rotated table provided with a series of openings, with vertically movable bottom pattern plates fitting in said openings respectively, mold boxes each of which surrounds one of said openings, actuating gearing for the press below mentioned, a table driving rack, a circular first motion rack, so-called mutilated gearing between the said table driving rack and said circular first motion rack, and also between the press actuating gearing and said circular rack, a sand supply tank or receptacle, an automatically controlled delivery chute from said tank to the top of each mold box, a press or pressing device situated between each pair of successive delivery chutes and after the last delivery chute, a pattern plate supporting race having a depressed portion immediately after the last press, and a sweeping brush situated above the pressing plate when the latter is on the depressed portion of said race; all substantially as and for the purpose of obtaining greater uniformity in the density of the sand by filling and pressing the sand into and in the mold boxes simultaneously in successive stages.

[Claims 6 to 9 not printed in the Gazette.]

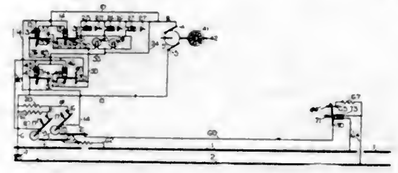
1,137,659. UNDERWEAR. ROZIER DORR OILAR, Indianapolis, Ind. Filed June 11, 1913. Serial No. 772,967. (Cl. 2—144.)



1. In a union garment structure of the class described, an upper part, a lower part having the upper edge thereof registering with the lower end of the upper part, and means for connecting said parts together end to end.

2. In a union garment structure of the class described, a shirt structure, a pants structure, said pants structure being arranged end to end with said shirt structure, the upper edge of the pants contacting with the lower edge of the shirt and hook and eye connecting means connecting said shirt structure and said pants structure together.

1,137,660. AUTOMATIC ELECTRICALLY-ACTUATED TRAIN-CONTROLLING SYSTEM. EDWARD L. ORCUTT, Somerville, Mass.; Fred A. Maddox, Medford, Mass., and Elmer N. Hutchins, Somerville, Mass., executors of said Orcutt, deceased. Filed July 9, 1909. Serial No. 506,850. (Cl. 246—27.)

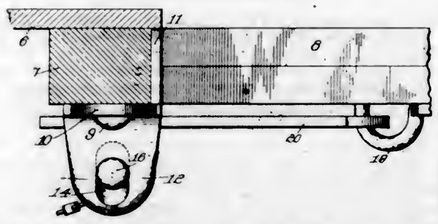


1. In a train-controlling system, an open track circuit, an open actuating circuit, a track-circuit charging-circuit arranged to be looped into said track circuit, an actuating-circuit charging-circuit arranged to be looped into said actuating circuit, a closed train-controlling circuit, means operated by the over-energization of said actuating-circuit charging-circuit for opening said train-controlling circuit, and means associated with said track circuit for controlling said actuating circuit.

2. In a train-controlling system, an open track circuit, an open actuating circuit, a track-circuit charging-circuit arranged to be looped into said track circuit, an actuating-circuit charging-circuit arranged to be looped into said actuating circuit, a closed train-controlling circuit, means operated by the over-energization of said actuating-circuit charging-circuit for opening said train-controlling circuit, and means associated with said track circuit for varying the resistance of said actuating circuit.

3. In a train-controlling system, an open track-circuit, an open actuating-circuit, a track-circuit charging-circuit arranged to be looped into said track-circuit, an actuating-circuit charging-circuit arranged to be looped into said actuating-circuit, a closed train-controlling-circuit, means operated by the over-energization of said track-circuit charging-circuit for opening said train-controlling-circuit, and means associated with said track-circuit for controlling said actuating-circuit.

1,137,661. CAR-DOOR FASTENER. WILLIAM V. OSBORNE, Racine, Wis. Filed May 7, 1914. Serial No. 836,898. (Cl. 70—23.)



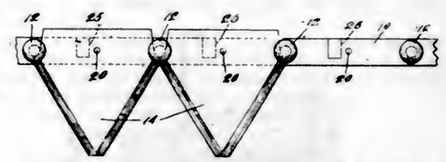
1. A car door fastener comprising an escutcheon plate arranged to be carried by a door frame, an opening in the escutcheon plate, a pair of lugs carried by the escutcheon plate and disposed on opposite sides of said opening, an aperture in each of said lugs, the front and rear edges of the aperture in the upper lug being chamfered on lines passing through the opening in the escutcheon plate, and a pin arranged to be inserted through the opening in the escutcheon plate, said pin provided with a shoulder adapted to rest on the lower lug.

2. A car door fastener comprising in combination an escutcheon plate, a pair of substantially parallel lugs projecting from the front face of said escutcheon plate, an aperture in each of said lugs, a seal pin passing through both of said apertures and provided with a shoulder arranged to rest on the lower lug, a transverse opening through said seal pin above the lower lug, a transverse opening through said seal pin below the lower lug, and a longitudinal opening through the pin connecting said transverse openings.

3. A car door fastener comprising an escutcheon plate, a pair of lugs projecting therefrom at right angles thereto, an opening in the escutcheon plate between said lugs, a seal pin, and apertures in said lugs, the aperture in one of said lugs having its front and rear edges chamfered.

4. A car door fastener comprising an escutcheon plate, a pair of lugs projecting therefrom, an aperture in each of said lugs, a seal pin passing through said lugs and comprising a portion adapted to rest upon one of said lugs, said seal pin provided with an opening extending longitudinally and laterally therethrough and terminating on opposite sides of one of said lugs when the seal pin is in locking position.

1,137,662. LOCKING MEANS FOR MOWING-MACHINE BLADES. BERTIE C. PARSONS, Boston, Mass. Filed July 25, 1914. Serial No. 853,028. (Cl. 56—44.)



1. A mowing machine cutter bar having headed elements secured thereto with the heads spaced from the blade receiving surface of the bar, resilient strips secured to the opposing surface of the bar and provided at an intermediate point with a pin adapted for projection through an opening formed in the bar to project said pin beyond the plate receiving surface of the bar, in combination with cutter blades having the shank portions reduced to a width approximately equaling the distance between the shanks of adjacent headed elements, the shanks of the cutter blades being in part formed to bear against the pins of the elements throughout a portion of the rounded surfaces, each of said plates being formed with an opening to receive said pin.

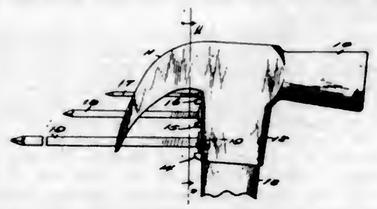
2. A mowing machine cutter bar having headed elements secured thereto with the heads spaced from the blade receiving surface of the bar, resilient strips secured to the opposing surface of the bar and provided at an intermediate point with a pin adapted for projection through an opening formed in the bar to project said pin beyond the plate receiving surface of the bar, in combination with cutter blades having the shank portions reduced to a width approximately equaling the distance between the shanks of adjacent headed elements, the shanks of the cutterblades being in part formed to bear against the pins of the elements throughout a portion of the rounded surfaces, each of said plates being formed with an opening to receive said pin, that surface of the bar underlying the strip being formed with recesses to permit the insertion of means for operating the strip.

1,137,663. CLAW-HAMMER. GEORGE W. RENTON, Brooklyn, N. Y. Filed Dec. 27, 1913. Serial No. 809,017. (Cl. 145—30.)

1. A hammer head embodying a socket, curved claws projecting therefrom and having their inner faces converging toward the socket, and ribs on the face of the socket producing interposed seats decreasing in size toward said claws, the seats proportioned and disposed to receive the heads of nails whose shanks are clamped between the claws at points opposite said seats respectively.

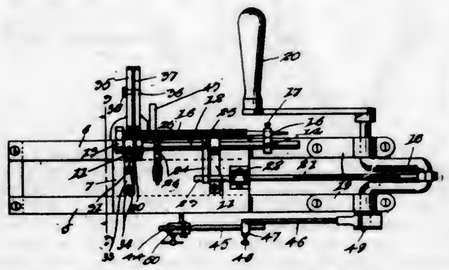
2. A hammer head embodying a socket, curved claws projecting therefrom and having their inner faces converging toward the socket, and a series of ribs across the

face of the socket spaced from each other by increasing distances as they recede from said claws, whereby different sized seats are formed on the socket between the ribs,



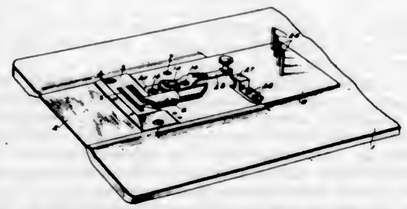
each seat being of such height that it loosely receives the head of a nail whose shank is of a size to bite between said claws at a point opposite said seat.

1,137,664. SAW-SHARPENING MACHINE. GEORGE E. RHODES, Jacksonville, Fla., assignor of one-half to Elbridge L. Rhodes, Whitehouse, Fla. Filed Feb. 13, 1914. Serial No. 818,512. (Cl. 76—35.)



A saw sharpening machine, comprising a support, a sharpening element reciprocally mounted on said support, a saw holding means carried by said support, means for holding saws therein, a crank shaft carried by said support, a connecting rod pivotally attached to said sharpening element and its free terminal to said crank shaft, means for rotating said crank shaft thereon, an arm eccentrically mounted on one end of said shaft, an apertured extension mounted on one end of said arm, a second rod placed through said aperture and firmly held by a set screw placed therein, said second rod being provided at its other terminal with an adjustable link, said link connecting said arm to a vertical shaft, a set screw carried by said link to hold the shaft in an adjusted position, said shaft having a pawl mounted on its lower end to adjust and regulate the position of the saw teeth.

1,137,665. BINDING ATTACHMENT FOR SEWING-MACHINES. ALBERT RONTKE, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Apr. 18, 1910. Serial No. 556,108. (Cl. 112—1.)



1. In a binding attachment for sewing machines, a binder-head provided with a convexed braid-guiding element, in combination with a braid-guiding member having its guide-wall arranged transverse to the guide-wall of said braid-guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located at the delivery end of said binder-head and between the oppositely arranged guide-walls of said braid-guiding element.

2. In a binding attachment for sewing machines, a binder-head provided with a convexed braid-guiding element, in combination with a concaved braid-guiding member having its guide-wall arranged transverse to the guide-wall of said braid-guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located at the delivery end of said binder-head and between the oppositely arranged guide-walls of said braid-guiding element.
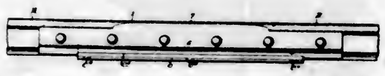
3. In a binding attachment for sewing machines, a binder-head provided with a convexed braid-guiding element having at its delivery end an edge-guide, in combination with a braid-guiding member having its guide-wall arranged transverse to the guide-wall of said braid-guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located at the delivery end of said binder-head and between the oppositely arranged guide-walls of said braid-guiding element.

4. In a binding attachment for sewing machines, a binder-head notched at its delivery end and provided with a guiding element having its delivery end formed obliquely with respect to its length, and a guiding member arranged transversely with respect to said guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located between the oppositely arranged guide-walls of said guiding element.

5. In a binding attachment for sewing machines, a binder-head comprising a convexed guiding element for guiding the binding in a direction transverse to the line of feed of the material being bound, the delivery end of said guiding element being formed obliquely with respect to its length, said binder-head being notched for the passage of the binding in a direction corresponding with said line of feed, and a guiding member mounted in said notch and adjustable with respect to and in the direction of the length of said convexed guiding element and coacting with the latter for varying the capacity of said binder-head.

[Claims 6 to 11 not printed in the Gazette.]

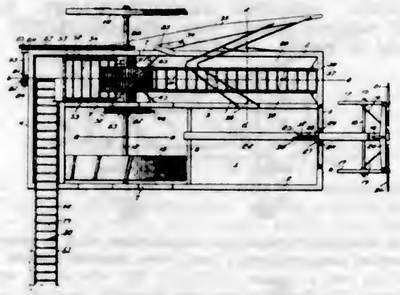
1,137,666. RAIL-JOINT. JAMES C. ROOT, Getchell, Wash. Filed May 21, 1913. Serial No. 769,026. (Cl. 239—3.)



In combination, two abutting rails, said rails having the heads tapered to form a recess at each side of the rails, said heads being formed with upwardly and outwardly inclined faces, two splice members having surfaces adapted to fit snugly in said recesses, said splice members having inclined sides to conform to the inclined faces of said rail heads, the top of said rail heads and splice members being convex transversely, means for holding said splice members against said rails, lateral ribs formed upon said splice members and arranged to fit under the heads of said rails, and flanges formed upon said splice members and engaging the base flanges of said rails.

1,137,667. CORN-CUTTING MACHINE. CLARENCE ROYER, Newton, Kans. Filed Feb. 27, 1914. Serial No. 821,501. (Cl. 56—110.)

1. In a machine of the class described a main frame, standing corn stalk cutting means, an axle shaft for the main frame, driving and supporting wheels on said shaft, an ensilage cutting cylinder on and revolved by said shaft, a ledger roller mounted in the frame and arranged below the cutting cylinder, and means to feed the cut stalks to said cutting cylinder and ledger roller.



2. In a machine of the class described a main frame, standing corn stalk cutting means, an axle shaft for the main frame, driving and supporting wheels on said shaft, an ensilage cutting cylinder on and revolved by said shaft, a ledger roller mounted in the frame and arranged below the cutting cylinder, means to feed the cut stalks to said cutting cylinder and ledger roller and means to vertically adjust the axle shaft and thereby adjust the cutting cylinder with respect to the ledger roller.

3. In a machine of the class described a main frame, standing corn stalk cutting means carried by the said frame, a feed carrier, means to arrange the cut stalks on said carrier, an axle shaft for the said frame, driving and supporting wheels on said shaft, an ensilage cutting cylinder on and revolved by said shaft, and to which the cut stalks are fed by the carrier and a ledger roller mounted in the said frame and arranged below the cutting cylinder.

4. In a machine of the class described a main frame, standing corn stalk cutting means carried by the main frame, a feed carrier, means to arrange the cut stalks on said carrier, an axle shaft for the said frame, driving and supporting wheels on said shaft, an ensilage cutting cylinder on and revolved by said shaft and to which the cut stalks are fed by the carrier and a ledger roller mounted in the said frame and arranged below the cutting cylinder, said cutting cylinder having peripheral, spaced knives and being open at its ends to permit the passage of ensilage inwardly through one side of the cylinder and outwardly therefrom at its open ends.

5. In a machine of the class described a main frame, standing corn stalk cutting means carried by the main frame, a feed carrier, means to arrange the cut stalks on said carrier, an axle shaft for the said frame, driving and supporting wheels on said shaft, an ensilage cutting cylinder on and revolved by said shaft and to which the cut stalks are fed by the carrier and a ledger roller mounted in the said frame and arranged below the cutting cylinder, said cutting cylinder having peripheral, spaced knives and being open at its ends to permit the passage of ensilage inwardly through one side of the cylinder and outwardly therefrom at its open ends, and a delivery carrier below said cutting cylinder and in rear of the ledger roller and on to which the cutting cylinder discharges.

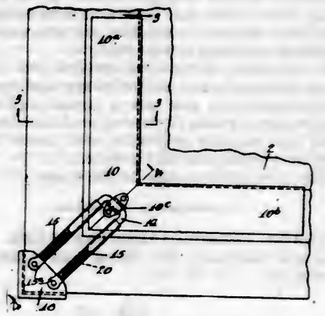
[Claim 6 not printed in the Gazette.]

1,137,668. RAIL-CLOTH PROTECTOR FOR BILLIARD-TABLES. FRANK F. SCHERZINGER, Chicago, Ill. Filed Nov. 9, 1914. Serial No. 871,061. (Cl. 46—11.)

1. In a rail-cloth protector, comprising a plate adapted to protrude beyond the edge of the cushion to be protected, having a flange adapted to engage the edge of such cushion.

2. In a rail-cloth protector, comprising a plate of angular form having a flange on one edge thereof adapted to engage the edge of the cushion to be protected.

3. In a rail-cloth protector, comprising a plate adapted to overlay and protrude beyond the cushion to be protected, and means for securing said plate in position.

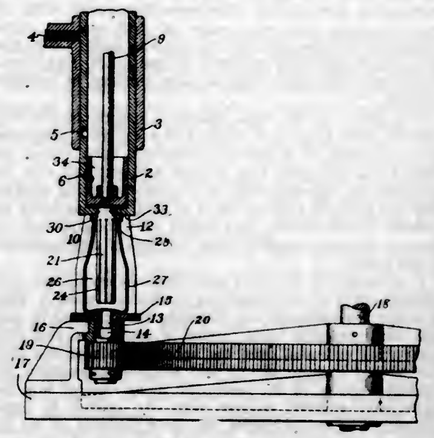


4. In a rail-cloth protector, comprising a plate of angular form adapted to overlay and protrude beyond the cushion to be protected, and means for securing said plate in position.

5. In a rail-cloth protector, comprising a plate adapted to overlay the cushion to be protected, having a flange engaging the edge thereof, a spring clamp adapted to hold said flange in engagement with said cushion.

[Claims 6 to 10 not printed in the Gazette.]

1,137,669. PULP-BOTTLE MACHINE. ERICH SCHINSCHOLL, Ashland, N. H., assignor to Herman Elsas, trustee, New York, N. Y. Filed Apr. 16, 1913. Serial No. 761,511. (Cl. 92—58.)



1. In a machine of the class specified the combination of a mold, a distributing tube having discharge openings therein, said openings varying in size relatively to the size of that portion of the mold opposite thereto respectively, and means for supplying liquid pulp to said tube.

2. In a machine of the class specified the combination of a mold, a distributing tube having discharge openings therein, a distributing stem within said tube, said stem being provided with delivery channels opposite said discharge openings in the tube, and means for supplying liquid pulp to said tube.

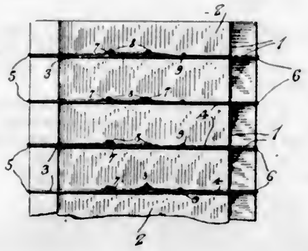
3. In a machine of the class specified the combination of a pulp chamber, a mold, a distributing tube, and a distributing stem within said tube, said stem being provided with delivery channels connecting the pulp chamber with the discharge openings in said tube.

4. In a machine of the class specified the combination of a pulp chamber, a mold, a distributing tube, discharge openings in said tube, the sizes of said openings being proportionate to the contour of said mold, and a distributing stem within said tube, said stem being provided with delivery channels connecting the pulp chamber with the discharge openings in said tube.

5. In a machine of the class specified the combination of a pulp chamber having a distributing tube fixed thereto, discharge openings in said tube, a piston in said chamber, a rotatable mold, means for moving said chamber for causing said tube to enter said mold, and means for moving said piston relatively to said chamber.

[Claims 6 to 10 not printed in the Gazette.]

1,137,670. STAIR-CARPET FASTENER. HENRY C. SCHRAMM, Baltimore, Md. Filed June 8, 1914. Serial No. 843,852. (Cl. 16—26.)



1. A device of the class described comprising the combination with a stair covering; of a fastener formed in overlapping sections for transverse engagement with the stair covering, the outer ends of said sections being formed for engagement over the opposite ends of the steps upon which the stair covering is positioned, and means for locking the inner ends of said sections in adjusted position.

2. A device of the class described comprising the combination with a flight of stairs and a covering positioned upon the same, of a fastener positioned upon one of the steps along the inner edge thereof and engaged over the covering, the opposite ends of the fastener being engaged over the opposite ends of the step, said fastener being adjustable longitudinally, and means for retaining the fastener in adjusted position and preventing disengagement of the same.

3. A device of the class described comprising the combination with a stair covering positioned upon a flight of stairs; of fasteners for fastening the covering in position, said fasteners being formed in sections having their outer ends extended over the opposite ends of the steps and turned back to secure said sections in position and prevent removal of the same, the inner ends of said sections being slidably engaged with one another to adjust the length of the fasteners, the main portions of the sections of said fasteners being engaged against the outer face of the covering to clamp the same in engagement with the steps and prevent movement of said covering, and means for locking the inner ends of the sections of each fastener together and preventing independent longitudinal movement of said fastener.

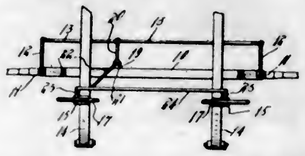
1,137,671. DRYING OF PATENT-LEATHER. HEINRICH SCHULZ, Worms, Germany. Filed Mar. 26, 1915. Serial No. 17,302. (Cl. 149—7.)

1. The herein-described method of drying patent leather which comprises subjecting the leather to the action of light and ammonia vapors.

2. The herein-described method of drying patent leather which comprises simultaneously subjecting the leather to the action of light and ammonia vapors.

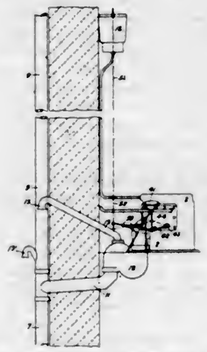
3. The herein-described method of drying patent leather which consists in first drying the leather in an oven and then subjecting the leather to the simultaneous action of light and ammonia vapors.

1,137,672. DIRIGIBLE AUTOMOBILE-LAMP. CLYDE B. SHERIDAN, Everett, Wash. Filed Oct. 16, 1913. Serial No. 795,567. (Cl. 240—62.)



In a motor vehicle, the combination with a rotatably mounted lamp bracket, a transverse steering knuckle connecting rod, a bracket carried by the axle of the vehicle between the knuckles, an arm pivotally mounted in the bracket and pivotally connected to the said rod, and a flexible shaft connected at one end to the said lamp bracket post, and at its other end with the pivot of the said arm.

1,137,673. SEWERAGE SYSTEM. ISAAC SHONE, Westminster, London, England. Filed Feb. 26, 1912. Serial No. 680,031. (Cl. 4—21.)



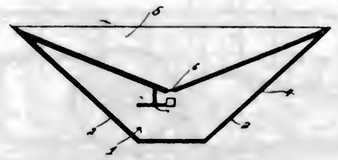
1. A sewerage system comprising trapped house fixtures, a rain water pipe formed with apertures therein for the admission of fresh air said water pipe being directly connected with the said trapped fixtures, and means for rapidly discharging the contents of the fixtures and filling the rain water pipe full bore.

2. A sewerage system comprising trapped house fixtures; a rainwater pipe directly connected with the house fixtures, and inverted siphon shaped air inlet pipes, said latter pipes being attached to the rain water pipe.

3. A sewerage system comprising house fixtures with traps, inverted siphon shaped air inlet pipes attached to the traps, a rain water pipe connected with the traps, and inverted siphon shaped inlet pipes attached to the rain water pipes.

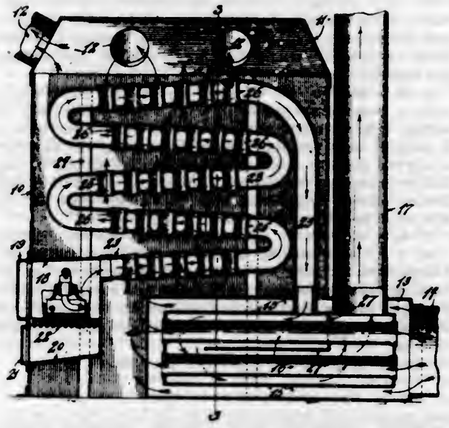
1,137,674. RAIN-INDICATOR. CLARENCE E. SMITH, Brownsburg, Ind. Filed Apr. 15, 1914. Serial No. 832,039. (Cl. 177—318.)

A device of the class described comprising a casing having a depressed top with an opening in its lowermost portion, a pivoted contact member within said casing, means carried by said casing for supporting said pivoted contact member, a stationary contact member spaced from said pivoted contact member, a cup formed on said pivoted contact member and positioned beneath said opening, whereby drops of rain falling upon the top of the casing will be conducted to the cup to cause the same to move downwardly and thereby engage the pivoted contact member with the stationary contact member, a battery, electrical connections between one pole of said battery and the stationary contact member, electrical connections between the opposite pole of said battery and the pivoted



contact member, whereby a circuit will be completed upon engagement of the movable contact member with the stationary contact member, and a signal within the circuit and adapted to be operated upon engagement of said pivoted contact member with the said stationary contact member.

1,137,675. HEATING APPARATUS. ROBERT G. SPEER, St. Louis, Mo. Filed July 11, 1914. Serial No. 850,315. (Cl. 126—104.)



1. In a heating apparatus, a housing, a fire box located therein, a box located in the rear lower portion of the housing, an air pipe leading to said box, a second box located within the first mentioned box, a zig-zag pipe leading from the fire box upwardly through the housing, and thence downwardly to the second mentioned box, and a series of short pipes located in the legs of the zig-zag pipe.

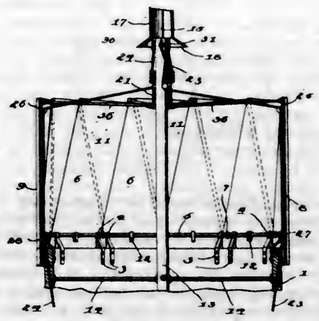
2. In a heating apparatus, a housing, a fire box located therein, a box located in the rear lower portion of the housing, an air pipe leading to said box, a second box located within the first mentioned box, a zig-zag pipe leading from the fire box upwardly through the housing and thence downwardly to the second mentioned box, a series of short pipes located in the legs of the zig-zag pipe, and a smoke pipe leading from the second mentioned box.

3. In a heating apparatus, a housing, a fire box located in the lower portion thereof, a box located in the rear lower portion thereof, a series of tubes extending through said box for conveying fresh air to the interior of the housing, a zig-zag pipe leading upwardly through the housing from the fire box, and thence downwardly to the box in the rear lower portion of said housing, and a series of air tubes seated in the legs of the zig-zag pipe.

4. In an apparatus of the class described, a housing, a fire box located therein, means within the housing for conducting the products of combustion from the fire box backwardly and forwardly and upwardly through the housing, a box located in the rear lower portion of the housing, which box receives the products of combustion after they have passed upwardly through the housing, and means for conveying fresh air through the box to initially heat said air.

5. In an apparatus of the class described, a housing, a fire box located therein, means within the housing for conducting the products of combustion from the fire box backwardly and forwardly and upwardly through the housing, a box located in the rear lower portion of the housing, which box receives the products of combustion after they have passed upwardly through the housing, means for conveying fresh air through the box to initially heat said air, and a smoke pipe leading from said box.

1,137,676. SILO. CHRISTIAN J. STAHLY, Goshen, Ind. Filed Mar. 30, 1914. Serial No. 828,345. (Cl. 20—1.4.)



1. In a silo, a conical, sectional roof mounted thereon, pivotal connections between the sections and the silo, a rod passing through the roof and silo centrally thereof, a cap arranged to cover the apex of the roof and slidably mounted upon the rod, a slidable member carried by the rod, a slidable connection between the cap and the slidable member, means to elevate the cap independent of the slidable member, and to elevate the cap and the slidable member simultaneously, and means connecting the slidable member and the sections whereby when the slidable member is raised the sections will be forced outwardly into circular, extension forming position.

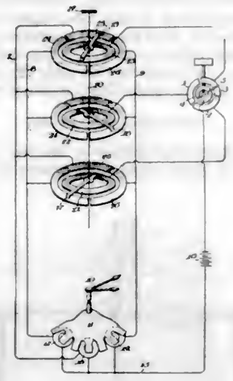
2. In a silo, a conical sectional roof mounted thereon, said sections being pivotally connected together at their longitudinal edges, pivotal connection between the sections and silo, a rod passing through the roof and silo centrally thereof, a flanged cap arranged to cover the apex of the roof and slidably mounted on the rod, a sleeve slidably mounted on the rod, a slidable connection between said sleeve and cap, flexible means to elevate the cap independent of the sleeve and to elevate the cap and sleeve simultaneously, and links pivotally connecting said sleeve to said sections, whereby, when the sleeve is raised, the sections will be forced outwardly into circular extension forming position.

1,137,677. SETTING DEVICE. WILLIAM F. STRAUB, Chicago, Ill., assignor to Electric Time Recorder Company, Chicago, Ill. Filed Dec. 9, 1912. Serial No. 735,720. (Cl. 58—24.)

1. A device of the character described having a master clock adapted to transmit impulses in rotation; a secondary clock operated thereby, line wires uniting said clocks over which said impulses are transmitted, and means interposed between said clocks to superpose on said wires additional impulses in rotation to set said secondary clock.

2. A device of the character described having a master clock adapted to transmit impulses in rotation, a sec-

ondary clock operated thereby, line wires uniting said clocks over which said impulses are transmitted, and means interposed between said clocks to superpose on said wires additional impulses in rotation to set said secondary clock, said means including a plurality of contact arms and a plurality of contact elements for each arm.



3. A device of the character described having a master clock provided with a plurality of contact segments adapted to transmit impulses in rotation, a secondary clock operated thereby, line wires uniting said clocks over which said impulses are transmitted, and means interposed between said clocks to superpose on said wires additional impulses in rotation to set said secondary clock, said means including a plurality of contact arms and a plurality of contact elements for each arm, said arms being electrically associated in a given order with the contact segments of said master clock.

4. A device of the character described having a master clock adapted to transmit impulses in rotation, a secondary clock operated thereby, line wires uniting said clocks over which said impulses are transmitted, and means to break said line wires and reconnect them in different order, said means including a plurality of synchronously movable switch arms, and a plurality of contact segments for each switch arm, corresponding segments being connected together.

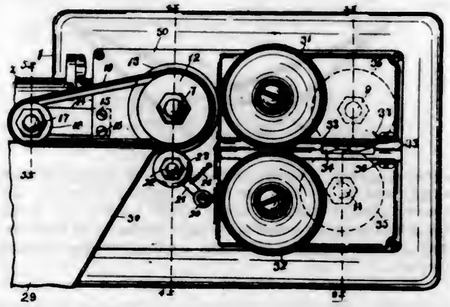
5. A device of the character described having a master clock adapted to transmit impulses in rotation, a secondary clock operated thereby, line wires uniting said clocks over which said impulses are transmitted, means interposed between said clocks to superpose on said wires additional impulses in rotation to set said secondary clock, said means including a plurality of contact arms and a plurality of contact elements for each arm, said contact arms being synchronously movable, and means for rotating said arms.

[Claim 6 not printed in the Gazette.]

1,137,678. ENVELOP-OPENING MACHINE. HENRY D. TAYLOR, Rochester, N. Y., assignor to Lightning Letter Opener Company, Rochester, N. Y., a Corporation. Filed Dec. 5, 1912. Serial No. 735,171. (Cl. 164—61.)

1. In a machine for opening envelops, the combination with a guide for directing envelops in upright positions, of a cutting mechanism embodying a pair of cutters having their effective portions traveling in the direction of the feed through the machine for operating on the lower edges of the envelops so guided to remove a thin strip from the lower edge of each envelop and feeding mechanism for moving the envelops along the guide.

2. In a machine for opening envelops, the combination with a guide arranged to direct envelops in upright positions, of a cutting mechanism for operating on the lower edges of the envelops, a feeding mechanism for moving the envelops along the guide, a hopper, and mechanism for feeding the envelops in upright positions from the hopper to the first named feeding mechanism.



3. In a machine for opening envelops, the combination with a guide arranged to direct envelops in upright positions, of a cutting mechanism for operating on the lower edges of the envelops movable along the guide, a hopper and devices for feeding the envelops in upright positions from the hopper, along the guide and to the cutting mechanism.

4. In a machine for opening envelops, the combination with a guide arranged to direct envelops, of a pair of rotary cutters having shafts provided with worm wheels, a pair of rotary feeding devices for moving the envelops along the guide to the cutters, said feeding devices having shafts provided with worm wheels, and a shaft having worms thereon coöperating with the worm wheels on the shafts of the cutters and the feeding devices.

5. In a machine for opening envelops, the combination with a guide, of cutting mechanism for operating on envelops movable along the guide, feeding and deflecting devices for moving the envelops against and along the guide, a hopper for the envelops, and mechanism for moving the envelops from the hopper to the feeding and deflecting devices.

[Claims 6 to 15 not printed in the Gazette.]

1,137,679. SHOE-BOTTOM FILLER. ANDREW THOMA, Cambridge, Mass., assignor to North American Chemical Company, Portland, Me., a Corporation of Maine. Filed Jan. 6, 1913. Serial No. 740,417. (Cl. 106—3.)

1. A shoe-bottom filler, comprising comminuted chunked, granular body-material intermixed to a doughy, plastic, freely spreadable mass with a binder containing a vegetable tarry component so that each granule is evenly coated with the binder forming a dough-like mass of a consistency normally non-fluid when cold and yet conformable to the foot when in the shoe-bottom.

2. A shoe-bottom filler, comprising comminuted body-material intermixed to a tenacious, doughy, plastic, freely spreadable consistency with a binder containing a wood tarry component and sulfur fluxed together.

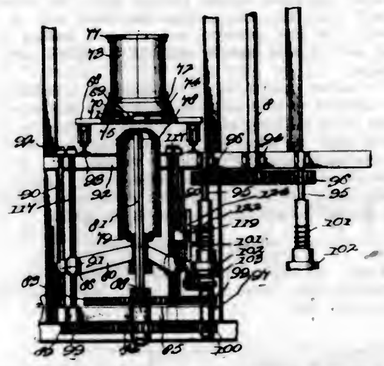
3. A shoe-bottom filler, comprising at least in part wood tar concentrated to a tenacious plastic condition and intermixed with granulated cork to a doughy, plastic, self-supporting shoe-bottom filler consistency.

4. A shoe-bottom filler, comprising a binder containing wood tar united with sulfur to a sticky light-colored condition and intermixed to a self-sustaining doughy, tenacious spreadable consistency with comminuted body-material.

5. A shoe-bottom filler, comprising a binder containing resinous material combined with sulfur and all intermixed with comminuted body-material to a stiff, doughy, plastic mass of the consistency of shoe-bottom filler.

[Claims 6 to 10 not printed in the Gazette.]

1,137,680. PIPE-MAKING MACHINE. ARTHUR C. TUNISON, Salt Lake City, Utah, assignor to Atlas Concrete Pipe Machinery Company, Salt Lake City, Utah, a Corporation of Utah. Filed July 7, 1913. Serial No. 777,796. (Cl. 25—37.)



1. In a pipe molding machine, having a mold and a core therefor, the combination of a rotatable feed tube, a delivery pipe on the lower end of the feed tube, means for supplying material to said feed tube, a tubular plunger mounted to reciprocate on said feed tube, tampers carried by said tubular plunger, means for rotating said feed tube and tubular plunger, and means for reciprocating said plunger and tampers.

2. In a pipe molding machine, having a mold and a core therefor, the combination of a centrally located rotatable feed tube, a delivery spout carried thereby, a tubular plunger mounted to reciprocate on said feed tube, tampers carried by said plunger, means for rotating said feed tube, means for reciprocating said plunger and tampers, and automatic means for controlling and making uniform the delivery of the material.

3. In a pipe molding machine, having a mold and a core therefor, the combination of a reciprocating plunger, a spring blade of resilient metal yieldingly clamped on said plunger, and a tamper head on the free end of said spring blade.

4. In a molding machine, the combination of a pipe core, a movable member, a head rotatably mounted on said member and provided with a square bore, means for securing said head to said core, means for shifting said movable member, a square shaft extending slidably through such square bore, and means for rotating said shaft to rotate said core in all shifted positions of said movable member.

5. In a molding machine, the combination of a pipe core, a movable member, a head rotatably mounted on said member and provided with a square bore, means for securing said head to said core, power-actuated means for shifting said movable member, a clutch for controlling said power-actuated means, means for yieldingly maintaining said clutch in disengaged position, manually-operated means for shifting said clutch into engaged position, a square shaft extending slidably through such square bore, and means for rotating said shaft to rotate said core in all shifted positions of said movable member.

[Claim 6 not printed in the Gazette.]

1,137,681. PROCESS OF REFINING STEEL AND PRODUCING HIGH-PHOSPHORUS SLAG. ALBERT VÖGLER, Dortmund, Germany, assignor to the Firm of Deutsch-Luxemburgische Bergwerks- und Hütten-Aktiengesellschaft, Dortmund, Germany. Filed Apr. 10, 1912. Serial No. 689,855. (Cl. 75—46.)

1. The process for the manufacture of steel low in phosphorus and a slag high in soluble phosphates in an open hearth or electric furnace, comprising partially refining the molten metal with a basic slag until the slag is high in phosphorus, then removing the phosphated slag from said furnace while retaining the steel in the furnace, adding a fresh charge of basic slag forming material substantially free from phosphorus to said partially refined steel and completing the refining process thereby removing phosphorus from said steel and forming a partially phosphated slag, and then removing the refined steel while leaving the partially phosphated slag in said furnace for the partial refining of a subsequent charge of steel.

2. A process for the manufacture of high grade steel and of slag rich in soluble phosphates in an open hearth or electric furnace, consisting in retaining in the furnace a partially phosphated slag from a prior operation, adding to the furnace a charge of unrefined metal and partially refining said metal with said slag until the latter has attained the desired percentage in soluble phosphates, then removing the finished slag by blowing while the metal bath is retained in the furnace for the finishing operation, and then completing the refining of the steel with a different slag.

3. A process for the manufacture of high grade steel and of slag rich in soluble phosphates in an open hearth or electric furnace consisting in retaining the slag on the metal bath until it has become sufficiently liquid and has attained the desired percentage in soluble phosphates, then removing the finished slag by blowing, while the metal bath is retained in the furnace, making fresh additions of slag-forming materials for removing from the metal any residual phosphorus, tapping off the finished metal from beneath the finishing slag, leaving this latter slag in the furnace in order again to enrich it with phosphoric acid by the next charge to form the finished slag of this charge which is blown off again while the metal bath is retained in the furnace for the finishing operation.

4. A process for the manufacture of high grade steel and of slag rich in soluble phosphates in a tilting furnace consisting in retaining the slag on the metal bath until it has become sufficiently liquid and has attained the desired percentage in soluble phosphates, then removing the finished slag by blowing while the metal bath is retained in the furnace, making fresh additions of slag-forming materials for removing from the metal any residual phosphorus, tilting the furnace for tapping off the finished metal from beneath the finishing slag, tilting back the furnace into its initial position, leaving the finishing slag in the furnace in order again to enrich it with phosphoric acid by the next charge to form the finished slag of this charge which is blown off again while the metal bath is retained in the furnace for the finishing operation.

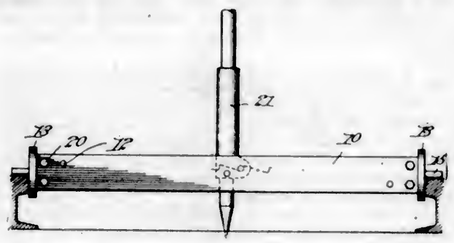
5. A process for the manufacture of high grade steel and of slag rich in soluble phosphates in a tilting furnace consisting in retaining the slag on the metal bath until it has become sufficiently liquid and has attained the desired percentage in soluble phosphates, then removing the finished slag by blowing and simultaneously tilting the furnace while the metal is retained in the furnace, tilting back the furnace into its initial position, making fresh additions of slag forming materials for removing from the metal any residual phosphorus, tilting the furnace again for tapping off the finished metal from beneath the finishing slag, tilting back the furnace into its initial position, leaving the finishing slag in the furnace in order again to enrich it with phosphoric acid by the next charge to form the finished slag of this charge which is blown off again while the metal bath is retained in the furnace for the finishing operation.

[Claims 6 and 7 not printed in the Gazette.]

1,137,682. TIE-EXTRACTOR. WILLIAM J. WADDELL, Lillington, N. C. Filed June 25, 1914. Serial No. 847,294. (Cl. 254—44.)

1. In a device of the kind described, a pair of side plates having secured thereto rack bars having oppositely disposed teeth on their upper and lower edges, end plates in engagement with said rack bars, disks secured at the ends of said side plates, pins passing through said disks

and having an enlarged portion engaging the inner faces of said disks, the inner ends of said pins positioned in said end plates, spacing blocks interposed between said disks and said end plates, a sleeve having laterally extending ears and a pin passing through said ears adapted for engagement with some of said teeth of said rack bar.



2. In a device of the kind described comprising a pair of side plates, end plates, rack bars positioned between said side plates and having their ends in engagement with said end plates, means at the ends of said side plates whereby the same can be supported on a pair of rails and a sleeve having means for engaging said rack bar, whereby a tie can be removed transversely of said rails.

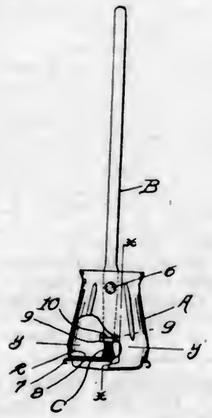
3. In a tie extractor, a rack bar, means for holding said rack bar on a pair of rails and means adapted to engage said rack bar, whereby a tie can be moved in either direction relative to said rails while said rack bar is on said rails.

4. In a tie extractor comprising a member adapted to be supported by a pair of rails, a means carried by said member adapted to engage a tie and means whereby said tie can be removed in either direction transversely of said rails while said member is on said rails.

5. In a tie extractor, a frame slidable along the rail treads, a pair of rack bars on said frame having oppositely arranged ratchet teeth on the upper and lower faces, and means whereby said frame can be moved when on said rail treads to bring either set of said ratchet teeth into an operative position.

[Claim 6 not printed in the Gazette.]

1,137,683. SEEDER. FRANCIS WHITE, Littlefork, Minn. Filed May 29, 1914. Serial No. 841,794. (Cl. 111—21.)

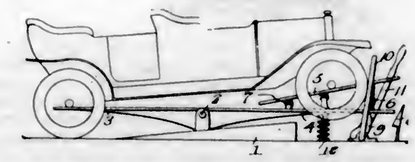


1. A seeder, comprising, in combination, a shaker adapted to form a magazine for holding seeds to be planted, said shaker having seed apertures in its lower end, and a handle pivoted above the lower portion of said receptacle and having a brush which is adapted to sweep over said apertures when said handle is swung and said shaker is oscillated upon its pivot support.

2. A seeder, comprising, in combination, a receptacle having seed passages in its lower end, an apertured slide adapted to overlap said passages to regulate their sizes, an upwardly extending handle pivoted above its lower end on said receptacle and having its lower end in close proximity to said passages and a brush carried by the lower end of said handle adapted to sweep over said passages.

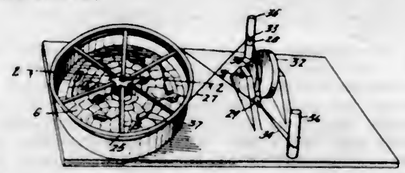
3. A seeder, comprising, in combination, a shaker receptacle adapted to hold seeds and having an apertured floor spaced above its lower end, an upwardly extending handle pivoted above its lower end on said receptacle and having its lower end in close proximity to said floor over the apertures therein, said receptacle being formed with guards below its floor to confine seeds passing through said openings to a limited zone upon the ground.

1,137,684. AUTOMOBILE-JACK. CHARLES C. WILLIAMS, Findlay, Ohio. Filed June 10, 1913. Serial No. 772,880. (Cl. 254—88.)



A jack for automobiles comprising a tilting frame including a pair of parallel members, a series of anti-friction supports on the rear portion of each member, an inclined plate reposed on said anti-friction supports, means for engaging said parallel members for holding the same in tilted position, and cushioning means for each of said members.

1,137,685. GRINDING-MILL. ROBERT M. WILLSON, Riverside, Cal. Filed July 6, 1914. Serial No. 849,145. (Cl. 83—45.)



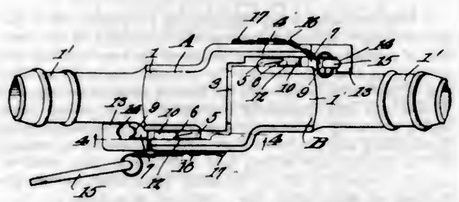
1. In a grinding mill, the combination of a horizontally revoluble member, an annular wall on which the outer portion of the revoluble member is supported, a plurality of drags carried by the revoluble member for grinding materials within the space inclosed by the wall, and means through which the ground materials may be discharged centrally of said space.

2. An arrastre, comprising an annular wall, a post disposed centrally of the space inclosed by the wall, a spindle on said post, an arrastre wheel revoluble on said spindle, and having a bearing on the annular wall, a plurality of drags carried by the arrastre wheel for grinding materials within the space inclosed by the wall, and means through which the ground materials may be discharged adjacent the post.

3. An arrastre, comprising an annular wall, a post centrally of the wall, a spindle on said post, a hub revoluble on the spindle, a plurality of arms carried by said hub, rollers mounted on said arms adapted to travel on the annular wall, a ring formed with an annular channel connecting said arms, a cable arranged in the groove on said ring, and means for driving said cable to rotate the ring and arms.

4. An arrastre, comprising an annular wall formed with inner and outer upwardly projecting flanges on its upper edge, a rail arranged between the flanges, a ring disposed above the wall, a plurality of arms connected to said ring, a hub to which the inner ends of said arms are attached, a spindle around which said hub is revoluble, rollers on said arms adapted to travel on the rail, and means for rotating the ring, arms and hub around the spindle.

1,137,686. HOSE-COUPLING. ERNEST HENRY WOELFFEL, Point Pleasant, W. Va. Filed Sept. 28, 1914. Serial No. 863,950. (Cl. 137—89.)



1. A direct port coupler, having mating members, each member of which has a body portion and a longitudinally extended arm adapted to overlap with the body portion of the mating member, a guiding locking means between each arm and body to force the parts assembled, and a bodily removable gravity locked tapered pin carried by each member for wedging the members to clamp them in locked relation.

2. A direct port coupler, having mating members, each member of which has a body portion and a longitudinally extended arm adapted to overlap with the body portion of the mating member, a guiding locking means between each arm and body to hold the parts from transverse movement and a tapered pin insertible from above and between the arm of one member and the body portion of the other member for clamping the members in locked relation and held from longitudinal movement.

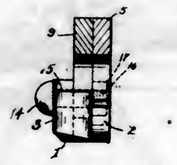
3. A direct port coupler, having mating members, each member of which has a body portion and a longitudinally extended arm adapted to overlap with the body portion of the mating member, locking means between each arm and body to hold the parts from transverse movement, and two tapered pins, one carried by each member for interposition from above between each arm and the body portion of the mating members, whereby the mating members are clamped at two points beyond the ports and the locking means and held from longitudinal movement.

4. A direct port coupler, having two mating members, each member of which has a body portion and a longitudinally extended arm adapted to overlap the body portion of the mating member, two locking cams, one carried by the body portion and the other carried by the arm of each member, the lug of one arm coöperating with the lug of the other body portion to move and hold the mating members from transverse separation, a lug having a groove upon the opposite face to the first lug of the body portion, a projection carried upon the inner end of the arm, the projection of one arm opposing the last mentioned lug of the mating member, and two tapered pins insertible between each pair of coacting projection and lug to lock the mating members in locked relation and from longitudinal movement.

5. A direct port coupler, having two mating members, each member of which has a body portion and a longitudinally extended arm adapted to overlap the body portion of the mating member, two locking cams, one carried by the body portion and the other carried by the arm of each member, the lug of one arm coöperating with the lug of the other body portion to move and hold the mating members coupled, a lug carried by the body portion and having a groove upon the opposite face to the first lug of the body portion, a projection carried upon the extreme inner end of the arm, the projection of one arm opposing the last mentioned lug of the mating member, and two bodily removable tapered pins insertible from above between each pair of coacting projection and lug to lock the mating members in locked relation and from longitudinal movement, such pins being held in wedging relation due to the gravity action thereof.

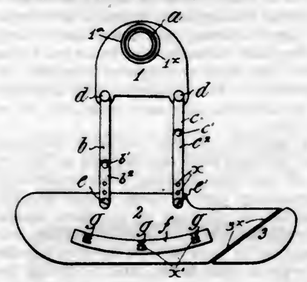
[Claims 6 and 7 not printed in the Gazette.]

1,137,687. SCISSORS OR SHEARS. JOHN T. WRIGHT, Kingston, Okla., assignor of one-third to W. R. Crow and J. R. Maxey, Kingston, Okla. Filed Apr. 21, 1914. Serial No. 833,480. (Cl. 30—13.)



A shears provided with a stationary blade having a transversely disposed bar extending from the heel end of said blade, a vertical member connected to said bar, a shank extending rearwardly from said vertical member and provided with a handle, and a pivoted member comprising a blade having an upwardly and downwardly curved shank deflected to lie in the same plane with the shank of the stationary blade and provided with a handle, said handles being disposed in a plane parallel to the cutting edges of the blade, and a pivot bolt for connecting said blades together.

1,137,688. SIDE MUD-SPLASH GUARD FOR MOTOR AND OTHER VEHICLES. ALFRED CHARLES ADAMS, Peckham, London, England. Filed Apr. 14, 1914. Serial No. 831,813. (Cl. 21—23.)



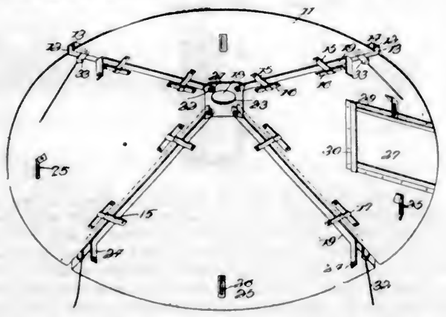
1. In a splash guard, the combination of a supporting plate formed with an axle receiving opening, vertically disposed links pivoted to the bottom of the supporting plate, other vertically disposed links pivoted to the lower ends of the first mentioned links, a splash plate pivoted near its upper edge to the lower ends of the second mentioned links, one end of the splash plate being inclined, a tail piece adjacent the inclined edge of the splash plate, and spring hinges securing the tail piece to the inclined edge of the splash plate.

2. In a splash guard, the combination of a splash plate having a laterally movable tail piece which is moved when encountering an obstruction, a supporting plate formed with an axle receiving opening, two pairs of links pivotally connecting the supporting plate and the splash plate, the meeting ends of each pair of links being pivoted together, the links of one pair being pivoted together below the horizontal plane of the corresponding pivot of the companion pair of links.

3. In a splash guard, the combination of a splash plate, a hinged tail piece at one end of the splash plate, a supporting plate formed with an axle receiving opening, a pair of pivoted links pivoted to the splash plate and the supporting plate, and a second pair of pivoted links piv-

oted to the splash plate and the supporting plate, the pivots conecting the links of the respective pairs being in different horizontal planes, the lower links of the two pairs having a series of openings to adjust the splash plate.

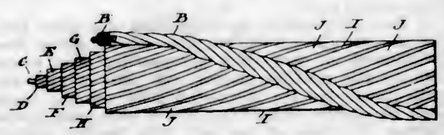
1,137,689. ROOF STRUCTURE FOR STORAGE-BINS. JOHN E. ALLSTEADT, Hastings, Nebr. Original application filed Jan. 28, 1914, Serial No. 814,959. Divided and this application filed July 17, 1914. Serial No. 851,620. (Cl. 108—32.)



1. In a roof structure of the character described, adjacent roof sections, one of which is provided with an upwardly extending flange, along one margin, and the other with an upwardly, laterally and downwardly extending flange along its adjacent margin adapted to lap over the first-named flange, a rafter having a horizontal and a vertical flange, the vertical flange being disposed between the interlocked flanges of the roof sections, a looped member disposed parallel to the margin of one section, and a tongue member attached to the other section extending transversely of the joint between the two and the joint between the rafters and having its extremity disposed between the first-named member and the sections and bent over upon the outside of the first-named member to thereby detachably hold the roof sections in engagement with each other and in engagement with the rafter.

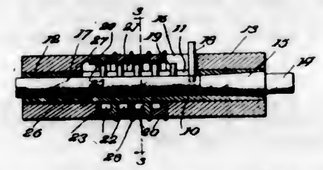
2. In a structure of the character described, a sheet metal roof having a door opening, the metal at the lateral margins of the door opening being upwardly bent and then downwardly bent to form lateral parallel beads, a strip disposed at the end of the door opening on the under side of the roof and overlapping the door opening, strips disposed on each side of the door opening and extending beneath said beads, and a sliding door having upturned flanges engaging within said beads, said door resting on the lateral strips and the end of the door being adapted to engage between the end-strips and the material of the roof.

1,137,690. WIRE ROPE. TELFORD CLARENCE BATCHELOR, Hay Mills, near Birmingham, England. Filed Jan. 29, 1914. Serial No. 815,278. (Cl. 28—5.)



The combination of a locked coil wire rope presenting a relatively smooth unbroken exterior and an exterior layer of strands coiled about the locked wire rope, each of said strands comprising a plurality of wires twisted together and each strand being flattened with one of its flat sides lying against the relatively smooth unbroken exterior of the locked coil wire rope.

1,137,691. CYCLE-LOCK. GOTTFRIED BAUMANN, Heaton Mersey, England. Filed Sept. 18, 1912. Serial No. 721,064. (Cl. 70—90.)



A lock including a tubular bushing provided with a longitudinal slot, a fixed bolt mounted in one end of the bushing, a second bolt slidably mounted in the bushing and adapted in active position to be extended beyond the other end of the same, a plurality of spaced pins carried by said second bolt and extending through the slot of the bushing, a plurality of locking rings rotatably mounted upon the bushing and provided with radial slots for the passage of the pins of the locking bolt and in one face with an annular recess, a sleeve threaded upon that end of the bushing through which the movable bolt extends and having its inner end recessed to register with the slot of the bushing, and a spring washer mounted between the inner end of the sleeve and the outer locking ring, said washer having a radially formed outwardly bent tongue seating in the recess of the sleeve and providing a slot registering with the slot of the bushing.

1,137,692. HARNESS-TRACE. JOHN B. BAXTER, Troy, N. Y., assignor to Covert Manufacturing Co., Troy, N. Y., a Corporation of New York. Filed Jan. 30, 1915. Serial No. 5,288. (Cl. 54—52.)

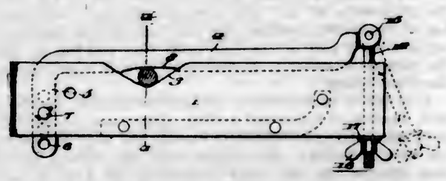


1. A doubled rope trace for harness comprising a single piece of rope having a loop through which the ends of the rope are passed, means for securing the ends of the rope in the loop, and a drop ring member carried by the loop and through which the adjacent part of the rope trace passes.

2. In a rope trace, the combination with a rope, of a loop member to which the ends of the rope are attached, and a laterally extending drop member on the loop member through which a part of the rope freely passes.

3. A rope trace composed of parallel parts and having a ring member intermediate its ends, and an associated member directly connected to the ring member for retaining the two parallel parts of the trace against relative lateral whipping movement.

1,137,692. PIPE AND ROD CLAMP. JOHN H. BAXTER, Silgo, Colo. Filed May 23, 1913. Serial No. 769,465. (Cl. 24—243.)



In a pipe or rod clamp, the combination of a body, comprising a single piece of metal bent back upon itself to form a pair of parallel plates, and a bar secured between said plates and adapted to hold them in separated relation, of a lever pivoted between the plates at the connected end, a portion of the adjacent sides of the plates and lever being cut out and serrated to form the jaws of the clamp, and means mounted on the free end of the lever to clamp the same between the plates, said means coöperating with the plates to hold the members in locked position.

1,137,694. APPROACH FOR RACK-RAILS. LOUIS L. BRANDE, Pittsburgh, Pa., assignor to Goodman Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1906. Serial No. 340,825. (Cl. 239—19.)



1. An approach for rack rails comprising a series of teeth with spaces between them and connected together at their ends by connecting pieces, said connecting pieces projecting above the teeth at one end of the approach the distance said connecting pieces project above said teeth decreasing toward the other end of said approach.

2. An approach for rack rails comprising a series of teeth with spaces between them and connected together at their ends by connecting pieces, said connecting pieces projecting above the teeth at one end of the approach, the distance said connecting pieces project above said teeth decreasing toward the other end of the approach, the inner faces of said connecting pieces being curved.

3. An approach for rack rails comprising a series of teeth with spaces between them and connected together at their ends by connecting pieces, said connecting pieces projecting above the teeth at one end of the approach and gradually approaching the tops of the teeth toward the other end of the approach, the opposed faces of said connecting pieces above said teeth formed into continuous curved faces.

1,137,695. WATER-CRAFT. JOHN C. CALDWELL, Beaumont, Tex. Filed June 27, 1914. Serial No. 847,670. (Cl. 9—1.)



1. A water craft comprising a pair of connected catamaran floats, a platform interposed between said floats and having a jointed connection therewith adjacent to one end, whereby the opposite end of said platform may be lowered relatively to said floats, and a horizontal rudder on the movable end of said platform.

2. A water craft comprising a pair of connected catamaran floats, a frame interposed between said floats and having a jointed connection adjacent to its rear end therewith, a platform and propelling and steering mechanism on said frame, means for locking and releasing the other end of said frame, and means for limiting the downward movement of said frame.

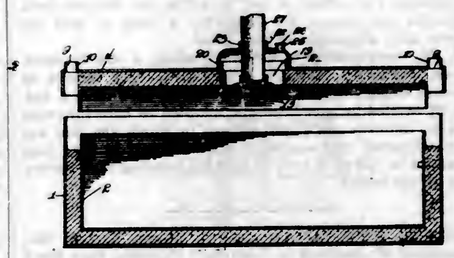
3. A water craft comprising a pair of connected catamaran floats, a frame interposed between said floats and having a jointed connection adjacent to one end therewith, a platform on said frame, an articulated chair, and means for locking said chair at varying angles.

4. A water craft comprising a pair of connected catamaran floats, a frame interposed between said floats and having a jointed connection adjacent to one end therewith, a platform on said frame, an articulated chair embodying a back and adapted to be moved from an upright to a reclining or substantially horizontal position, and means for locking said chair at any angle of reclination.

5. A water craft comprising a pair of connected catamaran floats, a frame interposed between said floats and having a jointed connection adjacent to one end therewith, a platform on said frame, an articulated chair, means for locking said chair at varying angles, and an adjustable head rest on the chair frame.

[Claim 6 not printed in the Gazette.]

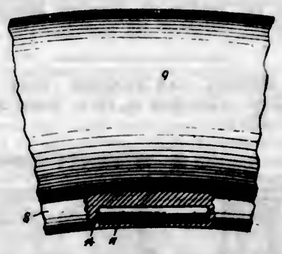
1,137,696. BURIAL-CASE. GEORGE L. CAMPBELL, Williamsport, Pa., assignor of one-half to Robert R. Dent, Williamsport, Pa. Filed Nov. 6, 1912. Serial No. 729,825. (Cl. 72—7.)



1. A burial vault comprising a housing, a closure hermetically sealed thereon, said closure being provided about centrally with a cavity and also having a valve seat in the bottom of said cavity, a valve mounted in connection with the seat in the closure, means to limit the outward movement of said valve, and at the same time permit air to be extracted from the housing, and means applicable to the cavity in said closure for sealing the valve in its seat after the air has been extracted from the housing.

2. A burial case including receptacles to be held in spaced relation by an impervious elastic filling, a valved opening formed in one of the receptacles, an enlarged concentric opening formed in the other of said receptacles, a cap closing said enlarged opening and having a filling opening and a pipe receiving opening, a pipe receiving nipple carried by the first-mentioned receptacle in alinement with the pipe receiving opening of the cap, and a cap closing the filling opening in the first-named cap.

1,137,697. INDICATING MEANS. FRED B. CARLISLE, Malden, Mass., assignor to Revere Rubber Company, a Corporation of Rhode Island. Filed Feb. 28, 1912. Serial No. 680,510. (Cl. 234—1.)



1. The combination of a vehicle tire and means carried thereby for indicating the extent of use to which the tire has been subjected, said means comprising an element held in position in relation to said tire by friction, and means for overcoming said friction to progressively change the position thereof, in accordance with the extent of travel of said tire.

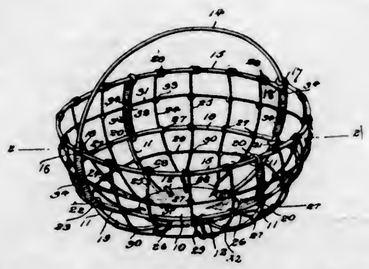
2. The combination of a vehicle tire and means carried thereby for indicating the extent of use to which the tire has been subjected, said means comprising a resistive medium, an element adapted to penetrate the same, and means for causing said element to penetrate said medium in accordance with the extent of travel of said tire.

3. The combination of a vehicle tire and means carried thereby for indicating the extent of use to which the tire has been subjected, said means comprising two members held frictionally in relative positions and a loose actuating member adapted to impact with one of said members by movement of the tire and to change their relative positions in accordance with the extent of travel of the tire.

4. The combination of a vehicle wheel, a tire therefor, a tube carried by said tire, a plug extending into one end of said tube, a boring bit adapted to bore into said plug to indicate the extent of use to which the tire has been subjected and means for delivering a blow to said bit during each revolution of the wheel.

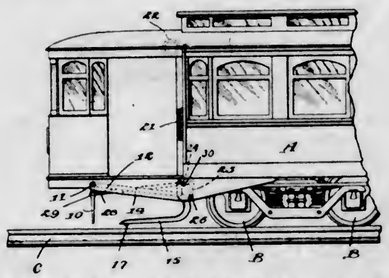
5. The combination of a vehicle wheel, a tire therefor, a tube carried by said tire, a plug removably secured in one end of said tube, a head movable in said tube, a boring bit carried by said head and adapted to bore into said plug to indicate the extent of use to which the tire has been subjected, and a gravity operated ball in said tube arranged to deliver a blow to said head during each revolution of the wheel.

1,137,698. BASKET. CHARLES H. CLARK, Easton, Me., assignor of one-third to Dominique Pelletier, Fort Kent, Me. Filed Jan. 25, 1913. Serial No. 744,192. (Cl. 220—136.)



In a basket, a bottom member, an annular top member, a plurality of vertical rib members of relatively heavy material spaced apart and connecting the bottom member with the top member, a horizontal rib member of relatively heavy material connected to the vertical rib members intermediate their ends, a plurality of web members of relatively light material connected to the bottom and top members and to the rib members, and spacer members surrounding the vertical rib members between the top member and the horizontal rib member.

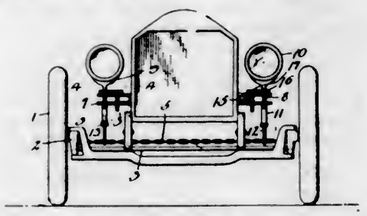
1,137,699. STREET-CAR FENDER. JOHN B. COLVIN, Dundee, Miss. Filed May 15, 1914. Serial No. 838,861. (Cl. 105—130.)



1. A car fender comprising a swinging guard, a fender body arranged rearwardly thereof, arms attached to said body, a shaft swingingly supporting the said guard, and arms and adapted to be journaled in the side sills of a car body below its floor, ears formed on the said arms, bifurcated keepers pivotally connected to said ears, flexible members connected with the keepers, a windlass on which is adapted to be wound and unwound the said flexible members, and locking bolts engageable with the keepers to hold the fender body raised, and having connection with the guard for the automatic releasing thereof on the swinging of the guard in one direction.

2. A car fender comprising a swinging guard, a fender body arranged rearwardly thereof, arms attached to said body, a shaft swingingly supporting the said guard and arms and adapted to be journaled in the side sills of a car body below its floor, ears formed on the said arms, bifurcated keepers pivotally connected to said ears, flexible members connected with the keepers, a windlass on which is adapted to be wound and unwound the said flexible members, locking bolts engageable with the keepers to hold the fender body raised, and having connection with the guard for the automatic releasing thereof on the swinging of the guard in one direction, and rollers carried by the fender body and adapted to contact with the rails of a track when the body has been lowered.

1,137,700. AUTOMATIC HEAD-LAMP CONTROL. JOHN B. COLVIN, Dundee, Miss. Filed Nov. 7, 1914. Serial No. 870,847. (Cl. 240—62.)



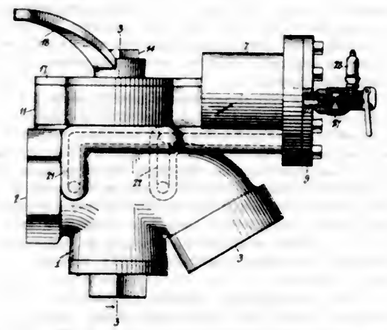
1. Automatic headlamp controlling mechanism comprising, in combination with the connecting rod of the steering knuckles, a pair of vertical lamp shafts on which the headlamps are mounted to turn therewith, bearings in which said shafts are journaled, countershafts parallel to said lamp shafts and geared thereto to turn in the opposite direction, extension shafts adapted to be fastened either to said lamp shafts or counter shafts and provided with operating arms and means connecting the steering knuckles and also connected with the arms of the extension shafts.

2. Automatic headlamp controlling mechanism comprising, in combination with the connecting rod of the steering knuckles, a pair of vertical lamp shafts on which the headlamps are mounted to turn therewith, bearings in which said shafts are journaled, countershafts parallel to said lamp shafts and geared thereto to turn in the opposite direction, extension shafts adapted to be fastened either to said lamp sahfts or counter shafts and provided with operating arms, and a longitudinally movable flexible element actuated by the steering knuckles and having said operating arms connected thereto.

1,137,701. AIR-BRAKE APPARATUS. FRANK S. CRAVENS, Olive Hill, Ky. Filed Nov. 11, 1914. Serial No. 871,576. (Cl. 188—8.)

1. In air brake apparatus, the combination of a cock for the brake or train pipe having a rotatable plug, a cylinder and a piston reciprocable therein, passages connecting one end of the cylinder with the cock at opposite sides of said plug, a rack connected to reciprocate with the piston, a gear member coöperative with said rack and connected to the plug for turning the latter to open the cock by air pressure from either side of said plug, a housing inclosing the gear member and rack, and a manually operative handle connected to the plug exteriorly of the housing.

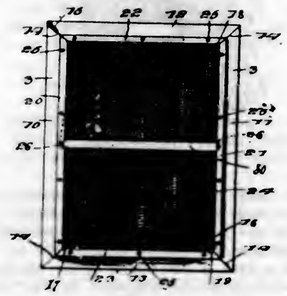
2. In air brake apparatus, the combination of a cock for the brake or train pipe having a rotatable plug, a cylinder and a piston reciprocable therein, passages connecting one end of the cylinder with the cock at opposite sides of said plug, a rack connected to reciprocate with the piston, a gear member actuated by said rack and connected to said plug, and a housing inclosing said rack and gear member.



3. In air brake apparatus, the combination of a cock for the brake or train pipe having a rotatable plug, a cylinder and a piston reciprocable therein, passages connecting one end of the cylinder with the cock at opposite sides of said plug, a rack connected to reciprocate with the piston, a gear member actuated by said rack and connected to said plug, an open-topped housing inclosing said rack and gear member, a lid fitted to and closing the top of said housing, and a handle fixed to the plug above said lid.

4. In air brake apparatus, the combination of a cock for the brake or train pipe having a rotatable plug, a cylinder and a piston reciprocable therein, passages connecting one end of the cylinder with the cock at opposite sides of said plug, a rack connected to reciprocate with the piston, a gear member actuated by said rack and connected to said plug, and a housing inclosing said rack and gear member and having a recess forming a guide for said rack.

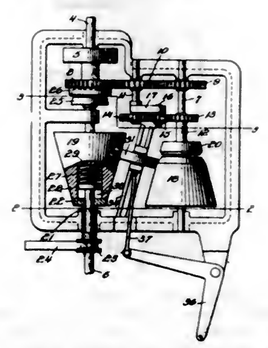
1,137,702. FOLDABLE SCREEN-FRAME. WILLIAM H. CRAWFORD, Rosemond, Ill. Filed May 14, 1914. Serial No. 838,546. (Cl. 156—14.)



1. A screen frame having the confronting ends of its members movably united, holding members hingedly united at their outer edges to said frame members and adapted to bear upon the screen material of the frame and fastening devices operating through said holding members.

2. A screen frame having the confronting ends of its members movably united and with inwardly opening sockets in the confronting edges of one opposite pair of its members, a pin extending transversely through each of said sockets, a brace member extending between said socketed members, and hooks extending from said brace member and engaging said pins and operating to bind the frame members in distended position.

1,137,703. TRANSMISSION-GEARING. LAWRENCE E. CRYDER, Mount Gilead, Ohio. Filed May 15, 1914. Serial No. 838,863. (Cl. 74—26.)



1. In transmission gearing, the combination of a frame, a driving shaft, a driven shaft, a countershaft geared to said driving shaft to rotate in the same direction as the latter, a reversing shaft concentric with said countershaft and geared to said driving shaft to rotate in the opposite direction, reversely disposed friction cones on said countershaft and driven shaft, a reversing friction cone on said reversing shaft, a friction transmission wheel interposed between and coöperating with said friction cones, and means for shifting said friction wheel along the working faces of said cones and from the cone on the countershaft to the reversing cone.

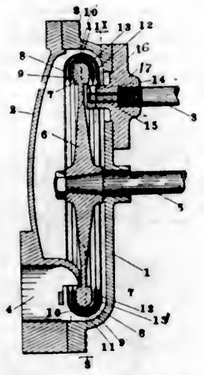
2. In transmission gearing, the combination of a frame, a driving shaft, a driven shaft, a countershaft geared to said driving shaft to rotate in the same direction as the latter, a reversing shaft concentric with said countershaft and geared to said driving shaft to rotate in the opposite direction, reversely disposed friction cones on said countershaft and driven shaft, a reversing friction cone on said reversing shaft having its working face alined with the working face of the cone on the countershaft, a friction transmission wheel interposed between and coöperating with said friction cones, and means for shifting said friction wheel along the working faces of said cones and from the cone on the countershaft to the reversing cone.

3. In transmission gearing, the combination of a frame, a driving shaft, a driven shaft, a countershaft geared to said driving shaft to rotate in the same direction as the latter, a reversing shaft concentric with said countershaft and geared to said driving shaft to rotate in the opposite direction, reversely disposed friction cones on said countershaft and driven shaft, a reversing friction cone on said reversing shaft, a friction transmission wheel interposed between and coöperating with said friction cones, means for shifting said friction wheel along the working faces of said cones and from the cone on the countershaft to the reversing cone, said driven shaft being shiftable longitudinally, and coöperating clutch members on said driving and driven members.

1,137,704. TURBINE. CHARLES W. DAKE, Chicago, Ill., assignor to Pyle-National Electric Headlight Company, Chicago, Ill., a Corporation of New Jersey. Filed Apr. 26, 1912. Serial No. 693,432. (Cl. 121—60.)

1. In a turbine a rotor having an annular smooth-surfaced channel with means for discharging a driving fluid thereinto in a direction inclined to the tangent thereto at the point of impingement so as to rotate the rotor by

frictional contact with said fluid, and means for increasing the total pressure of the fluid within said channel upon the walls thereof.



2. In a turbine a rotor having a series of annular smooth-surfaced channels with means for discharging a driving fluid thereinto in a direction inclined to the tangent thereto at the point of impingement so as to rotate the rotor by frictional contact with said fluid, and means for increasing the total pressure of the fluid within said channels upon the walls thereof.

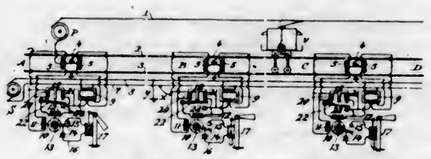
3. In a turbine a rotor having an annular smooth-surfaced channel with means for discharging the driving fluid thereinto so as to rotate the rotor by frictional contact with said fluid, and means for increasing the total pressure of the fluid within said channel upon the walls thereof, said means consisting in shaping the channel so as to change the course of the fluid therethrough.

4. In a turbine a rotor having a series of annular smooth-surfaced channels with means for discharging the driving fluid thereinto so as to rotate the rotor by frictional contact with said fluid, and means for increasing the pressure of the fluid within said channels, said means consisting in shaping the channels so as to change the course of the fluid therethrough.

5. In a turbine the combination with a case, a rotor having a shaft a body and a rim, the latter containing a U-shaped annular channel so as to retard the flow of fluid therethrough and a fluid inlet discharging into said channel in a direction inclined to the tangent to the channel at the point of impingement at the point of discharge.

[Claims 6 to 26 not printed in the Gazette.]

1,137,705. AUTOMATIC BLOCK-SIGNALING SYSTEM FOR ELECTRIC RAILWAYS. SALISBURY MARCUS DAY, Rochester, N. Y., assignor to General Railway Signal Company, a Corporation of New York. Filed Oct. 8, 1908. Serial No. 456,812. (Cl. 246—36.)



1. In a signaling system for railways, a track-way divided into block sections, means for impressing a difference of alternating signaling current potential across the rails of each block section, signal controlling means controlled by the presence of trains in the block sections, auxiliary means controlling the operation of said signal controlling means said auxiliary means adapted to be responsive to a difference of signaling current potential across the rails, other than a normal difference of signaling current potential and irresponsive to said normal signaling current potential.

2. In a block signaling system for railways, a source of signaling current for supplying energy to the blocks, signal controlling relays, one for each block having one member connected across the rails of said block, another member connected across the source of signaling energy, an auxiliary relay having two members, respectively connected in multiple with the two members of the signal controlling relay and controlling the member of the signal controlling relay that is connected across the source of signaling energy.

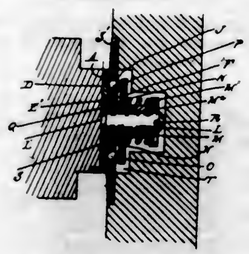
3. In a block signaling system for railways, a trackway divided into block sections, a source of signaling current for supplying energy to the block sections, signal controlling relays, one for each block section, each having one member connected across the rails of said block section, and another member connected across the source of signaling energy, auxiliary relays each having two members, respectively connected in multiple with the two members of a signal controlling relay and controlling the member of the signal controlling relay that is connected across the rails.

4. In a block signaling system for railways, a source of signaling current for supplying energy to the blocks, signal controlling relays, one for each block, each having one member connected across the rails, and another member connected across the source of signaling energy, an auxiliary relay having two members, respectively connected in multiple with the two members of a signal controlling relay and controlling both members of the signal controlling relay.

5. In a system of automatic block signaling for railways, a signal controlling device responsive to a difference of electrical potential across the rails of the block sections, means for controlling the operation of the signal controlling device, responsive to the signaling energy only when said signaling energy rises to an abnormal or dangerous potential.

[Claims 6 to 12 not printed in the Gazette.]

1,137,706. SASH-CENTER. JOHN J. DELANEY, Detroit, Mich. Filed May 4, 1912. Serial No. 695,090. (Cl. 16—142.)

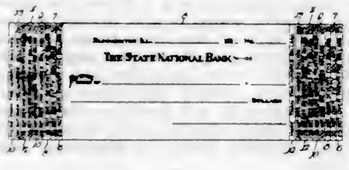


1. A sash center comprising a plate formed with a central aperture there being a groove surrounding said aperture, having portions extending longitudinally of the plate and opening through its ends, means for attaching the plate to a sash, a pin seated in the aperture of the plate, a second plate formed with an aperture, and a groove which surrounds said aperture, having portions extending longitudinally of the plate and opening through its ends whereby the same will aline with the groove of the first mentioned plate, resilient means embracing the pin and contacting with the second mentioned plate and acting to normally force the plates together, and a member constituting a dust guard formed of a strand of resilient material disposed within the alining grooves of the plates.

2. A sash center including a plate secured to the sash and provided with a central opening, there being a series of ball sockets surrounding said opening, a second plate, a pin rigidly supported by the first plate and extending through the second plate, a sleeve mounted on said pin, resilient means for normally spacing said sleeve from the second mentioned plate, a washer slidably mounted on the sleeve, resilient means for normally forcing said washer toward said second mentioned plate, said plate being provided with a series of openings which aline with the ball socket of the first mentioned plate, balls arranged in said opening, said washer contacting with said balls.

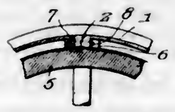
3. A sash center including a plate supported by the sash, a second plate carried by the window frame, a pin supported by the first mentioned plate and extending through the second plate within a recess formed in the frame, a sleeve mounted on said pin, said sleeve being provided terminally with a flange, a stop carried by the pin and contacting with the flange to maintain the sleeve on the pin, a resilient member interposed between the sleeve and the second mentioned plate, a washer slidably mounted on the sleeve, a coiled spring embracing the sleeve, one of the terminal convolutions of said spring contacting with the flange of the sleeve, its other terminal convolution contacting with the washer, and balls operating through openings formed in the second mentioned plate and engaging in recesses formed in the first mentioned plate, said washer contacting with said balls to maintain the same in contact with the first mentioned plate.

1,137,707. BANK CHECK OR DRAFT. WILLIAM H. DEWEES, Bloomington, Ill. Filed Apr. 4, 1914. Serial No. 829,444. (Cl. 11—13.)



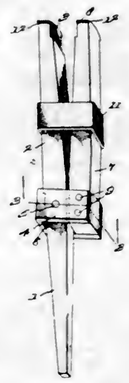
A bank check comprising a body portion provided at each end with a plurality of separable imperforate coupons each being of the same width transversely of the check and extending across the entire width of the check, said coupons bearing graduated value-limiting indicia and the coupons at opposite ends of the check being arranged in inverse order so that when coupons are removed to leave similar indicia at each extremity of the check, said check including the attached coupons will always be of standard size, presenting regular and unbroken side and end edges.

1,137,708. DEMOUNTABLE RIM. FREDERICK E. DONHAM and WILLIAM H. FISHER, Tacoma, Wash. Filed Dec. 20, 1913. Serial No. 807,977. (Cl. 152—21.)



In a vehicle wheel, the combination of a felly, a fixed rim having transversely alined lips projecting outward from its edges at intervals, cross bars placed against the rim and between corresponding ends of the lips and secured thereto, a demountable rim formed with lugs certain ones of which come between the lips and engage the fixed rim and said cross bars and the remaining lugs having stop lugs at one edge to limit the movement of the demountable rim when placing it in position, and means for retaining the demountable rim in place, the same consisting of a key supported in the opposite ends of a pair of lips and engaging the lug received between such lips.

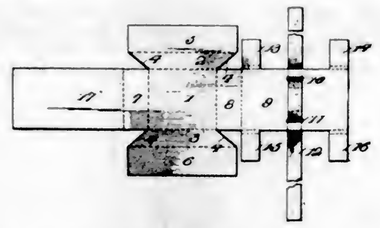
1,137,709. WRENCH. GASTON ALFRED DUPLANTIS, Covington, La., assignor to Leonard C. Moise, Covington, La. Filed Sept. 23, 1914. Serial No. 863,117. (Cl. 81—112.)



1. In a wrench of the character described, the combination of a tapered fixed jaw, a U-shaped yoke, a pivot pin passing through the base of said fixed jaw and the opposite members of said yoke for mounting the latter to rock on the jaw, the free ends of said yoke projecting beyond the jaw base, a tapered movable jaw of relatively greater length over said fixed jaw and arranged to lie in contact therewith when the wrench is closed, means for rigidly securing the base of said movable jaw between the outer free ends of said U-shaped yoke whereby the movable jaw may rock about said pivot, lateral flanges formed on the free ends of said jaws, a slidable sleeve confined between said flanges and yoke and arranged to close said movable jaw when forced toward the latter, and a reversely-tapered outer basal face on said movable jaw arranged to lie parallel with the outer face of the fixed jaw when the wrench is closed to constitute a rectangular seat for snugly receiving said sleeve whereby to maintain the parts of the wrench against accidental opening when not in use, substantially as described.

2. In a wrench of the character described, the combination of a tapered fixed jaw provided with a recess located in the outer face of the enlarged base thereof, a separately made U-shaped yoke, a pivot pin passing through the base of said fixed jaw and the opposite members of said yoke for mounting the latter to rock on the jaw, the closed end of said yoke being adapted to rock in the recess in said jaw and the free ends thereof projecting beyond the same, a tapered movable jaw of relatively greater length over said fixed jaw and arranged to lie in contact therewith substantially throughout the length thereof when the wrench is closed, rivets for securing the base of said movable jaw between the outer free ends of said U-shaped yoke whereby the movable jaw may rock about said pivot, lateral flanges formed on the free ends of each of said jaws, a slidable sleeve confined between said flanges and yoke and arranged to close said movable jaw when forced toward the yoke, a reversely-tapered outer basal face on said movable jaw arranged to lie parallel with the outer face of the fixed jaw when the wrench is closed to constitute a rectangular seat for snugly receiving said sleeve and frictionally maintaining the parts against accidental movement during transportation and when not in use, and a reversely-tapered inner basal face on said movable jaw for permitting the rocking thereof, substantially as described.

1,137,710. FIBER-CASE RAILWAY-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 17, 1913. Serial No. 790,256. (Cl. 246—20.)



1. A railway torpedo, composed of a blank having a body-portion and folding flaps, an explosive mixture inclosed by said body-portion and flaps, a rail-attaching strap secured to the torpedo and flaps folding on each side of the rail-attaching strap to form a flat bottom for the torpedo.

2. A railway torpedo composed of a blank having a body-portion and folding flaps, an explosive mixture inclosed by the body-portion and flaps, a rail-attaching strap secured to the bottom of the torpedo, and flaps folding over on each side of the rail-attaching strap upon the bottom of the torpedo and of a thickness equal to that of the rail-attaching strap.

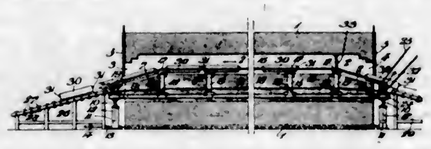
3. A railway torpedo composed of a blank having a body-portion and folding flaps, an explosive mixture inclosed by the body-portion and folding flaps, a rail-attaching strap secured to the bottom of the torpedo, and flaps carried by the torpedo for securing the several flaps together and folded upon the bottom of the torpedo on each side of the rail-attaching strap.

4. A railway torpedo composed of a blank having a body-portion and folding flaps, an explosive mixture inclosed by the body-portion and folding flaps, a rail-attaching strap secured to the bottom of the torpedo, and flaps carried by the torpedo and adapted to fold upon the bottom thereof upon each side of the rail-attaching strap to form a flat bottom.

5. A railway torpedo composed of a blank having a body-portion, flaps secured to all four sides of the body portion and an explosive mixture inclosed by the body-portion and flaps, one flap having laterally extending flaps carried by all four corners and adapted to embrace the flap carried by the opposite sides of the body-portion and to fold over upon the lower face thereof.

[Claims 6 to 10 not printed in the Gazette.]

1,137,711. BAKER'S OVEN. HUGO GOTTSCHALK, Burnham, Pa., assignor to Gottschalk Automatic Brick Oven Company, Inc., New York, N. Y., a Corporation of New York. Filed May 2, 1913. Serial No. 765,027. (Cl. 107—57.)



1. In a bread baking oven, the combination with a heating chamber, and a hearth or floor for said oven, of a plurality of chain conveyers operatively positioned with respect to said hearth and spaced apart to support a container through the oven, means for actuating said chains and for starting and stopping the travel thereof, a container adapted to be supported upon said chains, and means for raising and lowering said container to deposit the same upon the upper surface of said hearth, in such manner as to cause the same to rest directly upon said surface during the stationary condition of said chains.

2. In a bread baking oven, the combination with a heating chamber, and a hearth or floor for said oven, of a plurality of chain conveyers operatively positioned with respect to said hearth and spaced apart to support the container through the oven, means for actuating said chains and for starting and stopping the travel thereof, a container adapted to be supported upon said chains, and means for raising and lowering said chains to deposit the container supported thereby, directly upon the surface of the hearth and in such manner as to cause the same to rest directly upon said surface during the stationary condition of said chains.

3. In a bread baking oven, the combination with a heating chamber, and a hearth or floor for said oven, of a plurality of chain conveyers operatively positioned with respect to said hearth and spaced apart to support a container through the oven, means for actuating said chains and for starting and stopping the travel thereof, a container adapted to be supported upon the chains to depend therefrom below said chains, and means for raising and lowering said chains to deposit the container carried thereby directly upon the upper surface of said hearth and to rest thereupon during the stationary condition of said chains.

4. In a device of the character stated, the combination with an oven having a heating chamber therethrough, and a hearth or floor for said oven having recesses formed therein extending the length of said chamber and spaced apart, of a plurality of chain conveyers mounted for movement through said oven and through said recesses and adapted to support containers thereon, supports for said chain conveyers, a frame mechanism carrying said supports, seated in said recesses and extending beyond the ends of said oven, means for actuating said chain conveyers and for starting and stopping the travel thereof, and means for raising and lowering said frame and supports, whereby said chains are raised and lowered with respect to said hearth to deposit the containers carried thereby directly upon the surface thereof and to rest thereupon during the stationary conditions of said chains.

5. In a device of the character stated, the combination of an oven, having a heating chamber therethrough and a hearth or floor for said oven, having recesses formed therein extending throughout the length of said chamber and opening to the outside at either end and spaced apart, of a plurality of chain conveyers mounted for movement through said oven and through said recesses and adapted to support a container thereon to depend below the conveyers, supports for said chain conveyers, a frame mechanism carrying said supports, seated in said recesses and movable therethrough and extending beyond the ends of said oven, means for actuating said chain conveyers and for starting and stopping the travel thereof, and means free and independent of the oven for supporting said frame and the mechanism carried thereby, whereby said frame and coacting mechanism may be easily and quickly removed from the oven, said supporting means adapted to raise and lower said frame and the supports carried thereby, whereby said chains are raised and lowered with respect to the said hearth to deposit the containers carried thereby directly upon the surface thereof, and to rest thereupon during the stationary condition of said chains.

[Claims 6 and 7 not printed in the Gazette.]

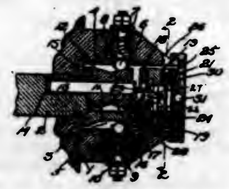
1,137,712. WHIFFLETREE. BENNIE P. HANSON, Monticello, Iowa, assignor of one-half to Lone Grenard, Bancroft, Iowa. Filed Feb. 21, 1914. Serial No. 820,201. (Cl. 21—78.)

A whiffle tree composed of a double tree having swaged top and bottom members reinforced by metallic devices bent into approximately rectangular formation, one end of which overlaps and reinforces the other end, registering orifices through said whiffle tree and said reinforcing devices for the insertion of a clevis, a swingletree of like structure superposed above said double tree



having registering apertures therethrough, a clevis coupling said double tree and said swingletree together.

1,137,713. TIMER. FREDERICK C. HERSEE, Roslindale, and LEVI W. LOMBARD, Waltham, Mass., assignors to Motor Specialties Company, Waltham, Mass., a Corporation of Massachusetts. Filed May 28, 1914. Serial No. 841,643. (Cl. 123—118.)



1. A timer, comprising a relatively fixed contact, a relatively movable contact for coöperation therewith, a rotary shaft on which said movable contact is eccentrically mounted, said fixed contact being positioned outside the orbit of said movable contact, and means carried by said shaft and normally completing the circuit from said movable contact, for breaking the circuit when the rate of rotation of said shaft rises to a predetermined limit, said means being mounted on the end of said shaft and lying substantially within the radial limits of the orbit of said movable contact.

2. A timer, comprising a relatively fixed contact, a movable contact mounted for coöperation therewith, a shaft on which said movable contact is eccentrically mounted, and a centrifugal circuit breaker interposed in the circuit from said movable contact adapted to break connection from said movable contact when the speed of shaft rotation rises to a predetermined limit, said circuit breaker being mounted on the end of said shaft and lying substantially within the radial limits of the orbit of said movable contact.

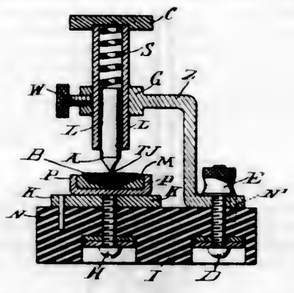
3. A timer, comprising coöperative relatively fixed and movable contacts, a shaft on which the movable contact is carried, and a centrifugal circuit breaker interposed in the connection from said movable contact consisting in a pair of oppositely disposed swingingly mounted blocks equipped with a spring for normally drawing them toward each other and a contact element interposed between said blocks and normally co-acting therewith to complete the circuit.

4. A timer, comprising a fixed casing having fitted therein an insulated contact, a shaft having a movable contact to coöperate therewith, and a centrifugal circuit breaker normally completing the circuit from said movable contact, having a spring normally holding the circuit closed, and means for adjusting the tension of said spring, there being a passage through the casing permitting access to said adjusting means, said circuit breaker being mounted on the end of said shaft and being of relatively small radial dimension.

5. A timer, comprising a casing having insulated contacts fitted therein, a shaft having a movable contact eccentrically mounted for coöperation with said casing contacts, said movable contact being insulated from said shaft, a centrifugal circuit breaker carried by said shaft having a centrifugally acting element in electrical connection with the shaft, and a conducting element in electrical connection with said movable contact and normally in position to be engaged by said centrifugally acting element.

[Claims 6 and 7 not printed in the Gazette.]

1,137,714. SOLID RECTIFIER FOR FEEBLE ELECTRIC CURRENTS. GREENLEAF WHITTIER PICKARD, Amesbury, Mass. Filed Mar. 9, 1907. Serial No. 361,444. (Cl. 250—31.)



1. A holder for an electrical oscillation detector of the contact type, comprising in combination, means for supporting one contacting conductor in a fixed position with respect to movement toward the other; a sleeve plunger in which the other contacting conductor is mounted and confined so as to be adjustable only to and from the fixed conductor; a guide in which the sleeve plunger is mounted and confined so as to be adjustable only to and from the fixed conductor; and a spring held inside the sleeve plunger and pressing the adjustable conductor against the fixed conductor, said sleeve plunger and spring being proportioned to prevent an adjustment of pressure exceeding a predetermined maximum, and said guide being fixedly supported to prevent unrestrained bodily movement relative to its support.

2. A holder for an electrical oscillation detector of the contact type, comprising in combination, a spring pressing one contacting conductor against the other, means for fixing the spring at a definite state of pressure; said spring being unrestrainedly adjustable, when not held by said fixing means, within wide limits of pressure; and means permitting the contact of one conductor with various different parts of the opposing surface of the other conductor.

3. A holder for an electrical oscillation detector of the contact type, comprising in combination, an insulating base; means for mounting one of the two detector-conductors on said base and providing a low resistance contact with the circuit terminal; a bracket mounted on said base and carrying a guide; a supporting plunger, mounted in the guide, for the second detector-conductor, and adjustable only to and from the first conductor; the second conductor being movable in said supporting plunger only to and from the first conductor; means for pressing the second conductor against the first conductor; and means for permitting the contact of one conductor with various different parts of the opposing surface of the other conductor.

4. A holder for an electrical oscillation detector of the contact type, comprising in combination, a spring pressing one of the contacting conductors against the other; means for fixing the spring at a definite state of pressure; a supporting plunger for the spring, said plunger and spring being unrestrainedly adjustable, when not held by said fixing means, within wide limits of spring pressure; and means for permitting the contact of one conductor with various different parts of the opposing surface of the other conductor.

5. A holder for an electrical oscillation detector of the contact type, comprising in combination, a spring pressing one conductor against the other; means for fixing the spring at a definite state of pressure; a supporting plunger for the spring; a guide in which said plunger is unrestrainedly movable within wide limits when not held by said fixing means; and means for permitting the contact of one conductor with various different parts of the opposing surface of the other conductor.

[Claims 6 to 25 not printed in the Gazette.]

1,137,715. VENDING-MACHINE. FELIX Q. RAST, New York, N. Y., and CLIFFORD G. PEIRCE, Montclair, N. J.; said Rast assignor to Public Supply Company, New York, N. Y., a Corporation of New York. Filed July 6, 1914. Serial No. 849,059. (Cl. 194—75.)



1. A vending machine having means to support a stack of articles therein, a movable coin receiver below said articles and provided with means to retain a proper coin with its upper portion in position to dislodge a vendible article upon one stroke of said receiver, said receiver having a movable tongue in the path of coins into the receiver adapted to prevent light-weight tokens from operatively entering said receiver, said tongue being in position to retain such tokens in position to be engaged by the articles to dislodge said tokens from the receiver when the latter moves forwardly.

2. A vending machine having means to support a stack of articles therein, a movable coin receiver below said articles and provided with a recess to receive a proper coin and retain its upper portion in position to dislodge a vendible article, said receiver having a member on one side of the coin above said recess to coact with the coin, said receiver also having a movable tongue extending across the upper part of said recess in the path of coins into the receiver, to prevent light-weight tokens from operatively entering said recess.

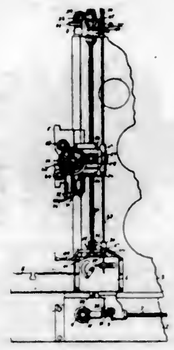
3. A vending machine having means to support a stack of articles therein, a movable coin receiver below said articles and provided with a recess to receive a proper coin, said recess being of less depth than the coin to expose the upper portion of the latter to dislodge a vendible article, said receiver having a member on one side of the coin above said recess to coact with the coin, said receiver also having a pivotal weighted tongue at the upper part of the recess in the path of coins into said recess adapted to be moved by a proper coin to permit its entrance into the recess with the upper part of the coin extending above the recess, said tongue being adapted to prevent light-weight tokens from operatively entering said recess.

4. A vending machine having means to support a stack of articles therein, a movable coin receiver below said articles, said receiver being provided with a recess and spaced projections in front of the recess, said receiver having a member above said abutments on the side of the coin opposite said abutments to coact with the coin, said receiver also having a pivotal tongue normally extending between said abutments across the upper part of the recess adapted to be tilted by a proper coin to permit its entrance into the recess behind said abutments and adapted to obstruct the entrance of a light-weight token into said recess.

5. A vending machine having means to support a stack of articles therein, a movable coin receiver below said articles, said receiver being provided with a recess and spaced abutments in front of the recess, said receiver having a member above said abutments on the side of the coin opposite said abutments to coact with the coin, said receiver also having a tongue pivotally carried thereby to extend at its free end between said abutments and having a weighted portion normally retaining said tongue substantial. adjacent to the upper part of said abutments across the upper part of said recess to permit the entrance of a proper coin into said recess and to obstruct the entrance of a light-weight token thereinto.

[Claims 6 to 12 not printed in the Gazette.]

1,137,716. CLUTCH-SHIFTING MECHANISM. HENRY PERCY RE:TON, Oakley, Ohio, assignor to The Cincinnati Planer Company, Oakley, Ohio, a Corporation of Ohio. Filed Oct. 2, 1911. Serial No. 652,428. (Cl. 74—59.)



1. The combination of a driven shaft, idle gears thereon each formed with a clutch member, a double clutch member splined on the shaft and movable into alternate engagement with the gears, a shifting rod provided with a pinion, a segmental gear engaging with the pinion, a lever trunnioned thereon for turning the gear and the pinion with the rod, and shifting connections with the double clutch member arranged to be actuated by the rotative movement of the rod.

2. The combination of two shafts having different speeds, an intermediate shaft, clutch connections therefrom with said respective shafts, a shifting rod movable longitudinally for alternately engaging said connections, idle gears on the intermediate shaft each formed with a clutch member, a double clutch member splined on said shaft and shifting connections therewith arranged to be actuated by the rotative movement of the rod for alternately engaging said member with the gears.

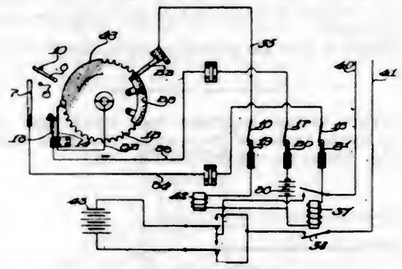
3. The combination of a shaft, driving and driven connections therewith, a shifting rod for actuating said connections, a pinion thereon, a segmental gear engaging with the pinion, a lever trunnioned thereon for alternately shifting the rod longitudinally, and rotatively, and a fixed guide for controlling the alternate movements of the lever.

4. The combination of a shaft journaled in fixed bearings, bevel gears each formed with a clutch member and mounted to turn thereon, a coöperating double clutch member splined on said shaft, a shifting rod journaled in fixed bearings, a collar splined thereon and formed with a helical groove, a shifting yoke pivotally supported at a fixed point and movably engaging with the groove, and gear connections arranged to be actuated by a lever for turning the rod for shifting the double clutch member into alternate engagement with the gears.

5. The combination of a driving shaft, a driven shaft having clutch connections therewith, a double clutch member splined on the driven shaft, a shifting rod, shifting connections therefrom with the double clutch member arranged to be actuated by the rotative adjustment of the rod, means actuated by the longitudinal movement of the rod for actuating the clutch connections on the driven shaft, and a lever and gear mechanism arranged to adjust the rod both rotatively and longitudinally.

[Claims 6 and 7 not printed in the Gazette.]

1,137,717. CALL-BOX. CHARLES STANLEY RHOADS, Jr., Chicago, Ill., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Filed Apr. 28, 1913. Serial No. 764,252. (Cl. 177—380.)



1. A call box of the character described comprising a toothed element, a contact spring adapted for engagement by the teeth of said element, a second spring under the control of said element, and a bent plate associated with said element for engaging said last aforesaid spring either a long or short period of time depending upon the direction of movement of said element.

2. A call box of the character described comprising a toothed element, a contact spring adapted for engagement by the teeth of said element, a second spring under the control of said element, and means associated with said element for engaging said last aforesaid spring either a long or short period of time depending upon the direction of movement of said element, said means including a bent plate, said last aforesaid spring being adapted to engage said plate throughout its entire length during one direction of motion, and throughout only a portion of its length during the reverse direction of motion.

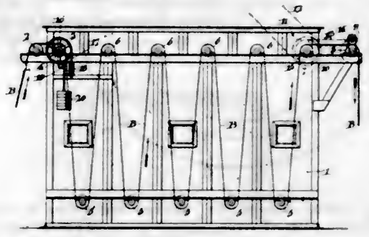
1,137,718. BEER-DRAWING APPARATUS. CHRISTIAN SAHLENDER, Brooklyn, N. Y., assignor of one-half to Anna Sahlender. Filed May 15, 1914. Serial No. 838,661. (Cl. 225—10.)



1. A beer-drawing apparatus, comprising a cylindrical tank, a free piston therein, a collapsible piston-rod adapted to bear upon said piston, a spring normally expanding said piston-rod, means for collapsing the piston-rod before the charging of beer into the tank, and valved supply and discharge pipes connected with said tank at the side of the piston opposite the piston-rod.

2. A beer-drawing apparatus, comprising a cylindrical tank, a free piston therein, a collapsible piston-rod guided in one head of said tank, valved supply and discharge pipes entering the opposite head of the tank, an expanding spring within the collapsible piston-rod, a tubular screw connected with the upper end of the piston-rod, a head stationarily supported above the tank, a hand-wheel mounted therein and adapted to raise and lower said screw, a strain-rod connected with the lower end of the piston-rod and adapted to have its upper end exposed when the spring is compressed, a key adapted to be detachably connected with the exposed end of the rod and prevent the withdrawal of the same within the screw, and a gage-rod connected with the lower section of the piston-rod and guided in the stationary head and extending upward beyond the same.

1,137,719. PROCESS AND APPARATUS FOR TREATING FABRICS. WALTER W. SIBSON, Philadelphia, Pa., assignor to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 17, 1913. Serial No. 807,189. (Cl. 26—16.)



1. The process of producing long lengths of fabric belting sections, which will maintain substantially a predetermined length, consisting in placing sections of said belting under tension in the direction of its length, continuously traveling said belting, progressing said area of tension along said belting, drying the entire section under tension, and varying the tension of the section being dried to suit the condition of the fabric being treated.

2. An apparatus for treating long lengths of fabric belting comprising a drying compartment, means at the delivery end of the drying compartment for positively drawing the fabric belting through the compartment, and means adjacent the entrance for retarding the movement of the belting into the compartment, whereby the section of belting in the compartment being dried is placed under tension.

3. An apparatus for treating long lengths of fabric belting comprising a drying compartment, a drum at each end of the compartment, means carried by the drums and engaging said belting for preventing the same from slipping on the drums, guide rollers disposed between the drums over which the belting is guided, means for positively driving the drum at the delivering end of the compartment, and means for retarding the movement of the drum at the receiving end of the compartment.

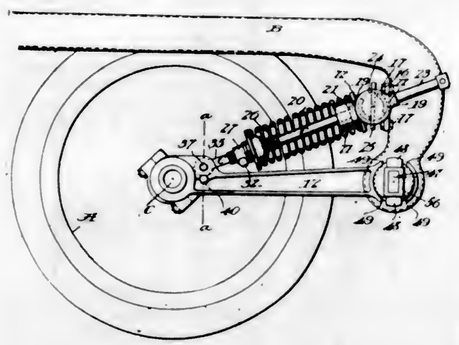
4. An apparatus for treating long lengths of fabric belting comprising a drying compartment, a drum at each end of the compartment, means carried by the drums and engaging said belting for preventing the same from slipping on the drums, guide rollers disposed between the drums over which the belting is guided, means for positively driving the drum at the delivering end of the compartment, said drum at the receiving end of the compartment having a friction member attached thereto, a brake engaging said friction member and means for varying the tension of said brake on said friction member.

5. An apparatus for treating long lengths of fabric belting comprising a drying compartment, a drum at each end of said compartment, spuds carried by the drum at the delivery end of the compartment for engaging the belting to prevent the same from slipping thereon, means for positively driving the drum at said delivering end, rollers disposed between the drums over which the belting is guided, a wheel connected to the drum at the receiving end of the

drying compartment, a brake engaging said wheel, and means for varying the tension of said brake on said wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,137,720. SPRING-RIGGING FOR VEHICLES. GUSTAF ARVID ANDERSON, Waynesboro, Pa. Filed Sept. 8, 1913. Serial No. 788,662. (Cl. 21—50.)



1. A spring rigging for vehicles comprising an axle, a body frame formed with depending arms at its rear end, levers pivotally mounted at one end on the axle of said truck and at the other end on parts carried on the lower end of said depending arms, rods connected at one end with said levers adjacent to the axles and mounted at their other ends to slide in parts on said depending arms of said frame, and springs interposed between parts carried by said rods adjacent to the axle and other parts connected with said depending arms through which said rods slide, substantially as set forth.

2. A spring rigging for vehicles comprising a truck, a body frame mounted on said truck and formed with depending arms at its rear end, levers extending in a substantially horizontal plane and pivoted at one end on an axle of said truck and at their other end on a part carried by said depending arms, rods connected at one end with said levers adjacent to the axle and slidably mounted in parts carried on said frame, and springs interposed between parts carried by said rods and the other parts connected with said frame through which said rods slide substantially as set forth.

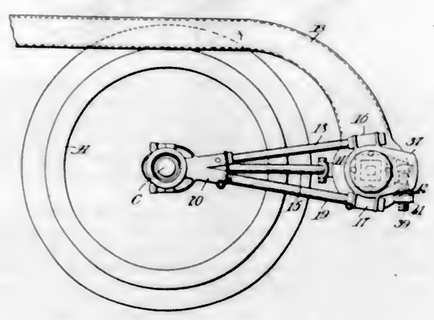
3. The combination with a vehicle and its axle, of a spring rigging comprising levers pivotally mounted at one end on said axle, and at the other end on depending members carried by said frame, rods connected at one end with said levers adjacent to the axle, a bearing mounted on said frame in which the other end of said rod is slidably mounted, a part adjustably mounted on said rod, a spring interposed between said adjustable part, and a bearing on said frame, substantially as set forth.

4. A spring rigging for vehicles comprising a truck, a body frame formed with side bars having depending portions at their rear ends, levers pivotally connected at one end of the rear axle of the truck and at the other end to journals carried by said depending portions, rods pivoted at their front ends to said levers adjacent to the axle and extending in a radial direction through a support carried by the frame at a point above said levers, a bearing plate mounted to be adjusted on said rod, a support carried by said frame, a coiled spring interposed between said bearing plate and said support, and a supplemental spring adapted to be brought into action at a predetermined point in the operation of said first mentioned spring, substantially as set forth.

5. A vehicle comprising a truck, a body, a pivotal and transversely sliding mounting between an axle of said truck and the frame of said body, springs interposed between said truck and body, means for adjusting the tension of said springs, and a supplemental spring mounted to be brought into action upon a certain disturbance of normal relations between the axle and body, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,137,721. SPRING-RIGGING FOR VEHICLES. GUSTAF ARVID ANDERSON, Waynesboro, Pa. Filed Sept. 8, 1913. Serial No. 788,663. (Cl. 21—50.)



1. A spring rigging for vehicles comprising a truck including wheels and axles, a car body, springs interposed between said truck and car body adapted to support the same, ball and socket connections between said springs and the axle slidably mounted upon said axle whereby a transverse movement of the axle is permitted independent of the car body, and springs for returning said parts to their normal relative positions, substantially as set forth.

2. A spring rigging for vehicles comprising a truck including wheels with axles, a car body, springs interposed between the axles of said truck and said car body, a ball and socket connection slidably mounted on the axle, springs for maintaining the normal relative position of the parts, and means for limiting the movement of said parts, substantially as set forth.

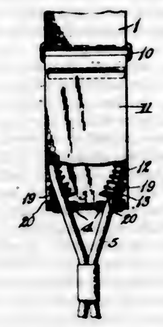
3. A spring rigging for vehicles comprising a truck including wheels with axles, a car body, a connection between the axle and the car body extending to one side of said axle including a pivotal connection with the body and a pivotal connection with the axle, and a helical spring mounted at the pivotal connection of the car body with one end attached to the car body structure and the other end attached to the part pivotally mounted on the axle, and arranged to support said car body from said axle and to be contracted and expanded by the deflection of the axle to and from said car body, substantially as set forth.

4. A spring rigging for vehicles comprising a truck including wheels with axles, a car body, a connection pivotally attached to the car body structure at one end and mounted on the axle at its other end by a connection adapted to pivot and slide, a helical spring interposed in the pivotal joint between the connection and the car body with one end attached to the car body structure and the other end secured to said connection, whereby the weight of the car body is supported from the axle by said spring, and said spring is contracted and expanded by the deflection of the axle to and from said car body, substantially as set forth.

5. In a vehicle, the combination with an axle, of a part mounted to slide thereon embodying a universal connection, the car body supported on said axle from said universal connection, and a spring interposed between said car body and said universal connection adapted to support said car body under normal conditions, substantially as set forth.

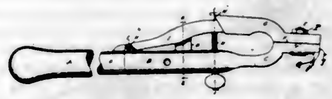
[Claims 6 to 15 not printed in the Gazette.]

1,137,722. SPRING TENSION DEVICE. BERNARD L. BRANDT, Dundee, Mich.; Sarah A. Brandt administratrix of said Bernard L. Brandt, deceased. Filed Jan. 27, 1912. Serial No. 673,899. (Cl. 74—73.)



The combination with a strap having a loop at its end forming a pocket, of a bearing strip arranged within the lower end of said pocket, eyelets extending through the lower end of the pocket and said bearing strip, normally inclined thimbles resting upon the inner ends of said eyelets, a cord extending through said eyelets and said thimbles and forming a tension loop within the pocket, and means encircling the cord of said tension loop and said thimbles for maintaining said loop in an extended position within the pocket of said strap.

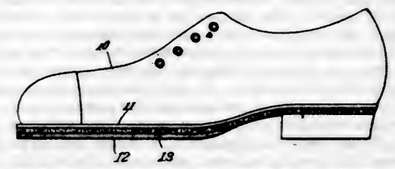
1,137,723. TURPENTINE-HACK. DANIEL W. ADAMS, Glendale Springs, N. C. Filed Dec. 16, 1912. Serial No. 737,099. (Dedicated to the public.) (Cl. 47—40.)



1. In a device of the character described, comprising a handle fitted in a shank, provided with a guide lug, and a gooseneck secured to said shank carrying an adjustably secured cutting head, a gage bar adjusted to said shank and having a recess approximate its center for the reception of said guide lug, a thumbscrew for regulating the depth of the cut disposed transversely to said gage bar and a compression spring embedded in said handle for holding said gage bar against said thumbscrew, substantially as specified.

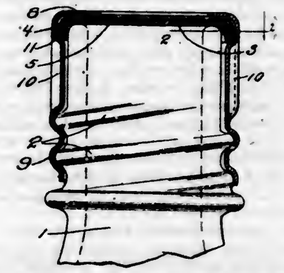
2. In a device of the character described, comprising a handle fitted in a shank, said shank provided with a guide lug, and carrying a gooseneck having a jaw provided with teeth, a cutting head adjusted to said gooseneck and having teeth at one end for engaging the teeth of said jaw, a gage bar adjusted to said shank and having a recess approximate its center for the reception of said guide lug, a compression spring embedded in said handle, a thumbscrew for regulating the depth of the cut disposed transversely to said gage bar, said spring adapted to hold said gage bar fixedly against said thumbscrew and said guide lug retaining said gage bar laterally stable, substantially as specified.

1,137,724. RUBBER SOLE. FRANCIS BOYLE, New York, N. Y., assignor to United States Rubber Company, a Corporation of New Jersey. Filed Dec. 24, 1914. Serial No. 878,908. (Cl. 36—32.)



A vulcanized rubber sole of unitary integral structure embodying a bottom layer of stiff, tough and comparatively non-compressible consistency, adapted to form a firm anchorage for securing means, and an upper layer of yielding elastic consistency adapted to form a cushion.

1,137,725. METALLIC CAP FOR RECEPTACLES. LESLIE R. N. CARVALHO, Brooklyn, N. Y., assignor of one-half to Martin King, Brooklyn, N. Y. Filed Jan. 18, 1913. Serial No. 742,849. (Cl. 215—13.)



1. A receptacle closure comprising a tubular part having an inturned annular shoulder at one end, and a separately formed cover part disposed within the tubular part engaging the under surface of said shoulder to close that end of the tubular part, said cover part having a downturned marginal flange extending away from said shoulder having a tendency to swing its lower edge outwardly toward the inner surface of said tubular part, the tubular part having an upwardly facing inner surface portion inclined upwardly and outwardly, the lower edge of the flange of the cover part being disposed to engage against said inclined surface portion of the tubular part, and the tendency of the flange of the cover part to swing outwardly operating upon said inclined surface portion with a wedge-like action to constantly force the cover part into close contact with the under surface of said shoulder.

2. A receptacle closure comprising a tubular part having an inturned annular shoulder at one end, and a separately formed cover part disposed within the tubular part engaging the under surface of said shoulder to close that end of the tubular part, said cover part having a marginal flange formed thereon extending diagonally outwardly and downwardly away from said shoulder, having a tendency to swing its lower edge outwardly and upwardly toward the inner surface of the tubular part, the tubular part having an upwardly facing inner surface portion inclined upwardly and outwardly, the lower edge of the flange of the cover part being disposed to engage said inclined surface portion of the tubular part at only a slightly greater angle than the path of swing of the lower edge of the flange of the cover part, whereby the tendency of said flange to swing outwardly will operate upon said inclined surface portion with a wedge-like action to forcefully urge the cover part into close contact with the under surface of the shoulder.

3. A receptacle closure comprising a tubular part, and

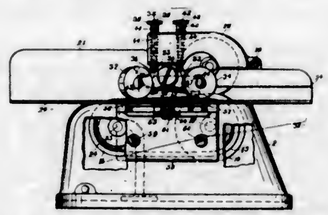
a cover part, the tubular part being formed intermediate its ends with a plurality of stiffening ribs extending longitudinally thereof formed by corrugations of the material of the tubular part, the tubular part being formed at the lower end of said stiffening ribs with means for detachably connecting the closure to a receptacle, and being formed at its upper end with an inwardly projecting shoulder spaced from the upper ends of the stiffening ribs, the cover part being located within the tubular part engaging the under surface of said shoulder, and having a downturned marginal flange extending away from said shoulder toward the upper ends of said stiffening ribs, said flange having a tendency to swing its lower edge outwardly toward the inner surface of the tubular part the upper ends of said stiffening ribs being beveled to provide upwardly and outwardly inclining surfaces interiorly of the tubular part, the lower edge of the flange of the cover part being disposed to engage said inclined surfaces, and the tendency of the flange of the cover part to swing outwardly operating upon said inclined surfaces with a wedge-like action to constantly force the cover part into close contact with the under surface of said shoulder.

4. A receptacle closure comprising a tubular part, and a separately formed cover part, the tubular part having a shoulder formed therein, the cover part being inserted within the tubular part and being held against movement in one direction by engagement with said shoulder, said cover part being formed with a marginal flange projecting away from said shoulder, said tubular part having struck-in portions engaging the edge of said flange to lock the cover part therebetween and said shoulder, said struck-in portions extending inwardly beyond their engagement with the edge of the flange of the cover part to form a second shoulder within said tubular part spaced from said first shoulder, and a lining within said cover part being held therein by engagement with said second shoulder.

5. A receptacle closure comprising a tubular part having an inturned annular shoulder at one end, and a separately formed cover part disposed within the tubular part engaging the under surface of said shoulder to close that end of the tubular part, said cover part having a downturned marginal flange extending away from said shoulder, said tubular part having a plurality of stiffening ribs extending longitudinally thereof, terminating short of said shoulder and providing surfaces at their ends engaging the lower edge of the flange of the cover part to retain said cover part against said shoulder.

[Claims 6 to 17 not printed in the Gazette.]

1,137,726. ENVELOP-OPENER. HENRY D. TAYLOR, Rochester, N. Y., assignor to Lightning Letter Opener Company, Rochester, N. Y., a Corporation. Filed Dec. 5, 1912. Serial No. 735,170. (Cl. 164—61.)



1. In a machine for opening envelops, the combination with a guide along which envelops are adapted to be moved, and a cutting mechanism arranged to remove an edge of each envelop moving along the guide of a deflecting roller for operating upon an envelop moving along the guide, said roller being mounted to rotate normally in one plane and shift to operate in another plane when an envelop engages the same, to move such envelop laterally against the guide.

2. In a machine for opening envelops, the combination with a guide along which envelops are adapted to be moved, and a cutting mechanism arranged to remove an edge of each envelop moving along the guide, a deflecting roller mounted to rotate normally in a plane parallel with the direction of movement of the envelops along the guide and to shift to operate at an oblique angle in the direction of the movement of the envelops when said envelops engage the same.

3. In a machine for opening envelops, the combination with a table and a guide arranged to one side of the same, of a cutting mechanism operating in proximity to the guide for severing an edge of each envelop moving along the guide, of a deflecting roller mounted above the table to rotate in a plane parallel with the direction of the movement of the envelops and to shift to operate in a plane at an oblique angle to the direction of movement of the envelops when the envelops engage such roller.

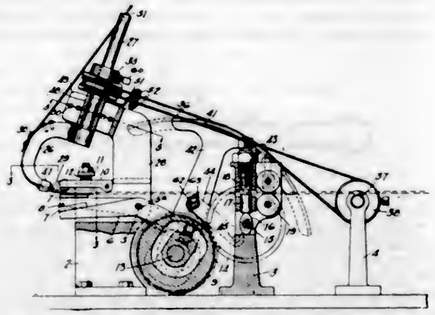
4. In a machine for opening envelops, the combination with a guide along which the envelops are moved and a cutting mechanism operating to sever the edges of the envelops moving on the guide, of a deflecting roller supported in such a manner that its axis of rotation shifts angularly to correspond with the thickness of the envelop in order to increase the deflecting action.

5. The combination with a guide along which the envelops are moved, and a cutting mechanism operating to sever the edges of the envelops moving along the guide, of a deflecting roller supported in such a manner that its axis of rotation shifts angularly to the guide and also raises and lowers to correspond to the thickness of each envelop.

[Claims 6 to 51 not printed in the Gazette.]

REISSUES.

13,904. MACHINE FOR FORMING WIRE STAYS. JOHN F. KITCHEN, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Mar. 2, 1915. Serial No. 11,624. Original No. 1,118,019, dated Nov. 24, 1914, Serial No. 711,512. (Cl. 140—91.)



1. In a wire bending machine, the combination of two loop-forming pins, carriers therefor arranged to raise and lower the same alternately, and a movable bending member located in advance of said loop-forming pins and arranged to alternately bend the wire first around one pin and then around the other to form a wire fabric, the formed fabric leaving said pins on the side opposite said bending member.

2. In a wire bending machine, the combination of two loop-forming pins, carriers therefor arranged to raise and lower the same alternately, and a movable hollow member through which the wire is fed, said member being located on one side of said pins and being operative to bend said wire back and forth alternately around said pins to form a wire fabric, the completed fabric lying on the opposite side of said pins.

3. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, and a wire bending member arranged to oscillate around an axis located in advance of said pins and bend the wire alternately around the same to form a wire fabric, the completed wire fabric lying behind said pins.

4. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating bending member having its axis in the median plane of the machine and arranged to alternately bend the wire around said pins, and means for feeding the completed stay fabric away from said pins on the side thereof opposite said bending member.

5. In a wire stay forming machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, and an oscillating bending member having an axis in the central median plane of the machine and inclined to the plane of the finished stay, said member being arranged to oscillate around said axis and alternately bend the wire around said pins.

6. In a wire stay forming machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating bending member having an axis in the central median plane of the machine and inclined to the plane of the finished stay, said member being arranged to oscillate around said axis and bend the wire around said pins, and means whereby the inclination of said axis to the plane of the stay may be varied.

7. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, and an oscillating bending member having its axis in the median line of the machine and arranged to oscillate around said axis and bend the wire around said pins, said member being so mounted as to be bodily adjustable with relation to said pins.

8. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating shaft, an arm on said shaft, and a hollow guide and bender on said arm arranged to swing from side to side of the machine and bend the wire around said pins.

9. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating shaft, an arm on said shaft, a hollow guide and bender on said arm arranged to swing from side to side of the machine and bend the wire around said pins, and means whereby said hollow guide may be adjusted toward and from said pins to vary the distance therebetween.

10. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating bending member having its axis in the median line of the machine and arranged to oscillate around said axis and bend the wire around said pins, means for oscillating said member, and means for varying the amplitude of oscillation of said member.

11. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating shaft, an arm carrying a bender thereon, means for oscillating said shaft, and means whereby said shaft may be adjusted endwise in its support.

12. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating shaft having its axis inclined to the plane of the fabric being formed, an arm carrying a bender thereon, means for oscillating said shaft, and means whereby said shaft may be adjusted endwise in its support.

13. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, a frame supporting said carriers, a bearing member carried by said frame, an oscillating shaft in said member with its axis inclined to that of the finished article, and means for adjusting said bearing member on said frame to vary said inclination.

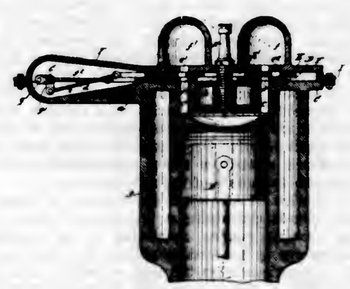
14. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating shaft carrying a guide and bender for bending the wire around said pins, a sheave on said shaft, and flexible driving means connected to said sheave and arranged to rotate the same and oscillate said bender from side to side of the machine.

15. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, an oscillating shaft carrying a guide and bender for bending the wire around said pins, a sheave on said shaft, and flexible driving means connected to said sheave and arranged to rotate the same and oscillate said bender from side to side of the machine, said sheave being rotatably adjustable on said shaft.

16. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, a shaft carrying a bender arranged to oscillate from side to side of said machine to bend the wire around said pins, a sheave on said shaft, a second shaft, a pair of sheaves thereon, a flexible driving member passing around said pair of sheaves in opposite directions, and means connected to said flexible member for oscillating said bender shaft.

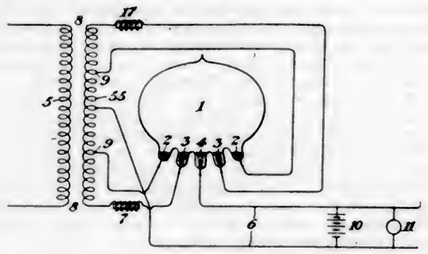
17. In a wire bending machine, the combination of loop-forming pins, carriers therefor arranged to raise and lower the same alternately, a shaft carrying a bender arranged to oscillate from side to side of said machine to bend the wire around said pins, a sheave on said shaft, a second shaft, a pair of sheaves thereon, a flexible driving member passing around said pair of sheaves in opposite directions, means connected to said flexible member for oscillating said bender shaft, means for bodily adjusting said bender shaft to vary the position of said bender with relation to said pins, and means for rotatably adjusting one of said pair of sheaves on said second-named shaft.

13,905. INTERNAL-COMBUSTION ENGINE. HOWARD H. MURPHY, Boston, Mass. Filed Mar. 24, 1915. Serial No. 16,792. Original No. 1,096,261, dated May 12, 1914, Serial No. 700,628. (Cl. 123—75.)



In an internal combustion engine, the combination of a cylinder, a valve seat on the head of said cylinder, a spark-plug located in the head of said cylinder, intake and exhaust ports in said head of said cylinder, a lower sliding valve plate adapted to be moved across said valve seat, ports in said valve plate adapted to be brought into operative relation with said intake and exhaust ports, a second sliding valve plate super-imposed upon said lower valve plate, ports in said second sliding valve plate adapted to be brought in operative relation with said ports into said lower sliding valve plate, and with said intake and exhaust ports, slots in said valve plates whereby they may be permitted free movement about said spark-plug, and means whereby said sliding valve plates may be actuated in a manner whereby their movements are so timed that said intake and exhaust ports are made alternately operative.

13,906. MEANS FOR MAINTAINING VAPOR-CONVERTERS IN OPERATION. PERCY H. THOMAS, Upper Montclair, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Aug. 7, 1914.. Serial No. 855,712. Original application filed Dec. 24, 1903, Serial No. 186,488. Divided and application filed Oct. 19, 1904, Serial No. 229,047. Original No. 964,336, dated July 12, 1910. (Cl. 171—253.)



1. A vapor converter having a plurality of main positive electrodes, a plurality of supplemental positive electrodes, and a common negative electrode, in combination with a source of normal electro-motive-force and connections therefrom to the common negative electrode and the main positive electrodes, a source of increased electro-motive force, and connections therefrom to the common negative and the supplemental positive electrodes.

2. A vapor converter having a plurality of main positive electrodes, a plurality of supplemental positive electrodes, and a common negative electrode, in combination with a source of normal electro-motive-force and connections therefrom to the common negative and the main positive electrodes, a source of increased electro-motive-force, and connections therefrom to the common negative and the supplemental positive electrodes, an inductance being interposed in each circuit of the source of increased electro-motive-force.

3. In a system of electrical distribution, an alternating current supply circuit and a direct current work circuit including a translating device, in combination with a vapor converter interposed between the described circuits, the said vapor converter being provided with a plurality of main positive electrodes, a plurality of supplemental positive electrodes, and a common negative electrode, the negative electrode being connected to a common terminal of a source of normal electro-motive-force and a source of increased electro-motive-force, and the main and supplemental positive electrodes being connected, respectively, to the opposite terminals of the said sources.

4. In a system of electrical distribution, a direct current work circuit containing a translating device, an alternating current source consisting of a transformer whose secondary is adapted to supply the said work circuit, and connections from the said secondary to the work circuit through a vapor converter having a plurality of main positive electrodes, a plurality of supplemental positive electrodes and a common negative electrode, the said negative electrode being connected to an intermediate point of the secondary, the supplemental positive electrodes being connected to the terminals of the said secondary and the main positive electrodes being connected to the secondary at points intermediate between the point of connection for the negative electrode and the points of connection for the supplemental positive electrodes.

5. In a system of electrical distribution, a direct current work circuit containing a translating device, an alternating current source consisting of a transformer whose secondary is adapted to supply the said work circuit, and connections from the said secondary to the work circuit through a vapor converter having a plurality of main positive electrodes, a plurality of supplemental positive electrodes and a common negative electrode, the said negative electrode being connected to an intermediate point of the secondary, the supplemental positive electrodes being connected to the terminals of the said secondary and the main positive electrodes being connected to the secondary at points intermediate between the point of connection for the negative electrode and the points of connection for the supplemental positive electrodes, and an inductance interposed in each circuit between the supplemental positive electrodes and the terminals of the sources.

6. In a system of electrical distribution, an alternating current supply circuit and a direct current work circuit including a translating device having the capacity of developing counter electro-motive-force, in combination with a vapor converter interposed between the described circuits, the said vapor converter being provided with a plurality of main positive electrodes, a plurality of supplemental positive electrodes, and a common negative electrode, the negative electrode being connected to a common terminal of a source of normal electro-motive-force and a source of increased electro-motive-force, and the main and supplemental positive electrodes being connected, respectively, to the opposite terminals of the said sources.

7. In a system of electrical distribution, a direct current work circuit containing a translating device having the capacity of developing counter electro-motive force, an alternating current source consisting of a transformer whose secondary is adapted to supply the said work circuit, and connections from the said secondary to the work circuit through a vapor converter having a plurality of main positive electrodes, a plurality of supplemental positive electrodes and a common negative electrode, the said negative electrode being connected to an intermediate point of the secondary, the supplemental positive electrodes being connected to the terminals of the said secondary and the main positive electrodes being connected to the secondary at points intermediate between the point of connection for the negative electrode and the points of connection for the supplemental positive electrodes.

8. In a system of electrical distribution, a direct current work circuit containing a translating device having the capacity of developing counter electro-motive force, an alternating current source consisting of a transformer whose secondary is adapted to supply the said work circuit, and connections from the said secondary to the work circuit through a vapor converter, having a plurality of main positive electrodes, a plurality of supplemental positive electrodes and a common negative electrode, the said negative electrode being connected to an intermediate point of the secondary, the supplemental positive electrodes being connected to the terminals of the said secondary and the main positive electrodes being connected to the secondary at points intermediate between the point of connection for the negative electrode and the points of connection for the supplemental positive electrodes, and an inductance interposed in each circuit between the supplemental positive electrodes and the terminals of the sources.

9. In an organization of circuits in which a vapor converter is utilized for transmitting a direct current from an alternating current source to a suitable receiving circuit, means for keeping the converter alive, such means consisting of devices for applying simultaneously to the converter single phase electric currents from a plurality of electrodes, and means for causing a difference in the phases of the currents from simultaneously operating sources to produce a continuous overlapping of the current at the negative electrode.

10. A vapor converter having a plurality of main positive electrodes and a plurality of supplemental positive electrodes and a common negative electrode in combination with a source of normal electromotive force, connections therefrom to the common negative and the main positive electrodes, a source of increased electromotive force, connections therefrom to the common negative and the supplemental positive electrodes, inductances being interposed in a plurality of the connections from the positive electrodes to the sources.

11. A system of electrical distribution including a vapor converter having a main positive electrode, a supplemental positive electrode and a common negative electrode, in combination with a source of normal electromotive force and connections therefrom to the common negative electrode and the main positive electrode, a source of increased electromotive force and a connection therefrom to the common negative electrode and the supplemental positive electrode, together with complementary means for maintaining the negative electrode in operative condition.

12. The combination with a single phase alternating current source, a vacuum rectifier comprising a hermetically sealed and completely exhausted container, a vaporizable reconstructing cathode and a plurality of main and supplemental anodes therein, and a direct current work circuit supplied from said rectifier, of means for passing through said work circuit from said source a plurality of currents respectively through the main and supplemental positive electrodes, the phases of said currents overlapping whereby a continuous flow of current is maintained through said negative electrode.

13. In a system of electrical distribution wherein a direct current work circuit is supplied from an alternating current source through a vacuum rectifier comprising a hermetically sealed and completely exhausted container, a vaporizable reconstructing cathode and suitable anodes therefor, a current path from a terminal of the source through an anode to the work circuit in combination with a shunt path external to the sources from the said terminal to the work circuit, said shunt path including a second anode and a source of electromotive force and a voltage consuming device capable of storing and restoring energy together with complementary means for maintaining the negative electrode in operative condition.

14. In a system of electrical distribution in which a direct current work circuit is supplied from an alternating source through a vacuum rectifier comprising a hermetically sealed and completely exhausted container, a vaporizable reconstructing cathode, and suitable anodes therein, the combination of direct connections for supplying energy from the source to the work circuit through said rectifier in combination with a source of separate electromotive force supplying energy to the work circuit, the last named electromotive force operating through energy storing means, whereby current is passed through the rectifier therefrom at times of zero electromotive force from the supply.

15. In a system of electrical distribution a direct current work circuit including a counter-electromotive force, an alternating current source supplying said work circuit through a vacuum rectifier comprising a hermetically sealed and completely exhausted container, a vaporizable reconstructing cathode and suitable anodes therein, in combination with a source of energy at higher potential than the first named source, and means for storing energy and limiting the flow of current from the last named source and for altering its phase whereby the rectifier is maintained in operating condition.

16. The method of keeping alive a vapor converter, which consists in applying to the converter currents from a source of normal electro-motive-force and in addition thereto applying to the converter currents from an increased electro-motive-force having a phase different from the normal electro-motive-force, so that at stated times current will flow through the converter.

17. In a system of electrical distribution, the method of supplying to a work circuit, including a counter-electromotive force, direct current from an alternating current source, which consists in applying two sets of alternating potential impulses naturally in phase from the supply to the work circuit, altering the phase of the current from one set of alternating impulses to bridge the zero points of the current from the other set and opposing all impulses from the supply tending to pass current in a given direction through the work circuit.

18. The method of keeping alive a vapor converter, which consists in applying to the converter currents from a source of normal electro-motive-force, and also applying to the converter currents from an increased electro-motive-force, and varying the phase of the two electro-motive-forces.

19. The method of keeping alive a vapor converter, which consists in applying to the converter currents from a source of normal electro-motive-force, and also applying to the converter currents from an increased electro-motive-force, and inductively varying the phase of the two electro-motive-forces.

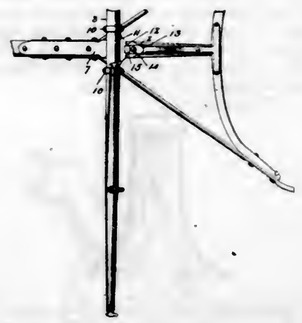
20. In a system of electrical distribution, the method of supplying to a work circuit direct current from an alternating current source, which consists in altering the phase of the higher of two sets of alternating impulses from the supply applied to a counter-electromotive force in the work circuit so that said impulses overlap to produce a minimum potential greater than the counter-electromotive force and opposing the flow of current from the supply through the work circuit in a given direction.

21. In a system of electrical distribution the method of supplying to a work circuit direct current from an alternating current source, which consists in lagging inductively the phase of the higher of two sets of alternating impulses from the supply applied to a counter-electro-motive force in the work circuit so that said impulses overlap to produce a minimum potential greater than the counter-electromotive force and opposing the flow of current from the supply through the work circuit in a given direction.

22. In a system of electrical distribution, the method of rectifying a current from an alternating supply for use in a direct current receiving circuit, which consists in passing current from alternate supply alternations through the work circuit in a given direction, passing current from the remaining supply alternations in this same direction of flow through the work circuit, opposing all current flow in the opposite direction and separably lagging two other sets of current waves naturally in phase with the first in applying them to the work circuit, so that an uninterrupted flow of current is introduced therein.

23. In a system of electrical distribution, the combination with an alternating supply, a direct current work circuit and a vapor rectifier interposed between said supply and said work circuit, of connections between said supply and said rectifier and said work circuit, whereby an unimpeded flow of electrical energy is provided, and a separate keeping alive circuit including said work circuit, fed from said supply.

13,907. EVENER-COUPLING. GEORGE F. THOMPSON, Minneapolis, Minn., assignor to American Patent Holding Co., Minneapolis, Minn., a Corporation of Minnesota. Filed Apr. 17, 1911. Serial No. 621,722. Original No. 948,487, dated Feb. 8, 1910, Serial No. 434,603. (Cl. 21—78.)



1. The combination, with a pole having a tapered socket extending therethrough, of top and bottom plates for said pole, said top plate having flanges depending on each side of said pole, and a hub fitting within said socket, an evener, a coupling plate adapted to rest on the top plate of said pole and having end portions projecting laterally on each side and secured to said evener, said coupling plate having a hollow tapered stud fitting within said hub, and a bolt fitting within said hollow stud and having its head in engagement with said evener coupling plate,

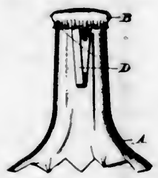
and a nut on its lower end in engagement with the bottom plate of said pole, substantially as described.

2. The combination, with a pole having a socket therein, of top and bottom plates for said pole, said top plate having a hub fitting within said socket, an evener, a coupling plate resting on the top plate of said pole and having end portions projecting laterally on each side thereof, and means for securing said end portions to said evener, said coupling plate having a flat flange projecting rearwardly therefrom, and said flange having a broad bearing surface on said top plate and provided with a curved upwardly turned rear edge, a hammer strap secured to said pole and provided with a hook at its forward end which overhangs the upwardly turned edge of said flange, and means for clamping said hammer strap on said pole in the rear of and close to the point where its hook engages the upwardly-turned edge of said flange, and said coupling plate projecting in front of the socket in said pole and bearing on said top plate and whereby horizontal oscillation of the evener will be permitted but a forward rolling movement is prevented.

3. The combination, with a buggy pole having a socket therein, of top and bottom plates secured to said pole, said top plate having depending flanges on each side thereof secured to said pole, and a hub fitting within the socket in said pole, an evener, a coupling plate having a stud fitting within said hub, and means for securing said stud therein, said coupling plate having end portions projecting laterally on each side of said pole, and means for securing said end portions to said evener, and said end portions having depending lugs cast integrally therewith on each side of said pole and adapted when the evener is oscillated to engage the depending flanges of said top plate and limit the oscillation of the evener thereon, substantially as described.

4. The combination with a vehicle pole and a transversely arranged evener, of a plate secured to the top of the pole and having a relatively large pivot aperture, a plate secured to the bottom of the evener and having a pivot boss fitting the said aperture a pivot bolt extending vertically through the said pivot aperture and through the said pivot boss, the said evener plate bearing upon the top plate of the pole on all sides of the said aperture, and a holder secured to the pole independently of the said top plate in the rear thereof and arranged to engage the top of the evener plate, substantially as described.

13,908. COMBINED BOTTLE-CAP AND REMOVER. FRANCIS C. WALLACE, Drummond, Md., and CHARLES F. FORSYTH, Washington, D. C., assignors, by mesne assignments, to Little Giant Manufacturing Company, a Corporation of Delaware. Filed Jan. 29, 1915. Serial No. 5,148. Original No. 986,524, dated Mar. 14, 1911, Serial No. 565,073. (Cl. 215—53.)



1. The combination with a crown cap and its filler, of a strap of flexible, compressible material, the ends of the strap positioned intermediate the cap and filler, said strap extending beyond the cap to form a puller and being crimped between the cap and the bottle neck, for the purpose described.

2. The combination with a metallic flanged cap, having a compressible filler, of a puller consisting of a strap of flexible compressible material secured between the cap and bottle neck and extending beyond the cap for the purpose described.

3. In combination with a crown cap, a filler therefor, a flexible compressible strap independent of the cap and bent to form a loop and extending between the filler and cap, the strap being crimped with the marginal edge of the cap against the bottle neck, one end of the strap extending across the filler and engaging over the edge thereof.

DESIGNS.

47,254. GLASS KNOB. WILBUR F. BURNS, Bridgeport, Conn., assignor to The Burns & Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 30, 1914. Serial No. 874,945. Term of patent 3½ years.





The ornamental design for a glass knob, as shown.

47,255. DRESS. HARRY COLLINS, New York, N. Y. Filed Jan. 27, 1915. Serial No. 4,803. Term of patent 3½ years.



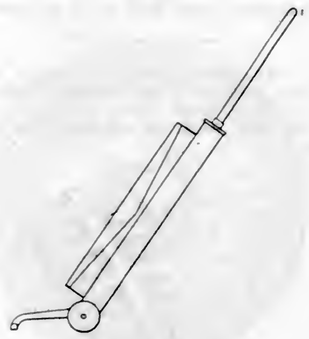
The ornamental design for a dress as shown.

47,256. DRESS. HARRY COLLINS, New York, N. Y. Filed Jan. 27, 1915. Serial No. 4,804. Term of patent 3½ years.



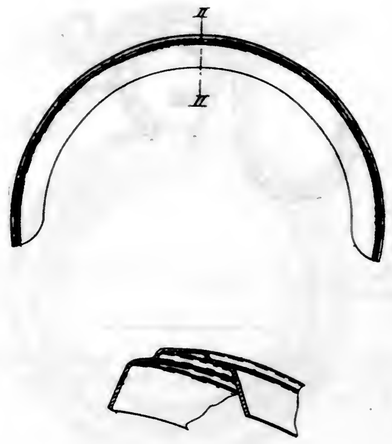
The ornamental design for a dress as shown.

47,257. SUCTION-CLEANER FRAME. WALTER G. DOTY, Dayton, Ohio. Filed June 4, 1914. Serial No. 843,109. Term of patent 3½ years.



The ornamental design for a suction cleaner frame, as shown.

47,258. DROP SIDE MUD-GUARD. WALTER R. GREEN, Chicago, Ill. Filed Feb. 17, 1913. Serial No. 749,045. Term of patent 14 years.



The ornamental design for a drop side mud guard as shown.

47,259. DOLL OR TOY. ALFRED R. HODGE, Chicago, Ill. Filed Apr. 13, 1914. Serial No. 831,643. Term of patent 3½ years.



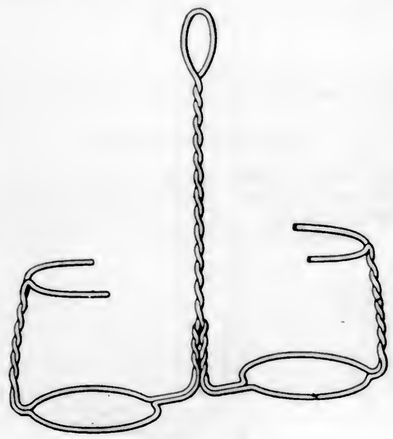
The ornamental design for a doll or toy, as shown.

47,260. ADJUSTABLE CLAMP-ARM FOR SUPPORTING CANDLES. CHARLES E. JONES, Chicago, Ill., assignor to Metal Arts & Crafts Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 5, 1915. Serial No. 6,388. Term of patent 7 years.



The ornamental design for an adjustable clamp arm for supporting candle, as shown.

47,261. CRUET-STAND. WILLIAM KELSOW, Hoboken, N. J. Filed Feb. 16, 1915. Serial No. 8,636. Term of patent 7 years.



The ornamental design for a cruet stand, substantially as shown.

47,262. CHARM. AUGUST H. KRAFT, Oakland, Cal. Filed Feb. 6, 1915. Serial No. 6,600. Term of patent 3½ years.



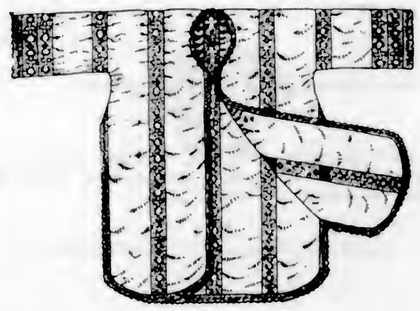
The ornamental design for a charm, as shown.

47,263. HAND IMPLEMENT. MARVIN A. LADD, Adrian, Mich. Filed Mar. 7, 1914. Serial No. 823,263. Term of patent 7 years.



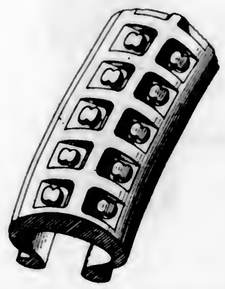
The ornamental design for a hand implement, as shown.

47,264. JACKET. HENRIETTA V. METZGER and HELEN VON HARTZ, Cleveland, Ohio. Filed Feb. 1, 1915. Serial No. 5,575. Term of patent 7 years.



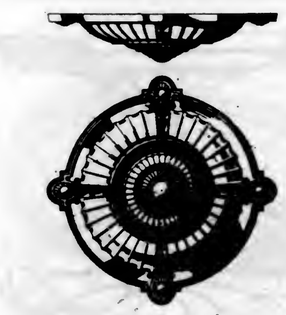
The ornamental design for a jacket as shown.

47,265. TIRE-CASING. EDSON A. MILLER, East Palestine, Ohio, assignor to East Palestine Rubber Company, East Palestine, Ohio, a Corporation of Ohio. Filed Dec. 28, 1914. Serial No. 879,404. Term of patent 7 years.



The ornamental design for a tire casing, as shown.

47,266. SHOWER-PAN FOR LIGHTING-FIXTURES. EDWARD MITCHELL, St. Charles, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1915. Serial No. 12,633. Term of patent 3½ years.



The ornamental design for a shower pan for lighting fixtures, as shown.

47,267. SHOWER-PAN FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 25, 1915. Serial No. 10,643. Term of patent 3½ years.



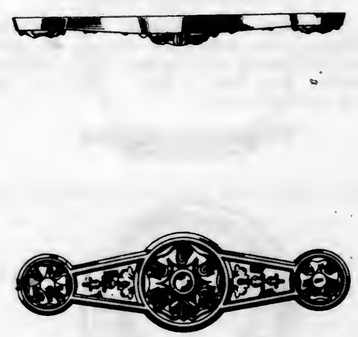
The ornamental design for a shower pan for lighting fixtures, as shown.

47,268. SHOWER-PAN FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 25, 1915. Serial No. 10,644. Term of patent 3½ years.



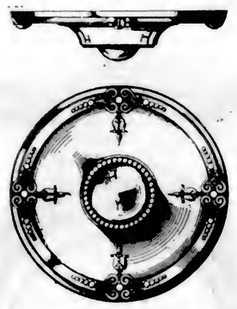
The ornamental design for a shower pan for lighting fixtures, as shown.

47,269. SHOWER-PAN FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1915. Serial No. 11,061. Term of patent 3½ years.



The ornamental design for a shower pan for lighting fixtures, as shown.

47,270. SHOWER-PAN FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1915. Serial No. 11,062. Term of patent 3½ years.



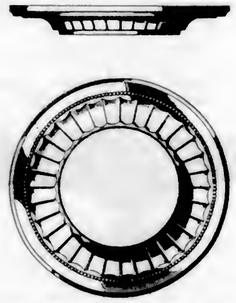
The ornamental design for a shower pan for lighting fixtures, as shown.

47,271. BOWL FOR INDIRECT LIGHTING. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1915. Serial No. 12,625. Term of patent 3½ years.



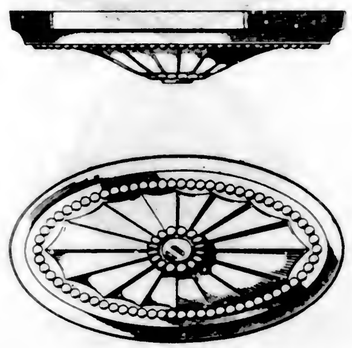
The ornamental design for a bowl for indirect lighting, as shown.

47,272. SUPPORT FOR BOWLS FOR INDIRECT LIGHTING. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1915. Serial No. 12,626. Term of patent 3½ years.



The ornamental design for a support for bowls for indirect lighting, as shown.

47,273. BACK PLATE FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1915. Serial No. 12,627. Term of patent 3½ years.



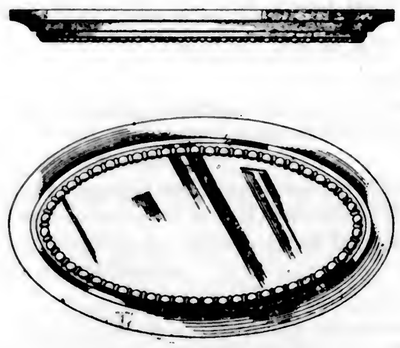
The ornamental design for a back plate, as shown.

47,274. CANOPY FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 6, 1915. Serial No. 12,628. Term of patent 3½ years.



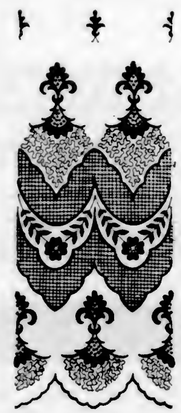
The ornamental design for a canopy for lighting fixtures, as shown.

47,275. BACK PLATE FOR LIGHTING-FIXTURES. PAUL MOHRMANN, Chicago, Ill., assignor to Friedley-Voshardt Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 18, 1915. Serial No. 15,335. Term of patent 3½ years.



The ornamental design for a back plate for lighting fixtures, as shown.

47,276. EMBROIDERY. HENRY SCHWARBER, Weehawken, N. J., assignor to Inflexible Company, West New York, N. J. Filed Jan. 23, 1915. Serial No. 4,060. Term of patent 3½ years.



The ornamental design for embroidery as shown.

47,277. PLUSH FABRIC. BERTRAM A. STROOCK, Newburgh, N. Y., assignor to Stroock Plush Company, Newburgh, N. Y., a Corporation of New York. Filed Feb. 8, 1915. Serial No. 6,880. Term of patent 3½ years.



The ornamental design for plush fabric, as shown.

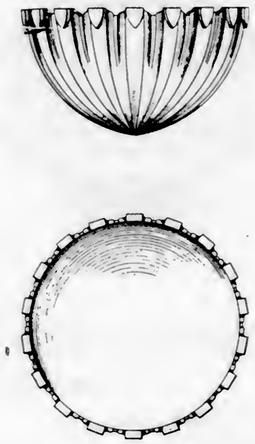
47,278. BOTTLE. THEODORE WEICKER, Stamford, Conn., assignor to E. R. Squibb & Sons, a Corporation of New York. Filed Dec. 12, 1914. Serial No. 876,976. Term of patent 14 years.



The ornamental design for a bottle, as shown.

42,279. [WITHDRAWN.]

47,280. LAMP-SHADE. LORIN W. YOUNG, New York, N. Y. Filed Feb. 27, 1915. Serial No. 11,064. Term of patent 7 years.



The ornamental design for a lamp shade as shown.

TRADE-MARKS

PUBLISHED APRIL 27, 1915.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 68,665. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TROY CHEMICAL CO., Binghamton, N. Y. Filed Feb. 21, 1913.

CURA-BOS

Particular description of goods.—A Remedy for Scours.
Claims use since December, 1912.

Ser. No. 69,858. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAYNES DRUG COMPANY, Boston, Mass. Filed Apr. 17, 1913.

VENDOME

Particular description of goods.—Chocolates.
Claims use since Apr. 10, 1913.

Ser. No. 70,153. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE JENNINGS & GRIFFIN MANUFACTURING CO., Yalesville, Conn. Filed May 1, 1913.



The words "trade mark" being excluded.
Particular description of goods.—Expansion-Bits, Drawing-Knives, Augers, Ship-Augers, Auger-Bits, Chisels, Saws, Bung-Borers, Screw-Drivers, Countersinks, Square Reamers, Nail-Sets, Punches, Gouges, Ice-Picks, Gimlets, Gimlet-Bits, Electricians' Bit Extensions, Tool-Handles, Braces.
Claims use since Oct. 11, 1905.

Ser. No. 71,724. (CLASS 37. PAPER AND STATIONERY.) ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y. Filed July 16, 1913. Under ten-year proviso.

CROSS-CUT

Particular description of goods.—Toilet-Paper.
Claims use since Dec. 29, 1891.

Ser. No. 74,818. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WM. BROS BOILER & MANUFACTURING CO., Minneapolis, Minn. Filed Dec. 23, 1913.



Particular description of goods.—Boilers, Feed-Water Heaters, Smoke-Stacks, Breechings, Boiler Fronts and Castings.
Claims use since Aug. 1, 1907.

Ser. No. 74,933. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE ETHEL COAL CO., Ethel, W. Va. Filed Jan. 2, 1914.

ETHELOGAN

Particular description of goods.—Coal.
Claims use since Dec. 1, 1913.

Ser. No. 74,947. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK B. SULLIVAN, Boston, Mass. Filed Jan. 2, 1914.

Snappy

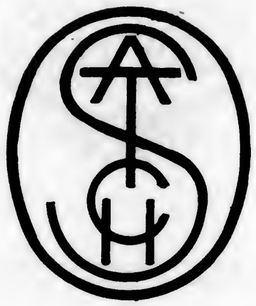
Particular description of goods.—Breakfasts, Dinners, Suppers, and Lunches Consisting of Cooked Meats, Cooked Fish, Cooked Vegetables, Fresh Fruit, Cooked Fruit, Cooked Eggs, Bread, Candies, Coffee Beverage, Tea Beverage, Crackers, Jellies, Pastry, Peanuts, Pies, Pickles, Popcorn, Puddings, Soups, and Sandwiches.
Claims use since May, 1909.

Ser. No. 75,585. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NELSON, BAKER & Co., Detroit, Mich. Filed Jan. 31, 1914.

IODOSYL.

Particular description of goods.—Ointments.
Claims use since Feb. 14, 1901.

Ser. No. 75,852. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIÉTÉ ANONYME DE TRAITEMENTS CHIMIQUES, St. Denis, France. Filed Feb. 11, 1914.



Particular description of goods.—Radium and Radioactive Compounds of Radium for Medical Use and Containers for Holding the Same During Use Thereof.
Claims use since Nov. 19, 1913.

Ser. No. 75,853. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIÉTÉ ANONYME DE TRAITEMENTS CHIMIQUES, St. Denis, France. Filed Feb. 11, 1914.

SATCH

Particular description of goods.—Radium and Radioactive Compounds for Radium for Medical Use and Containers for Holding the Same During Use Thereof.
Claims use since Nov. 19, 1913.

Ser. No. 78,273. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWIN BINNEY, New York, N. Y. Filed May 14, 1914.

FLORINDIA

Particular description of goods.—Fresh and Preserved Fruits.
Claims use since Apr. 25, 1914.

Ser. No. 78,394. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) NEUE PHOTOGRAPHISCHE GESELLSCHAFT AKTIENGESELLSCHAFT, Steglitz, near Berlin, Germany. Filed May 19, 1914.

ALBOIDIN

Particular description of goods.—Sensitized Photographic Papers, Plates, Actinometers, Stereoscopes, Films, Film-Stretchers, Film-Packing, Kino-Films, Film-Packages, Drying-Boxes, Adapters, Vignetters, Cameras, Screens, and Foil Filters.
Claims use since the 30th of March, 1914.

Ser. No. 78,693. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEO. S. DAUGHERTY COMPANY, Pittsburgh, Pa. Filed June 1, 1914.

ALHAMBRA

Particular description of goods.—Canned and Bottled Vegetables and Fruits—Namely, Canned and Bottled Corn, Peas, Beans, Beets, Pumpkin, Spinach, Tomatoes, Apricots, Berries, Cherries, Peaches, Pears, Pineapple, Plums, and Catsup.
Claims use since June, 1911.

Ser. No. 78,694. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEO. S. DAUGHERTY COMPANY, Pittsburgh, Pa. Filed June 1, 1914.

LAKE COMA

Particular description of goods.—Canned and Bottled Vegetables and Fruits—Namely, Canned and Bottled Corn, Peas, Beets, Spinach, Tomatoes, Apples, Berries, Peaches, Pears, Catsup, and Pork and Beans.
Claims use since August, 1913.

Ser. No. 78,933. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RUNKEL BROTHERS, INCORPORATED, New York, N. Y. Filed June 9, 1914.



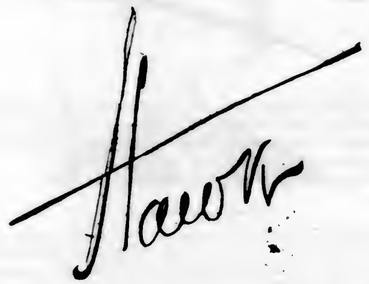
The picture being fanciful.
Particular description of goods.—Cocoa and Milk-Chocolate.
Claims use since March, 1914.

Ser. No. 80,256. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE A. SCHOENHUT COMPANY, Philadelphia, Pa. Filed Aug. 1, 1914.

"MODLWOOD"

The trade-mark which consists of the word "Modlwood."
Particular description of goods.—Sectional Wooden Toys.
Claims use since about June 6, 1914.

Ser. No. 80,432. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAWKS, INCORPORATED, Bloomington, Ill. Filed Aug. 10, 1914.



The same being the facsimile signature of Egbert B. Hawk.
Particular description of goods.—Canned Caviar, Canned Sea Food—Namely, Lobster, Crabs, and Clams—Canned Salmon, Canned Sardines, Canned Fish Flakes, Canned Kippered Herring, Canned Mackerel, Canned Codfish, Canned Pork and Beans, Canned Fruits, (including Berries,) Canned Fruit Jam, Fruit Jelly, and Fruit Preserves, Canned Milk, Canned Soup, Canned Vegetables, Canned Hominy, Canned Sauer-Kraut, Canned Mushrooms, Canned Strained Honey, Canned Apple-Butter, Canned Baked Beans With Tomato Sauce, Canned Pimentos, Preserved Figs, Maraschino Cherries in Glass, Candy, Chocolate, Cocoa, Tomato Catsup, Cheese, Oatmeal, Rice, Gelatin, Shredded Cocoanut, Coffee, Tea, Flavoring Extract for Foods, Fruit and Nut Essences for Food, Pickles in Glass, Salad-Dressing in Glass, Table-Sauce in Glass, Canned Maple-Syrup, Canned Corn-Syrup, Canned Cane-Syrup, Vinegar, Spices, Alimentary Pastes, Olives in Glass, Olive-Oil, Wheat-Flour, Mustard in Glass, Peanut-Butter in Glass, Rolled Oats and Sugar.
Claims use since January, 1914.

Ser. No. 81,316. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Sept. 18, 1914.

International

Particular description of goods.—Wagons, Automobiles, and Motor-Trucks and Parts Thereof.
Claims use since 1907.

Ser. No. 81,931. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLARD N. BURGESS, Colorado Springs, Colo. Filed Oct. 16, 1914.



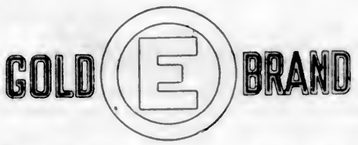
No claim being made to the word "Special."
Particular description of goods.—Wheat-Flour.
Claims use since March, 1898.

Ser. No. 82,033. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. C. SCHRADER CO., Jacksonville, Fla. Filed Oct. 20, 1914.



Particular description of goods.—Citrus Fruits.
Claims use since the 1st day of May, 1914.

Ser. No. 82,056. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALBERT EHLERS, New York, N. Y. Filed Oct. 21, 1914.



The exclusive use of the word "Brand" not being claimed.

Particular description of goods.—Dry Groceries—viz., Tea, Whole and Ground Spices, Flavoring Extracts for Foods, Rice, Tapioca, Celery-Salt, Paprika, and Curry-Powder.

Claims use since 1906.

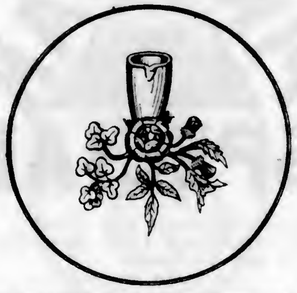
Ser. No. 82,144. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich. Filed Oct. 24, 1914.



Particular description of goods.—A Food Product Prepared from Wheat.

Claims use since about Dec. 10, 1912.

Ser. No. 82,191. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ALEXANDER SMITH, LIMITED, Battersea, London, England. Filed Oct. 26, 1914.



Particular description of goods.—Crucibles.

Claims use since July, 1884.

Ser. No. 82,490. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. L. MONTGOMERY & COMPANY, Memphis, Tenn. Filed Nov. 9, 1914.

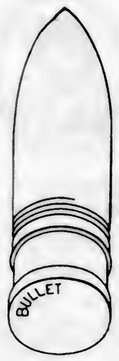


No claim being made to the exclusive use of the words "Brand," "High Grade," "Cotton Seed Meal," and "The Feed That Fattens."

Particular description of goods.—Cotton-Seed Meal.

Claims use since Mar. 1, 1911.

Ser. No. 82,534. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BULLET BRAND LABORATORIES, New York, N. Y. Filed Nov. 12, 1914.



Particular description of goods.—Lip-Rouge, Lip-Pomade, Menthol-Pencils, Styptic Pencils, Cocoa-Butter, Camphor-Ice, Black, Brown, and White Cosmetics for the Hair, Grease Crayons, Nail-Enamel, Liquid Corn Remedy, and Liquid Court-Plaster.

Claims use since Oct. 27, 1911.

Ser. No. 82,702. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. H. ANDERSON & CO., INC., Philadelphia, Pa. Filed Nov. 20, 1914.



Particular description of goods.—Canned and Bottled Vegetables, Fresh Mushrooms, Extract of Coffee, Flavoring Extracts for Foods, Liquid Paprika, Vinegar, Chutney, Salad-Dressing, Catchup, and Table Sauces.

Claims use since Sept. 15, 1914.

Ser. No. 82,803. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) JENKINS BROS., Elizabeth, N. J., and New York, N. Y. Filed Nov. 24, 1914.



No claim is made to the use of the words "Trade Mark."

Particular description of goods.—Metallic Valves and Parts Thereof.

Claims use since on or about the early part of 1897.

Ser. No. 82,965. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ECO MANUFACTURING COMPANY, Boston, Mass. Filed Nov. 25, 1914.



No claim, however, being made to the words "New Process" nor to the representations of the two packing rings.

Particular description of goods.—Metal Piston-Rings for Packing.

Claims use since Jan. 28, 1913.

Ser. No. 83,109. (CLASS 17. TOBACCO PRODUCTS.) FALK TOBACCO CO., New York, N. Y. Filed Dec. 7, 1914.



Particular description of goods.—Smoking-Tobacco and Cigarettes.

Claims use since Oct. 20, 1914.

Ser. No. 83,155. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DAVIS BROS., Gloucester, Mass. Filed Dec. 8, 1914.



Particular description of goods.—Fresh, Salted, Smoked, Pickled, and Canned Fish.

Claims use since Jan. 1, 1899.

Ser. No. 83,306. CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE STEUBENVILLE MILLING CO., Steubenville, Ohio. Filed Dec. 15, 1914.



Disclaiming, however, the word "Flour" and the representation of a sack of flour, as shown in the drawing.

Particular description of goods.—Wheat-Flour.

Claims use since July 28, 1913.

Ser. No. 83,314. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN HOMINY COMPANY, Indianapolis, Ind. Filed Dec. 16, 1914.



Particular description of goods.—Stock Feed not Medicated, a By-Product of Corn.

Claims use since March, 1892.

Ser. No. 83,443. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) H. KORN BAKING CO., Davenport, Iowa. Filed Dec. 21, 1914.



The figures "10¢" being disclaimed.

Particular description of goods.—Bread.

Claims use since Dec. 9, 1914.

Ser. No. 83,491. (CLASS 39. CLOTHING.) WILLIAM JAMES MACFARLAND, Rochester, N. Y. Filed Dec. 23, 1914.



No claim being made to the word "Shoes" or the words "Anatomical Lasts."

Particular description of goods.—Boots, Shoes, and Slippers Made of Leather, of Leather with Cloth Tops, or of Canvas with Leather Soles.

Claims use since Aug. 1, 1914.

Ser. No. 83,525. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUNTE BROTHERS, Chicago, Ill. Filed Dec. 26, 1914.



So far as the present application is concerned applicant disclaims the word "Bunte" and the word "Marshmallows" except in association with the rest of the mark. Applicant also disclaims exclusive appropriation of the goods and container except in association with the rest of the mark and as a constituent portion thereof.

Particular description of goods.—Candy.

Claims use since about the 4th day of November, 1914.

Ser. No. 83,536. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) IMPERIAL CANDY CO., Milwaukee, Wis. Filed Dec. 26, 1914.

MILOA

Particular description of goods.—Chocolate Creams, a Piece of Confection, Otherwise Termed Candy.

Claims use since Jan. 1, 1914.

Ser. No. 83,564. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DANIEL BRISCOE, JR., Knoxville, Tenn. Filed Dec. 29, 1914.



I do not lay claim to any of the printed matter shown upon the drawings other than the word "Usemore."

Particular description of goods.—Compound not in the Nature of Paint for Cleaning Wire Screens and Metal Surfaces.

Claims use since Oct. 15, 1914.

Ser. No. 83,606. (CLASS 39. CLOTHING.) REUB ISAACS & CO., New York, N. Y. Filed Dec. 31, 1914.

RICO
DOUBLE LIFE
MAN'S SUIT

No claim being made for the words "Double Life Man's Suit."

Particular description of goods.—Men's Outer Suits.

Claims use since Dec. 1, 1914.

Ser. No. 83,701. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF. J. V. SVENSONS MOTORFABRIK, Stockholm, Sweden. Filed Jan. 6, 1915.

JANC

Particular description of goods.—Internal-Combustion Engines, Tractors, Plows, Cultivators, Harrows, Land-Rollers, Sowing-Machines, Mowers, Harvesters, and Threshing-Machines.

Claims use since Nov. 28, 1913.

Ser. No. 83,725. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. A. COOMBS MILLING COMPANY, Coldwater, Mich. Filed Jan. 8, 1915.

BOBWAC

Particular description of goods.—Wheat-Flour.

Claims use since June, 1911.

Ser. No. 83,753. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAGGETT & RAMSDELL, New York, N. Y. Filed Jan. 9, 1915.

HA-KOL

Particular description of goods.—An Application for Relief of Headache, Neuralgia, and Similar Pains Resulting from Exposure, Exhaustion, Fatigue, Worry, Anxiety, Insomnia, Mental Strain, Nervous Depression, Car-Sickness, or Seasickness.

Claims use since Dec. 18, 1914.

Ser. No. 83,817. (CLASS 17. TOBACCO PRODUCTS.) MANUEL LOPEZ FERNANDEZ, Habana, Cuba. Filed Jan. 18, 1915.

FABRICA DE TABACOS
MIRELLA
H·A·B·A·N·A

Applicant does not claim any right to the exclusive use of the words "Fabrica de Tabacos Habana" apart from the mark as shown.

Particular description of goods.—Cigars.

Claims use since Dec. 2, 1885.

Ser. No. 83,818. (CLASS 17. TOBACCO PRODUCTS.) MANUEL LOPEZ FERNANDEZ, Habana, Cuba. Filed Jan. 13, 1915.

Teficia
HABANA

Applicant does not claim any right to the exclusive use of the word "Habana" apart from the mark as shown.

Particular description of goods.—Cigars.

Claims use since Dec. 2, 1888.

Ser. No. 83,819. (CLASS 17. TOBACCO PRODUCTS.) MANUEL LOPEZ FERNANDEZ, Habana, Cuba. Filed Jan. 13, 1915.

EL CENTENARIO DE COLON
DE
HABANA

Applicant does not claim any right to the exclusive use of the word "Habana" apart from the mark as shown.

Particular description of goods.—Cigars.

Claims use since Nov. 19, 1892.

Ser. No. 83,870. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRUNS BROS., New Brunswick, N. J. Filed Jan. 15, 1915. Under ten-year proviso.

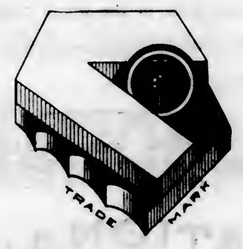
Olde Dutch Chocolates.

Comprising the words "Olde Dutch Chocolates."

Particular description of goods.—Chocolates.

Claims use since before the year 1892.

Ser. No. 83,892. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BROWN-WHITE INC., Wilmington, Del. Filed Jan. 16, 1915.



No claim being made to the exclusive use of the words "Trade Mark."

Particular description of goods.—Candy.

Claims use since Jan. 14, 1915.

Ser. No. 83,955. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARIE EARLE, New York, N. Y. Filed Jan. 19, 1915.

Marie Earle

The name "Marie Earle" being written in the handwriting of a member of the firm.

Particular description of goods.—Salve, Tonic, and Lotion for Application to and Treatment of the Skin, Toilet-Cream, Toilet Water, Hair-Lotion, Hair-Tonic, Dentifrice, Ointment for the Eyebrows, Toilet Powder, Milk of Almonds, Rouge, Emulsion of Cucumbers, Essence of Rose-Leaves, Eye-Tonic, Enamel, and Reducing-Lotion.

Claims use since the spring of 1901.

Ser. No. 83,973. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MATILDA W. LINDLAR, Chicago, Ill. Filed Jan. 20, 1915.



REVELATION

No claim being made to the words "Lindlar" and "Cleaner."

Particular description of goods.—Abrasive Polishing-Cloths.

Claims use since Aug. 3, 1910.

Ser. No. 83,980. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) NATIONAL GROCERY COMPANY, Jersey City, N. J. Filed Jan. 20, 1915.

NATIONAL

Particular description of goods.—Washing Fluid.

Claims use since September, 1911.

Ser. No. 83,990. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INTERNATIONAL GLUE COMPANY, Boston, Mass. Filed Jan. 21, 1915.

RED STAR



BRAND

The words "Red Star" and the representation of the star being printed in red, no claim being made to the words "Brand" and "Fish Scraps" therein shown.

Particular description of goods.—Fish-Scraps.

Claims use since Jan. 1, 1910.

Ser. No. 83,997. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN CHATILLON & SONS, New York, N. Y. Filed Jan. 21, 1915.



Particular description of goods.—Pocket, Steel or Base-Metal Table, Kitchen, and Butcher Knives.

Claims use since Jan. 9, 1914.

Ser. No. 84,011. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) P. RIELLY & SON, Newark, N. J. Filed Jan. 21, 1915.



Particular description of goods.—A Fabric Substitute for Leather.

Claims use since Dec. 15, 1914.

Ser. No. 84,043. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SMITH-KIRK CANDY COMPANY, Toledo, Ohio. Filed Jan. 22, 1915.



Particular description of goods.—Candy.

Claims use since Jan. 11, 1915.

Ser. No. 84,055. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GUNZENHAUSER BAKERY, Lancaster, Pa. Filed Jan. 23, 1915.

GOODIE

Particular description of goods.—Cakes.

Claims use since Dec. 3, 1914.

Ser. No. 84,075. (CLASS 39. CLOTHING.) CRADDOCK-TERRY COMPANY, St. Louis, Mo. Filed Jan. 25, 1915.

THE Miracle Shoe

The word "Shoe" being disclaimed.

Particular description of goods.—Leather Shoes.

Claims use since June 1, 1914.

Ser. No. 84,086. (CLASS 39. CLOTHING.) KIDDO SHOE COMPANY, St. Paul, Minn. Filed Jan. 25, 1915.

Kiddo

Particular description of goods.—Leather Shoes.

Claims use since Oct. 16, 1914.

Ser. No. 84,101. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE STANDARD WELDING COMPANY, Cleveland, Ohio. Filed Jan. 25, 1915.

STANWELD

Particular description of goods.—Vehicle-Wheels and Parts Thereof; Felly-Bands and Vehicle Wheel-Rims for Supporting Pneumatic, Solid-Rubber, and Cushion Tires and Fittings and Appurtenances for Such Rims.

Claims use since Apr. 15, 1913.

Ser. No. 84,124. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SEIFTER & SON, Brooklyn, N. Y. Filed Jan. 26, 1915.

S.&S.

Particular description of goods.—Furs and Skins.

Claims use since about Jan. 1, 1910.

Ser. No. 84,133. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOWARD & CASEY CO., Mount Vernon, Ill. Filed Jan. 27, 1915.



Particular description of goods.—Coffee.

Claims use since March, 1905.

Ser. No. 84,161. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CORNO MILLS COMPANY, East St. Louis, Ill. Filed Jan. 28, 1915.

NATIONAL

Particular description of goods.—Rolled Oats.

Claims use since June 12, 1907.

Ser. No. 84,219. (CLASS 2. RECEPTACLES.) HANSEN & CO., Jersey City, N. J. Filed Jan. 30, 1915.

MOVING PICTURES

Particular description of goods.—Candy-Boxes.

Claims use since January, 1915.

Ser. No. 84,264. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FIRE ALARM SIGNAL COMPANY, Boston, Mass. Filed Feb. 2, 1915.



Particular description of goods.—Fire-Alarm Apparatus as a Whole and Electric Gongs, Fire-Alarm Boxes, Batteries, Cables, Switchboards, Relays, Switches, Cut-Outs, Indicators, Annunciators, Connectors, Trap-Locks, and Registers as Parts of Such Apparatus.

Claims use since Aug. 1, 1914.

Ser. No. 84,277. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHOP SUEY CANNERY, San Francisco, Cal. Filed Feb. 3, 1915.



Applicant disclaims the word "Brand" shown in said drawing.

Particular description of goods.—Canned Chop Suey.
Claims use since Feb. 21, 1914.

Ser. No. 84,303. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE SHINEALL MANUFACTURING COMPANY, Indianapolis, Ind. Filed Feb. 4, 1915.



Particular description of goods.—Metal-Polish.
Claims use since Mar. 1, 1913.

Ser. No. 84,351. (CLASS 17. TOBACCO PRODUCTS.) EUGENE M. ATTRIDGE, Binghamton, N. Y. Filed Feb. 8, 1915.

"AMERICAN MAID"



The picture being that of Frances Redding.
Particular description of goods.—Cigarettes, Cigars, Cheroots, and Manufactured Tobacco.
Claims use since Jan. 1, 1915.

Ser. No. 84,360. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE DUNCHARD COMPANY, Chicago, Ill. Filed Feb. 8, 1915.



Our trade-mark consists of the head and bust of a woman with a luxurious growth of hair parted in the middle and falling around her face and shoulders, extending to about the waist-line, where both ends of the hair turn inward and meet at the bottom of the figure. Associated with this figure is the word "Burrine." We disclaim all right to all the reading matter upon the drawing except the word "Burrine."

Particular description of goods.—A Liquid Hair-Grower, Hair-Tonic, and Dandruff-Destroyer.
Claims use since Dec. 1, 1914.

Ser. No. 84,476. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE AEOLIAN COMPANY, Meriden, Conn., and New York, N. Y. Filed Feb. 12, 1915.

DUO-ART

Particular description of goods.—Musical Instruments—Namely, Pianos, Organs, and Players Therefor—and Music-Rolls.
Claims use since Oct. 12, 1913.

Ser. No. 84,477. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) THE AEOLIAN COMPANY, Meriden, Conn., and New York, N. Y. Filed Feb. 12, 1915.

VOCALION

Particular description of goods.—Musical Instruments—Namely, Pianos, Players Therefor, Phonographs—Music-Rolls, Records, Sound-Boxes, Expression Devices, Needles, and Record-Books.
Claims use since prior to Feb. 27, 1913.

Ser. No. 84,508. (CLASS 38. PRINTS AND PUBLICATIONS.) THE CURTIS PUBLISHING COMPANY, Philadelphia, Pa. Filed Feb. 13, 1915.

THE DISTRICT AGENT

Particular description of goods.—A Periodical.
Claims use since about Feb. 1, 1915.

Ser. No. 84,515. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) VICTOR ELECTRIC COMPANY, Chicago, Ill. Filed Feb. 13, 1915. Under ten-year proviso.



Particular description of goods.—Electrical Automatic Air-Pressure Regulators, Centrifuges, Galvanic and Faradaic Appliances (Wall-Plates) and Cabinets Therefor, High-Frequency Apparatus for Generating Electric Currents or X-Rays, Sinusoidal Apparatus for Producing Sine-Wave Currents, and Rheostats or Speed-Controllers and Electric Motors.
Claims use since the month of December, 1894.

Ser. No. 84,525. (CLASS 38. PRINTS AND PUBLICATIONS.) THE DEAN-HICKS COMPANY, Grand Rapids, Mich. Filed Feb. 15, 1915.

GOOD FVRNITVRE

Particular description of goods.—Magazines Published Monthly.
Claims use since Oct. 1, 1914.

Ser. No. 84,556. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ITALIAN IMPORTING COMPANY, Des Moines, Iowa. Filed Feb. 16, 1915.

LA FORTUNA

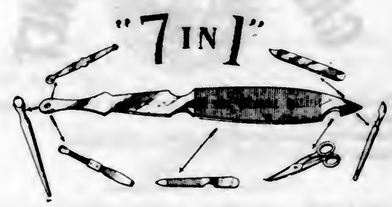
Particular description of goods.—Cotton-Seed Salad-Oil.
Claims use since Jan. 2, 1915.

Ser. No. 84,560. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) FLANNERY BOLT COMPANY, Pittsburgh, Pa. Filed Feb. 16, 1915.

VANA

Particular description of goods.—Boiler Stay-Bolts; Track, Frog, and Switch Bolts and Nuts, and Semi-Rigid and Flexible Stay-Bolts.
Claims use since Feb. 10, 1915.

Ser. No. 84,576. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ARTHUR F. GIRNDT, Bellville, Tex. Filed Feb. 17, 1915.



No claim being made to the representation of the manicuring instruments appearing on the drawing.
Particular description of goods.—Nail-Files.
Claims use since about Dec. 26, 1914.

Ser. No. 84,578. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 17, 1915.

LAVAGE

Particular description of goods.—Creams for the Skin.
Claims use since Feb. 8, 1915.

Ser. No. 84,594. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FLINT, EATON & CO., Decatur, Ill. Filed Feb. 18, 1915.

ScaloRust

Particular description of goods.—Materials for Preventing the Formation of Rust or Scale in Water-Containing Devices, Such as the Jackets of Gasolene-Engines and the Radiators of Automobiles.
Claims use since about Dec. 2, 1914.

Ser. No. 84,606. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DUPLAN SILK COMPANY, New York, N. Y. Filed Feb. 18, 1915.

TOILE RUSTIQUE

No claim being made to the exclusive right to use of the word "Toile."
Particular description of goods.—Broad Silk Piece Goods.
Claims use since on or about the 15th day of October, 1914.

Ser. No. 84,614. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Filed Feb. 19, 1915.



No claim being made to the exclusive use of the words "Double Strength."
Particular description of goods.—Fertilizer.
Claims use since 1883.

Ser. No. 84,618. (CLASS 10. FERTILIZERS.) BOWKER FERTILIZER CO., New York, N. Y. Filed Feb. 19, 1915.



Particular description of goods.—Fertilizers.
Claims use since February, 1897.

Ser. No. 84,631. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE LEADER EVAPORATOR CO., Burlington, Vt. Filed Feb. 19, 1915.

LEADER

Particular description of goods.—Iron Arches and Sugaring-Off Arches.
Claims use since November, 1889.

Ser. No. 84,636. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NEW CENTURY COMPANY, Chicago, Ill. Filed Feb. 19, 1915.

BAKERITE

Particular description of goods.—White Flour Made from Spring and Winter Wheats.
Claims use since Jan. 1, 1915.

Ser. No. 84,645. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. B. BONE, Winder, Ga. Filed Feb. 20, 1915.



The picture being that of my wife, Mrs. H. B. Bone.
Particular description of goods.—Medicine for Rheumatism, Dropsy, Eczema, Neuralgia, and the Blood.
Claims use since May 1, 1914.

Ser. No. 84,652. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ENNIS-HANLY-BLACKBURN COFFEE CO., Kansas City, Mo. Filed Feb. 20, 1915.

Golden Wedding

Particular description of goods.—Coffee and Tea.
Claims use since Apr. 30, 1909.

Ser. No. 84,668. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY J. RICHARDS, Coatesville, Pa. Filed Feb. 20, 1915.



No claim being made for the use of the word "Cough."
Particular description of goods.—A Cough Medicine.
Claims use since Feb. 2, 1915.

Ser. No. 84,670. (CLASS 38. PRINTS AND PUBLICATIONS.) TRADE PRESS PUBLISHING CO., Milwaukee, Wis. Filed Feb. 20, 1915.

The Fordowner

Particular description of goods.—A Monthly Publication.
Claims use since Apr. 1, 1914.

Ser. No. 84,680. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) BURKE & JAMES, INC., Chicago, Ill. Filed Feb. 23, 1915.

REXO

Particular description of goods.—Photographic Developing-Out Papers.
Claims use since Oct. 21, 1914.

Ser. No. 84,683. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Feb. 23, 1915.

ARCTIC

Particular description of goods.—Soaps and Soap Chips.
Claims use since May 15, 1889.

Ser. No. 84,696. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE JEFFREY MANUFACTURING COMPANY, Columbus, Ohio. Filed Feb. 23, 1915.



Particular description of goods.—Chains and Parts Thereof that are Made of Steel or Other Base Metals for Use in Machinery and for General Purposes.
Claims use since July 1, 1909.

Ser. No. 84,705. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE REPUBLIC METALWARE CO., Buffalo, N. Y. Filed Feb. 23, 1915.

"O. H."

Particular description of goods.—Stovepipe-Elbows.
Claims use since about Sept. 22, 1894.

Ser. No. 84,751. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) W. T. WHEATLEY, Pueblo, Colo. Filed Feb. 24, 1915.

NATIONAL

Particular description of goods.—Brooms.
Claims use since July 1, 1914.

Ser. No. 84,760. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK A. HENDRICKS, New York, N. Y. Filed Feb. 25, 1915.

AREX

Particular description of goods.—All Forms of Rheumatism, Gout, Neuralgia, Sciatica, Lumbago, Neuritis, Headache, Toothache, Insomnia, Influenza, Kidney Troubles, and Uric-Acid Ailments.
Claims use since May 1, 1914.

Ser. No. 84,812. (CLASS 39. CLOTHING.) EDWIN A. GUINZBURG, New York, N. Y. Filed Feb. 27, 1915.



Particular description of goods.—Bathing Shoes and Slippers, Bathing-Caps, Bathing-Corsets, and Bathing-Suits.
Claims use since 1897.

Ser. No. 84,819. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Feb. 27, 1915.



Particular description of goods.—Rubber Garden-Hose.
Claims use since Dec. 12, 1914.

Ser. No. 84,821. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Feb. 27, 1915.



Particular description of goods.—Rubber Garden-Hose.
Claims use since Dec. 12, 1914.

Ser. No. 84,822. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Feb. 27, 1915.



Particular description of goods.—Rubber Garden-Hose.
Claims use since Dec. 12, 1914.

Ser. No. 84,823. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Feb. 27, 1915.



Particular description of goods.—Rubber Garden-Hose.
Claims use since Dec. 12, 1914.

Ser. No. 84,825. (CLASS 32. FURNITURE AND UPHOLSTERY.) C. F. SCHMOE FURNITURE CO., Shelbyville, Ind. Filed Feb. 27, 1915.



Particular description of goods.—Kitchen-Cabinets.
Claims use since Feb. 9, 1915.

Ser. No. 84,852. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE M & M COMPANY, Cleveland, Ohio. Filed Mar. 1, 1915.



Particular description of goods.—Tire-Casings and Inner Tubes.
Claims use since Feb. 24, 1915.

Ser. No. 84,880. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AXEL E. ERICKSON, Denver, Colo. Filed Mar. 2, 1915.



Particular description of goods.—A Medicinal Water Artificially Prepared to be Used Internally and Externally for the Relief of Ailments Arising from Derangement of the Stomach.
Claims use since about July 1, 1914.

Ser. No. 84,920. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JAMES F. BURNS, Philadelphia, Pa. Filed Mar. 4, 1915.



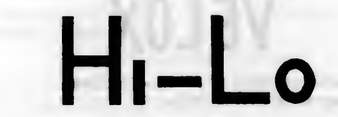
Particular description of goods.—Electrical Conduit-Fittings.
Claims use since about September, 1907.

Ser. No. 84,923. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Mar. 4, 1915.



Particular description of goods.—Soaps and soap chips.
Claims use since May 15, 1889.

Ser. No. 84,964. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL LOFTUS, Chicago, Ill. Filed Mar. 5, 1915.



Particular description of goods.—A Liniment for Rheumatism, Lumbago, and Dandruff.
Claims use since Jan. 1, 1915.

Ser. No. 84,975. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HARDEN CARTER CO., INC., New York, N. Y. Filed Mar. 6, 1915.



Particular description of goods.—Handkerchiefs.
Claims use since January, 1915.

Ser. No. 84,976. (CLASS 17. TOBACCO PRODUCTS.) PETER D. HORASAN, New York, N. Y. Filed Mar. 6, 1915.



Particular description of goods.—Cigarettes.
Claims use since Jan. 1, 1915.

Ser. No. 84,986. (CLASS 10. FERTILIZERS.) THE PULVERIZED MANURE CO., Chicago, Ill. Filed Mar. 6, 1915.



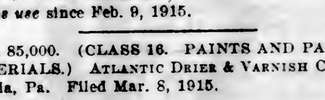
Disclaiming all right to trade-mark the word "Brand."
Particular description of goods.—Natural and Prepared Fertilizers.
Claims use since May 1, 1906.

Ser. No. 84,998. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) OSCAR S. RHOADS, Fort Wayne, Ind. Filed Mar. 8, 1915.



No claim being made to the exclusive use of the words "Cleans," "Polishes," and "Dusts."
Particular description of goods.—Furniture-Polish and Finisher of Wood Surfaces.
Claims use since Feb. 9, 1915.

Ser. No. 85,000. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ATLANTIC DRIER & VARNISH CO., Philadelphia, Pa. Filed Mar. 8, 1915.



Particular description of goods.—Varnishes, Stains, Enamels, and Mixed Paints.
Claims use since Feb. 26, 1915.

Ser. No. 85,044. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ERNEST & HERMAN LEVY, New York, N. Y. Filed Mar. 9, 1915.



No claim being made to the representation of the map of the United States shown in the drawing.

Particular description of goods.—Silk, Velvet, Satin, and Fiber Ribbons, and Silk, Satin, Velvet, and Fiber Mixture Ribbons.

Claims use since about Feb. 25, 1915.

Ser. No. 85,045. (CLASS 39. CLOTHING.) PICADOR HOSIERY COMPANY, Philadelphia, Pa. Filed Mar. 9, 1915.



No claim being made for the word "Brand."

Particular description of goods.—Hosiery and Underwear Made of Textile and Knitted Material—viz., Shirts, Drawers, and Combination-Suits.

Claims use since Nov. 1, 1913.

Ser. No. 85,066. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) VICTOR STORAGE BATTERY CO., Rock Island, Ill. Filed Mar. 10, 1915.

S.O.S

Particular description of goods.—Storage Batteries.

Claims use since Jan. 11, 1915.

Ser. No. 85,075. (CLASS 10. FERTILIZERS.) COLUMBIA GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

SHAMROCK

Particular description of goods.—Fertilizers.

Claims use since Feb. 13, 1915.

Ser. No. 85,086. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

ALBA

Particular description of goods.—Fertilizers.

Claims use since Jan. 18, 1915.

Ser. No. 85,088. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

DREADNOUGHT

Particular description of goods.—Fertilizers.

Claims use since Jan. 6, 1915.

Ser. No. 85,089. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

DOMINO

Particular description of goods.—Fertilizers.

Claims use since Feb. 4, 1915.

Ser. No. 85,090. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

MARTIAL

Particular description of goods.—Fertilizers.

Claims use since Jan. 4, 1915.

Ser. No. 85,091. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

VELOX

Particular description of goods.—Fertilizers.

Claims use since Feb. 1, 1915.

Ser. No. 85,092. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

CUCKOO

Particular description of goods.—Fertilizers.

Claims use since Jan. 6, 1915.

Ser. No. 85,093. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

SAMBO

Particular description of goods.—Fertilizers.

Claims use since Jan. 28, 1915.

Ser. No. 85,094. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

SOLACE

Particular description of goods.—Fertilizers.

Claims use since Jan. 6, 1915.

Ser. No. 85,095. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

RIPPER

Particular description of goods.—Fertilizers.

Claims use since Jan. 13, 1915.

Ser. No. 85,096. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

ANGELUS

Particular description of goods.—Fertilizers.

Claims use since Dec. 3, 1914.

Ser. No. 85,097. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

HARMONY

Particular description of goods.—Fertilizers.

Claims use since Jan. 18, 1915.

Ser. No. 85,098. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

CLOVERDALE

Particular description of goods.—Fertilizers.

Claims use since Jan. 14, 1915.

Ser. No. 85,099. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 11, 1915.

DOLPHIN

Particular description of goods.—Fertilizers.

Claims use since Feb. 1, 1915.

Ser. No. 85,125. (CLASS 32. FURNITURE AND UPHOLSTERY.) FREDERICK SCHOENHERR, Baltimore, Md. Filed Mar. 12, 1915.

EL-BEE-CO PRODUCT

No claim being made for the word "Product."

Particular description of goods.—Window-Shades.

Claims use since on or about Feb. 1, 1912.

Ser. No. 85,133. (CLASS 17. TOBACCO PRODUCTS.) EL-REES-SO CIGAR COMPANY, Greensboro, N. C. Filed Mar. 13, 1915.

El-Rees-So

Particular description of goods.—Cigars.

Claims use since Aug. 1, 1913.

Ser. No. 85,138. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 13, 1915.

URALAM

Particular description of goods.—Plushes in the Piece.

Claims use since the 3d day of March, 1915.

Ser. No. 85,151. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) HARRY L. STONER, Portland, Oreg. Filed Mar. 13, 1915.

U-NEED-IT

Particular description of goods.—Furniture-Polish.

Claims use since about Mar. 1, 1912.

Ser. No. 85,159. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ARCHIE D. STANDEFORD, Kansas City, Mo. Filed Mar. 15, 1915.

IEZ

Particular description of goods.—Paint for Screen-Surfaces.

Claims use since Feb. 27, 1915.

Ser. No. 85,166. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. A. INGHAM & Co., Waltham, Vt. Filed Mar. 15, 1915.



Particular description of goods.—Vegetable Expectorant Nervine.
Claims use since 1853.

Ser. No. 85,169. (CLASS 39. CLOTHING.) SWAN WAIST CO., New York, N. Y. Filed Mar. 15, 1915.



Particular description of goods.—Ladies' Outer Waists.
Claims use since Nov. 20, 1914.

Ser. No. 85,171. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL T. KING, Williamsfield, Ill. Filed Mar. 15, 1915.



The word "Lax-Salt," apart from the other feature of the mark, not being claimed.
Particular description of goods.—A Medicated Salt to Be Used as a Conditioner of Stock.
Claims use since Mar. 8, 1915.

Ser. No. 85,184. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GLOBE OPTICAL COMPANY, Boston, Mass. Filed Mar. 16, 1915.

Euragon
A WIDE ANGLE LENS

The words "A Wide Angle Lens" being disclaimed.
Particular description of goods.—Lenses for Spectacles and Eyeglasses.
Claims use since Jan. 1, 1915.

Ser. No. 85,199. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BAER CHEM. Co., Bair, Pa. Filed Mar. 17, 1915.

CUB

Particular description of goods.—Salves.
Claims use since during December, 1914.

Ser. No. 85,218. (CLASS 15. OILS AND GREASES.) PIERCE OIL CORPORATION, Richmond, Va., and St. Louis, Mo. Filed Mar. 17, 1915. Under ten-year proviso.

GOLDEN

Particular description of goods.—Axle-Grease.
Claims use for more than ten years next before the 20th day of February, 1905.

Ser. No. 85,235. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 18, 1915.

URONSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since Mar. 3, 1915.

Ser. No. 85,264. (CLASS 39. CLOTHING.) ROTHSTEIN, ROSENBERG & SALNY INC., New York, N. Y. Filed Mar. 19, 1915.

REVERSO

Comprising the word "Reverso."
Particular description of goods.—Overcoats.
Claims use since Mar. 12, 1915.

Ser. No. 85,272. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed Mar. 20, 1915.

GENEMOTOR

Consisting of the word "Genemotor."
Particular description of goods.—Dynamo-Electric Machines.
Claims use since February, 1915.

Ser. No. 85,279. (CLASS 17. TOBACCO PRODUCTS.) LILLY, DUNGAN & COMPANY, Baltimore, Md. Filed Mar. 20, 1915.

JITNEY

Particular description of goods.—Cigars, Little Cigars, Cigarettes, and Smoking and Chewing Tobacco.
Claims use since Feb. 22, 1915.

Ser. No. 85,283. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JACOB RUBEL, New York, N. Y. Filed Mar. 20, 1915.

Perox

Particular description of goods.—Powdered Antiseptic.
Claims use since January, 1915.

Ser. No. 85,292. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BRISTOL-MYERS COMPANY, New York, N. Y. Filed Mar. 22, 1915.

IPANA

Particular description of goods.—A Tooth-Paste.
Claims use since Mar. 17, 1915.

Ser. No. 85,304. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH S. FELDMAN, Denver, Colo. Filed Mar. 22, 1915.



Particular description of goods.—Hair-Tonic.
Claims use since Jan. 1, 1913.

Ser. No. 85,322. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) RHODE ISLAND TEXTILE COMPANY, Pawtucket, R. I. Filed Mar. 22, 1915.



Particular description of goods.—Braids.
Claims use since Jan. 1, 1915.

Ser. No. 85,325. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY E. SULLIVAN, Richmond, Va. Filed Mar. 22, 1915.



Particular description of goods.—Certain Medicines for the Treatment of Diarrhea, Dysentery, Cholera Morbus, Cholera, and Kindred Diseases.
Claims use since Mar. 13, 1915.

Ser. No. 85,327. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE THYMO COMPANY, Hope, Ark. Filed Mar. 22, 1915.

THYMO

Particular description of goods.—Remedy for Catarrh, Hay-Fever, Tonsillitis, La Grippe, Sore Throat, Croup, Headache, Toothache, Neuralgia, Rheumatism, Colds, Sores, Chapped Hands, Insect-Bites, Eczema, Piles, Burns, Sunburn, and All Skin and Scalp Diseases.
Claims use since Jan. 1, 1914.

Ser. No. 85,332. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GOODRICH DRUG COMPANY, Omaha, Nebr. Filed Mar. 23, 1915.

Velvetina

Particular description of goods.—Perfumes, Toilet Waters, and Sachet-Powders.
Claims use since Nov. 1, 1909.

Ser. No. 85,333. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 23, 1915.

UKONSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since Mar. 3, 1915.

Ser. No. 85,364. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Mar. 24, 1915.

Vision de Fleurs

Particular description of goods.—Perfumes, Perfumed Powders, and Toilet Waters.
Claims use since Mar. 16, 1915.

Ser. No. 85,370. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 24, 1915.

CORDSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since Mar. 8, 1915.

Ser. No. 85,377. (CLASS 32. FURNITURE AND UPHOLSTERY.) NORTH VERNON LUMBER CO., North Vernon, Ind. Filed Mar. 24, 1915.

AUTOMOTE

Particular description of goods.—Swings and particularly Porch-Swings.
Claims use since the 21st day of January, 1911.

Ser. No. 85,397. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ECLIPSE MANUFACTURING COMPANY, Indianapolis, Ind. Filed Mar. 25, 1915.

3-X

Particular description of goods.—Spark-Plugs.
Claims use since Nov. 2, 1914.

Ser. No. 85,402. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 25, 1915.

BAFINSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since Mar. 3, 1915.

Ser. No. 85,407. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE MEIER DENTAL MANUFACTURING CO., St. Louis, Mo. Filed Mar. 25, 1915.

EMITOL

Particular description of goods.—An Antiseptic Preparation Used for the Treatment of Pyorrhea.
Claims use since Jan. 2, 1915.

Ser. No. 85,414. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTHA ELIZABETH ROBINS, Richmond, Va. Filed Mar. 25, 1915.

Campetrodin

Particular description of goods.—A Liquid Iodin Preparation.
Claims use since Mar. 20, 1915.

Ser. No. 85,422. (CLASS 10. FERTILIZERS.) THE ATLANTIC CHEMICAL CORPORATION, Norfolk, Va. Filed Mar. 26, 1915.

WIGWAM

Particular description of goods.—Fertilizers.
Claims use since Feb. 14, 1915.

Ser. No. 85,423. (CLASS 10. FERTILIZERS.) THE ATLANTIC CHEMICAL CORPORATION, Norfolk, Va. Filed Mar. 26, 1915.

BAMBOO

Particular description of goods.—Fertilizers.
Claims use since Feb. 26, 1915.

Ser. No. 85,424. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARMOUR AND COMPANY, Chicago, Ill. Filed Mar. 26, 1915.

DUODENIN

Particular description of goods.—Specific Activators of the Intestinal Digestive Glands.
Claims use since Mar. 1, 1914.

Ser. No. 85,429. (CLASS 10. FERTILIZERS.) COLUMBIA GUANO CO., Norfolk, Va. Filed Mar. 26, 1915.

TORPEDO

Particular description of goods.—Fertilizers.
Claims use since Mar. 9, 1915.

Ser. No. 85,430. (CLASS 10. FERTILIZERS.) COLUMBIA GUANO CO., Norfolk, Va. Filed Mar. 26, 1915.

BANDANA

Particular description of goods.—Fertilizers.
Claims use since Mar. 5, 1915.

Ser. No. 85,431. (CLASS 10. FERTILIZERS.) COLUMBIA GUANO CO., Norfolk, Va. Filed Mar. 26, 1915.

FALCON

Particular description of goods.—Fertilizers.
Claims use since Mar. 4, 1915.

Ser. No. 85,433. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WILLIAM SMALLEY DANIELS, Detroit, Mich. Filed Mar. 26, 1915.

NEW ERA

Particular description of goods.—Master-Vibrators and Sparking Points.
Claims use since Oct. 15, 1914.

Ser. No. 85,434. (CLASS 32. FURNITURE AND UPHOLSTERY.) FORT PITT BEDDING CO., Pittsburgh, Pa. Filed Mar. 26, 1915.

UNIVERSAL

Particular description of goods.—Bed-Springs.
Claims use since Feb. 15, 1915.

Ser. No. 85,437. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 26, 1915.

LASKALAM

Particular description of goods.—Plushes in the Piece.
Claims use since Mar. 3, 1915.

Ser. No. 85,448. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 26, 1915.

EVERWIN

Particular description of goods.—Fertilizers.
Claims use since Feb. 6, 1915.

Ser. No. 85,449. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 26, 1915.

MUSTANG

Particular description of goods.—Fertilizers.
Claims use since Mar. 1, 1915.

Ser. No. 85,450. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 26, 1915.

POLO

Particular description of goods.—Fertilizers.
Claims use since Feb. 23, 1915.

Ser. No. 85,451. (CLASS 10. FERTILIZERS.) F. S. ROYSTER GUANO CO., Norfolk, Va. Filed Mar. 26, 1915.

TRUE BLUE

Particular description of goods.—Fertilizers.
Claims use since Feb. 8, 1915.

Ser. No. 85,463. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BRIGHT STAR BATTERY CO., New York, N. Y. Filed Mar. 27, 1915.

"MARS-BRIGHT"

Particular description of goods.—Electric Batteries.
Claims use since Aug. 6, 1914.

Ser. No. 85,464. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BRIGHT STAR BATTERY CO., New York, N. Y. Filed Mar. 27, 1915.

MARS

Particular description of goods.—Electric Batteries.
Claims use since 1910.

Ser. No. 85,470. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE BRUSTON ELECTRICAL CO., Westminster, London, England. Filed Mar. 27, 1915.

BRUSTON

Particular description of goods.—Self-Contained Electric-Lighting Plant.
Claims use since the 13th day of April, 1910.

Ser. No. 85,481. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOME-TONE MFG. CO., New York, N. Y. Filed Mar. 27, 1915.

Berglets

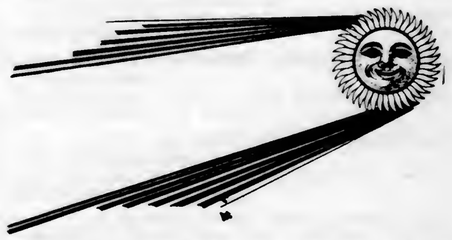
Particular description of goods.—Laxative Pills.
Claims use since August, 1913.

Ser. No. 85,483. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LORRAINE MANUFACTURING COMPANY, Saylesville, R. I., and New York, N. Y. Filed Mar. 27, 1915.

Buttercup

Particular description of goods.—Cotton Piece Goods.
Claims use since Dec. 26, 1914.

Ser. No. 85,490. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PATTON PAINT COMPANY, Milwaukee, Wis. Filed Mar. 27, 1915.



Particular description of goods.—Ready-Mixed Liquid Paints.
Claims use since the 1st day of January, 1908.

Ser. No. 85,571. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 31, 1915.

KLONSEAL

Particular description of goods.—Plushes in the Piece.
Claims use since Mar. 3, 1915.

Ser. No. 85,612. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Apr. 1, 1915.

ONEDALAM

Particular description of goods.—Plushes in the Piece.
Claims use since Mar. 18, 1915.

Ser. No. 85,617. (CLASS 16. (PAINTS AND PAINTERS' MATERIALS.) JOHN W. MASURY & SON, New York, N. Y. Filed Apr. 1, 1915.

RELVSTRO

Particular description of goods.—A Polishing-Oil for Furniture, Pianos, Automobiles, Carriages, and all Varnished Surfaces.
Claims use since December, 1909.

Ser. No. 85,669. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) M. G. GIBBS, Washington, D. C. Filed Apr. 3, 1915.

P.D.Q.

Particular description of goods.—Insecticides.
Claims use since 1907.

Ser. No. 85,683. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GRINNELL WILLIS & CO., New York, N. Y. Filed Apr. 3, 1915.

TOP NOTCH

Particular description of goods.—Cotton Piece Goods.
Claims use since Jan. 1, 1910.

Ser. No. 85,707. (CLASS 37. PAPER AND STATIONERY.) HENRY DAVIDSON, New York, N. Y. Filed Apr. 5, 1915.

DELLA ROBBIA

Comprising the words "Della Robbia."
Particular description of goods.—Envelops and Note-Paper.
Claims use since Apr. 2, 1915.

Ser. No. 85,744. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) DAVIS & GECK, INC., Brooklyn, N. Y. Filed Apr. 7, 1915.

TOLMERID

Particular description of goods.—Surgical Ligatures, Sutures, Threads, and Tapes.
Claims use since Feb. 18, 1915.

TRADE-MARK REGISTRATIONS GRANTED

APRIL 27, 1915.

103,988. LADIES' OUTER GARMENTS — NAMELY, COATS AND SUITS. ABRAHAM ABRAHAMSON, Chicago, Ill.
Filed October 7, 1914. Serial No. 81,702. PUBLISHED FEBRUARY 16, 1915.

103,989. DRIED AND EVAPORATED FRUITS AND RAISINS. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed September 26, 1914. Serial No. 81,483. PUBLISHED DECEMBER 22, 1914.

103,990. CANNED FRUITS, CANNED VEGETABLES, AND CANNED PORK AND BEANS. W. F. ASSAU CANNING COMPANY, Baltimore, Md.
Filed December 14, 1914. Serial No. 83,264. PUBLISHED FEBRUARY 16, 1915.

103,991. FLOOR-CLOTH. GEO. W. BLABON COMPANY, Philadelphia, Pa.
Filed December 5, 1914. Serial No. 83,083. PUBLISHED JANUARY 12, 1915.

103,992. BOYS' AND MEN'S CLOTHING. BROOKS BROTHERS, New York, N. Y.
Filed December 21, 1914. Serial No. 83,433. PUBLISHED FEBRUARY 16, 1915.

103,993. ICE-CREAM, SHERBETS, AND ICES. GEORGE T. BUDD COMPANY, Washington, D. C.
Filed July 21, 1914. Serial No. 79,955. PUBLISHED NOVEMBER 10, 1914.

103,994. RECLAIMED RUBBER. E. H. CLAPP RUBBER COMPANY, Boston, Mass.
Filed July 28, 1913. Serial No. 72,001. PUBLISHED FEBRUARY 9, 1915.

103,995. CANNED VEGETABLES. THE CEDAR RAPIDS CANNING CO., Cedar Rapids, Iowa.
Filed December 8, 1914. Serial No. 83,148. PUBLISHED FEBRUARY 16, 1915.

103,996. CANNED VEGETABLES. THE CEDAR RAPIDS CANNING CO., Cedar Rapids, Iowa.
Filed December 8, 1914. Serial No. 83,149. PUBLISHED FEBRUARY 16, 1915.

103,997. CANNED VEGETABLES. CEDAR RAPIDS CANNING CO., Cedar Rapids, Iowa.
Filed December 8, 1914. Serial No. 83,151. PUBLISHED FEBRUARY 16, 1915.

103,998. CERTAIN NAMED OILS AND GREASES. HARRY COOLEY, Madison, Wis.
Filed May 22, 1914. Serial No. 78,465. PUBLISHED OCTOBER 27, 1914.

103,999. WHEAT-FLOUR. H. T. COTTAM & CO., LTD., New Orleans, La.
Filed January 23, 1914. Serial No. 75,381. PUBLISHED MAY 19, 1914.

104,000. WHEAT-FLOUR. DULUTH-SUPERIOR MILLING COMPANY, Duluth, Minn.
Filed July 13, 1914. Serial No. 79,751. PUBLISHED NOVEMBER 10, 1914.

104,001. COFFEE AND RICE. B. FISCHER & CO., New York, N. Y.
Filed February 18, 1908. Serial No. 32,842. PUBLISHED MAY 12, 1908.

104,002. CANNED CLAMS AND CANNED FRUITS. FRIEND BROTHERS, Melrose, Mass.
Filed September 28, 1914. Serial No. 81,515. PUBLISHED FEBRUARY 9, 1915.

104,003. WOMEN'S, MISSES', AND CHILDREN'S KNITTED UNDERWEAR—VIZ., UNION SUITS, VESTS, SHIRTS, DRAWERS, AND TIGHTS. CARL GUTMANN & CO., New York, N. Y.
Filed October 2, 1914. Serial No. 81,618. PUBLISHED FEBRUARY 16, 1915.

104,004. OLIVE-OILS. ALBERTO MAZZINGHI, Leghorn, Italy.
Filed August 27, 1913. Serial No. 72,557. PUBLISHED JANUARY 6, 1914.

104,005. LIQUID FOR THE SEALING OF PUNCTURES IN PNEUMATIC TUBES. PROTECTAIR MANUFACTURING COMPANY, Wilmington, Del., and Philadelphia, Pa.
Filed July 23, 1914. Serial No. 80,015. PUBLISHED OCTOBER 20, 1914.

104,006. SILKS IN THE PIECE. LOUIS ROESSEL & CO., New York, N. Y.
Filed December 28, 1914. Serial No. 83,557. PUBLISHED FEBRUARY 9, 1915.

104,007. SAWS. SIMONDS FILE CO., Fitchburg, Mass.
Filed December 4, 1913. Serial No. 74,377. PUBLISHED FEBRUARY 2, 1915.

104,008. TOMATO PASTE AND PEELED TOMATOES. SOCIETÀ TORRESE PER CONSERVE ALIMENTARI LIGUORI, MAZZA & CI., Torre del Greco, Italy.
Filed April 4, 1914. Serial No. 77,219. PUBLISHED FEBRUARY 9, 1915.

104,009. REMEDY FOR ALL DISEASES OF THE THROAT. WILLIAM J. STEELE, Baldwin, N. Y.
Filed November 28, 1914. Serial No. 82,962. PUBLISHED FEBRUARY 2, 1915.

104,010. COTTON PIECE GOODS. YORK MANUFACTURING COMPANY, Saco, Me.
Filed January 15, 1915. Serial No. 83,890. PUBLISHED FEBRUARY 16, 1915.

104,011. COTTON PIECE GOODS. YORK MANUFACTURING COMPANY, Saco, Me.
Filed January 16, 1915. Serial No. 83,916. PUBLISHED FEBRUARY 16, 1915.

104,012. CERTAIN NAMED SILVER NOVELTIES. BAY STATE JEWELRY AND SILVERSMITHS CO., Attleboro, Mass.
Filed October 20, 1914. Serial No. 82,010. PUBLISHED FEBRUARY 16, 1915.

104,013. BLENDED COFFEES. THE CAMPBELL & WOODS COMPANY, Pittsburgh, Pa.
Filed February 14, 1910. Serial No. 47,812. PUBLISHED DECEMBER 29, 1914.

104,014. KITCHEN-CABINETS. COPPES BROS. & ZOOK, Nappanee, Ind.
Filed November 3, 1914. Serial No. 82,370. PUBLISHED FEBRUARY 16, 1915.

104,015. WHITE DENT CORN. FARMER SEED & NURSERY CO., Faribault, Minn.
Filed December 1, 1913. Serial No. 74,284. PUBLISHED FEBRUARY 16, 1915.

104,016. MECHANICALLY OR AUTOMATICALLY OPERATED ACTIONS TO PLAY ORGANS. FOLEY & WILLIAMS PIANO CO., Chicago, Ill.
Filed November 9, 1914. Serial No. 82,481. PUBLISHED FEBRUARY 16, 1915.

104,017. ELECTRIC INCANDESCENT LAMPS. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed July 16, 1913. Serial No. 71,747. PUBLISHED SEPTEMBER 29, 1914.

104,018. WARDROBE-TRUNKS. L. GOLDSMITH & SON, Newark, N. J.
Filed May 4, 1914. Serial No. 77,975. PUBLISHED FEBRUARY 16, 1915.

104,019. REMEDY FOR HAY-FEVER AND CATARRH. WILLIAM J. HACKETT, Dorchester, Mass.
Filed January 27, 1915. Serial No. 84,132. PUBLISHED FEBRUARY 16, 1915.

104,020. CERTAIN FIELD AND GRASS SEEDS AND SEED-GRAIN. THE ILLINOIS SEED CO., Chicago, Ill.
Filed October 5, 1914. Serial No. 81,664. PUBLISHED FEBRUARY 2, 1915.

104,021. CERTAIN FIELD AND GRASS SEEDS AND SEED-GRAIN. THE ILLINOIS SEED CO., Chicago, Ill.
Filed October 5, 1914. Serial No. 81,665. PUBLISHED FEBRUARY 2, 1915.

104,022. CERTAIN FIELD AND GRASS SEEDS AND SEED-GRAIN. THE ILLINOIS SEED CO., Chicago, Ill.
Filed October 5, 1914. Serial No. 81,666. PUBLISHED FEBRUARY 2, 1915.

104,023. CERTAIN NAMED SEEDS. THE ILLINOIS SEED CO., Chicago, Ill.
Filed October 5, 1914. Serial No. 81,667. PUBLISHED FEBRUARY 9, 1915.

104,024. CERTAIN NAMED FIELD AND GRASS SEEDS AND SEED-GRAIN. THE ILLINOIS SEED CO., Chicago, Ill.
Filed October 5, 1914. Serial No. 81,669. PUBLISHED FEBRUARY 2, 1915.

104,025. SEALING-WAXES. INSULATING MATERIALS COMPANY, Detroit, Mich.
Filed December 26, 1914. Serial No. 83,537. PUBLISHED FEBRUARY 9, 1915.

104,026. BREAD. GEORGE MUELLER, Salt Lake City, Utah.
Filed October 13, 1914. Serial No. 81,848. PUBLISHED FEBRUARY 9, 1915.

104,027. GARTERS AND ARMBANDS. THE NATIONAL GARTER COMPANY, Cincinnati, Ohio.
Filed October 31, 1914. Serial No. 82,304. PUBLISHED DECEMBER 1, 1914.

104,028. ROASTED COFFEE. THE OUERBACKER COFFEE CO., Louisville, Ky.
Filed December 10, 1914. Serial No. 83,207. PUBLISHED FEBRUARY 16, 1915.

104,029. ROASTED COFFEE. THE OUERBACKER COFFEE CO., Louisville, Ky.
Filed December 10, 1914. Serial No. 83,208. PUBLISHED FEBRUARY 16, 1915.

104,030. ACID PHOSPHATE OF CALCIUM. PROVIDENT CHEMICAL WORKS, St. Louis, Mo.
Filed September 19, 1914. Serial No. 81,350. PUBLISHED FEBRUARY 16, 1915.

104,031. PIANOS AND PIANO-PLAYERS AND PIANO-PLAYER ACTIONS. THE SCHUBERT PIANO CO., New York, N. Y.
Filed December 11, 1914. Serial No. 83,230. PUBLISHED FEBRUARY 16, 1915.

104,032. BREAD. SCHULZE BAKING COMPANY, Chicago, Ill.
Filed March 5, 1914. Serial No. 76,384. PUBLISHED JANUARY 26, 1915.

104,033. COTTON PIECE GOODS. J. L. STIFEL & SONS, Wheeling, W. Va.
Filed November 19, 1914. Serial No. 82,681. PUBLISHED FEBRUARY 16, 1915.

104,034. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,061. PUBLISHED OCTOBER 27, 1914.

104,035. CERTAIN NAMED MATERIALS TO BE USED FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,062. PUBLISHED NOVEMBER 10, 1914.

104,036. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,063. PUBLISHED OCTOBER 27, 1914.

104,037. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,064. PUBLISHED OCTOBER 27, 1914.

104,038. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,065. PUBLISHED OCTOBER 27, 1914.

104,039. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,067. PUBLISHED OCTOBER 27, 1914.

104,040. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,068. PUBLISHED OCTOBER 27, 1914.

104,041. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,069. PUBLISHED OCTOBER 27, 1914.

104,042. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,070. PUBLISHED OCTOBER 27, 1914.

104,043. CERTAIN NAMED HAIR AND HAIR AND FIBER PRODUCTS FOR UPHOLSTERING PURPOSES. SULZBERGER & SONS COMPANY, New York, N. Y.
Filed July 25, 1914. Serial No. 80,071. PUBLISHED OCTOBER 27, 1914.

104,044. RUBBER TUBING, HOSE, RUBBER AND COTTON FIRE-HOSE AND MILL-HOSE, BELTING, AND MACHINERY PACKING. J. W. BUCKLEY RUBBER CO., New York, N. Y.
Filed May 13, 1913. Serial No. 70,390. PUBLISHED AUGUST 19, 1913.

104,045. FLOOR-SWEEPING COMPOUNDS. CLARENCE P. BURTON, Dallas, Tex.
Filed July 31, 1914. Serial No. 80,194. PUBLISHED OCTOBER 6, 1914.

104,046. WRITING-PAPER. CRANE & CO., Dalton, Mass.
Filed January 26, 1914. Serial No. 75,434. PUBLISHED MARCH 24, 1914.

104,047. WRITING-PAPER. CRANE & CO., Dalton, Mass.
Filed January 26, 1914. Serial No. 75,436. PUBLISHED MARCH 24, 1914.

104,048. WRITING-PAPER. CRANE & CO., Dalton, Mass.
Filed January 26, 1914. Serial No. 75,437. PUBLISHED MARCH 24, 1914.

104,049. WRITING-PAPER. CRANE & CO., Dalton, Mass.
Filed January 26, 1914. Serial No. 75,438. PUBLISHED MARCH 24, 1914.

104,050. NON-ALCOHOLIC CARBONATED BEVERAGES. EDWARD DIEHL, Nashville, Tenn.
Filed January 7, 1915. Serial No. 83,708. PUBLISHED FEBRUARY 23, 1915.

104,051. EMBLEMATIC TOY. JAMES E. EZELL, Woodruff, S. C.
Filed December 22, 1914. Serial No. 83,458. PUBLISHED JANUARY 26, 1915.

104,052. HAM, BACON, AND LARD. THE WM. FOCKE'S SONS COMPANY, Dayton, Ohio.
Filed August 13, 1913. Serial No. 72,316. PUBLISHED FEBRUARY 10, 1914.

104,053. PRINTED SCORE-CARDS. ANNIE ADAIR FOSTER, Atlanta, Ga.
Filed April 20, 1914. Serial No. 77,586. PUBLISHED DECEMBER 1, 1914.

104,054. RAIN-COATS. THE B. F. GOODRICH COMPANY, New York, N. Y.
Filed January 21, 1915. Serial No. 84,002. PUBLISHED FEBRUARY 23, 1915.

104,055. DISINFECTANT PURPOSES. HARRY HAGUE, Murray, Utah.
Filed July 28, 1914. Serial No. 80,124. PUBLISHED DECEMBER 1, 1914.

104,056. COTTON PIECE AND COTTON DRESS GOODS. JACKSON COMPANY, Nashua, N. H.
Filed January 16, 1915. Serial No. 83,902. PUBLISHED FEBRUARY 23, 1915.

104,057. SALVE FOR THE TREATMENT OF SUNBURN AND SKIN AFFECTIONS. HARRIS KRONENGOLD, New York, N. Y.
Filed December 17, 1914. Serial No. 83,349. PUBLISHED JANUARY 12, 1915.

104,058. CANDLE-HOLDERS AND SCONCES. DAVID H. LIND, New York, N. Y.
Filed November 13, 1914. Serial No. 82,565. PUBLISHED JANUARY 12, 1915.

104,059. CERTAIN NAMED PAPER AND STATIONERY SUPPLIES. LOW COST COMPANY, Chicago, Ill.
Filed August 11, 1913. Serial No. 72,291. PUBLISHED NOVEMBER 24, 1914.

104,060. OVERALLS, JACKETS, MEN'S PANTS, VESTS, AND COATS, WHICH ARE MADE OF CLOTH. ALBERT MATHIAS & CO., El Paso, Tex.
Filed November 6, 1913. Serial No. 73,837. PUBLISHED FEBRUARY 23, 1915.

104,061. BEDS, BED SPRINGS AND MATTRESSES, AND MATERIAL THEREFOR—NAMELY, WIRE FABRICS AND SPRINGS. NEW YORK COUCH BED CO., New York, N. Y.
Filed September 24, 1914. Serial No. 81,454. PUBLISHED DECEMBER 8, 1914.

104,062. SILICATE OF SODA. EDWARD ALFRED PATERSON, Thorold, Ontario, Canada.
Filed January 9, 1915. Serial No. 83,765. PUBLISHED FEBRUARY 23, 1915.

104,063. CERTAIN NAMED ARTICLES OF PRECIOUS METAL. VINCENT SORRENTINO, INC., Providence, R. I.
Filed June 18, 1913. Serial No. 71,186. PUBLISHED DECEMBER 1, 1914.

104,064. TABLES, BOOKCASES, DESKS, COUCHES, SETTEES, CHAIRS, AND TELEPHONE-STANDS. THOMPSON MANUFACTURING COMPANY, Holland, Mich.
Filed September 11, 1914. Serial No. 81,207. PUBLISHED DECEMBER 15, 1914.

104,065. EGGS. YESTERLAID EGG FARMS COMPANY, Pacific, Mo.
Filed November 27, 1914. Serial No. 82,945. PUBLISHED FEBRUARY 2, 1915.

104,066. BITUMINOUS AND ALKALINE PAVING COMPOSITION. JOSEPH HAY AMIES, Philadelphia, Pa.
Filed October 12, 1914. Serial No. 81,800. PUBLISHED DECEMBER 1, 1914.

104,067. CLOTHES-POUNDER. COMMONWEALTH SUPPLY COMPANY, New York, N. Y.
Filed October 23, 1914. Serial No. 73,573. PUBLISHED DECEMBER 8, 1914.

104,068. COTTON-GATHERING MACHINERY. COTTON GATHERING CORPORATION, New York, N. Y.
Filed June 3, 1914. Serial No. 78,764. PUBLISHED FEBRUARY 2, 1915.

104,069. HOSIERY. WILLIAM B. KOHLMAN, New Orleans, La.
Filed January 28, 1915. Serial No. 84,175. PUBLISHED FEBRUARY 23, 1915.

104,070. TEA. FRANCIS H. LEGGETT & CO., New York, N. Y.
Filed August 13, 1914. Serial No. 80,541. PUBLISHED NOVEMBER 24, 1914.

104,071. SCARF-PINS, NECKLACES, LAVALLIÈRES, RINGS, PEARLS, AND ARTIFICIAL PEARLS. R. H. MACY & CO., New York, N. Y.
Filed December 11, 1914. Serial No. 83,229. PUBLISHED JANUARY 26, 1915.

104,072. LAMP-CHIMNEYS. THE MANTLE LAMP COMPANY OF AMERICA, Chicago, Ill.
Filed October 31, 1914. Serial No. 82,320. PUBLISHED DECEMBER 29, 1914.

104,073. LIVER REMEDY. THE MARCY COMPANY, Boston, Mass.
Filed July 19, 1910. Serial No. 50,914. PUBLISHED FEBRUARY 2, 1915.

104,074. BREWERS' DRIED GRAINS. PENN GRAINS AND FEED COMPANY, Philadelphia, Pa.
Filed May 13, 1914. Serial No. 78,249. PUBLISHED NOVEMBER 24, 1914.

104,075. TALCUM POWDER. REGAL SHOE COMPANY, Boston, Mass.
Filed November 6, 1911. Serial No. 59,579. PUBLISHED NOVEMBER 24, 1914.

104,076. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS FOR TOILET USE. EVA ISABELL SIMONS, San Francisco, Cal.
Filed March 23, 1914. Serial No. 76,878. PUBLISHED NOVEMBER 10, 1914.

104,077. LUBRICATING-OIL. STANDARD OIL COMPANY OF CALIFORNIA, San Francisco, Cal.
Filed January 3, 1913. Serial No. 67,697. PUBLISHED FEBRUARY 3, 1914.

104,078. REVOLVING DOORS. VAN KANNEL REVOLVING DOOR COMPANY, New York, N. Y.
Filed December 10, 1914. Serial No. 83,216. PUBLISHED FEBRUARY 2, 1915.

104,079. TRANSOMS, DOORS, WINDOWS, AND PANELS. THE VENTILOUVRE CO., New York, N. Y.
Filed October 19, 1914. Serial No. 82,002. PUBLISHED DECEMBER 22, 1914.

104,080. WHEAT-FLOUR. WHALEY MILL & ELEVATOR CO., Gainesville, Tex.
Filed September 8, 1914. Serial No. 81,120. PUBLISHED DECEMBER 15, 1914.

104,081. TRACING-CLOTH. THE WINTERBOTTOM BOOK CLOTH COMPANY, LIMITED, Manchester, England.
Filed November 10, 1914. Serial No. 82,509. PUBLISHED FEBRUARY 16, 1915.

104,082. CERTAIN NAMED FOODS. ALART & MCGUIRE, New York, N. Y., assignors to Alart & McGuire Company, New York, N. Y., a Corporation of New York.
Filed March 19, 1907. Serial No. 26,066. PUBLISHED JULY 16, 1907.

104,083. CHILDREN'S DRESSES. ALLWIN DRESS COMPANY, INC., New York, N. Y.
Filed December 3, 1914. Serial No. 83,034. PUBLISHED DECEMBER 29, 1914.

104,084. TONIC MEDICINE. ANGLO-AMERICAN PHARMACEUTICAL COMPANY, Croydon, England, and New York, N. Y.
Filed December 8, 1914. Serial No. 83,144. PUBLISHED FEBRUARY 23, 1915.

104,085. BLOCK SALT. BELMONT STABLE SUPPLY CO., New York, N. Y.
Filed December 22, 1914. Serial No. 83,456. PUBLISHED FEBRUARY 23, 1915.

104,086. CERTAIN NAMED MACHINERY AND TOOLS AND PARTS THEREOF. THE BROWN HOISTING MACHINERY COMPANY, Cleveland, Ohio.
Filed June 15, 1914. Serial No. 79,095. PUBLISHED FEBRUARY 25, 1915.

104,087. LIQUID LAXATIVE MEDICINES. CALIFORNIA FIG SYRUP CO., Reno, Nev.; San Francisco, Cal.; Louisville, Ky.; Wheeling, W. Va., and New York, N. Y.
Filed January 2, 1915. Serial No. 83,621. PUBLISHED FEBRUARY 23, 1915.

104,088. SAFETY-PINS. CONSOLIDATED SAFETY PIN CO., Bloomfield, N. J.
Filed January 6, 1914. Serial No. 74,984. PUBLISHED FEBRUARY 16, 1915.

104,089. ELECTRIC SPOT, BUTT, AND SEAM WELDERS. DETROIT ELECTRIC WELDER COMPANY, Detroit, Mich.
Filed January 2, 1915. Serial No. 83,642. PUBLISHED FEBRUARY 23, 1915.

104,090. VARNISHES. COMMONWEALTH VARNISH COMPANY, Chicago, Ill.
Filed October 17, 1914. Serial No. 81,958. PUBLISHED FEBRUARY 23, 1915.

104,091. SEAM-BINDINGS. FREYDBERG BROS., New York, N. Y.
Filed October 9, 1914. Serial No. 81,763. PUBLISHED NOVEMBER 24, 1914.

104,092. SEAM-BINDINGS. FREYDBERG BROS., New York, N. Y.
Filed October 9, 1914. Serial No. 81,764. PUBLISHED NOVEMBER 24, 1914.

104,093. HANDKERCHIEFS. HERRMANN, AUKAM & CO., New York, N. Y.
Filed November 11, 1914. Serial No. 82,516. PUBLISHED JANUARY 5, 1915.

104,094. FURNITURE POLISH AND CLEANSING COMPOUND. C. KEEVILL & SON, Philadelphia, Pa.
Filed December 20, 1913. Serial No. 74,727. PUBLISHED FEBRUARY 23, 1915.

104,095. TEA. LOUIS M. KOMMEL, New York, N. Y.
Filed September 17, 1914. Serial No. 81,302. PUBLISHED NOVEMBER 24, 1914.

104,096. ELECTROCHEMICAL SOLUTION FOR COMMERCIAL PURPOSES—VIZ., A PRIMARY AND SECONDARY BATTERY SOLUTION. L. & M. AUTO SPECIALTY CO., New York, N. Y.
Filed December 23, 1914. Serial No. 83,489. PUBLISHED FEBRUARY 23, 1915.

104,097. MINERAL WATER. LENOX SUPPLY COMPANY, Sparkill, N. Y.
Filed August 7, 1914. Serial No. 80,383. PUBLISHED JANUARY 5, 1915.

104,098. WATER-GAGES. NATHAN MANUFACTURING COMPANY, New York, N. Y.
Filed December 23, 1914. Serial No. 83,493. PUBLISHED FEBRUARY 23, 1915.

104,099. TIN CANS AND COLLAPSIBLE TUBES. NATIONAL CAN CO., Detroit, Mich.
Filed September 28, 1914. Serial No. 81,528. PUBLISHED NOVEMBER 17, 1914.

104,100. DRESSES. NATIONAL CLOAK & SUIT COMPANY, Central Valley and New York, N. Y.
Filed November 10, 1914. Serial No. 82,503. PUBLISHED JANUARY 19, 1915.

104,101. COLD-CREAM. NEW ENGLAND LABORATORY CO., Lynn, Mass.
Filed November 6, 1914. Serial No. 82,445. PUBLISHED DECEMBER 29, 1914.

104,102. TOOTH-PASTE. NEW ENGLAND LABORATORY CO., Lynn, Mass.
Filed November 6, 1914. Serial No. 82,447. PUBLISHED DECEMBER 29, 1914.

104,103. HAND-SOAP FOR REMOVING GREASE AND DIRT. THE NORTHWESTERN CHEMICAL COMPANY, Marietta, Ohio.
Filed October 3, 1912. Serial No. 66,115. PUBLISHED NOVEMBER 17, 1914.

104,104. RESTORATIVE LIQUID-PREPARATION REMEDY AND A TONIC. ORGANIC PRODUCTS COMPANY, Brooklyn, N. Y.
Filed June 4, 1914. Serial No. 78,844. PUBLISHED NOVEMBER 24, 1914.

104,105. MOVING-PICTURE EQUIPMENT AND MOVING-PICTURE SCREENS. J. P. PAYOR & CO. INC., New York, N. Y.
Filed November 7, 1914. Serial No. 82,472. PUBLISHED JANUARY 12, 1915.

104,106. MACHINES FOR AFFIXING POSTAGE-STAMPS AND THE LIKE TO SURFACES AND FOR VENDING SAME. THE POSTAMPER COMPANY, Chicago, Ill.
Filed July 20, 1914. Serial No. 79,929. PUBLISHED NOVEMBER 3, 1914.

104,107. NECKTIES AND NECK-SCARFS. HARRY RABINOWITZ, New York, N. Y.
Filed September 29, 1914. Serial No. 81,556. PUBLISHED DECEMBER 15, 1914.

104,108. CRACKERS, BISCUIT, BREAD, AND PASTRY. NELSON C. RAND, Everett, Mass.
Filed May 14, 1914. Serial No. 78,285. PUBLISHED DECEMBER 8, 1914.

104,109. CERTAIN NAMED BRUSHES. WILLIAM H. SHEETS, JR., & CO., Baltimore, Md.
Filed May 19, 1914. Serial No. 78,400. PUBLISHED NOVEMBER 24, 1914.

104,110. WOMEN'S, MISSES', AND CHILDREN'S DRESSES. TEXTILE PRODUCTS COMPANY, Boston, Mass.
Filed January 20, 1915. Serial No. 83,985. PUBLISHED FEBRUARY 23, 1915.

104,111. REMEDIES FOR CERTAIN NAMED AILMENTS AND DISEASES. ALBERT V. WIDMANN, Newark, N. J.
Filed December 30, 1914. Serial No. 83,597. PUBLISHED FEBRUARY 23, 1915.

104,112. CERTAIN NAMED MACHINERY AND TOOLS AND PARTS THEREOF. J. H. WILLIAMS & CO., New York, N. Y.
Filed April 5, 1912. Serial No. 62,668. PUBLISHED JUNE 23, 1914.

104,113. OPHTHALMIC MOUNTINGS AND PARTS THEREOF. T. A. WILLSON & CO., INC., Reading, Pa.
Filed December 29, 1914. Serial No. 83,572. PUBLISHED FEBRUARY 23, 1915.

104,114. PARTS OF WATCH AND CLOCK MOVEMENTS KNOWN AS MATERIAL, INCLUDING MAINSPRINGS. HENRY ZIMMERN & COMPANY, New York, N. Y.
Filed November 17, 1914. Serial No. 82,650. PUBLISHED DECEMBER 22, 1914.

LABELS

REGISTERED APRIL 27, 1915.

18,392.—*Title:* "RUBA-LAX." (For a Medicinal Preparation.) THE ALBANY PHARMACAL COMPANY, INC., Albany, N. Y. Filed December 16, 1914.

18,393.—*Title:* "SERVICE SHOE LEATHERS." (For Leather.) ANCHOR LEATHER CO., Chicago, Ill. Filed March 4, 1915.

18,394.—*Title:* "ANNETTE KELLERMANN SWIMMING TIGHTS." (For Swimming-Tights.) LEONARD C. ASCH, New York, N. Y. Filed October 22, 1914.

18,395.—*Title:* "SHINALL." (For a Polishing Compound.) HENRY BANGE, Newark, N. J. Filed March 12, 1915.

18,396.—*Title:* "SALTPETRE." (For Potassium Nitrate.) BATTELLE & RENWICK, New York, N. Y. Filed January 4, 1915.

18,397.—*Title:* "GOLD-SEAL." (For Cigars.) BENISH & MEYER, Selma, Ala. Filed March 1, 1915.

18,398.—*Title:* "CANARY." (For Coffee.) BERNHARD BROTHERS, Dayton, Ohio. Filed March 4, 1915.

18,399.—*Title:* "AUTOMOBILE SWEETS." (For Candy and Confectionery.) BROWN-WHITE INC., Philadelphia, Pa. Filed January 16, 1915.

18,400.—*Title:* "DELISHUS." (For Cake.) THE CABELL COMPANY, Baltimore, Md. Filed March 12, 1915.

18,401.—*Title:* "KENOSHA-KLOSED-KROTCH." (For Underwear.) COOPER UNDERWEAR COMPANY, Kenosha, Wis. Filed February 2, 1915.

18,402.—*Title:* "COOPERS KENOSHA-KLOSED-KROTCH UNION SUITS." (For Underwear.) COOPER UNDERWEAR COMPANY, Kenosha, Wis. Filed February 8, 1915.

18,403.—*Title:* "STOLL'S." (For Coffee.) EARL COWAN COMPANY, Los Angeles, Cal. Filed March 25, 1915.

18,404.—*Title:* "POLAR BEAR SHEATHING." (For Sheathing-Paper.) H. EITENHOUT & SONS, Grand Rapids, Mich. Filed February 18, 1915.

18,405.—*Title:* "HORLICK'S OATIN MILK." (For Oatin Milk.) ALEXANDER HORLICK, Milwaukee, Wis. Filed March 31, 1915.

18,406.—*Title:* "HORLICK'S MALTOAT." (For Maltoat Food.) HORLICK MALTOAT BISCUIT CO., Milwaukee, Wis. Filed March 31, 1915.

18,407.—*Title:* "BLACK LEAF 40." (For Nicotin Solution for Insecticides.) THE KENTUCKY TOBACCO PRODUCT CO. INCORPORATED, Louisville, Ky. Filed February 25, 1915.

18,408.—*Title:* "LOTZ'S SHANKLESSHAM." (For Ham.) FREDERICK W. LOTZ, Philadelphia, Pa. Filed March 15, 1915.

18,409.—*Title:* "ROSEMINT." (For a Candy Confection.) MILLS NOVELTY COMPANY, Chicago, Ill. Filed January 13, 1915.

18,410.—*Title:* "MINT-MALT." (For a Syrupy Liquid Containing Malt and Mint.) MINT-MALT CORPORATION, New York, N. Y. Filed February 1, 1915.

18,411.—*Title:* "MOFFATT'S PURE CALIFORNIA HONEY." (For Honey.) JOSEPH MOFFATT, Los Angeles, Cal. Filed December 15, 1914.

18,412.—*Title:* "COFFEE." (For Coffees.) GEORGE C. MORRISON, Toledo, Ohio. Filed January 27, 1915.

18,413.—*Title:* "COFFEE." (For Coffees.) GEORGE C. MORRISON, Toledo, Ohio. Filed January 27, 1915.

18,414.—*Title:* "COFFEE." (For Coffees.) GEORGE C. MORRISON, Toledo, Ohio. Filed January 27, 1915.

18,415.—*Title:* "COFFEE." (For Coffees.) GEORGE C. MORRISON, Toledo, Ohio. Filed January 27, 1915.

18,416.—*Title:* "FALLS 'FORK-DIPPED' CHOCOLATES." (For Chocolate Candy.) THE NIAGARA CHOCOLATE COMPANY, Niagara Falls, N. Y. Filed January 13, 1915.

18,417.—*Title:* "DIAMOND B." (For Cigars.) OSCAR PAULSON, Rochester, Minn. Filed March 4, 1915.

18,418.—*Title:* "KLEENUP — THE PERFECT CLEANSER." (For a Cleanser.) JACOB SAP & CO., Akron, Ohio. Filed January 30, 1915.

18,419.—*Title:* "BUTTER-NUT BREAD." (For Bread.) PAUL SCHULZE, Chicago, Ill. Filed March 26, 1915.

18,420.—*Title:* "U-AUTO-VARNISH." (For Varnish.) THE U-AUTO-VARNISH CO., Cleveland, Ohio. Filed June 24, 1914.

18,421.—*Title:* "BRAND." (For Coffee, Teas, and Spices.) THE WOOLSON SPICE COMPANY, Toledo, Ohio. Filed January 27, 1915.

PRINTS

REGISTERED APRIL 27, 1915.

3,871.—*Title:* "ANNETTE KELLERMANN SWIMMING TIGHTS." (For Swimming-Tights.) LEONARD C. ASCH, New York, N. Y. Filed October 22, 1914.

3,872.—*Title:* "RIP VAN WINKLE." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed March 30, 1915.

3,873.—*Title:* "NEEDS BUT ONE TRIAL." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,874.—*Title:* "NO CHANCE FOR AN ARGUMENT." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,875.—*Title:* "HAVE COMPASSION ON YOUR CLOTHES." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,876.—*Title:* "CLEAN, SWEET CLOTHES WITH THE LEAST EFFORT." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,877.—*Title:* "FRAGRANT AND REFRESHING." (For Jap Rose Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,878.—*Title:* "SAVE YOUR WRAPPERS. THEY ARE VALUABLE." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,879.—*Title:* "MAKES LAUNDRY WORK SO EASY." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,880.—*Title:* "DRIVE THE DIRT OUT." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,881.—*Title:* "VERY EFFECTIVE WITH COLD WATER." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,882.—*Title:* "MAKES THE DIRT FLY." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,883.—*Title:* "GOOD RESULTS WITH COLD WATER." (For American Family Soap.) THOS. CUSACK COMPANY, Chicago, Ill. Filed March 24, 1915.

3,884.—*Title:* "ICE COLD BEER." (For Beer.) KAUFMANN & STRAUSS CO., New York, N. Y. Filed March 31, 1915.

3,885.—*Title:* "COLONIAL NIGHT LAMP." (For Candle-Lamps.) F. MARTY & CO., Syracuse, N. Y. Filed March 15, 1915.

3,886.—*Title:* "OLD BEN COAL." (For Coal.) OLD BEN MINING CORPORATION, Chicago, Ill. Filed April 2, 1915.

3,887.—*Title:* "THE LEADER BECAUSE 'EVERY BITE TASTES RIGHT.'" (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed January 9, 1915.

3,888.—*Title:* "A RUN FOR YOUR MONEY." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed January 9, 1915.

3,889.—*Title:* "GET THE FLAVOR OF JUICY FRUIT." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed January 9, 1915.

3,890.—*Title:* "PIPE AND FITTINGS." (For Pipe and Fittings.) JOHN SIMMONS COMPANY, New York, N. Y. Filed January 28, 1915.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Second Circuit.

SIROCCO ENGINEERING CO. *v.* B. F. STURTEVANT CO.

Decided December 15, 1914.

220 FED. REP., 137.

1. PATENTS—VALIDITY AND INFRINGEMENT—CENTRIFUGAL FAN.

The Davidson reissue patents, Nos. 12,796 and 12,797, (original No. 662,395,) for a centrifugal fan or pump, *Held* void for anticipation by the Fournier and Cornu French patent, No. 254,064, of February 18, 1896; also *Held* not infringed.

2. ANTICIPATION—PRIOR FOREIGN PATENT.

That a foreign patent duly granted was permitted to lapse for non-payment of the required annual fee or was never printed or that the device was not commercially successful does not change its effect as an anticipation, which, under Revised Statutes, section 4886, as amended, (Comp. St., 1913, sec. 9430,) will defeat the right to a subsequent patent for the same device in the United States.

APPEAL from the District Court of the United States for the Southern District of New York.

STATEMENT OF THE CASE.

On appeal from an interlocutory decree sustaining the validity of two reissued Letters Patent No. 12,796 (Reissue A) and No. 12,797 (Reissue B) granted May 26, 1908, to Samuel B. Davidson, of Belfast, Ireland, for a centrifugal fan or pump. These patents were assigned to the Sirocco Company, complainant herein.

The original patent was granted November 27, 1900, on an application filed September 21, 1898. Attached to the description were eleven sheets of drawings containing twenty-eight separate figures. No model was filed. The patent contained seventeen claims. The reissue was applied for March 16, 1908, over seven years from the date of the original, and the patents were reissued in three divisions containing thirty-six claims. Reissue C is not involved in the present controversy as it is conceded that it is not infringed.

The district court sustained claims 1, 5, 7, 10 and 13 of Reissue A and 1, 3, 4, 5, 10 and 14 of Reissue B, and allowed the complainant three-fourths of the costs, charges and disbursements. The court ordered a perpetual injunction against the defendant and referred it to a master to take an account of the gains, profits and advantages derived by the defendant by reason of its infringement. Judge Ray's opinion is published in 208 Fed., 147. His opinion holding that it was not incumbent upon the trial judge to pronounce judgment upon claims which were not relied on by the complainant or discussed by either party is reported in 209 Fed., 624. The opinion of Judge Holt holding that the Sirocco Company was not a mere licensee of Davidson but was an assignee, and therefore entitled to reissue the patents, is reported in 184 Fed., 84. The opinion of Judge Noyes sustaining a demurrer to a bill on the reissued patents because of a delay of seven years in applying for the reissue, but permitting an amendment excusing the delay, is reported in 171 Fed., 440. The opinion of Judge Hough holding, after the amendment, that the reissues were not so clearly void as to justify a decision dismissing the bill on demurrer is reported in 173 Fed., 378.

Mr. William H. Kenyon, Mr. Benjamin Phillips, Mr. Alfred H. Hildreth, and *Mr. Omri F. Hibbard* for the appellant.

Mr. Frederick P. Fish and *Mr. Arthur C. Fraser* for the appellee.

Before LACOMBE, COXE, and ROGERS, Circuit Judges.

COXE, *Cir. J.:*

The immense size of the record, the vast number of exhibits and illustrative models, the complex questions of mechanics and the 611 pages of argument found in the briefs, where nothing, apparently, is conceded, combined to make this one of the most complex and annoying patent controversies which has come to the attention of the court. We shall endeavor, therefore, to localize the issue, as far as possible, and confine it to those references which approach nearest to the combinations of the Davidson patents. If any one of these shows the Davidson centrifugal fan or pump, it is not necessary to examine numerous other patents that may or may not show it. If, on the other hand, the nearest approach in the prior art does not show Davidson's fan, it is safe to assume that it will not be found in others more remote. In other words, the court should do what the members of the bar are usually reluctant to do, viz., limit the issue of patentability to a comparison of the patented structure with the few structures of the prior art which most nearly resemble it.

(1) Section 4886 of the Revised Statutes (Comp. St., 1913, sec. 9430) provides, *inter alia*, that one who has invented a new and useful machine not known or used by others in this country and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof may obtain a patent therefor. Broadly speaking, Davidson's fan consists, first, of a rotary member having a plurality of elongated blades arranged lengthwise in an axial direction so

as to inclose within them a relatively large and practically-unobstructed intake-chamber and receive and carry with them the air as they revolve and discharge it tangentially. Second. It consists of means for mounting the rotary member so as to permit the tangential escape of the air. The first claim of the reissue, which seems to be identical with the first claim of the original patent, sufficiently describes the invention for the purpose now under consideration. It is as follows:

1. A centrifugal fan or pump, comprising a rotary member having numerous elongated blades arranged lengthwise in approximately axial direction, and in substantially drum form, so as to inclose within them a relatively large and practically-unobstructed intake-chamber, and in transverse section arranged, relatively to the axis and direction of rotation, to carry the fluid with them rotatively and discharge it tangentially, and a means for so mounting said rotary member as to permit the tangential escape of the fluid discharged from said blades.

The other claims are printed in the opinion of the district court and need not be repeated here.

The claims are alike in using broad general language, and it will be observed that almost every element is limited or defined by some adjective or qualifying phrase. Little that is definite or certain is found in the claims. Take the first claim, previously quoted, as an example. The first element of the centrifugal fan as there stated is a rotary member having *numerous* elongated blades. Sixty would be numerous; so would sixteen, and any number between the two. They are to be arranged in an *approximately* axial direction and in *substantially* drum form so as to inclose within them *a relatively* large and *practically*-unobstructed intake-chamber. In transverse section they are arranged, *relatively* to the axis and direction of rotation.

The other claims use the same and other qualifying adjectives, all designed to bring within their terms a wide range of equivalents.

But such indefinite language enables the defendant to invoke the rule that what infringes if made afterward, anticipates if made before the alleged invention. Prior to Davidson's contribution to the art the idea of agitating air by a rapidly-revolving wheel with a plurality of vanes or paddles attached to its spokes had been embodied in a number of structures. The patents which in our judgment most closely approach the Davidson fan are the British patent to Ser, 1884, and the French patents to Levet and Fournier and Cornu, issued, respectively, in 1890 and 1896.

Ser's patent is chiefly important in that it shows a steel plate or paddle-wheel with a large number of blades. The drawing shows thirty-two inclined forwardly in the direction of their rotation. In the number, width and forward slant of the blades mounted in the usual snail-shaped casing, the Davidson idea is found, although embodied in a somewhat different machine.

The French patent to Levet was issued April 25, 1890, for a new fan having guides for the streams of fluid. The fan is inclosed in a snail-like shell having interior conduits for dividing the air and discharging it into the outlet-tube. In the inlet of the case are guides for directing the entrance of the air. There are forty-eight blades in the Levet fan, all of them curved, in the direction of the rotation and alternating in width. The intake-chamber is large, being about three-quarters of the total diameter of the wheel. The direction of the curvature of the blades varies according to the speed of the wheel, the inventor expressly stating that the blades are curved,

so that the component shall be in proportion to the speed of the wheel and of the air.

It is true that Levet's is a double-inlet fan, but it could require no inventive genius to split it in two or use one side only. In a similar way, it would require no inventive genius to put two Davidson fans back to back and use them as a double fan.

We incline to the opinion that the best single reference cited by the defendant is the Fournier and Cornu patent, No. 254,064, dated February 18, 1896. In this conclusion we, apparently, agree with the complainant, for it was this patent which induced the complainant to dismiss the suit on the original Davidson patent, No. 662,395, and petition for a reissue in three divisions. In the amended bill the complainant avers:

That your orator and said patentee were advised by their counsel that said foreign patent, considered in connection with the previous citations, constituted a prior art approaching so closely to the wording of certain of the claims of said Letters Patent as to render them void or of doubtful validity, and that said Letters Patent were too broadly worded.

It further alleges that for these reasons the patent was reissued in three divisions, as previously stated. As this patent is commendably short and concise in its statements, it is here given in full:

Specification annexed to the patent of fifteen years applied for the 18th of February, 1896, by Fournier & Cornu, represented by Marillier & Robelet, 42 Boulevard Bonne-Nouvelle, Paris, and which was granted to them by decree of the Minister of Commerce, Industry, Post and Telegraph on the 30th of May, 1896, for "new system of ventilator called the rational."

This application for a patent has for its object to guarantee us the temporary exclusive ownership, in accordance with the law, of a new system of ventilator to which we have given the name of *the rational*. In order that its construction and operation may be fully understood, we shall hereinafter describe it with the aid of the figures of the drawings thereof annexed to this specification.

Fig. 1 is a longitudinal exterior elevation.

Fig. 2 is an exterior plan view according to Fig. 1.

Fig. 3 is a longitudinal sectional elevation on line X Y, Fig. 2.

Fig. 4 is a vertical section on line X' Y', Fig. 3.

This ventilator consists essentially of a wheel A having curved iron blades B, and mounted centrally upon a disk shaped casting C. The blades B, whose width is equal $^{14}/_{100}$ of the exterior diameter of the wheel A, are connected at their ends by two circular sheet metal bands D, D', having an exterior diameter equal to that of the wheel A, and an interior diameter equal to $^{72}/_{100}$ of their exterior diameter.

The disk shaped casting C is splined upon the shaft F of the wheel A. The total width of the paddle wheel may vary, but should equal at least two-thirds of the exterior diameter. The blades B are in the shape of an arc of a circle, the tangent G to a blade at the point H where it meets the outer circumferences of the turbine and the tangent G' of said circumference at the same point and directed in the direction of rotation intersect at an angle of 115 degrees.

The wheel A rotates in a casing I which may be a casting or consist of iron, and the lateral walls of which are provided with circular openings, J, J', whose centers are on the axis of the shaft F of the wheel A and whose diameter is equal to the diameter of the circle formed by the inner edge of the circular bands D, D'. The two openings constitute the suction orifice of the ventilator. A single exhaust opening is formed at K in the cylindrical wall of the casing I, having a width equal to that of the interior of the casing, and a section less than the sum of the sections of both the suction openings J, J'.

If it is desired to exhaust from a great distance, the suction openings J, J', will each be provided with a tube communicating with a single passage ending at the supply pipes.

The wheel A turning with the desired speed, the blades B throw out the air between them and draw in the air contained in the middle portion L, which in turn draws in the air at the outside of the casing I through the openings J, J', said air thus entering naturally the central portion L and passing through the spaces M between the wings B, and out freely by the exhaust opening K.

When it is desired to conduct the exhausted air to some distance, or to have a considerable water pressure shown by a manometer a tube of gradually diminishing diameter is attached to the exhaust opening K. It will then be found that the smaller the outlet, the greater the pressure obtained.

We have shown by experiment that the velocity of the air in leaving is substantially equal to the outer circumferential velocity of the turbine.

Résumé.

We claim as our invention and as our exclusive property temporarily according to law, the system of ventilator called *the rational* above described and shown in one embodiment in the figures of the drawings annexed to the specification, reserving to ourselves the right to vary the shapes, dimensions, combinations and materials composing its different members; to apply it broadly and to make therein hereafter, all improvements which experience may suggest to us, provided that we do not depart from the essential spirit of our invention.

The drawings of this patent so closely resemble those of the patents in suit that to the casual observer the only important differences are in the number of the vanes, the manner in which they are mounted on the wheel and the manner in which the wheel is mounted on its axis. Unquestionably the patent shows a multivane fan having sixteen blades on the wheel. The drawings of the patent in suit show more than this and the brief for the complainant asserts that there are eighty such blades, but the claims are not limited to any specific number and the complainant is seeking to hold structures having a much smaller number of blades.

We think that Fournier and Cornu blades are within the terms of the Davidson patents and claims. There is nothing in the specifications or claims limiting them to a particular number of blades or fixing definitely their length or breadth. Certain limits are fixed within which all subsequent fans will infringe and all prior fans will anticipate. We think the Fournier and Cornu fan is within these limits. Whether it incloses within its blades a relatively large and practically-unobstructed intake-chamber depends upon the question whether or not "the disk shaped casting C splined upon the shaft" is such an obstruction. But the complainant will hardly contend for a ruling which, if sustained, might relieve the defendant from the charge of infringement. If the casting C constitutes an obstruction, it is not easy to see why the spider-arm contrivance of the defendant is not much more of an obstruction.

The Fournier and Cornu blades are in length about five times their radial depth and are within the language of the reissues in suit which require that the length of the blades shall approximate at least three times their radial depth. In other words, the length and depth of the Fournier and Cornu blades are well within the description of the Davidson blades. We cannot resist the conclusion that the Fournier and Cornu structure, in the construction of its paddle-wheel, in the number, length, width and circular form of the blades and in the size and location of the intake-chamber, is within the claims of the reissues and, having been made before, anticipate those claims.

Compare it with claim 1 quoted above:

A centrifugal fan or pump, comprising a rotary member having numerous elongated blades.

It has such a fan.

Arranged lengthwise in approximately axial direction.

Its blades are so arranged.

In substantially drum form.

It has such form.

So as to inclose within them a relatively large and practically unobstructed intake-chamber.

It has such a chamber.

[Blades] in transverse section arranged relatively to the axis and direction of rotation, to carry the fluid with them rotatively and discharge it tangentially.

It has such blades.

A means for so mounting said rotary member as to permit the tangential escape of the fluid discharged from said blades.

It has such a means.

Though differing in many minor details, the Fournier and Cornu fan has the same object in view and operates upon the same general principle as the Davidson fan, having a large intake-chamber and a fan of many vanes. As the catalogue of 1900 states:

The width of the fan may, without any inconvenience, be equal to, or even greater than its diameter, the production of air varies according as its width is of greater or less dimension.

We quote the above not because we consider the catalogue which was published in France, as evidence, but because it is a concise statement of what seems to us a self-evident proposition.

The Davidson blades, as shown in the model, are narrower, in proportion to their length, than are the Fournier and Cornu blades, as shown, but the Fournier and Cornu patent states that the total width of the paddle-wheel may vary but should equal at least two-thirds of the exterior diameter, so that the instruction of the patent may be followed and a Davidson fan produced.

(2) It is asserted and not disputed that under the French law an annual tax of 100 francs is necessary to keep a patent alive and that both the French patents lapsed by reason of the failure to pay such tax. It is also asserted, and not denied, that these patents were never published or printed, although certified copies of such patents may be procured from the French patent office. We are not at all sure as to complainant's position regarding these French patents. At pages 96, 97, of volume 1 of its brief, it recites in detail the facts above stated, relating to the proceedings in the French patent office, but we do not find that it deduces any definite conclusion therefrom further than that the patents "are entitled to no serious weight."

However, we are clearly of the opinion that we must consider these prior patents, irrespective of the fact that the tax was not paid. There can be no doubt that the Levet and Fournier and Cornu structures, in question, were *patented* in France. Nothing more is needed. That is all that the statute makes necessary; no patent can issue here for that which is *patented* in a foreign country, and it is

patented there the moment it is sealed or enrolled. (*Ireson* v. *Pierce*, C. C., 39 Fed., 795.)

It is not essential to a valid patent that the description and claims should be printed. It is enough that the officials have acted upon the application and granted the patent. We do not see how, in view of the statute and the decisions, we can ignore these French patents because they were not generally known and were not commercially successful. The law does not make these features essential in considering the structures of the prior art. As was said in *New Departure Bell Co.* v. *Bevin Bros.*, (73 Fed., 469, at p. 476; 19 C. C. A., 534, 540:)

> It may be a hardship to meritorious inventors, who, at the expenditure of much time and thought, have hit upon some ingenious combination of mechanical devices, which for aught they know, is entirely novel, to find that, in some remote time and place, some one else, of whom they never heard, has published to the world, in a patent or a printed publication, a full description of the very combination over which they have been puzzling; but in such cases the act, none the less, refuses them a patent.

The question of infringement turns principally upon whether or not the defendant's fan has "a practically unobstructed intake chamber," which is an element of each of the claims in issue. In other words, if the intake-chamber is obstructed to any appreciable extent, it is not within the claims. What the patentee meant by "practically unobstructed" is made clear by the following from the original specification:

> The blades are extended approximately parallel to the axis of rotation, being arranged in drum form, so as to inclose within them an approximately cylindrical intake-chamber which is practically unobstructed by blades or other parts.

These "other parts" are precisely what the defendant has placed in the intake-chamber. It has a wheel centrally mounted on a large hub having a diameter apparently about four times the width of the blades, with six spokes made of angle-iron extending from the hub and fastened to the center of the blades. In this respect the defendant's fan resembles closely the old paddle-wheel fan. That such a device obstructs the intake-chamber seems to be the opinion of the patentee himself, for in his British patent, accepted February 23, 1889, he claims a rotary fan—

> the vanes having no other support from the spindle than that given by the disk, so that a free and unobstructed passage for the air from the center of the fan to the vanes is provided.

We can think of but one rational interpretation of this language, viz., that if support be given to the vanes from the spindle by other means than the disk, the free passage of air from the center of the fan to the vanes will be obstructed. In other words, that spokes extending from the hub to the vanes are obstructions which prevent the free and unobstructed passage of air. The spokes present quite a different situation from the one heretofore presented when considering the Fournier and Cornu smooth disk-shaped casting. Here we have a wheel with six spokes revolving rapidly in the center of the chamber. It would seem that these spokes must necessarily cut, agitate and make cross-currents in the inward flow of the air. To this extent, at least, the intake-chamber is obstructed.

The decree is reversed with costs.

ADJUDICATED PATENTS.

(U. S. D. C.) The Briggs patent, No. 609,954, for sheet-feeding mechanism for printing-presses, claim 10 construed and *Held* infringed. *Cross Paper Feeder Co.* v. *United Printing Machinery Co.*, 220 Fed. Rep., 313.

(U. S. C. C. A.) The Dundon patent, No. 653,503, for a door for digesters, construed and *Held* infringed. *Pedersen* v. *Dundon*, 220 Fed. Rep., 309.

(U. S. D. C.) The White patent, No. 659,907, for sheet-feeding mechanism for printing-presses, *Held* infringed. *Cross Paper Feeder Co.* v. *United Printing Machinery Co.*, 220 Fed. Rep., 313.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 19, 1915.

Joseph Meyer, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Schinasi Bros., 32 West One hundredth street, New York, N. Y., for registration of a trade-mark and trade-mark registered May 14, 1889, No. 16,570, to Joseph Meyer, 3 Cross Lane, London, England, and a notice of such declaration sent by registered mail to said Joseph Meyer at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Joseph Meyer, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 16, 1915.

Leo Prange, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The International Manufacturers Agency, Inc., 461 Broome street, New York, N. Y., for registration of a trade-mark and trade-mark registered January 7, 1890, No. 17,383, to Leo Prange, 780 Madison street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said Leo Prange at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Leo Prange, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 10, 1915.

John L. Radermacher, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Bloom & Godley Co., of 205 North Willow street, Trenton, N. J., for registration of a trade-mark and trade-mark registered May 5, 1914, No. 96,828, to John L. Radermacher, of 296 Sterling Place, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said John L. Radermacher at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John L. Radermacher, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *First Assistant Commissioner.*

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OF THE

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APRIL, 1915.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter d.]

ANTICIPATION.

See Particular Patents.

PRIOR FOREIGN PATENT.

That a foreign patent duly granted was permitted to lapse for non-payment of the required annual fee or was never printed or that the device was not commercially successful does not change its effect as an anticipation, which, under Revised Statutes, section 4886, as amended, (Comp. St. 1913, sec. 9430,) will defeat the right to a subsequent patent for the same device in the United States.

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SECOND DECLARATION.

Where an interference was declared between a patent to R. and a later application of H. and was dissolved on account of the failure of H. to file a satisfactory oath overcoming a reference and thereafter H. filed the same claims in an earlier application and another interference with the patent to R. was declared, *Held* that the right of H. to make the claims was not *res adjudicata* by reason of the dissolution of the first interference.

[* Rotter v. Hodgkinson, 1118.

LABELS.

MANDAMUS—REGISTRATION.

A decision by the Commissioner of Patents that a highway is not an article of manufacture for which a label may be registered under section 3 of the act of Congress of June 18, 1874, (18 Stat. at L., 79, chap. 301,) cannot, even though erroneous, be reviewed by mandamus, (citing *Allen* v. *United States*, 115 O. G., 747; 22 App. D. C., 271.)

[* United States, *ex rel.* Lincoln Highway Association, v. Ewing, 749.

MANDAMUS.

See Labels.

OATH.

See Interference.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

See Similarity of Trade-Marks.

GOODS OF THE SAME CLASS.

Where the opposer was the first to adopt and use the word "Simplex" as a general trade-mark for electrical and steam apparatus in which thermostatically-operated relief-valves were used and applicant used the mark only on thermostatic steam-traps, *Held* that the appliance upon which the applicant is using the mark in question belongs to the same general class of goods as that of the opposer and the applicant should not be permitted by the adoption and use of this mark to invade the present field of the opposer or the domain to which it may legitimately extend the use of its mark.

[* Simplex Electric Heating Company v. Gold Car Heating & Lighting Company, 1117.

PARTICULAR PATENTS.

DAVIDSON—REISSUE NOS. 12,796 AND 12,797—CENTRIFUGAL FAN—VALIDITY AND INFRINGEMENT.

The Davidson reissue patents, Nos. 12,796 and 12,797, (original No. 662,395,) for a centrifugal fan or pump, *Held* void for anticipation by the Fournier and Cornu French patent, No. 254,064, of February 18, 1896: also *Held* not infringed.

[d Sirocco Engineering Co. v. B. F. Sturtevant Co., 1447.

PATENT AND APPLICATION.

See Interference.

PRIORITY OF ADOPTION AND USE.

See Opposition to Registration of Trade-Marks.

PRIORITY OF INVENTION.

1. EVIDENCE—AWARD.
Evidence reviewed and *Held* that priority was properly awarded to McArthur.
[* Blaw *v.* Whitall and McArthur. Whitall *v.* Blaw and McArthur, 749.

2. AWARD—RIGHT TO MAKE CLAIMS.
Structure analyzed and *Held* that H. had a right to make the claims and priority was properly awarded to H.
[* Rotter *v.* Hodgkinson, 1118.

REGISTRATION OF LABEL.

See Labels.

REISSUE.

See Particular Patents.

RES ADJUDICATA.

See Interference.

RIGHT TO MAKE CLAIMS.

See Interference; Priority of Invention, 2.

RIGHT TO PATENT.

See Anticipation.

SECOND INTERFERENCE.

See Interference.

SIMILARITY OF TRADE-MARKS.

See Opposition to Registration of Trade-Marks.

1. "P. C. G." AND "B. V. D."
Held there is no such similarity between the trade-mark "P. C. G." of the applicant and the trade-mark "B. V. D." of the opposer as is likely to produce any confusion in the trade.
[* The B. V. D. Company *v.* Potterf, 361

2. OPPOSITION—COLOR.
Where the Goodyear Tire and Rubber Company obtained the registration of a trade-mark for elastic vehicle-tires, consisting of a blue band or stripe positioned circumferentially on the tire and centrally on the tread portion, and The Republic Rubber Company applied for the registration of a trade-mark for inner tubes of tires, comprising a black stripe of uniform width helically disposed and applied on the surface of the tube, *Held* that the difference in color of the respective bands is not important and that the helically-disposed or spiral stripe is so different from the circumferentially-disposed stripe that it is not likely to cause confusion in trade.
[* The Goodyear Tire and Rubber Company *v.* The Republic Rubber Company, 362.

VOID PATENTS.

See Particular Patents.

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF APRIL, 1915.

[Abbreviations: "Gaz."=Official Gazette.]

A & A Manufacturing Company, The. (See Swanson, Charles H., assignor.)
A. B. Dick Company. (See Dick, Albert B., assignor.)
A. B. Dick Company. (See Green, Charles F., assignor.)
A. F. Meisselbach & Brother. (See Catucci, Pliny, assignor.)
Abbate, Vincent, New York, N. Y. Automatic cut-off for gas-burners. No. 1,136,202; Apr. 20; Gaz. vol. 213; p. 832.
Abbott, Gheen R., Baltimore, Md. Mold for constructing concrete tunnels. No. 1,137,442; Apr. 27; Gaz. vol. 213; p. 1315.
Abbott, Lawrence A., Chicago, Ill. Heat-regulator. No. 1,136,084; Apr. 20; Gaz. vol. 213; p. 790.
Abegg, Julius, Hoboken, N. J., assignor to The Picard Importing Company, Inc., New York, N. Y. Fountain-pen. No. 1,134,936; Apr. 6; Gaz. vol. 213; p. 304.
Abel, Edward C. (See Abel, John A., and E. C.)
Abel, John A. and E. C., Woodhaven, N. Y. Jewel-cluster setting. No. 1,134,497; Apr. 6; Gaz. vol. 213; p. 151.
Aberle, Edward, West Nutley, N. J. Stamping-machine. No. 1,134,431; Apr. 6; Gaz. vol. 213; p. 126.
Abraham, Herbert, Boundbrook, N. J., and H. W. Haines, New York, N. Y., assignors to Impervious Products Company. Cement-making. No. 1,134,573; Apr. 6; Gaz. vol. 213; p. 179.
Abramson, Alfred C., Rockford, Ill. Lamp. No. 1,134,574; Apr. 6; Gaz. vol. 213; p. 179.
Ackerman, Charles N., Chicago, Ill. Screw-holding insert. No. 1,137,443; Apr. 27; Gaz. vol. 213; p. 1315.
Ackerman, William G., Westpoint, Nebr. Beet-harvester. No. 1,136,858; Apr. 20; Gaz. vol. 213; p. 1065.
Acme Patent and Development Company, The. (See Blevins and Randall, assignors.)
Acme Road Machinery Company. (See Cook, David B., assignor.)
Adam, Henry C., Hamilton, Ontario, assignor of one-half to J. C. Adam, Vancouver, British Columbia, Canada. Antifriction-bearing for trolley-wheels. No. 1,136,200; Apr. 20; Gaz. vol. 213; p. 832.
Adam, Jacob C. (See Adam, Henry C., assignor.)
Adams, Alfred C., Peckham, London, England. Side mud-splash guard for motor and other vehicles. No. 1,137,388; Apr. 27; Gaz. vol. 213; p. 1395.
Adams, Benjamin F., Albuquerque, N. Mex. Bath apparatus. No. 1,134,364; Apr. 6; Gaz. vol. 213; p. 102.
Adams, Charles, assignor of one-half to P. J. A. Schnoor, Holstein, Iowa. Dirigible head-lamps for vehicles. No. 1,134,089; Apr. 6; Gaz. vol. 213; p. 3.
Adams, Charles, assignor of one-half to P. J. A. Schnoor, Holstein, Iowa. Head-lamps for vehicles. No. 1,134,090; Apr. 6; Gaz. vol. 213; p. 3.
Adams, Charles J., Hatfield, W. Va. Caster. No. 1,136,915; Apr. 27; Gaz. vol. 213; p. 1123.
Adams, Charley. (See Schnoor, Peter J. A., assignor.)
Adams, Daniel W., Glendale Springs, N. C. Turpentine-hack. No. 1,137,723; Apr. 27; Gaz. vol. 213; p. 1407.
Adams, Elmer L., Granite, Okla. Currycomb. No. 1,135,482; Apr. 13; Gaz. vol. 213; p. 538.
Adams, Frederick U., Hastings-upon-Hudson, N. Y. Road bed and leveler. No. 1,136,916; Apr. 27; Gaz. vol. 213; p. 1123.
Adams, John M., Chicago, Ill. Caster-socket. No. 1,136,201; Apr. 20; Gaz. vol. 213; p. 832.
Adams, John Q., Westmont, N. J. Device for viewing and magnifying lines, &c. No. 1,137,444; Apr. 27; Gaz. vol. 213; p. 1315.
Adams, Walter S., assignor to The J. G. Brill Company, Philadelphia, Pa. Bolster guide and damper. No. 1,135,483; Apr. 13; Gaz. vol. 213; p. 539.
Adder Machine Company, The. (See Kling, Wilgus, and Bickford, assignors.)
Adler, Bror A., assignor of one-half to P. A. Lorenz, Chicago, Ill. Folding chair. No. 1,135,647; Apr. 13; Gaz. vol. 213; p. 598.
Adler, Siegfried, assignor to Common Sense Novelty Company, Chicago, Ill. Display device. No. 1,135,484; Apr. 13; Gaz. vol. 213; p. 539.
Advertising Device Company. (See Birdsall, James E., assignor.)
Agar, Calvin A., East Orange, N. J. Easel. No. 1,134,802; Apr. 6; Gaz. vol. 213; p. 262.
Agricultural Research Corporation. (See Peacock, Samuel, assignor.)
Ahern, Michael V., assignor of one-half to F. Dawkins, Norfolk, Va. Device for sealing envelops. No. 1,135,932; Apr. 13; Gaz. vol. 213; p. 695.
Ahlm, Charles E. F., and C. E. Cochran, Cleveland, Ohio. Internal-combustion turbine. No. 1,135,648; Apr. 13; Gaz. vol. 213; p. 598.
Ahlstrom, Charles A., Jamestown, N. Y. Music-roll for mechanical musical instruments. No. 1,136,577; Apr. 20; Gaz. vol. 213; p. 967.
Aken, Edward R., *et al.* (See Degenhardt, John J., assignor.)
Aken, Raleigh B., *et al.* (See Degenhardt, John J., assignor.)
Aktiebolaget Svenska Kullagerfabriken. (See Olsson, Henning A., assignor.)
Aktiebolaget Wigellus Motorer. (See Wigelius, Sven, assignor.)
Aktieselskabet Vermehrens Regnemaskiner. (See Vermehren, Johannes, assignor.)
Alberger Pump and Condenser Company. (See Ray, Frederick, assignor.)
Albrecht, Christian A., Berlin, Germany, assignor to The Mergenthaler Linotype Company. Typographical machine. No. 1,135,423; Apr. 13; Gaz. vol. 213; p. 518.
Alden, Herbert W., assignor to The Timken-Detroit Axle Company, Detroit, Mich. Vehicle-brake. No. 1,135,148; Apr. 13; Gaz. vol. 213; p. 425.
Alderfer, John M., Sharon Center, Ohio. Shipping-crate. No. 1,135,485; Apr. 13; Gaz. vol. 213; p. 539.
Allais, John R., assignor to Sears, Roebuck & Co., Chicago, Ill. Packer's cutting implement. No. 1,137,445; Apr. 27; Gaz. vol. 213; p. 1316.
Allan, Charles D., Chicago, Ill. Fire-extinguisher. No. 1,134,498; Apr. 6; Gaz. vol. 213; p. 151.
Allard, Andrew J., Richmond, Va. Electric train signaling and controlling system. No. 1,136,751; Apr. 20; Gaz. vol. 213; p. 1029.
Allard, Andrew J., assignor of one-third to T. F. Green and one-third to D. R. Creecy, Jr., Richmond, Va. Electric train signaling and controlling system. No. 1,136,750; Apr. 20; Gaz. vol. 213; p. 1028.
Allemann, Arnold, assignor to Firma Schweiz, Kommissions- und Aufbewahrungs-Haus für Das in- und Ausland Tomaschpolsky & Weidenfeld, Berne, Switzerland. Tachometer. No. 1,135,486; Apr. 13; Gaz. vol. 213; p. 540.
Allen, Albert M., St. Louis, Mo. Pneumatic tire. No. 1,134,660; Apr. 6; Gaz. vol. 213; p. 211.
Allen Auto Specialty Company, The. (See Kellar, Victor T., assignor.)
Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Buttonhole cutting and stitching machine. No. 1,135,933; Apr. 13; Gaz. vol. 213; p. 696.
Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Buttonhole cutting and sewing machine. No. 1,136,388; Apr. 20; Gaz. vol. 213; p. 899.
Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Stitched buttonhole. No. 1,136,389; Apr. 20; Gaz. vol. 213; p. 900.
Allen, Ernest C., and F. J. Mueller, West Allis, Wis. Rotary engine. No. 1,135,750; Apr. 13; Gaz. vol. 213; p. 633.
Allen, George E., Philadelphia, Pa. Package-winding machine. No. 1,135,090; Apr. 13; Gaz. vol. 213; p. 404.
Allen, James B. (See Hotzel and Allen.)
Allen, James M., assignor of one-tenth to W. A. Gruenewald, St. Louis, Mo. Hydrocarbon-engine. No. 1,137,446; Apr. 27; Gaz. vol. 213; p. 1316.
Allen, Joseph H., El Paso, Tex. Necktie. No. 1,136,917; Apr. 27; Gaz. vol. 213; p. 1123.
Allen, Oliver P. (See Griffin and Allen.)
Allen, Walter S. (See Bair, George R., assignor.)
Allen, William L. (See Worswick, James E., assignor.)
Allis-Chalmers Manufacturing Company. (See Behrend, Bernard A., assignor.)

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Allis-Chalmers Manufacturing Company. (See Mattman, Emil, assignor.)
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Allis-Chalmers Manufacturing Company. (See Pomeroy, William D., assignor.)
Allis-Chalmers Manufacturing Company. (See Wright, Edwin C., assignor.)
Allmayer, McGerry, Chicago, Ill. Electric heating device. No. 1,134,661; Apr. 6; Gaz. vol. 213; p. 212.
Allstendt, John E., Hastings, Nebr. Roof structure for storage bins. No. 1,137,689; Apr. 27; Gaz. vol. 213; p. 1396.
Allvor-Apparte-Gesellschaft mit beschränkter Haftung. (See Milnch, Gottfried B., assignor.)
Alm, Thure W., Brooklyn, N. Y. Cutting surfaces on carborundum or emery wheels. No. 1,135,978; Apr. 20; Gaz. vol. 213; p. 755.
Alquist, Sven P. (See Hartough and Alquist.)
Alt, Charles M., Baltimore, Ohio. Corn-harvester. No. 1,134,575; Apr. 6; Gaz. vol. 213; p. 180.
Alvey-Ferguson Company, The. (See Bernheim, Morris U., assignor.)
Alyea, Emery T., Minneapolis, Minn. Operating mechanism for lifting-jacks. No. 1,135,649; Apr. 13; Gaz. vol. 213; p. 598.
American Beet Topper Company. (See Gardner, William R., assignor.)
American Can Company. (See Ayres, William, assignor.)
American Can Company. (See Eberhart, Felix, assignor.)
American Can Company. (See Weber, George W., assignor.)
American Can Company. (See Young, John M., assignor.)
American Cement Tile Mfg. Co. (See Finley, George I., assignor.)
American Electric and Controller Company. (See Sperry, Elmer A., assignor.)
American Gas Machine Company. (See Nelson, Hans Z., assignor.)
American Graphophone Company. (See Hays and Johnson, assignors.)
American Hardware Corporation, The. (See Hurd, Norman B., assignor.)
American Hardware Corporation, The. (See Smyser, Louis B., assignor.)
American Hardware Corporation, The. (See Svenson, Charles W., assignor.)
American Laundry Machinery Company. (See Binder, Gottlob, assignor.)
American Laundry Machinery Company. (See Cooper, Daniel M., assignor.)
American Linen Fibre Company. (See Cooke, Clayton G., assignor.)
American Metal Weather Strip Company. (See Gould, Albert E., assignor.)
American Patent Holding Co. (See Thompson, George F., assignor.) (Reissue.)
American Pneumatic Service Company. (See Jennings, Chester S., assignor.)
American Steam Gauge & Valve Manufacturing Co. (See Collette, Austin B., assignor.)
American Steel Foundries. (See Bauer, Carl E., assignor.)
American Steel Foundries. (See Floyd, George G., assignor.)
American Steel Foundries. (See Janney, Robert E. L., assignor.)
American Steel Foundries. (See Janney and Kinne, assignors.)
American Steel Foundries. (See Lamont, John A., assignor.)
American Steel Foundries. (See Scott, George E., assignor.)
American Stove Company. (See Nicolaus, Frederic G., assignor.)
American Stove Company. (See Possons, Minard A., assignor.)
American Voting Machine Company. (See Butler, James A., assignor.)
American Well Works, The. (See Bodinson, Lars W., assignor.)
Amuse-U-Riding Device. (See Greene, John W., assignor.)
Andersen, Edward, and H. M. Mink, assignors to J. P. Zens and W. J. Cavanagh, Kenosha, Wis. Door-hinge. No. 1,134,309; Apr. 6; Gaz. vol. 213; p. 83.
Anderson, Andrew, Glenhazel, Pa. Protected flexible shoe-sole. No. 1,134,803; Apr. 6; Gaz. vol. 213; p. 263.
Anderson, Carl J., Sanborn, N. D. Land-packer. No. 1,135,091; Apr. 13; Gaz. vol. 213; p. 404.
Anderson, David, Christine, N. D. Rein-guard. No. 1,136,920; Apr. 27; Gaz. vol. 213; p. 1124.
Anderson, Elmer V., Morristown, Minn. Egg-turning device. No. 1,136,918; Apr. 27; Gaz. vol. 213; p. 1123.
Anderson, Emil, New York, N. Y., assignor to The Universal Turbine Company, Jersey City, N. J. Turbine. No. 1,134,985; Apr. 13; Gaz. vol. 213; p. 367.
Anderson, Ernst G., Cranford, N. J. Adjusting device for the note-sheets of self-playing musical instruments. No. 1,134,986; Apr. 13; Gaz. vol. 213; p. 367.
Anderson, Frank A. (See Voorhees and Anderson.)
Anderson, George E., Shaw, Kans. Bracket. No. 1,136,752; Apr. 20; Gaz. vol. 213; p. 1029.
Anderson, Gustaf A., Waynesboro, Pa. Spring-rigging for vehicles. No. 1,137,720; Apr. 27; Gaz. vol. 213; p. 1406.
Anderson, Gustaf A., Waynesboro, Pa. Spring-rigging for vehicles. No. 1,137,721; Apr. 27; Gaz. vol. 213; p. 1406.
Anderson, Hartvig E., Foley, Minn. Currycomb. No. 1,135,246; Apr. 13; Gaz. vol. 213; p. 456.
Anderson, John P., assignor of one-third to E. Peterson, Denver, Colo. Arch-support for shoes. No. 1,134,804; Apr. 6; Gaz. vol. 213; p. 263.
Anderson, Martin E., assignor to Jacob Haish Company, De Kalb, Ill. Wagon-scale. No. 1,137,447; Apr. 27; Gaz. vol. 213; p. 1316.
Anderson, Nels B., assignor of four-fifths to E. B. Deming, Bellingham, Wash. Fish-cleaning machine. No. 1,137,448; Apr. 27; Gaz. vol. 213; p. 1317.
Anderson, Nels B., assignor of four-fifths to E. B. Deming, Bellingham, Wash. Cleaning attachment for fish-dressing machines. No. 1,137,449; Apr. 27; Gaz. vol. 213; p. 1317.
Anderson, Ola, Grand Rapids, Mich. Nut for bench-vises. No. 1,134,937; Apr. 6; Gaz. vol. 213; p. 304.
Anderson, Olof, assignor, by mesne assignments, to D. E. Town, Chicago, Ill. Draft-rigging. No. 1,134,576; Apr. 6; Gaz. vol. 213; p. 180.
Anderson, Raymond M. (See Bessom and Anderson.)
Anderson, Rosemond T. (See Sears, Prose, and Anderson.)
Anderson Tool Company, The. (See Forbes, Robert A., assignor.)
Anderson, William B., assignor to Haggard and Marcusson Company, Chicago, Ill. Wire link fabric. No. 1,135,979; Apr. 20; Gaz. vol. 213; p. 755.
Anderson, William P., assignor to The Ferro Concrete Construction Company, Cincinnati, Ohio. Column-footing. No. 1,137,108; Apr. 27; Gaz. vol. 213; p. 1193.
Andresen, Herman P., assignor to D. J. Evans, Chicago, Ill. Grab-bucket. No. 1,134,987; Apr. 13; Gaz. vol. 213; p. 308.
Andrew, William K. (See Falk and Andrew.)
Andrews, James G., Cleveland, Ohio. Bobbin. No. 1,136,305; Apr. 20; Gaz. vol. 213; p. 869.
Andrews, William G. (See Larabee, Frederick D., assignor.)
Andrews, William G., Chicago, Ill., assignor to himself, and F. D. Larabee, Hutchinson, Kans. Treating flour. No. 1,136,501; Apr. 20; Gaz. vol. 213; p. 940.
Anfinson, Lars A., Clermont, Iowa. Rail-tie. No. 1,136,859; Apr. 20; Gaz. vol. 213; p. 1066.
Angle, Alfred T., Dayton, Ohio. Rail-brace. No. 1,136,753; Apr. 20; Gaz. vol. 213; p. 1030.
Anttila, Frank L., and A. I. Lilius, Lowell, Mass. Paper and twine cutter. No. 1,134,500; Apr. 6; Gaz. vol. 213; p. 152.
Apple, William M., San Antonio, Tex. Parcel-carrier for bicycles. No. 1,134,577; Apr. 6; Gaz. vol. 213; p. 180.
Appleby Automatic Sign Company. (See Appleby, Bert, assignor.)
Appleby, Bert, assignor to Appleby Automatic Sign Company, Milwaukee, Wis. Means for displaying cards. No. 1,136,919; Apr. 27; Gaz. vol. 213; p. 1124.
Appleman, William H., Belmont, N. Y. Device for steering vehicles. No. 1,135,247; Apr. 13; Gaz. vol. 213; p. 456.
Appleton Machine Company. (See Saecker, Frank E., assignor.)
Armour Fertilizer Works. (See Hershman, Paul R., assignor.)
Armstrong, Carter C., Cincinnati, Ohio. Valve for downspouts and the like. No. 1,134,717; Apr. 6; Gaz. vol. 213; p. 232.
Armstrong, Charles D., assignor to Armstrong Cork Company, Pittsburgh, Pa. Floor-covering. No. 1,134,578; Apr. 6; Gaz. vol. 213; p. 181.
Armstrong Cork Company. (See Armstrong, Charles D., assignor.)
Armstrong, Walter J. (See Liggett and Armstrong.)
Arndt, Franklin E., assignor to The Gallon Iron Works and Manufacturing Company, Gallon, Ohio. Cut-off gate and spout for discharge-chutes. No. 1,135,980; Apr. 20; Gaz. vol. 213; p. 755.
Arneson, Ove H., St. Paul, Minn. Clamp. No. 1,137,109; Apr. 27; Gaz. vol. 213; p. 1193.
Arnow, Isaac F., St. Marys, Ga. Shovel. No. 1,136,754; Apr. 20; Gaz. vol. 213; p. 1030.
Arrow Electric Company, The. (See Gates, Frederic P., assignor.)
Arrow Electric Company, The. (See Pratt, Willis H., assignor.)
Arthur, Roy L., Lane, assignor to E. C. Herschberger, Arthur, Ill. Hoof-clipper. No. 1,136,991; Apr. 27; Gaz. vol. 213; p. 1149.
Artista Piano Player Company. (See Bennett, Robert J., assignor.)
Artista Piano Player Company. (See Steinhilber, Adolf A., assignor.)
Artz, Adolphe G., assignor to Kelp Products Company, San Francisco, Cal. Extraction of mineral salts and organic constituents of kelp. No. 1,136,390; Apr. 20; Gaz. vol. 213; p. 900.
Asef, Waldemar, Philadelphia, Pa. Making pure zinc oxid and recovering substances from waste and like liquors. No. 1,135,981; Apr. 20; Gaz. vol. 213; p. 756.

Ashburn, John H., Ararat, N. C. Tobacco curing and yellowing pan. No. 1,134,805; Apr. 6; Gaz. vol. 213; p. 263.
Ashley, Charles G., Chicago, Ill., assignor to General Engineering and Construction Company, Limited, Toronto, Canada. Printing-telegraph alphabet. No. 1,135,344; Apr. 13; Gaz. vol. 213; p. 400.
Ashley, Robert W., and P. Oberkirch, New York, N. Y., assignors to General Rim Company. Wire wheel. No. 1,135,424; Apr. 13; Gaz. vol. 213; p. 518.
Ashton, Orrell, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,137,564; Apr. 27; Gaz. vol. 213; p. 1355.
Ashton, Orrell, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tacking mechanism. No. 1,137,565; Apr. 27; Gaz. vol. 213; p. 1356.
Ashton, Orrell, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Gripper. No. 1,137,566; Apr. 27; Gaz. vol. 213; p. 1356.
Associated Automatic Sprinkler Co. (See Rowley, Arthur C., assignor.)
Atlanta Utility Works. (See Nash, Walter D., assignor.)
Atlantic Refining Company, The. (See Nichols, Howard M., assignor.)
Atlas Concrete Pipe Machinery Company. (See Tunison, Arthur C., assignor.)
Atwood Automobile Company, The. (See Miller, Frank B., assignor.)
AuLoGo Motor Cap Company. (See Cohoon, James A., Jr., assignor.)
Aube, Armidos J., Sault Ste. Marie, Mich. Pipe-wrench. No. 1,134,499; Apr. 6; Gaz. vol. 213; p. 152.
Audsley, Maurice A., Corona, N. Y. Game. No. 1,134,579; Apr. 6; Gaz. vol. 213; p. 181.
August Buermann Manufacturing Company. (See Buermann, George, assignor.)
Aurora Automatic Machinery Company. (See Ottaway, William, assignor.)
Austin, Sydney B., Sudbrook Park, Md., assignor, by mesne assignments, to F. L. Huidekoper, trustee, Washington, D. C. Calculating-machine. No. 1,136,391; Apr. 20; Gaz. vol. 213; p. 900.
Austin, William, Scranton, assignor of one-half to M. W. O'Boyle, Pittston, Pa. Track-stop. No. 1,137,178; Apr. 27; Gaz. vol. 213; p. 1217.
Austin, William, Scranton, assignor of one-half to M. W. O'Boyle, Pittston, Pa. Valve mechanism for air-brake systems. No. 1,137,179; Apr. 27; Gaz. vol. 213; p. 1218.
Auto Air-Rotar Company. (See Ten Eyck, Frank E., assignor.)
Auto Parts Mfg. Co., The. (See Sonnichsen, Andreas M., assignor.)
Auto Trunk and Acme Suit Case Mfg. Co., The. (See Zieve, Abraham, assignor.)
Automatic Electric Company. (See Martin, Talbot G., assignor.)
Automatic Electric Company. (See Mellinger, Edward A., assignor.)
Automatic Electric Company. (See Newforth, Frank, Jr., assignor.) (Reissue.)
Automatic Electric Company. (See Willis, Bernard D., assignor.)
Automatic Enunciator Company. (See Comer, John J., assignor.)
Automatic Heat Regulator Co. (See Brown, Caroline M., assignor.)
Automatic Heat Regulator Co. (See Daugherty, Otto M., assignor.)
Automatic Train Control & Signal Company. (See Gray, Gardner B., assignor.)
Autopress Company, The. (See Thomas, Frank W., assignor.)
Averitt, Cyrus M., Kansas City, Mo. Tent. No. 1,136,992; Apr. 27; Gaz. vol. 213; p. 1150.
Avery Company. (See Springer, William N., assignor.)
Avery, Frederick C., Chicago, Ill. Gas-engine. No. 1,135,650; Apr. 13; Gaz. vol. 213; p. 599.
Avery, Sarah E., Columbia, S. C. Folding sewing-machine. No. 1,136,921; Apr. 27; Gaz. vol. 213; p. 1124.
Avery Scale Company, The. (See Johnson, Sidney H., assignor.)
Ayers, Edward W., Manchester, Mass. Ice-plow. No. 1,134,250; Apr. 6; Gaz. vol. 213; p. 62.
Aylsworth, Jonas W., East Orange, assignor to Halogen Products Company, Glen Ridge, N. J. Process and apparatus for compressing, drying, and transferring chlorin gas. No. 1,134,432; Apr. 6; Gaz. vol. 213; p. 127.
Aylsworth, Jonas W., East Orange, assignor to Condensite Company of America, Glen Ridge, N. J., Molding hollow objects of refractory condensation products. No. 1,135,992; Apr. 13; Gaz. vol. 213; p. 708.
Aylsworth, Jonas W., East Orange, assignor to Condensite Company of America, Glen Ridge, N. J. Expanded graphite and composition thereof. No. 1,137,373; Apr. 27; Gaz. vol. 213; p. 1290.
Aylsworth, Jonas W., East Orange, assignor to Condensite Company of America, Glen Ridge, N. J. Varnish, enamel, or lacquer composition. No. 1,137,374; Apr. 27; Gaz. vol. 213; p. 1291.
Aylsworth, Jonas W., East Orange, and D. Smith, Montclair, assignors to Condensite Company of America, Glen Ridge, N. J. Production of hollow resilient balls. No. 1,134,433; Apr. 6; Gaz. vol. 213; p. 127.
Ayres, Wallace S., Hazleton, Pa. Conveyer. No. 1,136,578; Apr. 20; Gaz. vol. 213; p. 967.
Ayres, William, Mount Hamilton, Ontario, Canada, assignor to American Can Company, New York, N. Y. Can-end. No. 1,136,993; Apr. 27; Gaz. vol. 213; p. 1150.
B. F. Goodrich Company, The. (See Gammeter, John R., assignor.)
B. F. Goodrich Company, The. (See Tew, James D., assignor.)
B. F. Goodrich Company, The, *et al.* (See Wagenhorst, James H., assignor.)
Babcock, Ira J., Chicago, Ill. Smoke-indicator. No. 1,135,651; Apr. 13; Gaz. vol. 213; p. 599.
Babcock & Wilcox Company, The. (See Sewall, Minott W., assignor.)
Babos, Lacey, Winslow, Wash. Hose-couplings. No. 1,136,502; Apr. 20; Gaz. vol. 213; p. 940.
Backert, John C., New York, N. Y. Cutter. No. 1,136,085; Apr. 20; Gaz. vol. 213; p. 790.
Backert, John C., New York, N. Y. Cutting-machine. No. 1,137,251; Apr. 27; Gaz. vol. 213; p. 1245.
Backus, Edward E., Chicago, Ill., assignor, by mesne assignments, to Hall Switch & Signal Company. Signaling system. No. 1,135,487; Apr. 13; Gaz. vol. 213; p. 540.
Badeker, John, assignor of fifteen one-hundredths to H. W. Harsch, Omaha, Nebr. Metallic packing for piston-rods. No. 1,134,091; Apr. 6; Gaz. vol. 213; p. 3.
Bader, Gustav A., Rochester, and C. W. Howland, assignors to The Standard Optical Company, Geneva, N. Y. Lens centering, marking, and testing instrument. No. 1,134,938; Apr. 6; Gaz. vol. 213; p. 304.
Badger Safety Razor Company. (See Petosky, Charles W., assignor.)
Badgley, Jay T. (See Schell, Charles F., assignor.)
Baggaley, Ralph, Pittsburgh, Pa. Treating ores. No. 1,135,488; Apr. 13; Gaz. vol. 213; p. 540.
Baggaley, Ralph, Pittsburgh, Pa. Means for increasing the air-blast of converters and furnaces. No. 1,135,489; Apr. 13; Gaz. vol. 213; p. 541.
Bahr, Edwin, New York, N. Y. Pipe-joint. No. 1,134,092; Apr. 6; Gaz. vol. 213; p. 4.
Bailey, Auburn, Oakland, Cal. Gearing. No. 1,136,302; Apr. 20; Gaz. vol. 213; p. 901.
Bailey, Auburn, Oakland, Cal. Shifting multiple-clutch device. No. 1,136,922; Apr. 27; Gaz. vol. 213; p. 1125.
Bailey, William, Birmingham, England, assignor, by mesne assignments, to Crown Cork & Seal Company, Baltimore, Md. Manufacture of stoppering crowns or caps for bottles. No. 1,136,303; Apr. 20; Gaz. vol. 213; p. 902.
Bair, George R., assignor of one-half to W. S. Allen, Belton, Mo. Resilient wheel. No. 1,137,375; Apr. 27; Gaz. vol. 213; p. 1291.
Baker, Commodore P., St. Catherine, Mo. Wrench. No. 1,136,755; Apr. 20; Gaz. vol. 213; p. 1030.
Baker, Dexter C., and H. F. Hansen, Oakland, assignors to Baker-Hansen Manufacturing Company, East Oakland, Cal. Rotary pump. No. 1,136,756; Apr. 20; Gaz. vol. 213; p. 1030.
Baker-Hansen Manufacturing Company. (See Baker and Hansen, assignors.)
Bakevich, Anthony G., New Britain, Conn. Belt-dressing. No. 1,137,450; Apr. 27; Gaz. vol. 213; p. 1317.
Bakken, Andrew H., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Centrifugal clutch. No. 1,135,092; Apr. 13; Gaz. vol. 213; p. 405.
Balaban, Marcar, West Didsbury, Manchester, England. Copy-holder for type-writing machines. No. 1,135,751; Apr. 13; Gaz. vol. 213; p. 634.
Balaban, Marcar, West Didsbury, Manchester, England. Copyholder for type-writing machines. No. 1,135,752; Apr. 13; Gaz. vol. 213; p. 634.
Balassa, Frederick, assignor to Societe Anonyme Hongyárak Központi Tgazgatvósága, Budapest, Austria-Hungary. Portable gas-producer. No. 1,134,580; Apr. 6; Gaz. vol. 213; p. 181.
Balassa, Friedrich, assignor to Magyár Kir-Állámi Vasgyárak Központi Tgazgatvósága, Budapest, Austria-Hungary. Starting device for internal-combustion engines. No. 1,136,304; Apr. 20; Gaz. vol. 213; p. 902.
Baldwin, Arthur H., Norwalk, Conn. Filtering apparatus. No. 1,135,753; Apr. 13; Gaz. vol. 213; p. 634.
Ball, Ralph L., South Berwick, Me. Fire-escape. No. 1,135,248; Apr. 13; Gaz. vol. 213; p. 456.
Ball, Rufus E., Webb City, Mo. Mineral-faucet. No. 1,135,345; Apr. 13; Gaz. vol. 213; p. 490.
Ballard, Leavi S., Holstein, Iowa. Hay-sling. No 1,135,249; Apr. 13; Gaz. vol. 213; p. 457.
Ballard, Leavi S., Holstein, Iowa. Agricultural implement. No. 1,136,579; Apr. 20; Gaz. vol. 213; p. 968.
Ballard, Milton H., Lynn, Mass., assignor to Tripp Fruit Wrapping Machine Company, San Francisco, Cal. Label-affixing device. No. 1,136,757; Apr. 20; Gaz. vol. 213; p. 1031.

Ballard, Milton H., Lynn, Mass., assignor to Tripp Fruit Wrapping Machine Company, San Francisco, Cal. Label-cutting machine. No. 1,136,758; Apr. 20; Gaz. vol. 213; p. 1031.

Ballou, Holden P., assignor to W. S. Schutz, trustee, Hartford, Conn. Pneumatic piano-player. No. 1,136,923: Apr. 27; Gaz. vol. 213; p. 1125.

Ballou, Holden P., assignor to W. S. Schutz, trustee, Hartford, Conn. Automatic piano-player. No. 1,136,924; Apr. 27; Gaz. vol. 213; p. 1126.

Balough, Charles, assignor to The Kelly-Springfield Motor Truck Company, Springfield, Ohio. Engine-governor. No. 1,137,110: Apr. 27; Gaz. vol. 213; p. 1193.

Balough, Charles, assignor to The Kelly-Springfield Motor Truck Company, Springfield, Ohio. Oiling device. No. 1,137,111; Apr. 27; Gaz. vol. 213; p. 1194.

Balthazar, Rosalie D., Pawnee, La. Shoe-polisher. No. 1,135,871; Apr. 13; Gaz. vol. 213; p. 676.

Baltimore Tube Company. (See Brinkman, Louis H., assignor.)

Bamberger, Alfred H. (See Hansen, Charles A., assignor.)

Bandlow, Henry E., assignor to National Stamping & Electric Works, Chicago, Ill. Shade-holder for lamps. No. 1,135,250: Apr. 13; Gaz. vol. 213; p. 457.

Banghart, Charles S., Flushing, assignor, by mesne assignments, to N-W Equipment Co., Inc., New York, N. Y. Check-plate for journal-boxes. No. 1,136,640; Apr. 20; Gaz. vol. 213; p. 988.

Banghart, Charles S., Flushing, assignor, by mesne assignments, to N-W Equipment Co., Inc., New York, N. Y. Fender for railway-cars. No. 1,136,641; Apr. 20; Gaz. vol. 213; p. 988.

Banghart, Charles S., Flushing, assignor to N-W Equipment Co., Inc., New York, N. Y. Fender. No. 1,136,642; Apr. 20; Gaz. vol. 213; p. 989.

Banwell, James, assignor of one-third to R. L. Beck, Cleveland, Ohio. Paving-strip. No. 1,134,939; Apr. 6; Gaz. vol. 213; p. 305.

Barber Asphalt Paving Company, The. (See Birney, George R., assignor.)

Barber, Austin W., Everett, Wash. Ironing-board. No. 1,134,662; Apr. 6; Gaz. vol. 213; p. 212.

Barber-Colman Company. (See Colman and Peterson, assignors.)

Barber, Earl E. (See Bowers, Barber, and Grover.)

Barber, Franklin L., and E. W. Webb, assignors to Standard Car Truck Company, Chicago, Ill. Hopper-car. No. 1,134,251; Apr. 6; Gaz. vol. 213; p. 62.

Barber, John C., assignor to Standard Car Truck Company, Chicago, Ill. Roller-bearing device. No. 1,135,982; Apr. 20; Gaz. vol. 213; p. 756.

Barcus, George N., and C. E. Smith, assignors to The Rock City Manufacturing Company, Wabash, Ind. Machine for assembling spring-hinges. No. 1,137,451; Apr. 27; Gaz. vol. 213; p. 1317.

Bardeen, Hugh A., assignor of one-half to R. E. Kline, Los Angeles, Cal. Fish-tail bit. No. 1,136,203; Apr. 20; Gaz. vol. 213; p. 833.

Bark, Otto. (See Gunn, Bark, and Scowcroft.)

Barker, John J., *et al.* (See Miller, John, Sr., assignor.)

Barnard, Robert P. (See Marley, Thacker, and Barnard.)

Barnes, Frank C., Haddon Heights, N. J., assignor to National Chemical Company, Syracuse, N. Y. Seam-dampener. No. 1,134,434; Apr. 6; Gaz. vol. 213; p. 128.

Barnes, J. F., *et al.* (See Bragg, Julius, assignor.)

Barnes, Llewellyn T., Sea Cliff, N. Y. Carbureter. No. 1,134,365: Apr. 6; Gaz. vol. 213; p. 103.

Barnes, Llewellyn T., Sea Cliff, N. Y. Carbureter. No. 1,134,366: Apr. 6; Gaz. vol. 213; p. 103.

Barnes, Wilfred, Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric motor. No. 1,135,093; Apr. 13; Gaz. vol. 213; p. 405.

Barnes, William O., Leominster, assignor to M. E. Johnson, trustee, Fitchburg, Mass. Barrel-locking device for guns. No. 1,137,045; Apr. 27; Gaz. vol. 213; p. 1169.

Barnett, Otto R. (See Scott, John M., assignor.)

Barnett, Otto R. (See Walker, William A., assignor.)

Barnhart, Harvey P., Portland, Oreg. Weed-destroyer. No. 1,135,846; Apr. 13; Gaz. vol. 213; p. 491.

Barr, Hugh A. (See Barr, William R. and H. A.)

Barr, William R. and H. A., Oakland, Cal. Pruning-shears. No. 1,136,759; Apr. 20; Gaz. vol. 213; p. 1032.

Barraja-Frauenfelder, Joseph, assignor to The Lake Torpedo Boat Company of Maine, Bridgeport, Conn. Submarine torpedo-boat. No. 1,134,940; Apr. 6; Gaz. vol. 213; p. 305.

Barret, James H., Melrose, Tex. Timber-jack. No. 1,134,581; Apr. 6; Gaz. vol. 213; p. 182.

Barrett, Charles W., San Jose, Cal. Automatic air and elastic cushion-tire. No. 1,135,425; Apr. 13; Gaz. vol. 213; p. 519.

Barrett Manufacturing Company. (See Stewart and Perry, assignors.)

Barrington, Charles, Jr. (See Ginss, Armand, assignor.)

Barron, William H., Jr., Atlantic City, and C. Leseman, Egg Harbor City, N. J. Carpenter's tool. No. 1,134,806: Apr. 6; Gaz. vol. 213; p. 263.

Bartels, Carl. (See Mosler and Bartels.)

Bartlett, Edwin E., Hyde Park, Mass. Arbor-press. No. 1,135,983; Apr. 20; Gaz. vol. 213; p. 756.

Bartlett, Frederick W., Caldwell borough, N. J. Cracking-off machine. No. 1,135,652; Apr. 13; Gaz. vol. 213; p. 600.

Bartlett, Frederick W., Caldwell borough, N. J. Silvering apparatus. No. 1,135,653; Apr. 13; Gaz. vol. 213; p. 600.

Bartlett, Leonard, assignor of one-half to M. J. Lynch, Chicago, Ill. Bottle cap or seal. No. 1,135,094; Apr. 13; Gaz. vol. 213; p. 405.

Barton, Edward L., assignor to National Sewing Machine Company, Belvidere, Ill. Thread-take-up mechanism. No. 1,134,252; Apr. 6; Gaz. vol. 213; p. 62.

Barton, James W., Pequot, Minn. Wire-splicing tool. No. 1,136,760; Apr. 20; Gaz. vol. 213; p. 1032.

Bary, Charles P., assignor to H. Debauge, Paris, France. Purification of natural and regenerated caoutchoucs and other colloidal matters. No. 113,462; Apr. 20; Gaz. vol. 213; p. 925.

Bashlin, William M., Grove City, Pa. Removing rosin and turpentine from resinous woods. No. 1,136,994; Apr. 27; Gaz. vol. 213; p. 1151.

Baster, Harry C., Benton Harbor, Mich. Machine for crimping paper and the like. No. 1,136,086; Apr. 20; Gaz. vol. 213; p. 790.

Batchelor, Telford C., Hay Mills, near Birmingham, England. Wire rope. No. 1,137,690; Apr. 27; Gaz. vol. 213; p. 1396.

Batdorf, Charles S., Brooklyn, N. Y. Check-controlled liquid-dispensing apparatus. No. 1,135,251; Apr. 13; Gaz. vol. 213; p. 457.

Batdorf, Charles S., Brooklyn, N. Y. Check-controlled dispensing apparatus. No. 1,135,252; Apr. 13; Gaz. vol. 213; p. 458.

Bates, Adelmer M., assignor to Bates Valve Bag Company, Chicago, Ill. Bagging-machine. No. 1,137,376; Apr. 27; Gaz. vol. 213; p. 1291.

Bates, Ernest M., and F. Phillips, London, England, assignors to The National Cash Register Company, Dayton, Ohio. Register-concealing mechanism. No. 1,135,149; Apr. 13; Gaz. vol. 213; p. 425.

Bates, J. M., *et al.* (See Engle, William G., assignor.)

Bates Valve Bag Company. (See Bates, Adelmer M., assignor.)

Bateson, Charles E. W., New York, N. Y., assignor to Standard Knitting Mills Company. Union suit. No. 1,135,253; Apr. 13; Gaz. vol. 213; p. 459.

Batsford, Sterling B. (See Reist and Batsford.)

Battaglia, Orlando F., New York, N. Y. Electric water-fountain. No. 1,136,995; Apr. 27; Gaz. vol. 213; p. 1151.

Battu, Leonce L., assignor to Slag Steam Generator Company, New York, N. Y. Slag steam-generator. No. 1,135,984; Apr. 20; Gaz. vol. 213; p. 757.

Baucom, Jesse A., Raeford, N. C. Motor-vehicle steering-gear. No. 1,136,503; Apr. 20; Gaz. vol. 213; p. 941.

Bauer & Black. (See Schulz, Otto C., assignor.)

Bauer, Carl E., Hammond, Ind., assignor to American Steel Foundries, New York, N. Y. Brake-head. No. 1,135,490; Apr. 13; Gaz. vol. 213; p. 541.

Bauer, William C., Evanston, Ill. Electric battery. No. 1,134,093; Apr. 6; Gaz. vol. 213; p. 4.

Bauer, William N., Cincinnati, Ohio. Egg-conveyer. No. 1,134,807; Apr. 6; Gaz. vol. 213; p. 263.

Bauers, Clarence D. (See Miller, Frank W., assignor.)

Baukin, Peter, assignor to C. Mattison Machine Works, Beloit, Wis. Rubbing or polishing machine. No. 1,135,491; Apr. 13; Gaz. vol. 213; p. 542.

Baum, Edwin P., Keokuk, Iowa. Oil-filter. No. 1,135,150; Apr. 13; Gaz. vol. 213; p. 426.

Bauman, George C., Chicago, Ill. Cutting, counting, and packaging machine. No. 1,134,941; Apr. 6; Gaz. vol. 213; p. 305.

Bauman, Herman, New York, N. Y. Ash and garbage can. No. 1,135,426; Apr. 13; Gaz. vol. 213; p. 510.

Baumann, Gottfried, Heaton Mersey, England. Cycle-lock. No. 1,137,601; Apr. 27; Gaz. vol. 213; p. 1396.

Baus, Floyd. (See Korteum and Baus.)

Bausch and Lomb Optical Company. (See Patterson, William L., assignor.)

Bausch Machine Tool Company. (See Eden, James A., Jr., assignor.)

Baxter, John B., assignor to Covert Manufacturing Company, Watervliet, N. Y. Snap-hook. No. 1,134,310: Apr. 6; Gaz. vol. 213; p. 83.

Baxter, John B., assignor to Covert Manufacturing Company, Watervliet, N. Y. Bolt snap-hook. No. 1,134,311; Apr. 6; Gaz. vol. 213; p. 84.

Baxter, John B., assignor to Covert Manufacturing Co., Troy, N. Y. Harness-trace. No. 1,137,692; Apr. 27; Gaz. vol. 213; p. 1396.

Baxter, John H., Silgo, Colo. Pipe and rod clamp. No. 1,137,693: Apr. 27; Gaz. vol. 213; p. 1396.

Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,134,718; Apr. 6; Gaz. vol. 213; p. 233.

Bayley, William, Springfield, Ohio. Interlocking joint for sash-bars. No. 1,136,087; Apr. 20; Gaz. vol. 213; p. 791.

Beach, Clarence E., Binghamton, assignor to G. O. Knapp, New York, N. Y. Telltale system for electric circuits. No. 1,134,435; Apr. 6; Gaz. vol. 213; p. 128.

Beach, Clarence E., Binghamton, assignor to G. O. Knapp, New York, N. Y. Signaling system. No. 1,135,427; Apr. 13; Gaz. vol. 213; p. 520.

Beach, Edward S., Ridgefield, Conn., assignor to Price-Campbell Cotton Picker Corporation, Wilmington, Del. Cotton-harvester. No. 1,135,096; Apr. 13; Gaz. vol. 213; p. 406.

Beach, Robert O., assignor of one-half to E. W. Weiland, San Francisco, Cal. Sash-lock. No. 1,137,302; Apr. 27; Gaz. vol. 213; p. 1264.

Beadle, George W., Bayonne, N. J. Machine for making paper cups. No. 1,135,986; Apr. 20; Gaz. vol. 213; p. 758.

Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Machine for making paper cartons. No. 1,134,808; Apr. 6; Gaz. vol. 213; p. 264.

Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Drying and cooling attachment for paraffining-machines. No. 1,134,809; Apr. 6; Gaz. vol. 213; p. 264.

Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Machine for drying cartons. No. 1,135,985; Apr. 20; Gaz. vol. 213; p. 757.

Beam, Matthew M., Old Forge, Pa. Safety device for elevators. No. 1,134,582; Apr. 6; Gaz. vol. 213; p. 182.

Bean Spray Pump Company. (See Hansen, Harvey F., assignor.)

Beard, Richard M., New York, N. Y. Intercommunicating trunk-line telephone system. No. 1,135,654; Apr. 13; Gaz. vol. 213; p. 600.

Beattie, George A., Jersey City, N. J. Ticket-holder. No. 1,134,501; Apr. 6; Gaz. vol. 213; p. 153.

Beatty, Luther C. (See Smith, Voorhees G., assignor.)

Beatty, Wallace A., assignor of three-twentieths to H. H. Smith, one-half to J. D. Dusenberry, New York, N. Y., and one-tenth to T. A. Witherspoon, Washington, D. C. Impregnating porous substances. No. 1,134,436; Apr. 6; Gaz. vol. 213; p. 128.

Bechler, André, Moutier, Switzerland. Driving mechanism for the moving parts of automatic and semi-automatic machine-tools. No. 1,137,180; Apr. 27; Gaz. vol. 213; p. 1218.

Beck, Charles W., Rockville Center, N. Y., assignor, by mesne assignments, to Beck-Frost Corporation, Detroit, Mich. Spark-plug. No. 1,136,996; Apr. 27; Gaz. vol. 213; p. 1152.

Beck-Frost Corporation. (See Beck, Charles W., assignor.)

Beck, Joseph, Elberta, Ala. Outrigger for boats. No. 1,136,306: Apr. 20; Gaz. vol. 213; p. 869.

Beck, Nicholas, Seattle, Wash. Skirt and waist holder. No. 1,134,176: Apr. 6; Gaz. vol. 213; p. 34.

Beck, Robert L. (See Banwell, James, assignor.)

Becker, Joseph, Washington, D. C. Panoramic photographic camera. No. 1,136,761; Apr. 20; Gaz. vol. 213; p. 1032.

Becket, Frederick M., Niagara Falls, assignor to Union Carbide Company, New York, N. Y. Manufacture of calcium carbid. No. 1,137,567; Apr. 27; Gaz. vol. 213; p. 1356.

Beckley, Louis E. (See Nicodemus and Beckley.)

Bee, Frederick G., Columbus, Ohio. Vaporizer. No. 1,135,151; Apr. 13; Gaz. vol. 213; p. 426.

Beebe, Eugene F., Minneapolis, Minn. Washing-machine. No. 1,135,565; Apr. 13; Gaz. vol. 213; p. 569.

Beecher, Titus A., Taft, Cal. Knife-blade. No. 1,135,987; Apr. 20; Gaz. vol. 213; p. 758.

Beemer, George S., Meeker, Colo. Churn-operating means. No. 1,135,655; Apr. 13; Gaz. vol. 213; p. 601.

Beer, Alfred V. (See Thompson, Roy E., assignor.)

Beerbower, George M., New York, assignor of one-half to W. F. Johnes, Pelhamwood, N. Y. Automatic door opening and closing apparatus. No. 1,134,810; Apr. 6; Gaz. vol. 213; p. 264.

Beery, John H., Springfield, assignor of one-fourth to H. A. Boxill, one-fourth to P. M. Gale, and one-fourth to V. Towler, Cincinnati, Ohio. Molding and pressing machine. No. 1,137,377; Apr. 27; Gaz. vol. 213; p. 1292.

Breezley, Ernest L., and F. Lane, Mount Pleasant, Iowa. Fertilizer-distributer. No. 1,135,492; Apr. 13; Gaz. vol. 213; p. 542.

Behnke, Albert R., St. Paul, Minn. Hub for removable wheels. No. 1,134,367; Apr. 6; Gaz. vol. 213; p. 104.

Behrend, Bernard A., Norwood, Ohio, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, Dynamo-electric machine. No. 1,135,656; Apr. 13; Gaz. vol. 213; p. 601.

Belber, Minnie, Philadelphia, Pa. Wardrobe-trunk. No. 1,135,428; Apr. 13; Gaz. vol. 213; p. 520.

Belcher, George E., Stoughton, Mass. Last. No. 1,134,502; Apr. 6; Gaz. vol. 213; p. 153.

Belcher, George E., Stoughton, Mass. Last. No. 1,134,503; Apr. 6; Gaz. vol. 213; p. 153.

Belcher, George E., Stoughton, Mass. Last. No. 1,134,504; Apr. 6; Gaz. vol. 213; p. 153.

Belcher, George E., Stoughton, Mass. Last. No. 1,134,505; Apr. 6; Gaz. vol. 213; p. 154.

Belcher, George E., Stoughton, Mass. Last. No. 1,134,506; Apr. 6; Gaz. vol. 213; p. 154.

Belknap, Edwin D., New York, N. Y. Stencil. No. 1,134,094; Apr. 6; Gaz. vol. 213; p. 5.

Belknap, Edwin D., New York, N. Y. Stencil-card. No. 1,134,095; Apr. 6; Gaz. vol. 213; p. 5.

Belknap, Edwin D., New York, N. Y. Selective addressing-machine. No. 1,134,096; Apr. 6; Gaz. vol. 213; p. 5.

Bell, Charlie W., Rickey, Ala. Fine-ore separator. No. 1,135,754; Apr. 13; Gaz. vol. 213; p. 635.

Bell, Frank E. (See Jackson and Bell.)

Bellinger, Arthur F., Mohawk, N. Y. Ticket-holder. No. 1,134,988; Apr. 13; Gaz. vol. 213; p. 368.

Beltz, William L., Mowrystown, Ohio. Silo construction. No. 1,134,663; Apr. 6; Gaz. vol. 213; p. 212.

Bender, Charles J., Chicago, Ill. Leaf-turning device. No. 1,136,927; Apr. 27; Gaz. vol. 213; p. 1126.

Bender, Howard E. (See Gunning, Frederick, assignor.)

Bendix, Vincent, Chicago, Ill. Engine-starter. No. 1,134,975; Apr. 6; Gaz. vol. 213; p. 318.

Benge, Ralph L., Lexington, Oreg. Weeder. No. 1,135,755; Apr. 13; Gaz. vol. 213; p. 635.

Bengston, Nels P., Plainville, Conn. Cow-tail holder. No. 1,136,395; Apr. 20; Gaz. vol. 213; p. 902.

Benjamin, George H. (See Hübner, Robert, assignor.)

Benjamin, William H., Roseburg, Oreg. Brake. No. 1,135,872; Apr. 13; Gaz. vol. 213; p. 676.

Bennett, Ashley C., Minneapolis, Minn. Carbureter. No. 1,136,997; Apr. 27; Gaz. vol. 213; p. 1152.

Bennett, Robert J., Moline, assignor to Artista Piano Player Company, Milan, Ill. Pneumatic automatic musical instrument. No. 1,135,152; Apr. 13; Gaz. vol. 213; p. 426.

Benson, Autha C., Rosenberg, Tex. Fence-stay. No. 1,136,088; Apr. 20; Gaz. vol. 213; p. 791.

Benson, John E. (See Potter and Benson.)

Benzing, Alfred B., assignor to St. Louis Coffin Company, St. Louis, Mo. Coffin. No. 1,134,719; Apr. 6; Gaz. vol. 213; p. 233.

Berens, Stanislaus, Chicago, Ill. Headlight-lamp for automobiles. No. 1,135,566; Apr. 13; Gaz. vol. 213; p. 569.

Berg, Olaf, Rjukan, assignor to Norsk Hydro-Elektrisk Kvaelstofaktieselskab, Christiania, Norway. Simultaneously scraping off and granulating substances. No. 1,137,181; Apr. 27; Gaz. vol. 213; p. 1219.

Bergedorfer Eisenwerk Aktiengesellschaft. (See Hansen, Emil, assignor.)

Bergener, Charles, assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Convertible lamp. No. 1,136,580: Apr. 20; Gaz. vol. 213; p. 968.

Berger, Christian L., Boston, Mass. Surveyor's instrument. No. 1,135,153: Apr. 13; Gaz. vol. 213; p. 426.

Berger, Homer S., Muncy, Pa. Gate-valve. No. 1,134,811; Apr. 6; Gaz. vol. 213; p. 265.

Berger, James A., *et al.* (See German, Solomon, assignor.)

Berger, Louis, and G. A. Hassinger, New Orleans, La. Non-refillable bottle. No. 1,136,762; Apr. 20; Gaz. vol. 213; p. 1033.

Berger, Max, *et al.* (See Martin and Jones, assignors.)

Bergstrom, Edward F., assignor to W. T. Gill and F. L. Rutman, Waltham, Mass. Envelop. No. 1,135,429: Apr. 13; Gaz. vol. 213; p. 520.

Bernard, William A., assignor to The William Schollhorn Company, New Haven, Conn. Pliers or similar tool. No. 1,134,177; Apr. 6; Gaz. vol. 213; p. 34.

Bernecker, Frank L., *et al.* (See Heinze, Gustav A., assignor.)

Bernhard, Edward E., St. Mary Cray, England. Machine for marking show-cards or tickets. No. 1,134,812; Apr. 6; Gaz. vol. 213; p. 265.

Burnheim, Morris U., Louisville, Ky., assignor, by mesne assignments, to The Alvey-Ferguson Company, Oakley, Cincinnati, Ohio. Friction-reducing bearing. No. 1,136,089; Apr. 20; Gaz. vol. 213; p. 791.

Bernstein, Leicester T. (See Dasher, Isidor R., assignor.)

Bernstein, Sándor. (See Kasanszky and Bernstein.)

Berry, John H., Owensboro, Ky. Cultivator. No. 1,135,756; Apr. 13; Gaz. vol. 213; p. 635.

Berryman, Joseph D., Philadelphia, Pa. Body for automobiles. No. 1,136,643; Apr. 20; Gaz. vol. 213; p. 989.

Bertoll, Charles R., *et al.* (See Tegoll, August, assignor.)

Besser, Jacob, Jacksonville, Fla. Cigar-box. No. 1,134,990; Apr. 13; Gaz. vol. 213; p. 368.

Besserdich, William A., assignor of one-half to B. A. Mosling, Clintonville, Wis. Transmission mechanism. No. 1,136,644; Apr. 20; Gaz. vol. 213; p. 989.

Bessom, Earl A., and R. M. Anderson, assignors to Stromberg Motor Devices Company, Chicago, Ill. Carbureter. No. 1,134,942; Apr. 6; Gaz. vol. 213; p. 306.

Best, Clarence A., Floyd Knobs, Ind. Broom-holder. No. 1,134,813; Apr. 6; Gaz. vol. 213; p. 265.

Best, William N., New York, N. Y. Melting-furnace. No. 1,137,378; Apr. 27; Gaz. vol. 213; p. 1292.

Beuttell, Alfred W., Streatham, London, England. Show-case light. No. 1,137,379; Apr. 27; Gaz. vol. 213; p. 1292.

Bevard, William A., Washington, D. C. Ash-sifter. No. 1,135,567; Apr. 13; Gaz. vol. 213; p. 569.

Bickford, Frank H. (See Klink, Wilgus, and Bickford.)

Bienstock, Anna E., Newark, N. J. Dress-shield protector. No. 1,137,452; Apr. 27; Gaz. vol. 213; p. 1318.

Biggar, Leroy A. and R. H., Oneida, N. Y. Lubricating device. No. 1,135,873; Apr. 13; Gaz. vol. 213; p. 677.

Biggar, Rutherford H. (See Biggar, Leroy A. and R. H.)

Billings, Arthur S., North Vancouver, British Columbia, Canada. Wood-trimmer. No. 1,137,453; Apr. 27; Gaz. vol. 213; p. 1318.

Billington, John E. (See Pearce and Billington.)

Biltgen, Albert F., Arrowrock, Idaho. Folding car-steps. No. 1,136,581; Apr. 20; Gaz. vol. 213; p. 968.

Binder, Gottlob, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Drying apparatus. No. 1,136,645; Apr. 20; Gaz. vol. 213; p. 990.

Bing, Julius, Eisenach, Germany. Demagnetization of tools working magnetically-mounted work-pieces. No. 1,136,646; Apr. 20; Gaz. vol. 213; p. 990.
Bingham, George W., Brooklyn, N. Y., assignor to The Bingham Manufacturing Company. Moving-picture machine. No. 1,134,664; Apr. 6; Gaz. vol. 213; p. 212.
Bingham Manufacturing Company, The. (See Bingham, George W., assignor.)
Birath, Theodor, assignor to Manhattan Electrical Supply Company, Jersey City, N. J. Lamp-carrier. No. 1,137,568; Apr. 27; Gaz. vol. 213; p. 1357.
Birch, Gustaf B. (See Cameron and Birch.)
Bird, Thos. E., *et al.* (See Hoffman, Robert O., assignor.)
Birdsall, James E., Philadelphia, Pa., assignor, by mesne assignments, to Advertising Device Company. Mechanical shoe-polishing machine. No. 1,136,647; Apr. 20; Gaz. vol. 213; p. 990.
Birdsong, John L., Kenbridge, assignor of one-half to E. Studebaker, Waverly, Va. Lock-shield. No. 1,136,582; Apr. 20; Gaz. vol. 213; p. 969.
Birney, George R., assignor to The Barber Asphalt Paving Company. Philadelphia, Pa. Surface-heater. No. 1,135,493; Apr. 13; Gaz. vol. 213; p. 542.
Bishop, Alfred J., Perth, Western Australia, Australia. Appliance for pickling wheat or grain. No. 1,136,763; Apr. 20; Gaz. vol. 213; p. 1033.
Bishop, Harry W., Oakland, Cal. Proscenium structure. No. 1,136,860; Apr. 20; Gaz. vol. 213; p. 1066.
Bissell, Arthur, *et al.* (See Jameson, Charles V., assignor.)
Bissell, Joseph E., Pittsburgh, Pa. Internal-combustion engine. No. 1,134,097; Apr. 6; Gaz. vol. 213; p. 6.
Bittner, Theodore O., Brooklyn, N. Y. Card-support. No. 1,135,874; Apr. 13; Gaz. vol. 213; p. 677.
Black, David R. (See Larson, Ole G., assignor.)
Black, James F., assignor of one-half to H. B. Richmond, Prophetstown, Ill. Shears. No. 1,134,814; Apr. 6; Gaz. vol. 213; p. 265.
Blackall, Robert H., Pittsburgh, Pa., assignor to Ratchet Brake Company, New York, N. Y. Ratchet-brake mechanism. No. 1,136,090; Apr. 20; Gaz. vol. 213; p. 792.
Blake Car Step Works. (See Blake, Fred D., assignor.)
Blake, Fred D., assignor to Blake Car Step Works, Charlotte, N. C. Car-step. No. 1,136,583; Apr. 20; Gaz. vol. 213; p. 969.
Blake, Frederick I., and M. D. Reidy, Worcester, Mass. Calipers or dividers. No. 1,135,095; Apr. 13; Gaz. vol. 213; p. 406.
Blakely, Clarence, *et al.* (See Kendrick, Karl A., assignor.)
Blakey, Edward B. (See Blakey, Joseph F. and E. B.)
Blakey, Joseph F. and E. B., Kansas City, Mo. Compensating gearing. No. 1,134,665; Apr. 6; Gaz. vol. 213; p. 213.
Blanchard, Jeanne M., Bordeaux, France. Dial-moving mechanism for clocks. No. 1,137,182; Apr. 27; Gaz. vol. 213; p. 1219.
Blaske, William C., assignor, by mesne assignments, to Heat Saver Company, Chicago, Ill. Fuel-saving device. No. 1,134,943; Apr. 6; Gaz. vol. 213; p. 306.
Blasser, Ernest, *et al.* (See Miller, John, Sr., assignor.)
Blau, Fritz, Berlin, Germany, assignor, by mesne assignments, to General Electric Company. Removing carbon from pressed bodies of tungsten. No. 1,135,154; Apr. 13; Gaz. vol. 213; p. 427.
Blaw Collapsible Steel Centering Company. (See McArthur, Charles D., assignor.)
Bledsoe, John H., assignor to Equitable Asphalt Maintenance Company, Kansas City, Mo. Asphalt-mixing apparatus. No. 1,136,204; Apr. 20; Gaz. vol. 213; p. 833.
Bledsoe, John H., assignor to Equitable Asphalt Maintenance Company, Kansas City, Mo. Mixing asphalt. No. 1,136,205; Apr. 20; Gaz. vol. 213; p. 833.
Blennerhassett, Arthur A., Fort William, assignor to J. Hodgson, Toronto, Ontario, Canada. Wheel-guard. No. 1,134,178; Apr. 6; Gaz. vol. 213; p. 35.
Blevins, David T., and A. B. Randall, assignors to The Acme Patent and Development Company, Windsor, Colo. Beet-topper. No. 1,135,988; Apr. 20; Gaz. vol. 213; p. 758.
Blevney, John C., Newark, N. J. Gromet-inserting machine. No. 1,134,507; Apr. 6; Gaz. vol. 213; p. 154.
Blevney, John C., Newark, N. J. Grinding and polishing machine. No. 1,134,508; Apr. 6; Gaz. vol. 213; p. 155.
Bliss, William L., Brooklyn, N. Y., assignor, by mesne assignments, to Central Trust Company of New York. End-cell regulator. No. 1,135,494; Apr. 13; Gaz. vol. 213; p. 543.
Bloch, Bruno, Berlin, Germany, assignor to Mergenthaler Linotype Company. Distributer for typographical machines. No. 1,135,430; Apr. 13; Gaz. vol. 213; p. 521.
Bloch, Emanuel T., Lejre, Denmark. Apparatus for the treatment of the limbs of the human body. No. 1,136,397; Apr. 20; Gaz. vol. 213; p. 903.
Bloch, Mayer J. R., Paris, France. Perfume-sprayer. No. 1,134,098; Apr. 6; Gaz. vol. 213; p. 6.
Bloch-Pimentel, Emile, Paris, France. Press-vat. No. 1,135,757; Apr. 13; Gaz. vol. 213; p. 636.
Blocher, Daniel J., Pearl City, Ill. Nut-lock. No. 1,134,666; Apr. 6; Gaz. vol. 213; p. 213.
Blom, Ole H., Fairfield, Wash. Tiltable-ladder structure. No. 1,134,437; Apr. 6; Gaz. vol. 213; p. 129.
Blonay, Jean de, assignor to Sapal Societe Anonyme des Plieuses Automatiques, Lausanne, Switzerland. Packing and wrapping machine. No. 1,136,412; Apr. 20; Gaz. vol. 213; p. 909.
Blood, Joseph W., Minneapolis, Minn. Automatic damper. No. 1,135,568; Apr. 13; Gaz. vol. 213; p. 569.
Bloom, Edgar J., Tiffin, Ohio. Lavatory-fixture. No. 1,136,091; Apr. 20; Gaz. vol. 213; p. 793.
Bloom, Samuel C. (See Braemer and Bloom.)
Bloxham, Charles M., Verona, assignor to Union Tank Line Company, Bayonne, N. J. Discharge appliance for railway tank-cars. No. 1,135,254; Apr. 13; Gaz. vol. 213; p. 459.
Blume, Michael, New York, N. Y. Receptacle cover and spout. No. 1,135,758; Apr. 13; Gaz. vol. 213; p. 636.
Blumer, Elizabeth, Albany, Wis. Drinking-fountain or waterer for fowls. No. 1,136,092; Apr. 20; Gaz. vol. 213; p. 793.
Blundell, George, Los Angeles, Cal. Arm-rest. No. 1,135,155; Apr. 13; Gaz. vol. 213; p. 427.
Bodeen, John W., Greeley, assignor of one-half to O. V. Johnson, Denver, Colo. Repair-counter for shoes. No. 1,136,764; Apr. 20; Gaz. vol. 213; p. 1033.
Bodinson, Lars W., assignor to The American Well Works, Aurora, Ill. Centrifugal pump. No. 1,136,928; Apr. 27; Gaz. vol. 213; p. 1126.
Bodkin, Morris A., New York, N. Y. Reversible rail-bender. No. 1,136,463; Apr. 20; Gaz. vol. 213; p. 925.
Bogdánffy, Alexander, New York, N. Y. Machine for the manufacture of bottle-closures. No. 1,136,398; Apr. 20; Gaz. vol. 213; p. 903.
Bogenschutz, William C., Kalamazoo, Mich. Flask. No. 1,134,368; Apr. 6; Gaz. vol. 213; p. 104.
Boggs, Frank, Atlanta, N. Y. Double-belt potato-sorter. No. 1,136,584; Apr. 20; Gaz. vol. 213; p. 969.
Bohmann, Joseph, Chicago, Ill. Tuning-peg for musical instruments. No. 1,135,347; Apr. 13; Gaz. vol. 213; p. 491.
Bols, Joseph A. C. (See Reno and Bols.)
Bolin, Floyd C. (See Hale, Leigh E., assignor.)
Boling, Elmer E., Indianapolis, Ind. Coin-controlled vending-cabinet. No. 1,134,509; Apr. 6; Gaz. vol. 213; p. 155.
Bolton, Joseph, assignor of one-half to J. Ryan, Jackson, Nebr. Fruit-picker. No. 1,134,099; Apr. 6; Gaz. vol. 213; p. 6.
Bond, Jayson K., assignor of one-half to K. W. Jacobs, Milwaukee, Wis. Fender for automobiles. No. 1,136,998; Apr. 27; Gaz. vol. 213; p. 1152.
Bondy, Joseph L., Chicago, Ill. Fence. No. 1,136,999; Apr. 27; Gaz. vol. 213; p. 1153.
Bongner, Jacob, *et al.* (See Cowgill, Orph W., assignor.)
Bonham, Guy L., Dorranceton, Pa. Train-pipe coupling. No. 1,136,093; Apr. 20; Gaz. vol. 213; p. 794.
Bonnell, William A., Brooklyn, N. Y., assignor to Fountain Electrical Floor Box Corporation. Universal floor-box. No. 1,136,929; Apr. 27; Gaz. vol. 213; p. 1127.
Bonniksen, Bahne, Coventry, England. Speed-indicator and the like. No. 1,134,369; Apr. 6; Gaz. vol. 213; p. 104.
Bonzanigo, Carlo, Basel, Switzerland. Gate for locks, weirs, and the like. No. 1,136,765; Apr. 20; Gaz. vol. 213; p. 1033.
Boon, William H. A., San Dimas, Cal. Bolt-lock. No. 1,137,569; Apr. 27; Gaz. vol. 213; p. 1357.
Booraem, John V. V. (See Jacquart, Bernard, assignor.)
Booth, F. E. (See Hauber, August, assignor.)
Bope, William P. (See Hudson and Bope.)
Borcherdt, Reinholdt, South Kaukauna, Wis. Valve-gear. No. 1,137,112; Apr. 27; Gaz. vol. 213; p. 1194.
Boright, William W., South Framingham, Mass. Wheelbarrow. No. 1,135,431; Apr. 13; Gaz. vol. 213; p. 521.
Borneemann, Adolph, Bettendorf, Iowa. Sewer-cleaning means. No. 1,136,766; Apr. 20; Gaz. vol. 213; p. 1034.
Borneemann, Herman, and J. Tennessen, Jr., Dundas, Wis. Thistle-eradicator. No. 1,136,206; Apr. 20; Gaz. vol. 213; p. 834.
Borst, Harbin D. (See Childers and Borst.)
Boshell, James P., Coldwater, Kans. Discharge-feed for unloaders. No. 1,135,348; Apr. 13; Gaz. vol. 213; p. 492.
Boss, William, St. Paul, Minn. Grass-catcher. No. 1,136,207; Apr. 20; Gaz. vol. 213; p. 834.
Boss, William, St. Paul, Minn. Humidifier. No. 1,136,208; Apr. 20; Gaz. vol. 213; p. 834.
Bossert, William F., Utica, N. Y. Apparatus for operating switch-points. No. 1,136,767; Apr. 20; Gaz. vol. 213; p. 1034.
Boston Woven Hose and Rubber Company. (See Landin, Carl J., assignor.)
Bouchard, Everett J., Ware, Mass. Pipe-coupling. No. 1,137,113; Apr. 27; Gaz. vol. 213; p. 1194.
Boughton, Walter W. (See Walker and Boughton.)
Bourdon, Elie, West Vancouver, British Columbia, Canada. Protective device for ball-players. No. 1,136,307; Apr. 20; Gaz. vol. 213; p. 870.
Bourgeois, Tilman A., Auburndale, Mass. Clothes-pin. No. 1,136,768; Apr. 20; Gaz. vol. 213; p. 1034.
Bowen, Annie F. W., San Francisco, Cal. Eraser-holder for pencils. No. 1,136,094; Apr. 20; Gaz. vol. 213; p. 794.

Bower, Lewis A., Sigourney, Iowa. Music-leaf turner. No. 1,135,255; Apr. 13; Gaz. vol. 213; p. 459.
Bowers, Fredrick M., Chester, Pa. Helmet. No. 1,135,759; Apr. 13; Gaz. vol. 213; p. 636.
Bowers, John C., Boston, Mass. Can-sealing machine. No. 1,136,399; Apr. 20; Gaz. vol. 213; p. 904.
Bowers, John C., E. E. Barber, Boston, A. D. Grover, Malden, assignors to A. H. Parker, Bedford, and W. H. Emerson, Newton, Mass. Machine for sealing metal boxes or cans. No. 1,136,401; Apr. 20; Gaz. vol. 213; p. 905.
Bowers, William H., Lincoln, Nebr. Clamp. No. 1,134,815; Apr. 6; Gaz. vol. 213; p. 266.
Bowser, Allen A., Fort Wayne, Ind. Adjustable stop device. No. 1,137,454; Apr. 27; Gaz. vol. 213; p. 1318.
Bowser, Sylvanus F., Fort Wayne, Ind. Pump. No. 1,137,456; Apr. 27; Gaz. vol. 213; p. 1319.
Bowser, Sylvanus F., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind. Pump-operating means. No. 1,137,114; Apr. 27; Gaz. vol. 213; p. 1195.
Bowser, Sylvanus F., assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind. Adjustable pointer and stop for pumps and the like. No. 1,137,455; Apr. 27; Gaz. vol. 213; p. 1319.
Boxilli, H. A., *et al.* (See Beery, John H., assignor.)
Boyd, Clifford, assignor of one-half to E. Boyd, Sumas, Wash. Coupling. No. 1,134,179; Apr. 6; Gaz. vol. 213; p. 35.
Boyd, Ernest. (See Boyd, Clifford, assignor.)
Boyle, Albert C., Jr., Laramie, Wyo. Grinding and polishing machine. No. 1,134,944; Apr. 6; Gaz. vol. 213; p. 307.
Boyle, Francis, New York, N. Y., assignor to United States Rubber Company. Rubber sole. No. 1,137,724; Apr. 27; Gaz. vol. 213; p. 1407.
Bradley, Charles S., New York, N. Y. Process and apparatus for producing chemical action in gases. No. 1,134,583; Apr. 6; Gaz. vol. 213; p. 182.
Bradley, John H., Philadelphia, Pa. Therapeutical device. No. 1,134,720; Apr. 6; Gaz. vol. 213; p. 233.
Bradley, Ralph L., Butte, Mont. Stretcher or bed for automobiles. No. 1,134,312; Apr. 6; Gaz. vol. 213; p. 84.
Brady, Henry H., *et al.* (See Watres, Lewis S., assignor.)
Braemer, William G. R., and S. C. Bloom, Camden, N. J., assignors to Warren Webster & Company. Means for humidifying air. No. 1,134,976; Apr. 6; Gaz. vol. 213; p. 319.
Bragg, Julius, assignor of one-fourth to himself, one-fourth to S. Winchester, one-fourth to V. L. Plummer, Huntington, Oreg., and one-fourth to J. F. Barnes, Nampa, Idaho. Brake-head. No. 1,137,252; Apr. 27; Gaz. vol. 213; p. 1245.
Brand, George, Brooklyn, N. Y. Suction-head connection. No. 1,136,889; Apr. 20; Gaz. vol. 213; p. 1076.
Brand, George, Brooklyn, N. Y. Vacuum-cleaning machine. No. 1,136,890; Apr. 20; Gaz. vol. 213; p. 1077.
Brand, George B., assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,134,991; Apr. 13; Gaz. vol. 213; p. 369.
Brande, Louis L., Pittsburgh, Pa., assignor to Goodman Manufacturing Company, Chicago, Ill. Approach for rack-rails. No. 1,137,694; Apr. 27; Gaz. vol. 213; p. 1397.
Brandenburg, Edwin, Brussels, Belgium. Sectioning means for electric stations provided with accumulators. No. 1,137,046; Apr. 27; Gaz. vol. 213; p. 1169.
Brandt, Bernard L., deceased, Dundee, Mich.; S. A. Brandt, administratrix. Spring tension device. No. 1,137,722; Apr. 27; Gaz. vol. 213; p. 1407.
Brandt, Sarah A., administratrix. (See Brandt, Bernard L.)
Branington, Edwhin O., assignor to A. Hochreiter, Rochester, N. Y. Signal. No. 1,136,402; Apr. 20; Gaz. vol. 213; p. 905.
Brassell, William E., Philadelphia, Pa., assignor to E. L. Mansure Company, Chicago, Ill. Fringe-knotting machine. No. 1,134,721; Apr. 6; Gaz. vol. 213; p. 233.
Braun, Emil J., New York, N. Y. Humidifier. No. 1,137,570; Apr. 27; Gaz. vol. 213; p. 1357.
Breach, James J., South Weymouth, assignor to Merriman Brothers, Boston, Mass. Lawn-edge trimmer. No. 1,135,989; Apr. 20; Gaz. vol. 213; p. 759.
Breckenridge, John G., assignor to The Ridgely Trimmer Company, Springfield, Ohio. Folding board for paper-hangers. No. 1,134,100; Apr. 6; Gaz. vol. 213; p. 7.
Breitenbaugh, William F., Philadelphia, Pa. Adjustable golf-club. No. 1,137,457; Apr. 27; Gaz. vol. 213; p. 1320.
Brenner, Bella B., New York, N. Y. Horseshoe. No. 1,135,657; Apr. 13; Gaz. vol. 213; p. 602.
Brewer, Joseph A., Washington, D. C., and W. A. Brewer, Long Island City, N. Y. Rake-cleaner. No. 1,136,770; Apr. 20; Gaz. vol. 213; p. 1035.
Brewer, Malichi C., Nashville, Tenn. Cotton-chopping machine. No. 1,136,930; Apr. 27; Gaz. vol. 213; p. 1127.
Brewer, Moultre A., Concord, N. C. Chair. No. 1,136,308; Apr. 20; Gaz. vol. 213; p. 870.
Brewer, Walker A. (See Brewer, Joseph A. and W. A.)
Brickel, Charles A., Neilsonville, Quebec, Canada. Fire-escape. No. 1,136,931; Apr. 27; Gaz. vol. 213; p. 1128.
Bridenbaugh, Elmer H. (See Ohmer and Bridenbaugh.)
Bridges, Walter S., Chicago, Ill. Hinge. No. 1,135,349; Apr. 13; Gaz. vol. 213; p. 492.
Brierly, William W., and T. M. Scanlon, assignors to Millbury Steel Foundry Company, Millbury, Mass. Heating-furnace. No. 1,136,861; Apr. 20; Gaz. vol. 213; p. 1067.
Briggs, Arthur J., Syracuse, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,134,101; Apr. 6; Gaz. vol. 213; p. 7.
Briggs, Delamar C., assignor to Detroit Steel Products Company, Detroit, Mich. Adjustable hinge for metallic-window ventilators. No. 1,134,180; Apr. 6; Gaz. vol. 213; p. 35.
Briggs, George W. (See Fisher, Thaddeus C., Sr., assignor.)
Briggs, Jay, Los Angeles, assignor of one-half to W. T. Gunn, San Diego, Cal. Automatic electric crossing-gate. No. 1,134,584; Apr. 6; Gaz. vol. 213; p. 183.
Briggs, Thomas, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Machine for inserting fastenings. No. 1,136,095; Apr. 20; Gaz. vol. 213; p. 794.
Briggs, Wells U., and H. M. Michael, Alamosa, Colo. Lawn-sprinkler. No. 1,135,495; Apr. 13; Gaz. vol. 213; p. 543.
Briney, Carl A. (See Chase and Briney.)
Brinkman, Louis H., Glen Ridge, N. J., assignor to Baltimore Tube Company, Baltimore, Md. Tube-bending machine. No. 1,135,875; Apr. 13; Gaz. vol. 213; p. 677.
Bristol Company, The. (See Bristol, William H., assignor.)
Bristol, Orin L., and A. F. Vorce; said Bristol assignor, by mesne assignments, to Sparta Mfg. Co., Grand Rapids, Mich. Coin-controlled mechanism for vending apparatus. No. 1,135,934; Apr. 13; Gaz. vol. 213; p. 696.
Bristol, William H., assignor to The Bristol Company, Waterbury, Conn. Measuring instrument. No. 1,136,648; Apr. 20; Gaz. vol. 213; p. 991.
Brock, Harry M., North Yakima, Wash. Dental instrument. No. 1,136,649; Apr. 20; Gaz. vol. 213; p. 991.
Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Holddown for lasting-machines. No. 1,134,253; Apr. 6; Gaz. vol. 213; p. 63.
Brockman, Oscar, Louisville, Ky. Bridle-blind. No. 1,134,816; Apr. 6; Gaz. vol. 213; p. 266.
Brockschmidt, William P. (See Hendricks and Brockschmidt.)
Brockway, George F., Eden township, Fayette county, Iowa. Metallic tie. No. 1,136,771; Apr. 20; Gaz. vol. 213; p. 1035.
Bronander, Bertil W., New York, N. Y. Variable-speed driving-gear. No. 1,135,990; Apr. 20; Gaz. vol. 213; p. 759.
Brooke, Arthur O., Kansas City, Mo. Internal-combustion engine. No. 1,134,667; Apr. 6; Gaz. vol. 213; p. 214
Brookfield Glass Company, The. (See Brookfield and Olsen, assignors.)
Brookfield Glass Company, The. (See Roehrich, Frank N., assignor.)
Brookfield, Henry M., New York, N. Y. Glass and making same. No. 1,136,504; Apr. 20; Gaz. vol. 213; p. 941.
Brookfield, Henry M., New York, and S. Olsen, Brooklyn, assignors to The Brookfield Glass Company, New York, N. Y. Fluid-molding press. No. 1,137,000; Apr. 27; Gaz. vol. 213; p. 1153.
Brooks, Claude C., Kansas City, Mo. Mold for securing screen-wire. No. 1,135,760; Apr. 13; Gaz. vol. 213; p. 637.
Brooks, George W., Topeka, Kans. Metal stair. No. 1,134,992; Apr. 13; Gaz. vol. 213; p. 369.
Brooks, Winfred M., East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y. Self-locking seal. No. 1,137,183; Apr. 27; Gaz. vol. 213; p. 1219.
Brossman, Walter D., Berthoud, Colo. Swimming-machine. No. 1,135,850; Apr. 13; Gaz. vol. 213; p. 492.
Brothers, Ell, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,135,945; Apr. 13; Gaz. vol. 213; p. 700.
Brothers, Ell, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,135,946; Apr. 13; Gaz. vol. 213; p. 701.
Brothers, Ell, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pulling-over and lasting machine. No. 1,135,947; Apr. 13; Gaz. vol. 213; p. 701.
Brothers, Ell, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,135,948; Apr. 13; Gaz. vol. 213; p. 702.
Brothers, John, Grandview, Manitoba, Canada. Wheel. No. 1,135,432; Apr. 13; Gaz. vol. 213; p. 522.
Brown, Albert C. (See Parkes, John L., assignor.)
Brown, Caroline M., Minneapolis, assignor to Automatic Heat Regulator Co., St. Paul, Minn. Damper. No. 1,136,209; Apr. 20; Gaz. vol. 213; p. 835.
Brown, Charles F., assignor to Universal Liquid Register Company, New York, N. Y. Automobile liquid-fuel-tank register. No. 1,134,585; Apr. 6; Gaz. vol. 213; p. 183.
Brown, Clarence H., Bridgeport, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,137,115; Apr. 27; Gaz. vol. 213; p. 1195.
Brown, Ellsworth D. (See Johnson, James A., assignor.)

Brown, Elmer R., New York, N. Y. Compound rail. No. 1,136,585; Apr. 20; Gaz. vol. 213; p. 970.

Brown, Harry, New York, N. Y. Necktie-package. No. 1,134,722; Apr. 6; Gaz. vol. 213; p. 234.

Brown Hoisting Machinery Company, The. (See Colby and Stewart, assignors.)

Brown, Horace P., and C. L. Johnston, Emeryville, Cal. Loose-leaf-dispensing device. No. 1,135,658; Apr. 13; Gaz. vol. 213; p. 602.

Brown, John H., Midvale, Utah. Automatic vehicle tire-signal. No. 1,137,116; Apr. 27; Gaz. vol. 213; p. 1196.

Brown, John W., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Electric furnace. No. 1,134,817; Apr. 6; Gaz. vol. 213; p. 266.

Brown, Levi, assignor to Clarinda Lawn Mower Company, Clarinda, Iowa. Driving mechanism. No. 1,135,496; Apr. 13; Gaz. vol. 213; p. 543.

Brown, Norton M., Aurora, Ill. Gearing for ensilage-machines. No. 1,136,650; Apr. 20; Gaz. vol. 213; p. 992.

Brown, Otis E., Brockton, Mass., assignor to The Singer Manufacturing Company. Work-holder for sewing-machines. No. 1,136,651; Apr. 20; Gaz. vol. 213; p. 992.

Brown, Thomas F., Bath, N. Y. Tree-standard. No. 1,137,253; Apr. 27; Gaz. vol. 213; p. 1246.

Brown, Walter W., assignor to Fulton Manufacturing Company, Erie, Pa. Controlling device for internal-combustion engines. No. 1,137,254; Apr. 27; Gaz. vol. 213; p. 1246.

Browne, Richard H., Muskegon, Mich. Knockdown desk. No. 1,135,975; Apr. 13; Gaz. vol. 213; p. 712.

Browning, Thomas M., Philadelphia, Pa. Man's and boy's drawers. No. 1,134,102; Apr. 6; Gaz. vol. 213; p. 7.

Brownlee, Dalmar T. (See Spacke, Brownlee, and Spacke.)

Brownlee, Dalmar T., F. W. Spacke, and J. D. Lowe, assignors to The F. W. Spacke Machine Company, Indianapolis, Ind. Compression-space annex for internal-combustion engines. No. 1,134,967; Apr. 6; Gaz. vol. 213; p. 315.

Brucker, Ferdinand F., assignor to Miller Rubber Company, Akron, Ohio. Toy balloon. No. 1,136,932; Apr. 27; Gaz. vol. 213; p. 1128.

Bruet, Maurice A., and L. J. Duffer, Croghan, N. Y. Ice-cutting apparatus. No. 1,136,769; Apr. 20; Gaz. vol. 213; p. 1035.

Brugger, Frederick R., Yetter, Iowa. Dust-collector mechanism for street-sweepers. No. 1,137,184; Apr. 27; Gaz. vol. 213; p. 1220.

Brüll, Koloman, Pestszentlörincz, Austria-Hungary. Electric control-gear for automatic grab-cranes. No. 1,134,370; Apr. 6; Gaz. vol. 213; p. 105.

Brunelli, James. (See Wender and Brunelli.)

Brunt, Wilson F., Hammond, Ind. Earth-handling machine. No. 1,134,254; Apr. 6; Gaz. vol. 213; p. 63.

Bryant, Jesse M., Ararat, N. C. Corn-planter and fertilizer-distributer. No. 1,135,433; Apr. 13; Gaz. vol. 213; p. 522.

Buchanan, David E., Dublin, Tex. Folding grain-harvester reel. No. 1,136,403; Apr. 20; Gaz. vol. 213; p. 906.

Buchanan, Frank, Syracuse, N. Y. Headlight. No. 1,136,404; Apr. 20; Gaz. vol. 213; p. 906.

Buck, Frank S., assignor to Gilman & Son, Inc., Springfield, Vt. Machine for turning irregular forms. No. 1,137,117; Apr. 27; Gaz. vol. 213; p. 1196.

Buckeye Engine Company, The. (See Cope, Edge T., assignor.)

Buckeye Steel Castings Company, The. (See Bush, Samuel P., assignor.)

Buckingham, Roswell H., East Moline, assignor to J. F. Porter Company, Ottawa, Ill. Cattle-stanchion. No. 1,134,255; Apr. 6; Gaz. vol. 213; p. 63.

Buckley, John, assignor to A. Sommer, Boston, Mass. Control mechanism for electric motors. No. 1,136,405; Apr. 20; Gaz. vol. 213; p. 906.

Buckwalter, Tracy V., Altoona, Pa. Braking mechanism. No. 1,135,097; Apr. 13; Gaz. vol. 213; p. 406.

Bucyrus Company. (See Roys, Lawrence, assignor.)

Budd, Edward G., and J. Ledwinka, assignors to Hale and Kilburn Company, Philadelphia, Pa. Wheel. No. 1,137,458; Apr. 27; Gaz. vol. 213; p. 1320.

Buell, Edgar, Clinton, Conn. Pruning-shears. No. 1,137,380; Apr. 27; Gaz. vol. 213; p. 1293.

Buerger, Joseph J. (See Buerger, Theodor J., assignor.)

Buerger, Theodor J., assignor of one-fourth to J. J. Buerger, Minneapolis, Minn. Collar-spacer. No. 1,137,571; Apr. 27; Gaz. vol. 213; p. 1358.

Buermann, George, assignor to August Buermann Manufacturing Company, Newark, N. J. Spur. No. 1,135,991; Apr. 20; Gaz. vol. 213; p. 759.

Buffalo Pitts Company. (See Todd, Marquis J., assignor.)

Buffenbarger, Sanford, Titusville, Pa. Pickling-weight. No. 1,136,772; Apr. 20; Gaz. vol. 213; p. 1035.

Bukolt, John J., Stevens Point, Wis. Tightening-link. No. 1,136,309; Apr. 20; Gaz. vol. 213; p. 870.

Bulley, George W., Chicago, Ill. Guiding mechanism for vehicles. No. 1,136,652; Apr. 20; Gaz. vol. 213; p. 993.

Bullock Tractor Company. (See Stark, William O., assignor.)

Bump, Charles M., Bay City, Mich. Massaging-machine. No. 1,134,181; Apr. 6; Gaz. vol. 213; p. 35.

Bunau-Varilla, Etienne, Paris, France. Wind-dividing apparatus for transport-vehicles with kinematic equilibrium. No. 1,135,337; Apr. 13; Gaz. vol. 213; p. 488.

Bunger, George G., Eskridge, Kans. Screen-frame. No. 1,135,352; Apr. 13; Gaz. vol. 213; p. 492.

Bunting, John T., Chicago, Ill. Hot-water heater. No. 1,136,862; Apr. 20; Gaz. vol. 213; p. 1067.

Burchardi, Bernhard T., and B. E. Teale, Brooklyn, N. Y. Cigarette wrapping and tucking machine. No. 1,134,438; Apr. 6; Gaz. vol. 213; p. 129.

Burchenal, John J., assignor to The Procter and Gamble Company, Cincinnati, Ohio. Food product. No. 1,135,351; Apr. 13; Gaz. vol. 213; p. 492.

Burchenal, John J., assignor to The Procter and Gamble Company, Cincinnati, Ohio. Food product. No. 1,135,935; Apr. 13; Gaz. vol. 213; p. 696.

Burdett, John B., Chicago, Ill., assignor, by mesne assignments, to National Pneumatic Company. Divided door for street-cars or other purposes. No. 1,134,668; Apr. 6; Gaz. vol. 213; p. 214.

Burger, Frederick W. (See Leilich and Burger.)

Burgeson, Andrew G., Douglas, N. D. Belt-guide. No. 1,134,103; Apr. 6; Gaz. vol. 213; p. 7.

Burgess, Ezra R., *et al.* (See Goodyer, Harold J., assignor.)

Burgess, Garrett, Detroit, Mich. Signal for automobiles. No. 1,134,104; Apr. 6; Gaz. vol. 213; p. 8.

Burgess, George F. (See Burgess, John W. and G. F.)

Burgess, George R., Tacoma, Wash. Saw. No. 1,136,181; Apr. 20; Gaz. vol. 213; p. 825.

Burgess, John W. and G. F., Brookfield, Mo. Tire-fastening means. No. 1,134,313; Apr. 6; Gaz. vol. 213; p. 84.

Burket, Elmer, Wayne, Pa. Shoe-lace holder. No. 1,137,381; Apr. 27; Gaz. vol. 213; p. 1293.

Burket, Wilbert A., assignor to The Sidney Manufacturing Company, Sidney, Ohio. Runabout-seat. No. 1,135,761; Apr. 13; Gaz. vol. 213; p. 637.

Burkhardt, Alexander, Indianapolis, Ind. Engine. No. 1,137,118; Apr. 27; Gaz. vol. 213; p. 1196.

Burlingham, William, assignor of one-half to J. B. Weaver, Newport News, Va. Percussive boiler-tube cleaner. No. 1,134,723; Apr. 6; Gaz. vol. 213; p. 234.

Burnam, Lyman. (See Fine and Burnam.)

Burnett, Buell S., Jacksonville, Fla. Permutation-lock. No. 1,136,653; Apr. 20; Gaz. vol. 213; p. 993.

Burnett, Frank W., Roanoke, Va. Lock-out for bolts. No. 1,136,310; Apr. 20; Gaz. vol. 213; p. 871.

Burnett, Robert L., Sr. (See Page, Harvey L., assignor.)

Burnham, Louis T., assignor of one-half to N. A. Simmons, Hinton, Okla. Hand harvesting device. No. 1,135,569; Apr. 13; Gaz. vol. 213; p. 570.

Burrmann, Henry, Davenport, Iowa. Safety appliance for elevators. No. 1,134,182; Apr. 6; Gaz. vol. 213; p. 36.

Burroughs Adding Machine Company. (See Chapin, John J., assignor.)

Burrows, Charles F. (See Ford, Hannibal C., assignor.)

Burt, Maurice O., Colorado Springs, Colo. Electric signal system for hospitals. No. 1,134,105; Apr. 6; Gaz. vol. 213; p. 8.

Busch, Charles H., New York, N. Y. Door-check hinge. No. 1,134,510; Apr. 6; Gaz. vol. 213; p. 156.

Bush, Samuel P., assignor to The Buckeye Steel Castings Company, Columbus, Ohio. Car-coupling. No. 1,135,963; Apr. 13; Gaz. vol. 213; p. 708.

Bush, Thomas W., Colquitt, Ga. Combined car fender and brake. No. 1,136,586; Apr. 20; Gaz. vol. 213; p. 970.

Bushwick, Nathan, Maspeth, N. Y. Folding hand-bag. No. 1,137,047; Apr. 27; Gaz. vol. 213; p. 1170.

Butler, Charles H., Oakland, Cal. Street-sweeper. No. 1,134,586; Apr. 6; Gaz. vol. 213; p. 184.

Butler, James A., Wollaston, assignor to American Voting Machine Company, Boston, Mass. Voting-machine. No. 1,134,724; Apr. 6; Gaz. vol. 213; p. 234.

Butman, Fred L., *et al.* (See Bergstrom, Edward F., assignor.)

Butters, Charles. (See Hamilton, Edward M., assignor.)

Butters, Charles, Oakland, Cal. Filter. No. 1,136,863; Apr. 20; Gaz. vol. 213; p. 1067.

Butterworth, George H., and R. Canlin, Great Crosby, near Liverpool, England. Fire-bridge for boiler or like furnaces. No. 1,137,048; Apr. 27; Gaz. vol. 213; p. 1171.

Button Machinery Company, The. (See Zuleg, Joseph, assignor.)

Butts, John W., Atlanta, Ga. Water system. No. 1,136,406; Apr. 20; Gaz. vol. 213; p. 907.

Butts, Newton M., and C. L. Haworth, Wilmington, Ohio. Brush for bolting-machines. No. 1,135,762; Apr. 13; Gaz. vol. 213; p. 637.

Bye, Mortimer, assignor to The Eli Lilly and Company, Indianapolis, Ind. Inhaler. No. 1,134,993; Apr. 13; Gaz. vol. 213; p. 370.

Byram, William F., and R. P. Phronebarger, Charlotte, N. C. Current-supply system for electric railways. No. 1,134,371; Apr. 6; Gaz. vol. 213; p. 105.

Bytheway, John G. (See North, McCauley, and Bytheway.)

C. Kurtzmann & Co. (See Hügel, Otto, assignor.)

C. Mattison Machine Works. (See Baukin, Peter, assignor.)

C. A. Dunham Co. (See Dunham, Clayton A., assignor.) (Reissue.)

C. T. Ham Manufacturing Company. (See Bergener, Charles, assignor.)

Cafiisch, Ernest L., Clymer, N. Y. Sled. No. 1,135,256; Apr. 13; Gaz. vol. 213; p. 460.

Cahill, Leo F., Elmira, N. Y. Brick-tongs. No. 1,135,992; Apr. 20; Gaz. vol. 213; p. 760.

Cahill, Mortimer, assignor of one-half to H. A. Morey, Oklahoma, Okla. Clothes-line stretcher. No. 1,136,096; Apr. 20; Gaz. vol. 213; p. 794.

Cahn, Edgar B., Far Rockaway, N. Y. Hosiery. No. 1,136,097; Apr. 20; Gaz. vol. 213; p. 794.

Calahan, Edward L., Clifton, N. J. Packaging device. No. 1,136,505; Apr. 20; Gaz. vol. 213; p. 941.

Calden, Fred W., Burlington, Vt. Camera. No. 1,134,725; Apr. 6; Gaz. vol. 213; p. 235.

Caldwell, John C., Beaumont, Tex. Water-craft. No. 1,137,695; Apr. 27; Gaz. vol. 213; p. 1397.

California Macvan Co. (See Vandercook, Albert E., assignor.)

California Retarder & Fibre Company. (See Strauss, Dennis Y., assignor.)

Calkins, Fred D., and A. C. Johnson, Sunnyvale, Cal. Internal-combustion engine. No. 1,134,726; Apr. 6; Gaz. vol. 213; p. 235.

Callahan, Charles K., *et al.* (See O'Brien, James D., assignor.)

Callahan, Mark A., Cleveland, Ohio. Beach-forming jetty. No. 1,137,049; Apr. 27; Gaz. vol. 213; p. 1171.

Callahan, Patrick J., Spokane, Wash. Knife-sharpener. No. 1,134,587; Apr. 6; Gaz. vol. 213; p. 184.

Callane, Waldo E., Lebanon, Ind. Centrifugal cream-separator. No. 1,136,654; Apr. 20; Gaz. vol. 213; p. 994.

Callaway, William, Wichita, Kans. Clip. No. 1,135,353; Apr. 13; Gaz. vol. 213; p. 493.

Calvert, Walter R., San Antonio, Tex. Hose-washer. No. 1,137,382; Apr. 27; Gaz. vol. 213; p. 1293.

Camel Company. (See Nylander, Erik G., assignor.)

Cameron, Alexander, East Jordan, Mich. Process of and apparatus for the destructive distillation of wood. No. 1,137,255; Apr. 27; Gaz. vol. 213; p. 1246.

Cameron, James A., and G. B. Birch, New York, assignors to Cameron Machine Company, Brooklyn, N. Y. Coil-tightening device. No. 1,136,311; Apr. 20; Gaz. vol. 213; p. 871.

Cameron, James D. (See Jacobsen, Cameron, and Lough.)

Cameron, James R., and W. J. Dennin, Elizabeth, N. J. Machine for pebbling and glazing leather and like purposes. No. 1,137,119; Apr. 27; Gaz. vol. 213; p. 1197.

Cameron, John, Ravenscourt Park, London, England. Drying-machine. No. 1,136,933; Apr. 27; Gaz. vol. 213; p. 1128.

Cameron Machine Company. (See Cameron and Birch, assignor.)

Cameron, Thomas, Norfolk, Va. Combined button and watch-chain attachment. No. 1,134,372; Apr. 6; Gaz. vol. 213; p. 105.

Camp, Curtis B., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Signaling device. No. 1,134,256; Apr. 6; Gaz. vol. 213; p. 64.

Camp, Joseph E., Washington, Ill. Jack. No. 1,136,934; Apr. 27; Gaz. vol. 213; p. 1129.

Campbell, Alexander B., Jr., Jacksonville, Fla. Pocket-cutter. No. 1,137,459; Apr. 27; Gaz. vol. 213; p. 1320.

Campbell, Charles H., New York, N. Y. Fluid-impelling device of the screw-propeller type. No. 1,136,098; Apr. 20; Gaz. vol. 213; p. 795.

Campbell, Edward B., assignor to McQuay-Norris Manufacturing Company, St. Louis, Mo. Packing-ring. No. 1,136,506; Apr. 20; Gaz. vol. 213; p. 941.

Campbell, George L., assignor of one-half to R. R. Dent, Williamsport, Pa. Burial-case. No. 1,137,696; Apr. 27; Gaz. vol. 213; p. 1397.

Campbell, Leon J., Chicago, Ill. Transmission-gearing. No. 1,135,554; Apr. 13; Gaz. vol. 213; p. 493.

Campbell, Louis W., South Yarra, Victoria, Australia. Electrical heating-unit and resistance-coil. No. 1,134,818; Apr. 6; Gaz. vol. 213; p. 266.

Campbell, Wilson L., La Grange, assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Common-battery automatic telephone system. No. 1,137,200; Apr. 27; Gaz. vol. 213; p. 1225.

Canchester, David J., Chicago, Ill. Igniter. No. 1,134,314; Apr. 6; Gaz. vol. 213; p. 85.

Candee, Zenas P., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Dial mechanism. No. 1,136,891; Apr. 20; Gaz. vol. 213; p. 1077.

Canlin, Rowland. (See Butterworth and Canlin.)

Capparella, Thomas, and N. Mallone, New York, N. Y. Tire for vehicles. No. 1,135,876; Apr. 13; Gaz. vol. 213; p. 677.

Capps, Guy B. (See Gaylord and Capps.)

Carbone, Peter. (See Mago, Bartholomeo, assignor.)

Cardwell, Charles E., assignor of one-third to R. E. L. Jenkins, Houston, Tex. Farm-gate. No. 1,135,434; Apr. 13; Gaz. vol. 213; p. 522.

Caretto, John F. (See Nies and Caretto.)

Carl Hamel Actien-Gesellschaft. (See Günther, Oskar A., assignor.)

Carlin, Arvid F., New York, N. Y. Mechanical fan. No. 1,135,257; Apr. 13; Gaz. vol. 213; p. 460.

Carlisle, Fred B., Malden, Mass., assignor to Revere Rubber Company. Indicating means. No. 1,137,697; Apr. 27; Gaz. vol. 213; p. 1397.

Carlson, Edward, Parkers Prairie, Minn. Hog-feeding trough. No. 1,137,460; Apr. 27; Gaz. vol. 213; p. 1321.

Carlson, Frederick E., assignor to Landers, Frary & Clark, New Britain, Conn. Electrical cooking device. No. 1,137,050; Apr. 27; Gaz. vol. 213; p. 1171.

Carlson, George K., New York, N. Y. Valve-grinder. No. 1,134,511; Apr. 6; Gaz. vol. 213; p. 156.

Carmany, Charles A., Coatesville, Pa. Shade-roller. No. 1,134,727; Apr. 6; Gaz. vol. 213; p. 236.

Caronia, Frank J., New York, N. Y. Step-ladder. No. 1,135,763; Apr. 13; Gaz. vol. 213; p. 637.

Carpenter, Alexander, Prairie Depot, assignor of one-half to F. K. Gelwix, Findlay, Ohio. Block-surfacing machine. No. 1,135,972; Apr. 13; Gaz. vol. 213; p. 712.

Carpenter, Charlie A., Wenatchee, Wash. Fruit-gathering bag. No. 1,137,303; Apr. 27; Gaz. vol. 213; p. 1264.

Carpenter, Guy C. (See Menzel and Carpenter.)

Carpenter, Henry A. Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Stand-pipe-cleaning means. No. 1,135,498; Apr. 13; Gaz. vol. 213; p. 544.

Carpenter, Purva V., Worth, N. C. Brake and lever lock. No. 1,135,435; Apr. 13; Gaz. vol. 213; p. 522.

Carr, Horace, Jr., assignor to The Carr Manufacturing Company, Kansas City, Mo. Oil-can. No. 1,135,156; Apr. 13; Gaz. vol. 213; p. 427.

Carr, Jessie D., Padgitt, Tex. Cattle-yoke. No. 1,137,572; Apr. 27; Gaz. vol. 213; p. 1358.

Carr Manufacturing Company, The. (See Carr, Horace, Jr., assignor.)

Carr, Michael R., Corte Madera, Cal. Pyrographic needle. No. 1,137,573; Apr. 27; Gaz. vol. 213; p. 1358.

Carr, William M., Wheeling, W. Va. Process of incinerating garbage and apparatus therefor. No. 1,134,512; Apr. 6; Gaz. vol. 213; p. 157.

Carrigan, John, Seattle, Wash. Thermal circuit-closure. No. 1,136,407; Apr. 20; Gaz. vol. 213; p. 907.

Carroll, George P., Bridgeport, Conn., and F. N. Roehrich, Jersey City, N. J.; said Roehrich assignor to said Carroll. Automatic expansion-valve. No. 1,137,051; Apr. 27; Gaz. vol. 213; p. 1172.

Carroll, Jeremiah E., Cleveland, Ohio. Automobile. No. 1,136,864; Apr. 20; Gaz. vol. 213; p. 1067.

Carter, James H., Chicago, Ill. Foldable box. No. 1,136,099; Apr. 20; Gaz. vol. 213; p. 795.

Cartwright, Dale P., Fort Wayne, assignor to Frigifax Manufacturing Company, La Fayette, Ind. Thermostatic control for electric motors. No. 1,136,312; Apr. 20; Gaz. vol. 213; p. 871.

Cartwright, George J. (See Price and Cartwright.)

Carvalho, Leslie R. N., assignor of one-half to M. King, Brooklyn, N. Y. Metallic cap for receptacles. No. 1,137,725; Apr. 27; Gaz. vol. 213; p. 1407.

Casey, Richard F., New York, N. Y. Bath-house. No. 1,135,764; Apr. 13; Gaz. vol. 213; p. 638.

Casey, William J., Chicago, Ill. Shock-absorber. No. 1,135,659; Apr. 13; Gaz. vol. 213; p. 603.

Caspary, Willy, Durlach, Germany. Jolt-ramming machine. No. 1,136,313; Apr. 20; Gaz. vol. 213; p. 871.

Cast Steel Pilot Company. (See Harrison and Knox, assignors.)

Cattori, Michelangelo. (See Pennati, and Cattori.)

Catucci, Pliny, Newark, N. J., assignor to A. F. Meisselbach & Brother. Throw-off mechanism for fishing-reels. No. 1,135,497; Apr. 13; Gaz. vol. 213; p. 544.

Catucci, Pliny, Newark, N. J., assignor to A. F. Meisselbach & Brother. Talking-machine. No. 1,137,001; Apr. 27; Gaz. vol. 213; p. 1154.

Caughling, Frank W., assignor to The National Railway Equipment Company, Toledo, Ohio. Dust-guard. No. 1,137,120; Apr. 27; Gaz. vol. 213; p. 1197.

Cavanagh, W. J., *et al.* (See Andersen and Mink, assignors.)

Celluloid Company, The. (See Lindsay, William G., assignor.)

Central Glass Works. (See Schaub, Charles M., assignor.)

Central Railway Signal Company. (See Dutcher, Frank, assignor.)

Central Trust Company of New York. (See Bliss, William L., assignor.)

Chabeault, Emile, Marseille, France. Telephonograph. No. 1,135,436; Apr. 13; Gaz. vol. 213; p. 523.

Chadd, William, Wilkes-Barre, Pa. Paint. No. 1,134,819; Apr. 6; Gaz. vol. 213; p. 267.

Chaddock, Charles E. and R. G., and G. A. Kurz, Zanesville, Ohio. Reversible glove. No. 1,136,587; Apr. 20; Gaz. vol. 213; p. 970.

Chaddock, Richard G. (See Chaddock and Kurz.)

Chadwick, Lee S., assignor to The Cleveland Foundry Company, Cleveland, Ohio. Stove construction. No. 1,136,935; Apr. 27; Gaz. vol. 213; p. 1129.

Chadwick, Lee S., assignor to The Cleveland Foundry Company, Cleveland, Ohio. Liquid-dispensing device. No. 1,137,574; Apr. 27; Gaz. vol. 213; p. 1358.

Chalker, Charles A., Traverse City, Mich. Bed-spring. No. 1,135,877; Apr. 13; Gaz. vol. 213; p. 678.

Chalmers Motor Company. (See Dunham, George W., assignor.)

Chamberlin, Albert L., Des Moines, Iowa. Storage-battery plate. No. 1,135,499; Apr. 13; Gaz. vol. 213; p. 544.

Chamberlin, Benjamin D., Washington, D. C., assignor to Empire Machine Company, Portland, Me. Glass-blowing machine. No. 1,137,304; Apr. 27; Gaz. vol. 213; p. 1265.
Chamberlin, Charles C., Washington, Pa. Coöperating keys. No. 1,137,256; Apr. 27; Gaz. vol. 213; p. 1247.
Chambers, Allison R., New Glasgow, Nova Scotia, Canada. Ore dump-car. No. 1,135,993; Apr. 20; Gaz. vol. 213; p. 760.
Chambersburg Engineering Company. (See Longaker, Albert A., assignor.)
Champion Ignition Company. (See Schmidt, Albert, assignor.)
Chance, Albert B., Centralia, Mo. Land-anchor. No. 1,134,820; Apr. 6; Gaz. vol. 213; p. 267.
Chapin, John J., assignor to Burroughs Adding Machine Company, Detroit, Mich. Tabulating mechanism for adding-machines. No. 1,135,500; Apr. 13; Gaz. vol. 213; p. 545.
Chapman, Alonzo E., Redlands, Cal. Knockdown fly-trap. No. 1,136,210; Apr. 20; Gaz. vol. 213; p. 835.
Chapman, Eugene M., and C. E. Cowan, Holyoke, Mass. Elevating-truck. No. 1,135,765; Apr. 13; Gaz. vol. 213; p. 638.
Chapman, Guy F., Brook, Ind. Elevator. No. 1,136,773; Apr. 20; Gaz. vol. 213; p. 1036.
Chase, Albert E., and C. A. Briney, assignors of one-third to J. E. De Witt, New Sharon, Iowa. Camera. No. 1,137,185; Apr. 27; Gaz. vol. 213; p. 1220.
Chase, Frank E., Danvers, Mass. Meter-support. No. 1,134,257; Apr. 6; Gaz. vol. 213; p. 64.
Chase, Frank S., and J. H. Graham, assignors to The Standard Company, Torrington, Conn. Plating-barrel. No. 1,135,660; Apr. 13; Gaz. vol. 213; p. 603.
Chayes, Herman E. S., New York, N. Y. Dental instrument. No. 1,136,100; Apr. 20; Gaz. vol. 213; p. 795.
Cheatham, Robert V., St. Matthews, Ky. Circuit-closer for trolley-signal systems. No. 1,136,314; Apr. 20; Gaz. vol. 213; p. 872.
Cheney, Samuel, Wickepin, Western Australia, Australia. Automatic air-escape valve for railway-brakes. No. 1,137,575; Apr. 27; Gaz. vol. 213; p. 1359.
Cheney, Samuel, Wickepin, Western Australia, Australia. Automatic-adjusting air-escape valve for railway-brakes. No. 1,137,576; Apr. 27; Gaz. vol. 213; p. 1359.
Cherney, Joseph B., Milwaukee, Wis. Lid-control mechanism. No. 1,136,865; Apr. 20; Gaz. vol. 213; p. 1068.
Cherry, Moses, Jr., Larchmont Manor, N. Y. Trunk. No. 1,137,257; Apr. 27; Gaz. vol. 213; p. 1247.
Cheshire, Allen M. (See Epperson, Charles W., assignor.)
Cheshire, Edward, assignor to Miller Saw Trimmer Company of Michigan, Pittsburgh, Pa. Sheet-registering device. No. 1,135,766; Apr. 13; Gaz. vol. 213; p. 639.
Cheshire, Edward, assignor to Miller Saw Trimmer Company of Michigan, Pittsburgh, Pa. Driving-motor support. No. 1,135,767; Apr. 13; Gaz. vol. 213; p. 639.
Chessin, Alexander S., New York, N. Y. Stabilizing apparatus. No. 1,134,439; Apr. 6; Gaz. vol. 213; p. 129.
Chessin, Alexander S., New York, N. Y. Gyroscopic compass. No. 1,137,258; Apr. 27; Gaz. vol. 213; p. 1248.
Chicago-Cleveland Car Roofing Company. (See Klohs, Sam F., assignor.)
Chicago Electric Meter Company. (See Hall, Chester I., assignor.)
Chicago Lino-Tabler Company. (See Stevenson, Ashton G., assignor.)
Chicago Pneumatic Tool Company. (See Wanamaker and McAllister, assignors.)
Childers, George W., and H. D. Borst, San Diego, Cal. Tire-armor. No. 1,136,774; Apr. 20; Gaz. vol. 213; p. 1038.
Chiniquy, William F., and W. O. Winch, Chicago, Ill. Apparatus for drying hats. No. 1,134,669; Apr. 6; Gaz. vol. 213; p. 214.
Chipley, Gardiner W., Los Angeles, Cal. Brake-shoe. No. 1,136,936; Apr. 27; Gaz. vol. 213; p. 1129.
Chott, Edward L., assignor of one-half to H. J. Chott, Chicago, Ill. Stand for swaging-anvils. No. 1,134,728; Apr. 6; Gaz. vol. 213; p. 236.
Chott, Hugo J. (See Chott, Edward L., assignor.)
Chrisman, Horace, Edgewood Park, Pa., assignor to Pittsburgh Meter Company. Means for measuring and indicating flows. No. 1,134,373; Apr. 6; Gaz. vol. 213; p. 106.
Christensen, Christian. (See Lane, George S., assignor.)
Christensen, Henry A., assignor to Mountain City Mill Co., Chattanooga, Tenn. Package. No. 1,135,878; Apr. 13; Gaz. vol. 213; p. 678.
Christianson, Andrew, Butler, Pa. Journal-box. No. 1,136,937; Apr. 27; Gaz. vol. 213; p. 1130.
Christie, Evi W., Sewaren, assignor to Wheeler Condenser and Engineering Company, Carteret, N. J. Condensing apparatus. No. 1,135,661; Apr. 13; Gaz. vol. 213; p. 603.
Christoffel, Thomas, Menominee, Wis. Window-frame. No. 1,135,662; Apr. 13; Gaz. vol. 213; p. 604.
Chryst, William A. (See Kettering and Chryst.)
Chupka, Miklos, Johnstown, Pa. Life-boat and launching-davit therefor. No. 1,136,938; Apr. 27; Gaz. vol. 213; p. 1130.
Church, Edmund S., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,134,183; Apr. 6; Gaz. vol. 213; p. 36.
Church, Edmund S., assignor to National Cash Register Company, Dayton, Ohio. Cash and credit register. No. 1,136,101; Apr. 20; Gaz. vol. 213; p. 796.
Churchill, Floraman T., East Peacham, Vt. Plow. No. 1,135,879; Apr. 13; Gaz. vol. 213; p. 678.
Chute, George G., and C. A. Groat, Portland, Oreg. Engine-starter. No. 1,136,464; Apr. 20; Gaz. vol. 213; p. 926.
Cincinnati Planer Company, The. (See Reston, Henry P., assignor.)
Citizens Savings & Trust Company, The, executor. (See Glauber, Joseph H.)
Cizek, Albert F., Tacoma, Wash. Ship-propeller. No. 1,134,670; Apr. 6; Gaz. vol. 213; p. 215.
Clapcott, Frederick B., Mount Eden, near Auckland, New Zealand. Gate-fastening. No. 1,136,102; Apr. 20; Gaz. vol. 213; p. 796.
Clare, James P., Stratham, N. H. Self-healing composition for inner tubes of tires. No. 1,137,461; Apr. 27; Gaz. vol. 213; p. 1321.
Clarinda Lawn Mower Company. (See Brown, Levi, assignor.)
Clark Car Company. (See Clark, Charles H., assignor.)
Clark, Charles H., Crafton, assignor to Clark Car Company, Pittsburgh, Pa. Dump-car. No. 1,136,315; Apr. 20; Gaz. vol. 213; p. 872.
Clark, Charles H., Crafton, assignor to Clark Car Company, Pittsburgh, Pa. Ore-dump car. No. 1,136,316; Apr. 20; Gaz. vol. 213; p. 873.
Clark, Charles H., Crafton, assignor to Clark Car Company, Pittsburgh, Pa. Dump-car doors. No. 1,136,317; Apr. 20; Gaz. vol. 213; p. 873.
Clark, Charles H., Crafton, assignor to Clark Car Company, Pittsburgh, Pa. Gondola car. No. 1,136,318; Apr. 20; Gaz. vol. 213; p. 873.
Clark, Charles H., Easton, assignor of one-third to D. Pelletier, Fort Kent, Me. Basket. No. 1,137,698; Apr. 27; Gaz. vol. 213; p. 1398.
Clark, Charles H., Jr., New York, N. Y. Mechanical toy. No. 1,136,465; Apr. 20; Gaz. vol. 213; p. 927.
Clark, Emerson L., Lakewood, Ohio. Headlight. No. 1,136,507; Apr. 20; Gaz. vol. 213; p. 942.
Clark, Ernest G., De Kalb, assignor to Melville Clark Piano Company, Chicago, Ill. Machine for applying expression-indicating lines and the like to perforated note-sheets. No. 1,137,259; Apr. 27; Gaz. vol. 213; p. 1248.
Clark, Ernest P., Morriston, Fla. Draw-bar attachment. No. 1,135,880; Apr. 13; Gaz. vol. 213; p. 678.
Clark, Fred B., Denver, Colo. Filtering-cup. No. 1,137,462; Apr. 27; Gaz. vol. 213; p. 1321.
Clark, George E., assignor to George P. Clark Company, Windsor Locks, Conn. Elevating-truck. No. 1,136,905; Apr. 20; Gaz. vol. 213; p. 1082.
Clark, Melville, Chicago, Ill. Pneumatic-tired vehicle-wheel. No. 1,135,258; Apr. 13; Gaz. vol. 213; p. 460.
Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Modulating device and muffler for pneumatic piano-players. No. 1,136,656; Apr. 20; Gaz. vol. 213; p. 994.
Clark, Norris E., Plainville, Conn. Metal fabric. No. 1,134,513; Apr. 6; Gaz. vol. 213; p. 157.
Clark, Omar E., assignor, by mesne assignments, to The Denver Rock Drill Manufacturing Company, Denver, Colo. Motor for meters. No. 1,136,103; Apr. 20; Gaz. vol. 213; p. 796.
Clark, Wallace G. (See Locke, William P., assignor.)
Clark, Willie B. (See Weathersby and Clark.)
Clarke, Charles W. E., New York, N. Y. Blower system. No. 1,137,463; Apr. 27; Gaz. vol. 213; p. 1321.
Clarke, Edward S., deceased; Virginia Trust Company, executor, assignor of one-half to I. J. Marcuse, Richmond, Va. Double-cut tool. No. 1,135,157; Apr. 13; Gaz. vol. 213; p. 427.
Clarke, Robert H., Warlingham, England. Apparatus for gaging the position of and directing access to points within closed surfaces. No. 1,134,106; Apr. 6; Gaz. vol. 213; p. 8.
Claude, Georges, assignor to Société L'Air Liquide (Societe Anonyme pour L'Etude et L'Exploitation des Procedes Georges Claude), Paris, France. Manufacture of hydrogen. No. 1,135,355; Apr. 13; Gaz. vol. 213; p. 494.
Claus, Emil A., New York, N. Y. Process of and apparatus for making receptacles. No. 1,136,775; Apr. 20; Gaz. vol. 213; p. 1036.
Clausen, Henry P., Mount Vernon, assignor to Western Electric Company, New York, N. Y. Call-distributing system. No. 1,136,508; Apr. 20; Gaz. vol. 213; p. 942.
Clay, Joseph B., Cedar Falls, Iowa. Gate-latch or the like. No. 1,135,768; Apr. 13; Gaz. vol. 213; p. 639.
Clayton & Lambert Manufacturing Co. (See Lambert, Charles R., assignor.)
Clegg, William F., Greensboro, N. C. Ball and cue rack. No. 1,135,437; Apr. 13; Gaz. vol. 213; p. 523.
Clement, Burton H., assignor of one-half to H. L. Trowbridge, Beloit, Wis. Lathe. No. 1,134,374; Apr. 6; Gaz. vol. 213; p. 106.
Clemetsen Company, The. (See Dyke, Darrell F., assignor.)
Cleveland Foundry Company, The. (See Chadwick, Lee S., assignor.)
Cleveland Pneumatic Tool Company, The. (See Greve, Louis W., assignor.)

Cleveland Rock Drill Company, The. (See Greve, Louis W., assignor.)
Clickstine, James W., Camden, N. J. Fender. No. 1,137,577; Apr. 27; Gaz. vol. 213; p. 1360.
Clinton, Henrietta C., San Francisco, Cal. Type-writer attachment. No. 1,135,769; Apr. 13; Gaz. vol. 213; p. 639.
Close, Fred A. (See Craft, Clarence H., assignor.)
Cloud, John W., London, England, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electropneumatic brake. No. 1,134,440; Apr. 6; Gaz. vol. 213; p. 130.
Cluley, John P., Chicago, Ill. Method and means for stripping fibrous plants. No. 1,134,514; Apr. 6; Gaz. vol. 213; p. 157.
Clyne, Robert G., Alton, Ill. Treating paper tubes. No. 1,135,356; Apr. 13; Gaz. vol. 213; p. 494.
Clyne, Robert G., Alton, Ill. Mushroom-bullet. No. 1,135,357; Apr. 13; Gaz. vol. 213; p. 494.
Cobb, George W. (See Davies, Kerrison M., assignor.)
Cobb, Lyman H., assignor to M. E. Johnson, trustee, Fitchburg, Mass. Engine valve mechanism. No. 1,136,408; Apr. 20; Gaz. vol. 213; p. 907.
Coblentz, William W., Poland, Ohio. Electric lighting. No. 1,135,663; Apr. 13; Gaz. vol. 213; p. 604.
Coburn, Albert J., and F. Hardie, New Orleans, La. Flushing apparatus. No. 1,137,578; Apr. 27; Gaz. vol. 213; p. 1360.
Cochran, Clyde E. (See Ahlm and Cochran.)
Coffin, Howard E., assignor, by mesne assignments, to The Detroit Motor & Machine Company, Detroit, Mich. Engine valve mechanism. No. 1,136,104; Apr. 20; Gaz. vol. 213; p. 797.
Coffin, James G., trustee. (See Cornwall, George R., assignor.)
Coffin, James G., trustee. (See Driscole, Frank E., assignor.)
Coffin, James G., trustee. (See Moore, Charles T., assignor.)
Coffin, James G., trustee. (See Saltzman, Auguste L., assignor.)
Cohn, George, Louisville, Ky. Dresser-valise. No. 1,137,579; Apr. 27; Gaz. vol. 213; p. 1360.
Cohoon, James A., Jr., Creve Coeur, assignor to AuLoGo Motor Cap Company, St. Louis, Mo. Motor-cap. No. 1,134,515; Apr. 6; Gaz. vol. 213; p. 158.
Coin Time Lock Co. (See Wyckoff, Amos A., assignor.)
Cokely, Elmer W., Los Angeles, Cal. Try-square. No. 1,135,259; Apr. 13; Gaz. vol. 213; p. 460.
Colborne Manufacturing Company. (See Colborne and Smith, assignors.)
Colborne, Oliver, and D. W. Smith, assignors to Colborne Manufacturing Company, Chicago, Ill. Fruit-pitting machine. No. 1,136,509; Apr. 20; Gaz. vol. 213; p. 943.
Colburn, Albert L., New Haven, Conn. Two-revolution reciprocating flat-bed printing-press. No. 1,137,383; Apr. 27; Gaz. vol. 213; p. 1294.
Colby, Mark R., Portland, Oreg., and J. Stewart, assignors to The Brown Hoisting Machinery Company, Cleveland, Ohio. Hoisting and conveying machine. No. 1,136,939; Apr. 27; Gaz. vol. 213; p. 1130.
Coldwell, Joseph, South Swansea, Mass. Thread-guide for spinning-machines. No. 1,134,315; Apr. 6; Gaz. vol. 213; p. 85.
Cole, Dwight S. (See Elliott and Cole.)
Cole, Henry, Lancaster, Ohio. Double currycomb and brush. No. 1,135,664; Apr. 13; Gaz. vol. 213; p. 604.
Cole, Marcellus, Washington, D. C. Device for cleaning sewers and pipes. No. 1,137,580; Apr. 27; Gaz. vol. 213; p. 1361.
Cole, Marcellus, Washington, D. C. Filter. No. 1,137,581; Apr. 27; Gaz. vol. 213; p. 1361.
Cole, Robert C., assignor to The Johns-Pratt Company, Hartford, Conn. Cut-out box. No. 1,135,358; Apr. 13; Gaz. vol. 213; p. 494.
Coleman, Paul H., Bonham, Tex. Hinged connection. No. 1,135,359; Apr. 13; Gaz. vol. 213; p. 495.
Collette, Austin B., Everett, Mass., assignor to American Steam Gauge & Valve Manufacturing Co. Testing apparatus. No. 1,134,316; Apr. 6; Gaz. vol. 213; p. 86.
Colletti, Ferdinando, *et al.* (See Schaffer, Martin R., assignor.)
Collier, John C., Russelton, Pa. Safety-gate for elevator-hatchways. No. 1,136,655; Apr. 20; Gaz. vol. 213; p. 994.
Collin, George W., Bridgeport, Conn. Boiler cut-off system. No. 1,136,211; Apr. 20; Gaz. vol. 213; p. 835.
Collinge, Carl F. (See Keveney and Collinge.)
Collins, Leon C., Roxbury, assignor of one-third to C. Wagner, Suffolk county, Mass. Positive driving mechanism for the hands of timepieces. No. 1,136,866; Apr. 20; Gaz. vol. 213; p. 1068.
Collins, William D., New York, N. Y. Percolator. No. 1,136,776; Apr. 20; Gaz. vol. 213; p. 1037.
Collins, William G. J., Chicago, Ill., assignor to United Cigar Manufacturers Company, New York, N. Y. Apparatus for displaying and vending cigars and other articles. No. 1,135,964; Apr. 13; Gaz. vol. 213; p. 709.
Colman, Howard D., and B. A. Peterson, assignors to Barber-Colman Company, Rockford, Ill. Thread-board-cleaning apparatus. No. 1,137,305; Apr. 27; Gaz. vol. 213; p. 1265.
Colonial Conserve Co. (See Geyer, John F., assignor.)
Colonial Trust Company, The, trustee. (See Ehrhart, Raymond N., assignor.)
Colonial Trust Company, The, trustee. (See Hodgkinson, Francis, assignor.)
Colpitts, Edwin H., East Orange, N. J., assignor to Western Electric Company, New York, N. Y. System for the transmission of intelligence. No. 1,137,384; Apr. 27; Gaz. vol. 213; p. 1294.
Colson, Samuel G., Ashton, Idaho. Steam-engine valve-gear. No. 1,136,893; Apr. 20; Gaz. vol. 213; p. 1078.
Colvin, John B., Dundee, Miss. Street-car fender. No. 1,137,699; Apr. 27; Gaz. vol. 213; p. 1398.
Colvin, John B., Dundee, Miss. Automatic head-lamp control. No. 1,137,700; Apr. 27; Gaz. vol. 213; p. 1398.
Colvin, Rubin. (See Le Compte and Colvin.)
Combined Heat & Sprinkler Company. (See Nutter, Charles P., assignor.)
Combs, H. B., *et al.* (See Duval, Allen, assignor.)
Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Telephone-receiver. No. 1,137,186; Apr. 27; Gaz. vol. 213; p. 1221.
Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Resonator. No. 1,137,187; Apr. 27; Gaz. vol. 213; p. 1221.
Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Differential-microphone repeater. No. 1,137,188; Apr. 27; Gaz. vol. 213; p. 1221.
Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Transmitting apparatus. No. 1,137,189; Apr. 27; Gaz. vol. 213; p. 1222.
Common Sense Novelty Company. (See Adler, Sigfried, assignor.)
Comstock, Clark S. (See Sargent, Henry D., assignor.)
Comstock, Daniel F., Brookline, and H. T. Kalmus, Boston, Mass. Speed-measuring apparatus. No. 1,136,105; Apr. 20; Gaz. vol. 213; p. 797.
Conbole, Joseph A., Pittsburgh, Cal. Poultry system. No. 1,135,665; Apr. 13; Gaz. vol. 213; p. 605.
Condensite Company of America. (See Aylsworth, Jonas W., assignor.)
Condensite Company of America. (See Aylsworth and Smith, assignors.)
Conkey, Leonard L., Grand Rapids, assignor to T. Olinger, Holland, Mich. Chain-buckle. No. 1,134,994; Apr. 13; Gaz. vol. 213; p. 370.
Conn, Byron O. (See Root, Charles F., assignor.)
Connelly, William A. (See Hesse, John J., assignor.)
Conner, Amber R., Meredith Center, N. H. Cutter-bar construction. No. 1,134,588; Apr. 6; Gaz. vol. 213; p. 184.
Conners, Walter W., Chicago, Ill. Explosive-engine. No. 1,135,501; Apr. 13; Gaz. vol. 213; p. 545.
Conniff, Philip. (See Gallagher, Peter F., assignor.)
Connor, William W., De Ridder, assignor to C. H. Heider, Oberlin, La. Conveyer-chain. No. 1,135,158; Apr. 13; Gaz. vol. 213; p. 428.
Conrad, Nicholas J. (See Schweitzer and Conrad.)
Conrader, Rudolph, Erie, Pa. Pump-regulating mechanism. No. 1,135,360; Apr. 13; Gaz. vol. 213; p. 495.
Conrady, Philipp, Bommersheim, near Oberursel im Taunus, Germany. Engine with rotating piston. No. 1,136,409; Apr. 20; Gaz. vol. 213; p. 907.
Consolidated Car Heating Company. (See McElroy, James F., assignor.)
Cook, Alice A., Rich Hill, Mo. Combination strainer, funnel, and lid for culinary vessels. No. 1,137,190; Apr. 27; Gaz. vol. 213; p. 1222.
Cook, David B., assignor to Acme Road Machinery Company, Frankfort, N. Y. Scarifier. No. 1,134,945; Apr. 6; Gaz. vol. 213; p. 307.
Cook, Frank J., assignor to The Konsrv Electric Company, Cleveland, Ohio. Electrical heater. No. 1,134,995; Apr. 13; Gaz. vol. 213; p. 370.
Cook, Frederick H., assignor of one-half to R. N. King, Dayton, Ohio. Tobacco-harvester. No. 1,134,184; Apr. 6; Gaz. vol. 213; p. 37.
Cooke, Clayton G., New Haven, Conn., assignor, by mesne assignments, to American Linen Fibre Company. Flax-machine. No. 1,134,671; Apr. 6; Gaz. vol. 213; p. 215.
Cooper, Daniel M., Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Drier. No. 1,137,306; Apr. 27; Gaz. vol. 213; p. 1265.
Cooper Hewitt Electric Company. (See Thomas, Percy H., assignor.)
Cooper, William F., Norwalk, Ohio. Motor-regulator. No. 1,134,821; Apr. 6; Gaz. vol. 213; p. 267.
Cope, Edge T., assignor to The Buckeye Engine Company, Salem, Ohio. Blue-printing machine. No. 1,134,589; Apr. 6; Gaz. vol. 213; p. 185.
Copithorn, Walter E., Natick, Mass. Automobile-tire. No. 1,136,892; Apr. 20; Gaz. vol. 213; p. 1078.
Copley, Almon W., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical relay. No. 1,135,438; Apr. 13; Gaz. vol. 213; p. 523.
Corcoran, Thomas J., Cincinnati, Ohio. Lamp. No. 1,137,464; Apr. 27; Gaz. vol. 213; p. 1322.
Corday, B. F. (See Jirousek, Joseph F., assignor.)
Corley, John T., Providence, R. I. Pawl-actuator. No. 1,134,516; Apr. 6; Gaz. vol. 213; p. 158.
Corn Products Refining Company. (See Jefferies, Fredrick L., assignor.)
Cornfield, Noah, New York, N. Y. Brake-drum for vehicle-wheels. No. 1,135,770; Apr. 13; Gaz. vol. 213; p. 640.
Corning, Julia H., Mattoon, Ill. Game. No. 1,136,106; Apr. 20; Gaz. vol. 213; p. 798.

Cornwall, George R., Mount Vernon, N. Y., assignor, by mesne assignments, to J. G. Coffin, trustee. Machine for making controllers or composing-ribbons. No. 1,136,080; Apr. 20; Gaz. vol. 213; p. 788.

Corona Typewriter Company. (See Petermann, Otto, assignor.)

Cottle, Thomas W., Topeka, Kans. Cabinet scraper-holder. No. 1,135,361; Apr. 13; Gaz. vol. 213; p. 495.

Couch, Samuel H., W. W. Henry, Wollaston, and A. E. Stevens, assignors to S. H. Couch Co., Inc., Atlantic, Mass. Annunciator-drop. No. 1,134,996; Apr. 13; Gaz. vol. 213; p. 370.

Coughtry, John W. (See Lipe and Coughtry.)

Coughtry, Stella S., administratrix. (See Lipe and Coughtry.)

Courtaulds Limited. (See Linfoot, Maurice, assignor.)

Courtois, Charles A., assignor of one-half to E. G. Zaug, New York, N. Y. Fastener. No. 1,135,439; Apr. 13; Gaz. vol. 213; p. 523.

Covert Manufacturing Company. (See Baxter, John B., assignor.)

Cowan, Charles E. (See Chapman and Cowan.)

Cowan, George L., East Ryegate, Vt. Slitting mechanism. No. 1,134,590; Apr. 6; Gaz. vol. 213; p. 185.

Cowburn, Thomas, Churchdown, near Cheltenham, England. Incubator. No. 1,137,582; Apr. 27; Gaz. vol. 213; p. 1361.

Cowgill, Orph W., assignor of twelve one-hundredths to J. Bougner, twelve one-hundredths to O. F. Stifel, twelve one-hundredths to L. H. Tiemann, twelve one-hundredths to A. G. Solari, and twelve one-hundredths to The Envelope Manufacturing Company, St. Louis, Mo. Paper-feeding mechanism. No. 1,134,375; Apr. 6; Gaz. vol. 213; p. 106.

Cox, Charles C., assignor of one-half to F. M. Thompson, Pulaski, Va. Train-stopping apparatus. No. 1,135,881; Apr. 13; Gaz. vol. 213; p. 679.

Cox, John R., assignor to The William Galloway Company, Waterloo, Iowa. Resilient neck-bearing. No. 1,135,502; Apr. 13; Gaz. vol. 213; p. 546.

Cox Multi-Mailer Company. (See Tomlinson, Joseph, assignor.)

Cox, Robert E., Palouse, Wash. Milk-bottle holder. No. 1,137,583; Apr. 27; Gaz. vol. 213; p. 1362.

Cox, Samuel L., Wolfe City, Tex. Ant-trap. No. 1,135,159; Apr. 13; Gaz. vol. 213; p. 428.

Cox, William, Toronto, Ontario, Canada. Fare-box. No. 1,135,260; Apr. 13; Gaz. vol. 213; p. 460.

Cox, William, Toronto, Ontario, Canada. Fare-box. No. 1,135,261; Apr. 13; Gaz. vol. 213; p. 461.

Cox, William, Toronto, Ontario, Canada. Fare-box. No. 1,135,262; Apr. 13; Gaz. vol. 213; p. 461.

Cox, William, Toronto, Ontario, Canada. Fare-box. No. 1,135,263; Apr. 13; Gaz. vol. 213; p. 461.

Cox, William, Toronto, Ontario, Canada. Fare-box. No. 1,135,264; Apr. 13; Gaz. vol. 213; p. 462.

Crabtree, Leonard T., Crandon, Wis. Heater. No. 1,137,584; Apr. 27; Gaz. vol. 213; p. 1362.

Craft, Clarence H., Uniontown, Pa., assignor of one-half to F. A. Close. Speedometer-drive for automobiles. No. 1,134,591; Apr. 6; Gaz. vol. 213; p. 185.

Craft, Elisha, Wellsburg, W. Va. Adjustable governor for engines. No. 1,136,940; Apr. 27; Gaz. vol. 213; p. 1131.

Craig, Edward, assignor, by mesne assignments, to Saranac Machine Co., St. Joseph, Mich. Machine for making butter-dishes or other receptacles. No. 1,135,666; Apr. 13; Gaz. vol. 213; p. 605.

Craig, Edward, assignor to Saranac Machine Co., St. Joseph, Mich. Berry-basket machine. No. 1,135,667; Apr. 13; Gaz. vol. 213; p. 606.

Craig, Thornton, Jr., San Francisco, Cal. Dental appliance. No. 1,137,585; Apr. 27; Gaz. vol. 213; p. 1362.

Craney, Thomas, Bay City, Mich. Apparatus for the treatment of sewage. No. 1,134,107; Apr. 6; Gaz. vol. 213; p. 9.

Cranford, William W., Johnson county, near Altus, Ark. Agricultural implement. No. 1,137,052; Apr. 27; Gaz. vol. 213; p. 1172.

Craven, James F., Crafton, Pa. Safety-razor. No. 1,135,362; Apr. 13; Gaz. vol. 213; p. 469.

Craven, James T. (See Thwaites and Craven.)

Cravens, Frank S., Olive Hill, Ky. Air-brake apparatus. No. 1,137,701; Apr. 27; Gaz. vol. 213; p. 1398.

Crawford, David, Atlanta, Ga. Swing. No. 1,135,160; Apr. 13; Gaz. vol. 213; p. 428.

Crawford, George M., Pittsburgh, Pa. Developing-tray. No. 1,135,503; Apr. 13; Gaz. vol. 213; p. 546.

Crawford, William H., Rosemond, Ill. Foldable screen-frame. No. 1,137,702; Apr. 27; Gaz. vol. 213; p. 1399.

Creahan, Michael F., Brooklyn, N. Y. Arch-supporter. No. 1,134,108; Apr. 6; Gaz. vol. 213; p. 9.

Cream Cone Machine Company. (See Pierce, Simeon F., assignor.)

Creamery Package Manufacturing Company. (See Valerius, Theodore L., assignor.)

Creecy, D. R., Jr., *et al.* (See Allard, Andrew J., assignor.)

Crémieu-Javal, Edgard, London, England. Collapsible lifting apparatus. No. 1,135,440; Apr. 13; Gaz. vol. 213; p. 524.

Creque, Frank J., Cuyahoga Falls, Ohio. Toy balloon. No. 1,137,385; Apr. 27; Gaz. vol. 213; p. 1294.

Crescent Machine Company, The. (See Halverstadt, Leroy J., assignor.)

Cresswell, Milton B., Des Moines, Iowa. Defecator. No. 1,134,997; Apr. 13; Gaz. vol. 213; p. 371.

Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,137,121; Apr. 27; Gaz. vol. 213; p. 1198.

Cronsdale, John P., Berwyn, assignor to Pioneer Suspender Company, Philadelphia, Pa. Triangle cast-off. No. 1,136,107; Apr. 20; Gaz. vol. 213; p. 798.

Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)

Cross, Frank L., Port Washington, N. Y., assignor to Cross Paper Feeder Company, Portland, Me. Front-registering mechanism. No. 1,134,822; Apr. 6; Gaz. vol. 213; p. 267.

Cross Paper Feeder Company. (See Cross, Frank L., assignor.)

Crossland, William B., Newport, Ark. Speed-alarm. No. 1,136,410; Apr. 20; Gaz. vol. 213; p. 908.

Crouse, Beecher M., Utica, N. Y. Union suit. No. 1,135,668; Apr. 13; Gaz. vol. 213; p. 606.

Crow, W. R., *et al.* (See Wright, John T., assignor.)

Crowe, Paul L., Jersey City, N. J., and A. Frankenheim, New York, N. Y.; said Frankenheim assignor to said Crowe. Chain-grate mechanism. No. 1,136,941; Apr. 27; Gaz. vol. 213; p. 1131.

Crowell, Arthur F., Spokane, Wash. Harness. No. 1,136,894; Apr. 20; Gaz. vol. 213; p. 1078.

Crown Cork & Seal Company. (See Bailey, William, assignor.)

Crum, Winfield S., Wilkinson, Ind. Sanitary stock-tank. No. 1,136,510; Apr. 20; Gaz. vol. 213; p. 943.

Crusoe, Charles E. (See Gundry, James E., assignor.)

Cryder, Lawrence E., Mount Gilead, Ohio. Transmission-gearing. No. 1,137,703; Apr. 27; Gaz. vol. 213; p. 1399.

Cudney, Frederick J., Golden Valley, N. D. Trusse-vener. No. 1,137,586; Apr. 27; Gaz. vol. 213; p. 1362.

Culemeyer, Hans, Peine, Germany. Device for unloading trucks or freight-cars by tilting them. No. 1,135,669; Apr. 13; Gaz. vol. 213; p. 606.

Cummer, William M., Cleveland, Ohio. Signal for automobiles. No. 1,136,895; Apr. 20; Gaz. vol. 213; p. 1079.

Cunningham, John G., and F. W. Manion, Waterford, N. Y. Tension-regulator for spinning-machines. No. 1,137,053; Apr. 27; Gaz. vol. 213; p. 1172.

Currie, Joseph S., Ginsite, Tex. Stalk-cutter. No. 1,135,363; Apr. 13; Gaz. vol. 213; p. 496.

Curtis, Harry E., West Hampstead, London, England. Surgical corset. No. 1,134,441; Apr. 6; Gaz. vol. 213; p. 130.

Curtis, John D., assignor to Richardson Manufacturing Company, Worcester, Mass. Wheelbarrow. No. 1,134,258; Apr. 6; Gaz. vol. 213; p. 64.

Curtis, Robert W., New York, N. Y. Burette. No. 1,136,108; Apr. 20; Gaz. vol. 213; p. 798.

Curtiss, James, *et al.* (See Jameson, Charles V., assignor.)

Custer, Burr, Marion, Ind. Torch. No. 1,137,191; Apr. 27; Gaz. vol. 213; p. 1222.

Cutler-Hammer Mfg. Co., The. (See Date, William E., assignor.)

Cutler-Hammer Mfg. Co., The. (See Goldenstein, Maurice M., assignor.)

Cutler-Hammer Mfg. Co., The. (See Henderson, Clark T., assignor.)

Cutler-Hammer Mfg. Co., The. (See Klein, Charles J., assignor.)

Cutler-Hammer Mfg. Co., The. (See Maage, Alfred E. J., assignor.)

Cutler-Hammer Mfg. Co., The. (See Reisbach, Gustav B., assignor.)

Cutler-Hammer Mfg. Co., The. (See Shallcross, Wilmer M., assignor.)

Cutler-Hammer Mfg. Co., The. (See Tatum, Lewis L., assignor.)

Cutler-Hammer Mfg. Co., The. (See Zimmer, Paul H., assignor.)

Cutten, Elisha B., assignor of three-fourths to United States Horse Shoe Co., Erie, Pa. Laminated core for electrical apparatus. No. 1,136,942; Apr. 27; Gaz. vol. 213; p. 1132.

Cutten, Elisha B., assignor of three-fourths to United States Horse Shoe Co., Erie, Pa. Dynamo-electric machine. No. 1,136,943; Apr. 27; Gaz. vol. 213; p. 1132.

Czavra, Ignati, Brooklyn, N. Y. Safety stop apparatus for railways. No. 1,135,670; Apr. 13; Gaz. vol. 213; p. 607.

D'Oiler, Francis W., Moorestown, N. J. Automatic stop for phonographs. No. 1,135,166; Apr. 13; Gaz. vol. 213; p. 430.

Dahl, Benjamin, Minneapolis, Minn. Wheel-rim. No. 1,134,592; Apr. 6; Gaz. vol. 213; p. 186.

Dahly, Harold T., assignor to S. Dahly, Minneapolis, Minn. Washboard. No. 1,134,517; Apr. 6; Gaz. vol. 213; p. 158.

Dahly, Severina. (See Dahly, Harold T., assignor.)

Daimler-Motoren-Gesellschaft. (See Daimler, Paul, assignor.)

Daimler-Motoren-Gesellschaft. (See Daimler and Friz, assignors.)

Daimler, Paul, Cannstatt, assignor to Daimler-Motoren-Gesellschaft, Untertürkheim, Germany. Tractive-force-measuring appliance. No. 1,136,511; Apr. 20; Gaz. vol. 213; p. 944.

Daimler, Paul, Cannstatt, and M. Friz, assignors to Daimler-Motoren-Gesellschaft, Untertürkheim, Germany. Starting device for internal-combustion engines. No. 1,136,512; Apr. 20; Gaz. vol. 213; p. 944.

Dairy Cream Separator Co., The. (See Oedekerk, Martinus H. G., assignor.)

Daisy Manufacturing Company. (See Lefever, Charles F., assignor.)

Dake, Charles W., assignor to Pyle-National Electric Headlight Company, Chicago, Ill. Unbalanced valve for turbines. No. 1,134,317; Apr. 6; Gaz. vol. 213; p. 86.

Dake, Charles W., assignor to Pyle-National Electric Headlight Company, Chicago, Ill. Turbine. No. 1,137,704; Apr. 27; Gaz. vol. 213; p. 1399.

Dalton Adding Machine Company, The. (See Magnus, John, assignor.)

Daly, Charles P., New York, N. Y. Filler for egg-cases. No. 1,134,823; Apr. 6; Gaz. vol. 213; p. 268.

Daniels, Walter H., Savannah, Ga. Valve. No. 1,134,109; Apr. 6; Gaz. vol. 213; p. 9.

Daniels, William A., Dermott, Ark. Spring-roller shade for vehicles. No. 1,135,161; Apr. 13; Gaz. vol. 213; p. 428.

Dannenberg, George H. (See Gross and Dannenberg.)

Dano, Harry S. (See Smith and Dano.)

Dany, Geza, New Brunswick, N. J. Horseshoe. No. 1,135,265; Apr. 13; Gaz. vol. 213; p. 462.

Daprato Statuary Company. (See Rigall, John E., assignor.)

Darke, William W., Everett, Mass. Stop mechanism for locomotives. No. 1,135,771; Apr. 13; Gaz. vol. 213; p. 640.

Darley, John W., Jr., Baltimore, Md. Loop-former for sewing-machines. No. 1,134,946; Apr. 6; Gaz. vol. 213; p. 307.

Dasher, Isidor R., assignor to L. T. Bernstein, New York, N. Y. Sewing-machine. No. 1,137,122; Apr. 27; Gaz. vol. 213; p. 1198.

Dashwood, William A., St. John, New Brunswick, Canada, assignor to Sheffield Car Company, Three Rivers, Mich. Fly-wheel for explosion-engines. No. 1,134,110; Apr. 6; Gaz. vol. 213; p. 9.

Date, William E., Westfield, N. J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Overload protective device. No. 1,136,657; Apr. 20; Gaz. vol. 213; p. 995.

Dauernheim, Philip J. (See McLoon, Patrick, assignor.)

Daugherty, Otto M., assignor to Automatic Heat Regulator Co., St. Paul, Minn. Damper. No. 1,136,212; Apr. 20; Gaz. vol. 213; p. 836.

Davidson, Christian, Chicago, Ill. Door-hanger. No. 1,136,658; Apr. 20; Gaz. vol. 213; p. 995.

Davidson, Frank B., assignor to Howe and Davidson Company, Marseilles, Ill. Container or caddy. No. 1,134,998; Apr. 13; Gaz. vol. 213; p. 371.

Davies, David, North Carlton, Victoria, Australia. Lifeboat convertible into deck-seats. No. 1,134,672; Apr. 6; Gaz. vol. 213; p. 215.

Davies, John W. (See Wood, Edward C., assignor.)

Davies, Kerrison M., Williamson, assignor to G. W. Cobb, New York, N. Y. String-bean snipper. No. 1,136,588; Apr. 20; Gaz. vol. 213; p. 971.

Davis, Adolphus O., Wilson, N. C. Sprocket-guard for cycles. No. 1,136,411; Apr. 20; Gaz. vol. 213; p. 908.

Davis, Arthur J., Kingston, Pa. Furniture. No. 1,135,162; Apr. 13; Gaz. vol. 213; p. 429.

Davis, Cleland, U. S. Navy, assignor to Ordnance Development Company of America, Wilmington, Del. Contour-cap for projectiles. No. 1,135,772; Apr. 13; Gaz. vol. 213; p. 640.

Davis, Elmer E., West Chicago, Ill. Fluid-compressor. No. 1,135,671; Apr. 13; Gaz. vol. 213; p. 607.

Davis, Frederick J. (See Krohn and Davis.)

Davis, Henry L., Ann Arbor, Mich. Mop-head. No. 1,135,098; Apr. 13; Gaz. vol. 213; p. 406.

Davis, John B., Toledo, Ohio. Resilient wheel. No. 1,135,994; Apr. 20; Gaz. vol. 213; p. 760.

Davis, William M., Akron, Ohio. Valve. No. 1,136,589; Apr. 20; Gaz. vol. 213; p. 971.

Davison, Thomas, Brantford, Ontario, Canada. Rail-anchor. No. 1,136,777; Apr. 20; Gaz. vol. 213; p. 1037.

Davoplane Bed Company. (See Seng and Dyke, assignors.)

Dawkins, Frederick. (See Ahern, Michael V., assignor.)

Day, Abraham, Bloomfield, assignor of one-fourth to A. R. Hopkins, Montclair, N. J. Condenser. No. 1,134,518; Apr. 6; Gaz. vol. 213; p. 159.

Day, Orin F., Valley, Wash. Buckle. No. 1,136,213; Apr. 20; Gaz. vol. 213; p. 836.

Day, Salisbury M., Rochester, N. Y., assignor to General Railway Signal Company. Automatic block-signaling system for electric railways. No. 1,137,705; Apr. 27; Gaz. vol. 213; p. 1400.

Day, Stillman, assignor to F. A. Whitney Carriage Co., Leominster, Mass. Folding vehicle. No. 1,136,659; Apr. 20; Gaz. vol. 213; p. 996.

Day, Titus J., Damascus, Md. Box-fastener. No. 1,136,896; Apr. 20; Gaz. vol. 213; p. 1079.

Dayton, Albert C., Northfield, Minn. Syringe. No. 1,136,109; Apr. 20; Gaz. vol. 213; p. 798.

Dayton, William H., assignor to Excelsior Needle Company, Torrington, Conn. Automatic spring-beard-needle-making machine. No. 1,136,778; Apr. 20; Gaz. vol. 213; p. 1037.

De Fernanzo, Garibaldi, Philadelphia, Pa. Sanitary cigar-cap. No. 1,135,504; Apr. 13; Gaz. vol. 213; p. 546.

De Fernanzo, Garibaldi, Philadelphia, Pa. Shock-absorber. No. 1,137,123; Apr. 27; Gaz. vol. 213; p. 1199.

De Forest, Lee, New York, N. Y., assignor, by mesne assignments, to Radio Telephone & Telegraph Company. Receiving system for electromagnetic radiations. No. 1,134,593; Apr. 6; Gaz. vol. 213; p. 186.

De Forest, Lee, Palo Alto, Cal., assignor to Radio Telephone & Telegraph Company. Means for increasing the strength of electric currents. No. 1,134,594; Apr. 6; Gaz. vol. 213; p. 187.

De Laski, Albert. (See Thropp and De Laski.)

De Laski and Thropp Circular Woven Tire Company, The. (See Thropp and De Laski, assignors.)

De Mattia, Barthold. (See De Mattia, Peter and B.)

De Mattia, Peter and B., Garfield, N. J. Collapsible core for vehicle-tires. No. 1,135,774; Apr. 13; Gaz. vol. 213; p. 641.

De Mesquita, Julius B., London, England. Safety-razor. No. 1,135,775; Apr. 13; Gaz. vol. 213; p. 641.

De Mesquita, Julius B., Brooklyn, N. Y. Safety-razor. No. 1,135,776; Apr. 13; Gaz. vol. 213; p. 642.

De Moon, John E., Spokane, Wash. Clothes-lifter. No. 1,134,825; Apr. 6; Gaz. vol. 213; p. 268.

De Voe, Albert H., Westfield, N. J., assignor to The Singer Manufacturing Company. Plait-folder for sewing-machines. No. 1,135,966; Apr. 13; Gaz. vol. 213; p. 709.

De Witt, James E. (See Chase and Briney, assignors.)

Dean, Marshall H., Harrisburg, Pa. Golf-ball-marking device. No. 1,135,995; Apr. 20; Gaz. vol. 213; p. 761.

Dean, Thomas P. A. F., Kansas City, Mo. Carpet-strip. No. 1,137,587; Apr. 27; Gaz. vol. 213; p. 1363.

Dean's Rag Book Company. (See Wheeldon, Arthur L., assignor.)

Deardoff, Edward A., Davenport, Iowa. Roach-trap. No. 1,134,318; Apr. 6; Gaz. vol. 213; p. 87.

Debauge, Henry. (See Bary, Charles P., assignor.)

Decker, Phillip J., San Francisco, Cal. Hair-pin. No. 1,135,672; Apr. 13; Gaz. vol. 213; p. 608.

Decker, Robert A., and E. F. Ferguson, Wellsburg, N. Y. Rail-fastening device. No. 1,134,824; Apr. 6; Gaz. vol. 213; p. 268.

Decker, Thomas O., Chicago, Ill. Amusement device. No. 1,135,099; Apr. 13; Gaz. vol. 213; p. 407.

Deere & Company. (See Paul, Wesley A., assignor.)

Deere & Mansur Company. (See White, Charles E., assignor.)

Degenhardt, John J., assignor of one-sixteenth to E. R. Aken, one-sixteenth to C. R. Schwartz, one-sixteenth to R. B. Aken, and one-sixteenth to B. F. Parrish, Elkville, Ill. Safety appliance for trains. No. 1,134,999; Apr. 13; Gaz. vol. 213; p. 372.

Deister, Emil, assignor to Deister Machine Company, Fort Wayne, Ind. Rocking support for concentrating-tables. No. 1,135,965; Apr. 13; Gaz. vol. 213; p. 709.

Deister Machine Company. (See Deister, Emil, assignor.)

Delahaye, Rene G. F., Paris, France. Inking and wiping device applicable to copper-plate-printing machines. No. 1,136,413; Apr. 20; Gaz. vol. 213; p. 909.

Delaney, Denis J., Avoca, Wis. Hay-track for hay-fork carriers. No. 1,135,773; Apr. 13; Gaz. vol. 213; p. 641.

Delaney, John J., Detroit, Mich. Sash-center. No. 1,137,706; Apr. 27; Gaz. vol. 213; p. 1400.

Delany, Patrick B., South Orange, N. J. Means of combined telephonic and telegraphic transmission. No. 1,137,193; Apr. 27; Gaz. vol. 213; p. 1223.

Délas, Francois. (See Van den Berghe, Jacques M., assignor.)

Dellinger, John M., assignor to Follmer Clogg & Co., Lancaster, Pa. Drilling-machine. No. 1,136,319; Apr. 20; Gaz. vol. 213; p. 874.

Delmanhorst, Herman F., Louisville, Ky. Direction-indicator. No. 1,134,595; Apr. 6; Gaz. vol. 213; p. 187.

Delmez, Celestin, Antwerp, Belgium. Suspension device of motors on tramway or railway motor-cars. No. 1,136,779; Apr. 20; Gaz. vol. 213; p. 1037.

Delphos Manufacturing Company, The. (See Leilich and Burger, assignors.)

Demers, Joseph A., New York, N. Y. Screw-holder. No. 1,136,513; Apr. 20; Gaz. vol. 213; p. 944.

Deming, Everett B. (See Anderson, Nels B., assignor.)

Demyen, Joseph, Philadelphia, Pa. Reeding-machine. No. 1,135,673; Apr. 13; Gaz. vol. 213; p. 608.

Denney, John W., Ray, Ariz. Level. No. 1,135,163; Apr. 13; Gaz. vol. 213; p. 429.

Dennin, William J. (See Cameron and Dennin.)

Denny, R. C. (See Wade, Frank K., assignor.)

Dent, Robert R. (See Campbell, George L., assignor.)

Denver Rock Drill Manufacturing Company, The. (See Clark, Omar E., assignor.)

Derhammer, Joseph F., Detroit, Mich. Lubricator for steam-engines. No. 1,135,164; Apr. 13; Gaz. vol. 213; p. 429.

Desenberg, Lawrence J., Los Angeles, Cal. Change-making machine. No. 1,135,165; Apr. 13; Gaz. vol. 213; p. 429.

Desmond, Delia A., Charlestown, Mass. Hat-box. No. 1,136,590; Apr. 20; Gaz. vol. 213; p. 971.

Desper, Thomas H., Newport News, Va. Rocker attachment for perambulators. No. 1,135,266; Apr. 13; Gaz. vol. 213; p. 462.

Destribats, Louis P., Trenton, N. J. Impregnating and coating materials. No. 1,135,777; Apr. 13; Gaz. vol. 213; p. 642.

Detroit Can Company. (See Wood, Frederick P., assignor.)

Detroit Motor & Machine Company, The. (See Coffin, Howard E., assignor.)

Detroit Refrigerator Grip Company. (See Jackson, Richard, Jr., assignor.)

Detroit Steel Products Company. (See Briggs, Delamar C., assignor.)

Deutsch-Luxemburgische Bergwerks- und Hütten-Aktiengesellschaft. (See Vögler, Albert, assignor.)

Deutsche Kugellagerfabrik G. m. b. H. (See Witte, Friedrich W., assignor.)

Devine, Forrest E., Madison, Wis. Valve-grinding machine. No. 1,135,505; Apr. 13; Gaz. vol. 213; p. 546.

Dewees, William H., Bloomington, Ill. Bank check or draft. No. 1,137,707; Apr. 27; Gaz. vol. 213; p. 1401.

Dewrance, John, Southwark, England. Stop-valve. No. 1,137,194; Apr. 27; Gaz. vol. 213; p. 1223.

Dexter Folder Company. (See Jones and Martin, assignors.)

Dial Cash Register Company. (See Sulfer, Charles, assignor.)

Dick, Albert B., Lake Forest, assignor to A. B. Dick Company, Chicago, Ill. Type-holder. No. 1,137,386; Apr. 27; Gaz. vol. 213; p. 1295.

Dick, John, assignor to Phoenix Iron Works Company, Meadville, Pa. Boiler-furnace. No. 1,137,465; Apr. 27; Gaz. vol. 213; p. 1322.

Dick, Joseph, assignor to The Joseph Dick Manufacturing Company, Canton, Ohio. Belt-guide. No. 1,134,947; Apr. 6; Gaz. vol. 213; p. 308.

Dieckmann, Gustav, San Francisco, Cal. Foldable drying-cabinet. No. 1,135,267; Apr. 13; Gaz. vol. 213; p. 463.

Diefenbach, George, and H. Waldorf, Granite City, Ill. Plate-rolling-mill attachment. No. 1,135,996; Apr. 20; Gaz. vol. 213; p. 761.

Diesel, Lambert, Chicago, Ill. Vehicle-wheel. No. 1,136,214; Apr. 20; Gaz. vol. 213; p. 836.

Dieter, William, New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Reducing valves for automobile torpedoes. No. 1,136,660; Apr. 20; Gaz. vol. 213; p. 996.

Dietrich, Charles W., Chicago, Ill. Suspension-clamp. No. 1,134,519; Apr. 6; Gaz. vol. 213; p. 159.

Dietrich, Oliver E. (See Ringle, Henry E, assignor.)

Dietz, Bernard R., Canterbury, England. Military signaling apparatus. No. 1,135,778; Apr. 13; Gaz. vol. 213; p. 642.

Dill, Ab B., Lakin, Kans. Wire-stretcher. No. 1,134,729; Apr. 6; Gaz. vol. 213; p. 236.

Dillon, Albert, Aitch, Ohio. Nut-lock. No. 1,134,596; Apr. 6; Gaz. vol. 213; p. 187.

Dillon, Charles A., assignor to The United Electric Company, Canton, Ohio. Key-plug. No. 1,137,466; Apr. 27; Gaz. vol. 213; p. 1322.

Dings Electro-Magnetic Separator Co. (See Dings and Manegold, assignors.)

Dings, Myron, and R. A. Manegold, assignors to Dings Electro-Magnetic Separator Co., Milwaukee, Wis. Magnetic separator. No. 1,136,215; Apr. 20; Gaz. vol. 213; p. 837.

Dionne, Joseph, Fall River, Mass. Ironing-board. No. 1,135,674; Apr. 13; Gaz. vol. 213; p. 608.

Dixon, George E., London, England. Nostril-dilating device. No. 1,135,675; Apr. 13; Gaz. vol. 213; p. 608.

Doble, William A., assignor to The Pelton Water Wheel Company, San Francisco, Cal. Turbine-pump. No. 1,135,364; Apr. 13; Gaz. vol. 213; p. 496.

Dock, Herman, Westerly, R. I. Internal-combustion engine. No. 1,135,365; Apr. 13; Gaz. vol. 213; p. 497.

Dodge Brothers. (See Whitman, Frederick H., assignor.)

Dodge, Norman, East Orange, N. J., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,136,514; Apr. 20; Gaz. vol. 213; p. 945.

Dodge, Philip T., New York, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,136,515; Apr. 20; Gaz. vol. 213; p. 945.

Dohrmeier, Herman P. (See Lane, Guice, and Dohrmeier.)

Doll, William F., New York, N. Y., assignor of one-half to L. McClung, deceased, Washington, D. C.; R. G. McClung, administrator. Resilient wheel. No. 1,136,867; Apr. 20; Gaz. vol. 213; p. 1068.

Doll, William F., New York, N. Y., assignor of one-half to L. McClung, deceased, Washington, D. C.; R. G. McClung, administrator. Resilient wheel. No. 1,136,868; Apr. 20; Gaz. vol. 213; p. 1069.

Doll, William F., New York, N. Y., assignor of one-half to L. McClung, deceased, Washington, D. C.; R. G. McClung, administrator. Resilient wheel. No. 1,136,869; Apr. 20; Gaz. vol. 213; p. 1069.

Donahae, Myrt F., Providence, R. I. Trap-nest. No. 1,135,441; Apr. 13; Gaz. vol. 213; p. 524.

Donald, Donald, Masterton, New Zealand. Combined door catch and lock. No. 1,137,195; Apr. 27; Gaz. vol 213; p. 1223.

Donaldson, Orren M., River Forest, Ill. Sleeping-car. No. 1,135,268; Apr. 13; Gaz. vol. 213; p. 463.

Donaldson, Orville M., West Allis, assignor of one-half to B. F. Peisch, Milwaukee, Wis. Paper-thickness regulator. No. 1,135,090; Apr. 13; Gaz. vol. 213; p. 372.

Donham, Frederick E., and W. H. Fisher, Tacoma, Wash. Demountable rim. No. 1,137,708; Apr. 27; Gaz. vol. 213; p. 1401.

Donner, Percy E. (See Snyder, Jacob R., assignor.)

Donovan, Patrick H., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Triple-valve device. No. 1,134,442; Apr. 6; Gaz. vol. 213; p. 131.

Dooley, Harry L., Rock Island, Ill. Clutch mechanism for planters. No. 1,135,442; Apr. 13; Gaz. vol. 213; p. 525.

Dorla, Alfred. (See Neuhausen, Sebastian P., assignor.)

Dorlson, Fannie. (See Rudolff, Barnet, assignor.)

Dorn, David, St. Cloud, Minn. Grain-shocker. No. 1,135,366; Apr. 13; Gaz. vol. 213; p. 497.

Doro, John, New York, N. Y. Combined door check and closer. No. 1,134,111; Apr. 6; Gaz. vol. 213; p. 10.

Dorr, John V. N., Denver, Colo. Apparatus for the separation of finely-divided solids from liquids. No. 1,135,997; Apr. 20; Gaz. vol. 213; p. 761.

Doty, Hubert A., Boston, Mass. Artificial limb. No. 1,134,185; Apr. 6; Gaz. vol. 213; p. 37.

Dougan, Kennedy, Minneapolis, Minn. Vertical steam-pump. No. 1,136,216; Apr. 20; Gaz. vol. 213; p. 837.

Douglas, Harry A., Chicago, Ill. Connector. No. 1,134,673; Apr. 6; Gaz. vol. 213; p. 216.

Douglas, William H., Belleville, N. J., assignor to Healey & Company, New York, N. Y. Universal joint. No. 1,135,967; Apr. 13; Gaz. vol. 213; p. 710.

Dove-Smith, Joseph, Niagara Falls, N. Y. Pneumatic wheel. No. 1,135,779; Apr. 13; Gaz. vol. 213; p. 642.

Downing, Thomas W., Chicago, Ill., Display-rack. No. 1,136,516; Apr. 20; Gaz. vol. 213; p. 945.

Doyen, Louis, Paris, France. Coloring wood. No. 1,135,167; Apr. 13; Gaz. vol. 213; p. 430.

Drabold, Walter, and A. P. Mott, Detroit, Mich. Tire. No. 1,137,124; Apr. 27; Gaz. vol. 213; p. 1199.

Dräger, Johann H., assignor to Drägerwerk, Heinr. & Bernh. Dräger, Lübeck, Germany. Artificial-breathing apparatus. No. 1,136,517; Apr. 20; Gaz. vol. 213; p. 946.

Drägerwerk, Heinr. & Bernh. (See Dräger, Johann H., assignor.)

Drake, Alson L., New York, N. Y. Metal box. No. 1,136,320; Apr. 20; Gaz. vol. 213; p. 874.

Draper, Charles T., assignor to The Draper Manufacturing Company, Cleveland, Ohio. Sheet-metal receptacle. No. 1,134,730; Apr. 6; Gaz. vol. 213; p. 237.

Draper Company. (See Rhoades, Alonzo E., assignor.)

Draper Manufacturing Company, The. (See Draper, Charles T., assignor.)

Drenshtein, Ephraim, New York, N. Y. Arch-supporter. No. 1,135,100; Apr. 13; Gaz. vol. 213; p. 407.

Dresler, Ernst, Neukölln, Germany. Compressed-gas lamp. No. 1,134,319; Apr. 6; Gaz. vol. 213; p. 87.

Drew, Vernon, London, England. Apparatus for the attainment of correct breathing. No. 1,134,320; Apr. 6; Gaz. vol. 213; p. 87.

Drew, William J., Racine, Wis. Means for inflating pneumatic tires. No. 1,134,186; Apr. 6; Gaz. vol. 213; p. 37.

Drexellus, George W., Baltimore, Md., assignor of one-half to W. R. Metz, Washington, D. C. Counting and weighing machine. No. 1,134,112; Apr. 6; Gaz. vol. 213; p. 10.

Drexellus, George W., Baltimore, Md., assignor of one-half to W. R. Metz, Washington, D. C. Elevating-truck. No. 1,134,113; Apr. 6; Gaz. vol. 213; p. 10.

Driscole, Frank E., Jersey City, N. J., assignor, by mesne assignments, to J. G. Coffin, trustee. Machine for making a composing-ribbon or controller for automatic typographic machines. No. 1,136,082; Apr. 20; Gaz. vol. 213; p. 789.

Drolshagen, Peter, Aurora, Ill. Band connection. No. 1,136,217; Apr. 20; Gaz. vol. 213; p. 838.

Drozeski, Julius R., assignor of one-half to J. Kolb, Erie, Pa. Sprinkler-valve mechanism. No. 1,136,897; Apr. 20; Gaz. vol. 213; p. 1079.

Drummond, Charles E., and C. Ridley, Coventry, England. Means for producing teeth on gear-wheels. No. 1,135,780; Apr. 13; Gaz. vol. 213; p. 643.

Du Rall, Samuel, Cobden, Ill. Rail-joint. No. 1,135,443; Apr. 13; Gaz. vol. 213; p. 526.

Dubbs, Jesse A., Santa Monica, Cal., assignor to National Hydrocarbon Company, Chicago, Ill. Treatment of petroleum. No. 1,135,506; Apr. 13; Gaz. vol. 213; p. 547.

Duco Adding Machine Company, The. (See Meier, Swift, and Reller, assignors.)

Dudley, Carol, San Diego, Cal. Cover for trays. No. 1,135,269; Apr. 13; Gaz. vol. 213; p. 464.

Duehr, Nicholas J. H., Osmond, Nebr. Bitless bridle. No. 1,135,570; Apr. 13; Gaz. vol. 213; p. 570.

Duff, Edward E., Seattle, Wash. Closet attachment. No. 1,137,196; Apr. 27; Gaz. vol. 213; p. 1224.

Duffer, Louis J. (See Bruet and Duffer.)

Duke, Joseph A., Togo, assignor of one-sixth to M. Stacy, Wynne, Ark. Vehicle-brake. No. 1,134,597; Apr. 6; Gaz. vol. 213; p. 187.

Dukelow, John E., Chicago, Ill. Spring-frame for bicycles or the like. No. 1,136,870; Apr. 20; Gaz. vol. 213; p. 1070.

Dumond, Eugene D., Waterloo, Iowa. Delivery device for wringers. No. 1,136,218; Apr. 20; Gaz. vol. 213; p. 838.

Dunbar, Wilmer, Greensburg, Pa. Arch for shoes. No. 1,137,387; Apr. 27; Gaz. vol. 213; p. 1295.

Dunham, Clayton A., assignor to C. A. Dunham Co., Inc., Marshalltown, Iowa. Thermostatic controller. (Reissue.) No. 13,900; Apr. 13; Gaz. vol. 213; p. 713.

Dunham, Edward R. (See Morrison, Bartholomew J., assignor.)

Dunham, George W., assignor to Chalmers Motor Company, Detroit, Mich. Lubricating system for explosion-engines. No. 1,136,219; Apr. 20; Gaz. vol. 213; p. 838.

Dunham, Robert C. (See Fisk, Clark F., assignor.)

Dunlap, Albert, San Pablo, Cal. Fly-trap. No. 1,136,414; Apr. 20; Gaz. vol. 213; p. 909.

Dunn, James L., Scotland Neck, N. C. Metal collar-pad. No. 1,136,780; Apr. 20; Gaz. vol. 213; p. 1038.

Dunn, Leon S. (See Guelff, Dunn, and Themis.)

Duplantis, Gaston A., assignor to L. C. Moise, Covington, La. Wrench. No. 1,137,709; Apr. 27; Gaz. vol. 213; p. 1401.

Duplex Steam Trap Manufacturing Company. (See Wilcox and Rakestraw, assignors.)

Durham, George, and C. W. McGuirk, Scranton, Pa. Apparatus for cleaning surfaces. No. 1,135,001; Apr. 13; Gaz. vol. 213; p. 372.

Duryea, James F., Springfield, assignor to Stevens-Duryea Company, Chicopee Falls, Mass. Carbureter. No. 1,135,270; Apr. 13; Gaz. vol. 213; p. 464.

Dusenberry, James D., *et al.* (See Beatty, Wallace A., assignor.)

Dust Sprayer Manufacturing Company. (See Johnson, Charles E., assignor.)

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway signal-torpedo. No. 1,137,588; Apr. 27; Gaz. vol. 213; p. 1363.

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway signal-torpedo. No. 1,137,589; Apr. 27; Gaz. vol. 213; p. 1363.

Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Fiber-case railway-torpedo. No. 1,137,710; Apr. 27; Gaz. vol. 213; p. 1402.

Duval, Allen, Bastrop, assignor of one-fifth to H. B. Combs, one-fifth to J. E. Olive, and one-fifth to P. D. Page, Bastrop county, Tex. Car-replacer. No. 1,135,882; Apr. 13; Gaz. vol. 213; p. 679.

Dyba, Martin, Oakdale, Iowa. Nut-lock. No. 1,134,520; Apr. 6; Gaz. vol. 213; p. 160.

Dyer, Leonard H. (See Nelson and Dyer.)

Dyke, Darrell F. (See Seng and Dyke.)

Dyke, Darrell F., assignor to The Seng Company, Chicago, Ill. Bedstead-corner fastening. No. 1,137,260; Apr. 27; Gaz. vol. 213; p. 1249.

Dyke, Darrell F., assignor, by mesne assignments, to The Clemetsen Company, Chicago, Ill. Type-writer support for desks. No. 1,137,261; Apr. 27; Gaz. vol. 213; p. 1249.

E. Clemens Horst Co. (See Horst, Emil C., assignor.)

E. G. Staude Manufacturing Co. (See Staude, Edwin G., assignor.)

E. I. du Pont de Nemours Powder Company. (See Kniffen, Frederick, assignor.)

E. I. du Pont de Nemours Powder Company. (See Peacock, Samuel, assignor.)

E. J. Brooks & Co. (See Brooks, Winfred M., assignor.)

E. L. Mansure Company. (See Brassell, William E., assignor.)

E. W. Bliss Company. (See Dieter, William, assignor.)

E. W. Bliss Company. (See Kruse, Peter, assignor.)

E. W. Bliss Company. (See Leavitt, Frank M., assignor.)

Eagle Wagon Works, The. (See Underhill, Walter A., assignor.)

Earle, Harry C., assignor to Walworth Manufacturing Company, Boston, Mass. Wrench. No. 1,134,948; Apr. 6; Gaz. vol. 213; p. 308.

Earp-Thomas, George H., Glen Ridge, N. J. Container for transporting bacterial cultures. No. 1,137,388; Apr. 27; Gaz. vol. 213; p. 1296.

Eastern Fountain Company. (See Sage, Ernest L., assignor.)

Eastman Kodak Company. (See Folmer, William F., assignor.)

Eberhart, Felix, Newark, N. J., assignor to American Can Company, New York, N. Y. Cleaning sheet-metal plates. No. 1,136,110; Apr. 20; Gaz. vol. 213; p. 799.

Eberle, Samuel A., Cincinnati, Ohio. Egg-tester. No. 1,135,101; Apr. 13; Gaz. vol. 213; p. 407.

Eckre, Olof A., Kindred, N. D. Carpenter's combination-tool. No. 1,134,826; Apr. 6; Gaz. vol. 213; p. 269.

Eclipse Gas Stove Company. (See Green, Michael J., assignor.)

Economic and Sanitary Liquid-Cooling Company, The. (See Stricker, George A., assignor.)

Eden, James A., Jr., Springfield, Mass., assignor to Baush Machine Tool Company. Multiple drill. No. 1,134,521; Apr. 6; Gaz. vol. 213; p. 160.

Edens, Henry N., New Holstein, Wis. Carbureter. No. 1,137,307; Apr. 27; Gaz. vol. 213; p. 1266.

Edge, William, Newark, and A. H. Jones, East Orange, N. J. Can-opener. No. 1,135,571; Apr. 13; Gaz. vol. 213; p. 570.

Edman, John, assignor of one-half to Williamson & Merchant, Minneapolis, Minn. Guard for circular saws. No. 1,135,168; Apr. 13; Gaz. vol. 213; p. 430.

Edmonson, Arthur L., Seattle, Wash., assignor to R. M. Sherman, Portland, Oreg. Lens-grinding machine. No. 1,135,936; Apr. 13; Gaz. vol. 213; p. 697.

Edward G. Budd Manufacturing Company. (See Ledwinka, Joseph, assignor.)

Edwards, Eugene P., assignor of one-half to himself and one-half to A. S. Giles, Plainfield, N. J. Universal joint. No. 1,136,466; Apr. 20; Gaz. vol. 213; p. 927.

Edwards, George W., Fort Edward, N. Y. Controlling device. No. 1,137,054; Apr. 27; Gaz. vol. 213; p. 1173.

Edwards, Harry C., assignor of one-half to J. T. Megredy, Kansas City, Mo. Jack-engaging rear-axle bracket. No. 1,137,002; Apr. 27; Gaz. vol. 213; p. 1154.

Edwards, Harry C., and J. T. Megredy, Kansas City, Mo. Automobile-jack. No. 1,137,003; Apr. 27; Gaz. vol. 213; p. 1155.

Edwards, William J., Vulcan, Mich. Fork-spreader for bicycles. No. 1,135,271; Apr. 13; Gaz. vol. 213; p. 465.

Egan, William M. (See Underwood, Charles W., assignor.)

Egerton, Graham. (See Egerton, John G., assignor.)

Egerton, John G., Memphis, Tenn., assignor of one-third to G. Egerton, Washington, D. C. Automatic lighting control for vehicles. No. 1,135,999; Apr. 20; Gaz. vol. 213; p. 762.

Ehret Magnesia Manufacturing Company. (See Macan, William A., assignor.)

Ehrhart, Raymond N., Edgewood Park, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Reëntrant turbine. No. 1,137,590; Apr. 27; Gaz. vol. 213; p. 1364.

Ehrhart, Raymond N., Edgewood, Pa., assignor to The Westinghouse Machine Company. Multiple-deck reëntrant turbine. No. 1,137,591; Apr. 27; Gaz. vol. 213; p. 1364.

Eib, Charles A., New Brunswick, N. J. Automatic train-stop. No. 1,136,944; Apr. 27; Gaz. vol. 213; p. 1132.

Eib, Charles A., New Brunswick, N. J. Track device for automatic train-stops. No. 1,136,945; Apr. 27; Gaz. vol. 213; p. 1133.

Elbner, Alexander, Munich, Germany. Manufacture of cinnabar. No. 1,137,467; Apr. 27; Gaz. vol. 213; p. 1323.

Elchholtz, William B., and F. L. Winters, New Orleans, La. Car-signal. No. 1,134,827; Apr. 6; Gaz. vol. 213; p. 269.

Elckhoff, Arthur F. (See Hoyt, Francis R., assignor.)

Elsemann, August H., Philadelphia, Pa. Device for cleaning and polishing knives, forks, and spoons. No. 1,137,468; Apr. 27; Gaz. vol. 213; p. 1323.

Eltel, Michael, Dubuque, Iowa. Emblematic pin. No. 1,135,781; Apr. 13; Gaz. vol. 213; p. 643.

Ekiss, Carl, Bethany, Ill. Spring-wheel. No. 1,134,828; Apr. 6; Gaz. vol. 213; p. 269.

Eklund, Walfrid S. (See Payne and Eklund.)

Ekman, Peter, Greeley, Colo. Rotary trash-catcher. No. 1,137,469; Apr. 27; Gaz. vol. 213; p. 1323.

Eldredge, Elmer E., Chevy Chase, D. C. Desiccating apparatus. No. 1,134,731; Apr. 6; Gaz. vol. 213; p. 237.

Eldridge, Joseph D., New York, N. Y. Sealing device. No. 1,137,592; Apr. 27; Gaz. vol. 213; p. 1364.

Electric Boat Company. (See Grieshaber, Hugo, assignor.)

Electric Controller and Manufacturing Company, The. (See Stratton, Harry F., assignor.)

Electric & Ordnance Accessories Company, The. (See Langley and Price, assignors.)

Electric Time Recorder Company. (See Straub, William F., assignor.)

Electro Metallurgical Company. (See Harrison, Herbert C., assignor.)

Elfborg, Henry G., Chicago, Ill. Guard-rail. No. 1,135,272; Apr. 13; Gaz. vol. 213; p. 465.

Elfes, August (See Fleischmann and Elfes.)

Eli Lilly and Company, The. (See Bye, Mortimer, assignor.)

Elixman Paper Core Company, The. (See Elixman, Theodore, assignor.)

Elixman, Theodore, assignor to The Elixman Paper Core Company, Corinth, N. Y. Reinforcing-bushing for cores. No. 1,137,470; Apr. 27; Gaz. vol. 213; p. 1323.

Elkes, Morris S., Newark, N. J. Envelop. No. 1,135,444; Apr. 13; Gaz. vol. 213; p. 526.

Elkin, Abraham, Brooklyn, N. Y. Coaster-brake. No. 1,135,883; Apr. 13; Gaz. vol. 213; p. 680.

Elliott-Fisher Company. (See Laganke and Smith, assignors.)

Elliott-Fisher Company. (See Martin, Olaf O., assignor.)

Elliott, Harmon P., Cambridge, Mass. Forming stencil-sheets. No. 1,136,591; Apr. 20; Gaz. vol. 213; p. 972.

Elliott, Hugh D., Skamokawa, Wash. Bell-ringing device. No. 1,136,781; Apr. 20; Gaz. vol. 213; p. 1038.

Elliott, James R., Denver, Colo. Ventilator. No. 1,134,259; Apr. 6; Gaz. vol. 213; p. 65.

Elliott, William E., and D. S. Cole, Grand Rapids, Mich.; said Cole assignor to said Elliott. Hand button-attaching tool. No. 1,136,518; Apr. 20; Gaz. vol. 213; p. 946.

Ellis, Frederick A., London, England. Manufacture of wheels. No. 1,134,674; Apr. 6; Gaz. vol. 213; p. 216.

Ellis, George H., St. Paul, Minn. Refrigerator-car floor. No. 1,137,197; Apr. 27; Gaz. vol. 213; p. 1224.

Ellis, George M., Arthur, Iowa. Acetylene-gas generator. No. 1,135,002; Apr. 13; Gaz. vol. 213; p. 373.
Ellis, Halcolm, East Orange, N. J. Machine for calculation and printing the results of said calculations. No. 1,136,321; Apr. 20; Gaz. vol. 213; p. 874.
Ellixson, Cornelius S., Granville county, N. C. Railway-rail joint. No. 1,134,321; Apr. 6; Gaz. vol. 213; p. 88.
Elsas, Herman, trustee. (See Schinschool, Erich, assignor.)
Elverson, Howard W., Bellevue, assignor to Pressed Steel Car Company, Pittsburgh, Pa. Bolster. No. 1,134,260; Apr. 6; Gaz. vol. 213; p. 65.
Elvin, Albert G., Somerville, N. J. Mechanical stoker. No. 1,137,471; Apr. 27; Gaz. vol. 213; p. 1324.
Elyria Iron & Steel Company, The. (See McKee, Willis, assignor.)
Elzy, Arthur D., Louisville, Ky. Culinary utensil. No. 1,134,376; Apr. 6; Gaz. vol. 213; p. 107.
Embler, Harry B., assignor of fifty-one one-hundredths to D. Kraus, New York, N. Y. Gas-engine. No. 1,135,884; Apr. 13; Gaz. vol. 213; p. 680.
Emerson, William H., *et al.* (See Bowers, Barber, and Grover, assignors.)
Emerson, William H., *et al.* (See Reid, Robert and A. S., assignors.)
Emmet, William L. R., Schenectady, N. Y., assignor to General Electric Company. System of ship propulsion. No. 1,137,308; Apr. 27; Gaz. vol. 213; p. 1266.
Emmet, William L. R., Schenectady, N. Y., assignor to General Electric Company. System of ship propulsion. No. 1,137,593; Apr. 27; Gaz. vol. 213; p. 1365.
Empire Machine Company. (See Chamberlin, Benjamin D., assignor.)
Engelbert, Oscar M., New York, N. Y. Key-cutting machine. No. 1,135,676; Apr. 13; Gaz. vol. 213; p. 609.
Engelhardt, Edward J., San Jose, Cal. Machine for syruping fruit in cans. No. 1,135,102; Apr. 13; Gaz. vol. 213; p. 408.
Engelhart, John G., Atlanta, Ga. Furnace. No. 1,135,160; Apr. 13; Gaz. vol. 213; p. 431.
Engels, Max, Westend, near Berlin, Germany. Muffle for the distillation of zinc. No. 1,136,519; Apr. 20; Gaz. vol. 213; p. 947.
Engle, William G., Enderlin, assignor of one-tenth to J. M. Bates, Lisbon, N. D., and one-tenth to K. O. Sandum, Minneapolis, Minn. Standing-grain thresher. No. 1,134,443; Apr. 6; Gaz. vol. 213; p. 131.
Engler, Richard A., Dubuque, Iowa. System of electrical transmission. No. 1,134,983; Apr. 6; Gaz. vol. 213; p. 322.
Enochs, Andrew C. (See Stivers and Enochs.)
Ensor, Albert, Jersey City, N. J. Feeding device. No. 1,136,322; Apr. 20; Gaz. vol. 213; p. 875.
Envelope Manufacturing Company, The, *et al.* (See Cowgill, Orph W., assignor.)
Epperson, Charles W., assignor to A. M. Cheshire, Seattle, Wash. Wrench. No. 1,136,323; Apr. 20; Gaz. vol. 213; p. 875.
Epstein, Ell, Boston, Mass. Cylinder-lock. No. 1,135,998; Apr. 20; Gaz. vol. 213; p. 762.
Equitable Asphalt Maintenance Company. (See Bledsoe, John H., assignor.)
Erb, William B., Chicago, Ill. Pump. No. 1,136,946; Apr. 27; Gaz. vol. 213; p. 1133.
Erichson, Charles A., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Switch-box. No. 1,136,324; Apr. 20; Gaz. vol. 213; p. 875.
Erickson, Edward, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoemaking-machine. No. 1,137,125; Apr. 27; Gaz. vol. 213; p. 1199.
Erickson, Edward, West Lynn, assignor to Victor Shoe Machinery Company, Boston, Mass. Lock-stitch sewing-machine. No. 1,137,198; Apr. 27; Gaz. vol. 213; p. 1224.
Ericsson, Ernest A. (See Hurtig and Ericsson.)
Errington, George A., Toronto, Ontario, Canada. Switch-point drain-box. No. 1,136,782; Apr. 20; Gaz. vol. 213; p. 1039.
Erstling, Max, Philadelphia, Pa. Knit undergarment. No. 1,134,598; Apr. 6; Gaz. vol. 213; p. 188.
Erwin, Joseph R., Sabanno, Tex. Peanut-harvester. No. 1,137,594; Apr. 27; Gaz. vol. 213; p. 1365.
Erwin, Raymond W., Fremont, assignor to National Carbon Company, Cleveland, Ohio. Dowel connection. No. 1,136,111; Apr. 20; Gaz. vol. 213; p. 799.
Essex Rubber Company. (See Morgan, Henry S., assignor.)
Essick, Walter S., Reading, Pa., assignor to The Standard Optical Company, Geneva, N. Y. Lens-cutting machine. No. 1,135,507; Apr. 13; Gaz. vol. 213; p. 547.
Essig, Andrew, Cleveland, Ohio. Heater for incubators. No. 1,137,472; Apr. 27; Gaz. vol. 213; p. 1324.
Estell, Samuel F., Los Angeles, Cal. Reamer. No. 1,134,322; Apr. 6; Gaz. vol. 213; p. 88.
Estes, Robert E. (See Inman and Estes.)
Eva, William. (See Ingle and Eva.)
Evans, Adelbert D., Aurora, Ill. Ink-well attachment. No. 1,134,829; Apr. 6; Gaz. vol. 213; p. 270.
Evans, Arthur J., Beach, N. D. Lock-socket for whips. No. 1,134,599; Apr. 6; Gaz. vol. 213; p. 188.
Evans, David J. (See Andresen, Herman P., assignor.)
Evans, Ernest W., Robinson, Ill. Gas-burner. No. 1,134,114; Apr. 6; Gaz. vol. 213; p. 11.
Evans, Francis T. F., Auckland, New Zealand. Harrow. No. 1,136,661; Apr. 20; Gaz. vol. 213; p. 996.
Evans, Frederic H., New York, N. Y. Support. No. 1,136,783; Apr. 20; Gaz. vol. 213; p. 1039.
Evans, Lacey H., Lansdowne borough, Pa. Vertical file. No. 1,137,389; Apr. 27; Gaz. vol. 213; p. 1296.
Evans, Wheelon C., Mount Herman, La. Locomotive. No. 1,136,947; Apr. 27; Gaz. vol. 213; p. 1134.
Everett, Rufus B., Memphis, Tenn. Protective turret. No. 1,136,325; Apr. 20; Gaz. vol. 213; p. 876.
Everitt, James H., Canton, Tex. Fan-actuating mechanism. No. 1,134,830; Apr. 6; Gaz. vol. 213; p. 270.
Excelsior Needle Company. (See Dayton, William H., assignor.)
Eyl, Emil C., Seattle, Wash. Forming ornamental blocks. No. 1,137,595; Apr. 27; Gaz. vol. 213; p. 1365.
Eyton, Adam T., Nelson, British Columbia, Canada. Means for forming lead wire. No. 1,137,199; Apr. 27; Gaz. vol. 213; p. 1225.
F. A. Whitney Carriage Co. (See Day, Stillman, assignor.)
F. L. Schmidt Company. (See Novick, Abraham, assignor.)
F. L. Smidth & Co. (See Schröder, Aage, assignor.)
F. W. Spacke Machine Company, The. (See Brownlee, Spacke, and Lowe, assignors.)
F. W. Spacke Machine Company, The. (See Spacke, Brownlee and Spacke, assignors.)
Fair, George A., Los Angeles, Cal. Ventilating window or door. No. 1,136,784; Apr. 20; Gaz. vol. 213; p. 1039.
Fair, George A., Los Angeles, Cal. Sash-controlled ventilating window or door. No. 1,136,785; Apr. 20; Gaz. vol. 213; p. 1040.
Fair, Peter A., Helena, Mont. Humidifier. No. 1,135,445; Apr. 13; Gaz. vol. 213; p. 526.
Fairbank, Silas F., Ogden, Utah. Flush-valve. No. 1,135,003; Apr. 13; Gaz. vol. 213; p. 373.
Falk, Herman W., and W. K. Andrew, Milwaukee, Wis., assignors to M. Rumely Company, Laporte, Ind. Liquid-control system. No. 1,137,390; Apr. 27; Gaz. vol. 213; p. 1296.
Faltermayer, Harry, and C. B. Thwing, assignors to Thwing Instrument Company, Philadelphia, Pa. Graphic recorder. No. 1,137,596; Apr. 27; Gaz. vol. 213; p. 1365.
Farago, Andreas, Budapest, Austria-Hungary. Preventing decomposition of hydrogen-peroxid solutions. No. 1,134,323; Apr. 6; Gaz. vol. 213; p. 88.
Farbwerke vorm. Meister Lucius & Brüning. (See Schmidt, Abrecht, assignor.)
Farigoule, Jean, Paris, France. Loom for the mechanical manufacture of lace. No. 1,135,782; Apr. 13; Gaz. vol. 213; p. 643.
Farmer, John, Argenta, and M. E. Sherland, McGehee, Ark. Steam-boiler construction. No. 1,134,115; Apr. 6; Gaz. vol. 213; p. 11.
Farmer, Matthew S., Washington, D. C., assignor to International Harrow Cultivator Company, Birmingham, Ala. Flexible disk harrow. No. 1,136,908; Apr. 20; Gaz. vol. 213; p. 1084.
Farnham, Bion B., Buffalo, N. Y. Compensating driving mechanism. No. 1,134,187; Apr. 6; Gaz. vol. 213; p. 38.
Farnham, Charles A., Ross, Iowa. Disk harrow. No. 1,135,508; Apr. 13; Gaz. vol. 213; p. 548.
Farrel Foundry & Machine Co. (See Tippet, Philip V., assignor.)
Farrington, Fred W. (See Gleason, Isaac E., assignor.)
Farrington, Thomas H., Owego, N. Y. Wagon-seat. No. 1,134,444; Apr. 6; Gaz. vol. 213; p. 132.
Fauerbach, Charles M., Hudson Falls, N. Y. Printing-roller. No. 1,135,783; Apr. 13; Gaz. vol. 213; p. 644.
Faulkner, Hugh A., Burkmere, S. D. Magazine-hammer. No. 1,135,784; Apr. 13; Gaz. vol. 213; p. 644.
Faulkner, William P., Kansas City, Mo. Money-transmitting envelop. No. 1,136,948; Apr. 27; Gaz. vol. 213; p. 1134.
Faunce, Olin J., Grantham, N. H. Combined jack and thill-support. No. 1,134,377; Apr. 6; Gaz. vol. 213; p. 107.
Faus, Jacob, Jr., Boulder, Colo. Safety-fastener for automobile-chains, &c. No. 1,136,786; Apr. 20; Gaz. vol. 213; p. 1040.
Favary, Ethelbert, Boston, Mass. Cushioning device for tires. No. 1,136,326; Apr. 20; Gaz. vol. 213; p. 876.
Favary, Ethelbert, East Boston, Mass. Tire. No. 1,136,662; Apr. 20; Gaz. vol. 213; p. 997.
Fawver, Frank, Los Angeles, Cal. Brake. No. 1,135,885; Apr. 13; Gaz. vol. 213; p. 680.
Fay, Louis D. (See Mardon and Fay.)
Feagler, Claude, Garrett, Ind. Reversing-gear mechanism. No. 1,137,597; Apr. 27; Gaz. vol. 213; p. 1366.
Fecko, Jonos, Bayonne, N. J. Heel-plate. No. 1,136,112; Apr. 20; Gaz. vol. 213; p. 799.
Federal Signal Company. (See Renshaw, Alfred H., assignor.)
Feeney, William P., Hudson Falls, assignor of one-fourth to W. Germain, Fort Edward, N. Y. Automatic stuff-box for paper-machines. No. 1,134,831; Apr. 6; Gaz. vol. 213; p. 270.
Fegely, Frederick W., Allentown, Pa., assignor to Modern Bag Company. Wire-tie twister. No. 1,136,220; Apr. 20; Gaz. vol. 213; p. 839.

Fekete, John, Bridgeport, Conn. Valve-grinder. No. 1,135,677; Apr. 13; Gaz. vol. 213; p. 609.
Fellowes, William E., Swansea, England. Reflecting device for motor-vehicles. No. 1,135,446; Apr. 13; Gaz. vol. 213; p. 527.
Fellows, George V., Syracuse, N. Y. Shaper-head. No. 1,136,415; Apr. 20; Gaz. vol. 213; p. 910.
Fenoform Corporation. (See Wilchmann, Ferdinand G., assignor.)
Fenstemaker, George W., assignor of one-half to P. O'Connor, Amboy, Ill. Nut-lock. No. 1,136,416; Apr. 20; Gaz. vol. 213; p. 910.
Ferber, Philip, assignor to The Keuffel & Esser Company, Hoboken, N. J. Telescope. No. 1,137,192; Apr. 27; Gaz. vol. 213; p. 1222.
Ferguson, Charles W., Houston, Tex. Coop. No. 1,135,886; Apr. 13; Gaz. vol. 213; p. 681.
Ferguson, Ernest F. (See Decker and Ferguson.)
Ferran, Ernest, San Francisco, Cal. Valve for flushing-tanks. No. 1,134,949; Apr. 6; Gaz. vol. 213; p. 308.
Ferran, Ernest, and F. D. Tweeddale, San Francisco, Cal. Call-registering device for telephones. No. 1,135,887; Apr. 13; Gaz. vol. 213; p. 681.
Ferrari, Joseph J., Syracuse, N. Y. Adjustable eraser. No. 1,136,592; Apr. 20; Gaz. vol. 213; p. 972.
Ferrarini, Antonio G., Chicago, Ill. Surfacing-machine. No. 1,134,116; Apr. 6; Gaz. vol. 213; p. 12.
Ferres, Jeffrey T., Los Angeles, Cal. Machine for making corrugated paper. No. 1,135,509; Apr. 13; Gaz. vol. 213; p. 548.
Ferris, Harry H., Huntington Beach, Cal. Smoking-pipe. No. 1,135,447; Apr. 13; Gaz. vol. 213; p. 527.
Ferro Concrete Construction Company, The. (See Anderson, William P., assignor.)
Fetscher, George F., assignor to Spengler Brothers Company, Chicago, Ill. Changeable sign. (Reissue.) No. 13,896; Apr. 6; Gaz. vol. 213; p. 323.
Fiebrich, Edward. (See Tibbetts, Raymond F., assignor.)
Filipietz, Paul, assignor to Mesta Machine Company, Pittsburgh, Pa. Universal coupling for shafts. No. 1,135,510; Apr. 13; Gaz. vol. 213; p. 548.
Filson, Charles I., Burnham, Pa. Fuel-feeding mechanism for furnaces. No. 1,134,600; Apr. 6; Gaz. vol. 213; p. 188.
Filzer, Christian G., Erie, Pa. Blow-torch. No. 1,135,367; Apr. 13; Gaz. vol. 213; p. 497.
Filzer, Christian G., Erie, Pa. Torch. No. 1,135,368; Apr. 13; Gaz. vol. 213; p. 498.
Fine, Thomas M., and L. Burnam, Walla Walla, Wash. Clip for harrow-teeth. No. 1,134,832; Apr. 6; Gaz. vol. 213; p. 270.
Finley, George L., Culebra, Canal Zone, assignor to American Cement Tile Mfg. Co., Pittsburgh, Pa. Train-shed construction. No. 1,137,055; Apr. 27; Gaz. vol. 213; p. 1173.
Firestone Tire & Rubber Company, The. (See Stevens, William C., assignor.)
Firma Schweiz, Kommissions- und Aufbewahrungs-Haus für Das In- und Ausland Tomaschpolsky & Weidenfeld. (See Allemann, Arnold, assignor.)
First Trust and Savings Bank, trustee. (See Campbell, Wilson L., assignor.)
First Trust and Savings Bank, trustee. (See Willis, Bernard D., assignor.)
Fischer, Frank F., and C. M. Kaletsky, New York, N. Y., assignors to Kalfer Company, Inc. Dental-engine tool-guard. No. 1,134,833; Apr. 6; Gaz. vol. 213; p. 271.
Fisher, Alva J., Evanston, assignor to Hurley Machine Company, Chicago, Ill. Clothes-wringer. No. 1,136,221; Apr. 20; Gaz. vol. 213; p. 839.
Fisher, Oscar, Port Angeles, Wash. Feed-water heater. No. 1,134,324; Apr. 6; Gaz. vol. 213; p. 88.
Fisher, Thaddeus C., Sr., Plymouth, assignor of one-half to G. W. Briggs, Pottsville, Pa. Decorative support. No. 1,134,834; Apr. 6; Gaz. vol. 213; p. 271.
Fisher, William H. (See Donham and Fisher.)
Fisk, Clark F., Allentown, assignor of one-half to R. C. Dunham, Trenton, N. J. Pneumatic tube. No. 1,135,273; Apr. 13; Gaz. vol. 213; p. 465.
Flatley, John H., Henderson county, near Little York, Ill. Hog-trap. No. 1,135,004; Apr. 13; Gaz. vol. 213; p. 374.
Flanagan, Elver C., Detroit, Mich. Horseshoe-calk. No. 1,137,262; Apr. 27; Gaz. vol. 213; p. 1250.
Flatau, Louis S., St. Louis, Mo. Seal. No. 1,137,391; Apr. 27; Gaz. vol. 213; p. 1296.
Flatau, Louis S., St. Louis, Mo. Seal. No. 1,137,392; Apr. 27; Gaz. vol. 213; p. 1297.
Flegel, Harrison D., assignor to E. J. Schowalter, Racine, Wis. Spring-hinge. No. 1,135,274; Apr. 13; Gaz. vol. 213; p. 465.
Fleischmann, Lionel, and A. Elfes, Berlin, Germany, assignors to General Electric Company. Oil-switch. No. 1,137,309; Apr. 27; Gaz. vol. 213; p. 1267.
Fleming, Clifford A., Huntsville, Mo. Hay-stacker. No. 1,135,369; Apr. 13; Gaz. vol. 213; p. 498.
Fleming, Richard, Indianapolis, Ind., and C. A. B. Halvorson, Jr., Saugus, Mass., assignors to General Electric Company. Arc-lamp. No. 1,136,593; Apr. 20; Gaz. vol. 213; p. 972.
Flentje, Ernst, Cambridge, Mass. Hanger for shock-absorbers. No. 1,137,598; Apr. 27; Gaz. vol. 213; p. 1366.
Flesher, George, Cleveland, Ohio. Egg-carrier. No. 1,134,445; Apr. 6; Gaz. vol. 213; p. 132.
Fletcher, Joseph C., assignor to The Nye Tool and Machine Works, Chicago, Ill. Die-stock. No. 1,137,004; Apr. 27; Gaz. vol. 213; p. 1155.
Flight, James C., Swan Hill, Victoria, Australia. Platform adjustment. No. 1,135,572; Apr. 13; Gaz. vol. 213; p. 571.
Flinner, John, Leavenworth, Kans. Farm-gate. No. 1,134,601; Apr. 6; Gaz. vol. 213; p. 189.
Flint, Ralph N., Washington, D. C. Door-operating mechanism. No. 1,134,325; Apr. 6; Gaz. vol. 213; p. 89.
Floersheim, Samuel, New York, N. Y. Vehicle wheel-tire. No. 1,134,188; Apr. 6; Gaz. vol. 213; p. 38.
Floyd, George G., Granite City, Ill., assignor to Twinplex Manufacturing Company, St. Louis, Mo. Razor-blade sharpener. No. 1,135,511; Apr. 13; Gaz. vol. 213; p. 549.
Floyd, George G., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Brake. No. 1,135,512; Apr. 13; Gaz. vol. 213; p. 549.
Fogerty, John V., Chicago, Ill. Railway-crossing. No. 1,135,888; Apr. 13; Gaz. vol. 213; p. 682.
Fogg, Newell T., Sanford, Me. Medical appliance. No. 1,137,393; Apr. 27; Gaz. vol. 213; p. 1297.
Folger, Harry S., and C. L. Redfield, Chicago, Ill.; said Redfield assignor to said Folger. Self-inking hand-stamp. No. 1,134,950; Apr. 6; Gaz. vol. 213; p. 309.
Folmer Clogg & Co. (See Dellinger, John M., assignor.)
Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Camera-front. No. 1,134,522; Apr. 6; Gaz. vol. 213; p. 160.
Forbes, Robert A., assignor to The Anderson Tool Company, Hamilton, Ohio. Weighing-scale. No. 1,134,675; Apr. 6; Gaz. vol. 213; p. 216.
Ford, Hannibal C., New York, assignor of one-half to C. F. Burrows, Syracuse, N. Y. Ventilated compartment. No. 1,137,473; Apr. 27; Gaz. vol. 213; p. 1324.
Foreman, Samuel M., Hutchinson, Kans. Expansion-ring for wood-stave silos. No. 1,136,000; Apr. 20; Gaz. vol. 213; p. 762.
Forman, Joseph, Walbrook, Md. Sewing-machine. No. 1,136,001; Apr. 20; Gaz. vol. 213; p. 763.
Forman, Thomas P., Waterbury, Conn. Costumer. No. 1,136,787; Apr. 20; Gaz. vol. 213; p. 1041.
Fornirasco, Domenico; Klamath Falls, Oreg. Tongue for vehicles. No. 1,134,835; Apr. 6; Gaz. vol. 213; p. 271.
Forrester, James C., New York, N. Y. Bottle-cap-assembling machine. No. 1,135,513; Apr. 13; Gaz. vol. 213; p. 550.
Forshee, Frank F., assignor of one-half to A. E. Shephard, Flint, Mich. Tape-measure. No. 1,134,523; Apr. 6; Gaz. vol. 213; p. 161.
Forsman, John W., Deep River, Wash. Watchcase. No. 1,135,573; Apr. 13; Gaz. vol. 213; p. 571.
Forsyth, Charles F. (See Wallace and Forsyth.)
Fortescue, Charles L., Wilkinsburg, assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Cooling system for transformers. No. 1,135,103; Apr. 13; Gaz. vol. 213; p. 408.
Fortner, Hugh D., El Reno, Okla. Foldable tub-stand and wringer-support. No. 1,134,836; Apr. 6; Gaz. vol. 213; p. 271.
Foss, Benjamin Q. P., Chicago, Ill. Railway-tie. No. 1,136,113; Apr. 20; Gaz. vol. 213; p. 800.
Foster, Clarence O. (See Hayter, Richard B., assignor.)
Foster, Ernest H., New York, N. Y. Apparatus for superheating steam. No. 1,136,114; Apr. 20; Gaz. vol. 213; p. 800.
Foster, William H., Flushing, N. Y. Drifting-valve for locomotives. No. 1,137,201; Apr. 27; Gaz. vol. 213; p. 1226.
Fosterling, Jesse W., Missoula, Mont. Woodworking-machine. No. 1,136,594; Apr. 20; Gaz. vol. 213; p. 972.
Foulkes-Gaylord Company. (See Gaylord and Capps, assignors.)
Fountain Electrical Floor Box Corporation. (See Bonnell, William A., assignor.)
Fowler Car Company, The. (See Fowler, William E., Sr., assignor.)
Fowler, Ernest, Seattle, Wash. Receptacle and closure therefor. No. 1,134,524; Apr. 6; Gaz. vol. 213; p. 161.
Fowler, George, Philadelphia, Pa. Indicator for piano-keyboards. No. 1,137,394; Apr. 27; Gaz. vol. 213; p. 1297.
Fowler, Leslie M., *et al.* (See Goodyer, Harold J., assignor.)
Fowler, William, assignor of one-half to C. H. Krippendorf, Cincinnati, Ohio. Machine for use in the manufacture of welt-shoes. No. 1,136,222; Apr. 20; Gaz. vol. 213; p. 839.
Fowler, William E., Jr., Hammond, Ind., and W. E. Fowler, Sr., Los Angeles, Cal. Car-roof construction. No. 1,134,117; Apr. 6; Gaz. vol. 213; p. 12.
Fowler, William E., Sr., assignor to The Fowler Car Company, Chicago, Ill. Running-board saddle. No. 1,135,514; Apr. 13; Gaz. vol. 213; p. 550.
Fownes Brothers and Company. (See Kaufman and Marsden, assignors.)
Fox, Charles A. (See Rose and Fox.)
Fox, John H., Berea, Ohio. Educational device. No. 1,136,663; Apr. 20; Gaz. vol. 213; p. 997.
Fox, Mac L., assignor of one-fourth to W. B. Traver, Columbiaville, Mich. Combined colander, strainer, and steamer. No. 1,134,837; Apr. 6; Gaz. vol. 213; p. 272.

Fox, William H., Yonkers, N. Y. Convertible sled and coaster. No. 1,135,889; Apr. 13; Gaz. vol. 213; p. 682.
Fraaz, Joseph M., New York, N. Y. Line-adjuster for typewriter platens. No. 1,136,223; Apr. 20; Gaz. vol. 213; p. 840.
Frame, Frank, Sawyer, Kans. Brake. No. 1,136,788; Apr. 20; Gaz. vol. 213; p. 1041.
Frame, John, Searsport, Me. Ship-scale. No. 1,135,104; Apr. 13; Gaz. vol. 213; p. 409.
Franc, Sidney, New York, N. Y. Necktie. No. 1,135,170; Apr. 13; Gaz. vol. 213; p. 431.
Francis, Charles A. (See Sachs and Francis.)
Frank, William C., Johnstown, Pa. Metallic railway-tie. No. 1,135,171; Apr. 13; Gaz. vol. 213; p. 431.
Franke, Edwin, Chicago, Ill. Butter-cutting machine. No. 1,135,005; Apr. 13; Gaz. vol. 213; p. 374.
Frankenheim, Aaron. (See Crowe and Frankenheim.)
Franz, C. H. (See Zsuzsits, Vinzenz, assignor.)
Franzen, Nicklas, Walton, assignor of one-half to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Machine for making wire-glass. No. 1,135,370; Apr. 13; Gaz. vol. 213; p. 499.
Franzen, Nicklas, Walton, assignor of one-half to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Making wire-glass. No. 1,135,371; Apr. 13; Gaz. vol. 213; p. 499.
Franzen, Nicklas, Floreffe, assignor of one-half to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Machine and method for making wire-glass. No. 1,135,937; Apr. 13; Gaz. vol. 213; p. 697.
Frasch, Hans A., New York, N. Y. Process and apparatus for producing hydroxids of metals by means of ammonia. No. 1,135,785; Apr. 13; Gaz. vol. 213; p. 644.
Frauenheim, Joseph A., Zellenople, assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Compound bolt. No. 1,135,515; Apr. 13; Gaz. vol. 213; p. 550.
Frauenheim, Joseph A., Zellenople, assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Making compound bolts. No. 1,135,516; Apr. 13; Gaz. vol. 213; p. 550.
Frazer, Alonzo, St. Louis, Mo. Shoe. No. 1,134,189; Apr. 6; Gaz. vol. 213; p. 38.
Fred H. Knapp Company, The. (See Knapp, Frederick H., assignor.)
Fred H. Knapp Company. (See Knapp and Leister, assignors.)
Free, John R., Salt Lake City, Utah. Line-end indicator and lock for type-writers. No. 1,136,949; Apr. 27; Gaz. vol. 213; p. 1134.
Freistadter, Jacob, Waltham, Mass. Balance-staff for watches. No. 1,136,595; Apr. 20; Gaz. vol. 213; p. 973.
Freistadter, Jacob, Waltham, Mass. Hair-spring collet for watches. No. 1,136,950; Apr. 27; Gaz. vol. 213; p. 1135.
French, Frank A., Pittsburgh, Pa. Repairman's truck. No. 1,136,327; Apr. 20; Gaz. vol. 213; p. 877.
Freymuth, Louis H., Los Angeles, Cal. Gas-furnace and connections for parts thereof. No. 1,135,006; Apr. 13; Gaz. vol. 213; p. 374.
Friddle, Claude S., Dayton, Ala. Guide for sheet-metal piling. No. 1,135,448; Apr. 13; Gaz. vol. 213; p. 527.
Fried. Krupp Aktiengesellschaft. (See Hartwig, Rudolf, assignor.)
Friedman, Albert. (See Lieberman, Friedman, and Rose.)
Friend, Orlando M. and S. E. Hannibal, Mo. Wheat-cleaning machine. No. 1,136,596; Apr. 20; Gaz. vol. 213; p. 973.
Friend, Orlando M. and S. E., Hannibal, Mo. Treating wheat. No. 1,136,597; Apr. 20; Gaz. vol. 213; p. 973.
Friend, Samuel E. (See Friend, Orlando M. and S. E.)
Frigifax Manufacturing Company. (See Cartwright, Dale P., assignor.)
Fritchle Automobile and Battery Company, The. (See Fritchle, Oliver P., assignor.)
Fritchle, Oliver P., assignor to The Fritchle Automobile and Battery Company, Denver, Colo. Testing device for accumulators. No. 1,136,789; Apr. 20; Gaz. vol. 213; p. 1041.
Fritz, Gustav E., Peoria, Ill. Artificial tooth. No. 1,136,664; Apr. 20; Gaz. vol. 213; p. 797.
Fritz, Gustav E., assignor of one-half to T. G. McMahon, Chicago, Ill. Artificial tooth. No. 1,135,007; Apr. 13; Gaz. vol. 213; p. 375.
Friz, Max. (See Darnller and Friz.)
Frood, Herbert, Buxton, England. Brake. No. 1,136,665; Apr. 20; Gaz. vol. 213; p. 997.
Frost, Warren H., Los Angeles, Cal. Oil-burner. No. 1,136,115; Apr. 20; Gaz. vol. 213; p. 800.
Fruin, Thomas J. (See Stamirowski, Stefan, assignor.)
Frye, Charles H., South Bend, Ind. Combined mattress and life-raft. No. 1,134,602; Apr. 6; Gaz. vol. 213; p. 189.
Frye, George C., and F. C. Rollins, Portland, Me. Aseptic razor-strop and dispenser. No. 1,137,599; Apr. 27; Gaz. vol. 213; p. 1367.
Fukami, Kiuhichi, Kojimachiku, Tokyo, Japan. Dial and case of clocks. No. 1,136,520; Apr. 20; Gaz. vol. 213; p. 947.
Fulkerson, Eugene A., Roblin, Manitoba, Canada. Pitman connection. No. 1,134,446; Apr. 6; Gaz. vol. 213; p. 133.
Fuller, Franz A., Newark, N. J. Razor-blade. No. 1,135,008; Apr. 13; Gaz. vol. 213; p. 375.
Fuller, MZL, Birmingham, Ala. Shipping-container for phonograph-records. No. 1,137,126; Apr. 27; Gaz. vol. 213; p. 1200.
Fulton Manufacturing Company. (See Brown, Walter W., assignor.)
Funk, Captain P., Wooster, Ohio. Combination saw and try-square. No. 1,136,790; Apr. 20; Gaz. vol. 213; p. 1041.
Funk, Nelson E., Montclair, N. J. Making envelops. No. 1,135,786; Apr. 13; Gaz. vol. 213; p. 645.
Furber, Frederick M., Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Belt-shifter. No. 1,136,116; Apr. 20; Gaz. vol. 213; p. 801.
Furlong, James. (See Roach, Michael J., assignor.)
Furthmann, William N., Chicago, Ill., assignor to T. H. Tapley, Grand Rapids, Mich. Furnace. No. 1,135,678; Apr. 13; Gaz. vol. 213; p. 609.
Furthmann, William N., Chicago, Ill., assignor to T. H. Tapley, Grand Rapids, Mich. Liquid-fuel burner. No. 1,135,679; Apr. 13; Gaz. vol. 213; p. 609.
Fuss, Alexander H. (See McCoy, Elijah, assignor.)
Gabel, John, Chicago, Ill. Automatic talking-machine. No. 1,134,603; Apr. 6; Gaz. vol. 213; p. 189.
Gadsby, Alvin L., Toronto, Ontario, Canada. Air-vent. No. 1,135,449; Apr. 13; Gaz. vol. 213; p. 527.
Gaeth, Paul, assignor of one-third to W. P. Tausch and one-third to T. J. Jackman, Cleveland, Ohio. Fluid-meter. No. 1,134,604; Apr. 6; Gaz. vol. 213; p. 189.
Gaff, Thomas T., Washington, D. C. Tachometer. No. 1,134,951; Apr. 6; Gaz. vol. 213; p. 309.
Gagnon, Ernest H., Billings, Mont. Combined life-preserver and body-protector. No. 1,137,056; Apr. 27; Gaz. vol. 213; p. 1174.
Gagnon, Joseph S. H. (See Hébert and Gagnon.)
Gale, Pliny M., *et al.* (See Beery, John H., assignor.)
Gallon Iron Works and Manufacturing Company, The. (See Arndt, Franklin E., assignor.)
Gallagher, Hugh C., Milton, Mass. Transportation-case. No. 1,134,525; Apr. 6; Gaz. vol. 213; p. 161.
Gallagher, Peter F., assignor of forty-nine one-hundredths to P. Conniff, Baltimore, Md. Flexible stay-bolt. No. 1,137,600; Apr. 27; Gaz. vol. 213; p. 1367.
Gallo, Ezio, Genoa, Italy. Process and apparatus for having artificial blocks cast or settled on spot to build piers, quays, and like structures. No. 1,137,601; Apr. 27; Gaz. vol. 213; p. 1367.
Galloway, James M., Sunbright, Tenn. Safety railway device. (Reissue.) No. 13,897; Apr. 6; Gaz. vol. 213; p. 324.
Gallup, George B., Boston, Mass. Fire-extinguisher. No. 1,137,202; Apr. 27; Gaz. vol. 213; p. 1226.
Galt, Hubert, Chicago, Ill. Device for making coffee. No. 1,134,526; Apr. 6; Gaz. vol. 213; p. 162.
Gamble, Dorothy, New York, N. Y. Clothes-line support. No. 1,137,395; Apr. 27; Gaz. vol. 213; p. 1298.
Gamble, Walter H., Los Angeles, Cal. Vehicle-frame. No. 1,134,952; Apr. 6; Gaz. vol. 213; p. 309.
Gambon, John M., assignor of one-fourth to W. C. Tieman, St. Louis, Mo. Window-shade fixture. No. 1,134,326; Apr. 6; Gaz. vol. 213; p. 89.
Gammeter, Harry C., Bratenahl, Ohio. Flying-machine. No. 1,135,009; Apr. 13; Gaz. vol. 213; p. 375.
Gammeter, John R., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Rubber bead forming and covering apparatus. No. 1,137,127; Apr. 27; Gaz. vol. 213; p. 1200.
Gann, David B. (See Watrous, Edward L., assignor.)
Gantvoort, Johannus M., Fishkill Landing, N. Y. Baking apparatus. No. 1,135,172; Apr. 13; Gaz. vol. 213; p. 431.
Gardner, George B., Haverhill, Mass. Rake-cleaning attachment. No. 1,136,002; Apr. 20; Gaz. vol. 213; p. 763.
Gardner, John, Knott End, near Fleetwood, England. Gyroscope. No. 1,136,666; Apr. 20; Gaz. vol. 213; p. 997.
Gardner, Marshall B., assignor to International Corset Company, Aurora, Ill. Device for cutting stays and applying tips thereto. No. 1,137,396; Apr. 27; Gaz. vol. 213; p. 1298.
Gardner, William R. (See Garlitz and Gardner.)
Gardner, William R., assignor to American Beet Topper Company, Los Angeles, Cal. Beet-topper. No. 1,135,173; Apr. 13; Gaz. vol. 213; p. 432.
Gareau, Ferdinand, assignor of one-half to S. Proulx, Montreal, Quebec, Canada. Smoke-consuming apparatus for boiler-furnaces. No. 1,135,275; Apr. 13; Gaz. vol. 213; p. 466.
Garford Manufacturing Company, The. (See Libby, Albion D. T., assignor.)
Garford Manufacturing Company, The. (See Manson, Ray H., assignor.)
Garlitz, William T., and W. R. Gardner, McKees Rocks, Pa. Cartridge-fuse. No. 1,135,010; Apr. 13; Gaz. vol. 213; p. 376.
Garvin, George J. (See Nyberg, Frank R., assignor.)
Gáspár, Bernát, Miskolcz, Austria-Hungary. Restraining device. No. 1,136,396; Apr. 20; Gaz. vol. 213; p. 903.
Gates, Archie B., Peterborough, Ontario, Canada. Lamp. No. 1,137,204; Apr. 27; Gaz. vol. 213; p. 1227.
Gates, Frederic P., assignor to The Arrow Electric Company, Hartford, Conn. Electric switch. No. 1,134,732; Apr. 6; Gaz. vol. 213; p. 237.
Gathmann, Emil, Baltimore, Md. Ingot-mold. No. No. 1,137,264; Apr. 27; Gaz. vol. 213; p. 1251.
Gaumer, Victor, Paris, France. Safety device for inflammable-material containers. No. 1,134,838; Apr. 6; Gaz. vol. 213; p. 272.

Gay, Loyd J., Brookfield, Ga. Lifting-jack. No. 1,134,447; Apr. 6; Gaz. vol. 213; p. 133.
Gayley, James. (See Walter, Bruce, assignor.)
Gaylord, Robert H., Pasadena, and G. B. Capps, assignors to Foulkes-Gaylord Company, Los Angeles, Cal. Elevator-signal. No. 1,134,448; Apr. 6; Gaz. vol. 213; p. 133.
Gaynor, John J., and P. C. Lieber, assignors to Progress Machine Company, Indianapolis, Ind. Bottle-capping machine. No. 1,134,676; Apr. 6; Gaz. vol. 213; p. 217.
Gaynor, John J., and P. C. Lieber, assignors to Progress Machine Company, Indianapolis, Ind. Bottle-capping machine. No. 1,135,680; Apr. 13; Gaz. vol. 213; p. 610.
Gaynor, John J., and P. C. Lieber, assignors to Progress Machine Company, Indianapolis, Ind. Bottle-capping machine. No. 1,136,467; Apr. 20; Gaz. vol. 213; p. 928.
Gear Improvement Company. (See Williams, Harvey D., assignor.)
Geb, George F., Franklin, Mass. Gearing. No. 1,134,733; Apr. 6; Gaz. vol. 213; p. 238.
Geel, Max J., Vienna, Austria-Hungary, assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,136,521; Apr. 20; Gaz. vol. 213; p. 947.
Gelbrich, Otto E., and G. W. Hintz, South Bend, Ind. Car-door lock. No. 1,136,117; Apr. 20; Gaz. vol. 213; p. 801.
Gelbrich, Otto E., and G. W. Hintz, South Bend, Ind. Car-door hanger. No. 1,136,118; Apr. 20; Gaz. vol. 213; p. 802.
Gelwix, Fredrick K. (See Carpenter, Alexander, assignor.)
General Appliance Company. (See Morse and Mallette, assignors.)
General Electric Company. (See Blau, Fritz, assignor.)
General Electric Company. (See Emmet, William L. R., assignor.)
General Electric Company. (See Fleischmann and Elfes, assignors.)
General Electric Company. (See Fleming and Halvorson, assignors.)
General Electric Company. (See Lichtenberg, Chester, assignor.)
General Electric Company. (See Loewenstein, Louis C., assignor.)
General Electric Company. (See Rice, Richard H., assignor.)
General Electric Company. (See Savage, Marion A., assignor.)
General Electric Company. (See Thomson, Elihu, assignor.)
General Electric Company. (See Weintraub, Ezechiel, assignor.)
General Electric Company. (See Weintraub, George, assignor.)
General Engineering and Construction Company. (See Ashley, Charles G., assignor.)
General Fire Extinguisher Company. (See Haskell, Louis W., assignor.
General Fire Extinguisher Company. (See Loepsinger, Albert J., assignor.)
General Fireproofing Company, The. (See White, Herbert E., assignor.)
General Railway Signal Company. (See Day, Salisbury M., assignor.)
General Railway Signal Company. (See Howe, Winthrop K., assignor.)
General Railway Signal Company. (See Wight, Sedgwick N., assignor.)
General Rim Company. (See Ashley and Oberkirch, assignors.)
Geo. W. Grimes Company, The. (See Shafer, Jesse O., assignor.)
George P. Clark Company. (See Clark, George E., assignor.)
George P. Clark Company. (See Oldroyd, Walter J., assignor.)
George P. Clark Company. (See Todd and Noble, assignors.)
Georgy, Charles H., and M. F. Hamilton, Lebanon, Pa. Spark-arrester. No. 1,135,681; Apr. 13; Gaz. vol. 213; p. 610.
Gepack, Paul, assignor of one-eighth to J. Romanczk, one-fourth to J. Wieniecki, and one-eighth to J. Modranski, McKees Rocks, P. Life-preserver. No. 1,137,397; Apr. 27; Gaz. vol. 213; p. 1298.
Geraghty, James V., New York, N. Y. Method and apparatus for sanding rails. No. 1,136,667; Apr. 20; Gaz. vol. 213; p. 998.
Gerlach, George W., Cumberland, Iowa. Block-signal control safety appliance for locomotives. No. 1,135,574; Apr. 13; Gaz. vol. 213; p. 571.
Gerlach, George W., Cumberland, Iowa. Block-signal control safety appliance for locomotives. No. 1,135,575; Apr. 13; Gaz. vol. 213; p. 572.
Germain, William. (See Feeney, William P., assignor.)
German, Solomon, Savage, assignor of one-third to A. P. Gorman and one-third to J. A. Berger, Laurel, Md. Corn-husking machine. No. 1,134,449; Apr. 6; Gaz. vol. 213; p. 134.
Gessner, David, Worcester, Mass. Means for sealing the ends of rolls of cloth. No. 1,136,224; Apr. 20; Gaz. vol. 213; p. 840.
Geyer, John F., assignor to Colonial Conserve Co., Philadelphia, Pa. Machine for filling receptacles. No. 1,137,128; Apr. 27; Gaz. vol. 213; p. 1200.
Ghosh, Sarath K., Seattle, Wash. Automatic train-stopping apparatus. No. 1,136,791; Apr. 20; Gaz. vol. 213; p. 1042.
Gianese, Benvenuto, Genoa, Italy. Duplex davits apparatus. No. 1,134,118; Apr. 6; Gaz. vol. 213; p. 12.
Glarth, Joseph H., Altoona, Pa. Heating system. No. 1,134,190; Apr. 6; Gaz. vol. 213; p. 30.
Gibbs, Bryce P., Long Beach, Cal. Pen and pencil holder. No. 1,135,174; Apr. 13; Gaz. vol. 213; p. 433.
Gibbs, Henry, assignor to W. D. Allen Manufacturing Company, Chicago, Ill. Cap for water-pipes. No. 1,134,605; Apr. 6; Gaz. vol. 213; p. 190.
Gibson, Arthur H., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Mining-machine. No. 1,134,734; Apr. 6; Gaz. vol. 213; p. 238.
Gibson, A. W., *et al.* (See Thompson, Jay L., assignor.)
Gibson, Charles, Northam, England. Flagstaff for golf-links and the like. No. 1,135,372; Apr. 13; Gaz. vol. 213; p. 499.
Gibson, Edward T., Brooklyn, N. Y. Brake-handle arrester. No. 1,134,261; Apr. 6; Gaz. vol. 213; p. 65.
Gibson, Tennyson I., Los Angeles, Cal. Recess-cutting tool. No. 1,135,890; Apr. 13; Gaz. vol. 213; p. 682.
Giesberg, John G., Houston, Tex. Polishing-machine. No. 1,134,191; Apr. 6; Gaz. vol. 213; p. 39.
Giesecke, Max, New York, N. Y., assignor to Optesche Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Surveying instrument. No. 1,136,951; Apr. 27; Gaz. vol. 213; p. 1135.
Giguère, Limoge, Montreal, Quebec, Canada. Concrete-mold. No. 1,136,225; Apr. 20; Gaz. vol. 213; p. 840.
Gilbert, Bond E., Morrill, Nebr. Gate for irrigating-dams. No. 1,134,327; Apr. 6; Gaz. vol. 213; p. 90.
Gilbert, George W. (See Woods, Gilbert, and Little.)
Gilbert, William F., Derby, Conn. Temporary binder. No. 1,135,373; Apr. 13; Gaz. vol. 213; p. 499.
Giles, A. S. (See Edwards, Eugene P., assignor.)
Gill, Edwin R., Yonkers, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company. Selective signaling apparatus. No. 1,137,474; Apr. 27; Gaz. vol. 213; p. 1325.
Gill, Edwin R., Yonkers, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company. Selective signaling apparatus. No. 1,137,475; Apr. 27; Gaz. vol. 213; p. 1325.
Gill, William T., *et al.* (See Bergstrom, Edward F., assignor.)
Gillelan, Joshua T. (See Gross, Angus R., assignor.)
Gillette-Vibber Co., The. (See Vibber, Wheeler H., assignor.)
Gillson, Charles B., *et al.* (See Hamilton, William L., assignor.)
Gillson, Louis K., *et al.* (See Hamilton, William L., assignor.)
Gilman & Son. (See Buck, Frank S., assignor.)
Gilmer, John E., Philadelphia, Pa. Temporary binder. No. 1,134,735; Apr. 6; Gaz. vol. 213; p. 238.
Gilroy, John J., Pittston, Pa. Axle-box. No. 1,136,952; Apr. 27; Gaz. vol. 213; p. 1136.
Gilson, Henry R., Beaver, Pa., assignor to National Metal Molding Company. Cable-armor. No. 1,134,119; Apr. 6; Gaz. vol. 213; p. 12.
Gilson, Henry R., Baden, assignor to National Metal Molding Company. Connector for wood to metal molding. No. 1,134,120; Apr. 6; Gaz. vol. 213; p. 13.
Ginss, Armand, Downey, assignor of one-half to C. Barrington, Jr., Los Angeles, Cal. Railway-transfer. No. 1,137,398; Apr. 27; Gaz. vol. 213; p. 1299.
Ginther, Francis M. (See Kuhl, Philip C., assignor.)
Girl, Christian. (See Schultis, Charles F., assignor.)
Givens, Frank C., Tuolumne, Cal. Spring. No. 1,134,839; Apr. 6; Gaz. vol. 213; p. 272.
Glafke, Charles E., Portland, Oreg. Nail-puller. No. 1,135,105; Apr. 13; Gaz. vol. 213; p. 409.
Glardon, Edouard C., Hamburg, Germany. Joint-binder. No. 1,134,378; Apr. 6; Gaz. vol. 213; p. 107.
Glass, Kallmann. (See Wulkan and Glass.)
Glass, William C., assignor to United Printing Machinery Company, Boston, Mass. Sheet-feeding mechanism. No. 1,135,175; Apr. 13; Gaz. vol. 213; p. 433.
Glauber, Joseph H., deceased, Cleveland, Ohio; The Citizens Savings & Trust Company, executor. Coupling member for plumbing connections. No. 1,136,226; Apr. 20; Gaz. vol. 213; p. 841.
Gleason, Edward D., New York, assignor, by mesne assignments, to Neu-Metals and Process Company, Long Island City, N. Y. Making alloys. No. 1,136,909; Apr. 20; Gaz. vol. 213; p. 1084.
Gleason, Isaac E., assignor of one-half to F. W. Farrington, Minneapolis, Minn. Fireproof partition. No. 1,134,736; Apr. 6; Gaz. vol. 213; p. 239.
Glenn, John W., assignor of one-half to V. B. Pounds, Indianapolis, Ind. Tobacco-press. No. 1,136,110; Apr. 20; Gaz. vol. 213; p. 802.
Glidden, John E., deceased; S. E. Glidden, administratrix, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-attaching machine. No. 1,137,476; Apr. 27; Gaz. vol. 213; p. 1326.
Glidden, Sadie E., administratrix. (See Glidden, John E.)
Goddard, Allison F., Rankin, Ill. Rotary fly-brush. No. 1,137,602; Apr. 27; Gaz. vol. 213; p. 1368.

Godshalk, Clarence A, Philadelphia, Pa. Firearm. No. 1,137,477; Apr 27; Gaz. vol. 213; p. 1326.
Goebel, William A. (See Heinz and Goebel.)
Gohlke, Max, Berlin, Germany. Thrust-bearing. No. 1,137,263; Apr. 27; Gaz. vol. 213; p. 1250.
Gold Car Heating & Lighting Company. (See Gold, Edward E., assignor.)
Gold, Edward E., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Valve. No. 1,137,129; Apr. 27; Gaz. vol. 213; p. 1201.
Goldberg, Louis, Indianapolis, Ind. Ozonator. No. 1,136,227; Apr. 20; Gaz. vol. 213; p. 841.
Goldenstein, Maurice M., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,136,668; Apr. 20; Gaz. vol. 213; p. 998.
Goldschmidt, Hans, and O. Weil, Essen-on-the-Ruhr, Germany, assignors to Goldschmidt Thermit Company, New York, N. Y. Producing carbon-free ferrochromium. No. 1,136,669; Apr. 20; Gaz. vol. 213; p. 999.
Goldschmidt, Hans, and O. Weil, Essen-on-the-Ruhr, Germany, assignors to Goldschmidt Thermit Company, New York, N. Y. Titanium alloys and producing the same. No. 1,136,670; Apr. 20; Gaz. vol. 213; p. 999.
Goldschmidt Thermit Company. (See Goldschmidt and Weil, assignors.)
Goldsmith, Byron B., New York, N. Y. Indurated albumen compound. No. 1,134,527; Apr. 6; Gaz. vol. 213; p. 162.
Goldsmith, Charles B., Oakville, Conn. Baking-oven. No. 1,136,120; Apr. 20; Gaz. vol. 213; p. 802.
Goldsmith, William H., Jr., Biddeford, Me., assignor to Saco-Lowell Shops, Boston, Mass. Builder-motion. No. 1,136,417; Apr. 20; Gaz. vol. 213; p. 910.
Goldsmith, William M., Cincinnati, Ohio. Wall or partition. No. 1,136,792; Apr. 20; Gaz. vol. 213; p. 1042.
Goldstein, Simon I., Baltimore, Md. Ferrule construction for umbrella-covers. No. 1,134,121; Apr. 6; Gaz. vol. 213; p. 13.
Goldthorp, Robert R., Hartford, Conn. Tuning-transformer for wireless systems. No. 1,134,840; Apr. 6; Gaz. vol. 213; p. 273.
Goldy, Ernest S., Haddonfield, N. J. Tooth-brush. No. 1,134,450; Apr. 6; Gaz. vol. 213; p. 134.
Golightly, William J., Kokomo, Ind., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Supplying abrasive to glass-grinding apparatus. No. 1,136,328; Apr. 20; Gaz. vol. 213; p. 877.
Gomber, George W., Conyngham, Pa. Milk-bottle closure. No. 1,136,418; Apr. 20; Gaz. vol. 213; p. 911.
Gompf, Frank, Cleveland, Ohio. Plant-protector. No. 1,134,841; Apr. 6; Gaz. vol. 213; p. 273.
Goodall, Howard W., Aldan, Pa. Metal-covered hose. No. 1,136,329; Apr. 20; Gaz. vol. 213; p. 877.
Goodman Manufacturing Company. (See Brande, Louis L., assignor.)
Goodpasture, Charles H., Olympia, Wash. Railway safety device. No. 1,136,793; Apr. 20; Gaz. vol. 213; p. 1042.
Goodrum, Charles L., Rochester, N. Y., assignor, by mesne assignments, to Western Electric Company, Chicago, Ill., and New York, N. Y. Telephone system and apparatus. No. 1,135,011; Apr. 13; Gaz. vol. 213; p. 376.
Goodrum, Charles L., assignor to Western Electric Company, New York, N. Y. Multicoin-collector and rate-indicator for automatic telephone systems. No. 1,137,399; Apr. 27; Gaz. vol. 213; p. 1299.
Goodwin, Albert S., Tacoma, Wash. Boring-tool. No. 1,137,603; Apr. 27; Gaz. vol. 213; p. 1368.
Goodwin, Frederick T. H., Longton, Stoke-upon-Trent, England. Grinding-mill. No. 1,134,842; Apr. 6; Gaz. vol. 213; p. 273.
Goodyear Tire & Rubber Company, The, *et al.* (See Wagenhorst, James H., assignor.)
Goodyer, Harold J., assignor of one-third to E. R. Burgess and one-third to L. M. Fowler, Racine, Wis. Railway-tie. No. 1,136,871; Apr. 20; Gaz. vol. 213; p. 1070.
Gordon, James C., Detroit, Mich. Dough-mixing machine. No. 1,134,328; Apr. 6; Gaz. vol. 213; p. 90.
Gordon, James C., Detroit, Mich. Mixing dough. No. 1,134,329; Apr. 6; Gaz. vol. 213; p. 90.
Gordon, Robert, and B. H. Weston, St. Louis, Mo. Internal-combustion motor. No. 1,136,121; Apr. 20; Gaz. vol. 213; p. 803.
Gore, Joseph W., Cape Girardeau, Mo. Steaming apparatus for vamps. No. 1,135,450; Apr. 13; Gaz. vol. 213; p. 528.
Gorman, Arthur P., *et al.* (See German, Solomon, assignor.)
Gorton, George, assignor to Robinson & Robinson, Racine, Wis. Mold for rotary valves. No. 1,137,203; Apr. 27; Gaz. vol 213; p. 1226.
Goss, Samuel F., Atlantic, Iowa. Folding package-carrier for vehicles. No. 1,135,517; Apr. 13; Gaz. vol. 213; p. 551.
Gossett, Elwood, Los Angeles, Cal. Artificial stone. No. 1,135,176; Apr. 13; Gaz. vol. 213; p. 433.
Gottschalk, Albert, New York, N. Y., assignor to National Pneumatic Company, Chicago, Ill. Fluid-pressure door-operating device. No. 1,134,608; Apr. 6; Gaz. vol. 213; p. 191.
Gottschalk Automatic Brick Oven Company. (See Gottschalk, Hugo, assignor.)
Gottschalk, Felix, Sterling, N. J. Device for detecting mechanical vibration. No. 1,137,478; Apr. 27; Gaz. vol. 213; p. 1326.
Gottschalk, Felix, Sterling, N. J. Resistance-cell for transmitters. No. 1,137,479; Apr. 27; Gaz. vol. 213; p. 1327.
Gottschalk, Hugo, Burnham, Pa., assignor to Gottschalk Automatic Brick Oven Company, Inc., New York, N. Y. Baker's oven. No. 1,137,711; Apr. 27; Gaz. vol. 213; p. 1402.
Gould, Albert E., assignor to American Metal Weather Strip Company, Grand Rapids, Mich. Weather-strip. No. 1,136,794; Apr. 20; Gaz. vol. 213; p. 1043.
Gould, Charles W., Los Angeles, Cal. Automatic control for burner-valves. No. 1,135,891; Apr. 13; Gaz. vol. 213; p. 683.
Gould, Clarke S., Norwood, Mass. Book carrier and cover. No. 1,136,598; Apr. 20; Gaz. vol. 213; p. 974.
Gould Coupler Company. (See Jepson, John W., assignor.)
Gould Coupler Company. (See Richards, Willard F., assignor.)
Gould, Isador M., Philadelphia, Pa. Adjustable neckband for wearing-apparel. No. 1,135,682; Apr. 13; Gaz. vol. 213; p. 610.
Gould Storage Battery Company. (See Hubbard, Albert S., assignor.)
Gounley, James F., Philadelphia, Pa., assignor to Royal Electrotype Company. Blackleading-machine. No. 1,134,606; Apr. 6; Gaz. vol. 213; p. 190.
Gounley, James F., Philadelphia, Pa., assignor to Royal Electrotype Company. Blackleading-machine. No. 1,134,607; Apr. 6; Gaz. vol. 213; p. 191.
Gow, John. (See Loudon and Gow.)
Gowland, William, Kemp Town, England. Lens-measure. No. 1,136,419; Apr. 20; Gaz vol. 213; p. 911.
Graban, Hans E., New York, N. Y. Gem-setting machine. No. 1,135,576; Apr. 13; Gaz. vol. 213; p. 572.
Graffenberger, Friedrich, Milwaukee, Wis. Self-cleaning dust-separator. No. 1,136,953; Apr. 27; Gaz. vol. 213; p. 1136.
Graham, Clayton W., Des Moines, Iowa. Combined letter-sheet and envelop. No. 1,135,518; Apr. 13; Gaz. vol. 213; p. 551.
Graham, David F., assignor to The New Departure Manufacturing Company, Bristol, Conn. Ball-bearing. No. 1,135,177; Apr. 13; Gaz. vol. 213; p. 433.
Graham, Frank A., Buffalo, N. Y. Box-making machine. No. 1,136,795; Apr. 20; Gaz. vol. 213; p. 1043.
Graham, James H. (See Chase and Graham.)
Graham, Walter E., Philadelphia, Pa. Lawn-mower. No. 1,135,683; Apr. 13; Gaz. vol. 213; p. 610.
Gramm, John A., Dallas, Tex. Automatic train-stop. No. 1,136,122; Apr. 20; Gaz. vol. 213; p. 803.
Grandfield, W. C. (See Powers, Clarence E., assignor.)
Granger, John A., assignor of one-half to Macomber & Whyte Rope Company, Chicago, Ill. Portable scaffold. No. 1,136,898; Apr. 20; Gaz. vol. 213; p. 1079.
Grant, Frederick W., Ridgewood, N. J. Brake-shoe. No. 1,134,609; Apr. 6; Gaz. vol. 213; p. 191.
Graphic Arts Company. (See Levy, Louis E. and H. S., assignors.)
Grauheding, Oskar, Dusseldorf, assignor to Rheinische Metallwaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Telescopic sight provided with variable sighting-points. No. 1,135,787; Apr. 13; Gaz. vol. 213; p. 645.
Graves, George W., Washingtonville, N. Y. Gas-burner. No. 1,134,122; Apr. 6; Gaz. vol. 213; p. 13.
Gray, Alfred, New York, N. Y. Traveling-bag. No. 1,134,843; Apr. 6; Gaz. vol. 213; p. 274.
Gray, Ben H., Mobile, Ala. Wheel-flange lubricator. No. 1,136,003; Apr. 20; Gaz. vol. 213; p. 764.
Gray, Gardner B., assignor, by mesne assignments, to Automatic Train Control & Signal Company, Pittsburgh, Pa. Mechanism for train-control systems. No. 1,135,374; Apr. 13; Gaz. vol. 213; p. 500.
Gray, Ralph B., *et al.* (See Ritter, Rudolph, assignor.)
Gray, William B., *et al.* (See Ritter, Rudolph, assignor.)
Green, Charles F., Hornchurch, England, assignor, by mesne assignments, to A. B. Dick Company, Chicago, Ill. Inking device for rotary duplicators. No. 1,137,400; Apr. 27; Gaz. vol. 213; p. 1300.
Green, John F., and H. B. Mauck, Muncie, Ind. Fender. No. 1,137,606; Apr. 27; Gaz. vol. 213; p. 1369.
Green, Michael J., assignor to Eclipse Gas Stove Company, Rockford, Ill. Broiler. No. 1,137,130; Apr. 27; Gaz. vol. 213; p. 1201.
Green, T. F., *et al.* (See Allard, Andrew J., assignor.)
Green, Thomas W., Philadelphia, Pa. Multistage centrifugal blower. No. 1,136,330; Apr. 20; Gaz. vol. 213; p. 877.
Greene, John W., San Francisco, Cal., assignor to Amuse-U-Riding Device Co. Traveling hobby-horse. No. 1,137,604; Apr. 27; Gaz. vol. 213; p. 1368.
Greenhorne, Thomas R., Glasgow, Scotland. Removing scale from incrusted surfaces. No. 1,135,684; Apr. 13; Gaz. vol. 213; p. 611.
Greer, Samuel C., Warwick, assignor to Safety Engineering Company, Providence, R. I. Valve for elevators. No. 1,136,899; Apr. 20; Gaz. vol. 213; p. 1080.
Gregor, Ernest B., Detroit, Mich. Convertible piano-bench. No. 1,136,123; Apr. 20; Gaz. vol. 213; p. 803.
Gregory, Charles F., St. Louis, Mo., assignor to The Gregory Supply and Manufacturing Company. Combined steam and air feeder for fire-boxes. No. 1,135,276; Apr. 13; Gaz. vol. 213; p. 466.

Gregory, Frank W., Danbury, Conn. Dividers. No. 1,137,605; Apr. 27; Gaz. vol. 213; p. 1369.
Gregory, George R., Westminster, London, England. Liquid and solid fuel furnace. No. 1,137,310; Apr. 27; Gaz. vol. 213; p. 1267.
Gregory Supply and Manufacturing Company, The. (See Gregory, Charles F., assignor.)
Greist, Hubert M., New Haven, Conn., assignor to The Greist Manufacturing Company. Blotter. No. 1,135,012; Apr. 13; Gaz. vol. 213; p. 377.
Greist Manufacturing Company, The. (See Greist, Hubert M., assignor.)
Grenard, Lone. (See Hanson, Bennie P., assignor.)
Greve, Louis W., assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio. Fluid-operated tool. No. 1,134,123; Apr. 6; Gaz. vol. 213; p. 14.
Greve, Louis W., assignor, by mesne assignments, to The Cleveland Rock Drill Company, Cleveland, Ohio. Fluid-operated tool. No. 1,135,178; Apr. 13; Gaz. vol. 213; p. 434.
Grieshaber, Hugo, New London, Conn., assignor to Electric Boat Company, New York, N. Y. Life-buoy for submarine or submergible boats. No. 1,137,131; Apr. 27; Gaz. vol. 213; p. 1202.
Griesmaier, John, Chicago, Ill. Locker. No. 1,134,330; Apr. 6; Gaz. vol. 213; p. 91.
Griffin, Judson M., and O. P. Allen, assignors to Wheel Truing Brake Shoe Company, Detroit, Mich. Wheel-truing apparatus. No. 1,136,124; Apr. 20; Gaz. vol. 213; p. 804.
Griffith, Carl, Lamoille, Ill. Soil-pulverizer. No. 1,135,277; Apr. 13; Gaz. vol. 213; p. 466.
Groat, Chester A. (See Chute and Groat.)
Grodin, Irvin M., Chicago, Ill. Umbrella, cane, and the like. No. 1,136,125; Apr. 20; Gaz. vol. 213; p. 804.
Groebli, Joseph A., New York, N. Y. Tensioning device for embroidering-machines. No. 1,137,311; Apr. 27; Gaz. vol. 213; p. 1267.
Groebli, Joseph A., New York, N. Y. Roller spreading device for embroidering-machines. No. 1,137,312; Apr. 27; Gaz. vol. 213; p. 1268.
Grohn, Henry P. (See Kenney and Grohn.)
Grosenbeck, Louis F., Poughkeepsie, N. Y. Knockdown mail-container. No. 1,135,892; Apr. 13; Gaz. vol. 213; p. 683.
Gross, Angus R., Catonsville, assignor to J. T. Gillelan, Baltimore, Md. Apparatus for carbonating liquids. No. 1,136,004; Apr. 20; Gaz. vol. 213; p. 764.
Gross, Arthur W., and G. H. Dannenberg, Schenectady, N. Y. Bottle closure and protector. No. 1,137,607; Apr. 27; Gaz. vol. 213; p. 1369.
Gross, Edward G., Columbus, Ga. Pneumatic press and metal-forming machine. No. 1,137,132; Apr. 27; Gaz. vol. 213; p. 1202.
Grosser, Paul, Albersdorf, Germany. Hydroplane and aeroplane. No. 1,136,420; Apr. 20; Gaz. vol. 213; p. 911.
Grove, James H., Shawnee, Okla. Stalk-cutter. No. 1,134,451; Apr. 6; Gaz. vol. 213; p. 134.
Grover, Albert D. (See Bowers, Barber, and Grover.)
Gruenewald, Walter A. (See Allen, James M., assignor.)
Gruenig, John J., Miles City, Mont. Sole-straightening means. No. 1,135,106; Apr. 13; Gaz. vol. 213; p. 409.
Grundorf, John W., St. Louis, Mo. Ash-sifter. No. 1,135,107; Apr. 13; Gaz. vol. 213; p. 410.
Grunwald, Edward T. and J. A., Louisville, Ky. Table-display stilt. No. 1,134,331; Apr. 6; Gaz. vol. 213; p. 91.
Grunwald, Joseph A. (See Grunwald, Edward T. and J. A.)
Gschwind, Leon, Youngstown, Ohio. Dish-washing apparatus. No. 1,135,108; Apr. 13; Gaz. vol. 213; p. 410.
Guariglia, Angelo R., Morgantown, W. Va. Swingletree. No. 1,135,109; Apr. 13; Gaz. vol. 213; p. 410.
Guelff, Elisée, L. S. Dunn, and V. Thenis, Point Marion, Pa. Glass-drawing apparatus. No. 1,134,192; Apr. 6; Gaz. vol. 213; p. 39.
Guice, Duke. (See Lane, Guice, and Dohrmeier.)
Guillery, René, assignor to Societe des Etablissements Mallcet & Blin, Aubervilliers, France. Admission and exhaust mechanism for engines. No. 1,134,124; Apr. 6; Gaz. vol 213; p. 14.
Gulbrandson, Lewis H., Hayward, Minn. Resilient wheel. No. 1,135,278; Apr. 13; Gaz. vol. 213; p. 467.
Gumbel, George H., Brooklyn, N. Y. Lamp-bracket. No. 1,136,005; Apr. 20; Gaz. vol. 213; p. 764.
Gundry, James E., assignor of one-half to C. E. Crusoe, Flint, Mich. Trolley-retriever. No. 1,136,228; Apr. 20; Gaz. vol. 213; p. 841.
Gunn, Francis M., O. Bark, and W. Scowcroft, Chicago, Ill.; said Bark and said Scowcroft assignors to said Gunn. Ventilating device. No. 1,135,685; Apr. 13; Gaz. vol. 213; p. 611.
Gunn, W. T. (See Briggs, Jay, assignor.)
Gunning, Frederick, Tallmadge township, Summit county, assignor of one-half to H. E. Bender, Akron, Ohio. Truck. No. 1,136,954; Apr. 27; Gaz. vol. 213; p. 1136.
Günther, Oskar A., Chemnitz, assignor to Carl Hamel Actien-Gesellschaft, Schönau, near Chemnitz, Germany. Spinning-tray for cellular-material-spinning machines. No. 1,134,379; Apr. 6; Gaz. vol. 213; p. 107.
Guptill, William A., Maidstone, Vt. Rail tie and fastener. No. 1,134,737; Apr. 6; Gaz. vol. 213; p. 239.
Gury, John B., St. Louis, Mo. Cloth-cutting machine. No. 1,136,126; Apr. 20; Gaz. vol. 213; p. 804.
Gustafson, Adolph P., assignor to M. Schulz Co., Chicago, Ill. Controller-lever for automatic musical instruments. No. 1,136,955; Apr. 27; Gaz. vol. 213; p. 1136.
Gwóźdź, Bronislaw, Schlachtensee, near Berlin, Germany. Thermotelephone. No. 1,135,686; Apr. 13; Gaz. vol. 213; p. 611.
Gwóźdź, Bronislaw, Schöneiche, near Berlin, Germany. Thermic telephone. No. 1,135,687; Apr. 13; Gaz. vol. 213; p. 612.
Gwynn, Albert R., Phoenix, Ariz. Gasolene-filter. No. 1,137,480; Apr. 27; Gaz. vol. 213; p. 1327.
Gyro Motor Company. (See Moore and Simmons, assignors.)
H. & H. Patent-Developing Company. (See Hebern, Edward H., assignor.)
H. Koppers Company. (See Koppers, Heinrich, assignor.)
H. D. Smith & Company, The. (See Thomson, William S., assignor.)
H. P. Patents and Processes Company. (See Hochstetter, Frederick W., assignor.)
Haag, William L., Lansing, Mich. Driver for anchor-plates. No. 1,135,013; Apr. 13; Gaz. vol. 213; p. 377.
Haas, Ludwig F. C., and E. Jeheber, Lancaster, Pa. Mechanically-operated dress-form. No. 1,134,844; Apr. 6; Gaz. vol. 213; p. 274.
Hadaway, John B., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,134,262; Apr. 6; Gaz. vol. 213; p. 66.
Hadaway, John B., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tack-pulling machine. No. 1,137,608; Apr. 27; Gaz. vol. 213; p. 1369.
Haettel, Frank, Columbus, Ohio. Molder's flask. No. 1,135,578; Apr. 13; Gaz. vol. 213; p. 573.
Hafner, Charles, assignor to Kinkead Manufacturing Company, Boston, Mass. Appliance for alining and leveling shafting. No. 1,134,125; Apr. 6; Gaz. vol. 213; p. 15.
Hafner, George J., Rochester, N. Y., assignor to United Printing Machinery Company, Jamaica Plain, Mass. Bronzing-machine. No. 1,135,788; Apr. 13; Gaz. vol. 213; p. 646.
Hagn, Francis O., Zanesville, Ohio. Bevel-square. No. 1,134,845; Apr. 6; Gaz. vol. 213; p. 274.
Hagen, Frank, Breese, Ill. Combined match-box, cigar-rest, and ash-tray. No. 1,137,481; Apr. 27; Gaz. vol. 213; p. 1327.
Hager, August E., Toronto, Ontario, Canada. Elevator-gate and gate-operating mechanism. No. 1,135,279; Apr. 13; Gaz. vol. 213; p. 467.
Haggard and Marcusson Company. (See Anderson, William B., assignor.)
Haggblom, Leonard, Los Angeles, Cal. Initial sparker for gas-engine magnetos. No. 1,137,609; Apr. 27; Gaz. vol. 213; p. 1370.
Hague, John O., Brookston, Ind. Vehicle-spring. No. 1,135,577; Apr. 13; Gaz. vol. 213; p. 573.
Hain, Leon, assignor of one-half to J. Nelson, Philadelphia, Pa. Detachable heel-section. No. 1,134,263; Apr. 6; Gaz. vol. 213; p. 67.
Haines, Harold W. (See Abraham and Haines.)
Haines, Iven L., assignor of one-fourth to J. Motznik and one-fourth to R. D. Motznik, Cuyahoga Falls, Ohio. Friction-clutch. No. 1,134,193; Apr. 6; Gaz. vol. 213; p. 40.
Haldenwang, Richard, Jr., Brooklyn, N. Y. Dust-pan. No. 1,135,519; Apr. 13; Gaz. vol. 213; p. 551.
Hale and Kilburn Company. (See Budd and Ledwinka, assignors.)
Hale and Kilburn Company. (See Scott, Walter E., assignor.)
Hale, Leigh E., assignor of one-half to F. C. Bolin, Stockton, Cal. Thermo-electric battery for motor-vehicles. No. 1,134,452; Apr. 6; Gaz. vol. 213; p. 135.
Haley, Johnie B., Java, Va. Wrench. No. 1,136,599; Apr. 20; Gaz. vol. 213; p. 974.
Hall, Charles G., Haslemere, England. Transfer mechanism. No. 1,135,780; Apr. 13; Gaz. vol. 213; p. 646.
Hall, Chester I., assignor, by mesne assignments, to Chicago Electric Meter Company, Chicago, Ill. Circuit-controller. No. 1,137,610; Apr. 27; Gaz. vol. 213; p. 1370.
Hall, Dean S., Marshfield, Vt. Sleigh. No. 1,134,453; Apr. 6; Gaz. vol. 213; p. 135.
Hall, Frank A. (See McIntosh, Burtnett, assignor.)
Hall, James T., Coalinga, Cal. Oil-well plug. No. 1,137,205; Apr. 27; Gaz. vol. 213; p. 1227.
Hall, John S. (See Leigh, Edmund W., assignor.)
Hall Printing Press Company. (See White, Joseph, assignor.)
Hall Switch & Signal Company. (See Backus, Edward E., assignor.)
Hall Switch & Signal Company. (See Gill, Edwin R., assignor.)
Hall Switch & Signal Company. (See Rhoads, Charles S., Jr., assignor.)
Hall Switch & Signal Company. (See Rugh, Harry O., assignor.)
Hall, Thomas S., Mount Vernon, N. Y. Tape-package. No. 1,135,110; Apr. 13; Gaz. vol. 213; p. 411.

Hall, Walter W., Brooklyn, N. Y. Amusement device. No. 1,136,671; Apr. 20; Gaz. vol. 213; p. 999.

Hall, William A., New York, N. Y. Preventing the escape of sulfur dioxid in smelting sulfid ores. No. 1,134,846; Apr. 6; Gaz. vol. 213; p. 275.

Hall, William D. (See Richardson and Hall.)

Haller, William H., assignor of one-third to P. A. Nicklin, Cumberland, Md. Pipe-coupling. No. 1,135,893; Apr. 13; Gaz. vol. 213; p. 684.

Halliburton, Orville G., Dallas, Tex. Combustion device. No. 1,135,688; Apr. 13; Gaz. vol. 213; p. 612.

Halliday, Thomas E., Bishopstoke, England. Heavy-oil-carbureting system for internal-combustion engines. No. 1,137,057; Apr. 27; Gaz. vol. 213; p. 1174.

Halogen Products Company. (See Aylsworth, Jonas W., assignor.)

Halverstadt, Leroy J., assignor to The Crescent Machine Company, Leetonia, Ohio. Guard for woodworking-machines. No. 1,134,738; Apr. 6; Gaz. vol 213; p. 240.

Halvorson, Cromwell A. B., Jr. (See Fleming and Halvorson.)

Hamelback, Jacob A., assignor of one-half to J. W. Horner, Newark, Ohio. Twine-holder. No. 1,137,133; Apr. 27; Gaz. vol. 213; p. 1202.

Hamilton, Carl C., Dayton, Ohio. Combined fire-hose bridge and car-wheel replacer. No. 1,137,313; Apr. 27; Gaz. vol. 213; p. 1268.

Hamilton, David, Greensburg, Pa. Gate-valve. No. 1,135,280; Apr. 13; Gaz. vol. 213; p. 468.

Hamilton, Edward M., Bristol, England, assignor to C. Butters, Oakland, Cal. Treating ores. No. 1,136,872; Apr. 20; Gaz. vol. 213; p. 1070.

Hamilton, Harvey B., Tulare, S. D. Silo. No. 1,137,611; Apr. 27; Gaz. vol. 213; p. 1371.

Hamilton, James T., and C. C. McMullen, Ellisville, Miss. Railway-switch. No. 1,135,375; Apr. 13; Gaz. vol. 213; p. 500.

Hamilton, Millard F. (See Georgy and Hamilton.)

Hamilton Orchard Heater Company. (See Scheu, William C., assignor.)

Hamilton, Robert, Commerce, Tex. Cotton-chopper. No. 1,135,790; Apr. 13; Gaz. vol. 213; p. 647.

Hamilton, William L., Chicago, Ill. Reciprocating-gear mechanism. No. 1,134,332; Apr. 6; Gaz. vol. 213; p. 91.

Hamilton, William L., Chicago, assignor of one-third to L. K. Gillson, Wilmette, and one-sixth to C. B. Gillson, Chicago, Ill. Cylinder for rotary printing-presses. No. 1,135,179; Apr. 13; Gaz. vol. 213; p. 434.

Hammar, Charles C. R., New Duluth, Minn. Power-driven reciprocating mechanism. No. 1,136,796; Apr. 20; Gaz. vol. 213; p. 1044.

Hammerstein, Oscar, New York, N. Y. Tobacco-machine. No. 1,137,206; Apr. 27; Gaz. vol. 213; p. 1228.

Hammerstein, Oscar, New York, N. Y. Tobacco-leaf machine. No. 1,137,207; Apr. 27; Gaz. vol. 213; p. 1228.

Hanchett, George T., New York, N. Y., assignor to S. F. Miller, South Orange, N. J. Flush-tank. No. 1,134,126; Apr. 6; Gaz. vol. 213; p. 15.

Hancock, Harry H., Swampscott, Mass. Receptacle. No. 1,136,421; Apr. 20; Gaz. vol. 213; p. 912.

Handy, Arthur E., Brooklyn, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Electric-motor brake. No. 1,134,739; Apr. 6; Gaz. vol. 213; p. 240.

Handycap Company. (See Norton, Elliott S., assignor.)

Hanlon-Gregory Galvanizing Company. (See Hanlon, John A., assignor.)

Hanlon, John A., assignor to Hanlon-Gregory Galvanizing Company, Pittsburgh, Pa. Scraper for galvanizing-pots. No. 1,136,522; Apr. 20; Gaz. vol. 213; p. 947.

Hanlon, John A., assignor to Hanlon-Gregory Galvanizing Company, Pittsburgh, Pa. Transfer apparatus for galvanizing-pots. No. 1,136,523; Apr. 20; Gaz. vol. 213; p. 948.

Hanlon, John H. (See Hanlon, William J. and J. H.)

Hanlon, William J., Fitchburg, and J. H. Hanlon, Somerville, Mass. Gage-glass. No. 1,136,468; Apr. 20; Gaz. vol. 213; p. 928.

Hanly, George M., La Grange, Ill. Amalgam-mixer. No. 1,137,482; Apr. 27; Gaz. vol. 213; p. 1328.

Hansch, August C., Jersey City, N. J. Apparatus for treating photographic plates. No. 1,135,111; Apr. 13; Gaz. vol. 213; p. 411.

Hanscom, Frank Z., Chicago, Ill. Sign or advertising device. No. 1,136,873; Apr. 20; Gaz. vol. 213; p. 1071.

Hansen, Charles A., Elizabeth, N. J., assessor to A. H. Bamberger, New York, N. Y. Fabric connection. No. 1,135,112; Apr. 13; Gaz. vol. 213; p. 411.

Hansen, Emil, Flensburg, assignor to Bergedorfer Eisenwerk Aktiengesellschaft, Bergedorf, Germany. Mechanism on butter-finishers for working out buttermilk or water. No. 1,137,612; Apr. 27; Gaz. vol. 213; p. 1371.

Hansen, H. C., *et al.* (See Juel, Peter J., assignor.)

Hansen, Harvey F. (See Baker and Hansen.)

Hansen, Harvey F., assignor to Bean Spray Pump Company, San Jose, Cal. Pressure-relieving device for pumps, &c. No. 1,135,579; Apr. 13; Gaz. vol. 213; p. 573.

Hansen, John S., Brockton, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me. Shoe-ironing apparatus. No. 1,134,264; Apr. 6; Gaz. vol. 213; p. 67.

Hansen, John S., Brockton, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me. Electrically-heated tool. No. 1,136,127; Apr. 20; Gaz. vol. 213; p. 805.

Hansen, Oscar F., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,134,528; Apr. 6; Gaz. vol. 213; p. 162.

Hanson, Bennie P., Monticello, assignor of one-half to L. Grenard, Bancroft, Iowa. Neck-yoke. No. 1,134,968; Apr. 6; Gaz. vol. 213; p. 315.

Hanson, Bennie P., Monticello, assignor of one-half to L. Genard, Bancroft, Iowa. Tongue construction. No. 1,134,969; Apr. 6; Gaz. vol. 213; p. 316.

Hanson, Bennie P., Monticello, assignor of one-half to L. Grenard, Bancroft, Iowa. Whiffletree. No. 1,137,712; Apr. 27; Gaz. vol. 213; p. 1402.

Hanson, Hans P. (See Miner, Raymond C., assignor.)

Harden, Ray, Lane, S. D. Device for stringing corn. No. 1,135,791; Apr. 13; Gaz. vol. 213; p. 647.

Hardenbrook, Leon G., Lynden, assignor of one-third to W. R. St. John, Alger, Wash. Method and means for repairing pneumatic tires. No. 1,136,900; Apr. 20; Gaz. vol. 213; p. 1081.

Hardie, Frank. (See Coburn and Hardie.)

Harding, Frank, San Diego, Cal. Combination-retainer. No. 1,136,331; Apr. 20; Gaz. vol. 213; p. 878.

Harding, George, Spokane, Wash. Position-indicator for elevators. No. 1,135,014; Apr. 13; Gaz. vol. 213; p. 377.

Hare, Leroy J., Braughton, Kans. Button. No. 1,134,847; Apr. 6; Gaz. vol. 213; p. 275.

Harley-Davidson Motor Co. (See Harley, William S., assignor.)

Harley, William S., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Transmission-gearing. No. 1,137,134; Apr. 27; Gaz. vol. 213; p. 1203.

Harley, William S., assignor to Harley-Davidson Motor Co., Milwaukee, Wis. Engine-starter. No. 1,137,314; Apr. 27; Gaz. vol. 213; p. 1268.

Harmon, Alton D., Cambridge Springs, Pa. Calculating-machine. No. 1,136,797; Apr. 20; Gaz. vol. 213; p. 1044.

Harper, Fred H., Wichita, Kans. Fireless cooker. No. 1,136,600; Apr. 20; Gaz. vol. 213; p. 974.

Harper, James M., assignor to Harper Supply Company, Chicago, Ill. Nutcracker. No. 1,134,265; Apr. 6; Gaz. vol. 213; p. 67.

Harper Supply Company. (See Harper, James M., assignor.)

Harris, Charles H., Keokuk, Iowa. Battery connector and receptacle. No. 1,135,580; Apr. 13; Gaz. vol. 213; p. 573.

Harris, Frederic R., Brooklyn, N. Y. Construction of dry or graving docks. No. 1,134,333; Apr. 6; Gaz. vol. 213; p. 92.

Harris, John S., Govan, Wash. Cultivator and weeder. No. 1,134,194; Apr. 6; Gaz. vol. 213; p. 40.

Harris, Samuel, Dumbleyung, Western Australia, Australia. Harvester. No. 1,136,798; Apr. 20; Gaz. vol. 213; p. 1044.

Harris, Samuel J., Randolph, assignor of one-half to C. L. Seaver, Jr., Stoughton, Mass. Waterproof shoe. No. 1,136,799; Apr. 20; Gaz. vol. 213; p. 1045.

Harris, Thomas B., Jacksonville, Fla. Guard. No. 1,136,601; Apr. 20; Gaz. vol. 213; p. 975.

Harris, Walter W., Brownsburg, Pa. Currycomb. No. 1,137,613; Apr. 27; Gaz. vol. 213; p. 1371.

Harrison, Frederick J., and W. J. Knox, Dubois, Pa., assignors to Cast Steel Pilot Company. Locomotive-pilot. No. 1,135,520; Apr. 13; Gaz. vol. 213; p. 551.

Harrison, Frederick J., and W. J. Knox, Dubois, Pa., assignors to Cast Steel Pilot Company. Locomotive-pilot. No. 1,135,521; Apr. 13; Gaz. vol. 213; p. 552.

Harrison, Frederick J., and W. J. Knox, Dubois, Pa., assignors to Cast Steel Pilot Company. Bumper-beam step-bracket. No. 1,135,522; Apr. 13; Gaz. vol. 213; p. 552.

Harrison, Herbert C., Lockport, N. Y., assignor, by mesne assignments, to Electro Metallurgical Company. Crystalline ferrosilicon product and making the same. No. 1,134,127; Apr. 6; Gaz. vol. 213; p. 16.

Harrison, Herbert C., Lockport, N. Y., assignor, by mesne assignments, to Electro Metallurgical Company. Ferrosilicon product and continuously producing the same. No. 1,134,128; Apr. 6; Gaz. vol. 213; p. 16.

Harrison, Herbert C., Lockport, N. Y., assignor, by mesne assignments, to Electro Metallurgical Company. Ferrosilicon alloys of a definite composition. No. 1,134,129; Apr. 6; Gaz. vol. 213; p. 16.

Harrison, Herbert C., Lockport, N. Y. Dimmer for automobile-headlights. No. 1,136,006; Apr. 20; Gaz. vol. 213; p. 765.

Harrison, Isaac, Cream Ridge, N. J. Potato-digger. No. 1,135,180; Apr. 13; Gaz. vol. 213; p. 435.

Harroun, Ray W., Indianapolis, Ind., assignor, by mesne assignments, to Invincible Manufacturing Company, Carbureter. No. 1,135,689; Apr. 13; Gaz. vol. 213; p. 612.

Harrower, Paul D., Chelsea, Mass. Demountable wheel-rim. No. 1,134,740; Apr. 6; Gaz. vol. 213; p. 240.

Harsch, Henry W. (See Badeker, John, assignor.)

Hart, Charles A., Findlay, Ohio. Automobile-jack. No. 1,136,007; Apr. 20; Gaz. vol. 213; p. 765.

Hart, Charles W., Charles City, Iowa. Carbureter. No. 1,137,135; Apr. 27; Gaz. vol. 213; p. 1203.

Hart & Hegeman Manufacturing Company, The. (See Sachs, Joseph, assignor.)

Hart & Hegeman Manufacturing Company, The. (See Sachs and Francis, assignors.)

Hart, Maxwell S., New Britain, Conn. Wind-shield. No. 1,136,229; Apr. 20; Gaz. vol. 213; p. 842.

Hartford Lock Ring Company, The. (See Merritt and Storrs, assignors.)

Hartford Rubber Works Company, The. (See Phillips, Frederick F., assignor.)

Hartley, Thomas C., Spokane, Wash. Glazier's point-setter. No. 1,134,334; Apr. 6; Gaz. vol. 213; p. 92.

Hartmann, Andrew P., Yonkers, N. Y. Observation instrument. No. 1,134,610; Apr. 6; Gaz. vol. 213; p. 192.

Hartmann, Carl, Schlebusch, near Cologne, assignor to Sprengstoff A.-G. Carbonit, Hamburg, Germany. Manufacturing explosives. No. 1,135,792; Apr. 13; Gaz. vol. 213; p. 648.

Hartough, Edward W., St. Louis, and S. P. Alquist, Sedalia, Mo., assignors to J. S. Ralston, Columbus, Ohio. Door structure for railway-cars. No. 1,137,483; Apr. 27; Gaz. vol. 213; p. 1328.

Hartwig, Rudolf, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Rhur, Germany. Crank-pin connection. No. 1,136,524; Apr. 20; Gaz. vol. 213; p. 948.

Haseltine, Stacy B., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,008; Apr. 20; Gaz. vol. 213; p. 765.

Haseltine, Stacy B., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,128; Apr. 20; Gaz. vol. 213; p. 805.

Haskell, Henry L., Ludington, Mich. Folding table. No. 1,136,129; Apr. 20; Gaz. vol. 213; p. 806.

Haskell, Louis W., New York, N. Y., assignor to General Fire Extinguisher Company, Providence, R. I. Antifreezing means for sprinkler-pipes. No. 1,134,380; Apr. 6; Gaz. vol. 213; p. 108.

Hassinger, George A. (See Berger and Hassinger.)

Hastreiter, Micke, near Bertha, Minn. Adjustable wash-stand. No. 1,135,181; Apr. 13; Gaz. vol. 213; p. 435.

Hatch, Rosa D., Memphis, Tenn. Amplifier for telephones. No. 1,137,614; Apr. 27; Gaz. vol. 213; p. 1371.

Hatt, Joseph A. H., Brooklyn, N. Y. Producing printing-plates. No. 1,134,381; Apr. 6; Gaz. vol. 213; p. 108.

Hatt, Joseph A. H., Brooklyn, N. Y. Making printing-plates and printing in colors. No. 1,134,382; Apr. 6; Gaz. vol. 213; p. 109.

Hauber, August, Hayward, assignor to F. E. Booth, San Francisco, Cal. Apparatus for cleaning fish. No. 1,134,529; Apr. 6; Gaz. vol. 213; p. 163.

Hauber, August, Hayward, assignor to F. E. Booth, San Francisco, Cal. Cleaning fish. No. 1,134,530; Apr. 6; Gaz. vol. 213; p. 163.

Hauber, Ernest M., Hammond, Ind. Paper-lifter. No. 1,134,848; Apr. 6; Gaz. vol. 213; p. 275.

Haugh, Frank A., Independence, Kans. Underreamer. No. 1,137,615; Apr. 27; Gaz. vol. 213; p. 1372.

Havens, Morton, Jr., Albany, N. Y. Branch box. No. 1,135,894; Apr. 13; Gaz. vol. 213; p. 684.

Hawkins, Homer L. (See Hawkins, James L., assignor.)

Hawkins, James L., assignor to H. L. Hawkins, Santa Barbara, Cal. Fruit-picker. No. 1,134,849; Apr. 6; Gaz. vol. 213; p. 275.

Hawkins, Mason A., Baltimore, Md. Music-cabinet. No. 1,135,281; Apr. 13; Gaz. vol. 213; p. 468.

Hawkins, Robert N., Helena, Mont. Filing-case. No. 1,134,266; Apr. 6; Gaz. vol. 213; p. 67.

Hawley, John F., Chillicothe, Mo. Combined railway-tie and rail-clamp. No. 1,134,150; Apr. 6; Gaz. vol. 213; p. 17.

Haworth, Charles L. (See Butts and Haworth.)

Haworth, Isom P., Los Angeles, Cal. Foldable ironing-board. No. 1,135,895; Apr. 13; Gaz. vol. 213; p. 684.

Hay, Franklin S., Elton, Wis. Wrench. No. 1,135,896; Apr. 13; Gaz. vol. 213; p. 685.

Hayde, Stephen J., Kansas City, Mo. Fireproof construction, No. 1,136,874; Apr. 20; Gaz. vol. 213; p. 1071.

Hayes Pump & Planter Company. (See Hayes, Ralph W. E., assignor.)

Hayes, Ralph W. E., assignor to Hayes Pump & Planter Company, Galva, Ill. Drinking-fountain. No. 1,135,690; Apr. 13; Gaz. vol. 213; p. 613.

Haymond, Walter O., Muncie, Ind. Electromechanical controlling means for fluid-supplies. No. 1,137,401; Apr. 27; Gaz. vol. 213; p. 1300.

Hayner, Charles T. (See Langton, Edward A., assignor.)

Hays, Edward, Muldrow, Okla. Vehicle-brake. No. 1,135,897; Apr. 13; Gaz. vol. 213; p. 685.

Hays, Lewis H., Spokane, Wash., and G. W. Johnson, Mace, Idaho, assignors to American Graphophone Company, Bridgeport, Conn. Automatic lid-support. No. 1,137,484; Apr. 27; Gaz. vol. 213; p. 1328.

Hayter, Richard B., assignor of one-half to C. O. Foster, Lawrence, Kans. Puncture-proof tire. No. 1,136,672; Apr. 20; Gaz. vol. 213; p. 999.

Head, Robert, assignor to R. L. Watkins, New York, N. Y. Motion-picture machine. No. 1,134,611; Apr. 6; Gaz. vol. 213; p. 192.

Healey & Company. (See Douglas, William H., assignor.)

Heat Saver Company. (See Blaske, William C., assignor.)

Heath, Forrest A., assignor, by mesne assignments, to New Jersey Carbureter Company, Jersey City, N. J. Rotatable-fan member. No. 1,135,451; Apr. 13; Gaz. vol. 213; p. 528.

Heaton, Herman C., Berwyn, Ill. Steam-generator. No. 1,137,137; Apr. 27; Gaz. vol. 213; p. 1203.

Heaton, Otis, White Owl, S. D. Internal-combustion engine. No. 1,135,793; Apr. 13; Gaz. vol. 213; p. 648.

Hebendahl, John P., Elizabeth, N. J. Hook. No. 1,137,616; Apr. 27; Gaz. vol. 213; p. 1373.

Hebern, Edward H., Oakland, Cal. Cryptographic-code cards. No. 1,136,875; Apr. 20; Gaz. vol. 213; p. 1072.

Hebern, Edward H., Oakland, Cal. Cipher-code device. No. 1,136,876; Apr. 20; Gaz. vol. 213; p. 1072.

Hebern, Edward H., assignor, by mesne assignments, to H. & H. Patent-Developing Company, Oakland, Cal. Machine for interpreting code-messages. No. 1,135,452; Apr. 13; Gaz. vol. 213; p. 528.

Hébert, Joseph, and J. S. H. Gagnon, Vlauville, Montreal, Quebec, Canada; said Gagnon assignor to said Hébert. Clothes-drier. No. 1,134,850; Apr. 6; Gaz. vol. 213; p. 276.

Hedden, Elmendorf J. (See Paxson and Hedden.)

Hedges, Thomas, Palmers Green, England. Motor-vehicle. No. 1,135,938; Apr. 13; Gaz. vol. 213; p. 697.

Heffley, William H. (See Heffley, John W., assignor.)

Heffly, John W., assignor to W. H. Heffly, Duncannon, Pa. Package-tie. No. 1,137,485; Apr. 27; Gaz. vol. 213; p. 1329.

Heider, C. H. (See Connor, William W., assignor.)

Heilman, Henry N., St. Louis, Mo. Cushion-tires. No. 1,136,009; Apr. 20; Gaz. vol. 213; p. 766.

Heine, Arnold B. (See Weissmann, Gustave, assignor.)

Heinemann, Arthur, West Kensington, London, England. Producing propylene from acetylene and methane. No. 1,134,677; Apr. 6; Gaz. vol. 213; p. 217.

Heinitz, Woldemar R., Chemnitz, Germany, assignor, by mesne assignments, to The National Cash Register Company. Cash-register. No. 1,134,195; Apr. 6; Gaz. vol. 213; p. 41.

Heinz, Paul, and W. A. Goebel, Janesville, Wis. Kingbolt connection for vehicles. No. 1,134,267; Apr. 6; Gaz. vol. 213; p. 68.

Heinze, Gustav A., assignor of one-eighth to F. L. Bernecker and one-eighth to H. Rutzke, Redland, Fla. Steering mechanism for ships. No. 1,136,332; Apr. 20; Gaz. vol. 213; p. 878.

Heising, Raymond A., East Orange, N. J., assignor to Western Electric Company, New York, N. Y. System for the transmission of intelligence. No. 1,137,315; Apr. 27; Gaz. vol. 213; p. 1269.

Heitbrink, John, Minster, Ohio. Colter attachment for gang-plows. No. 1,136,525; Apr. 20; Gaz. vol. 213; p. 948.

Heitger Carburetor Company. (See Heitger, Frank H., assignor.)

Heitger, Frank H., assignor to Heitger Carburetor Company, Indianapolis, Ind. Carbureter. No. 1,134,531; Apr. 6; Gaz. vol. 213; p. 163.

Heitger, Frank H., assignor to Heitger Carburetor Company, Indianapolis, Ind. Carbureter. No. 1,134,532; Apr. 6; Gaz. vol. 213; p. 164.

Heizer, Alexander L., Anderson, Ind., assignor to Vesta Accumulator Company. Magneto-electrical generator. No. 1,135,898; Apr. 13; Gaz. vol. 213; p. 685.

Hele-Shaw, Henry S., and F. Leigh-Martineau, London, England. Hydraulic apparatus. No. 1,137,208; Apr. 27; Gaz. vol. 213; p. 1229.

Helfrich, Gustav P., New York, N. Y. Mower. No. 1,134,851; Apr. 6; Gaz. vol. 213; p. 276.

Helm, Max, Pankow, near Berlin, Germany, assignor to J. R. Leeson, Boston, Mass. Winding-machine. No. 1,134,268; Apr. 6; Gaz. vol. 213; p. 68.

Helwitz, Ellis S., and A. Lobel, New York, N. Y. Shoe heel. No. 1,134,383; Apr. 6; Gaz. vol. 213; p. 109.

Hemmens, Henry J. (See Pratt and Zollinger, assignors.)

Hemphill, Henry B., Eldorado, Ill. Heating-stove. No. 1,134,384; Apr. 6; Gaz. vol. 213; p. 109.

Hemphill Manufacturing Company. (See Jones, Frank E., assignor.)

Hemphill, Robert H., Port St. Joe, Fla. Transmission gearing. No. 1,134,385; Apr. 6; Gaz. vol. 213; p. 110

Henderson, Clarence W., St. Lambert, assignor to Henderson Specialty Manufacturing Company, Limited, Montreal, Quebec, Canada. Electric-light attachment for bedsteads. No. 1,135,523; Apr. 13; Gaz. vol. 213; p. 553.

Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric-motor controller. No. 1,134,196; Apr. 6; Gaz. vol. 213; p. 41.

Henderson, Clark T., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Dynamic-braking controller. No. 1,134,197; Apr. 6; Gaz. vol. 213; p. 41.

Henderson Specialty Manufacturing Company. (See Henderson, Clarence W., assignor.)

Henderson, Wrex A., Randsburg, Cal. Automobile transmission. No. 1,136,526; Apr. 20; Gaz. vol. 213; p. 949.

Hendrick, Ray L., Takoma Park, Md. Line-up and registering device. No. 1,135,581; Apr. 13; Gaz. vol. 213; p. 574.

Hendricks, Augustin, and W. P. Brockschmidt, Grand Rapids, Mich.; said Brockschmidt assignor to said Hendricks. Joint for tubular structures. No. 1,136,010; Apr. 20; Gaz. vol. 213; p. 766.

Henemier, Robert H., New York, N. Y. Exhaust-valve and pressure-gage for pneumatic tires. No. 1,137,209; Apr. 27; Gaz. vol. 213; p. 1229.

Henger, Edwin W., Oak Park, Ill., assignor to Waterbury Mfg. Co., Waterbury, Conn. Shade or globe holder. No. 1,134,533; Apr. 6; Gaz. vol. 213; p. 164.

Henggi, Lewis O., Oakmont, Pa. Tie-plate. No. 1,136,333; Apr. 20; Gaz. vol. 213; p. 878.

Henkels, Albert, Langerfeld, near Barmen, Germany. Lace with gauzelike foundation. No. 1,135,582; Apr. 13; Gaz. vol. 213; p. 574.

Henneveld, Jacobus, Laandam, and A. Lemel, Amsterdam, Netherlands. Cartridge-belt for machine-guns. No. 1,136,956; Apr. 27; Gaz. vol. 213; p. 1137.

Hennig, Hugo, Bridgeport, Conn. Machine for making solid-rubber tires. No. 1,134,454; Apr. 6; Gaz. vol. 213; p. 135.

Henry Disston & Sons Incorporated. (See King, Ernest A., assignor.)

Henry Richmond and Sons. (See Oddy, William D., assignor.)

Henry, William C. A., Columbus, Ohio. Stoker mechanism. No. 1,134,198; Apr. 6; Gaz. vol. 213; p. 42.

Henry, William W. (See Couch, Henry, and Stevens.)

Hentschel, Charles T. (See Hout and Hentschel.)

Heon, Charles O., Portage, assignor to Heon Reminder Clock Company, Inc., Janesville, Wis. Program-clock. No. 1,136,602; Apr. 20; Gaz. vol. 213; p. 975.

Heon Reminder Clock Company. (See Heon, Charles O., assignor.)

Herman, John P., Edmonds, Wash. Lubricator-pump. No. 1,136,334; Apr. 20; Gaz. vol. 213; p. 879.

Hernandez, Julio P., Iloilo, Philippine Islands. File-box. No. 1,135,282; Apr. 13; Gaz. vol. 213; p. 468.

Heron, Louis M., Washington, D. C. Calculating-machine. No. 1,136,673; Apr. 20; Gaz. vol. 213; p. 999.

Heron, Robert P., Syracuse, N. Y. Buffer. No. 1,137,138; Apr. 27; Gaz. vol. 213; p. 1203.

Herr, Henry C., Detroit, Mich., assignor, by mesne assignments, to South Side Trust Company, trustee, Pittsburgh, Pa. Nail-feeding mechanism. No. 1,137,316; Apr. 27; Gaz. vol. 213; p. 1269.

Herrmann, George F., Jersey City, N. J. Safety gas-burner. No. 1,135,283; Apr. 13; Gaz. vol. 213; p. 468.

Herrmann, Otto, Manebach, Germany. Thermometer. No. 1,136,527; Apr. 20; Gaz. vol. 213; p. 949.

Herschberger, Eli C. (See Arthur, Roy L., assignor.)

Hersee, Frederick C., Roslindale, and L. W. Lombard, assignors to Motor Specialties Company, Waltham, Mass. Timer. No. 1,137,713; Apr. 27; Gaz. vol. 213; p. 1403.

Hershman, Paul R., assignor to Armour Fertilizer Works, Chicago, Ill. Producing heat-resisting bodies. No. 1,135,182; Apr. 13; Gaz. vol. 213; p. 435.

Hershman, Paul R., Chicago, Ill., assignor to The Mineral Products Company, New York, N. Y. Making alkali-soluble alumina. No. 1,137,617; Apr. 27; Gaz. vol. 213; p. 1373.

Hertz, Charles F., Detroit, Mich. Saw-filing machine. No. 1,135,015; Apr. 13; Gaz. vol. 213; p. 378.

Hesse, John J., assignor of one-half to W. A. Connelly, Boston, Mass. Resilient wheel. No. 1,134,199; Apr. 6; Gaz. vol. 213; p. 42.

Hetherington, Arthur F., Franklin township, Somerset county, N. J. Film-winder. No. 1,136,335; Apr. 20; Gaz. vol. 213; p. 879.

Hettesheimer, Henry C., Steelville, Ill. Coop. No. 1,135,583; Apr. 13; Gaz. vol. 213; p. 575.

Hettinger, Carl F., Boston, Mass. Rotary compressor. No. 1,136,957; Apr. 27; Gaz. vol. 213; p. 1137.

Heupel, Herman A., Charlerol, assignor to Macbeth-Evans Company, Pittsburgh, Pa. Process and apparatus for treating pressed glass articles. No. 1,134,200; Apr. 6; Gaz. vol. 213; p. 42.

Heusser, William. (See Kilwinski, Frank H., assignor.)

Hewitt, Edward R., Midvale, N. J. Tire. No. 1,135,183; Apr. 13; Gaz. vol. 213; p. 436.

Hewitt, Edward R., Ringwood, N. J., assignor to Hewitt Motor Company, New York, N. Y. Engine-crank casing. No. 1,135,524; Apr. 13; Gaz. vol. 213; p. 553.

Hewitt Motor Company. (See Hewitt, Edward R., assignor.)

Hewitt, Peter C., Ringwood Manor, N. J. Balloon and analogous device. No. 1,134,386; Apr. 6; Gaz. vol. 213; p. 110.

Heyman, Edward M., assignor to Oliver Chilled Plow Works, South Bend, Ind. Drive-wheel mounting. No. 1,135,794; Apr. 13; Gaz. vol. 213; p. 648.

Heyman, Michael, Cincinnati, Ohio. Neckwear. No. 1,137,486; Apr. 27; Gaz. vol. 213; p. 1329.

Heys, John J., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Preparing outsoles. No. 1,137,618; Apr. 27; Gaz. vol. 213; p. 1373.

Hibbard, Robert L., Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Fluid-actuated clutch. No. 1,135,525; Apr. 13; Gaz. vol. 213; p. 553.

Hibbs, Eugene, Beaver Dam, Ky. Self-cleaning comb. No. 1,135,184; Apr. 13; Gaz. vol. 213; p. 436.

Hickey, Michel W., Rochester, N. Y. Vehicle-tire. No. 1,137,317; Apr. 27; Gaz. vol. 213; p. 1269.

Hickok, Arthur S. (See Myers, Hubert A., assignor.)

Hiester, Harry M. and W. C., Dayton, Ohio. Refrigerating apparatus. No. 1,134,269; Apr. 6; Gaz. vol. 213; p. 68.

Hiester, William C. (See Hiester, Harry M. and W. C.)

Higel, Otto, Toronto, Ontario, Canada, assignor to C. Kurtzmann & Co., Buffalo, N. Y. Fall-board for pianos and the like. No. 1,137,318; Apr. 27; Gaz. vol. 213; p. 1269.

Higgin, Henry, assignor of one-half to The Higgin Manufacturing Company, Newport, Ky. Window-ventilator. No. 1,137,139; Apr. 27; Gaz. vol. 213; p. 1204.

Higgin Manufacturing Company, The. (See Higgin, Henry, assignor.)

Higgins, Arthur P. (See Kinnear, Robert S., assignor.)

Higgins, Herbert E., Cape Elizabeth, Me. Combined shingling-gage and straight-edge. No. 1,137,619; Apr. 27; Gaz. vol. 213; p. 1373.

Higgins, Joseph I., East Rockaway, N. Y. Folding bed. No. 1,137,402; Apr. 27; Gaz. vol. 213; p. 1301.

Higley, Pratt H., assignor of one-half to C. E. Stewart, Gillespieville, Ohio. Shoe-cleaner. No. 1,136,528; Apr. 20; Gaz. vol. 213; p. 949.

Hilb, Isaac, Baltimore, Md. Dumping-wagon. No. 1,136,800; Apr. 20; Gaz. vol. 213; p. 1045.

Hill, Charles H., Lynn, Mass. Combination gang sole-mold. No. 1,136,336; Apr. 20; Gaz. vol. 213; p. 880.

Hill, Dock, Rome, Ga. Nut-lock. No. 1,135,899; Apr. 13; Gaz. vol. 213; p. 686.

Hill, Isaac B., Plainfield, N. J. Architectural terra-cotta construction. No. 1,134,741; Apr. 6; Gaz. vol. 213; p. 240.

Hill, Ralph N., Bloomfield, N. J., assignor to Western Electric Company, New York, N. Y. Selective signaling system. No. 1,136,337; Apr. 20; Gaz. vol. 213; p. 880.

Hill, William H., Oakwood, Ohio. Automatic electrical switch. No. 1,134,534; Apr. 6; Gaz. vol. 213; p. 164.

Hiller, Frank D., Sr. (See Hiller and Kohn, assignors.)

Hiller, Frank D., Jr., and M. R. Kohn, St. Louis, assignors of five and seventy-one one-hundredths per cent. to F. D. Hiller, Sr., Webster Groves, Mo. Locking means for demountable rims for automobile-wheels and the like. No. 1,137,319; Apr. 27; Gaz. vol. 213; p. 1270.

Hiller, Joseph L., Mattapoisett, Mass. Magnetic separator. No. 1,135,016; Apr. 13; Gaz. vol. 213; p. 378.

Hiller, Joseph L., Mattapoisett, Mass. Rotary crusher. No. 1,135,017; Apr. 13; Gaz. vol. 213; p. 378.

Hiller, Joseph L., Mattapoisett, Mass. Pulverizer. No. 1,135,795; Apr. 13; Gaz. vol. 213; p. 648.

Hiller, Joseph L., Mattapoisett, Mass., assignor to Pennsylvania Crusher Company, New York, N. Y. Coal breaking and screening machine. No. 1,135,796; Apr. 13; Gaz. vol. 213; p. 649.

Hilliard Clutch & Machinery Co., The. (See Scofield, Gilbert J., assignor.)

Hilliman, Annie M., Westhoff, Tex. Adjustable shade-hanger. No. 1,134,852; Apr. 6; Gaz. vol. 213; p. 276.

Hinderer, Otto A., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,135,691; Apr. 13; Gaz. vol. 213; p. 613.

Hintz, Gustav W. (See Gelbrich and Hintz.)

Hipwell, Harry H. and H. T., Pittsburgh, Pa. Pocket flash-light. No. 1,134,977; Apr. 6; Gaz. vol. 213; p. 319.

Hipwell, Harry T. (See Hipwell, Harry H. and H. T.)

Hirsch, Jacob H., assignor to Hirsch & Spitz Manufacturing Co., Atlanta, Ga. Spring bed-bottom. No. 1,135,797; Apr. 13; Gaz. vol. 213; p. 649.

Hirsch & Spitz Manufacturing Co. (See Hirsch, Jacob H., assignor.)

Hirschmann, Harry J., St. Louis, Mo. Electric rain-alarm. No. 1,135,798; Apr. 13; Gaz. vol. 213; p. 650.

Hitchcock, Frank L., Bridgeport, Conn. Vapor-heater for internal-combustion engines. No. 1,135,113; Apr. 13; Gaz. vol. 213; p. 412.

Hitchner, Joseph C., Philadelphia, Pa. Clasp. No. 1,135,968; Apr. 13; Gaz. vol. 213; p. 710.

Hitt, Marcellus M., assignor to D. L. Kauffman, Luray, Va. Shoe and pants duster. No. 1,135,453; Apr. 13; Gaz. vol. 213; p. 529.

Hittle, James M., *et al.* (See O'Brien, James D., assignor.)

Hoadley, Alfred H., Providence, R. I. Tractor system for motor-vehicles. No. 1,137,620; Apr. 27; Gaz. vol. 213; p. 1373.

Hoar, George W. (See Hoar, John A. and G. W.)

Hoar, John A. and G. W., Oskaloosa, Iowa. Railway-gate. No. 1,134,201; Apr. 6; Gaz. vol. 213; p. 43.

Hobbs Manufacturing Company. (See Hobbs, Samuel T., assignor.)

Hobbs, Samuel T., assignor to Hobbs Manufacturing Company, Worcester, Mass. Box-ending machine. No. 1,136,958; Apr. 27; Gaz. vol. 213; p. 1137.

Hochreiter, Andrew. (See Branington, Edwhin O., assignor.)

Hochstetter, Frederick W., New York, N. Y., assignor to H. P. Patents and Processes Company, Inc. Shutter for moving-picture machines. No. 1,137,320; Apr. 27; Gaz. vol. 213; p. 1270.

Hockley, Claude C., Grand Mere, Quebec, Canada. Bark-stripping machine. No. 1,136,959; Apr. 27; Gaz. vol. 213; p. 1138.

Hodges, Eugene C., Gregory, Tex. Four-wheel drive. No. 1,137,140; Apr. 27; Gaz. vol. 213; p. 1204.

Hodges, Eugene C., Gregory, Tex. Cultivator. No. 1,137,621; Apr. 27; Gaz. vol. 213; p. 1374.

Hodgkinson, Francis, Edgewood Park, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Governing means for engines. No. 1,136,910; Apr. 20; Gaz. vol. 213; p. 1084.

Hodgman, Willis K., Taunton, Mass., assignor, by mesne assignments, to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Sheet carrying and piling mechanism for printing-presses. No. 1,135,454; Apr. 13; Gaz. vol. 213; p. 529.

Hodgson, Joseph. (See Blennerhassett, Arthur A., assignor.)

Hoffman, Marguerite. (See Jopling, Pearson, assignor.)

Hoffman, Robert O., assignor of one-third to A. Lischkoff and one-third to T. E. Bird, Pensacola, Fla. Cigar-vending machine. No. 1,134,742; Apr. 6; Gaz. vol. 213; p. 241.

Hofmann, George, assignor of one-half to R. Holding, Lyons, Iowa. Change-making machine. No. 1,136,801; Apr. 20; Gaz. vol. 213; p. 1045.

Hogan, Denis F., St. Paul, Minn. Derrick. No. 1,135,799; Apr. 13; Gaz. vol. 213; p. 650.

Hogg, John W., Jr., Schenectady, N. Y. Window-fastening. No. 1,137,321; Apr. 27; Gaz. vol. 213; p. 1271.

Hogle, William M., Detroit, Mich. Fuel-reserve attachment for supply-tanks. No. 1,135,018; Apr. 13; Gaz. vol. 213; p. 379.

Holcombe, Caroline, administratrix. (See Holcombe, Clyde N.)

Holcombe, Clyde N., deceased; C. Holcombe, administratrix, assignor to C. Holcombe, New Rochelle, N. Y. Electropneumatic brake. No. 1,134,853; Apr. 6; Gaz. vol. 213; p. 277.

Holding, Robert. (See Hofmann, George, assignor.)

Holland, Anna L., New York, N. Y. Drapery-pole support. No. 1,134,535; Apr. 6; Gaz. vol. 213; p. 165.

Holland, Harry H., and J. C. Stearns, Worcester, Mass.; said Holland assignor to said Stearns. Focusing device for electric lamps. No. 1,137,322; Apr. 27; Gaz. vol. 213; p. 1271.

Holland, Newman H., assignor to New Jersey Patent Company, West Orange, N. J. Phonograph-reproducer. No. 1,137,487; Apr. 27; Gaz. vol. 213; p. 1329.

Hollis, Miles S., New York, N. Y. Stop-cock. No. 1,134,678; Apr. 6; Gaz. vol. 213; p. 217.

Holloman, Thomas M., Evansville, Ind. Folding shipping-case. No. 1,136,802; Apr. 20; Gaz. vol. 213; p. 1046.

Holmes, Charles H., Brockton, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me. Shoe-form. No. 1,137,141; Apr. 27; Gaz. vol. 213; p. 1204.

Holmes, John H., Newcastle-upon-Tyne, England. Apparatus for dispensing liquids. No. 1,134,536; Apr. 6; Gaz. vol. 213; p. 165.

Holmes, Oscar J., St. Louis, Mo. Gas-exhauster for oil-tanks. No. 1,136,230; Apr. 20; Gaz. vol. 213; p. 842.

Holt, Eugene and L., Burlington, N. C. Lease-forming device. No. 1,137,622; Apr. 27; Gaz. vol. 213; p. 1374.

Holt, Lafayette. (See Holt, Eugene and L.)

Homan, Irwin B., Lebanon, Pa. Spring-clamp. No. 1,134,131; Apr. 6; Gaz. vol. 213; p. 17.

Homersham, Thomas H. C., Bradford, England. Centrifugal blower and other centrifugal machine of a similar nature. No. 1,136,877; Apr. 20; Gaz. vol. 213; p. 1072.

Hooker, Duncan C., Farmington, assignor to The Johns-Pratt Company, Hartford, Conn. Union for connecting electric cables to subway or junction boxes. No. 1,135,376; Apr. 13; Gaz. vol. 213; p. 500.

Hoover, Benjamin, Meridian, Miss. Safety appliance for railway-cars. No. 1,134,335; Apr. 6; Gaz. vol. 213; p. 92.

Hoover, Benjamin F., Seattle, Wash. Liquid-dispensing apparatus. No. 1,137,403; Apr. 27; Gaz. vol. 213; p. 1301.

Hopkins, Alfred R. (See Day, Abraham, assignor.)

Hopkins, George C., Winnsboro, Tex. Smoker's pipe. No. 1,136,422; Apr. 20; Gaz. vol. 213; p. 912.

Hopkins, Merritt J., Seymour, Conn. Faucet for liquid-dispensing fountains. No. 1,135,377; Apr. 13; Gaz. vol. 213; p. 501.

Hoppes, George D., Springfield, Ohio. Trolley-replacer. No. 1,136,803; Apr. 20; Gaz. vol. 213; p. 1046.

Hopwood, Josephine L. R., Primos, Pa. Nursing-bottle holder. No. 1,136,529; Apr. 20; Gaz. vol. 213; p. 949.

Horace M. McCord & Co. (See McCord, Horace M., assignor.)

Hordubay, John, Scalp Level, Pa. Combined cigar-cutter and match-deliverer. No. 1,136,130; Apr. 20; Gaz. vol. 213; p. 806.

Horn, John H., Paterson, assignor to The National Lock Washer Company, Newark, N. J. Nut-lock. No. 1,135,284; Apr. 13; Gaz. vol. 213; p. 469.

Hornby, Oscar, assignor of one-half to T. Hutchinson, Hoquiam, Wash. Shingle-press. No. 1,135,800; Apr. 13; Gaz. vol. 213; p. 650.

Horner, Joseph W. (See Hamelback, Jacob A., assignor.)

Horning, Harry E., and J. L. Subik, Johnstown, N. Y. Signal-lamp. No. 1,136,804; Apr. 20; Gaz. vol. 213; p. 1047.

Hornquist Frank, Mount Jewett, Pa. Sled-runner. No. 1,134,612; Apr. 6; Gaz. vol. 213; p. 193.

Hornsby, Addie H., Omaha, Nebr. Washing-machine. No. 1,134,613; Apr. 6; Gaz. vol. 213; p. 193.

Hornschuch, Otto F., Seattle, Wash. Ironing-board. No. 1,136,878; Apr. 20; Gaz. vol. 213; p. 1072.

Horst, Emil C., assignor to E. Clemens Horst Co., San Francisco, Cal. Hop-separator. No. 1,136,423; Apr. 20; Gaz. vol. 213; p. 912.

Horting, Levi W., assignor of one-third to C. F. Stauffer and one-third to B. G. Stauffer, Lancaster, Pa. Centrifugal cut-out. No. 1,135,801; Apr. 13; Gaz. vol. 213; p. 651.

Horton, Guy E., and C. S. Wagner, Akron, Ohio. Collapsible core. No. 1,136,805; Apr. 20; Gaz. vol. 213; p. 1047.

Hosmer, Arthur, Chicago, Ill. Combination tie-plate and rail-fastener. No. 1,134,455; Apr. 6; Gaz. vol. 213; p. 136.

Hotaling, Omar J., Rutherford, N. J. Vending-machine. No. 1,135,802; Apr. 13; Gaz. vol. 213; p. 651.

Hotchkin, Paul M., assignor to National X-Ray Reflector Company, Chicago, Ill. Bracket for show-case-lighting reflectors. No. 1,134,132; Apr. 6; Gaz. vol. 213; p. 17.

Hotchkin, Paul M., assignor to National X-Ray Reflector Company, Chicago, Ill. Combined junction-box and reflector-casing. No. 1,134,133; Apr. 6; Gaz. vol. 213; p. 18.

Hotzel, Francis G., and J. B. Allen, Pueblo, Colo. Washing-machine. No. 1,136,231; Apr. 20; Gaz. vol. 213; p. 842.

Houghton, Lewis T., Worcester, Mass. Thread-guide-support for spinning or twisting machines. No. 1,134,336; Apr. 6; Gaz. vol. 213; p. 93.

Houston, Arthur R., Ensley, Ala. Screening-conveyer. No. 1,136,674; Apr. 20; Gaz. vol. 213; p. 1000.

Hout, Katherine C., Albany, N. Y. Umbrella. No. 1,136,806; Apr. 20; Gaz. vol. 213; p. 1047.

Hout, Katherine C., Albany, and C. T. Hentschel, Schenectady, N. Y. Umbrella-covering machine. No. 1,135,803; Apr. 13; Gaz. vol. 213; p. 652.

Howard, William L., Trenton, N. J. Vehicle-wheel. No. 1,135,804; Apr. 13; Gaz. vol. 213; p. 652.

Howe and Davidson Company. (See Davidson, Frank B., assignor.)

Howe, James A., assignor to Taylor Instrument Companies, Rochester, N. Y. Compass. No. 1,136,232; Apr. 20; Gaz. vol. 213; p. 843.

Howe, Winthrop K., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Semaphore-stop. No. 1,137,323; Apr. 27; Gaz. vol. 213; p. 1271.

Howland, Chauncey W. (See Bader and Howland.)

Hoy, Sidney D., Sioux City, Iowa. Mold for cement fence-posts. No. 1,134,854; Apr. 6; Gaz. vol. 213; p. 277.

Hoyt, Francis R., assignor, by mesne assignments, to A. F. Eickhoff, Indianapolis, Ind. Circuit-controller. No. 1,135,285; Apr. 13; Gaz. vol. 213; p. 469.

Hoyt, John S., Darien, Conn. Hydraulic elevator. No. 1,136,131; Apr. 20; Gaz. vol. 213; p. 806.

Hubbard, Albert S., Belleville, N. J., assignor to Gould Storage Battery Company. Electrical system of distribution. No. 1,134,337; Apr. 6; Gaz. vol. 213; p. 93.

Hubbell, Harvey, Bridgeport, Conn. Shade-holder. No. 1,135,019; Apr. 13; Gaz. vol. 213; p. 379.

Hubbell, Harvey, Bridgeport, Conn. Shade-holder. No. 1,135,020; Apr. 13; Gaz. vol. 213; p. 379.

Huber, Ernst, assignor of one-half to W. Meister, Brooklyn, N. Y. Gas-engine. No. 1,135,021; Apr. 13; Gaz. vol. 213; p. 380.

Hübner, Gustav, Plauen, assignor to W. Reents, Bauen, Germany. Embroidering-machine. No. 1,137,623; Apr. 27; Gaz. vol. 213; p. 1374.

Hübner, Robert, assignor, by mesne assignments, to G. H. Benjamin, New York, N. Y. Coffee tablet and making same. No. 1,137,265; Apr. 27; Gaz. vol. 213; p. 1251.

Hudson, Albert E., Calgary, Alberta, Canada. Automatic train-stop device. No. 1,136,132; Apr. 20; Gaz. vol. 213; p. 807.

Hudson, Albert E., Calgary, Alberta, Canada. Throttle or starting valve. No. 1,136,133; Apr. 20; Gaz. vol. 213; p. 807.

Hudson, George B., and W. P. Bope, Decatur, Mich. Self-heating sad-iron. No. 1,136,338; Apr. 20; Gaz. vol. 213; p. 880.

Huebner, Johan, Chicago, Ill. Washing-machine. No. 1,135,584; Apr. 13; Gaz. vol. 213; p. 575.

Huempfner, Minnie, San Marcial, N. Mex. Hat-fastener. No. 1,136,530; Apr. 20; Gaz. vol. 213; p. 950.

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Lubricating device for rotary drills. No. 1,136,134; Apr. 20; Gaz. vol. 213; p. 807.

Hughes, Howard R., assignor to Sharp-Hughes Tool Company, Houston, Tex. Reamer. No. 1,136,135; Apr. 20; Gaz. vol. 213; p. 808.

Hughson, Edwin B., Branch, N. Y. Gasolene-tank attachment. No. 1,135,900; Apr. 13; Gaz. vol. 213; p. 686.

Huldekoper, Frederic L. (See Austin, Sydney B., assignor.)

Hullings, George F., and D. P. Moore, Washington, D. C. Staple-affixing machine. No. 1,136,807; Apr. 20; Gaz. vol. 213; p. 1048.

Hulse, John. (See Webster, William A., assignor.)

Hulstedt, Albin L., Bishop Hill, Ill. Holder for household articles. No. 1,136,011; Apr. 20; Gaz. vol. 213; p. 766.

Hulteen, Alfred. (See Peterson, Andrew R., assignor.)

Hume, John, Houston, Tex., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Hose-coupling. 1,136,012; Apr. 20; Gaz. vol. 213; p. 767.

Hummel, August C., Cincinnati, Ohio. Folding crib. No. 1,135,022; Apr. 13; Gaz. vol. 213; p. 380.

Humphrey Company. (See Osmer, John E., assignor.)

Humphrey, Herbert S., Kalamazoo, Mich., assignor to Rudd Manufacturing Company, Pittsburgh, Pa. Instantaneous-water-heater casing. No. 1,135,805; Apr. 13; Gaz. vol. 213; p. 652.

Hunicke, Clarence C., assignor to Prepayment Car Sales Company, New York, N. Y. Prepayment-car. No. 1,134,387; Apr. 6; Gaz. vol. 213; p. 110.

Hunsberger, Neville, Aldan, assignor to S. Sternberger, Philadelphia, Pa. Safety-pin. No. 1,135,692; Apr. 13; Gaz. vol. 213; p. 614.

Hunsinger, John, Port Huron, Mich. Brake device for sewing-machines. No. 1,134,855; Apr. 6; Gaz. vol. 213; p. 278.

Hunt, Daniel F., Easton, Pa. Well-packing. No. 1,136,879; Apr. 20; Gaz. vol. 213; p. 1073.

Hunt, Ernest A., Mount Eden, near Auckland, New Zealand. Vacuum-cleaner. No. 1,136,136; Apr. 20; Gaz. vol. 213; p. 808.

Hunt, Ida C., Wooldridge, Mont. Corer. No. 1,135,185; Apr. 13; Gaz. vol. 213; p. 436.

Hunt, Manning M., Napa, Cal. Lock. No. 1,134,614; Apr. 6; Gaz. vol. 213; p. 193.

Hunt, William C., Toronto, Ontario, Canada. Link for light-fixtures. No. 1,136,531; Apr. 20; Gaz. vol. 213; p. 950.

Hunter, John S., Coalinga, Cal. Power-transmitting mechanism. No. 1,136,137; Apr. 20; Gaz. vol. 213; p. 809.

Hunter, William R., Cleveland, Ohio. Plasterer's tool. No. 1,135,901; Apr. 13; Gaz. vol. 213; p. 686.

Hurd, Norman B., assignor to The American Hardware Corporation, New Britain, Conn. Lock. No. 1,137,210; Apr. 27; Gaz. vol. 213; p. 1229.

Hurley Machine Company. (See Fisher, Alva J., assignor.)

Hurst, Ralph E., Wellington, Kans. Pump. No. 1,137,211; Apr. 27; Gaz. vol. 213; p. 1230.

Hurtig, Josef, and E. A. Ericsson, Wilkinsburg, Pa. Match-box. No. 1,137,624; Apr. 27; Gaz. vol. 213; p. 1375.

Husted, Eugene W., L. Sorensen, and P. Murphy, Holton, Mich. Milk-can and cover and fastening means for the same. No. 1,134,856; Apr. 6; Gaz. vol. 213; p. 278.

Hutches, Benjamin F., Jr., Allendale, N. J. Self-starter for explosive-engines. No. 1,134,537; Apr. 6; Gaz. vol. 213; p. 165.

Hutchins, Elmer N., *et al.*, executors. (See Orcutt, Edward L.)

Hutchinson, Percy, Putney, London, England. Carbureter. No. 1,136,675; Apr. 20; Gaz. vol. 213; p. 1000.

Hutchinson, Thomas. (See Hornby, Oscar, assignor.)

Hvid, Rasmus M., assignor to R. M. Hvid Company, Battle Creek, Mich. Oil-injection device for oil-engines. No. 1,134,857; Apr. 6; Gaz. vol. 213; p. 278.

Hvid, Rasmus M., assignor to R. M. Hvid Company, Battle Creek, Mich. Means for delivering oil to oil-burning engines. No. 1,134,858; Apr. 6; Gaz. vol. 213; p. 279.

Hyatt Roller Bearing Company. (See Lockwood, Charles S., assignor.)

Hybinette, Noak V., Christiania, Norway. Electrolytic process for the extraction of copper. No. 1,136,424; Apr. 20; Gaz. vol. 213; p. 912.

Hyde, Francis K., New York, N. Y. Siphon attachment. No. 1,137,488; Apr. 27; Gaz. vol. 213; p. 1330.

Hydrogenation Company, The. (See Kayser, Edwin C., assignor.)

Ibarra, José, Habana, Cuba. Stamp-supporter for cigarette-box-stamp-applying machines. No. 1,137,625; Apr. 27; Gaz. vol. 213; p. 1375.

Ielfield, Fred C., Silver Creek, N. Y. Mail-marking machine. No. 1,136,960; Apr. 27; Gaz. vol. 213; p. 1138.

Imperial Brass Manufacturing Company, The. (See Rockstead, Martin, assignor.)

Impervious Products Company. (See Abraham and Haines, assignors.)

Indispensable Mfg. Co. (See Johnson, Carl V., assignor.)

Ingersoll, Frederick. (See McCormack, Thomas, assignor.)

Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)

Ingersoll-Rand Company. (See Gibson, Arthur H., assignor.)

Ingle, William, and W. Eva, Edinburgh, Scotland, assignors to Mergenthaler Linotype Company. Type-bar-making machine. No. 1,135,378; Apr. 13; Gaz. vol. 213; p. 501.

Inman, John P., and R. E. Estes, Midland, Tex. Spark-plug. No. 1,136,961; Apr. 27; Gaz. vol. 213; p. 1138.

International Cigar Machinery Company. (See Tyberg, Oluf, assignor.)

International Corset Company. (See Gardner, Marshall B., assignor.)

International Harrow Cultivator Company. (See Farmer, Matthew S., assignor.)

International Harvester Company. (See Osterholm, William C., assignor.)

International Harvester Corporation. (See Waite, Harry C., assignor.)

International Postal Supply Company of New York. (See Jahn, Frederick G., assignor.)

Invincible Manufacturing Company. (See Harroun, Ray W., assignor.)

Irish, Leon C., Haynesville, Me. Making drop-forged drop-axles. No. 1,134,456; Apr. 6; Gaz. vol. 213; p. 136.

Irvin, John J., Bellwood, Pa. Dump-car. No. 1,134,859; Apr. 6; Gaz. vol. 213; p. 279.

Isham, Willard S., Washington, D. C. Flying-machine. No. 1,135,455; Apr. 13; Gaz. vol. 213; p. 529.

Israel, William P., assignor to R. C. Penfield, New York, N. Y. Brick lifting and transferring mechanism. No. 1,134,953; Apr. 6; Gaz. vol. 213; p. 310.

Ivory, James W. (See Mason, Walter L., assignor.)

Ivory, James W., Philadelphia, Pa. Mirror attachment for a vise. No. 1,134,679; Apr. 6; Gaz. vol. 213; p. 218.

Ivory, James W., Philadelphia, Pa. Fastening for an artificial tooth. No. 1,134,680; Apr. 6; Gaz. vol. 213; p. 218.

Izett, Carmichael, New York, N. Y. Laundry-bag. No. 1,136,138; Apr. 20; Gaz. vol. 213; p. 809.

J. Hungerford Smith Grape Juice Company. (See Schlotterbeck, Julius O., assignor.)

J. Spaulding & Sons Co. (See Spaulding, Huntley N., assignor.)

J. Stevens Arms & Tool Company. (See Lewis, George S., assignor.)

J. A. Fay & Egan Company. (See Solem, Peter A., assignor.)

J. E. Porter Company. (See Jacobs, William F., assignor.)

J. E. Porter Company. (See Buckingham, Roswell H., assignor.)

J. G. Brill Company, The. (See Adams, Walter S., assignor.)

J. H. Sager Company. (See Sager, James H., assignor.)

Jackman, Thomas J., *et al.* (See Gaeth, Paul, assignor.)

Jackson, Abraham H. (See McQueen, Charley, assignor.)

Jackson, Albert R., assignor to William Galloway Company, Waterloo, Iowa. Step-bearing head for rotary spindles. No. 1,134,270; Apr. 6; Gaz. vol. 213; p. 69.

Jackson, Everett R., Hesper, N. D. Vehicle-body fastener. No. 1,136,532; Apr. 20; Gaz. vol. 213; p. 950.

Jackson, John W., St. Louis, Mo. Steam washing-machine. No. 1,136,808; Apr. 20; Gaz. vol. 213; p. 1048.

Jackson, Richard, Jr., assignor to Detroit Refrigerator Grip Company, Detroit, Mich. Portable refrigerator. No. 1,137,324; Apr. 27; Gaz. vol. 213; p. 1272.

Jackson, Robert E., Victoria, Va. Locomotive-washing apparatus. No. 1,137,626; Apr. 27; Gaz. vol. 213; p. 1376.

Jackson, Robert E., Victoria, and F. E. Bell, Norfolk, Va. Fire-box. No. 1,135,286; Apr. 13; Gaz. vol. 213; p. 469.

Jackson, Sumner, Denver, Colo. Corner-turning indicator for automobiles. No. 1,136,139; Apr. 20; Gaz. vol. 213; p. 809.

Jackson, William A., Altoona, Pa. Wrench. No. 1,135,806; Apr. 13; Gaz. vol. 213; p. 653.

Jackson, William W., Toronto, Ontario, Canada, assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Lavatory-fitting. No. 1,134,743; Apr. 6; Gaz. vol. 213; p. 241.

Jacob Haish Company. (See Anderson, Martin E., assignor.)

Jacobs, Frank M., deceased; H. Jacobs, administrator, Atchison, Kans. Fire-box for boilers. No. 1,135,114; Apr. 13; Gaz. vol. 213; p. 412.

Jacobs, Henry, administrator. (See Jacobs, Frank M.)

Jacobs, Kenneth W. (See Bond, Jayson K., assignor.)

Jacobs, William F., assignor to J. E. Porter Co., Ottawa, Ill. Stanchion. No. 1,135,526; Apr. 13; Gaz. vol. 213; p. 553.

Jacobsen, Carl, De Pere, Wis. Convertible child's high chair and crib. No. 1,137,325; Apr. 27; Gaz. vol. 213; p. 1272.

Jacobsen Destination Indicator Company Limited. (See Jacobsen, Cameron, and Lough, assignors.)

Jacobsen, Olger C., Brigham, Utah. Bracelet. No. 1,134,860; Apr. 6; Gaz. vol. 213; p. 279.

Jacobsen, William, J. D. Cameron, and F. J. Lough, assignors to The Jacobsen Destination Indicator Company Limited, Dunedin, New Zealand. Street and station indicator. No. 1,135,693; Apr. 13; Gaz. vol. 213; p. 614.

Jacobson, Andrew, Council Bluffs, Iowa. Coagulant for water purification and making same. No. 1,137,005; Apr. 27; Gaz. vol. 213; p. 1155.

Jacquart, Bernard, South River, N. J., and J. V. V. Booraem, New York, N. Y. Clay-cleaner. No. 1,136,676; Apr. 20; Gaz. vol. 213; p. 1060.

Jacquart, Bernard, South River, N. J., and J. V. V. Booraem, New York, N. Y. Clay-cleaner. No. 1,136,677; Apr. 20; Gaz. vol. 213; p. 1061.

Jacques, Wilfrid, Woonsocket, R. I. Ring-holding device. No. 1,135,807; Apr. 13; Gaz. vol. 213; p. 653.

Jagenberg, Emil, Dusseldorf, Germany. Box-making machine. No. 1,136,339; Apr. 20; Gaz. vol. 213; p. 881.

Jahn, Frederick G., assignor to International Postal Supply Company of New York, Brooklyn, N. Y. Trip for canceling-machines. No. 1,134,271; Apr. 6; Gaz. vol. 213; p. 69.

James, Irvin L., Fargo, N. D. Strainer. No. 1,137,266; Apr. 27; Gaz. vol. 213; p. 1251.

Jameson, Charles V., assignor of one-eighth to H. E. Weisert, one-eighth to A. Bissell, and three-eighths to J. Curtiss, Chicago, Ill. Player-piano. No. 1,137,404; Apr. 27; Gaz. vol. 213. p. 1301.

Janisch, Maximillian P., assignor to U. S. Fiber Bottle Machinery Company, Milwaukee, Wis. Paper-bottle-forming machine. No. 1,134,272; Apr. 6; Gaz. vol. 213; p. 69.

Janney, Robert E. L., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Car-coupling. No. 1,135,527; Apr. 13; Gaz. vol. 213; p. 554.

Janney, Robert E. L., Chicago, Ill., and E. P. Kinne, Alliance, Ohio, assignors to American Steel Foundries, New York, N. Y. Coupling-knuckle reinforcement. No. 1,135,528; Apr. 13; Gaz. vol. 213; p. 554.

Jansen, Bernard H., Cleveland, Ohio. Hot and cold water mixing valve. No. 1,134,273; Apr. 6; Gaz. vol. 213; p. 70.

Jansson, Karl E. O., Flushing, N. Y., assignor, by mesne assignments, to Standard Plunger Elevator Company, Worcester, Mass. Hydraulic elevator. No. 1,136,140; Apr. 20; Gaz. vol. 213; p. 810.

Jansson, Karl E. O., Flushing, N. Y., assignor, by mesne assignments, to Standard Plunger Elevator Company, Worcester, Mass. Hydraulic plunger-elevator. No. 1,136,678; Apr. 20; Gaz. vol. 213; p. 1001.

Jarvis, William N., *et al.* (See Watkins, Arthur G., assignor.)

Jasgur, Samuel, Brooklyn, N. Y. Attachment for window-shades. No. 1,136,340; Apr. 20; Gaz. vol. 213; p. 881.

Jay, Rudolf, Leipzig, assignor to Leipziger Maschinenbau-Gesellschaft m. b. H., Leipzig-Sellerhausen, Germany. Clutch-actuating mechanism for riveting-machines. No. 1,137,058; Apr. 27; Gaz. vol. 213; p. 1174.

Jay, Webb, Chicago, Ill. Fuel-feeding means for automobile-engines. No. 1,134,457; Apr. 6; Gaz. vol. 213; p. 136.

Jeanne, Hippolyte, New York, N. Y., assignor to R. Webb, Bryn Mawr, Pa. Brush. No. 1,137,326; Apr. 27; Gaz. vol. 213; p. 1272.

Jeavons, Albert N., Cleveland, Ohio. Casing for vehicle-springs. No. 1,135,186; Apr. 13; Gaz. vol. 213; p. 436.

Jefferies, Fredrick L., Summit, Ill., assignor to Corn Products Refining Company. Apparatus for removing starch from settling-tables. No. 1,134,615; Apr. 6; Gaz. vol. 213; p. 194.

Jeffrey Manufacturing Company, The. (See Levin, Nils D., assignor.)

Jeffrey Manufacturing Company, The. (See Liggett, William K., assignor.)

Jeffrey Manufacturing Company, The. (See Liggett and Armstrong, assignors.)

Jeffrey Manufacturing Company, The. (See Montgomery, William J., assignor.)

Jeffrey Manufacturing Company, The. (See Mueller, George H., assignor.)

Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)

Jeffrey Manufacturing Company, The. (See Waxbom, Carl J. E., assignor.)

Jeheber, Ernest. (See Haas and Jeheber.)

Jelalian, Sarkis, Cranston, R. I. Sporting dirigible balloon. No. 1,137,212; Apr. 27; Gaz. vol. 213; p. 1230.

Jellinek, Charles, assignor of one-third to said Jellinek, one-third to D. Stern, and one-third to D. Wald, New York, N. Y. Molding. No. 1,137,489; Apr. 27; Gaz. vol. 213; p. 1330.

Jenchen, John. (See Lindner, Emil O., assignor.)

Jenkins, Charles H. (See Renshaw and Jenkins.)

Jenkins, Charles H., Belleville, N. J., assignor to Newman Clock Co., New York, N. Y. Watchman's time-register. No. 1,135,529; Apr. 13; Gaz. vol. 213; p. 555.

Jenkins, R. E. Lee. (See Cardwell, Charles E., assignor.)

Jenkins, Thomas R., Jr. (See Richardson, Edro, assignor.)

Jennings, Chester S., assignor to The Lamson Company, Boston, Mass. Electric-motor control. No. 1,137,006; Apr. 27; Gaz. vol. 213; p. 1156.

Jennings, Chester S., assignor, by mesne assignments, to American Pneumatic Service Company, Boston, Mass. Pneumatic-despatch-tube apparatus. No. 1,137,327; Apr. 27; Gaz. vol. 213; p. 1273.

Jennings, Irving C., South Norwalk, Conn. Internal-combustion generator. No. 1,137,328; Apr. 27; Gaz. vol. 213; p. 1273.

Jennings, Victor H., assignor to Mills Woven Cartridge Belt Company, Worcester, Mass. Woven tube and weaving the same. No. 1,137,405; Apr. 27; Gaz. vol. 213; p. 1302.

Jennings, Walter H., Smithfield, Pa. Fender. No. 1,137,627; Apr. 27; Gaz. vol. 213; p. 1376.

Jensen, Alexander V., Brooklyn, N. Y. Apparatus for making cement pipes. No. 1,134,202; Apr. 6; Gaz. vol. 213; p. 43.

Jensen, Jim, Elk Horn, Iowa. Tongue-supporter. No. 1,136,341; Apr. 20; Gaz. vol. 213; p. 881.

Jepson, John W., Depew, N. Y., assignor to Gould Coupler Company. Electrical system of distribution. No. 1,134,338; Apr. 6; Gaz. vol. 213; p. 93.

Jessup, George K. (See Murray and Jessup.)

Jett, George C., Gary, Ind. Tractor. No. 1,135,187; Apr. 13; Gaz. vol. 213; p. 437.

Jirousek, Joseph F., assignor of one-half to B. F. Corday, Cleveland, Ohio. Cooling and air-circulating means for printing-press inking-rolls. No. 1,134,744; Apr. 6; Gaz. vol. 213; p. 241.

Jobe, Hugh V., Roll, Okla. Cotton-chopping machine. No. 1,135,287; Apr. 13; Gaz. vol. 213; p. 470.

Jobe, John S., Noblesville, Ind. Bolted bath-tub-foot fastener. No. 1,135,188; Apr. 13; Gaz. vol. 213; p. 437.

Johanson, Gustav H., Juniata, Pa. Filing device for tracings, maps, charts, &c. No. 1,134,616; Apr. 6; Gaz. vol. 213; p. 194.

John Waldron Co. (See Waldron, William H., assignor.)

Johnes, William F. (See Beerbower, George M., assignor.)

Johns-Pratt Company, The. (See Cole, Robert C., assignor.)

Johns-Pratt Company, The. (See Hooker, Duncan C., assignor.)

Johnson, Albert, New York, N. Y. Car-window cleaner. No. 1,134,861; Apr. 6; Gaz. vol. 213; p. 279.

Johnson, Alfred C. (See Calkins and Johnson.)

Johnson, Alfred W., Chicago, Ill. Fruit-picker. No. 1,134,862; Apr. 6; Gaz. vol. 213; p. 280.

Johnson, Augustus H. W., deceased; L. H. Johnson, executrix, Larchmont, N. Y. Pulsometer. No. 1,135,189; Apr. 13; Gaz. vol. 213; p. 438.

Johnson, Austin C., Chicago, Ill., assignor, by mesne assignments, to Production Meter Company. Metal-working switch. No. 1,136,233; Apr. 20; Gaz. vol. 213; p. 843.

Johnson, Carl V., assignor to Indespensable Mfg. Co., Goldfield, Nev. Winding device for drop-lights. No. 1,136,533; Apr. 20; Gaz. vol. 213; p. 950.

Johnson, Charles E., assignor to Dust Sprayer Manufacturing Company, Kansas City, Mo. Dust-spraying machine. No. 1,135,288; Apr. 13; Gaz. vol. 213; p. 470.

Johnson, Frank A., assignor of one-half to C. B. Vall, Danville, Ill. Switch-throwing device. No. 1,136,809; Apr. 20; Gaz. vol. 213; p. 1048.

Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,013; Apr. 20; Gaz. vol. 213; p. 767.

Johnson, Gustaf W. (See Hays and Johnson.)

Johnson, Henry P., assignor of one-half to G. G. Jordan, Columbus, Ga. Gas-engine-valve-grinding tool. No. 1,135,585; Apr. 13; Gaz. vol. 213; p. 575.

Johnson, Henry P., assignor of one-half to G. G. Jordan, Columbus, Ga. Tool for compressing tappet-valve springs. No. 1,135,586; Apr. 13; Gaz. vol. 213; p. 576.

Johnson, Hugh J. and J. A. Mosal, Jackson, Miss. Nut-lock. No. 1,136,234; Apr. 20; Gaz. vol. 213; p. 843.

Johnson, James A., assignor of one-half to E. D. Brown, Stockville, Nebr. Train signaling apparatus. No. 1,137,628; Apr. 27; Gaz. vol. 213; p. 1376.

Johnson, John A., assignor to The M. B. Schenck Company, Meriden, Conn. Lock-lever caster. No. 1,137,329; Apr. 27; Gaz. vol. 213; p. 1274.

Johnson, John B., Fort Collins, Colo. Cultivating-tool. No. 1,134,538; Apr. 6; Gaz. vol. 213; p. 165.

Johnson, LaFayette, St. Joseph, Mo. Union suit. No. 1,137,629; Apr. 27; Gaz. vol. 213; p. 1377.

Johnson, Lawrence E., assignor to Specialty Shoe Machinery & Tool Co., St. Joseph, Mo. String-nailer. No. 1,134,617; Apr. 6; Gaz. vol. 213; p. 194.

Johnson, Lawrence E., Winthrop, assignor to Victor Shoe Machinery Co., Boston, Mass. Sole-leather-cutting machine. No. 1,137,213; Apr. 27; Gaz. vol. 213; p. 1231.

Johnson, Lewis, assignor of thirty-four one-hundredths to J. P. Kennedy, thirty-three one-hundredths to W. S. Leyens, and thirty-three one-hundredths to C. Schulze, Monroe, La. Automobile top-lifter. No. 1,135,976; Apr. 13; Gaz. vol. 213; p. 713.

Johnson, Louis D., Stockton, Cal. Nut-lock. No. 1,134,274; Apr. 6; Gaz. vol. 213; p. 70.

Johnson, Louise H., executrix. (See Johnson, Augustus H. W.)

Johnson, Madison L., Galena, Ill. Front running-gear for vehicles. No. 1,135,939; Apr. 13; Gaz. vol. 213; p. 698.

Johnson, Mary E., trustee. (See Barnes, William O., assignor.)

Johnson, Mary E., trustee. (See Cobb, Lyman H.)

Johnson, Olof V. (See Bodeen, John W., assignor.)

Johnson, Reinhold, Brooklyn, N. Y. Internal-combustion engine. No. 1,137,142; Apr. 27; Gaz. vol. 213; p. 1205.

Johnson, Sidney H., Soho Foundry, near Birmingham, England, assignor to The Avery Scale Company, North Milwaukee, Wis. Automatic weighing apparatus. No. 1,135,379; Apr. 13; Gaz. vol. 213; p. 501.

Johnson, Theodore G., Kansas City, Mo. Dust-mop. No. 1,134,984; Apr. 6; Gaz. vol. 213; p. 323.

Johnson, Thorwald, Chicago, Ill. Metallic hoop. No. 1,135,280; Apr. 13; Gaz. vol. 213; p. 471.

Johnson, William A., Chicago, Ill. Automobile shock-absorber. No. 1,136,469; Apr. 20; Gaz. vol. 213; p. 929.

Johnston, Andrew, deceased, Lydia A. Johnston, executrix, assignor to Massey-Harris Company, Limited, Toronto, Ontario, Canada. Transmission-gear. No. 1,136,342; Apr. 20; Gaz. vol. 213; p. 882.

Johnston, Clarence L. (See Brown and Johnston.)

Johnston, Horace G., Corsicana, Tex. Rotary attachment. No. 1,135,808; Apr. 13; Gaz. vol. 213; p. 653.

Johnston, Lydia A., executrix. (See Johnston, Andrew.)

Johnston, Stephen G., Barboursville, W. Va. Burner. No. 1,134,863; Apr. 6; Gaz. vol. 213; p. 280.

Johnston, Stephen G., Barboursville, W. Va. Automatic coupling. No. 1,134,864; Apr. 6; Gaz. vol. 213; p. 280.

Jones, Allan H. (See Edge and Jones.)

Jones, Benjamin H., St. Louis, Mo. Bronzing-machine. No. 1,134,203; Apr. 6; Gaz. vol. 213; p. 44.
Jones, Clarence W., Norwalk, Conn. Magazine-brush. No. 1,134,865; Apr. 6; Gaz. vol. 213; p. 281.
Jones, Ell, Lexington, Tenn. Well-strainer. No. 1,135,809; Apr. 13; Gaz. vol. 213; p. 654.
Jones, Frank E., assignor to Hemphill Manufacturing Company, Pawtucket, R. I. Yarn-finger mechanism for knitting-machines. No. 1,136,343; Apr. 20; Gaz. vol. 213; p. 882.
Jones, George A., Seattle, Wash. Internal-combustion pumping-engine. No. 1,135,587; Apr. 13; Gaz. vol. 213; p. 576.
Jones, Henry H., Medford, Mass. Garbage-receptacle. No. 1,136,235; Apr. 20; Gaz. vol. 213; p. 844.
Jones, Jessie L. (See Martin and Jones.)
Jones, John A., Palestine, Tex. Garbage-can. No. 1,135,810; Apr. 13; Gaz. vol. 213; p. 654.
Jones, John W. (See Sinclair, Bert L., assignor.)
Jones, John W., A. E. and W. W. Price, East Liverpool, Ohio. Combined cleaner and paper-hanger. No. 1,134,204; Apr. 6; Gaz. vol. 213; p. 44.
Jones, Presley T., Fulton, Ky. Baling-press. No. 1,137,059; Apr. 27; Gaz. vol. 213; p. 1175.
Jones, Ralph E., Manhattan, Kans. Safety watch-pocket. No. 1,134,458; Apr. 6; Gaz. vol. 213; p. 137.
Jones, Richard E., and G. A. Martin, assignors to Dexter Folder Company, Pearl River, N. Y. Slow-down and sheet-straightening device. No. 1,135,811; Apr. 13; Gaz. vol. 213; p. 655.
Jones, Thomas Q., Tullahoma, Tenn. Stiffener for horse-collars. No. 1,135,190; Apr. 13; Gaz. vol. 213; p. 438.
Jones, Will L., Douglas, Ariz. Compressed-air and suction water-elevator. No. 1,135,023; Apr. 13; Gaz. vol. 213; p. 381.
Jones, William R., Marion, Mich. Mower and tedder. No. 1,137,630; Apr. 27; Gaz. vol. 213; p. 1377.
Jopling, Pearson, assignor of one-half to M. Hoffman, Rock Island, Ill. Coal and rock drill. No. 1,135,530; Apr. 13; Gaz. vol. 213; p. 555.
Jordan, George G. (See Johnson, Henry P., assignor.)
Joseph Dick Manufacturing Company, The. (See Dick, Joseph, assignor.)
Joslin, William H., Providence, R. I. Carrier for braiding-machines. No. 1,137,490; Apr. 27; Gaz. vol. 213; p. 1330.
Joughins, George R., Moncton, New Brunswick, Canada. Car-roof. No. 1,136,962; Apr. 27; Gaz. vol. 213; p. 1139.
Joyce, Frank I., Dayton, Ohio. Head for lifting-jacks. No. 1,137,491; Apr. 27; Gaz. vol. 213; p. 1331.
Juarez, Marcus A., Oxnard, Cal. Horse-detacher. No. 1,134,134; Apr. 6; Gaz. vol. 213; p. 18.
Judge, James L., Minneapolis, Minn. Seal for steam-radiators. No. 1,134,135; Apr. 6; Gaz. vol. 213; p. 19
Judson Governor Company. (See Osborne, John L., assignor.)
Juel, Peter J., Council Bluffs, assignor to H. S. Rottenborg, Atlantic, and H. C. Hansen, Brayton, Iowa. Lightning-rod cable. No. 135,940; Apr. 13; Gaz. vol. 213; p. 698.
Jumeau, Marie-F.-J.-L., Pnom-Penh, Cambodia, French Indo-China. Flying-machine. No. 1,135,191; Apr. 13; Gaz. vol. 213; p. 438.
Justice, George B., Raleigh, N. C. Parcel-post weighing-scale. No. 1,135,812; Apr. 13; Gaz. vol. 213; p. 655.
Juten, John A., Gilbert, Minn. Reinforcing protector for trace-holds. No. 1,136,425; Apr. 20; Gaz. vol. 213; p. 913.
Kabo Corset Co. (See Murtera, Ugo, assignor.)
Kaericher, George. (See Smith and Kaericher.)
Kaletsky, Cornelius M. (See Fischer and Kaletsky.)
Kalfahs, Gustav. (See Lee, Charles A., assignor.)
Kalfer Company. (See Fischer and Kaletsky, assignors.)
Kalina, Loeser, New York, N. Y. Folding tooth-brush. No. 1,134,459; Apr. 6; Gaz. vol. 213; p. 137.
Kallmann, Martin, deceased, P. Kallmann, Berlin, Germany, administratrix. Device for the comparison of current, tension, and power by self-acting resistances. No. 1,136,810; Apr. 20; Gaz. vol. 213; p. 1049.
Kallmann, Paula, administratrix. (See Kallmann, Martin.)
Kalmus, Herbert T. (See Comstock and Kalmus.)
Kaltcok, Josef. (See Seng and Kaltcok.)
Kaminski, Albert. (See Kosienski and Kaminski.)
Karish, Isaac, assignor of one-half to T. Naktin, Chicago, Ill. Extension-table. No. 1,135,115; Apr. 13; Gaz. vol. 213; p. 412.
Kasanszky, Tivadar, Ujpest and Sándor Bernstein, Budapest, Austria-Hungary. Construction of furniture. No. 1,136,811; Apr. 20; Gaz. vol. 213; p. 1049.
Kashian, Minas H., Amesbury, Mass. Trolley-head. No. 1,134,136; Apr. 6; Gaz. vol. 213; p. 19.
Kasser, Joseph B. and M., San Francisco, Cal. Automatic compartment-inflater for ships. No. 1,135,902; Apr. 13; Gaz. vol. 213; p. 686.
Kasser, Morris. (See Kasser, Joseph B. and M.)
Kasser, Morris and J. B., San Francisco, Cal. Bathing-suit. No. 1,135,903; Apr. 13; Gaz. vol. 213; p. 687.
Kaszo, Imre. (See Vécsey, Mike, assignor.)
Kauffman, Dorfie L. (See Hitt, Marcellus M., assignor.)
1,134,618; Apr. 6; Gaz. vol. 213; p. 195.
Kavanagh, Joseph A., Wichita Falls, Tex. Lavatory. No.
Kaufmann, Frank J., and W. N. Marsden, Amsterdam, N. Y., assignors to Fownes Brothers and Company, London, England. Thread-drawing and thread-cutting mechanism for sewing-machines. No. 1,137,143; Apr. 27; Gaz. vol. 213; p. 1206.
Kaufman, Siegmund, Birmingham, Ala. Weed-puller. No. 1,134,886; Apr. 6; Gaz. vol. 213; p. 281.
Kayser, Edwin C., assignor, by mesne assignments, to The Hydrogenation Company, Cincinnati, Ohio. Apparatus for the reduction of metallic oxids with hydrogen. No. 1,134,745; Apr. 16; Gaz. vol. 213; p. 242.
Kayser, Edwin C., Beau Séjour, St. Brelade's Bay, Isle of Jersey, assignor, by mesne assignments, to Hydrogenation Company, Cincinnati, Ohio. Effecting reduction of fatty or other organic compounds. No. 1,134,746; Apr. 6; Gaz. vol. 213; p. 242.
Keating, Harry J., Chicago, Ill. Perfuming apparatus. No. 1,137,632; Apr. 27; Gaz. vol. 213; p. 1378.
Keating, Harry J., assignor to Venn Manufacturing Company, Chicago, Ill. Check-controlled apparatus. No. 1,137,631; Apr. 27; Gaz. vol. 213; p. 1378.
Keay, James A., Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for use in the manufacture of boots and shoes. No. 1,135,024; Apr. 13; Gaz. vol. 213; p. 381.
Keeler, Noah, Wallace, N. Y. Potato-digging machine. No. 1,134,205; Apr. 6; Gaz. vol. 213; p. 45.
Kehr, Frederick C., Hartford, Wis. Tool-post for lathes. No. 1,134,460; Apr. 6; Gaz. vol. 213; p. 138.
Keighley, William B., Vineland, N. J. Leather-splitting machine. No. 1,134,747; Apr. 6; Gaz. vol. 213; p. 243.
Keil, Lewis E., St. Paul, Minn. Rotary engine. No. 1,136,344; Apr. 20; Gaz. vol. 213; p. 882.
Keiper, Henry B., Lancaster, Pa. Drill-driving mechanism. No. 1,137,330; Apr. 27; Gaz. vol. 213; p. 1274.
Keister, James, Steubenville, Ohio. Internal-combustion engine. No. 1,134,867; Apr. 6; Gaz. vol. 213; p. 281.
Keith, Alfred T., Bridgewater, Mass. Adjustable strap-support. No. 1,136,963; Apr. 27; Gaz. vol. 213; p. 1139.
Kellar, Victor T., assignor to The Allen Auto Specialty Company, New York, N. Y. Cover for wheel-tires. No. 1,134,748; Apr. 6; Gaz. vol. 213; p. 243.
Keller, Edmon W., Cripple Creek, Colo. Automatic train-stop mechanism. No. 1,134,868; Apr. 6; Gaz. vol. 213; p. 281.
Keller, Jeremiah, Chicago, Ill. Starting mechanism for motors. No. 1,135,694; Apr. 13; Gaz. vol. 213; p. 614.
Kelley, Arthur M., Toledo, Ohio. Panic exit-lock. No. 1,136,141; Apr. 20; Gaz. vol. 213; p. 810.
Kelley, Rawson A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole molding machine. No. 1,137,633; Apr. 27; Gaz. vol. 213; p. 1378.
Kelley, Stephen T., Great Falls, Mont. Device for watering stock. No. 1,137,214; Apr. 27; Gaz. vol. 213; p. 1231.
Kellogg Switchboard and Supply Company. (See Camp, Curtis B., assignor.)
Kellogg Switchboard & Supply Company. (See Mueller, George E., assignor.)
Kellum, Orlando E., Los Angeles, Cal. Sound transmission and recording. No. 1,137,060; Apr. 27; Gaz. vol. 213; p. 1175.
Kelly-Arnold Manufacturing Company, The. (See Kelly and Royer, assignors.)
Kelly, Edward C., Jr., assignor to Kelly Separator Company, Boston, Mass. Strainer. No. 1,134,275; Apr. 6; Gaz. vol. 213; p. 70.
Kelly, George E., and G. F. Royer, assignors to The Kelly-Arnold Manufacturing Company, Wilkes-Barre, Pa. Train-pipe coupling. No. 1,137,406; Apr. 27; Gaz. vol. 213; p. 1302.
Kelly, John A., Philadelphia, Pa. Machine for affixing linings to shoe-soles. No. 1,134,619; Apr. 6; Gaz. vol. 213; p. 195.
Kelly, John F., Pittsfield, Mass. Device for producing electric pulsations. No. 1,134,137; Apr. 6; Gaz. vol. 213; p. 19.
Kelly, Michael J., South Lee, Mass. Differential drive mechanism. No. 1,134,138; Apr. 6; Gaz. vol. 213; p. 20.
Kelly Separator Company. (See Kelly, Edward C., Jr., assignor.)
Kelly-Springfield Motor Truck Company, The. (See Balough, Charles, assignor.)
Kelly, Thomas D., Southend-on-Sea, England. Internal-combustion engine. No. 1,136,812; Apr. 20; Gaz. vol. 213; p. 1050.
Kelp Products Company. (See Artz, Adolphe G., assignor.)
Kelting, William R., New York, N. Y. Electrical plug and receptacle. No. 1,137,634; Apr. 27; Gaz. vol. 213; p. 1379.
Kemming, Leonard C., Denison, Iowa. Rotary valve for gas-engines. No. 1,134,461; Apr. 6; Gaz. vol. 213; p. 138.
Kemp, Edward H. (See Rickon, Harold J., assignor.)
Kemp, William W., and W. H. Van Horn, Baltimore, Md. Adjustable singeing-burner. No. 1,135,813; Apr. 13; Gaz. vol. 213; p. 655.
Kemper, Edward D., Stanton, Nebr. Animal-poke. No. 1,136,014; Apr. 20; Gaz. vol. 213; p. 767.
Kempien, August J., St. Paul, Minn. Game apparatus. No. 1,136,345; Apr. 20; Gaz. vol. 213; p. 883.

Kempien, August J., St. Paul, Minn. Bowling-alley. No. 1,137,635; Apr. 27; Gaz. vol. 213; p. 1379.
Kendall, William G., Newark, N. J. Top for receptacles. No. 1,135,380; Apr. 13; Gaz. vol. 213; p. 502.
Kendrick, James Z., Statesboro, Ga. Shovel-plow. No. 1,134,462; Apr. 6; Gaz. vol. 213; p. 138.
Kendrick, Karl A., Detroit, Mich., assignor of one-half to C. Blakely, Boston, Mass., and one-half to F. T. Lodge, Detroit, Mich. Paper box. No. 1,135,588; Apr. 13; Gaz. vol. 213; p. 576.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,136,534; Apr. 20; Gaz. vol. 213; p. 951.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,136,535; Apr. 20; Gaz. vol. 213; p. 951.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,136,536; Apr. 20; Gaz. vol. 213; p. 951.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,136,537; Apr. 20; Gaz. vol. 213; p. 952.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,097; Apr. 27; Gaz. vol. 213; p. 1156.
Kennedy, John P., *et al.* (See Johnson, Lewis, assignor.)
Kennedy, Julian, Pittsburgh, Pa. Rail-joint. No. 1,135,695; Apr. 13; Gaz. vol. 213; p. 615.
Kennedy, Patrick, New York, N. Y. Belt-fastening. No. 1,134,139; Apr. 6; Gaz. vol. 213; p. 20.
Kennedy, William J., Greenville, Tex. Self-soaping washboard. No. 1,135,904; Apr. 13; Gaz. vol. 213; p. 687.
Kenney, Edward F., Westmont borough, Pa. Top for ingot-molds. No. 1,135,381; Apr. 13; Gaz. vol. 213; p. 502.
Kenney, Edward F., Westmont borough, Pa. Steel manufacture. No. 1,137,144; Apr. 27; Gaz. vol. 213; p. 1206.
Kenney, William J., Wilmette, and H. P. Grohn, assignors to The Underfeed-Stoker Company of America, Chicago, Ill. Automatic stoking apparatus. No. 1,136,679; Apr. 20; Gaz. vol. 213; p. 1002.
Kentzer, William C., New Rochelle, N. Y. Window-fastening. No. 1,135,696; Apr. 13; Gaz. vol. 213; p. 615.
Keough, James E., Boston, Mass. Electric fixture. No. 1,134,954; Apr. 6; Gaz. vol. 213; p. 310.
Kerner Manufacturing Company. (See Frauenheim, Joseph A., assignor.)
Kerr, Charles V., Wellsville, N. Y. Blower. No. 1,136,142; Apr. 20; Gaz. vol. 213; p. 811.
Kettering, Charles F., and W. A. Chryst, assignors to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,137,061; Apr. 27; Gaz. vol. 213; p. 1175.
Kettering, Charles F., and W. A. Chryst, assignors to The National Cash Register Company, Dayton, Ohio. Cash and autographic register. No. 1,137,062; Apr. 27; Gaz. vol. 213; p. 1176.
Keuffel & Esser Company, The. (See Ferber, Philip, assignor.)
Keuffel & Esser Company. (See Kollmorgen, Frederick L. G., assignor.)
Kevency, Leo P., and C. F. Collinge, Toledo, Ohio. Binder. No. 1,135,697; Apr. 13; Gaz. vol. 213; p. 616.
Kidney, Alfred H., Orange, N. J. Magnetic separator. No. 1,137,492; Apr. 27; Gaz. vol. 213; p. 1331.
Kiger, Edrick N., Plummer, Idaho. Mechanical movement. No. 1,136,911; Apr. 20; Gaz. vol. 213; p. 1085.
Kilgore, Charles V., Sykesville, Md. Trace-fastener. No. 1,137,636; Apr. 27; Gaz. vol. 213; p. 1380.
Kilgour, Dwight F., Lexington, Mass. Lubricator. No. 1,136,426; Apr. 20; Gaz. vol. 213; p. 913.
Kliiman, Thomas A., assignor of one-fourth to E. H. Roy, Nashville, Tenn. Means for taking and projecting moving pictures. No. 1,136,236; Apr. 20; Gaz. vol. 213; p. 844.
Kilwinski, Frank H., assignor of one-half to W. Heusser, San Francisco, Cal. Rotary internal-combustion engine. No. 1,134,869; Apr. 6; Gaz. vol. 213; p. 282.
Kimes, David B., Spring City, Pa. Stitch-changing mechanism for knitting-machines. No. 1,137,493; Apr. 27; Gaz. vol. 213; p. 1331.
Kindermann, Franz, Berlin, Germany. Crutch. No. 1,137,008; Apr. 27; Gaz. vol. 213; p. 1157.
Kindervater, Julius, Richmond, Va., assignor to Locomotive Superheater Company, New York, N. Y. Making U-shaped pipe-bends. No. 1,137,267; Apr. 27; Gaz. vol. 213; p. 1252.
Kindred, Anna D., Fargo, N. D. Finger-nail shield. No. 1,135,382; Apr. 13; Gaz. vol. 213; p. 503.
King, Charles B., Detroit, Mich., assignor, by mesne assignments, to King Motor Car Company. Change-speed gearing. No. 1,134,681; Apr. 6; Gaz. vol. 213; p. 218.
King, Edward K., Hamill, S. D. Headlight. No. 1,135,456; Apr. 13; Gaz. vol. 213; p. 529.
King, Ernest A., assignor to Henry Disston & Sons Incorporated, Philadelphia, Pa. Square. No. 1,135,814; Apr. 13; Gaz. vol. 213; p. 656.
King, Martin. (See Carvalho, Leslie R. N., assignor.)
King Motor Car Company. (See King, Charles B., assignor.)
King, Norman, Sr., Canton, Ohio. Resilient wheel. No. 1,137,063; Apr. 27; Gaz. vol. 213; p. 1177.
King, Robert N. (See Cook, Frederick H., assignor.)
King, Robert N., Dayton, Ohio. Tobacco-harvester. No. 1,134,206; Apr. 6; Gaz. vol. 213; p. 45.
King, Walter G., New York, N. Y. Goggles. No. 1,137,494; Apr. 27; Gaz. vol. 213; p. 1332.
King, William P., Syracuse, N. Y. Egg-carrier. No. 1,136,237; Apr. 20; Gaz. vol. 213; p. 844.
King, William T., Rosanky, Tex. Vise and saw-clamp. No. 1,135,815; Apr. 13; Gaz. vol. 213; p. 656.
King, Wylie D., Medina, Tex. Jaws for animal-traps. No. 1,136,015; Apr. 20; Gaz. vol. 213; p. 767.
Kingsley, William, assignor of one-half to A. C. Phillips, Seattle, Wash. Vehicle-wheel. No. 1,135,290; Apr. 13; Gaz. vol. 213; p. 471.
Kinkead Manufacturing Company. (See Hafner, Charles, assignor.)
Kinne, Edmund P. (See Janney and Kinne.)
Kinnear Manufacturing Company, The. (See Rosenberg, Ralph H., assignor.)
Kinnear, Robert S., assignor of one-half to A. P. Higgins, Laramie, Wyo. Automatic car-journal cooler. No. 1,134,620; Apr. 6; Gaz. vol. 213; p. 195.
Kinney, Justus R., assignor to The Kinney Manufacturing Company, Boston, Mass. Rotary pump. No. 1,135,291; Apr. 13; Gaz. vol. 213; p. 471.
Kinney, Justus R., Dorchester, assignor to The Kinney Manufacturing Company, Boston, Mass. Rotary pump. No. 1,137,215; Apr. 27; Gaz. vol. 213; p. 1231.
Kinney Manufacturing Company, The. (See Kinney, Justus R., assignor.)
Kirby, Alfred L., Newark, N. J. Sheet-metal door and the like. No. 1,136,238; Apr. 20; Gaz. vol. 213; p. 845.
Kirby, Lewis H., Detroit, Mich. Auxiliary air-inlet for engines. No. 1,134,276; Apr. 6; Gaz. vol. 213; p. 71.
Kirk, Walter I., assignor to Lyon & Healy, Chicago, Ill. Harp. No. 1,134,207; Apr. 6; Gaz. vol. 213; p. 45.
Kirkham, Zachariah T., Mount Sterling, Ill. Combination wagon-body, hay and hog rack, and hog-chute. No. 1,136,813; Apr. 20; Gaz. vol. 213; p. 1050.
Kitchen, John F., assignor to The Spirella Company, Meadville, Pa. Machine for forming wire stays. (Reissue.) No. 13,904; Apr. 27; Gaz. vol. 213; p. 1408.
Kjellstrom, Mary S., New York, N. Y. Washboard. No. 1,135,816; Apr. 13; Gaz. vol. 213; p. 656.
Klagsbrunn, Hugo, Mount Vernon, N. Y. Doll-head. No. 1,135,292; Apr. 13; Gaz. vol. 213; p. 472.
Klassen, Isaak K., Hague, Saskatchewan, Canada. Cultivator. No. 1,137,331; Apr. 27; Gaz. vol. 213; p. 1274.
Klatte, Otto, Minneapolis, Minn. Ironing-board. No. 1,137,332; Apr. 27; Gaz. vol. 213; p. 1275.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Cap for lamp-sockets and the like. No. 1,135,193; Apr. 13; Gaz. vol. 213; p. 438.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Insulating means for lamp-sockets and the like. No. 1,135,194; Apr. 13; Gaz. vol. 213; p. 439.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Attachment for electric-switch devices. No. 1,136,239; Apr. 20; Gaz. vol. 213; p. 845.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,136,240; Apr. 20; Gaz. vol. 213; p. 846.
Klein, Charles J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,136,680; Apr. 20; Gaz. vol. 213; p. 1002.
Klein, Henry, New York, N. Y., and L. J. Mead, Darien, Conn.; said Mead assignor to said Klein. Post for office-railings and the like. No. 1,135,817; Apr. 13; Gaz. vol. 213; p. 656.
Kleinman, Nathaniel W., Brooklyn, N. Y. Automatic direction-indicator. No. 1,136,814; Apr. 20; Gaz. vol. 213; p. 1050.
Kline, Richard E. (See Bardeen, Hugh A., assignor.)
Klingborg, Carl J., Seattle, Wash. Cutter-head. No. 1,137,216; Apr. 27; Gaz. vol. 213; p. 1232.
Klink, Charles E., C. V. Wilgus, and F. H. Bickford, Kingston, assignors to The Adder Machine Company, Wilkes-Barre, Pa. Item-indicator. No. 1,136,016; Apr. 20; Gaz. vol. 213; p. 768.
Klocker, Augustus, assignor to Thomaston Knife Company, Thomaston, Conn. Pocket-knife. No. 1,134,539; Apr. 6; Gaz. vol. 213; p. 166.
Klohs, Sam F., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill. Carline structure. No. 1,136,064; Apr. 27; Gaz. vol. 213; p. 1139.
Kloner, Charles P., East Conemaugh, assignor of two-thirds to J. E. Zang, Johnstown, Pa. Flexible clamp-joint. No. 1,137,333; Apr. 27; Gaz. vol. 213; p. 1275.
Klug, George M., Ionia, Mich. Foundry-cupola. No. 1,135,025; Apr. 13; Gaz. vol. 213; p. 381.
Klug, William, Plaza, N. D. Detachable share. No. 1,135,818; Apr. 13; Gaz. vol. 213; p. 657.
Knapp, Frederick H., assignor to The Fred H. Knapp Company, Westminster, Md. Treating labels and applying the same to cans. No. 1,135,293; Apr. 13; Gaz. vol. 213; p. 472.
Knapp, Frederick H., assignor to The Fred H. Knapp Company, Westminster, Md. Machine for treating labels and applying the same to cans. No. 1,135,295; Apr. 13; Gaz. vol. 213; p. 473.

Knapp, Frederick H., and W. H. Leister, assignors to Fred H. Knapp Company, Westminster, Md. Can-wrapping machine. No. 1,135,294; Apr. 13; Gaz. vol. 213; p. 472.

Knapp, George O. (See Beach, Clarence E., assignor.)

Knapp, Harold O., Crockett, Cal. Automatic valve. No. 1,134,621; Apr. 6; Gaz. vol. 213; p. 196.

Knauber, Alexander M., assignor to M. Knauber, Oak Park, Ill. Adjustable fixture stud and support. No. 1,135,609; Apr. 13; Gaz. vol. 213; p. 616.

Knauber, Margaret. (See Knauber, Alexander M., assignor.)

Knauff, George C., Chicago, Ill. Switching socket or connector. No. 1,136,681; Apr. 20; Gaz. vol. 213; p. 1002.

Knauss, Edward, Melrose, Mass., and F. H. Petitmaire, Philadelphia, Pa. Combined foot-rest and heater for motor-vehicles. No. 1,134,870; Apr. 6; Gaz. vol. 213; p. 282.

Knecht, Johann J., Chemnitz, Germany. Frame-actuating mechanism for embroidering-machines. No. 1,136,815; Apr. 20; Gaz. vol. 213; p. 1051.

Kneezell, Edward, El Paso, Tex. Engine-starting device. No. 1,135,819; Apr. 13; Gaz. vol. 213; p. 658.

Kniffen, Frederick, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Forming pyroxylin bodies. No. 1,135,026; Apr. 13; Gaz. vol. 213; p. 382.

Knight American Patents Company. (See Knight, Charles Y., assignor.)

Knight, Charles Y., Chicago, Ill., assignor, by mesne assignments, to Knight American Patents Company. Internal-combustion engine. No. 1,136,143; Apr. 20; Gaz. vol. 213; p. 811.

Knight, Walter H., Providence, R. I. Regenerative system for stopping and starting cars and trains. No. 1,134,682; Apr. 6; Gaz. vol. 213; p. 218.

Knipe, Oliver C., Palo Alto, Cal. Ball-bearing. No. 1,134,463; Apr. 6; Gaz. vol. 213; p. 138.

Knox, Jean H., Oakland, Cal. Building construction. No. 1,134,955; Apr. 6; Gaz. vol. 213; p. 311.

Knox, William J. (See Harrison and Knox.)

Knudsen, John L., assignor of one-third to N. Peterson, Menominee, Mich., and one-third to A. W. Nelson, Chicago, Ill. Perambulator. No. 1,135,383; Apr. 13; Gaz. vol. 213; p. 503.

Koch, William L. C., Dedham, Mass. Fish-hook. No. 1,134,622; Apr. 6; Gaz. vol. 213; p. 196.

Koehl, Louis C., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Gage device for punching-machines. No. 1,135,531; Apr. 13; Gaz. vol. 213; p. 555.

Koeppen, Ludwig J., *et al.* (See Swartwood, George, assignor.)

Koftan, Vincent, Tyndall, S. D. Lifting-jack for automobiles. No. 1,134,140; Apr. 6; Gaz. vol. 213; p. 21.

Kohlberger, Charles F., New York, N. Y. Pin-tumbler lock. No. 1,135,027; Apr. 13; Gaz. vol. 213; p. 382.

Kohlmeyer, August H., assignor to Thermo Automatic Stove Company, St. Louis, Mo. Gas-oven. No. 1,135,700; Apr. 13; Gaz. vol. 213; p. 616.

Kohn, Maurice R. (See Hiller and Kohn.)

Kolb, John. (See Drozeski, Julius R., assignor.)

Kolenic, Andrew, Jr., Streator, Ill. Mining implement. No. 1,137,637; Apr. 27; Gaz. vol. 213; p. 1380.

Kollmorgen, Frederick L. G., Boonton, assignor to Keuffel & Esser Company, Hoboken, N. J. Optical instrument. No. 1,134,388; Apr. 6; Gaz. vol. 213; p. 111.

Kolpien, John H., Westfield, N. Y. Road-hone. No. 1,135,532; Apr. 13; Gaz. vol. 213; p. 556.

Komarcsevits, George, and G. Traiber, Lorain, Ohio. Safety device for locks. No. 1,135,589; Apr. 13; Gaz. vol. 213; p. 577.

Koneiska, Herman M. (See Miller and Koneiska.)

Konsrv Electric Company, The. (See Cook, Frank J., assignor.)

Kooyman, John D., Salt Lake City, Utah. Automatic elevator-stop. No. 1,136,144; Apr. 20; Gaz. vol. 213; p. 812.

Kopinski, Thomas, Rochester, N. Y. Surface-gage. No. 1,135,941; Apr. 13; Gaz. vol. 213; p. 698.

Koppelman, Morris, New York, N. Y. Emergency stop and jack for automobiles. No. 1,136,145; Apr. 20; Gaz. vol. 213; p. 812.

Köppen, Lothar von, Stettin-on-the-Oder, Germany. Ship's hull. No. 1,136,888; Apr. 20; Gaz. vol. 213; p. 1076.

Koppers, Heinrich, Essen-on-the-Ruhr, Germany, assignor to H. Koppers Company, Chicago, Ill. Oven for generating gas and producing coke. No. 1,134,683; Apr. 6; Gaz. vol. 213; p. 219.

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,135,698; Apr. 13; Gaz. vol. 213; p. 616.

Kormanshaus, Carl, Barmen, Germany, assignor to Stokes & Smith Company, Summerdale, Pa. Container. No. 1,137,268; Apr. 27; Gaz. vol. 213; p. 1252.

Kormanshaus, Carl, Barmen, Germany, assignor to Stokes & Smith Company, Summerdale, Pa. Making containers. No. 1,137,269; Apr. 27; Gaz. vol. 213; p. 1252.

Korteum, Anton H., and F. Baus, Long Prairie, Minn. Potato-fork. No. 1,135,820; Apr. 13; Gaz. vol. 213; p. 658.

Kosienski, Jacob, and A. Kaminski, assignors of one-third to B. H. Lichtman, Amsterdam, N. Y. Non-refillable bottle. No. 1,136,880; Apr. 20; Gaz. vol. 213; p. 1073.

Kosinsky, Frank, Brooklyn, N. Y. Lock. No. 1,134,141; Apr. 6; Gaz. vol. 213; p. 21.

Kraeer, Oliver A., Bartlesville, Okla. Pump. No. 1,135,821; Apr. 13; Gaz. vol. 213; p. 658.

Kramer, Emil M., Paxton, Ill. Internal-combustion engine. No. 1,134,684; Apr. 6; Gaz. vol. 213; p. 219.

Kramer, Emil M., Paxton, Ill. Internal-combustion engine. No. 1,134,685; Apr. 6; Gaz. vol. 213; p. 220.

Kramer, Julius. (See Seng and Kaltcok, assignors.)

Kranich, Frank G. N., Newton, Iowa, assignor to The Maytag Company. Safety attachment for wringers. No. 1,136,241; Apr. 20; Gaz. vol. 213; p. 846.

Kranich, Frank N. G., Laporte, Ind. Ensilage-cutter. No. 1,137,334; Apr. 27; Gaz. vol. 213; p. 1276.

Krarup, Marius C., New York, N. Y. Tractor-wheel. No. 1,135,533; Apr. 13; Gaz. vol. 213; p. 556.

Krarup, Marius C., New York, N. Y. Vehicle-spring. No. 1,137,145; Apr. 27; Gaz. vol. 213; p. 1206.

Kratzer, Charles E., New Vienna, Ohio. Steering mechanism for automobile-headlights. No. 1,134,464; Apr. 6; Gaz. vol. 213; p. 139.

Kraus, David. (See Embler, Harry B., assignor.)

Krause Manufacturing Co. (See Krause, Richard E., assignor.)

Krause, Richard E., assignor to Krause Manufacturing Co., Detroit, Mich. Device for preheating hydrocarbons in carbureters. No. 1,135,195; Apr. 13; Gaz. vol. 213; p. 439.

Krebs, Amos B., Bolivar, Pa. Clothes-protector. No. 1,136,346; Apr. 20; Gaz. vol. 213; p. 883.

Krebs, Louis J., Coffeyville, Kans. Apparatus for drawing sheet-glass. No. 1,136,816; Apr. 20; Gaz. vol. 213; p. 1051.

Kress, Claude W., New York, N. Y. Container construction. No. 1,134,540; Apr. 6; Gaz. vol. 213; p. 166.

Kressel, Edward C. L., Camden, N. J., assignor to Wilckes, Martin, Wilckes Co., New York, N. Y. Baking preparation. No. 1,134,956; Apr. 6; Gaz. vol. 213; p. 311.

Kreter, Friedrich W. O., San Antonio, Tex. Flushing device. No. 1,135,028; Apr. 13; Gaz. vol. 213; p. 382.

Krichbaum, Guy V., Ashland, Ohio. Inner tire. No. 1,137,064; Apr. 27; Gaz. vol. 213; p. 1177.

Krieger, Walter F., Milwaukee, Wis. Automatic regulator for refrigerating-machines. No. 1,135,196; Apr. 13; Gaz. vol. 213; p. 439.

Krippendorf, Charles H. (See Fowler, William, assignor.)

Krogh, Ferdinand W., San Francisco, Cal. Turbine-pump. No. 1,135,296; Apr. 13; Gaz. vol. 213; p. 473.

Krohn, Julius J., Arcata, and F. J. Davis, Oakland, Cal. Stave-sander. No. 1,136,146; Apr. 20; Gaz. vol. 213; p. 812.

Kron, John L., Kittanning, Pa. Handle for satchels and the like. No. 1,134,871; Apr. 6; Gaz. vol. 213; p. 283.

Krone, Harry H., M. Rubinstein and J. Rubinstien, Chicago, Ill. Glass-washer. No. 1,134,957; Apr. 6; Gaz. vol. 213; p. 311.

Krueger, Frank G., *et al.* (See Marker, Henry H., assignor.)

Kruemling, Paul, Maher, Colo. Brake-block holder. No. 1,134,872; Apr. 6; Gaz. vol. 213; p. 283.

Krum, Charles L., assignor to Morkrum Company, Chicago Ill. Printing-telegraph apparatus. No. 1,137,146; Apr 27; Gaz. vol. 213; p. 1207.

Krumm, August, *et al.* (See Swartwood, George, assignor.)

Krumming Reinhold, Milwaukee, Wis. Temporary binder or loose-sheet holder. No. 1,136,017; Apr. 20; Gaz. vol. 213; p. 768.

Kruse, Peter, assignor to E. W. Bliss Company, Brooklyn, N. Y. Flanging device for sheet-metal blanks. No. 1,135,534; Apr. 13; Gaz. vol. 213; p. 556.

Kuebler, Effie C., Chicago, Ill. Garment-shield. No. 1,136,242; Apr. 20; Gaz. vol. 213; p. 847.

Kuehne, George, Chicago, Ill. Baffle for water-tube boilers. No. 1,135,535; Apr. 13; Gaz. vol. 213; p. 557.

Kuenz, Joseph A., Toledo, Ohio. Radiator. No. 1,137,335; Apr. 27; Gaz. vol. 213; p. 1276.

Kuenzli, Henry L., Nevada, Ohio. Water-filter. No. 1,136,538; Apr. 20; Gaz. vol. 213; p. 952.

Kuhl, Philip C., assignor of one-half to F. M. Ginther, Medicine Hat, Alberta, Canada. Grain-shocker. No. 1,134,465; Apr. 6; Gaz. vol. 213; p. 139.

Kuhn, Frank, and F. E. Shaffer, Detroit, Mich., said Shaffer assignor to said Kuhn. Fount for percolators. No. 1,136,018; Apr. 20; Gaz. vol. 213; p. 768.

Kurz, Gustav A. (See Chaddock and Kurz.)

Kusske, Paul R., Sibley, Minn. Draft device. No. 1,135,116; Apr. 13; Gaz. vol. 213; p. 413.

Kytlica, John F., Chicago, Ill. Internal-combustion engine. No. 1,134,623; Apr. 6; Gaz. vol. 213; p. 197.

L'homme, Raphael A., Worcester, Mass. Base-ball apparatus. No. 1,136,542; Apr. 20; Gaz. vol. 213; p. 954.

L'Heureux, Ludger, Montreal, Quebec, Canada. Tower for fire-fighting purposes. No. 1,136,604; Apr. 20; Gaz. vol. 213; p. 976.

La Combe, Oral J., Jr., Negaunee, Mich. Key for stop-boxes. No. 1,135,297; Apr. 13; Gaz. vol. 213; p. 474.

Labombarde, Leon E., and M. H. Sidebotham, Nashua, N. H. Power-counter. No. 1,135,536; Apr. 13; Gaz. vol. 213; p. 557.

Lachapelle, Rudolph L., Altona, N. Y. Dairy-register. No. 1,134,873; Apr. 6; Gaz. vol. 213; p. 284.

Lack, Rudolf, Berlin, Germany. Shoe-insertion. No. 1,134,389; Apr. 6; Gaz. vol. 213; p. 111.

Lacroix, Benoit, Chazelles-sur-Lyon, France. Brushing-machine. No. 1,137,009; Apr. 27; Gaz. vol. 213; p. 1157.

Ladd, James B., Ardmore, Pa. Hair-pin. No. 1,137,147; Apr. 27; Gaz. vol. 213; p. 1207.

Ladd, William C., Mendota, Ill. Anchor-plate. No. 1,136,817; Apr. 20; Gaz. vol. 213; p. 1052.

Lafore, John A., Ardmore, Pa. Box construction. No. 1,135,117; Apr. 13; Gaz. vol. 213; p. 413.

Laframboise, Roman, Maple Ridge, Mich. Car-moving device. No. 1,134,466; Apr. 6; Gaz. vol. 213; p. 140.

Laganke, Charles F., and J. A. Smith, Harrisburg, Pa., assignors to Elliott-Fisher Company, New York, N. Y. Motor-operated adding mechanism. No. 1,135,118; Apr. 13; Gaz. vol. 213; p. 413.

Labue, Moses M., Lowell, Mass. Brush. No. 1,135,590; Apr. 13; Gaz. vol. 213; p. 577.

Laing, Andrew, Dunedin, New Zealand. Seat-trimmer. No. 1,134,874; Apr. 6; Gaz. vol. 213; p. 284.

Lake, Simon, Milford, assignor to The Lake Torpedo Boat Company of Maine, Bridgeport, Conn. Submarine boat. No. 1,135,537; Apr. 13; Gaz. vol. 213; p. 558.

Lake Torpedo Boat Company of Maine, The. (See Barraja-Frauenfelder, Joseph, assignor.)

Lake Torpedo Boat Company of Maine, The. (See Lake, Simon, assignor.)

Lakhovsky, Georges, Paris, France. Instrument for measuring or verifying the superelevation, gage, and inclination of the rails of railway-tracks. No. 1,136,427; Apr. 20; Gaz. vol. 213; p. 913.

Lamar, Howard, *et al.* (See Stewart, David, assignor.)

Lamar, Theodore, *et al.* (See Stewart, David, assignor.)

Lamb, James L., Woodburn, Iowa. Binding and tying mechanism. No. 1,135,298; Apr. 13; Gaz. vol. 213; p. 474.

Lamb, Joseph F., assignor to Landers, Frary & Clark, New Britain, Conn. Forming and attaching bolsters to cutlery implements and the bolster-blank therefor. No. 1,136,603; Apr. 20; Gaz. vol. 213; p. 975.

Lambert, Charles R., assignor to Clayton & Lambert Manufacturing Company, Detroit, Mich. Vapor-burner furnace. No. 1,136,965; Apr. 27; Gaz. vol. 213; p. 1140.

Lambert, Charles R., assignor to Clayton & Lambert Manufacturing Company, Detroit, Mich. Burner. No. 1,137,148; Apr. 27; Gaz. vol. 213; p. 1207.

Lamont, John A., Granite City, Ill., assignor to American Steel Foundries, New York, N. Y. Spring-plank-locking device. No. 1,135,591; Apr. 13; Gaz. vol. 213; p. 577.

Lampel, Edward, San Francisco, Cal. Combined screen and insect-trap. No. 1,134,875; Apr. 6; Gaz. vol. 213; p. 284.

Lamsens, Oscar M., Detroit, Mich. Charging beer. No. 1,137,149; Apr. 27; Gaz. vol. 213; p. 1208.

Lamson Company, The. (See Jennings, Chester S., assignor.)

Lamson Company, The. (See Needham, John T., assignor.)

Lamson Company, The. (See Pearsall and Talsey, assignors.)

Lamson Company, The. (See Whittier, Frederick G., assignor.)

Landenberger, Gustav A., Philadelphia, Pa. Knitting-machine. No. 1,134,749; Apr. 6; Gaz. vol. 213; p. 243.

Landers, Frary & Clark. (See Carlson, Frederick E., assignor.)

Landers, Frary & Clark. (See Lamb, Joseph F., assignor.)

Landers, Frary & Clark. (See Warner, Alonzo A., assignor.)

Landgrebe, Anton, New York, N. Y. Apparatus for dispensing beverages. No. 1,137,495; Apr. 27; Gaz. vol. 213; p. 1332.

Landin, Carl J., Boston, assignor to Boston Woven Hose and Rubber Company, Cambridge, Mass. Machine for covering circular objects. No. 1,134,208; Apr. 6; Gaz. vol. 213; p. 46.

Landis, Walter S., Niagara Falls, N. Y., assignor to F. S. Washburn, Nashville, Tenn. Rendering available phosphoric acid. No. 1,137,065; Apr. 27; Gaz. vol. 213; p. 1177.

Lane, Alfred M., assignor to Monarch Metal Weather Strip Company, St. Louis, Mo. Weather-strip. No. 1,134,209; Apr. 6; Gaz. vol. 213; p. 46.

Lane, Frank. (See Beezley and Lane.)

Lane, George S., assignor to C. Christensen, Portland, Oreg. Milk-bottle lock. No. 1,134,277; Apr. 6; Gaz. vol. 213; p. 71.

Lane-Harris & Company. (See Loftin and Murphy, assignors.)

Lane, Oscar A., D. Guice, and H. P. Dohrmeier, Greenville, Ala. Crate or box. No. 1,137,407; Apr. 27; Gaz. vol. 213; p. 1303.

Lane, Roy R., Independence, Mo. Clothes-line reel. No. 1,137,217; Apr. 27; Gaz. vol. 213; p. 1232.

Lane, W Britton, assignor to T. W. Snow Construction Company, Chicago, Ill. Gearing. No. 1,134,541; Apr. 6; Gaz. vol. 213; p. 166.

Lang, William C., Cleveland, Ohio. Sand-compressing means for making molds. No. 1,137,638; Apr. 27; Gaz. vol. 213; p. 1380.

Langdon, John F., Kansas City, Kans. Band-cutter and feeder. No. 1,136,966; Apr. 27; Gaz. vol. 213; p. 1140.

Langer, Henry, Middletown, Conn. Loom. No. 1,135,701; Apr. 13; Gaz. vol. 213; p. 617.

Langford, Simeon, Evansville, Ind. Chair-seat. No. 1,135,197; Apr. 13; Gaz. vol. 213; p. 440.

Langley, Edward H. M., and E. W. Price, Aston, assignors to The Electric & Ordnance Accessories Company, Limited, Birmingham, England. Circuit-controlling apparatus for train-lighting systems. No. 1,135,384; Apr. 13; Gaz. vol. 213; p. 503.

Langton, Edward A., assignor of one-half to C. T. Hayner, New York, N. Y. Non-refillable bottle. No. 1,134,210; Apr. 6; Gaz. vol. 213; p. 47.

Lansden, John M., Jr., Newark, N. J. Vehicle-hub and cap. No. 1,136,019; Apr. 20; Gaz. vol. 213; p. 769.

Lapointe, Francis J., Hudson, Mass. Key-seat-broaching machine. No. 1,137,218; Apr. 27; Gaz. vol. 213; p. 1232.

Larabee, Frederick D. (See Andrews, William G., assignor.)

Larabee, Frederick D., Hutchinson, Kans., assignor to himself, and W. G. Andrews, Chicago, Ill. Treating flour. No. 1,136,881; Apr. 20; Gaz. vol. 213; p. 1073.

Larsen, Andru, Chicago, Ill. Hoof-pad. No. 1,135,029; Apr. 13; Gaz. vol. 213; p. 383.

Larsen, Andru, Chicago, Ill. Hoof-pad. No. 1,135,030; Apr. 13; Gaz. vol. 213; p. 383.

Larsen, Andru, Chicago, Ill. Hoof-pad. No. 1,135,031; Apr. 13; Gaz. vol. 213; p. 383.

Larsen, Bertinius, assignor to National Standard Company, Niles, Mich. Lifting-jack. No. 1,135,299; Apr. 13; Gaz. vol. 213; p. 474.

Larsen, John C., Chicago, Ill. Labeling-machine. No. 1,134,876; Apr. 6; Gaz. vol. 213; p. 285.

Larson, Amos W., Rockford, Ill. Leather-cutting tool. No. 1,134,542; Apr. 6; Gaz. vol. 213; p. 167.

Larson, Charles G., Burlington, Iowa, assignor of two-fifths to W. T. Love, trustee, Lomax, Ill. Grab-bucket. No. 1,136,428; Apr. 20; Gaz. vol. 213; p. 914.

Larson, Chris, Blairstown, Iowa. End-gate. No. 1,134,877; Apr. 6; Gaz. vol. 213; p. 285.

Larson, David, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Overload circuit-breaker. No. 1,134,750; Apr. 6; Gaz. vol. 213; p. 244.

Larson, Edward A., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Automobile-radiator thermometer. No. 1,136,682; Apr. 20; Gaz. vol. 213; p. 1003.

Larson, John, New Britain, Conn. Tension device for spools. No. 1,135,702; Apr. 13; Gaz. vol. 213; p. 617.

Larson, Ole G., assignor of one-half to D. R. Black, Duluth, Minn. Self-lubricating die-stock. No. 1,137,496; Apr. 27; Gaz. vol. 213; p. 1332.

Lasares, George C., Springfield, Mass. Toy gun of the magazine type. No. 1,135,703; Apr. 13; Gaz. vol. 213; p. 617.

Lasher, Clarke D. (See Winans, Edwin, assignor.)

Lassalette, Joseph J., Los Angeles, Cal. Egg-case. No. 1,136,882; Apr. 20; Gaz. vol. 213; p. 1074.

Laszczak, Frank, Kewanee, Ill. Lantern. No. 1,134,878; Apr. 6; Gaz. vol. 213; p. 285.

Latham Machinery Company. (See Weber, Henry, assignor.)

Latta, Emmit G., assignor to H. A. Moyer, Syracuse, N. Y. Platen-operating mechanism. No. 1,134,751; Apr. 6; Gaz. vol. 213; p. 244.

Latta, Frank F., Wadena, Minn., assignor to New Jersey Patent Company, West Orange, N. J. Attachment for shaving-machines. No. 1,137,497; Apr. 27; Gaz. vol. 213; p. 1333.

Lattau, Arthur, New York, N. Y. Automatic photographing apparatus. No. 1,135,032; Apr. 13; Gaz. vol. 213; p. 384.

Laub, George, Cleveland, Ohio. Illuminating device for license-plates. No. 1,135,822; Apr. 13; Gaz. vol. 213; p. 659.

Lauff, Samuel, Waterbury, Conn. Quick-release wrench. No. 1,136,539; Apr. 20; Gaz. vol. 213; p. 953.

Lauff, Samuel, Waterbury, Conn. Quick-action wrench. No. 1,136,540; Apr. 20; Gaz. vol. 213; p. 953.

Laurette, Myrtle L., Barlow, Ky. Cabinet. No. 1,135,300; Apr. 13; Gaz. vol. 213; p. 475.

Lawless, William, Quenemo, Kans. Railway-tie. No. 1,135,823; Apr. 13; Gaz. vol. 213; p. 659.

Lawlor, Simeon C., Chicago, Ill. Sieve. No. 1,136,243; Apr. 20; Gaz. vol. 213; p. 847.

Lawrence, Edward E., Cambridge, Mass., assignor to Loose-Wiles Biscuit Company, Kansas City, Mo. Continuous dough-sheeting mechanism. No. 1,134,970; Apr. 6; Gaz. vol. 213; p. 316.

Lawrence, Elijah C., Fitzwilliam, N. H. Fastening device for packages. No. 1,134,390; Apr. 6; Gaz. vol. 213; p. 112

Le Compte, Edward P., and R. Colvin, Park City, Utah. Crusher. No. 1,135,824; Apr. 13; Gaz. vol. 213; p. 660.

Leach, Harlan E. (See Mollenhauer and Leach.)

Leach, Joseph S., Brooklyn, N. Y. Wireless receiving apparatus. No. 1,136,683; Apr. 20; Gaz. vol. 213; p. 1004.

Leach, Richard L., Honolulu, Hawaii. Vehicle-tire. No. 1,137,498; Apr. 27; Gaz. vol. 213; p. 1333.

Leake Motor Fuel Economy Company. (See Leake, Thomas C., assignor.)

Leake, Thomas C., San Francisco, Cal., assignor to Leake Motor Fuel Economy Company. Heater and thermostat attachment for motors. No. 1,137,219; Apr. 27; Gaz. vol. 213; p. 1233.

Leary, Robert D., Worcester, Mass. Toilet article. No. 1,134,467; Apr. 6; Gaz. vol. 213; p. 140.

Leary, Thomas H., Richmond, Va. Window-ventilator. No. 1,136,541; Apr. 20; Gaz. vol. 213; p. 953.

Leaver, James M., Long Beach, Cal. Dry-kiln for lumber, &c. No. 1,135,301; Apr. 13; Gaz. vol. 213; p. 475.

Leaver, James M., Long Beach, Cal. Dry-kiln for lumber, &c. No. 1,135,302; Apr. 13; Gaz. vol. 213; p. 476.

Leavitt, Frank M., Smithtown, assignor to E. W. Bliss Company, Brooklyn, N. Y. Timing mechanism. No. 1,134,391; Apr. 6; Gaz. vol. 213; p. 112.

Lechtenberg, Henry, Quincy, Ill., assignor to W. T. Lechtenberg. Jarring device for dust-collectors. No. 1,135,905; Apr. 13; Gaz. vol. 213; p. 687.

Lechtenberg, W. T. (See Lechtenberg, Henry, assignor.)

Ledgerwood, William. (See Salari, Antonio, assignor.)

Ledoux, John W., Swarthmore, Pa. Fluid-meter. No. 1,135,119; Apr. 13; Gaz. vol. 213; p. 413.

Ledwinka, Joseph. (See Budd and Ledwinka.)

Ledwinka, Joseph, assignor to Edward G. Budd Manufacturing Company, Philadelphia, Pa. Induction light system. No. 1,136,684; Apr. 20; Gaz. vol. 213; p. 1004.

Lee, Charles A., assignor of one-half to G. Kalfahs, Neenah, Wis. Wire-hoop forming and applying machine. No. 1,137,336; Apr. 27; Gaz. vol. 213; p. 1277.

Lee, Columbus O., Jr., Baltimore, assignor to Columbus O. Lee, Sr., Baltimore county, Md. Telephone-exchange switchboard. No. 1,136,347; Apr. 20; Gaz. vol. 213; p. 884.

Lee, Jacob J., Agate, N. D. Seat for grain-wagons. No. 1,136,685; Apr. 20; Gaz. vol. 213; p. 1004.

Lee, Richard V., Calistoga, Cal. Clothes-clamp. No. 1,136,244; Apr. 20; Gaz. vol. 213; p. 847.

Lee, Ulysses G., Chattanooga, Tenn., assignor to Montague Milling Machinery Co. Addressing-machine. No. 1,137,066; Apr. 27; Gaz. vol. 213; p. 1177.

Lee, William, Camberwell, London, England. Adjustable hat-lining. No. 1,134,624; Apr. 6; Gaz. vol. 213; p. 197.

Leeson, Joseph R. (See Helm, Max, assignor.)

Lefever, Charles F., assignor to Daisy Manufacturing Company, Plymouth, Mich. Spring air-gun. No. 1,136,470; Apr. 20; Gaz. vol. 213; p. 929.

Lehmann, Arno, Rheydt, Germany. Bleaching solution. No. 1,135,303; Apr. 13; Gaz. vol. 213; p. 476.

Lehmann, Emil, Hammond, Ind. Bed-bottom. No. 1,137,220; Apr. 27; Gaz. vol. 213; p. 1233.

Leigh, Edmund W., Burton-upon-Trent, assignor to J. S. Hall, Ashby-de-la-Zouch, England. Manufacture of hollow or like earthenware. No. 1,135,825; Apr. 13; Gaz. vol. 213; p. 660.

Leigh-Martineau, Francis. (See Hele-Shaw and Leigh-Martineau.)

Leilich, Henry L., and F. W. Burger, assignors to The Delphos Manufacturing Company, Delphos, Ohio. Metal fence-post and wire-fastening means therefor. No. 1,136,471; Apr. 20; Gaz. vol. 213; p. 929.

Leipziger Maschinenbau-Gesellschaft m. b. H. (See Jay, Rudolf, assignor.)

Leisaner, Harry F., Ljusne, Sweden. Fuel-gasifier for internal-combustion engines. No. 1,136,818; Apr. 20; Gaz. vol. 213; p. 1052.

Leister, William H. (See Knapp and Leister.)

Leland, Sanford D., Wellesley Hills, assignor to Manufacturing Equipment & Engineering Company, South Framingham, Mass. Shelving. No. 1,136,245; Apr. 20; Gaz. vol. 213; p. 847.

Lemel, Alexander. (See Henneveld and Lemel.)

Lemons, Elias, Scranton, Pa. Fire-escape. No. 1,134,468; Apr. 6; Gaz. vol. 213; p. 140.

Lenker, Charles M., Shamokin, Pa. Waterproof shoe. No. 1,136,819; Apr. 20; Gaz. vol. 213; p. 1052.

Lennon, William F., Willimantic, Conn. Headlight attachment. No. 1,137,221; Apr. 27; Gaz. vol. 213; p. 1234.

Leon, Karl O., Gottenborg, Sweden, assignor to Leon Steering Device Company, Brooklyn, N. Y. Torpedo and other submarine apparatus. No. 1,137,222; Apr. 27; Gaz. vol. 213; p. 1234.

Leon Steering Device Company. (See Leon, Karl O., assignor.)

Leonard, John T., Wichita, Kans. Motor-protecting circuit-breaker. No. 1,134,752; Apr. 6; Gaz. vol. 213; p. 245.

Leonard, Wilbur A., New Haven, Conn. Means for cutting threading-dies. No. 1,137,408; Apr. 27; Gaz. vol. 213; p. 1303.

Lerback, Bernhard, Mandan, N. D. Permutation-lock. No. 1,136,820; Apr. 20; Gaz. vol. 213; p. 1053.

Leseman, Carl. (See Barron and Leseman.)

Lesler, Albert F., New York, N. Y. Toilet dispensing-cabinet. No. 1,134,879; Apr. 6; Gaz. vol. 213; p. 285.

Lester, Frederick A., Chicago, Ill. Rail-fastening. No. 1,136,020; Apr. 20; Gaz. vol. 213; p. 769.

Lester, Frederick A., Chicago, Ill. Metallic rail-fastener. No. 1,136,021; Apr. 20; Gaz. vol. 213; p. 769.

Levey, David L., Los Angeles, Cal. Rodent-exterminating system. No. 1,137,639; Apr. 27; Gaz. vol. 213; p. 1380.

Levey, David L., Los Angeles, Cal. Rodent-trap. No. 1,137,640; Apr. 27; Gaz. vol. 213; p. 1381.

Levi, Louis E., assignor to Pfister & Vogel Leather Company, Milwaukee, Wis. Tawing and tanning. No. 1,135,977; Apr. 13; Gaz. vol. 213; p. 713.

Levin, Edward, New York, N. Y. Self-locking extensible stand or support. No. 1,136,147; Apr. 20; Gaz. vol. 213; p. 813.

Levin, Edward, New York, N. Y. Garment-form. No. 1,136,148; Apr. 20; Gaz. vol. 213; p. 813.

Levin, Nils D., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Electric locomotive with cable-reeling mechanism. No. 1,136,246; Apr. 20; Gaz. vol. 213; p. 848.

Levin, Nils D., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Mining-machine and truck. No. 1,137,337; Apr. 27; Gaz. vol. 213; p. 1277.

Levin, Nils D., Columbus, Ohio., assignor to The Jeffrey Manufacturing Company. Cable-winding mechanism. No. 1,137,338; Apr. 27; Gaz. vol. 213; p. 1278.

Levy, Edward D., Springfield, Mo. Stop for railway-switches. No. 1,136,967; Apr. 27; Gaz. vol. 213; p. 1141.

Levy, Howard S. (See Levy, Louis E. and H. S.)

Levy, Louis E. and H. S.; said Louis E. Levy assignor to Graphic Arts Company, Philadelphia, Pa. Etching apparatus. No. 1,137,339; Apr. 27; Gaz. vol. 213; p. 1278.

Lewis, George S., Springfield, assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass. Firearm. No. 1,136,247; Apr. 20; Gaz. vol. 213; p. 848.

Lewis, Willard L., Walpole, Mass. Automatic web-guiding device. No. 1,136,686; Apr. 20; Gaz. vol. 213; p. 1005.

Leyens, Walter S., *et al.* (See Johnson, Lewis, assignor.)

Libby, Albion D. T., assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio. Composite electric system. No. 1,137,150; Apr. 27; Gaz. vol. 213; p. 1208.

Libby, Albion D. T., assignor, by mesne assignments, to Garford Manufacturing Company, Elyria, Ohio. Composite electric system. No. 1,137,151; Apr. 27; Gaz. vol. 213; p. 1209.

Libby, Albion D. T., assignor, by mesne assignments, to The Garford Manufacturing Company, Elyria, Ohio. Composite electric system. No. 1,137,152; Apr. 27; Gaz. vol. 213; p. 1209.

Libke, Theodore A., Wilton, Wis. Windmill attachment. No. 1,135,592; Apr. 13; Gaz. vol. 213; p. 578.

Libonati, Philip, New York, N. Y. Box-opener. No. 1,135,593; Apr. 13; Gaz. vol. 213; p. 578.

Lichtenberg, Chester, Schenectady, N. Y., assignor to General Electric Company. Circuit-interrupter. No. 1,137,340; Apr. 27; Gaz. vol. 213; p. 1279.

Lichtman, Benjamin H. (See Kosienski and Kaminski, assignors.)

Lieb, Albert, St. Joseph, Mo. Nozzle-area and draft regulator for locomotive-engines. No. 1,137,067; Apr. 27; Gaz. vol. 213; p. 1178.

Lieber, Peter C. (See Gaynor and Lieber.)

Lieberman, Joseph, A. Friedman, and B. Rose, Philadelphia, Pa. Fastening device for garments. No. 1,137,499; Apr. 27; Gaz. vol. 213; p. 1333.

Liechty, Hermann, Berne, Switzerland. Axle for automobiles. No. 1,136,348; Apr. 20; Gaz. vol. 213; p. 884.

Liechty, Hermann, Berne, Switzerland. Axle for motor-cars. No. 1,136,349; Apr. 20; Gaz. vol. 213; p. 884.

Lietz, Adolph, San Rafael, Cal. Transit-frame. No. 1,136,883; Apr. 20; Gaz. vol. 213; p. 1074.

Liggett, William K., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Separator. No. 1,135,594; Apr. 13; Gaz. vol. 213; p. 578.

Liggett, William K., and W. J. Armstrong, Columbus, Ohio, assignors to The Jeffrey Manufacturing Company. Separator. No. 1,135,304; Apr. 13; Gaz. vol. 213; p. 476.

Lightning Letter Opener Company. (See Taylor, Henry D., assignor.)

Likely, Charles H., Woody, Cal. Automatic vehicle-brake. No. 1,137,500; Apr. 27; Gaz. vol. 213; p. 1334.

Lilius, August I. (See Anttila and Lilius.)

Linck, Edward, assignor of one-half to F. Lyster, Philadelphia, Pa. Fireproof metal window-frame. No. 1,134,392; Apr. 6; Gaz. vol. 213; p. 112.

Lind, Carl A., Malden, assignor of one-fourth to W. A. Thornton and one-fourth to H. M. Richards, Galesburg, Ill. Lock for ties, tie-plates, rails, and rail-anchors. No. 1,137,153; Apr. 27; Gaz. vol. 213; p. 1210.

Lind, Henning, Topeka, Kans. Lubricating device. No. 1,134,880; Apr. 6; Gaz. vol. 213; p. 286.

Linderblad, Victor, Stockholm, Sweden. Cultivator. No. 1,135,305; Apr. 13; Gaz. vol. 213; p. 477.

Linderman, Frank M., Chicago, Ill. Belt-fastener. No. 1,137,409; Apr. 27; Gaz. vol. 213; p. 1303.

Linderman, Frank M., Chicago, Ill. Belt-fastener. No. 1,137,410; Apr. 27; Gaz. vol. 213; p. 1304.

Lindholm, Danel A., Belfield, N. D. Attachment for mowing-machines. No. 1,134,339; Apr. 6; Gaz. vol. 213; p. 94.

Lindner, Emil O., Brooklyn, assignor of one-half to J. Jenchen, New York, N. Y. Vehicle-wheel construction. No. 1,137,154; Apr. 27; Gaz. vol. 213; p. 1210.

Lindquist, David L., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Appliance for elevator safety devices. No. 1,134,753; Apr. 6; Gaz. vol. 213; p. 245.

Lindsay, Solomon C., Greensburg, Pa. Lock-nut. No. 1,134,393; Apr. 6; Gaz. vol. 213; p. 113.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic compounds. No. 1,136,248; Apr. 20; Gaz. vol. 213; p. 849.

Line, George H., Chicago, Ill. Belt-buckle. No. 1,134,686; Apr. 6; Gaz. vol. 213; p. 220.

Lineberg, Albert E., Wilkes-Barre, Pa. Car-replacer. No. 1,137,641; Apr. 27; Gaz. vol. 213; p. 1381.

Linfoot, Maurice, Bocking, Braintree, assignor to Courtaulds Limited, London, England. Ornamenting fabrics. No. 1,137,501; Apr. 27; Gaz. vol. 213; p. 1334.

Linford, Charles, Logan, Utah. Cabinet ironing-board. No. 1,134,394; Apr. 6; Gaz. vol. 213; p. 113.

Lingner, Julius S., East Glastonbury, Conn. Match-box. No. 1,137,642; Apr. 27; Gaz. vol. 213; p. 1381.

Link-belt Company. (See Rapp, Axel G. J., assignor.)

Linotype and Machinery Limited. (See Pearce and Billington, assignors.)

Lint, Peter H., Los Gatos, Cal. Fruit-gatherer. No. 1,136,249; Apr. 20; Gaz. vol. 213; p. 849.

Linton, George E., assignor to F. C. Montgomery, Worcester, Mass. Knife-blade switch. No. 1,136,472; Apr. 20; Gaz. vol. 213; p. 930.

Lipe, Willard C., and J. W. Coughtry, deceased, Syracuse, N. Y.; S. S. Coughtry, administratrix. Cigar-making machine. No. 1,134,469; Apr. 6; Gaz. vol. 213; p. 141.

Lipe, Willard C., and J. W. Coughtry, deceased; S. S. Coughtry, administratrix, Syracuse, N. Y. Heading and finishing mechanism for cigar-making machines. No. 1,134,470; Apr. 6; Gaz. vol. 213; p. 141.

Lischkoff, Alexander, *et al.* (See Hoffman, Robert O., assignor.)

Liska, John, Ovid, Mich. Poultry-house. No. 1,137,411; Apr. 27; Gaz. vol. 213; p. 1304.

Lithotex Corporation. (See Pilkington, Herbert M., assignor.)

Litt, Jay, Philadelphia, Pa. Muffler attachment for telephones. No. 1,136,687; Apr. 20; Gaz. vol. 213; p. 1005.

Little Giant Manufacturing Company. (See Wallace and Forsyth, assignors.) (Reissue.)

Little, John. (See Woods, Gilbert, and Little.)

Littie, Santford, Fairmount, Ind. Machine for holding animals. No. 1,136,429; Apr. 20; Gaz. vol. 213; p. 914.

Littlefield, Arthur, administrator. (See Littlefield, Charles A.)

Littlefield, Charles A., deceased; A. Littlefield, administrator, assignor of one-half to E. H. Spedding, Lowell, Mass. Loom. No. 1,135,969; Apr. 13; Gaz. vol. 213; p. 710.

Livingston, Lloyd L. (See Poole, Jesse V., assignor.)

Livingston, Walter, Hastings, Nebr. Pulley-wheel. No. 1,135,595; Apr. 13; Gaz. vol. 213; p. 579.

Lobato, John C., Lowell, Mass. Motor-vehicle. No. 1,136,605; Apr. 20; Gaz. vol. 213; p. 976.

Lobel, Arthur. (See Helwitz and Lobel.)

Locarni, Vittorio, Cornigliano Ligure, Italy. Double gear for controlling electrically and by hand devices placed at a distance. No. 1,135,596; Apr. 13; Gaz. vol. 213; p. 579.

Lock, John, Silver City, N. Mex. Spring-repair means. No. 1,137,155; Apr. 27; Gaz. vol. 213; p. 1210.

Locke, John G., Passaic, N. J. Window-locking device. No. 1,137,502; Apr. 27; Gaz. vol. 213; p. 1334.

Locke, William P., assignor to W. G. Clark, Chicago, Ill. Chain system of lock control. No. 1,134,625; Apr. 6; Gaz. vol. 213; p. 197.

Lockwood, Charles F., assignor of one-third to E. B. Murphy and one-third to J. M. Thompson, San Francisco, Cal. Pile-protecting device. No. 1,134,881; Apr. 6; Gaz. vol. 213; p. 286.

Lockwood, Charles S., Newark, assignor to Hyatt Roller Bearing Company, Harrison, N. J. Divided cage for roller-bearings. No. 1,137,010; Apr. 27; Gaz. vol. 213; p. 1157.

"Locomobile" Company of America, The. (See Riker, Andrew L., assignor.)

Locomotive Superheater Company. (See Kindervater, Julius, assignor.)

Lodge, Frank T., *et al.* (See Kendrick, Karl A., assignor.)

Loehler, Gustav G., Washington, D. C. Bottle-capping machine. No. 1,134,626; Apr. 6; Gaz. vol. 213; p. 198.

Loepsinger, Albert J., assignor to General Fire Extinguisher Company, Providence, R. I. Pipe-hanger. No. 1,134,395; Apr. 6; Gaz. vol. 213; p. 113.

Loewenstein, Louis C., Lynn, Mass., assignor to General Electric Company. Means for controlling the air-supply to water-gas generators. No. 1,134,754; Apr. 6; Gaz. vol. 213; p. 245.

Loewenthal, B., *et al.* (See Wheeler, Orrin A., assignor.)

Loewenthal, Edward D., *et al.* (See Wheeler, Orrin A., assignor.)

Löffler, Adolf, Union Course, N. Y. Mechanical railway-switch-operating means. No. 1,134,627; Apr. 6; Gaz. vol. 213; p. 198.

Loftin, Alonzo K., and C. S. Murphy, assignors of one-third to Lane-Harris & Company, Altavista, Va. Reinforced extension-drawer slide. No. 1,135,704; Apr. 13; Gaz. vol. 213; p. 618.

Logan, Sylvester, Franklin, Pa., assignor of one-half to L. E. Simpson and one-half to O. Simpson, Cincinnati, Ohio. Internal-combustion motor. No. 1,135,942; Apr. 13; Gaz. vol. 213; p. 699.

Logan, Sylvester, Franklin, Pa., assignor of one-half to L. E. Simpson and one-half to O. Simpson, Cincinnati, Ohio. Internal-combustion motor. No. 1,135,943; Apr. 13; Gaz. vol. 213; p. 699.

Lombard, Levi W. (See Hersee and Lombard.)

Lombardero, José, San Francisco, Cal. Smoker's kit. No. 1,135,457; Apr. 13; Gaz. vol. 213; p. 530.

Long, John R., Akron, Ohio. Bench-vise. No. 1,136,473; Apr. 20; Gaz. vol. 213; p. 930.

Longaker, Albert A., assignor to Chambersburg Engineering Company, Chambersburg, Pa. Wheel-press. No. 1,137,643; Apr. 27; Gaz. vol. 213; p. 1381.

Loomis, Osmond E., assignor of three-eighths to I. Thursby and three-eighths to O. E. Roush, Akron, Ohio. Intermittent-grip device. No. 1,136,821; Apr. 20; Gaz. vol. 213; p. 1053.

Loose, Kenneth D., Boston, Mass., assignor to Loose-Wiles Biscuit Company, New York, N. Y. Continuous dough sheeting and feeding mechanism. No. 1,134,971; Apr. 6; Gaz. vol. 213; p. 316.

Loose-Wiles Biscuit Company. (See Lawrence, Edward E., assignor.)

Loose-Wiles Biscuit Company. (See Loose, Kenneth D., assignor.)

Lorenz, Joseph, Robinson, Ill. Underreamer. No. 1,136,543; Apr. 20; Gaz. vol. 213; p. 954.

Lorenz, Peter A. (See Adler, Bror A., assignor.)

Lothrop, Thomas M., Glencoe, assignor to Thomas M. Lothrop & Co., Chicago, Ill. Steel-shelving. No. 1,135,970; Apr. 13; Gaz. vol. 213; p. 611.

Loudon, Archibald M., *et al.*, administrators. (See Loudon and Gow.)

Loudon, Archibald M., Elmira, and J. Gow, deceased, Schenectady; A. M. Loudon, Elmira, and H. W. Philbrook, Schenectady, N. Y., administrators. Molding-machine. No. 1,135,120; Apr. 13; Gaz. vol. 213; p. 414.

Lough, Frederic J. (See Jacobsen, Cameron and Lough.)

Loutrel, Cyrus H., South Orange, assignor to The National Lock Washer Company, Newark, N. J. Nut-lock. No. 1,135,597; Apr. 13; Gaz. vol. 213; p. 579.

Loutrel, Cyrus H., South Orange, assignor to The National Lock Washer Company, Newark, N. J. Machine for coiling metal. No. 1,137,412; Apr. 27; Gaz. vol. 213; p. 1304.

Love, Wm. T., trustee. (See Larson, Charles G., assignor.)

Lovejoy, Thomas H., Chicago, Ill. Thrust-bearing for drill-spindles. No. 1,135,198; Apr. 13; Gaz. vol. 213; p. 440.

Lovekin, Luther D., Philadelphia, Pa. Gas-burner. No. 1,134,628; Apr. 6; Gaz. vol. 213; p. 198.

Loveland, William, and H. E. Sloan, Philadelphia, Pa. Type-turtle or fudge-bed for rotary printing-presses. No. 1,134,340; Apr. 6; Gaz. vol. 213; p. 94.

Lovell Manufacturing Company. (See Schendler, Paul H., assignor.)

Lovell, Myron S., Oswego, N. Y. Producing photographic prints. No. 1,137,503; Apr. 27; Gaz. vol. 213; p. 1335.

Lowe, John D. (See Browniee, Spacke, and Lowe.)

Lowe, Robert E., Brooklyn, N. Y. Garment. No. 1,136,822; Apr. 20; Gaz. vol. 213; p. 1054.

Lowe, William C., Atlanta, Ga. Automatic low-temperature cut-off for water-pipes. No. 1,134,882; Apr. 6; Gaz. vol. 213; p. 286.

Lowne, Robert M., Catford, England. Electrically-driven clock and other electrically-driven running mechanism. No. 1,136,350; Apr. 20; Gaz. vol. 213; p. 884.

Lowres, George J., Newark, N. J. Lorgnette. No. 1,137,504; Apr. 27; Gaz. vol. 213; p. 1335.

Loyd, Melvin W., Afton, Okla., and A. Phelps, Fort Scott, Kans. Safety-valve. No. 1,136,606; Apr. 20; Gaz. vol. 213; p. 977.

Loyster, James A., Cazenovia, N. Y. Door operating and locking mechanism for jails. No. 1,136,351; Apr. 20; Gaz. vol. 213; p. 885.

Lucke, Charles E., New York, N. Y. Calorimeter. No. 1,136,884; Apr. 20; Gaz. vol. 213; p. 1074.

Ludwig, James G., Millersville, assignor of one-half to J. J. Markle, Hanover, Pa. Peel. No. 1,135,906; Apr. 13; Gaz. vol. 213; p. 688.

Luersen, Fritz, Price, Utah. Clothes-line support and adjuster. No. 1,137,505; Apr. 27; Gaz. vol. 213; p. 1336.

Luft, Henry, New York, N. Y. Faucet. No. 1,135,907; Apr. 13; Gaz. vol. 213; p. 688.

Lukacher, Leon, Chicago, Ill. Coin-wrapper. No. 1,134,687; Apr. 6; Gaz. vol. 213; p. 220.

Lund, Andrew M., Auburn, Me., assignor to United Shoe Machinery Company, Paterson, N. J. Last. No. 1,135,033; Apr. 13; Gaz. vol. 213; p. 384.

Lund, Thomas, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon heels. No. 1,135,034; Apr. 13; Gaz. vol. 213; p. 385.

Lundquist, Frank A., Chicago, Ill., assignor, by mesne assignments, to Western Electric Company. Telephone-exchange. No. 1,135,121; Apr. 13; Gaz. vol. 213; p. 414.

Lustenberger, Jacob, St. Joseph, Mo. Washing-machine. No. 1,134,471; Apr. 6; Gaz. vol. 213; p. 142.

Lutenberger, Mike, Blocton, Ala. Bottle. No. 1,136,250; Apr. 20; Gaz. vol. 213; p. 849.

Lutz, William D., Allendale borough, N. J. Starting device for internal-combustion engines. No. 1,136,688; Apr. 20; Gaz. vol. 213; p. 1005.

Lynch, Matthew J. (See Bartlett, Leonard, assignor.)

Lyne, George H., East Orange, N. J. Sanding device. No. 1,135,306; Apr. 13; Gaz. vol. 213; p. 477.

Lyon, George A., Philadelphia, Pa. Non-skidding attachment for wheel-tires. No. 1,137,506; Apr. 27; Gaz. vol. 213; p. 1336.

Lyon & Healy. (See Kirk, Walter I., assignor.)

Lyon, Ossian G., Akron, Ohio. Seaming-machine. No. 1,136,544; Apr. 20; Gaz. vol. 213; p. 955.

Lyon, Willard H. (See Stephens, John T., assignor.)

Lysinger, Joseph H., Aurora, Nebr. Spring-wheel. No. 1,135,458; Apr. 13; Gaz. vol. 213; p. 530.

Lyster, Frank. (See Linck, Edward, assignor.)

M. Rumely Company. (See Falk and Andrew, assignors.)

M. Schulz Co. (See Gustafson, Adolph P., assignor.)

M. B. Schenck Company, The. (See Johnson, John A., assignor.)

Maage, Alfred E. J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electric switch. No. 1,135,199; Apr. 13; Gaz. vol. 213; p. 441.

Maas, George H., Milwaukee, Wis. Moistener for cigars and the like. No. 1,135,124; Apr. 13; Gaz. vol. 213; p. 416.

MacDonald, Bernard, Los Angeles, Cal. Apparatus for separating minerals by flotation. No. 1,134,690; Apr. 6; Gaz. vol. 213; p. 221.

MacDonald, Frank C., administrator. (See MacDonald, Joseph D.)

MacDonald, Joseph D., deceased, Butte, Mont., F. C. MacDonald, administrator. Bit. No. 1,136,545; Apr. 20; Gaz. vol. 213; p. 955.

MacDowell, Charles H., Chicago, Ill., assignor to The Mineral Products Company, New York, N. Y. Treatment of alunite and the like. No. 1,136,549; Apr. 20; Gaz. vol. 213; p. 956.

Macan, William A., Ridley Park, assignor to Ehret Magnesia Manufacturing Company, Valley Forge, Pa. Pipe-covering. No. 1,134,475; Apr. 6; Gaz. vol. 213; p. 143.

Macbeth, Edgar R., Brazil, Ind. Atomizer. No. 1,134,680; Apr. 6; Gaz. vol. 213; p. 221.

Macbeth-Evans Company. (See Heupel, Herman, assignor.)

Macdonald, Thomas A., Paterson, N. J. Propeller. No. 1,135,829; Apr. 13; Gaz. vol. 213; p. 662.

Macé, Jules, Grasse, France. Toy sail-boat. No. 1,136,476; Apr. 20; Gaz. vol. 213; p. 931.

Machen, Albert S., Norfolk, Va. Advertising-cabinet. No. 1,137,072; Apr. 27; Gaz. vol. 213; p. 1179.

Mack, Richard, Berlin, Germany, assignor to Thomson Electric Welding Company, Lynn, Mass. Electric seam-welding apparatus. No. 1,135,530; Apr. 13; Gaz. vol. 213; p. 559.

Mackay, William A., North Sydney, Nova Scotia, Canada. Safety device for aviators. No. 1,134,884; Apr. 6; Gaz. vol. 213; p. 287.

Macomber & Whyte Rope Company. (See Granger, John A., assignor.)

Maddox, Fred A., *et al.* (See Orcutt, Edward L.)

Madsen, Soren, New York, N. Y. Automatic vending apparatus. No. 1,137,648; Apr. 27; Gaz. vol. 213; p. 1383.

Magnus, John, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and recording machine. No. 1,134,958; Apr. 6; Gaz. vol. 213; p. 311.

Magnus, John, Poplar Bluff, Mo., assignor, by mesne assignments, to The Dalton Adding Machine Company, Cincinnati, Ohio. Adding and recording machine. No. 1,137,508; Apr. 27; Gaz. vol. 213; p. 1337.

Mago, Bartolomeo, New York, assignor of one-half to P. Carbone, Brooklyn, N. Y. Portable rotary roaster. No. 1,134,343; Apr. 6; Gaz. vol. 213; p. 95.

Magyár Kir-Allámi Vasgyárak Központi Tgazgatvósága. (See Balassa, Friedrich, assignor.)

Maher, Daniel, Liverpool, England. Device for playing and practising golf, putting, and other games. No. 1,135,706 Apr. 13; Gaz. vol. 213; p. 618.

Maher, James M., Fremont, Nebr. Power mechanism for dam-spillways. No. 1,137,156; Apr. 27; Gaz. vol. 213; p. 1211.

Mahlstedt, John F., Los Angeles, Cal. Printing-machine. No. 1,137,157; Apr. 27; Gaz. vol. 213; p. 1211.

Maier, Carl, assignor to Union Special Maschinenfabrik G. m. b. H., Stuttgart, Germany. Sewing-machine. No. 1,136,823; Apr. 20; Gaz. vol. 213; p. 1054.

Maier, Charles, Canby, Minn. Flue-cleaner. No. 1,134,342; Apr. 6; Gaz. vol. 213; p. 95.

Maine, Herman M., Estherville, Iowa. Combined sound-box and bridge. No. 1,137,649; Apr. 27; Gaz. vol. 213; p. 1383.

Mallette, William B. (See Morse and Mallette.)

Mallone, Nathan. (See Capparella and Mallone.)

Malloy, Michael E., Pasadena, Cal. Shock-absorber. No. 1,135,909; Apr. 13; Gaz. vol. 213; p. 688.

Malodzik, Felix F. (See Pavelske and Malodzik.)

Maloney, Michael H., Plymouth, Mass. Picking mechanism for looms. No. 1,136,824; Apr. 20; Gaz. vol. 213; p. 1055.

Manchester, Arthur P., Providence, R. I. Electrolyte for primary batteries. No. 1,137,226; Apr. 27; Gaz. vol. 213; p. 1235.

Manegold, Robert A. (See Dings and Manegold.)

Manhattan Electrical Supply Company. (See Birath, Theodor, assignor.)

Manion, Frank W. (See Cunningham and Manion.)

Manning, Edward, assignor to Manning Manufacturing Company, Rutland, Vt. Can-washing machine. No. 1,137,345; Apr. 27; Gaz. vol. 213; p. 1280.

Manning Manufacturing Company. (See Manning, Edward, assignor.)

Manson, Ray H., assignor to The Garford Manufacturing Company, Elyria, Ohio. Warning-signal device. No. 1,135,600; Apr. 13; Gaz. vol. 213; p. 580.

Manterola, Eugenio C., Rancagua, Chile. Saw-jointer. No. 1,136,023; Apr. 20; Gaz. vol. 213; p. 770.

Manufacturing Equipment & Engineering Company. (See Leland, Sanford D., assignor.)

Marconi, Guglielmo, London, England, assignor to Marconi Wireless Telegraph Company of America, New York, N. Y. Transmitting apparatus for use in wireless telegraphy and telephony. No. 1,136,477; Apr. 20; Gaz. vol. 213; p. 931.

Marconi Wireless Telegraph Company of America. (See Marconi, Guglielmo, assignor.)

Marcuse, Isaac J. (See Clarke, Edward S., assignor.)

Marcuse, Moses M., assignor to West Disinfecting Company, New York, N. Y. Device for automatically closing the cover of seats of closets, commodes, and the like. No. 1,134,755; Apr. 6; Gaz. vol. 213; p. 246.

Mardon, John S., and L. D. Fay, Loyalton, Cal. Automatic hopper and feeding device. No. 1,137,346; Apr. 27; Gaz. vol. 213; p. 1281.

Mares, Matthew, Racine, Wis. Plowshare. No. 1,136,825; Apr. 20; Gaz. vol. 213; p. 1055.

Margolis, Louis, New York, N. Y. Corset. No. 1,136,024; Apr. 20; Gaz. vol. 213; p. 770.

Marker, Henry H., Mount Clemens, assignor of three-fourths to F. G. Krueger, M. A. Smith, and R. S. Moore, Detroit, Mich. Clutch. No. 1,136,025; Apr. 20; Gaz. vol. 213; p. 771.

Marker, Henry H., Mount Clemens, assignor to Pull-More Motor-Truck Company, Detroit, Mich. Motor-vehicle. No. 1,136,026; Apr. 20; Gaz. vol. 213; p. 771.

Markham, Thomas, Belfast, Ireland. Fastening for doors, windows, and the like. No. 1,136,430; Apr. 20; Gaz. vol. 213; p. 915.

Markle, Josiah J. (See Ludwig, James G., assignor.)

Markson, Clemens, Seattle, Wash. Tire. No. 1,136,546; Apr. 20; Gaz. vol. 213; p. 955.

Marley, Bernard, W. P. Thacker, and R. P. Barnard, Nokomis, Ill. Resilient wheel. No. 1,137,509; Apr. 27; Gaz. vol. 213; p. 1337.

Marquardt, Frederick, Milwaukee, Wis. Shipping-crate. No. 1,136,027; Apr. 20; Gaz. vol. 213; p. 772.

Marquardt, Reinhold G., assignor to Milwaukee Woven Wire Works, Milwaukee, Wis. Mattress-spring. No. 1,134,972; Apr. 6; Gaz. vol. 213; p. 317.

Marrs, Edward F., San Diego, Cal. Device for indicating the movement of vehicles. No. 1,134,631; Apr. 6; Gaz. vol. 213; p. 200.

Marsden, William N. (See Kaufmann and Marsden.)

Marshall, John P., St. Louis, Mo. Self-lubricating sewing-machine. No. 1,135,601; Apr. 13; Gaz. vol. 213; p. 581.

Marston, Howard F., and J. L. McKittrick, Dayton, Ohio; said McKittrick assignor to said Marston. Centering mechanism. No. 1,134,145; Apr. 6; Gaz. vol. 213; p. 22.

Martell, Albert A., Boston, Mass. Tool for aligning and finishing shaft-bearings and the like. No. 1,135,460; Apr. 13; Gaz. vol. 213; p. 531.

Martin, Daniel W., Lufkin, Tex. Car-replacer. No. 1,134,212; Apr. 6; Gaz. vol. 213; p. 48.

Martin, Frank B., assignor to Postum Cereal Co., Limited, Battle Creek, Mich. Top-flap-sealing machine for sealed cartons. No. 1,134,476; Apr. 6; Gaz. vol. 213; p. 143.

Martin, Frank B., assignor to Postum Cereal Co., Ltd., Battle Creek, Mich. Flap folding and sealing machine. No. 1,136,353; Apr. 20; Gaz. vol. 213; p. 886.

Martin, Frank B., assignor to Postum Cereal Co., Ltd., Battle Creek, Mich. Carton-making and flap-sealing machine. No. 1,136,354; Apr. 20; Gaz. vol. 213; p. 886.

Martin, Frank B., assignor to Postum Cereal Co., Limited, Battle Creek, Mich. Carton-feeding mechanism. No. 1,137,227; Apr. 27; Gaz. vol. 213; p. 1236.

Martin, George A. (See Jones and Martin.)

Martin, George S., *et al.* (See Martin and Jones, assignors.)

Martin, Haaken A., assignor to The National Cash Register Company, Dayton, Ohio. Alarm and lock control for cash-registers. No. 1,136,152; Apr. 20; Gaz. vol. 213; p. 814.

Martin, Lawrence F., Kenosha, Wis. Garbage-wagon. No. 1,135,602; Apr. 13; Gaz. vol. 213; p. 581.

Martin, Lilith, and J. L. Jones, assignors to G. S. Martin and M. Berger, Anderson, Ind. Pencil-holder. No. 1,134,691; Apr. 6; Gaz. vol. 213; p. 222.

Martin, Olaf O., Portland, Oreg., assignor to Elliott-Fisher Company, New York, N. Y. Type-writing machine. No. 1,136,028; Apr. 20; Gaz. vol. 213; p. 772.

Martin, Talbot G., assignor to Automatic Electric Company, Chicago, Ill. Telephone repeater system. No. 1,136,912; Apr. 20; Gaz. vol. 213; p. 1085.

Martineau, Clarence R. (See Martineau, William C. and C. R.)

Martineau, William C. and C. R., Albany, N. Y. Game device. No. 1,136,153; Apr. 20; Gaz. vol. 213; p. 815.

Martins, Jens C., assignor to Transmission Akts., Copenhagen, Denmark. Frictional variable-speed gearing. No. 1,136,690; Apr. 20; Gaz. vol. 213; p. 1006.

Marvin, E. L., executor. (See Parsons, William D.)

Masler, Abraham, New York, N. Y. Combined tape and thread holder. No. 1,135,125; Apr. 13; Gaz. vol. 213; p. 416.

Mason, Walter L., Red Bank, N. J., assignor to J. W. Ivory, Philadelphia, Pa. Dental marking and spacing tool. No. 1,134,692; Apr. 6; Gaz. vol. 213; p. 222.

Massey, E. C. (See McNeil, George C., assignor.)

Massey-Harris Company. (See Johnston, Andrew, assignor.)

Masson, Jules, assignor to Société Anonyme des Telegraphes Edouard Belin, Paris, France. Indicator of speeds of rotation. No. 1,135,827; Apr. 13; Gaz. vol. 213; p. 661.

Mathers, William H. (See Nelson and Mathers.)

Mathews, Fred, assignor to C. C. Murphy, Chicago, Ill. Car-roof construction. No. 1,137,347; Apr. 27; Gaz. vol. 213; p. 1281.

Mathey, John J., and T. E. Williams, Robey, S. D. Agricultural implement. No. 1,137,228; Apr. 27; Gaz. vol. 213; p. 1236.

Matson, John A., New York, N. Y. Non-refillable bottle. No. 1,134,885; Apr. 6; Gaz. vol. 213; p. 288.

Mattes, Henry, assignor of one-half to G. E. Poehn, New York, N. Y. Portable knockdown sheltered cot. No. 1,135,707; Apr. 13; Gaz. vol. 213; p. 619.

Matthael, Curt, Offenbach-on-the-Main, Germany. Belt-connecting means. No. 1,134,146; Apr. 6; Gaz. vol. 213; p. 22.

Mattman, Emil, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Dynamo-electric machine. No. 1,137,510; Apr. 27; Gaz. vol. 213; p. 1337.

Mauck, Hayden B. (See Green and Mauck.)

Maurer, David M. (See Taby, Straub, and Maurer.)

Maxey, J. R., *et al.* (See Wright, John T., assignor.)

Maxwell, Lawrence. (See Welin, Peter, assignor.)

Mayland, Edwin S., New York, N. Y. Musical device. No. 1,136,355; Apr. 20; Gaz. vol. 213; p. 887.

Mayo, Benjamin F., Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Automatic heel-nailing machine. No. 1,134,279; Apr. 6; Gaz. vol. 213; p. 72.

Mayor, Enoch A., San Antonio, Tex. Piano-action. No. 1,135,386; Apr. 13; Gaz. vol. 213; p. 504.

Maytag Company, The. (See Kranich, Frank G. N., assignor.)

Mazzei, William C., Los Angeles, Cal. Automobile boat. No. 1,135,126; Apr. 13; Gaz. vol. 213; p. 416.

McAllister, Joseph. (See Wanamaker and McAllister.)

McArthur, Charles D., assignor to Blaw Collapsible Steel Centering Company, Pittsburgh, Pa. Centering device. No. 1,134,543; Apr. 6; Gaz. vol. 213; p. 168.

McBee, Charles F., Athens, Ohio. Bookbinding. No. 1,134,142; Apr. 6; Gaz. vol. 213; p. 21.

McBee, Charles F., Athens, Ohio. File-sheets for loose-leaf files. No. 1,134,143; Apr. 6; Gaz. vol. 213; p. 22.

McBerty, Frank R., Antwerp, and L. Polinkowsky, Brussels, Belgium, assignors to Western Electric Company, New York, N. Y. Machine telephone switching system. No. 1,137,223; Apr. 27; Gaz. vol. 213; p. 1234.

McCabe, Henry J., and J. Wise, Menasha, Wis. Box. No. 1,137,341; Apr. 27; Gaz. vol. 213; p. 1279.

McCall, Samuel J., Butler, Pa. Harrow. No. 1,137,644; Apr. 27; Gaz. vol. 213; p. 1382.

McCalmont, Robert, Franklin, Pa. Automobile jack-truck. No. 1,134,211; Apr. 6; Gaz. vol. 213; p. 47.

McCamish, Ida F., Winchester, Ind. Slipper. No. 1,136,474; Apr. 20; Gaz. vol. 213; p. 930.

McCarte, Alexander, Newark, N. J., assignor to The Singer Manufacturing Company. Molding-machine. No. 1,134,396; Apr. 6; Gaz. vol. 213; p. 113.

McCarte, Alexander, Newark, N. J., assignor to The Singer Manufacturing Company. Molding-machine. No. 1,134,397; Apr. 6; Gaz. vol. 213; p. 114.

McCarte, Alexander, Newark, N. J., assignor to The Singer Manufacturing Company. Flask-filling apparatus. No. 1,134,398; Apr. 6; Gaz. vol. 213; p. 114.

McCarthy, Thomas J., Cincinnati, Ohio. Gas-heater. No. 1,137,011.; Apr. 27; Gaz. vol. 213; p. 1158.

McCaskey Register Company, The. (See Silvius, Ellis T., assignor.)

McCauley, James H. (See North, McCauley, and Bytheway.)

McClair, Charles, Schenectady, N. Y. Safety starting mechanism. No. 1,135,385; Apr. 13; Gaz. vol. 213; p. 504.

McClaskey Register Company, The. (See Silvius, Ellis T., assignor.)

McClave-Brooks Company. (See McClave, William, assignor.)

McClave, William, assignor to McClave-Brooks Company, Scranton, Pa. Grate for burning fine fuel. No. 1,134,883; Apr. 6; Gaz. vol. 213; p. 287.

McClung, Lee. (See Doll, William F., assignor.)

McClung, Robert G., administrator. (See Doll, William F.)

McConnell, Samuel M., Wellsville, Ohio. Safety-pin. No. 1,134,472; Apr. 6; Gaz. vol. 213; p. 142.

McCool, Edward F., Victor, Colo. Grinding-mill. No. 1,137,224; Apr. 27; Gaz. vol. 213; p. 1235.

McCord, Edgar E., Newton, Iowa. Machine for making fence-posts. No. 1,135,538; Apr. 13; Gaz. vol. 213; p. 558.

McCord, Horace M., assignor to Horace M. McCord & Co., Inc., Minneapolis, Minn. Inclinator for carboys. No. 1,137,071; Apr. 27; Gaz. vol. 213; p. 1179.

McCormack, Thomas, assignor to self and F. Ingersoll, Detroit, Mich. Brake for pleasure-railways. No. 1,137,342; Apr. 27; Gaz. vol. 213; p. 1279.

McCormick, John H., Columbus, Ohio. Friction draft and buffing apparatus. No. 1,136,022; Apr. 20; Gaz. vol. 213; p. 770.

McCormick, William D., assignor of one-half to R. W. Palyford, Uniontown, Pa. Gang-plank. No. 1,137,645; Apr. 27; Gaz. vol. 213; p. 1382.

McCoy, Elijah, assignor to A. H. Fuss, Detroit, Mich. Locomotive-lubricator. No. 1,136,689; Apr. 20; Gaz. vol. 213; p. 1006.

McCready, George L., Parksley, Va. Potato-vine cutter. No. 1,134,629; Apr. 6; Gaz. vol. 213; p. 199.

McCullough, Lawrence L., Kansas City, Kans. Ballast-burning machine. No. 1,135,307; Apr. 13; Gaz. vol. 213; p. 478.

McDade, Charles W., Moorhead, Iowa. Pneumatic cushion. No. 1,136,968; Apr. 27; Gaz. vol. 213; p. 1141.

McDermott, James, New York, N. Y. Wagon-body. No. 1,135,826; Apr. 13; Gaz. vol. 213; p. 661.

McDowell, Charles, Sturgis, S. D. Plow. No. 1,137,646; Apr. 27; Gaz. vol. 213; p. 1382.

McEachron, George, Iron River, Mich. Flour-sifter. No. 1,137,008; Apr. 27; Gaz. vol. 213; p. 1178.

McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Thermostatic controller for heating systems. No. 1,135,200; Apr. 13; Gaz. vol. 213; p. 441.

McElroy, James F., assignor to Consolidated Car Heating Company, Albany, N. Y. Magnetic switch. No. 1,135,201; Apr. 13; Gaz. vol. 213; p. 442.

McElroy, Wylie A., Atlanta, Ga. Lathe. No. 1,135,035; Apr. 13; Gaz. vol. 213; p. 385.

McFarland, John N. (See Riehl, Justus, assignor.)

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,135,949; Apr. 13; Gaz. vol. 213; p. 702.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,135,950; Apr. 13; Gaz. vol. 213; p. 703.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,135,951; Apr. 13; Gaz. vol. 213; p. 703.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for making boots and shoes. No. 1,135,952; Apr. 13; Gaz. vol. 213; p. 704.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,135,953; Apr. 13; Gaz. vol. 213; p. 704.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pulling-over machine. No. 1,135,954; Apr. 13; Gaz. vol. 213; p. 704.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Mechanism for use in inserting fastenings. No. 1,135,955; Apr. 13; Gaz. vol. 213; p. 705.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tacking mechanism. No. 1,135,956; Apr. 13; Gaz. vol. 213; p. 705.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tacking mechanism for pulling-over machines. No. 1,135,957; Apr. 13; Gaz. vol. 213; p. 706.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for working uppers over lasts. No. 1,135,958; Apr. 13; Gaz. vol. 213; p. 706.

McGauran, Duncan J., Geraldton, Western Australia, Australia. Telephone-call recorder. No. 1,135,971; Apr. 13; Gaz. vol. 213; p. 711.

McGivern, Hugh J., assignor to United Brass Manufacturing Company, Cleveland, Ohio. Faucet or cock. No. 1,137,343; Apr. 27; Gaz. vol. 213; p. 1280.

McGoldrick, John, Baltimore, Md. Life-boat and launching mechanism therefor. No. 1,134,630; Apr. 6; Gaz. vol. 213; p. 199.

McGowan, William L., Spickard, Mo. Hog-ringer. No. 1,136,149; Apr. 20; Gaz. vol. 213; p. 814.

McGrath, Lili A., Brookhaven, Miss. Floor-polisher. No. 1,136,150; Apr. 20; Gaz. vol. 213; p. 814.

McGuire, Thomas S., Carlisle, Pa. Grinding-machine. No. 1,137,647; Apr. 27; Gaz. vol. 213; p. 1382.

McGuirk, Charles W. (See Durham and McGuirk.)

McHenry, Samuel B., Chicago, Ill. Astronomical demonstrating device. No. 1,134,473; Apr. 6; Gaz. vol. 213; p. 142.

McIntosh, Burtnett, New York, N. Y. Crib. No. 1,135,122; Apr. 13; Gaz. vol. 213; p. 415.

McIntyre, Duncan B., Montreal, Quebec, Canada. Pipe and cable hanger. No. 1,137,069; Apr. 27; Gaz. vol. 213; p. 1178.

McIntyre, Michael M., assignor to The Perfection Spring Company, Cleveland, Ohio. Vehicle-spring. No. 1,135,036; Apr. 13; Gaz. vol. 213; p. 385.

McKee, Willis, assignor to The Elyria Iron & Steel Company, Elyria, Ohio. Apparatus for removing burs. No. 1,135,705; Apr. 13; Gaz. vol. 213; p. 618.

McKeesport Tin Plate Company. (See Reynard, Charles M., assignor.)
McKeever, James A., New York, N. Y. Automatic change-speed device. No. 1,137,507; Apr. 27; Gaz. vol. 213; p. 1336.
McKendrick, James H., Media, Pa. Paper bag. No. 1,134,341; Apr. 6; Gaz. vol. 213; p. 94.
McKenzie, Duncan, Winnipeg, Manitoba, Canada. Smoke-plug. No. 1,137,344; Apr. 27; Gaz. vol. 213; p. 1280.
McKesson, Charles L., Colorado Springs, and B. F. Rice, Denver, Colo. Apparatus for sizing or volumetric grading of materials. No. 1,135,123; Apr. 13; Gaz. vol. 213; p. 415.
McKinley, A. W., *et al.* (See Thompson, Jay L., assignor.)
McKinley, Patrick J., Brooklyn, N. Y. Soap and glass holder. No. 1,134,144; Apr. 6; Gaz. vol. 213; p. 22.
McKittrick, John L. (See Marston and McKittrick.)
McLain, Finis H., University Place, assignor of one-half to W. A. Selleck, Lincoln, Nebr. Collapsible crate. No. 1,135,598; Apr. 13; Gaz. vol. 213; p. 579.
McLain, Finis H., University Place, assignor of one-half to W. A. Selleck, Lincoln, Nebr. Shipping-crate. No. 1,135,599; Apr. 13; Gaz. vol. 213; p. 580.
McLanahan, Austin. (See Potts, Louis M., assignor.)
McLaren, Chester, Oakland, Cal. Tramway-carrier. No. 1,136,352; Apr. 20; Gaz. vol. 213; p. 885.
McLellan, Joseph H. (See Wohlcke and McLellan.)
McLoon, Patrick, Glencoe, assignor of one-half to P. J. Dauernheim, St. Louis, Mo. Steam-boiler. No. 1,135,908; Apr. 13; Gaz. vol. 213; p. 688.
McMahon, Harry W., Seattle, Wash. Trolling-spoon. No. 1,136,475; Apr. 20; Gaz. vol. 213; p. 931.
McMahon, Thomas G. (See Fritz, Gustav E., assignor.)
McMillin, Clifford K., Bellingham, Wash. Support for automobile-beds. No. 1,136,885; Apr. 20; Gaz. vol. 213; p. 1075.
McMullen, Charles C. (See Hamilton and McMullen.)
McMullen, Frederick L., Norfolk, Va. Garment. No. 1,135,459; Apr. 13; Gaz. vol. 213; p. 530.
McNaught, Harry W., Indianapolis, Ind. Railway safety system. No. 1,134,278; Apr. 6; Gaz. vol. 213; p. 71.
McNeal, Charles A., Columbus, Ohio. Illuminated sign. No. 1,135,308; Apr. 13; Gaz. vol. 213; p. 478.
McNeil, George C., assignor of one-half to E. C. Massey, Ethridge, Tenn. Brake mechanism. No. 1,134,474; Apr. 6; Gaz. vol. 213; p. 143.
McPherson, Samuel E., assignor of one-half to H. L. Young, Cherokee, Okla. Harvester. No. 1,136,151; Apr. 20; Gaz. vol. 213; p. 814.
McQuay-Norris Manufacturing Company. (See Campbell, Edward B., assignor.)
McQueen, Charley, San Antonio, assignor of one-half to A. H. Jackson, Gonzales, Tex. Weight-motor. No. 1,136,251; Apr. 20; Gaz. vol. 213; p. 849.
McWhorter, Allen, assignor to McWhorter Manufacturing Company, Riverton, N. J. Fertilizer-distributer. No. 1,134,688; Apr. 6; Gaz. vol. 213; p. 221.
McWhorter Manufacturing Company. (See McWhorter, Allen, assignor.)
McWilliams, Arthur C., Chicago, Ill. Metering panel-board. No. 1,137,413; Apr. 27; Gaz. vol. 213; p. 1305.
Mead, Cyrus E., assignor to The Mead Engine Company, Dayton, Ohio. Rotary valve for explosive-engines. No. 1,134,693; Apr. 6; Gaz. vol. 213; p. 222.
Mead, Ellis H., Western Springs, assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Hand-truck. No. 1,135,603; Apr. 13; Gaz. vol. 213; p. 582.
Mead Engine Company, The. (See Mead, Cyrus E., assignor.)
Mead, Lawrence J. (See Klein and Mead.)
Meade, James, assignor to Plymouth Rubber Company, Stoughton, Mass. Machine for treating adhesive coated fabric. No. 1,137,511; Apr. 27; Gaz. vol. 213; p. 1338.
Meader, Henry J., Utica, N. Y. Beater. No. 1,134,344; Apr. 6; Gaz. vol. 213; p. 95.
Meakin, Edgar T., Oakland, Cal. Press. No. 1,135,309; Apr. 13; Gaz. vol. 213; p. 478.
Mease, Monsey E., Sandy Level, Va. Saddle-bag. No. 1,136,691; Apr. 20; Gaz. vol. 213; p. 1006.
Meecham, William E., Winnipeg, Manitoba, Canada. Road-vehicle. No. 1,135,461; Apr. 13; Gaz. vol. 213; p. 531.
Megosin Company. (See Menden, William S., assignor.)
Megredy, John T. (See Edwards, Harry C., assignor.)
Megredy, John T. (See Edwards and Megredy.)
Meier, Albert H., Evansville, Ind. Pipe-bending device. No. 1,136,252; Apr. 20; Gaz. vol. 213; p. 850.
Meier, Albert J., Glendale, W. L. Swift, and E. L. Reller, assignors to The Duco Adding Machine Company, St. Louis, Mo. Paper-feed and platen-operating mechanism for calculating-machines. No. 1,134,694; Apr. 6; Gaz. vol. 213; p. 223.
Meier, John, Dallas, Tex., assignor of one-twentieth to F. Richard and one-twentieth to F. Peyrot, Chicago, Ill. Cotton-picking machine. No. 1,135,202; Apr. 13; Gaz. vol. 213; p. 442.
Meininger, Joseph H., Strasburg, Ohio. Fire-clay feeder. No. 1,137,650; Apr. 27; Gaz. vol. 213; p. 1383.
Meissner, Alexander, Berlin, Germany. Process and apparatus for determining the position of radiotelegraphic receivers. No. 1,135,604; Apr. 13; Gaz. vol. 213; p. 582.
Meissner, Edward C., Kansas City, Mo. Friction-igniter for gas-lamps. No. 1,135,128; Apr. 13; Gaz. vol. 213; p. 417.
Meister, William. (See Huber, Ernst, assignor.)
Mella, Alfred, New York, N. Y. Button. No. 1,136,692; Apr. 20; Gaz. vol. 213; p. 1007.
Mellinger, Edward A., assignor to Automatic Electric Company, Chicago, Ill. Semi-automatic telephone-exchange trunking system. No. 1,134,978; Apr. 6; Gaz vol. 213; p. 320.
Melville Clark Piano Company. (See Clark, Ernest G., assignor.)
Melville Clark Piano Company. (See Clark, Melville, assignor.)
Memmler, Arthur H., San Gabriel, Cal. Drawing-file. No. 1,135,310; Apr. 13; Gaz. vol. 213; p. 478.
Menden, William S., Brooklyn, N. Y., assignor to Megosin Company, Inc. Means for controlling the illumination of vehicles. No. 1,135,605; Apr. 13; Gaz. vol. 213; p. 582.
Mendlik, Charles D. (See Todd and Mendlik.)
Mentzer, John P., Chicago, Ill. Loose-leaf binder. No. 1,137,012; Apr. 27; Gaz. vol. 213; p. 1158.
Menzel, Charles F., and G. C. Carpenter, Roxbury, Mass. Pliers. No. 1,135,830; Apr. 13; Gaz. vol. 213; p. 663.
Mergenthaler Linotype Company, The. (See Albrecht, Christian A., assignor.)
Mergenthaler Linotype Company. (See Bloch, Bruno, assignor.)
Mergenthaler Linotype Company. (See Dodge, Norman, assignor.)
Mergenthaler Linotype Company. (See Geel, Max J., assignor.)
Mergenthaler Linotype Company. (See Ingle and Eva, assignors.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Muehleisen, Carl, assignor.)
Mergenthaler Linotype Company. (See Reist and Batsford, assignors.)
Mergenthaler Linotype Company. (See Röger, Karl, assignor.)
Mergenthaler Linotype Company. (See Rogers, John R., assignor.)
Mergenthaler Linotype Company. (See Van Blijenburgh, Jozef P., assignor.)
Mergenthaler Linotype Company. (See Watson, James A., assignor.)
Meriam, Joseph B., Cleveland, Ohio. Water-jacketing. No. 1,135,037; Apr. 13; Gaz. vol. 213; p. 386.
Merrell, Oliver E., assignor to Merrell-Soule Company, Syracuse, N. Y. Obtaining the solids from liquids. No. 1,136,356; Apr. 20; Gaz. vol. 213; p. 887.
Merrell-Soule Company. (See Merrell, Oliver E., assignor.)
Merrick, Frank W., assignor to Union Lock Stitch Company, Boston, Mass. Welt-shoe. No. 1,137,270; Apr. 27; Gaz. vol. 213; p. 1252.
Merrill, Augustus A., Sioux Rapids, Iowa. End-gate. No. 1,135,540; Apr. 13; Gaz. vol. 213; p. 559.
Merrill, William F., New York, N. Y. Electric stove. No. 1,134,886; Apr. 6; Gaz. vol. 213; p. 288.
Merriman Brothers. (See Breach, James J., assignor.)
Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Presser-foot-lifting mechanism. No. 1,134,477; Apr. 6; Gaz. vol. 213; p. 144.
Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Means for fixing machine elements on shafts. No. 1,134,478; Apr. 6; Gaz. vol. 213; p. 144.
Merritt, Joseph, and E. W. Smith, Hartford, Conn. Machine for cleaning the exteriors of receptacles. No. 1,134,213; Apr. 6; Gaz. vol. 213; p. 48.
Merritt, Joseph, and C. H. Storrs, assignors to The Hartford Lock Ring Company, Hartford, Conn. Machine for feeding rings. No. 1,134,887; Apr. 6; Gaz. vol. 213; p. 288.
Merrow, Charles H., Brockton, Mass. Pieced outer sole. No. 1,136,253; Apr. 20; Gaz. vol. 213; p. 850.
Merton, Charles S. (See Merton, Percy and C. S.)
Merton, Percy, and C. S., Park Ridge, N. J. Sweat-band for head-gear. No. 1,134,888; Apr. 6; Gaz. vol. 213; p. 288.
Mertz, Nathaniel D., Freeport, Ill. Halter. No. 1,136,693; Apr. 20; Gaz. vol. 213; p. 1007.
Mesinger-Whitney Electric Company. (See Whitney, Perrin B., assignor.)
Messer, Earl S., Pasadena, Cal. Collapsible booth. No. 1,134,399; Apr. 6; Gaz. vol. 213; p. 115.
Messerschmitt, Anton, Stolberg, Germany. Nitrate fertilizer and making the same. No. 1,135,887; Apr. 13; Gaz. vol. 213; p. 505.
Mesta Machine Company. (See Filipietz, Paul, assignor.)
Metcalf, Homer, Tribbey, Okla. Stirrup. No. 1,136,154; Apr. 20; Gaz. vol. 213; p. 815.
Metivier, Elmer, Boston, Mass. Tooth-brush. No. 1,137,651; Apr. 27; Gaz. vol. 213; p. 1384.
Metz, Walter R. (See Drexelius, George W., assignor.)
Meyer, Albert B., Chicago, Ill. Ash-receptacle for furnaces. No. 1,137,158; Apr. 27; Gaz. vol. 213; p. 1211.
Meyer, Daniel, Morris, Minn. Tractor. No. 1,137,652; Apr. 27; Gaz .vol. 213; p. 1384.

Meyer, Leroy E., Akron, Ohio. Sole for shoes. No. 1,137,159; Apr. 27; Gaz. vol. 213; p. 1212.
Meyer, William. (See Sonderegger, Leo, assignor.)
Meyers, Louis A., Sauk Center, Minn. Automatic switch for controlling lights. No. 1,135,311; Apr. 13; Gaz. vol. 213; p. 479.
Mezger, Charles A., New York, N. Y. Spark-plug. No. 1,134,345; Apr. 6; Gaz. vol. 213; p. 96.
Michael, Harry M. (See Briggs and Michael.)
Michalis, Clarence G., East Orange, and M. Münzner, Arlington, N. J., assignors to The Torsion Balance Company, New York, N. Y. Percentage-scale. No. 1,136,694; Apr. 20; Gaz. vol. 213; p. 1007.
Miciaus, Alexander, Jr., Washington, D. C. Automatic gun. No. 1,136,695; Apr. 20; Gaz. vol. 213; p. 1008.
Middaugh, Carlisle H., Lawrenceville, Pa. Classifying-cabinet. No. 1,135,038; Apr. 13; Gaz. vol. 213; p. 386.
Miehle Printing Press & Manufacturing Company. (See Hodgman, Willis K., assignor.)
Miehle Printing Press & Manufacturing Company. (See Mead, Ellis H., assignor.)
Miles, George W., Belmont, Mass., assignor to himself, trustee. Purifying sewage and recovering organic matter therefrom. No. 1,134,280; Apr. 6; Gaz. vol. 213; p. 72.
Millbury Steel Foundry Company. (See Brierly and Scanlon, assignors.)
Miller, Edward, Columbus, Ohio. Glass-furnace. No. 1,135,973; Apr. 13; Gaz. vol. 213; p. 712.
Miller, Frank B., Norwalk, assignor to The Atwood Automobile Company, Toledo, Ohio. Locking means for control-levers. No. 1,136,155; Apr. 20; Gaz. vol. 213; p. 816.
Miller, Frank J. (See Noll and Miller.)
Miller, Frank W., assignor of one-half to C. D. Bauers, Chicago, Ill. Heating apparatus. No. 1,135,039; Apr. 13; Gaz. vol. 213; p. 387.
Miller, Franklin C., Easton, Pa. Tire-holder. No. 1,136,547; Apr. 20; Gaz. vol. 213; p. 956.
Miller, George F., and H. M. Koneiska, San Francisco, Cal. Combination pocket-tool. No. 1,136,826; Apr. 20; Gaz. vol. 213; p. 1055.
Miller, Grant S., Bristol, Va. Currycomb. No. 1,136,156; Apr. 20; Gaz. vol. 213; p. 816.
Miller, Harry, New York, N. Y. Advertising-clock. No. 1,137,512; Apr. 27; Gaz. vol. 213; p. 1338.
Miller, Henry M. (See Young and Miller.)
Miller Improved Gas Engine Company, The. (See Watts, Elmer A., assignor.)
Miller, John, Sr., Boston, assignor of one-fourth to J. J. Barker, Arlington Heights, one-fourth to E. Blasser, and one-fourth to W. C. Sargeant, Boston, Mass. Soil-pipe connection. No. 1,134,400; Apr. 6; Gaz. vol. 213; p. 115.
Miller, John G., Oblong, Ill. Bridge-mold. No. 1,135,312; Apr. 13; Gaz. vol. 213; p. 479.
Miller, John T., Clovis, N. Mex. Toy. No. 1,135,828; Apr. 13; Gaz. vol. 213; p. 662.
Miller, John W., Rantoul, Ill. Slide-valve. No. 1,136,696; Apr. 20; Gaz. vol. 213; p. 1008.
Miller, Leonard, Brownwood, Tex. Motor. No. 1,134,147; Apr. 6; Gaz. vol. 213; p. 23.
Miller, Milton T., Los Angeles, Cal. Signaling device for vehicles. No. 1,137,070; Apr. 27; Gaz. vol. 213; p. 1179.
Miller Rubber Company. (See Brucker, Ferdinand F., assignor.)
Miller, S. Fischer. (See Hanchett, George T., assignor.)
Miller Saw Trimmer Company of Michigan. (See Cheshire, Edward, assignor.)
Miller, Wilfred A., New York, N. Y. Electric heater. No. 1,137,513; Apr. 27; Gaz. vol. 213; p. 1338.
Milliken, Walter L. (See Shiek, Daniel W., assignor.)
Mills, Edward F. (See Mills, Francis E. and E. F.)
Mills, Edward J., San Francisco, Cal. Combined cover and index for bound books. No. 1,134,544; Apr. 6; Gaz. vol. 213; p. 168.
Mills, Francis E. and E. F., Boston, Mass. Pressure-transmitting controller. No. 1,136,478; Apr. 20; Gaz. vol. 213; p. 932.
Mills, Henry L. (See Trescott, Charles B., assignor.)
Mills, John E., Chicago, Ill. Deep-well pump. No. 1,134,479; Apr. 6; Gaz. vol. 213; p. 144.
Mills Woven Cartridge Belt Company. (See Jennings, Victor H., assignor.)
Milwaukee Woven Wire Works. (See Marquardt, Reinhold G., assignor.)
Miner, Alfred C., Missoula, Mont. Trolley-harp carrier. No. 1,137,271; Apr. 27; Gaz. vol. 213; p. 1253.
Miner, Raymond C., assignor of one-half to H. P. Hanson, Faith, S. D. Finger-nail clipper. No. 1,135,462; Apr. 13; Gaz. vol. 213; p. 531.
Miner, William H. (See Haseltine, Stacy B., assignor.)
Miner, William H. (See Johnson, George A., assignor.)
Miner, William H. (See Miner and O'Connor, assignors.)
Miner, William H. (See O'Connor, John F., assignor.)
Miner, William H. (See Schwartzenberg, Harry F., assignor.)
Miner, William H., Chicago, Ill. Railway draft-rigging. No. 1,136,029; Apr. 20; Gaz. vol. 213; p. 772.
Miner, William H., and J. F. O'Connor, assignors, by mesne assignments, to W. H. Miner, Chicago, Ill. Tandem-spring draft-rigging for railway-cars. No. 1,136,030; Apr. 20; Gaz. vol. 213; p. 773.
Mineral Products Company, The. (See Hershman, Paul R., assignor.)
Mineral Products Company, The. (See MacDowell, Charles H., assignor.)
Mink, Harry M. (See Andersen and Mink.)
Minor, Frank W., Richmond, Va. Enlarging-lantern or projectoscope. No. 1,136,697; Apr. 20; Gaz. vol. 213; p. 1009.
Miser, Charles E., Watertown, N. Y. Expansible and contractile core for paper and similar rolls. No. 1,135,388; Apr. 13; Gaz. vol. 213; p. 505.
Missbach, Ernst G., New York, N. Y., assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany. Electric signaling apparatus. No. 1,135,040; Apr. 13; Gaz. vol. 213; p. 387.
Mitchell, Albert E., Stamford, Conn. Machine for boring wood. No. 1,136,031; Apr. 20; Gaz. vol. 213; p. 773.
Mitchell, Ira G., Meeker, Colo. Step-ladder. No. 1,134,214; Apr. 6; Gaz. vol. 213; p. 48.
Mitchell, William A., Sedalia, Mo. Draft-yoke for railway-car draft-rigging. No. 1,136,032; Apr. 20; Gaz. vol. 213; p. 773.
Mitchell, Willis, Malden, Mass., assignor to Willis Mitchell Company, Inc., New York, N. Y. Oil-gas burner. No. 1,136,886; Apr. 20; Gaz. vol. 213; p. 1075.
Mittinger, George E., Youngstown, Ohio, assignor of fifteen-sixteenths to Pressed Steel Products Company, Sharon, Pa. Spud for barrels. No. 1,136,698; Apr. 20; Gaz. vol. 213; p. 1009.
Mock, George, Bardstown, Ky. Gate. No. 1,136,157; Apr. 20; Gaz. vol. 213; p. 816.
Modern Bag Company. (See Fegely, Frederick W., assignor.)
Modern Compressed Air Cleaning Co. (See Overholt, Edwin E., assignor.)
Modranski, John, *et al.* (See Gepack, Paul, assignor.)
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Folder for sewing-machines. No. 1,135,708; Apr. 13; Gaz. vol. 213; p. 619.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Trimming mechanism for sewing-machines. No. 1,135,709; Apr. 13; Gaz. vol. 213; p. 620.
Mogle, James A., Mishawaka, Ind. Shoemaker's jack. No. 1,134,889; Apr. 6; Gaz. vol. 213; p. 289.
Moise, Leonard C. (See Duplantis, Gaston A., assignor.)
Molhant, Alfred, Mons, Belgium. Saccharification and fermentation of amylaceous substances. No. 1,134,281; Apr. 6; Gaz. vol. 213; p. 73.
Moll, William E., assignor to S. Rosenau & Company, Philadelphia, Pa. Winding-machine. No. 1,137,514; Apr. 27; Gaz. vol. 213; p. 1339.
Mollenhauer, William F. T., and H. E. Leach, Owatonna, Minn. Rosin-holder. No. 1,137,414; Apr. 27; Gaz. vol. 213; p. 1305.
Monarch Metal Weather Strip Company. (See Lane, Alfred M., assignor.)
Monarch Typewriter Company, The. (See Brand, George B., assignor.)
Moneuse, Louise, New Rochelle, N. Y. Tea and other spout-provided kettle. No. 1,137,515; Apr. 27; Gaz. vol. 213; p. 1339.
Monitor Manufacturing Company of Baltimore City. (See Whittingham, George H., assignor.)
Monjo, Joseph, New York, N. Y. Hat-pin-point protector. No. 1,134,401; Apr. 6; Gaz. vol. 213; p. 116.
Monroe, Henry, Jr., Fairview, Kans. Grain-rake. No. 1,135,831; Apr. 13; Gaz. vol. 213; p. 663.
Montague Mailing Machinery Co. (See Lee, Ulysses G., assignor.)
Montgomery, Frank C. (See Linton, George E., assignor.)
Montgomery, Lydia, Colville, Wash. Sanitary lunch-box. No. 1,137,160; Apr. 27; Gaz. vol. 213; p. 1212.
Montgomery, William J., Jeannette, Pa., assignor to The Jeffrey Manufacturing Company. Fan-blower. No. 1,136,827; Apr. 20; Gaz. vol. 213; p. 1055.
Moon, George W., St. Louis, Mo. Sewer-trap. No. 1,137,516; Apr. 27; Gaz. vol. 213; p. 1339.
Mooney, Monroe J., Cincinnati, Ohio. Furnace. No. 1,136,828; Apr. 20; Gaz. vol. 213; p. 1056.
Moore, Charles T., Washington, D. C., assignor, by mesne assignments, to J. G. Coffin, trustee. Machine for making composing-ribbons for automatic typographic machines. No. 1,136,081; Apr. 20; Gaz. vol. 213; p. 789.
Moore, David P. (See Hullings and Moore.)
Moore, Edward Y., Cleveland, Ohio. Trolley. No. 1,136,699; Apr. 20; Gaz. vol. 213; p. 1010.
Moore, Frederick H., Melrose, Mass. Toilet-paper fixture. No. 1,136,700; Apr. 20; Gaz. vol. 213; p. 1010.
Moore, George J. (See Moore, William F. and G. J.)
Moore, J. Walter, Fort Edward, N. Y. Magnetic flat-iron. No. 1,135,389; Apr. 13; Gaz. vol. 213; p. 505.
Moore, Joseph H., Mulberry, Fla. Flexible elbow. No. 1,136,548; Apr. 20; Gaz. vol. 213; p. 956.
Moore, Ralph S., *et al.* (See Marker, Henry H., assignor.)
Moore, Robert S., and J. L. Simmons, assignors to Gyro Motor Company, Washington, D. C. Crank connection for engines. No. 1,134,545; Apr. 6; Gaz. vol. 213; p. 168.
Moore, William E., Pittsburgh, Pa. Cotton ginning and cleaning. No. 1,136,969; Apr. 27; Gaz. vol. 213; p. 1141.

Moore, William F. and G. J., Toronto, Ontario, Canada. Grain-grinding machine. No. 1,135,313; Apr. 13; Gaz. vol. 213; p. 479.

Morawiecki, Michal, Pittsburgh, Pa. Non-refillable bottle. No. 1,135,203; Apr. 13; Gaz. vol. 213; p. 442.

Morey, Harry A. (See Cahill, Mortimer, assignor.)

Morgan, Henry S., assignor to Essex Rubber Company, Inc., Trenton, N. J. Cap for automobile-radiators and the like. No. 1,134,890; Apr. 6; Gaz. vol. 213; p. 289.

Morgan, James G., Jackson, Ohio. Apparatus for feeding lime to blast-furnaces. No. 1,137,415; Apr. 27; Gaz. vol. 213; p. 1306.

Morkrum Company. (See Krum, Charles L., assignor.)

Morrill, William C., New York, N. Y. Liquid-discharging device. (Reissue.) No. 13,898; Apr. 6; Gaz. vol. 213; p. 324.

Morris, Charles D., Norfolk, Va. Operating device for train-pipe cocks. No. 1,134,546; Apr. 6; Gaz. vol. 213; p. 169.

Morris, Edmund, assignor to Wilmarth Show Case Company, Grand Rapids, Mich. Dust-joint for drawers. No. 1,137,073; Apr. 27; Gaz. vol. 213; p. 1180.

Morris, Edmund, assignor to Wilmarth Show Case Company, Grand Rapids, Mich. Tilting drawer. No. 1,137,074; Apr. 27; Gaz. vol. 213; p. 1180.

Morris, Milo W., Olympia, Wash. Guide for vehicle-springs. No. 1,135,832; Apr. 13; Gaz. vol. 213; p. 663.

Morris, William L., Chicago, Ill., assignor to S. F. Bowser & Co., Inc., Fort Wayne, Ind. Filter. No. 1,137,075; Apr. 27; Gaz. vol. 213; p. 1180.

Morrison, Bartholomew J., assignor to E. R. Dunham, New York, N. Y. Grate-vibrating device for chain-grate stokers. No. 1,136,033; Apr. 20; Gaz. vol. 213; p. 773.

Morse, Alfred B., South Easton, Mass. Go-through lace-machine or loom take-up rolls. No. 1,136,431; Apr. 20; Gaz. vol. 213; p. 915.

Morse, Ancil B., Beloit, Wis. Door-supporting clamp. No. 1,136,701; Apr. 20; Gaz. vol. 213; p. 1010.

Morse, John J., and W. B. Mallette, assignors, by mesne assignments, to General Appliance Company, St. Louis, Mo. Cattle-guard. No. 1,136,158; Apr. 20; Gaz. vol. 213; p. 817.

Morse, Leo, New York, N. Y. Pullman and shampoo apron. No. 1,123,833; Apr. 13; Gaz. vol. 213; p. 663.

Morse, Mark S. (See Tonks, William H., assignor.)

Morse, Robert V., Ithaca, N. Y. Air-pumping apparatus. No. 1,134,215; Apr. 6; Gaz. vol. 213; p. 48.

Morthland, George W., Lead, S. D. Trap. No. 1,136,432; Apr. 20; Gaz. vol. 213; p. 915.

Morton, Campbell, Glasgow, Scotland. Hydraulic air-ejector for vacuum cleaning and other purposes. No. 1,135,834; Apr. 13; Gaz. vol. 213; p. 664.

Morton, George, West Grove, Iowa. Combined reel-carriage and wire-stretcher. No. 1,135,041; Apr. 13; Gaz. vol. 213; p. 387.

Mosal, Julius A. (See Johnson and Mosal.)

Moscrip, James E., Derrick, Saskatchewan, Canada. Draft appliance for self-loading grain-carriers. No. 1,135,835; Apr. 13; Gaz. vol. 213; p. 664.

Mosely, George L., Jacksboro, Tex. Colter attachment for lister-plows. No. 1,137,162; Apr. 27; Gaz. vol. 213; p. 1212.

Mosely, Jimmie W., Austin, Tex. Attachment for mowers. No. 1,135,463; Apr. 13; Gaz. vol. 213; p. 532.

Mosler, Moses, Cincinnati, and C. Bartels, Hamilton, Ohio, assignors to The Mosler Safe Company, New York, N. Y. Safe construction. No. 1,134,216; Apr. 6; Gaz. vol. 213; p. 49.

Mosler, Moses, Cincinnati, and C. Bartels, Hamilton, Ohio, assignors to The Mosler Safe Company, New York, N. Y. Safe construction. No. 1,136,254; Apr. 20; Gaz. vol. 213; p. 851.

Mosler Safe Company, The. (See Mosler and Bartels, assignors.)

Mosling, Bernhard A. (See Besserdich, William A., assignor.)

Motion Picture Appliance Corporation. (See Wolfsohn, Adolf, assignor.)

Motor Specialties Company. (See Hersee and Lombard, assignors.)

Mott, Augustus P. (See Drabold and Mott.)

Mott, William R., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Arc-light electrode. No. 1,134,148; Apr. 6; Gaz. vol. 213; p. 23.

Motz, Frederick J., Cincinnati, Ohio. Making paper boxes. No. 1,136,479; Apr. 20; Gaz. vol. 213; p. 932.

Motznik, John, *et al.* (See Haines, Iven L., assignor.)

Motznik, Rudolph D., *et al.* (See Haines, Iven L., assignor.)

Moul, Herbert E., London, England, assignor to Westinghouse Electric and Manufacturing Company. Arc-lamp. No. 1,135,129; Apr. 13; Gaz. vol. 213; p. 418.

Mountain City Mill Co. (See Christensen, Henry A., assignor.)

Mowry, William, Marshalltown, Iowa. Plow. No. 1,134,149; Apr. 6; Gaz. vol. 213; p. 23.

Moyer, Harvey A. (See Latta, Emmit G., assignor.)

Moyle, Edward H., Los Angeles, Cal. Stamp-mill. No. 1,137,272; Apr. 27; Gaz. vol. 213; p. 1253.

Mudd, Rolla E., Stroughurst, Ill. Marker for corn-planters. No. 1,134,891; Apr. 6; Gaz. vol. 213; p. 289.

Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Distributing mechanism of typographical composing and casting machines. No. 1,136,550; Apr. 20; Gaz. vol. 213; p. 956.

Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical composing and distributing machine. No. 1,136,551; Apr. 20; Gaz. vol. 213; p. 957.

Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical composing and casting machine. No. 1,137,013; Apr. 27; Gaz. vol. 213; p. 1158.

Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,014; Apr. 27; Gaz. vol. 213; p. 1159.

Mueller, Felix J. (See Allen and Mueller.)

Mueller, Frederick W. (See Shirley and Mueller.)

Mueller, George E., Aurora, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone-key. No. 1,134,282; Apr. 6; Gaz. vol. 213; p. 73.

Mueller, George H., assignor to The Jeffrey Manufacturing Company, Columbus, Ohio. Car-dumping apparatus. No. 1,136,829; Apr. 20; Gaz. vol. 213; p. 1036.

Mulhall, Michael J., Brooklyn, N. Y. Reversible driving-gear. No. 1,134,480; Apr. 6; Gaz. vol. 213; p. 145.

Mullins, Michael, Seattle, Wash. Stump-puller. No. 1,136,702; Apr. 20; Gaz. vol. 213; p. 1011.

Mumford, Gurdon S., New York, N. Y. Apparatus for casting concrete walls. No. 1,137,416; Apr. 27; Gaz. vol. 213; p. 1306.

Münch, Gottfried B., Leipzig, assignor to Allvor-Apparte-Gesellschaft mit beschränkter Haftung, Wurzen, Germany. Mechanism for opening and closing sliding windows. No. 1,137,076; Apr. 27; Gaz. vol. 213; p. 1181.

Munro, James H., assignor of one-half to J. M. Van Orden, Newark, N. J. Cutting apparatus. No. 1,134,217; Apr. 6; Gaz. vol. 213; p. 49.

Münzner, Max. (See Michalis and Münzner.)

Murphy, Charles S. (See Loftin and Murphy.)

Murphy, Clinton C. (See Mathews, Fred, assignor.)

Murphy, Ernest B., *et al.* (See Lockwood, Charles F., assignor.)

Murphy, George J., Baradero, Argentina. Spring-wheel. No. 1,134,218; Apr. 6; Gaz. vol. 213; p. 49.

Murphy, Howard H., Boston, Mass. Internal-combustion engine. (Reissue.) No. 13,905; Apr. 27; Gaz. vol. 213; p. 1409.

Murphy, Philip. (See Husted, Sorensen, and Murphy.)

Murphy, William M., and J. J. Redner; said Murphy assignor, by mesne assignments, to The U. S. Manufacturers' Distributing Company, Inc., New York, N. Y. Insect-trap. No. 1,135,710; Apr. 13; Gaz. vol. 213; p. 620.

Murr, John A., Cohutta, Ga. Feed-rack. No. 1,137,653; Apr. 27; Gaz. vol. 213; p. 1384.

Murray, Thomas E., New York, N. Y. Protective switch-box. No. 1,135,130; Apr. 13; Gaz. vol. 213; p. 418.

Murray, Thomas E., and G. K. Jessup, New York, N. Y.; said Jessup assignor to said Murray. Glow-lamp fixture. No. 1,135,541; Apr. 13; Gaz. vol. 213; p. 559.

Mursch, William H., assignor to The Union Switch & Signal Company, Swissvale, Pa. Clutch. No. 1,134,285; Apr. 6; Gaz. vol. 213; p. 73.

Murtera, Ugo, assignor to Kabo Corset Co., Chicago, Ill. Stay-grinder. No. 1,135,711; Apr. 13; Gaz. vol. 213; p. 620.

Muspratt, Frederic J., St. Helier, Island of Jersey. Card-table. No. 1,136,255; Apr. 20; Gaz. vol. 213; p. 851.

Myers, Curtis M., Glenfield, and J. A. Terhorst, Pittsburgh, Pa. Pencil-calendar. No. 1,137,273; Apr. 27; Gaz. vol. 213; p. 1253.

Myers, Henry, Philadelphia, Pa. Trunk-edge protector. No. 1,134,219; Apr. 6; Gaz. vol. 213; p. 50.

Myers, Hubert A., assignor of one-half to A. S. Hickok, Toledo, Ohio. Automatic valve-adjuster for internal-combustion engines. No. 1,134,695; Apr. 6; Gaz. vol. 213; p. 224.

Myers, Lewis C., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Envelop and card feed device for type-writing machines. No. 1,136,034; Apr. 20; Gaz. vol. 213; p. 774.

Myers, Walter, Bridgeport, Conn., assignor to The Singer Manufacturing Company. Ornamental-stitch sewing-machine. No. 1,135,959; Apr. 13; Gaz. vol. 213; p. 707.

Myers, Walter, Bridgeport, Conn., assignor to The Singer Manufacturing Company. Sewing-machine. No. 1,137,654; Apr. 27; Gaz. vol. 213; p. 1385.

Myers, William M., St. Joseph, Mo. Safety-valve mechanism for pneumatic tires. No. 1,136,901; Apr. 20; Gaz. vol. 213; p. 1081.

Myszkier, Maxymilian J., Buffalo, N. Y. Valve-operating mechanism. No. 1,134,892; Apr. 6; Gaz. vol. 213; p. 290.

N-W Equipment Co. Inc. (See Banghart, Charles S., assignor.)

Naktin, Todress. (See Karish, Isaac, assignor.)

Nash, Charles J., Chicago, Ill., assignor to Universal Draft Gear Attachment Co. Draft-arm for railway-cars. No. 1,136,159; Apr. 20; Gaz. vol. 213; p. 817.

Nash, Charles J., Chicago, Ill., assignor to Universal Draft Gear Attachment Co. Yoke for draft-gear. No. 1,137,348; Apr. 27; Gaz. vol. 213; p. 1281.

Nash, Walter D., Atlanta, assignor to Atlanta Utility Works, East Point, Ga. Feed-mixing machine. No. 1,134,220; Apr. 6; Gaz. vol. 213; p. 50.

Nathan, Albert F., Jr., New York, N. Y. Type-writer key-lock. No. 1,137,417; Apr. 27; Gaz. vol. 213; p. 1306.

Nathan Manufacturing Company, The. (See Wood, Robert, assignor.)

National Blank Book Company. (See Schade, John, Jr., assignor.)

National Carbon Company. (See Brown, John W., assignor.)

National Carbon Company. (See Erwin, Raymond W., assignor.)

National Carbon Company. (See Mott, William R., assignor.)

National Carbon Company. (See Smith, Edward C., assignor.)

National Cash Register Company, The. (See Bates and Phillips, assignors.)

National Cash Register Company, The. (See Church, Edmund S., assignor.)

National Cash Register Company, The. (See Heinitz, Woldemar R., assignor.)

National Cash Register Company, The. (See Kettering and Chryst, assignors.)

National Cash Register Company, The. (See Martin, Haakon A., assignor.)

National Cash Register Company. (See Von Pein, Edward J., assignor.)

National Cash Register Company. (See Werner, John A., assignor.)

National Chemical Company. (See Barnes, Frank C., assignor.)

National Chemical Company. (See Seltenreich, John J., assignor.)

National Dump Car Company. (See Otis, Spencer, assignor.)

National Fibre Box Company. (See Walter, Harrison B., assignor.)

National Hydrocarbon Company. (See Dubbs, Jesse A., assignor.)

National Lock Washer Company, The. (See Horn, John H., assignor.)

National Lock Washer Company, The. (See Loutrel, Cyrus H., assignor.)

National Metal Molding Company. (See Gilson, Henry R., assignor.)

National Oil-Gas Burner Company, The. (See Smith, Oscar W., assignor.)

National Oil-Gas Burner Company, The. (See Smith, William O., assignor.)

National Pneumatic Company. (See Burdett, John B., assignor.)

National Pneumatic Company. (See Gottschalk, Albert, assignor.)

National Pneumatic Company. (See Spencer, George M., assignor.)

National Railway Equipment Company, The. (See Caughling, Frank W., assignor.)

National Sewing Machine Company. (See Barton, Edward L., assignor.)

National Stamping & Electric Works. (See Bandlow, Henry E., assignor.)

National Standard Company. (See Larsen, Bertinius, assignor.)

National X-Ray Reflector Company. (See Hotchkin, Paul M., assignor.)

Naugle, Girard G., York, Pa. Train-stopping apparatus. No. 1,135,910; Apr. 13; Gaz. vol. 213; p. 689.

Naylor, Carl G. (See Robertson and Naylor.)

Neahr, Will C., assignor to The Protective Signal Manufacturing Company, Denver, Colo. Circuit-closer. No. 1,134,547; Apr. 6; Gaz. vol. 213; p. 169.

Neckerman, William M., Youngstown, Ohio. Tong-carrier. No. 1,136,160; Apr. 20; Gaz. vol. 213; p. 817.

Needham, John T., New York, N. Y., assignor, by mesne assignments, to The Lamson Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 1,134,402; Apr. 6; Gaz. vol. 213; p. 116.

Neel, Guy W., Dublin, Tex. Transposition device for electric lines. No. 1,136,433; Apr. 20; Gaz. vol. 213; p. 916.

Neely, Clarence L. and F. K., Corydon, Iowa. Tire. No. 1,135,836; Apr. 13; Gaz. vol. 213; p. 664.

Neely, Floyd K. (See Neely, Clarence L. and F. K.)

Neevel, Jacob B., Kansas City, Mo. Applying-tool for concrete-reinforcing ties. No. 1,135,042; Apr. 13; Gaz. vol. 213; p. 388.

Neighbour, William W., Sandusky, Ohio. Antifriction-bearing. No. 1,136,161; Apr. 20; Gaz. vol. 213; p. 818.

Neiman, Oscar H., Freeport, Ill. Lubricator. No. 1,137,274; Apr. 27; Gaz. vol. 213; p. 1254.

Nelson, Arthur W., *et al.* (See Knudsen, John L., assignor.)

Nelson, Bruce G., Grand Forks, N. D. Grain-saving device. No. 1,135,542; Apr. 13; Gaz. vol. 213; p. 559.

Nelson, Charles, New York, N. Y., and L. H. Dyer, Greenwich, Conn., assignors to S. Sternau & Company, New York, N. Y. Coffee-machine. No. 1,134,979; Apr. 6; Gaz. vol. 213; p. 320.

Nelson, Hans Z., assignor to American Gas Machine Company, Albert Lea, Minn. Valve-actuating device. No. 1,137,517; Apr. 27; Gaz. vol. 213; p. 1330.

Nelson, James W., and W. H. Mathers, New York, N. Y. Hydraulic jack. No. 1,136,830; Apr. 20; Gaz. vol. 213; p. 1057.

Nelson, John. (See Hain, Leon, assignor.)

Nelson, John M., Duluth, Minn. Motor-cycle stand. No. 1,134,893; Apr. 6; Gaz. vol. 213; p. 290.

Nelson, Lyman H., Portland, Me. Game-board. No. 1,136,552; Apr. 20; Gaz. vol. 213; p. 957.

Nelson, Oscar. (See Wiggen, Peder, assignor.)

Nelson, Walter R., Mill Village, N. H. Cattle-stanchion. No. 1,134,150; Apr. 6; Gaz. vol. 213; p. 24.

Nemec, Mary, Chicago, Ill. Kitchen-sink. No. 1,134,696; Apr. 6; Gaz. vol. 213; p. 224.

Neshime, Carl K., and S. J. Rognlie, Minot, N. D. Developing-machine. No. 1,136,703; Apr. 20; Gaz. vol. 213; p. 1011.

Nettle, John F., Butte, Mont. Resilient wheel. No. 1,136,704; Apr. 20; Gaz. vol. 213; p. 1012.

Neu-Metals and Process Company. (See Gleason, Edward D., assignor.)

Neuberger, Otto, Frankfort-on-the-Main, Germany. Obtaining prints on fabrics. No. 1,135,043; Apr. 13; Gaz. vol. 213; p. 388.

Neuer, Max, New York, N. Y. Holder and cutter. No. 1,137,655; Apr. 27; Gaz. vol. 213; p. 1385.

Neuhausen, Sebastian P., Chicago, Ill., assignor of forty-nine one-hundredths to A. Doris, New York, N. Y. Resilient tire. No. 1,137,518; Apr. 27; Gaz. vol. 213; p. 1340.

Neumuth, Theodore W., New York, N. Y. Elevator safety device. No. 1,134,403; Apr. 6; Gaz. vol. 213; p. 116.

Neuteboom, Boudewijn B. (See Taylor and Neuteboom.)

Nevens, Frank W., Minneapolis, Minn. Collar-finishing machine. No. 1,134,548; Apr. 6; Gaz. vol. 213; p. 170.

New Departure Manufacturing Company, The. (See Graham, David F., assignor.)

New Jersey Carbureter Company. (See Heath, Forrest A., assignor.)

New Jersey Patent Company. (See Holland, Newman H., assignor.)

New Jersey Patent Company. (See Latta, Frank F., assignor.)

Newark Rivet Works. (See Reininger, Richard, assignor.)

Newburger, Stephen, New York, N. Y. Automobile safety device. No. 1,137,519; Apr. 27; Gaz. vol. 213; p. 1340.

Newforth, Frank, Jr., assignor to Automatic Electric Company, Chicago, Ill. Automatic telephone system. (Reissue.) No. 13,901; Apr. 13; Gaz. vol. 213; p. 714.

Newhall, Louis E., deceased; M. A. Varney, administratrix, assignor of one-half to C. E. Varney, South Framingham, Mass. Combination music-desk and table. No. 1,135,543; Apr. 13; Gaz. vol. 213; p. 560.

Newhouse, Ray C., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Revolving grizzly. No. 1,135,606; Apr. 13; Gaz. vol. 213; p. 583.

Newhouse, Ray C., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Roll-crusher. No. 1,137,418; Apr. 27; Gaz. vol. 213; p. 1307.

Newman Clock Co. (See Jenkins, Charles H., assignor.)

Newman Clock Company. (See Renshaw and Jenkins, assignors.)

Newman, David J., Buffalo, N. Y. Combination-lock. No. 1,136,357; Apr. 20; Gaz. vol. 213; p. 887.

Newman, William J., Chicago, Ill. Apparatus for transporting and dumping material. No. 1,134,151; Apr. 6; Gaz. vol. 213; p. 24.

Newman, William J., Chicago, Ill. Light for wells or caissons. No. 1,134,959; Apr. 6; Gaz. vol. 213; p. 312.

Newton, Byron, Fort Collins, Colo. Beet and grain drill attachment. No. 1,134,894; Apr. 6; Gaz. vol. 213; p. 290.

Newton, William G., assignor to The Peck Bros. & Co., New Haven, Conn. Waste-pipe valve for bath-tubs. No. 1,134,549; Apr. 6; Gaz. vol. 213; p. 170.

Niagara Box Factory. (See Wolf, George, assignor.)

Nicholls, Joseph P., Denver, Colo. Spring-seat. No. 1,137,656; Apr. 27; Gaz. vol. 213; p. 1385.

Nichols Aeroplane Company, The. (See Nichols, Charles B., assignor.)

Nichols, Charles B., Washington, D. C., assignor to The Nichols Aeroplane Company, Heavier-than-air flying-machine. No. 1,134,756; Apr. 6; Gaz. vol. 213; p. 246.

Nichols, Herbert B., South Norwalk, Conn. Washer for photographic films and prints. No. 1,136,705; Apr. 20; Gaz. vol. 213; p. 1012.

Nichols, Howard M., assignor to The Atlantic Refining Company, Philadelphia, Pa. Process of and apparatus for sprinkling roads. No. 1,137,077; Apr. 27; Gaz. vol. 213; p. 1181.

Nichols, James S., Atlanta, Ga. Combined water and air beater. No. 1,135,911; Apr. 13; Gaz. vol. 213; p. 689.

Nichols, John F., San Francisco, Cal. Egg-boiler. No. 1,137,657; Apr. 27; Gaz. vol. 213; p. 1385.

Nicholson, Percival, Ardmore, Pa. Sphygmomanometer. No. 1,134,632; Apr. 6; Gaz. vol. 213; p. 200.

Nickerson, Charles H., Derry, N. H. Lasting-shell and upper-protector. No. 1,134,284; Apr. 6; Gaz. vol. 213; p. 74.

Nicklin, Perry A. (See Haller, William H., assignor.)

Nicodemus, John P., and L. E. Beckley, Logansport, Ind. Covered receptacle. No. 1,137,078; Apr. 27; Gaz. vol. 213; p. 1181.

Nicolaus, Frederic G., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Lighter for gas-stoves. No. 1,137,520; Apr. 27; Gaz. vol. 213; p. 1340.

Nicolson, Alexander M., Tarrytown, assignor to Western Electric Company, New York, N. Y. Filament for auditions. No. 1,137,275; Apr. 27; Gaz. vol. 213; p. 1254.

Nieberg, Alma, Brooklyn, N. Y. Thread-cutter. No. 1,134,895; Apr. 6; Gaz. vol. 213; p. 291.

Niehoff, Henry, Bayonne, N. J. Egg-tester. No. 1,135,837; Apr. 13; Gaz. vol. 213; p. 665.

Nies, Frederick H., and J. F. Caretto, New York, N. Y. Artificial tooth. No. 1,137,015; Apr. 27; Gaz. vol. 213; p. 1159.

Nightingale Company, The. (See Ricketts, James B., assignor.)

Nilsson, Carl O., Ravenswood, W. Va. Valve. No. 1,135,838; Apr. 13; Gaz. vol. 213; p. 665.

Nilsson, Charles O. L., Brockton, Mass. Beet-harvester. No. 1,134,221; Apr. 6; Gaz. vol. 213; p. 50.

Nissley, William M., Philadelphia, Pa. Apparatus for aerating flour. No. 1,134,757; Apr. 6; Gaz. vol. 213; p. 246.

Noble, Boughton T. (See Todd and Noble.)

Noble, William A. E., Los Angeles, Cal. Case for disk records. No. 1,136,256; Apr. 20; Gaz. vol. 213; p. 852.

Noblitt, Reuben M., Oklahoma, Okla. Animal-poke. No. 1,136,970; Apr. 27; Gaz. vol. 213; p. 1142.

Noe, Seaman P., Ocean Grove, N. J. Maximum-pressure safety inflating tire-gage. No. 1,137,521; Apr. 27; Gaz. vol. 213; p. 1341.

Noll, Jacob M., Collingswood, N. J., and F. J. Miller, Philadelphia, Pa., assignors to Warren Webster & Company. Separator for feed-water heaters. No. 1,134,633; Apr. 6; Gaz. vol. 213; p. 200.

Nolte, Frank F., assignor of one-half to J. B. Windle, Bedford, Iowa. Lifter for marker-bars of planters. No. 1,134,634; Apr. 6; Gaz. vol. 213; p. 201.

Norman, Charlie A., Frankfort, S. D. Gangway. No. 1,137,276; Apr. 27; Gaz. vol. 213; p. 1254.

Norsk Hydro-Elektrisk Kvaelstofaktieselskab. (See Berg, Olaf, assignor.)

North American Chemical Company. (See Thoma, Andrew, assignor.)

North, Charles H., Cleveland, assignor to The North Electric Company, Galion, Ohio. Electromagnetic signaling apparatus. No. 1,134,758; Apr. 6; Gaz. vol. 213; p. 247.

North Electric Company, The. (See North, Charles H., assignor.)

North, John E., J. H. McCauley, and J. G. Bytheway, Ellsworth, Pa. Nut-lock. No. 1,134,896; Apr. 6; Gaz. vol. 213; p. 291.

Norton, Elliott S., assignor, by mesne assignments, to Handycap Company, Chicago, Ill. Machine for cutting slits in bottle-caps and similar articles. No. 1,136,162; Apr. 20; Gaz. vol. 213; p. 818.

Norton, Raymond P., assignor of one-third to W. A. Norton, Marshalltown, Iowa. Carburetor. No. 1,135,544; Apr. 13; Gaz. vol. 213; p. 560.

Norton, W. A. (See Norton, Raymond P., assignor.)

Novess, Frank, Ypsilanti, Mich. Post. No. 1,134,897; Apr. 6; Gaz. vol. 213; p. 292.

Novick, Abraham, assignor to F. L. Schmidt Company, New York, N. Y. Sheet-feeding mechanism. No. 1,134,550; Apr. 6; Gaz. vol. 213; p. 170.

Noxon, Margaret L., New York, N. Y. Pin-catch. No. 1,134,898; Apr. 6; Gaz. vol. 213; p. 292.

Nugent, James M., East Quogue, assignor of one-half to F. Seeber, New York, N. Y. Convertible saw. No. 1,135,912; Apr. 13; Gaz. vol. 213; p. 690.

Nutter, Charles P., Malden, assignor to Combined Heat & Sprinkler Company, Boston, Mass. Automatic sprinkler. No. 1,137,016; Apr. 27; Gaz. vol. 213; p. 1159.

Nutting, Harvey C., Oelwein, Iowa. Time-switch. No. 1,135,839; Apr. 13; Gaz. vol. 213; p. 665.

Nyberg, Frank R., assignor of one-half to G. J. Garvin, Lamar, Colo. Attachment for automobiles. No. 1,134,759; Apr. 6; Gaz. vol. 213; p. 247.

Nye, James M., Kansas City, Kans. Smoke and gas returning means. No. 1,135,913; Apr. 13; Gaz. vol. 213; p. 690.

Nye Tool and Machine Works, The. (See Fletcher, Joseph C., assignor.)

Nye Tool and Machine Works, The. (See Potter and Benson, assignors.)

Nylander, Erik G., assignor to Camel Company, Chicago, Ill. Door mechanism for railway-cars. No. 1,136,971; Apr. 27; Gaz. vol. 213; p. 1142.

O. A. Miller Treeing Machine Company. (See Hansen, John S., assignor.)

O. A. Miller Treeing Machine Company. (See Holmes, Charles H., assignor.)

O'Boyle, Michael W. (See Austin, William, assignor.)

O'Brien, Emma A., Wichita, Kans. Tracing-board. No. 1,137,229; Apr. 27; Gaz. vol. 213; p. 1236.

O'Brien, James D., assignor of one-fourth to C. K. Callahan and one-eighth to J. M. Hittle, Greenville, Pa. Envelop or the like. No. 1,136,163; Apr. 20; Gaz. vol. 213; p. 818.

O'Connor, John F. (See Miner and O'Connor.)

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Shock-absorber. No. 1,135,607; Apr. 13; Gaz. vol. 213; p. 583.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Friction draft-rigging. No. 1,136,035; Apr. 20; Gaz. vol. 213; p. 774.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-yoke for railway-car draft-rigging. No. 1,136,036; Apr. 20; Gaz. vol. 213; p. 775.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,037; Apr. 20; Gaz. vol. 213; p. 775.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Railway draft-rigging. No. 1,136,038; Apr. 20; Gaz. vol. 213; p. 775.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,039; Apr. 20; Gaz. vol. 213; p. 775.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,040; Apr. 20; Gaz. vol. 213; p. 776.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,041; Apr. 20; Gaz. vol. 213; p. 776.

O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,136,042; Apr. 20; Gaz. vol. 213; p. 776.

O'Connor, Peter. (See Fenstemaker, George W., assignor.)

O'Dowd, Henry W., Jersey City, N. J., assignor to William M. Crane Company. Sad-iron. No. 1,134,552; Apr. 6; Gaz. vol. 213; p. 171.

O'Hara, William T., Spokane, Wash. Saw-filing device. No. 1,136,257; Apr. 20; Gaz. vol. 213; p. 852.

O'Rawe, Alexander, Philadelphia, Pa. Projectile. No. 1,136,480; Apr. 20; Gaz. vol. 213; p. 933.

O'Reilly, Henry G., Joliet, Ill. Safety device for blowing-engines. No. 1,137,164; Apr. 27; Gaz. vol. 213; p. 1213.

Oak, Charley, Sidnaw, Mich. Brake for sleds. No. 1,137,163; Apr. 27; Gaz. vol. 213; p. 1212.

Oberhoffer, Robert W., York, England. Tuning-peg of violin or like instruments. No. 1,135,314; Apr. 13; Gaz. vol. 213; p. 480.

Oberkirch, Frank. (See Ashley and Oberkirch.)

Oberly, Chester C., assignor to The Pullman Company, Chicago, Ill. Electric-lamp regulator. No. 1,134,346; Apr. 6; Gaz. vol. 213; p. 96.

Ocumpaugh, Edmund, 2d, Rochester, N. Y. Adding attachment for check-printers. No. 1,134,551; Apr. 6; Gaz. vol. 213; p. 171.

Oddy, William D., assignor of one-half to Henry Richmond and Sons, Limited, Leeds, England. Foundry molding-machine. No. 1,137,658; Apr. 27; Gaz. vol. 213; p. 1386.

Odell, George A. (See Odell, John H., assignor.)

Odell, John H., Kinzua, Pa., assignor of one-third to G. A. Odell, Salamanca, N. Y. Carbureter. No. 1,135,315; Apr. 13; Gaz. vol. 213; p. 480.

Oedekerk, Martinus H. G., assignor to The Dairy Cream Separator Co., Lebanon, Ind. Centrifugal speedometer for separators. No. 1,136,706; Apr. 20; Gaz. vol. 213; p. 1012.

Oehler, Max, Richfield, Idaho. Mechanical toy. No. 1,136,707; Apr. 20; Gaz. vol. 213; p. 1013.

Oelker, Edward. (See Ricke, George H., assignor.)

Ogden, Abraham B., Urmston, Manchester, England. Apparatus for drying the sludge or solid matter recovered from sewage. No. 1,135,390; Apr. 13; Gaz. vol. 213; p. 506.

Ogden, John C., Westmont borough, Pa. Method and apparatus for molding. No. 1,134,404; Apr. 6; Gaz. vol. 213; p. 117.

Ogden, John E. L., Liscard, England. Pressure-pump and vacuum-trap. No. 1,134,405; Apr. 6; Gaz. vol. 213; p. 117.

Ohmer Fare Register Company. (See Ohmer and Bridenbaugh, assignors.)

Ohmer, John F., and E. H. Bridenbaugh, assignors to Ohmer Fare Register Company, Dayton, Ohio. Taximeter. No. 1,136,164; Apr. 20; Gaz. vol. 213; p. 818.

Ollar, Rozier D., Indianapolis, Ind. Underwear. No. 1,137,659; Apr. 27; Gaz. vol. 213; p. 1386.

Oldroyd, Walter J., Hartford, assignor to George P. Clark Company, Windsor Locks, Conn. Elevating-truck. No. 1,135,545; Apr. 13; Gaz. vol. 213; p. 560.

Olesberg, Albert H., Bawlf, Alberta, Canada. Automatic leveling device for tripods. No. 1,135,914; Apr. 13; Gaz. vol. 213; p. 690.

Olinger, Thomas. (See Conkey, Leonard L., assignor.)

Olive, J. E., *et al.* (See Duval, Allen, assignor.)

Oliver Chilled Plow Works. (See Heylman, Edward M., assignor.)

Olsen, Sigward. (See Brookfield and Olsen.)

Olson, Edward, Pencer, Minn. Harrow. No. 1,136,043; Apr. 20; Gaz. vol. 213; p. 777.

Olson, Ottin, Minneapolis, Minn. Smoke-consumer. No. 1,134,553; Apr. 6; Gaz. vol. 213; p. 172.

Olson, Samuel, Chicago, Ill. Conveyer system. No. 1,135,316; Apr. 13; Gaz. vol. 213; p. 480.

Olsson, Henning A., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Ball-retainer for ball-bearings subjected to axial pressure. No. 1,135,044; Apr. 13; Gaz. vol. 213; p. 388.

Ondra, Frank, assignor of one-half to M. Pollak, Johannesburg, Transvaal, South Africa. Percussive tool with detachable cutter. No. 1,135,546; Apr. 13; Gaz. vol. 213; p. 561.

Oppenheimer, Edward, Sr. (See Schiller, Maximilian, assignor.)

Opsjon, Oluf, Saltese, Mont. Revoluble egg-crate. No. 1,134,481; Apr. 6; Gaz. vol. 213; p. 145.

Optische Anstalt C. P. Goerz Aktiengesellschaft. (See Giesecke, Max, assignor.)

Orcutt, Edward L., deceased, Somerville; F. A. Maddox, Medford, and E. N. Hutchins, Somerville, Mass, executors. Automatic electrically-actuated train-controlling system. No. 1,137,660; Apr. 27; Gaz. vol. 213; p. 1387.

Ordnance Development Company of America. (See Davis, Cleland, assignor.)

Orser, Otto J., Gordon, Ontario, Canada. Signaling device for tradesmen. No. 1,135,915; Apr. 13; Gaz. vol. 213; p. 690.

Ortt, Rowley K., Dixon, Ill. Lawn-mower. No. 1,134,899; Apr. 6; Gaz. vol. 213; p. 292.

Osborn, Henry C., Cleveland, Ohio. Game apparatus. No. 1,136,708; Apr. 20; Gaz. vol. 213; p. 1013.

Osborne, John L., assignor to Judson Governor Company, Rochester, N. Y. Governor for compressors. No. 1,136,607; Apr. 20; Gaz. vol. 213; p. 977.

Osborne, William V., Racine, Wis. Car-door fastener. No. 1,137,661; Apr. 27; Gaz. vol. 213; p. 1387.

Osbourn, Millard P., Merchantville, N. J., assignor to Warren Webster & Company. Automatic boiler-feeding device. No. 1,134,636; Apr. 6; Gaz. vol. 213; p. 202.

Osbron, Andrew T., Kansas City, Mo. Folding window-balcony. No. 1,134,635; Apr. 6; Gaz. vol. 213; p. 201.

Osmer, John E., Chicago, Ill., assignor to Humphrey Company, Kalamazoo, Mich. Automatic water-heater. No. 1,134,406; Apr. 6; Gaz. vol. 213; p. 117.

Osmond, William, Scranton, Pa. Automobile-lamp gear. No. 1,136,831; Apr. 20; Gaz. vol. 213; p. 1057.

Osterholm, William C., Chicago, Ill., assignor to International Harvester Company. Chuck. No. 1,135,045; Apr. 13; Gaz. vol. 213; p. 389.

Osterhout, Garret B., Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Rotary take-up. No. 1,134,482; Apr. 6; Gaz. vol. 213; p. 146.

Osterhout, Garret B., Providence, R. I., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Sewing-machine. No. 1,134,483; Apr. 6; Gaz. vol. 213; p. 146.

Ostlund, Adolph, Exline, Iowa. Pick-fastener. No. 1,137,522; Apr. 27; Gaz. vol. 213; p. 1341.

Ostrander, James H., Chicago, Ill. Aeroplane flying-machine. No. 1,135,131; Apr. 13; Gaz. vol. 213; p. 418.

Ostrovsky, Harry, London, England: Exercising apparatus for use by musicians for developing the muscles of the hand. No. 1,136,481; Apr. 20; Gaz. vol. 213; p. 933.

Oswald, Karl, Irvington, N. J. Fastener for hand-bags and the like. No. 1,137,419; Apr. 27; Gaz. vol. 213; p. 1307.

Otis Elevator Company. (See Handy, Arthur E., assignor.)

Otis Elevator Company. (See Larson, David, assignor.)

Otis Elevator Company. (See Lindquist, David L., assignor.)

Otis Elevator Company. (See Scott and Sundh, assignors.)

Otis Elevator Company. (See Sundh, August, assignor.)

Otis Elevator Company. (See Trezise, Arthur R., Sr., assignor.)

Otis, Spencer, assignor to National Dump Car Company, Chicago, Ill. Gondola car. No. 1,135,132; Apr. 13; Gaz. vol. 213; p. 419.

Ott, Charles W., Pittsburg, Kans. Vegetable-slicer. No. 1,137,017; Apr. 27; Gaz. vol. 213; p. 1160.

Ott, Harvey N., assignor to Spencer Lens Company, Buffalo, N. Y. Current-controlling device. No. 1,135,608; Apr. 13; Gaz. vol. 213; p. 583.

Ottaway, William, Aurora, assignor to Aurora Automatic Machinery Company, Chicago, Ill. Carbureter. No. 1,135,046; Apr. 13; Gaz. vol. 213; p. 389.

Otto, Maximilian J., New York, N. Y. Spool-holder. No. 1,137,079; Apr. 27; Gaz. vol. 213; p. 1182.

Oudeville, François, assignor to Société Universelle des Appareils Controleurs, Paris, France. Gas-burner. No. 1,135,840; Apr. 13; Gaz. vol. 213; p. 666.

Overholt, Edwin E., Washington, D. C., assignor to Modern Compressed Air Cleaning Co. Pneumatic carpet-cleaner. No. 1,136,434; Apr. 20; Gaz. vol. 213; p. 916.

Owen, James H., Newburgh, N. Y. Fire-alarm. No. 1,135,916; Apr. 13; Gaz. vol. 213; p. 690.

Owen, Oscar L., assignor to The Whitin Machine Works, Whitinsville, Mass. Bobbin-holder. No. 1,135,712; Apr. 13; Gaz. vol. 213; p. 621.

Ozias, Orange O., Dayton, Ohio. Automatic weighing device. No. 1,135,609; Apr. 13; Gaz. vol. 213; p. 584.

Pacheco, William, Chicago, Ill. Single-delivery match-box. No. 1,135,133; Apr. 13; Gaz. vol. 213; p. 419.

Page, Harvey L., assignor of one-half to R. L. Burnett, Sr., San Antonio, Tex. Wrapper. No. 1,134,285; Apr. 6; Gaz. vol. 213; p. 74.

Page, Herman C., assignor to The Whitehead & Hoag Company, Newark, N. J. Knife. No. 1,134,407; Apr. 6; Gaz. vol. 213; p. 118.

Page, John W., Adrian, Mich. Wire crib for forming posts of stone. No. 1,135,134; Apr. 13; Gaz. vol. 213; p. 419.

Page, Paul D., *et al.* (See Duval, Allen, assignor.)

Page, William M., Ridley Park, Pa. Mold. No. 1,134,484; Apr. 6; Gaz. vol. 213; p. 146.

Paige, Arthur J., Indianapolis, Ind. Packing. No. 1,136,435; Apr. 20; Gaz. vol. 213; p. 917.

Palmer, Clinton D., assignor to Sears, Roebuck and Co., Chicago, Ill. Combined stencil-plate and record-card. No. 1,136,972; Apr. 27; Gaz. vol. 213; p. 1142.

Palmer, Ella, New York, N. Y. Package-carrier. No. 1,137,523; Apr. 27; Gaz. vol. 213; p. 1342.

Palmer, Walter G., Hood River, Oreg. Fruit-bucket. No. 1,135,944; Apr. 13; Gaz. vol. 213; p. 700.

Palmer, William H., Jr., Wyncote, Pa. Portable self-contained electric plant. No. 1,134,222; Apr. 6; Gaz. vol. 213; p. 51.

Palyford, Robert W. (See McCormick, William D., assignor.)

Pan Chemical Company. (See Spanutius, Frederick W., assignor.)

Pangerl, Paul, assignor of one-third to E. C. Townsend, Rutledge, Minn. Log-rolling machine. No. 1,136,258; Apr. 20; Gaz. vol. 213; p. 852.

Paquet, Charles, Okmulgee, Okla. Glass-working apparatus. No. 1,136,832; Apr. 20; Gaz. vol. 213; p. 1057.

Paquette, Charles M., Newark, N. J. Scarf-holder. No. 1,134,900; Apr. 6; Gaz. vol. 213; p. 292.

Paridy, Charles, Belleville, Ill. Sack-tie. No. 1,136,259; Apr. 20; Gaz. vol. 213; p. 853.

Park, Thomas L., San Diego, Cal. Lock for automobiles. No. 1,136,358; Apr. 20; Gaz. vol. 213; p. 888.

Park, William, Brantford, Ontario, Canada. Tellurian. No. 1,135,204; Apr. 13; Gaz. vol. 213; p. 443.

Parker, Arthur H., *et al.* (See Bowers, Barber and Grover, assignors.)

Parker, Arthur H., *et al.* (See Reid, Robert and A. S., assignors.)

Parker, Charles C., Baltimore, Md. Jar-closure. No. 1,135,713; Apr. 13; Gaz. vol. 213; p. 621.

Parkes, John L., assignor of one-half to A. C. Brown, Chicago, Ill. Pipe-connector. No. 1,135,135; Apr. 13; Gaz. vol. 213; p. 420.

Parnall, George G., Bristol, England. Stand for golf caddie-bags and the like. No. 1,135,464; Apr. 13; Gaz. vol. 213; p. 532.

Parr, Samuel W., Urbana, Ill. Calorimetric apparatus. No. 1,136,359; Apr. 20; Gaz. vol. 213; p. 888.

Parr, Samuel W., Urbana, Ill. Calorimeter. No. 1,136,360; Apr. 20; Gaz. vol. 213; p. 889.

Parr, Samuel W., Urbana, Ill. Combustion device. No. 1,136,361; Apr. 20; Gaz. vol. 213; p. 889.

Parrish, Benjamin F., *et al.* (See Degenhardt, John J., assignor.)

Parrott, Bert R., assignor to The Parrott Heater Company, Jackson, Mich. Gas-burner. No. 1,135,047; Apr. 13; Gaz. vol. 213; p. 390.

Parrott Heater Company, The. (See Parrott, Bert R., assignor.)

Parshall, Seth, Seattle, assignor of one-fifth to A. Weatherhead and one-fifth to I. Reed, Tacoma, Wash. Device for raising sunken vessels. No. 1,136,608; Apr. 20; Gaz. vol. 213; p. 977.

Parsons, Bertie C., Boston, Mass. Locking means for mowing-machine blades. No. 1,137,662; Apr. 27; Gaz. vol. 213; p. 1387.

Parsons, Frederick W., assignor to The Parsons-Jackson Company, Cleveland, Ohio. Doll. No. 1,136,482; Apr. 20; Gaz. vol. 213; p. 933.

Parsons-Jackson Company, The. (See Parsons, Frederick W., assignor.)

Parsons, John, Westerly, R. I. Garment. No. 1,134,901; Apr. 6; Gaz. vol. 213; p. 292.

Parsons, William D., deceased; E. L. Marvin, executor, Joliet, Mont. Direct-drive transmission. No. 1,136,709; Apr. 20; Gaz. vol. 213; p. 1013.

Partington, Frederick G., Spokane, Wash. Sanitary drinking-fountain. No. 1,135,917; Apr. 13; Gaz. vol. 213; p. 691.

Partington, Frederick G., Spokane, Wash. Drinking-cup fountain. (Reissue.) No. 13,902; Apr. 13; Gaz. vol. 213; p. 717.

Paschen, Max, Cöthen, Germany. Apparatus for leaching sacchariferous-vegetable slices. No. 1,134,152; Apr. 6; Gaz. vol. 213; p. 24.

Pate, James W., Jackson, Tenn. Filling-valve for lubricators. No. 1,134,153; Apr. 6; Gaz. vol. 213; p. 25.

Patterson, Clifford W., Waukesha, Wis. Bait-bucket. No. 1,135,841; Apr. 13; Gaz. vol. 213; p. 666.

Patterson, Francis E., Wilmington, Del. Exercising-machine. No. 1,137,340; Apr. 27; Gaz. vol. 213; p. 1282.

Patterson, Gilbert, Duluth, Minn. Lamp. No. 1,135,317; Apr. 13; Gaz. vol. 213; p. 481.

Patterson, James F. (See Patterson, James L., assignor.)

Patterson, James L., Freeport, assignor of one-half to J. F. Patterson, Leaf River, Ill. Nut-lock. No. 1,134,408; Apr. 6; Gaz. vol. 213; p. 118.

Patterson, John L., Roanoke Rapids, N. C. Cylinder-hammer for jacquards. No. 1,136,260; Apr. 20; Gaz. vol. 213; p. 853.

Patterson, William L., assignor to Bausch and Lomb Optical Company, Rochester, N. Y. Projection apparatus. No. 1,134,154; Apr. 6; Gaz. vol. 213; p. 25.

Paul, Wesley A., assignor to Deere & Company, Moline, Ill. Plow-beam adjustment. No. 1,136,833; Apr. 20; Gaz. vol. 213; p. 1058.

Paul, William J., assignor to L. W. Reed, Pittsburgh, Pa. Sanitary drinking-cup. No. 1,137,018; Apr. 27; Gaz. vol. 213; p. 1160.

Paulauski, John, Chicago, Ill. Safety device. No. 1,136,710; Apr. 20; Gaz. vol. 213; p. 1014.

Paulauski, John, Chicago, Ill. Ship. No. 1,136,711; Apr. 20; Gaz. vol. 213; p. 1014.

Pavelske, Frank J., and F. F. Malodzik, Cudahy, Wis. Block-refinisher. No. 1,135,714; Apr. 13; Gaz. vol. 213; p. 622.

Pavlik, William, Bayport, N. Y. Washing-machine. No. 1,134,409; Apr. 6; Gaz. vol. 213; p. 119.

Paxson, Harold K., Cynwyd, and E. J. Hedden, Bala, Pa. Fireproof partition. No. 1,137,165; Apr. 27; Gaz. vol. 213; p. 1213.

Payne, Evalena B., Union Level, Va. Lock-nut. No. 1,134,902; Apr. 6; Gaz. vol. 213; p. 293.

Payne, Roy K., Beaverton, Oreg. Safety attachment for railway-speeders. No. 1,134,410; Apr. 6; Gaz. vol. 213; p. 119.

Payne, William E., and W. S. Eklund, Donner, La. Automatic fire-escape. No. 1,136,436; Apr. 20; Gaz. vol. 213; p. 917.

Peacock, Samuel, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y. Volatile compounds and producing same. No. 1,134,411; Apr. 6; Gaz. vol. 213; p. 119.

Peacock, Samuel, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y. Volatile magnesium compounds and producing same. No. 1,134,412; Apr. 6; Gaz. vol. 213; p. 119.

Peacock, Samuel, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y. Decomposing alkali-metal silicates. No. 1,134,413; Apr. 6; Gaz. vol. 213; p. 120.

Peacock, Samuel, Philadelphia, Pa., assignor, by mesne assignments, to Agricultural Research Corporation, New York, N. Y. Making aluminum pernitrids. No. 1,134,414; Apr. 6; Gaz. vol. 213; p. 120.

Peacock, Samuel, Chicago, Ill., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Producing carbonitrids. No. 1,137,524; Apr. 27; Gaz. vol. 213; p. 1342.

Pearce, Herbert, and J. E. Billington, Broadheath, England, assignors to Linotype and Machinery Limited, London, England. Typographical composing-machine. No. 1,136,553; Apr. 20; Gaz. vol. 213; p. 957.

Pearsall, Albert W., and F. R. Talsey, Lowell, Mass., assignors to The Lamson Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 1,135,610; Apr. 13; Gaz. vol. 213; p. 584.

Pease, Roger S., assignor to The Pittsburgh Plate Glass Company, Pittsburgh, Pa. Drawing glass. No. 1,136,362; Apr. 20; Gaz. vol. 213; p. 890.

Peck Bros. & Co., The. (See Newton, William G., assignor.)

Peck, Samuel. (See Wakfer, William H. S., assignor.)

Peerless Check Protecting Company. (See Sampson, Charles H., assignors.)

Peerstone, Earl D., Chicago, Ill. Valve for radiators. No. 1,134,415; Apr. 6; Gaz. vol. 213; p. 120.

Peirce, Clifford G. (See Rast and Peirce.)

Peirce, Robert T., Newport News, Va. Pedal control for automobiles. No. 1,137,166; Apr. 27; Gaz. vol. 213; p. 1213.

Pelsch, Benjamin F. (See Donaldson, Orville M., assignor.)

Pelletier, Dominique. (See Clark, Charles H., assignor.)

Pelletier, Joseph, Montreal, Quebec, Canada. Miter-box. No. 1,134,286; Apr. 6; Gaz. vol. 213; p. 74.

Pels, Henry, Berlin, Germany. Apparatus for cutting sectional iron. No. 1,134,903; Apr. 6; Gaz. vol. 213; p. 293.

Pelton Water Wheel Company, The. (See Doble, William A., assignor.)

Penfield, Raymond C. (See Israel, William P., assignor.)

Penn, William S., Atlanta, Ga. Umbrella-frame. No. 1,136,887; Apr. 20; Gaz. vol. 213; p. 1076.

Pennati, Ernesto, and Michelangelo Cattori, Castellammare di Stabia, Italy. Brake-actuating mechanism for vehicles and trains. No. 1,136,712; Apr. 20; Gaz. vol. 213; p. 1015.

Pennsylvania Crusher Company. (See Hilier, Joseph L., assignor.)

Pepper, William B., Montrose, Colo. Hydraulic transmission. No. 1,136,363; Apr. 20; Gaz. vol. 213; p. 890.

Perfection Spring Company, The. (See McIntyre, Michael M., assignor.)

Perkins, Allan A., Sanford, Me. Picker-head check. No. 1,137,525; Apr. 27; Gaz. vol. 213; p. 1342.

Perkins Electric Switch Manufacturing Company, The. (See Thomas, George B., assignor.)

Perkins, Nathan W., Jr., East Orange, N. J. Electric drive for calculating-machines. No. 1,136,165; Apr. 20; Gaz. vol. 213; p. 819.

Perkins, Walter G., London, England. Copper-smelting furnace. No. 1,136,834; Apr. 20; Gaz. vol. 213; p. 1058.

Pernot, Frederick E., Berkeley, Cal. Fog-signal for vessels. No. 1,134,554; Apr. 6; Gaz. vol. 213; p. 172.

Perrin Shocker Manufacturing Company Limited. (See Perrin, William H., assignor.)

Perrin, William H., assignor to Perrin Shocker Manufacturing Company Limited, New Liskeard, Ontario, Canada. Sheaf-shocker. No. 1,135,715; Apr. 13; Gaz. vol. 213; p. 622.

Perry, Frederick H., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for generating patterns. No. 1,134,287; Apr. 6; Gaz. vol. 213; p. 75.

Perry, Ray P. (See Stewart and Perry.)

Pervilhac, Henry, Villeurbanne, France. Color-printing machine. No. 1,134,697; Apr. 6; Gaz. vol. 213; p. 224.

Peter, Stephen, Omaha, Nebr. Composite utensil. No. 1,135,318; Apr. 13; Gaz. vol. 213; p. 481.

Petermann, Otto, Groton, N. Y., assignor to Corona Typewriter Company, Incorporated. Type-writing machine. No. 1,137,277; Apr. 27; Gaz. vol. 213; p. 1255.

Peters, Charles W., Moose Jaw, Saskatchewan, Canada. Grain-separator. No. 1,136,973; Apr. 27; Gaz. vol. 213; p. 1142.

Petersen, Christian A., Beverly, Mass. Shock-absorber. No. 1,135,391; Apr. 13; Gaz. vol. 213; p. 506.

Peterson, Andrew R., assignor of one-half to A. Hulteen, Clarkfield, Minn. Grain-door for railways. No. 1,135,918; Apr. 13; Gaz. vol. 213; p. 691.

Peterson, Axel W., San Francisco, Cal. Vise. No. 1,134,347; Apr. 6; Gaz. vol. 213; p. 96.

Petersou, Burt A. (See Colman and Peterson.)

Peterson, Emil. (See Anderson, John P., assignor.)

Peterson, Eric, Lougheed, Alberta, Canada. Post-card-display rack. No. 1,134,485; Apr. 6; Gaz. vol. 213; p. 147.

Peterson, Jonathan, Brooklyn, N. Y. Composite foil sheet. No. 1,137,278; Apr. 27; Gaz. vol. 213; p. 1255.

Peterson, Jonathan, Brooklyn, N. Y. Method and apparatus for producing compound sheets. No. 1,137,279; Apr. 27; Gaz. vol. 213; p. 1255.

Peterson, Jonathan, Brooklyn, N. Y. Foil-package for tobacco and other substances. No. 1,137,280; Apr. 27; Gaz. vol. 213; p. 1256.

Peterson, Jonathan, Brooklyn, N. Y. Making bags, pouches, packages, or containers. No. 1,137,281; Apr. 27; Gaz. vol. 213; p. 1256.

Peterson, Nels, *et al.* (See Knudsen, John L., assignor.)

Petitmaire, Felix H. (See Knauss and Petitmaire.)

Petosky, Charles W., assignor to Badger Safety Razor Company, Milwaukee, Wis. Safety-razor. No. 1,135,611; Apr. 13; Gaz. vol. 213; p. 585.

Petty, Judson E., Greensboro, N. C. Wheeled scraper. No. 1,137,230; Apr. 27; Gaz. vol. 213; p. 1237.

Peyrot, Frank, *et al.* (See Meier, John, assignor.)

Pfau, Arnold, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, Relief mechanism. No. 1,136,609. Apr. 20; Gaz. vol. 213; p. 978.

Pfeiffer, Immanuel, Jr., Bedford, Mass. Pincers. No. 1,134,980; Apr. 6; Gaz. vol. 213; p. 321.

Pfister & Vogel Leather Company. (See Levi, Louis E., assignor.)

Pfleghar Hardware Specialty Co., The. (See Stahl, Charles H., assignor.)

Phelps, Abraham. (See Loyd and Phelps.)

Phifer, Washington I., Collinsville, Ill., assignor of twenty one-hundreths to P. P. Stone, Des Moines, Iowa. Mechanical movement. No. 1,134,155; Apr. 6; Gaz. vol. 213; p. 25.

Philadelphia Drying Machinery Company, The. (See Sibson, Walter W., assignor.)

Philbrook, Horace W., *et al.*, administrators. (See Loudon and Gow.)

Phillips, Albert C. (See Kingsley, William, assignor.)

Phillips, Benjamin H. (See Phillips, Robert S. and B. H.)

Phillips, Francis V., Orlando, Fla. Shock-absorber. No. 1,134,223; Apr. 6; Gaz. vol. 213; p. 51.

Phillips, Francis V., Orlando, Fla. Shock-absorber. No. 1,134,224; Apr. 6; Gaz. vol. 213; p. 52.

Phillips, Frederick. (See Bates and Phillips.)

Phillips, Frederick F., Flushing, N. Y., assignor to The Hartford Rubber Works Company, Hartford, Conn. Holding device for vehicle-tires. No. 1,137,350; Apr. 27; Gaz. vol. 213; p. 1282.

Phillips, James J., Brookhaven, Miss. Screening apparatus. No. 1,137,526; Apr. 27; Gaz. vol. 213; p. 1343.

Phillips, Robert S. and B. H., assignors to H. Taubel & Son, Riverside, N. J. Yarn-feeding device for knitting-machines. No. 1,137,527; Apr. 27; Gaz. vol. 213; p. 1343.

Phillipson, Jacob, Chicago, Ill. Combination coat and vest. No. 1,135,205; Apr. 13; Gaz. vol. 213; p. 443.

Phoenix Iron Works Company. (See Dick, John, assignor.)

Phronebarger, Robert P. (See Byram and Phronebarger.)

Picarde Importing Company, The. (See Abegg, Julius, assignor.)

Pickard, Greenleaf W., Amesbury, Mass. Solid rectifier for feeble electric currents. No. 1,137,714; Apr. 27; Gaz. vol. 213; p. 1403.

Pickard, Greenleaf W., Amesbury, Mass., assignor to Wireless Specialty Apparatus Company, New York, N. Y. Oscillation-receiving device. No. 1,136,044; Apr. 20; Gaz. vol. 213; p. 777.

Pickard, Greenleaf W., Amesbury, assignor to Wireless Specialty Apparatus Company, Boston, Mass. Oscillation-receiving device. No. 1,136,045; Apr. 20; Gaz. vol. 213; p. 777.

Pickard, Greenleaf W., Amesbury, assignor to Wireless Specialty Apparatus Company, Boston, Mass. Oscillation-receiving device. No. 1,136,046; Apr. 20; Gaz. vol. 213; p. 777.

Pickard, Greenleaf W., Amesbury, assignor to Wireless Specialty Apparatus Company, Boston, Mass. Oscillation-receiving device. No. 1,136,047; Apr. 20; Gaz. vol. 213; p. 777.

Pictet, Raoul P., Wilmersdorf, near Berlin, Germany. Making hydrogen. No. 1,134,416; Apr. 6; Gaz. vol. 213; p. 120.

Piel, Herman G., Indianapolis, Ind. Envelop. No. 1,136,713; Apr. 20; Gaz. vol. 213; p. 1015.

Pieper, Alphonse F. (See Pieper, Oscar H. and A. F.)

Pieper, Oscar H. and A. F., Rochester, N. Y. Adjustable chair. No. 1,137,080; Apr. 27; Gaz. vol. 213; p. 1182.

Pierce, Adin G., New York, N. Y. Centering or scaffolding. No. 1,136,714; Apr. 20; Gaz. vol. 213; p. 1015.

Pierce, Simeon F., St. Paul, Minn. Liquid-hydrocarbon generator. No. 1,135,136; Apr. 13; Gaz. vol. 213; p. 420.

Pierce, Simeon F., assignor to Cream Cone Machine Company, St. Paul, Minn. Cooking device. No. 1,136,261; Apr. 20; Gaz. vol. 213; p. 853.

Pierman, Alexander N., Newark, N. J. Warning-signal. No. 1,135,048; Apr. 13; Gaz. vol. 213; p. 390.

Pliant, Henry C., Oak Grove, Mo. Coin-receptacle for mail-boxes. No. 1,136,974; Apr. 27; Gaz. vol. 213; p. 1143.

Pilcher, Walter F., assignor of one-half to H. A. Powell, Dothan, Ala. Swing. No. 1,136,262; Apr. 20; Gaz. vol. 213; p. 854.

Pilkington, Herbert M., Arverne, assignor, by mesne assignments, to Lithotex Corporation, New York, N. Y. Forgery detection. No. 1,135,919; Apr. 13; Gaz. vol. 213; p. 691.

Pilkington, Joseph H., Waterbury, Conn. Suspender-buckle. No. 1,136,610; Apr. 20; Gaz. vol. 213; p. 978.

Pine, Arthur F., Castle Rock, Colo. Bolt cutter and holder. No. 1,136,263; Apr. 20; Gaz. vol. 213; p. 854.

Pine, James K. P., assignor to United Shirt and Collar Company, Troy, N. Y. Shirt. No. 1,137,081; Apr. 27; Gaz. vol. 213; p. 1183.

Pioneer Suspender Company. (See Croasdale, John P., assignor.)

Piper, Fred W., Waterville, Me. Safety-cock. No. 1,134,904; Apr. 6; Gaz. vol. 213; p. 293.

Pitcher, Elmer, Minneapolis, Minn. Shock-loader. No. 1,136,264; Apr. 20; Gaz. vol. 213; p. 855.

Pitts, John W., Bisbee, Ariz. Operating internal-combustion engines. No. 1,136,715; Apr. 20; Gaz. vol. 213; p. 1016.

Pittsburg Meter Company. (See Chrisman, Horace, assignor.)

Pittsburgh Plate Glass Company. (See Franzen, Nicklas, assignor.)

Pittsburgh Plate Glass Company. (See Golightly, William J., assignor.)

Pittsburgh Plate Glass Company, The. (See Pease, Roger S., assignor.)

Planten, Hermanus R., New York, N. Y. Gelatin capsule. No. 1,134,156; Apr. 6; Gaz. vol. 213; p. 26.

Plantinga, Pierre, Cleveland, Ohio. Apparatus for distributing heat produced by combustion. No. 1,135,137; Apr. 13; Gaz. vol. 213; p. 421.

Platt, Clarence D., Bridgeport, Conn. Clamp. No. 1,135,612; Apr. 13; Gaz. vol. 213; p. 585.

Platz, Frank A., Brooklyn, N. Y. Cutting and assembling garments by wholesale. No. 1,136,048; Apr. 20; Gaz. vol. 213; p. 778.

Platzek, Alois, Athens, Wis. Automatic sled-brake. No. 1,136,716; Apr. 20; Gaz. vol. 213; p. 1016.

Pleins, Rudolph C., assignor to Pleins Seal Lock Company, St. Paul, Minn. Hinge. No. 1,135,547; Apr. 13; Gaz. vol. 213; p. 561.

Pleins Seal Lock Company. (See Pleins, Rudolph C., assignor.)

Plice, Thomas V., assignor to W. V. B. Topping, Ashland, Ohio. Door-hanger. No. 1,134,288; Apr. 6; Gaz. vol. 213; p. 75.

Plummer, Ezra G., Altoona, Iowa. Explosive-engine. No. 1,136,265; Apr. 20; Gaz. vol. 213; p. 855.

Plummer, V. L., *et al.* (See Bragg, Julius, assignor.)

Plymouth Rubber Company. (See Meade, James, assignor).

Poehn, George E. (See Mattes, Henry, assignor.)

Pokorney, Henry, Indianapolis, Ind. Reversible internal-combustion engine. No. 1,134,225; Apr. 6; Gaz. vol. 213; p. 52.

Pole, Jacob, Hamden, N. Y. Toy decoration-wheel. No. 1,134,417; Apr. 6; Gaz. vol. 213; p. 121.

Polinkowsky, Lipa. (See McBerty and Polinkowsky.)

Polinkowsky, Lipa, Brussels, Belgium, assignor to Western Electric Company, New York, N. Y. Machine telephone switching system. No. 1,137,231; Apr. 27; Gaz. vol. 213; p. 1237.

Pollak, Anton, Paris, France. Voltage-regulator. No. 1,137,019; Apr. 27; Gaz. vol. 213; p. 1160.

Pollak, Max. (See Andra, Frank, assignor.)

Pollard, John A., Hunnewell, Mo. Means for reinforcing traces. No. 1,137,528; Apr. 27; Gaz. vol. 213; p. 1343.

Pollock, William M., Forest Grove, Oreg. Lancet. No. 1,135,465; Apr. 13; Gaz. vol. 213; p. 532.

Pomeroy, John, East St. Kilda, Victoria, Australia. Furnace. No. 1,137,420; Apr. 27; Gaz. vol. 213; p. 1307.

Pomeroy, William D., Norwood, Ohio, assignor to Allis-Chalmers Manufacturing Company. Balancing-table. No. 1,136,611; Apr. 20; Gaz. vol. 213; p. 979.

Pomije, Theofil, Lesueur Center, and J. Staska, Montgomery, Minn. Threshing-machine. No. 1,135,716; Apr. 13; Gaz. vol. 213; p. 622.

Poole, Annie, executrix. (See Poole, Clarence F. and C. C.)

Poole, Charles C. (See Poole, Clarence F. and C. C.)

Poole, Clarence F., and C. C. Poole, deceased, Evanston, Ill.; A. Poole, executrix. Starting device for explosive-engines. No. 1,136,913; Apr. 20; Gaz. vol. 213; p. 1085.

Poole, Jesse V., assignor of one-half to L. L. Livingston, Abington, Mass. Innersole and making the same. No. 1,137,282; Apr. 27; Gaz. vol. 213; p. 1257.

Pope, Joseph H., Hamilton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Last. No. 1,137,421; Apr. 27; Gaz. vol. 213; p. 1308.

Popp, Michael L., Milwaukee, Wis. Oxyacetylene apparatus. No. 1,136,437; Apr. 20; Gaz. vol. 213; p. 917.

Poppenhusen, Herman A., Chicago, Ill. Spring. No. 1,135,319; Apr. 13; Gaz. vol. 213; p. 481.

Porcher, Edward P., Charleston, S. C. Pump. No. 1,135,320; Apr. 13; Gaz. vol. 213; p. 482.

Porter, Lewis E., Los Angeles, Cal., assignor of one-half to H. E. Stock, Casper, Wyo. Process and apparatus for treating ores. No. 1,136,483; Apr. 20; Gaz. vol. 213; p. 933.

Porterfield, Clarance D., New York, N. Y. Rail-anchor. No. 1,136,612; Apr. 20; Gaz. vol. 213; p. 979.

Possons, Minard A., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Lighting device for gas-stoves. No. 1,136,717; Apr. 20; Gaz. vol. 213; p. 1016.

Possons, Minard A., Cleveland, Ohio, assignors to American Stove Company, St. Louis, Mo. Stove-handle. No. 1,136,718; Apr. 20; Gaz. vol. 213; p. 1017.

Possons, Minard A., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Gas heating-stove. No. 1,137,529; Apr. 27; Gaz. vol. 213; p. 1343.

Post, Edward C., deceased; M. E. Post, executrix, Ann Arbor, Mich. Faucet. No. 1,134,157; Apr. 6; Gaz. vol. 213; p. 26.

Post, Mary E., executrix. (See Post, Edward C.)

Postum Cereal Co. (See Martin, Frank B., assignor.)

Potter, Henry N., Hollywood, Cal. Separator for removing vegetable growths and coarse material from gravel and the like. No. 1,134,555; Apr. 6; Gaz. vol. 213; p. 178.

Potter, James C., Pawtucket, R. I. Screw-machine. No. 1,136,719; Apr. 20; Gaz. vol. 213; p. 1017.

Potter, William H., and J. E. Benson, assignors to The Nye Tool and Machine Works, Chicago, Ill. Die-threading machine. No. 1,137,020; Apr. 27; Gaz. vol. 213; p. 1161.

Potts, Louis M., assignor, by mesne assignments, to A. McLanahan, Baltimore, Md. Selective electrical signaling. No. 1,135,321; Apr. 13; Gaz. vol. 213; p. 482.

Potts, Louis M., assignor, by mesne assignments, to A. McLanahan, Baltimore, Md. Transmitting apparatus for electrical signaling. No. 1,135,322; Apr. 13; Gaz. vol. 213; p. 483.

Potts, Louis M., assignor to A. McLanahan, Baltimore, Md. System of operating type-writers and the like. No. 1,135,613; Apr. 13; Gaz. vol. 213; p. 585.

Potts, Louis M., assignor to A. McLanahan, Baltimore, Md. Telegraphy. No. 1,135,614; Apr. 13; Gaz. vol. 213; p. 586.

Potts, Louis M., assignor, by mesne assignments, to A. McLanahan, Baltimore, Md. Selective electrical signaling. No. 1,135,920; Apr. 13; Gaz. vol. 213; p. 692.

Pounds, Virgil B. (See Glenn, John W., assignor.)

Powell, Henry A. (See Pilcher, Walter F., assignor.)

Powell, William O., Chester, Pa. Pipe-bending machine. No. 1,136,364; Apr. 20; Gaz. vol. 213; p. 890.

Powers, Clarence E., Monroe township, Madison county, assignor of one-third to W. C. Grandfield, Lorimor, Iowa. Harrow attachment for corn-planters. No. 1,136,975; Apr. 27; Gaz. vol. 213; p. 1143.

Powers, Leonard J., assignor to The Powers Manufacturing Company, Waterloo, Iowa. Forming curved tubular casings for horse-collars. No. 1,134,289; Apr. 6; Gaz. vol. 213; p. 76.

Powers Manufacturing Company, The. (See Powers, Leonard J., assignor.)

Pratt, Allison A., and J. Zollinger, assignors of one-third to A. A. Pratt, one-third to J. Zollinger, and one-third to H. J. Hemmens, New York, N. Y. Siphon-head. No. 1,137,530; Apr. 27; Gaz. vol. 213; p. 1344.

Pratt, Charles R., Montclair, N. J., assignor to The Universal Speed Control Company. Rotary piston-power transmission. No. 1,137,283; Apr. 27; Gaz. vol. 213; p. 1257.

Pratt, George L., Atlanta, Ga. Manufacturing and curing acid phosphates and the like. No. 1,137,531; Apr. 27; Gaz. vol. 213; p. 1344.

Pratt, Willis H., assignor to The Arrow Electric Company, Hartford, Conn. Snap-switch base. No. 1,135,138; Apr. 13; Gaz. vol. 213; p. 421.

Preks, Tönis, St. Petersburg, Russia. Apparatus for treating cast ingots. No. 1,134,348; Apr. 6; Gaz. vol. 213; p. 97.

Prepayment Car Sales Company. (See Hunicke, Clarence C., assignor.)

Pressed Steel Car Company. (See Elverson, Howard W., assignor.)

Pressed Steel Products Company. (See Mittinger, George E., assignor.)

Preston, James, deceased, Tuckahoe, N. Y.; L. Preston, executrix. Cigarette-making device. No. 1,136,720; Apr. 20; Gaz. vol. 213; p. 1017.

Preston, Lucy, executrix. (See Preston, James, assignor.)

Price, Albert E. (See Jones and Price.)

Price-Campbell Cotton Picker Corporation. (See Beach, Edward S., assignor.)

Price, Ernest W. (See Langley and Price.)

Price, Harry L., and G. J. Cartwright, Sydney, New South Wales, Australia. Smoke-consuming furnace. No. 1,135,842; Apr. 13; Gaz. vol. 213; p. 667.

Price, Walter H., Moores, Pa. Ground-clamp. No. 1,135,717; Apr. 13; Gaz. vol. 213; p. 623.

Price, William W. (See Jones and Price.)

Pridmore, Frank A., London, England. Structure for educational and recreative purposes. No. 1,137,167; Apr. 27; Gaz. vol. 213; p. 1214.

Pries, Herman, Michigan City, Ind. Brake-shaft. No. 1,137,082; Apr. 27; Gaz. vol. 213; p. 1183.

Prime, Daniel N., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Fastener-setting machine. No. 1,136,166; Apr. 20; Gaz. vol. 213; p. 819.

Prindle, Charles A., Chicago, Ill. Chain. No. 1,135,843; Apr. 13; Gaz. vol. 213; p. 667.

Pringle, John H., Sac City, Iowa. Shaft-brake mechanism. No. 1,136,266; Apr. 20; Gaz. vol. 213; p. 855.

Probst, Emmet, Paterson, N. J. Shade-roller bracket. No. 1,136,049; Apr. 20; Gaz. vol. 213; p. 778.

Prochaska, Karl, Vienna, Austria-Hungary. Pot and cover lifter. No. 1,134,905; Apr. 6; Gaz. vol. 213; p. 293.

Procter and Gamble Company, The. (See Burchenal, John J., assignor.)

Production Meter Company. (See Johnson, Austin C., assignor.)

Progress Machine Company. (See Gaynor and Lieber, assignors.)

Prokoflew, George, Kensal Rise, London, England. Automatic machine for packeting, weighing, and delivering given quantities of granular or powdery material. No. 1,137,284; Apr. 27; Gaz. vol. 213; p. 1258.

Prose, John H. (See Sears, Prose, and Anderson.)

Protective Signal Manufacturing Company, The. (See Neahr, Will C., assignor.)

Prouix, Simeon. (See Gareau, Fardinand, assignor.)

Pruser, Gustav A., Winters, Tex. Cotton-picking machine. No. 1,134,158; Apr. 6; Gaz. vol. 213; p. 26.

Public Supply Company. (See Rast and Peirce, assignors.)

Pull-More Motor Truck Company. (See Marker, Henry H., assignor.)

Pullman Company, The. (See Oberly, Chester C., assignor.)

Purdy, E. H. (See Salter, William A., assignor.)

Putnam, W. S. (See Wells, Gustavus V., assignor.)

Pyle-National Electric Headlight Compay. (See Dake, Charles W., assignor.)

Quillen, B. B. (See Rosselot, Joseph M., assignor.)

Quinlan, Charles H., Amsterdam, N. Y. Electric water-heater. No. 1,136,365; Apr. 20; Gaz. vol. 213; p. 891.

R. Hoe and Co. (See Schmidt, Louis A., assignor.)

R. J. Reynolds Tobacco Company. (See Richter, Hans F., assignor.)

R. M. Hvid Company. (See Hvid, Rasmus M., assignor.)

Rabasa, Joseph, New York, N. Y. Broom-protector. No. 1,134,906; Apr. 6; Gaz. vol. 213; p. 293.

Rackle, Frederick H., assignor to The Smith-Worthington Company, Hartford, Conn. Jockey-plate. No. 1,136,267; Apr. 20; Gaz. vol. 213; p. 856.

Radelli, Louis, Beaver Falls, Pa. Tool-holder. No. 1,134,637; Apr. 6; Gaz. vol. 213; p. 202.

Radio Telephone & Telegraph Company. (See De Forest, Lee, assignor.)

Ragona, Salvador, New York, N. Y. Cigarette-machine. No. 1,134,638; Apr. 6; Gaz. vol. 218; p. 203.

Rail Joint Company, The. (See Thomson, William P., assignor.)

Rainsford, Thomas F., Cleveland, Ohio. Valve-operating mechanism. No. 1,137,532; Apr. 27; Gaz. vol. 213; p. 1345.

Rakestraw, Lawrence M., assignor to The Toledo Auto Tool Company, Toledo, Ohio. Tire-tool. No. 1,135,392; Apr. 13; Gaz. vol. 213; p. 507.

Rakestraw, Thomas G. (See Wilcox and Rakestraw.)

Ralston, Joseph S. (See Hartough and Alquist, assignors.)

Ramsay, Charles T., Liverpool, England. Optical instrument for use in playing the game of golf or like ball games. No. 1,135,921; Apr. 13; Gaz. vol. 213; p. 692.

Ramsey, Joseph A., Beatrice, Nebr. Vehicle end-gate. No. 1,135,844; Apr. 13; Gaz. vol. 213; p. 667.

Ranagan, William H., Vineland, N. J. Bottle-stopper. No. 1,135,718; Apr. 13; Gaz. vol. 213; p. 623.

Randall, Alfred B. (See Blevins and Randall.)

Randall, John A., Brooklyn, N. Y. Dynamometer. No. 1,134,418; Apr. 6; Gaz. vol. 213; p. 121.

Randall, John A., Brooklyn, N. Y. Dynamometer. No. 1,136,366; Apr. 20; Gaz. vol. 213; p. 891.

Rankin, Edmund, Lincoln, Ill. Boiler-cleaner. No. 1,135,139; Apr. 13; Gaz. vol. 213; p. 422.

Rapp, Axel G. J., assignor to Link-Belt Company, Chicago, Ill. Settling-tank. No. 1,137,351; Apr. 27; Gaz. vol. 213; p. 1282.

Rappenecker, Alphons, Bremen, Germany. Transmitter for writing-telegraphs and the like. No. 1,135,393; Apr. 13; Gaz. vol. 213; p. 507.

Rast, Felix Q., New York, N. Y. and C. G. Peirce, Montclair, N. J.; said Rast assignor to Public Supply Company, New York, N. Y. Vending-machine. No. 1,137,715; Apr. 27; Gaz. vol. 213; p. 1404.

Ratchet Brake Company. (See Blackall, Robert H., assignor.)

Rathmann, Edward G., Delta, Ohio. Handle attachment for automobiles. No. 1,135,615; Apr. 13; Gaz. vol. 213; p. 586.

Raub, Maria M., Brooklyn, N. Y. Composition for chewing-gum. No. 1,136,613; Apr. 20; Gaz. vol. 213; p. 979.

Rauen, William. (See Wernimont, Henry G., assignor.)

Rauscher, Heinrich, Vienna, Austria-Hungary. Calculating-machine. No. 1,136,484; Apr. 20; Gaz. vol. 213; p. 934.

Ray, Frederick, Short Hills, N. J., assignor to Alberger Pump and Condenser Company, New York, N. Y. Surface condenser. No. 1,137,422; Apr. 27; Gaz. vol. 213; p. 1308.

Raymond Concrete Pile Company. (See Watt, Elihu D., assignor.)

Raymond, Reuben M., Malden, Mass. Carpenter's gage. No. 1,136,367; Apr. 20; Gaz. vol. 213; p. 891.

Razny, Henry, Detroit, Mich. Mail-box. No. 1,136,050; Apr. 20; Gaz. vol. 213; p. 778.

Re, Alfred, New York, N. Y. Double-key lock. No. 1,134,907; Apr. 6; Gaz. vol. 213; p. 294.

Reaben, George B., Hattiesburg, Miss. Trolley-retriever. No. 1,135,845; Apr. 13; Gaz. vol. 213; p. 667.

Reamer, John H., Linton, N. D. Disinfectant apparatus. No. 1,136,268; Apr. 20; Gaz. vol. 213; p. 856.

Reaugh, Frank, Oak Cliff, Tex. Pump or motor. No. 1,136,976; Apr. 27; Gaz. vol. 213; p. 1143.

Rebrovich, John, Pittsburgh, Pa. Brush-guide for dentifrice-containers. No. 1,135,922; Apr. 13; Gaz. vol. 213; p. 692.

Recker, Adolph C., Oakville, assignor to Waterbury Mfg. Co., Waterbury, Conn. Water-closet tank. No. 1,134,556; Apr. 6; Gaz. vol. 213; p. 173.

Redding, John W., Seattle, Wash. Rock-clearing machine. No. 1,134,226; Apr. 6; Gaz. vol. 213; p. 53.

Redfield, Casper L. (See Folger and Redfield.)

Redner, John J. (See Murphy and Redner.)

Reece Shoe Machinery Company, The. (See Schoenky, August B., assignor.)

Reed, Irene, *et al.* (See Parshall, Seth, assignor.)

Reed, L. W. (See Paul, William J., assignor.)

Reeder, James A., Memphis, Tenn. Folding coop. No. 1,136,269; Apr. 20; Gaz. vol. 213; p. 856.

Reenstierna, Ivar, Boston, Mass. Card-holder for cigar-boxes. No. 1,135,323; Apr. 13; Gaz. vol. 213; p. 483.

Reents, Wilhelm. (See Hübner, Gustav, assignor.)

Reichard, Francis H., Bangor, Pa. Weeder and hoe. No. 1,136,438; Apr. 20; Gaz. vol. 213; p. 917.

Reiche, Hermann, Millstone, N. J. Flying-machine. No. 1,137,533; Apr. 27; Gaz. vol. 213; p. 1345.

Reichelt, Bruno, Newark, N. J. Converting meadow or swamp land into fertilizer. No. 1,134,760; Apr. 6; Gaz. vol. 213; p. 248.

Reid, Andrew S. (See Reid, Robert and A. S.)

Reid, Fraser D., Cobalt, Ontario, Canada. Ore-concentrator. No. 1,134,349; Apr. 6; Gaz. vol. 213; p. 97.

Reid, Robert and A. S., Beverly, assignors, by mesne assignments, to A. H. Parker, Bedford, and W. H. Emerson, Newton, Mass. Can-sealing machine. No. 1,136,400; Apr. 20; Gaz. vol. 213; p. 904.

Reidy, Michael D. (See Blake and Reidy.)

Reifsnyder, James D. (See Stokes and Reifsnyder.)

Reindel, Frederick W., East Cleveland, Ohio. Embossing apparatus. No. 1,134,227; Apr. 6; Gaz. vol. 213; p. 53.

Reinhardt, Louis H., Berger, Mo. Anti-rail-spreading device. No. 1,137,083; Apr. 27; Gaz. vol. 213; p. 1183.

Reininger, Richard, assignor to Newark Rivet Works, Newark, N. J. Umbrella-rod. No. 1,136,167; Apr. 20; Gaz. vol. 213; p. 820.

Reisbach, Gustav B., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Rheostat. No. 1,137,352; Apr. 27; Gaz. vol. 213; p. 1283.

Reissmann, Frederick, West Point, N. Y. Composition of matter containing artificial dye and making same. No. 1,134,486; Apr. 6; Gaz. vol. 213; p. 147.

Reist, Kirby S., and S. B. Batsford, Berkeley, Cal., assignors to Mergenthaler Linotype Company. Type-casting machine. No. 1,135,394; Apr. 13; Gaz. vol. 213; p. 507.

Reller, Edwin L. (See Meier, Swift, and Reller.)

Reller, Joseph E., Indianapolis, Ind. Floor brusher and oiler. No. 1,135,616; Apr. 13; Gaz. vol. 213; p. 587.

Remington Typewriter Company. (See Briggs, Arthur J., assignor.)

Reno, Emile V., and J. A. C. Bois, Somme, France. Oil-pump. No. 1,135,617; Apr. 13; Gaz. vol. 213; p. 587.

Renshaw, Alfred H., Noroton, Conn., assignor to Federal Signal Company, Albany, N. Y. Mechanism for controlling railway signals. No. 1,137,084; Apr. 27; Gaz. vol. 213; p. 1183.

Renshaw, Charles E., East Orange, and C. H. Jenkins, Belleville, N. J., assignors to Newman Clock Company, New York, N. Y. Cautionary telltale. No. 1,134,698; Apr. 6; Gaz. vol. 213; p. 225.

Rensink, George C., Denver, Colo. Oil separator and purifier. No. 1,134,419; Apr. 6; Gaz. vol. 213; p. 121.

Renton, George W., Brooklyn, N. Y. Claw-hammer. No. 1,137,663; Apr. 27; Gaz. vol. 213; p. 1387.

Renz, Charles L., Jr., *et al.* (See Watkins, Arthur G., assignor.)

Reston, Henry P., assignor to The Cincinnati Planer Company, Oakley, Ohio. Clutch-shifting mechanism. No. 1,137,716; Apr. 27; Gaz. vol. 213; p. 1404.

Retaliata, John L., Jr., Denver, Colo., assignor of one-half to J. L. Retaliata, Sr. Draft attachment for chimneys or stacks. No. 1,136,914; Apr. 20; Gaz. vol. 213; p. 1086.

Reuschline, George L., Philadelphia, Pa. Ice-making apparatus. No. 1,134,420; Apr. 6; Gaz. vol. 213; p. 122.

Revere Rubber Company. (See Carlisle, Fred B., assignor.)

Reynard, Charles M., assignor to McKeesport Tin Plate Company, McKeesport, Pa. Apparatus for cleaning tin plates. No. 1,136,270; Apr. 20; Gaz. vol. 213; p. 856.

Reynolds, Floyd L., Middleton, Mich. Shock-absorber. No. 1,135,923; Apr. 13; Gaz. vol. 213; p. 692.

Reynolds, Joseph S. (See Shearer, George T., assignor.)

Rheinische Metalwaaren- und Maschinenfabrik. (See Grauheding, Oskar, assignor.)

Rheutan, Isaac L., assignor to Union Envelope Company, Richmond, Va. Envelop. No. 1,136,614; Apr. 20; Gaz. vol. 213; p. 979.

Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Thread parting and holding means for looms. No. 1,134,487; Apr. 6; Gaz. vol. 213; p. 147.

Rhoades, Charles S., Jr., Chicago, Ill., assignor, by mesne assignments, to Hall Switch Signal Company. Call-box. No. 1,137,717; Apr. 27; Gaz. vol. 213; p. 1405.

Rhodes, Elbridge L. (See Rhodes, George E., assignor.)

Rhodes, George E., Jacksonville, assignor of one-half to E. L. Rhodes, Whitehouse, Fla. Saw-sharpening machine. No. 1,137,664; Apr. 27; Gaz. vol. 213; p. 1388.

Rhodes, Hampton P., Shreveport, La. Metallic packing-ring. No. 1,136,271; Apr. 20; Gaz. vol. 213; p. 857.

Rhodes, Samuel E., Greenville, Mich. Potato-sorter. No. 1,135,395; Apr. 13; Gaz. vol. 213; p. 507.

Rhodes, Willis M., Moscow, Idaho. Leveling mechanism for harvesters. No. 1,135,618; Apr. 13; Gaz. vol. 213; p. 587.

Rhodes, Willis M., Moscow, Idaho. Suspension system for headers. No. 1,135,619; Apr. 13; Gaz. vol. 213; p. 588.

Rhodes, Willis M., Moscow, Idaho. Grain-bag chute for harvesters. No. 1,135,620; Apr. 13; Gaz. vol. 213; p. 588.

Riblet, Royal N., Spokane, Wash. Traction-wheel. No. 1,134,960; Apr. 6; Gaz. vol. 213; p. 312.

Rice, Benjamin F. (See McKesson and Rice.)

Rice, Charles K., Indianapolis, Ind. Heating-stove. No. 1,136,615; Apr. 20; Gaz. vol. 213; p. 980.

Rice, Joel A. (See Rice, Royal A. and J. A.)

Rice, Richard H., Lynn, Mass., assignor to General Electric Company. Automatic governing mechanism. No. 1,134,761; Apr. 6; Gaz. vol. 213; p. 248.

Rice, Royal A. and J. A., New York, N. Y. Manure-pouch. No. 1,136,272; Apr. 20; Gaz. vol. 213; p. 857.

Rice, Wentworth, Salt Lake City, Utah. Glue or like pot. No. 1,135,466; Apr. 13; Gaz. vol. 213; p. 532.

Rich, Charles C., Mount Vernon, N. Y. Frictional locking hydraulic clutch. No. 1,136,168; Apr. 20; Gaz. vol. 213; p. 820.

Richard, Frank, *et al.* (See Meier, John, assignor.)

Richard, Martin J., Rayne, La. Harrow. No. 1,134,639; Apr. 6; Gaz. vol. 213; p. 204.

Richards, Francis H., Hartford, Conn. Mechanical movement. No. 1,134,961; Apr. 6; Gaz. vol. 213; p. 313.

Richards, Harry M., *et al.* (See Lind, Carl A., assignor.)

Richards, Willard F., Depew, assignor to Gould Coupler Company, New York, N. Y. Car-coupling. No. 1,136,554; Apr. 20; Gaz. vol. 213; p. 958.

Richardson, Charles L., and W. D. Hall, Sherman, Tex. Boltless rail-joint. No. 1,136,273; Apr. 20; Gaz. vol. 213; p. 857.

Richardson, Dewey F., Scappoose, Oreg. Penholder. No. 1,135,396; Apr. 13; Gaz. vol. 213; p. 508.

Richardson, Edro, assignor of one-half to T. R. Jenkins, Jr., Baltimore, Md. Flushing-valve. No. 1,134,488; Apr. 6; Gaz. vol. 213; p. 148.

Richardson, John L., Philadelphia, Pa. Train control. No. 1,135,924; Apr. 13; Gaz. vol. 213; p. 693.

Richardson Manufacturing Company. (See Curtis, John D., assignor.)

Richert, Johan G., Stockholm, Sweden. Refrigerating-car. No. 1,137,285; Apr. 27; Gaz. vol. 213; p. 1258.

Richmond, Harry R. (See Black, James F., assignor.)

Richmond, Norman S., Chicago, Ill. Electric-lantern attachment. No. 1,135,049; Apr. 13; Gaz. vol. 213; p. 391.

Richter, Fred R. F., Niverville, N. Y. Pneumatic cushion and shock-absorber. No. 1,135,925; Apr. 13; Gaz. vol. 213; p. 693.

Richter, Hans F., assignor to R. J. Reynolds Tobacco Company, Winston-Salem, N. C. Machine for assembling metal receptacles. No. 1,136,555; Apr. 20; Gaz. vol. 213; p. 958.

Ricke, George H., assignor of one-half to E. Oelker, Cincinnati, Ohio. Shoe. No. 1,137,423; Apr. 27; Gaz. vol. 213; p. 1309.

Ricketts, James B., Brookline, Mass., assignor to The Nightingale Company. Incinerator. No. 1,137,232; Apr. 27; Gaz. vol. 213; p. 1238.

Ricketts, James B., assignor to The Nightingale Company, New York, N. Y. Incinerator. No. 1,137,424; Apr. 27; Gaz. vol. 213; p. 1309.

Rickon, Harold J., assignor of one-half to E. H. Kemp, San Francisco, Cal. Film-reel. No. 1,135,846; Apr. 13; Gaz. vol. 213; p. 668.

Ridderstedt, Charles H., Philadelphia, Pa. Steam-boiler control. No. 1,134,159; Apr. 6; Gaz. vol. 213; p. 27.

Riddle, Carlton, Akron, Ohio. Device for locking closures. No. 1,137,085; Apr. 27; Gaz. vol. 213; p. 1184.

Riddle, Lawrence J., assignor of one-half to J. E. Tormey, Cheney, Wash. Grass-catcher. No. 1,134,489; Apr. 6; Gaz. vol. 213; p. 148.

Ridgely Trimmer Company, The. (See Breckenridge, John G., assignor.)

Ridley, Charles. (See Drummond and Ridley.)

Riehl, Justus, Baltimore, Md., assignor, by mesne assignments, to J. N. McFarland. Logotype-machine. No. 1,137,353; Apr. 27; Gaz. vol. 213; p. 1283.

Rigall, John E., assignor to Daprato Statuary Company, Chicago, Ill. Cross. No. 1,136,274; Apr. 20; Gaz. vol. 213; p. 857.

Rightor, Albert C., Pittsburgh, Pa. Safety-heel. No. 1,134,228; Apr. 6; Gaz. vol. 213; p. 53.

Riker, Andrew L., Bridgeport, Conn., assignor to The "Locomobile" Company of America, New York, N. Y. Regulating means for internal-combustion engines. No. 1,136,368; Apr. 20; Gaz. vol. 213; p. 892.

Ringle, Henry E., assignor of one-half to O. E. Dietrich, Bremen, Ind. Brooder. No. 1,134,229; Apr. 6; Gaz. vol. 213; p. 54.

Ripley, Winfield, Breckenridge, Colo. Washing-machine. No. 1,136,835; Apr. 20; Gaz. vol. 213; p. 1058.

Riter-Conley Manufacturing Company. (See Carpenter, Henry A., assignor.)

Riter-Conley Manufacturing Company. (See Hibbard, Robert L., assignor.)

Riter-Conley Manufacturing Company. (See Koehl, Louis C., assignor.)

Riter-Conley Manufacturing Company. (See Warner, Arthur W., assignor.)

Ritter, Frank, Rochester, N. Y. Chair-base. No. 1,136,617; Apr. 20; Gaz. vol. 213; p. 980.

Ritter, Rudolph, assignor of one-half to W. B. and R. B. Gray, Chicago, Ill. Valve-gear for internal-combustion engines. No. 1,135,719; Apr. 13; Gaz. vol. 213; p. 623.

Rivett, Edward, Brighton, Mass., assignor, by mesne assignments, to Rivett Lathe and Grinder Company. Self-centering chuck. No. 1,135,397; Apr. 13; Gaz. vol. 213; p. 508.

Rivett Lathe and Grinder Company. (See Rivett, Edward, assignor.)

Roach, Michael J., assignor of one-half to J. Furlong, Anderson, Ind. Steam-joint. No. 1,135,720; Apr. 13; Gaz. vol. 213; p. 623.

Roat, Harry A., Jr., Harrisburg, Pa. Wardrobe. No. 1,137,534; Apr. 27; Gaz. vol. 213; p. 1345.

Roberts, David and K. Grantham, Lincoln, England. Golf and like club. No. 1,135,621; Apr. 13; Gaz. vol. 213; p. 589.

Roberts, John G., Dobbs Ferry, assignor to Western Electric Company, New York, N. Y. Automatic switching mechanism. No. 1,134,230; Apr. 6; Gaz. vol. 213; p. 54.

Roberts, Kenneth. (See Roberts, David and K.)

Roberts, Lyman R., Rutherford, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,135,140; Apr. 13; Gaz. vol. 213; p. 422.

Robertson, Frank W., Orosi, Cal. Folding egg-crate. No. 1,134,557; Apr. 6; Gaz. vol. 213; p. 173.

Robertson, John, Cincinnati, Ohio. Dust-separator. No. 1,136,836; Apr. 20; Gaz. vol. 213; p. 1058.

Robertson, Robert R., La Grange, and C. G. Naylor, Chicago, Ill. Sectional mold. No. 1,136,439; Apr. 20; Gaz. vol. 213; p. 918.

Robleson, Harvey E., Freeport, Ill. Spring-actuated gate-closer. No. 1,135,324; Apr. 13; Gaz. vol. 213; p. 483.

Robin, Jacob I., assignor to Strand Mantle and Machine Company, Limited, London, England. Adapter for Bunsen burners. No. 1,135,398; Apr. 13; Gaz. vol. 213; p. 508.

Robinson, Arthur S. F., Beccles, England. Pliers and like gripping tool. No. 1,136,618; Apr. 20; Gaz. vol. 213; p. 981.

Robinson, George W., Camden, N. Y. Moccasin. No. 1,135,622; Apr. 13; Gaz. vol. 213; p. 589.

Robinson, James E., Chicago, Ill. Radiator-jacket. No. 1,136,440; Apr. 20; Gaz. vol. 213; p. 918.

Robinson and Robinson. (See Gorton, George, assignor.)

Robinson, Roy H., Chicago, Ill. Constructing building-frames and analogous frames. No. 1,135,721; Apr. 13; Gaz. vol. 213; p. 624.

Robnett, George W., Chicago, Ill. Pipe-joint. No. 1,135,325; Apr. 13; Gaz. vol. 213; p. 484.

Rochmill, Henry, Selma, Ala. Lemon-squeezer. No. 1,136,837; Apr. 20; Gaz. vol. 213; p. 1059.

Rock City Manufacturing Company, The. (See Barcus and Smith, assignors.)

Rocksted, Martin, assignor to The Imperial Brass Manufacturing Company, Chicago, Ill. Torch. No. 1,134,231; Apr. 6; Gaz. vol. 213; p. 54.

Rockstroh, Max, Klein Sedlitz, near Pirma, Germany. Guard for platen printing-presses. No. 1,135,399; Apr. 13; Gaz. vol. 213; p. 509.

Rodgers, Don E., Gorman, Tex. Soldering-iron. No. 1,135,050; Apr. 13; Gaz. vol. 213; p. 391.

Rodiger, William, Chicago, Ill. Collapsible tube. No. 1,137,086; Apr. 27; Gaz. vol. 213; p. 1184.

Roedding, Edward B. (See Roedding, Gordon E. and E. B.)

Roedding, Gordon E. and E. B., Detroit, Mich. Push-button. No. 1,135,926. Apr. 13; Gaz. vol. 213; p. 693.

Roehrich, Frank N. (See Carroll and Roehrich.)

Roehrich, Frank N., Brooklyn, N. Y., assignor to The Brookfield Glass Company. Press for making glass insulators. No. 1,136,275; Apr. 20; Gaz. vol. 213; p. 858.

Röger, Karl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,135,400; Apr. 13; Gaz. vol. 213; p. 509.

Röger, Karl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,021; Apr. 27; Gaz. vol. 213; p. 1161.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,022; Apr. 27; Gaz. vol. 213; p. 1162.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical casting-machine. No. 1,137,023; Apr. 27; Gaz. vol. 213; p. 1162.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,137,024; Apr. 27; Gaz. vol. 213; p. 1162.

Rognlie, Severin J. (See Neshime and Rognlie.)

Roller Smith Co. (See Scheeffer, Gustave A., assignor.)

Rollins, Fred C. (See Frye and Rollins.)

Romanczk, Joseph, *et al.* (See Gepack, Paul, assignor.)

Romberg, Paul, Leipzig, Germany. Barrel-adjusting apparatus. No. 1,137,168; Apr. 27; Gaz. vol. 213; p. 1214.

Romsos, Oliver T., Sarles, N. D. Display rack or cabinet. No. 1,134,908; Apr. 6; Gaz. vol. 213; p. 294.

Ronconi, Domenico, Chicago, Ill. Pruning implement. No. 1,137,286; Apr. 27; Gaz. vol. 213; p. 1259.

Rontke, Albert, Bridgeport, Conn., assignor to The Singer Manufacturing Company. Binding attachment for sewing-machines. No. 1,137,665; Apr. 27; Gaz. vol. 213; p. 1388.

Root, Charles F., Ravenna, assignor of one-fourth to B. O. Conn, Mansfield, Ohio. Safety device. No. 1,136,369; Apr. 20; Gaz. vol. 213; p. 892.

Root, James C., Getchell, Wash. Rail-joint. No. 1,137,606; Apr. 27; Gaz. vol. 213; p. 1388.

Rork, Charles E., Douglas, Ariz. Flotation-machine. No. 1,136,485; Apr. 20; Gaz. vol. 213; p. 934.

Rosato, Secondo, Sant' Agostino di Cavour, Italy. Beehive. No. 1,135,623; Apr. 13; Gaz. vol. 213; p. 589.

Rose, Benjamin. (See Lieberman, Friedman, and Rose.)

Rose, J W and C. A. Fox, Buffalo, N. Y. Nut-lock. No. 1,136,486; Apr. 20; Gaz. vol. 213; p. 935.

Rosenau & Company, S. (See Moll, William E., assignor.)

Rosenberg, Ralph H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Axle for automobiles. No. 1,137,287; Apr. 27; Gaz. vol. 213; p. 1259.

Rosenberg, Ralph H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Steering and driving wheel for motor-vehicles. No. 1,137,288; Apr. 27; Gaz. vol. 213; p. 1260.

Rosendahl, Carl M. A., Kindred, N. D. Motor-cycle spring. No. 1,135,927; Apr. 13; Gaz. vol. 213; p. 694.

Rosenwasser, Morris, New York, N. Y. Apparatus for use in manufacturing leggings. No. 1,137,087; Apr. 27; Gaz. vol. 213; p. 1185.

Rosing, Boris, St. Petersburg, Russia. Electrical telescopy. No. 1,135,624; Apr. 13; Gaz. vol. 213; p. 589.

Ross, David E., assignor to Ross Gear and Tool Company, La Fayette, Ind. Steering-gear. No. 1,136,556; Apr. 20; Gaz. vol. 213; p. 959.

Ross, David E., assignor to Ross Gear and Tool Company, La Fayette, Ind. Steering arm and post. No. 1,136,557; Apr. 20; Gaz. vol. 213; p. 959.

Ross Gear and Tool Company. (See Ross, David E., assignor.)

Ross, Harry A., Atlantic City, N. J. Tobacco-moistener. No. 1,134,232; Apr. 6; Gaz. vol. 213; p. 55.

Rosselot, Joseph M., assignor of one-half to B. B. Quillen, Cincinnati, Ohio. Way-signal. No. 1,134,909; Apr. 6; Gaz. vol. 213; p. 294.

Rosten, Thor, and N. Trydal, Madison, Wis. Watch-charm. No. 1,137,088; Apr. 27; Gaz. vol. 213; p. 1185.

Roszman, Charles, Cecil, Ohio. Alfalfa-cultivator. No. 1,135,051; Apr. 13; Gaz. vol. 213; p. 391.

Rotary Rod Weeder & Manufacturing Company. (See Wolfe, Grover C. and H. K., assignors.) (Reissue.)

Rottenborg, H. S., *et al.* (See Juel, Peter J., assignor.)

Rountree, Henry W., Richmond, Va. Wardrobe-trunk. No. 1,135,847; Apr. 13; Gaz. vol. 213; p. 668.

Rouse, Keith H., San Francisco, Cal. Tie-form. No. 1,134,910; Apr. 6; Gaz. vol. 213; p. 295.

Rouse, William H., Grand Rapids, Mich. Card-holder. No. 1,136,487; Apr. 20; Gaz. vol. 213; p. 935.

Roush, Oscar E., *et al.* (See Loomis, Osmond E., assignor.)

Rousseau, Edwin H., New Orleans, La. Liquid-heater. No. 1,136,169; Apr. 20; Gaz. vol. 213; p. 820.

Row, Albert O., Grand Island, Nebr. Attachment for milk-pails. No. 1,135,848; Apr. 13; Gaz. vol. 213; p. 668.

Rowley, Arthur C., assignor to Associated Automatic Sprinkler Co., Philadelphia, Pa. Alarm-check valve. No. 1,137,025; Apr. 27; Gaz. vol. 213; p. 1163.

Rowntree, Harold, Chicago, Ill. Car signaling device. No. 1,134,640; Apr. 6; Gaz. vol. 213; p. 294.

Roy, E. H. (See Killman, Thomas A., assignor.)

Royal Electrotype Company. (See Gounley, James F., assignor.)

Royal Typewriter Company. (See Myers, Lewis C., assignor.)

Royall, John H., Wake Forest, N. C. Wheelbarrow. No. 1,137,425; Apr. 27; Gaz. vol. 213; p. 1309.

Royer, Clarence, Newton, Kans. Corn-cutting machine. No. 1,137,667; Apr. 27; Gaz. vol. 213; p. 1388.

Royer, George F. (See Kelly and Royer.)

Roys, Lawrence, assignor to Bucyrus Company, South Milwaukee, Wis. Drag-line excavator. No. 1,135,928; Apr. 13; Gaz. vol. 213; p. 694.

Royster, Thomas, New Haven, Conn. Swimming device. No. 1,137,289; Apr. 27; Gaz. vol. 213; p. 1260.

Rubin, Isaac H., Philadelphia, Pa. Producing a fashion-garment illustration. No. 1,136,170; Apr. 20; Gaz. vol. 213; p. 821.

Rubinstien, Jacob. (See Krone and Rubinstein.)

Rubinstein, Max. (See Krone and Rubinstein.)

Ruddiman, Frank G., Muskegon, Mich. Running-board mat. No. 1,137,354; Apr. 27; Gaz. vol. 213; p. 1283.

Rudkin, William P., Britton, Okla. Motor-starting mechanism. No. 1,135,849; Apr. 13; Gaz. vol. 213; p. 669.

Rudolff, Barnet, Bayonne, assignor to F. Dorison, Jersey City, N. J. Combined square, level, and compass. No. 1,137,169; Apr. 27; Gaz. vol. 213; p. 1214.

Rugh, Harry O., Sandwich, Ill., assignor, by mesne assignments, to Hall Switch & Signal Company. Selective call device. No. 1,136,838; Apr. 20; Gaz. vol. 213; p. 1059.

Rumold, Christian F., Berea, Ky. Railway signal and control apparatus. No. 1,137,089; Apr. 27; Gaz. vol. 213; p. 1185.

Rumolino, Santo, Genoa, Italy. Electrical arrangement for the control of the speed of sea-engines. No. 1,134,490; Apr. 6; Gaz. vol. 213; p. 149.

Rush, Martin V., Anderson, Ind. Foot-measuring device. No. 1,137,233; Apr. 27; Gaz. vol. 213; p. 1238.

Russell, Charles D., St. Paul, Minn. Railway-spike. No. 1,134,160; Apr. 6; Gaz. vol. 213; p. 27.

Russell, Manning W., Keithville, La. Mole-trap. No. 1,135,052; Apr. 13; Gaz. vol. 213; p. 391.

Rutzke, Herman, *et al.* (See Heinze, Gustav A., assignor.)

Ruud Manufacturing Company. (See Humphrey, Herbert S., assignor.)

Ryan, John. (See Bolton, Joseph, assignor.)

Rychiger, Rudolf, Thun, Switzerland. Firearm. No. 1,135,722; Apr. 13; Gaz. vol. 213; p. 624.

Ryon, Eppa H., Waltham, assignor to Crompton & Knowles Loom Works, Worcester, Mass. Bobbin-stripper. No. 1,136,051; Apr. 20; Gaz. vol. 213; p. 779.

S. F. Bowser & Co. (See Morris, William L., assignor.)

S. F. Bowser & Company. (See Bowser, Sylvanus F., assignor.)

S. H. Couch Co. (See Couch, Henry, and Stevens, assignors.)

S. S. White Dental Manufacturing Company, The. (See Savin, Ralph B., assignor.)

Sachs, Joseph, assignor, by mesne assignments, to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Plug and socket connector. No. 1,135,206; Apr. 13; Gaz. vol. 213; p. 443.

Sachs, Joseph, and C. A. Francis, assignors, by mesne assignments, to The Hart & Hegeman Manufacturing Company, Hartford, Conn. Attachment for incandescent-lamp sockets. No. 1,135,207; Apr. 13; Gaz. vol. 213; p. 443.

Saco-Lowell Shops. (See Goldsmith, William H., Jr., assignor.)

Saecker, Frank E., assignor to Appleton Machine Company, Appleton, Wis. Shaft-coupling. No. 1,137,290; Apr. 27; Gaz. vol. 213; p. 1260.

Safety Auto Signal Company. (See Switzer, Charles A., assignor.)

Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)

Safety Engineering Company. (See Greer, Samuel C., assignor.)

Safford, William H., Jr. (See Wood and Safford.)

Sage, Ernest L., Newton Center, Mass., assignor, by mesne assignments, of three-fifths to Eastern Fountain Company. Fluid-pressure or flow regulator or controller. No. 1,136,619; Apr. 20; Gaz. vol. 213; p. 981.

Sager, James H., assignor to J. H. Sager Company, Rochester, N. Y. Spring mechanism for vehicles. No. 1,136,721; Apr. 20; Gaz. vol. 213; p. 1018.

Sahlender, Anna. (See Sahlender, Christian, assignor.)

Sahlender, Christian, Brooklyn, N. Y., assignor of one-half to A. Sahlender. Beer-drawing apparatus. No. 1,137,718; Apr. 27; Gaz. vol. 213; p. 1405.

Sakata, Teruo, Los Angeles, Cal. Polishing outfit. No. 1,135,326; Apr. 13; Gaz. vol. 213; p. 484.

Salari, Antonio, assignor of one-half to W. Ledgerwood, Bisbee, Ariz. Flower-holder. No. 1,135,401; Apr. 13; Gaz. vol. 213; p. 509.

Salisbury, Leonard N., Fairmont, W. Va. Garment-stretcher. No. 1,137,426; Apr. 27; Gaz. vol. 213; p. 1310.

Salkeld, Eugene W., Washington, D. C. Hand-washer. No. 1,135,402; Apr. 13; Gaz. vol. 213; p. 510.

Salter, William A., Kansas City, Mo., assignor, by mesne assignments, to E. H. Purdy, Clay Center, Kans. Gearing. No. 1,137,026; Apr. 27; Gaz. vol. 213; p. 1163.

Saltzman, Auguste L., New York, N. Y., assignor, by mesne assignments, to J. G. Coffin, trustee. Machine for making composing-strips for automatic typographic apparatus. No. 1,136,083; Apr. 20; Gaz. vol. 213; p. 790.

Sample, Pinkney L., Mobile, Ala. Piston. No. 1,134,911; Apr. 6; Gaz. vol. 213; p. 295.

Sampson, Charles H., assignor to Peerless Check Protecting Company, Rochester, N. Y. Printing-die. No. 1,135,053; Apr. 13; Gaz. vol. 213; p. 392.

Sampson, Edward J., Somerville, Mass. Furnace. No. 1,135,723; Apr. 13; Gaz. vol. 213; p. 625.

Sampson, Robert W., Westmount, Quebec, Canada. Tire-tool. No. 1,136,977; Apr. 27; Gaz. vol. 213; p. 1144.

Samson Cordage Works. (See Tolman, James P., assignor.)

Sandbo, Anton I., assignor to The Sandbo Starter Company, Rock Island, Ill. Engine-starter. No. 1,136,722; Apr. 20; Gaz. vol. 213; p. 1018.

Sandbo Starter Company, The. (See Sandbo, Anton I., assignor.)

Sands, John J., Stanley, New Brunswick, Canada. Wrench. No. 1,135,029; Apr. 13; Gaz. vol. 213; p. 694.

Sandum, K. O., *et al.* (See Engle, William G., assignor.)

Sapal Societe Anonyme des Plieuses Automatiques. (See Blonay, Jean de, assignor.)

Saranac Machine Co. (See Craig, Edward, assignor.)

Sargeant, Walter C., *et al.* (See Miller, John, Sr., assignor.)

Sargent, Charles E., Chicago, Ill. Gas-driven air-compressor. No. 1,136,488; Apr. 20; Gaz. vol. 213; p. 936.

Sargent, Henry D., Worcester, Mass., assignor, by mesne assignments, to C. S. Comstock, New York, N. Y. Loop. No. 1,135,724; Apr. 13; Gaz. vol. 213; p. 625.

Sassaman, Benjamin F., West Chester, Pa. Measuring instrument. No. 1,135,208; Apr. 13; Gaz. vol. 213; p. 444.

Sauerman, Henry B., Chicago, Ill. Scraper apparatus. No. 1,134,558; Apr. 6; Gaz. vol. 213; p. 173.

Saunders, Daniel G., Jr., Kansas City, Mo. Envelop-feeding machine. No. 1,136,171; Apr. 20; Gaz. vol. 213; p. 821.

Saunders, Emily M. (See Saunders, William A., assignor.)

Saunders, Whitney W., Red Deer, Alberta, Canada. Self-extinguishing lamp-burner. No. 1,135,850; Apr. 13; Gaz. vol. 213; p. 669.

Saunders, William A., Boston, assignor, by mesne assignments, to E. M. Saunders, Jamaica Plain, Boston, Mass. Mangle. No. 1,135,725; Apr. 13; Gaz. vol. 213; p. 625.

Sauvage, William H., New York, N. Y., assignor, by meane assignments, of one-half to Standard Coupler Company. Slack-adjuster for railway-brakes. No. 1,136,620; Apr. 20; Gaz. vol. 213; p. 982.

Savage, John Y., Scotland Neck, N. C. Step-ladder. No. 1,134,491; Apr. 6; Gaz. vol. 213; p. 149.

Savage, Marion A., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,135,327; Apr. 13; Gaz. vol. 213; p. 484.

Savin, Ralph B., Philadelphia, Pa., assignor to The S. S. White Dental Manufacturing Company. Bur-stand. No. 1,135,625; Apr. 13; Gaz. vol. 213; p. 590.

Scaife, Arthur J., assignor to The White Company, Cleveland, Ohio. Carbureter. No. 1,136,276; Apr. 20; Gaz. vol. 213; p. 858.

Scanlon, Thomas M. (See Brierly and Scanlon.)

Schacht, Gustave A., Cincinnati, Ohio. Centrifugal governor. No. 1,135,054; Apr. 13; Gaz. vol. 213; p. 392.

Schad, Adolf, and E. Seidel, Brooklyn, N. Y. Airship. No. 1,135,209; Apr. 13; Gaz. vol. 213; p. 444.

Schade, John, Jr., Brooklyn, N. Y., assignor to National Blank Book Company, a Voluntary Trust Association of Copartnership, having as trustees J. W. Towne, F. B. Towne, E. S. Towne, and E. W. Wilson, Holyoke, Mass. Die for making hinge-leaves for loose-leaf binders. No. 1,137,291; Apr. 27; Gaz. vol. 213; p. 1260.

Schaetzel, George H., St. Louis, Mo. Lighting device for gas-burners. No. 1,134,350; Apr. 6; Gaz. vol. 213; p. 98.

Schafer, Cecil K. (See Von Dorn, Calvin W., assignor.)

Schaff, Schuyler R., Louisville, Ky. Appointment-announcer. No. 1,137,427; Apr. 27; Gaz. vol. 213; p. 1310.

Schaffer, John C., Toledo, Ohio. Sand-drier. No. 1,134,762; Apr. 6; Gaz. vol. 213; p. 248.

Schaffer, Martin R., assignor of one-fourth to W. S. Yocom and one-fourth to F. Colletti, Reading, Pa. Umbrella. No. 1,135,055; Apr. 13; Gaz. vol. 213; p. 392.

Schaffer, Nettie C., Milwaukee, Wis. Automobile-fender. No. 1,137,170; Apr. 27; Gaz. vol. 213; p. 1215.

Schainost, Joseph F., Bloomfield, Nebr. Adjustable colter for plows. No. 1,135,403; Apr. 13; Gaz. vol. 213; p. 510.

Scharwath, John A., Brooklyn, N. Y. Fire and water proof composition and preparing the same. No. 1,136,370; Apr. 20; Gaz. vol. 213; p. 893.

Schaub, Charles M., assignor to Central Glass Works, Wheeling, W. Va. Glass-shearing apparatus. No. 1,134,763; Apr. 6; Gaz. vol. 213; p. 249.

Scheeffer, Gustave A., Indianapolis, Ind., assignor, by mesne assignments, to Roller Smith Co., New York, N. Y. Electricity-meter. No. 1,137,027; Apr. 27; Gaz. vol. 213; p. 1163.

Scheer, John C. C., Beaver Falls, Pa. Shoe-polishing machine. No. 1,137,292; Apr. 27; Gaz. vol. 213; p. 1261.

Schell, Charles F., Buffalo, assignor to J. T. Badgley, Dunkirk, N. Y. Stand for garbage and other receptacles. No. 1,137,355; Apr. 27; Gaz. vol. 213; p. 1284.

Schendler, Paul H., assignor to Lovell Manufacturing Company, Erie, Pa. Compressing-rolls and mountings therefor. No. 1,137,028; Apr. 27; Gaz. vol. 213; p. 1164.

Scheppmann, Samuel B., St. Paul, Minn. Watering-tank and heater. No. 1,135,851; Apr. 13; Gaz. vol. 213; p. 670.

Scherzinger, Frank F., Chicago, Ill. Rail-cloth protector for billiard-tables. No. 1,137,668; Apr. 27; Gaz. vol. 213; p. 1389.

Scheu, William C., Grand Junction, Colo. Orchard heater. No. 1,136,902; Apr. 20; Gaz. vol. 213; p. 1081.

Scheu, William C., Grand Junction, Colo., assignor to Hamilton Orchard Heater Company, Wheeling, W. Va. Draft-regulator for orchard-heaters. No. 1,134,764; Apr. 6; Gaz. vol. 213; p. 249.

Schies, John, Anderson, Ind. Bottle or jar closure. No. 1,135,328; Apr. 13; Gaz. vol. 213; p. 485.

Schiller, Edwin G., Kokomo, Ind. Trap-nest. No. 1,134,912; Apr. 6; Gaz. vol. 213; p. 295.

Schiller, Maximilian, assignor to E. Oppenheimer, Sr., Philadelphia, Pa. Means for holding symbols in frames. No. 1,135,726; Apr. 13; Gaz. vol. 213; p. 626.

Schilowsky, Peter, Simbirsk, Russia. Gyroscope. No. 1,137,234; Apr. 27; Gaz. vol. 213; p. 1239.

Schinscholl, Erich, Ashland, N. H., assignor to H. Elsas, trustee, New York, N. Y. Pulp-bottle machine. No. 1,137,669; Apr. 27; Gaz. vol. 213; p. 1389.

Schlacks, Henry J., Chicago, Ill. Operating-room for hospitals. No. 1,134,161; Apr. 6; Gaz. vol. 213; p. 28.

Schleicher, John C., Mount Vernon, N. Y. Combined cushion-spring and shock-absorber. No. 1,136,489; Apr. 20; Gaz. vol. 213; p. 936.

Schlensker, Laura L., Evansville, Ind. Gong-piano. No. 1,134,351; Apr. 6; Gaz. vol. 213; p. 98.

Schlotterbeck, Julius O., Rochester, N. Y., assignor to J. Hungerford Smith Grape Juice Company, Lawton, Mich. Grape-pomace heater. No. 1,134,913; Apr. 6; Gaz. vol. 213; p. 296.

Schlueter, Peter H., Chicago, Ill. Cooking vessel. No. 1,135,210; Apr. 13; Gaz. vol. 213; p. 444.

Schlueter, Peter H., Chicago, Ill. Cooking vessel. No. 1,136,277; Apr. 20; Gaz. vol. 213; p. 859.

Schmid, Jacob, Detroit, Mich. Level. No. 1,134,162; Apr. 6; Gaz. vol. 213; p. 28.

Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,135,727; Apr. 13; Gaz. vol. 213; p. 626.

Schmidt, Albrecht, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Unexplosive preparation. No. 1,136,723; Apr. 20; Gaz vol. 213; p. 1019.

Schmidt, Albrecht, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Non-explosive preparation and making same. No. 1,136,724; Apr. 20; Gaz. vol. 213; p. 1019.

Schmidt, Alfred G., Baltimore, Md. Waste-pipe plug. No. 1,136,441; Apr. 20; Gaz. vol. 213; p. 918.

Schmidt, Godfrey P., New York, N. Y. Roller-skate. No. 1,134,962; Apr. 6; Gaz. vol. 213; p. 313.

Schmidt, Gustave F., Richmond, Va. Carbureting apparatus. No. 1,137,535; Apr. 27; Gaz. vol. 213; p. 1346.

Schmidt, Henry W., Edgewater, N. J. Aeronautical apparatus. No. 1,135,056; Apr. 13; Gaz. vol. 213; p. 393.

Schmidt, Louis A., assignor to R. Hoe and Co., New York, N. Y. Printing-machine. No. 1,136,371; Apr. 20; Gaz. vol. 213; p. 893.

Schmiedeknecht, Victor E., Chicago, Ill. Carbureter. No. 1,135,211; Apr. 13; Gaz. vol. 213; p. 445.

Schmitt, Ella D., Upper Montclair, N. J. Pan and plate lifter. No. 1,137,536; Apr. 27; Gaz. vol. 213; p. 1346.

Schneider, Eugène, Le Creuzot, France. Submarine mine. No. 1,136,052; Apr. 20; Gaz. vol. 213; p. 779.

Schneider, Hugo H., Seattle, Wash. Telephone-receiver. No. 1,137,235; Apr. 27; Gaz. vol. 213; p. 1239.

Schneider, Ralph F., New York, assignor to C. J. Tagliabue, Brooklyn, N. Y. Manometer. No. 1,134,352; Apr. 6; Gaz. vol. 213; p. 98.

Schnoor, Peter J. A. (See Adams, Charles, assignor.)

Schnoor, Peter J. A., Holstein, Iowa. Non-refillable bottle. No. 1,137,537; Apr. 27; Gaz. vol. 213; p. 1346.

Schnoor, Peter J. A., assignor of one-half to C. Adams, Holstein, Iowa. Vehicle-jack. No. 1,134,233; Apr. 6; Gaz. vol. 213; p. 55.

Schoen, August C., Philadelphia, Pa. Box-lid. No. 1,135,728; Apr. 13; Gaz. vol. 213; p. 627.

Schoening, John, Kenosha, Wis. Protector. No. 1,137,428; Apr. 27; Gaz. vol. 213; p. 1310.

Schoenky, August R., Somerville, assignor to The Reece Shoe Machinery Company, Boston, Mass. Sewing-machine. No. 1,137,356; Apr. 27; Gaz. vol. 213; p. 1284.

Scholl, William M., Chicago, Ill. Instep-arch support. No. 1,136,442; Apr. 20; Gaz. vol. 213; p. 919.

Scholl, William M., Chicago, Ill. Instep-arch support. No. 1,136,443; Apr. 20; Gaz. vol. 213; p. 919.

Scholoske, William G., Baltimore, Md. Automatic train-stop. No. 1,135,407; Apr. 13; Gaz. vol. 213; p. 533.

Scholz, Walter T. (See Shumway and Scholz.)

Schönemann, Friedrich, Friedrich-Wilhelmshütte-on-the Sieg, Germany. Hardening apparatus. No. 1,137,293; Apr. 27; Gaz. vol. 213; p. 1261.

Schonmeyer, George, Cleveland, Ohio. Flushing-tank. No. 1,134,234; Apr. 6; Gaz. vol. 213; p. 55.

Schoof, William, Jr., Milwaukee, Wis. Carbureter. No. 1,135,729; Apr. 13; Gaz. vol. 213; p. 627.

Schowalter, Edward J. (See Flegel, Harrison D., assignor.)

Schrage, Herman F., Palatine, Ill. Folding car-step. No. 1,135,141; Apr. 13; Gaz. vol. 213; p. 422.

Schramm, Henry C., Baltimore, Md. Stair-carpet fastener. No. 1,137,670; Apr. 27; Gaz. vol. 213; p. 1390.

Schreck, Adolph, Phoenix, Ariz. Gopher-trap. No. 1,135,626; Apr. 13; Gaz. vol. 213; p. 590.

Schreck, Elmer L. (See Sherman, Henry W., assignor.)

Schreiber, Howard F., Northampton, Pa. Hoof-steadying device. No. 1,137,090; Apr. 27; Gaz. vol. 213; p. 1186.

Schröder, Aage, Charlottenlund, Denmark, assignor to F. L. Smith & Co., New York, N. Y. Apparatus for mixing slurry. No. 1,137,294; Apr. 27; Gaz. vol. 213; p 1261.

Schubert, Julius J., St. Paul, Minn. Storm-sash fastener. No. 1,136,444; Apr. 20; Gaz. vol. 213; p. 919.

Schuessler, Carl F., Montague, Mich. Power attachment for knitting-machines. No. 1,135,212; Apr. 13; Gaz. vol. 213; p. 445.

Schuh, Frank, Albany, N. Y. Water-closet. No. 1,134,914; Apr. 6; Gaz. vol. 213; p. 296.

Schüller, Georg M., Kunnersdorf-upon-the-Elgen, Germany. Mixing loose fibrous material. No. 1,134,163; Apr. 6; Gaz. vol. 213; p. 29.

Schultis, Charles F., assignor to C. Girl, Cleveland, Ohio. Threading device. No. 1,135,057; Apr. 13; Gaz. vol. 213; p. 393.

Schultz, Ernest P., Hamilton, Ontario, Canada. Lamp-glass extension. No. 1,136,278; Apr. 20; Gaz. vol. 213; p. 859.

Schultze, Gustav F. W., Oakland, Cal. Coin-controlled weighing-scale. No. 1,134,559; Apr. 6; Gaz. vol. 213; p. 174.

Schulz, Heinrich, Worms, Germany. Drying of patent-leather. No. 1,137,671; Apr. 27; Gaz. vol. 213; p. 1390.

Schulz, Otto C., assignor to Bauer & Black, Chicago, Ill. Container for adhesive-bandage rolls. No. 1,134,560; Apr. 6; Gaz. vol. 213; p. 174.

Schulze, Charles, *et al.* (See Johnson, Lewis, assignor.)

Schumacher, Arthur A., Norwood, Ohio. Device for cleaning pipes of corrosive sediments and the like. No. 1,135,058; Apr. 13; Gaz. vol. 213; p. 393.

Schumann, Frank. (See Schumann, George, Sr., assignor.)

Schumann, George, Sr., assignor to himself and F. Schumann, Union Hill, N. J. Pneumatic action for player-pianos. No. 1,136,372; Apr. 20; Gaz. vol. 213; p. 893.

Schuster, Karl R., New York, N. Y. Concrete building construction. No. 1,134,164; Apr. 6; Gaz. vol. 213; p. 29.

Schutz, Walter S., trustee. (See Ballou, Holden P., assignor.)

Schuyler, Harry J., Louisville, Ky. Stove. No. 1,137,538; Apr. 27; Gaz. vol. 213; p. 1346.

Schwartz, Chester R., *et al.* (See Degenhardt, John J., assignor.)

Schwartzenberg, Harry F., assignor to W. H. Miner, Chicago, Ill. Draft-yoke for railway-cars. No. 1,136,053; Apr. 20; Gaz. vol. 213; p. 779.

Schwarzhaupt, Albrecht, Paris, France. Powder-puff. No. 1,135,852; Apr. 13; Gaz. vol. 213; p. 670.

Schweinburg, Emil, New York, N. Y. Corset. No. 1,137,539; Apr. 27; Gaz. vol. 213; p. 1347.

Schweinburg, Emil, New York, N. Y. Corset. No. 1,137,540; Apr. 27; Gaz. vol. 213; p. 1347.

Schweinburg, Emil, New York, N. Y. Combined shoulder-brace and compressor. No. 1,137,541; Apr. 27; Gaz. vol. 213; p. 1347.

Schweinburg, Emil, New York, N. Y. Corset-busk and fastening means therefor. No. 1,137,542; Apr. 27; Gaz. vol. 213; p. 1347.

Schweitzer & Conrad. (See Schweitzer and Conrad, assignors.)

Schweitzer, Edmund O., and N. J. Conrad, Chicago, Ill., assignors to Schweitzer & Conrad. Fuse device. No. 1,135,548; Apr. 13; Gaz. vol. 213; p. 561.

Sciafani, Antonio, New York, N. Y. Lamp for barbers' chairs. No. 1,137,091; Apr. 27; Gaz. vol. 213; p. 1186.

Scofield, Gilbert J., assignor to The Hilliard Clutch & Machinery Co., Elmira, N. Y. Clutch. No. 1,134,699; Apr. 6; Gaz. vol. 213; p. 225.

Scott, Campbell, and A. Sundh, Yonkers, N. Y., assignors to Otis Elevator Company, Jersey City, N. J. Elevator safety or emergency appliance. No. 1,134,765; Apr. 6; Gaz. vol. 213; p. 250.

Scott, Elisha H., assignor to Swayne, Robinson and Co., Richmond, Ind. Feeding device for ensilage-cutting machines. No. 1,136,978; Apr. 27; Gaz. vol. 213; p. 1144.

Scott, Frederick C., Detroit, Mich. Hose-clamp. No. 1,135,059; Apr. 13; Gaz. vol. 213; p. 393.

Scott, George E., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Car-truck. No. 1,135,627; Apr. 13; Gaz. vol. 213; p. 590.

Scott, John M., Racine, Wis., assignor to O. R. Barnett, Chicago, Ill. Rail-anchor. No. 1,135,549; Apr. 13; Gaz. vol. 213; p. 562.

Scott, Matthew T., Blue Springs, Mo. Subsoil-plow. No. 1,136,172; Apr. 20; Gaz. vol. 213; p. 821.

Scott, Walter E., assignor to Hale and Kilburn Company, Philadelphia, Pa. Car construction. No. 1,137,429; Apr. 27; Gaz. vol. 213; p. 1311.

Scott & Williams. (See Williams, Louis N. D., assignor.)

Scovill Manufacturing Company. (See Stanley, Frederick E., assignor.)

Scowcroft, Walter. (See Gunn, Bark, and Scowcroft.)

Seabrook, William H., Jr., Savannah, Ga. Detaching apparatus for use on hydroaeroplanes to promote safety in air navigation. No. 1,134,492; Apr. 6; Gaz. vol. 213; p. 149.

Seach, George, Dubois, Pa. Bundle-tier. No. 1,135,853; Apr. 13; Gaz. vol. 213; p. 670.

Seach, George, Dubois, Pa. Antiskid device. No. 1,135,854; Apr. 13; Gaz. vol. 213; p. 670.

Seale, Walter C. (See Tramell, Charles S., assignor.)

Seals, Rufus K. (See Ward and Seals.)

Seaman, Barney, New York, N. Y. Twine-cutter. No. 1,134,700; Apr. 6; Gaz. vol. 213; p. 225.

Sears, George F., J. H. Prose, and R. T. Anderson, Huntington, W. Va. Automobile-curtain and mounting. No. 1,134,641; Apr. 6; Gaz. vol. 213; p. 204.

Sears, Roebuck & Co. (See Allals, John R., assignor.)

Sears, Roebuck and Co. (See Palmer, Clinton D., assignor.)

Seaver, C. Le Roy, Jr. (See Harris, Samuel J., assignor.)

Seeber, Frederick. (See Nugent, James M., assignor.)

Seeberger, Charles D., New York, N. Y. Pneumatic tire. No. 1,134,701; Apr. 6; Gaz. vol. 213; p. 226.

Segschneider, Gustav, Yonkers, N. Y. Hat-brim-curling machine. No. 1,134,353; Apr. 6; Gaz. vol. 213; p. 99.

Seidel, Emil. (See Schad and Seidel.)

Seidel, Paul, Los Angeles Cal. Car-wheel. No. 1,136,839; Apr. 20; Gaz. vol. 213; p. 1059.

Seifke, Herman A., San Francisco, Cal. Mixing-tumbler. No. 1,134,354; Apr. 6; Gaz. vol. 213; p. 99.

Selleck, William A. (See McLain, Finis H., assignor.)

Sells, Edna L., Chicago, Ill. Ironing-board. No. 1,136,445; Apr. 20; Gaz. vol. 213; p. 920.

Seltenreich, John J., Chicago, Ill., assignor to National Chemical Company, Syracuse, N. Y. Clothes-dampening machine. No. 1,134,702; Apr. 6; Gaz. vol. 213; p. 226.

Seltzer, John E., Flint, Mich. Hot-air heating system. No. 1,134,703; Apr. 6; Gaz. vol. 213; p. 227.

Seng Company, The. (see Dyke, Darrell F., assignor.)

Seng, Wendelin P., Chicago, Ill. Circuit-controlling device. No. 1,134,355; Apr. 6; Gaz. vol. 213; p. 99.

Seng, Wendelin P., Chicago, Ill. Circuit-closer for motor-vehicle electric horns. No. 1,134,356; Apr. 6; Gaz. vol. 213; p. 100.

Seng, Wendelin P., and J. Kaltcok, assignors to J. Kramer, Chicago, Ill. Revolving-seat davenport. No. 1,135,930; Apr. 13; Gaz. vol. 213; p. 695.

Seng, Wendelin P., and D. F. Dyke, assignors to Davoplane Bed Company, Chicago, Ill. Sofa-bed. No. 1,136,173; Apr. 20; Gaz. vol. 213; p. 822.

Senlik, John, Coyne, Pa. Foldable stretcher. No. 1,136,174; Apr. 20; Gaz. vol. 213; p. 822.

Sergeeff, George, Philadelphia, Pa. Cartridge-holder. No. 1,137,543; Apr. 27; Gaz. vol. 213; p. 1348.

Sessions Clock Company, The. (See Stephenson, Thomas B., assignor.)

Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Cable-reeling mechanism. No. 1,135,468; Apr. 13; Gaz. vol. 213; p. 533.

Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Locomotive with cable-reeling mechanism. No. 1,137,236; Apr. 27; Gaz. vol. 213; p. 1240.

Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Winding mechanism. No. 1,137,237; Apr. 27; Gaz. vol. 213; p. 1240.

Severns, William, Chicago, Ill. Handle-attaching means for mops. No. 1,134,915; Apr. 6; Gaz. vol. 213; p. 296.

Severy Manufacturing Company. (See Severy, Melvin L., assignor.)

Severy, Melvin L., Arlington Heights, assignor to Severy Manufacturing Company, Boston, Mass. Friction driving mechanism. No. 1,135,628; Apr. 13; Gaz. vol. 213; p. 591.

Severy, Melvin L., Arlington Heights, assignor to Severy Manufacturing Company, Boston, Mass. Power-transmitting device. No. 1,136,279; Apr. 20; Gaz. vol. 213; p. 859.

Severy Melvin L., Arlington Heights, assignor to Severy Manufacturing Company, Boston, Mass. Power-transmission mechanism. No. 1,136,280; Apr. 20; Gaz. vol. 213; p. 860.

Severy, Melvin L., Arlington Heights, and G. B. Sinclair, Medford, Mass. Tone-producing means. No. 1,137,544; Apr. 27; Gaz. vol. 213; p. 1348.

Sewall, Minott W., New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Boiler-furnace. No. 1,136,175; Apr. 20; Gaz. vol. 213; p. 823.

Seward, Harvey, assignor to Seward Trunk and Bag Company, Petersburg, Va. Wardrobe-trunk. No. 1,135,404; Apr. 13; Gaz. vol. 213; p. 510.

Seward Trunk and Bag Company. (See Seward, Harvey, assignor.)

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Looper-rocker for sewing-machines. No. 1,135,405; Apr. 13; Gaz. vol. 213; p. 511.

Seymour, Dudley S., Oak Park, assignor to Union Special Machine Company, Chicago, Ill. Thread-controlling mechanism for sewing-machines. No. 1,135,406; Apr. 13; Gaz. vol. 213; p. 511.

Shadbolt, William O., New York, N. Y. Fifth-wheel for vehicles. No. 1,136,176; Apr. 20; Gaz. vol. 213; p. 823.

Shafer, Jesse O., assignor to The Geo. W. Grimes Company, Bluffton, Ind. Pump transmission mechanism. No. 1,135,060; Apr. 13; Gaz. vol. 213; p. 394.

Shaffer, William J., Chattanooga, Okla. Cotton-harvester. No. 1,137,545; Apr. 27; Gaz. vol. 213; p. 1349.

Shallor, Frank E. (See Kuhn and Shallor.)

Shallcross, Wilmer M., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Motor-controller. No. 1,136,621; Apr. 20; Gaz. vol. 213; p. 982.

Shank, John A. (See Stern, Walter F., assignor.)

Sharon, James G., Quincy, Fla. Drinking-cup. No. 1,134,896; Apr. 6; Gaz. vol. 213; p. 297.

Sharp, Columbus A., Chicago, Ill. Insole. No. 1,137,092; Apr. 27; Gaz. vol. 213; p. 1187.

Sharp-Hughes Tool Company. (See Hughes, Howard R., assignor.)

Shaver, William T., Des Moines, Iowa. Bolster-spring for vehicles. No. 1,135,213; Apr. 13; Gaz. vol. 213; p. 445.

Shaw, Edward W., Brown Hill Mine, Kalgoorlie, Western Australia, Australia. Automatic check-valve. No. 1,136,840; Apr. 20; Gaz. vol. 213; p. 1060.

Shaw, Edward W., Brown Hill Mine, Kalgoorlie, Western Australia, Australia. Full-way valve. No. 1,136,841; Apr. 20; Gaz. vol. 213; p. 1060.

Shaw, Elver H., Sedalia, Mo. Door-check. No. 1,135,061; Apr. 13; Gaz. vol. 213; p. 394.

Shearer, George T., assignor of one-half to J. S. Reynolds, Augusta, Ga. Turret attachment for lathes. No. 1,135,329; Apr. 13; Gaz. vol. 213; p. 485.

Sheckler, John, Washington, Kans. Hand-cultivator. No. 1,135,062; Apr. 13; Gaz. vol. 213; p. 394.

Shedaker, Charles A., Philadelphia, Pa. Union suit. No. 1,137,430; Apr. 27; Gaz. vol. 213; p. 1311.

Shedlock, Alfred, Cannon Station, Conn. Wire-making machine. No. 1,136,373; Apr. 20; Gaz. vol. 213; p. 894.

Sheehan, Edwin J., Lynn, Mass. Pipe. No. 1,134,917; Apr. 6; Gaz. vol. 213; p. 297.

Sheehan, Thomas C., Essex Fells, N. J. Display-stand. No. 1,134,704; Apr. 6; Gaz. vol. 213; p. 227.

Sheets, Horace H., Sherman, Cal. Trace-support. No. 1,137,029; Apr. 27; Gaz. vol. 213; p. 1164.

Sheffield Car Company. (See Dashwood, William A., assignor.)

Sheldon, Harry E. (See Snyder, George W., assignor.)

Shelley, Isaac E. and S. A., Crawfordsville, Ind. Mail-bag-handling apparatus. No. 1,136,281; Apr. 20; Gaz. vol. 213; p. 861.

Shelley, Simon A. (See Shelley, Isaac E. and S. A.)

Shephard, Alfred E. (See Forshee, Frank F., assignor.)

Shephard, Charles N., Erie, Pa. Automatic valve device. No. 1,135,063; Apr. 13; Gaz. vol. 213; p. 395.

Sheridan, Clyde B., Everett, Wash. Dirigible automobile-lamp. No. 1,137,672; Apr. 27; Gaz. vol. 213; p. 1390.

Sheridan, John T., Bowling Green, Mo. Safety device for railway turn-tables. No. 1,135,855; Apr. 13; Gaz. vol. 213; p. 670.

Sherland, Mark E. (See Farmer and Sherland.)

Sherman, George E., Chicago, Ill. Portable closet. No. 1,137,431; Apr. 27; Gaz. vol. 213; p. 1311.

Sherman, Henry W., assignor of one-half to E. L. Schreck, Reading, Pa. Differential mechanism for vehicles. No. 1,134,235; Apr. 6; Gaz. vol. 213; p. 56.

Sherman, Howard B., Battle Creek, Mich. Machine for drawing and stamping metal. No. 1,136,558; Apr. 20; Gaz. vol. 213; p. 959.

Sherman, Ronald M. (See Edmondson, Arthur L., assignor.)

Sherman, Willis S., Milwaukee, Wis. Carbureter. No. 1,137,238; Apr. 27; Gaz. vol. 213; p. 1240.

Shiek, Daniel W., Indianapolis, Ind., assignor to W. L. Milliken, Barnstable, Mass. Computing-machine or the like. No. 1,136,725; Apr. 20; Gaz. vol. 213; p. 1019.

Shierk, Dearell D., assignor of one-third to W. J. Steward, Rockford, Ill. Boiler construction. No. 1,136,374; Apr. 20; Gaz. vol. 213; p. 894.

Shipley, George W., Albemarle, N. C. Envelop. No. 1,135,064; Apr. 13; Gaz. vol. 213; p. 395.

Shipley, Herman W., Center Junction, Iowa. Rail tie and fastener. No. 1,135,065; Apr. 13; Gaz. vol. 213; p. 395.

Shipley, Lewis C., Detroit, Mich. Vehicle-top. No. 1,136,054; Apr. 20; Gaz. vol. 213; p. 779.

Shipman, Ralph, Sunbury, Pa. Carbureter for explosive-engines. (Reissue.) No. 13,903; Apr. 20; Gaz. vol. 213; p. 1087.

Shippey, Albert R., Los Angeles, Cal. Double-acting force-pump. No. 1,134,918; Apr. 6; Gaz. vol. 213; p. 297.

Shirley, Cephas I., Glen Ridge, and F. W. Mueller, Newark, N. J., assignors to Tabor Sash Fixture Co. Sash-hinge fixture. No. 1,135,407; Apr. 13; Gaz. vol. 213; p. 511.

Shone, Isaac, Westminster, London, England. Sewerage system. No. 1,137,673; Apr. 27; Gaz. vol. 213; p. 1390.

Shrauger, Darius E., Atlantic, Iowa. Metallic window-frame. No. 1,134,642; Apr. 6; Gaz. vol. 213; p. 205.

Shreeve, Herbert E., Milburn, N. J., assignor to Western Electric Company, New York, N. Y. Microphone. No. 1,134,236; Apr. 6; Gaz. vol. 213; p. 56.

Shumaker, Charles S., Jeannette, Pa. Automobile brake-shoe. No. 1,136,446; Apr. 20; Gaz. vol. 213; p. 920.

Shumway, Harvey E., and W. T. Scholz, Frankfort, Kans. Vehicle-elevator. No. 1,136,726; Apr. 20; Gaz. vol. 213; p. 1020.

Sibson, Walter W., assignor to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Process and apparatus for treating fabrics. No. 1,137,719; Apr. 27; Gaz. vol. 213; p. 1415.

Sicklesteel, George D., Roseburg, Oreg. Boat-motor. No. 1,134,919; Apr. 6; Gaz. vol. 213; p. 298.

Sidebotham, Melvin H. (See Labombarde and Sidebotham.)

Siders, John M., Granite, Idaho. Grubber. No. 1,134,920; Apr. 6; Gaz. vol. 213; p. 298.

Sidney Manufacturing Company, The. (See Burket, Wilbert A., assignor.)

Siegel, Myer, assignor of one-half to S. Solomon, New York, N. Y. Cloth-cutting machine. No. 1,136,842; Apr. 20; Gaz. vol. 213; p. 1060.

Siemens & Halske Aktiengesellschaft. (See Missbach, Ernst G., assignor.)

Sihler, William, Decorah, Iowa. Coat. No. 1,136,282; Apr. 20; Gaz. vol. 213; p. 861.

Sills, Berton H., Toronto, Ontario, Canada. Grip-tread for wheel-tires. No. 1,135,856; Apr. 13; Gaz. vol. 213; p. 671.

Silversides, Robert W., Malton, England. Rug and carpet making machine. No. 1,135,408; Apr. 13; Gaz. vol. 213; p. 512.

Silvestri, Giulio, Vienna, Austria-Hungary. Rotary engine. No. 1,134,357; Apr. 6; Gaz. vol. 213; p. 100.

Silvius, Ellis T., Indianapolis, Ind., assignor, by mesne assignments, to The McClaskey Register Company, Alliance, Ohio. Credit-accounting register. No. 1,135,214; Apr. 13; Gaz. vol. 213; p. 446.

Silvius, Ellis T., Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Credit-account register. No. 1,135,215; Apr. 13; Gaz. vol. 213; p. 446.

Silvius, Ellis T., Indianapolis, Ind., assignor, by mesne assignments, to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,136,177; Apr. 20; Gaz. vol. 213; p. 823.

Simmons, Bernard R., Birmingham, England. Watch-wristlet, bracelet, glove and sleeve holder, and the like. No. 1,135,409; Apr. 13; Gaz. vol. 213; p. 513.

Simmons, James L. (See Moore and Simmons.)

Simmons, John P., San Francisco, Cal. Internal-combustion engine. No. 1,135,330; Apr. 13; Gaz. vol. 213; p. 485.

Simmons, Norton A. (See Burnham, Louis T., assignor.)

Simon, Morecz, East Chicago, Ind. Vehicle-tire. No. 1,137,357; Apr. 27; Gaz. vol. 213; p. 1284.

Simons, Henry C., Odebolt, Iowa. Lathe. No. 1,136,178; Apr. 20; Gaz. vol. 213; p. 824.

Simonsen, Niels C., Sioux Rapids, Iowa. Rod-cutter. No. 1,137,093; Apr. 27; Gaz. vol. 213; p. 1187.

Simonsson, Wilhelm, New York, N. Y. Indicating and registering mechanism. No. 1,137,094; Apr. 27; Gaz. vol. 213; p. 1188.

Simpson, Clarence D., *et al.* (See Watres, Lewis S., assignor.)

Simpson, Lowe E., *et al.* (See Logan, Sylvester, assignor.)

Simpson, Orville, *et al.* (See Logan, Sylvester, assignor.)

Sinclair, Alexander M., assignor to H. V. V. Sinclair, New York, N. Y. Blank-form book. No. 1,134,766; Apr. 6; Gaz. vol. 213; p. 250.

Sinclair, Bert L., assignor of one-half to J. W. Jones, Kansas City, Kans. Jacket and apron. No. 1,134,643; Apr. 6; Gaz. vol. 213; p. 205.

Sinclair, George B. (See Severy and Sinclair.)

Sinclair, George B., Georgetown, Me. Starter for engines. No. 1,137,358; Apr. 27; Gaz. vol. 213; p. 1285.

Sinclair, Hooper V. V. (See Sinclair, Alexander M., assignor.)

Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)

Singer Manufacturing Company, The. (See Brown, Otis E., assignor.)

Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)

Singer Manufacturing Company, The. (See McCarte, Alexander, assignor.)
Singer Manufacturing Company, The. (See Myers, Walter, assignor.)
Singer Manufacturing Company, The. (See Rontke, Albert, assignor.)
Single Service Package Corporation of America. (See Beadle, George W., assignor.)
Sinsheimer, Sidney W., Swink, Colo. Concentrated product of nitrogen and potash and recovering and solidifying same. No. 1,134,921; Apr. 6; Gaz. vol. 213; p. 298.
Sisson, Hugh A., Red Bluff, Cal. Pivot-light for automobiles. No. 1,134,644; Apr. 6; Gaz. vol. 213; p. 205.
Sisson, William D., Linnton, Oreg. Diving-bell. No. 1,134,963; Apr. 6; Gaz. vol. 213; p. 313.
Skinner, James A., East Orange, and H. D. Thomas, Bloomfield, N. J. Valve mechanism. No. 1,134,493; Apr. 6; Gaz. vol. 213; p. 149.
Slag Steam Generator Company. (See Battu, Leonce L., assignor.)
Slagow, Frank, Bretz, W. Va. Mail-box. No. 1,136,979; Apr. 27; Gaz. vol. 213; p. 1144.
Slavíček, Victor, Vienna, Austria-Hungary. Continuous process for the distillation and rectification of alcoholic liquids. No. 1,136,559; Apr. 20; Gaz. vol. 213; p. 960.
Sleeper, Joseph J., Moores, Pa. Cooker. No. 1,137,359; Apr. 27; Gaz. vol. 213; p. 1285.
Sloan, Harry E. (See Loveland and Sloan.)
Small, Byron C., Thayer, Ill. Corn harvester and husker. No. 1,136,624; Apr. 20; Gaz. vol. 213; p. 983.
Smith, Abram E., Brooklyn, N. Y. Discharge appliance for railway tank-cars. No. 1,136,375; Apr. 20; Gaz. vol. 213; p. 894.
Smith, Annesley D., Mount Vernon, N. Y. Chart for garment-patterns. No. 1,136,055; Apr. 20; Gaz. vol. 213; p. 780.
Smith, Arthur F., Zebra, Mo. Rail-joint. No. 1,134,237; Apr. 6; Gaz. vol. 213; p. 57.
Smith, Benjamin S., Sydney, New South Wales, Australia. Apparatus for the wet dressing of sulfid ores. No. 1,136,622; Apr. 20; Gaz. vol. 213; p. 983.
Smith, Charles S., deceased; W. H. Thornley, Providence, R. I., administrator. Belt. No. 1,134,238; Apr. 6; Gaz. vol. 213; p. 57.
Smith, Charles T., Newark, N. J. Mouthpiece-protector for telephone-transmitters. No. 1,136,283; Apr. 20; Gaz. vol. 213; p. 861.
Smith, Charles T., Newark, N. J. Mouthpiece-protector for telephone-transmitters. No. 1,136,284; Apr. 20; Gaz. vol. 213; p. 862.
Smith, Chetwood, Worcester, Mass. Alarm control for sprinkler systems. No. 1,134,645; Apr. 6; Gaz. vol. 213; p. 205.
Smith, Clarence E. (See Barcus and Smith.)
Smith, Clarence E., Brownsburg, Ind. Rain-indicator. No. 1,137,674; Apr. 27; Gaz. vol. 213; p. 1390.
Smith, Clyde, Cleveland, Ohio, assignor, by mesne assignments, to F. C. Stevens, Attica, N. Y. Telephone system. No. 1,137,360; Apr. 27; Gaz. vol. 213; p. 1285.
Smith, Cyrus H., Tonica, Ill. Gasolene-motor respirator No. 1,135,142; Apr. 13; Gaz. vol. 213; p. 422.
Smith, Dennis W. (See Colborne and Smith.)
Smith, Dyer. (See Aylsworth and Smith.)
Smith, Edward C., Toronto, Ontario, Canada, assignor to National Carbon Company, Cleveland, Ohio. Dry cell. No. 1,137,030; Apr. 27; Gaz. vol. 213; p. 1164.
Smith, Elias A. C., New York, N. Y. Metallurgy of copper. No. 1,134,767; Apr. 6; Gaz. vol. 213; p. 250.
Smith, Elmer H. (See Smith, John W. and E. H.)
Smith, Elmer H., Minneapolis, Minn. Cutting-torch. No. 1,136,490; Apr. 20; Gaz. vol. 213; p. 937.
Smith, Elmer H., Minneapolis, Minn. Acetylene-blowpipe. No. 1,136,491; Apr. 20; Gaz. vol. 213; p. 937.
Smith, Elsworth J., Hastings, Iowa. Automatic stock-feeder. No. 1,136,843; Apr. 20; Gaz. vol. 213; p. 1060.
Smith, Ernest W. (See Merritt and Smith.)
Smith, Fred W., Raymore, Mo. Silo. No. 1,135,143; Apr. 13; Gaz. vol. 213; p. 423.
Smith, George B., Waldwick, N. J. Game. No. 1,134,922; Apr. 6; Gaz. vol. 213; p. 299.
Smith, George H., Webster, W. Va. Photograph-holder. No. 1,136,056; Apr. 20; Gaz. vol. 213; p. 781.
Smith, Goodwin B., Philadelphia, Pa. Nursing-vest. No. 1,136,727; Apr. 20; Gaz. vol. 213; p. 1020.
Smith, Harry, near Sulphur Grove, Ohio. Hay-loading device. No. 1,134,290; Apr. 6; Gaz. vol. 213; p. 76.
Smith, Harry F., Lexington, Ohio. Calorimetry of gaseous fuels. No. 1,134,768; Apr. 6; Gaz. vol. 213; p. 251.
Smith & Hemenway Company. (See Smith, Landon P., assignor.)
Smith & Hemenway Company. (See Woodward, Frank R., assignor.)
Smith, Horace F., and H. S. Dano, Los Angeles, Cal. Dental articulator. No. 1,135,629; Apr. 13; Gaz. vol. 213; p. 591.
Smith, Horace H., *et al.* (See Beatty, Wallace A., assignor.)
Smith, Jabez M., Malvern, Ark. Vehicle-tire. No. 1,136,285; Apr. 20; Gaz. vol. 213; p. 862.
Smith, James A., Fate, Tex. Collapsible box. No. 1,136,179; Apr. 20; Gaz. vol. 213; p. 824.
Smith, John, New York, N. Y. Device for replacing and adjusting coils in field-guns. No. 1,136,728; Apr. 20; Gaz. vol. 213; p. 1021.
Smith, John A. (See Laganke and Smith.)
Smith, John W., Chicago, Ill. Aeroplane. No. 1,136,560; Apr. 20; Gaz. vol. 213; p. 960.
Smith, John W. and E. H., Minneapolis, Minn. Acetylene-blowpipe. No. 1,136,492; Apr. 20; Gaz. vol. 213; p. 937.
Smith, Josiah H., assignor to W. H. Tigerman, Philadelphia, Pa. Suspension railway. No. 1,137,361; Apr. 27; Gaz. vol. 213; p. 1286.
Smith, Landon P., assignor to Smith & Hemenway Company, Incorporated, New York, N. Y. Glass-cutter. No. 1,134,292; Apr. 6; Gaz. vol. 213; p. 76.
Smith, Lynn H., Escanaba, Mich. Soap-holder. No. 1,135,857; Apr. 13; Gaz. vol. 213; p. 671.
Smith, Mark, Reddish, near Stockport, England. Bronzing and like machine. No. 1,136,623; Apr. 20; Gaz. vol. 213; p. 983.
Smith, Marvin A., *et al.* (See Marker, Henry H., assignor.)
Smith, Oscar W., assignor to The National Oil-Gas Burner Company, Denver, Colo. Hydrocarbon-burner. No. 1,134,239; Apr. 6; Gaz. vol. 213; p. 57.
Smith, Putnam D., Felton, assignor to F. G. Wilson, Santa Cruz, Cal. Variable-speed gearing. No. 1,134,769; Apr. 6; Gaz. vol. 213; p. 251.
Smith, Smith, Marcus Hook, Pa. Water-heating system for dwellings, hotels, and the like. No. 1,135,410; Apr. 13; Gaz. vol. 213; p. 513.
Smith, Thomas W., Detroit, Mich. Heating system. No. 1,135,730; Apr. 13; Gaz. vol. 213; p. 627.
Smith, Voorhees G., assignor of one-half to L. C. Beatty, Iola, Kans. Car-seal. No. 1,136,447; Apr. 20; Gaz. vol. 213; p. 920.
Smith, Walter Ray, Milwaukee, Wis. Clip-file protector. No. 1,136,729; Apr. 20; Gaz. vol. 213; p. 1021.
Smith, Walter S., Chicago, Ill., and H. W. Welsh, North Milwaukee, Wis., assignors, by mesne assignments, to W. & T. Avery, Ltd., Birmingham, England. Material packing and weighing machine. No. 1,134,705; Apr. 6; Gaz. vol. 213; p. 227.
Smith, William B., Chicago, Ill. Pocketed receptacle. No. 1,134,561; Apr. 6; Gaz. vol. 213; p. 175.
Smith, William H., and G. Kaericher, West Salem, Ill. Water-gate. No. 1,134,923; Apr. 6; Gaz. vol. 213; p. 299.
Smith, William M., Woodward, Okla. Concrete-form. No. 1,135,858; Apr. 13; Gaz. vol. 213; p. 671.
Smith, William O., assignor, by mesne assignments, to The National Oil-Gas Burner Company, Denver, Colo. Hydrocarbon-burner. No. 1,134,240; Apr. 6; Gaz. vol. 213; p. 57.
Smith-Worthington Company, The. (See Rackle, Frederick H., assignor.)
Smyser, Louis B., assignor to The American Hardware Corporation, New Britain, Conn. Shaft-operator. No. 1,135,731; Apr. 13; Gaz. vol. 213; p. 628.
Snider, Jacob L., Harrod, Ohio. Game-board. No. 1,134,646; Apr. 6; Gaz. vol. 213; p. 206.
Snow, Louis M., Provincetown, Mass. Machine for measuring and rolling wall-paper. No. 1,134,924; Apr. 6; Gaz. vol. 213; p. 299.
Snyder, George W., assignor to H. E. Sheldon, Pittsburgh, Pa. Cast-metal railway cross-tie. No. 1,136,180. Apr. 20; Gaz. vol. 213; p. 824.
Snyder, Jacob R., assignor to P. E. Donner, Pittsbrgh, Pa. Triple-valve. No. 1,136,057; Apr. 20; Gaz. vol. 213; p. 781.
Società Anonima Italiana Gio. Ansaldo & Co. (See Vallino, Mario, assignor.)
Societe Anonyme Hongroise de Banque et de Commerce. (See Balassa, Frederick, assignor.)
Société Anonyme des Telegraphes Edouard Belin. (See Masson, Jules, assignor.)
Societe des Etablissements Mallcet & Blin. (See Guillery, René, assignor.)
Société L'Air Liquide (Societe Anonyme pour L'Etude et L'Exploitation des Procedes Georges Claude.) (See Claude, Georges, assignor.)
Société Universelle des Appareils Controleurs. (See Oudeville, François, assignor.)
Söderlund, Carl G. (See Wiking and Söderlund.)
Soderlund, Nils J., Medford, Mass. Ceiling-washing machine. No. 1,134,925; Apr. 6; Gaz. vol. 213; p. 299.
Solari, A. G., *et al.* (See Cowgill, Orph W., assignor.)
Solem, Peter A., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio. Woodworking machinery. No. 1,135,411; Apr. 13; Gaz. vol. 213; p. 514.
Solomon, Jacob, East St. Louis, Ill. Heel-plate. No. 1,134,494; Apr. 6; Gaz. vol. 213; p. 150.
Solomon, Sigmund. (See Siegel, Myer, assignor.)
Somers, William A., New York, N. Y. Safety-razor. No. 1,134,706; Apr. 6; Gaz. vol. 213; p. 228.
Sommer, Adolph. (See Buckley, John, assignor.)
Sonderegger, Leo, assignor of one-half to W. Meyer, New York, N. Y. Window-cleaner. No. 1,137,546; Apr. 27; Gaz. vol. 213; p. 1349.
Sonnichsen, Andreas M., assignor to The Auto Parts Mfg. Co., Milwaukee, Wis. Automobile-buffer. No. 1,135,066; Apr. 13; Gaz. vol. 213; p. 395.
Sonntag, Eugene, New York, N. Y. Window-screen. No. 1,136,730; Apr. 20; Gaz. vol. 213; p. 1021.
Sonsikowski, John K. (See Sonsikowski, Joseph J. and J. K.)
Sonsikowski, Joseph J. and J. K., Chicago, Ill. Game or toy. No. 1,136,625; Apr. 20; Gaz. vol. 213; p. 983.

Sorensen, Lars. (See Husted, Sorensen, and Murphy.)
Souder, Frank P., Bridgeton, N. J. Can-straightening means. No. 1,135,732; Apr. 13; Gaz. vol. 213; p. 628.
South Side Trust Company, Trustee. (See Herr, Henry C., assignor.)
Souza, Manuel J., Selma, Cal. Non-refillable bottle. No. 1,134,647; Apr. 6; Gaz. vol. 213; p. 206.
Soacke, Fred W. (See Brownlee, Spacke, and Lowe.)
Spacke, Fred W., D. T. Brownlee, and W. Spacke, assignors to The F. W. Spacke Machine Company, Indianapolis, Ind. Crank-shaft. No. 1,136,376; Apr. 20; Gaz. vol. 213; p. 895.
Spacke, William. (See Spacke, Brownlee, and Spacke.)
Spalding, Charles R., Safford, Ariz. Automobile-jack. No. 1,137,302; Apr. 27; Gaz. vol. 213; p. 1286.
Spangler, Ira D., Salida, Colo., assignor of one-half to P. H. Spangler, Callender, Iowa. Six-speed combination gear set. No. 1,137,547; Apr. 27; Gaz. vol. 213; p. 1349.
Spangler, Perry H. (See Spangler, Ira D., assignor.)
Spanutius, Frederick W., assignor to Pan Chemical Company, Hastings-upon-Hudson, N. Y. Making a decolorizer. No. 1,135,216; Apr. 13; Gaz. vol. 213; p. 446.
Spare, George E., deceased, New York, N. Y.; R. H. Spare, executor, Reading, Mass. Detachable antislipping tread for horses. No. 1,136,903; Apr. 20; Gaz. vol. 213; p. 1082.
Spare, Robert H., executor. (See Spare, George E.)
Sparks Drilling Jar Company. (See Sparks, William A., assignor.)
Sparks, William, Jackson, Mich. Fan. No. 1,137,240; Apr. 27; Gaz. vol. 213; p. 1241.
Sparks, William, assignor to The Sparks-Withington Company, Jackson, Mich. Combined electric and pneumatic horn. No. 1,137,239; Apr. 27; Gaz. vol. 213; p. 1241.
Sparks, William A., assignor to Sparks Drilling Jar Company, Charleston, W. Va. Making well drill-jars. No. 1,134,926; Apr. 6; Gaz. vol. 213; p. 300.
Sparks-Withington Company, The. (See Sparks, William, assignor.)
Sparta Mfg. Co. (See Bristol and Vorce, assignors.)
Spaulding, Carl E., Lowell, Mass. Tension-pulley-supporting bracket. No. 1,136,626; Apr. 20; Gaz. vol. 213; p. 984.
Spaulding, Huntley N., assignor to J. Spaulding & Sons Co., Rochester, N. H. Insole. No. 1,135,217; Apr. 13; Gaz. vol. 213; p. 446.
Spaulding, Walter J., Santa Barbara, Cal. Gradometer. No. 1,136,731; Apr. 20; Gaz. vol. 213; p. 1022.
Spear, William H., Bismarck, N. D. Whiffletree-hook. No. 1,135,733; Apr. 13; Gaz. vol. 213; p. 628.
Specialty Shoe Machinery & Tool Co. (See Johnson, Lawrence E., assignor.)
Spedding, Ephraim H. (See Littlefield, Charles A., assignor.)
Speer, Robert G., St. Louis, Mo. Heating apparatus. No. 1,137,675; Apr. 27; Gaz. vol. 213; p. 1391.
Spencer, George M., St. Louis, Mo., assignor, by mesne assignments, to National Pneumatic Company. Pneumatic operating mechanism for doors, steps, or the like. No. 1,134,648; Apr. 6; Gaz. vol. 213; p. 206.
Spencer Lens Company. (See Ott, Harvey N., assignor.)
Spencer, William J., New York, N. Y. Tire. No. 1,134,291; Apr. 6; Gaz. vol. 213; p. 76.
Spengler Brothers Company. (See Fetscher, George F., assignor.) (Reissue.)
Sperry, Elmer A., Cleveland, Ohio., assignor, by mesne assignments, to American Electric and Controller Company. System of power transmission. No. 1,136,058; Apr. 20; Gaz. vol. 213; p. 781.
Spirella Company, The. (See Kitchen, John F., assignor.) (Reissue.)
Spiteri, Joseph, Winnipeg, Manitoba, Canada. Dirigible airship. No. 1,134,241; Apr. 6; Gaz. vol. 213; p. 58.
Splitdorf Electrical Company. (See Wilson, James M., assignor.)
Sprague, Frank N., Sedgwick, Colo. Auxiliary spring. No. 1,134,927; Apr. 6; Gaz. vol. 213; p. 300.
Sprengstoff A.-G. Carbonit. (See Hartmann, Carl, assignor.)
Springer, William N., Peoria, Ill., assignor to Avery Company. Excavator-bucket. No. 1,136,844; Apr. 20; Gaz. vol. 213; p. 1061.
Spurr, Foster M., Boston, Mass. Envelop holder and feeder. No. 1,135,067; Apr. 13; Gaz. vol. 213; p. 396.
Spurr, Foster M., Boston, Mass. Delivery mechanism. No. 1,135,068; Apr. 13; Gaz. vol. 213; p. 396.
Spurrier, Thomas H., Washington, D. C. Handle for carrying packages. No. 1,137,548; Apr. 27; Gaz. vol. 213; p. 1350.
Spurway, George A., assignor to Steele and Johnson Manufacturing Company, Waterbury, Conn. Electric-socket cover and shade-holder. No. 1,135,069; Apr. 13; Gaz. vol. 213; p. 397.
Squire, William M., Red Cloud, Nebr. Machine for gathering and bunching hay and grain. No. 1,134,928; Apr. 6; Gaz. vol. 213; p. 301.
St. John, Watson R. (See Hardenbrook, Leon G., assignor.)
St. Louis Coffin Company. (See Benzing, Alfred B., assignor.)
Stacy, Mack. (See Duke, Joseph A., assignor.)
Stafford, Albert B., Troy, N. Y. Collar. No. 1,137,241; Apr. 27; Gaz. vol. 213; p. 1242.
Stafford Auto Lamp & Number Company. (See Stafford, Fredrick S., assignor.)
Stafford, Fredrick S., assignor to Stafford Auto Lamp & Number Company, Chicago, Ill. Plate-retaining device. No. 1,135,144; Apr. 13; Gaz. vol. 213; p. 423.
Stafford, Roland R., Minier, Ill. Harness-hanger. No. 1,136,286; Apr. 20; Gaz. vol. 213; p. 862.
Stahl, Charles H., assignor to The Pfleghar Hardware Specialty Co., New Haven, Conn. Lock. No. 1,137,363; Apr. 27; Gaz. vol. 213; p. 1286.
Stahly, Christian J., Goshen, Ind. Silo. No. 1,137,676; Apr. 27; Gaz. vol. 213; p. 1391.
Stamirowski, Stefan, assignor of one-half to T. J. Fruin, New York, N. Y. Wrapping-paper cutter. No. 1,135,859; Apr. 13; Gaz. vol. 213; p. 672.
Stancliff, Edwin, New York, N. Y. Vehicle-wheel. No. 1,136,377; Apr. 20; Gaz. vol. 213; p. 895.
Standard Car Truck Company. (See Barber, John C., assignor.)
Standard Car Truck Company. (See Barber and Webb, assignors.)
Standard Car Truck Company. (See Webb, Edwin W., assignor.)
Standard Coupler Company. (See Sanvage, William H., assignor.)
Standard Knitting Mills Company. (See Bateson, Charles E. W., assignor.)
Standard Optical Company, The. (See Bader and Howland, assignors.)
Standard Optical Company, The. (See Essick, Walter, assignor.)
Standard Company, The. (See Chase and Graham, assignors.)
Standard Plunger Elevator Company. (See Jansson, Karl E. O., assignor.)
Standard Sanitary Manufacturing Company. (See Jackson, William W., assignor.)
Stanley, Enos, Watertown, S. D. Smoke-consuming furnace. No. 1,136,287; Apr. 20; Gaz. vol. 213; p. 863.
Stanley, Frederick E., assignor to Scovill Manufacturing Company, Waterbury, Conn. Connecting-rod. No. 1,134,978; Apr. 6; Gaz. vol. 213; p. 317.
Stansell, Walker, Memphis, Tenn. Excavator. No. 1,137,171; Apr. 27; Gaz. vol. 213; p. 1215.
Stanton, Hugh C., Dillon, S. C. Plow. No. 1,136,448; Apr. 20; Gaz. vol. 213; p. 921.
Staples, John A., Newburgh, N. Y. Control device for automobiles. No. 1,135,550; Apr. 13; Gaz. vol. 213; p. 562.
Starek, Peter, Chrome, N. J. Combined shade-holder and pole. No. 1,135,331; Apr. 13; Gaz. vol. 213; p. 486.
Stark, William O., Chicago, Ill., assignor to Bullock Tractor Company. Friction driving and steering mechanism. No. 1,135,218; Apr. 13; Gaz. vol. 213; p. 447.
Starrett, William, Minneapolis, Minn. Belt. No. 1,135,734; Apr. 13; Gaz. vol. 213; p. 628.
Stasek, Frank, Cleveland, Ohio. Oven. No. 1,136,493; Apr. 20; Gaz. vol. 213; p. 937.
Staska, Joseph. (See Pomije and Staska.)
Staude, Edwin G., assignor to E. G. Staude Manufacturing Co., Minneapolis, Minn. Automatic paper-box-topping machine. No. 1,134,562; Apr. 6; Gaz. vol. 213; p. 175.
Stauffer, B. Grant, *et al.* (See Horting, Levi W., assignor.)
Stauffer, Charles F., *et al.* (See Horting, Levi W., assignor.)
Stearman, Everett A., Goodnight, Okla. Tongs. No. 1,135,332; Apr. 13; Gaz. vol. 213; p. 486.
Stearns, Jason C. (See Holland and Stearns.)
Stearns, Jason C., Worcester, Mass. Electrical connector or socket. No. 1,137,295; Apr. 27; Gaz. vol. 213; p. 1262.
Steege, Henry W., Westgate, Iowa. Portable grain-elevator. No. 1,135,735; Apr. 13; Gaz. vol. 213; p. 629.
Steele, Edwin G. (See Sutton and Steele.)
Steele and Johnson Manufacturing Company. (See Spurway, George A., assignor.)
Steele, Lawrence C., Pittsburgh, Pa. Sheet-aligning mechanism. No. 1,136,059; Apr. 20; Gaz. vol. 213; p. 782.
Steele, Walter L. (See Sutton and Steele.)
Steelman, Charles S., assignor to N. C. Steelman, Glendale, Cal. Eyeglass-stud. No. 1,135,219; Apr. 13; Gaz. vol. 213; p. 447.
Steelman, Nellie C. (See Steelman, Charles S., assignor.)
Steiner, George A., and W. F. Tuckett, Salt Lake City, Utah. Apron. No. 1,136,732; Apr. 20; Gaz. vol. 213; p. 1022.
Steinbiliber, Adolf A., Rock Island, assignor to Artista Piano Player Company, Milan, Ill. Treadle for piano-playing attachments. No. 1,136,733; Apr. 20; Gaz. vol. 213; p. 1022.
Steinmetz, Joseph A., Philadelphia, Pa. Offensive device carried by air-craft. No. 1,136,494; Apr. 20; Gaz. vol. 213; p. 938.
Stelzmann, Henry, Sewickley, Pa. Plowing-machine. No. 1,137,031; Apr. 27; Gaz. vol. 213; p. 1164.
Stenger, Henry A., Cowell, Cal. Self-oiling pump-head. No. 1,134,929; Apr. 6; Gaz. vol. 213; p. 301.
Stephens, John T., assignor of one-third to W. H. Lyon, Knoxville, Iowa. Automatic vehicle-brake. No. 1,137,095; Apr. 27; Gaz. vol. 213; p. 1188.

Stephenson, Thomas B., assignor to The Sessions Clock Company, Forestville, Conn. Locking device for dash-clocks. No. 1,137,032; Apr. 27; Gaz. vol. 213; p. 1165.

Sterling, Frank H., Highbury, London, England. Brush. No. 1,136,495; Apr. 20; Gaz. vol. 213; p. 938.

Sterling Machinery Company. (See Wege, Ernest F., assignor.)

Stern, David, *et al.* (See Jellinek, Charles, assignor.)

Stern, Walter F., assignor of one-third to J. A. Shank, Lancaster, Pa. Floor-scraper. No. 1,135,220; Apr. 13; Gaz. vol. 213; p. 447.

Sternau & Company, S. (See Nelson and Dyer, assignors.)

Sternberger, Samuel. (See Hunsberger, Neville, assignor.)

Steuler, Philipp, Pittsburgh, Pa. Line-fastener. No. 1,135,736; Apr. 13; Gaz. vol. 213; p. 629.

Stevens, Alton E. (See Couch, Henry, and Stevens.)

Stevens-Duryea Company. (See Duryea, James F., assignor.)

Stevens, Frederick C. (See Smith, Clyde, assignor.)

Stevens, Frederick C. (See Wright, Joseph L., assignor.)

Stevens, Ray D., San Bernardino, Cal. Internal-combustion engine. No. 1,137,296; Apr. 27; Gaz. vol. 213; p. 1262.

Stevens, William B., Trappe, Md. Operating-lever. No. 1,135,737; Apr. 13; Gaz. vol. 213; p. 629.

Stevens, William C., assignor to The Firestone Tire & Rubber Company, Akron, Ohio. Fabric-tearing device. No. 1,134,293; Apr. 6; Gaz. vol. 213; p. 77.

Stevenson, Ashton G., assignor to Chicago Lino-Tabler Company, Chicago, Ill. Substitute for printers' brass rules. No. 1,135,145; Apr. 13; Gaz. vol. 213; p. 424.

Steward, William J. (See Shierk, Dearell D., assignor.)

Stewart, Charles A., Rollinsford, N. H. Cloth-folding machine. No. 1,135,630; Apr. 13; Gaz. vol. 213; p. 591.

Stewart, Charles A., Andover, Mass. Conveyer. No. 1,135,631; Apr. 13; Gaz. vol. 213; p. 592.

Stewart, Charles E. (See Higley, Pratt H., assignor.)

Stewart, David, Bessemer, assignor of one-fourth to H. Lamar, Birmingham, one-fourth to T. Lamar, and one-fourth to N. J. Stuart, Bessemer, Ala. Cranking device. No. 1,134,974; Apr. 6; Gaz. vol. 213; p. 317.

Stewart, Edwin F., Woodcliff, and R. P. Perry, Montclair, N. J., assignors to Barrett Manufacturing Company, New York, N. Y. Burning fuel. No. 1,134,421; Apr. 6; Gaz. vol. 213; p. 123.

Stewart, James. (See Colby and Stewart.)

Stewart, Ulysses G., Paris, Ill. Nose-ring for live stock. No. 1,136,496; Apr. 20; Gaz. vol. 213; p. 938.

Stewart-Warner Speedometer Corporation. (See Larson, Edward A., assignor.)

Stewart-Warner Speedometer Corporation. (See Thompson, Edward M., assignor.)

Stewart, William A., Madison, Wis. Ice-pick. No. 1,136,561; Apr. 20; Gaz. vol. 213; p. 961.

Stewart, William W., Muscatine, Iowa. Ironing-board. No. 1,137,172; Apr. 27; Gaz. vol. 213; p. 1215.

Stichler, Charles, Philadelphia, Pa. Soldering-iron. No. 1,134,165; Apr. 6; Gaz. vol. 213; p. 29.

Stickley, Marcus A., Strasburg, Va. Farm-gate. No. 1,136,734; Apr. 20; Gaz. vol. 213; p. 1023.

Stieb, Arthur, East St. Louis, Ill. Rotary engine. No. 1,135,632; Apr. 13; Gaz. vol. 213; p. 592.

Stifel, Otto F., *et al.* (See Cowgill, Orph W., assignor.)

Still, Charles E. (See Vaughan, Frederick P., assignor.)

Still, Sun R., Hot Springs, Ark. Railway-tie and clamp. No. 1,136,288; Apr. 20; Gaz. vol. 213; p. 863.

Stimpson Scale & Electric Company, The. (See Stimpson, Walter F., assignor.)

Stimpson, Walter F., Detroit, assignor to The Stimpson Scale & Electric Company, Northville, Mich. Scale. No. 1,137,096; Apr. 27; Gaz. vol. 213; p. 1188.

Stinchcomb, Alfred A., Annapolis, Md. Fire-escape. No. 1,135,738; Apr. 13; Gaz. vol. 213; p. 629.

Stinson, James C., Bradford, Pa. Deep-well packer. No. 1,136,904; Apr. 20; Gaz. vol. 213; p. 1082.

Stivers, Jake M., and A. C. Enochs, Oklahoma, Okla. Sharpener for razor-blades. No. 1,135,633; Apr. 13; Gaz. vol. 213; p. 593.

Stock, Hugh E. (See Porter, Lewis E., assignor.)

Stodgell, James A., Winnipeg, Manitoba, Canada. Non-refillable bottle. No. 1,134,242; Apr. 6; Gaz. vol. 213; p. 58.

Stoehr, Walter H., Cheney, Kans. Fountain-brush. No. 1,135,739; Apr. 13; Gaz. vol. 213; p. 630.

Stokes, Clarence M., Norristown, Pa. Pipe-covering. No. 1,137,432; Apr. 27; Gaz. vol. 213; p. 1312.

Stokes, John S., Moorestown, N. J., and J. D. Reifsnyder, Philadelphia, assignors to Stokes and Smith Co., Summerdale, Pa. Sheet-feeding mechanism. No. 1,136,562; Apr. 20; Gaz. vol. 213; p. 961.

Stokes and Smith Co. (See Stokes and Reifsnyder, assignors.)

Stokes & Smith Company. (See Kormanshaus, Carl, assignor.)

Stone, George M., Griswold, Iowa. Power-transmission mechanism for motor-vehicles. No. 1,137,549; Apr. 27; Gaz. vol. 213; p. 1350.

Stone, Lester V. and L. J., Augusta, Ga. Hoisting device. No. 1,134,707; Apr. 6; Gaz. vol. 213; p. 228.

Stone, Lloyd J. (See Stone, Lester V. and L. J.)

Stone, Paul P. (See Phifer, Washington I., assignor.)

Storer, Norman W., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control apparatus. No. 1,135,412; Apr. 13; Gaz. vol. 213; p. 514.

Storrs, Charles H. (See Merritt and Storrs.)

Stott, James, Oldham, England. Water-heater. No. 1,135,860; Apr. 13; Gaz. vol. 213; p. 672.

Strand Mantle and Machine Company. (See Robin, Jacob L., assignor.)

Stratton, Harry F., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Electric switch. No. 1,134,422; Apr. 6; Gaz. vol. 213; p. 123.

Stratton, William D., Grand Rapids, Mich. Syringe. No. 1,137,242; Apr. 27; Gaz. vol. 213; p. 1242.

Straub, James H. (See Taby, Straub, and Maurer.)

Straub, William F., assignor to Electric Time Recorder Company, Chicago, Ill. Setting device. No. 1,137,677; Apr. 27; Gaz. vol. 213; p. 1391.

Strauss, Dennis Y., Artesia, assignor to California Retarder & Fibre Company, Los Angeles, Cal. Manufacture of plaster-retarder from bean-vines. No. 1,134,964; Apr. 6; Gaz. vol. 213; p. 314.

Streetz, Oscar J., River Grove, Ill. Base-ball-game apparatus. No. 1,135,333; Apr. 13; Gaz. vol. 213; p. 486.

Stricker, George A., Buffalo, N. Y., assignor to The Economic and Sanitary Liquid-Cooling Company, Inc. Liquid-cooler. No. 1,134,243; Apr. 6; Gaz. vol. 213; p. 59.

Strickland, George K., Chicago, Ill., assignor of one-half to W. W. Wagg, Moose Jaw, Saskatchewan, Canada. Conveyer for binding-machines. No. 1,135,146; Apr. 13; Gaz. vol. 213; p. 424.

Strom, Walter H., Oak Park, Ill. Ball-bearing. No. 1,135,558; Apr. 13; Gaz. vol. 213; p. 566.

Stromberg Motor Devices Company. (See Beasom and Anderson, assignors.)

Stuart, N. J., *et al.* (See Stewart, David, assignor.)

Stuart, Wiley M., Perryville, Ark. Rail-joint. No. 1,135,070; Apr. 13; Gaz. vol. 213; p. 397.

Stuckey, Robert W., Orlando, Fla. Pepholder. No. 1,136,289; Apr. 20; Gaz. vol. 213; p. 864.

Stucki, Arnold, Pittsburgh, Pa. Roller side bearing. No. 1,135,413; Apr. 13; Gaz. vol. 213; p. 515.

Studebaker, Enoch. (See Birdsong, John L., assignor.)

Stupakoff, Simon H., Pittsburgh, Pa. Producing drawn sheet-glass. No. 1,136,290; Apr. 20; Gaz. vol. 213; p. 864.

Sturtevant Mill Company. (See Sturtevant, Thomas L., assignor.)

Sturtevant, Thomas L., Quincy, Mass., assignor to Sturtevant Mill Company. Screen or separator. No. 1,134,166; Apr. 6; Gaz. vol. 213; p. 30.

Stuteville, William R., Vesta, Nebr. Automatically-controlled pump. No. 1,135,221; Apr. 13; Gaz. vol. 213; p. 448.

Subers, Lawrence A., Cleveland, Ohio. Machine for constructing a laminated cohesive interwound tubular fabric. No. 1,136,291; Apr. 20; Gaz. vol. 213; p. 864.

Subers, Lawrence A., Cleveland, Ohio. Reinforced laminated cohesive interwound fabric band. No. 1,136,292; Apr. 20; Gaz. vol. 213; p. 865.

Subik, John L. (See Horning and Subik.)

Suffa, George A., Boston, Mass. Ophthalmotrope. No. 1,135,222; Apr. 13; Gaz. vol. 213; p. 448.

Sulfer, Charles, Chicago, Ill., assignor to Dial Cash Register Company, Milwaukee, Wis. Total-adding cash-register. No. 1,135,551; Apr. 13; Gaz. vol. 213; p. 563.

Sulfer, Charles, Chicago, Ill., assignor to Dial Cash Register Company, Milwaukee, Wis. Registering mechanism. No. 1,135,552; Apr. 13; Gaz. vol. 213; p. 563.

Sulfer, Charles, assignor to Dial Cash Register Company, Milwaukee, Wis. Keyboard. No. 1,135,553; Apr. 13; Gaz. vol. 213; p. 564.

Sulfer, Charles, assignor to Dial Cash Register Company, Milwaukee, Wis. Sales-indicator for cash-registers. No. 1,135,554; Apr. 13; Gaz. vol. 213; p. 564.

Sulfer, Charles, assignor to Dial Cash Register Company, Milwaukee, Wis. Recording mechanism. No. 1,135,555; Apr. 13; Gaz. vol. 213; p. 564.

Sullivan, George F., Cambridge, assignor of one-third to J. Lasher, Everett, and one-third to J. K. Sullivan, Cambridge, Mass. Chuck for web-spindles. No. 1,136,627; Apr. 20; Gaz. vol. 213; p. 984.

Sumter Electrical Company. (See Warren, Robert M., assignor.)

Sundh, August. (See Scott and Sundh.)

Sundh, August, Hastings-upon-Hudson, N. Y. Illuminating device. No. 1,136,378; Apr. 20; Gaz. vol. 213; p. 895.

Sundh, August, Hastings-upon-Hudson, N. Y. Gate-hinge. No. 1,136,379; Apr. 20; Gaz. vol. 213; p. 896.

Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Power transmitting and controlling mechanism. No. 1,134,770; Apr. 6; Gaz. vol. 213; p. 252.

Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Means for controlling variable mechanism. No. 1,134,771; Apr. 6; Gaz. vol. 213; p. 252.

Sundh, August, Hastings-upon-Hudson, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Speed-changing apparatus. No. 1,134,772; Apr. 6; Gaz. vol. 213; p. 253.

Supanz, Georg, Vienna, Austria-Hungary. Vacuum-cleaner. No. 1,134,294; Apr. 6; Gaz. vol. 213; p. 77.

Sutherland, Holton J., Swampscott, and J. H. Sutherland, Lynn, Mass. Pattern-binding machine. No. 1,135,469; Apr. 13; Gaz. vol. 213; p. 534.

Sutherland, John H. (See Sutherland, Holton J. and J. H.)

Sutton, Henry M., W. L. and E. G. Steele, Dallas, Tex. Process of and apparatus for classifying comminuted material. No. 1,136,293; Apr. 20; Gaz. vol. 213; p. 865.

Svendsen, Jens S., Hammond, Ind. Foldable canvas boat. No. 1,134,773; Apr. 6; Gaz. vol. 213; p. 253.

Svenson, Charles W., assignor to The American Hardware Corporation, New Britain, Conn. Dust-cap for wheel-hubs and the like. No. 1,135,960; Apr. 13; Gaz. vol. 213; p. 707.

Swallow, Stuart H., assignor to W. H. Coe Manufacturing Company, Providence, R. I. Metallic-leaf-applying device. No. 1,136,497; Apr. 20; Gaz. vol. 213; p. 939.

Swanson, Charles, San Jose, Cal. Lawn-mower attachment No. 1,135,071; Apr. 6; Gaz. vol. 213; p. 397.

Swanson, Charles H., assignor to The A & A Manufacturing Company, Chicago, Ill. Liquid-fuel burner. No. 1,135,072; Apr. 13; Gaz. vol. 213; p. 398.

Swanson, John C., Buffalo, Minn. Endless cutting apparatus for mowing-machines and harvesters. No. 1,136,628; Apr. 20; Gaz. vol. 213; p. 984.

Swarner, Charles H., Omaha, Nebr. Bundle-wagon for threshers. No. 1,135,073; Apr. 13; Gaz. vol. 213; p. 398.

Swartwood, George, assignor of one-third to A. Krumm and one-third to L. J. Koeppen, Chicago, Ill. Boiler stay-bolt. No. 1,137,433; Apr. 27; Gaz. vol. 213; p. 1312.

Swartz, John W., East Liverpool, Ohio. Compartment fruit-car. No. 1,134,423; Apr. 6; Gaz. vol. 213; p. 123.

Swayne, Robinson and Co. (See Scott, Elisha H., assignor.)

Sweeney, John J., New York, N. Y. Work-table guard for power-presses. No. 1,137,550; Apr. 27; Gaz. vol. 213; p. 1350.

Sweeney, Louis S., Abington, Mass. Machine for trimming the rands of boots and shoes. No. 1,135,223; Apr. 13; Gaz. vol. 213; p. 448.

Swift and Fisher. (See Swift, Joseph H., assignor.)

Swift, Joseph H., assignor to Swift and Fisher, North Attleboro, Mass. Cigar-tip cutter. No. 1,136,182; Apr. 20; Gaz. vol. 213; p. 825.

Swift, William L. (See Meier, Swift, and Reller.)

Switzer, Charles A., Pasadena, Cal. Oven for heating asphalt pavement. No. 1,136,294; Apr. 20; Gaz. vol. 213; p. 865.

Switzer, Charles A., Pasadena, assignor to Safety Auto Signal Company, Los Angeles, Cal. Vehicle-signal. No. 1,137,364; Apr. 27; Gaz. vol. 213; p. 1287.

Szczepanski, Antoni F., Detroit, Mich. Bread board or peel. No. 1,135,634; Apr. 13; Gaz. vol. 213; p. 593.

Szilard, Bela, Paris, France. Curve-drawing implement. No. 1,136,295; Apr. 20; Gaz. vol. 213; p. 866.

T. W. Snow Construction Company. (See Lane, W Britton, assignor.)

Tabor Sash Fixture Co. (See Shirley and Mueller, assignors.)

Taby, Joseph C., J. H. Straub, and D. M. Maurer; Shamokin, Pa. Water-agitator for ice-cans. No. 1,137,551; Apr. 27; Gaz. vol. 213; p. 1351.

Taglabue, Charles J. (See Schneider, Ralph F., assignor.)

Taisey, Fred R. (See Pearsall and Taisey.)

Talbot, Henry H., St. Joseph, Mo. Automatic self-loading pistol. No. 1,137,173; Apr. 27; Gaz. vol. 213; p. 1216.

Talley, Edwin R., Algona, Iowa. Bifocal lens. No. 1,136,060; Apr. 20; Gaz. vol. 213; p. 782.

Tantimonaco, Libro, *et al.* (See Tegoli, August, assignor.)

Tapley, Thomas H. (See Furthmann, William N., assignor.)

Tappan, George S. Diamond Spring, Cal. Wrench. No. 1,135,334; Apr. 13; Gaz. vol. 213; p. 487.

Tate, Charles G., assignor to United Motor Equipment Co., Chicago, Ill. Electric vaporizer. No. 1,136,845; Apr. 20; Gaz. vol. 213; p. 1061.

Tatum, Lewis L., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Regulation of dynamo-electric machines. No. 1,134,244; Apr. 6; Gaz. vol. 213; p. 59.

Taubel & Son, Henry. (See Phillips, Robert S. and B. H., assignors.)

Tausch, William F., *et al.* (See Gaeth, Paul, assignor.)

Taylor, Albert H., Liverpool, assignor to Western Dental Manufacturing Company (1914) Limited, Bristol, England. Artificial tooth. No 1,134,965; Apr. 6; Gaz. vol. 213; p. 314.

Taylor, Cecil H., and B. B. Neuteboom, Detroit, Mich. Explosion-engine. No. 1,135,074; Apr. 13; Gaz. vol. 213; p. 398.

Taylor, Charles G., Los Angeles, Cal. Lock. No. 1,136,735; Apr. 20; Gaz. vol. 213; p. 1023.

Taylor, Henry D., assignor to Lightning Letter Opener Company, Rochester, N. Y. Machine for opening envelops. No. 1,137,552; Apr. 27; Gaz. vol. 213; p. 1351.

Taylor, Henry D., assignor to Lightning Letter Opener Company, Rochester, N. Y. Envelop-opening machine. No. 1,137,678; Apr. 27; Gaz. vol. 213; p. 1392.

Taylor, Henry D., assignor to Lightning Letter Opener Company, Rochester, N. Y. Envelop-opener. No. 1,137,726; Apr. 27; Gaz. vol. 213; p. 1408.

Taylor Instrument Companies. (See Howe, James A., assignor.)

Taylor, Joseph, Jr., Saco, Me. Tent-rack. No. 1,134,295; Apr. 6; Gaz. vol. 213; p. 77.

Taylor, Lloyd B., Chicago, Ill. Automobile-trunk. No. 1,135,861; Apr. 13; Gaz. vol. 213; p. 673.

Taylor, Walton E., St. Joseph, Mo. Wire-placer. No. 1,136,183; Apr. 20; Gaz. vol. 213; p. 825.

Taylor, Winfield J., Ord, Nebr. Adjustable nose-piece for eyeglasses. No. 1,136,736; Apr. 20; Gaz. vol. 213; p. 1023.

Tayntor, Charles E., New York, N. Y. Roof for mausoleums, vaults, and the like. No. 1,136,629; Apr. 20; Gaz. vol. 213; p. 985.

Teãle, Benjamin E. (See Burchardi and Teãle.)

Tegoli, August, assignor of one-third to C. R. Bertoli and one-third to L. Tantimonaco, Santa Rosa, Cal. Drying apparatus. No. 1,135,556; Apr. 13; Gaz. vol. 213; p. 565.

Ten Eyck, Frank E., Boston, Mass., assignor to Auto Air Rotar Company. Gearing. No. 1,134,358; Apr. 6; Gaz. vol. 213; p. 100.

Tennessen, John, Jr. (See Bornemann and Tennessen.)

Terhorst, Joseph A. (See Myers and Terhorst.)

Terry, Henry E., Philadelphia, Pa. Seam for rugs. No. 1,136,380; Apr. 20; Gaz. vol. 213; p. 896.

Terry, Henry E., Philadelphia, Pa. Machine for applying reinforcing means to rug-seams. No. 1,137,243; Apr. 27; Gaz. vol. 213; p. 1242.

Teschel, George R., Parkersburg, W. Va. Plate-glass and marble smoother, rounder, and beveler. No. 1,136,296; Apr. 20; Gaz. vol. 213; p. 866.

Tew, James D., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Tire-vulcanizing apparatus. No. 1,137,097; Apr. 27; Gaz. vol. 213; p. 1189.

Thacher, George H., Jr., Albany, N. Y. Feeding device for furnace-grates. No. 1,134,167; Apr. 6; Gaz. vol. 213; p. 30.

Thacker, Warren P. (See Marley, Thacker, and Barnard.)

Thayer, Paul C., Enterprise, Cal. Trap. No. 1,136,297; Apr. 20; Gaz. vol. 213; p. 866.

Thenis, Victor. (See Guelff, Dunn, and Thenis.)

Theriot, James C., Taft, Cal. Well-drilling tool. No. 1,134,930; Apr. 6; Gaz. vol. 213; p. 302.

Thermo Automatic Stove Company. (See Kohlmeyer, August H., assignor.)

Thoma, Andrew, Cambridge, assignor to North American Chemical Company, Boston, Mass. Shoe-bottom filler. No. 1,134,931; Apr. 6; Gaz. vol. 213; p. 302.

Thoma, Andrew, Cambridge, Mass., assignor to North American Chemical Company, New York, N. Y. Plastic shoe-bottom filler and making the same. No. 1,136,980; Apr. 27; Gaz. vol. 213; p. 1145.

Thoma, Andrew, Cambridge, Mass., assignor to North American Chemical Company, Portland, Me. Shoe-bottom filler. No. 1,137,679; Apr. 27; Gaz. vol. 213; p. 1392.

Thomas, Daniel W., Richmond, Ind. Ice-creeper attachment for horseshoes. No. 1,134,296; Apr. 6; Gaz. vol. 213; p. 78.

Thomas, Frank W., Toledo, Ohio, assignor to The Autopress Company, New York, N. Y. Inking mechanism. No. 1,135,075; Apr. 13; Gaz. vol. 213; p. 398.

Thomas, Frederic W., New City, N. Y. Phonograph disk record. No. 1,134,774; Apr. 6; Gaz. vol. 213; p. 253.

Thomas, Frederic W., New City, N. Y. Diaphragm-setting for phonograph-reproducers. No. 1,134,775; Apr. 6; Gaz. vol. 213; p. 253.

Thomas, George B., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Electric switch. No. 1,136,737; Apr. 20; Gaz. vol. 213; p. 1024.

Thomas, Harold D. (See Skinner and Thomas.)

Thomas M. Lothrop & Co. (See Lothrop, Thomas M., assignor.)

Thomas, Percy H., East Orange, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Electrical distribution system. No. 1,137,174; Apr. 27; Gaz. vol. 213; p. 1216.

Thomas, Percy H., Upper Montclair, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company. Means for maintaining vapor-converters in operation. (Reissue.) No. 13,906; Apr. 27; Gaz. vol. 213; p. 1410.

Thomas, Robert N., Shenandoah, Iowa. Combined corn husker and stripper. No. 1,134,245; Apr. 6; Gaz. vol. 213; p. 59.

Thomas, Thomas E., Niles, Ohio. Blast-furnace construction. No. 1,137,244; Apr. 27. Gaz. vol. 213; p. 1243.

Thomaston Knife Company. (See Klocker, Augustus, assignor.)

Thompson Automatic Signal Company, The. (See Thompson, James T., assignor.)

Thompson, Edward M., Beloit, Wis., assignor to Stewart-Warner Speedometer Corporation. Means for compensating speedometers and similar devices for temperature variations. No. 1,134,649; Apr. 6; Gaz. vol. 213; p. 207.

Thompson, Franklin M. (See Cox, Charles C., assignor.)

Thompson, George F., assignor to American Patent Holding Co., Minneapolis, Minn. Fvener-coupling. (Reissue.) No. 13,907; Apr. 27; Gaz. vol. 213; p. 1411.

Thompson, James T., assignor to The Thompson Automatic Signal Company, Chicago, Ill. Train control and signal system. No. 1,135,557; Apr. 13; Gaz. vol. 213; p. 565.

Thompson, Jay L., assignor of one-third to A. W. Gibson and one-third to A. W. McKinley, Greensburg, Kans. Paper-feeding device. No. 1,137,553; Apr. 27; Gaz. vol. 213; p. 1351.

Thompson, Jesse M., *et al.* (See Lockwood, Charles F., assignor.)

Thompson, Reuben B., Cohoes, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Trimming mechanism for sewing-machines. No. 1,136,846; Apr. 20; Gaz. vol. 213; p. 1062.

Thompson, Roy E., New York, N. Y., assignor, by mesne assignments, of one-half to A. V. Beer, New Orleans, La. Railway block system. No. 1,135,225; Apr. 13; Gaz. vol. 213; p. 448.

Thomson Electric Welding Company. (See Mack, Richard, assignor.)

Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company, Induction-motor. No. 1,134,776; Apr. 6; Gaz. vol. 213; p. 254.

Thomson, William P., assignor to The Rail Joint Company, New York, N. Y. Insulated rail-joint. No. 1,135,862; Apr. 13; Gaz. vol. 213; p. 673.

Thomson, William S., assignor to The H. D. Smith & Company, Plantsville, Conn. Belt-tightener for grinding-machines. No. 1,137,033; Apr. 27; Gaz. vol. 213; p. 1165.

Thornley, William H., administrator. (See Smith, Charles S.)

Thornton, Frederick, Huntington, W. Va. Trolley. No. 1,136,847; Apr. 20; Gaz. vol. 213; p. 1062.

Thornton, William A., *et al.* (See Lind, Carl A., assignor.)

Thorp, Vernor E., Alameda, Cal. Snatch-block. No. 1,135,740; Apr. 13; Gaz. vol. 213; p. 630.

Threlkeld, John H., Charlton, Iowa. Automatic stock and poultry fountain. No. 1,136,738; Apr. 20; Gaz. vol. 213; p. 1024.

Thropp, John E. and P. D., Trenton, and A. De Laski, Weehawken, assignors to The De Laski and Thropp Circular Woven Tire Company, Trenton, N. J. Machine for making or building up pneumatic tires. No. 1,137,365; Apr. 27; Gaz. vol. 213; p. 1287.

Thropp, Peter D. (See Thropp and De Laski.)

Thursby, Ivan, *et al.* (See Loomis, Osmond E., assignor.)

Thwaites, John H., Bedford, and J. T. Craven, Brixton, England. Refuse-destructor or other furnace. No. 1,135,961; Apr. 13; Gaz. vol. 213; p. 707.

Thwing, Charles B. (See Faltermayer and Thwing.)

Thwing Instrument Company. (See Faltermayer and Thwing, assignors.)

Tibbetts, Raymond F., Milwaukee, assignor of one-half to E. Fiebrich, Racine, Wis. Relief-valve for pneumatic tires. No. 1,137,034; Apr. 27; Gaz. vol. 213; p. 1166.

Tibbits, George W., Los Angeles, Cal. Transmission mechanism. No. 1,134,981; Apr. 6; Gaz. vol. 213; p. 321.

Tidd, John N., Carters Bridge, Va. Gate-operating attachment. No. 1,134,563; Apr. 6; Gaz. vol. 213; p. 176.

Tieman, William C. (See Gambon, John M., assignor.)

Tiemann, L. H., *et al.* (See Cowgill, Orph W., assignor.)

Tiease, August, Chicago, Ill. Labeling-machine. No. 1,135,635; Apr. 13; Gaz. vol. 213; p. 593.

Tiffany, George S., Summit, N. J. Phonograph. No. 1,136,739; Apr. 20; Gaz. vol. 213; p. 1024.

Tigerman, William H. (See Smith, Josiah H., assignor.)

Tillery, Lynn B., Rocky Mount, N. C. Gage. No. 1,134,297; Apr. 6; Gaz. vol. 213; p. 78.

Tillman, John D., Richmond, Ind. Lawn-mower. No. 1,134,650; Apr. 6; Gaz. vol. 213; p. 207.

Timken-Detroit Axle Company, The. (See Alden, Herbert W., assignor.)

Timken-Detroit Axle Company. (See Weaver, Robert B., assignor.)

Tinsley, Joseph B., Kansas City, Kans. Turn-table. No. 1,136,563; Apr. 20; Gaz. vol. 213; p. 962.

Tippet, Philip V., assignor to Farrel Foundry & Machine Co., Ansonia, Conn. Removable-nut construction for roll-adjusting devices and the like. No. 1,135,076; Apr. 13; Gaz. vol. 213; p. 399.

Toca, Albert, New Orleans, La. Frozen confection and making the same. No. 1,134,777; Apr. 6; Gaz. vol. 213; p. 254.

Todd, Edwin S., and B. T. Noble, Millidale, assignors to George P. Clark Company, Windsor Locks, Conn. Elevating transfer-truck. No. 1,136,906; Apr. 20; Gaz. vol. 213; p. 1083.

Todd, George W., and C. D. Mendlik, Omaha, Nebr.; said Mendlik assignor to G. Todd. Dental bridge. No. 1,136,184; Apr. 20; Gaz. vol. 213; p. 825.

Todd, Marquis J., assignor to Buffalo Pitts Company, Buffalo, N. Y. Vehicle-coupling. No. 1,136,564; Apr. 20; Gaz. vol. 213; p. 962.

Toledo Auto Tool Company, The. (See Rakestraw, Lawrence M., assignor.)

Tolles, Charles L., Eau Claire, Wis. Traction-belt. No. 1,135,559; Apr. 13; Gaz. vol. 213; p. 566.

Tolles, Charles L., Eau Claire, Wis. Tractor-belt. No. 1,135,560; Apr. 13; Gaz. vol. 213; p. 566.

Tolman, James P., Newton, assignor to Samson Cordage Works, Boston, Mass. Twine-package. No. 1,135,470; Apr. 13; Gaz. vol. 213; p. 534.

Tolputt, Herbert, Sheffield, England. Forming metal blanks or the like for cutlery articles, tools, and other instruments or purposes. No. 1,135,863; Apr. 13; Gaz. vol. 213; p. 673.

Tomassi, Joseph, Chicago, Ill. Folding stool. No. 1,135,864; Apr. 13; Gaz. vol. 213; p. 674.

Tomlinson, Joseph, New York, N. Y., assignor to Cox Multi-Mailer Company, Augusta, Me. Wrapping-machine. No. 1,135,077; Apr. 13; Gaz. vol. 213; p. 399.

Tompkins, Eugene, Addison, N. Y. Nailing-machine. No. 1,135,333; Apr. 13; Gaz. vol. 213; p. 487.

Tompkins, Richard E., Danbury, Conn. Caster. No. 1,135,226; Apr. 13; Gaz. vol. 213; p. 449.

Tonks, William H., Pasadena, assignor of one-half to M. S. Morse, Oakland, Cal. Timepiece. No. 1,137,245; Apr. 27; Gaz. vol. 213, p. 1243.

Topping, W. V. B. (See Pilce, Thomas V., assignor.)

Torlina, John H. E., and E. E. Wolf, Springfield, Ohio; said Wolf assignor to said Torlina. Delivery mechanism for printing-presses. No. 1,134,298; Apr. 6; Gaz. vol. 213; p. 79.

Tormey, John E. (See Riddle, Lawrence J., assignor.)

Torsion Balance Company, The. (See Michalis and Münsner, assignors.)

Totten, Cleophas, Dennison, Ohio. Bag-lock. No. 1,137,035; Apr. 27; Gaz. vol. 213; p. 1166.

Tower, Daniel W., Grand Rapids, Mich. Bolt-operating mechanism. No. 1,136,498; Apr. 20; Gaz. vol. 213; p. 939.

Towler, Vance, *et al.* (See Beery, John H., assignor.)

Town, D. E. (See Anderson, Olof, assignor.)

Towne, Harold A., Waterloo, Wis. Paper-hand-out device. No. 1,137,098; Apr. 27; Gaz. vol. 213; p. 1189.

Towner, Leroy H., Muskogee, Okla. Culvert-form. No. 1,134,778; Apr. 6; Gaz. vol. 213; p. 254.

Townsend, E. C. (See Pangerl, Paul, assignor.)

Tracy, Edward A., Boston, Mass. Paving-block. No. 1,135,865; Apr. 13; Gaz. vol. 213; p. 674.

Traiber, Gregor. (See Komarcsevits and Traiber.)

Tramell, Charles S., assignor of one-half to W. C. Seale, Pruden, Tenn. Holder for lard and butter trays and like receptacles. No. 1,134,631; Apr. 6; Gaz. vol. 213; p. 208.

Transmission Akts. (See Martins, Jens C., assignor.)

Tranter, William H., Los Angeles, Cal. Hydrocarbon-burner. No. 1,136,848; Apr. 20; Gaz. vol. 213; p. 1062.

Traver, William B. (See Fox, Mac L., assignor.)

Trembath, Dionysius W., New York, N. Y. Sash-counterbalance. No. 1,135,227; Apr. 13; Gaz. vol. 213; p. 449.

Treo, Alfons, Duquesne, Pa. Building construction. No. 1,137,297; Apr. 27; Gaz. vol. 213; p. 1262.

Trescott, Charles B., Indianapolis, Ind., assignor to H. L. Millis, Chicago, Ill. Curing meat. No. 1,134,299; Apr. 6; Gaz. vol. 213; p. 79.

Trezise, Arthur R., Sr., Brooklyn, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Electromagnet. No. 1,134,779; Apr. 6; Gaz. vol. 213; p. 255.

Triner, James M., Chicago, Ill. Rotary valve mechanism for gas-engines. No. 1,135,078; Apr. 13; Gaz. vol. 213; p. 399.

Trinks, Frauz, Brunswick, Germany. Carrying mechanism for calculating-machines. No. 1,134,780; Apr. 6; Gaz. vol. 213; p. 255.

Tripp Fruit Wrapping Machine Company. (See Ballard, Milton H., assignor.)

Troike, Ernst, Sandusky, Ohio. Muffler. No. 1,137,554; Apr. 27; Gaz. vol. 213; p. 1352.

Trowbridge, Henry L. (See Clement, Burton H., assignor.)

Trydal, Nils. (See Rosten and Trydal.)

Tschudy, Frederick, Fairfield, Ala. Acid-spray catcher. No. 1,135,471; Apr. 13; Gaz. vol. 213; p. 534.

Tschudy, Frederick, Birmingham, Ala. Cracker-pipe for saturating apparatus. No. 1,135,472; Apr. 13; Gaz. vol. 213; p. 535.

Tucker, Arthur F., Williamsburg, Kans. Corn-topping machine. No. 1,135,079; Apr. 13; Gaz. vol. 213; p. 400.

Tucker, Edwin W., San Francisco, Cal. Fuel-oil-burning apparatus. No. 1,136,849; Apr. 20; Gaz. vol. 213; p. 1063.

Tuckett, William F. (See Steiner and Tuckett.)

Tunison, Arthur C., assignor to Atlas Concrete Pipe Machinery Company, Salt Lake City, Utah. Pipe-making machine. No. 1,137,680; Apr. 27; Gaz. vol. 213; p. 1393.

Turk, Max, Huron, S. D. Hay-rake attachment. No. 1,136,565; Apr. 20; Gaz. vol. 213; p. 963.

Turnbull, Alexander, Glasgow, Scotland. Tire-wrench. No. 1,137,555; Apr. 27; Gaz. vol. 213; p. 1352.

Turner, Ernest G., Philadelphia, Pa. Torsion-meter. No. 1,135,741; Apr. 13; Gaz. vol. 213; p. 630.

Turner, George F., Mahoningtown, Pa. Crate or box. No. 1,135,866; Apr. 13; Gaz. vol. 213; p. 675.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Retarded-release triple-valve device. No. 1,134,424; Apr. 6; Gaz. vol. 213; p. 124.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Retarded-release triple-valve device. No. 1,134,425; Apr. 6; Gaz. vol. 213; p. 124.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Fluid-pressure brake. No. 1,134,426; Apr. 6; Gaz. vol. 213; p. 125.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,136,061; Apr. 20; Gaz. vol. 213; p. 782.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Electro-pneumatic brake. No. 1,136,062; Apr. 20; Gaz. vol. 213; p. 783.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Triple-valve device. No. 1,136,063; Apr. 20; Gaz. vol. 213; p. 783.

Tuteur, Julius, Cleveland, Ohio. Beam-end protector and anchorage. No. 1,137,099; Apr. 27. Gaz. vol. 213; p. 1189.

Tuttle, John W. (See Tuttle, Ralph V. and J. W.)

Tuttle, Ralph V. and J. W., Pomeroy, Wash. Safety-envelop. No. 1,136,850; Apr. 20; Gaz. vol. 213; p. 1063.

Tweeddale, Francis D. (See Ferran and Tweeddale.)

Twigg, John F., San Francisco, Cal. Self-starting and reversible internal-combustion engine. No. 1,136,381; Apr. 20; Gaz. vol. 213; p. 896.

Twinplex Manufacturing Company. (See Floyd, George G., assignor.)

Twyford, Robert E., South Houston, Tex. Driving-gearing for motor-vehicles. No. 1,136,382; Apr. 20; Gaz. vol. 213; p. 897.

Tyberg, Oluf, Point Loma, Cal., assignor to International Cigar Machinery Company, New York, N. Y. Cigar-machine. No. 1,134,246; Apr. 6; Gaz. vol. 213; p. 60.

Tyson, Frank, Canton, Ohio. Valve for bottle-filling machines. No. 1,136,740; Apr. 20; Gaz. vol. 213; p. 1025.

U. S. Fiber Bottle Machinery Company. (See Janisch, Maximillian P., assignor.)

U. S. Manufacturers' Distributing Company. (See Murphy and Redner, assignors.)

Uhlemann, William R., Chicago, Ill. Cement for eye-glass mountings. No. 1,137,366; Apr. 27; Gaz. vol. 213; p. 1288.

Ulferts, Behrend, Lakefield, Minn. Safety device for aeroplanes. No. 1,135,561; Apr. 13; Gaz. vol. 213; p. 567.

Ullrich, Emil H. W., Chicago, Ill. Receptacle. No. 1,134,427; Apr. 6; Gaz. vol. 213; p. 125.

Umstätter, John, New York, N. Y. Fish-trap. No. 1,134,428; Apr. 6; Gaz. vol. 213; p. 125.

Under-Feed Stoker Company of America, The. (See Kenney and Grohn, assignors.)

Underhill, Walter A., assignor to The Eagle Wagon Works, Auburn, N. Y. Brake for wagons. No. 1,136,861; Apr. 20; Gaz. vol. 213; p. 1063.

Underwood, Charles W., assignor of one-half to W. M. Egan, Crowley, La. Microphone. No. 1,136,449; Apr. 20; Gaz. vol. 213; p. 921.

Underwood Typewriter Company. (See Brown, Clarence H., assignor.)

Underwood Typewriter Company. (See Roberts, Lyman R., assignor.)

Union Carbide Company. (See Becket, Frederick M., assignor.)

Union Envelope Company. (See Rheutan, Isaac L., assignor.)

Union Lock Stitch Company. (See Merrick, Frank W., assignor.)

Union Special Machine Company. (See Hansen, Oscar F., assignor.)

Union Special Machine Company. (See Hinderer, Otto A., assignor.)

Union Special Machine Company. (See Moffatt, James R., assignor.)

Union Special Machine Company. (See Seymour, Dudley S., assignor.)

Union Special Machine Company. (See Thompson, Reuben B., assignor.)

Union Special Machine Company. (See Van Horn, Vandiver J., assignor.)

Union Special Machine Company. (See Woodward, Russel G., assignor.)

Union Special Machine Company. (See Wright, Ward E., assignor.)

Union Special Maschinenfabrik G. m. b. H. (See Maier, Carl, assignor.)

Union Switch & Signal Company, The. (See Mursch, William H., assignor.)

Union Switch & Signal Company, The. (See Zabel, William, assignor.)

Union Tank Line Company. (See Bloxham, Charles M., assignor.)

United Brass Manufacturing Company. (See McGivern, Hugh J., assignor.)

United Cigar Manufacturers Company. (See Collins, William G. J., assignor.)

United Electric Company, The. (See Dillon, Charles A., assignor.)

United Motor Equipment Co. (See Tate, Charles G., assignor.)

United Printing Machinery Company. (See Glass, William C., assignor.)

United Printing Machinery Company. (See Hafner, George J., assignor.)

United Shirt and Collar Company. (See Pine, James K. P., assignor.)

United Shoe Machinery Company. (See Ashton, Orrell, assignor.)

United Shoe Machinery Company. (See Briggs, Thomas, assignor.)

United Shoe Machinery Company. (See Brock, Matthias, assignor.)

United Shoe Machinery Company. (See Brothers, Eli, assignor.)

United Shoe Machinery Company. (See Erickson, Edward, assignor.)

United Shoe Machinery Company. (See Furber, Frederick M., assignor.)

United Shoe Machinery Company. (See Glidden, John E., assignor.)

United Shoe Machinery Company. (See Hadaway, John B., assignor.)

United Shoe Machinery Company. (See Heys, John J., assignor.)

United Shoe Machinery Company. (See Keay, James A., assignor.)

United Shoe Machinery Company. (See Kelley, Rawson A., assignor.)

United Shoe Machinery Company. (See Lund, Andrew M., assignor.)

United Shoe Machinery Company. (See Mayo, Benjamin F., assignor.)

United Shoe Machinery Company. (See McFeely, Ronald F., assignor.)

United Shoe Machinery Company. (See Perry, Frederick H., assignor.)

United Shoe Machinery Company. (See Pope, Joseph H., assignor.)

United Shoe Machinery Company. (See Prime, Daniel N., assignor.)

United Shoe Machinery Company. (See Wales, Alfred B., assignor.)

United Shoe Machinery Company. (See Winter, Henry W., assignor.)

United States Horse Shoe Co. (See Cutten, Elisha B., assignor.)

United States Rubber Company. (See Boyle, Francis, assignor.)

United States Tire Company, The, *et al.* (See Wagenhorst, James H., assignor.)

Universal Draft Gear Attachment Co. (See Nash, Charles J., assignor.)

Universal Liquid Register Company. (See Brown, Charles F., assignor.)

Universal Speed Control Company, The. (See Pratt Charles R., assignor.)

Universal Turbine Company, The. (See Anderson, Emil, assignor.)

Urase, Masajiro, Steveston, British Columbia, Canada. Device for teaching writing. No. 1,136,450; Apr. 20; Gaz. vol. 213; p. 921.

Urbanek, Joseph, Chicago, Ill. Non-skidding attachment for wheels. No. 1,136,298; Apr. 20; Gaz. vol. 213; p. 867.

Usener, Hans, Kiel, Germany. Gyro-compass. No. 1,136,566; Apr. 20; Gaz. vol. 213; p. 963.

Vail, Chester B. (See Johnson, Frank A., assignor.)

Valerius, Theodore L., Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill. Bottle-capping machine. No. 1,134,168; Apr. 6; Gaz. vol. 213; p. 30.

Vallino, Mario, assignor to Società Anonima Italiana Gio. Ansaldo & Co., Genoa, Italy. Water-tube marine boiler. No. 1,135,636; Apr. 13; Gaz. vol. 213; p. 594.

Valot, Edward B., St. Louis, Mo. Oil-burner. No. 1,136,185; Apr. 20; Gaz. vol. 213; p. 826.

Van Alstyn, Albert T., New York, N. Y. Buckle. No. 1,136,451; Apr. 20; Gaz. vol. 213; p. 922.

Van Blijenburgh, Jozef P., Amsterdam, Netherlands, assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,137,036; Apr. 27; Gaz. vol. 213; p. 1166.

Van Brunt, George F., Kewanee, Ill. Packing. No. 1,137,367; Apr. 27; Gaz. vol. 213; p. 1288.

Van den Berghe, Jacques M., assignor of one-half to F. Délas, Montreal, Quebec, Canada. Tree-sawing machine. No. 1,136,852; Apr. 20; Gaz. vol. 213; p. 1064.

Van der Meersch, Oscar, Richmond, Va. Brick cleaning and refacing machine. No. 1,135,127; Apr. 13; Gaz. vol. 213; p. 417.

Van Horn, Vandiver J., Chicago, Ill. Sewing-machine. No. 1,136,299; Apr. 20; Gaz. vol. 213; p. 867.

Van Horn, Vandiver J., assignor to Union Special Machine Company, Chicago, Ill. Ornamental-stitch sewing-machine. No. 1,134,564; Apr. 6; Gaz. vol. 213; p. 176.

Van Horn, William H. (See Kemp and Van Horn.)

Van Houten, Fred E., Kalamazoo, Mich. Step-ladder. No. 1,135,336; Apr. 13; Gaz. vol. 213; p. 488.

Van Kolken, John, Great Falls, Mont. Sliding door. No. 1,134,781; Apr. 6; Gaz. vol. 213; p. 255.

Van Orden, John M. (See Munro, James H., assignor.)

Van Peski, Andrianus J., Vlaardingen, Netherlands. Manufacture of anhydrids of monobasic organic carboxy-acids. No. 1,136,630; Apr. 20; Gaz. vol. 213; p. 985.

Vandercook, Albert E., Alameda, assignor to California Macvan Co., San Francisco, Cal. Apparatus for treating mixtures of liquids and solids. No. 1,135,080; Apr. 13; Gaz. vol. 213; p. 400.

Varney, Clayton E. (See Newhall, Louis E., assignor.)

Varney, Mildred A., administratrix. (See Newhall, Louis E.)

Vath, Frank A., Chicago, Ill. Cooking apparatus. No. 1,135,473; Apr. 13; Gaz. vol. 213; p. 535.

Vaughan, Frederick P., Chicago, Ill., assignor to C. E. Still, Kirksville, Mo. Tool. No. 1,135,867; Apr. 13; Gaz. vol. 213; p. 675.
Vaughn, Ernestine P., Southworth, Wash. High chair for children. No. 1,136,300; Apr. 20; Gaz. vol. 213; p. 868.
Vécsey, Mike, Allouez, Mich., assignor of one-fourth to I. Kaszo, Wooster, Ohio. Ship-raising apparatus. No. 1,135,338; Apr. 13; Gaz. vol. 213; p. 488.
Venn Manufacturing Company. (See Keating, Harry J., assignor.)
Vermehren, Johannes, assignor to Aktieselskabet Vermehrens Regnemaskiner, Hellerup, near Copenhagen, Denmark. Machine for the effecting of mutiplications. No. 1,134,169; Apr. 6; Gaz. vol. 213; p. 31.
Vernon, Frederick L., Newton, Iowa. Memorandum device. No. 1,136,186; Apr. 20; Gaz. vol. 213; p. 826.
Vesich, Max, Chicago, Ill. Motor-cycle prop. No. 1,137,368; Apr. 27; Gaz. vol. 213; p. 1289.
Vest, Eugene W., Tacoma, Wash. Latching device. No. 1,136,065; Apr. 20; Gaz. vol. 213; p. 784.
Vesta Accumulator Company. (See Heizer, Alexander L., assignor.)
Vibber, Wheeler H., assignor of one-half to The Gillette-Vibber Co., New Loudon, Conn. Box-connector for electric installation. No. 1,134,565; Apr. 6; Gaz. vol. 213; p. 176.
Victor Shoe Machinery Co. (See Johnson, Lawrence E., assignor.)
Victor Shoe Machinery Company. (See Erickson, Edward, assignor.)
Vinal, Charles H., Appleton, Wis. Concrete-mixer. No. 1,134,300; Apr. 6; Gaz. vol. 213; p. 79.
Vincent, William J., Cardiff, Wales. Rotary pump and motor. No. 1,135,414; Apr. 13; Gaz. vol. 213; p. 515.
Viner, Leverett F., Worcester, Mass. Clock. No. 1,135,228; Apr. 13; Gaz. vol. 213; p. 449.
Vinyard, Roy M., Bend, Oreg. Feed mechanism. No. 1,135,868; Apr. 13; Gaz. vol. 213; p. 675.
Virginia Trust Company, executor. (See Clarke, Edward S.)
Vogel, Carolina, administratrix. (See Vogel, Henry C.)
Vogel, Henry C., deceased, Philadelphia, Pa.; C. Vogel, administratrix. Combined table and clothes-drier. No. 1,135,637; Apr. 13; Gaz. vol. 213; p. 594.
Vogel, Paul F., Belleville, Ill. Manufacturing fabric. No. 1,137,434; Apr. 27; Gaz. vol. 213; p. 1312.
Vögler, Albert, assignor to Deutsch-Luxemburgische Bergwerks- und Hütten-Aktiengesellschaft, Dortmund, Germany. Refining steel and producing high-phosphorus slag. No. 1,137,681; Apr. 27; Gaz. vol. 213; p. 1393.
Vogt, Johann, Göppingen, Germany. Drying boards and the like. No. 1,134,247; Apr. 6; Gaz. vol. 213; p. 60.
Voigt, Albert, New York, N. Y. Separator and track for sliding doors. No. 1,136,631; Apr. 20; Gaz. vol. 213; p. 985.
Von Dorn, Calvin W., Albuquerque, N. Mex., assignor of one-third to C. K. Schafer, Naco, Ariz. Collapsible fly-trap. No. 1,136,452; Apr. 20; Gaz. vol. 213; p. 922.
Von Forsman, Andrew, Iron River, Mich. Fender for ships. No. 1,135,415; Apr. 13; Gaz. vol. 213; p. 515.
Von Glahn, George J., Brooklyn, N. Y. Pipe-fitting. No. 1,137,556; Apr. 27; Gaz. vol. 213; p. 1353.
Von Pein, Edward J., assignor to National Cash Register Company, Dayton, Ohio. Credit-cabinet. No. 1,134,248; Apr. 6; Gaz. vol. 213; p. 60.
Voorhees, Walter K., and F. A. Anderson, Cedar Falls, Iowa. Latch for gates. No. 1,134,301; Apr. 6; Gaz. vol. 213; p. 80.
Voorhees, William H., Woodbridge, N. J. Sash-lock for windows. No. 1,137,435; Apr. 27; Gaz. vol. 213; p. 1313.
Vorce, Albert F. (See Bristol and Vorce.)
Voris, George M., San Francisco, Cal. Folding paper box. No. 1,135,742; Apr. 13; Gaz. vol. 213; p. 631.
Vorndran, Georg, Stuttgart, Germany. Flying-machine. No. 1,135,638; Apr. 13; Gaz. vol. 213; p. 595.
W. D. Allen Manufacturing Company. (See Gibbs, Henry, assignor.)
W. H. Coe Manufacturing Company. (See Swallow, Stuart H., assignor.)
W. & T. Avery Ltd. (See Smith and Welsh, assignors.)
Waddell, William J., Lillington, N. C. Tick-extractor. No. 1,137,682; Apr. 27; Gaz. vol. 213; p. 1393.
Wade, Frank K., Paterson, assignor of one-half to R. C. Denny, Bloomfield, N. J. Automatic train-stop. No. 1,136,567; Apr. 20; Gaz. vol. 213; p. 963.
Wagenhorst, James H., Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, and one-fifth to The United States Tire Company, New York, N. Y. Vehicle wheel-rim. No. 1,136,981; Apr. 27; Gaz. vol. 213; p. 1145.
Wagenhorst, James H., Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, and one-fifth to The United States Tire Company, New York, N. Y. Vehicle wheel-rim. No. 1,136,982; Apr. 27; Gaz. vol. 213; p. 1145.
Wagenhorst, James H., Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, and one-fifth to The United States Tire Company, New York, N. Y. Vehicle wheel-rim. No. 1,136,983; Apr. 27; Gaz. vol. 213; p. 1146.
Wagenhorst, James H., Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, and one-fifth to The United States Tire Company, New York, N. Y. Vehicle wheel-rim. No. 1,136,984; Apr. 27; Gaz. vol. 213; p. 1146.
Wagenhorst, James H., Akron, Ohio, assignor, by mesne assignments, of two-fifths to The B. F. Goodrich Company, New York, N. Y., one-fifth to The Goodyear Tire & Rubber Company, Akron, Ohio, and one-fifth to The United States Tire Company, New York, N. Y. Vehicle wheel-rim. No. 1,136,985; Apr. 27; Gaz. vol. 213; p. 1147.
Wagg, W. W. (See Strickland, George K., assignor.)
Wagner, Caspar S. (See Horton and Wagner.)
Wagner, Charles. (See Collins, Leon C., assignor.)
Wagner, Frank, St. Louis, Mo. Game-board. No. 1,135,229; Apr. 13; Gaz. vol. 213; p. 450.
Wagner, Samuel W., Boston, Mass. Hammock. No. 1,136,986; Apr. 27; Gaz. vol. 213; p. 1147.
Wahrheit, Edward H., New York, N. Y. Antifriction-bearing. No. 1,135,081; Apr. 13; Gaz. vol. 213; p. 400.
Wait, William B., New York, N. Y. Plate for embossed printing. No. 1,136,632; Apr. 20; Gaz. vol. 213; p. 985.
Waite, Harry C., Chicago, Ill., assignor to International Harvester Corporation. Internal-combustion engine. No. 1,135,082; Apr. 13; Gaz. vol. 213; p. 401.
Waite, Harry C., Chicago, Ill., assignor to International Harvester Corporation. Internal-combustion engine. No. 1,135,083; Apr. 13; Gaz. vol. 213; p. 401.
Waite, Harry F., New York, N. Y. X-ray apparatus. No. 1,137,557; Apr. 27; Gaz. vol. 213; p. 1353.
Wakefield, Charles C., London, England. Force-feed lubricator. No. 1,134,566; Apr. 6; Gaz. vol. 213; p. 176.
Wakfer, William H., South Norwood, assignor of one-half to S. Peck, Wallington, England. Impact rotary drill. No. 1,136,987; Apr. 27; Gaz. vol. 213; p. 1148.
Wald, David, *et al.* (See Jellinek, Charles, assignor.)
Waldes, Heinrich, New York, N. Y. Display-box. No. 1,136,187; Apr. 20; Gaz. vol. 213; p. 826.
Waldorf, Harry. (See Diefenbach and Waldorf.)
Waldron, William H., Highland Park, assignor to John Waldron Co., New Brunswick, N. J. Border-cutting machine. No. 1,136,741. Apr. 20; Gaz. vol. 213; p. 1025.
Wales, Alfred B., Whitman, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Buttonhole spacer and marker for buttonhole-machines. No. 1,134,966; Apr. 6; Gaz. vol. 213; p. 314.
Walker, Elizabeth S. (See Walker, Rodolphus W., assignor.)
Walker, George L., and W. W. Boughton, Pueblo, Colo. Automatic head-gate. No. 1,136,066; Apr. 20; Gaz. vol. 213; p. 784.
Walker, John H., Lexington, Ky. Combination-tool. No. 1,135,743; Apr. 13; Gaz. vol. 213; p. 631.
Walker, Joseph, Niagara Falls, N. Y. Knife-sharpener. No. 1,134,359; Apr. 6; Gaz. vol. 213; p. 101.
Walker-Moore Manufacturing Company. (See Walker, Willard T., assignor.)
Walker, Percy, Detroit, Mich. Signal-horn and lamp. No. 1,134,360; Apr. 6; Gaz. vol. 213; p. 101.
Walker, Rodolphus W., assignor to E. S. Walker, Lawrence, Mass. Fan attachment. No. 1,134,495; Apr. 6; Gaz. vol. 213; p. 150.
Walker, Willard T., assignor to Walker-Moore Manufacturing Company, Racine, Wis. Shock-absorber. No. 1,135,084; Apr. 13; Gaz. vol. 213; p. 402.
Walker, William A., Racine, Wis., assignor to O. R. Barnett, Chicago, Ill. Rail-anchor. No. 1,134,567; Apr. 6; Gaz. vol. 213; p. 177.
Walker, William E., New Orleans, La. Orthodontia device for influencing the alveolar process and unemerged teeth. No. 1,137,298; Apr. 27; Gaz. vol. 213; p. 1263.
Walkup, Samuel T., New York, N. Y. Controller for power-operated mechanism. No. 1,135,416; Apr. 13; Gaz. vol. 213; p. 515.
Wall, Robert E., Wilson, N. C. Stamp-canceler. No. 1,134,652; Apr. 6; Gaz. vol. 213; p. 208.
Wallace, Francis C., Drummond, Md., and C. F. Forsyth, Washington, D. C., assignors, by mesne assignments, to Little Giant Manufacturing Company. Combined bottle-cap and remover. (Reissue.) No. 13,908; Apr. 27; Gaz. vol. 213; p. 1412.
Walls, Percy B., Los Angeles, Cal. Lock for gear-levers. No. 1,136,508; Apr. 20; Gaz. vol. 213; p. 964.
Walter, Bruce, Pittsburgh, Pa., assignor to J. Gayley, New York, N. Y. Dry-blast system. No. 1,134,568; Apr. 6; Gaz. vol. 213; p. 177.
Walter, Harrison B., assignor to National Fibre Box Company, Danville, Ill. Box. No. 1,134,782; Apr. 6; Gaz. vol. 213; p. 256.

Walters, Edward, Chicago, Ill. Yoke for draw-bars. No. 1,135,474; Apr. 13; Gaz. vol. 213; p. 535.
Walters, Scott C., Albany, Wis. Work-holder for bench-vises. No. 1,136,853; Apr. 20; Gaz. vol. 213; p. 1064.
Walton, Jerrold F., Sturgis, Mich. Adjustable chair. No. 1,137,246; Apr. 27; Gaz. vol. 213; p. 1243.
Walworth Manufacturing Company. (See Earle, Harry C., assignor.)
Wanamaker, Henry, and J. McAllister, Albany, N. Y., assignors to Chicago Pneumatic Tool Company, Chicago, Ill. Drilling-machine. No. 1,135,475; Apr. 13; Gaz. vol. 213; p. 536.
Ward, Thomas H., and R. K. Seals, California, Pa. Heating apparatus. No. 1,135,562; Apr. 13; Gaz. vol. 213; p. 567.
Ware, Joseph L., St. Paul, Minn. Four-wheel drive. No. 1,135,085; Apr. 13; Gaz. vol. 213; p. 402.
Waring, Arthur B. (See West, Francis M., assignor.)
Warner, Alonzo A., assignor to Landers, Frary & Clark. New Britain, Conn. Mixing-machine. No. 1,137,037; Apr. 27; Gaz. vol. 213; p. 1167.
Warner, Arthur W., Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Means for preventing the escape of dust, &c. No. 1,137,558; Apr. 27; Gaz. vol. 213; p. 1353.
Warner, Gilbert H., Indianapolis, Ind. Type-filing instrument. No. 1,136,499; Apr. 20; Gaz. vol. 213; p. 939.
Warren, Peter R., Boston, Mass. Display-holder. No. 1,136,453; Apr. 20; Gaz. vol. 213; p. 923.
Warren, Peter R., Boston, Mass. Folding box. No. 1,136,454; Apr. 20; Gaz. vol. 213; p. 923.
Warren, Robert M., assignor to Sumter Electrical Company, Sumter, S. C. Armature for electrical machines. No. 1,136,907; Apr. 20; Gaz. vol. 213; p. 1083.
Warren Webster & Company. (See Braemer and Bloom, assignors.)
Warren Webster & Company. (See Noll and Miller, assignors.)
Warren Webster & Company. (See Osbourn, Millard P., assignor.)
Washburn, Frank S. (See Landis, Walter S., assignor.)
Washburn, Frank S., Nashville, Tenn. Fertilizer containing lime nitrogen and tankage material. No. 1,135,639; Apr. 13; Gaz. vol. 213; p. 595.
Washburn, Reginald, assignor to The Wire Goods Company, Worcester, Mass. Egg-beater. No. 1,134,170; Apr. 6; Gaz. vol. 213; p. 31.
Washburne, James V., Syracuse, N. Y. Ink-well. No. 1,134,429; Apr. 6; Gaz. vol. 213; p. 126.
Waterbury Farrel Foundry and Machine Company, The. (See Candee, Zenas P., assignor.)
Waterbury Farrel Foundry and Machine Company, The. (See Wilcox, Richard L., assignor.)
Waterbury Mfg. Co. (See Henger, Edwin W., assignor.)
Waterbury Mfg. Co. (See Recker, Adolph C., assignor.)
Waters, Samson, Los Angeles, Cal. Furniture-polish. No. 1,136,742; Apr. 20; Gaz. vol. 213; p. 1025.
Watkins, Alfred, London, England. Dredger. No. 1,134,708; Apr. 6; Gaz. vol. 213; p. 229.
Watkins, Arthur G., assignor of one-half to C. L. Renz, Jr., and one-half to W. N. Jarvis, Philadelphia, Pa. Box. No. 1,134,569; Apr. 6; Gaz. vol. 213; p. 178.
Watkins, Orla H., Clinton, Iowa. Attachment for wringers. No. 1,134,709; Apr. 6; Gaz. vol. 213; p. 229.
Watkins, Robert L. (See Head, Robert, assignor.)
Watres, Lewis S., assignor of forty one-hundredths to C. D. Simpson and twenty one-hundredths to H. H. Brady, Scranton, Pa. Means for determining the weight of fuel carried by a locomotive-tender. No. 1,136,633; Apr. 20; Gaz. vol. 213; p. 985.
Watres, Lewis S., assignor of forty one-hundredths to C. D. Simpson and twenty one-hundredths to H. H. Brady, Scranton, Pa. Means for determining the weight of fuel carried by a locomotive-tender. No. 1,136,634; Apr. 20; Gaz. vol. 213; p. 986.
Watrous, Edward L., Des Moines, Iowa, assignor to D. B. Gann, Chicago, Ill. Dolly-post for washing-machines. No. 1,134,302; Apr. 6; Gaz. vol. 213; p. 80.
Watson, Clyde D., Hartford City, Ind. Receiving and delivering apparatus. No. 1,135,230; Apr. 13; Gaz. vol. 213; p. 450.
Watson, Elmer E., Hamilton, Ohio. Interchangeable-key locks. No. 1,136,067; Apr. 20; Gaz. vol. 213; p. 784.
Watson, Elmer E., Hamilton, Ohio. Interchangeable-key lock. No. 1,137,436; Apr. 27; Gaz. vol. 213; p. 1313.
Watson, Harry C., Lancaster, Ohio. Glass-glazing machine. No. 1,135,640; Apr. 13; Gaz. vol. 213; p. 595.
Watson, James A., Washington, D. C., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,136,569; Apr. 20; Gaz. vol. 213; p. 964.
Watson, William W., Jamestown, N. Y. Knockdown roller-screen. No. 1,135,563; Apr. 13; Gaz. vol. 213; p. 567.
Watt, Elihu D., La Grange, Ill., assignor to Raymond Concrete Pile Company, New York, N. Y. Apparatus for erecting composite piles. No. 1,135,086; Apr. 13; Gaz. vol. 213; p. 403.
Watts, Elmer A., assignor to The Miller Improved Gas Engine Company, Springfield, Ohio. Valve for air-compressors. No. 1,135,476; Apr. 13; Gaz. vol. 213; p. 536.
Watts, William, Jackson, Mich. Corn-sheller. No. 1,137,100; Apr. 27; Gaz. vol. 213; p. 1189.
Waxbom, Carl J. E., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Mining-machine truck. No. 1,136,301; Apr. 20; Gaz. vol. 213; p. 868.
Way, Walter M., Tacoma, Wash. Extension-crate. No. 1,135,231; Apr. 13; Gaz. vol. 213; p. 450.
Weatherhead, Allie, *et al.* (See Parshall, Seth, assignor.)
Weathersby, Robert H., and W. B. Clark, Mammoth, Ariz. Belt-guiding device. No. 1,135,744; Apr. 13; Gaz. vol. 213; p. 632.
Weaver, Alton R., Alameda, Cal. Automatic gas-cock. No. 1,134,932; Apr. 6; Gaz. vol. 213; p. 302.
Weaver, John F., Lancaster, Pa. Composition of matter to be used for feeding live stock. No. 1,135,417; Apr. 13; Gaz. vol. 213; p. 516.
Weaver, Joseph B. (See Burlingham, William, assignor.)
Weaver, Joseph C., Zanesville, Ind. Side rake attachment for hay-loaders. No. 1,134,171; Apr. 6; Gaz. vol. 213; p. 32.
Weaver, Robert B., assignor to Timken-Detroit Axle Company, Detroit, Mich. Gearing. No. 1,136,069; Apr. 20; Gaz. vol. 213; p. 785.
Weaver, Robert R., Columbus, Ohio. Uncoupling device for car-couplings. No. 1,136,068; Apr. 20; Gaz. vol. 213; p. 785.
Webb, Edwin W. (See Barber and Webb.)
Webb, Edwin W., assignor to Standard Car Truck Company, Chicago, Ill. Roller-bearing for cars. No. 1,137,038; Apr. 27; Gaz. vol. 213; p. 1167.
Webb, Robert. (See Jeanne, Hippolyte, assignor.)
Weber, August, Sr., assignor to Weber Electric Company, Schenectady, N. Y. Case for incandescent electric lamp-sockets. No. 1,136,383; Apr. 20; Gaz. vol. 213; p. 897.
Weber Electric Co. (See Weber, August, Sr., assignor.)
Weber, Frederick C., New York, N. Y. Pumping system. No. 1,136,070; Apr. 20; Gaz. vol. 213; p. 785.
Weber, George H., Carlton, Oreg., Overhead carrier. No. 1,137,040; Apr. 27; Gaz. vol. 213; p. 1168.
Weber, George W., assignor to American Can Company, New York, N. Y. Individual drinking-cup. No. 1,137,039; Apr. 27; Gaz. vol. 213; p. 1167.
Weber, Henry, assignor to Latham Machinery Company, Chicago, Ill. Staple forming and driving machine. No. 1,134,303; Apr. 6; Gaz. vol. 213; p. 80.
Webster, Ira J., Haverhill, Mass. Heel-building machine. No. 1,137,041; Apr. 27; Gaz. vol. 213; p. 1168.
Webster, John E., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Oil-guard for dynamo-electric machines. No. 1,135,087; Apr. 13; Gaz. vol. 213; p. 403.
Webster, Melvin F., Minneapolis, Minn. Variable-speed-transmission mechanism. No. 1,136,188; Apr. 20; Gaz. vol. 213; p. 826.
Webster, William A., assignor of one-half to J. Hulse, Galesburg, Ill. Sack-baler. No. 1,135,931; Apr. 13; Gaz. vol. 213; p. 695.
Wechsler, Samuel. (See Wechsler, Sander M. and S.)
Wechsler, Sander M. and S., Cleveland, Ohio. Spool-holder. No. 1,136,854; Apr. 20; Gaz. vol. 213; p. 1064.
Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,137,559; Apr. 27; Gaz. vol. 213; p. 1354.
Wedoo, Grace, Garner, Iowa. Folding box. No. 1,134,783; Apr. 6; Gaz. vol. 213; p. 256.
Weed, Oscar G., St. Joseph, Mo. Post-mold. No. 1,134,653; Apr. 6; Gaz. vol. 213; p. 208.
Wege, Ernest F., La Crosse, Wis., assignor to Sterling Machinery Company, La Crescent, Minn. Brick-machine. No. 1,136,743; Apr. 20; Gaz. vol. 213; p. 1026.
Weidner, Hayes, Cliffs, Ariz. Spring-wheel. No. 1,135,869; Apr. 13; Gaz. vol. 213; p. 675.
Weil, Otto. (See Goldschmidt and Weil.)
Weiland, Edward W. (See Beach, Robert O., assignor.)
Weimar, Andrew, assignor to Weimar Brothers, Philadelphia, Pa. Narrow-ware loom. No. 1,135,641; Apr. 13; Gaz. vol. 213; p. 595.
Weimar Brothers. (See Weimar, Andrew, assignor.)
Weingarten, Oscar, New York, N. Y. Garment-closure. No. 1,137,437; Apr. 27; Gaz. vol. 213; p. 1313.
Weinstein, Samuel, Chicago, Ill. Tray. No. 1,135,088; Apr. 13; Gaz. vol. 213; p. 403.
Weintraub, Ezechiel, Schenectady, N. Y., assignor to General Electric Company. Vapor electric lamp or rectifier. No. 1,134,784; Apr. 6; Gaz. vol. 213; p. 256.
Weintraub, Ezechiel, Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,134,785; Apr. 6; Gaz. vol. 213; p. 257.
Weintraub, Ezechiel, Schenectady, N. Y., assignor to General Electric Company. Rectifying alternating current. No. 1,134,786; Apr. 6; Gaz. vol. 213; p. 257.
Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Rectifying alternating current. No. 1,134,787; Apr. 6; Gaz. vol. 213; p. 257.
Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Electric terminal. No. 1,134,788; Apr. 6; Gaz. vol. 213; p. 258.
Weintraub, George, Lynn, Mass., assignor to General Electric Company. Making boron nitrid. No. 1,135,232; Apr. 13; Gaz. vol. 213; p. 451.
Weir, David P., Rathdrum, Idaho. Brake for vehicles. No. 1,134,570; Apr. 6; Gaz. vol. 213; p. 178.
Weisert, Henry E., *et al.* (See Jameson, Charles V., assignor.)
Weislowits, Edward, Newark, N. J. Shipping-jacket. No. 1,136,635; Apr. 20; Gaz. vol. 213; p. 986.

Weiss, Albert T., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y. Shelf-section for metallic furniture. No. 1,135,233; Apr. 13; Gaz. vol. 213; p. 451.
Weiss, Albert T., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y. Follower for filing-receptacles. No. 1,135,234; Apr. 13; Gaz. vol. 213; p. 451.
Weiss, Albert T., assignor to Yawman & Erbe Mfg. Co., Rochester, N. Y. Roller extension-drawer. No. 1,135,235; Apr. 13; Gaz. vol. 213; p. 452.
Weiss, Albert T., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y. Metallic-furniture drawer. No. 1,136,071; Apr. 20; Gaz. vol. 213; p. 786.
Weissmann, Gustave, Paris, France, assignor to A. B. Heine, New York, N. Y. Tubular conductor for incandescent electric lamps. No. 1,136,384; Apr. 20; Gaz. vol. 213; p. 808.
Welin, Peter, Newcastle, Ind., assignor, by mesne assignments, to L. Maxwell, Cincinnati, Ohio. Player for musical instruments. No. 1,134,249; Apr. 6; Gaz. vol. 213; p. 61.
Welin, Peter, Worcester, Mass., assignor, by mesne assignments, to L. Maxwell, Cincinnati, Ohio. Automatic combination solo musical instrument. No. 1,136,385; Apr. 20; Gaz. vol. 213; p. 898.
Weller, Paul A., Maitland, Mo. Attachment for lamp-chimneys. No. 1,137,247; Apr. 27; Gaz. vol. 213; p. 1243.
Wells, Gustavus V., assignor of one-half to W. S. Putnam, Des Moines, Iowa. Device for marking shoe-boxes. No. 1,134,789; Apr. 6; Gaz. vol. 213; p. 258.
Welsh, Henry W. (See Smith and Welsh.)
Welton, Harry A. (See Welton, Park E. and H. A.)
Welton, Katharine B. (See Welton, Park E., assignor.)
Welton, Katharine B. (See Welton, Park E. and H. A., assignors.)
Welton, Park E., assignor to K. B. Welton, Akron, Ohio. Feed mechanism for mixing-mills. No. 1,134,172; Apr. 6; Gaz. vol. 213; p. 32.
Welton, Park E. and H. A., assignors to K. B. Welton, Akron, Ohio. Feed mechanism for mixing-mills. No. 1,134,173; Apr. 6; Gaz. vol. 213; p. 32.
Wendell, Carl A., Joliet, Ill. Centrifugal drier. No. 1,136,988; Apr. 27; Gaz. vol. 213; p. 1148.
Wendell, Fred C., deceased; T. S. Wendell, administratrix, New York, N. Y. Ironing-machine. No. 1,137,438; Apr. 27; Gaz. vol. 213; p. 1313.
Wendell, Theresa S., administratrix. (See Wendell, Fred C.)
Wender, Benjamin, and J. Brunelli, New York, N. Y. Ironing-pad. No. 1,134,430; Apr. 6; Gaz. vol. 213; p. 126.
Wenman, John L., New Vernon, N. J. Harrow. No. 1,137,560; Apr. 27; Gaz. vol. 213; p. 1354.
Wenzlick, Charlotte, Milwaukee, Wis. Hair-holder. No. 1,135,745; Apr. 13; Gaz. vol. 213; p. 632.
Werner, John A., assignor to National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,134,174; Apr. 6; Gaz. vol. 213; p. 33.
Wernigg, Henrik, Akron, Ohio. Safety elevator device. No. 1,135,339; Apr. 13; Gaz. vol. 213; p. 488.
Wernimont, Henry G., Washington, D. C., assignor, by mesne assignments, to W. Rauen, Chicago, Ill. Snap-hook. No. 1,136,744; Apr. 20; Gaz. vol. 213; p. 1026.
Wernimont, Henry G. Wash., D. C., assignor, by mesne assignments, to W. Rauen, Chicago, Ill. Can-opener. No. 1,137,175; Apr. 27; Gaz. vol. 213; p. 1216.
Weser, John A., New York, N. Y. Upright piano. No. 1,134,496; Apr. 6; Gaz. vol. 213; p. 151.
Weser, John A., New York, N. Y. Mechanical musical instrument. No. 1,137,439; Apr. 27; Gaz. vol. 213; p. 1314.
West Disinfecting Company. (See Marcuse, Moses M., assignor.)
West, Francis M., assignor to A. B. Waring, Yonkers, N. Y. Stencil. No. 1,134,571; Apr. 6; Gaz. vol. 213; p. 178.
West, Henry L., Cavendish, Vt. Tongue-support. No. 1,136,855; Apr. 20; Gaz. vol. 213; p. 1065.
Westbye, Peder P., Peterborough, Ontario, Canada. Pulp-screen. No. 1,134,304; Apr. 6; Gaz. vol. 213; p. 81.
Westcott, Frederick L., Orlando, Nebr. Brooder. No. 1,135,477; Apr. 13; Gaz. vol. 213; p. 536.
Western Dental Manufacturing Company (1914) Limited. (See Taylor, Albert H., assignor.)
Western Electric Company. (See Clausen, Henry P., assignor.)
Western Electric Company. (See Colpitts, Edwin H., assignor.)
Western Electric Company. (See Goodrum, Charles L., assignor.)
Western Electric Company. (See Helsing, Raymond A., assignor.)
Western Electric Company. (See Hill, Ralph N., assignor.)
Western Electric Company. (See Lundquist, Frank A., assignor.)
Western Electric Company. (See McBerty and Polinkowsky, assignors.)
Western Electric Company. (See Nicolson, Alexander M., assignor.)
Western Electric Company. (See Polinkowsky, Lipa, assignor.)
Western Electric Company. (See Roberts, John G., assignor.)
Western Electric Company. (See Shreeve, Herbert E., assignor.)
Westfall, David, Canajoharie, N. Y. Turbine. No. 1,136,745; Apr. 20; Gaz. vol. 213; p. 1026.
Westinghouse Air Brake Company, The. (See Cloud, John W., assignor.)
Westinghouse Air Brake Company, The. (See Donovan, Patrick H., assignor.)
Westinghouse Air Brake Company, The. (See Hume, John, assignor.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
Westinghouse Air Brake Company, The. (See Woernley, Harry F., assignor.)
Westinghouse Electric and Manufacturing Company. (See Bakken, Andrew H., assignor.)
Westinghouse Electric and Manufacturing Company. (See Barnes, Wilfred, Jr., assignor.)
Westinghouse Electric and Manufacturing Company. (See Copley, Almon W., assignor.)
Westinghouse Electric & Manufacturing Company. (See Fortescue, Charles L., assignor.)
Westinghouse Electric and Manufacturing Company. (See Moul, Herbert E., assignor.)
Westinghouse Electric and Manufacturing Company. (See Storer, Norman W., assignor.)
Westinghouse Electric & Manufacturing Company. (See Webster, John E., assignor.)
Westinghouse Gear and Dynamometer Company. (See Westinghouse, George, assignor.)
Westinghouse, George, Pittsburgh, Pa., assignor to The Westinghouse Gear and Dynamometer Company. Reduction-gearing. No. 1,136,072; Apr. 20; Gaz. vol. 213; p. 786.
Westinghouse, George, Pittsburgh, Pa., assignor to The Westinghouse Gear and Dynamometer Company. Reduction-gearing. No. 1,136,189; Apr. 20; Gaz. vol. 213; p. 827.
Westinghouse, Henry H., New York, N. Y. Friction draft-gear. No. 1,136,073; Apr. 20; Gaz. vol. 213; p. 786.
Westinghouse Machine Company, The. (See Ehrhart, Raymond N., assignor.)
Weston, Burt H. (See Gordon and Weston.)
Wetherell, Anson B., Pittsburgh, Pa. Self-filling tire. No. 1,134,361; Apr. 6; Gaz. vol. 213; p. 101.
Wetsel, Clarence J., Chicopee, Mass. Multiple-spindle drilling-machine. No. 1,135,974; Apr. 13; Gaz. vol. 213; p. 712.
Wetsel, Edward S., Binghamton, N. Y. Egg-case. No. 1,135,564; Apr. 13; Gaz. vol. 213; p. 568.
Wheary, George H., Racine, Wis. Automatic locking means for trunks. No. 1,134,175; Apr. 6; Gaz. vol. 213; p. 33.
Wheel Truing Brake Shoe Company. (See Griffin and Allen, assignors.)
Wheeldon, Arthur L., assignor to Dean's Rag Book Company, Limited, London, England. Printed sheet for making up stuffed dolls or the like. No. 1,135,746; Apr. 13; Gaz. vol. 213; p. 632.
Wheeler Condenser and Engineering Company. (See Christie, Evi W., assignor.)
Wheeler, Orrin A., assignor of one-third to E. D. Loewenthal and one-third to B. Loewenthal, Chicago, Ill. Reclaiming rubber. No. 1,135,236; Apr. 13; Gaz. vol. 213; p. 452.
Whisenant, Marvin R., Hollis, Okla. Machine for raising and lowering well-piping. No. 1,137,101; Apr. 27; Gaz. vol. 213; p. 1190.
White, Charles E., Moline, Ill., assignor to Deere & Mansur Company, Harrow. No. 1,134,654; Apr. 6; Gaz. vol. 213; p. 209.
White Company, The. (See Scaife, Arthur J., assignor.)
White, Francis, Littlefork, Minn. Seeder. No. 1,137,883; Apr. 27; Gaz. vol. 213; p. 1394.
White, Francis S., Philadelphia, Pa. Process and apparatus for forging bucket-wheels. No. 1,137,440; Apr. 27; Gaz. vol. 213; p. 1314.
White, Frank, St. John, New Brunswick, Canada. Manufacture of confection. No. 1,136,074. Apr. 20; Gaz. vol. 213; p. 786.
White, Herbert E., assignor to The General Fireproofing Company, Youngstown, Ohio. Wire-fastening device. No. 1,136,746; Apr. 20; Gaz. vol. 213; p. 1027.
White, Herbert E., assignor to The General Fireproofing Company, Youngstown, Ohio. Making wire fabric. No. 1,137,441; Apr. 27; Gaz. vol. 213; p. 1314.
White, Joseph, Beechwood Heights, Piscataway township, Middlesex county, assignor to Hall Printing Press Company, Dunellen, N. J. Printing-machine. No. 1,137,299; Apr. 27; Gaz. vol. 213; p. 1263.
White, Oliver L., Alpha, N. D. Storm-curtain. No. 1,136,570; Apr. 20; Gaz. vol. 213; p. 964.
White, Ulysses G., Boulder, Mont. Propelling and balancing mechanism for air-craft. No. 1,134,790; Apr. 6; Gaz. vol. 213; p. 258.
White, William M., Milwaukee, Wis. Centrifugal pump. No. 1,134,655; Apr. 6; Gaz. vol. 213; p. 209.
Whitehead & Hoag Company, The. (See Page, Herman C., assignor.)
Whitin Machine Works, The. (See Owen, Oscar L., assignor.)
Whitman, Frederick H., assignor to Dodge Brothers, Detroit, Mich. Drag-link device. No. 1,135,237; Apr. 13; Gaz. vol. 213; p. 452.

Whitney, Arthur S., San Francisco, Cal. Spouted container. No. 1,137,248; Apr. 27; Gaz. vol. 213; p. 1244.
Whitney, Perrin B., assignor to Mesinger-Whitney Electric Company, Inc., New York, N. Y. Storage battery. No. 1,136,075; Apr. 20; Gaz. vol. 213; p. 787.
Whittier, Frederick G., Brookline, assignor to The Lamson Company, Boston, Mass. Routing apparatus. No. 1,136,571; Apr. 20; Gaz. vol. 213; p. 965.
Whittingham, George H., Pikesville, assignor to Monitor Manufacturing Company of Baltimore City, Baltimore, Md. Motor-starter. No. 1,135,870; Apr. 13; Gaz. vol. 213; p. 676.
Wiechmann, Ferdinand G., New York, assignor to Fenoform Corporation, Hastings-upon-Hudson, N. Y. Plastic material. No. 1,135,340; Apr. 13; Gaz. vol. 213; p. 489.
Wiedersheim, John A., Philadelphia, Pa. Christmas-tree garden. No. 1,135,642; Apr. 13; Gaz. vol. 213; p. 596.
Wiegand, Edwin L., Canal Dover, Ohio. Producing electrical heating devices. No. 1,136,076; Apr. 20; Gaz. vol. 213; p. 787.
Wiener, Joseph, Baltimore, Md. Switch-throwing device. No. 1,135,238; Apr. 13; Gaz. vol. 213; p. 453.
Wiener, Paul, New York, N. Y. Iron stand. No. 1,136,455; Apr. 20; Gaz. vol. 213; p. 924.
Wienicki, Joseph, *et al.* (See Gepack, Paul, assignor.)
Wiesche & Scharffe. (See Zins, Johann, assignor.)
Wiesner, Oscar C., Kansas City, Mo. Vending-machine. No. 1,134,305; Apr. 6; Gaz. vol. 213; p. 81.
Wigelius, Sven, assignor to Aktiebolaget Wigelius Motorer, Stockholm, Sweden. Gas-motor. No. 1,135,418; Apr. 13; Gaz. vol. 213; p. 516.
Wiggen, Peder, assignor of one-half to O. Nelson, Chicago, Ill. Pneumatic musical instrument. No. 1,136,190; Apr. 20; Gaz. vol. 213; p. 827.
Wigginton, George P., Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 1,136,572; Apr. 20; Gaz. vol. 213; p. 965.
Wigginton, George P., Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 1,136,573; Apr. 20; Gaz. vol. 213; p. 966.
Wight, Sedgwick N., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Absolute permissive block-signal system. No. 1,134,982; Apr. 6; Gaz. vol. 213; p. 322.
Wiitala, Gust, Ontonagon, Mich. Lock. No. 1,134,791; Apr. 6; Gaz. vol. 213; p. 259.
Wiking, Henrik and C. G. Söderlund, Gottenborg, Sweden. Ball-bearing. No. 1,136,077; Apr. 20; Gaz. vol. 213; p. 787.
Wilckes, Martin, Wilckes Co. (See Kressel, Edward C. L., assignor.)
Wilcox, Elbert F., Kansas City, Mo. Concrete pavement. No. 1,134,306; Apr. 6; Gaz. vol. 213; p. 82.
Wilcox, Jay, Rothbury, Mich. Tree-sprayer. No. 1,135,341; Apr. 13; Gaz. vol. 213; p. 489.
Wilcox, Jay, Grand Rapids, Mich. Valve for spraying-machines. No. 1,135,342; Apr. 13; Gaz. vol. 213; p. 489.
Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Feed mechanism. No. 1,135,239; Apr. 13; Gaz. vol. 213; p. 453.
Wilcox, William L., and T. G. Rakestraw, assignors to Duplex Steam Trap Manufacturing Company, Detroit, Mich. Steam-trap. No. 1,137,102; Apr. 27; Gaz. vol. 213; p. 1190.
Wild, Adolf, Corona, N. Y. Clothes-pin. No. 1,134,710; Apr. 6; Gaz. vol. 213; p. 229.
Wilder, Julian, Augusta, Me. Trolley-wheel mount. No. 1,136,574; Apr. 20; Gaz. vol. 213; p. 966.
Wilgus, Charles V. (See Klink, Wilgus and Bickford.)
Wilgus, Harry, Philadelphia, Pa. Damper-controlling mechanism. No. 1,137,369; Apr. 27; Gaz. vol. 213; p. 1289.
Wilkens, Otto J., Minneapolis, Minn. Fly-catcher. No. 1,137,370; Apr. 27; Gaz. vol. 213; p. 1289.
Wilkin, Joseph A., Matamoras, Pa. Variable-speed-transmission apparatus. No. 1,136,636; Apr. 20; Gaz. vol. 213; p. 986.
Wilks, Charley H., Argenta, Ark. Templet. No. 1,135,089; Apr. 13; Gaz. vol. 213; p. 403.
Will, Arthur C., Salt Lake City, Utah. Handle-lock. No. 1,134,792; Apr. 6; Gaz. vol. 213; p. 259.
Willcox & Gibbs Sewing Machine Co. (See Merritt, Arthur A., assignor.)
Willcox & Gibbs Sewing Machine Co. (See Osterhout, Garret B., assignor.)
Willet, Trefley E., Marseilles, Ill. Lubricating apparatus. No. 1,134,656; Apr. 6; Gaz. vol. 213; p. 210.
William Galloway Company, The. (See Cox, John R., assignor.)
William Galloway Company. (See Jackson, Albert R., assignor.)
William M. Crane Company. (See O'Dowd, Henry W., assignor.)
William Schollhorn Company, The. (See Bernard, William A., assignor.)
Williams, Benjamin R., English, Ark. Lining for fireplaces. No. 1,136,856; Apr. 20; Gaz. vol. 213; p. 1065.
Williams, Charles C., Findlay, Ohio. Automobile-jack. No. 1,137,684; Apr. 27; Gaz. vol. 213; p. 1394.
Williams, Harvey D., assignor to Gear Improvement Company, Inc., New York, N. Y. Gear-cutting machine. No. 1,134,711; Apr. 6; Gaz. vol. 213; p. 230.
Williams, Ira R., Portland, Oreg. Automatic window-catch. No. 1,135,147; Apr. 13; Gaz. vol. 213; p. 425.
Williams, Louis N. D., assignor to Scott & Williams, Incorporated, Ogontz, Pa. Rib-knitting machine. No. 1,137,561; Apr. 27; Gaz. vol. 213; p. 1354.
Williams, Nathan W., Seattle, Wash. Combined bed and davenport. No. 1,136,857; Apr. 20; Gaz. vol. 213; p. 1065.
Williams, Theodore E. (See Mathey and Williams.)
Williamson & Merchant. (See Edman, John, assignor.)
Willis, Bernard D., assignor to Automatic Electric Company, Chicago, Ill. Telephone switching apparatus. No. 1,134,933; Apr. 6; Gaz. vol. 213; p. 303.
Willis, Bernard D., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Party-line telephone system. No. 1,135,643; Apr. 13; Gaz. vol. 213; p. 596.
Willis Mitchell Company. (See Mitchell, Willis, assignor.)
Willison, Charles H., Ashland, Oreg. Nut-lock. No. 1,137,042; Apr. 27; Gaz. vol. 213; p. 1168.
Wills, Silas D., Fort Payne, Ala. Spring-mounted wheel. No. 1,136,191; Apr. 20; Gaz. vol. 213; p. 828.
Willson, Albert, Winslow, Ariz. Brake-dog. No. 1,137,300; Apr. 27; Gaz. vol. 213; p. 1263.
Willson, Robert M., Riverside, Cal. Grinding-mill. No. 1,137,685; Apr. 27; Gaz. vol. 213; p. 1394.
Wilmarth Show Case Company. (See Morris, Edmund, assignor.)
Wilson, Alexander R., Spokane, Wash. Type-setting machine. No. 1,136,192; Apr. 20; Gaz. vol. 213; p. 828.
Wilson, Francis G. (See Smith, Putnam D., assignor.)
Wilson, George H., Minneapolis, Minn. Detachable gearing for traction-engines. No. 1,136,302; Apr. 20; Gaz. vol. 213; p. 868.
Wilson, James M., assignor to Splitdorf Electrical Company, Newark, N. J. Electric-current generator. No. 1,136,078; Apr. 20; Gaz. vol. 213; p. 788.
Wilson, James W., Tulsa, Okla. Valve-grinder. No. 1,134,362; Apr. 6; Gaz. vol. 213; p. 102.
Wilson, Stephen G., Philadelphia, Pa. Brush or mirror holder or back. No. 1,134,712; Apr. 6; Gaz. vol. 213; p. 230.
Winans, Edwin, New York, assignor to C. D. Lasher, North Germantown, N. Y. Air-feed for furnaces. No. 1,134,793; Apr. 6; Gaz. vol. 213; p. 259.
Winch, William O. (See Chiniquy and Winch.)
Winchester, Samuel, *et al.* (See Bragg, Julius, assignor.)
Windle, James B. (See Nolte, Frank F., assignor.)
Winkley, Erastus E., Lynn, Mass. Cutting-machine. No. 1,136,193; Apr. 20; Gaz. vol. 213; p. 829.
Winlund, Nicholas J., Rockford, Ill. Dulcimer-action. No. 1,137,562; Apr. 27; Gaz. vol. 213; p. 1354.
Winter, Henry W., Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Stamping-machine. No. 1,137,103; Apr. 27; Gaz. vol. 213; p. 1191.
Winters, Ferdinand L. (See Eichholtz and Winters.)
Winton, Alexander, assignor to Winton Gas Engine and Manufacturing Company, Cleveland, Ohio. Gas-engine. No. 1,134,794; Apr. 6; Gaz. vol. 213; p. 260.
Winton, Alexander, assignor to Winton Gas Engine and Manufacturing Company, Cleveland, Ohio. Gas-engine. No. 1,134,795; Apr. 6; Gaz. vol. 213; p. 260.
Winton Gas Engine and Manufacturing Company. (See Winton, Alexander, assignor.)
Wire Goods Company, The. (See Washburn, Reginald, assignor.)
Wireless Specialty Apparatus Company. (See Pickard, Greenleaf W., assignor.)
Wirsing, Andrew E., Milwaukee, Wis. Antiskidding rail-clamp mechanism. No. 1,137,104; Apr. 27; Gaz. vol. 213; p. 1191.
Wirth, Dorsey M., Bucyrus, Ohio. Glove or gauntlet. No. 1,135,747; Apr. 13; Gaz. vol. 213; p. 633.
Wise, John. (See McCabe and Wise.)
Wiseman, Edmund, Luton, England. Straw-plait-sewing machine. No. 1,137,249; Apr. 27; Gaz. vol. 213; p. 1244.
Wiseman, Edmund, Luton, England. Tension mechanism of straw-plait-sewing machines. No. 1,137,250; Apr. 27; Gaz. vol. 213; p. 1245.
Wisted, James, Myncaster, British Columbia, Canada. Convertible sleigh and wheeled vehicle. No. 1,134,657; Apr. 6; Gaz. vol. 213; p. 210.
Witherspoon, Thomas A., *et al.* (See Beatty, Wallace A., assignor.)
Witte, Friedrich W., assignor to Deutsche Kugellagerfabrik G. m. b. H., Leipzig-Plagwitz, Germany. Shaft-support. No. 1,136,637; Apr. 20; Gaz. vol. 213; p. 987.
Woelffel, Ernest H., Point Pleasant, W. Va. Hose-coupling. No. 1,137,686; Apr. 27; Gaz. vol. 213; p. 1395.
Woernley, Harry F., Pittsburgh, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Draft-gear attachment. No. 1,136,079; Apr. 20; Gaz. vol. 213; p. 788.
Wohlcke, Fred J., and J. H. McLellan, Nederland, Colo. Slate. No. 1,136,575; Apr. 20; Gaz. vol. 213; p. 966.
Wolf, Adam M., Plymouth, Wis. Indicating and registering mechanism for tanks. No. 1,136,576; Apr. 20; Gaz. vol. 213; p. 967.
Wolf, Elmer E. (See Torlina and Wolf.)

Wolf, George, West New York, N. J., assignor to Niagara Box Factory, Inc., New York, N. Y. Assortment-box for lead-pencils and similar articles. No. 1,135,748; Apr. 13; Gaz. vol. 213; p. 633.
Wolfe, Abraham T., Coffeyville, Kans. Pumping-jack. No. 1,135,419; Apr. 13; Gaz. vol. 213; p. 516.
Wolfe, Grover C. and H. K., assignors to Rotary Rod Weeder & Manufacturing Company, Cheney, Wash. Weeder and cultivator. (Reissue.) No. 13,899; Apr. 6; Gaz. vol. 213; p. 325.
Wolfe, Henry K. (See Wolfe, Grover C. and H. K.) (Reissue.)
Wolfe, John G., New York, N. Y. Umbrella. No. 1,136,386; Apr. 20; Gaz. vol. 213; p. 899.
Wolfe, Joseph L., Bridgeport, Conn. Test-indicator. No. 1,134,713; Apr. 6; Gaz. vol. 213; p. 230.
Wolfsohn, Adolf, assignor to Motion Picture Appliance Corporation, New York, N. Y. Device for motion-picture printing. No. 1,136,194; Apr. 20; Gaz. vol. 213; p. 829.
Womack, Edward W., Welch, W. Va. Cue-tip. No. 1,134,796; Apr. 6; Gaz. vol. 213; p. 260.
Wood, Edward C., Somerville, assignor to J. W. Davies, Reading, Mass. Force-feed lubricator and governor for rotatable spindles. No. 1,134,714; Apr. 6; Gaz. vol. 213; p. 231.
Wood, Frederick P., assignor to Detroit Can Company, Detroit, Mich. Adhesive to be employed in the manufacture of paper-walled vessels. No. 1,137,043; Apr. 27; Gaz. vol. 213; p. 1169.
Wood, George P., Peekskill, N. Y. Box-fastener. No. 1,136,500; Apr. 20; Gaz. vol. 213; p. 940.
Wood, Harvey D., Fayetteville, Ark. Stove. No. 1,135,478; Apr. 13; Gaz. vol. 213; p. 537.
Wood, Harvey M., Los Angeles, Cal. Saw-clamp. No. 1,137,301; Apr. 27; Gaz. vol. 213; p. 1263.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Machine for finishing and cooling stereotype-plates. No. 1,134,798; Apr. 6; Gaz. vol. 213; p. 261.
Wood, Henry A. W., assignor, by mesne assignments, to Wood Newspaper Machinery Corporation, New York, N. Y. Machine for cooling stereotype-plates. No. 1,134,799; Apr. 6; Gaz. vol. 213; p. 262.
Wood, Henry A. W., assignor to Wood Newspaper Machinery Corporation, New York, N. Y. Method of sizing curved stereotype printing-plates and apparatus therefor. No. 1,134,800; Apr. 6; Gaz. vol. 213; p. 262.
Wood, Milton R., East Orange, N. J. Lithographic process. No. 1,135,749; Apr. 13; Gaz. vol. 213; p. 633.
Wood, Moses L., New York, N. Y. Expanding bullet. No. 1,134,797; Apr. 6; Gaz. vol. 213; p. 261.
Wood Newspaper Machinery Corporation. (See Wood, Henry A. W., assignor.)
Wood, Robert, Brooklyn, assignor to The Nathan Manufacturing Company, New York, N. Y. Flange-lubricator. No. 1,134,363; Apr. 6; Gaz. vol. 213; p. 102.
Wood, Robert, Brooklyn, assignor to The Nathan Manufacturing Company, New York, N. Y. Lubricator. No. 1,135,644; Apr. 13; Gaz. vol. 213; p. 597.
Wood, Thomas E., and W. H. Safford, Jr., Great Falls, Mont. Lathe grinder attachment. No. 1,137,371; Apr. 27; Gaz. vol. 213; p. 1289.
Wood, William G., Sacramento, Cal. Resilient support for vehicle-bodies. No. 1,137,176; Apr. 27; Gaz. vol. 213; p. 1216.
Woodall, William E., Nashville, Tenn. Combined brush and comb. No. 1,135,645; Apr. 13; Gaz. vol. 213; p. 597.
Woodard, Charles B., Springfield, Tenn. Emergency-exit-door fastener. No. 1,136,989; Apr. 27; Gaz. vol. 213; p. 1148.
Woodizka, Julia. (See Woodizka, Karl and J.)
Woodizka, Karl and J., Los Angeles, Cal. Automatic feed and water dispenser. No. 1,134,934; Apr. 6; Gaz. vol. 213; p. 303.
Woodruff, Eugene C., State College, Pa. System of motor control. No. 1,136,195; Apr. 20; Gaz. vol. 213; p. 830.
Woods, Frank R., Hillsdale, Mich. Removable cover for containers. No. 1,136,747; Apr. 20; Gaz. vol. 213; p. 1027.
Woods, George E., Billings, Mont. Automobile head-lamp control. No. 1,134,801; Apr. 6; Gaz. vol. 213; p. 262.
Woods, Homer A., Indianapolis, Ind. Portable blackboard and advertiser. No. 1,135,241; Apr. 13; Gaz. vol. 213; p. 454.
Woods, Michael, G. W. Gilbert, and J. Little, Melbourne, Victoria, Australia. Machine for dressing stone. No. 1,134,658; Apr. 6; Gaz. vol. 213; p. 210.
Woodward, Frank R., Hill, N. H., assignor of one-half to Smith & Hemenway Company, Incorporated, New York, N. Y. Magazine glass-cutter. No. 1,134,307; Apr. 6; Gaz. vol. 213; p. 82.
Woodward, Frederick E., Lachine, Quebec, Canada. Shoe-filler. No. 1,136,456; Apr. 20; Gaz. vol. 213; p. 924.
Woodward, Frederick E., Lachine, Quebec, Canada. Shoe-filler. No. 1,136,457; Apr. 20; Gaz. vol. 213; p. 924.
Woodward, Frederick E., Lachine, Quebec, Canada. Shoe-filler. No. 1,136,458; Apr. 20; Gaz. vol. 213; p. 924.
Woodward, Frederick E., Lachine, Quebec, Canada. Shoe-filler. No. 1,136,459; Apr. 20; Gaz. vol. 213; p. 924.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,135,420; Apr. 13; Gaz. vol. 213; p. 517.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Thread-controlling mechanism for sewing-machines. No. 1,135,343; Apr. 13; Gaz. vol. 213; p. 490.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Presser-foot. No. 1,135,421; Apr. 13; Gaz. vol. 213; p. 517.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for sewing-machines. No. 1,135,646; Apr. 13; Gaz. vol. 213; p. 597.
Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Thread-controller for sewing-machines. No. 1,136,748; Apr. 20; Gaz. vol. 213; p. 1027.
Woolley, Frederick R., Jr., Great Falls, Mont. Automatic fender. No. 1,137,563; Apr. 27; Gaz. vol. 213; p. 1355.
Wootton, William S., Roanoke, Va. Suspensory. No. 1,135,479; Apr. 13; Gaz. vol. 213; p. 537.
Worrall, Henry T., Chelmsford, England. Locking device for electric lamps. No. 1,137,177; Apr. 27; Gaz. vol. 213; p. 1217.
Worswick, James E., assignor of one-half to W. L. Allen, Montgomery, Ala. Brake-shoe. No. 1,134,715; Apr. 6; Gaz. vol. 213; p. 231.
Worth, William E., San Francisco, Cal. Lettering-pen. No. 1,136,196; Apr. 20; Gaz. vol. 213; p. 830.
Worthington, Charles C., Shawnee, Pa. Flying-machine. No. 1,135,242; Apr. 13; Gaz. vol. 213; p. 454.
Wright, Albert N., Rochester, N. Y. Hanger for use in concrete construction. No. 1,136,460; Apr. 20; Gaz. vol. 213; p. 924.
Wright, Charles D., Adrian, Mich. Gas-lamp. No. 1,134,935; Apr. 6; Gaz. vol. 213; p. 304.
Wright, Edwin C., Newport, Ky., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. System of distribution. No. 1,134,659; Apr. 6; Gaz. vol. 213; p. 211.
Wright, James, Hamilton, Ontario, Canada. Safety-guard for power-presses. No. 1,135,480; Apr. 13; Gaz. vol. 213; p. 537.
Wright, John T., assignor of one-third to W. R. Crow and J. R. Maxey, Kingston, Okla. Scissors or shears. No. 1,137,687; Apr. 27; Gaz. vol. 213; p. 1395.
Wright, Joseph L., Washington, D. C., assignor, by mesne assignments, to F. C. Stevens, Attica, N. Y. Telephone-exchange system. No. 1,134,308; Apr. 6; Gaz. vol. 213; p. 82.
Wright, Joseph L., Washington, D. C., assignor, by mesne assignments, to F. C. Stevens, Attica, N. Y. Telephone-exchange system. No. 1,137,372; Apr. 27; Gaz. vol. 213; p. 1290.
Wright, Walter, San Francisco, Cal. Individual-letter-printing apparatus. No. 1,135,243; Apr. 13; Gaz. vol. 213; p. 454.
Wright, Ward E., assignor to Union Special Machine Company, Chicago, Ill. Feeding mechanism for sewing-machines. No. 1,136,749; Apr. 20; Gaz. vol. 213; p. 1027.
Wulkan, Louis, Cedarhurst, and K. Glass, New York, N. Y. Separable joint for display-figures. No. 1,134,716; Apr. 6; Gaz. vol. 213; p. 232.
Wyckoff, Amos A., Santa Cruz, Cal., assignor to Coin Time Lock Co., Chicago, Ill. Coin-controlled lock. No. 1,136,197; Apr. 20; Gaz. vol. 213; p. 831.
Wyckoff, Amos A., Santa Cruz, Cal., assignor to Coin Time Lock Co., Chicago, Ill. Coin-controlled lock. No. 1,136,198; Apr. 20; Gaz. vol. 213; p. 831.
Yale & Towne Manufacturing Company, The. (See Erichson, Charles A., assignor.)
Yardley, John O., Stockton, Cal. Sash-lock. No. 1,134,572; Apr. 6; Gaz. vol. 213; p. 178.
Yawman & Erbe Manufacturing Company. (See Weiss, Albert T., assignor.)
Yellen, Stanley J., Great Neck, N. Y. Miner's lamp. No. 1,136,303; Apr. 20; Gaz. vol. 213; p. 869.
Yocom, William S., *et al.* (See Schaffer, Martin R., assignor.)
Young, Charles D., Altoona, Pa. Superheater. No. 1,135,422; Apr. 13; Gaz. vol. 213; p. 517.
Young, Edward L., and H. N. Miller, Detroit, Mich. Wringer-guard. No. 1,136,387; Apr. 20; Gaz. vol. 213; p. 899.
Young, Hanby L. (See McPherson, Samuel E., assignor.)
Young, Harvey L., Dayton, Ohio. Floor-planing machine. No. 1,137,105; Apr. 27; Gaz. vol. 213; p. 1191.
Young, John M., assignor to American Can Company, San Francisco, Cal. Apparatus for cutting and depositing ring-liners onto the flange of can-covers. No. 1,135,244; Apr. 13; Gaz. vol. 213; p. 455.
Young, Leonard A., Detroit, Mich. Upholstery spring construction. No. 1,137,106; Apr. 27; Gaz. vol. 213; p. 1192.
Zabel, William, Edgewood borough, assignor to The Union Switch & Signal Company, Swissvale, Pa. Keyboard for printing-telegraph apparatus. No. 1,137,044; Apr. 27; Gaz. vol. 213; p. 1169.
Zang, Joseph E. (See Klorer, Charles P., assignor.)
Zaug, Emil G. (See Courtois, Charles A., assignor.)
Zavelberg, Albert, Hohenlohehütte, Germany. Zinc-producing furnace. No. 1,136,304; Apr. 20; Gaz. vol. 213; p. 869.
Zawericz, Roman, Bentleyville, Pa. Trolley-wheel mount. No. 1,136,199; Apr. 20; Gaz. vol. 213; p. 831.
Zens, J. P., *et al.* (See Andersen and Mink, assignors.)

Ziencik, John, New Kensington, Pa. Potato-digger. No. 1,136,461; Apr. 20; Gaz. vol. 213; p. 925.
Zieve, Abraham, Bath Beach, assignor to The Auto Trunk and Acme Suit Case Mfg. Co., Inc., New York, N. Y. Clamping or locking device. No. 1,135,481; Apr. 13; Gaz. vol. 213; p. 538.
Zifferer, Lothar R., New York, N. Y. Expansion-bolt. No. 1,136,638; Apr. 20; Gaz. vol. 213; p. 987.
Zimmer, Paul H., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Circuit-controller. No. 1,136,639; Apr. 20; Gaz. vol. 213; p. 987.
Zins, Johann, Bremen, assignor to Wiesche & Scharffe, Frankfort-on-the-Main, Germany. Machine for manufacture of horseshoes. No. 1,136,990; Apr. 27; Gaz. vol. 213; p. 1149.
Zollinger, John. (See Pratt and Zollinger.)
Zsuzsits, Vinzenz, assignor of one-fourth to C. H. Franz, Aurora, Ill. Door-latch. No. 1,137,107; Apr. 27; Gaz. vol. 213; p. 1192.
Zuleg, Joseph, Hoboken, N. J. assignor to The Button Machinery Company, New York, N. Y. Saw-sharpener. No. 1,135,245; Apr. 13; Gaz. vol. 213; p. 455.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Abel, Edward C. (See Abel, John A. and E. C.)
Abel, John A. and E. C., Woodhaven, N. Y. Pendant, bar-pin, bracelet, scarf-pin, or similar article. No. 47,177; Apr. 6; Gaz. vol. 213; p. 325.
Abrams, William, Chicago, Ill. Plate. No. 47,178; Apr. 6; Gaz. vol. 213; p. 325.
American Type Founders Company. (See Benton, Morris F., assignor.)
Archambeau, Hattie C. (See Howe and Archambeau.)
Arnold, Oscar M., New York, N. Y. Parasol. No. 47,179; Apr. 6; Gaz. vol. 213; p. 326.
Austin, Arthur O., Barberton, Ohio. Insulator. No. 47,208; Apr. 13; Gaz. vol. 213; p. 717.
Avery, Claire, New York, N. Y. Doll. No. 47,180; Apr. 6; Gaz. vol. 213; p. 326.
Bennett, Adolph, New York, N. Y. Necktie. No. 47,181; Apr. 6; Gaz. vol. 213; p. 326.
Benton, Morris F., assignor to American Type Founders Company, Jersey City, N. J. Font of type. Nos. 47,209–10; Apr. 13; Gaz. vol. 213; p. 717.
Berg, Charles, New York, N. Y. Motor-bus. No. 47,211; Apr. 13; Gaz. vol. 213; p. 717.
Birkin, Charles W., Nottingham, England. Levers lace. Nos. 47,212–15; Apr. 13; Gaz. vol. 213; p. 718.
Borden, George L., Groveville, N. J. Tumbler or similar article. No. 47,216; Apr. 13; Gaz. vol. 213; p. 718.
Bouchery, August, assignor to Wallace Novelty Company, New York, N. Y. Incandescent electric lamp. No. 47,217; Apr. 13; Gaz. vol. 213; p. 719.
Bouchery, August, assignor to Wallace Novelty Company, New York, N. Y. Lighting-fixture. No. 47,218; Apr. 13; Gaz. vol. 213; p. 719.
Burns & Bassick Company, The. (See Burns, Wilbur F., assignor.)
Burns, Wilbur F., assignor to The Burns & Bassick Company, Bridgeport, Conn. Glass knob. No. 47,254; Apr. 27; Gaz. vol. 213; p. 1412.
Canada Carbide Company. (See McTavish, Daniel D., assignor.)
Cass, Howard W., San Diego, Cal. Statue. No. 47,219; Apr. 13; Gaz. vol. 213; p. 719.
Collins, Harry, New York, N. Y. Dress. Nos. 47,255–6; Apr. 27; Gaz. vol. 213; pp. 1412–13.
Cosgrave, Wallace B., New York, N. Y. Electric-light socket. No. 47,241; Apr. 20; Gaz. vol. 213; p. 1088.
Cusack, Harold, assignor to Thos. Cusack Company, Chicago, Ill. Sign. No. 47,242; Apr. 20; Gaz. vol. 213; p. 1088.
Danziger, Abraham, New York, N. Y. Box. No. 47,182; Apr. 6; Gaz. vol. 213; p. 326.
Darby, Marvin H., *et al.* (See Ryan, Elmer J., assignor.)
Dickson, Robert G., Pittsburgh, Pa., assignor to Jefferson Glass Company, Follansbee, W. Va. Lamp-shade. No. 47,220; Apr. 13; Gaz. vol. 213; p. 719.
Doty, Walter G., Dayton, Ohio. Suction-cleaner frame. No. 47,257; Apr. 27; Gaz. vol. 213; p. 1413.
Drayton, Grace G., New York, N. Y. Toy bank or similar article. No. 47,221; Apr. 13; Gaz. vol. 213; p. 719.
E. R. Squibb & Sons. (See Weicker, Theodore, assignor.)
East Palestine Rubber Company. (See Miller, Edson A., assignor.)
Elliott, Herbert, Toronto, Ontario, Canada. Toy. No. 47,183; Apr. 6; Gaz. vol. 213; p. 326.
Erickson, George E., assignor to C. S. Van Noy, Kansas City, Mo. Statuette. No. 47,222; Apr. 13; Gaz. vol. 213; p. 719.
Friedley-Voshardt Co. (See Holton, Birchard E., assignor.)
Friedley-Voshardt Co. (See Mitchell, Edward, assignor.)
Friedley-Voshardt Co. (See Mohrmann, Paul, assignor.)
Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Bag-frame member. Nos. 47,223–4; Apr. 13; Gaz. vol. 213; p. 720.
Gendron, Joseph O., Provo, Utah. Game-board. No. 47,184; Apr. 6; Gaz. vol. 213; p. 326.
Gleason, Homer E., Seattle, Wash. Lighting-fixture. No. 47,225; Apr. 13; Gaz. vol. 213; p. 720.
Green, Walter R., Chicago, Ill. Drop side mud-guard. No. 47,258; Apr. 27; Gaz. vol. 213; p. 1413.
Griffin, Robert B., New York, N. Y. Fabric. No. 47,226; Apr. 13; Gaz. vol. 213; p. 720.
Groth, Henry J., Los Angeles, Cal. Fireplace. No. 47,243; Apr. 20; Gaz. vol. 213; p. 1088.
Hanna, David J., Philadelphia, Pa. Loaf of biscuit or rolls. No. 47,253; Apr. 20; Gaz. vol. 213; p. 1090.
Hawe, William F. M., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa. Lamp-bowl. No. 47,227; Apr. 13; Gaz. vol. 213; p. 720.
Heitzmann, William C., Union City, assignor to The Union City Carriage Manufacturing Company, Union City, Ind. Vehicle-body. No. 47,185; Apr. 6; Gaz. vol. 213; p. 327.
Herrmann, Eugene C., Los Angeles, Cal. Lamp-shade. No. 47,186; Apr. 6; Gaz. vol. 213; p. 327.
Herschede, Walter J., Cincinnati, Ohio. Clock-casing. No. 47,187; Apr. 6; Gaz. vol. 213; p. 327.
Hipkins, Stephen, Martins Ferry, Ohio. Soap-dish. No. 47,188; Apr. 6; Gaz. vol. 213; p. 327.
Hirschfeld, Leo, assignor to Stern & Saalberg Company, New York, N. Y. Paper display-box. No. 47,228; Apr. 13; Gaz. vol. 213; p. 720.
Hirschmann, William F., New York, N. Y. Statuette. No. 47,189; Apr. 6; Gaz. vol. 213; p. 327.
Hodge, Alfred R., Chicago, Ill. Doll or toy. No. 47,259; Apr. 27; Gaz. vol. 213; p. 1413.
Hohlfeld, Herman L., Philadelphia, Pa. Turkish towel or mat. Nos. 47,229–32; Apr. 13; Gaz. vol. 213; p. 721.
Holton, Birchard E., Los Angeles, Cal., assignor to Friedley-Voshardt Co., Chicago, Ill. Shower-pan for lighting-fixtures. No. 47,244; Apr. 20; Gaz. vol. 213; p. 1088.
Howe, Eliza N., and H. C. Archambeau, Portland, Oreg. Motor-car body. No. 47,233; Apr. 13; Gaz. vol. 213; pp. 721–2.
Inflexible Company. (See Schwarber, Henry, assignor.)
J. E. Mergott Company, The. (See Fuller, Franz A., assignor.)
Jefferson Glass Company. (See Dickson, Robert G., assignor.)
Jones, Charles E., assignor to Metal Arts & Crafts Co., Chicago, Ill. Adjustable clamp-arm for supporting candles. No. 47,260; Apr. 27; Gaz. vol. 213; p. 1414.
Kekkonen, John, assignor, by mesne assignments, to C. P. Monasch, Chicago, Ill. Table-bed. No. 47,234; Apr. 13; Gaz. vol. 213; p. 722.
Kells, Herbert R., Los Angeles, Cal. Vehicle-signal. No. 47,235; Apr. 13; Gaz. vol. 213; p. 722.
Kelsow, William, Hoboken, N. J. Cruet-stand. No. 47,261; Apr. 27; Gaz. vol. 213; p. 1414.
Koken, Walter F., St. Louis, Mo. Barber's chair. No. 47,236; Apr. 13; Gaz. vol. 213; p. 722.
Kraft, August H., Oakland, Cal. Charm. No. 47,262; Apr. 27; Gaz. vol. 213; p. 1414.
Kusel, Isidor J., Chicago, Ill. Pocket savings-bank. No. 47,237; Apr. 13; Gaz. vol. 213; p. 723.
Ladd, Louis E., Providence, R. I., assignor to Potter & Buffington Company. Gem-setting. No. 47,245; Apr. 20; Gaz. vol. 213; p. 1089.
Ladd, Marvin A., Adrian, Mich. Hand implement. No. 47,263; Apr. 27; Gaz. vol. 213; p. 1414.
Liedberg, Carl E., Chicago, Ill. Parasol. No. 47,246; Apr. 20; Gaz. vol. 213; p. 1089.
Macbeth-Evans Glass Company. (See Hawe, William F. M., assignor.)
Mayberry, Edward D., Alta Vista, Va. Railway-crossing signal. No. 47,190; Apr. 6; Gaz. vol. 213; p. 327.
McDonagh, Leo A., Linden, N. J. Badge. No. 47,247; Apr. 20; Gaz. vol. 213; p. 1089.
McTavish, Daniel D., assignor to Canada Carbide Company, Limited, Montreal, Quebec, Canada. Drum for containing material. No. 47,191; Apr. 6; Gaz. vol. 213; p. 328.
Metal Arts & Crafts Co. (See Jones, Charles E., assignor.)
Metzger, Henrietta V., and H. Von Hartz, Cleveland, Ohio. Jacket. No. 47,264; Apr. 27; Gaz. vol. 213; p. 1414.
Milewski, Julius, Byrnedale, Pa. Badge or similar article. No. 47,248; Apr. 20; Gaz. vol. 213; p. 1089.
Miller, Edson A., assignor to East Palestine Rubber Company, East Palestine, Ohio. Tire-casing. No. 47,265; Apr. 27; Gaz. vol. 213; p. 1414.
Miller, Edward F., Washington, D. C. Athletic shoe. No. 47,238; Apr. 13; Gaz. vol. 213; p. 728.
Mitchell, Edward, St. Charles, assignor to Friedley-Voshardt Co., Chicago, Ill. Shower-pan for lighting-fixtures. No. 47,266; Apr. 27; Gaz. vol. 213; p. 1415.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Shower-pan for lighting-fixtures. No. 47,249; Apr. 20; Gaz. vol. 213; p. 1089.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Shower-pan for lighting-fixtures. Nos. 47,267–70; Apr. 27; Gaz. vol. 213; pp. 1415–16.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Bowl for indirect lighting. No. 47,271; Apr. 27; Gaz. vol. 213; p. 1416.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Support for bowls for indirect lighting. No. 47,272; Apr. 27; Gaz. vol. 213; p. 1416.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Back plate for lighting-fixtures. No. 47,273; Apr. 27; Gaz. vol. 213; p. 1416.
Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Canopy for lighting-fixtures. No. 47,274; Apr. 27; Gaz. vol. 213; p. 1416.

Mohrmann, Paul, assignor to Friedley-Voshardt Co., Chicago, Ill. Back plate for lighting-fixtures. No. 47,275; Apr. 27; Gaz. vol. 213; p. 1417.
Monasch, Charles P. (See Kekkonen, John, assignor.)
Norden, Joseph. (See Norden, Mortimer, assignor.)
Norden, Mortimer, assignor to J. Norden, New York, N. Y. Electric sign. No. 47,192; Apr. 6; Gaz. vol. 213; p. 328.
Onondaga Pottery Co. (See Walter, Elmer E., assignor.)
Onondaga Pottery Co. (See Wigley, John T., assignor.)
Ordway, Frank L., Salem, Mass. Toy pop-gun. No. 47,193; Apr. 6; Gaz. vol. 213; p. 328.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Padlock. No. 47,239; Apr. 13; Gaz. vol. 213; p. 723.
Page, Alfred R., Birmingham, England. Door-knocker. Nos. 47,194–5; Apr. 6; Gaz. vol. 213; p. 328.
Paglin, James R., Valparaiso, Ind. Lamp. No. 47,196; Apr. 6; Gaz. vol. 213; p. 329.
Pickup, George E., assignor to The Wehrle Company, Newark, Ohio. Frame for gas-plates. No. 47,197; Apr. 6; Gaz. vol. 213; p. 329.
Potter & Buffington Company. (See Ladd, Louis E., assignor.)
Preston, Alston L., Leominster, Mass. Hair ornament. No. 47,198; Apr. 6; Gaz. vol. 213; p. 329.
Procunier, William L., Chicago, Ill. Tap-chuck. No. 47,199; Apr. 6; Gaz. vol. 213; p. 329.
Ryan, Elmer J., assignor of one-fourth to P. M. Welsh and one-fourth to M. H. Darby, Long Beach, Cal. Match-scratcher. No. 47,250; Apr. 20; Gaz. vol. 213; p. 1090.
Sargent & Company. (See Page, Albert A., assignor.)
Schwarber, Henry, Weehawken, N. J., assignor to Inflexible Company, West New York, N. J. Embroidery. No. 47,276; Apr. 27; Gaz. vol. 213; p. 1417.
Sebring, Frank A., Sebring, Ohio. Sugar-bowl or similar article. No. 47,200; Apr. 6; Gaz. vol. 213; p. 329.
Sebring, Frank A., Sebring, Ohio. Pitcher. No. 47,201; Apr. 6; Gaz. vol. 213; p. 330.
Sebring, Frank A., Sebring, Ohio. Teapot. No. 47,202; Apr. 6; Gaz. vol. 213; p. 330.
Shelton, George, Paducah, Ky. Pump-frame. No. 47,251; Apr. 20; Gaz. vol. 213; p. 1090.
Smith, Hinsdale, South Hadley, Mass. Automobile-body. No. 47,252; Apr. 20; Gaz. vol. 213; p. 1090.
Steinmeier, Joseph E., New York, N. Y., assignor to Western Clock Company, La Salle, Ill. Clock-frame. No. 47,203; Apr. 6; Gaz. vol. 213; p. 330.
Stern-Saalberg Company. (See Hirschfeld, Leo, assignor.)
Stimpson, Walter F., Detroit, Mich. Pedestal for coffee-grinders. No. 47,204; Apr. 6; Gaz. vol. 213; p. 330.
Stroock, Bertram A., assignor to Stroock Plush Company, Newburgh, N. Y. Plush fabric. No. 47,277; Apr. 27; Gaz. vol. 213; p. 1417.
Stroock Plush Company. (See Stroock, Bertram A., assignor.)
Thos. Cusack Company. (See Cusack, Harold, assignor.)
Union City Carriage Manufacturing Company, The. (See Heitzmann, William C., assignor.)
Van Noy, Charles S. (See Erickson, George E., assignor.)
Von Hartz, Helen. (See Metzger and Von Hartz.)
Walker, Frederick H., Philadelphia, Pa. Embossed fabric. No. 47,205; Apr. 6; Gaz. vol. 213; p. 330.
Wallace Novelty Company. (See Bouchery, August, assignor.)
Walter, Elmer E., assignor to Onondaga Pottery Co., Syracuse, N. Y. Article of manufacture. No. 47,206; Apr. 6; Gaz. vol. 213; p. 331.
Wehrle Company, The. (See Pickup, George E., assignor.)
Welcker, Theodore, Stamford, Conn., assignor to E. R. Squibb & Sons. Bottle. No. 47,278; Apr. 27; Gaz. vol. 213; p. 1417.
Welsh, Prudence M., *et al.* (See Ryan, Elmer J., assignor.)
Western Clock Company. (See Steinmeier, Joseph E., assignor.)
Wigley, John T., assignor to Onondaga Pottery Co., Syracuse, N. Y. Article of manufacture. No. 47,207; Apr. 6; Gaz. vol. 213; p. 331.
Wilkes, Alfred L., Santa Ana, Cal. Beet-pick point. No. 47,240; Apr. 13; Gaz. vol. 213; p. 723.
Young, Lorin W., New York, N. Y. Lamp-shade. No. 47,280; Apr. 27; Gaz. vol. 213; p. 1417.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Mecky Company, Philadelphia, Pa. Certain named vehicles, other than engines, for children's use. No. 103,858; Apr. 20; Gaz. vol. 213; p. 1111.
A. W. Faber, Stein, near Nuremberg, Germany. Pencils, rubber erasers, penholders. No. 103,421; Apr. 6; Gaz. vol. 213; p. 351.
Abrahamson, Abraham, Chicago, Ill. Ladies' coats and suits. No. 103,988; Apr. 27; Gaz. vol. 213; p. 1441.
Adams Brothers, Boston, Mass. Boots, shoes, and sandals. No. 103,932; Apr. 20; Gaz. vol. 213; p. 1113.
Aktiebolaget Grumme & Son, Stockholm, Sweden. Mouth-wash, tooth paste, powder, and cream. No. 103,550; Apr. 6; Gaz. vol. 213; p. 355.
Aktiebolaget Svenska Kullagerfabriken, Gothenborg, Sweden. Certain named machinery and tools and parts thereof. Nos. 103,634–5; Apr. 13; Gaz. vol. 213; p. 739.
Alart & McGuire, assignors to Alart & McGuire Co., New York, N. Y. Certain named foods. No. 104,082; Apr. 27; Gaz. vol. 213; p. 1444.
Alart & McGuire Co. (See Alart & McGuire, assignors.)
Albert Pick & Co., Chicago, Ill. Metal-polish. No. 103,825; Apr. 13; Gaz. vol. 213; p. 744.
Allan, Roger S., Louisville, Ky. Tooth-paste, talcum powder, and toilet water. No. 103,686; Apr. 13; Gaz. vol. 213; p. 740.
Allwin Dress Company, Inc., New York, N. Y. Children's dresses. No. 104,083; Apr. 27; Gaz. vol. 213; p. 1444.
Alphaduct Company, Jersey City, N. J. Non-metallic flexible electrical conduits. No. 103,636; Apr. 13; Gaz. vol. 213; p. 739.
Alpine Dairy Company, Algoma, Wis. Cheese. No. 103,637; Apr. 13; Gaz. vol. 213; p. 739.
Am-O-Lox Company, The, Youngstown, Ohio. Remedy for skin and scalp diseases. No. 103,934; Apr. 20; Gaz. vol. 213; p. 1113.
American Agricultural Chemical Co., New York, N. Y. Fertilizers. No. 103,743; Apr. 13; Gaz. vol. 213; p. 742.
American Apothecaries Company, New York, N. Y. Medicinal preparation in liquid, syrup and tablet form for treating certain named diseases. No. 103,933; Apr. 20; Gaz. vol. 213; p. 1113.
American Caramel Company, York and Lancaster, Pa. Caramels and candies. No. 103,881; Apr. 20; Gaz. vol. 213; p. 1112.
American Food Products Company, The, Dayton, Ohio. Liquid condiment for salads. No. 103,551; Apr. 6; Gaz. vol. 213; p. 355.
American Hardware Corporation, The, New Britain, Conn. Certain named locks and parts thereof and safes. Nos. 103,605–7; Apr. 6; Gaz. vol. 213; p. 357.
American Hardware and Supply Company, Pittsburgh, Pa. Certain named cutlery and tools. No. 103,608; Apr. 6; Gaz. vol. 213; p. 357.
American Sales and Service Co., Harrisburg, Pa. Identification-tags and baggage-checks. No. 103,405; Apr. 6; Gaz. vol. 213; p. 351.
Amies, Joseph H., Philadelphia, Pa. Bituminous and alkaline paving composition. No. 104,066; Apr. 27; Gaz. vol. 213; p. 1443.
Amsterdamsche Superfosfaatfabriek, Minervahaven, near the North Sea Canal, Amsterdam, Netherlands. Chemical products for exterminating diseases of plants and vegetables. No. 103,882; Apr. 20; Gaz. vol. 213; p. 1112.
Anatomik Footwear Company, The, New York, N. Y. Leather boots, shoes, slippers, and sandals. No. 103,935; Apr. 20; Gaz. vol. 213; p. 1113.
Anglo-American Pharmaceutical Company, Croydon, England, and New York, N. Y. Tonic medicine. No. 104,084; Apr. 27; Gaz. vol. 213; p. 1444.
Arbuckle Brothers, New York, N. Y., and Chicago, Ill. Coffee. No. 103,638; Apr. 13; Gaz. vol. 213; p. 739.
Arkansas Grocer Co., Blytheville, Ark. Certain named foods. No. 103,639; Apr. 13; Gaz. vol. 213; p. 739.
Arlington Chemical Co., The, Yonkers, N. Y. Medicinal foods for invalids, &c. No. 103,774; Apr. 13; Gaz. vol. 213; p. 743.
Atlanta Refining & Manufacturing Company, Atlanta, Ga. Oleaginous compound for pastry-shortening. No. 103,844; Apr. 20; Gaz. vol. 213; p. 1111.
Atlantic Varnish Works, Inc., Richmond, Va. Varnish. No. 103,406; Apr. 6; Gaz. vol. 218; p. 351.
Aunt Emma's Co., The, Waukegan, Ill. Medicinal preparation for goiter. No. 103,843; Apr. 13; Gaz. vol. 213; p. 745.
Austin-Nichols & Co., Inc., New York, N. Y. Canned fruits, vegetables, and salmon, condensed milk, &c. No. 103,407; Apr. 6; Gaz. vol. 213; p. 351.
B. F. Goodrich Company, The, New York, N. Y. Raincoats. No. 103,562; Apr. 6; Gaz. vol. 213; p. 356.
B. F. Goodrich Company, The, New York, N. Y. Raincoats. No. 104,054; Apr. 27; Gaz. vol. 213; p. 1443.
Bachenheimer Bros. & Co., Inc., New York, N. Y. Flycatchers. No. 103,719; Apr. 13; Gaz. vol. 213; p. 741.
Barclay & Barclay, New York, N. Y. Certain pharmaceutical preparations for toilet purposes and medicinal preparation for treating certain ailments. No. 103,640; Apr. 13; Gaz. vol. 213; p. 739.
Barcley, Gaylord A., Newark, N. J. Corsets, corset-waists, brassières, bust-confiners, &c. No. 103,938; Apr. 20; Gaz. vol. 213; p. 1113.
Barr, Fred E., Chicago, Ill. Certain named flavoring extracts. No. 103,845; Apr. 20; Gaz. vol. 213; p. 1111.
Barse & Hopkins, New York, N. Y. Calendar and collection of mottoes. No. 103,408; Apr. 6; Gaz. vol. 213; p. 351.
Bay State Jewelry and Silversmiths Co., Attleboro, Mass. Certain named silver novelties. No. 104,012; Apr. 27; Gaz. vol. 213; p. 1441.
Bayway Chemical Company, Elizabeth, N. J. Liquid protective coating or paint. No. 103,744; Apr. 13; Gaz. vol. 213; p. 742.
Bayway Chemical Company, Elizabeth, N. J. Disinfectant. No. 103,775; Apr. 13; Gaz. vol. 213; p. 743.
Beiersdorf & Co., P., Hamburg, Germany. Surgical and medical plasters. No. 103,776; Apr. 13; Gaz. vol. 213; p. 743.
Belle Vernon Mapes Dairy Co., The, Cleveland, Ohio. Glass milk-bottles. No. 103,641; Apr. 13; Gaz. vol. 213; p. 739.
Belmont Stable Supply Co., New York, N. Y. Block salt. No. 104,085; Apr. 27; Gaz. vol. 213; p. 1444.
Berry Brothers, (Inc.,) Detroit, Mich. Varnishes. No. 103,552; Apr. 6; Gaz. vol. 213; p. 355.
Bielefeld & Spahn, New York, N. Y. Leather and canvas shoes. No. 103,884; Apr. 20; Gaz. vol. 213; p. 1112.
Billups, Cecil, Norfolk, Va. Plows, moldboards, landsides, points, &c. Nos. 103,805–6; Apr. 13; Gaz. vol. 213; p. 744.
Billups, Cecil, Norfolk, Va. Plows, moldboards, landsides, points, and plow-beams. No. 103,840; Apr. 13; Gaz. vol. 213; p. 745.
Bishop & Company, Los Angeles, Cal. Chewing-gum. No. 103,885; Apr. 20; Gaz. vol. 213; p. 1112.
Black Diamond Products Company, Fairmont and Watson, W. Va. Ginger-ale, pop, and carbonated waters. No. 103,409; Apr. 6; Gaz. vol. 213; p. 351.
Blake, Moffitt & Towne, San Francisco, Cal. Bond and writing paper. No. 103,410; Apr. 6; Gaz. vol. 213; p. 351.
Blue Valley Creamery Company, Chicago, Ill. Butter. No. 103,747; Apr. 13; Gaz. vol. 213; p. 742.
Bluetts Company, The, Madison, Wis. Certain medicine used for certain named diseases and suitable for veterinary medicine. No. 103,412; Apr. 6; Gaz. vol. 213; p. 351.
Boonton Rubber Manufacturing Company, Boonton, N. J. Distributer-insulators for magnetos for ignition systems. No. 103,580; Apr. 6; Gaz. vol. 213; p. 356.
Booth's Distillery Limited, London, England. Gin. No. 103,413; Apr. 6; Gaz. vol. 213; p. 351.
Boss Manufacturing Company, The, Kewanee, Ill. Gloves. Nos. 103,720–2; Apr. 13; Gaz. vol. 213; p. 741.
Botanical Manufacturing Co., The, Dover, Del., and Philadelphia, Pa. Preparation to exterminate rodents. No 103,414; Apr. 6; Gaz. vol. 213; p. 351.
Botanical Manufacturing Co., Wilmington, Del., and Philadelphia, Pa. Preparation to relieve constipation. No. 103,415; Apr. 6; Gaz. vol. 213; p. 351.
Brainerd and Armstrong Company, The, New London, Conn. Sewing-silk, buttonhole and machine twists. No. 103,553; Apr. 6; Gaz. vol. 213; p. 355.
Brainerd and Armstrong Company, New London, Conn. Embroidery silk and twist. No. 103,554; Apr. 6; Gaz. vol. 213; p. 355.
Brainerd and Armstrong Company, New London, Conn. Certain silk dyed so color will not change when washed, sewing and knitting silk. No. 103,642; Apr. 13; Gaz. vol. 213; p. 739.
Brainerd and Armstrong Company, The, New London, Conn. Machine-twist, knitting, crochet, and embroidery silks. No. 103,643; Apr. 13; Gaz. vol. 213; p. 739.
Bristol Company, Waterbury, Conn. Screws. No. 103,846; Apr. 20; Gaz. vol. 213; p. 1111.
Brooks Brothers, New York, N. Y. Certain named boys' and men's clothing. No. 103,889; Apr. 20; Gaz. vol. 213; p. 1112.
Brooks Brothers, New York, N. Y. Boys' and men's clothing. No. 103,992; Apr. 27; Gaz. vol. 213; p. 1441.

Brown Hoisting Machinery Company, The, Cleveland, Ohio. Certain named machinery and tools and parts thereof. No. 104,086; Apr. 27; Gaz. vol. 213; p. 1444.
Brückner, Herman A., Jersey City, N. J. Remedy for nervous disorders. No. 103,688; Apr. 13; Gaz. vol. 213; p. 740.
Buchstaben-Lampen-Gesellschaft m. b. H., Berlin, Germany. Incandescent electric lamps. No. 103,555; Apr. 6; Gaz. vol. 213; p. 355.
Buckeye Traction Ditcher Company, The, Findlay, Ohio. Trenching machinery. No. 103,644; Apr. 13; Gaz. vol. 213; p. 739.
Buerkle Cigar Company, Warren, Pa. Cigars. No. 103,709; Apr. 13; Gaz. vol. 213; p. 741.
Bullis & Co., E. A., San Francisco, Cal. Certain named ingredients. No. 103,777; Apr. 13; Gaz. vol. 213; p. 743.
Burton, Clarence P., Dallas, Tex. Floor-sweeping compounds. No. 104,045; Apr. 27; Gaz. vol. 213; p. 1442.
Cache Knitting Works, Logan, Utah. Certain named clothing for infants, ladies, children, and men. No. 103,416; Apr. 6; Gaz. vol. 213; p. 351.
California Compounding Company, San Jose, Cal. Fuel-oils and lubricants. No. 103,581; Apr. 6; Gaz. vol. 213; p. 356.
California Fig Syrup Co., Reno, Nev.; San Francisco, Cal.; Louisville, Ky.; Wheeling, W. Va., and New York, N. Y. Liquid laxative medicines. No. 104,087; Apr. 27; Gaz. vol. 213; p. 1444.
Campbell & Woods Company, The, Pittsburgh, Pa. Blended coffees. No. 104,013; Apr. 27; Gaz. vol. 213; p. 1441.
Carolina Baking Company, Charlotte, N. C. Bread, cake, pies, pastry, &c. No. 103,723; Apr. 13; Gaz. vol. 213; p. 741.
Cedar Rapids Canning Co., Cedar Rapids, Iowa. Canned vegetables. Nos. 103,995–7; Apr. 27; Gaz. vol. 213; p. 1441.
Celro-Kola Company, Portland, Oreg. Tonic for nervous disorders and general debility. No. 103,807; Apr. 13; Gaz. vol. 213; p. 744.
Ceylana Tea Company, New York, N. Y. Coffee, tea, and cocoa. No. 103,645; Apr. 13; Gaz. vol. 213; p. 739.
Chas. A. Schieren Company, New York, N. Y. Cut belt-lacing. No. 103,680; Apr. 13; Gaz. vol. 213; p. 740.
Chas. L. Ireson (Inc.), Boston, Mass. Leather beltings. No. 103,876; Apr. 20; Gaz. vol. 213; p. 1112.
Chiba, Shirosaburo, Seattle, Wash. Digestive medicines. No. 103,940; Apr. 20; Gaz. vol. 213; p. 1114.
Chicago Dryer Company, Chicago, Ill. Gas, coal, wood, and oil stoves. No. 103,582; Apr. 6; Gaz. vol. 213; p. 356.
Chicago Rubber Company, Chicago, Ill. Lamp connections. No. 103,890; Apr. 20; Gaz. vol. 213; p. 1112.
Chmel, první česká tovární výroba a vývoz zbožíuzenářského na Kr. Vinohradech, Antonín, Königliche Weinberge, near Prague, Austria-Hungary. Smoked hams. No. 103,936; Apr. 20; Gaz. vol. 213; p. 1113.
Chocolate Products Company, Baltimore, Md. Candy. No. 103,941; Apr. 20; Gaz. vol. 213; p. 1114.
Chr. Bjelland & Co., Inc., New York, N. Y. Canned sardines. Nos. 103,745–6; Apr. 13; Gaz. vol. 213; p. 742.
Cincinnati Pump Company, Cincinnati, Ohio. Toy vehicles. No. 103,550; Apr. 6; Gaz. vol. 213; p. 355.
City Fuel Company, Chicago, Ill. Coal. No. 103,646; Apr. 13; Gaz. vol. 213; p. 739.
Clark Paper and Manufacturing Company, Rochester, N. Y. Wheat-flour, bran, and middlings. No. 103,942; Apr. 20; Gaz. vol. 213; p. 1114.
Clark Rubber Manufacturing Co., Franklin, Mass. Soles and heels of shoes. No. 103,557; Apr. 6; Gaz. vol. 213; p. 355.
Columbus Dental Manufacturing Co., The, Columbus, Ohio. Rugæ-molds. No. 103,417; Apr. 6; Gaz. vol. 213; p. 351.
Comings, Henry E., Summerstown, London, England. Powder for renovating spent foundry-sand. No. 103,873; Apr. 20; Gaz. vol. 213; p. 1112.
Commonwealth Supply Company, New York, N. Y. Clothes-pounder. No. 104,067; Apr. 27; Gaz. vol. 213; p. 1443.
Commonwealth Varnish Company, Chicago, Ill. Varnishes. No. 104,090; Apr. 27; Gaz. vol. 213; p. 1444.
Compagnie fermière de l'Etablissement thermal de Vichy, Paris, France. Natural mineral waters. No. 103,778; Apr. 13; Gaz. vol. 213; p. 743.
Cougdon, Albert S., North Yakima, Wash. Fresh fruits. No. 103,943; Apr. 20; Gaz. vol. 213; p. 1114.
Consolidated Safety Pin Co., Bloomfield, N. J. Safety-pins. No. 104,088; Apr. 27; Gaz. vol. 213; p. 1444.
Consumers' Importing Company, Newark, N. J. Tea. No. 103,609; Apr. 6; Gaz. vol. 213; p. 357.
Cooley, Harry, Madison, Wis. Certain named oils and greases. No. 103,998; Apr. 27; Gaz. vol. 213; p. 1441.
Coppes Bros. & Zook, Nappanee, Ind. Kitchen-cabinets. No. 104,014; Apr. 27; Gaz. vol. 213; p. 1441.
Corkran Hill & Co., Baltimore, Md. Cooking-grease. No. 103,610; Apr. 6; Gaz. vol. 213; p. 357.
Cotton Gathering Corporation, New York, N. Y. Cotton-gathering machinery. No. 104,068; Apr. 27; Gaz. vol. 213; p. 1443.
Courtaulds, Limited, London, England. Piece goods made from cellulose yarns. No. 103,748; Apr. 13; Gaz. vol. 213; p. 742.
Courtaulds, Limited, London, England. Yarns made of cellulose. No. 103,749; Apr. 13; Gaz. vol. 213; p. 742.
Crane & Co., Dalton, Mass. Writing-paper. Nos. 104,046–9; Apr. 27; Gaz. vol. 213; pp. 1442–3.
Crosse & Blackwell, Limited, London, England. Anchovies, pies, pattles, &c. No. 103,689; Apr. 13; Gaz. vol. 213; p. 740.
Cumberland Fertilizer Co., Cartersville, Ga. Fertilizer. No. 103,808; Apr. 13; Gaz. vol. 213; p. 744.
D. A. B. Soap Company, Newton, Mass. Soap. No. 103,750; Apr. 13; Gaz. vol. 213; p. 742.
Daimler-Motoren-Gesellschaft, Untertürkheim, near Stuttgart, Germany. Certain named hardware, plumbing and steam-fitting supplies. No. 103,611; Apr. 6; Gaz. vol. 213; p. 357.
Darling, O. F., Portland, Oreg. Weekly publication. No. 103,583; Apr. 6; Gaz. vol. 213; p. 356.
Dawson, Thomas C., Orange, N. J. Liquid furniture-polish. No. 103,418; Apr. 6; Gaz. vol. 213; p. 351.
Decker & Cohn, Alfred, Chicago, Ill. Overcoats. No. 103,891; Apr. 20; Gaz. vol. 213; p. 1112.
Deere & Company, Moline, Ill. Cultivator-shovels. No. 103,847; Apr. 20; Gaz. vol. 213; p. 1111.
Detroit Electric Welder Company, Detroit, Mich. Electric spot, butt, and seam welders. No. 104,089; Apr. 27; Gaz. vol. 213; p. 1444.
Dexter Yarn Company, Pawtucket, R. I. Yarns a threads. No. 103,612; Apr. 6; Gaz. vol. 213; p. 357.
Diamond Remedy Co., Brooklyn, N. Y. Throat-pastils. No. 103,892; Apr. 20; Gaz. vol. 213; p. 1112.
Diamond State Fibre Co., Elsmere, Del. Fiber sheets, rods, tubes, and disks. No. 103,419; Apr. 6; Gaz. vol. 213; p. 351.
Dickey, Adam H., *et al.*, trustees. (See Eddy, Mary B. G.)
Diehl, Edward, Nashville, Tenn. Non-alcoholic carbonated beverages. No. 104,050; Apr. 27; Gaz. vol. 213; p. 1443.
Dilberger, Frederick C., Los Angeles, Cal. Remedy for diseases of females. No. 103,558; Apr. 6; Gaz. vol. 213; p. 356.
Dittemore, John V., *et al.*, trustees. (See Eddy, Mary B. G.)
Divine & Sons, Dwight, Ellenville, N. Y. Pocket and pen knives. No. 103,647; Apr. 13; Gaz. vol. 213; p. 739.
Dodge Brothers, Detroit, Mich. Automobiles. No. 103,779; Apr. 13; Gaz. vol. 213; p. 743.
Doubleday, Page & Company, Garden City, N. Y. Magazine-catalogue issued annually. No. 103,874; Apr. 20; Gaz. vol. 213; p. 1112.
Duffy, Thomas J., New York, N. Y. Stain-remover. No. 103,841; Apr. 13; Gaz. vol. 213; p. 745.
Duluth-Superior Milling Company, Duluth, Minn. Wheat-flour. No. 104,000; Apr. 27; Gaz. vol. 213; p. 1441.
E. Greenfield's Sons, New York, N. Y. Candles. No. 103,428; Apr. 6; Gaz. vol. 213; p. 351.
E. H. Clapp Rubber Company, Boston, Mass. Reclaimed rubber. No. 103,994; Apr. 27; Gaz. vol. 213; p. 1441.
E. & Z. Van Raalte, New York, N. Y. Veils and veiling in the piece. No. 103,924; Apr. 20; Gaz. vol. 213; p. 1113.
Earle, Marie, New York, N. Y., and Paris, France. Certain pharmaceutical preparations for toilet use. No. 103,780; Apr. 13; Gaz. vol. 213; p. 743.
East Palestine Rubber Company, The, Unity township, Columbiana county, Ohio. Pneumatic tires, outer shoes, and inner tubes for same. No. 103,945; Apr. 20; Gaz. vol. 213; p. 1114.
Eastern Kentucky Coal Company, Mount Vernon, Ohio. Coal. No. 103,648; Apr. 13; Gaz. vol. 213; p. 739.
Eckerson Company, Jersey City, N. J. Oleomargarin. No. 103,690; Apr. 13; Gaz. vol. 213; p. 740.
Eddy, Mary B. G., deceased, Boston; A. McLellan, A. V. Stewart, J. V. Dittemore, A. H. Dickey, J. A. Neal, Brookline, Mass., and J. E. Fernald, Concord, N. H., trustees. Printed books, magazines, and Bible lessons. No. 103,439; Apr. 6; Gaz. vol. 213; p. 356.
Eisenmayer Milling Company, Springfield, Mo. Wheat-flour. No. 103,691; Apr. 13; Gaz. vol. 213; p. 740.
Elektra Toy & Novelty Co., New York, N. Y. Dolls. No. 103,613; Apr. 6; Gaz. vol. 213; p. 357.
Emmer Products Company, Warland, Wyo. Emmer breakfast food, Graham flour, and stock and poultry food. No. 103,848; Apr. 20; Gaz. vol. 213; p. 1111.
Esmond Mills, The, Esmond, R. I. Certain named textile fabrics. No. 103,614; Apr. 6; Gaz. vol. 213; p. 357.
Evinrude Motor Co., Milwaukee, Wis. Internal-combustion motors for boats and canoes. No. 103,420; Apr. 6; Gaz. vol. 213; p. 351.
Ezell, James E., Woodruff, S. C. Emblematic toy. No. 104,051; Apr. 27; Gaz. vol. 213; p. 1443.
F. A. Hardy & Co., Chicago, Ill. Lenses for scientific use, ophthalmic lenses, goggles, eyeglasses, &c. No. 103,429; Apr. 6; Gaz. vol. 213; p. 351.
F. S. Royster Guano Co., Norfolk, Va. Fertilizers. No. 103,966; Apr. 20; Gaz. vol. 213; p. 1114.
Fabreeka Belting Co., Lawrence, Mass. Leather belting. No. 103,422; Apr. 6; Gaz. vol. 213; p. 351.
Farber, Simon W., New York, N. Y. Certain named copper, brass, and nickel hollow metal ware. No. 103,751; Apr. 13; Gaz. vol. 213; p. 742.
Fargo, Stephen, Cleveland, Ohio. Liniment. No. 103,559; Apr. 6; Gaz. vol. 213; p. 356.
Fargo, Stephen, Cleveland, Ohio. Salts remedy for constipation, kidney, &c., disorders and rheumatism. No. 103,849; Apr. 20; Gaz. vol. 213; p. 1111.

Fargo, Stephen, Cleveland, Ohio. Remedy for the treatment of certain named ailments. No. 103,850; Apr. 20; Gaz. vol. 213; p. 1111.
Fargo, Stephen, Cleveland, Ohio. Toilet cream. No. 103,851; Apr. 20; Gaz. vol. 213; p. 1111.
Fargo, Stephen, Cleveland, Ohio. Hair-invigorator and remedy for diseases of the scalp, &c. No. 103,852; Apr. 20; Gaz. vol. 213; p. 1111.
Farlow, Charles A., Pueblo, Colo. Pyorrhea. No. 103,893; Apr. 20; Gaz. vol. 213; p. 1112.
Farmer Seed & Nursery Co., Faribault, Minn. White dent corn. No. 104,015; Apr. 27; Gaz. vol. 213; p. 1441.
Federal Milling Company, Lockport, N. Y. Wheat-flour. No. 103,809; Apr. 13; Gaz. vol. 213; p. 744.
Fernald, Josiah E., *et al.*, trustees. (See Eddy, Mary B. G.)
Fink, Christina, West New York, N. J. Salve for external sores and burns. No. 103,725; Apr. 13; Gaz. vol. 213; p. 741.
Fischer & Co., B., New York, N. Y. Coffee and rice. No. 104,001; Apr. 27; Gaz. vol. 213; p. 1441.
Fishel & Company, New York, N. Y. Certain named articles made in imitation of silver. Nos. 103,584–5; Apr. 6; Gaz. vol. 213; p. 356.
Fishel & Company, New York, N. Y. Certain named imitation jewelry made from alloys of metal to imitate platinum and silver. No. 103,586; Apr. 6; Gaz. vol. 213; p. 356.
Fletcher, Betty E., Kansas City, Mo. Cough-syrup. No. 103,947; Apr. 20; Gaz. vol. 213; p. 1114.
Fluegelman & Co., N., New York, N. Y. Cotton piece goods. No. 103,649; Apr. 13; Gaz. vol. 213; p. 739.
Foley & Williams Piano Co., Chicago, Ill. Mechanically or automatically operated actions to play organs. No. 104,016; Apr. 27; Gaz. vol. 213; p. 1441.
Forbush Shoe Company, The North Grafton, Mass. Lasts. No. 103,726; Apr. 13; Gaz. vol. 213; p. 741.
Foster, Annie A., Atlanta, Ga. Printed score-cards. No. 104,053; Apr. 27; Gaz. vol. 213; p. 1443.
Francis H. Leggett & Co., New York, N. Y. Tea. No. 104,070; Apr. 27; Gaz. vol. 213; p. 1443.
Franklin MacVeagh & Company, Chicago, Ill. Ginger-ale and root-beer. No. 103,697; Apr. 13; Gaz. vol. 213; p. 741.
Fred Gretsch Mfg. Co., New York, N. Y. Musical-instrument strings. No. 103,869; Apr. 20; Gaz. vol. 213; p. 1111.
Frederick Stearns & Co., Detroit, Mich., and New York, N. Y. Soaps. No. 103,872; Apr. 20; Gaz. vol. 213; p. 1111.
Freydberg Bros., New York, N. Y. Seam-bindings. Nos. 104,091–2; Apr. 27; Gaz. vol. 213; p. 1444.
Friend Brothers, Melrose, Mass. Canned clams and fruits. No. 104,002; Apr. 27; Gaz. vol. 213; p. 1441.
Galehouse, F. C., Taft, Cal. Tonic laxative. No. 103,948; Apr. 20; Gaz. vol. 213; p. 1114.
Gardner, Herbert S., St. Louis, Mo. Razors. No. 103,650; Apr. 13; Gaz. vol. 213; p. 739.
Gardner, Herbert S., St. Louis, Mo. Cushion razor-strops. No. 103,810; Apr. 13; Gaz. vol. 213; p. 744.
Geer, George J., New York, N. Y. Certain named materials and piece goods or combinations of same. Nos. 103,424–5; Apr. 6; Gaz. vol. 213; p. 351.
Geer, George J., New York, N. Y. Woolen, worsted, silk, mohair, and cotton piece goods. No. 103,426; Apr. 6; Gaz. vol. 213; p. 351.
General Electric Company, Schenectady, N. Y. Glass shades and reflectors for artificial light. No. 103,692; Apr. 13; Gaz. vol. 213; p. 740.
General Electric Company, Schenectady, N. Y. Glass shades and reflectors for illuminating purposes. No. 103,693; Apr. 13; Gaz. vol. 213; p. 740.
General Electric Company, Schenectady, N. Y. Electric incandescent lamps. No. 104,017; Apr. 27; Gaz. vol. 213; p. 1442.
General Roofing Manufacturing Company, East St. Louis, Ill. Certain named construction materials. No. 103,781; Apr. 13; Gaz. vol. 213; p. 743.
Geo. Borgfeldt & Co., New York, N. Y. Certain named stationery supplies. No. 103,886; Apr. 20; Gaz. vol. 213; p. 1112.
Geo. Borgfeldt & Co., New York, N. Y. Certain named paper and stationery supplies. Nos. 103,887–8; Apr. 20; Gaz. vol. 213; p. 1112.
Geo. C. Bagley Elevator Co., Minneapolis, Minn., and Glenham, S. D. Wheat-flour. No. 103,937; Apr. 20; Gaz. vol. 213; p. 1113.
Geo. W. Blabon Company, Philadelphia, Pa. Floor-cloth. No. 103,901; Apr. 27; Gaz. vol. 213; p. 1441.
George T. Budd Company, Washington, D. C. Ice-cream, sherbets, and ices. No. 103,993; Apr. 27; Gaz. vol. 213; p. 1441.
German Novelty Co., New York, N. Y. Dolls. Nos. 103,651–2; Apr. 13; Gaz. vol. 213; p. 739.
Gibson Automobile Company, Indianapolis, Ind. Inner tubes for casings and pneumatic tires. No. 103,875; Apr. 20; Gaz. vol. 213; p. 1112.
Gillespie, Edward, Los Angeles, Cal. English home-made fruit cake. No. 103,560; Apr. 6; Gaz. vol. 213; p. 356.
Glantz & Salkind, New York, N. Y. Salad-oil. No. 103,653; Apr. 13; Gaz. vol. 213; p. 739.
Gleason-Tiebout Glass Company, New York, N. Y. Glass shades, globes and reflectors for artificial illumination. No. 103,694; Apr. 13; Gaz. vol. 213; p. 740.
Glück, Max, New York, N. Y. Dental cream, mouth-wash, and laxative tablet. No. 103,427; Apr. 6; Gaz. vol. 213; p. 351.
Golden, Jacob, Newark, N. J. Candles. No. 103,561; Apr. 6; Gaz. vol. 213; p. 356.
Goldsmith & Son, L., Newark, N. J. Wardrobe-trunks. No. 104,018; Apr. 27; Gaz. vol. 213; p. 1442.
Goodlatte & Sons, T. R., New York, N. Y. Oil-cloth. No. 103,654; Apr. 13; Gaz. vol. 213; p. 739.
Gottlieb Bauernschmidt Straus Brewing Company, The, Baltimore, Md. Lager-beer. No. 103,853; Apr. 20; Gaz. vol. 213; p. 1111.
Gottlieb Corts Gesellschaft mit Beschränkter Haftung, Remscheid-Berghausen, Germany. Files, rasps, saws, augers, screw-keys, etc. No. 103,724; Apr. 13; Gaz. vol. 213; p. 741.
Grand Rapids Refrigerator Company, Grand Rapids, Mich. Heat-insulating material for refrigerators. No. 103,695; Apr. 13; Gaz. vol. 213; p. 741.
Grant, Katherine K., New York, N. Y. Boys' sweaters, stockings, suits, hats, &c. No. 103,655; Apr. 13; Gaz. vol. 213; p. 739.
Grass & Luddy, Boston, Mass. Leather boots and shoes. No. 103,894; Apr. 20; Gaz. vol. 213; p. 1112.
Greenberg & Lave, Inc., New York, N. Y. Ladies' and children's hats. No. 103,604; Apr. 6; Gaz. vol. 213; p. 357.
Griffith-Durney Co., San Francisco, Cal. Pineapples. No. 103,656; Apr. 13; Gaz. vol. 213; p. 739.
Gustav Franklin Company, Chicago, Ill. Mops and brooms. No. 103,423; Apr. 6; Gaz. vol. 213; p. 351.
Gutmann & Co., Carl, New York, N. Y. Women's, misses', and children's knitted underwear. No. 104,003; Apr. 27; Gaz. vol. 213; p. 1441.
H. Lesinsky Company, The, El Paso, Tex. Canned fruits, vegetables, and fish. No. 103,617; Apr. 6; Gaz. vol. 213; p. 357.
H. C. Schrader Co., Jacksonville, Fla. Citrus fruits. No. 103,969; Apr. 20; Gaz. vol. 213; p. 1114.
H. T. Cottam & Co., Ltd., New Orleans, La. Wheat-flour. No. 103,999; Apr. 27; Gaz. vol. 213; p. 1441.
H. W. Johns-Manville Co., New York, N. Y. Automobile-clocks. No. 103,587; Apr. 6; Gaz. vol. 213; p. 356.
Hackett, William J., Dorchester, Mass. Remedy for hay-fever and catarrh. No. 104,019; Apr. 27; Gaz. vol. 213; p. 1442.
Hague, Harry, Murray, Utah. Disinfectant purposes. No. 104,055; Apr. 27; Gaz. vol. 213; p. 1443.
Hall & Co., Walter T., Ottumwa, Iowa. Candy. No. 103,752; Apr. 13; Gaz. vol. 213; p. 742.
Hall, Hartwell & Co., Troy, N. Y. Collars. No. 103,657; Apr. 13; Gaz. vol. 213; p. 739.
Harris, Benjamin H., New York, N. Y. Hair restorer and tonic. No. 103,950; Apr. 20; Gaz. vol. 213; p. 1114.
Harris Bros. & Barnett, New York, N. Y. Petticoats, princess-slips, ladies' muslin and silk underwear. No. 103,658; Apr. 13; Gaz. vol. 213; p. 739.
Harris, Leonard A., Newark, N. J. Certain named chemical preparations. No. 103,895; Apr. 20; Gaz. vol. 213; p. 1112.
Harry Eby Shoe Co., Inc., Ephrata, Pa. Shoes, boots, and rubbers. No. 103,946; Apr. 20; Gaz. vol. 213; p. 1114.
Hartmann Trunk Company, The, Racine, Wis. Trunks and suitcases. No. 103,951; Apr. 20; Gaz. vol. 213; p. 1114.
Hawaiian Pineapple Co., Ltd., Honolulu, Hawaii. Canned pineapple. No. 103,430; Apr. 6; Gaz. vol. 213; p. 351.
Heide, Henry, New York, N. Y. Candies, cocoa, and chocolate. No. 103,659; Apr. 13; Gaz. vol. 213; p. 739.
Heldfond, Samuel M., Portland, Oreg. Certain pharmaceutical preparations and remedies for certain diseases. No. 103,837; Apr. 13; Gaz. vol. 213; p. 745.
Heller, William J., Easton, Pa. Flags. No. 103,854; Apr. 20; Gaz. vol. 213; p. 1111.
Hendee Manufacturing Company, Springfield, Mass. Internal-combustion engines. Nos. 103,727–8; Apr. 13; Gaz. vol. 213; p. 742.
Henry Zimmern & Company, New York, N. Y. Parts of watch and clock movements, including mainsprings. No. 104,114; Apr. 27; Gaz. vol. 213; p. 1444.
Hentges, Martin, Buffalo, N. Y. Baking-powder. No. 103,753; Apr. 13; Gaz. vol. 213; p. 742.
Hering, Ardo, Philadelphia, Pa. Certain named hardware supplies. No. 103,949; Apr. 20; Gaz. vol. 213; p. 1114.
Herrmann, Aukam & Co., New York, N. Y. Handkerchiefs. No. 104,093; Apr. 27; Gaz. vol. 213; p. 1444.
Hewitt-Lea-Funck Co., Seattle, Wash. Lumber. No. 103,812; Apr. 13; Gaz. vol. 213; p. 744.
Hickey, Mary, Oelwein, Iowa. Hair-tonic. No. 103,813; Apr. 13; Gaz. vol. 213; p. 744.
Hilker-Wiechers Mfg. Co., Racine, Wis. Dress and negligée shirts. No. 103,814; Apr. 13; Gaz. vol. 213; p. 744.
Hisgen Brothers, Albany, N. Y. Lubricant. No. 103,660; Apr. 13; Gaz. vol. 213; p. 739.
Hoffman, C. & A., Philadelphia, Pa. Butchers' steels. No. 103,754; Apr. 13; Gaz. vol. 213; p. 742.
Home Washing Machine Co., Inc., The, New York, N. Y. Washing-machines No. 103,661; Apr. 13; Gaz. vol. 213; p. 739.
Hopkinson, Henry R., New York, N. Y. Linens, cotton goods, &c. No. 103,563; Apr. 6; Gaz. vol. 213; p. 356.

Horton Cato Mfg. Co., The Detroit, Mich. Salad-dressing, chilli sauce, mustard, tomato catsup, &c. No. 103,696; Apr. 13; Gaz. vol. 213; p. 741.
Human Hair Goods Industry, New York, N. Y. Human hair. No. 103,755; Apr. 13; Gaz. vol. 213; p. 742.
Ide & Co., Geo. P., Troy, N. Y. Shirts, collars, and cuffs. No. 103,662; Apr. 13; Gaz. vol. 213; p. 739.
Illinois Knitting Company, Mount Vernon, Ill. Hosiery. No. 103,896; Apr. 20; Gaz. vol. 213; p. 1112.
Illinois Seed Co., The, Chicago, Ill. Certain field and grass seeds and seed-grain. Nos. 104,020–2; Apr. 27; Gaz. vol. 213; p. 1442.
Illinois Seed Co., Chicago, Ill. Certain named seeds. No. 104,023; Apr. 27; Gaz. vol. 213; p. 1442.
Illinois Seed Co., The, Chicago, Ill. Certain field and grass seeds and seed-grain. No. 104,024; Apr. 27; Gaz. vol. 213; p. 1442.
Indian Head Mills of Alabama, Cordova, Ala. Cotton piece and dress goods and drills. No. 103,615; Apr. 6; Gaz. vol. 213; p. 357.
Industrial Chemical Company, New York, N. Y. Decolorizing-carbon, deodorizing and catalytic oxidizing materials. No. 103,782; Apr. 13; Gaz. vol. 213; p. 743.
Insulating Materials Company, Detroit, Mich. Sealing-waxes. No. 104,025; Apr. 27; Gaz. vol. 213; p. 1442.
Irgens, Louis S., Oakland, Cal. Individual antiseptic and styptic applicators. No. 103,898; Apr. 20; Gaz. vol. 213; p. 1112.
Iten Biscuit Co., Omaha, Nebr. Crackers, cakes, and biscuits. No. 103,897; Apr. 20; Gaz. vol. 213; p. 1112.
J. Spencer Turner Company, New York, N. Y. Cotton duck, cotton piece and dress goods. No. 103,832; Apr. 13; Gaz. vol. 213; p. 745.
J. & E. Atkinson Limited, London, England. Perfumed soaps for washing and shaving. No. 103,804; Apr. 13; Gaz. vol. 213; p. 744.
J. E. Soper Co., Boston, Mass. Cotton-seed meal. No. 103,707; Apr. 13; Gaz. vol. 213; p. 741.
J. H. Williams & Co., New York, N. Y. Certain named machinery and tools and parts thereof. No. 104,112; Apr. 27; Gaz. vol. 213; p. 1444.
J. and J. Baldwin & Partners, Limited, Halifax, England. Yarns of wool, worsted, or hair. No. 103,883; Apr. 20; Gaz. vol. 213; p. 1112.
J. K. Armsby Co., The, San Francisco, Cal. Dried and evaporated fruits and raisins. No. 103,989; Apr. 27; Gaz. vol. 213; p. 1441.
J. L. Smiley & Company, Blaine, Wash. Canned salmon. No. 103,769; Apr. 13; Gaz. vol. 213; p. 743.
J. P. Fayor & Co. Inc., New York, N. Y. Moving-picture equipment and screens. No. 104,105; Apr. 27; Gaz. vol. 213; p. 1444.
J. W. Buckley Rubber Co., New York, N. Y. Rubber tubing, hose, rubber and cotton fire-hose and mill-hose, &c. No. 104,044; Apr. 27; Gaz. vol. 213; p. 1442.
Jackson Company, Nashua, N. H. Cotton piece and dress goods. No. 104,056; Apr. 27; Gaz. vol. 213; p. 1443.
Jacob Ries Bottling Works, Inc., Shakopee, Minn. Soft-drink beverage made from a beer base carbonated. No. 103,444; Apr. 6; Gaz. vol. 213; p. 352.
James, William T., Chicago, Ill. Preparation for application in the mouth, throat, and nasal passages. No. 103,783; Apr. 13; Gaz. vol. 213; p. 743.
Jarvis, Anna, Philadelphia, Pa. Cartons, boxes, and paper bags. No. 103,855; Apr. 20; Gaz. vol. 213; p. 1111.
Jentzsch, Richard, Chicago, Ill. Self-retaining uterine tube. No. 103,899; Apr. 20; Gaz. vol. 213; p. 1112.
John Blaul's Sons Co., Burlington, Iowa. Cigars, cigarettes, fine-cut and smoking tobaccos, snuff. No. 103,411; Apr. 6; Gaz. vol. 213; p. 351.
John Marston, Limited, Wolverhampton, England. Cycles, motor-cycles, and side cars for motor-cycles. No. 103,857; Apr. 20; Gaz. vol. 213; p. 1111.
Johnstone, George F., Washington, D. C. Remedies for certain named ailments and diseases. No. 103,815; Apr. 13; Gaz. vol. 213; p. 744.
Joseph W. Schloss Co., New York, N. Y. Collar supporters and foundations. No. 103,968; Apr. 20; Gaz. vol. 213; p. 1114.
Justrite Manufacturing Company, Chicago, Ill. Garbage, oil, and waste cans. No. 103,952; Apr. 20; Gaz. vol. 213; p. 1114.
Justrite Manufacturing Company, Chicago, Ill. Fire-extinguishers. No. 103,953; Apr. 20; Gaz. vol. 213; p. 1114.
K. B. R. Milling Company, Marquette, Kans. Wheat-flour, animal and poultry feed. No. 103,816; Apr. 13; Gaz. vol. 213; p. 744.
Kabelwerk Duisburg, Aktien-Gesellschaft, Duisburg, Germany. Explosives, priming materials, matches, &c. No. 103,784; Apr. 13; Gaz. vol. 213; p. 743.
Keep-Nu Co., Chicago, Ill. Brass and metal, automobile and body, and silver polishes, and soap. No. 103,817; Apr. 13; Gaz. vol. 213; p. 744.
Keevill & Son, C., Philadelphia, Pa. Furniture-polish and cleansing compound. No. 104,094; Apr. 27; Gaz. vol. 213; p. 1444.
Kingdon, Clara A., administratrix. (See Kingdon, Howard A.)
Kingdon, Howard A., deceased; C. A. Kingdon, administratrix, Buffalo, N. Y. Medicinal compounds for diseases of women. No. 103,954; Apr. 20; Gaz. vol. 213; p. 1114.
Kinney, Jese D., Fort Meade, Fla. Medicines for dropsy. No. 103,588; Apr. 6; Gaz. vol. 213; p. 356.
Knickerbocker Watch Co., New York, N. Y. Watches. No. 103,589; Apr. 6; Gaz. vol. 213; p. 356.
Knoll & Co., Ludwigshafen-on-the-Rhine, Germany. Remedy employed as a laxative and for treatment of constipation. No. 103,900; Apr. 20; Gaz. vol. 213; p. 1112.
Koebig, Philip W., New York, N. Y. Composite machine-packing. No. 103,663; Apr. 13; Gaz. vol. 213; p. 739.
Kohlman, William B., New Orleans, La. Hosiery. No. 104,069; Apr. 27; Gaz. vol. 213; p. 1443.
Kohnke, Edward F., New Orleans, La. Wheat-flour. No. 103,901; Apr. 20; Gaz. vol. 213; p. 1112.
Kohnstamm & Co., H., New York, N. Y. Flavoring extracts for foods. No. 103,818; Apr. 13; Gaz. vol. 213; p. 744.
Kohnstamm & Co., H., New York, N. Y. Flavoring extracts. No. 103,856; Apr. 20; Gaz. vol. 213; p. 1111.
Kommel, Louis M., New York, N. Y. Tea. No. 104,095; Apr. 27; Gaz. vol. 213; p. 1444.
Krause, Francis A., West Hingham, Mass. Doughnut and cruller flour. No. 103,902; Apr. 20; Gaz. vol. 213; p. 1112.
Kronengold, Harris, New York, N. Y. Salve for sunburn and skin affections. No. 104,057; Apr. 27; Gaz. vol. 213; p. 1443.
L & M. Auto Specialty Co., New York, N. Y. Primary and secondary battery solution. No. 104,096; Apr. 27; Gaz. vol. 213; p. 1444.
Lackland, Frances B., New York, N. Y. Cologne. No. 103,616; Apr. 6; Gaz. vol. 213; p. 357.
Lancaster Mills, Clinton, Mass. Ginghams. No. 103,819; Apr. 13; Gaz. vol. 213; p. 744.
Larabee Flour Mills Company, The, Hutchinson, Kans. Wheat-flour. No. 103,756; Apr. 13; Gaz. vol. 213; p. 742.
Larrowe Milling Co., The, Cohocton, N. Y., and Detroit, Mich. Mixed feed for dairy-cattle. No. 103,903; Apr. 20; Gaz. vol. 213; p. 1112.
Lautz Bros. & Co., Buffalo, N. Y. Soap. No. 103,482; Apr. 6; Gaz. vol. 213; p. 352.
Law, Russell, assignor to Vecto Chemical Co. Inc., New York, N. Y. Medicated salve for nasal affections. No. 103,820; Apr. 13; Gaz. vol. 213; p. 744.
Lax & Strauss, New York, N. Y. Children's sleeping-garments. No. 103,870; Apr. 20; Gaz. vol. 213; p. 1111.
Lenox Supply Company, Sparkill, N. Y. Mineral water. No. 104,097; Apr. 27; Gaz. vol. 213; p. 1444.
Lewis, Frederick H., Stamford, Conn. Pianos and player-pianos. No. 103,431; Apr. 6; Gaz. vol. 213; p. 351.
Lexington Flouring Mills, Lexington, Mo. Wheat-flour. No. 103,433; Apr. 6; Gaz. vol. 213; p. 352.
Lind, David H., New York, N. Y. Candle-holders and sconces. No. 104,058; Apr. 27; Gaz. vol. 213; p. 1443.
Lindenberger Packing Co., Seattle, Wash. Canned salmon. No. 103,785; Apr. 13; Gaz. vol. 213; p. 743.
Lippincott & Co., Philadelphia and Altoona, Pa. Certain named foods. Nos. 103,434–7; Apr. 6; Gaz. vol. 213; p. 352.
Litosilo Co. of America, Incorporated, The, Easton, Pa. Magnesium-chlorid flooring material. No. 103,590; Apr. 6; Gaz. vol. 213; p. 356.
London Blend Cigarette Co., The, New York, N. Y. Cigarettes. No. 103,618; Apr. 6; Gaz. vol. 213; p. 357.
Loose-Wiles Biscuit Company, New York, N. Y. Cakes. No. 103,757; Apr. 13; Gaz. vol. 213; p. 742.
Loose-Wiles Biscuit Company, Boston, Mass. Biscuit. No. 103,904; Apr. 20; Gaz. vol. 213; p. 1112.
Low Cost Company, Chicago, Ill. Certain named paper and stationery supplies. No. 104,059; Apr. 27; Gaz. vol. 213; p. 1443.
Lowry Coffee Co., Philadelphia, Pa. Tea. No. 103,905; Apr. 20; Gaz. vol. 213; p. 1112.
Ludwig Hupfeld Aktiengesellschaft Böhlitz-Ehrenberg, near Leipzig, Germany. Certain musical instruments and their parts, &c. No. 103,665; Apr. 13; Gaz. vol. 213; p. 740.
Luse Bros. Chemical Co., Muskogee, Okla. Certain named medicines and remedies for certain diseases. No. 103,955; Apr. 20; Gaz. vol. 213; p. 1114.
MacAndrews and Forbes Company, Camden, N. J., and New York, N. Y. Fire-extinguishing compositions and ingredients. No. 103,786; Apr. 13; Gaz. vol. 213; p. 743.
Maclin-Zimmer-McGill Tobacco Co. Incorporated, Petersburg, Va. Tobaccos. No. 103,729; Apr. 13; Gaz. vol. 213; p. 742.
Macy & Co., R. H., New York, N. Y. Scarf-pins, necklaces, invaillères, rings, &c. No. 104,071; Apr. 27; Gaz. vol. 213; p. 1443.
Manchester Cotton Mills, Lagrange and Manchester, Ga. Cotton piece goods. No. 103,666; Apr. 13; Gaz. vol. 213; p. 740.
Manhattan Shirt Company, New York, N. Y. Certain named clothing made of textile material. No. 103,906; Apr. 20; Gaz. vol. 213; p. 1112.
Mantle Lamp Company of America, The, Chicago, Ill. Lamp-chimneys. No. 104,072; Apr. 27; Gaz. vol. 213; p. 1443.
Manville Company, Providence, R. I. Silk, cotton, linen, and woolen piece goods and mixtures thereof. No. 103,438; Apr. 6; Gaz. vol. 213; p. 352.
Marcy Company, The, Boston, Mass. Liver remedy. No. 104,073; Apr. 27; Gaz. vol. 213; p. 1443.

Martin-Howe Coal Co., Chicago, Ill. Coal. No. 103,956; Apr. 20; Gaz. vol. 213; p. 1114.
Massillon Aluminum Co., The, Massillon, Ohio. Aluminum ware. No. 103,787; Apr. 13; Gaz. vol. 213; p. 743.
Mat-Macaid Co., Bristol, R. I. Liquid preparation for use on glass to prevent accumulation of moisture and dust. No. 103,821; Apr. 13; Gaz. vol. 213; p. 744.
Mathias & Co., Albert, El Paso, Tex. Overalls, jackets, men's cloth pants, vests, and coats. No. 104,060; Apr. 27; Gaz. vol. 213; p. 1443.
Mayfield Co., The, Binghamton, N. Y. Medicine for the relief of certain named ailments. No. 103,564; Apr. 6; Gaz. vol. 213; p. 356.
Mazzinghi, Alberto, Leghorn, Italy. Olive-oils. No. 104,004; Apr. 27; Gaz. vol. 213; p. 1441.
McCanna & Fraser Co., Inc., Philadelphia, Pa. Butter and cheese. No. 103,698; Apr. 13; Gaz. vol. 213; p. 741.
McClinton's Limited, Donaghmore, Ireland. Soap, washing powders and compounds, polishes for gold, silver, &c. No. 103,957; Apr. 20; Gaz. vol. 213; p. 1114.
McCormick & Co., Baltimore, Md. Certain named pharmaceutical preparations and medicines. No. 103,591; Apr. 6; Gaz. vol. 213; p. 357.
McDonald, Charles R., East Liverpool, assignor to Sanitary Ice Cream Sandwich Company, Cleveland, Ohio. Ice-cream sandwiches. No. 103,699; Apr. 13; Gaz. vol. 213; p. 741.
McDougall Company, Frankfort, Ind. Kitchen-cabinets. No. 103,907; Apr. 20; Gaz. vol. 213; p. 1113.
McLellan, Archibald, *et al.*, trustees. (See Eddy, Mary B. G.)
Mechanical Rubber Company, The, Jersey City, N. J.; New York, N. Y., and Cleveland, Ohio. Sheet-packing. No. 103,667; Apr. 13; Gaz. vol. 213; p. 740.
Merck, Firm of E., Darmstadt, Germany. Hydrogen peroxid in solid form and rendered stable. No. 103,758; Apr. 13; Gaz. vol. 213; p. 742.
Meyers and Theiner, Detroit, Mich. Hair-tonics. No. 103,788; Apr. 13; Gaz. vol. 213; p. 743.
Millar, David, St. Louis, Mo. Flavored and unflavored popcorn and popcorn confections. No. 103,668; Apr. 13; Gaz. vol. 213; p. 740.
Milner Supply Company, The, Coldwater, Mich. Tea and coffee. No. 103,819; Apr. 6; Gaz. vol. 213; p. 357.
Milwaukee Lace Paper Company, Milwaukee, Wis. Certain named lace-paper products, paper excelsior, and confetti. No. 103,759; Apr. 13; Gaz. vol. 213; p. 742.
Minneapolis Steel & Machinery Company, Minneapolis, Minn. Gas traction-engines. No. 103,620; Apr. 6; Gaz. vol. 213; p. 357.
Mintz, Oscar, Newark, N. J. Cigars. No. 103,440; Apr. 6; Gaz. vol. 213; p. 352.
Mishawaka Woolen Manufacturing Company, Mishawaka, Ind. Rubber automobile-tires. Nos. 103,908–9; Apr. 20; Gaz. vol. 213; p. 1113.
Mississippi Coffee Company, Gulfport, Miss. Coffee and chicory. Nos. 103,860–1; Apr. 20; Gaz. vol. 213; p. 1111.
Miwa, Zenbei, Tokyo, Japan. Soap. No. 103,822; Apr. 13; Gaz. vol. 213; p. 744.
Monomac Spinning Company, Lawrence and Boston, Mass. French spun worsted and merino yarns. No. 103,760; Apr. 13; Gaz. vol. 213; p. 742.
Moyer Manufacturing Company, Montevideo, Minn. Stanchions and metal farm-gates. No. 103,669; Apr. 13; Gaz. vol. 213; p. 740.
Mueller, George, Salt Lake City, Utah. Bread. No. 104,026; Apr. 27; Gaz. vol. 213; p. 1442.
Musher & Co., J., Washington, D. C. Tea. No. 103,592; Apr. 6; Gaz. vol. 213; p. 357.
Nashua Manufacturing Company, Nashua, N. H. Cotton piece and dress goods. No. 103,715; Apr. 13; Gaz. vol. 213; p. 741.
Nathan Manufacturing Company, New York, N. Y. Water-gages. No. 104,098; Apr. 27; Gaz. vol. 213; p. 1444.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. No. 103,730; Apr. 13; Gaz. vol. 213; p. 742.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 103,958–9; Apr. 20; Gaz. vol. 213; p. 1114.
National Can Co., Detroit, Mich. Tin cans and collapsible tubes. No. 104,099; Apr. 27; Gaz. vol. 213; p. 1444.
National Cloak & Suit Company, Central Valley and New York, N. Y. Dresses. No. 104,100; Apr. 27; Gaz. vol. 213; p. 1444.
National Enameling & Manufacturing Company, The, Youngstown, Ohio. Electrical conduits. No. 103,670; Apr. 13; Gaz. vol. 213; p. 740.
National Garter Company, Cincinnati, Ohio. Garters and armbands. No. 104,027; Apr. 27; Gaz. vol. 213; p. 1442.
National Motor Vehicle Co., Indianapolis, Ind. Automobile and gasolene engines and parts. No. 103,621; Apr. 6; Gaz. vol. 213; p. 357.
National Refining Company, Cleveland, Ohio. Lubricating-oil, gasolene, and axle-grease. No. 103,441; Apr. 6; Gaz. vol. 213; p. 352.
National Refining Company, Cleveland, Ohio. Gasolene, kerosene, naphtha, &c. No. 103,859; Apr. 20; Gaz. vol. 213; p. 1111.
National School Slate Company, Slatington, Pa. School-slates. No. 103,622; Apr. 6; Gaz. vol. 213; p. 357.
National Tape Company, Inc., New York, N. Y. Tape. No. 103,565; Apr. 6; Gaz. vol. 213; p. 356.
National Tire and Rubber Company, The, East Palestine, Ohio. Automobile tire casings and tubes. No. 103,671; Apr. 13; Gaz. vol. 213; p. 740.
National Washboard Company, Chicago, Ill.; Saginaw, Mich., and Memphis, Tenn. Washboards. Nos. 103,471–549; Apr. 6; Gaz. vol. 213; pp. 353–5.
Neal, James A., *et al.*, trustees. (See Eddy, Mary B. G.)
New England Laboratory Co., Lynn, Mass. Cold-cream. No. 104,101; Apr. 27; Gaz. vol. 213; p. 1444.
New England Laboratory Co., Lynn, Mass. Tooth-paste. No. 104,102; Apr. 27; Gaz. vol. 213; p. 1444.
New York Athletic Club of the City of New York, The, New York, N. Y. Coats, sweaters, shirts, underwear, caps, and hats. No. 103,789; Apr. 13; Gaz. vol. 213; p. 743.
New York Couch Bed Co., New York, N. Y. Beds, bed springs and mattresses, and material therefor. No. 104,061; Apr. 27; Gaz. vol. 213; p. 1443.
Nicholas Power Company, New York, N. Y. Motion-picture-projection machines and parts thereof. No. 103,823; Apr. 13; Gaz. vol. 213; p. 744.
Nicolas, Cecile, New York, N. Y. Ladies' dresses. No. 103,623; Apr. 6; Gaz. vol. 213; p. 358.
Niles Tool Works Company, The, New York, N. Y. Certain named machinery and tools. No. 103,566; Apr. 6; Gaz. vol. 213; p. 356.
Noack, Erich, Clifton, N. J. Cigars, cigarettes, and cheroots. No. 103,960; Apr. 20; Gaz. vol. 213; p. 1114.
Noble, Jane S., Washington, D. C. Preparation for invigorating the scalp and developing the growth of the hair. No. 103,961; Apr. 20; Gaz. vol. 213; p. 1114.
Norfolk Packing Co., Norfolk, Nebr. Canned vegetables. Nos. 103,567–8; Apr. 6; Gaz. vol. 213; p. 356.
Norman, Jeff. D., Loraine, Tex. Receipts for the preparation of medical compounds for treating certain diseases of man and beast. No. 103,569; Apr. 6; Gaz. vol. 213; p. 356.
North American Construction Company, Bay City, Mich. Knockdown houses. No. 103,962; Apr. 20; Gaz. vol. 213; p. 1114.
Northern Refrigerator Company, Grand Rapids, Mich. Refrigerators. No. 103,910; Apr. 20; Gaz. vol. 213; p. 1113.
Northwestern Chemical Company, The, Marietta, Ohio. Hand-soap for removing grease and dirt. No. 104,103; Apr. 27; Gaz. vol. 213; p. 1444.
Nyal Company, Detroit, Mich. Certain named medical and surgical appliances. No. 103,790; Apr. 13; Gaz. vol. 213; p. 743.
O-Do-Cure Toilet Company, Chicago, Ill. Toilet water. No. 103,911; Apr. 20; Gaz. vol. 213; p. 1113.
Offutt, Mary P., New York, N. Y. Glass drinking-cup. No. 103,701; Apr. 13; Gaz. vol. 213; p. 741.
Okomo Soap Company, Inc., New York, N. Y. Soaps and cleansing-powders. No. 103,593; Apr. 6; Gaz. vol. 213; p. 357.
Olivier, Pierre, Lake Charles, La. Preparation for treatment of lungs, consumption, pneumonia, &c. No. 103,912; Apr. 20; Gaz. vol. 213; p. 1113.
Organic Products Company, Brooklyn, N. Y. A restorative liquid-preparation remedy and a tonic. No. 104,104; Apr. 27; Gaz. vol. 213; p. 1444.
Querbacker Coffee Co., The, Louisville, Ky. Roasted coffee. Nos. 104,028–9; Apr. 27; Gaz. vol. 213; p. 1442.
Pa Pro Company, The, Lowville, N. Y. Caps or closures for bottles, &c. No. 103,963; Apr. 20; Gaz. vol. 213; p. 1114.
Papier Poudré Limited, London, England; Paris, France, and New York, N. Y. Preparation for the skin. No. 103,674; Apr. 13; Gaz. vol. 213; p. 740.
Parke, Davis & Company, Detroit, Mich. Pharmaceutical and chemical preparations for medicinal purposes. Nos. 103,702–3; Apr. 13; Gaz. vol. 213; p. 741.
Parker, Leo T., Lynchburg, Ohio. Preventives of gonorrhea, syphilis, and chancroid. No. 103,761; Apr. 13; Gaz. vol. 213; p. 743.
Parsons Paper Company, Holyoke, Mass. Writing and printing paper. No. 103,675; Apr. 13; Gaz. vol. 213; p. 740.
Paterson, Edward A., Thorold, Ontario, Canada. Silicate of soda. No. 104,062; Apr. 27; Gaz. vol. 213; p. 1443.
Pedigreed Seed Co., Hartsville, S. C. Farm and field seeds. No. 103,676; Apr. 13; Gaz. vol. 213; p. 740.
Peek Bros. & Winch (America), New York, N. Y. Tea. No. 103,624; Apr. 6; Gaz. vol. 213; p. 358.
Penn Grains and Feed Company, Philadelphia, Pa. Brewers' dried grains. No. 104,074; Apr. 27; Gaz. vol. 213; p. 1443.
Perrotts Limited, Leeds, England. Certain named clothing. No. 103,625; Apr. 6; Gaz. vol. 213; p. 358.
Pesticoe, Charles, Philadelphia, Pa. Blouses, top skirts, underskirts, &c. No. 103,824; Apr. 13; Gaz. vol. 213; p. 744.
Peter Schoenhofen Brewing Company, The, Chicago, Ill. Malt tonic. No. 103,794; Apr. 13; Gaz. vol. 213; p. 744.
Peterborough Canoe Company, Limited, Peterborough, Ontario, Canada. Canoes. No. 103,594; Apr. 6; Gaz. vol. 213; p. 357.
Pew, Marlen E., New York, N. Y. Photo-engravings in the nature of engraved plates. No. 103,595; Apr. 6; Gaz. vol. 213; p. 357.

Philadelphia Quartz Company, Philadelphia, Pa. Egg-preservers. No. 103,791; Apr. 13; Gaz. vol. 213; p. 743.
Pittsburgh Brewing Company, Pittsburgh, Pa. Beer. No. 103,596; Apr. 6; Gaz. vol. 213; p. 357.
Placentia Mutual Orange Association, Placentia, Cal. Oranges. No. 103,704; Apr. 13; Gaz. vol. 213; p. 741.
Placentia Mutual Orange Association, Placentia, Cal. Oranges. Nos. 103,838–9; Apr. 13; Gaz. vol. 213; p. 745.
Plymouth Citrus Growers Assc., Plymouth, Fla. Citrus fruits. No. 103,913; Apr. 20; Gaz. vol. 213; p. 1113.
Polo Club Cigarette Co. (See Wolfe, Henderson M., assignor.)
Popcorn Products Co., New York, N. Y. Popcorn. No. 103,716; Apr. 13; Gaz. vol. 213; p. 741.
Postamper Company, The, Chicago, Ill. Stamp-affixing machines. No. 104,106; Apr. 27; Gaz. vol. 213; p. 1444.
Potter, Ellis M., New York, N. Y. Vegetable compound to be mixed and ground with cocoa, coffee, &c. No. 103,570; Apr. 6; Gaz. vol. 213; p. 356.
Powell & Campbell, New York, N. Y. Boots, shoes, slippers, and rubbers. No. 103,677; Apr. 13; Gaz. vol. 213; p. 740.
Pratt-Low Preserving Co., Santa Clara, Cal. Sauce. No. 103,862; Apr. 20; Gaz. vol. 213; p. 1111.
Pressed Asbestos Products Co., New York, N. Y. Composition of asbestos or other fibrous substances held together with a fire-resisting binder. No. 103,597; Apr. 6; Gaz. vol. 213; p. 357.
Protectair Manufacturing Company, Wilmington, Del., and Philadelphia, Pa. Liquid for sealing punctures in pneumatic tubes. No. 104,005; Apr. 27; Gaz. vol. 213; p. 1441.
Provident Chemical Works, St. Louis, Mo. Acid phosphate of calcium. No. 104,030; Apr. 27; Gaz. vol. 213; p. 1442.
Purity Oats Company, Keokuk, Iowa. Rolled oats. No. 103,442; Apr. 6; Gaz. vol. 213; p. 352.
Rabinowitz, Harry, New York, N. Y. Neckties and neckscarfs. No. 104,107; Apr. 27; Gaz. vol. 213; p. 1444.
Rand, Nelson C., Everett, Mass. Crackers, biscuit, bread, and pastry. No. 104,108; Apr. 27; Gaz. vol. 213; p. 1444.
Rattan Mfg. Co., The, New Haven, Conn. Children's vehicles. No. 103,792; Apr. 13; Gaz. vol. 213; p. 743.
Reed, Amelia H., Chicago, Ill. Blood-purifiers and remedies for rheumatism. No. 103,826; Apr. 13; Gaz. vol. 213; p. 744.
Regal Shoe Company, Boston, Mass. Talcum powder. No. 104,075; Apr. 27; Gaz. vol. 213; p. 1443.
Regents Mercantile Corporation, St. Louis, Mo. Medicinal and toilet soaps. No. 103,964; Apr. 20; Gaz. vol. 213; p. 1114.
Regina Flour Mill Company, St. Louis, Mo. Wheat-flour. No. 103,914; Apr. 20; Gaz. vol. 213; p. 1113.
Reliable Hair Store, The, Inc., Norfolk, Va. Hair-pomade or dressing for hair. No. 103,705; Apr. 13; Gaz. vol. 213; p. 741.
Remington, Eliphalet, Cazenovia, N. Y. Animal-traps. No. 103,762; Apr. 13; Gaz. vol. 213; p. 743.
Remmers Soap Co., The, Cincinnati, Ohio. Toilet soaps. No. 103,731; Apr. 13; Gaz. vol. 213; p. 742.
Rheinstrom Bros., Cincinnati, Ohio. Cherries, pineapple, assorted fruits, &c. No. 103,598; Apr. 6; Gaz. vol. 213; p. 357.
Rice, John B., Spencer, Ind. Pile and eczema remedy. No. 103,443; Apr. 6; Gaz. vol. 213; p. 352.
Rice-Stix Dry Goods Company, St. Louis, Mo. Certain named clothing for men and boys. No. 103,915; Apr. 20; Gaz. vol. 213; p. 1113.
Richardson & Boynton Company, New York, N. Y.; Chicago, Ill.; Boston, Mass.; Philadelphia, Pa.; Kansas City, Mo.; Minneapolis, Minn., and Providence, R. I. Heaters, boilers, ranges, stoves, &c. No. 103,732; Apr. 13; Gaz. vol. 213; p. 742.
Ries, Arthur J. H., Alden, Iowa. Foot-powder. No. 103,626; Apr. 6; Gaz. vol. 213; p. 358.
Riggl, Joseph A., Brooklyn, N. Y. Chewing-gum. No. 103,678; Apr. 13; Gaz. vol. 213; p. 740.
Robert Ogilvy Co., New York, N. Y. Fish-hooks and fishing-tackle. Nos. 103,672–3; Apr. 13; Gaz. vol. 213; p. 740.
Robinson, David H., New York, N. Y. Rain, cravenetted, and rubber coats. No. 103,827; Apr. 13; Gaz. vol. 213; p. 744.
Roby, Frank F., Kearney, Nebr. Certain named flours and breakfast foods. No. 103,445; Apr. 6; Gaz. vol. 213; p. 352.
Rodenhausen, Carl, Chicago, Ill. Paste for use in plumbing in the making of joints. No. 103,793; Apr. 13; Gaz. vol. 213; p. 743.
Roehm-Richards Co., The, Dayton, Ohio. Linen and cotton white-duck suits. Nos. 103,763–4; Apr. 13; Gaz. vol. 213; p. 743.
Roessel & Co., Louis, New York, N. Y. Silks in the piece. No. 104,006; Apr. 27; Gaz. vol. 213; p. 1441.
Rohe & Brother, New York, N. Y. Lard. No. 103,733; Apr. 13; Gaz. vol. 213; p. 742.
Rosenberg, Casper, Cleveland, Ohio. Cigars, cheroots, cigarettes, and stogies. No. 103,877; Apr. 20; Gaz. vol. 213; p. 1112.
Ross W. Weir & Co., Inc., New York, N. Y. Coffee. No. 103,981; Apr. 20; Gaz. vol. 213; p. 1115.
Roth & Co., O., New York, N. Y., and Uster-Zurich, Switzerland. Foreign and domestic cheese. No. 103,965; Apr. 20; Gaz. vol. 213; p. 1114.
Royal Typewriter Co., Inc., New York, N. Y. Type-writing machines and parts thereof. No. 103,679; Apr. 13; Gaz. vol. 213; p. 740.
Rutherford Rubber Company, Rutherford, N. J. Snap-on treads for vehicle-tires. No. 103,878; Apr. 20; Gaz. vol. 213; p. 1112.
Rutherford Rubber Company, Rutherford, N. J. Real-rubber bumpers for automobile-springs. No. 103,967; Apr. 20; Gaz. vol. 213; p. 1114.
Ryan, John J., Albany, N. Y. Certain biographical sketches for publications. No. 103,571; Apr. 6; Gaz. vol. 213; p. 356.
S. H. Kress and Company, New York, N. Y. Hosiery. Nos. 103,461–70; Apr. 6; Gaz. vol. 213; pp. 352–3.
Safe-Cabinet Company, Marietta, Ohio. Weekly periodical. No. 103,879; Apr. 20; Gaz. vol. 213; p. 1112.
Sanitary Food Products Co., New York, N. Y. Certain named foods. No. 103,916; Apr. 20; Gaz. vol. 213; p. 1113.
Sanitary Ice-Cream Sandwich Company. (See McDonald, Charles R., assignor.)
Santa Clara Company, Boston, Mass. Whisky, grenadine and rock-candy syrup, and lime-juice. No. 103,599; Apr. 6; Gaz. vol. 213; p. 357.
Satterfield, Robert W., Cleveland, Ohio. Cartoons and drawings. No. 103,446; Apr. 6; Gaz. vol. 213; p. 352.
Schliemann's Oil & Ceresine Company, Inc., New York, N. Y. Lubricating-oils. Nos. 103,765–6; Apr. 13; Gaz. vol. 213; p. 743.
Schlyen, Joseph, New York, N. Y. Laxative candy. No. 103,447; Apr. 6; Gaz. vol. 213; p. 352.
Schoen, Charles T., Media, Pa. Music-rolls for player-pianos, &c. No. 103,828; Apr. 13; Gaz. vol. 213; p. 745.
Schott & Gen., Jena, Germany. Raw glass for making certain named articles. No. 103,970; Apr. 20; Gaz. vol. 213; p. 1114.
Schubert Piano Co., The, New York, N. Y. Pianos, piano-players, and piano-player actions. No. 103,717; Apr. 13; Gaz. vol. 213; p. 741.
Schubert Piano Co., The, New York, N. Y. Pianos, piano-players, and piano-player actions. No. 104,031; Apr. 27; Gaz. vol. 213; p. 1442.
Schulze Baking Company, Chicago, Ill. Bread. No. 104,032; Apr. 27; Gaz. vol. 213; p. 1442.
Seidel & Sons, Adolph, Chicago, Ill. Soda-water and soda-fountain beverage. No. 103,917; Apr. 20; Gaz. vol. 213; p. 1113.
Self, Christopher C., Barham, La. Preparation for venereal diseases. No. 103,863; Apr. 20; Gaz. vol. 213; p. 1111.
Shapiro, Samuel, Philadelphia, Pa. Pasteurizers. No. 103,734; Apr. 13; Gaz. vol. 213; p. 742.
Shaw & Co., Alex. D., New York, N. Y. Jamaica rum. No. 103,971; Apr. 20; Gaz. vol. 213; p. 1114.
Shearer, William S., near Lewiston, Idaho. Fresh fruits and vegetables. No. 103,681; Apr. 13; Gaz. vol. 213; p. 740.
Sheets & Co., William H., Jr., Baltimore, Md. Wall, scrubbing, clothes, &c., brushes. No. 103,918; Apr. 20; Gaz. vol. 213; p. 1113.
Sheets & Co., William H., Jr., Baltimore, Md. Brushes. No. 104,109; Apr. 27; Gaz. vol. 213; p. 1444.
Sheetz, Ellie, Washington, D. C. Candy. No. 103,972; Apr. 20; Gaz. vol. 213; p. 1114.
Sheffield-King Milling Co., Minneapolis, Minn. Wheat-flour. No. 103,767; Apr. 13; Gaz. vol. 213; p. 743.
Showley Bros., San Diego, Cal. Candy. No. 103,448; Apr. 6; Gaz. vol. 213; p. 352.
Shuman, Harry B., Boston, Mass. Mouth-wash and tooth-powder. No. 103,795; Apr. 13; Gaz. vol. 213; p. 744.
Sieben, Henry, Kansas City, Mo. Games. No. 103,735; Apr. 13; Gaz. vol. 213; p. 742.
Sierra Chemical Company, Los Angeles, Cal. Washing-powder. No. 103,768; Apr. 13; Gaz. vol. 213; p. 743.
Simon, Franklin, New York, N. Y. Certain style of soft negligée shirt with collar attached. No. 103,449; Apr. 6; Gaz. vol. 213; p. 352.
Simonds File Co., Fitchburg, Mass. Saws. No. 104,007; Apr. 27; Gaz. vol. 213; p. 1441.
Simons, Eva I., San Francisco, Cal. Certain named pharmaceutical preparations for toilet use. No. 104,076; Apr. 27; Gaz. vol. 213; p. 1443.
Simons & McGill, New York, N. Y. Umbrellas and parasols. No. 103,919; Apr. 20; Gaz. vol. 213; p. 1113.
Singer Bros., New York, N. Y. Cocktails and brandy. No. 103,682; Apr. 13; Gaz. vol. 213; p. 740.
Small & Parkes, Limited, Manchester, England. Packing, hose, belting, and washers. No. 103,683; Apr. 13; Gaz. vol. 213; p. 740.
Smith, Fannie H., Dayton, Ohio. Fruit preserves and jams. No. 103,973; Apr. 20; Gaz. vol. 213; p. 1115.
Smith, Kline & French Co., Philadelphia, Pa. Liniment. No. 103,797; Apr. 13; Gaz. vol. 213; p. 744.
Smith, Kline & French Co., Philadelphia, Pa. Vermifuge. Nos. 103,798–9; Apr. 13; Gaz. vol. 213; p. 744.
Smith, Kline & French Co., Philadelphia, Pa. Liniment. No. 103,800; Apr. 13; Gaz. vol. 213; p. 744.
Smith, Kline & French Co., Philadelphia, Pa. Insecticide. No. 103,801; Apr. 13; Gaz. vol. 213; p. 744.
Smith, Robert M., Hattiesburg, Miss. Remedy for catarrh. No. 103,842; Apr. 13; Gaz. vol. 213; p. 745.

Smith's Island Oyster Company, New York, N. Y. Oysters, clams, &c. No. 103,572; Apr. 6; Gaz. vol. 213; p. 356.
Società Anonima Leonardo Film, Turin, Italy. Cinematograph-films. No. 103,664; Apr. 13; Gaz. vol. 213; p. 740.
Società Torrese per Conserve Alimentari Liguori, Mazza & Cl., Torre del Greco, Italy. Tomato paste and peeled tomatoes. No. 104,008; Apr. 27; Gaz. vol. 213; p. 1441.
Société de Conserves Alimentaires de la Vallée du Rhône, Saxon, Switzerland. Certain named foods. No. 103,706; Apr. 13; Gaz. vol. 213; p. 741.
Society of Automobile Engineers, New York, N. Y. Data-sheets. No. 103,974; Apr. 20; Gaz. vol. 213; p. 1115.
Southern M'f'g Co., The, Richmond, Va. Baking-powder. No. 103,920; Apr. 20; Gaz. vol. 213; p. 1113.
Speagh, Charles D., Dayton, Ohio. Rupture-trusses. No. 103,796; Apr. 13; Gaz. vol. 213; p. 744.
Spengler, Adeline C., Lewiston, Idaho. Bread. No. 103,684; Apr. 13; Gaz. vol. 213; p. 740.
Spooner, Jacob, New York, N. Y. Talcum powder. No. 103,450; Apr. 6; Gaz. vol. 213; p. 352.
Sprague Co., Frederick H., Orange, Mass. Child's undergarment. No. 103,829; Apr. 13; Gaz. 213; p. 745.
Standard Oil Company, Whiting, Ind., and Chicago, Ill. Liquid paraffin. No. 103,736; Apr. 13; Gaz. vol. 213; p. 742.
Standard Oil Company of California, San Francisco, Cal. Lubricating-oil. No. 104,077; Apr. 27; Gaz. vol. 213; p. 1443.
Starnes, H., Atlanta, Ga. Rubber tires, casings, blow-out patches, &c. No. 103,975; Apr. 20; Gaz. vol. 213; p. 1115.
Statter, H., Sioux City, Iowa. Anti-hog-cholera serum and hog-cholera virus. No. 103,921; Apr. 20; Gaz. vol. 213; p. 1113.
Stavanger Preserving Co. a/s., Stavanger, Norway. Preserved fish. No. 103,976; Apr. 20; Gaz. vol. 213; p. 1115.
Stearns, E. G., Chicago, Ill. Rubber boots and shoes. No. 103,871; Apr. 20; Gaz. vol. 213; p. 1111.
Steele, William J., Baldwin, N. Y. Remedy for all diseases of the throat. No. 104,009; Apr. 27; Gaz. vol. 213; p. 1441.
Steenol Laboratories, New York, N. Y. Liquid antiseptic. No. 103,802; Apr. 13; Gaz. vol. 213; p. 744.
Steffens-Amberg Co., The, Newark, N. J. Harness or saddlery hardware and hames. No. 103,803; Apr. 13; Gaz. vol. 213; p. 744.
Steinberger & Kalisher, New York, N. Y. Gloves. No. 103,451; Apr. 6; Gaz. vol. 213; p. 352.
Sterling Gum Company, Inc., New York, N. Y. Chewing-gum. No. 103,685; Apr. 13; Gaz. vol. 213; p. 740.
Stewart, Allison V., *et al.*, trustees. (See Eddy, Mary B. G.)
Stifel & Sons, J. L., Wheeling, W. Va. Cotton piece goods. No. 104,033; Apr. 27; Gaz. vol. 213; p. 1442.
Stockman, Henry, assignor to United States Leather Company, Elizabeth, N. J. Leather. No. 103,977; Apr. 20; Gaz. vol. 213; p. 1115.
Stonefield-Evans Shoe Co., Rockford, Ill. Shoes. No. 103,830; Apr. 13; Gaz. vol. 213; p. 745.
Strong, William J. H., Beloit, Wis. Water. No. 103,573; Apr. 6; Gaz. vol. 213; p. 356.
Strong, William J. H., Beloit, Wis. [illegible]m-turbines and parts thereof. No. 103,627; [illegible] 6; Gaz. vol. 213; p. 358.
Stroud, Morris R., Philadelphia, Pa. Greases and lubricants, (rust-preventive.) No. 103,574; Apr. 6; Gaz. vol. 213; p. 356.
Strum, Johann F., New York, N. Y. Cigarettes. No. 103,880; Apr. 20; Gaz. vol. 213; p. 1112.
Stuart, Milliken & Co., New York, N. Y. Men's and ladies' hose. No. 103,628; Apr. 6; Gaz. vol. 213; p. 358.
Sulzberger & Sons Company, New York, N. Y. Certain named hair and fiber products for upholstering purposes. No. 104,034; Apr. 27; Gaz. vol. 213; p. 1442.
Sulzberger & Sons Company, New York, N. Y. Certain named materials to be used for upholstering purposes. No. 104,035; Apr. 27; Gaz. vol. 213; p. 1442.
Sulzberger & Sons Company, New York, N. Y. Certain named hair and fiber products for upholstering purposes. Nos. 104,036–43; Apr. 27; Gaz. vol. 213; p. 1442.
Sunbeam Motor Car Company, The, Limited, Wolverhampton, England. Motor-cars. No. 103,864; Apr. 20; Gaz. vol. 213; p. 1111.
Swift and Company, Chicago, Ill. White laundry soap. No. 103,831; Apr. 13; Gaz. vol. 213; p. 745.
Swiss Lace and Embroidery Co., Chicago, Ill. Laces. No. 103,978; Apr. 20; Gaz. vol. 213; p. 1115.
T. A. Willson & Co., Inc., Reading, Pa. Ophthalmic mountings and parts thereof. No. 104,113; Apr. 27; Gaz. vol. 213; p. 1444.
Takasugi, Saburo R., Los Angeles, Cal. Stock for soups and dressing for salads. No. 103,865; Apr. 20; Gaz. vol. 213; p. 1111.
Tetlow Co., Henry, Philadelphia, Pa. Face-powder. No. 103,979; Apr. 20; Gaz. vol. 213; p. 1115.
Textile Products Company, Boston, Mass. Dresses. No. 104,110; Apr. 27; Gaz. vol. 213; p. 1444.
Thermoid Rubber Company, Hamilton township, Mercer county, N. J. Rubber automobile-casings, inner tubes, re-liners for casings, &c. No. 103,452; Apr. 6; Gaz. vol. 213; p. 352.
Thompson Manufacturing Company, Holland, Mich. Tables, bookcases, desks, couches, &c. No. 104,064; Apr. 27; Gaz. vol. 213; p. 1443.
Tilden Saw Co., Wyandotte, Mich. Butchers' supplies. No. 103,629; Apr. 6; Gaz. vol. 213; p. 358.
Tilly, H. L., Memphis, Tenn. Hair-tonic. No. 103,630; Apr. 6; Gaz. vol. 213; p. 358.
Timothy F. Crowley, Incorporated, New York, N. Y. Ladies' fichus made of fancy and plain nets, laces, chiffons, silks, &c. No. 103,944; Apr. 20; Gaz. vol. 213; p. 1114.
Tobias Bluestein, Inc., Chicago, Ill. Cigarettes. No. 103,939; Apr. 20; Gaz. vol. 213; p. 1113.
Tokalon, Incorporated, New York, N. Y. Perfumery. No. 103,866; Apr. 20; Gaz. vol. 213; p. 1111.
Treevax Chemical Co., The, Hicksville, Ohio. Scale and insect exterminator. No. 103,455; Apr. 6; Gaz. vol. 213; p. 352.
Trump, Augustus C., Columbus, Ohio. External application for the relief of certain named ailments. No. 103,575; Apr. 6; Gaz. vol. 213; p. 356.
Tucson Seed Company, Tucson, Ariz. Seeds. No. 103,576; Apr. 6; Gaz. vol. 213; p. 356.
U. S. Hame Company, Buffalo, N. Y. Hames. No. 103,453; Apr. 6; Gaz. vol. 213; p. 352.
Ulrich, Jacob, New York, N. Y. Fountain-pens and ink-pencils. No. 103,600; Apr. 6; Gaz. vol. 213; p. 357.
Union Mills, Inc., Hudson and New York, N. Y. Knitted underwear. Nos. 103,710–13; Apr. 13; Gaz. vol. 213; p. 741.
Union Oil Company of California, Los Angeles, Cal. Fuel-oils. No. 103,737; Apr. 13; Gaz. vol. 213; p. 742.
Union Special Machine Company, Chicago, Ill. Sewing-machines and parts thereof. No. 103,738; Apr. 13; Gaz. vol. 213; p. 742.
United Drug Company, Boston, Mass. Cigar and cigarette holders, pipes, pipe-cleaners, tobacco-boxes, &c. No. 103,602; Apr. 6; Gaz. vol. 213; p. 357.
United Drug Company, Boston, Mass. Certain named rubber goods. No. 103,603; Apr. 6; Gaz. vol. 213; p. 357.
United Drug Company, Boston, Mass. Soap. No. 103,980; Apr. 20; Gaz. vol. 213; p. 1115.
United States Leather Company. (See Stockman, Henry, assignor.)
Universal Tea Co., The, Hartford, Conn. Blended coffee. No. 103,922; Apr. 20; Gaz. vol. 213; p. 1113.
Van Hee, Hunter, and Parsons Company, Inc., New York, N. Y. Cotton fabrics for making bags. No. 103,923; Apr. 20; Gaz. vol. 213; p. 1113.
Van Kannel Revolving Door Company, New York, N. Y. Revolving doors. No. 104,078; Apr. 27; Gaz. vol. 213; p. 1443.
Vaughan, George C., Salem, Mass. Sole-leather. No. 103,739; Apr. 13; Gaz. vol. 213; p. 742.
Vaughan Paint Company, Cleveland, Ohio. Certain named paint and painters' materials. No. 103,577; Apr. 6; Gaz. vol. 213; p. 356.
Vecto Chemical Co. Inc. (See Law, Russell, assignor.)
Veneer Manufacturing Co., Warwood, W. Va. Liquid cleaning, dusting, and polishing compound. No. 103,454; Apr. 6; Gaz. vol. 213; p. 352.
Ventilouvre Co., New York, N. Y. Transoms, doors, windows, and panels. No. 104,079; Apr. 27; Gaz. vol. 213; p. 1443.
Vick Chemical Co., The, Greensboro, N. C. Salve. No. 103,601; Apr. 6; Gaz. vol. 213; p. 357.
Vincent Sorrentino, Inc., Providence, R. I. Certain named articles of precious metal. No. 104,063; Apr. 27; Gaz. vol. 213; p. 1443.
Virginia Iron & Metal Company, Incorporated, Richmond, Va. Babbitt metals. Nos. 103,740–1; Apr. 13; Gaz. vol. 213; p. 742.
Vogue Company, The, New York, N. Y. Patterns. No. 103,770; Apr. 13; Gaz. vol. 213; p. 743.
W. F. Assau Canning Company, Baltimore, Md. Canned fruits, vegetables, and pork and beans. No. 103,990; Apr. 27; Gaz. vol. 213; p. 1441.
W & K Company, The, Nasonville and Providence, R. I. Woolen and worsted piece goods. Nos. 103,631–2; Apr. 6; Gaz. vol. 213; p. 358.
Wacker & Birk Brewing Co., Chicago, Ill. Beer. No. 103,771; Apr. 13; Gaz. vol. 213; p. 743.
Wadsworth Chocolate Co., Newark, N. J. Chocolates. No. 103,833; Apr. 13; Gaz. vol. 213; p. 745.
Wadsworth Chocolate Co., Newark, N. J. Chocolates. No. 103,867; Apr. 20; Gaz. vol. 213; p. 1111.
Walsh, Edward H., New York, N. Y. Carbon-paper. No. 103,456; Apr. 6; Gaz. vol. 213; p. 352.
Ward Baking Company, New York, N. Y. Cakes. No. 103,742; Apr. 13; Gaz. vol. 213; p. 742.
Ward Bros. Co., Inc., Buffalo, N. Y. Bread. No. 103,714; Apr. 13; Gaz. vol. 213; p. 741.
Warner Brothers Company, The, Bridgeport, Conn. Hose-supporters. No. 103,834; Apr. 13; Gaz. vol. 213; p. 745.
Warren, I. J., Springfield, Mass. Wheat-flour. No. 103,868; Apr. 20; Gaz. vol. 213; p. 1111.
Waterson, Henry, New York, N. Y. Talking-machine records. No. 103,718; Apr. 13; Gaz. vol. 213; p. 741.
Waukesha Health Products Co., Waukesha, Wis. Processed flour, bread, and breakfast food for treatment of diabetes, and olive-oil. No. 103,772; Apr. 13; Gaz. vol. 213; p. 743.

Wedgefuth, Louis C., Yonkers, N. Y. Preparations of liquid and hard soap. No. 103,925; Apr. 20; Gaz. vol. 213; p. 1113.

Wedgefuth, Louis C., Yonkers, N. Y. Preparations of sulfur in soluble form. No. 103,926; Apr. 20; Gaz. vol. 213; p. 1113.

Weingarten Bros. Inc., New York, N. Y. Corset-lacings. No. 103,835; Apr. 13; Gaz. vol. 213; p. 745.

Western Clock Co., Peru, Ill. Clocks and watches. No. 103,457; Apr. 6; Gaz. vol. 213; p. 352.

Western Clock Co., Peru, Ill. Clocks and watches. Nos. 103,927–9; Apr. 20; Gaz. vol. 213; p. 1113.

Western Coffee Co., The, El Paso, Tex. Roasted coffee. No. 103,633; Apr. 6; Gaz. vol. 213; p. 358.

Westmoreland Candy Company, Inc., Richmond, Va., and New York, N. Y. Candy. No. 103,982; Apr. 20; Gaz. vol. 213; p. 1115.

Whaley Mill & Elevator Co., Gainesville, Tex. Wheat-flour. No. 104,080; Apr. 27; Gaz. vol. 213; p. 1443.

White-Stokes Company, Chicago, Ill. Certain named foods. No. 103,836; Apr. 13; Gaz. vol. 213; p. 745.

White, William S., Beaumont, Cal. Fresh fruits. No. 103,578; Apr. 6; Gaz. vol. 213; p. 356.

Whitman Agricultural Company, St. Louis, Mo. Certain named machinery. No. 103,708; Apr. 13; Gaz. vol. 213; p. 741.

Whitney-Eckstein Seed Company, Buffalo, N. Y. Grass-seed. No. 103,983; Apr. 20; Gaz. vol. 213; p. 1115.

Whittall, M. J., Worcester, Mass. Textile rugs and carpets. Nos. 103,458–9; Apr. 6; Gaz. vol. 213; p. 352.

Widlar Co., The, Cleveland, Ohio. Mustard relish. No. 103,773; Apr. 13; Gaz. vol. 213; p. 743.

Widmann, Albert V., Newark, N. J. Remedies for certain named ailments and diseases. No. 104,111; Apr. 27; Gaz. vol. 213; p. 1444.

Winner Stock Remedies Co., Kenton, Ohio. Certain pharmaceutical preparation and preparations for treating certain diseases of live stock and poultry. No. 103,579; Apr. 6; Gaz. vol. 213; p. 356.

Winterbottom Book Cloth Company, Limited, Manchester, England. Tracing-cloth. No. 104,081; Apr. 27; Gaz. vol. 213; p. 1443.

Wintersmith, Horace, Elizabethtown, Ky. Remedy for syphilis, gonorrhea, gleet, &c. No. 103,930; Apr. 20; Gaz. vol. 213; p. 1113.

Wm. Alten Co., Inc., New York, N. Y. Wheat-flour. No. 103,687; Apr. 13; Gaz. vol. 213; p. 740.

Wm. Focke's Sons Company, The, Dayton, Ohio. Ham, bacon, and lard. No. 104,052; Apr. 27; Gaz. vol. 213; p. 1443.

Wolfe, Henderson M., New York, N. Y., assignor to Polo Club Cigarette Co., Inc. Cigarettes. No. 103,984; Apr. 20; Gaz. vol. 213; p. 1115.

Wood, Otis F., New York, N. Y. Smoking-tobacco, cigars, and cigarettes. No. 103,985; Apr. 20; Gaz. vol. 213; p. 1115.

Woolf & Shulhof, New York, N. Y. Ladies' dresses and dancing-dresses. No. 103,931; Apr. 20; Gaz. vol. 213; p. 1113.

Yesterlaid Egg Farms Company, Pacific, Mo. Eggs. No. 104,065; Apr. 27; Gaz. vol. 213; p. 1443.

York Manufacturing Company, Saco, Me. Cotton piece goods. Nos. 104,010–11; Apr. 27; Gaz. vol. 213; p. 1441.

Zabriskie, George A., New York, N. Y. Wheat-flour. No. 103,460; Apr. 6; Gaz. vol. 213; p. 352.

Zechnowitz, Samuel, New York, N. Y. Tea, coffee, and cocoa. No. 103,986; Apr. 20; Gaz. vol. 213; p. 1115.

Zechnowitz, Samuel, New York, N. Y. Tea. No. 103,987; Apr. 20; Gaz. vol. 213; p. 1115.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

A. Schoenhut Company, The, Philadelphia, Pa. "Big Game Hunter." (For Toys.) No. 18,351; Apr. 6; Gaz. vol. 213; p. 359.

Aickelin & Co., H. A., Pittsburgh, Pa. "Aickelin Salad Dressing." (For a Salad-Dressing.) No. 18,358; Apr. 13; Gaz. vol. 213; p. 747.

Albany Pharmacal Company, The, Inc., Albany, N. Y. "Ruba-Lax." (For a Medicinal Preparation.) No. 18,392; Apr. 27; Gaz. vol. 213; p. 1445.

Alvine Water Co., The, Brooklyn, N. Y. "Compound Alvine Water Carbonated." (For Containers Filled with Carbonated Water.) No. 18,359; Apr. 13; Gaz. vol. 213; p. 747.

Amalgamated Concessions Co., San Francisco, Cal. "Pan-Pac." (For Confections.) No. 18,360; Apr. 13; Gaz. vol. 213; p. 747.

American Compounding Co., Jasper, Ala. "Baughn's Pellagra Remedy—Prescription No. 1—For Internal Use." (For a Pellagra Remedy.) No. 18,361; Apr. 13; Gaz. vol. 213; p. 747.

Anchor Leather Co., Chicago, Ill. "Service Shoe Leathers." (For Leather.) No. 18,393; Apr. 27; Gaz. vol. 213; p. 1445.

Andrews, Estate of Frank, deceased, Chicago; L. A. Rawson, administrator, Hinsdale, Ill. "Antiseptic Dental Cream." (For Dentifrice.) No. 18,316; Apr. 6; Gaz. vol. 213; p. 359.

Asch, Leonard C., New York, N. Y. "Annette Kellermann Swimming Tights. (For Swimming-Tights.) No. 18,394; Apr. 27. Gaz. vol. 213; p. 1445.

Aulls, Chas. W., Marshalltown, Iowa. "Eureka Stove Polish." (For Stove-Polish.) No. 18,383; Apr. 20; Gaz. vol. 213; p. 1116.

Baeder, Adamson & Co., New York, N. Y. "Household Package." (For Abrasive Paper and Cloth.) No. 18,362; Apr. 13; Gaz. vol. 213; p. 747.

Bange, Henry, Newark, N. J. "Shinall." (For a Polishing Compound.) No. 18,395; Apr. 27; Gaz. vol. 213; p. 1445.

Bass Islands' Vineyards Company, Sandusky, Ohio. "White Star Grape Juice." (For Unfermented Grape-Juice.) No. 18,317; Apr. 6; Gaz. vol. 213; p. 359.

Battelle & Renwick, New York, N. Y. "Saltpetre." (For Potassium Nitrate.) No. 18,396; Apr. 27; Gaz. vol. 213; p. 1445.

Bazzanella, Max, Baltimore, Md. "M-B." (For Solder.) No. 18,318; Apr. 6; Gaz. vol. 213; p. 359.

Benish & Meyer, Selma, Ala. "Gold-Seal." (For Cigars.) No. 18,397; Apr. 27; Gaz. vol. 213; p. 1445.

Bernhard Brothers, Dayton, Ohio. "Canary." (For Coffee.) No. 18,398; Apr. 27; Gaz. vol. 213; p. 1445.

Bleul, Bruno, New York, N. Y. "Iron Cross." (For Flour.) No. 18,319; Apr. 6; Gaz. vol. 213; p. 359.

Brown-White Inc., Philadelphia, Pa. "Automobile Sweets." (For Candy and Confectionery.) No. 18,399; Apr. 27; Gaz. vol. 213; p. 1445.

C. D. Kenny Co., Baltimore, Md. "Home-Wood." (For Coffee.) No. 18,372; Apr. 13; Gaz. vol. 213; p. 747.

Cabell Company, The, Baltimore, Md. "Delishua." (For Cake.) No. 18,400; Apr. 27; Gaz. vol. 213; p. 1445.

Catsigianis, John, St. Louis, Mo. "Boy Scouts." (For Popcorn.) No. 18,321; Apr. 6; Gaz. vol. 213; p. 359.

Central Consumers Company, Louisville, Ky. "Phoenix Komon Beer." (For Beer.) No. 18,320; Apr. 6; Gaz. vol. 213; p. 359.

Cooper Underwear Company, Kenosha, Wis. "Kenosha-Klosed-Krotch." (For Underwear.) No. 18,401; Apr. 27; Gaz. vol. 213; p. 1445.

Cooper Underwear Company, Kenosha, Wis. "Coopers Kenosha-Klosed-Krotch Union Suits." (For Underwear.) No 18,402; Apr. 27; Gaz. vol. 213; p. 1445.

Corby Baking Company, Washington, D. C. "Corby Cake." (For Lady-Cake.) No. 18,322; Apr. 6; Gaz. vol. 213; p. 359.

Corby Baking Company, Washington, D. C. "Corby Cake." (For Plain Pound-Cake.) No. 18,323; Apr. 6; Gaz. vol. 213; p. 359.

Corby Baking Company, Washington, D. C. "Corby Cake." (For Raisin-Cake.) No. 18,324; Apr. 6; Gaz. vol. 213; p. 359.

Covitz, Herbert H., Boston, Mass. "Kell-Bell Brand." (For Neufchâtel Cheese.) No. 18,325; Apr. 6; Gaz. vol. 213; p. 359.

Cunningham, V. B., Portland, Oreg. "Rat Swat." (For Rodent-Exterminators.) No. 18,364; Apr. 13; Gaz. vol. 213; p. 747.

Dauscha, F. J., St. Louis, Mo. "Laclede Bonquet." (For Cigars.) No. 18,384; Apr. 20; Gaz. vol. 213; p. 1116.

Davis, Geo. H., Jr., Norfolk, Va. "Alflax." (For Sail-Twine.) No. 18,326; Apr. 6; Gaz. vol. 213; p. 359.

Davis, Geo. H., Jr., Norfolk, Va. "Dixie." (For Sail-Twine.) No. 18,327; Apr. 6; Gaz. vol. 213; p. 359.

Davis, Geo. H., Jr., Norfolk, Va. "Excellent." (For Sail-Twine.) No. 18,328; Apr. 6; Gaz. vol. 213; p. 359.

Davis, Geo. H., Jr., Norfolk, Va. "Samson." (For Sail-Twine.) No. 18,329; Apr. 6; Gaz. vol. 213; p. 359.

E. La Montagne's Sons, New York, N. Y. "B & G." (For Sauterne Wines.) No. 18,341; Apr. 6; Gaz. vol. 213; p. 359.

E. La Montagne's Sons, New York, N. Y. "B & G." (For Medoc Wines.) No. 18,342; Apr. 6; Gaz. vol. 213; p. 359.

Earl Cowan Company, Los Angeles, Cal. "Stolls." (For Coffee.) No. 18,403; Apr. 27; Gaz. vol. 213; p. 1445.

Elkenhout & Sons, H., Grand Rapids, Mich. "Polar Bear Sheathing." (For Sheathing-Paper.) No. 18,404; Apr. 27; Gaz. vol. 213; p. 1445.

Elliott, Herbert, Toronto, Ontario, Canada. "The Tipperary Pup." (For a Grotesque Figure of a Dog.) No. 18,385; Apr. 20; Gaz. vol. 213; p. 1116.

Eman Manufacturing Company, The, Denver, Colo. "Sulfox." (For Medicinal Waters.) No. 18,365; Apr. 13; Gaz. vol. 213; p. 747.

French, Howard B., Philadelphia, Pa. "French's." (For Cement.) No. 18,366; Apr. 13; Gaz. vol. 213; p. 747.

Fritsch & Son, Lancaster, Pa. "Beech-Nut Cigars." (For Beech-Nut Cigars.) No. 18,333; Apr. 6; Gaz. vol. 213; p. 359.

Galehouse, F. C., Taft, Cal. "Red Mixture." (For a Medicinal Preparation.) No. 18,367; Apr. 13; Gaz. vol. 213; p. 747.

Gillett, S. W., Los Angeles, Cal. "Sunshine Shampoo." (For Tin, Glass, and Clay Containers of Shampoo.) No. 18,387; Apr. 20; Gaz. vol. 213; p. 1116.

Goldsmith, Silver & Co., Boston, Mass. "108." (For Cigars.) No. 18,334; Apr. 6; Gaz. vol. 213; p. 359.

Goodman Liquor Company, Waco, Tex. "Four Beauties." (For Whisky.) No. 18,388; Apr. 20; Gaz. vol. 213; p. 1116.

Haimer, Leon, Tampa, Fla. "Haimer's." (For Use on Boxes or Packages of Cigars.) No. 18,335; Apr. 6; Gaz. vol. 213; p. 359.

Happ Brothers Co., Macon, Ga. "Plowman Overall." (For Overalls.) No. 18,368; Apr. 13; Gaz. vol. 213; p. 747.

Herborg, Emil, New York, N. Y. "Royal Brand Sandwich Paste." (For Paste.) No. 18,336; Apr. 6; Gaz. vol. 213; p. 359.

Hewett, Charles F., Boston, Mass. "Hewett's Herbal Remedies." (For Medicines.) No. 18,369; Apr. 13; Gaz. vol. 213; p. 747.

Horlick, Alexander, Milwaukee, Wis. "Horlick's Oatin Milk." (For Oatin Milk.) No. 18,405; Apr. 27; Gaz. vol 213; p. 1445.

Horlick Maltoat Biscuit Co., Milwaukee, Wis. "Horlick's Maltoat." (For Maltoat Food.) No. 18,406; Apr. 27; Gaz. vol. 213; p. 1445.

Huntoon & Gorham Co., Providence, R. I. "Old Coon." (For Cigars.) No. 18,337; Apr. 6; Gaz. vol. 213; p. 359.

Hyman & Oppenheim, New York, N. Y. "Universal." (For Hair-Nets.) No. 18,338; Apr. 6; Gaz. vol. 213; p. 359.

Hyman & Oppenheim, New York, N. Y. "Stay Fast." (For Hair-Nets.) No. 18,339; Apr. 6; Gaz. vol. 213; p. 359.

J. A. Folger & Company, San Francisco, Cal. "Royalist." (For Tea.) No. 18,330; Apr. 6; Gaz. vol. 213; p. 359.

J. A. Folger & Company, San Francisco, Cal. "Shasta." (For Coffee.) No. 18,331; Apr. 6; Gaz. vol. 213; p. 359.

J. A. Folger & Company, Kansas City, Mo. "Hillside." (For Coffee.) No. 18,332; Apr. 6; Gaz. vol. 213; p. 359.

J. A. Folger & Co., Kansas City, Mo. "Hillside." (For Tea.) No. 18,386; Apr. 20; Gaz. vol. 213; p. 1116.

J. G. Thomson & Co., Ltd., Leith, Scotland. "Royal Arms, Rare Old Scotch Whisky." (For Scotch Whisky.) No. 18,354; Apr. 6; Gaz. vol. 213; p. 359.

Kaffee Hag Corporation, New York, N. Y. "Kaffee Hag." (For Coffee.) No. 18,370; Apr. 13; Gaz. vol. 213; p. 747.

Keller Cigar Co., The Richard A., Chicago, Ill. "King Richard's." (For Cigars.) No. 18,371; Apr. 13; Gaz. vol. 213; p. 747.

Kentucky Tobacco Product Co., Incorporated, The, Louisville, Ky. "Black Leaf 40." (For Nicotin Solution for Insecticides.) No. 18,407; Apr. 27; Gaz. vol. 213; p. 1445.

King Philip Mills, Fall River, Mass. "Cherry Blossom Nainsook." (For Nainsook.) No. 18,373; Apr. 13; Gaz. vol. 213; p. 747.

Krantz Brewing Co., The, Findlay, Ohio. "Old Dutch." (For Beer.) No. 18,340; Apr. 6; Gaz. vol. 213; p. 359.

Lincoln Highway Association, The, Detroit, Mich. "Lincoln Highway Sign." (For Signs.) No. 18,374; Apr. 13; Gaz. vol. 213; p. 747.
Lorenz Bros. Macaroni Co., Milwaukee, Wis. "White Pearl Brand." (For Macaroni.) No. 18,389; Apr. 20; Gaz. vol. 213; p. 1116.
Lotz, Frederick W., Philadelphia, Pa. "Lotz's Shankiesaham." (For Ham.) No. 18,408; Apr. 27; Gaz. vol. 213. p. 1445.
Michelson, William, New York, N. Y. "Liqueur Superieure." (For Liquors.) No. 18,343; Apr. 6; Gaz. vol. 213; p. 359.
Miller, Solomon S., Reading, Pa. "The Miller Hose." (For Hose.) No. 18,344; Apr. 6; Gaz. vol. 213; p. 359.
Mills Novelty Company, Chicago, Ill. "Rosemint." (For a Candy Confection.) No. 18,409; Apr. 27; Gaz. vol. 213; p. 1445.
Milnes, James R., Denver, Colo. "Clean-O." (For a Cleaning Compound.) No. 18,375; Apr. 13; Gaz. vol. 213; p. 747.
Mint-Malt Corporation, New York, N. Y. "Mint-Malt." (For a Syrupy Liquid Containing Malt and Mint.) No. 18,410; Apr. 27; Gaz. vol. 213; p. 1445.
Moffatt, Joseph, Los Angeles, Cal. "Moffatt's Pure California Honey." (For Honey.) No. 18,411; Apr. 27; Gaz. vol. 213; p. 1445.
Morrison, George C., Toledo, Ohio. "Coffee." (For Coffees.) Nos. 18,412–15; Apr. 27; Gaz. vol. 213; p. 1445.
New Era Novelty Co., Inc., New York, N. Y. "The New Era Doll." (For Dolls and other Toys Made of Plastic Composition.) No. 18,345; Apr. 6; Gaz. vol. 213; p. 359.
Niagara Chocolate Company, The, Niagara Falls, N. Y. "Falls 'Fork-Dipped Chocolates.'" (For Chocolate Candy.) No. 18,416; Apr. 27; Gaz. vol. 213; p. 1445.
Nicholas, George H., New York, N. Y. "Perfect Ventilating Shirt." (For Shirts.) No. 18,376; Apr. 13; Gaz. vol. 213; p. 747.
Oceana Canning Co., Shelby, Mich. "Cupid." (For Packages Containing Pork and Beans.) No. 18,346; Apr. 6; Gaz. vol. 213; p. 359.
P D Beckwith Inc., Estate, Dowagiac, Mich. "Round Oak Moistair Heating System." (For Heating Systems.) No. 18,363; Apr. 13; Gaz. vol. 213; p. 747.
Paulson, Oscar, Rochester, Minn. "Diamond B." (For Cigars.) No. 18,417; Apr. 27; Gaz. vol. 213; p. 1445.
Pennsylvania Chocolate Company, Pittsburgh, Pa. "Votes for Women." (For Chocolate and Confectionery.) No. 18,347; Apr. 6; Gaz. vol. 213; p. 359.
Pepto-Prune-Lax Co., Chicago, Ill. "Pepto-Prune-Lax." (For a Laxative.) No. 18,377; Apr. 13; Gaz. vol. 213; p. 747.
Peters, M. W., Battle Creek, Mich. "Verno (compound) an Antiseptic Germicide for the Treatment of Salt-Rheum, Scrofula, Eczema, and Blood Poisoning." (For Bottles, Boxes, and Packages of Medicine.) No. 18,348; Apr. 6; Gaz. vol. 213; p. 359.
Rawson, Lorin A., administrator. (See Andrews, Frank.)
Rheinstrom Bros., Cincinnati, Ohio. "Merry Moment Cocktail." (For Cocktails.) No. 18,349; Apr. 6; Gaz. vol. 213; p. 359.
Rodriguez, Manuel, New York, N. Y. "Manuel Rodriguez." (For Cigars.) No. 18,350; Apr. 6; Gaz. vol. 213; p. 359.
Sap & Co., Jacob, Akron, Ohio. "Kleenup—The Perfect Cleaner." (For a Cleanser.) No. 18,418; Apr. 27; Gaz. vol. 213; p. 1445.
Schulze, Paul, Chicago, Ill. "Butter-Nut Bread." (For Bread.) No. 18,419; Apr. 27; Gaz. vol. 213; p. 1445.
Sears, Roebuck and Co., Chicago, Ill. "Montclair." (For Baking-Powder.) No. 18,378; Apr. 13; Gaz. vol. 213; p. 747.
Sears, Roebuck and Co., Chicago, Ill. "Kingston." (For Peaches.) No. 18,379; Apr. 13; Gaz. vol. 213; p. 747.
Squires & Garner, Mexico, Mo. "Jitney." (For Cigars.) No. 18,380; Apr. 13; Gaz. vol. 213; p. 747.
Stanton Brothers, New York, N. Y. "Kewpie Blankies." (For Doll-Blankets.) No. 18,352; Apr. 6; Gaz. vol. 213; p. 359.
Stanton Brothers, New York, N. Y. "Biafold Ties." (For Neckwear.) No. 18,353; Apr. 6; Gaz. vol. 213; p. 359.
U-Auto-Varnish Co., The, Cleveland, Ohio. "U-Auto-Varnish." (For Varnish.) No. 18,420; Apr. 27; Gaz. vol. 213; p. 1445.
Union Mills Inc., St. Johnsville and New York, N. Y. "Close Fitting." (For Underwear.) No. 18,355; Apr. 6; Gaz. vol. 213; p. 359.
Van Fossen, D. J., Kansas City, Mo. "Rex X-E-Ma Paste for Eczema and other Skin Diseases." (For a Medicinal Preparation.) No. 18,381; Apr. 13; Gaz. vol. 213; p. 747.
Van Hoogstrate, Eduard, Chicago, Ill. "Ivory Brand." (For Varnish.) No. 18,390; Apr. 20; Gaz. vol. 213; p. 1116.
Van Hoogstrate, Eduard, Chicago, Ill. "Ivory Brand." (For Paints.) No. 18,391; Apr. 20; Gaz. vol. 213; p. 1116.
Venus Company, Brooklyn, N. Y. "Venus Lavender Cream." (For Massage-Cream.) No. 18,382; Apr. 13; Gaz. vol. 213; p. 747.
Wagner, Henry, *et al.*, executors. (See Weinhard, Henry.)
Wagner, Per R., Brooklyn, N. Y. "Liquid Horn." (For Varnish.) No. 18,356; Apr. 6; Gaz. vol. 213; p. 359.
Weinhard, Estate of Henry, deceased; P. Wessinger, H. Wagner, L. Weinhard, and A. Wessinger, executors, Portland, Oreg. "Ye Olde Colonial Beer." (For Beer.) No. 18,357; Apr. 6; Gaz. vol. 213; p. 359.
Weinhard, Louise, *et al.*, executors. (See Weinhard, Henry.)
Wessinger, Anna, *et al.*, executors. (See Weinhard, Henry.)
Wessinger, Paul, *et al.*, executors. (See Weinhard, Henry.)
Woolson Spice Company, The, Toledo, Ohio. "Brand." (For Coffee, Teas, and Spices.) No. 18,421; Apr. 27; Gaz. vol. 213; p. 1445.

PRINTS.

Adjustable Soft Socket Artificial Limb Co., Cincinnati, Ohio. "Forster Treufit." (For Artificial Limbs, Supports, Extensions, Braces, Splints, and Orthopedic Appliances.) No. 3,870; Apr. 20; Gaz. vol. 213; p. 1116.
Asch, Leonard C., New York, N. Y. "Annette Kellermann Swimming Tights." (For Swimming-Tights.) No. 3,871; Apr. 27; Gaz. vol. 213; p. 1446.
Chero-Cola Co., Columbus, Ga. "Chero-Cola, There's None So Good." (For Chero-Cola.) No. 3,857; Apr. 13; Gaz. vol. 213; p. 748.
Cream of Wheat Co., Minneapolis, Minn. "What do you charge for board, Sir?" (For Wheat Breakfast Food.) No. 3,853; Apr. 6; Gaz. vol. 213; p. 360.
Cream of Wheat Co., Minneapolis, Minn. "Rip Van Winkle." (For Wheat Breakfast Food.) No. 3,872; Apr. 27; Gaz. vol. 213; p. 1446.
Cusack Company, The, Chicago, Ill. "Makes Laundry Work So Easy." (For American Family Soap.) No. 3,879; Apr. 27; Gaz. vol. 213; p. 1446.
D. M. Ferry & Co., Detroit, Mich. "Buy Ferry's Seeds Here." (For Ferry's Seeds.) No. 3,859; Apr. 13; Gaz. vol. 213; p. 748.
Frank H. Fleer Corporation, Philadelphia, Pa. "Bobs." (For Candy-Coated Chewing-Gum.) No. 3,854; Apr. 6; Gaz. vol. 213; p. 360.
Goldberg-Goldschmidt Costume Co., Inc. "The 'Inspiration Dress.'" (For Dressea.) No. 3,860; Apr. 13; Gaz. vol. 213; p. 748.
John Simmons Company, New York, N. Y. "Pipe and Fittings." (For Pipe and Fittings.) No. 3,890; Apr. 27; Gaz. vol. 213; p. 1446.
Kaufmann & Strauss Co., New York, N. Y. "Ice Cold Beer." (For Beer.) No. 3,884; Apr. 27; Gaz. vol. 213; p. 1446.
Lehigh Portland Cement Co., Allentown, Pa. "Lehigh Portland Cement." (For Lehigh Portland Cement.) No. 3,861; Apr. 13; Gaz. vol. 213; p. 748.
Marty & Co., F., Syracuse, N. Y. "Colonial Night Lamp." (For Candle-Lamps.) No. 3,885; Apr. 27; Gaz. vol. 213; p. 1446.
Offner, Harry, New Orleans, La. "Plain Talk, Square Dealing, Always on the Level." (For Hardware, Tools, and Paints.) No. 3,855; Apr. 6; Gaz. vol. 213; p. 360.
Old Ben Mining Corporation, Chicago, Ill. "Old Ben Coal." (For Coal.) No. 3,886; Apr. 27; Gaz. vol. 213; p. 1446.
P D Beckwith Inc., Estate, Dowagiac, Mich. "Round Oak Moistair Heating System." (For Heating Systems.) No. 3,856; Apr. 13; Gaz. vol. 213; p. 748.
Pepsi-Cola Co., The, Newbern, N. C. "Drink Pepsi-Cola." (For Pepsi-Cola.) No. 3,862; Apr. 13; Gaz. vol. 213; p. 748.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "The Leader because Every bite tastes right." (For Chewing-Tobacco.) No. 3,887; Apr. 27; Gaz. vol. 213; p. 1446.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "A run for your money." (For Chewing-Tobacco.) No. 3,888; Apr. 27; Gaz. vol. 213; p. 1446.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Get the Flavor of Juicy Fruit." (For Chewing-Tobacco.) No. 3,889; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Under daily Government Inspection!" (For Margarin.) No. 3,858; Apr. 13; Gaz. vol. 213; p. 748.
Thos. Cusack Company, Chicago, Ill. "Needs but One Trial." (For American Family Soap.) No. 3,873; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "No Chance for an Argument." (For American Family Soap.) No. 3,874; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Have Compassion on Your Clothes." (For American Family Soap.) No. 3,875; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Clean, Sweet Clothes with the Least Effort." (For American Family Soap.) No. 3,876; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Fragrant and Refreshing." (For Jap Rose Soap.) No. 3,877; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Save Your Wrappers. They are Valuable." (For American Family Soap.) No. 3,878; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Drive the Dirt Out." (For American Family Soap.) No. 3,880; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Very Effective with Cold Water." (For American Family Soap.) No. 3,881; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Makes The Dirt Fly." (For American Family Soap.) No. 3,882; Apr. 27; Gaz. vol. 213; p. 1446.
Thos. Cusack Company, Chicago, Ill. "Good results with Cold Water." (For American Family Soap.) No. 3,883; Apr. 27; Gaz. vol. 213; p. 1446.
United Fuel & Supply Co., Inc., Detroit, Mich. "Build For The Ages." (For Tile, Lining, Brick, Stucco, Roofing, Cement, Plaster, Lime, Stone, Gravel, Sand, and Pipe.) No. 3,863; Apr. 13; Gaz. vol. 213; p. 748.
Vogel, Palmer E., Milwaukee, Wis. "The Iron Cross Cigar, Palmer E. Vogel." (For Cigars.) No. 3,864; Apr. 13; Gaz. vol. 213; p. 748.
Welch Grape Juice Company, The, Westfield, N. Y. "Welch's—'The National Drink.'" (For Welch's Grape-Juice.) No. 3,865; Apr. 13; Gaz. vol. 213; p. 748.
White Company, The, Cleveland, Ohio. "The Latest White Six-Sixty Limousine." (For White Limousine-Cars.) No. 3,866; Apr. 13; Gaz. vol. 213; p. 748.
White Company, The, Cleveland, Ohio. "The Latest White Forty-Four-Five Touring." (For White Touring-Cars.) No. 3,867; Apr. 13; Gaz. vol. 213; p. 748.
White Company, The, Cleveland, Ohio. "The Latest White Four-Thirty Town Car." (For White Town-Cars.) No. 3,868; Apr. 13; Gaz. vol. 213; p. 748.
White Company, The, Cleveland, Ohio. "The Latest White 'Six-Sixty Touring.'" (For White Touring-Cars.) No. 3,869; Apr. 13; Gaz. vol. 213; p. 748.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF APRIL, 1915.

[Abbreviations: "Gaz."=Official Gazette.]

Account register, Credit-. E. T. Silvius. No. 1,135,215; Apr. 13; Gaz. vol. 213; p. 446.

Accounting register, Credit-. E. T. Silvius. No. 1,135,214; Apr. 13; Gaz. vol. 213; p. 446.

Accumulator-testing device. O. P. Fritchie. No. 1,136,789; Apr. 20; Gaz. vol. 213; p. 1041.

Acetyl-cellulose plastic compounds, Making. W. G. Lindsay. No. 1,136,248; Apr. 20; Gaz. vol. 213; p. 849.

Acid phosphates and the like, Manufacturing and curing. G. L. Pratt. No. 1,137,531; Apr. 27; Gaz. vol. 213; p. 1344.

Acid, Rendering available phosphoric. W. S. Landis. No. 1,137,065; Apr. 27; Gaz. vol. 213; p. 1177.

Acids, Manufacture of anhydrids of monobasic organic carboxy-. A. J. Van Peski. No. 1,136,630; Apr. 20; Gaz. vol. 213; p. 985.

Adding and recording machine. J. Magnus. No. 1,134,958; Apr. 6; Gaz. vol. 213; p. 311.

Adding and recording machine. J. Magnus. No. 1,137,508; Apr. 27; Gaz. vol. 213; p. 1337.

Adding-machines, Tabulating mechanism for. J. J. Chapin. No. 1,135,500; Apr. 13; Gaz. vol. 213; p. 545.

Adding mechanism, Motor-operated. C. F. Laganke and J. A. Smith. No. 1,135,118; Apr. 13; Gaz. vol. 213; p. 413.

Addressing-machine. U. G. Lee. No. 1,137,066; Apr. 27; Gaz. vol. 213; p. 1177.

Addressing-machine, Selective. E. D. Belknap. No. 1,134,096; Apr. 6; Gaz. vol. 213; p. 5.

Adhesive-coated fabric, Machine for treating. J. Meade, No. 1,137,511; Apr. 27; Gaz. vol. 213; p. 1338.

Adhesive to be employed in the manufacture of paper-walled vessels. F. P. Wood. No. 1,137,043; Apr. 27; Gaz. vol. 213; p. 1169.

Adjustable chair. O. H. and A. F. Pieper. No. 1,137,080; Apr. 27; Gaz. vol. 213; p. 1182.

Adjustable chair. J. F. Walton. No. 1,137,246; Apr 27; Gaz. vol. 213; p. 1243.

Advertising-cabinet. A. S. Machen. No. 1,137,072; Apr. 27; Gaz. vol. 213; p. 1179.

Aeronautical apparatus. H. W. Schmidt. No. 1,135,056; Apr. 13; Gaz. vol. 213; p. 393.

Aeroplane. J. W. Smith. No. 1,136,560; Apr. 20; Gaz. vol. 213; p. 960.

Aeroplane safety device. B. Ulferts. No. 1,135,561; Apr. 13; Gaz. vol. 213; p. 567.

Agricultural implement. L. S. Ballard. No. 1,136,579. Apr. 20; Gaz. vol. 213; p. 968.

Agricultural implement. W. W. Cranford. No. 1,137,052; Apr. 27; Gaz. vol. 213; p. 1172.

Agricultural implement. J. J. Mathey and T. E. Williams. No. 1,137,228; Apr. 27; Gaz. vol. 213; p. 1236.

Air-brake apparatus. F. S. Cravens. No. 1,137,701; Apr. 27; Gaz. vol. 213; p. 1398.

Air-brake systems, Valve mechanism for. W. Austin. No. 1,137,179; Apr. 27; Gaz. vol. 213; p. 1218.

Air-compressor, Gas-driven. C. E. Sargent. No. 1,136,488; Apr. 20; Gaz. vol. 213; p. 936.

Air-craft, Offensive device carried by. J. A. Steinmetz. No. 1,136,494; Apr. 20; Gaz. vol. 213; p. 938.

Air-craft propelling and balancing mechanism. U. G. White. No. 1,134,790; Apr. 6; Gaz. vol. 213; p. 258.

Air-humidifying means. W. G. R. Braemer and S. C. Bloom. No. 1,134,976; Apr. 6; Gaz. vol. 213; p. 319.

Airship. A. Schad and E. Seidel. No. 1,135,209; Apr. 13; Gaz. vol. 213; p. 444.

Airship, Dirigible. J. Spiteri. No. 1,134,241; Apr. 6; Gaz. vol. 213; p. 58.

Alarm: *See*—
Fire-alarm.
Rain-alarm.
Speed-alarm.

Albumen compound, Indurated. B. B. Goldsmith. No. 1,134,527; Apr. 6; Gaz. vol. 213; p. 162.

Alkali-metal silicates, Decomposing. S. Peacock. No. 1,134,413; Apr. 6; Gaz. vol. 213; p. 120.

Alloys and producing the same, Titanium. H. Goldschmidt and O. Weil. No. 1,136,670; Apr. 20; Gaz. vol. 213; p. 999.

Alloys, Making. E. D. Gleason. No. 1,136,909; Apr. 20; Gaz. vol. 213; p. 1084.

Alumina, Making alkali-soluble. P. R. Hershman. No. 1,137,617; Apr. 27; Gaz. vol. 213; p. 1373.

Aluminum pernitrids, Making. S. Peacock. No. 1,134,414; Apr. 6; Gaz. vol. 213; p. 120.

Alunite and the like, Treatment of. C. H. MacDowell. No. 1,136,549; Apr. 20; Gaz. vol. 213; p. 956.

Amalgam-mixer. G. M. Hanly. No. 1,137,482; Apr. 27; Gaz. vol. 213; p. 1328.

Amusement device. T. O. Decker. No. 1,135,099; Apr. 13; Gaz. vol. 213; p. 407.

Amusement device. W. W. Hall. No. 1,136,671; Apr. 20; Gaz. vol. 213; p. 999.

Anchor-plate. W. C. Ladd. No. 1,136,817; Apr. 20; Gaz. vol. 213; p. 1052.

Anchor-plates, Driver for. W. L. Haag. No. 1,135,013; Apr. 13; Gaz. vol. 213; p. 377.

Animal-holding machine. S. Little. No. 1,136,439; Apr. 20; Gaz. vol. 213; p. 914.

Annunciator-drop. S. H. Couch, W. W. Henry, and A. E. Stevens. No. 1,134,996; Apr. 13; Gaz. vol. 213; p. 370.

Ant-trap. S. L. Cox. No. 1,135,159; Apr. 13; Gaz. vol. 213; p. 428.

Anti-rail-spreading device. L. H. Reinhardt. No. 1,137,083; Apr. 27; Gaz. vol. 213; p. 1183.

Antiskid device. G. Seach. No. 1,135,854; Apr. 13; Gaz. vol. 213; p. 670.

Antiskidding rail-clamp mechanism. A. E. Wirsing. No. 1,137,104; Apr. 27; Gaz. vol. 213; p. 1191.

Antislipping tread for horses, Detachable. G. E. Spare. No. 1,136,903; Apr. 20; Gaz. vol. 213; p. 1082.

Anvils, Stand for swaging-. E. L. Chott. No. 1,134,728; Apr. 6; Gaz. vol. 213; p. 236.

Appointment-announcer. S. R. Schaff. No. 1,137,427; Apr. 27; Gaz. vol. 213; p. 1310.

Apron. G. A. Steiner and W. F. Tuckett. No. 1,136,732; Apr. 20; Gaz. vol. 213; p. 1022.

Apron, Pullman and shampoo. L. Morse. No. 1,135,833; Apr. 13; Gaz. vol. 213; p. 663.

Arbor-press. E. E. Bartlett. No. 1,135,983; Apr. 20; Gaz. vol. 213; p. 756.

Arch-supporter. M. F. Creahan. No. 1,134,108; Apr. 6; Gaz. vol. 213; p. 9.

Arch-supporter. E. Drenshtein. No. 1,135,100; Apr. 13; Gaz. vol. 213; p. 407.

Architectural terra-cotta construction. I. B. Hill. No. 1,134,741; Apr. 6; Gaz. vol. 213; p. 240.

Arm-rest. G. Blundell. No. 1,135,155; Apr. 13; Gaz. vol. 213; p. 427.

Armature for electrical machines. R. M. Warren. No. 1,136,907; Apr. 20; Gaz. vol. 213; p. 1083.

Ash and garbage can. H. Bauman. No. 1,135,426; Apr. 13; Gaz. vol. 213; p. 519.

Asphalt, Mixing. J. H. Bledsoe. No. 1,136,205; Apr. 20; Gaz. vol. 213; p. 833.

Asphalt-mixing apparatus. J. H. Bledsoe. No. 1,136,204; Apr. 20; Gaz. vol. 213; p. 833.

Astronomical demonstrating device. S. B. McHenry. No. 1,134,473; Apr. 6; Gaz. vol. 213; p. 142.

Atomizer. E. R. Macbeth. No. 1,134,689; Apr. 6; Gaz. vol. 213; p. 221.

Automatic coupling. S. G. Johnston. No. 1,134,864; Apr. 6; Gaz. vol. 213; p. 280.

Automatic sprinkler. C. P. Nutter. No. 1,137,016; Apr. 27; Gaz. vol. 213; p. 1159.

Automobile. J. E. Carroll. No. 1,136,864; Apr. 20; Gaz. vol. 213; p. 1067.

Automobile attachment. F. R. Nyberg. No. 1,134,759; Apr. 6; Gaz. vol. 213; p. 247.

Automobile bed-support. C. K. McMillin. No. 1,136,885; Apr. 20; Gaz. vol. 213; p. 1075.

Automobile-body. J. D. Berryman. No. 1,136,643; Apr. 20; Gaz. vol. 213; p. 989.

Automobile brake-shoe. C. S. Shumaker. No. 1,136,446; Apr. 20; Gaz. vol. 213; p. 920.

Automobile-buffer. A. M. Sonnichsen. No. 1,135,066; Apr. 13; Gaz. vol. 213; p. 395.

Automobile-chains, &c., Safety-fastener for. J. Faus, Jr. No. 1,136,786; Apr. 20; Gaz. vol. 213; p. 1040.

Automobile control device. J. A. Staples. No. 1,135,550; Apr. 13; Gaz. vol. 213; p. 562.

Automobile-curtain and mounting. G. F. Sears, J. H. Prose, and R. T. Anderson. No. 1,134,641; Apr. 6; Gaz. vol. 213; p. 204.
Automobile emergency stop and jack. M. Koppelman. No. 1,136,145; Apr. 20; Gaz. vol. 213; p. 812.
Automobile-fender. J. K. Bond. No. 1,136,998; Apr. 27; Gaz. vol. 213; p. 1152.
Automobile-fender. N. C. Schaffer. No. 1,137,170; Apr. 27; Gaz. vol. 213; p. 1215.
Automobile handle attachment. E. G. Rathmann. No. 1,135,615; Apr. 13; Gaz. vol. 213; p. 586.
Automobile-jack. H. C. Edwards and J. T. Megredy. No. 1,137,003; Apr. 27; Gaz. vol. 213; p. 1155.
Automobile-jack. C. A. Hart. No. 1,136,007; Apr. 20; Gaz. vol. 213; p. 765.
Automobile-jack. C. R. Spalding. No. 1,137,362; Apr. 27; Gaz. vol. 213; p. 1286.
Automobile-jack. C. C. Williams. No. 1,137,684; Apr. 27; Gaz. vol. 213; p. 1394.
Automobile lifting-jack. V. Koftan. No. 1,134,140; Apr. 6; Gaz. vol. 213; p. 21.
Automobile liquid-fuel-tank register. C. F. Brown. No. 1,134,585; Apr. 6; Gaz. vol. 213; p. 183.
Automobile-lock. T. L. Park. No. 1,136,358; Apr. 20; Gaz. vol. 213; p. 888.
Automobile pivot-light. H. A. Sisson. No. 1,134,644; Apr. 6; Gaz. vol. 213; p. 205.
Automobile safety device. S. Newburger. No. 1,137,519; Apr. 27; Gaz. vol. 213; p. 1340.
Automobile-signal. G. Burgess. No. 1,134,104; Apr. 6; Gaz. vol. 213; p. 8.
Automobile-signal. W. M. Cummer. No. 1,136,895; Apr. 20; Gaz. vol. 213; p. 1079.
Automobile top-lifter. L. Johnson. No. 1,135,976; Apr. 13; Gaz. vol. 213; p. 713.
Automobile transmission. W. A. Henderson. No. 1,136,526; Apr. 20; Gaz. vol. 213; p. 949.
Automobiles, Corner-turning indicator for. S. Jackson. No. 1,136,139; Apr. 20; Gaz. vol. 213; p. 809.
Automobiles, Pedal control for. R. T. Peirce. No. 1,137,166; Apr. 27; Gaz. vol. 213; p. 1213.
Automobiles, Speedometer-drive for. C. H. Craft. No. 1,134,591; Apr. 6; Gaz. vol. 213; p. 185.
Automobiles, Stretcher or bed for. R. L. Bradley. No. 1,134,312; Apr. 6; Gaz. vol. 213; p. 84.
Auxiliary spring. F. N. Sprague. No. 1,134,927; Apr. 6; Gaz. vol. 213; p. 300.
Aviator's safety device. W. A. Mackay. No. 1,134,884; Apr. 6; Gaz. vol. 213; p. 287.
Axle-box. J. J. Gilroy. No. 1,136,952; Apr. 27; Gaz. vol. 213; p. 1136.
Axle bracket, Jack-engaging rear-. H. C. Edwards. No. 1,137,002; Apr. 27; Gaz. vol. 213; p. 1154.
Axle for automobiles. H. Liechty. No. 1,136,348; Apr. 20; Gaz. vol. 213; p. 884.
Axle for automobiles. R. H. Rosenberg. No. 1,137,287; Apr. 27; Gaz. vol. 213; p. 1259.
Axle for motor-cars. H. Liechty. No. 1,136,349; Apr. 20; Gaz. vol. 213; p. 844.
Axles, Making drop-forged drop-. L. C. Irish. No. 1,134,456; Apr. 6; Gaz. vol. 213; p. 136.
Bacterial cultures, Container for transporting. G. H. Earp-Thomas. No. 1,137,388; Apr. 27; Gaz. vol. 213; p. 1296.
Bag: *See*—
Fruit-gathering bag. Paper bag.
Hand-bag. Saddle-bag.
Laundry-bag. Traveling-bag.
Bag-lock. C. Totten. No. 1,137,035; Apr. 27; Gaz. vol. 213; p. 1166.
Bags and the like, Fastener for hand-. K. Oswald. No. 1,137,419; Apr. 27; Gaz. vol. 213; p. 1307.
Bags, pouches, packages, or containers, Making. J. Peterson. No. 1,137,281; Apr. 27; Gaz. vol. 213; p. 1256.
Bagging-machine. A. M. Bates. No. 1,137,376; Apr. 27; Gaz. vol. 213; p. 1291.
Baking apparatus. J. M. Gantvoort. No. 1,135,172; Apr. 13; Gaz. vol. 213; p. 431.
Baking preparation. E. C. L. Kreasel. No. 1,134,956; Apr. 6; Gaz. vol. 213; p. 311.
Balancing-table. W. D. Pomeroy. No. 1,136,611; Apr. 20; Gaz. vol. 213; p. 979.
Balcony, Folding window-. A. T. Osbron. No. 1,134,635; Apr. 6; Gaz. vol. 213; p. 201.
Baler, Sack-. W. A. Webster. No. 1,135,931; Apr. 13; Gaz. vol. 213; p. 695.
Baling-press. P. T. Jones. No. 1,137,059; Apr. 27; Gaz. vol. 213; p. 1175.
Ball and cue rack. W. F. Clegg. No. 1,135,437; Apr. 13; Gaz. vol. 213; p. 523.
Ball apparatus, Base-. R. A. L'homme. No. 1,136,542; Apr. 20; Gaz. vol. 213; p. 954.
Ball-player's protective device. E. Bourdon. No. 1,136,307; Apr. 20; Gaz. vol. 213; p. 870.
Balls, Production of hollow resilient. J. W. Aylsworth and D. Smith. No. 1,134,433; Apr. 6; Gaz. vol. 213; p. 127.
Ballast-burning machine. L. L. McCullough. No. 1,135,307; Apr. 13; Gaz. vol. 213; p. 478.
Balloon and analogous device. P. C. Hewitt. No. 1,134,386; Apr. 6; Gaz. vol. 213; p. 110.
Balloon, Sporting dirigible. S. Jelalian. No. 1,137,212; Apr. 27; Gaz. vol. 213; p. 1230.
Band connection. P. Drolshagen. No. 1,136,217; Apr. 20; Gaz. vol. 213; p. 838.
Band-cutter and feeder. J. F. Langdon. No. 1,136,966; Apr. 27; Gaz. vol. 213; p. 1140.
Band, Reinforced laminated cohesive interwound fabric. L. A. Subers. No. 1,136,292; Apr. 20; Gaz. vol. 213; p. 865.
Bandage rolls, Container for adhesive-. O. C. Schulz. No. 1,134,560; Apr. 6; Gaz. vol. 213; p. 174.
Bark-tripping machine. C. C. Hockley. No. 1,136,959; Apr. 27; Gaz. vol. 213; p. 1138.
Barrel-adjusting apparatus. P. Romberg. No. 1,137,168; Apr. 27; Gaz. vol. 213; p. 1214.
Barrel-spud. G. E. Mittinger. No. 1,136,698; Apr. 20; Gaz. vol. 213; p. 1009.
Basket. C. H. Clark. No. 1,137,698; Apr. 27; Gaz. vol. 213; p. 1398.
Basket machine, Berry-. E. Craig. No. 1,135,667; Apr. 13; Gaz. vol. 213; p. 606.
Bath apparatus. B. F. Adams. No. 1,134,364; Apr. 6; Gaz. vol. 213; p. 102.
Bath-house. R. F. Casey. No. 1,135,764; Apr. 13; Gaz. vol. 213; p. 638.
Bath-tub-foot fastener, Bolted. J. S. Jobe. No. 1,135,188; Apr. 13; Gaz. vol. 213; p. 437.
Bathing-suit. M. and J. B. Kasser. No. 1,135,903; Apr. 13; Gaz. vol. 213; p. 687.
Batteries, Electrolyte for primary. A. P. Manchester. No. 1,137,226; Apr. 27; Gaz. vol. 213; p. 1235.
Battery: *See*—
Electric battery. Storage battery.
Battery connector and receptacle. C. H. Harris. No. 1,135,580; Apr. 13; Gaz. vol. 213; p. 573.
Battery plate, Storage-. A. L. Chamberlin. No. 1,135,499; Apr. 13; Gaz. vol. 213; p. 544.
Bench-forming jetty. M. A. Callahan. No. 1,137,049; Apr. 27; Gaz. vol. 213; p. 1171.
Beam-end protector and anchorage. J. Tuteur. No. 1,137,099; Apr. 27; Gaz. vol. 213; p. 1189.
Bean snipper, String-. K. M. Davies. No. 1,136,588; Apr. 20; Gaz. vol. 213; p. 971.
Bearing, Antifriction-. W. W. Neighbour. No. 1,136,161; Apr. 20; Gaz. vol. 213; p. 818.
Bearing, Antifriction-. E. H. Wahrheit. No. 1,135,081; Apr. 13; Gaz. vol. 213; p. 400.
Bearing, Ball-. D. F. Graham. No. 1,135,177; Apr. 13; Gaz. vol. 213; p. 433.
Bearing, Ball-. O. C. Knipe. No. 1,134,463; Apr. 6; Gaz. vol. 213; p. 138.
Bearing, Ball-. W. H. Strom. No. 1,135,558; Apr. 13; Gaz. vol. 213; p. 566.
Bearing, Ball-. H. Wiking and C. G. Söderlund. No. 1,136,077; Apr. 20; Gaz. vol. 213; p. 787.
Bearing device, Roller-. J. C. Barber. No. 1,135,982; Apr. 20; Gaz. vol. 213; p. 756.
Bearing for drill-spindles, Thrust-. T. H. Lovejoy. No. 1,135,198; Apr. 13; Gaz. vol. 213; p. 440.
Bearing for trolley-wheels, Antifriction-. H. C. Adam. No. 1,136,200; Apr. 20; Gaz. vol. 213; p. 832.
Bearing, Friction-reducing. M. U. Bernheim. No. 1,136,089; Apr. 20; Gaz. vol. 213; p. 791.
Bearing, Resilient neck-. J. R. Cox. No. 1,135,502; Apr. 13; Gaz. vol. 213; p. 546.
Bearing, Roller side. A. Stucki. No. 1,135,413; Apr. 13; Gaz. vol. 213; p. 515.
Bearing, Thrust-. M. Gohlke. No. 1,137,263; Apr. 27; Gaz. vol. 213; p. 1250.
Bearings and the like, Tool for aligning and finishing shaft-. A. A. Martell. No. 1,135,460; Apr. 13; Gaz. vol. 213; p. 531.
Bearings, Divided cage for roller-. C. S. Lockwood. No. 1,137,010; Apr. 27; Gaz. vol. 213; p. 1157.
Bearings subjected to axial pressure, Ball-retainer for ball-. H. A. Olsson. No. 1,135,044; Apr. 13; Gaz. vol. 213; p. 388.
Beater. H. J. Mender. No. 1,134,344; Apr. 6; Gaz. vol. 213; p. 95.
Bed and davenport, Combined. N. W. Williams. No. 1,136,857; Apr. 20; Gaz. vol. 213; p. 1065.
Bed-bottom. E. Lehmann. No. 1,137,220; Apr. 27; Gaz. vol. 213; p. 1233.
Bed-bottom, Spring. J. H. Hirsch. No. 1,135,797; Apr. 13; Gaz. vol. 213; p. 649.
Bed, Folding. J. I. Higgins. No. 1,137,402; Apr. 27; Gaz. vol. 213; p. 1301.
Bed, Sofa-. W. P. Seng and D. F. Dyke. No. 1,136,173; Apr. 20; Gaz. vol. 213; p. 822.
Bed-spring. C. A. Chalker. No. 1,135,877; Apr. 13; Gaz. vol. 213; p. 678.
Bedstead corner-fastening. D. F. Dyke. No. 1,137,260; Apr. 27; Gaz. vol. 213; p. 1249.
Beehive. S. Rosato. No. 1,135,623; Apr. 13; Gaz. vol. 213; p. 589.
Beer, Charging. O. M. Lamsens. No. 1,137,149; Apr. 27; Gaz. vol. 213; p. 1208.
Beer-drawing apparatus. C. Sahlender. No. 1,137,718; Apr. 27; Gaz. vol. 213; p. 1405.
Beet and grain drill attachment. B. Newton. No. 1,134,894; Apr. 6; Gaz. vol. 213; p. 290.
Beet-topper. D. T. Blevins and A. B. Randall. No 1,135,988; Apr. 20; Gaz. vol. 213; p. 759.
Beet-topper. W. R. Gardner. No. 1,135,173; Apr. 13; Gaz. vol. 213; p. 432.

Bell, Diving-. W. D. Sisson. No. 1,134,963; Apr. 6; Gaz. vol. 213; p. 313.
Bell-ringing device. H. D. Elliott. No. 1,136,781; Apr. 20; Gaz. vol. 213; p. 1038.
Belt. C. S. Smith. No. 1,134,238; Apr. 6; Gaz. vol. 213; p. 57.
Belt. W. Starrett. No. 1,135,734; Apr. 13; Gaz. vol. 213; p. 628.
Belt-connecting means. C. Matthaei. No. 1,134,146; Apr. 6; Gaz. vol. 213; p. 22.
Belt-dressing. A. G. Bakevich. No. 1,137,450; Apr. 27; Gaz. vol. 213; p. 1317.
Belt-fastener. F. M. Linderman. No. 1,137,409; Apr. 27; Gaz. vol. 213; p. 1303.
Belt-fastener. F. M. Linderman. No. 1,137,410; Apr. 27; Gaz. vol. 213; p. 1304.
Belt-fastening. P. Kennedy. No. 1,134,139; Apr. 6; Gaz. vol. 213; p. 20.
Belt-guide. A. G. Burgeson. No. 1,134,103; Apr. 6; Gaz. vol. 213; p. 7.
Belt-guide. J. Dick. No. 1,134,947; Apr. 6; Gaz. vol. 213; p. 308.
Belt-guiding device. R. H. Weathersby and W. B. Clark. No. 1,135,744; Apr. 13; Gaz. vol. 213; p. 632.
Belt-shifter. F. M. Furber. No. 1,136,116; Apr. 20; Gaz. vol. 213; p. 801.
Belt, Traction-. C. L. Tolles. No. 1,135,559; Apr. 13; Gaz. vol. 213; p. 566.
Belt, Tractor-. C. L. Tolles. No. 1,135,560; Apr. 13; Gaz. vol. 213; p. 566.
Bench: *See*—
Piano-bench.
Beverage-dispensing apparatus. A. Landgrebe. No. 1,137,495; Apr. 27; Gaz. vol. 213; p. 1332.
Bicycle parcel-carrier. W. M. Apple. No. 1,134,577; Apr. 6; Gaz. vol. 213; p. 180.
Bicycles, Fork-spreader for. W. J. Edwards. No. 1,135,271; Apr. 13; Gaz. vol. 213; p. 465.
Bicycles or the like, Spring-frame for. J. E. Dukelow. No. 1,136,870; Apr. 20; Gaz. vol. 213; p. 1070.
Billiard-table rail-cloth protector. F. F. Scherzinger. No. 1,137,668; Apr. 27; Gaz. vol. 213; p. 1389.
Binder. L. P. Keveney and C. F. Collinge. No. 1,135,697; Apr. 13; Gaz. vol. 213; p. 616.
Binder, Loose-leaf. J. P. Mentzer. No. 1,137,012; Apr. 27; Gaz. vol. 213; p. 1158.
Binder or loose-sheet holder, Temporary. R. Krumming. No. 1,136,017; Apr. 20; Gaz. vol. 213; p. 768.
Binder or loose-sheet holder, Temporary. G. P. Wigginton. No. 1,136,572; Apr. 20; Gaz. vol. 213; p. 965.
Binder or loose-sheet holder, Temporary. G. P. Wigginton. No. 1,136,573; Apr. 20; Gaz. vol. 213; p. 966.
Binder, Temporary. W. F. Gilbert. No. 1,135,373; Apr 13; Gaz. vol. 213; p. 499.
Binder, Temporary. J. E. Gilmer. No. 1,134,735; Apr. 6; Gaz. vol. 213; p. 238.
Binders, Die for making hinge-leaves for loose-leaf. J. R. Schade, Jr. No. 1,137,291; Apr. 27; Gaz. vol. 213; p. 1260.
Binding and tying mechanism. J. L. Lamb. No. 1,135,298; Apr. 13; Gaz. vol. 213; p. 474.
Binding machine, Pattern-. H. J. and J. H. Sutherland. No. 1,135,469; Apr. 13; Gaz. vol. 213; p. 534.
Binding-machines, Conveyer for. G. K. Strickland. No. 1,135,146; Apr. 13; Gaz. vol. 213; p. 424.
Bit: *See*—
Fish-tail bit.
Bit. J. D. MacDonald. No. 1,136,545; Apr. 20; Gaz. vol. 213; p. 955.
Blackboard and advertiser, Portable. H. A. Woods. No. 1,135,241; Apr. 13; Gaz. vol. 213; p. 453.
Blackleading-machine. J. F. Gounley. No. 1,134,606; Apr. 6; Gaz. vol. 213; p. 190.
Blackleading-machine. J. F. Gounley. No. 1,134,607; Apr. 6; Gaz. vol. 213; p. 191.
Bleaching solution. A. Lehmann. No. 1,135,303; Apr. 13; Gaz. vol. 213; p. 476.
Block: *See*—
Paving-block. Snatch-block.
Block-refinisher. F. J. Pavelske and F. F. Malodzik. No. 1,135,714; Apr. 13; Gaz. vol. 213; p. 622.
Block-signal system, Absolute permissive. S. N. Wight. No. 1,134,982; Apr. 6; Gaz. vol. 213; p. 322.
Block-surfacing machine. A. Carpenter. No. 1,135,972; Apr. 13; Gaz. vol. 213; p. 712.
Blotter. H. M. Greist. No. 1,135,012; Apr. 13; Gaz. vol. 213; p. 377.
Blower. C. V. Kerr. No. 1,136,142; Apr. 20; Gaz. vol. 213; p. 811.
Blower and other centrifugal machine of a similar nature, Centrifugal. T. H. C. Homersham. No. 1,136,877; Apr. 20; Gaz. vol. 213; p. 1072.
Blower, Fan-. W. J. Montgomery. No. 1,136,827; Apr. 20; Gaz. vol. 213; p. 1055.
Blower, Multistage centrifugal. T. W. Green. No. 1,136,330; Apr. 20; Gaz. vol. 213; p. 877.
Blower system. C. W. E. Clarke. No. 1,137,463; Apr. 27; Gaz. vol. 213; p. 1321.
Blowpipe, Acetylene-. E. H. Smith. No. 1,136,491; Apr. 20; Gaz. vol. 213; p. 937.
Blowpipe, Acetylene-. J. W. and E. H. Smith. No. 1,136,492; Apr. 20; Gaz. vol. 213; p. 937.
Board: *See*—
Blackboard. Keyboard.
Bread-board. Panel-board.
Game-board. Tracing-board.
Ironing-board. Washboard.
Boat and launching-davit therefor, Life-. M. Chupka. No. 1,136,938; Apr. 27; Gaz. vol. 213; p. 1130.
Boat and launching mechanism therefor, Life-. J. McGoldrick. No. 1,134,630; Apr. 6; Gaz. vol. 213; p. 199.
Boat, Automobile. W. C. Mazzei. No. 1,135,126; Apr. 13; Gaz. vol. 213; p. 416.
Boat convertible into deck-seats, Life-. D. Davies. No. 1,134,672; Apr. 6; Gaz. vol. 213; p. 215.
Boat, Foldable canvas. J. S. Svendsen. No. 1,134,773; Apr. 6; Gaz. vol. 213; p. 253.
Boat-motor. G. D. Sicklesteel. No. 1,134,919; Apr. 6; Gaz. vol. 213; p. 298.
Boat-outrigger. J. Beck. No. 1,136,306; Apr. 20; Gaz. vol. 213; p. 869.
Boat, Submarine. S. Lake. No. 1,135,537; Apr. 13; Gaz. vol. 213; p. 558.
Boat, Submarine torpedo-. J. Barraja-Frauenfelder. No. 1,134,940; Apr. 6; Gaz. vol. 213; p. 305.
Bobbin. J. G. Andrews. No. 1,136,305; Apr. 20; Gaz. vol. 213; p. 869.
Bobbin-holder. O. L. Owen. No. 1,135,712; Apr. 13; Gaz. vol. 213; p. 621.
Bobbin-stripper. E. H. Ryon. No. 1,136,051; Apr. 20; Gaz. vol. 213; p. 779.
Boiler: *See*—
Egg-boiler. Water-tube marine boiler.
Steam-boiler.
Boiler-cleaner. E. Rankin. No. 1,135,139; Apr. 13; Gaz. vol. 213; p. 422.
Boiler construction. D. D. Shierk. No. 1,136,374; Apr. 20; Gaz. vol. 213; p. 594.
Boiler construction, Steam-. J. Farmer and M. E. Sherland. No. 1,134,115; Apr. 6; Gaz. vol. 213; p. 11.
Boiler control, Steam-. C. H. Ridderstedt. No. 1,134,159; Apr. 6; Gaz. vol. 213; p. 27.
Boiler-cut-off system. G. W. Collin. No. 1,136,211; Apr. 20; Gaz. vol. 213; p. 835.
Boiler-feeding device, Automatic. M. P. Osbourn. No. 1,134,636; Apr. 6; Gaz. vol. 213; p. 202.
Boiler fire-box. F. M. Jacobs. No. 1,135,114; Apr. 13; Gaz. vol. 213; p. 412.
Boiler-furnace. J. Dick. No. 1,137,465; Apr. 27; Gaz. vol. 213; p. 1322.
Boiler-furnace. M. W. Sewall. No. 1,136,175; Apr. 20; Gaz. vol. 213; p. 823.
Boiler stay-bolt. G. Swartwood. No. 1,137,433; Apr. 27; Gaz. vol. 213; p. 1312.
Boiler-tube cleaner, Percussive. W. Burlingham. No. 1,134,723; Apr. 6; Gaz. vol. 213; p. 234.
Boilers, Baffle for water-tube. G. Kuehne. No. 1,135,535; Apr. 13; Gaz. vol. 213; p. 557.
Bolster. H. W. Elverson. No. 1,134,260; Apr. 6; Gaz. vol. 213; p. 65.
Bolster guide and damper. W. S. Adams. No. 1,135,483; Apr. 13; Gaz. vol. 213; p. 539.
Bolt: *See*—
Boiler stay-bolt. Expansion-bolt.
Compound bolt. Stay-bolt.
Bolt cutter and holder. A. F. Pine. No. 1,136,263; Apr. 20; Gaz. vol. 213; p. 854.
Bolt-lock. W. H. A. Boon. No. 1,137,569; Apr. 27; Gaz. vol. 213; p. 1357.
Bolt-operating mechanism. D. W. Tower. No. 1,136,498; Apr. 20; Gaz. vol. 213; p. 939.
Bolts, Making compound. J. A. Franenheim. No. 1,135,516; Apr. 13; Gaz. vol. 213; p. 550.
Book, Blank-form. A. M. Sinclair. No. 1,134,766; Apr. 6; Gaz. vol. 213; p. 250.
Book carrier and cover. C. S. Gould. No. 1,136,598; Apr. 20; Gaz. vol. 213; p. 974.
Books, Combined cover and index for. E. J. Mills. No. 1,134,544; Apr. 6; Gaz. vol. 213; p. 168.
Bookbinding. C. F. McBee. No. 1,134,142; Apr. 6; Gaz. vol. 213; p. 21.
Booth, Collapsible. E. S. Messer. No. 1,134,399; Apr. 6; Gaz. vol. 213; p. 115.
Boots and shoes, Apparatus for making. R. F. McFeely. No. 1,135,052; Apr. 13; Gaz. vol. 213; p. 704.
Boots and shoes, Apparatus for use in the manufacture of. J. A. Keay. No. 1,135,024; Apr. 13; Gaz. vol. 213; p. 381.
Boots and shoes, Machine for the manufacture of. E. Brothers. No. 1,135,945; Apr. 13; Gaz. vol. 213; p. 700.
Boots and shoes, Machine for trimming the rands of. L. S. Sweeney. No. 1,135,223; Apr. 13; Gaz. vol. 213; p. 448.
Boots and shoes, Machine for use in the manufacture of. O. Ashton. No. 1,137,564; Apr. 27; Gaz. vol. 213; p. 1355.
Boots and shoes, Machine for use in the manufacture of. E. Brothers. No. 1,135,948; Apr. 13; Gaz. vol. 213; p. 702.
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Border-cutting machine. W. H. Waldron. No. 1,136,741; Apr. 20; Gaz. vol. 213; p. 1025.
Boring machine, Wood-. A. E. Mitchell. No. 1,136,031; Apr. 20; Gaz. vol. 213; p. 773.
Boring-tool. A. S. Goodwin. No. 1,137,603; Apr. 27; Gaz. vol. 213; p. 1368.
Boron nitrid, Making. G. Weintraub. No. 1,135,232; Apr. 13; Gaz. vol. 213; p. 451.
Bottle. M. Lutenberger. No. 1,136,250; Apr. 20; Gaz. vol. 213; p. 849.
Bottle-cap and remover, Combined. F. C. Wallace and C. F. Forsyth. (Reissue.) No. 13,908; Apr. 27; Gaz. vol. 213; p. 1412.
Bottle-cap-assembling machine. J. C. Forrester. No. 1,135,513; Apr. 13; Gaz. vol. 213; p. 550.
Bottle cap or seal. L. Bartlett. No. 1,135,094; Apr. 13; Gaz. vol. 213; p. 405.
Bottle-caps and similar articles, Machine for cutting slits in. E. S. Norton. No. 1,136,162; Apr. 20; Gaz. vol. 213; p. 818.
Bottle-capping machine. J. J. Gaynor and P. C. Lieber. No. 1,134,676; Apr. 6; Gaz. vol. 213; p. 217.
Bottle-capping machine. J. J. Gaynor and P. C. Lieber. No. 1,135,680; Apr. 13; Gaz. vol. 213; p. 610.
Bottle-capping machine. J. J. Gaynor and P. C. Lieber. No. 1,136,467; Apr. 20; Gaz. vol. 213; p. 928.
Bottle-capping machine. G. G. Loehler. No. 1,134,626; Apr. 6; Gaz. vol. 213; p. 198.
Bottle-capping machine. T. L. Valerius. No. 1,134,168; Apr. 6; Gaz. vol. 213; p. 30.
Bottle closure and protector. A. W. Gross and G. H. Dannenberg. No. 1,137,607; Apr. 27; Gaz. vol. 213; p. 1369.
Bottle closure, Milk-. G. N. Gomber. No. 1,136,418; Apr. 20; Gaz. vol. 213; p. 911.
Bottle-closures, Machine for the manufacture of. A. Bogdánffy. No. 1,136,398; Apr. 20; Gaz. vol. 213; p. 903.
Bottle-filling machines, Valve for. F. Tyson. No. 1,136,740; Apr. 20; Gaz. vol. 213; p. 1025.
Bottle holder, Milk-. R. E. Cox. No. 1,137,583; Apr. 27; Gaz. vol. 213; p. 1362.
Bottle holder, Nursing-. J. L. R. Hopwood. No. 1,136,529; Apr. 20; Gaz. vol. 213; p. 949.
Bottle lock, Milk-. G. S. Lane. No. 1,134,277; Apr. 6; Gaz. vol. 213; p. 71.
Bottle machine, Pulp-. E. Schinscholl. No. 1,137,669; Apr. 27; Gaz. vol. 213; p. 1389.
Bottle, Non-refillable. L. Berger and G. A. Hasinger. No. 1,136,762; Apr. 20; Gaz. vol. 213; p. 1033.
Bottle, Non-refillable. J. Kosienski and A. Kaminski. No. 1,136,880; Apr. 20; Gaz. vol. 213; p. 1073.
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Bottle, Non-refillable. M. Morawiecki. No. 1,135,203; Apr. 13; Gaz. vol. 213; p. 442.
Bottle, Non-refillable. P. J. A. Schnoor. No. 1,137,537; Apr. 27; Gaz. vol. 213; p. 1346.
Bottle, Non-refillable. M. J. Souza. No. 1,134,647; Apr. 6; Gaz. vol. 213; p. 206.
Bottle, Non-refillable. J. A. Stodgell. No. 1,134,242; Apr. 6; Gaz. vol. 213; p. 58.
Bottle or jar closure. J. Schles. No. 1,135,328; Apr. 13; Gaz. vol. 213; p. 485.
Bottle-stopper. W. H. Ranagan. No. 1,135,718; Apr. 13; Gaz. vol. 213; p. 623.
Bottle stoppering crowns or caps, Manufacture of. W. Bailey. No. 1,136,393; Apr. 20; Gaz. vol. 213; p. 902.
Bowling-alley. A. J. Kempien. No. 1,137,635; Apr. 27; Gaz. vol. 213; p. 1379.
Box: *See*—
Axle-box.
Boiler fire-box.
Branch box.
Call-box.
Cigar-box.
Collapsible box.
Cut-out box.
Display box.
Fare-box.
File-box.
Fire-box.
Floor-box.
Foldable box.
Folding box.
Hat-box.
Journal-box.
Junction-box.
Lunch-box.
Mail-box.
Match-box.
Metal box.
Miter-box.
Paper box.
Sound-box.
Switch-box.
Switch-point drain-box.
Box. H. J. McCabe and J. Wise. No. 1,137,341; Apr. 27; Gaz. vol. 213; p. 1279.
Box. H. B. Walter. No. 1,134,782; Apr. 6; Gaz. vol. 213; p. 256.
Box. A. G. Watkins. No. 1,134,569; Apr. 6; Gaz. vol. 213; p. 178.
Box construction. J. A. Lafore. No. 1,135,117; Apr. 13; Gaz. vol. 213; p. 413.
Box-ending machine. S. T. Hobbs. No. 1,136,958; Apr. 27; Gaz. vol. 213; p. 1137.
Box-fastener. T. J. Day. No. 1,136,896; Apr. 20; Gaz. vol. 213; p. 1079.
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Box-lid. A. C. Schoen. No. 1,135,728; Apr. 13; Gaz. vol. 213; p. 627.
Box-making machine. F. A. Graham. No. 1,136,795; Apr. 20; Gaz. vol. 213; p. 1043.
Box-making machine. E. Jagenberg. No. 1,136,339; Apr. 20; Gaz. vol. 213; p. 881.
Box-opener. P. Libonati. No. 1,135,593; Apr. 13; Gaz. vol. 213; p. 578.
Brace: *See*—
Rail-brace.
Shoulder-brace.
Bracelet. O. C. Jacobsen. No. 1,134,860; Apr. 6; Gaz. vol. 213; p. 279.
Bracket: *See*—
Axle-bracket.
Bumper-beam step-bracket.
Lamp-bracket.
Shade-roller bracket.
Bracket. G. E. Anderson. No. 1,136,752; Apr. 20; Gaz. vol. 213; p. 1029.
Braidding-machine carrier. W. H. Joslin. No. 1,137,490; Apr. 27; Gaz. vol. 213; p. 1330.
Brake: *See*—
Coaster-brake.
Electropneumatic brake.
Fluid-pressure brake.
Motor-brake.
Railway-brake.
Sled-brake.
Vehicle-brake.
Wagon-brake.
Brake. W. H. Benjamin. No. 1,135,872; Apr. 13; Gaz. vol. 213; p. 676.
Brake. F. Fawver. No. 1,135,885; Apr. 13; Gaz. vol. 213; p. 680.
Brake. G. G. Floyd. No. 1,135,512; Apr. 13; Gaz. vol. 213; p. 549.
Brake. F. Frame. No. 1,136,788; Apr. 20; Gaz. vol. 213; p. 1041.
Brake. H. Frood. No. 1,136,665; Apr. 20; Gaz. vol. 213; p. 997.
Brake-actuating mechanism for vehicles and trains. E. Pennati and M. Cattori. No. 1,136,712; Apr. 20; Gaz. vol. 213; p. 1015.
Brake and lever lock. P. V. Carpenter. No. 1,135,435; Apr. 13; Gaz. vol. 213; p. 522.
Brake-block holder. P. Kruemling. No. 1,134,872; Apr. 6; Gaz. vol. 213; p. 283.
Brake-dog. A. Willson. No. 1,137,300; Apr. 27; Gaz. vol. 213; p. 1263.
Brake-handle arrester. E. T. Gibson. No. 1,134,261; Apr. 6; Gaz. vol. 213; p. 65.
Brake-head. C. E. Bauer. No. 1,135,490; Apr. 13; Gaz. vol. 213; p. 541.
Brake-head. J. Bragg. No. 1,137,252; Apr. 27; Gaz. vol. 213; p. 1245.
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Brake mechanism, Ratchet-. R. H. Blackall. No. 1,136,090; Apr. 20; Gaz. vol. 213; p. 792.
Brake mechanism, Shaft-. J. H. Pringle. No. 1,136,266; Apr. 20; Gaz. vol. 213; p. 855.
Brake-shaft. H. Pries. No. 1,137,082; Apr. 27; Gaz. vol. 213; p. 1183.
Brake-shoe. G. W. Chipley. No. 1,136,936; Apr. 27; Gaz. vol. 213; p. 1129.
Brake-shoe. F. W. Grant. No. 1,134,609; Apr. 6; Gaz. vol. 213; p. 191.
Brake-shoe. J. E. Worswick. No. 1,134,715; Apr. 6; Gaz. vol. 213; p. 231.
Brake slack-adjuster, Railway-. W. H. Sauvage. No. 1,136,620; Apr. 20; Gaz. vol. 213; p. 982.
Brakes, Automatic-adjusting air-escape valve for railway-. S. Cheney. No. 1,137,576; Apr. 27; Gaz. vol. 213; p. 1359.
Brakes, Automatic air-escape valve for railway-. S. Cheney. No. 1,137,575; Apr. 27; Gaz. vol. 213; p. 1359.
Braking mechanism. T. V. Buckwalter. No. 1,135,097; Apr. 13; Gaz. vol. 213; p. 406.
Branch box. M. Havens, Jr. No. 1,135,894; Apr. 13; Gaz. vol. 213; p. 684.
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Breathing, Apparatus for the attainment of correct. V. Drew. No. 1,134,320; Apr. 6; Gaz. vol. 213; p. 87.
Brick cleaning and refacing machine. O. Van der Meersch. No. 1,135,127; Apr. 13; Gaz. vol. 213; p. 417.
Brick lifting and transferring mechanism. W. P. Israel. No. 1,134,953; Apr. 6; Gaz. vol. 213; p. 310.
Brick-machine. E. F. Wege. No. 1,136,743; Apr. 20; Gaz. vol. 213; p. 1026.
Bridge-mold. J. G. Miller. No. 1,135,312; Apr. 13; Gaz. vol. 213; p. 479.
Bridle, Bitless. N. J. H. Duehr. No. 1,135,570; Apr. 13; Gaz. vol. 213; p. 570.
Bridle-blind. O. Brockman. No. 1,134,816; Apr. 6; Gaz. vol. 213; p. 266.
Broiler. M. J. Green. No. 1,137,130; Apr. 27; Gaz. vol. 213; p. 1201.
Bronzing and like machine. M. Smith. No. 1,136,623; Apr. 20; Gaz. vol. 213; p. 983.
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Bronzing-machine. B. H. Jones. No. 1,134,203; Apr. 6; Gaz. vol. 213; p. 44.
Brooder. H. E. Ringle. No. 1,134,229; Apr. 6; Gaz. vol. 213; p. 54.
Brooder. F. L. Westcott. No. 1,135,477; Apr. 13; Gaz. vol. 213; p. 536.
Broom-holder. C. A. Best. No. 1,134,813; Apr. 6; Gaz. vol. 213; p. 265.

Broom-protector. J. Rabasa. No. 1,134,906; Apr. 6; Gaz. vol. 213; p. 293.
Brush. H. Jeanne. No. 1,137,326; Apr. 27; Gaz. vol. 213; p. 1272.
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Brush. F. H. Sterling. No. 1,136,495; Apr. 20; Gaz. vol. 213; p. 938.
Brush and comb, Combined. W. E. Woodall. No. 1,135,645; Apr. 13; Gaz. vol. 213; p. 597.
Brush, Folding tooth-. L. Kalina. No. 1,134,459; Apr. 6; Gaz. vol. 213; p. 137.
Brush for bolting-machines. N. M. Butts and C. L. Haworth. No. 1,135,762; Apr. 13; Gaz. vol. 213; p. 637.
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Brush, Magazine-. C. W. Jones. No. 1,134,865; Apr. 6; Gaz. vol. 213; p. 281.
Brush or mirror holder or back. S. G. Wilson. No. 1,134,712; Apr. 6; Gaz. vol. 213; p. 230.
Brush, Rotary fly-. A. F. Goddard. No. 1,137,602; Apr. 27; Gaz. vol. 213; p. 1368.
Brush, Tooth-. E. S. Goldy. No. 1,134,450; Apr. 6; Gaz. vol. 213; p. 134.
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Brusher and oiler, Floor. J. E. Reller. No. 1,135,616; Apr. 13; Gaz. vol. 213; p. 587.
Brushing-machine. B. Lacroix. No. 1,137,009; Apr. 27; Gaz. vol. 213; p. 1157.
Bucket, Bait-. C. W. Patterson. No. 1,135,841; Apr. 13; Gaz. vol. 213; p. 666.
Bucket, Excavator-. W. N. Springer. No. 1,136,844; Apr. 20; Gaz. vol. 213; p. 1061.
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Buckle. O. F. Day. No. 1,136,213; Apr. 20; Gaz. vol. 213; p. 836.
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Buckle, Chain-. L. L. Conkey. No. 1,134,994; Apr. 13; Gaz. vol. 213; p. 370.
Buckle, Suspender-. J. H. Pilkington. No. 1,136,610; Apr. 20; Gaz. vol. 213; p. 978.
Buffer. R. P. Heron. No. 1,137,138; Apr. 27; Gaz. vol. 213; p. 1203.
Builder-motion. W. H. Goldsmith, Jr. No. 1,136,417; Apr. 20; Gaz. vol. 213; p. 910.
Building and analogous frames, Constructing. R. H. Robinson. No. 1,135,721; Apr. 13; Gaz. vol. 213; p. 624.
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Bullet, Expanding. M. L. Wood. No. 1,134,797; Apr. 6; Gaz. vol. 213; p. 261.
Bullet, Mushroom-. R. G. Clyne. No. 1,135,357; Apr. 13; Gaz. vol. 213; p. 494.
Bumper-beam step-bracket. F. J. Harrison and W. J. Knox. No. 1,135,522; Apr. 13; Gaz. vol. 213; p. 552.
Bundle-tier. G. Seach. No. 1,135,853; Apr. 13; Gaz. vol. 213; p. 670.
Buoy for submarine or submergible boats, Life-. H. Greisbaher. No. 1,137,131; Apr. 27; Gaz. vol. 213; p. 1202.
Bur-stand. R. B. Savin. No. 1,135,625; Apr. 13; Gaz. vol. 213; p. 590.
Burs, Apparatus for removing. W. McKee. No. 1,135,705; Apr. 13; Gaz. vol. 213; p. 618.
Burette. R. W. Curtis. No. 1,136,108; Apr. 20; Gaz. vol. 213; p. 798.
Burial-case. G. L. Campbell. No. 1,137,696; Apr. 27; Gaz. vol. 213; p. 1397.
Burner: *See*—
Gas-burner.
Hydrocarbon-burner.
Liquid-fuel burner.
Oil-burner.
Singeing-burner.
Burner. S. G. Johnston. No. 1,134,863; Apr. 6; Gaz. vol. 213; p. 280.
Burner. C. R. Lambert. No. 1,137,148; Apr. 27; Gaz. vol. 213; p. 1207.
Burners, Adapter for Bunsen. J. I. Robin. No. 1,135,398; Apr. 13; Gaz. vol. 213; p. 508.
Burning fuel. E. F. Stewart and R. P. Peay. No. 1,134,421; Apr. 6; Gaz. vol. 213; p. 123.
Butter-cutting machine. E. Franke. No. 1,135,005; Apr. 13; Gaz. vol. 213; p. 374.
Butter-finishers for working out buttermilk or water, Mechanism on. E. Hansen; No. 1,137,612; Apr. 27; Gaz. vol. 213; p. 1371.
Button. L. J. Hare. No. 1,134,847; Apr. 6; Gaz. vol. 213; p. 275.
Button. A. Mella. No. 1,136,692; Apr. 20; Gaz. vol. 213; p. 1007.
Button and watch-chain attachment, Combined. T. Cameron. No. 1,134,372; Apr. 6; Gaz. vol. 213; p. 105.
Button-attaching tool, Hand. W. E. Elliott and D. S. Cole. No. 1,136,518; Apr. 20; Gaz. vol. 213; p. 946.
Buttonhole cutting and sewing machine. E. B. Allen. No. 1,136,388; Apr. 20; Gaz. vol. 213; p. 809.
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Buttonhole spacer and marker for buttonhole-machines. A. B. Wales. No. 1,134,966; Apr. 6; Gaz. vol. 213; p. 314.
Buttonhole, Stitched. E. B. Allen. No. 1,136,389; Apr. 20; Gaz. vol. 213; p. 900.
Cabinet. M. L. Laurette. No. 1,135,300; Apr. 13; Gaz. vol. 213; p. 475.
Cabinet, Classifying-. C. H. Middaugh. No. 1,135,038; Apr. 13; Gaz. vol. 213; p. 386.
Cabinet, Credit-. E. J. Von Pein. No. 1,134,248; Apr. 6; Gaz. vol. 213; p. 60.
Cabinet, Foldable drying-. G. Dieckmann. No. 1,135,267; Apr. 13; Gaz. vol. 213; p. 463.
Cabinet, Music-. M. A. Hawkins. No. 1,135,281; Apr. 13; Gaz. vol. 213; p. 468.
Cabinet scraper-holder. T. W. Cottle. No. 1,135,361; Apr. 13; Gaz. vol. 213; p. 495.
Cabinet, Toilet dispensing-. A. F. Lesler. No. 1,134,879; Apr. 6; Gaz. vol. 213; p. 285.
Cable-armor. H. R. Gilson. No. 1,134,119; Apr. 6; Gaz. vol. 213; p. 12.
Cable-reeling mechanism. F. L. Sessions. No. 1,135,468; Apr. 13; Gaz. vol. 213; p. 533.
Cable-winding mechanism. N. D. Levin. No. 1,137,338; Apr. 27; Gaz. vol. 213; p. 1278.
Calcium carbid, Manufacture of. F. M. Becket. No. 1,137,567; Apr. 27; Gaz. vol. 213; p. 1356.
Calculating-machine. S. B. Austin. No. 1,136,391; Apr. 20; Gaz. vol. 213; p. 901.
Calculating-machine. A. D. Harmon. No. 1,136,797; Apr. 20; Gaz. vol. 213; p. 1044.
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Calculating-machines, Electric drive for. N. W. Perkins, Jr. No. 1,136,165; Apr. 20; Gaz. vol. 213; p. 819.
Calculating-machines, Paper-feed and platen-operating mechanism for. A. J. Meier, W. L. Swift, and E. L. Reller. No. 1,134,694; Apr. 6; Gaz. vol. 213; p. 223.
Calculation and printing the results of said calculations, Machine for. H. Ellis. No. 1,136,321; Apr. 20; Gaz. vol. 213; p. 874.
Calendar, Pencil-. C. M. Myers and J. A. Terhorst. No. 1,137,273; Apr. 27; Gaz. vol. 213; p. 1253.
Call-box. C. S. Rhoads, Jr. No. 1,137,717; Apr. 27; Gaz. vol. 213; p. 1405.
Call device, Selective. H. O. Rugh. No. 1,136,838; Apr. 20; Gaz. vol. 213; p. 1059.
Call-distributing system. H. P. Clausen. No. 1,136,508; Apr. 20; Gaz. vol. 213; p. 942.
Calorimeter. C. E. Lucke. No. 1,136,884; Apr. 20; Gaz. vol. 213; p. 1074.
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Calorimetric apparatus. S. W. Parr. No. 1,136,359; Apr. 20; Gaz. vol. 213; p. 888.
Camera. F. W. Calden. No. 1,134,725; Apr. 6; Gaz. vol. 213; p. 235.
Camera. A. E. Chase and C. A. Briney. No. 1,137,185; Apr. 27; Gaz. vol. 213; p. 1220.
Camera-front. W. F. Folmer. No. 1,134,522; Apr. 6; Gaz. vol. 213; p. 160.
Camera, Panoramic photographic. J. Becker. No. 1,136,761; Apr. 20; Gaz. vol. 213; p. 1032.
Can: *See*—
Ash and garbage can.
Garbage-can.
Milk-can.
Oil-can.
Can-covers, Apparatus for cutting and depositing ring-liners onto the flanges of. J. M. Young. No. 1,135,244; Apr. 13; Gaz. vol. 213; p. 455.
Can end. W. Ayres. No. 1,136,993; Apr. 27; Gaz. vol. 213; p. 1150.
Can-opener. W. Edge and A. H. Jones. No. 1,135,571; Apr. 13; Gaz. vol. 213; p. 570.
Can-opener. H. G. Wernimont. No. 1,137,175; Apr. 27; Gaz. vol. 213; p. 1216.
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Can-washing machine. E. Manning. No. 1,137,345; Apr. 27; Gaz. vol. 213; p. 1280.
Can-wrapping machine. F. H. Knapp and W. H. Leister. No. 1,135,294; Apr. 13; Gaz. vol. 213; p. 472.
Canceling-machine trip. F. G. Jahn. No. 1,134,271; Apr. 6; Gaz. vol. 213; p. 69.
Caoutchoucs and other colloidal matters, Purification of natural and regenerated. C. P. Bary. No. 1,136,462; Apr. 20; Gaz. vol. 213; p. 925.
Cap, Motor-. J. A. Cohoon, Jr. No. 1,134,515; Apr. 6; Gaz. vol. 213; p. 158.
Capsule, Gelatin. H. R. Planten. No. 1,134,156; Apr. 6; Gaz. vol. 213; p. 26.
Car, Compartment fruit-. J. W. Swartz. No. 1,134,423; Apr. 6; Gaz. vol. 213; p. 123.
Car construction. W. E. Scott. No. 1,137,429; Apr. 27; Gaz. vol. 213; p. 1311.
Car-coupling. S. P. Bush. No. 1,135,963; Apr. 13; Gaz. vol. 213; p. 708.

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Car-coupling. W. F. Richards. No. 1,136,554; Apr. 20; Gaz. vol. 213; p. 958.
Car-coupling uncoupling device. R. R. Weaver. No. 1,136,068; Apr. 20; Gaz. vol. 213; p. 785.
Car door, Dump-. C. H. Clark. No. 1,136,317; Apr. 20; Gaz. vol. 213; p. 873.
Car-door fastener. W. V. Osborne. No. 1,137,661; Apr. 27; Gaz. vol. 213; p. 1387.
Car-door hanger. O. E. Gelbrich and G. W. Hintz. No. 1,136,118; Apr. 20; Gaz. vol. 213; p. 802.
Car-door lock. O. E. Gelbrich and G. W. Hintz. No. 1,136,117; Apr. 20; Gaz. vol. 213; p. 801.
Car-door mechanism, Railway-. E. G. Nylander. No. 1,136,971; Apr. 27; Gaz. vol. 213; p. 1142.
Car-door structure, Railway-. E. W. Hartough and S. P. Alquist. No. 1,137,483; Apr. 27; Gaz. vol. 213; p. 1328.
Car draft-arm, Railway-. C. J. Nash. No. 1,136,159; Apr. 20; Gaz vol. 213; p. 817.
Car draft-rigging, Draft-yoke for railway-. W. A. Mitchell. No. 1,136,032; Apr. 20; Gaz. vol. 213; p. 773.
Car draft-rigging, Draft-yoke for railway. J. F. O'Connor. No. 1,136,036; Apr. 20; Gaz. vol. 213; p. 775.
Car draft-rigging, Railway-. S. B. Haseltine. No. 1,136,008; Apr. 20; Gaz. vol. 213; p. 765.
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Car-dumping apparatus. G. H. Mueller. No. 1,136,829; Apr. 20; Gaz. vol. 213; p. 1056.
Car fender and brake, Combined. T. W. Bush. No. 1,136,586; Apr. 20; Gaz. vol. 213; p. 970.
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Car-journal cooler, Automatic. R. S. Kinnear. No. 1,134,620; Apr. 6; Gaz. vol. 213; p. 195.
Car-moving device. R. Laframboise. No. 1,134,466; Apr. 6; Gaz. vol. 213; p. 140.
Car, Ore dump-. A. R. Chambers. No. 1,135,993; Apr. 20; Gaz. vol. 213; p. 760.
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Car, Prepayment-. C. C. Hunicke. No. 1,134,387; Apr. 6; Gaz. vol. 213; p. 110.
Car-replacer. A. Duval. No. 1,135,882; Apr. 13; Gaz. vol. 213; p. 679.
Car-replacer. A. E. Lineberg. No. 1,137,641; Apr. 27; Gaz. vol. 213; p. 1381.
Car-replacer. D. W. Martin. No. 1,134,212; Apr. 6; Gaz. vol. 213; p. 48.
Car roller-bearing. E. W. Webb. No. 1,137,038; Apr. 27; Gaz. vol. 213; p. 1167.
Car-roof. G. R. Joughins. No. 1,136,962; Apr. 27; Gaz. vol. 213; p. 1139.
Car-roof construction. W. E., Jr., and W. E. Fowler, Sr. No. 1,134,117; Apr. 6; Gaz. vol. 213; p. 12.
Car-roof construction. F. Mathews. No. 1,137,347; Apr. 27; Gaz. vol. 213; p. 1281.
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Car-signal. W. B. Eichholtz and F. L. Winters. No. 1,134,827; Apr. 6; Gaz. vol. 213; p. 269.
Car signaling device. H. Rowntree. No. 1,134,640; Apr. 6; Gaz. vol. 213; p. 204.
Car, Sleeping-. O. M. Donaldson. No. 1,135,268; Apr. 13; Gaz. vol. 213; p. 463.
Car-step. F. D. Blake. No. 1,136,583; Apr. 20; Gaz. vol. 213; p. 969.
Car-step, Folding. H. F. Schrage. No. 1,135,141; Apr. 13; Gaz. vol. 213; p. 422.
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Car tandem-spring draft-rigging, Railway-. W. H. Miner and J. F. O'Connor. No. 1,136,030; Apr. 20; Gaz. vol. 213; p. 773.
Car-wheel. P. Seidel. No. 1,136,839; Apr. 20; Gaz. vol. 213; p. 1059.
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Cars or other purposes, Divided door for street-. J. B. Burdett. No. 1,134,668; Apr. 6; Gaz. vol. 213; p. 214.
Cars, Suspension device of motors on tramway or railway motor-. C. Delmez. No. 1,136,779; Apr. 20; Gaz. vol. 213; p. 1037.
Carbon from pressed bodies of tungsten, Removing. F. Blau. No. 1,135,154; Apr. 13; Gaz. vol. 213; p. 427.
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Carborundum or emery wheels, Cutting surfaces on. T. W. Alm. No. 1,135,978; Apr. 20; Gaz. vol. 213; p. 755.
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Carrier: *See*—
Bicycle parcel-carrier.
Book-carrier.
Braiding-machine carrier.
Egg-carrier.
Lamp-carrier.
Overhead carrier.
Package-carrier.
Tong-carrier.
Tramway-carrier.
Trolley-harp carrier.
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Case: *See*—
Burial-case.
Disk-record case.
Egg-case.
Filing-case.
Lamp-socket case.
Shipping-case.
Transportation-case.
Watchcase.
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Chair: *See*—
Adjustable chair.
Folding chair.
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Chair. M. A. Brewer. No. 1,136,308; Apr. 20; Gaz. vol. 213; p. 870.
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Cotton-chopper.
Christmas-tree garden. J. A. Wiedersheim. No. 1,135,642; Apr. 13; Gaz. vol. 213; p. 596.
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Cigar-machine. O. Tyberg. No. 1,134,246; Apr. 6; Gaz. vol. 213; p. 60.
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Circular objects, Machine for covering. C. J. Landin. No. 1,134,208; Apr. 6; Gaz. vol. 213; p. 46.
Clamp: *See*—
Clothes-clamp.
Door-supporting clamp.
Ground-clamp.
Hose-clamp.
Pipe and rod clamp.
Saw-clamp.
Spring-clamp.
Suspension-clamp.
Clamp. O. H. Arneson. No. 1,137,109; Apr. 27; Gaz. vol. 213; p. 1193.
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Cleaner: *See*—
Boiler-cleaner.
Boiler-tube cleaner.
Car-window cleaner.
Carpet-cleaner.
Clay-cleaner.
Flue-cleaner.
Rake-cleaner.
Shoe-cleaner.
Vacuum-cleaner.
Window-cleaner.
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Clip. W. Callaway. No. 1,135,353; Apr. 13; Gaz. vol. 213; p. 493.
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Clock dial and case. K. Fukami. No. 1,136,520; Apr. 20; Gaz. vol. 213; p. 947.
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Clocks, Locking device for dash-. T. B. Stephenson. No. 1,137,032; Apr. 27; Gaz. vol. 213; p. 1165.
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Water-closet.
Closet attachment. E. E. Duff. No. 1,137,196; Apr. 27; Gaz. vol. 213; p. 1224.
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Currycomb. Self-cleaning comb.
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Condenser. A. Day. No. 1,134,518; Apr. 6; Gaz. vol. 213; p. 159.
Condenser, Surface. F. Ray. No. 1,137,422; Apr. 27; Gaz. vol. 213; p. 1308.
Condensing apparatus. E. W. Christie. No. 1,135,661; Apr. 13; Gaz. vol. 213; p. 603.
Confectionis, Manufacture of. F. White. No. 1,136,074; Apr. 20; Gaz. vol. 213; p. 786.
Connecting-rod. F. E. Stanley. No. 1,134,973; Apr. 6; Gaz. vol. 213; p. 317.
Connector. H. A. Douglas. No. 1,134,673; Apr. 6; Gaz. vol. 213; p. 216.
Contalner. C. Kormanshaus. No. 1,137,268; Apr. 27; Gaz. vol. 213; p. 1252.
Container construction. C. W. Kress. No. 1,134,540; Apr. 6; Gaz. vol. 213; p. 166.
Container or caddy. F. B. Davidson. No. 1,134,998; Apr. 13; Gaz. vol. 213; p. 371.
Container, Spouted. A. S. Whitney. No. 1,137,248; Apr. 27; Gaz. vol. 213; p. 1244.
Containers, Making. C. Kormanshaus. No. 1,137,269; Apr. 27; Gaz. vol. 213; p. 1252.
Control apparatus. N. W. Storer. No. 1,135,412; Apr. 13; Gaz. vol. 213; p. 514.
Controllers or composing-ribbons, Machine for making. G. R. Cornwall. No. 1,136,080; Apr. 20; Gaz. vol. 213; p. 788.
Controlling device. G. W. Edwards. No. 1,137,054; Apr. 27; Gaz. vol. 213; p. 1173.
Controlling variable mechanisms, Means for. A. Sundh. No. 1,134,771; Apr. 6; Gaz. vol. 213; p. 252.
Converters and furnaces, Means for increasing the air-blast of. R. Baggaley. No. 1,135,489; Apr. 13; Gaz. vol. 213; p. 541.
Conveyer. W. S. Ayres. No. 1,136,578; Apr. 20; Gaz. vol. 213; p. 907.
Conveyer. C. A. Stewart. No. 1,135,631; Apr. 13; Gaz. vol. 213; p. 592.
Conveyer, Screening-. A. R. Houston. No. 1,136,674; Apr. 20; Gaz. vol. 213; p. 1000.
Conveyer system. S. Olson. No. 1,135,316; Apr. 13; Gaz. vol. 213; p. 480.
Cooker. J. J. Sleeper. No. 1,137,359; Apr. 27; Gaz. vol. 213; p. 1285.
Cooker, Fireless. F. H. Harper. No. 1,136,600; Apr. 20; Gaz. vol. 213; p. 974.

Cooking apparatus. F. A. Vath. No. 1,135,473; Apr. 13; Gaz. vol. 213; p. 535.
Cooking device. S. F. Pierce. No. 1,136,261; Apr. 20; Gaz. vol. 213; p. 853.
Cooking device, Electrical. F. E. Carlson. No. 1,137,050; Apr. 27; Gaz. vol. 213; p. 1171.
Cooking vessel. P. H. Schlueter. No. 1,135,210; Apr. 13; Gaz. vol. 213; p. 444.
Cooking vessel. P. H. Schlueter. No. 1,136,277; Apr. 20; Gaz. vol. 213; p. 859.
Cooler: *See*—
Car-journal cooler. Liquid cooler.
Coop. C. W. Ferguson. No. 1,135,886; Apr. 13; Gaz. vol. 213; p. 681.
Coop. H. C. Hettesheimer. No. 1,135,583; Apr. 13; Gaz. vol. 213; p. 575.
Coop, Folding. J. A. Reeder. No. 1,136,269; Apr. 20; Gaz. vol. 213; p. 856.
Cooperating keys. C. C. Chamberlin. No. 1,137,256; Apr. 27; Gaz. vol. 213; p. 1247.
Copper, Electrolytic process for the extraction of. N. V. Hybinette. No. 1,136,424; Apr. 20; Gaz. vol. 213; p. 912.
Copper, Metallurgy of. E. A. C. Smith. No. 1,134,767; Apr. 6; Gaz. vol. 213; p. 250.
Core, Collapsible. G. E. Horton and C. S. Wagner. No. 1,136,805; Apr. 20; Gaz. vol. 213; p. 1047.
Core for paper and similar rolls, Expansible and contractile. C. E. Miser. No. 1,135,388; Apr. 13; Gaz. vol. 213; p. 505.
Cores, Reinforcing-bushing for. T. Ellxman. No. 1,137,470; Apr. 27; Gaz. vol. 213; p. 1323.
Corer. I. C. Hunt. No. 1,135,185; Apr. 13; Gaz. vol. 213; p. 436.
Corn-cutting machine. C. Royer. No. 1,137,667; Apr. 27; Gaz. vol. 213; p. 1388.
Corn husker and stripper, Combined. R. N. Thomas. No. 1,134,245; Apr. 6; Gaz. vol. 213; p. 59.
Corn-husking machine. S. German. No. 1,134,449; Apr. 6; Gaz. vol. 213; p. 134.
Corn-sheller. W. Watts. No. 1,137,100; Apr. 27; Gaz. vol. 213; p. 1189.
Corn-stringing device. R. Harden. No. 1,135,791; Apr. 13; Gaz. vol. 213; p. 647.
Corn-topping machine. A. F. Tucker. No. 1,135,079; Apr. 13; Gaz. vol. 213; p. 400.
Corset. L. Margolis. No. 1,136,024; Apr. 20; Gaz. vol. 213; p. 770.
Corset. E. Schweinburg. No. 1,137,539; Apr. 27; Gaz. vol. 213; p. 1347.
Corset. E. Schweinburg. No. 1,137,540; Apr. 27; Gaz. vol. 213; p. 1347.
Corset, Apparel-. D. Kops. No. 1,135,698; Apr. 13; Gaz. vol. 213; p. 616.
Corset-busk and fastening means therefor. E. Schweinburg. No. 1,137,542; Apr. 27; Gaz. vol. 213; p. 1347.
Corset, Surgical. H. E. Curtis. No. 1,134,441; Apr. 6; Gaz. vol. 213; p. 130.
Costumer. T. P. Forman. No. 1,136,787; Apr. 20; Gaz. vol. 213; p. 1041.
Cot, Portable knockdown sheltered. H. Mattes. No. 1,135,707; Apr. 13; Gaz. vol. 213; p. 619.
Cotton-chopper. R. Hamilton. No. 1,135,790; Apr. 13; Gaz. vol. 213; p. 647.
Cotton-chopping machine. M. C. Brewer. No. 1,136,930; Apr. 27; Gaz. vol. 213; p. 1127.
Cotton-chopping machine. H. V. Jobe. No. 1,135,287; Apr. 13; Gaz. vol. 213; p. 470.
Cotton ginning and cleaning. W. E. Moore. No. 1,136,969; Apr. 27; Gaz. vol. 213; p. 1141.
Cotton-picking machine. J. Meier. No. 1,135,202; Apr. 13; Gaz. vol. 213; p. 442.
Cotton-picking machine. G. A. Pruser. No. 1,134,158; Apr. 6; Gaz. vol. 213; p. 26.
Counting and weighing machine. G. W. Drexelius. No. 1,134,112; Apr. 6; Gaz. vol. 213; p. 10.
Coupling: *See*—
Automatic coupling. Pipe-coupling.
Car-coupling. Shaft-coupling.
Evener-coupling. Universal coupling.
Hose-coupling. Vehicle-coupling.
Coupling. C. Boyd. No. 1,134,179; Apr. 6; Gaz. vol. 213; p. 35.
Coupling-knuckle reinforcement. R. E. L. Janney and E. P. Kinne. No. 1,135,528; Apr. 13; Gaz. vol. 213; p. 554.
Cover for containers, Removable. F. R. Woods. No. 1,136,747; Apr. 20; Gaz. vol. 213; p. 1027.
Cow-tail holder. N. P. Bengston. No. 1,136,395; Apr. 20; Gaz. vol. 213; p. 902.
Cracker-pipe for saturating apparatus. F. Tschudy. No. 1,135,472; Apr. 13; Gaz. vol. 213; p. 535.
Cracking-off machine. F. W. Bartlett. No. 1,135,652; Apr. 13; Gaz. vol. 213; p. 600.
Cranes, Electric control-gear for automatic grab-. K. Brüll. No. 1,134,370; Apr. 6; Gaz. vol. 213; p. 105.
Crank-pin connection. R. Hartwig. No. 1,136,524; Apr. 20; Gaz. vol. 213; p. 948.
Crank-shaft. F. W. Spacke, D. T. Brownlee, and W. Spacke. No. 1,136,376; Apr. 20; Gaz. vol. 213; p. 895.
Cranking device. D. Stewart. No. 1,134,974; Apr. 6; Gaz. vol. 213; p. 317.
Crate, Collapsible. F. H. McLain. No. 1,135,598; Apr. 13; Gaz. vol. 213; p. 579.
Crate, Extension-. W. M. Way. No. 1,135,231; Apr. 13; Gaz. vol. 213; p. 450.
Crate, Folding egg-. F. W. Robertson. No. 1,134,557; Apr. 6; Gaz. vol. 213; p. 173.
Crate or box. O. A. Lane, D. Guice, and H. P. Dohrmeier. No. 1,137,407; Apr. 27; Gaz. vol. 213; p. 1303.
Crate or box. G. F. Turner. No. 1,135,866; Apr. 13; Gaz. vol. 213; p. 675.
Crate, Revoluble egg-. O. Opsjon. No. 1,134,481; Apr. 6; Gaz. vol. 213; p. 145.
Crate, Shipping-. J. M. Alderfer. No. 1,135,485; Apr. 13; Gaz. vol. 213; p. 539.
Crate, Shipping-. F. Marquardt. No. 1,136,027; Apr. 20; Gaz. vol. 213; p. 772.
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Cream-separator, Centrifugal. W. E. Callane. No. 1,136,654; Apr. 20; Gaz. vol. 213; p. 994.
Crib. B. McIntosh. No. 1,135,122; Apr. 13; Gaz. vol. 213; p. 415.
Crib, Folding. A. C. Hummel. No. 1,135,022; Apr. 13; Gaz. vol. 213; p. 380.
Cross. J. E. Rigall. No. 1,136,274; Apr. 20; Gaz. vol. 213; p. 857.
Crossing-gate, Automatic electric. J. Briggs. No. 1,134,584; Apr. 6; Gaz. vol. 213; p. 183.
Crusher: *See*—
Roll-crusher. Rotary crusher.
Crusher. E. P. Le Compte and R. Colvin. No. 1,135,824; Apr. 13; Gaz. vol. 213; p. 660.
Crutch. F. Kindermann. No. 1,137,008; Apr. 27; Gaz. vol. 213; p. 1157.
Cue-tip. E. W. Womack. No. 1,134,796; Apr. 6; Gaz. vol. 213; p. 260.
Culinary utensil. A. D. Elzy. No. 1,134,376; Apr. 6; Gaz. vol. 213; p. 107.
Cultivating-tool. J. B. Johnson. No. 1,134,538; Apr. 6; Gaz. vol. 213; p. 165.
Cultivator. J. H. Berry. No. 1,135,756; Apr. 13; Gaz. vol. 213; p. 635.
Cultivator. E. C. Hodges. No. 1,137,621; Apr. 27; Gaz. vol. 213; p. 1374.
Cultivator. I. K. Klassen. No. 1,137,331; Apr. 27; Gaz. vol. 213; p. 1274.
Cultivator. V. Linderblad. No. 1,135,305; Apr. 13; Gaz. vol. 213; p. 477.
Cultivator, Alfalfa-. C. Raszman. No. 1,135,051; Apr. 13; Gaz. vol. 213; p. 391.
Cultivator and weeder. J. S. Harris. No. 1,134,194; Apr. 6; Gaz. vol. 213; p. 40.
Cultivator, Hand-. J. Sheckler. No. 1,135,062; Apr. 13; Gaz. vol. 213; p. 394.
Culvert-form. L. H. Towner. No. 1,134,778; Apr. 6; Gaz. vol. 213; p. 254.
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Current-controlling device. H. N. Ott. No. 1,135,608; Apr. 13; Gaz. vol. 213; p. 583.
Current, Rectifying alternating. E. Weintraub. No. 1,134,786; Apr. 6; Gaz. vol. 213; p. 257.
Current, Rectifying alternating. E. Weintraub. No. 1,134,787; Apr. 6; Gaz. vol. 213; p. 257.
Current, tension, and power by self-acting resistances, Device for the comparison of. M. Kallmann. No. 1,136,810; Apr. 20; Gaz. vol. 213; p. 1049.
Currycomb. E. L. Adams. No. 1,135,482; Apr. 13; Gaz. vol. 213; p. 538.
Currycomb. H. E. Anderson. No. 1,135,246; Apr. 13; Gaz. vol. 213; p. 456.
Currycomb. W. W. Harris. No. 1,137,613; Apr. 27; Gaz. vol. 213; p. 1371.
Currycomb. G. S. Miller. No. 1,136,156; Apr. 20; Gaz. vol. 213; p. 816.
Currycomb and brush, Double. H. Cole. No. 1,135,664; Apr. 13; Gaz. vol. 213; p. 604.
Curtain, Storm-. O. L. White. No. 1,136,570; Apr. 20; Gaz. vol. 213; p. 964.
Cushion: *See*—
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Cushion-spring and shock-absorber, Combined. J. C. Schleicher. No. 1,136,489; Apr. 20; Gaz. vol. 213; p. 936.
Cut-out box. R. C. Cole. No. 1,135,358; Apr. 13; Gaz. vol. 213; p. 494.
Cut-out, Centrifugal. L. W. Horting. No. 1,135,801; Apr. 13; Gaz. vol. 213; p. 651.
Cutlery articles, tools, and other instruments or purposes, Forming metal blanks or the like for. H. Tolputt. No. 1,135,863; Apr. 13; Gaz. vol. 213; p. 673.
Cutlery implements and the bolster-blank therefor, Forming and attaching bolsters to. J. F. Lamb. No. 1,136,603; Apr. 20; Gaz. vol. 213; p. 975.
Cutter: *See*—
Band-cutter. Paper and twine cutter.
Bolt-cutter. Pocket-cutter.
Cigar-cutter. Rod-cutter.
Cigar-tip cutter. Stalk-cutter.
Ensilage-cutter. Thread-cutter.
Glass-cutter. Twine-cutter.
Paper-cutter. Vine-cutter.
Cutter. J. C. Backert. No. 1,136,085; Apr. 20; Gaz. vol. 213; p. 790.
Cutter-bar construction. A. R. Conner. No. 1,134,588; Apr. 6; Gaz. vol. 213; p. 184.

Cutter-head. C. J. Klingborg. No. 1,137,216; Apr. 27; Gaz. vol. 213; p. 1232.
Cutting apparatus. J. H. Munro. No. 1,134,217; Apr. 6; Gaz. vol. 213; p. 49.
Cutting, counting, and packaging machine. G. C. Bauman. No. 1,134,941; Apr. 6; Gaz. vol. 213; p. 305.
Cutting-machine. J. C. Backert. No. 1,137,251; Apr. 27; Gaz. vol. 213; p. 1245.
Cutting-machine. E. E. Winkley. No. 1,136,193; Apr. 20; Gaz. vol. 213; p. 829.
Cycle-lock. G. Baumann. No. 1,137,691; Apr. 27; Gaz. vol. 213; p. 1396.
Cycle prop, Motor-. M. Vealch. No. 1,137,368; Apr. 27; Gaz. vol. 213; p. 1289.
Cycle spring, Motor-. C. M. A. Rosendahl. No. 1,135,927; Apr. 13; Gaz. vol. 213; p. 694.
Cycle sprocket-guard. A. O. Davis. No. 1,136,411; Apr. 20; Gaz. vol. 213; p. 908.
Cycle stand, Motor-. J. M. Nelson. No. 1,134,893; Apr. 6; Gaz. vol. 213; p. 290.
Cylinder-lock. E. Epstein. No. 1,135,998; Apr. 20; Gaz. vol. 213; p. 762.
Dairy-register. R. L. Lachapelle. No. 1,134,873; Apr. 6; Gaz. vol. 213; p. 284.
Dam-spillways, Power mechanism for. J. M. Maher. No. 1,137,156; Apr. 27; Gaz. vol. 213; p. 1211.
Dampener, Seam-. F. C. Barnes. No. 1,134,434; Apr. 6; Gaz. vol. 213; p. 128.
Damper. C. M. Brown. No. 1,136,209; Apr. 20; Gaz. vol. 213; p. 835.
Damper. O. M. Daugherty. No. 1,136,212; Apr. 20; Gaz. vol. 213; p. 836.
Damper, Automatic. J. W. Blood. No. 1,135,568; Apr. 13; Gaz. vol. 213; p. 569.
Damper-controlling mechanism. H. Wilgus. No. 1,137,369; Apr. 27; Gaz. vol. 213; p. 1289.
Davenport, Revolving-seat. W. P. Seng and J. Kaltcok. No. 1,135,930; Apr. 13; Gaz. vol. 213; p. 695.
Davits apparatus, Duplex. B. Glanese. No. 1,134,118; Apr. 6; Gaz. vol. 213; p. 12.
Decolorizer, Making a. F. W. Spanutius. No. 1,135,216; Apr. 13; Gaz. vol. 213; p. 446.
Decorative support. T. C. Fisher, Sr. No. 1,134,834; Apr. 6; Gaz. vol. 213; p. 271.
Defecator. M. B. Cresswell. No. 1,134,997; Apr. 13; Gaz. vol. 213; p. 371.
Delivery mechanism. F. M. Spurr. No. 1,135,068; Apr. 13; Gaz. vol. 213; p. 396.
Demagnetization of tools working magnetically-mounted work-pieces. J. Bing. No. 1,136,646; Apr. 20; Gaz. vol. 213; p. 990.
Dental appliance. T. Craig, Jr. No. 1,137,585; Apr. 27; Gaz. vol. 213; p. 1362.
Dental articulator. H. F. Smith and H. S. Dano. No. 1,135,629; Apr. 13; Gaz. vol. 213; p. 591.
Dental bridge. G. W. Todd and C. D. Mendlik. No. 1,136,184; Apr. 20; Gaz. vol. 213; p. 825.
Dental-engine tool-guard. F. F. Fischer and C. M. Kaletsky. No. 1,134,833; Apr. 6; Gaz. vol. 213; p. 271.
Dental instrument. H. M. Brock. No. 1,136,649; Apr. 20; Gaz. vol. 213; p. 991.
Dental instrument. H. E. S. Chayes. No. 1,136,100; Apr. 20; Gaz. vol. 213; p. 795.
Dental marking and spacing tool. W. L. Mason. No. 1,134,692; Apr. 6; Gaz. vol. 213; p. 222.
Dentifrice-containers, Brush-guide for. J. Rebrovich. No. 1,135,922; Apr. 13; Gaz. vol. 213; p. 692.
Derrick. D. F. Hogan. No. 1,135,799; Apr. 13; Gaz. vol. 213; p. 650.
Desiccating apparatus. E. E. Eldredge. No. 1,134,731; Apr. 6; Gaz. vol. 213; p. 237.
Desk, Knockdown. R. H. Browne. No. 1,135,975; Apr. 13; Gaz. vol. 213; p. 712.
Developing-machine. C. K. Neshime and S. J. Rognlie. No. 1,136,703; Apr. 20; Gaz. vol. 213; p. 1011.
Dial mechanism. Z. P. Candee. No. 1,136,891; Apr. 20; Gaz. vol. 213; p. 1077.
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Die-stock. J. C. Fletcher. No. 1,137,004; Apr. 27; Gaz. vol. 213; p. 1155.
Die-stock, Self-lubricating. O. G. Larson. No. 1,137,496; Apr. 27; Gaz. vol. 213; p. 1332.
Die-threading machine. W. H. Potter and J. E. Benson. No. 1,137,020; Apr. 27; Gaz. vol. 213; p. 1161.
Dies, Means for cutting threading-. W. A. Leonard. No. 1,137,408; Apr. 27; Gaz. vol. 213; p. 1303.
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Direction-indicator. H. F. Delmanhorst. No. 1,134,595; Apr. 6; Gaz. vol. 213; p. 187.
Direction-indicator, Automatic. N. W. Kleinman. No. 1,136,814; Apr. 20; Gaz. vol. 213; p. 1050.
Dish-washing apparatus. L. Gschwind. No. 1,135,108; Apr. 13; Gaz. vol. 213; p. 410.
Dishes or other receptacles, Machine for making butter-. E. Craig. No. 1,135,666; Apr. 13; Gaz. vol. 213; p. 605.
Disinfectant apparatus. J. H. Reamer. No. 1,136,268; Apr. 20; Gaz. vol. 213; p. 856.
Disk-record case. W. A. E. Noble. No. 1,136,256; Apr. 20; Gaz. vol. 213; p. 852.
Dispensing apparatus, Check-controlled. C. S. Batdorf. No. 1,135,252; Apr. 13; Gaz. vol. 213; p. 458.
Display-box. H. Wakdes. No. 1,136,187; Apr. 20; Gaz. vol. 213; p. 826.
Display device. S. Adler. No. 1,135,484; Apr. 13; Gaz. vol. 213; p. 539.
Display-holder. P. R. Warren. No. 1,136,453; Apr. 20; Gaz. vol. 213; p. 923.
Display-rack. T. W. Downing. No. 1,136,516; Apr. 20; Gaz. vol. 213; p. 945.
Display rack or cabinet. O. T. Romsos. No. 1,134,908; Apr. 6; Gaz. vol. 213; p. 294.
Display rack, Post-card-. E. Peterson. No. 1,134,485; Apr. 6; Gaz. vol. 213; p. 147.
Display-stand. T. C. Sheehan. No. 1,134,704; Apr. 6; Gaz. vol. 213; p. 227.
Displaying cards, Means for. B. Appleby. No. 1,136,919; Apr. 27; Gaz. vol. 213; p. 1124.
Distillation and rectification of alcoholic liquids, Continuous process for the. V. Slavíček. No. 1,136,559; Apr. 20; Gaz. vol. 213; p. 960.
Distillation of wood, Process of and apparatus for the destructive. A. Cameron. No. 1,137,255; Apr. 27; Gaz. vol. 213; p. 1246.
Distillation of zinc, Muffle for the. M. Engels. No. 1,136,519; Apr. 20; Gaz. vol. 213; p. 947.
Distribution system. E. C. Wright. No. 1,134,659; Apr. 6; Gaz. vol. 213; p. 211.
Dividers. F. W. Gregory. No. 1,137,605; Apr. 27; Gaz. vol. 213; p. 1369.
Docks, Construction of dry or graving. F. R. Harris. No. 1,134,333; Apr. 6; Gaz. vol. 213; p. 92.
Doll. F. W. Parsons. No. 1,136,482; Apr. 20; Gaz. vol. 213; p. 933.
Doll-head. H. Klagsbrünn. No. 1,135,292; Apr. 13; Gaz. vol. 213; p. 472.
Dolls or the like, Printed sheet for making up stuffed. A. L. Wheeldon. No. 1,135,746; Apr. 13; Gaz. vol. 213; p. 632.
Door and the like, Sheet-metal. A. L. Kirby. No. 1,136,238; Apr. 20; Gaz. vol. 213; p. 845.
Door catch and lock, Combined. D. Donald. No. 1,137,195; Apr. 27; Gaz. vol. 213; p. 1223.
Door-check. E. H. Shaw. No. 1,135,061; Apr. 13; Gaz. vol. 213; p. 394.
Door check and closer, Combined. J. Doro. No. 1,134,111; Apr. 6; Gaz. vol. 213; p. 10.
Door fastener, Emergency-exit-. C. B. Woodard. No. 1,136,989; Apr. 27; Gaz. vol. 213; p. 1148.
Door-hanger. C. Davidson. No. 1,136,658; Apr. 20; Gaz. vol. 213; p. 995.
Door-hanger. T. V. Plice. No. 1,134,288; Apr. 6; Gaz. vol. 213; p. 75.
Door opening and closing apparatus, Automatic. G. M. Beerbower. No. 1,134,810; Apr. 6; Gaz. vol. 213; p. 264.
Door operating and locking mechanism, Jail-. J. A. Loyster. No. 1,136,351; Apr. 20; Gaz. vol. 213; p. 885.
Door-operating device, Fluid-pressure. A. Gottschalk. No. 1,134,608; Apr. 6; Gaz. vol. 213; p. 191.
Door-operating mechanism. R. N. Flint. No. 1,134,325; Apr. 6; Gaz. vol. 213; p. 89.
Door, Sliding. J. Van Kolken. No. 1,134,781; Apr. 6; Gaz. vol. 213; p. 255.
Door-supporting clamp. A. B. Morse. No. 1,136,701; Apr. 20; Gaz. vol. 213; p. 1010.
Doors, Separator and track for sliding. A. Voigt. No. 1,136,631; Apr. 20; Gaz. vol. 213; p. 985.
Doors, steps, or the like, Pneumatic operating mechanism for. G. M. Spencer. No. 1,134,648; Apr. 6; Gaz. vol. 213; p. 206.
Doors, windows, and the like, Fastening for. T. Markham. No. 1,136,430; Apr. 20; Gaz. vol. 213; p. 915.
Dough, Mixing. J. C. Gordon. No. 1,134,329; Apr. 6; Gaz. vol. 213; p. 90.
Dough-mixing machine. J. C. Gordon. No. 1,134,328; Apr. 6; Gaz. vol. 213; p. 90.
Dough sheeting and feeding mechanism, Continuous. K. D. Loose. No. 1,134,971; Apr. 6; Gaz. vol. 213; p. 316.
Dough-sheeting mechanism, Continuous. E. E. Lawrence. No. 1,134,970; Apr. 6; Gaz. vol. 213; p. 316.
Dowel connection. R. W. Erwin. No. 1,136,111; Apr. 20; Gaz. vol. 213; p. 799.
Draft and buffing apparatus, Friction. J. H. McCormick. No. 1,136,022; Apr. 20; Gaz. vol. 213; p. 770.
Draft attachment for chimneys or stacks. J. L. Retallata, Jr. No. 1,136,914; Apr. 20; Gaz. vol. 213; p. 1086.
Draft device. P. R. Kusske. No. 1,135,116; Apr. 13; Gaz. vol. 213; p. 413.
Draft-gear attachment. H. F. Woernley. No. 1,136,079; Apr. 20; Gaz. vol. 213; p. 788.
Draft-gear, Friction. H. H. Westinghouse. No. 1,136,073; Apr. 20; Gaz. vol. 213; p. 786.
Draft-rigging. O. Anderson. No. 1,134,576; Apr. 6; Gaz. vol. 213; p. 180.
Draft-rigging, Friction. J. F. O'Connor. No. 1,136,035; Apr. 20; Gaz. vol. 213; p. 774.
Draft-rigging, Railway. J. F. O'Connor. No. 1,136,038; Apr. 20; Gaz. vol. 213; p. 775.
Drag-link device. F. H. Whitman. No. 1,135,237; Apr. 13; Gaz. vol. 213; p. 452.
Drapery-pole support. A. L. Holland. No. 1,134,535; Apr. 6; Gaz. vol. 213; p. 165.
Draw-bar attachment. E. P. Clark. No. 1,135,880; Apr. 13; Gaz. vol. 213; p. 678.

Drawer, Metallic furniture-. A. T. Weiss. No. 1,136,071; Apr. 20; Gaz. vol. 213; p. 786.
Drawer, Roller extension-. A. T. Weiss. No. 1,135,235; Apr. 13; Gaz. vol. 213; p. 452.
Drawer-slide, Reinforced extension. A. K. Loftin and C. S. Murphy. No. 1,135,704; Apr. 13; Gaz. vol. 213; p. 618.
Drawer, Tilting. E. Morris. No. 1,137,074; Apr. 27; Gaz. vol. 213; p. 1180.
Drawers, Dust-joint for. E. Morris. No. 1,137,073; Apr. 27; Gaz. vol. 213; p. 1180.
Drawers, Man's and boy's. T. M. Browning. No. 1,134,102; Apr. 6; Gaz. vol. 213; p. 7.
Drawing implement, Curve-. B. Szilard. No. 1,136,295; Apr. 20; Gaz. vol. 213; p. 866.
Dredger. A. Watkins. No. 1,134,708; Apr. 6; Gaz. vol. 213; p. 229.
Dress-shield protector. A. E. Bienstock. No. 1,137,452; Apr. 27; Gaz. vol. 213; p. 1318.
Drier: *See*—
Centrifugal drier. Sand-drier.
Clothes-drier.
Drier. D. M. Cooper. No. 1,137,306; Apr. 27; Gaz. vol. 213; p. 1265.
Dry-blast system. B. Walter. No. 1,134,568; Apr. 6; Gaz. vol. 213; p. 177.
Dry cell. E. C. Smith. No. 1,137,030; Apr. 27; Gaz. vol. 213; p. 1164.
Dry-kiln for lumber, &c. J. M. Leaver. No. 1,135,301; Apr. 13; Gaz. vol. 213; p. 475.
Dry-kiln for lumber, &c. J. M. Leaver. No. 1,135,302; Apr. 13; Gaz. vol. 213; p. 476.
Drying apparatus. G. Binder. No. 1,136,645; Apr. 20; Gaz. vol. 213; p. 990.
Drying apparatus. A. Tegoli. No. 1,135,556; Apr. 13; Gaz. vol. 213; p. 565.
Drying boards and the like. J. Vogt. No. 1,134,247; Apr. 6; Gaz. vol. 213; p. 60.
Drying-machine. J. M. Cameron. No. 1,136,933; Apr. 27; Gaz. vol. 213; p. 1128.
Drill: *See*—
Coal and rock drill. Rotary drill.
Multiple drill.
Drill-driving mechanism. H. B. Kelper. No. 1,137,330; Apr. 27; Gaz. vol. 213; p. 1274.
Drill-jars, Making well. W. A. Sparks. No. 1,134,926; Apr. 6; Gaz. vol. 213; p. 300.
Drill-lubricating device, Rotary-. H. R. Hughes. No. 1,136,134; Apr. 20; Gaz. vol. 213; p. 807.
Drilling-machine. J. M. Dellinger. No. 1,136,319; Apr. 20; Gaz. vol. 213; p. 874.
Drilling-machine. H. Wanamaker and J. McAllister. No. 1,135,475; Apr. 13; Gaz. vol. 213; p. 536.
Drilling-machine, Multiple-spindle. C. J. Wetsel. No. 1,135,974; Apr. 13; Gaz. vol. 213; p. 712.
Drinking-cup. J. G. Sharon. No. 1,134,916; Apr. 6; Gaz. vol. 213; p. 297.
Drinking-cup fountain. F. G. Partington. (Reissue.) No. 13,902; Apr. 13; Gaz. vol. 213; p. 717.
Drinking-cup, Individual. G. W. Weber. No. 1,137,039; Apr. 27; Gaz. vol. 213; p. 1167.
Drinking-cup, Sanitary. W. J. Paul. No. 1,137,018; Apr. 27; Gaz. vol. 213; p. 1160.
Drinking-fountain. R. W. E. Hayes. No. 1,135,690; Apr. 13; Gaz. vol. 213; p. 613.
Drinking-fountain or waterer for fowls. E. Blumer. No. 1,136,092; Apr. 20; Gaz. vol. 213; p. 793.
Drinking-fountain, Sanitary. F. G. Partington. No. 1,135,917; Apr. 13; Gaz. vol. 213; p. 691.
Drive, Four-wheel. E. C. Hodges. No. 1,137,140; Apr. 27; Gaz. vol. 213; p. 1204.
Drive, Four-wheel. J. L. Ware. No. 1,135,085; Apr. 13; Gaz. vol. 213; p. 402.
Drive mechanism, Differential. M. J. Kelly. No. 1,134,138; Apr. 6; Gaz. vol. 213; p. 20.
Driving and steering mechanism, Friction. W. O. Stark. No. 1,135,218; Apr. 13; Gaz. vol. 213; p. 447.
Driving-gear, Reversible. M. J. Mulhall. No. 1,134,480; Apr. 6; Gaz. vol. 213; p. 145.
Driving-gear, Variable-speed. B. W. Bronander. No. 1,135,990; Apr. 20; Gaz. vol. 213; p. 759.
Driving mechanism. L. Brown. No. 1,135,496; Apr. 13; Gaz. vol. 213; p. 543.
Driving mechanism, Compensating. B. B. Farnham. No. 1,134,187; Apr. 6; Gaz. vol. 213; p. 38.
Driving mechanism, Friction. M. L. Severy. No. 1,135,628; Apr. 13; Gaz. vol. 213; p. 591.
Drop-light winding device. C. V. Johnson. No. 1,136,533; Apr. 20; Gaz. vol. 213; p. 950.
Dulcimer-action. N. J. Winlund. No. 1,137,562; Apr. 27; Gaz. vol. 213; p. 1354.
Dust-collectors, Jarring device for. H. Lechtenberg. No. 1,135,905; Apr. 13; Gaz. vol. 213; p. 687.
Dust-guard. F. W. Caughling. No. 1,137,120; Apr. 27; Gaz. vol. 213; p. 1197.
Dust, &c., Means for preventing the escape of. A. W. Warner. No. 1,137,558; Apr. 27; Gaz. vol. 213; p. 1353.
Dust-pan. R. Haldenwang, Jr. No. 1,135,519; Apr. 13; Gaz. vol. 213; p. 551.
Dust-separator. J. Robertson. No. 1,136,836; Apr. 20; Gaz. vol. 213; p. 1058.
Dust-separator, Self-cleaning. F. Graffenberger. No. 1,136,953; Apr. 27; Gaz. vol. 213; p. 1136.
Duster, Shoe and pants. M. M. Hitt. No. 1,135,453; Apr. 13; Gaz. vol. 213; p. 529.
Dye and making same, Composition of matter containing artificial. F. Reissmann. No. 1,134,486; Apr. 6; Gaz. vol. 213; p. 147.
Dynamic-braking controller. C. T. Henderson. No. 1,134,197; Apr. 6; Gaz. vol. 213; p. 41.
Dynamometer. J. A. Randall. No. 1,134,418; Apr. 6; Gaz. vol. 213; p. 121.
Dynamometer. J. A. Randall. No. 1,136,366; Apr. 20; Gaz. vol. 213; p. 891.
Earth-handling machine. W. F. Brunt. No. 1,134,254; Apr. 6; Gaz. vol. 213; p. 63.
Earthenware, Manufacture of hollow or like. E. W. Leigh. No. 1,135,825; Apr. 13; Gaz. vol. 213; p. 660.
Easel. C. A. Agar. No. 1,134,802; Apr. 6; Gaz. vol. 213; p. 262.
Educational device. J. H. Fox. No. 1,136,663; Apr. 20; Gaz. vol. 213; p. 997.
Egg-beater. R. Washburn. No. 1,134,170; Apr. 6; Gaz. vol. 213; p. 31.
Egg-boiler. J. F. Nichols. No. 1,137,657; Apr. 27; Gaz. vol. 213; p. 1385.
Egg-carrier. G. Flesher. No. 1,134,445; Apr. 6; Gaz. vol. 213; p. 132.
Egg-carrier. W. P. King. No. 1,136,237; Apr. 20; Gaz. vol. 213; p. 844.
Egg-case. J. J. Lassalette. No. 1,136,882; Apr. 20; Gaz. vol. 213; p. 1074.
Egg-case. E. S. Wetsel. No. 1,135,564; Apr. 13; Gaz. vol. 213; p. 568.
Egg-case filler. C. P. Daly. No. 1,134,823; Apr. 6; Gaz. vol. 213; p. 268.
Egg-conveyer. W. N. Bauer. No. 1,134,807; Apr. 6; Gaz. vol. 213; p. 263.
Egg-tester. S. A. Eberle. No. 1,135,101; Apr. 13; Gaz. vol. 213; p. 407.
Egg-tester. H. Niehoff. No. 1,135,837; Apr. 13; Gaz. vol. 213; p. 665.
Egg-turning device. E. V. Anderson. No. 1,136,918; Apr. 27; Gaz. vol. 213; p. 1123.
Elbow, Flexible. J. H. Moore. No. 1,136,548; Apr. 20; Gaz. vol. 213; p. 956.
Electric apparatus, Vapor. E. Weintraub. No. 1,134,785; Apr. 6; Gaz. vol. 213; p. 257.
Electric battery. W. C. Bauer. No. 1,134,093; Apr. 6; Gaz. vol. 213; p. 4.
Electric cables to subway or junction boxes, Union for connecting. D. C. Hooker. No. 1,135,376; Apr. 13; Gaz. vol. 213; p. 500.
Electric circuits, Telltale system for. C. E. Beach. No. 1,134,435; Apr. 6; Gaz. vol. 213; p. 128.
Electric-current generator. J. M. Wilson. No. 1,136,078; Apr. 20; Gaz. vol. 213; p. 788.
Electric currents, Means for increasing the strength of. L. De Forest. No. 1,134,594; Apr. 6; Gaz. vol. 213; p. 187.
Electric currents, Solid rectifier for feeble. G. W. Pickard. No. 1,137,714; Apr. 27; Gaz. vol. 213; p. 1403.
Electric fixture. J. E. Keough. No. 1,134,954; Apr. 6; Gaz. vol. 213; p. 310.
Electric furnace. J. W. Brown. No. 1,134,817; Apr. 6; Gaz. vol. 213; p. 266.
Electric heater. W. A. Miller. No. 1,137,513; Apr. 27; Gaz. vol. 213; p. 1388.
Electric installation, Box-connector for. W. H. Vibber. No. 1,134,565; Apr. 6; Gaz. vol. 213; p. 176.
Electric-light attachment for bedsteads. C. W. Henderson. No. 1,135,523; Apr. 13; Gaz. vol. 213; p. 553.
Electric lighting. W. W. Coblentz. No. 1,135,663; Apr. 13; Gaz. vol. 213; p. 604.
Electric lines, Transposition device for. G. W. Neel. No. 1,136,433; Apr. 20; Gaz. vol. 213; p. 916.
Electric machine, Dynamo-. B. A. Behrend. No. 1,135,656; Apr. 13; Gaz. vol. 213; p. 601.
Electric machine, Dynamo-. E. B. Cutten. No. 1,136,943; Apr. 27; Gaz. vol. 213; p. 1132.
Electric machine, Dynamo-. E. Mattman. No. 1,137,510; Apr. 27; Gaz. vol. 213; p. 1337.
Electric machine, Dynamo-. M. A. Savage. No. 1,135,327; Apr. 13; Gaz. vol. 213; p. 484.
Electric machines, Oil-guard for dynamo-. J. E. Webster. No. 1,135,087; Apr. 13; Gaz. vol. 213; p. 403.
Electric machines, Regulation of dynamo-. L. L. Tatum. No. 1,134,244; Apr. 6; Gaz. vol. 213; p. 59.
Electric motor. W. Barnes, Jr. No. 1,135,093; Apr. 13; Gaz. vol. 213; p. 405.
Electric plant, Portable self-contained. W. H. Palmer, Jr. No. 1,134,222; Apr. 6; Gaz. vol. 213; p. 51.
Electric pulsations, Device for producing. J. F. Kelly. No. 1,134,137; Apr. 6; Gaz. vol. 213; p. 19.
Electric regulation. J. L. Creveling. No. 1,137,121; Apr. 27; Gaz. vol. 213; p. 1198.
Electric stations provided with accumulators, Sectioning means for. E. Brandenburg. No. 1,137,046; Apr. 27; Gaz. vol. 213; p. 1169.
Electric switch. F. P. Gates. No. 1,134,732; Apr. 6; Gaz. vol. 213; p. 237.
Electric switch. C. J. Klein. No. 1,136,240; Apr. 20; Gaz. vol. 213; p. 846.
Electric switch. C. J. Klein. No. 1,136,680; Apr. 20; Gaz. vol. 213; p. 1002.
Electric switch. A. E. G. Maage. No. 1,135,199; Apr. 13; Gaz. vol. 213; p. 441.

Electric switch. H. F. Stratton. No. 1,134,422; Apr. 6; Gaz. vol. 213; p. 123.
Electric switch. G. B. Thomas. No. 1,136,737; Apr. 20; Gaz. vol. 213; p. 1024.
Electric-switch devices, Attachment for. C. J. Klein. No. 1,136,239; Apr. 20; Gaz. vol. 213; p. 845.
Electric system, Composite. A. D. T. Libby. No. 1,137,150; Apr. 27; Gaz. vol. 213; p. 1208.
Electric system, Composite. A. D. T. Libby. No. 1,137,151; Apr. 27; Gaz. vol. 213; p. 1209.
Electric system, Composite. A. D. T. Libby. No. 1,137,152; Apr. 27; Gaz. vol. 213; p. 1209.
Electric terminal. E. Weintraub. No. 1,134,788; Apr. 6; Gaz. vol. 213; p. 258.
Electrical apparatus, Laminated core for. E. B. Cutten. No. 1,136,942; Apr. 27; Gaz. vol. 213; p. 1132.
Electrical connector or socket. J. C. Stearns. No. 1,137,295; Apr. 27; Gaz. vol. 213; p. 1262.
Electrical distribution system. A. S. Hubbard. No. 1,134,337; Apr. 6; Gaz. vol. 213; p. 93.
Electrical distribution system. J. W. Jepson. No. 1,134,338; Apr. 6; Gaz. vol. 213; p. 93.
Electrical distribution system. P. H. Thomas. No. 1,137,174; Apr. 27; Gaz. vol. 213; p. 1216.
Electrical generator, Magneto. A. L. Heizer. No. 1,135,898; Apr. 13; Gaz. vol. 213; p. 685.
Electrical heater. F. G. Cook. No. 1,134,995; Apr. 13; Gaz. vol. 213; p. 370.
Electrical plug and receptacle. W. R. Kelting. No. 1,137,634; Apr. 27; Gaz. vol. 213; p. 1379.
Electrical switch, Automatic. W. H. Hill. No. 1,134,534; Apr. 6; Gaz. vol. 213; p. 164.
Electrical transmission system. R. A. Engler. No. 1,134,983; Apr. 6; Gaz. vol. 213; p. 322.
Electricity-meter. G. A. Scheeffer. No. 1,137,027; Apr. 27; Gaz. vol. 213; p. 1163.
Electrode, Arc-light. W. R. Mott. No. 1,134,148; Apr. 6; Gaz. vol. 213; p. 23.
Electromagnet. A. R. Trezise, Sr. No. 1,134,779; Apr. 6; Gaz. vol. 213; p. 255.
Electromagnetic radiations, Receiving system for. L. De Forest. No. 1,134,593; Apr. 6; Gaz. vol. 213; p. 186.
Electromechanical controlling means for fluid-supplies. W. O. Haymond. No. 1,137,401; Apr. 27; Gaz. vol. 213; p. 1300.
Electropneumatic brake. J. W. Cloud. No. 1,134,440; Apr. 6; Gaz. vol. 213; p. 130.
Electropneumatic brake. C. N. Holcombe. No. 1,134,853; Apr. 6; Gaz. vol. 213; p. 277.
Electropneumatic brake. W. V. Turner. No. 1,136,062; Apr. 20; Gaz. vol. 213; p. 783.
Elevator: *See*—
Grain-elevator. Plunger-elevator.
Hydraulic elevator. Vehicle-elevator.
Elevator. G. F. Chapman. No. 1,136,773; Apr. 20; Gaz. vol. 213; p. 1036.
Elevator device, Safety. H. Wernigg. No. 1,135,339; Apr. 13; Gaz. vol. 213; p. 488.
Elevator-gate and gate-operating mechanism. A. E. Hager. No. 1,135,279; Apr. 13; Gaz. vol. 213; p. 467.
Elevator-hatchway safety-gate. J. C. Collier. No. 1,136,655; Apr. 20; Gaz. vol. 213; p. 994.
Elevator-position indicator. G. Harding. No. 1,135,014; Apr. 13; Gaz. vol. 213; p. 377.
Elevator safety appliance. H. Burrmann. No. 1,134,182; Apr. 6; Gaz. vol. 213; p. 36.
Elevator safety device. M. M. Beam. No. 1,134,582; Apr. 6; Gaz. vol. 213; p. 182.
Elevator safety device. T. W. Neumuth. No. 1,134,403; Apr. 6; Gaz. vol. 213; p. 116.
Elevator safety devices, Appliance for. D. L. Lindquist. No. 1,134,753; Apr. 6; Gaz. vol. 213; p. 245.
Elevator safety or emergency appliance. C. Scott and A. Sundh. No. 1,134,765; Apr. 6; Gaz. vol. 213; p. 250.
Elevator-signal. R. H. Gaylord and G. B. Capps. No. 1,134,448; Apr. 6; Gaz. vol. 213; p. 133.
Elevator-stop, Automatic. J. D. Kooyman. No. 1,136,144; Apr. 20; Gaz. vol. 213; p. 812.
Elevator-valve. S. C. Greer. No. 1,136,899; Apr. 20; Gaz. vol. 213; p. 1080.
Emblematic pin. M. Eitel. No. 1,135,781; Apr. 13; Gaz. vol. 213; p. 643.
Embossing apparatus. F. W. Reindel. No. 1,134,227; Apr. 6; Gaz. vol. 213; p. 53.
Embroidering-machine. G. Hübner. No. 1,137,623; Apr. 27; Gaz. vol. 213; p. 1374.
Embroidering-machines, Frame-actuating mechanism for. J. J. Knecht. No. 1,136,815; Apr. 20; Gaz. vol. 213; p. 1051.
Embroidering-machines, Roller-spreading device for. J. A. Groebli. No. 1,137,312; Apr. 27; Gaz. vol. 213; p. 1268.
Embroidering-machines, Tensioning device for. J. A. Groebli. No. 1,137,311; Apr. 27; Gaz. vol. 213; p. 1267.
End-cell regulator. W. L. Bliss. No. 1,135,494; Apr. 13; Gaz. vol. 213; p. 543.
End-gate. C. Larson. No. 1,134,877; Apr. 6; Gaz. vol. 213; p. 285.
End-gate. A. A. Merrill. No. 1,135,540; Apr. 13; Gaz. vol. 213; p. 559.
End-gate, Vehicle. J. A. Ramsey. No. 1,135,844; Apr. 13; Gaz. vol. 213; p. 667.
Engine: *See*—
Explosion-engine. Internal-combustion pumping-engine.
Explosive-engine. Rotary engine.
Gas-engine. Rotary internal-combustion engine.
Hydrocarbon-engine.
Internal-combustion engine.
Engine. A. Burkhardt. No. 1,137,118; Apr. 27; Gaz. vol. 213; p. 1196.
Engine-controlling device, Internal-combustion-. W. W. Brown. No. 1,137,254; Apr. 27; Gaz. vol. 213; p. 1246.
Engine-crank casing. E. R. Hewitt. No. 1,135,524; Apr. 13; Gaz. vol. 213; p. 553.
Engine-lubricating system, Explosion-. G. W. Dunham. No. 1,136,219; Apr. 20; Gaz. vol. 213; p. 838.
Engine lubricator. Steam-. J. F. Derhammer. No. 1,135,164; Apr. 13; Gaz. vol. 213; p. 429.
Engine-regulating means, Internal-combustion-. A. L. Riker. No. 1,136,368; Apr. 20; Gaz. vol. 213; p. 892.
Engine safety device, Blowing-. H. G. O'Reilly. No. 1,137,164; Apr. 27; Gaz. vol. 213; p. 1213.
Engine self-starter, Explosive-. B. F. Hutches, Jr. No. 1,134,537; Apr. 6; Gaz. vol. 213; p. 165.
Engine-starter. V. Bendix. No. 1,134,975; Apr. 6; Gaz. vol. 213; p. 318.
Engine-starter. G. G. Chute and C. A. Groat. No. 1,136,464; Apr. 20; Gaz. vol. 213; p. 926.
Engine-starter. W. S. Harley. No. 1,137,314; Apr. 27; Gaz. vol. 213; p. 1268.
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Engine-starting device, Internal-combustion-. W. D. Lutz. No. 1,136,688; Apr. 20; Gaz. vol. 213; p. 1005.
Engine with rotating piston. P. Conrady. No. 1,136,409; Apr. 20; Gaz. vol. 213; p. 907.
Engines, Admission and exhaust mechanism for. R. Guillery. No. 1,134,124; Apr. 6; Gaz. vol. 213; p. 14.
Engines, Auxiliary air-inlet for. L. H. Kirby. No. 1,134,276; Apr. 6; Gaz. vol. 213; p. 71.
Engines, Compression-space annex for internal-combustion. D. T. Brownlee, F. W. Spacke, and J. D. Lowe. No. 1,134,967; Apr. 6; Gaz. vol. 213; p. 315.
Engines, Crank connection for. R. S. Moore and J. L. Simmons. No. 1,134,545; Apr. 6; Gaz. vol. 213; p. 168.
Engines, Electrical arrangement for the control of the speed of sea-. S. Rumolino. No. 1,134,490; Apr. 6; Gaz. vol. 213; p. 149.
Engines, Fly-wheel for explosion-. W. A. Dashwood. No. 1,134,110; Apr. 6; Gaz. vol. 213; p. 9.
Engines, Fuel-feeding means for automobile-. W. Jay. No. 1,134,457; Apr. 6; Gaz. vol. 213; p. 130.
Engines, Fuel-gasifier for internal-combustion. H. F. Leissner. No. 1,136,818; Apr. 20; Gaz. vol. 213; p. 1052.
Engines, Heavy-oil-carbureting system for internal-combustion. T. E. Halliday. No. 1,137,057; Apr. 27; Gaz. vol. 213; p. 1174.
Engines, Means for delivering oil to oil-burning. R. M. Hvid. No. 1,134,858; Apr. 6; Gaz. vol. 213; p. 279.
Engines, Nozzle-area and draft regulator for locomotive-. A. Lieb. No. 1,137,007; Apr. 27; Gaz. vol. 213; p. 1178.
Engines, Oil-injection device for oil-. R. M. Hvid. No. 1,134,857; Apr. 6; Gaz. vol. 213; p. 278.
Engines, Operating internal-combustion. J. W. Pitts. No. 1,136,715; Apr. 20; Gaz. vol. 213; p. 1016.
Engines, Vapor-heater for internal-combustion. F. I. Hitchcock. No. 1,135,113; Apr. 13; Gaz. vol. 213; p. 412.
Ensilage-cutter. F. N. G. Kranich. No. 1,137,334; Apr. 27; Gaz. vol. 213; p. 1276.
Ensilage-cutting machines, Feeding device for. E. H. Scott. No. 1,136,978; Apr. 27; Gaz. vol. 213; p. 1144.
Envelop. E. F. Bergstrom. No. 1,135,429; Apr. 13; Gaz. vol. 213; p. 520.
Envelop. M. S. Elkes. No. 1,135,444; Apr. 13; Gaz. vol. 213; p. 526.
Envelop. H. G. Piel. No. 1,136,713; Apr. 20; Gaz. vol. 213; p. 1015.
Envelop. I. L. Rheutan. No. 1,136,614; Apr. 20; Gaz. vol. 213; p. 979.
Envelop. G. W. Shipley. No. 1,135,064; Apr. 13; Gaz. vol. 213; p. 395.
Envelop-feeding machine. D. G. Saunders, Jr. No. 1,136,171; Apr. 20; Gaz. vol. 213; p. 821.
Envelop holder and feeder. F. M. Spurr. No. 1,135,067; Apr. 13; Gaz. vol. 213; p. 396.
Envelop, Money-transmitting. W. P. Faulkner. No. 1,136,948; Apr. 27; Gaz. vol. 213; p. 1134.
Envelop-opener. H. D. Taylor. No. 1,137,726; Apr. 27; Gaz. vol. 213; p. 1408.
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Envelop or the like. J. L. O'Brien. No. 1,136,163; Apr. 20; Gaz. vol. 213; p. 818.
Envelop, Safety-. R. V. and J. W. Tuttle. No. 1,136,850; Apr. 20; Gaz. vol. 213; p. 1063.
Envelops, Making. N. E. Funk. No. 1,135,786; Apr. 13; Gaz. vol. 213; p. 645.
Eraser, Adjustable. J. J. Ferrari. No. 1,136,592; Apr. 20; Gaz. vol. 213; p. 972.
Eraser-holder for pencils. A. F. W. Bowen. No. 1,136,094; Apr. 20; Gaz. vol. 213; p. 794.
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Evener-coupling. G. F. Thompson. (Reissue.) No. 13,907; Apr. 27; Gaz. vol. 213; p. 1411.
Excavator. W. Stansell. No. 1,137,171; Apr. 27; Gaz. vol. 213; p. 1215.
Excavator, Drag-line. L. Roys. No. 1,135,928; Apr. 13; Gaz. vol. 213; p. 694.
Exercising apparatus for use by musicians for developing the muscles of the hand. H. Ostrovsky. No. 1,136,481; Apr. 20; Gaz. vol. 213; p. 933.
Exercising-machine. F. E. Patterson. No. 1,137,349; Apr. 27; Gaz. vol. 213; p. 1282.
Exit-lock, Panic. A. M. Kelley. No. 1,136,141; Apr. 20; Gaz. vol. 213; p. 810.
Expansion-bolt. L. R. Zifferer. No. 1,136,638; Apr. 20; Gaz. vol. 213; p. 987.
Explosion-engine. C. H. Taylor and B. B. Neuteboom. No. 1,135,074; Apr. 13; Gaz. vol. 213; p. 398.
Explosive-engine. W. W. Conners. No. 1,135,501; Apr. 13; Gaz. vol. 213; p. 545.
Explosive-engine. E. G. Plummer. No. 1,136,265; Apr. 20; Gaz. vol. 213; p. 855.
Explosives, Manufacturing. C. Hartmann. No. 1,135,792; Apr. 13; Gaz. vol. 213; p. 648.
Extensible stand or support, Self-locking. E. Levin. No. 1,136,147; Apr. 20; Gaz. vol. 213; p. 813.
Extension-table. I. Karish. No. 1,135,115; Apr. 13; Gaz. vol. 213; p. 412.
Extractor: *See*—
Tie-extractor.
Eyeglass-mountings, Cement for. W. R. Uhlemann. No. 1,137,366; Apr. 27; Gaz. vol. 213; p. 1288.
Eyeglass-stud. C. S. Steelman. No. 1,135,219; Apr. 13; Gaz. vol. 213; p. 447.
Eyeglasses, Adjustable nose-piece for. W. J. Taylor. No. 1,136,736; Apr. 20; Gaz. vol. 213; p. 1023.
Fabric: *See*—
Adhesive-coated fabric. Wire fabric.
Metal fabric. Wire link fabric.
Fabric connection. C. A. Hausen. No. 1,135,112; Apr. 13; Gaz. vol. 213; p. 411.
Fabric, Manufacturing. P. F. Vogel. No. 1,137,434; Apr. 27; Gaz. vol. 213; p. 1312.
Fabric-tearing device. W. C. Stevens. No. 1,134,293; Apr. 6; Gaz. vol. 213; p. 77.
Fabrics, Ornamenting. M. Linfoot. No. 1,137,501; Apr. 27; Gaz. vol. 213; p. 1334.
Fabrics, Process and apparatus for treating. W. W. Sibson. No. 1,137,719; Apr. 27; Gaz. vol. 213; p. 1405.
Fan. W. Sparks. No. 1,137,240; Apr. 27; Gaz. vol. 213; p. 1241.
Fan-actuating mechanism. J. H. Everitt. No. 1,134,830; Apr. 6; Gaz. vol. 213; p. 270.
Fan attachment. R. W. Walker. No. 1,134,495; Apr. 6; Gaz. vol. 213; p. 150.
Fan, Mechanical. A. F. Carlin. No. 1,135,257; Apr. 13; Gaz. vol. 213; p. 460.
Fan member, Rotatable-. F. A. Heath. No. 1,135,451; Apr. 13; Gaz. vol. 213; p. 528.
Fare-box. W. Cox. No. 1,135,260; Apr. 13; Gaz. vol. 213; p. 460.
Fare-box. W. Cox. No. 1,135,261; Apr. 13; Gaz. vol. 213; p. 461.
Fare-box. W. Cox. No. 1,135,262; Apr. 13; Gaz. vol. 213; p. 461.
Fare-box. W. Cox. No. 1,135,263; Apr. 13; Gaz. vol. 213; p. 461.
Fare-box. W. Cox. No. 1,135,264; Apr. 13; Gaz. vol. 213; p. 462.
Farm-gate. C. E. Cardwell. No. 1,135,434; Apr. 13; Gaz. vol. 213; p. 522.
Farm-gate. J. Flinner. No. 1,134,601; Apr. 6; Gaz. vol. 213; p. 189.
Farm-gate. M. A. Stickley. No. 1,136,734; Apr. 20; Gaz. vol. 213; p. 1023.
Fastener. C. A. Courtois. No. 1,135,439; Apr. 13; Gaz. vol. 213; p. 523.
Fastener-setting machine. D. N. Prime. No. 1,136,166; Apr. 20; Gaz. vol. 213; p. 819.
Fastening device for packages. E. C. Lawrence. No. 1,134,390; Apr. 6; Gaz. vol. 213; p. 112.
Fastening-inserting machine. T. Briggs. No. 1,136,095; Apr. 20; Gaz. vol. 213; p. 794.
Fastening-inserting mechanism. R. F. McFeely. No. 1,135,955; Apr. 13; Gaz. vol. 213; p. 705.
Fatty or other organic compounds, Effecting reduction of. F. C. Kayser. No. 1,134,746; Apr. 6; Gaz. vol. 213; p. 242.
Faucet. H. Luft. No. 1,135,907; Apr. 13; Gaz. vol. 213; p. 688.
Faucet. E. C. Post. No. 1,134,157; Apr. 6; Gaz. vol. 213; p. 26.
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Faucet, Mineral-. R. E. Ball. No. 1,135,345; Apr. 13; Gaz. vol. 213; p. 490.
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Feed and water dispenser, Automatic. K. and J. Woodlzka. No. 1,134,934; Apr. 6; Gaz. vol. 213; p. 303.
Feed mechanism. R. M. Vinyard. No. 1,135,868; Apr. 13; Gaz. vol. 213; p. 675.
Feed mechanism. R. L. Wilcox. No. 1,135,289; Apr. 13; Gaz. vol. 213; p. 453.
Feed-mixing machine. W. D. Nash. No. 1,134,220; Apr. 6; Gaz. vol. 213; p. 50.
Feed-rack. J. A. Murr. No. 1,137,653; Apr. 27; Gaz. vol. 213; p. 1384.
Feed-water heater. O. Fisher. No. 1,134,324; Apr. 6; Gaz. vol. 213; p. 88.
Feed-water-heater separator. J. M. Noll and F. J. Miller. No. 1,134,633; Apr. 6; Gaz. vol. 213; p. 200.
Feeder, Automatic stock-. E. J. Smith. No. 1,136,843; Apr. 20; Gaz. vol. 213; p. 1060.
Feeding device. A. Ensor. No. 1,136,322; Apr. 20; Gaz. vol. 213; p. 875.
Feeding live stock, Composition of matter to be used for. J. F. Weaver. No. 1,135,417; Apr. 13; Gaz. vol. 213; p. 516.
Feeding trough, Hog-. E. Carlson. No. 1,137,460; Apr. 27; Gaz. vol. 213; p. 1321.
Fence. J. L. Bondy. No. 1,136,999; Apr. 27; Gaz. vol. 213; p. 1153.
Fence-post and wire-fastening means therefor, Metal. H. L. Leilich and F. W. Burger. No. 1,136,471; Apr. 20; Gaz. vol. 213; p. 929.
Fence-post-making machine. E. E. McCord. No. 1,135,538; Apr. 13; Gaz. vol. 213; p. 558.
Fence-post mold, Cement-. S. D. Hoy. No. 1,134,854; Apr. 6; Gaz. vol. 213; p. 277.
Fence-stay. A. C. Benson. No. 1,136,088; Apr. 20; Gaz. vol. 213; p. 791.
Fender: *See*—
Automobile-fender. Car-fender.
Fender. C. S. Banghart. No. 1,136,642; Apr. 20; Gaz. vol. 213; p. 989.
Fender. J. W. Clickstine. No. 1,137,577; Apr. 27; Gaz. vol. 213; p. 1360.
Fender. J. F. Green and H. B. Mauck. No. 1,137,606; Apr. 27; Gaz. vol. 213; p. 1369.
Fender. W. H. Jennings. No. 1,137,627; Apr. 27; Gaz. vol. 213; p. 1376.
Fender, Automatic. F. R. Woolley, Jr. No. 1,137,563; Apr. 27; Gaz. vol. 213; p. 1355.
Ferrochromium, Producing carbon-free. H. Goldschmidt and O. Weil. No. 1,136,669; Apr. 20; Gaz. vol. 213; p. 999.
Ferrosilicon alloys of a definite composition. H. C. Harrison. No. 1,134,129; Apr. 6; Gaz. vol. 213; p. 16.
Ferrosilicon product and continuously producing the same. H. C. Harrison. No. 1,134,128; Apr. 6; Gaz. vol. 213; p. 16.
Ferrosilicon product and making the same, Crystalline. H. C. Harrison. No. 1,134,127; Apr. 6; Gaz. vol. 213; p. 16.
Fertilizer and making the same, Nitrate. A. Messerschmitt. No. 1,135,387; Apr. 13; Gaz. vol. 213; p. 505.
Fertilizer containing lime nitrogen and tankage material. F. S. Washburn. No. 1,135,639; Apr. 13; Gaz. vol. 213; p. 595.
Fertilizer, Converting meadow or swamp land into. B. Reichelt. No. 1,134,760; Apr. 6; Gaz. vol. 213; p. 248.
Fertilizer-distributer. E. L. Beezley and F. Lane. No. 1,135,492; Apr. 13; Gaz. vol. 213; p. 542.
Fertilizer-distributer. A. McWhorter. No. 1,134,688; Apr. 6; Gaz. vol. 213; p. 221.
Fibrous material, Mixing loose. G. M. Schüller. No. 1,134,163; Apr. 6; Gaz. vol. 213; p. 29.
Fibrous plants, Method and means for stripping. J. P. Cluley. No. 1,134,514; Apr. 6; Gaz. vol. 213; p. 157.
Fifth-wheel, Vehicle. W. O. Shadbolt. No. 1,136,176; Apr. 20; Gaz. vol. 213; p. 823.
Filament for audions. A. M. Nicolson. No. 1,137,275; Apr. 27; Gaz. vol. 213; p. 1254.
File-box. J. P. Hernandez. No. 1,135,282; Apr. 13; Gaz. vol. 213; p. 468.
File, Drawing-. A. H. Memmler. No. 1,135,310; Apr. 13; Gaz. vol. 213; p. 478.
File protector, Clip-. W. R. Smith. No. 1,136,729; Apr. 20; Gaz. vol. 213; p. 1021.
File, Vertical. L. H. Evans. No. 1,137,389; Apr. 27; Gaz. vol. 213; p. 1296.
Files, File-sheet for loose-leaf. C. F. McBee. No. 1,134,143; Apr. 6; Gaz. vol. 213; p. 22.
Filing appliance. E. T. Silvius. No. 1,136,177; Apr. 20; Gaz. vol. 213; p. 823.
Filing-case. R. N. Hawkins. No. 1,134,266; Apr. 6; Gaz. vol. 213; p. 67.
Filing device for tracings, maps, charts, &c. G. H. Johanson. No. 1,134,616; Apr. 6; Gaz. vol. 213; p. 194.
Filing-receptacles, Follower for. A. T. Weiss. No. 1,135,234; Apr. 13; Gaz. vol. 213; p. 451.
Film-reel. H. J. Rickon. No. 1,135,846; Apr. 13; Gaz. vol. 213; p. 668.
Film-winder. A. F. Hetherington. No. 1,136,335; Apr. 20; Gaz. vol. 213; p. 879.
Filter. C. Butters. No. 1,136,863; Apr. 20; Gaz. vol. 213; p. 1067.

Filter. M. Cole. No. 1,137,581; Apr. 27; Gaz. vol. 213; p. 1361.
Filter. W. L. Morris. No. 1,137,075; Apr. 27; Gaz. vol. 213; p. 1180.
Filter, Gasolene-. A. R. Gwynn. No. 1,137,480; Apr. 27; Gaz. vol. 213; p. 1327.
Filter, Oil-. E. P. Baum. No. 1,135,150; Apr. 13; Gaz. vol. 213; p. 426.
Filter, Water-. H. L. Kuenzli. No. 1,136,538; Apr. 20; Gaz. vol. 213; p. 952.
Filtering apparatus. A. H. Baldwin. No. 1,135,753; Apr. 13; Gaz. vol. 213; p. 634.
Filtering-cup. F. B. Clark. No. 1,137,462; Apr. 27; Gaz. vol. 213; p. 1321.
Finger-nail clipper. R. C. Miner. No. 1,135,462; Apr. 13; Gaz. vol. 213; p. 531.
Finger-nail shield. A. D. Kindred. No. 1,135,382; Apr. 13; Gaz. vol. 213; p. 503.
Fire-alarm. J. H. Owen. No. 1,135,916; Apr. 13; Gaz. vol. 213; p. 690.
Fire and water proof composition and preparing the same. J. A. Scharwath. No. 1,136,370; Apr. 20; Gaz. vol. 213; p. 893.
Fire-box. R. E. Jackson and F. E. Bell. No. 1,135,286; Apr. 13; Gaz. vol. 213; p. 469.
Fire-boxes, Combined steam and air feeder for. C. F. Gregory. No. 1,135,276; Apr. 13; Gaz. vol. 213; p. 466.
Fire-clay feeder. J. H. Meininger. No. 1,137,650; Apr. 27; Gaz. vol. 213; p. 1383.
Fire-escape. R. L. Ball. No. 1,135,248; Apr. 13; Gaz. vol. 213; p. 456.
Fire-escape. C. A. Brickel. No. 1,136,931; Apr. 27; Gaz. vol. 213; p. 1128.
Fire-escape. E. Lemons. No. 1,134,468; Apr. 6; Gaz. vol. 213; p. 140.
Fire-escape. A. A. Stinchcomb. No. 1,135,738; Apr. 13; Gaz. vol. 213; p. 629.
Fire-escape, Automatic. W. E. Payne and W. S. Eklund. No. 1,136,436; Apr. 20; Gaz. vol. 213; p. 917.
Fire-extinguisher. C. D. Allan. No. 1,134,498; Apr. 6; Gaz. vol. 213; p. 151.
Fire-extinguisher. G. B. Gallup. No. 1,137,202; Apr. 27; Gaz. vol. 213; p. 1226.
Fire-fighting tower. L. L'Heureux. No. 1,136,604; Apr. 20; Gaz. vol. 213; p. 976.
Fire-hose bridge and car-wheel replacer, Combined. C. C. Hamilton. No. 1,137,313; Apr. 27; Gaz. vol. 213; p. 1268.
Firearm. C. A. Godshalk. No. 1,137,477; Apr. 27; Gaz. vol. 213; p. 1326.
Firearm. G. S. Lewis. No. 1,136,247; Apr. 20; Gaz. vol. 213; p. 848.
Firearm. R. Rychiger. No. 1,135,722; Apr. 13; Gaz. vol. 213; p. 624.
Fireplace-lining. B. R. Williams. No. 1,136,856; Apr. 20; Gaz. vol. 213; p. 1065.
Fireproof construction. S. J. Hayde. No. 1,136,874; Apr. 20; Gaz. vol. 213; p. 1071.
Fireproof metal window-frame. E. Linck. No. 1,134,392; Apr. 6; Gaz. vol. 213; p. 112.
Fireproof partition. I. E. Gleason. No. 1,134,736; Apr. 6; Gaz. vol. 213; p. 239.
Fireproof partition. H. K. Paxson and E. J. Hedden. No. 1,137,165; Apr. 27; Gaz. vol. 213; p. 1213.
Fish, Cleaning. A. Hauber. No. 1,134,530; Apr. 6; Gaz. vol. 213; p. 163.
Fish-cleaning apparatus. A. Hauber. No. 1,134,529; Apr. 6; Gaz. vol. 213; p. 163.
Fish-cleaning machine. N. B. Anderson. No. 1,137,448; Apr. 27; Gaz. vol. 213; p. 1317.
Fish-dressing machines, Cleaning attachment for. N. B. Anderson. No. 1,137,449; Apr. 27; Gaz. vol. 213; p. 1317.
Fish-hook. W. L. C. Koch. No. 1,134,622; Apr. 6; Gaz. vol. 213; p. 196.
Fish-tail bit. H. A. Bardeen. No. 1,136,203; Apr. 20; Gaz. vol. 213; p. 833.
Fish-trap. J. Umstätter. No. 1,134,428; Apr. 6; Gaz. vol. 213; p. 125.
Fishing-reel throw-off mechanism. P. Catucci. No. 1,135,497; Apr. 13; Gaz. vol. 213; p. 544.
Flagstaff for golf-links and the like. C. Gibson. No. 1,135,372; Apr. 13; Gaz. vol. 213; p. 499.
Flange-lubricator. R. Wood. No. 1,134,363; Apr. 6; Gaz. vol. 213; p. 102.
Flap folding and sealing machine. F. B. Martin. No. 1,136,353; Apr. 20; Gaz. vol. 213; p. 886.
Flash-light, Pocket. H. H. and H. T. Hipwell. No. 1,134,977; Apr. 6; Gaz. vol. 213; p. 319.
Flask: *See*—
Molder's flask.
Flask. W. C. Bogenschutz. No. 1,134,368; Apr. 6; Gaz. vol. 213; p. 104.
Flask-filling apparatus. A. McCarte. No. 1,134,398; Apr. 6; Gaz. vol. 213; p. 114.
Flat-iron, Magnetic. J. W. Moore. No. 1,135,389; Apr. 13; Gaz. vol. 213; p. 505.
Flax-machine. C. G. Cooke. No. 1,134,671; Apr. 6; Gaz. vol. 213; p. 215.
Floor-box, Universal. W. A. Bonnell. No. 1,136,929; Apr. 27; Gaz. vol. 213; p. 1127.
Floor-covering. C. D. Armstrong. No. 1,134,578; Apr. 6; Gaz. vol. 213; p. 181.
Floor-polisher. L. A. McGrath. No. 1,136,150; Apr. 20; Gaz. vol. 213; p. 814.
Floor-scraper. W. F. Stern. No. 1,135,220; Apr. 13; Gaz. vol. 213; p. 447.
Flotation-machine. C. E. Rork. No. 1,136,485; Apr. 20; Gaz. vol. 213; p. 934.
Flour-aerating apparatus. W. M. Nissley. No. 1,134,757; Apr. 6; Gaz. vol. 213; p. 246.
Flour, Treating. W. G. Andrews. No. 1,136,501; Apr. 20; Gaz. vol. 213; p. 940.
Flour, Treating. F. D. Larabee. No. 1,136,881; Apr. 20; Gaz. vol. 213; p. 1073.
Flower-holder. A. Salari. No. 1,135,401; Apr. 13; Gaz. vol. 213; p. 509.
Flows, Means for measuring and indicating. H. Chrisman. No. 1,134,373; Apr. 6; Gaz. vol. 213; p. 106.
Flue-cleaner. C. Maier. No. 1,134,342; Apr. 6; Gaz. vol. 213; p. 95.
Fluid-compressor. E. E. Davis. No. 1,135,671; Apr. 13; Gaz. vol. 213; p. 607.
Fluid-meter. P. Gaeth. No. 1,134,604; Apr. 6; Gaz. vol. 213; p. 189.
Fluid-meter. J. W. Ledoux. No. 1,135,119; Apr. 13; Gaz. vol. 213; p. 413.
Fluid-molding press. H. M. Brookfield and S. Olsen. No. 1,137,000; Apr. 27; Gaz. vol. 213; p. 1153.
Fluid-pressure brake. W. V. Turner. No. 1,134,426; Apr. 6; Gaz. vol. 213; p. 125.
Fluid-pressure brake. W. V. Turner. No. 1,136,061; Apr. 20; Gaz. vol. 213; p. 782.
Fluid pressure or flow regulator or controller. E. L. Sage. No. 1,136,619; Apr. 20; Gaz. vol. 213; p. 981.
Flush-tank. G. T. Hanchett. No. 1,134,126; Apr. 6; Gaz. vol. 213; p. 15.
Flushing apparatus. A. J. Coburn and F. Hardie. No. 1,137,578; Apr. 27; Gaz. vol. 213; p. 1360.
Flushing device. F. W. O. Kreter. No. 1,135,028; Apr. 13; Gaz. vol. 213; p. 382.
Flushing-tank. G. Schonmeyer. No. 1,134,234; Apr. 6; Gaz. vol. 213; p. 55.
Fly-catcher. O. J. Wilkens. No. 1,137,370; Apr. 27; Gaz. vol. 213; p. 1289.
Fly-trap. A. Dunlap. No. 1,136,414; Apr. 20; Gaz. vol. 213; p. 909.
Fly-trap, Collapsible. C. W. Von Dorn. No. 1,136,452; Apr. 20; Gaz. vol. 213; p. 922.
Fly-trap, Knockdown. A. E. Chapman. No. 1,136,210; Apr. 20; Gaz. vol. 213; p. 835.
Flying-machine. H. C. Gammeter. No. 1,135,009; Apr. 13; Gaz. vol. 213; p. 375.
Flying-machine. W. S. Isham. No. 1,135,455; Apr. 13; Gaz. vol. 213; p. 529.
Flying-machine. M. F. J. L. Jumeau. No. 1,135,191; Apr. 13; Gaz. vol. 213; p. 438.
Flying-machine. H. Reiche. No. 1,137,533; Apr. 27; Gaz. vol. 213; p. 1345.
Flying-machine. G. Vorndran. No. 1,135,638; Apr. 13; Gaz. vol. 213; p. 595.
Flying-machine. C. C. Worthington. No. 1,135,242; Apr. 13; Gaz. vol. 213; p. 454.
Flying-machine, Aeroplane. J. H. Ostrander. No. 1,135,131; Apr. 13; Gaz. vol. 213; p. 418.
Flying-machine, Heavier-than-air. C. B. Nichols. No. 1,134,756; Apr. 6; Gaz. vol. 213; p. 246.
Fog-signal for vessels. F. E. Pernot. No. 1,134,554; Apr. 6; Gaz. vol. 213; p. 172.
Foil package for tobacco and other substances. J. Peterson. No. 1,137,280; Apr. 27; Gaz. vol. 213; p. 1256.
Foil sheet, Composite. J. Peterson. No. 1,137,278; Apr. 27; Gaz. vol. 213; p. 1255.
Foldable box. J. H. Carter. No. 1,136,099; Apr. 20; Gaz. vol. 213; p. 795.
Folding box. P. R. Warren. No. 1,136,454; Apr. 20; Gaz. vol. 213; p. 923.
Folding box. G. Wedoo. No. 1,134,783; Apr. 6; Gaz. vol. 213; p. 256.
Folding chair. B. A. Adler. No. 1,135,647; Apr. 13; Gaz. vol. 213; p. 598.
Folding table. H. L. Haskell. No. 1,136,129; Apr. 20; Gaz. vol. 213; p. 806.
Food product. J. J. Burchenal. No. 1,135,351; Apr. 13; Gaz. vol. 213; p. 492.
Food product. J. J. Burchenal. No. 1,135,935; Apr. 13; Gaz. vol. 213; p. 696.
Force-feed lubricator. C. C. Wakefield. No. 1,134,566; Apr. 6; Gaz. vol. 213; p. 176.
Force-feed lubricator and governor for rotatable spindles. E. C. Wood. No. 1,134,714; Apr. 6; Gaz. vol. 213; p. 231.
Forgery detection. H. M. Pilkington. No. 1,135,919; Apr. 13; Gaz. vol. 213; p. 691.
Forging bucket-wheels, Process and apparatus for. F. S. White. No. 1,137,440; Apr. 27; Gaz. vol. 213; p. 1314.
Fork: *See*—
Potato-fork.
Form, Garment-. E. Levin. No. 1,136,148; Apr. 20; Gaz. vol. 213; p. 813.
Form, Mechanically-operated dress-. L. F. C. Haas and E. Jeheber. No. 1,134,844; Apr. 6; Gaz. vol. 213; p. 274.
Foundry-cupola. G. M. Klug. No. 1,135,025; Apr. 13; Gaz. vol. 213; p. 381.
Foundry molding-machine. W. D. Oddy. No. 1,137,658; Apr. 27; Gaz. vol. 213; p. 1386.

Fountain: *See*—
Drinking-fountain.
Drinking-cup fountain.
Water-fountain.
Frame: *See*—
Fireproof metal window-frame.
Screen-frame.
Transit-frame.
Umbrella-frame.
Vehicle-frame.
Window-frame.
Fringe-knotting machine. W. E. Brassell. No. 1,134,721; Apr. 6; Gaz. vol. 213; p. 233.
Front-registering mechanism. F. L. Cross. No. 1,134,822; Apr. 6; Gaz. vol. 213; p. 267.
Frozen confection and making the same. A. Toca. No. 1,134,777; Apr. 6; Gaz. vol. 213; p. 254.
Fruit-gatherer. P. H. Lint. No. 1,136,249; Apr. 20; Gaz. vol. 213; p. 849.
Fruit-gathering bag. C. A. Carpenter. No. 1,137,303; Apr. 27; Gaz. vol. 213; p. 1264.
Fruit in cans, Machine for syruping. E. J. Engelhardt. No. 1,135,102; Apr. 13; Gaz. vol. 213; p. 408.
Fruit-picker. J. Bolton. No. 1,134,099; Apr. 6; Gaz. vol. 213; p. 6.
Fruit-picker. J. L. Hawkins. No. 1,134,849; Apr. 6; Gaz. vol. 213; p. 275.
Fruit-picker. A. W. Johnson. No. 1,134,862; Apr. 6; Gaz. vol. 213; p. 280.
Fruit-pitting machine. O. Colborne and D. W. Smith. No. 1,136,509; Apr. 20; Gaz. vol. 213; p. 943.
Fuel carried by a locomotive-tender, Means for determining the weight of. L. S. Watres. No. 1,136,633; Apr. 20; Gaz. vol. 213; p. 985.
Fuel carried by a locomotive-tender, Means for determining the weight of. L. S. Watres. No. 1,136,634; Apr. 20; Gaz. vol. 213; p. 986.
Fuel-saving device. W. C. Blaske. No. 1,134,943; Apr. 6; Gaz. vol. 213; p. 306.
Furnace: *See*—
Boiler-furnace.
Electric furnace.
Gas-furnace.
Glass-furnace.
Heating-furnace.
Liquid and solid fuel furnace.
Melting-furnace.
Metallurgical furnace.
Smelting-furnace.
Smoke-consuming furnace.
Vapor-burner furnace.
Zinc-producing furnace.
Furnace. J. G. Engelhart. No. 1,135,169; Apr. 13; Gaz. vol. 213; p. 431.
Furnace. W. N. Furthmann. No. 1,135,678; Apr. 13; Gaz. vol. 213; p. 609.
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Furnace. J. Pomeroy. No. 1,137,420; Apr. 27; Gaz. vol. 213; p. 1307.
Furnace. E. J. Sampson. No. 1,135,723; Apr. 13; Gaz. vol. 213; p. 625.
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Furnace-grate-feeding device. G. H. Thacher, Jr. No. 1,134,167; Apr. 6; Gaz. vol. 213; p. 30.
Furnaces, Air-feed for. E. Winans. No. 1,134,793; Apr. 6; Gaz. vol. 213; p. 259.
Furnaces, Apparatus for feeding lime to blast-. J. G. Morgan. No. 1,137,415; Apr. 27; Gaz. vol. 213; p. 1306.
Furances, Ash-receptacle for. A. B. Meyer. No. 1,137,158; Apr. 27; Gaz. vol. 213; p. 1211.
Furnaces, Fire-bridge for boiler or the like. G. H. Butterworth and R. Canlin. No. 1,137,048; Apr. 27; Gaz. vol. 213; p. 1171.
Furnaces, Fuel-feeding mechanism for. C. I. Filson. No. 1,134,600; Apr. 6; Gaz. vol. 213; p. 188.
Furnaces, Smoke-consuming apparatus for boiler-. F. Gareau. No. 1,135,275; Apr. 13; Gaz. vol. 213; p. 466.
Furniture. A. J. Davis. No. 1,135,162; Apr. 13; Gaz. vol. 213; p. 429.
Furniture, Construction of. T. Kasanszky and S. Bernstein. No. 1,136,811; Apr. 20; Gaz. vol. 213; p. 1049.
Furniture-polish. S. Waters. No. 1,136,742; Apr. 20; Gaz. vol. 213; p. 1025.
Furniture, Shelf-section for metallic. A. T. Weiss. No. 1,135,233; Apr. 13; Gaz. vol. 213; p. 451.
Fuse, Cartridge-. W. T. Garlitz and W. R. Gardner. No. 1,135,010; Apr. 13; Gaz. vol. 213; p. 376.
Fuse device. E. O. Schweitzer and N. J. Conrad. No. 1,135,548; Apr. 13; Gaz. vol. 213; p. 561.
Gage: *See*—
Carpenter's gage.
Shingling-gage.
Surface-gage.
Tire-gage.
Gage. L. B. Tillery. No. 1,134,297; Apr. 6; Gaz. vol. 213; p. 78.
Gage-glass. W. J. and J. H. Hanlon. No. 1,136,468; Apr. 20; Gaz. vol. 213; p. 928.
Galvanizing-pot scraper. J. A. Hanlon. No. 1,136,522; Apr. 20; Gaz. vol. 213; p. 947.
Galvanizing-pots, Transfer apparatus for. J. A. Hanlon. No. 1,136,523; Apr. 20; Gaz. vol. 213; p. 948.
Game. M. A. Audsley. No. 1,134,579; Apr. 6; Gaz. vol. 213; p. 181.
Game. J. H. Corning. No. 1,136,106; Apr. 20; Gaz. vol. 213; p. 798.
Game. G. B. Smith. No. 1,134,922; Apr. 6; Gaz. vol. 213; p. 299.
Game apparatus. A. J. Kempien. No. 1,136,345; Apr. 20; Gaz. vol. 213; p. 883.
Game apparatus. H. C. Osborn. No. 1,136,708; Apr. 20; Gaz. vol. 213; p. 1018.
Game apparatus, Base-ball-. O. J. Streetz. No. 1,135,333; Apr. 13; Gaz. vol. 213; p. 486.
Game-board. L. H. Nelson. No. 1,136,552; Apr. 20; Gaz. vol. 213; p. 957.
Game-board. J. L. Snider. No. 1,134,646; Apr. 6; Gaz. vol. 213; p. 206.
Game-board. F. Wagner. No. 1,135,229; Apr. 13; Gaz. vol. 213; p. 450.
Game device. W. C. and C. R. Martineau. No. 1,136,153; Apr. 20; Gaz. vol. 213; p. 815.
Game of golf or like ball games, Optical instrument for use in playing the. C. T. Ramsay. No. 1,135,921; Apr. 13; Gaz. vol. 213; p. 692.
Game or toy. J. J. and J. K. Sonsikowski. No. 1,136,625; Apr 20; Gaz. vol. 213; p. 983.
Gang-plank. W. D. McCormick. No. 1,137,645; Apr. 27; Gaz. vol. 213; p. 1382.
Gangway. C. A. Norman. No. 1,137,276; Apr. 27; Gaz. vol. 213; p. 1254.
Garbage and other receptacle stand. C. F. Schell. No. 1,137,355; Apr. 27; Gaz. vol. 213; p. 1284.
Garbage-can. J. A. Jones. No. 1,135,810; Apr. 13; Gaz. vol. 213; p. 654.
Garbage-incinerating process and apparatus. W. M. Carr. No. 1,134,512; Apr. 6; Gaz. vol. 213; p. 157.
Garbage-receptacle. H. H. Jones. No. 1,136,235; Apr. 20; Gaz. vol. 213; p. 844.
Garment. R. E. Lowe. No. 1,136,822; Apr. 20; Gaz. vol. 213; p. 1054.
Garment. F. L. McMullen. No. 1,135,459; Apr. 13; Gaz. vol. 213; p. 530.
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Garment-closure. O. Weingarten. No. 1,137,437; Apr. 27; Gaz. vol. 213; p. 1313.
Garment-fastening device. J. Lieberman, A. Friedman, and B. Rose. No. 1,137,499; Apr. 27; Gaz. vol. 213; p. 1333.
Garment-shield. E. C. Kuebler. No. 1,136,242; Apr. 20; Gaz. vol. 213; p. 847.
Garment-stretcher. L. N. Salisbury. No. 1,137,426; Apr. 27; Gaz. vol. 213; p. 1310.
Garments by wholesale, Cutting and assembling. F. A. Platz. No. 1,136,048; Apr. 20; Gaz. vol. 213; p. 778.
Gas and producing coke, Oven for generating. H. Koppers. No. 1,134,683; Apr. 6; Gaz. vol. 213; p. 219.
Gas-burner. E. W. Evans. No. 1,134,114; Apr. 6; Gaz. vol. 213; p. 11.
Gas-burner. G. W. Graves. No. 1,134,122; Apr. 6; Gaz. vol. 213; p. 13.
Gas-burner. L. D. Lovekin. No. 1,134,628; Apr. 6; Gaz. vol. 213; p. 198.
Gas-burner. F. Oudeville. No. 1,135,840; Apr. 13; Gaz. vol. 213; p. 666.
Gas-burner. B. R. Parrott. No. 1,135,047; Apr. 13; Gaz. vol. 213; p. 390.
Gas-burner-lighting device. G. H. Schaetzel. No. 1,134,350; Apr. 6; Gaz. vol. 213; p. 98.
Gas burner, Oil-. W. Mitchell. No. 1,136,886; Apr. 20; Gaz. vol. 213; p. 1075.
Gas-burner, Safety. G. F. Herrmann. No. 1,135,283; Apr. 13; Gaz. vol. 213; p. 468.
Gas-burners, Automatic cut-off for. V. Abbate. No. 1,136,202; Apr. 20; Gaz. vol. 213; p. 832.
Gas-engine. F. C. Avery. No. 1,135,650; Apr. 13; Gaz. vol. 213; p. 599.
Gas-engine. H. B. Embler. No. 1,135,884; Apr. 13; Gaz. vol. 213; p. 680.
Gas-engine. E. Huber. No. 1,135,021; Apr. 13; Gaz. vol. 213; p. 380.
Gas-engine. A. Winton. No. 1,134,794; Apr. 6; Gaz. vol. 213; p. 260.
Gas-engine. A. Winton. No. 1,134,795; Apr. 6; Gaz. vol. 213; p. 260.
Gas-furnace and connections for parts thereof. L. H. Freymuth. No. 1,135,006; Apr. 13; Gaz. vol. 213; p. 374.
Gas generator, Acetylene-. G. M. Ellis. No. 1,135,002; Apr. 13; Gaz. vol. 213; p. 373.
Gas generators, Means for controlling the air-supply to water-. L. C. Loewenstein. No. 1,134,754; Apr. 6; Gaz. vol. 213; p. 245.
Gas-heater. T. J. McCarthy. No. 1,137,011; Apr. 27; Gaz. vol. 213; p. 1158.
Gas-motor. S. Wigelius. No. 1,135,418; Apr. 13; Gaz. vol. 213; p. 516.
Gas, Process and apparatus for compressing, drying, and transferring chlorin. J. W. Aylsworth. No. 1,134,432; Apr. 6; Gaz. vol. 213; p. 127.
Gas-producer, Portable. F. Balassa. No. 1,134,580; Apr. 6; Gaz. vol. 213; p. 181.
Gases, Process and apparatus for producing chemical actions in. C. S. Bradley. No. 1,134,583; Apr. 6; Gaz. vol. 213; p. 182.
Gaseous fuels, Calorimetry of. H. F. Smith. No. 1,134,768; Apr. 6; Gaz. vol. 213; p. 251.
Gasolene-tank attachment. E. B. Hughson. No. 1,135,900; Apr. 13; Gaz. vol. 213; p. 686.
Gate: *See*—
Crossing-gate.
Elevator-gate.
End-gate.
Farm-gate.
Head-gate.
Railway-gate.
Water-gate.

Gate. G. Mock. No. 1,136,157; Apr. 20; Gaz. vol. 213; p. 816.
Gate-closer, Spring-actuated. H. E. Robleson. No. 1,135,324; Apr. 13; Gaz. vol. 213; p. 483.
Gate-fastening. F. B. Clapcott. No. 1,136,102; Apr. 20; Gaz. vol. 213; p. 796.
Gate for locks, weirs, and the like. C. Bonzanigo. No. 1,136,765; Apr. 20; Gaz. vol. 213; p. 1033.
Gate-operating attachment. J. N. Tidd. No. 1,134,563; Apr. 6; Gaz. vol. 213; p. 176.
Gear-cutting machine. H. D. Williams. No. 1,134,711; Apr. 6; Gaz. vol. 213; p. 230.
Gear for controlling electrically and by hand devices placed at a distance, Double. V. Locarni. No. 1,135,596; Apr. 13; Gaz. vol. 213; p. 579.
Gear set, Six-speed combination. I. D. Spangler. No. 1,137,547; Apr. 27; Gaz. vol. 213; p. 1349.
Gear, Transmission-. A. Johnston. No. 1,136,342; Apr. 20; Gaz. vol. 213; p. 882.
Gearing. A. Bailey. No. 1,136,392; Apr. 20; Gaz. vol. 213; p. 901.
Gearing. W. B. Lane. No. 1,134,541; Apr. 6; Gaz. vol. 213; p. 166.
Gearing. W. A. Salter. No. 1,137,026; Apr. 27; Gaz. vol. 213; p. 1163.
Gearing. G. F. Geb. No. 1,134,733; Apr. 6; Gaz. vol. 213; p. 238.
Gearing. F. E. Ten Eyck. No. 1,134,358; Apr. 6; Gaz. vol. 213; p. 100.
Gearing. R. B. Weaver. No. 1,136,069; Apr. 20; Gaz. vol. 213; p. 785.
Gearing, Change-speed. C. B. King. No. 1,134,681; Apr. 6; Gaz. vol. 213; p. 218.
Gearing, Compensating. J. F. and E. B. Blakey. No. 1,134,665; Apr. 6; Gaz. vol. 213; p. 213.
Gearing for ensilage-machines. N. M. Brown. No. 1,136,650; Apr. 20; Gaz. vol. 213; p. 992.
Gearing for motor-vehicles, Driving-. R. E. Twyford. No. 1,136,382; Apr. 20; Gaz. vol. 213; p. 897.
Gearing for traction-engines, Detachable. G. H. Wilson. No. 1,136,302; Apr. 20; Gaz. vol. 213; p. 868.
Gearing, Frictional variable-speed. J. C. Martins. No. 1,136,690; Apr. 20; Gaz. vol. 213; p. 1006.
Gearing, Reduction-. G. Westinghouse. No. 1,136,072; Apr. 20; Gaz. vol. 213; p. 786.
Gearing, Reduction-. G. Westinghouse. No. 1,136,189; Apr. 20; Gaz. vol. 213; p. 827.
Gearing, Transmission-. L. J. Campbell. No. 1,135,354; Apr. 13; Gaz. vol. 213; p. 493.
Gearing, Transmission-. L. E. Cryder. No. 1,137,703; Apr. 27; Gaz. vol. 213; p. 1399.
Gearing, Transmission-. W. S. Harley. No. 1,137,134; Apr. 27; Gaz. vol. 213; p. 1203.
Gearing, Transmission-. R. H. Hemphill. No. 1,134,385; Apr. 6; Gaz. vol. 213; p. 110.
Gearing, Variable-speed. P. D. Smith. No. 1,134,769; Apr. 6; Gaz. vol. 213; p. 251.
Gem-setting machine. H. E. Grabau. No. 1,135,576; Apr. 13; Gaz. vol. 213; p. 572.
Generator: *See*—
Electric-current generator. Hydrocarbon-generator.
Electrical generator. Steam-generator.
Gas-generator.
Glass: *See*—
Gage-glass.
Glass and making same. H. M. Brookfield. No. 1,136,504; Apr. 20; Gaz. vol. 213; p. 941.
Glass and marble smoother, rounder, and beveler, Plate-. G. R. Teschel. No. 1,136,296; Apr. 20; Gaz. vol. 213; p. 866.
Glass articles, Process and apparatus for treating pressed. H. A. Heupel. No. 1,134,200; Apr. 6; Gaz. vol. 213; p. 42.
Glass-blowing machine. B. D. Chamberlin. No. 1,137,304; Apr. 27; Gaz. vol. 213; p. 1265.
Glass-cutter. L. P. Smith. No. 1,134,292; Apr. 6; Gaz. vol. 213; p. 76.
Glass-cutter, Magazine. F. R. Woodward. No. 1,134,307; Apr. 6; Gaz. vol. 213; p. 82.
Glass, Drawing. R. S. Pease. No. 1,136,362; Apr. 20; Gaz. vol. 213; p. 890.
Glass-drawing apparatus. E. Gueliff, L. S. Dunn, and V. Thenis. No. 1,134,192; Apr. 6; Gaz. vol. 213; p. 39.
Glass-drawing apparatus, Sheet-. L. J. Krebs. No. 1,136,816; Apr. 20; Gaz. vol. 213; p. 1051.
Glass-furnace. E. Miller. No. 1,135,973; Apr. 13; Gaz. vol. 213; p. 712.
Glass-glazing machine. H. C. Watson. No. 1,135,640; Apr. 13; Gaz. vol. 213; p. 595.
Glass-grinding apparatus, Supplying abrasive to. W. J. Golightly. No. 1,136,328; Apr. 20; Gaz. vol. 213; p. 877.
Glass-making machine and method, Wire-. N. Franzen. No. 1,135,937; Apr. 13; Gaz. vol. 213; p. 697.
Glass-making machine, Wire-. N. Franzen. No. 1,135,370; Apr. 13; Gaz. vol. 213; p. 499.
Glass, Making wire-. N. Franzen. No. 1,135,371; Apr. 13; Gaz. vol. 213; p. 499.
Glass, Producing drawn sheet-. S. H. Stupakoff. No. 1,136,290; Apr. 20; Gaz. vol. 213; p. 864.
Glass-shearing apparatus. C. M. Schaub. No. 1,134,763; Apr. 6; Gaz. vol. 213; p. 249.
Glass-washer. H. H. Krone, M. Rubenstein, and J. Rubinstien. No. 1,134,957; Apr. 6; Gaz. vol. 213; p. 311.
Glass-working apparatus. C. Paquet. No. 1,136,832; Apr. 20; Gaz. vol. 213; p. 1057.
Glazier's point-setter. T. C. Hartley. No. 1,134,334; Apr. 6; Gaz. vol. 213; p. 92.
Glove or gauntlet. D. M. Wirth. No. 1,135,747; Apr. 13; Gaz. vol. 213; p. 633.
Glove, Reversible. C. E. and R. G. Chaddock and G. A. Kurz. No. 1,136,587; Apr. 20; Gaz. vol. 213; p. 970.
Glue or like pot. W. Rice. No. 1,135,466; Apr. 13; Gaz. vol. 213; p. 532.
Goggles. W. G. King. No. 1,137,494; Apr. 27; Gaz. vol. 213; p. 1332.
Golf and like club. D. and K. Roberts. No. 1,135,621; Apr. 13; Gaz. vol. 213; p. 589.
Golf-ball-marking device. M. H. Dean. No. 1,135,995; Apr. 20; Gaz. vol. 213; p. 761.
Golf caddie-bags and the like, Stand for. G. G. Parnall. No. 1,135,464; Apr. 13; Gaz. vol. 213; p. 532.
Golf-club, Adjustable. W. F. Breitenbaugh. No. 1,137,457; Apr. 27; Gaz. vol. 213; p. 1320.
Golf, putting, and other games, Device for playing and practising. D. Maher. No. 1,135,706; Apr. 13; Gaz. vol. 213; p. 618.
Gopher-trap. A. Schreck. No. 1,135,626; Apr. 13; Gaz. vol. 213; p. 590.
Governing means for engines. F. Hodgkinson. No. 1,136,910; Apr. 20; Gaz. vol. 213; p. 1084.
Governing mechanism, Automatic. R. H. Rice. No. 1,134,761; Apr. 6; Gaz. vol. 213; p. 248.
Governor, Centrifugal. G. A. Schacht. No. 1,135,054; Apr. 13; Gaz. vol. 213; p. 392.
Governor, Engine-. C. Balough. No. 1,137,110; Apr. 27; Gaz. vol. 213; p. 1193.
Governor for engines, Adjustable. E. Craft. No. 1,136,940; Apr. 27; Gaz. vol. 213; p. 1131.
Gradometer. W. J. Spaulding. No. 1,136,731; Apr. 20; Gaz. vol. 213; p. 1022.
Grain-carriers, Draft appliance for self-loading. J. E. Moscrip. No. 1,135,835; Apr. 13; Gaz. vol. 213; p. 664.
Grain-elevator, Portable. H. W. Steege. No. 1,135,735; Apr. 13; Gaz. vol. 213; p. 629.
Grain-grinding machine. W. F. and G. J. Moore. No. 1,135,313; Apr. 13; Gaz. vol. 213; p. 479.
Grain-rake. H. Monroe, Jr. No. 1,135,831; Apr. 13; Gaz. vol. 213; p. 663.
Grain-saving device. B. G. Nelson. No. 1,135,542; Apr. 13; Gaz. vol. 213; p. 559.
Grain-shocker. D. Dorn. No. 1,135,366; Apr. 13; Gaz. vol. 213; p. 497.
Grain-shocker. P. C. Kuhl. No. 1,134,465; Apr. 6; Gaz. vol. 213; p. 139.
Grain-separator. C. W. Peters. No. 1,136,973; Apr. 27; Gaz. vol. 213; p. 1142.
Grape-pomace heater. J. O. Schlotterbeck. No. 1,134,913; Apr. 6; Gaz. vol. 213; p. 296.
Graphic recorder. H. Feltermayer and C. B. Thwing. No. 1,137,596; Apr. 27; Gaz. vol. 213; p. 1365.
Graphite and composition thereof, Expanded. J. W. Aylesworth. No. 1,137,373; Apr. 27; Gaz. vol. 213; p. 1290.
Grass-catcher. W. Boss. No. 1,136,207; Apr. 20; Gaz. vol. 213; p. 834.
Grass-catcher. L. J. Riddle. No. 1,134,489; Apr. 6; Gaz. vol. 213; p. 148.
Grate for burning fine fuel. W. McClave. No. 1,134,883; Apr. 6; Gaz. vol. 213; p. 287.
Grate mechanism, Chain-. P. L. Crowe and A. Frankenheim. No. 1,136,941; Apr. 27; Gaz. vol. 213; p. 1131.
Gravel and the like, Separator for removing vegetable growths and coarse material from. H. N. Potter. No. 1,134,555; Apr. 6; Gaz. vol. 213; p. 173.
Grinder, Stay-. U. Murtera. No. 1,135,711; Apr. 13; Gaz. vol. 213; p. 620.
Grinding and polishing machine. J. C. Blevney. No. 1,134,508; Apr. 6; Gaz. vol. 213; p. 155.
Grinding and polishing machine. A. C. Boyle, Jr. No. 1,134,944; Apr. 6; Gaz. vol. 213; p. 307.
Grinding-machine. T. S. McGuire. No. 1,137,647; Apr. 27; Gaz. vol. 213; p. 1382.
Grinding-machine belt-tightener. W. S. Thomson. No. 1,137,033; Apr. 27; Gaz. vol. 213; p. 1165.
Grinding-mill. F. T. H. Goodwin. No. 1,134,842; Apr. 6; Gaz. vol. 213; p. 273.
Grinding-mill. E. F. McCool. No. 1,137,224; Apr. 27; Gaz. vol. 213; p. 1235.
Grinding-mill. R. M. Willson. No. 1,137,685; Apr. 27; Gaz. vol. 213; p. 1394.
Grip device, Intermittent-. O. E. Loomis. No. 1,136,821; Apr. 20; Gaz. vol. 213; p. 1053.
Gripper. O. Ashton. No. 1,137,566; Apr. 27; Gaz. vol. 213; p. 1356.
Grizzly, Revolving. R. C. Newhouse. No. 1,135,606; Apr. 13; Gaz. vol. 213; p. 583.
Gromet-inserting machine. J. C. Blevney. No. 1,134,507; Apr. 6; Gaz. vol. 213; p. 154.
Ground-clamp. W. H. Price. No. 1,135,717; Apr. 13; Gaz. vol. 213; p. 623.
Grubber. J. M. Siders. No. 1,134,920; Apr. 6; Gaz. vol. 213; p. 298.
Guard. T. B. Harris. No. 1,136,601; Apr. 20; Gaz. vol. 213; p. 975.
Gum, Composition for chewing-. M. M. Raub. No. 1,136,613; Apr. 20; Gaz. vol. 213; p. 979.

Gun, Automatic. A. Miclaus, Jr. No. 1,136,695; Apr. 20; Gaz. vol. 213; p. 1008.
Gun-barrel-locking device. W. O. Barnes. No. 1,137,045; Apr. 27; Gaz. vol. 213; p. 1169.
Gun, Spring air-. C. F. Lefever. No. 1,136,470; Apr. 20; Gaz. vol. 213; p. 929.
Guns, Device for replacing and adjusting coils in field-. J. Smith. No. 1,136,728; Apr. 20; Gaz. vol. 213; p. 1021.
Gyro-compass. H. Usener. No. 1,136,566; Apr. 20; Gaz. vol. 213; p. 963.
Gyroscope. J. Gardner. No. 1,136,666; Apr. 20; Gaz. vol. 213; p. 997.
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Hair-holder. C. Wenzlick. No. 1,135,745; Apr. 13; Gaz. vol. 213; p. 632.
Hair-pin. P. J. Decker. No. 1,135,672; Apr. 13; Gaz. vol. 213; p. 608.
Hair-pin. J. B. Ladd. No. 1,137,147; Apr. 27; Gaz. vol. 213; p. 1207.
Halter. N. D. Mertz. No. 1,136,693; Apr. 20; Gaz. vol. 213; p. 1007.
Hammer, Claw-. G. W. Renton. No. 1,137,663; Apr. 27; Gaz. vol. 213; p. 1387.
Hammer, Magazine-. H. A. Faulkner. No. 1,135,784; Apr. 13; Gaz. vol. 213; p. 644.
Hammock. S. W. Wagner. No. 1,136,986; Apr. 27; Gaz. vol. 213; p. 1147.
Hand-bag, Folding. N. Bushwick. No. 1,137,047; Apr. 27; Gaz. vol. 213; p. 1170.
Hand-washer. E. W. Salkeld. No. 1,135,402; Apr. 13; Gaz. vol. 213; p. 510.
Handle: *See*—
Package-carrying handle. Stove-handle.
Satchel and like handle.
Handle-lock. A. C. Will. No. 1,134,792; Apr. 6; Gaz. vol. 213; p. 259.
Hanger: *See*—
Car-door hanger. Pipe and cable hanger.
Door-hanger. Shade-hanger.
Harness-hanger. Shock-absorber hanger.
Pipe-hanger.
Hardening apparatus. F. Schönemann. No. 1,137,293; Apr. 27; Gaz. vol. 213; p. 1261.
Harness. A. F. Crowell. No. 1,136,894; Apr. 20; Gaz. vol. 213; p. 1078.
Harness-hanger. R. R. Stafford. No. 1,136,286; Apr. 20; Gaz. vol. 213; p. 862.
Harp. W. I. Kirk. No. 1,134,207; Apr. 6; Gaz. vol. 213; p. 45.
Harrow. F. T. F. Evans. No. 1,136,661; Apr. 20; Gaz. vol. 213; p. 996.
Harrow. S. J. McCall. No. 1,137,644; Apr. 27; Gaz. vol. 213; p. 1382.
Harrow. E. Olson. No. 1,136,043; Apr. 20; Gaz. vol. 213; p. 777.
Harrow. M. J. Richard. No. 1,134,639; Apr. 6; Gaz. vol. 213; p. 204.
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Harrow. C. E. White. No. 1,134,654; Apr. 6; Gaz. vol. 213; p. 209.
Harrow, Disk. C. A. Farnham. No. 1,135,508; Apr. 13; Gaz. vol. 213; p. 548.
Harrow, Flexible disk. M. S. Farmer. No. 1,136,908; Apr. 20; Gaz. vol. 213; p. 1084.
Harrow-tooth clip. T. M. Fine and L. Burnam. No. 1,134,832; Apr. 6; Gaz. vol. 213; p. 270.
Harvester. S. Harris. No. 1,136,798; Apr. 20; Gaz. vol. 213; p. 1044.
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Harvester and husker, Corn. B. C. Small. No. 1,136,[illegible]; Apr. 20; Gaz. vol. 213; p. 983.
Harvester, Beet-. W. G. Ackerman. No. 1,136,858; Apr. 20; Gaz. vol. 213; p. 1065.
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Harvester, Corn-. C. M. Alt. No. 1,134,575; Apr. 6; Gaz. vol. 213; p. 180.
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Harvester, Cotton-. W. J. Shaffer. No. 1,137,545; Apr. 27; Gaz. vol. 213; p. 1349.
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Harvesting device, Hand. L. T. Burnham. No. 1,135,569; Apr. 13; Gaz. vol. 213; p. 570.
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Hat-drying apparatus. W. F. Chiniquy and W. O. Winch. No. 1,134,669; Apr. 6; Gaz. vol. 213; p. 214.
Hat-fastener. M. Huempfner. No. 1,136,530; Apr. 20; Gaz. vol. 213; p. 950.
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Hat-pin-point protector. J. Monjo. No. 1,134,401; Apr. 6; Gaz. vol. 213; p. 116.
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Hay-fork carriers, Hay-track for. D. J. Delaney. No. 1,135,773; Apr. 13; Gaz. vol. 213; p. 641.
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Headlight. F. Buchanan. No. 1,136,404; Apr. 20; Gaz. vol. 213; p. 906.
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Headlight-dimmer, Automobile. H. C. Harrison. No. 1,136,006; Apr. 20; Gaz. vol. 213; p. 765.
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Heat produced by combustion, Apparatus for distributing. P. Plantinga. No. 1,135,137; Apr. 13; Gaz. vol. 213; p. 421.
Heat-regulator. L. A. Abbott. No. 1,136,084; Apr. 20; Gaz. vol. 213; p. 790.
Heat-resisting bodies, Producing. P. R. Hershman. No. 1,135,182; Apr. 13; Gaz. vol. 213; p. 435.
Heater: *See*—
Egg-heater. Incubator-heater.
Electric heater. Liquid-heater.
Electrical heater. Orchard-heater.
Feed-water heater. Surface-heater.
Gas-heater. Water-heater.
Grape-pomace heater. Water and air heater.
Hot-water heater.
Heater. L. T. Crabtree. No. 1,137,584; Apr. 27; Gaz. vol. 213; p. 1362.
Heating apparatus. F. W. Miller. No. 1,135,039; Apr. 13; Gaz. vol. 213; p. 387.
Heating apparatus. R. G. Speer. No. 1,137,675; Apr. 27; Gaz. vol. 213; p. 1391.
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Heating devices, Producing electrical. E. L. Wiegand. No. 1,136,076; Apr. 20; Gaz. vol. 213; p. 787.
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Heating system, Hot-air. J. E. Seltzer. No. 1,134,703; Apr. 6; Gaz. vol. 213; p. 227.
Heating systems, Thermostatic controller for. J. F. McElroy. No. 1,135,200; Apr. 13; Gaz. vol. 213; p. 441.
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Heel-attaching machine. J. Glidden. No. 1,137,476; Apr. 27; Gaz. vol. 213; p. 1326.
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Heel, Safety-. A. C. Rightor. No. 1,134,228; Apr. 6; Gaz. vol. 213; p. 53.
Heel-section, Detachable. L. Hain. No. 1,134,263; Apr. 6; Gaz. vol. 213; p. 67.
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Heels, Machine for operating upon. T. Lund. No. 1,135,034; Apr. 13; Gaz. vol. 213; p. 385.
Helmet. F. M. Bowers. No. 1,135,759; Apr. 13; Gaz. vol. 213; p. 636.
High chair and crib, Convertible child's. C. Jacobsen. No. 1,137,325; Apr. 27; Gaz. vol. 213; p. 1272.
High chair for children. E. P. Vaughn. No. 1,136,800; Apr. 20; Gaz. vol. 213; p. 868.
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Hinge, Door-check. C. H. Busch. No. 1,134,510; Apr. 6; Gaz. vol. 213; p. 156.
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Hog-ringer. W. L. McGowan. No. 1,136,149; Apr. 20; Gaz. vol. 213; p. 814.
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Hoisting and conveying machine. M. R. Colby and J. Stewart. No. 1,136,939; Apr. 27; Gaz. vol. 213; p. 1130.
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Hoof-clipper. R. L. Arthur. No. 1,136,991; Apr. 27; Gaz. vol. 213; p. 1149.
Hoof-pad. A. Larsen. No. 1,135,029; Apr. 13; Gaz. vol. 213; p. 383.
Hoof-pad. A. Larsen. No. 1,135,030; Apr. 13; Gaz. vol. 213; p. 383.
Hoof-pad. A. Larsen. No. 1,135,031; Apr. 13; Gaz. vol. 213; p. 383.
Hoof-steadying device. H. F. Schreiber. No. 1,137,090; Apr. 27; Gaz. vol. 213; p. 1186.
Hook: *See*—
Fish-hook. Whiffletree-hook.
Snap-hook.
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Hoop: *See*—
Metallic hoop.
Hoop forming and applying machine, Wire-. C. A. Lee. No. 1,137,336; Apr. 27; Gaz. vol. 213; p. 1277.
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Horn, Combined electric and pneumatic. W. Sparks. No. 1,137,239; Apr. 27; Gaz. vol. 213; p. 1241.
Horns, Circuit-closer for motor-vehicle electric. W. P. Seng. No. 1,134,356; Apr. 6; Gaz. vol. 213; p. 100.
Horse-detacher. M. A. Juarez. No. 1,134,134; Apr. 6; Gaz. vol. 213; p. 18.
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Hose-washer. W. R. Calvert. No. 1,137,382; Apr. 27; Gaz. vol. 213; p. 1293.
Hosiery. E. B. Cahn. No. 1,136,097; Apr. 20; Gaz. vol. 213; p. 794.
Hot-water heater. J. T. Bunting. No. 1,136,862; Apr. 20; Gaz. vol. 213; p. 1067.
House: *See*—
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Household articles, Holder for. A. L. Hulstedt. No. 1,136,011; Apr. 20; Gaz. vol. 213; p. 766.
Hub and cap, Vehicle-. J. M. Lansden, Jr. No. 1,136,019; Apr. 20; Gaz. vol. 213; p. 769.
Hub for removable wheels. A. R. Behnke. No. 1,134,367; Apr. 6; Gaz. vol. 213; p. 104.
Hubs and the like, Dust-cap for wheel-. C. W. Svenson. No. 1,135,960; Apr. 13; Gaz. vol. 213; p. 707.
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Hydraulic elevator. J. S. Hoyt. No. 1,136,131; Apr. 20; Gaz. vol. 213; p. 806.
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Hydraulic jack. J. W. Nelson and W. H. Mathers. No. 1,136,830; Apr. 20; Gaz. vol. 213; p. 1057.
Hydroaeroplanes to promote safety in air navigation, Detaching apparatus for use on. W. H. Seabrook, Jr. No. 1,134,492; Apr. 6; Gaz. vol. 213; p. 149.
Hydrocarbon-burner. O. W. Smith. No. 1,134,239; Apr. 6; Gaz. vol. 213; p. 57.
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Hydrocarbon generator, Liquid-. S. F. Pierce. No. 1,135,136; Apr. 13; Gaz. vol. 213; p. 420.
Hydrogen, Making. R. P. Pictet. No. 1,134,416; Apr. 6; Gaz. vol. 213; p. 120.
Hydrogen, Manufacture of. G. Claude. No. 1,135,355; Apr. 13; Gaz. vol. 213; p. 494.
Hydrogen-peroxid solutions, Preventing decomposition of. A. Farago. No. 1,134,323; Apr 6; Gaz. vol. 213; p. 88.
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Ice-cutting apparatus. M. A. Bruet and L. J. Duffer. No. 1,136,769; Apr. 20; Gaz. vol. 213; p. 1035.
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Ice-pick. W. A. Stewart. No. 1,136,561; Apr. 20; Gaz. vol 213; p. 961.
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Igniter. D. J. Canchester. No. 1,134,314; Apr. 6; Gaz. vol. 213; p. 85.
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Illustration, Producing a fashion-garment. I. H. Rubin. No. 1,136,170; Apr. 20; Gaz. vol. 213; p. 821.
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Indicating means. F. B. Carlisle. No. 1,137,697; Apr. 27; Gaz. vol. 213; p. 1397.
Indicator: *See*—
Cash-register sales-indicator. Rain-indicator.
Smoke-indicator.
Direction-indicator. Street and station indicator.
Elevator-position indicator. Test-indicator.
Item-indicator.
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Induction light system. J. Ledwinka. No. 1,136,684; Apr. 20; Gaz. vol. 213; p. 1004.
Induction-motor. E. Thomson. No. 1,134,776; Apr. 6; Gaz. vol. 213; p. 254.
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Ingot-mold. E. Gathmann. No. 1,137,264; Apr. 27; Gaz. vol. 213; p. 1251.
Ingot-mold top. E. F. Kenney. No. 1,135,381; Apr. 13; Gaz. vol. 213; p. 502.
Ingots, Apparatus for treating cast. T. Preka. No. 1,134,348; Apr. 6; Gaz. vol. 213; p. 97.
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Insulators, Press for making glass. F. N. Roehrich. No. 1,136,275; Apr. 20; Gaz. vol. 213; p. 858.
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Internal-combustion engine. A. O. Brooke. No. 1,134,667; Apr. 6; Gaz. vol. 213; p. 214.
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Internal-combustion engine, Reversible. H. Pokorney. No. 1,134,225; Apr. 6; Gaz. vol. 213; p. 52.
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Sad-iron.
Iron, Apparatus for cutting sectional. H. Pela. No. 1,134,903; Apr. 6; Gaz. vol. 213; p. 293.
Iron-stand. P. Wiener. No. 1,136,455; Apr. 20; Gaz. vol. 213; p. 924.
Ironing-board. A. W. Barber. No. 1,134,662; Apr. 6; Gaz. vol. 213; p. 212.
Ironing-board. J. Dionne. No. 1,135,674; Apr. 13; Gaz. vol. 213; p. 608.
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Ironing-board, Foldable. I. P. Haworth. No. 1,135,895; Apr. 13; Gaz. vol. 213; p. 684.
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Jack: *See*—
Automobile-jack. Pumping-jack.
Automobile lifting-jack. Shoemaker's jack.
Hydraulic jack. Timber-jack.
Lifting-jack. Vehicle-jack.
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Jockey-plate. F. H. Rackle. No. 1,136,267; Apr. 20; Gaz. vol. 213; p. 856.
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Pipe-joint. Steam-joint.
Rail-joint. Universal joint.
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Joint-binder. E. C. Glardon. No. 1,134,378; Apr. 6; Gaz. vol. 213; p. 107.
Joint for tubular structures. A. Hendricks and W. P. Brockschmidt. No. 1,136,010; Apr. 20; Gaz. vol. 213; p. 766.
Jolt ramming-machine. W. Caspary. No. 1,136,313; Apr. 20; Gaz. vol. 213; p. 871.
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Journal-boxes, Check-plate for. C. S. Banghart. No. 1,136,640; Apr. 20; Gaz. vol. 213; p. 988.
Junction-box and reflector-casing, Combined. P. M. Hotchkin. No. 1,134,133; Apr. 6; Gaz. vol. 213; p. 18.
Kettle, Tea and other spout-provided. L. Monense. No. 1,137,515; Apr. 27; Gaz. vol. 213; p. 1330.
Key: *See*—
Stop-box key. Telephone-key.
Key-cutting machine. O. M. Engelbert. No. 1,135,676; Apr. 13; Gaz. vol. 213; p. 609.
Key lock, Double-. A. Re. No. 1,134,907; Apr. 6; Gaz. vol. 213; p. 294.
Key lock, Interchangeable-. E. E. Watson. No. 1,136,067; Apr. 20; Gaz. vol. 213; p. 784.
Key lock, Interchangeable-. E. E. Watson. No. 1,137,436; Apr. 27; Gaz. vol. 213; p. 1313.
Key-plug. C. A. Dillon. No. 1,137,466; Apr. 27; Gaz. vol. 213; p. 1322.
Key-seat-broaching machine. F. J. Lapointe. No. 1,137,218; Apr. 27; Gaz. vol. 213; p. 1232.
Keyboard. C. Sulfer. No. 1,135,553; Apr. 13; Gaz. vol. 213; p. 564.
Kiln: *See*—
Dry-kiln.
Knife: *See*—
Pocket-knife.
Knife. H. C. Page. No. 1,134,407; Apr. 6; Gaz. vol. 213; p. 118.
Knife-blade. T. A. Beecher. No. 1,135,987; Apr. 20; Gaz. vol. 213; p. 758.
Knife-blade switch. G. E. Linton. No. 1,136,472; Apr. 20; Gaz. vol. 213; p. 930.
Knives, forks, and spoons, Device for cleaning and polishing. A. H. Eisenmann. No. 1,137,468; Apr. 27; Gaz. vol. 213; p. 1323.
Knit undergarment. M. Erstling. No. 1,134,598; Apr. 6; Gaz. vol. 213; p. 188.
Knitting-machine. G. A. Landenverger. No. 1,134,749; Apr. 6; Gaz. vol. 213; p. 243.
Knitting-machine power attachment. C. F. Schuessler. No. 1,135,212; Apr. 13; Gaz. vol. 213; p. 445.
Knitting machine, Rib-. L. N. D. Williams. No. 1,137,561; Apr. 27; Gaz. vol. 213; p. 1354.
Knitting-machine stitch-changing mechanism. D. B. Kimes. No. 1,137,493; Apr. 27; Gaz. vol. 213; p. 1331.
Knitting-machine yarn-feeding device. R. S. and B. H. Phillips. No. 1,137,527; Apr. 27; Gaz. vol. 213; p. 1343.
Knitting-machines, Yarn-finger mechanism for. F. E. Jones. No. 1,136,343; Apr. 20; Gaz. vol. 213; p. 882.
Label-affixing device. M. H. Ballard. No. 1,136,757; Apr. 20; Gaz. vol. 213; p. 1031.
Label-cutting machine. M. H. Ballard. No. 1,136,758; Apr. 20; Gaz. vol. 213; p. 1031.
Labels and applying the same to cans, Machine for treating. F. H. Knapp. No. 1,135,295; Apr. 13; Gaz. vol. 213; p. 473.
Labels and applying the same to cans, Treating. F. H. Knapp. No. 1,135,293; Apr. 13; Gaz. vol. 213; p. 472.
Labeling-machine. J. C. Larsen. No. 1,134,876; Apr. 6; Gaz. vol. 213; p. 285.
Labeling-machine. A. Tiesse. No. 1,135,635; Apr. 13; Gaz. vol. 213; p. 593.
Lace holder, Shoe-. E. Burket. No. 1,137,381; Apr. 27; Gaz. vol. 213; p. 1293.
Lace-machine or loom take-up roll, Go-through. A. B. Morse. No. 1,136,431; Apr. 20; Gaz. vol. 213; p. 915.
Lace with gauzelike foundation. A. Henkels. No. 1,135,582; Apr. 13; Gaz. vol. 213; p. 574.
Ladder, Step-. F. J. Caronia. No. 1,135,763; Apr. 13; Gaz. vol. 213; p. 637.
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Ladder structure, Tiltable-. O. H. Blom. No. 1,134,437; Apr. 6; Gaz. vol. 213; p. 129.
Lamp. A. C. Abramson. No. 1,134,574; Apr. 6; Gaz. vol. 213; p. 179.
Lamp. T. J. Corcoran. No. 1,137,464; Apr. 27; Gaz. vol. 213; p. 1322.
Lamp. A. B. Gates. No. 1,137,204; Apr. 27; Gaz. vol. 213; p. 1227.
Lamp. G. Patterson. No. 1,135,317; Apr. 13; Gaz. vol. 213; p. 481.
Lamp, Arc-. R. Fleming and C. A. B. Halvorson, Jr. No. 1,136,593; Apr. 20; Gaz. vol. 213; p. 972.

Lamp, Arc-. H. E. Moul. No. 1,135,129; Apr. 13; Gaz. vol. 213; p. 418.
Lamp-bracket. G. H. Gumbel. No. 1,136,005; Apr. 20; Gaz. vol. 213; p. 764.
Lamp-burner, Self-extinguishing. W. W. Saunders. No. 1,135,850; Apr. 13; Gaz. vol. 213; p. 669.
Lamp-carrier. T. Birath. No. 1,137,568; Apr. 27; Gaz. vol. 213; p. 1357.
Lamp-chimney attachment. P. A. Weller. No. 1,137,247; Apr. 27; Gaz. vol. 213; p. 1243.
Lamp, Compressed-gas. E. Dresler. No. 1,134,319; Apr. 6; Gaz. vol. 213; p. 87.
Lamp control, Automatic head-. J. B. Colvin. No. 1,137,700; Apr. 27; Gaz. vol. 213; p. 1398.
Lamp control, Automobile head-. G. E. Woods. No. 1,134,801; Apr. 6; Gaz. vol. 213; p. 262.
Lamp, Convertible. C. Bergener. No. 1,136,580; Apr. 20; Gaz. vol. 213; p. 968.
Lamp, Dirigible automobile-. C. B. Sheridan. No. 1,137,672; Apr. 27; Gaz. vol. 213; p. 1390.
Lamp fixture, Glow-. T. E. Murray and G. K. Jessup. No. 1,135,541; Apr. 13; Gaz. vol. 213; p. 559.
Lamp-focusing device, Electric-. H. H. Holland and J. C. Stearns. No. 1,137,322; Apr. 27; Gaz. vol. 213; p. 1271.
Lamp for automobiles, Headlight-. S. Berens. No. 1,135,566; Apr. 13; Gaz. vol. 213; p. 569.
Lamp for barbers' chairs. A. Selafani. No. 1,137,091; Apr. 27; Gaz. vol. 213; p. 1186.
Lamp for vehicles, Dirigible head-. C. Adams. No. 1,134,089; Apr. 6; Gaz. vol. 213; p. 3.
Lamp for vehicles, Head-. C. Adams. No. 1,134,090; Apr. 6; Gaz. vol. 213; p. 3.
Lamp, Gas-. C. D. Wright. No. 1,134,935; Apr. 6; Gaz. vol. 213; p. 304.
Lamp-gear, Automobile. W. Osmond. No. 1,136,831; Apr. 20; Gaz. vol. 213; p. 1057.
Lamp-glass extension. E. P. Schultz. No. 1,136,278; Apr. 20; Gaz. vol. 213; p. 859.
Lamp-locking device, Electric-. H. T. Worrall. No. 1,137,177; Apr. 27; Gaz. vol. 213; p. 1217.
Lamp, Miner's. S. J. Yellen. No. 1,136,303; Apr. 20; Gaz. vol. 213; p. 869.
Lamp or rectifier, Vapor electric. E. Weintraub. No. 1,134,784; Apr. 6; Gaz. vol. 213; p. 256.
Lamp regulator, Electric-. C. C. Oberly. No. 1,134,346; Apr. 6; Gaz. vol. 213; p. 96.
Lamp-shade holder. H. E. Bandlow. No. 1,135,250; Apr. 13; Gaz. vol. 213; p. 457.
Lamp, Signal-. H. E. Horning and J. L. Subik. No. 1,136,804; Apr. 20; Gaz. vol. 213; p. 1047.
Lamp-socket case, Incandescent-electric-. A. Weber, Sr. No. 1,136,383; Apr. 20; Gaz. vol. 213; p. 897.
Lamp-sockets and the like, Cap for. C. J. Klein. No. 1,135,193; Apr. 13; Gaz. vol. 213; p. 438.
Lamp-sockets and the like, Insulating means for. C. J. Klein. No. 1,135,194; Apr. 13; Gaz. vol. 213; p. 439.
Lamp sockets, Attachment for incandescent-. J. Sachs and C. A. Francis. No. 1,135,207; Apr. 13; Gaz. vol. 213; p. 443.
Lamps, Friction-igniter for gas-. E. C. Meissner. No. 1,135,128; Apr. 13; Gaz. vol. 213; p. 417.
Lamps, Tubular conductor for incandescent electric. G. Weissmann. No. 1,136,384; Apr. 20; Gaz. vol. 213; p. 898.
Lancet. W. M. Pollock. No. 1,135,465; Apr. 13; Gaz. vol. 213; p. 532.
Land-anchor. A. B. Chance. No. 1,134,820; Apr. 6; Gaz. vol. 213; p. 267.
Land-packer. C. J. Anderson. No. 1,135,091; Apr. 13; Gaz. vol. 213; p. 404.
Lantern. F. Laszczak. No. 1,134,878; Apr. 6; Gaz. vol. 213; p. 285.
Lantern attachment, Electric-. N. S. Richmond. No. 1,135,049; Apr. 13; Gaz. vol. 213; p. 391.
Lantern or projectoscope, Enlarging. F. W. Minor. No. 1,136,697; Apr. 20; Gaz. vol. 213; p. 1009.
Last. G. E. Belcher. No. 1,134,502; Apr. 6; Gaz. vol. 213; p. 153.
Last. G. E. Belcher. No. 1,134,503; Apr. 6; Gaz. vol. 213; p. 153.
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Last. A. M. Lund. No. 1,135,053; Apr. 13; Gaz. vol. 213; p. 384.
Last. J. H. Pope. No. 1,137,421; Apr. 27; Gaz. vol. 213; p. 1308.
Lasts, Machine for working uppers over. R. F. McFeely. No. 1,135,958; Apr. 13; Gaz. vol. 213; p. 706.
Lasting-machine holddown. M. Brock. No. 1,134,253; Apr. 6; Gaz. vol. 213; p. 63.
Lasting-shell and upper-protector. C. H. Nickerson. No. 1,134,284; Apr. 6; Gaz. vol. 213; p. 74.
Latch, Door-. V. Zsurzsits. No. 1,137,107; Apr. 27; Gaz. vol. 213; p. 1192.
Latch, Gate-. W. K. Voorhees and F. A. Anderson. No. 1,134,301; Apr. 6; Gaz. vol. 213; p. 80.
Latch or the like, Gate-. J. B. Clay. No. 1,135,768; Apr. 13; Gaz. vol. 213; p. 639.
Latching device. E. W. Vest. No. 1,136,065; Apr. 20; Gaz. vol. 213; p. 784.
Lathe. B. H. Clement. No. 1,134,374; Apr. 6; Gaz. vol. 213; p. 106.
Lathe. W. A. McElroy. No. 1,135,035; Apr. 13; Gaz. vol. 213; p. 385.
Lathe. H. C. Simons. No. 1,136,178; Apr. 20; Gaz. vol. 213; p. 824.
Lathe-grinder attachment. T. E. Wood and W. H. Safford, Jr. No. 1,137,371; Apr. 27; Gaz. vol. 213; p. 1289.
Lathes, Tool-post for. F. C. Kehr. No. 1,134,460; Apr. 6; Gaz. vol. 213; p. 138.
Lathes, Turret attachment for. G. T. Shearer. No. 1,135,329; Apr. 13; Gaz. vol. 213; p. 485.
Laundry-bag. C. Izett. No. 1,136,138; Apr. 20; Gaz. vol. 213; p. 809.
Lavatory. J. A. Kavanagh. No. 1,134,866; Apr. 6; Gaz. vol. 213; p. 281.
Lavatory-fitting. W. W. Jackson. No. 1,134,743; Apr. 6; Gaz. vol. 213; p. 241.
Lavatory-fixture. E. J. Bloom. No. 1,136,091; Apr. 20; Gaz. vol. 213; p. 793.
Lawn-edge trimmer. J. J. Breach. No. 1,135,989; Apr. 20; Gaz. vol. 213; p. 759.
Lawn-sprinkler. W. U. Briggs and H. M. Michael. No. 1,135,495; Apr. 13; Gaz. vol. 213; p. 543.
Leaching saccharliferous-vegetable slices, Apparatus for. M. Paschen. No. 1,134,152; Apr. 6; Gaz. vol. 213; p. 24.
Leaf-turning device. C. J. Bender. No. 1,136,927; Apr. 27; Gaz. vol. 213. p. 1126.
Lease-forming device. E. and L. Holt. No. 1,137,622; Apr. 27; Gaz. vol. 213; p. 1374.
Leather and like purposes, Machine for pebbling and glazing. J. R. Cameron and W. J. Dennin. No. 1,137,119; Apr. 27; Gaz. vol. 213; p. 1197.
Leather-cutting machine, Sole-. L. E. Johnson. No. 1,137,213; Apr. 27; Gaz. vol. 213; p. 1231.
Leather-cutting tool. A. W. Larson. No. 1,134,542; Apr. 6; Gaz. vol. 213; p. 167.
Leather, Drying patent-. H. Schulz. No. 1,137,671; Apr. 27; Gaz. vol. 213; p. 1390.
Leather-splitting machine. W. B. Keighley. No. 1,134,747; Apr. 6; Gaz. vol. 213; p. 243.
Leggings, Apparatus for use in manufacturing. M. Rosenwasser. No. 1,137,087; Apr. 27; Gaz. vol. 213; p. 1185.
Lemon-squeezer. H. Rochmill. No. 1,136,837; Apr. 20; Gaz. vol. 213; p. 1059.
Lens, Bifocal. E. R. Talley. No. 1,136,060; Apr. 20; Gaz. vol. 213; p. 782.
Lens centering, marking, and testing instrument, G. A. Bader and C. W. Howland. No. 1,134,938; Apr. 6; Gaz. vol. 213; p. 304.
Lens-cutting machine. W. S. Essick. No. 1,135,507; Apr. 13; Gaz. vol. 213; p. 547.
Lens-grinding machine. A. L. Edmondson. No. 1,135,936; Apr. 13; Gaz. vol. 213; p. 697.
Letter-sheet and envelop, Combined. C. W. Graham. No. 1,135,578; Apr. 13; Gaz. vol. 213; p. 551.
Level. J. W. Denny. No. 1,135,163; Apr. 13; Gaz. vol. 213; p. 429.
Level. J. Schmid. No. 1,134,162; Apr. 6; Gaz. vol. 213; p. 28.
Lever lock, Gear-. P. B. Walls. No. 1,136,568; Apr. 20; Gaz. vol. 213; p. 964.
Lever locking means, Control-. F. B. Miller. No. 1,136,155; Apr. 20; Gaz. vol. 213; p. 816.
Lever, Operating-. W. B. Stevens. No. 1 135,737; Apr. 13; Gaz. vol. 213; p. 629.
License-plate-illuminating device. G. Laub. No. 1,135,822; Apr. 13; Gaz. vol. 213; p. 659.
Lid-control mechanism. J. B. Cherney. No. 1,136,865; Apr. 20; Gaz. vol. 213; p. 1068.
Lid-support, Automatic. L. H. Hays and G. W. Johnson. No. 1,137,484; Apr. 27; Gaz. vol. 213; p. 1328.
Life-preserver. P. Gepack. No. 1,137,397; Apr. 27; Gaz. vol. 213; p. 1298.
Life-preserver and body-protector, Combined. E. H. Gagnon. No. 1,137,056; Apr. 27; Gaz. vol. 213; p. 1174.
Lifter: *See*—
Automobile top-lifter.
Clothes-lifter.
Pan and plate lifter.
Paper-lifter.
Pot and cover lifter.
Lifting apparatus, Collapsible. E. Crémieu-Javal. No. 1,135,440; Apr. 13; Gaz. vol. 213; p. 524.
Lifting-jack. L. J. Gay. No. 1,134,447; Apr. 6; Gaz. vol. 213; p. 133.
Lifting-jack. B. Larsen. No. 1,135,299; Apr. 13; Gaz. vol. 213; p. 474.
Lifting-jack head. F. I. Joyce. No. 1,137,491; Apr. 27; Gaz. vol. 213; p. 1331.
Lifting-jack-operating mechanism. E. T. Alyea. No. 1,135,649; Apr. 13; Gaz. vol. 213; p. 598.
Light: *See*—
Automobile pivot-light.
Flash-light.
Show-case light.
Light-controlling switch, Automatic. L. A. Meyers. No. 1,135,311; Apr. 13; Gaz. vol. 213; p. 479.
Light-fixtures, Link for. W. C. Hunt. No. 1,136,531; Apr. 20; Gaz. vol. 213; p. 950.
Lighting reflector-bracket, Show-case-. P. M. Hotchkin. No. 1,134,132; Apr. 6; Gaz. vol. 213; p. 17.

Lighting systems, Circuit-controlling apparatus for train-. E. H. M. Langley and E. W. Price. No. 1,135,384; Apr. 13; Gaz. vol. 213; p. 503.
Lightning-rod cable. P. J. Juel. No. 1,135,940; Apr. 13; Gaz. vol. 213; p. 698.
Limb, Artificial. H. A. Doty. No. 1,134,185; Apr. 6; Gaz. vol. 213; p. 37.
Limbs of the human body, Apparatus for the treatment of. E. T. Bloch. No. 1,136,397; Apr. 20; Gaz. vol. 213; p. 903.
Line-fastener. P. Steuler. No. 1,135,736; Apr. 13; Gaz. vol. 213; p. 629.
Line-up and registering device. R. L. Hendrick. No. 1,135,581; Apr. 13; Gaz. vol. 213; p. 574.
Lines, &c., Device for viewing and magnifying. J. Q. Adams. No. 1,137,444; Apr. 27; Gaz. vol. 213; p. 1315.
Liquid and solid fuel furnace. G. R. Gregory. No. 1,137,310; Apr. 27; Gaz. vol. 213; p. 1267.
Liquid-control system. H. W. Falk and W. K. Andrew. No. 1,137,390; Apr. 27; Gaz. vol. 213; p. 1286.
Liquid-cooler. G. A. Stricker. No. 1,134,243; Apr. 6; Gaz. vol. 213; p. 59.
Liquid-discharging device. W. C. Morrill. (Reissue.) No. 13,898; Apr. 6; Gaz. vol. 213; p. 324.
Liquid-dispensing apparatus. J. H. Holmes. No. 1,134,536; Apr. 6; Gaz. vol. 213; p. 165.
Liquid-dispensing apparatus. B. F. Hoover. No. 1,137,403; Apr. 27; Gaz. vol. 213; p. 1301.
Liquid-dispensing apparatus, Check-controlled. C. S. Batdorf. No. 1,135,251; Apr. 13; Gaz. vol. 213; p. 457.
Liquid-dispensing device. L. S. Chadwick. No. 1,137,574; Apr. 27; Gaz. vol. 213; p. 1358.
Liquid-fuel burner. W. N. Furthmann. No. 1,135,679; Apr. 13; Gaz. vol. 213; p. 609.
Liquid-fuel burner. C. H. Swanson. No. 1,135,072; Apr. 13; Gaz. vol. 213; p. 398.
Liquid-heater. E. H. Rousseau. No. 1,136,169; Apr. 20; Gaz. vol. 213; p. 820.
Liquids and solids, Apparatus for treating mixtures of. A. E. Vandercook. No. 1,135,080; Apr. 13; Gaz. vol. 213; p. 400.
Lithographic process. M. R. Wood. No. 1,135,740; Apr. 13; Gaz. vol. 213; p. 633.
Lock: *See*—
Automobile-lock.
Bag-lock.
Bolt-lock.
Brake and lever lock.
Car-door lock.
Coin-controlled lock.
Combination-lock.
Cycle-lock.
Cylinder-lock.
Exit-lock.
Handle-lock.
Key-lock.
Lever-lock.
Nut-lock.
Permutation-lock.
Pin-tumbler lock.
Sash-lock.
Type-writer key-lock.
Lock. M. M. Hunt. No. 1,134,614; Apr. 6; Gaz. vol 213; p. 193.
Lock. N. B. Hurd. No. 1,137,210; Apr. 27; Gaz. vol. 213; p. 1229.
Lock. F. Kosinsky. No. 1,134,141; Apr. 6; Gaz. vol. 213; p. 21.
Lock. C. H. Stahl. No. 1,137,363; Apr. 27; Gaz. vol. 213; p. 1286.
Lock. C. G. Taylor. No. 1,136,735; Apr. 20; Gaz. vol. 213; p. 1023.
Lock. Wiitala. No. 1,134,791; Apr. 6; Gaz. vol. 213; p. 259.
Lock control, Chain system of. W. P. Locke. No. 1,134,625; Apr. 6; Gaz. vol. 213; p. 197.
Lock safety device. G. Komarcsevits and G. Traiber. No. 1,135,589; Apr. 13; Gaz. vol. 213; p. 577.
Lock-shield. J. L. Birdsong. No. 1,136,582; Apr. 20; Gaz. vol. 213; p. 969.
Locker. J. Griesmaier. No. 1,134,330; Apr. 6; Gaz. vol. 213; p. 91.
Locking device, Closure-. C. Riddle. No. 1,137,085; Apr. 27; Gaz. vol. 213; p. 1184.
Locomotive. W. C. Evans. No. 1,136,947; Apr. 27; Gaz. vol. 213; p. 1134.
Locomotive-lubricator. E. McCoy. No. 1,136,689; Apr. 20; Gaz. vol. 213; p. 1006.
Locomotive-pilot. F. J. Harrison and W. J. Knox. No. 1,135,520; Apr. 13; Gaz. vol. 213; p. 551.
Locomotive-pilot. F. J. Harrison and W. J. Knox. No. 1,135,521; Apr. 13; Gaz. vol. 213; p. 552.
Locomotive stop mechanism. W. W. Darke. No. 1,135,771; Apr. 13; Gaz. vol. 213; p. 640.
Locomotive-washing apparatus. R. E. Jackson. No. 1,137,626; Apr. 27; Gaz. vol. 213; p. 1376.
Locomotive with cable-reeling mechanism. F. L. Sessions. No. 1,137,236; Apr. 27; Gaz vol. 213; p. 1240.
Locomotive with cable-reeling mechanism, Electric. N. D. Levin. No. 1,136,246; Apr. 20; Gaz. vol. 213; p. 848.
Locomotives, Block-signal control safety appliance for. G. W. Gerlach. No. 1,135,574; Apr. 13; Gaz. vol. 213; p. 571.
Locomotives, Block-signal control safety appliance for. G. W. Gerlach. No. 1,135,575; Apr. 13; Gaz. vol. 213; p. 572.
Log-rolling machine. P. Pangerl. No. 1,136,258; Apr. 20; Gaz. vol. 213; p. 852.
Logotype-machine. J. Riehl. No. 1,137,353; Apr. 27; Gaz. vol. 213; p. 1283.
Loom. H. Langer. No. 1,135,701; Apr. 13; Gaz. vol. 213; p. 617.
Loom. C. A. Littlefield. No. 1,135,969; Apr. 13; Gaz. vol. 213; p. 710.
Loom for the mechanical manufacture of lace. J. Farigoule. No. 1,135,782; Apr. 13; Gaz. vol. 213; p. 643.
Loom, Narrow-ware. A. Weimar. No. 1,135,641; Apr. 13; Gaz. vol. 213; p. 595.
Loom picking mechanism. M. H. Maloney. No. 1,136,824; Apr. 20; Gaz. vol. 213; p. 1055.
Looms, Thread parting and holding means for. A. E. Rhoades. No. 1,134,487; Apr. 6; Gaz. vol. 213; p. 147.
Loop. H. D. Sargent. No. 1,135,724; Apr. 13; Gaz. vol. 213; p. 625.
Loose-leaf-dispensing device. H. P. Brown and C. L. Johnson. No. 1,135,658; Apr. 13; Gaz. vol. 213; p. 602.
Lorgnette. G. J. Lowrea. No. 1,137,504; Apr. 27; Gaz. vol. 213; p. 1335.
Lubricating apparatus. T. E. Willet. No. 1,134,656; Apr. 6; Gaz. vol. 213; p. 210.
Lubricating device. L. A. and R. H. Biggar. No. 1,135,873; Apr. 13; Gaz. vol. 213; p. 677.
Lubricating device. H. Lind. No. 1,134,880; Apr. 6; Gaz. vol. 213; p. 286.
Lubricator: *See*—
Engine-lubricator.
Flange-lubricator.
Force-feed lubricator.
Locomotive-lubricator.
Wheel-flange lubricator.
Lubricator. D. F. Kilgour. No. 1,136,426; Apr. 20; Gaz. vol. 213; p. 913.
Lubricator. O. H. Neiman. No. 1,137,274; Apr. 27; Gaz. vol. 213; p. 1254.
Lubricator. R. Wood. No. 1,135,644; Apr. 13; Gaz. vol. 213; p. 597.
Lunch-box, Sanitary. L. Montgomery. No. 1,137,160; Apr. 27; Gaz. vol. 213; p. 1212.
Machine-tools, Driving mechanism for the moving parts of automatic and semi-automatic. A. Bechler. No. 1,137,180; Apr. 27; Gaz. vol. 213; p. 1218.
Magnetic separator. M. Dings and R. A. Manegold. No. 1,136,215; Apr. 20; Gaz. vol. 213; p. 837.
Magnetic separator. J. L. Hillier. No. 1,135,016; Apr. 13; Gaz. vol. 213; p. 378.
Magnetic separator. A. H. Kidney. No. 1,137,492; Apr. 27; Gaz. vol. 213; p. 1331.
Magnetic switch. J. F. McElroy. No. 1,135,201; Apr. 13; Gaz. vol. 213; p. 442.
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Mail-bag-handling apparatus. I. E. and S. A. Shelley. No. 1,136,281; Apr. 20; Gaz. vol. 213; p. 861.
Mail-box. H. Razny. No. 1,136,050; Apr. 20; Gaz. vol. 213; p. 778.
Mail-box. F. Slagow. No. 1,136,979; Apr. 27; Gaz. vol. 213; p. 1144.
Mail-boxes, Coin-receptacle for. H. C. Pilant. No. 1,136,974; Apr. 27; Gaz. vol. 213; p. 1143.
Mail-container, Knockdown. L. F. Grosenbeck. No. 1,135,892; Apr. 13; Gaz. vol. 213; p. 683.
Mail-marking machine. F. C. Ielfeld. No. 1,136,960; Apr. 27; Gaz. vol. 213; p.1138.
Mangle. W. A. Saunders. No. 1,135,725; Apr. 13; Gaz. vol. 213; p. 625.
Manometer. R. F. Schneider. No. 1,134,352; Apr. 6; Gaz. vol. 213; p. 98.
Massaging-machine. C. M. Bump. No. 1,134,181; Apr. 6; Gaz. vol. 213; p. 35.
Mat: *See*—
Running-board mat.
Match-box. J. Hurtig and E. A. Ericsson. No. 1,137,624; Apr. 27; Gaz. vol. 213; p. 1375.
Match-box. J. S. Lingner. No. 1,137,642; Apr. 27; Gaz. vol. 213; p. 1381.
Match-box, cigar-rest, and ash-tray, Combined. F. Hagen. No. 1,137,481; Apr. 27; Gaz. vol. 213; p. 1327.
Match-box, Single-delivery. W. Pacheco. No. 1,135,133; Apr. 13; Gaz. vol. 213; p. 419.
Mattress and life-raft, Combined. C. H. Frye. No. 1,134,602; Apr. 6; Gaz. vol. 213; p. 189.
Mattress-spring. R. G. Marquardt. No. 1,134,972; Apr. 6; Gaz. vol. 213; p. 317.
Measure, Lens-. W. Gowlland. No. 1,136,419; Apr. 20; Gaz. vol. 213; p. 911.
Measuring and rolling wall-paper, Machine for. L. M. Snow. No. 1,134,924; Apr. 6; Gaz. vol. 213; p. 290.
Measuring appliance, Tractive-force-. P. Daimler. No. 1,136,511; Apr. 20; Gaz. vol. 213; p. 944.
Measuring device, Foot-. M. V. Rush. No. 1,137,233; Apr. 27; Gaz. vol. 213; p. 1238.
Measuring instrument. W. H. Bristol. No. 1,136,648; Apr. 20; Gaz. vol. 213; p. 991.
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Meat, Curing. C. B. Trescott. No. 1,134,299; Apr. 6; Gaz. vol. 213; p. 79.
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Melting-furnace. W. N. Best. No. 1,137,378; Apr. 27; Gaz. vol. 213; p. 1292.
Memorandum device. F. L. Vernon. No. 1,136,186; Apr. 20; Gaz. vol. 213; p. 826.
Metal box. A. L. Drake. No. 1,136,320; Apr. 20; Gaz. vol. 213; p. 874.
Metal-coiling machine. C. H. Loutrel. No. 1,137,412; Apr. 27; Gaz. vol. 213; p. 1304.
Metal drawing and stamping machine. H. B. Sherman. No. 1,136,558; Apr. 20; Gaz. vol. 213; p. 959.
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Metal-working switch. A. C. Johnson. No. 1,136,233; Apr. 20; Gaz. vol. 213; p. 843.
Metallic hoop. T. Johnson. No. 1,135,289; Apr. 13; Gaz. vol. 213; p. 471.
Metallic-leaf-applying device. S. H. Swallow. No. 1,136,497; Apr. 20; Gaz. vol. 213; p. 939.
Metallic tie. G. F. Brockway. No. 1,136,771; Apr. 20; Gaz. vol. 213; p. 1035.
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Meter: *See*—
Electricity-meter. Fluid-meter. Meter-motor. Torsion-meter.
Meter-motor. O. E. Clark. No. 1,136,103; Apr. 20; Gaz. vol. 213; p. 796.
Meter-support. F. E. Chase. No. 1,134,257; Apr. 6; Gaz. vol. 213; p. 64.
Microphone. H. E. Shreeve. No. 1,134,236; Apr. 6; Gaz. vol. 213; p. 56.
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Microphone repeater, Differential-. J. J. Comer. No. 1,137,188; Apr. 27; Gaz. vol. 213; p. 1221.
Milk-can and cover and fastening means for the same. E. W. Husted, L. Sorensen, and P. Murphy. No. 1,134,856; Apr. 6; Gaz. vol. 213; p. 278.
Mill: *See*—
Grinding-mill. Stamp-mill.
Mills, Feed mechanism for mixing-. P. E. Welton. No. 1,134,172; Apr. 6; Gaz. vol. 213; p. 32.
Mills, Feed mechanism for mixing-. P. E. and H. A. Welton. No. 1,134,173; Apr. 6; Gaz. vol. 213; p. 32.
Mine, Submarine. E. Schneider. No. 1,136,052; Apr. 20; Gaz. vol. 213; p. 779.
Mineral salts and organic constituents of kelps, Extraction of. A. G. Artz. No. 1,136,390; Apr. 20; Gaz. vol. 213; p. 900.
Minerals by flotation, Apparatus for separating. B. MacDonald. No. 1,134,690; Apr. 6; Gaz. vol. 213; p. 221.
Mining implement. A. Kolenic, Jr. No. 1,137,637; Apr. 27; Gaz. vol. 213; p. 1380.
Mining-machine. A. H. Gibson. No. 1,134,734; Apr. 6; Gaz. vol. 213; p. 238.
Mining-machine and truck. N. D. Levin. No. 1,137,337; Apr. 27; Gaz. vol. 213; p. 1277.
Miter-box. J. Pelletier. No. 1,134,286; Apr. 6; Gaz. vol. 213; p. 74.
Mixer: *See*—
Amalgam-mixer. Concrete-mixer.
Mixing-machine. A. A. Warner. No. 1,137,037; Apr. 27; Gaz. vol. 213; p. 1167.
Moccasin. G. W. Robinson. No. 1,135,622; Apr. 13; Gaz. vol. 213; p. 589.
Moistener for cigars and the like. G. H. Maas. No. 1,135,124; Apr. 13; Gaz. vol. 213; p. 416.
Mold: *See*—
Bridge-mold. Concrete-mold. Fence-post mold. Ingot-mold. Post-mold. Sectional mold. Sole-mold. Valve-mold.
Mold. W. M. Page. No. 1,134,484; Apr. 6; Gaz. vol. 213; p. 146.
Molder's flask. F. Haettel. No. 1,135,578; Apr. 13; Gaz. vol. 213; p. 573.
Molding. C. Jellinek. No. 1,137,489; Apr. 27; Gaz. vol. 213; p. 1330.
Molding and pressing machine. J. H. Beery. No. 1,137,377; Apr. 27; Gaz. vol. 213; p. 1292.
Molding, Connector for wood to metal. H. R. Gilson. No. 1,134,120; Apr. 6; Gaz. vol. 213; p. 13.
Molding hollow objects of refractory condensation products. J. W. Aylsworth. No. 1,135,962; Apr. 13; Gaz. vol. 213; p. 708.
Molding-machine. A. M. Loudon and J. Gow. No. 1,135,120; Apr. 13; Gaz. vol. 213; p. 414.
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Molding, Method and apparatus for. J. C. Ogden. No. 1,134,404; Apr. 6; Gaz. vol. 213; p. 117.
Mole-trap. M. W. Russell. No. 1,135,052; Apr. 13; Gaz. vol. 213; p. 391.
Mop, Dust-. T. G. Johnson. No. 1,134,984; Apr. 6; Gaz. vol. 213; p. 323.
Mop-handle-attaching means. W. Severns. No. 1,134,915; Apr. 6; Gaz. vol. 213; p. 296.
Mop-head. H. I. Davis. No. 1,135,098; Apr. 13; Gaz. vol. 213; p. 406.
Motor: *See*—
Boat-motor. Electric motor. Gas-motor. Induction-motor. Internal-combustion motor. Meter-motor. Weight-motor.
Motor. L. Miller. No. 1,134,147; Apr. 6; Gaz. vol. 213; p. 23.
Motor brake, Electric-. A. E. Handy. No. 1,134,739; Apr. 6; Gaz. vol. 213; p. 240.
Motor control, Electric-. C. S. Jennings. No. 1,137,006; Apr. 27; Gaz. vol. 213; p. 1156.
Motor-control mechanism, Electric-. J. Buckley. No. 1,136,405; Apr. 20; Gaz. vol. 213; p. 906.
Motor-control system. E. C. Woodruff. No. 1,136,195; Apr. 20; Gaz. vol. 213; p. 830.
Motor-controller. M. M. Goldenstein. No. 1,136,668; Apr. 20; Gaz. vol. 213; p. 998.
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Motor controller, Electric-. C. T. Henderson. No. 1,134,196; Apr. 6; Gaz. vol. 213; p. 41.
Motor-regulator. W. F. Cooper. No. 1,134,821; Apr. 6; Gaz. vol. 213; p. 267.
Motor respirator, Gasolene-. C. H. Smith. No. 1,135,142; Apr. 13; Gaz. vol. 213; p. 422.
Motor-starter. G. H. Whittingham. No. 1,135,870; Apr. 13; Gaz. vol. 213; p. 676.
Motor-starting mechanism. J. Keller. No. 1,135,694; Apr. 13; Gaz. vol. 213; p. 614.
Motor-starting mechanism. W. P. Rudkin. No. 1,135,849; Apr. 13; Gaz. vol. 213; p. 669.
Motor support, Driving-. E. Cheshire. No. 1,135,767; Apr. 13; Gaz. vol. 213; p. 639.
Motors, Heater and thermostat attachment for. T. C. Leake. No. 1,137,219; Apr. 27; Gaz. vol. 213; p. 1233.
Motors, Thermostatic control for electric. D. P. Cartwright. No. 1,136,312; Apr. 20; Gaz. vol. 213; p. 871.
Mower. G. P. Helfrich. No. 1,134,851; Apr. 6; Gaz. vol. 213; p. 276.
Mower and tedder. W. R. Jones. No. 1,137,630; Apr. 27; Gaz. vol. 213; p. 1377.
Mower attachment. J. W. Mosely. No. 1,135,463; Apr. 13; Gaz. vol. 213; p. 532.
Mower attachment, Lawn-. C. Swanson. No. 1,135,071; Apr. 13; Gaz. vol. 213; p. 397.
Mower, Lawn-. W. E. Graham. No. 1,135,683; Apr. 13; Gaz. vol. 213; p. 610.
Mower, Lawn-. R. K. Ortt. No. 1,134,899; Apr. 6; Gaz. vol. 213; p. 292.
Mower, Lawn-. J. D. Tillman. No. 1,134,650; Apr. 6; Gaz. vol. 213; p. 207.
Mowing-machine attachment. D. A. Lindholm. No. 1,134,339; Apr. 6; Gaz. vol. 213; p. 94.
Mowing-machine blades, Locking means for. B. C. Parsons. No. 1,137,662; Apr. 27; Gaz. vol. 213; p. 1387.
Mowing-machines and harvesters, Endless cutting apparatus for. J. C. Swanson. No. 1,136,628; Apr. 20; Gaz. vol. 213; p. 984.
Muffler. E. Troike. No. 1,137,554; Apr. 27; Gaz. vol. 213; p. 1352.
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Multiplications, Machine for the effecting of. J. Vermehren. No. 1,134,169; Apr. 6; Gaz. vol. 213; p. 31.
Music-desk and table, Combination. L. E. Newhall. No. 1,135,543; Apr. 13; Gaz. vol. 213; p. 560.
Music-leaf turner. L. A. Bower. No. 1,135,255; Apr. 13; Gaz. vol. 213; p. 459.
Music-roll for mechanical musical instruments. C. A. Ahlstrom. No. 1,136,577; Apr. 20; Gaz. vol. 213; p. 967.
Musical device. E. S. Mayland. No. 1,136,355; Apr. 20; Gaz. vol. 213; p. 887.
Musical instrument, Automatic combination solo. P. Welin. No. 1,136,385; Apr. 20; Gaz. vol. 213; p. 898.
Musical instrument, Mechanical. J. A. Weser. No. 1,137,439; Apr. 27; Gaz. vol. 213; p. 1314.
Musical-instrument player. P. Welin. No. 1,134,249; Apr. 6; Gaz. vol. 213; p. 61.
Musical instrument, Pneumatic. P. Wiggen. No. 1,136,190; Apr. 20; Gaz. vol. 213; p. 827.
Musical instrument, Pneumatic automatic. R. J. Bennett. No. 1,135,152; Apr. 13; Gaz. vol. 213; p. 426.
Musical instruments, Adjusting device for the note-sheets of self-playing. E. G. Anderson. No. 1,134,986; Apr. 13; Gaz. vol. 213; p. 367.
Musical instruments, Controller-lever for automatic. A. P. Gustafson. No. 1,136,955; Apr. 27; Gaz. vol. 213; p. 1136.
Nail-feeding mechanism. H. C. Herr. No. 1,137,316; Apr. 27; Gaz. vol. 213; p. 1269.
Nail-puller. C. E. Glafke. No. 1,135,105; Apr. 13; Gaz. vol. 213; p. 409.
Nailer, String-. L. E. Johnson. No. 1,134,617; Apr. 6; Gaz. vol. 213; p. 194.
Nailing-machine. E. Tompkins. No. 1,135,335; Apr. 13; Gaz. vol. 213; p. 487.
Neckband for wearing-apparel, Adjustable. I. M. Gould. No. 1,135,682; Apr. 13; Gaz. vol. 213; p. 610.
Necktie. J. H. Allen. No. 1,136,917; Apr. 27; Gaz. vol. 213; p. 1123.
Necktie. S. Franc. No. 1,135,170; Apr. 13; Gaz. vol. 213; p. 431.

Necktie-package. H. Brown. No. 1,134,722; Apr. 6; Gaz. vol. 213; p. 234.
Neckwear. M. Heyman. No. 1,137,486; Apr. 27; Gaz. vol. 213; p. 1329.
Needle-making machine, Automatic spring-beard. W. H. Dayton. No. 1,136,778; Apr. 20; Gaz. vol. 213; p. 1037.
Nest, Trap-. M. F. Donahae. No. 1,135,441; Apr. 13; Gaz. vol. 213; p. 524.
Nest, Trap-. E. G. Schiller. No. 1,134,912; Apr. 6; Gaz. vol. 213; p. 295.
Nitrogen and potash and recovering and solidifying the same, Concentrated product of. S. W. Sinsheimer. No. 1,134,921; Apr. 6; Gaz. vol. 213; p. 298.
Non-explosive preparations and making same. A. Schmidt. No. 1,136,724; Apr. 20; Gaz. vol. 213; p. 1019.
Non-skidding attachment for wheels. J. Urbanek. No. 1,136,298; Apr. 20; Gaz. vol. 213; p. 867.
Nose-ring for live stock. U. G. Stewart. No. 1,136,496; Apr. 20; Gaz. vol. 213; p. 938.
Nostril-dilating device. G. E. Dixon. No. 1,135,675; Apr. 13; Gaz. vol. 213; p. 608.
Note-sheets, Machine for applying expression-indicating lines and the like to perforated. E. G. Clark. No. 1,137,259; Apr. 27; Gaz. vol. 213; p. 1248.
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Nut for a bolt, Lock-. F. W. Burnett. No. 1,136,310; Apr. 20; Gaz. vol. 213; p. 871.
Nut for bench-vises. O. Anderson. No. 1,134,937; Apr. 6; Gaz. vol. 213; p. 304.
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Nut-lock. A. Dillon. No. 1,134,596; Apr. 6; Gaz. vol. 213; p. 187.
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Nut-lock. G. W. Fenstemaker. No. 1,136,416; Apr. 20; Gaz. vol. 213; p. 910.
Nut-lock. D. Hill. No. 1,135,899; Apr. 13; Gaz. vol. 213; p. 686.
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Nut-lock. L. D. Johnson. No. 1,134,274; Apr. 6; Gaz. vol. 213; p. 70.
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Nut-lock. C. H. Willison. No. 1,137,042; Apr. 27; Gaz. vol. 213; p. 1168.
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Nutcracker. J. M. Harper. No. 1,134,265; Apr. 6; Gaz. vol. 213; p. 67.
Observation instrument. A. P. Hartmann. No. 1,134,610; Apr. 6; Gaz. vol. 213; p. 192.
Oil-burner. W. H. Frost. No. 1,136,115; Apr. 20; Gaz. vol. 213; p. 800.
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Oil-burning apparatus, Fuel-. E. W. Tucker. No. 1,136,849; Apr. 20; Gaz. vol. 213; p. 1063.
Oil-can. H. Carr, Jr. No. 1,135,156; Apr. 13; Gaz. vol. 213; p. 427.
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Oil-switch. L. Fleischmann and A. Elfes. No. 1,137,309; Apr. 27; Gaz. vol. 213; p. 1267.
Oil-tanks, Gas-exhauster for. O. J. Holmes. No. 1,136,230; Apr. 20; Gaz. vol. 213; p. 842.
Oiling device. C. Balough. No. 1,137,111; Apr. 27; Gaz. vol. 213; p. 1194.
Operating-room for hospitals. H. J. Schlacks. No. 1,134,161; Apr. 6; Gaz. vol. 213; p. 28.
Ophthalmotrope. G. A. Suffa. No. 1,135,222; Apr. 13; Gaz. vol. 213; p. 448.
Optical instrument. F. L. G. Kollmorgen. No. 1,134,388; Apr. 6; Gaz. vol. 213; p. 111.
Orchard-heater. W. C. Scheu. No. 1,136,902; Apr. 20; Gaz. vol. 213; p. 1081.
Orchard-heater draft-regulator. W. C. Scheu. No. 1,134,764; Apr. 6; Gaz. vol. 213; p. 249.
Ore-concentrator. F. D. Reid. No. 1,134,349; Apr. 6; Gaz. vol. 213; p. 97.
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Ore-treating process and apparatus. L. E. Porter. No. 1,136,483; Apr. 20; Gaz. vol. 213; p. 933.
Ores, Apparatus for the wet dressing of sulfid. B. S. Smith. No. 1,136,622; Apr. 20; Gaz. vol. 213; p. 983.
Ores, Treating. R. Baggaley. No. 1,135,488; Apr. 13; Gaz. vol. 213; p. 540.
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Orthodontia device for influencing the alveolar process and unemerged teeth. W. E. Walker. No. 1,137,298; Apr. 27; Gaz. vol. 213; p. 1263.
Oscillation-receiving device. G. W. Pickard. No. 1,136,044; Apr. 20; Gaz. vol. 213; p. 777.
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Outsoles, Preparing. J. J. Heys. No. 1,137,618; Apr. 27; Gaz. vol. 213; p. 1373.
Oven. F. Stalek. No. 1,136,493; Apr. 20; Gaz. vol. 213; p. 937.
Oven, Baker's. H. Gottschalk. No. 1,137,711; Apr. 27; Gaz. vol. 213; p. 1402.
Oven, Baking-. C. B. Goldsmith. No. 1,136,120; Apr. 20; Gaz. vol. 213; p. 801.
Oven for heating asphalt pavement. C. A. Switzer. No. 1,136,294; Apr. 20; Gaz. vol. 213; p. 865.
Oven, Gas-. A. H. Kohlmeyer. No. 1,135,700; Apr. 13; Gaz. vol. 213; p. 616.
Overhead carrier. G. H. Weber. No. 1,137,040; Apr. 27; Gaz. vol. 213; p. 1168.
Overload protective device. W. E. Date. No. 1,136,657; Apr. 20; Gaz. vol. 213; p. 995.
Oxide with hydrogen, Apparatus for the reduction of metallic. E. C. Kayser. No. 1,134,745; Apr. 6; Gaz. vol. 213; p. 242.
Oxyacetylene apparatus. M. L. Popp. No. 1,136,437; Apr. 20; Gaz. vol. 213; p. 917.
Ozonator. L. Goldberg. No. 1,136,227; Apr. 20; Gaz. vol. 213; p. 841.
Package. H. A. Christensen. No. 1,135,878; Apr. 13; Gaz. vol. 213; p. 678.
Package-carrier. E. Palmer. No. 1,137,523; Apr. 27; Gaz. vol. 213; p. 1342.
Package-carrying handle. T. H. Spurrier. No. 1,137,548; Apr. 27; Gaz. vol. 213; p. 1350.
Package-tie. J. W. Heffley. No. 1,137,485; Apr. 27; Gaz. vol. 213; p. 1329.
Packaging device. E. L. Calahan. No. 1,136,505; Apr. 20; Gaz. vol. 213; p. 941.
Packer's cutting implement. J. R. Allais. No. 1,137,445; Apr. 27; Gaz. vol. 213; p. 1316.
Packeting, weighing, and delivering given quantities of granular or powdery material, Automatic machine for. G. Prokofiew. No. 1,137,284; Apr. 27; Gaz. vol. 213; p. 1258.
Packing. A. J. Paige. No. 1,136,435; Apr. 20; Gaz. vol. 213; p. 917.
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Packing and weighing machine, Material. W. S. Smith and H. W. Welsh. No. 1,134,705; Apr. 6; Gaz. vol. 213; p. 227.
Packing and wrapping machine. J. de Bionay. No. 1,136,412; Apr. 20; Gaz. vol. 213; p. 909.
Packing for piston-rods, Metallic. J. Badeker. No. 1,134,091; Apr. 6; Gaz. vol. 213; p. 8.
Packing-ring. E. B. Campbell. No. 1,136,506; Apr. 20; Gaz. vol. 213; p. 941.
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Pad: *See*—
Collar-pad. Ironing-pad. Hoof-pad.
Pail attachment, Milk-. A. O. Row. No. 1,135,848; Apr. 13; Gaz. vol. 213; p. 668.
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Pan: *See*—
Dust-pan.
Pan and plate lifter. E. D. Schmitt. No. 1,137,536; Apr. 27; Gaz. vol. 213; p. 1346.
Panel-board, Metering. A. C. McWilliams. No. 1,137,413; Apr. 27; Gaz. vol. 213; p. 1305.
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Fruit-picker.
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Emblematic pin.
Hair-pin.
Safety-pin.
Pin-catch. M. L. Noxon. No. 1,134,898; Apr. 6; Gaz. vol. 213; p. 292.
Pin-tumbler lock. C. F. Kohlberger. No. 1,135,027; Apr. 13; Gaz. vol. 213; p. 382.
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Cracker-pipe.
Smoker's pipe.
Smoking-pipe.
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Post: *See*—
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Post. F. Noveas. No. 1,134,897; Apr. 6; Gaz. vol. 213; p. 292.
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Posts of stone, Wire crib for forming. J. W. Page. No. 1,136,134; Apr. 13; Gaz. vol. 213; p. 419.
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Glue or like pot.
Pot and cover lifter. K. Prochaska. No. 1,134,905; Apr. 6; Gaz. vol. 213; p. 293.
Potato-digger. I. Harrison. No. 1,135,180; Apr. 13; Gaz. vol. 213; p. 435.
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Press: *See*—
Arbor-press.
Baling-press.
Fluid-molding press.
Printing-press.
Shingle-press.
Tobacco-press.
Wheel-press.
Press. E. T. Meakin. No. 1,135,809; Apr. 13; Gaz. vol. 213; p. 478.
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Printing-plates, Producing. J. A. H. Hatt. No. 1,134,381; Apr. 6; Gaz. vol. 213; p. 108.
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Projectile. A. O'Rawe. No. 1,136,480; Apr. 20; Gaz. vol. 213; p. 933.
Projectiles, Contour-cap for. C. Davis. No. 1,135,772; Apr. 13; Gaz. vol. 213; p. 640.
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Propeller. T. A. Macdonald. No. 1,135,829; Apr. 13; Gaz. vol. 213; p. 662.
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Propulsion system, Ship-. W. L. R. Emmet. No. 1,137,308; Apr. 27; Gaz. vol. 213; p. 1266.
Propulsion system, Ship-. W. L. R. Emmet. No. 1,137,593; Apr. 27; Gaz. vol. 213; p. 1305.
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Proscenium structure. H. W. Bishop. No. 1,136,860; Apr. 20; Gaz. vol. 213; p. 1066.
Protector. J. Schoening. No. 1,137,428; Apr. 27; Gaz. vol. 213; p. 1310.
Pruning implement. D. Ronconi. No. 1,137,286; Apr. 27; Gaz. vol. 213; p. 1259.
Pruning-shears. W. R. and H. A. Barr. No. 1,136,759; Apr. 20; Gaz. vol. 213; p. 1032.
Pruning-shears. E. Buell. No. 1,137,380; Apr. 27; Gaz. vol. 213; p. 1293.
Puller: *See*—
Nail-puller. Weed-puller.
Stump-puller.
Pulling-over and lasting machine. E. Brothers. No. 1,135,947; Apr. 13; Gaz. vol. 213; p. 701.
Pulling-over machine. R. F. McFeely. No. 1,135,954; Apr. 13; Gaz. vol. 213; p. 704.
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Pulley-wheel. W. Livingston. No. 1,135,595; Apr. 13; Gaz. vol. 213; p. 579.
Pulp-screen. P. P. Westbye. No. 1,134,304; Apr. 6; Gaz. vol. 213; p. 81.
Pulsometer. A. H. W. Johnson. No. 1,135,189; Apr. 13; Gaz. vol. 213; p. 438.
Pulverizer. J. L. Hiller. No. 1,135,795; Apr. 13; Gaz. vol. 213; p. 648.
Pulverizer, Soil-. C. Griffith. No. 1,135,277; Apr. 13; Gaz. vol. 213; p. 486.
Pump. S. F. Bowser. No. 1,137,456; Apr. 27; Gaz. vol. 213; p. 1319.
Pump. W. B. Elb. No. 1,136,946; Apr. 27; Gaz. vol. 213; p. 1133.
Pump. R. E. Hurst. No. 1,137,211; Apr. 27; Gaz. vol. 213; p. 1230.
Pump. O. A. Kraeer. No. 1,135,821; Apr. 13; Gaz. vol. 213; p. 658.
Pump. E. P. Porcher. No. 1,135,320; Apr. 13; Gaz. vol. 213; p. 482.
Pump and motor, Rotary. W. J. Vincent. No. 1,135,414; Apr. 13; Gaz. vol. 213; p. 515.
Pump and vacuum-trap, Pressure-. J. E. L. Ogden. No. 1,134,405; Apr. 6; Gaz. vol. 213; p. 117.
Pump, Automatically-controlled. W. R. Stuteville. No. 1,135,221; Apr. 13; Gaz. vol. 213; p. 448.
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Pump, Double-acting force-. A. R. Shippey. No. 1,134,918; Apr. 6; Gaz. vol. 213; p. 297.
Pump-head, Self-oiling. H. A. Stenger. No. 1,134,929; Apr. 6; Gaz. vol. 213; p. 301.
Pump, Lubricator-. J. P. Herman. No. 1,136,334; Apr. 20; Gaz. vol. 213; p. 879.
Pump, Oil-. E. V. Reno and J. A. C. Bois. No. 1,135,617; Apr. 13; Gaz. vol. 213; p. 587.
Pump-operating means. S. F. Bowser. No. 1,137,114; Apr. 27; Gaz. vol. 213; p. 1195.
Pump or motor. F. Reaugh. No. 1,136,976; Apr. 27; Gaz. vol. 213; p. 1143.
Pump-regulating mechanism. R. Conrader. No. 1,135,360; Apr. 13; Gaz. vol. 213; p. 495.
Pump, Rotary. D. C. Baker and H. F. Hansen. No. 1,136,756; Apr. 20; Gaz. vol. 213; p. 1030.
Pump, Rotary. J. R. Kinney. No. 1,135,291; Apr. 13; Gaz. vol. 213; p. 471.
Pump, Rotary. J. R. Kinney. No. 1,137,215; Apr. 27; Gaz. vol. 213; p. 1231.
Pump transmission mechanism. J. O. Shafer. No. 1,135,060; Apr. 13; Gaz. vol. 213; p. 394.
Pump, Turbine-. W. A. Doble. No. 1,135,364; Apr. 13; Gaz. vol. 213; p. 496.
Pump, Turbine-. F. W. Krogh. No. 1,135,296; Apr. 13; Gaz. vol. 213; p. 473.
Pump, Vertical steam-. K. Dougan. No. 1,136,216; Apr. 20; Gaz. vol. 213; p. 837.
Pumps and the like, Adjustable pointer and stop for. S. F. Bowser. No. 1,137,455; Apr. 27; Gaz. vol. 213; p. 1319.
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Pumping apparatus, Air-. R. V. Morse. No. 1,134,215; Apr. 6; Gaz. vol. 213; p. 48.
Pumping-jack. A. T. Wolfe. No. 1,135,419; Apr. 13; Gaz. vol. 213; p. 516.
Pumping system. F. C. Weber. No. 1,136,070; Apr. 20; Gaz. vol. 213; p. 785.
Punching-machine gage device. L. C. Koehl. No. 1,135,531; Apr. 13; Gaz. vol. 213; p. 555.
Push-button. G. E. and E. B. Roedding. No. 1,135,926; Apr. 13; Gaz. vol. 213; p. 693.
Pyrographic needle. M. R. Carr. No. 1,137,573; Apr. 27; Gaz. vol. 213; p. 1358.
Pyroxylin bodies, Forming. F. Kniffen. No. 1,135,026; Apr. 13; Gaz. vol. 213; p. 382.
Quick-action wrench. S. Lauff. No. 1,136,540; Apr. 20; Gaz. vol. 213; p. 953.
Quick-release wrench. S. Lauff. No. 1,136,539; Apr. 20; Gaz. vol. 213; p. 953.
Rack: *See*—
Ball and cue rack. Feed-rack.
Display-rack. Tent-rack.
Radiator. L. A. Kuenz. No. 1,137,335; Apr. 27; Gaz. vol. 213; p. 1276.
Radiator-jacket. J. E. Robinson. No. 1,136,440; Apr. 20; Gaz. vol. 213; p. 918.
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Radiators and the like, Cap for automobile-. H. S. Morgan. No. 1,134,890; Apr. 6; Gaz. vol. 213; p. 280.
Radiotelegraphic receivers, Process and apparatus for determining the position of. A. Meissner. No. 1,135,604; Apr. 13; Gaz. vol. 213; p. 582.
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Rail-bender, Reversible. M. A. Bodkin. No. 1,136,463; Apr. 20; Gaz. vol. 213; p. 925.
Rail-brace. A. T. Angle. No. 1,136,753; Apr. 20; Gaz. vol. 213; p. 1030.
Rail, Compound. E. R. Brown. No. 1,136,585; Apr. 20; Gaz. vol. 213; p. 970.
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Rail, Guard-. H. G. Elfborg. No. 1,135,272; Apr. 13; Gaz. vol. 213; p. 465.
Rail-joint. S. Du Rail. No. 1,135,443; Apr. 13; Gaz. vol. 213; p. 526.
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Rail-joint, Boltless. C. I. Richardson and W. D. Hall. No. 1,136,273; Apr. 20; Gaz. vol. 213; p. 857.
Rail-joint, Insulated. W. P. Thomson. No. 1,135,862; Apr. 13; Gaz. vol. 213; p. 673.
Rail-sanding method and apparatus. J. V. Geraghty. No. 1,136,667; Apr. 20; Gaz. vol. 213; p. 998.
Rail-tie. L. A. Anfinson. No. 1,136,859; Apr. 20; Gaz. vol. 213; p. 1066.
Rail tie and fastener. W. A. Guptill. No. 1,134,737; Apr. 6; Gaz. vol. 213; p. 239.
Rail tie and fastener. H. W. Shipley. No. 1,135,065; Apr. 13; Gaz. vol. 213; p. 395.
Rails, Approach for rack-. L. L. Brande. No. 1,137,694; Apr. 27; Gaz. vol. 213; p. 1397.
Railway block system. R. E. Thompson. No. 1,135,225; Apr. 13; Gaz. vol. 213; p. 448.
Railway brake, Pleasure-. T. McCormack. No. 1,137,342; Apr. 27; Gaz. vol. 213; p. 1279.
Railway cross-tie, Cast-metal. G. W. Snyder. No. 1,136,180; Apr. 20; Gaz. vol. 213; p. 824.
Railway-crossing. J. V. Fogerty. No. 1,135,888; Apr. 13; Gaz. vol. 213; p. 682.
Railway device, Safety. J. M. Galloway. (Reissue.) No. 13,897; Apr. 6; Gaz. vol. 213; p. 324.
Railway draft-rigging. W. H. Miner. No. 1,136,029; Apr. 20; Gaz. vol. 213; p. 772.
Railway-gate. J. A. and G. W. Hoar. No. 1,134,201; Apr. 6; Gaz. vol. 213; p. 43.
Railway-rail joint. C. S. Ellixson. No. 1,134,321; Apr. 6; Gaz. vol. 213; p. 88.
Railway safety device. C. H. Goodpasture. No. 1,136,793; Apr. 20; Gaz. vol. 213; p. 1042.
Railway safety system. H. W. McNaught. No. 1,134,278; Apr. 6; Gaz. vol. 213; p. 71.

Railway signal and control apparatus. C. F. Rumold. No. 1,137,089; Apr. 27; Gaz. vol. 213; p. 1185.
Railway-signal-controlling mechanism. A. H. Renshaw. No. 1,137,084; Apr. 27; Gaz. vol. 213; p. 1183.
Railway-speeders, Safety attachment for. R. K. Payne. No. 1,134,410; Apr. 6; Gaz. vol. 213; p. 119.
Railway-spike. C. D. Russell. No. 1,134,160; Apr. 6; Gaz. vol. 213; p. 27.
Railway, Suspension-. J. H. Smith. No. 1,137,361; Apr. 27; Gaz. vol. 213; p. 1286.
Railway-switch. J. T. Hamilton and C. C. McMullen. No. 1,135,375; Apr. 13; Gaz. vol. 213; p. 500.
Railway-switch-operating means, Mechanical. A. Löffler. No. 1,134,627; Apr. 6; Gaz. vol. 213; p. 198.
Railway-switch stop. E. D. Levy. No. 1,136,967; Apr. 27; Gaz. vol. 213; p. 1141.
Railway-tie. B. Q. P. Foss. No. 1,136,113; Apr. 20; Gaz. vol. 213; p. 800.
Railway-tie. H. J. Goodyear. No. 1,136,871; Apr. 20; Gaz. vol. 213; p. 1070.
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Railway-tie and clamp. S. R. Still. No. 1,136,288; Apr. 20; Gaz. vol. 213; p. 863.
Railway-tie and rail-clamp, Combined. J. F. Hawley. No. 1,134,130; Apr. 6; Gaz. vol. 213; p. 17.
Railway-tie, Metallic. W. C. Frank. No. 1,135,171; Apr. 13; Gaz. vol. 213; p. 431.
Railway-transfer. A. Ginss. No. 1,137,398; Apr. 27; Gaz. vol. 213; p. 1299.
Railway turn-tables, Safety device for. J. T. Sheridan. No. 1,135,855; Apr. 13; Gaz. vol. 213; p. 670.
Railways, Automatic block-signaling system for electric. S. M. Day. No. 1,137,705; Apr. 27; Gaz. vol. 213; p. 1400.
Railways, Current-supply system for electric. W. F. Byram and R. P. Phronebarger. No. 1,134,371; Apr. 6; Gaz. vol. 213; p. 105.
Railways, Grain-door for. A. R. Peterson. No. 1,135,918; Apr. 13; Gaz. vol. 213; p. 691.
Railways, Safety stop apparatus for. I. Czavra. No. 1,135,670; Apr. 13; Gaz. vol. 213; p. 607.
Rain-alarm, Electric. H. J. Hirschmann. No. 1,135,798; Apr. 13; Gaz. vol. 213; p. 650.
Rain-indicator. C. E. Smith. No. 1,137,674; Apr. 27; Gaz. vol. 213; p. 1390.
Rake: *See*—
Grain-rake.
Rake attachment, Hay-. M. Turk. No. 1,136,565; Apr. 20; Gaz. vol. 213; p. 963.
Rake-cleaner. J. A. and W. A. Brewer. No. 1,136,770; Apr. 20; Gaz. vol. 213; p. 1035.
Rake-cleaning attachment. G. B. Gardner. No. 1,136,002; Apr. 20; Gaz. vol. 213; p. 763.
Razor-blade. F. A. Fuller. No. 1,135,008; Apr. 13; Gaz. vol. 213; p. 375.
Razor, Safety-. J. F. Craven. No. 1,135,362; Apr. 13; Gaz. vol. 213; p. 496.
Razor, Safety-. J. B. De Mesquita. No. 1,135,775; Apr. 13; Gaz. vol. 213; p. 641.
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Razor-strop and dispenser, Aseptic. G. C. Frye and F. C. Rollins. No. 1,137,590; Apr. 27; Gaz. vol. 213; p. 1367.
Reamer. S. F. Estell. No. 1,134,322; Apr. 6; Gaz. vol. 213; p. 88.
Reamer. H. R. Hughes. No. 1,136,135; Apr. 20; Gaz. vol. 213; p. 808.
Receiving and delivering apparatus. C. D. Watson. No. 1,135,230; Apr. 13; Gaz. vol. 213; p. 450.
Receptacle. H. H. Hancock. No. 1,136,421; Apr. 20; Gaz. vol. 213; p. 912.
Receptacle. E. H. W. Ullrich. No. 1,134,427; Apr. 6; Gaz. vol. 213; p. 125.
Receptacle and closure therefor. E. Fowler. No. 1,134,524; Apr. 6; Gaz. vol. 213; p. 161.
Receptacle cover and spout. M. Blume. No. 1,135,758; Apr. 13; Gaz. vol. 213; p. 636.
Receptacle, Covered. J. P. Nicodemus and L. E. Beckley. No. 1,137,078; Apr. 27; Gaz. vol. 213; p. 1181.
Receptacle, Pocketed. W. B. Smith. No. 1,134,561; Apr. 6; Gaz. vol. 213; p. 175.
Receptacle, Sheet-metal. C. T. Draper. No. 1,134,730; Apr. 6; Gaz. vol. 213; p. 237.
Receptacle-top. W. G. Kendall. No. 1,135,380; Apr. 13; Gaz. vol. 213; p. 502.
Receptacles, Machine for assembling metal. H. F. Richter. No. 1,136,555; Apr. 20; Gaz. vol. 213; p. 958.
Receptacles, Machine for filling. J. F. Geyer. No. 1,137,128; Apr. 27; Gaz. vol. 213; p. 1200.
Receptacles, Metallic cap for. L. R. N. Carvalho. No. 1,137,725; Apr. 27; Gaz. vol. 213; p. 1407.
Receptacles, Process of and apparatus for making. E. A. Claus. No. 1,136,775; Apr. 20; Gaz. vol. 213; p. 1036.
Reciprocating-gear mechanism. W. L. Hamilton. No. 1,134,332; Apr. 6; Gaz. vol. 213; p. 91.
Recorder: *See*—
Graphic recorder. Telephone-call recorder.
Recording mechanism. C. Sulfer. No. 1,135,555; Apr. 13; Gaz. vol. 213; p. 564.
Reeding-machine. J. Demyen. No. 1,135,673; Apr. 13; Gaz. vol. 213; p. 608.
Reel: *See*—
Clothes-line reel. Harvester-reel.
Film-reel.
Reel-carriage and wire-stretcher, Combined. G. Morton. No. 1,135,041; Apr. 13; Gaz. vol. 213; p. 387.
Refrigerating apparatus. H. M. and W. C. Heater. No. 1,134,269; Apr. 6; Gaz. vol. 213; p. 68.
Refrigerating-car. J. G. Richert. No. 1,137,285; Apr. 27; Gaz. vol. 213; p. 1258.
Refrigerating-machines, Automatic regulator for. W. F. Krieger. No. 1,135,196; Apr. 13; Gaz. vol. 213; p. 436.
Refrigerator-car floor. G. H. Ellis. No. 1,137,197; Apr. 27; Gaz. vol. 213; p. 1224.
Refrigerator, Portable. R. Jackson, Jr. No. 1,137,324; Apr. 27; Gaz. vol. 213; p. 1272.
Refuse-destructor or other furnace. J. H. Thwaites and J. T. Craven. No. 1,135,961; Apr. 13; Gaz. vol. 213; p. 707.
Register: *See*—
Account-register. Cash and autographic register.
Accounting-register. Cash and credit register.
Automobile liquid-fuel-tank register. Dairy-register.
Cash-register. Time-register.
Register-concealing mechanism. E. M. Bates and F. Phillips. No. 1,135,149; Apr. 13; Gaz. vol. 213; p. 425.
Registering-machine. C. Sulfer. No. 1,135,552; Apr. 13; Gaz. vol. 213; p. 563.
Regulator: *See*—
End-cell regulator. Paper-thickness regulator.
Fluid-pressure regulator. Spinning-machine regulator.
Heat-regulator. Voltage-regulator.
Lamp-regulator.
Motor-regulator.
Orchard-heater draft-regulator.
Rein-guard. D. Anderson. No. 1,136,920; Apr. 27; Gaz. vol. 213; p. 1124.
Relay, Electrical. A. W. Copley. No. 1,135,438; Apr. 13; Gaz. vol. 213; p. 523.
Relief mechanism. A. Prau. No. 1,136,609; Apr. 20; Gaz. vol. 213; p. 978.
Resilient wheel. G. R. Bair. No. 1,137,375; Apr. 27; Gaz. vol. 213; p. 1291.
Resilient wheel. J. B. Davis. No. 1,135,994; Apr. 20; Gaz. vol. 213; p. 760.
Resilient wheel. W. F. Doll. No. 1,136,867; Apr. 20; Gaz. vol. 213; p. 1068.
Resilient wheel. W. F. Doll. No. 1,136,868; Apr. 20; Gaz. vol. 213; p. 1069.
Resilient wheel. W. F. Doll. No. 1,136,869; Apr. 20; Gaz. vol. 213; p. 1069.
Resilient wheel. L. H. Gulbrandson. No. 1,135,278; Apr. 13; Gaz. vol. 213; p. 467.
Resilient wheel. J. J. Hesse. No. 1,134,199; Apr. 6; Gaz. vol. 213; p. 42.
Resilient wheel. N. King, Sr. No. 1,137,063; Apr. 27; Gaz. vol. 213; p. 1177.
Resilient wheel. B. Marley, W. P. Thacker, and R. P. Barnard. No. 1,137,509; Apr. 27; Gaz. vol. 213; p. 1337.
Resilient wheel. J. F. Nettle. No. 1,136,704; Apr. 20; Gaz. vol. 213; p. 1012.
Resonator. J. J. Comer. No. 1,137,187; Apr. 27; Gaz. vol. 213; p. 1221.
Restraining device. B. Gáspár. No. 1,136,396; Apr. 20; Gaz. vol. 213; p. 903.
Retainer, Combination-. F. Harding. No. 1,136,331; Apr. 20; Gaz. vol. 213; p. 878.
Reversing-gear mechanism. C. Feagler. No. 1,137,597; Apr. 27; Gaz. vol. 213; p. 1366.
Rheostat. C. B. Reisbach. No. 1,137,352; Apr. 27; Gaz. vol. 213; p. 1283.
Rim, Demountable. F. E. Donham and W. H. Fisher. No. 1,137,708; Apr. 27; Gaz. vol. 213; p. 1401.
Ring: *See*—
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Ring-feeding machine. J. Merritt and C. H. Storrs. No. 1,134,887; Apr. 6; Gaz. vol. 213; p. 288.
Ring-holding device. W. Jacques. No. 1,135,807; Apr. 13; Gaz. vol. 213; p. 653.
Riveting-machines, Clutch-actuating mechanism for. R. Jay. No. 1,137,058; Apr. 27; Gaz. vol. 213; p. 1174.
Roach-trap. E. A. Deardorff. No. 1,134,318; Apr. 6; Gaz. vol. 213; p. 87.
Road-bed and leveler. F. U. Adams. No. 1,136,916; Apr. 27; Gaz. vol. 213; p. 1123.
Road-hone. J. H. Kolpien. No. 1,135,532; Apr. 13; Gaz. vol. 213; p. 556.
Roaster, Portable rotary. B. Mago. No. 1,134,343; Apr. 6; Gaz. vol. 213; p. 95.
Rock-clearing machine. J. W. Redding. No. 1,134,226; Apr. 6; Gaz. vol. 213; p. 53.
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Rod-cutter. N. C. Simonsen. No. 1,137,093; Apr. 27; Gaz. vol. 213; p. 1187.
Rodent-exterminating system. D. L. Levey. No. 1,137,639; Apr. 27; Gaz. vol. 213; p. 1380.
Rodent-trap. D. L. Levey. No. 1,137,640; Apr. 27; Gaz. vol. 213; p. 1381.
Roll-crusher. R. C. Newhouse. No. 1,137,418; Apr. 27; Gaz. vol. 213; p. 1307.

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Roller-screen, Knockdown. W. W. Watson. No. 1,135,563; Apr. 13; Gaz. vol. 213; p. 567.
Rolling-mill attachment, Plate-. G. Diefenbach and H. Waldorf. No. 1,135,996; Apr. 20; Gaz. vol. 213; p. 761.
Roof for mausoleums, vaults, and the like. C. E. Tayntor. No. 1,136,629; Apr. 20; Gaz. vol. 213; p. 985.
Roof structure for storage-bins. J. E. Allsteadt. No. 1,137,689; Apr. 27; Gaz. vol. 213; p. 1396.
Rosin and turpentine from resinous woods, Removing. W. M. Bashlin. No. 1,136,994; Apr. 27; Gaz. vol. 213; p. 1151.
Rosin-holder. W. F. T. Mollenhauer and H. E. Leach. No. 1,137,414; Apr. 27; Gaz. vol. 213; p. 1305.
Rotary attachment. H. G. Johnston. No. 1,135,808; Apr. 13; Gaz. vol. 213; p. 653.
Rotary crusher. J. L. Hiller. No. 1,135,017; Apr. 13; Gaz. vol. 213; p. 378.
Rotary drill, Impact. W. H. Wakfer. No. 1,136,987; Apr. 27; Gaz. vol. 213; p. 1148.
Rotary engine. E. C. Allen and F. J. Mueller. No. 1,135,750; Apr. 13; Gaz. vol. 213; p. 633.
Rotary engine. L. E. Keil. No. 1,136,344; Apr. 20; Gaz. vol. 213; p. 882.
Rotary engine. G. Silvestri. No. 1,134,357; Apr. 6; Gaz. vol. 213; p. 100.
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Rotation, Indicator of speeds of. J. Masson. No. 1,135,827; Apr. 13; Gaz. vol. 213; p. 661.
Routing apparatus. F. G. Whittler. No. 1,136,571; Apr. 20; Gaz. vol. 213; p. 965.
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Rubber, Reclaiming. O. A. Wheeler. No. 1,135,236; Apr. 13; Gaz. vol. 213; p. 452.
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Rug-seams, Machine for applying reinforcing means to. H. E. Terry. No. 1,137,243; Apr. 27; Gaz. vol. 213; p. 1242.
Rugs, Seam for. H. E. Terry. No. 1,136,380; Apr. 20; Gaz. vol. 213; p. 896.
Rules, Substitute for printers' brass. A. G. Stevenson. No. 1,135,145; Apr. 13; Gaz. vol. 213; p. 424.
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Sad-iron, Self-heating. G. B. Hudson and W. P. Bope. No. 1,136,338; Apr. 20; Gaz. vol. 213; p. 880.
Saddle-bag. M. E. Mease. No. 1,136,691; Apr. 20; Gaz. vol. 213; p. 1006.
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Sand-compressing means for making molds. W. C. Lang. No. 1,137,638; Apr. 27; Gaz. vol. 213; p. 1380.
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Sanding device. G. H. Lyne. No. 1,135,306; Apr. 13; Gaz. vol. 213; p. 477.
Sash-bars, Interlocking joint for. W. Bayley. No. 1,136,087; Apr. 20; Gaz. vol. 213; p. 701.
Sash-center. J. J. Delaney. No. 1,137,706; Apr. 27; Gaz. vol. 213; p. 1400.
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Sash-lock. R. O. Beach. No. 1,137,302; Apr. 27; Gaz. vol. 213; p. 1264.
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Saw, Convertible. J. M. Nugent. No. 1,135,912; Apr. 13; Gaz. vol. 213; p. 690.
Saw-filing device. W. T. O'Hara. No. 1,136,257; Apr. 20; Gaz. vol. 213; p. 852.
Saw-filing machine. C. F. Hertz. No. 1,135,015; Apr. 13; Gaz. vol. 213; p. 378.
Saw guard, Circular-. J. Edman. No. 1,135,168; Apr. 13; Gaz. vol. 213; p. 430.
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Scaffold, Portable. J. A. Granger. No. 1,136,898; Apr. 20; Gaz. vol. 213; p. 1079.
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Scarf-holder. C. M. Paquette. No. 1,134,900; Apr. 6; Gaz. vol. 213; p. 292.
Scarifier. D. B. Cook. No. 1,134,945; Apr. 6; Gaz. vol. 213; p. 307.
Scissors or shears. J. T. Wright. No. 1,137,687; Apr. 27; Gaz. vol. 213; p. 1395.
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Scraper, Wheeled. J. E. Petty. No. 1,137,230; Apr. 27; Gaz. vol. 213; p. 1237.
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Pulp-screen. Window-screen.
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Screen and insect-trap, Combined. E. Lampel. No. 1,134,875; Apr. 6; Gaz. vol. 213; p. 284.
Screen-frame. G. G. Bunger. No. 1,135,352; Apr. 13; Gaz. vol. 213; p. 492.
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Seal. L. S. Flatau. No. 1,137,391; Apr. 27; Gaz. vol. 213; p. 1296.
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Chair-seat. Spring-seat.
Runabout-seat. Wagon-seat.
Seat-trimmer. A. Laing. No. 1,134,874; Apr. 6; Gaz. vol. 213; p. 284.

Sectional mold. R. R. Robertson and C. G. Naylor. No. 1,136,439; Apr. 20; Gaz. vol. 213; p. 918.
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Separable joint for display-figures. L. Wulkan and K. Glass. No. 1,134,716; Apr. 6; Gaz. vol. 213; p. 232.
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Cream-separator. Hop-separator.
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Separator. W. K. Liggett. No. 1,135,594; Apr. 13; Gaz. vol. 213; p. 578.
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Setting device. W. F. Straub. No. 1,137,677; Apr. 27; Gaz. vol. 213; p. 1391.
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Shears. J. F. Black. No. 1,134,814; Apr. 6; Gaz. vol. 213; p. 265.
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Shoe, Waterproof. C. M. Lenker. No. 1,136,819; Apr. 20; Gaz. vol. 213; p. 1052.
Shoe, Welt-. F. W. Merrick. No. 1,137,270; Apr. 27; Gaz. vol. 213; p. 1252.
Shoes, Arch-support for. J. P. Anderson. No. 1,134,804; Apr. 6; Gaz. vol. 213; p. 263.
Shoes, Machine for use in the manufacture of welt-. W. Fowler. No. 1,136,222; Apr. 20; Gaz. vol. 213; p. 839.
Shoes, Making. E. Brothers. No. 1,135,946; Apr. 13; Gaz. vol. 213; p. 701.
Shoes, Making. R. F. McFeely. No. 1,135,951; Apr. 13; Gaz. vol. 213; p. 703.
Shoes, Making. R. F. McFeely. No. 1,135,953; Apr. 13; Gaz. vol. 213; p. 704.
Shoes, Repair-counter for. J. W. Bodeen. No. 1,136,764; Apr. 20; Gaz. vol. 213; p. 1033.
Shoemaker's jack. J. A. Mogle. No. 1,134,889; Apr. 6; Gaz. vol. 213; p. 289.
Shoemaking-machine. E. Erickson. No. 1,137,125; Apr 27; Gaz. vol. 213; p. 1199.
Shoulder-brace and compressor, Combined. E. Schweinburg. No. 1,137,541; Apr. 27; Gaz. vol. 213; p. 1347.
Shovel. I. F. Arnow. No. 1,136,754; Apr. 20; Gaz. vol. 213; p. 1030.
Show-case light. A. W. Beuttell. No. 1,137,379; Apr. 27; Gaz. vol. 213; p. 1292.
Sieve. S. C. Lawlor. No. 1,136,243; Apr. 20; Gaz. vol. 213; p. 847.
Sifter, Ash-. W. A. Bevard. No. 1,135,567; Apr. 13; Gaz. vol. 213; p. 569.
Sifter, Ash-. J. W. Grundorf. No. 1,135,107; Apr. 13; Gaz. vol. 213; p. 410.
Sifter, Flour-. G. McEachron. No. 1,137,068; Apr. 27; Gaz. vol. 213; p. 1178.
Sign, Changeable. G. F. Felscher. (Reissue.) No. 13,896; Apr. 6; Gaz. vol. 213; p. 323.
Sign, Illuminated. C. A. McNeal. No. 1,135,308; Apr. 13; Gaz. vol. 213; p. 478.
Sign or advertising device. F. Z. Hanscom. No. 1,136,973; Apr. 20; Gaz. vol. 213; p. 1071.
Signal: *See*—
Automobile-signal.
Car-signal.
Elevator-signal.
Fog-signal.
Railway-signal.
Tire-signal.
Vehicle-signal.
Warning-signal.
Way-signal.
Signal. E. O. Brannington. No. 1,136,402; Apr. 20; Gaz. vol. 213; p. 905.
Signal device, Warning-. R. H. Manson. No. 1,135,600; Apr. 13; Gaz. vol. 213; p. 580.
Signal system for hospitals, Electric. M. O. Burt. No. 1,134,105; Apr. 6; Gaz. vol. 213; p. 8.
Signaling apparatus, Electric. E. G. Missbach. No. 1,135,040; Apr. 13; Gaz. vol. 213; p. 387.
Signaling apparatus, Electromagnetic. C. H. North. No. 1,134,758; Apr. 6; Gaz. vol. 213; p. 247.
Signaling apparatus, Military. B. R. Dietz. No. 1,135,778; Apr. 13; Gaz. vol. 213; p. 642.
Signaling apparatus, Selective. E. R. Gill. No. 1,137,474; Apr. 27; Gaz. vol. 213; p. 1325.
Signaling apparatus, Selective. E. R. Gill. No. 1,137,475; Apr. 27; Gaz. vol. 213; p. 1325.
Signaling device. C. B. Camp. No. 1,134,256; Apr. 6; Gaz. vol. 213; p. 64.
Signaling device for tradesmen. O. J. Orser. No. 1,135,915; Apr. 13; Gaz. vol. 213; p. 690.
Signaling device, Vehicle. M. T. Miller. No. 1,137,070; Apr. 27; Gaz. vol. 213; p. 1179.
Signaling, Selective electrical. L. M. Potts. No. 1,135,321; Apr. 13; Gaz. vol. 213; p. 482.
Signaling, Selective electrical. L. M. Potts. No. 1,135,920; Apr. 13; Gaz. vol. 213; p. 692.
Signaling system. E. E. Backus. No. 1,135,487; Apr. 13; Gaz. vol. 213; p. 540.
Signaling system. C. E. Beach. No. 1,135,427; Apr. 13; Gaz. vol. 213; p. 520.
Signaling system, Selective. P. N. Hill. No. 1,136,337; Apr. 20; Gaz. vol. 213; p. 880.
Signaling, Transmitting apparatus for electrical. L. M. Potts. No. 1,135,322; Apr. 13; Gaz. vol. 213; p. 483.
Silo. H. B. Hamilton. No. 1,137,611; Apr. 27; Gaz. vol. 213; p. 1371.
Silo. F. W. Smith. No. 1,135,143; Apr. 13; Gaz. vol. 213; p. 423.
Silo. C. J. Stahly. No. 1,137,676; Apr. 27; Gaz. vol. 213; p. 1391.
Silo construction. W. L. Beltz. No. 1,134,663; Apr. 6; Gaz. vol. 213; p. 212.
Silos, Expansion-ring for wood-stave. S. M. Foreman. No. 1,136,000; Apr. 20; Gaz. vol. 213; p. 762.
Silvering apparatus. F. W. Bartlett. No. 1,135,653; Apr. 13; Gaz. vol. 213; p. 600.
Singeing-burner, Adjustable. W. W. Kemp and W. H. Van Horn. No. 1,135,813; Apr. 13; Gaz. vol. 213; p. 655.
Sink, Kitchen-. M. Nemec. No. 1,134,696; Apr. 6; Gaz. vol. 213; p. 224.
Siphon attachment. F. K. Hyde. No. 1,137,488; Apr. 27; Gaz. vol. 213; p. 1330.
Siphon-head. A. A. Pratt and J. Zollinger. No. 1,137,530; Apr. 27; Gaz. vol. 213; p. 1344.
Sizing or volumetric grading of materials, Apparatus for. C. L. McKesson and B. F. Rice. No. 1,135,123; Apr. 13; Gaz. vol. 213; p. 415.
Skate, Roller-. G. P. Schmidt. No. 1,134,962; Apr. 6; Gaz. vol. 213; p. 313.
Skirt and waist holder. N. Beck. No. 1,134,176; Apr. 6; Gaz. vol. 213; p. 34.
Slate. F. J. Wohlcke and J. H. McLellan. No. 1,136,575; Apr. 20; Gaz. vol. 213; p. 966.
Sled. E. L. Cadisch. No. 1,135,256; Apr. 13; Gaz. vol. 213; p. 460.
Sled and coaster, Convertible. W. H. Fox. No. 1,135,889; Apr. 13; Gaz. vol. 213; p. 682.
Sled-brake. C. Oak. No. 1,137,163; Apr. 27; Gaz. vol. 213; p. 1212.
Sled-brake, Automatic. A. Platzek. No. 1,136,716; Apr. 20; Gaz. vol. 213; p. 1016.
Sled-runner. F. Hornquist. No. 1,134,612; Apr. 6; Gaz. vol. 213; p. 193.
Sleigh. D. S. Hall. No. 1,134,453; Apr. 6; Gaz. vol. 213; p. 135.
Sleigh and wheeled vehicle, Convertible. J. Wisted. No. 1,134,657; Apr. 6; Gaz. vol. 213; p. 210.
Slicer, Vegetable-. C. W. Ott. No. 1,137,017; Apr. 27; Gaz. vol. 213; p. 1160.
Slipper. I. F. McCamish. No. 1,136,474; Apr. 20; Gaz. vol. 213; p. 930.
Slitting mechanism. G. L. Cowan. No. 1,134,590; Apr. 6; Gaz. vol. 213; p. 185.
Slow-down and sheet-straightening device. R. E. Jones and G. A. Martin. No. 1,135,811; Apr. 13; Gaz. vol. 213; p. 655.
Slurry-mixing apparatus. A. Schröder. No. 1,137,294; Apr. 27; Gaz. vol. 213; p. 1261.
Smelting furnace, Copper-. W. G. Perkins. No. 1,136,834; Apr. 20; Gaz. vol. 213; p. 1058.
Smelting sulfid ores, Preventing the escape of sulfur dioxid in. W. A. Hall. No. 1,134,846; Apr. 6; Gaz. vol. 213; p. 275.
Smoke and gas returning means. J. M. Nye. No. 1,135,913; Apr. 13; Gaz. vol. 213; p. 690.
Smoke-consumer. O. Olson. No. 1,134,553; Apr. 6; Gaz. vol. 213; p. 172.
Smoke-consuming furnace. H. L. Price and G. J. Cartwright. No. 1,135,842; Apr. 13; Gaz. vol. 213; p. 667.
Smoke-consuming furnace. E. Stanley. No. 1,136,287; Apr. 20; Gaz. vol. 213; p. 863.
Smoke-indicator. I. J. Babcock. No. 1,135,651; Apr. 13; Gaz. vol. 213; p. 599.

Smoke-plug. D. McKenzie. No. 1,137,344; Apr. 27; Gaz. vol. 213; p. 1280.
Smoker's kit. J. Lombardero. No. 1,135,457; Apr. 13; Gaz. vol. 213; p. 530.
Smoker's pipe. G. C. Hopkins. No. 1,136,422; Apr. 20; Gaz. vol. 213; p. 912.
Smoking-pipe. H. H. Ferris. No. 1,135,447; Apr. 13; Gaz. vol. 213; p. 527.
Snap-hook. J. B. Baxter. No. 1,134,310; Apr. 6; Gaz. vol. 213; p. 83.
Snap-hook. H. G. Wernimont. No. 1,136,744; Apr. 20; Gaz. vol. 213; p. 1026.
Snap-hook, Bolt. J. B. Baxter. No. 1,134,311; Apr. 6; Gaz. vol. 213; p. 84.
Snap-switch base. W. H. Pratt. No. 1,135,138; Apr. 13; Gaz. vol. 213; p. 421.
Snatch-block. V. E. Thorp. No. 1,135,740; Apr. 13; Gaz. vol. 213; p. 630.
Soap and glass holder. P. J. McKinley. No. 1,134,144; Apr. 6; Gaz. vol. 213; p. 23.
Soap-holder. L. H. Smith. No. 1,135,857; Apr. 13; Gaz. vol. 213; p. 671.
Socket cover and shade-holder, Electric. G. A. Spurway. No. 1,135,069; Apr. 13; Gaz. vol. 213; p. 397.
Soldering-iron. D. E. Rodgers. No. 1,135,050; Apr. 13; Gaz. vol. 213; p. 391.
Soldering-iron. C. Stichler. No. 1,134,165; Apr. 6; Gaz. vol. 213; p. 29.
Sole for shoes. L. E. Meyer. No. 1,137,159; Apr. 27; Gaz. vol. 213; p. 1212.
Sole mold, Combination gang-. C. H. Hill. No. 1,136,336; Apr. 20; Gaz. vol. 213; p. 880.
Sole-molding machine. R. A. Kelley. No. 1,137,633; Apr. 27; Gaz. vol. 213; p. 1378.
Sole, Pieced outer. C. H. Merrow. No. 1,136,253; Apr. 20; Gaz. vol. 213; p. 850.
Sole, Protected flexible shoe-. A. Anderson. No. 1,134,803; Apr. 6; Gaz. vol. 213; p. 263.
Sole-straightening means. J. J. Gruenig. No. 1,135,106; Apr. 13; Gaz. vol. 213; p. 409.
Soles, Machine for affixing linings to shoe-. J. A. Kelly. No. 1,134,619; Apr. 6; Gaz. vol. 213; p. 195.
Solids from liquids, Apparatus for the separation of finely-divided. J. V. N. Dorr. No. 1,135,997; Apr. 20; Gaz. vol. 213; p. 761.
Solids from liquids, Obtaining. O. E. Merrell. No. 1,136,356; Apr. 20; Gaz. vol. 213; p. 887.
Sound-box and bridge, Combined. H. M. Maine. No. 1,137,649; Apr. 27; Gaz. vol. 213; p. 1383.
Sound transmission and recording. O. E. Kellum. No. 1,137,060; Apr. 27; Gaz. vol. 213; p. 1175.
Spark-arrester. C. H. Gregory and M. F. Hamilton. No. 1,135,681; Apr. 13; Gaz. vol. 213; p. 610.
Spark-plug. C. W. Beck. No. 1,136,996; Apr. 27; Gaz. vol. 213; p. 1152.
Spark-plug. J. P. Inman and R. E. Estes. No. 1,136,961; Apr. 27; Gaz. vol. 213; p. 1138.
Spark-plug. C. A. Mexzer. No. 1,134,345; Apr. 6; Gaz. vol. 213; p. 96.
Spark-plug. A. Schmidt. No. 1,135,727; Apr. 13; Gaz. vol. 213; p. 626.
Speed-alarm. W. B. Crossland. No. 1,136,410; Apr. 20; Gaz. vol. 213; p. 908.
Speed-changing apparatus. A. Sundh. No. 1,134,772; Apr. 6; Gaz. vol. 213; p. 253.
Speed device, Automatic change-. J. A. McKeever. No. 1,137,507; Apr. 27; Gaz. vol. 213; p. 1336.
Speed-indicator and the like. B. Bonniksen. No. 1,134,369; Apr. 6; Gaz. vol. 213; p. 104.
Speed-measuring apparatus. D. F. Comstock and H. T. Kalmus. No. 1,136,105; Apr. 20; Gaz. vol. 213; p. 797.
Speed-transmission apparatus, Variable-. J. A. Wilkin. No. 1,136,636; Apr. 20; Gaz. vol. 213; p. 986.
Speed-transmission mechanism, Variable-. M. F. Webster. No. 1,136,188; Apr. 20; Gaz. vol. 213; p. 826.
Speedometer for separators, Centrifugal. M. H. G. Oedekerk. No. 1,136,706; Apr. 20; Gaz. vol. 213; p. 1012.
Speedometers and similar devices for temperature variations, Means for compensating. E. M. Thompson. No. 1,134,649; Apr. 6; Gaz. vol. 213; p. 207.
Sphygmomanometer. P. Nicholson. No. 1,134,632; Apr. 6; Gaz. vol. 213; p. 200.
Spindles, Chuck for web-. G. F. Sullivan. No. 1,136,627; Apr. 20; Gaz. vol. 213; p. 984.
Spindles, Step-bearing head for rotary. A. R. Jackson. No. 1,134,270; Apr. 6; Gaz. vol. 213; p. 69.
Spinning-machine tension-regulator. J. G. Cunningham and F. W. Manion. No. 1,137,053; Apr. 27; Gaz. vol. 213; p. 1172.
Spinning-machine thread-guide. J. Coldwell. No. 1,134,315; Apr. 6; Gaz. vol. 213; p. 85.
Spinning machines, Spinning-tray for cellular-material-. O. A. Günther. No. 1,134,379; Apr. 6; Gaz. vol. 213; p. 107.
Spinning or twisting machines, Thread-guide support for. L. T. Houghton. No. 1,134,336; Apr. 6; Gaz. vol. 213; p. 93.
Spool-holder. M. J. Otto. No. 1,137,079; Apr. 27; Gaz. vol. 213; p. 1182.
Spool-holder. S. M. and S. Wechsler. No. 1,136,854; Apr. 20; Gaz. vol. 213; p. 1064.
Spools, Tension device for. J. Larson. No. 1,135,702; Apr. 13; Gaz. vol. 213; p. 617.
Spray catcher, Acid-. F. Tschudy. No. 1,135,471; Apr. 13; Gaz. vol. 213; p. 534.
Sprayer, Perfume-. M. J. R. Bloch. No. 1,134,098; Apr. 6; Gaz. vol. 213; p. 6.
Sprayer, Tree-. J. Wilcox. No. 1,135,341; Apr. 13; Gaz. vol. 213; p. 489.
Spraying machine, Dust-. C. E. Johnson. No. 1,135,288; Apr. 13; Gaz. vol. 213; p. 470.
Spring: *See*—
Auxiliary spring.
Bed-spring.
Cushion-spring.
Cycle-spring.
Mattress-spring.
Vehicle-spring.
Vehicle bolster-spring.
Spring. F. C. Givens. No. 1,134,889; Apr. 6; Gaz. vol. 213; p. 272.
Spring. H. A. Poppenhusen. No. 1,135,319; Apr. 13; Gaz. vol. 213; p. 481.
Spring-clamp. I. B. Homan. No. 1,134,131; Apr. 6; Gaz. vol. 213; p. 17.
Spring construction, Upholstery-. L. A. Young. No. 1,137,106; Apr. 27; Gaz. vol. 213; p. 1192.
Spring-mounted wheel. S. D. Wills. No. 1,136,191; Apr. 20; Gaz. vol. 213; p. 828.
Spring-plank-locking device. J. A. Lamont. No. 1,135,591; Apr. 13; Gaz. vol. 213; p. 577.
Spring-repair means. J. Lock. No. 1,137,155; Apr. 27; Gaz. vol. 213; p. 1210.
Spring-seat. J. P. Nicholls. No. 1,137,656; Apr. 27; Gaz. vol. 213; p. 1385.
Spring-tension device. B. L. Brandt. No. 1,137,722; Apr. 27; Gaz. vol. 213; p. 1407.
Spring-wheel. C. Ekiss. No. 1,134,828; Apr. 6; Gaz. vol. 213; p. 269.
Spring-wheel. J. H. Lysinger. No. 1,135,458; Apr. 13; Gaz. vol. 213; p. 530.
Spring-wheel. G. J. Murphy. No. 1,134,218; Apr. 6; Gaz. vol. 213; p. 49.
Spring-wheel. H. Weidner. No. 1,135,869; Apr. 13; Gaz. vol. 213; p. 675.
Sprinkler: *See*—
Automatic sprinkler.
Lawn-sprinkler.
Sprinkler systems, Alarm control for. C. Smith. No. 1,134,645; Apr. 6; Gaz. vol. 213; p. 205.
Sprinkling roads, Process of and apparatus for. H. M. Nichols. No. 1,137,077; Apr. 27; Gaz. vol. 213; p. 1181.
Spur. G. Buermann. No. 1,135,991; Apr. 20; Gaz. vol. 213; p. 759.
Square. E. A. King. No. 1,135,814; Apr. 13; Gaz. vol. 213; p. 656.
Square, Bevel-. F. O. Haga. No. 1,134,845; Apr. 6; Gaz vol. 213; p. 274.
Square, level, and compass, Combined. B. Rudolff. No. 1,137,169; Apr. 27; Gaz. vol. 213; p. 1214.
Square, Try-. E. W. Cokely. No. 1,135,259; Apr. 13; Gaz. vol. 213; p. 460.
Stabilizing apparatus. A. S. Chessin. No. 1,134,439; Apr. 6; Gaz. vol. 213; p. 129.
Stacker, Hay-. C. A. Fleming. No. 1,135,369; Apr. 13; Gaz. vol. 213; p. 498.
Stair, Metal. G. W. Brooks. No. 1,134,992; Apr. 13; Gaz. vol. 213; p. 369.
Stalk-cutter. J. S. Currie. No. 1,135,363; Apr. 13; Gaz. vol. 213; p. 496.
Stalk-cutter. J. H. Grove. No. 1,134,451; Apr. 6; Gaz. vol. 213; p. 134.
Stamp-applying machines, Stamp-supporter for cigarette-box-. J. Ibarra. No. 1,137,625; Apr. 27; Gaz. vol. 213; p. 1375.
Stamp-canceler. R. E. Wall. No. 1,134,652; Apr. 6; Gaz. vol. 213; p. 208.
Stamp-mill. E. H. Moyle. No. 1,137,272; Apr. 27; Gaz. vol. 213; p. 1253.
Stamp, Self-inking hand-. H. S. Folger and C. L. Redfield. No. 1,134,950; Apr. 6; Gaz. vol. 213; p. 309.
Stamping-machine. E. Aberle. No. 1,134,431; Apr. 6; Gaz. vol. 213; p. 126.
Stamping-machine. H. W. Winter. No. 1,137,103; Apr. 27; Gaz. vol. 213; p. 1191.
Stanchion. W. F. Jacobs. No. 1,135,526; Apr. 13; Gaz. vol. 213; p. 553.
Stanchion, Cattle-. R. H. Buckingham. No. 1,134,255; Apr. 6; Gaz. vol. 213; p. 63.
Stanchion, Cattle-. W. R. Nelson. No. 1,134,150; Apr. 6; Gaz. vol. 213; p. 24.
Stand: *See*—
Cycle-stand.
Display-stand.
Extensible stand.
Iron-stand.
Stand-pipe-cleaning means. H. A. Carpenter. No. 1,135,498; Apr. 13; Gaz. vol. 213; p. 544.
Staple-affixing machine. G. F. Hullings and D. P. Moore. No. 1,136,807; Apr. 20; Gaz. vol. 213; p. 1048.
Staple forming and driving machine. H. Weber. No. 1,134,303; Apr. 6; Gaz. vol. 213; p. 80.
Starch from settling-tables, Apparatus for removing. F. L. Jefferies. No. 1,134,615; Apr. 6; Gaz. vol. 213; p. 194.
Starting mechanism, Safety. C. McClair. No. 1,135,385; Apr. 13; Gaz. vol. 213; p. 504.
Stave-sander. J. J. Krohn and F. J. Davis. No. 1,136,146; Apr. 20; Gaz. vol. 213; p. 812.

Stay-bolt, Flexible. P. F. Gallagher. No. 1,137,600; Apr. 27; Gaz. vol. 213; p. 1367.
Stays and applying tips thereto, Device for cutting. M. B. Gardner. No. 1,137,396; Apr. 27; Gaz. vol. 213; p. 1298.
Stays, Machine for forming wire. J. F. Kitchen. (Reissue.) No. 13,904; Apr. 27; Gaz. vol. 213; p. 1408.
Steam-boiler. P. McLoon. No. 1,135,908; Apr. 13; Gaz. vol. 213; p. 688.
Steam-generator. H. C. Heaton. No. 1,137,137; Apr. 27; Gaz. vol. 213; p. 1203.
Steam-generator, Slag. L. L. Battu. No. 1,135,984; Apr. 20; Gaz. vol. 213; p. 757.
Steam-joint. M. J. Roach. No. 1,135,720; Apr. 13; Gaz. vol. 213; p. 623.
Steam-trap. W. L. Wilcox and T. G. Rakestraw. No. 1,137,102; Apr. 27; Gaz. vol. 213; p. 1160.
Steel and producing high phosphorus slag, Refining. A. Vögler. No. 1,137,681; Apr. 27; Gaz. vol. 213; p. 1393.
Steel manufacture. E. F. Kenney. No. 1,137,144; Apr. 27; Gaz. vol. 213; p. 1206.
Steering arm and post. D. E. Ross. No. 1,136,557; Apr. 20; Gaz. vol. 213; p. 959.
Steering-gear. D. E. Ross. No. 1,136,556; Apr. 20; Gaz. vol. 213; p. 959.
Steering mechanism for ships. G. A. Heinze. No. 1,136,332; Apr. 20; Gaz. vol. 213; p. 878.
Stencil. E. D. Belknap. No. 1,134,094; Apr. 6; Gaz. vol. 213; p. 5.
Stencil. F. M. West. No. 1,134,571; Apr. 6; Gaz. vol. 213; p. 178.
Stencil-card. E. D. Belknap. No. 1,134,095; Apr. 6; Gaz. vol. 213; p. 5.
Stencil-plate and record-card, Combined. C. D. Palmer. No. 1,136,972; Apr. 27; Gaz. vol. 213; p. 1142.
Stencil-sheets, Forming. H. P. Elliott. No. 1,136,591; Apr. 20; Gaz. vol. 213; p. 972.
Stereotype-plate-cooling machine. H. A. W. Wood. No. 1,134,799; Apr. 6; Gaz. vol. 213; p. 262.
Stereotype-plate finishing and cooling machine. H. A. W. Wood. No. 1,134,798; Apr. 6; Gaz. vol. 213; p. 261.
Stirrup. H. Metcalf. No. 1,136,154; Apr. 20; Gaz. vol. 213; p. 815.
Stock and poultry fountain, Automatic. J. H. Threlkeld. No. 1,136,738; Apr. 20; Gaz. vol. 213; p. 1024.
Stock-tank, Sanitary. W. S. Crum. No. 1,136,510; Apr. 20; Gaz. vol. 213; p. 943.
Stoker, Mechanical. A. G. Elvin. No. 1,137,471; Apr. 27; Gaz. vol. 213; p. 1324.
Stoker mechanism. W. C. A. Henry. No. 1,134,198; Apr. 6; Gaz. vol. 213; p. 42.
Stokers, Grate-vibrating device for chain-grate. B. J. Morrison. No. 1,136,033; Apr. 20; Gaz. vol. 213; p. 773.
Stoking apparatus, Automatic. W. J. Kenney and H. P. Grohn. No. 1,136,679; Apr. 20; Gaz. vol. 213; p. 1002.
Stone, Artificial. E. Gossett. No. 1,135,176; Apr. 13; Gaz. vol. 213; p. 433.
Stone-dressing machine. M. Woods, G. W. Gilbert, and J. Little. No. 1,134,658; Apr. 6; Gaz. vol. 213; p. 210.
Stool, Folding. J. Tomassi. No. 1,135,864; Apr. 13; Gaz. vol. 213; p. 674.
Stop-box key. O. J. La Combe, Jr. No. 1,135,297; Apr. 13; Gaz. vol. 213; p. 474.
Stop device, Adjustable. A. A. Bowser. No. 1,137,454; Apr. 27; Gaz. vol. 213; p. 1318.
Stopper: *See*—
Bottle-stopper.
Storage battery. P. B. Whitney. No. 1,136,075; Apr. 20; Gaz. vol. 213; p. 787.
Stove. H. J. Schuyler. No. 1,137,538; Apr. 27; Gaz. vol. 213; p. 1346.
Stove. H. D. Wood. No. 1,135,478; Apr. 13; Gaz. vol. 213; p. 537.
Stove construction. L. S. Chadwick. No. 1,136,935; Apr. 27; Gaz. vol. 213; p. 1129.
Stove, Electric. W. F. Merrill. No. 1,134,886; Apr. 6; Gaz. vol. 213; p. 288.
Stove, Gas heating-. M. A. Possons. No. 1,137,529; Apr. 27; Gaz. vol. 213; p. 1343.
Stove-handle. M. A. Possons. No. 1,136,718; Apr. 20; Gaz. vol. 213; p. 1017.
Stove, Heating-. H. B. Hemphill. No. 1,134,384; Apr. 6; Gaz. vol. 213; p. 109.
Stove, Heating-. C. K. Rice. No. 1,136,615; Apr. 20; Gaz. vol. 213; p. 980.
Stove lighter, Gas-. F. G. Nicolaus. No. 1,137,520; Apr. 27; Gaz. vol. 213; p. 1340.
Stove-lighting device, Gas-. M. A. Possons. No. 1,136,717; Apr. 20; Gaz. vol. 213; p. 1016.
Strainer. I. L. James. No. 1,137,266; Apr. 27; Gaz. vol. 213; p. 1251.
Strainer. E. C. Kelly, Jr. No. 1,134,275; Apr. 6; Gaz. vol. 213; p. 70.
Strainer, funnel, and lid for culinary vessels, Combination. A. A. Cook. No. 1,137,190; Apr. 27; Gaz. vol. 213; p. 1222.
Strap-support, Adjustable. A. T. Keith. No. 1,136,963; Apr. 27; Gaz. vol. 213; p. 1139.
Street and station indicator. W. Jacobsen, J. D. Cameron, and F. J. Lough. No. 1,135,693; Apr. 13; Gaz. vol. 213; p. 614.
Street-sweeper. C. H. Butler. No. 1,134,586; Apr. 6; Gaz. vol. 213; p. 184.
Street-sweepers, Dust-collector mechanism for. F. R. Brugger. No. 1,137,184; Apr. 27; Gaz. vol. 213; p. 1220.
Stretcher, Foldable. J. Seniuk. No. 1,136,174; Apr. 20; Gaz. vol. 213; p. 822.
Structure for educational and recreative purposes. F. A. Pridmore. No. 1,137,167; Apr. 27; Gaz. vol. 213; p. 1214.
Stud and support, Adjustable fixture. A. M. Knauber. No. 1,135,699; Apr. 13; Gaz. vol. 213; p. 616.
Stump-puller. M. Mullins. No. 1,136,702; Apr. 20; Gaz. vol. 213; p. 1011.
Suction-head connection. G. Brand. No. 1,136,889; Apr. 20; Gaz. vol. 213; p. 1076.
Superheater. C. D. Young. No. 1,135,422; Apr. 13; Gaz. vol. 213; p. 517.
Superheating apparatus, Steam-. E. H. Foster. No. 1,136,114; Apr. 20; Gaz. vol. 213; p. 800.
Support. F. H. Evans. No. 1,136,783; Apr. 20; Gaz. vol. 213; p. 1039.
Surface-gage. T. Kopinski. No. 1,135,941; Apr. 13; Gaz. vol. 213; p. 698.
Surface-heater. G. R. Birney. No. 1,135,493; Apr. 13; Gaz. vol. 213; p. 542.
Surfacing-machine. A. G. Ferrarini. No. 1,134,116; Apr. 6; Gaz. vol. 213; p. 12.
Surveying instrument. M. Giesecke. No. 1,136,951; Apr. 27; Gaz. vol. 213; p. 1135.
Surveyor's instrument. C. L. Berger. No. 1,135,153; Apr. 13; Gaz. vol. 213; p. 426.
Suspension-clamp. C. W. Dietrich. No. 1,134,519; Apr. 6; Gaz. vol. 213; p. 159.
Suspensory. W. S. Wootton. No. 1,135,479; Apr. 13; Gaz. vol. 213; p. 537.
Sweat-band for head-gear. P. and C. S. Merton. No. 1,134,888; Apr. 6; Gaz. vol. 213; p. 288.
Swimming device. T. Royster. No. 1,137,289; Apr. 27; Gaz. vol. 213; p. 1260.
Swimming-machine. W. D. Brossman. No. 1,135,350; Apr. 13; Gaz. vol. 213; p. 492.
Swing. D. Crawford. No. 1,135,160; Apr. 13; Gaz. vol. 213; p. 428.
Swing. W. F. Pilcher. No. 1,136,262; Apr. 20; Gaz. vol. 213; p. 854.
Swingletree. A. R. Guariglia. No. 1,135,109; Apr. 13; Gaz. vol. 213; p. 410.
Switch: *See*—
Electric switch. | Magnetic switch.
Electrical switch. | Oil-switch.
Knife-blade switch. | Railway-switch.
Light-controlling switch. | Time-switch.
Switch-box. C. A. Erichson. No. 1,136,324; Apr. 20; Gaz. vol. 213; p. 875.
Switch-box, Protective. T. E. Murray. No. 1,135,130; Apr. 13; Gaz. vol. 213; p. 418.
Switch-point drain-box. G. A. Errington. No. 1,136,782; Apr. 20; Gaz. vol. 213; p. 1039.
Switch-point-operating apparatus. W. F. Bossert. No. 1,136,767; Apr. 20; Gaz. vol. 213; p. 1034.
Switch-throwing device. F. A. Johnson. No. 1,136,809; Apr. 20; Gaz. vol. 213; p. 1048.
Switch-throwing device. J. Wiener. No. 1,135,238; Apr. 13; Gaz. vol. 213; p. 453.
Switching mechanism, Automatic. J. G. Roberts. No. 1,134,230; Apr. 6; Gaz. vol. 213; p. 54.
Switching socket or connector. G. C. Knauff. No. 1,136,681; Apr. 20; Gaz. vol. 213; p. 1002.
Symbols in frames, Means for holding. M. Schiller. No. 1,135,726; Apr. 13; Gaz. vol. 213; p. 626.
Syringe. A. C. Dayton. No. 1,136,109; Apr. 20; Gaz. vol. 213; p. 798.
Syringe. W. D. Stratton. No. 1,137,242; Apr. 27; Gaz. vol. 213; p. 1242.
Table: *See*—
Balancing-table. | Folding table.
Card-table. | Turn-table.
Extension-table.
Table and clothes-drier, Combined. H. C. Vogel. No. 1,135,637; Apr. 13; Gaz. vol. 213; p. 594.
Table-display stilt. E. T. and J. A. Grunwald. No. 1,134,331; Apr. 6; Gaz. vol. 213; p. 91.
Tachometer. A. Allemann. No. 1,135,486; Apr. 13; Gaz. vol. 213; p. 540.
Tachometer. T. T. Gaff. No. 1,134,951; Apr. 6; Gaz. vol. 213; p. 309.
Tack-pulling machine. J. B. Hadaway. No. 1,137,608; Apr. 27; Gaz. vol. 213; p. 1369.
Tacking mechanism. O. Ashton. No. 1,137,565; Apr. 27; Gaz. vol. 213; p. 1356.
Tacking mechanism. R. F. McFeely. No. 1,135,956; Apr. 13; Gaz. vol. 213; p. 705.
Tacking mechanism for pulling-over machines. R. F. McFeely. No. 1,135,957; Apr. 13; Gaz. vol. 213; p. 706.
Take-up, Rotary. G. B. Osterhout. No. 1,134,482; Apr. 6; Gaz. vol. 213; p. 146.
Talking-machine. P. Catucci. No. 1,137,001; Apr. 27; Gaz. vol. 213; p. 1154.
Talking-machine, Automatic. J. Gabel. No. 1,134,603; Apr. 6; Gaz. vol. 213; p. 189.

Tank: *See*—
Flush-tank. | Water-closet tank.
Settling-tank. | Watering-tank.
Stock-tank.
Tanks, Fuel-reserve attachment for supply-. W. M. Hogle. No. 1,135,018; Apr. 13; Gaz. vol. 213; p. 379.
Tanks, Indicating and registering mechanism for. A. M. Wolf. No. 1,136,576; Apr. 20; Gaz. vol. 213; p. 967.
Tape and thread holder, Combined. A. Masler. No. 1,136,125; Apr. 13; Gaz. vol. 213; p. 416.
Tape-measure. F. F. Forshee. No. 1,134,523; Apr. 6; Gaz. vol. 213; p. 161.
Tape-package. T. S. Hall. No. 1,135,110; Apr. 13; Gaz. vol. 213; p. 411.
Tawing and tanning. L. E. Levi. No. 1,135,977; Apr. 13; Gaz. vol. 213; p. 713.
Taximeter. J. F. Ohmer and E. H. Bridenbaugh. No. 1,136,164; Apr. 20; Gaz. vol. 213; p. 818.
Teaching writing, Device for. M. Urase. No. 1,136,450; Apr. 20; Gaz. vol. 213; p. 921.
Telegraph alphabet, Printing-. C. G. Ashley. No. 1,135,344; Apr. 13; Gaz. vol. 213; p. 490.
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Telegraphy. L. M. Potts. No. 1,135,614; Apr. 13; Gaz. vol. 213; p. 586.
Telegraphy and telephony, Transmitting apparatus for use in wireless. G. Marconi. No. 1,136,477; Apr. 20; Gaz. vol. 213; p. 931.
Telephone-amplifier. R. D. Hatch. No. 1,137,614; Apr. 27; Gaz. vol. 213; p. 1371.
Telephone-call recorder. D. J. McGauran. No. 1,135,971; Apr. 13; Gaz. vol. 213; p. 711.
Telephone-call-registering device. E. Ferran and F. D. Tweeddale. No. 1,135,887; Apr. 13; Gaz. vol. 213; p. 681.
Telephone-exchange. F. A. Lundquist. No. 1,135,121; Apr. 13; Gaz. vol. 213; p. 414.
Telephone-exchange switchboard. C. O. Lee, Jr. No. 1,136,347; Apr. 20; Gaz. vol. 213; p. 884.
Telephone-exchange system. J. L. Wright. No. 1,134,308; Apr. 6; Gaz. vol. 213; p. 82.
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Telephone-exchange trunking system, Semi-automatic. E. A. Mellinger. No. 1,134,978; Apr. 6; Gaz. vol. 213; p. 320.
Telephone-key. G. E. Mueller. No. 1,134,282; Apr. 6; Gaz. vol. 213; p. 73.
Telephone muffler attachment. J. Litt. No. 1,136,687; Apr. 20; Gaz. vol. 213; p. 1005.
Telephone-receiver. J. J. Comer. No. 1,137,186; Apr. 27; Gaz. vol. 213; p. 1221.
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Telephone repeater system. T. G. Martin. No. 1,136,912; Apr. 20; Gaz. vol. 213; p. 1085.
Telephone switching apparatus. B. D. Willis. No. 1,134,933; Apr. 6; Gaz. vol. 213; p. 303.
Telephone switching system, Machine. F. R. McBerty and L. Polinkowsky. No. 1,137,223; Apr. 27; Gaz. vol. 213; p. 1234.
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Telephone system, Automatic. F. Newforth, Jr. (Reissue.) No. 13,901; Apr. 13; Gaz. vol. 213; p. 714.
Telephone system, Common-battery automatic. W. L. Campbell. No. 1,137,200; Apr. 27; Gaz. vol. 213; p. 1225.
Telephone system, Intercommunicating trunk-line. R. M. Beard. No. 1,135,654; Apr. 13; Gaz. vol. 213; p. 600.
Telephone system, Party-line. B. D. Willis. No. 1,135,643; Apr. 13; Gaz. vol. 213; p. 596.
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Telephone, Thermic. B. Gwóźdź. No. 1,135,687; Apr. 13; Gaz. vol. 213; p. 612.
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Telephone-transmitters, Mouthpiece-protector for. C. T. Smith. No. 1,136,284; Apr. 20; Gaz. vol. 213; p. 862.
Telephonic and telegraphic transmission, Means of combined. P. B. Delany. No. 1,137,193; Apr. 27; Gaz. vol. 213; p. 1223.
Telephonograph. E. Chabeault. No. 1,135,486; Apr. 13; Gaz. vol. 213; p. 523.
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Telescopic sight provided with variable sighting-points. O. Graunheding. No. 1,135,787; Apr. 13; Gaz. vol. 213; p. 645.
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Telltale, Cautionary. C. E. Renshaw and C. H. Jenkins. No. 1,134,898; Apr. 6; Gaz. vol. 213; p. 225.
Tellurian. W. Park. No. 1,135,204; Apr. 13; Gaz. vol. 213; p. 443.
Templet. C. H. Wilka. No. 1,135,089; Apr. 13; Gaz. vol. 213; p. 403.
Tent. C. M. Averitt. No. 1,136,992; Apr. 27; Gaz. vol. 213; p. 1150.
Tent-rack. J. Taylor, Jr. No. 1,134,295; Apr. 6; Gaz. vol. 213; p. 77.
Test-indicator. J. L. Wolfe. No. 1,134,713; Apr. 6; Gaz. vol. 213; p. 230.
Testing apparatus. A. B. Collette. No. 1,134,316; Apr. 6; Gaz. vol. 213; p. 86.
Therapeutical device. J. H. Bradley. No. 1,134,720; Apr. 6; Gaz. vol. 213; p. 233.
Thermal circuit-closure. J. Carrigan. No. 1,136,407; Apr. 20; Gaz. vol. 213; p. 907.
Thermo-electric battery for motor-vehicles. L. E. Hale. No. 1,134,452; Apr. 6; Gaz. vol. 213; p. 135.
Thermometer. O. Herrmann. No. 1,136,527; Apr. 20; Gaz. vol. 213; p. 949.
Thermometer, Automobile radiator-. E. A. Larson. No. 1,136,682; Apr. 20; Gaz. vol. 213; p. 1003.
Thermostatic controller. C. A. Dunham. (Reissue.) No. 13,900; Apr. 13; Gaz. vol. 213; p. 713.
Thermotelephone. B. Gwóźdź. No. 1,135,686; Apr. 13; Gaz. vol. 213; p. 611.
Thistle-eradicator. H. Bornemann and J. Tennessen, Jr. No. 1,136,206; Apr. 20; Gaz. vol. 213; p. 834.
Thread-board-cleaning apparatus. H. D. Colman and B. A. Peterson. No. 1,137,305; Apr. 27; Gaz. vol. 213; p. 1265.
Thread-cutter. A. Nieberg. No. 1,134,895; Apr. 6; Gaz. vol. 213; p. 291.
Thread-take-up mechanism. E. L. Barton. No. 1,134,252; Apr. 6; Gaz. vol. 213; p. 62.
Threading device. C. F. Schultis. No. 1,135,057; Apr. 13; Gaz. vol. 213; p. 393.
Thresher, Standing-grain. W. G. Engle. No. 1,134,443; Apr. 6; Gaz. vol. 213; p. 131.
Threshers, Bundle-wagon for. C. H. Swarner. No. 1,135,073; Apr. 13; Gaz. vol. 213; p. 398.
Threshing-machine. T. Pomije and J. Staska. No. 1,135,716; Apr. 13; Gaz. vol. 213; p. 622.
Ticket-holder. G. A. Beattie. No. 1,134,501; Apr. 6; Gaz. vol. 213; p. 153.
Ticket-holder. A. F. Bellinger. No. 1,134,988; Apr. 13; Gaz. vol. 213; p. 868.
Tie: *See*—
Metallic tie. | Railway-tie.
Package-tie. | Railway cross-tie.
Rail-tie. | Sack-tie.
Tie-extractor. W. J. Waddell. No. 1,137,682; Apr. 27; Gaz. vol. 213; p. 1393.
Tie-form. K. H. Rouse. No. 1,134,910; Apr. 6; Gaz. vol. 213; p. 295.
Tie-plate. L. O. Henggi. No. 1,136,333; Apr. 20; Gaz. vol. 213; p. 878.
Tie-plate and rail-fastener, Combination. A. Hosmer. No. 1,134,455; Apr. 6; Gaz. vol. 213; p. 136.
Ties, tie plates, rails, and rail-anchors, Lock for. C. A. Lind. No. 1,137,153; Apr. 27; Gaz. vol. 213; p. 1210.
Tightening-link. J. J. Bukolt. No. 1,136,309; Apr. 20; Gaz. vol. 213; p. 870.
Timber-jack. J. H. Barret. No. 1,134,581; Apr. 6; Gaz. vol. 213; p. 182.
Time-register, Watchman's. C. H. Jenkins. No. 1,135,529; Apr. 13; Gaz. vol. 213; p. 555.
Time-switch. H. C. Nutting. No. 1,135,839; Apr. 13; Gaz. vol. 213; p. 665.
Timepiece. W. H. Tonks. No. 1,137,245; Apr. 27; Gaz. vol. 213; p. 1243.
Timepieces, Positive driving mechanism for the hands of. L. C. Collins. No. 1,136,866; Apr. 20; Gaz. vol. 213; p. 1068.
Timer. F. C. Hersee and L. W. Lombard. No. 1,137,713; Apr. 27; Gaz. vol. 213; p. 1403.
Timing mechanism. F. M. Leavitt. No. 1,134,391; Apr. 6; Gaz. vol. 213; p. 112.
Tin-plate-cleaning apparatus. C. M. Reynard. No. 1,136,270; Apr. 20; Gaz. vol. 213; p. 856.
Tire. W. Drabold and A. P. Mott. No. 1,137,124; Apr. 27; Gaz. vol. 213; p. 1199.
Tire. E. Favary. No. 1,136,662; Apr. 20; Gaz. vol. 213; p. 997.
Tire. E. R. Hewitt. No. 1,135,183; Apr. 13; Gaz. vol. 213; p. 436.
Tire. C. Markson. No. 1,136,546; Apr. 20; Gaz. vol. 213; p. 955.
Tire. C. L. and F. K. Neely. No. 1,135,836; Apr. 13; Gaz. vol. 213; p. 664.
Tire. W. J. Spencer. No. 1,134,291; Apr. 6; Gaz. vol. 213; p. 76.
Tire-armor. G. W. Childers and H. D. Borst. No. 1,136,774; Apr. 20; Gaz. vol. 213; p. 1036.
Tire, Automatic air and elastic cushion. C. W. Barrett. No. 1,135,425; Apr. 13; Gaz. vol. 213; p. 519.
Tire, Automobile-. W. E. Copithorn. No. 1,136,892; Apr. 20; Gaz. vol. 213; p. 1078.
Tire cover, Wheel-. V. T. Kellar. No. 1,134,748; Apr. 6; Gaz. vol. 213; p. 243.
Tire, Cushion-. H. N. Hellman. No. 1,136,009; Apr. 20; Gaz. vol. 213; p. 766.

Tire-cushioning device. E. Favary. No. 1,136,326; Apr. 20; Gaz. vol. 213; p. 876.
Tire-fastening means. J. W. and G. F. Burgess. No. 1,134,313; Apr. 6; Gaz. vol. 213; p. 84.
Tire-gage, Maximum-pressure safety inflating. S. P. Noe. No. 1,137,521; Apr. 27; Gaz. vol. 213; p. 1341.
Tire-holder. F. C. Miller. No. 1,136,547; Apr. 20; Gaz. vol. 213; p. 956.
Tire-holding device, Vehicle. F. F. Phillips. No. 1,137,350; Apr. 27; Gaz. vol. 213; p. 1282.
Tire-inflating means, Pneumatic-. W. J. Drew. No. 1,134,186; Apr. 6; Gaz. vol. 213; p. 37.
Tire, Inner. G. V. Krichbaum. No. 1,137,064; Apr. 27; Gaz. vol. 213; p. 1177.
Tire, Pneumatic. A. M. Allen. No. 1,134,660; Apr. 6; Gaz. vol. 213; p. 211.
Tire, Pneumatic. C. D. Seeberger. No. 1,134,701; Apr. 6; Gaz. vol. 213; p. 226.
Tire, Puncture-proof. R. B. Hayter. No. 1,136,672; Apr. 20; Gaz. vol. 213; p. 999.
Tire, Resilient. S. P. Neuhausen. No. 1,137,518; Apr. 27; Gaz. vol. 213; p. 1340.
Tire, Self-filling. A. B. Wetherell. No. 1,134,361; Apr. 6; Gaz. vol. 213; p. 101.
Tire-signal, Automatic vehicle. J. H. Brown. No. 1,137,116; Apr. 27; Gaz. vol. 213; p. 1196.
Tire-tool. L. M. Rakestraw. No. 1,135,392; Apr. 13; Gaz. vol. 213; p. 507.
Tire-tool. R. W. Sampson. No. 1,136,977; Apr. 27; Gaz. vol. 213; p. 1144.
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Tire-vulcanizing apparatus. J. D. Tew. No. 1,137,097; Apr. 27; Gaz. vol. 213; p. 1189.
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Tires, Collapsible core for vehicle-. P. and B. De Mattia. No. 1,135,774; Apr. 13; Gaz. vol. 213; p. 641.
Tires, Exhaust-valve and pressure-gage for pneumatic. R. H. Henemier. No. 1,137,209; Apr. 27; Gaz. vol. 213; p. 1229.
Tires, Grip-tread for wheel-. B. H. Sills. No. 1,135,856; Apr. 13; Gaz. vol. 213; p. 671.
Tires, Machine for making or building up pneumatic. J. E. and P. D. Thropp and A. De Laski. No. 1,137,365; Apr. 27; Gaz. vol. 213; p. 1287.
Tires, Machine for making solid-rubber. H. Hennig. No. 1,134,454; Apr. 6; Gaz. vol. 213; p. 135.
Tires, Method and means for repairing pneumatic. L. G. Hardenbrook. No. 1,136,900; Apr. 20; Gaz. vol. 213; p. 1081.
Tires, Non-skidding attachment for wheel-. G. A. Lyon. No. 1,137,506; Apr. 27; Gaz. vol. 213; p. 1336.
Tires, Relief-valve for pneumatic. R. F. Tibbetts. No. 1,137,034; Apr. 27; Gaz. vol. 213; p. 1166.
Tires, Safety-valve mechanism for pneumatic. W. M. Myers. No. 1,136,901; Apr. 20; Gaz. vol. 213; p. 1081.
Tires, Self-healing composition for inner tubes of. J. P. Clare. No. 1,137,461; Apr. 27; Gaz. vol. 213; p. 1321.
Tobacco curing and yellowing pan. J. H. Ashburn. No. 1,134,805; Apr. 6; Gaz. vol. 213; p. 263.
Tobacco-leaf machine. O. Hammerstein. No. 1,137,207; Apr. 27; Gaz. vol. 213; p. 1228.
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Tobacco-press. J. W. Glenn. No. 1,136,119; Apr. 20; Gaz. vol. 213; p. 802.
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Tongs. E. A. Stearman. No. 1,135,332; Apr. 13; Gaz. vol. 213; p. 480.
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Tongue-supporter. J. Jensen. No. 1,136,341; Apr. 20; Gaz. vol. 213; p. 881.
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Tool, Double-cut. E. S. Clarke. No. 1,135,757; Apr. 13; Gaz. vol. 213; p. 427.
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Tool, Recess-cutting. T. I. Gibson. No. 1,135,890; Apr. 13; Gaz. 213; p. 682.
Tool with detachable cutter, Percussive. F. Ondra. No. 1,135,546; Apr. 13; Gaz. vol. 213; p. 561.
Tooth, Artificial. G. E. Fritz. No. 1,135,007; Apr. 13; Gaz. vol. 213; p. 375.
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Ant-trap. Mole-trap.
Fish-trap. Roach-trap.
Fly-trap. Rodent-trap.
Gopher-trap. Sewer-trap.
Hog-trap. Steam-trap.
Insect-trap.
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Seat-trimmer.
Tripod-leveling device, Automatic. A. H. Olesberg. No. 1,135,914; Apr. 13; Gaz. vol. 213; p. 690.
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Truck. F. Gunning. No. 1,136,954; Apr. 27; Gaz. vol. 213; p. 1136.
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Tube-bending machine. L. H. Brinkman. No. 1,135,875; Apr. 13; Gaz. vol. 213; p. 677.
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Valve for explosive-engines, Rotary. C. E. Mead. No. 1,134,693; Apr. 6; Gaz. vol. 213; p. 222.
Valve for flushing-tanks. E. Ferran. No. 1,134,949; Apr. 6; Gaz. vol. 213; p. 308.
Valve for gas-engines, Rotary. L. C. Kemming. No. 1,134,461; Apr. 6; Gaz. vol. 213; p. 138.
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Valve for lubricators, Filling-. J. W. Pate. No. 1,134,153; Apr. 6; Gaz. vol. 213; p. 25.
Valve for spraying-machines. J. Wilcox. No. 1,135,342; Apr. 13; Gaz. vol. 213; p. 489.
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Valve-gear, Steam-engine. S. G. Colson. No. 1,136,893; Apr. 20; Gaz. vol. 213; p. 1078.
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Valve, Hot and cold water mixing. B. H. Jansen. No. 1,134,273; Apr. 6; Gaz. vol. 213; p. 70.

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Valve mechanism, Engine-. L. H. Cobb. No. 1,136,408; Apr. 20; Gaz. vol. 213; p. 907.
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Valve, Stop-. J. Dewrance. No. 1,137,194; Apr. 27; Gaz. vol. 213; p. 1228.
Valve, Throttle or starting. A. E. Hudson. No. 1,136,133; Apr. 20; Gaz. vol. 213; p. 807.
Valve, Triple. J. R. Snyder. No. 1,136,057; Apr. 20; Gaz. vol. 213; p. 781.
Valves, Automatic control for burner-. C. W. Gould. No. 1,135,891; Apr. 13; Gaz. vol. 213; p. 683.
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Vapor-burner furnace. C. R. Lambert. No. 1,136,965; Apr. 27; Gaz. vol. 213; p. 1140.
Vapor-converters in operation, Means for maintaining. P. H. Thomas. (Reissue.) No. 13,906; Apr. 27; Gaz. vol. 213; p. 1410.
Vaporizer. F. G. Bee. No. 1,135,151; Apr. 13; Gaz. vol. 213; p. 426.
Vaporizer, Electric. C. G. Tate. No. 1,136,845; Apr. 20; Gaz. vol. 213; p. 1061.
Varnish, enamel, or lacquer composition. J. W. Aylsworth. No. 1,137,374; Apr. 27; Gaz. vol. 213; p. 1291.
Vat: *See*—
Press-vat.
Vehicle-bodies, Resilient support for. W. G. Wood. No. 1,137,176; Apr. 27; Gaz. vol. 213; p. 1216.
Vehicle body-fastener. E. R. Jackson. No. 1,136,532; Apr. 20; Gaz. vol. 213; p. 950.
Vehicle bolster-spring. W. T. Shaver. No. 1,135,213; Apr. 13; Gaz. vol. 213; p. 445.
Vehicle-brake. H. W. Alden. No. 1,135,148; Apr. 13; Gaz. vol. 213; p. 425.
Vehicle-brake. J. A. Duke. No. 1,134,597; Apr. 6; Gaz. vol. 213; p. 187.
Vehicle-brake. E. Hays. No. 1,135,897; Apr. 13; Gaz. vol. 213; p. 685.
Vehicle-brake. D. P. Weir. No. 1,134,570; Apr. 6; Gaz. vol. 213; p. 178.
Vehicle-brake, Automatic. C. H. Likely. No. 1,137,500; Apr. 27; Gaz. vol. 213; p. 1334.
Vehicle-brake, Automatic. J. T. Stephens. No. 1,137,095; Apr. 27; Gaz. vol. 213; p. 1188.
Vehicle-coupling. M. J. Todd. No. 1,136,564; Apr. 20; Gaz. vol. 213; p. 962.
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Vehicle-frame. W. H. Gamble. No. 1,134,952; Apr. 6; Gaz. vol. 213; p. 309.
Vehicle front running-gear. M. L. Johnson. No. 1,135,939; Apr. 13; Gaz. vol. 213; p. 698.
Vehicle guiding mechanism. G. W. Bulley. No. 1,136,652; Apr. 20; Gaz. vol. 213; p. 993.
Vehicle-jack. P. J. A. Schnoor. No. 1,134,233; Apr. 6; Gaz. vol. 213; p. 55.
Vehicle, Motor-. T. Hedges. No. 1,135,938; Apr. 13; Gaz. vol. 213; p. 697.
Vehicle, Motor-. J. C. Lobato. No. 1,136,605; Apr. 20; Gaz. vol. 213; p. 976.
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Vehicle, Road-. W. E. Meecham. No. 1,135,461; Apr. 13; Gaz. vol. 213; p. 531.
Vehicle-signal. C. A. Switzer. No. 1,137,364; Apr. 27; Gaz. vol. 213; p. 1287.
Vehicle-spring. J. O. Hague. No. 1,135,577; Apr. 13; Gaz. vol. 213; p. 573.
Vehicle-spring. M. C. Krarup. No. 1,137,145; Apr. 27; Gaz. vol. 213; p. 1206.
Vehicle-spring. M. M. McIntyre. No. 1,135,036; Apr. 13; Gaz. vol. 213; p. 385.
Vehicle spring-guide. M. W. Morris. No. 1,135,832; Apr. 13; Gaz. vol. 213; p. 663.
Vehicle spring mechanism. J. H. Sager. No. 1,136,721; Apr. 20; Gaz. vol. 213; p. 1018.
Vehicle spring-rigging. G. A. Anderson. No. 1,137,720; Apr. 27; Gaz. vol. 213; p. 1406.
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Vehicle-springs, Casing for. A. N. Jeavons. No. 1,135,186; Apr. 13; Gaz. vol. 213; p. 436.
Vehicle steering and driving wheel, Motor-. R. H. Rosenberg. No. 1,137,288; Apr. 27; Gaz. vol. 213; p. 1260.
Vehicle steering device. W. H. Appleman. No. 1,135,247; Apr. 13; Gaz. vol. 213; p. 456.
Vehicle steering-gear, Motor-. J. A. Baucom. No. 1,136,503; Apr. 20; Gaz. vol. 213; p. 941.
Vehicle-top. L. C. Shipley. No. 1,136,054; Apr. 20; Gaz. vol. 213; p. 779.
Vehicle-wheel. L. Diesel. No. 1,136,214; Apr. 20; Gaz. vol. 213; p. 836.
Vehicle-wheel. W. L. Howard. No. 1,135,804; Apr. 13; Gaz. vol. 213; p. 652.
Vehicle-wheel. W. Kingsley. No. 1,135,290; Apr. 13; Gaz. vol. 213; p. 471.
Vehicle-wheel. E. Stancliff. No. 1,136,377; Apr. 20; Gaz. vol. 213; p. 895.
Vehicle-wheel, Pneumatic-tired. M. Clark. No. 1,135,258; Apr. 13; Gaz. vol. 213; p. 460.
Vehicles, Automatic lighting-control for. J. G. Egerton. No. 1,135,990; Apr. 20; Gaz. vol. 213; p. 762.
Vehicles, Combined foot-rest and heater for motor-. E. Knauss and F. H. Petitmaire. No. 1,134,870; Apr. 6; Gaz. vol. 213; p. 282.
Vehicles, Device for indicating the movement of. F. F. Marrs. No. 1,134,631; Apr. 6; Gaz. vol. 213; p. 200.
Vehicles, Differential mechanism for. H. W. Sherman. No. 1,134,235; Apr. 6; Gaz. vol. 213; p. 56.
Vehicles, Folding package-carrier for. S. F. Goss. No. 1,135,517; Apr. 13; Gaz. vol. 213; p. 551.
Vehicles, King-bolt connection for. P. Heinz and W. A. Goebel. No. 1,134,267; Apr. 6; Gaz. vol. 213; p. 68.
Vehicles, Means for controlling the illumination of. W. S. Menden. No. 1,135,605; Apr. 13; Gaz. vol. 213; p. 582.
Vehicles, Reflecting device for motor-. W. E. Fellowes. No. 1,135,446; Apr. 13; Gaz. vol. 213; p. 527.
Vehicles, Side mud-splash guard for motor and other. A. C. Adams. No. 1,137,688; Apr. 27; Gaz. vol. 213; p. 1395.
Vehicles, Tractor system for motor-. A. H. Hoadley. No. 1,137,620; Apr. 27; Gaz. vol. 213; p. 1373.
Vehicles with kinematic equilibrium, Wind-dividing apparatus for transport-. E. Bunau-Varilla. No. 1,135,337; Apr. 13; Gaz. vol. 213; p. 488.
Vending apparatus, Automatic. S. Madsen. No. 1,137,648; Apr. 27; Gaz. vol. 213; p. 1383.
Vending apparatus, Coin-controlled mechanism for. O. L. Bristol and A. F. Vorce. No. 1,135,934; Apr. 13; Gaz. vol. 213; p. 696.
Vending-cabinet, Coin-controlled. E. E. Boling. No. 1,134,509; Apr. 6; Gaz. vol. 213; p. 155.
Vending-machine. O. J. Hotaling. No. 1,135,802; Apr. 13; Gaz. vol. 213; p. 651.
Vending-machine. F. Q. Rast and C. G. Peirce. No. 1,137,715; Apr. 27; Gaz. vol. 213; p. 1404.
Vending-machine. O. C. Wiesner. No. 1,134,305; Apr. 6; Gaz. vol. 213; p. 81.
Vending machine, Cigar-. R. O. Hoffman. No. 1,134,742; Apr. 6; Gaz. vol. 213; p. 241.
Vent, Air-. A. L. Gadsby. No. 1,135,449; Apr. 13; Gaz vol. 213; p. 527.
Ventilated compartment. H. C. Ford. No. 1,137,473; Apr. 27; Gaz. vol. 213; p. 1324.
Ventilating device. F. M. Gunn, O. Bark, and W. Scowcroft. No. 1,135,685; Apr. 13; Gaz. vol. 213; p. 611.
Ventilator: *See*—
Window-ventilator.
Ventilator. J. R. Elliott. No. 1,134,259; Apr. 6; Gaz. vol. 213; p. 65.
Vessels, Device for raising sunken. S. Parshall. No. 1,136,608; Apr. 20; Gaz. vol. 213; p. 977.
Vest, Nursing-. G. B. Smith. No. 1,136,727; Apr. 20; Gaz. vol. 213; p. 1020.
Vibration, Device for detecting mechanical. F. Gottschalk. No. 1,137,478; Apr. 27; Gaz. vol. 213; p. 1326.
Vine cutter, Potato-. G. L. McCready. No. 1,134,629; Apr. 6; Gaz. vol. 213; p. 199.
Vise. A. W. Peterson. No. 1,134,347; Apr. 6; Gaz. vol. 213; p. 96.
Vise and saw-clamp. W. T. King. No. 1,135,815; Apr. 13; Gaz. vol. 213; p. 656.
Vise, Bench-. J. R. Long. No. 1,136,473; Apr. 20; Gaz. vol. 213; p. 930.
Vise, Mirror attachment for a. J. W. Ivory. No. 1,134,679; Apr. 6; Gaz. vol. 213; p. 218.
Vises, Work-holder for bench-. S. C. Walters. No. 1,136,853; Apr. 20; Gaz. vol. 213; p. 1064.
Volatile compounds and producing same. S. Peacock. No. 1,134,411; Apr. 6; Gaz. vol. 213; p. 119.
Volatile magnesium compounds and producing same. S. Peacock. No. 1,134,412; Apr. 6; Gaz. vol. 213; p. 119.
Voltage-regulator. A. Pollak. No. 1,137,019; Apr. 27; Gaz. vol. 213; p. 1160.
Voting-machine. J. A. Butler. No. 1,134,724; Apr. 6; Gaz. vol. 213; p. 234.
Wagon-body. J. McDermott. No. 1,135,826; Apr. 13; Gaz. vol. 213; p. 661.
Wagon-body, hay and hog rack, and hog-chute, Combination. Z. T. Kirkham. No. 1,136,813; Apr. 20; Gaz. vol. 213; p. 1050.
Wagon-brake. W. A. Underhill. No. 1,136,851; Apr. 20; Gaz. vol. 213; p. 1063.
Wagon, Dumping-. I. Hilb. No. 1,136,800; Apr. 20; Gaz. vol. 213; p. 1045.

Wagon, Garbage-. L. F. Martin. No. 1,135,602; Apr. 13; Gaz. vol. 213; p. 581.
Wagon-seat. T. H. Farrington. No. 1,134,444; Apr. 6; Gaz. vol. 213; p. 132.
Wagon seat, Grain-. J. J. Lee. No. 1,136,685; Apr. 20; Gaz. vol. 213; p. 1004.
Wall or partition. W. M. Goldsmith. No. 1,136,792; Apr. 20; Gaz. vol. 213; p. 1042.
Wardrobe. H. A. Roat, Jr. No. 1,137,534; Apr. 27; Gaz. vol. 213; p. 1345.
Warning-signal. A. N. Pierman. No. 1,135,048; Apr. 13; Gaz. vol. 213; p. 390.
Washer: *See*—
Glass-washer. Hose-washer.
Hand-washer.
Washing-machine. E. F. Beebe. No. 1,135,565; Apr. 13; Gaz. vol. 213; p. 569.
Washing-machine. A. H. Hornsby. No. 1,134,613; Apr. 6; Gaz. vol. 213; p. 193.
Washing-machine. F. G. Hotzel and J. B. Allen. No. 1,136,231; Apr. 20; Gaz. vol. 213; p. 842.
Washing-machine. J. Huebner. No. 1,135,584; Apr. 13; Gaz. vol. 213; p. 575.
Washing-machine. J. Lustenberger. No. 1,134,471; Apr. 6; Gaz. vol. 213; p. 142.
Washing-machine. W. Pavlik. No. 1,134,409; Apr. 6; Gaz. vol. 213; p. 119.
Washing-machine. W. Ripley. No. 1,136,835; Apr. 20; Gaz. vol. 213; p. 1058.
Washing-machine, Steam. J. W. Jackson. No. 1,136,808; Apr. 20; Gaz. vol. 213; p. 1048.
Washing-machines, Dolly-post for. E. L. Watrous. No. 1,134,302; Apr. 6; Gaz. vol. 213; p. 80.
Washboard. H. T. Dably. No. 1,134,517; Apr. 6; Gaz. vol. 213; p. 158.
Washboard. M. S. Kjellstrom. No. 1,135,816; Apr. 13; Gaz. vol. 213; p. 656.
Washboard, Self-soaping. W. J. Kennedy. No. 1,135,904; Apr. 13; Gaz. vol. 213; p. 687.
Washstand, Adjustable. M. Hastreiter. No. 1,135,181; Apr. 13; Gaz. vol. 213; p. 435.
Watch-charm. T. Rosten and N. Trydal. No. 1,137,088; Apr. 27; Gaz. vol. 213; p. 1185.
Watch-pocket, Safety. R. E. Jones. No. 1,134,458; Apr. 6; Gaz. vol. 213; p. 137.
Watch-wristlet, bracelet, glove and sleeve holder, and the like. B. R. Simmons. No. 1,135,409; Apr. 13; Gaz. vol. 213; p. 513.
Watches, Balance-staff for. J. Freistadter. No. 1,136,595; Apr. 20; Gaz. vol. 213; p. 973.
Watches, Hair-spring collet for. J. Freistadter. No. 1,136,950; Apr. 27; Gaz. vol. 213; p. 1135.
Watchcase. J. W. Forsman. No. 1,135,573; Apr. 13; Gaz. vol. 213; p. 571.
Water and air heater, Combined. J. S. Nichols. No. 1,135,911; Apr. 13; Gaz. vol. 213; p. 689.
Water-closet. F. Schuh. No. 1,134,914; Apr. 6; Gaz. vol. 213; p. 296.
Water-closet tank. A. C. Recker. No. 1,134,556; Apr. 6; Gaz. vol. 213; p. 173.
Water-craft. J. C. Caldwell. No. 1,137,695; Apr. 27; Gaz. vol. 213; p. 1397.
Water-fountain, Electric. O. F. Battaglia. No. 1,136,995; Apr. 27; Gaz. vol. 213; p. 1151.
Water-gate. W. H. Smith and G. Kaericher. No. 1,134,923; Apr. 6; Gaz. vol. 213; p. 299.
Water-heater. J. Stott. No. 1,135,860; Apr. 13; Gaz. vol. 213; p. 672.
Water-heater, Automatic. J. E. Osmer. No. 1,134,406; Apr. 6; Gaz. vol. 213; p. 117.
Water-heater casing, Instantaneous-. H. S. Humphrey. No. 1,135,805; Apr. 13; Gaz. vol. 213; p. 652.
Water-heater, Electric. C. H. Quinlan. No. 1,136,365; Apr. 20; Gaz. vol. 213; p. 891.
Water-heating system for dwellings, hotels, and the like. S. Smith. No. 1,135,410; Apr. 13; Gaz. vol. 213; p. 513.
Water-jacketing. J. B. Meriam. No. 1,135,037; Apr. 13; Gaz. vol. 213; p. 386.
Water-pipes, Automatic low-temperature cut-off for. W. C. Lowe. No. 1,134,882; Apr. 6; Gaz. vol. 213; p. 286.
Water system. J. W. Butts. No. 1,136,406; Apr. 20; Gaz. vol. 213; p. 907.
Water-tube marine boiler. M. Vallino. No. 1,135,636; Apr. 13; Gaz. vol. 213; p. 594.
Watering device, Stock-. S. T. Kelley. No. 1,137,214; Apr. 27; Gaz. vol. 213; p. 1231.
Watering tank and heater. S. B. Scheppmann. No. 1,135,851; Apr. 13; Gaz. vol. 213; p. 670.
Way-signal. J. M. Rosselot. No. 1,134,909; Apr. 6; Gaz. vol. 213; p. 294.
Weather-strip. A. E. Gould. No. 1,136,794; Apr. 20; Gaz. vol. 213; p. 1043.
Weather-strip. A. M. Lane. No. 1,134,209; Apr. 6; Gaz. vol. 213; p. 46.
Web-guiding device, Automatic. W. I. Lewis. No. 1,136,686; Apr. 20; Gaz. vol. 213; p. 1005.
Weed-destroyer. H. P. Barnhart. No. 1,135,346; Apr. 13; Gaz. vol. 213; p. 491.
Weed-puller. S. Kaufman. No. 1,134,618; Apr. 6; Gaz. vol. 213; p. 195
Weeder. R. L. Benge. No. 1,135,755; Apr. 13; Gaz. vol. 213; p. 635.
Weeder and cultivator. G. C. and H. K. Wolfe. (Reissue.) No. 13,899; Apr. 6; Gaz. vol. 213; p. 325.
Weeder and hoe. F. H. Reichard. No. 1,136,438; Apr. 20; Gaz. vol. 213; p. 917.
Weighing apparatus, Automatic. S. H. Johnson. No. 1,135,379; Apr. 13; Gaz. vol. 213; p. 501.
Weighing device, Automatic. O. O. Ozias. No. 1,135,609; Apr. 13; Gaz. vol. 213; p. 584.
Weight-motor. C. McQueen. No. 1,136,251; Apr. 20; Gaz. vol. 213; p. 849.
Welding apparatus, Electric seam-. R. Mack. No. 1,135,539; Apr. 13; Gaz. vol. 213; p. 559.
Well-drilling tool. J. C. Theriot. No. 1,134,930; Apr. 6; Gaz. vol. 213; p. 302.
Well packer, Deep-. J. C. Stinson. No. 1,136,904; Apr. 20; Gaz. vol. 213; p. 1082.
Well-packing. D. F. Hunt. No. 1,136,879; Apr. 20; Gaz. vol. 213; p. 1073.
Well-piping, Machine for raising and lowering. M. B. Whisenant. No. 1,137,101; Apr. 27; Gaz. vol. 213; p. 1190.
Well plug, Oil-. J. T. Hall. No. 1,137,205; Apr. 27; Gaz. vol. 213; p. 1227.
Well-strainer. E. Jones. No. 1,135,809; Apr. 13; Gaz. vol. 213; p. 654.
Wells or caissons, Light for. W. J. Newman. No. 1,134,959; Apr. 6; Gaz. vol. 213; p. 312.
Wheat-cleaning machine. O. M. and S. E. Friend. No. 1,136,596; Apr. 20; Gaz. vol. 213; p. 973.
Wheat or grain, Appliance for picking. A. J. Bishop. No. 1,136,763; Apr. 20; Gaz. vol. 213; p. 1033.
Wheat, Treating. O. M. and S. E. Friend. No. 1,136,597; Apr. 20; Gaz. vol. 213; p. 973.
Wheel: *See*—
Car-wheel. Spring-mounted wheel.
Fifth-wheel. Toy decoration-wheel.
Pneumatic wheel. Traction-wheel.
Pulley-wheel. Tractor-wheel.
Resilient wheel. Vehicle-wheel.
Spring-wheel. Wire wheel.
Wheel. J. Brothers. No. 1,135,432; Apr. 13; Gaz. vol. 213; p. 522.
Wheel. E. G. Budd and J. Ledwinka. No. 1,137,458; Apr. 27; Gaz. vol. 213; p. 1320.
Wheel construction, Vehicle. E. O. Lindner. No. 1,137,154; Apr. 27; Gaz. vol. 213; p. 1210.
Wheel-flange lubricator. B. H. Gray. No. 1,136,003; Apr. 20; Gaz. vol. 213; p. 764.
Wheel-guard. A. A. Blennerhassett. No. 1,134,178; Apr. 6; Gaz. vol. 213; p. 35.
Wheel mounting, Drive-. E. M. Heylman. No. 1,135,794; Apr. 13; Gaz. vol. 213; p. 648.
Wheel-press. A. A. Longaker. No. 1,137,643; Apr. 27; Gaz. vol. 213; p. 1381.
Wheel-rim. B. Dahl. No. 1,134,592; Apr. 6; Gaz. vol. 213; p. 186.
Wheel-rim, Demountable. P. D. Harrower. No. 1,134,740; Apr. 6; Gaz. vol. 213; p. 240.
Wheel-rim, Vehicle. J. H. Wagenhorst. No. 1,136,981; Apr. 27; Gaz. vol. 213; p. 1145.
Wheel-rim, Vehicle. J. H. Wagenhorst. No. 1,136,982; Apr. 27; Gaz. vol. 213; p. 1145.
Wheel-rim, Vehicle. J. H. Wagenhorst. No. 1,136,983; Apr. 27; Gaz. vol. 213; p. 1146.
Wheel-rim, Vehicle. J. H. Wagenhorst. No. 1,136,984; Apr. 27; Gaz. vol. 213; p. 1147.
Wheel-rim, Vehicle. J. H. Wagenhorst. No. 1,136,985; Apr. 27; Gaz. vol. 213; p. 1147.
Wheel-truing apparatus. J. M. Griffin and O. P. Allen. No. 1,136,124; Apr. 20; Gaz. vol. 213; p. 804.
Wheels and the like, Locking means for demountable rims for automobile-. F. D. Hiller, Jr., and M. R. Kohn. No. 1,137,319; Apr. 27; Gaz. vol. 213; p. 1270.
Wheels, Brake-drum for vehicle-. N. Cornfield. No. 1,135,770; Apr. 13; Gaz. vol. 213; p. 640.
Wheels, Manufacture of. F. A. Ellis. No. 1,134,674; Apr. 6; Gaz. vol. 213; p. 216.
Wheels, Means for producing teeth on gear-. C. E. Drummond and C. Ridley. No. 1,135,780; Apr. 13; Gaz. vol. 213; p. 643.
Wheelbarrow. W. W. Boright. No. 1,135,431; Apr. 13; Gaz. vol. 213; p. 521.
Wheelbarrow. J. D. Curtis. No. 1,134,258; Apr. 6; Gaz. vol. 213; p. 64.
Wheelbarrow. J. H. Royall. No. 1,137,425; Apr. 27; Gaz. vol. 213; p. 1309.
Whiffletree. B. P. Hanson. No. 1,137,712; Apr. 27; Gaz. vol. 213; p. 1402.
Whiffletree-hook. W. H. Spear. No. 1,135,733; Apr. 13; Gaz. vol. 213; p. 628.
Whip lock-socket. A. J. Evans. No. 1,134,599; Apr. 6; Gaz. vol. 213; p. 188.
Wind-shield. M. S. Hart. No. 1,136,229; Apr. 20; Gaz. vol. 213; p. 842.
Winding-machine. M. Helm. No. 1,134,268; Apr. 6; Gaz. vol. 213; p. 68.
Winding-machine. W. E. Moll. No. 1,137,514; Apr. 27; Gaz. vol. 213; p. 1339.
Winding machine, Package-. G. E. Allen. No. 1,135,090; Apr. 13; Gaz. vol. 213; p. 404.
Winding mechanism. F. L. Sessions. No. 1,137,237; Apr 27; Gaz. vol. 213; p. 1240.
Windmill attachment. T. A. Libke. No. 1,135,592; Apr. 13; Gaz. vol. 213; p. 578.

Window-catch, Automatic. I. R. Williams. No. 1,135,147; Apr. 13; Gaz. vol. 213; p. 425.
Window-cleaner. L. Sonderegger. No. 1,137,546; Apr. 27; Gaz. vol. 213; p. 1349.
Window-fastening. J. W. Hogg, Jr. No. 1,137,321; Apr. 27; Gaz. vol. 213; p. 1271.
Window-fastening. W. C. Kentzer. No. 1,135,696; Apr. 13; Gaz. vol. 213; p. 615.
Window-frame. T. Christoffel. No. 1,135,662; Apr. 13; Gaz. vol. 213; p. 604.
Window-frame, Metallic. D. E. Shrauger. No. 1,134,642; Apr. 6; Gaz. vol. 213; p. 205.
Window-locking device. J. G. Locke. No. 1,137,502; Apr. 27; Gaz. vol. 213; p. 1334.
Window or door, Sash-controlled ventilating. G. A. Fair. No. 1,136,785; Apr. 20; Gaz. vol. 213; p. 1040.
Window or door, Ventilating. G. A. Fair. No. 1,136,784; Apr. 20; Gaz. vol. 213; p. 1039.
Window-screen. E. Sonntag. No. 1,136,730; Apr. 20; Gaz. vol. 213; p. 1021.
Window-ventilator. H. Higgin. No. 1,137,139; Apr. 27; Gaz. vol. 213; p. 1204.
Window-ventilator. T. H. Leary. No. 1,136,541; Apr. 20; Gaz. vol. 213; p. 953.
Windows, Mechanism for opening and closing sliding. G. B. Münch. No. 1,137,076; Apr. 27; Gaz. vol. 213; p. 1181.
Wire fabric, Making. H. E. White. No. 1,137,441; Apr. 27; Gaz. vol. 213; p. 1314.
Wire-fastening device. H. E. White. No. 1,136,746; Apr. 20; Gaz. vol. 213; p. 1027.
Wire link fabric. W. B. Anderson. No. 1,135,979; Apr. 20; Gaz. vol. 213; p. 755.
Wire-making machine. A. Shedlock. No. 1,136,373; Apr 20; Gaz. vol. 213; p. 894.
Wire, Means for forming lead. A. T. Eyton. No. 1,137,199; Apr. 27; Gaz. vol. 213; p. 1225.
Wire-placer. W. E. Taylor. No. 1,136,183; Apr. 20 Gaz. vol. 213; p. 825.
Wire rope. T. C. Batchelor. No. 1,137,690; Apr. 27; Gaz. vol. 213; p. 1396.
Wire-splicing tool. J. W. Barton. No. 1,136,760; Apr 20; Gaz. vol. 213; p. 1032.
Wire-stretcher. A. B. Dill. No. 1,134,729; Apr. 6; Gaz. vol. 213; p. 236
Wire-tie twister. F. W. Fegely. No. 1,136,220; Apr. 20. Gaz. vol. 213; p. 839.
Wire wheel. R. W. Ashley and F. Oberkirch. No. 1,135,424; Apr. 13; Gaz. vol. 213; p. 518.
Wireless receiving apparatus. J. S. Leach. No. 1,136,683; Apr. 20; Gaz. vol. 213; p. 1004.
Wood, Coloring. L. Doyen. No. 1,135,167; Apr. 13; Gaz. vol. 213; p. 430.
Wood-trimmer. A. S. Billings. No. 1,137,453; Apr. 27; Gaz. vol. 213; p. 1318.
Woodworking-machine. J. W. Fosterling. No. 1,136,594; Apr. 20; Gaz. vol. 213; p. 972.
Woodworking-machine guard. L. J. Halverstadt. No. 1,134,738; Apr. 6; Gaz. vol. 213; p. 240.
Woodworking machinery. P. A. Solem. No. 1,135,411; Apr. 13; Gaz. vol. 213; p. 514.
Woven tube and weaving the same. V. H. Jennings. No. 1,137,405; Apr. 27; Gaz. vol. 213; p. 1302.
Wrapper. H. L. Page. No. 1,134,285; Apr. 6; Gaz. vol. 213; p. 74.
Wrapping-machine. J. Tomlinson. No. 1,135,077; Apr. 13; Gaz. vol. 213; p. 399.
Wrench: *See*—
Pipe-wrench. Quick-release wrench
Quick-action wrench. Tire-wrench.
Wrench. C. P. Baker. No. 1,136,755; Apr. 20; Gaz. vol. 213; p. 1030.
Wrench. G. A. Duplantis. No. 1,137,709; Apr. 27; Gaz. vol. 213; p. 1401.
Wrench. H. C. Earle. No. 1,134,948; Apr. 6; Gaz. vol. 213; p. 308.
Wrench. C. W. Epperson. No. 1,136,323; Apr. 20; Gaz. vol. 213; p. 875.
Wrench. J. B. Haley. No. 1,136,599; Apr. 20; Gaz. vol. 213; p. 974.
Wrench. F. S. Hay. No. 1,135,896; Apr. 13; Gaz. vol. 213; p. 685.
Wrench. W. A. Jackson. No. 1,135,806; Apr. 13; Gaz. vol. 213; p. 653.
Wrench. J. J. Sands. No. 1,135,929; Apr. 13; Gaz. vol. 213; p. 694.
Wrench. G. S. Tappan. No. 1,135,334; Apr. 13; Gaz. vol. 213; p. 487.
Wringer: *See*—
Clothes-wringer.
Wringer attachment. O. H. Watkins. No. 1,134,709; Apr. 6; Gaz. vol. 213; p. 229.
Wringer-guard. E. L. Young and H. N. Miller. No. 1,136,387; Apr. 20; Gaz. vol. 213; p. 899.
Wringer safety attachment. F. G. N. Kranich. No. 1,136,241; Apr. 20; Gaz. vol. 213; p. 846.
Wringers, Delivery device for. E. D. Dumond. No. 1,136,218; Apr. 20; Gaz. vol. 213; p. 838.
X-ray apparatus. H. F. Waite. No. 1,137,557; Apr. 27; Gaz. vol. 213; p. 1353.
Yoke, Cattle-. J. D. Carr. No. 1,137,572; Apr. 27; Gaz. vol. 213; p. 1358.
Yoke, Draft-gear. C. J. Nash. No. 1,137,348; Apr. 27; Gaz. vol. 213; p. 1281.
Yoke for draw-bars. E. Walters. No. 1,135,474; Apr. 13; Gaz. vol. 213; p. 535.
Yoke, Neck-. B. P. Hanson. No. 1,134,968; Apr. 6; Gaz. vol. 213; p. 315
Zinc oxid and recovering substances from waste and like liquors. W. Asef. No. 1,135,981; Apr. 20; Gaz. vol. 213; p. 756.
Zinc-producing furnace. A. Zavelberg. No. 1,136,304; Apr. 20; Gaz. vol. 213; p. 869.

ALPHABETICAL LIST OF DESIGNS.

Article of manufacture. E. E. Walter. No. 47,206; Apr. 6; Gaz. vol. 213; p. 331.
Article of manufacture. J. T. Wigley. No. 47,207; Apr. 6; Gaz. vol. 213; p. 331.
Automobile-body. H. Smith. No. 47,252; Apr. 20; Gaz. vol. 213; p. 1090.
Badge. L. A. McDonagh. No. 47,247; Apr. 20; Gaz. vol. 213; p. 1089.
Badge or similar article. J. Milewski. No. 47,248; Apr. 20; Gaz. vol. 213; p. 1089.
Bag-frame member. F. A. Fuller. Nos. 47,223–4; Apr. 13; Gaz. vol. 213; p. 720.
Bank, Pocket savings-. I. J. Kusel. No. 47,237; Apr. 13; Gaz. vol. 213; p. 723.
Barber's chair. W. F. Koken. No. 47,236; Apr. 13; Gaz. vol. 213; p. 722.
Bed, Table-. J. Kekkonen. No. 47,234; Apr. 13; Gaz. vol. 213; p. 722.
Biscuit or rolls, Loaf of. D. J. Hanna. No. 47,253; Apr. 20; Gaz. vol. 213; p. 1090.
Bottle. T. Welcker. No. 47,278; Apr. 27; Gaz. vol. 213; p. 1417.
Bowl or similar article, Sugar-. F. A. Sebring. No. 47,200; Apr. 6; Gaz. vol. 213; p. 329.
Box. A. Danziger. No. 47,182; Apr. 6; Gaz. vol. 213; p. 326.
Candles, Adjustable clamp-arm for supporting. C. E. Jones. No. 47,260; Apr 27; Gaz. vol. 213; p. 1414.
Charm. A. H. Kraft. No. 47,262; Apr. 27; Gaz. vol. 213; p. 1414.
Cleaner frame, Suction-. W. G. Doty. No. 47,257; Apr. 27; Gaz. vol. 213; p. 1413.
Clock-casing. W. J. Herschede. No. 47,187; Apr. 6; Gaz. vol. 213; p. 327.
Clock-frame. J. E. Steinmeier No. 47,203; Apr. 6; Gaz. vol. 213; p. 330.
Coffee-grinder pedestal. W. F. Stimpson. No. 47,204; Apr. 6; Gaz. vol. 213; p. 330.
Cruet-stand. W. Kelsow. No. 47,261; Apr. 27; Gaz. vol. 213; p. 1414.
Dish, Soap-. S. Hipkins. No. 47,188; Apr. 6; Gaz. vol. 213; p. 327.
Doll. C. Avery. No. 47,180; Apr. 6; Gaz. vol. 213; p. 326.
Doll or toy. A. R. Hodge. No. 47,259; Apr. 27; Gaz. vol. 213; p. 1213.
Dress. H. Collins. Nos. 47,255–6; Apr. 27; Gaz. vol. 213; pp. 1412–13.
Drum for containing material. D. D. McTavish. No. 47,191; Apr. 6; Gaz. vol. 213; p. 328.
Electric-light socket. W. B. Cosgrave. No. 47,241; Apr. 20; Gaz. vol. 213; p. 1088.
Embroidery. H. Schwarber. No. 47,276; Apr. 27; Gaz. vol. 213; p. 1417.
Fabric. R. B. Griffin. No. 47,226; Apr. 13; Gaz. vol. 213; p. 720.
Fabric, Embossed. F. H. Walker. No. 47,205; Apr. 6; Gaz. vol. 213; p. 330.
Fabric, Plush. B. A. Stroock. No. 47,277; Apr. 27; Gaz. vol. 213; p. 1417.
Fireplace. H. J. Groth. No. 47,243; Apr. 20; Gaz. vol. 213; p. 1088.
Game-board. J. O. Gendron. No. 47,184; Apr. 6; Gaz. vol. 213; p. 326.
Gas-plate frame. G. E. Pickup. No. 47,197; Apr. 6; Gaz. vol. 213; p. 329.
Gem-setting. L. E. Ladd. No. 47,245; Apr. 20; Gaz. vol. 213; p. 1089.
Hair-ornament. A. L. Preston. No. 47,198; Apr. 6; Gaz. vol. 213; p. 329.
Implement, Hand. M. A. Ladd. No. 47,263; Apr. 27; Gaz. vol. 213; p. 1414.
Insulator. A. O. Austin. No. 47,208; Apr. 13; Gaz. vol. 213; p. 717.
Jacket. H. V. Metzger and H. Von Hartz. No. 47,264; Apr. 13; Gaz. vol. 213; p. 1414.
Knob, Glass. W. F. Burns. No. 47,254; Apr. 27; Gaz. vol. 213; p. 1412.
Knocker, Door-. A. R. Page. Nos. 47,194–5; Apr. 6; Gaz. vol. 213; p. 328.
Lace, Levers. C. W. Birkin. Nos. 47,212–15; Apr. 13; Gaz. vol. 213; p. 718.
Lamp. J. R. Pagin. No. 47,196; Apr. 6; Gaz. vol. 213; p. 329.
Lamp-bowl. W. F. M. Hawe. No. 47,227; Apr. 13; Gaz. vol. 213; p. 720.
Lamp, Incandescent electric. A. Bouchery. No. 47,217; Apr. 13; Gaz. vol. 213; p. 719.
Lamp-shade. R. G. Dickson. No. 47,220; Apr. 13; Gaz. vol. 213; p. 719.
Lamp-shade. E. C. Herrmann. No. 47,186; Apr. 6; Gaz. vol. 213; p. 327.
Lamp-shade. L. W. Young. No. 47,280; Apr. 27; Gaz. vol. 213; p. 1417
Lighting, Bowl for indirect. P. Mohrmann. No. 47,271; Apr. 27; Gaz. vol. 213; p. 1416.
Lighting-fixture. A. Bouchery. No. 47,218; Apr. 13; Gaz. vol. 213; p. 719.
Lighting-fixture. H. E. Gleason. No. 47,225; Apr. 13; Gaz. vol. 213; p. 720.
Lighting-fixture back plate. P. Mohrmann. No. 47,273; Apr. 27; Gaz. vol. 213; p. 1416.
Lighting-fixture back plate. P. Mohrmann. No. 47,275; Apr. 27; Gaz. vol. 213; p. 1417.
Lighting-fixture canopy. P. Mohrmann. No. 47,274; Apr. 27; Gaz. vol. 213; p. 1416.
Lighting-fixtures, Shower-pan for. B. E. Holton. No. 47,244; Apr. 20; Gaz. vol. 213; p. 1088.
Lighting-fixtures, Shower-pan for. E. Mitchell. No. 47,266; Apr. 27; Gaz. vol. 213; p. 1415.
Lighting-fixtures, Shower-pan for. P. Mohrmann. No. 47,249; Apr. 20; Gaz. vol. 213; p. 1089.
Lighting-fixtures, Shower-pan for. P. Mohrmann. Nos. 47,267–70; Apr. 27; Gaz. vol. 213; pp. 1415–16.
Lighting, Support for bowls for indirect. P. Mohrmann. No. 47,272; Apr. 27; Gaz. vol. 213; p. 1416.
Match-scratcher. E. J. Ryan. No. 47,250; Apr. 20; Gaz. vol. 213; p. 1090.
Motor-bus. C. Berg. No. 47,211; Apr. 13; Gaz. vol. 213; p. 717.
Motor-car body. E. N. Howe and H. C. Archambeau. No. 47,233; Apr. 13; Gaz. vol. 213; p. 722.
Mud-guard, Drop side. W. R. Green. No. 47,258; Apr. 27; Gaz. vol. 213; p. 1413.
Necktie. A. Bennett. No. 47,181; Apr. 6; Gaz. vol. 213; p. 326.
Padlock. A. A. Page. No. 47,239; Apr. 13; Gaz. vol. 213; p. 723.
Paper display-box. L. Hirschfeld. No. 47,228; Apr. 13; Gaz. vol. 213; p. 720.
Parasol. O. M. Arnold. No. 47,179; Apr. 6; Gaz. vol. 213; p. 326.
Parasol. C. E. Lledberg. No. 47,246; Apr. 20; Gaz. vol. 213; p. 1089.
Pendant, bar-pin, bracelet, scarf-pin, or similar article. J. A. and F. C. Abel. No. 47,177; Apr. 6; Gaz. vol. 213; p. 325.
Pick point, Reet-. A. L. Wilkes. No. 47,240; Apr. 13; Gaz. vol. 213; p. 723.
Pitcher. F. A. Sebring. No. 47,201; Apr. 6; Gaz. vol. 213; p. 330.
Plate. W. Abrams. No. 47,178; Apr. 6; Gaz. vol. 213; p. 325.
Pump-frame. G. Shelton. No. 47,251; Apr. 20; Gaz. vol. 213; p. 1090.
Railway-crossing signal. E. D. Mayberry. No. 47,190; Apr. 6; Gaz. vol. 213; p. 327.
Shoe, Athletic. E. F. Miller. No. 47,238; Apr. 13; Gaz. vol. 213; p. 723.
Sign. H. Cusack. No. 47,242; Apr. 20; Gaz. vol. 213; p. 1088.
Sign, Electric. M. Norden. No. 47,192; Apr. 6; Gaz. vol. 213; p. 328.
Statue. H. W. Cass. No. 47,219; Apr. 13; Gaz. vol. 213; p. 719.
Statuette. G. E. Erickson. No. 47,222; Apr. 13; Gaz. vol. 213; p. 719.
Statuette. W. F. Hirschmann. No. 47,189; Apr. 6; Gaz. vol. 213; p. 327.
Tap-chuck. W. L. Procunier. No. 47,199; Apr. 6; Gaz. vol. 213; p. 329.
Teapot. F. A. Sebring. No. 47,202; Apr. 6; Gaz. vol. 213; p. 330.
Tire-casing. E. A. Miller. No. 47,265; Apr. 27; Gaz. vol. 213; p. 1414.
Towel or mat, Turkish. H. L. Hohlfeld. Nos. 47,229–32; Apr. 13; Gaz. vol. 213; p. 721.
Toy. H. Elliott. No. 47,183; Apr. 6; Gaz. vol. 213; p. 326.
Toy bank or similar article. G. G. Drayton. No. 47,221; Apr. 13; Gaz. vol. 213; p. 719.
Toy pop-gun. F. L. Ordway. No. 47,193; Apr. 6; Gaz. vol. 213; p. 328.
Tumbler or similar article. G. L. Borden. No. 47,216; Apr. 13; Gaz. vol 213; p. 718.
Type, Font of. M. F. Benton. Nos. 47,209–10; Apr. 13; Gaz. vol. 213; p. 717.
Vehicle-body. W. C. Heitzmann. No. 47,185; Apr. 6; Gaz. vol. 213; p. 327.
Vehicle-signal. H. R. Kells. No. 47,235; Apr. 13; Gaz. vol. 213; p. 722.

ALPHABETICAL LIST OF TRADE-MARKS.

Acid phosphate of calcium. Provident Chemical Works. No. 104,030; Apr. 27; Gaz. vol. 213; p. 1442.
Alloy of metals in imitation of silver, Certain named articles made of. Fishel & Company. Nos. 103,584–6; Apr. 6; Gaz. vol. 213; p. 356.
Aluminum ware. The Massillon Aluminum Co. No. 103,787; Apr. 13; Gaz. vol. 213; p. 743.
Anchovies, pies, patties, pepper, &c. Crosse & Blackwell. No. 103,689; Apr. 13; Gaz. vol. 213; p. 740.
Antiseptic and styptic applicators, Individual. L. S. Irgens. No. 103,898; Apr. 20; Gaz. vol. 213; p. 1112.
Antiseptic, Liquid. Steenol Laboratories. No. 103,802; Apr. 13; Gaz. vol. 213; p. 744.
Application for relief of certain named ailments. A. C. Trump. No. 103,575; Apr. 6; Gaz. vol. 213; p. 356.
Asbestos or other fibrous composition held together with fire-resisting binder. Pressed Asbestos Products Co. No. 103,597; Apr. 6; Gaz. vol. 213; p. 357.
Automobiles. Dodge Brothers. No. 103,779; Apr. 13; Gaz. vol. 213; p. 743.
Babbitt metals. Virginia Iron & Metal Company. Nos. 103,740–1; Apr. 13; Gaz. vol. 213; p. 742.
Baking-powder. M. Hentges. No. 103,753; Apr. 13; Gaz. vol. 213; p. 742.
Baking-powder. The Southern M'f'g Co. No. 103,920; Apr. 20; Gaz. vol. 213; p. 1113.
Battery solution, Primary and secondary. L. & M. Auto Specialty Co. No. 104,096; Apr. 27; Gaz. vol. 213; p. 1444.
Beds, bed springs and mattresses, and material therefor. New York Couch Bed Co. No. 104,061; Apr. 27; Gaz. vol. 213; p. 1443.
Beer. Pittsburgh Brewing Company. No. 103,596; Apr. 6; Gaz. vol. 213; p. 357.
Beer. Wacker & Birk Brewing Co. No. 103,771; Apr. 13; Gaz. vol. 213; p. 743.
Beer, Lager-. The Gottlieb Bauernschmidt Straus Brewing Company. No. 103,853; Apr. 20; Gaz. vol. 213; p. 1111.
Belt-lacing, Cut. Chas. A. Schieren Company. No. 103,680; Apr. 13; Gaz. vol. 213; p. 740.
Belting, Leather. Fabreeka Belting Co. No. 103,422; Apr. 6; Gaz. vol. 213; p. 351.
Beltings, Leather. Chas. L. Ireson (Inc.) No. 103,876; Apr. 20; Gaz. vol. 213; p. 1112.
Beverage made from a beer base carbonated. Jacob Ries Bottling Works. No. 103,444; Apr. 6; Gaz. vol. 213; p. 352.
Beverages, Non-alcoholic carbonated. E. Diehl. No. 104,050; Apr. 27; Gaz. vol. 213; p. 1443.
Bindings, Seam-. Freydberg Bros. Nos. 104,091–2; Apr. 27; Gaz. vol. 213; p. 1444.
Biscuit. Loose-Wiles Biscuit Company. No. 103,904; Apr. 20; Gaz. vol. 213; p. 1112.
Biscuit. National Biscuit Company. No. 103,730; Apr. 13; Gaz. vol. 213; p. 742.
Biscuit. National Biscuit Company. Nos. 103,958–9; Apr. 20; Gaz. vol. 213; p. 1114.
Blood-purifiers and remedies for rheumatism. A. H. Reed. No. 103,826; Apr. 13; Gaz. vol. 213; p. 744.
Blouses, top skirts, underskirts, &c. C. Pestcoe. No. 103,824; Apr. 13; Gaz. vol. 213; p. 744.
Books, magazines, and Bible lessons, Printed. M. B. G. Eddy. No. 103,439; Apr. 6; Gaz. vol. 213; p. 352.
Boots and shoes, Leather. Grass & Luddy. No. 103,894; Apr. 20; Gaz. vol. 213; p. 1112.
Boots, shoes, and sandals. Adams Brothers. No. 103,932; Apr. 20; Gaz. vol. 213; p. 1113.
Boots, shoes, slippers, and rubbers. Powell & Campbell. No. 103,677; Apr. 13; Gaz. vol. 213; p. 740.
Boots, shoes, slippers, and sandals, Leather. The Anatomik Footwear Company. No. 103,935; Apr. 20; Gaz. vol. 213; p. 1113.
Bottle, &c., caps or closures. The Pa Pro Company. No. 103,963; Apr. 20; Gaz. vol. 213; p. 1114.
Bottles, Glass milk-. The Belle Vernon Mapes Dairy Co. No. 103,641; Apr. 13; Gaz. vol. 213; p. 739.
Bread. G. Mueller. No. 104,026; Apr. 27; Gaz. vol. 213; p. 1442.
Bread. Schulze Baking Company. No. 104,032; Apr. 27; Gaz. vol. 213; p. 1442.
Bread. A. C. Spengler. No. 103,684; Apr. 13; Gaz. vol. 213; p. 740.
Bread. Ward Baking Company. No. 103,714; Apr. 13; Gaz. vol. 213; p. 741.
Bread, cake, pies, &c. Carolina Baking Company. No. 103,723; Apr. 13; Gaz. vol. 213; p. 741.
Breakfast food, Graham flour, and stock and poultry food. Emmer. Emmer Products Company. No. 103,848; Apr. 20; Gaz. vol. 213; p. 1111.
Brushes. W. H. Sheets, Jr., & Co. No. 103,918; Apr. 20; Gaz. vol. 213; p. 1113.
Brushes. W. H. Sheets, Jr., & Co. No. 104,109; Apr. 27; Gaz. vol. 213; p. 1444.
Butchers' supplies. Tilden Saw Co. No. 103,629; Apr. 6; Gaz. vol. 213; p. 358.
Butter. Blue Valley Creamery Company. No. 103,747; Apr. 13; Gaz. vol. 213; p. 742.
Butter and cheese. McCanna & Fraser Co. No. 103,698; Apr. 13; Gaz. vol. 213; p. 741.
Cabinets, Kitchen-. Coppes Bros. & Zook. No. 104,014; Apr. 27; Gaz. vol. 213; p. 1441.
Cabinets, Kitchen-. McDougall Company. No. 103,907; Apr. 20; Gaz. vol. 213; p. 1113.
Cake, English home-made fruit. E. Gillespie. No. 103,560; Apr. 6; Gaz. vol. 213; p. 356.
Cakes. Loose-Wiles Biscuit Company. No. 103,757; Apr. 13; Gaz. vol. 213; p. 742.
Cakes. Ward Baking Company. No. 103,742; Apr. 13; Gaz. vol. 213; p. 742.
Calendar and collection of mottoes. Barse & Hopkins. No. 103,408; Apr. 6; Gaz. vol. 213; p. 351.
Candies. J. Golden. No. 103,561; Apr. 6; Gaz. vol. 213; p. 356.
Candies. E. Greenfield's Sons. No. 103,428; Apr. 6; Gaz. vol. 213; p. 351.
Candies, cocoa, and chocolate. H. Heide. No. 103,659; Apr. 13; Gaz. vol. 213; p. 739.
Candy. Chocolate Products Company. No. 103,941; Apr. 20; Gaz. vol. 213; p. 1114.
Candy. W. F. Hall & Co. No. 103,752; Apr. 13; Gaz. vol. 213; p. 742.
Candy. E. Sheetz. No. 103,972; Apr. 20; Gaz. vol. 213; p. 1114.
Candy. Showley Bros. No. 103,448; Apr. 6; Gaz. vol. 213; p. 352.
Candy. Westmoreland Candy Company. No. 103,982; Apr. 20; Gaz. vol. 213; p. 1115.
Candle-holders and sconces. D. H. Lind. No. 104,058; Apr. 27; Gaz. vol. 213; p. 1443.
Canned clams and fruits. Friend Brothers. No. 104,002; Apr. 27; Gaz. vol. 213; p. 1441.
Canned fruits and vegetables and canned pork and beans. W. F. Assau Canning Company. No. 103,990; Apr. 27; Gaz. vol. 213; p. 1441.
Canned fruits, vegetables, and fish. The H. Lesinsky Company. No. 103,617; Apr. 6; Gaz. vol. 213; p. 357.
Canned fruits, vegetables, and salmon, condensed milk, &c. Austin-Nichols & Co. No. 103,407; Apr. 6; Gaz. vol. 213; p. 351.
Canned pineapple. Hawaiian Pineapple Co. No. 103,430; Apr. 6; Gaz. vol. 213; p. 351.
Canned salmon. Lindenberger Packing Co. No. 103,785; Apr. 13; Gaz. vol. 213; p. 743.
Canned salmon. J. L. Smiley & Company. No. 103,769; Apr. 13; Gaz. vol. 213; p. 743.
Canned sardines. Chr. Bjelland & Co. Nos. 103,745–6; Apr. 13; Gaz. vol. 213; p. 742.
Canned vegetables. The Cedar Rapids Canning Co. Nos. 103,995–7; Apr. 27; Gaz. vol. 213; p. 1441.
Canned vegetables. Norfolk Packing Co. Nos. 103,567–8; Apr. 6; Gaz. vol. 213; p. 356.
Cans and collapsible tubes, Tin. National Can Co. No. 104,099; Apr. 27; Gaz. vol. 213; p. 1444.
Canoes. Peterborough Canoe Company. No. 103,594; Apr. 6; Gaz. vol. 213; p. 357.
Caramels and candies. American Caramel Company. No. 103,881; Apr. 20; Gaz. vol. 213; p. 1112.
Carbon, deodorizing and catalytic oxidizing materials, Decolorizing-. Industrial Chemical Company. No. 103,782; Apr. 13; Gaz. vol. 213; p. 743.
Cards, Printed score-. A. A. Foster. No. 104,053; Apr. 27; Gaz. vol. 213; p. 1443.
Cartons, boxes, and paper bags. A. Jarvis. No. 103,855; Apr. 20; Gaz. vol. 213; p. 1111.
Cartoons and drawings. R. W. Satterfield. No. 103,446; Apr. 6; Gaz. vol. 213; p. 352.
Cheese. Alpine Dairy Company. No. 103,637; Apr. 13; Gaz. vol. 213; p. 739.
Cheese, Foreign and domestic. O. Roth & Co. No. 103,965; Apr. 20; Gaz. vol. 213; p. 1114.
Chemical products for exterminating diseases of plants and vegetables. Amsterdamsche Superfosfaatfabriek. No. 103,882; Apr. 20; Gaz. vol. 213; p. 1112.
Cherries, pineapple, assorted fruits, &c. Rheinstrom Bros. No. 103,598; Apr. 6; Gaz. vol. 213; p. 357.
Chocolates. Wadsworth Chocolate Co. No. 103,833; Apr. 13; Gaz. vol. 213; p. 745.
Chocolates. Wadsworth Chocolate Co. No. 103,867; Apr. 20; Gaz. vol. 213; p. 1111.

Cigar and cigarette holders, pipes, pipe-cleaners, &c. United Drug Company. No. 103,602; Apr. 6; Gaz. vol. 213; p. 357.
Cigars. Buerkle Cigar Company. No. 103,709; Apr. 13; Gaz. vol. 213; p. 741.
Cigars. O. Mintz. No. 103,440; Apr. 6; Gaz. vol. 213; p. 352.
Cigars, cheroots, cigarettes, and stogies. C. Rosenberg. No. 103,877; Apr. 20; Gaz. vol. 213; p. 1112.
Cigars, cigarettes, and cheroots. E. Noack. No. 103,960; Apr. 20; Gaz. vol. 213; p. 1114.
Cigars, cigarettes, tobaccos, and snuff. John Blaul's Sons Co. No. 103,411; Apr. 6; Gaz. vol. 213; p. 351.
Cigarettes. The London Blend Cigarette Co. No. 103,618; Apr. 6; Gaz. vol. 213; p. 357.
Cigarettes. J. F. Sturm. No. 103,880; Apr. 20; Gaz. vol. 213; p. 1112.
Cigarettes. Tobias Bluestein, Inc. No. 103,939; Apr. 20; Gaz. vol. 213; p. 1113.
Cigarettes. H. M. Wolfe. No. 103,984; Apr. 20; Gaz. vol. 213; p. 1115.
Cinematograph-films. Società Anonima Leonardo Film. No. 103,664; Apr. 13; Gaz. vol. 213; p. 740.
Cleaning, dusting, and polishing compound. Veneer Manufacturing Co. No. 103,454; Apr. 6; Gaz. vol. 213; p. 352.
Clocks. Western Clock Co. No. 103,457; Apr. 6; Gaz. vol. 213; p. 352.
Clocks and watches. Western Clock Co. Nos. 103,927–9; Apr. 20; Gaz. vol. 213; p. 1113.
Clocks, Automobile-. H. W. Johns-Manville Co. No. 103,587; Apr. 6; Gaz. vol. 213; p. 356.
Clothes-pounder. Commonwealth Supply Company. No. 104,067; Apr. 27; Gaz. vol. 213; p. 1443.
Clothing, Boys' and men's. Brooks Brothers. No. 103,992; Apr. 27; Gaz. vol. 213; p. 1441.
Clothing, Certain named. Brooks Brothers. No. 103,880; Apr. 20; Gaz. vol. 213; p. 1112.
Clothing, Certain named. Cache Knitting Works. No. 103,416; Apr. 6; Gaz. vol. 213; p. 351.
Clothing, Certain named. Perrotts Limited. No. 103,625; Apr. 6; Gaz. vol. 213; p. 358.
Clothing, Certain named. Rice-Stix Dry Goods Company. No. 103,915; Apr. 20; Gaz. vol. 213; p. 1113.
Coal. City Fuel Company. No. 103,646; Apr. 13; Gaz. vol. 213; p. 739.
Coal. Eastern Kentucky Coal Company. No. 103,648; Apr. 13; Gaz. vol. 213; p. 739.
Coal. Martin-Howe Coal Co. No. 103,956; Apr. 20; Gaz. vol. 213; p. 1114.
Coating or paint, Liquid protective. Bayway Chemical Company. No. 103,744; Apr. 13; Gaz. vol. 213; p. 742.
Coats, sweaters, shirts, and underwear, &c. The New York Athletic Club of The City of New York. No. 103,789; Apr. 13; Gaz. vol. 213; p. 743.
Cocktails and brandy. Singer Bros. No. 103,682; Apr. 13; Gaz. vol. 213; p. 740.
Coffee. Arbuckle Brothers. No. 103,638; Apr. 13; Gaz. vol. 213; p. 739.
Coffee. Mississippi Coffee Company. No. 103,861; Apr. 20; Gaz. vol. 213; p. 1111.
Coffee. Ross W. Weir & Co. No. 103,981; Apr. 20; Gaz. vol. 213; p. 1115.
Coffee and chicory. Mississippi Coffee Company. No. 103,860; Apr. 20; Gaz. vol. 213; p. 1111.
Coffee and rice. B. Fischer & Co. No. 104,001; Apr. 27; Gaz. vol. 213; p. 1441.
Coffee, Blended. The Universal Tea Co. No. 103,922; Apr. 20; Gaz. vol. 213; p. 1113.
Coffee, Roasted. The Querbacker Coffee Co. Nos. 104,028–9; Apr. 27; Gaz. vol. 213; p. 1442.
Coffee, Roasted. The Western Coffee Co. No. 103,633; Apr. 6; Gaz. vol. 213; p. 358.
Coffee, tea, and cocoa. Ceylana Tea Company. No. 103,645; Apr. 13; Gaz. vol. 213; p. 739.
Coffees, Blended. The Campbell & Woods Company. No. 104,013; Apr. 27; Gaz. vol. 213; p. 1441.
Collar supporters and foundations. Joseph W. Schloss Co. No. 103,968; Apr. 20; Gaz. vol. 213; p. 1114.
Collars. Hall, Hartwell & Co. No. 103,657; Apr. 13; Gaz. vol. 213; p. 739.
Cologne. F. B. Lackland. No. 103,616; Apr. 6; Gaz. vol. 213; p. 357.
Composition of certain named ingredients. E. A. Bullis & Co. No. 103,777; Apr. 13; Gaz. vol. 213; p. 743.
Compounds of whisky, grenadine and rock-candy syrups, and lime-juice. Santa Clara Company. No. 103,599; Apr. 6; Gaz. vol. 213; p. 357.
Condiment for salads, Liquid. American Food Products Company. No. 103,551; Apr. 6; Gaz. vol. 213; p. 355.
Construction material, Certain named. General Roofing Manufacturing Company. No. 103,781; Apr. 13; Gaz. vol. 213; p. 743.
Corset-lacings. Weingarten Bros. No. 103,835; Apr. 13; Gaz. vol. 213; p. 745.
Corsets, corset-waists, brassières, &c. G. A. Barcley. No. 103,938; Apr. 20; Gaz. vol. 213; p. 1113.
Cotton duck, cotton piece and dress goods. J. Spencer Turner Company. No. 103,832; Apr. 13; Gaz. vol. 213; p. 745.
Cotton fabrics for making bags. Van Hee, Hunter, and Parsons Company. No. 103,923; Apr. 20; Gaz. vol. 213; p. 1113.
Cotton-gathering machinery. Cotton Gathering Corporation. No. 104,068; Apr. 27; Gaz. vol. 213; p. 1443.
Cotton piece and dress goods. Jackson Company. No. 104,057; Apr. 27; Gaz. vol. 213; p. 1443.
Cotton piece and dress goods. Nashua Manufacturing Company. No. 103,715; Apr. 13; Gaz. vol. 213; p. 741.
Cotton piece and dress goods and drills. Indian Head Mills of Alabama. No. 103,615; Apr. 6; Gaz. vol. 213; p. 357.
Cotton piece goods. N. Fluegelman & Co. No. 103,649; Apr. 13; Gaz. vol. 213; p. 739.
Cotton piece goods. Manchester Cotton Mills. No. 103,666; Apr. 13; Gaz. vol. 213; p. 740.
Cotton piece goods. J. L. Stifel & Sons. No. 104,033; Apr. 27; Gaz. vol. 213; p. 1442.
Cotton piece goods. York Manufacturing Company. Nos. 104,010–11; Apr. 27; Gaz. vol. 213; p. 1441.
Corn, White dent. Farmer Seed & Nursery Co. No. 104,015; Apr. 27; Gaz. vol. 213; p. 1441.
Cough-syrup. B. E. Fletcher. No. 103,947; Apr. 20; Gaz. vol. 213; p. 1114.
Crackers, biscuit, bread, and pastry. N. C. Rand. No. 104,108; Apr. 27; Gaz. vol. 213; p. 1444.
Crackers, cakes, and biscuits. Iten Biscuit Co. No 103,897; Apr. 20; Gaz. vol. 213; p. 1112.
Cream, Cold-. New England Laboratory Co. No. 104,101; Apr. 27; Gaz. vol. 213; p. 1444.
Cream, Toilet. S. Fargo. No. 103,851; Apr. 20; Gaz vol. 213; p. 1111.
Cultivator-shovels. Deere & Company. No. 103,847; Apr. 20; Gaz. vol. 213; p. 1111.
Cutlery and tools, Certain named. American Hardware and Supply Company. No. 103,608; Apr. 6; Gaz. vol. 213; p. 357.
Cycles, motor-cycles, and side cars for motor-cycles. John Marston, Limited. No. 103,857; Apr. 20; Gaz. vol. 213; p. 1111.
Data-sheets. Society of Automobile Engineers. No. 103,974; Apr. 20; Gaz. vol. 213; p. 1115.
Dental cream, mouth-wash, &c. M. Gillick. No. 103,427; Apr. 6; Gaz. vol. 213; p. 351.
Disinfectant. Bayway Chemical Company. No. 103,775; Apr. 13; Gaz. vol. 213; p. 743.
Disinfectant purposes. H. Hague. No. 104,055; Apr. 27; Gaz. vol. 213; p. 1443.
Dolls. Elektra Toy & Novelty Co. No. 103,613; Apr. 6; Gaz. vol. 213; p. 357.
Dolls. German Novelty Co. Nos. 103,651–2; Apr. 13; Gaz. vol. 213; p. 739.
Doors, Revolving. Van Kannel Revolving Door Company. No. 104,078; Apr. 27; Gaz. vol. 213; p. 1443.
Dresses. National Cloak & Suit Company. No. 104,100; Apr. 27; Gaz. vol. 213; p. 1444.
Dresses. Textile Products Company. No. 104,110; Apr. 27; Gaz. vol. 213; p. 1444.
Dresses and dancing-dresses, Ladies'. Woolf & Shulhof. No. 103,931; Apr. 20; Gaz. vol. 213; p. 1113.
Dresses, Children's. Allwin Dress Company. No. 104,083; Apr. 27; Gaz. vol. 213; p. 1444.
Dresses, Ladies'. C. Nicolas. No. 103,623; Apr. 6; Gaz. vol. 213; p. 358.
Egg-preservers. Philadelphia Quartz Company. No. 103,791; Apr. 13; Gaz. vol. 213; p. 743.
Eggs. Yesterlaid Egg Farms Company. No. 104,065; Apr. 27; Gaz. vol. 213; p. 1443.
Electric spot, butt, and seam welders. Detroit Electric Welder Company. No. 104,089; Apr. 27; Gaz. vol. 213; p. 1444.
Electrical conduits. The National Enameling & Manufacturing Company. No. 103,670; Apr. 13; Gaz. vol. 213; p. 740.
Electrical conduits, Non-metallic flexible. Alphaduct Company. No. 103,636; Apr. 13; Gaz. vol. 213; p. 739.
Embroidery silk and twist. The Brainerd and Armstrong Company. No. 103,554; Apr. 6; Gaz. vol. 213; p. 355.
Engines and parts thereof, Automobile and gasolene. National Motor Vehicle Co. No. 103,621; Apr. 6; Gaz. vol. 213; p. 357.
Engines, Gas traction-. Minneapolis Steel & Machinery Company. No. 103,620; Apr. 6; Gaz. vol. 213; p. 357.
Engines, Internal-combustion. Hendee Manufacturing Company. Nos. 103,727–8; Apr. 13; Gaz. vol. 213; p. 742.
Explosives, priming materials, matches, &c. Kabelwerk Duisburg, Aktien-Gesellschaft. No. 103,784; Apr. 13; Gaz. vol. 213; p. 743.
Fabrics, Certain named textile. The Esmond Mills. No. 103,614; Apr. 6; Gaz. vol. 213; p. 357.
Feed for dairy-cattle, Mixed. The Larrowe Milling Co. No. 103,908; Apr. 20; Gaz. vol. 213; p. 1112.
Fertilizer. The Cumberland Fertilizer Co. No. 103,808; Apr. 13; Gaz. vol. 213; p. 744.
Fertilizers. American Agricultural Chemical Company. No. 103,743; Apr. 13; Gaz. vol. 213; p. 742.
Fertilizers. F. S. Royster Guano Co. No. 103,966; Apr. 20; Gaz. vol. 213; p. 1114.
Fiber sheets, rods, tubes, and disks. Diamond State Fibre Co. No. 103,419; Apr. 6; Gaz. vol. 213; p. 351.
Fichus, laces, chiffons, silks, &c., Ladies'. Timothy F. Crowley, Incorporated. No. 103,944; Apr. 20; Gaz. vol. 213; p. 1114.
Files, rasps, saws, augers, &c. G. Corts, Gesellschaft mit beschrankter Haftung. No. 103,724; Apr. 13; Gaz. vol. 213; p. 741.

Fire-extinguishers. Justrite Manufacturing Company. No. 103,953; Apr. 20; Gaz. vol. 213; p. 1114.
Fire-extinguishing compositions and ingredients. MacAndrews and Forbes Company. No. 103,786; Apr. 13; Gaz. vol. 213; p. 743.
Fish-hooks and fishing-tackle. Robert Ogilvy Co. Nos. 103,672–3; Apr. 13; Gaz. vol. 213; p. 740.
Fish, Preserved. Stavanger Preserving Co. a/s. No. 103,976; Apr. 20; Gaz. vol. 213; p. 1115.
Flags. W. J. Heller. No. 103,854; Apr. 20; Gaz. vol. 213; p. 1111.
Flavoring extracts. F. E. Barr. No. 103,845; Apr. 20; Gaz. vol. 213; p. 1111.
Flavoring extracts. H. Kohnstamm & Co. No. 103,856; Apr. 20; Gaz. vol. 213; p. 1111.
Flavoring extracts for foods. H. Kohnstamm & Co. Nos. 103,818; Apr. 13; Gaz. vol. 213; p. 744.
Floor-cloth. Geo. W. Blaborn Company. No. 103,991; Apr. 27; Gaz. vol. 213; p. 1441.
Flooring material, Magnesium-chlorid. The Litosilo Co. of America. No. 103,590; Apr. 6; Gaz. vol. 213; p. 356.
Flour, animal and poultry feed, Wheat-. K. B. R. Milling Company. No. 103,816; Apr. 13; Gaz. vol. 213; p. 744.
Flour, bran, and middlings, Wheat-. Clark Paper and Manufacturing Company. No. 103,942; Apr. 20; Gaz. vol. 213; p. 1114.
Flour, breakfast food, bread for treatment of diabetes, and olive-oil, Processed. Waukesha Health Products Co. No. 103,772; Apr. 13; Gaz. vol. 213; p. 743.
Flour, Doughnut and cruller. F. A. Krause. No. 103,902; Apr. 20; Gaz. vol. 213; p. 1112.
Flour, Wheat-. Wm. Alten Co. No. 103,687; Apr. 13; Gaz. vol. 213; p. 740.
Flour, Wheat-. Geo. C. Bagley Elevator Co. No. 103,937; Apr. 20; Gaz. vol. 213; p. 1113.
Flour, Wheat-. H. T. Cottam & Co. No. 103,909; Apr. 27; Gaz. vol. 213; p. 1441.
Flour, Wheat-. Duluth-Superior Milling Company. No. 104,000; Apr. 27; Gaz. vol. 213; p. 1441.
Flour, Wheat-. Eisenmayer Milling Company. No. 103,691; Apr. 13; Gaz. vol. 213; p. 740.
Flour, Wheat-. Federal Milling Company. No. 103,809; Apr. 13; Gaz. vol. 213; p. 744.
Flour, Wheat-. E. P. Kohnke. No. 103,901; Apr. 20; Gaz. vol. 213; p. 1112.
Flour, Wheat-. The Larabee Flour Mills Company. No. 103,756; Apr. 13; Gaz. vol. 213; p. 742.
Flour, Wheat-. Lexington Flouring Mills. No. 103,433; Apr. 6; Gaz. vol. 213; p. 352.
Flour, Wheat-. Regina Flour Mill Company. No. 103,914; Apr. 20; Gaz. vol. 213; p. 1113.
Flour, Wheat-. Sheffield-King Milling Co. No. 103,767; Apr. 13; Gaz. vol. 213; p. 743.
Flour, Wheat-. I. J. Warren. No. 103,868; Apr. 20; Gaz. vol. 213; p. 1111.
Flour, Wheat-. Whaley Mill & Elevator Co. No. 104,080; Apr. 27; Gaz. vol. 213; p. 1443.
Flour, Wheat-. G. A. Zabriskie. No. 103,460; Apr. 6; Gaz. vol. 213; p. 352.
Flours and breakfast foods. F. F. Roby. No. 103,445; Apr. 6; Gaz. vol. 213; p. 352.
Fly-catchers. Bachenheimer Bros. & Co. No. 103,719; Apr. 13; Gaz. vol. 213; p. 741.
Foods, Certain named. Alart & McGuire. No. 104,082; Apr. 27; Gaz. vol. 213; p. 1444.
Foods, Certain named. Arkansas Grocer Co. No. 103,639; Apr. 13; Gaz. vol. 213; p. 739.
Foods, Certain named. Lippincott & Co. Nos. 103,435–7; Apr. 6; Gaz. vol. 213; p. 352.
Foods, Certain named. Sanitary Food Products Co. No. 103,916; Apr. 20; Gaz. vol. 213; p. 1113.
Foods, Certain named. Société de Conserves Alimentaires de la Vallée du Rhône. No. 103,706; Apr. 13; Gaz. vol. 213; p. 741.
Foods for invalids, &c., Medicinal. Arlington Chemical Co. No. 103,774; Apr. 13; Gaz. vol. 213; p. 743.
Foundry-sand, Powder for renovating spent. H. E. Comings. No. 103,873; Apr. 20; Gaz. vol. 213; p. 1112.
Fruits and raisins, Dried and evaporated. The J. K. Armsby Co. No. 106,989; Apr. 27; Gaz. vol. 213; p. 1441.
Fruits and vegetables, Fresh. W. S. Shearer. No. 103,681; Apr. 13; Gaz. vol. 213; p. 740.
Fruits, Citrus. Plymouth Citrus Growers Assc. No. 103,913; Apr. 20; Gaz. vol. 213; p. 1113.
Fruits, Citrus. H. C. Schrader Co. No. 103,969; Apr. 20; Gaz. vol. 213; p. 1114.
Fruits, Fresh. A. S. Congdon. No. 103,943; Apr. 20; Gaz. vol. 213; p. 1114.
Fruits, Fresh. W. S. White. No. 103,578; Apr. 6; Gaz. vol. 213; p. 356.
Furniture-polish and cleansing compound. C. Keevill & Son. No. 104,094; Apr. 27; Gaz. vol. 213; p. 1444.
Furniture-polish, Liquid. T. C. Dawson. No. 103,418; Apr. 6; Gaz. vol. 213; p. 351.
Games. H. Sieben. No. 103,735; Apr. 13; Gaz. vol. 213; p. 742.
Garbage, oil, and waste cans. Justrite Manufacturing Company. No. 103,952; Apr. 20; Gaz. vol. 213; p. 1114.
Garments, Children's sleeping-. Lax & Strauss. No. 103,870; Apr. 20; Gaz. vol. 213; p. 1111.
Garments, Ladies' outer. A. Abrahamson. No. 103,988; Apr. 27; Gaz. vol. 213; p. 1441.
Garters and armbands. The National Garter Company. No. 104,027; Apr. 27; Gaz. vol. 213; p. 1442.
Gasolene, kerosene, naphtha, &c. The National Refining Company. No. 103,859; Apr. 20; Gaz. vol. 213; p. 1111.
Gin, Straight dry. Booth's Distillery Limited. No. 103,413; Apr. 6; Gaz. vol. 213; p. 351.
Ginger-ale and root-beer. Franklin MacVeagh & Company. No. 103,697; Apr. 13; Gaz. vol. 213; p. 741.
Ginger-ale, pop, and carbonated waters. Black Diamond Products Company. No. 103,409; Apr. 6; Gaz. vol. 213; p. 351.
Ginghams. Lancaster Mills. No. 103,819; Apr. 13; Gaz. vol. 213; p. 744.
Glass drinking-cup. M. P. Offutt. No. 103,701; Apr. 13; Gaz. vol. 213; p. 741.
Glass for making certain named articles, &c., Raw. Schott & Gen. No. 103,970; Apr. 20; Gaz. vol. 213; p. 1114.
Glass shades and reflectors. General Electric Company. Nos. 103,692–3; Apr. 13; Gaz. vol. 213; p. 740.
Glass shades, globes, and reflectors. Gleason-Tiebout Glass Company. No. 103,694; Apr. 13; Gaz. vol. 213; p. 740.
Gloves. The Boss Manufacturing Company. Nos. 103,720–1; Apr. 13; Gaz. vol. 213; p. 741.
Gloves. Steinberger & Kallsher. No. 103,451; Apr. 6; Gaz. vol. 213; p. 352.
Grains, Brewers' dried. Penn Grains and Feed Company. No. 104,074; Apr. 27; Gaz. vol. 213; p. 1443.
Grease, Cooking-. Corkran Hill & Co. No. 103,610; Apr. 6; Gaz. vol. 213; p. 357.
Greases and lubricants, (rust-preventive.) M. R. Stroud. No. 103,574; Apr. 6; Gaz. vol. 213; p. 356.
Gum, Chewing-. Bishop & Company. No. 103,885; Apr. 20; Gaz. vol. 213; p. 1112.
Gum, Chewing-. J. A. Riggi. No. 103,678; Apr. 13; Gaz. vol. 213; p. 740.
Gum, Chewing-. The Sterling Gum Company. No. 103,685; Apr. 13; Gaz. vol. 213; p. 740.
Hair and hair and fiber products for upholstering. Sulzberger & Sons Company. No. 104,034; Apr. 27; Gaz. vol. 213; p. 1442.
Hair and hair and fiber products for upholstering. Sulzberger & Sons Company. Nos. 104,036–43; Apr. 27; Gaz. vol. 213; p. 1442.
Hair, Human. Human Hair Goods Industry. No. 103,755; Apr. 13; Gaz. vol. 213; p. 742.
Hair-invigorator and remedy for scalp diseases, &c. S. Fargo. No. 103,852; Apr. 20; Gaz. vol. 213; p. 1111.
Hair pomade or dressing. The Reliable Hair Store. No. 103,705; Apr. 13; Gaz. vol. 213; p. 741.
Hair restorer and tonic. B. H. Harris. No. 103,950; Apr. 20; Gaz. vol. 213; p. 1114.
Hair-tonic. M. Hickey. No. 103,813; Apr. 13; Gaz. vol. 213; p. 744.
Hair-tonic. H. L. Tilly. No. 103,630; Apr. 6; Gaz. vol. 213; p. 358.
Hair-tonics. Meyers and Theiner. No. 103,788; Apr. 13; Gaz. vol. 213; p. 743.
Ham, bacon, and lard. The Wm. Focke's Sons Company. No. 104,052; Apr. 27; Gaz. vol. 213; p. 1443.
Hams, Smoked. A. Chmel, první česká tovární výroba a vývoz zboží uzenářského na Kr. Vinohradech. No. 103,936; Apr. 20; Gaz. vol. 213; p. 1113.
Hames. U. S. Hame Company. No. 103,453; Apr. 6; Gaz. vol. 213; p. 352.
Handkerchiefs. Herrmann, Aukam & Co. No. 104,093; Apr. 27; Gaz. vol. 213; p. 1444.
Hardware supplies, Certain named. A. Hering. No. 103,949; Apr. 20; Gaz. vol. 213; p. 1114.
Harness or saddlery hardware and hames. The Steffens-Amberg Co. No. 103,803; Apr. 13; Gaz. vol. 213; p. 744.
Hats, Ladies' and children's. Greenberg & Lave. No. 103,604; Apr. 6; Gaz. vol. 213; p. 357.
Heaters, boilers, ranges, stoves, &c. Richardson & Boynton Company. No. 103,732; Apr. 13; Gaz. vol. 213; p. 742.
Hinges, spiral springs, metal washers for nuts and bolts, &c. Daimler-Motoren-Gesellschaft. No. 103,611; Apr. 6; Gaz. vol. 213; p. 357.
Hog-cholera serum and hog-cholera virus, Anti-. H. Statter. No. 103,921; Apr. 20; Gaz. vol. 213; p. 1113.
Hose, Men's and ladies'. Stuart, Milliken & Co. No. 103,628; Apr. 6; Gaz. vol. 213; p. 358.
Hose-supporters. The Warner Brothers Company. No. 103,834; Apr. 13; Gaz. vol. 213; p. 745.
Hosiery. Illinois Knitting Company. No. 103,896; Apr. 20; Gaz. vol. 213; p. 1112.
Hosiery. W. B. Kohlman. No. 104,069; Apr. 27; Gaz. vol. 213; p. 1443.
Hosiery. S. H. Kress and Company. Nos. 103,461–70; Apr. 6; Gaz. vol. 213; pp. 352–3.
Houses, Knockdown. North American Construction Company. No. 103,962; Apr. 20; Gaz. vol. 213; p. 1114.
Hydrogen peroxid in solid form. Firm of E. Merck. No. 103,758; Apr. 13; Gaz. vol. 213; p. 742.
Ice-cream, sherbets, and ices. George T. Budd Company. No. 103,993; Apr. 27; Gaz. vol. 213; p. 1441.
Insecticide. Smith, Kline & French Co. No. 103,801; Apr. 13; Gaz. vol. 213; p. 744.
Insulators for magnetos for ignition systems, Distributer-. Boonton Rubber Manufacturing Company. No. 103,580; Apr. 6; Gaz. vol. 213; p. 356.

Knitted underwear. Union Mills. Nos. 103,710–13; Apr. 13; Gaz. vol. 213; p. 741.
Knitted underwear, Women's, misses', and children's. C. Gutmann & Co. No. 104,003; Apr. 27; Gaz. vol. 213; p. 1441.
Knives, Pocket and pen. D. Divine & Sons. No. 103,647; Apr. 13; Gaz. vol. 213; p. 739.
Laces. Swiss Lace and Embroidery Co. No. 103,978; Apr. 20; Gaz. vol. 213; p. 1115.
Lamp-chimneys. The Mantle Lamp Company of America. No. 104,072; Apr. 27; Gaz. vol. 213; p. 1443.
Lamp connections. Chicago Rubber Company. No. 103,890; Apr. 20; Gaz. vol. 213; p. 1112.
Lamps, Electric Incandescent. General Electric Company. No. 104,017; Apr. 27; Gaz. vol. 213; p. 1442.
Lamps, Incandescent electric. Buchstaben-Lampen-Gesellschaft m. b. H. No. 103,555; Apr. 6; Gaz. vol. 213; p. 355.
Lard. Rohe & Brother. No. 103,733; Apr. 13; Gaz. vol. 213; p. 742.
Lasts. The Forbush Shoe Company. No. 103,726; Apr. 13; Gaz. vol. 213; p. 741.
Laxative candy. J. Schlyen. No. 103,447; Apr. 6; Gaz. vol. 213; p. 352.
Laxative, Tonic. F. C. Galehouse. No. 103,948; Apr. 20; Gaz. vol. 213; p. 1114.
Leather. H. Stockman. No. 103,977; Apr. 20; Gaz. vol. 213; p. 1115.
Leather, Sole-. G. C. Vaughan. No. 103,739; Apr. 13; Gaz. vol. 213; p. 742.
Lenses for scientific use and ophthalmic lenses. F. A. Hardy & Co. No. 103,429; Apr. 6; Gaz. vol. 213; p. 351.
Linens, cotton goods, &c. H. R. Hopkinson. No. 103,563; Apr. 6; Gaz. vol. 213; p. 356.
Liniment. S. Fargo. No. 103,559; Apr. 6; Gaz. vol. 213; p. 356.
Liniment. Smith, Kline & French Co. No. 103,797; Apr. 13; Gaz. vol. 213; p. 744.
Liniment. Smith, Kline & French Co. No. 103,800; Apr. 13; Gaz. vol. 213; p. 744.
Locks and parts thereof and safes, Certain named. The American Hardware Corporation. Nos. 103,605–7; Apr. 6; Gaz. vol. 213; p. 357.
Lubricant. Hilsgen Brothers. No. 103,660; Apr. 13; Gaz. vol. 213; p. 739.
Lumber. Hewitt-Lea-Funck Co. No. 103,812; Apr. 13; Gaz. vol. 213; p. 744.
Machinery and tools and parts thereof, Certain named. Aktiebolaget Svenska Kullagerfabriken. Nos. 103,634–5; Apr. 13; Gaz. vol. 213; p. 739.
Machinery and tools and parts thereof, Certain named. The Brown Hoisting Machinery Company. No. 104,086; Apr. 27; Gaz. vol. 213; p. 1444.
Machinery and tools and parts thereof, Certain named. J. H. Williams & Co. No. 104,112; Apr. 27; Gaz. vol. 213; p. 1444.
Machinery and tools, Certain named. The Niles Tool Works Company. No. 103,566; Apr. 6; Gaz. vol. 213; p. 356.
Machinery, Certain named. Whitman Agricultural Company. No. 103,708; Apr. 13; Gaz. vol. 213; p. 741.
Magazine-catalogue, Annual. Doubleday Page & Company. No. 103,874; Apr. 20; Gaz. vol. 213; p. 1112.
Malt tonic. The Peter Schoenhofen Brewing Company. No. 103,794; Apr. 13; Gaz. vol. 213; p. 744.
Meal, Cotton-seed. J. E. Soper Co. No. 103,707; Apr. 13; Gaz. vol. 213; p. 741.
Medical and surgical appliances, Certain named. Nyal Company. No. 103,790; Apr. 13; Gaz. vol. 213; p. 743.
Medical compounds for treating certain diseases, Recipes for preparation of. J. D. Norman. No. 103,569; Apr. 6; Gaz. vol. 213; p. 356.
Medicinal compounds for diseases of women. H. A. Kingdon. No. 103,954; Apr. 20; Gaz. vol. 213; p. 1114.
Medicinal preparation for goiter. The Aunt Emma's Co. No. 103,843; Apr. 13; Gaz. vol. 213; p. 745.
Medicinal preparation for treating certain diseases. American Apothecaries Company. No. 103,933; Apr. 20; Gaz. vol. 213; p. 1113.
Medicine for the relief of certain named ailments. The Mayfield Co. No. 103,564; Apr. 6; Gaz. vol. 213; p. 356.
Medicine, Tonic. Anglo-American Pharmaceutical Company. No. 104,084; Apr. 27; Gaz. vol. 213; p. 1444.
Medicines and remedies for certain diseases. Luse Bros. Chemical Co. No. 103,955; Apr. 20; Gaz. vol. 213; p. 1114.
Medicines, Digestive. S. Chiba. No. 103,940; Apr. 20; Gaz. vol. 213; p. 1114.
Medicines for dropsy. J. D. Kinney. No. 103,588; Apr. 6; Gaz. vol. 213; p. 356.
Medicines, Liquid laxative. California Fig Syrup Co. No. 104,087; Apr. 27; Gaz. vol. 213; p. 1444.
Metal-polish. Albert Pick & Co. No. 103,825; Apr. 13; Gaz. vol. 213; p. 744.
Metal ware, Copper, brass, and nickel hollow. S. W. Farber. No. 103,751; Apr. 13; Gaz. vol. 213; p. 742.
Mops and brooms. Gustav Franklin Company. No. 103,423; Apr. 6; Gaz. vol. 213; p. 351.
Motor-cars. The Sunbeam Motor Car Company. No. 103,864; Apr. 20; Gaz. vol. 213; p. 1111.
Motors for boats and canoes, Internal-combustion. Evinrude Motor Co. No. 103,420; Apr. 6; Gaz. vol. 213; p. 351.
Mouth-wash and tooth-paste. H. B. Shuman. No. 103,795; Apr. 13; Gaz. vol. 213; p. 744.
Mouth-wash, tooth paste, powder, and cream. Aktiebolaget Grumme & Son. No. 103,550; Apr. 6; Gaz. vol. 213; p. 355.
Music-rolls for player-pianos, &c. C. T. Schoen. No. 103,828; Apr. 13; Gaz. vol. 213; p. 745.
Musical-instrument strings. Fred Gretsch Mfg. Co. No. 103,869; Apr. 20; Gaz. vol. 213; p. 1111.
Musical instruments and apparatus and parts, &c. Ludwig Hupfeld Aktiengesellschaft. No. 103,665; Apr. 13; Gaz. vol. 213; p. 740.
Mustard relish. The Widlar Co. No. 103,773; Apr. 13; Gaz. vol. 213; p. 743.
Necktles and neckscarfs. H. Rabinowitz. No. 104,107; Apr. 27; Gaz. vol. 213; p. 1444.
Oats, Rolled. Purity Oats Company. No. 103,442; Apr. 6; Gaz. vol. 213; p. 352.
Oil and white and cider vinegar, Cotton-seed. Glantz & Salkind. No. 103,653; Apr. 13; Gaz. vol. 213; p. 739.
Oil-cloth. T. R. Goodlatte & Sons. No. 103,654; Apr. 13; Gaz. vol. 213; p. 739.
Oil, gasolene, axle-grease, Lubricating-. The National Refining Company. No. 103,441; Apr. 6; Gaz. vol. 213; p. 352.
Oil, Lubricating-. Standard Oil Company. No. 104,077; Apr. 27; Gaz. vol. 213; p. 1443.
Oils and greases, Certain named. H. Cooley. No. 103,998; Apr. 27; Gaz. vol. 213; p. 1441.
Oils and lubricants, Fuel-. California Compounding Company. No. 103,581; Apr. 6; Gaz. vol. 213; p. 356.
Oils, Fuel-. Union Oil Company of California. No. 103,737; Apr. 13; Gaz. vol. 213; p. 742.
Oils, Lubricating-. Schliemann's Oil & Ceresine Company. Nos. 103,765–6; Apr. 13; Gaz. vol. 213; p. 745.
Oils, Olive-. A. Mazzinghi. No. 104,004; Apr. 27; Gaz. vol. 213; p. 1441.
Oleomargarin. Eckerson Company. No. 103,690; Apr. 13; Gaz. vol. 213; p. 740.
Ophthalmic mountings and parts thereof. T. A. Willson & Co. No. 104,113; Apr. 27; Gaz. vol. 213; p. 1444.
Oranges. Placentia Mutual Orange Association. No. 103,704; Apr. 13; Gaz. vol. 213; p. 741.
Oranges. Placentia Mutual Orange Association. Nos. 103,938–9; Apr. 13; Gaz. vol. 213; p. 745.
Organs, Mechanically or automatically operated actions to play. Foley & Williams Piano Co. No. 104,016; Apr. 27; Gaz. vol. 213; p. 1441.
Overalls, jackets, men's pants, vests, and coats. A. Mathias & Co. No. 104,060; Apr. 27; Gaz. vol. 213; p. 1443.
Overcoats. A. Decker & Cohn. No. 103,891; Apr. 20; Gaz. vol. 213; p. 1112.
Oysters, clams, &c. Smith's Island Oyster Company. No. 103,572; Apr. 6; Gaz. vol. 213; p. 356.
Packing, Composite machine-. P. W. Koebig. No. 103,663; Apr. 13; Gaz. vol. 213; p. 739.
Packing, hose, belting, and washers. Small & Parkes. No. 103,683; Apr. 13; Gaz. vol. 213; p. 740.
Packing, Sheet-. The Mechanical Rubber Company. No. 103,667; Apr. 13; Gaz. vol. 213; p. 740.
Paints, varnishes, stains, &c. The Vaughan Paint Company. No. 103,577; Apr. 6; Gaz. vol. 213; p. 356.
Paper and stationery supplies. Low Cost Company. No. 104,059; Apr. 27; Gaz. vol. 213; p. 1443.
Paper and stationery supplies, Certain named. Geo. Borgfeldt & Co. Nos. 103,887–8; Apr. 20; Gaz. vol. 213; p. 1112.
Paper, Bond and writing. Blake, Moffitt & Towne. No. 103,410; Apr. 6; Gaz. vol. 213; p. 351.
Paper, Carbon-. E. H. Walsh. No. 103,456; Apr. 6; Gaz. vol. 213; p. 352.
Paper products, Plain, embossed, &c. Milwaukee Lace Paper Company. No. 103,759; Apr. 13; Gaz. vol. 213; p. 742.
Paper, Writing-. Crane & Co. Nos. 104,046–9; Apr. 27; Gaz. vol. 213; pp. 1442–3.
Paper, Writing and printing. Parsons Paper Company. No. 103,675; Apr. 13; Gaz. vol. 213; p. 740.
Paraffin, Liquid. Standard Oil Company. No. 103,736; Apr. 13; Gaz. vol. 213; p. 742.
Paste, Tooth-. New England Laboratory Co. No. 104,102; Apr. 27; Gaz. vol. 213; p. 1444.
Pasteurizers. S. Shapiro. No. 103,734; Apr. 13; Gaz. vol. 213; p. 742.
Patterns. The Vogue Company. No. 103,770; Apr. 13; Gaz. vol. 213; p. 743.
Paving composition, Bituminous and alkaline. J. H. Amies. No. 104,066; Apr. 27; Gaz. vol. 213; p. 1443.
Pencils, rubber erasers, penholders. A. W. Faber. No. 103,421; Apr. 6; Gaz. vol. 213; p. 351.
Pens and ink-pencils, Fountain-. J. Ullrich. No. 103,600; Apr. 6; Gaz. vol. 213; p. 357.
Perfumery. Tokalon. No. 103,866; Apr. 20; Gaz. vol. 213; p. 1111.
Periodical, Weekly. The Safe-Cabinet Company. No. 103,879; Apr. 20; Gaz. vol. 213; p. 1112.
Petticoats, princess-slips, and ladies' muslin and silk underwear. Harris Bros. & Barnett. No. 103,658; Apr. 13; Gaz. vol. 213; p. 739.
Pharmaceutical and chemical preparations, &c. Parke, Davis & Company. Nos. 103,702–3; Apr. 13; Gaz. vol. 213; p. 741.
Pharmaceutical preparations. Winner Stock Remedies Co. No. 103,579; Apr. 6; Gaz. vol. 213; p. 356.

Pharmaceutical preparations and a medicinal preparation for treating certain diseases. Barclay & Barclay. No. 103,640; Apr. 13; Gaz. vol. 213; p. 739.
Pharmaceutical preparations and remedies for certain diseases, Certain. S. M. Heldfond. No. 103,837; Apr. 13; Gaz. vol. 213; p. 745.
Pharmaceutical preparations for toilet use, Certain. M. Earle. No. 103,780; Apr. 13; Gaz. vol. 213; p. 743.
Pharmaceutical preparations for toilet use, Certain named. E. I. Simons. No. 104,076; Apr. 27; Gaz. vol. 213; p. 1443.
Photo-engravings in the nature of engraved plates. M. E. Few. No. 103,595; Apr. 6; Gaz. vol. 213; p. 357.
Pianos and player-pianos. F. H. Lewis. No. 103,431; Apr. 6; Gaz. vol. 213; p. 351.
Pianos and piano-players and piano-player actions. The Schubert Piano Co. No. 103,717; Apr. 13; Gaz. vol. 213; p. 741.
Pianos, piano-players, and piano-player actions. The Schubert Piano Co. No. 104,031; Apr. 27; Gaz. vol. 213; p. 1442.
Picture equipment and screens, Moving-. J. P. Payor & Co. No. 104,105; Apr. 27; Gaz. vol. 213; p. 1444.
Picture-projection machines and parts thereof, Motion-. Nicholas Power Company. No. 103,823; Apr. 13; Gaz. vol. 213; p. 744.
Piece goods made from cellulose yarns. Courtaulds, Limited. No. 103,748; Apr. 13; Gaz. vol. 213; p. 742.
Pineapples. Griffith-Durney Co. No. 103,656; Apr. 13; Gaz. vol. 213; p. 739.
Pins, Safety-. Consolidated Safety Pin Co. No. 104,088; Apr. 27; Gaz. vol. 213; p. 1444.
Plasters, Surgical and medical. P. Beiersdorf & Co. No. 103,776; Apr. 13; Gaz. vol. 213; p. 740.
Plows, moldboards, landsides, &c. C. Billups. Nos. 103,805–6; Apr. 13; Gaz. vol. 213; p. 744.
Plows, moldboards, landsides, points, and plow-beams. C. Billups. No. 103,840; Apr. 13; Gaz. vol. 213; p. 745.
Plumbing-paste. C. Rodenhausen. No. 103,793; Apr. 13; Gaz. vol. 213; p. 743.
Pneumatic tubes, Liquid for the sealing of punctures in. Protectair Manufacturing Company. No. 104,005; Apr. 27; Gaz. vol. 213; p. 1441.
Polish and soap. Keep-Nu Co. No. 103,817; Apr. 13; Gaz. vol. 213; p. 744.
Popcorn. Popcorn Products Co. No. 103,716; Apr. 13; Gaz. vol. 213; p. 741.
Popcorn and popcorn confections. D. Millar. No. 103,668; Apr. 13; Gaz. vol. 213; p. 740.
Powder, Face-. H. Tetlow Co. No. 103,979; Apr. 20; Gaz. vol. 213; p. 1115.
Powder, Foot-. A. J. H. Ries. No. 103,626; Apr. 6; Gaz. vol. 213; p. 358.
Powder, Talcum. Regal Shoe Company. No. 104,075; Apr. 27; Gaz. vol. 213; p. 1443.
Powder, Talcum. J. Spooner. No. 103,450; Apr. 6; Gaz. vol. 213; p. 352.
Precious-metal articles, Certain named. Vincent Sorrentino, Inc. No. 104,063; Apr. 27; Gaz. vol. 213; p. 1443.
Preparation for application in the mouth, throat, and nasal passages. W. T. James. No. 103,783; Apr. 13; Gaz. vol. 213; p. 743.
Preparation for invigorating the scalp and developing the growth of the hair. G. S. Noble. No. 103,961; Apr. 20; Gaz. vol. 213; p. 1114.
Preparation for the skin. Papier Poudré Limited. No. 103,674; Apr. 13; Gaz. vol. 213; p. 740.
Preparation for treatment of lungs, consumption, pneumonia, &c. P. Olivier. No. 103,912; Apr. 20; Gaz. vol. 213; p. 1113.
Preparation for use on glass to prevent accumulation of moisture and dust, Liquid. Mat-Macald Co. No. 103,821; Apr. 13; Gaz. vol. 213; p. 744.
Preparation for venereal diseases. C. C. Self. No. 103,863; Apr. 20; Gaz. vol. 213; p. 1111.
Preparation used in making and serving certain named foods. White-Stokes Company. No. 103,836; Apr. 13; Gaz. vol. 213; p. 745.
Preparations to relieve constipation. Botanical Manufacturing Co. No. 103,415; Apr. 6; Gaz. vol. 213; p. 351.
Preserves and jams. F. H. Smith. No. 103,973; Apr. 20; Gaz. vol. 213; p. 1115.
Preventives of gonorrhea, syphilis, and chancroid. L. T. Parker. No. 103,761; Apr. 13; Gaz. vol. 213; p. 743.
Publication, Weekly. O. F. Darling. No. 103,583; Apr. 6; Gaz. vol. 213; p. 356.
Publications, Title of certain biographical sketches for. J. J. Ryan. No. 103,571; Apr. 6; Gaz. vol. 213; p. 356.
Pyorrhea. C. A. Farlow. No. 103,893; Apr. 20; Gaz. vol. 213; p. 1112.
Rain-coats. The B. F. Goodrich Company. No. 103,562; Apr. 6; Gaz. vol. 213; p. 356.
Rain-coats. The B. F. Goodrich Company. No. 104,054; Apr. 27; Gaz. vol. 213; p. 1443.
Rain-coats, cravenetted and rubber coats. D. H. Robinson. No. 103,827; Apr. 13; Gaz. vol. 213; p. 744.
Razor-strops, Cushion. H. S. Gardner. No. 103,810; Apr. 13; Gaz. vol. 213; p. 744.
Razors. H. S. Gardner. No. 103,650; Apr. 13; Gaz. vol. 213; p. 739.
Refrigerators. Northern Refrigerator Company. No. 103,910; Apr. 20; Gaz. vol. 213; p. 1113.
Refrigerators, Heat-insulating material for. Grand Rapids Refrigerator Company. No. 103,695; Apr. 13; Gaz. vol. 213; p. 741.
Remedies for certain named ailments and diseases. G. F. Johnstone. No. 103,815; Apr. 13; Gaz. vol. 213; p. 744.
Remedies for certain named ailments and diseases. A. V. Widmann. No. 104,111; Apr. 27; Gaz. vol. 213; p. 1444.
Remedy and tonic, Restorative liquid-preparation. Organic Products Company. No. 104,104; Apr. 27; Gaz. vol. 213; p. 1444.
Remedy for all throat diseases. W. J. Steele. No. 104,009; Apr. 27; Gaz. vol. 213; p. 1441.
Remedy for catarrh. R. M. Smith. No. 103,842; Apr. 13; Gaz. vol. 213; p. 745.
Remedy for certain named ailments. S. Fargo. No. 103,850; Apr. 20; Gaz. vol. 213; p. 1111.
Remedy for constipation, kidney, &c., disorders, and rheumatism. S. Fargo. No. 103,849; Apr. 20; Gaz. vol. 213; p. 1111.
Remedy for diseases of females. F. C. Dilberger. No. 103,558; Apr. 6; Gaz. vol. 213; p. 356.
Remedy for hay-fever and catarrh. W. J. Hackett. No. 104,019; Apr. 27; Gaz. vol. 213; p. 1442.
Remedy for nervous disorders. H. A. Brückner. No. 103,688; Apr. 13; Gaz. vol. 213; p. 740.
Remedy for skin and scalp diseases. The Am-o-Lox Company. No. 103,934; Apr. 20; Gaz. vol. 213; p. 1113.
Remedy for syphilis, gonorrhea, gleet, &c. H. Wintersmith. No. 103,930; Apr. 20; Gaz. vol. 213; p. 1113.
Remedy, Liver. The Marcy Company. No. 104,073; Apr. 27; Gaz. vol. 213; p. 1443.
Remedy, Pile and eczema. J. B. Rice. No. 103,443; Apr. 6; Gaz. vol. 213; p. 352.
Remedy used as a laxative and for the treatment of constipation. Knoll & Co. No. 103,900; Apr. 20; Gaz. vol. 213; p. 1112.
Rodent-exterminating preparation. The Botanical Manufacturing Co. No. 103,414; Apr. 6; Gaz. vol. 213; p. 351.
Rubber automobile-casings, inner tubes, &c. Thermoid Rubber Company. No. 103,452; Apr. 6; Gaz. vol. 213; p. 352.
Rubber boots and shoes. E. G. Stearns. No. 103,871; Apr. 20; Gaz. vol. 213; p. 1111.
Rubber bumpers for automobile-springs, Real-. Rutherford Rubber Company. No. 103,967; Apr. 20; Gaz. vol. 213; p. 1114.
Rubber goods, Certain named. United Drug Company. No. 103,603; Apr. 6; Gaz. vol. 213; p. 357.
Rubber, Reclaimed. E. H. Clapp Rubber Company. No. 103,994; Apr. 27; Gaz. vol. 213; p. 1441.
Rubber tubing, hose, &c. J. W. Buckley Rubber Co. No. 104,044; Apr. 27; Gaz. vol. 213; p. 1442.
Rugs-molds. The Columbus Dental Manufacturing Co. No. 103,417; Apr. 6; Gaz. vol. 213; p. 351.
Rugs and carpets, Textile. M. J. Whittall. Nos. 103,458–9; Apr. 6; Gaz. vol. 213; p. 352.
Rum, Jamaica. A. D. Shaw & Co. No. 103,971; Apr. 20; Gaz. vol. 213; p. 1114.
Salad-dressing, chilli sauce, mustard, &c. The Horton Cato Mfg. Co. No. 103,696; Apr. 13; Gaz. vol. 213; p. 741.
Salt, Block. Belmont Stable Supply Co. No. 104,085; Apr. 27; Gaz. vol. 213; p. 1444.
Salve. The Vick Chemical Co. No. 103,601; Apr. 6; Gaz. vol. 213; p. 351.
Salve for external sores and burns. C. Fink. No. 103,725; Apr. 13; Gaz. vol. 213; p. 741.
Salve for nasal affections, Medicated. R. Law. No 103,820; Apr. 13; Gaz. vol. 213; p. 744.
Salve for sunburn and skin affections. H. Kronengold. No. 104,057; Apr. 27; Gaz. vol. 213; p. 1443.
Sandwiches, Ice-cream. C. R. McDonald. No. 103,699; Apr. 13; Gaz. vol. 213; p. 741.
Sauce. Pratt-Low Preserving Co. No. 103,862; Apr. 20; Gaz. vol. 213; p. 1111.
Saws. Simonds File Co. No. 104,007; Apr. 27; Gaz. vol. 213; p. 1441.
Scale and insect exterminator. The Treevax Chemical Co. No. 103,455; Apr. 6; Gaz. vol. 213; p. 352.
Scarf-pins, necklaces, lavallières, rings, &c. R. H. Macy & Co. No. 104,071; Apr. 27; Gaz. vol. 213; p. 1443.
Screws. The Bristol Company. No. 103,846; Apr. 20; Gaz. vol. 213; p. 1111.
Seed, Grass-. Whitney-Eckstein Seed Company. No. 103,983; Apr. 20; Gaz. vol. 213; p. 1115.
Seeds. Tucson Seed Company. No. 103,576; Apr. 6; Gaz. vol. 213; p. 356.
Seeds and seed-grain, Certain field and grass. The Illinois Seed Co. Nos. 104,020–2; Apr. 27; Gaz. vol. 213; p. 1442.
Seeds and seed-grain, Field and grass. The Illinois Seed Co. No. 104,024; Apr. 27; Gaz. vol. 213; p. 1442.
Seeds, Certain named. The Illinois Seed Co. No. 104,023; Apr. 27; Gaz. vol. 213; p. 1442.
Seeds, Farm and feed. Pedigreed Seed Co. No. 103,676; Apr. 13; Gaz. vol. 213; p. 740.
Sewing-machines and parts thereof. Union Special Machine Company. No. 103,738; Apr. 13; Gaz. vol. 213; p. 742.
Sewing-silk, buttonhole and machine twists. The Brainerd and Armstrong Company. No. 103,553; Apr. 6; Gaz. vol. 213; p. 355.

Shirt, Negligée. F. Simon. No. 103,449; Apr. 6; Gaz. vol. 213; p. 352.
Shirts and high-grade underwear. The Manhattan Shirt Company. No. 103,906; Apr. 20; Gaz. vol. 213; p. 1112.
Shirts, collars, and cuffs. G. P. Ide & Co. No. 103,662; Apr. 13; Gaz. vol. 213; p. 739.
Shirts, Dress and negligée. Hilker-Wiechers Mfg. Co. No. 103,814; Apr. 13; Gaz. vol. 213; p. 744.
Shoe soles and heels. Clark Rubber Manufacturing Co. No. 103,557; Apr. 6; Gaz. vol. 213; p. 355.
Shoes. Stonefield-Evans Shoe Co. No. 103,830; Apr. 13; Gaz. vol. 213; p. 745.
Shoes, boots, and rubbers. Harry Eby Shoe Co. No. 103,946; Apr. 20; Gaz. vol. 213; p. 1114.
Shoes, Leather and canvas. Bielefeld & Spahn. No. 103,884; Apr. 20; Gaz. vol. 213; p. 1112.
Shortening, Pastry-. Atlanta Refining & Manufacturing Company. No. 103,844; Apr. 20; Gaz. vol. 213; p. 1111.
Silicate of soda. E. A. Paterson. No. 104,062; Apr. 27; Gaz. vol. 213; p. 1443.
Silk, cotton, linen, &c., piece goods. Manville Company. No. 103,438; Apr. 6; Gaz. vol. 213; p. 352.
Silks in the piece. L. Roesael & Co. No. 104,006; Apr. 27; Gaz. vol. 213; p. 1441.
Silks, Sewing, knitting, &c. The Brainerd and Armstrong Company. Nos. 103,642–3; Apr. 13; Gaz. vol. 213; p. 739.
Silver novelties, Certain named. Bay State Jewelry and Silversmiths Co. No. 104,012; Apr. 27; Gaz. vol. 213; p. 1441.
Slates, School-. National School Slate Company. No. 103,622; Apr. 6; Gaz. vol. 213; p. 357.
Soap. D. A. B. Soap Company. No. 103,750; Apr. 13; Gaz. vol. 213; p. 742.
Soap. Lautz Bros. & Co. No. 103,432; Apr. 6; Gaz. vol. 213; p. 352.
Soap. Z. Miwa. No. 103,822; Apr. 13; Gaz. vol. 213; p. 744.
Soap. United Drug Company. No. 103,980; Apr. 20; Gaz. vol. 213; p. 1115.
Soap, Hand-. The Northwestern Chemical Company. No. 104,103; Apr. 27; Gaz. vol. 213; p. 1444.
Soap, Preparation of liquid and hard. L. C. Wedgefuth. No. 103,925; Apr. 20; Gaz. vol. 213; p. 1113.
Soap, washing powders and compounds, &c. McClinton's Limited. No. 103,937; Apr. 20; Gaz. vol. 213; p. 1114.
Soap, White laundry. Swift and Company. No. 103,831; Apr. 13; Gaz. vol. 213; p. 745.
Soaps. Frederick Stearns & Co. No. 103,872; Apr. 20; Gaz. vol. 213; p. 1111.
Soaps and cleansing-powders. Okomo Soap Company. No. 103,593; Apr. 6; Gaz. vol. 213; p. 357.
Soaps, Medicinal and toilet. Regenta Mercantile Corporation. No. 103,964; Apr. 20; Gaz. vol. 213; p. 1114.
Soaps, Perfumed washing and shaving. J. & E. Atkinson, Limited. No. 103,804; Apr. 13; Gaz. vol. 213; p. 744.
Soaps, Toilet. The Remmers Soap Company. No. 103,731; Apr. 13; Gaz. vol. 213; p. 742.
Soda-water and soda-fountain beverage. A. Seidel & Sons. No. 103,917; Apr. 20; Gaz. vol. 213; p. 1113.
Soldering salts and fluid, borax, cyanid of potash, &c. L. A. Harris. No. 103,895; Apr. 20; Gaz. vol. 213; p. 1112.
Soup stock and dressing for salads. S. R. Takasugi. No. 103,865; Apr. 20; Gaz. vol. 213; p. 1111.
Stain-remover. T. J. Duffy. No. 103,841; Apr. 13; Gaz. vol. 213; p. 745.
Stamp-fixing machines. The Postamper Company. No. 104,106; Apr. 27; Gaz. vol. 213; p. 1444.
Stanchions and metal farm-gates. Moyer Manufacturing Company. No. 103,669; Apr. 13; Gaz. vol. 213; p. 740.
Stationery supplies, Certain named. Geo. Borgfeldt & Co. No. 103,886; Apr. 20; Gaz. vol. 213; p. 1112.
Steels, Butchers'. Firm of C. & A. Hoffman. No. 103,754; Apr. 13; Gaz. vol. 213; p. 742.
Stoves, Gas, coal, wood, and oil. Chicago Dryer Company. No. 103,582; Apr. 6; Gaz. vol. 213; p. 356.
Suits, Linen and cotton white-duck. The Roehm-Richards Co. Nos. 103,763–4; Apr. 13; Gaz. vol. 213; p. 743.
Sulfur preparation in soluble form. L. C. Wedgefuth. No. 103,926; Apr. 20; Gaz. vol. 213; p. 1113.
Sweaters, stockings, suits, hats, &c., Boys'. K. K. Grant. No. 103,655; Apr. 13; Gaz. vol. 213; p. 739.
Sweeping compounds, Floor-. C. P. Burton. No. 104,045; Apr. 27; Gaz. vol. 213; p. 1442.
Tables, bookcases, desks, &c. Thompson Manufacturing Company. No. 104,064; Apr. 27; Gaz. vol. 213; p. 1443.
Tags and baggage-checks, Identification-. American Sales and Service Co. No. 103,405; Apr. 6; Gaz. vol. 213; p. 351.
Talking-machine records. H. Waterson. No. 103,718; Apr. 13; Gaz. vol. 213; p. 741.
Tape. National Tape Company. No. 103,565; Apr. 6; Gaz. vol. 213; p. 356.
Tea. Consumers' Importing Company. No. 103,609; Apr. 6; Gaz. vol. 213; p. 357.
Tea. L. M. Kommel. No. 104,095; Apr. 27; Gaz. vol. 213; p. 1444.
Tea. Francis H. Leggett & Co. No. 104,070; Apr. 27; Gaz. vol. 213; p. 1443.
Tea. The Lowry Coffee Co. No. 103,905; Apr. 20; Gaz. vol. 213; p. 1112.
Tea. J. Musher & Co. No. 103,592; Apr. 6; Gaz. vol. 213; p. 357.
Tea. Peek Bros. & Winch (America). No. 103,624; Apr. 6; Gaz. vol. 213; p. 358.
Tea. S. Zechnowitz. No. 103,987; Apr. 20; Gaz. vol. 213; p. 1115.
Tea and coffee. The Milnes Supply Company. No. 103,619; Apr. 6; Gaz. vol. 213; p. 357.
Tea, coffee, and cocoa. S. Zechnowitz. No. 103,986; Apr. 20; Gaz. vol. 213; p. 1115.
Tea, coffee, spices, cocoa, &c. Lippincott & Co. No. 103,434; Apr. 6; Gaz. vol. 213; p. 352.
Throat-pastils. Diamond Remedy Co. No. 103,892; Apr. 20; Gaz. vol. 213; p. 1112.
Tire-casings and tubes, Automobile. The National Tire and Rubber Company. No. 103,671; Apr. 13; Gaz. vol. 213; p. 740.
Tires, casings, blow-out patches, &c. H. Starnes. No. 103,975; Apr. 20; Gaz. vol. 213; p. 1115.
Tires, Inner tubes for casings and pneumatic. Gibson Automobile Company. No. 103,875; Apr. 20; Gaz. vol. 213; p. 1112.
Tires, outer shoes and inner tubes for same, Pneumatic. The East Palestine Rubber Company. No. 103,945; Apr. 20; Gaz. vol. 213; p. 1114.
Tires, Rubber automobile-. Mishawaka Woolen Manufacturing Company. Nos. 103,908–9; Apr. 20; Gaz. vol. 213; p. 1113.
Tires, Snap-on treads for vehicle-. Rutherford Rubber Company. No. 103,878; Apr. 20; Gaz. vol. 213; p 1112.
Tobacco, cigars, and cigarettes, Smoking-. O. F. Wood. No. 103,985; Apr. 20; Gaz. vol. 213; p. 1115.
Tobaccos. Maclin-Zimmer-McGill Tobacco Co. No. 103,729; Apr. 13; Gaz. vol. 213; p. 742.
Tomato paste and peeled tomatoes. Società Torrese per Conserve Alimentari Liguori, Mazza & Ci. No. 104,008; Apr. 27; Gaz. vol. 213; p. 1441.
Tonic for nervous disorders and general debility. Celro Kola Company. No. 103,807; Apr. 13; Gaz. vol. 213; p. 744.
Tooth-paste, talcum powder, and toilet water. R. S. Allan. No. 103,686; Apr. 13; Gaz. vol. 213; p. 740.
Toy, Emblematic. J. E. Ezell. No. 104,051; Apr. 27; Gaz. vol. 213; p. 1443.
Toy vehicles. The Cincinnati Pump Company. No. 103,556; Apr. 6; Gaz. vol. 213; p. 355.
Tracing-cloth. The Winterbottom Book Cloth Company No. 104,081; Apr. 27; Gaz. vol. 213; p. 1443.
Transoms, doors, windows, and panels. The Ventilouvre Co. No. 104,079; Apr. 27; Gaz. vol. 213; p. 1443.
Traps, Animal-. E. Remington. No. 103,762; Apr. 13; Gaz. vol. 213; p. 743.
Trenching machinery. The Buckeye Traction Ditcher Company. No. 103,644; Apr. 13; Gaz. vol. 213; p. 739.
Trunks and suitcases. The Hartmann Trunk Company. No. 103,951; Apr. 20; Gaz. vol. 213; p. 1114.
Trunks, Wardrobe-. L. Goldsmith & Son. No. 104,018; Apr. 27; Gaz. vol. 213; p. 1442.
Trusses, Rupture-. C. D. Speagh. No. 103,796; Apr. 13; Gaz. vol. 213; p. 744.
Turbines and parts thereof, Steam-. W. J. H. Strong. No. 103,627; Apr. 6; Gaz. vol. 213; p. 358.
Type-writing machines and parts thereof. Royal Typewriter Co. No. 103,679; Apr. 13; Gaz. vol. 213; p. 740.
Umbrellas and parasols. Simons & McGill. No. 103,919; Apr. 20; Gaz. vol. 213; p. 1113.
Undergarment, Child's. F. H. Sprague Co. No. 103,829; Apr. 13; Gaz. vol. 213; p. 745.
Upholstering purposes, Certain named materials for. Sulzberger & Sons Company. No. 104,035; Apr. 27; Gaz. vol. 213; p. 1442.
Uterine tube, Self-retaining. R. Jentzsch. No. 103,899; Apr. 20; Gaz. vol. 213; p. 1112.
Varnish. Atlantic Varnish Works. No. 103,406; Apr. 6; Gaz. vol. 213; p. 351.
Varnishes. Commonwealth Varnish Company. No. 104,090; Apr. 27; Gaz. vol. 213; p. 1444.
Varnishes, enamels, and paints. Berry Brothers. No. 103,552; Apr. 6; Gaz. vol. 213; p. 355.
Vegetable compound specially treated. E. M. Potter. No. 103,570; Apr. 6; Gaz. vol. 213; p. 356.
Vehicles, Children's. The Rattan Mfg. Co. No. 103,792; Apr. 13; Gaz. vol. 213; p. 743.
Vehicles, other than engines, for children's use. A. Mecky Company. No. 103,858; Apr. 20; Gaz. vol. 213; p. 1111.
Veils and veiling in the piece. E. & Z. Van Raalte. No. 103,924; Apr. 20; Gaz. vol. 213; p. 1113.
Vermifuge. Smith, Kline & French Co. Nos. 103,798–9; Apr. 13; Gaz. vol. 213; p. 744.
Veterinary medicine, &c. The Bluetts Company. No. 103,412; Apr. 6; Gaz. vol. 213; p. 351.
Washboards. National Washboard Company. Nos. 103,471–549; Apr. 6; Gaz. vol. 213; pp. 353–5.
Washing-machines. The Home Washing Mach. Co. No. 103,661; Apr. 13; Gaz. vol. 213; p. 739.
Washing-powder. Sierra Chemical Company. No. 103,768; Apr. 13; Gaz. vol. 213; p. 743.
Watch and clock movements, Parts of. Henry Zimmern & Company. No. 104,114; Apr. 27; Gaz. vol. 213; p. 1443.

Watches. Knickerbocker Watch Co. No. 103,589; Apr. 6; Gaz. vol. 213; p. 356.
Water. W. J. H. Strong. No. 103,573; Apr. 6; Gaz. vol. 213; p. 356.
Water-gages. Nathan Manufacturing Company. No. 104,098; Apr. 27; Gaz. vol. 213; p. 1444.
Water, Mineral. Lenox Supply Company. No. 104,097; Apr. 27; Gaz. vol. 213; p. 1444.
Water, Toilet. O-Do-Cure Toilet Company. No. 103,911; Apr. 20; Gaz. vol. 213; p. 1113.
Waters, Natural mineral. Compagnie fermière de l'Etablissement thermal de Vichy. No. 103,778; Apr. 13; Gaz. vol. 213; p. 743.
Waxes, Sealing-. Insulating Materials Company. No. 104,025; Apr. 27; Gaz. vol. 213; p. 1442.
Witch-hazel, blood-purifier, cold-cream, &c. McCormick & Co. No. 103,591; Apr. 6; Gaz. vol. 213; p. 357.
Woolen and worsted piece goods. The W & K Company. Nos. 103,631–2; Apr. 6; Gaz. vol. 213; p. 358.
Woolen, worsted, silk, mohair, and cotton piece goods. G. J. Geer. Nos. 103,424–6; Apr. 6; Gaz. vol. 213; p. 351.
Yarns and threads. Dexter Yarn Company. No. 103,612; Apr. 6; Gaz. vol. 213; p. 357.
Yarns, French spun worsted and merino. Monomac Spinning Company. No. 103,760; Apr. 13; Gaz. vol. 213; p. 742.
Yarns made of cellulose. Courtaulds, Limited. No. 103,749; Apr. 13; Gaz. vol. 213; p. 742.
Yarns of wool, worsted, or hair. J. and J. Baldwin & Partners. No. 103,883; Apr. 20; Gaz. vol. 213; p. 1112.

ALPHABETICAL LIST OF LABELS.

"Aickelin Salad Dressing." (For a Salad-Dressing.) H. A. Aickelin & Co. No. 18,358; Apr. 13; Gaz. vol. 213; p. 747.

"Alflax." (For Sail-Twine.) G. H. Davis, Jr. No. 18,326; Apr. 6; Gaz. vol. 213; p. 359.

"Annette Kellermann Swimming Tights." (For Swimming-Tights.) L. C. Asch. No. 18,394; Apr. 27; Gaz. vol. 213; p. 1445.

"Antiseptic Dental Cream." (For Dentifrice.) F. Andrews. No. 18,316; Apr. 6; Gaz. vol. 213; p. 359.

"Automobile Sweets." (For Candy and Confectionery.) Brown-White. No. 18,399; Apr. 27; Gaz. vol. 213; p. 1445.

"B & G." (For Sauterne Wines.) E. La Montagne's Sons. No. 18,341; Apr. 6; Gaz. vol. 213; p. 359.

"B & G." (For Medoc Wines.) E. La Montagne's Sons. No. 18,342; Apr. 6; Gaz. vol. 213; p. 359.

"Baughn's Pellagra Remedy—Prescription No. 1—For Internal Use." (For a Pellagra Remedy.) American Compounding Co. No. 18,361; Apr. 13; Gaz. vol. 213; p. 747.

"Beech-Nut Cigars." (For Beech-Nut Cigars.) Fritsch & Son. No. 18,333; Apr. 6; Gaz. vol. 213; p. 359.

"Biafold Ties." (For Neckwear.) Stanton Brothers. No. 18,353; Apr. 6; Gaz. vol. 213; p. 359.

"Big Game Hunter." (For Toys.) The A. Schoenhut Company. No. 18,351; Apr. 6; Gaz. vol. 213; p. 359.

"Black Leaf 40." (For Nicotin Solution for Insecticides.) The Kentucky Tobacco Product Co. No. 18,407; Apr. 27; Gaz. vol. 213; p. 1445.

"Boy Scouts." (For Popcorn.) J. Catsigianis. No. 18,321; Apr. 6; Gaz. vol. 213; p. 359.

"Brand." (For Coffees, Teas, and Spices.) The Woolson Spice Company. No. 18,421; Apr. 27; Gaz. vol. 213; p. 1445.

"Butter-Nut Bread." (For Bread.) P. Schulze. No. 18,419; Apr. 27; Gaz. vol. 213; p. 1445.

"Canary." (For Coffee.) Bernhard Brothers. No. 18,398; Apr. 27; Gaz. vol. 213; p. 1445.

"Cherry Blossom Nainsook." (For Nainsook.) King Philip Mills. No. 18,373; Apr. 13; Gaz. vol. 213; p. 747.

"Clean-O." (For a Cleaning Compound.) J. R. Milnes. No. 18,375; Apr. 13; Gaz. vol. 213; p. 747.

"Close Fitting." (For Underwear.) Union Mills. No. 18,355; Apr. 6; Gaz. vol. 213; p. 359.

"Coffee." (For Coffees.) G. C. Morrison. Nos. 18,412–15; Apr. 27; Gaz. vol. 213; p. 1445.

"Compound Alvine Water Carbonated." (For Containers Filled with Carbonated Water.) The Alvine Water Co. No. 18,359; Apr. 13; Gaz. vol. 213; p. 747.

"Coopers Kenosha-Klosed-Krotch Union Suits." (For Underwear.) Cooper Underwear Company. No. 18,402; Apr. 27; Gaz. vol. 213; p. 1445.

"Corby Cake." (For Lady-Cake.) Corby Baking Company. No. 18,322; Apr. 6; Gaz. vol. 213; p. 359.

"Corby Cake." (For Plain Pound-Cake.) Corby Baking Company. No. 18,323; Apr. 6; Gaz. vol. 213; p. 359.

"Corby Cake." (For Raisin-Cake.) Corby Baking Company. No. 18,324; Apr. 6; Gaz. vol. 213; p. 359.

"Cupid." (For Packages Containing Pork and Beans.) Oceana Canning Co. No. 18,346; Apr. 6; Gaz. vol. 213; p. 359.

"Delishus." (For Cake.) The Cabell Company. No. 18,400; Apr. 27; Gaz. vol. 213; p. 1445.

"Diamond B." (For Cigars.) O. Paulson. No. 18,417; Apr. 27; Gaz. vol. 213; p. 1445.

"Dixie." (For Sail-Twine.) G. H. Davis, Jr. No. 18,327; Apr. 6; Gaz. vol. 213; p. 359.

"Eureka Stove Polish." (For Stove-Polish.) C. W. Aulls. No. 18,383; Apr. 20; Gaz. vol. 213; p. 1116.

"Excellent." (For Sail-Twine.) G. H. Davis, Jr. No. 18,328; Apr. 6; Gaz. vol. 213; p. 359.

"Falls 'Fork-Dipped Chocolates." (For Chocolate Candy.) The Niagara Chocolate Company. No. 18,416; Apr. 27; Gaz. vol. 213; p. 1445.

"Four Beauties." (For Whisky.) Goodman Liquor Company. No. 18,388; Apr. 20; Gaz. vol. 213; p. 1116.

"French's." (For Cement.) H. B. French. No. 18,366; Apr. 13; Gaz. vol. 213; p. 747.

"Gold Seal." (For Cigars.) Benish & Meyer. No. 18,397; Apr. 27; Gaz. vol. 213; p. 1445.

"Haimer's." (For Use on Boxes or Packages of Cigars.) L. Haimer. No. 18,335; Apr. 6; Gaz. vol. 213; p. 359.

"Hewett's Herbal Remedies." (For Medicines.) C. F. Hewett. No. 18,369; Apr. 13; Gaz. vol. 213; p. 747.

"Hillside." (For Coffee.) J. A. Folger & Company. No. 18,332; Apr. 6; Gaz. vol. 213; p. 359.

"Hillside." (For Tea.) J. A. Folger & Co. No. 18,386; Apr. 20; Gaz. vol. 213; p. 1116.

"Home-Wood." (For Coffee.) C. D. Kenny Co. No. 18,372; Apr. 13; Gaz. vol. 213; p. 747.

"Horlick's Maltont." (For Maltont Food.) Horlick Maltoat Biscuit Co. No. 18,406; Apr. 27; Gaz. vol. 213; p. 1445.

"Horlick's Oatin Milk." (For Oatin Milk.) A. Horlick. No. 18,405; Apr. 27; Gaz. vol. 213; p. 1445.

"Household Package." (For Abrasive Paper and Cloth.) Baeder, Adamson & Co. No. 18,362; Apr. 13; Gaz. vol. 213; p. 747.

"Iron Cross." (For Flour.) B. Bleul. No. 18,319; Apr. 6; Gaz. vol. 213; p. 359.

"Ivory Brand." (For Varnishes.) E. Van Hoogstrate. No. 18,390; Apr. 20; Gaz. vol. 213; p. 1116.

"Ivory Brand." (For Paints.) E. Van Hoogstrate. No. 18,391; Apr. 20; Gaz. vol. 213; p. 1116.

"Jitney." (For Cigars.) Squires & Garner. No. 18,380; Apr. 13; Gaz. vol. 213; p. 747.

"Kaffee Hag." (For Coffee.) Kaffee Hag Corporation. No. 18,370; Apr. 13; Gaz. vol. 213; p. 747.

"Kell-Bell Brand." (For Neufchâtel Cheese.) H. H. Covitz. No. 18,325; Apr. 6; Gaz. vol. 213; p. 359.

"Kenosha-Klosed-Krotch." (For Underwear.) Cooper Underwear Company. No. 18,401; Apr. 27; Gaz. vol. 213; p. 1445.

"Kewpie Blankies." (For Doll-Blankets.) Stanton Brothers. No. 18,352; Apr. 6; Gaz. vol. 213; p. 359.

"King Richard's." (For Cigars.) The Richard A. Keller Cigar Co. No. 18,371; Apr. 13; Gaz. vol. 213; p. 747.

"Kingston." (For Peaches.) Sears, Roebuck and Co. No. 18,379; Apr. 13; Gaz. vol. 213; p. 747.

"Kleenup—The Perfect Cleanser." (For a Cleanser.) J. Sap & Co. No. 18,418; Apr. 27; Gaz. vol. 213; p. 1445.

"Laclede Bouquet." (For Cigars.) F. J. Dauscha. No. 18,384; Apr. 20; Gaz. vol. 213; p. 1116.

"Lincoln Highway Sign." (For Signs.) The Lincoln Highway Association. No. 18,374; Apr. 13; Gaz. vol. 213; p. 747.

"Liqueur Superieure." (For Liquors.) W. Michelson. No. 18,343; Apr. 6; Gaz. vol. 213; p. 359.

"Liquid Horn." (For Varnish.) P. R. Wagner. No. 18,356; Apr. 6; Gaz. vol. 213; p. 359.

"Lotz's Shankless Ham." (For Ham.) F. W. Lotz. No. 18,408; Apr. 27; Gaz. vol. 213; p. 1445.

"M-B." (For Solder.) M. Bazzanella. No. 18,318; Apr. 6; Gaz. vol. 213; p. 359.

"Manuel Rodriguez." (For Cigars.) M. Rodriguez. No. 18,350; Apr. 6; Gaz. vol. 213; p. 359.

"Merry Moment Cocktail." (For Cocktails.) Rheinstrom Bros. No. 18,349; Apr. 6; Gaz. vol. 213; p. 359.

"Mint-Malt." (For a Syrupy Liquid Containing Malt and Mint.) Mint-Malt Corporation. No. 18,410; Apr. 27; Gaz. vol. 213; p. 1445.

"Moffatt's Pure California Honey." (For Honey.) J. Moffatt. No. 18,411; Apr. 27; Gaz. vol. 213; p. 1445.

"Montclair." (For Baking-Powder.) Sears, Roebuck and Co. No. 18,378; Apr. 13; Gaz. vol. 213; p. 747.

"Old Coon." (For Cigars.) Huntoon & Gorham Co. No. 18,337; Apr. 6; Gaz. vol. 213; p. 359.

"Old Dutch." (For Beer.) The Krantz Brewing Co. No. 18,340; Apr. 6; Gaz. vol. 213; p. 359.

"108." (For Cigars.) Goldsmith, Silver & Co. No. 18,334; Apr. 6; Gaz. vol. 213; p. 359.

"Pan-Pac." (For Confections.) Amalgamated Concessions Co. No. 18,360; Apr. 13; Gaz. vol. 213; p. 747.

"Pepto-Prune-Lax." (For a Laxative.) Pepto-Prune-Lax Company. No. 18,377; Apr. 13; Gaz. vol. 213; p. 747.

"Perfect Ventilating Shirt." (For Shirts.) G. H. Nichols. No. 18,376; Apr. 13; Gaz. vol. 213; p. 747.

"Phoenix Komon Beer." (For Beer.) Central Consumers Company. No. 18,320; Apr. 6; Gaz. vol. 213; p. 359.

"Plowman Overall." (For Overalls.) Happ Brothers Co. No. 18,368; Apr. 13; Gaz. vol. 213; p. 747.

"Polar Bear Sheathing." (For Sheathing-Paper.) H. Eikenhout & Sons. No. 18,404; Apr. 27; Gaz. vol. 213; p. 1445.

"Rat Swat." (For Rodent-Exterminators.) V. B. Cunningham. No. 18,364; Apr. 13; Gaz. vol. 213; p. 747.

"Red Mixture." (For a Medicinal Preparation.) F. C. Galehouse. No. 18,367; Apr. 13; Gaz. vol. 213; p. 747.

"Rex X-E-Ma Paste for Eczema and other Skin Diseases." (For a Medicinal Preparation.) D. J. Van Fossen. No. 18,381; Apr. 13; Gaz. vol. 213; p. 747.

"Rosemint." (For a Candy Confection.) Mills Novelty Company. No. 18,409; Apr. 27; Gaz. vol. 213; p. 1445.

"Round Oak Moistair Heating System." (For Heating Systems.) Estate P D Beckwith Inc. No. 18,363; Apr. 13; Gaz. vol. 213; p. 747.
"Royal Arms, Rare Old Scotch Whisky." (For Scotch Whisky.) J. G. Thomson & Co. No. 18,354; Apr. 6; Gaz. vol. 213; p. 359.
"Royal Brand Sandwich Paste." (For Paste.) E. Herborg. No. 18,336; Apr. 6; Gaz. vol. 213; p. 359.
"Royalist." (For Tea.) J. A. Folger & Company. No. 18,330; Apr. 6; Gaz. vol. 213; p. 359.
"Ruba-Lax." (For a Medicinal Preparation.) The Albany Pharmaceutical Company. No. 18,392; Apr. 27; Gaz. vol. 213; p. 1445.
"Saltpetre." (For Potassium Nitrate.) Battelle & Renwick. No. 18,396; Apr. 27; Gaz. vol. 213; p. 1445.
"Samson." (For Sail-Twine.) G. H. Davis, Jr. No. 18,329; Apr. 6; Gaz. vol. 213; p. 359.
"Service Shoe Leathers." (For Leather.) Anchor Leather Co. No. 18,393; Apr. 27; Gaz. vol. 213; p. 1445.
"Shasta." (For Coffee.) J. A. Folger & Company. No. 18,331; Apr. 6; Gaz. vol. 213; p. 359.
"Shinall." (For a Polishing Compound.) H. Bange. No. 18,395; Apr. 27; Gaz. vol. 213; p. 1445.
"Stay Fast." (For Hair-Nets.) Hyman & Oppenheim. No. 18,339; Apr. 6; Gaz. vol. 213; p. 359.
"Stoll's." (For Coffee.) Earl Cowan Company. No. 18,403; Apr. 27; Gaz. vol. 213; p. 1445.
"Sulfox." (For Medicinal Waters.) The Eman Manufacturing Company. No. 18,365; Apr. 13; Gaz. vol. 213; p. 747.
"Sunshine Shampoo." (For Tin, Glass, and Clay Containers of Shampoo.) S. W. Gillett; No. 18,387; Apr. 20; Gaz. vol. 213; p. 1116.
"The Miller Hose." (For Hose.) S. S. Miller. No. 18,344; Apr. 6; Gaz. vol. 213; p. 359.
"The New Era Doll." (For Dolls and other Toys Made of Plastic Composition.) New Era Novelty Co. No. 18,345; Apr. 6; Gaz. vol. 213; p. 359.
"The Tipperary Pup." (For a Grotesque Figure of a Dog.) H. Elliott. No. 18,385; Apr. 20; Gaz. vol. 213; p. 1116.
"U-Auto-Varnish." (For Varnish.) The U-Auto-Varnish Co. No. 18,420; Apr. 27; Gaz. vol. 213; p. 1445.
"Universal." (For Hair-Nets.) Hyman & Oppenheim. No. 18,338; Apr. 6; Gaz. vol. 213; p. 359.
"Venus Lavender Cream." (For Massage-Cream.) Venus Company. No. 18,382; Apr. 13; Gaz. vol. 213; p. 747.
"Vermo (compound) an Antiseptic Germicide for the Treatment of Salt-Rheum, Scrofula, Eczema, and Blood Poisoning." (For Bottles, Boxes, and Packages of Medicine.) M. W. Peters. No. 18,348; Apr. 6; Gaz. vol. 213; p. 359.
"Votes for Women." (For Chocolate and Confectionery.) Pennsylvania Chocolate Company. No. 18,347; Apr. 6; Gaz. vol. 213; p. 359.
"White Pearl Brand." (For Macaroni.) Lorenz Bros. Macaroni Co. No. 18,389; Apr. 20; Gaz. vol. 213; p. 1116.
"White Star Grape Juice." (For Unfermented Grape-Juice.) The Bass Islands' Vineyards Company. No. 18,317; Apr. 6; Gaz. vol. 213; p. 359.
"Ye Olde Colonial Beer." (For Beer.) H. Weinhard. No. 18,357; Apr. 6; Gaz. vol. 213; p. 359.

PRINTS.

"A run for your money." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,888; Apr. 27; Gaz. vol. 213; p. 1446.
"Annette Kellermann Swimming Tights." (For Swimming-Tights.) L. C. Asch. No. 3,871; Apr. 27; Gaz. vol. 213; p. 1446.
"Bobs." (For Candy-Coated Chewing-Gum.) Frank H. Fleer Corporation. No. 3,854; Apr. 6; Gaz. vol. 213; p. 360.
"Build For The Ages." (For Tile, Lining, Brick, Stucco, Roofing, Cement, Plaster, Lime, Stone, Gravel, Sand, and Pipe.) United Fuel Supply Co. No. 3,863; Apr. 13; Gaz. vol. 213; p. 748.
"Buy Ferry's Seeds Here." (For Ferry's Seeds.) D. M. Ferry & Co. No. 3,859; Apr. 13; Gaz. vol. 213; p. 748.
"Chero-Cola, There's None So Good." (For Chero-Cola.) Chero-Cola Co. No. 3,857; Apr. 13; Gaz. vol. 213; p. 748.
"Clean, Sweet Clothes with the Least Effort." (For American Family Soap.) Thos. Cusack Company. No. 3,876; Apr. 27; Gaz. vol. 213; p. 1446.
"Colonial Night Lamp." (For Candle Lamps.) F. Marty & Co. No. 3,885; Apr. 27; Gaz. vol. 213; p. 1446.
"Drink Pepsi-Cola." (For Pepsi-Cola.) The Pepsi-Cola Co. No. 3,862; Apr. 13; Gaz. vol. 213; p. 748.
"Drive the Dirt Out." (For American Family Soap.) Thos. Cusack Company. No. 3,880; Apr. 27; Gaz. vol. 213; p. 1446.
"Forster Treuft." (For Artificial Limbs, Supports, Extensions, Braces, Splints, and Orthopedic Appliances.) Adjustable Soft Socket Artificial Limb Co. No. 3,870; Apr. 20; Gaz. vol. 213; p. 1116.
"Fragrant and Refreshing." (For Jap Rose Soap.) Thos. Cusack Company. No. 3,877; Apr. 27; Gaz. vol. 213; p. 1446.
"Get the Flavor of Juicy Fruit." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,889; Apr. 27; Gaz. vol. 213; p. 1446.
"Good results with Cold water." (For American Family Soap.) Thos. Cusack Company. No. 3,883; Apr. 27; Gaz. vol. 213; p. 1446.
"Have Compassion on Your Clothes." (For American Family Soap.) Thos. Cusack Company. No. 3,875; Apr. 27; Gaz. vol. 213; p. 1446.
"Ice Cold Beer." (For Beer.) Kaufmann & Strauss Co. No. 3,884; Apr. 27; Gaz. vol. 213; p. 1446.
"Lehigh Portland Cement." (For Lehigh Portland Cement.) Lehigh Portland Cement Co. No. 3,861; Apr. 13; Gaz. vol. 213; p. 748.
"Makes Laundry Work So Easy." (For American Family Soap.) Thos. Cusack Company. No. 3,879; Apr. 27; Gaz. vol. 213; p. 1446.
"Makes the Dirt Fly." (For American Family Soap.) Thos. Cusack Company. No. 3,882; Apr. 27; Gaz. vol. 213; p. 1446.
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"Old Ben Coal." (For Coal) Old Ben Mining Corporation. No. 3,888; Apr. 27; Gaz. vol. 213; p. 1446.
"Pipe and Fittings." (For Pipe and Fittings.) John Simmons Company. No. 3,890; Apr. 27; Gaz. vol. 213; p. 1446.
"Plain Talk. Square Dealing, Always on the Level." (For Hardware, Tools, and Paints.) H. Offner. No. 3,855; Apr. 6; Gaz. vol. 213; p. 360.
"Rip Van Winkle." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,872; Apr. 27; Gaz. vol. 213; p. 1446.
"Round Oak Moistair Heating System." (For Heating Systems.) Estate P D Beckwith Inc. No. 3,856; Apr. 13; Gaz. vol. 213; p. 748.
"Save Your Wrappers. They are Valuable." (For American Family Soap.) Thos. Cusack Company. No. 3,878; Apr. 27; Gaz. vol. 213; p. 1446.
"The 'Inspiration Dress.'" (For Dresses.) Goldberg-Goldschmidt Costume Co. No. 3,860; Apr. 13; Gaz. vol. 213; p. 748.
"The Iron Cross Cigar, Palmer E. Vogel." (For Cigars.) P. E. Vogel. No. 3,864; Apr. 13; Gaz. vol. 213; p. 748.
"The Latest White Four-Forty-Five Touring." (For White Touring-Cars.) The White Company. No. 3,867; Apr. 13; Gaz. vol. 213; p. 748.
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"The Latest White Six-Sixty Limousine." (For White Limousine-Cars.) The White Company. No. 3,866; Apr. 13; Gaz. vol. 213; p. 748.
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"The Leader because 'Every bite tastes right.'" (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,887; Apr. 27; Gaz. vol. 213; p. 1446.
"Under daily Government Inspection!" (For Margarin.) Thos. Cusack Company. No. 3,858; Apr. 13; Gaz. vol. 213; p. 748.
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